



Radial Cement Bond
Gamma Ray
Casing Collar Log

Company Caerus Piceance LLC

Well FED 11C-24-496

Field Grand Valley

County Garfield State Colorado

Location: API #: 05-045-24177

Other Services

SEC 24 TWP 4S RGE 96W

Elevation

Permanent Datum Ground Level Elevation 8128'

Log Measured From Kelly Bushing 30 FT

Drilling Measured From Kelly Bushing

K.B. 8158'

D.F. ---

G.L. 8128'

Date 20-FEB-2020

Run Number One

Depth Driller 12572 FT

Depth Logger 12500 FT

Bottom Logged Interval 12488 FT

Top Log Interval Surface

Open Hole Size 8.750"

Type Fluid Water

Density / Viscosity 8.34 lb/gal

Max. Recorded Temp. 293°F

Estimated Cement Top See Log

Time Well Ready R.O.A.

Time Logger on Bottom 06:00

Equipment Number HD-0331

Location Grand Junction, CO

Recorded By J. Donnelly

Witnessed By ---

Run Number

Bit From To

Size

Weight

From To

Size (in)

Wgt (lbs/ft)

Grade

Casing Record	Size (in)	Wgt (lbs/ft)	Grade	Top	Bottom
Surface Casing	9 5/8	36	J-55	Surface	3156 FT
Intermediate #1	4 1/2	11.6	P-110	Surface	12552 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 Kelly Bushing at 30 FT
Marker Joint Recorded from 8032-8042 FT
Recorded with 0 PSI Surface Induced Pressure

Thank you for choosing Reliance Oilfield Services, LLC!

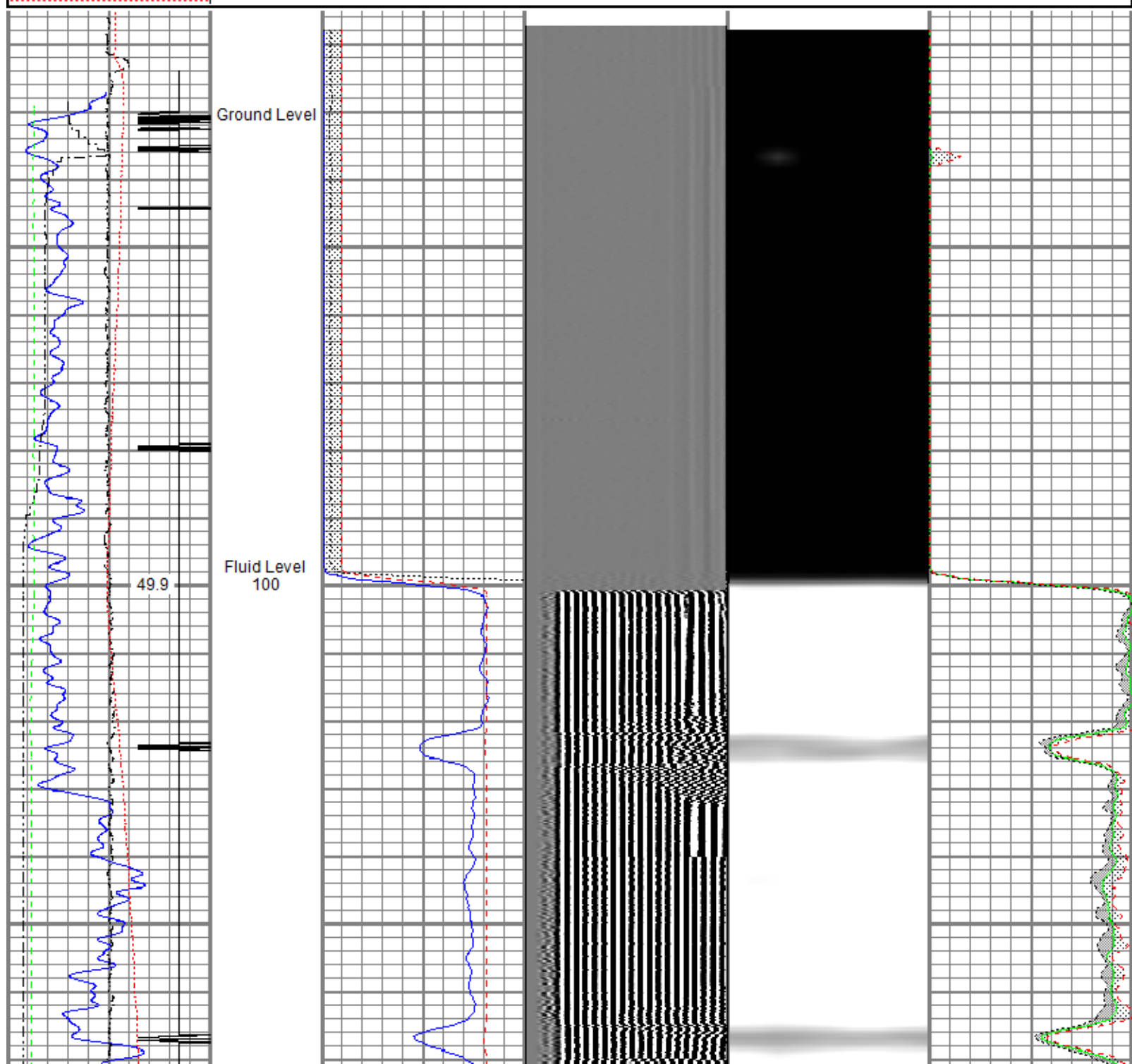
Main Pass

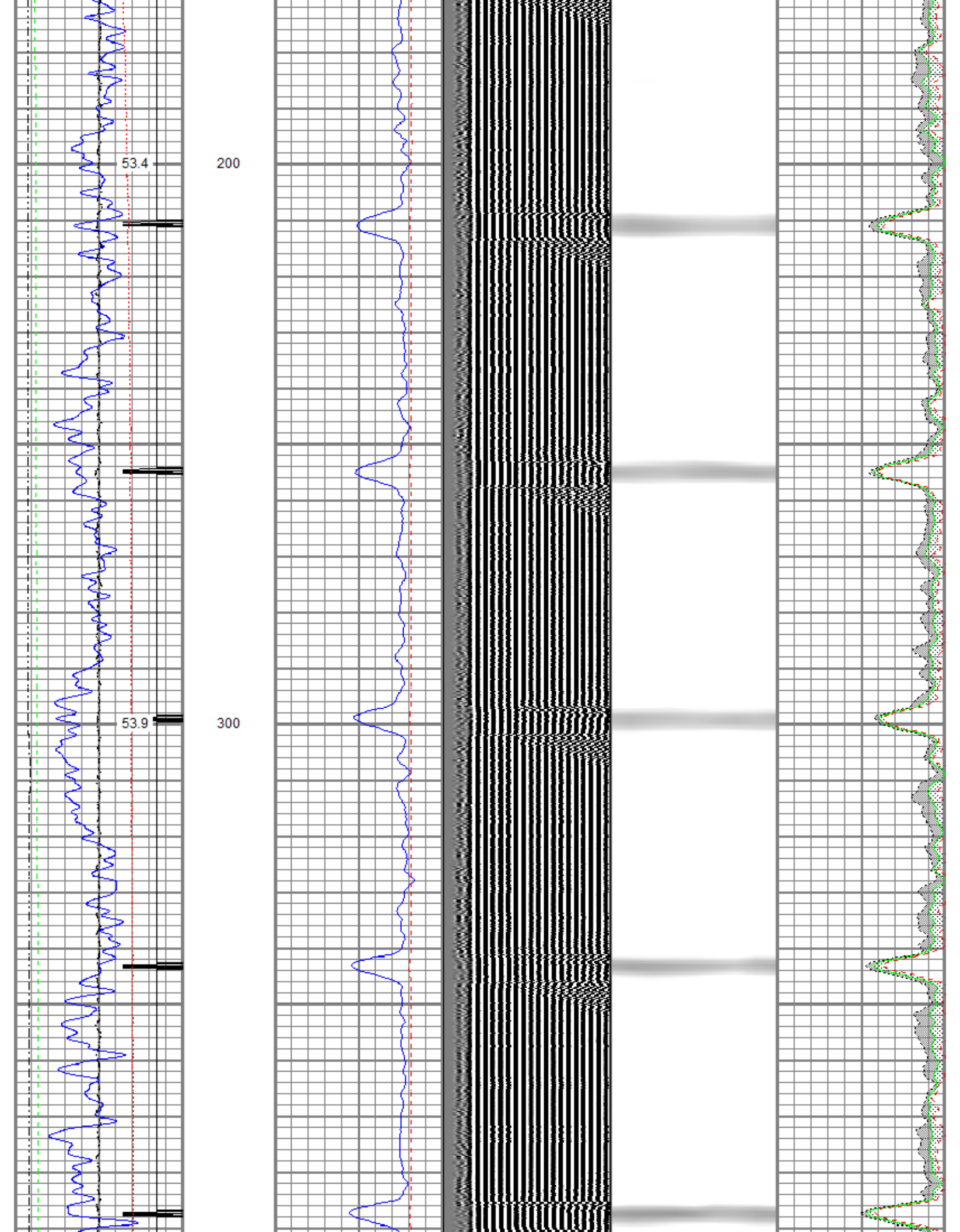


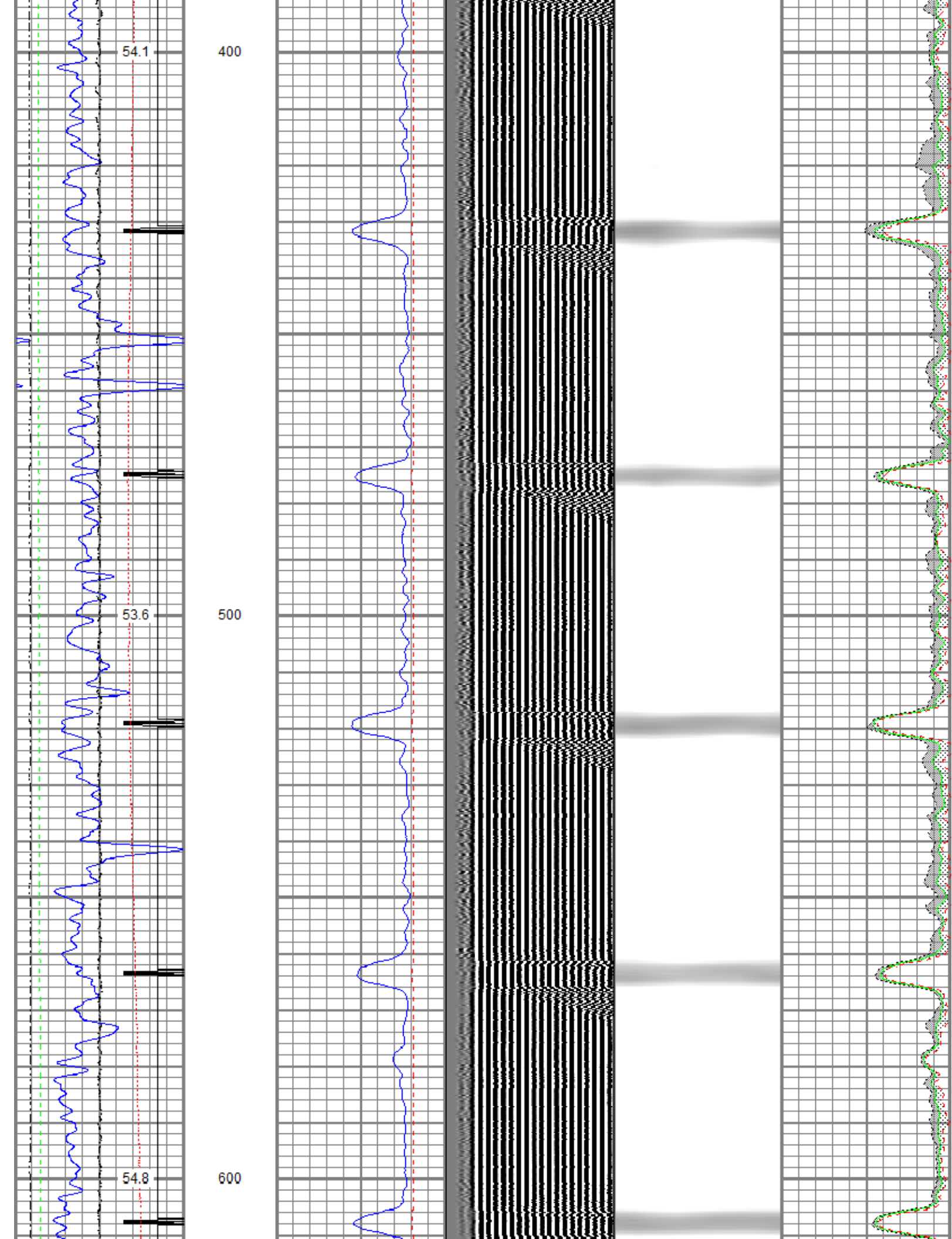
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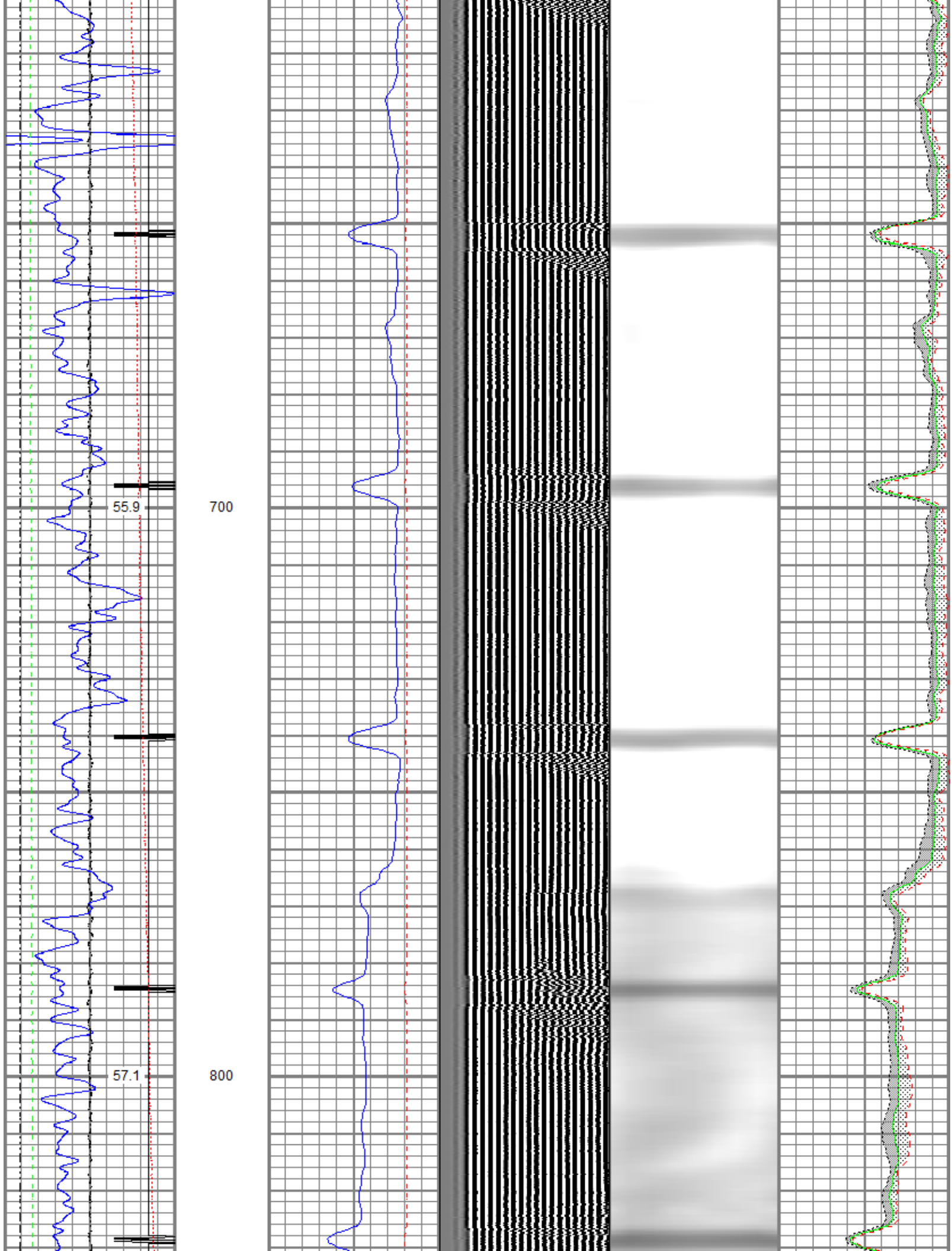
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Presentation Format	ros_radrii_caerus
Dataset Creation	Fri Feb 21 10:39:30 2020
Charted by	Depth in Feet scaled 1:240

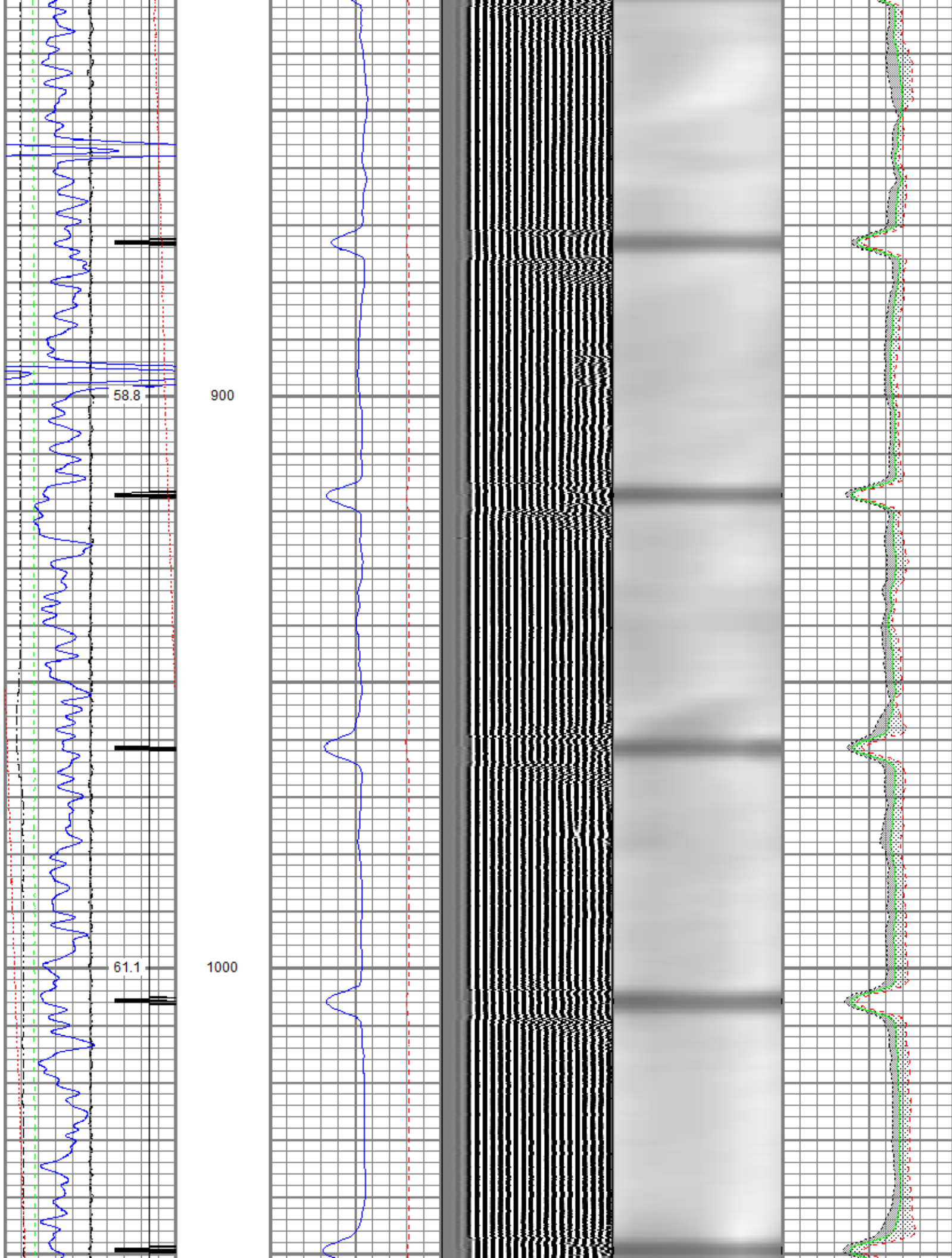
Gamma Ray	0	3' Amplitude (mV) 100	5' Variable Density Log	Sector Map	0	Average Amplitude 100
(GAPI) 120		3' Amplitude x 5	200 (usec) 1200			Minimum Amplitude
Casing Collar Locator	0	(mV) 20			0	100
Line Speed		3' Travel Time				Maximum Amplitude
-150 (ft/min) 150		650 (usec) 150			0	100
Line Tension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

