



County Weld State Colorado

[illegible]

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 of 26 FT
Adjusted +3 FT to correlate with Kelly Bushing
Gauge Ring/Junk Basket ran to 7815 FT with no debris
Log ran from just above WRBP
Recorded with 2800 PSI Surface Induced Pressure
Logging tools were clean and free of any debris upon completion of operations

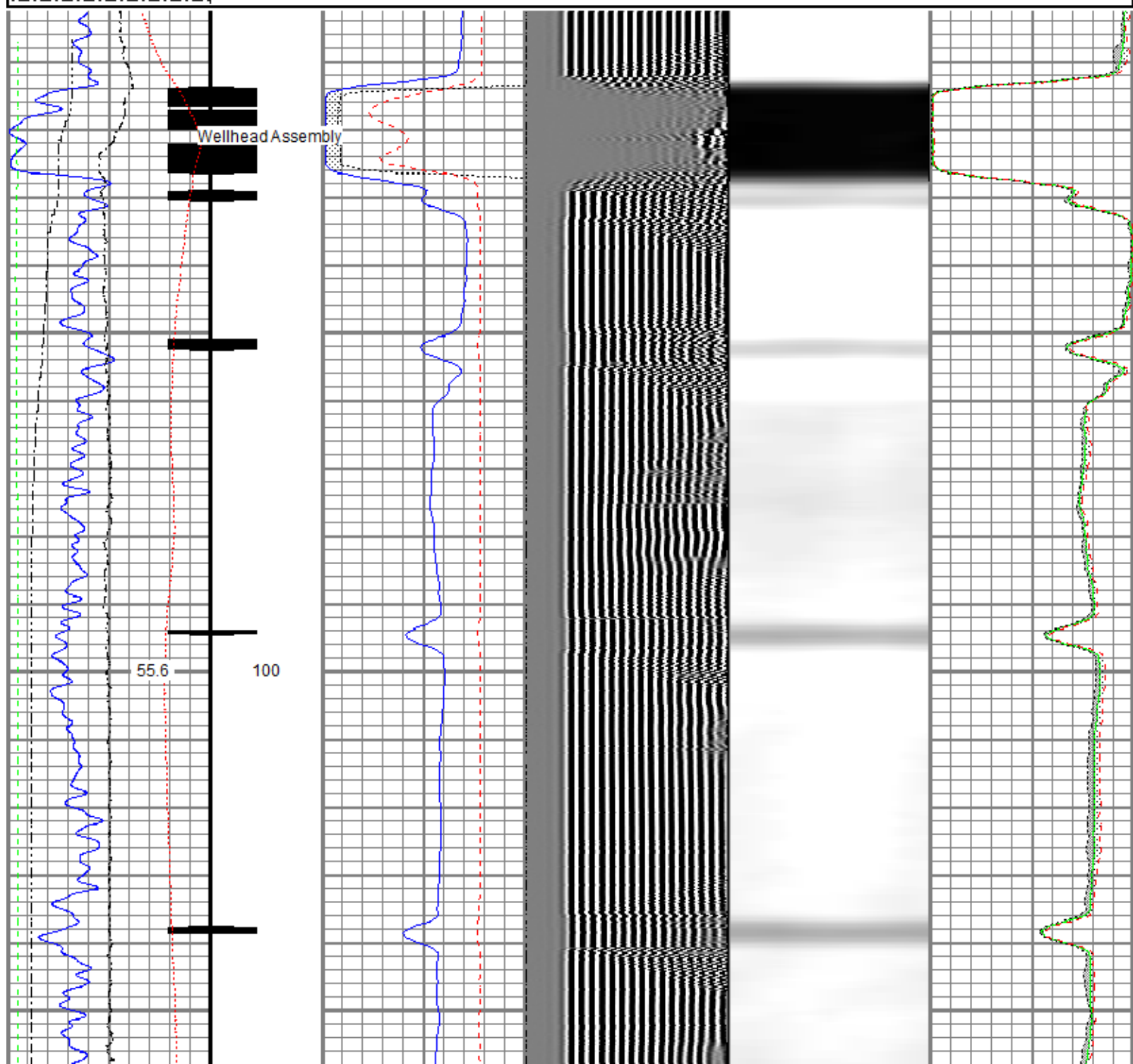
Thank you for choosing Reliance Oilfield Services, LLC!!

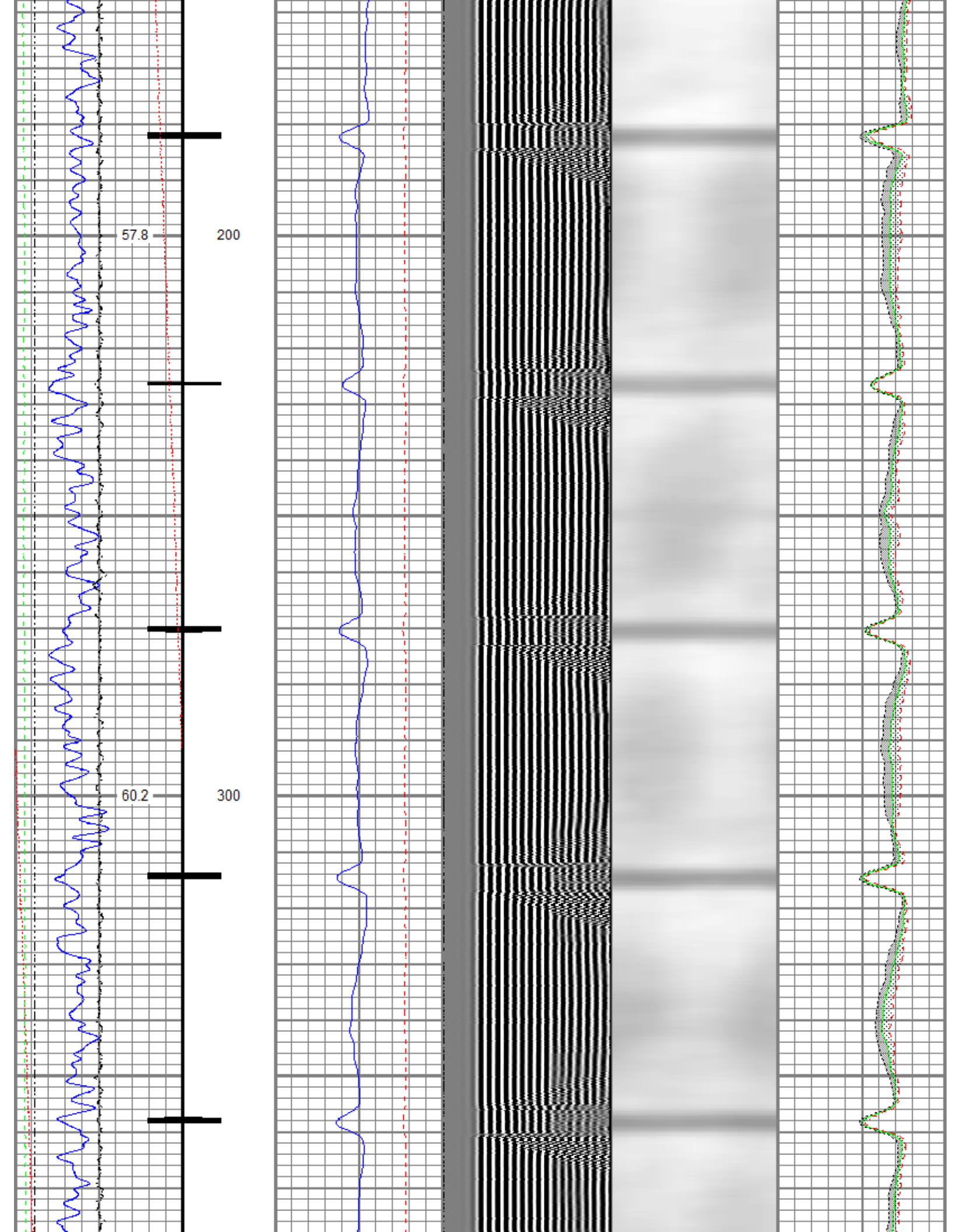
Main Pass

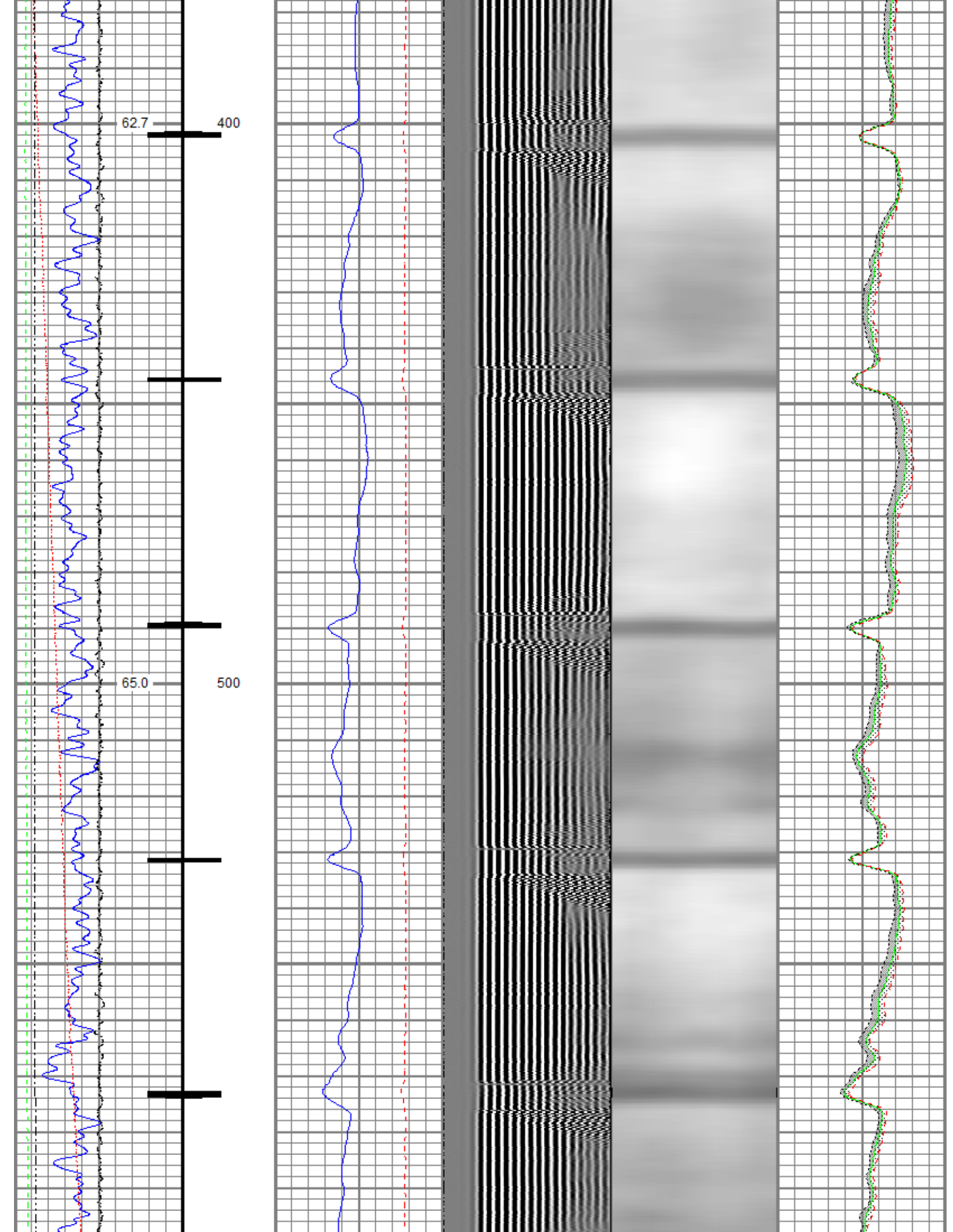


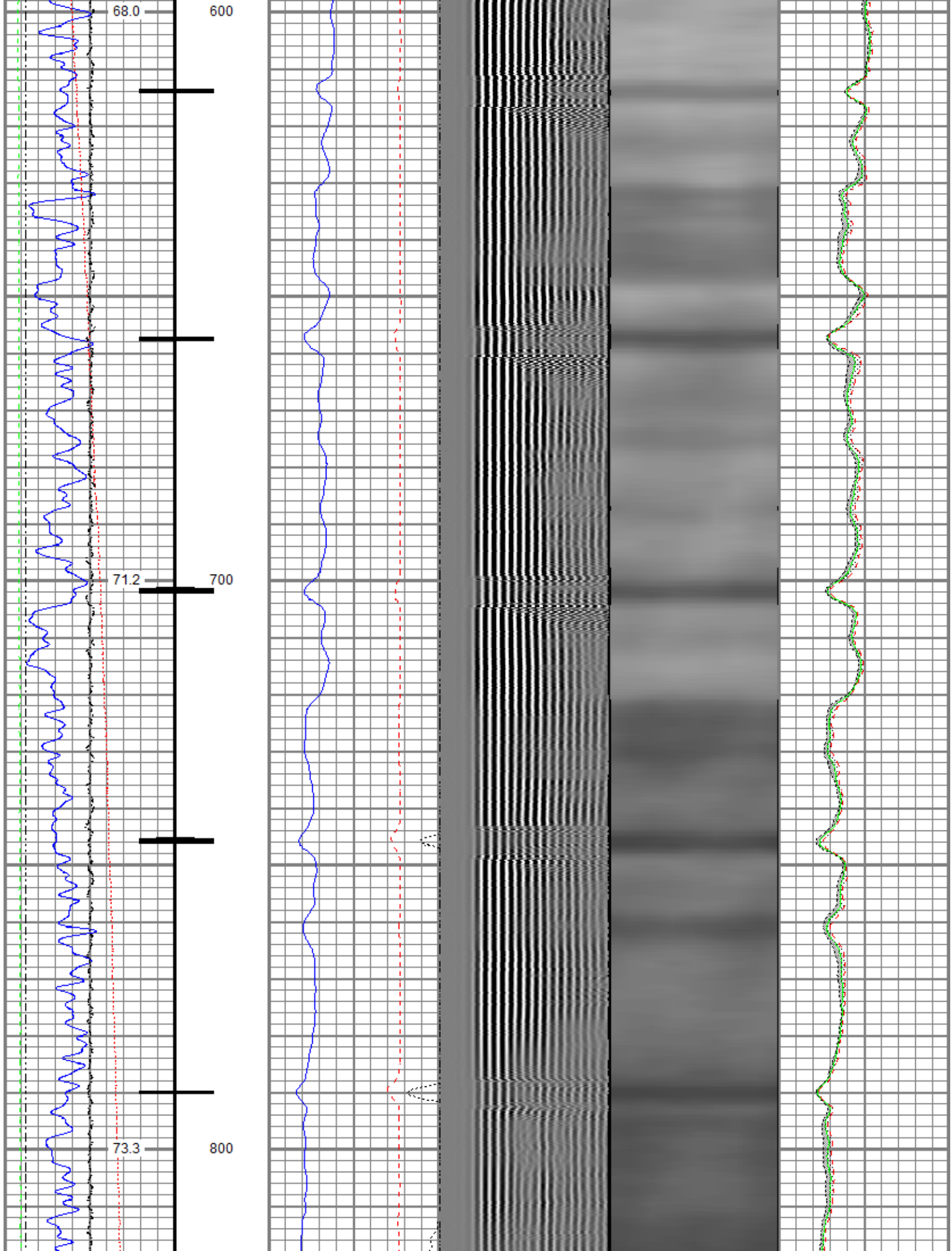
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 Dataset Pathname pass3.1
 Presentation Format ros_radri
 Dataset Creation Fri Jan 19 09:43:18 2018
 Charted by Depth in Feet scaled 1:240

