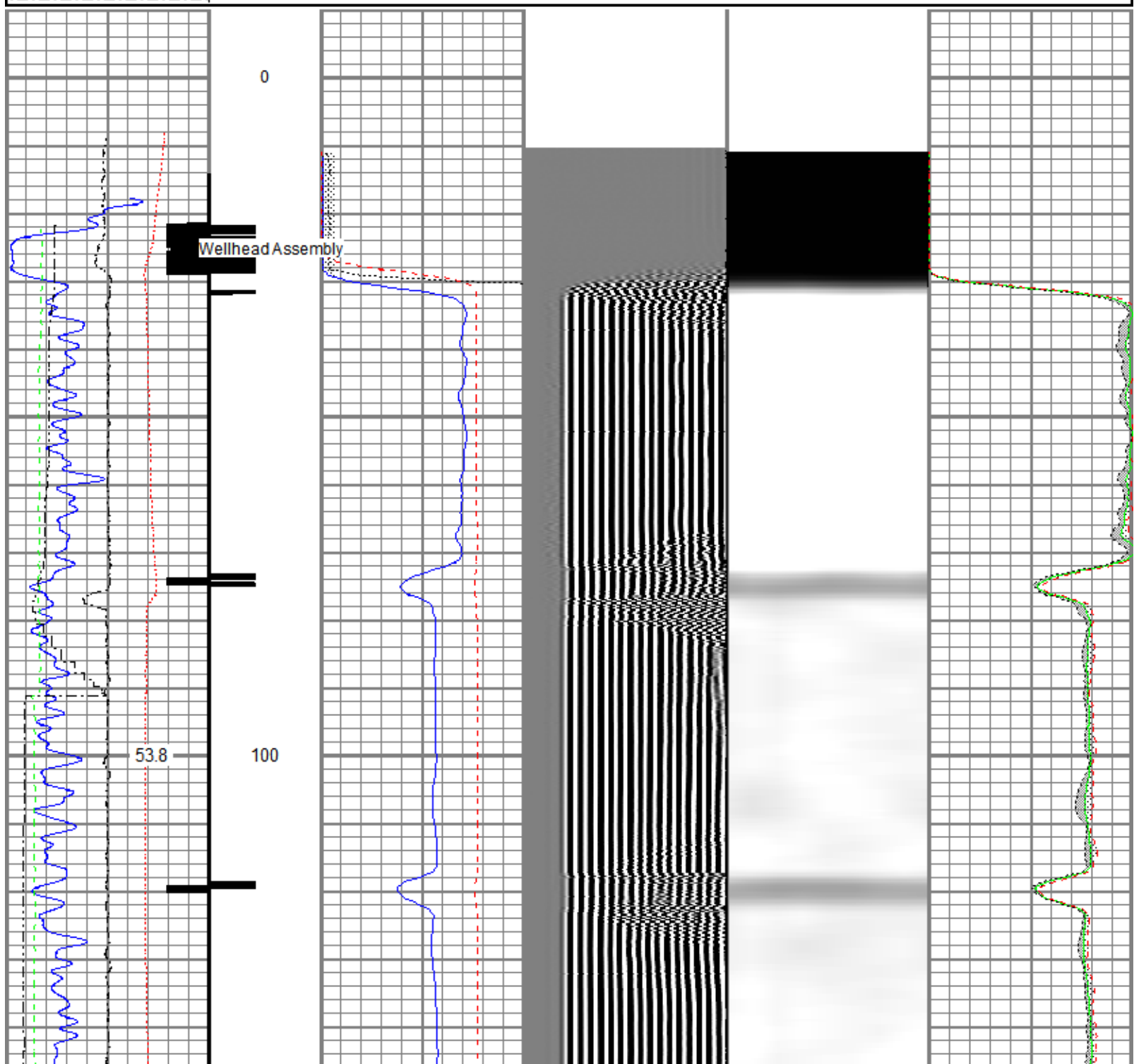
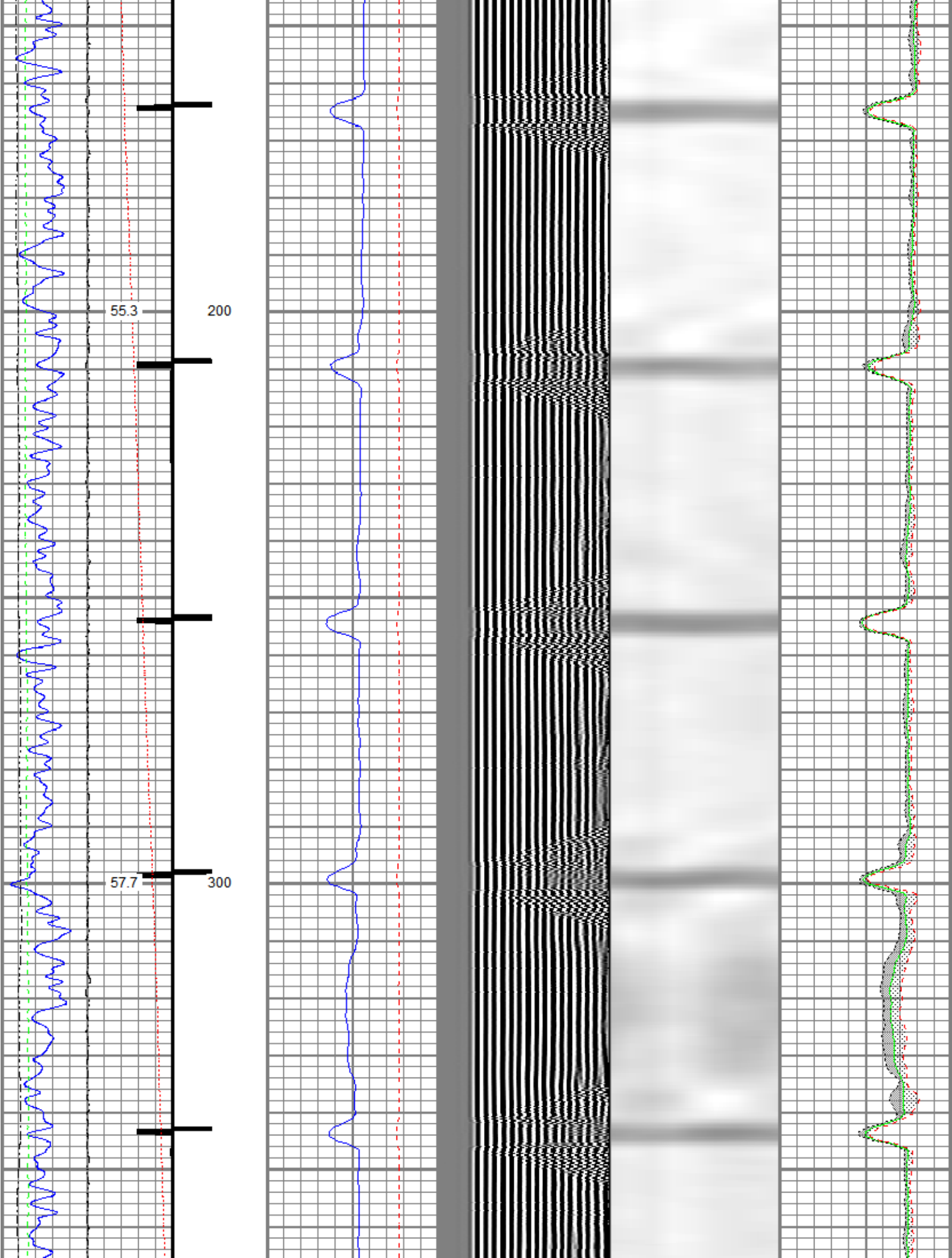


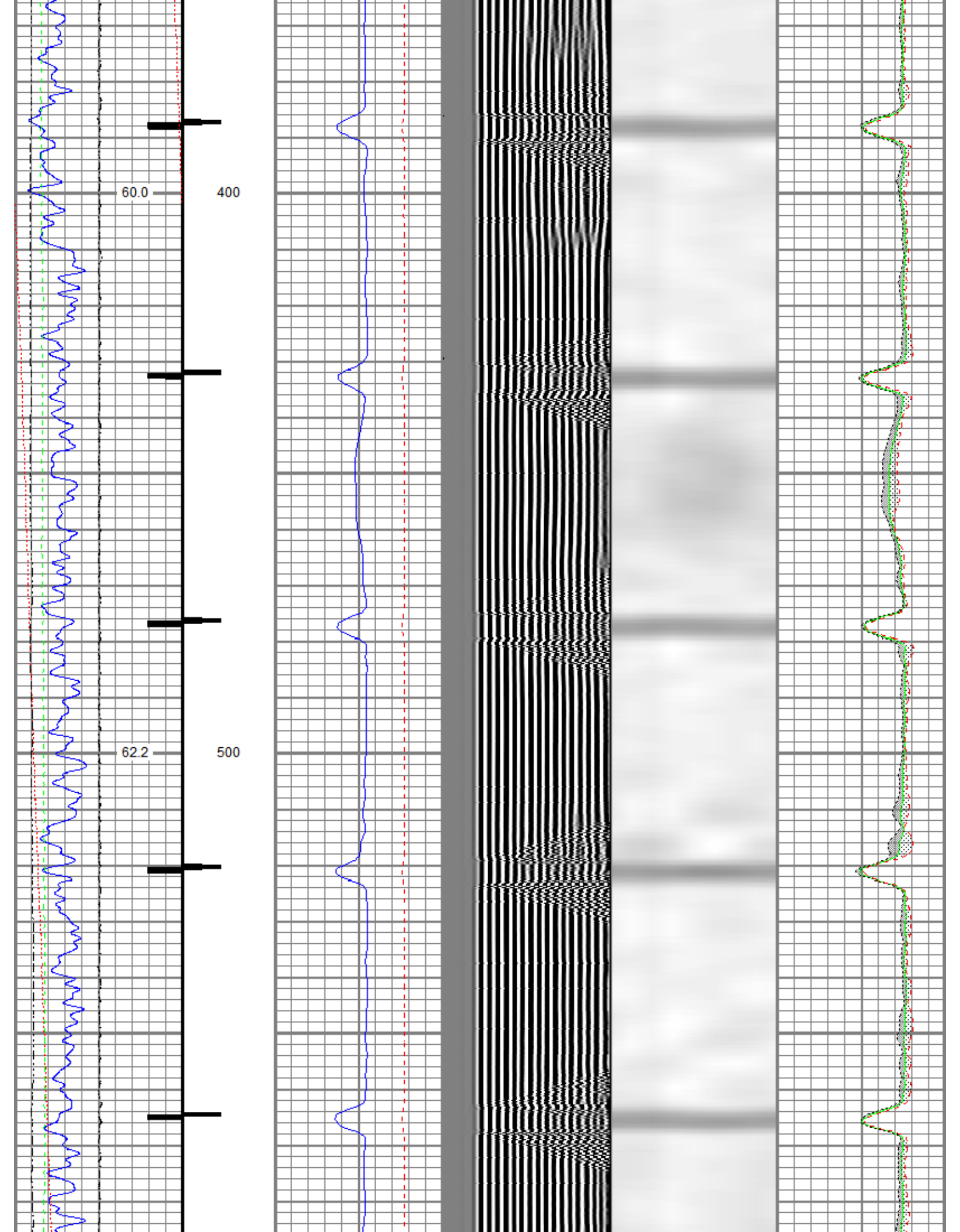
<<< Fold Here >>>
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible 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
<p>Log ran as per customer request Depth referenced to Casing Tally reported Marker Joint at 6380.8 FT Adjusted -3 FT to correlate with Marker Joint Log ran with 2500 PSI Surface Induced Pressure Logging tools were clean and free of debris upon completion of operations</p> <p>Thank you for choosing Reliance Oilfield Services, LLC!!</p>

Database File	noble\noble_guttersen d34-769_rbl_05-13-20\processed_noble_guttersen d34-769_rbl_05-13-20.db
Dataset Pathname	pass4.2
Presentation Format	ros_radri_noble
Dataset Creation	Wed May 13 11:27:31 2020
Charted by	Depth in Feet scaled 1:240

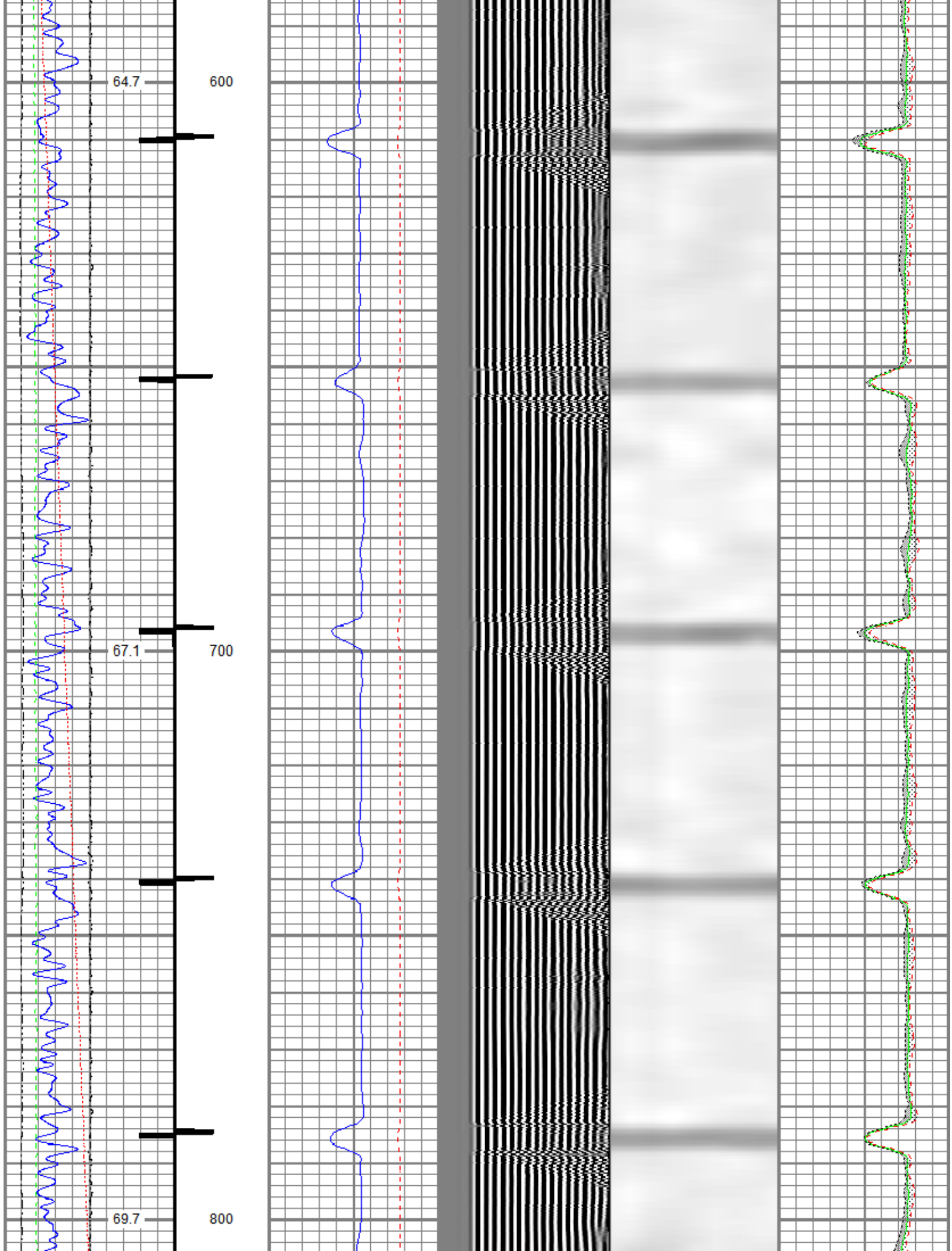
Gamma Ray	0	3' Amplitude (mV) 100	5' Variable Density Log	Sector Map	0	Average Amplitude 100
(GAPI) 120		3' Amplitude x 5	200 (usec) 1200			Minimum Amplitude
Casing Collar Locator	0	(mV) 20			0	100
Temperature (degF) 20		3' Travel Time				Maximum Amplitude
Line Speed	650	(usec) 150			0	100
(ft/min) 150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

