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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 Casing Tally reported Marker Joint at 6173.2 FT Adjusted -27 FT to correlate with Marker Joint Log ran with 2500 PSI Surface Induced Pressure Logging tools were clean and free of any debris upon completion of operations  Thank you for choosing Reliance Oilfield Services, LLC!

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

TEMP	19.20		SO BS CENT-2750-4500 Slip Over 2-3/4" I.D. for 4-1/2" O.D. Casing Bow Spring Centralizer	1.33	3.25	10.00
WVFS8	16.96		Probe Radii-2750 RBT (071220) Probe 2-3/4" Radial Cement Bond Tool with Integral Temperature Sub	9.39	2.75	105.00
WVFS7	16.96					
WVFS6	16.96					
WVFS5	16.96					
WVFS4	16.96					
WVFS3	16.96					
WVFS2	16.96					
WVFS1	16.96					
WVFCAL	16.96					
WVF3FT	16.96					
WVF5FT	15.96					
CCL\$2	11.83					
CCL\$1	11.83					
GR	10.50		SO BS CENT-2750-4500 Slip Over 2-3/4" I.D. for 4-1/2" O.D. Casing Bow Spring Centralizer	1.33	3.25	10.00
			Probe GR-CCL-2750 6PB (FW1810-001) Probe 2-3/4" rev.1 Digital Scintillation Gamma Ray/CCL Combined with 6 Pin Bottom for CNT	4.80	2.75	55.00
CNLSC	4.53	Probe CN-2750 BL (FW1308-020_A1483) Probe 2-3/4" Compensated Neutron with Bottom Load	5.03	2.75	60.00	
CNSSC	4.12					
LOCTIM	0.00	Probe CENT-2750 Probe 2-3/4" Electric Inline Bowspring Centralizer	2.88	2.75	20.00	
UTCTIM	0.00					
Dataset: noble_rampart a32-730_cnl_rbl_10-06-21.db: field/well/run1/main.2 Total length: 23.14 ft Total weight: 263.60 lb O.D.: 3.25 in						

### Calibration Report

Database File c:\programdata\warrior\data\noble energy\rampart a32-730\noble\_rampart a32-730\_cnl\_rbl\_10-06-21.db  
 Dataset Pathname main.2

# Compensated Neutron Calibration Report

Serial Number: FW1308-020\_A1483  
Tool Model: 2750 BL

CALIBRATION Mon Oct 19 14:19:51 2020

Detector	Readings		Target		Normalization
Short Space	3241.60	cps	0.00	cps	1.0000
Long Space	452.04	cps	0.00	cps	1.0000
Ratio	Measured 7.1710		Reference 6.7797		
CNRAT Gain	0.9454				

# Gamma Ray Calibration Report

Serial Number:	FW1810-001	
Tool Model:	2750 6PB	
Performed:	Mon Oct 19 14:19:51 2020	
Calibrator Value:	637.0	GAPI
Background Reading:	100.1	cps
Calibrator Reading:	1264.5	cps
Sensitivity:	0.5471	GAPI/c

## Segmented Cement Bond Log Calibration Report

Serial Number:	071220	
Tool Model:	2750 RBT	
Calibration Casing Diameter:	5.500	in
Calibration Depth:	-71.812	ft

Master Calibration, performed (Derived):

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.000	0.681	0.800	71.921	104.488	0.792
CAL	0.642	0.642				
5'	-0.008	0.582	0.800	71.921	120.640	1.764
SUM						
S1	0.001	0.672	0.000	100.000	148.900	-0.085
S2	0.000	0.655	0.000	100.000	152.698	-0.035
S3	0.000	0.682	0.000	100.000	146.613	-0.033
S4	0.001	0.726	0.000	100.000	137.794	-0.080
S5	0.001	0.732	0.000	100.000	136.759	-0.137
S6	0.001	0.733	0.000	100.000	136.570	-0.117
S7	0.000	0.718	0.000	100.000	139.239	-0.039
S8	0.001	0.690	0.000	100.000	145.030	-0.113

Air Zero Calibration, performed Wed Oct 6 10:24:53 2021:

Raw (v)	Calibrated (v)	Results
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	Zero	Zero	Offset
3'	0.006	0.000	-0.000
5'	0.010	0.000	-0.001
SUM			
S1	0.007	0.000	0.000
S2	0.007	0.000	0.000
S3	0.009	0.000	0.000
S4	0.008	0.000	0.000
S5	0.008	0.000	0.001
S6	0.007	0.000	0.001
S7	0.008	0.000	0.000
S8	0.007	0.000	0.001

### Temperature Calibration Report

Serial Number: 071220  
 Tool Model: 2750 RBT  
 Performed: Mon Oct 19 14:19:51 2020

	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

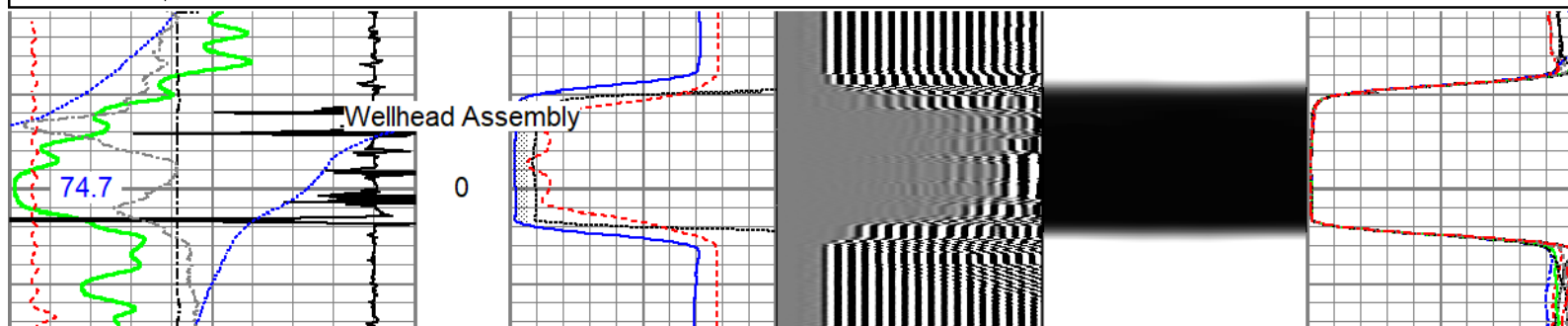


## Main Pass

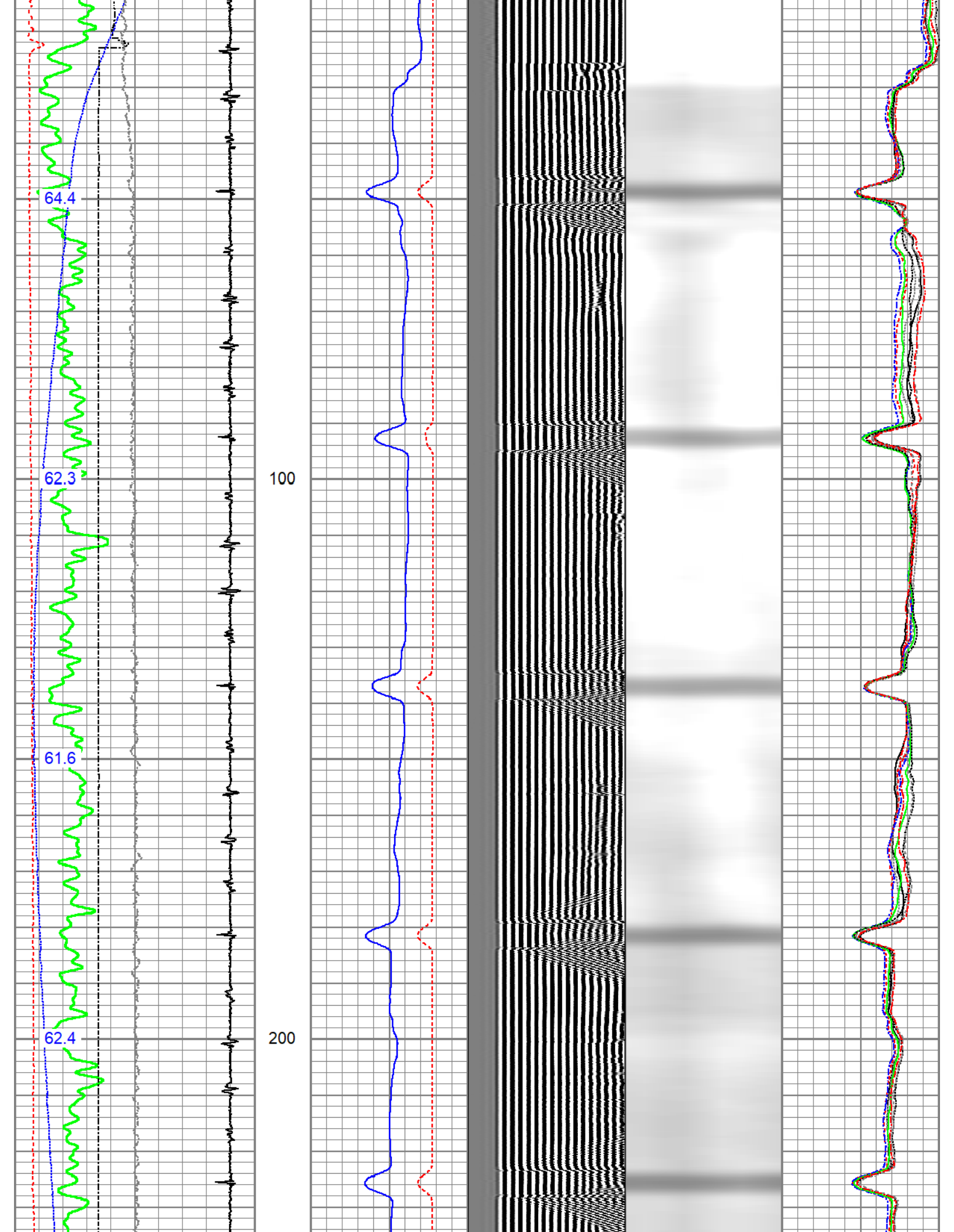
Recorded with 2500 PSI Surface Induced Pressure

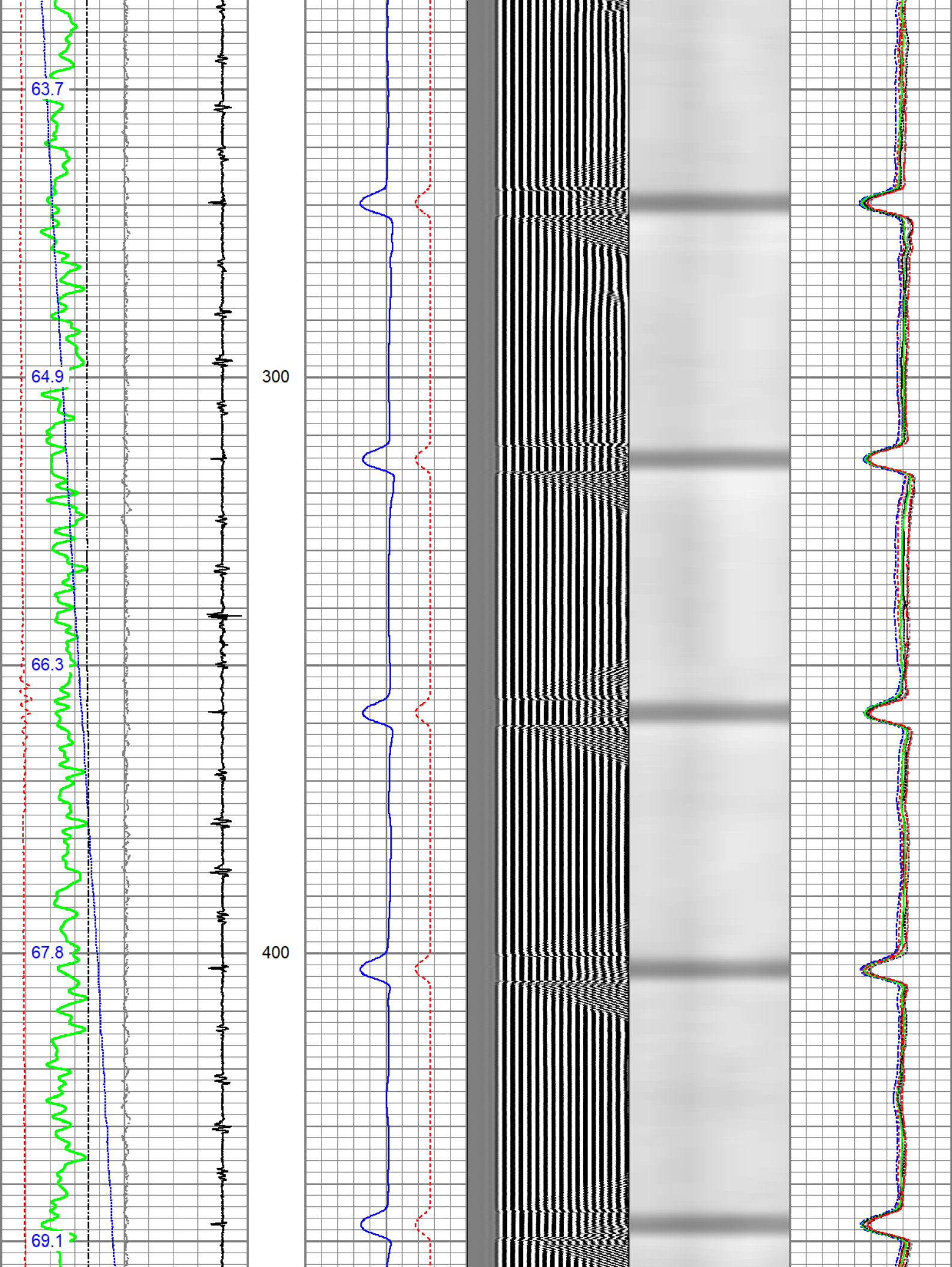
Database File: noble energy\rampart a32-730\noble\_rampart a32-730\_cnl\_rbl\_10-06-21.db  
 Dataset Pathname: main.2  
 Presentation Format: edge\_rbl\_noble  
 Dataset Creation: Fri Oct 08 11:45:40 2021  
 Charted by: Depth in Feet scaled 1:240

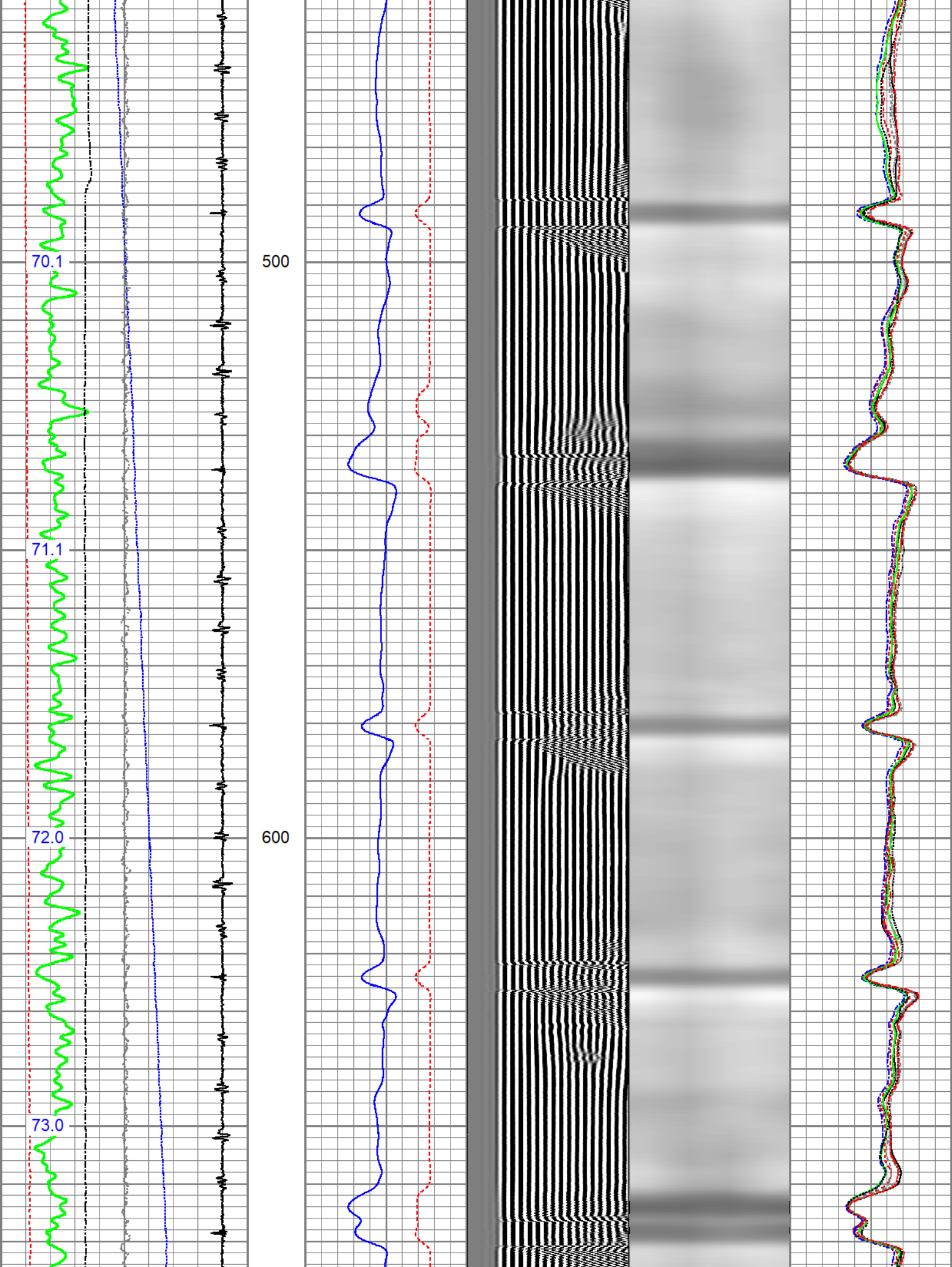
0	Gamma Ray (GAPI)	120	3' Amplitude	5' Variable Density	Sector Map	0	AMP S1	100
4.5	Casing Collar Locator	1.1	0 (mV)	200 (usec)	1200	0	AMP S2	100
0	Temperature (degF)	20	3' Amplitude x 5			0	AMP S3	100
-150	Line Speed (ft/min)	150	0 (mV)	20		0	AMP S4	100
0	Line Tension (lb)	2000	3' Travel Time			0	AMP S5	100
	Differential Temperature		650 (usec)	150		0	AMP S6	100
-2	(degF)	2				0	AMP S7	100
TEMP						0	AMP S8	100
(degF)								