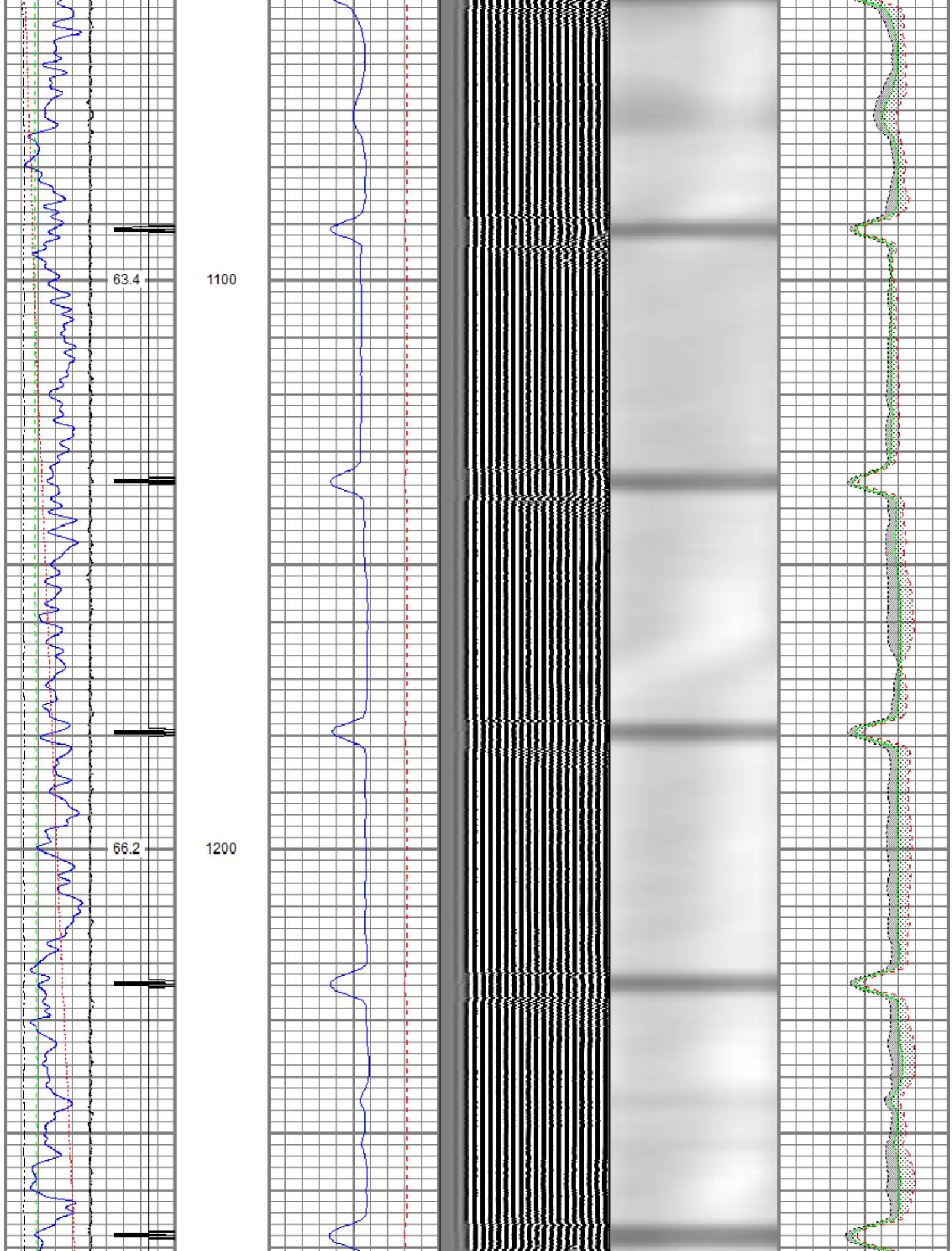


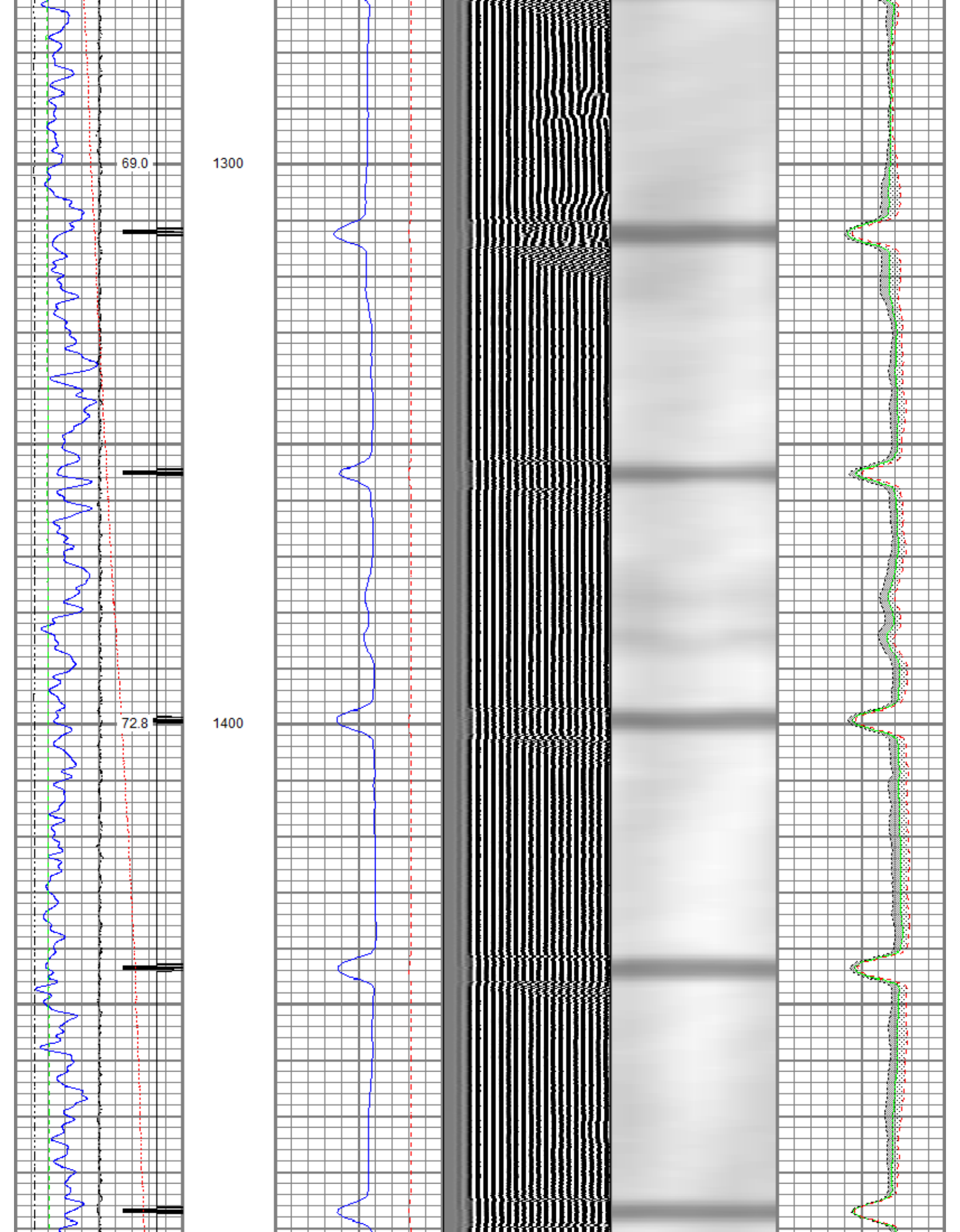


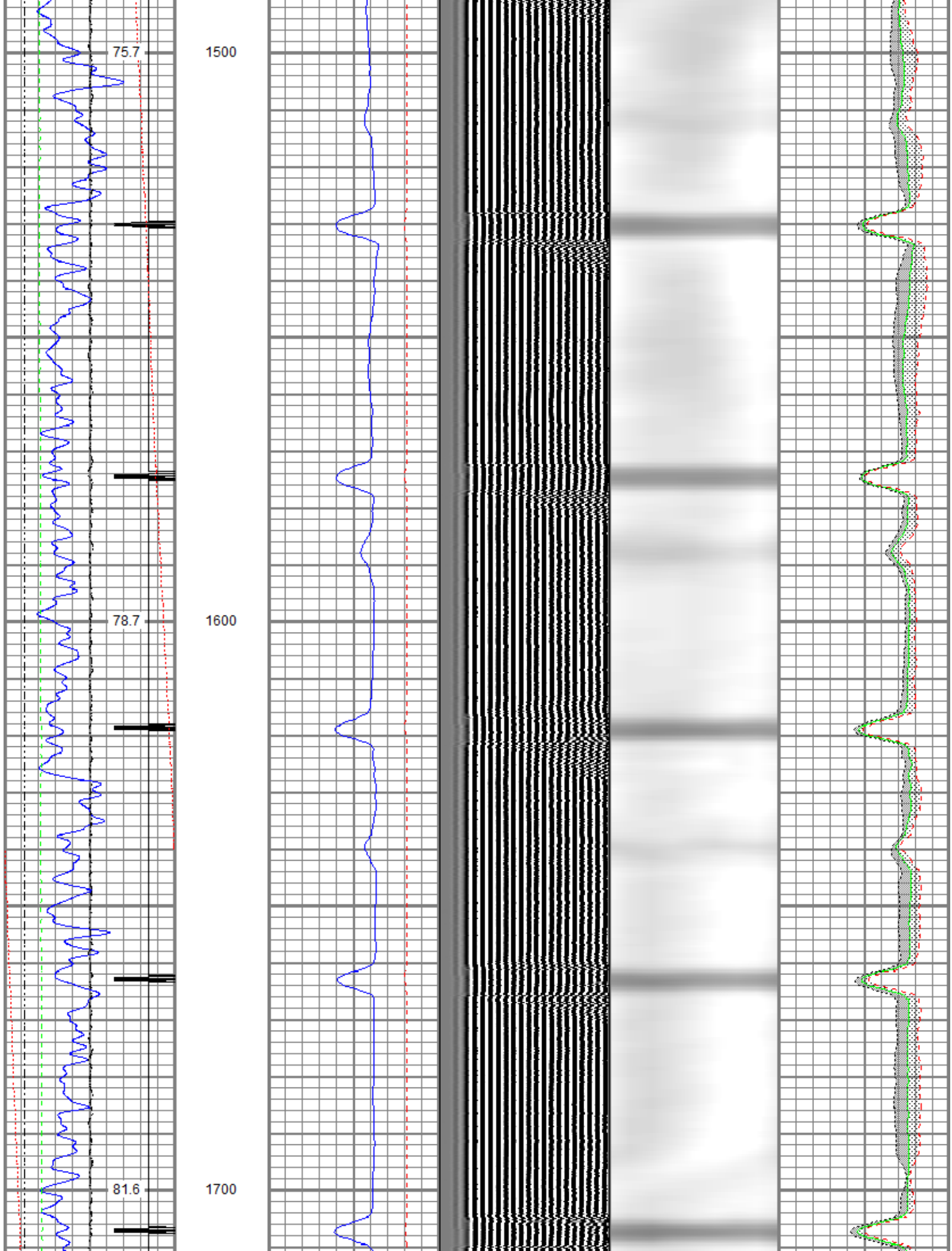


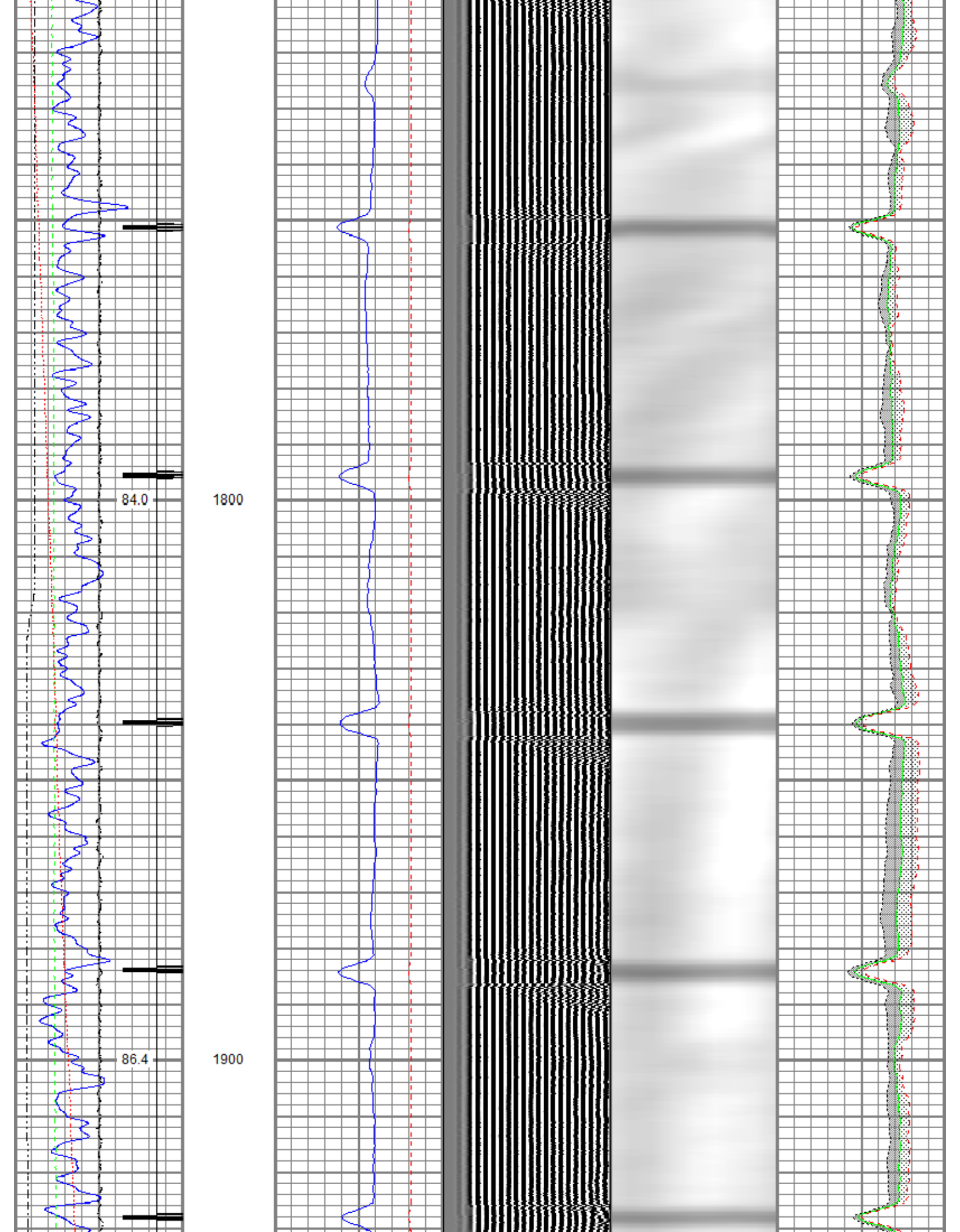


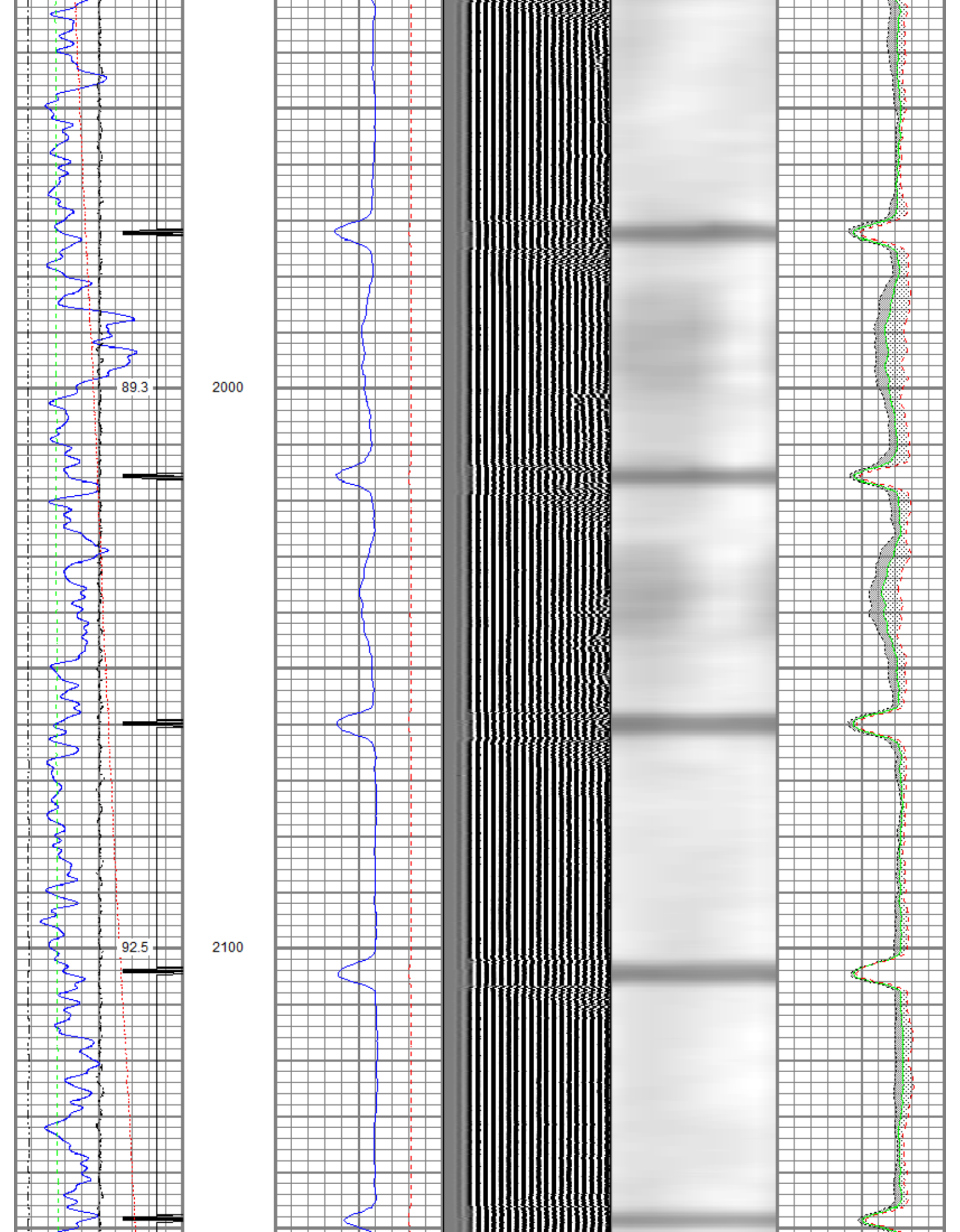


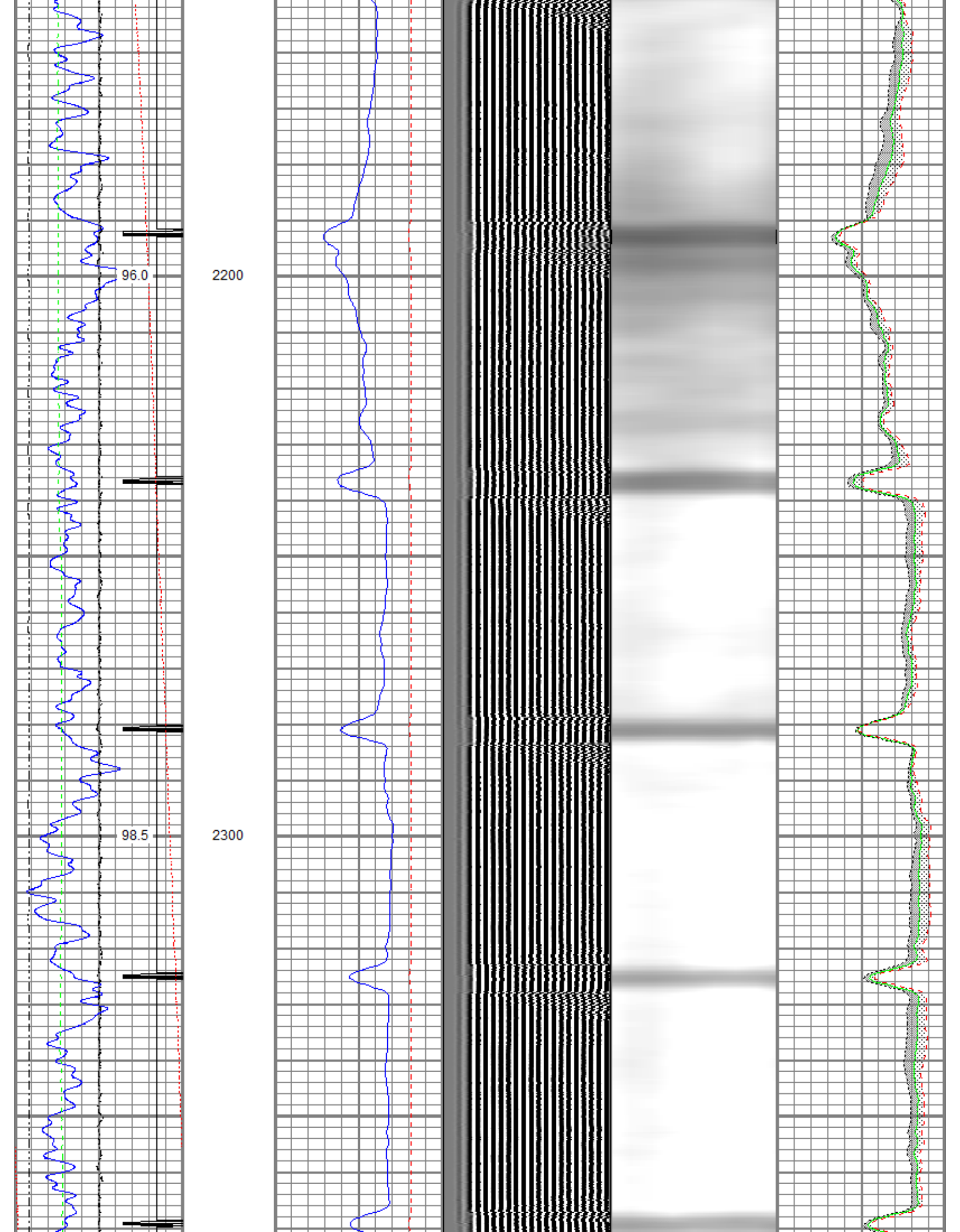


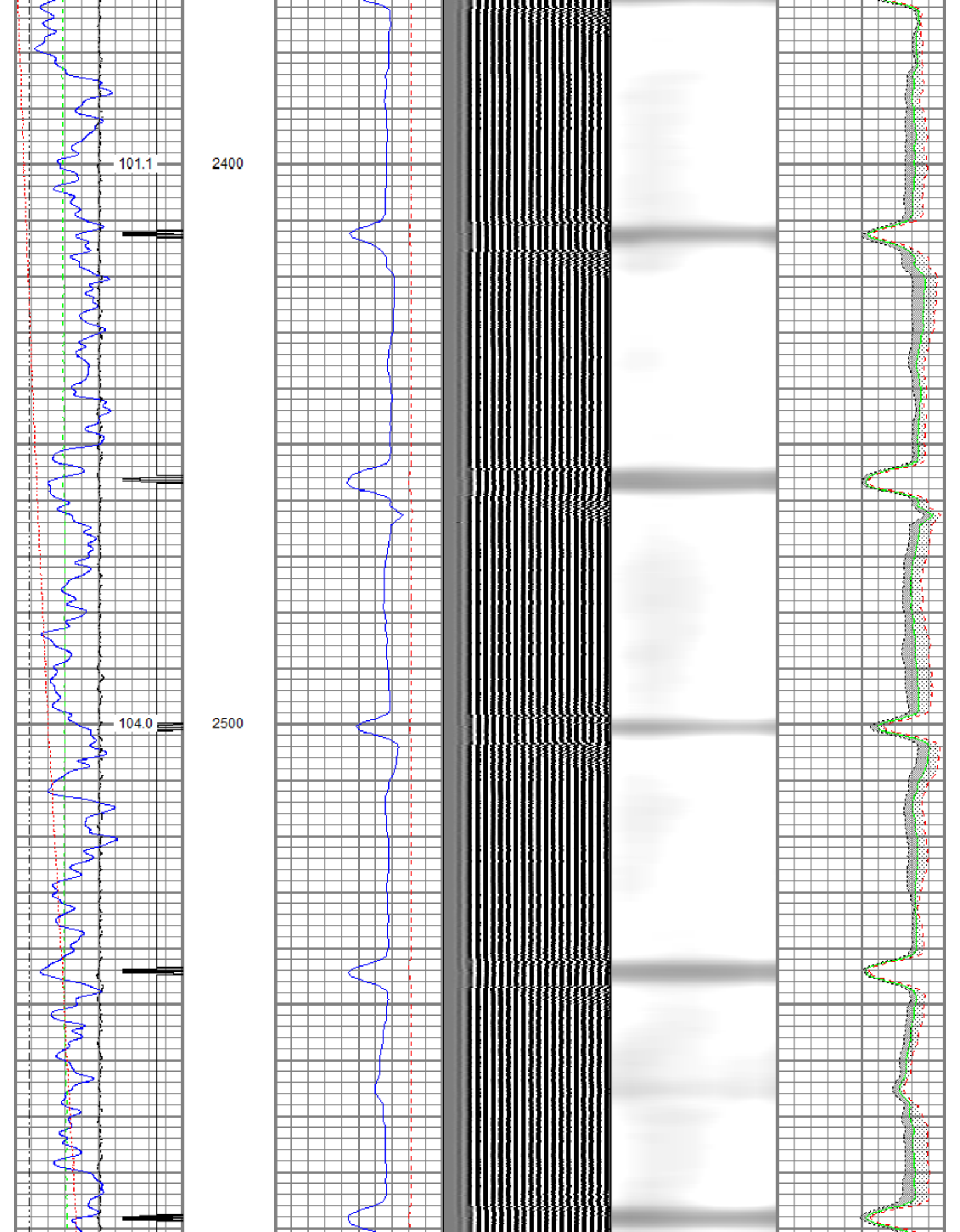


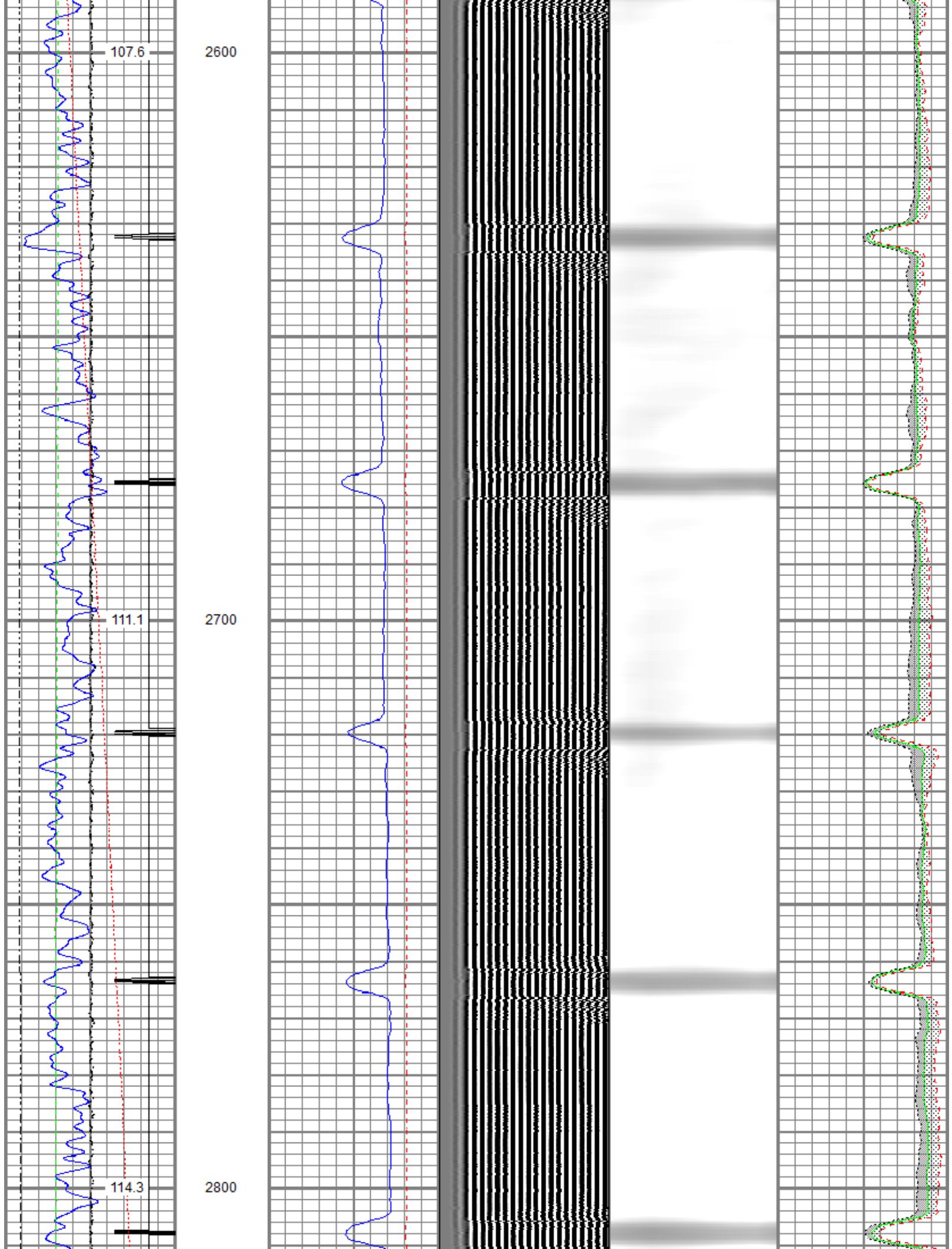


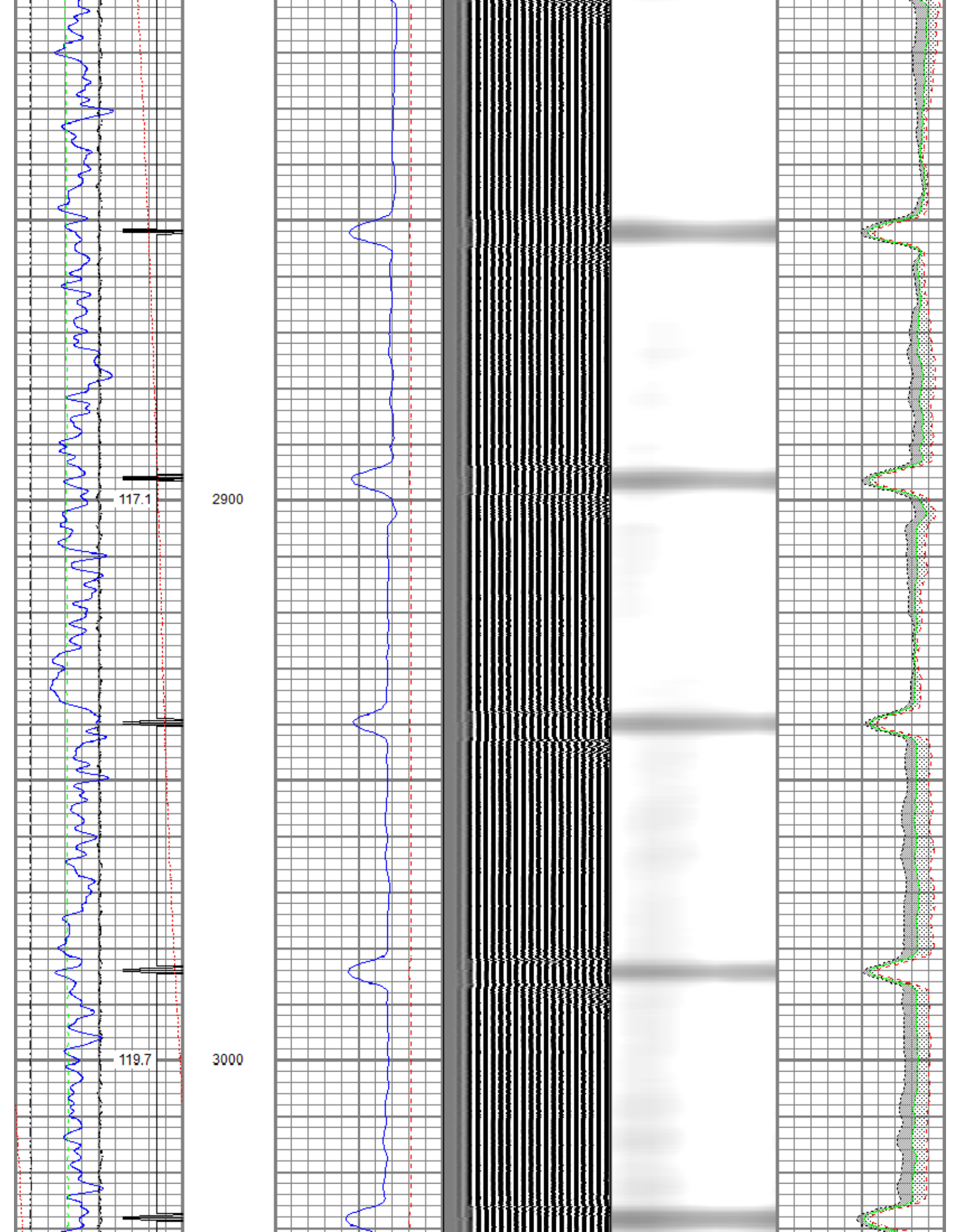


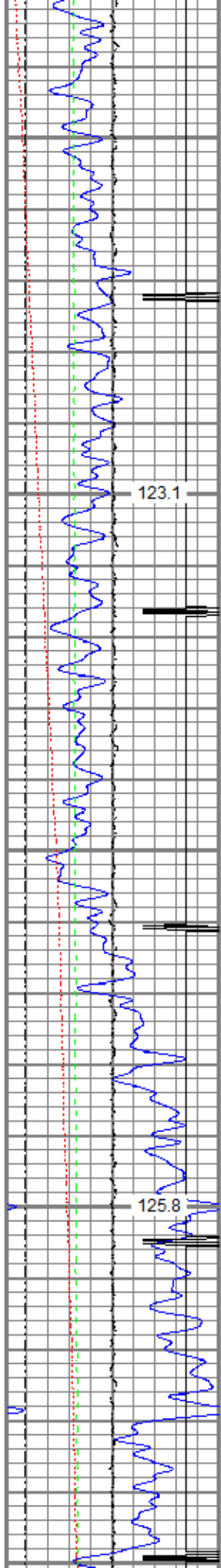






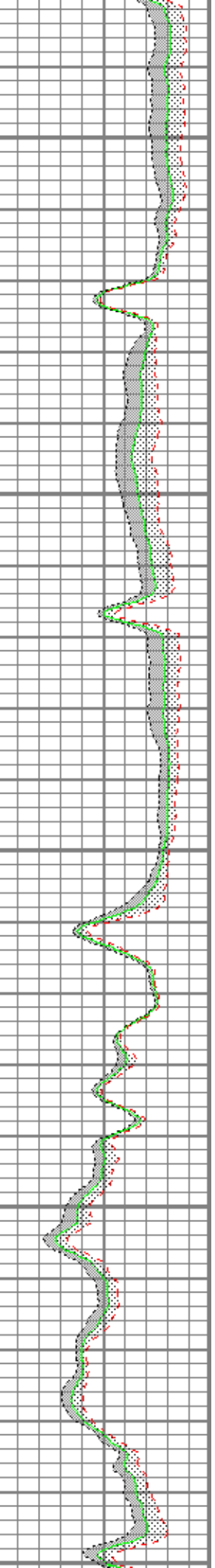
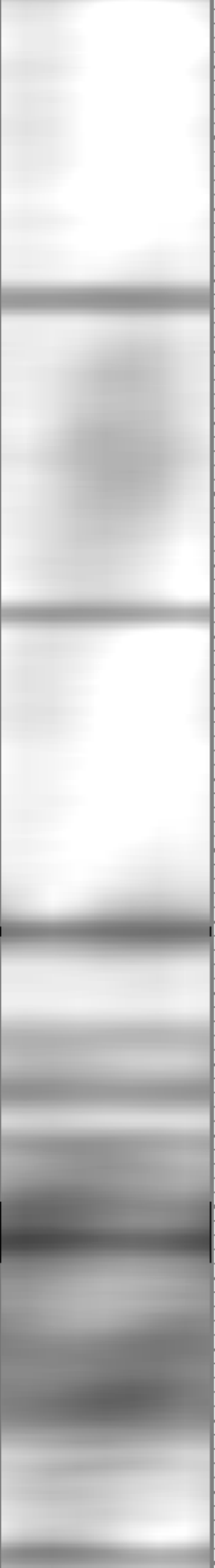
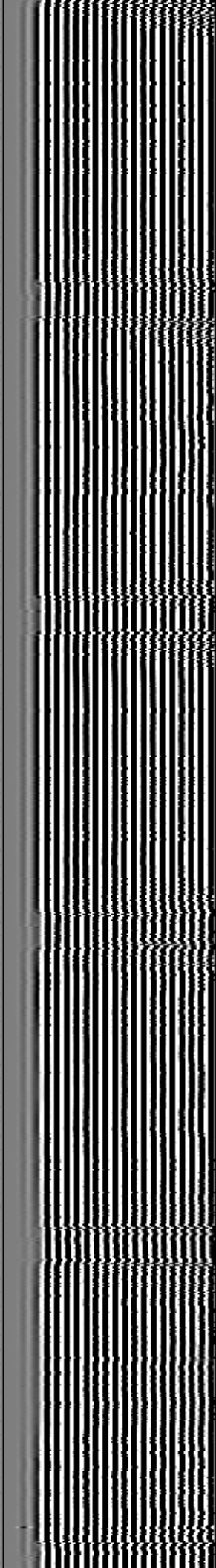
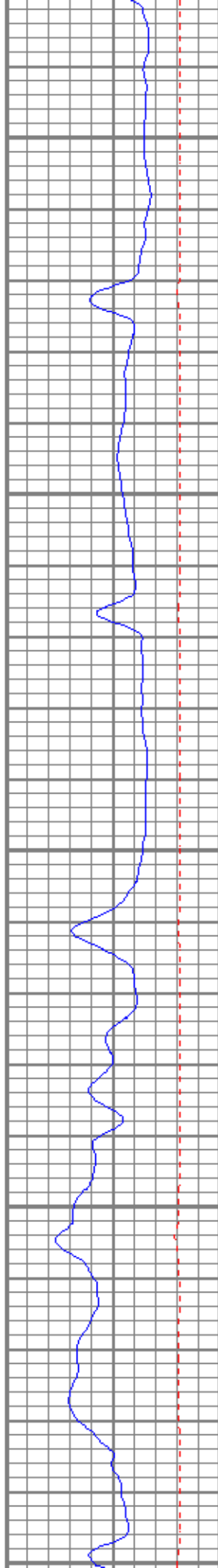