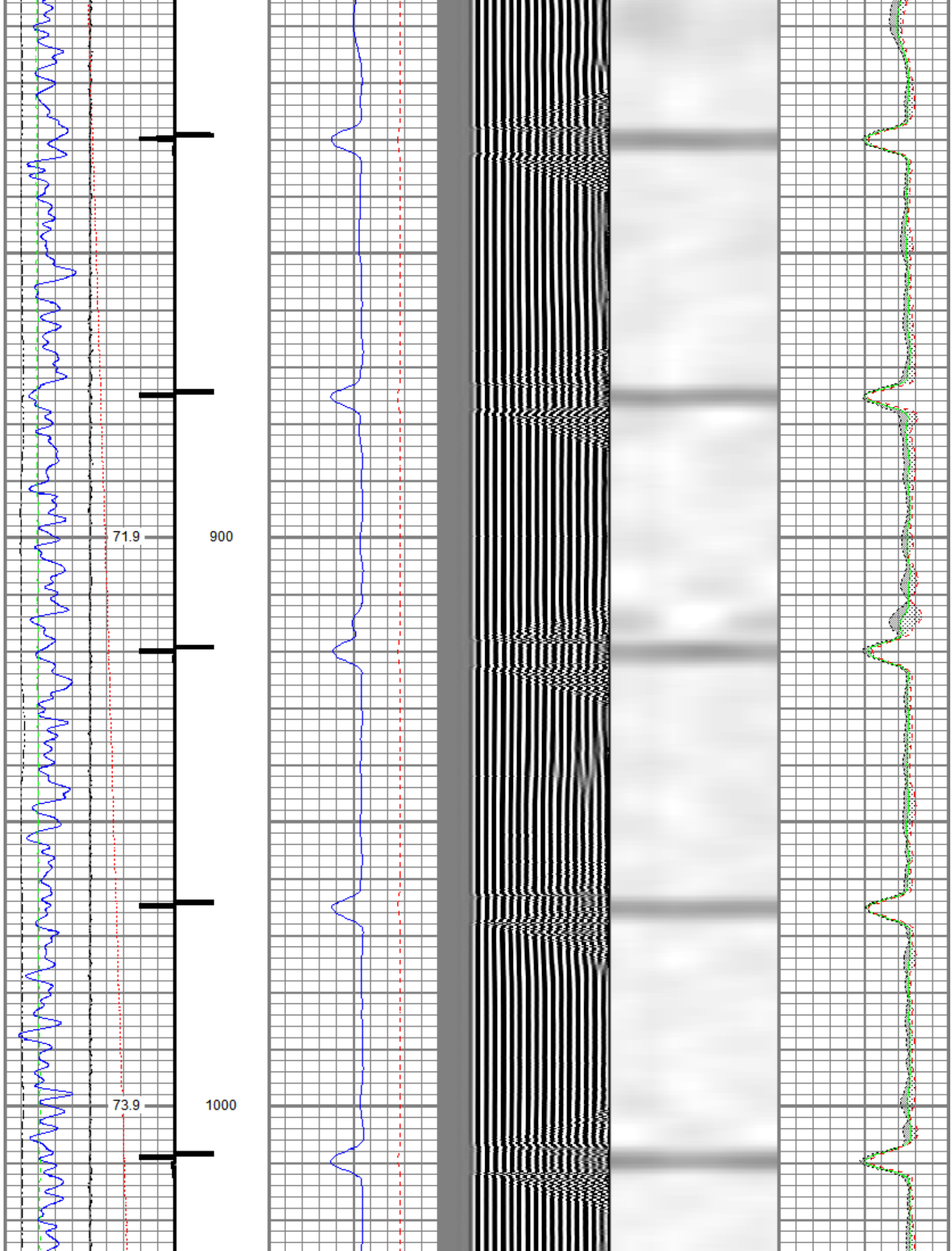


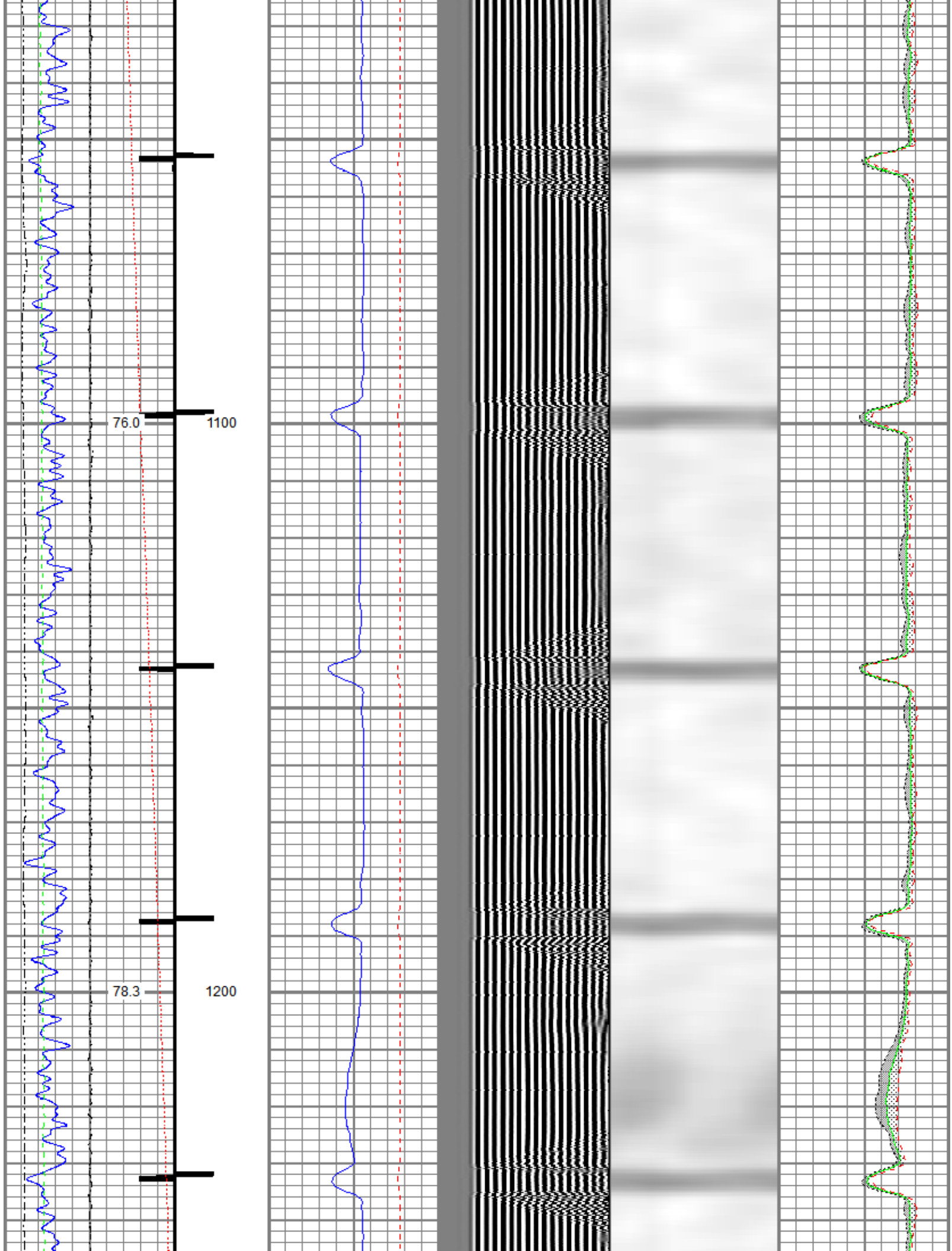


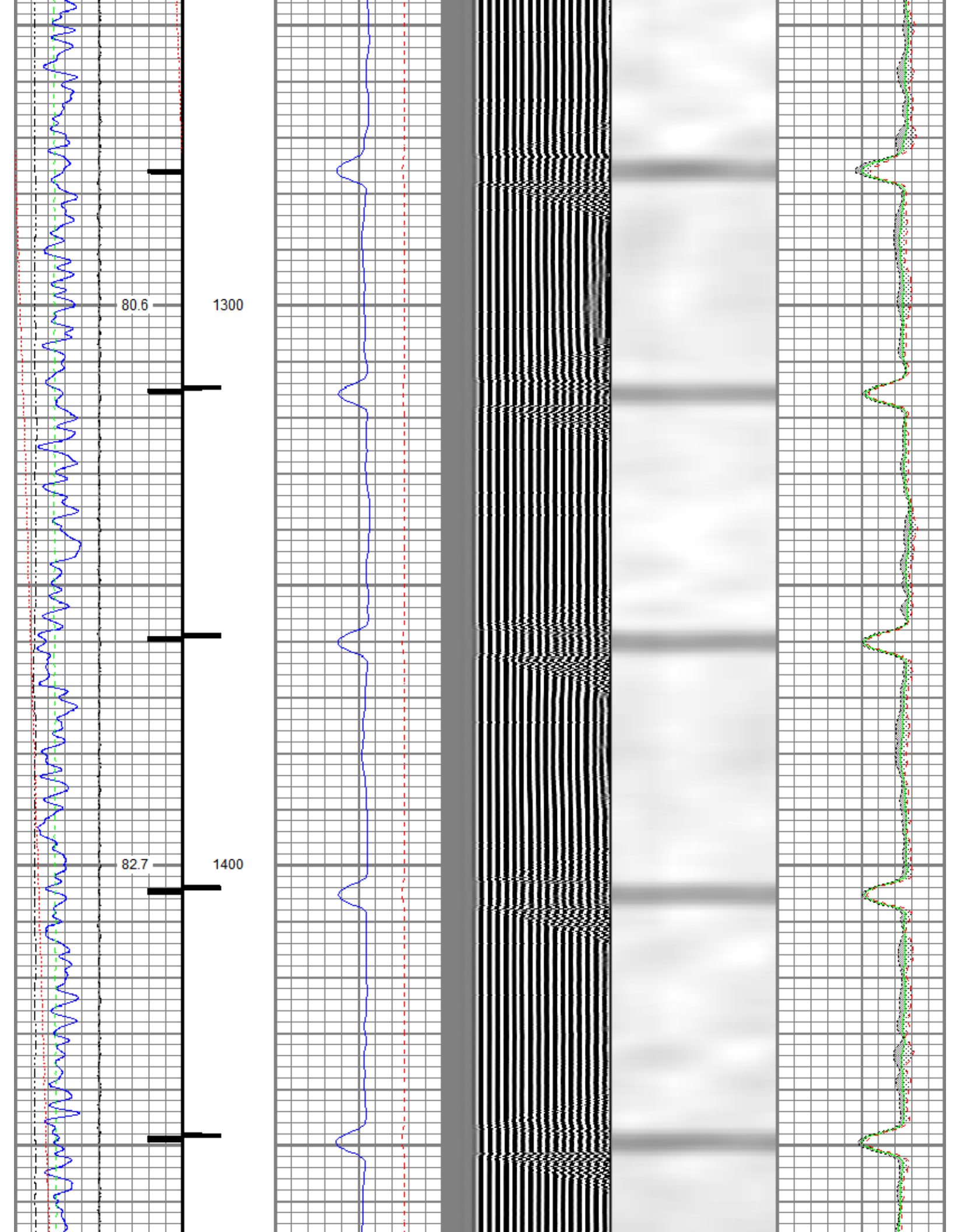




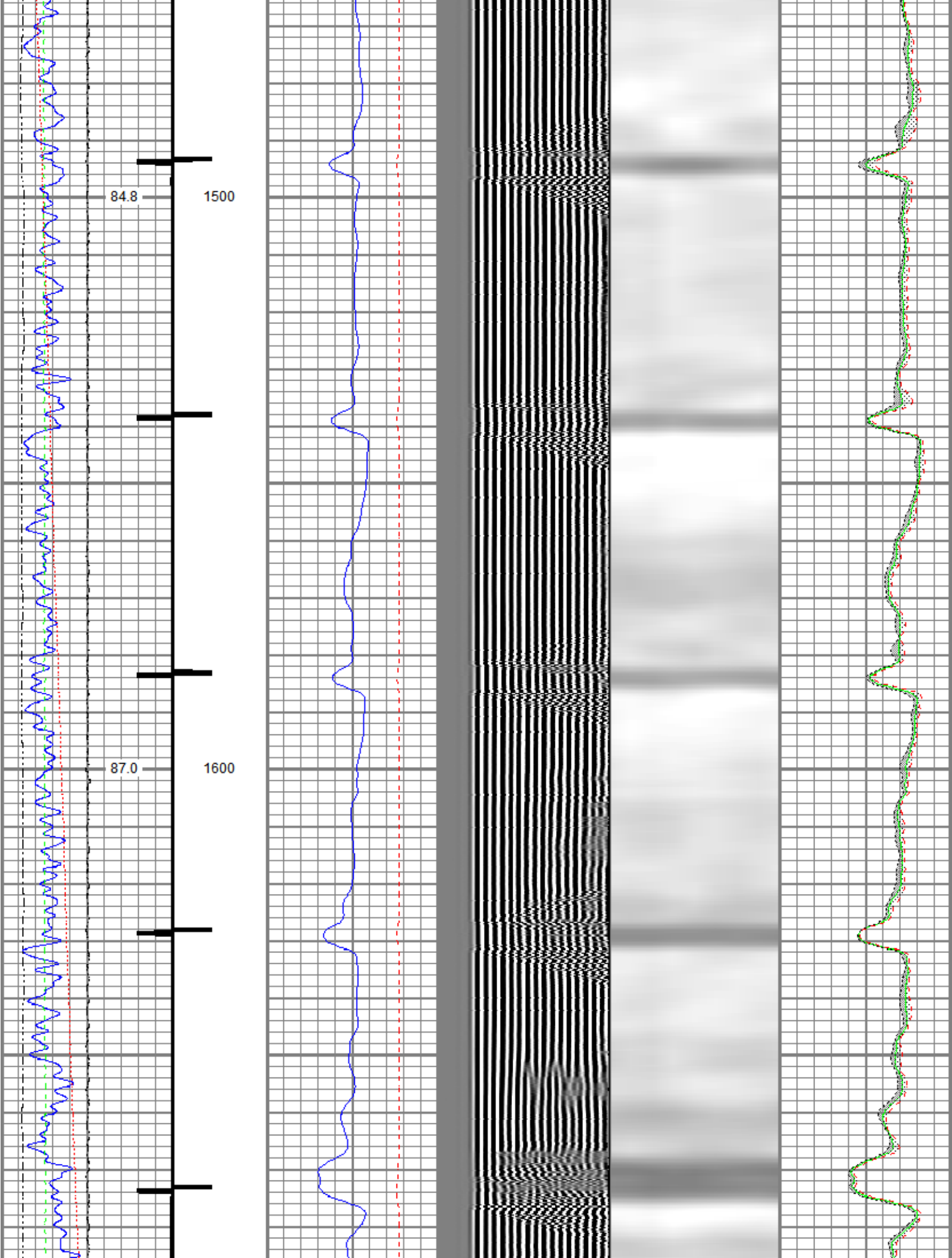


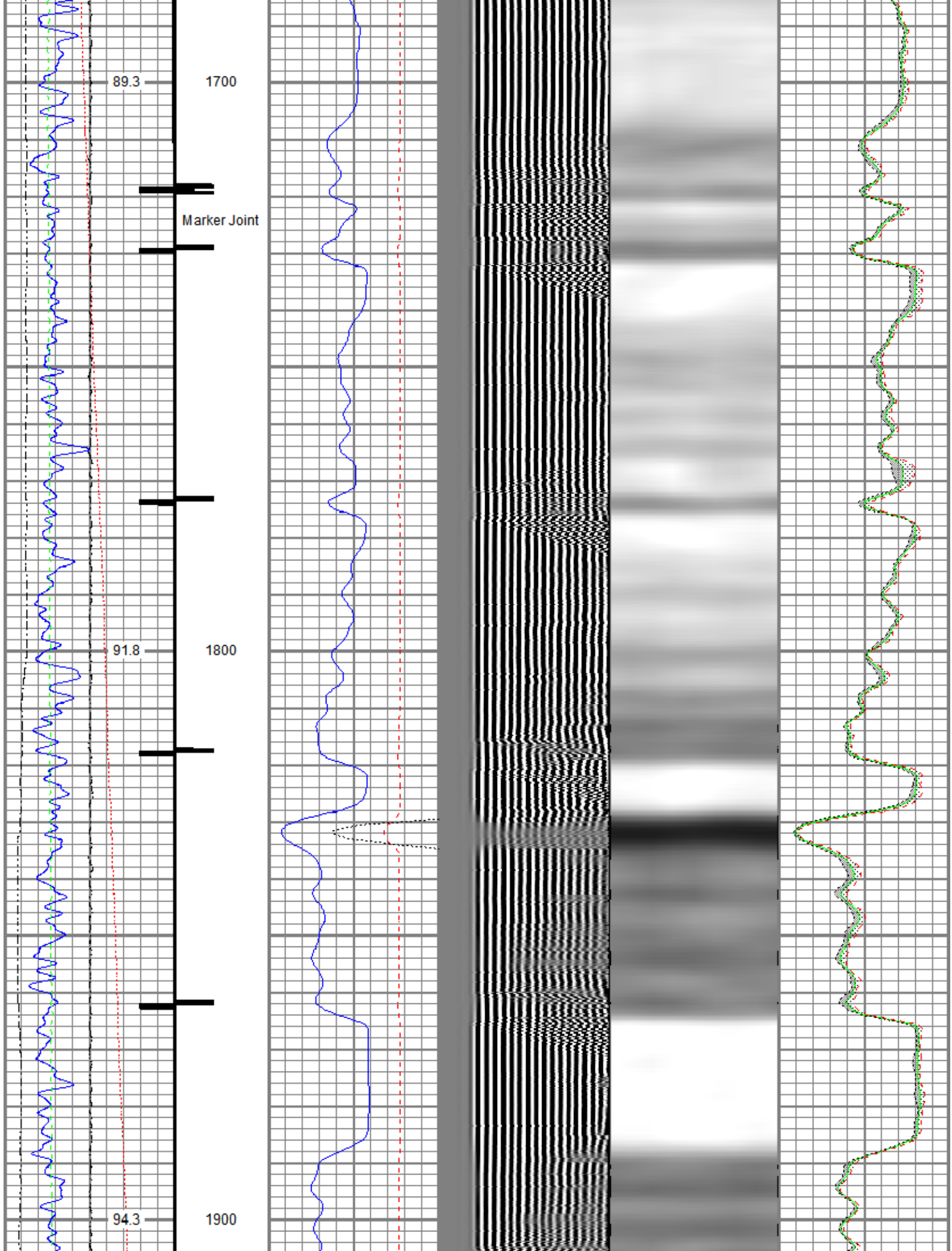


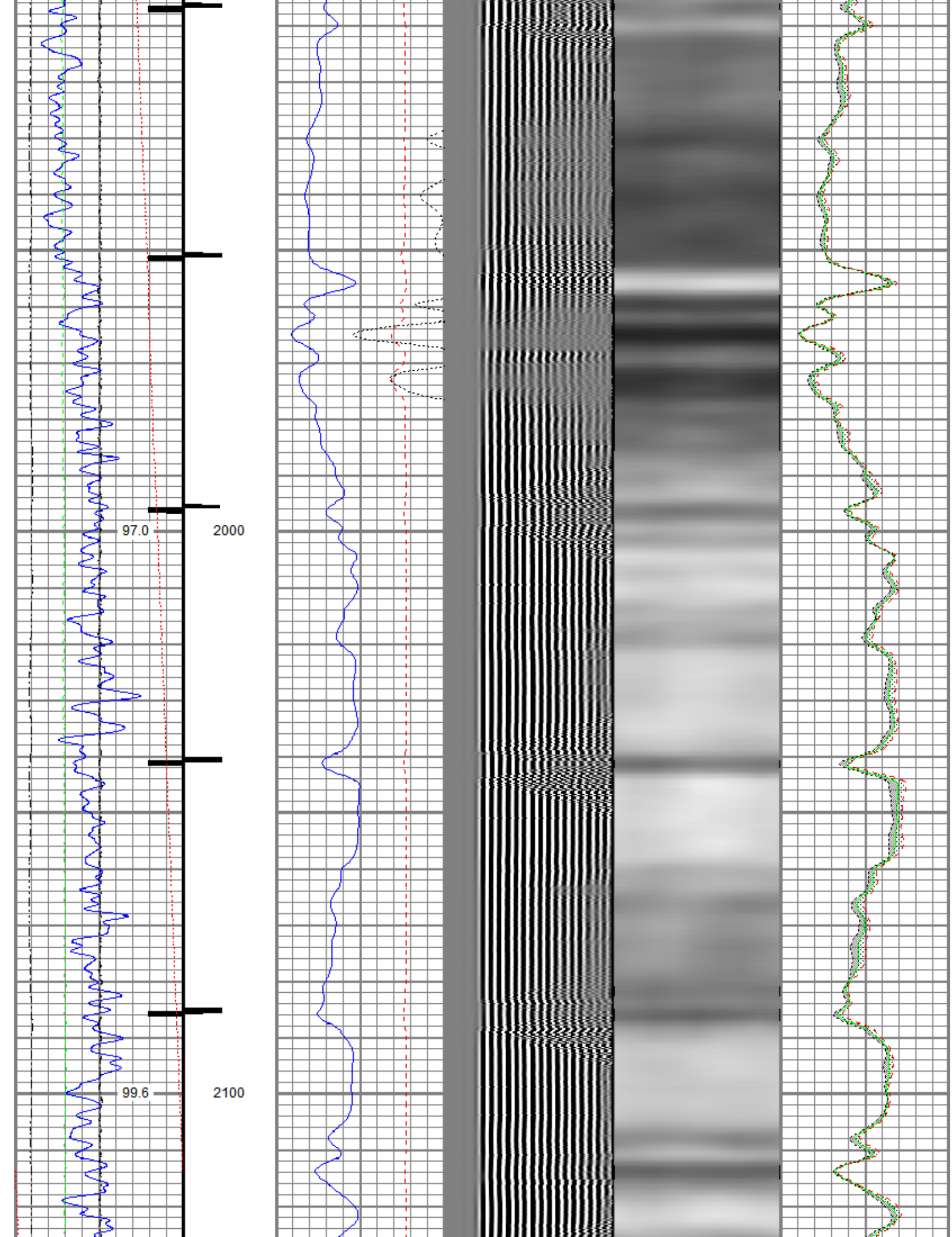




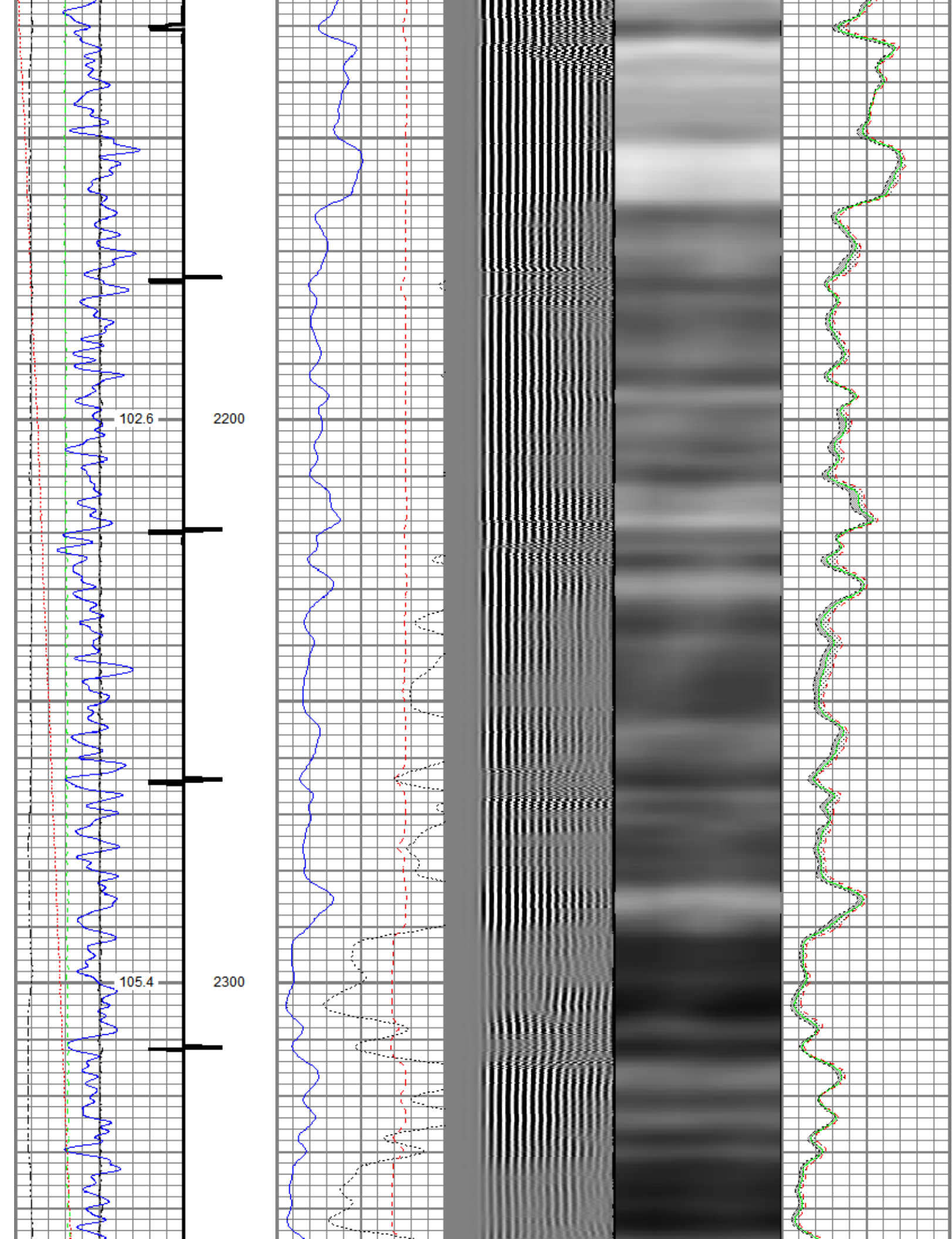




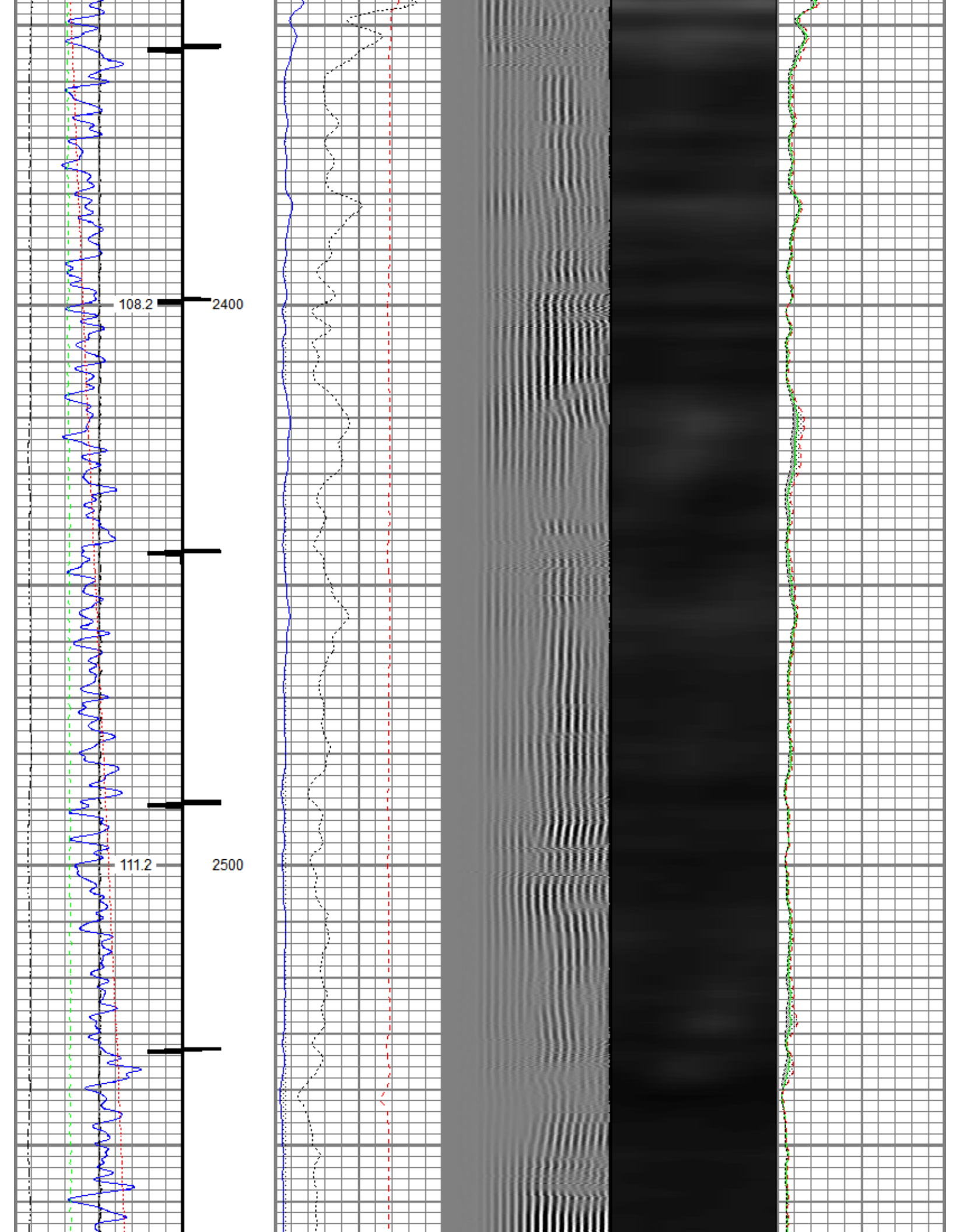


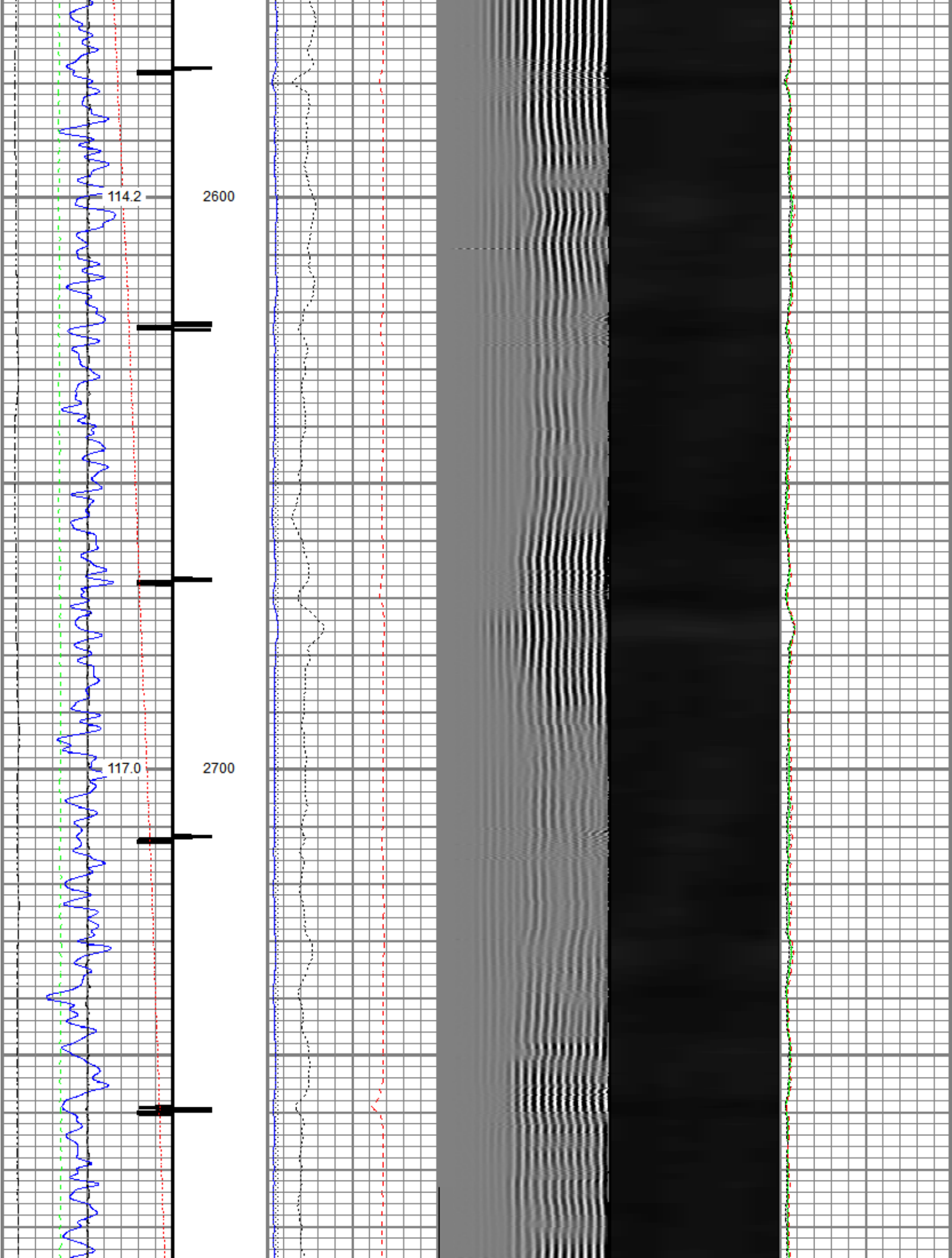


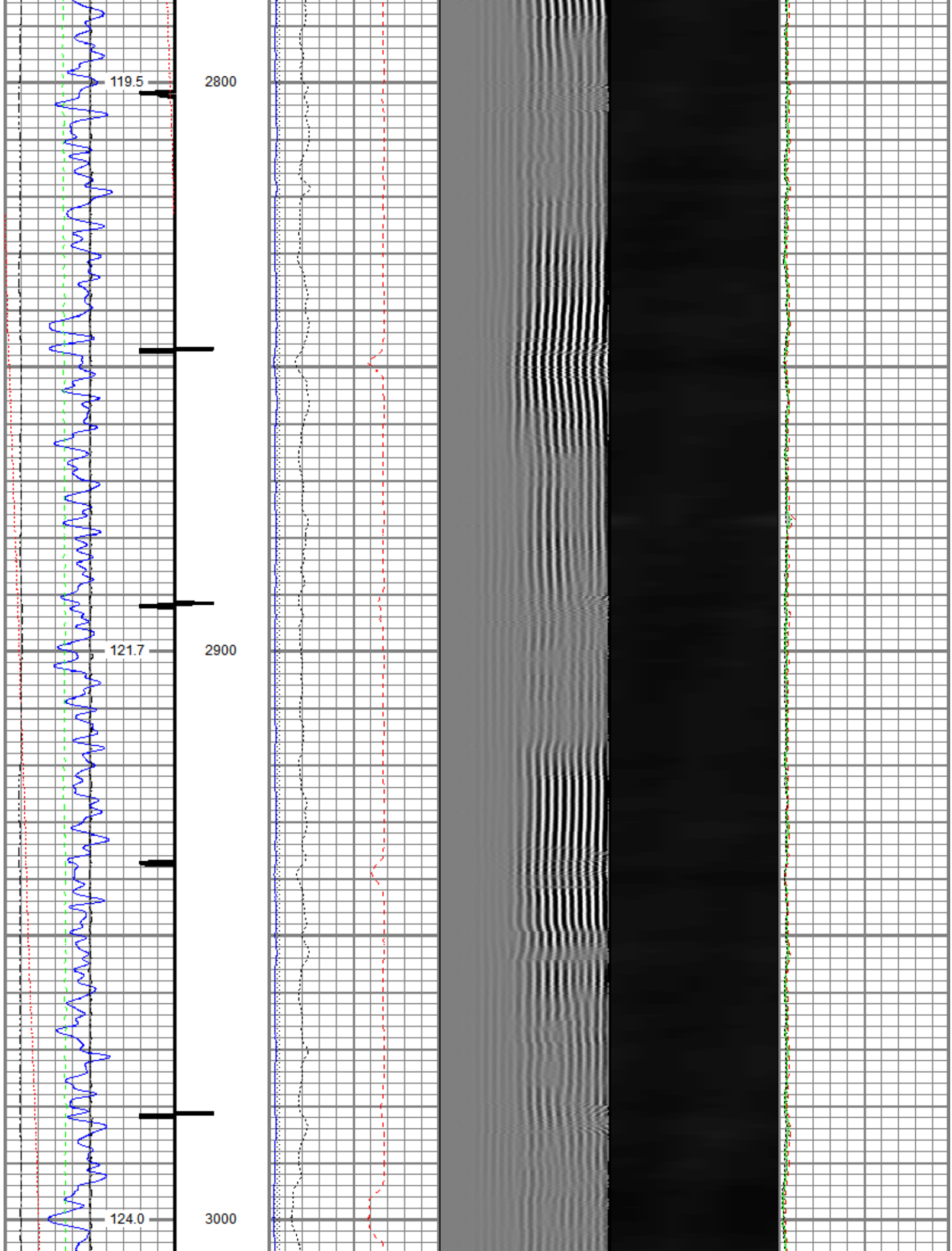


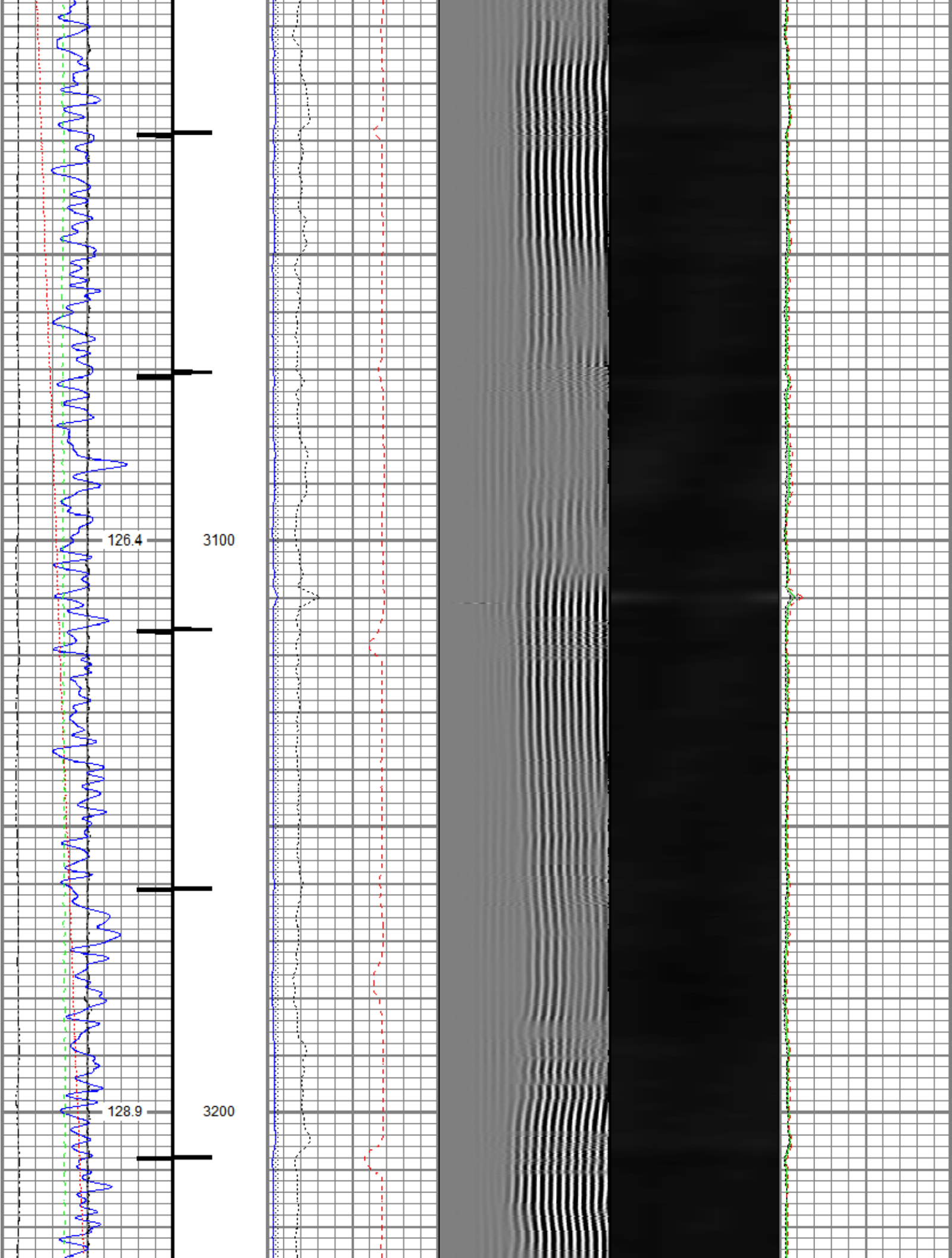




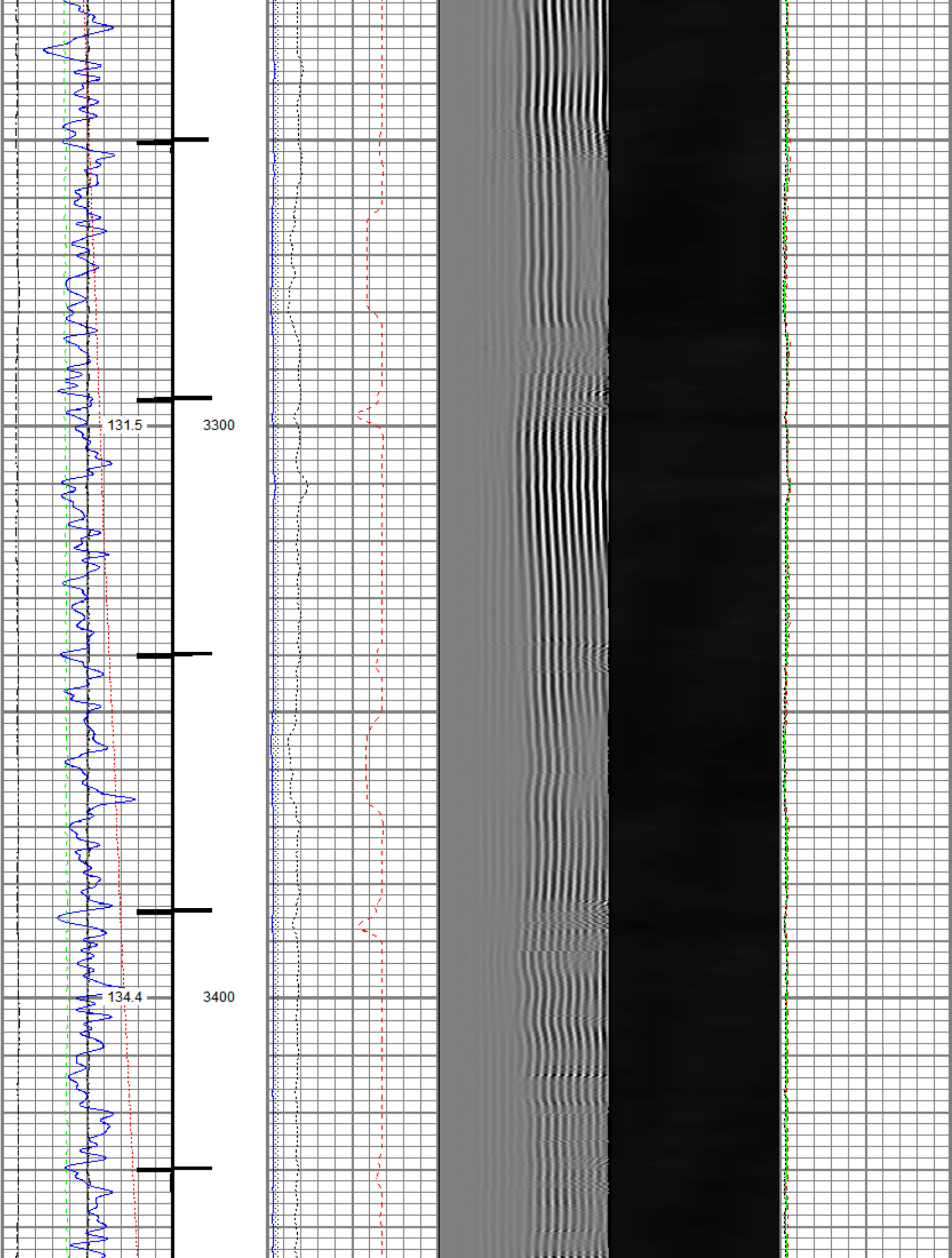


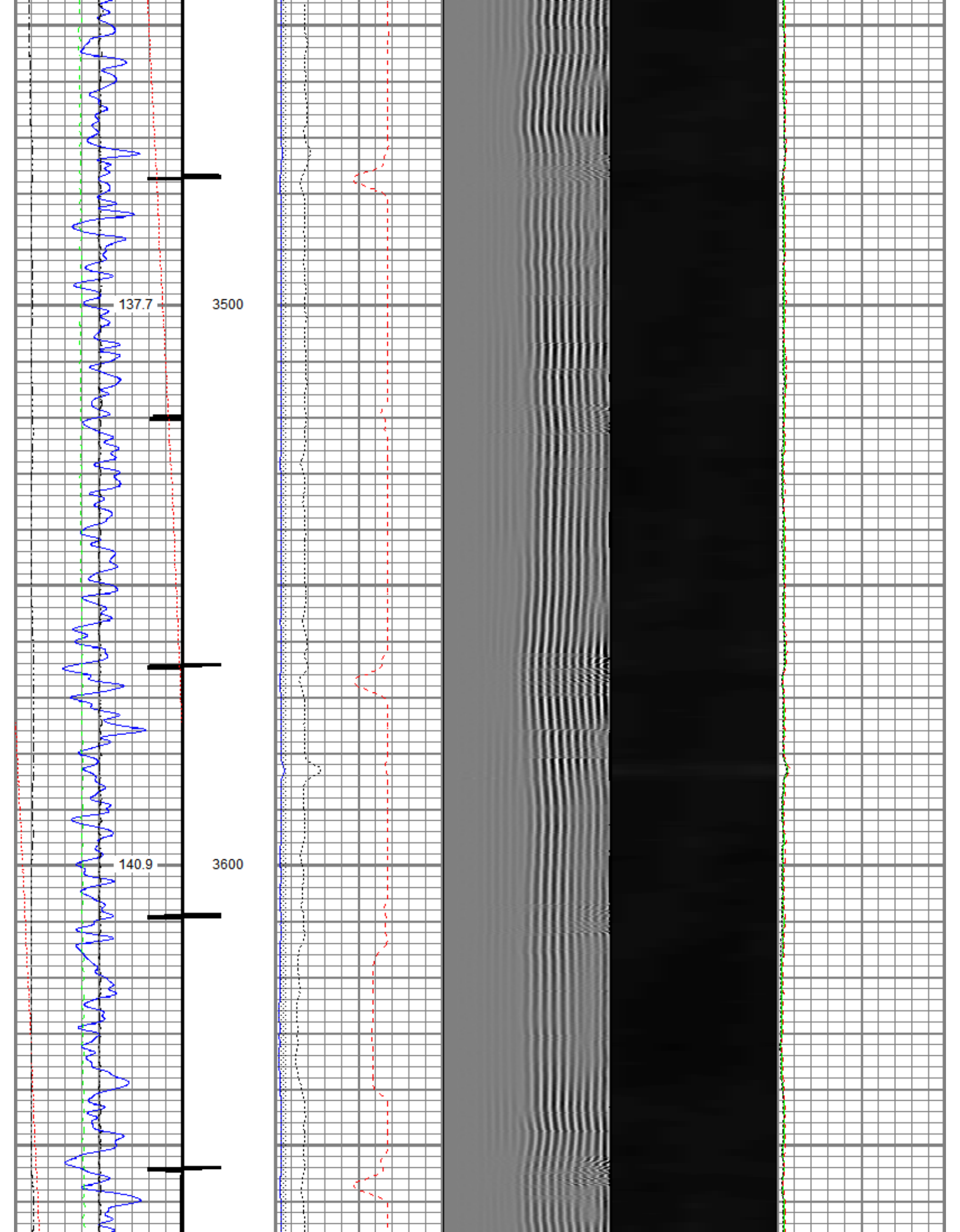


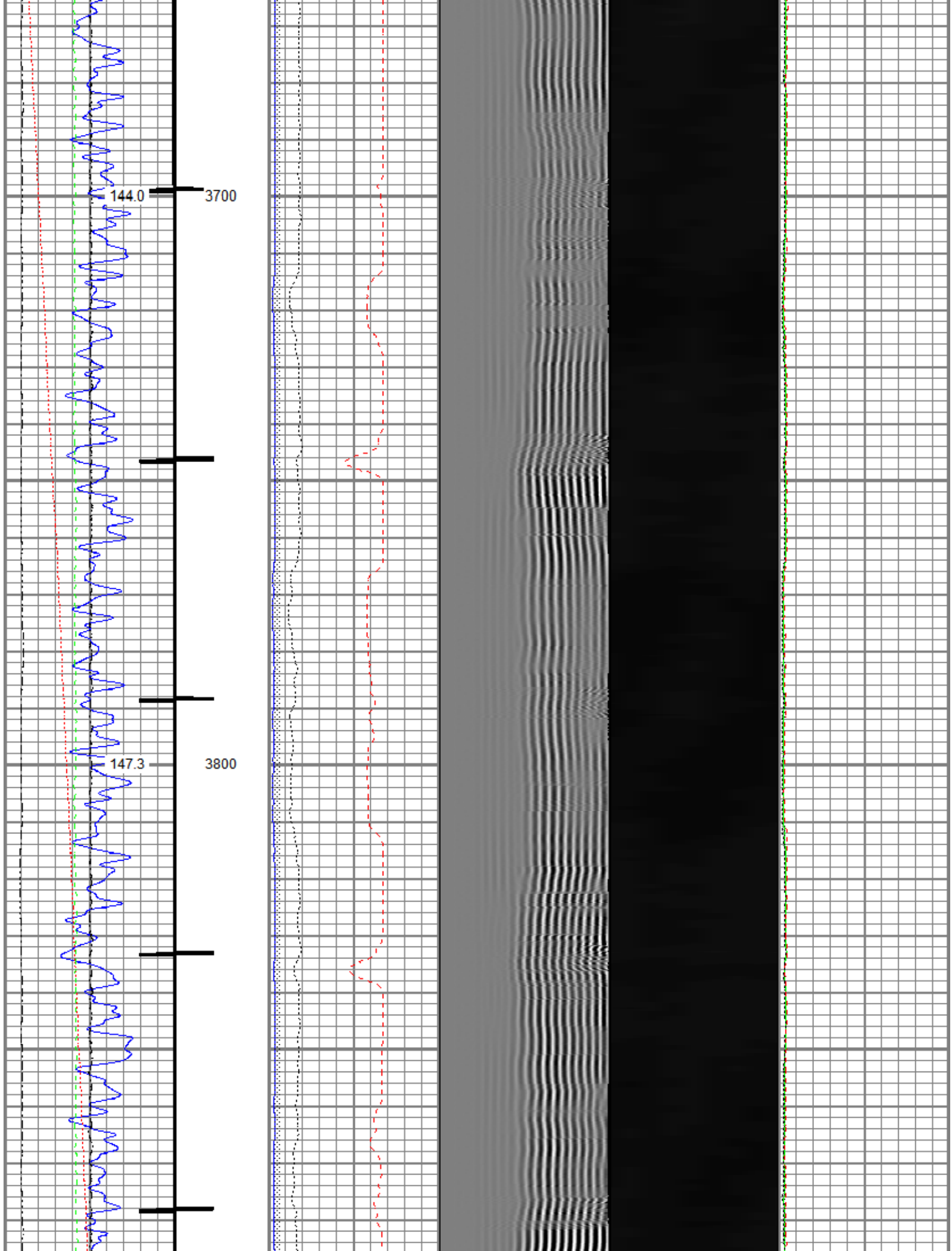


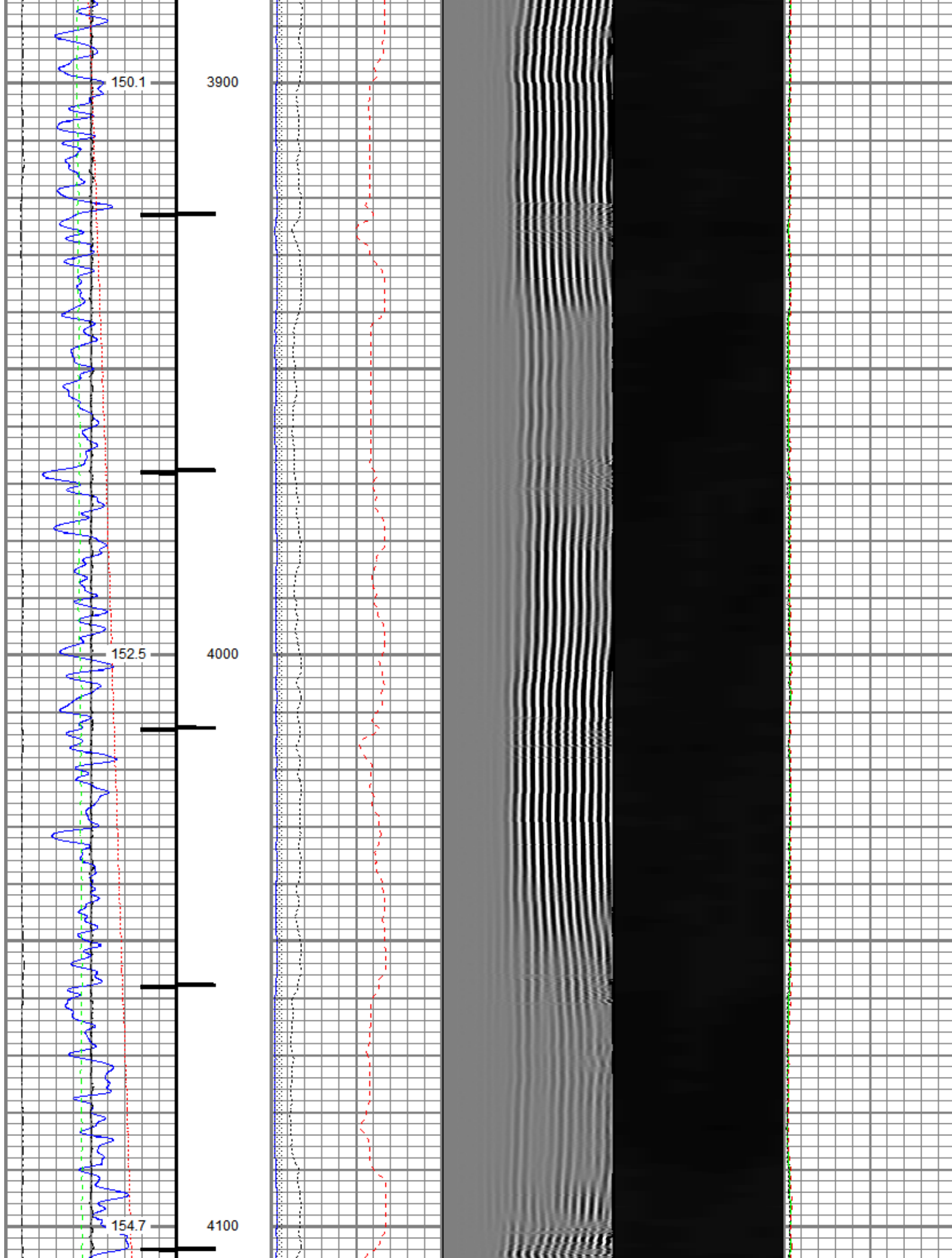




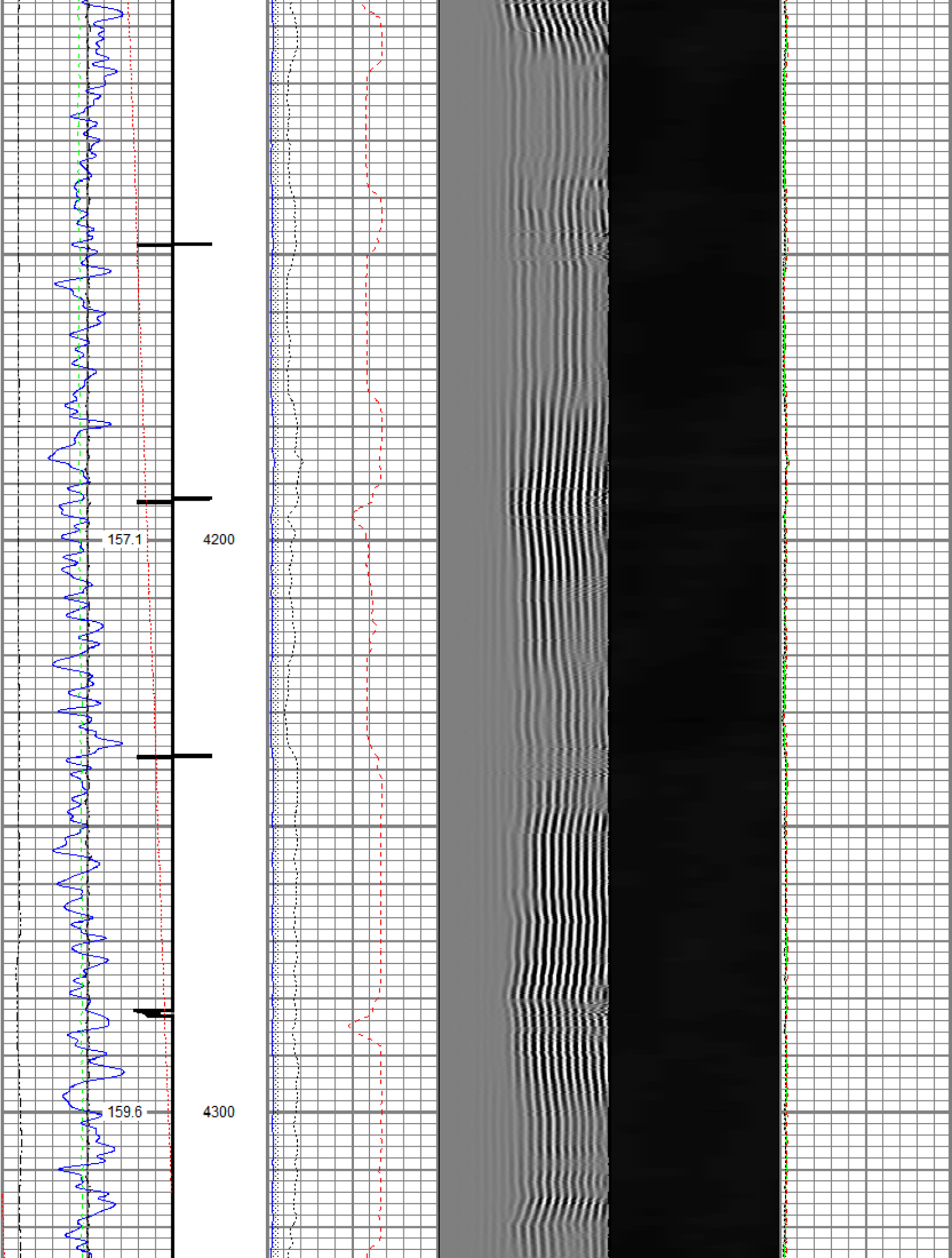


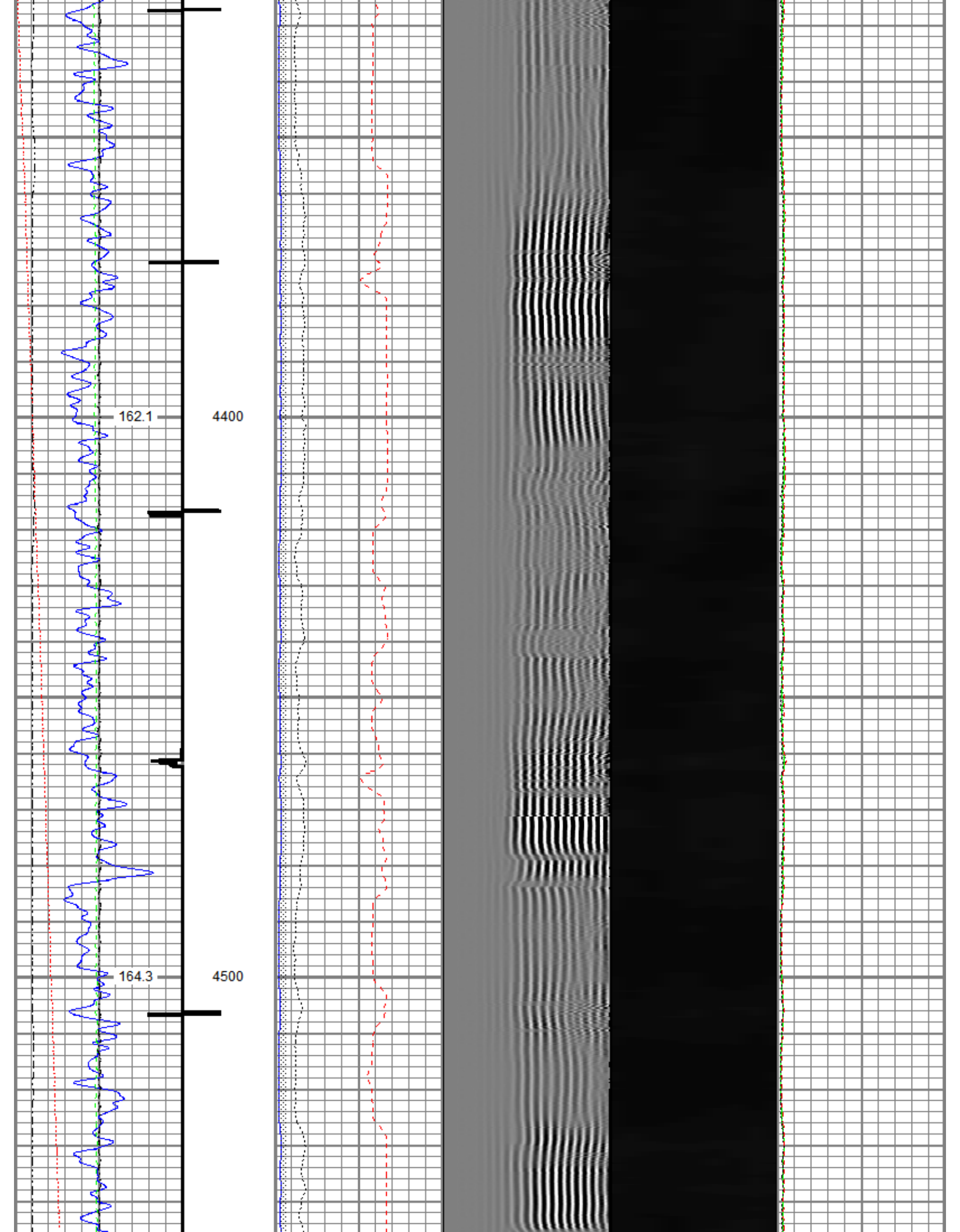


