



Radial Cement Bond  
Gamma Ray  
Casing Collar Log

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

Well Papa Jo 2-25 35C2-17HZ

Field Wattenberg

County Weld State Colorado

Location: API #: 05-123-45507

Other Services  
0 Pressure

SEC 8 TWP 1N RGE 68W

Permanent Datum Ground Level Elevation 5063'

Elevation

Log Measured From Kelly Bushing

Elevation 26 FT

K.B. 5089'

Drilling Measured From Kelly Bushing

Elevation

D.F. ---

G.L. 5063'

Date 28-MAR-2018

Run Number One

Depth Driller 13495 FT

Depth Logger 7132 FT

Bottom Logged Interval 7122 FT

Top Log Interval Surface

Open Hole Size ---

Type Fluid Water

Density / Viscosity 8.34 lb/gal

Max. Recorded Temp. 225°F

E. estimated Cement Top See Log

Time Well Ready R.O.A.

Time Logger on Bottom 1550

E. equipment Number HD-324

Location Fort Lupton, CO

Recorded By M. Hayes

Witnessed By John McCarthy

Run Number

Bit From To

Size

Weight

From To

Size (in)

Wgt (lbs/ft)

Grade

Top

Bottom

1889 FT

Surface

13487 FT

Surface

13487 FT

Surface

13487 FT

Surface

13487 FT

Surface

13487 FT

Surface

13487 FT

Surface

13487 FT

Surface

13487 FT

Comments

Log ran as per customer request  
Depth referenced to Casing Tally reported top of Marker Joint 7058 FT  
Adjusted 12 FT to correlate with Marker Joint  
Log ran from 7122 FT to Surface  
Log ran with 2800 PSI Surface Induced Pressure  
Logging tools were clean and free of debris upon completion of operations  
Thank you for choosing Reliance Oilfield Services, LLC!!

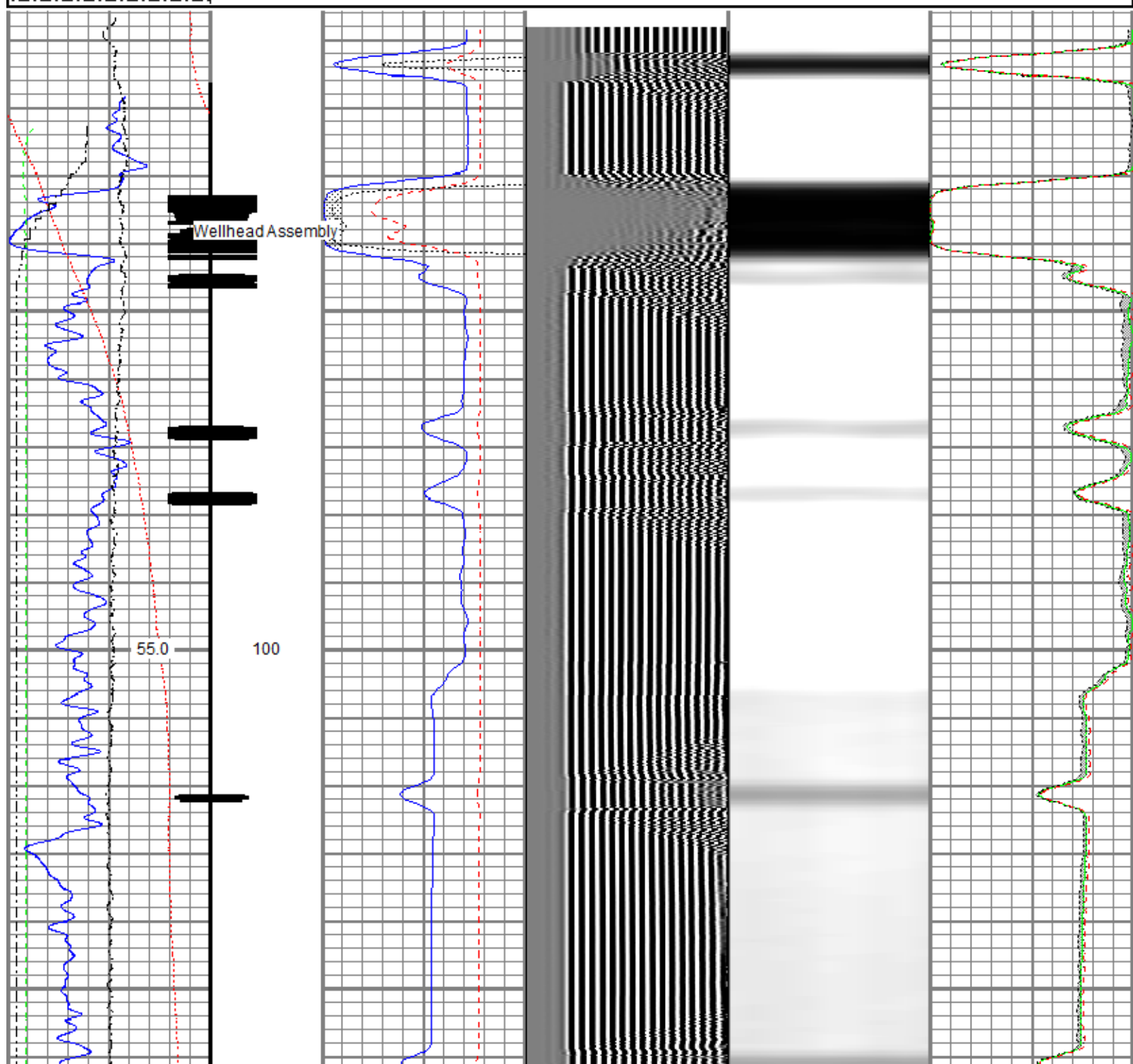
Main Pass

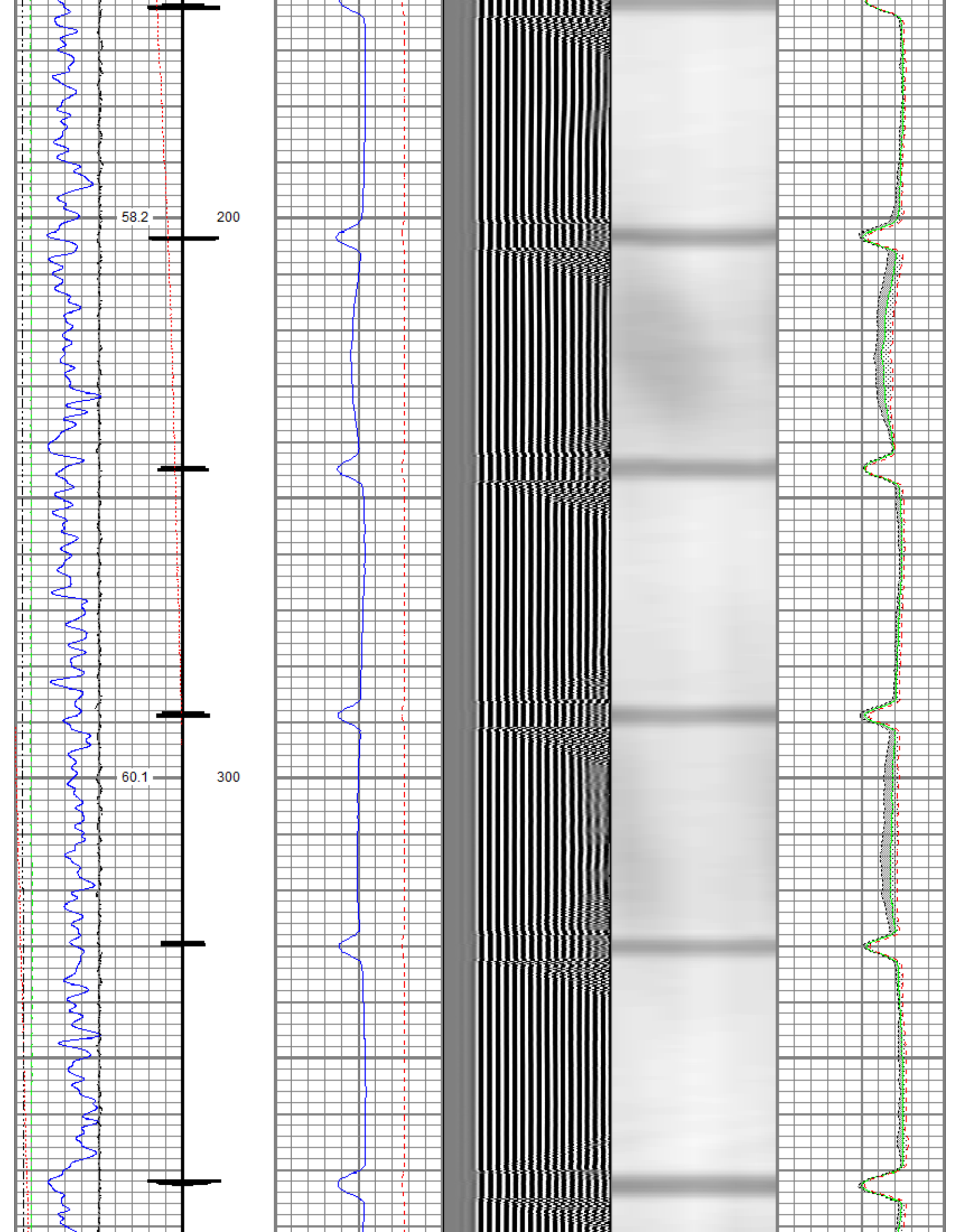


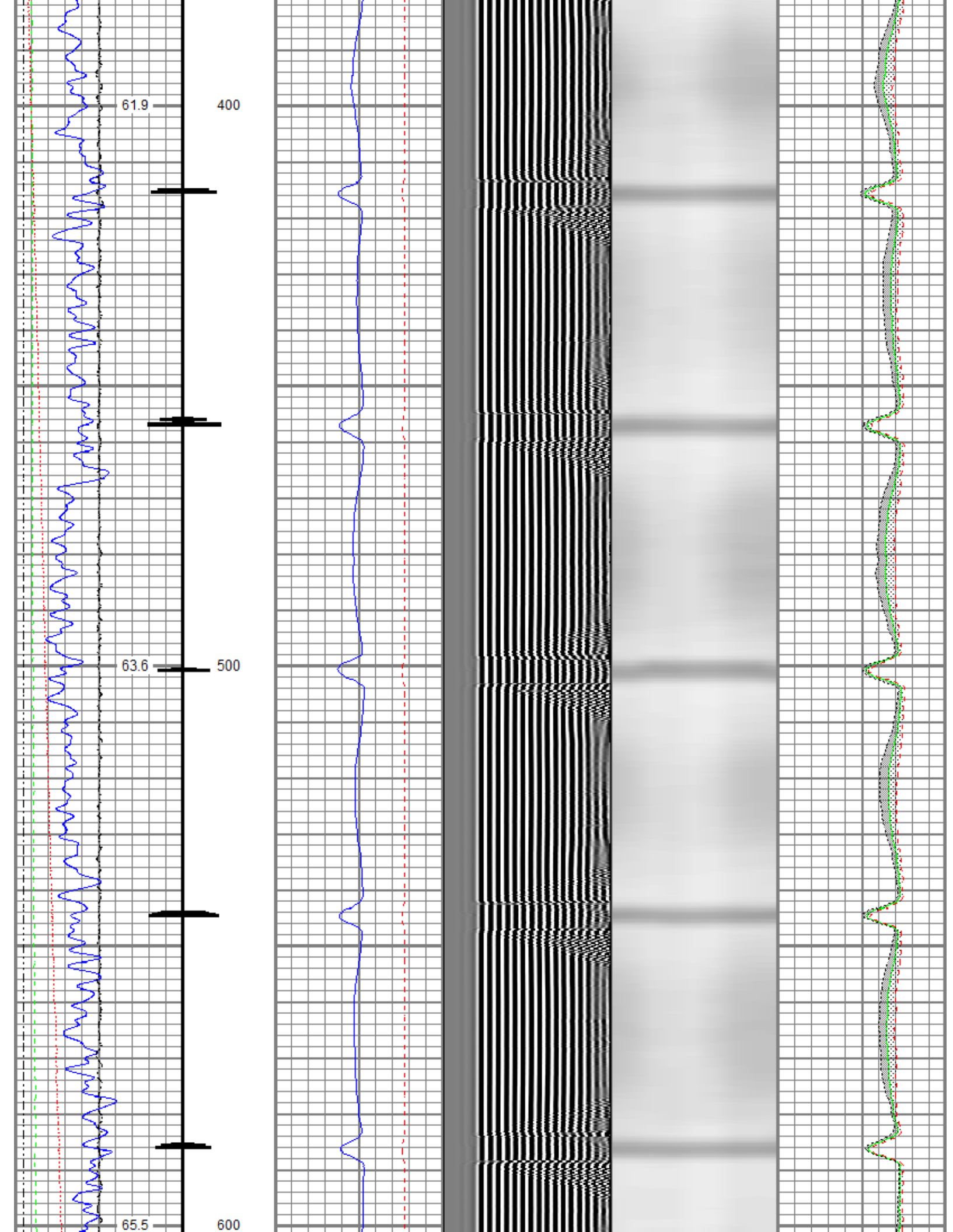
Recorded With 2800 PSI Surface Induced Pressure

Database File new folder (3)\0512345507\_anadarko\_papa jo 2-25 35c2-17hz\_rbl\_03-28-18\_2800 psi.db  
 Dataset Pathname pass4.3  
 Presentation Format ros\_radri  
 Dataset Creation Thu Mar 29 11:12:01 2018  
 Charted by Depth in Feet scaled 1:240

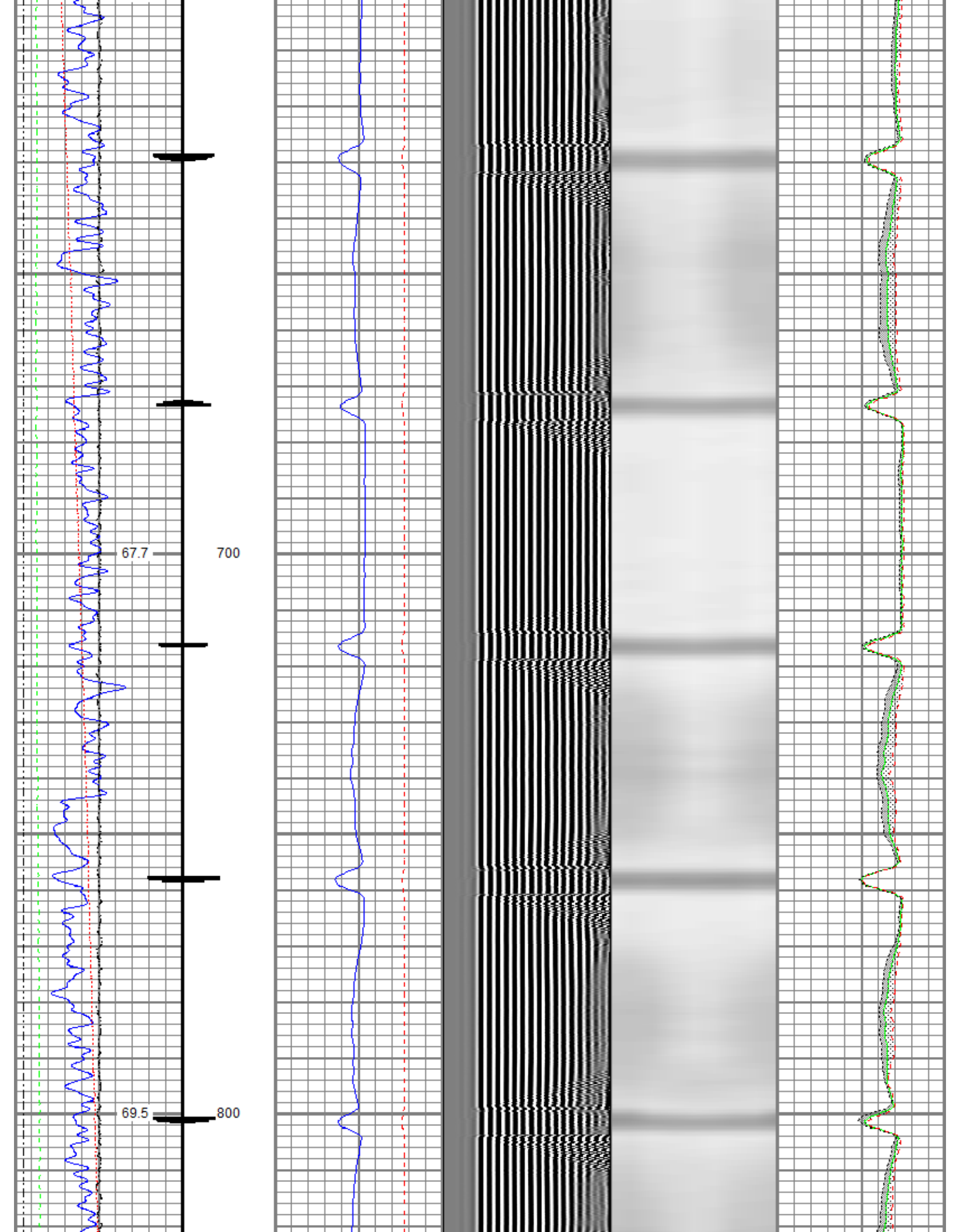
Gamma Ray	0	3' Amplitude (mV) 100	5' Variable Density Log	Sector Map	0	Average Amplitude 100
(GAPI) 120		3' Amplitude x 5	200			Minimum Amplitude
Casing Collar Locator	0	(mV) 20			0	100
Temperature (degF) 20		3' Travel Time				Maximum Amplitude
Line Speed	650	(usec) 150			0	100
-150 (ft/min) 150				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