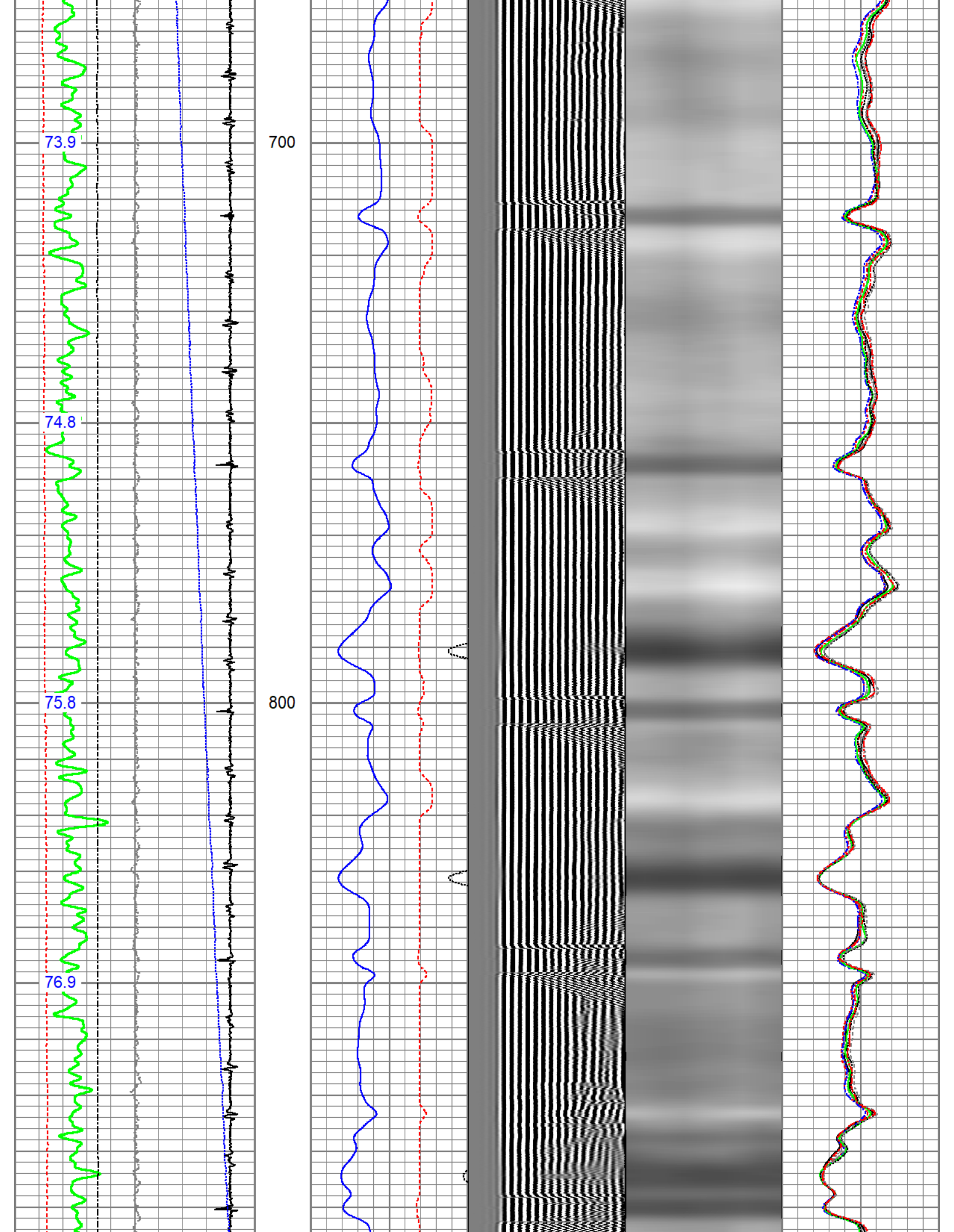


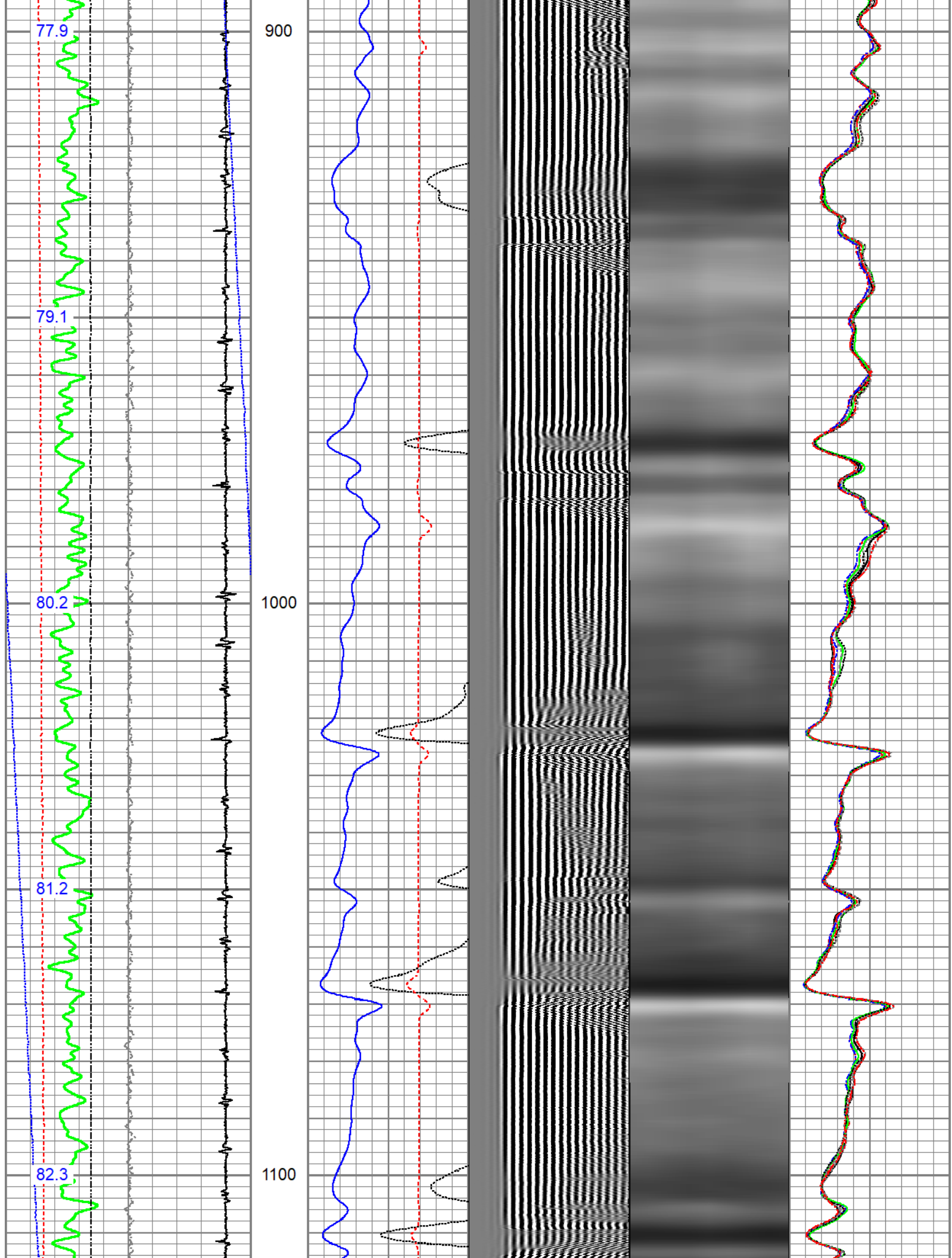


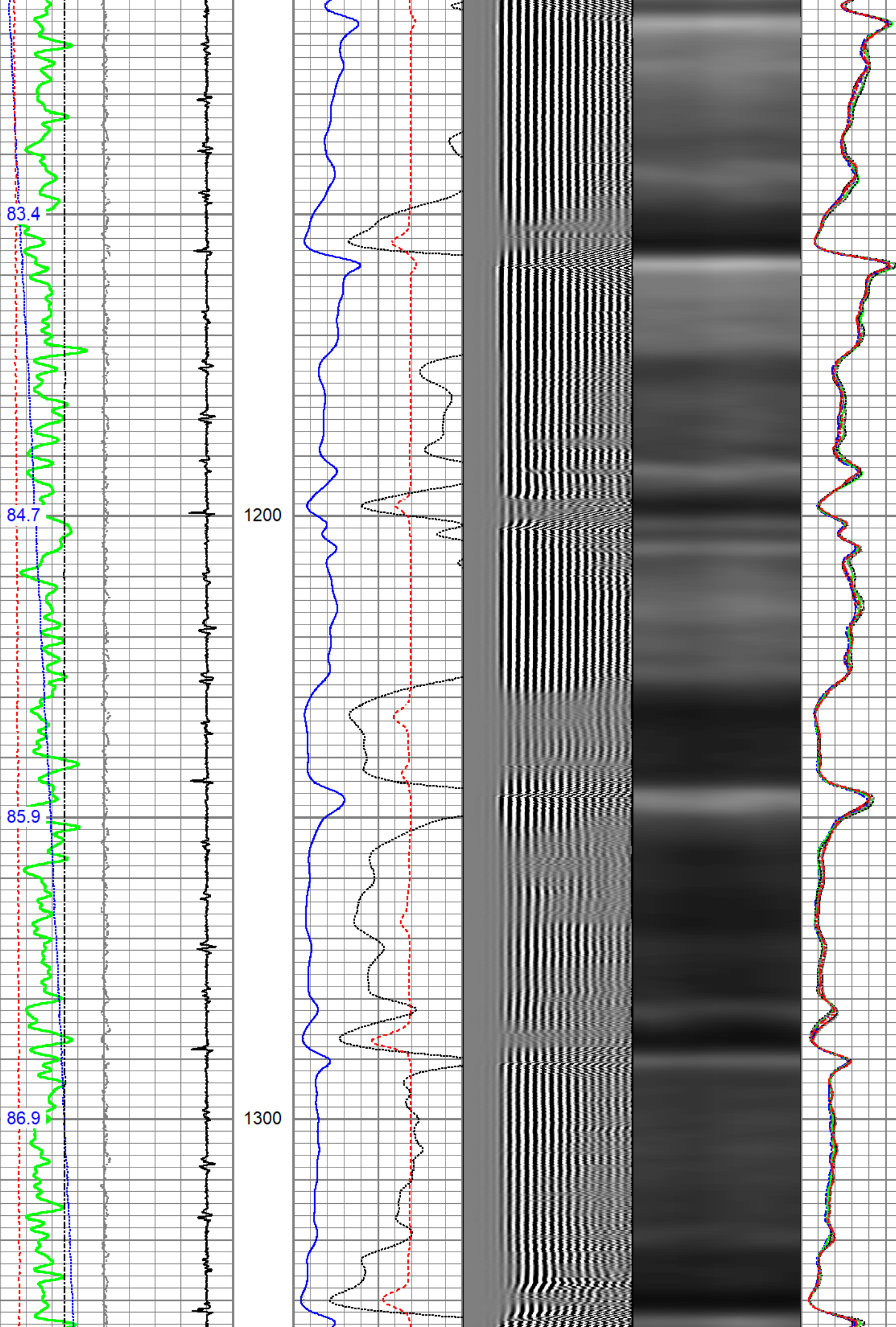




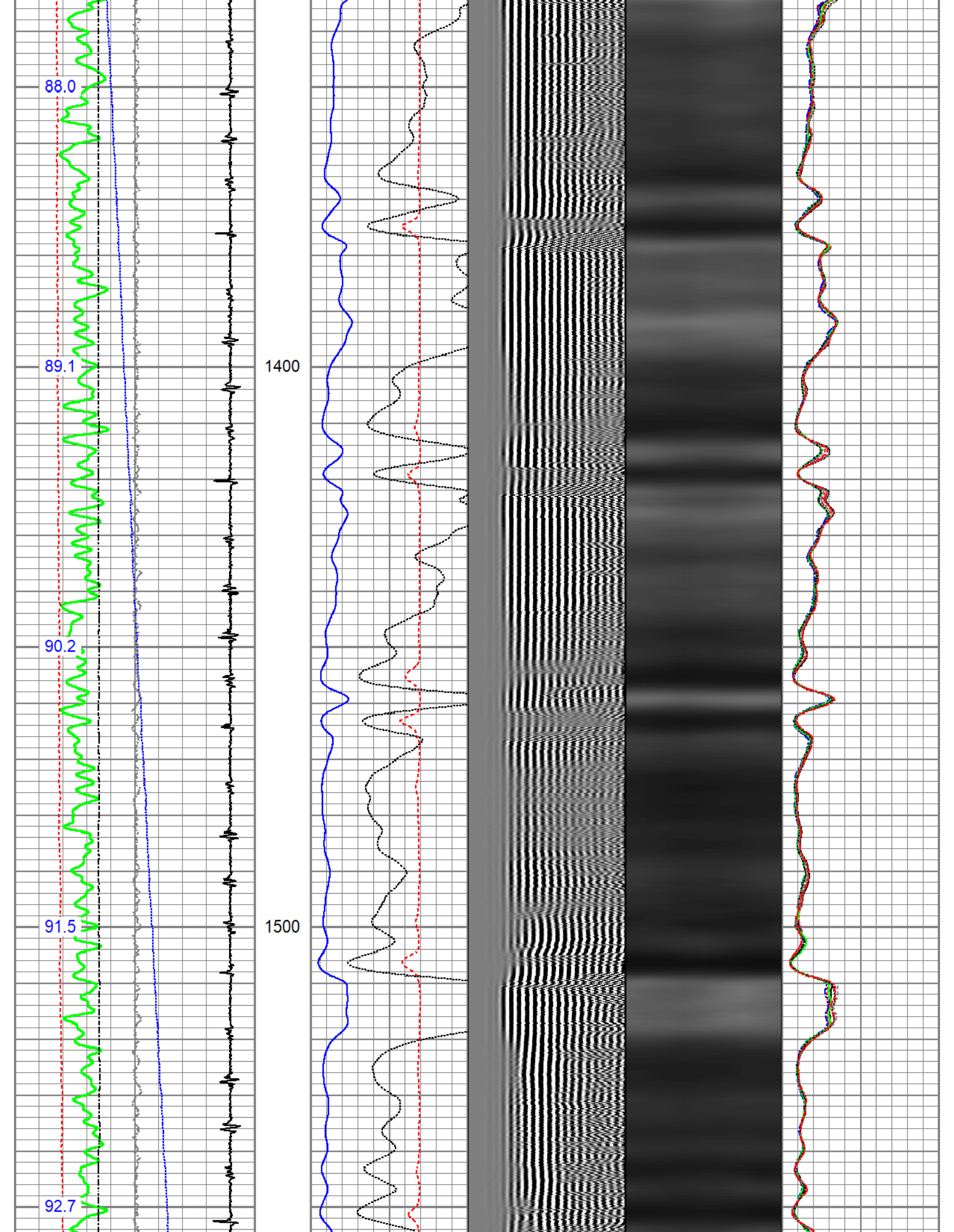


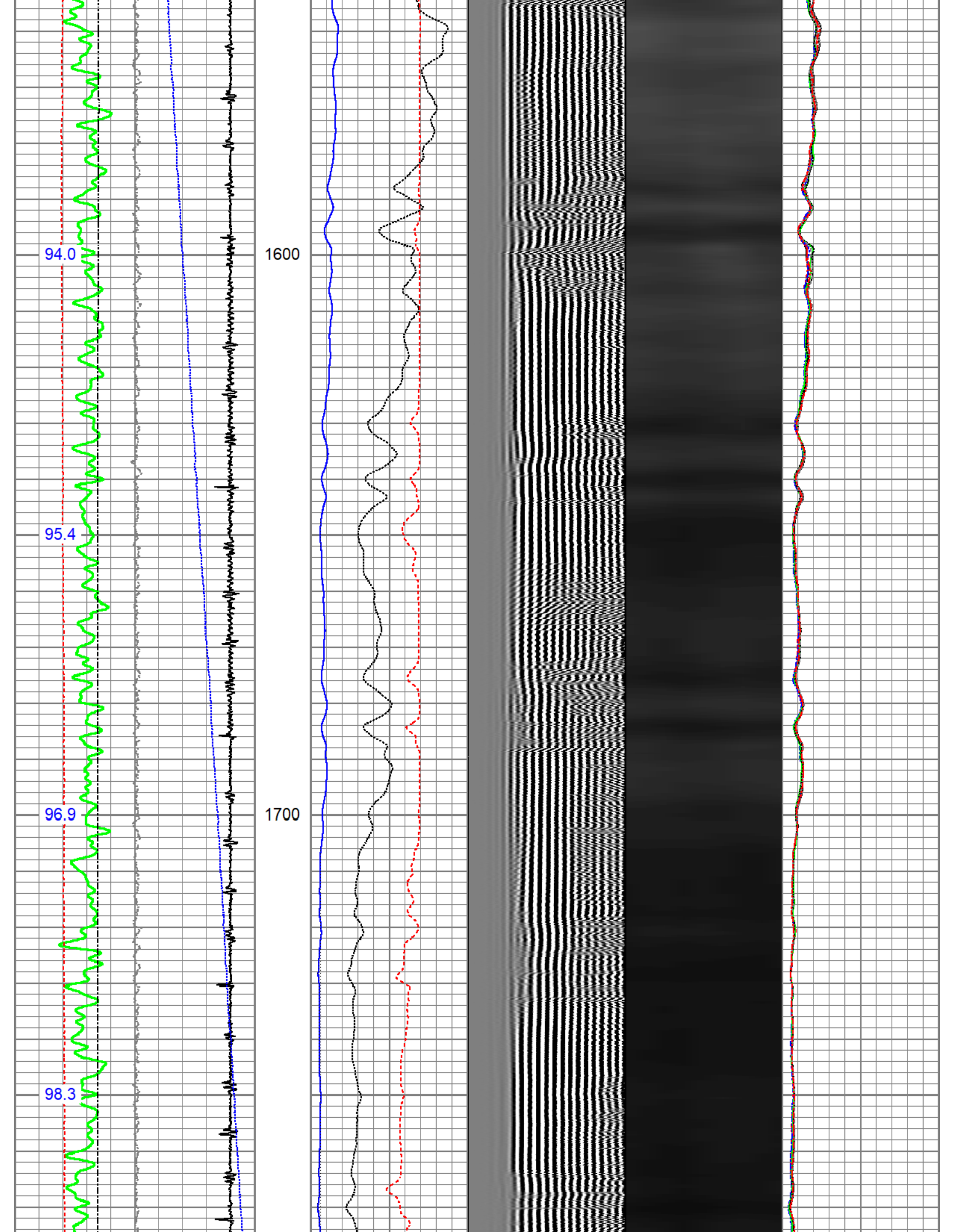


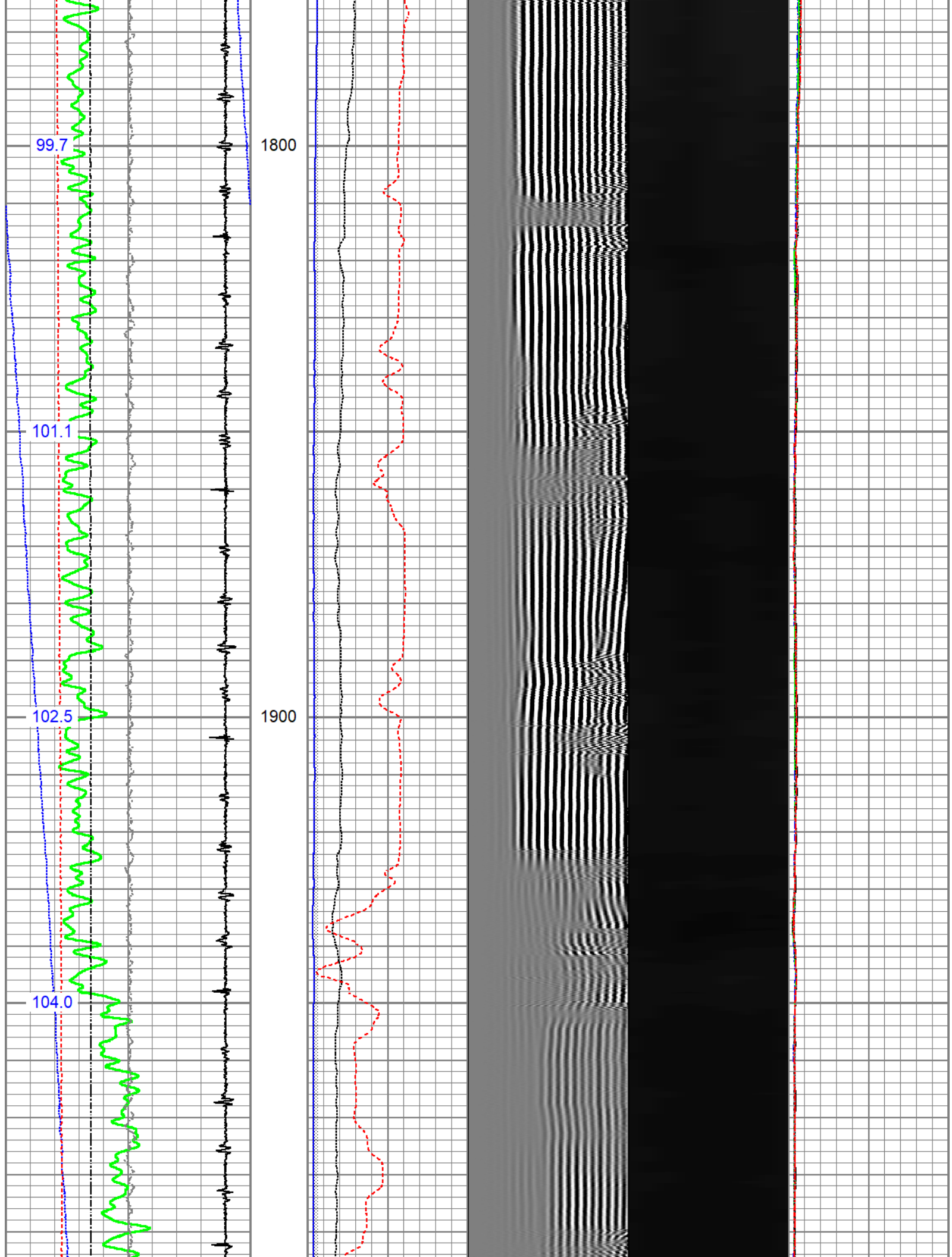




