

0.641/2	---	
41/2	11.6	

Elevation	
K.B. 5080'	
D.F. —	
G.L. 5063'	

Colorado

ively basing

Elevation

VB ENON

DEF -

1

her	3 & 4 1/2	---	
	4 1/2	11.6	

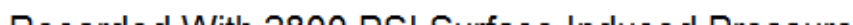
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, 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 Liner Top at 5542 FT
Adjusted -10 FT to correlate with Liner Top
Gauge Ring/Junk Basket ran to 7838 FT with no debris
Log ran from as deep as possible in heel to Surface
Log ran with 2800 PSI Surface Induced Pressure
Logging tools were clean and free of debris upon completion of operations

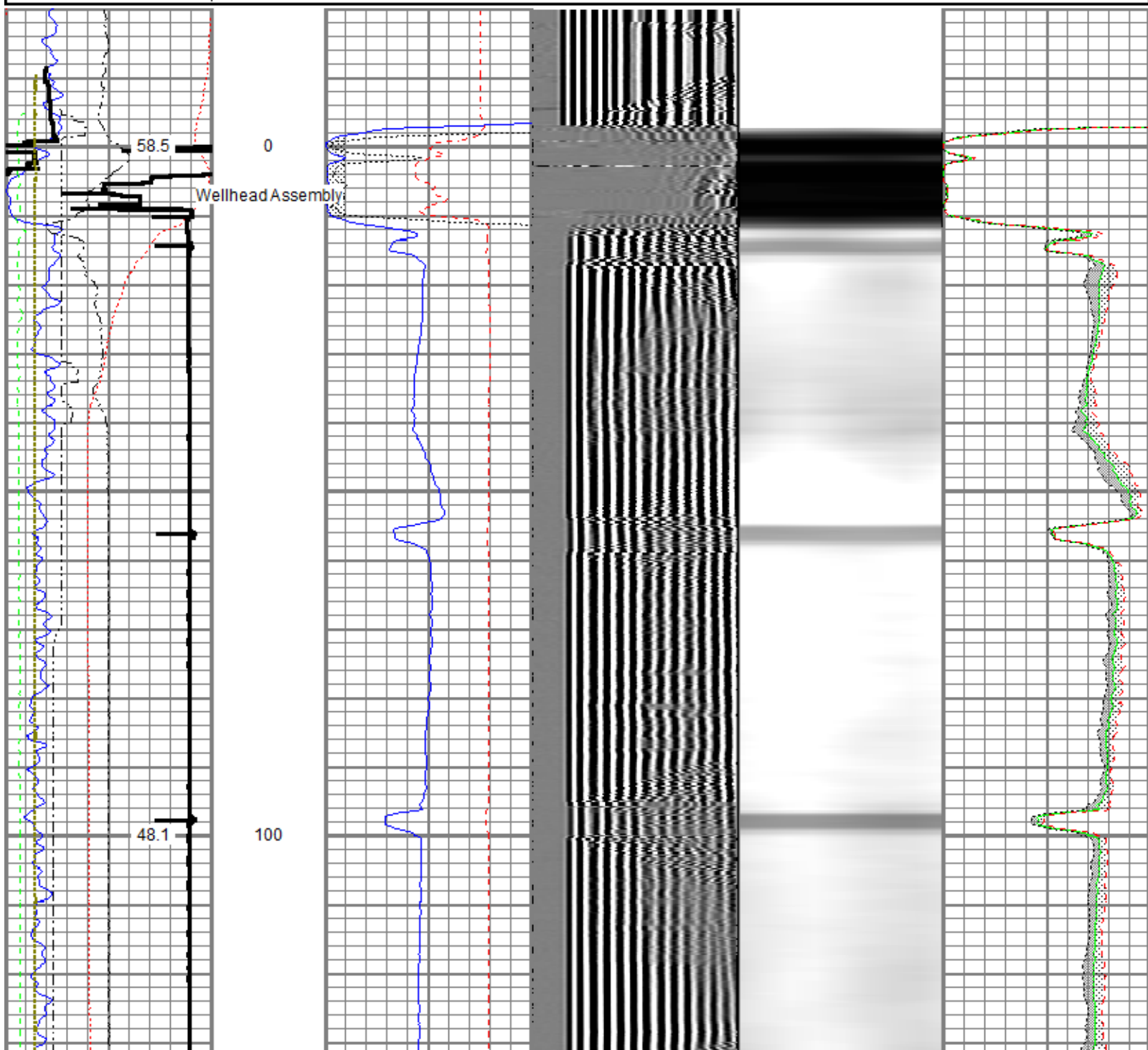
Thank you for choosing Reliance Oilfield Services, LLC!!

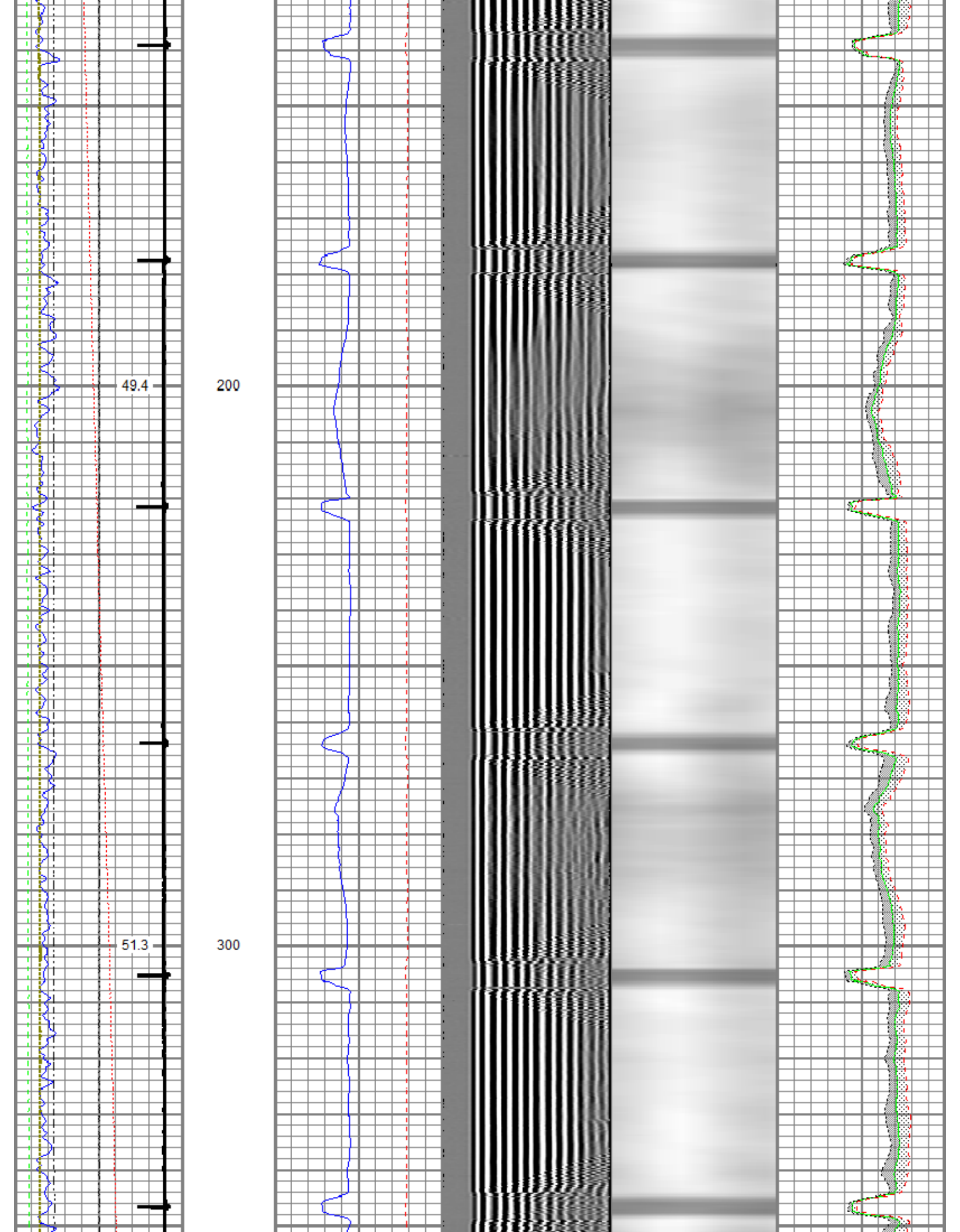
Main Pass

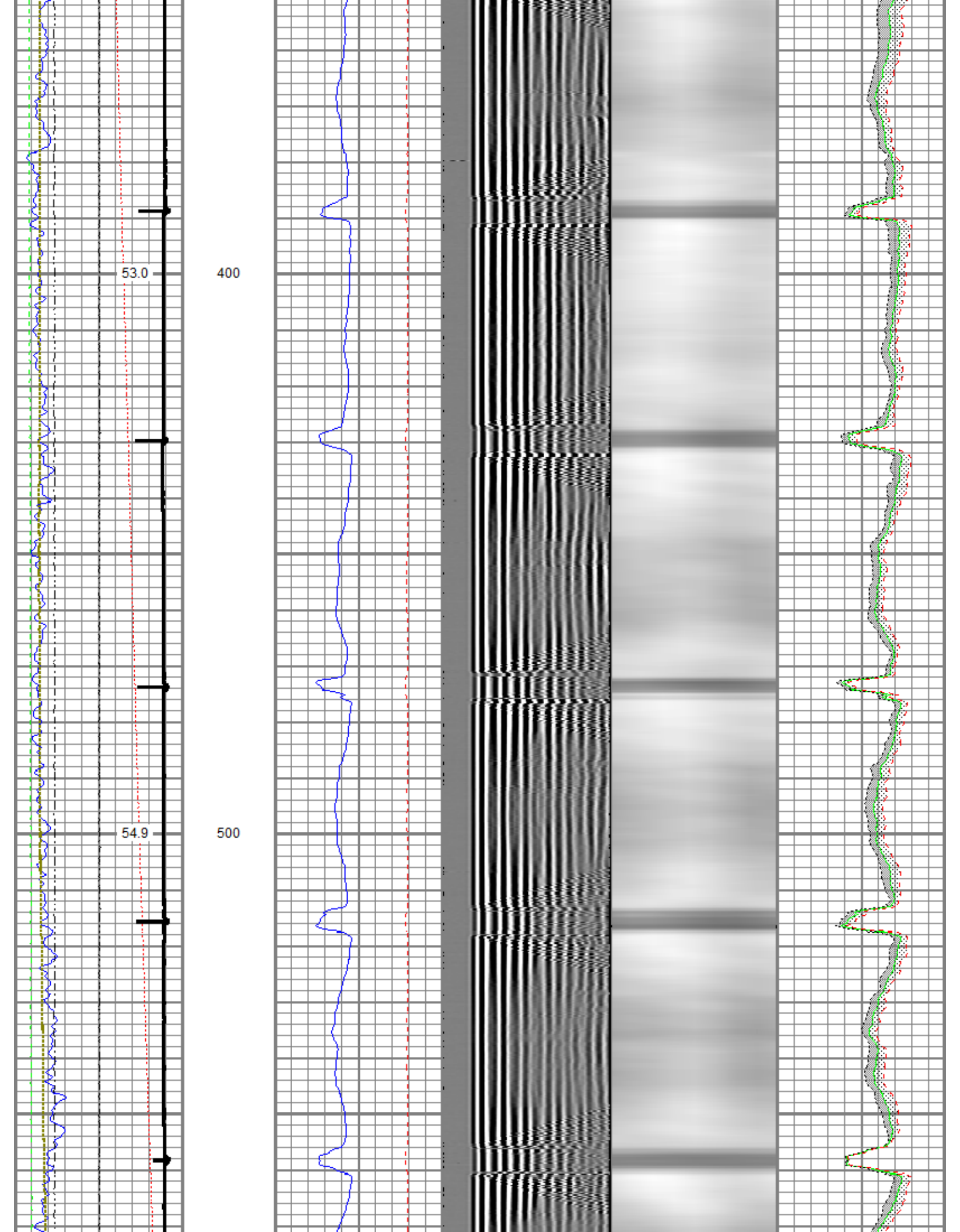


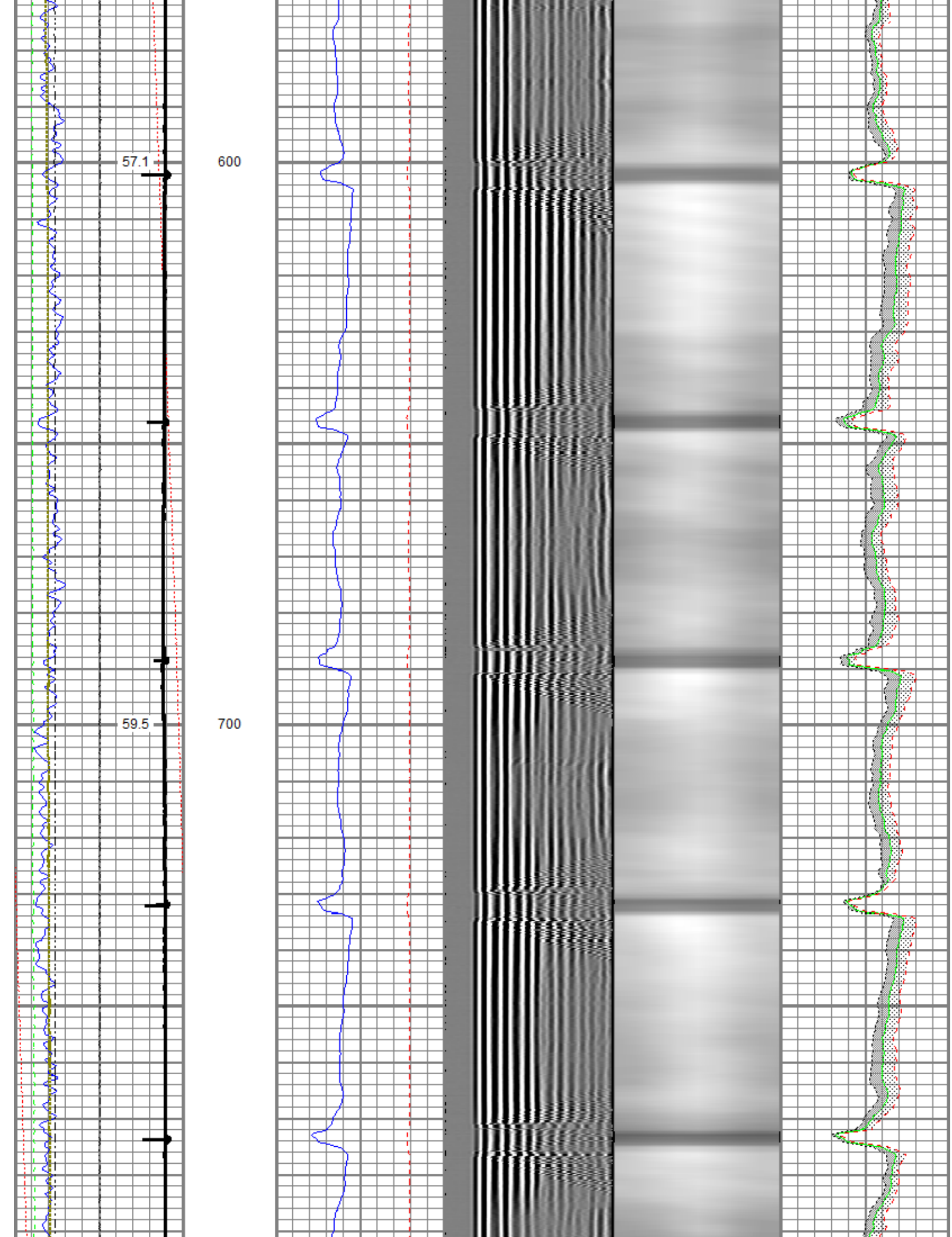
Database File anadarko_yellowhammer 34n-17hz\0512345493_anadarko_yellowhammer 34n-17hz_rbl_02-18-18.db
 Dataset Pathname pass11
 Presentation Format ros_rbt_mit_sx
 Dataset Creation Sat Feb 17 14:35:05 2018
 Charted by Depth in Feet scaled 1:240

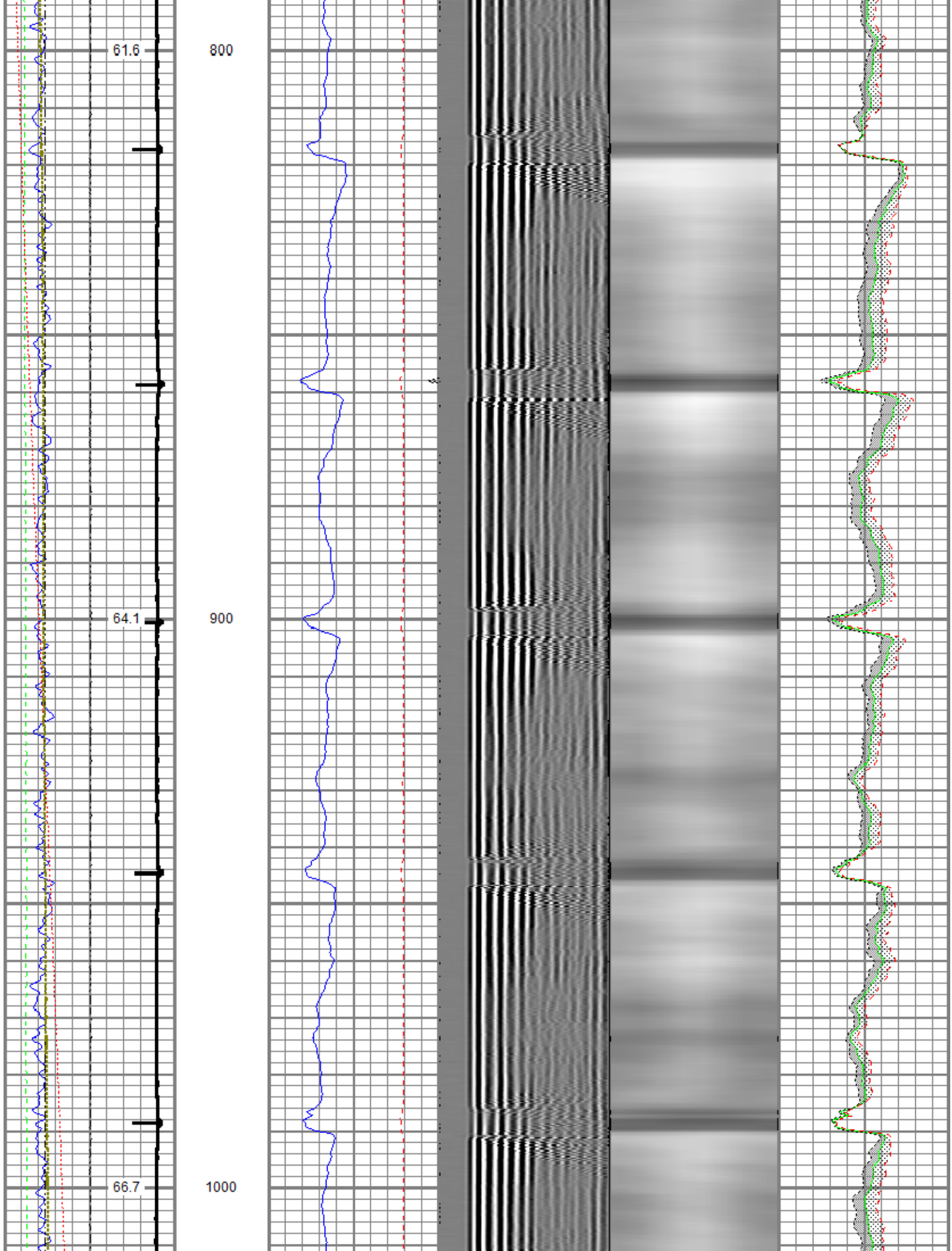
Gamma Ray	0	3' Amplitude (mV) 100	5' Variable Density Log	Sector Map	0	Average Amplitude 100
(GAPI) 120		3' Amplitude x 5	200			Minimum Amplitude
Line Speed	0	(mV) 20			0	100
(ft/min) 100		3' Travel Time				Maximum Amplitude
Line Tension (lb) 2000	0	650 (usec) 150			0	100
Differential Temperature						
(degF) 2						
Temperature (degF) 20						
Casing Collar Locator						
Deviation (deg) 90						