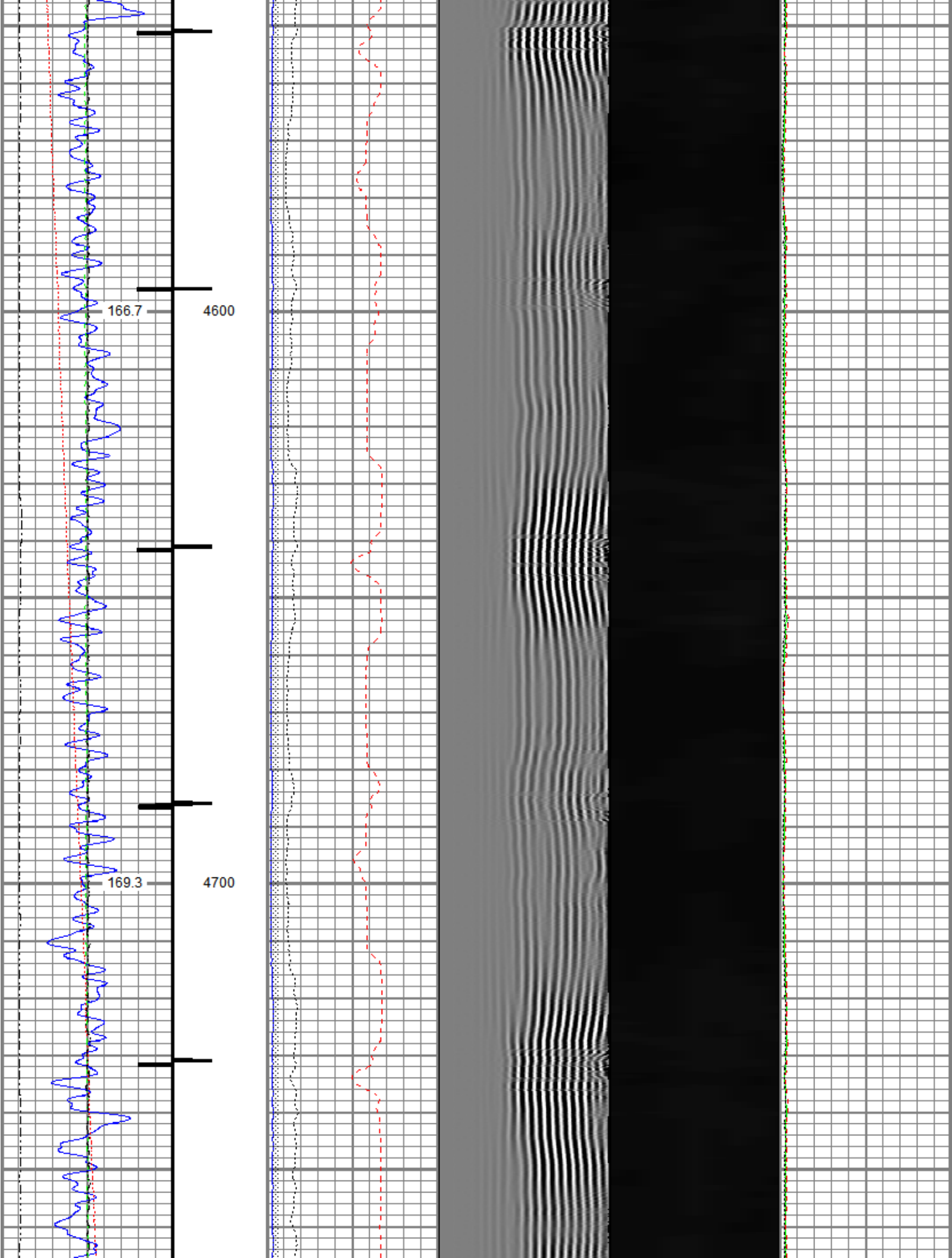


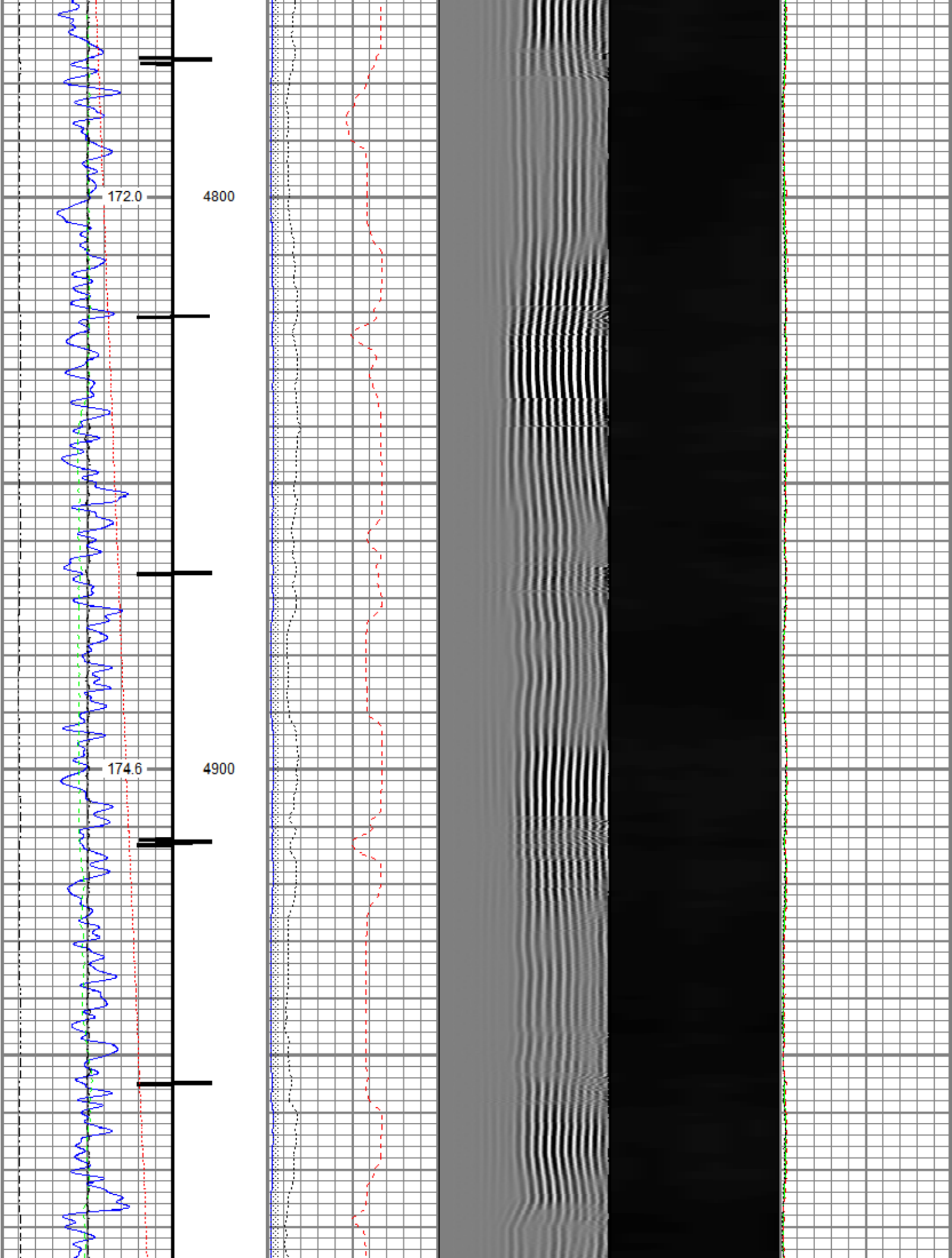




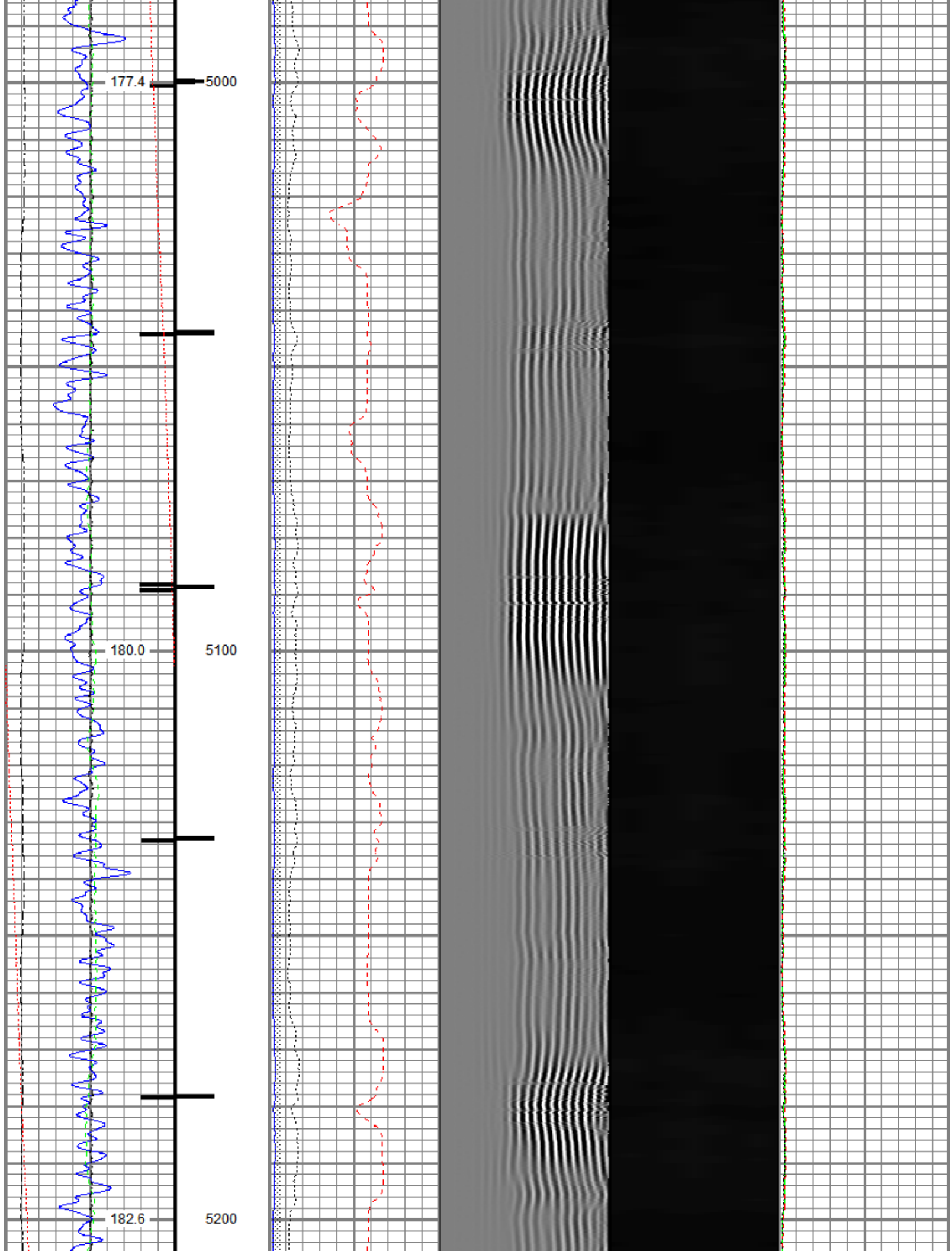


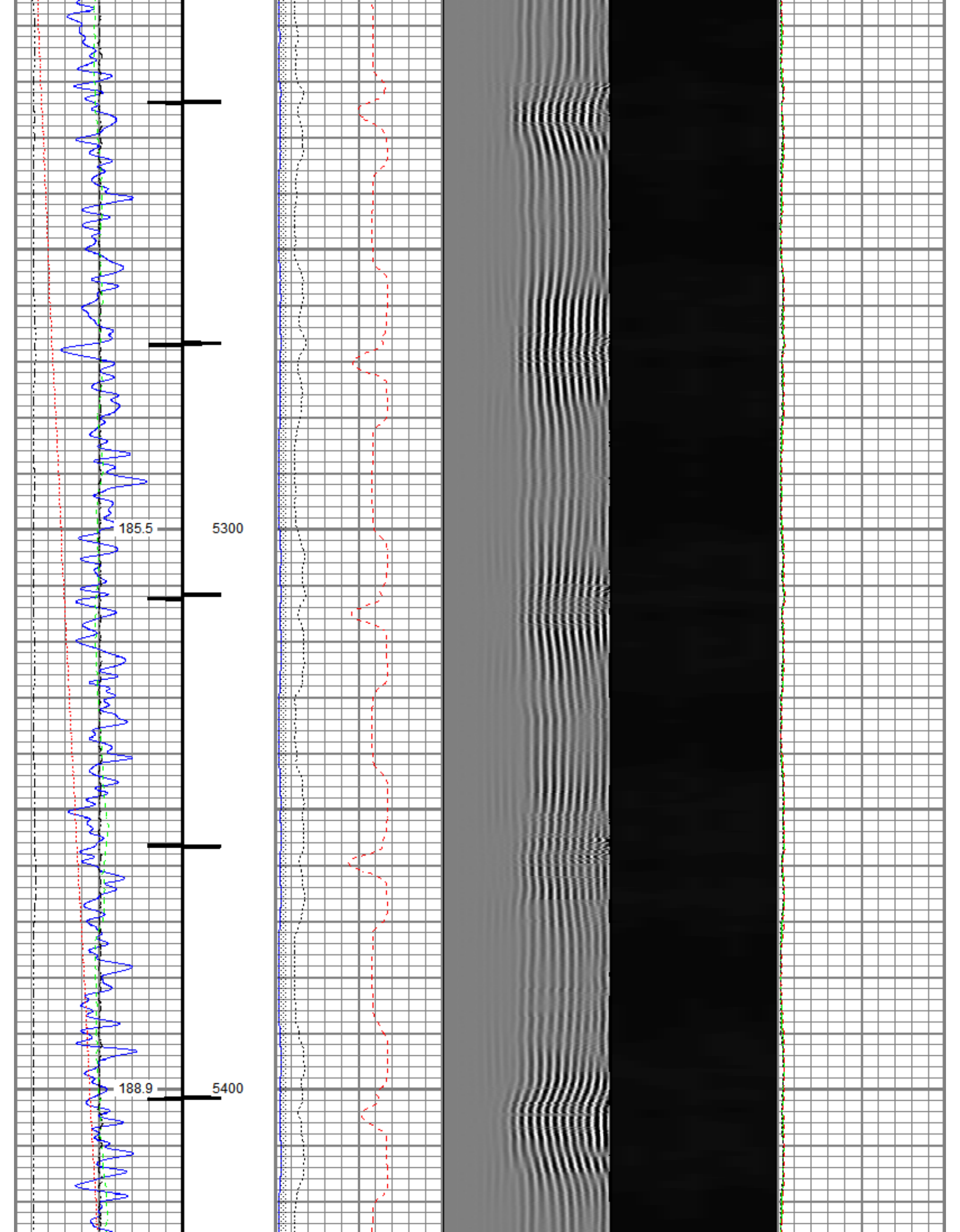


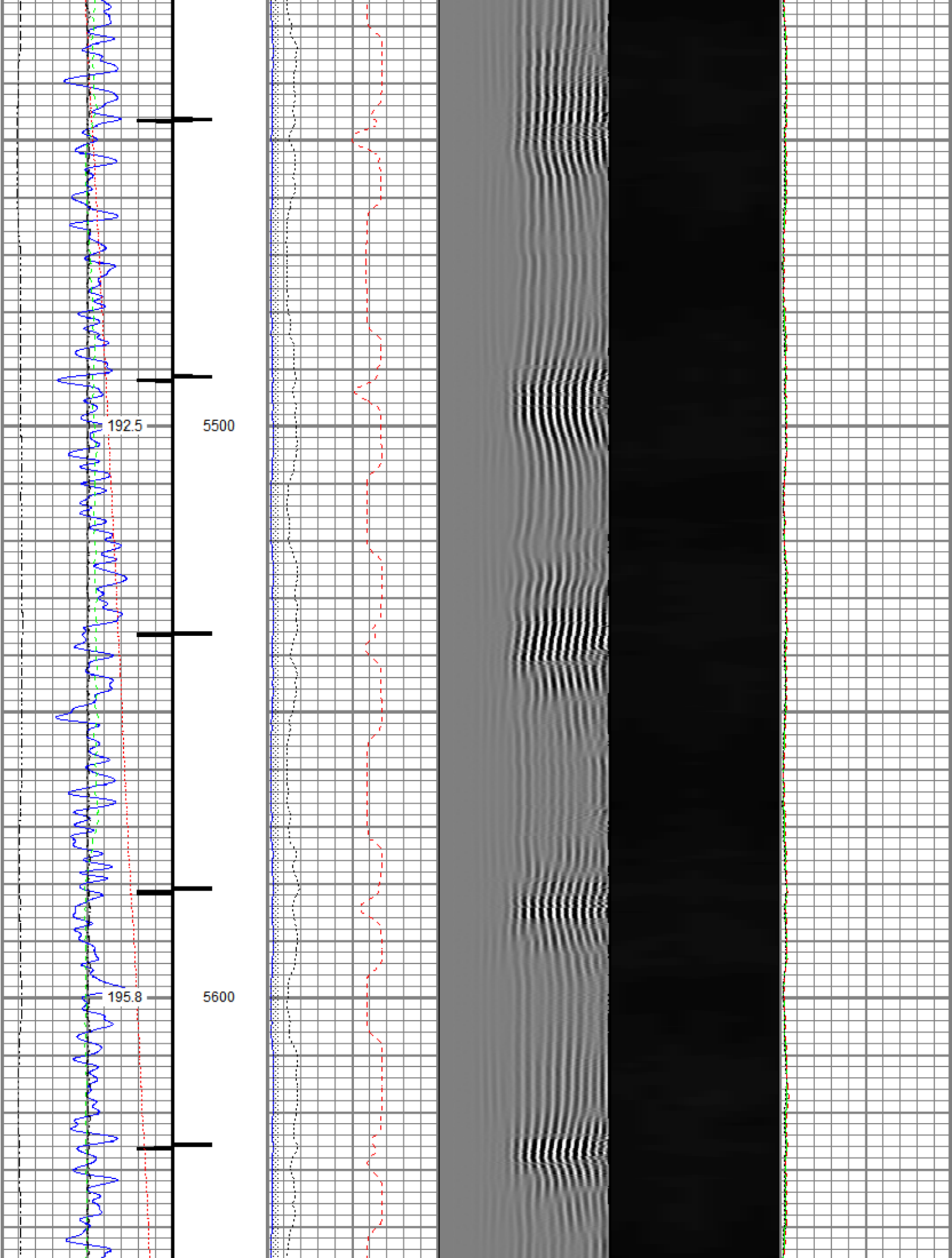


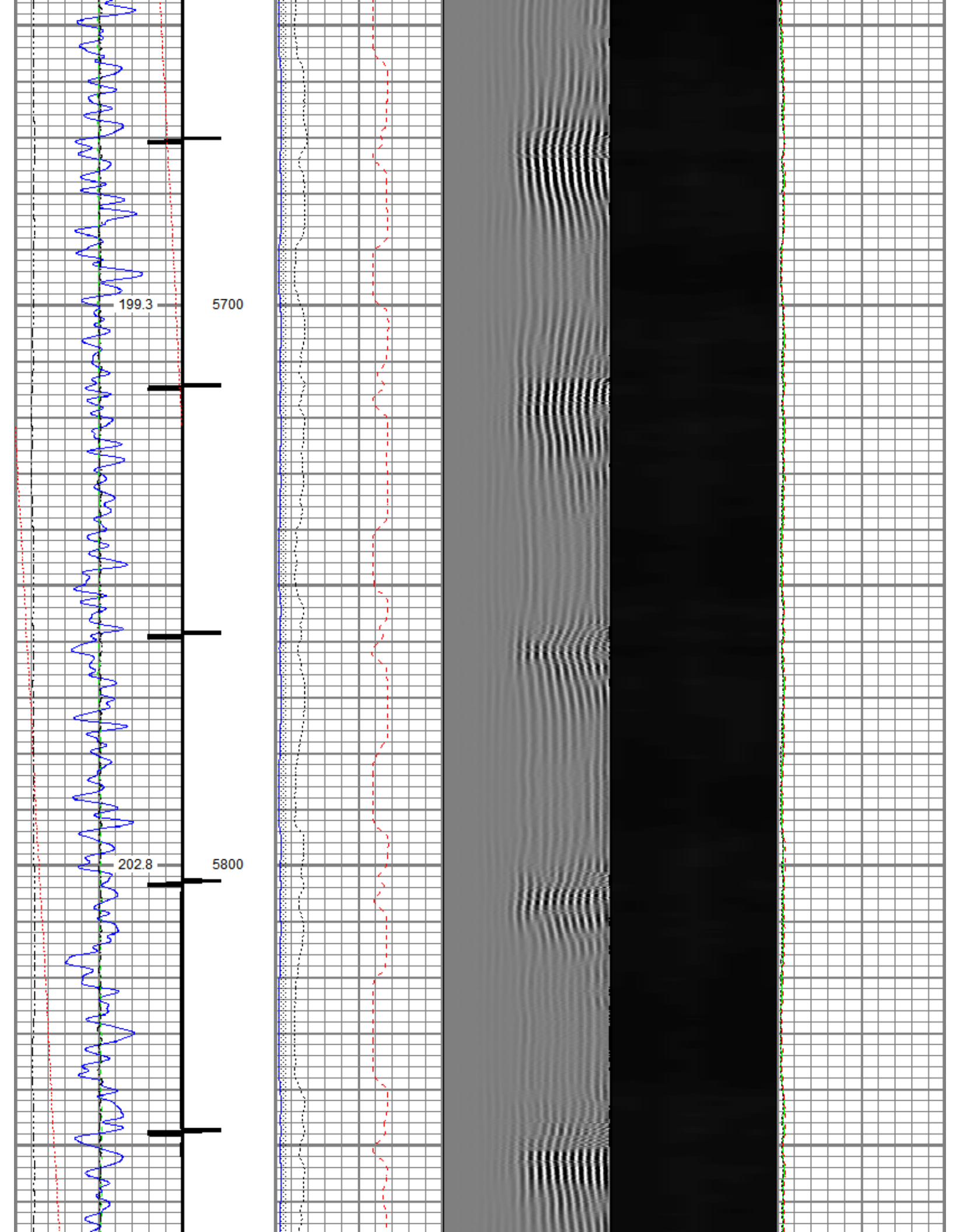




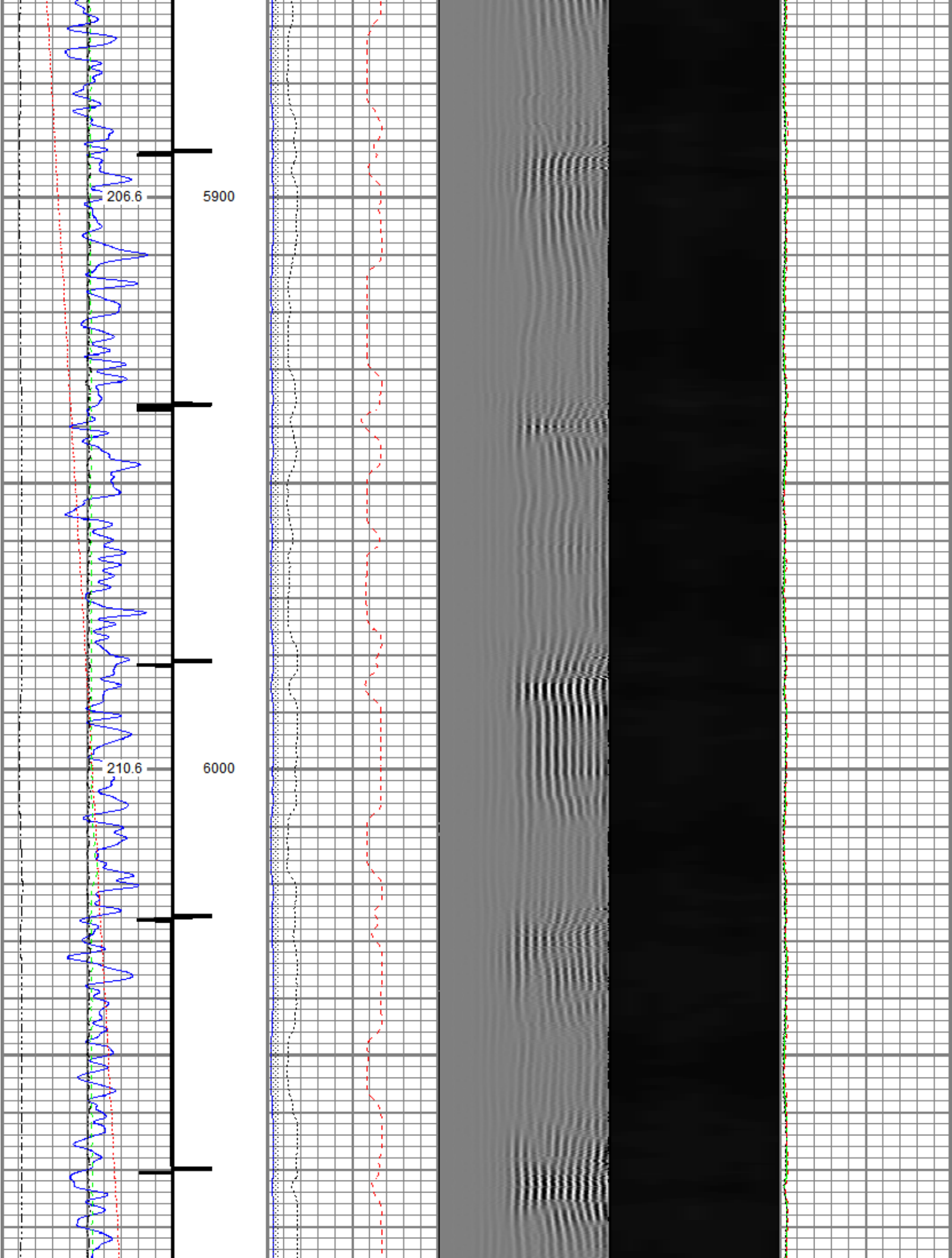


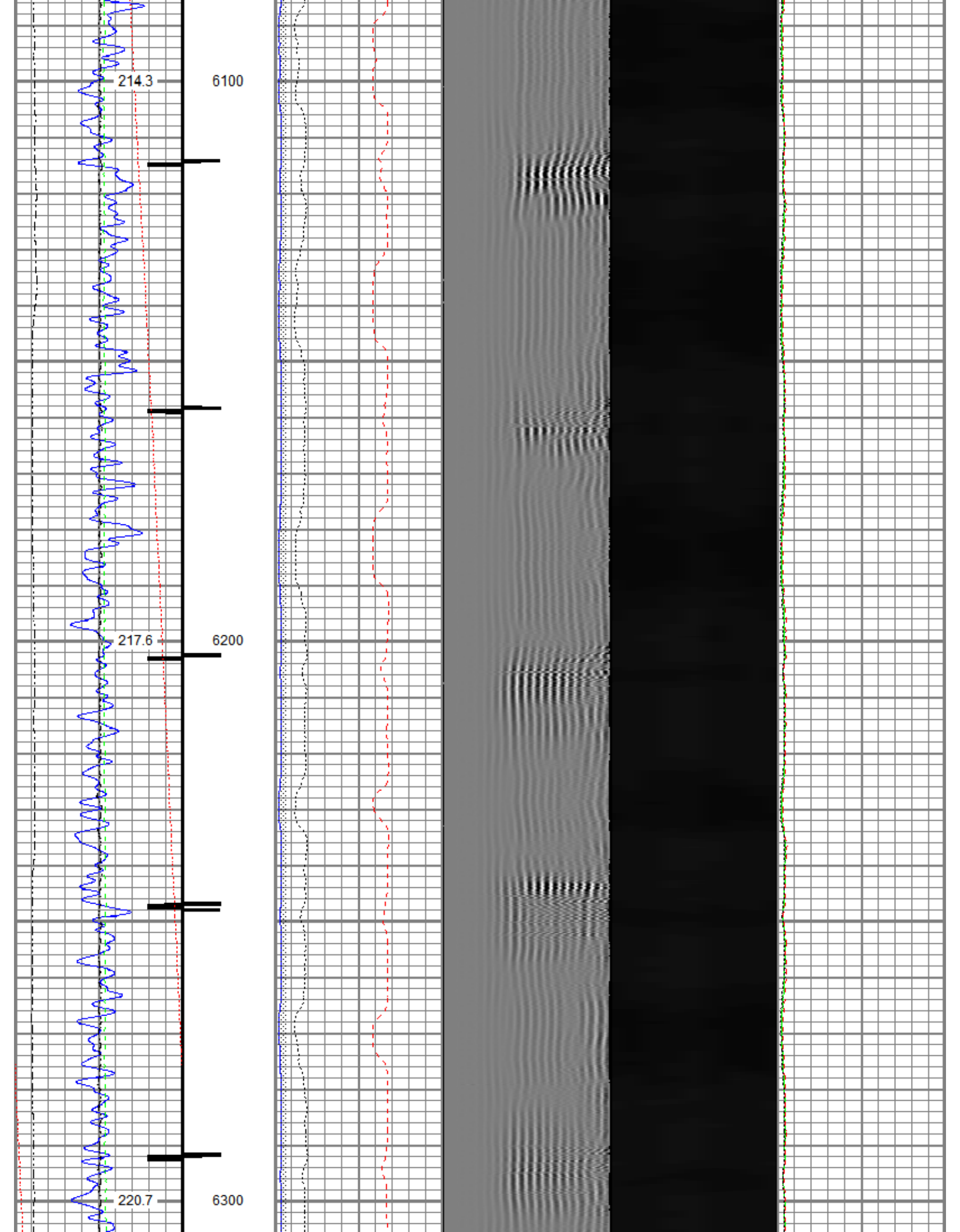


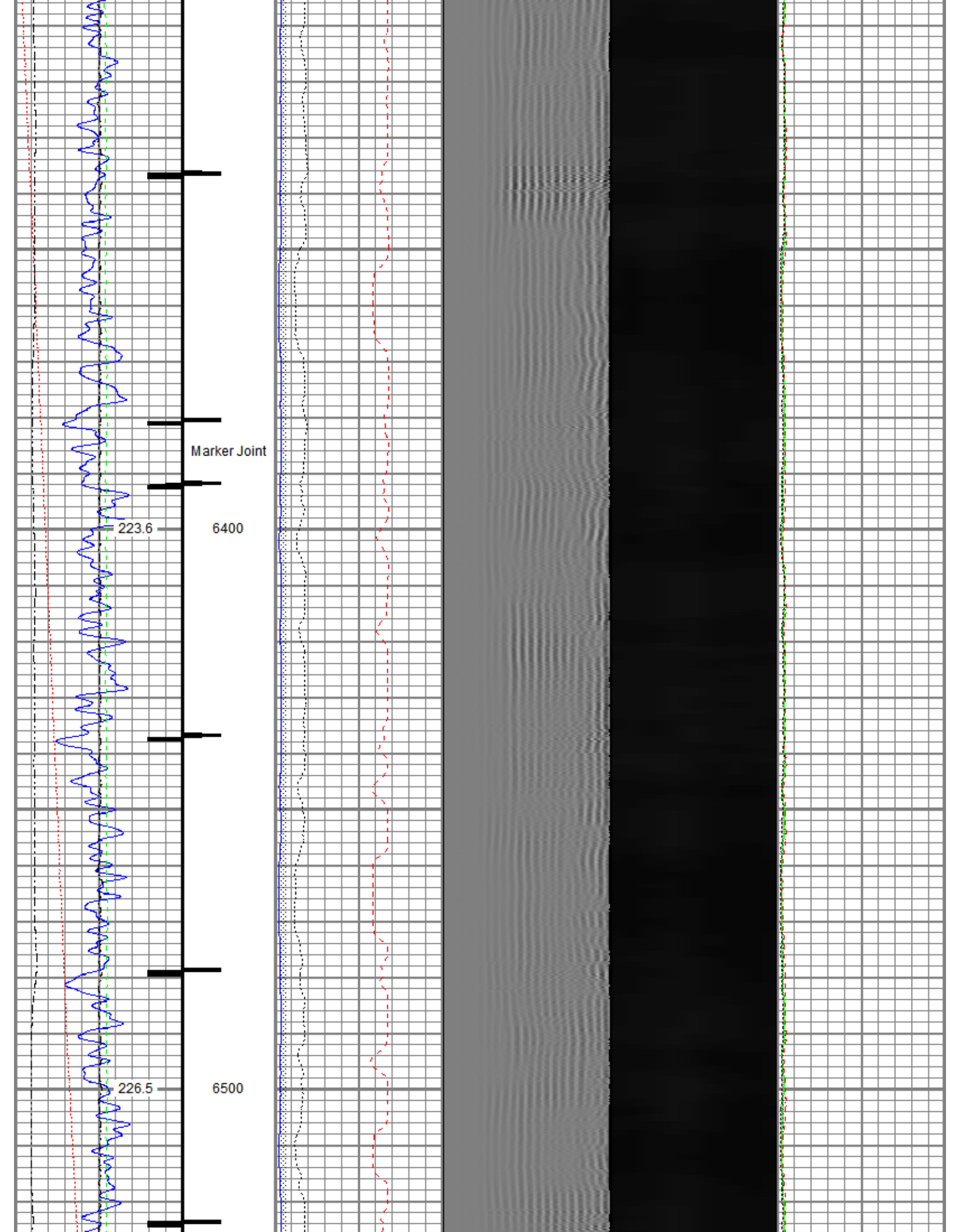


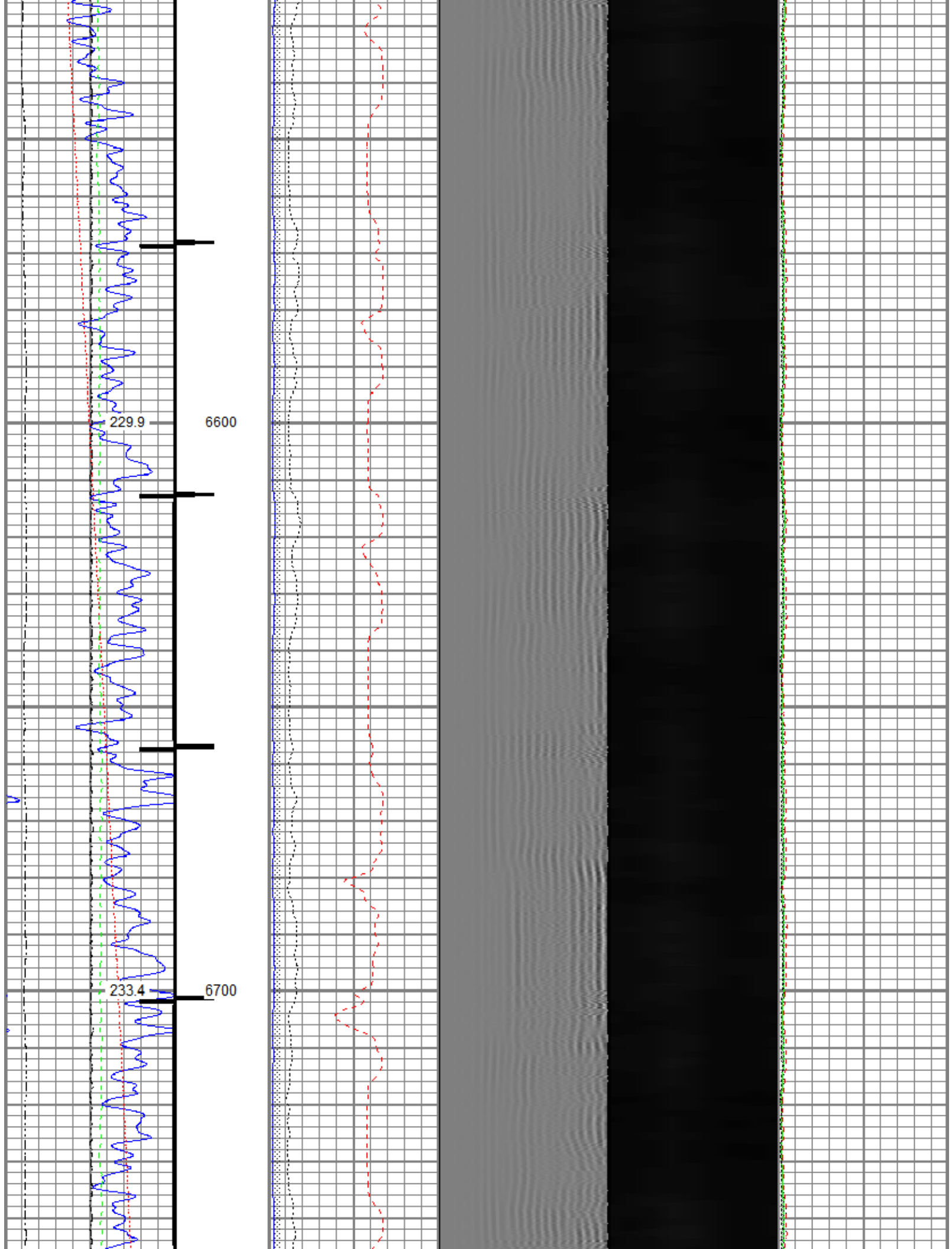




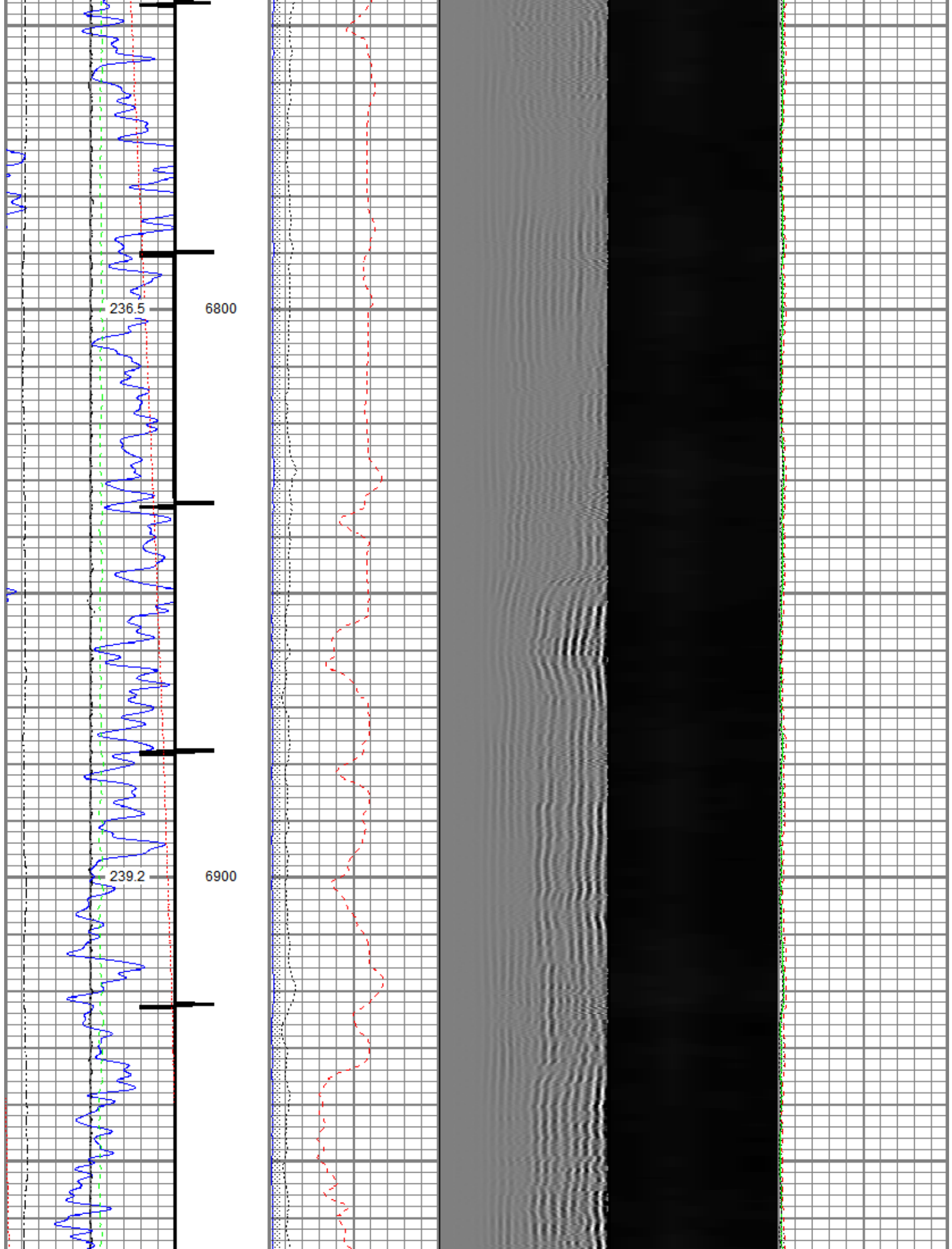


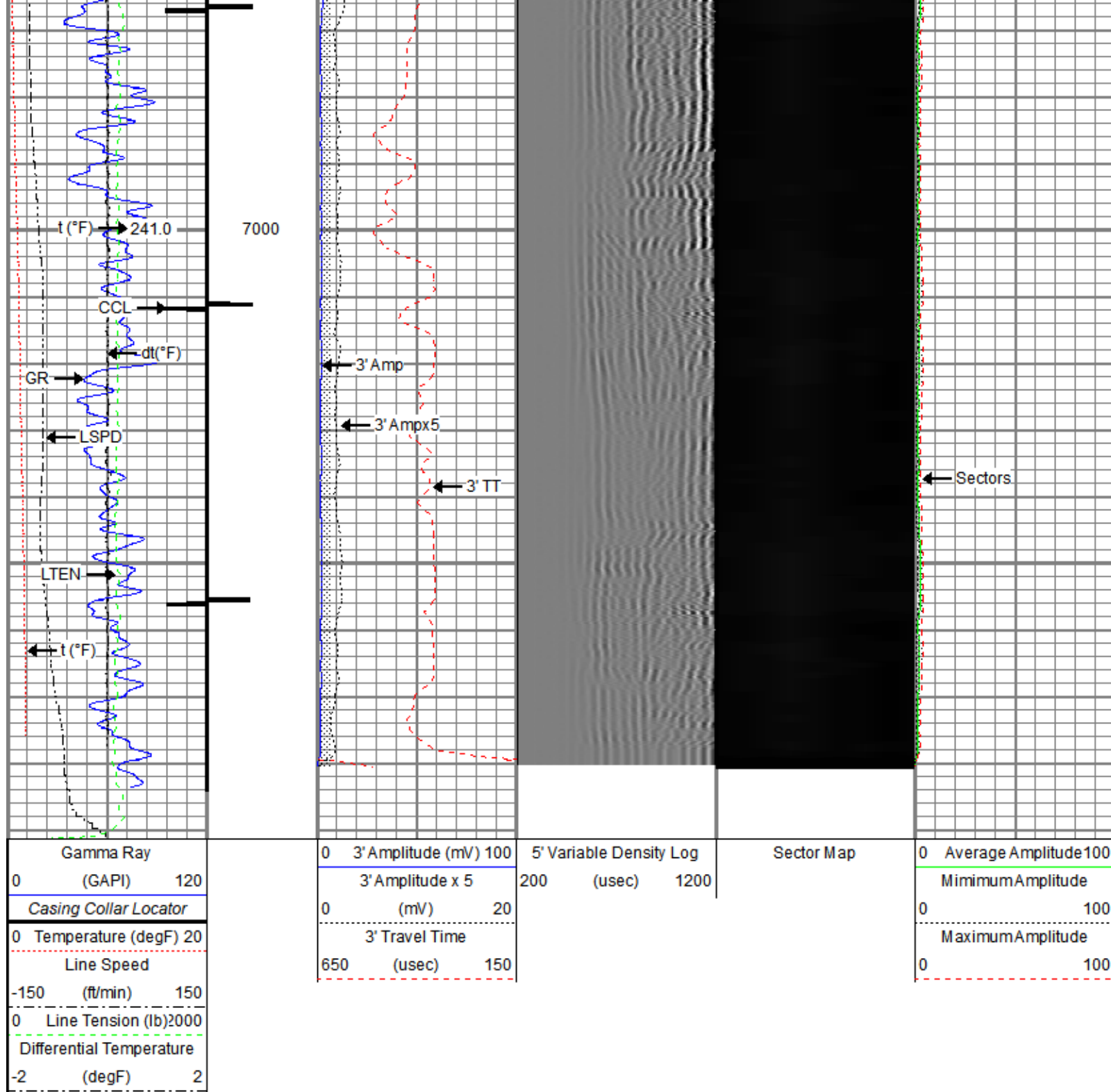








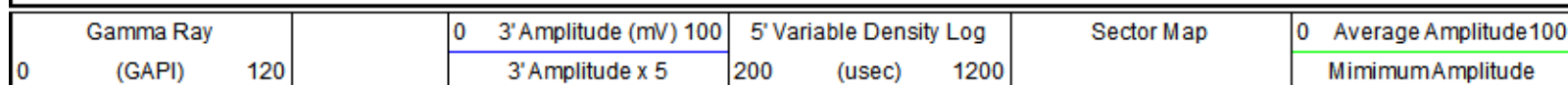




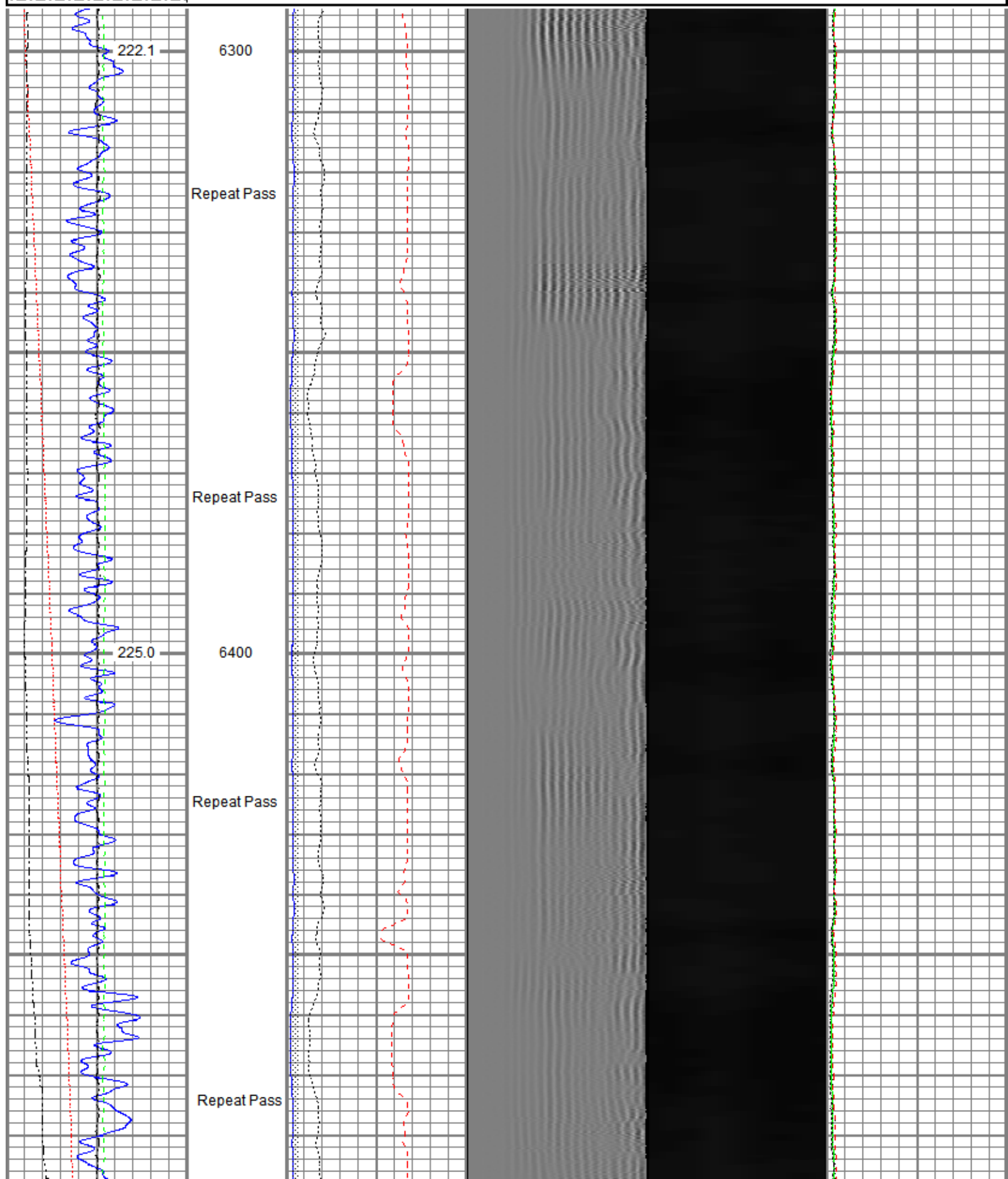
## Repeat Pass

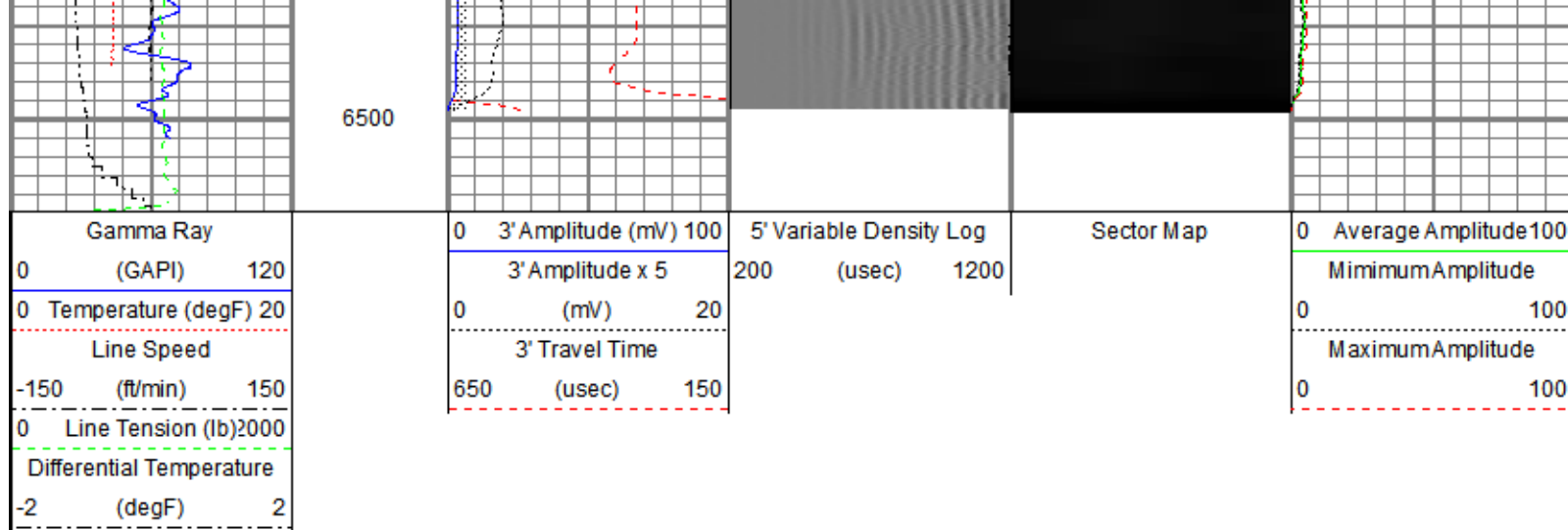
Recorded With 2500 PSI Surface Induced Pressure

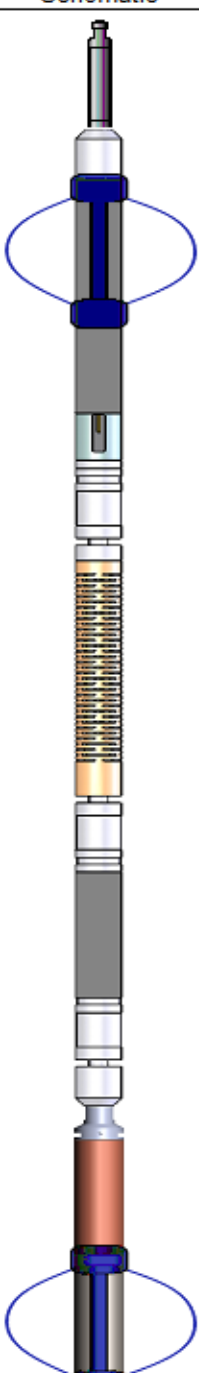
