



Radial Cement Bond
Gamma Ray
Casing Collar Log

Company SRC Energy Inc
Well Falken 33N-9A-L
Field Wattenberg
County Weld State Colorado

Location: API #: 05-123-45107
SEC 11 TWP 6N RGE 66W
Permanent Datum Ground Level Elevation 4810'
Log Measured From Gound Level 0 FT
Drilling Measured From Kelly Bushing
Other Services
JB/GR
RBP
Pull RBP
Elevation
K.B. 4835'
D.F. ---
G.L. 4810'

Date	06-MAR-2018									
Run Number	Four									
Depth Driller	16655 FT (GL)									
Depth Logger	6616 FT									
Bottom Logged Interval	6600 FT									
Top Log Interval	Surface									
Open Hole Size	8.5"									
Type Fluid	Water									
Density / Viscosity	8.34 lb/gal									
Max. Recorded Temp.	211°F									
E estimated Cement Top	See Log									
Time Well Ready	ROA									
Time Logger on Bottom	1:47									
E equipment Number	HD-325									
Location	Fort Lupton, CO									
Recorded By	J. Morrison									
Witnessed By	Shane Hart									
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	J-55	Surface	1774 FT					
Intermediate #1	5 1/2	20	P-110	Surface	16633 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
Log measured from Ground Level at 0 FT
Depth referenced to Casing Tally reported Marker Joint at 6218 FT
Adjusted -10 FT to correlate with Marker Joint
Log ran from deep as possible to Surface
Log ran with 2500 PSI Surface Induced Pressure
Logging tools were clean and free of debris upon completion of operations

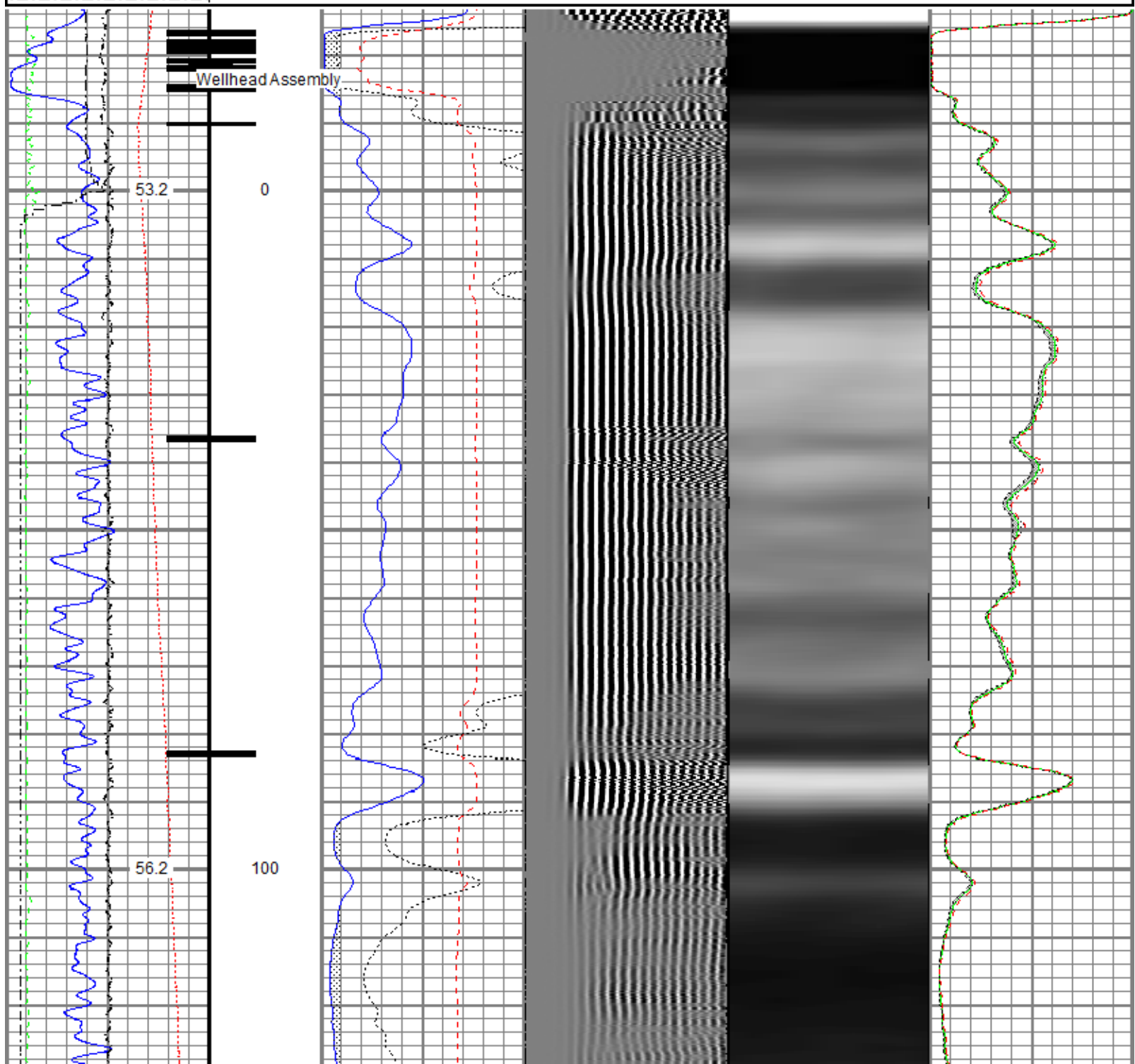
Thank you for choosing Reliance Oilfield Services, LLC!!

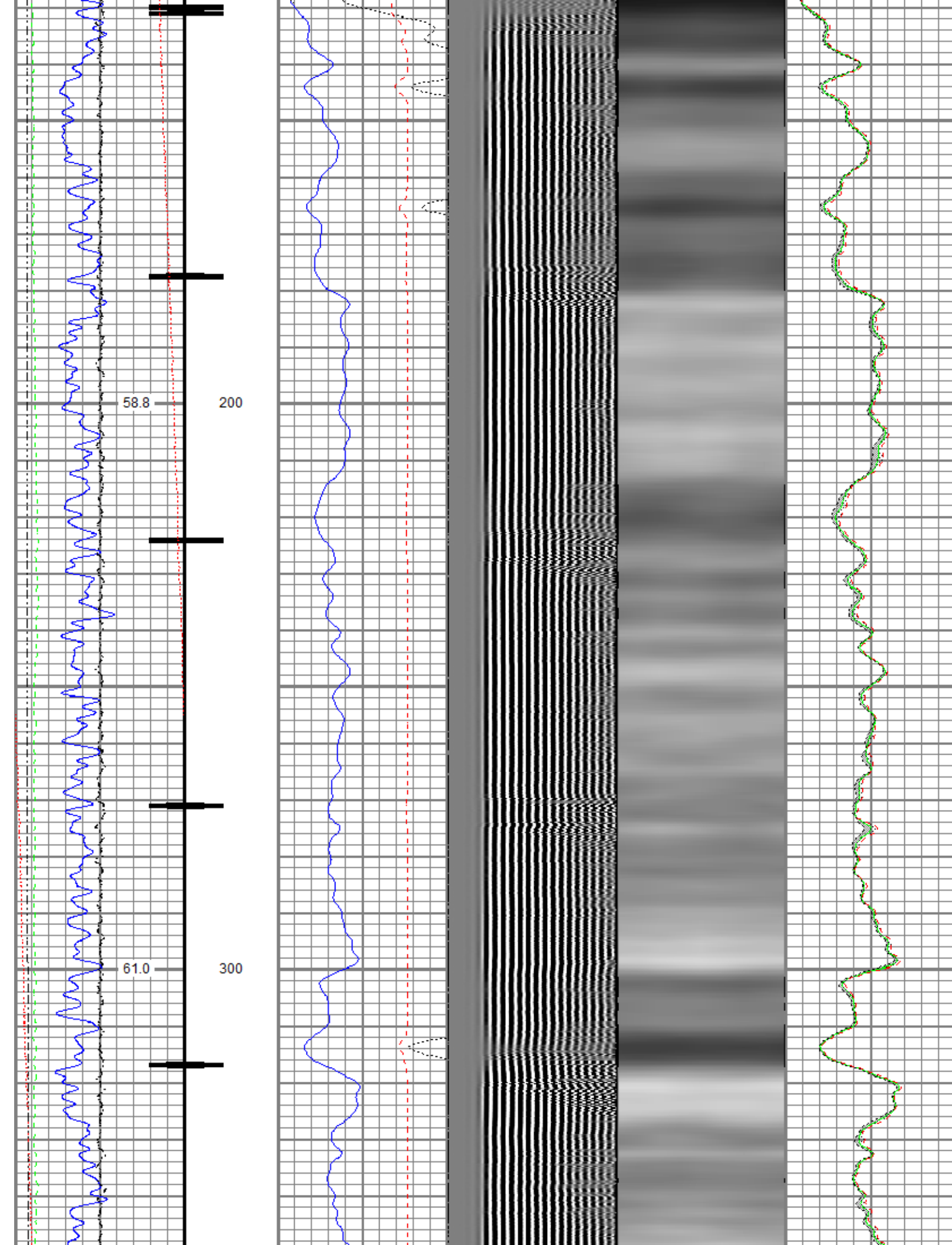
Main Pass

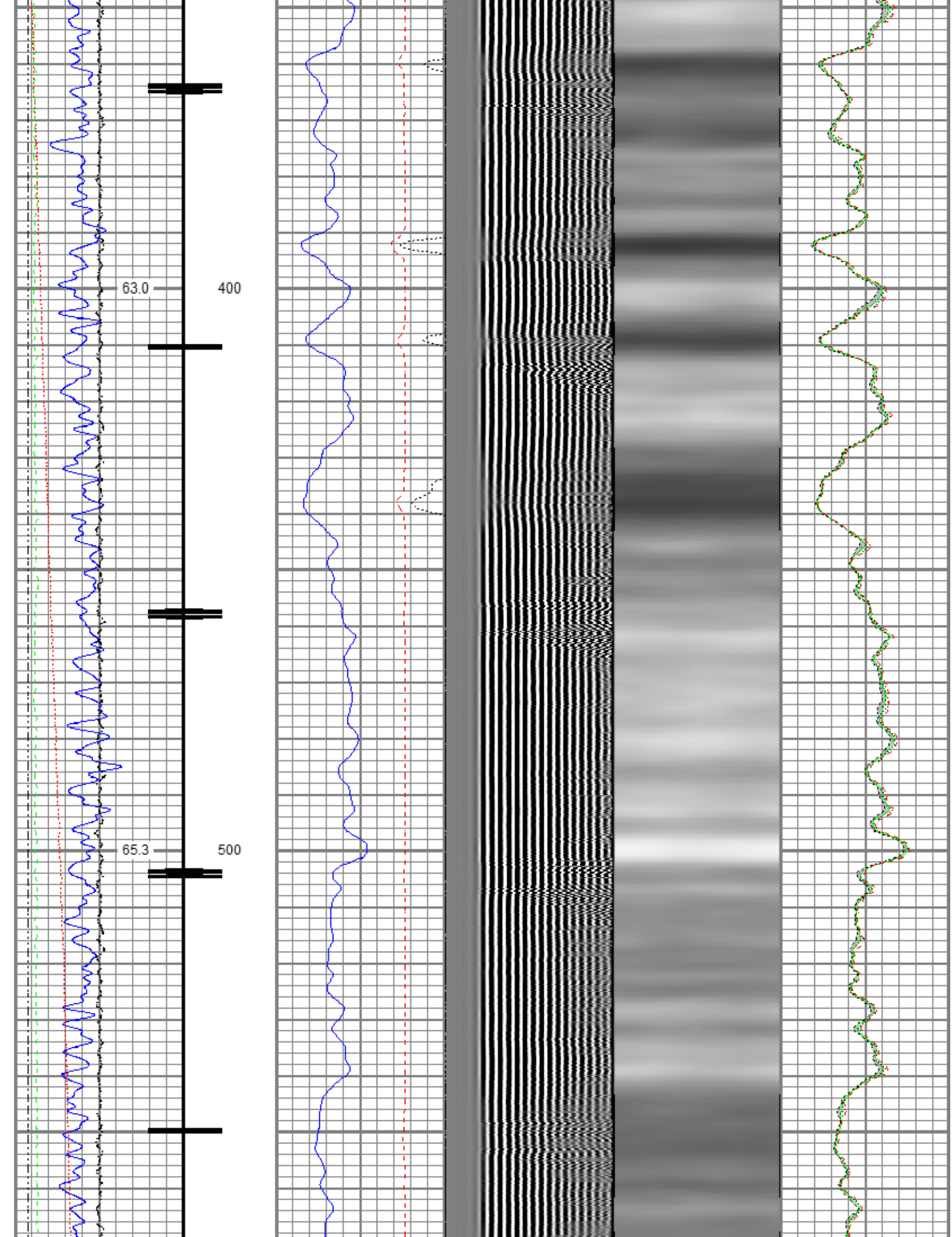


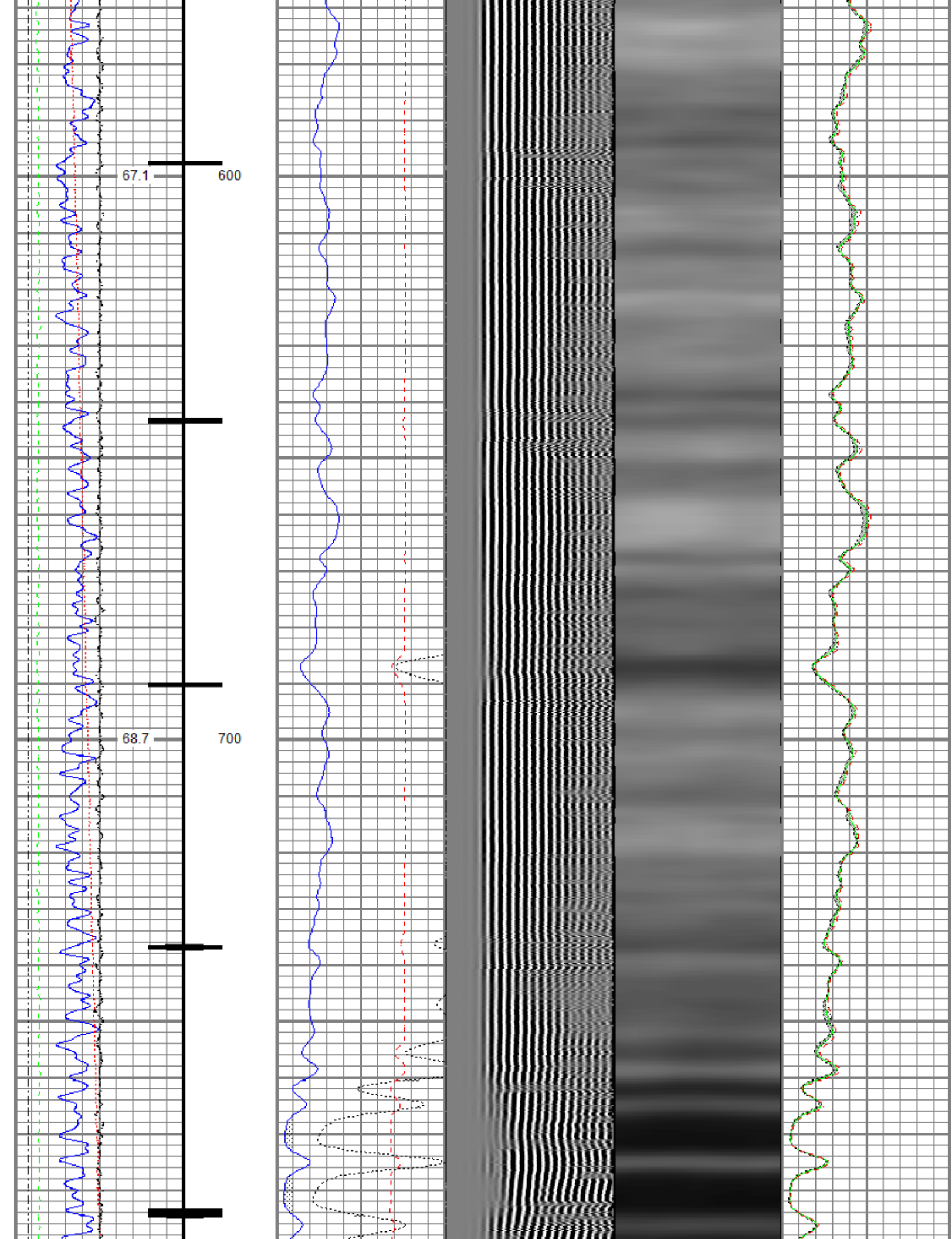
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Dataset Pathname main.1
Presentation Format ros_radrii
Dataset Creation Tue Mar 06 14:42:45 2018
Charted by Depth in Feet scaled 1:240

