



Radial Cement Bond  
Gamma Ray  
Casing Collar Log

Company TEP Rocky Mountain LLC  
Well Chevron TR 543-22-597  
Field Trail Ridge  
County Garfield State Colorado

Location: API #: 05-045-23687  
SEC 22 TWP 5S RGE 97W  
Permanent Datum Ground Level Elevation 8134.8'  
Log Measured From Kelly Bushing 24 FT  
Drilling Measured From Kelly Bushing  
Other Services  
Elevation  
K.B. 8458.8'  
D.F. 8157.8'  
G.L. 8134.8'

Company TEP Rocky Mountain LLC  
Well Chevron TR 543-22-597  
Field Trail Ridge  
County Garfield  
State Colorado

Date	01-APR-2019			
Run Number	One			
Depth Driller	9456 FT			
Depth Logger	9406 FT			
Bottom Logged Interval	9392 FT			
Top Log Interval	Surface			
Open Hole Size	8.750"			
Type Fluid	Water			
Density / Viscosity	8.34 lb/gal			
Max. Recorded Temp.	246°F			
Estimated Cement Top	See Log			
Time Well Ready	ROA			
Time Logger on Bottom	14.46			
Equipment Number	HD-0359			
Location	Grand Junction, CO			
Recorded By	A. Ellsworth			
Witnessed By	D. Welsh			
Borehole Record				
Run Number	Bit	From	To	Size
				Weight
				From
				To
Tubing Record				
Casing Record	Size (in)	Wgt (lbs/ft)	Grade	Top
Surface Casing	9 5/8	36	J-55	Surface
Intermediate #1	4 1/2	11.6	P-110	Surface
Intermediate #2				
Inner				

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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  
Depth referenced to Kelly Bushing at 24 FT  
Marker Joint recorded at 5145 - 5167 FT  
Recorded with 0 PSI Surface Induced Pressure

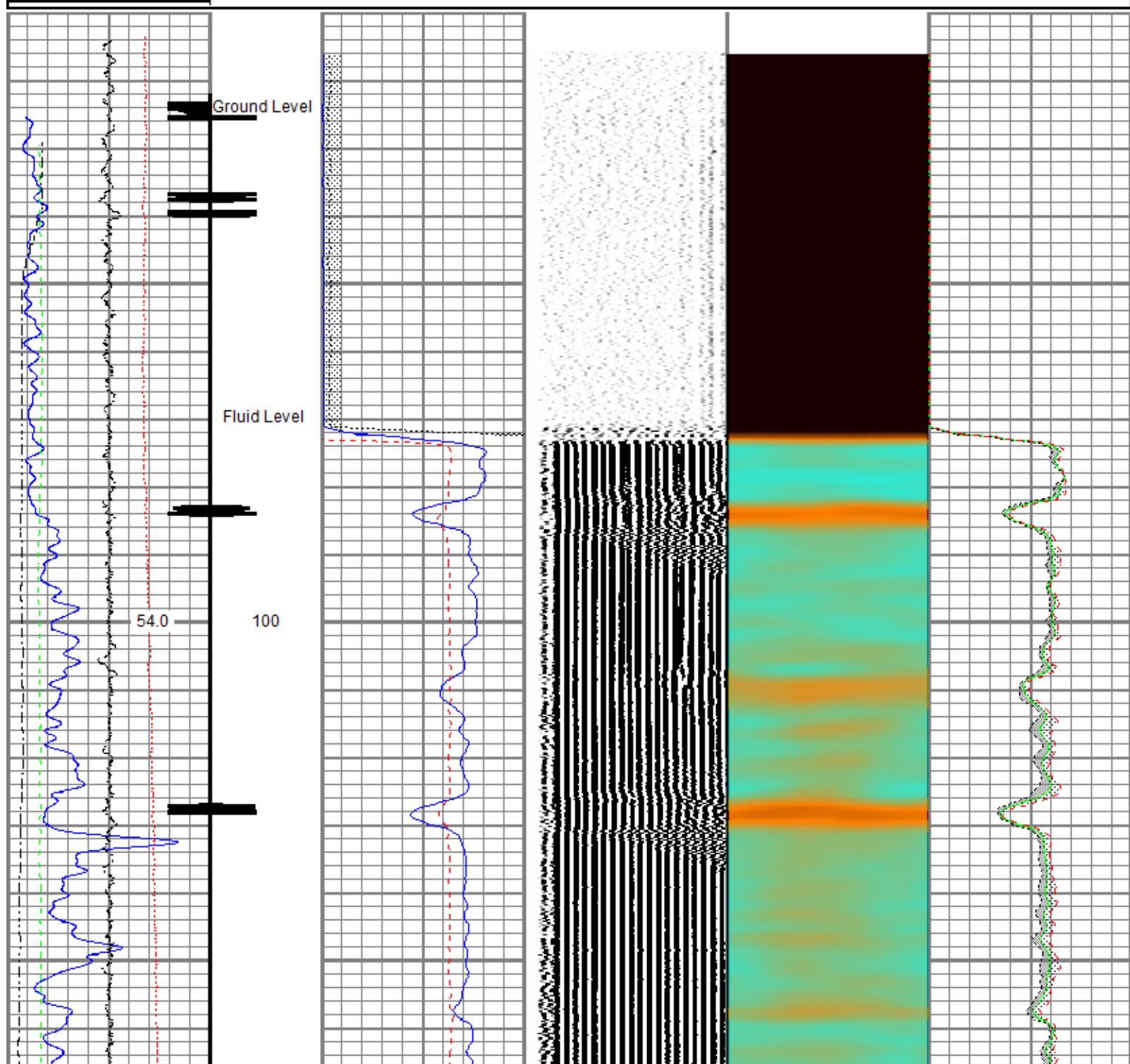
Thank you for choosing Reliance Oilfield Services, LLC!

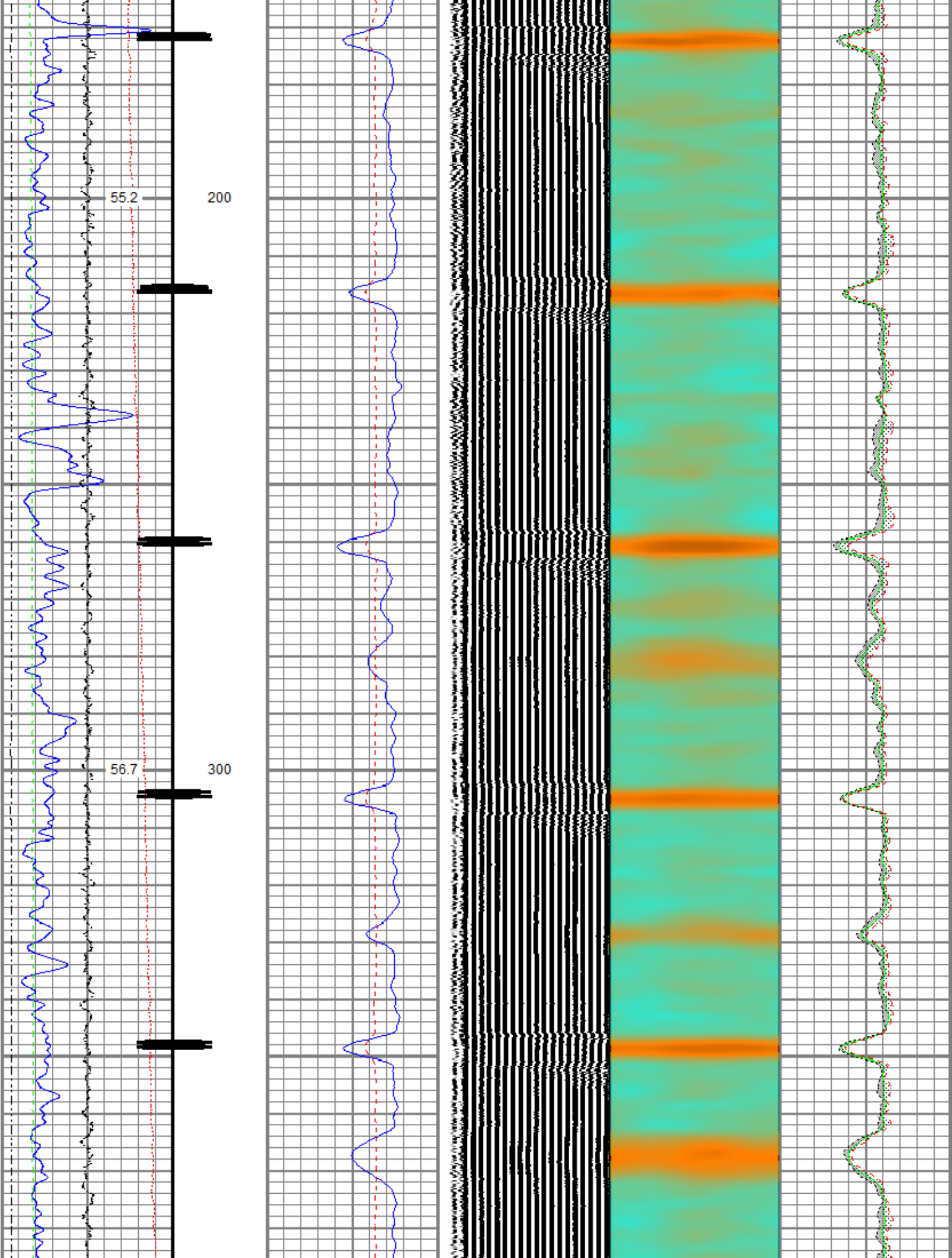
Main Pass

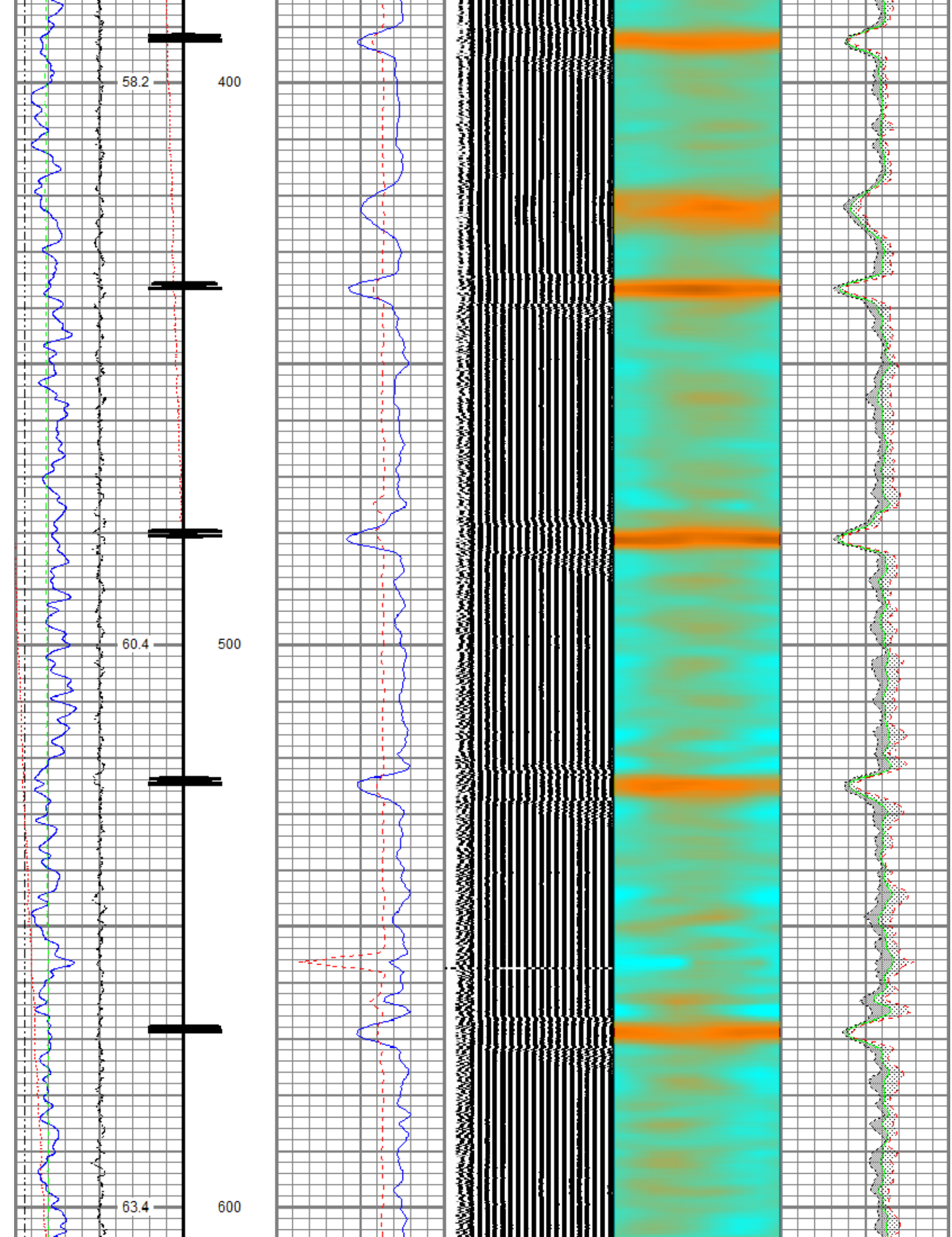


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 Dataset Pathname main.1  
 Presentation Format ros\_rbt004\_tep  
 Dataset Creation Thu Apr 04 16:47:25 2019  
 Charted by Depth in Feet scaled 1:240

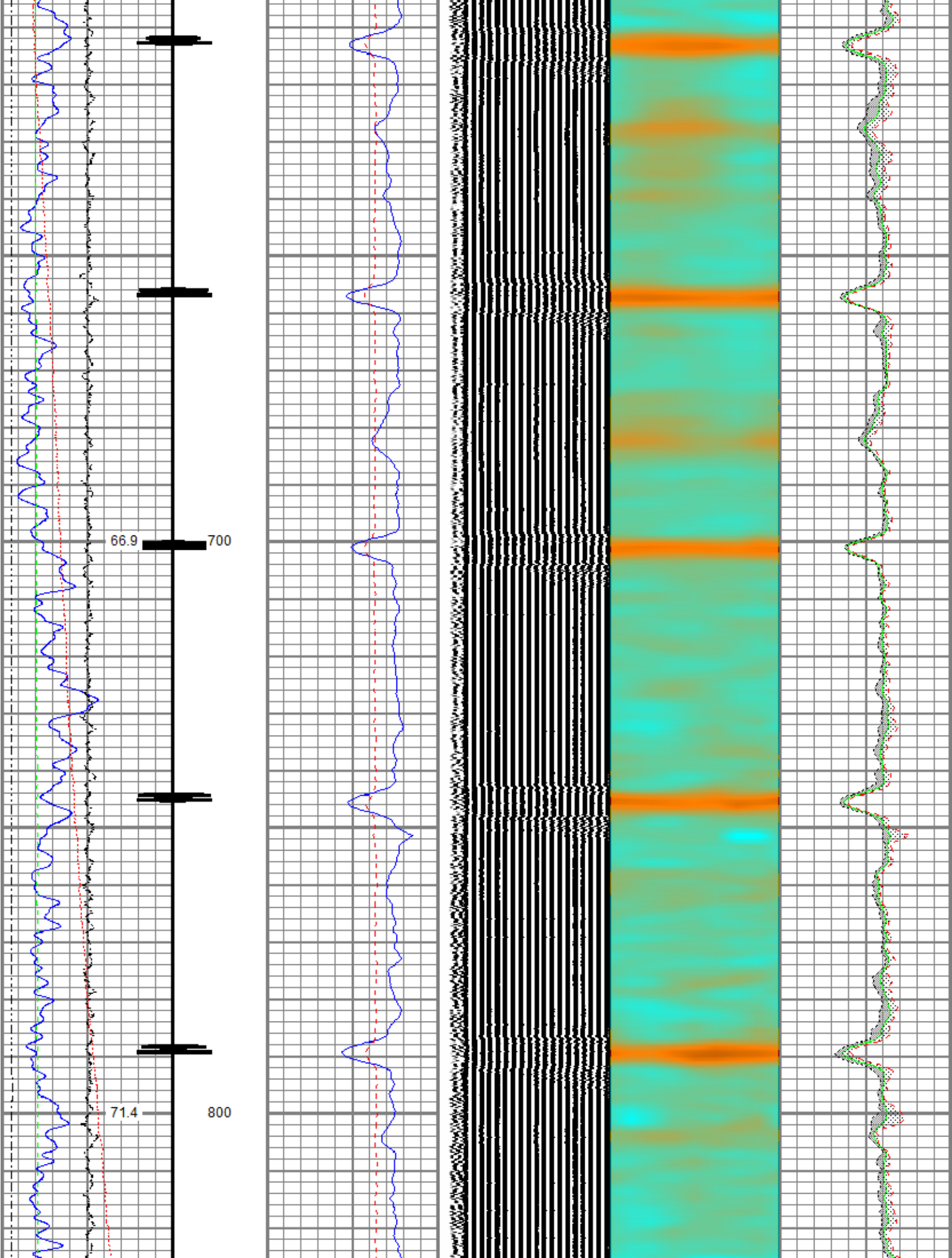
Gamma Ray	0	3' Amplitude (mV) 100	5' Variable Density Log	Sector Map	0	Average Amplitude 150
(GAPI) 200		3' Amplitude x 5	200 (usec) 1200			Minimum Amplitude
Line Speed	0	(mV) 20			0	150
(ft/min) 150		3' Travel Time				Maximum Amplitude
Line Tension (lb) 2000	0	(usec) 200			0	150
Differential Temperature						
(degF) 2	-2					
Temperature (degF) 20	0					
CCL 0	10					