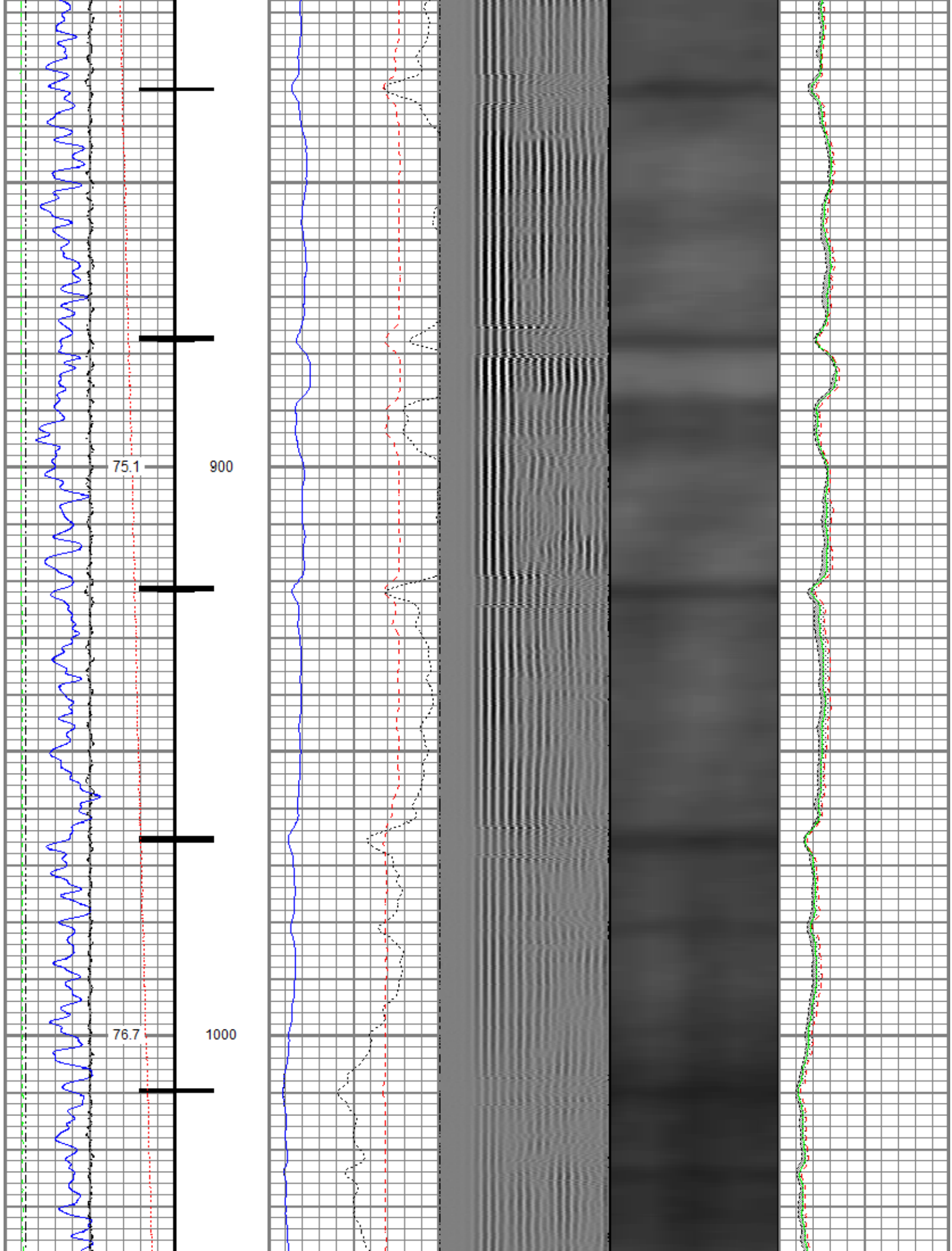
Gamma Ray	0	3' Amplitude (mV)	100	5' Variable Density Log	Sector Map	0	Average Amplitude	100
(GAPI)	120	3' Amplitude x 5	200	1200			Minimum Amplitude	
Casing Collar Locator		0	(mV)	20		0		100
Temperature (degF)	20	3' Travel Time					Maximum Amplitude	
Line Speed		650	(usec)	150		0		100
-150 (ft/min)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

