



County Weld State Colorado

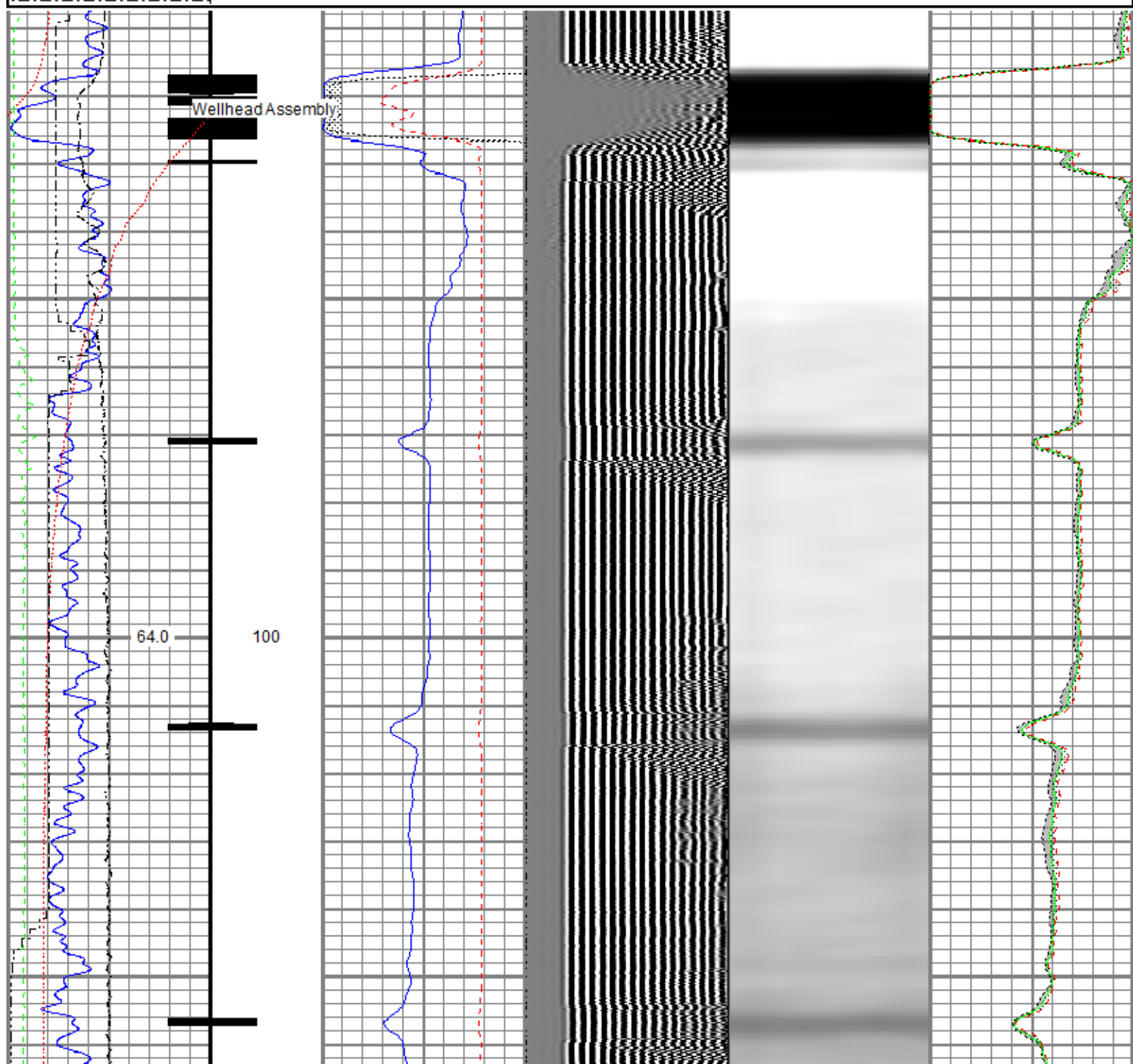
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, 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.

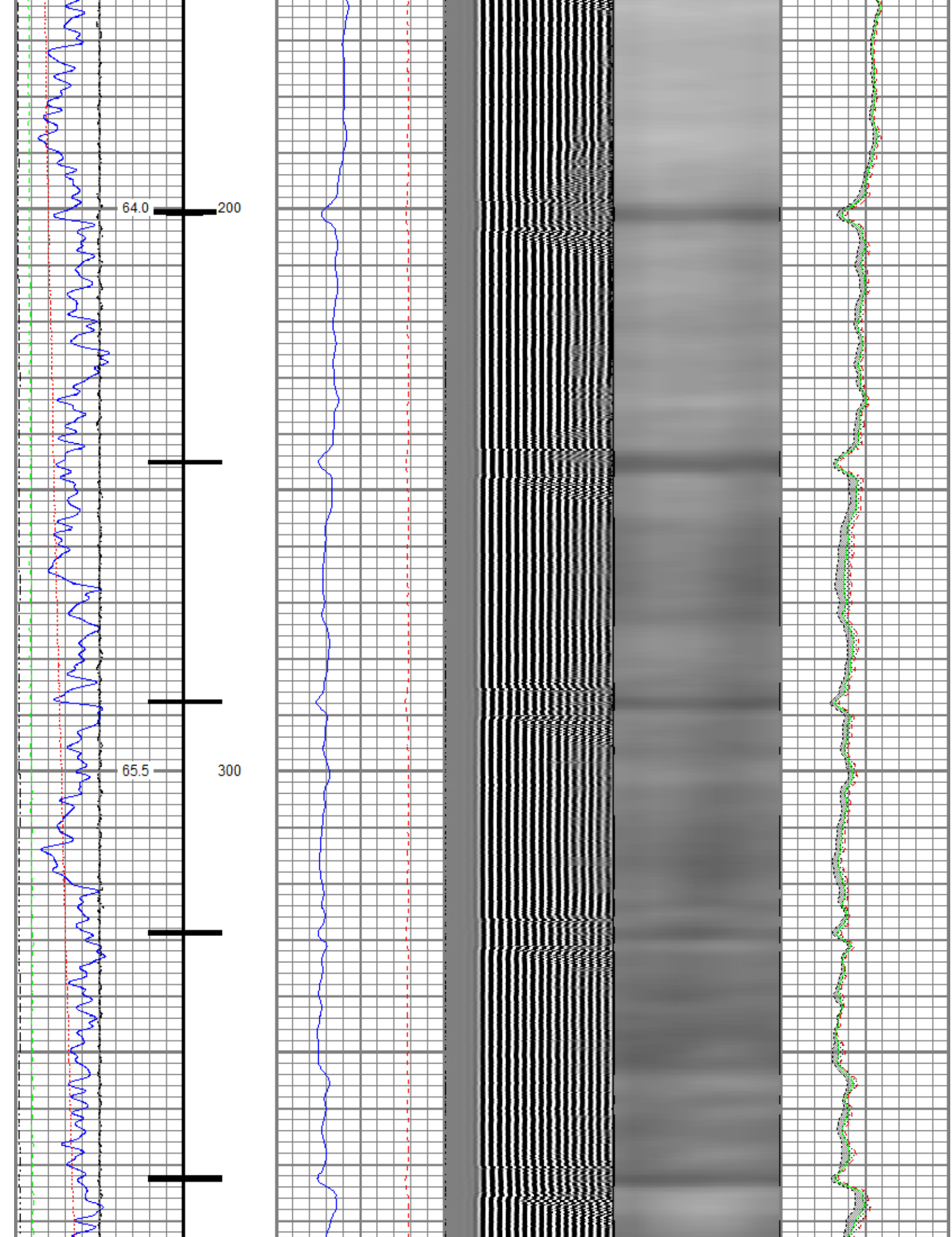
Thank you for choosing Reliance Oilfield Services, LLC!!

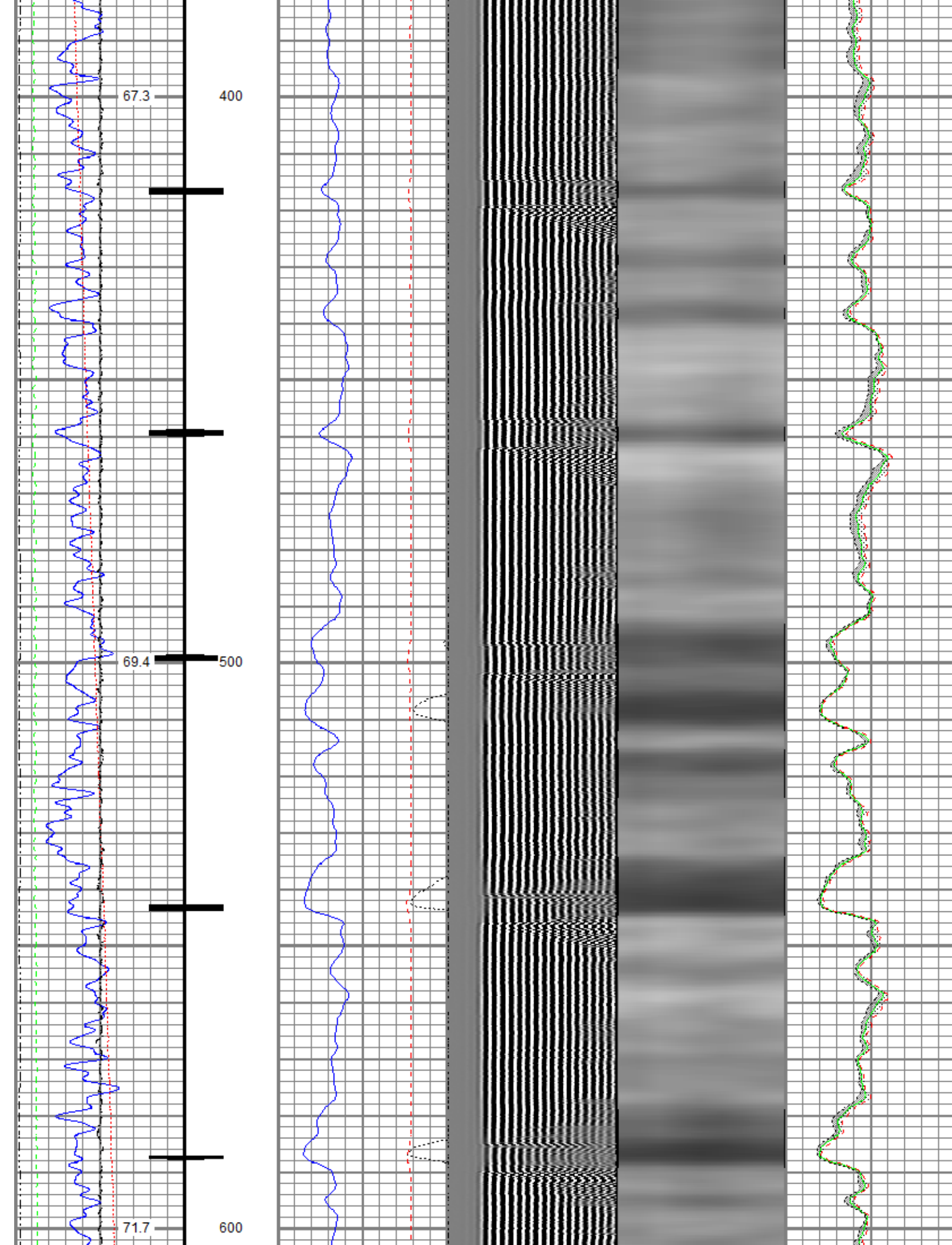
Main Pass

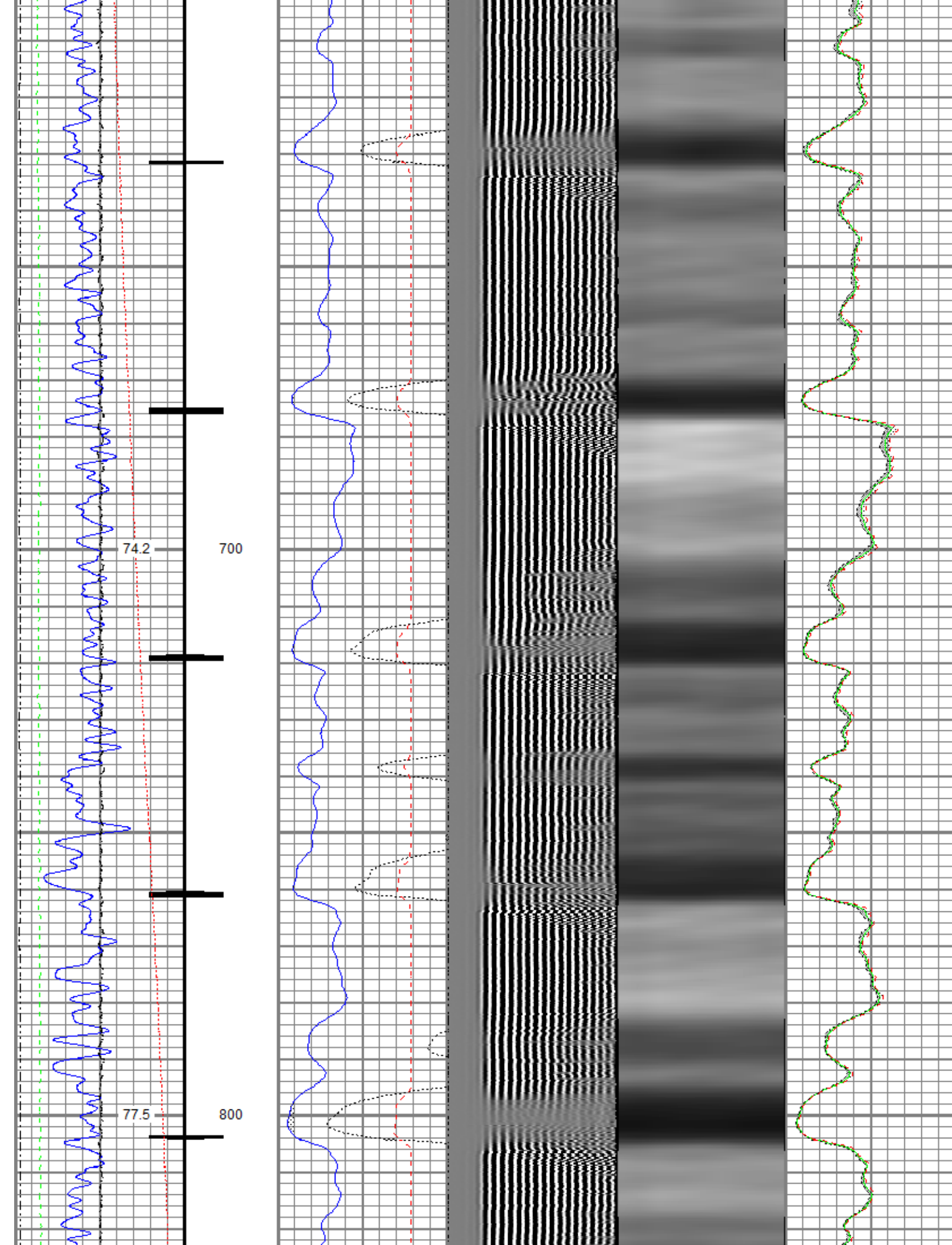
Database File anadarkolazul 13-12hz\processed_0512345909_anadarko_azul 13-12hz_rbl_05-16-18_2800 psi.db
 Dataset Pathname pass15.4
 Presentation Format ros_radri
 Dataset Creation Thu May 17 11:01:50 2018
 Charted by Depth in Feet scaled 1:240