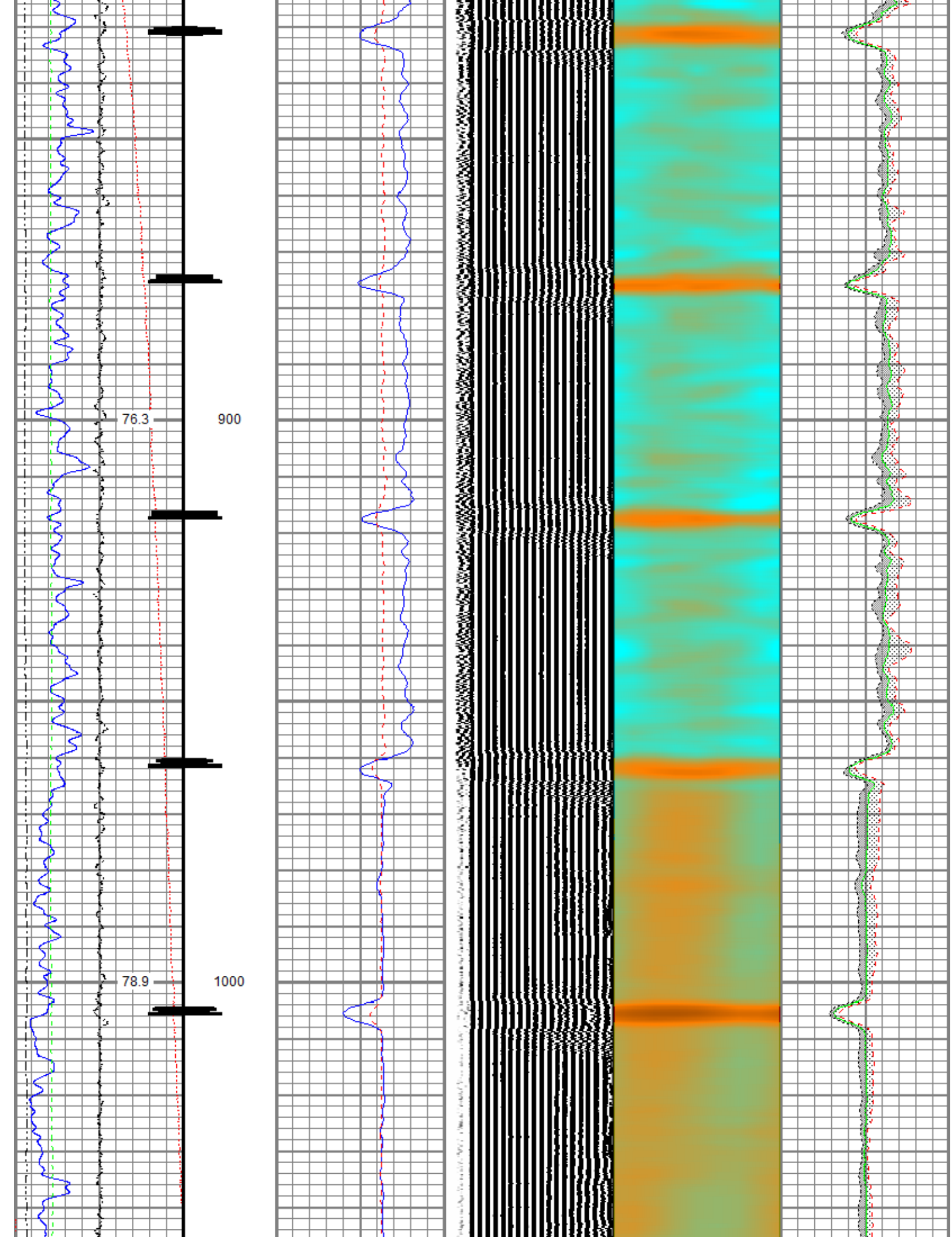


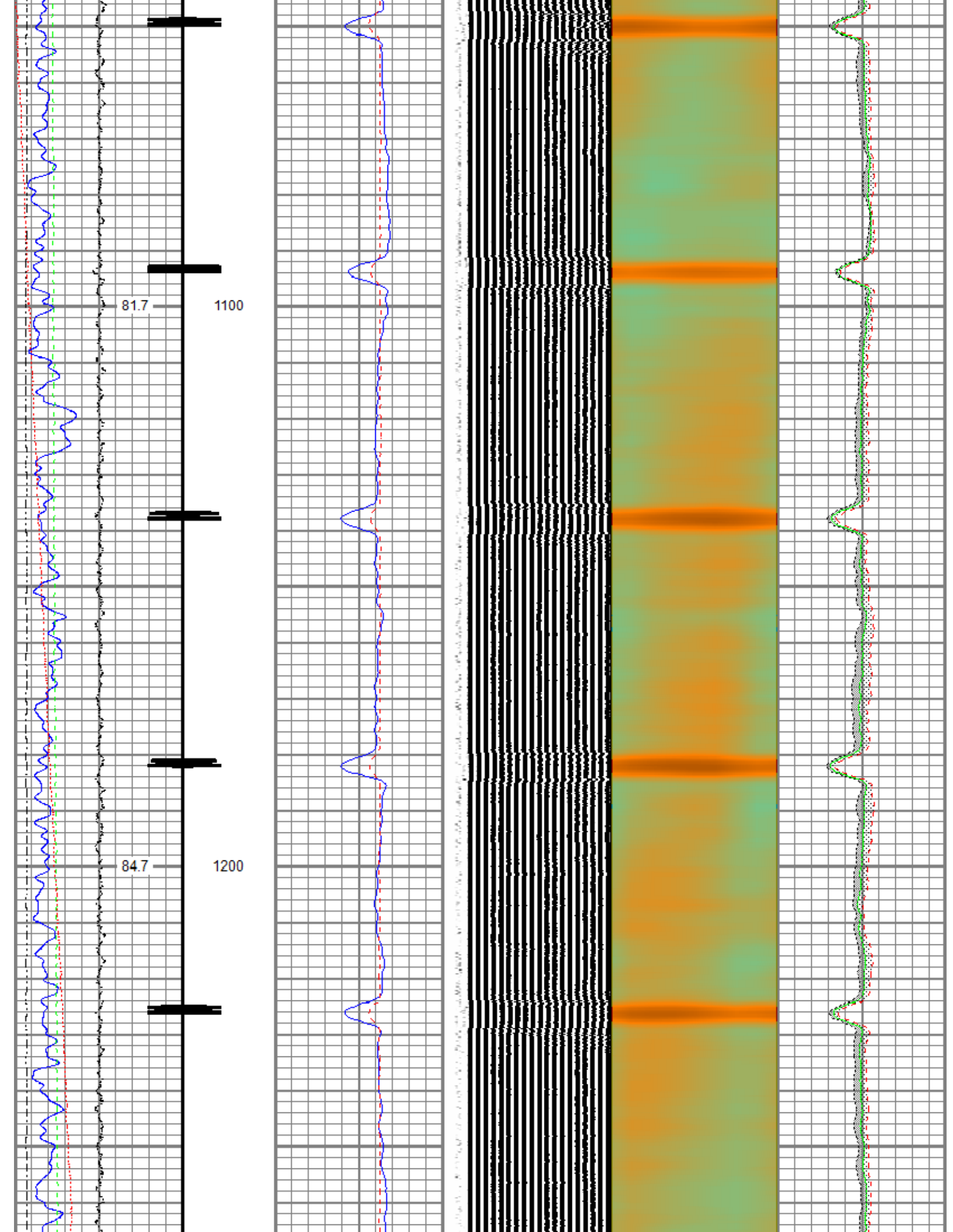


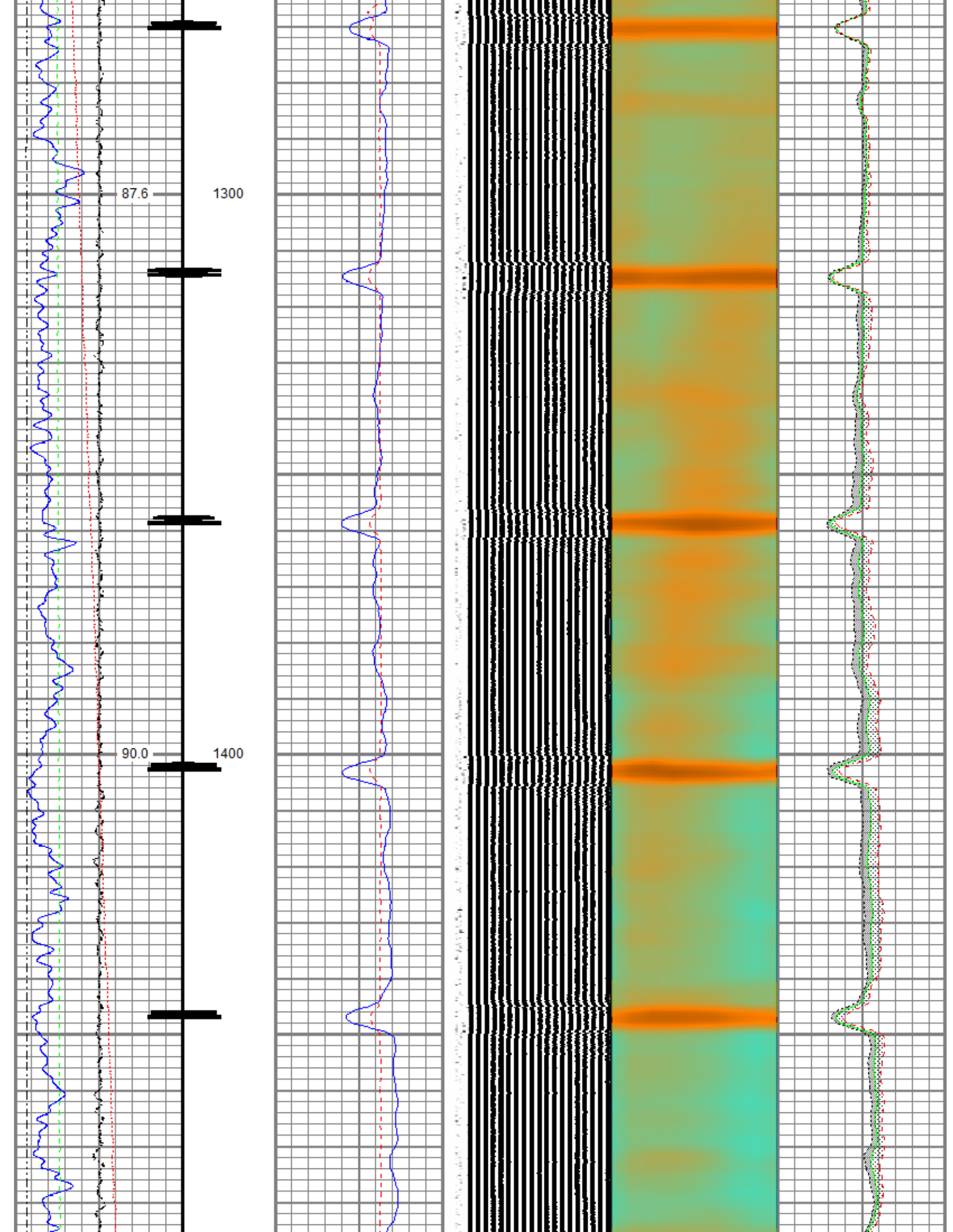




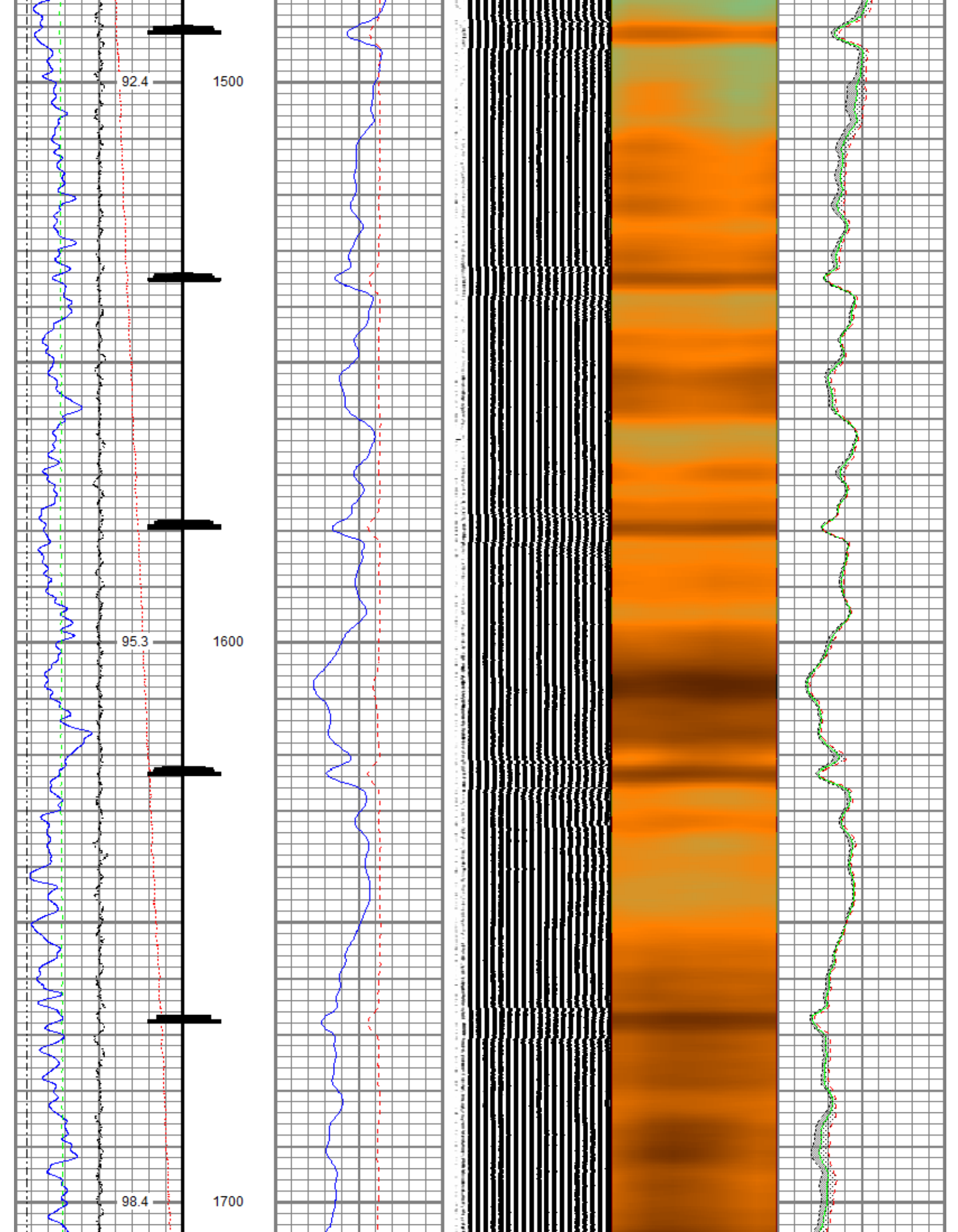


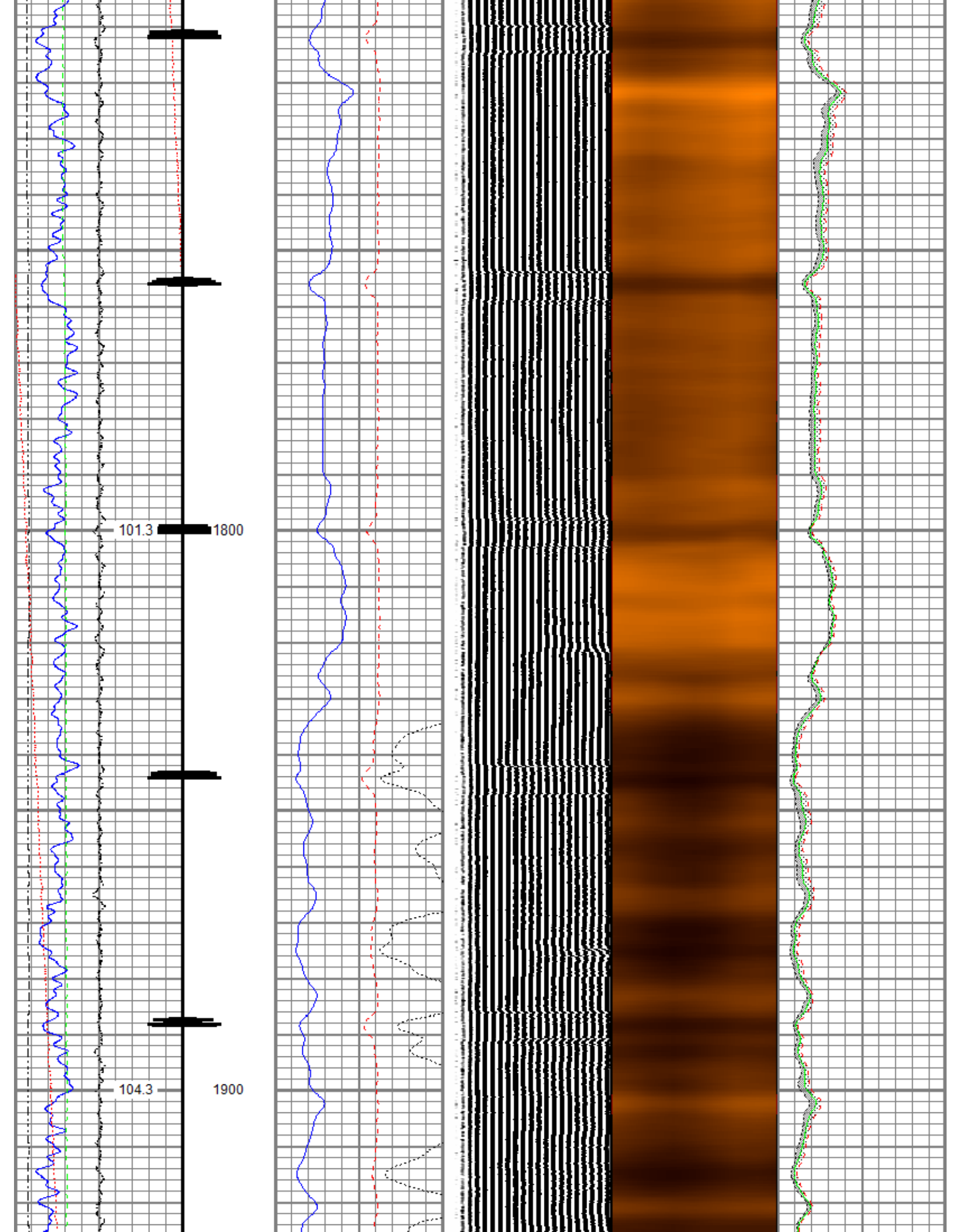


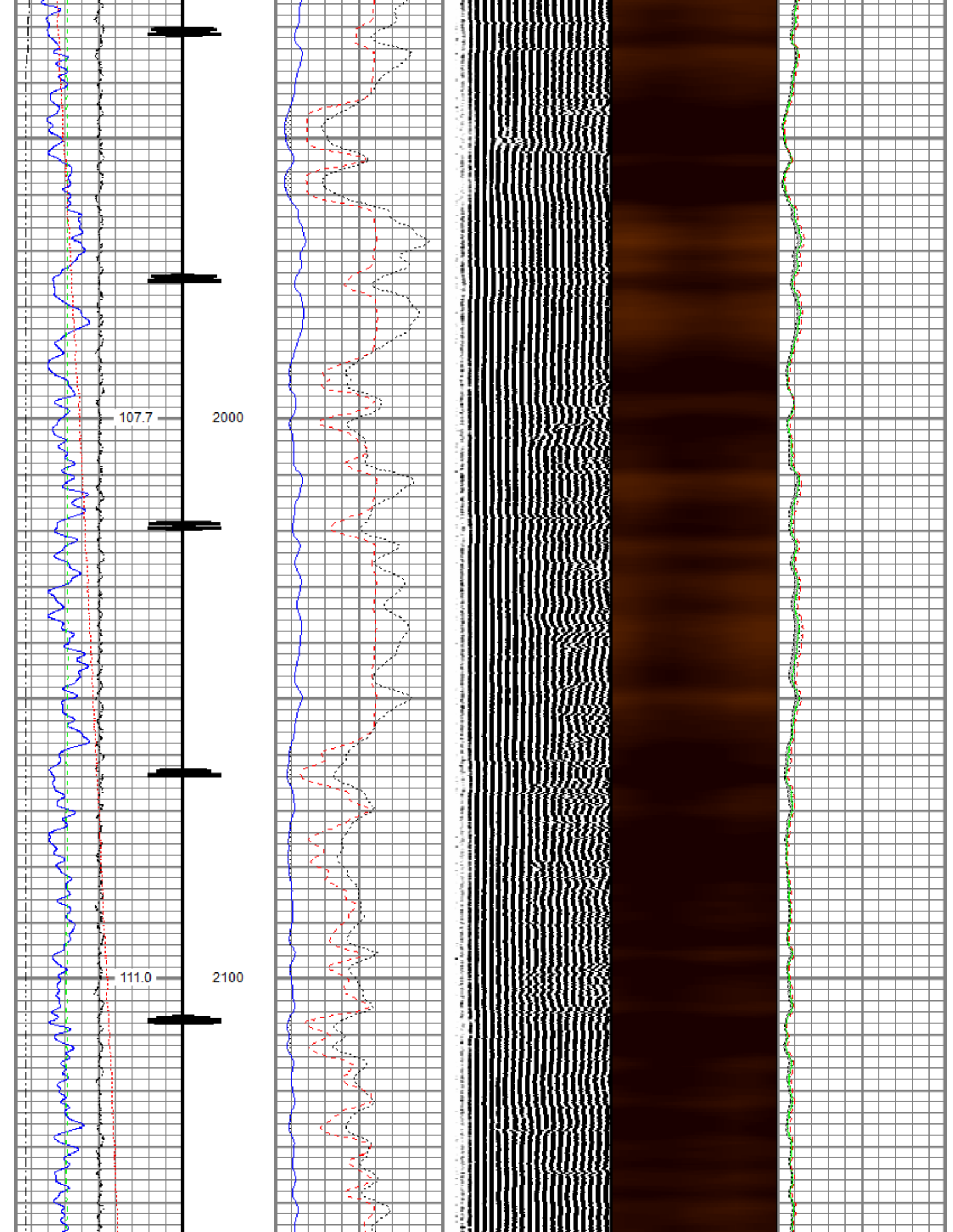


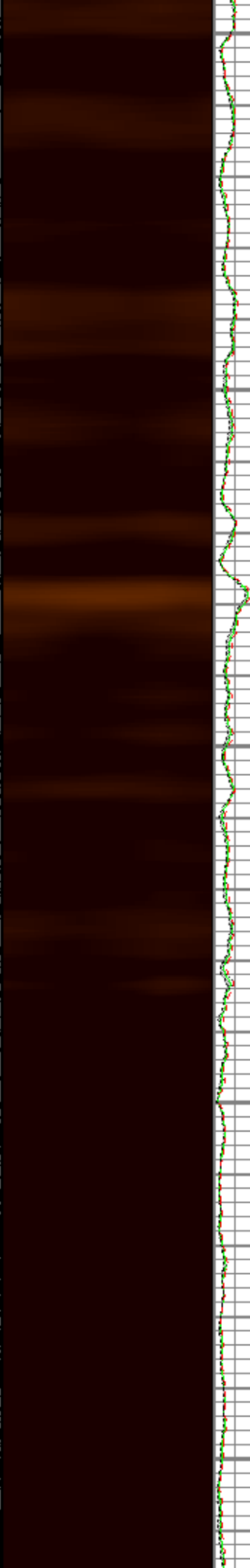
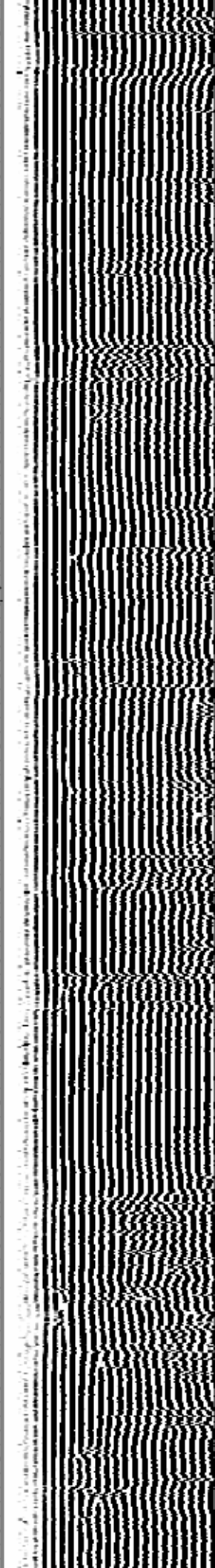
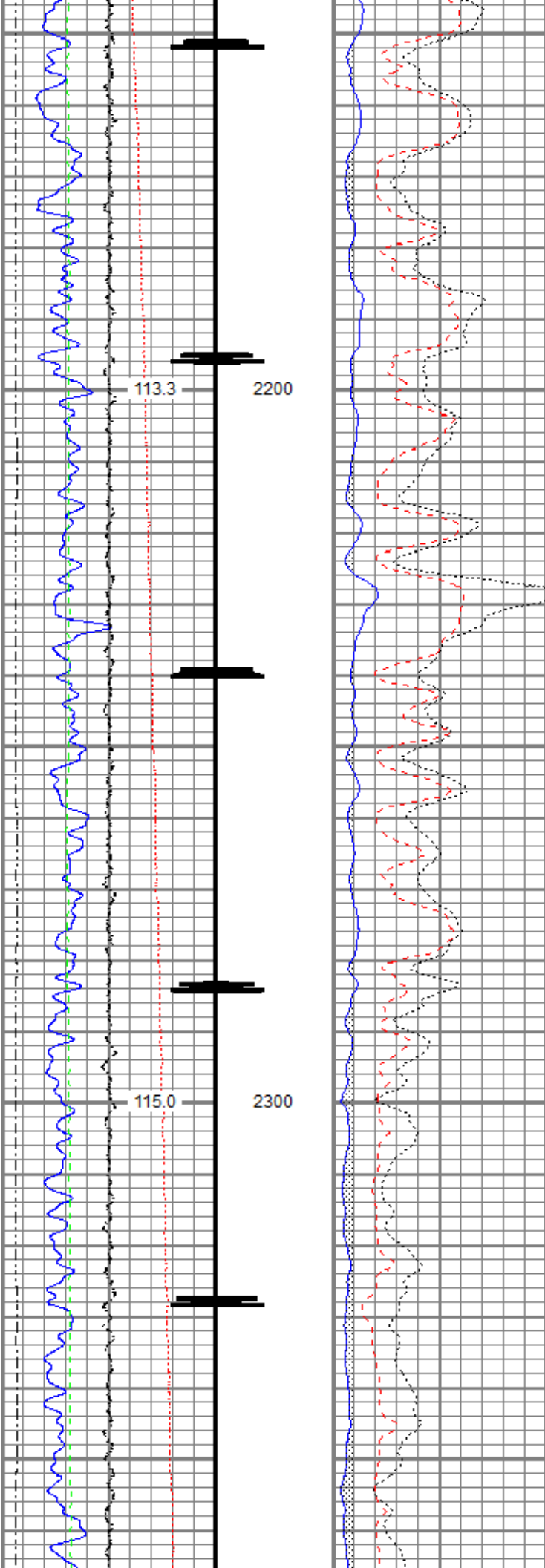




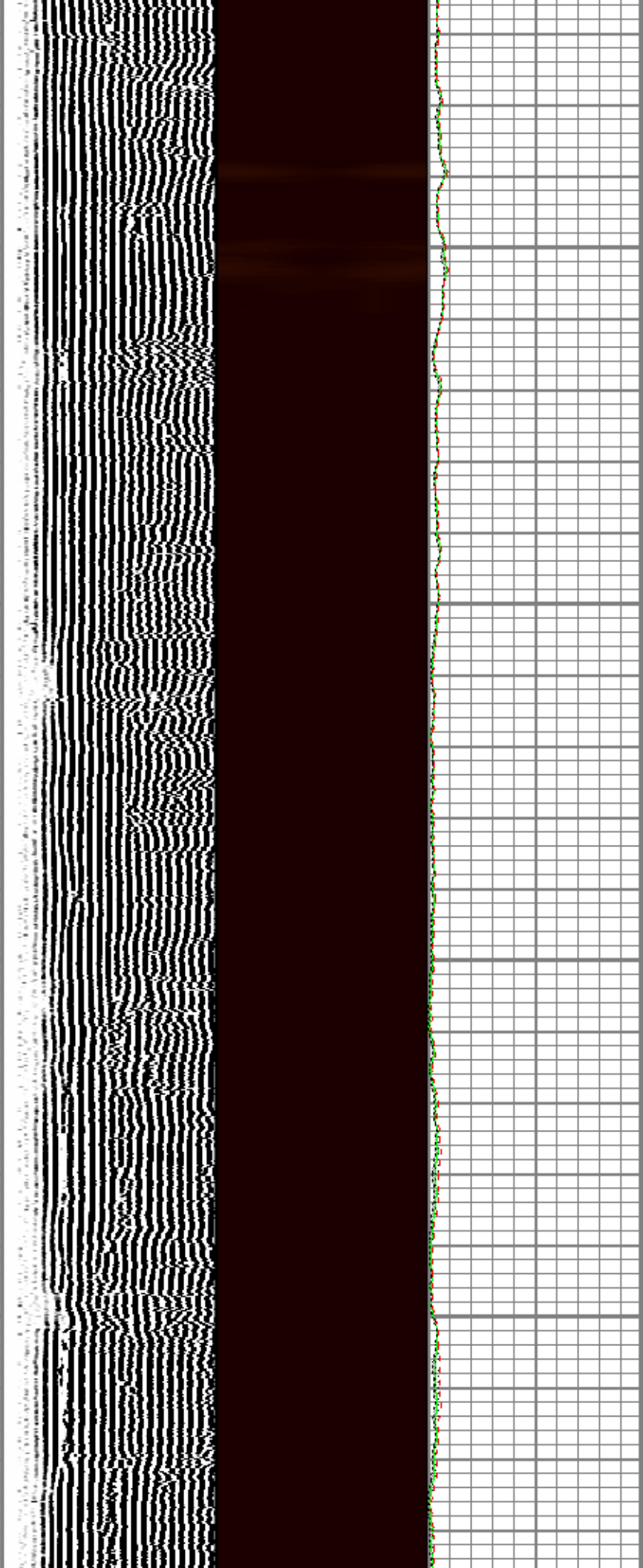
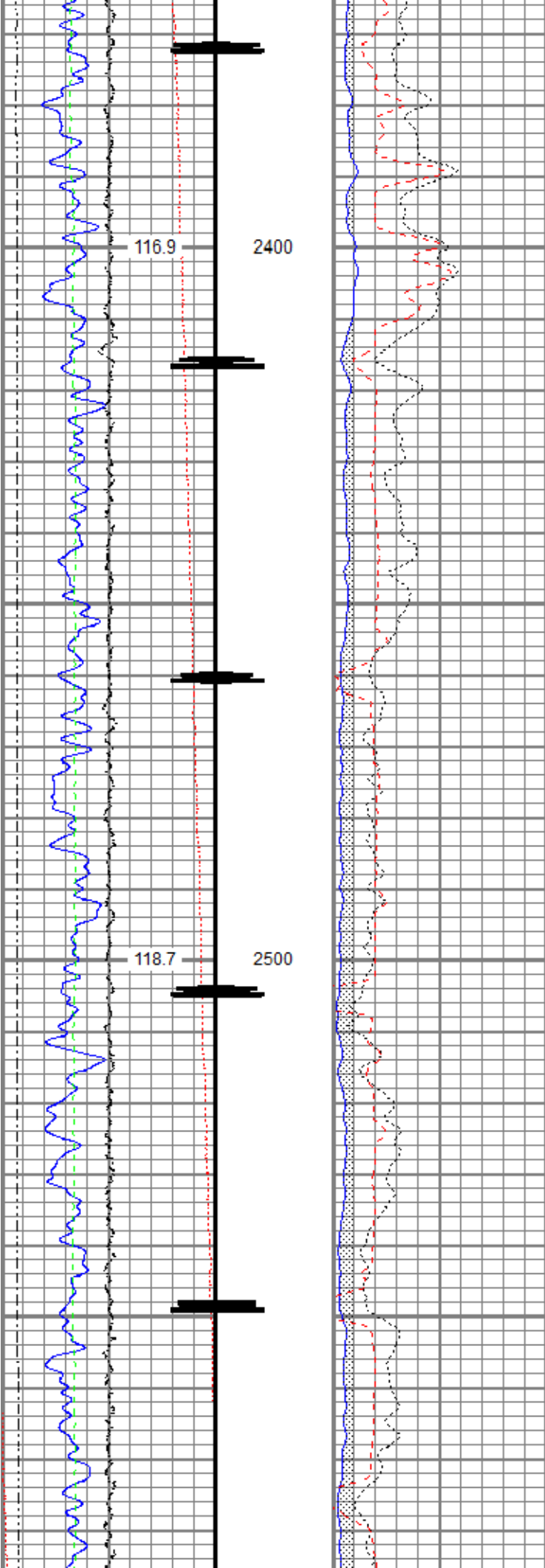