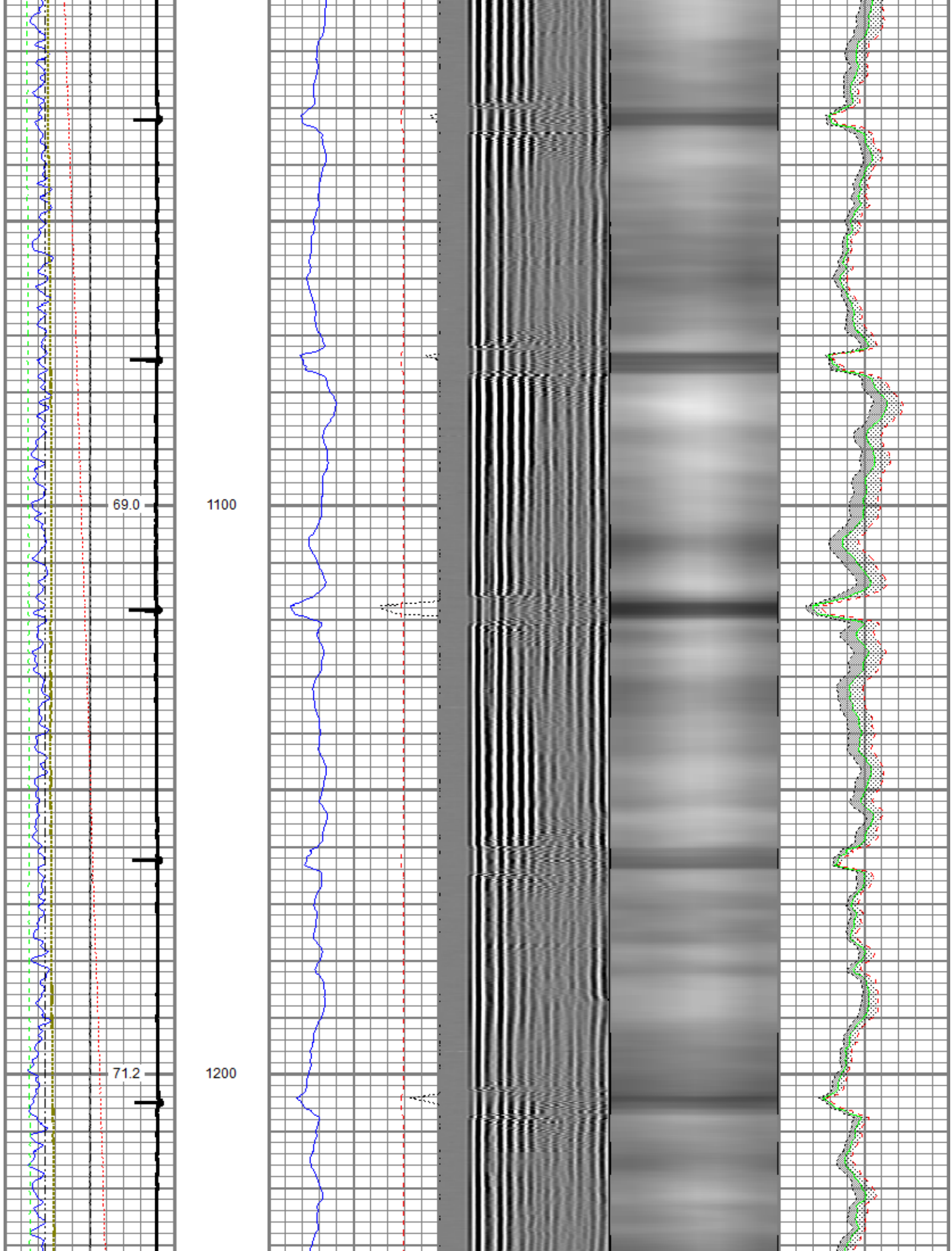


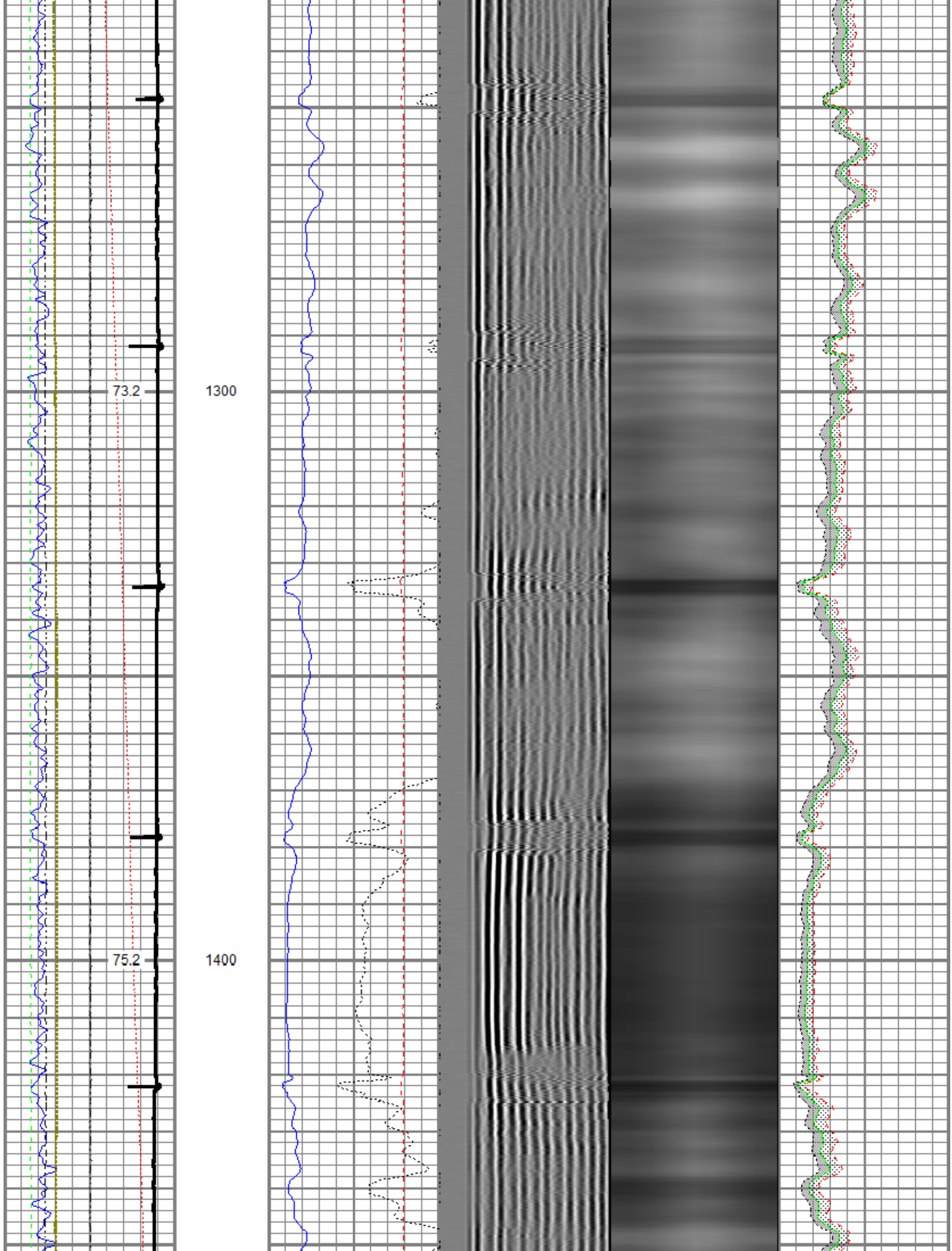


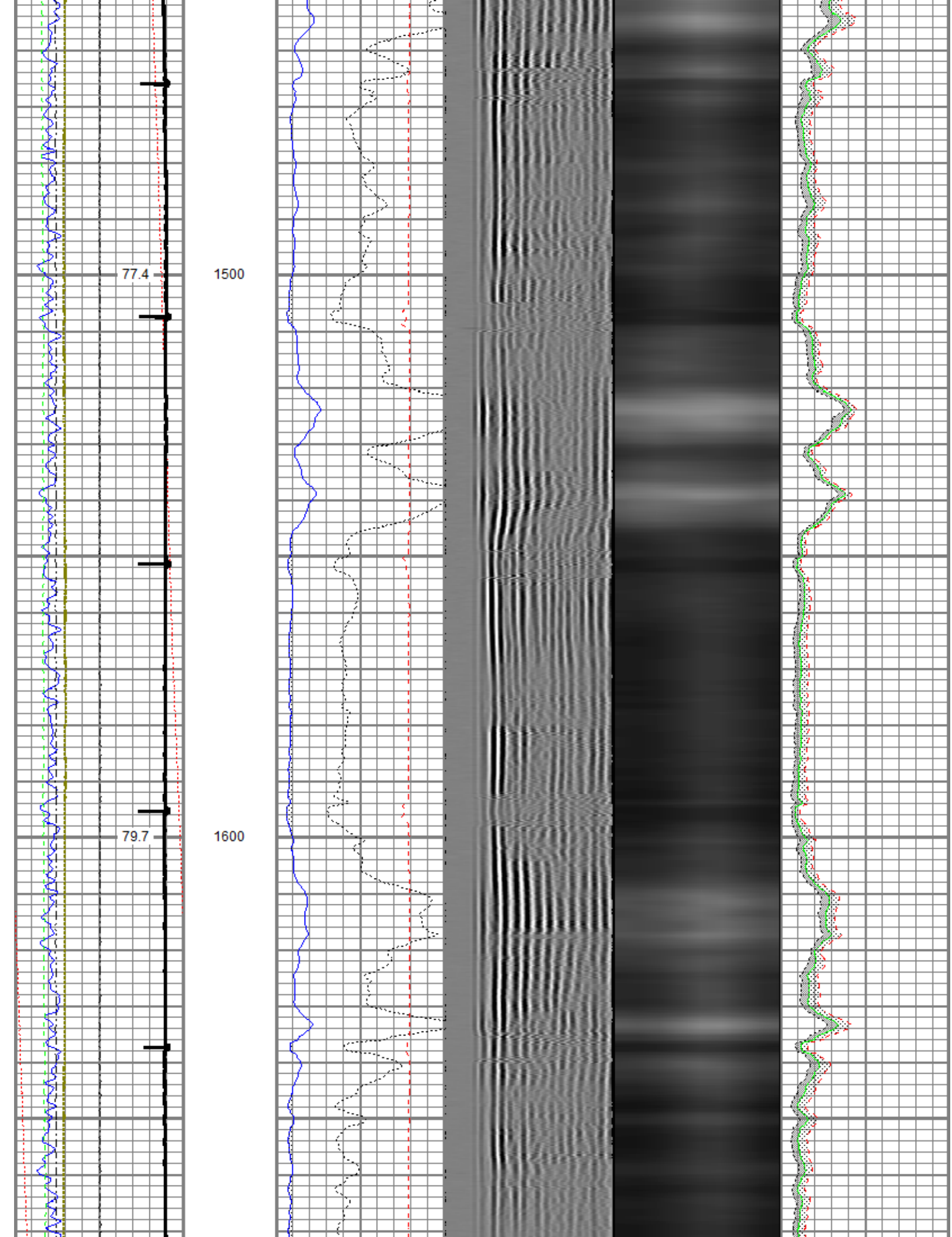


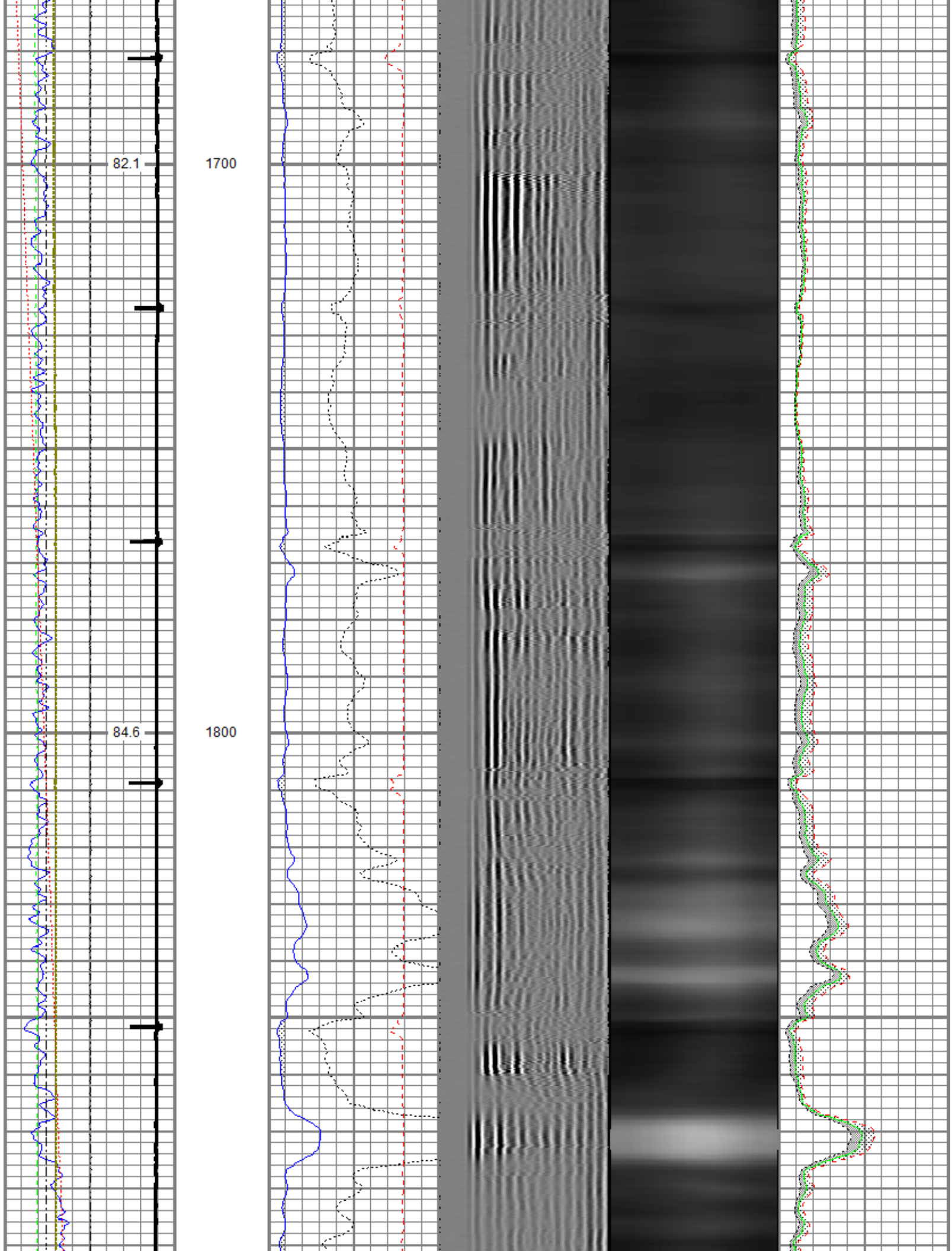


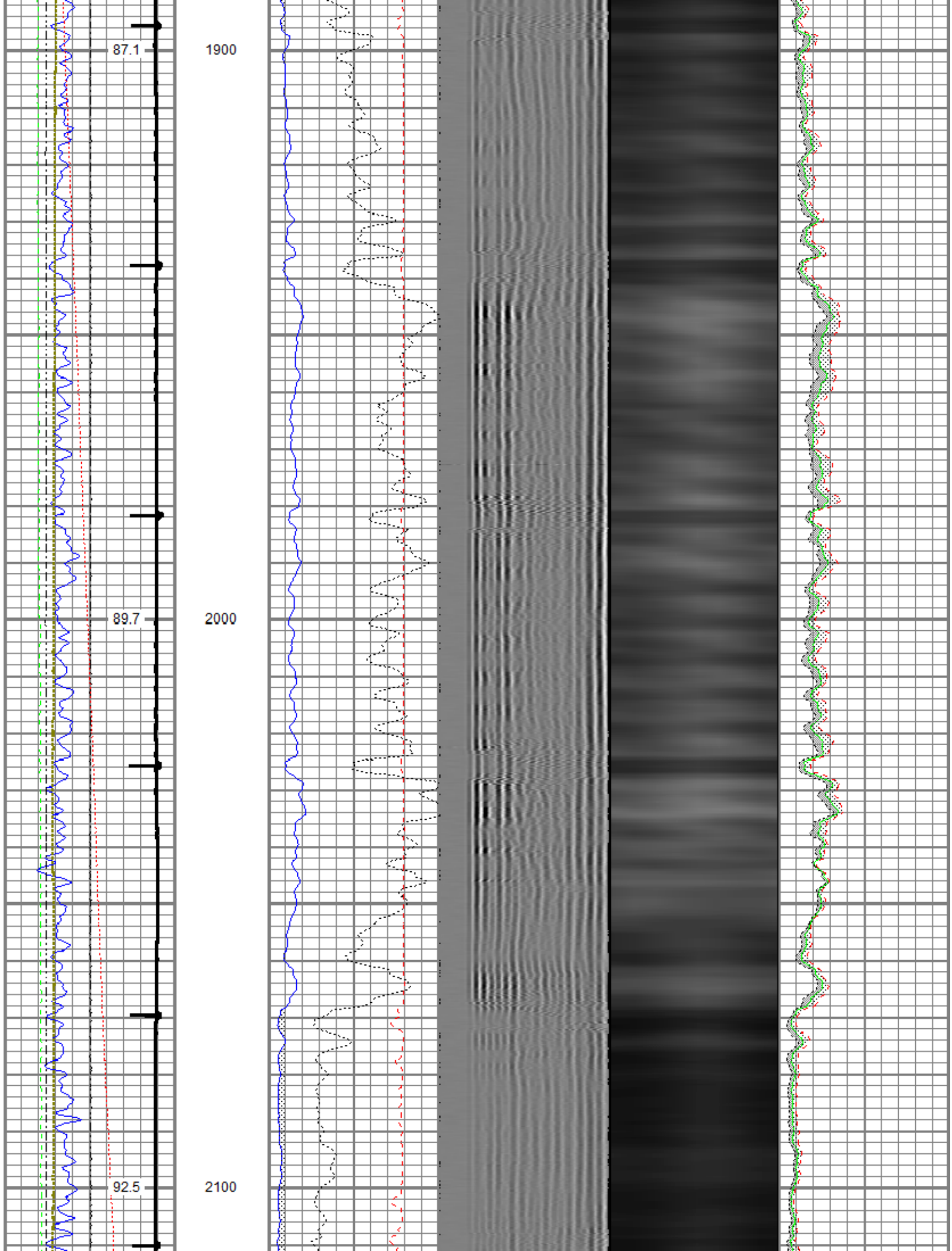


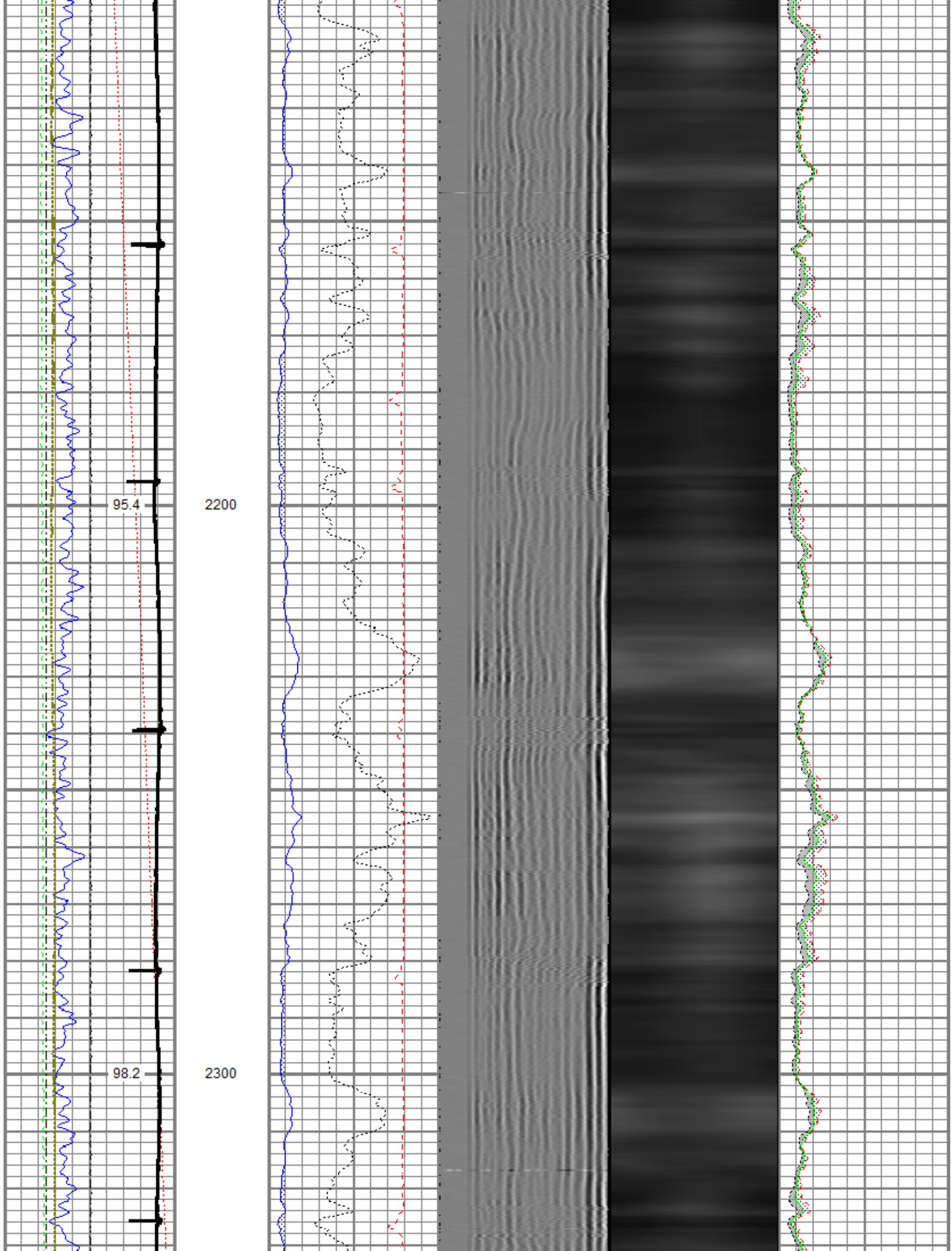