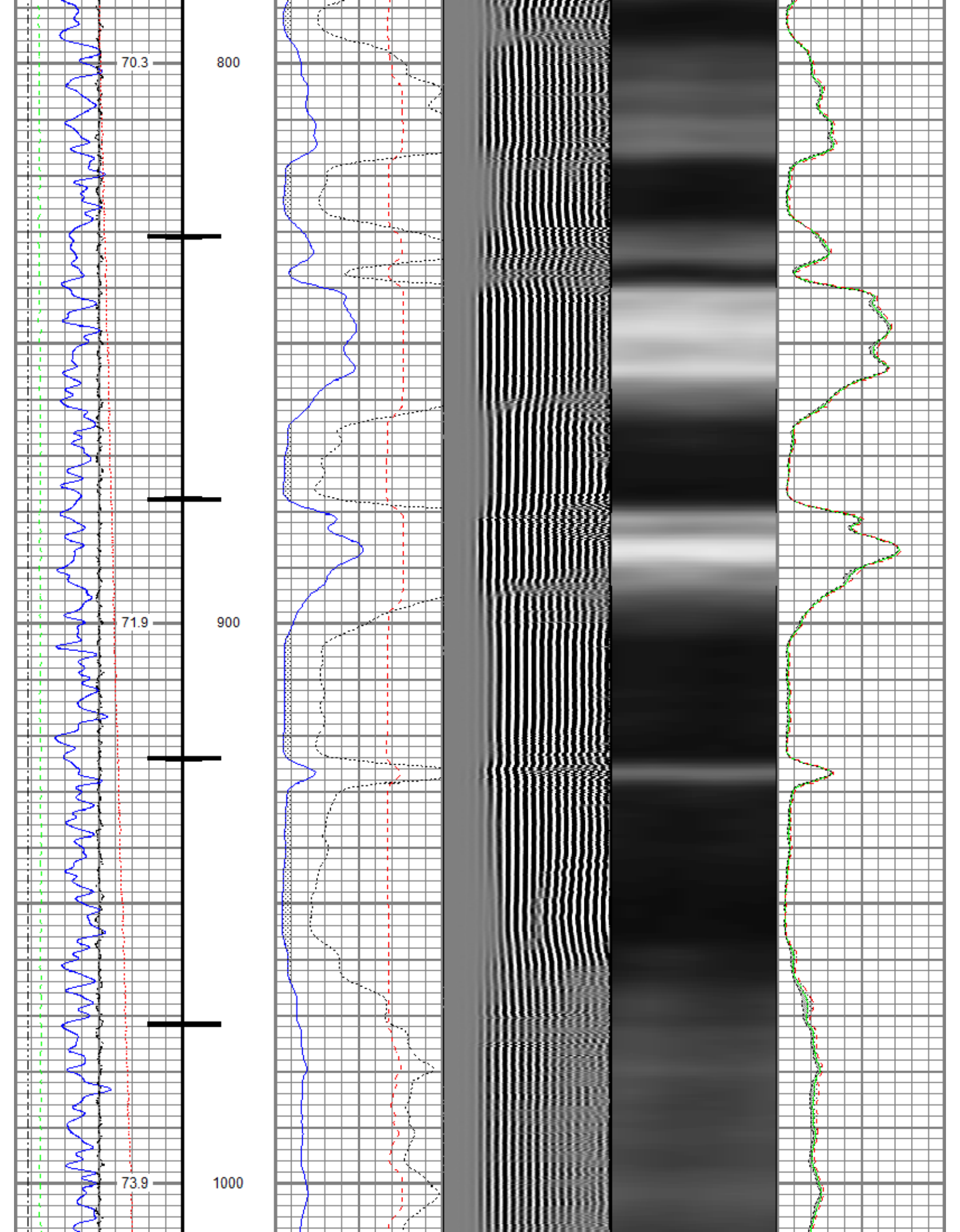
Gamma Ray	0	3' Amplitude (mV) 100	5' Variable Density Log	Sector Map	0	Average Amplitude 100
(GAPI) 120		3' Amplitude x 5	200 (usec) 1200			Minimum Amplitude
Casing Collar Locator	0	(mV) 20			0	100
Temperature (degF) 20		3' Travel Time				Maximum Amplitude
Line Speed	650	(usec) 150			0	100
(ft/min) 150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