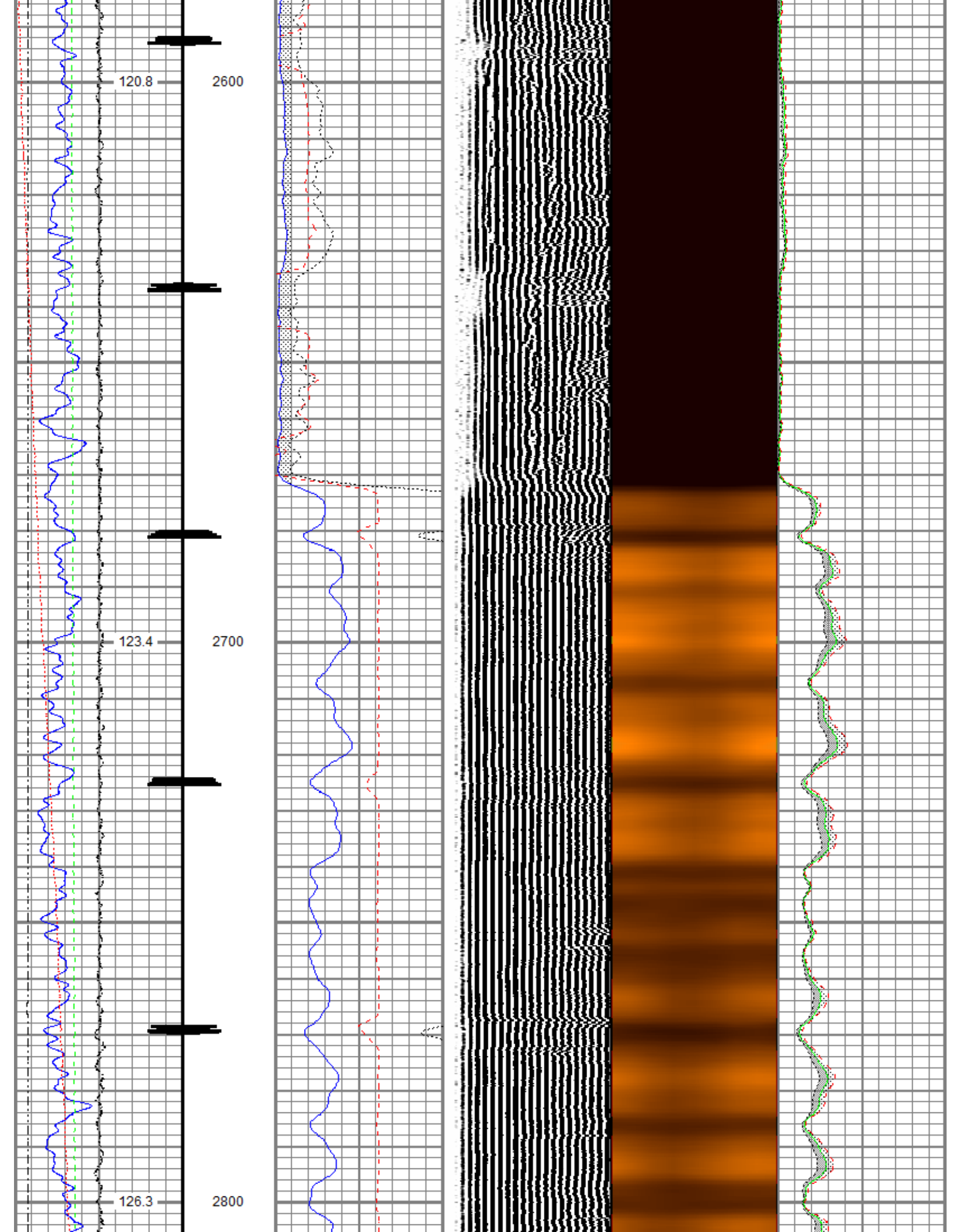


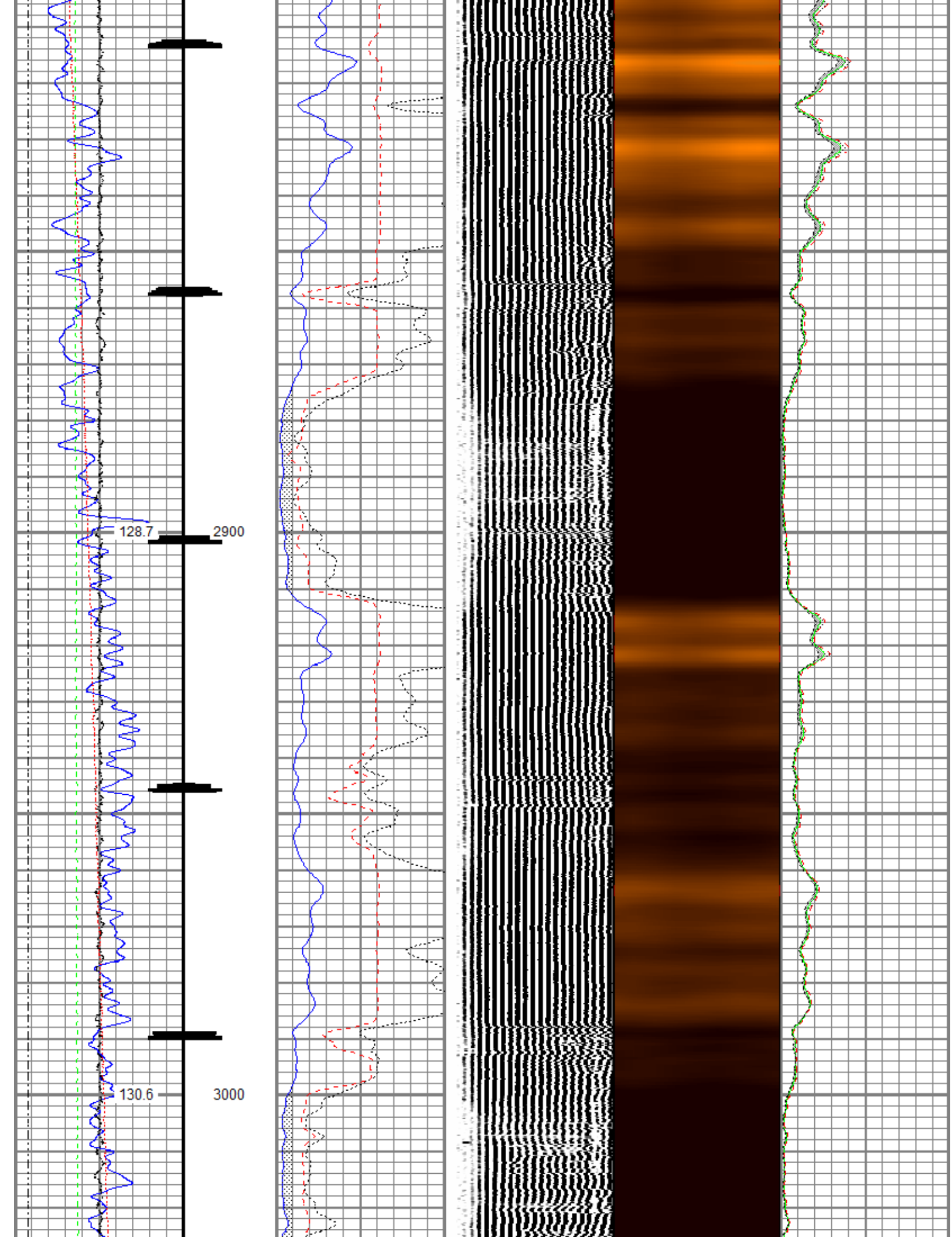




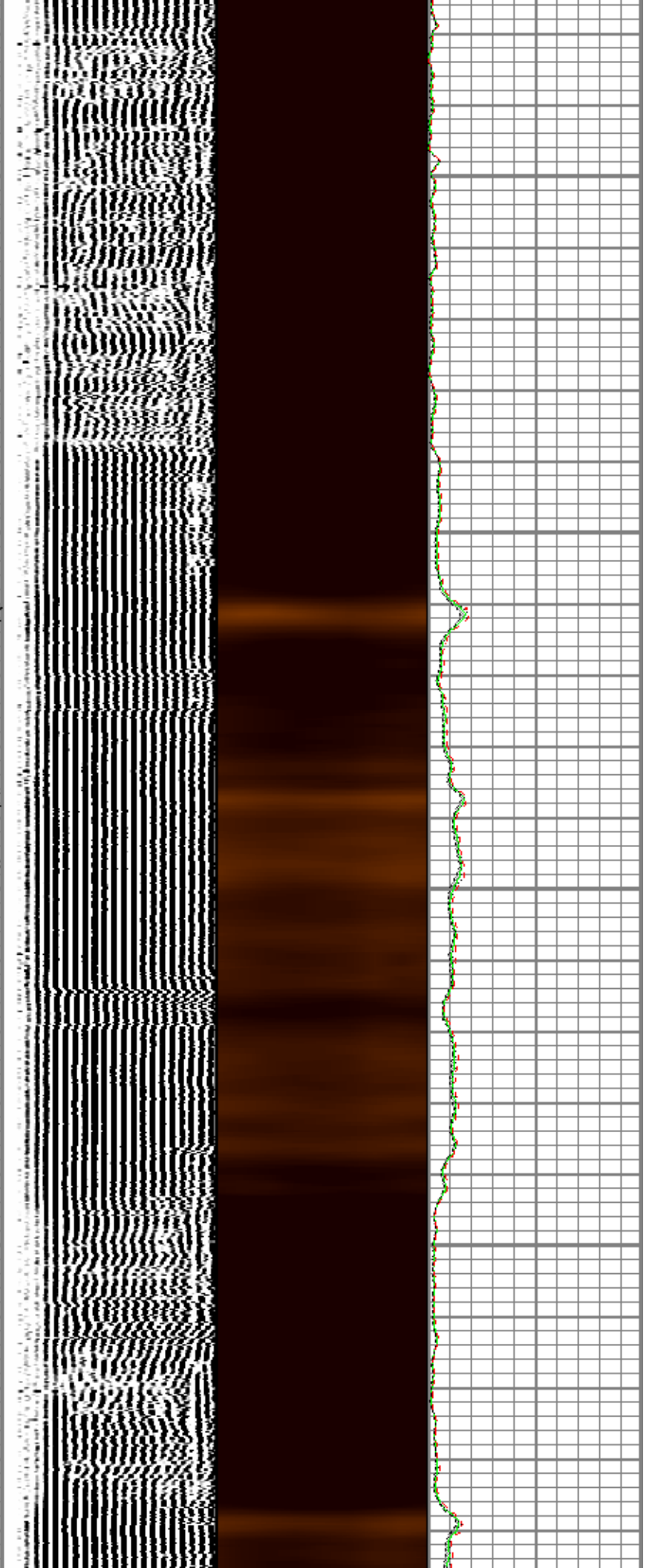
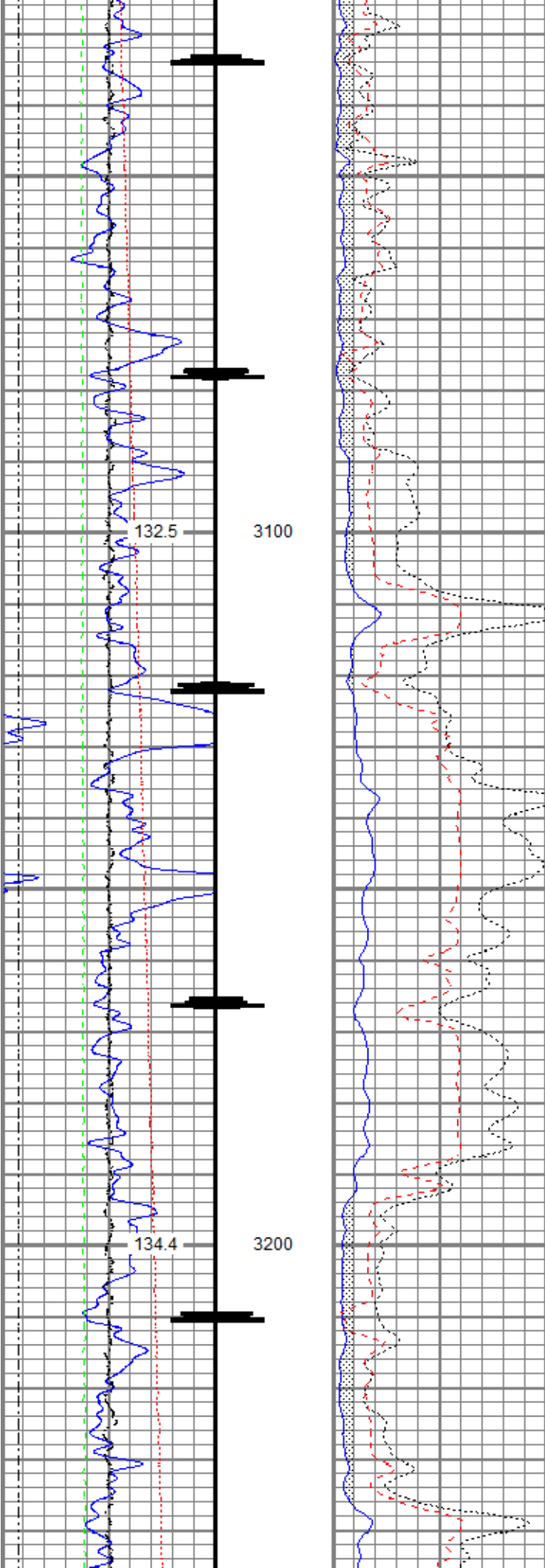




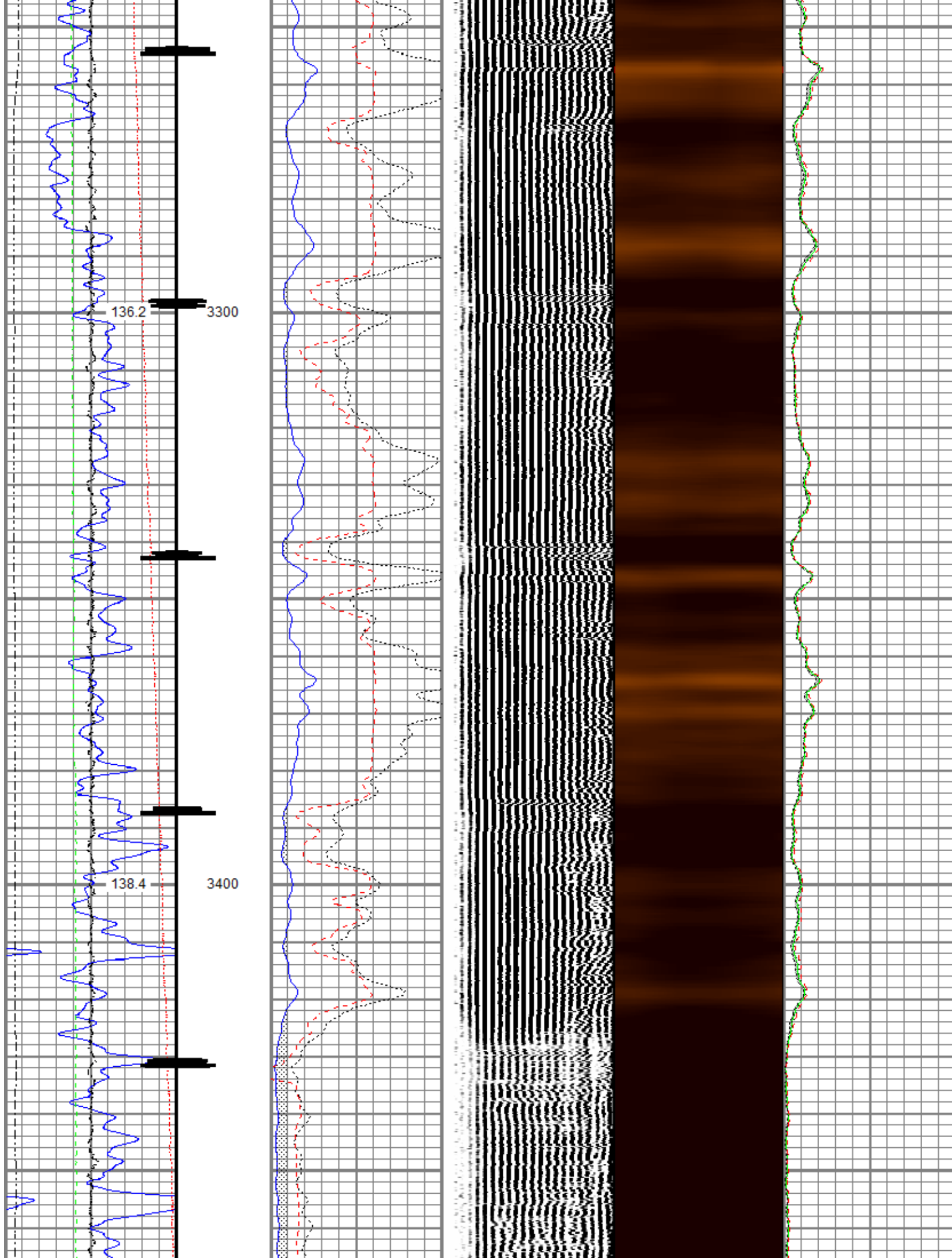


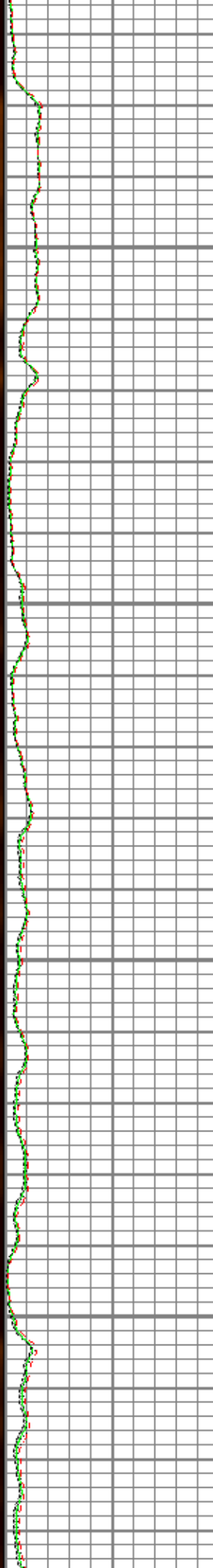
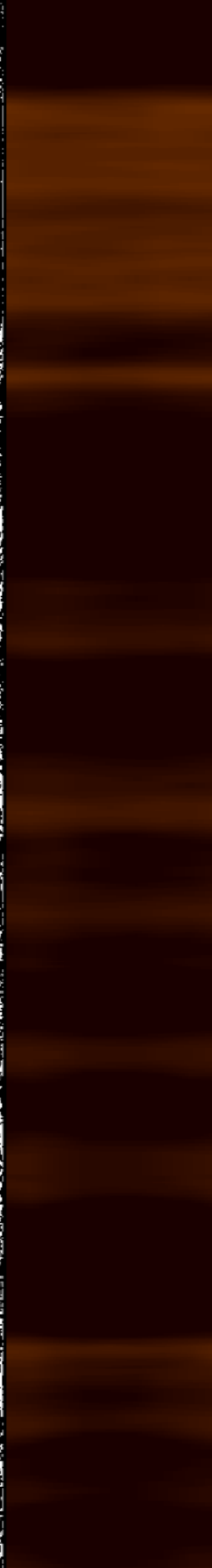
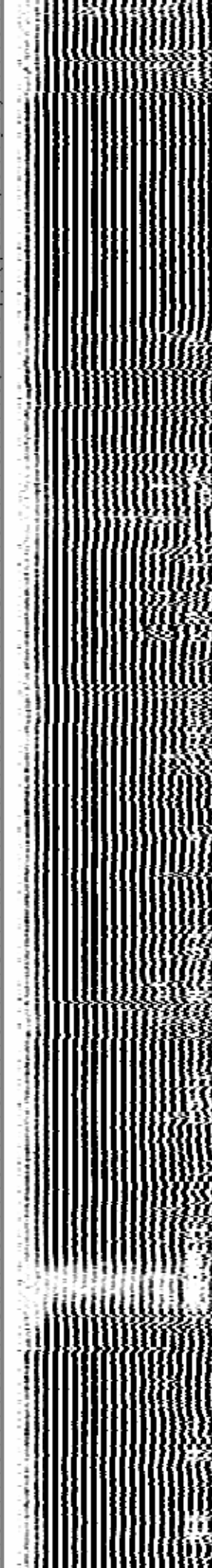
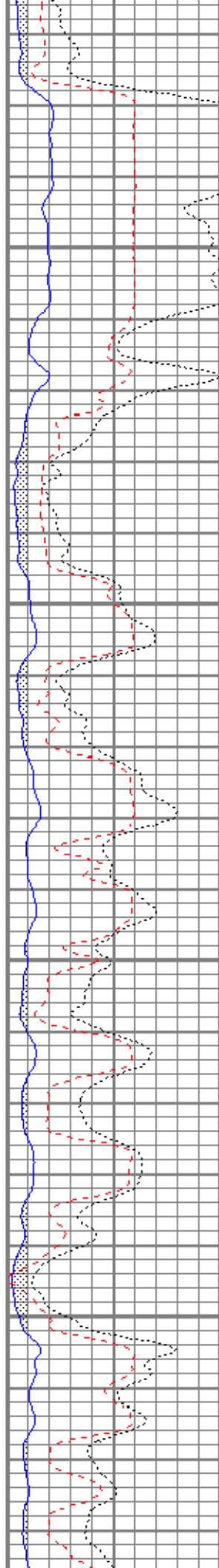
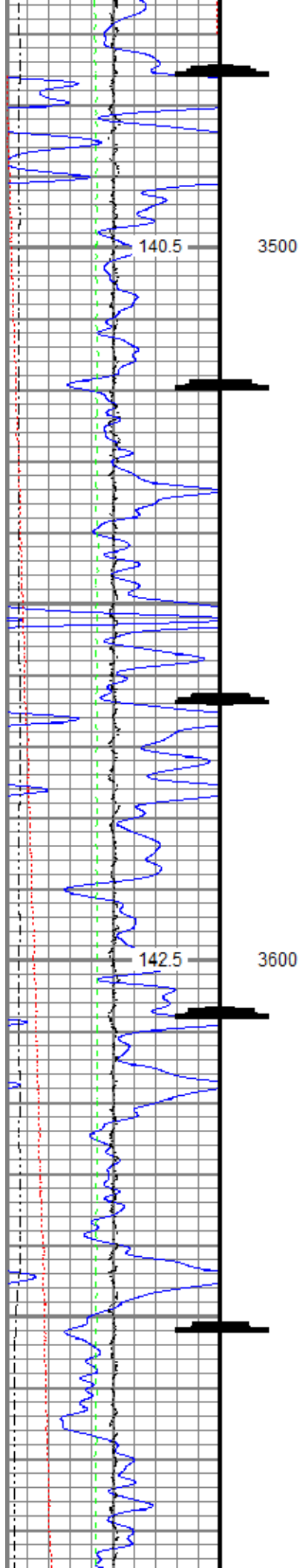