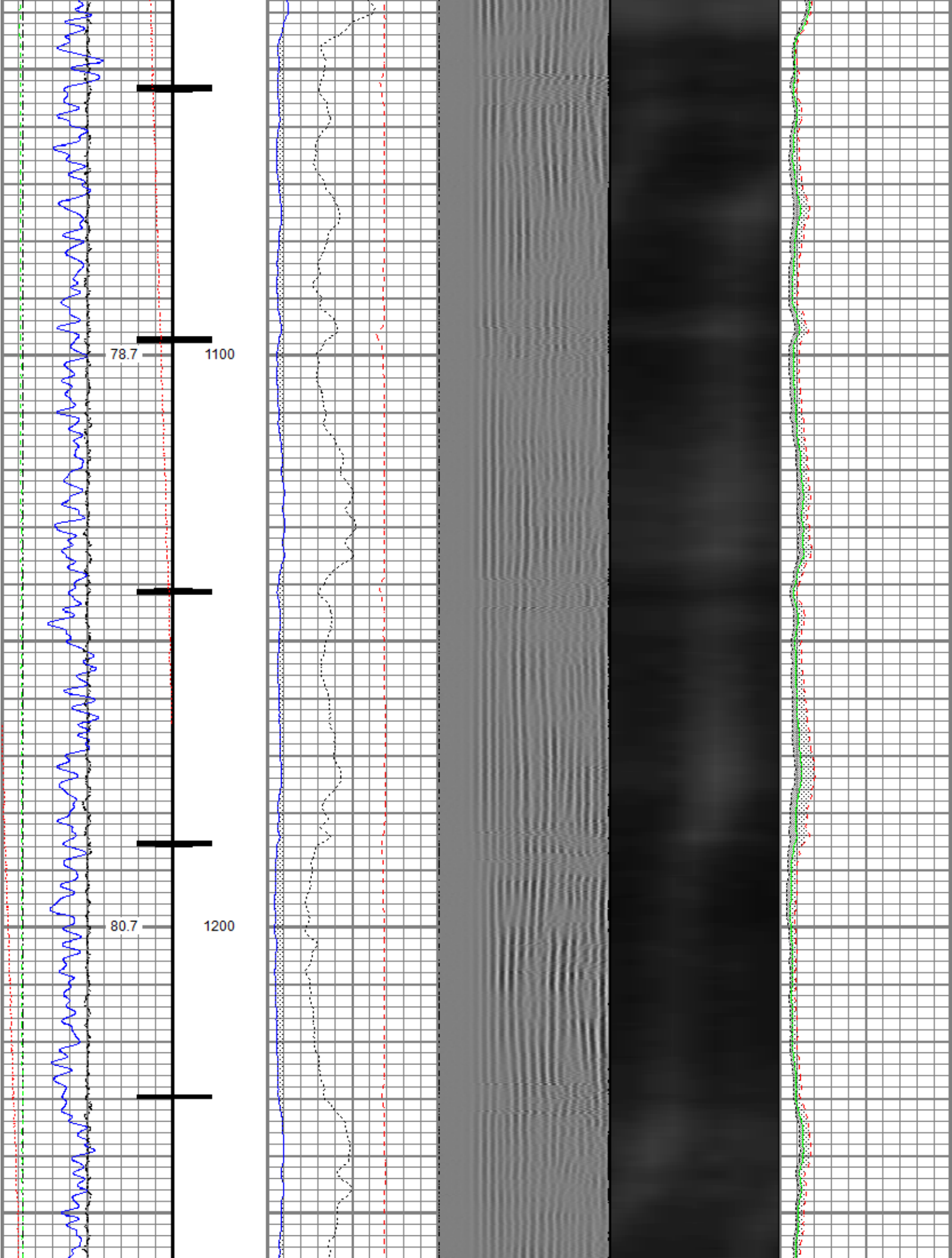


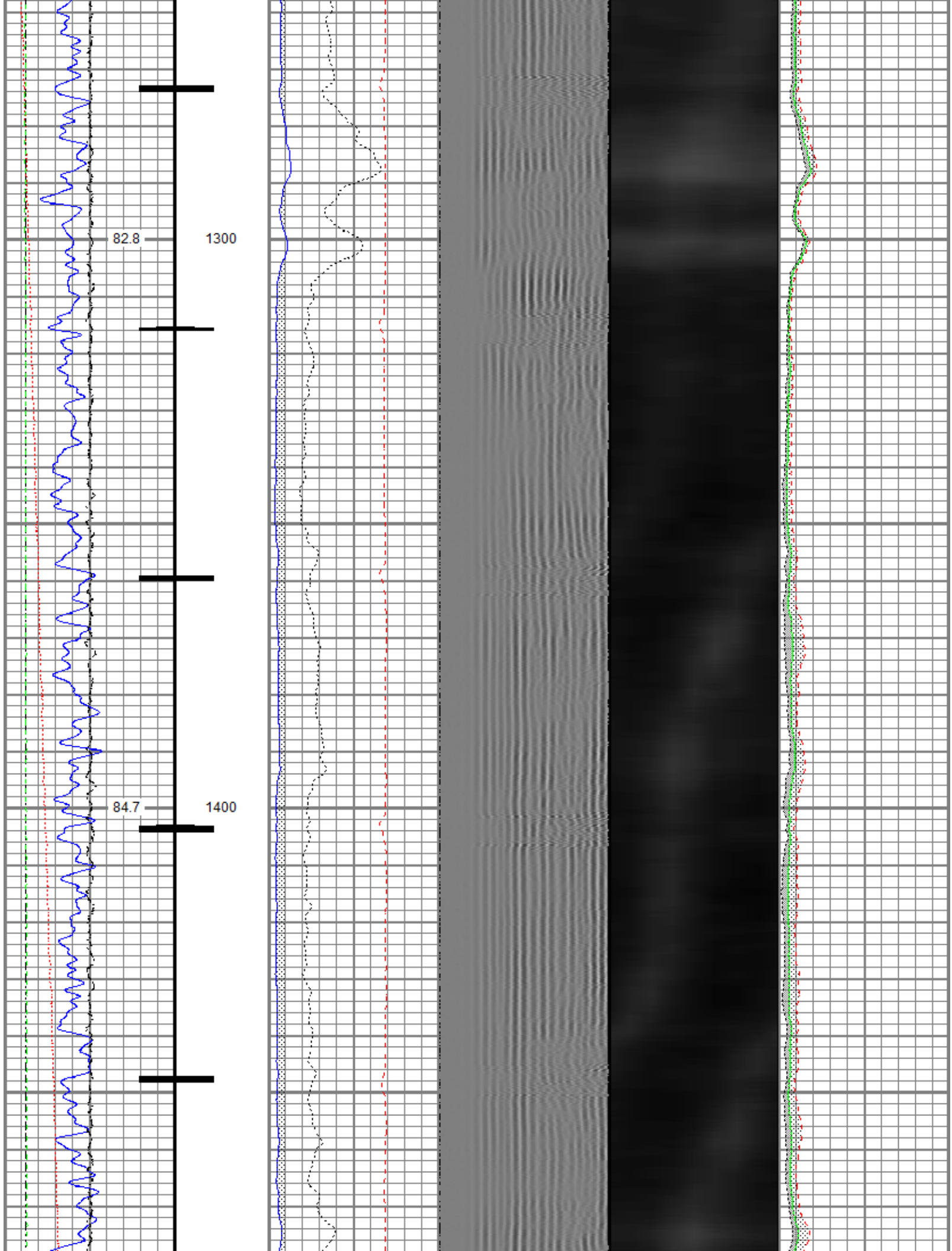


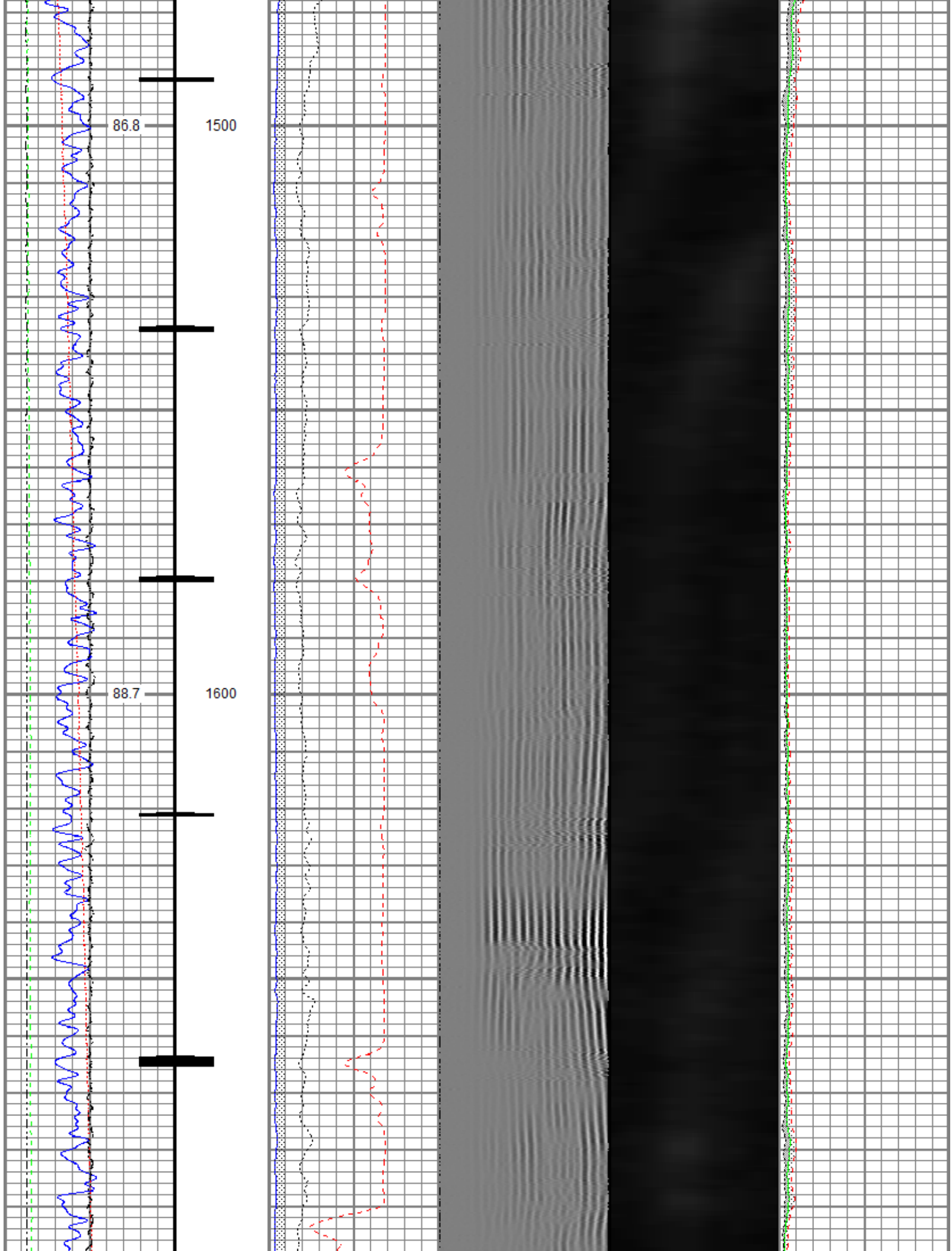


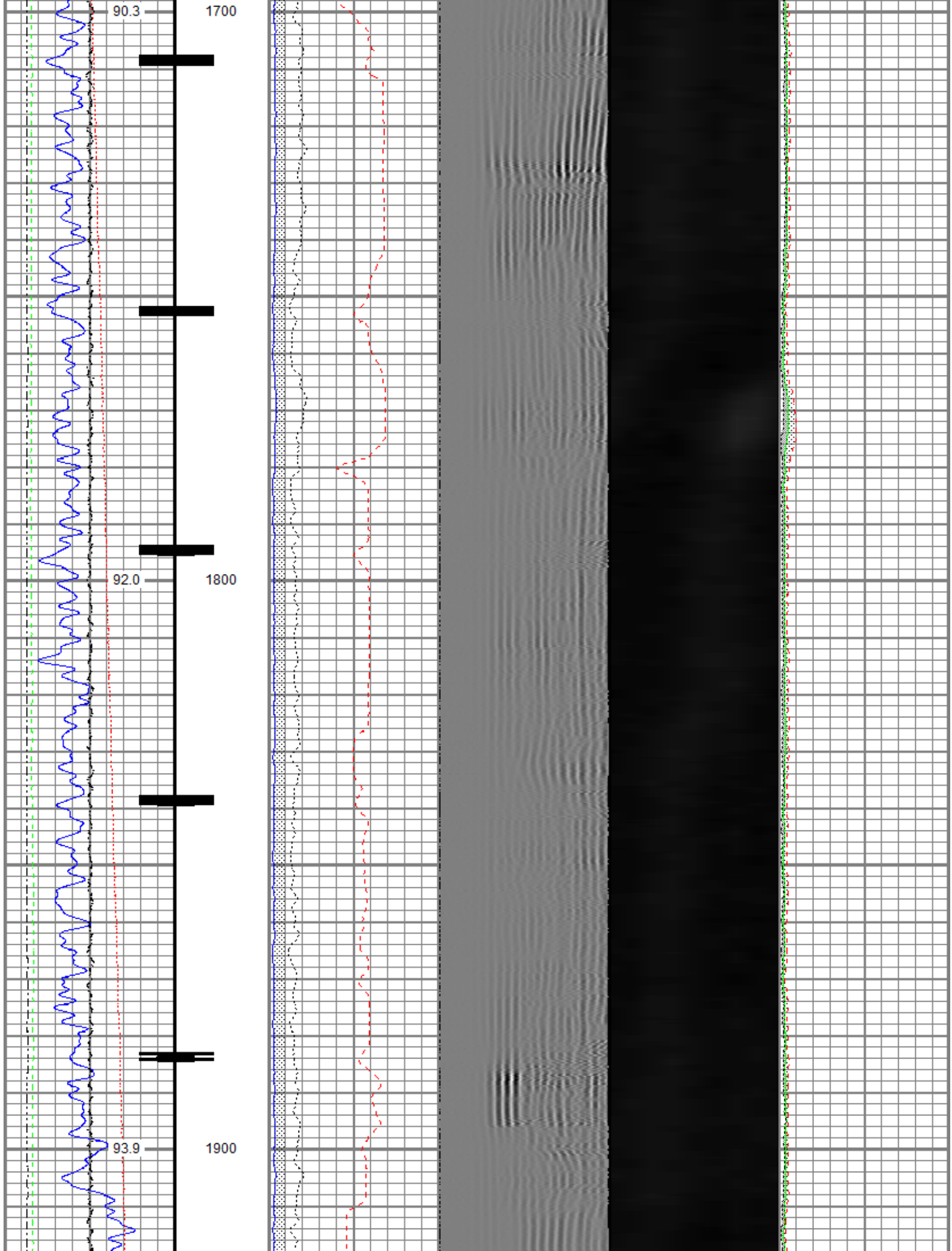


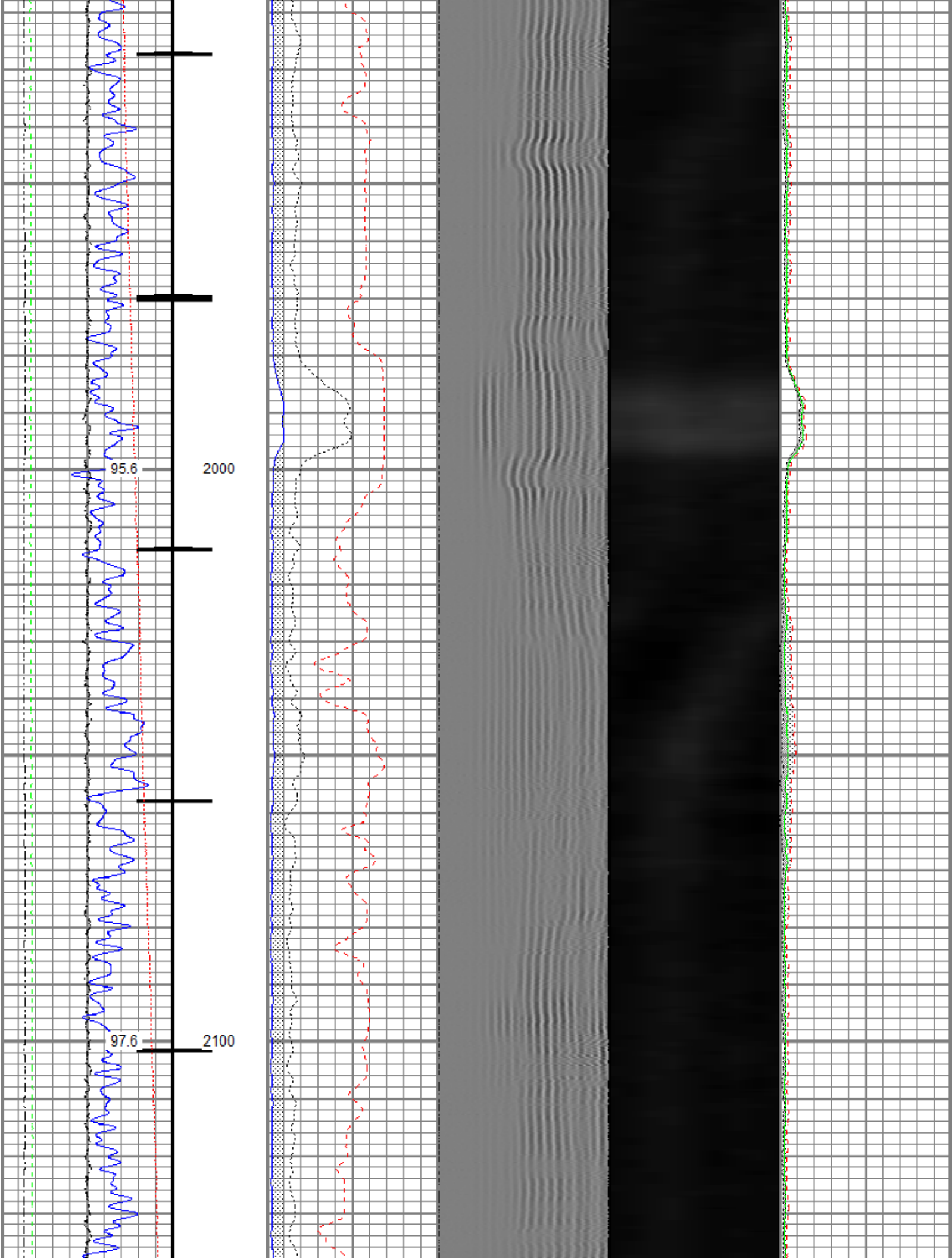


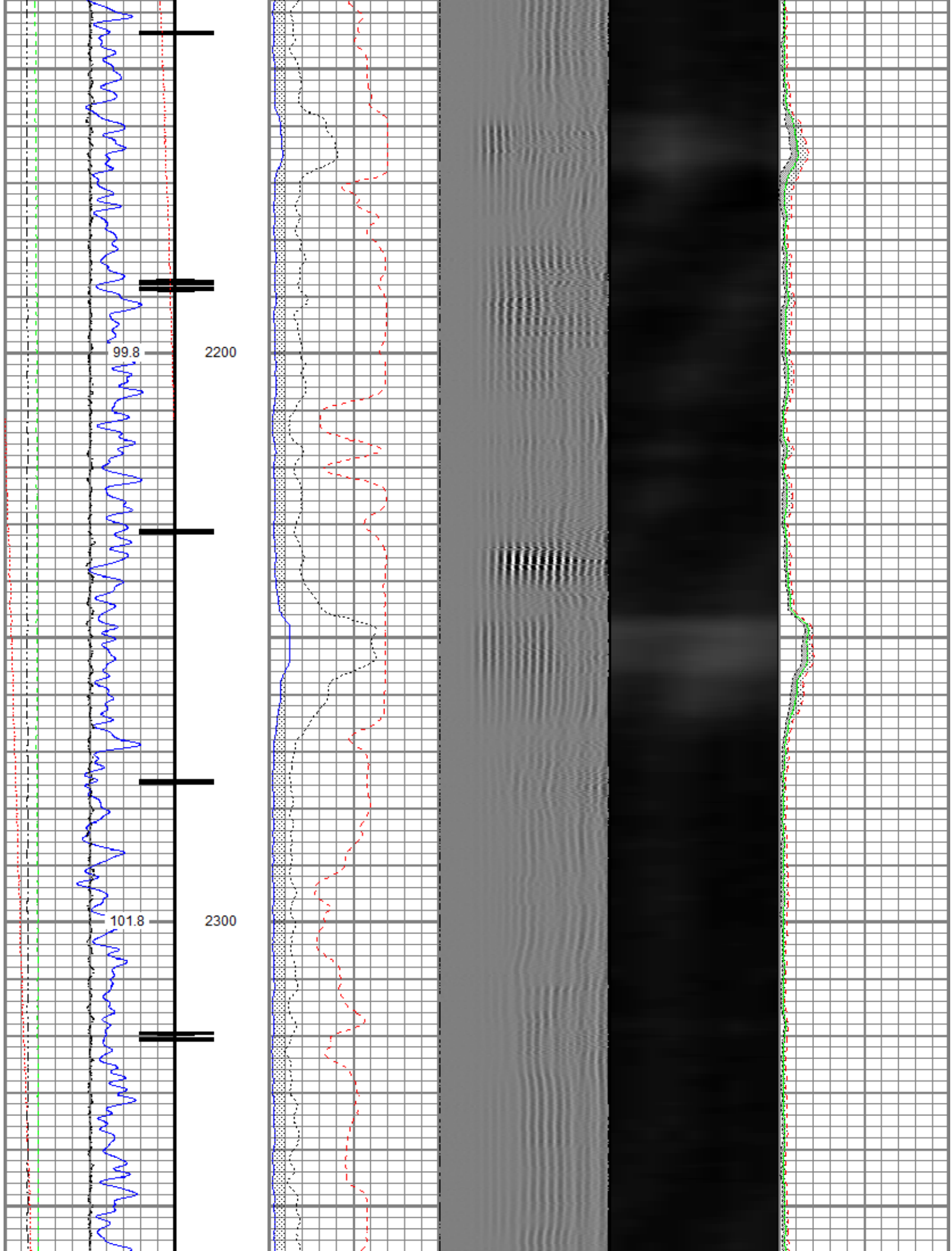


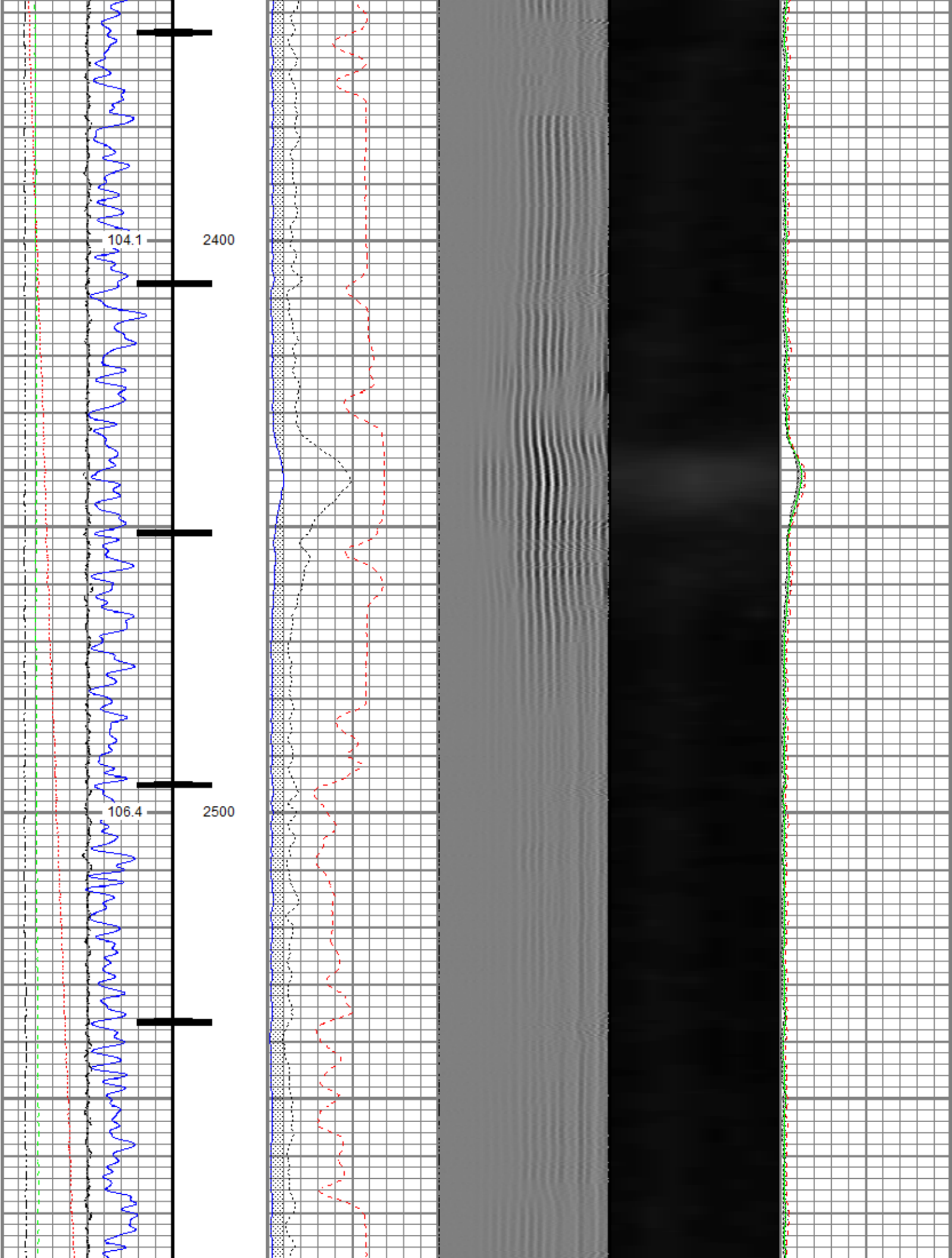


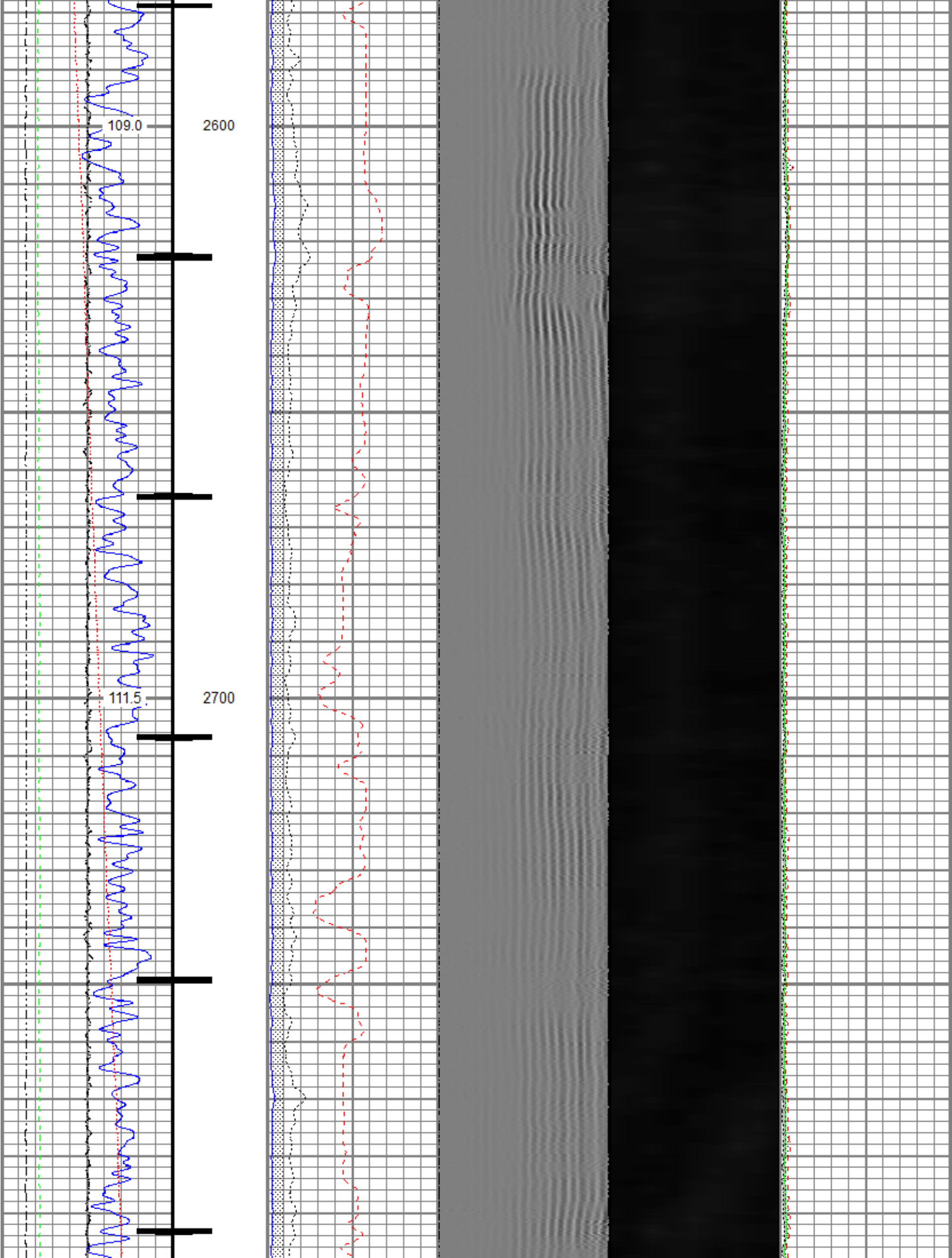


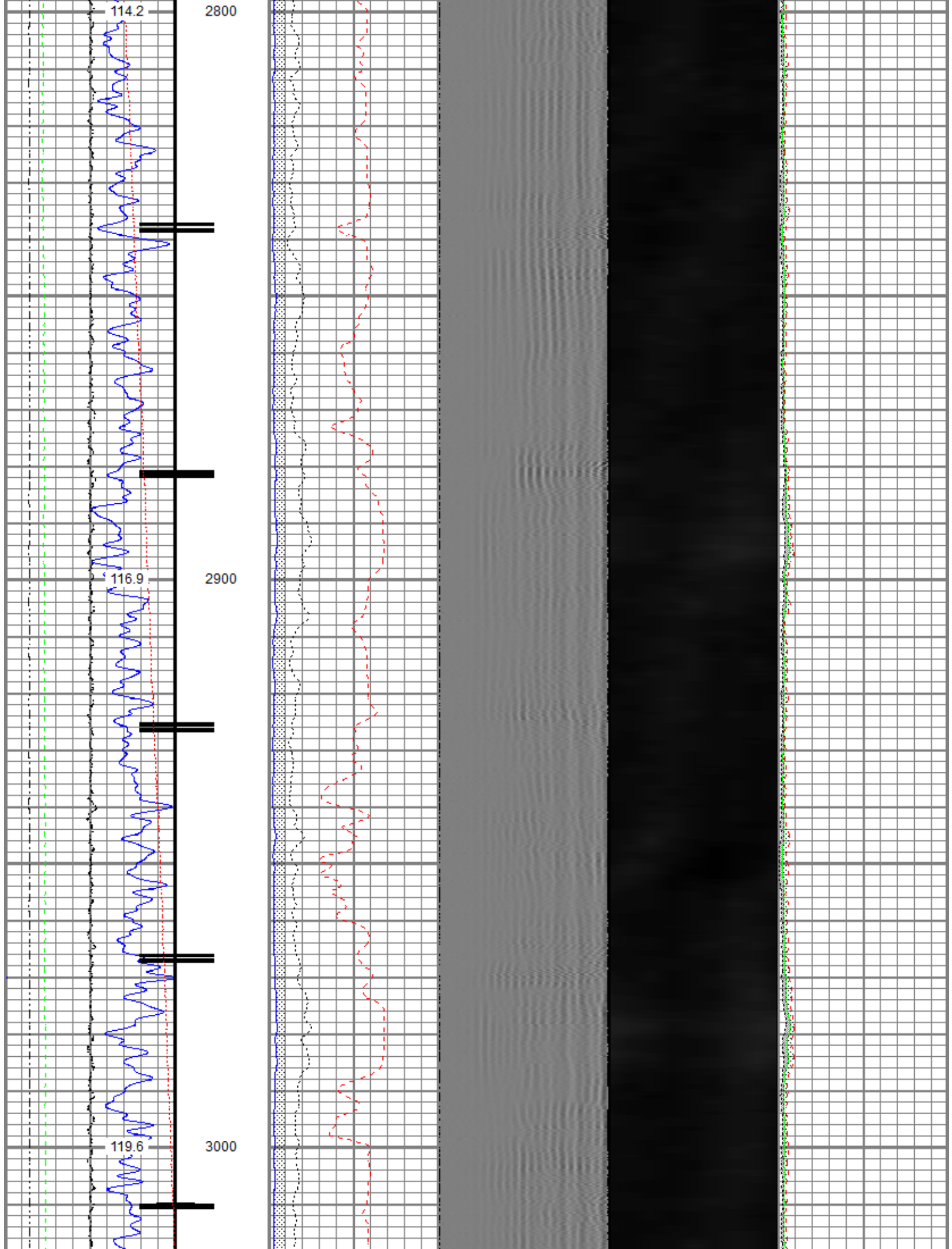


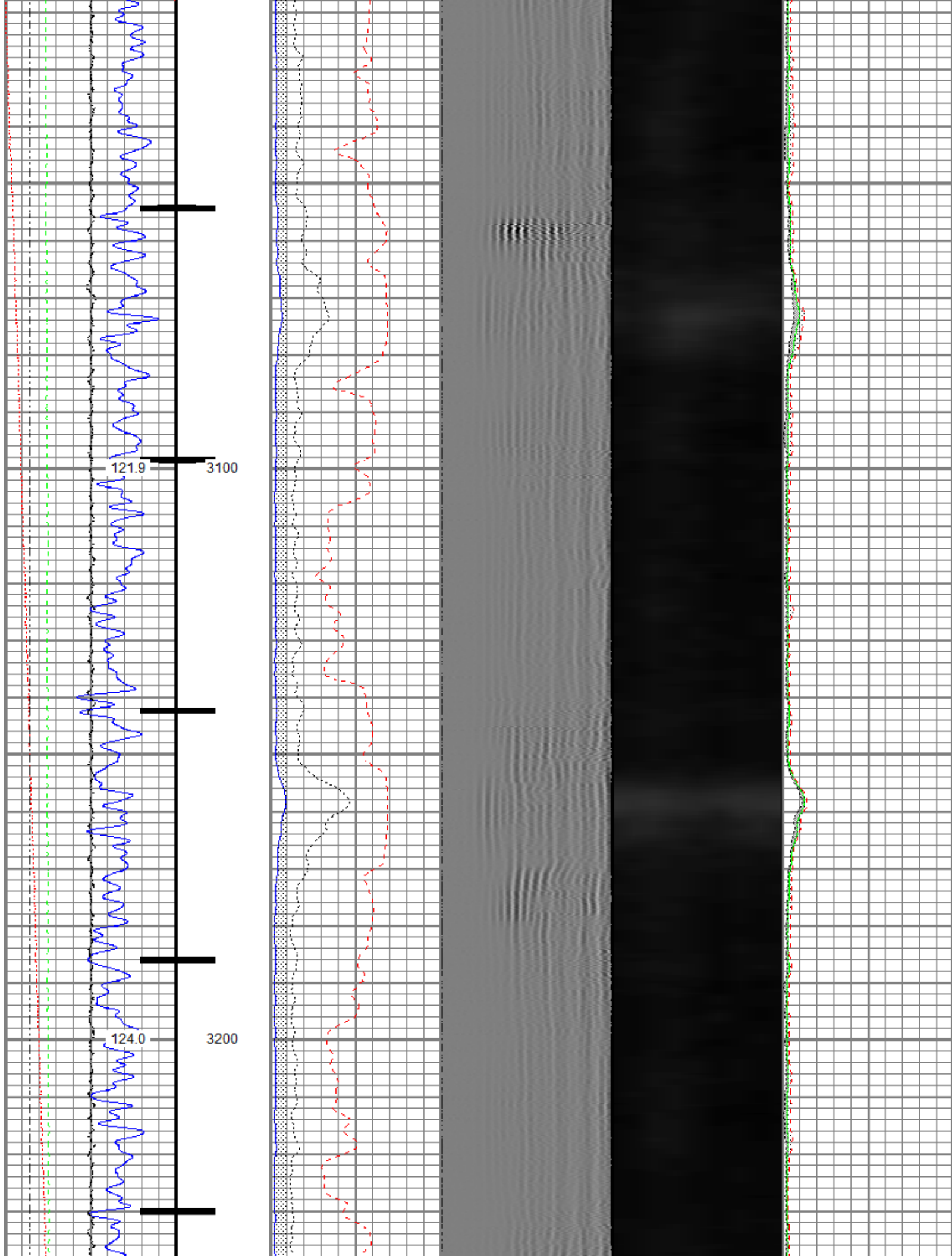


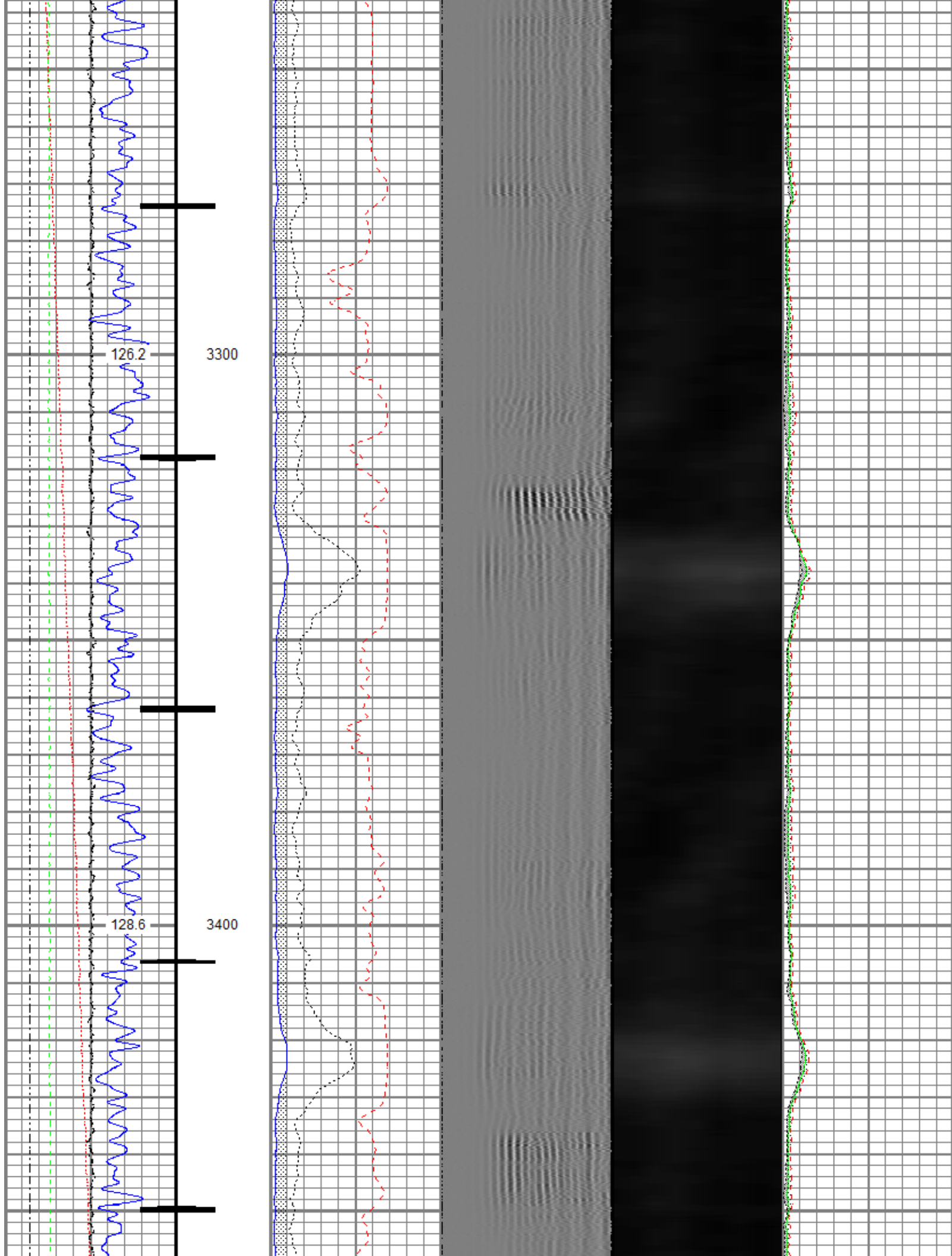


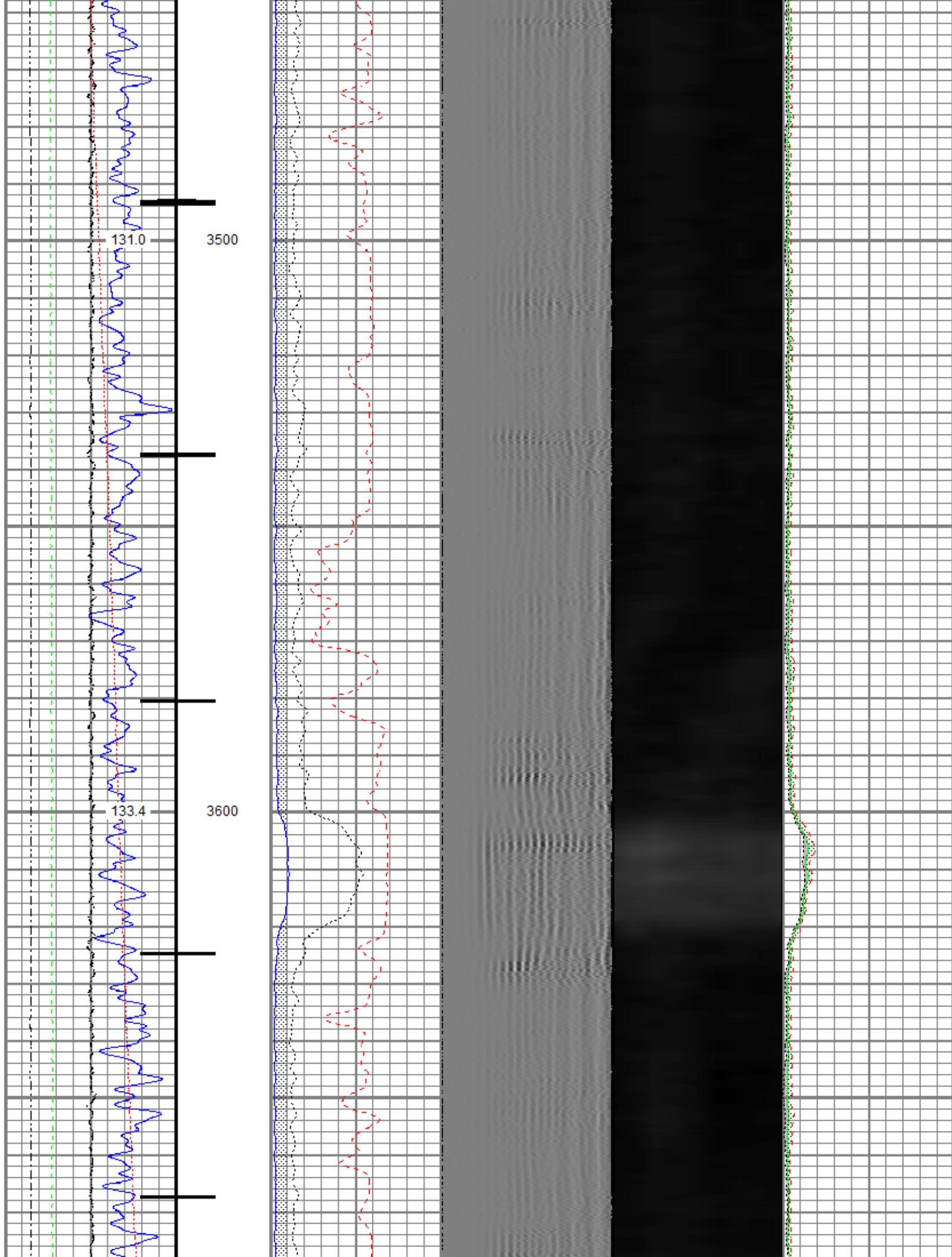


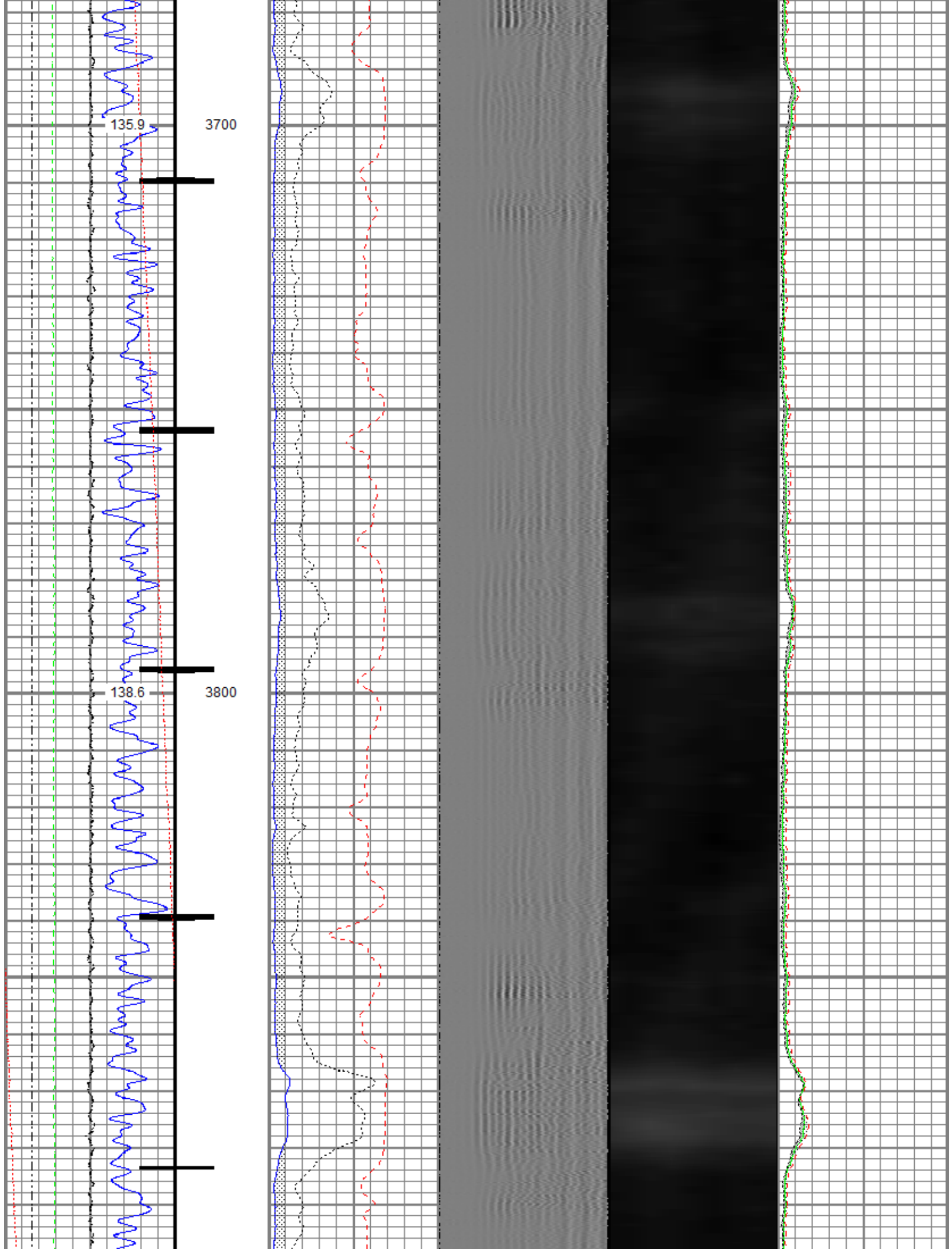


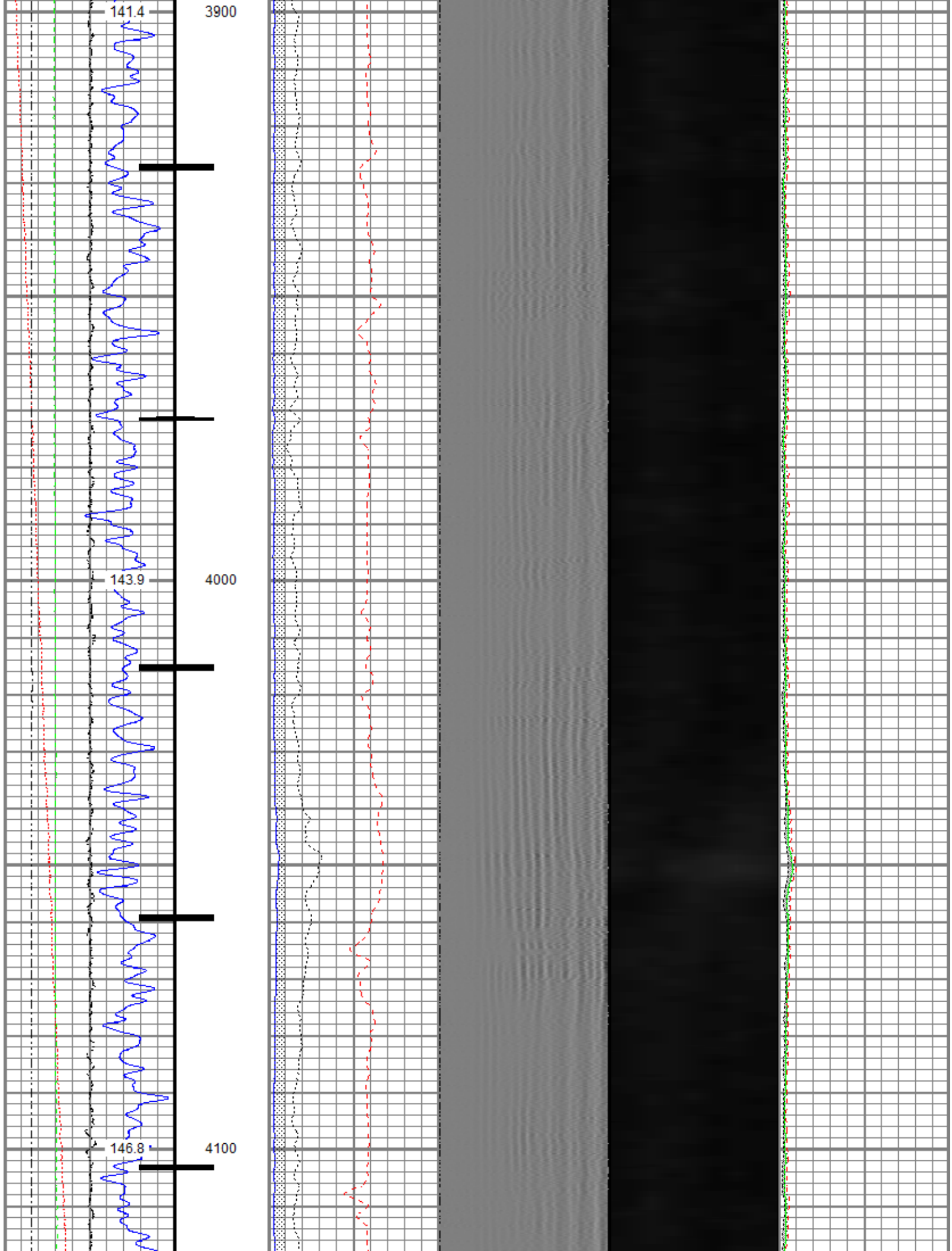


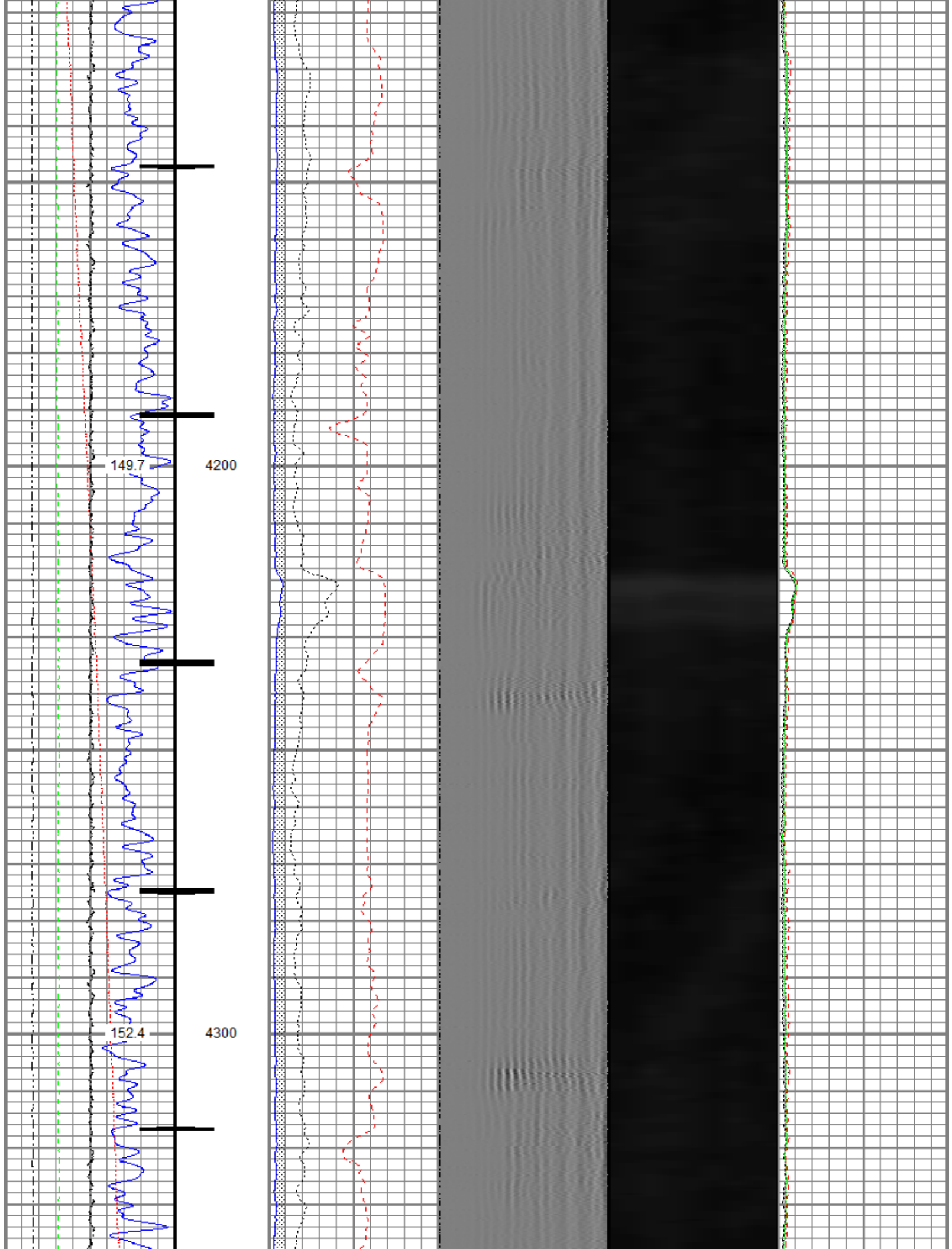


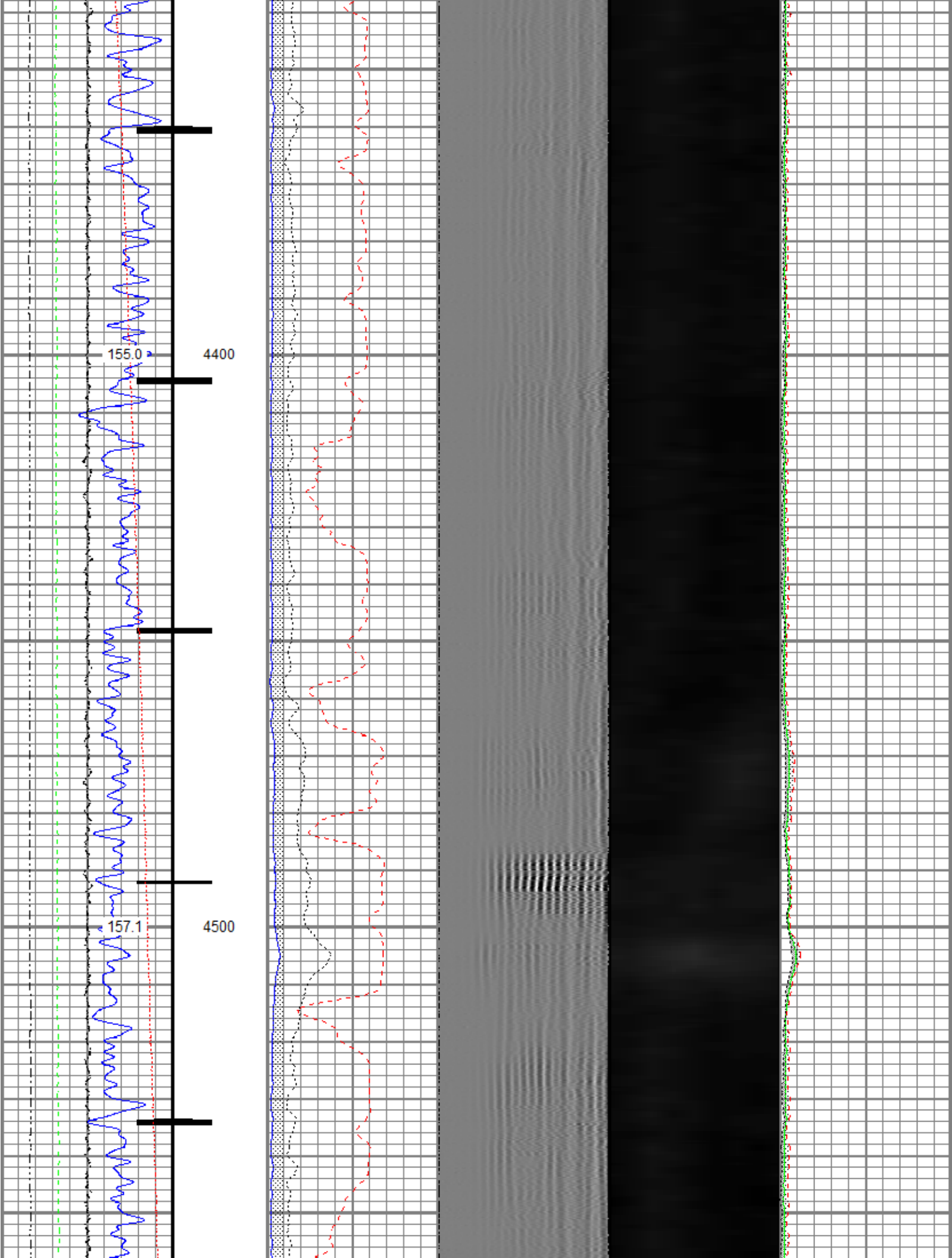


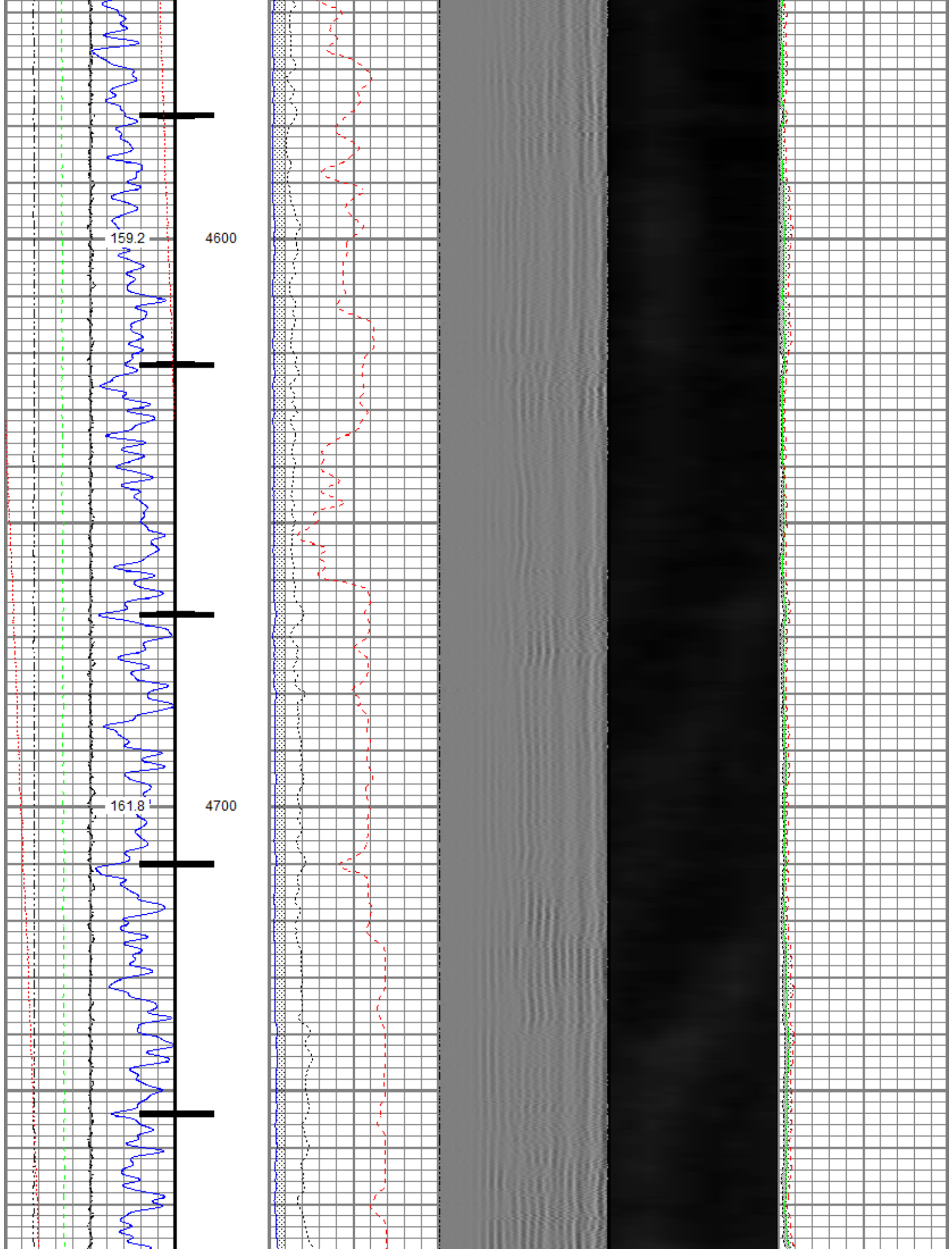


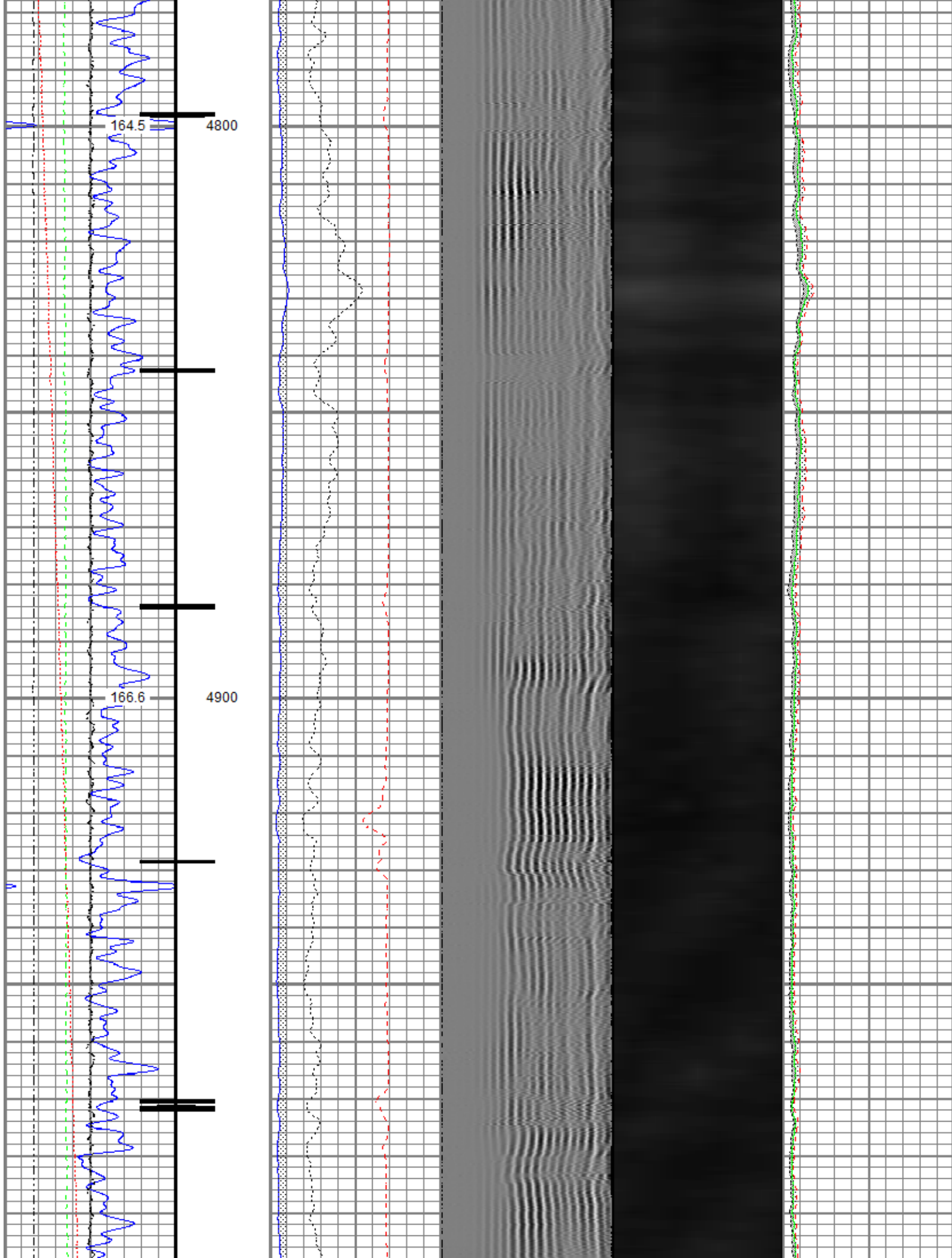