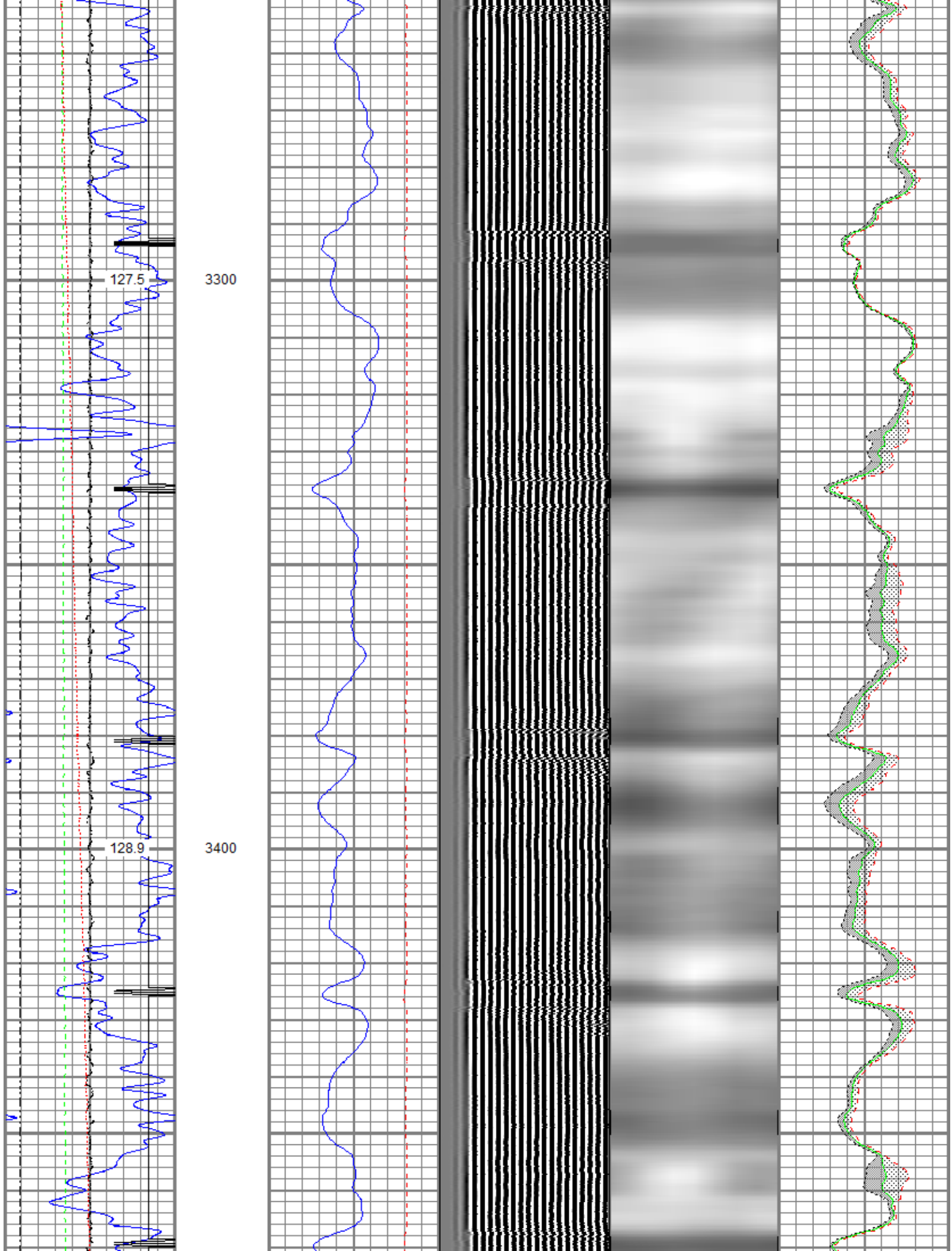


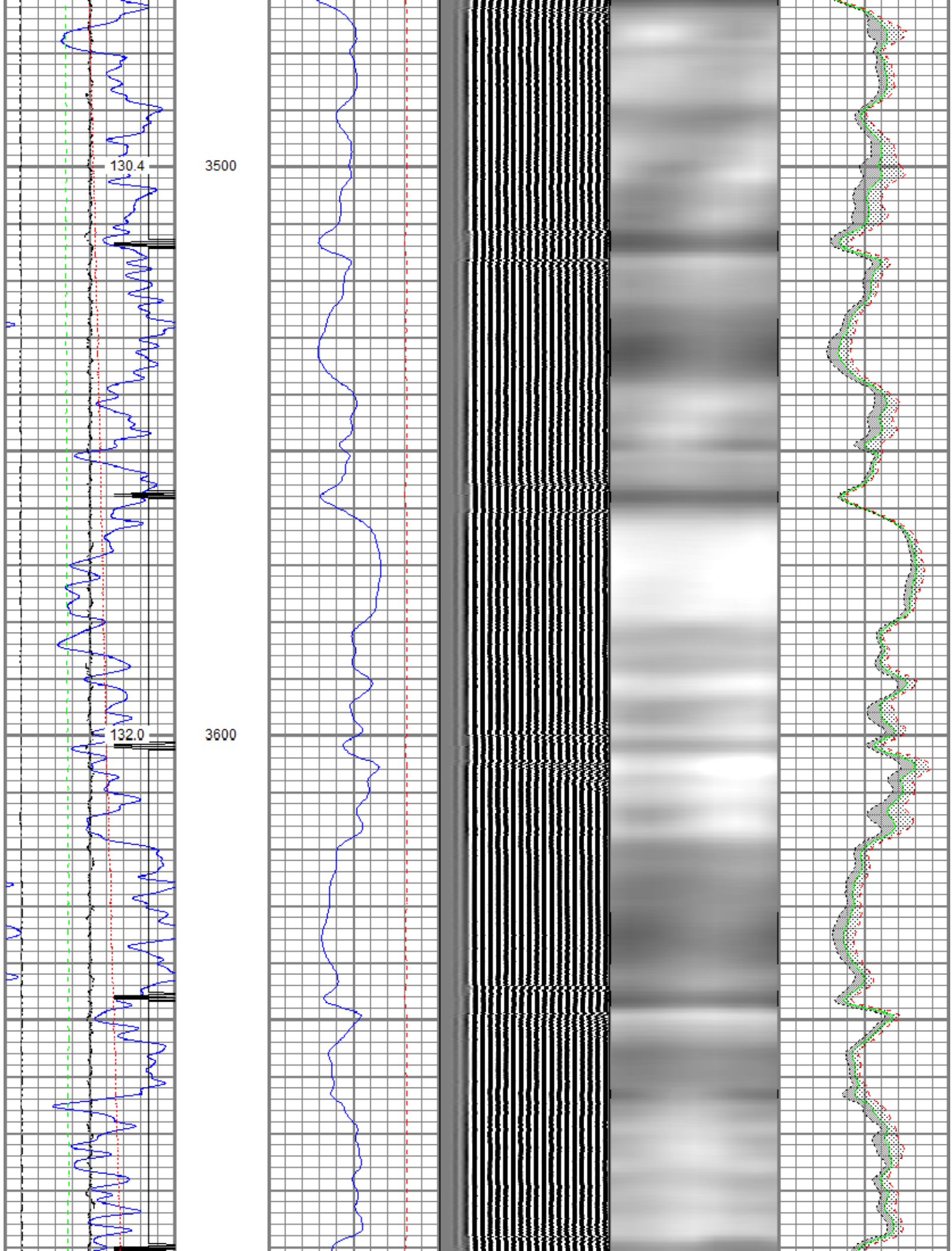


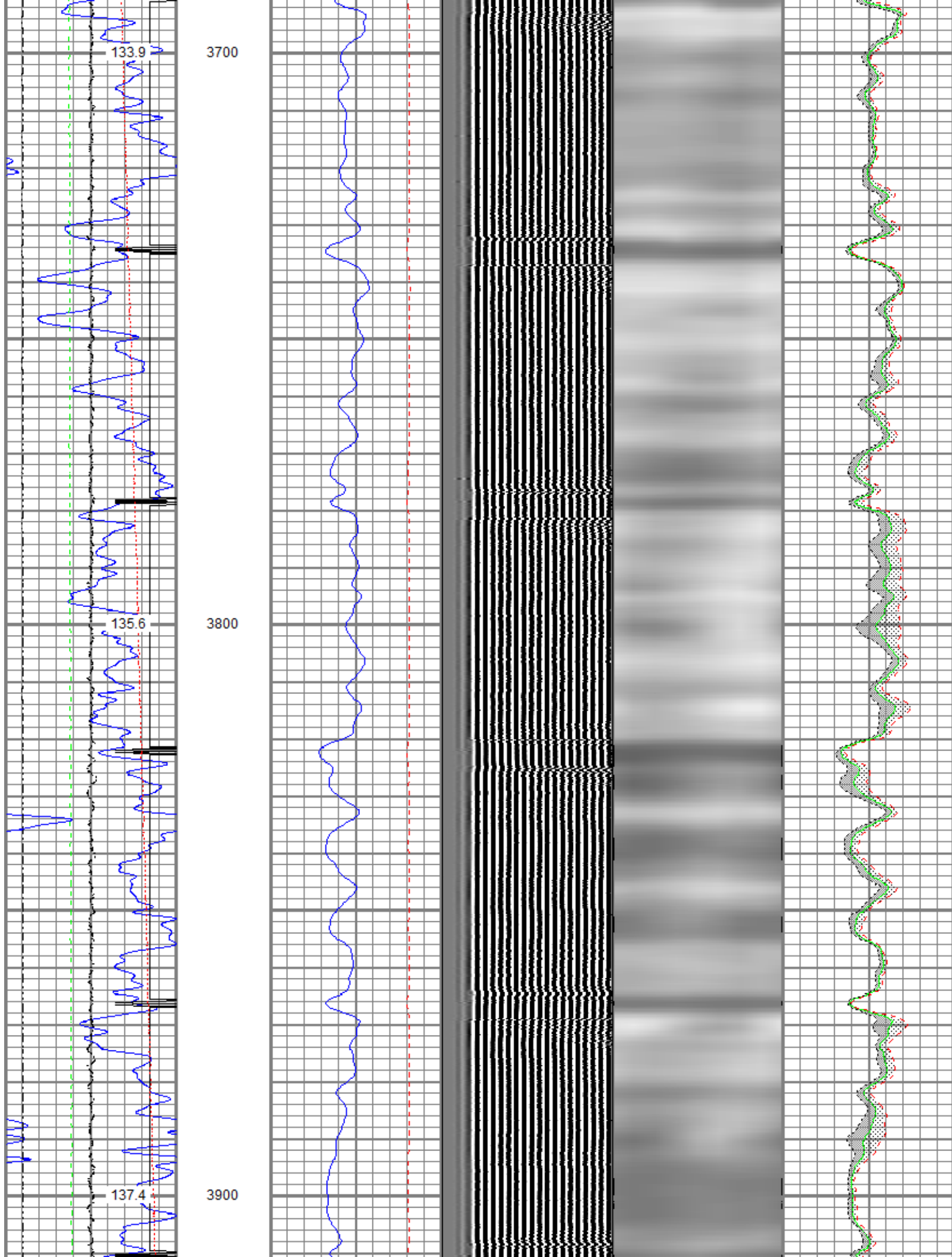
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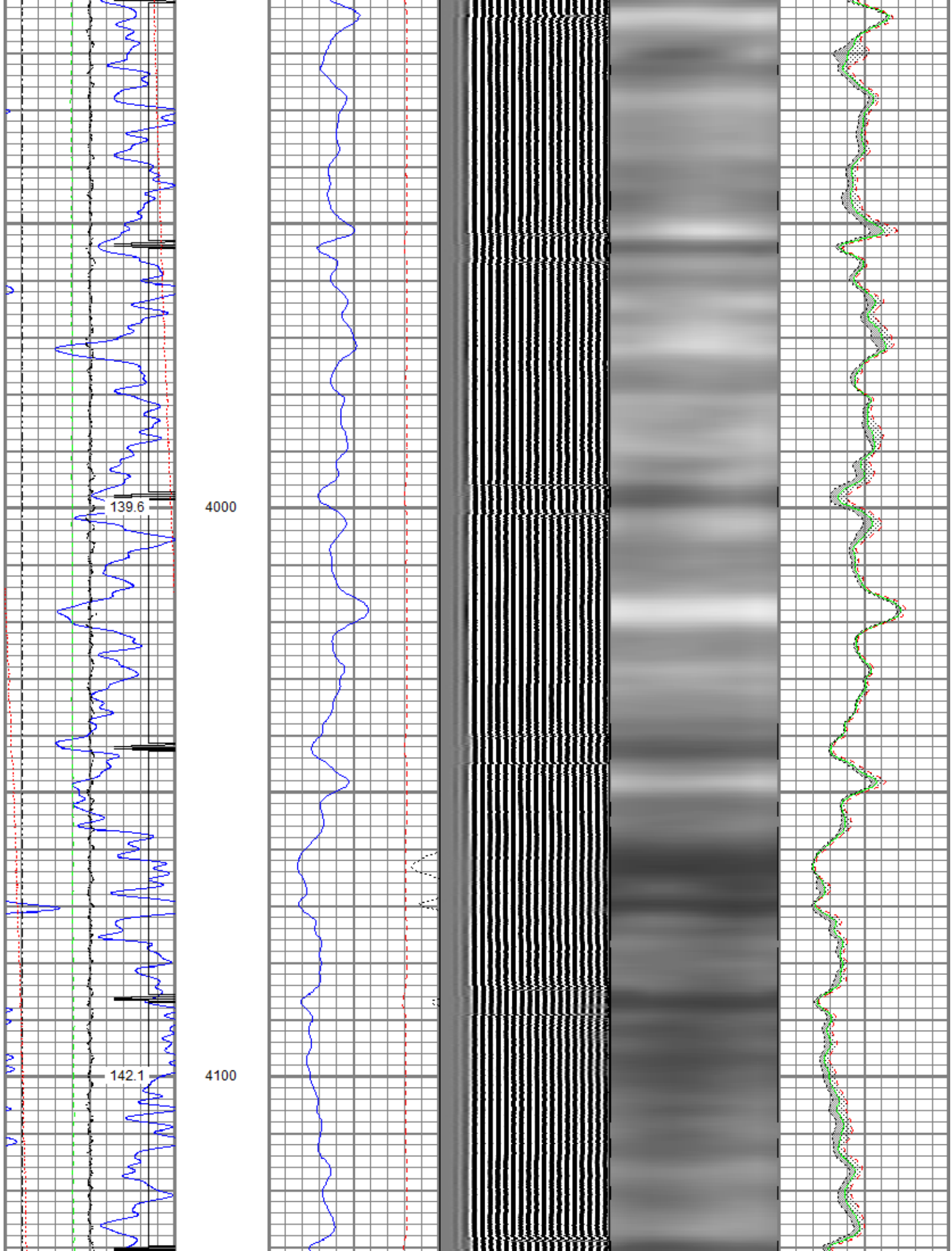
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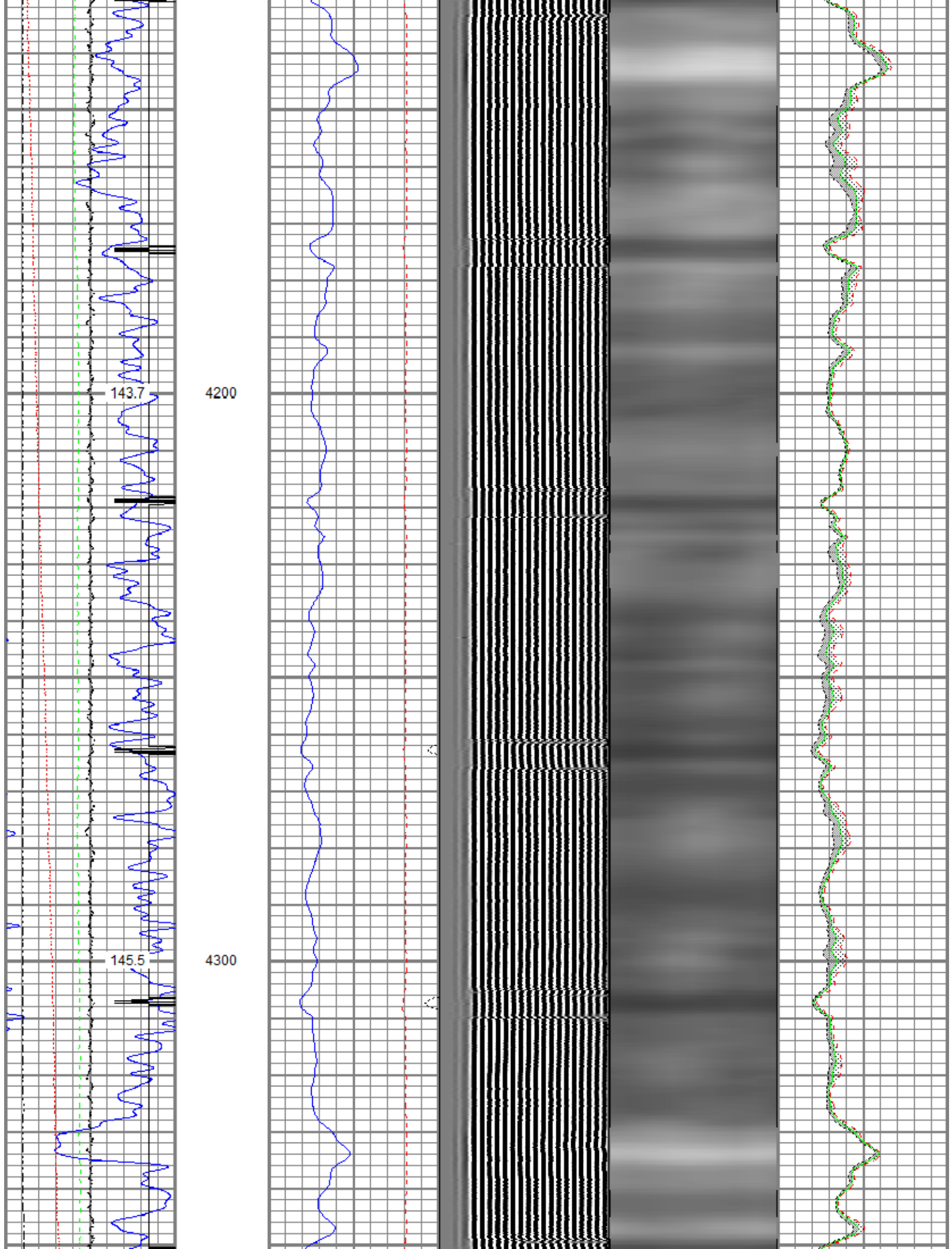


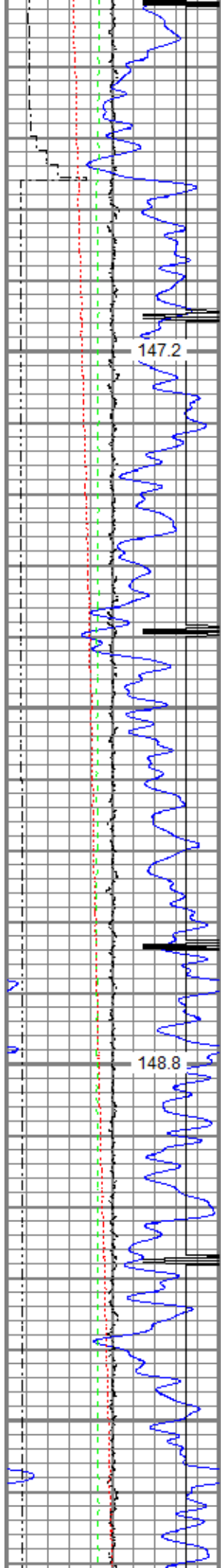










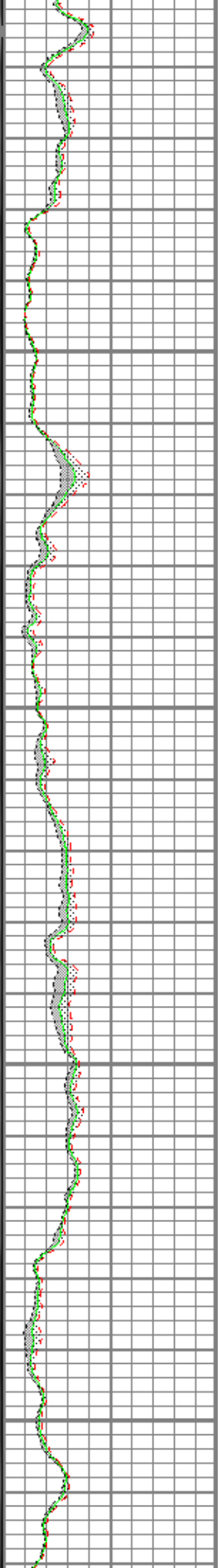
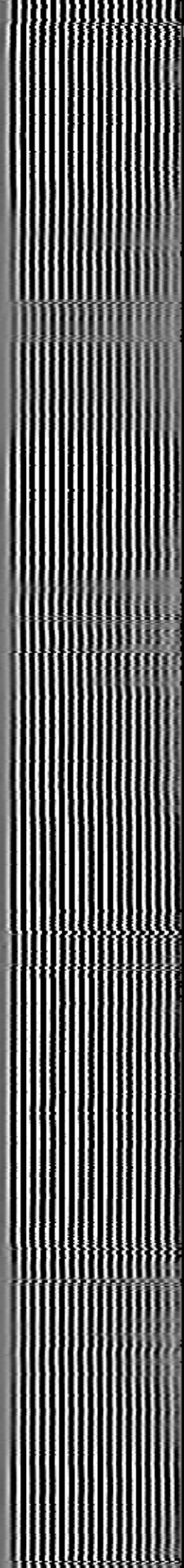
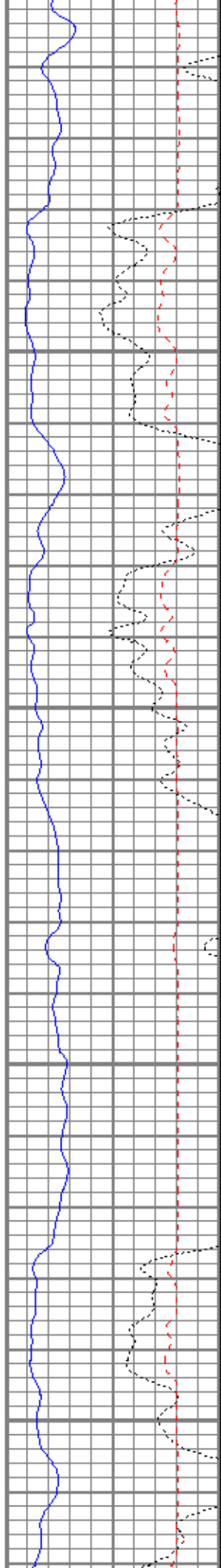