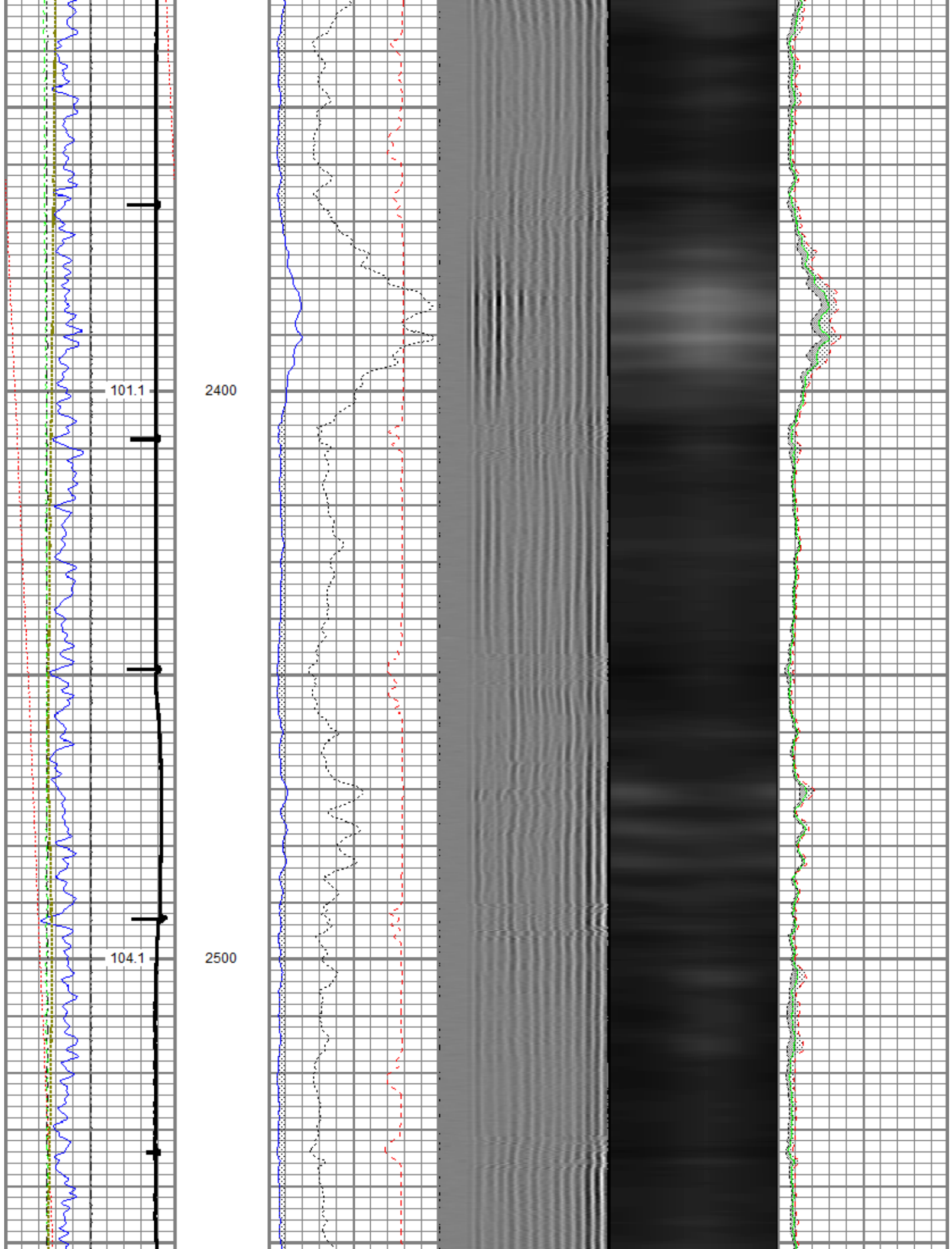


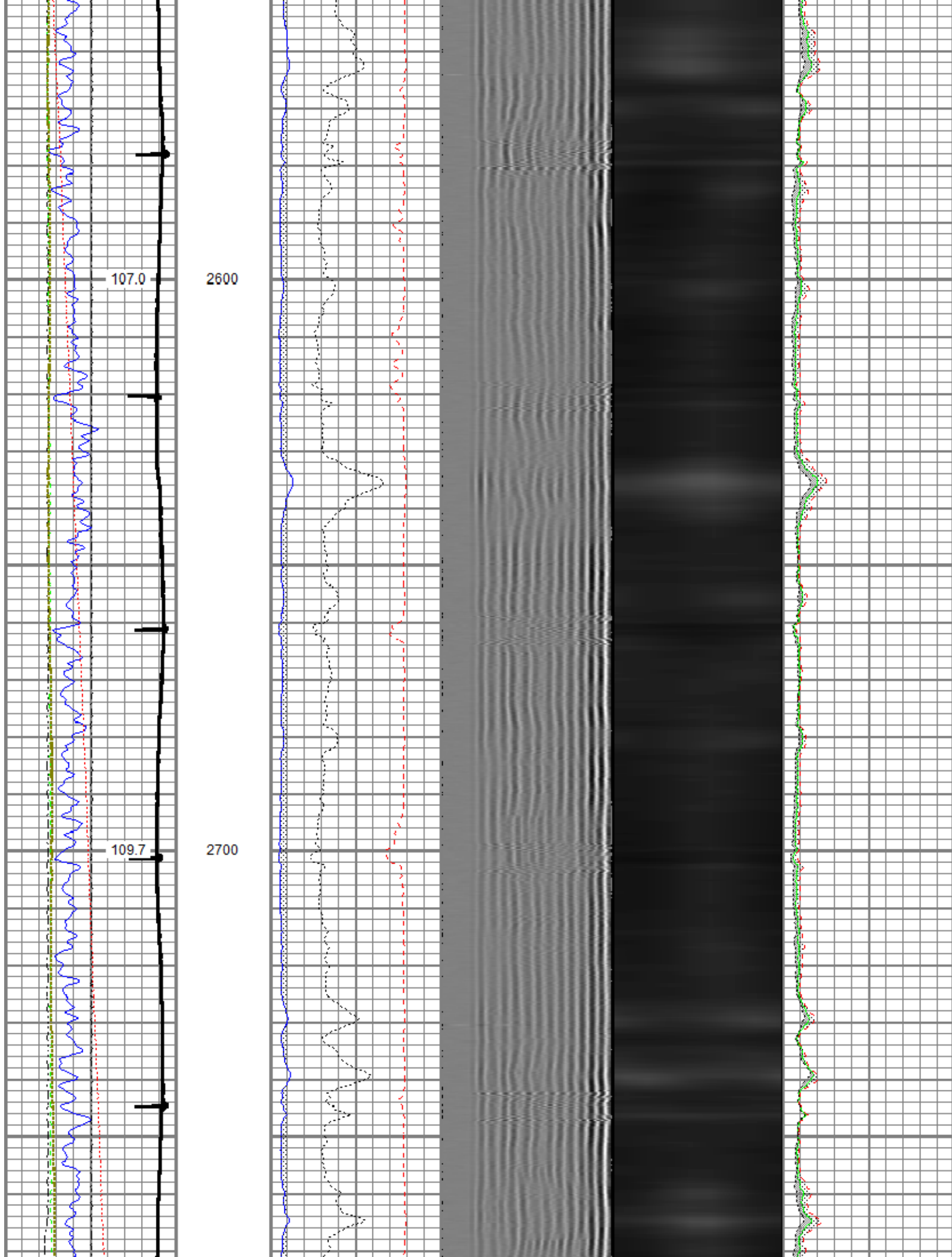


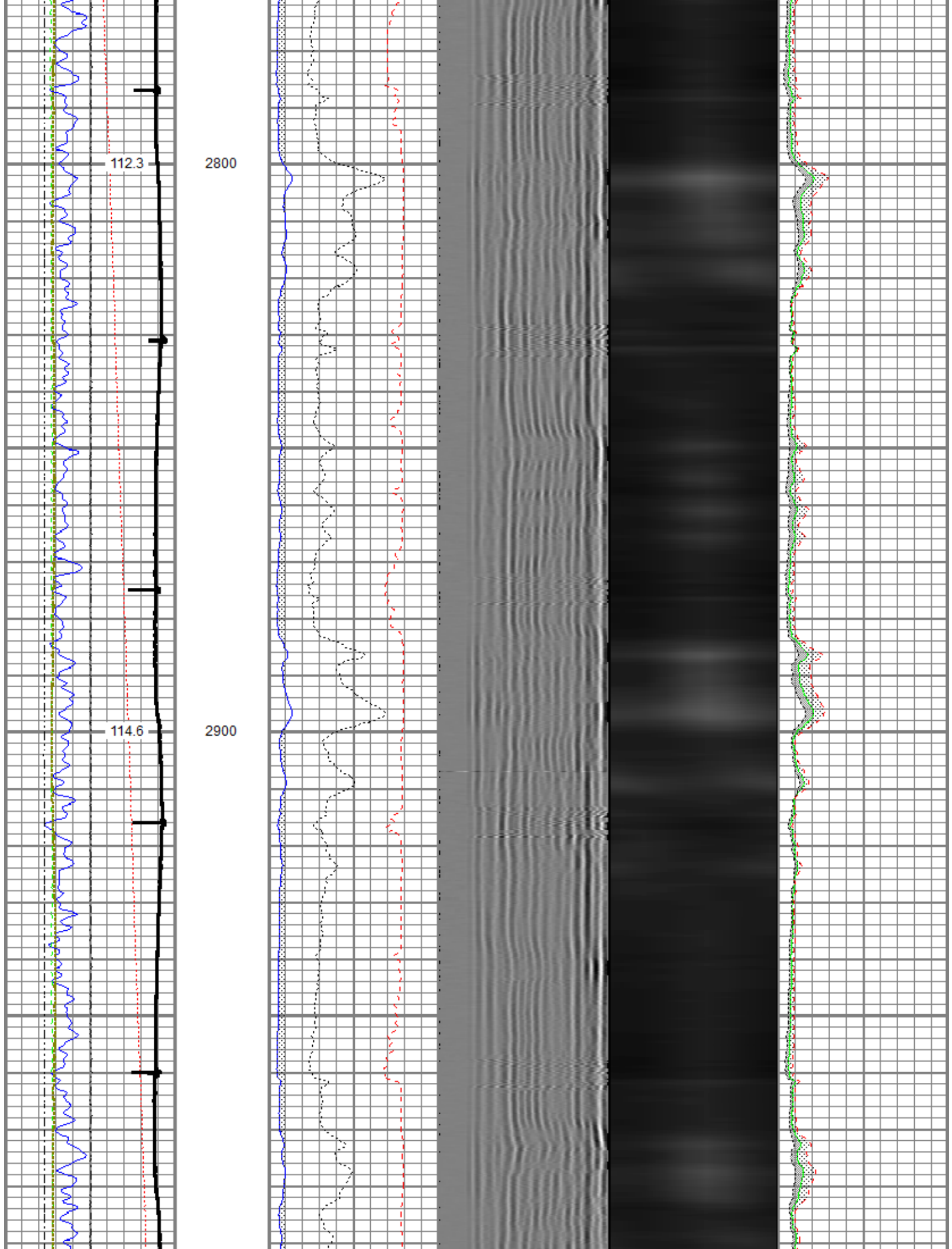


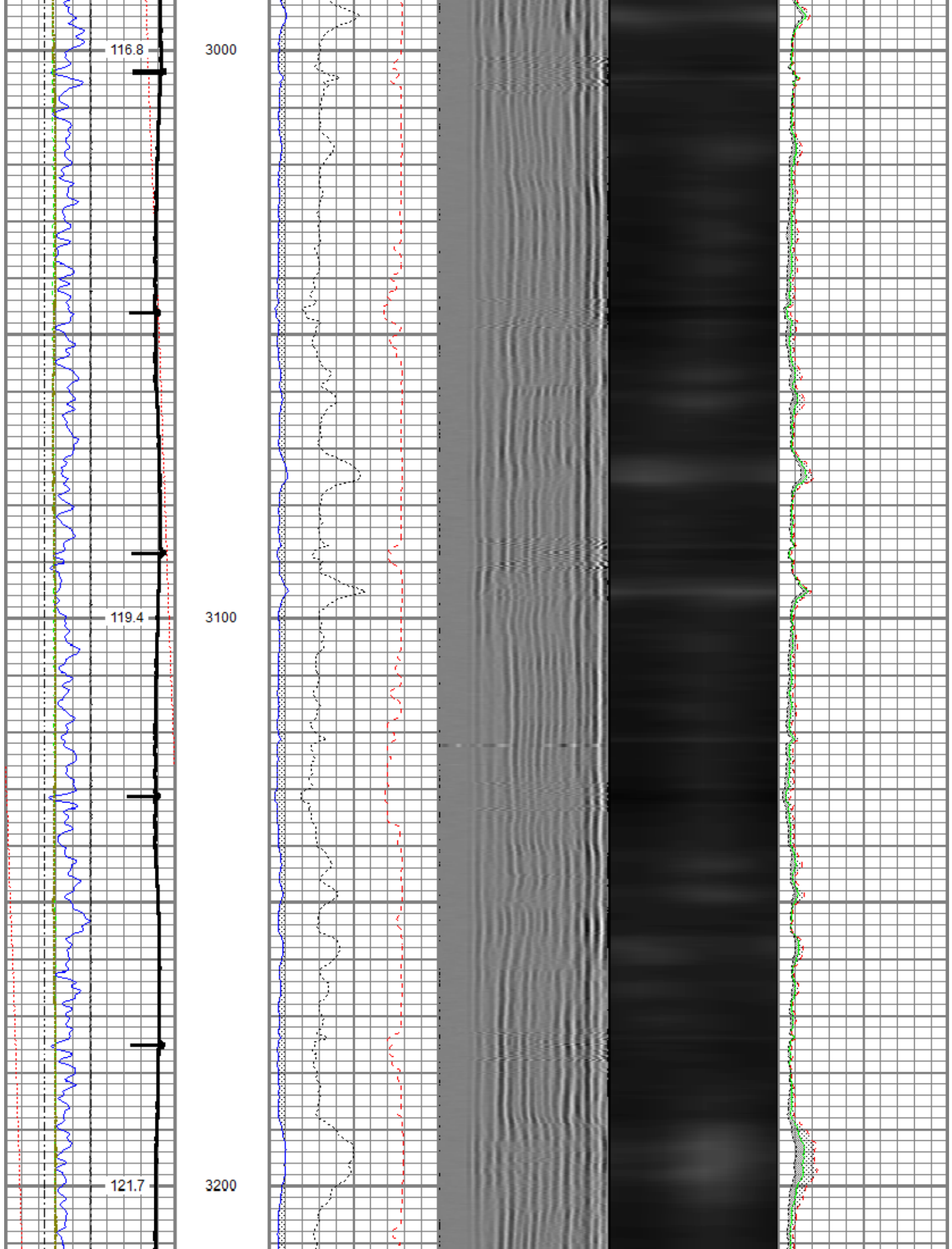


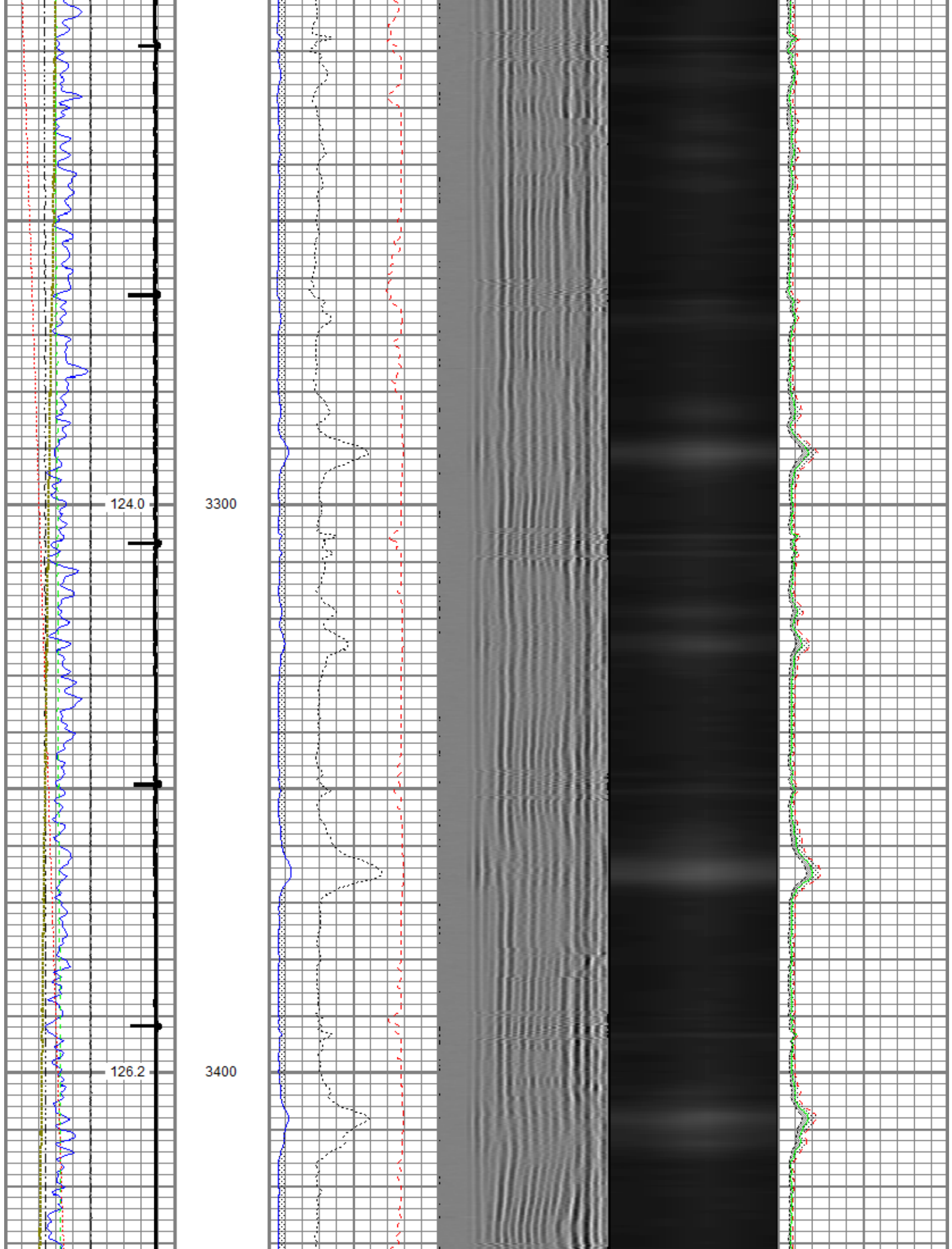


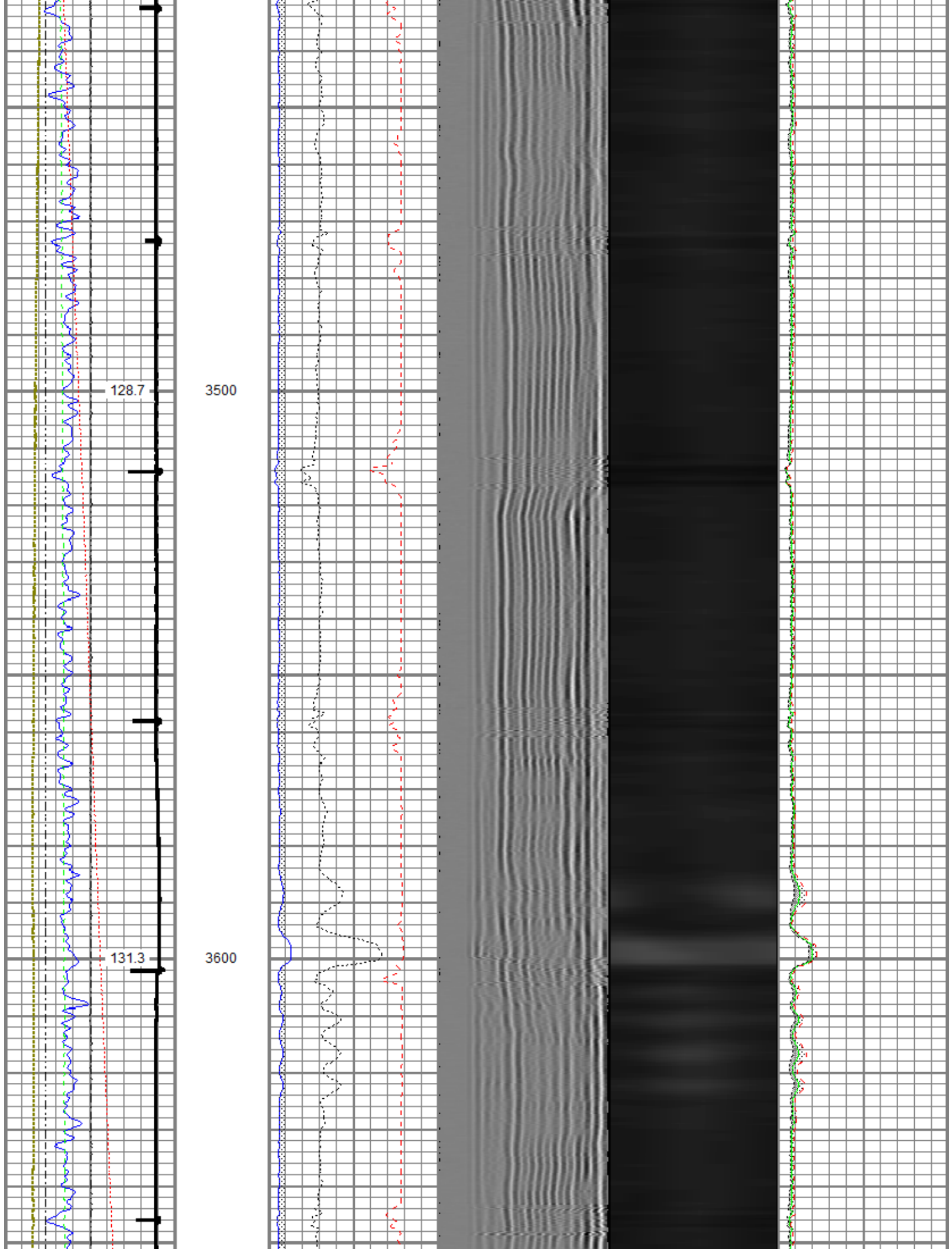