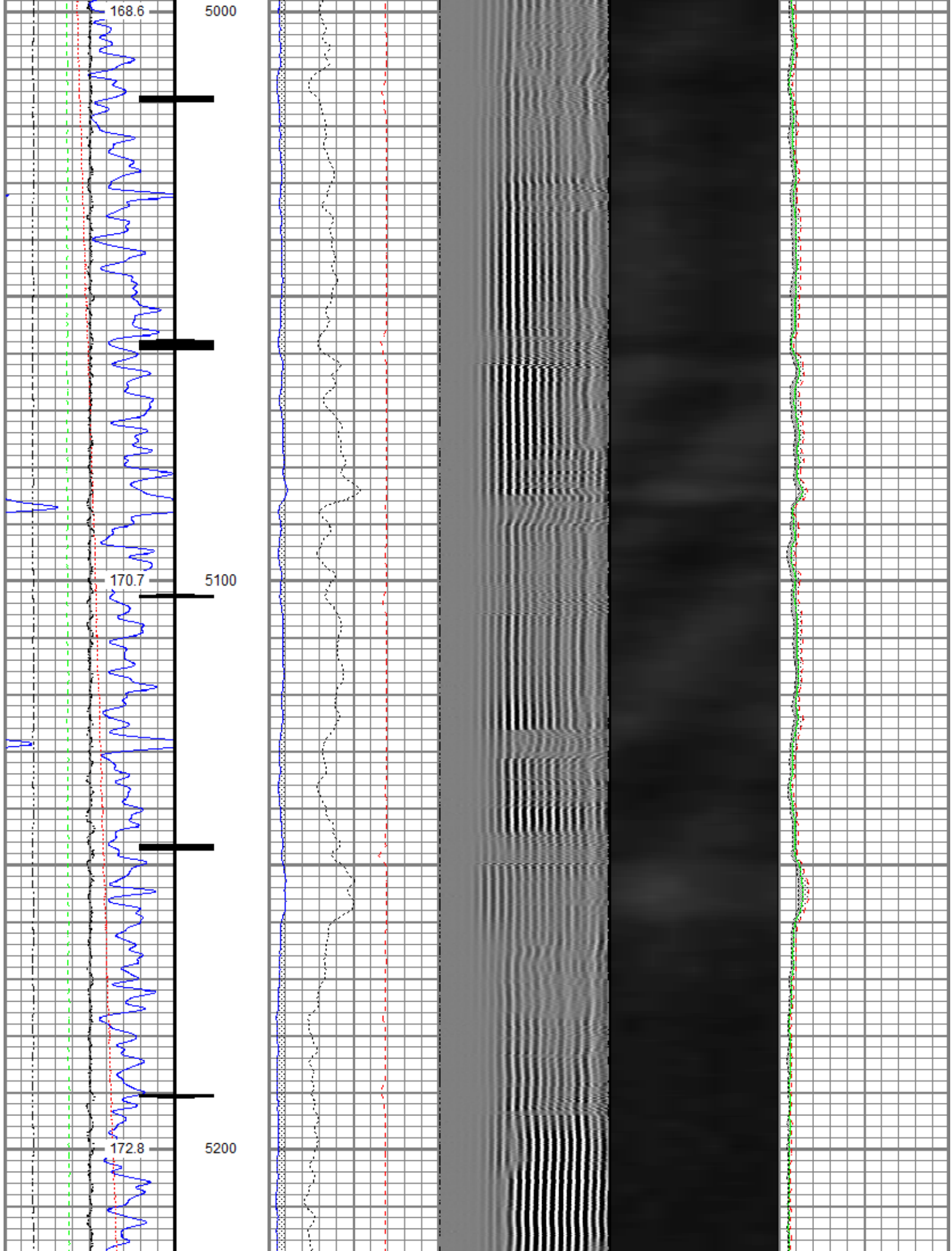


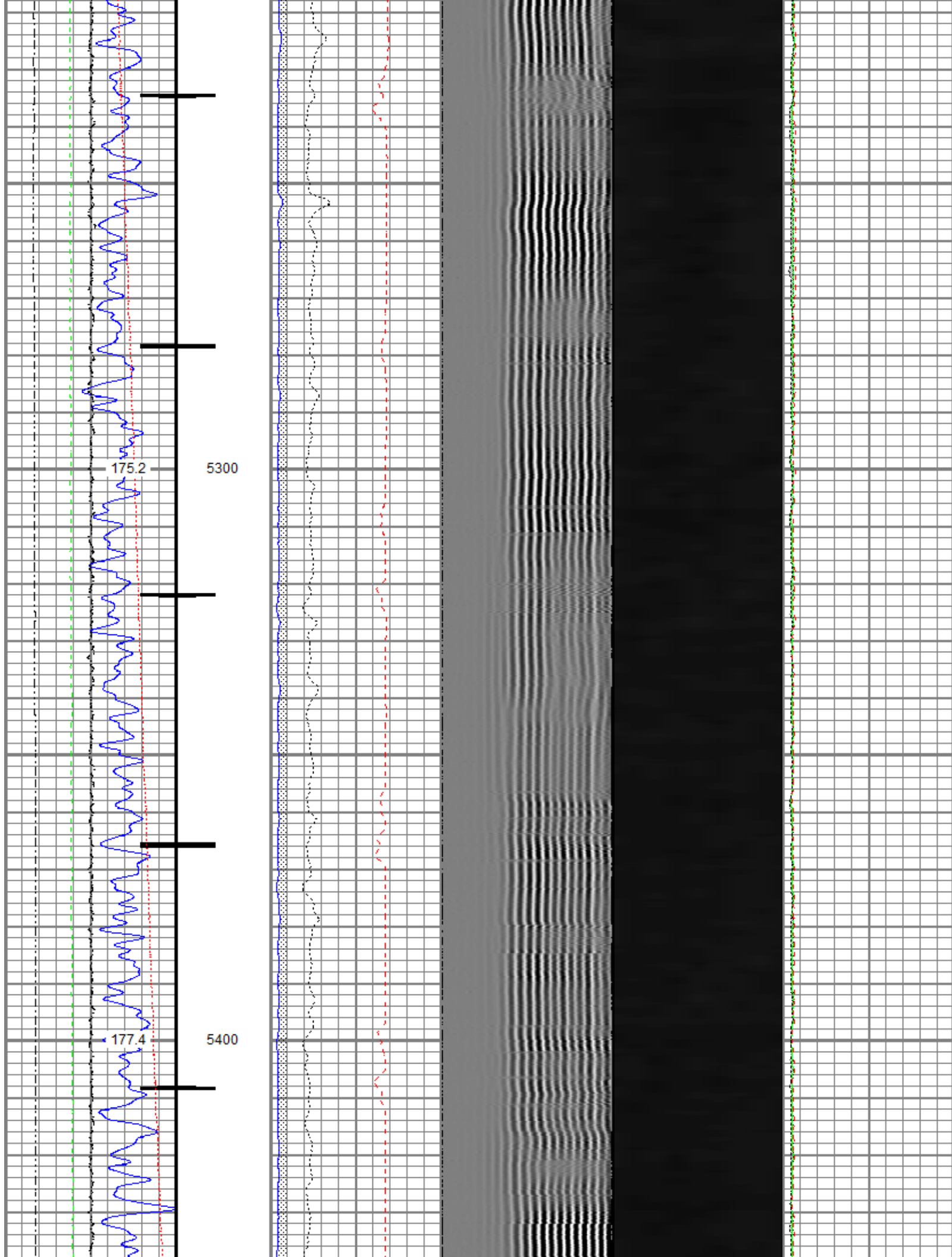


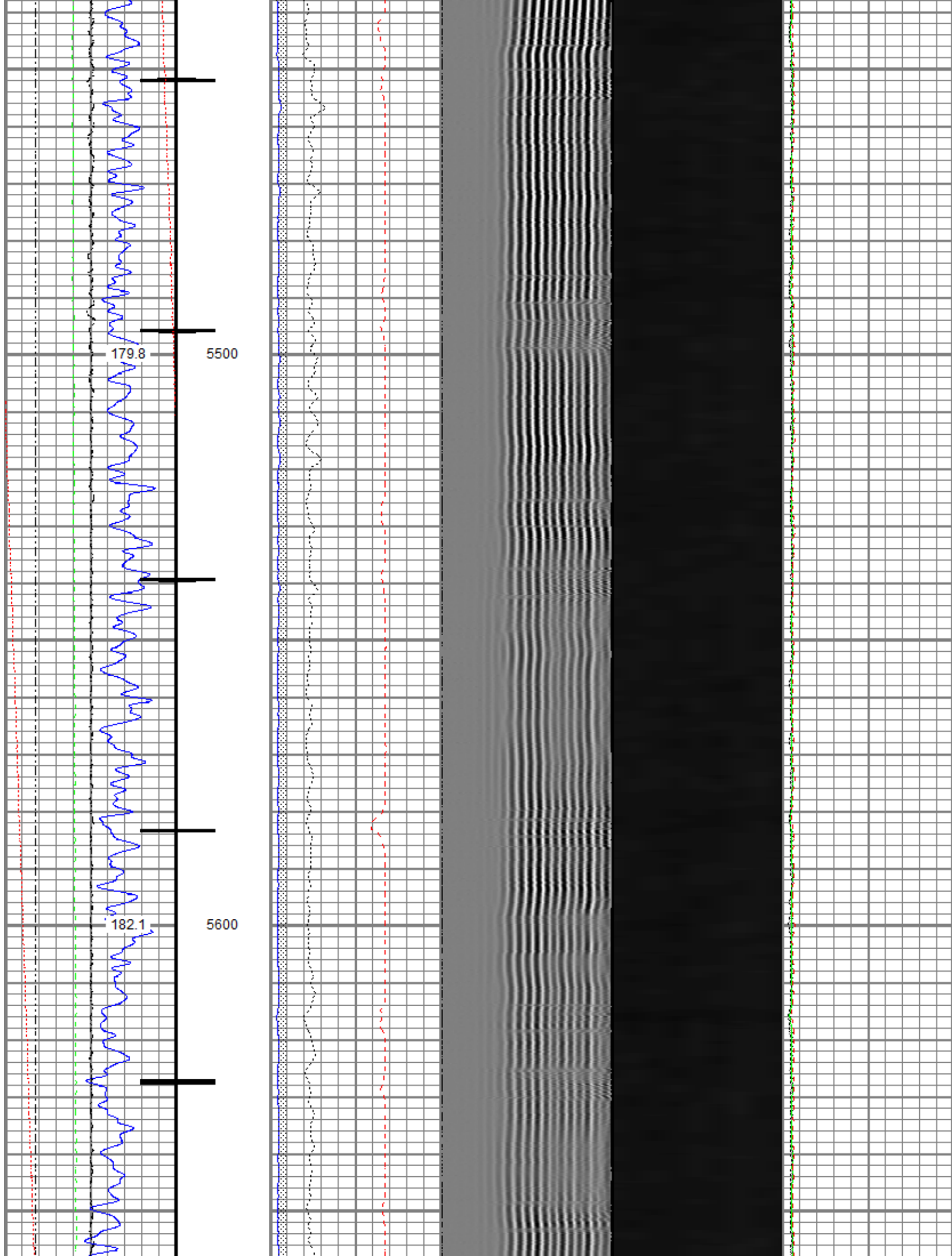


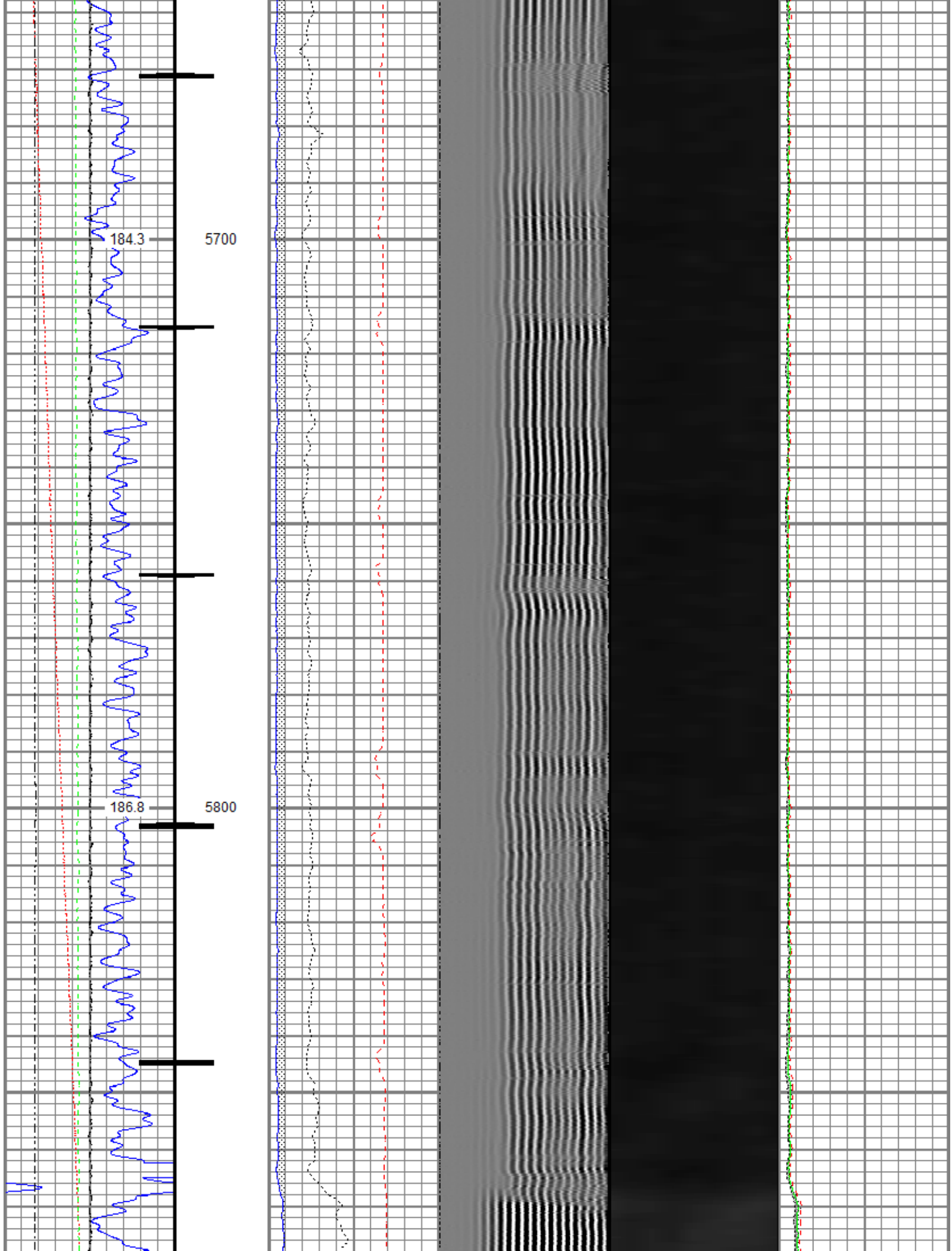


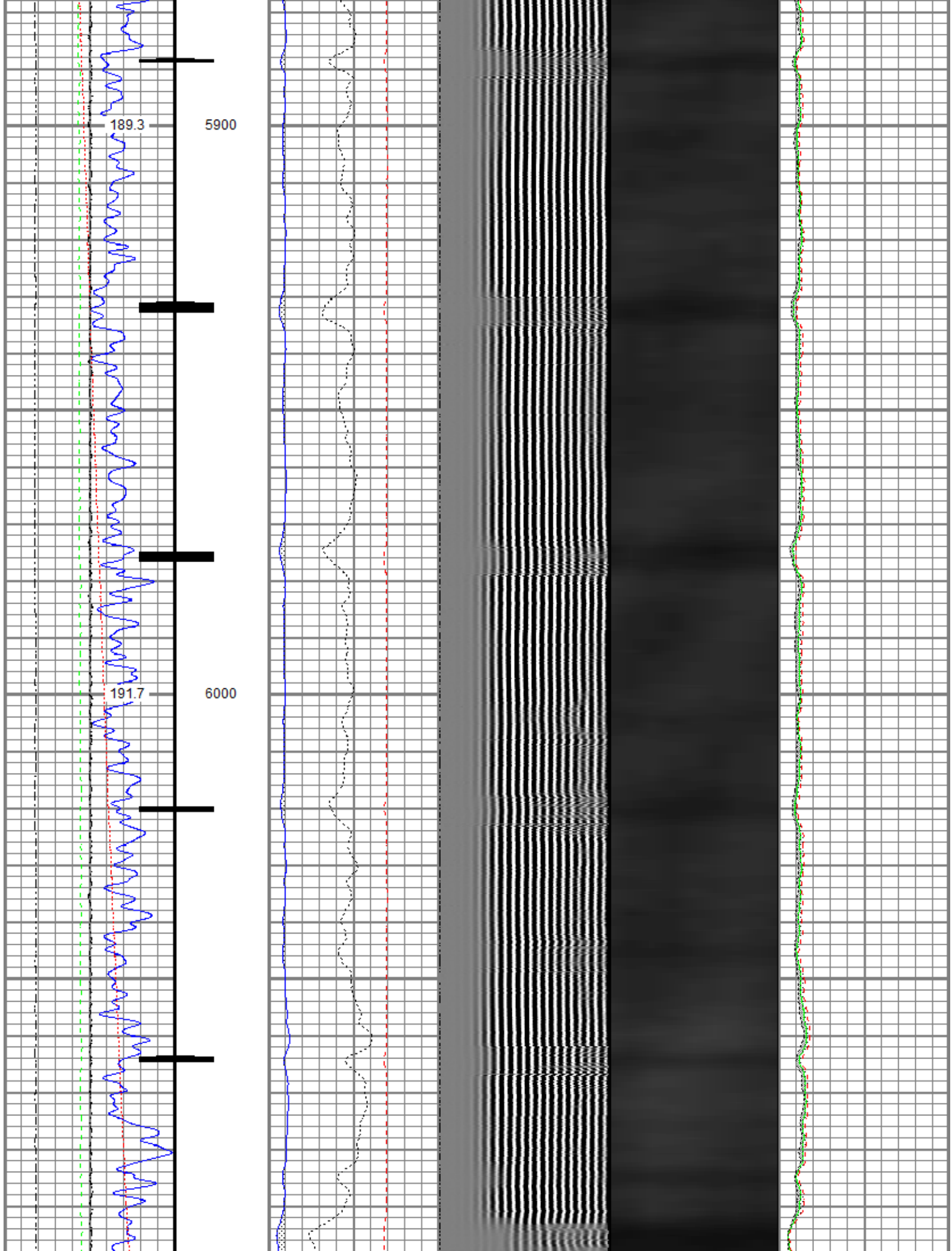


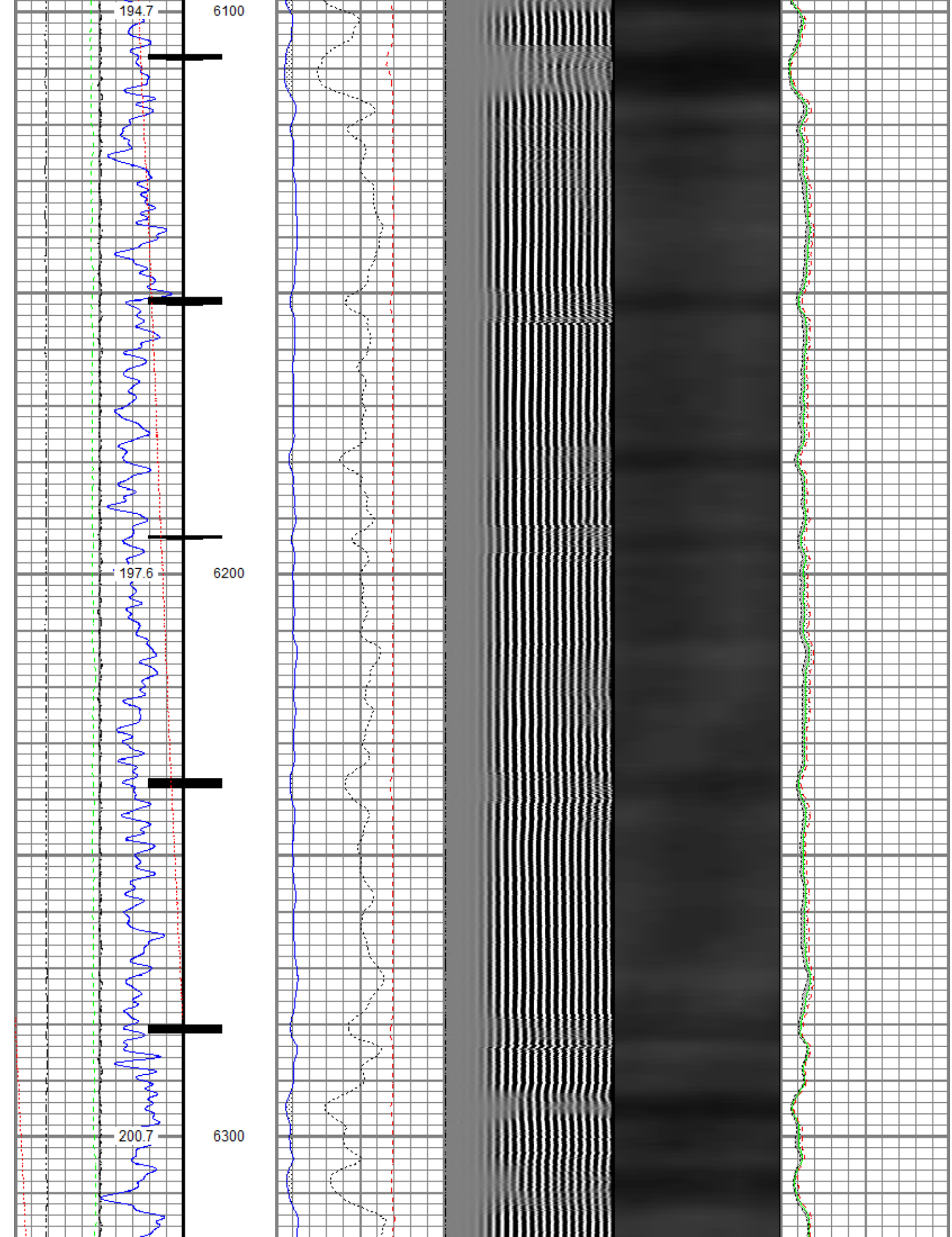


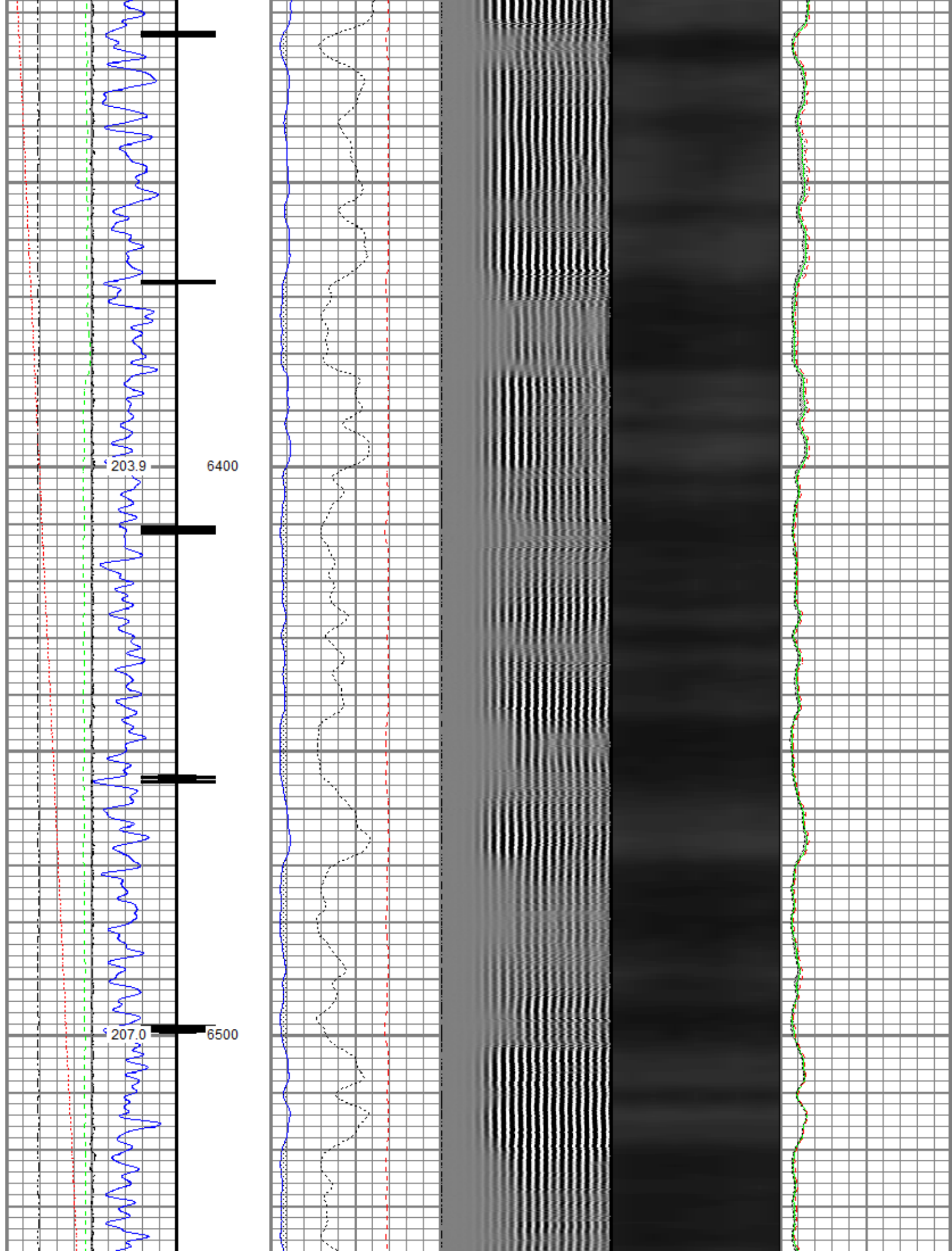


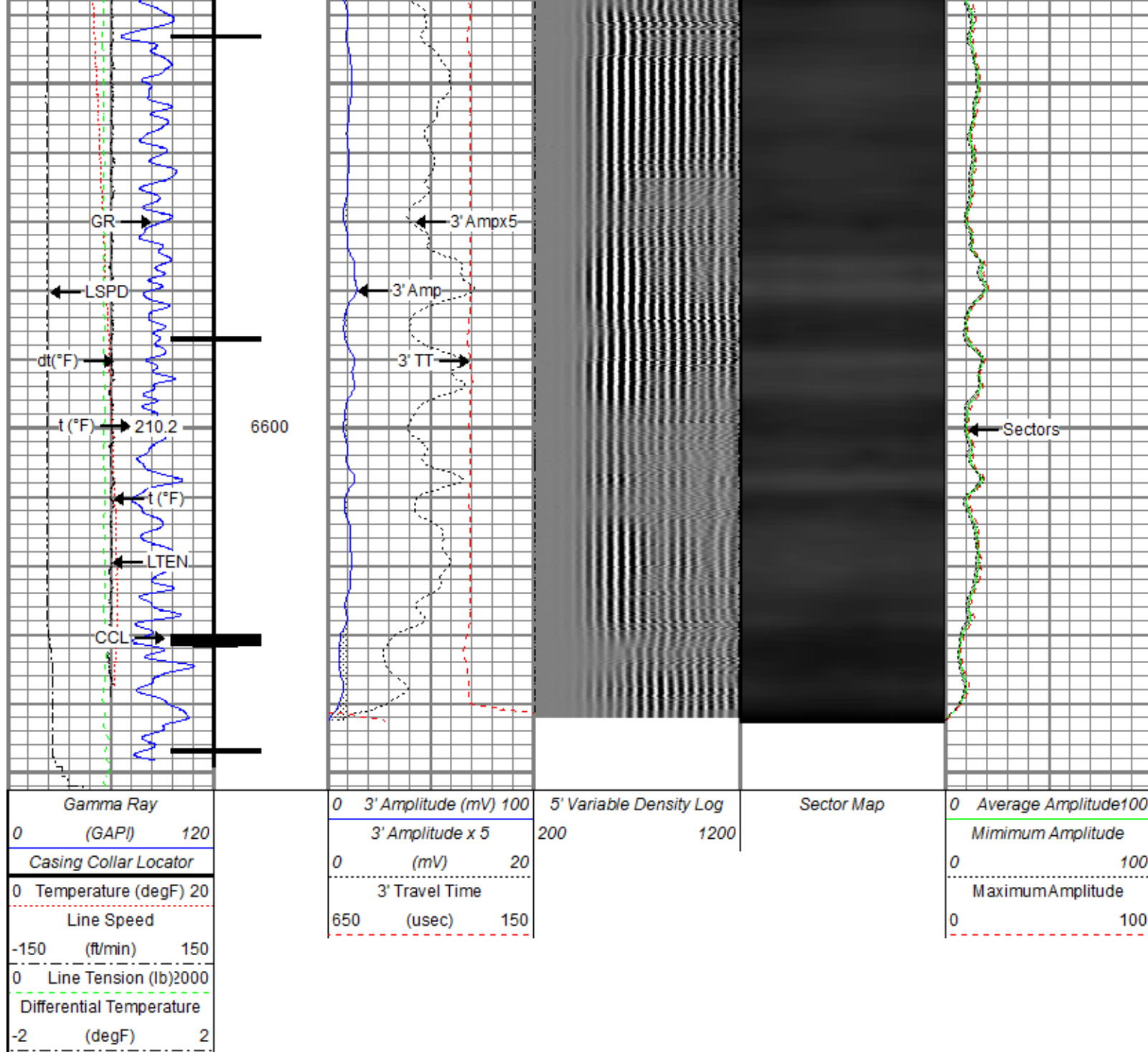








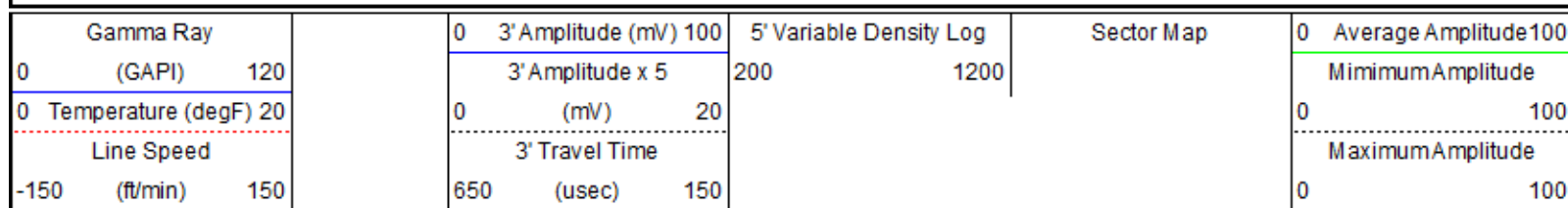




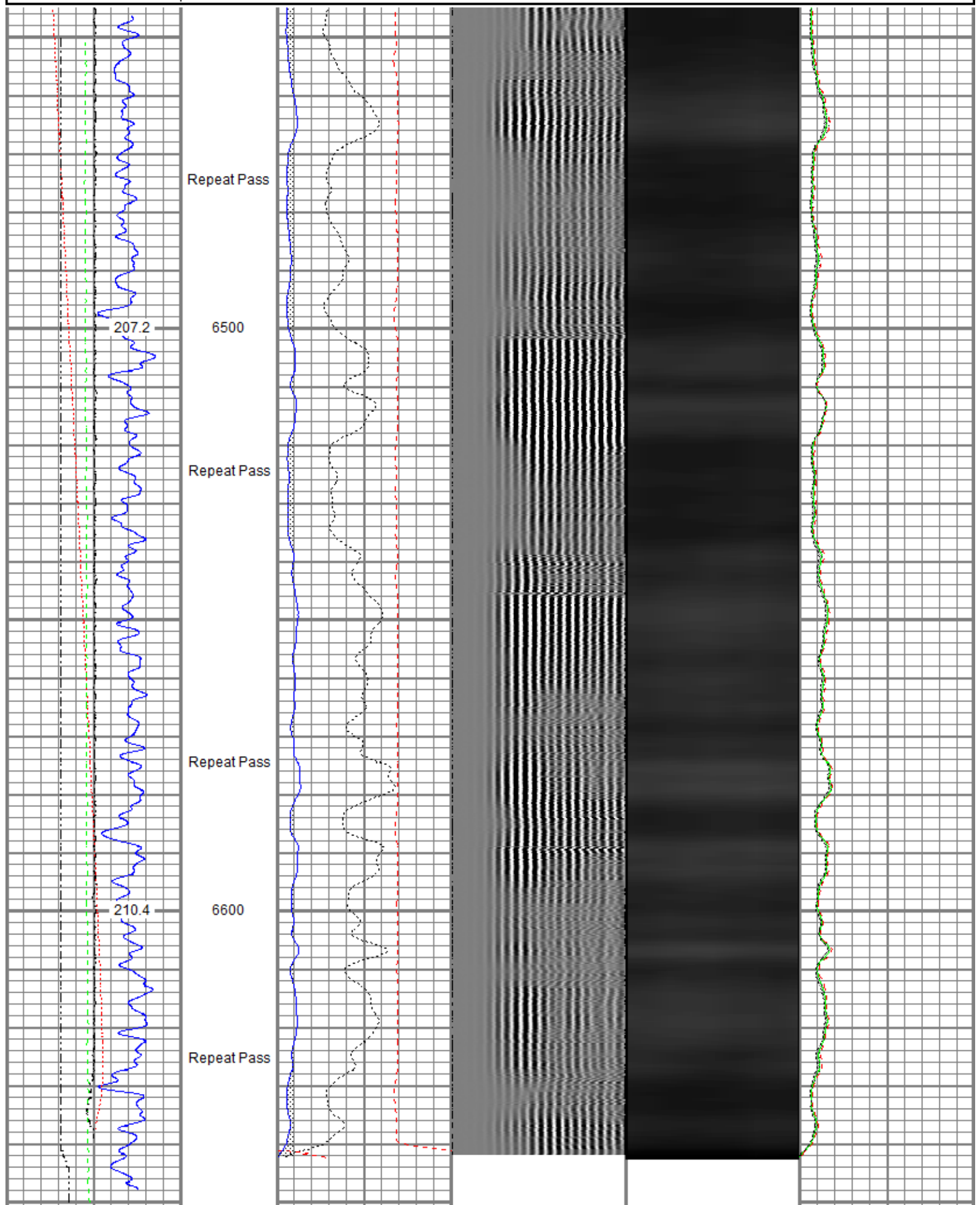
Repeat Pass

Recorded With 2800 PSI Surface Induced Pressure



Database File anadarko_borough 17n-17hz\0512345226_anadarko_borough 17n-17hz_rbl_01-19-18.db
 Dataset Pathname pass2.1
 Presentation Format ros_radri
 Dataset Creation Sat Jan 20 09:06:06 2018
 Charted by Depth in Feet scaled 1:240

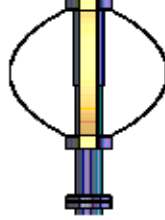