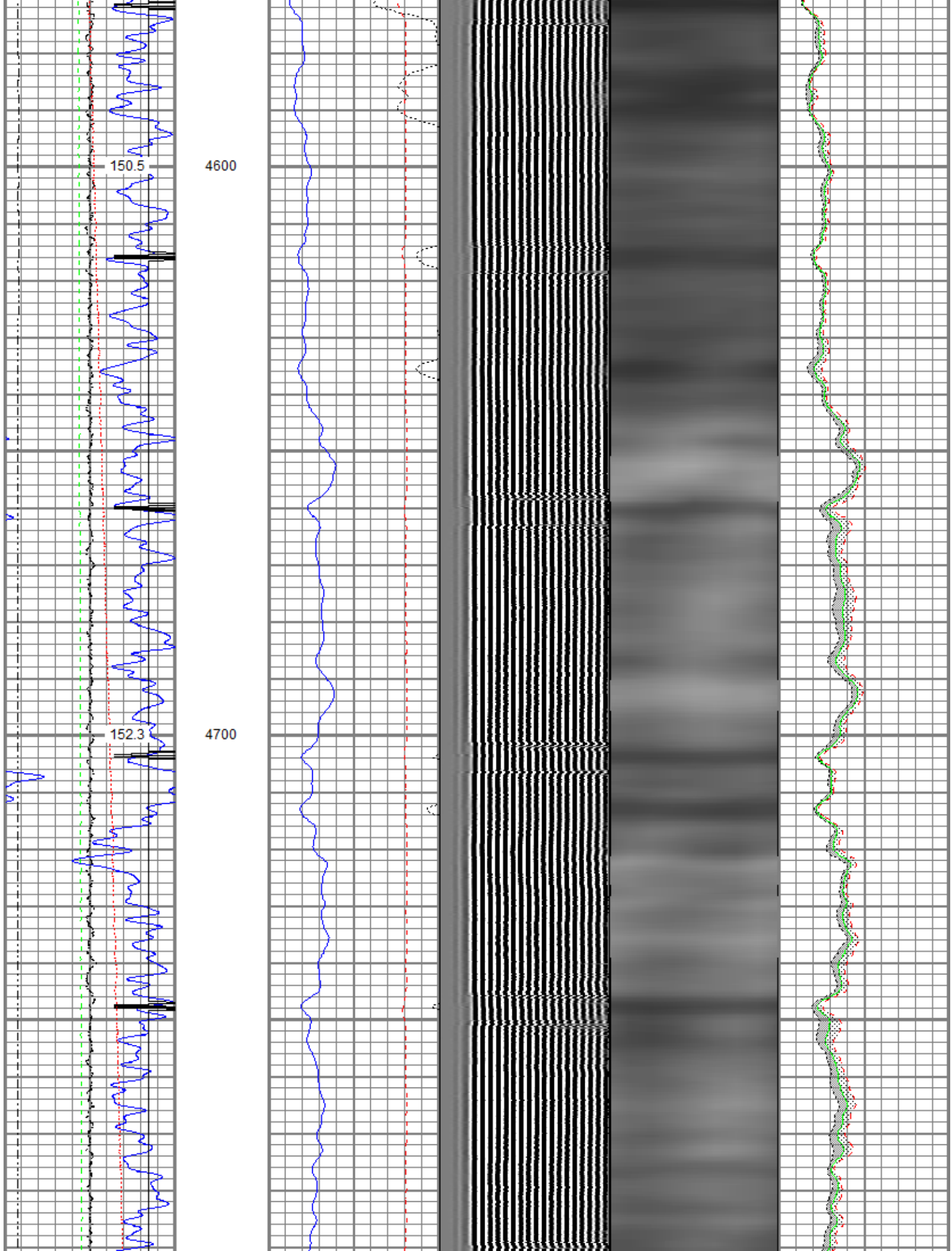
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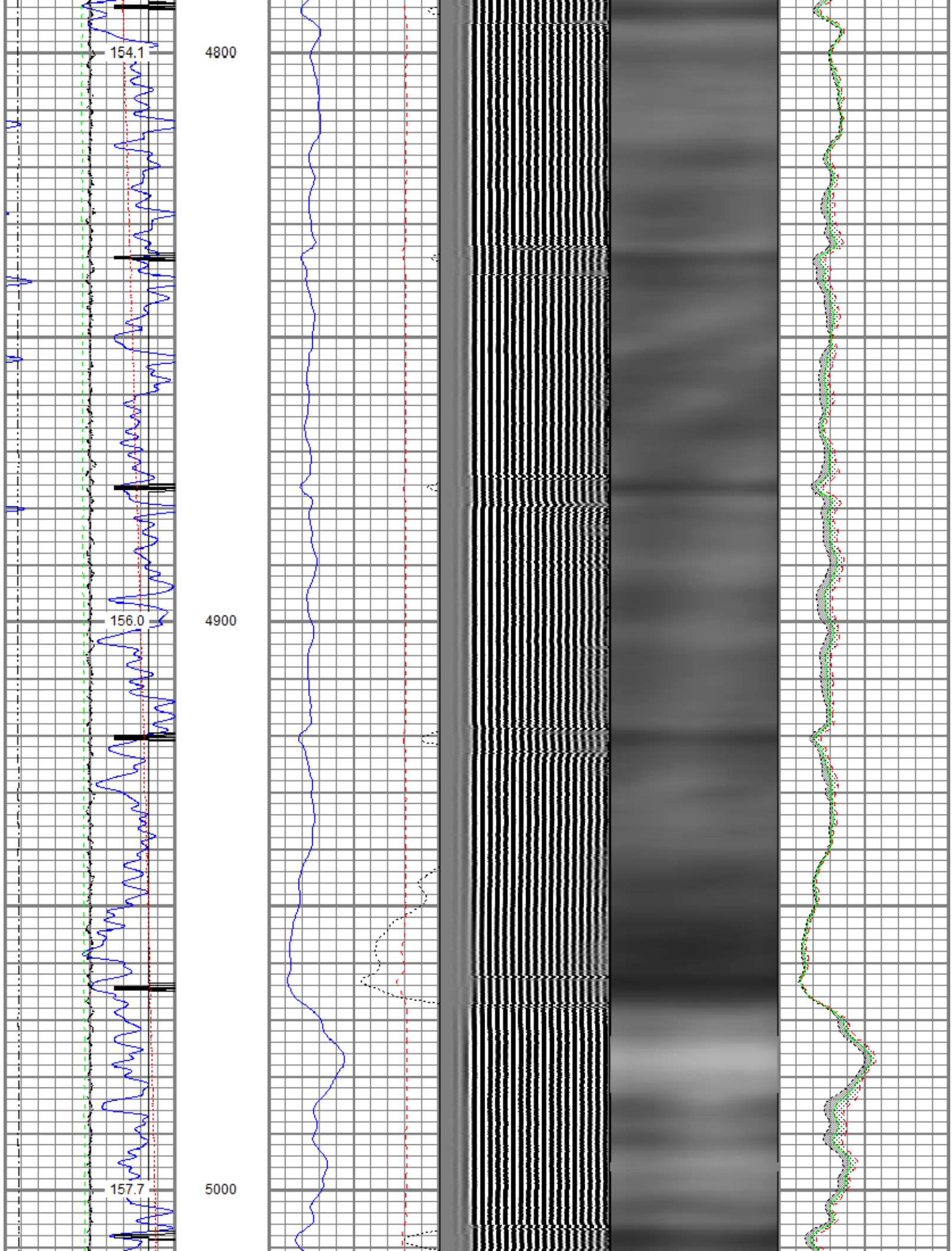
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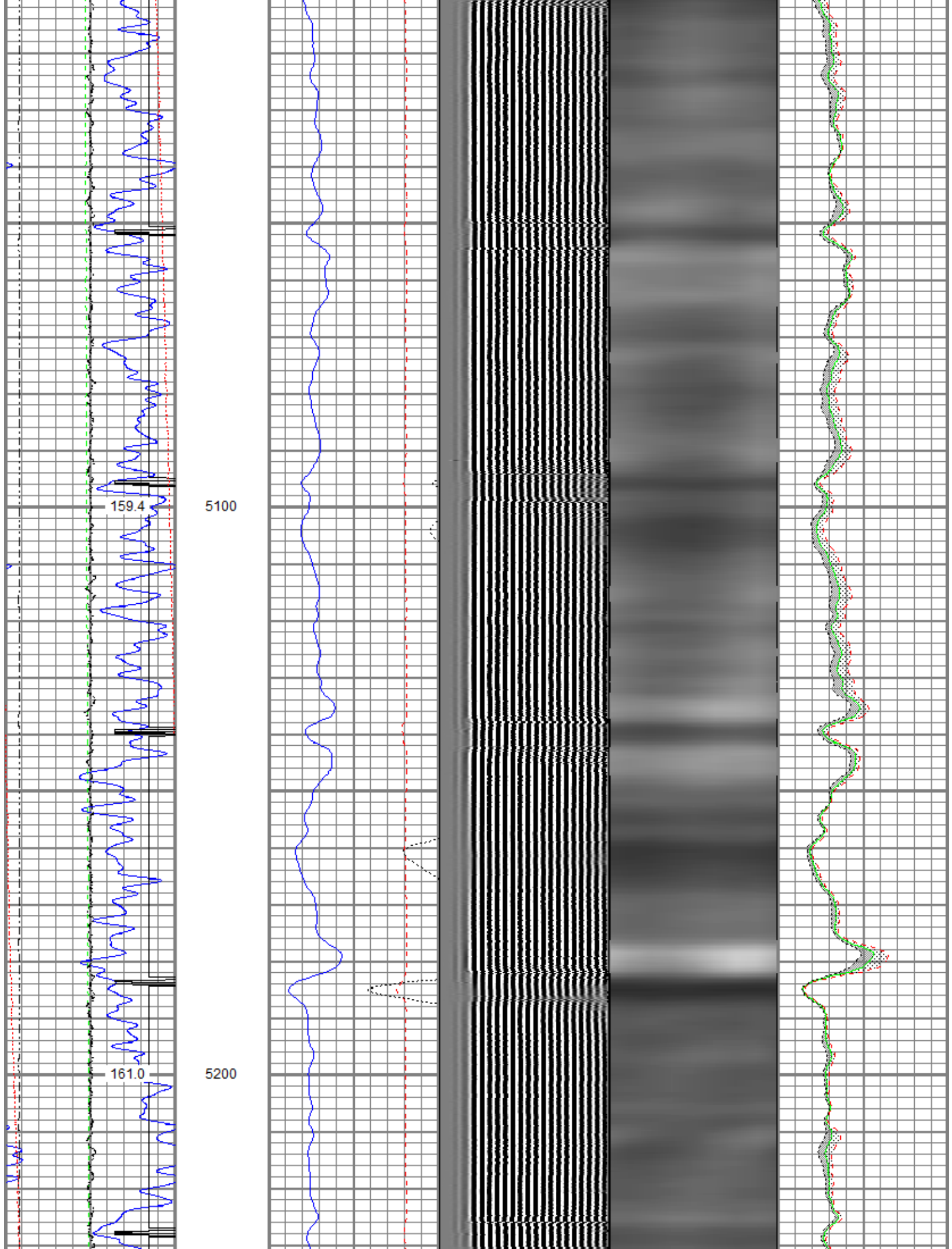
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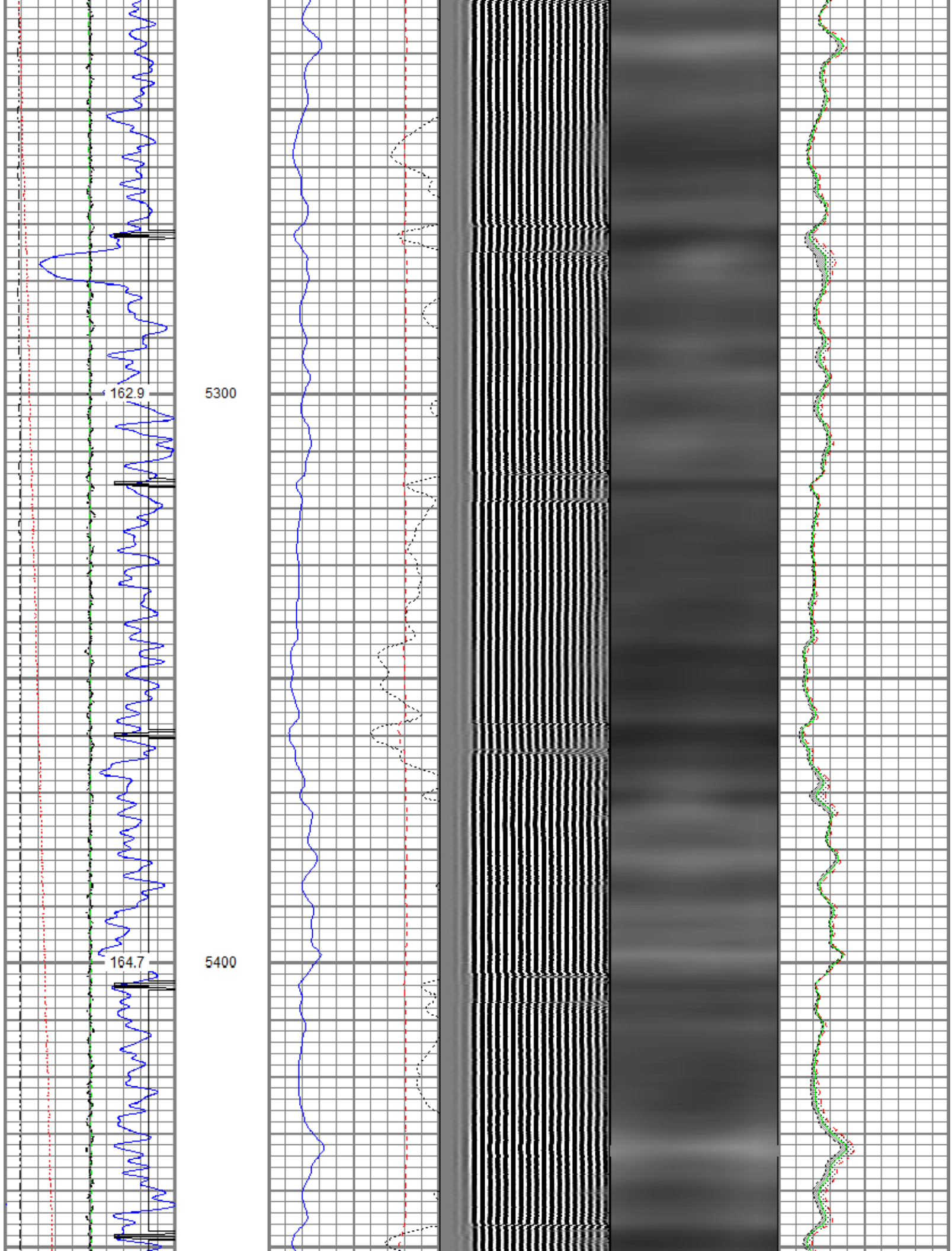
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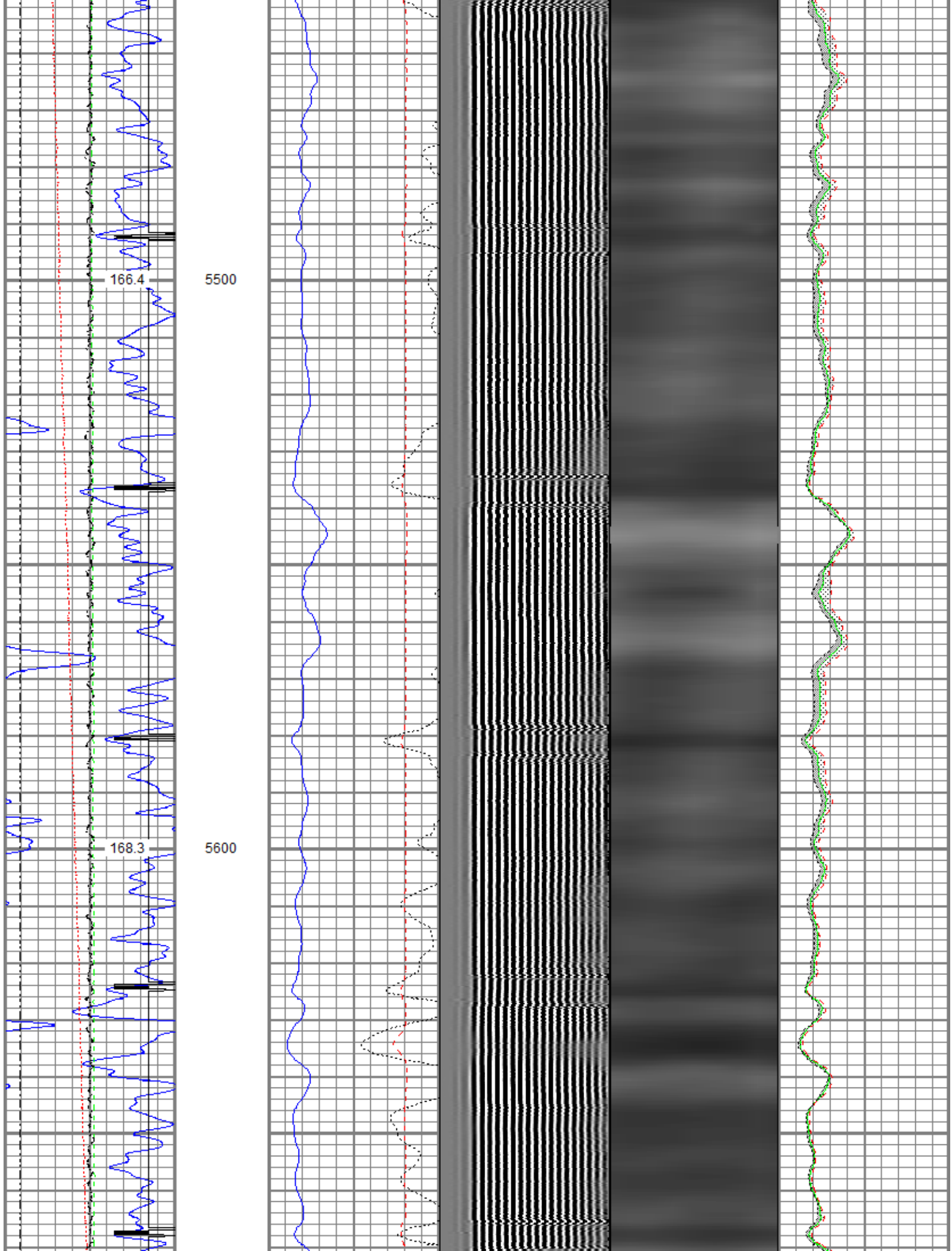


