



Radial Cement Bond
Gamma Ray
Casing Collar Log

Company Kerr-McGee Oil & Gas Onshore, L.P.

Well JDB 15-5HZ

Field Wattenberg

County Weld State Colorado

Location: API #: 05-123-49222

SEC 15 TWP 1N RGE 66W

Permanent Datum Ground Level Elevation 5153'

Log Measured From Ground Level

Drilling Measured From Kelly Bushing

Other Services
JBGR
RBP

Elevation

K.B. 5170'

D.F. ---

G.L. 5153'

Company Kerr-McGee Oil & Gas Onshore, L.P.
Well JDB 15-5HZ
Field Wattenberg
County Weld
State Colorado

Date	02-AUG-2019
Run Number	Three
Depth Driller	14034 FT
Depth Logger	7455 FT
Bottom Logged Interval	7440 FT
Top Log Interval	Surface
Open Hole Size	7.875"
Type Fluid	Water
Density / Viscosity	8.34 lb/gal
Max. Recorded Temp.	217°F
Estimated Cement Top	See Log
Time Well Ready	ROA
Time Logger on Bottom	8:25
Equipment Number	HD-361
Location	Platteville, CO
Recorded By	G. Lueck
Witnessed By	J. McMillan
Borehole Record	
Run Number	Bit From To
Size (in)	Size
Wgt (lbs/ft)	Weight
Grade	From To
Top	Bottom
Surface Casing	9 5/8 36 J-55 Surface 1931 FT
Intermediate #1	5 1/2 17 HCP-110 Surface 14024 FT
Intermediate #2	
Inner	

<<< 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

Log ran as per customer request
Depth referenced to Casing Tally reported Marker Joint at 7390 FT
Adjusted +5 FT to correlate with Marker Joint
Gauge Ring/Junk Basket ran to 8318 FT
Retrievable Bridge Plug set at 7480 FT
Log ran with 0 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

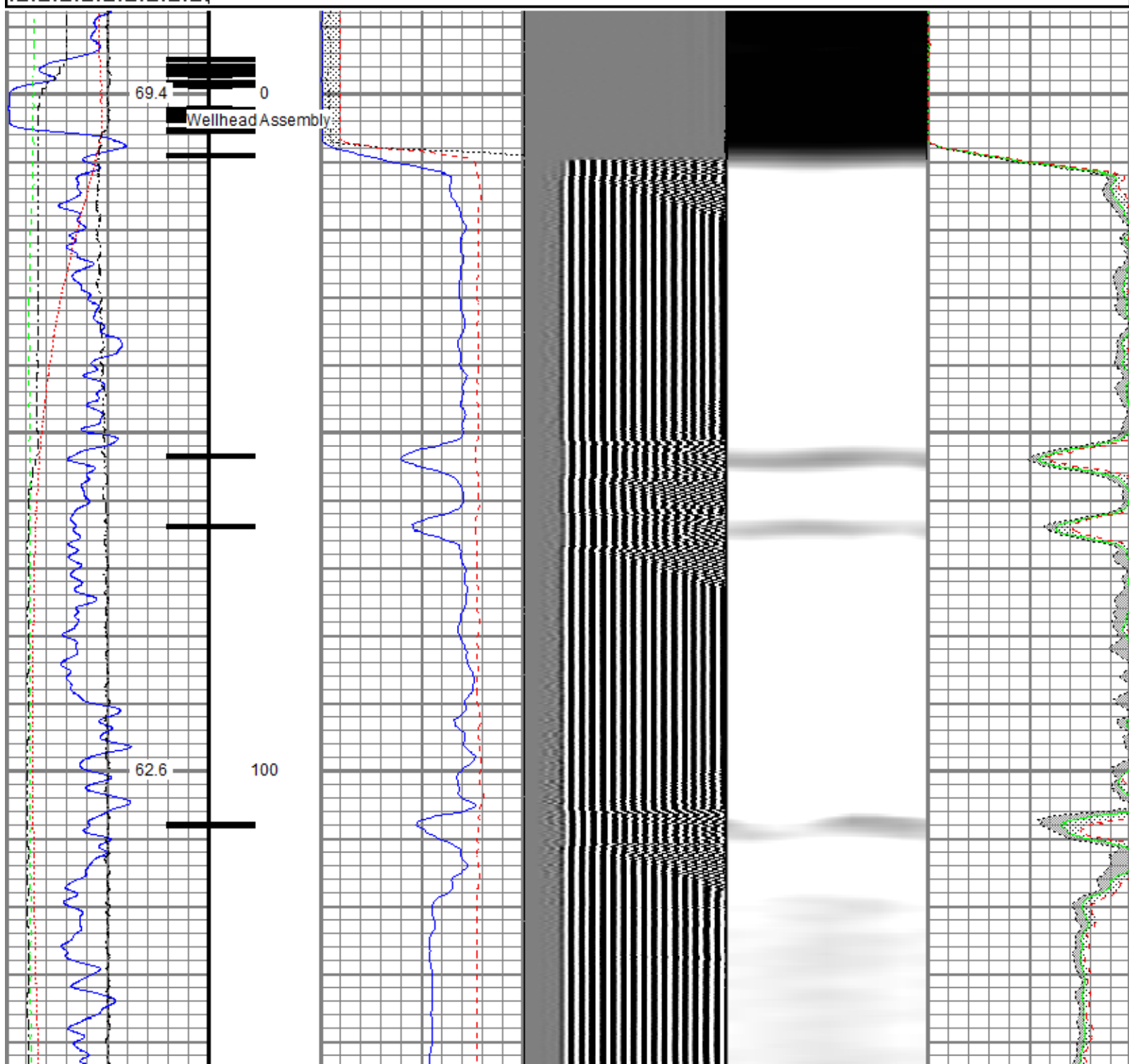


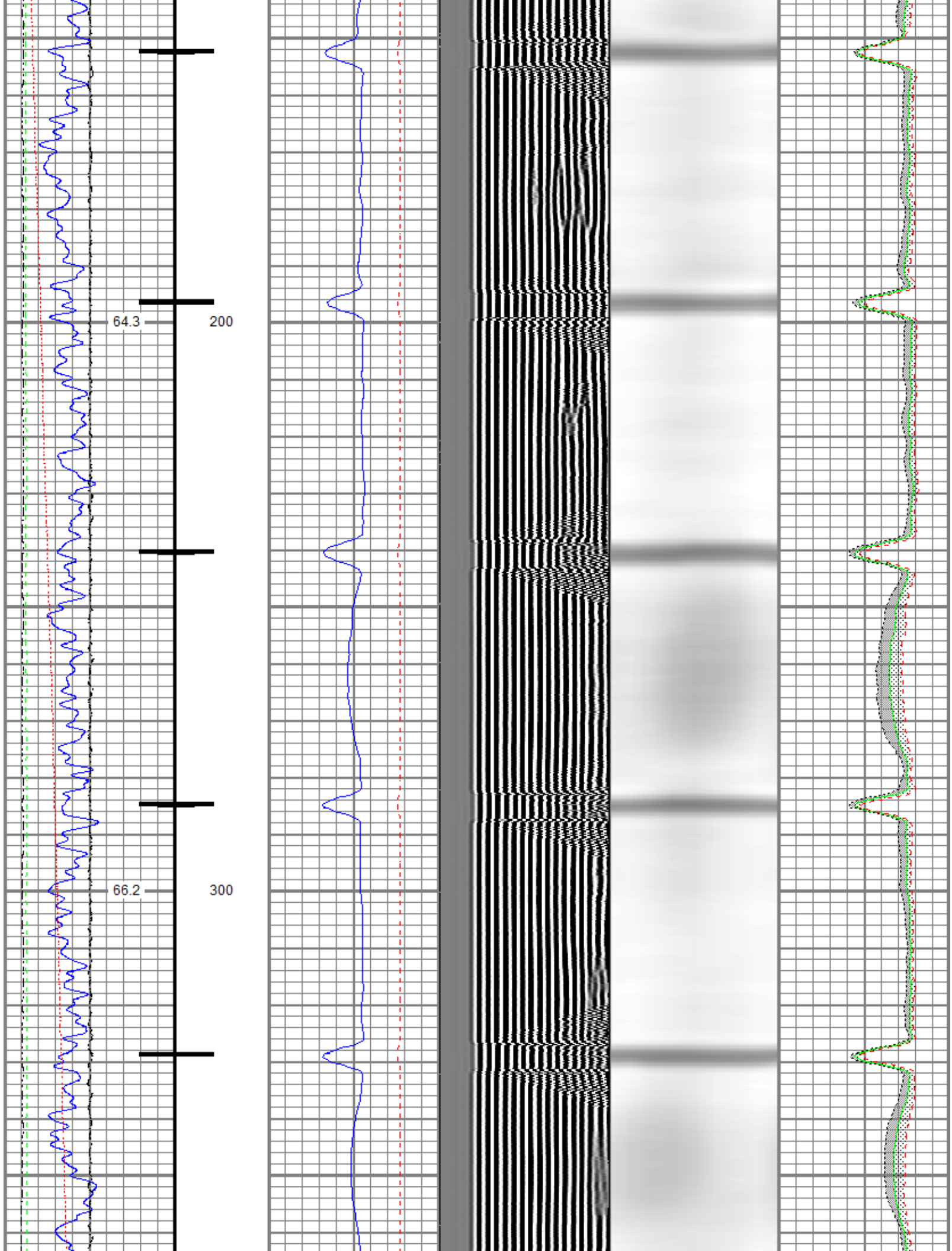
Recorded With 0 PSI Surface Induced Pressure

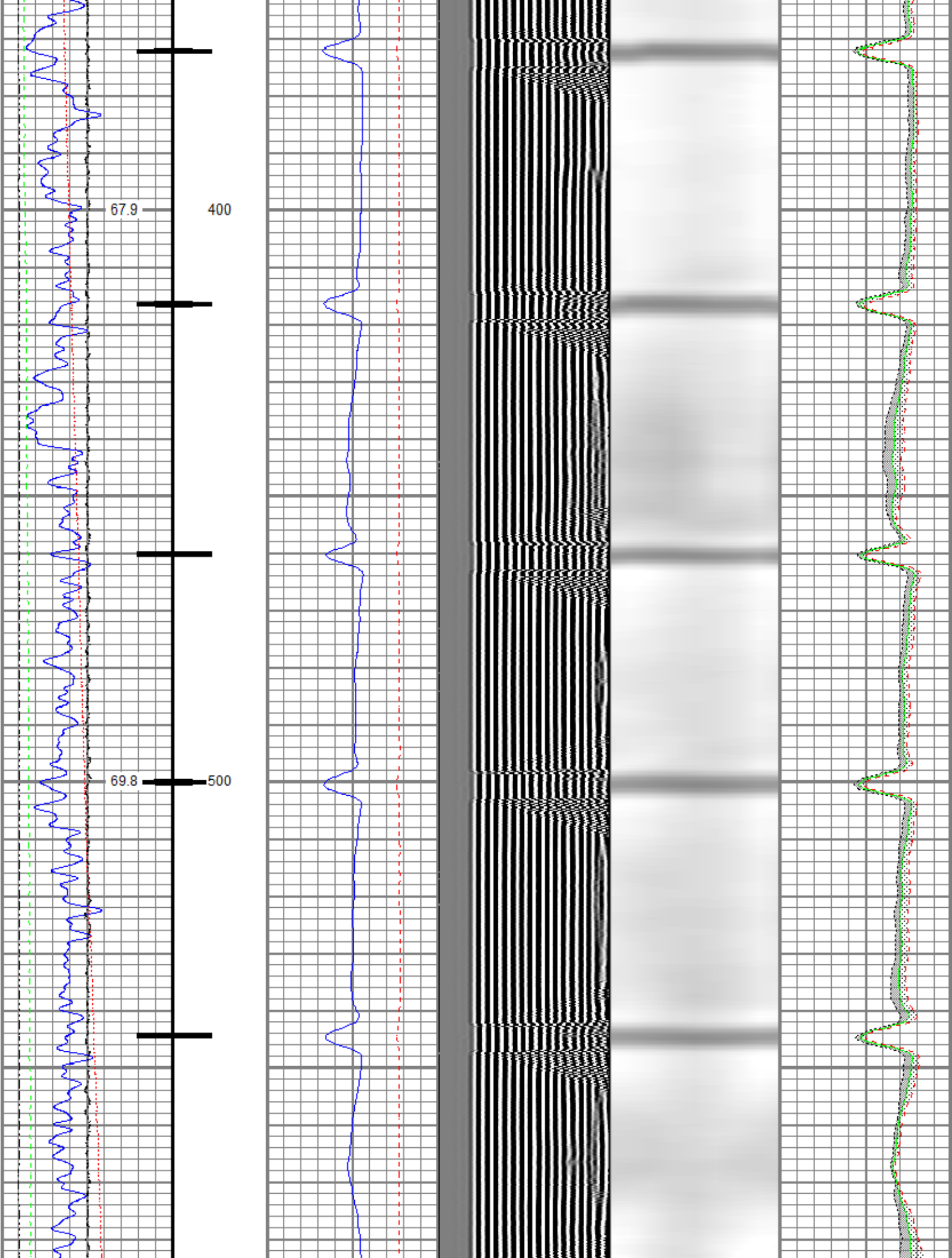
Recorded with 0 PSI Surface Induced Pressure

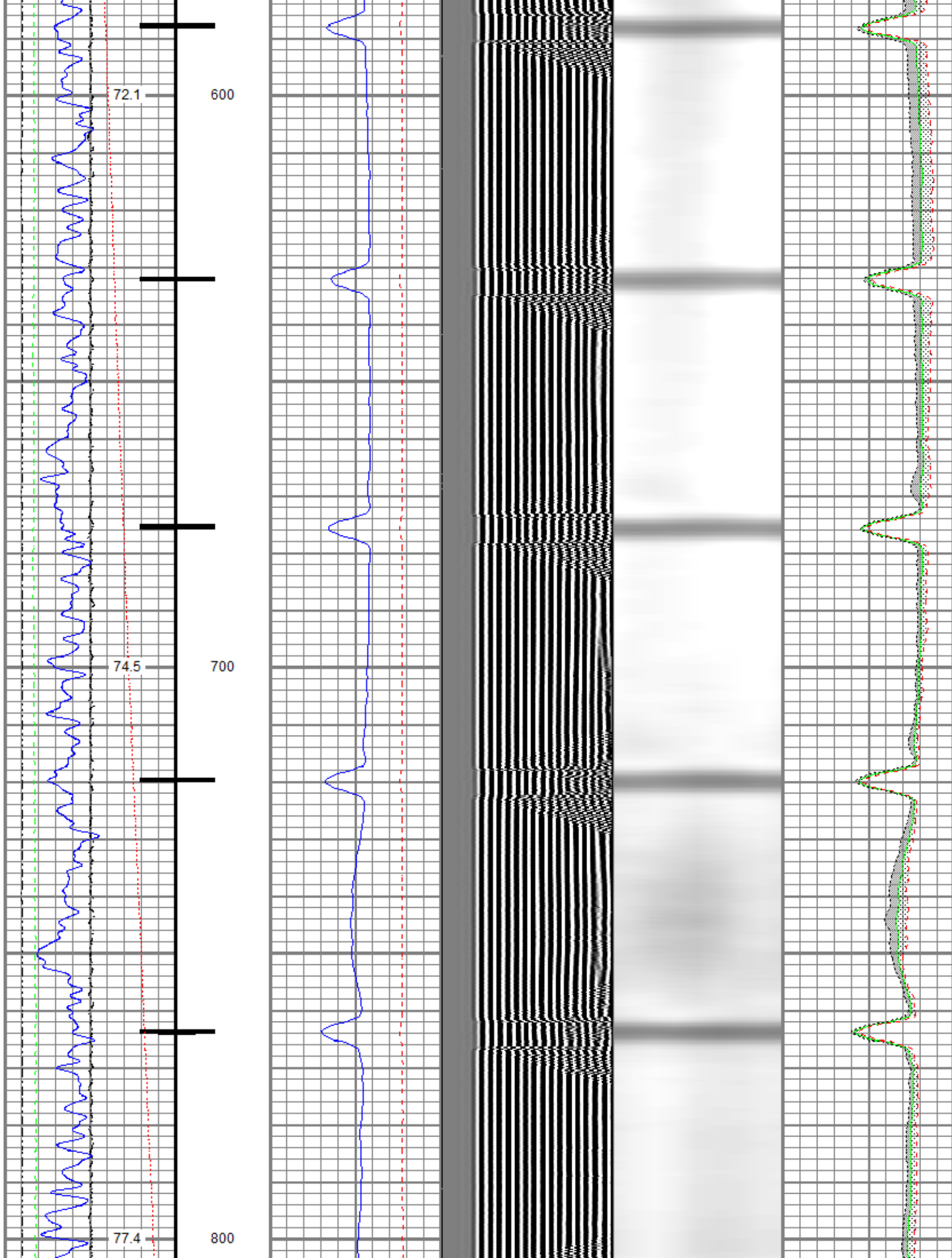
Database File	anadarko\0512349222_anadarko_jdb 15-5hz_rbl_08-02-19\processed_0512349222_anadarko_jdb 15-5hz_rbl_08-02-19.db
Dataset Pathname	0rbl/pass4.2.3
Presentation Format	ros_radri
Dataset Creation	Fri Aug 02 16:26:53 2019
Charted by	Depth in Feet scaled 1:240