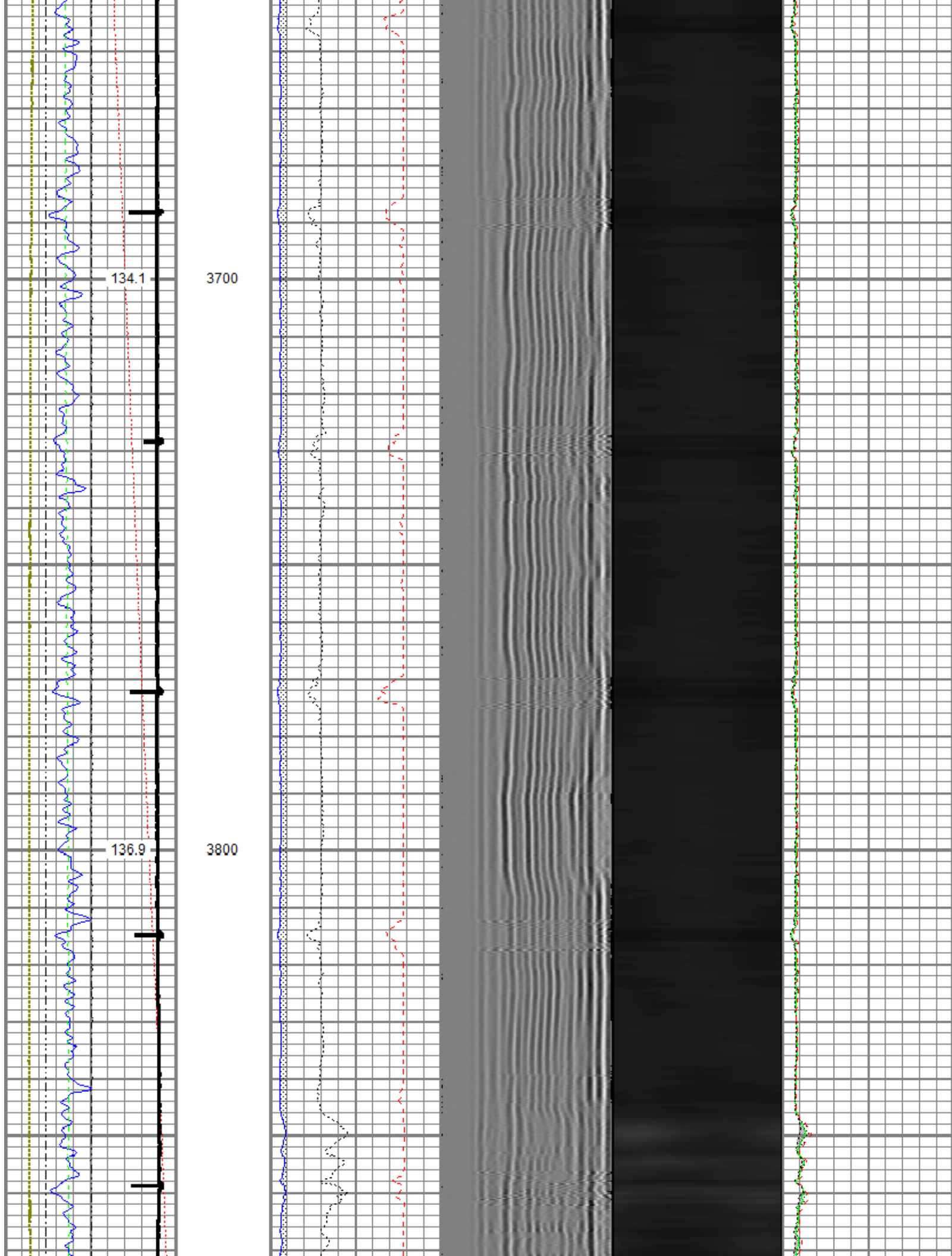


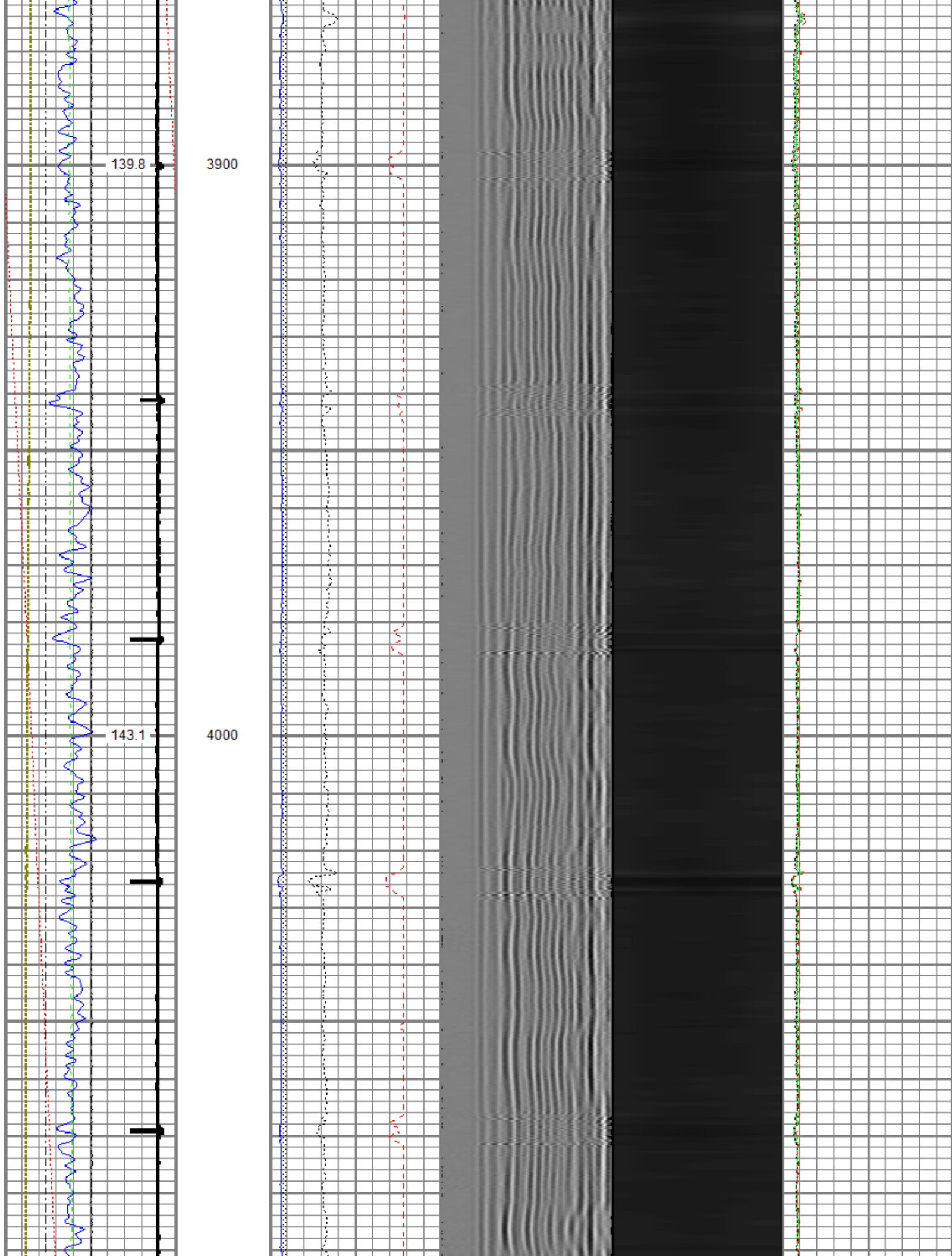


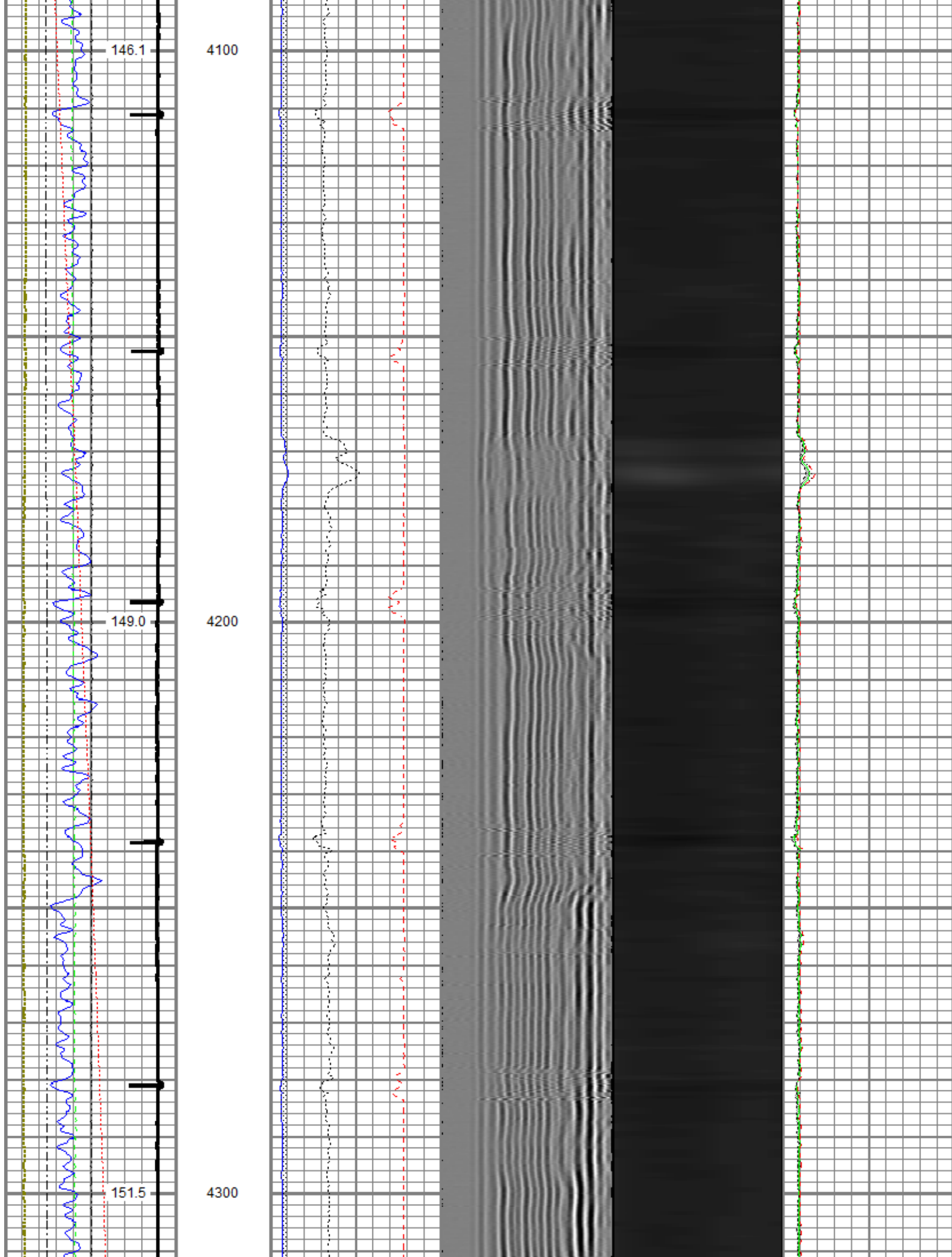


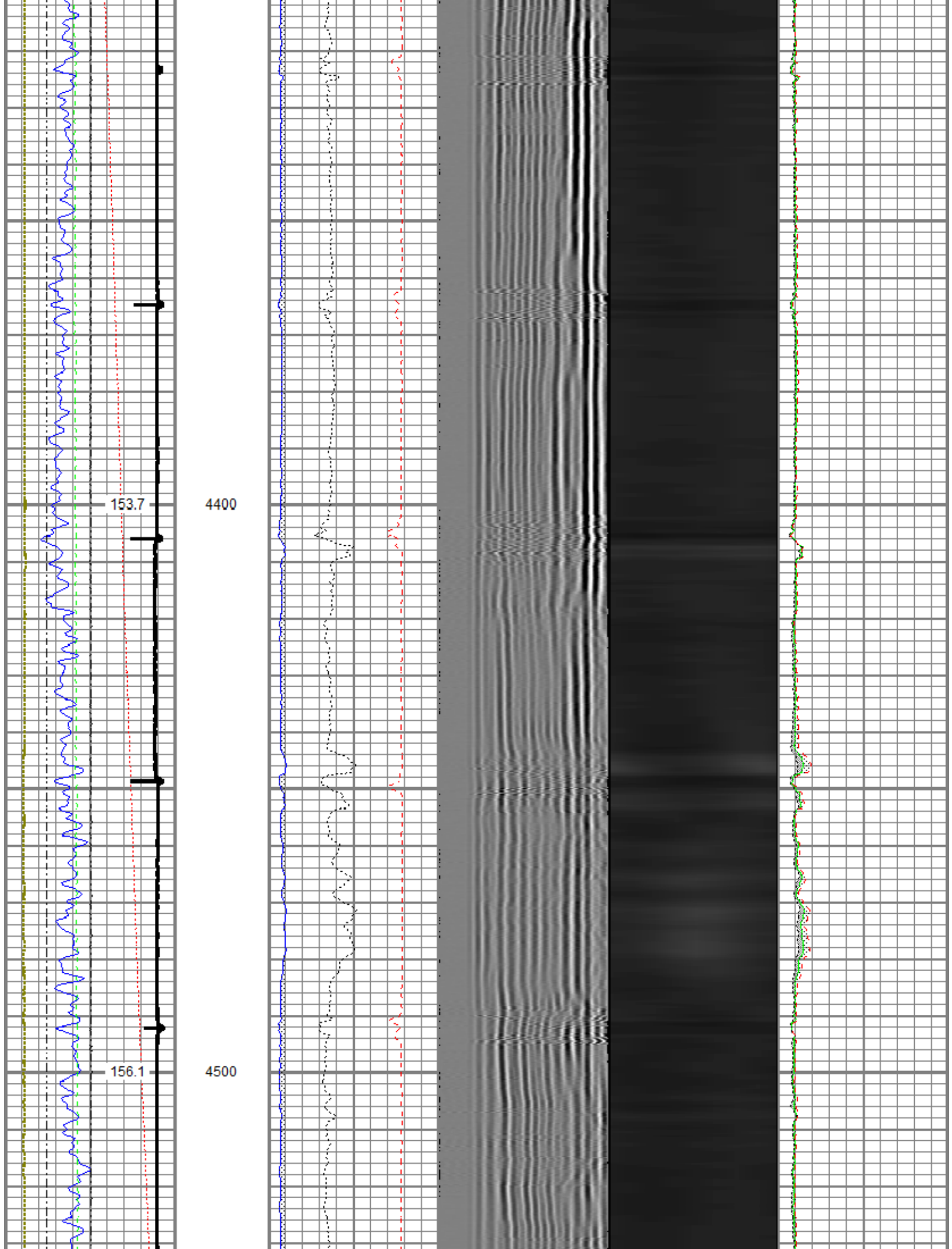


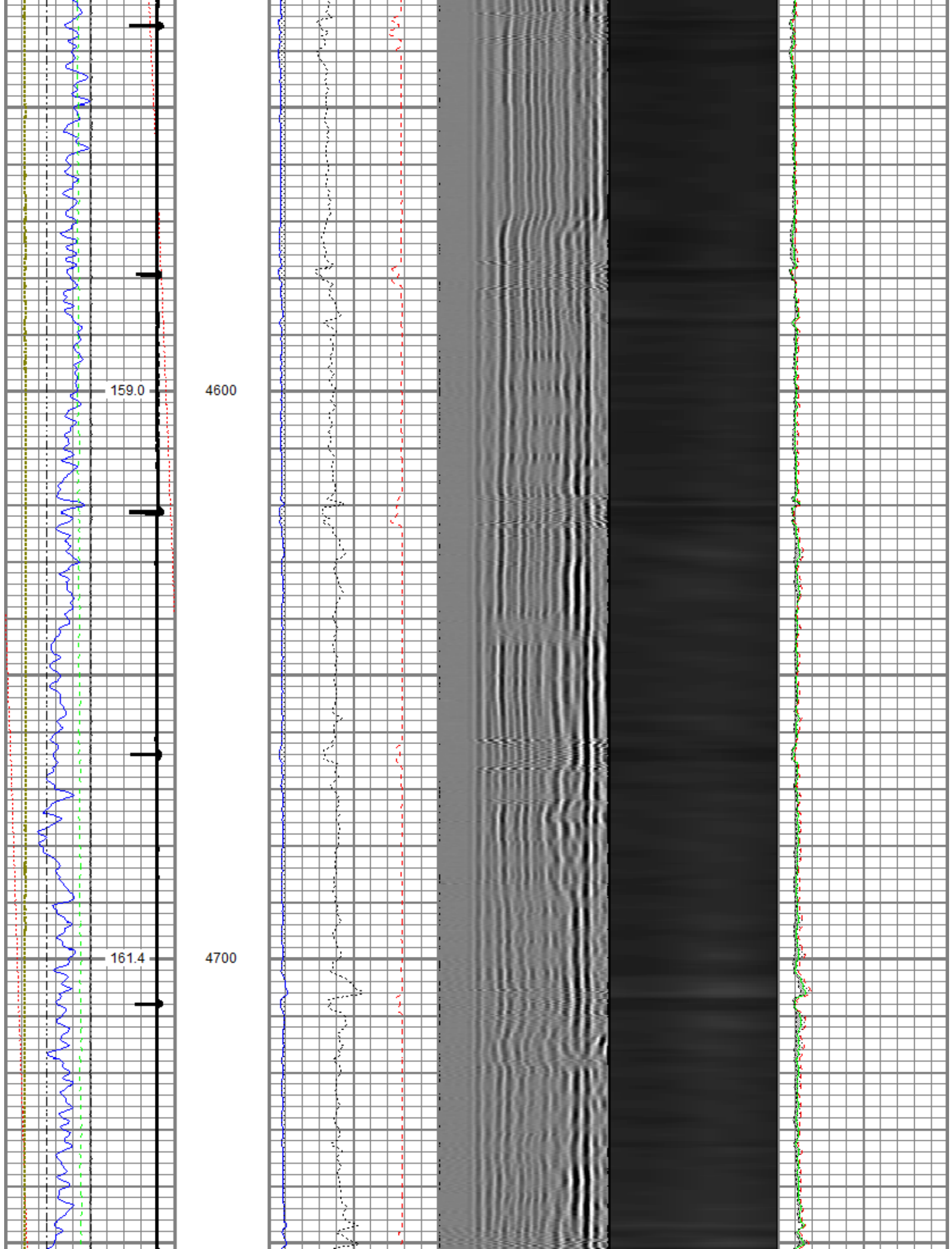


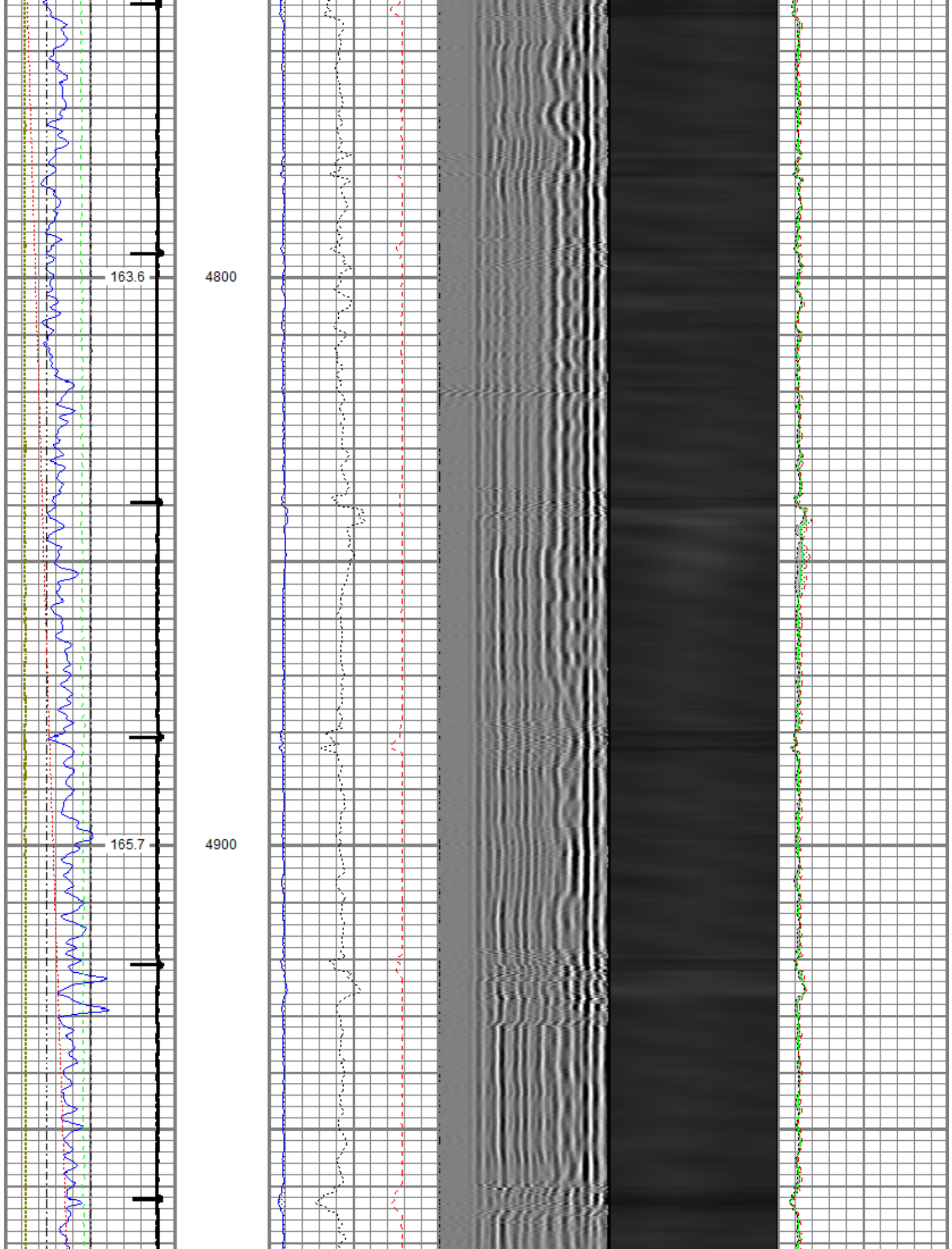