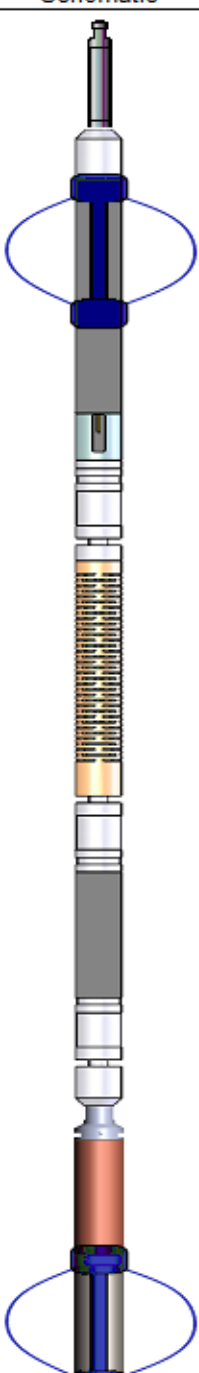
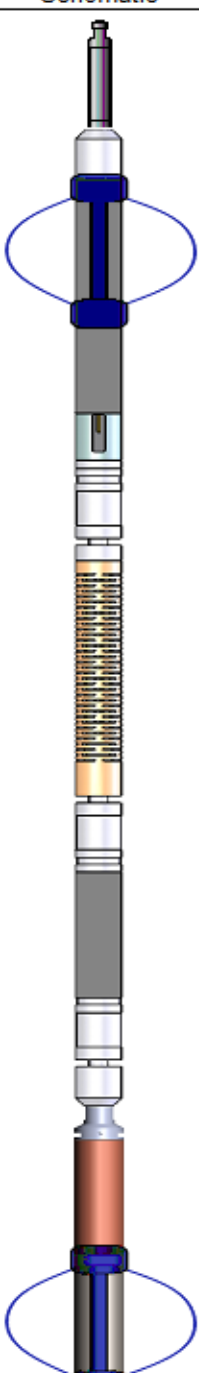
Database File: noble\noble\_guttersen d34-769\_rbl\_05-13-20\processed\_noble\_guttersen d34-769\_rbl\_05-13-20.db  
 Dataset Pathname: pass2.1  
 Presentation Format: ros\_radri\_noble  
 Dataset Creation: Wed May 13 11:32:27 2020  
 Charted by: Depth in Feet scaled 1:240



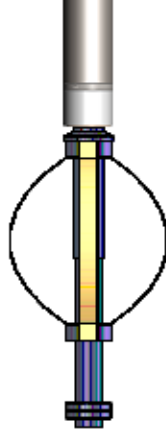
Temperature (degF) 20			0 (mV) 20			0 100		
Line Speed			3' Travel Time			Maximum Amplitude		
-150	(ft/min)	150	650	(usec)	150	0		100
0 Line Tension (lb) 2000								
Differential Temperature								
-2	(degF)	2						





Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
TEMP	14.16		Titan CHD-14375 GO	1.03	1.44	3.60