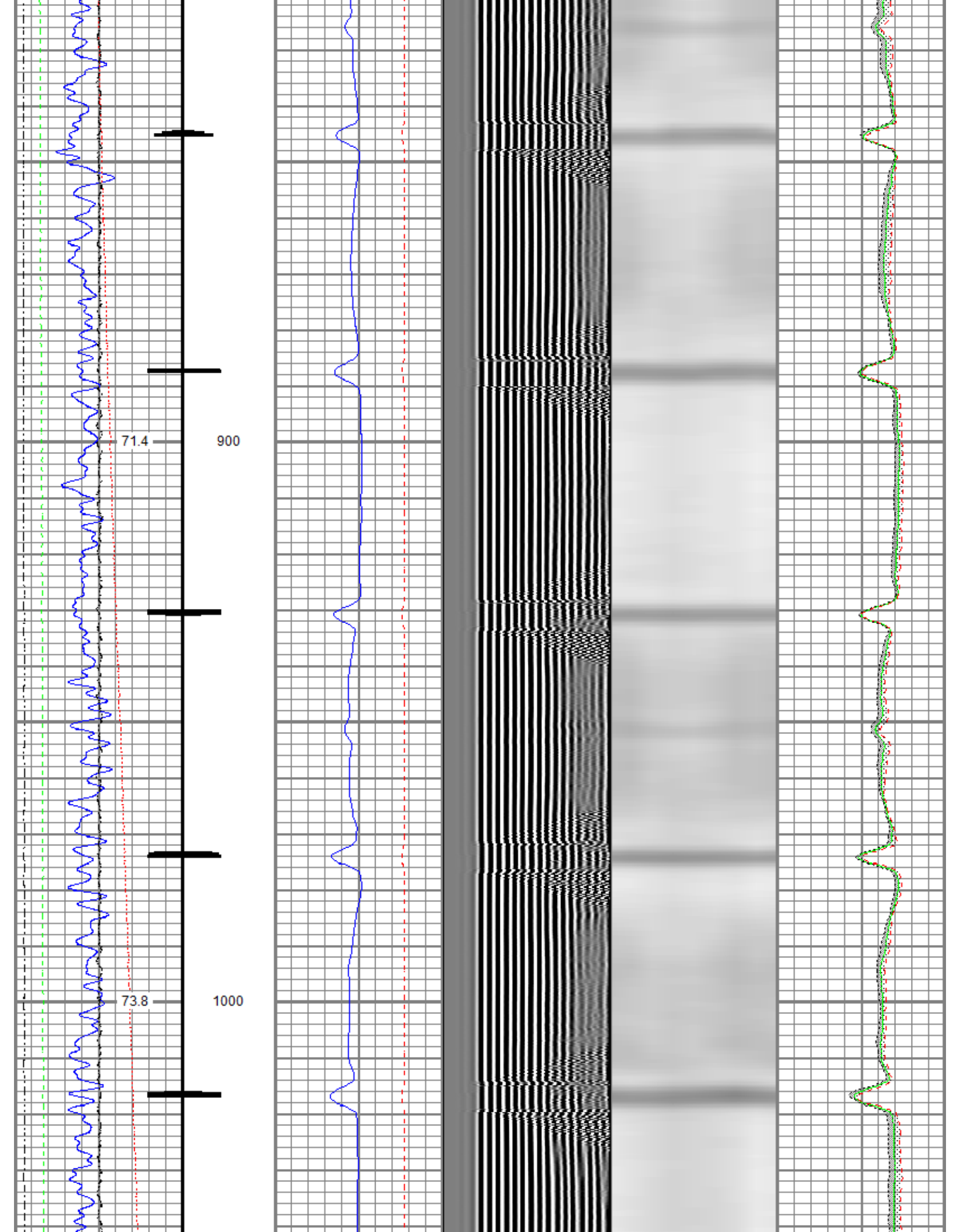


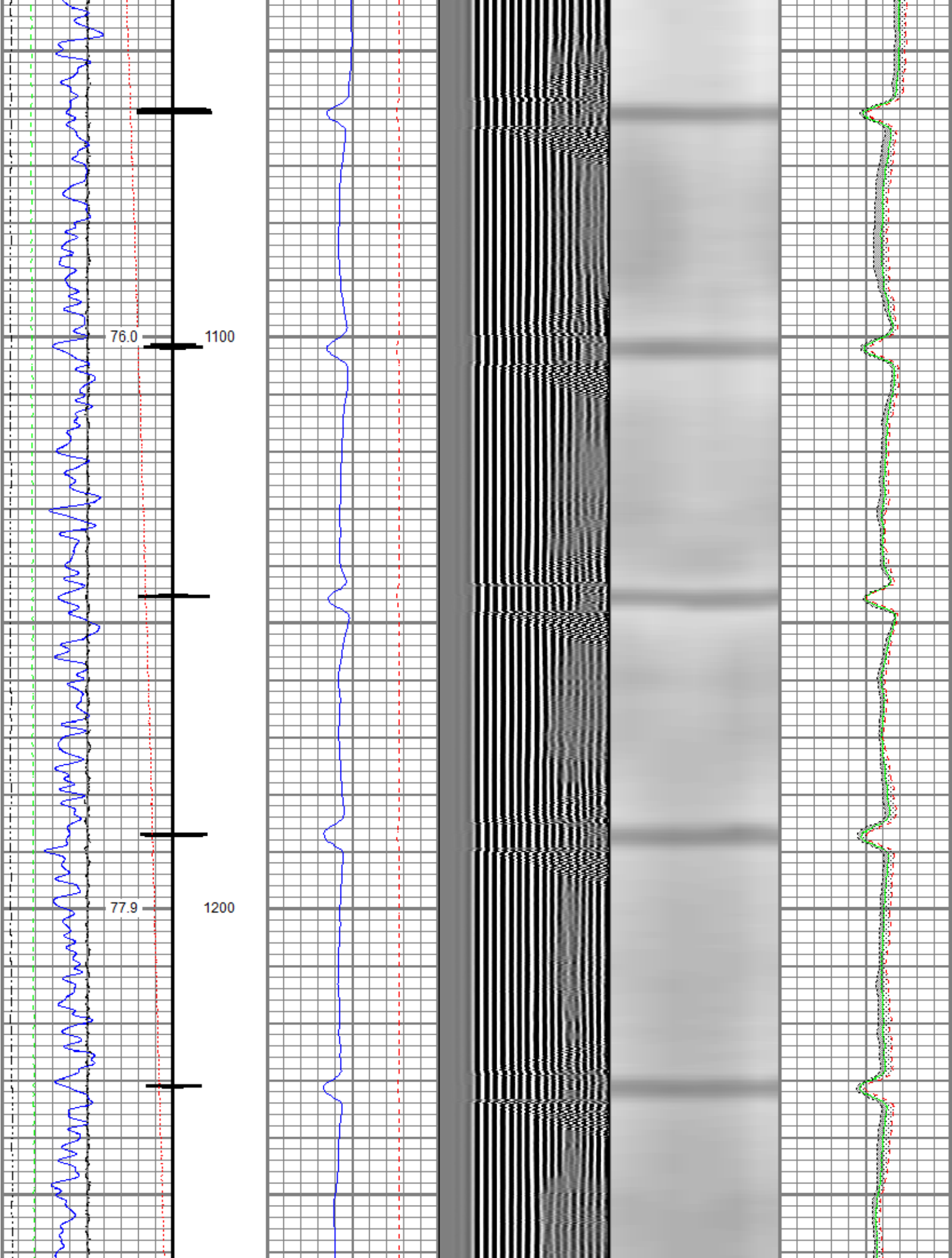


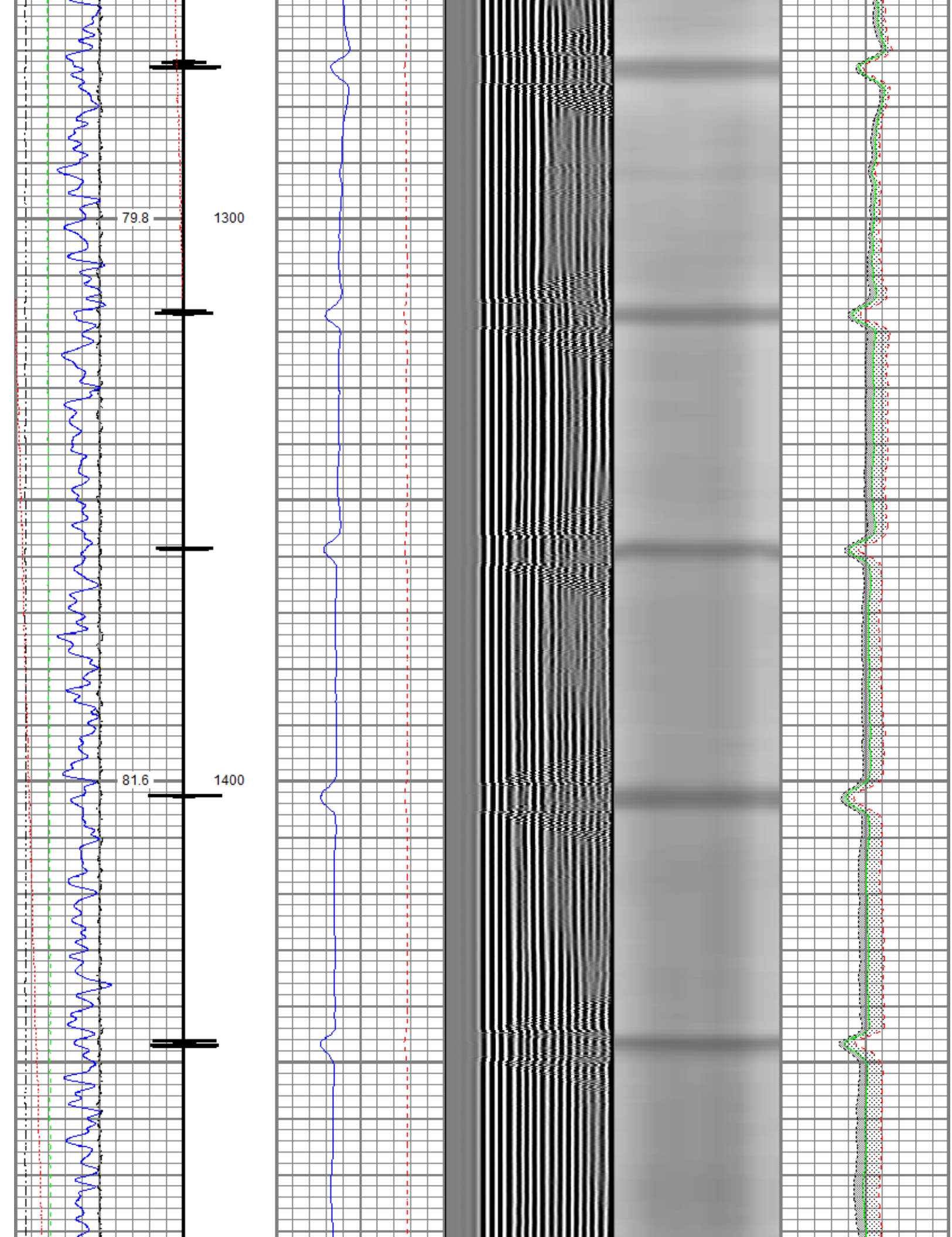




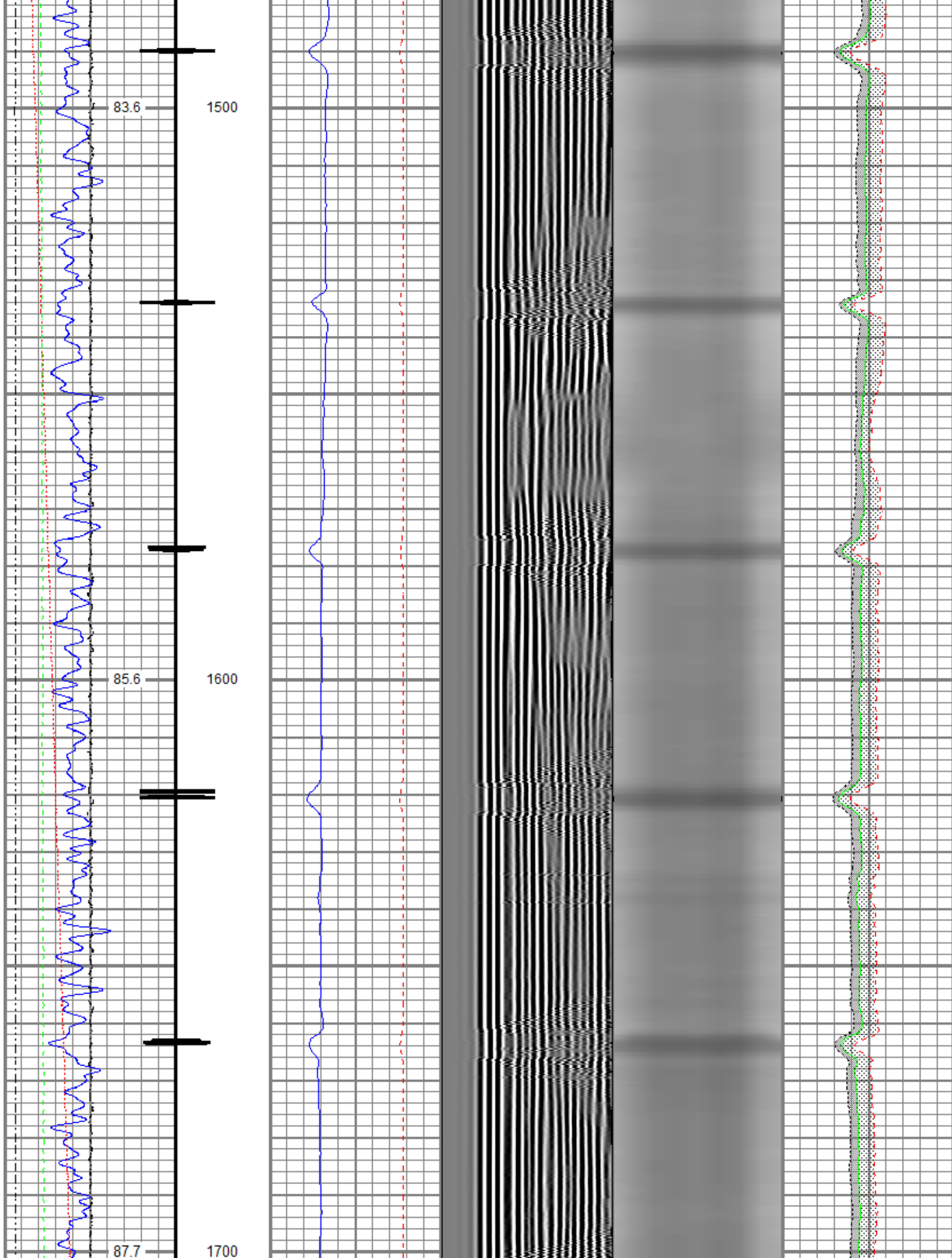


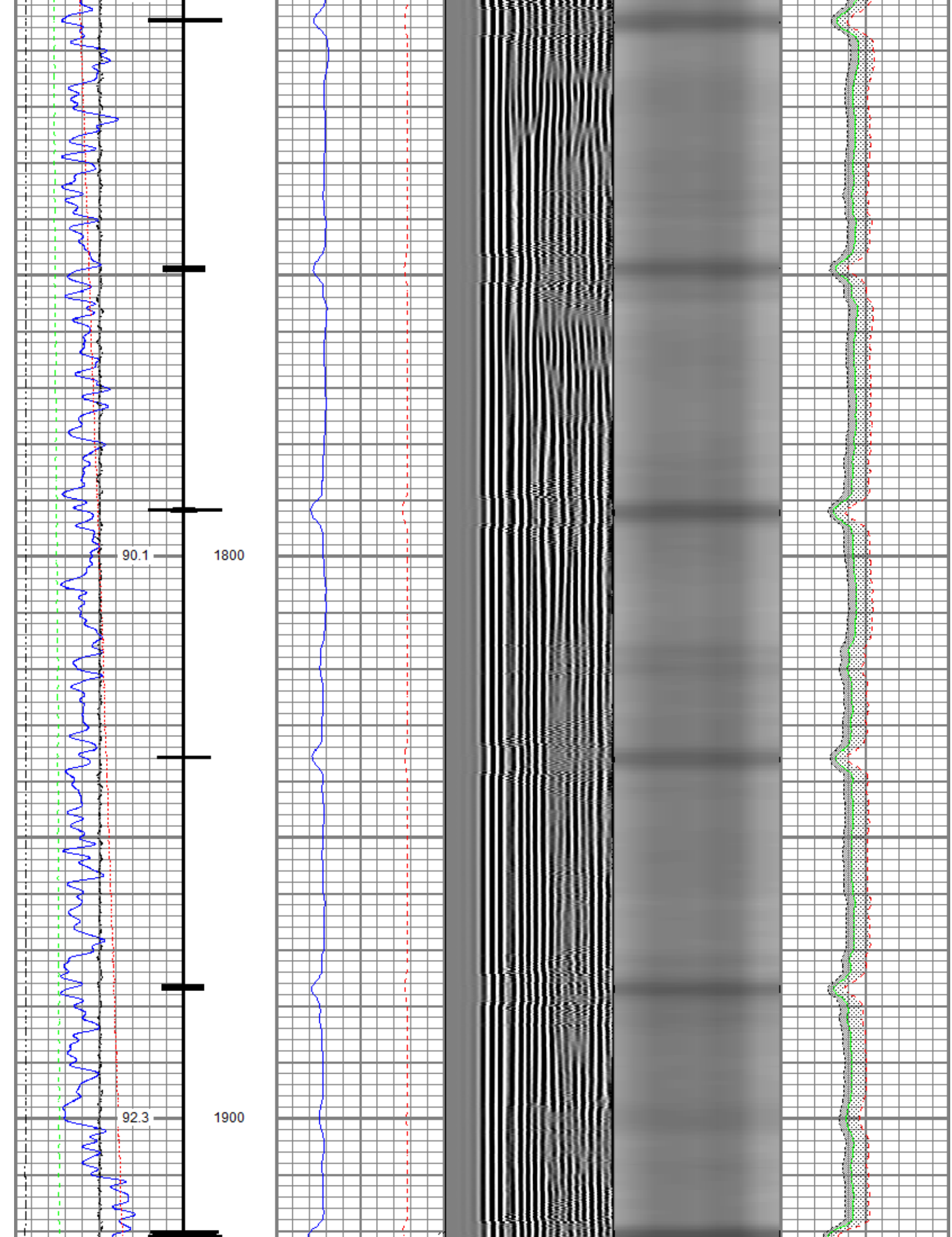


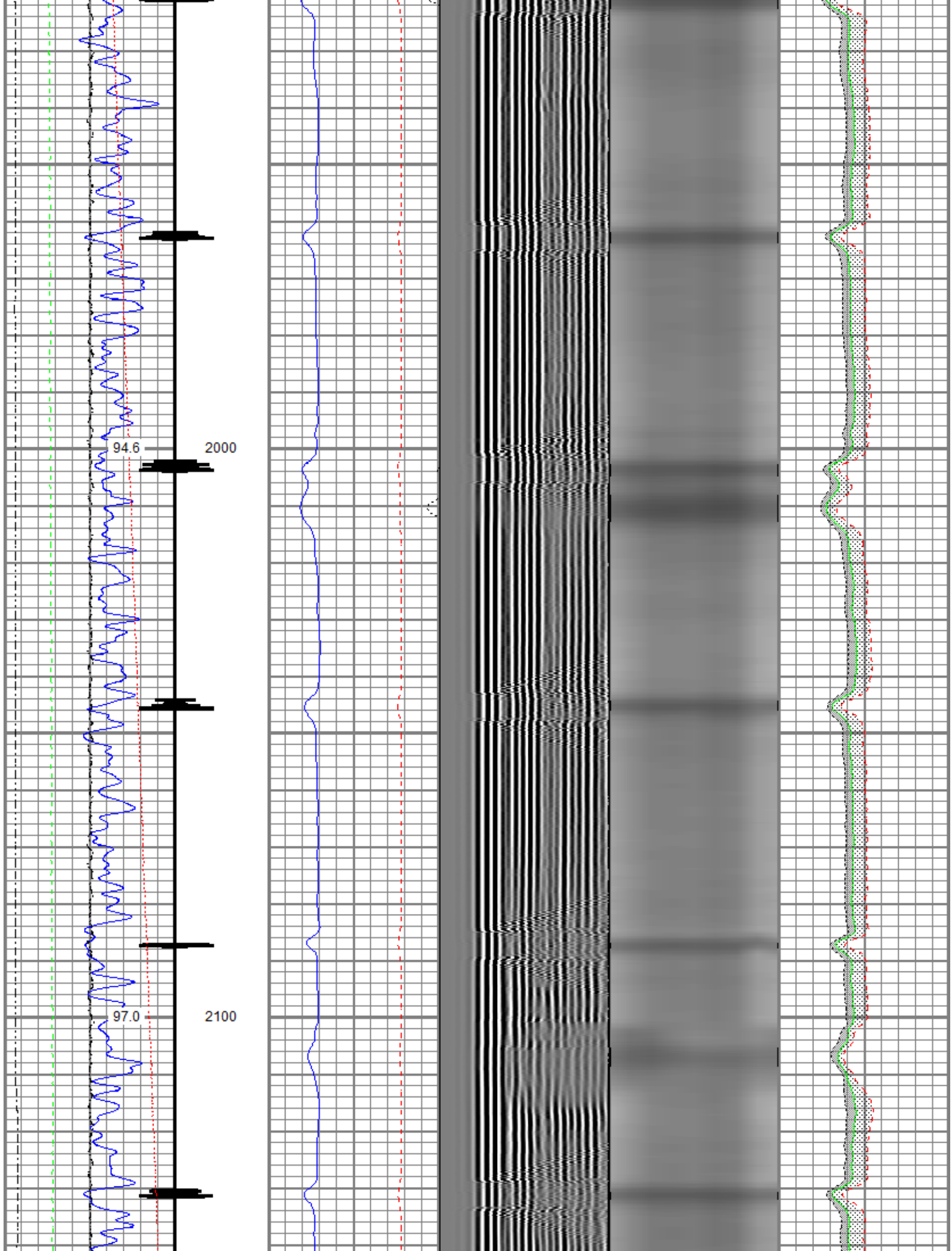




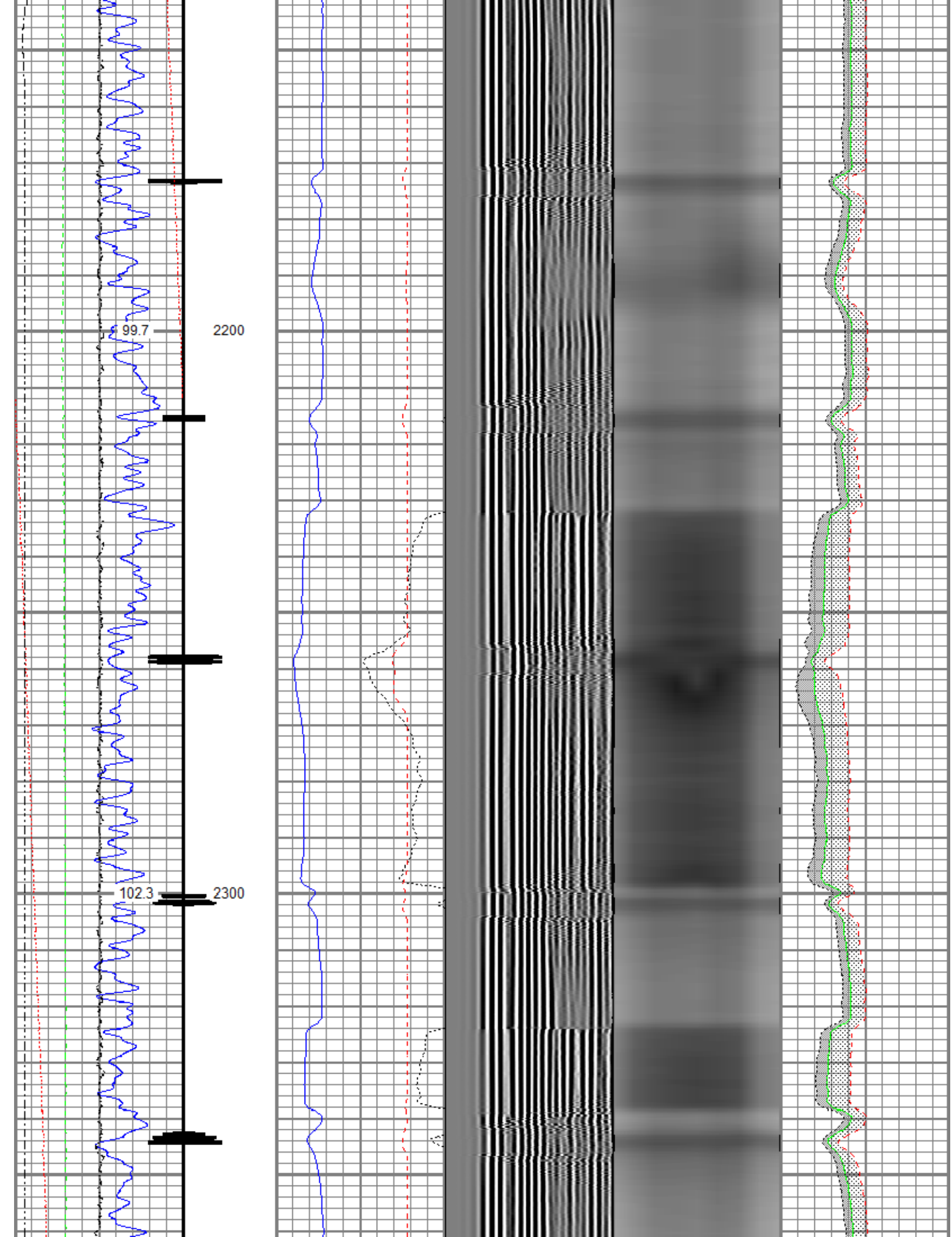




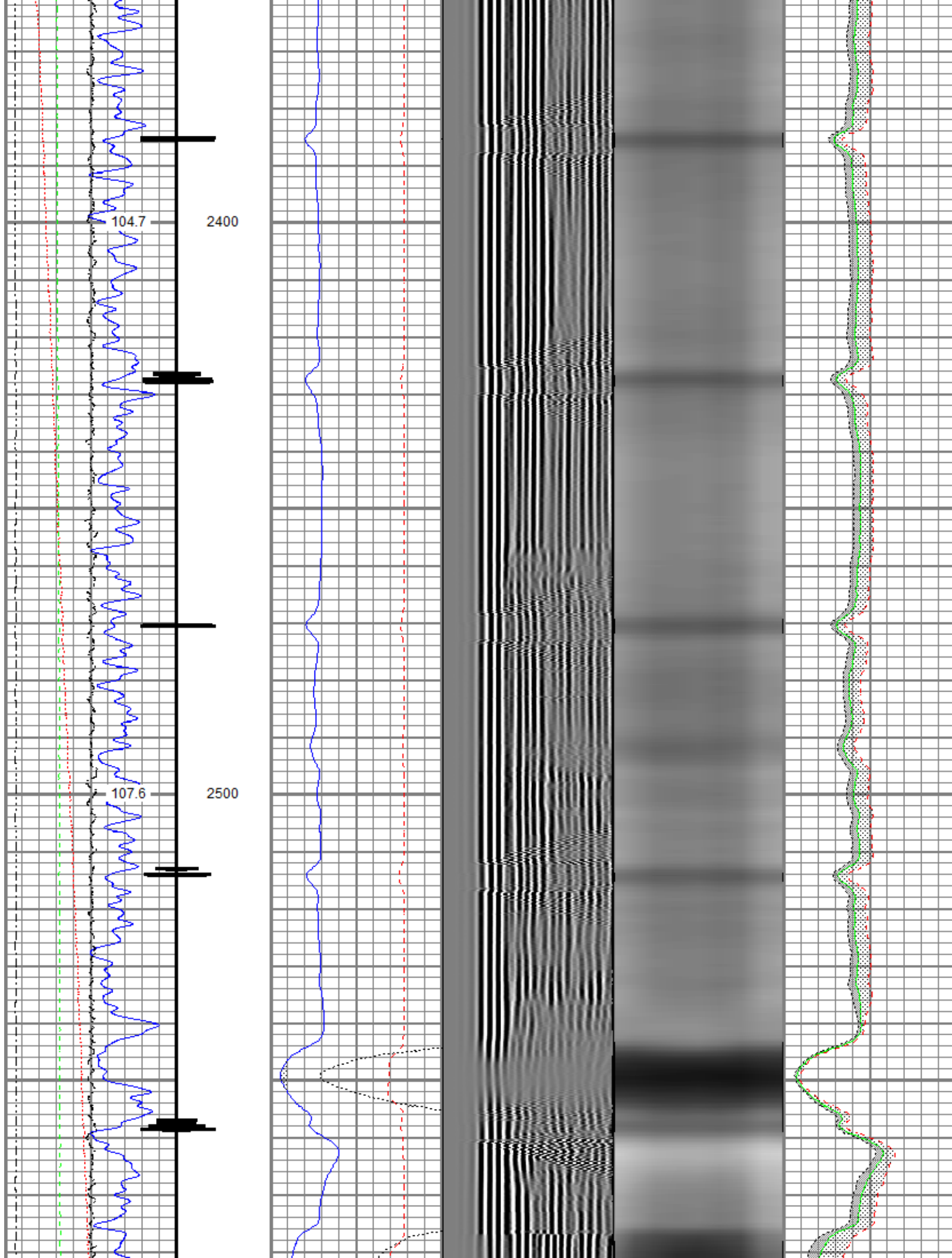


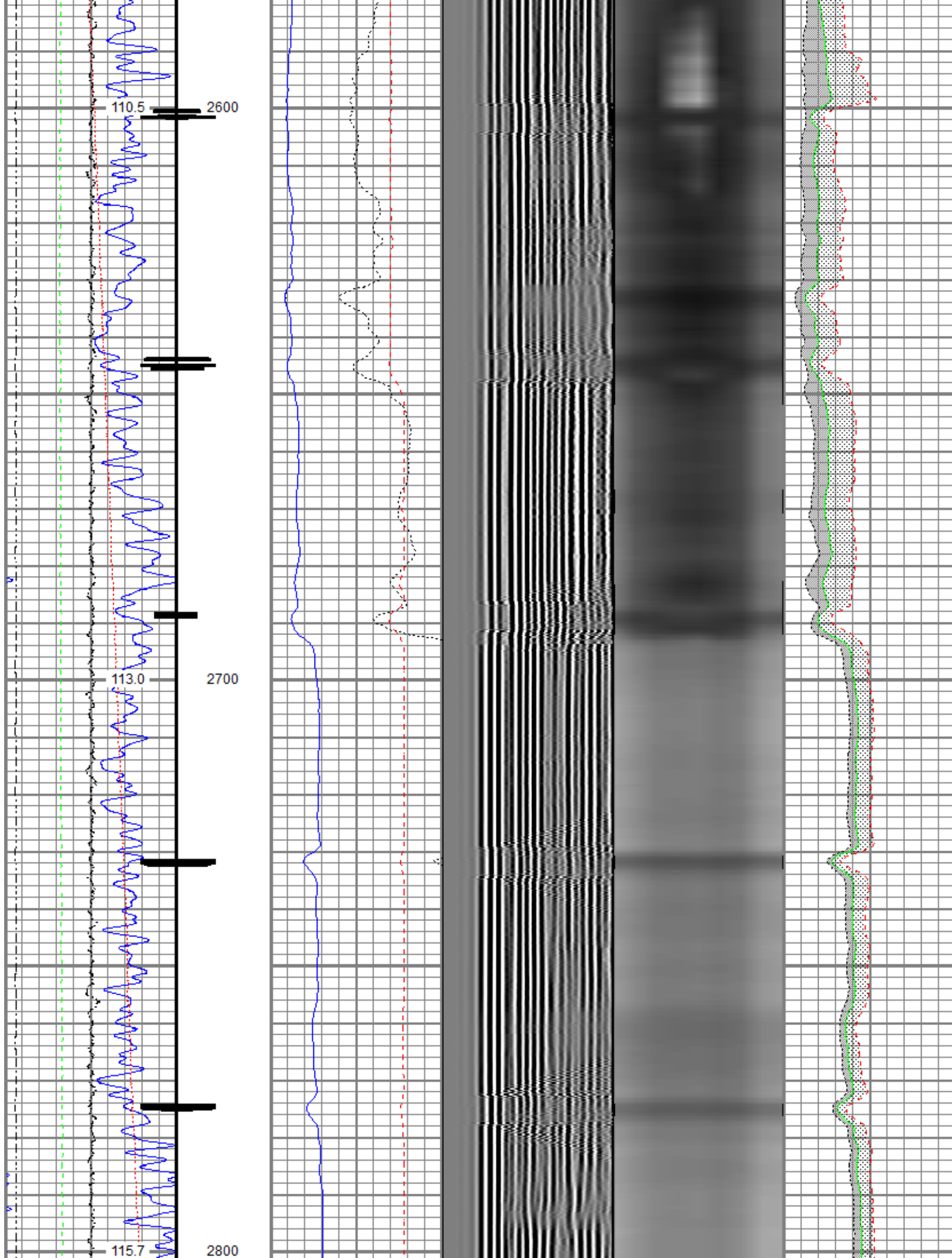


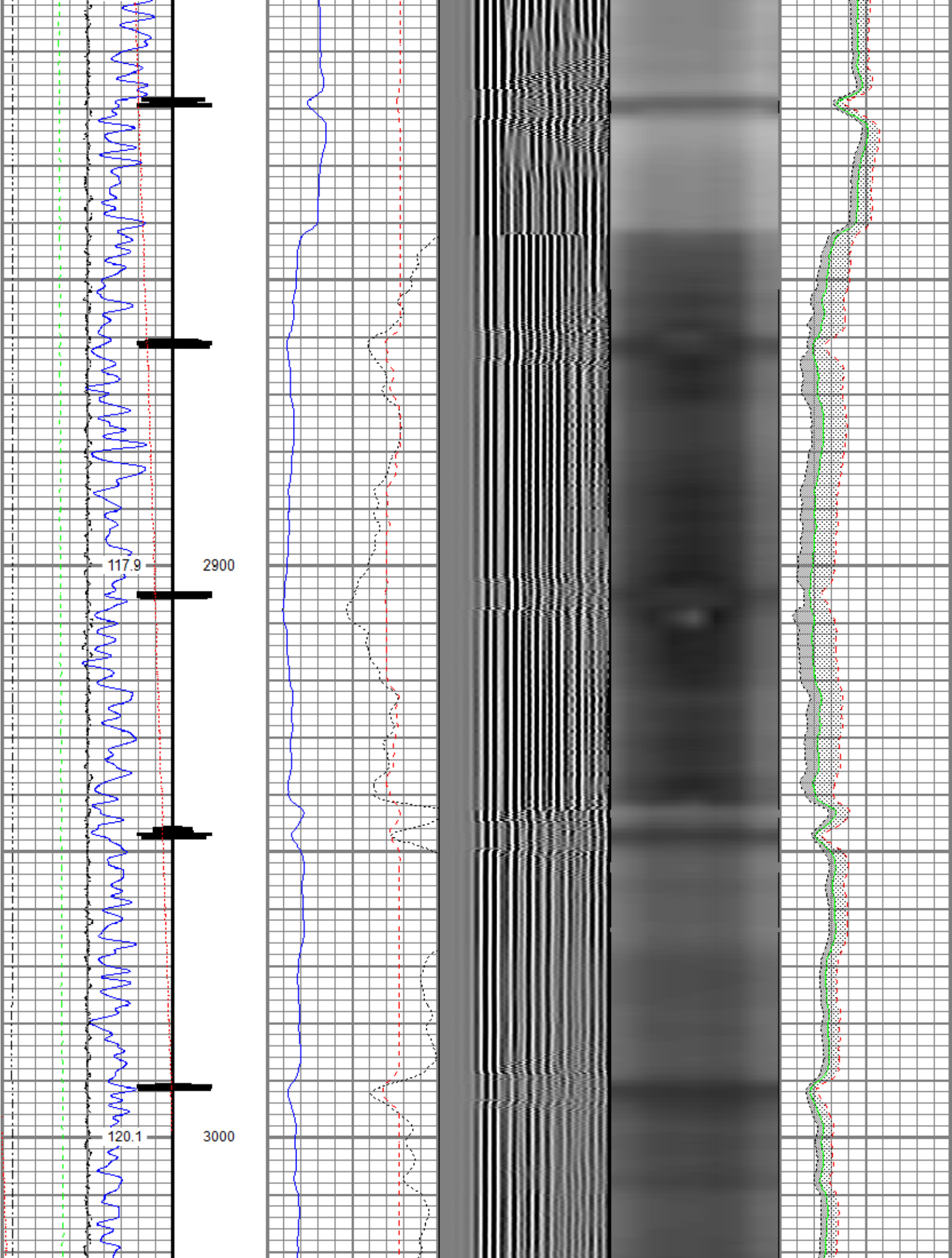


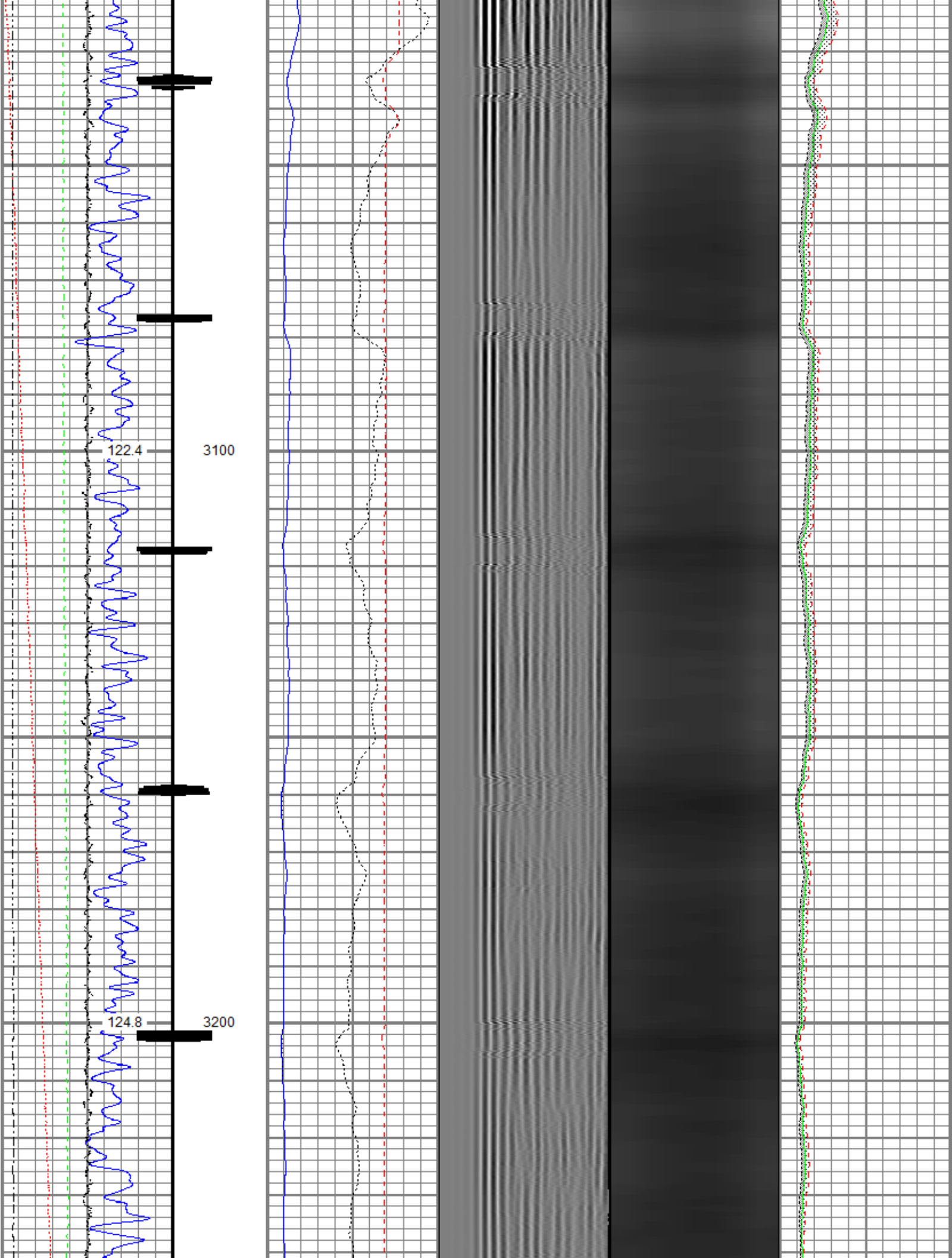




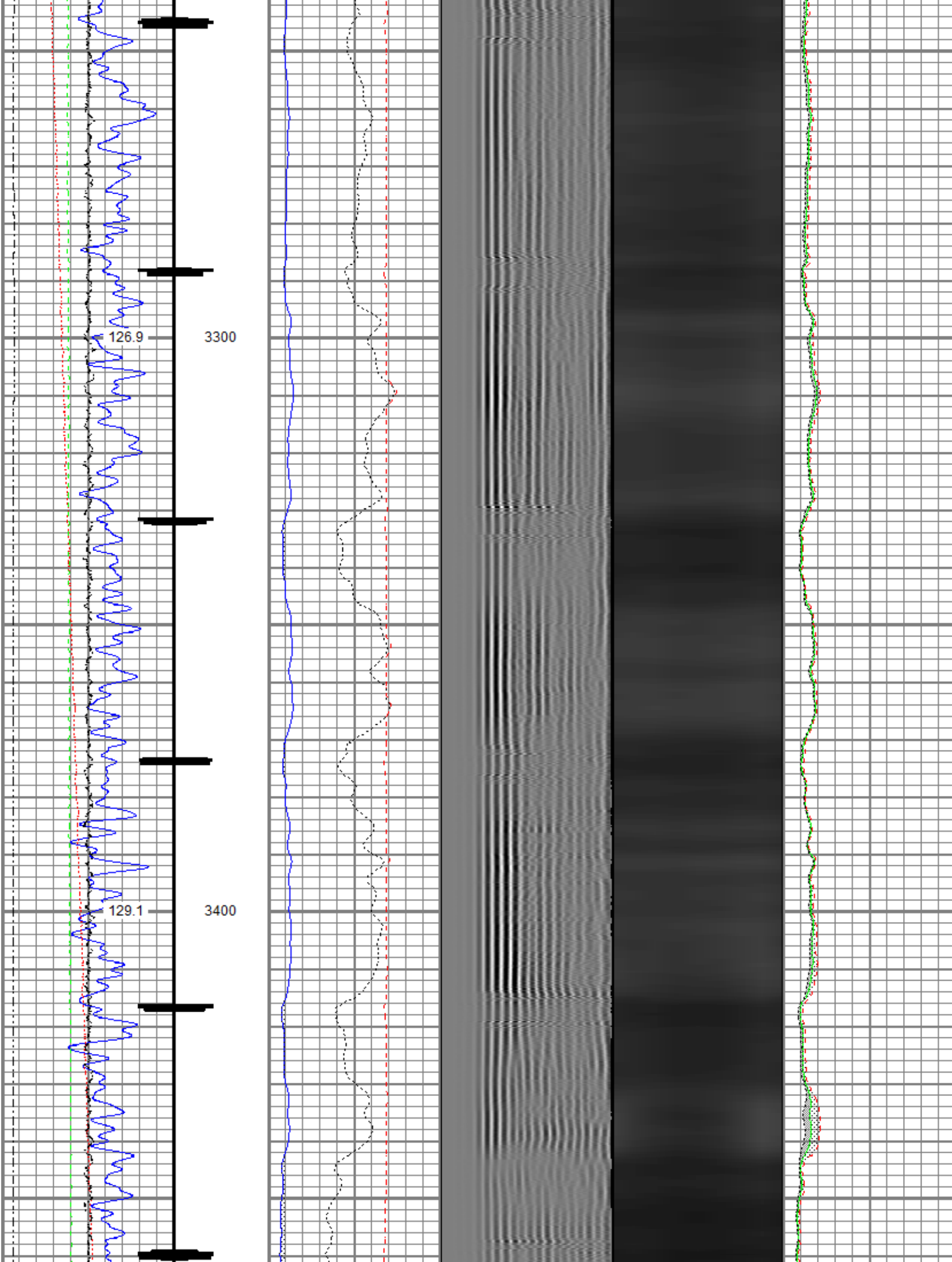


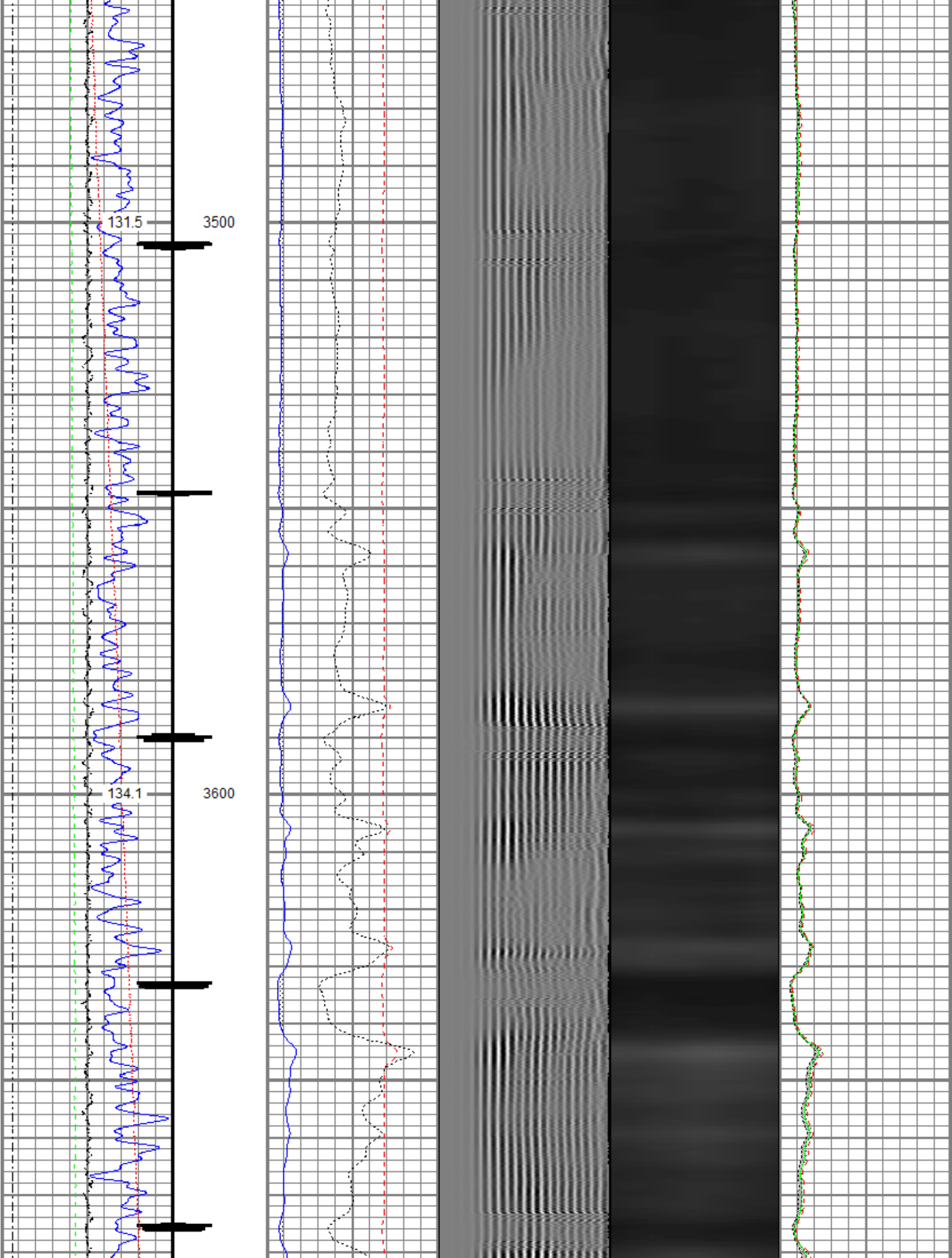


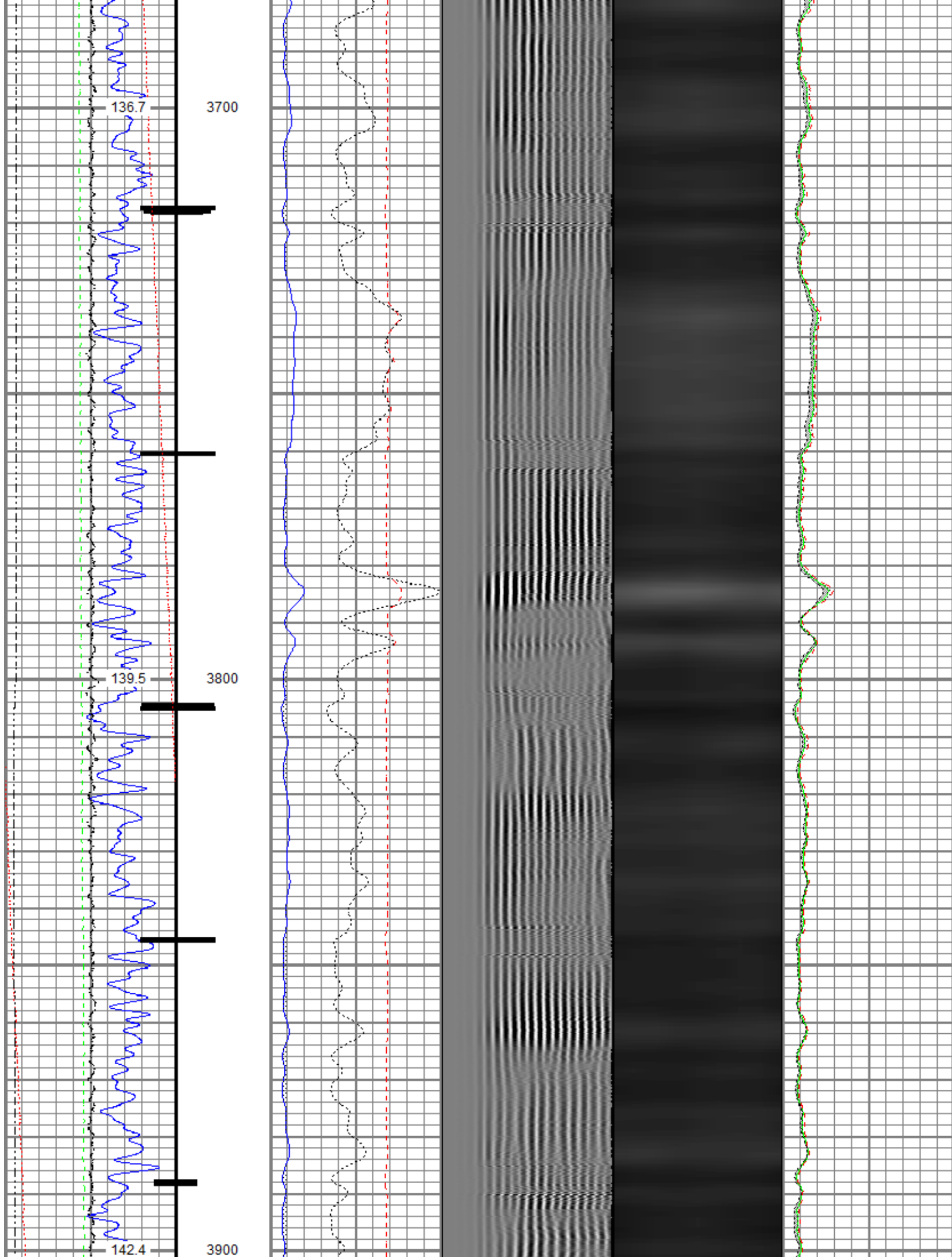