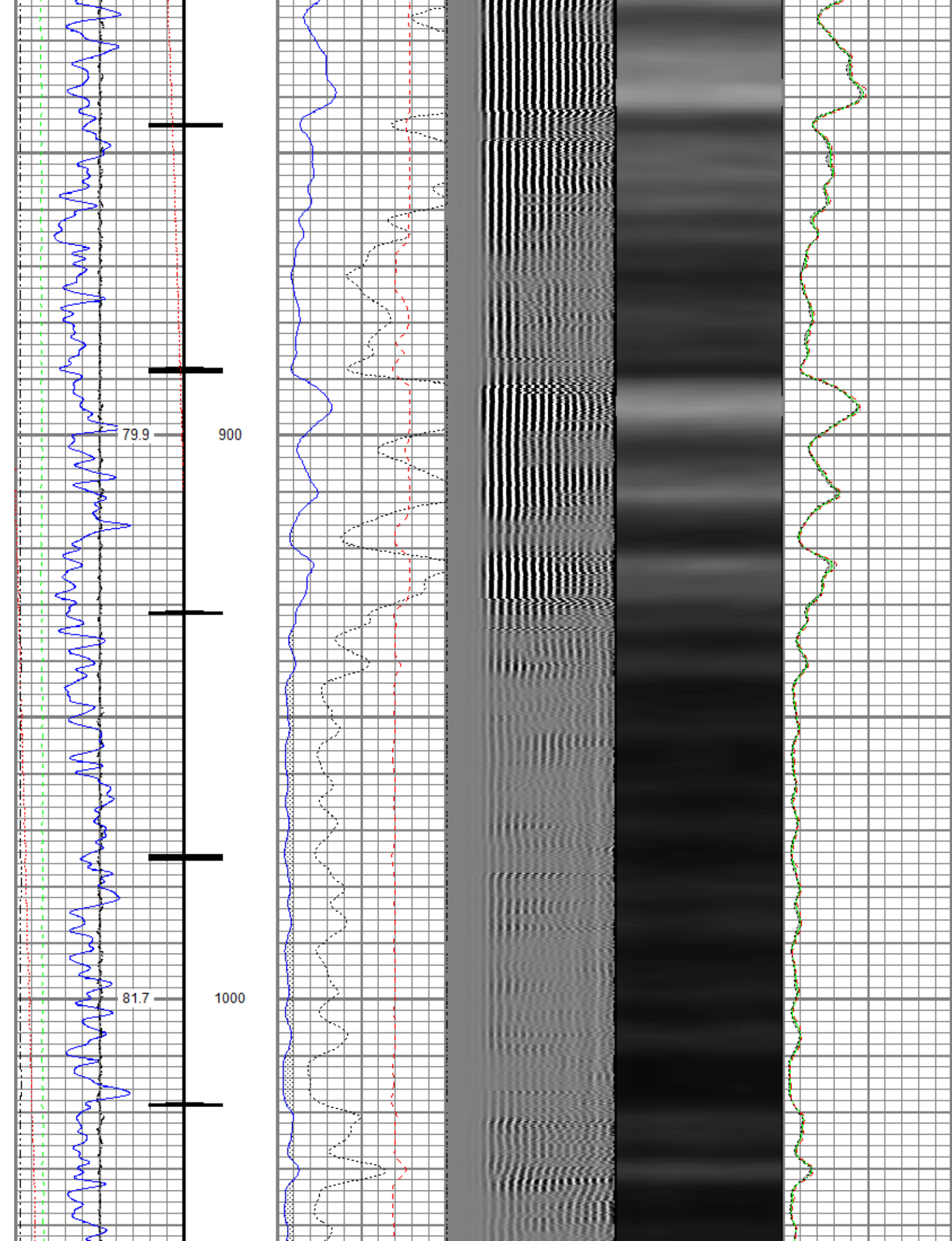
Gamma Ray	0	3' Amplitude (mV) 100	5' Variable Density Log	Sector Map	0	Average Amplitude 100
(GAPI) 120		3' Amplitude x 5	200 (usec) 1200			Minimum Amplitude
Casing Collar Locator	0	(mV) 20			0	100
Temperature (degF) 20		3' Travel Time				Maximum Amplitude
Line Speed	650	(usec) 150			0	100
-150 (ft/min) 150						
Line Tension (lb) 2000						
Differential Temperature						
-2 (degF) 2						