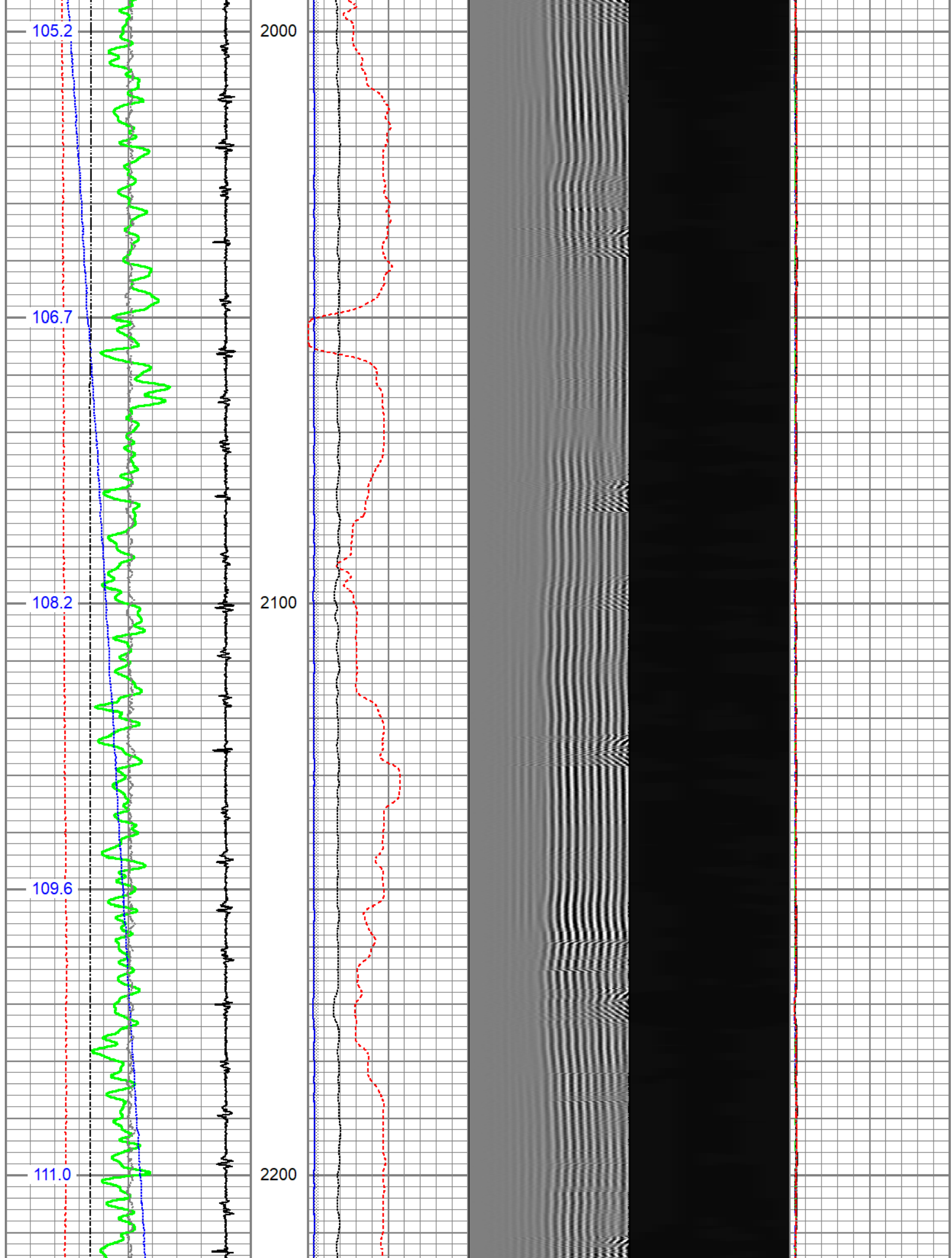


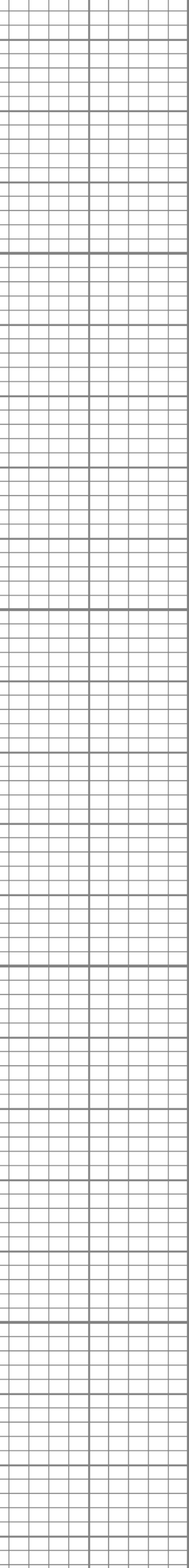
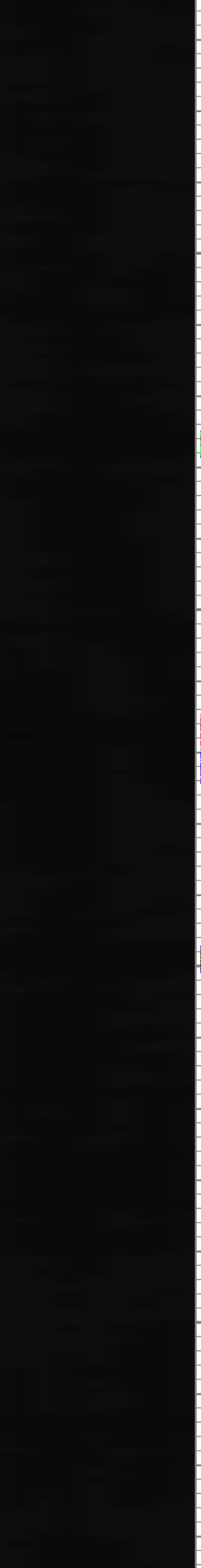
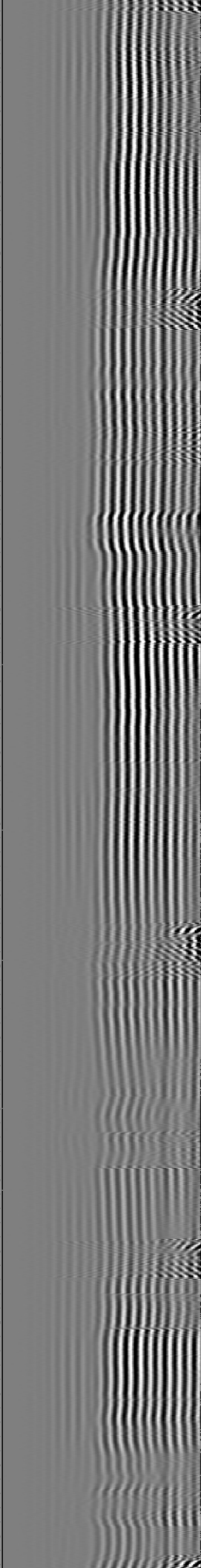
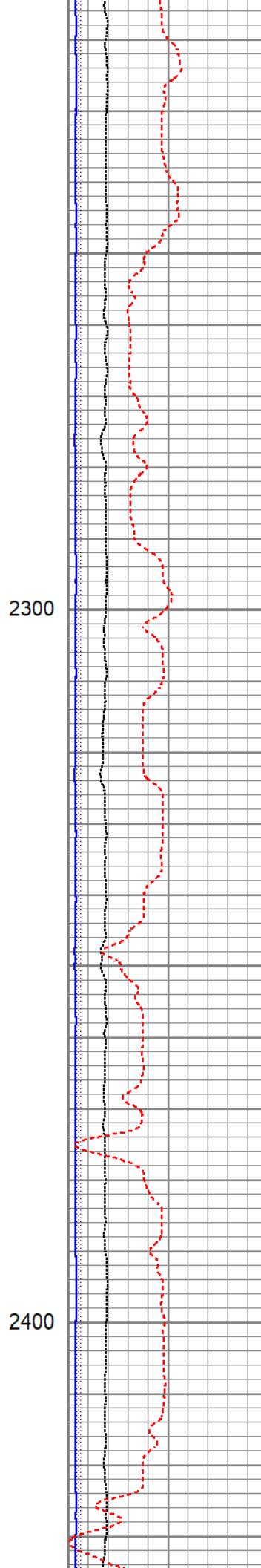
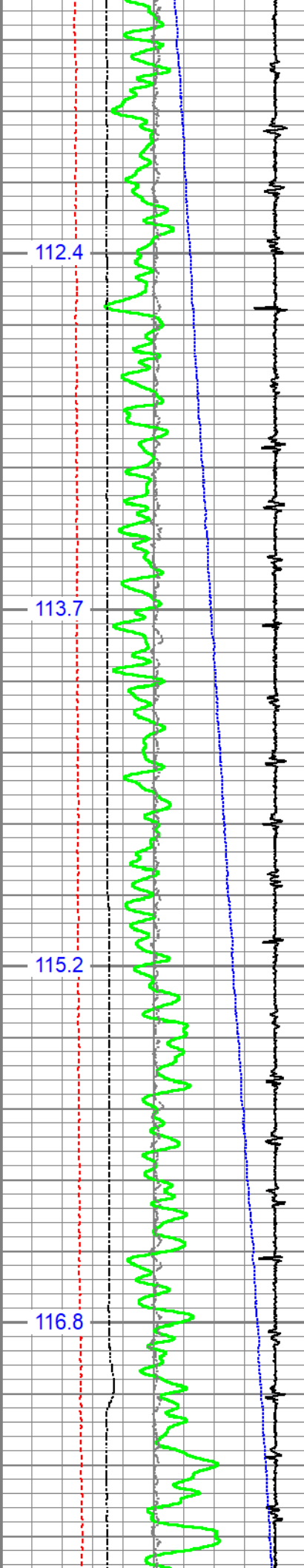