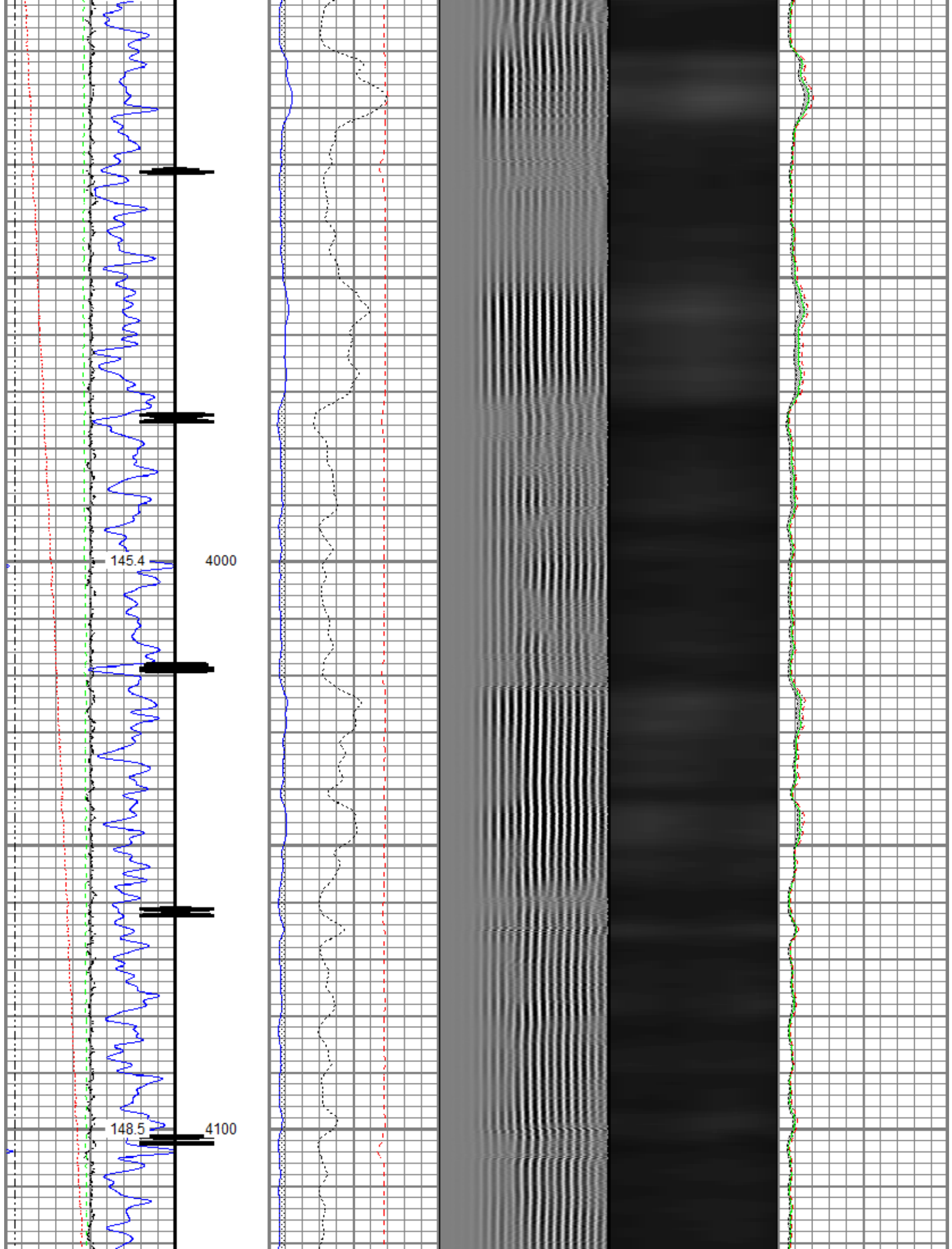




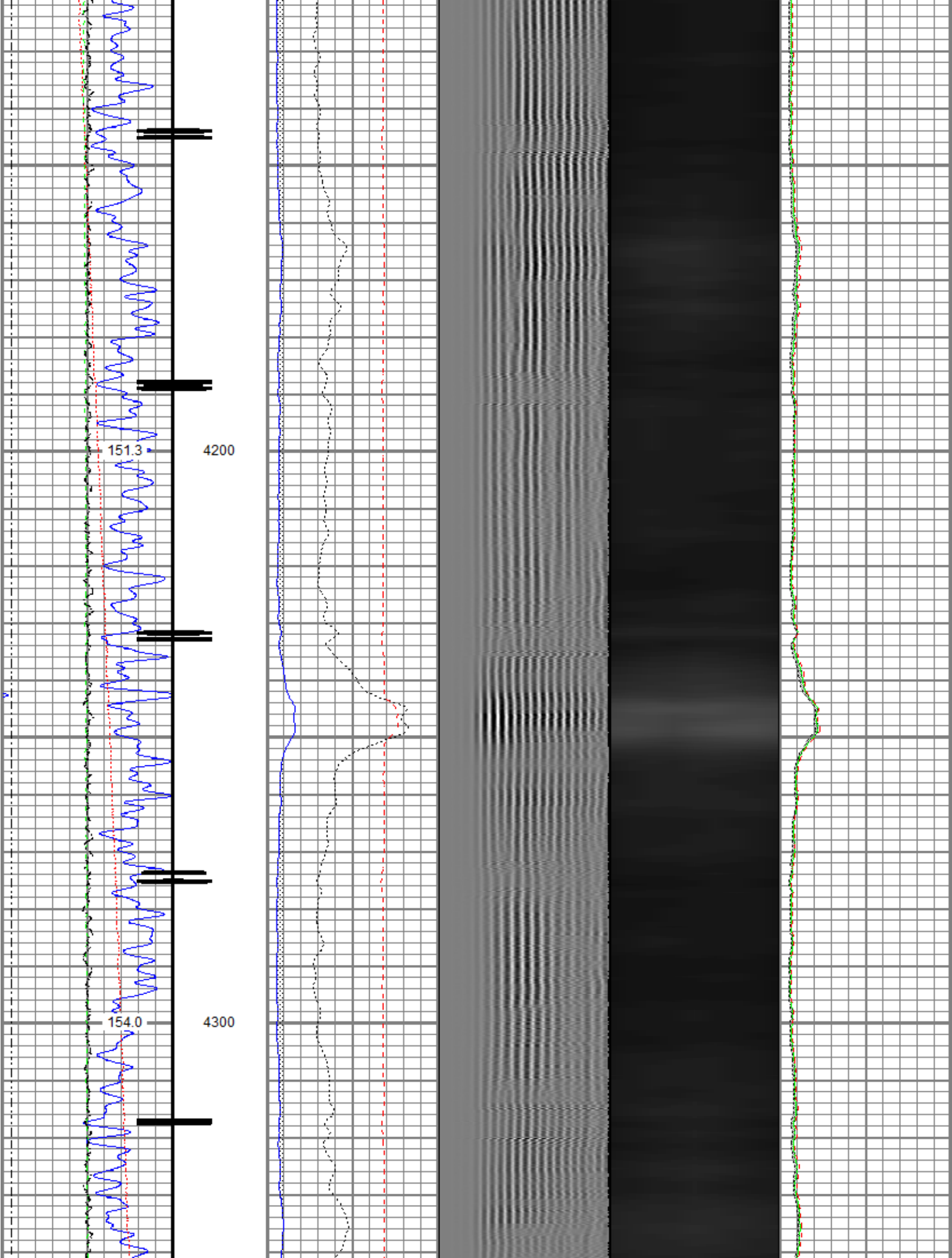


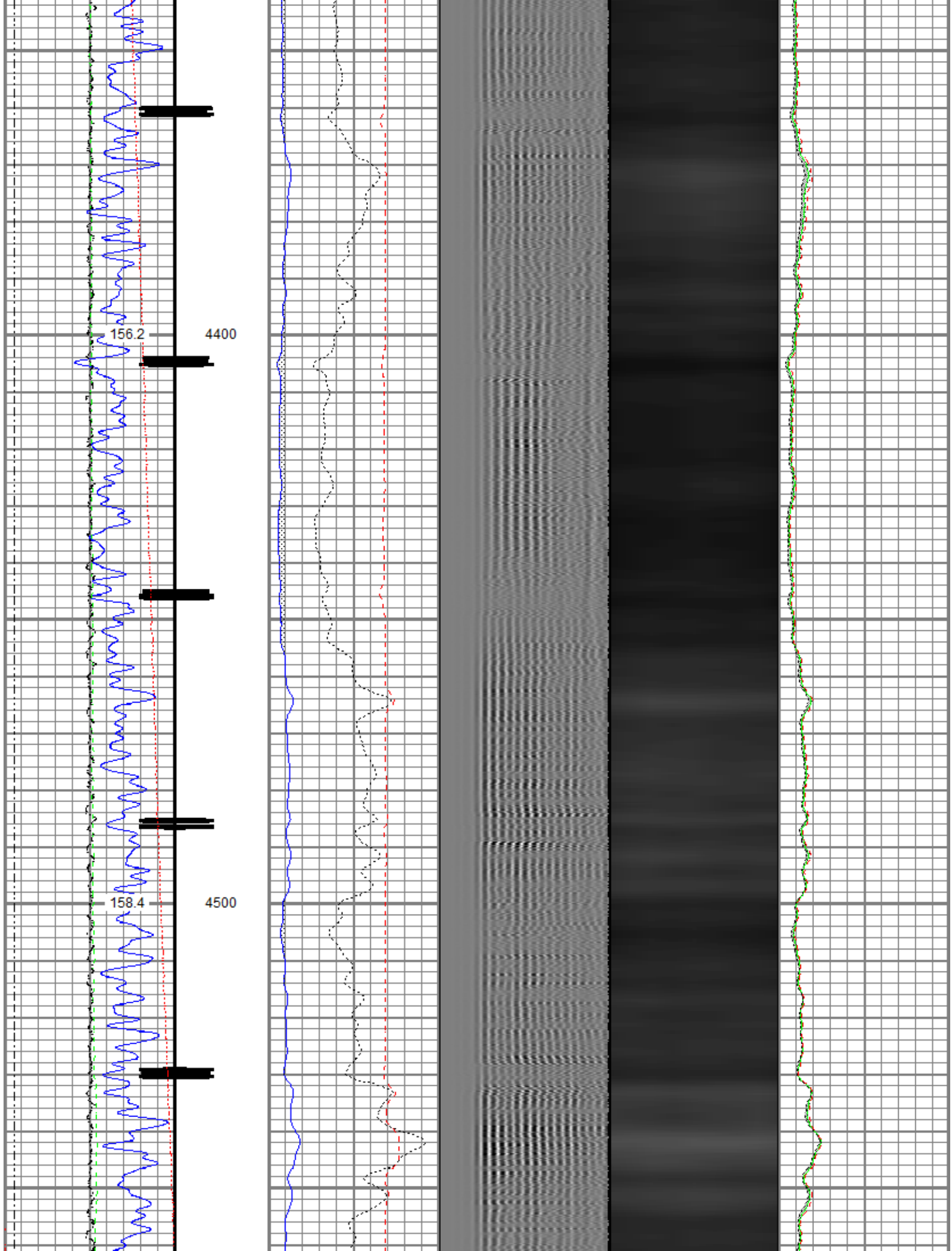


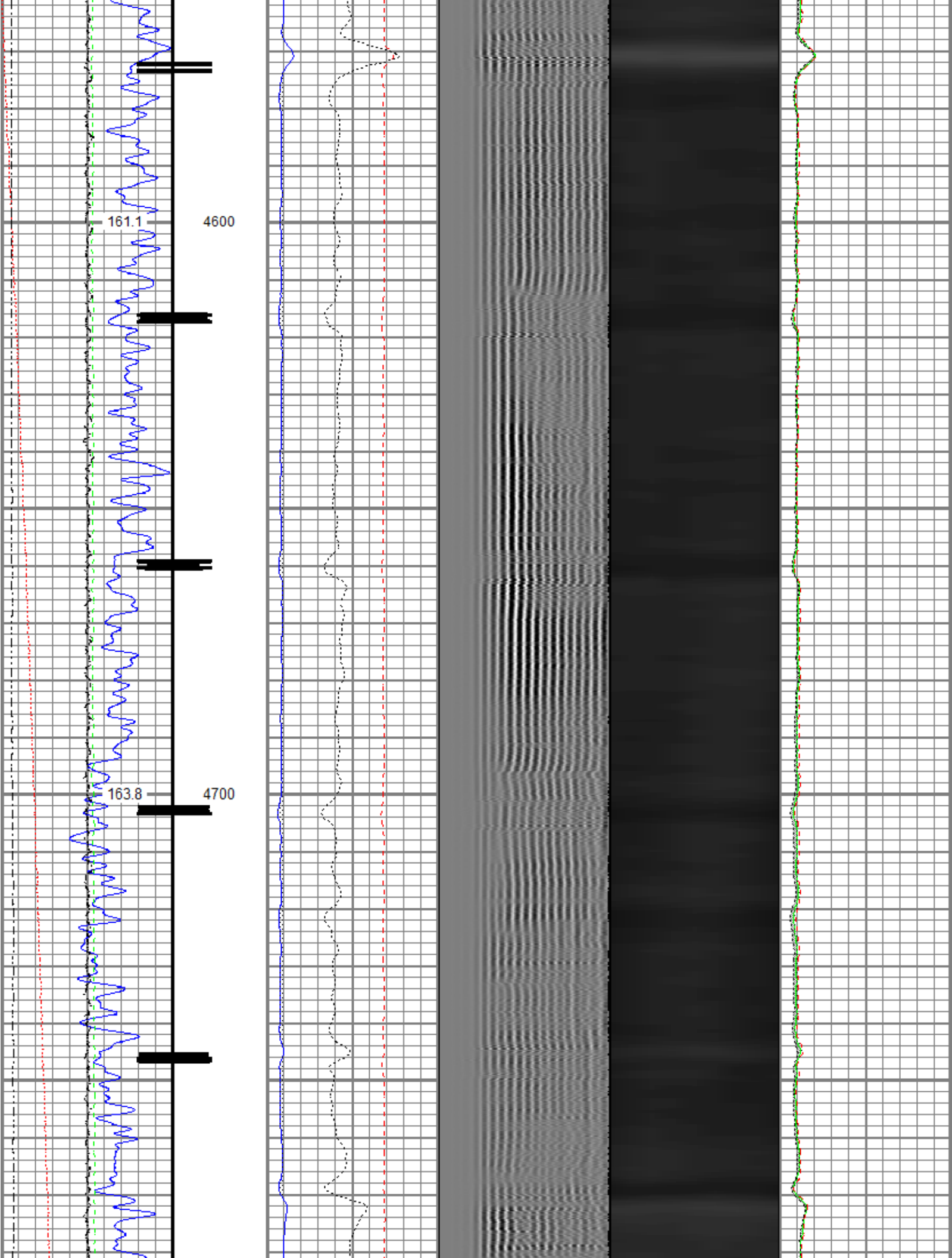


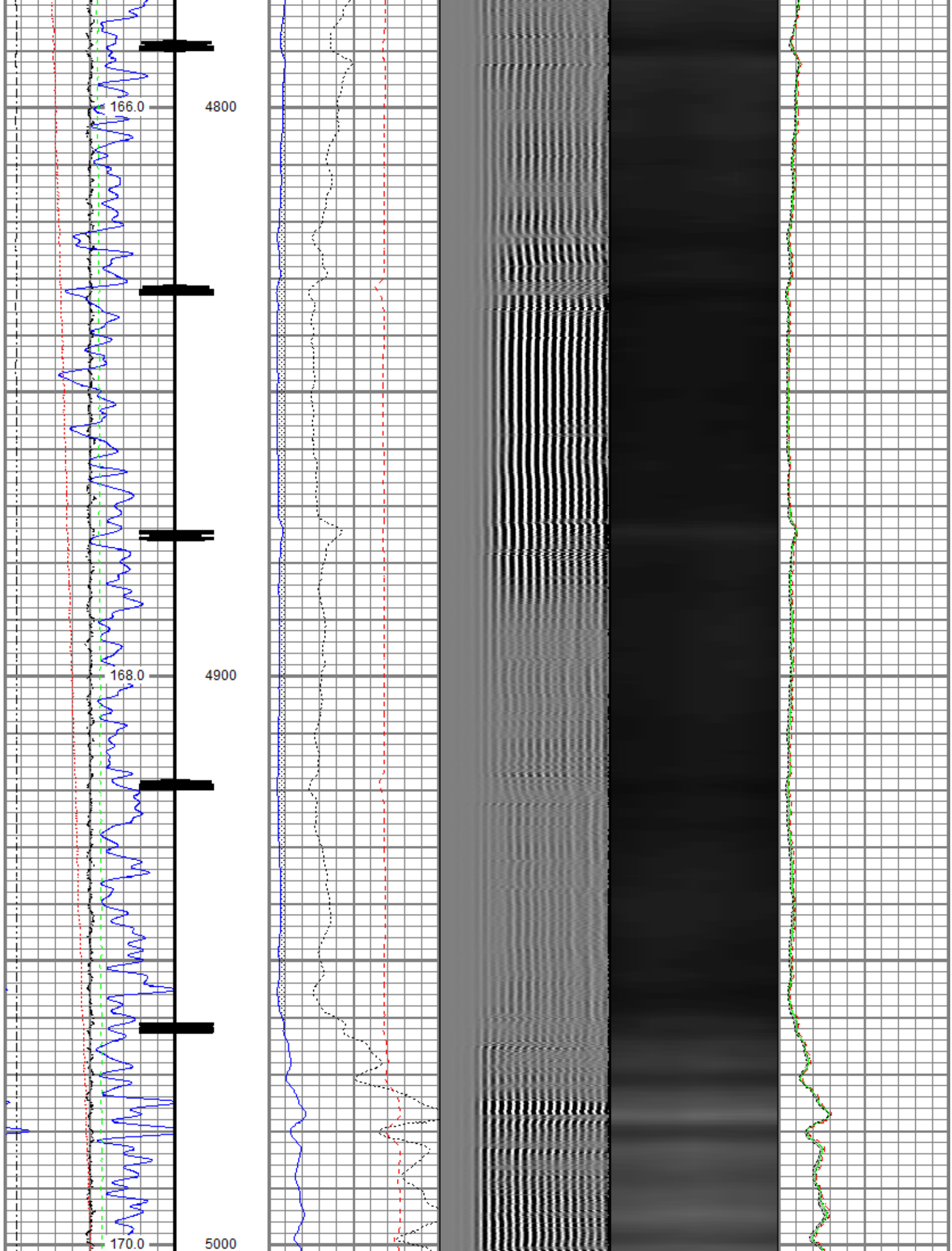






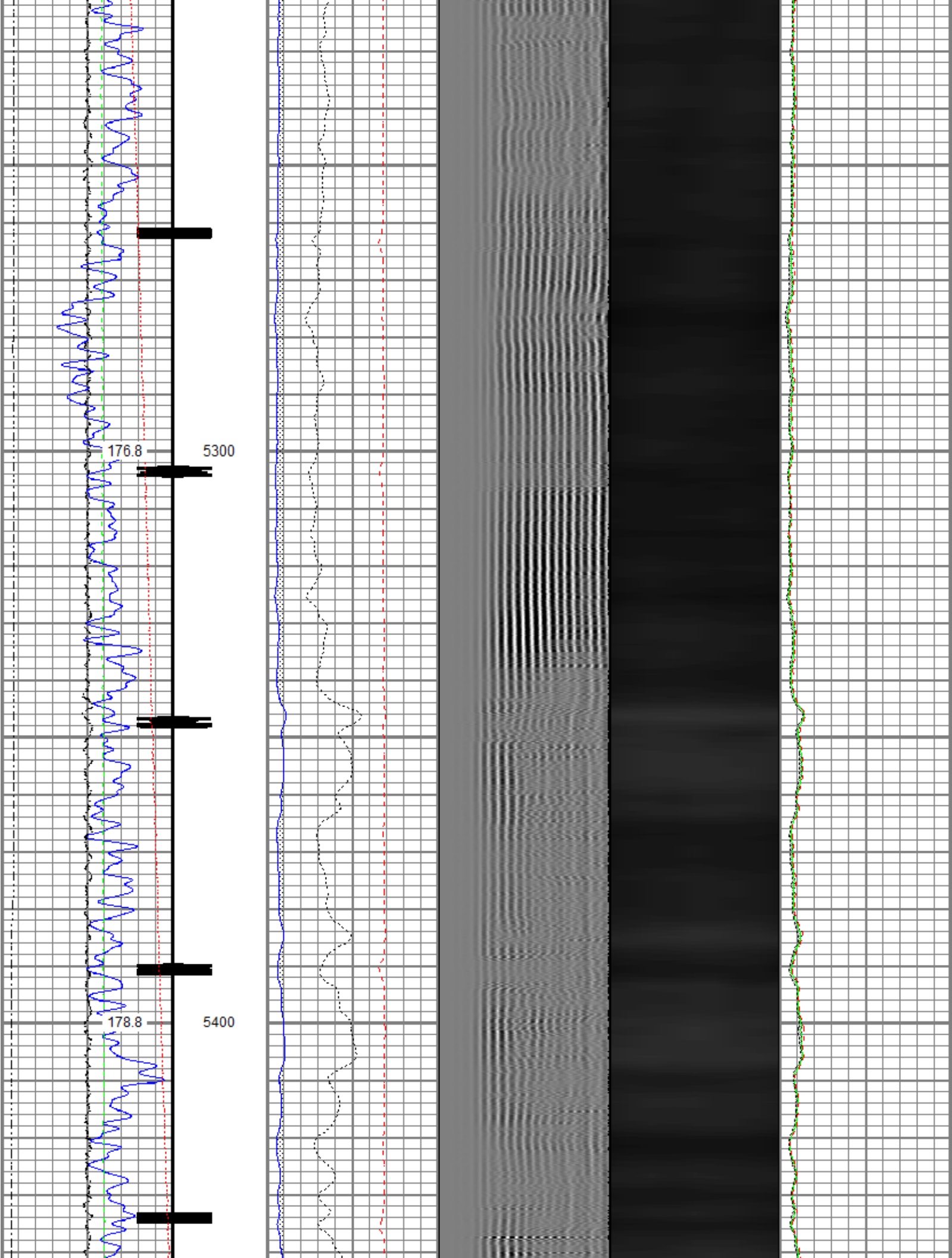


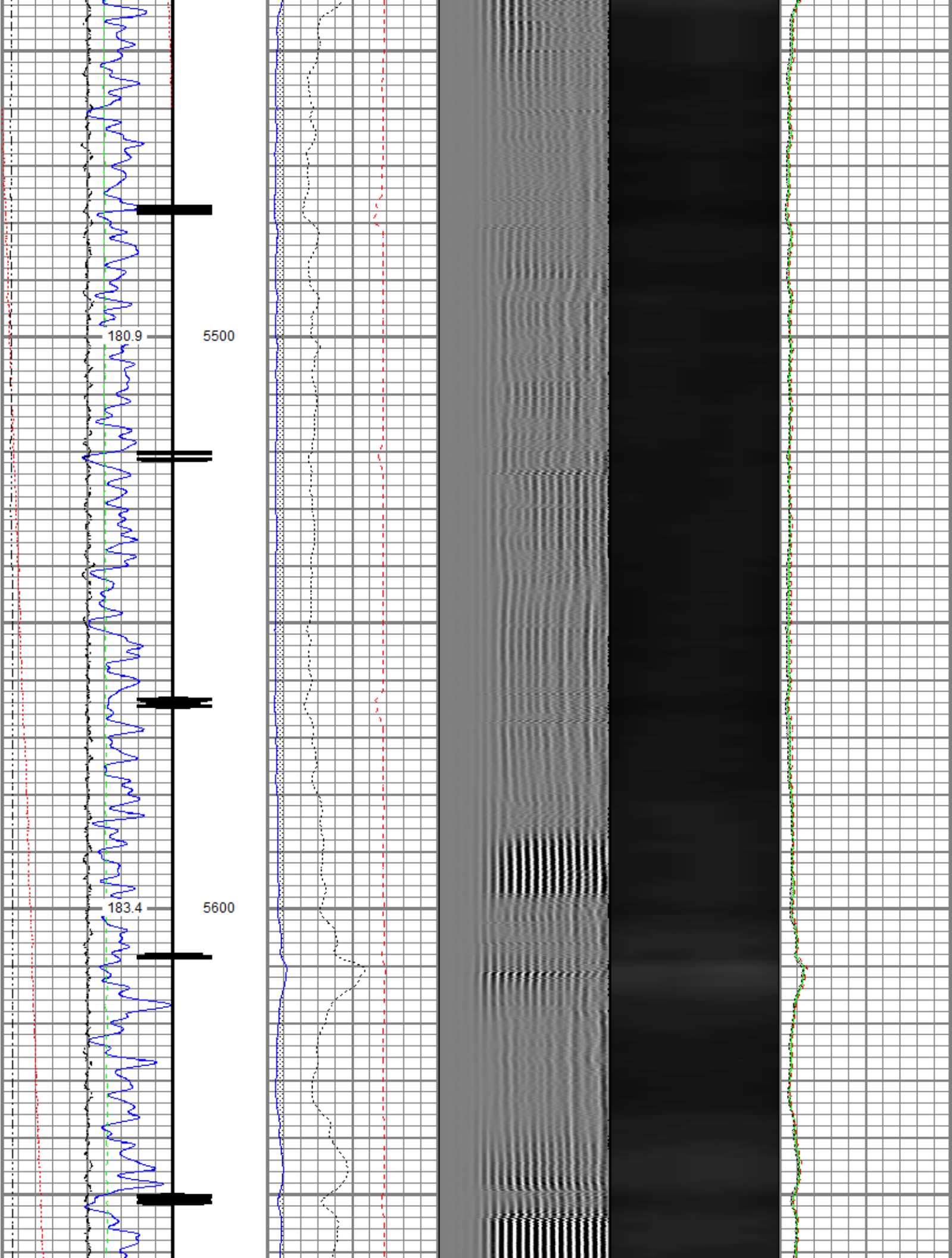


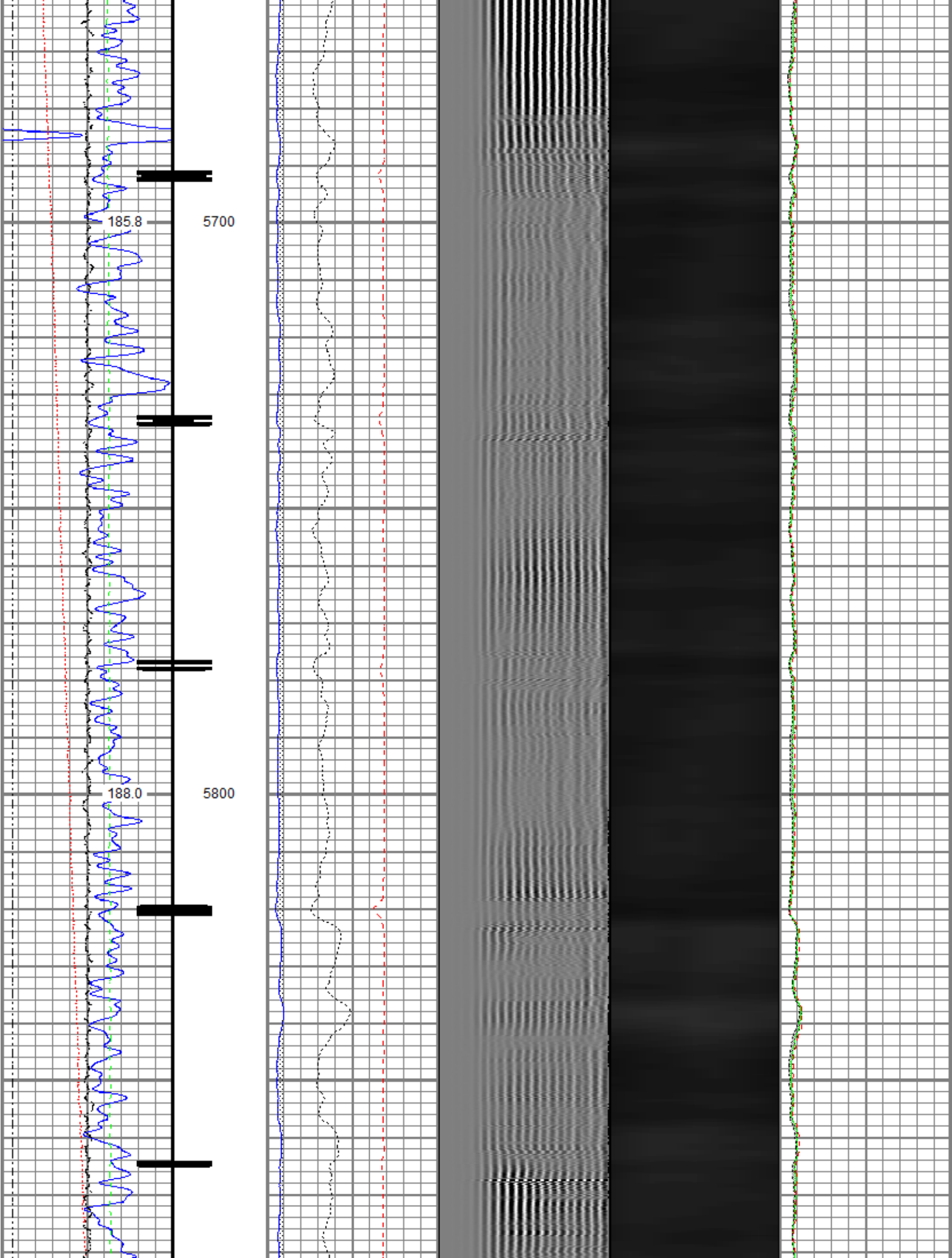




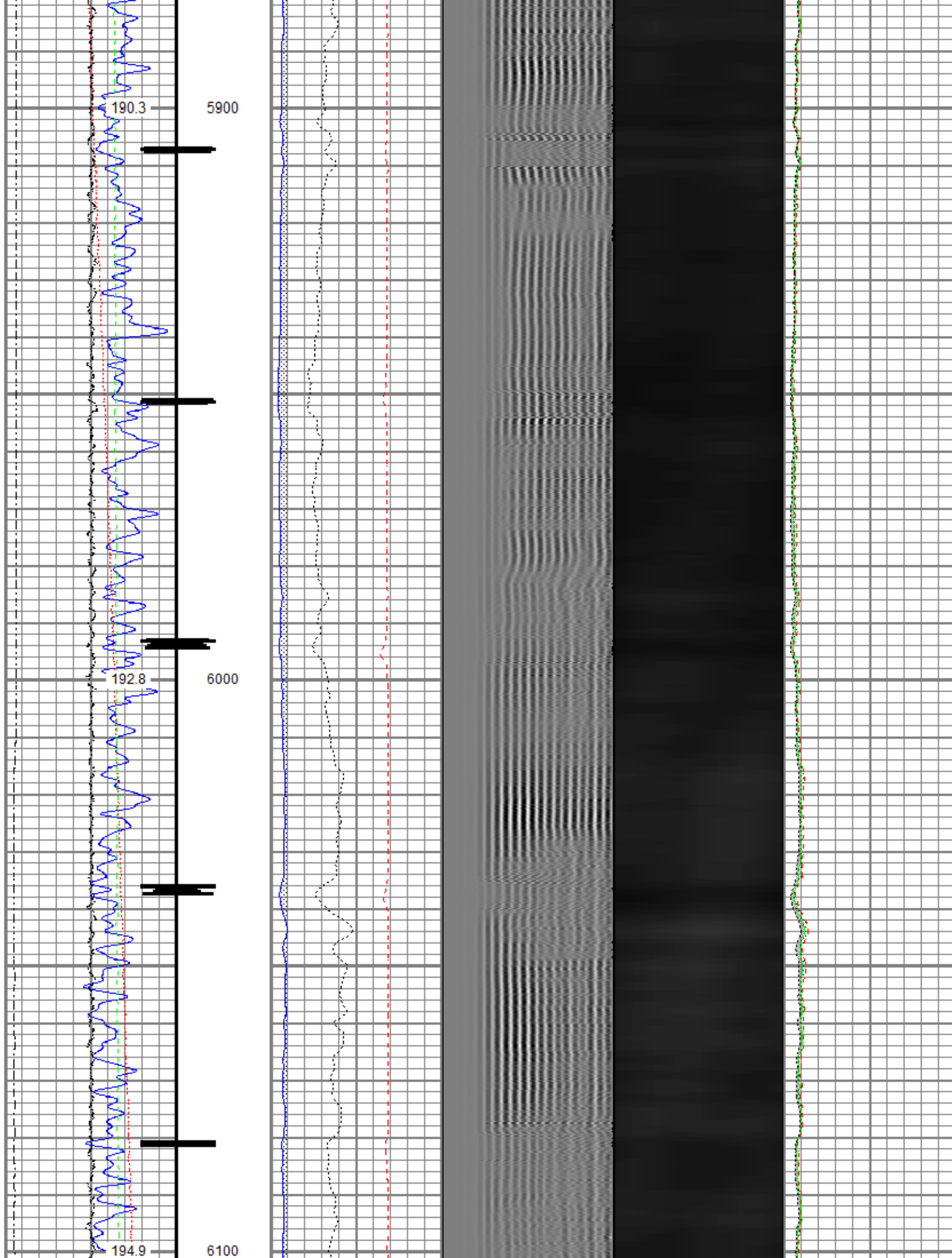


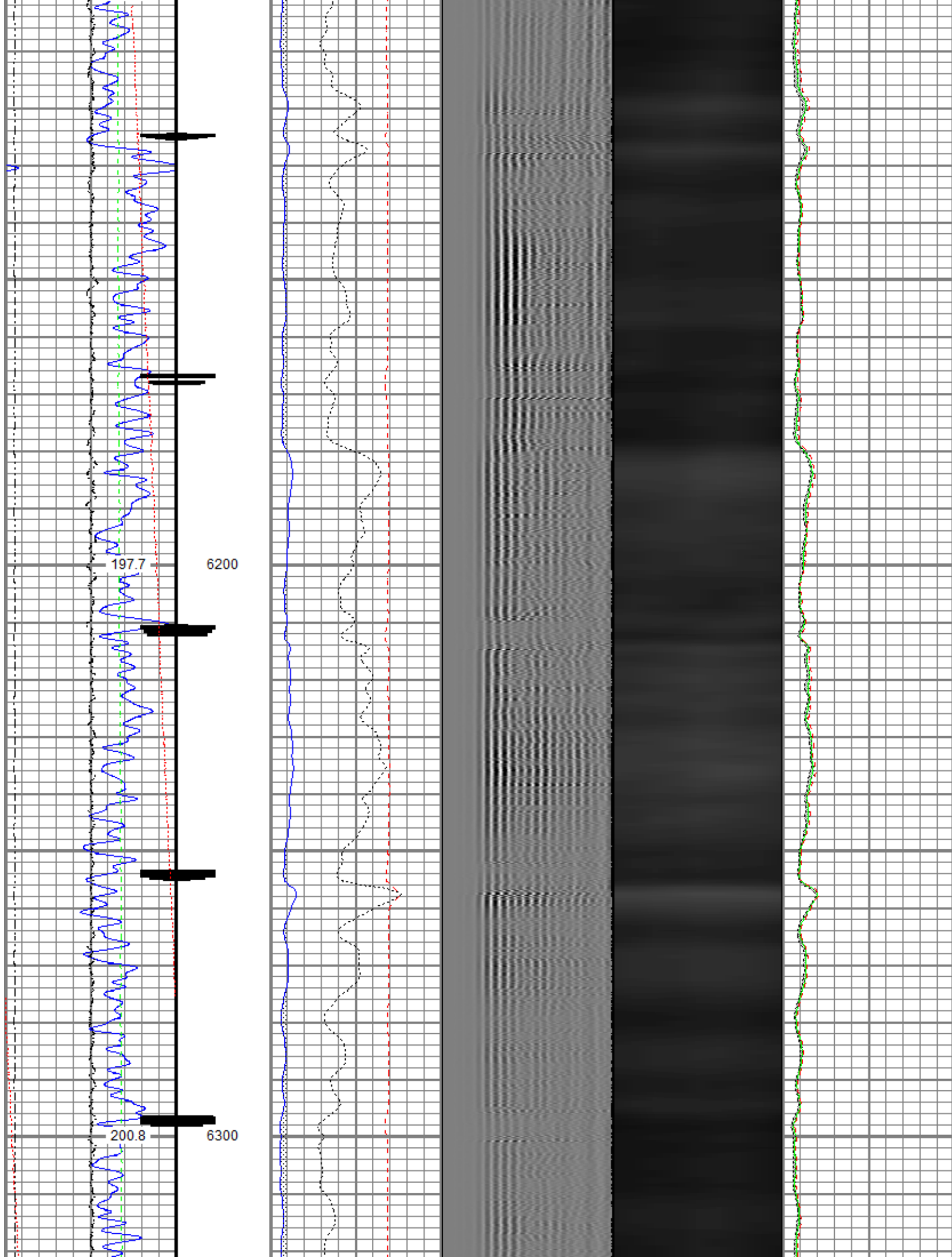


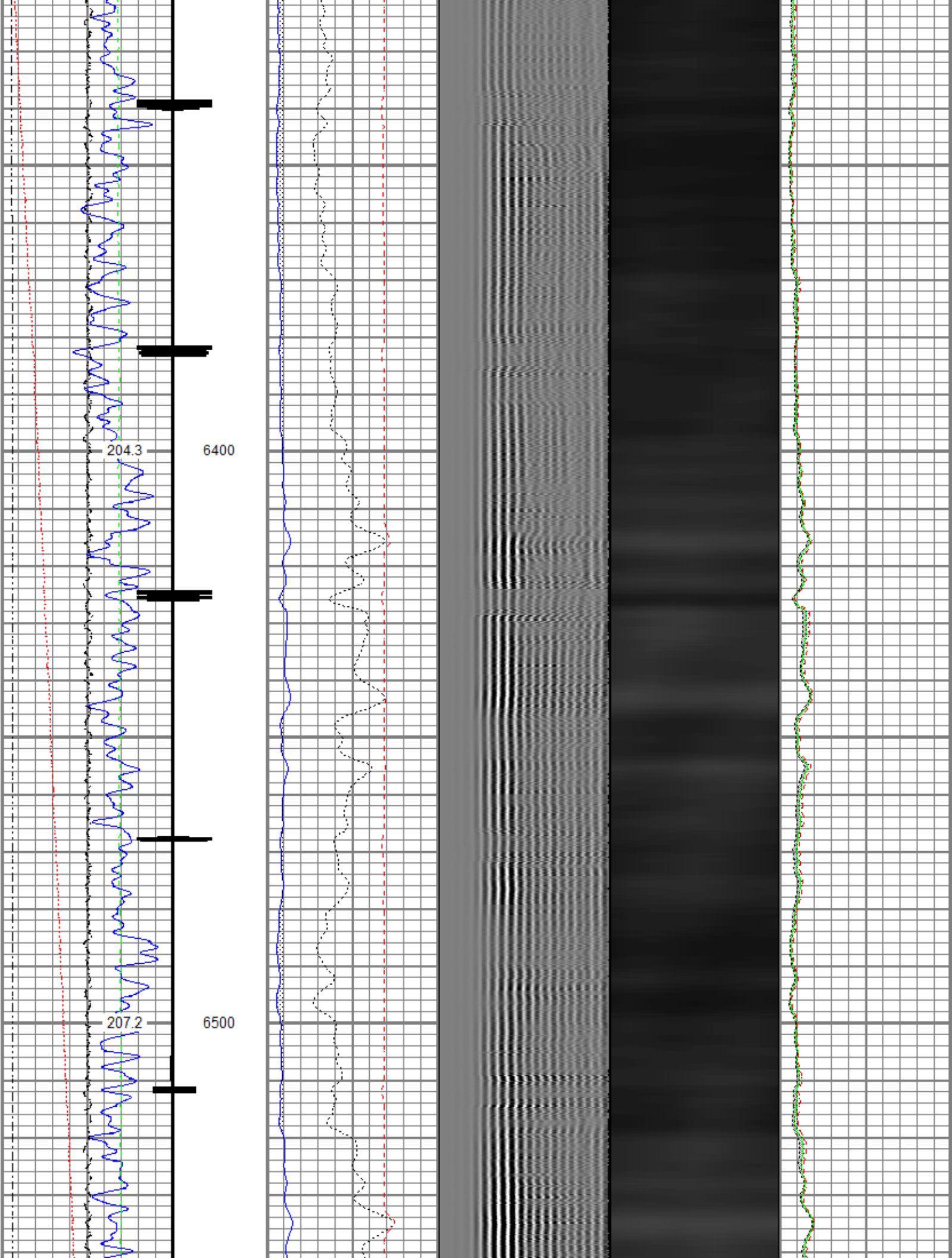


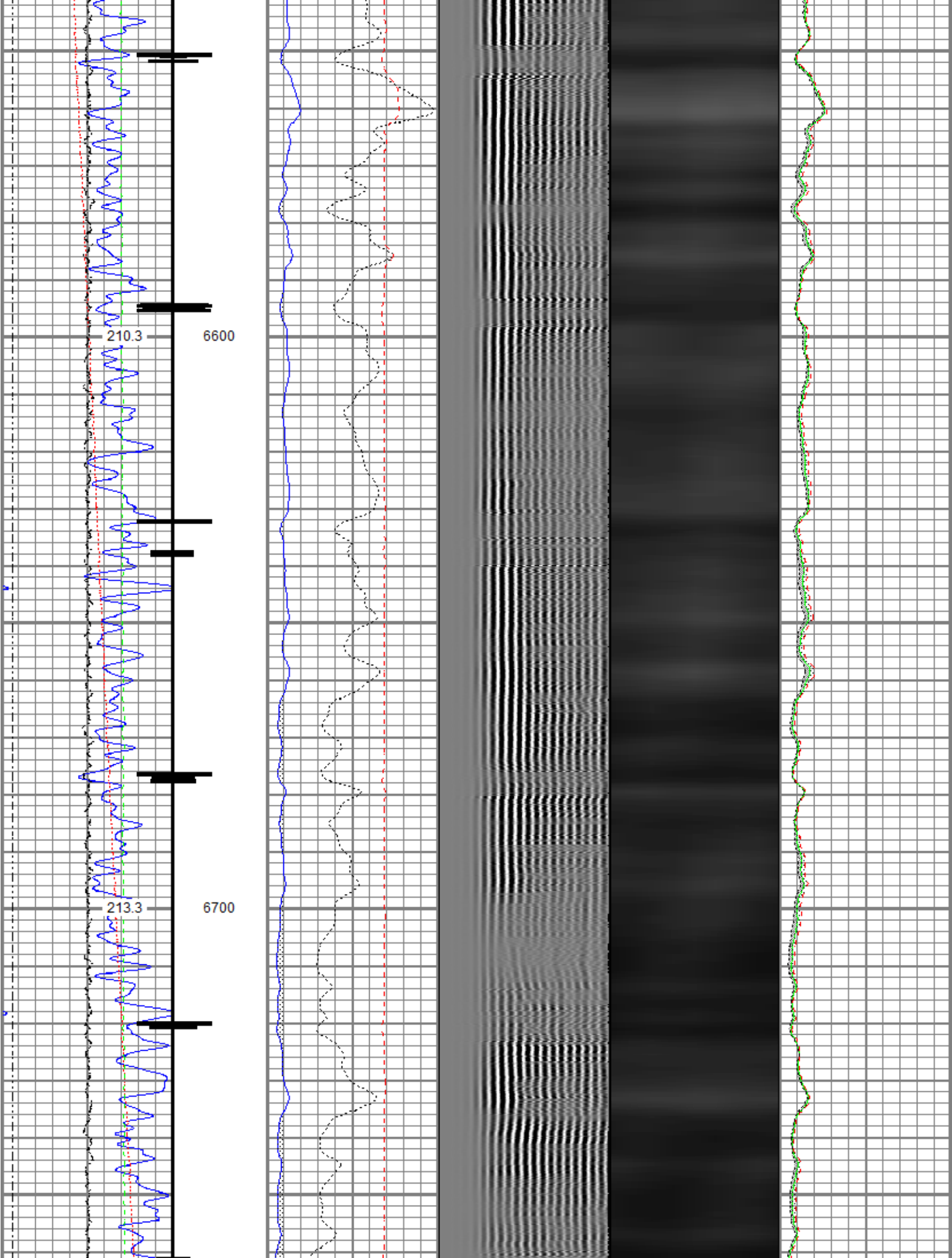




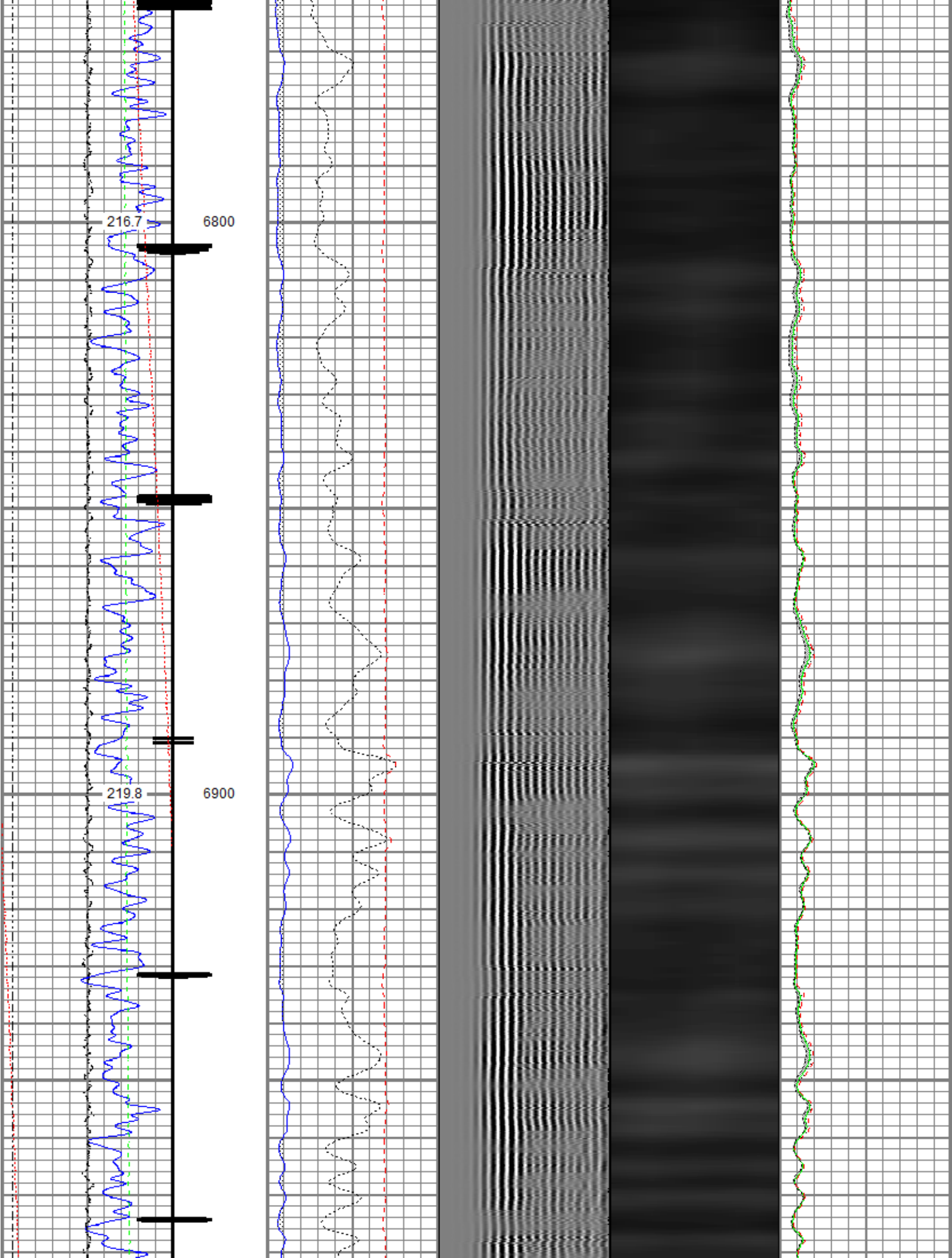


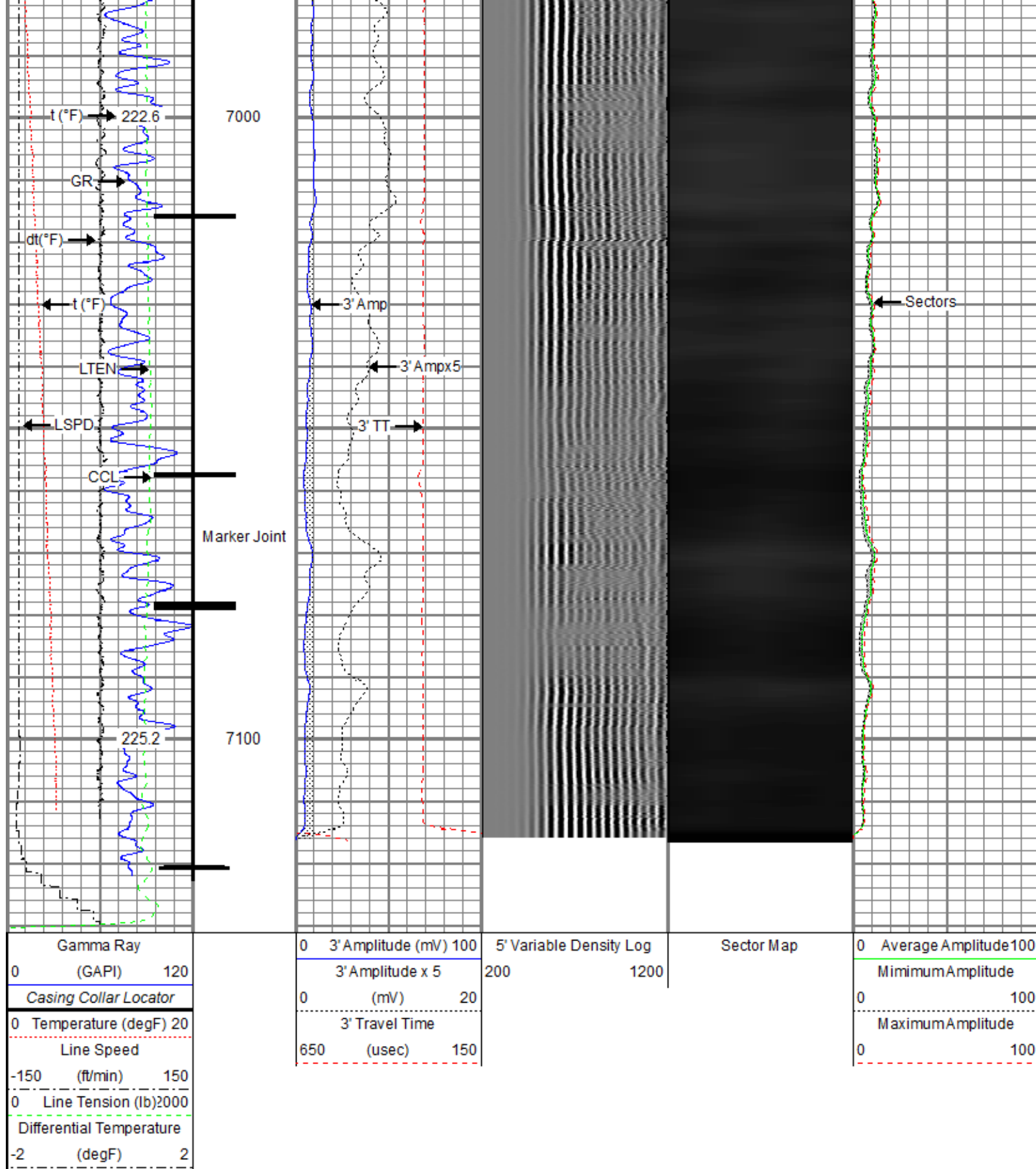