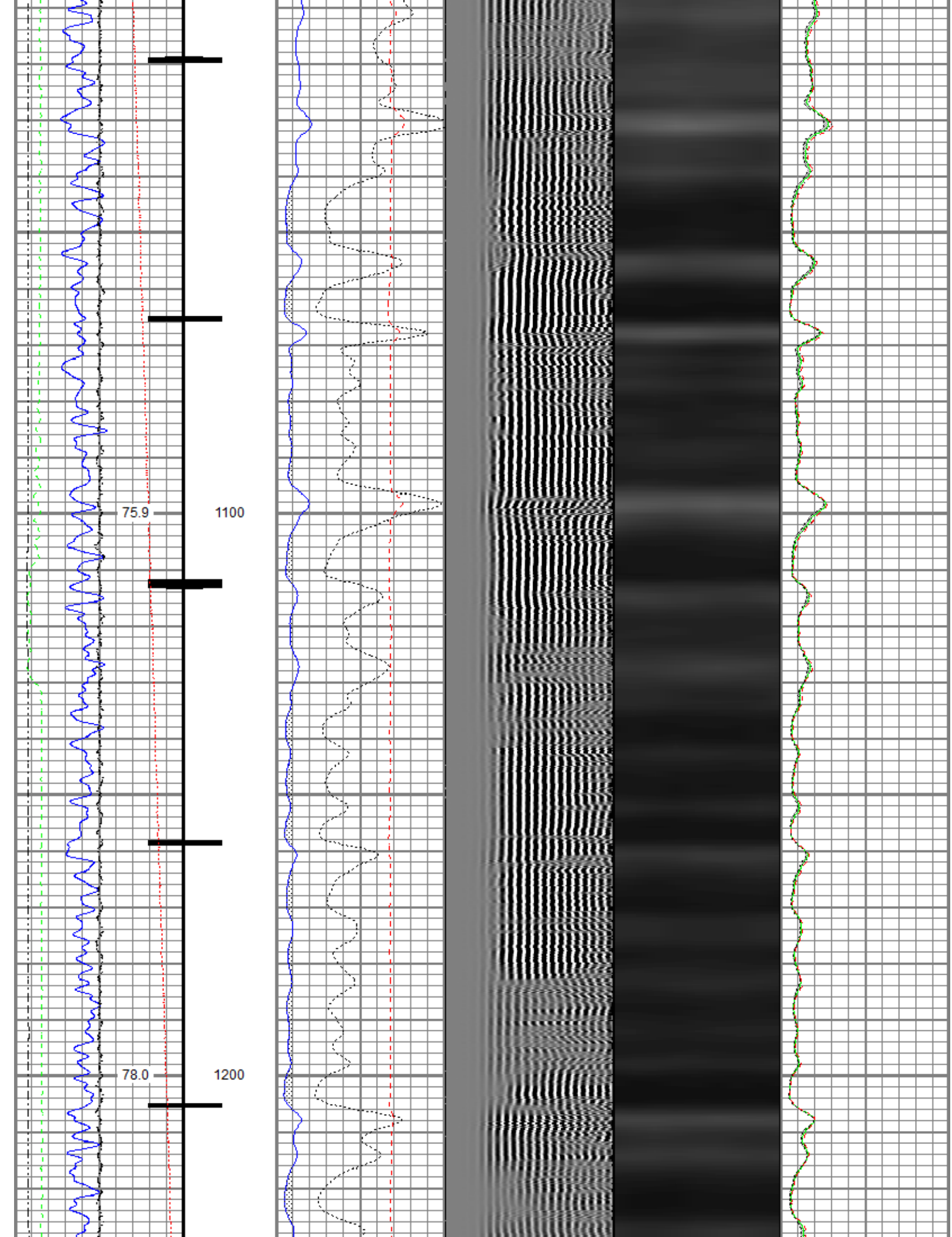


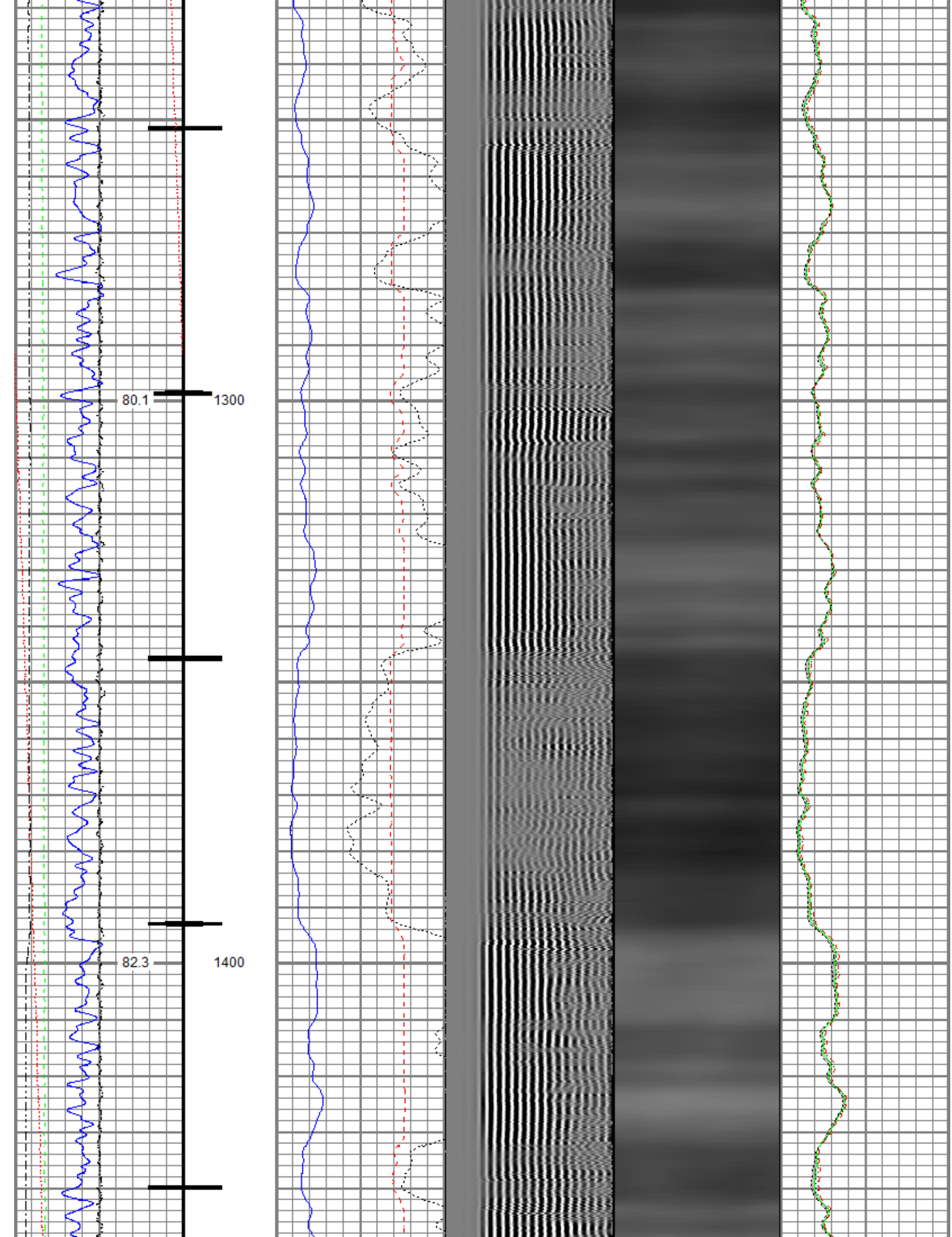


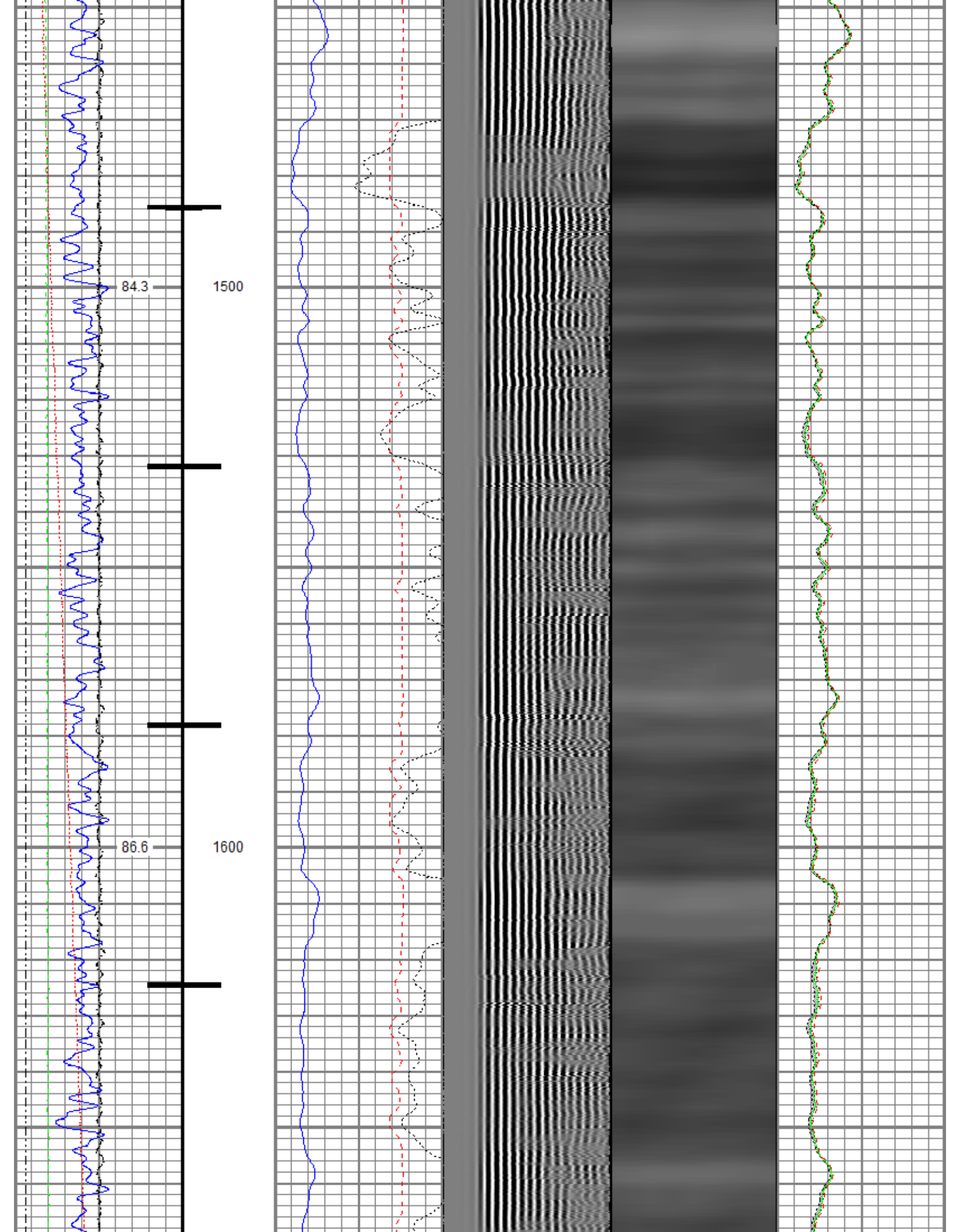


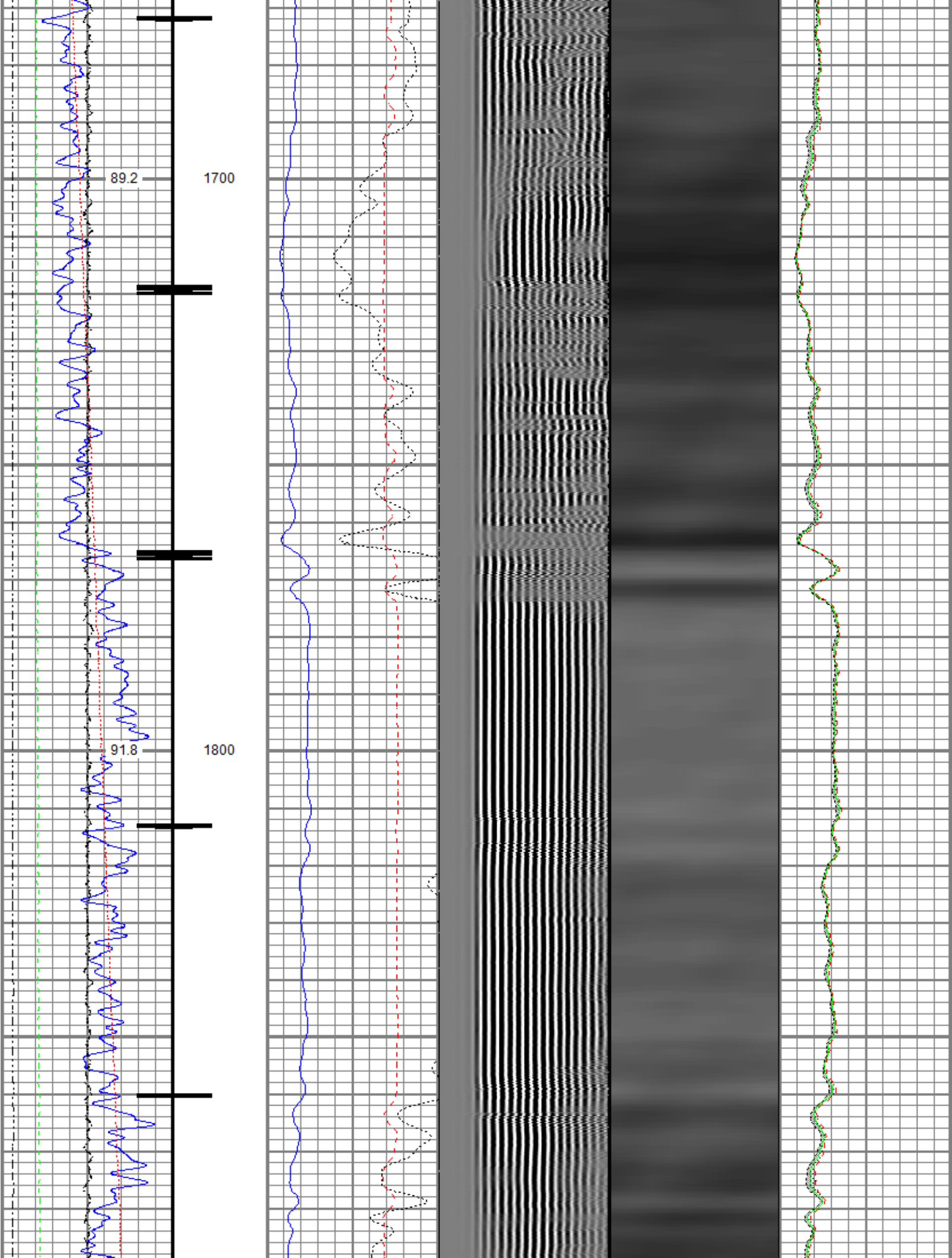


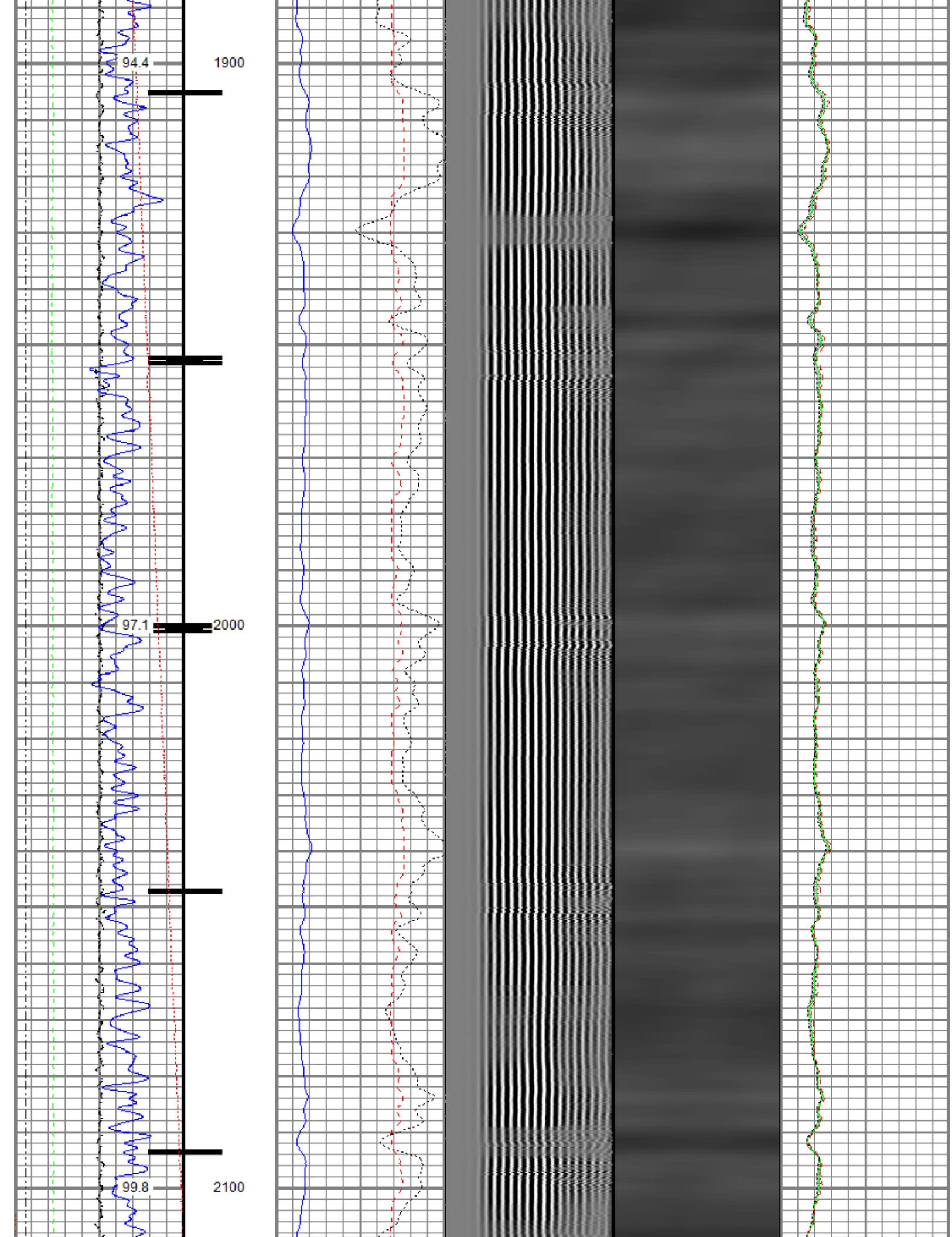