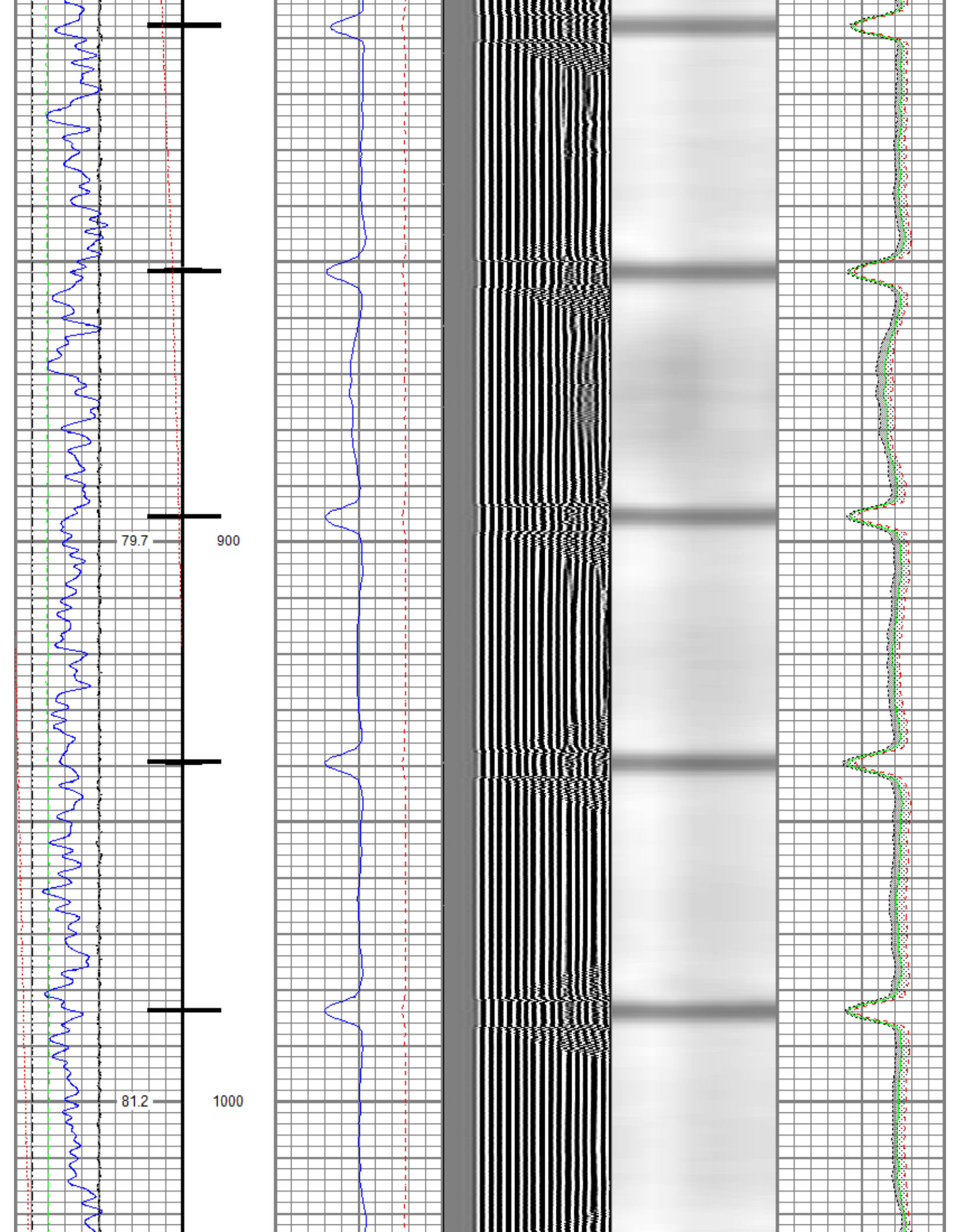
Gamma Ray	0	3' Amplitude (mV)	100	5' Variable Density Log	Sector Map	0	Average Amplitude	100
(GAPI)	120	3' Amplitude x 5	200	(usec)			Minimum Amplitude	
Casing Collar Locator		0	(mV)	20			0	100
0 Temperature (degF)	20	3' Travel Time					Maximum Amplitude	
Line Speed		650	(usec)	150			0	100
-150 (ft/min)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

