



Radial Cement Bond
Gamma Ray
Casing Collar Log

Company TEP Rocky Mountain LLC
Well Puckett GM 444-8
Field Grand Valley
County Garfield State Colorado

Location: API #: 05-045-24102
SEC 8 TWP 7S RGE 96W
Permanent Datum Ground Level Elevation 6281'
Log Measured From Kelly Bushing 24 FT
Drilling Measured From Kelly Bushing
Other Services ---
Elevation
K.B. 6305'
D.F. ---
G.L. 6281'

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Well Puckett GM 444-8
Field Grand Valley
County Garfield
State Colorado

Date	19-NOV-2019			
Run Number	One			
Depth Driller	7315 FT			
Depth Logger	7244 FT			
Bottom Logged Interval	7230 FT			
Top Log Interval	Surface			
Open Hole Size	8.750"			
Type Fluid	Water			
Density / Viscosity	8.34 lb/gal			
Max. Recorded Temp.	213°F			
Estimated Cement Top	See Log			
Time Well Ready	ROA			
Time Logger on Bottom	06:35			
Equipment Number	HD-0359			
Location	Grand Junction, CO			
Recorded By	J. Donnelly			
Witnessed By	---			
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	32.3	H-40	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 logged from 4765 - 4786 FT
Log ran from 7244 FT to Surface
Recorded with 0 PSI Surface Induced Pressure

Thank you for choosing Reliance Oilfield Services, LLC!!

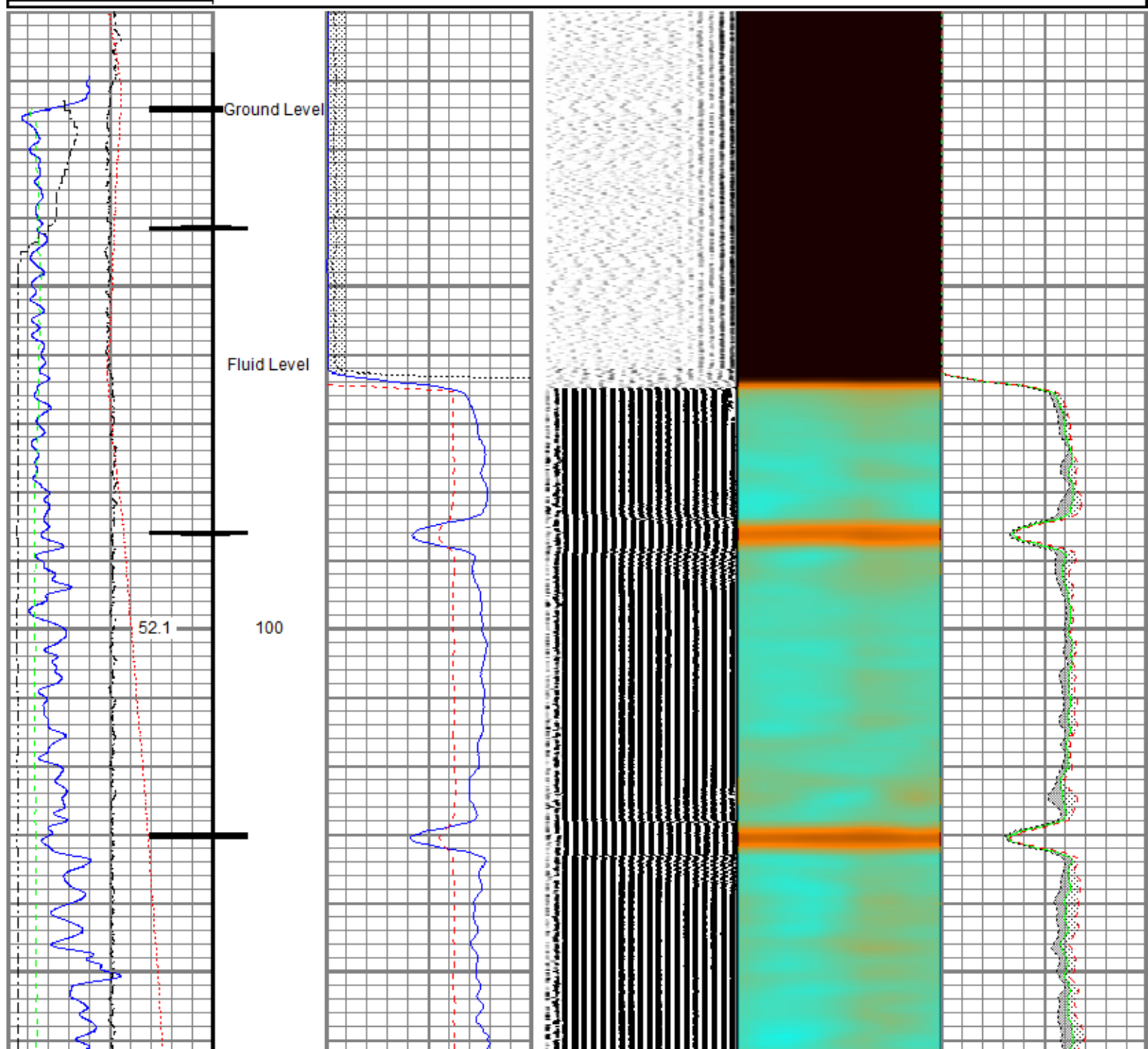
Main Pass

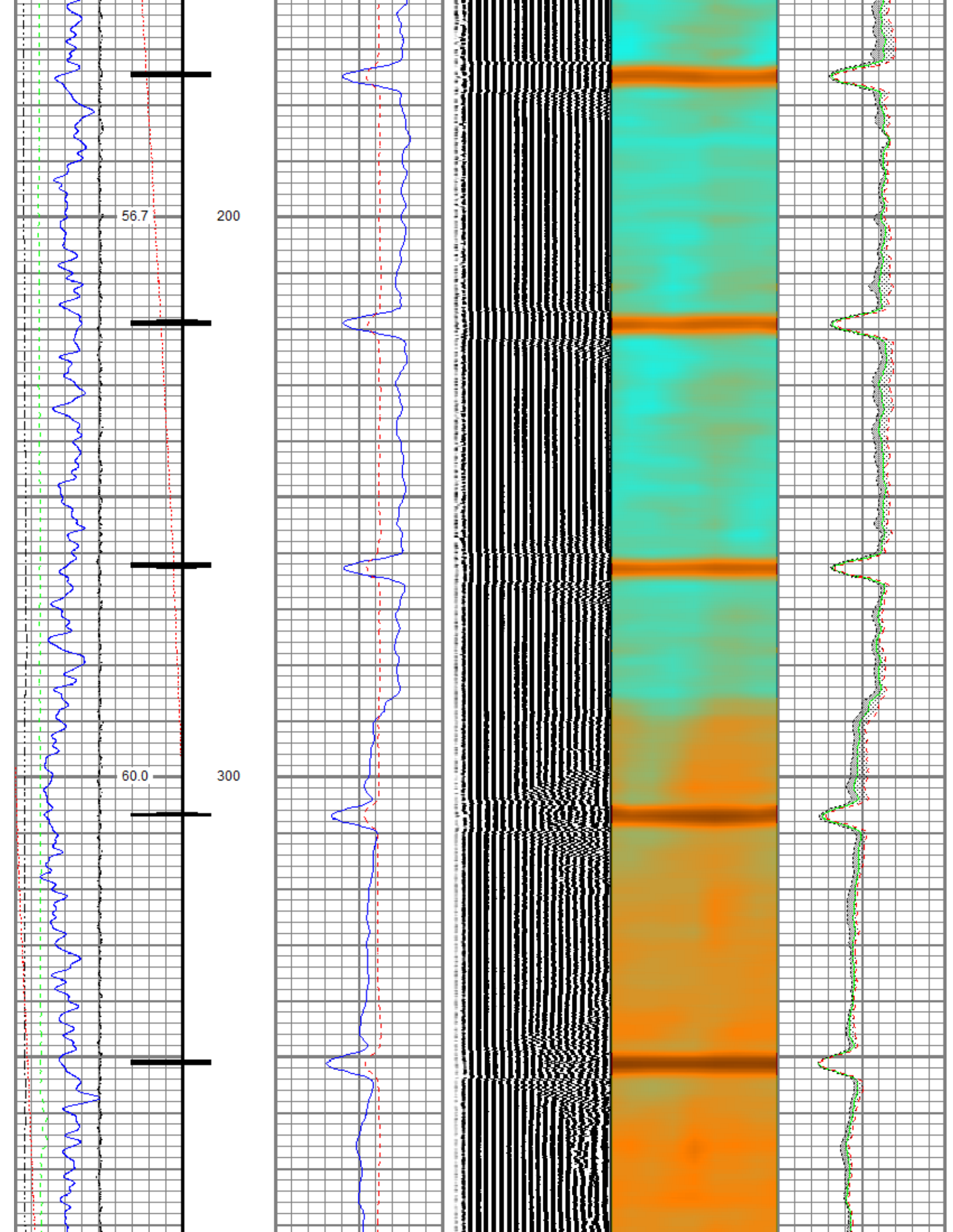


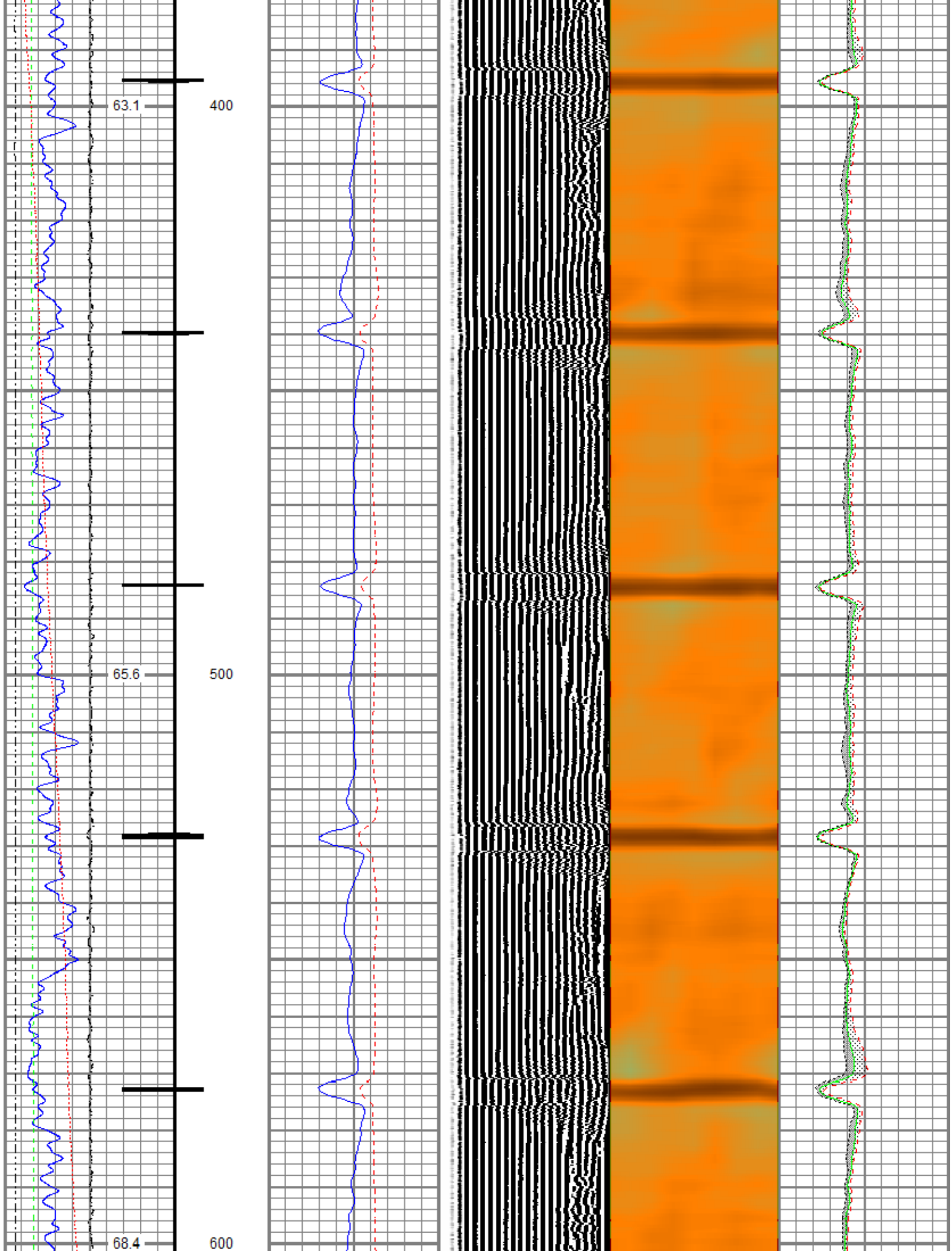
Recorded With 0 PSI Surface Induced Pressure

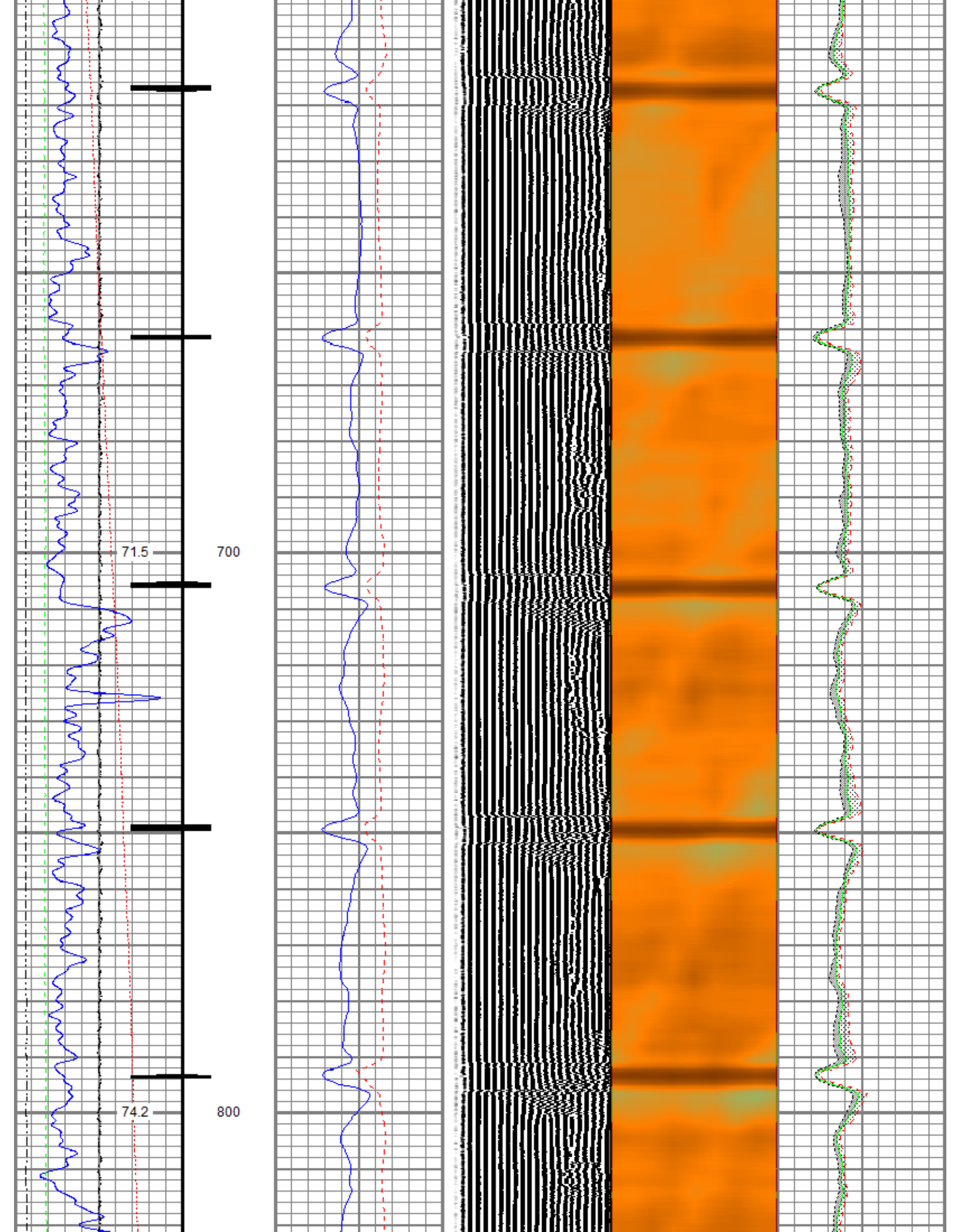
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 Dataset Pathname run2/Main.3
 Presentation Format ros_rbt004_tep
 Dataset Creation Wed Nov 20 13:52:03 2019
 Charted by Depth in Feet scaled 1:240

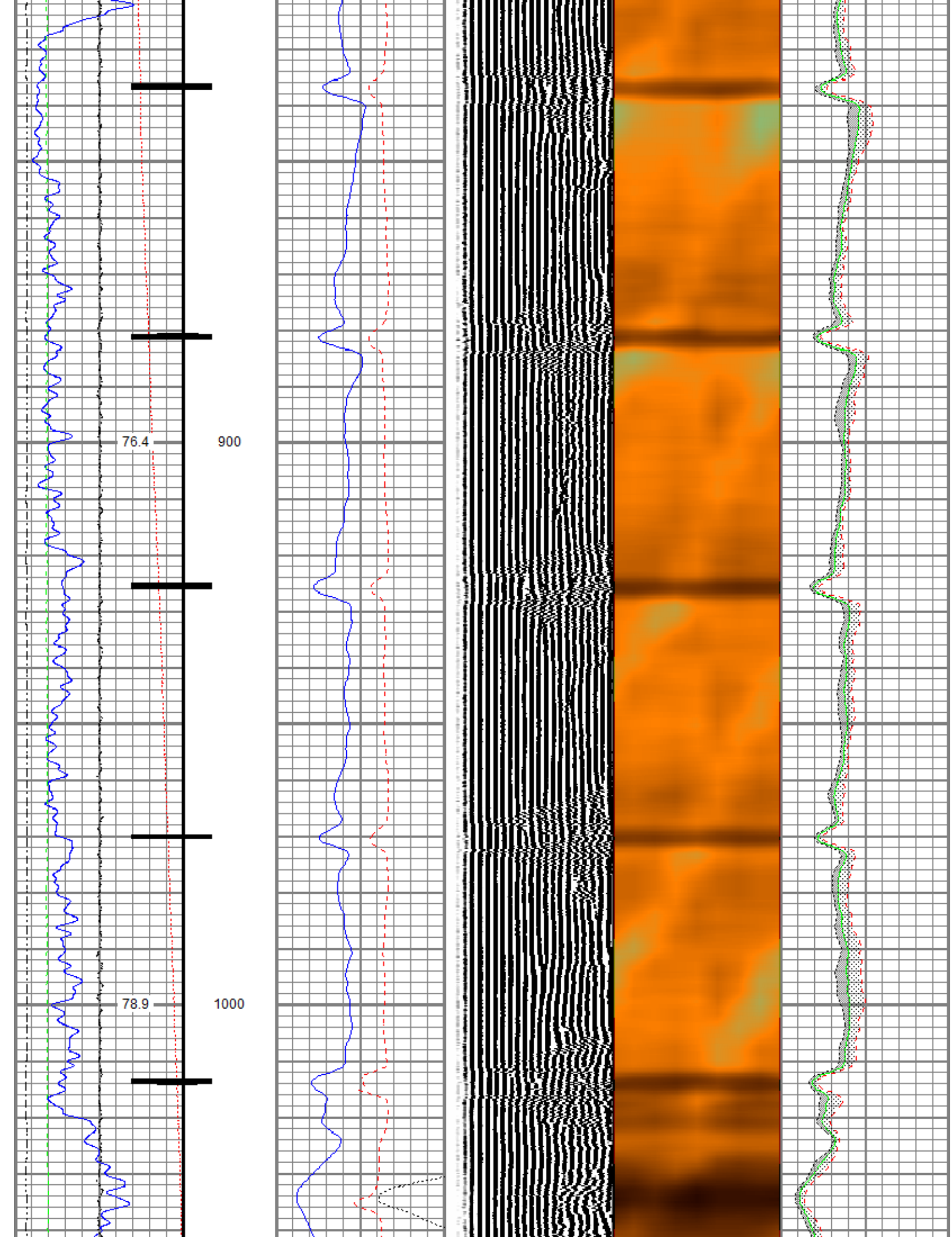
Gamma Ray	0	3' Amplitude (mV) 100	5' Variable Density Log	Sector Map	0	Average Amplitude 150
(GAPI) 200		3' Amplitude x 5	200 (usec) 1200			Minimum Amplitude
Line Speed	0	(mV) 20			0	150
(ft/min) 150		3' Travel Time				Maximum Amplitude
Line Tension (lb) 2000	0	(usec) 200			0	150
Differential Temperature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