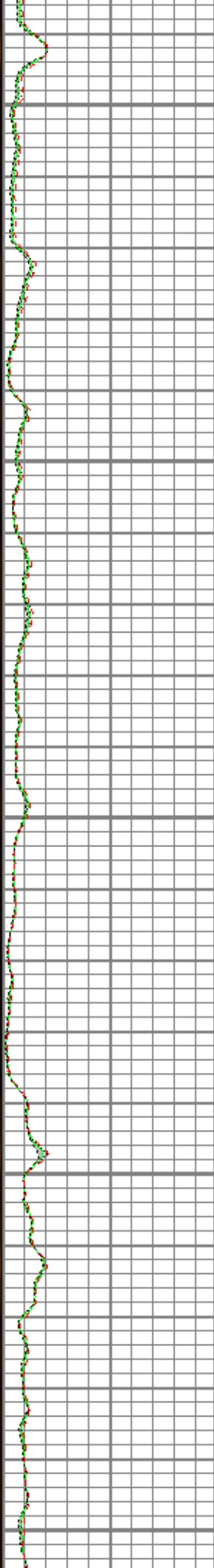
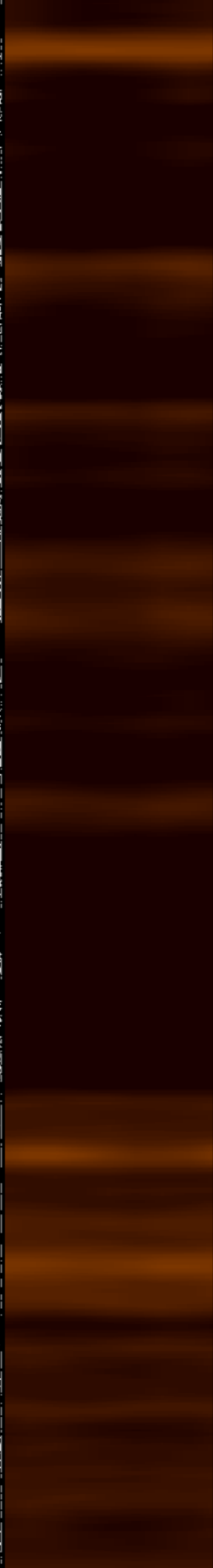
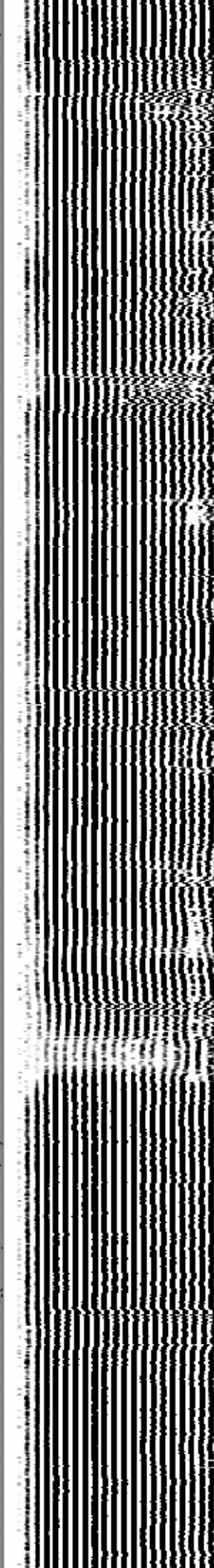
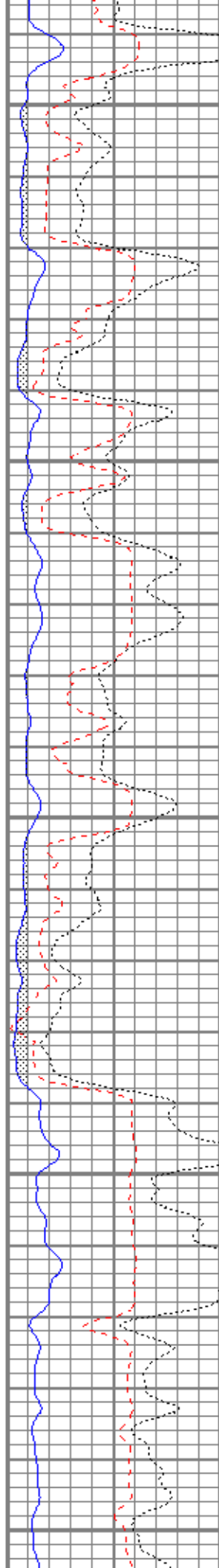
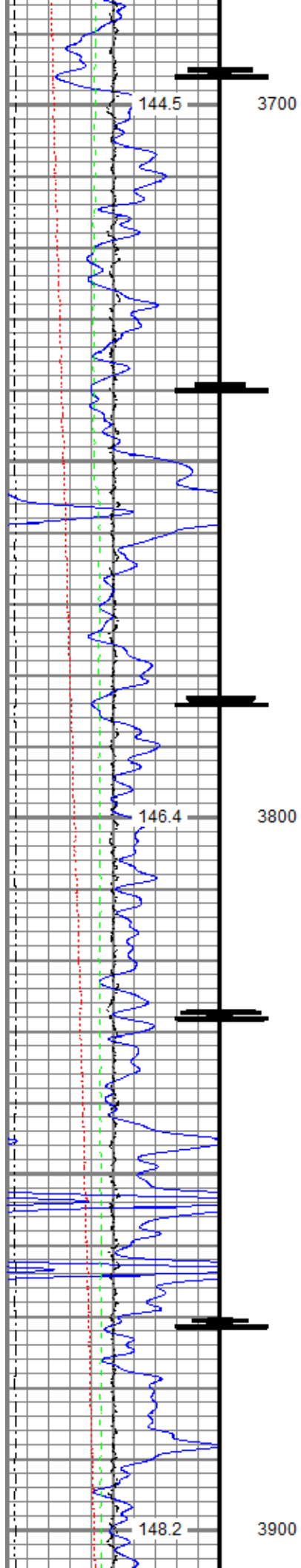


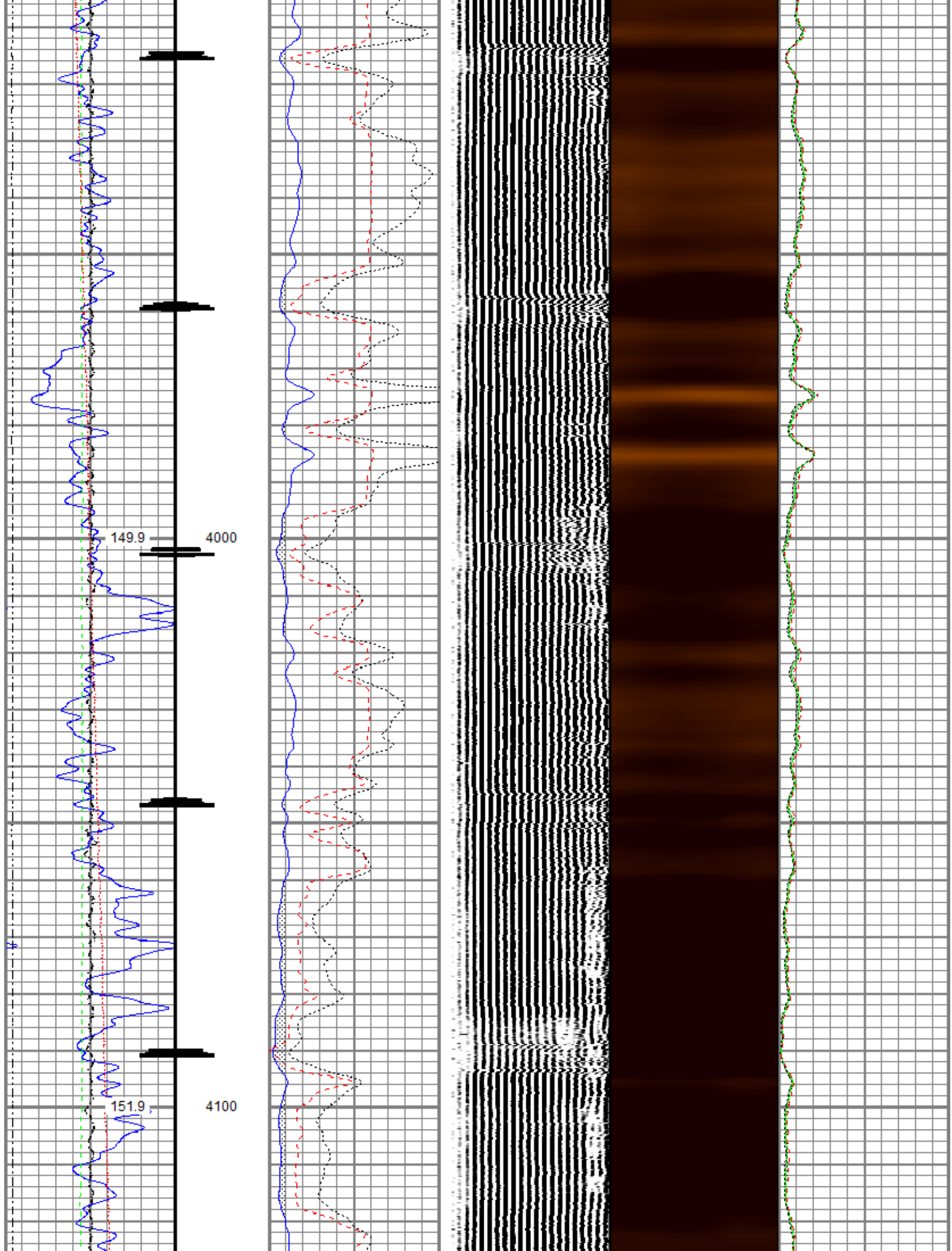






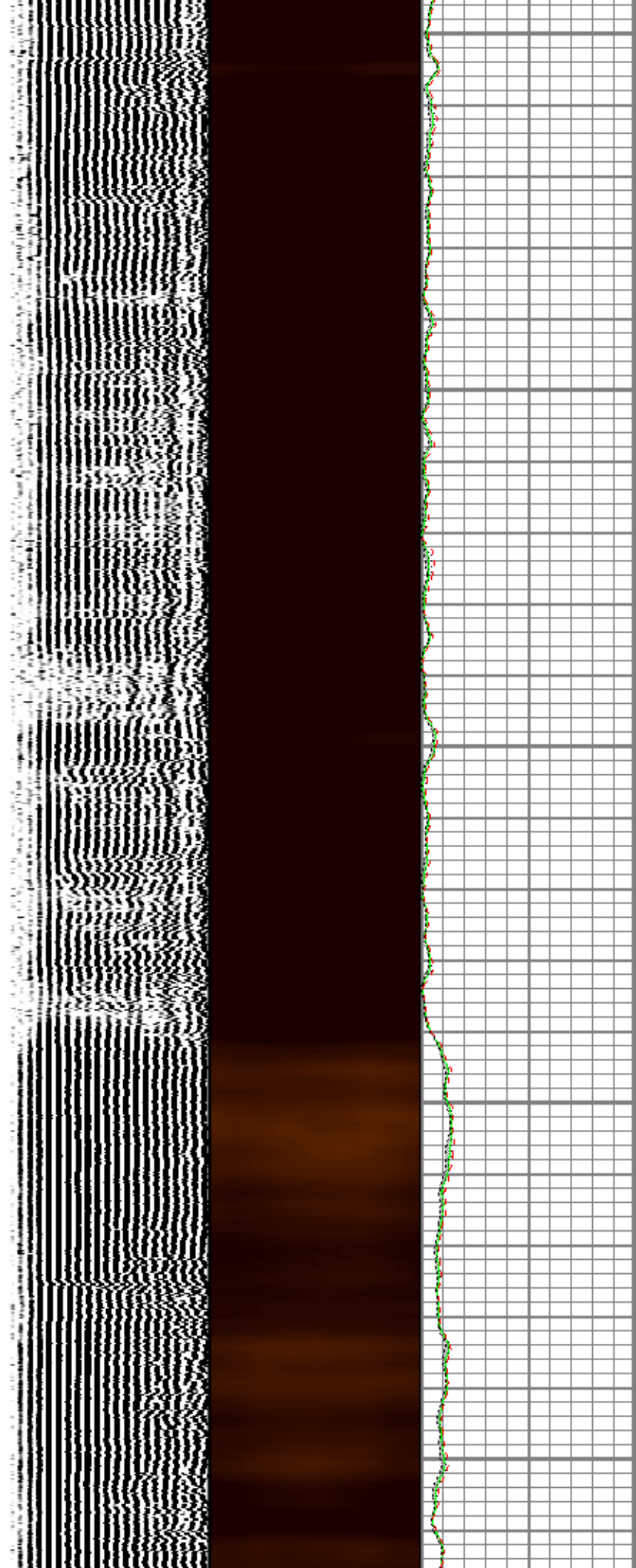
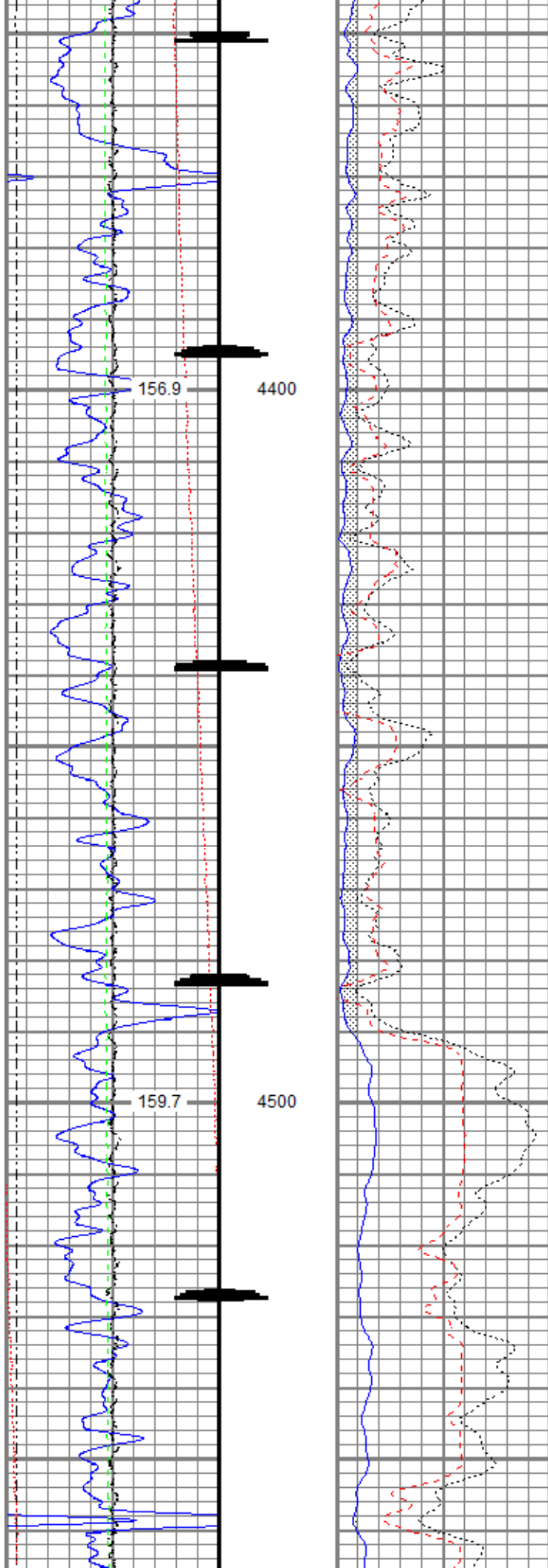


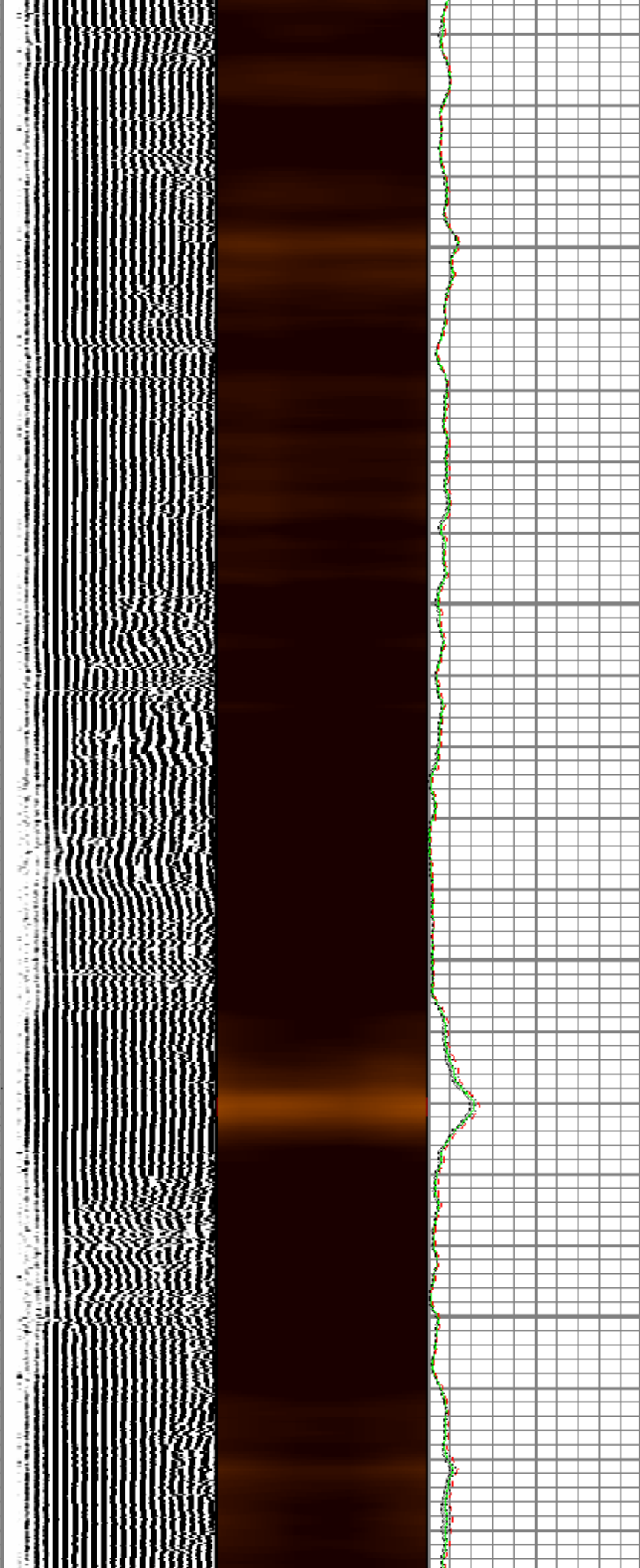
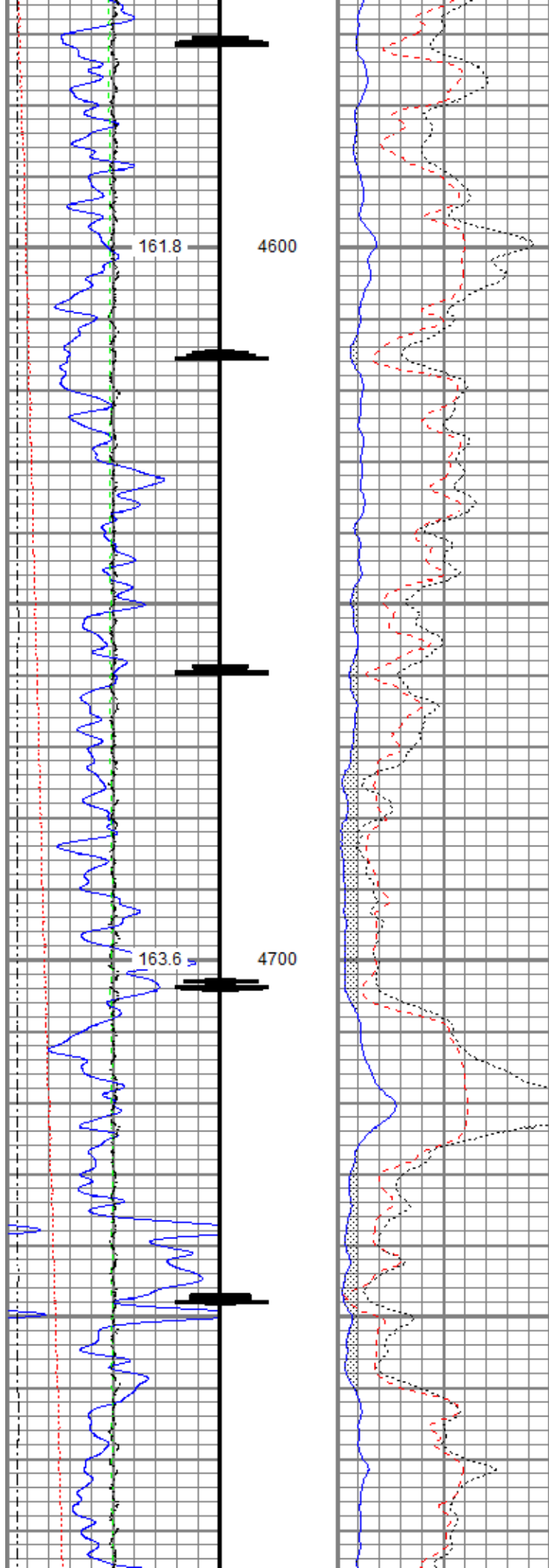