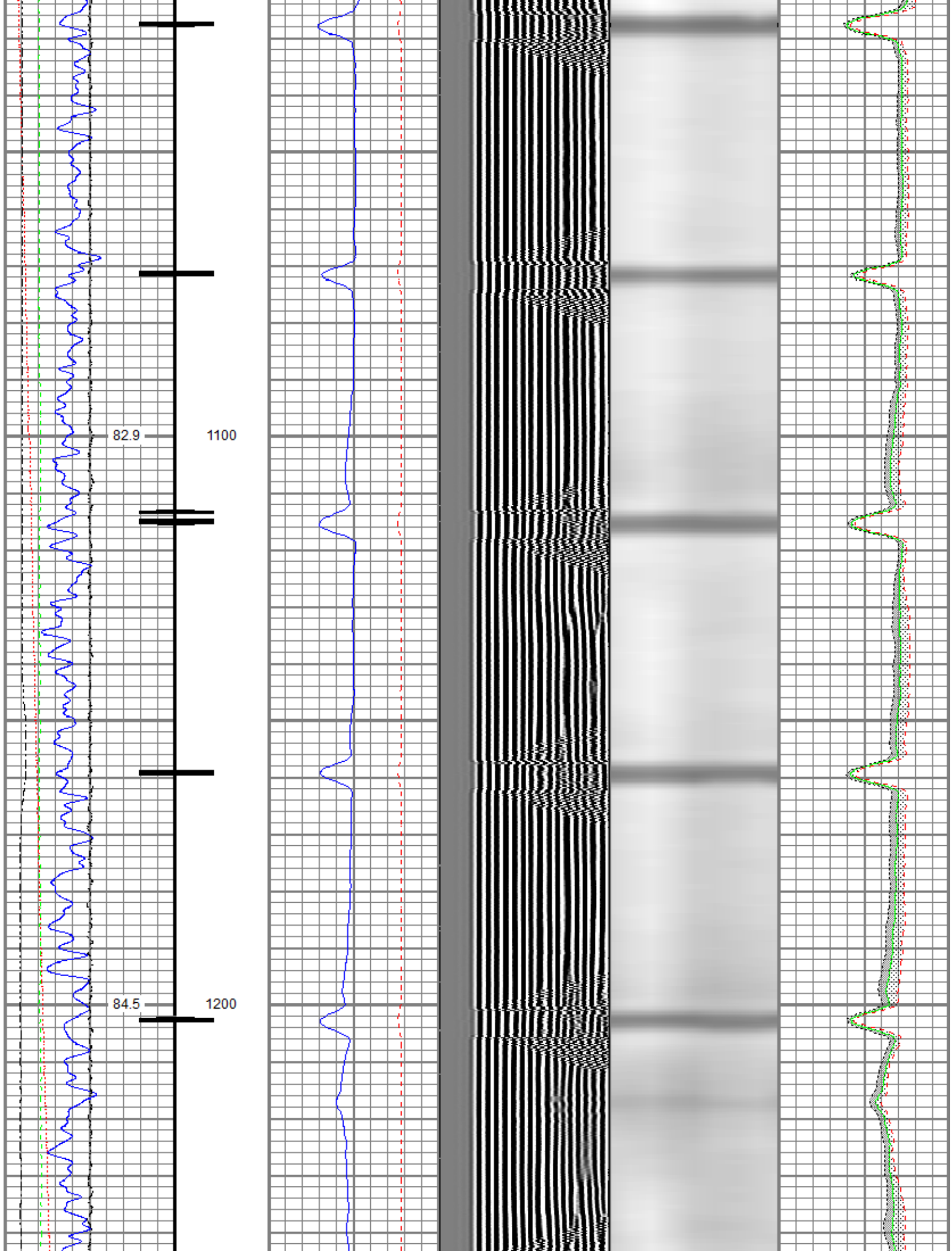


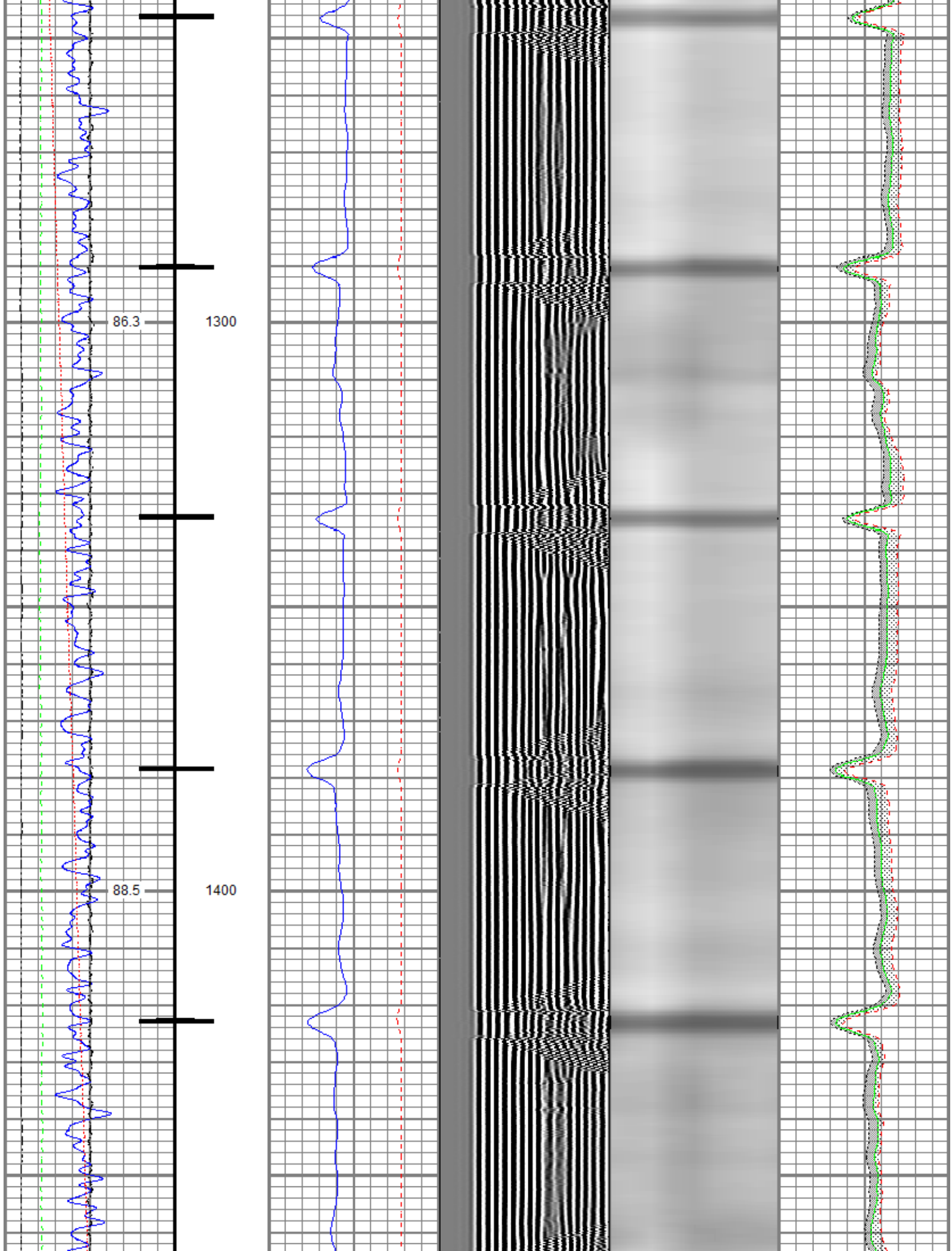


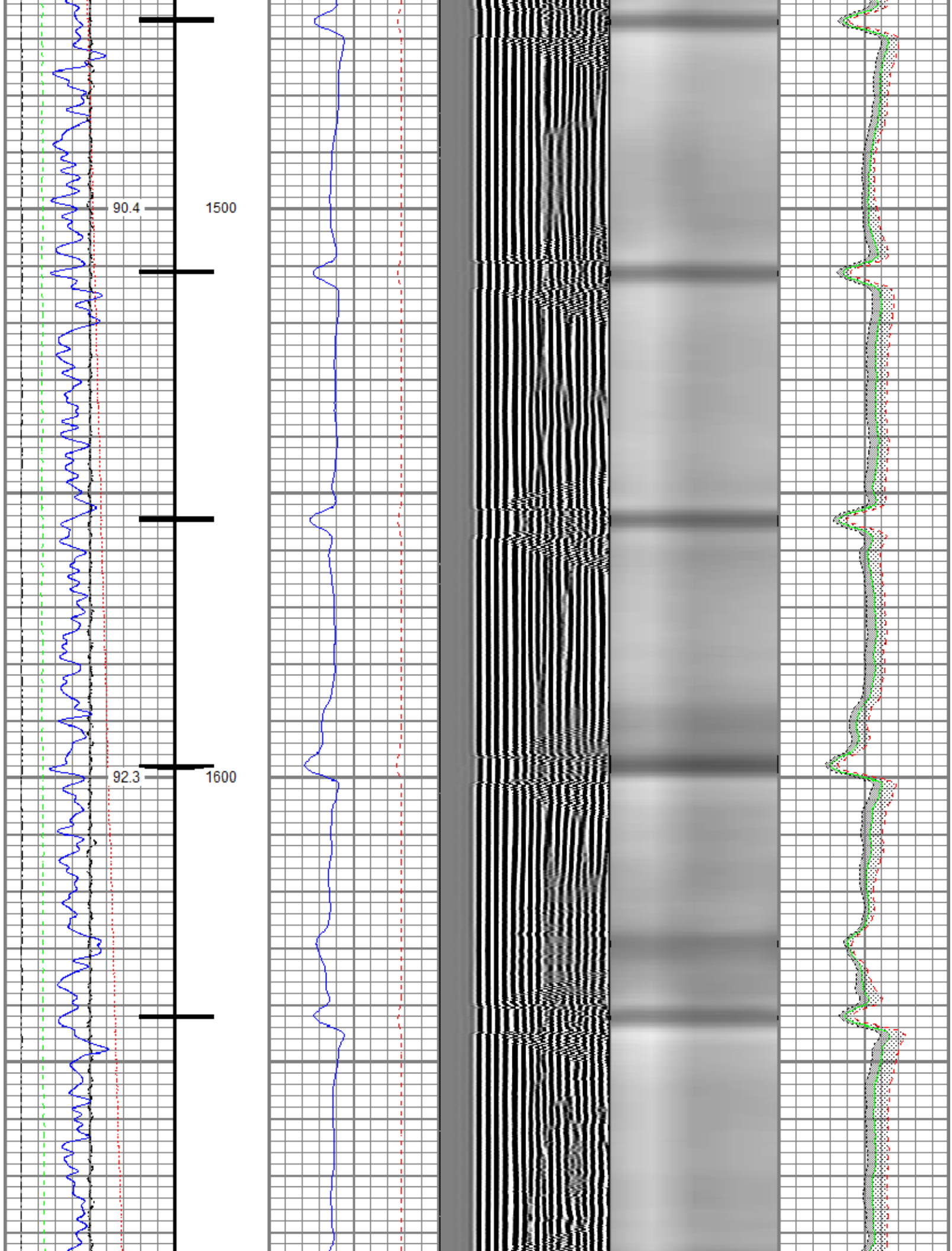


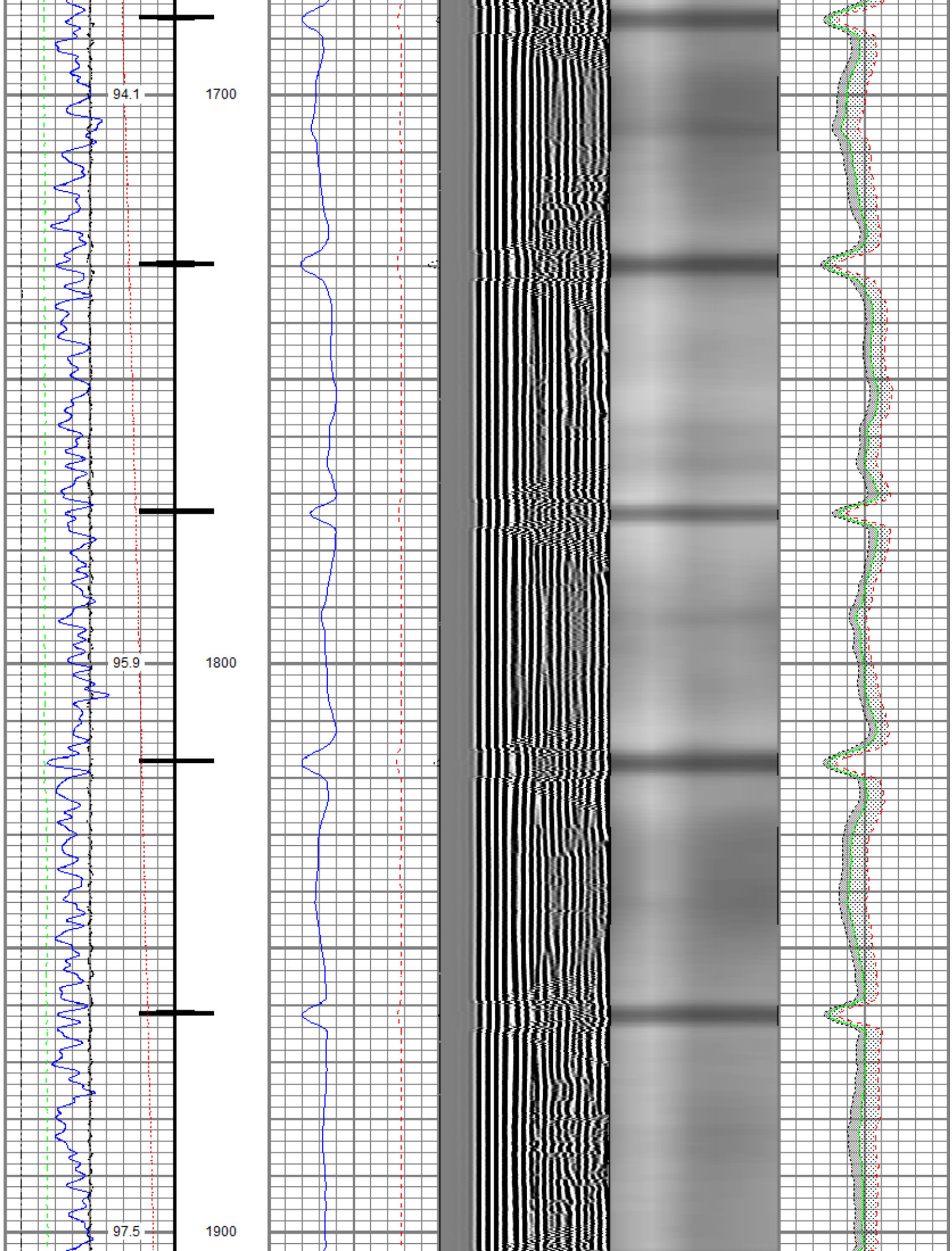


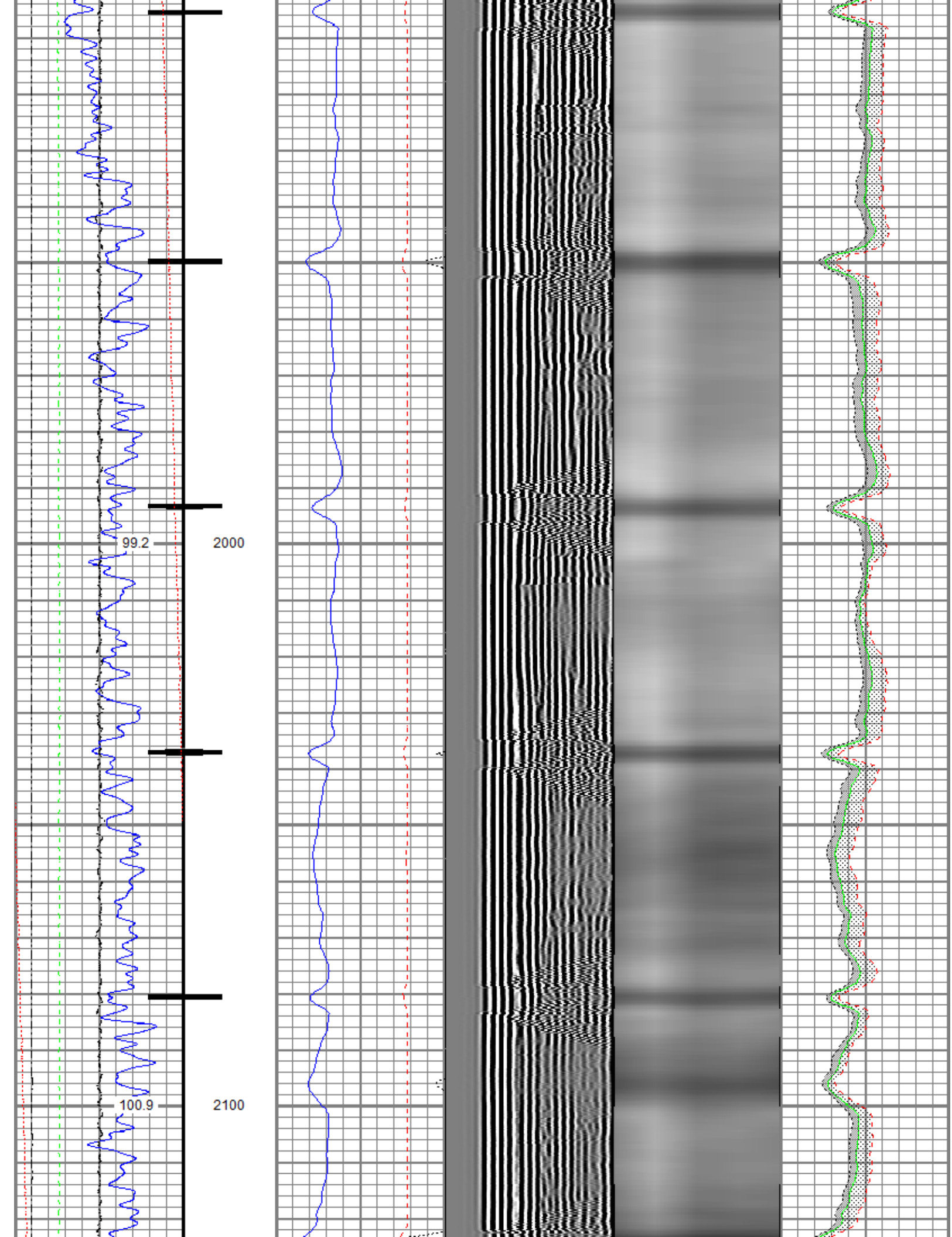


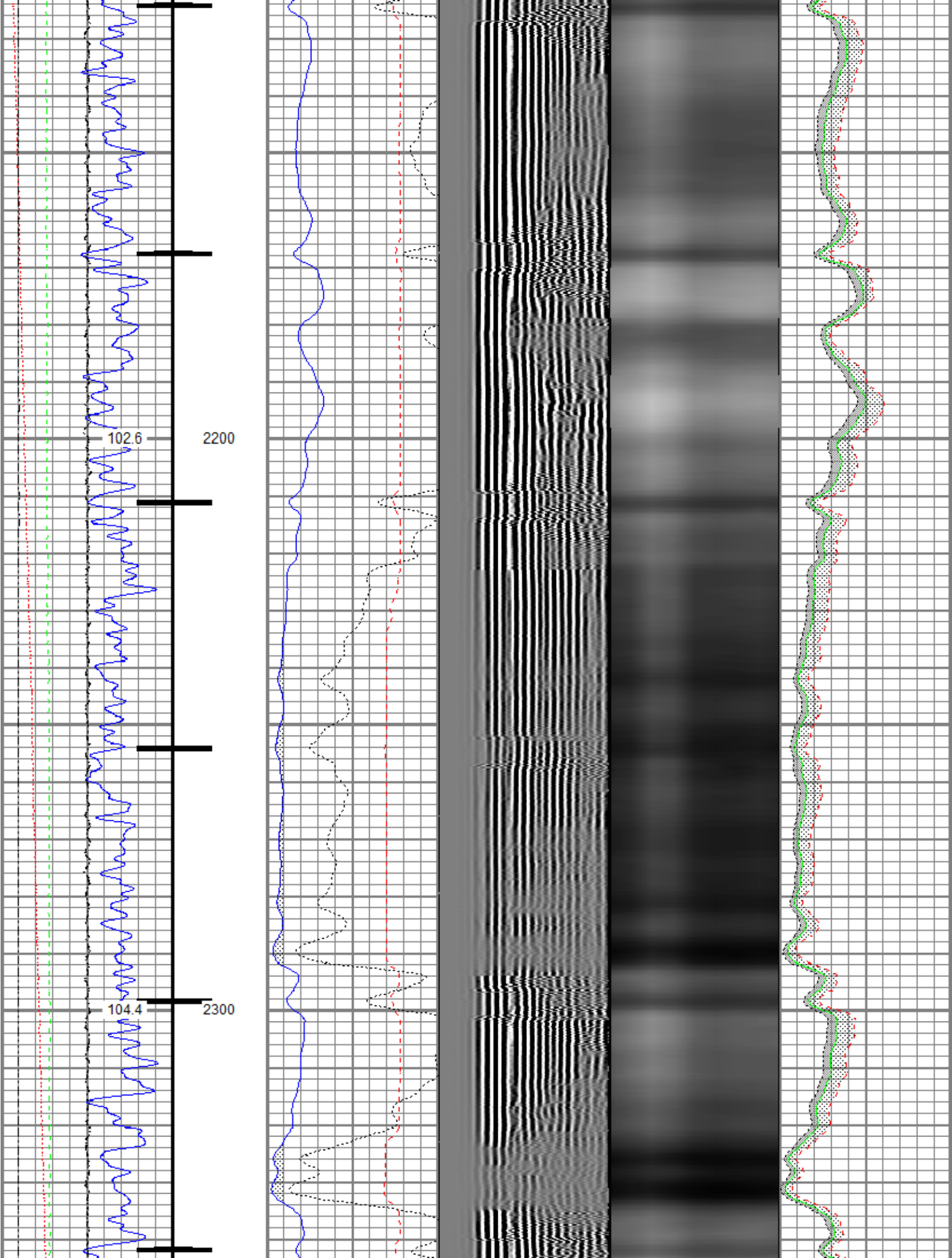


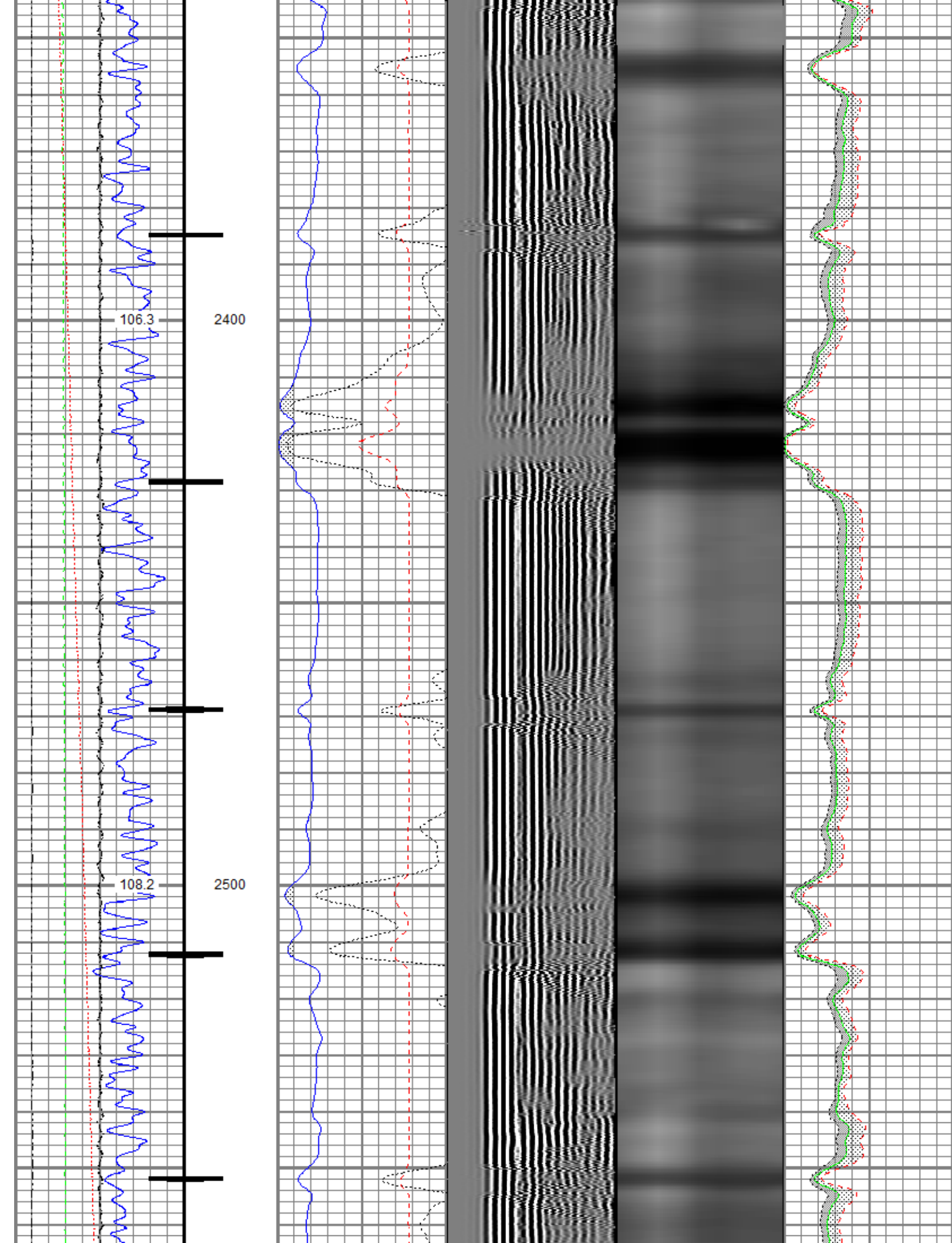


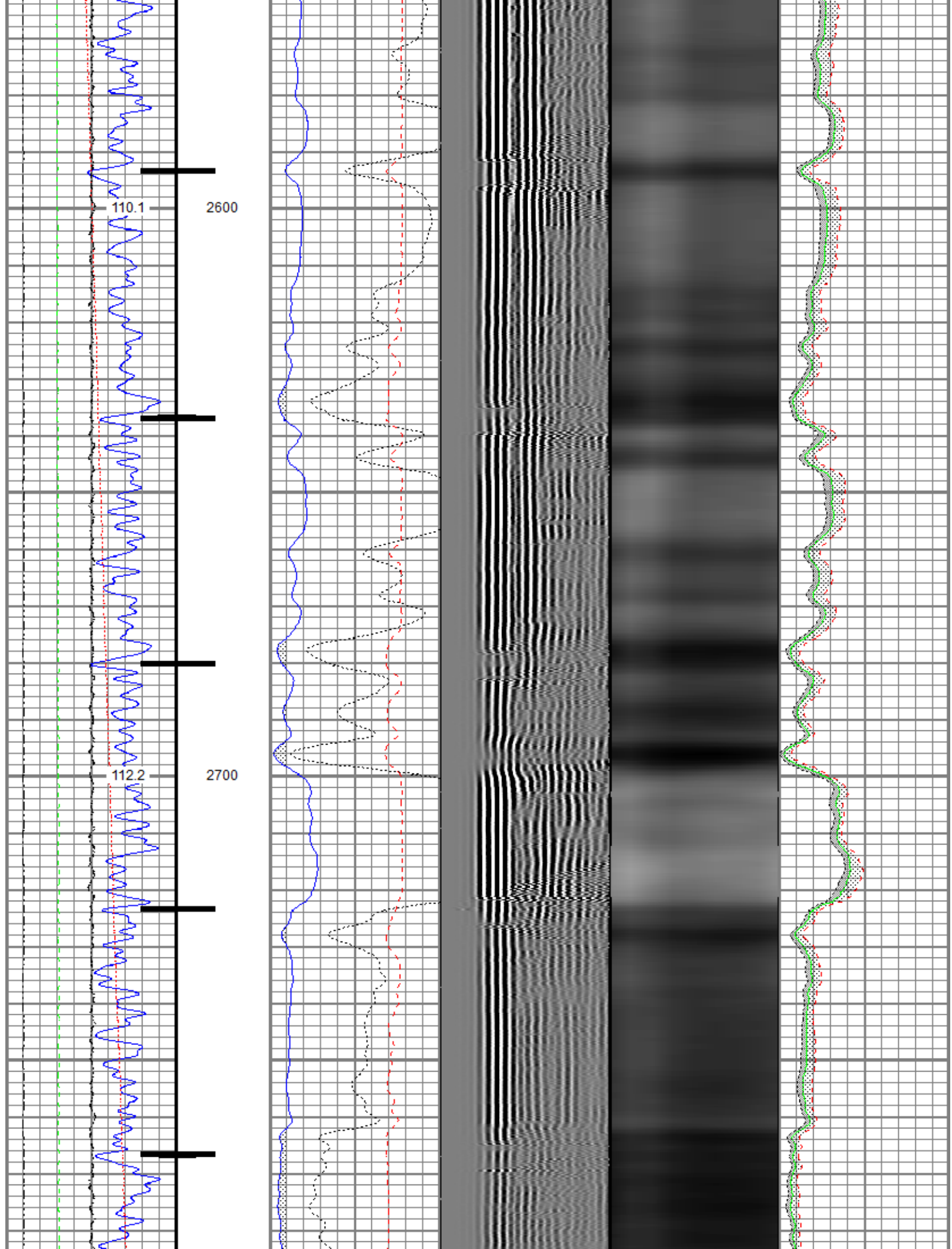


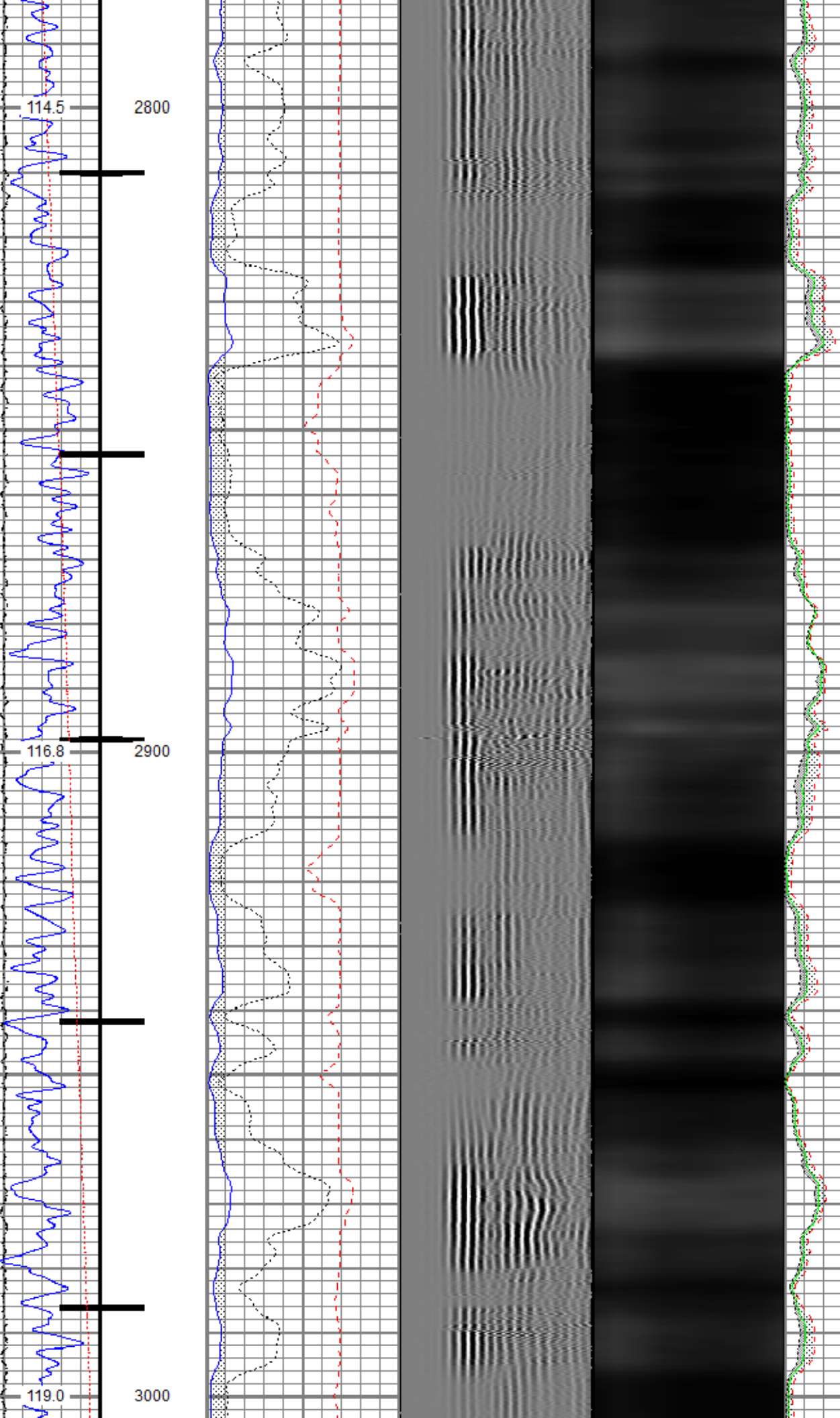


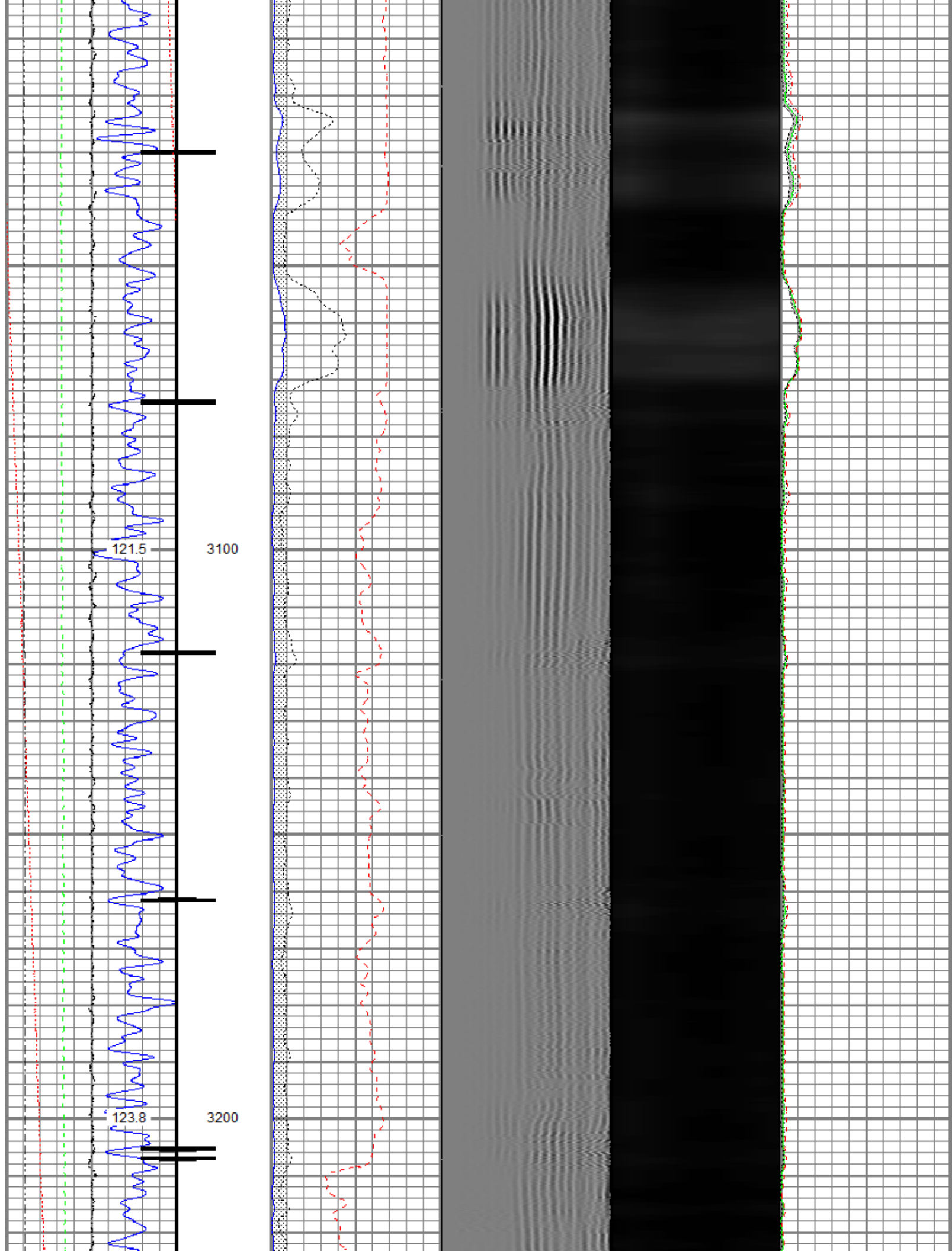


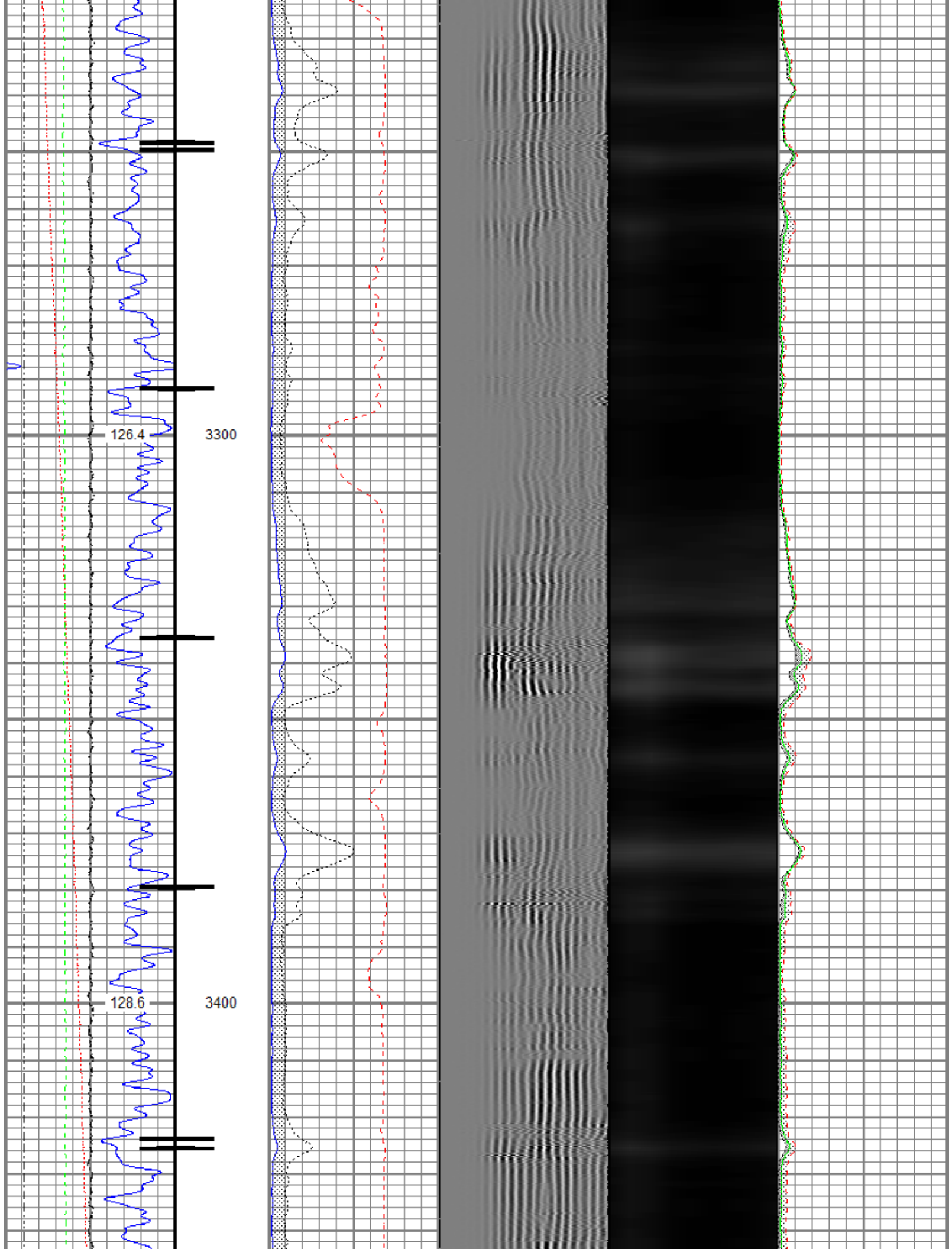


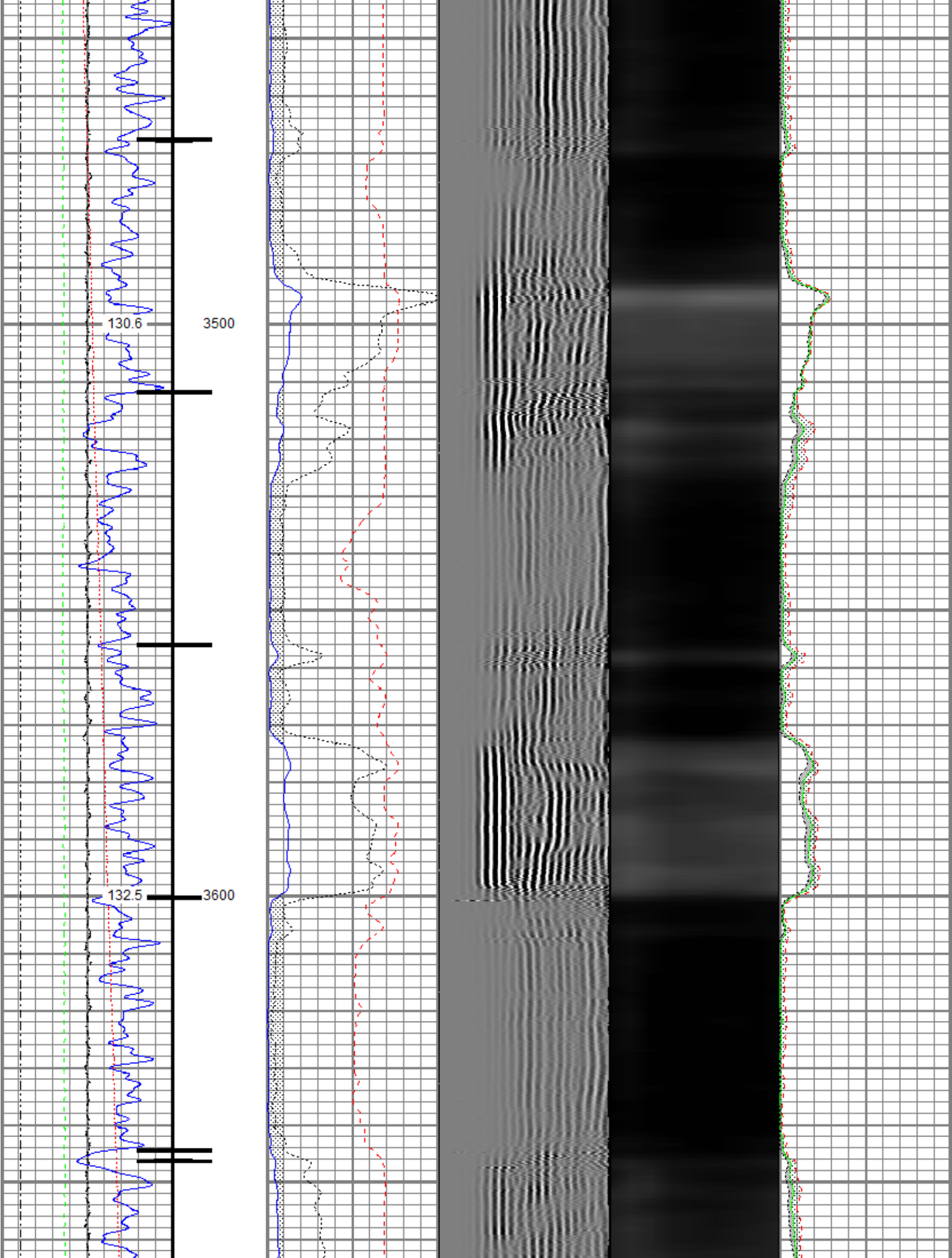


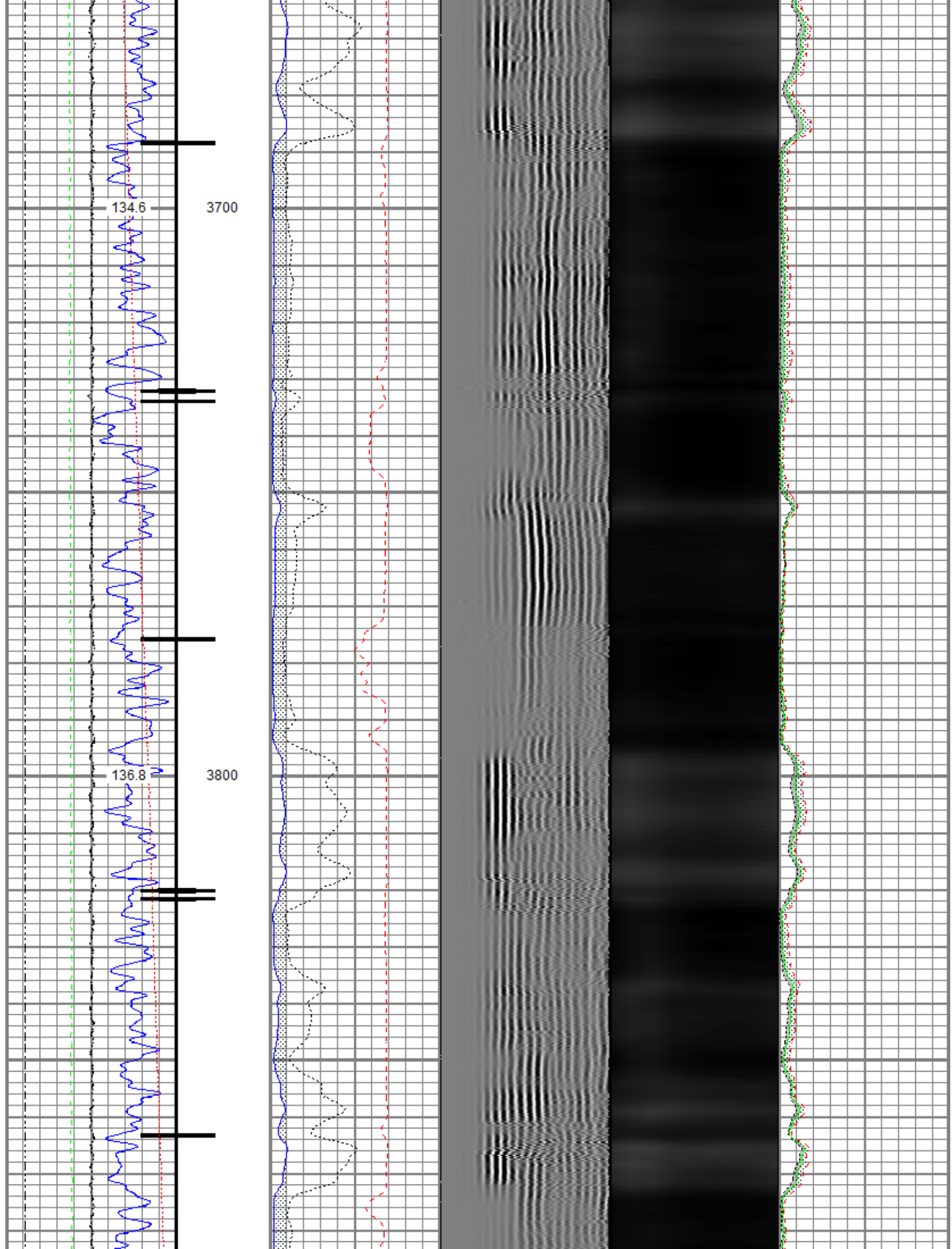


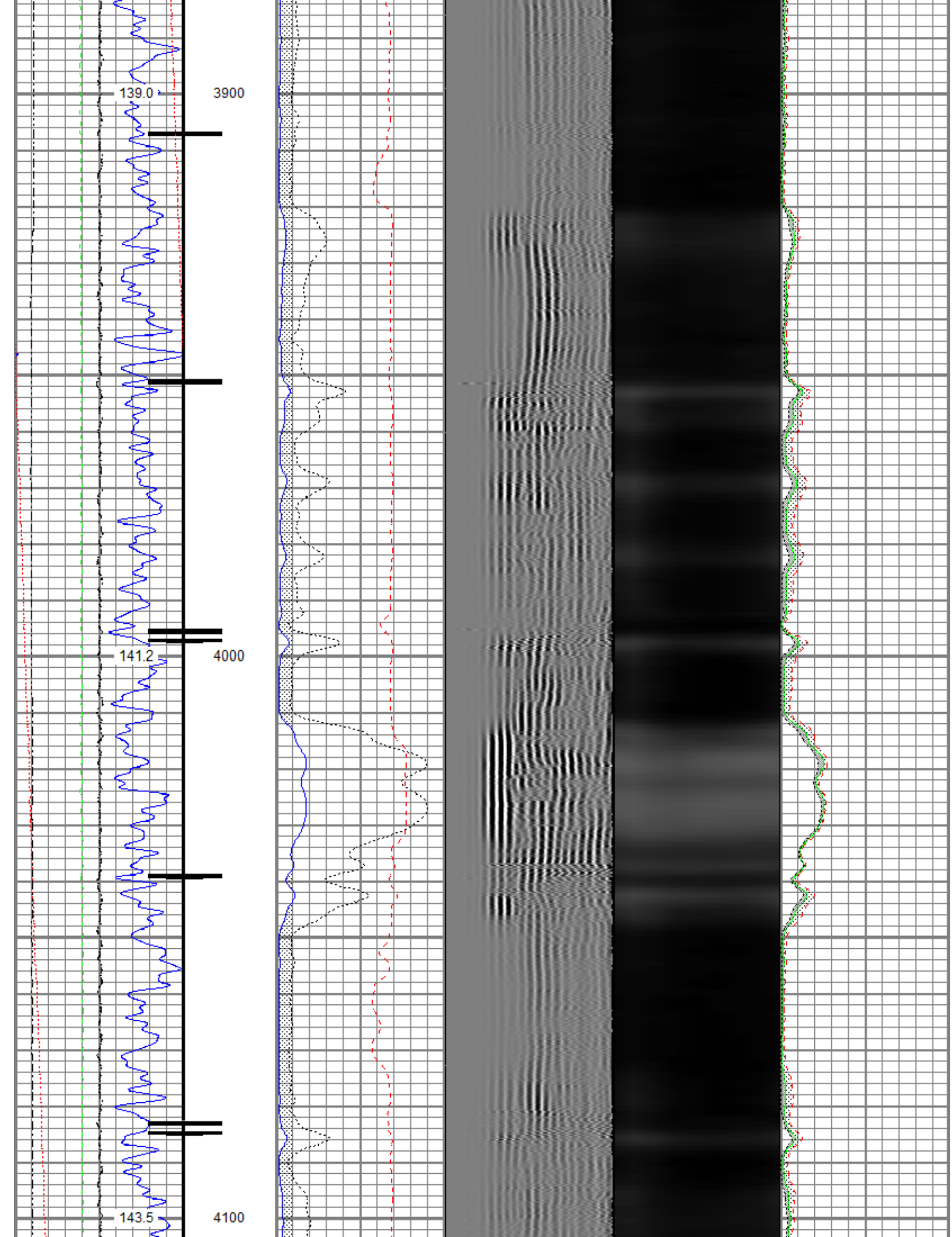


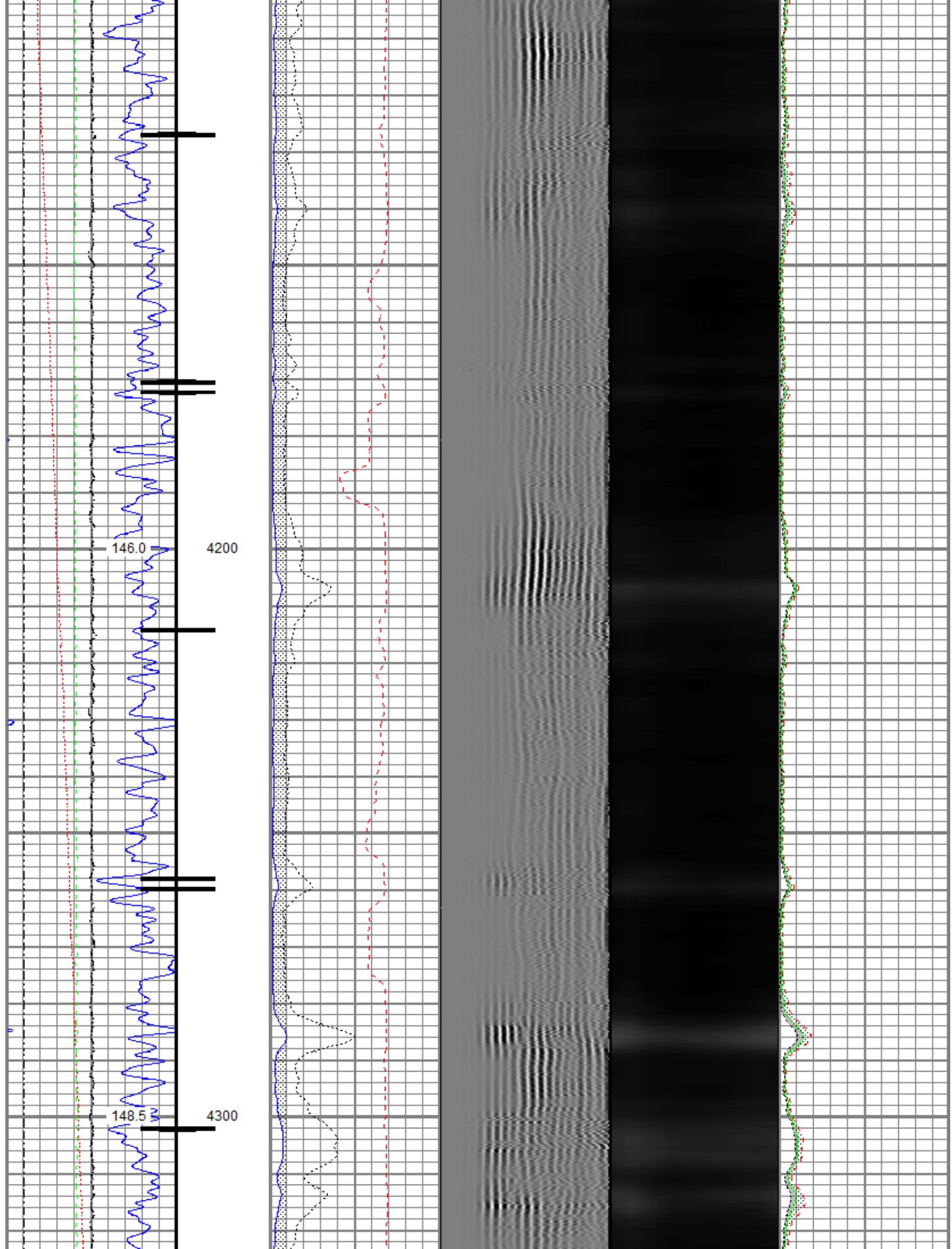


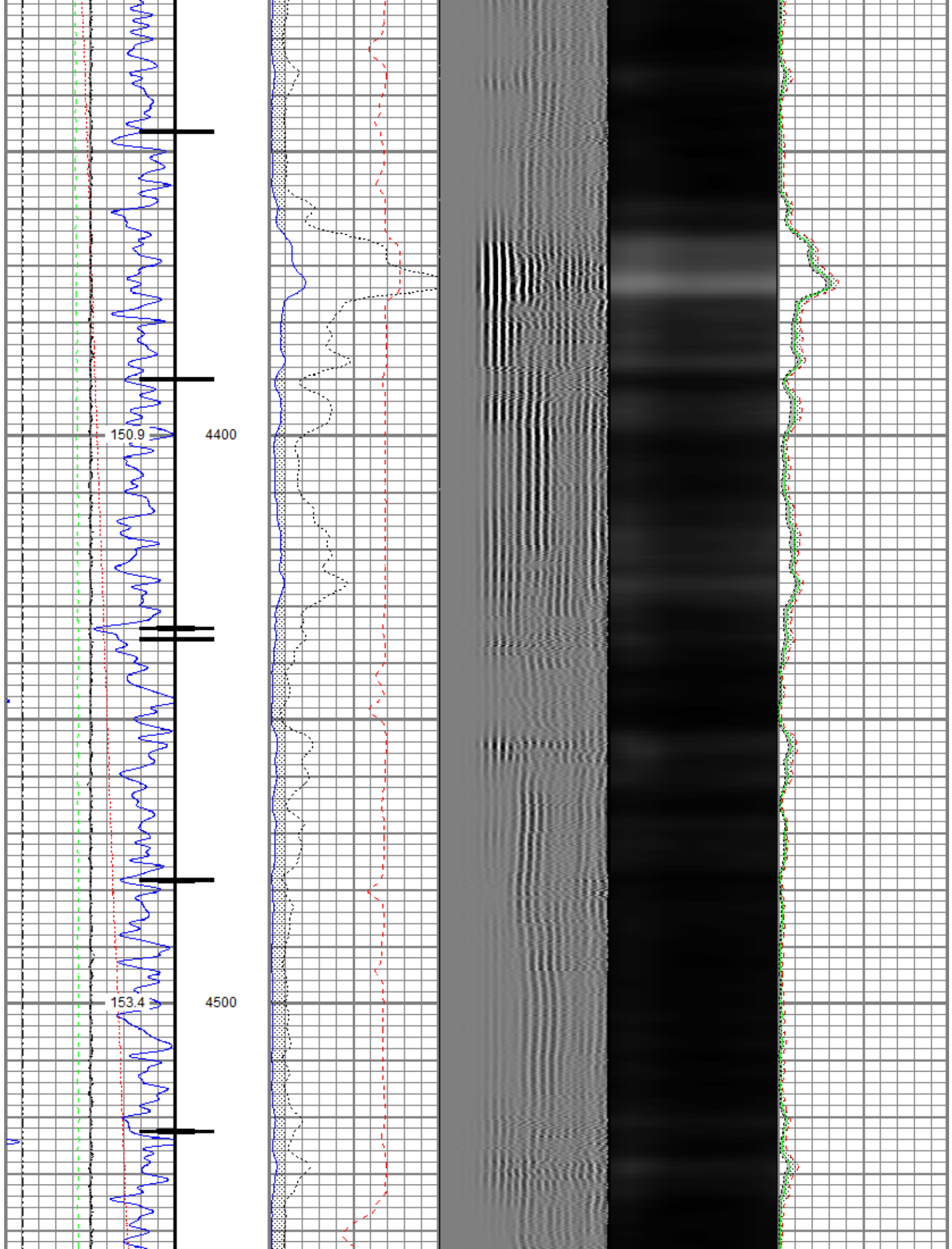


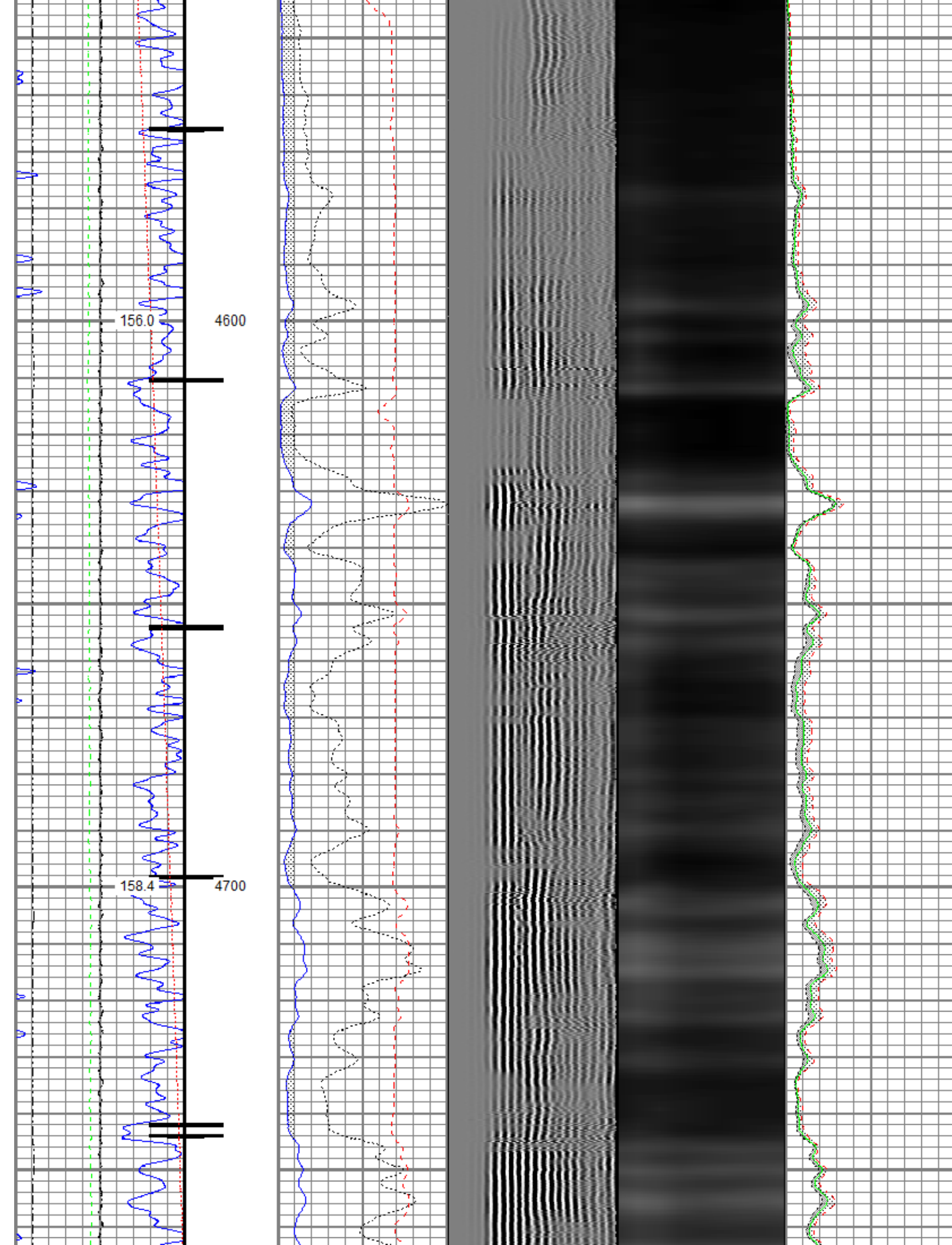