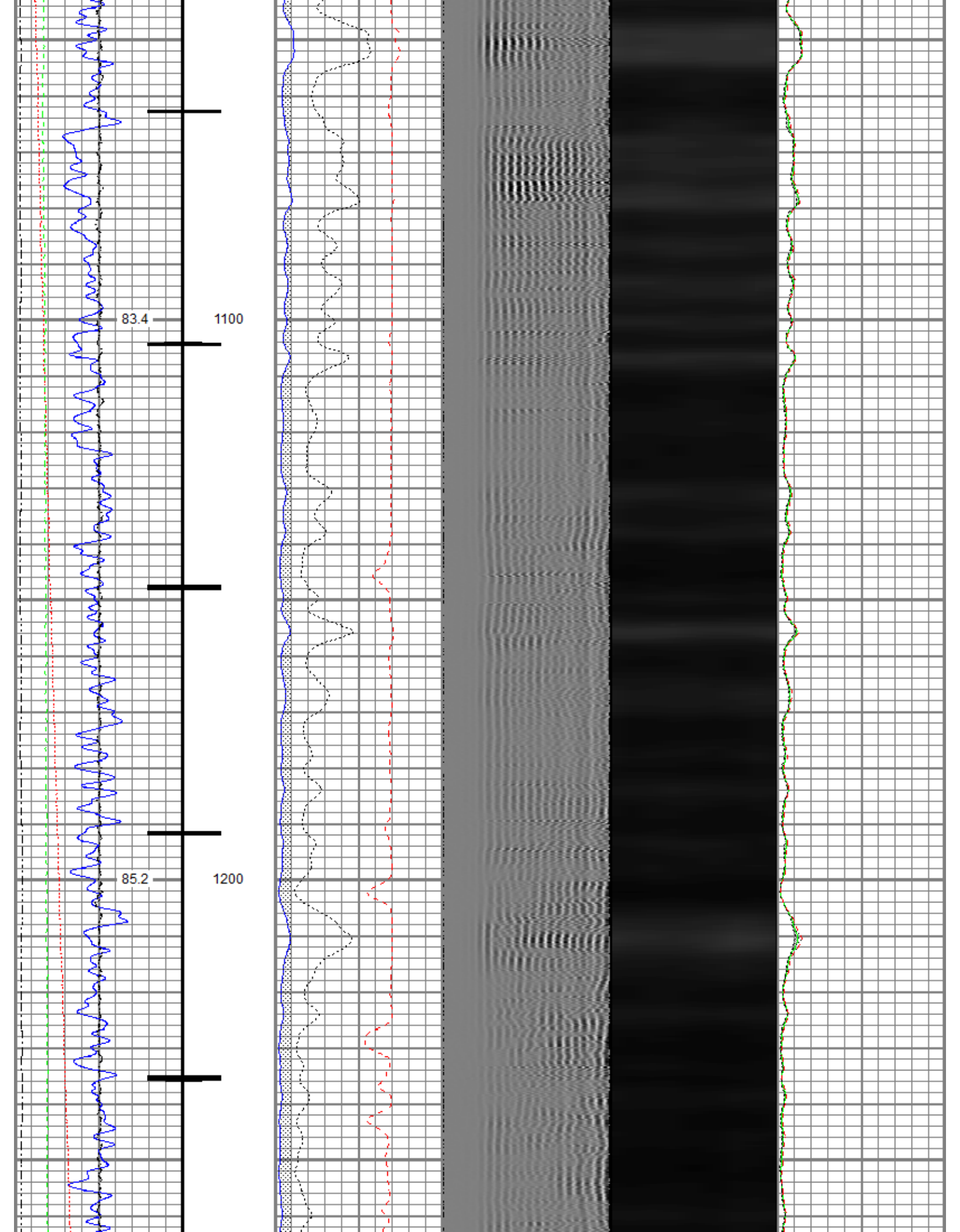


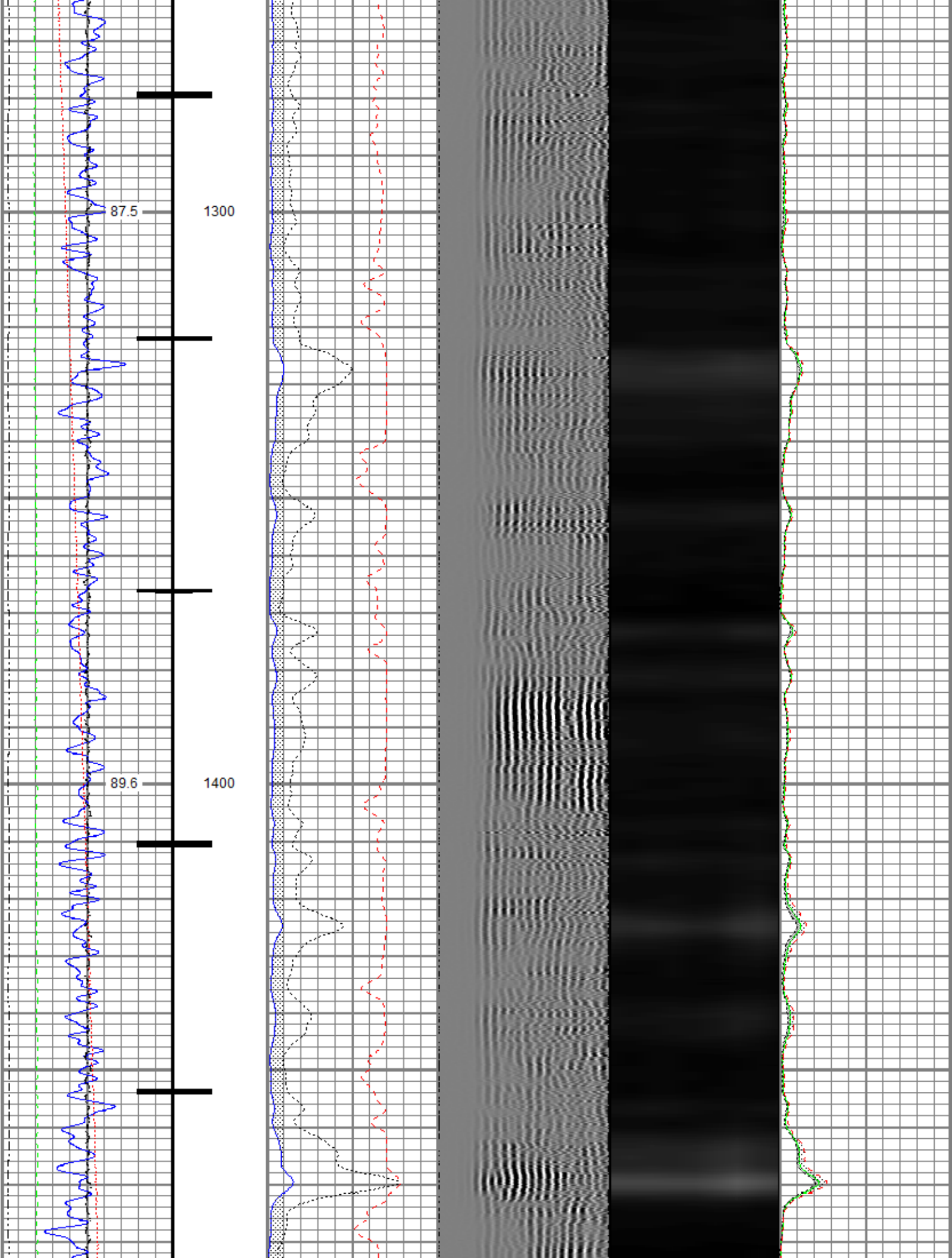


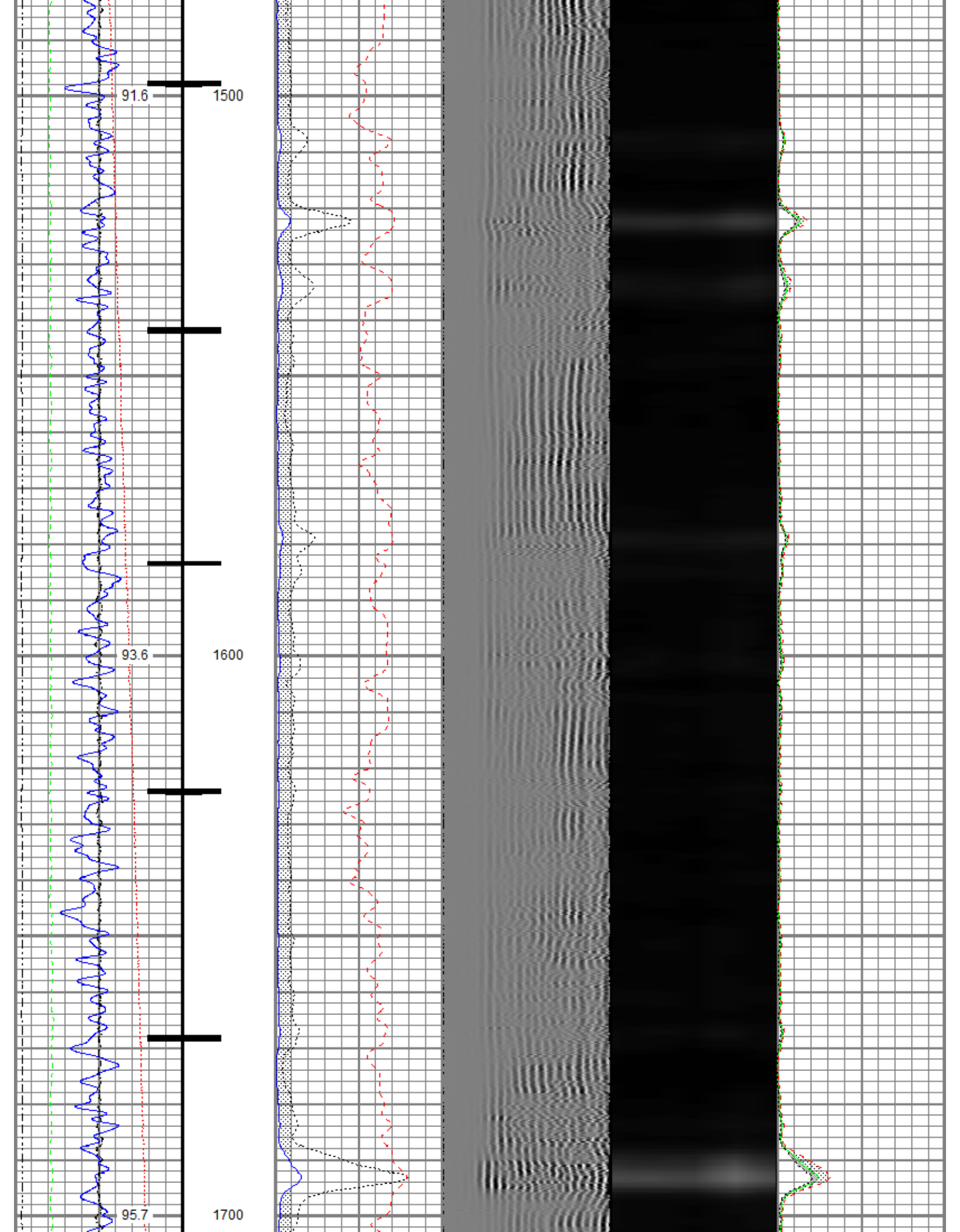


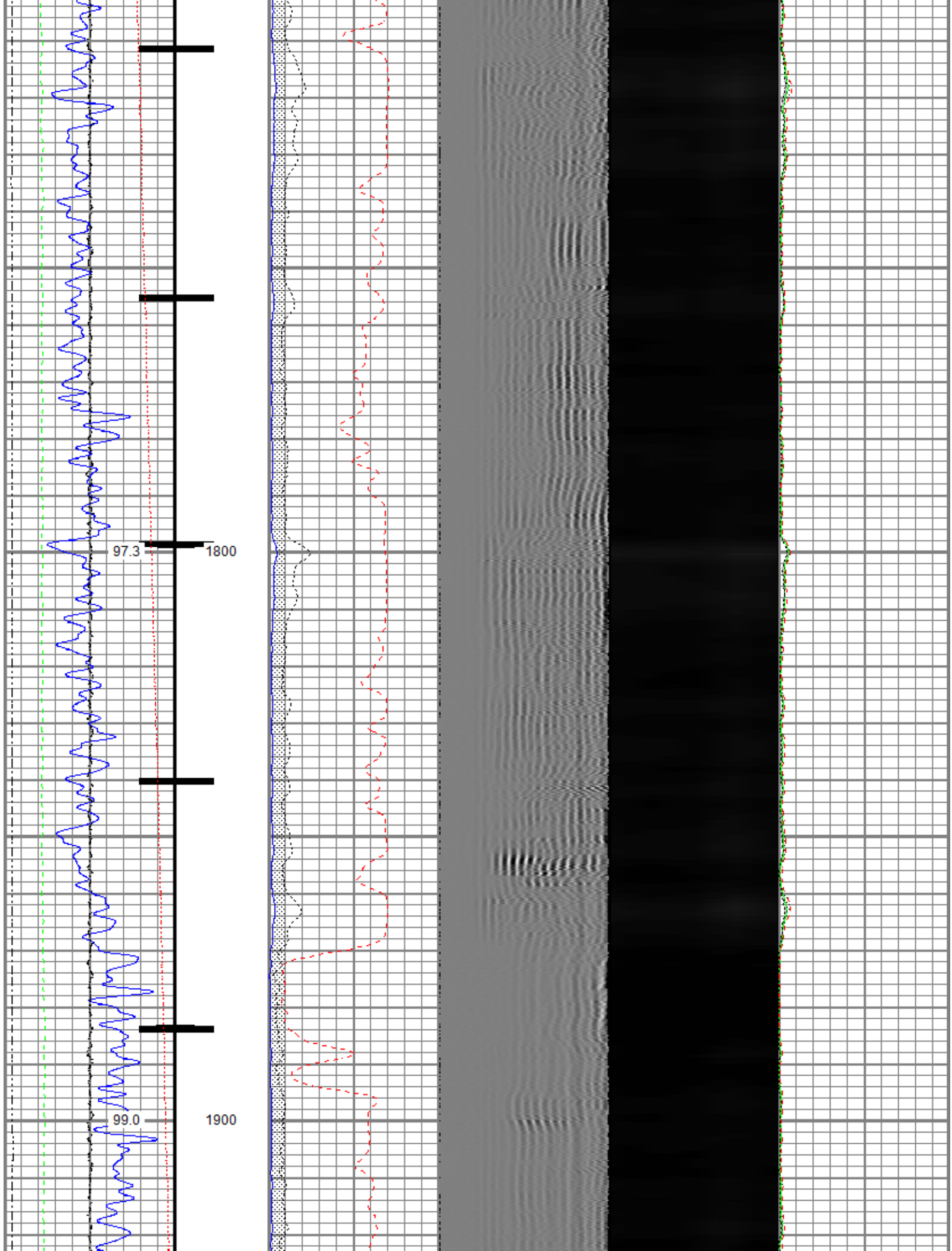


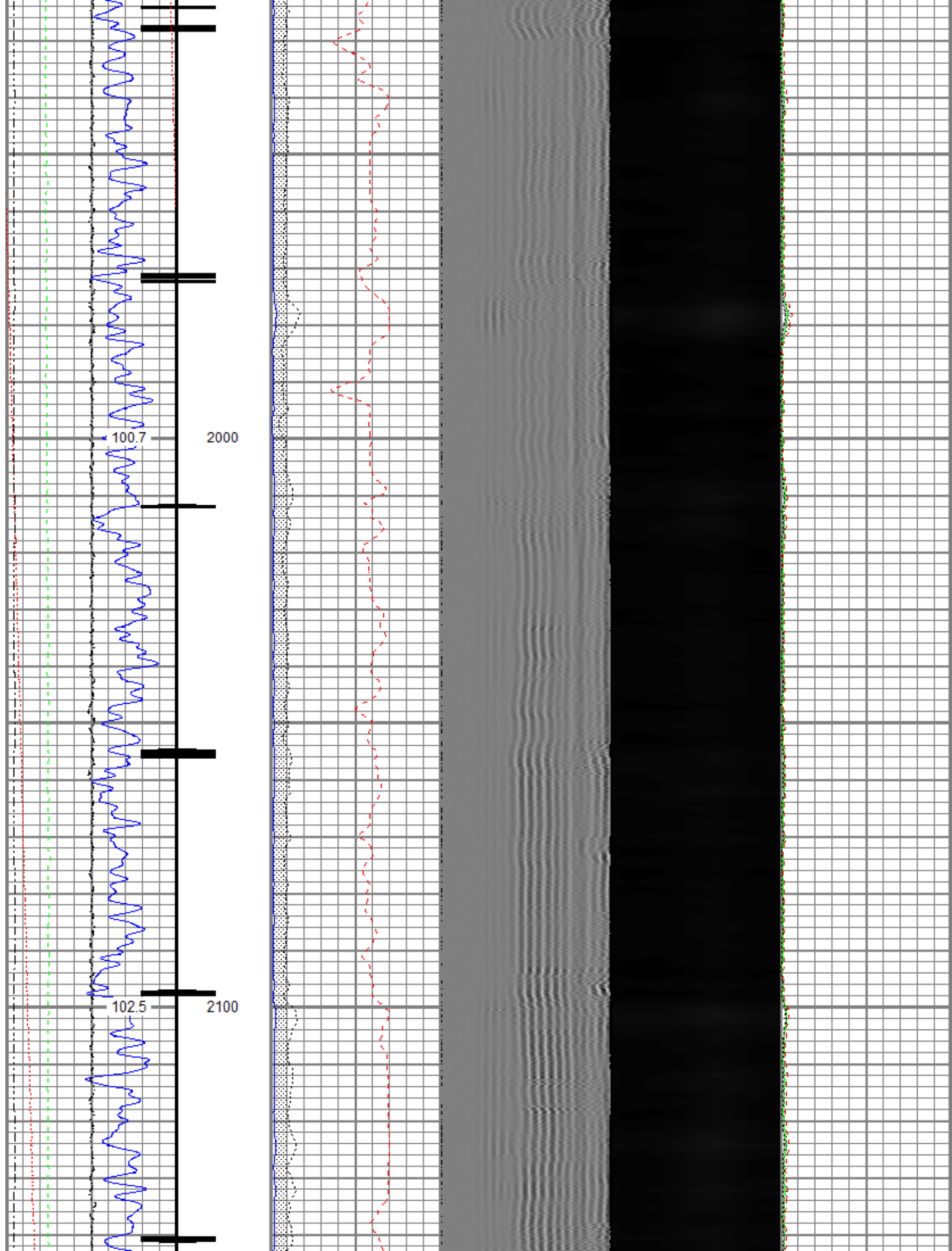


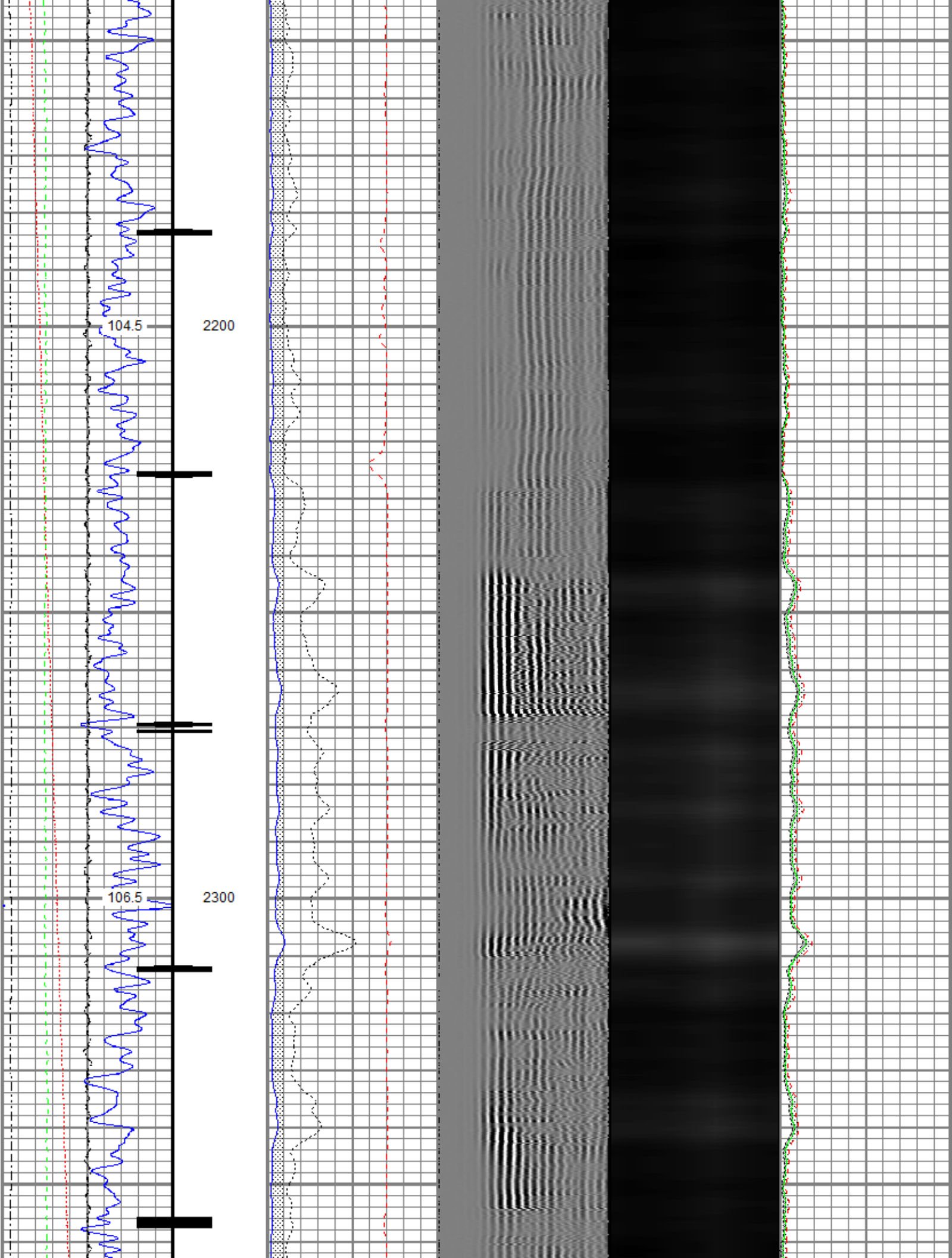