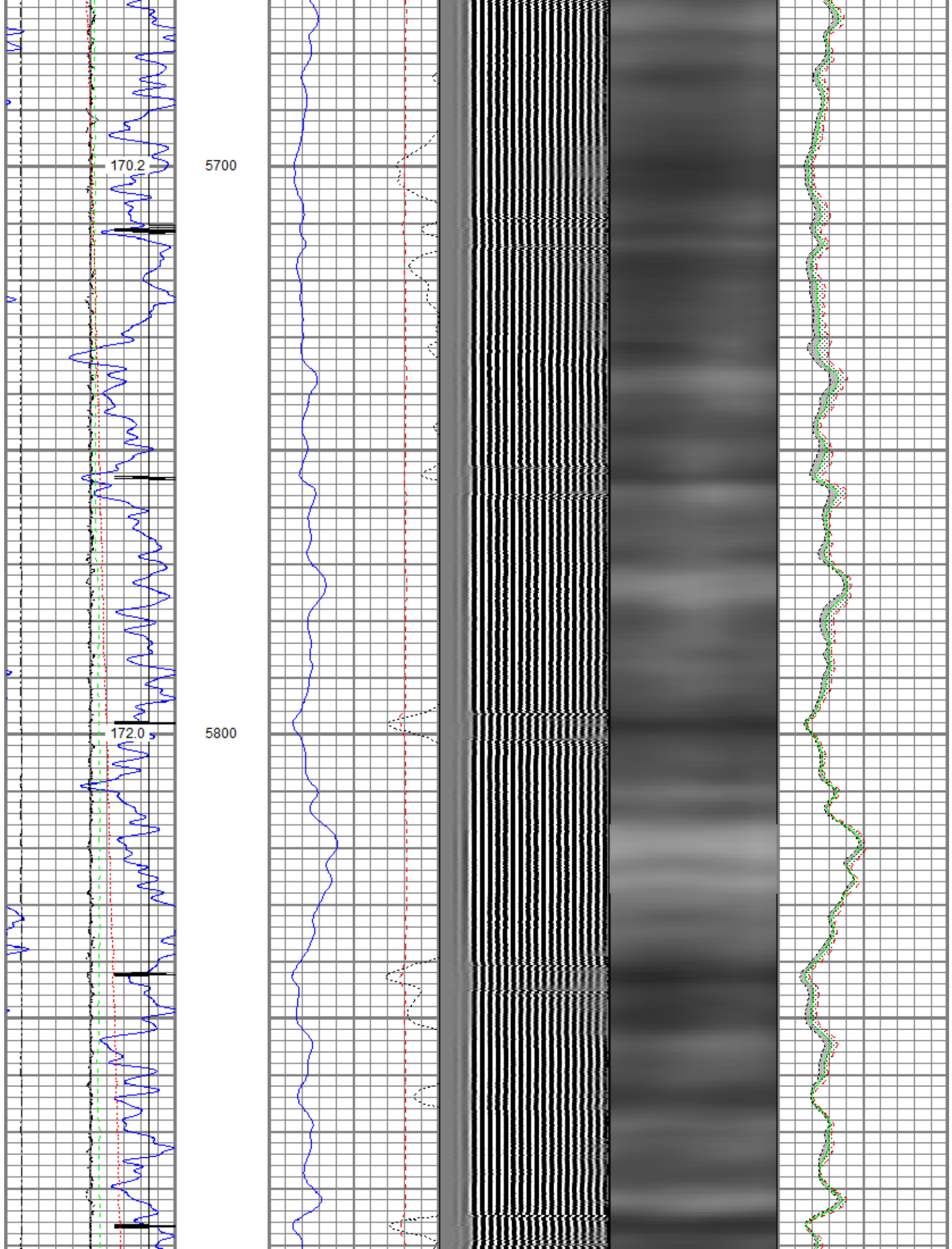


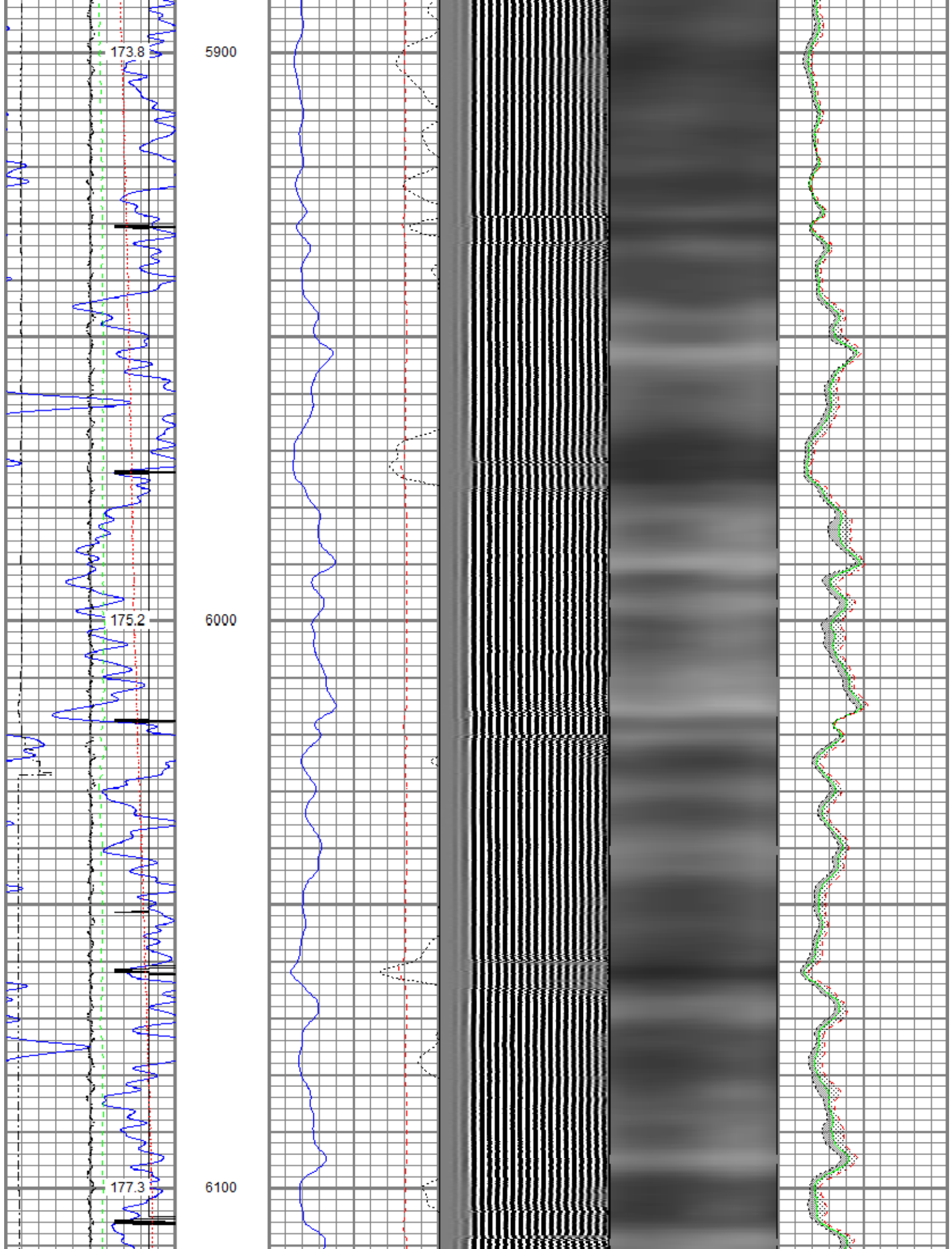


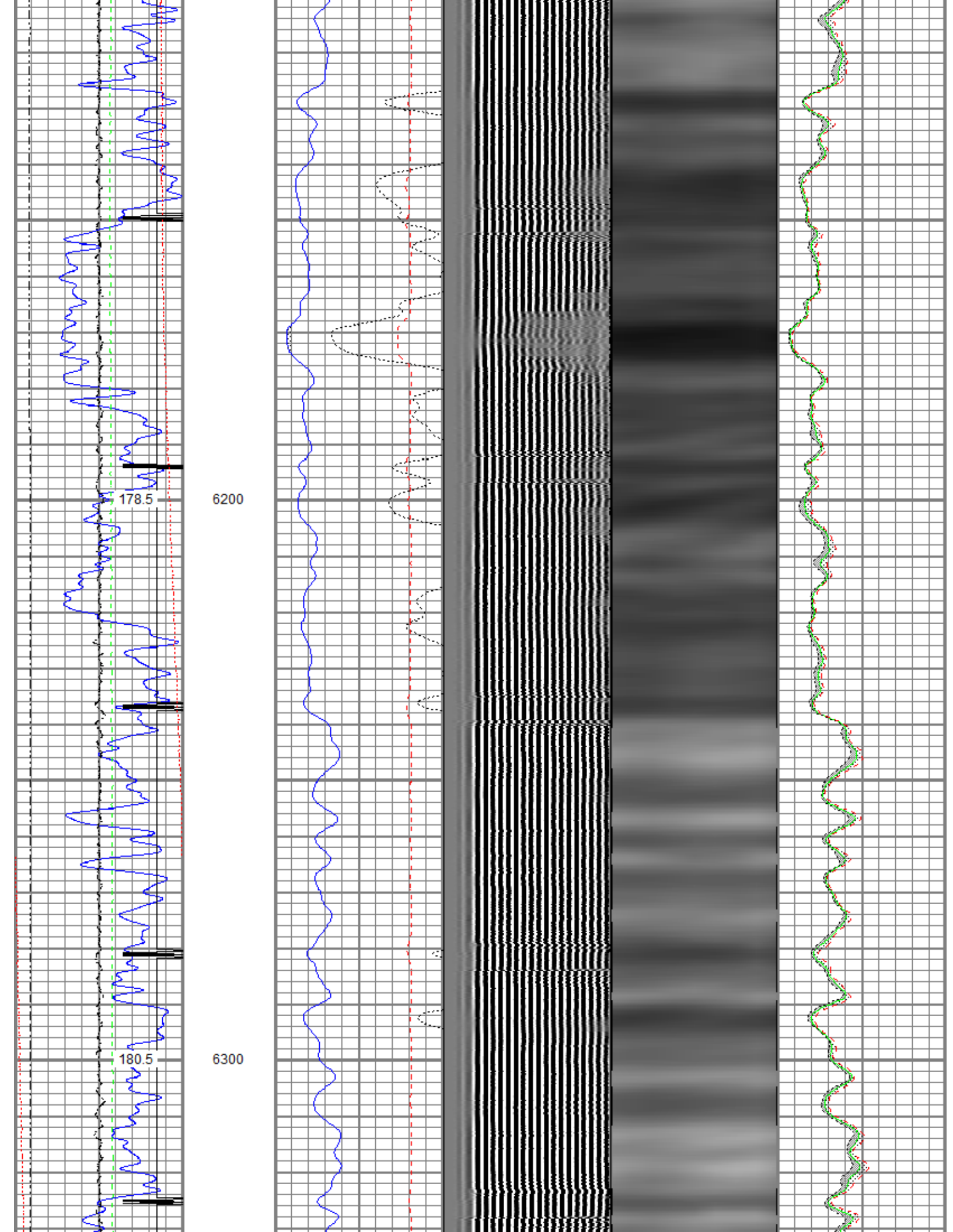


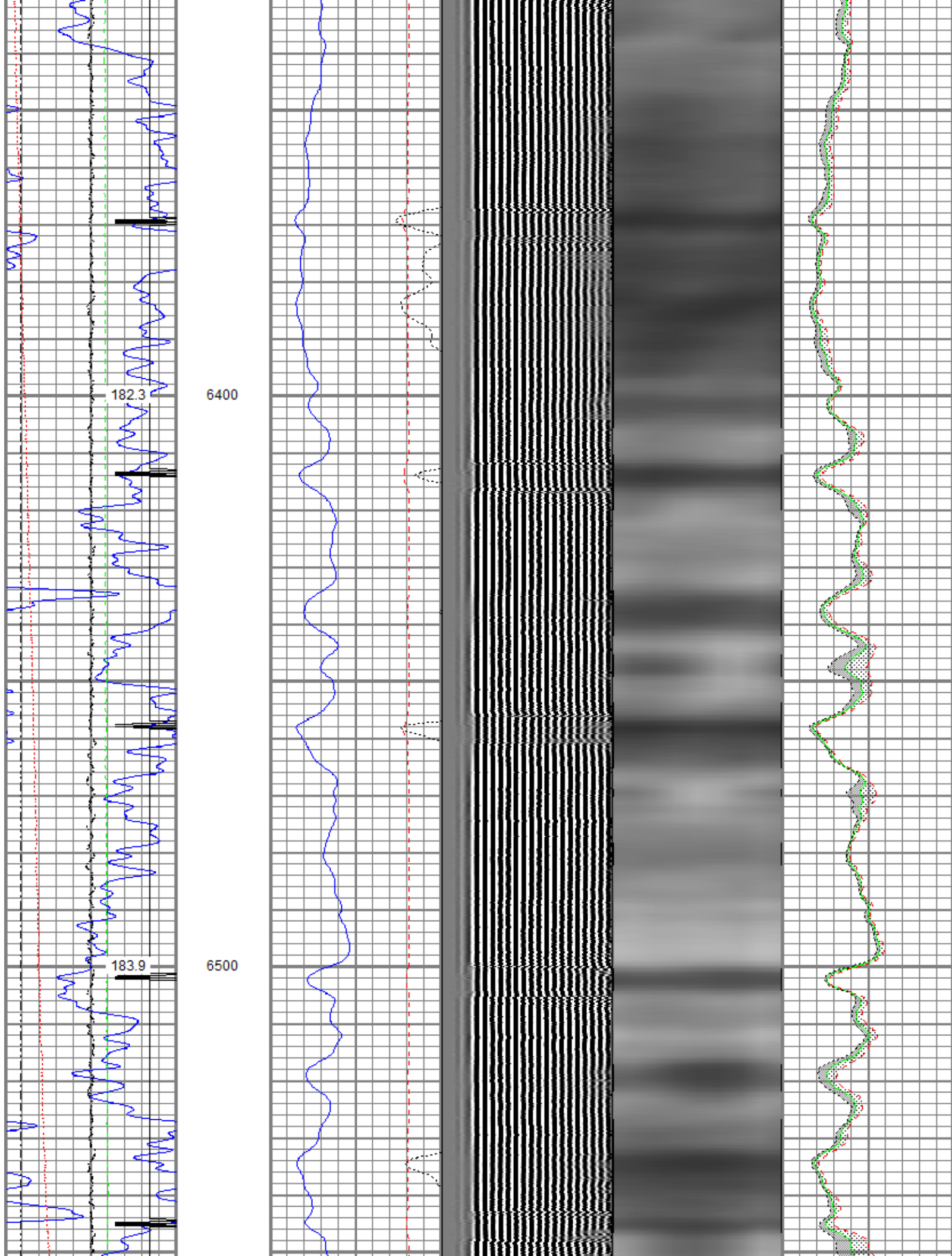


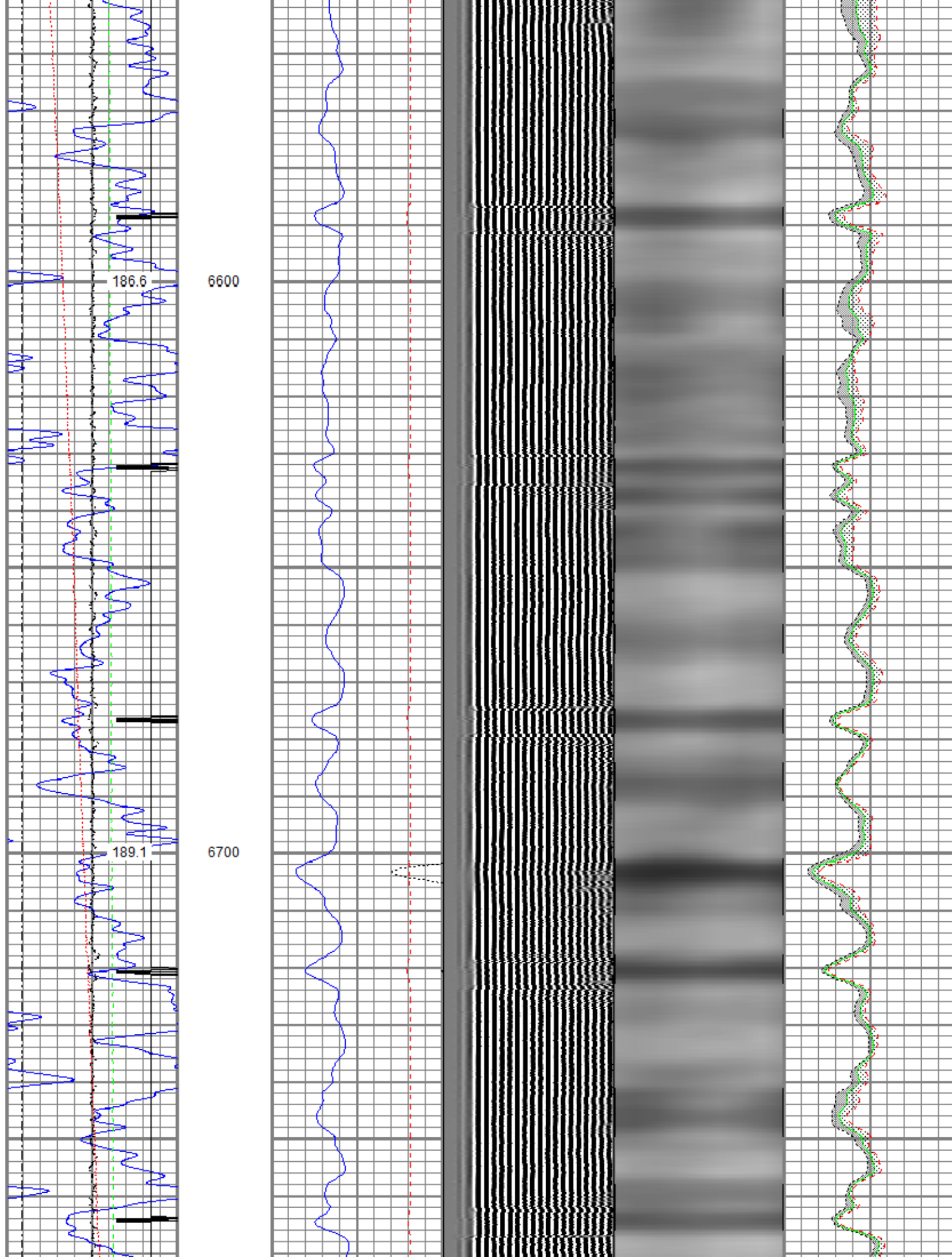


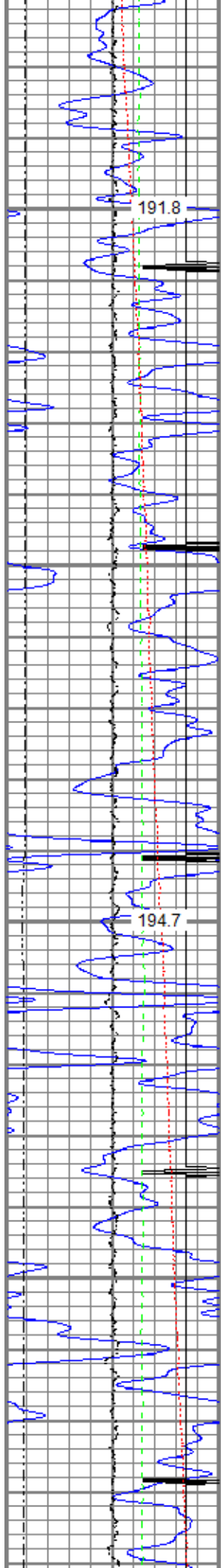






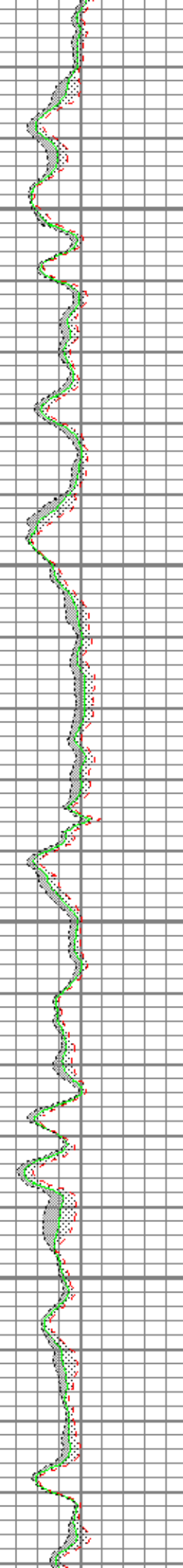
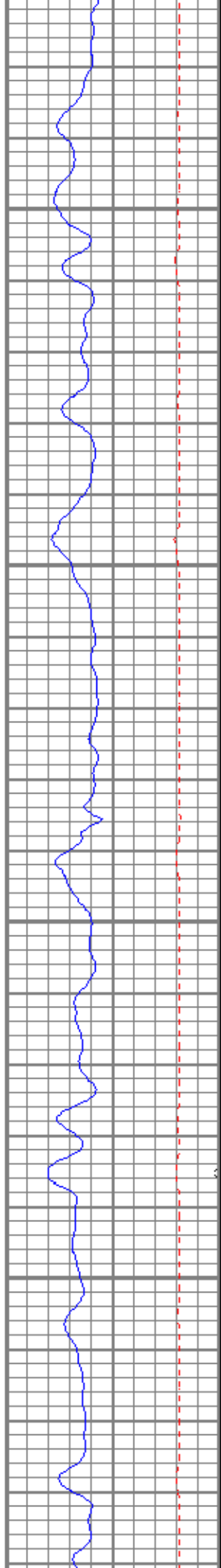


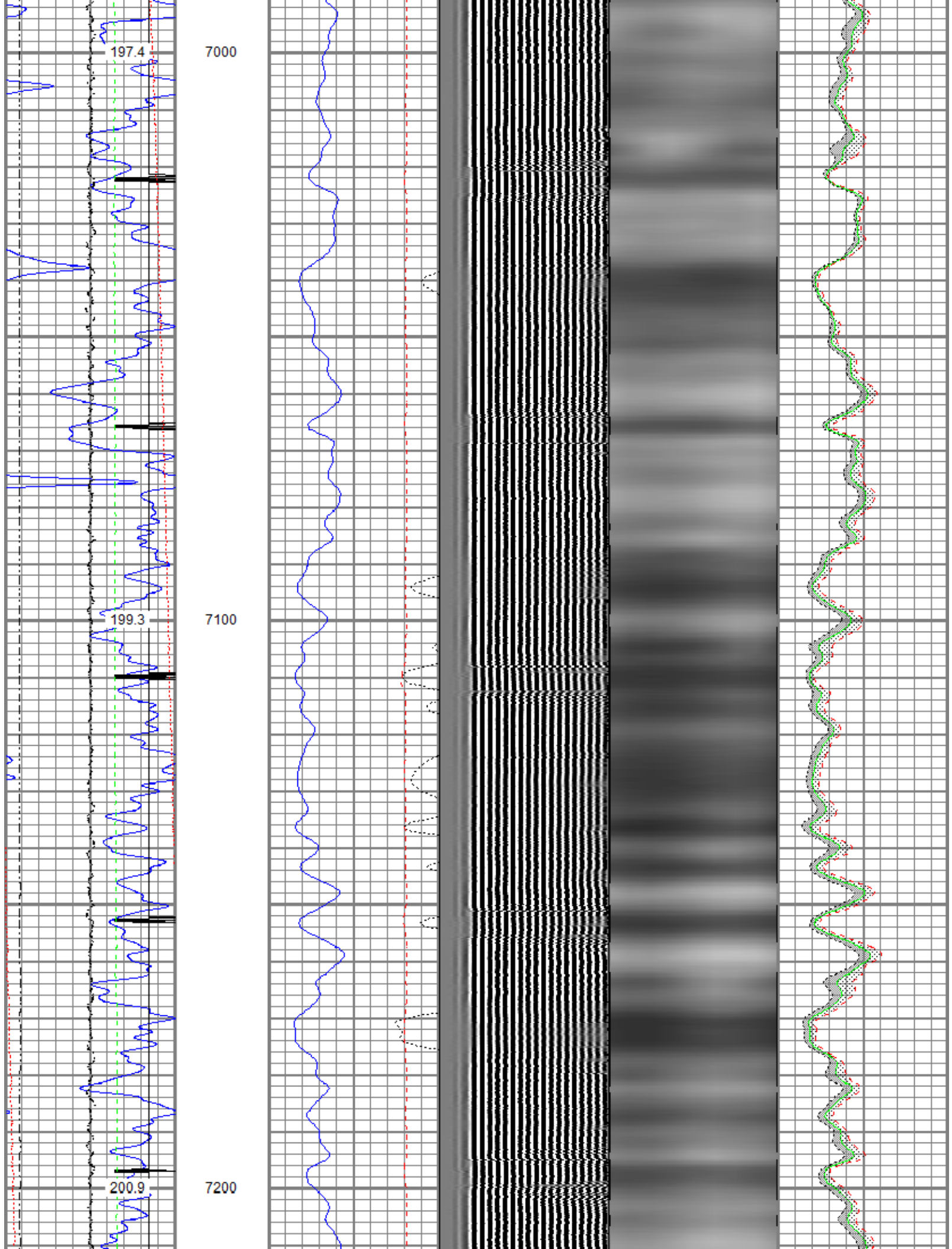


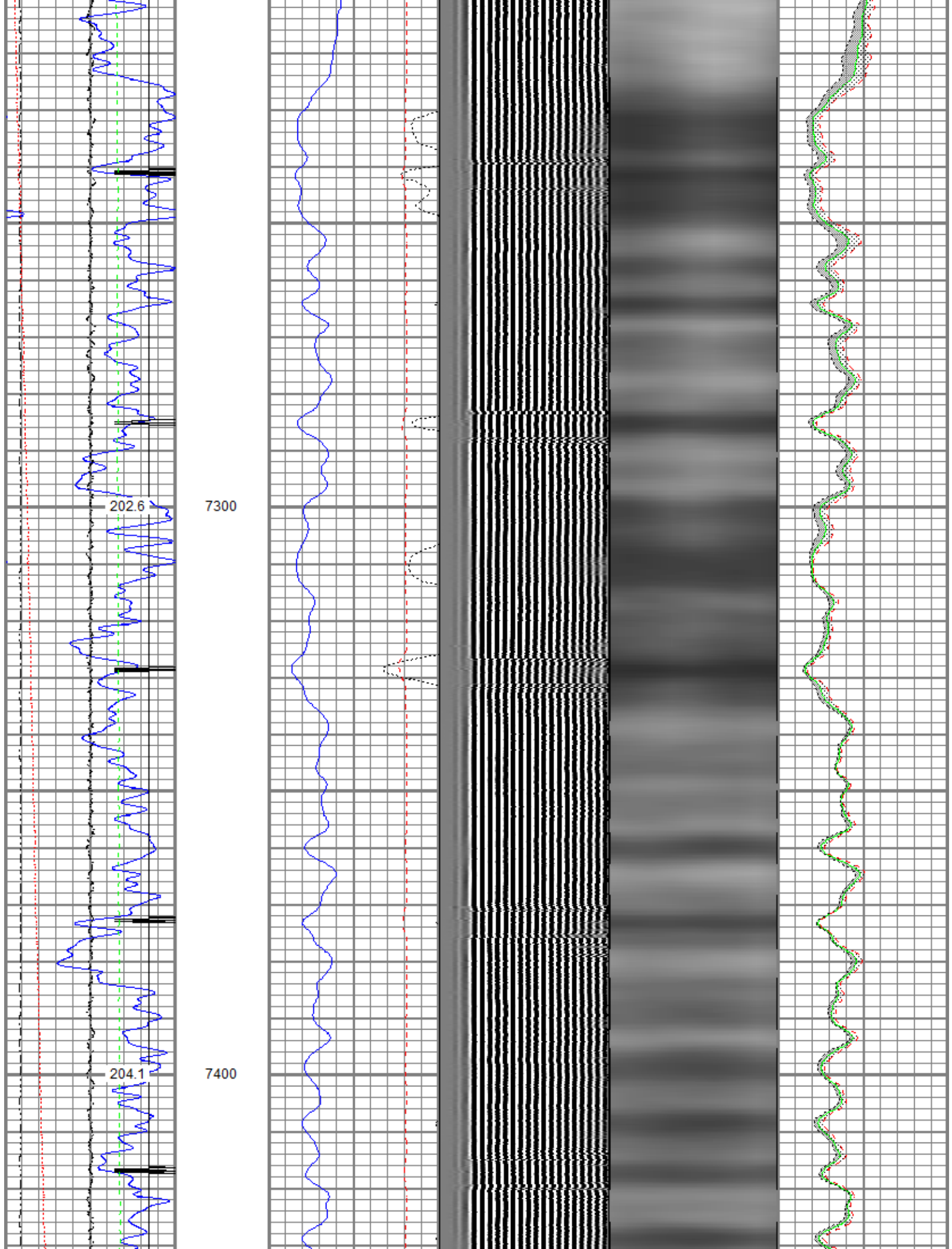


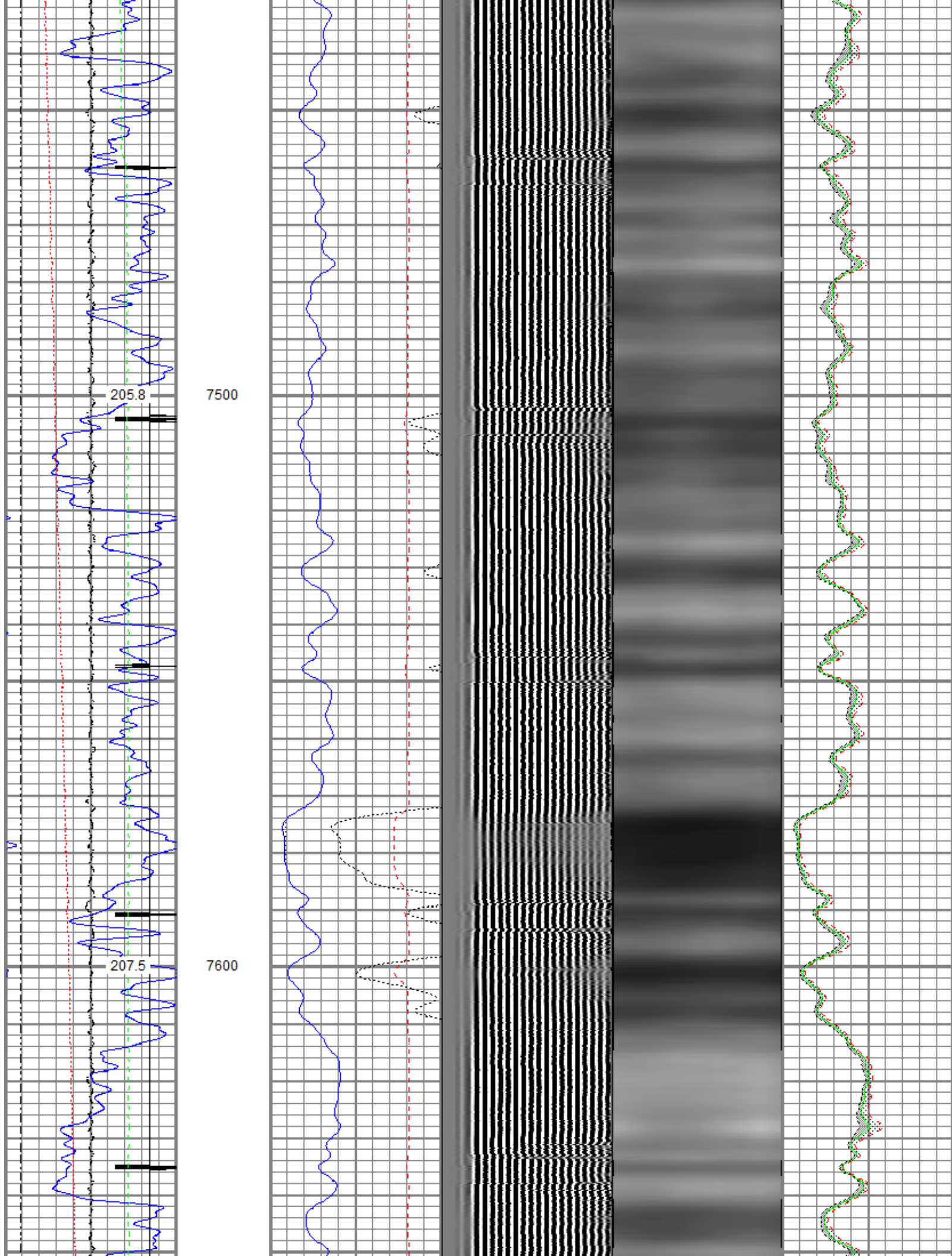
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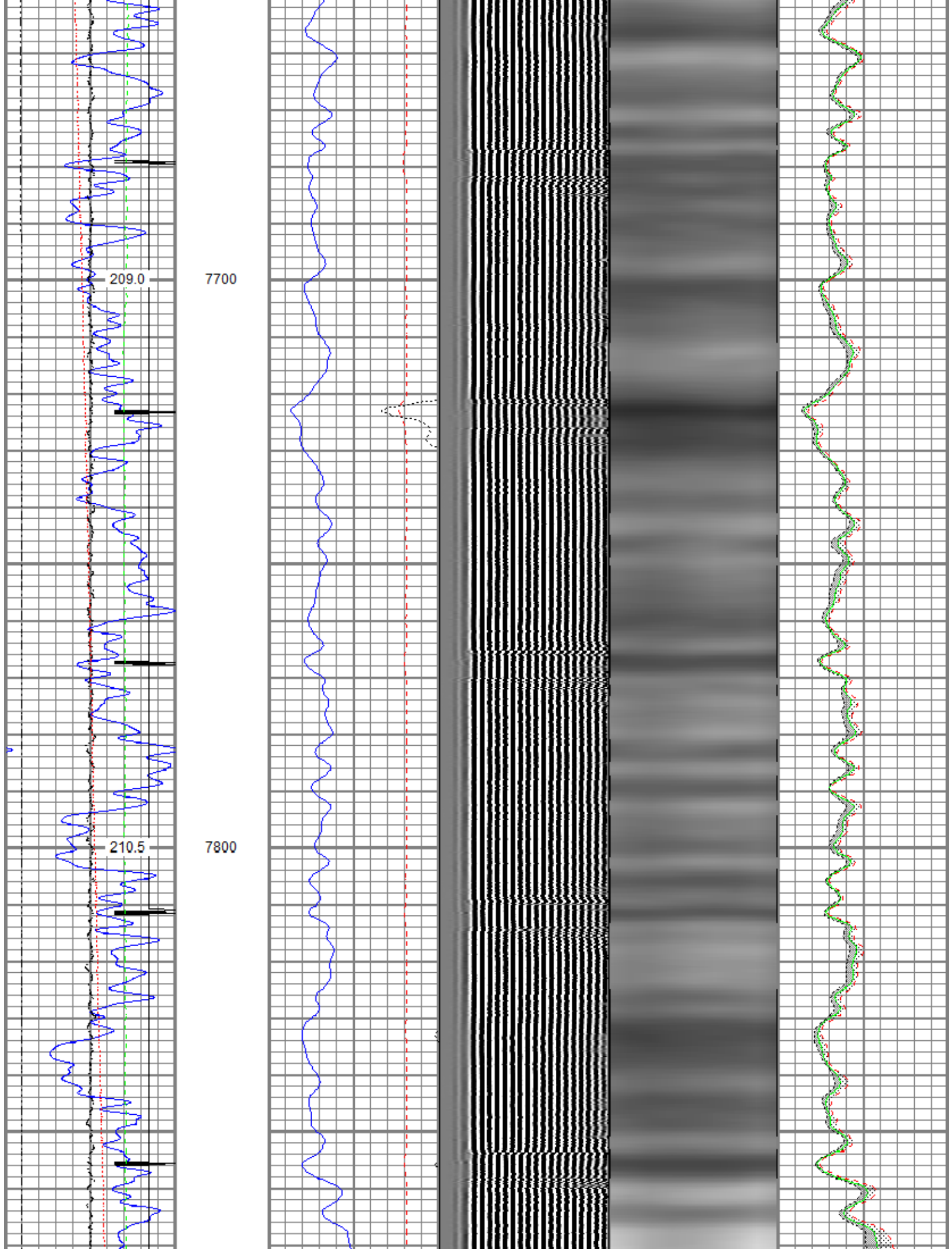
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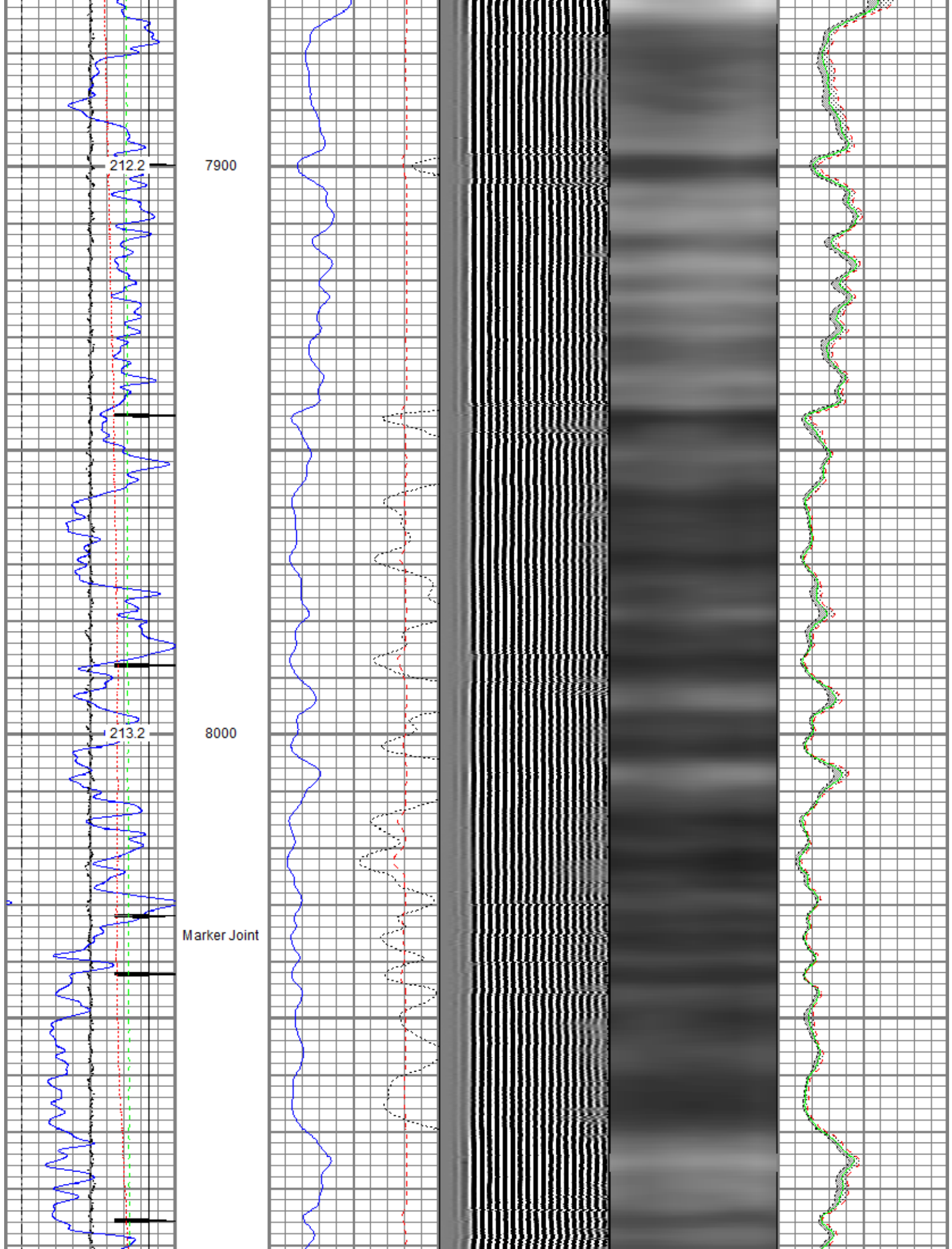


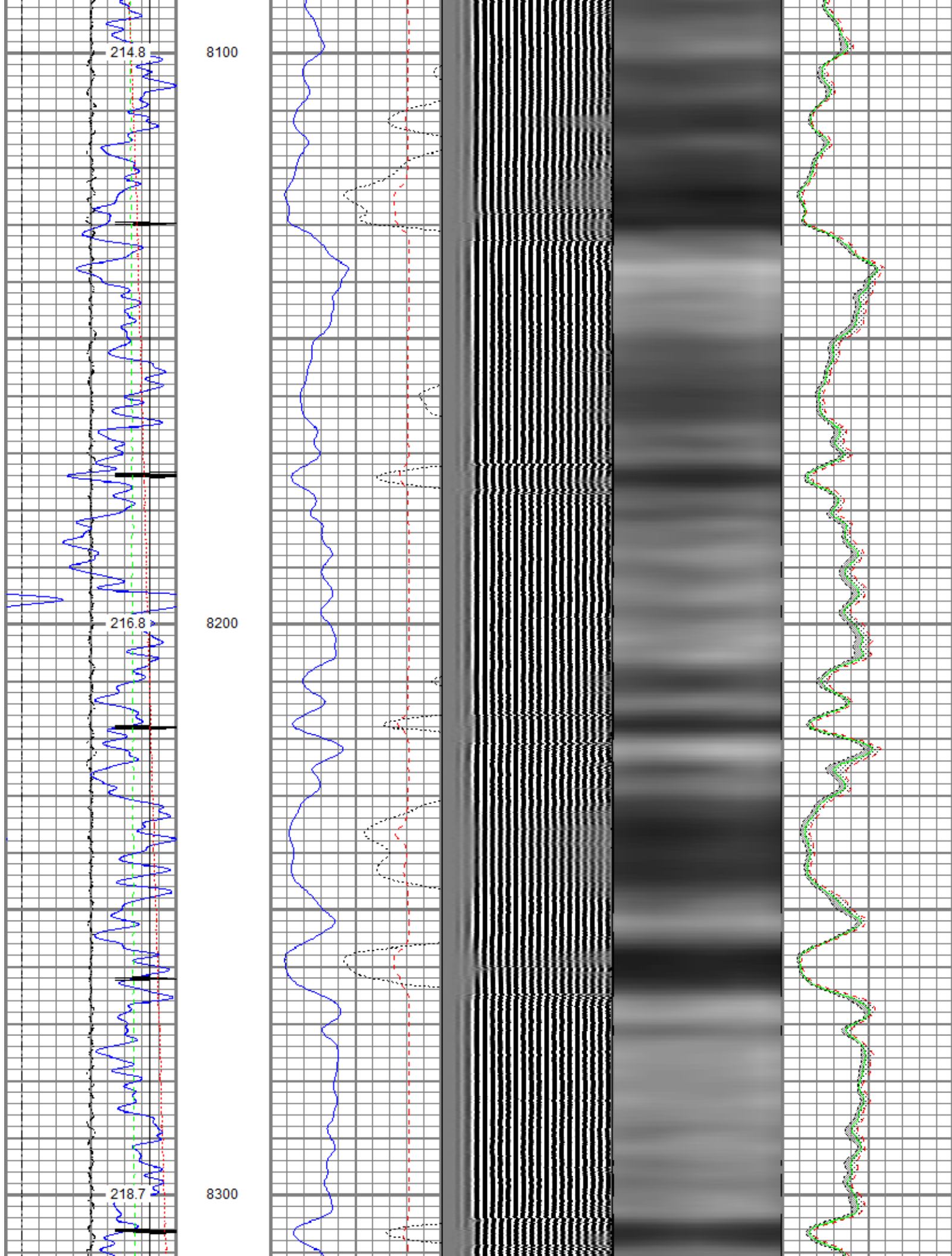


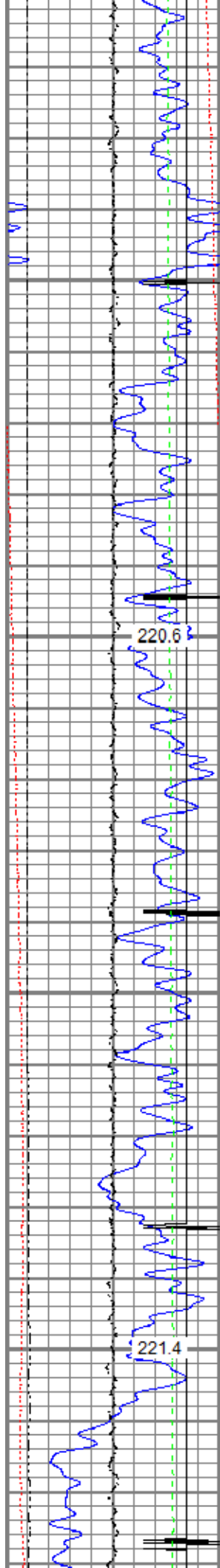










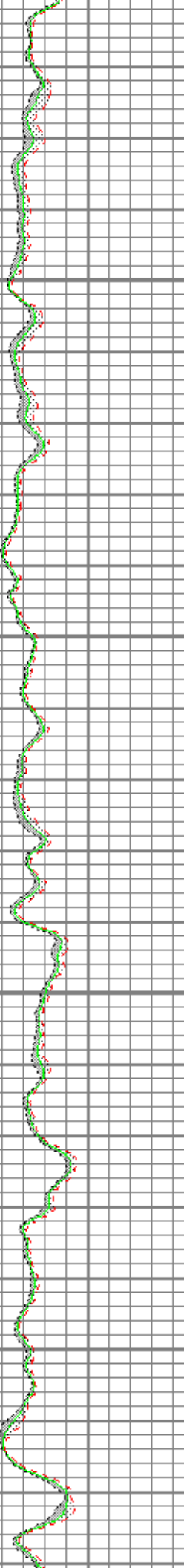
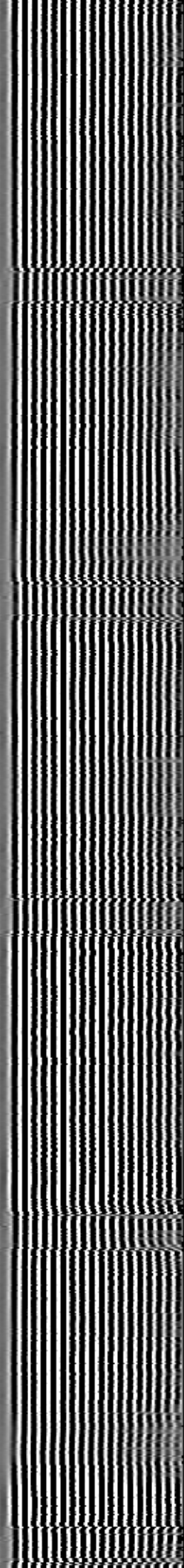
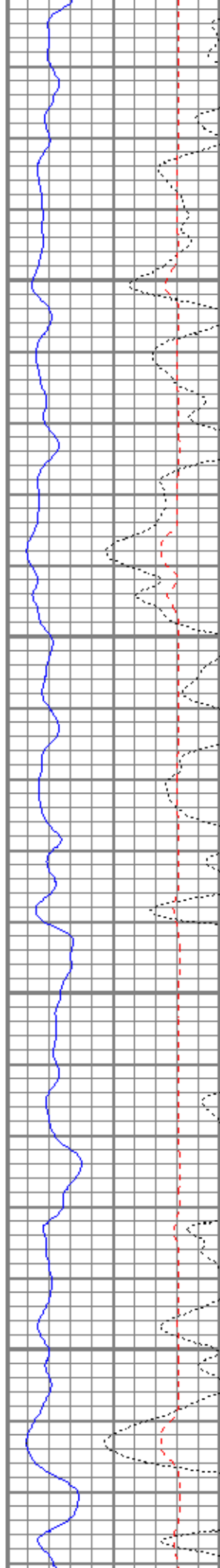