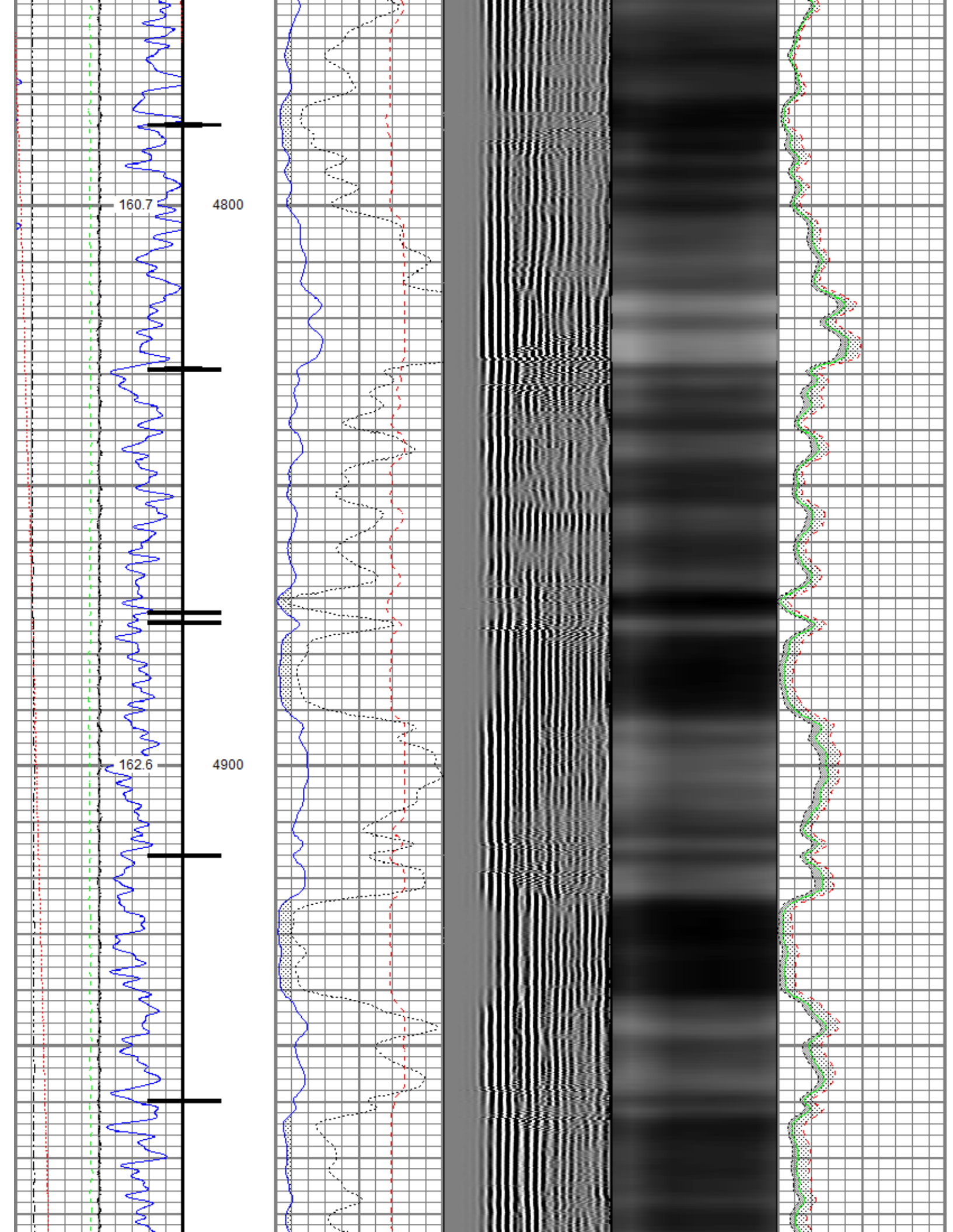


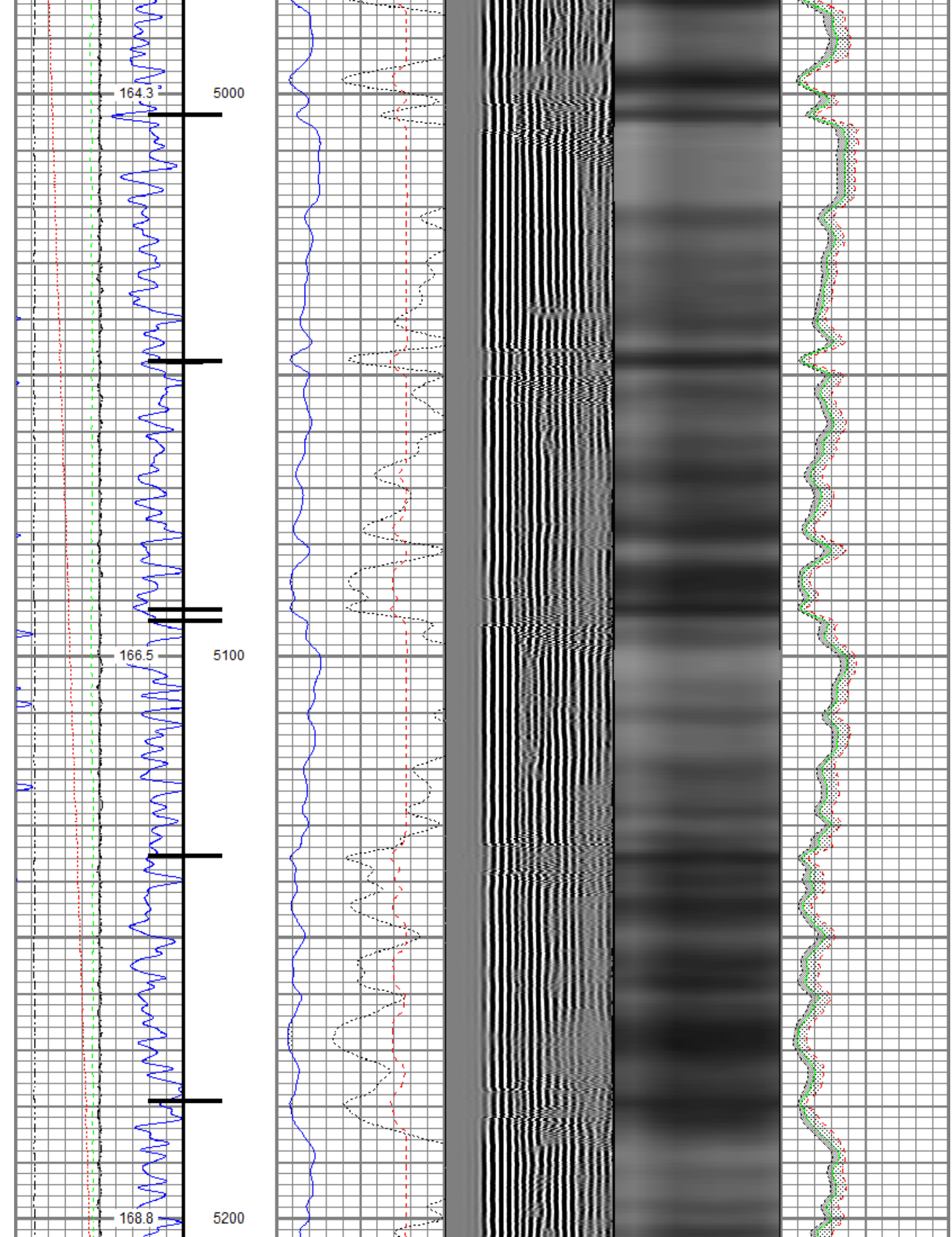


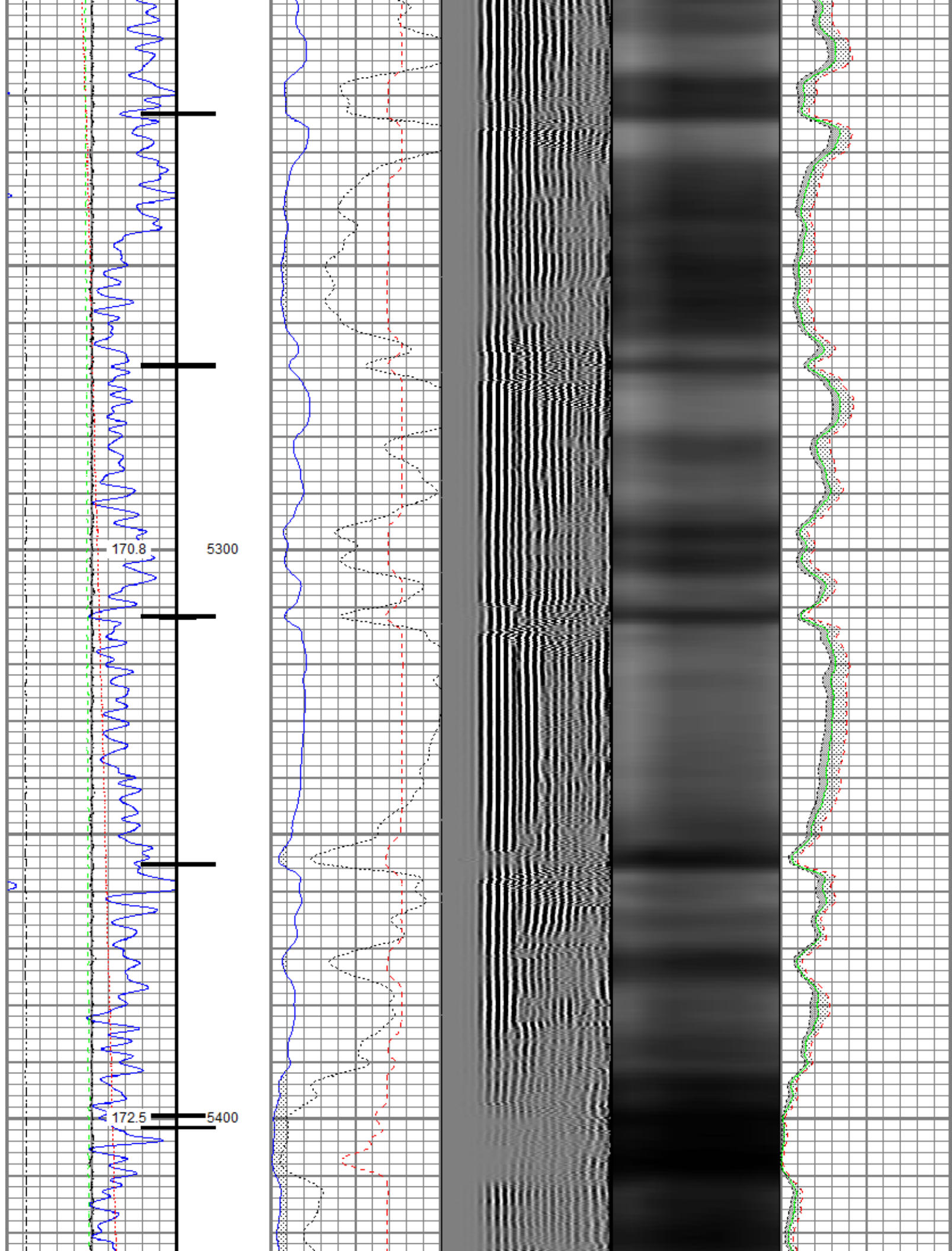


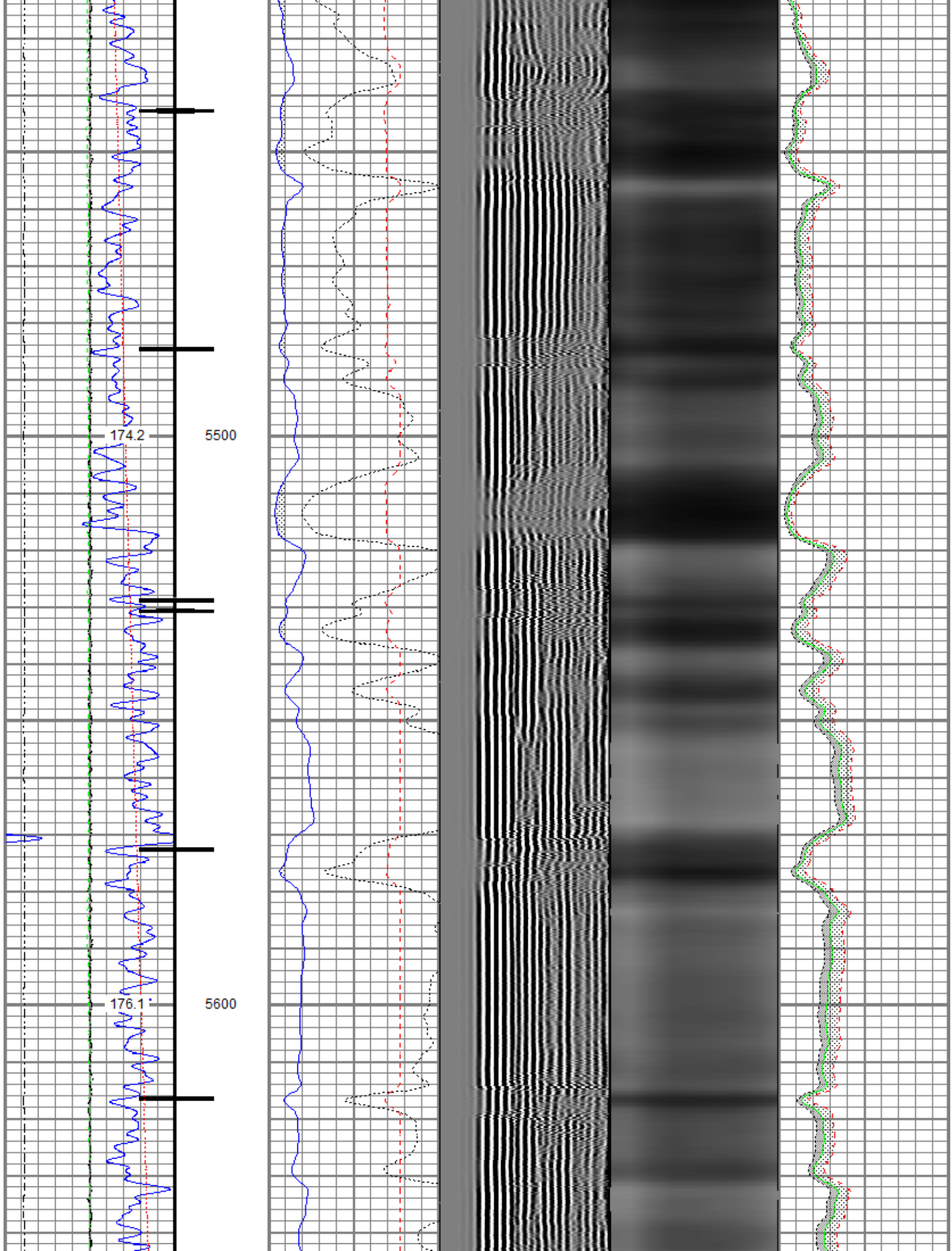


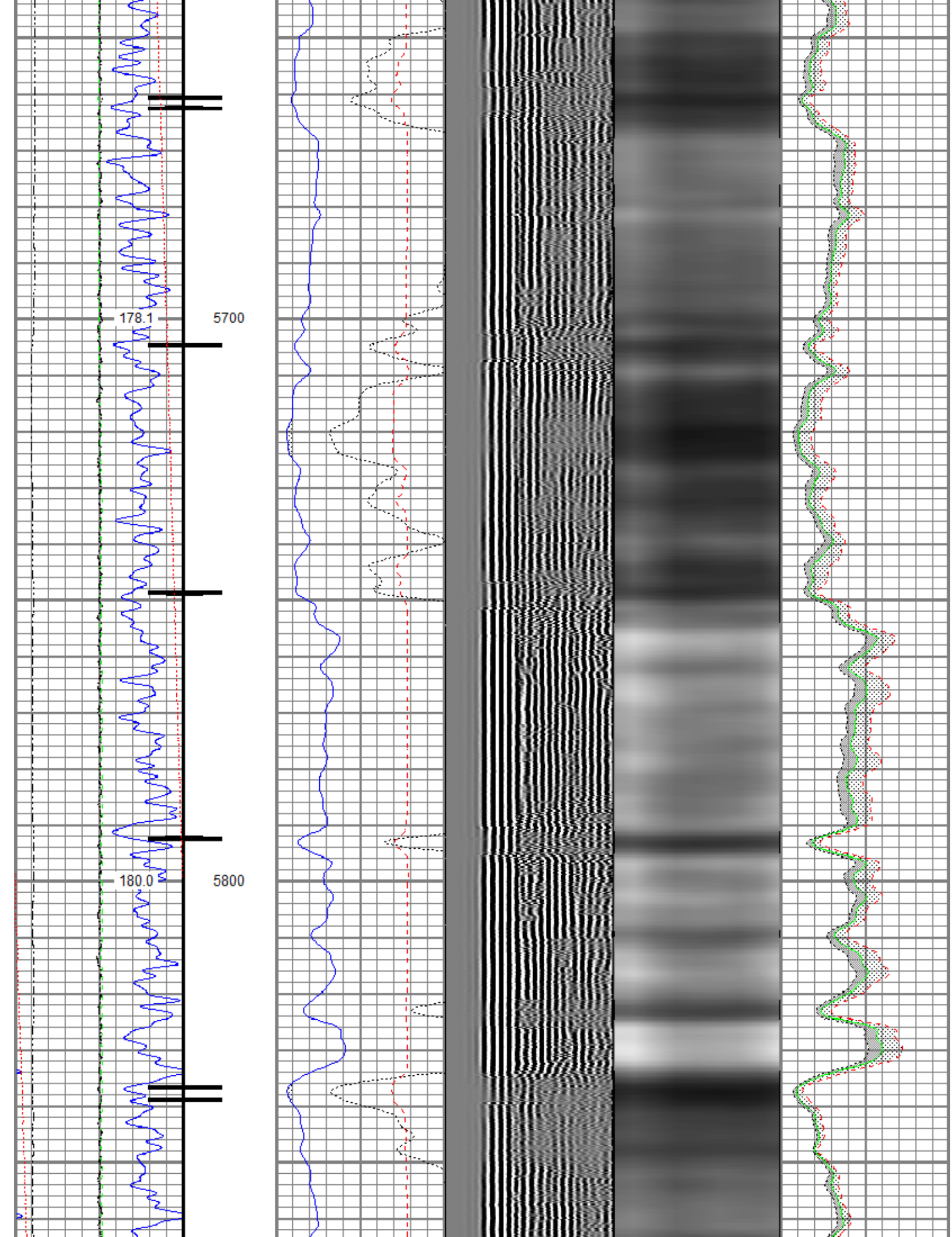


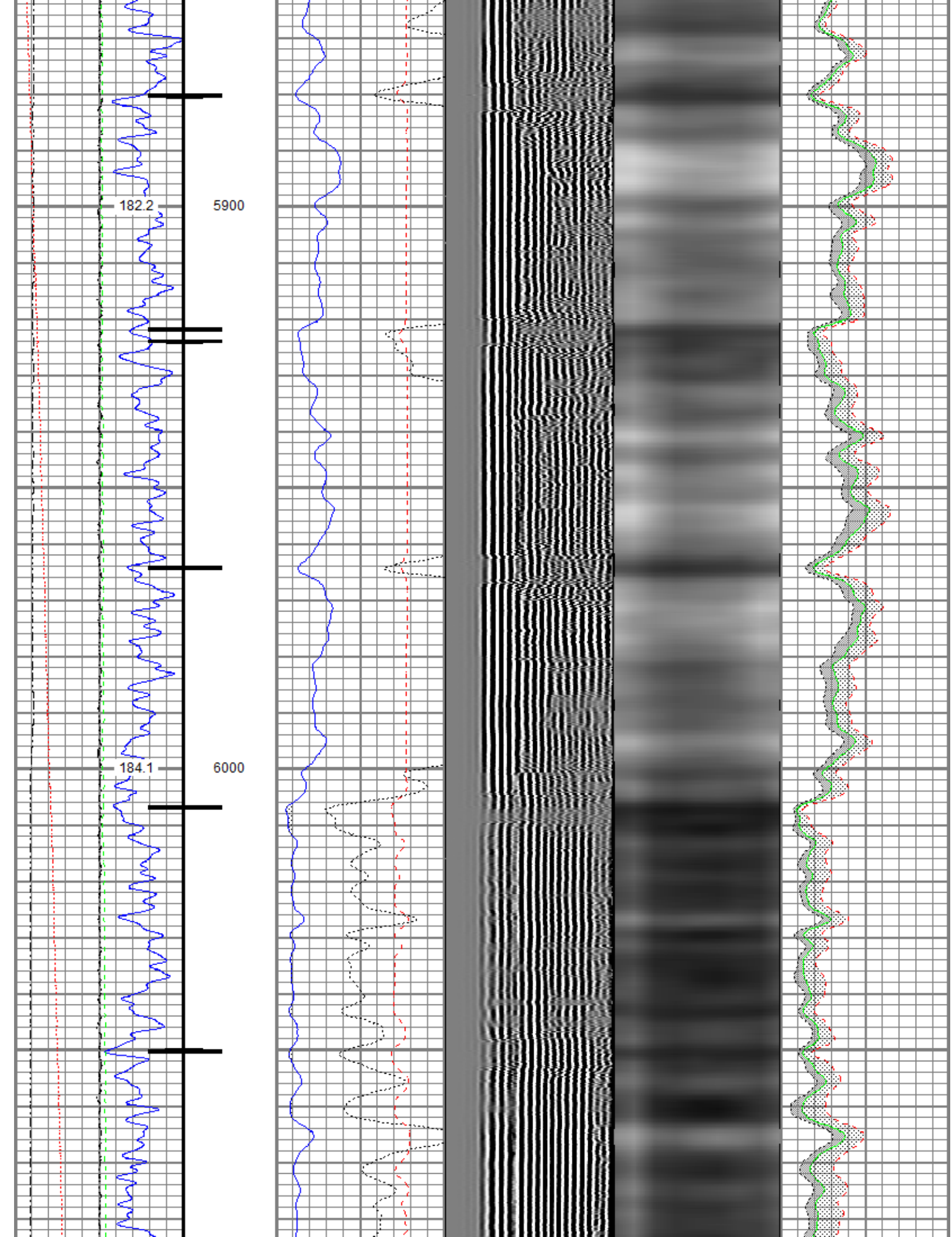


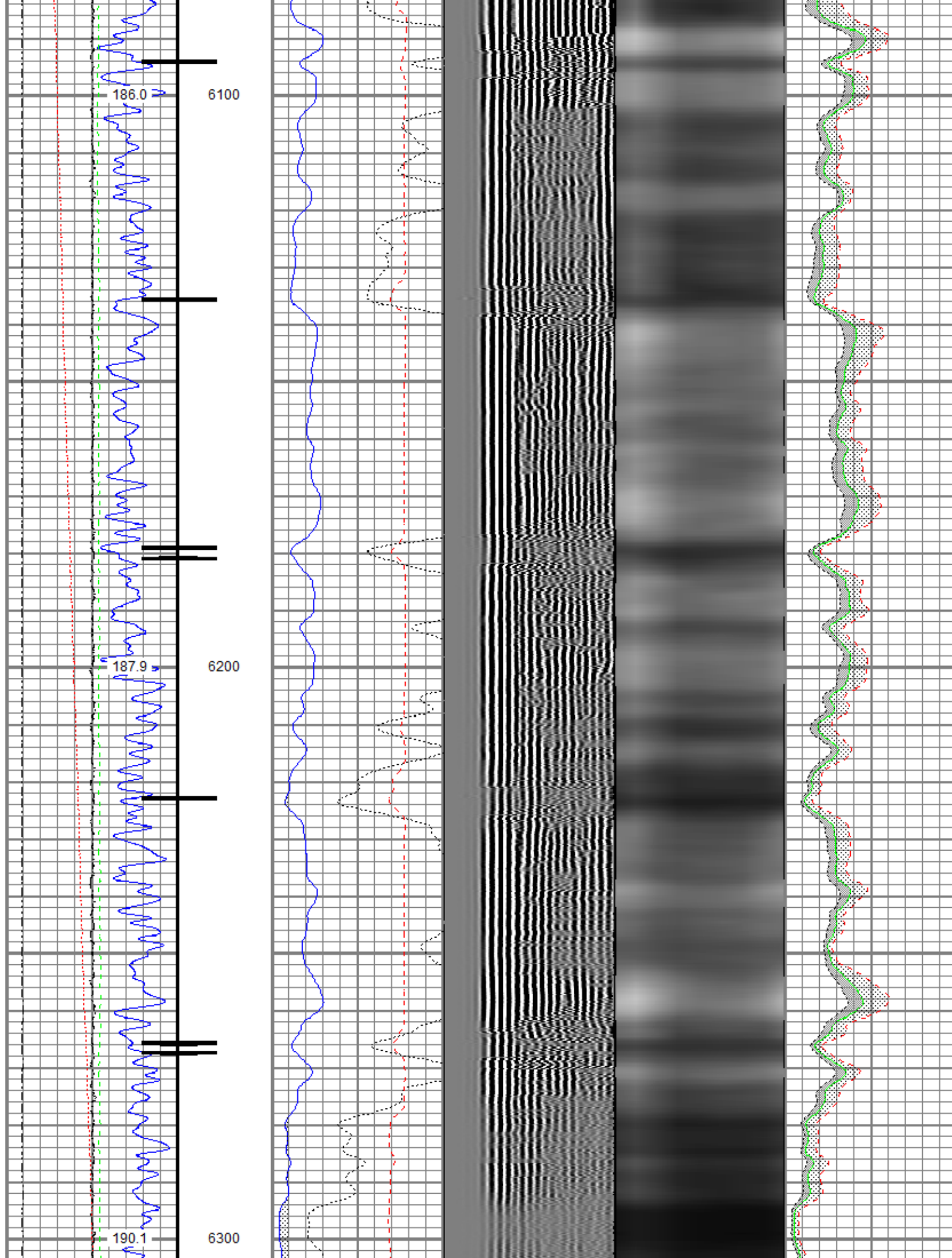


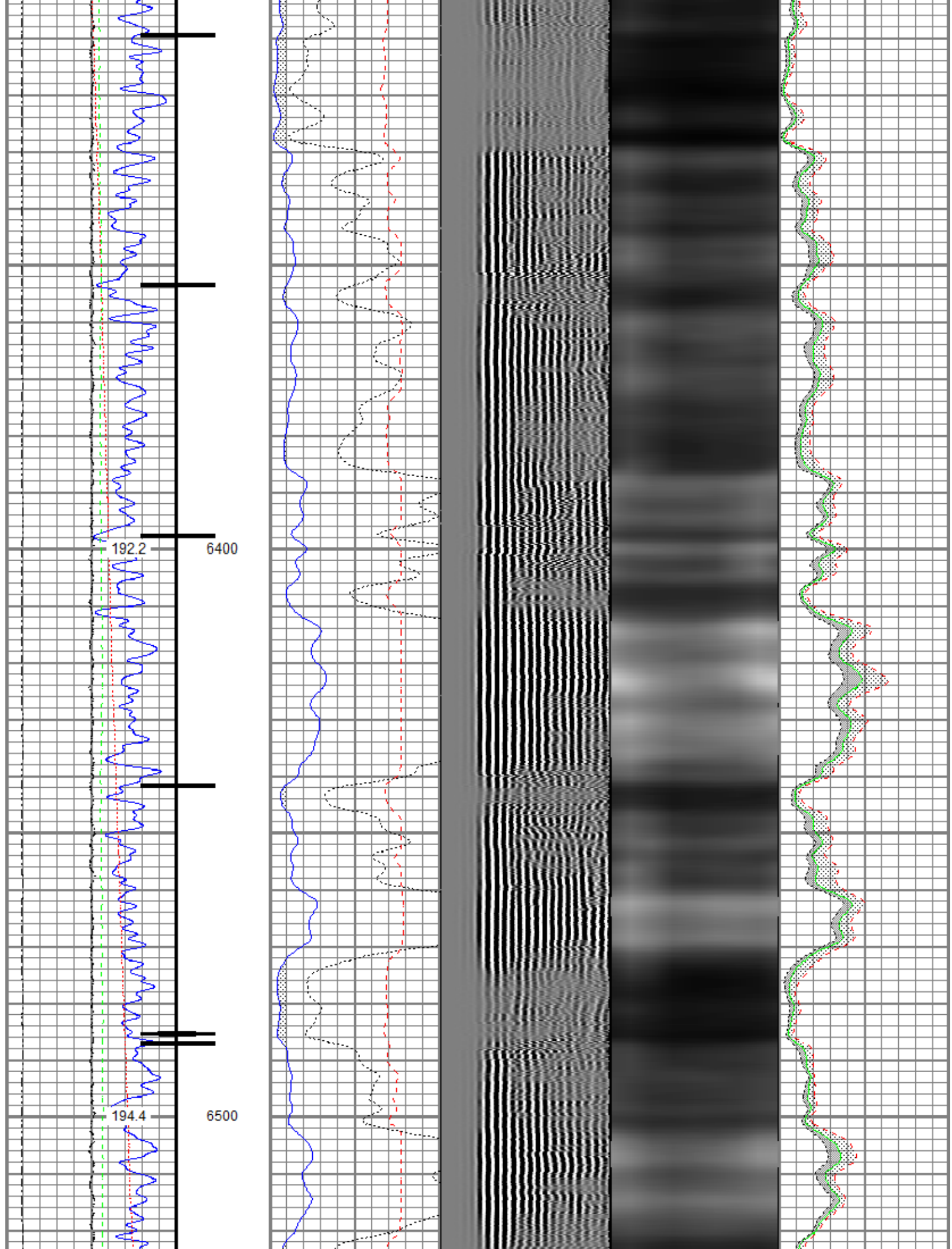


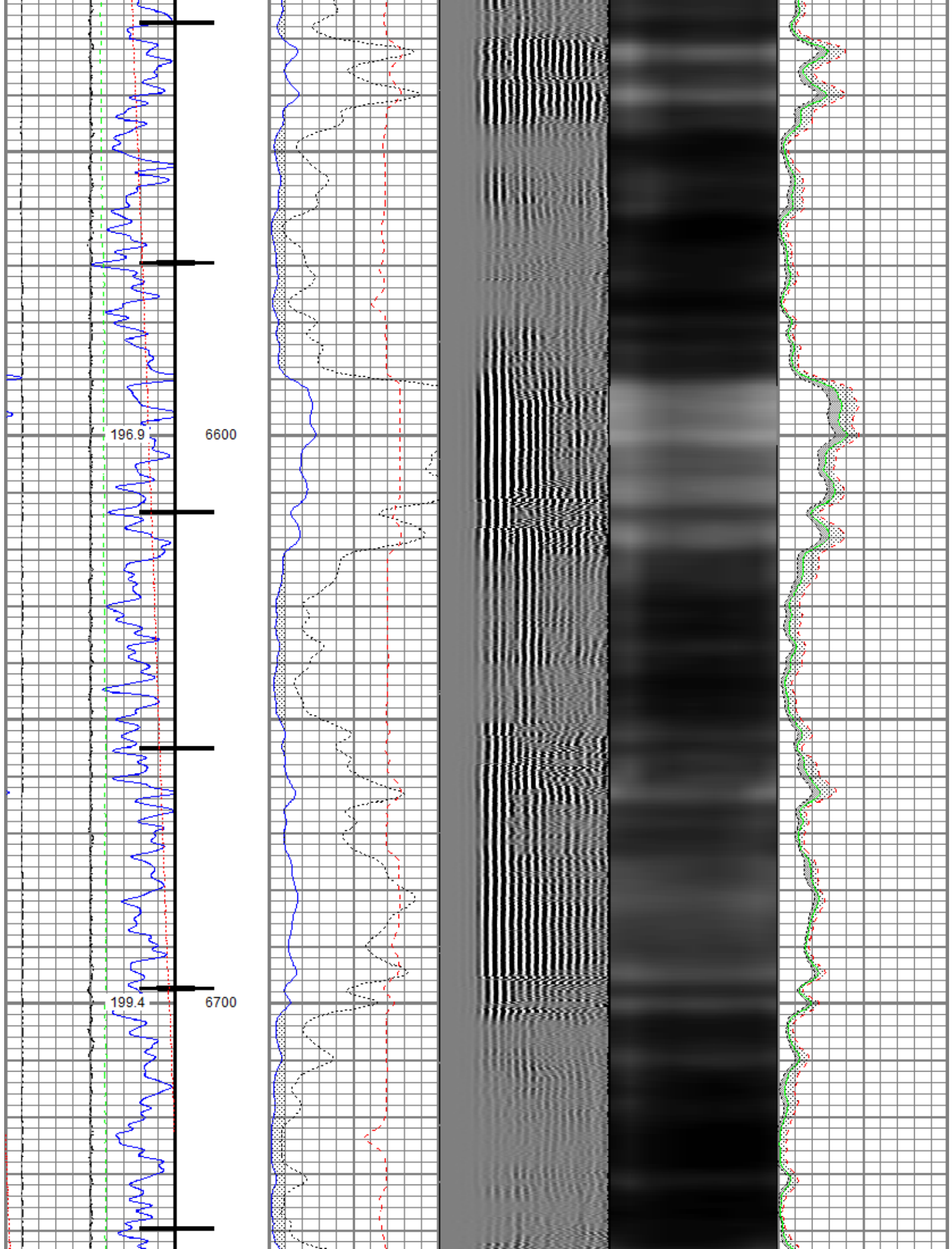


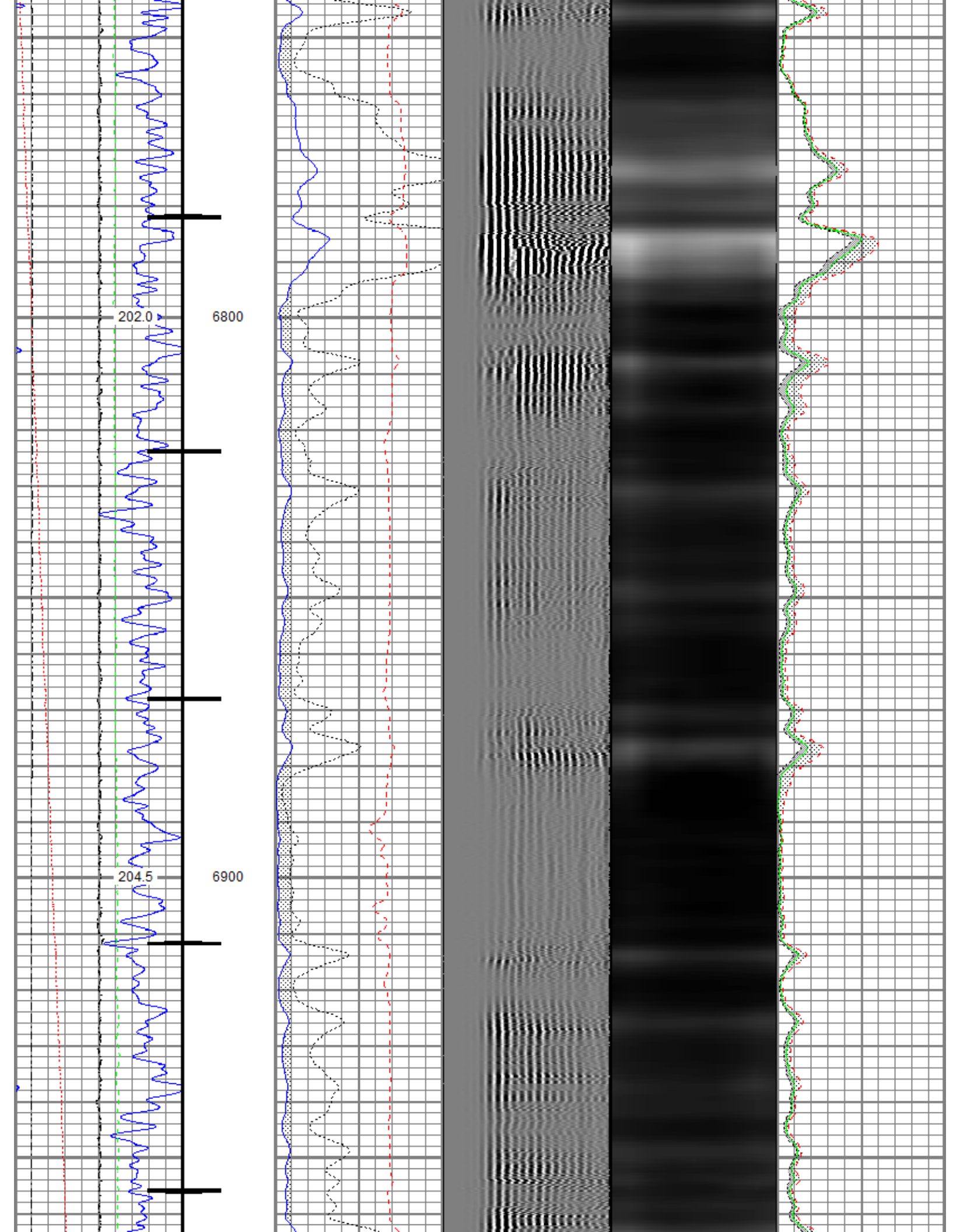


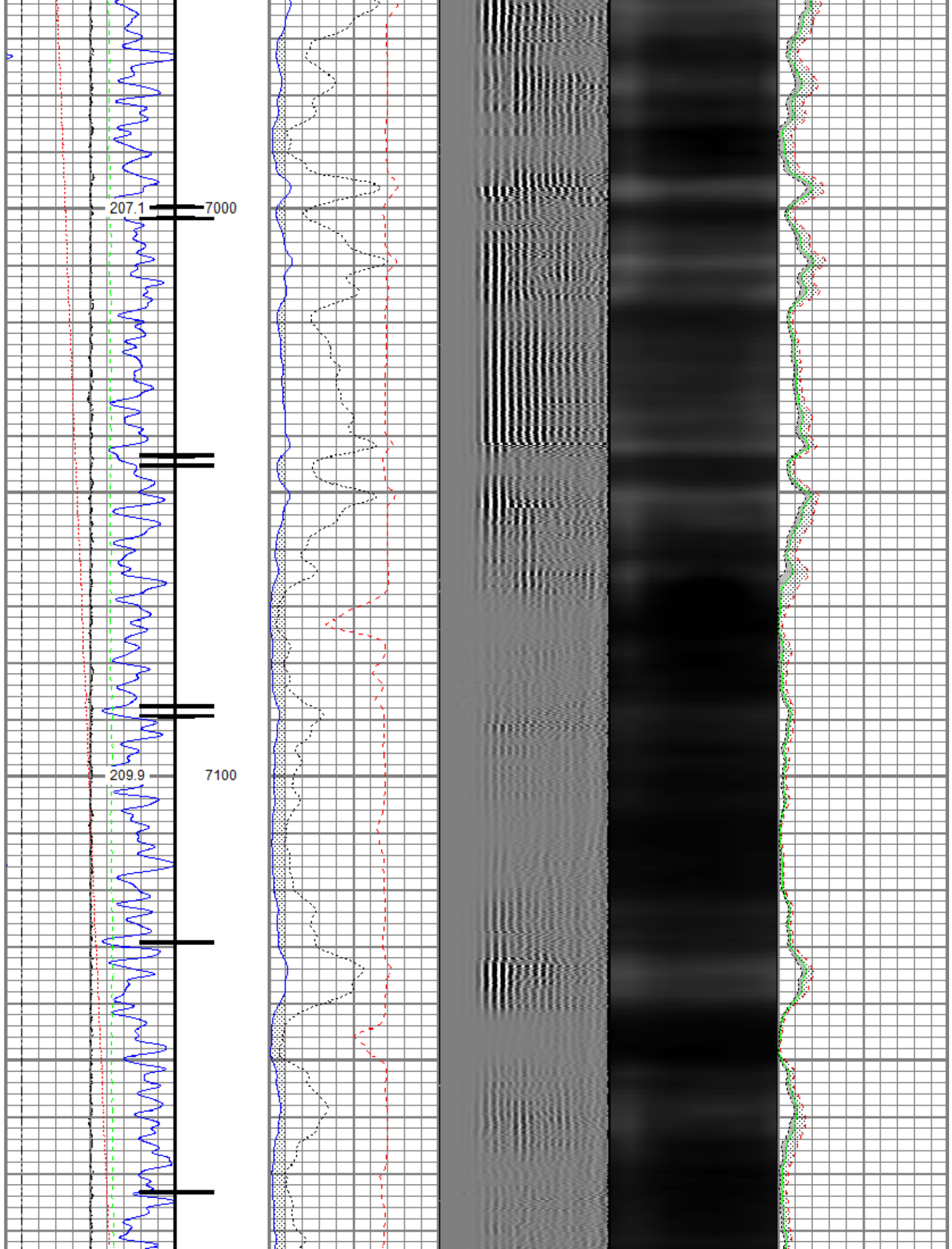


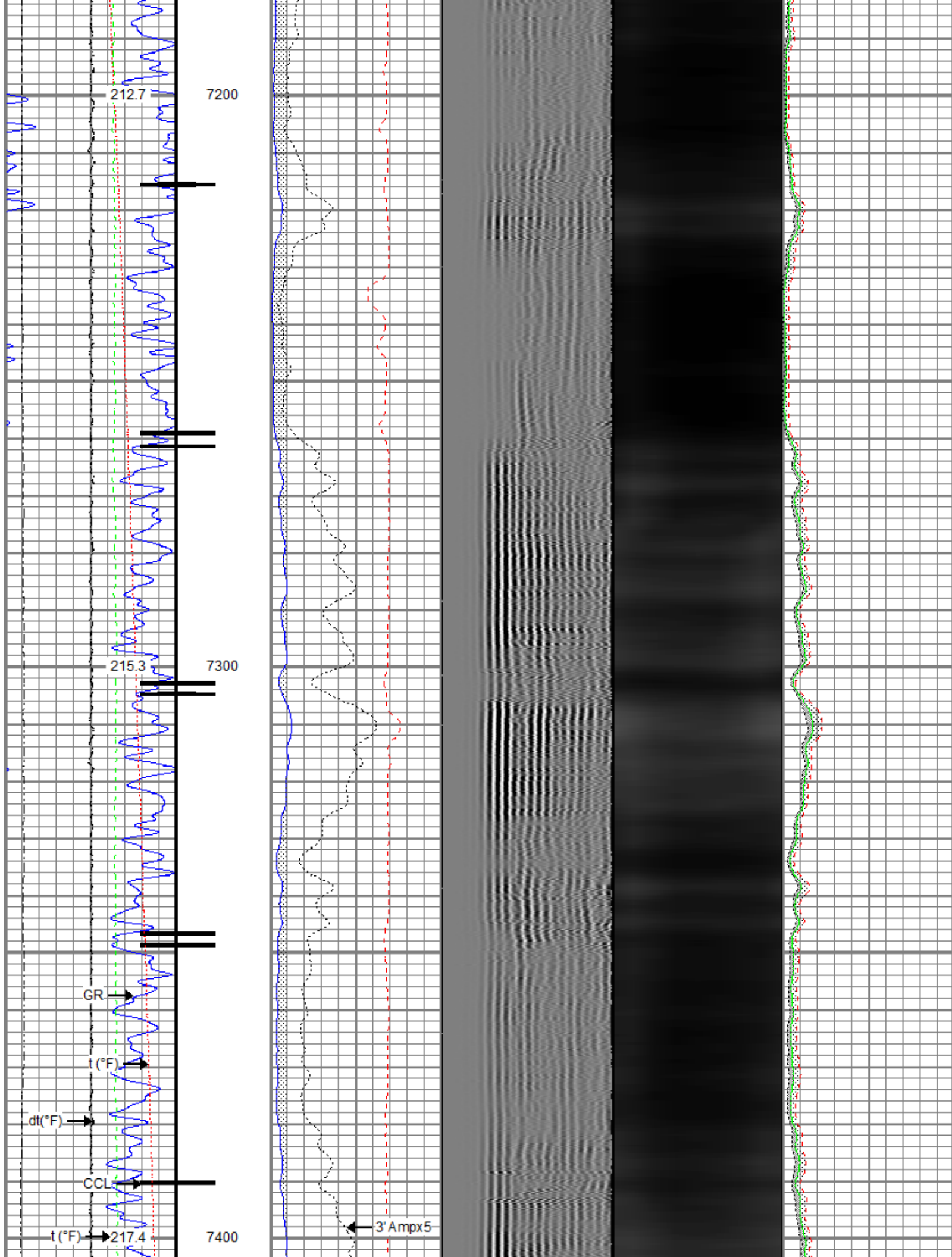


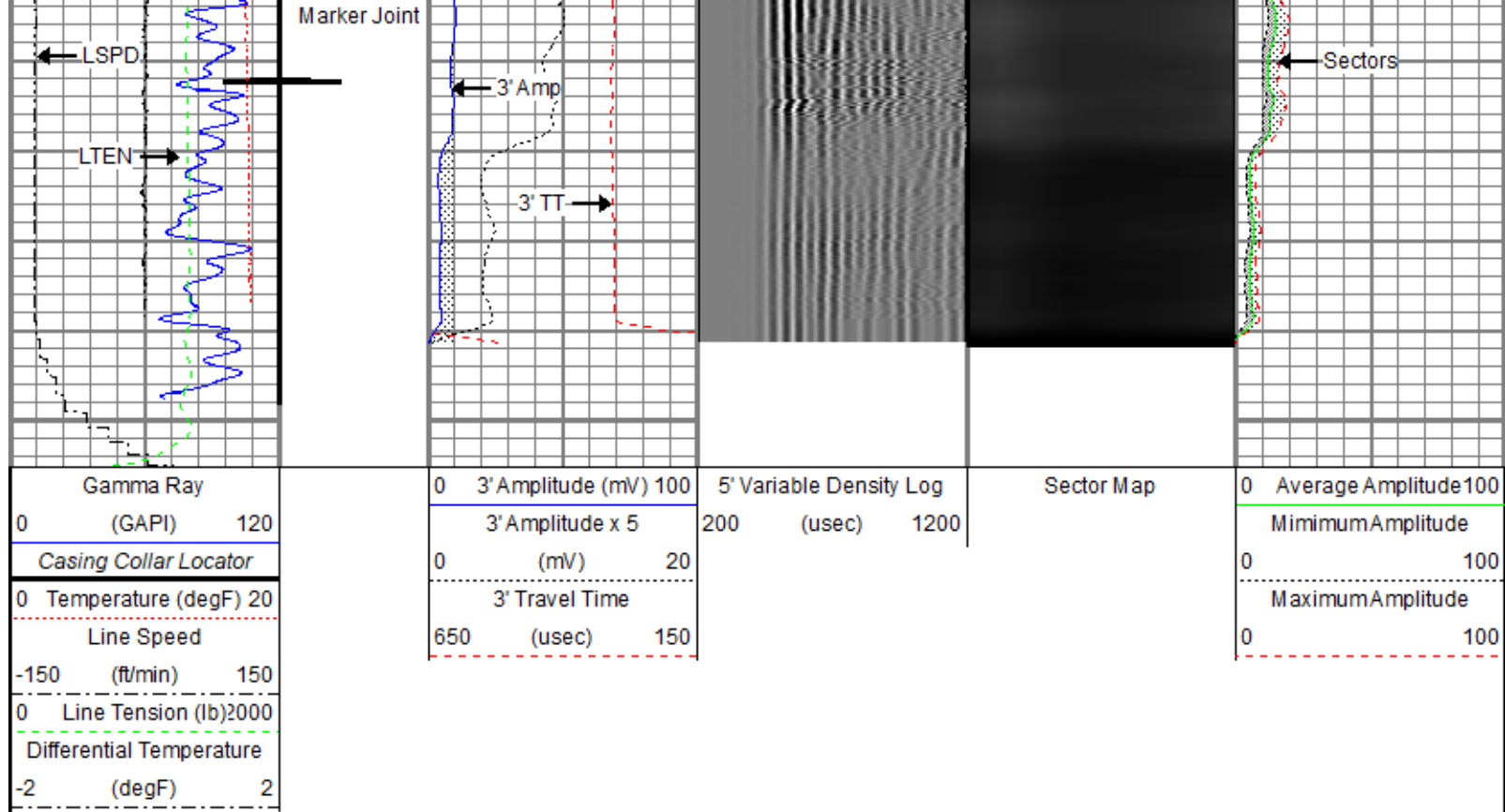








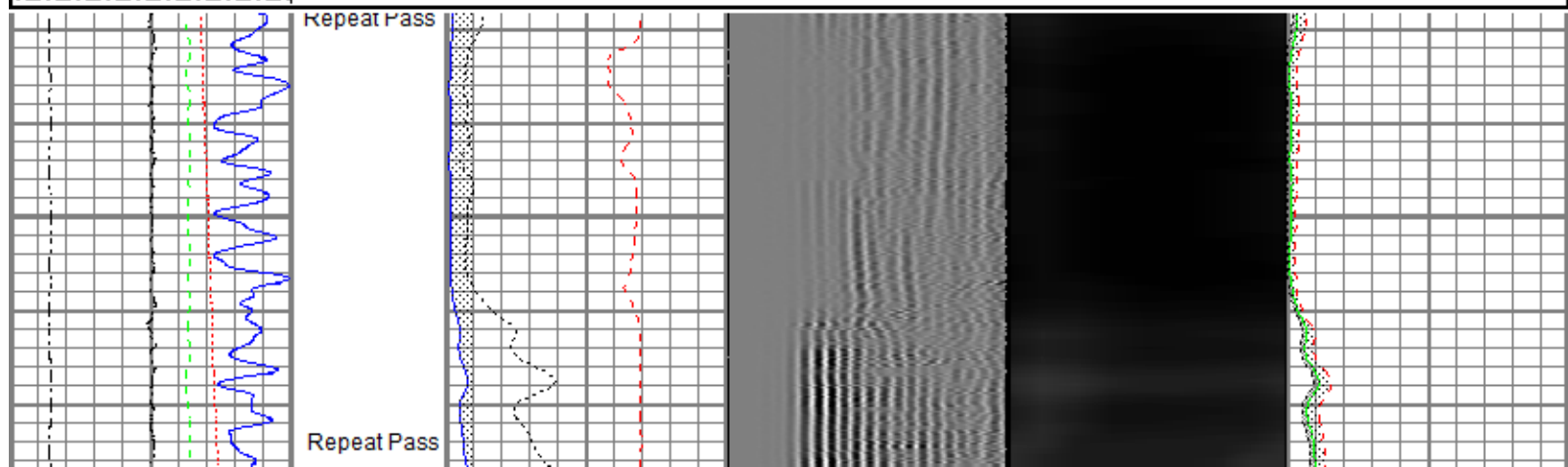
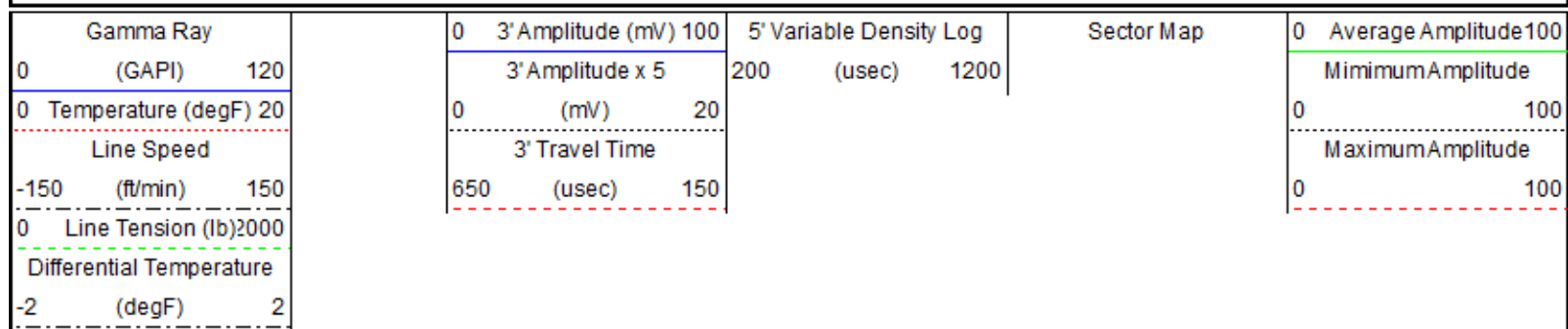


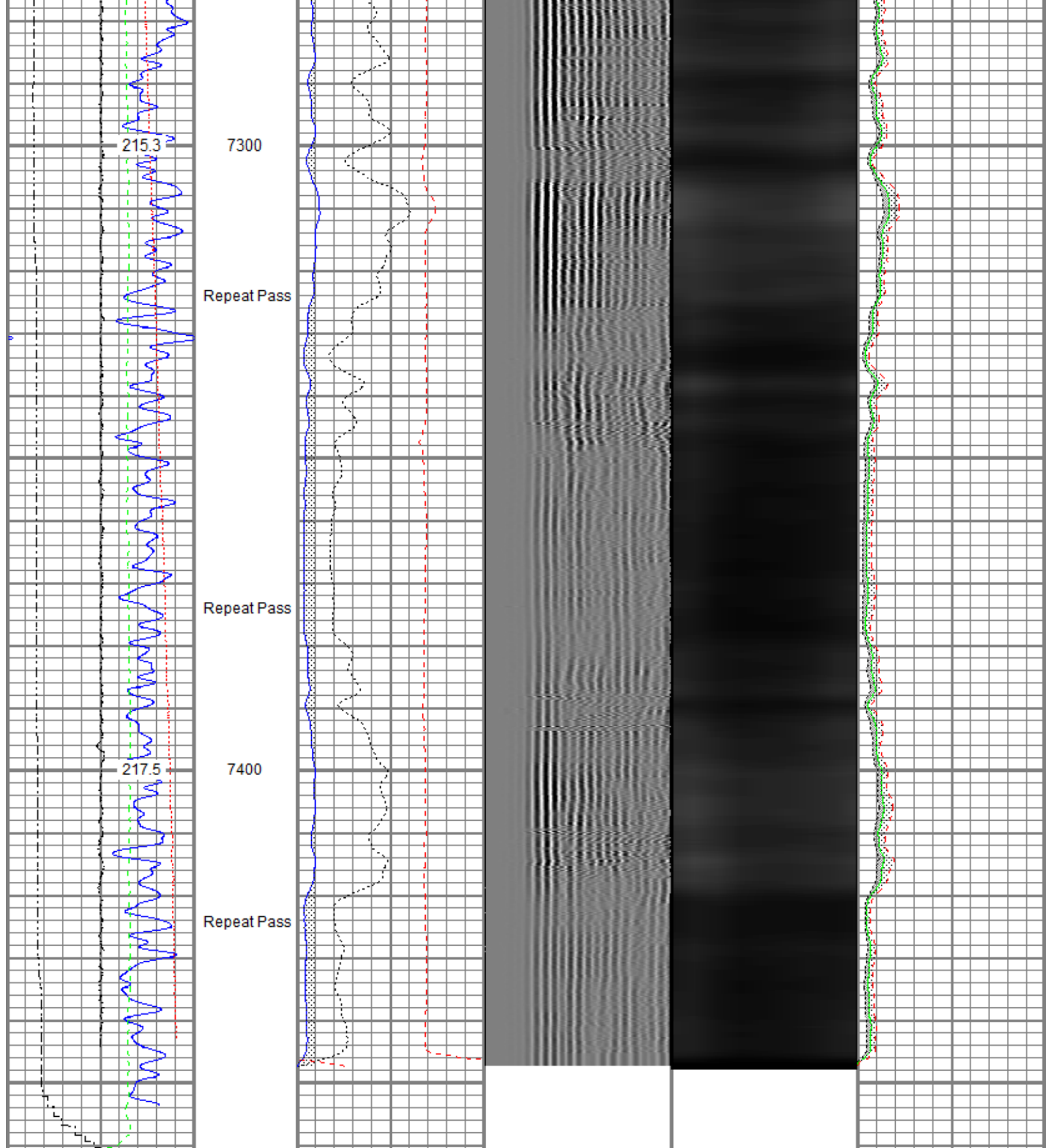


Repeat Pass