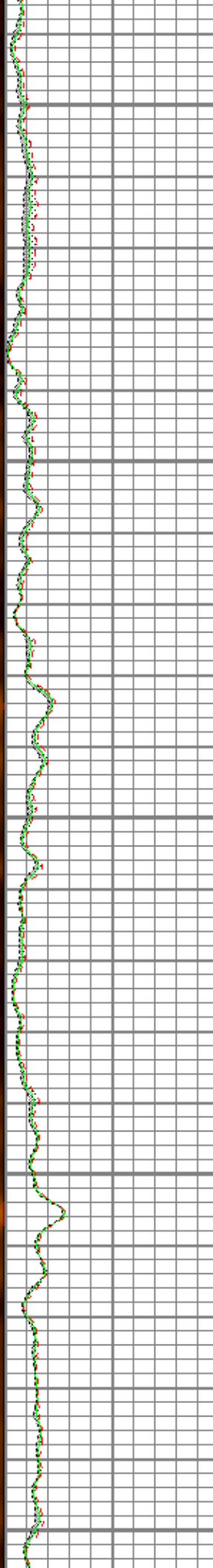
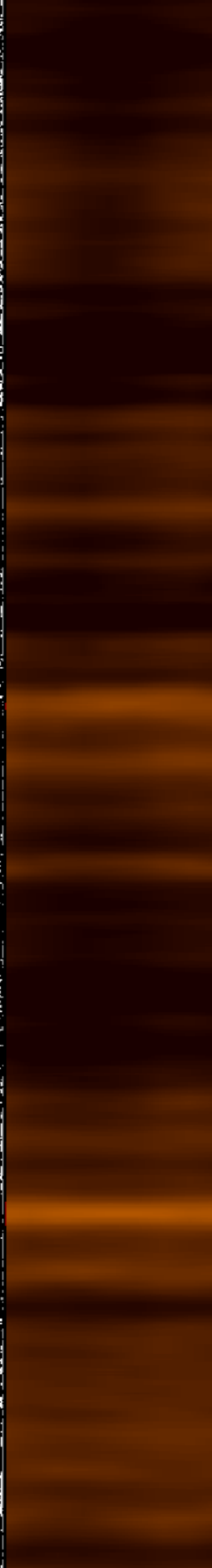
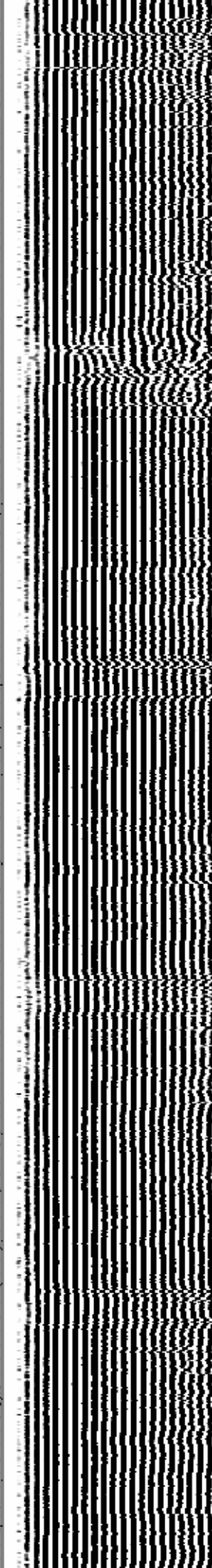
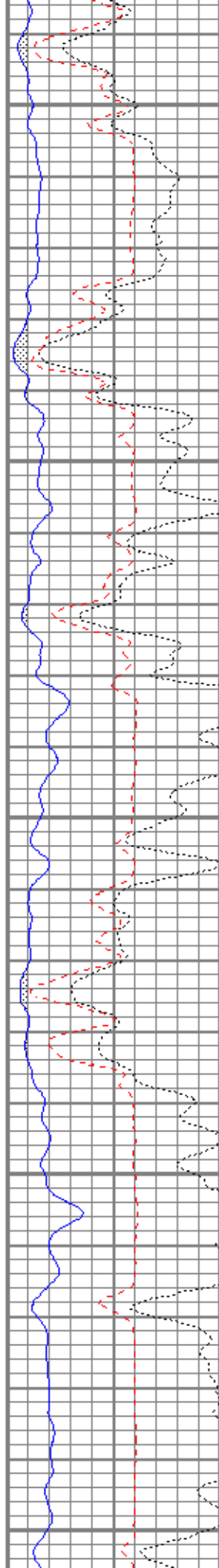
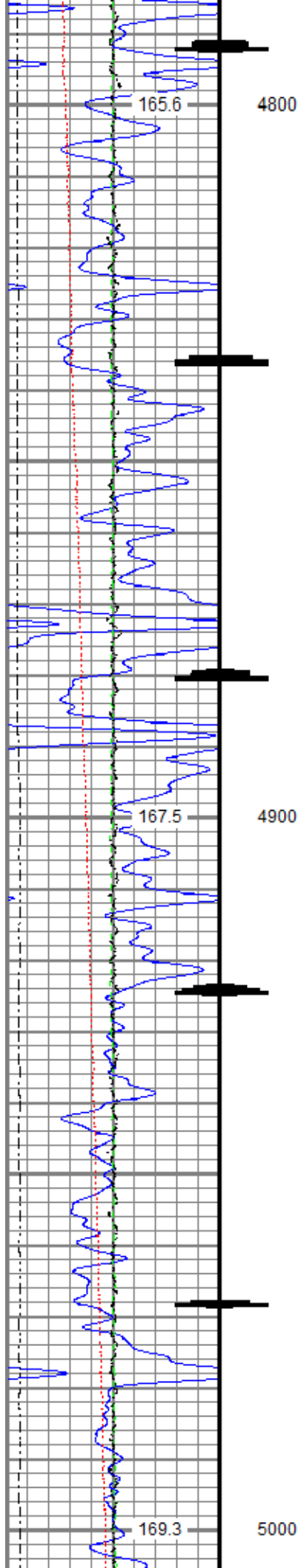




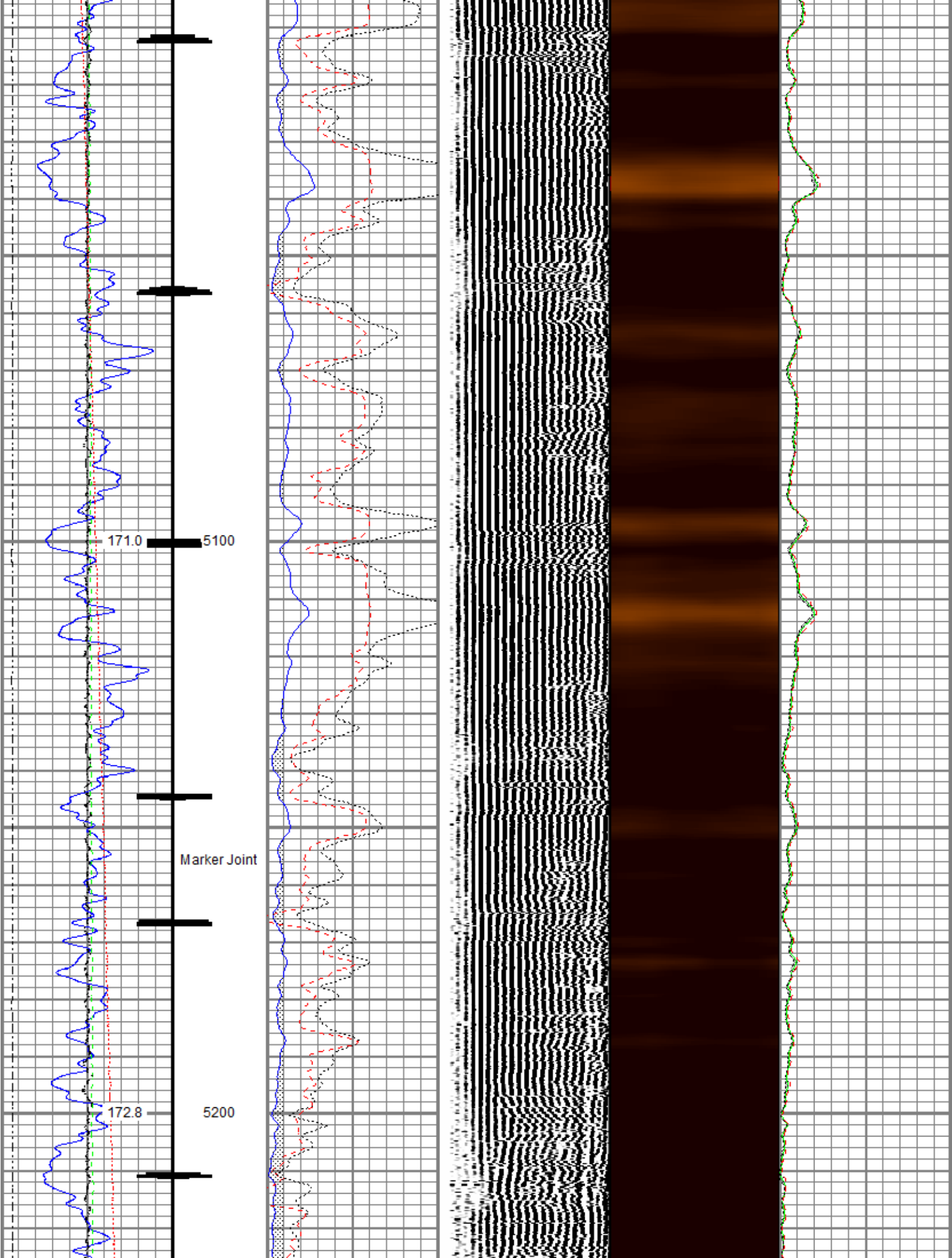


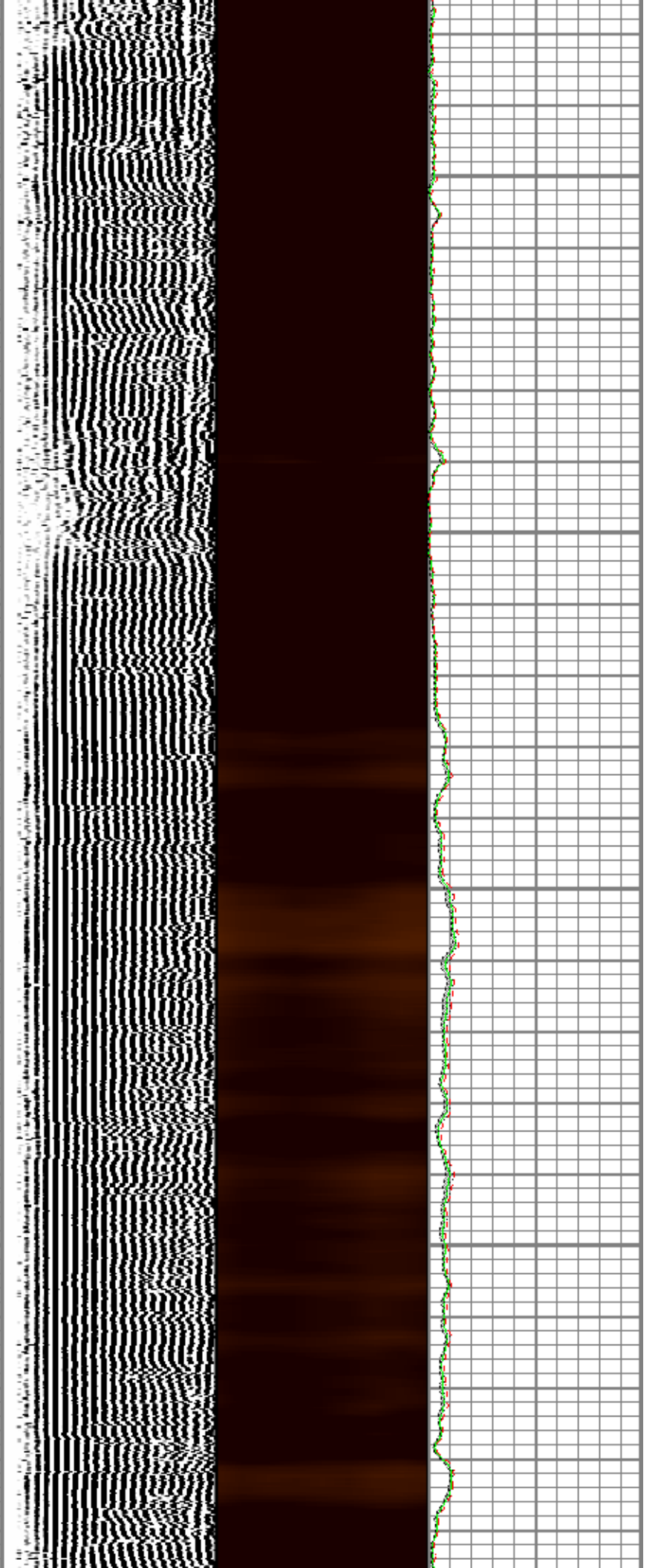
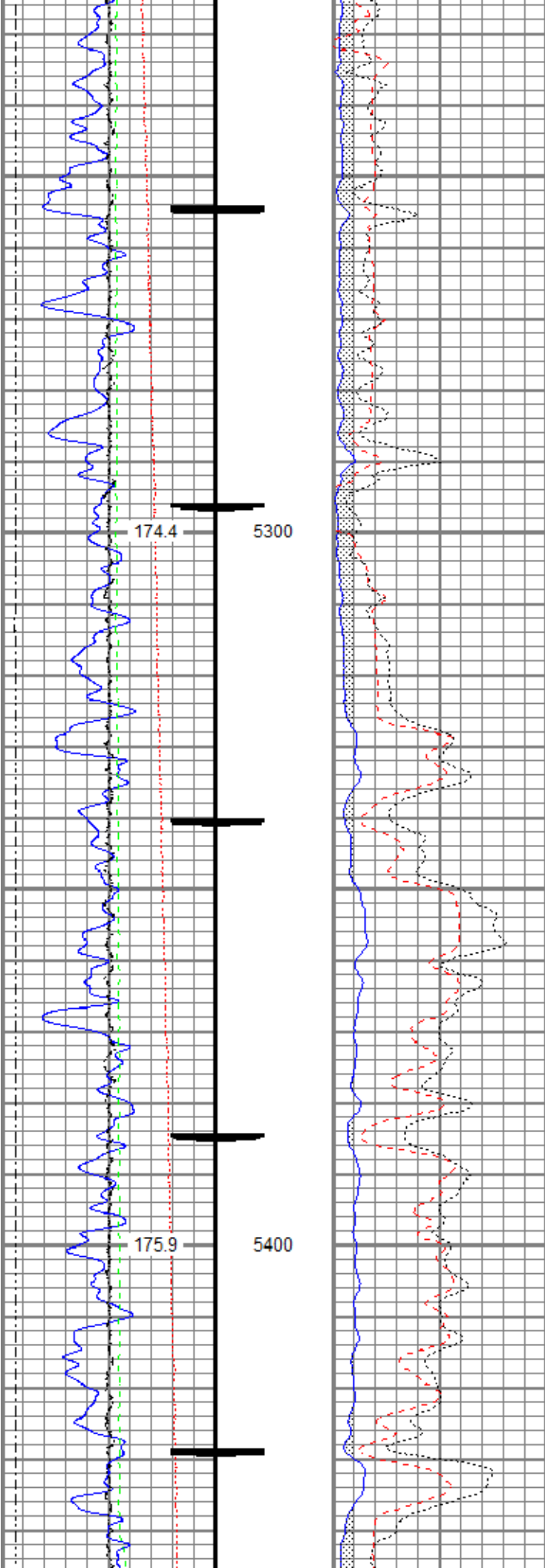