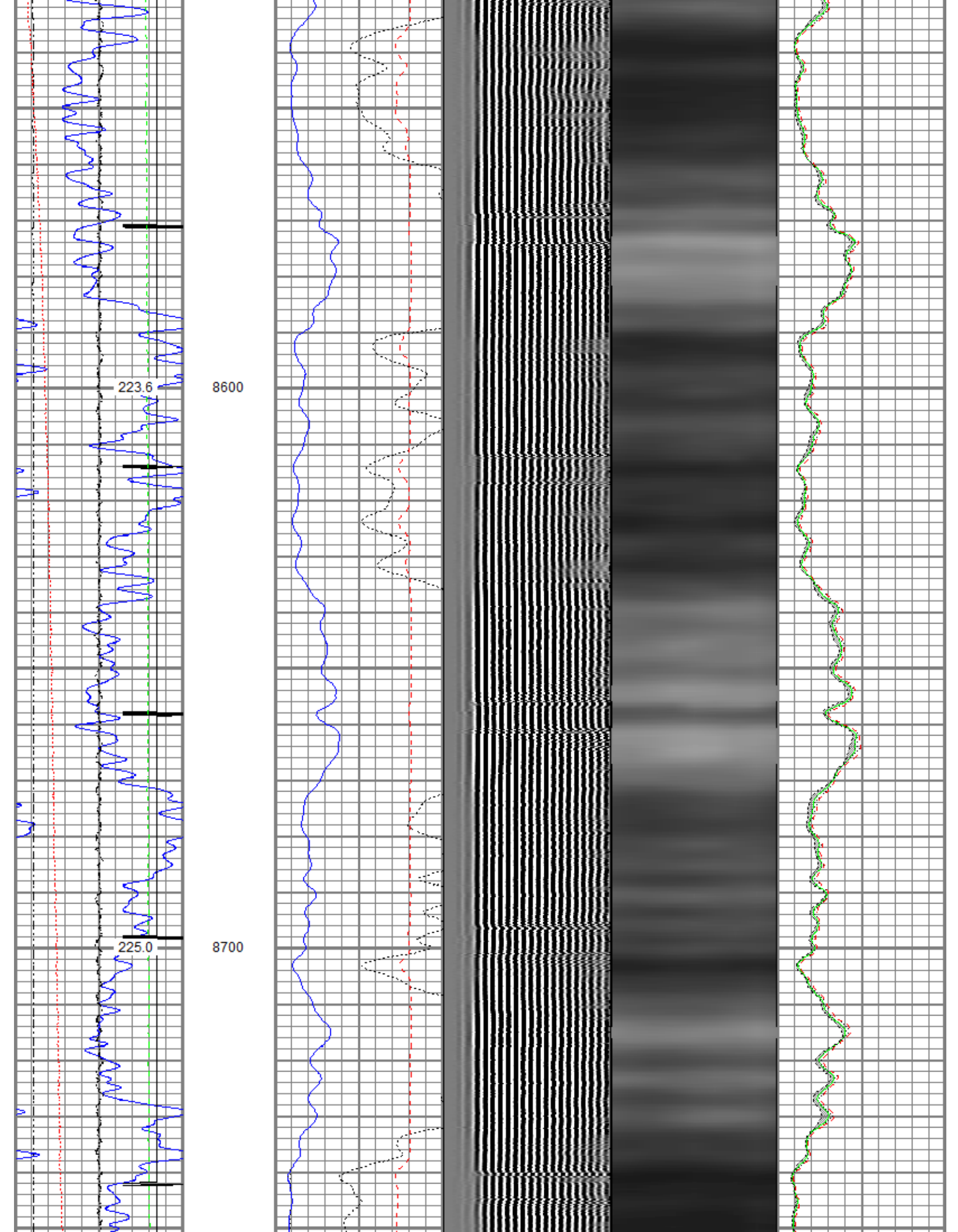
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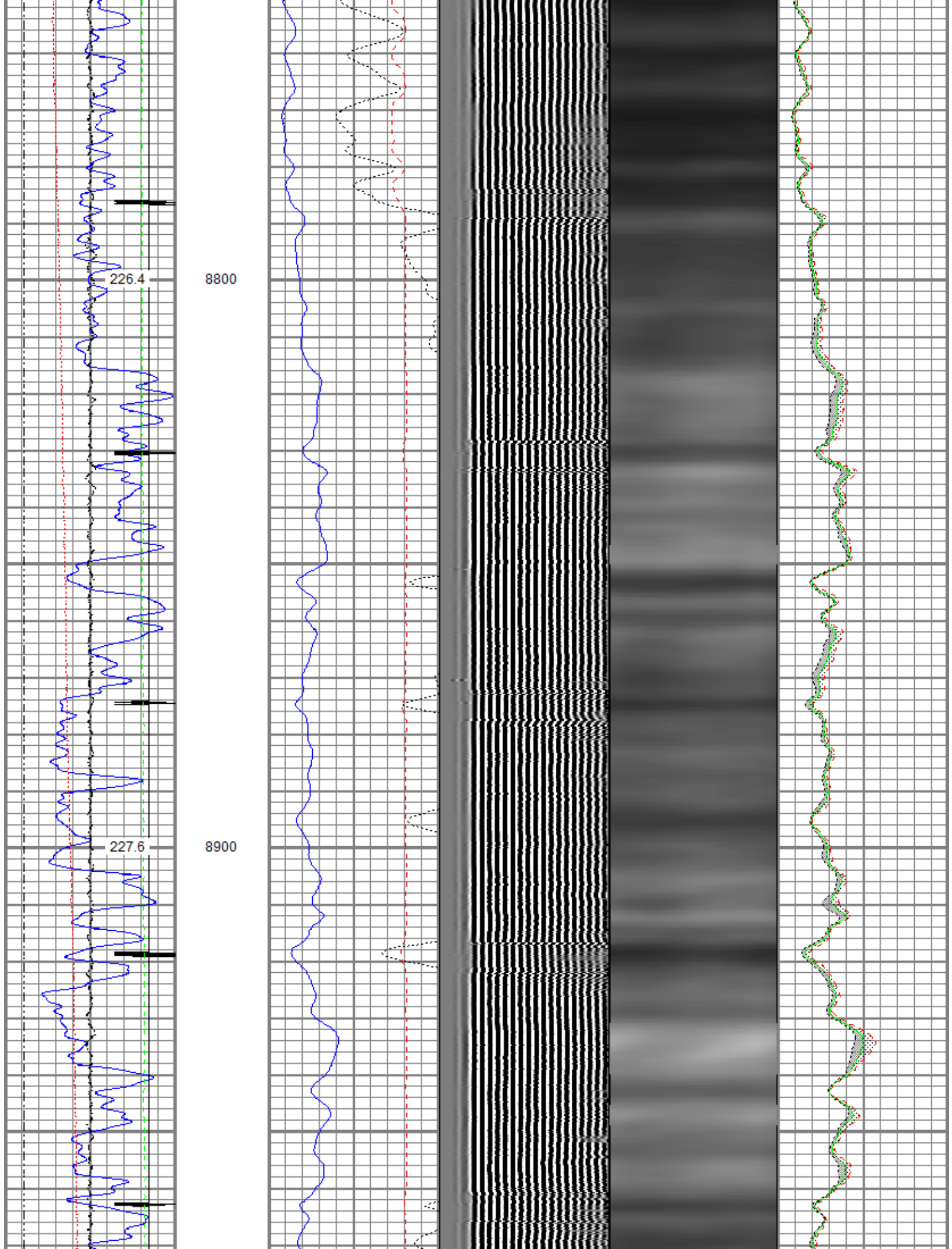
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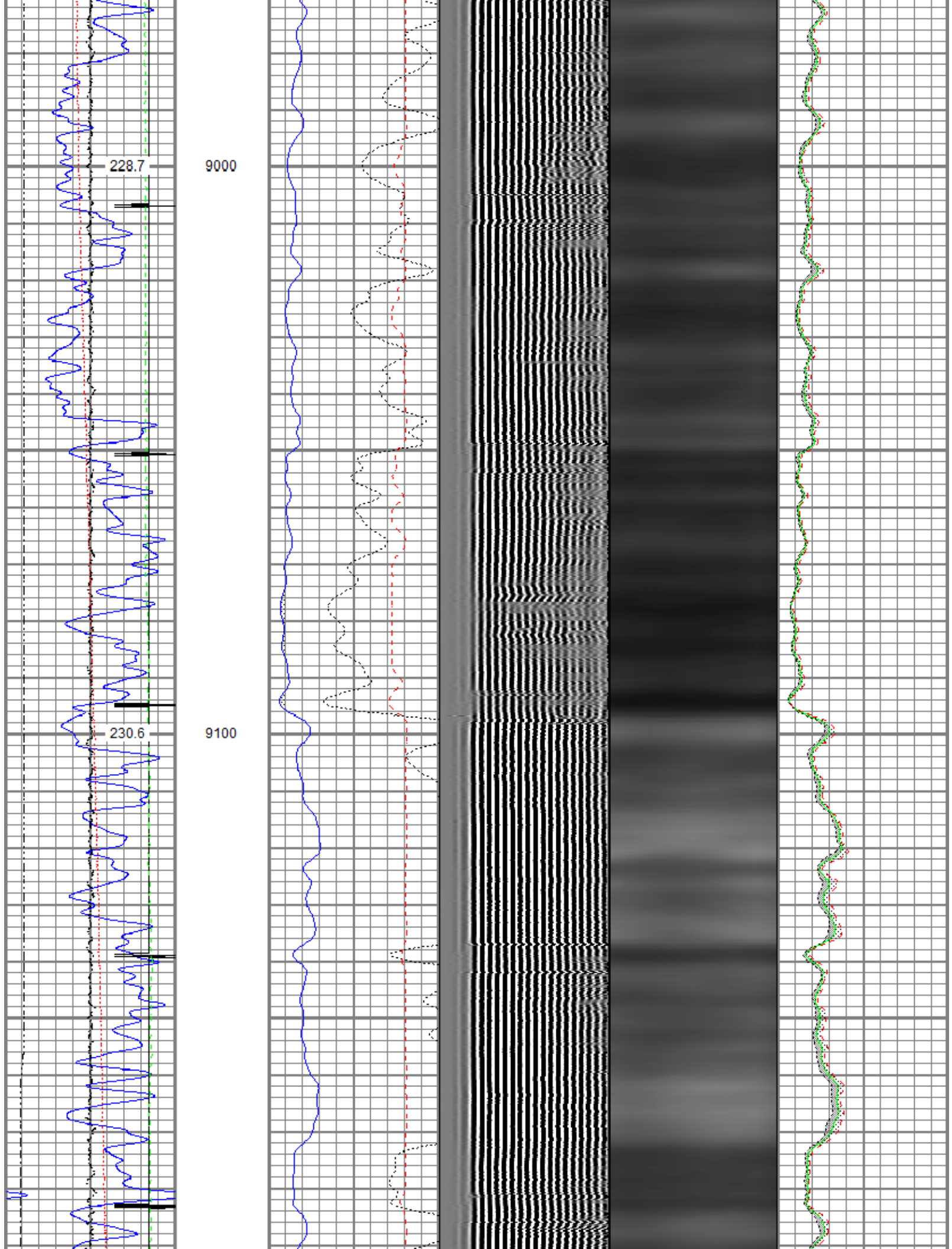
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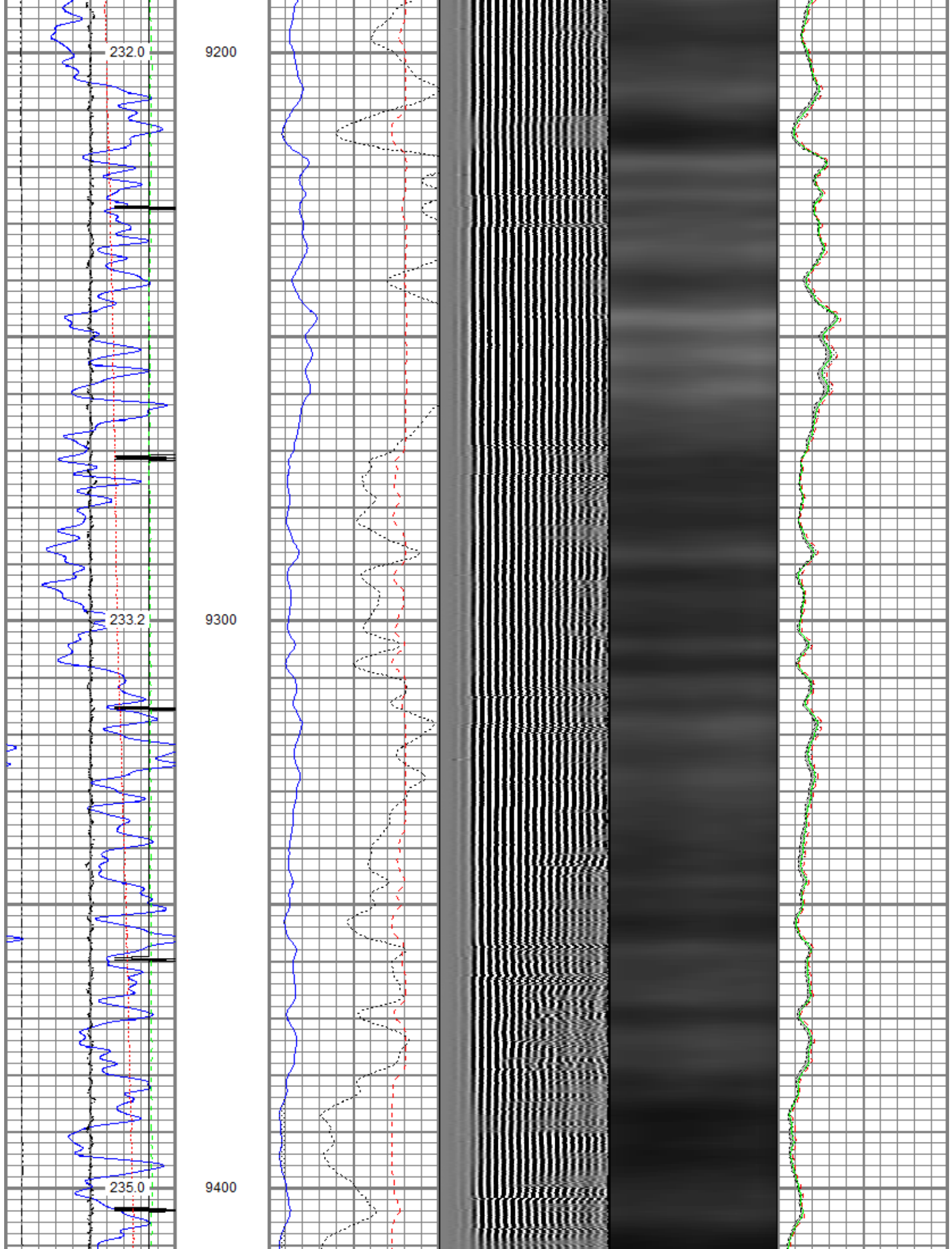
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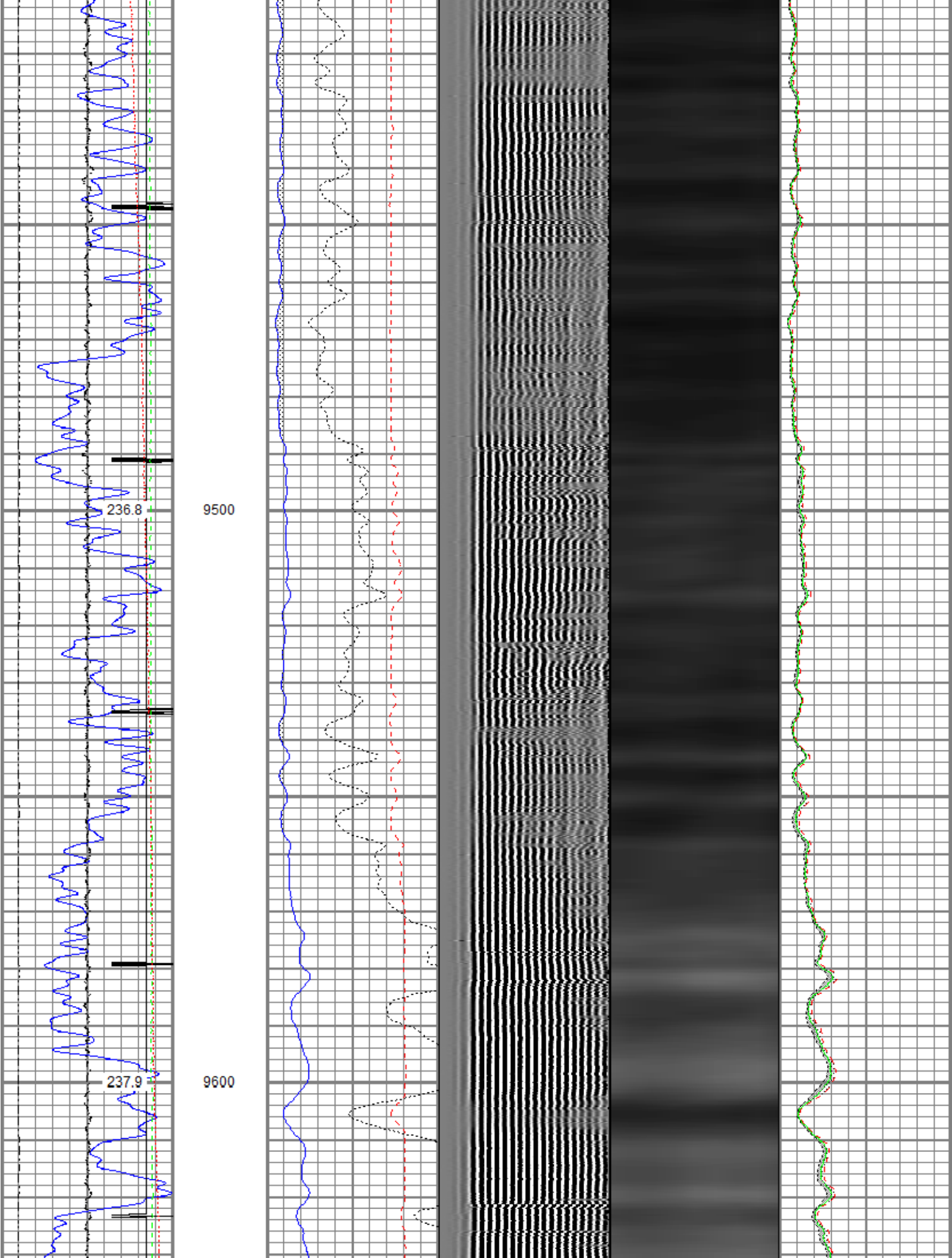


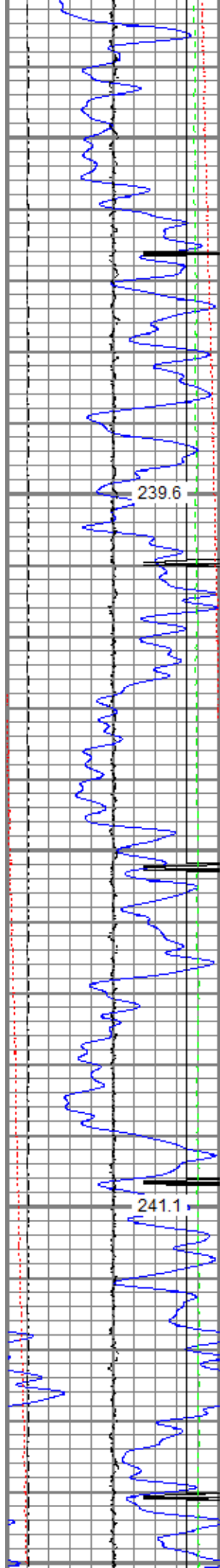






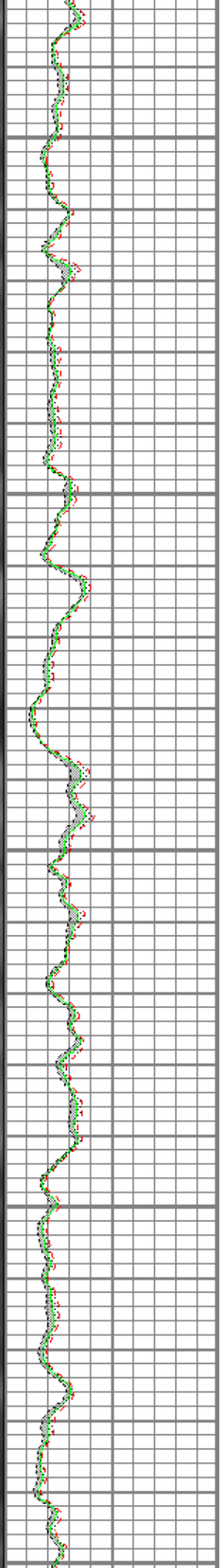
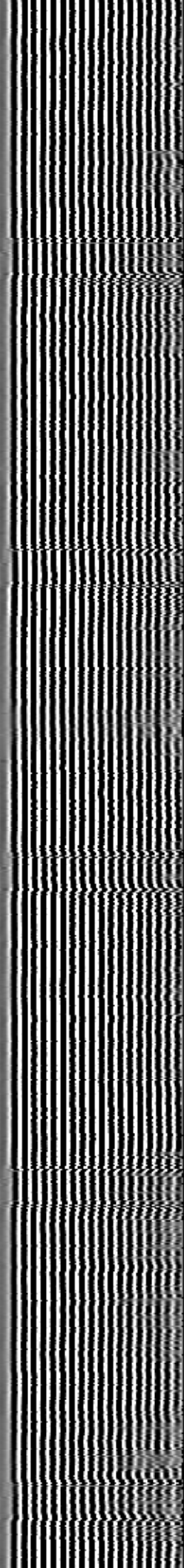
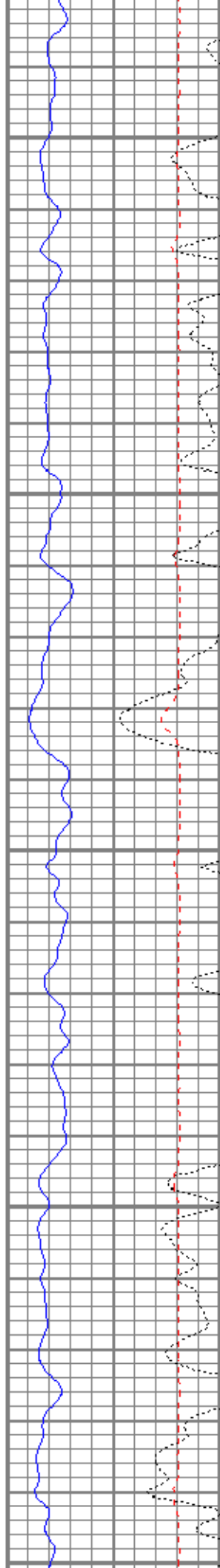