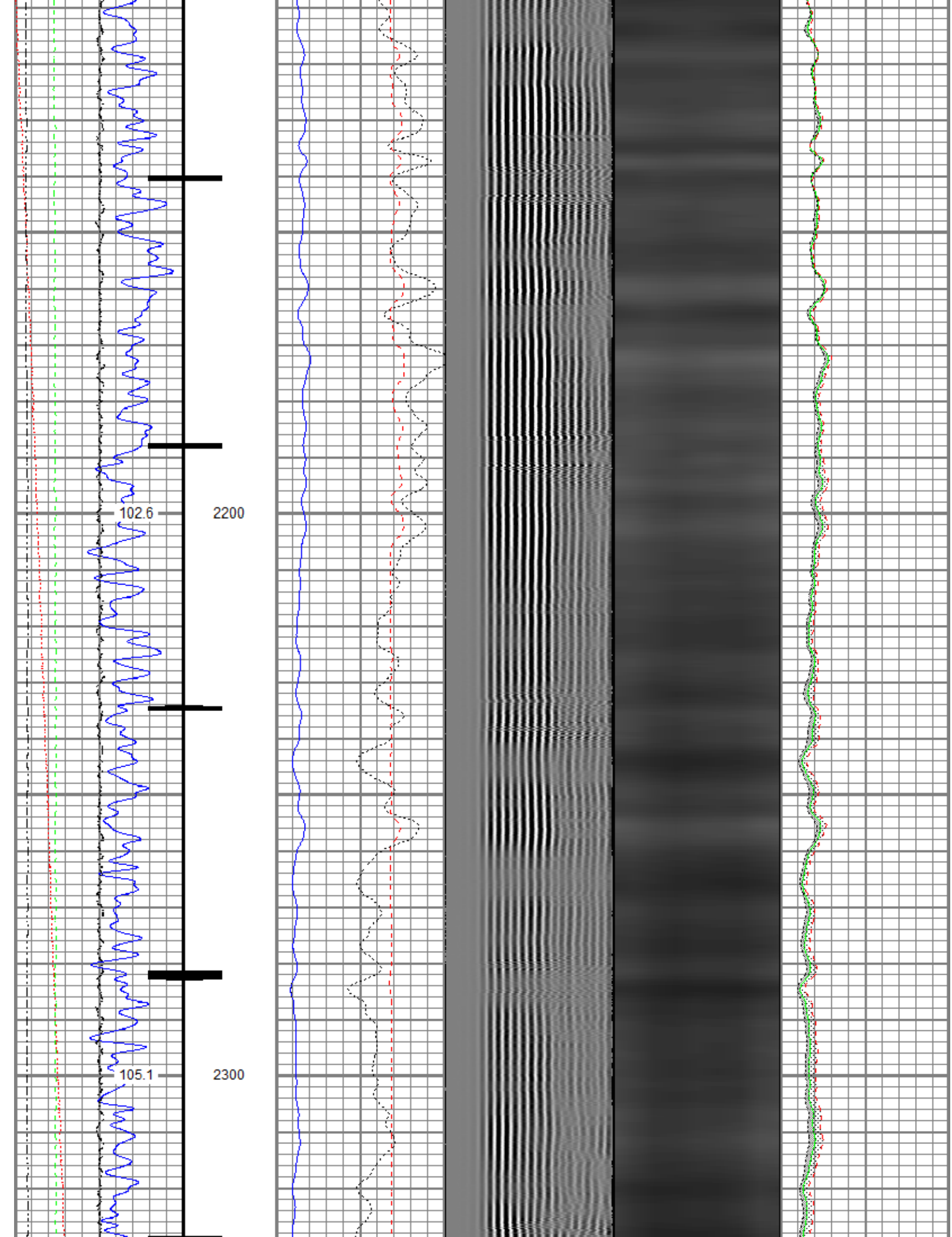


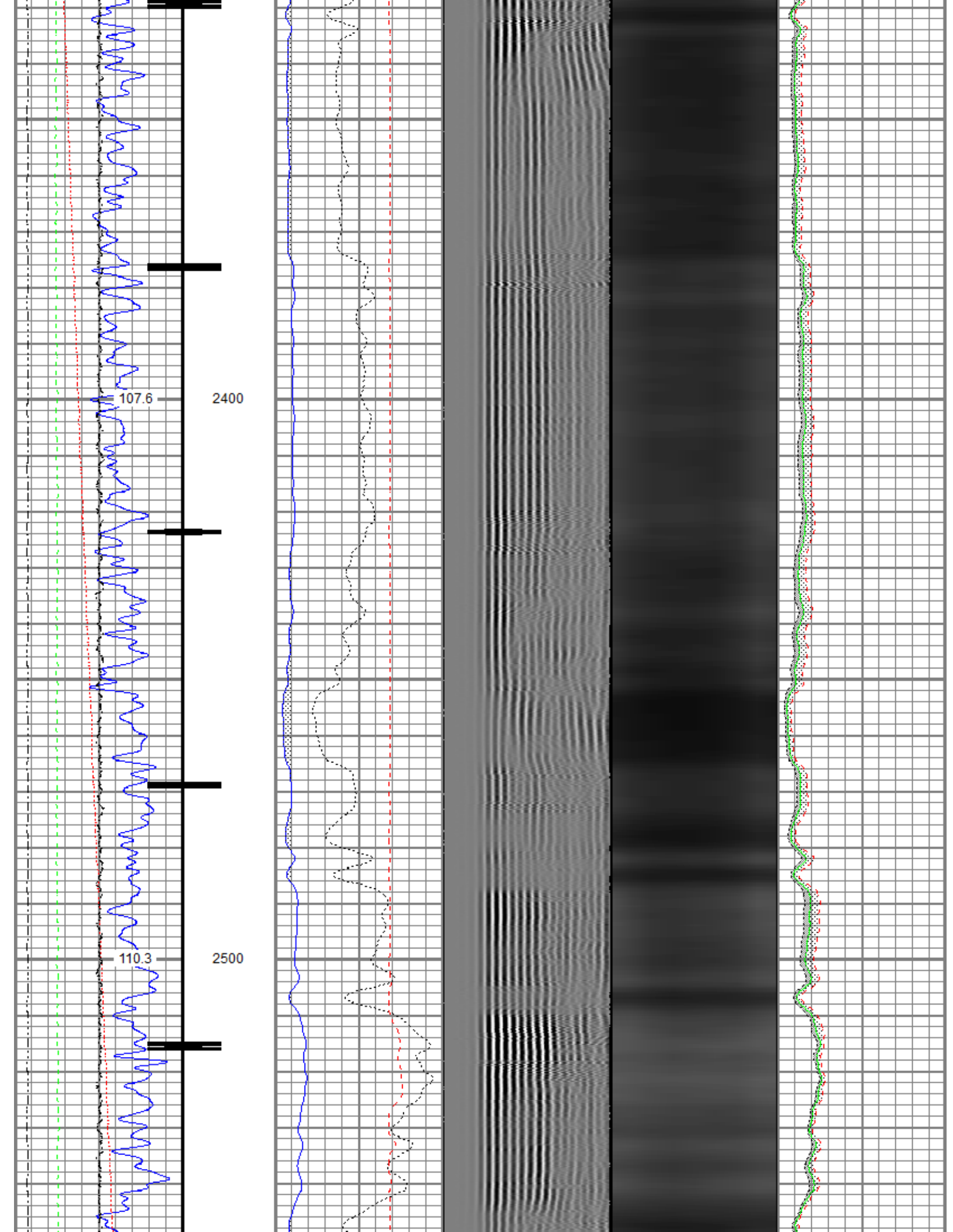


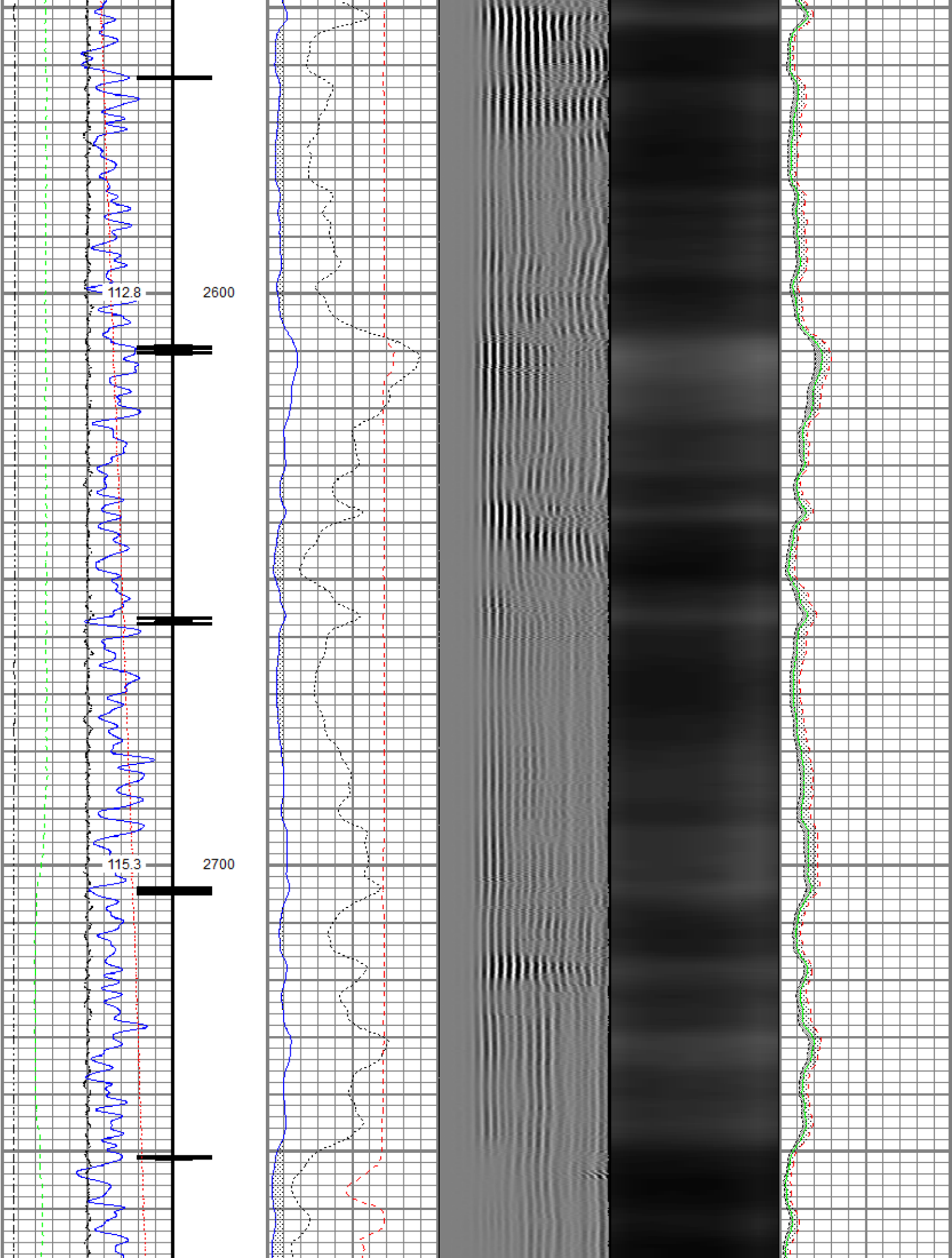


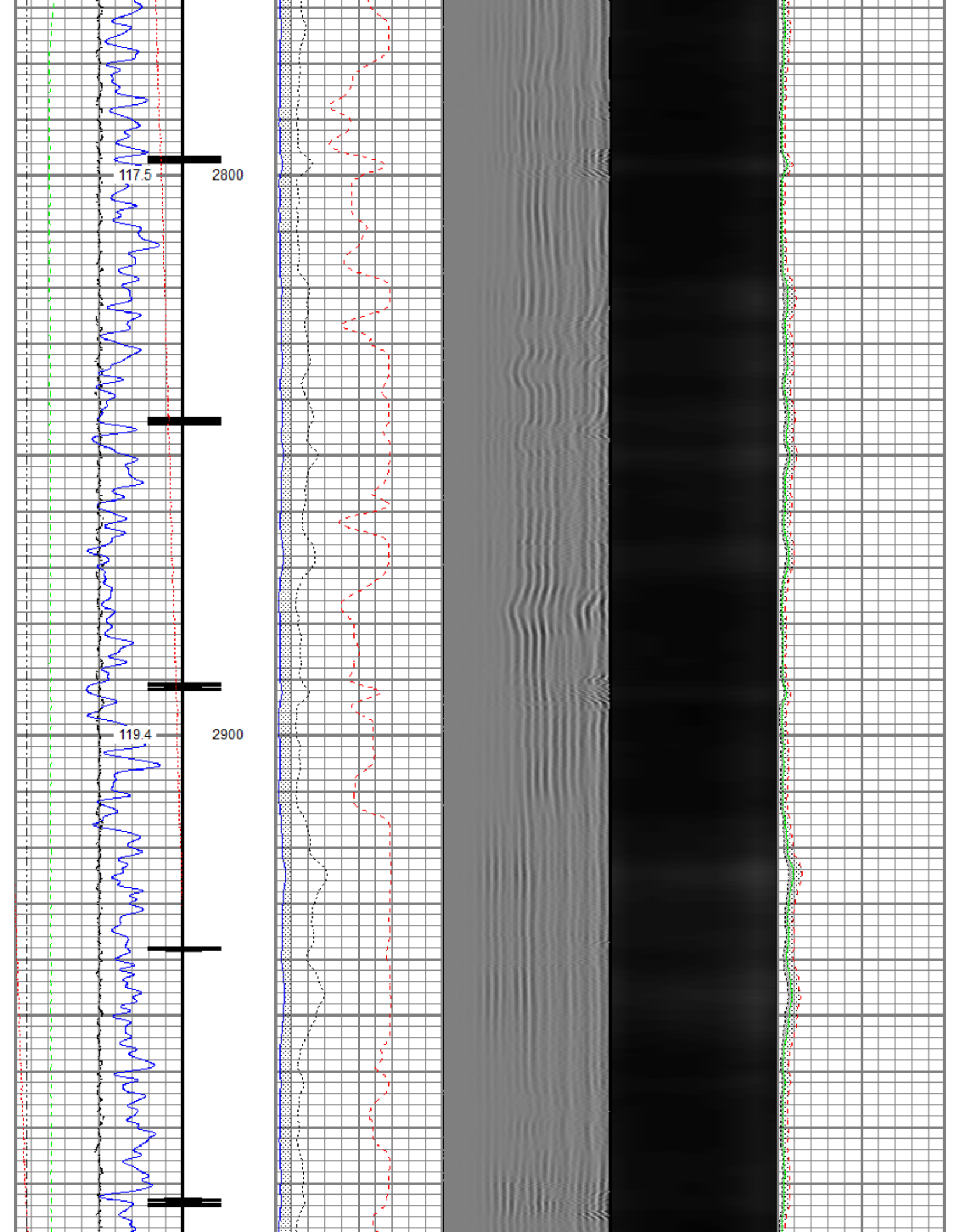


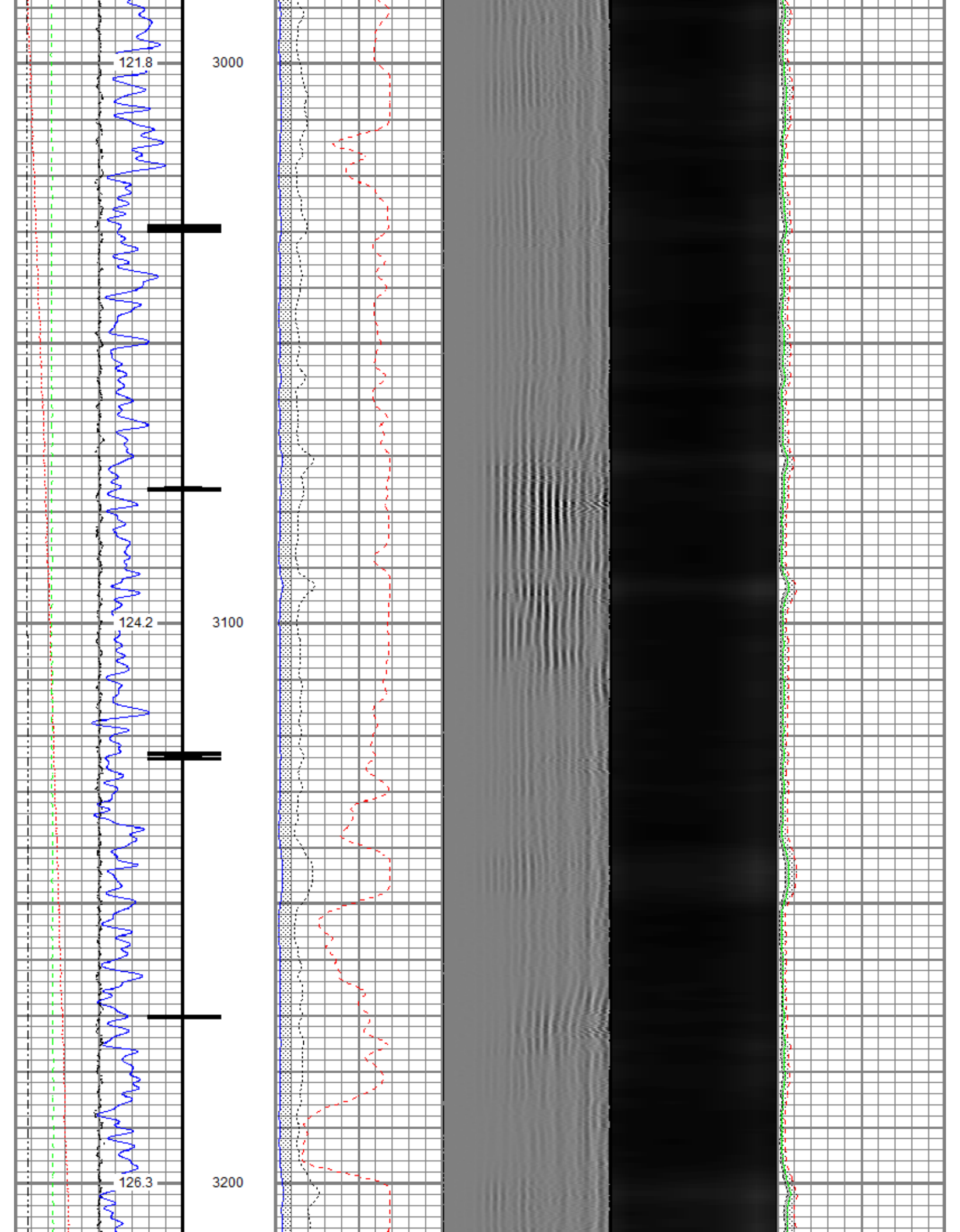


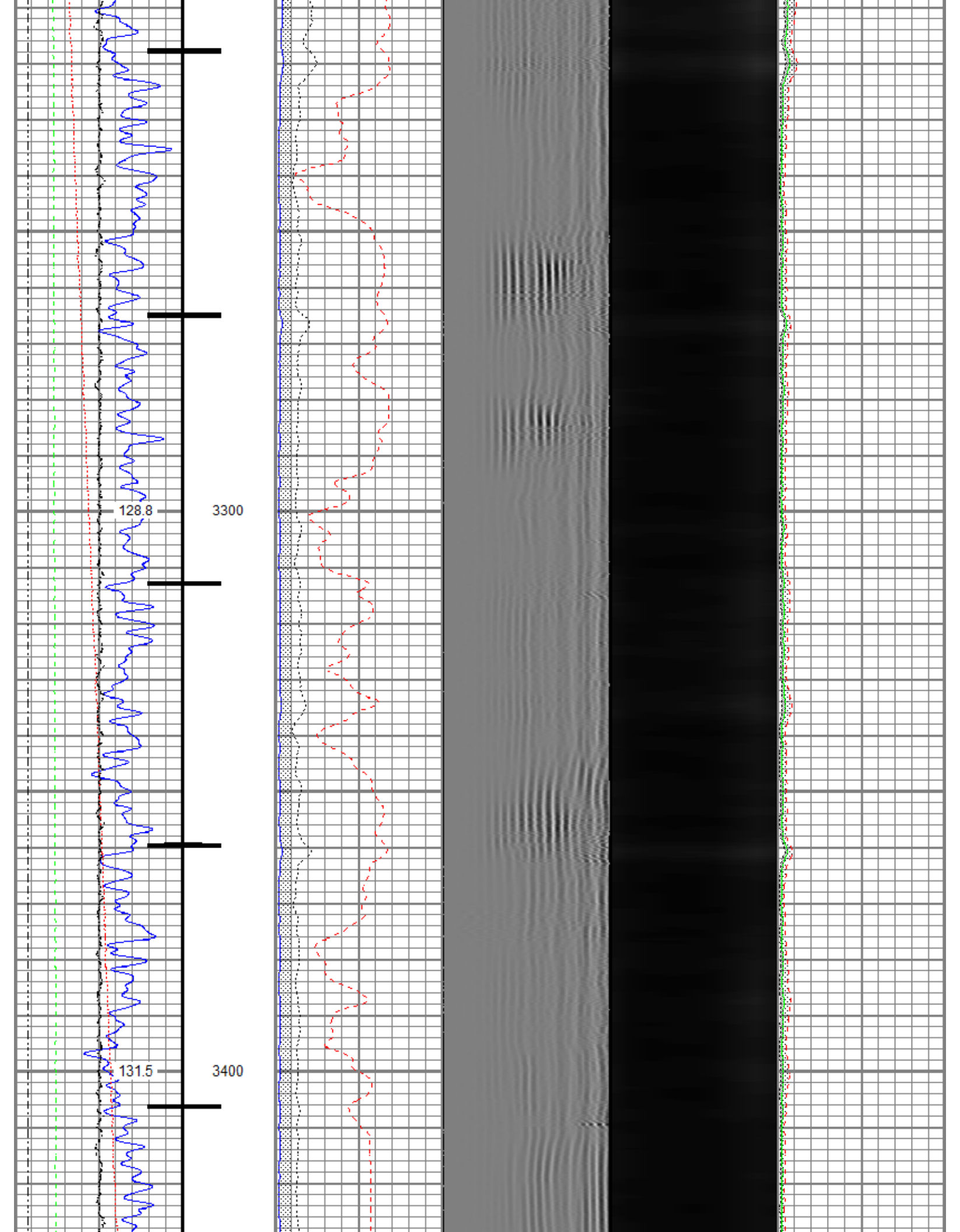