			Titan 1-7/16" Assembled Electric Cable Head with 1" Fishing Neck			
			SO BS CENT-2750-5500	1.50	3.25	11.00
			Slip Over 2-3/4" I.D. for 5-1/2" O.D. Casing Bow Spring Centralizer			
			Probe Radii-2750 RBT (120855)	9.39	2.75	105.00
			Probe 2-3/4" Radial Cement Bond Tool with Integral Temperature Sub			
WVFS8	11.93					
WVFS7	11.93					
WVFS6	11.93					
WVFS5	11.93					
WVFS4	11.93					
WVFS3	11.93					
WVFS2	11.93					
WVFS1	11.93					
WVFCAL	11.93					
WVF3FT	11.93					
WVF5FT	10.93					
CCL\$2	6.80					
CCL\$1	6.80					
GR	5.46					
GR	5.46		SO BS CENT-2750-5500	1.50	3.25	11.00
			Slip Over 2-3/4" I.D. for 5-1/2" O.D. Casing Bow Spring Centralizer			
			Probe GR-CCL-2750 6PB (FW1810-001)	4.80	2.75	55.00
			Probe 2-3/4" rev.1 Digital Scintillation Gamma Ray/CCL Combined with 6 Pin Bottom for CNT			



LOCTIM UTCTIM	0.00 0.00		Probe CENT-2750 Probe 2-3/4" Electric Inline Bowspring Centralizer	2.88	2.75	20.00
Dataset: PROCESSED_Noble_Guttersen D34-769_RBL_05-13-20.db: field/well/run1/pass4.2 Total length: 18.10 ft Total weight: 205.60 lb O.D.: 3.25 in						

Calibration Report	
Database File	C:\ProgramData\Warrior\Data\Noble\Noble_Guttersen D34-769_RBL_05-13-20\PROCESSED_Noble_Guttersen D34-769_RBL_05-13-20\pass4.2
Dataset Pathname	pass4.2
Dataset Creation	Wed May 13 11:27:31 2020

Gamma Ray Calibration Report		
Serial Number:	FW1810-001	
Tool Model:	2750 6PB	
Performed:	Tue Dec 03 09:24:53 2019	
Calibrator Value:	637.0	GAPI
Background Reading:	100.1	cps