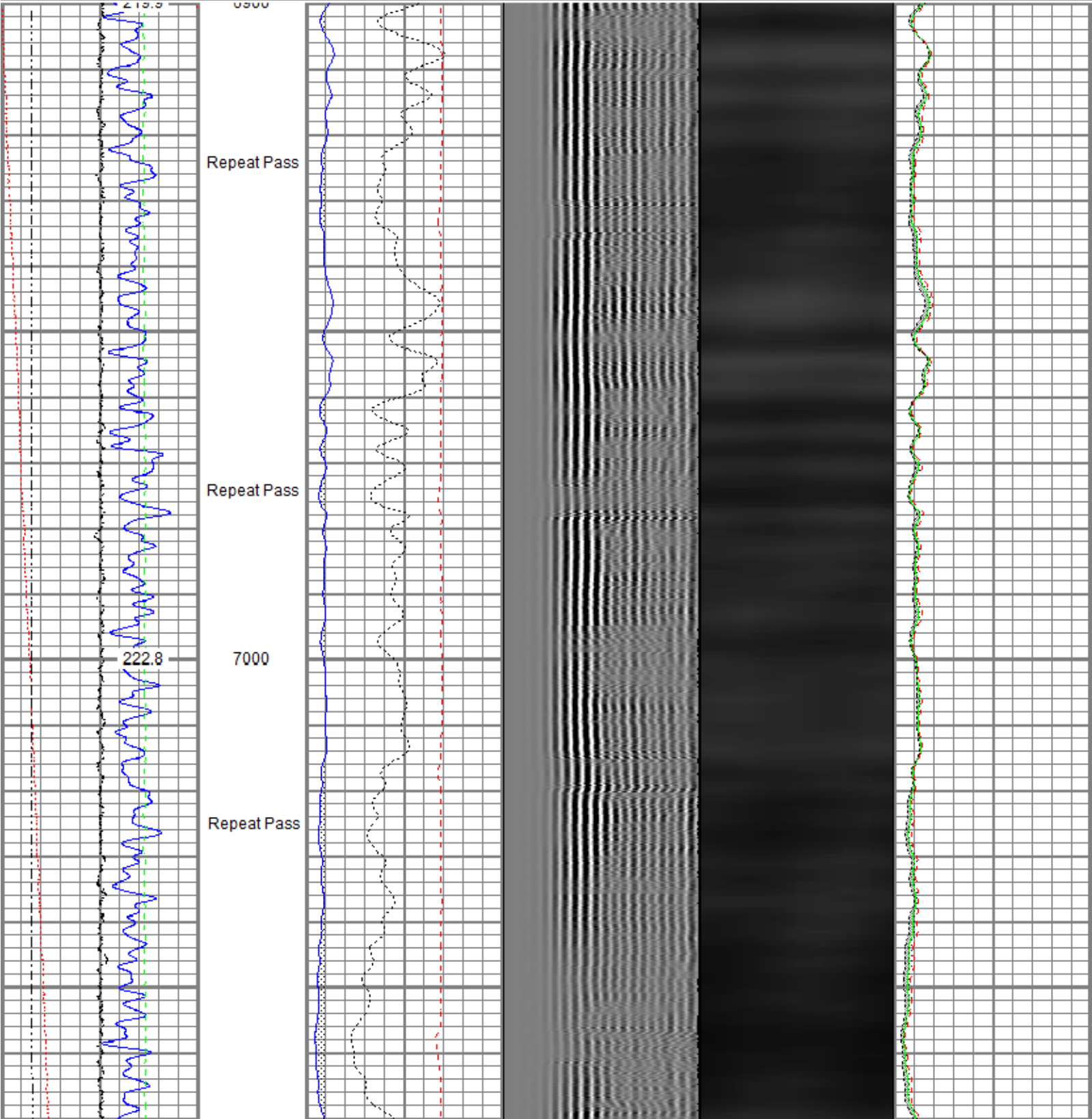


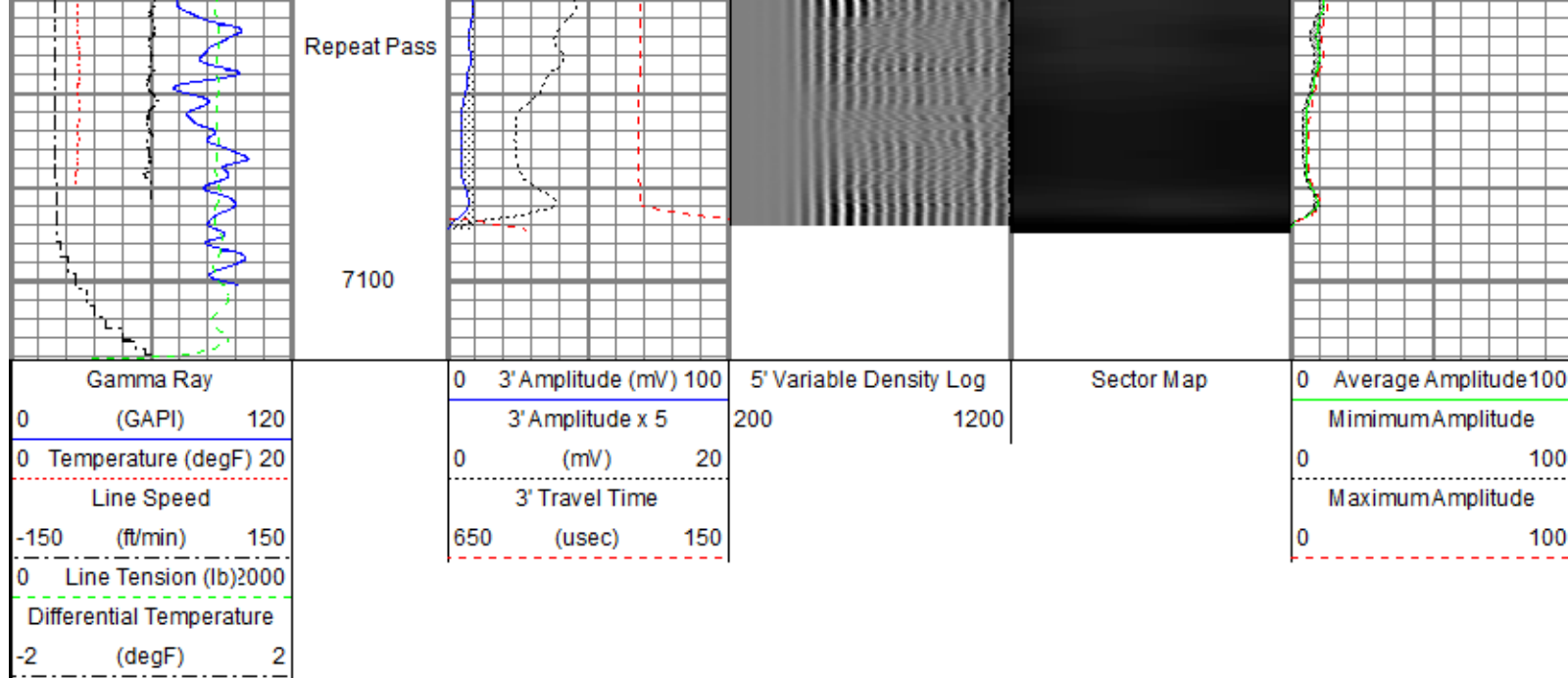




Recorded With 2800 PSI Surface Induced Pressure

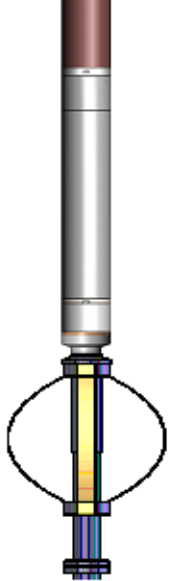
Gamma Ray		0	3' Amplitude (mV)	100	5' Variable Density Log	Sector Map	0	Average Amplitude	100
0 (GAPI)	120		3' Amplitude x 5		200			Minimum Amplitude	
0 Temperature (degF)	20	0	(mV)	20			0		100
Line Speed			3' Travel Time					Maximum Amplitude	
-150 (ft/min)	150	650	(usec)	150			0		100
0 Line Tension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





Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