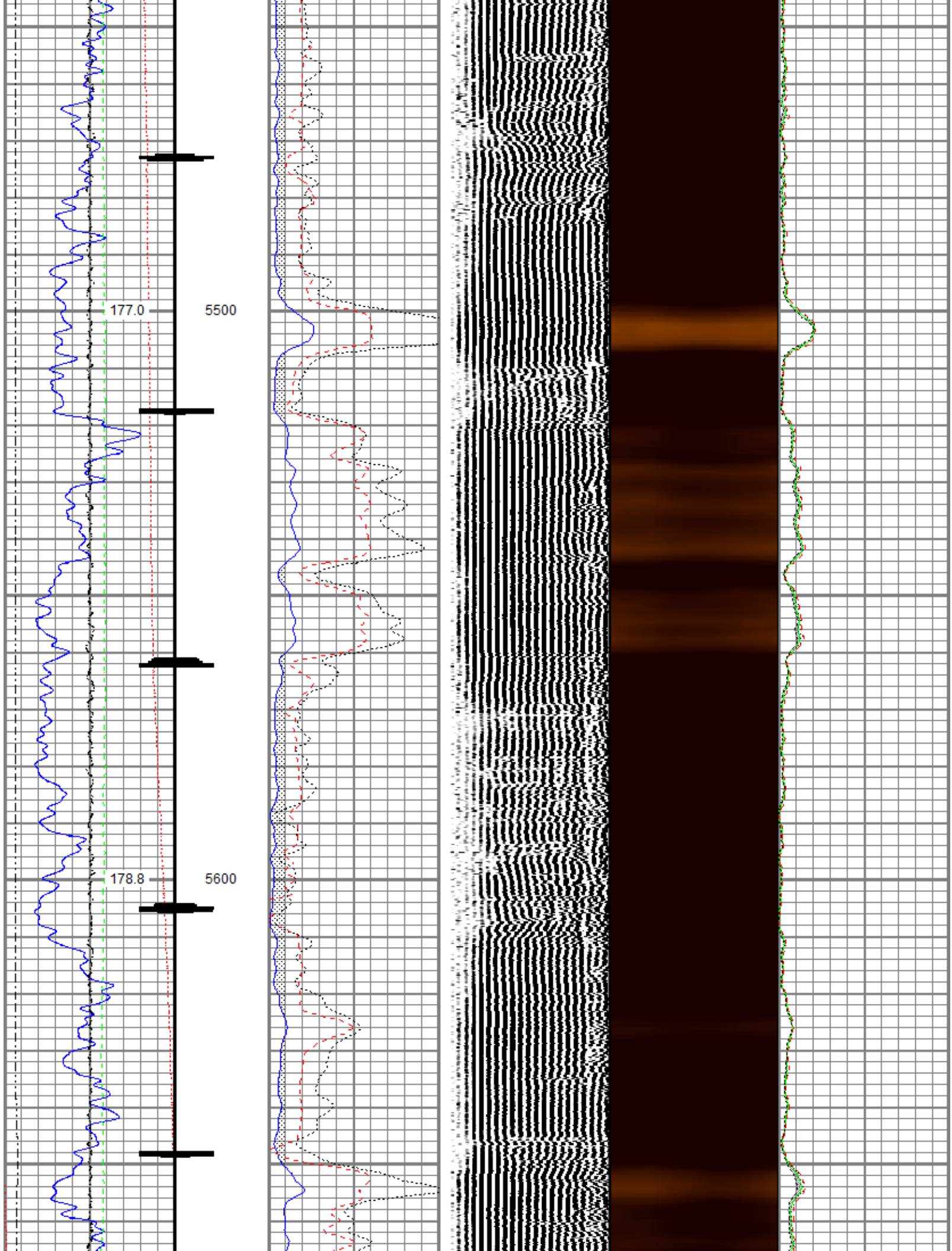




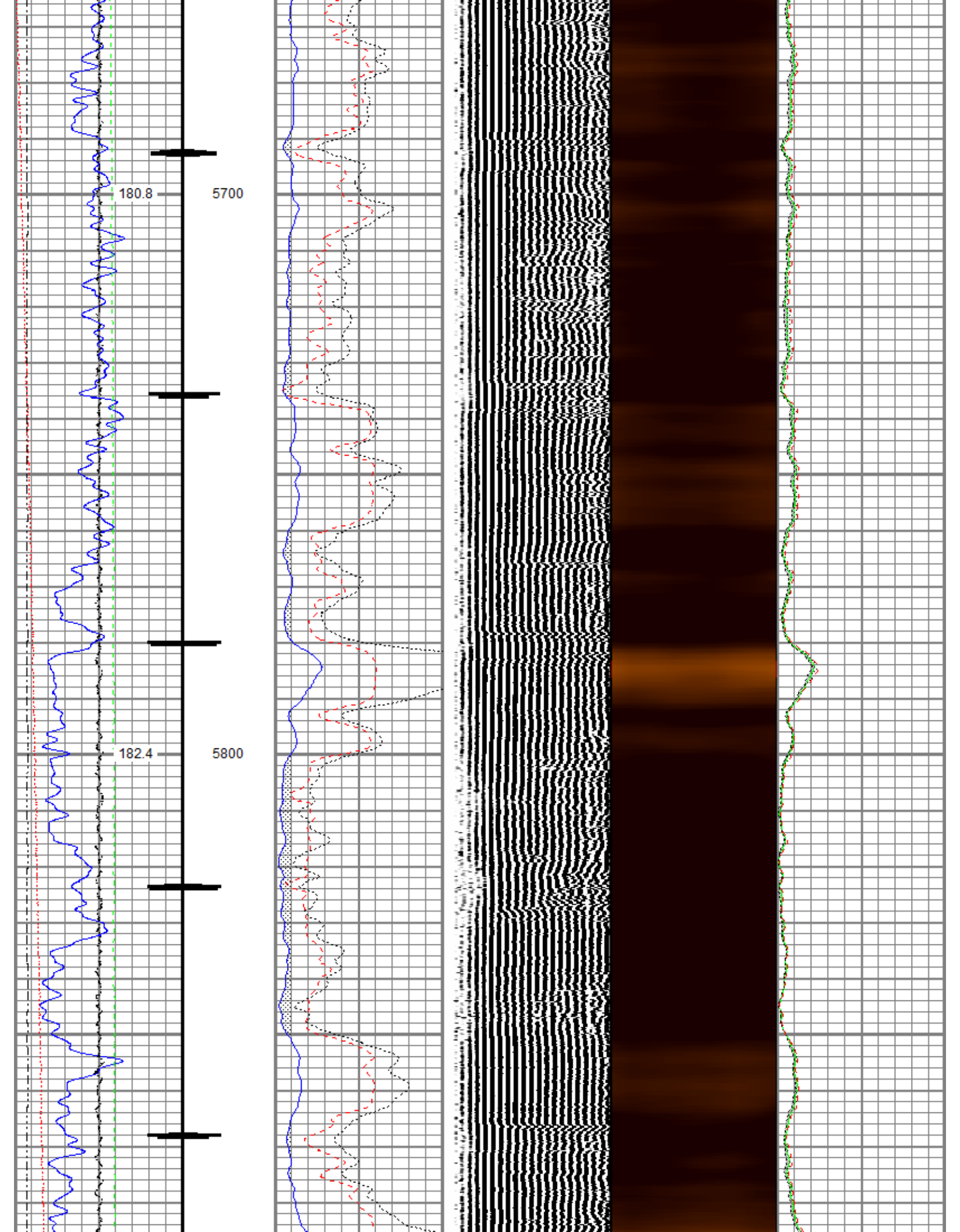




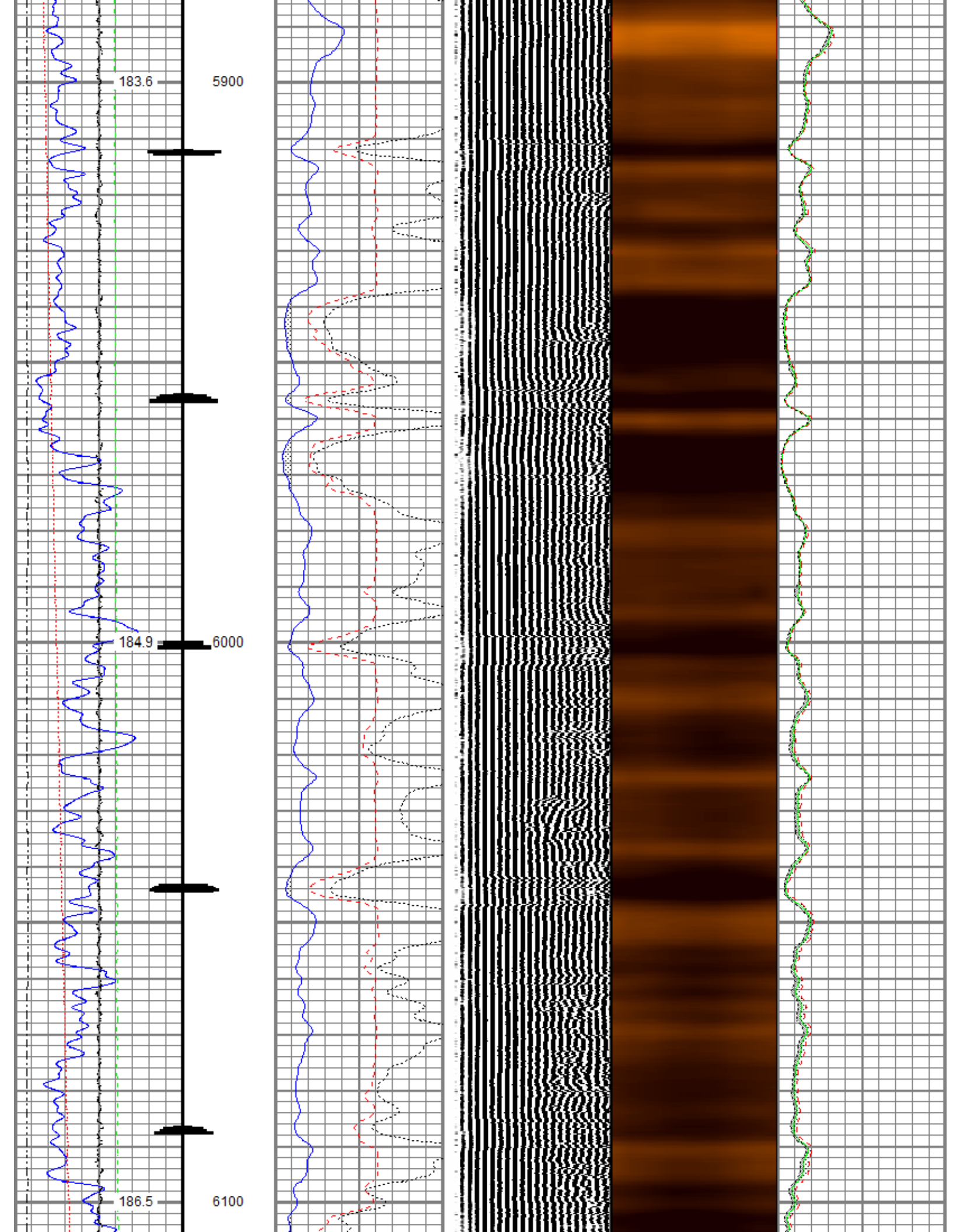


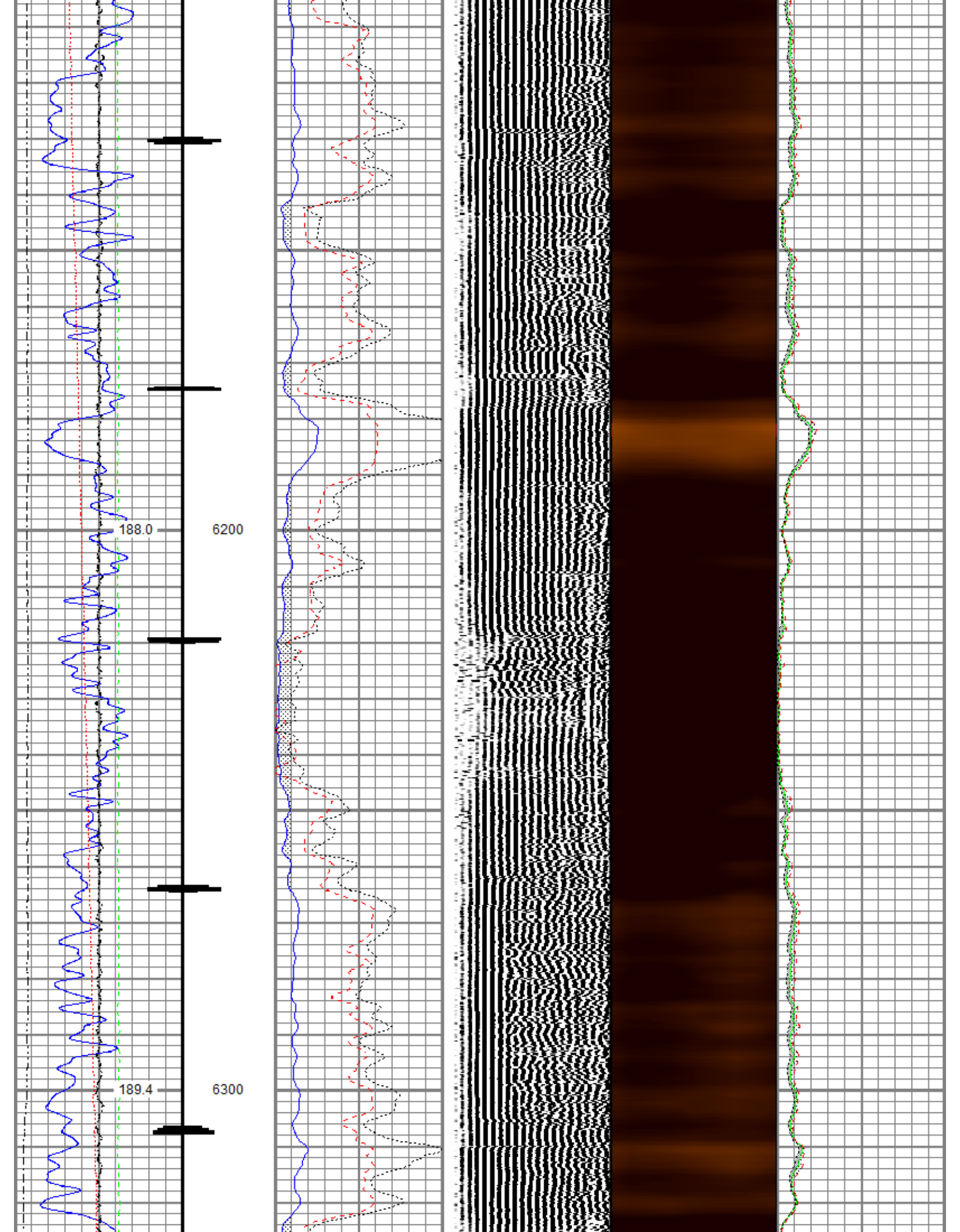


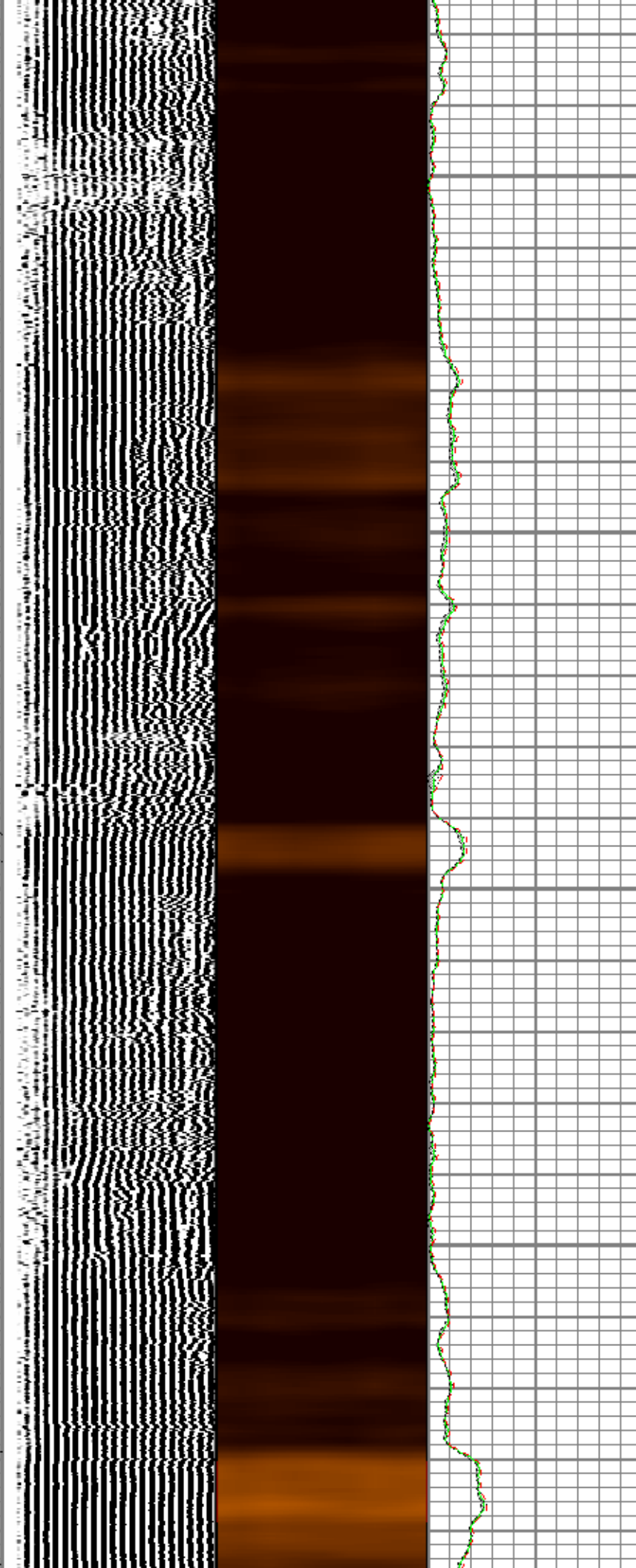
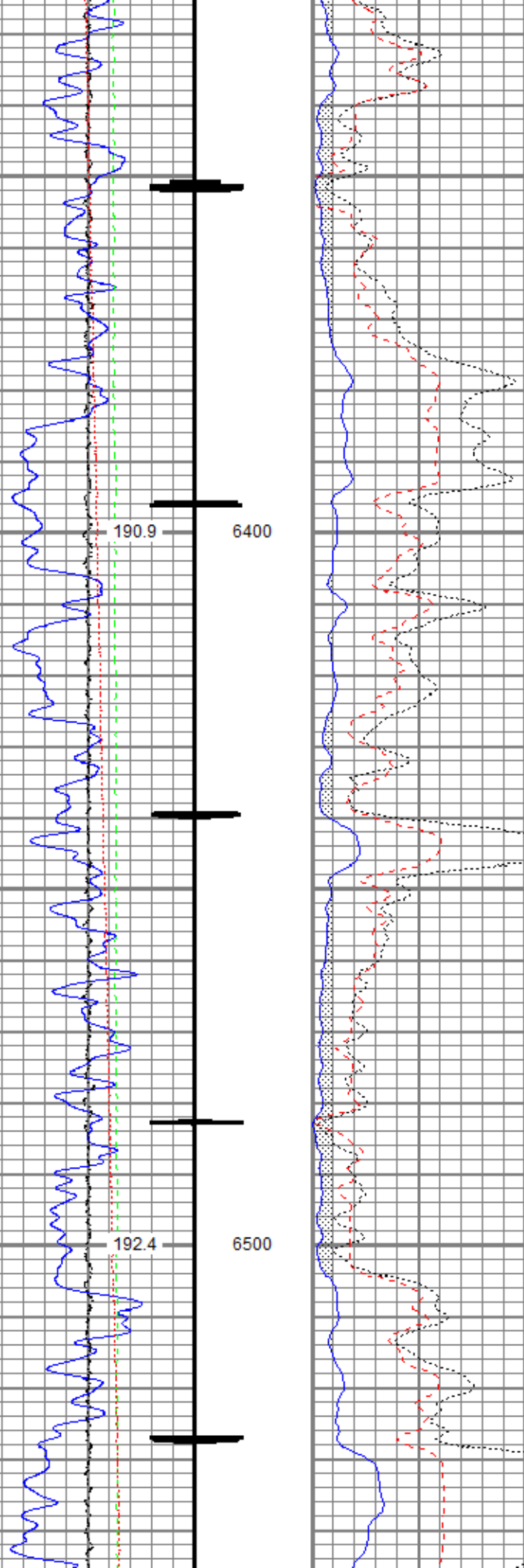