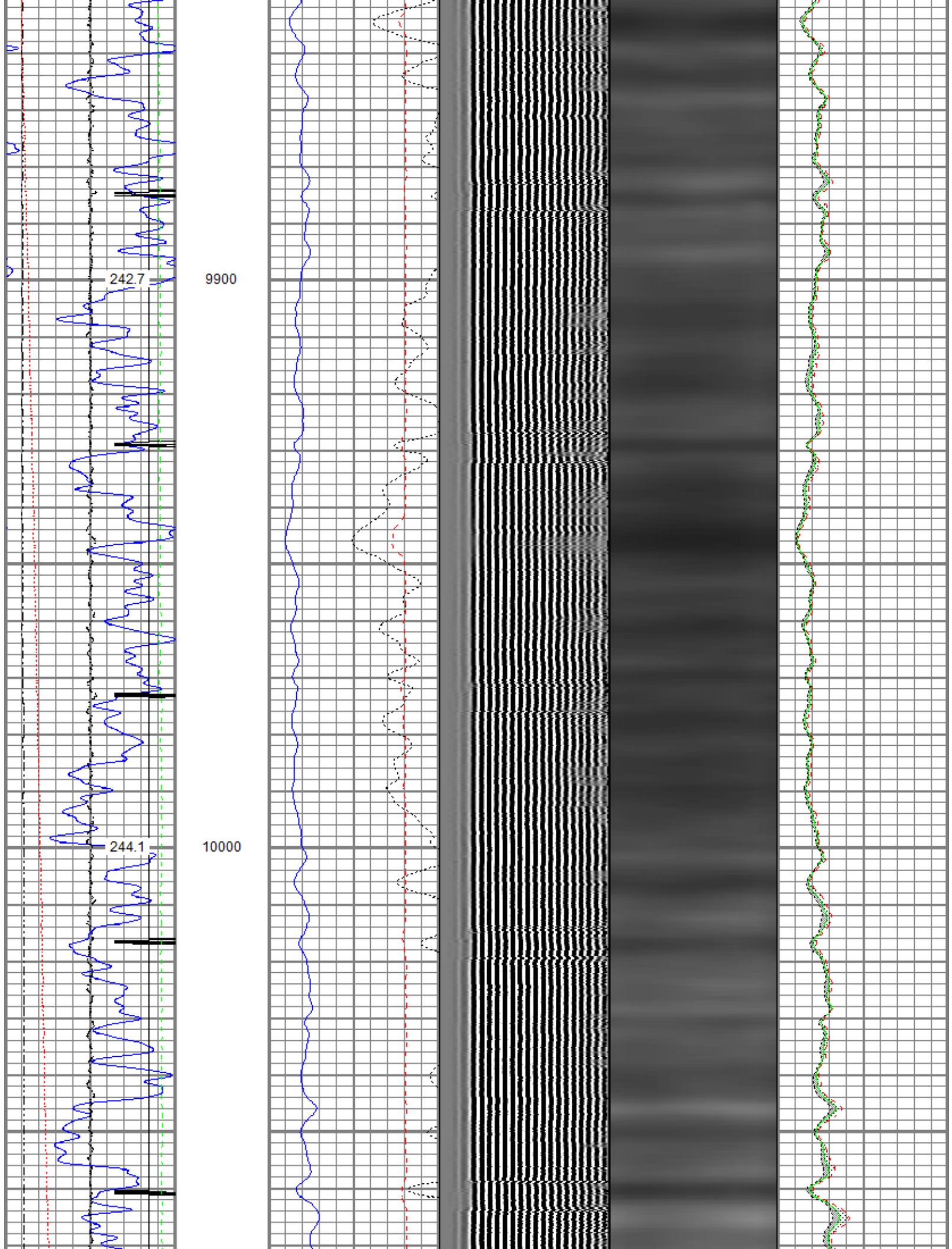


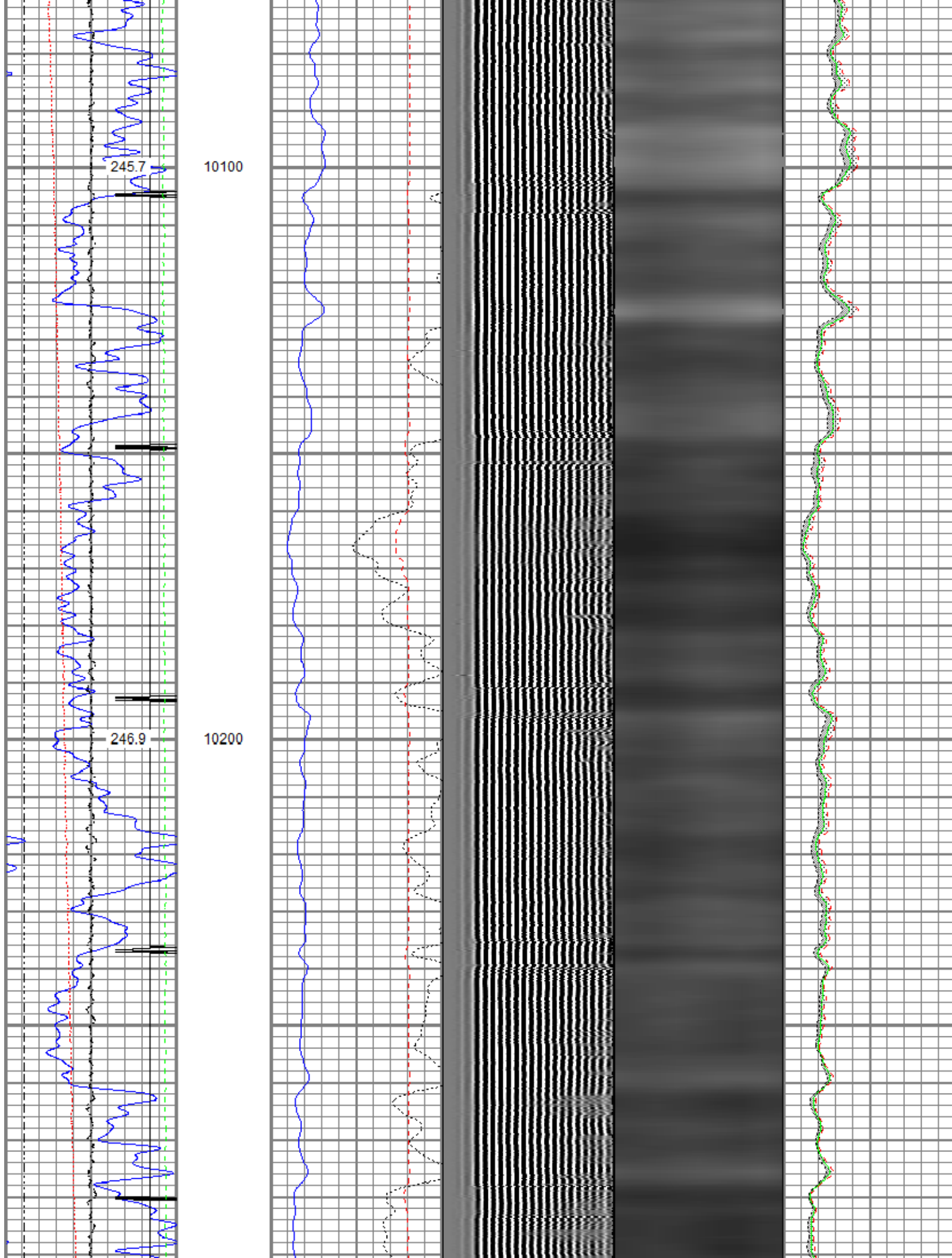


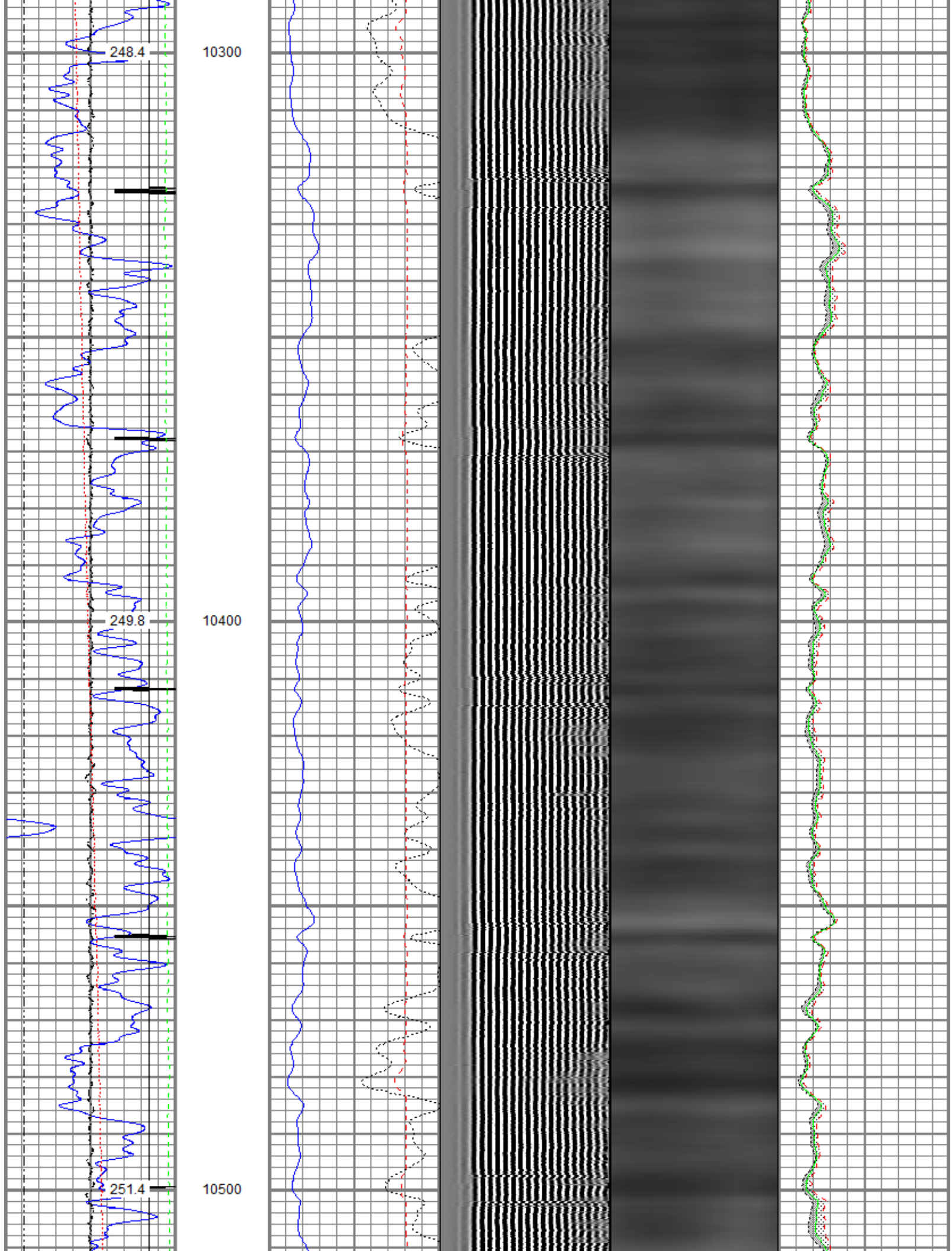
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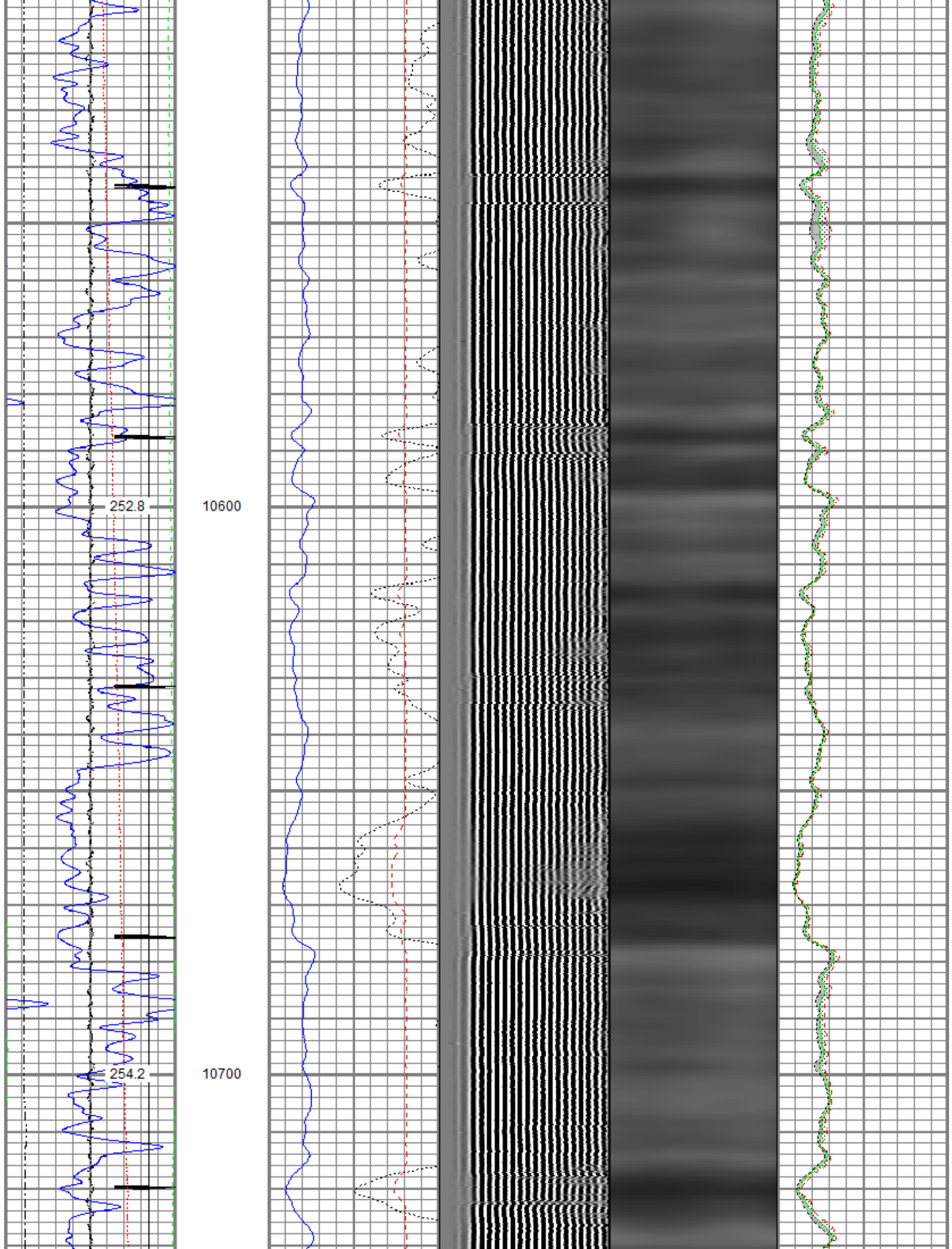
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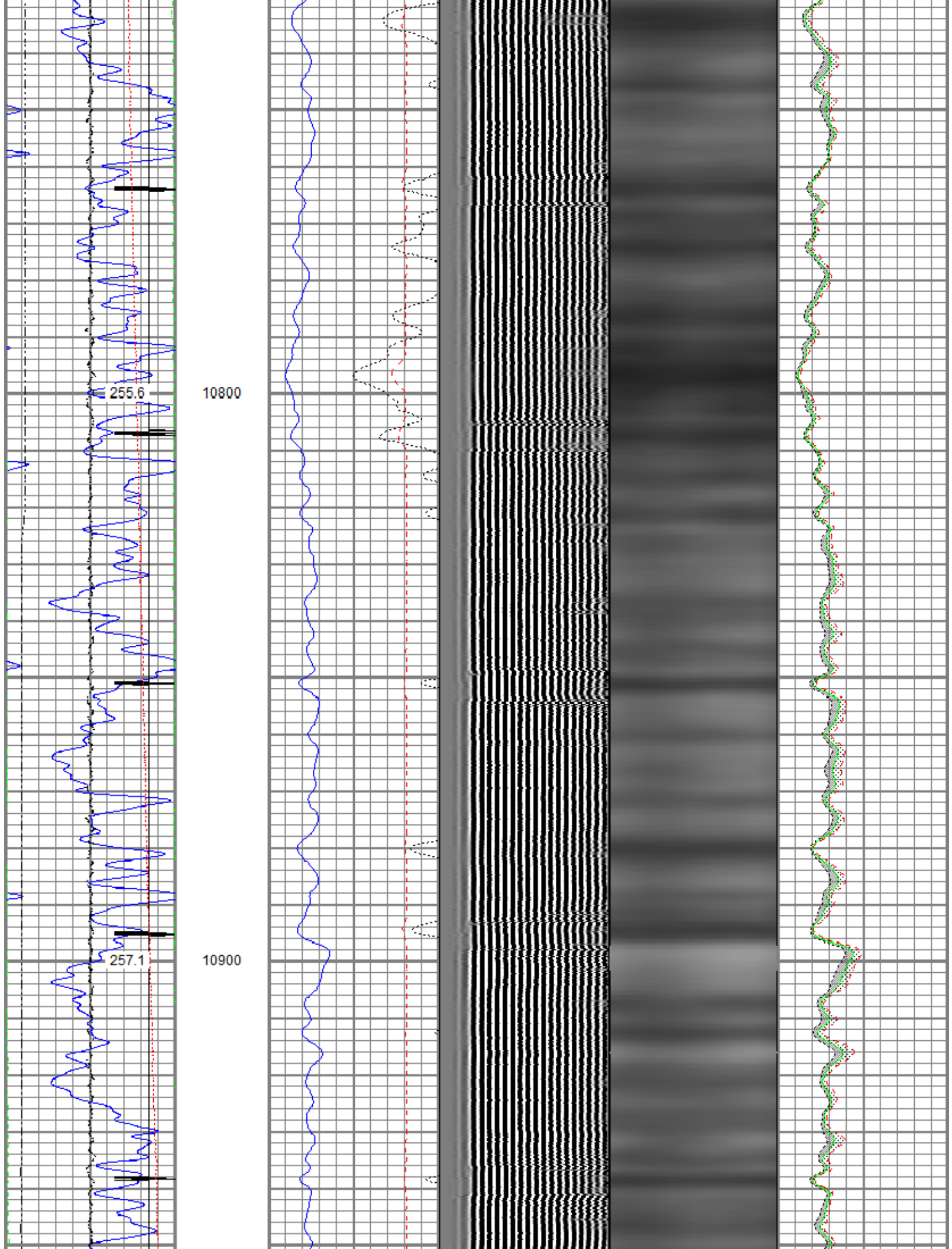