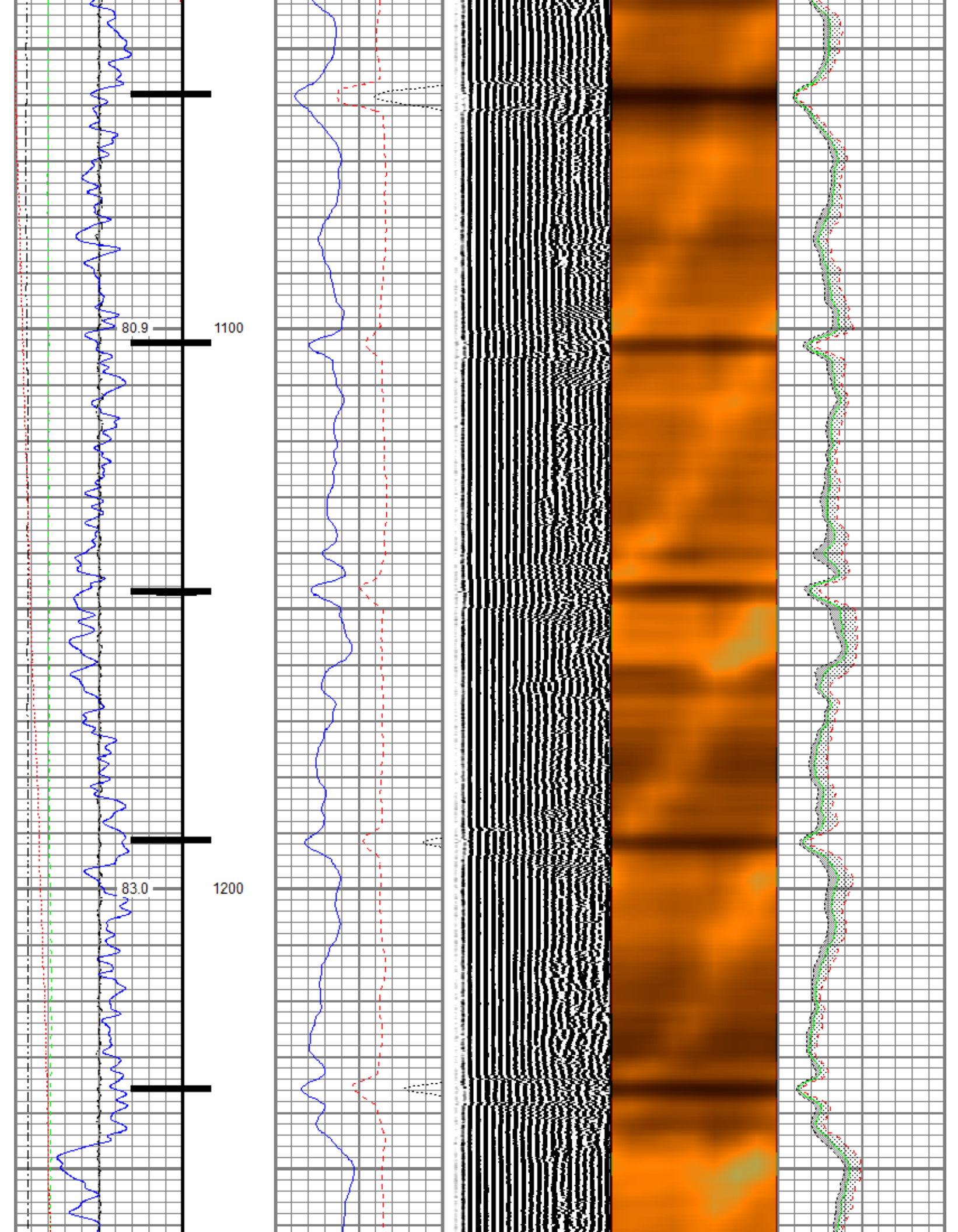


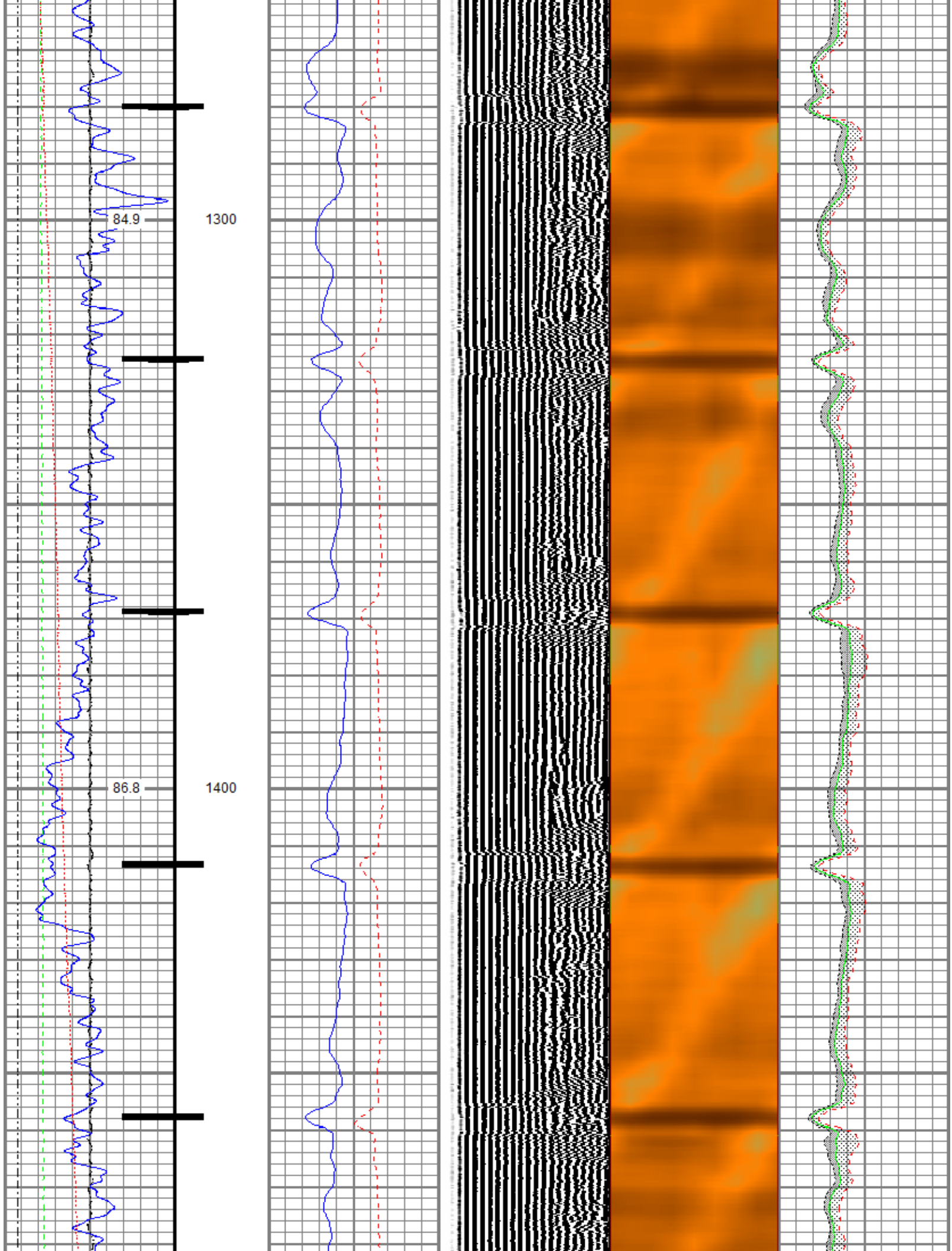


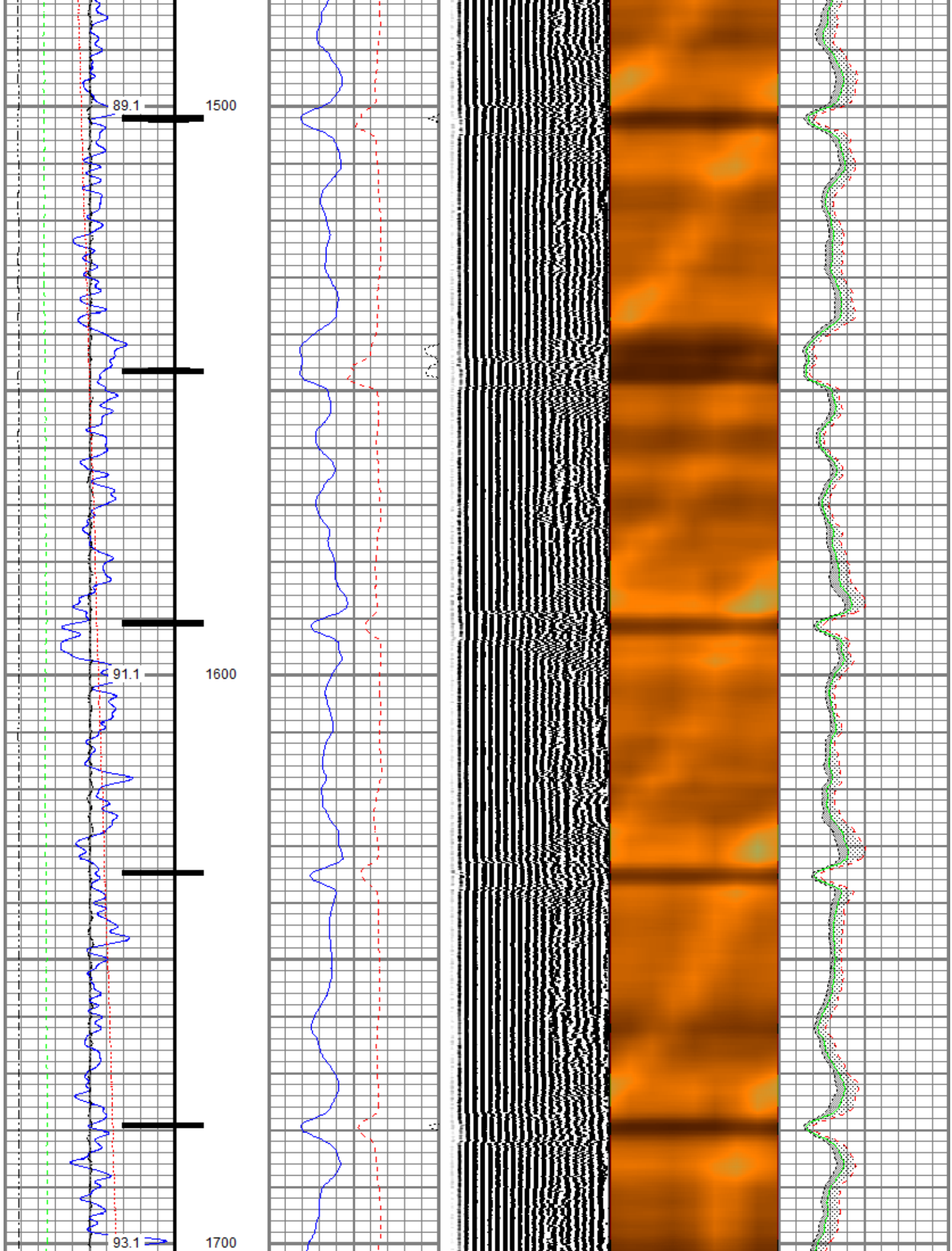


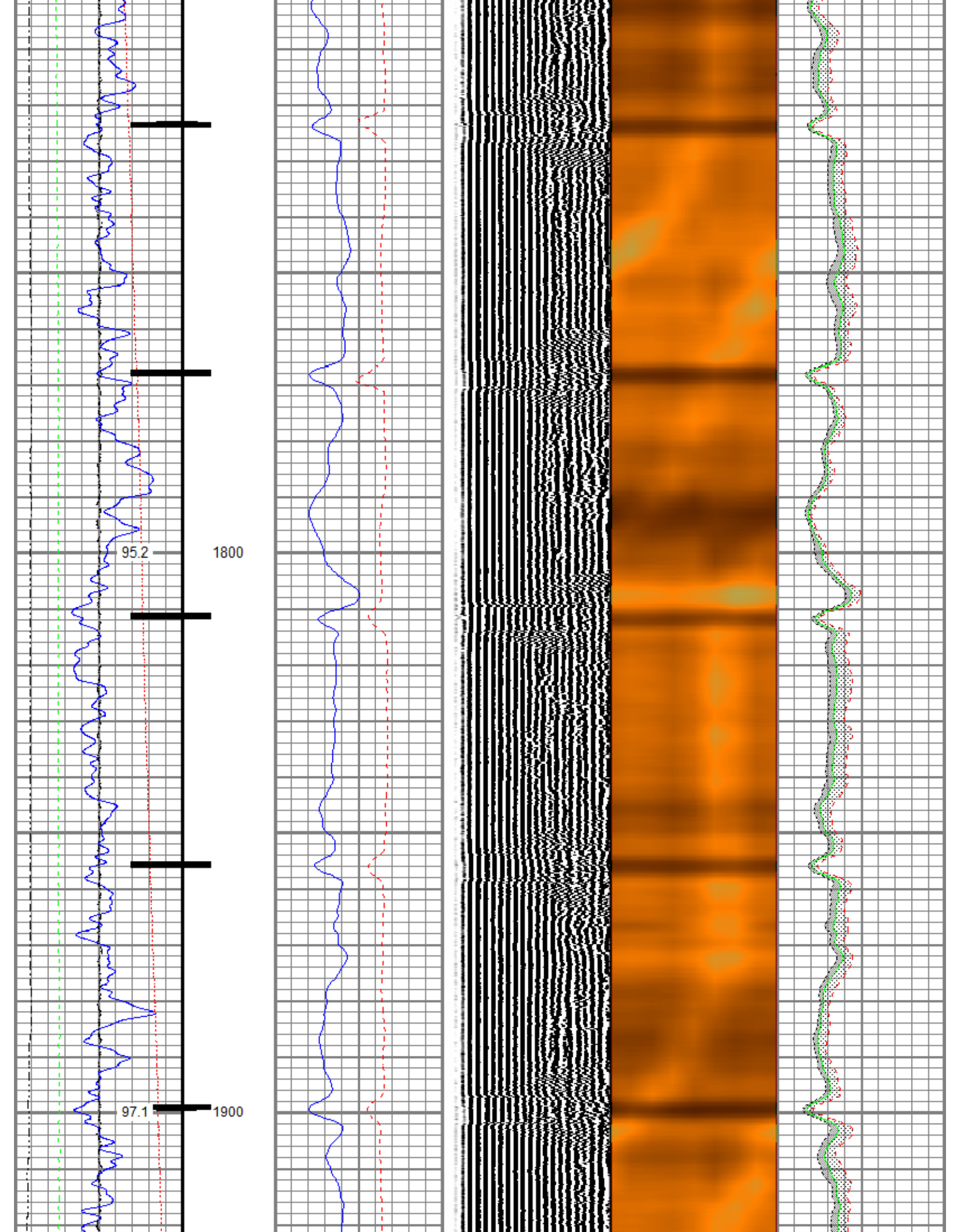


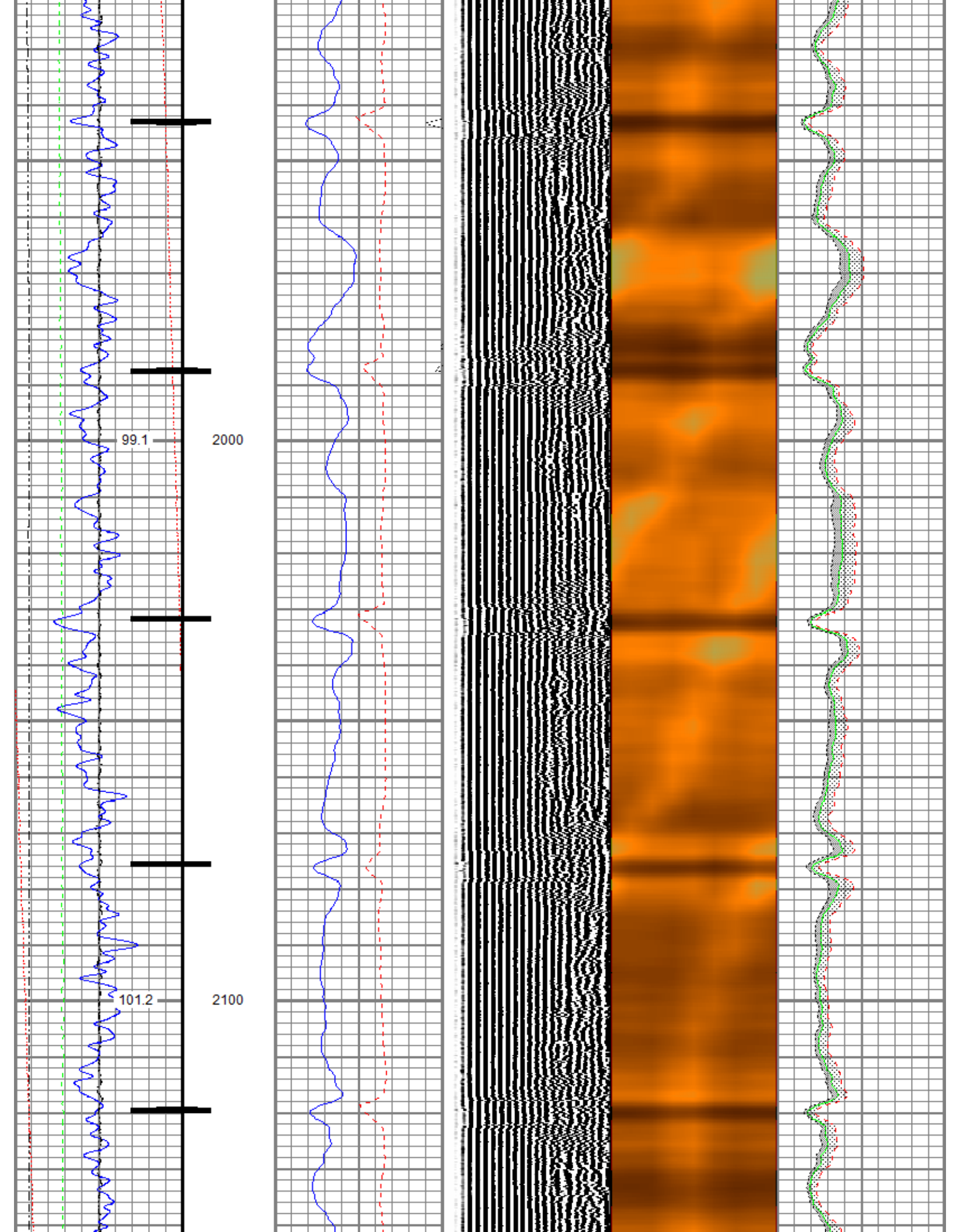


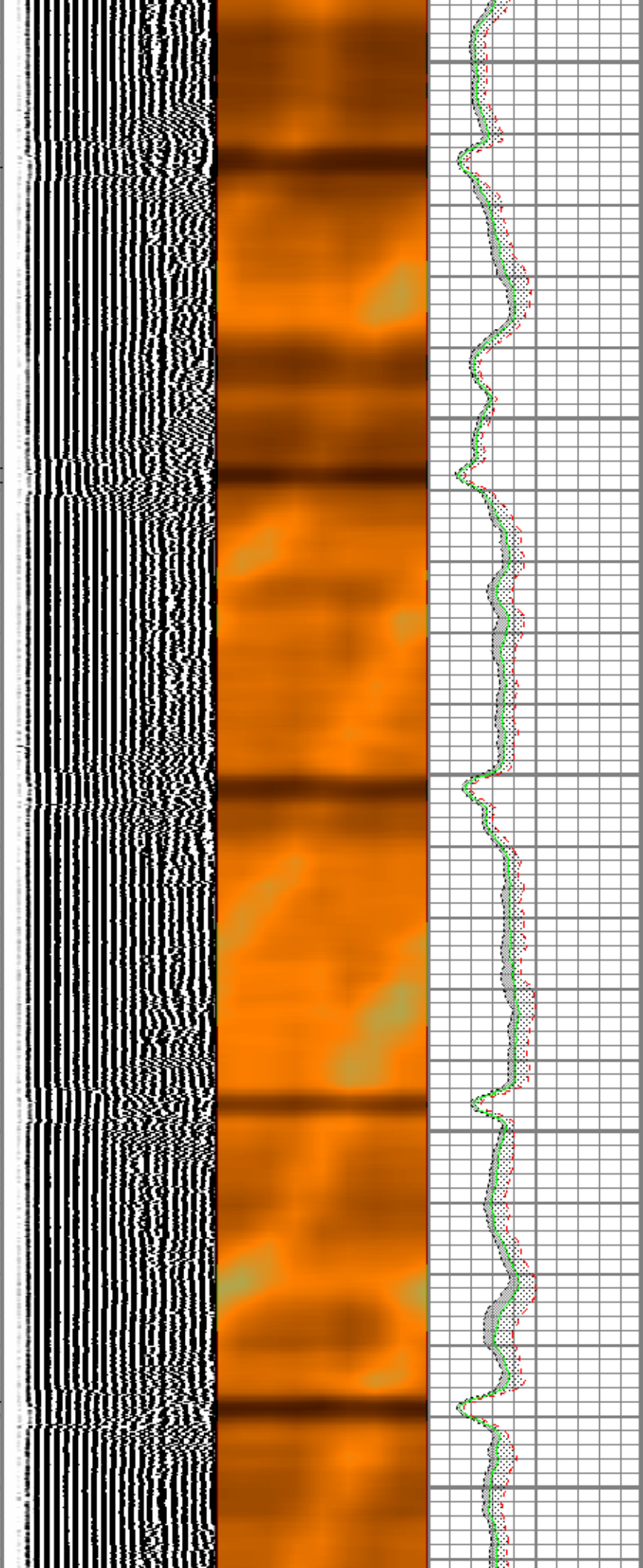
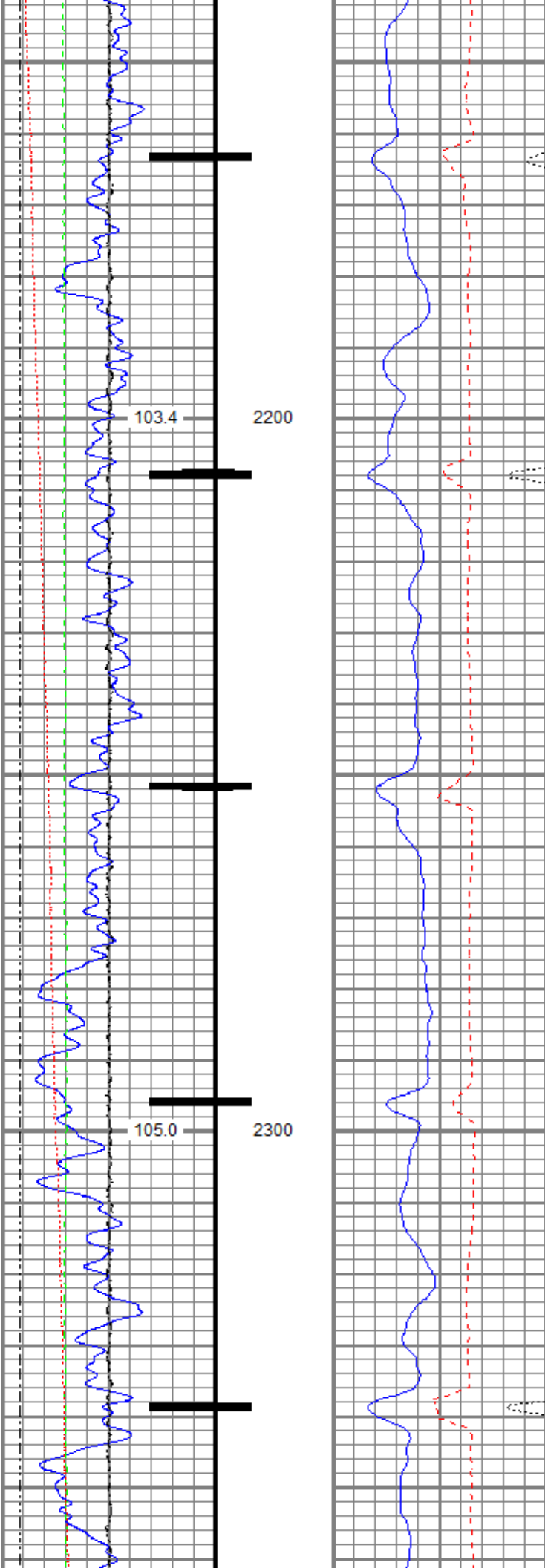