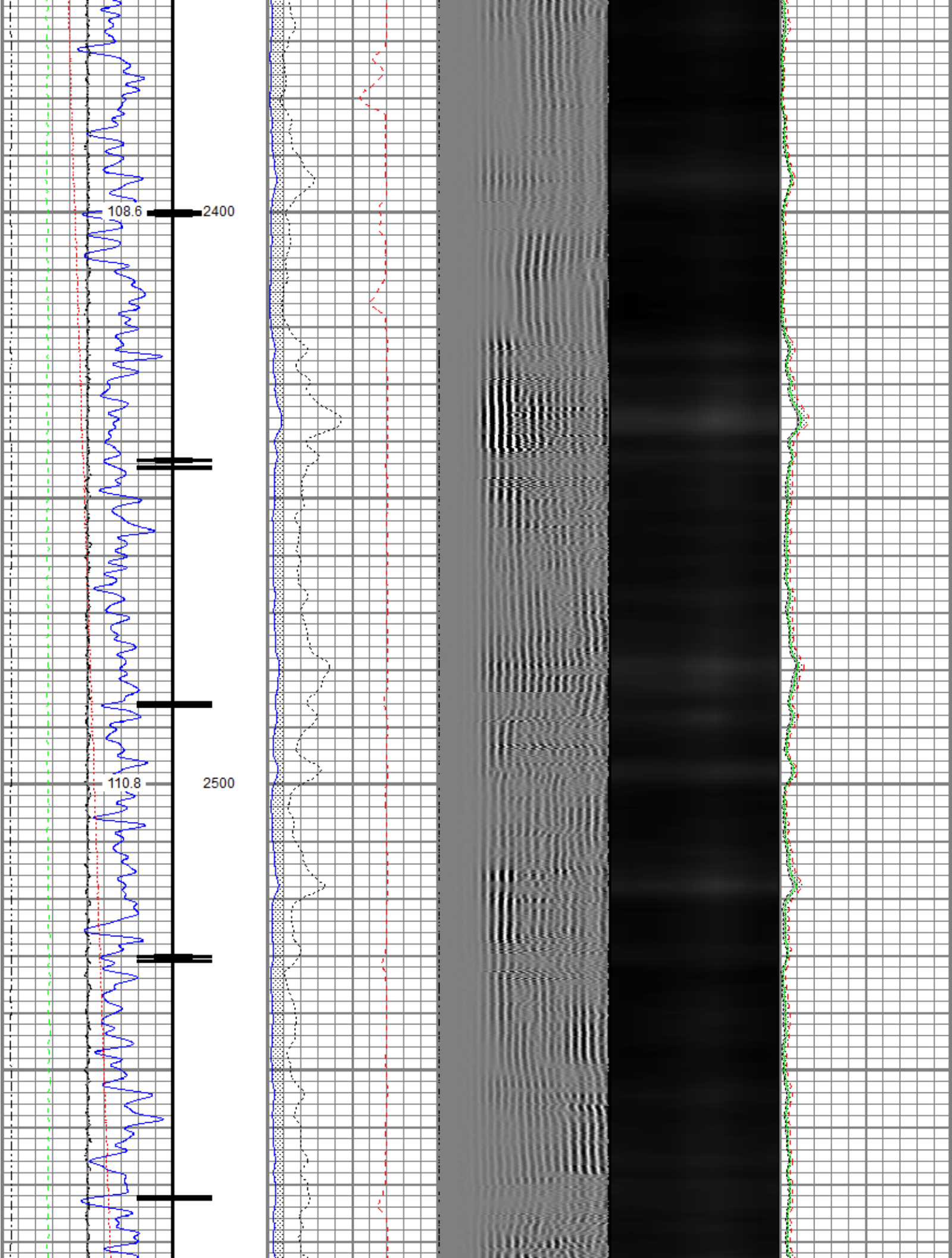


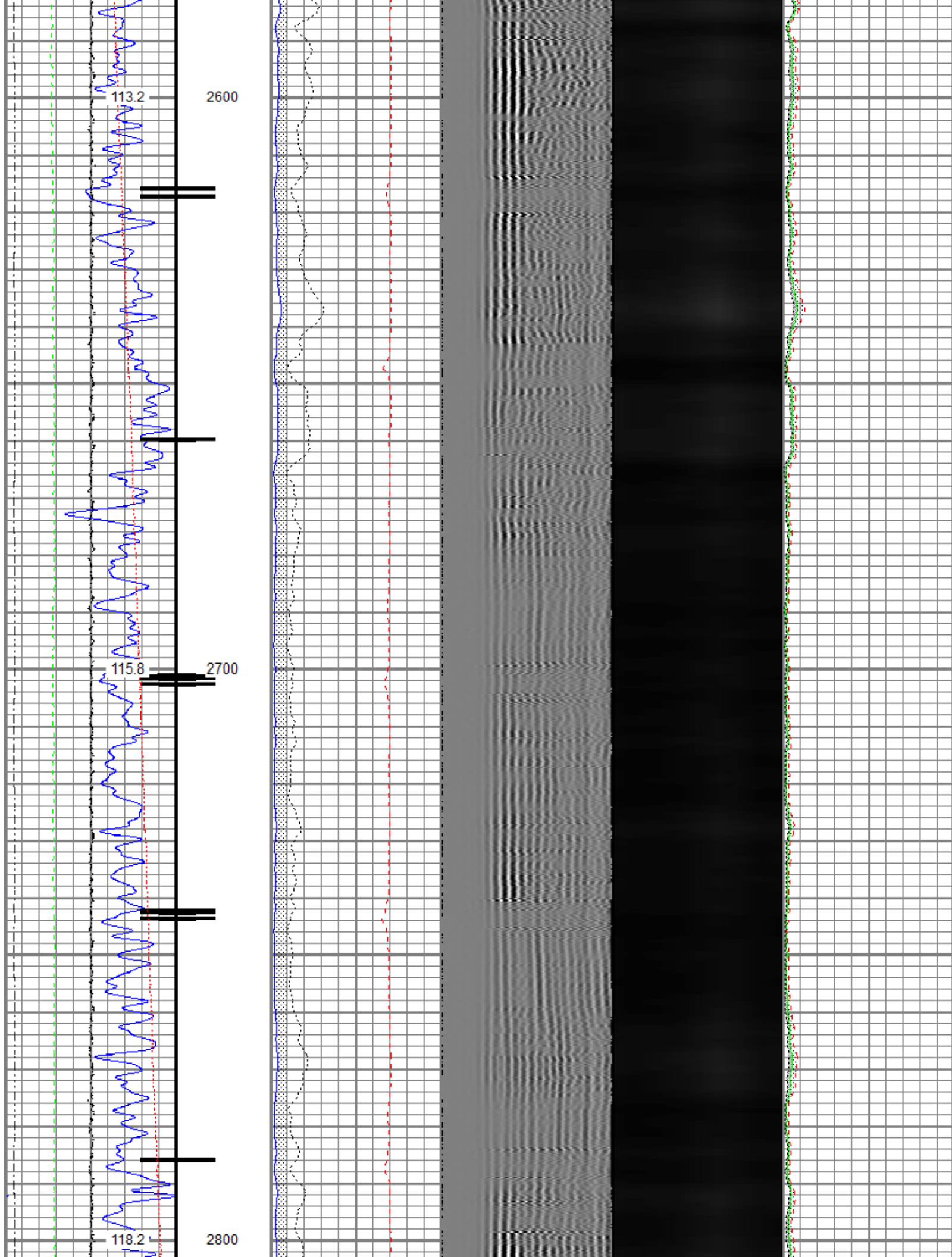


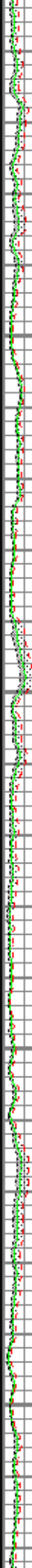
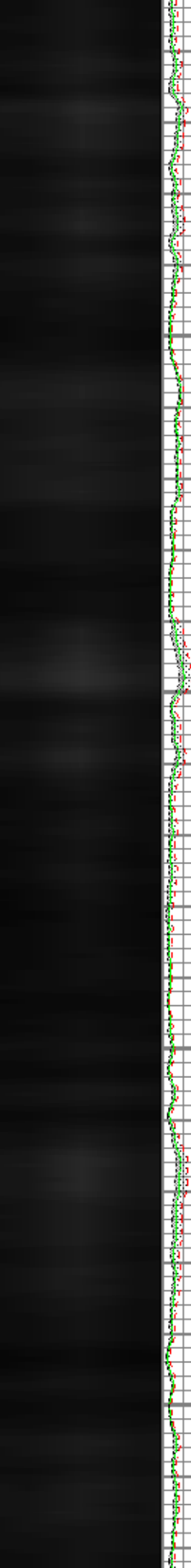
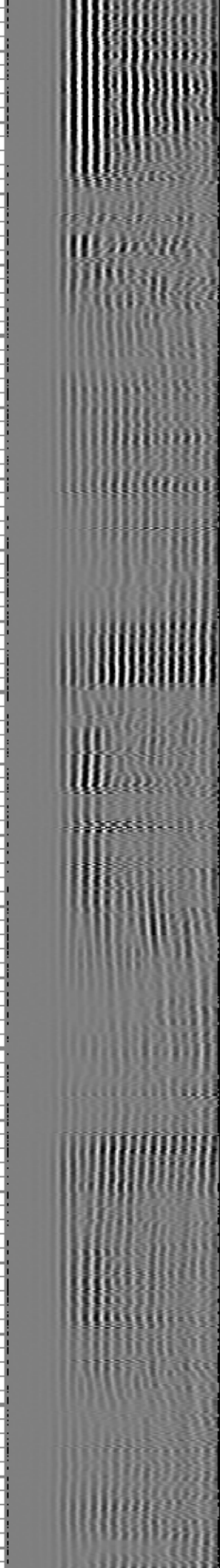
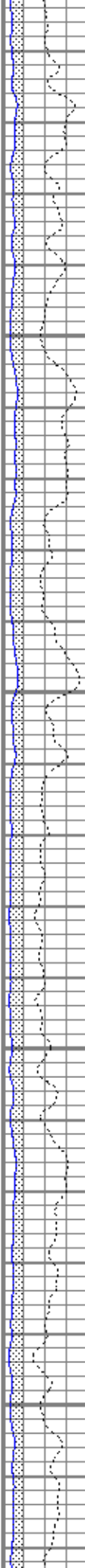
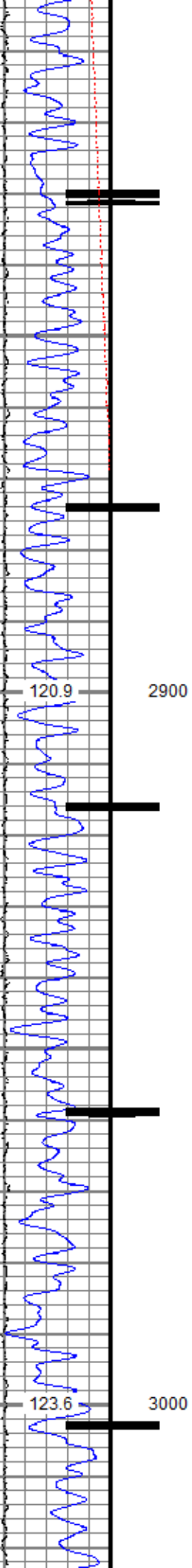