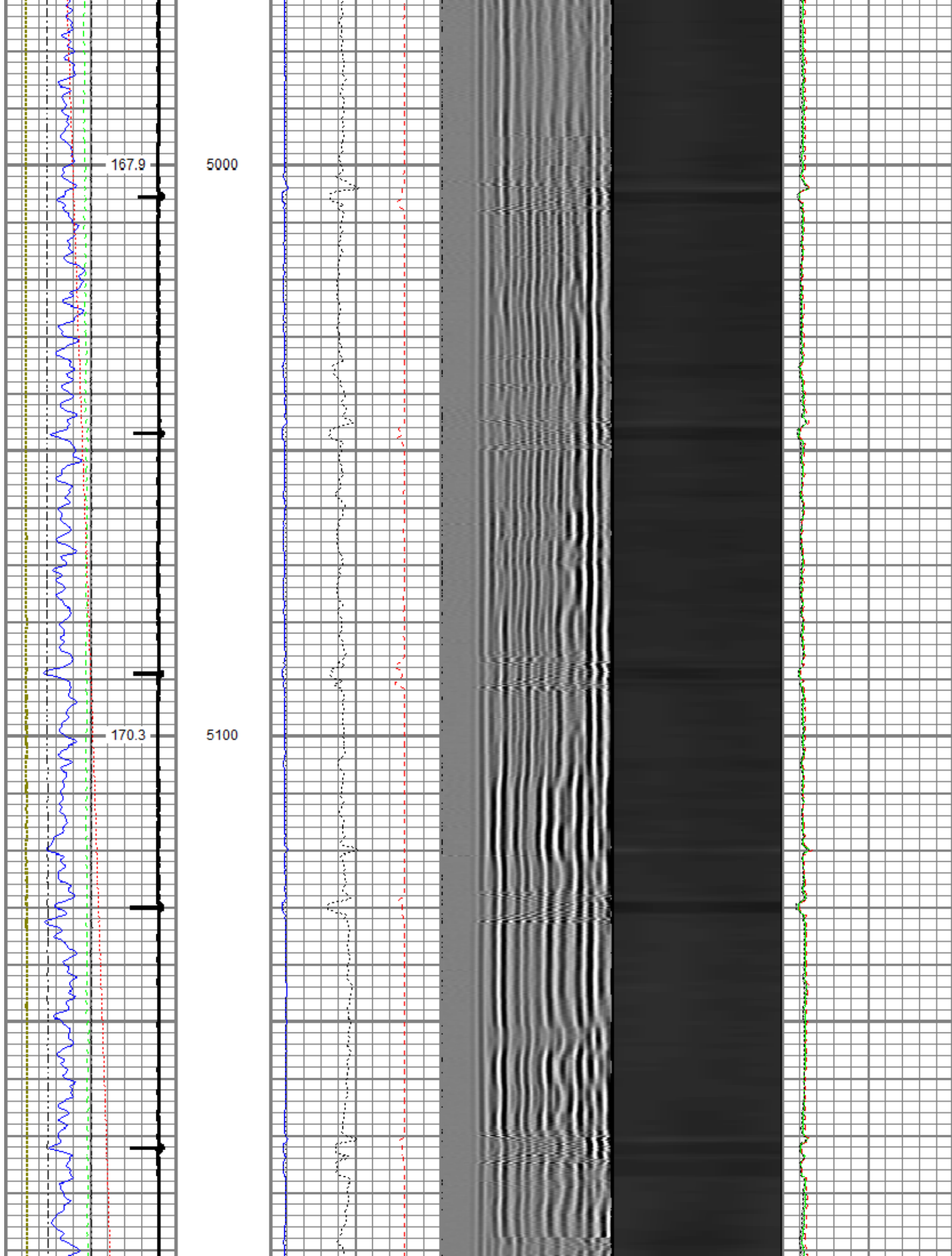


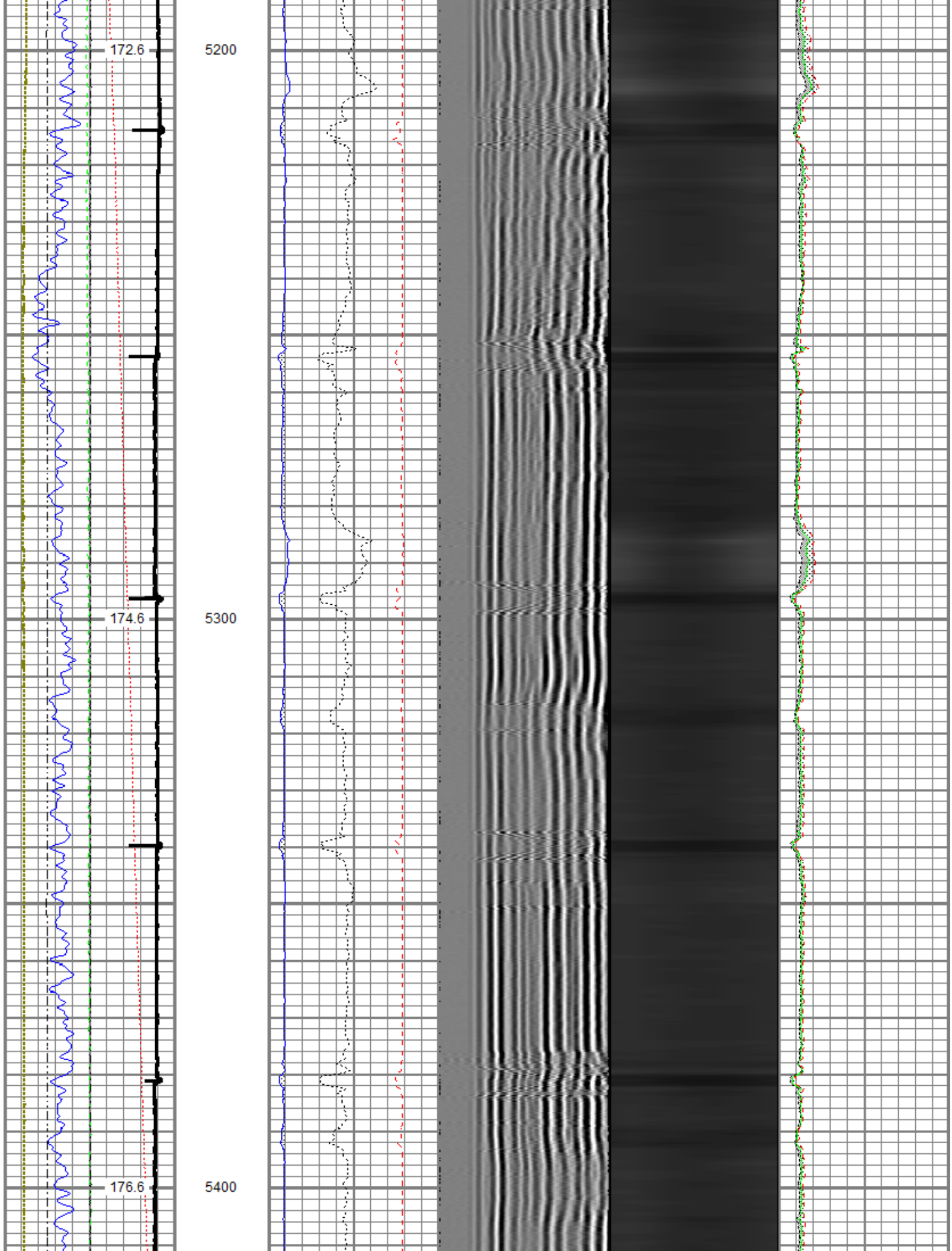


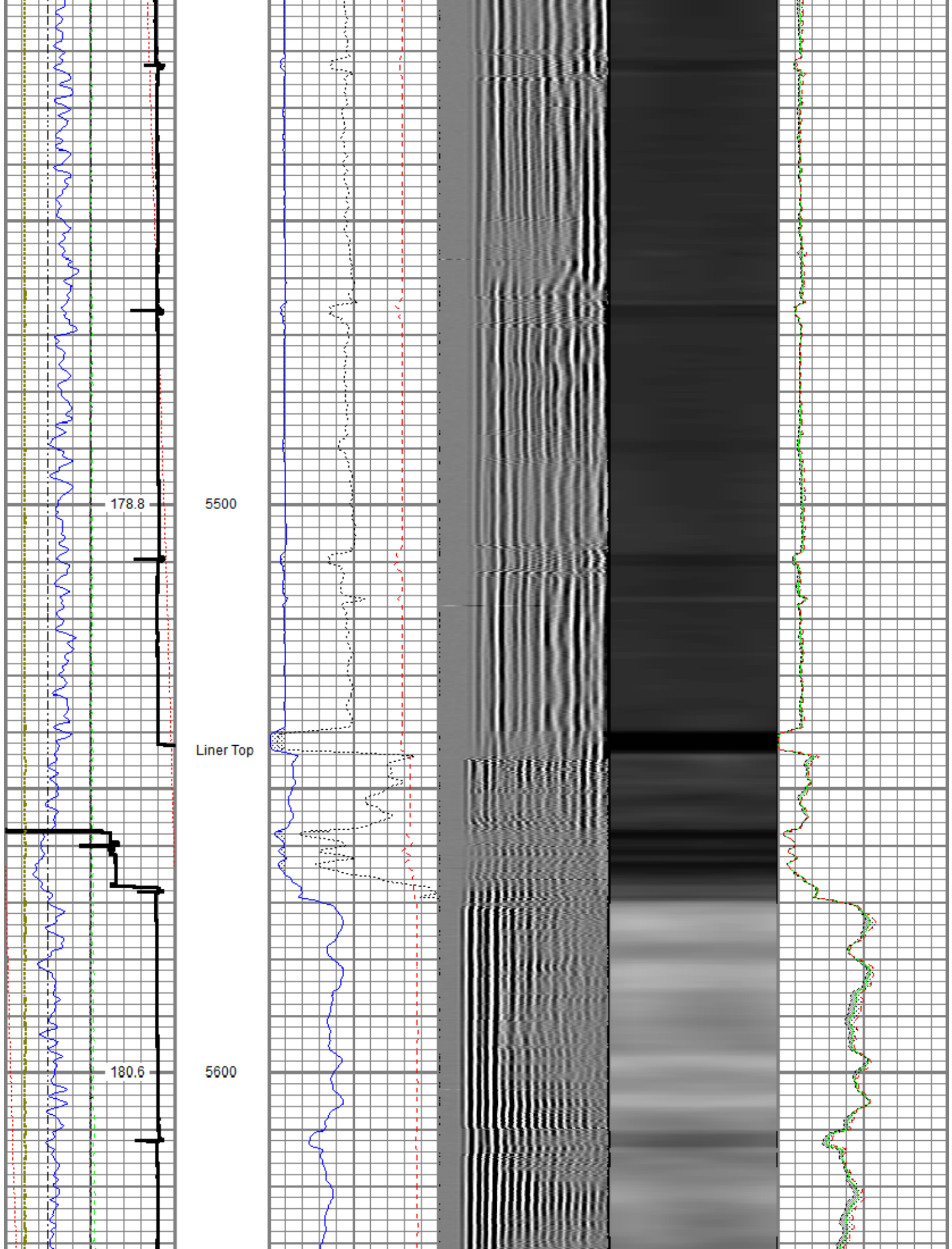


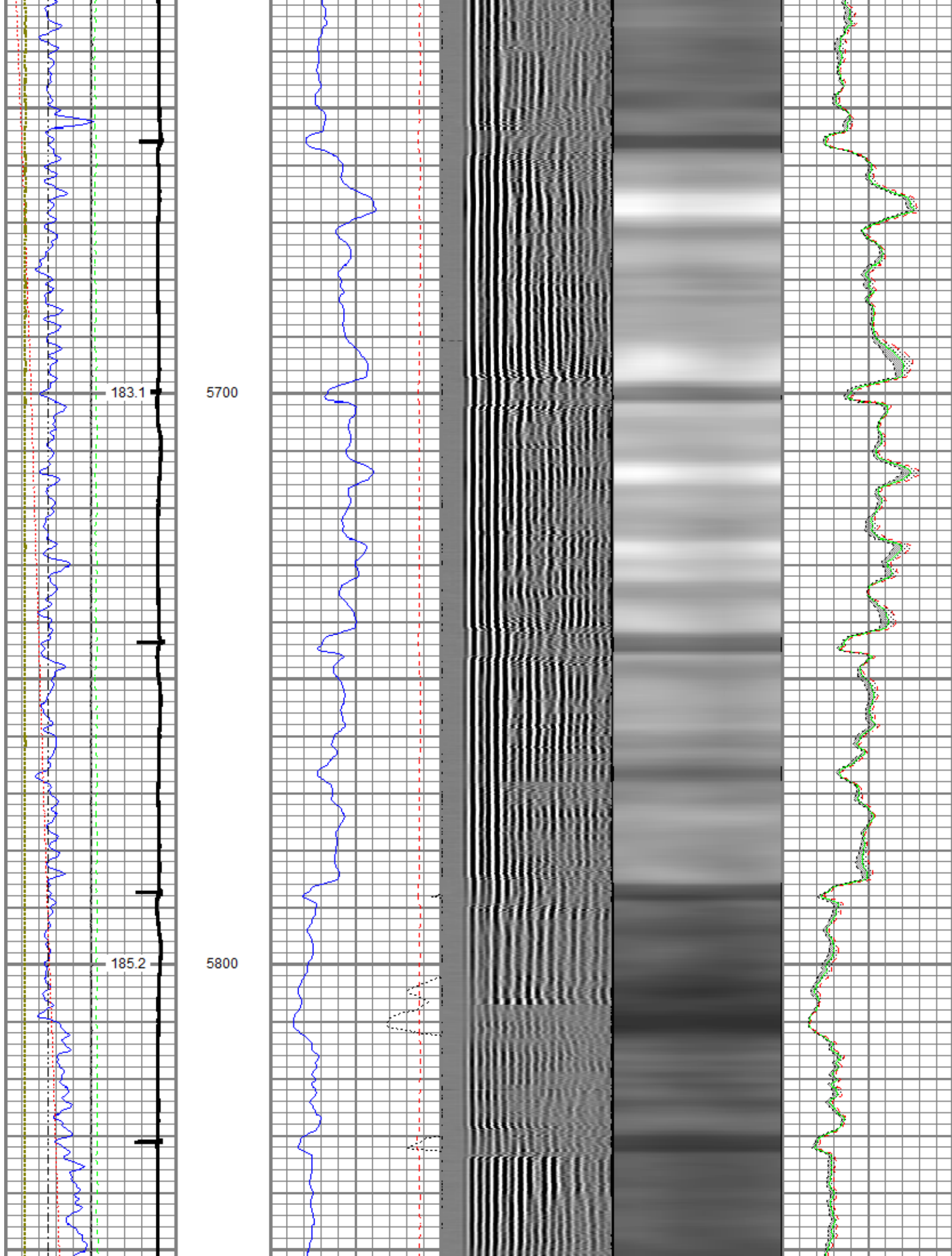


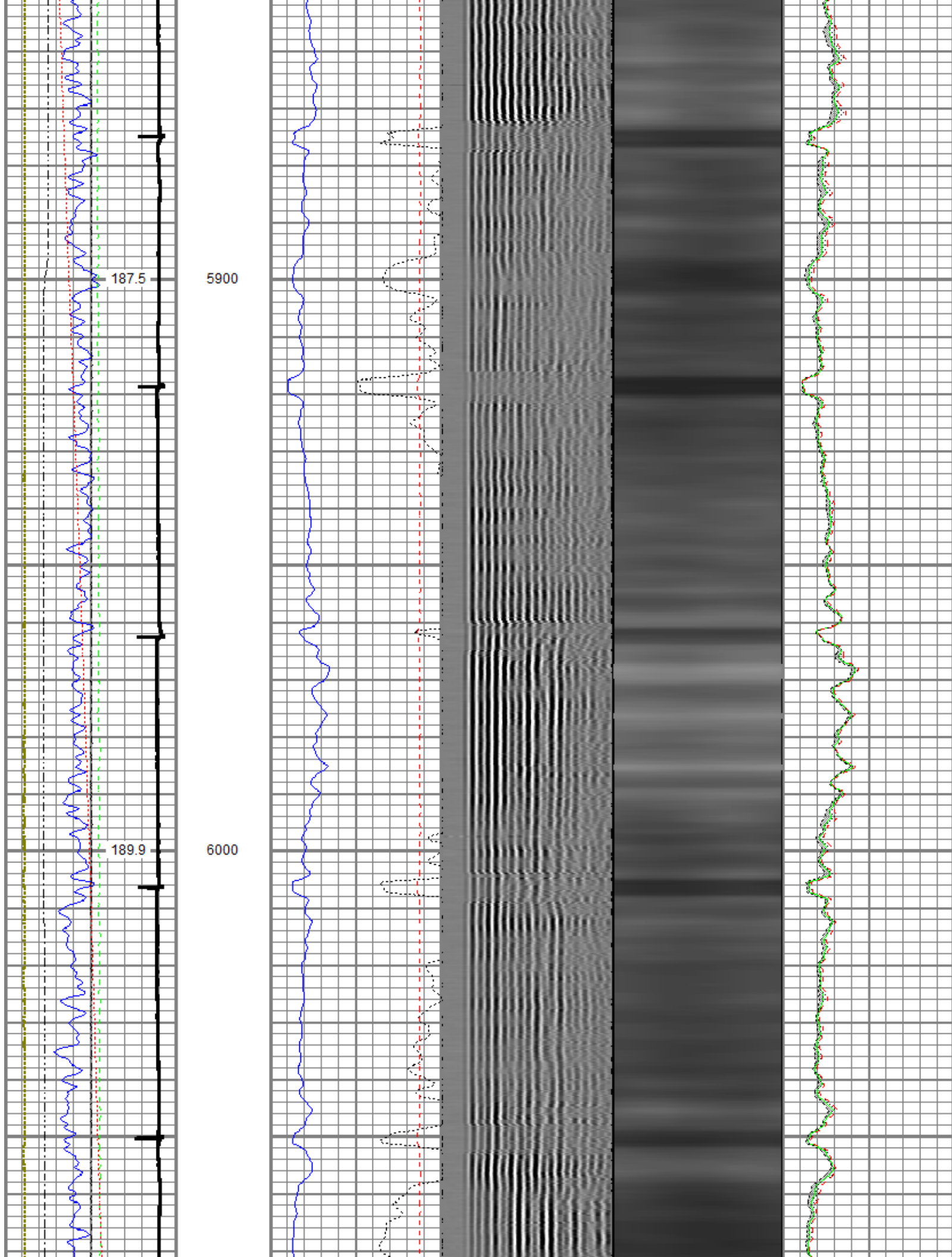


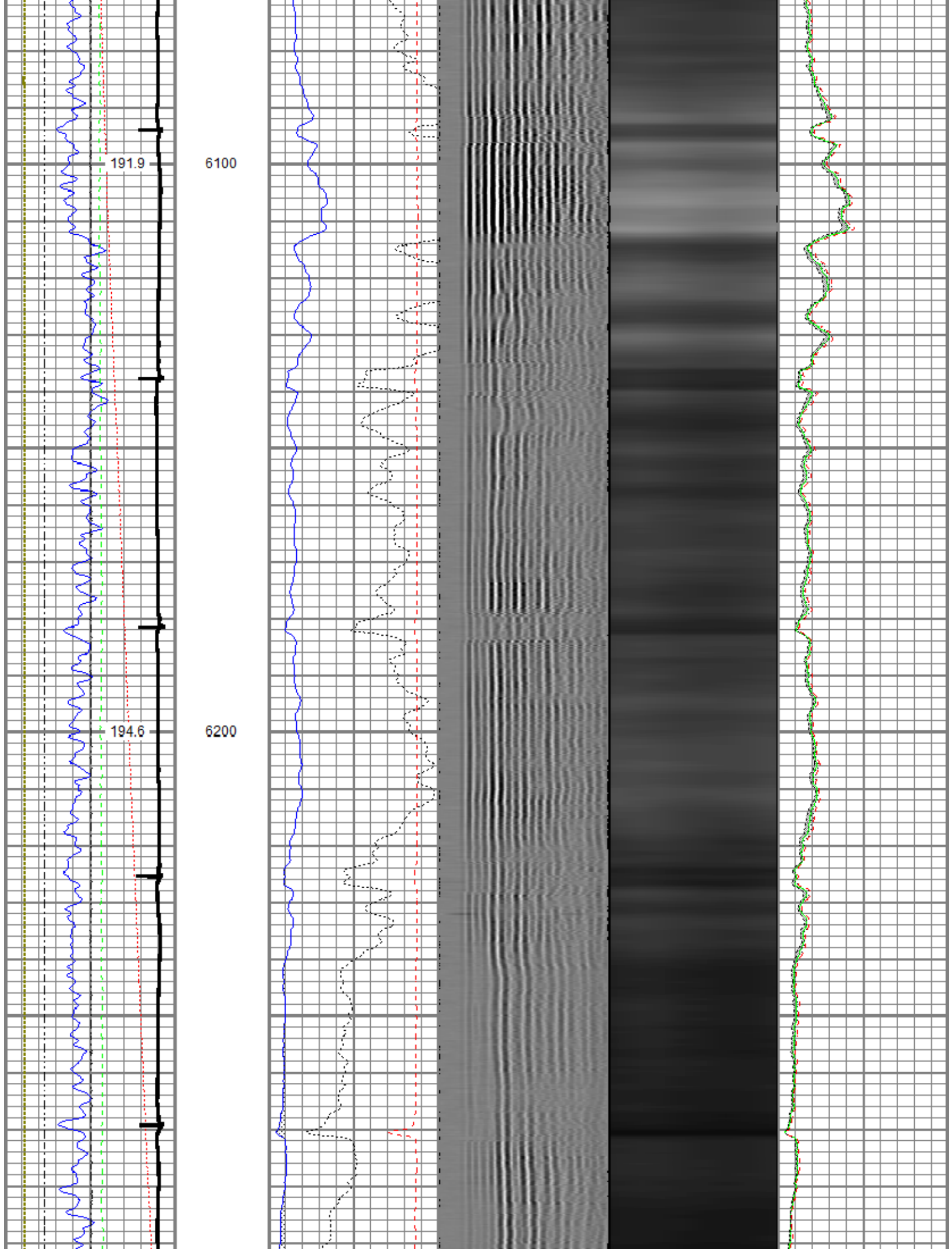