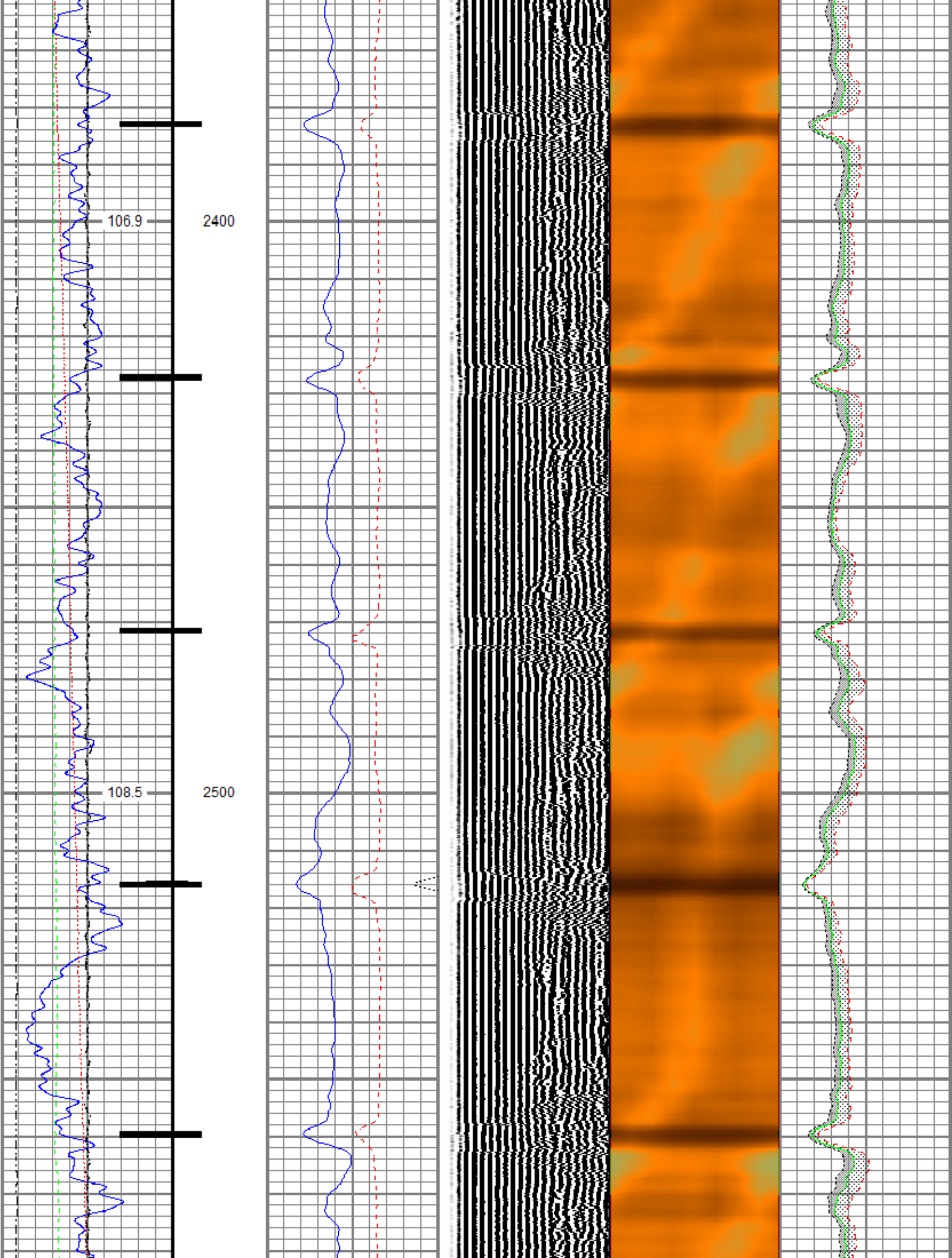


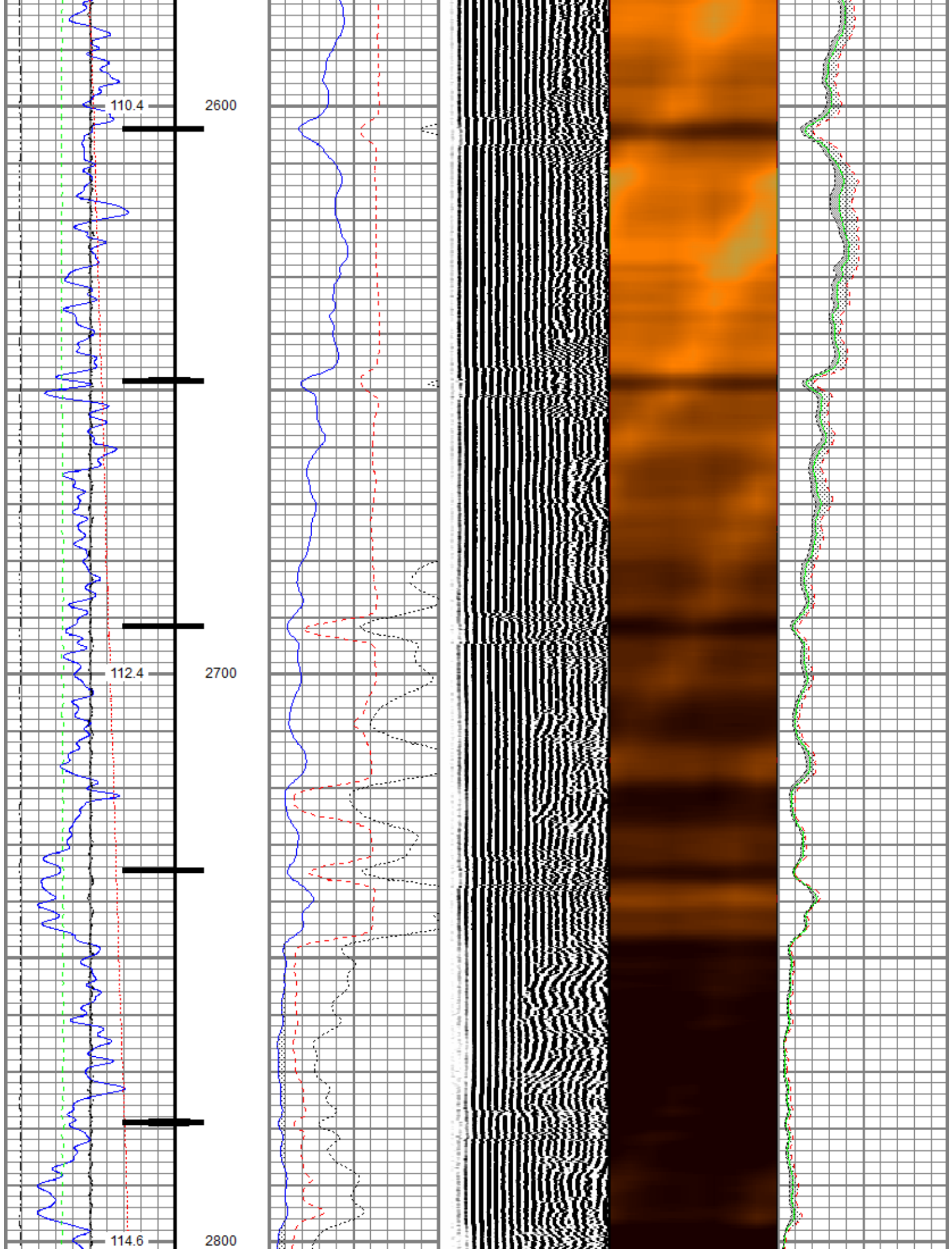


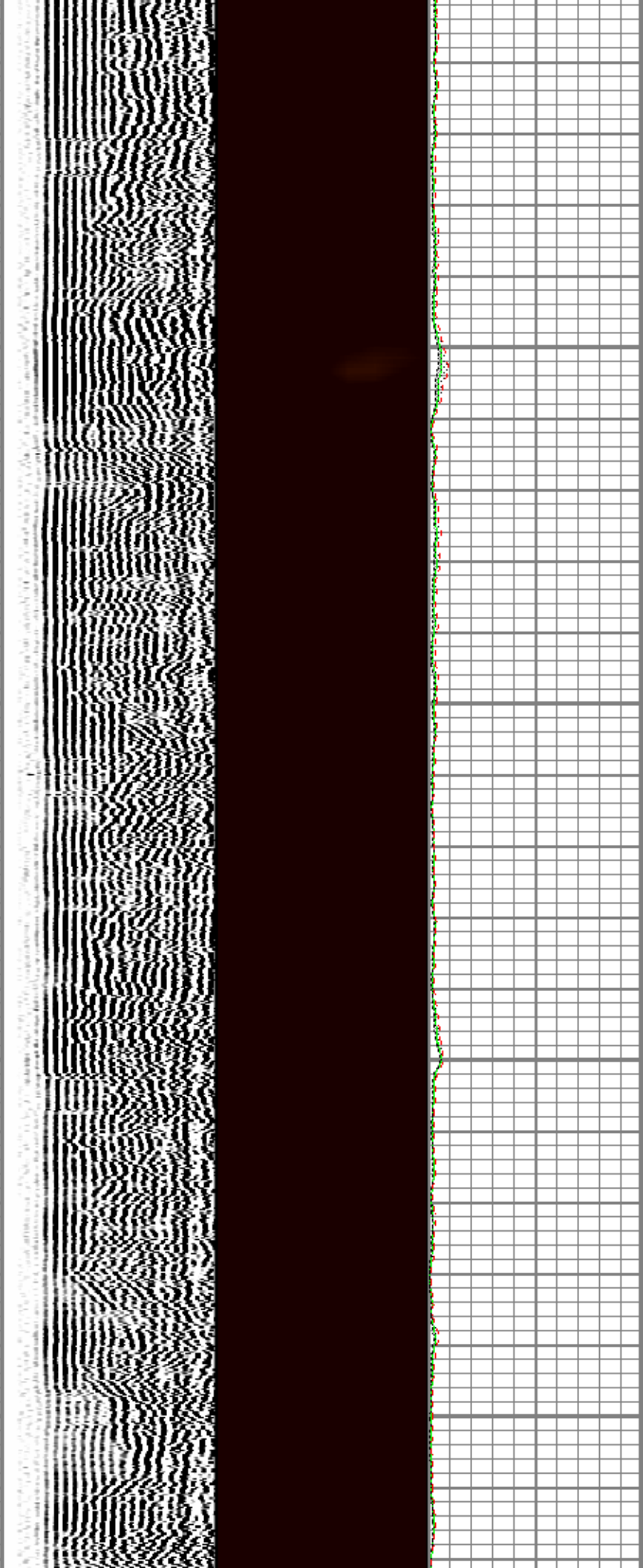
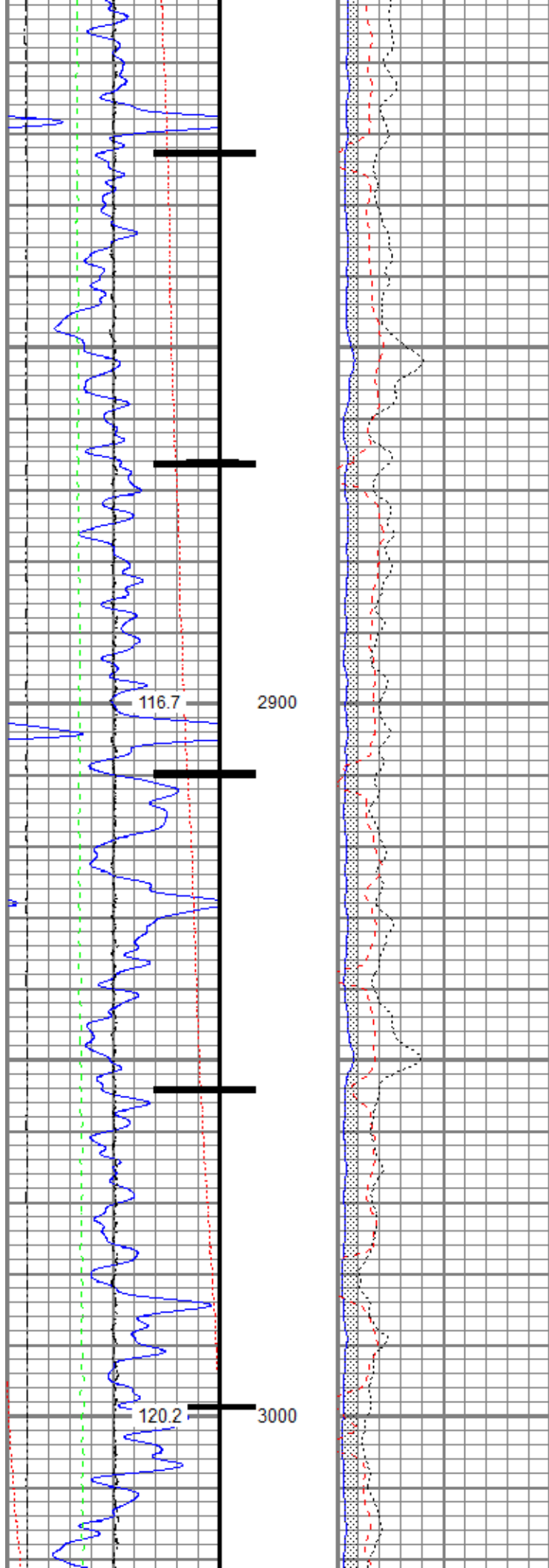


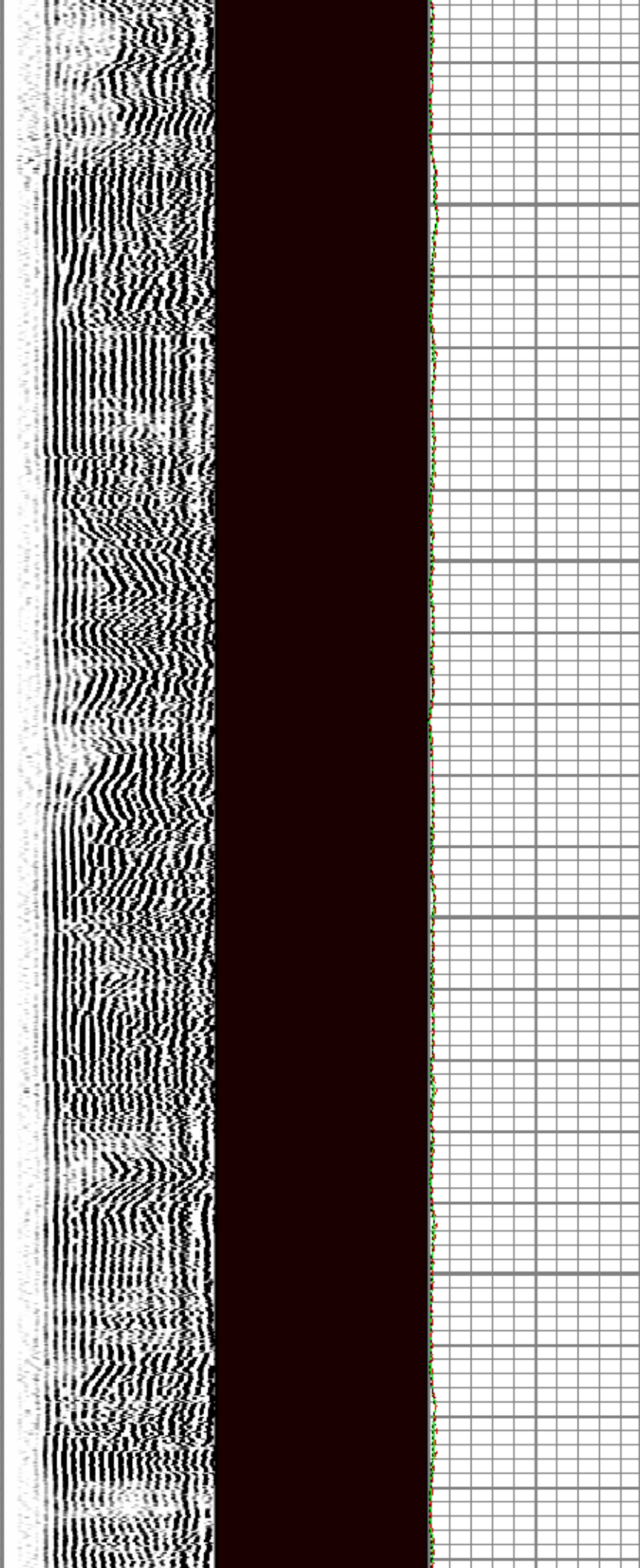
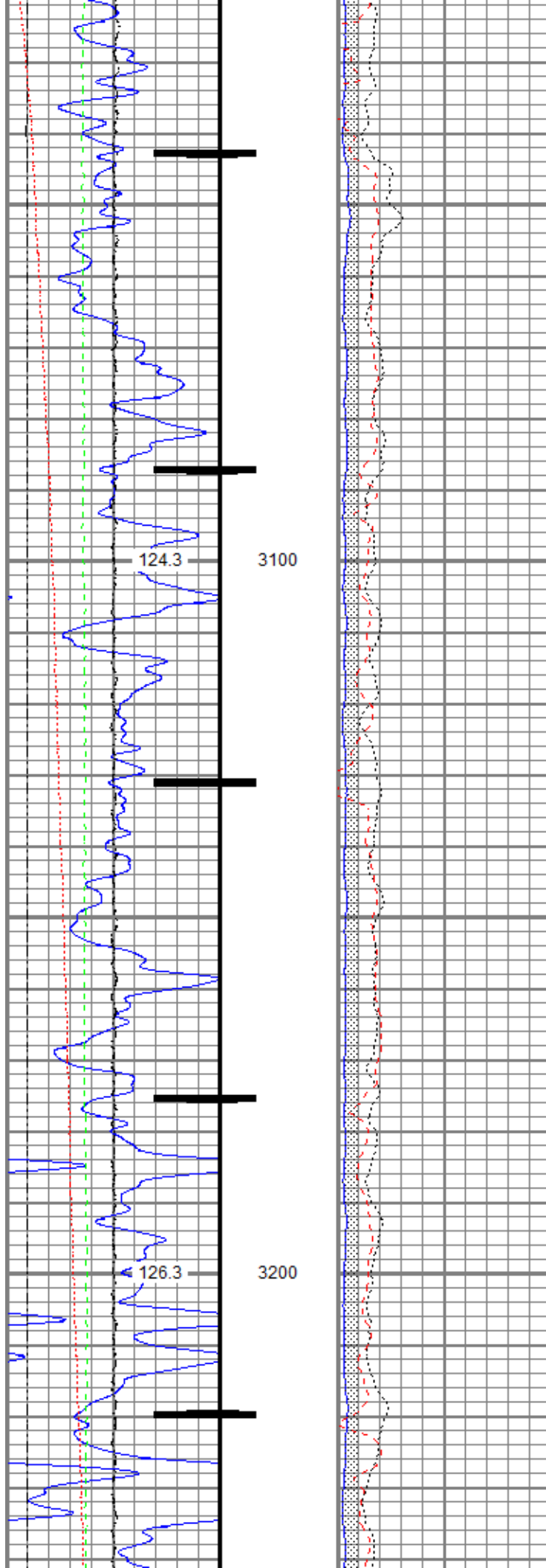