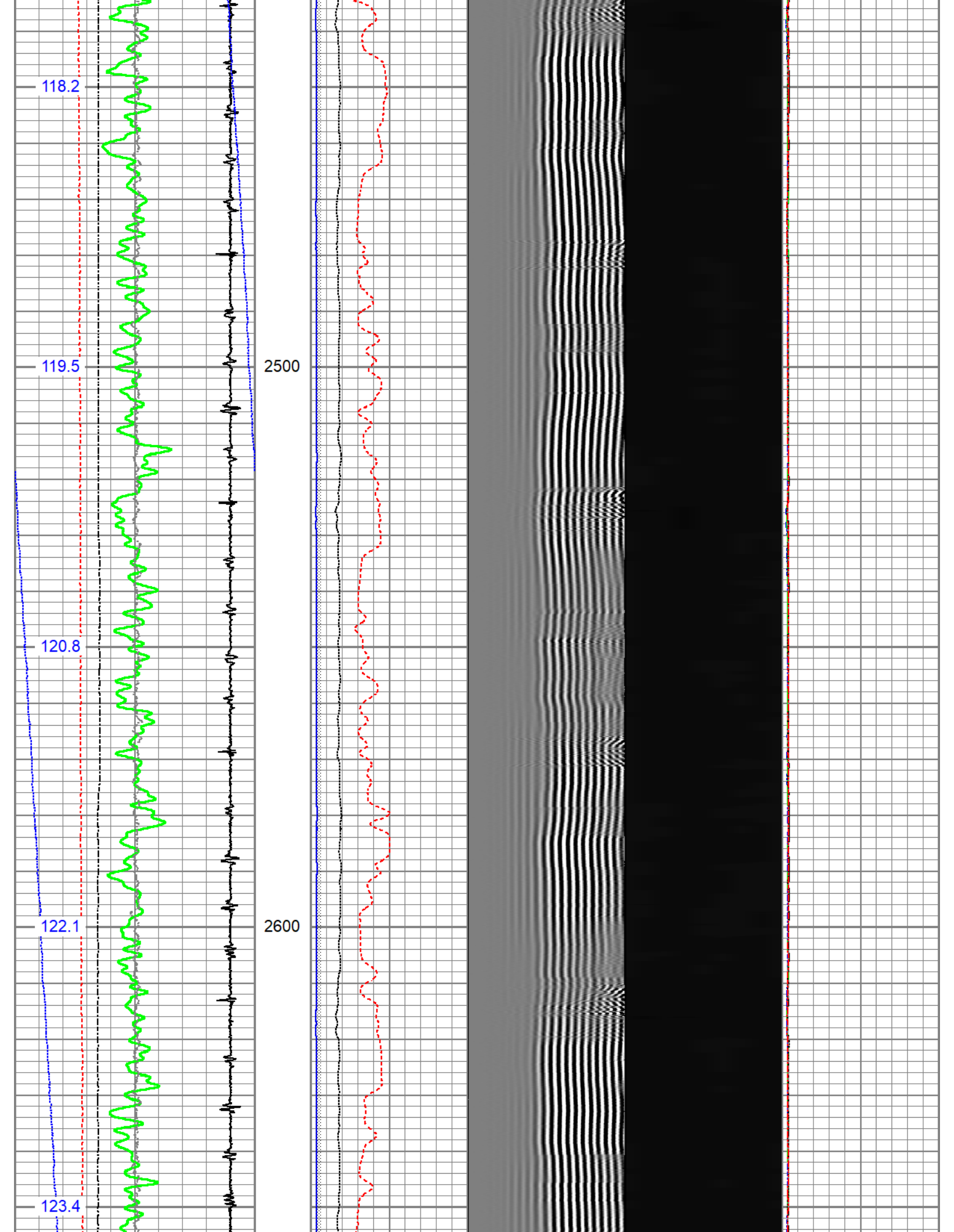




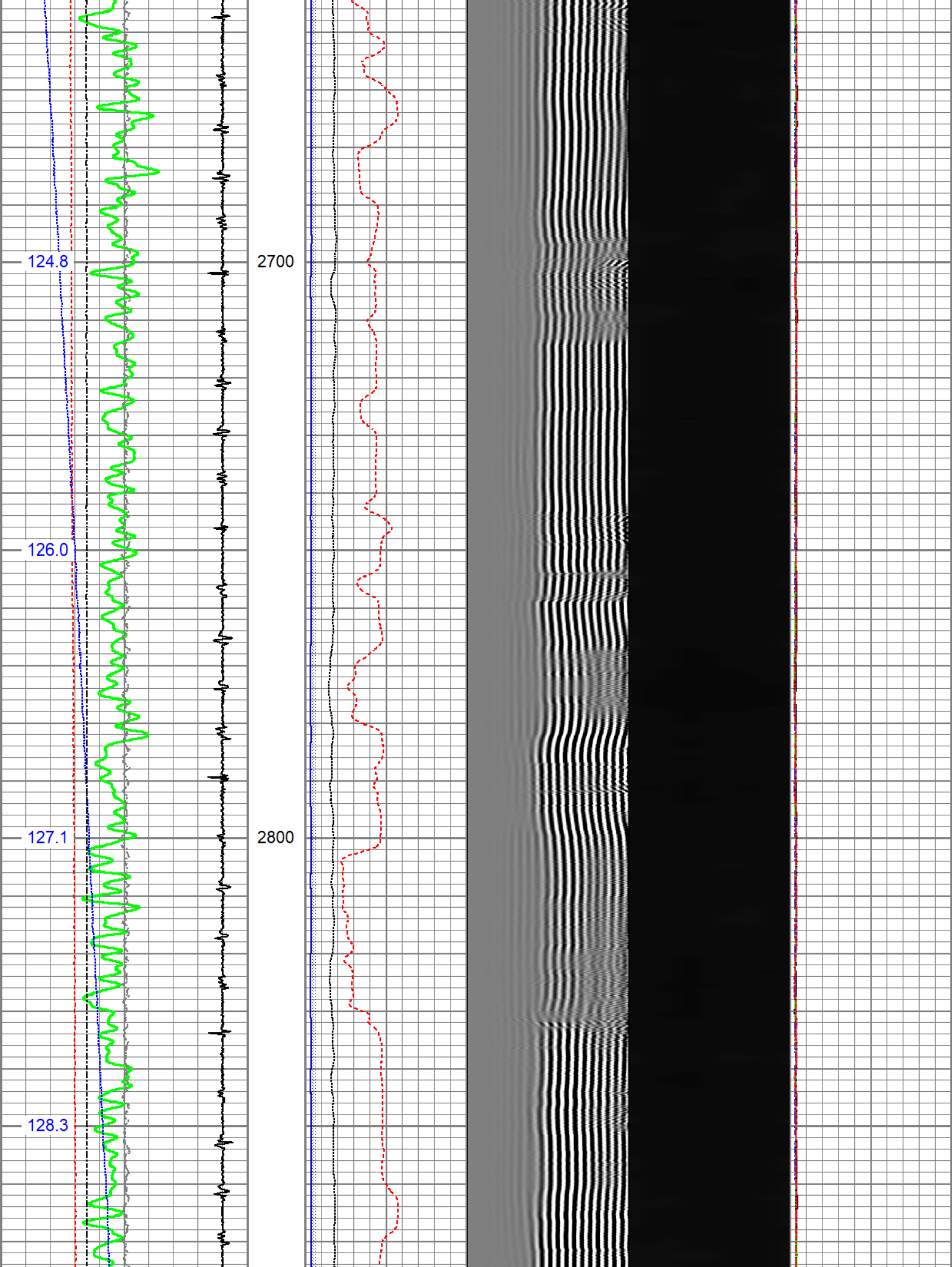


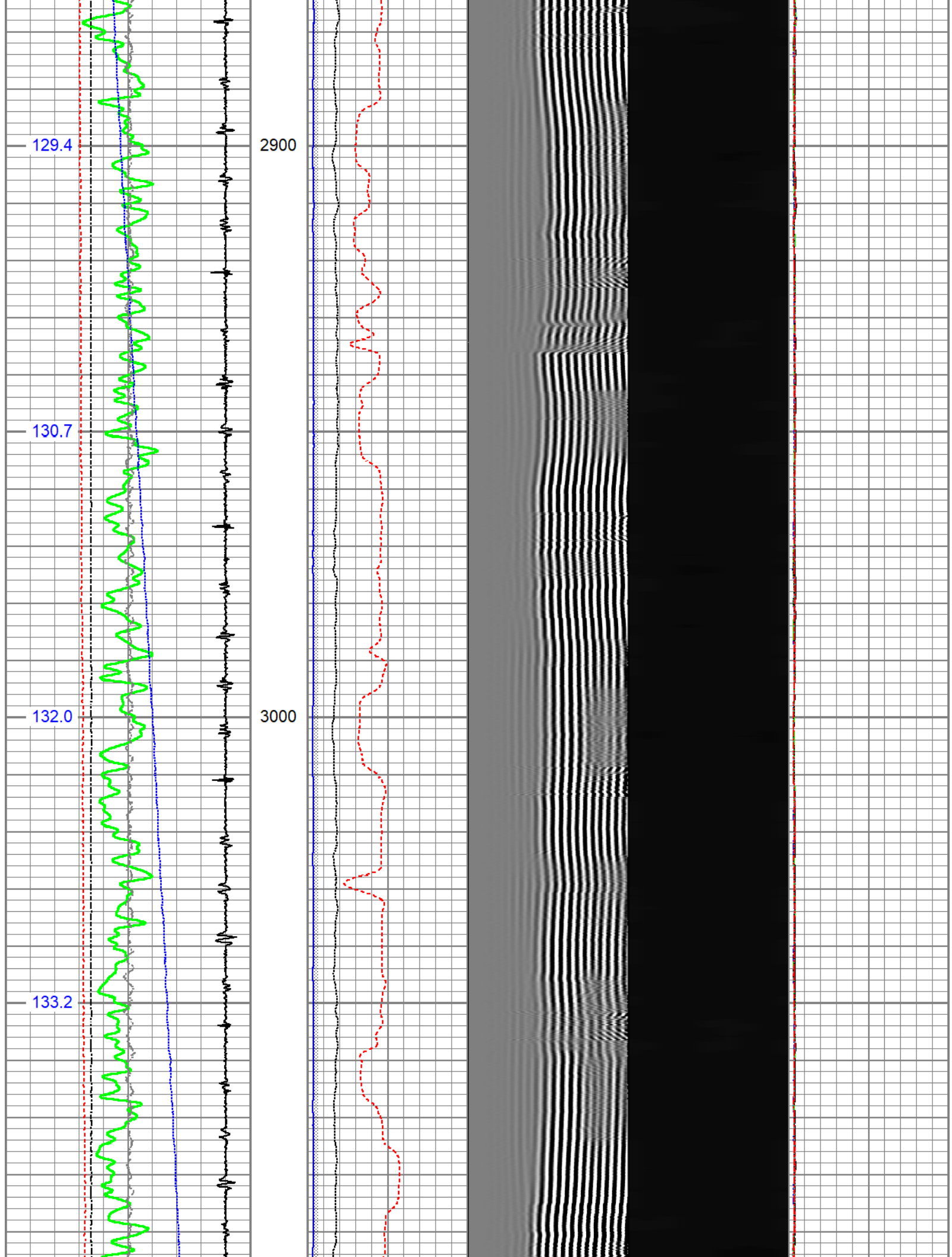


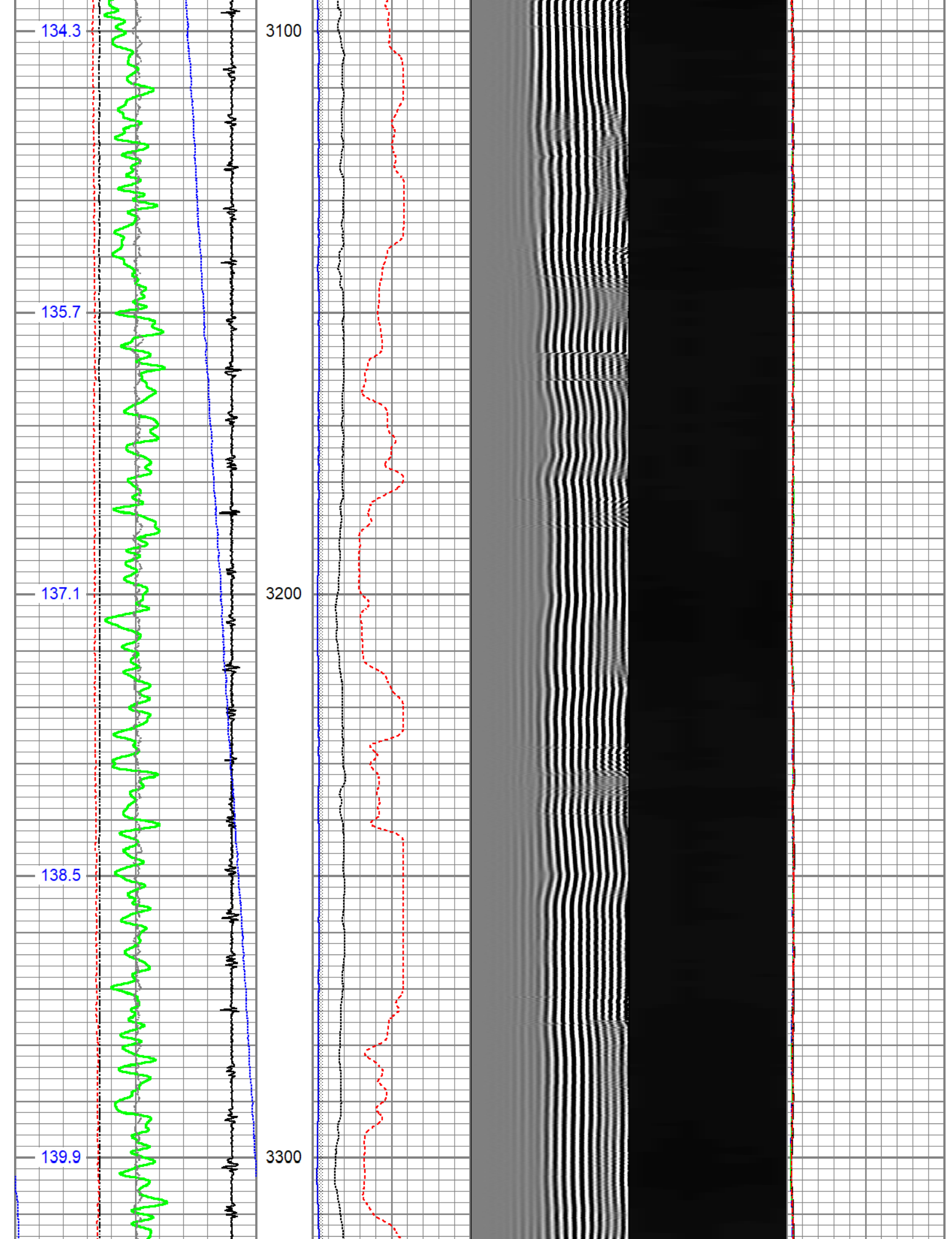


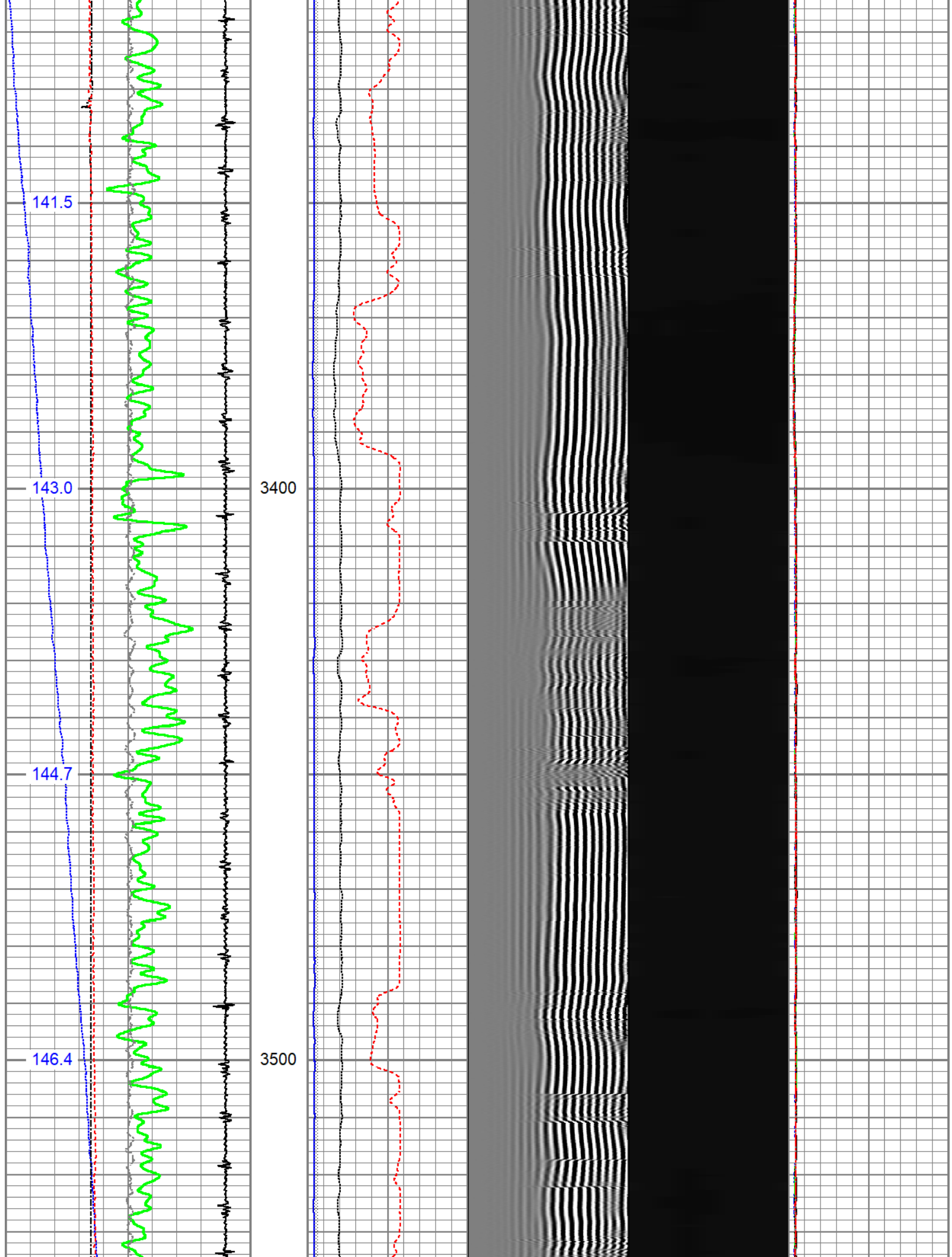




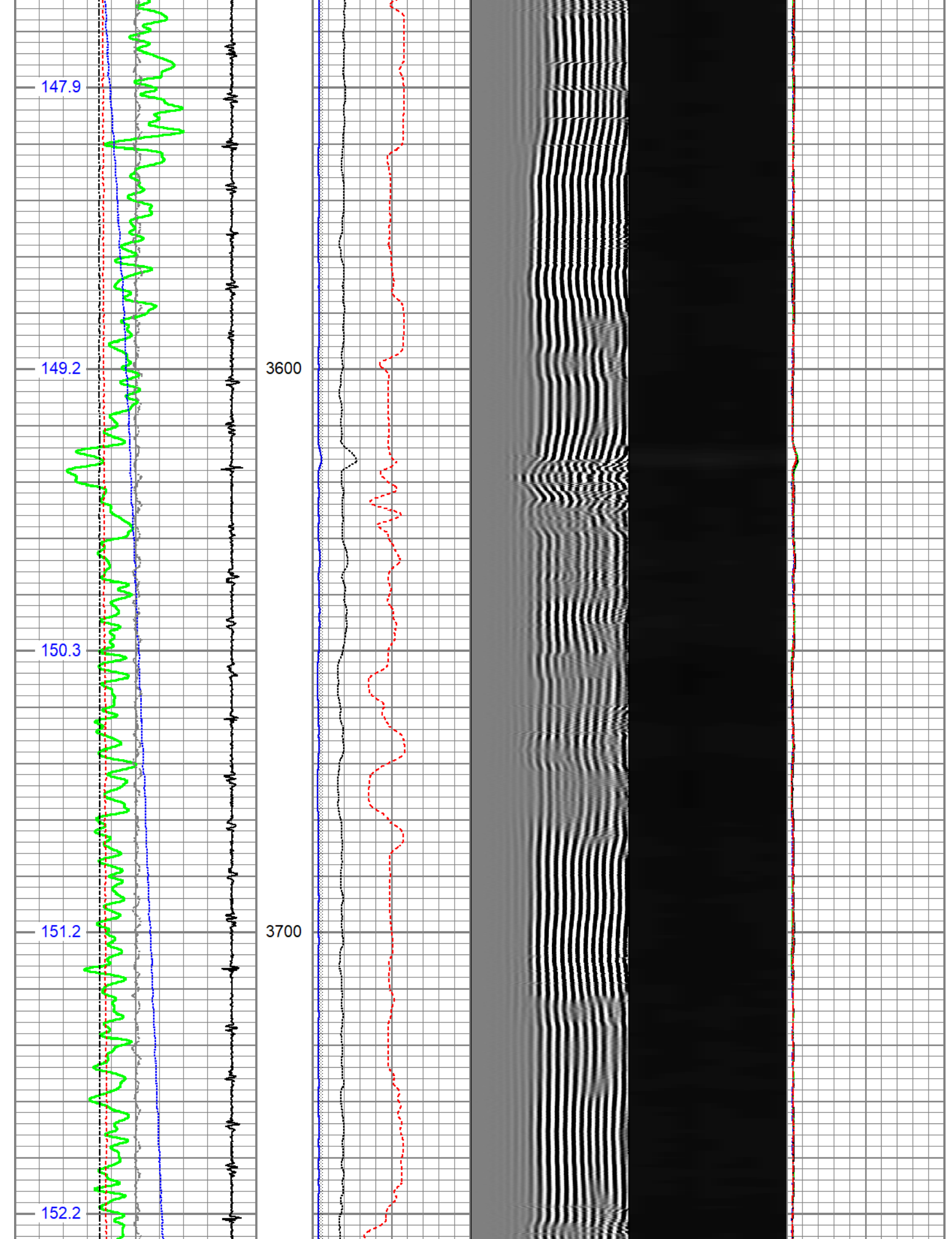


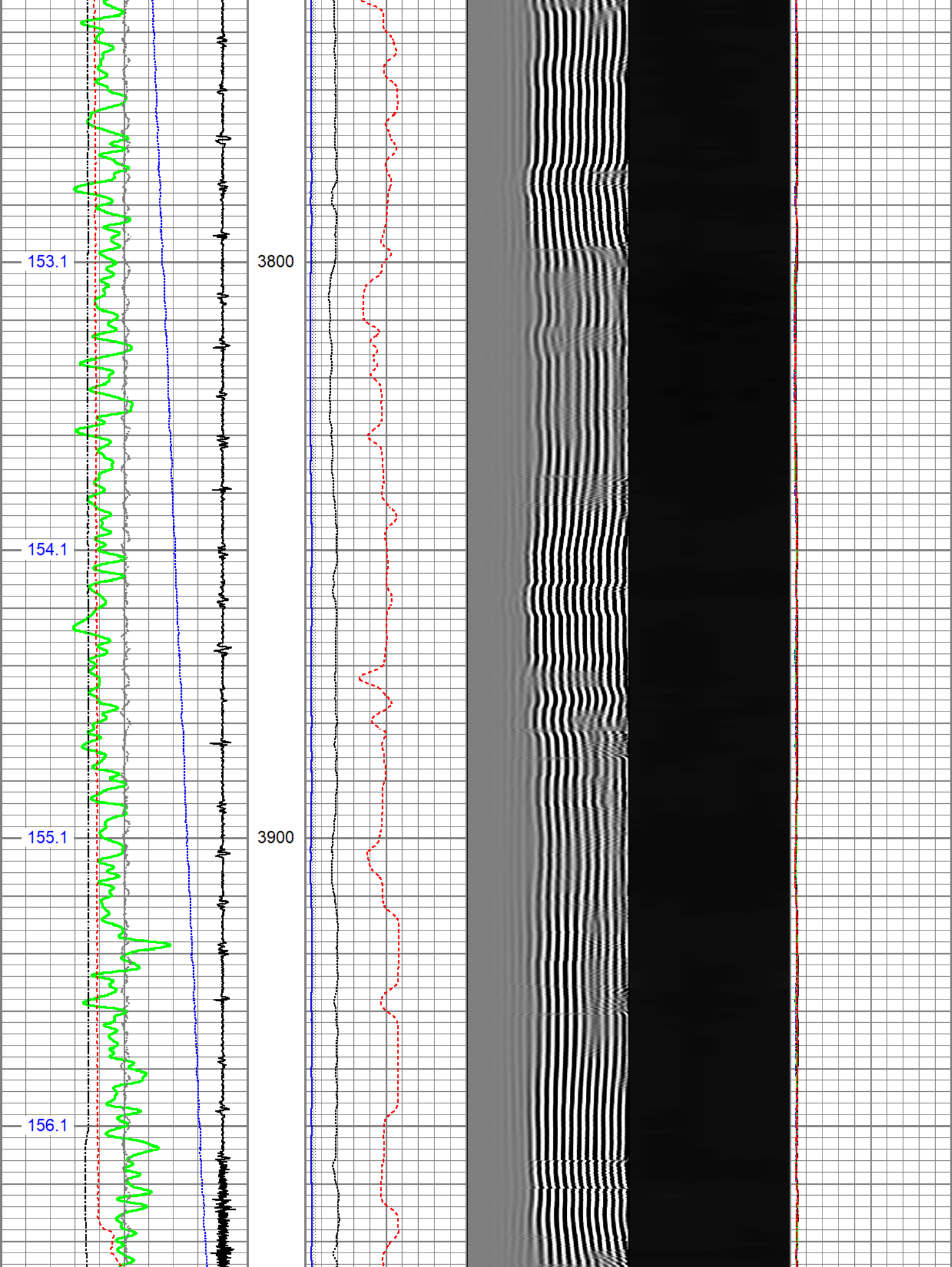