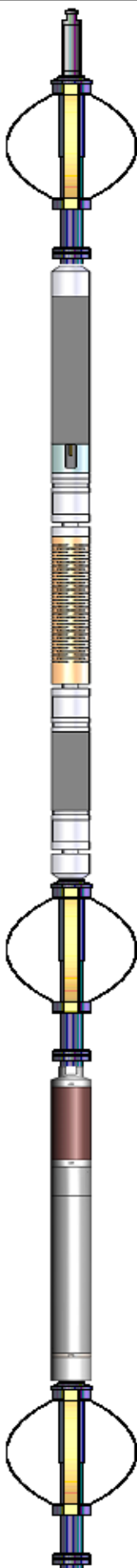
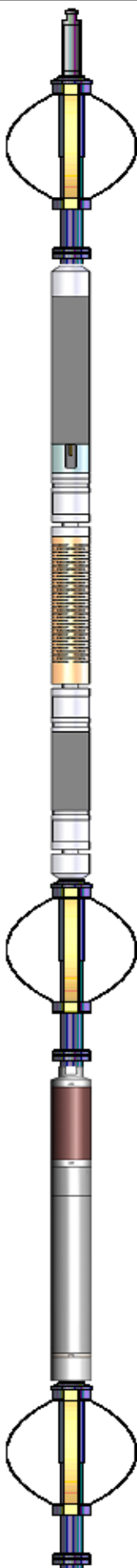
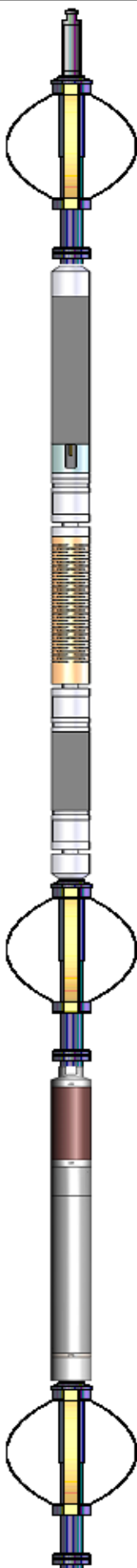
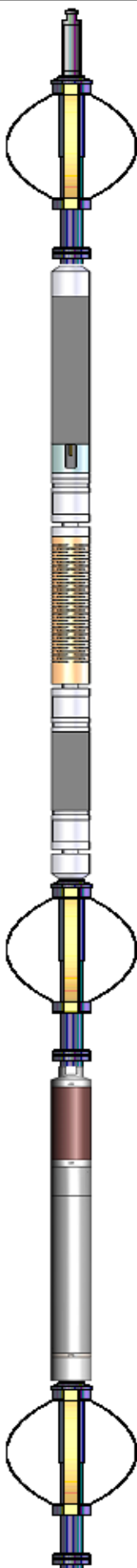
Recorded With 0 PSI Surface Induced Pressure

Database File: anadarko\0512349222_anadarko_jdb 15-5hz_rbl_08-02-19\processed_0512349222_anadarko_jdb 15-5hz_rbl_08-02-19.db
 Dataset Pathname: 0rbl/pass2.2
 Presentation Format: ros_radrii
 Dataset Creation: Fri Aug 02 16:35:51 2019
 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)			Minimum Amplitude	
0	Temperature (degF)	0	(mV)	20		0		100
20	Line Speed		3' Travel Time				Maximum Amplitude	
(ft/min)	150	650	(usec)	150		0		100
-150	0	Line Tension (lb)	2000					
2000	Differential Temperature							
-2	(degF)	2						