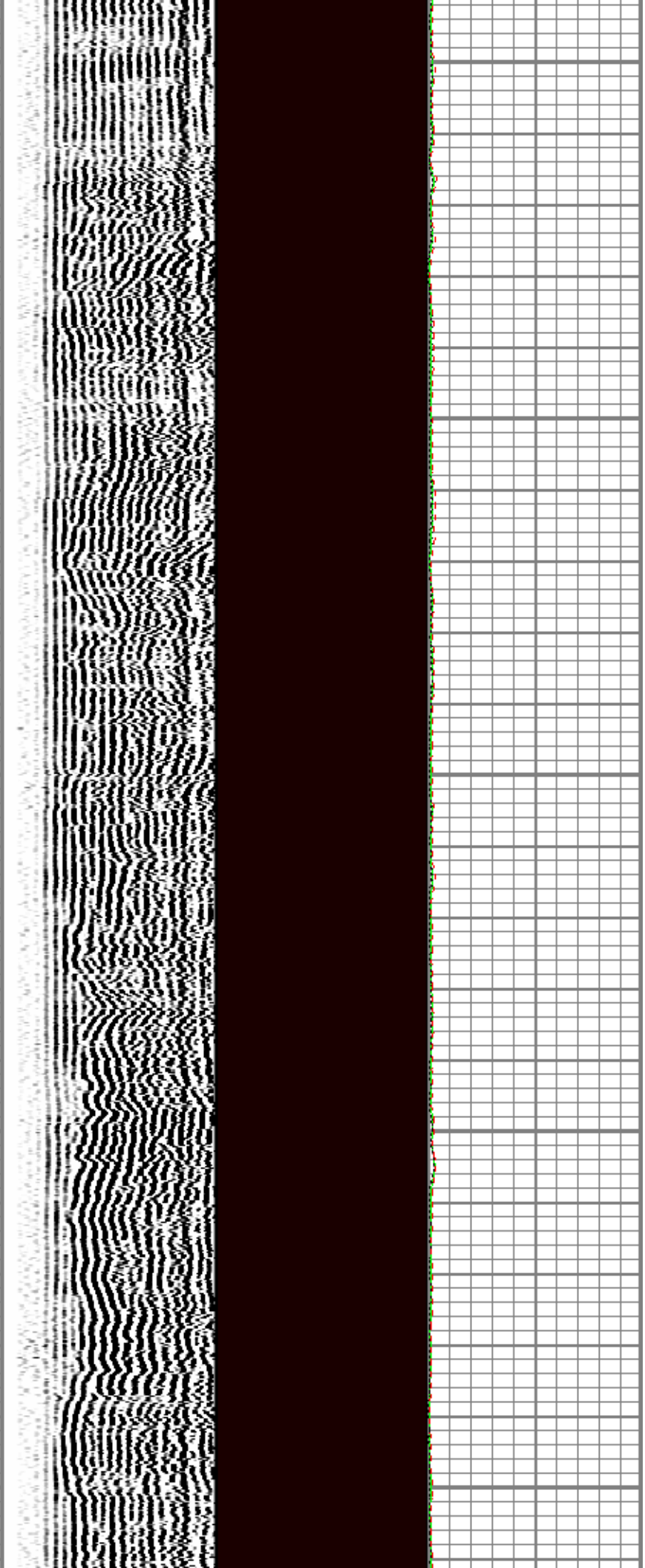
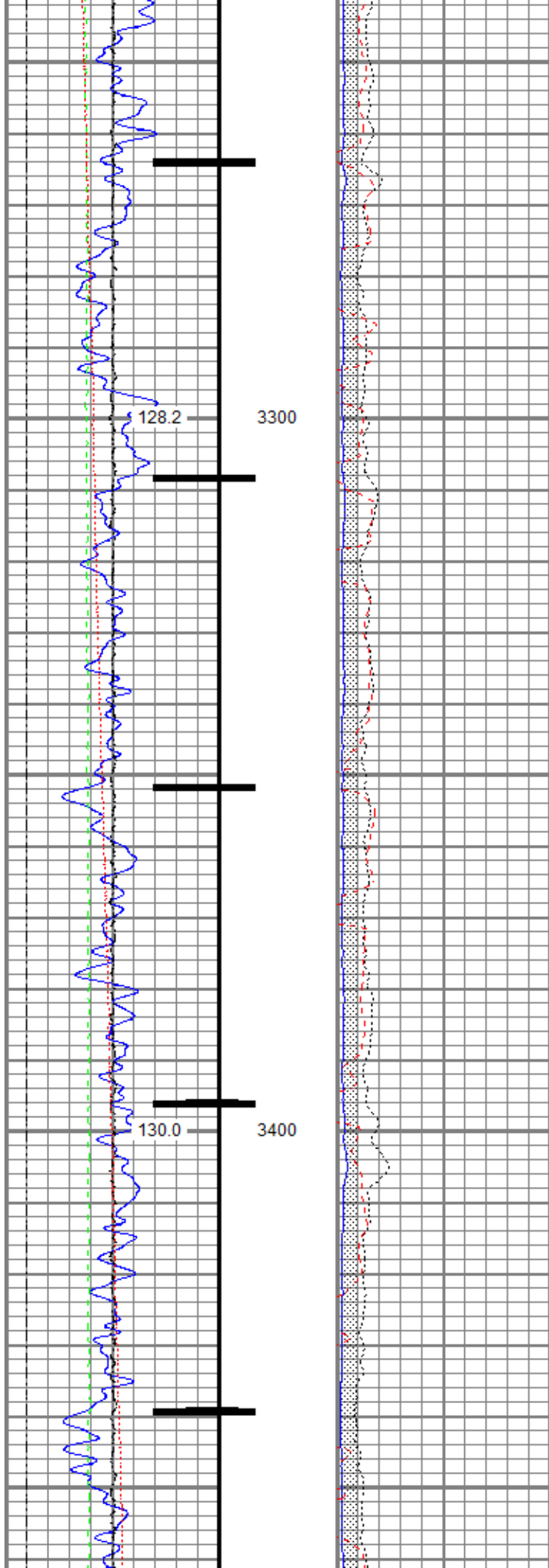


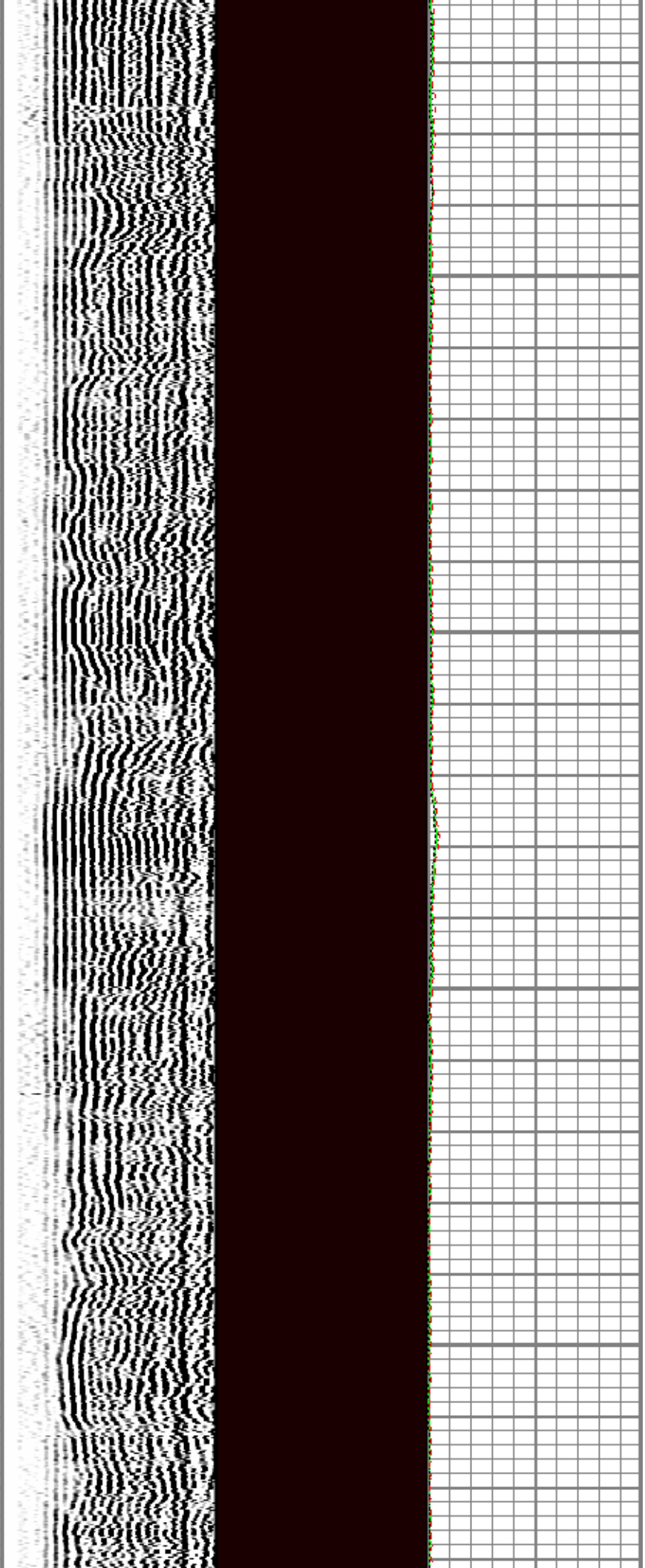
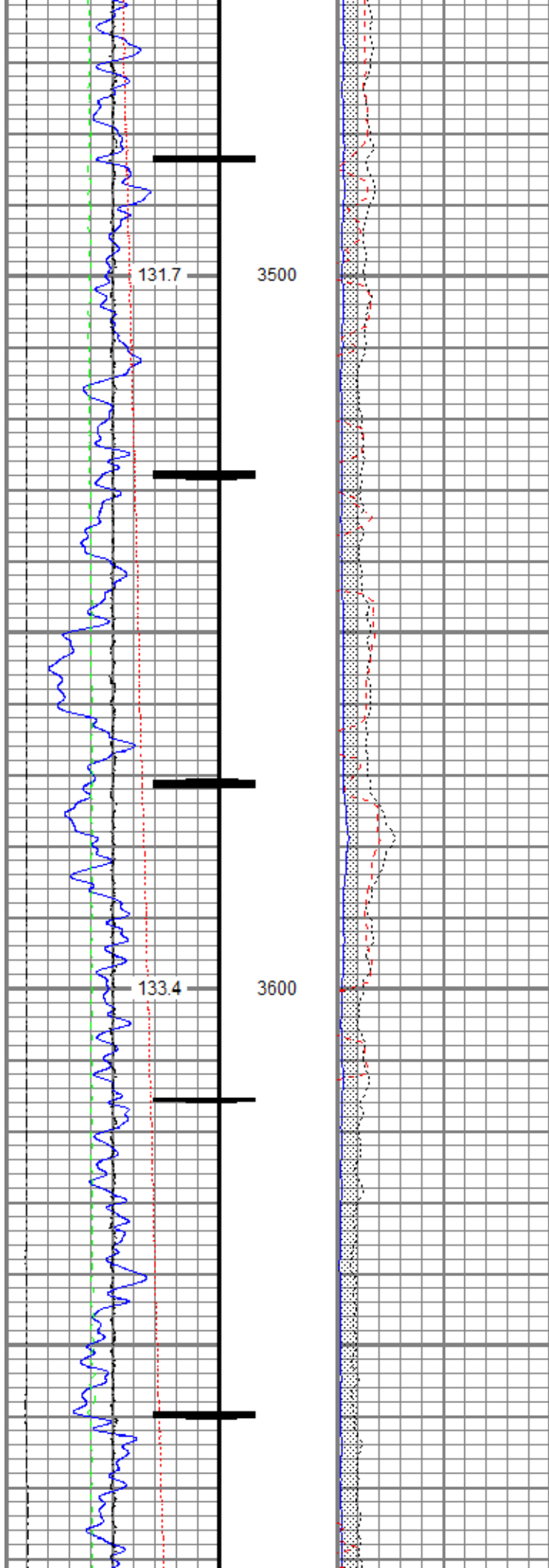


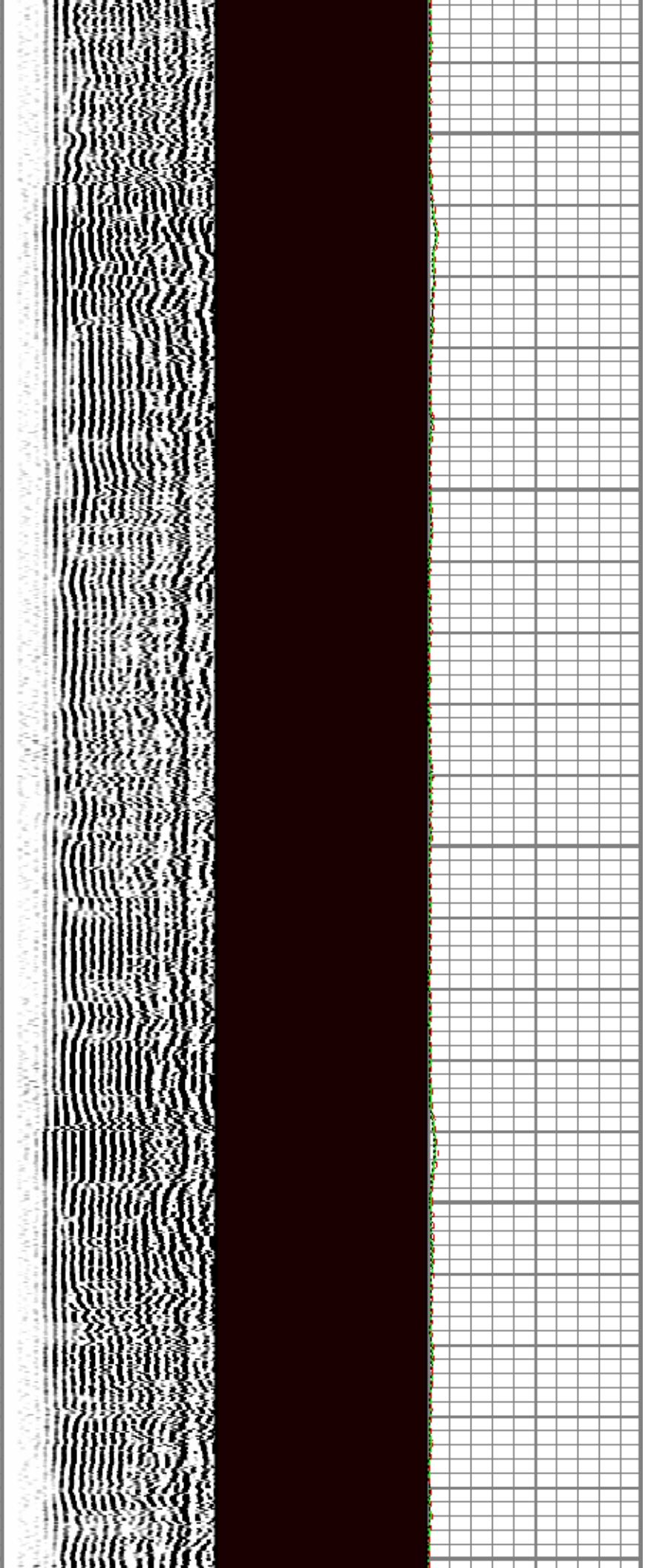
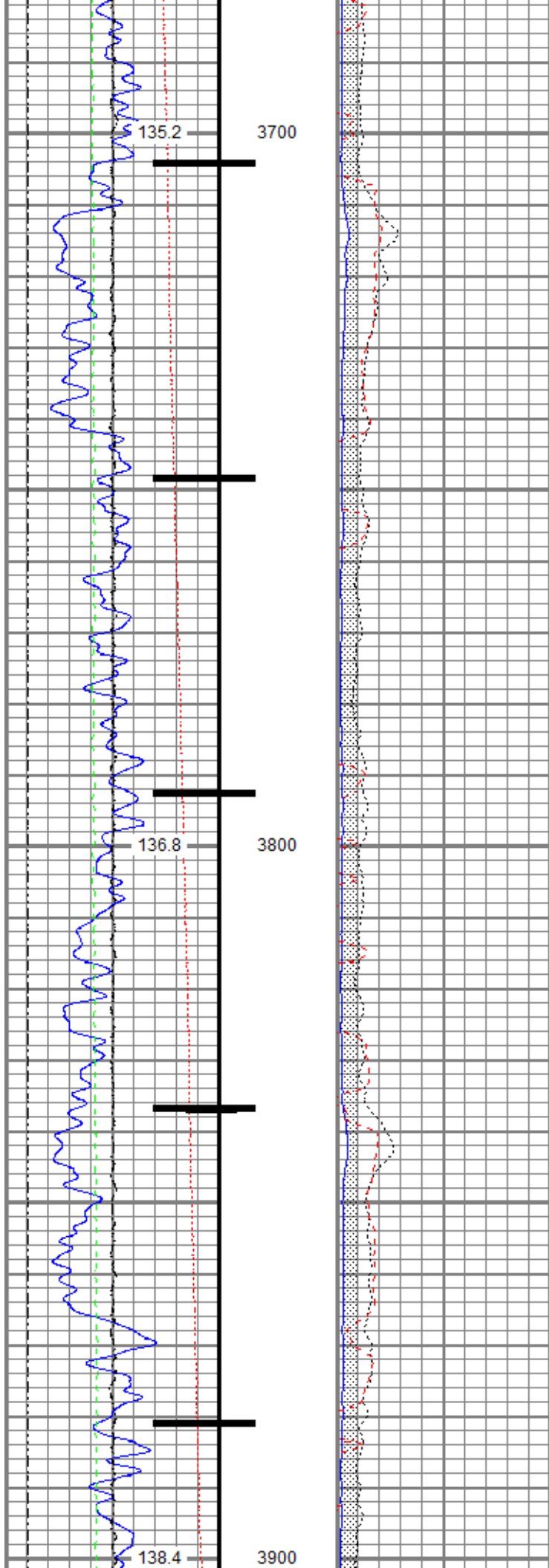