TEMP	17.33		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 (FW1308-091) Probe 2-3/4" Radial Cement Bond Tool with Integral Temperature Sub	9.39	2.75	105.00
WVFS8	15.09					
WVFS7	15.09					
WVFS6	15.09					
WVFS5	15.09					
WVFS4	15.09					
WVFS3	15.09					
WVFS2	15.09					
WVFS1	15.09					
WVFCAL	15.09					
WVF3FT	15.09					
WVF5FT	14.09		Probe CENT-2750 Probe 2-3/4" Electric Inline Bowspring Centralizer	2.88	2.75	20.00



CCL\$2	7.08					
CCL\$1	7.08					
GR	5.75					
		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	
		Probe CENT-2750 Probe 2-3/4" Electric Inline Bowspring Centralizer	2.88	2.75	20.00	
Dataset: 0512345507_Anadarko_Papa Jo 2-25 35C2-17HZ_RBL_03-28-18_2800 PSI.db: field/well/run1/pass4.1 Total length: 24.15 ft Total weight: 225.60 lb O.D.: 2.75 in						

Calibration Report	
Database File	C:\ProgramData\Warrior\Data\New folder (3)\0512345507_Anadarko_Papa Jo 2-25 35C2-17HZ_RBL_03-28-18_2800 PSI.db
Dataset Pathname	pass4.1
Dataset Creation	Wed Mar 28 16:45:58 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:	FW1308-091	
Tool Model:	2750 RBT	
Calibration Casing Diameter:	5.500	in
Calibration Depth:	-0.243	ft

Master Calibration, performed Wed Mar 28 06:46:04 2018:						