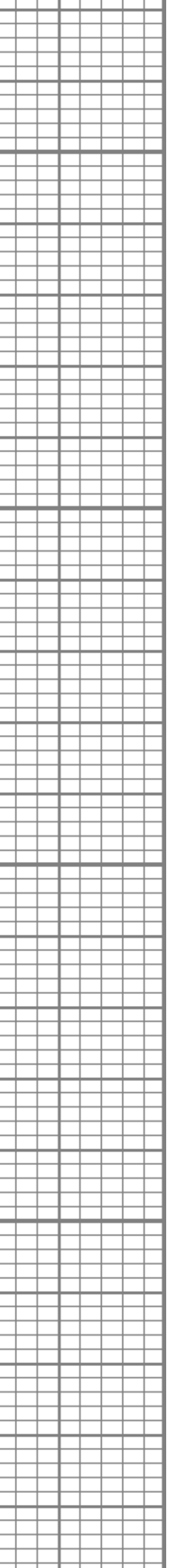
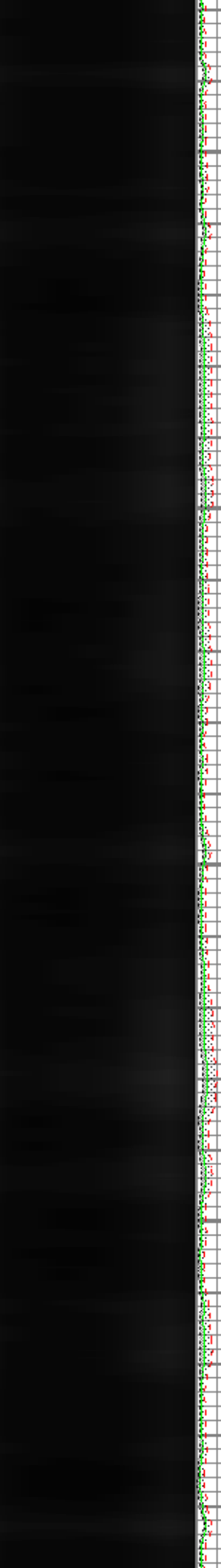
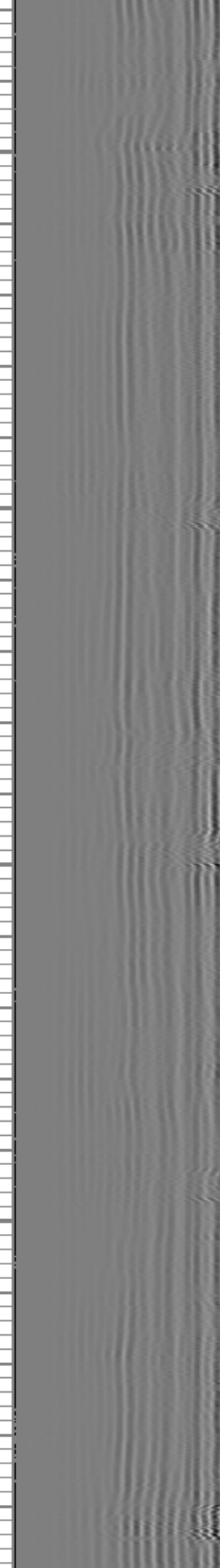
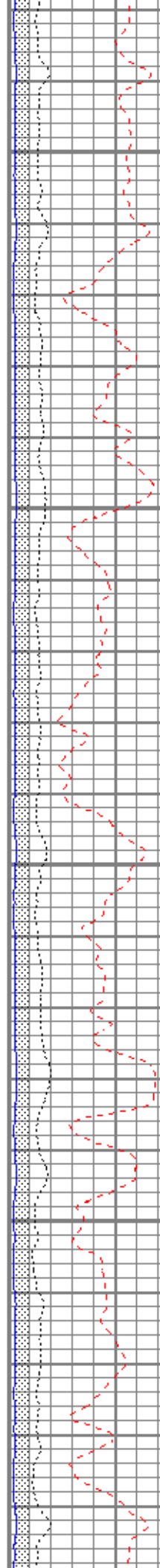
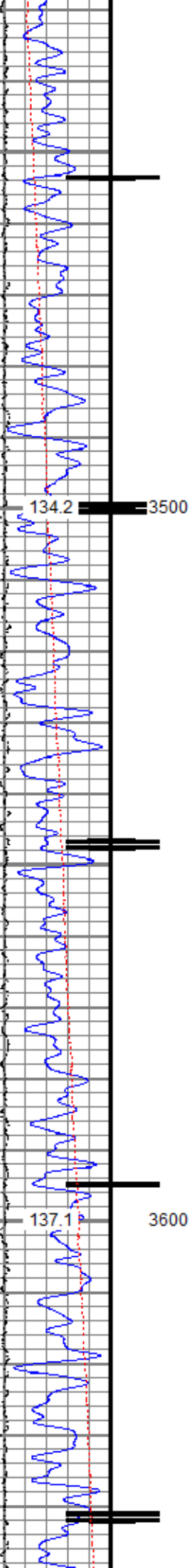