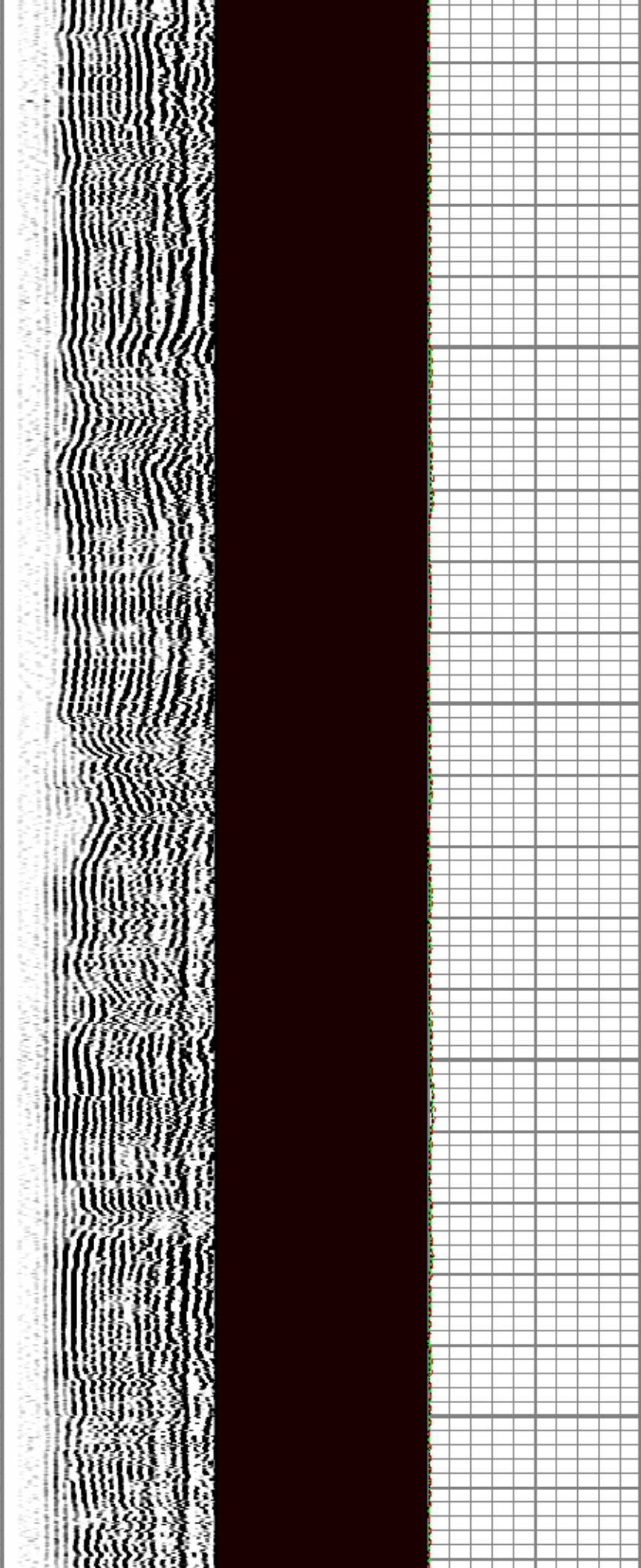
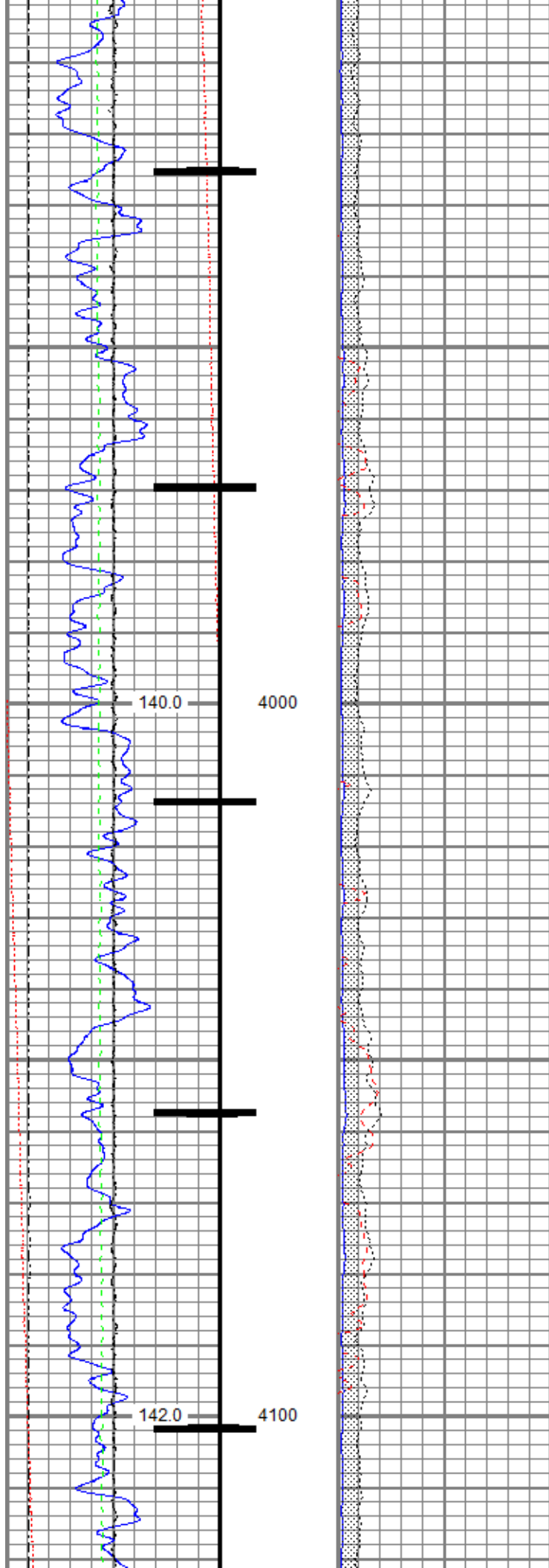


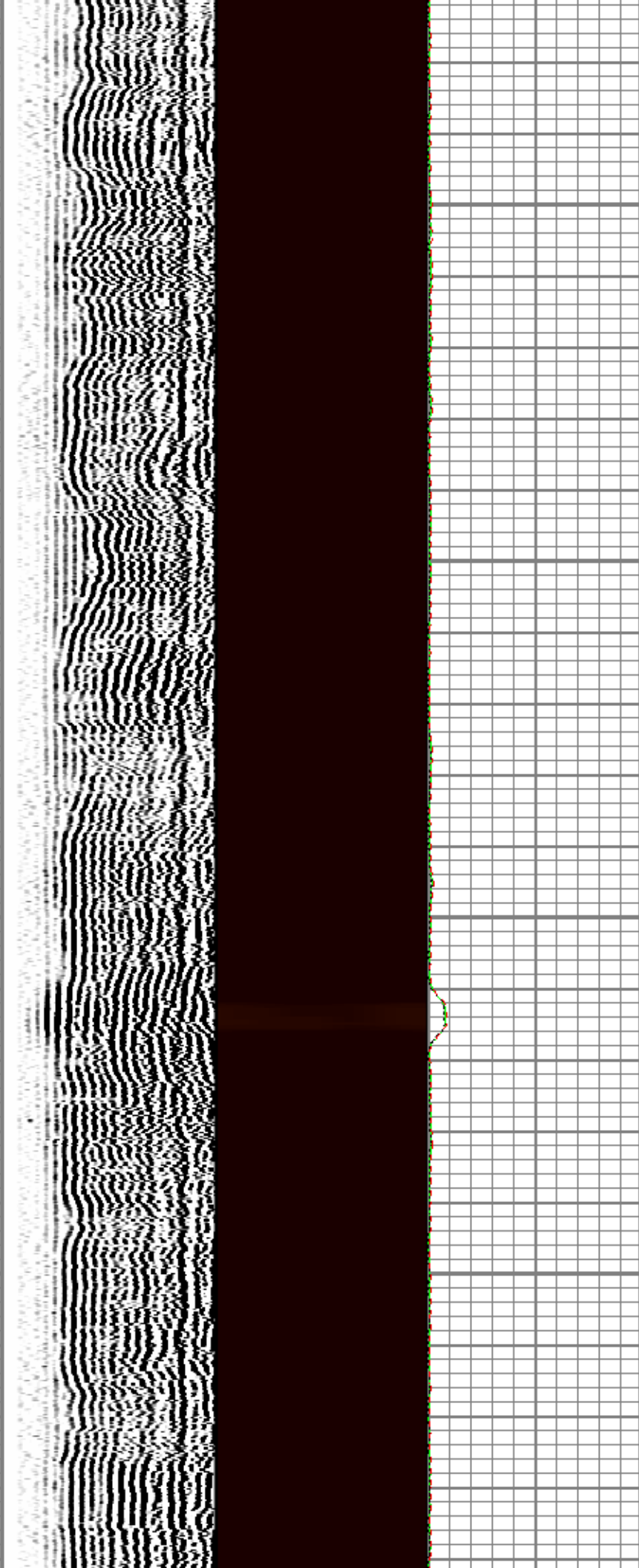
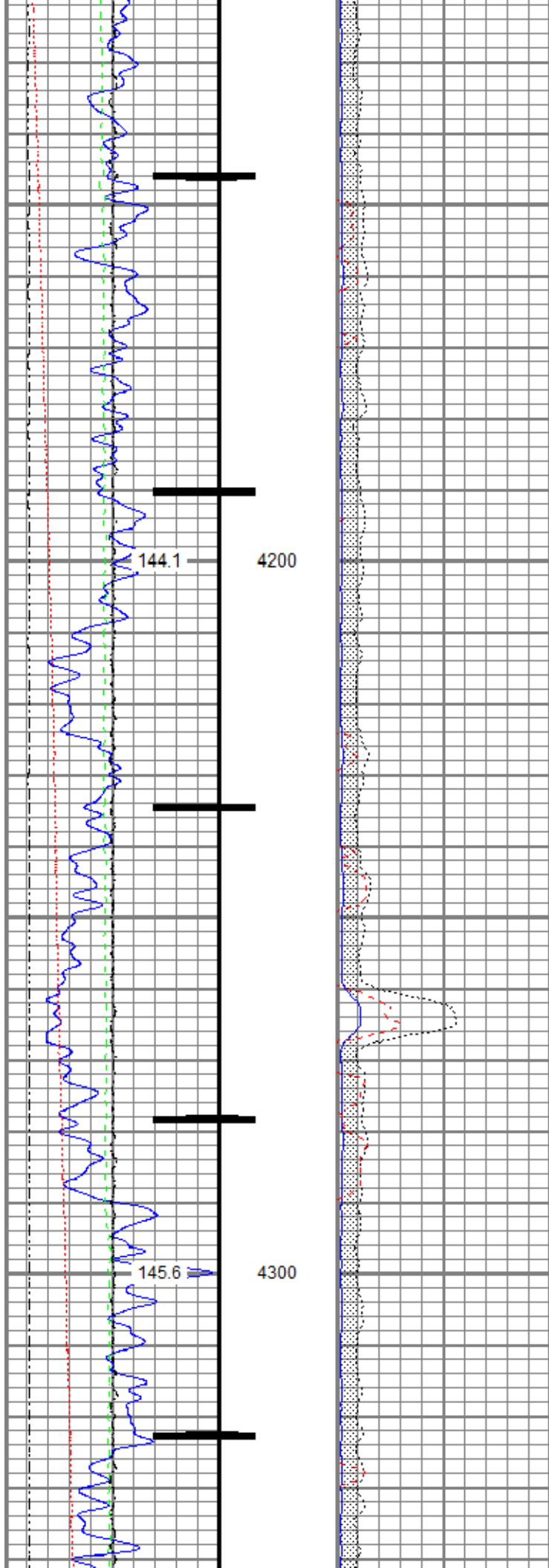


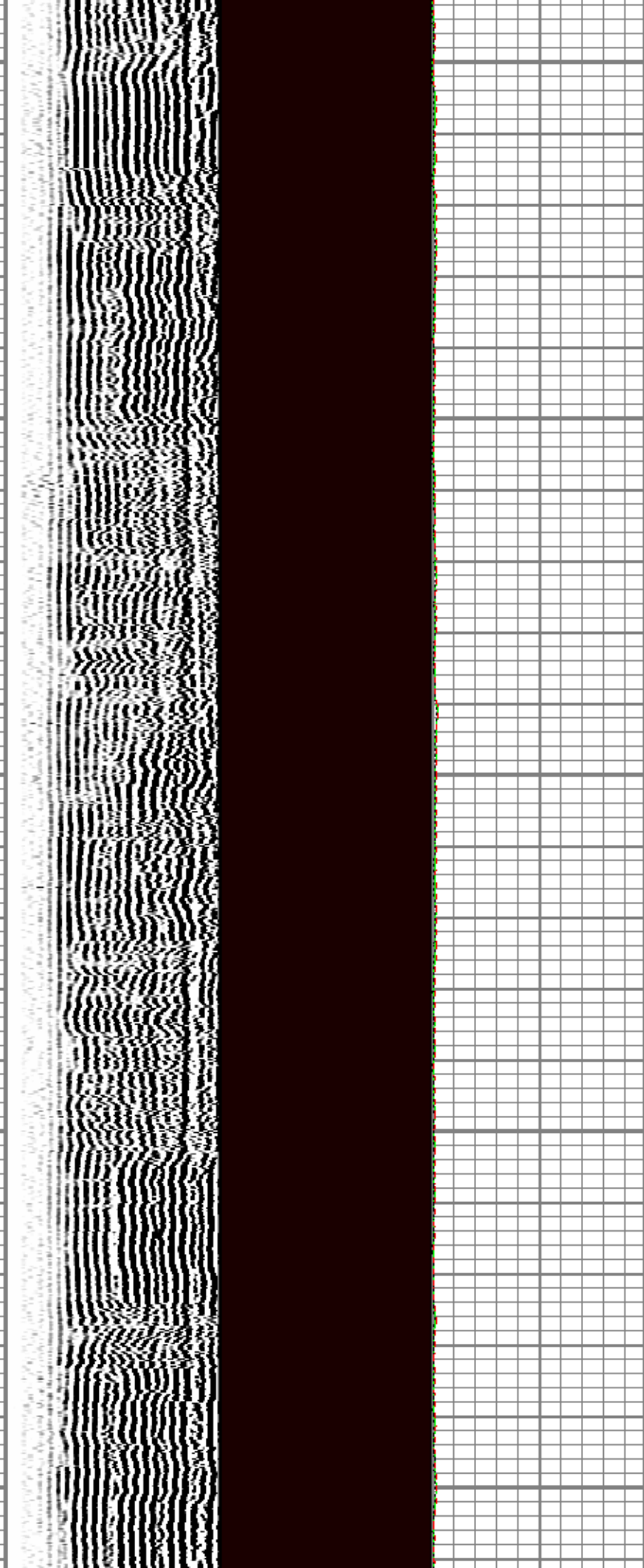
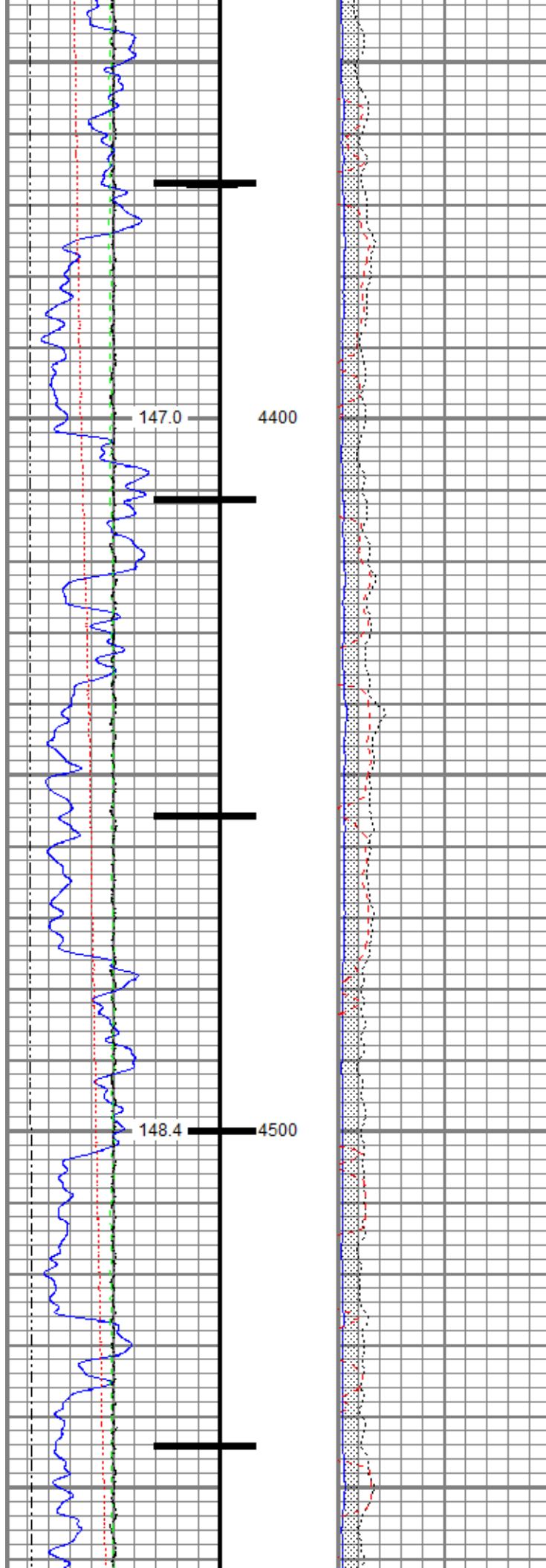


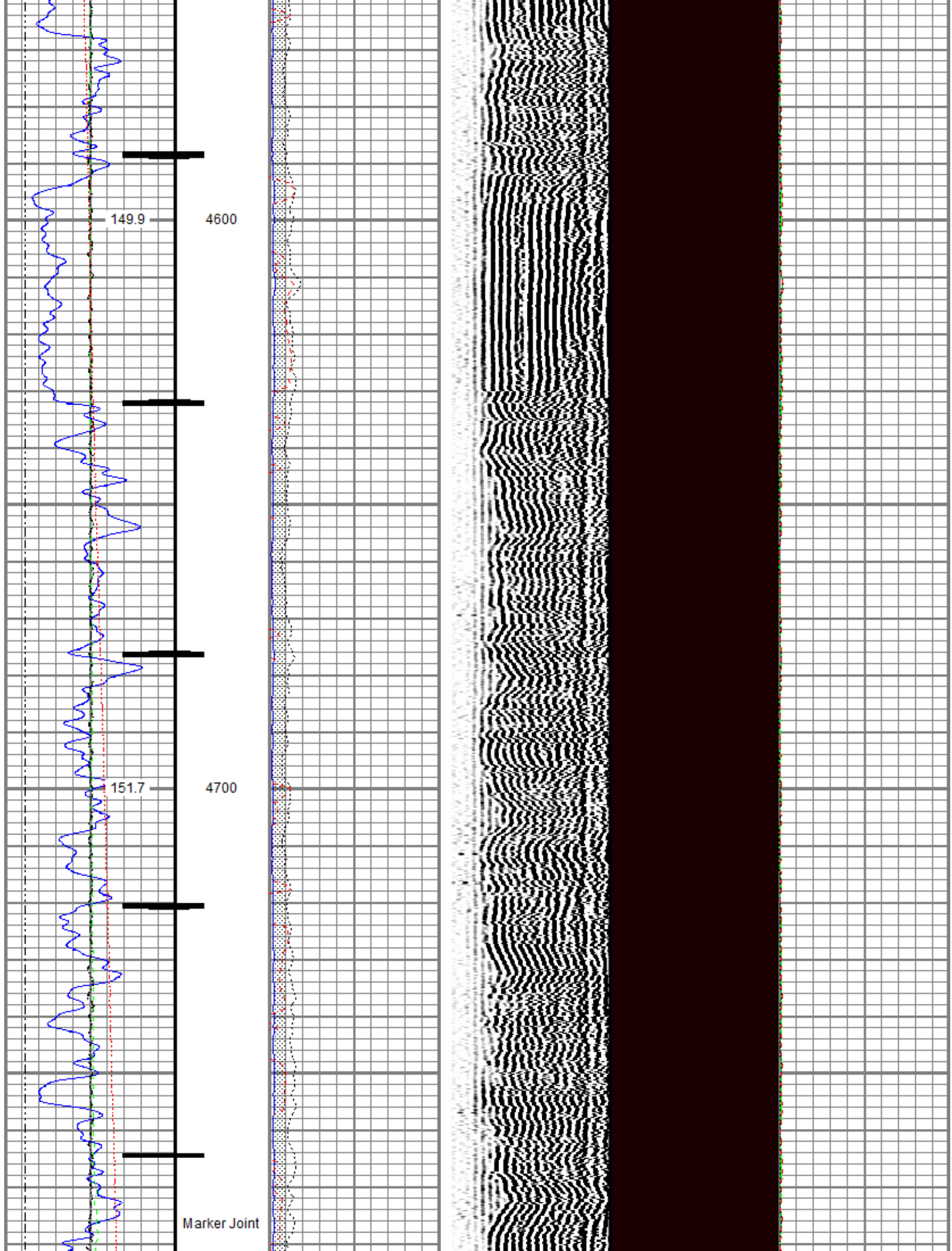


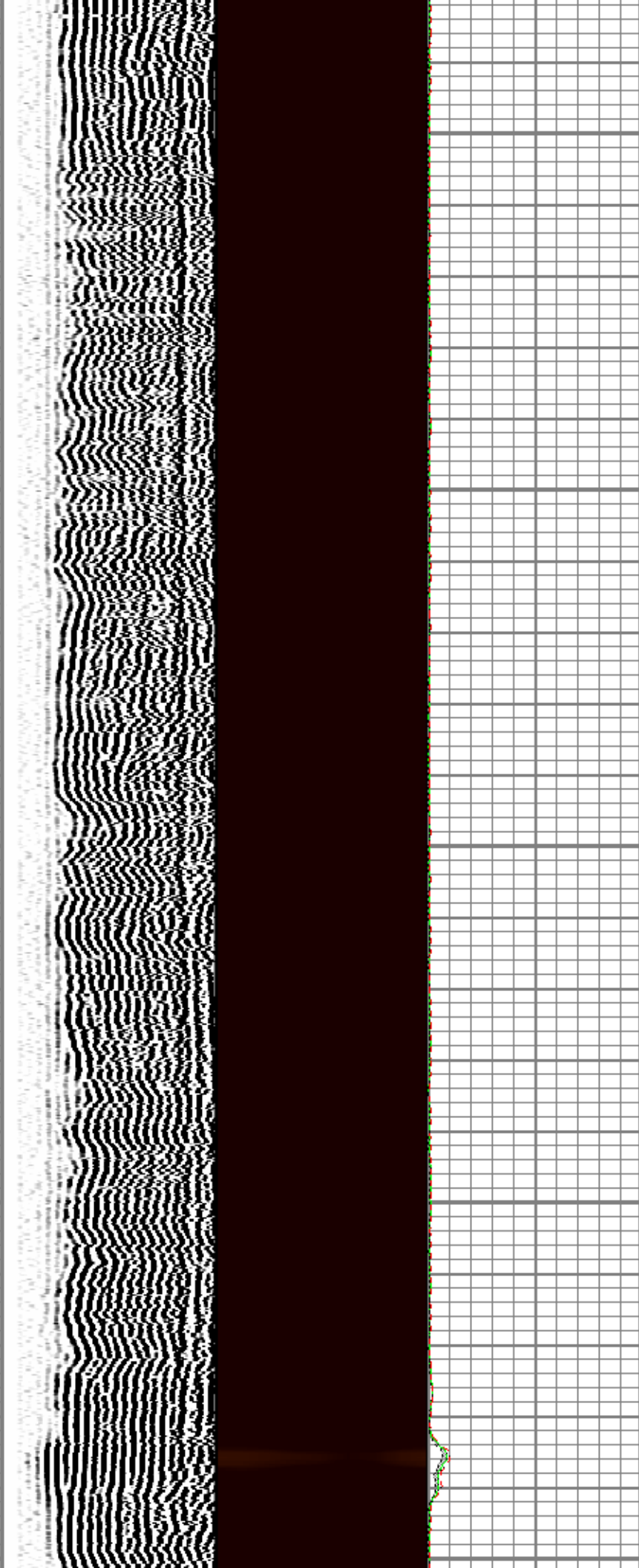
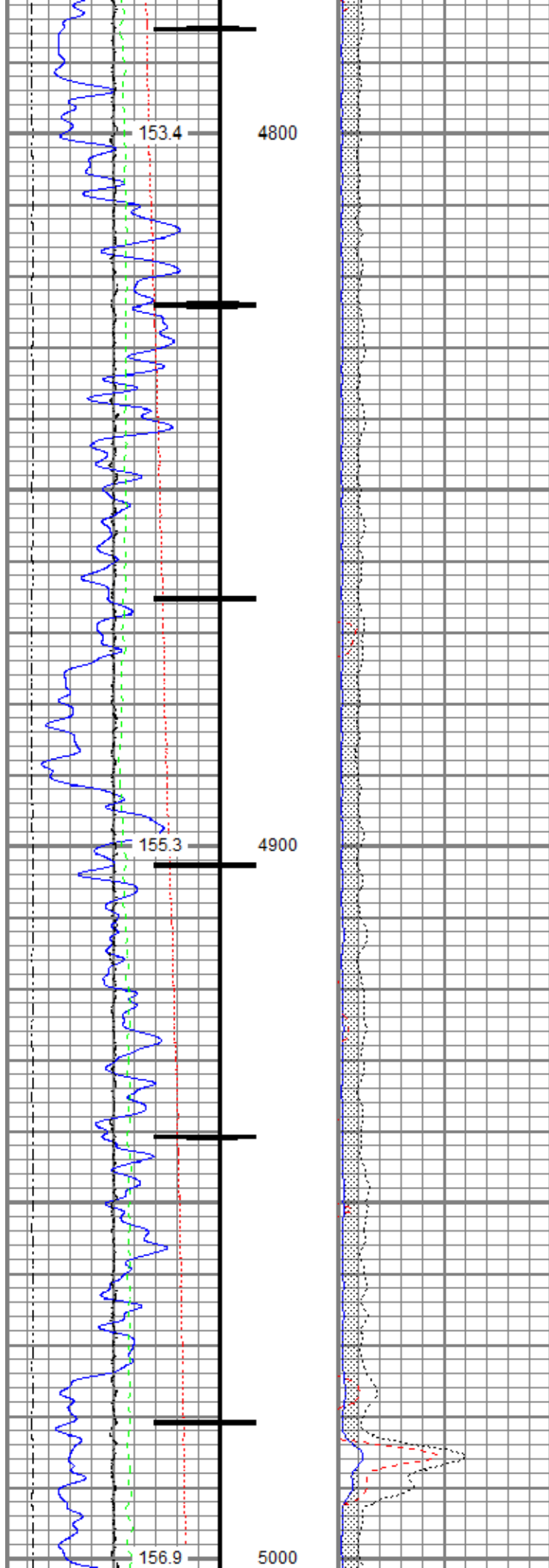