2								

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
TEMP	17.04		Titan CHD-14375 GO Titan 1-7/16" Assembled Electric Cable Head with 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
WVFS8	14.81		Probe Radii-2750 RBT (FW0712-020) 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					
CCL\$2 CCL\$1	6.80		Probe CENT-2750 Probe 2-3/4" Electric Inline Bowspring Centralizer	2.88	2.75	20.00
	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_0512349222_anadarko_jdb 15-5hz_rbl_08-02-19.db: field/well/0rbl/pass4.2.3

Total length: 23.86 ft

Total weight: 223.60 lb

Calibration Report

Database File c:\programdata\warrior\data\anadarko\0512349222_anadarko_jdb 15-5hz_rbl_08-02-19\processed_0512349222_anadarko_jdb
 Dataset Pathname 0rbl/pass4.2.3
 Dataset Creation Fri Aug 02 16:26:53 2019

Gamma Ray Calibration Report

Serial Number: 101001
 Tool Model: 2750 6PB
 Performed: Mon Oct 01 11:32:32 2018

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: FW0712-020
 Tool Model: 2750 RBT

Calibration Casing Diameter: 5.500 in
 Calibration Depth: 103.526 ft

Master Calibration, performed (Derived):

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.009	0.767	0.800	71.921	93.826	-0.067
CAL	0.006	0.615				
5'	0.009	0.733	0.800	71.921	98.186	-0.041
SUM						
S1	0.010	0.704	0.000	100.000	143.972	-1.402
S2	0.007	0.742	0.000	100.000	136.167	-1.021
S3	0.009	0.793	0.000	100.000	127.618	-1.164
S4	0.009	0.837	0.000	100.000	120.892	-1.126
S5	0.010	0.827	0.000	100.000	122.358	-1.201
S6	0.010	0.766	0.000	100.000	132.151	-1.274
S7	0.007	0.720	0.000	100.000	140.338	-0.993
S8	0.008	0.682	0.000	100.000	148.274	-1.149

Internal Reference Calibration, performed (Not Performed):

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.006	0.615	1.000	0.000

Air Zero Calibration, performed (Not Performed):

	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	

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: FW0712-020
Tool Model: 2750 RBT
Performed: Mon Oct 01 11:32:14 2018

	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	



Company Kerr-McGee Oil & Gas Onshore, L.P.
Well JDB 15-5HZ
Field Wattenberg
County Weld
State Colorado