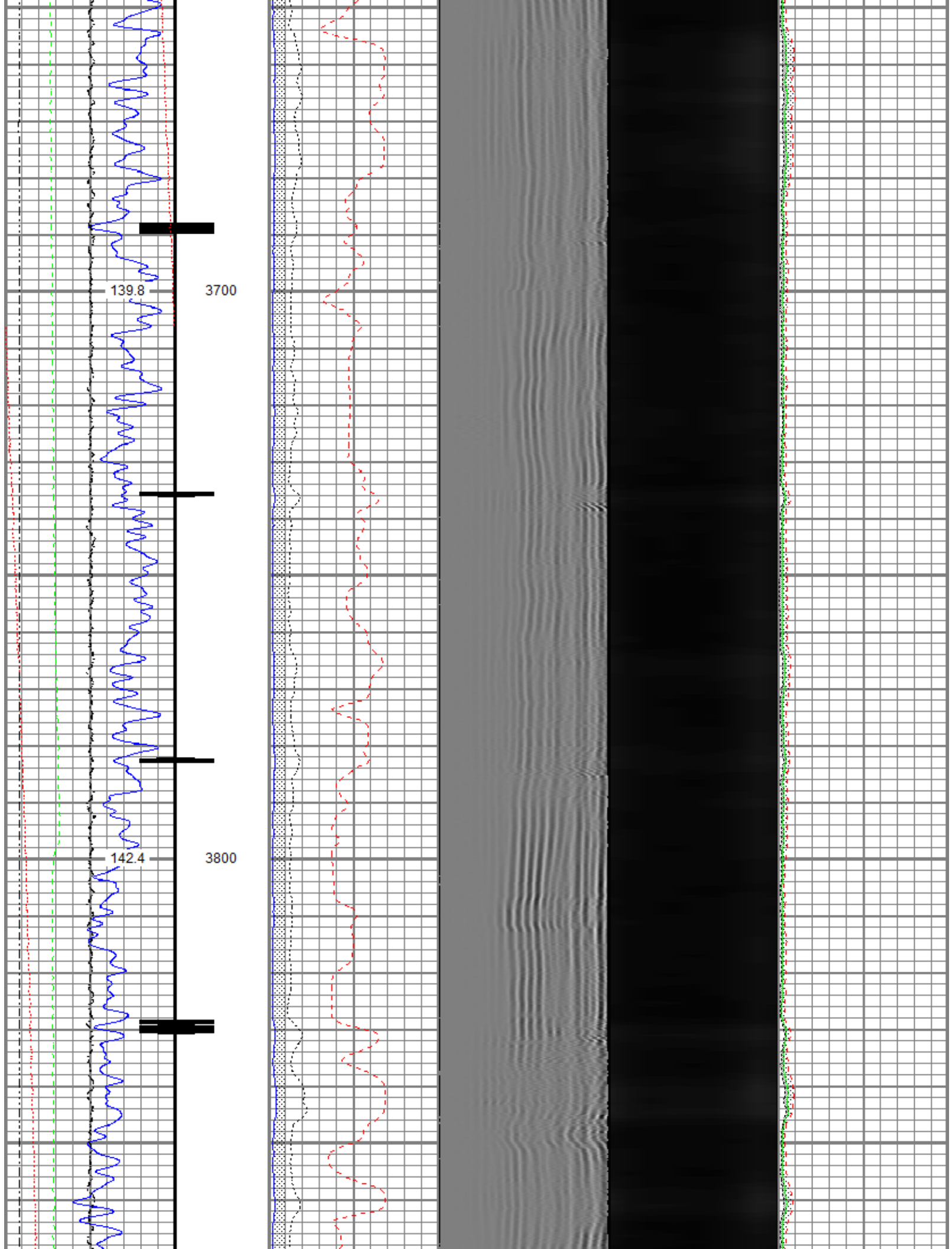


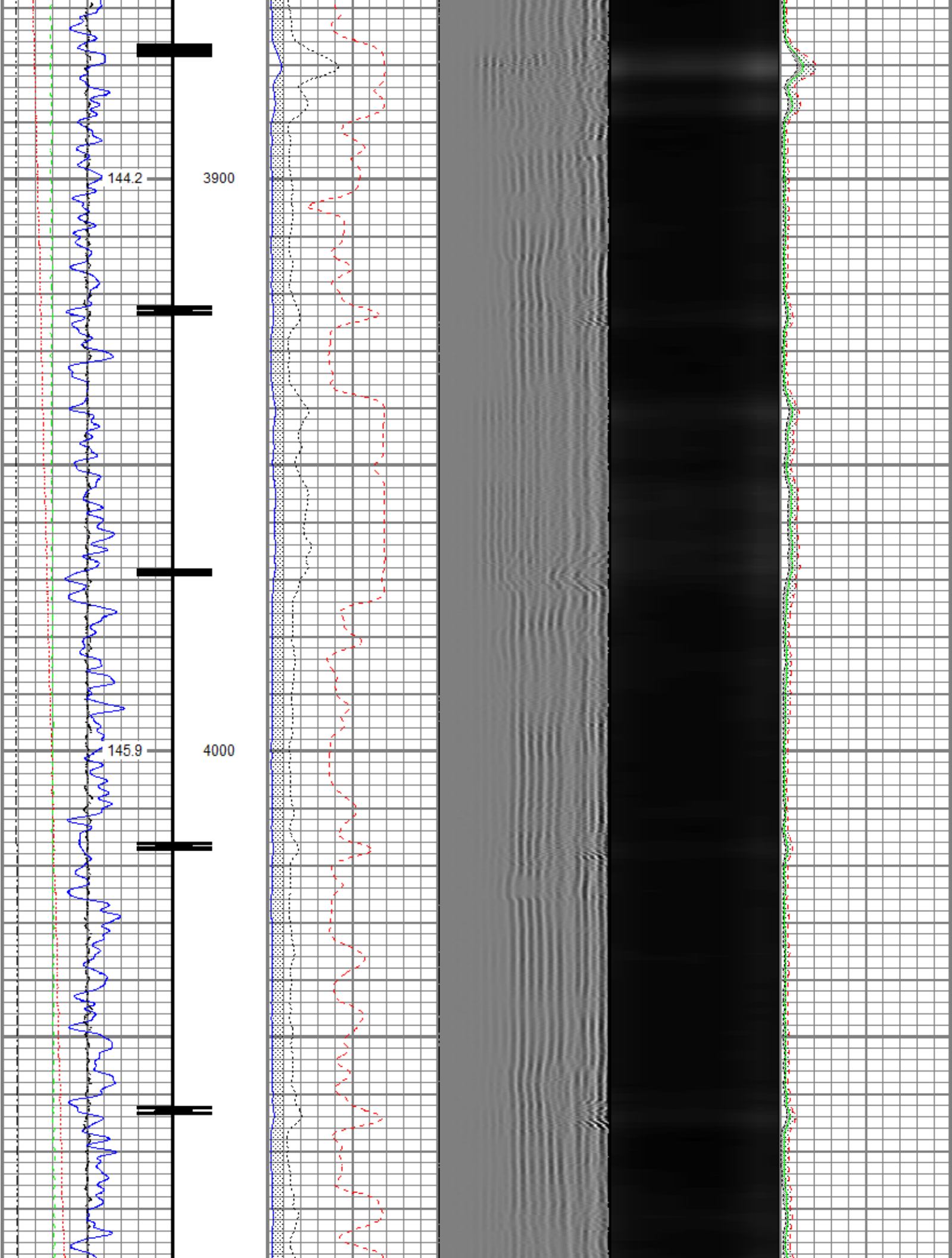


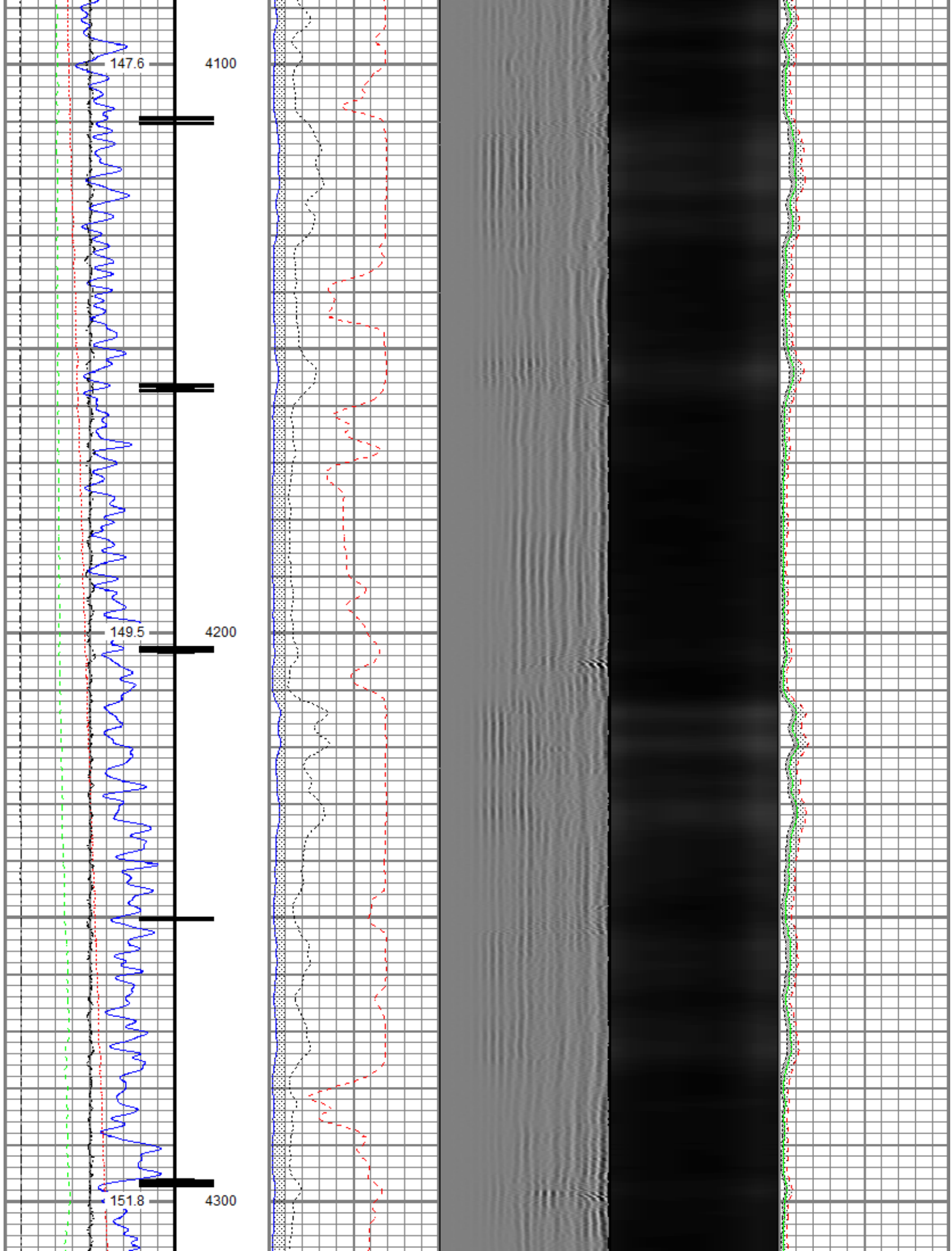


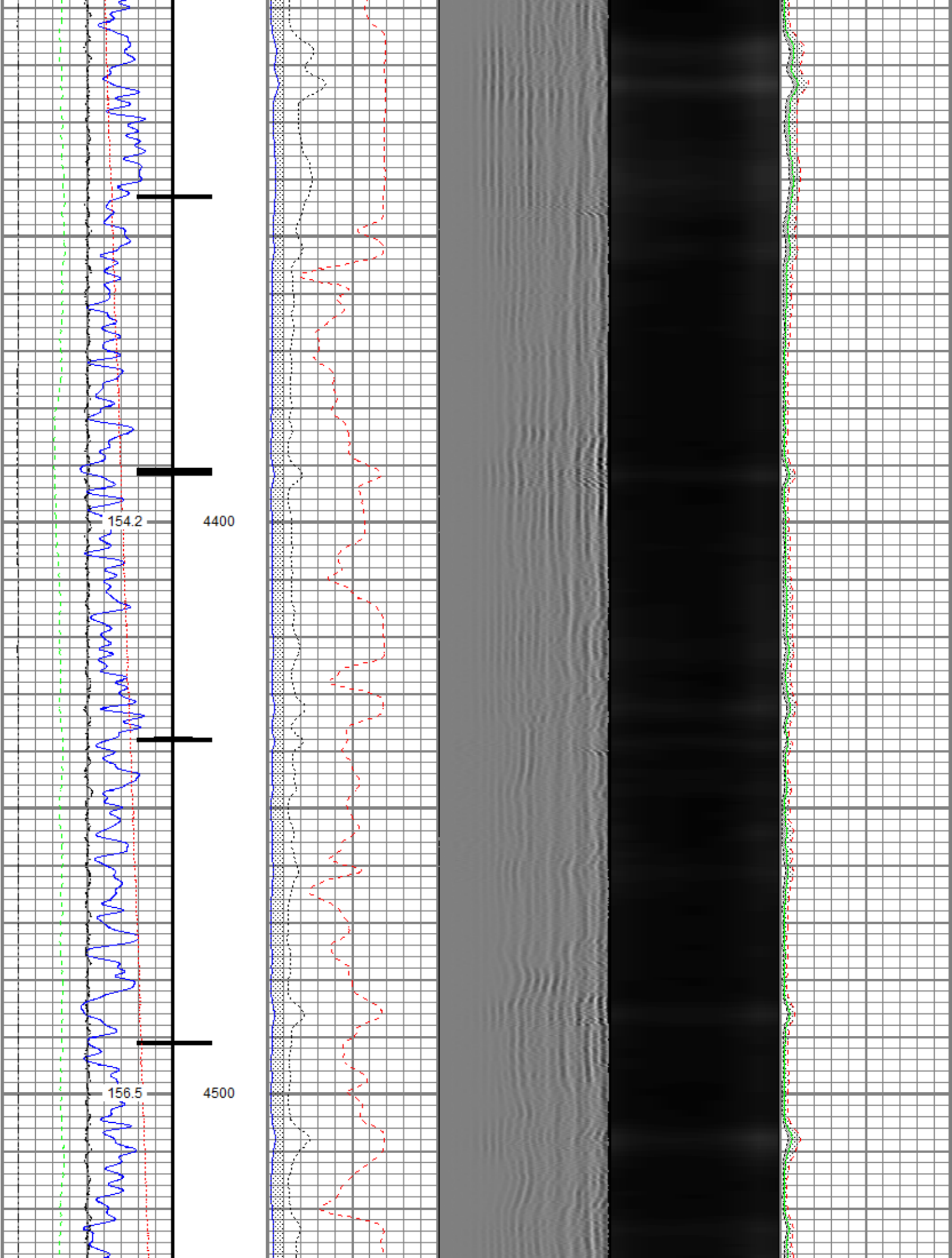


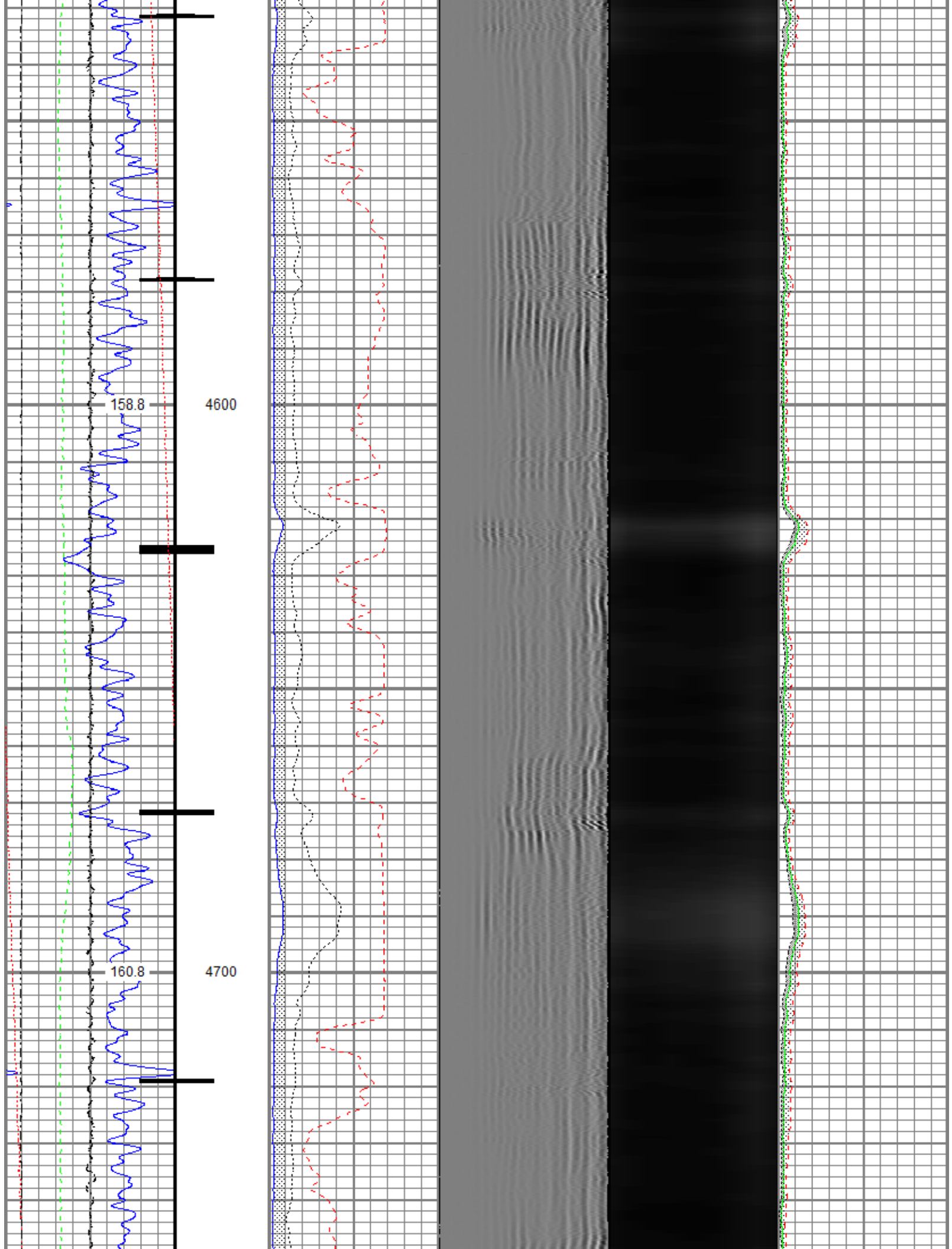


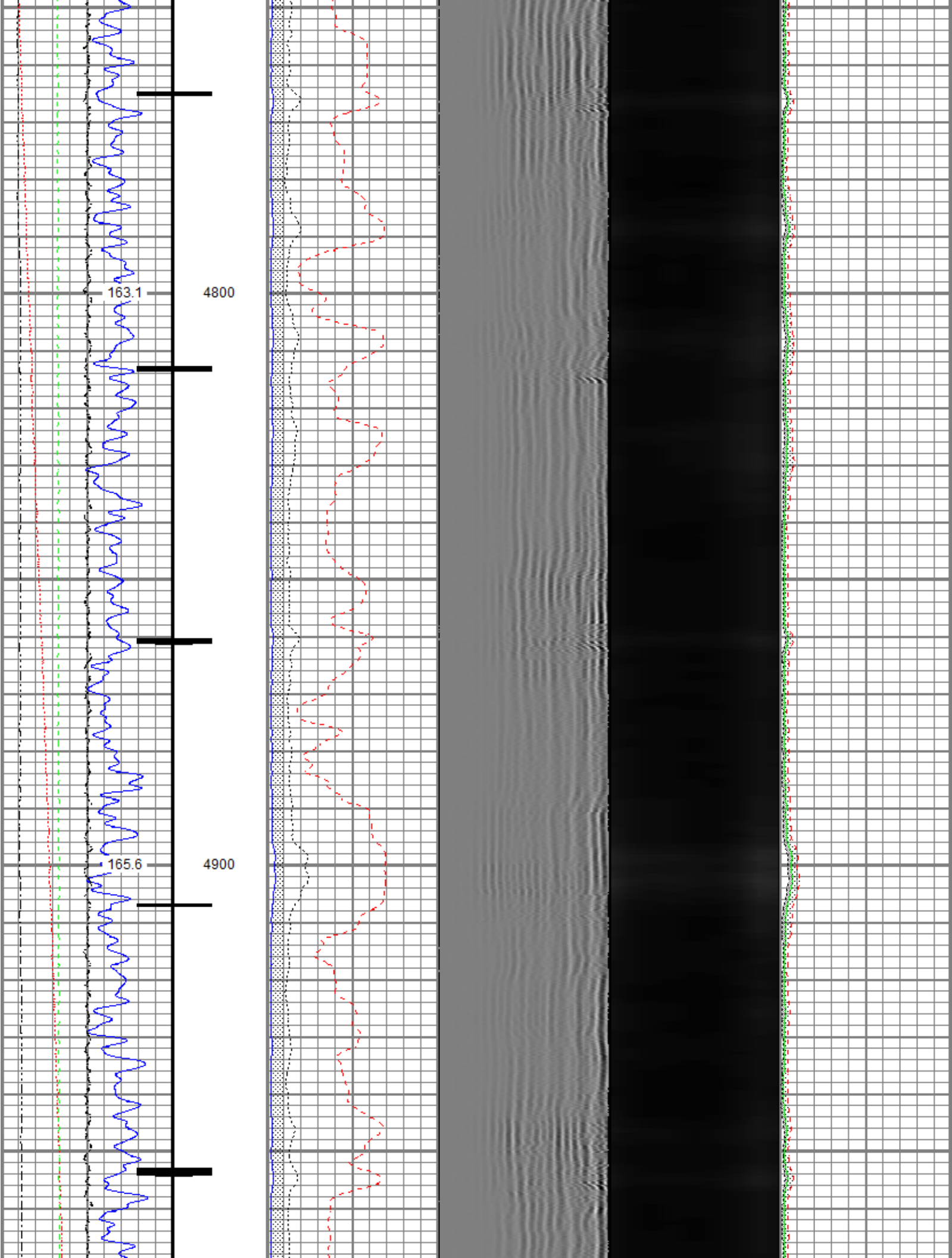


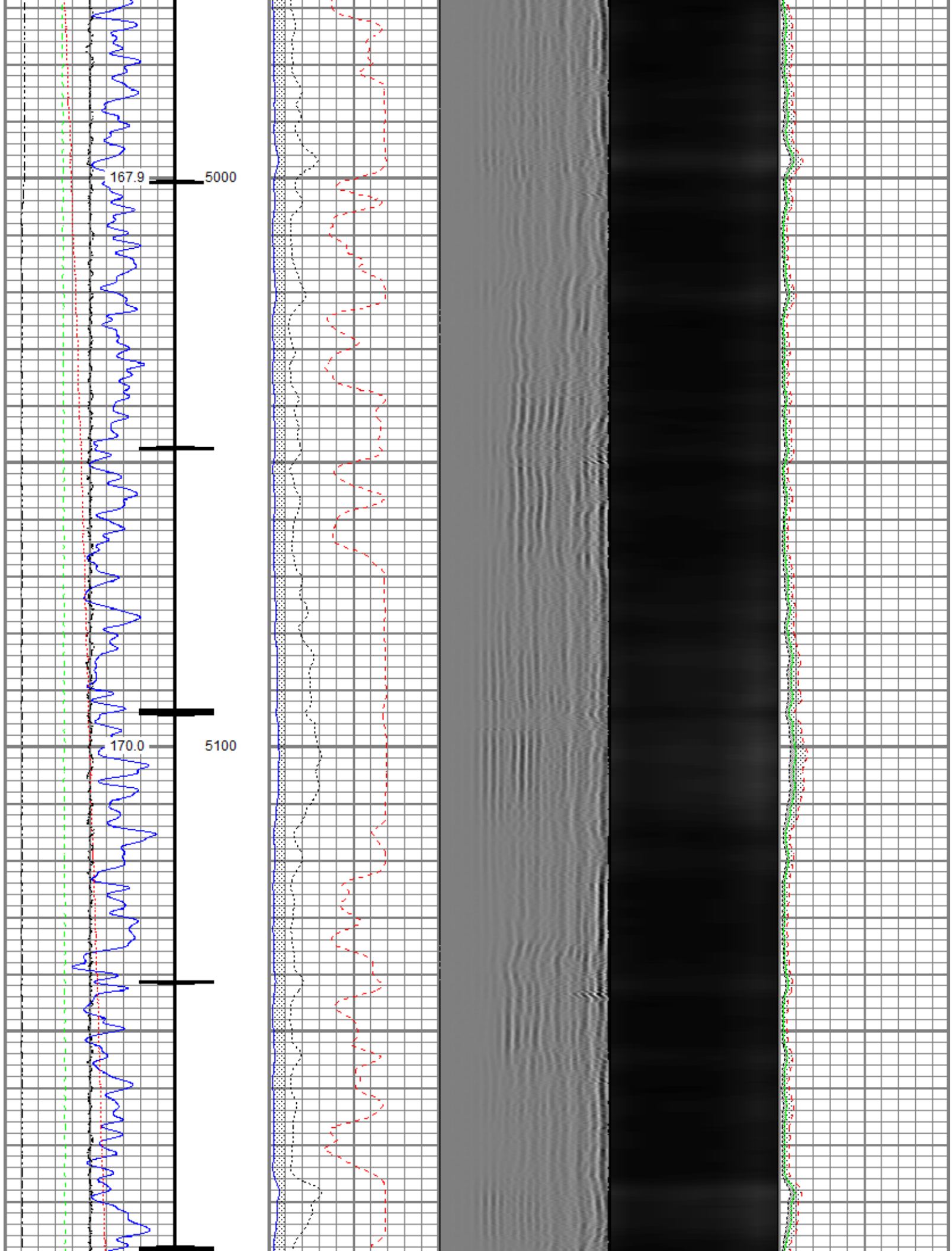


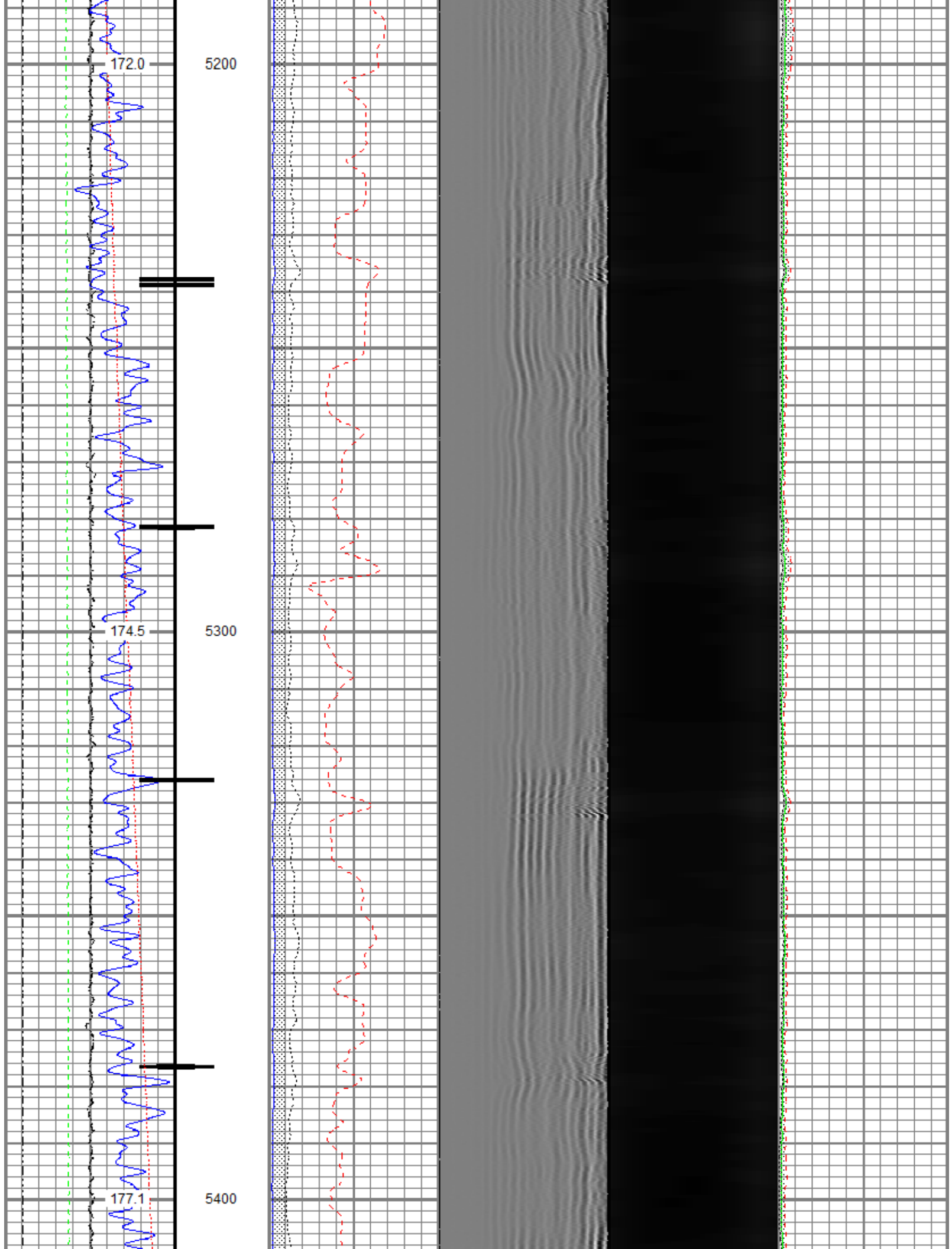


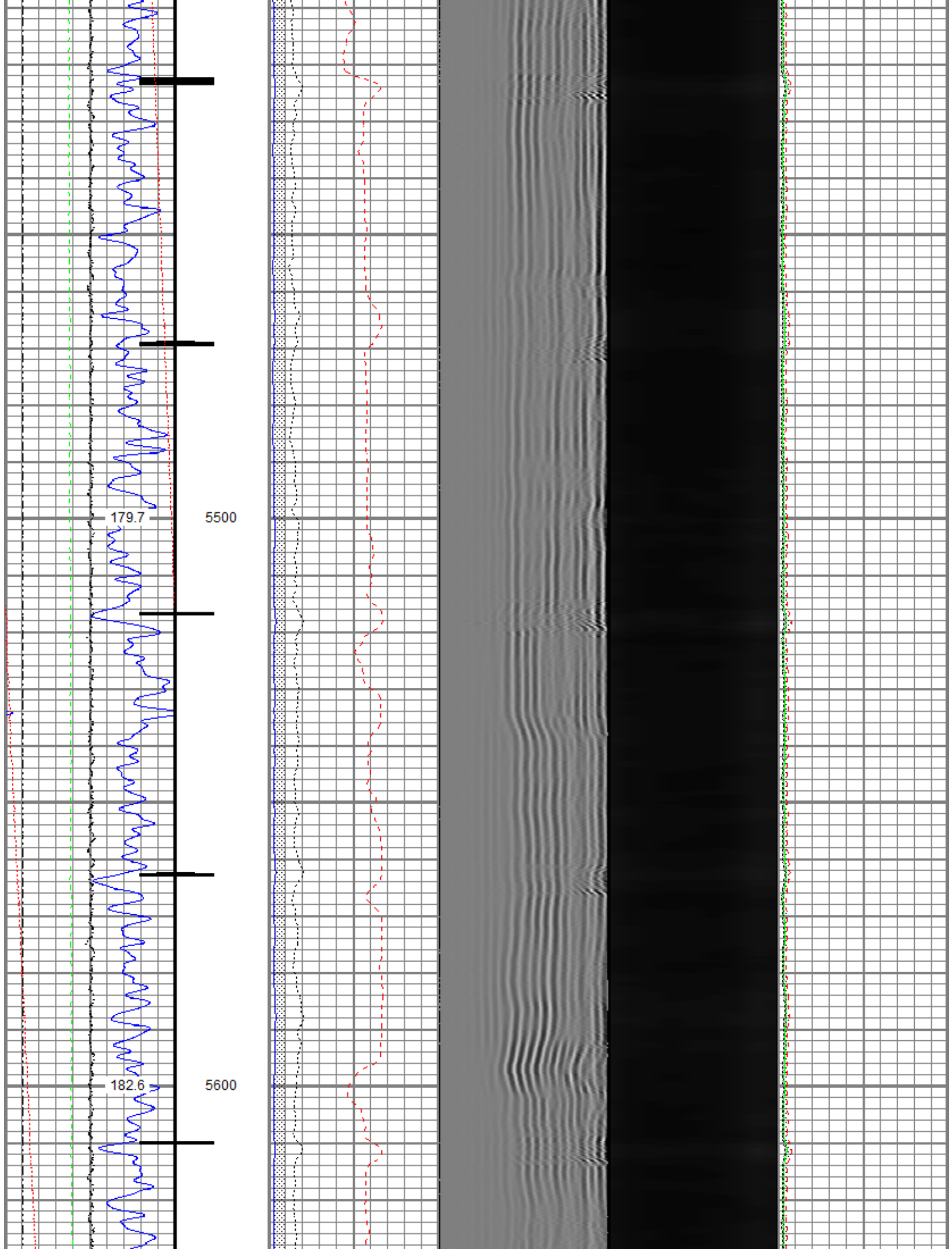


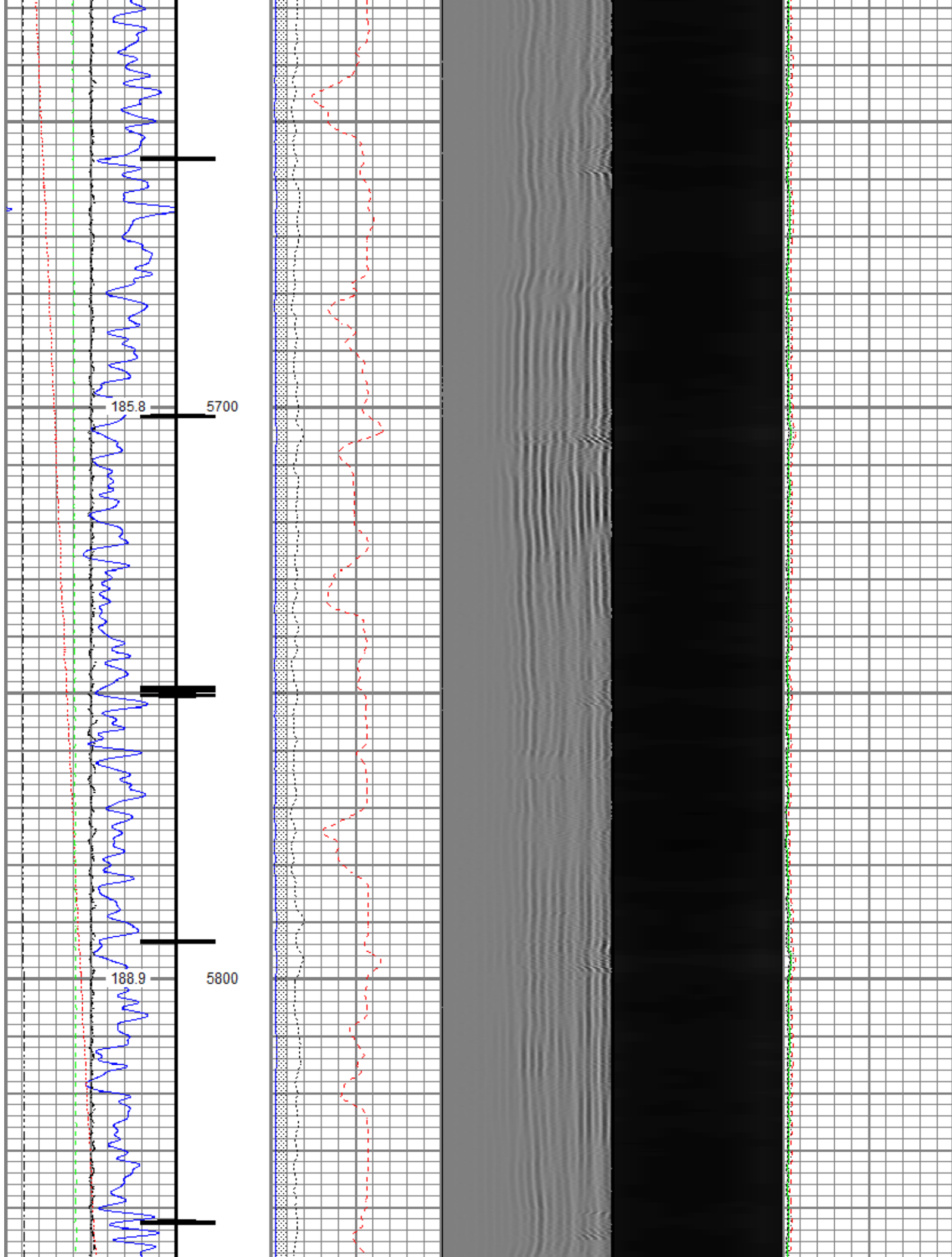


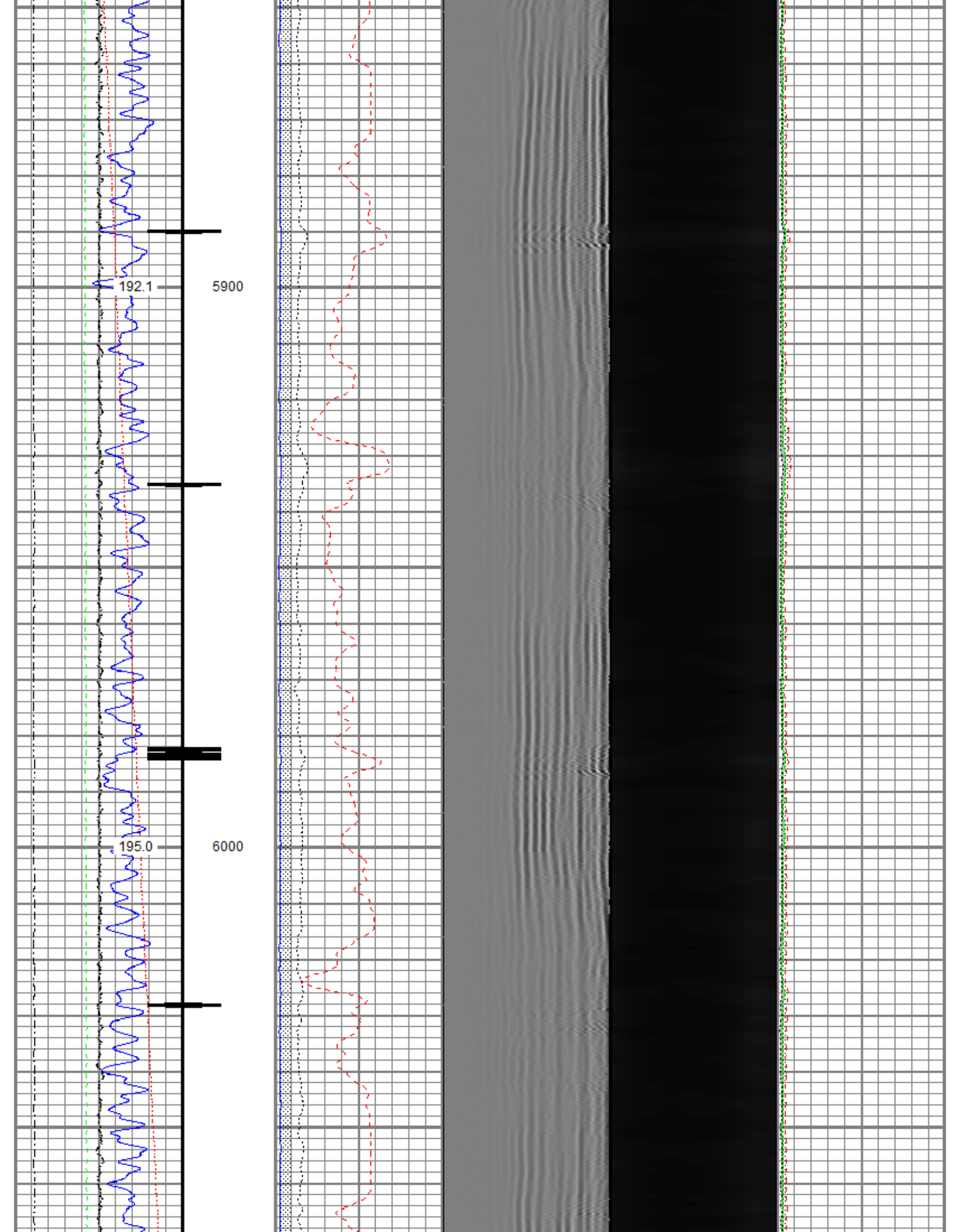


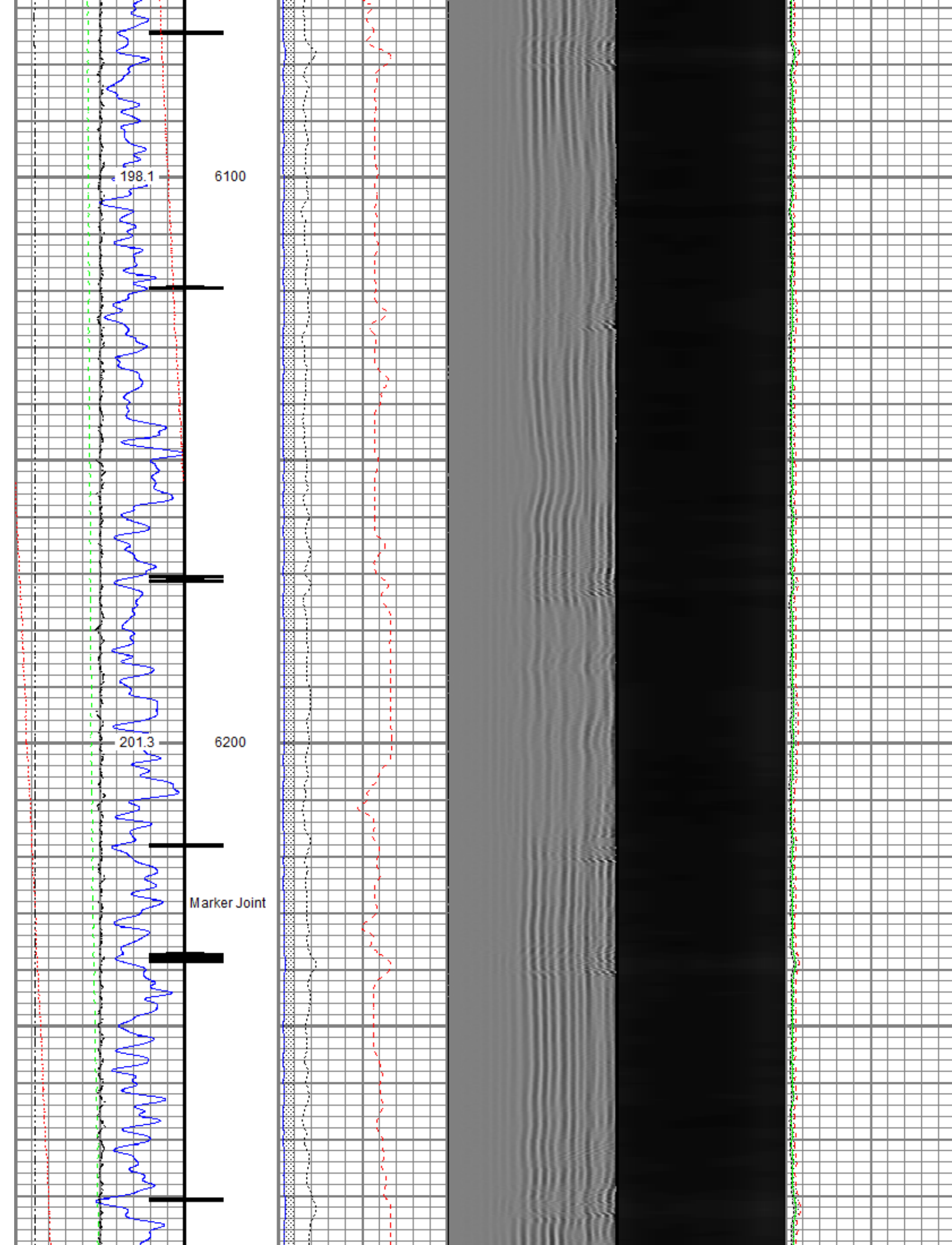


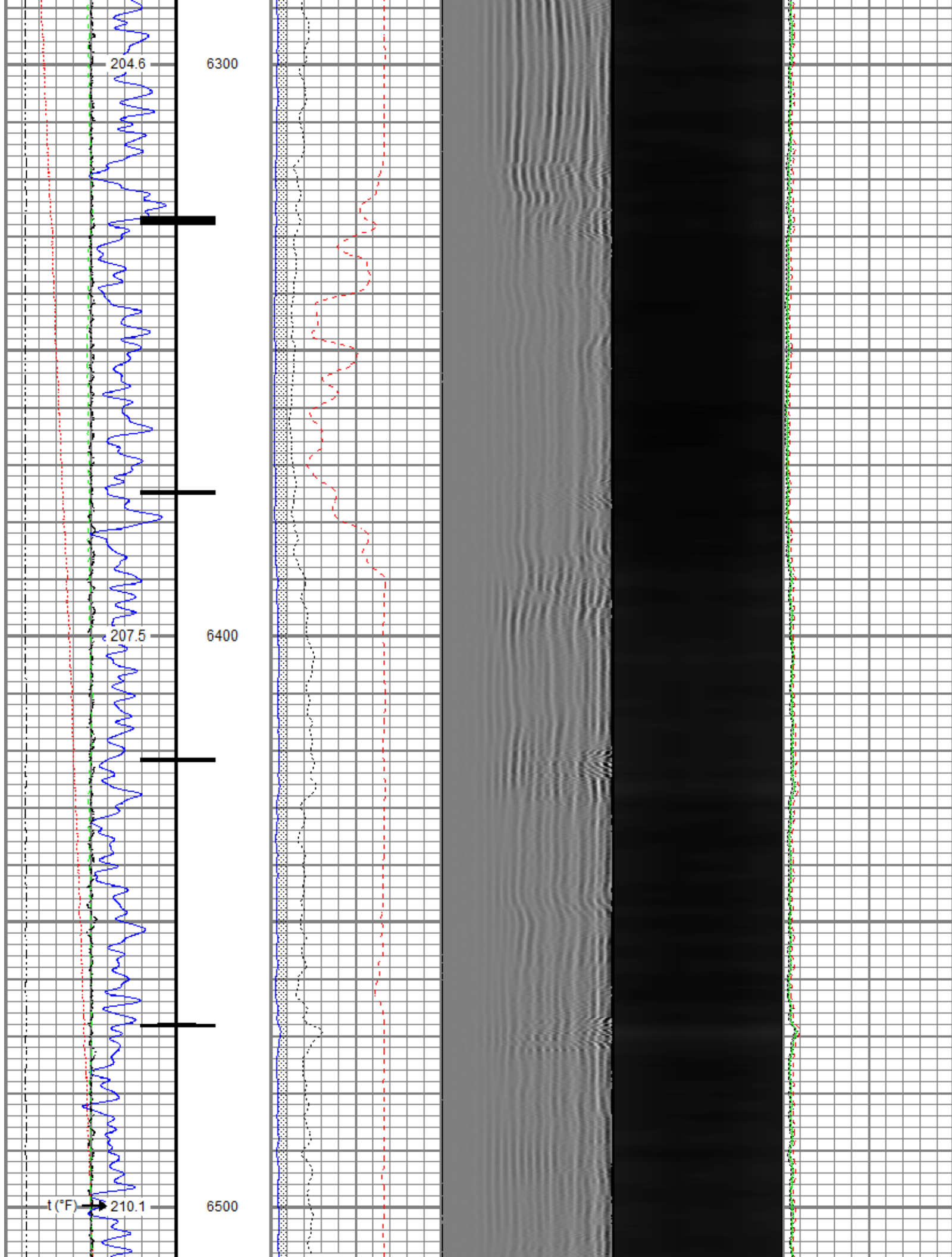


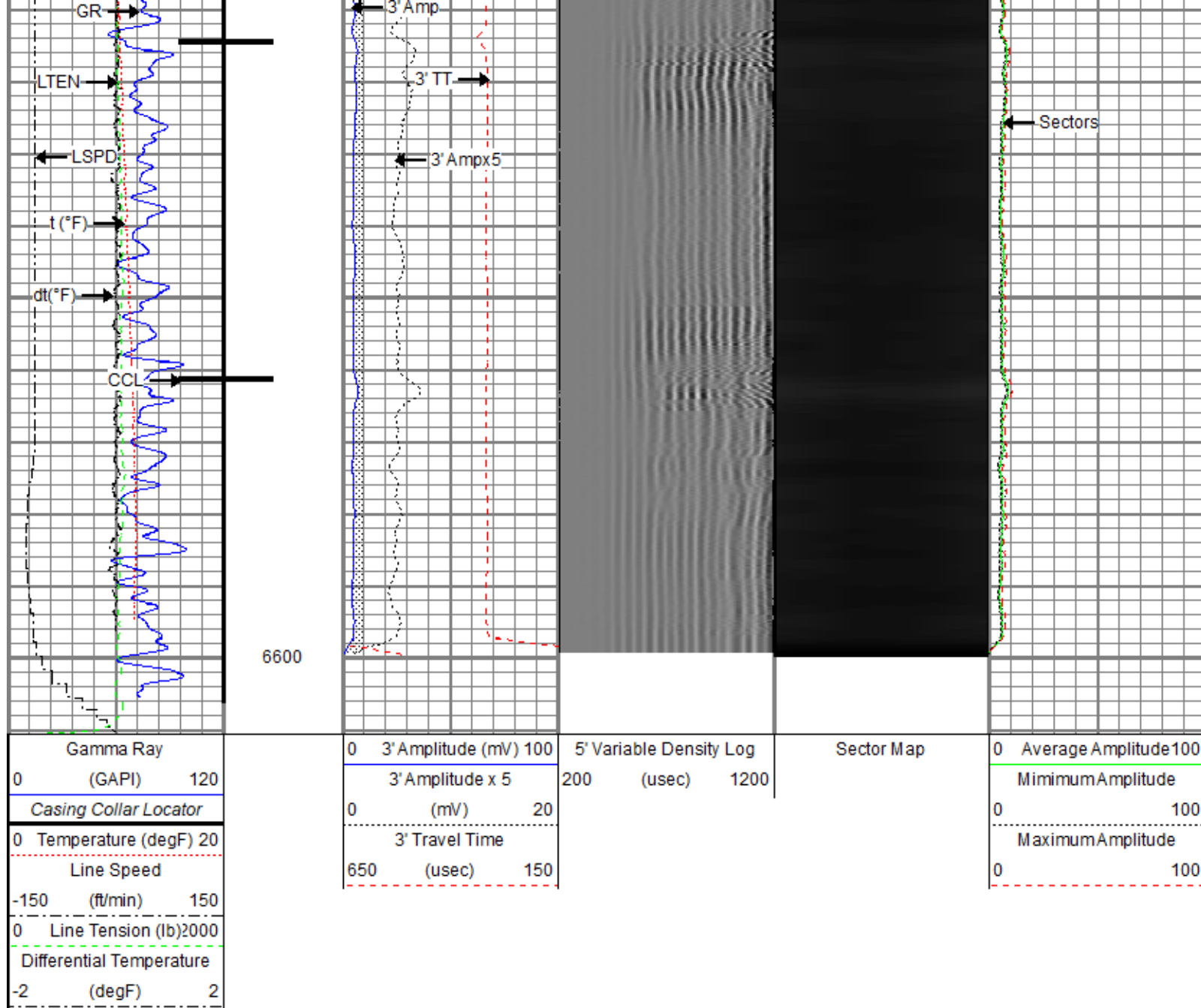








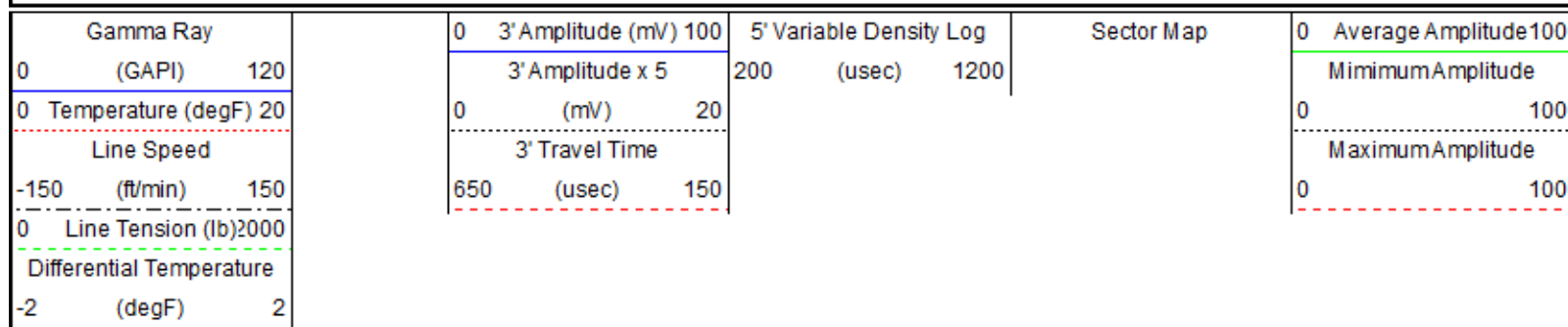


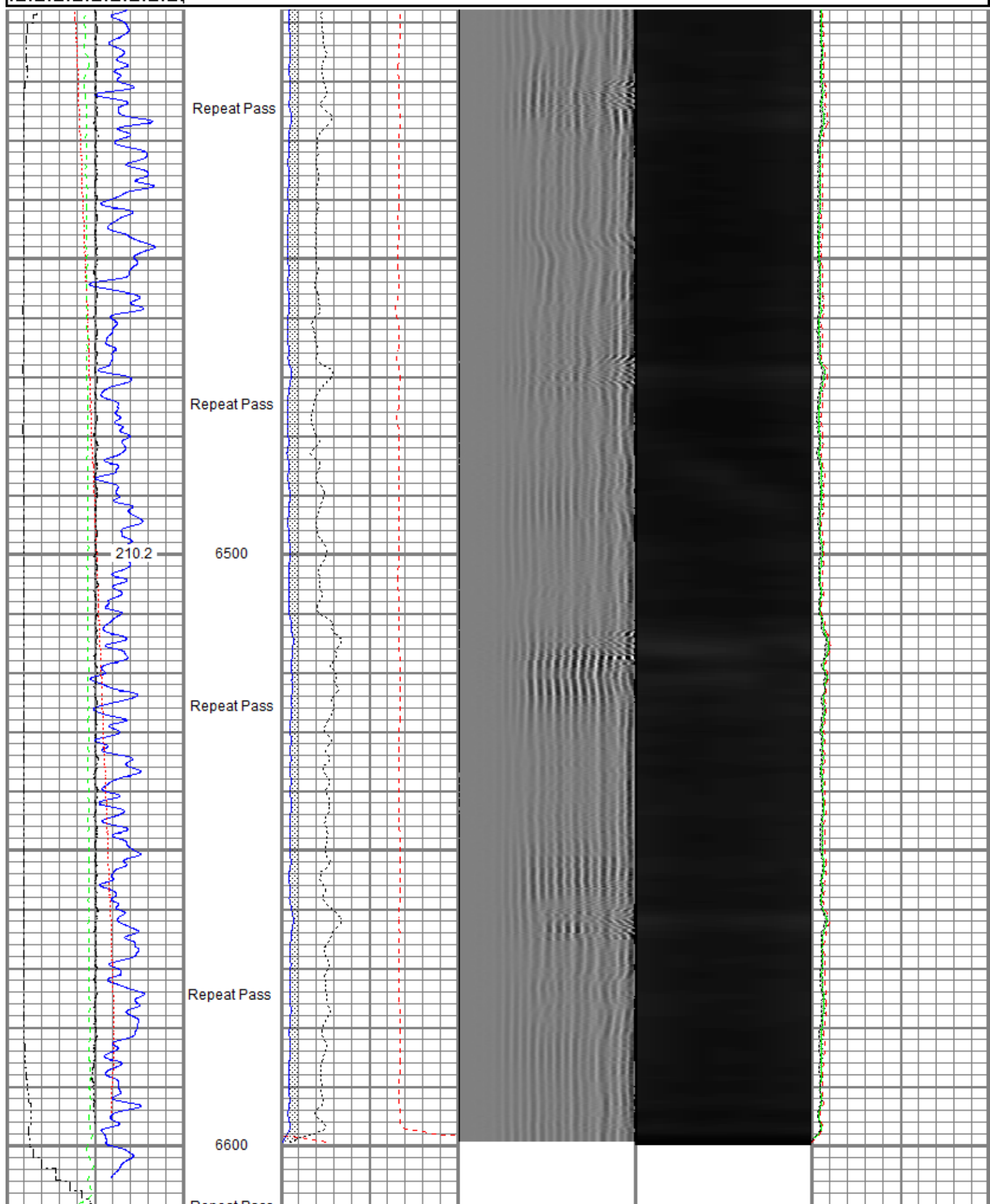


Repeat Pass

Recorded with 2500 PSI Surface Induced Pressure

Database File src\falken 33n-9a-l\src energy_falken 33n-9a-l_rbl_03-06-18.db
 Dataset Pathname repeat.2
 Presentation Format ros_radrii
 Dataset Creation Thu Mar 08 13:07:50 2018
 Charted by Depth in Feet scaled 1:240






Gamma Ray (GAPI) 120	3' Amplitude (mV) 100	5' Variable Density Log (usec) 1200	Sector Map	Average Amplitude 100
Temperature (degF) 20	3' Amplitude x 5 (mV) 20			Minimum Amplitude 0
Line Speed	3' Travel Time			Maximum Amplitude 100

-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)