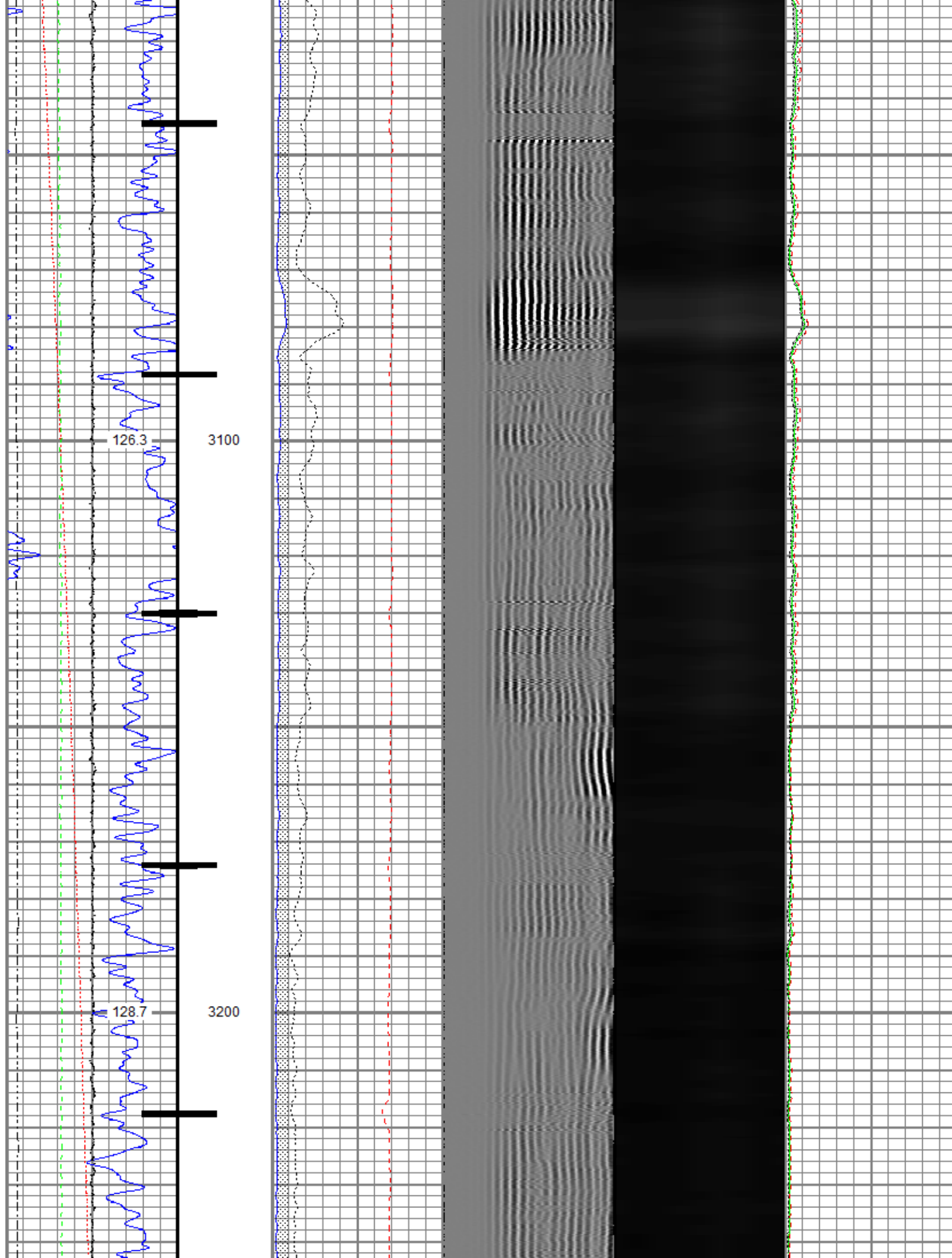


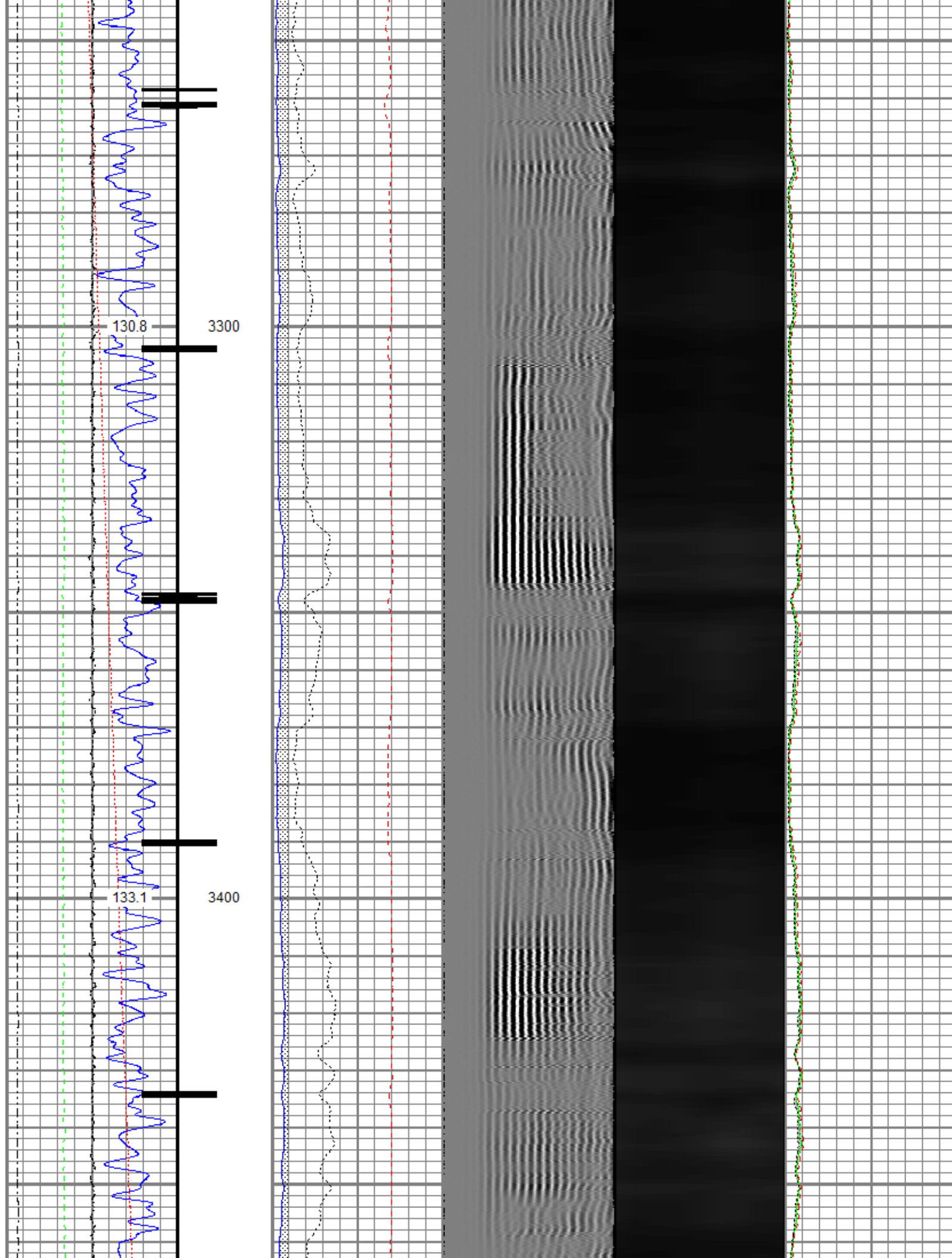


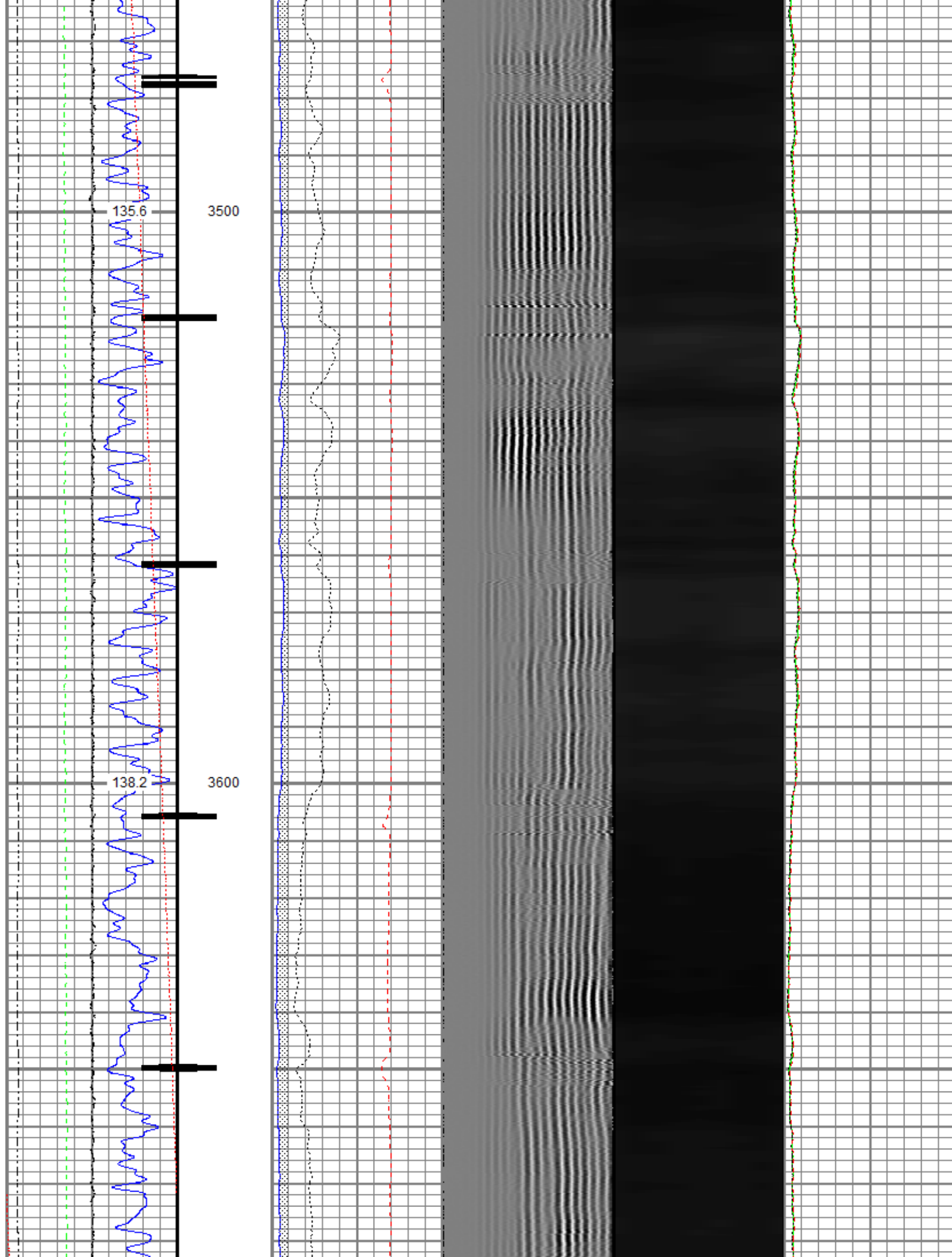


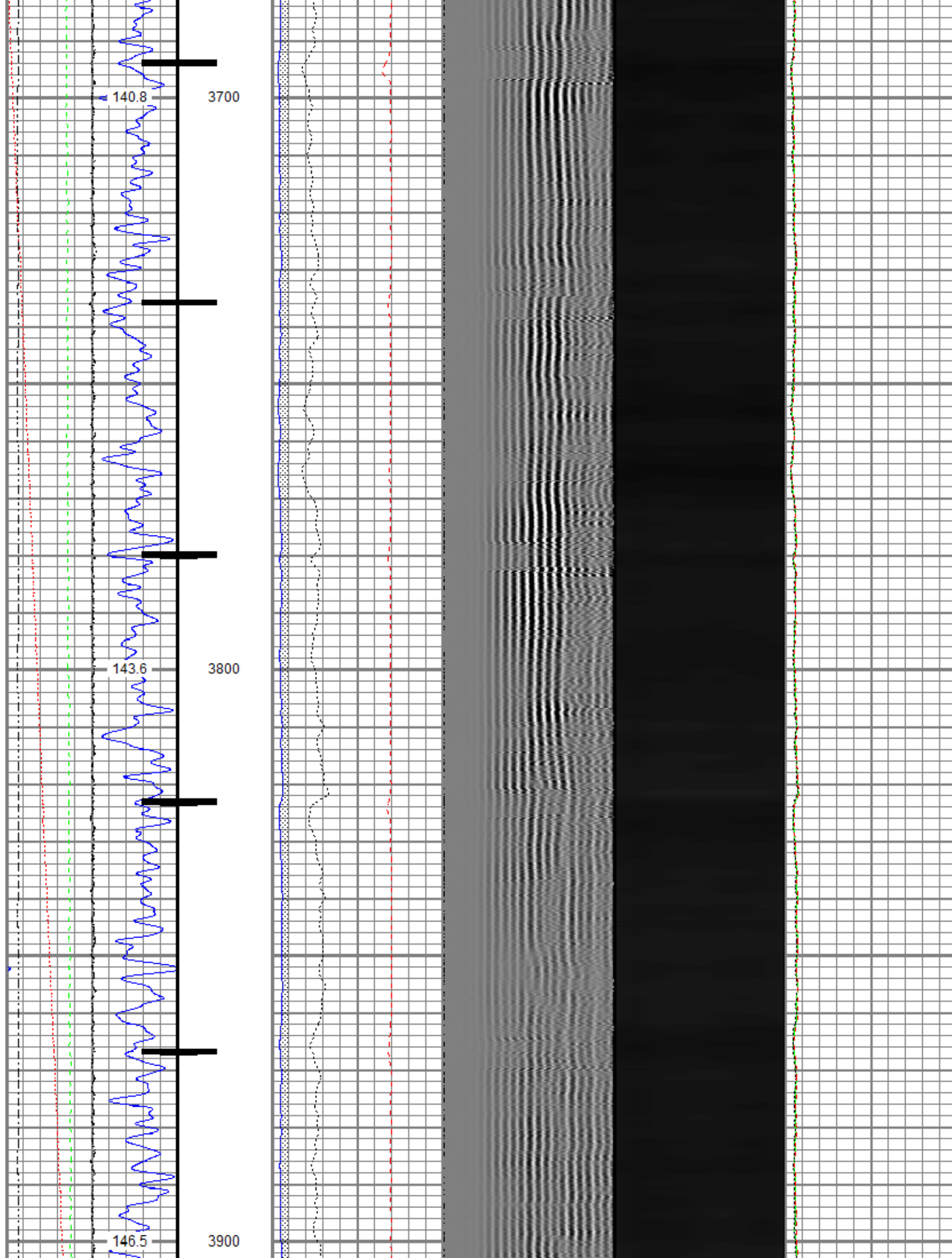


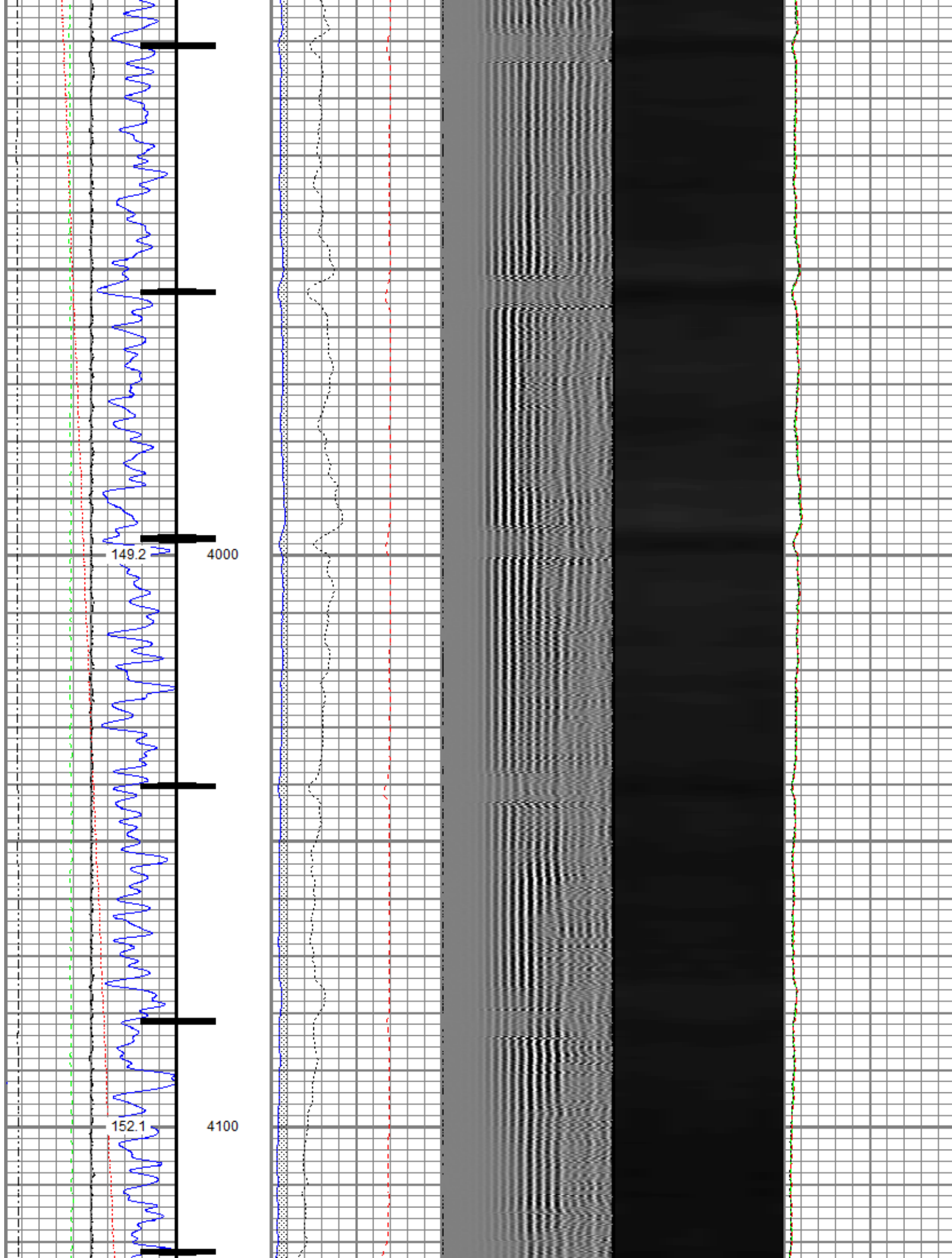


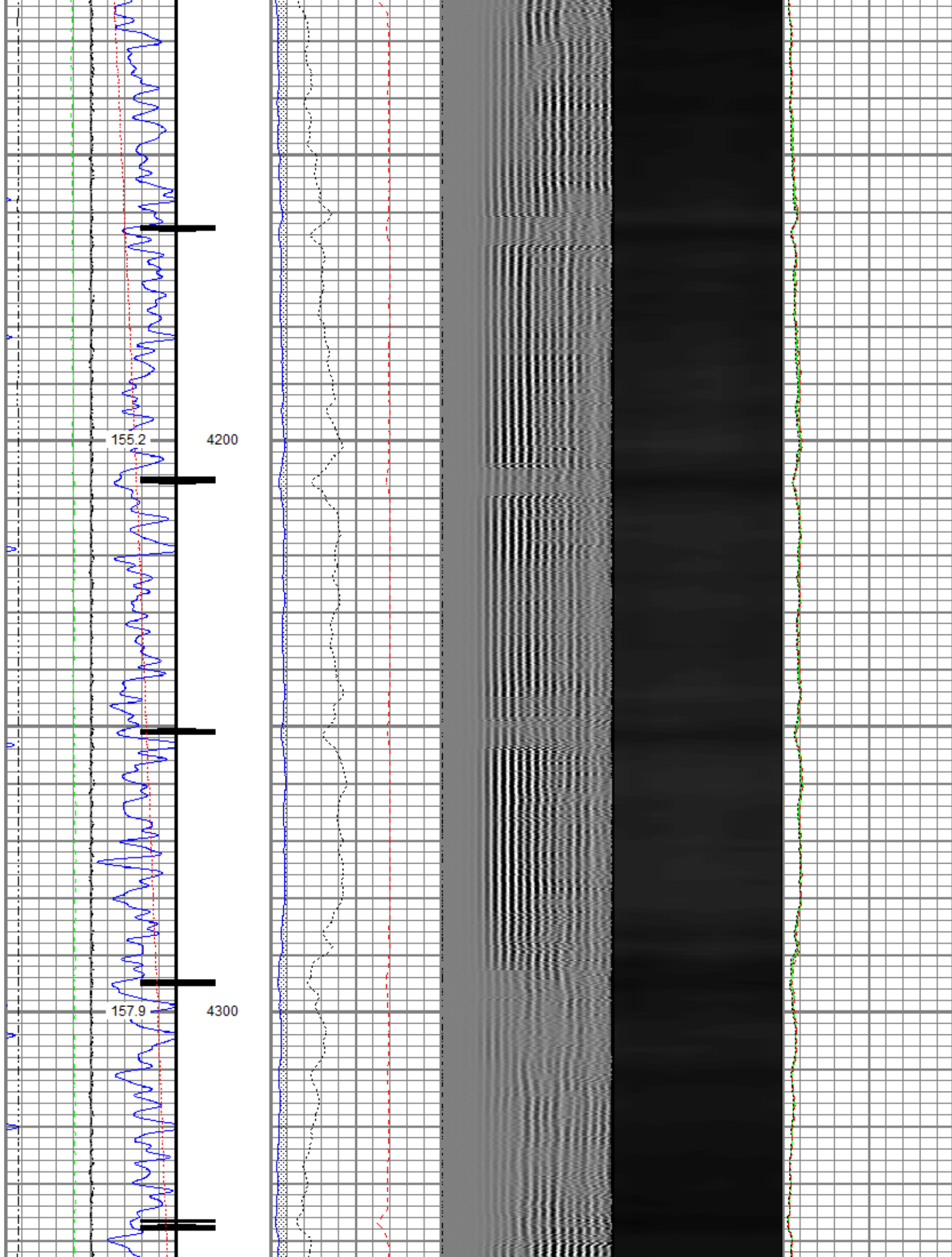


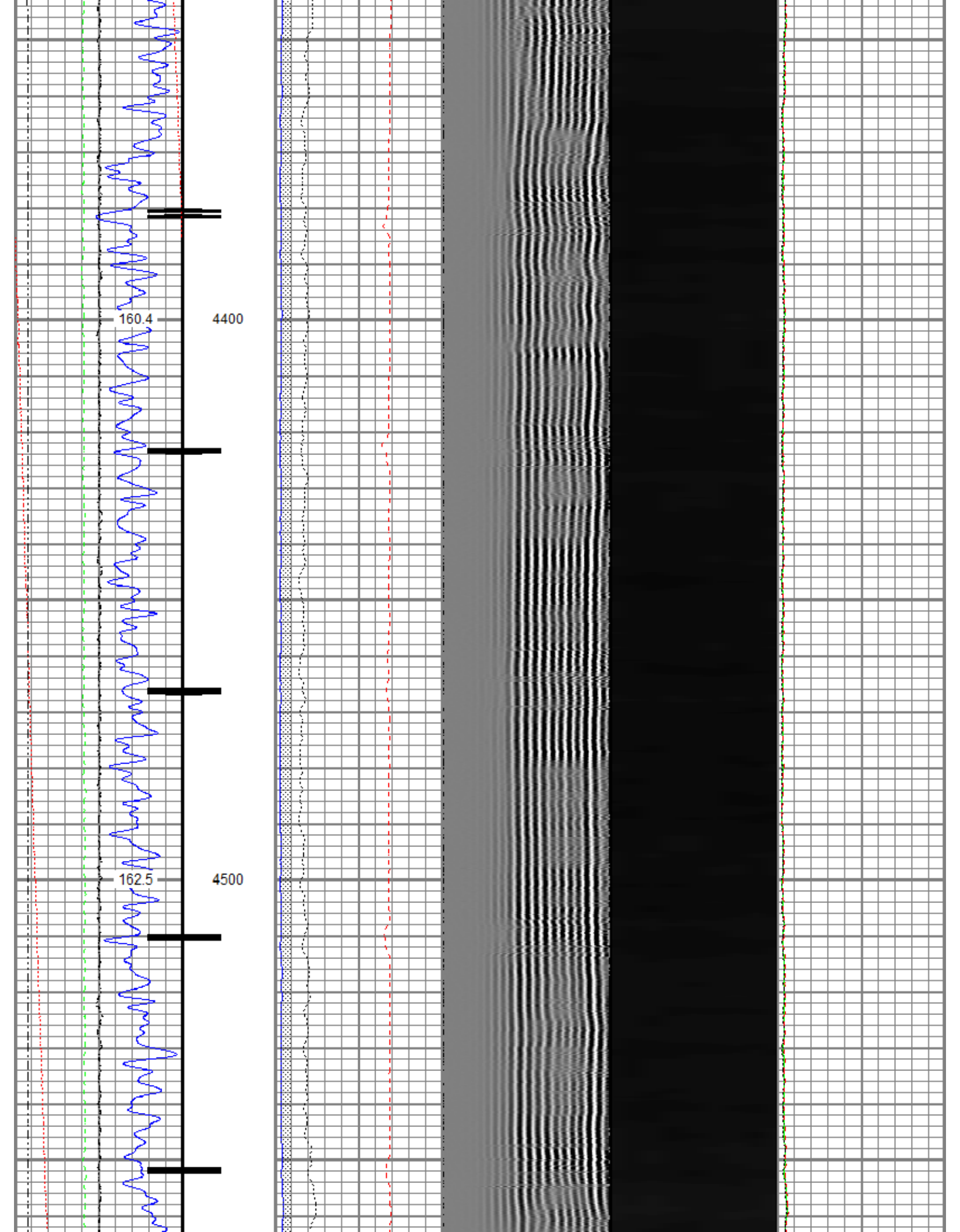


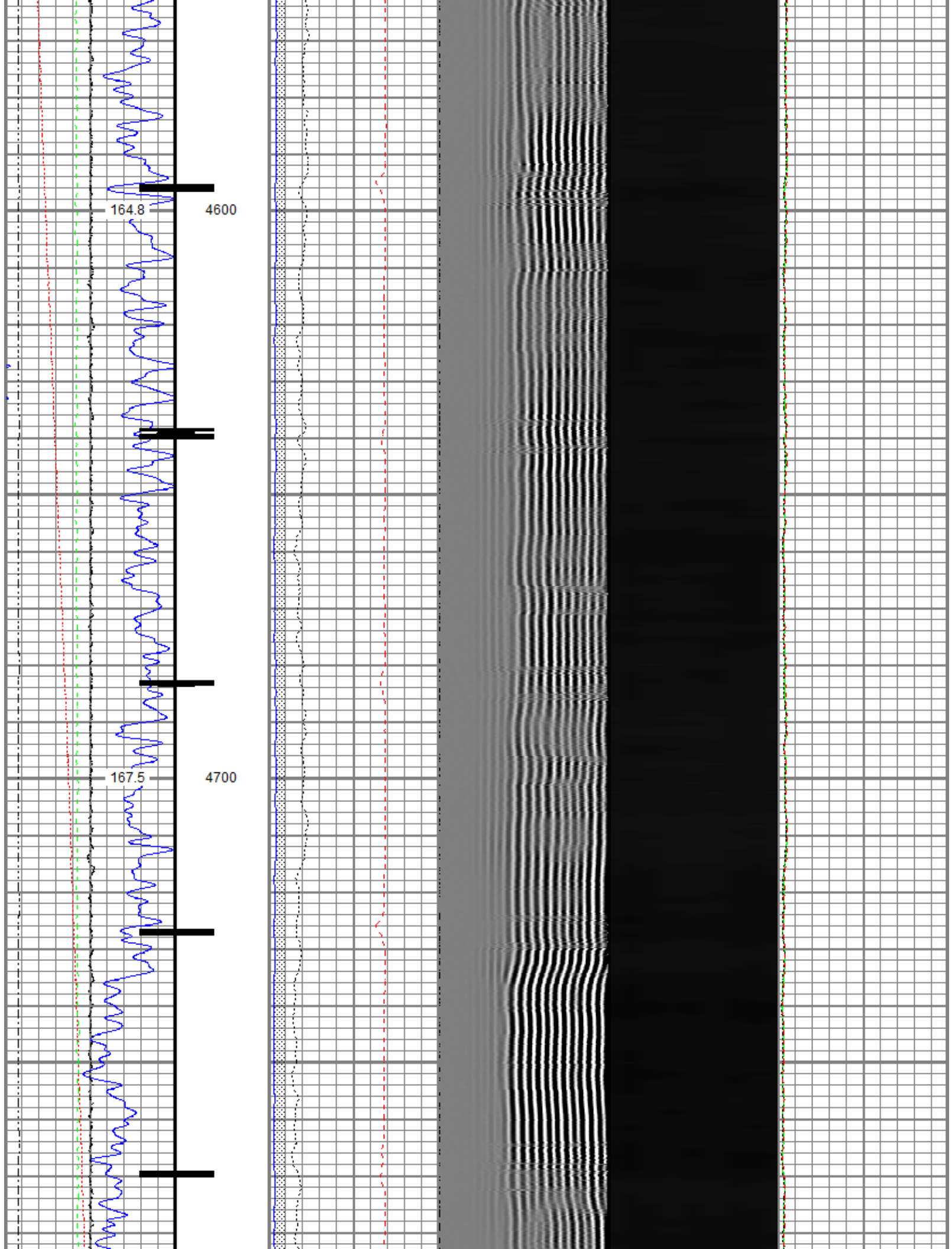