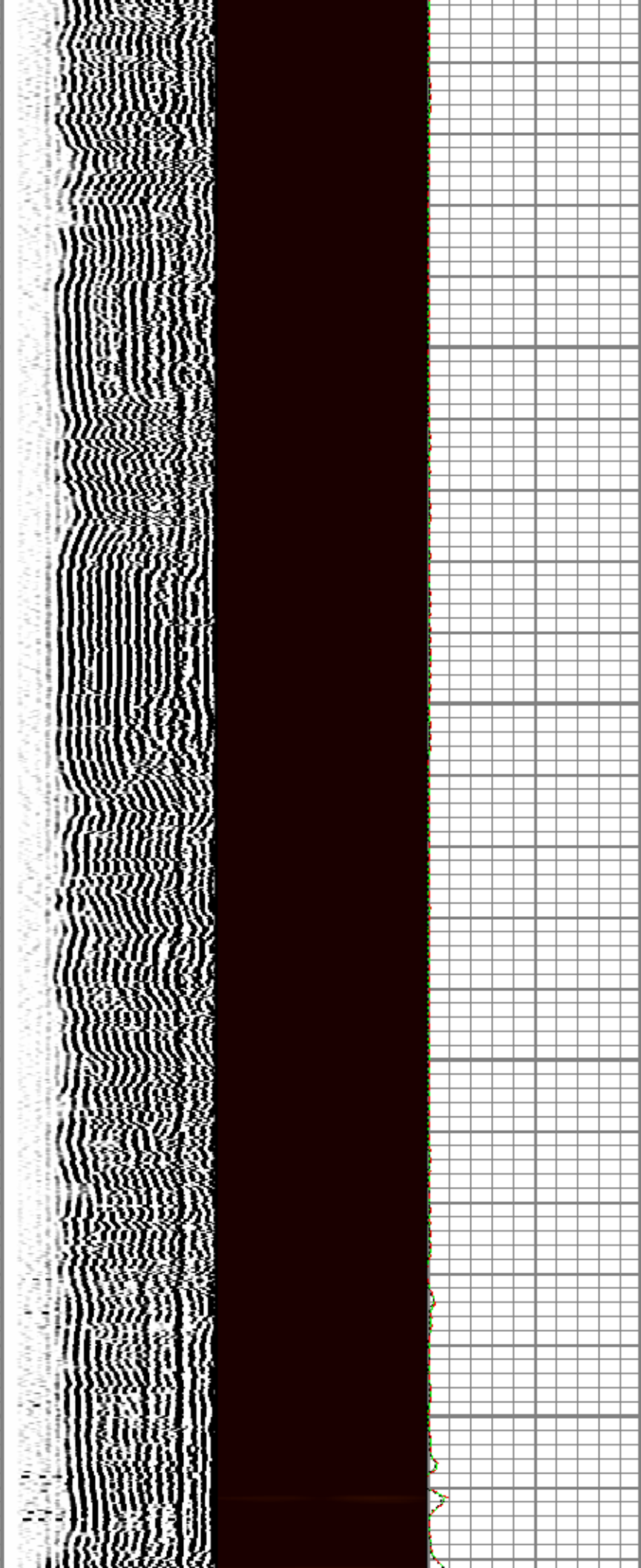
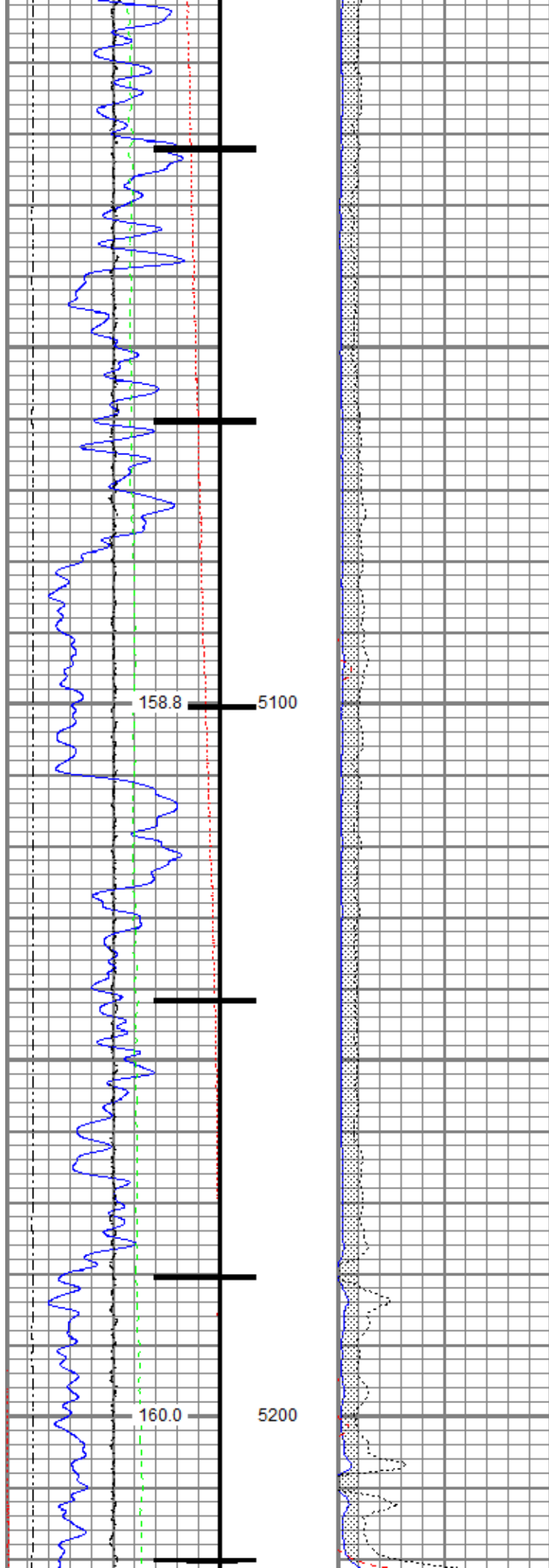