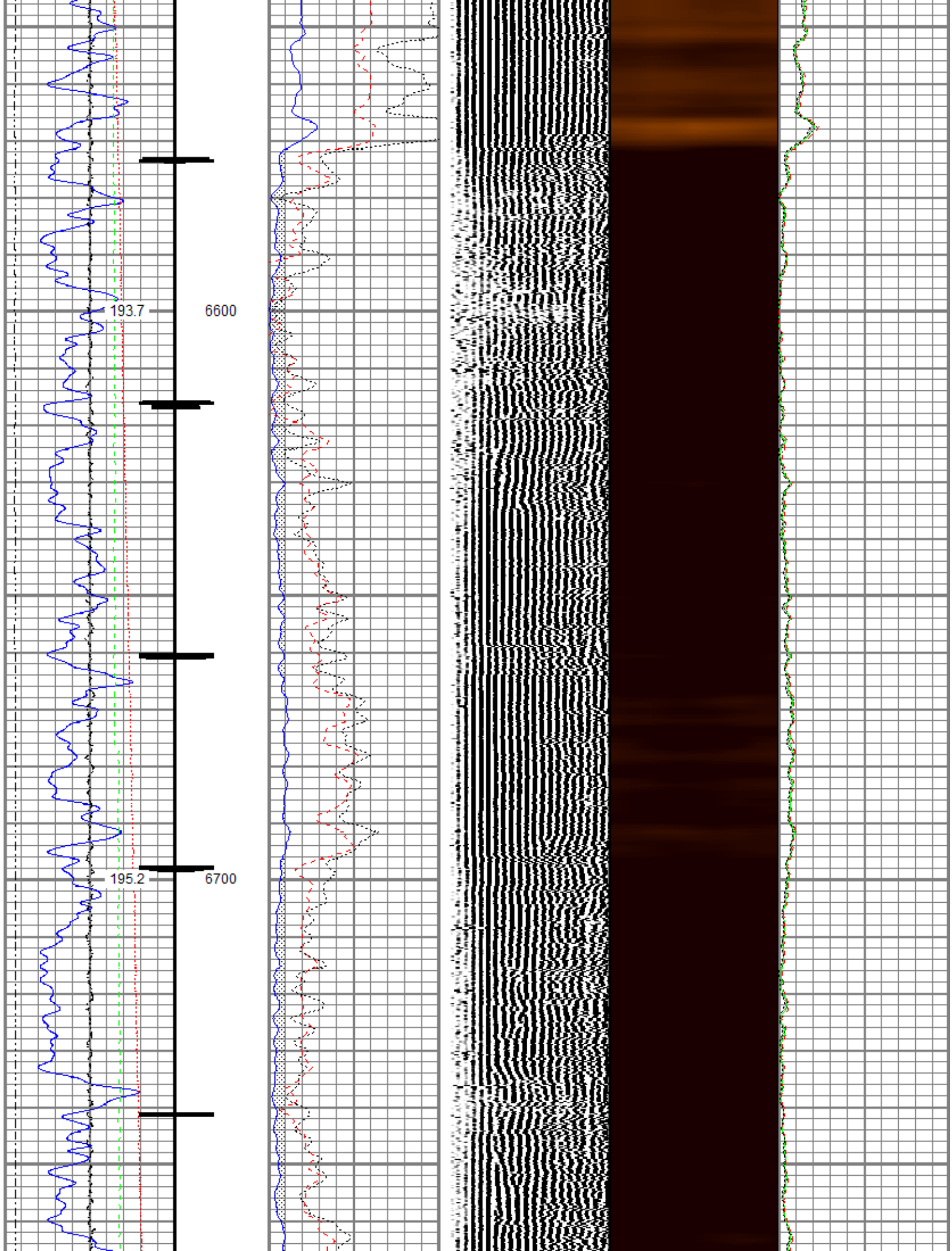




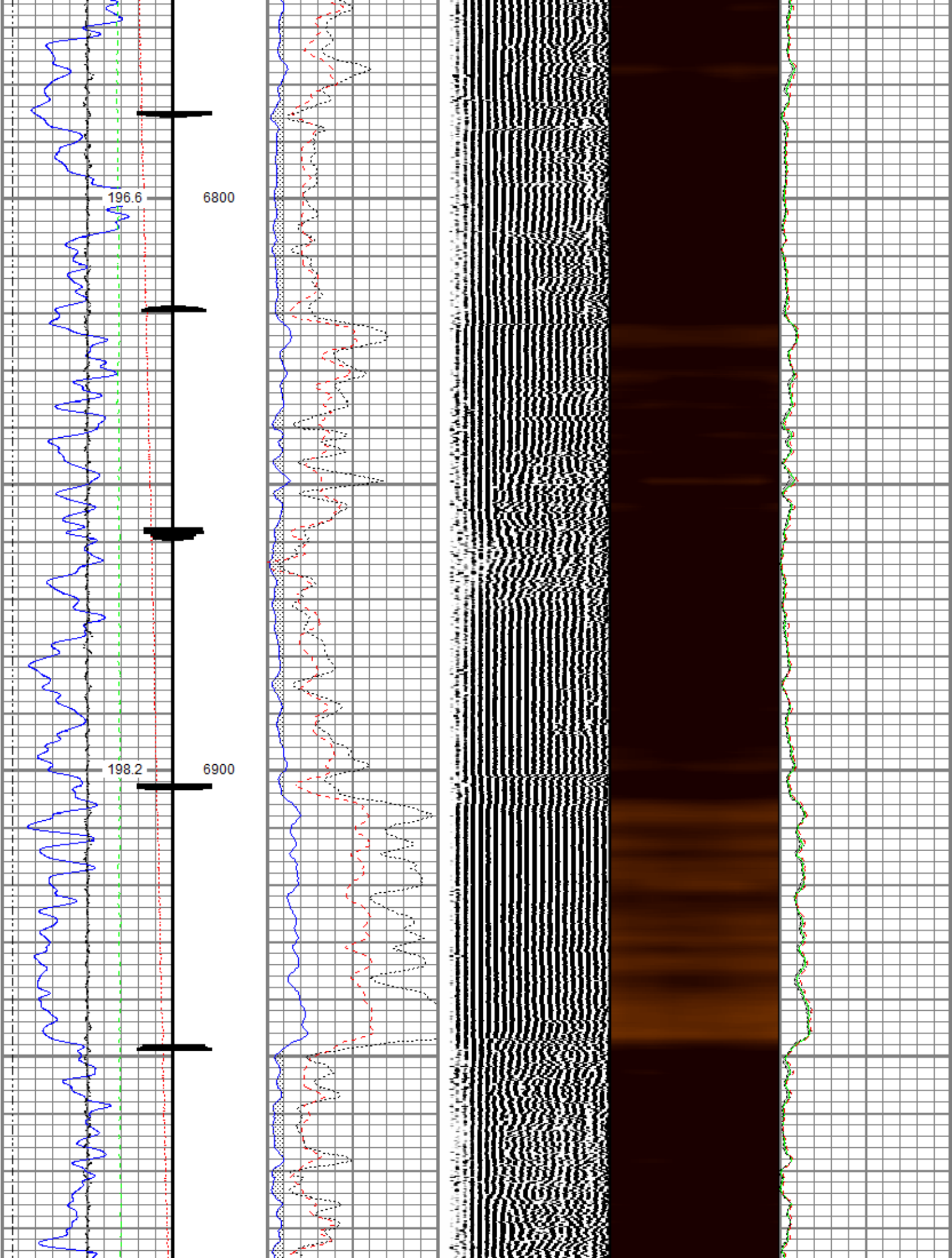


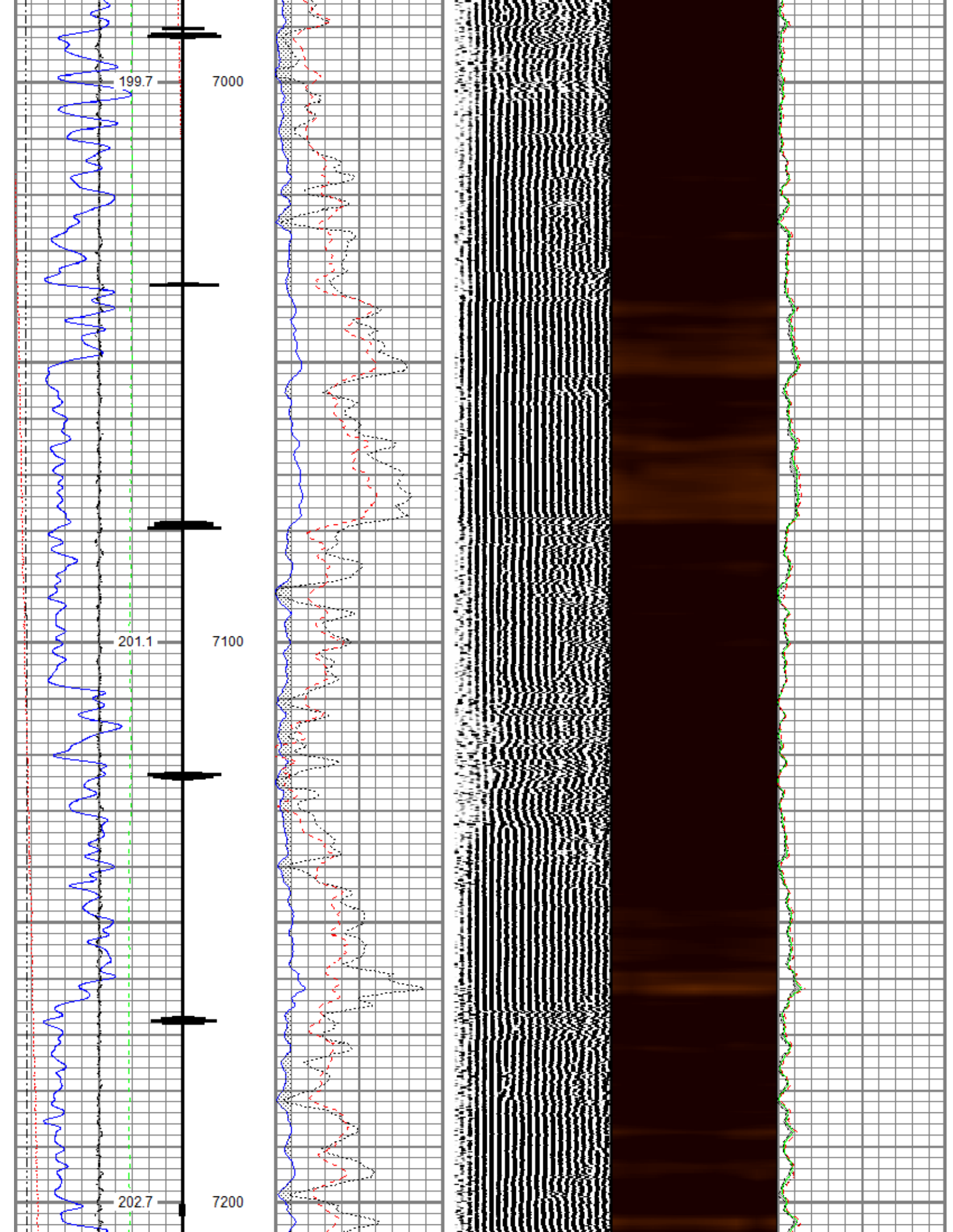


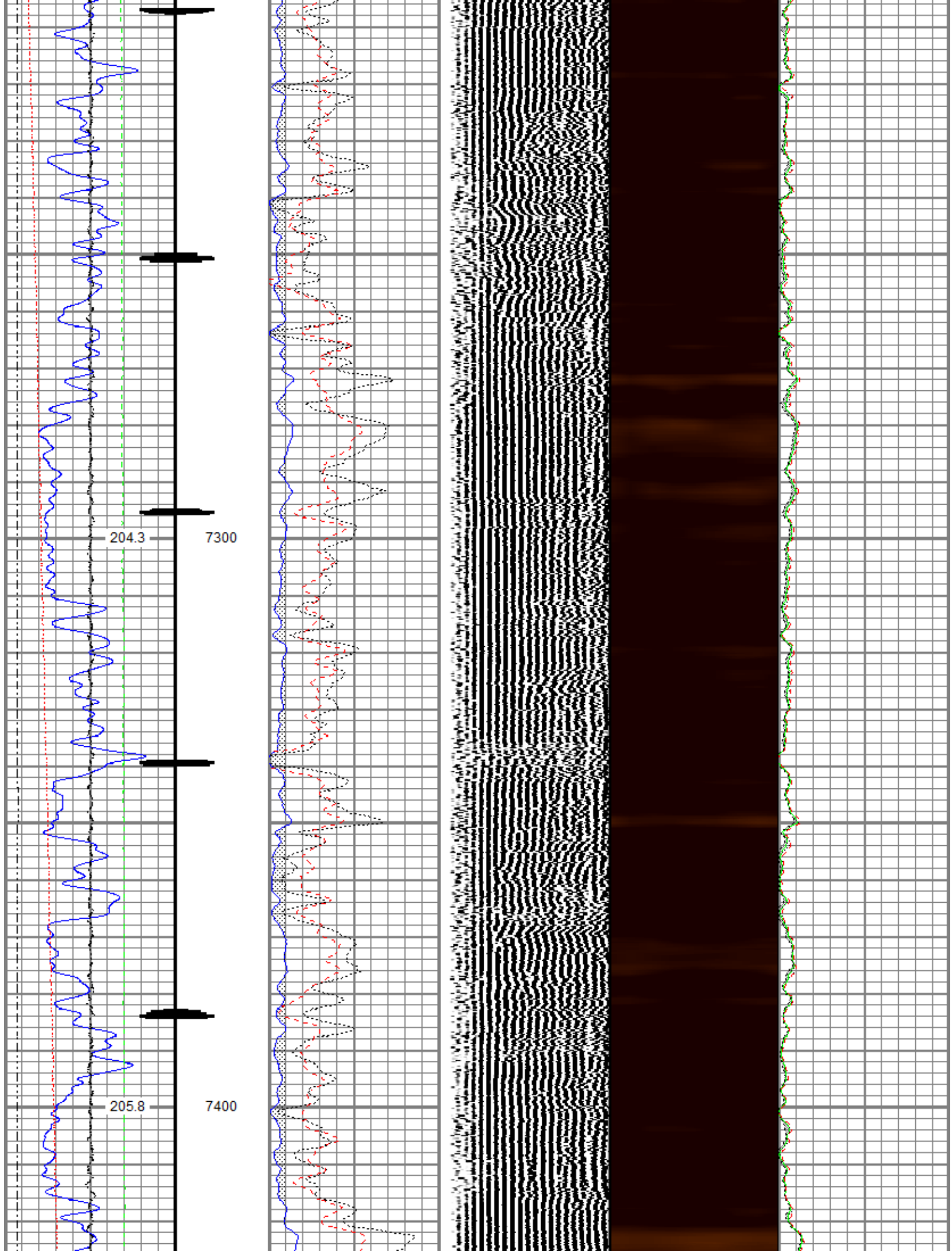




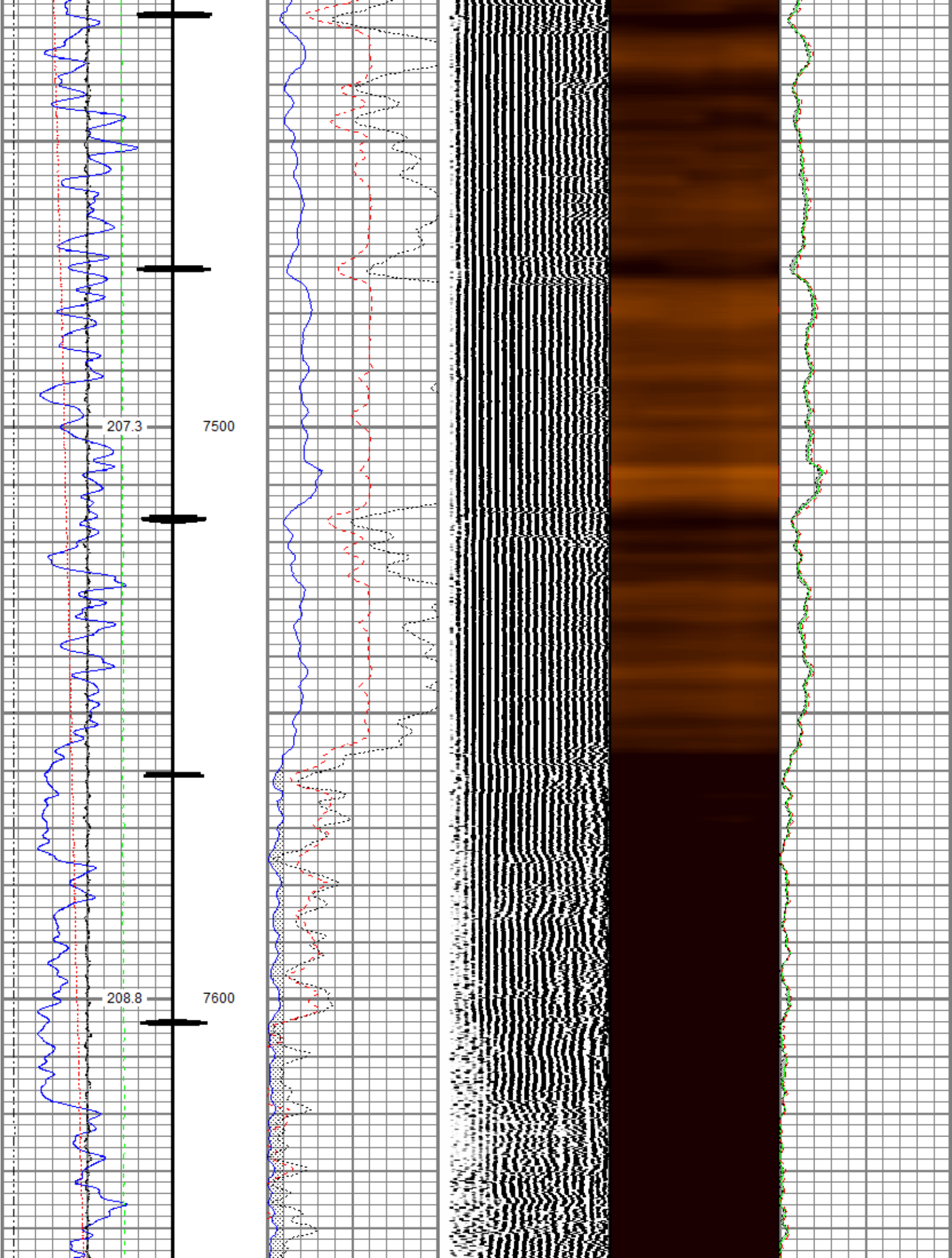




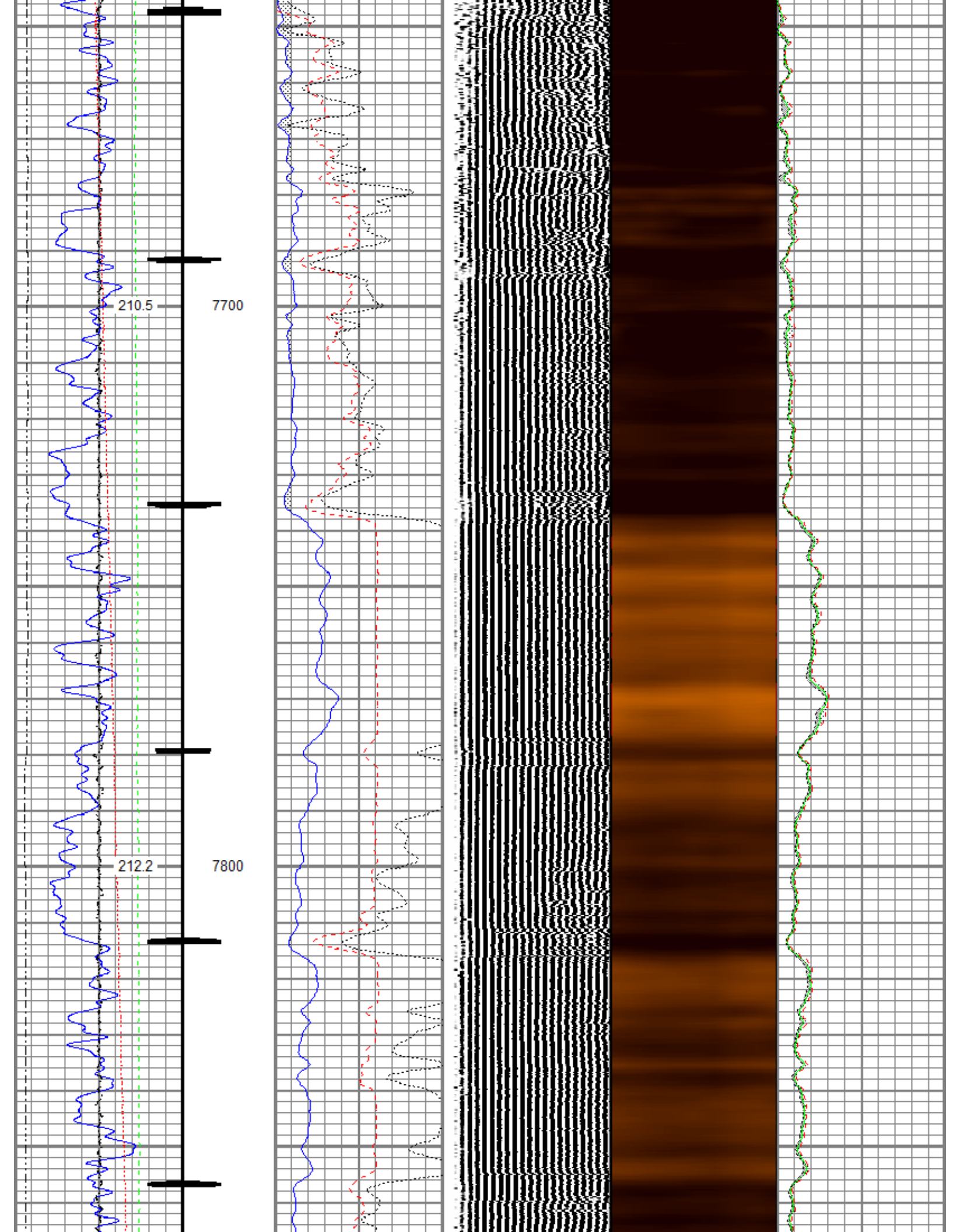


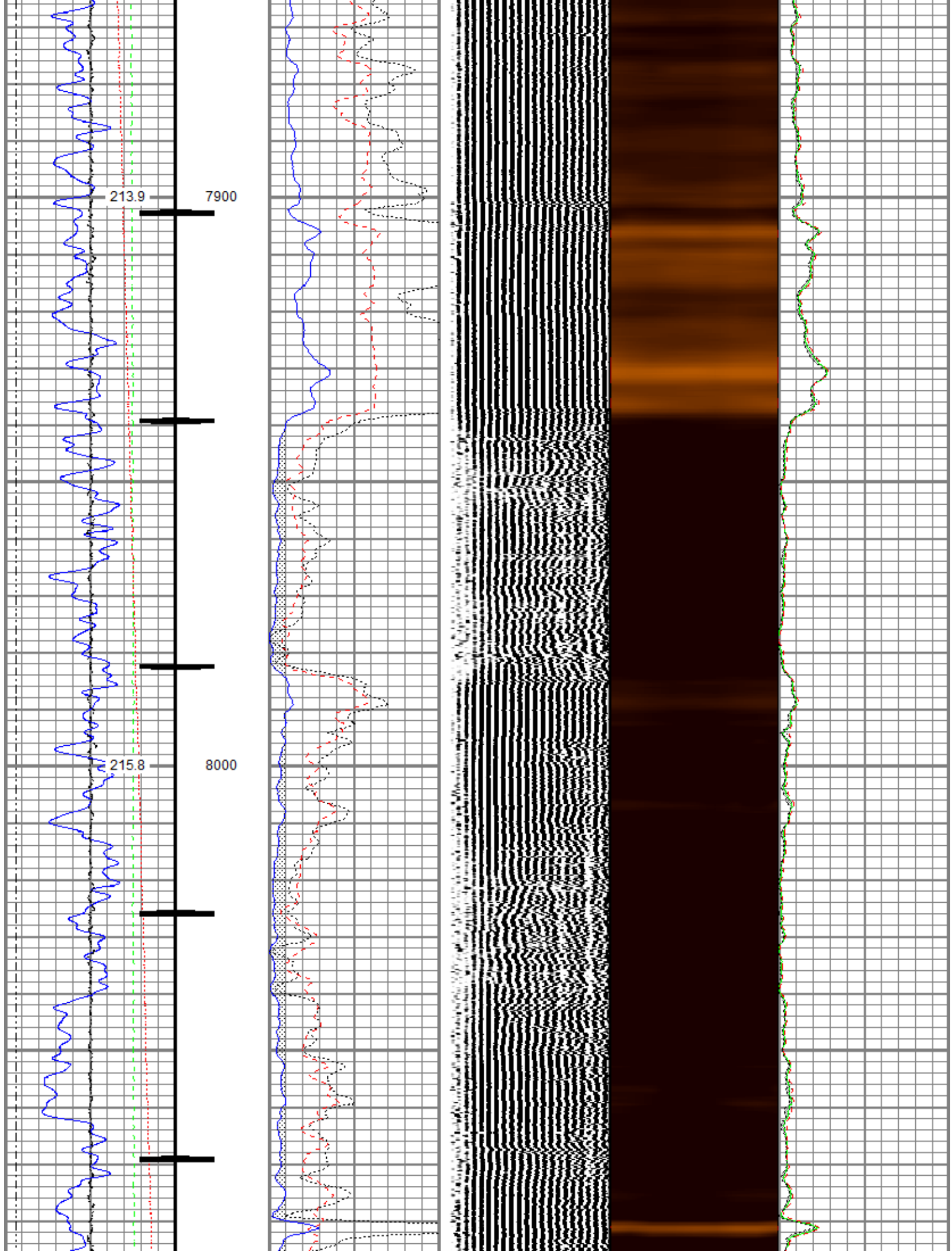


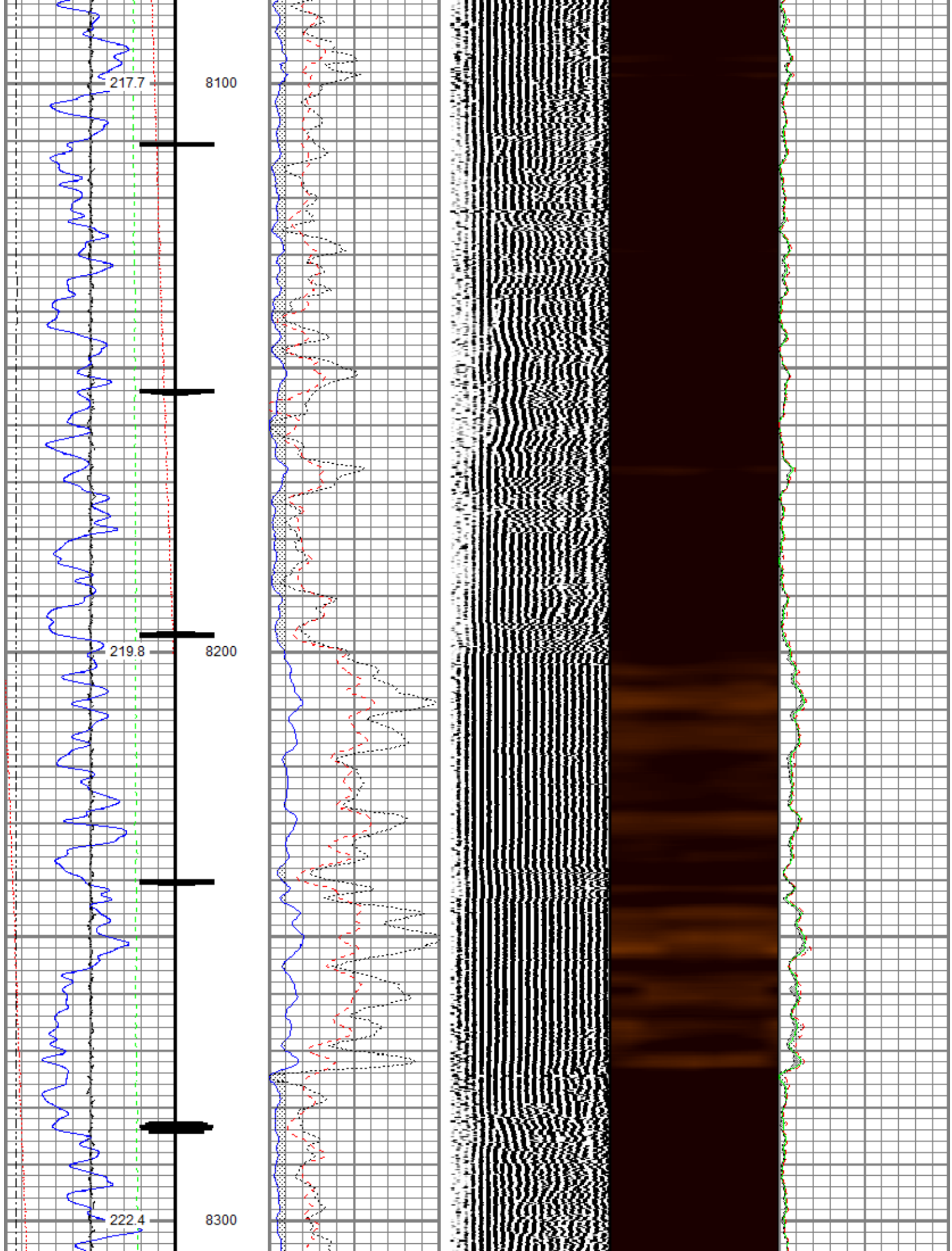




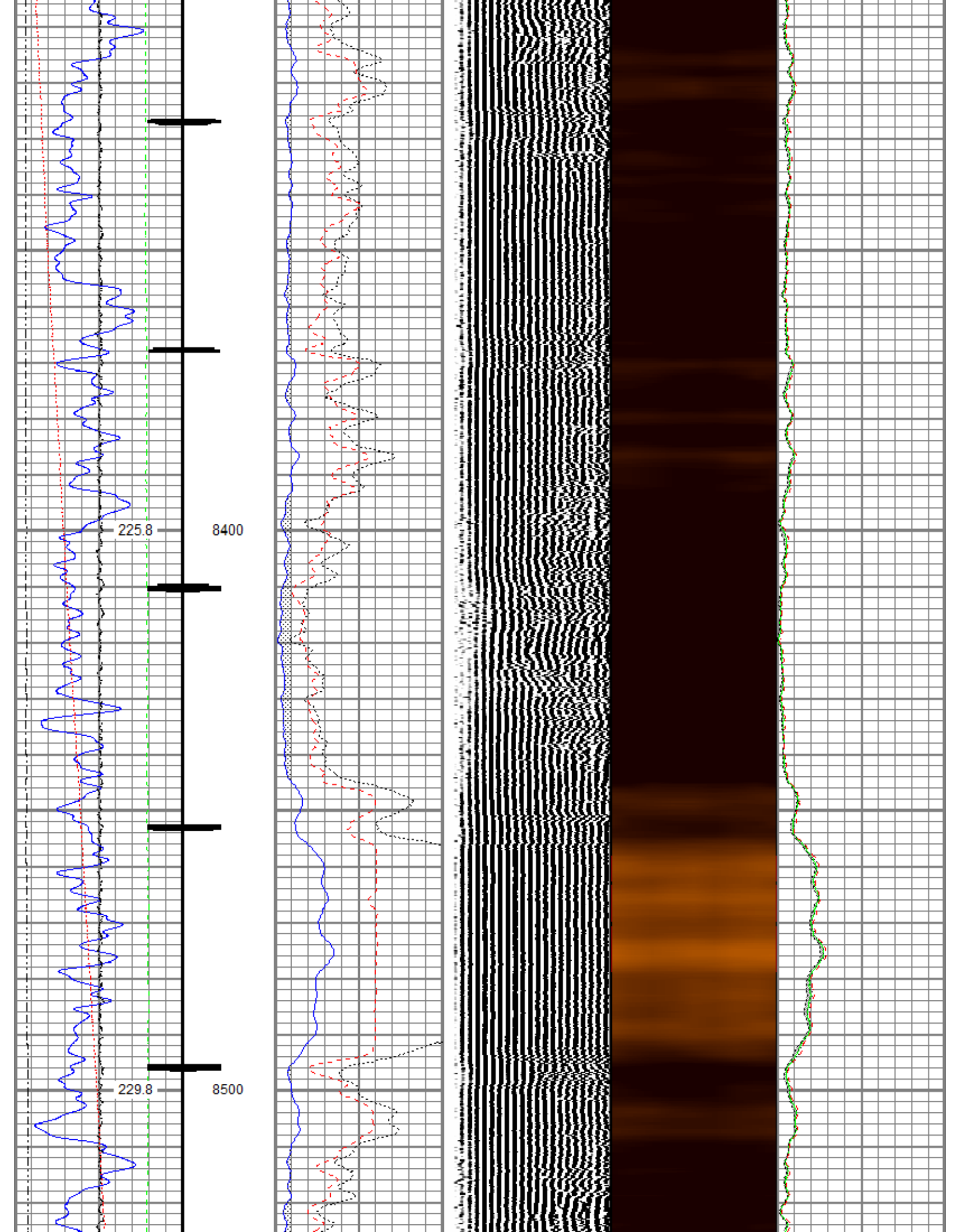




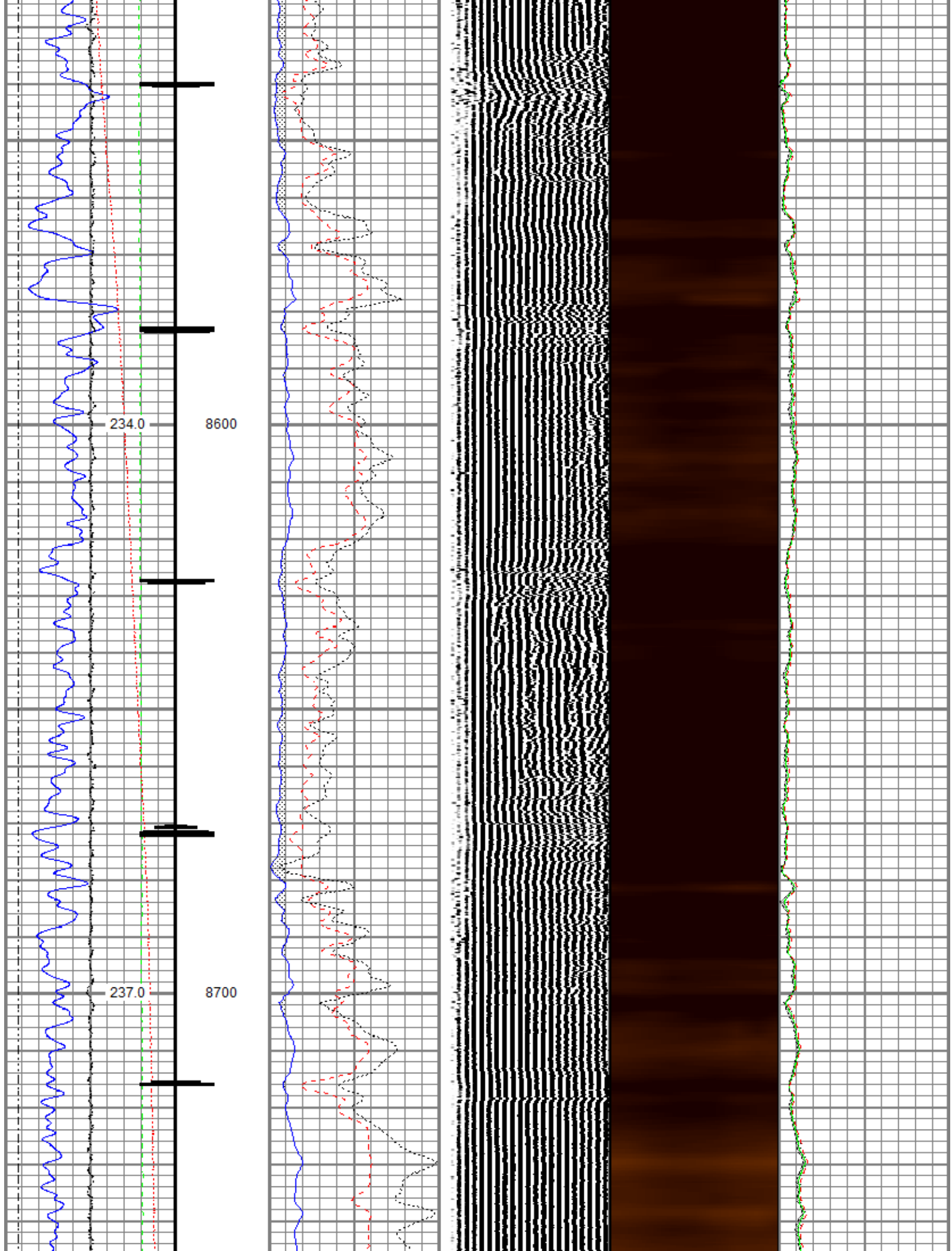


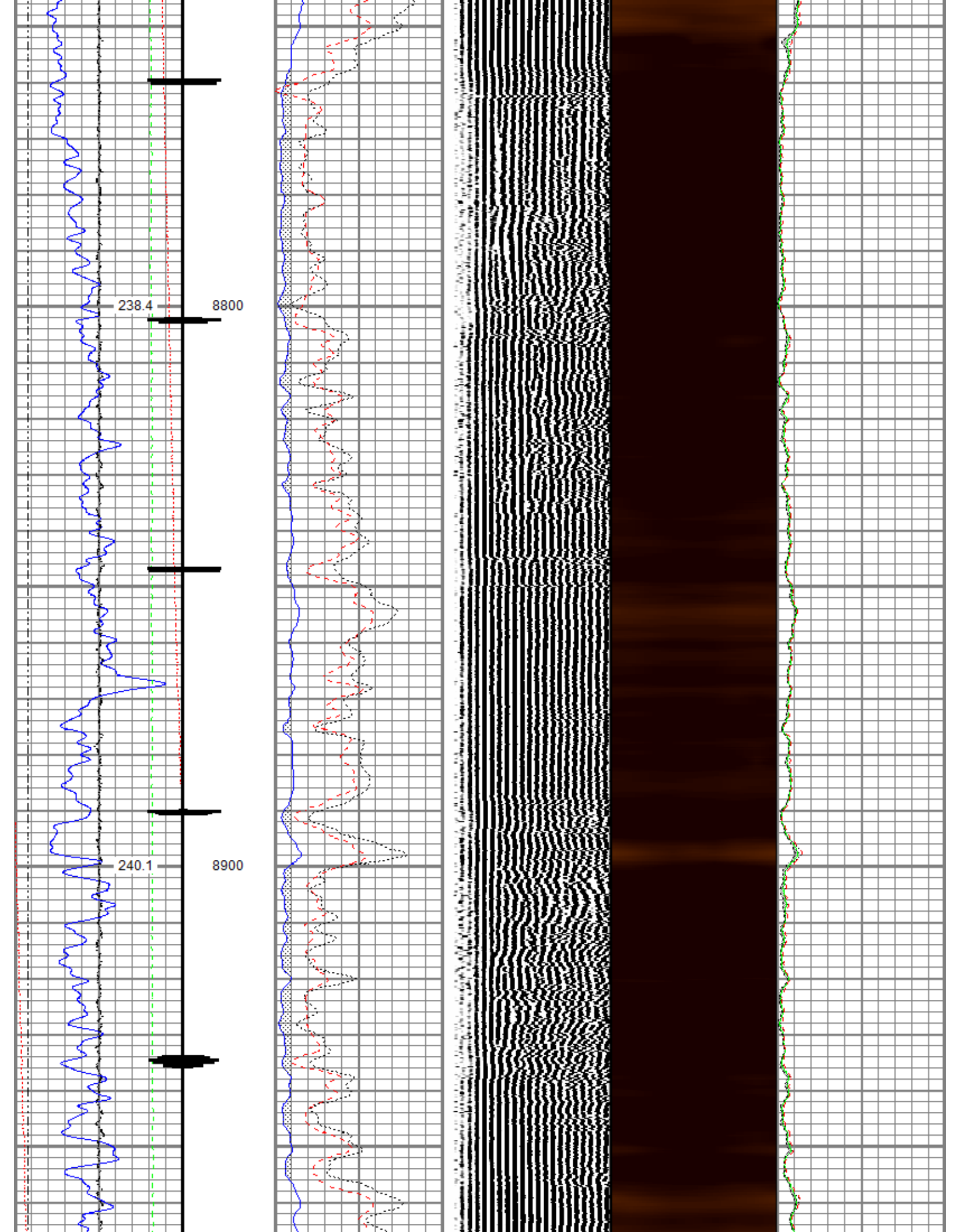


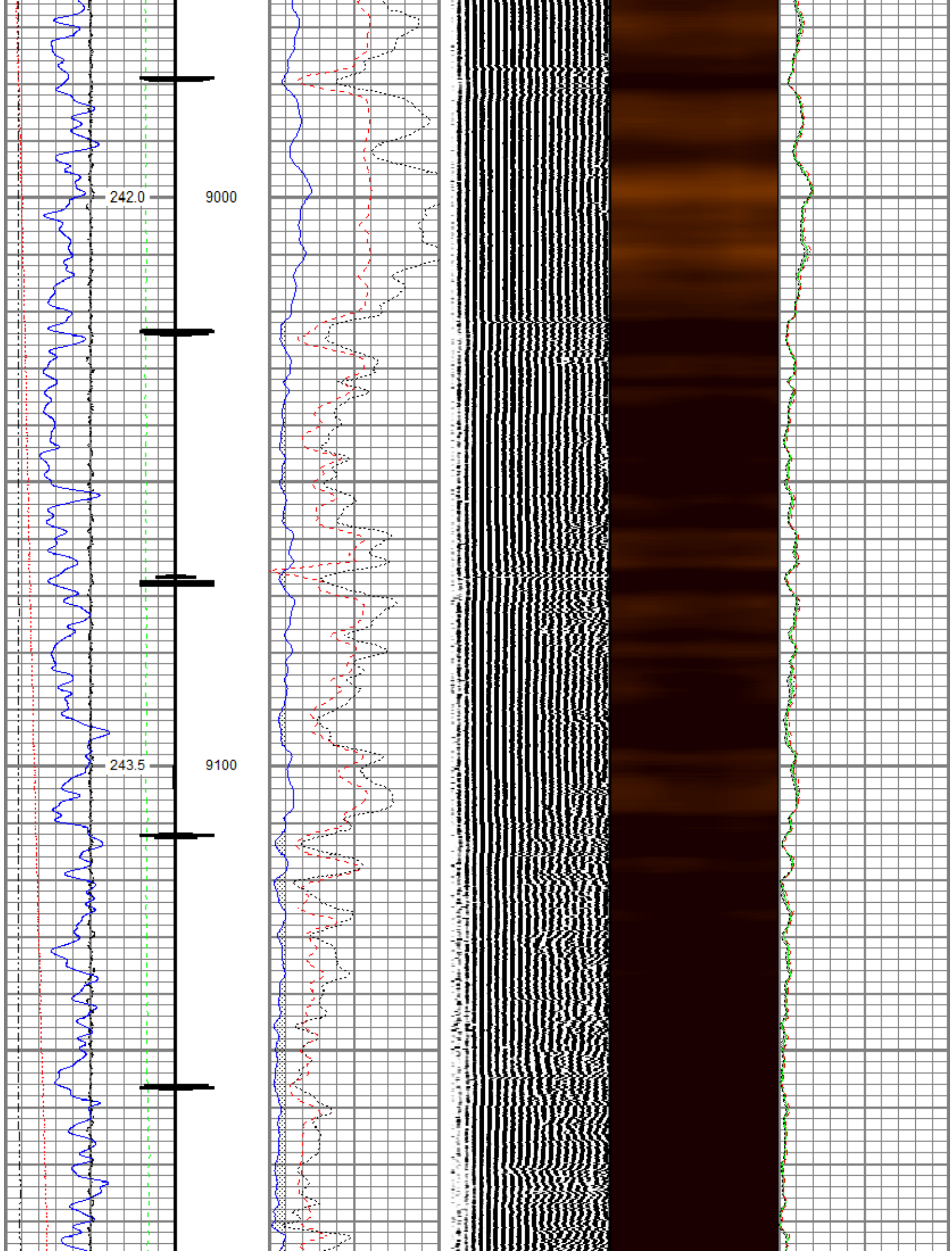




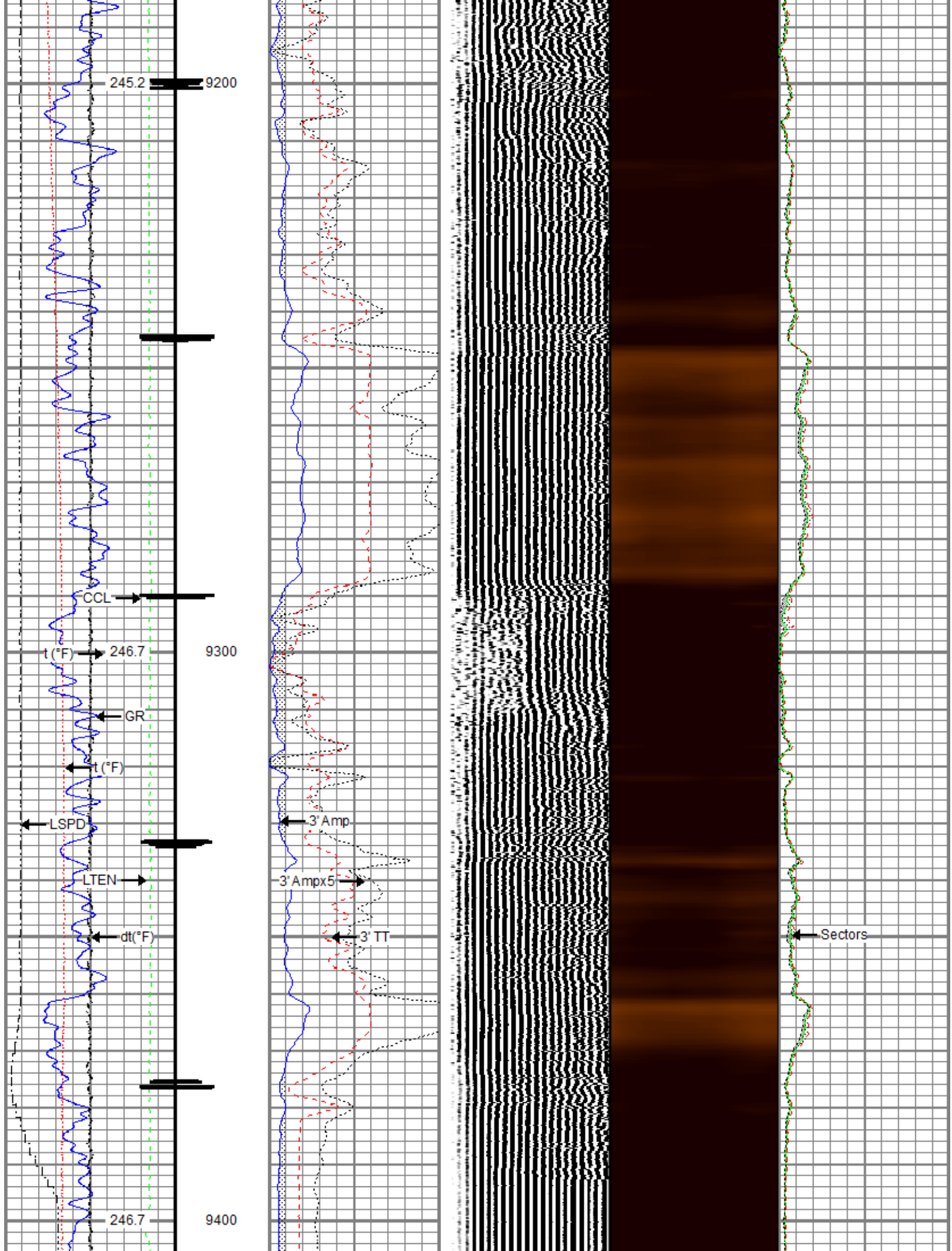




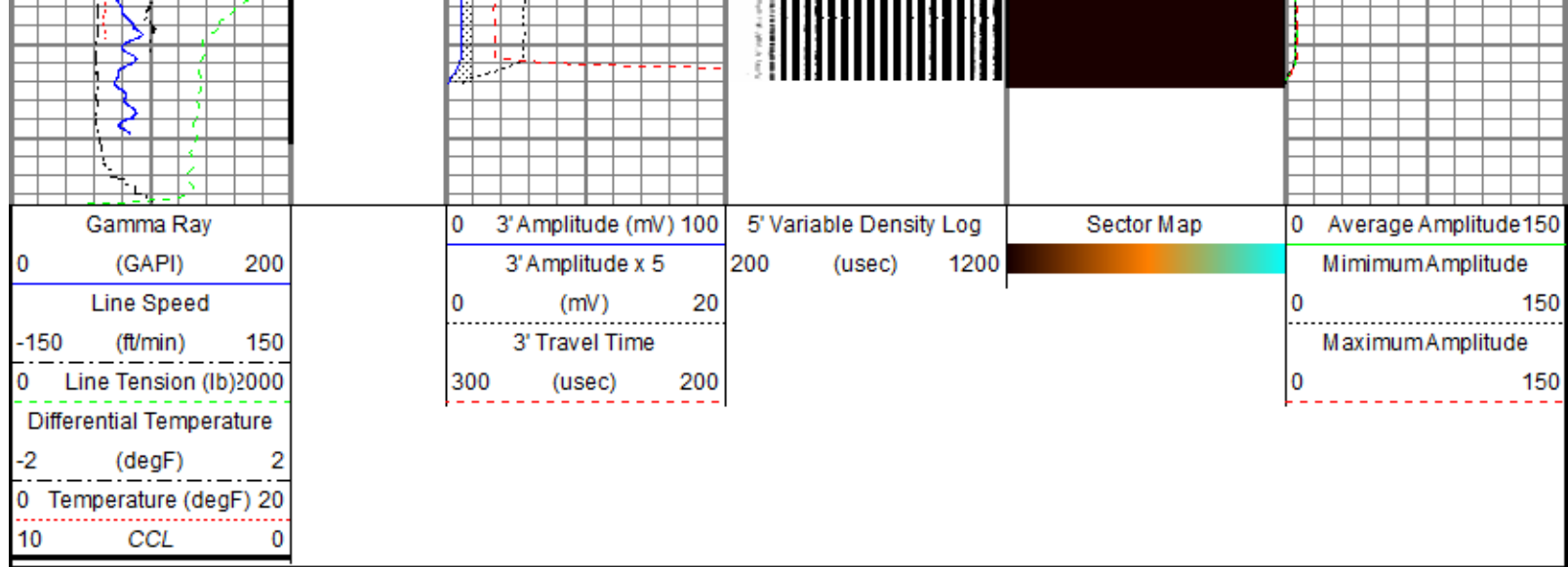








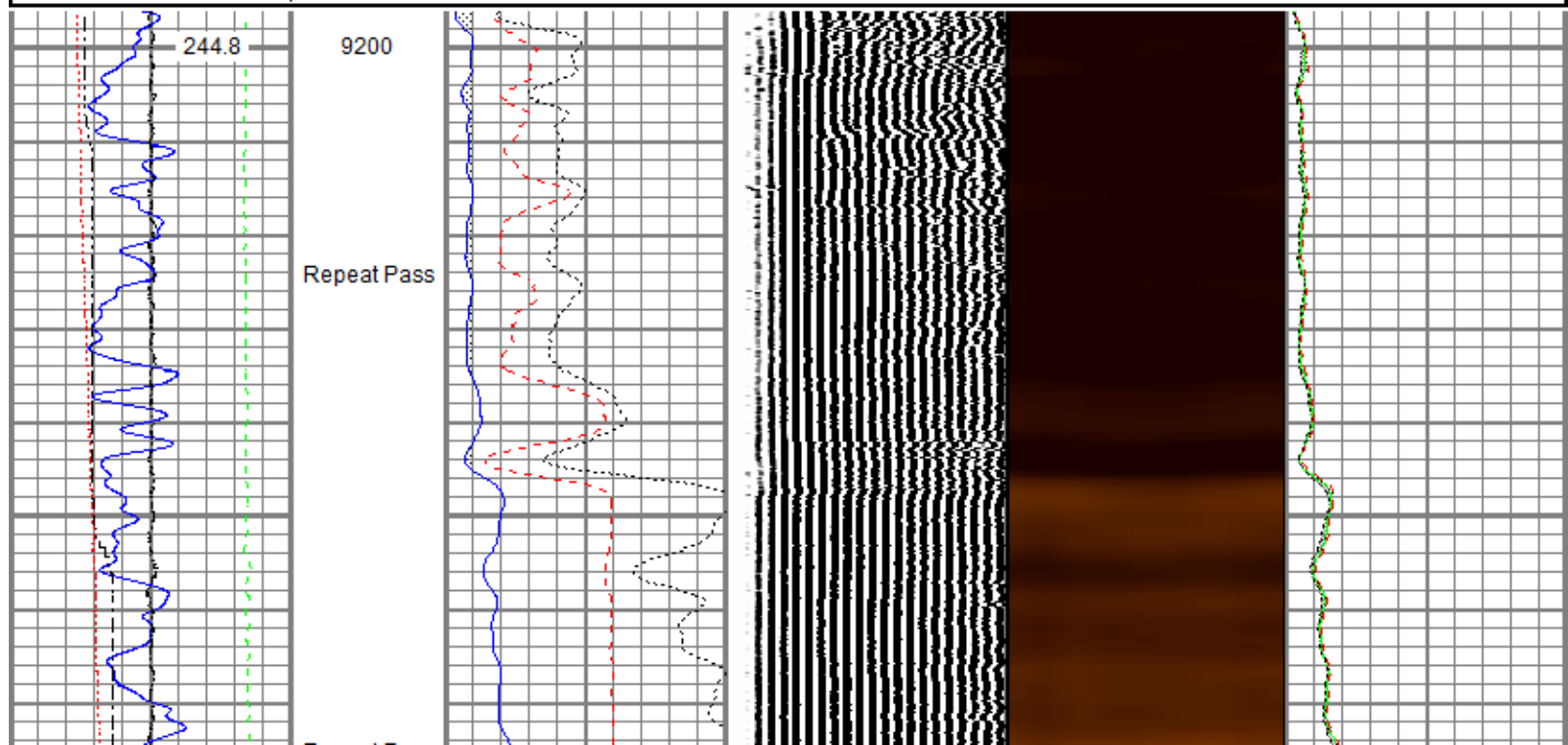
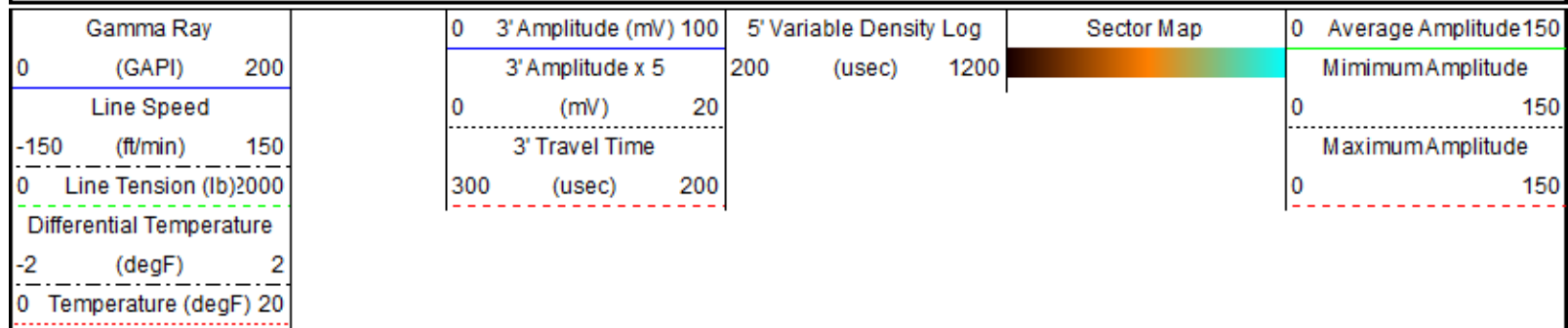


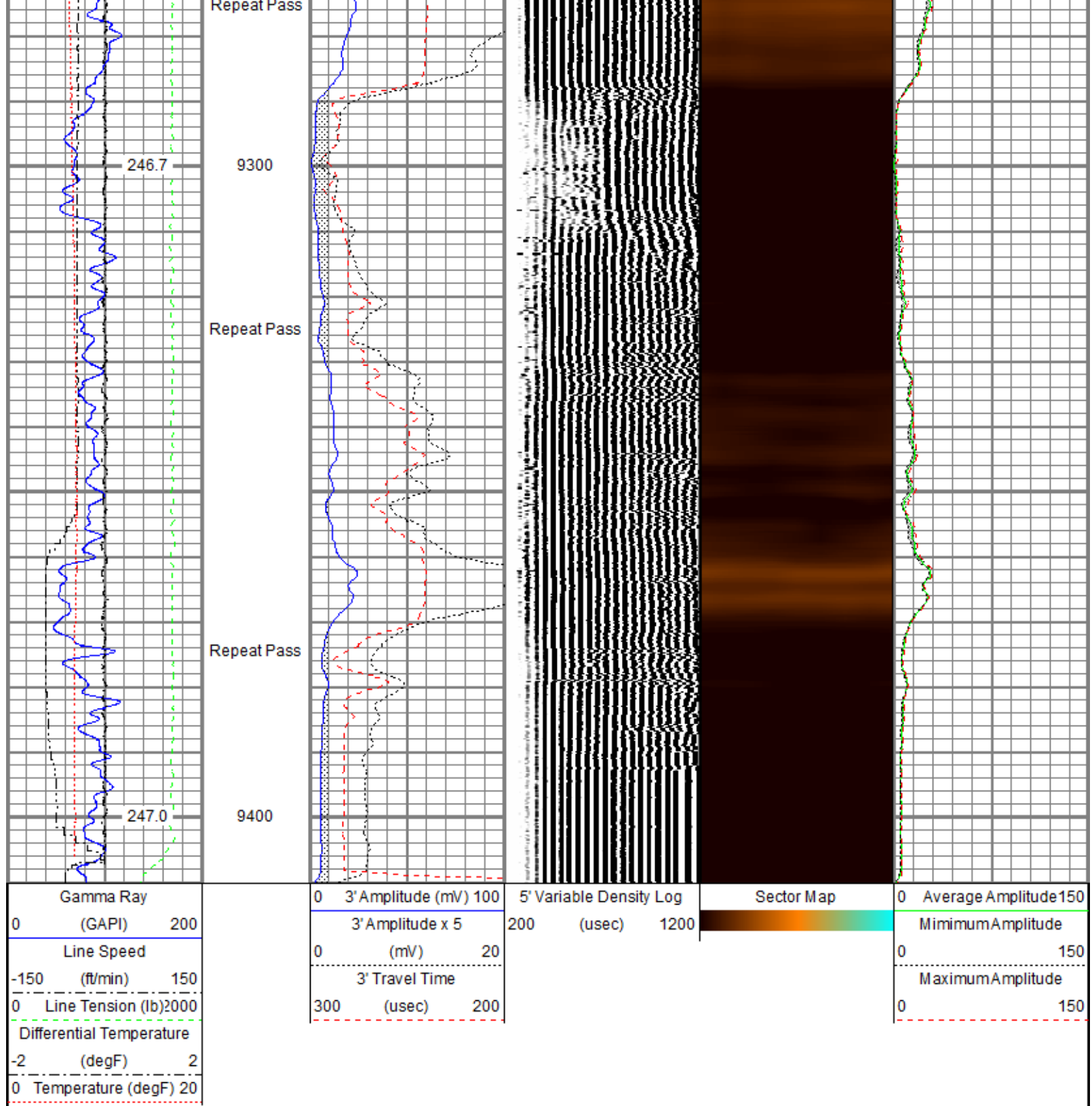


## Repeat Pass

Recorded With 0 PSI Surface Induced Pressure

Database File: tep\_chevron tr 543-22-597\_rbl\_04-01-19  
Dataset Pathname: repeat.1  
Presentation Format: ros\_rbt004\_tep  
Dataset Creation: Thu Apr 04 17:16:31 2019  
Charted by: Depth in Feet scaled 1:240





Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
			Titan CHD-14375 GO	1.03	1.44	3.60
			Titan 1-7/16" Assembled Electric Cable Head w/ 1" Fishing Neck			
			DSS RAC-2750 5A GO	2.55	2.75	32.00
			DSS 2-3/4" Roller 5 Arm Centralizer w/ GO Ends			

TEMP	16.33					
WVFS8	14.10			Probe Radii-2750 RBT (FW1307-063)	9.39	2.75
WVFS7	14.10			Probe 2-3/4" Radial Cement Bond Tool with Integral Temperature Sub		105.00
WVFS6	14.10					
WVFS5	14.10					
WVFS4	14.10					
WVFS3	14.10					
WVFS2	14.10					
WVFS1	14.10					
WVFCAL	14.10					
WVF3FT	14.10					
WVF5FT	13.10					
				DSS RAC-2750 5A GO	2.55	2.75
				DSS 2-3/4" Roller 5 Arm Centralizer w/ GO Ends		32.00
CCL\$2	6.42					
CCL\$1	6.42					
GR	5.18			Probe GR-CCL-2750 GOB (FW1307-038)	4.51	2.75
				Probe 2-3/4" rev.2 Digital Scintillation Gamma Ray/CCL Combined		55.00
				DSS RAC-2750 5A GO	2.55	2.75
				DSS 2-3/4" Roller 5 Arm Centralizer w/ GO Ends		32.00
				GO BN-14375	0.25	1.44