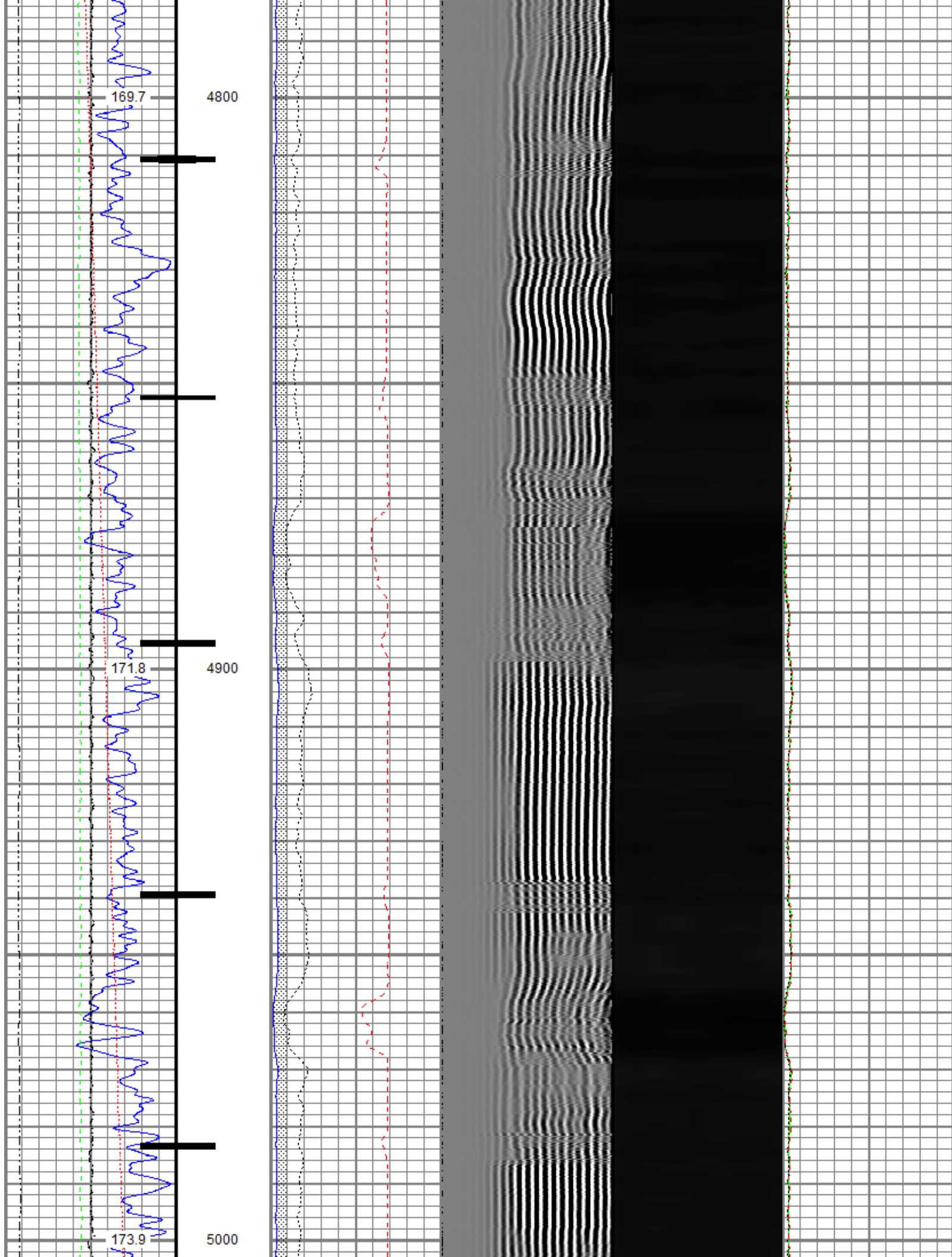


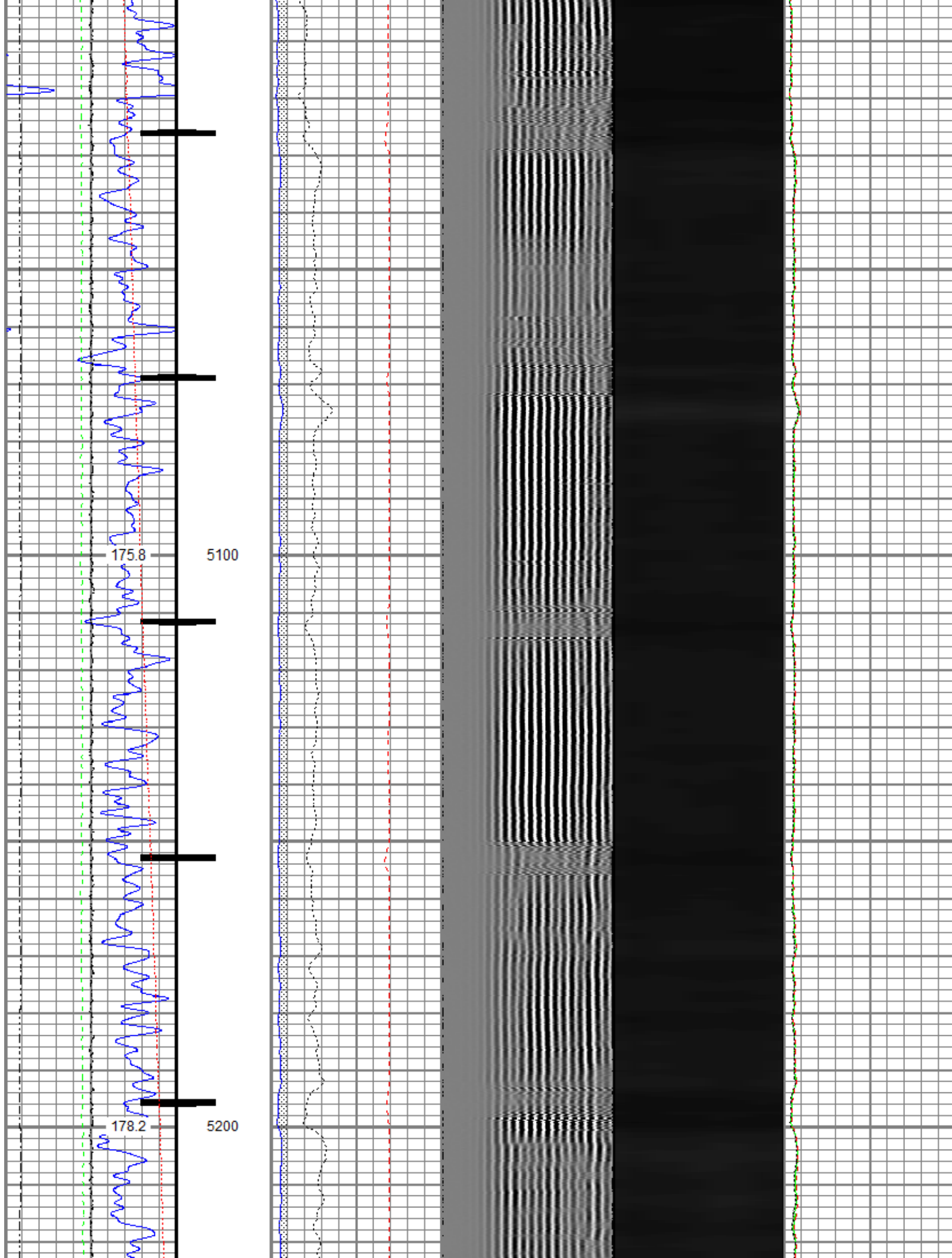


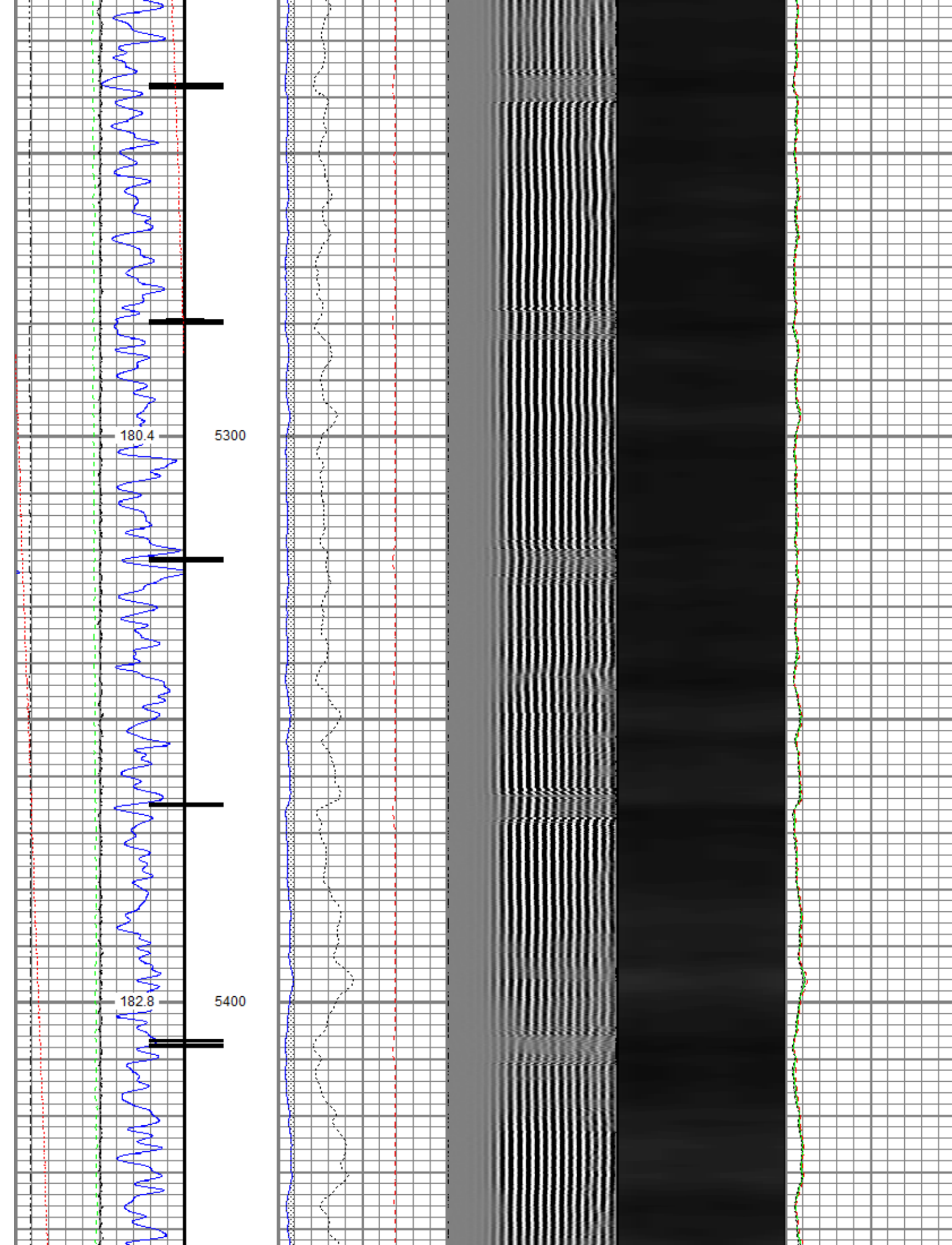


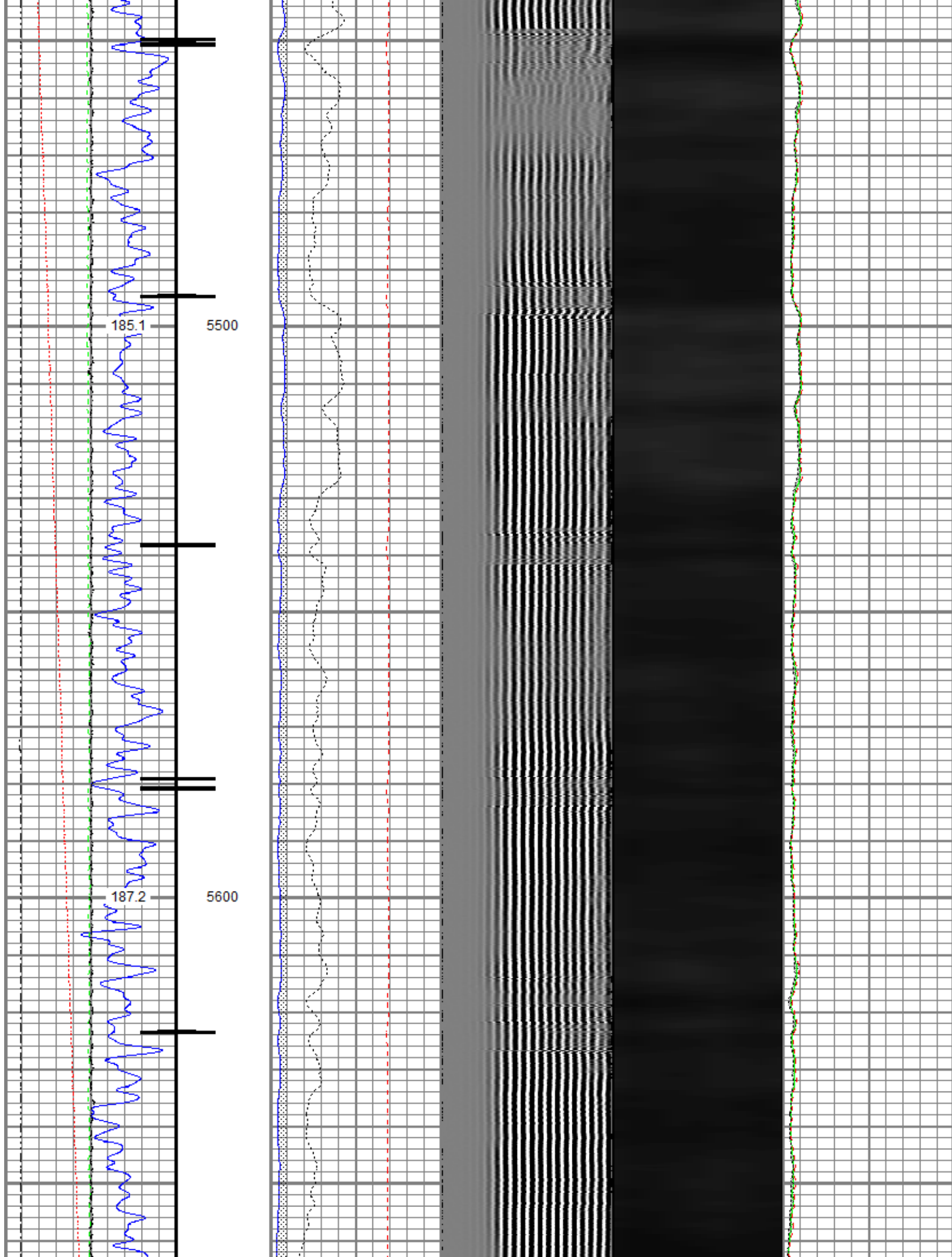


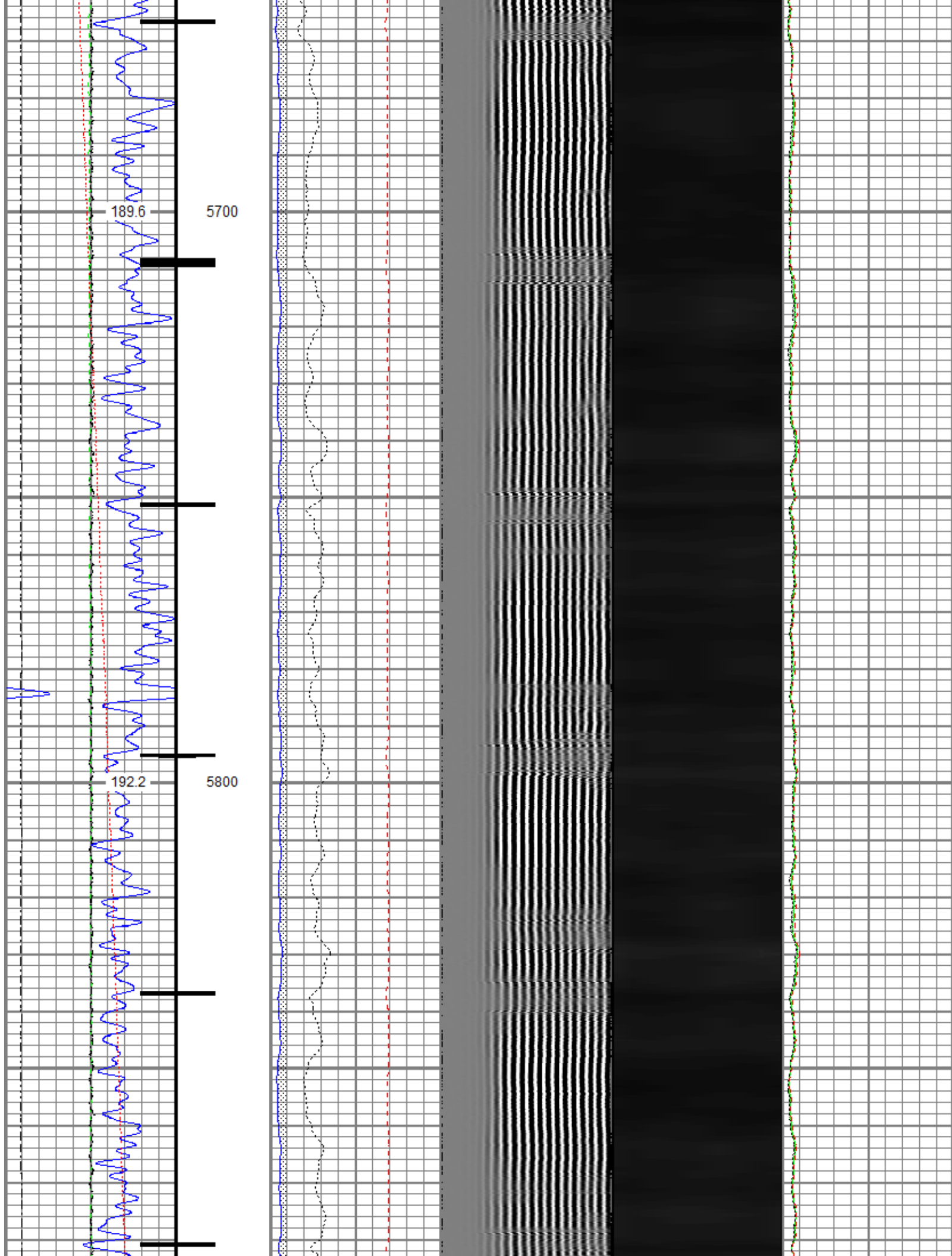


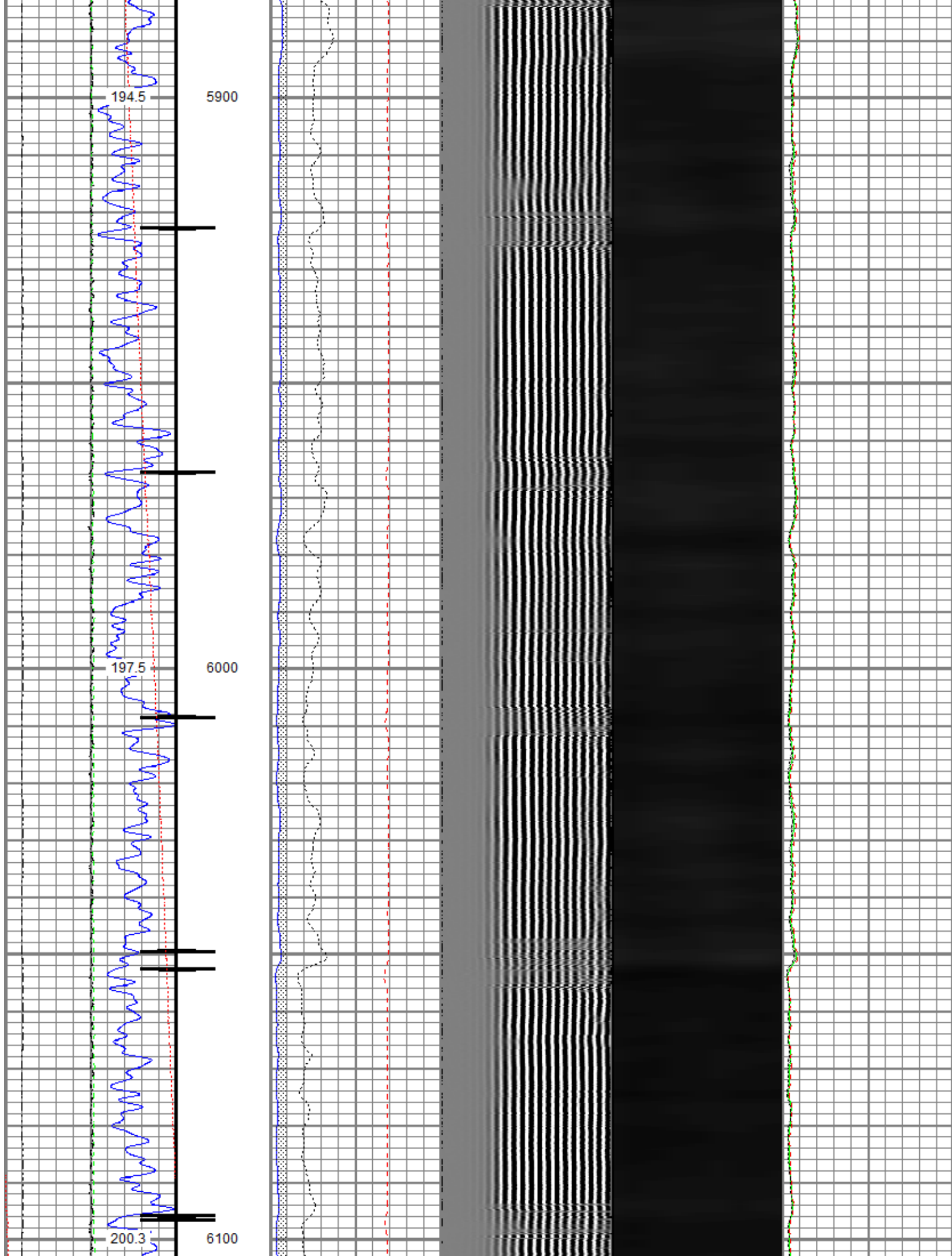


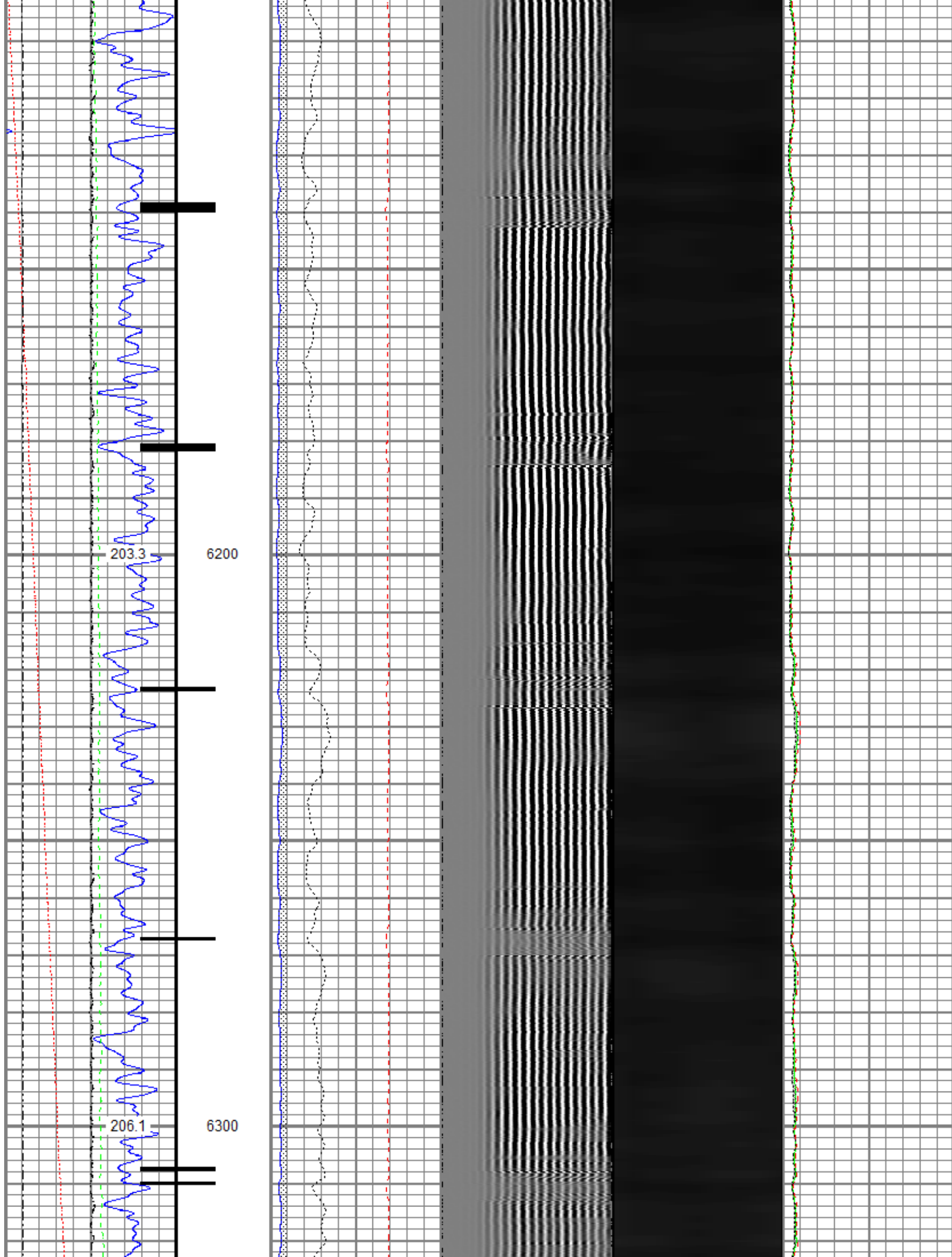


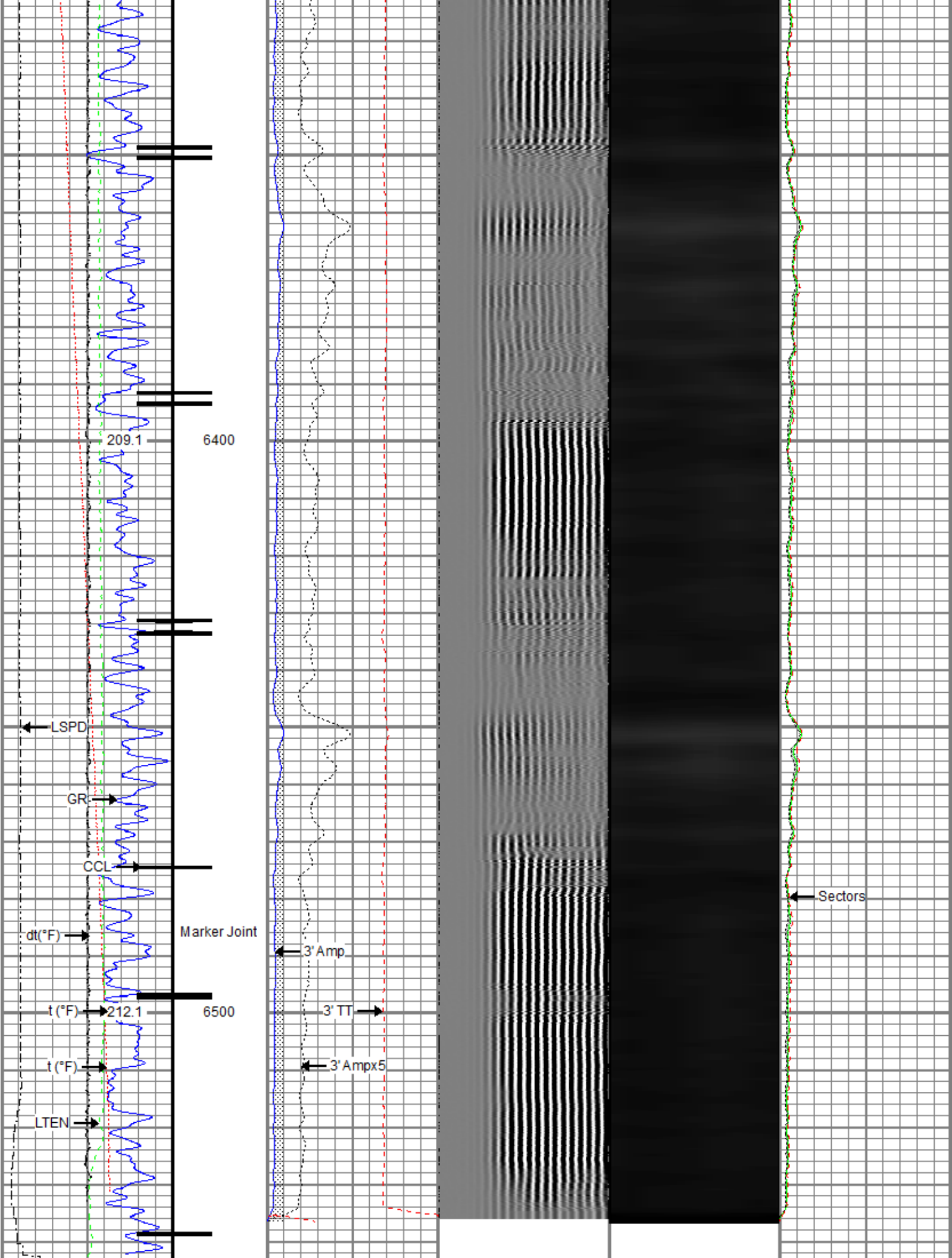












Gamma Ray		0	3' Amplitude (mV)	100	5' Variable Density Log	Sector Map	0	Average Amplitude	100
0	(GAPI)	120	3' Amplitude x 5	200	(usec)	1200		Minimum Amplitude	
Casing Collar Locator		0	(mV)	20			0		100
0	Temperature (degF)	20	3' Travel Time					Maximum Amplitude	
Line Speed		-150	(ft/min)	150	650	(usec)	150	0	100
0	Line Tension (lb)	2000							
Differential Temperature		-2	(degF)	2					