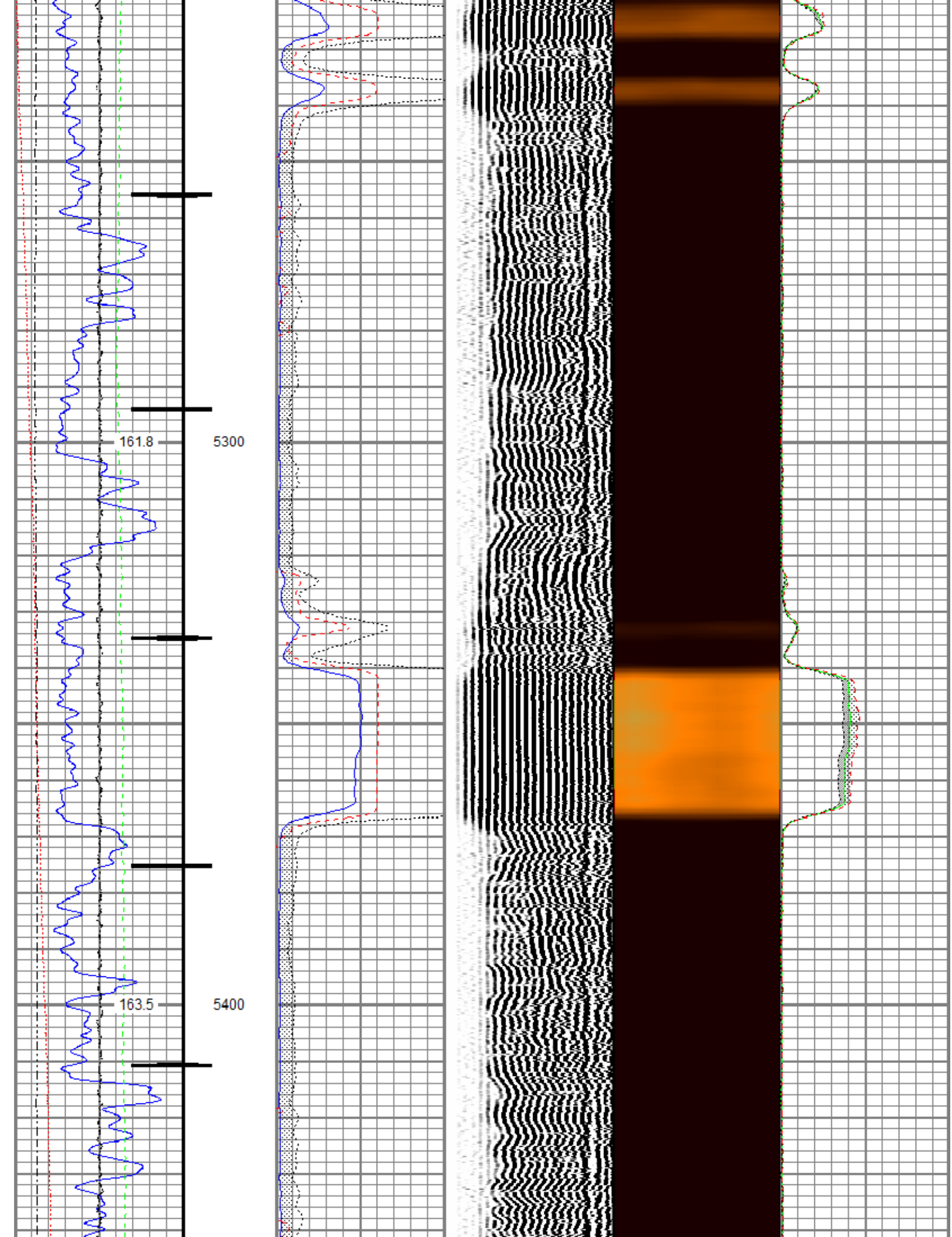


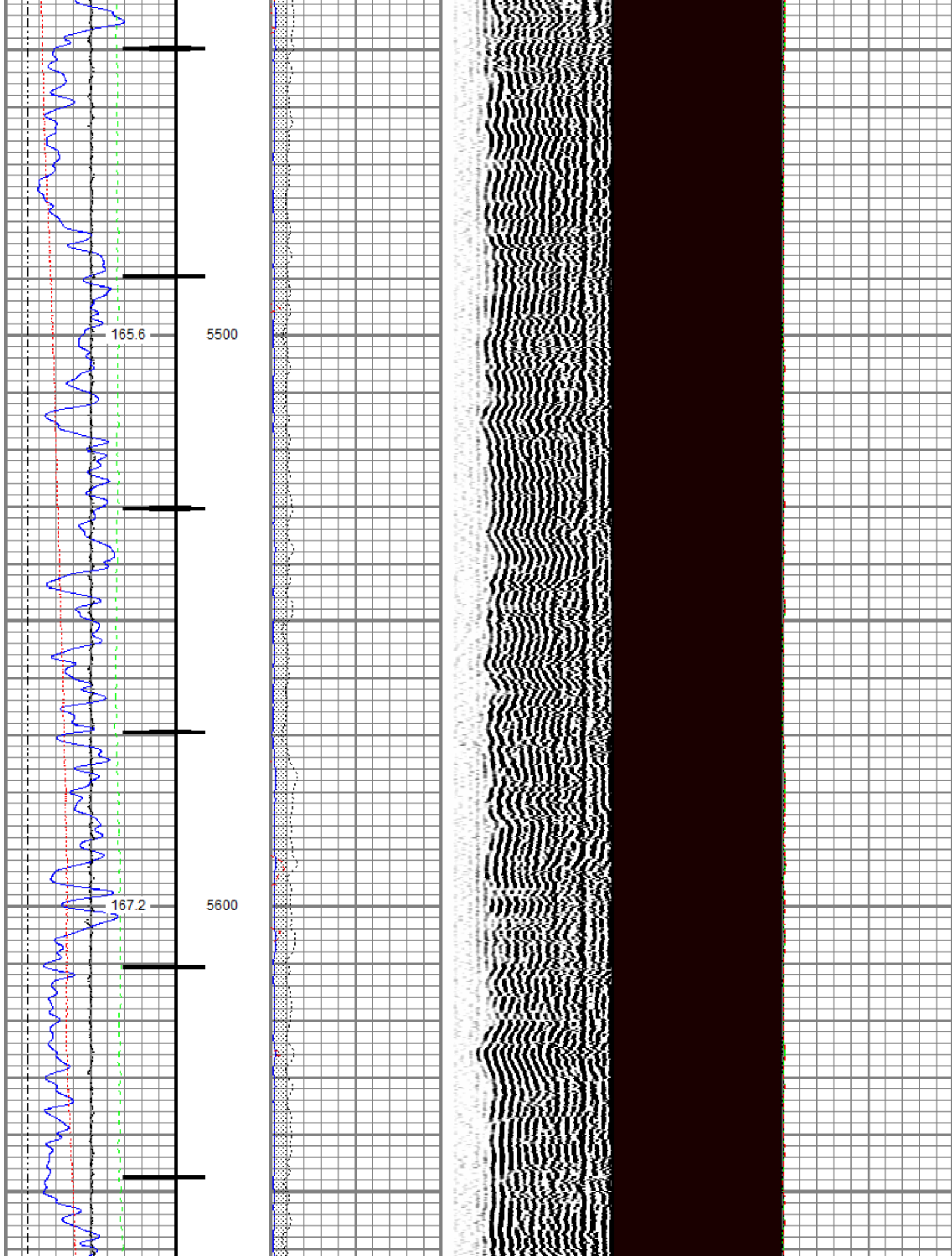


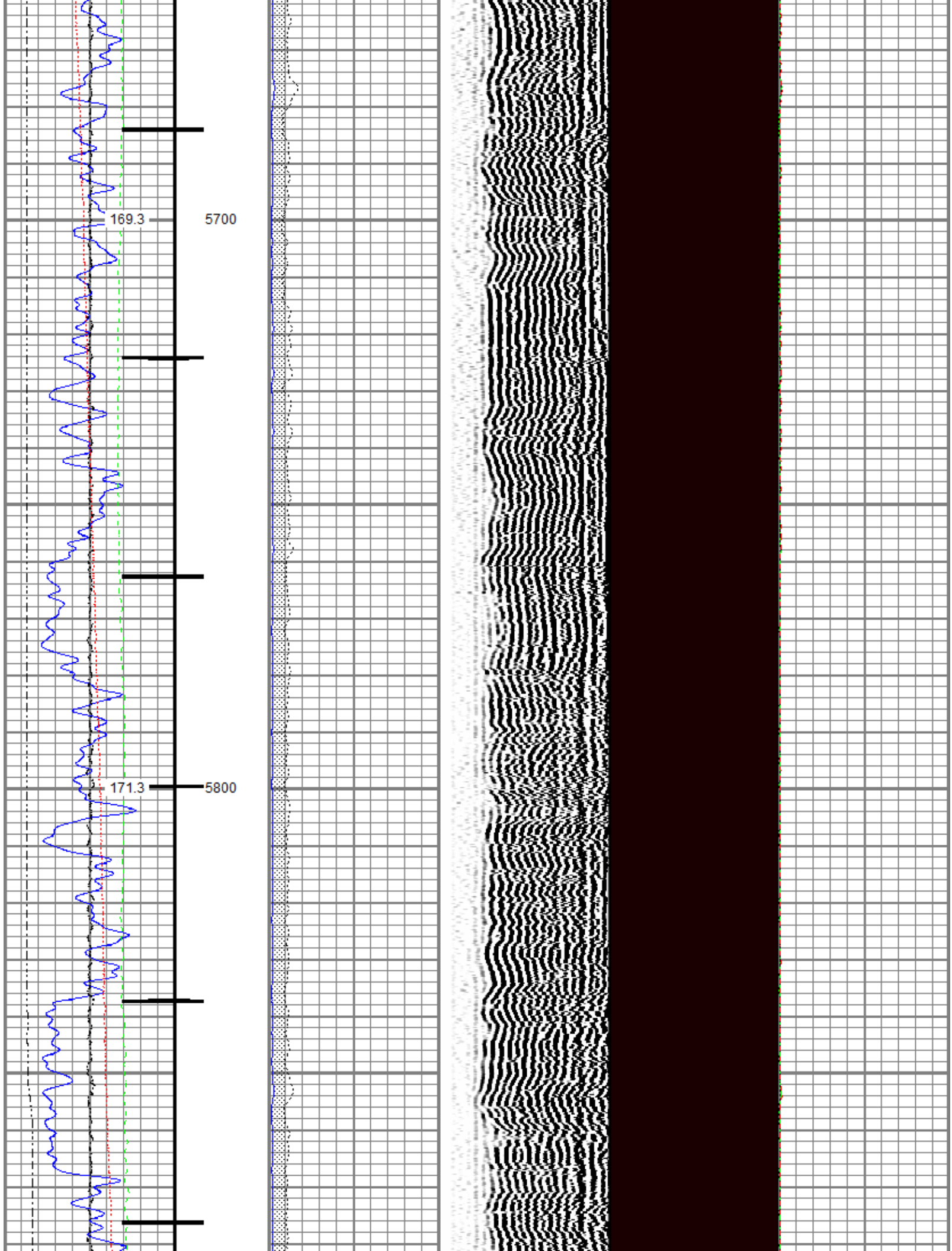


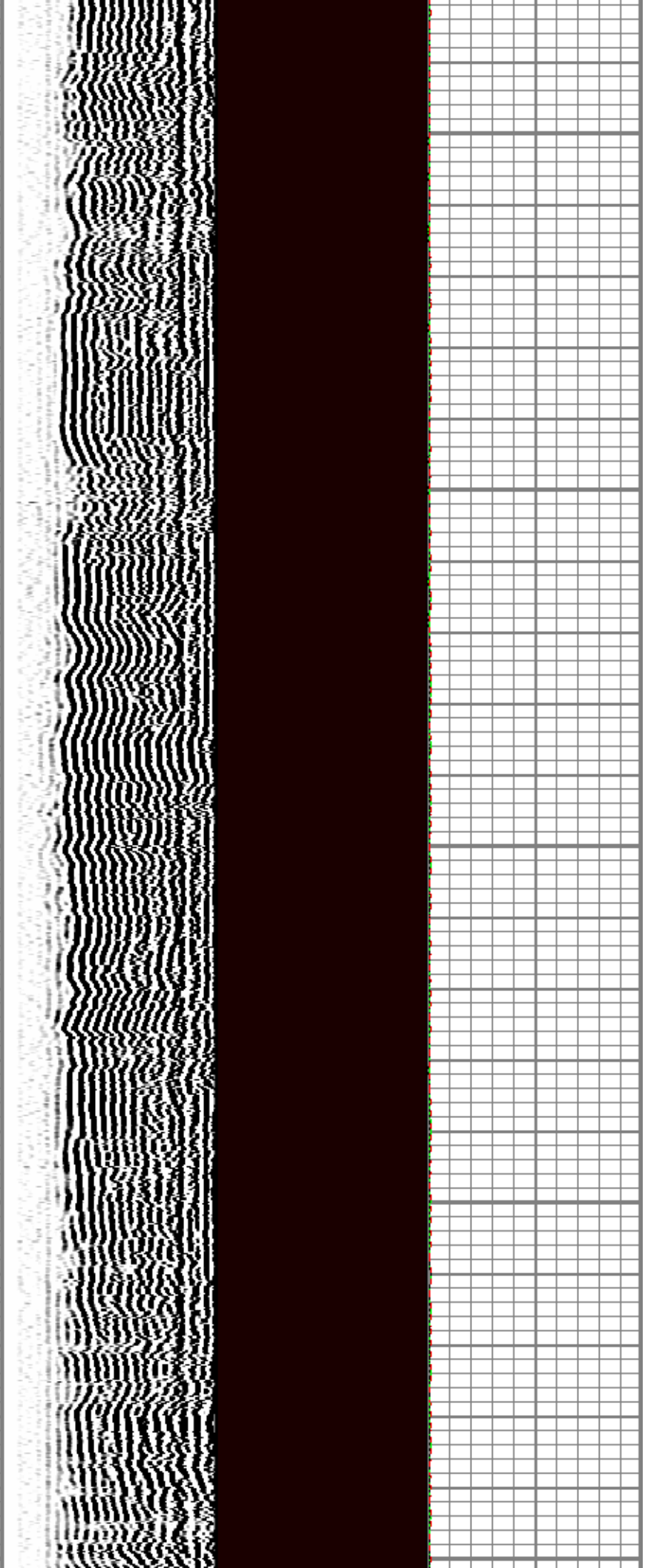
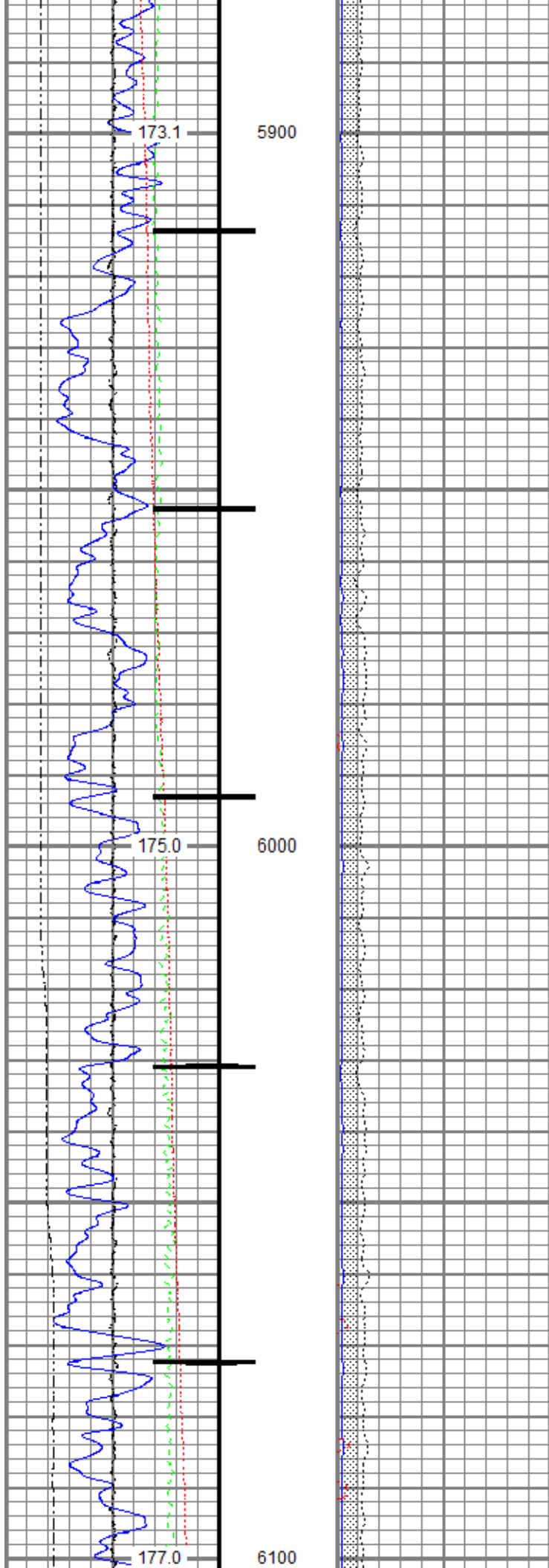


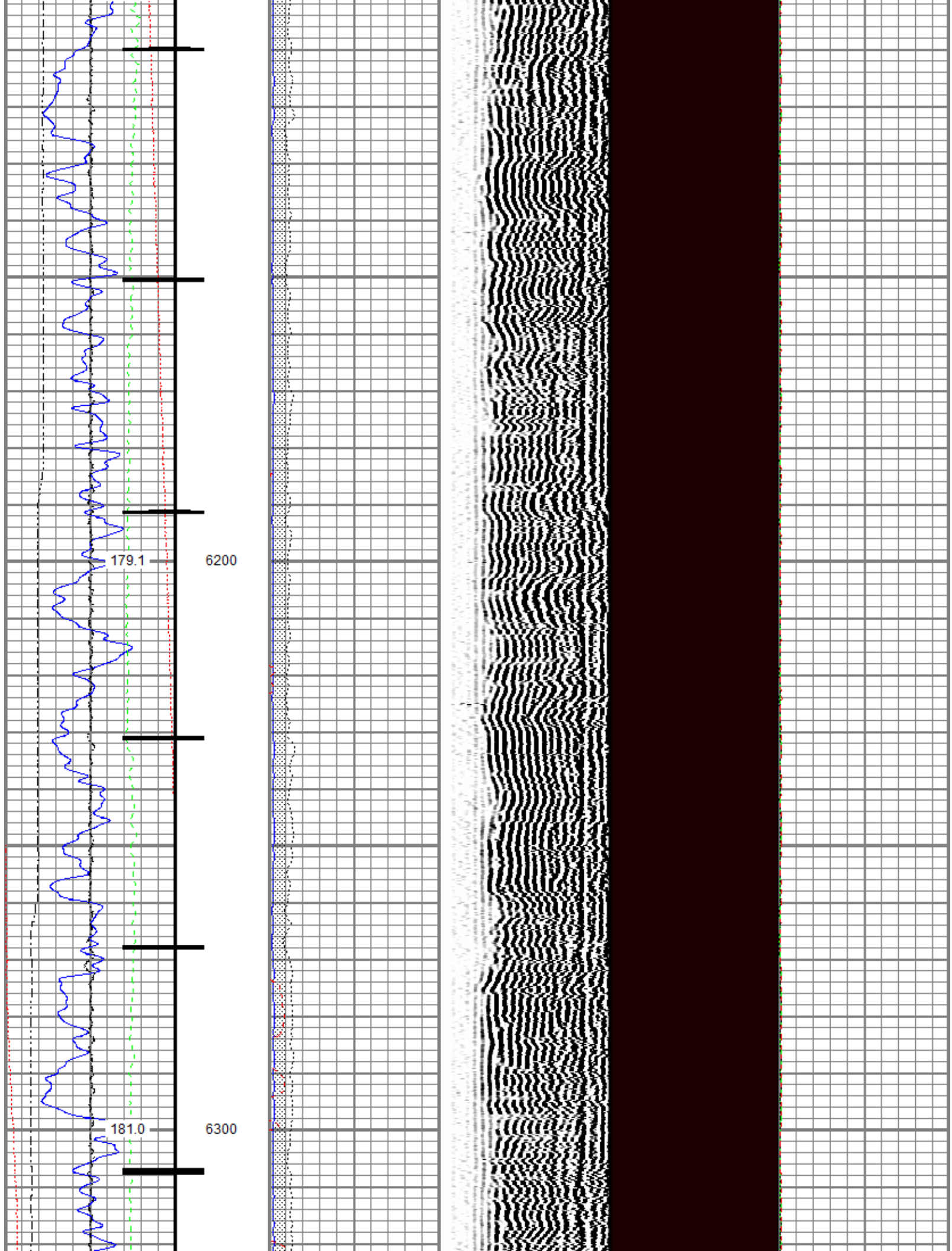


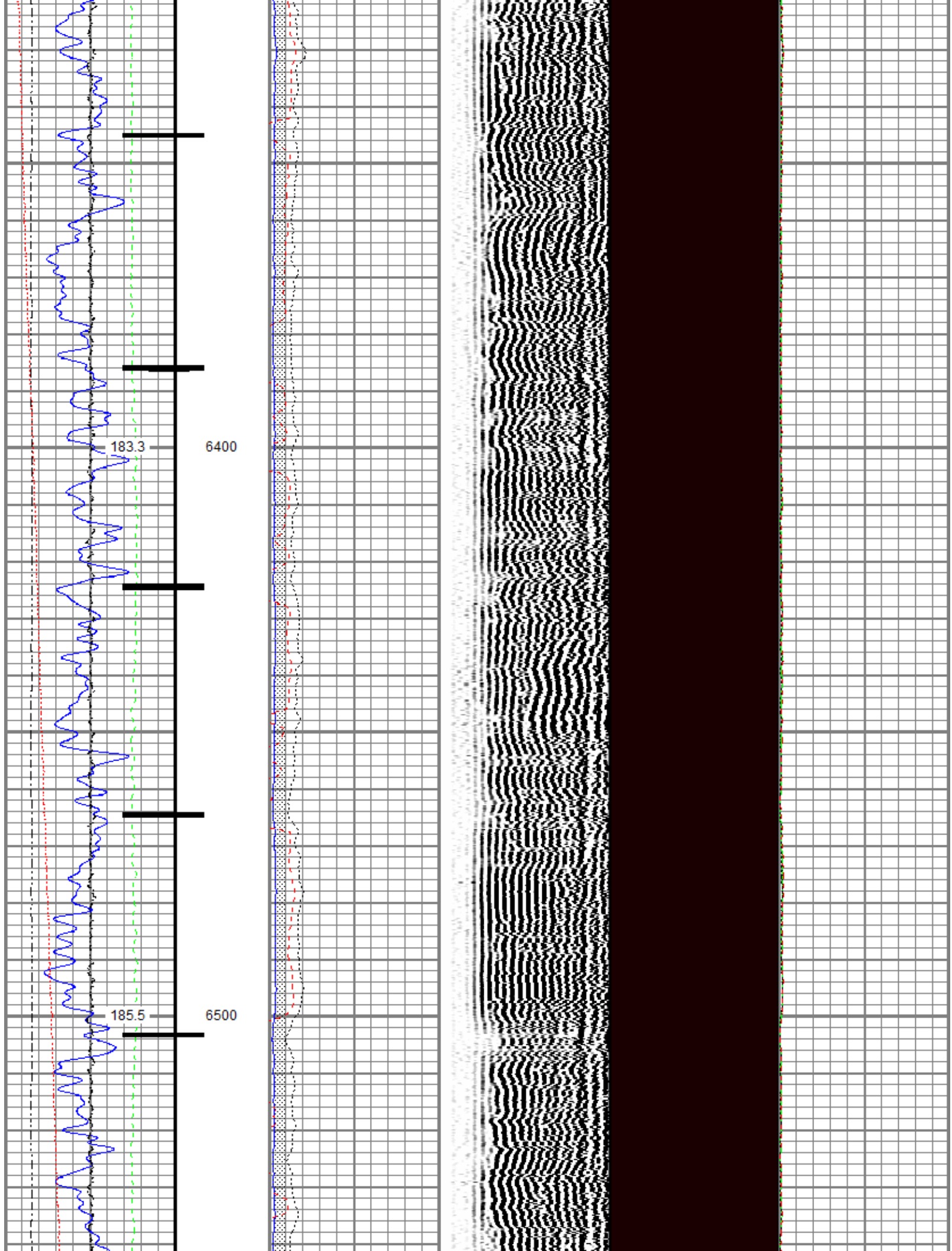


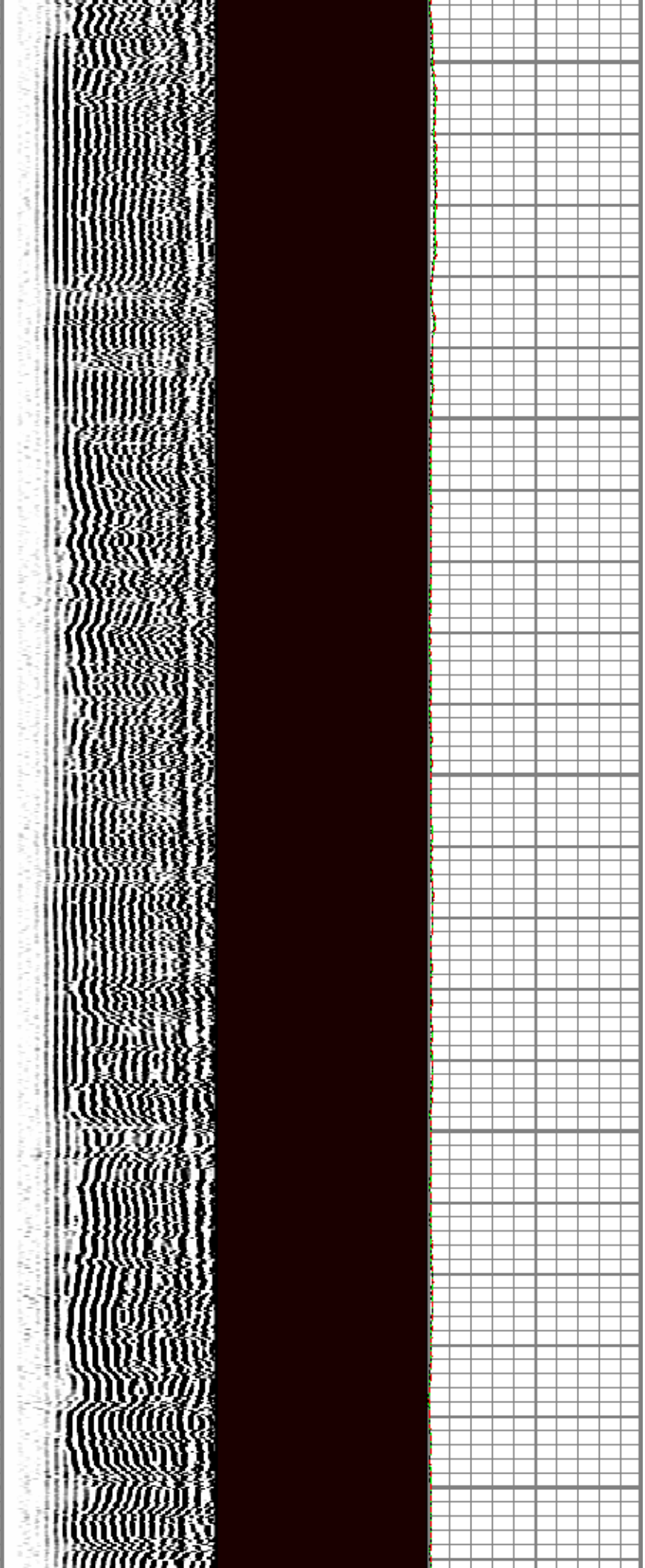
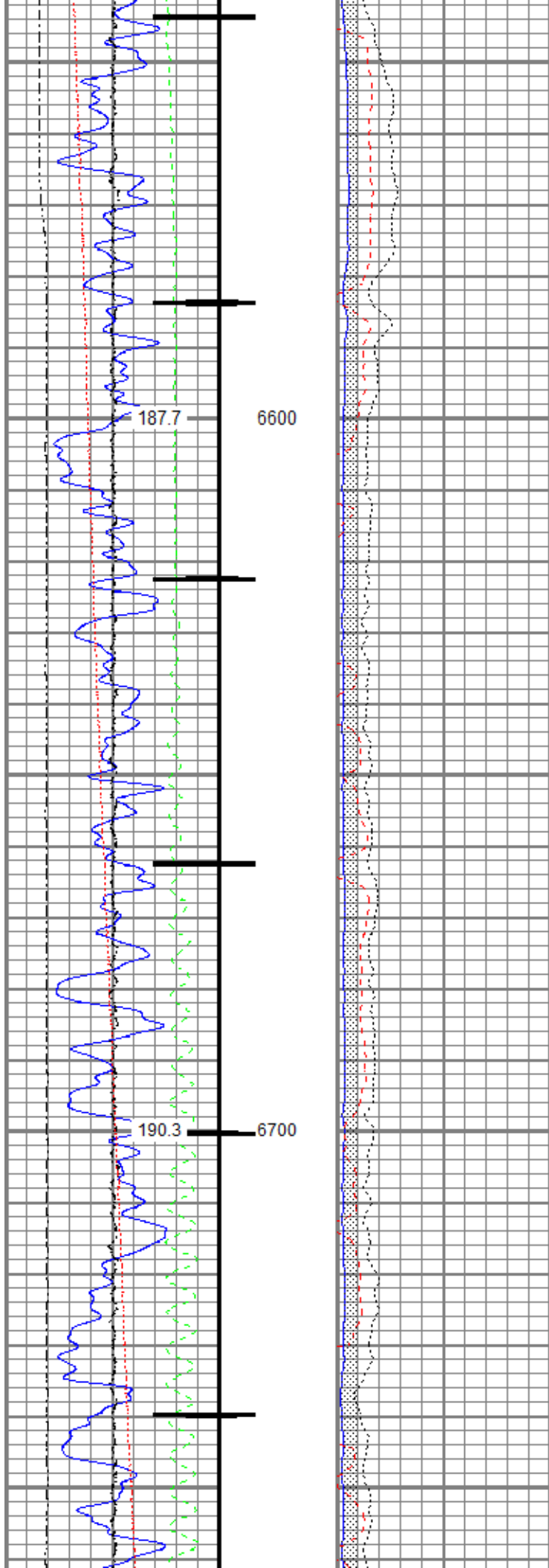


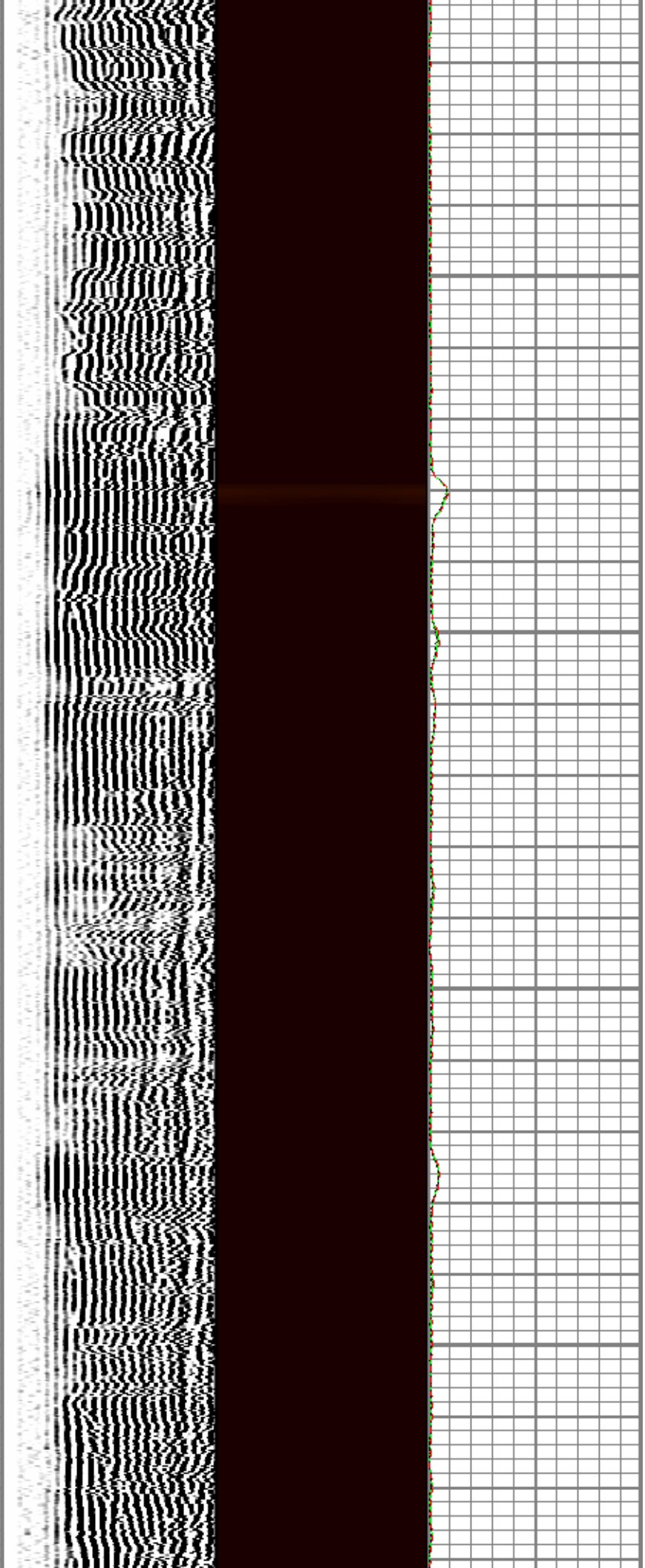
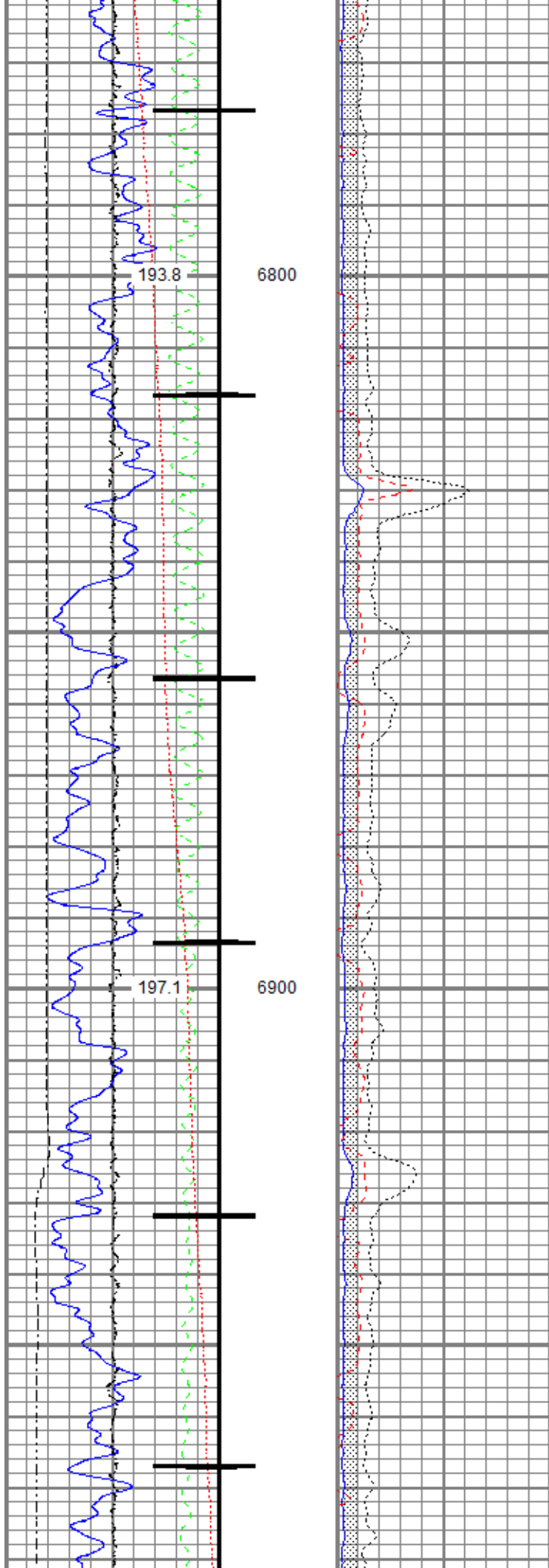