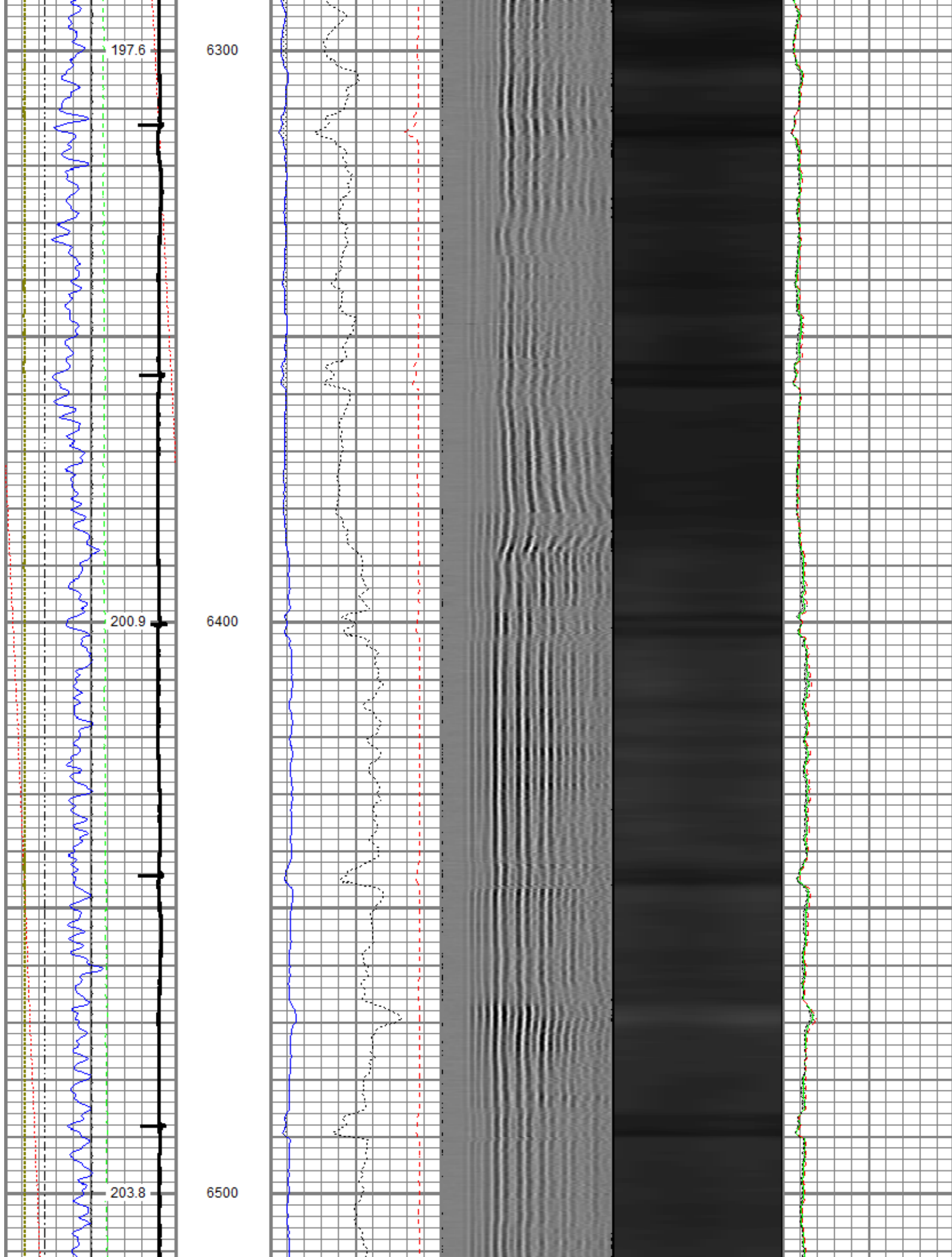


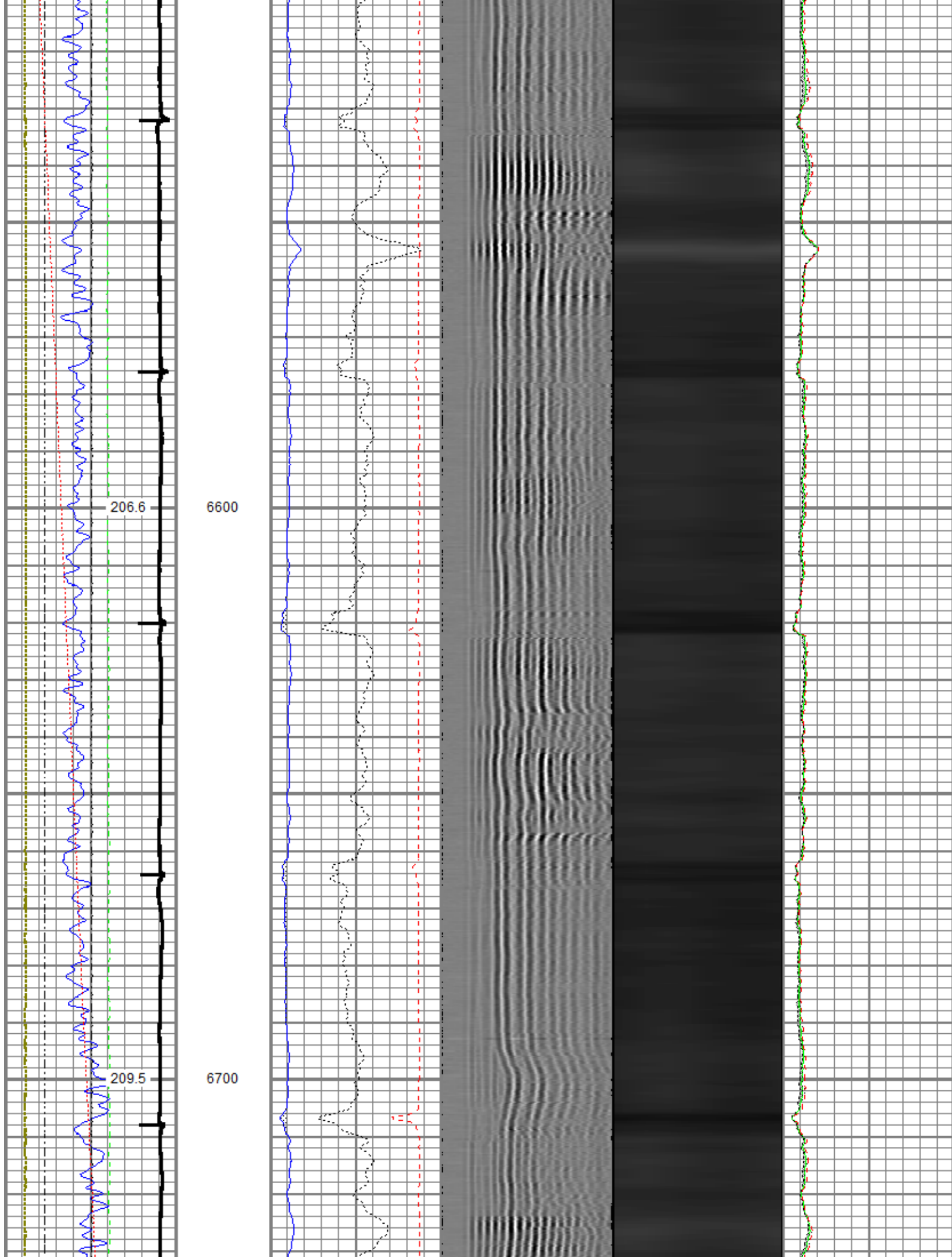


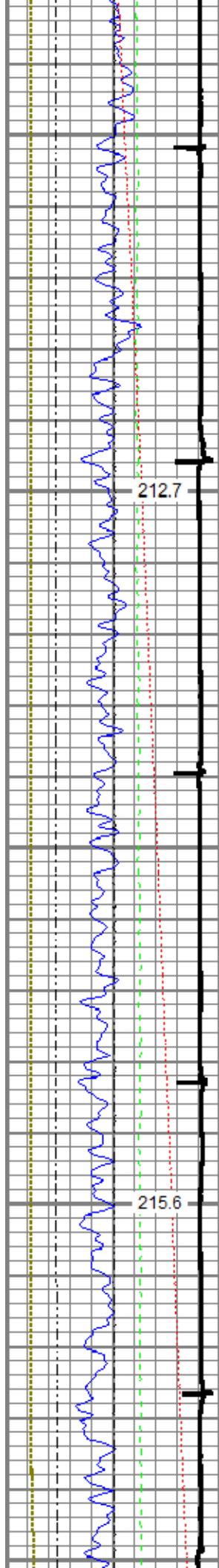






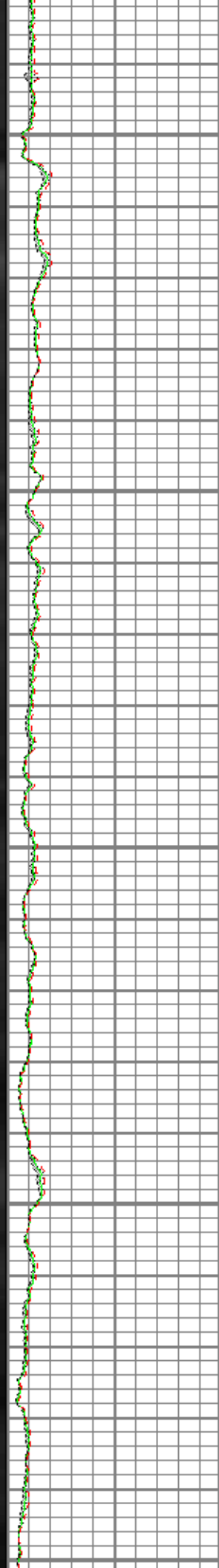
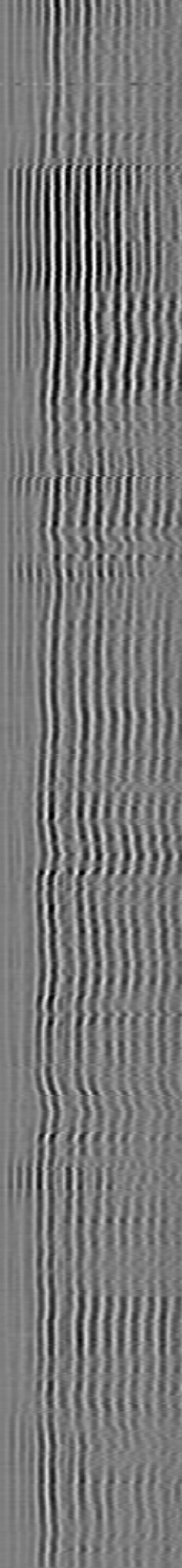
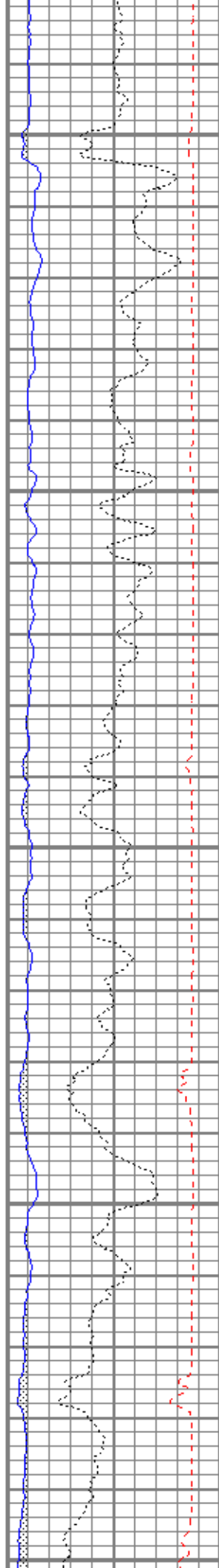