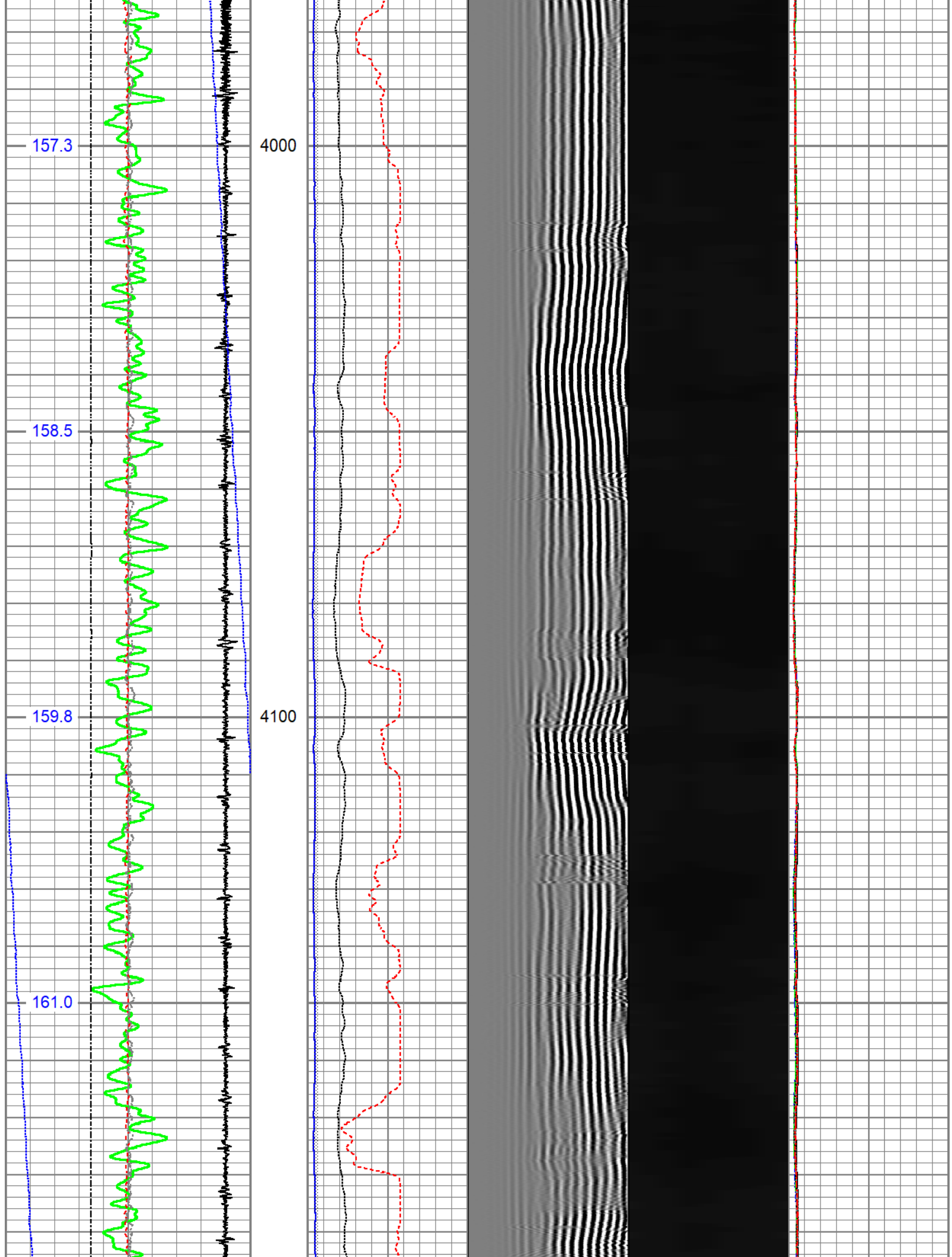


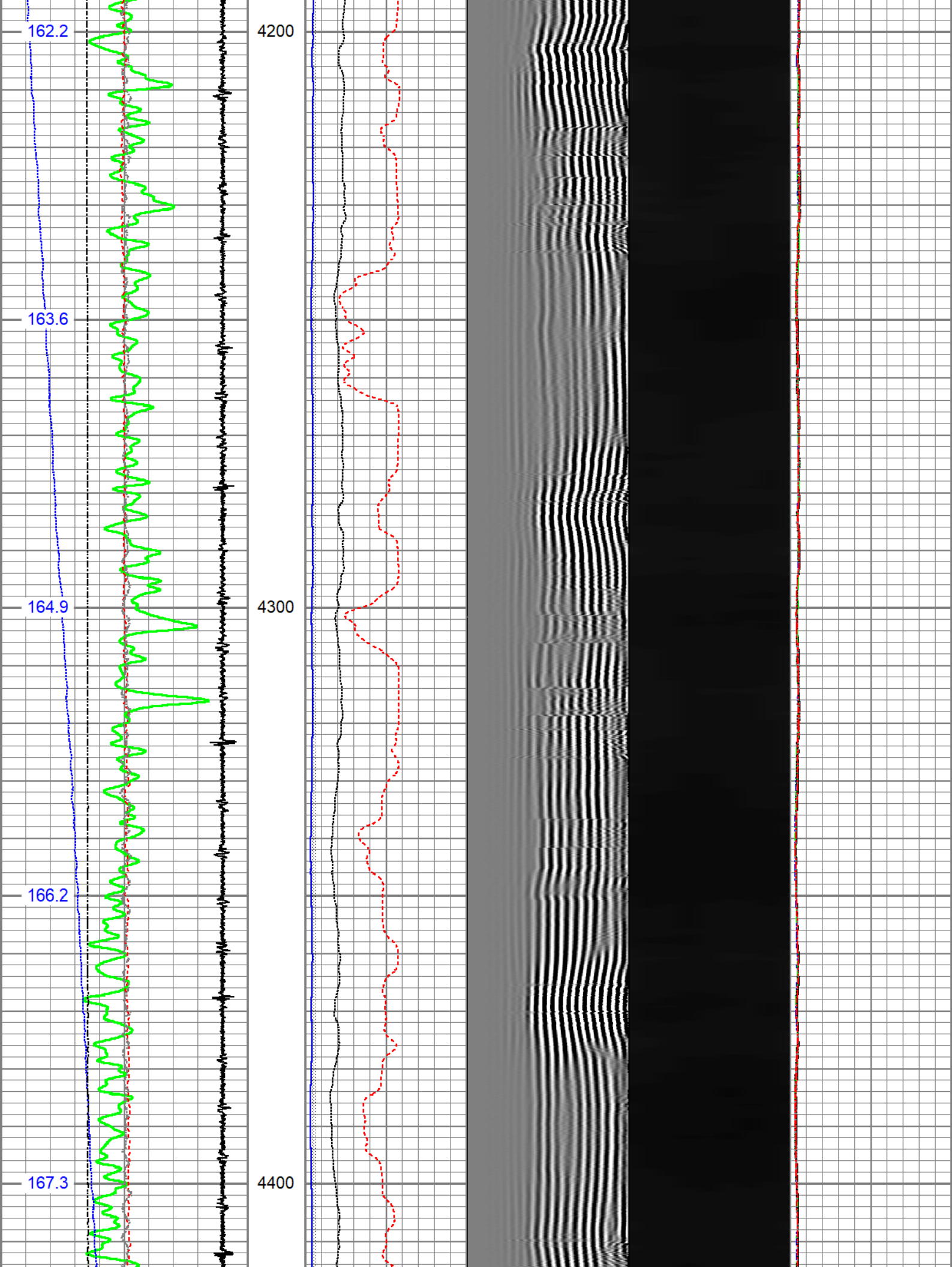


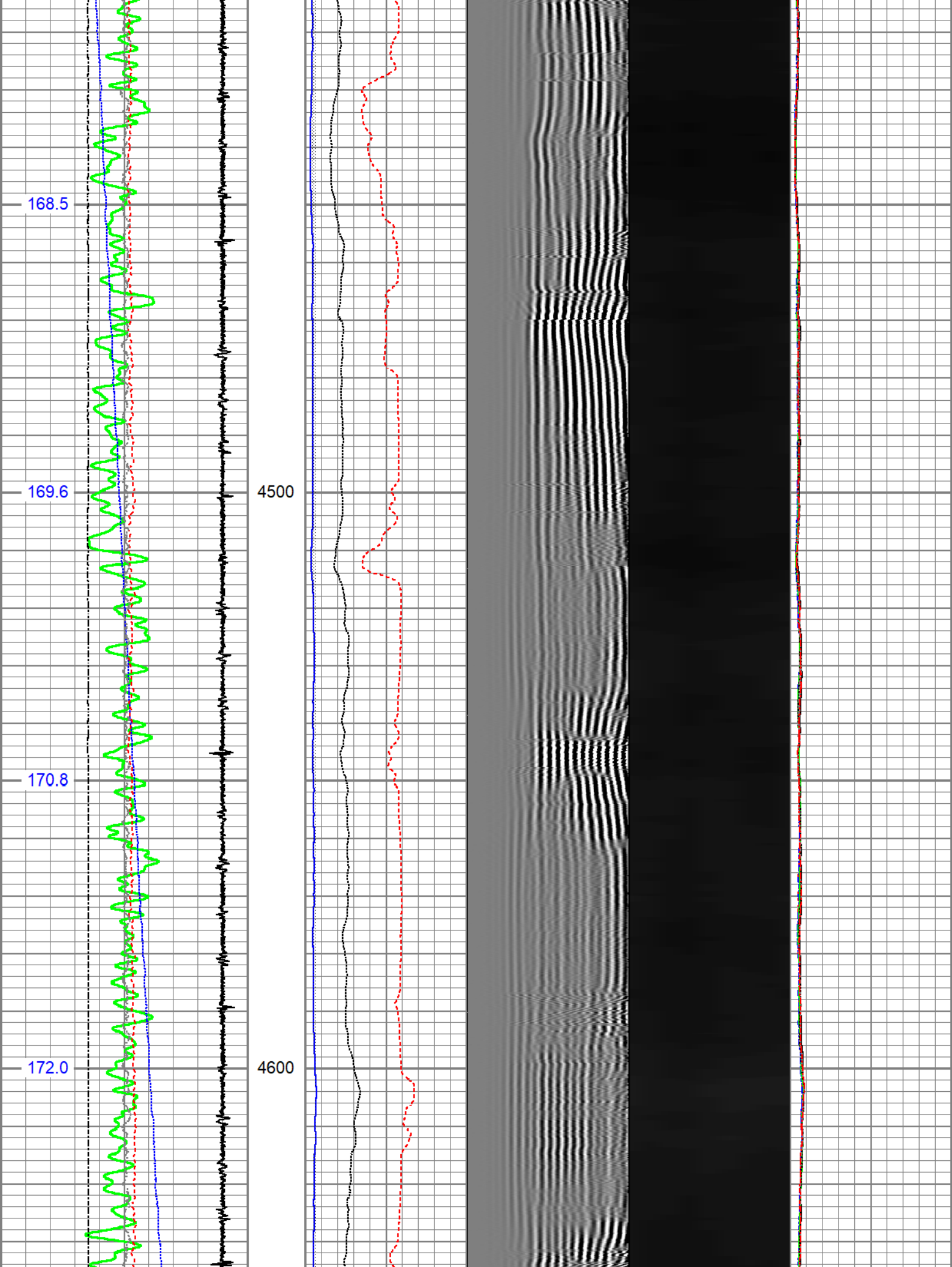


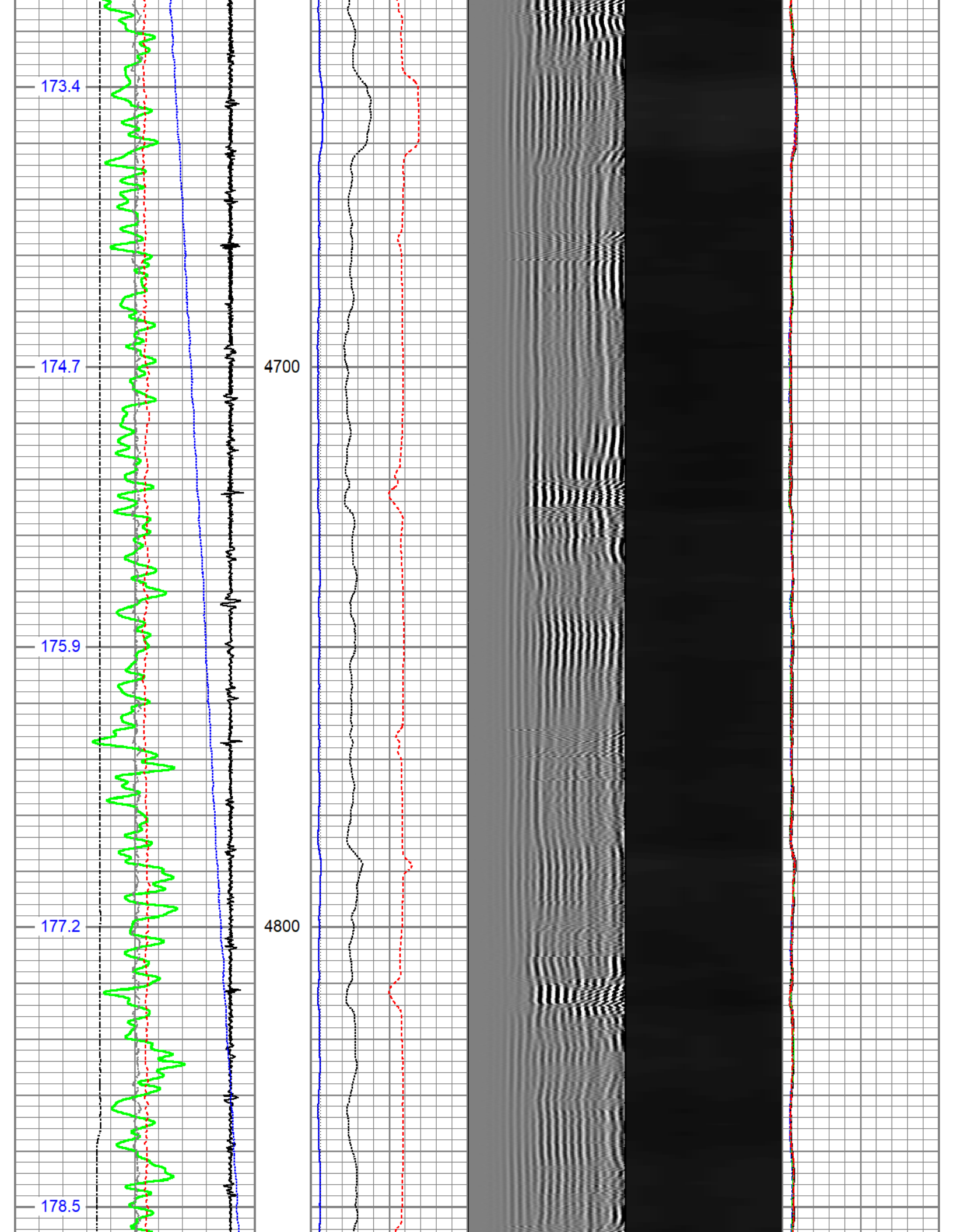




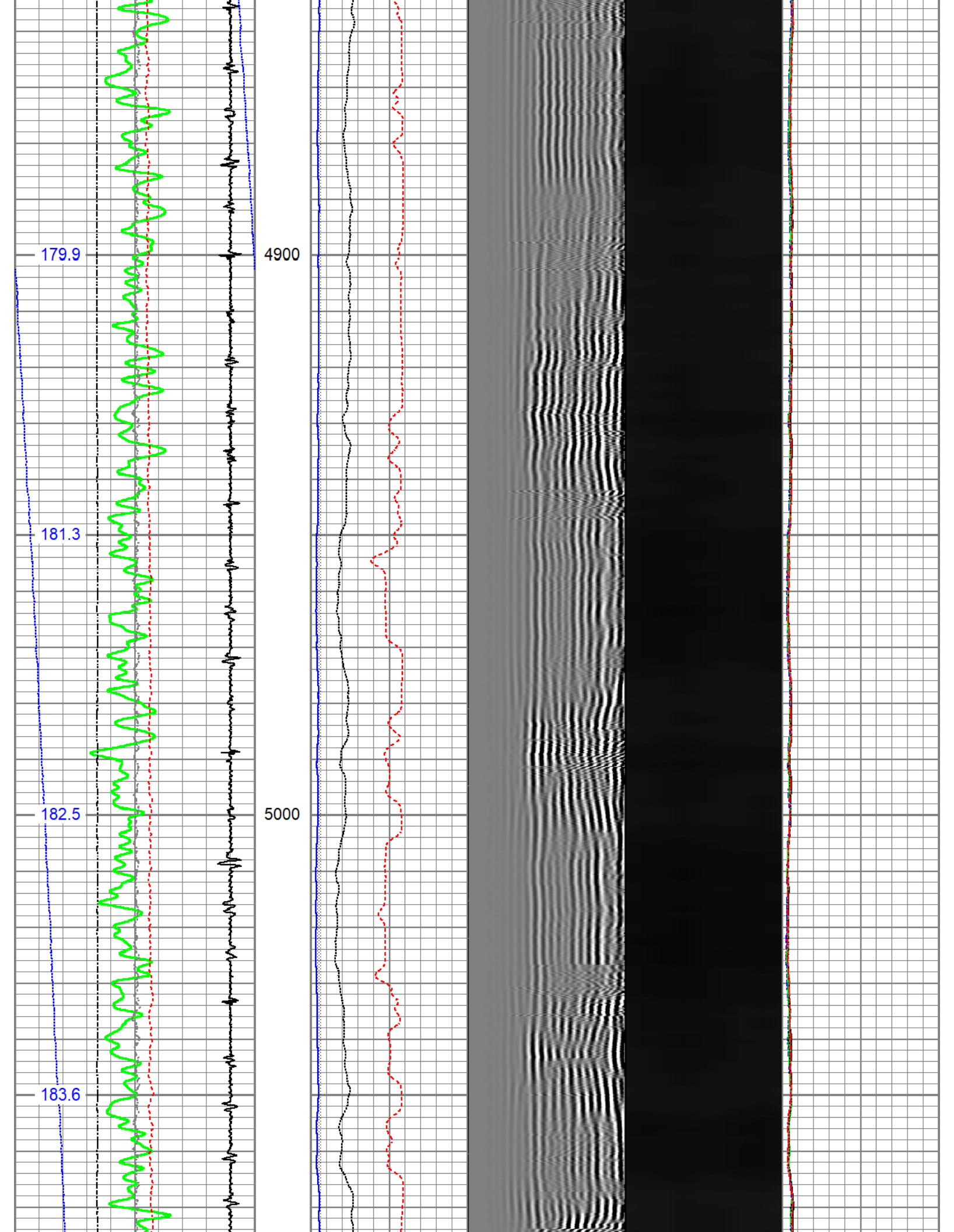


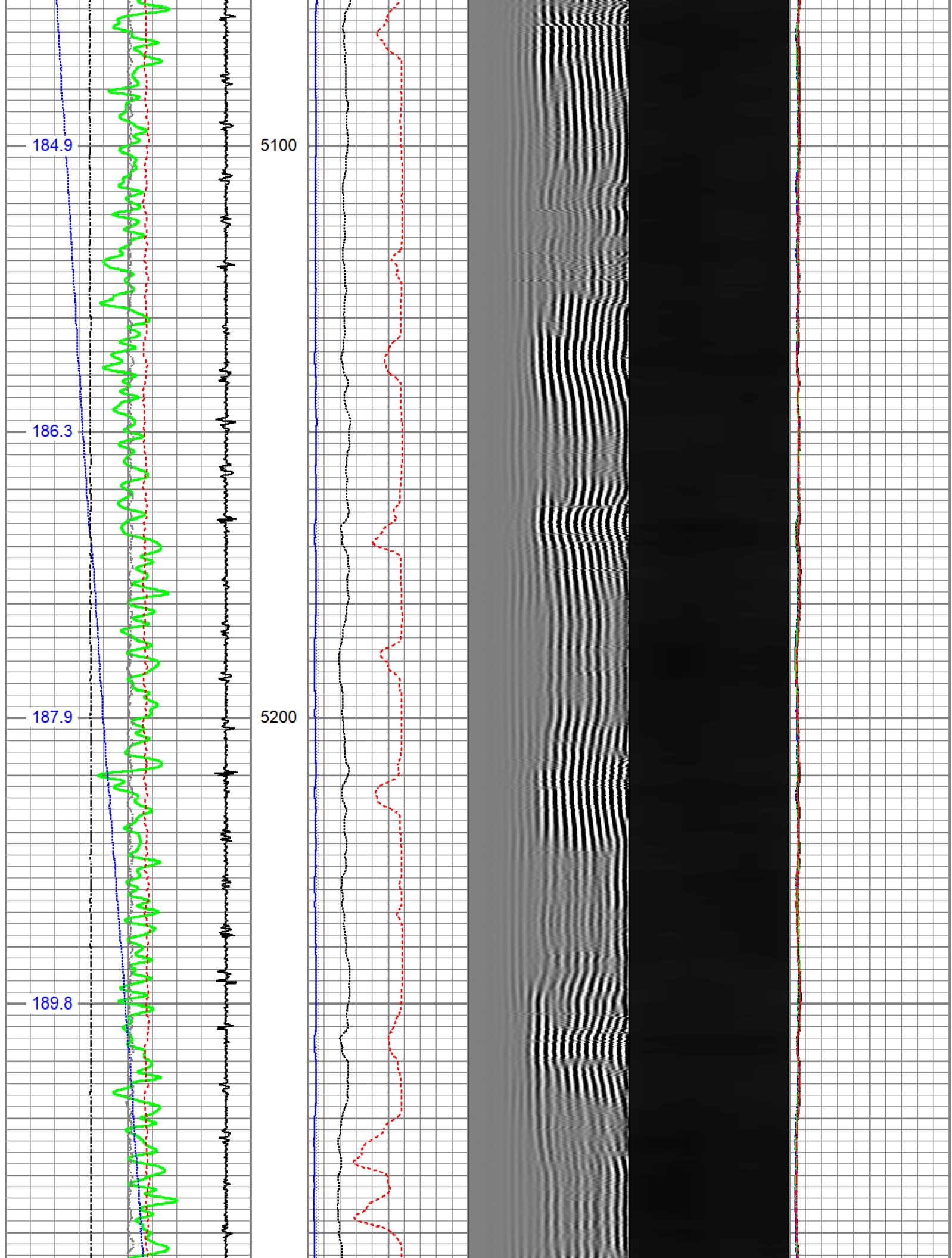




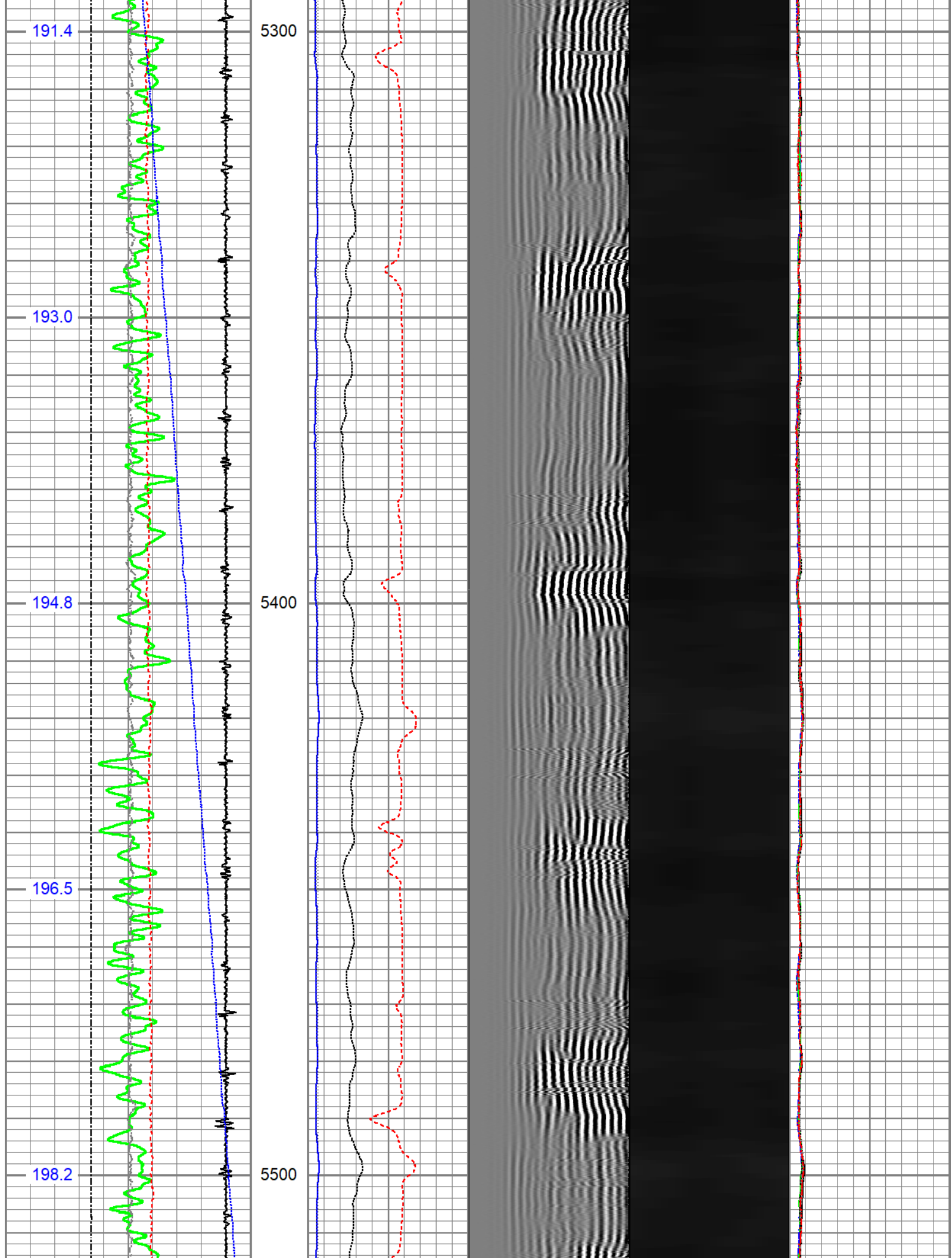