			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
TEMP	14.45					
			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	12.21					
WVFS7	12.21					
WVFS6	12.21					
WVFS5	12.21					
WVFS4	12.21					
WVFS3	12.21					
WVFS2	12.21					
WVFS1	12.21					
WVFCAL	12.21					
WV3FT	12.21					
WV5FT	11.21					
			Probe CENT-2750 Probe 2-3/4" Electric Inline Bowspring Centralizer	2.88	2.75	20.00
CCL\$2	4.20					
CCL\$1	4.20					
GR	2.87		Probe GR-CCL-2750 6PB (FW1304-132) 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 ADPT-6P-GO Probe 2-3/4" 6-Pin Top to GO Bottom Adaptor Sub	0.28	2.75	2.00
Dataset: SRC Energy_Falken 33N-9A-L_RBL_03-06-18.db: field/well/run1/main.1 Total length: 21.27 ft Total weight: 205.60 lb O.D.: 2.75 in						

Calibration Report		
Database File	C:\ProgramData\Warrior\Data\SRC\Falken 33N-9A-L\SRC Energy_Falken 33N-9A-L_RBL_03-06-18.db	
Dataset Pathname	main.1	
Dataset Creation	Tue Mar 06 14:42:45 2018	
Gamma Ray Calibration Report		
Serial Number:	FW1304-132	
Tool Model:	2750 6PB	
Performed:	Tue Nov 28 11:17:11 2017	
Calibrator Value:	637.0	GAPI
Background Reading:	109.1	cps
Calibrator Reading:	1009.7	cps
Sensitivity:	0.7072	GAPI/cps

Segmented Cement Bond Log Calibration Report						
Serial Number:	FW1302-002					