Calibrator Reading:	1264.5	cps
Sensitivity:	0.5471	GAPI/cps


Segmented Cement Bond Log Calibration Report		
Serial Number:	120855	
Tool Model:	2750 RBT	
Calibration Casing Diameter:	5.500	in
Calibration Depth:	91.098	ft

Master Calibration, performed (Derived):						
	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.005	0.583	0.800	71.921	122.936	0.233
CAL	0.007	0.593				
5'	0.004	0.494	0.800	71.921	145.101	0.173
SUM						
S1	0.000	0.540	0.000	100.000	185.458	-0.083
S2	0.004	0.561	0.000	100.000	179.234	-0.631
S3	0.004	0.600	0.000	100.000	167.861	-0.634
S4	0.003	0.611	0.000	100.000	164.468	-0.564
S5	0.004	0.623	0.000	100.000	161.604	-0.613
S6	0.003	0.594	0.000	100.000	169.292	-0.585
S7	0.003	0.561	0.000	100.000	179.275	-0.525
S8	0.003	0.539	0.000	100.000	186.730	-0.610

Air Zero Calibration, performed Wed May 13 07:41:45 2020:		
	Raw (v)	Calibrated (v)
		Results

	Zero	Zero	Offset
3'	0.007	0.000	0.000
5'	0.007	0.000	0.000
SUM			
S1	0.007	0.000	-0.000
S2	0.007	0.000	0.000
S3	0.007	0.000	0.000
S4	0.007	0.000	0.000
S5	0.007	0.000	0.000
S6	0.007	0.000	-0.000
S7	0.006	0.000	-0.000
S8	0.007	0.000	0.000

Temperature Calibration Report			
Serial Number:	120855		
Tool Model:	2750 RBT		
Performed:	Wed Dec 18 13:34:18 2019		
	Reference	Reading	
Low Reference:	100.00 degF	112.30	degF
High Reference:	350.00 degF	394.75	degF
Gain:	0.89		
Offset:	0.60		
Delta Spacing	1		

	Company	Noble Energy Inc
	Well	Guttersen D34-769
	Field	Wattenberg
	County	Weld
	State	Colorado