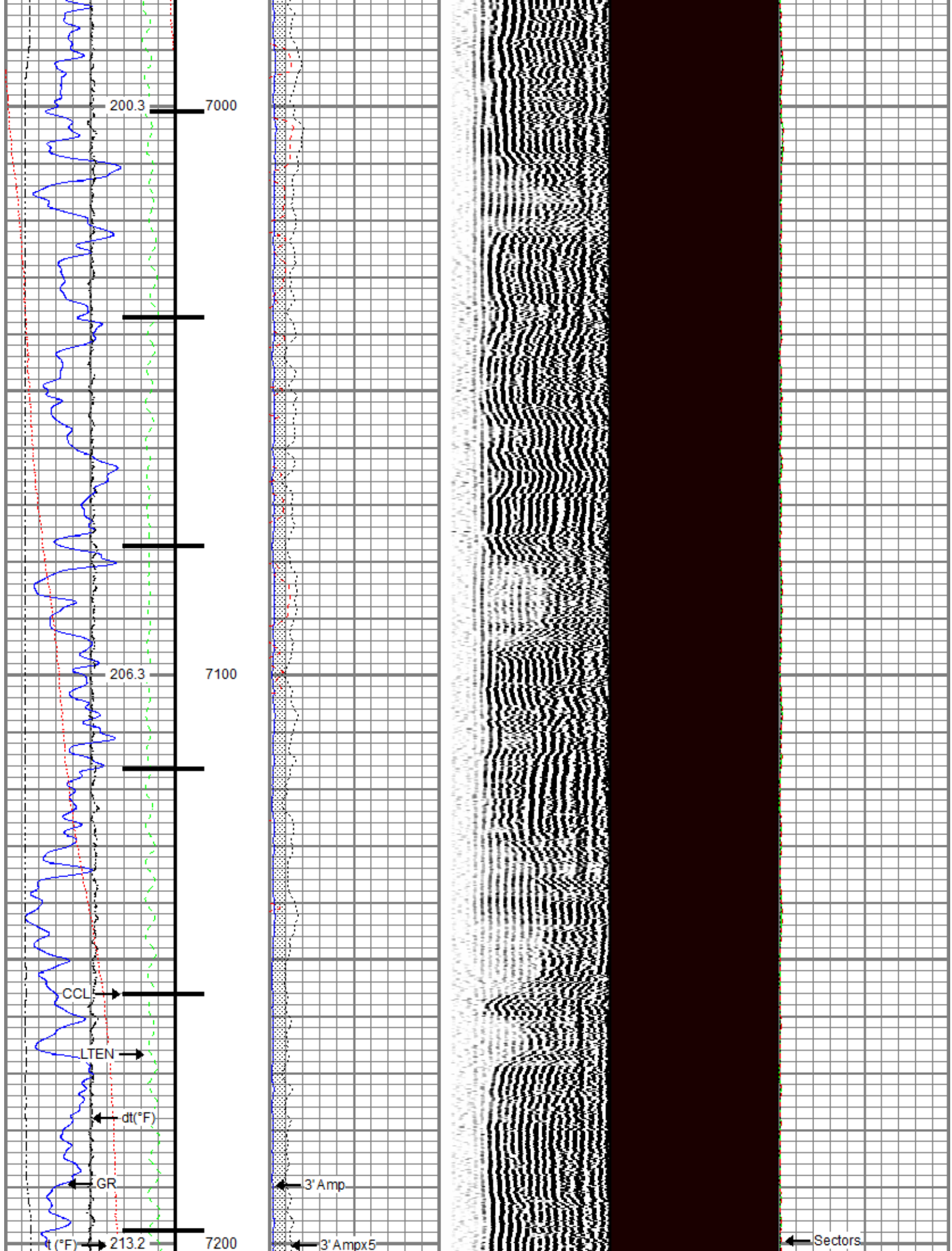


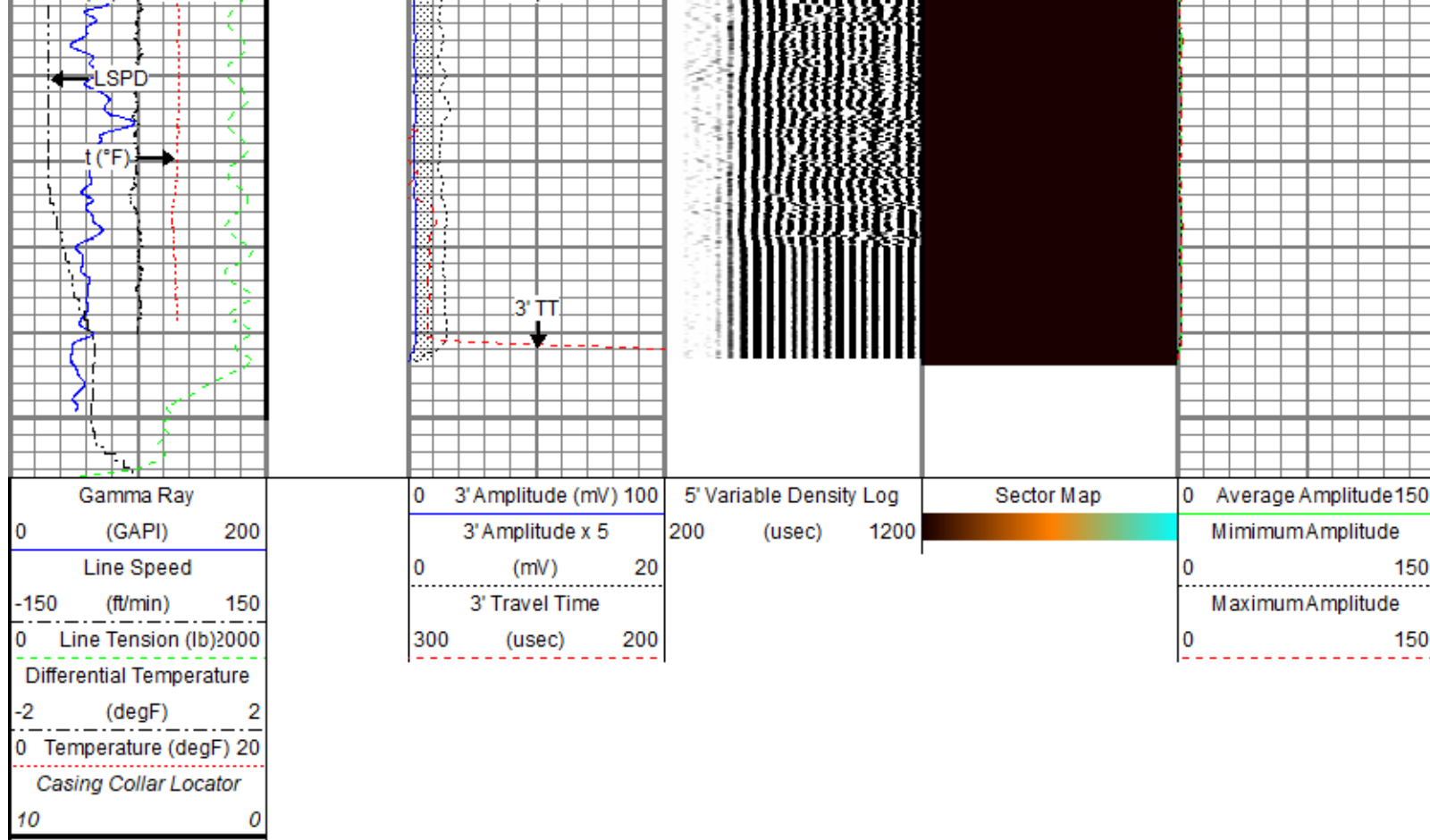








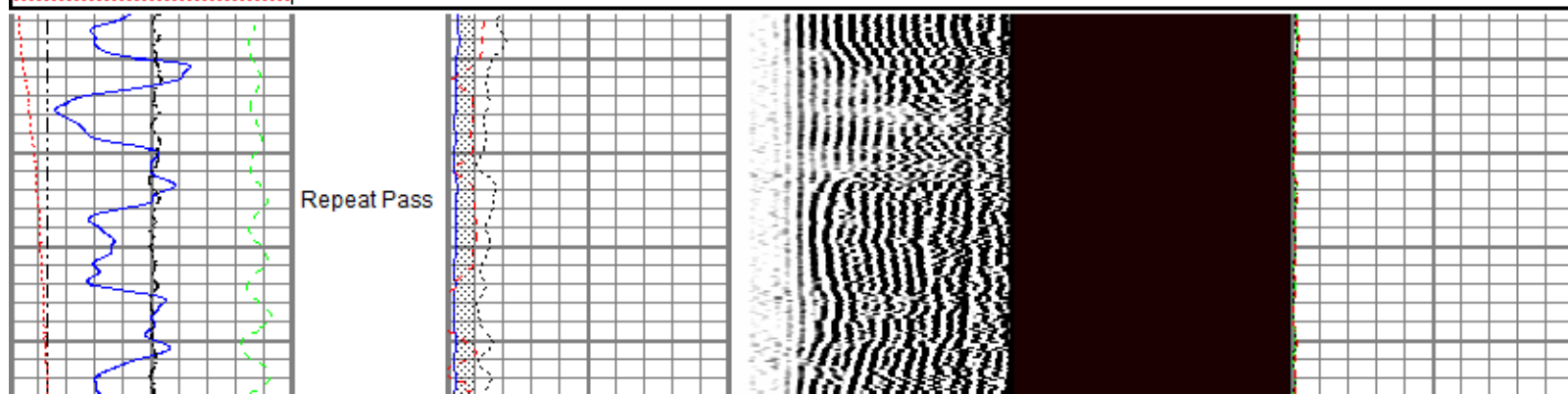
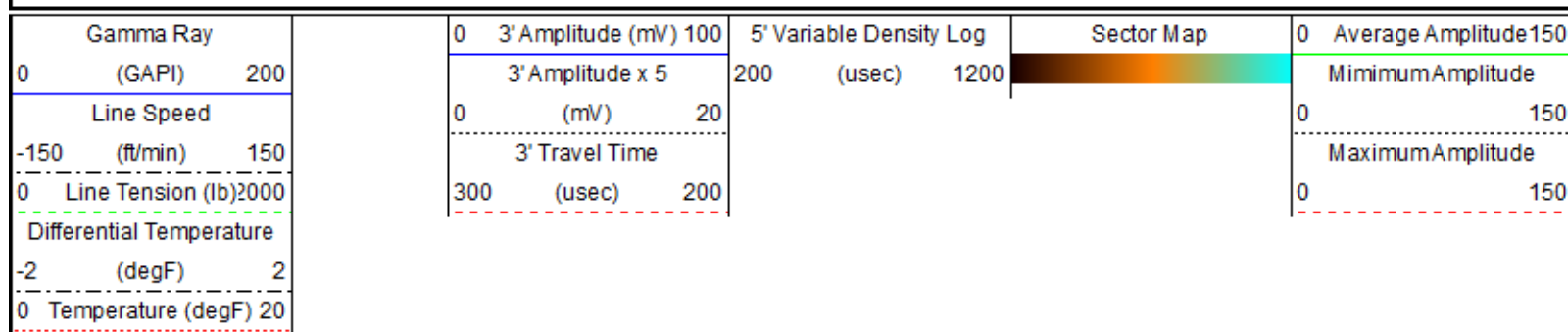


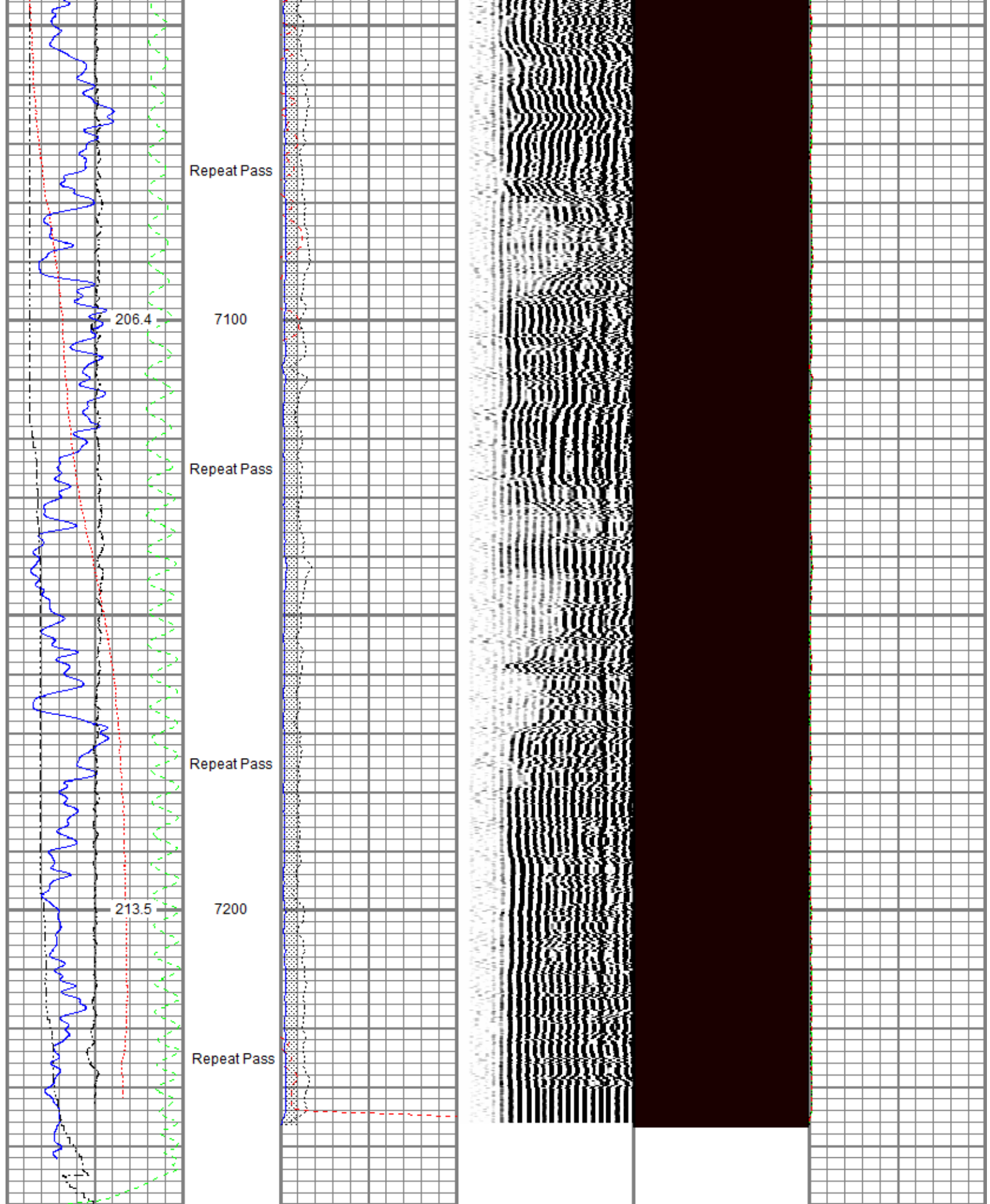


Repeat Pass

Recorded With 0 PSI Surface Induced Pressure

Database File tep_puckett gm 444-8_rbl_11-19-19\tep_puckett gm 444-8_rbl_11-19-19.db
 Dataset Pathname run2/Repeat.1
 Presentation Format ros_rbt004_tep
 Dataset Creation Wed Nov 20 13:54:43 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)			Minimum Amplitude	
Line Speed	0	(mV)	20				0	150
(ft/min)	150	3' Travel Time					Maximum Amplitude	

0	Line Tension (lb)	2000	300	(usec)	200	0	150
-2	Differential Temperature (degF)	2					
0	Temperature (degF)	20					

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
			Probe CENT-2750 Probe 2-3/4" Electric Inline Bowspring Centralizer	2.88	2.75	20.00
TEMP	17.00					
WVFS8	14.77		Probe Radii-2750 RBT (120855) Probe 2-3/4" Radial Cement Bond Tool with Integral Temperature Sub	9.39	2.75	105.00
WVFS7	14.77					
WVFS6	14.77					
WVFS5	14.77					
WVFS4	14.77					
WVFS3	14.77					
WVFS2	14.77					
WVFS1	14.77					
WVFCAL	14.77					
WVF3FT	14.77					
WVF5FT	13.77					
			Probe CENT-2750 Probe 2-3/4" Electric Inline Bowspring Centralizer	2.88	2.75	20.00
CCL\$2	6.76					
CCL\$1	6.76					
GR	5.51		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
			Probe CENT-2750 Probe 2-3/4" Electric Inline Bowspring Centralizer	2.88	2.75	20.00

			GO BN-14375 GO 1-7/16" Bull Nose with Go Box Top	0.25	1.44	1.00
Dataset: tep_puckett gm 444-8_rbl_11-19-19.db: field/well/run2/Main.3 Total length: 23.82 ft Total weight: 224.60 lb O.D.: 2.75 in						

Calibration Report		
Database File	c:\programdata\warrior\data\tep_puckett gm 444-8_rbl_11-19-19\tep_puckett gm 444-8_rbl_11-19-19.db	
Dataset Pathname	run2/Main.3	
Dataset Creation	Wed Nov 20 13:52:03 2019	
Gamma Ray Calibration Report		
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:	120855					
Tool Model:	2750 RBT					
Calibration Casing Diameter:	4.500	in				
Calibration Depth:	170.797	ft				

Master Calibration, performed (Derived):						
	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.003	0.906	0.800	81.196	89.084	0.492
CAL	0.003	0.760				
5'	0.004	0.733	0.800	81.196	110.282	0.363
SUM						
S1	0.006	0.995	0.000	100.000	101.146	-0.605
S2	0.007	0.944	0.000	100.000	106.741	-0.750
S3	0.006	0.880	0.000	100.000	114.368	-0.667
S4	0.006	0.844	0.000	100.000	119.271	-0.683
S5	0.007	0.833	0.000	100.000	121.136	-0.857
S6	0.007	0.906	0.000	100.000	111.205	-0.776
S7	0.007	0.921	0.000	100.000	109.334	-0.716
S8	0.006	0.956	0.000	100.000	105.353	-0.669

Internal Reference Calibration, performed (Not Performed):						
	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.003	0.760	1.000	0.000

Air Zero Calibration, performed Mon Nov 18 18:07:41 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: 120855
Tool Model: 2750 RBT
Performed: Mon Oct 01 11:32:15 2018

	Reference	Reading
Low Reference:	100.00 degF	112.30 degF
High Reference:	350.00 degF	394.75 degF
Gain:	0.89	
Offset:	0.60	
Delta Spacing	1	



Company	TEP Rocky Mountain LLC
Well	Puckett GM 444-8
Field	Grand Valley
County	Garfield
State	Colorado