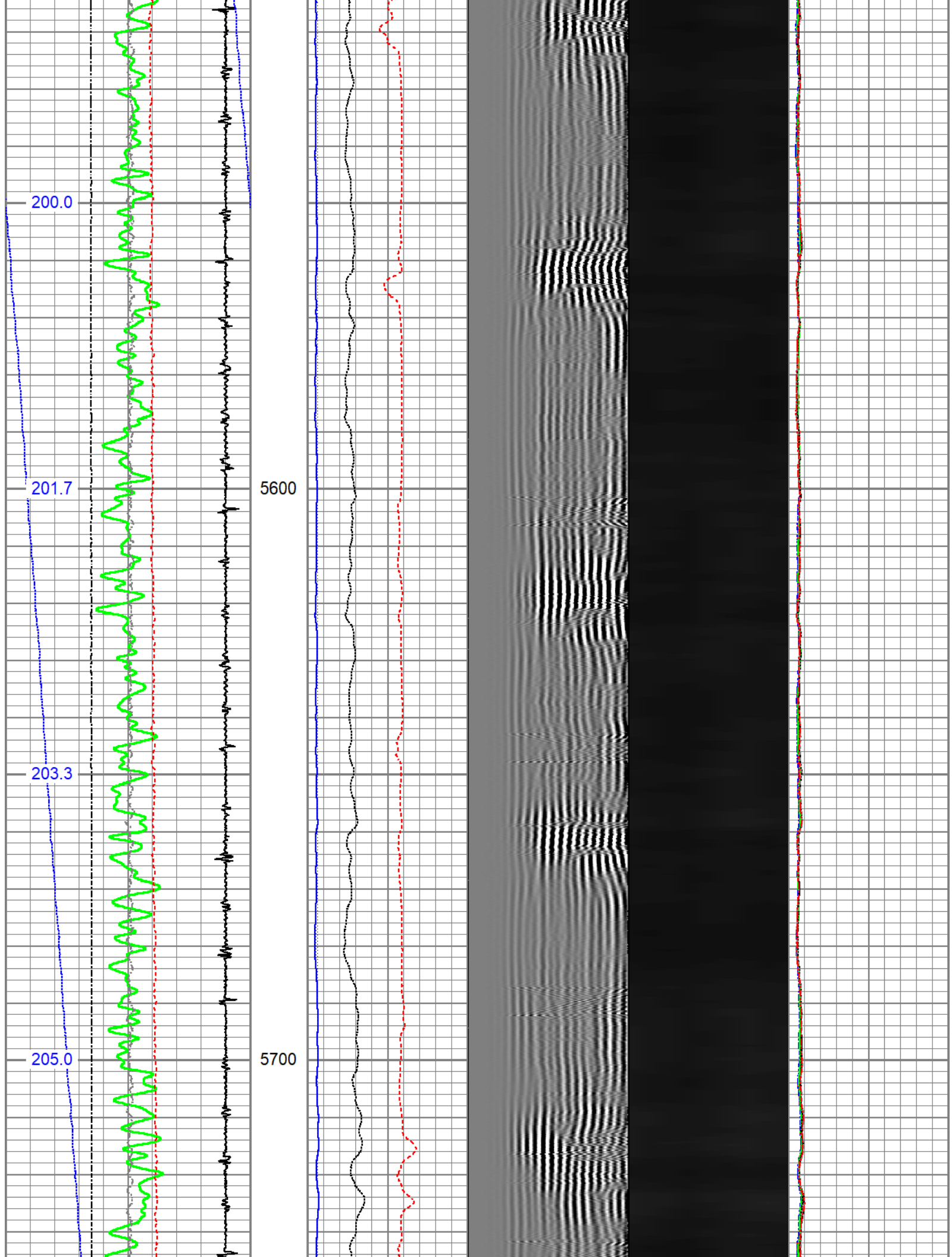


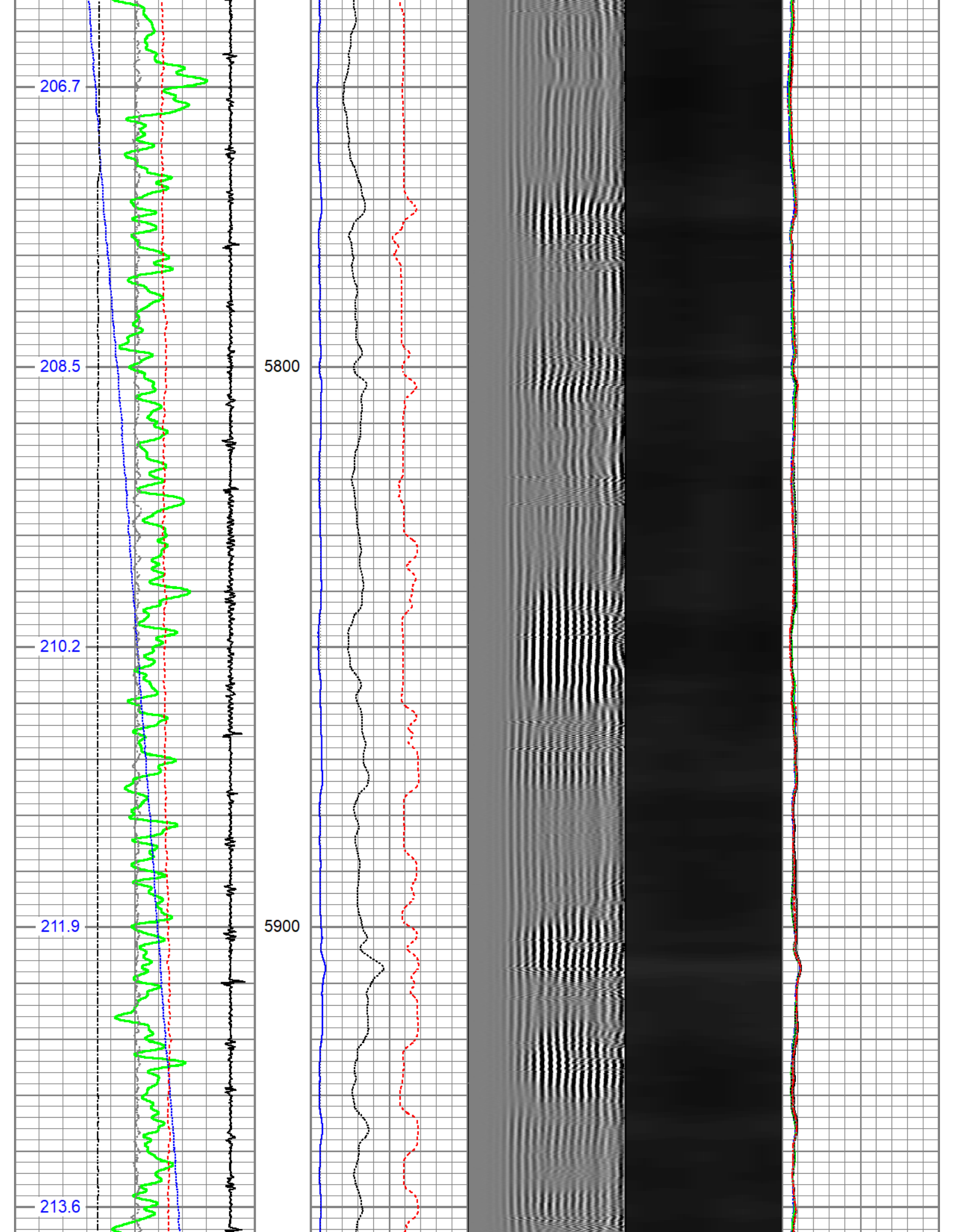




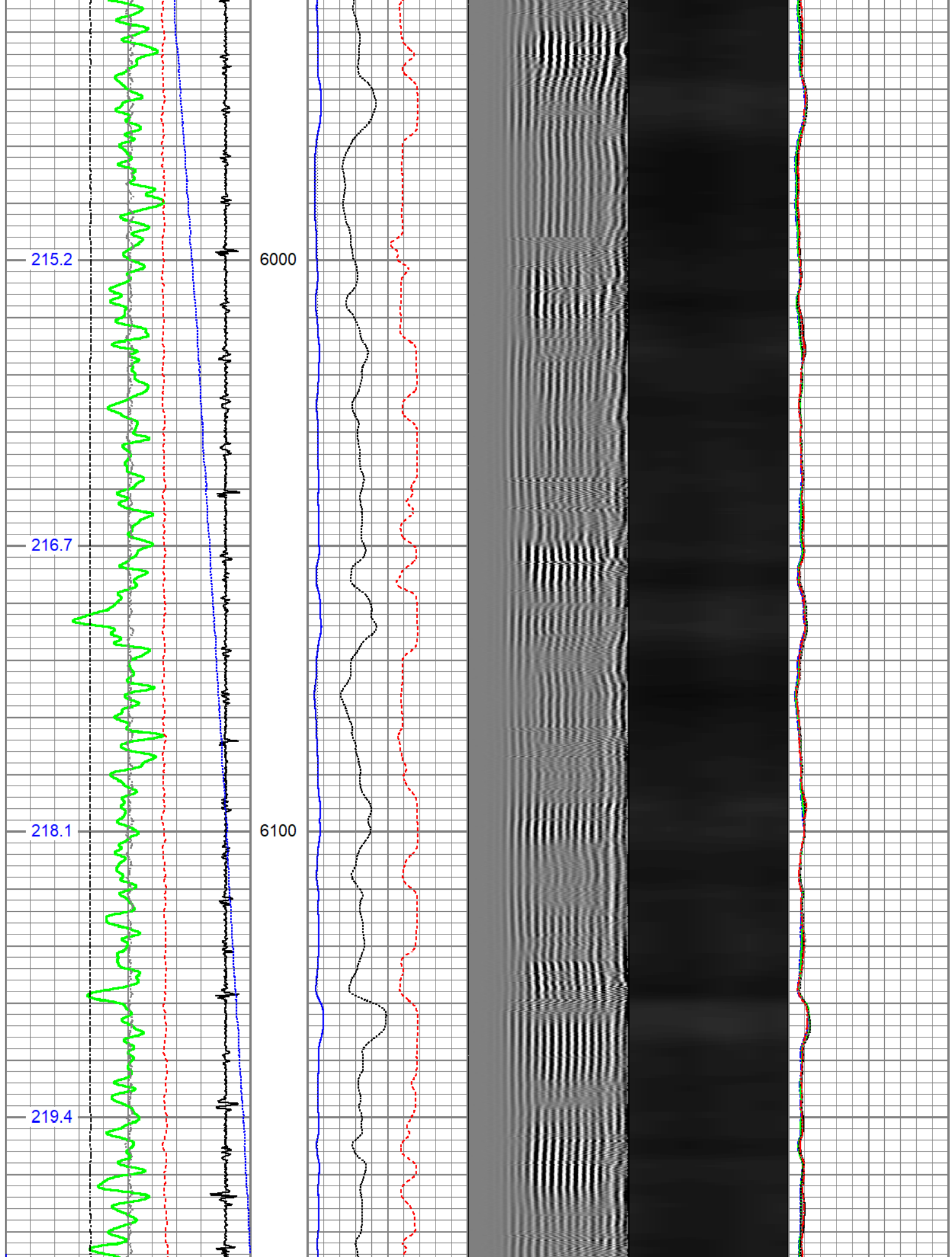




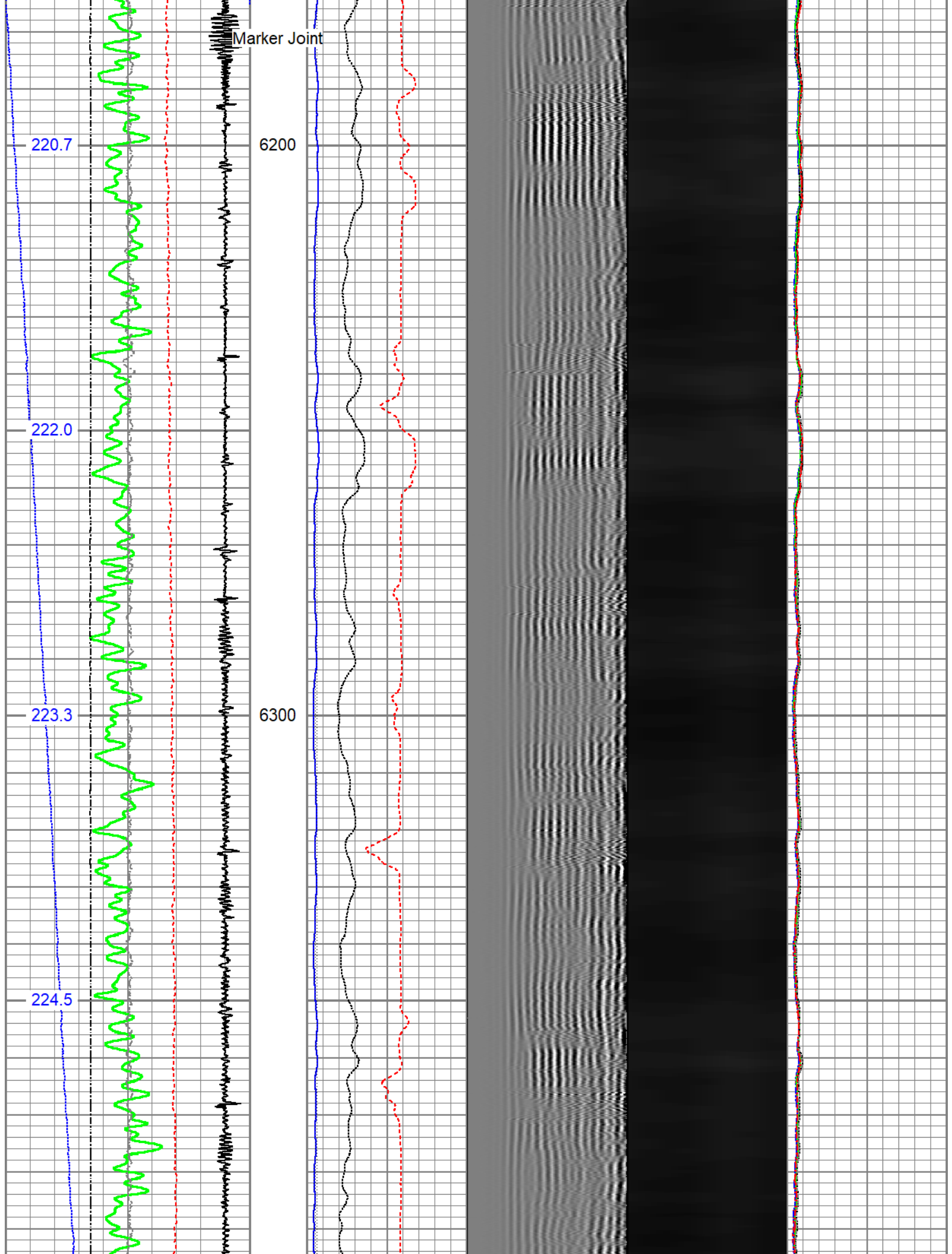


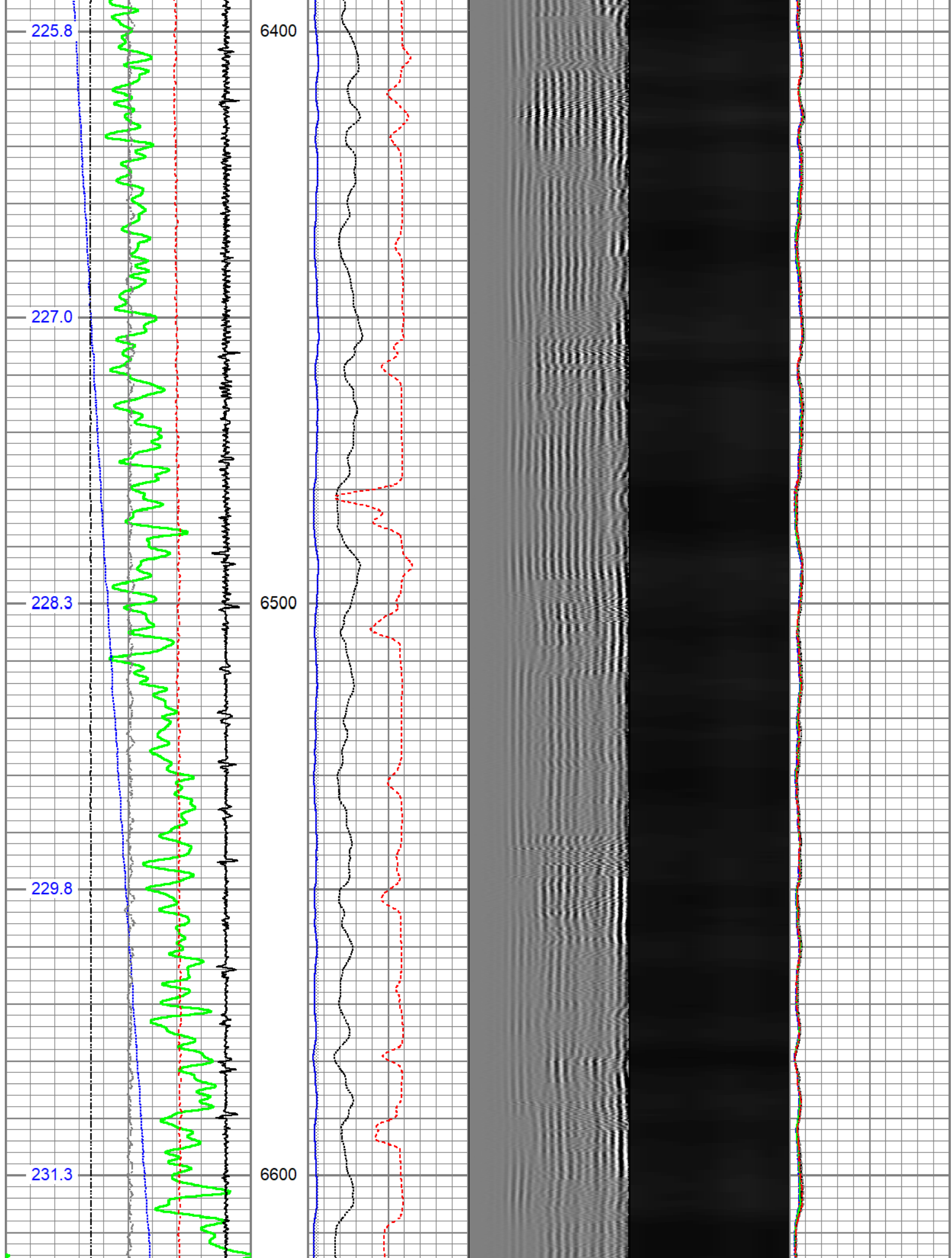


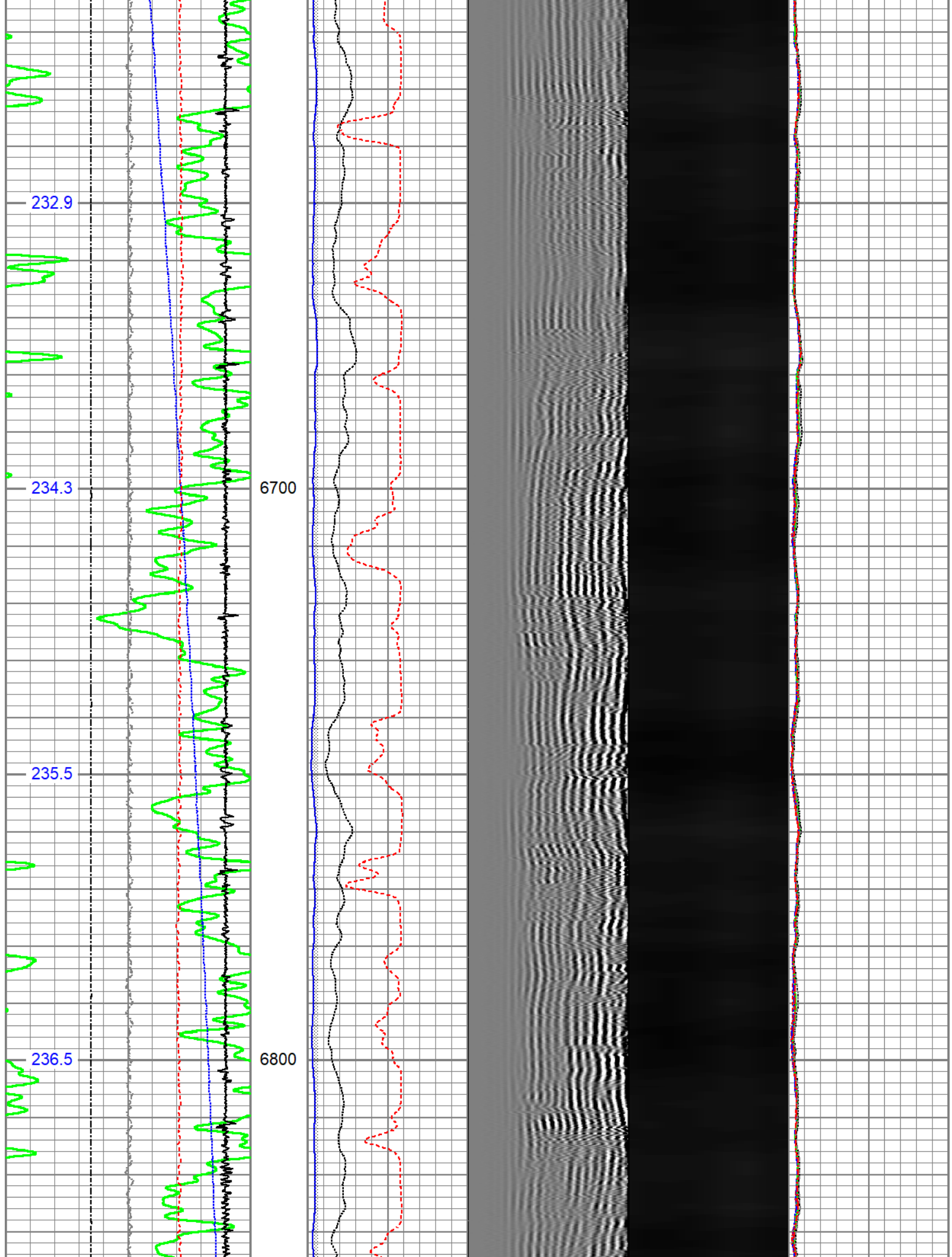