0 Line Tension (lb) 2000
Differential Temperature
-2 (degF) 2



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	1200		Minimum Amplitude
0 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	17.03		Titan CHD-14375 GO Titan 1-7/16" Assembled Electric Cable Head w/ 1" Fishing Neck	1.03	1.44	3.60
			Probe CENT-2750 Probe 2-3/4" Electric Inline Bowspring Centralizer	2.88	2.75	20.00
			Probe Radii-2750 RBT (FW1302-002) Probe 2-3/4" Radial Cement Bond Tool with Integral Temperature Sub	9.39	2.75	105.00
WVFS8	14.80					
WVFS7	14.80					
WVFS6	14.80					
WVFS5	14.80					
WVFS4	14.80					
WVFS3	14.80					
WVFS2	14.80					
WVFS1	14.80					
WVFCAL	14.80					
WVF3FT	14.80					
WVF5FT	13.80					
HEADVOLT	10.55					
CCL\$2	6.79		Probe CENT-2750 Probe 2-3/4" Electric Inline Bowspring Centralizer	2.88	2.75	20.00
CCL\$1	6.79					
GR	5.55		Probe GR-CCL-2750 GOB (FW1212-026) Probe 2-3/4" rev.2 Digital Scintillation Gamma Ray/CCL Combined	4.51	2.75	55.00
			Probe ADPT-6P-GO Probe 2-3/4" rev.2 Digital Scintillation Gamma Ray/CCL Combined	0.28	2.75	2.00



Probe CENT-2750
Probe 2-3/4" Electric Inline Bowspring Centralizer

2.88

2.75

20.00

Dataset: 0512345226_Anadarko_Borough 17N-17HZ_RBL_01-19-18.db: field/well/run1/pass1
Total length: 23.86 ft
Total weight: 225.60 lb
O.D.: 2.75 in

Calibration Report

Database File	C:\ProgramData\Warrior\Data\Anadarko_Borough 17N-17HZ\0512345226_Anadarko_Borough 17N-17HZ_RBL_01-19-18.db
Dataset Pathname	pass1
Dataset Creation	Fri Jan 19 08:04:57 2018

Gamma Ray Calibration Report

Serial Number:	FW1212-026	