	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.007	0.486	0.800	71.921	148.458	-0.293
CAL	0.007	0.509				
5'	0.007	0.432	0.800	71.921	167.353	-0.426
SUM						
S1	0.007	0.482	0.000	100.000	210.830	-1.544
S2	0.007	0.488	0.000	100.000	207.998	-1.529
S3	0.007	0.486	0.000	100.000	209.086	-1.529
S4	0.007	0.483	0.000	100.000	210.299	-1.538
S5	0.007	0.486	0.000	100.000	209.097	-1.531
S6	0.007	0.490	0.000	100.000	207.287	-1.493
S7	0.007	0.489	0.000	100.000	207.513	-1.517
S8	0.007	0.487	0.000	100.000	208.257	-1.515

Internal Reference Calibration, performed (Not Performed):

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.007	0.509	1.000	0.000

Air Zero Calibration, performed Wed Mar 28 06:46:41 2018:

	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	0.007		0.000		-0.000	
S8	0.007		0.000		-0.000	

#### Temperature Calibration Report

Serial Number: FW1308-091  
Tool Model: 2750 RBT  
Performed: Sun Nov 12 13:50:54 2017

	Reference	Reading
Low Reference:	100.00 degF	104.72 degF
High Reference:	350.00 degF	392.24 degF

Gain: 0.87  
Offset: 8.94  
Delta Spacing: 1



Company	Kerr-McGee Oil & Gas Onshore, L.P.
Well	Papa Jo 2-25 35C2-17HZ
Field	Wattenberg
County	Weld
State	Colorado