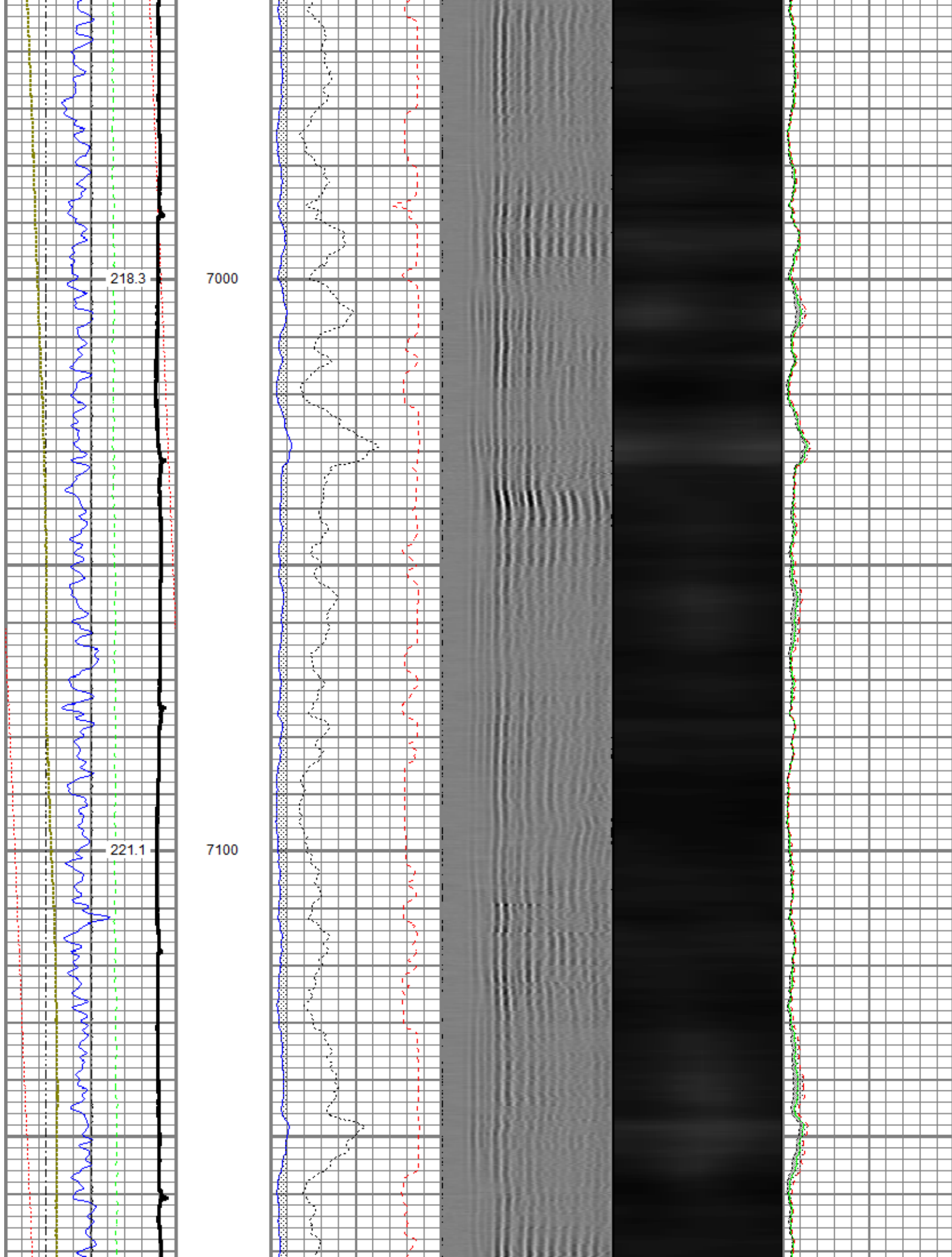


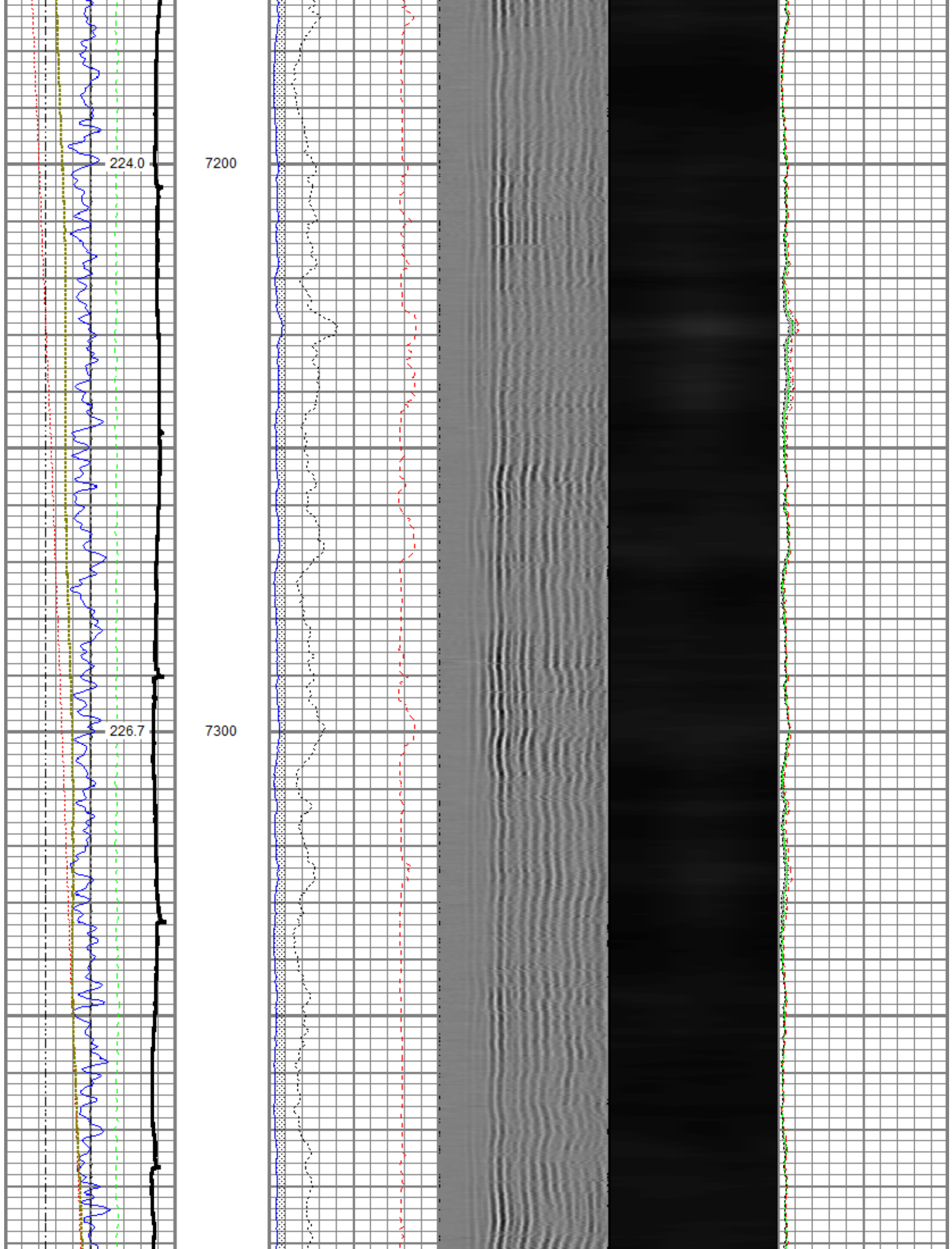


6800

6900







229.1

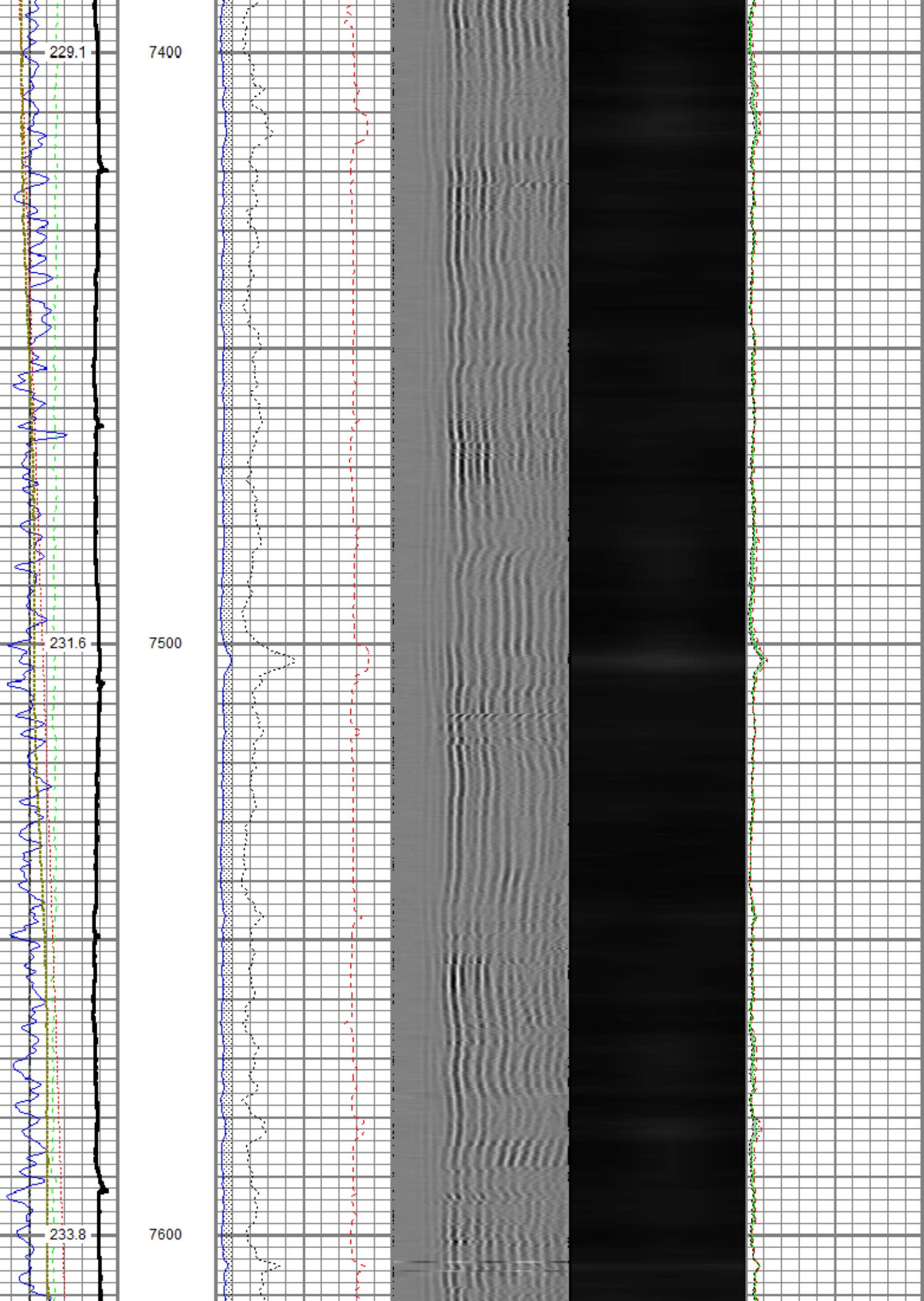
7400

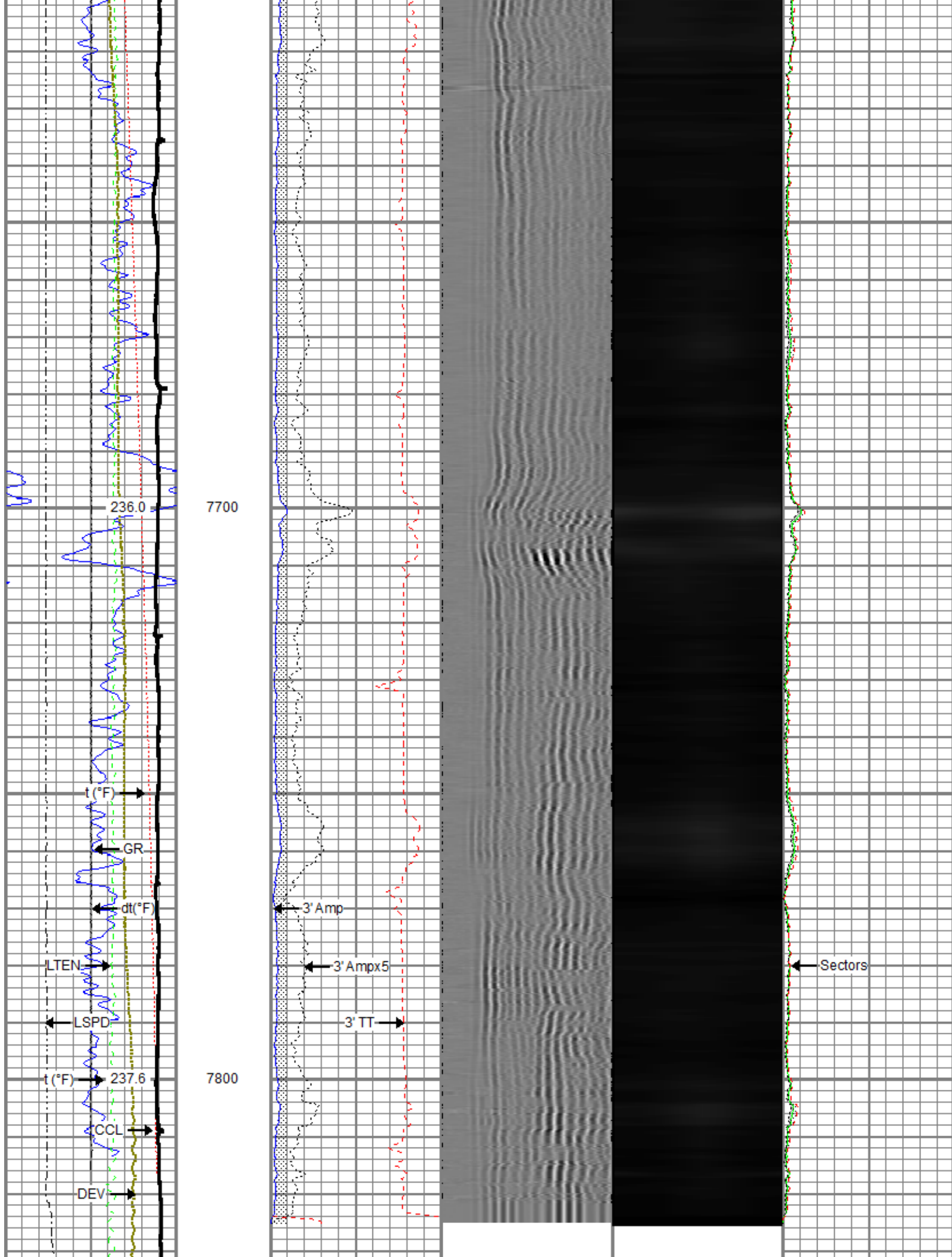
231.6

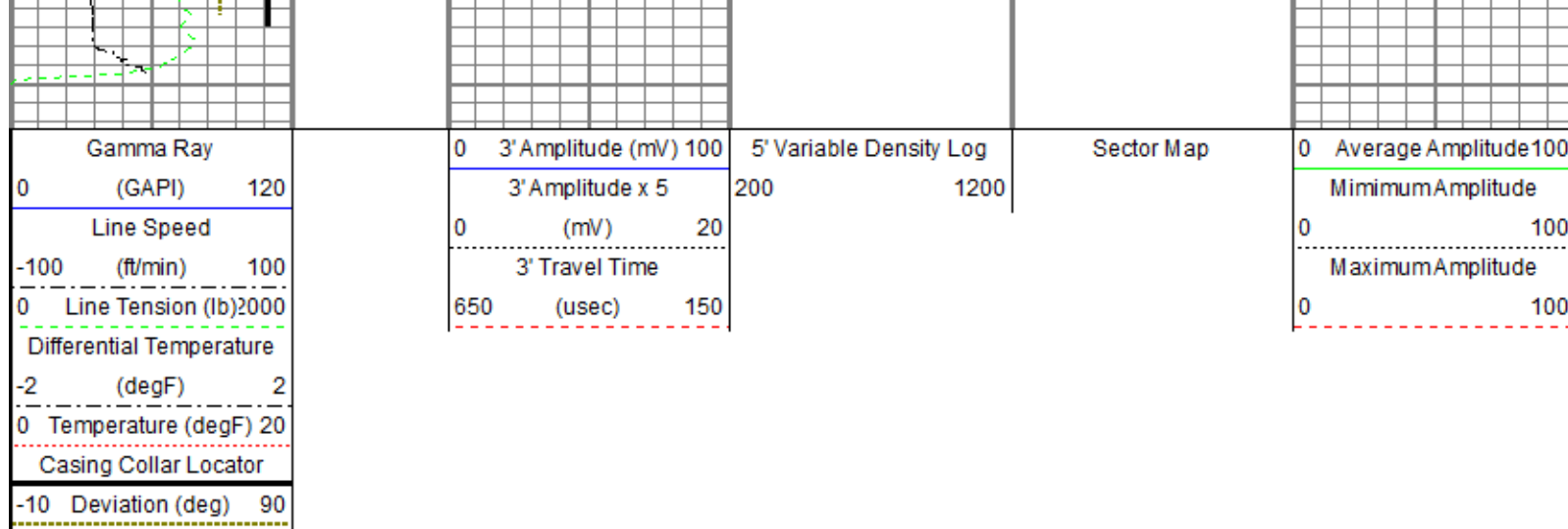
7500

233.8

7600



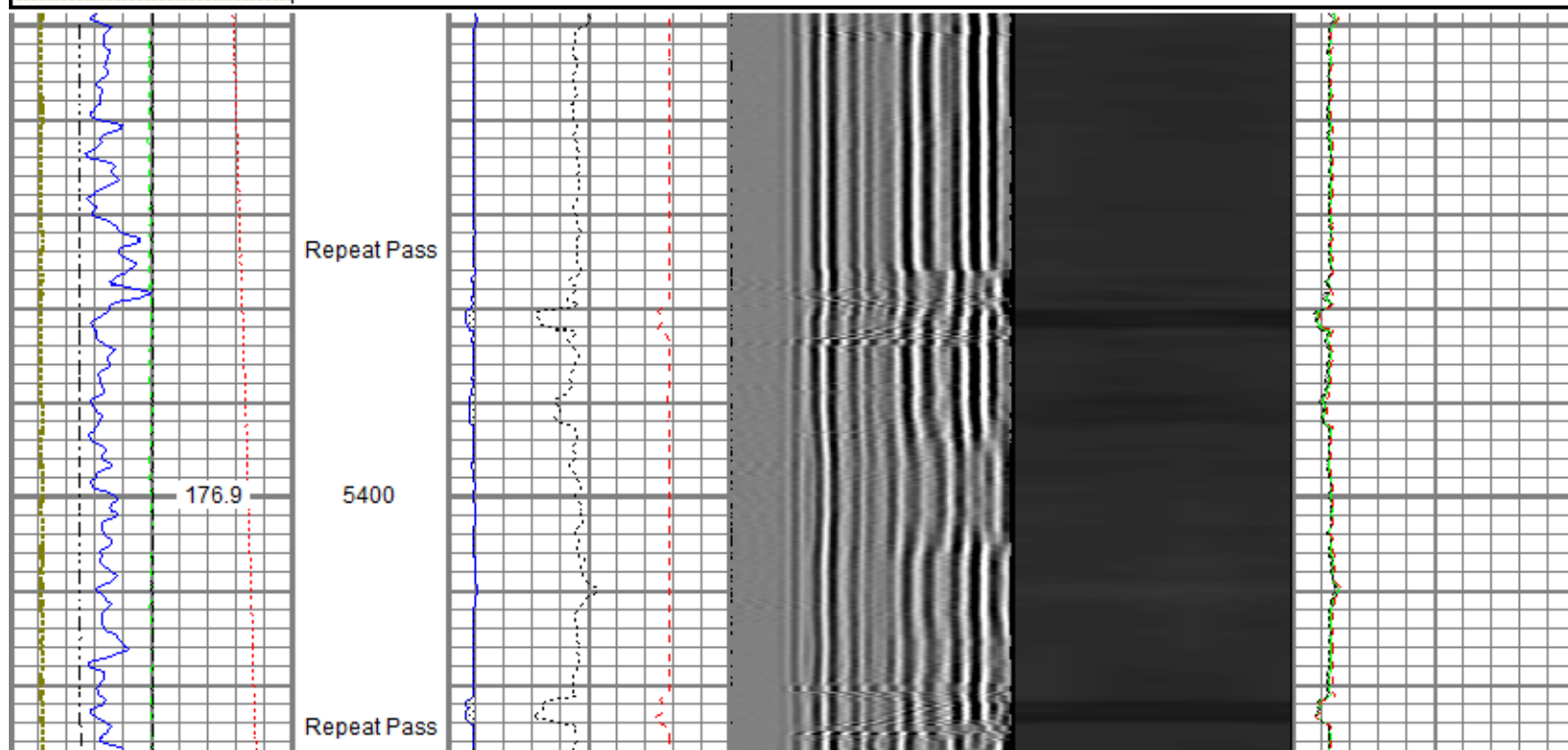
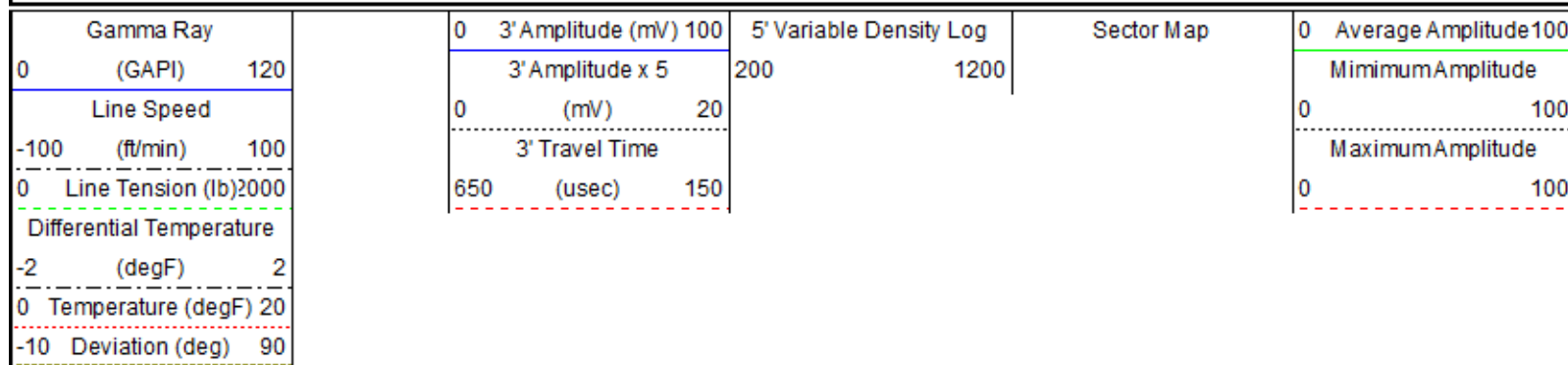


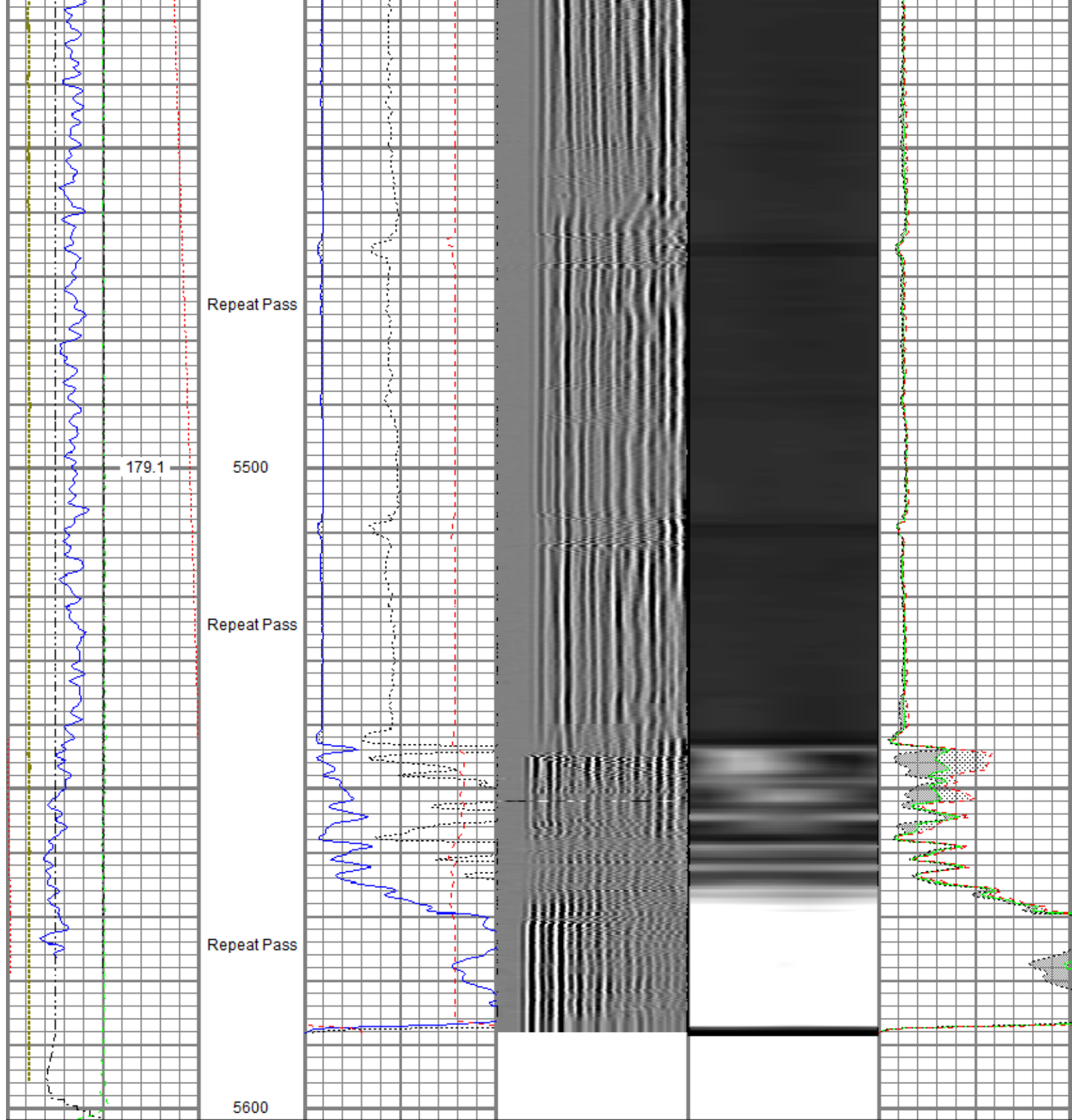


Repeat Pass

Recorded With 2800 PSI Surface Induced Pressure

Database File anadarko_yellowhammer 34n-17hz\0512345493_anadarko_yellowhammer 34n-17hz_rbl_02-18-18.db
 Dataset Pathname pass9
 Presentation Format ros_rbt_mit_sx
 Dataset Creation Sat Feb 17 14:18:58 2018
 Charted by Depth in Feet scaled 1:240





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

Calibration Report							
Database File	C:\ProgramData\Warrior\Data\Anadarko_Yellowhammer 34N-17HZ\0512345493_Anadarko_Yellowhammer 34N-17HZ_RBL_02						
Dataset Pathname	calreport						
Dataset Creation	Sat Feb 17 18:30:05 2018						
Multifinger Imaging Tool Calibration Report							
		Serial Number:		10014703			
		Number of Fingers:		40			
		Tool Model:		40 042 E			
Inclinometer Calibration Report							
		Performed:		Fri Sep 20 11:47:48 2013			
		Calibration Angle:		45			
				Inc X		Inc Y	
Vertical:				1963		1960	
Finger 1 up:				1748		1727	
Finger 31 up:				2195		1742	
Finger 21 up:				2178		2188	
Finger 11 up:				1727		2173	
Sensitivity ratio:		1.00706					
X-axis angle:		132.825					
Deviation const.:		317.775					
Finger Calibration Report							
		Performed:		Sat Feb 17 13:23:14 2018			
Ring size:	4		5		6		7
(in)		Sens		Sens		Sens	
Finger 01:	1110	383.0	1493	388.0	1881	407.0	2288
Finger 02:	1053	384.0	1437	401.0	1838	430.0	2268
Finger 03:	1063	366.0	1429	389.0	1818	419.0	2237
Finger 04:	1010	373.0	1383	412.0	1795	445.0	2240
Finger 05:	1058	354.0	1412	385.0	1797	410.0	2207
Finger 06:	1047	360.0	1407	400.0	1807	430.0	2237
Finger 07:	1063	353.0	1416	390.0	1806	424.0	2230
Finger 08:	1037	356.0	1393	403.0	1796	438.0	2234
Finger 09:	1127	356.0	1483	395.0	1878	411.0	2289
Finger 10:	1078	348.0	1426	394.0	1820	420.0	2240
Finger 11:	1051	346.0	1397	396.0	1793	432.0	2225
Finger 12:	1150	342.0	1492	372.0	1864	386.0	2250
Finger 13:	1112	344.0	1456	398.0	1854	419.0	2273
Finger 14:	1062	357.0	1419	408.0	1827	433.0	2260
Finger 15:	1025	350.0	1375	409.0	1784	436.0	2220
Finger 16:	1078	351.0	1429	397.0	1826	418.0	2244
Finger 17:	1102	345.0	1447	388.0	1835	399.0	2234
Finger 18:	1131	355.0	1486	384.0	1870	401.0	2271
Finger 19:	1095	366.0	1461	397.0	1858	410.0	2268
Finger 20:	986	366.0	1352	404.0	1756	425.0	2181
Finger 21:	1061	363.0	1424	387.0	1811	408.0	2219
Finger 22:	1059	375.0	1434	393.0	1827	409.0	2236
Finger 23:	1080	379.0	1459	393.0	1852	408.0	2260
Finger 24:	1057	356.0	1413	363.0	1776	380.0	2156
Finger 25:	1057	393.0	1450	398.0	1848	409.0	2257
Finger 26:	1010	379.0	1389	387.0	1776	404.0	2180
Finger 27:	1175	415.0	1590	391.0	1981	398.0	2379
Finger 28:	1037	376.0	1413	375.0	1788	395.0	2183
Finger 29:	1018	395.0	1413	393.0	1806	412.0	2218
Finger 30:	982	394.0	1376	397.0	1773	417.0	2190
Finger 31:	1187	427.0	1614	405.0	2019	418.0	2437
Finger 32:	969	390.0	1359	382.0	1741	396.0	2137
Finger 33:	1065	419.0	1484	410.0	1894	427.0	2321
Finger 34:	948	389.0	1337	388.0	1725	412.0	2137
Finger 35:	1098	418.0	1516	409.0	1925	426.0	2351
Finger 36:	1015	379.0	1394	370.0	1764	396.0	2160