Tool Model:	2750 GOB	
Performed:	Sun Nov 12 12:27:51 2017	
Calibrator Value:	637.0	GAPI
Background Reading:	113.7	cps
Calibrator Reading:	1029.1	cps
Sensitivity:	0.6959	GAPI/cps

Segmented Cement Bond Log Calibration Report

Serial Number:	FW1302-002	
Tool Model:	2750 RBT	
Calibration Casing Diameter:	5.500	in
Calibration Depth:	-33.544	ft

Master Calibration, performed Thu Jan 18 10:42:09 2018:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.028	0.648	0.800	71.921	114.769	-2.435
CAL	0.692	0.695				
5'	0.011	0.592	0.800	71.921	122.325	-0.548
SUM						
S1	0.025	0.643	0.000	100.000	161.827	-4.085
S2	0.028	0.644	0.000	100.000	162.346	-4.556
S3	0.026	0.643	0.000	100.000	162.266	-4.288
S4	0.027	0.640	0.000	100.000	162.934	-4.346
S5	0.025	0.643	0.000	100.000	161.856	-4.064
S6	0.027	0.650	0.000	100.000	160.458	-4.337
S7	0.030	0.652	0.000	100.000	160.681	-4.753
S8	0.029	0.653	0.000	100.000	160.297	-4.704


Internal Reference Calibration, performed (Not Performed):

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.692	0.695	1.000	0.000

Air Zero Calibration, performed Thu Jan 18 07:23:09 2018:

	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

Temperature Calibration Report			
Serial Number:	FW1302-002		
Tool Model:	2750 RBT		
Performed:	Sun Nov 12 13:28:07 2017		
	Reference	Reading	
Low Reference:	100.00 degF	110.72	degF
High Reference:	350.00 degF	409.18	degF
Gain:	0.84		
Offset:	7.26		
Delta Spacing	1		

	Company	Kerr-McGee Oil & Gas Onshore, L.P.
	Well	Borough 17N-17HZ
	Field	Wattenberg
	County	Weld
	State	Colorado