				GO 1-7/16" Bull Nose with Go Box Top		1.00
Dataset: tep_chevron tr 543-22-597_rbl_04-01-19.db: field/well/run1/main.1 Total length: 22.82 ft Total weight: 260.60 lb O.D.: 2.75 in						

Calibration Report		
Database File	c:\programdata\warrior\data\tep_chevron tr 543-22-597_rbl_04-01-19\tep_chevron tr 543-22-597_rbl_04-01-19.db	
Dataset Pathname	main.1	
Dataset Creation	Thu Apr 04 16:47:25 2019	
Gamma Ray Calibration Report		
Serial Number:	FW1307-038	
Tool Model:	2750 GOB	
Performed:	Sun Nov 12 12:44:12 2017	
Calibrator Value:	637.0	GAPI

Background Reading:	113.2	cps
Calibrator Reading:	1022.4	cps
Sensitivity:	0.7007	GAPI/cps

### Segmented Cement Bond Log Calibration Report

Serial Number:	FW1307-063
Tool Model:	2750 RBT
Calibration Casing Diameter:	4.500 in
Calibration Depth:	259.983 ft

#### Master Calibration, performed (Derived):

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	-0.000	0.947	0.800	81.196	84.854	0.815
CAL	-0.005	0.767				
5'	0.005	0.907	0.800	81.196	89.055	0.394
SUM						
S1	-0.004	1.067	0.000	100.000	93.446	0.338
S2	-0.004	1.031	0.000	100.000	96.650	0.373
S3	-0.001	0.954	0.000	100.000	104.743	0.110
S4	0.004	0.905	0.000	100.000	110.984	-0.423
S5	0.004	0.900	0.000	100.000	111.539	-0.397
S6	0.002	0.912	0.000	100.000	109.894	-0.263
S7	-0.001	0.940	0.000	100.000	106.246	0.159
S8	-0.002	1.015	0.000	100.000	98.268	0.242

#### Internal Reference Calibration, performed (Not Performed):

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	-0.005	0.767	1.000	0.000

#### Air Zero Calibration, performed Mon Apr 01 08:59:07 2019:

	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:	FW1307-063
Tool Model:	2750 RBT
Performed:	Sun Nov 12 13:45:43 2017

	Reference		Reading	
Low Reference:	100.00	degF	113.84	degF
High Reference:	350.00	degF	420.89	degF

Gain:	0.91
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Gain:	0.81
Offset:	7.31
Delta Spacing	1



Company	TEP Rocky Mountain LLC
Well	Chevron TR 543-22-597
Field	Trail Ridge
County	Garfield
State	Colorado