Tool Model:	2750 RBT					
Calibration Casing Diameter:	5.500	in				
Calibration Depth:	-5.516	ft				
Master Calibration, performed (Derived):						
	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.001	0.561	0.800	71.921	126.899	0.691
CAL	0.669	0.668				
5'	0.001	0.499	0.800	71.921	142.914	0.673
SUM						
S1	0.001	0.566	0.000	100.000	176.940	-0.161
S2	0.001	0.571	0.000	100.000	175.226	-0.142
S3	0.001	0.569	0.000	100.000	175.971	-0.093
S4	-0.000	0.563	0.000	100.000	177.551	0.054
S5	0.000	0.565	0.000	100.000	177.238	-0.063
S6	0.001	0.563	0.000	100.000	178.198	-0.242
S7	0.001	0.559	0.000	100.000	179.312	-0.212
S8	0.001	0.567	0.000	100.000	176.661	-0.162

Internal Reference Calibration, performed (Not Performed):						
	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.669	0.668	1.000	0.000

Air Zero Calibration, performed Tue Mar 06 13:10:46 2018:						
	Raw (v)		Calibrated (v)		Results	
	Zero		Zero		Offset	
3'	0.006		0.000		0.000	

5'	0.006	0.000	0.001
SUM			
S1	0.005	0.000	0.000
S2	0.007	0.000	0.000
S3	0.006	0.000	-0.000
S4	0.007	0.000	-0.001
S5	0.008	0.000	-0.000
S6	0.007	0.000	0.001
S7	0.006	0.000	0.001
S8	0.007	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: SRC Energy Inc
Well: Falken 33N-9A-L
Field: Wattenberg
County: Weld
State: Colorado