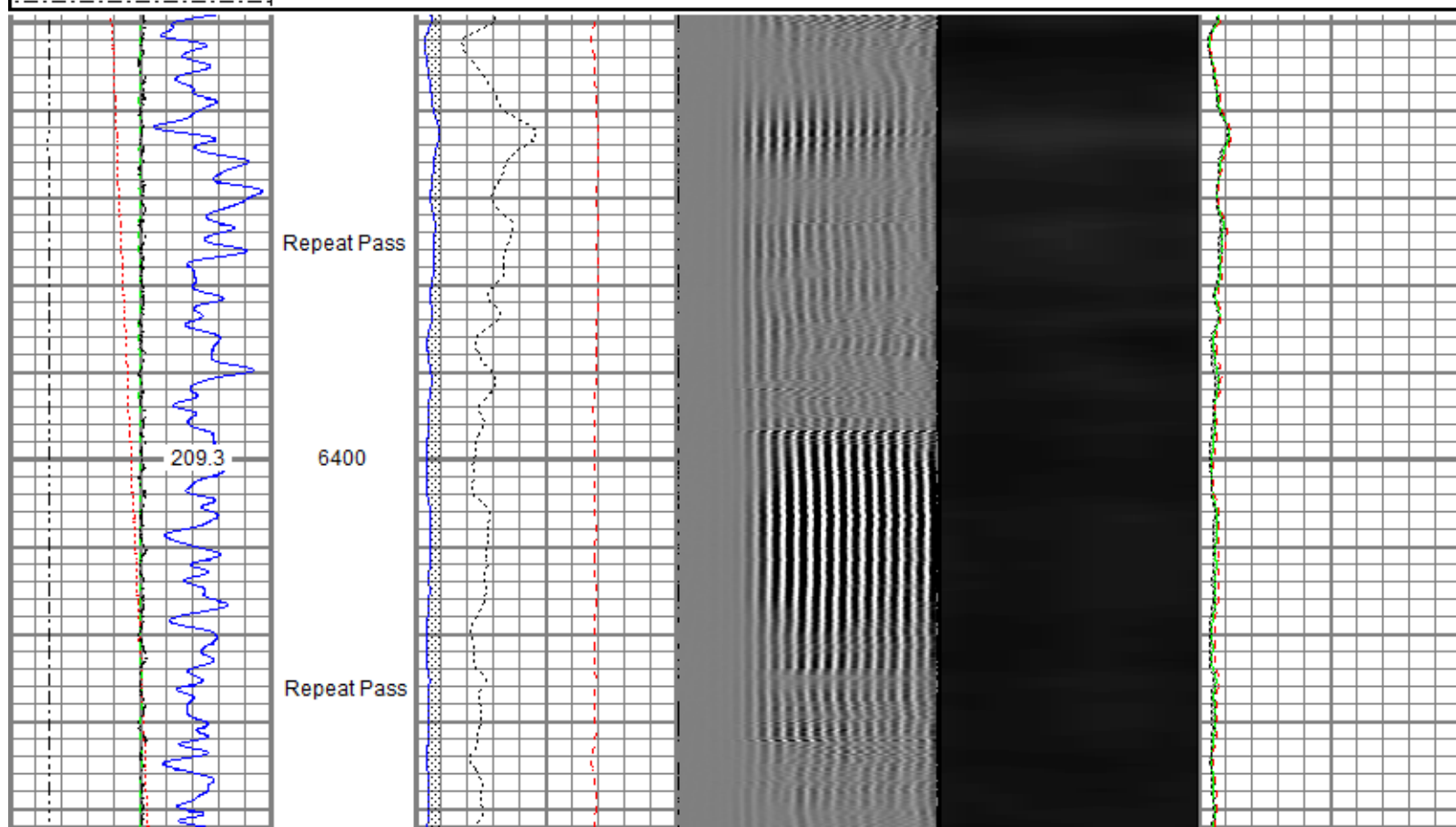


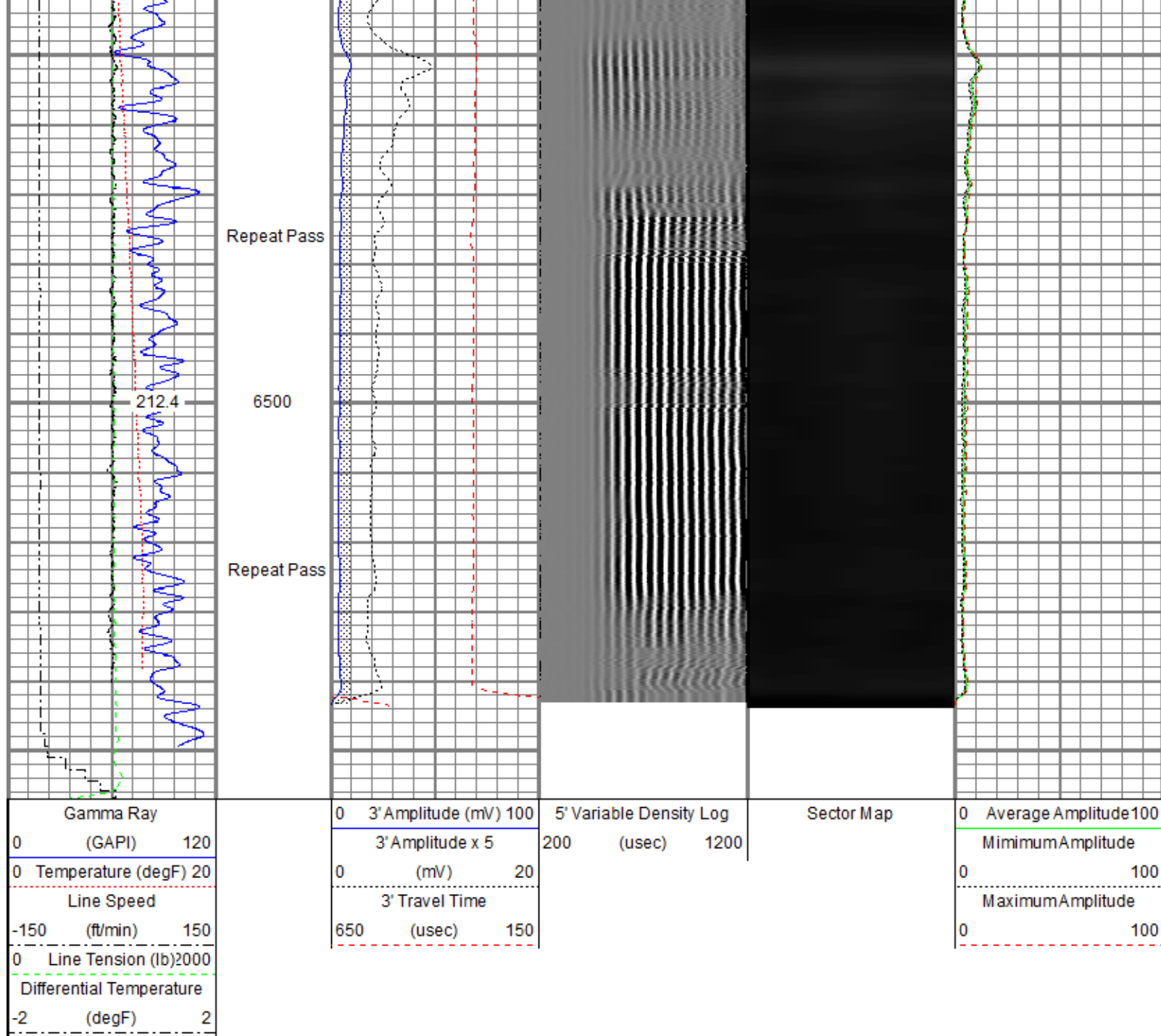
Repeat Pass

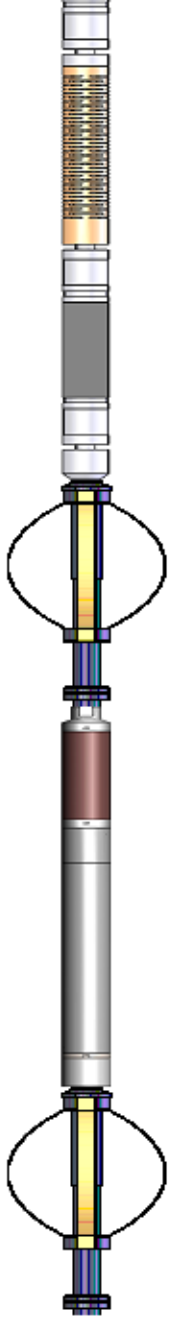
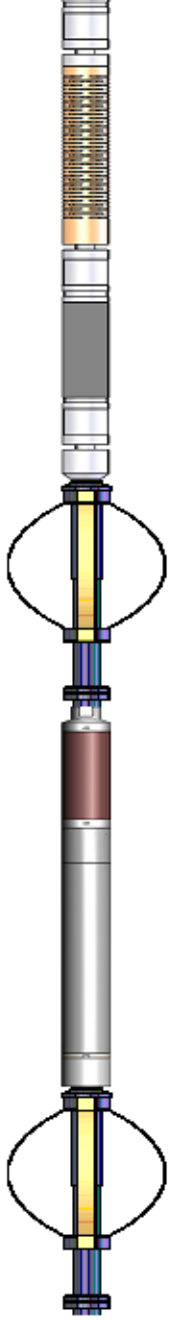
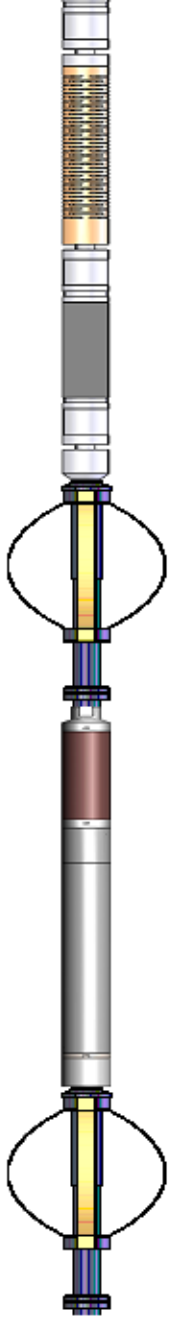
Recorded With 2800 PSI Surface Induced Pressure

Database File anadarkolazul 13-12hz\processed_0512345909_anadarko_azul 13-12hz_rbl_05-16-18_2800 psi.db
Dataset Pathname pass12.2
Presentation Format ros_radrii
Dataset Creation Thu May 17 11:05:38 2018
Charted by Depth in Feet scaled 1:240

Gamma Ray		0	3' Amplitude (mV)	100	5' Variable Density Log	Sector Map	0	Average Amplitude	100
0	(GAPI)	120	3' Amplitude x 5	200	(usec)	1200		Minimum Amplitude	
0	Temperature (degF)	20	(mV)	20			0		100
Line Speed		-150	(ft/min)	150	650	(usec)	150	0	100
0	Line Tension (lb)	2000							
Differential Temperature		-2	(degF)	2					





WVFS8	14.81		Probe Rdti-2750 RBT (FW1305-096) Probe 2-3/4" Radial Cement Bond Tool with Integral Temperature Sub	9.39	2.75	105.00
WVFS7	14.81					
WVFS6	14.81					
WVFS5	14.81					
WVFS4	14.81					
WVFS3	14.81					
WVFS2	14.81					
WVFS1	14.81					
WVFCAL	14.81					
WVF3FT	14.81					
WVF5FT	13.81		Probe CENT-2750 Probe 2-3/4" Electric Inline Bowspring Centralizer	2.88	2.75	20.00
CCL\$2	6.80					
CCL\$1	6.80					
GR	5.46		Probe GR-CCL-2750 6PB (101001) Probe 2-3/4" rev.1 Digital Scintillation Gamma Ray/CCL Combined with 6 Pin Bottom for CNT	4.80	2.75	55.00
			Probe CENT-2750 Probe 2-3/4" Electric Inline Bowspring Centralizer	2.88	2.75	20.00
Dataset: processed_0512345909_anadarko_azul 13-12hz_rbl_05-16-18_2800 psi.db: field/well/run1/pass15.4 Total length: 23.86 ft Total weight: 223.60 lb O.D.: 2.75 in						

Calibration Report		
Database File	c:\programdata\warrior\data\anadarko\azul 13-12hz\processed_0512345909_anadarko_azul 13-12hz_rbl_05-16-18_2800 psi.db	
Dataset Pathname	pass15.4	
Dataset Creation	Thu May 17 11:01:50 2018	
Gamma Ray Calibration Report		
Serial Number:	101001	
Tool Model:	2750 6PB	
Performed:	Sun Nov 12 11:25:32 2017	
Calibrator Value:	637.0	GAPI
Background Reading:	100.6	cps
Calibrator Reading:	981.1	cps
Sensitivity:	0.7235	GAPI/cps
Segmented Cement Bond Log Calibration Report		

Serial Number: FW1305-096
Tool Model: 2750 RBT

Calibration Casing Diameter: 5.500 in
Calibration Depth: 838.352 ft

Master Calibration, performed (Derived):

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.009	0.811	0.800	71.921	88.685	0.028
CAL	0.004	0.640				
5'	0.008	0.760	0.800	71.921	94.607	0.021
SUM						
S1	0.013	0.763	0.000	100.000	133.402	-1.730
S2	0.009	0.792	0.000	100.000	127.735	-1.141
S3	0.009	0.797	0.000	100.000	126.827	-1.115
S4	0.008	0.843	0.000	100.000	119.759	-0.944
S5	0.010	0.873	0.000	100.000	115.833	-1.138
S6	0.009	0.863	0.000	100.000	117.186	-1.106
S7	0.009	0.818	0.000	100.000	123.617	-1.136
S8	0.008	0.764	0.000	100.000	132.225	-1.076

Internal Reference Calibration, performed (Not Performed):

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.004	0.640	1.000	0.000

Air Zero Calibration, performed Wed May 16 09:53:50 2018:

	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	

Temperature Calibration Report

Serial Number: FW1305-096
Tool Model: 2750 RBT
Performed: Sun Nov 12 13:42:10 2017

	Reference	Reading
Low Reference:	100.00 degF	109.43 degF
High Reference:	350.00 degF	405.87 degF

Gain: 0.84
Offset: 7.72
Delta Spacing: 1



Well
Field
County
State

Azul 13-12HZ
Wattenberg
Weld
Colorado