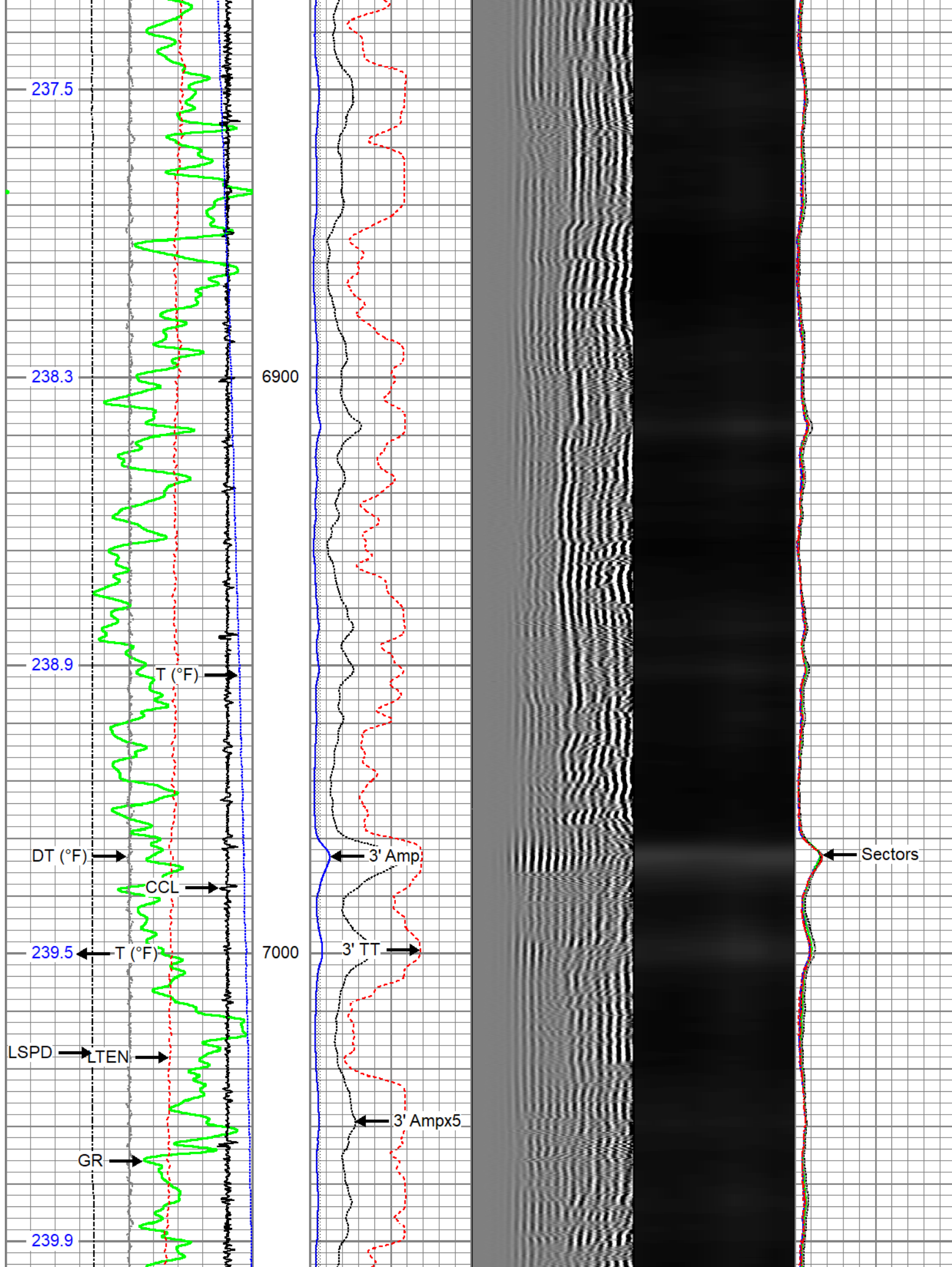




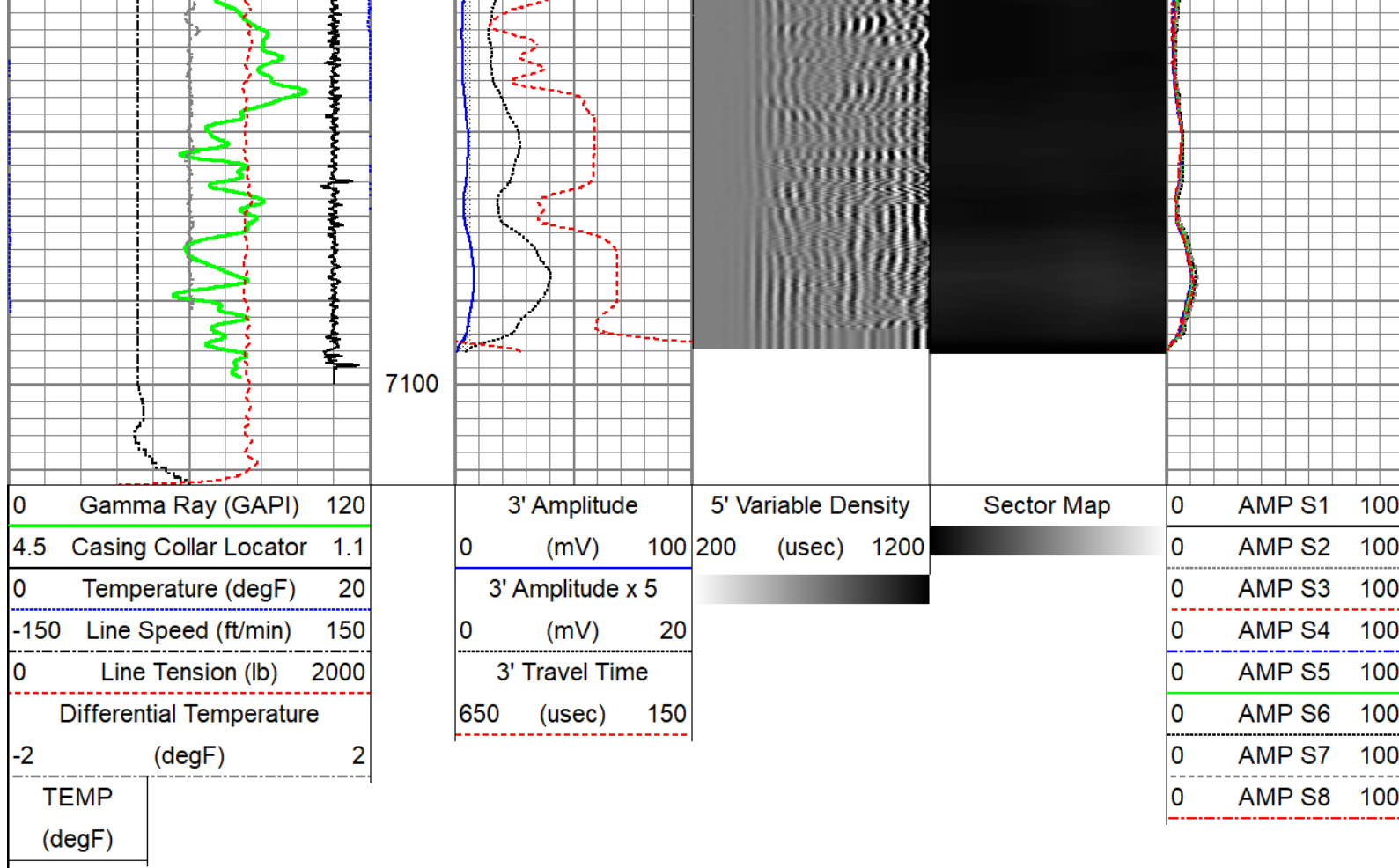








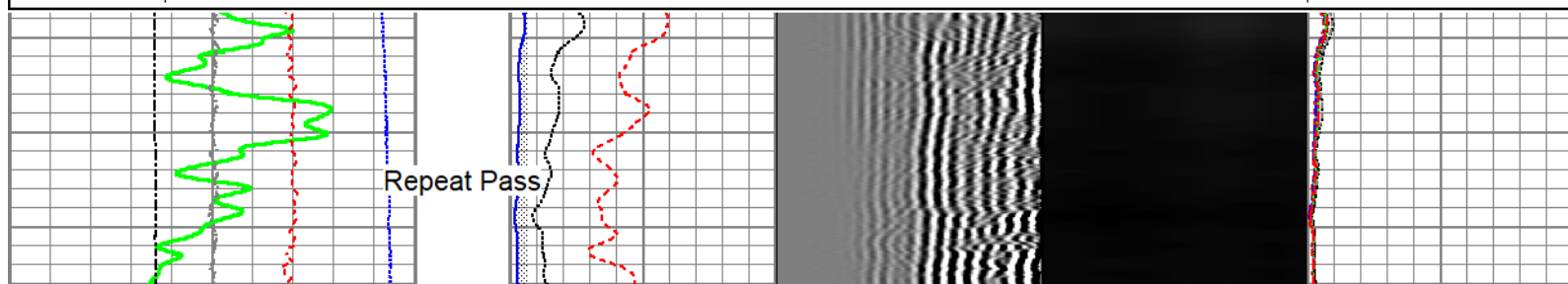
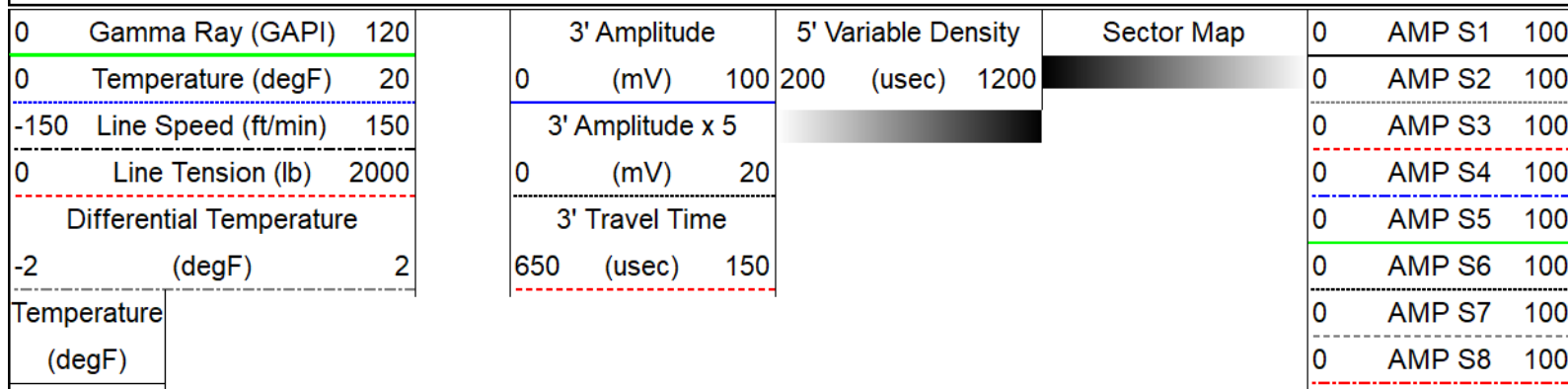


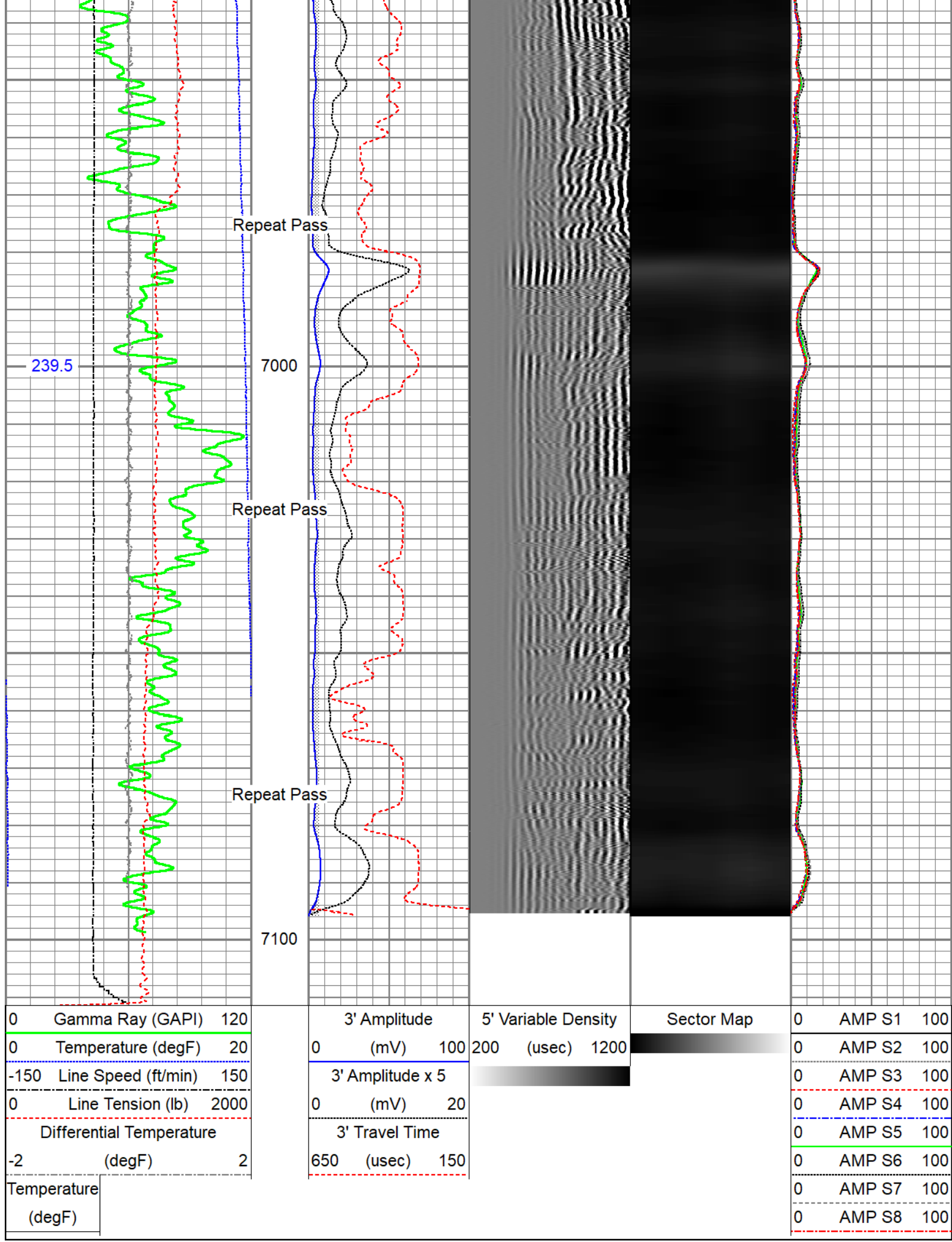


# Repeat Pass

Recorded with 2500 PSI Surface Induced Pressure

Database File	noble energy\rampart a32-730\noble_rampart a32-730_cnl_rbl_10-06-21.db
Dataset Pathname	repeat
Presentation Format	edge_rbl_noble
Dataset Creation	Wed Oct 06 11:17:44 2021
Charted by	Depth in Feet scaled 1:240







Company	Noble Energy Inc.
Well	Rampart A32-730
Field	Wattenberg
County	Weld
State	Colorado