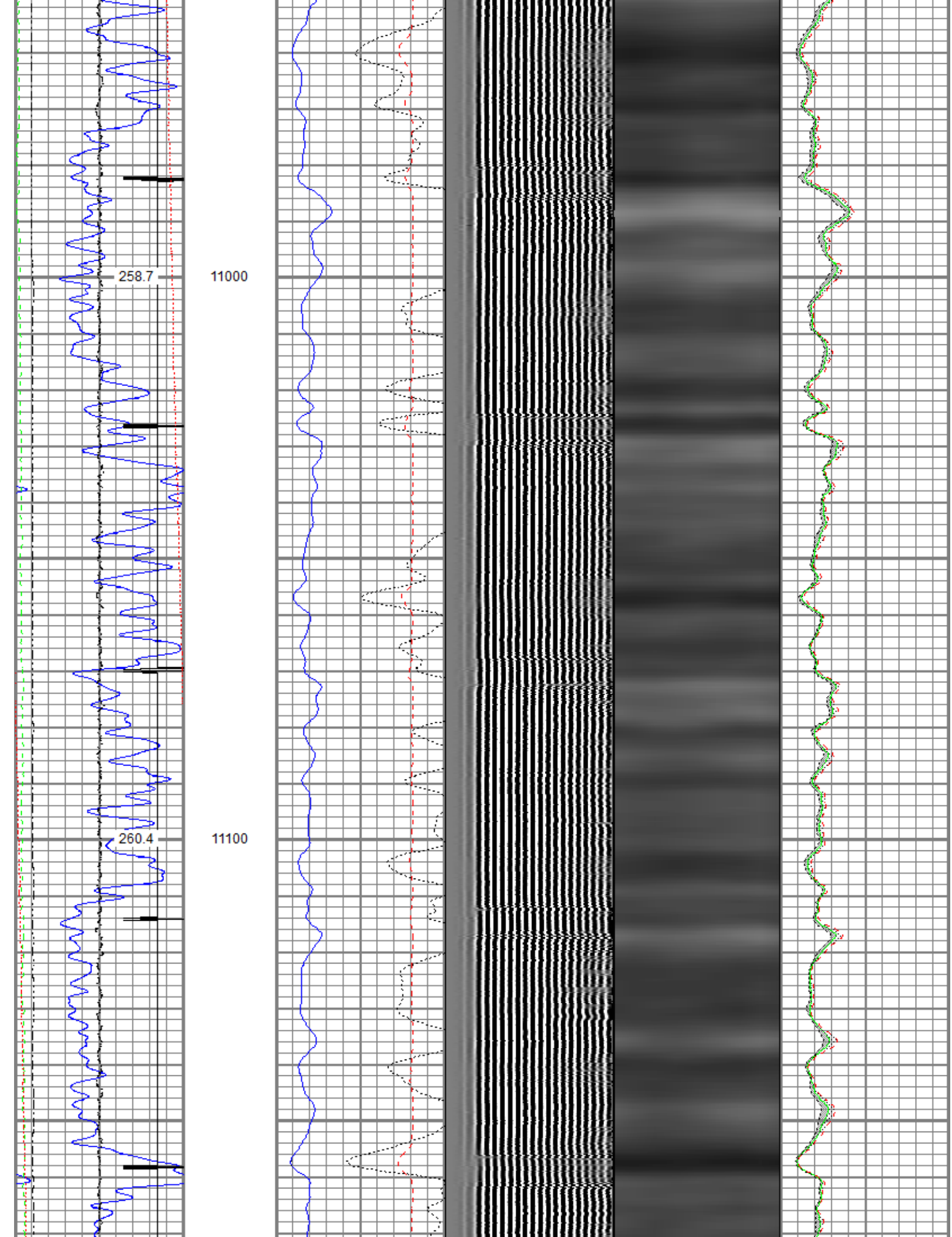


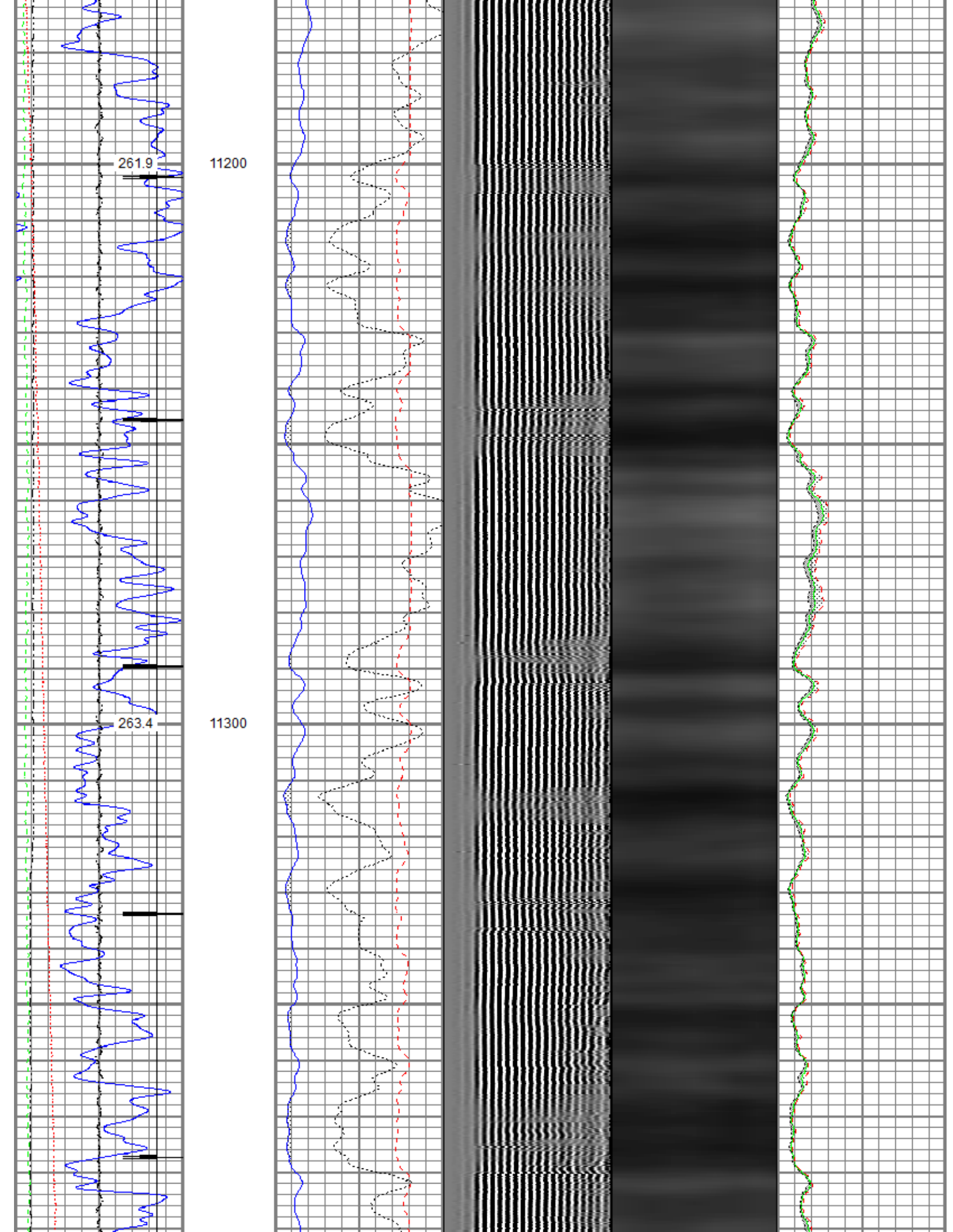


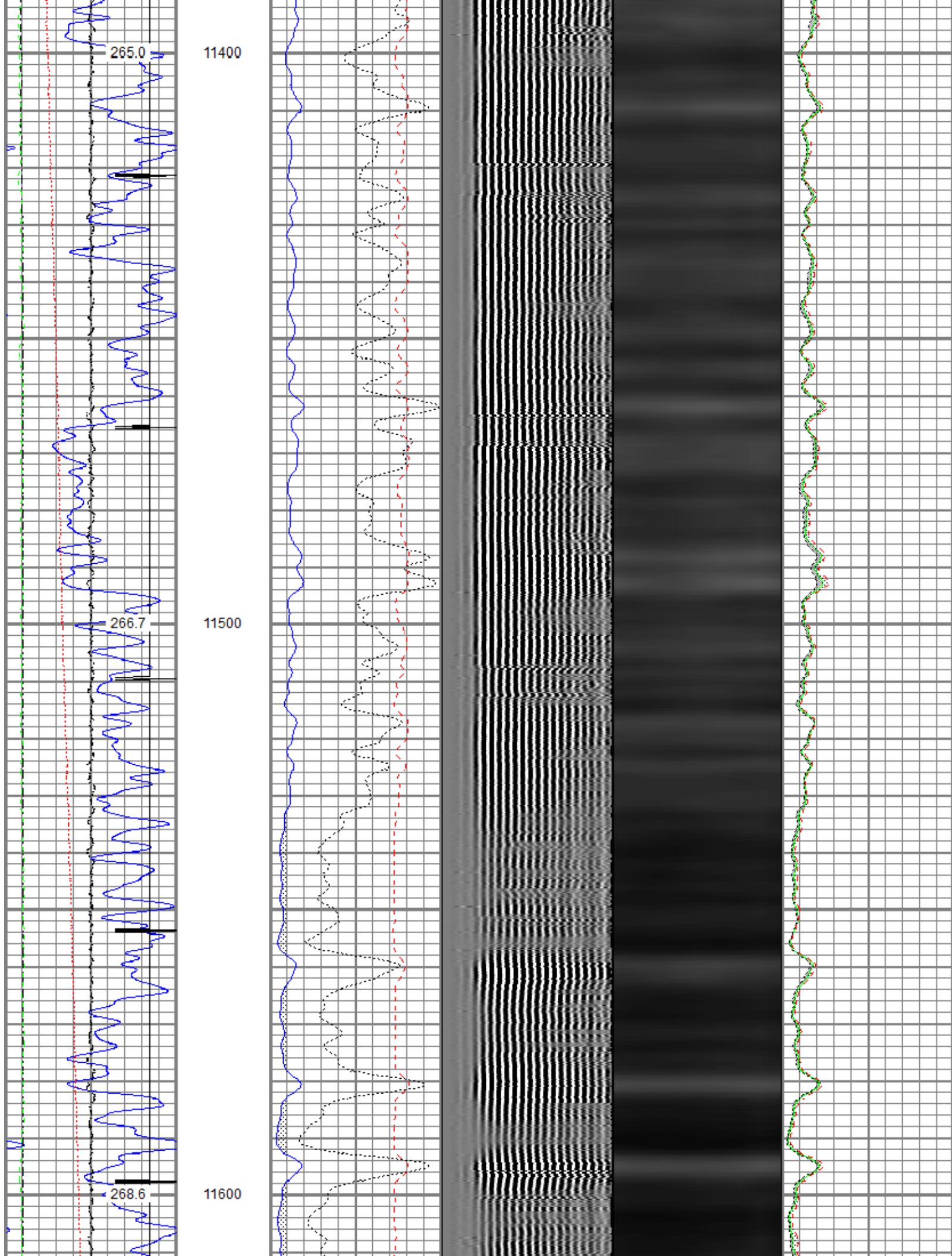


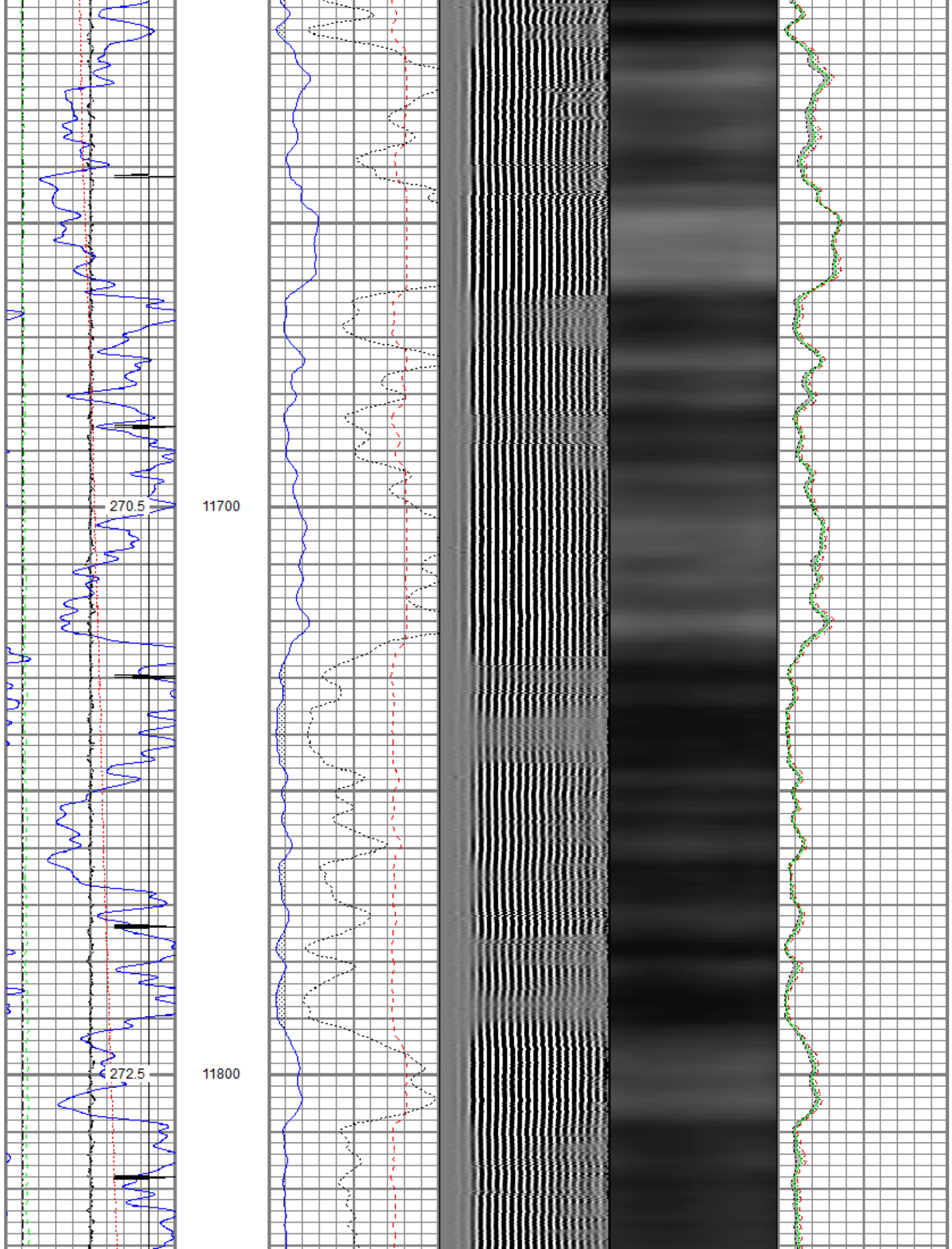


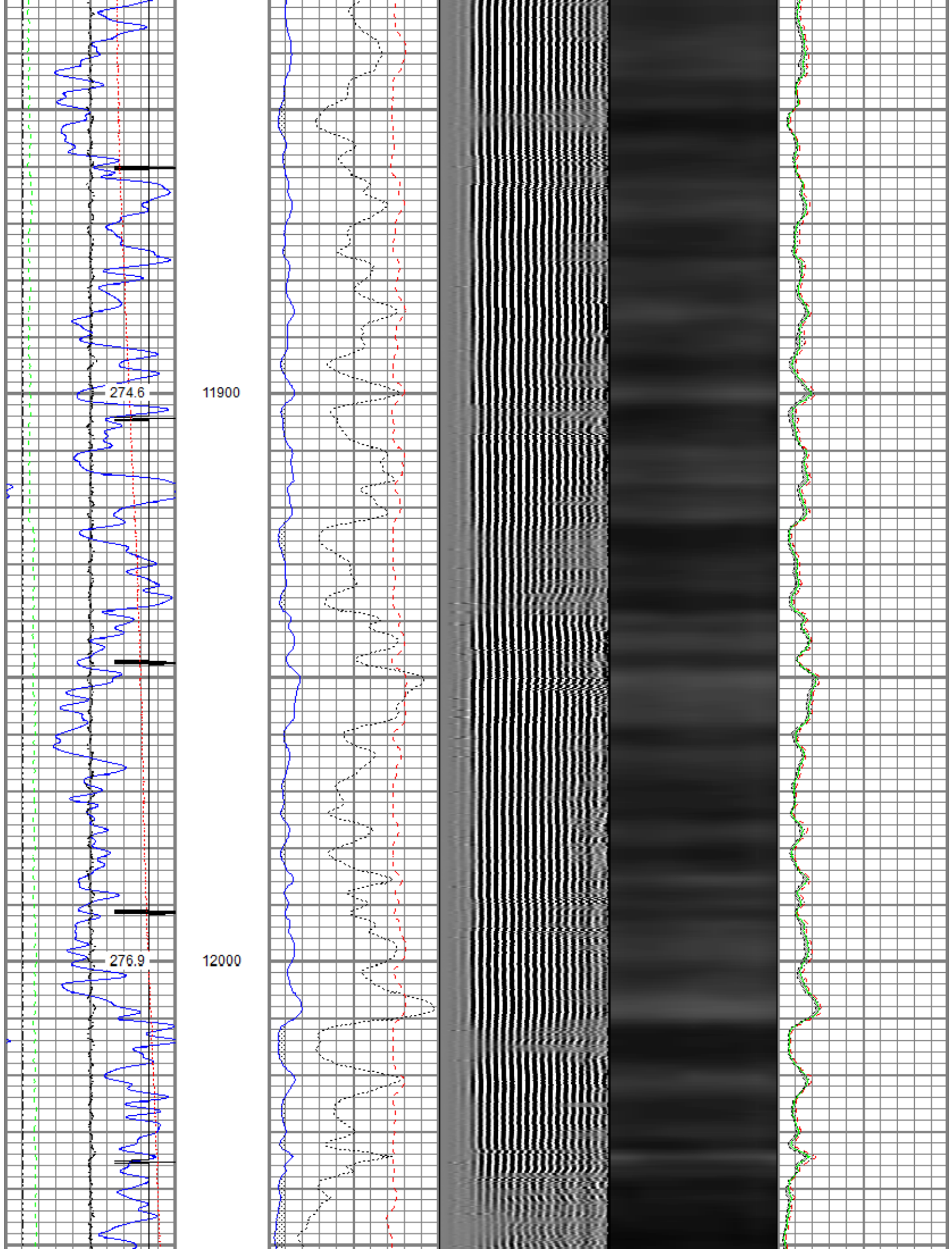


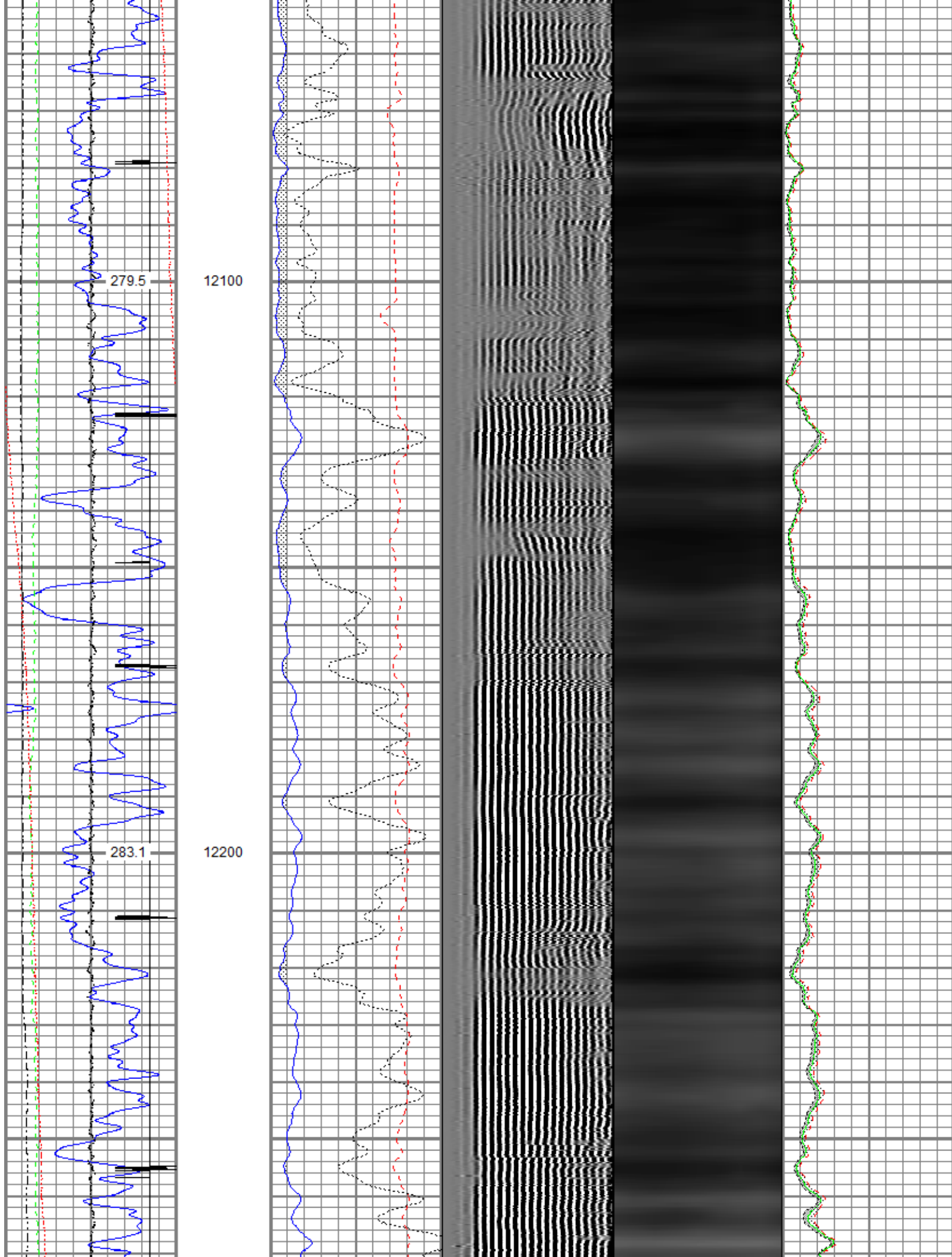


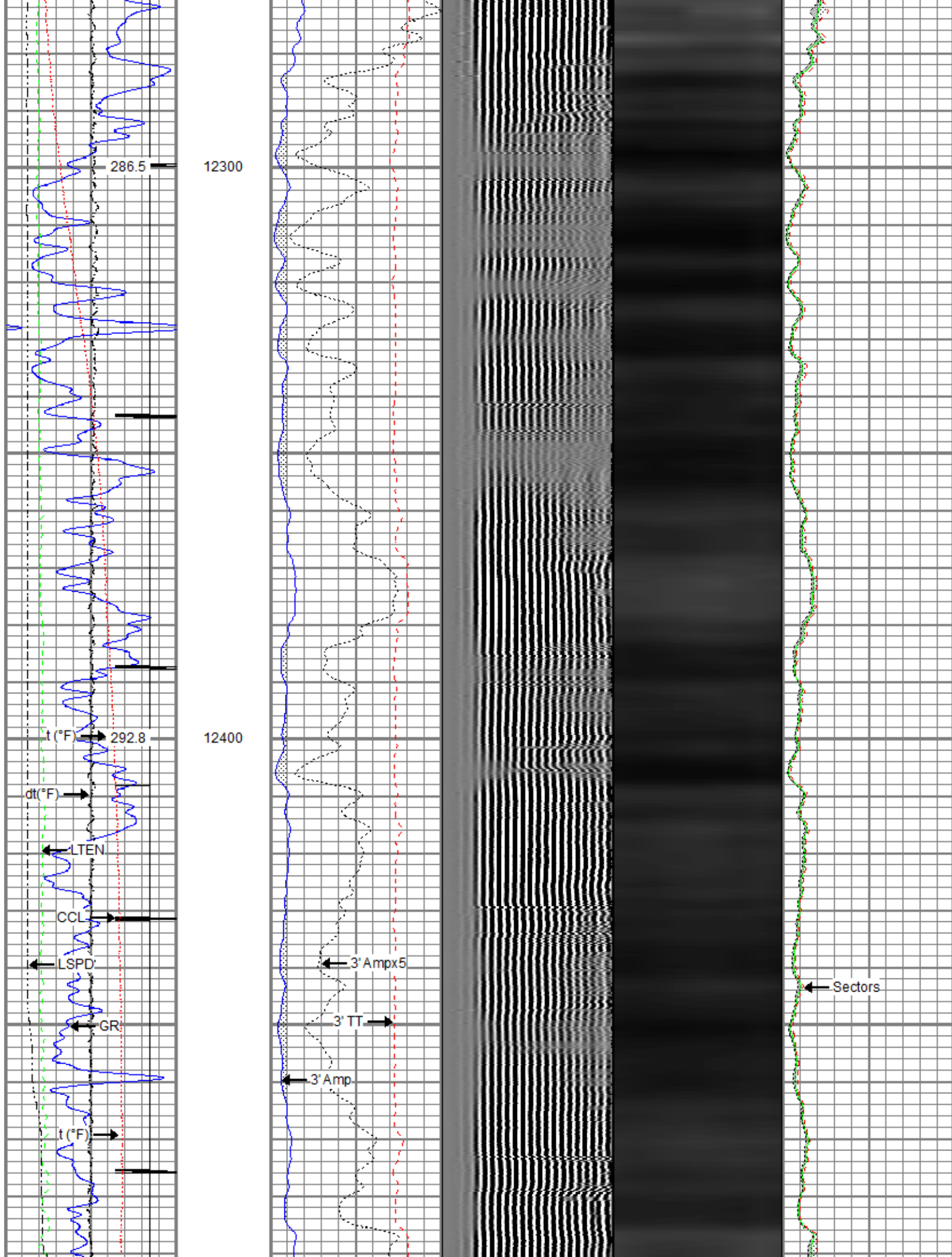


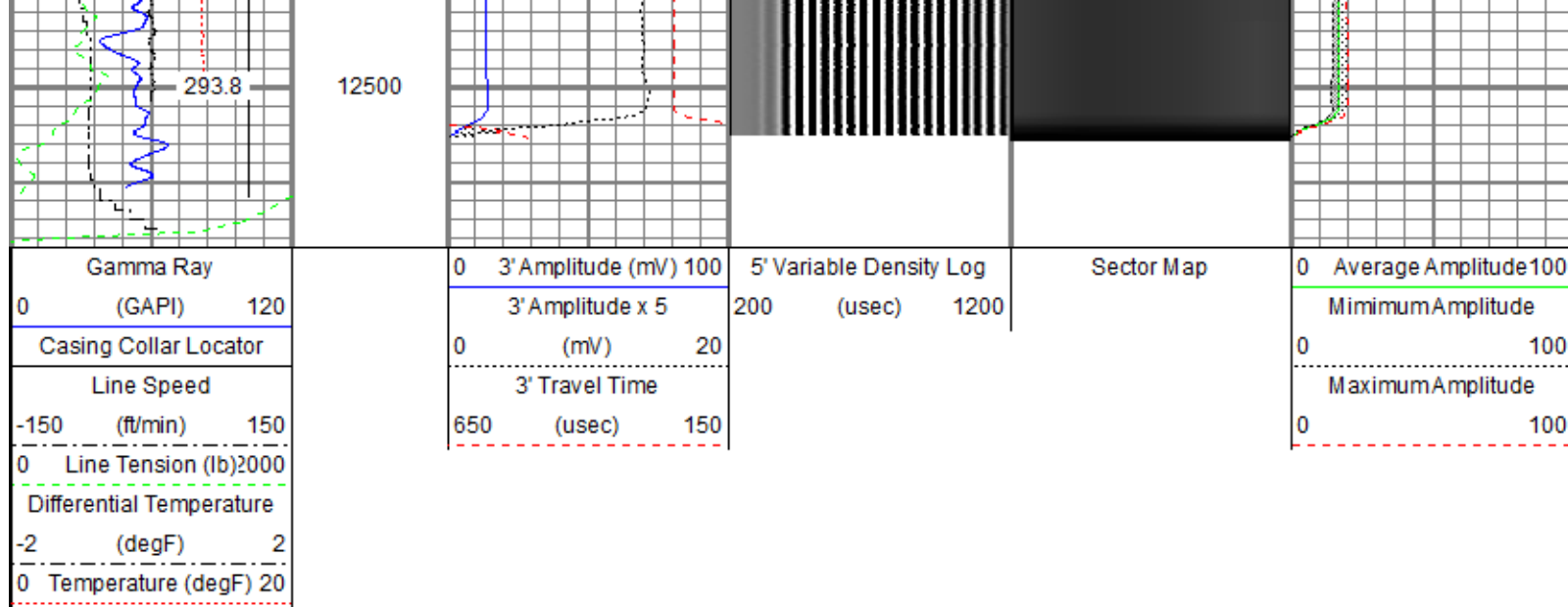








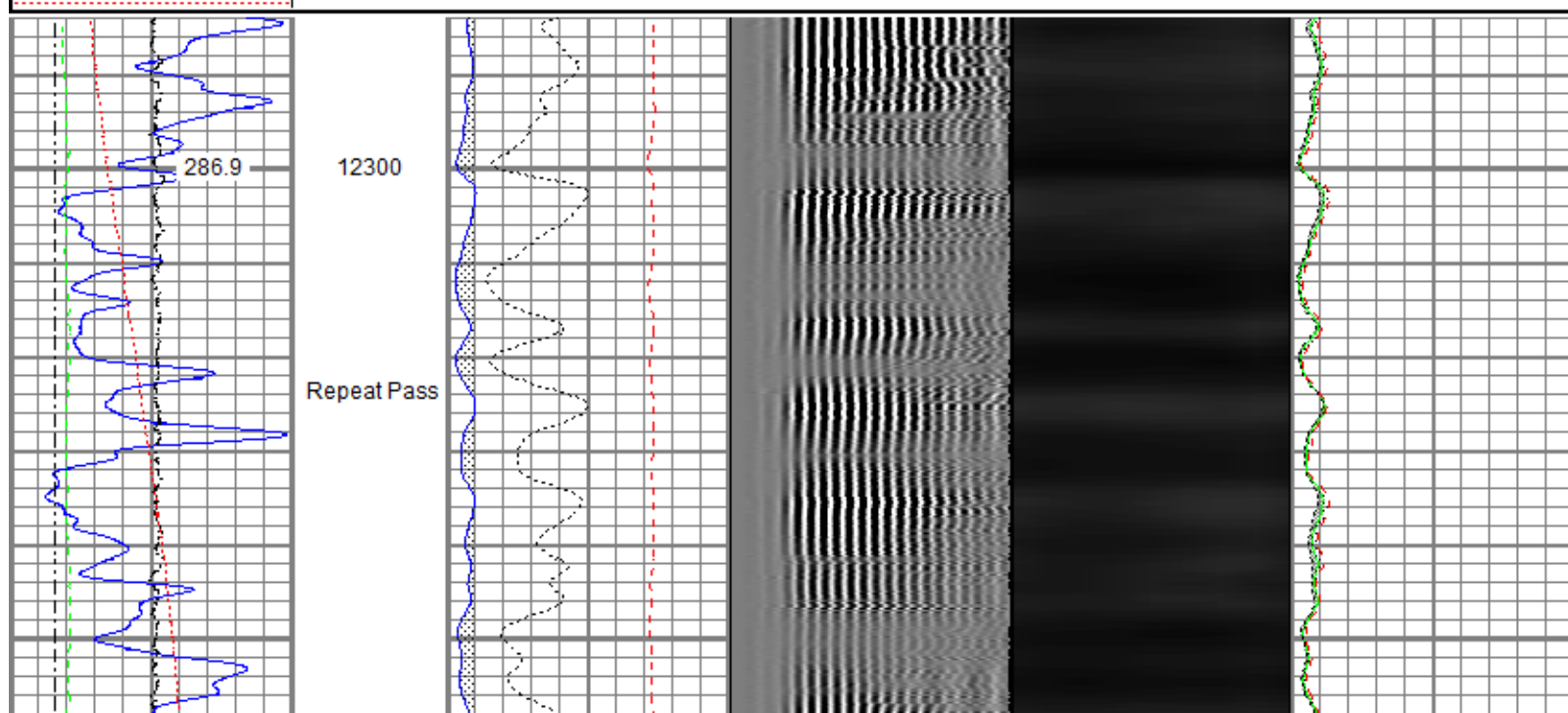
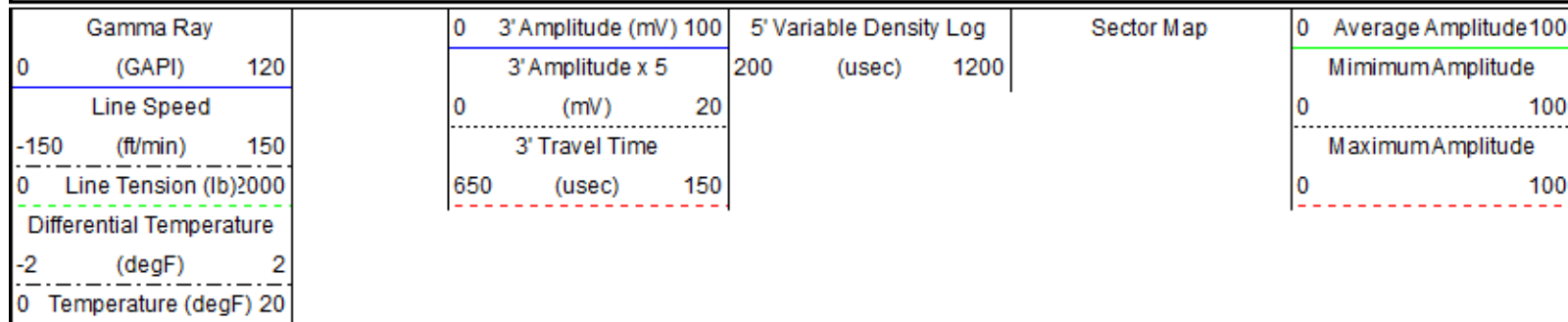


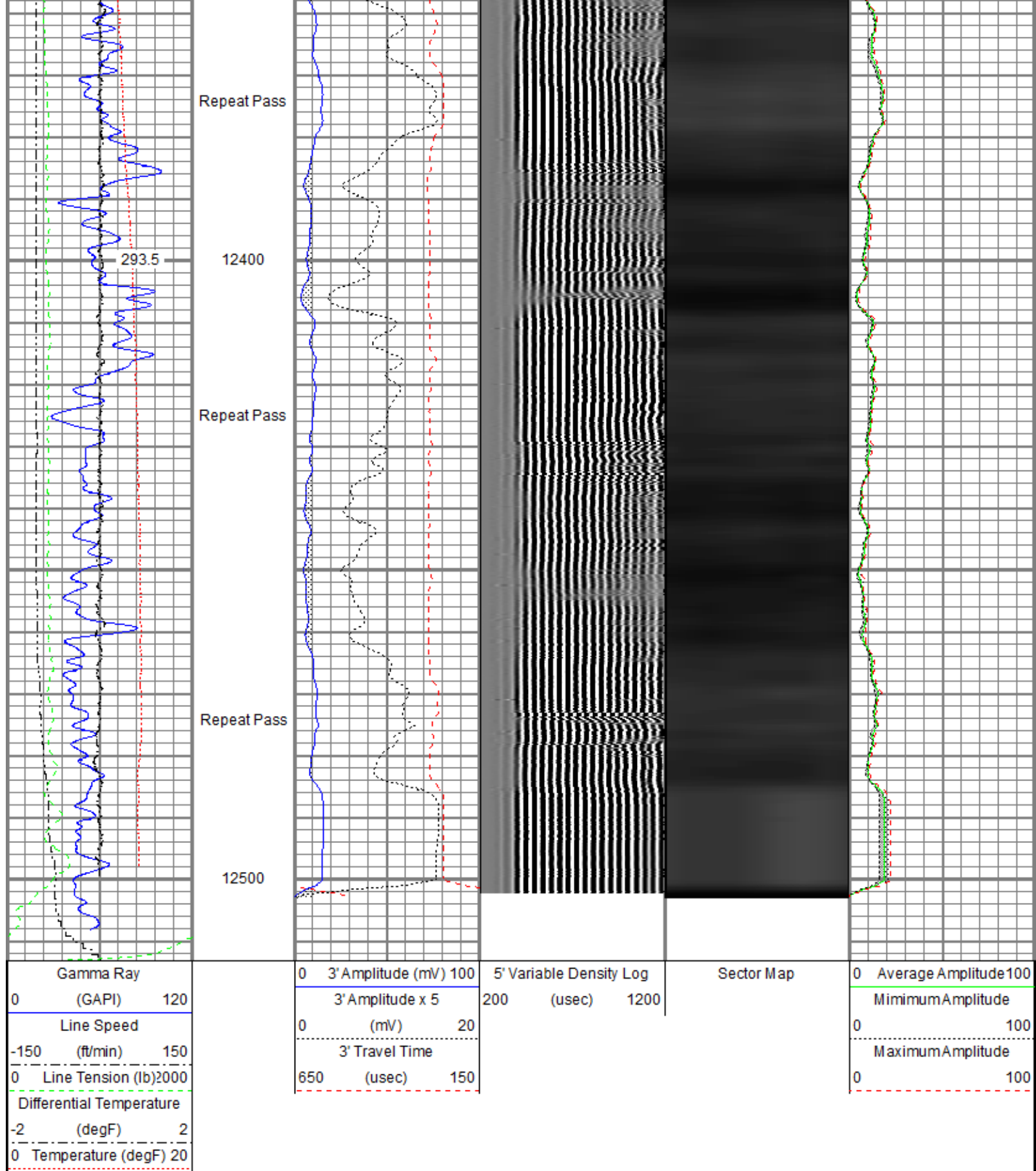


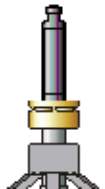
Repeat Pass

Recorded With 0 PSI Surface Induced Pressure

Database File caerus\caerus_fed 11c-24-496_rbl_02-20-20\processed_caerus_fed 11c-24-496_rbl_02-20-20.db
 Dataset Pathname repeat.2
 Presentation Format ros_radil_caerus
 Dataset Creation Fri Feb 21 10:42:34 2020
 Charted by Depth in Feet scaled 1:240





Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
			Titan CHD-14375 GO Titan 1-7/16" Assembled Electric Cable Head with 1" Fishing Neck	1.03	1.44	3.60

			DSS RAC-2750 5A GO DSS 2-3/4" Roller 5 Arm Centralizer with GO Ends	2.55	2.75	32.00
TEMP	13.79					
WVFS8	11.55		Probe Radii-2750 RBT (FW1311-021) Probe 2-3/4" Radial Cement Bond Tool with Integral Temperature Sub	9.39	2.75	105.00
WVFS7	11.55					
WVFS6	11.55					
WVFS5	11.55					
WVFS4	11.55					
WVFS3	11.55					
WVFS2	11.55					
WVFS1	11.55					
WVFCAL	11.55					
WVF3FT	11.55					
WVF5FT	10.55					
			DSS RAC-2750 5A GO DSS 2-3/4" Roller 5 Arm Centralizer with GO Ends	2.55	2.75	32.00
CCL\$2	3.88					
CCL\$1	3.88					
GR	2.63		Probe GR-CCL-2750 GOB (FW1211-081) Probe 2-3/4" rev.2 Digital Scintillation Gamma Ray/CCL Combined with GO Bottom	4.51	2.75	55.00
			GO BN-14375 GO 1-7/16" Bull Nose with Go Box Top	0.25	1.44	1.00
Dataset: processed_caerus_fed 11c-24-496_rbl_02-20-20.db: field/well/run1/main.1 Total length: 20.27 ft Total weight: 228.60 lb O.D.: 2.75 in						

Calibration Report	
Database File	c:\programdata\warrior\data\caerus\caerus_fed 11c-24-496_rbl_02-20-20\processed_caerus_fed 11c-24-496_rbl_02-20-20.db
Dataset Pathname	main.1
Dataset Creation	Fri Feb 21 10:39:30 2020

Serial Number: FW1211-081
Tool Model: 2750 GOB
Performed: Mon Oct 01 11:32:39 2018

Calibrator Value: 637.0 GAPI

Background Reading: 112.4 cps
Calibrator Reading: 1008.7 cps

Sensitivity: 0.7107 GAPI/cps

Segmented Cement Bond Log Calibration Report

Serial Number: FW1311-021
Tool Model: 2750 RBT

Calibration Casing Diameter: 4.500 in
Calibration Depth: 334.357 ft

Master Calibration, performed (Derived):

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.010	0.837	0.800	81.196	97.219	-0.142
CAL	0.007	0.759				
5'	0.010	0.699	0.800	81.196	116.782	-0.402
SUM						
S1	0.005	0.801	0.000	100.000	125.629	-0.620
S2	0.010	0.826	0.000	100.000	122.512	-1.172
S3	0.008	0.890	0.000	100.000	113.347	-0.926
S4	0.007	0.955	0.000	100.000	105.440	-0.717
S5	0.007	0.929	0.000	100.000	108.577	-0.814
S6	0.009	0.872	0.000	100.000	115.900	-1.034
S7	0.007	0.818	0.000	100.000	123.373	-0.867
S8	0.010	0.797	0.000	100.000	126.920	-1.211

Air Zero Calibration, performed Wed Feb 19 12:32:32 2020:

	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: FW1311-021
Tool Model: 2750 RBT
Performed: Mon Oct 01 11:32:11 2018

	Reference	Reading
Low Reference:	100.00 degF	112.12 degF
High Reference:	350.00 degF	415.62 degF

Gain: 0.82
Offset: 7.65
Delta Spacing: 1



Company	Caerus Piceance LLC
Well	FED 11C-24-496
Field	Grand Valley
County	Garfield
State	Colorado