Finger 37:	1097	413.0	1510	407.0	1917	428.0	2345
Finger 38:	1079	388.0	1467	382.0	1849	404.0	2253
Finger 39:	1069	380.0	1449	369.0	1818	400.0	2218
Finger 40:	979	397.0	1376	415.0	1791	446.0	2237

Ring size: (in)	4	Nom. wear	5	Nom. wear	6	Nom. wear	7	Nom. wear
Finger 01:	4.000	0.000	5.025	0.013	6.015	0.008	7.014	0.007
Finger 02:	3.999	-0.001	5.011	0.006	6.002	0.001	7.001	0.000
Finger 03:	3.996	-0.002	5.011	0.006	6.007	0.003	7.007	0.004
Finger 04:	3.995	-0.002	5.010	0.005	6.003	0.001	7.006	0.003
Finger 05:	3.997	-0.002	5.011	0.006	6.008	0.004	7.014	0.007
Finger 06:	3.999	-0.001	5.013	0.007	6.005	0.003	7.006	0.003
Finger 07:	3.993	-0.004	5.009	0.004	6.002	0.001	6.999	-0.000
Finger 08:	3.993	-0.004	5.004	0.002	6.001	0.000	7.005	0.002
Finger 09:	3.985	-0.007	5.011	0.006	6.007	0.003	7.006	0.003
Finger 10:	3.989	-0.006	5.011	0.006	6.008	0.004	7.003	0.002
Finger 11:	3.985	-0.007	5.006	0.003	5.997	-0.001	6.991	-0.005
Finger 12:	3.994	-0.003	5.005	0.002	6.008	0.004	7.008	0.004
Finger 13:	3.981	-0.009	5.007	0.004	6.001	0.001	7.005	0.002
Finger 14:	3.993	-0.003	5.006	0.003	6.008	0.004	6.998	-0.001
Finger 15:	3.982	-0.009	5.017	0.008	6.005	0.002	6.999	-0.000
Finger 16:	3.991	-0.004	5.007	0.004	6.006	0.003	7.001	0.001
Finger 17:	3.981	-0.009	5.025	0.012	5.993	-0.003	7.013	0.006
Finger 18:	3.997	-0.002	5.019	0.010	6.006	0.003	7.008	0.004
Finger 19:	3.996	-0.002	5.011	0.005	6.004	0.002	7.007	0.004
Finger 20:	4.001	0.001	5.010	0.005	6.008	0.004	7.004	0.002
Finger 21:	3.999	-0.001	5.006	0.003	6.002	0.001	7.003	0.001
Finger 22:	4.000	0.000	5.022	0.011	6.006	0.003	6.999	-0.000
Finger 23:	3.999	-0.001	5.012	0.006	6.007	0.004	7.005	0.003
Finger 24:	4.001	0.001	5.007	0.003	6.009	0.005	7.007	0.004
Finger 25:	4.002	0.001	5.009	0.005	6.010	0.005	7.005	0.003
Finger 26:	3.997	-0.001	5.020	0.010	6.009	0.004	7.007	0.004
Finger 27:	3.978	-0.011	4.989	-0.006	5.990	-0.005	6.997	-0.002
Finger 28:	3.992	-0.004	4.994	-0.003	5.987	-0.007	6.987	-0.007
Finger 29:	3.988	-0.006	5.009	0.004	6.006	0.003	7.006	0.003
Finger 30:	3.987	-0.007	5.016	0.008	6.007	0.003	7.007	0.003
Finger 31:	3.989	-0.005	5.014	0.007	6.008	0.004	7.008	0.004
Finger 32:	3.984	-0.008	5.016	0.008	6.005	0.002	7.009	0.004
Finger 33:	3.989	-0.006	5.015	0.007	6.005	0.003	7.004	0.002
Finger 34:	3.990	-0.005	5.015	0.008	6.005	0.002	7.006	0.003
Finger 35:	3.992	-0.004	5.020	0.010	6.015	0.007	7.009	0.004
Finger 36:	3.985	-0.007	5.004	0.002	6.006	0.003	7.008	0.004
Finger 37:	3.991	-0.004	5.017	0.009	6.006	0.003	7.005	0.003
Finger 38:	3.996	-0.002	5.009	0.005	6.004	0.002	7.007	0.004
Finger 39:	3.989	-0.005	4.989	-0.005	5.982	-0.009	6.970	-0.015
Finger 40:	4.001	0.000	5.012	0.006	6.004	0.002	7.002	0.001
Average:	3.992	-0.004	5.011	0.005	6.004	0.002	7.004	0.002

Segmented Cement Bond Log Calibration Report

Serial Number: 10013454

Tool Model: 004

Calibration Casing Diameter: 7.000 in

Calibration Depth: -23.563 ft

Master Calibration, performed Sat Feb 17 13:20:02 2018:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3FT	0.004	0.773	0.800	62.165	79.765	0.508
5FT	-0.002	0.768	0.800	62.165	79.625	0.994
S1	0.002	0.769	0.000	100.000	130.421	-0.314
S2	0.002	0.788	0.000	100.000	127.244	-0.242
S3	0.002	0.788	0.000	100.000	127.377	-0.311
S4	0.002	0.788	0.000	100.000	127.241	-0.309
S5	0.002	0.776	0.000	100.000	129.232	-0.316
S6	0.001	0.765	0.000	100.000	130.868	-0.165
S7	0.001	0.750	0.000	100.000	133.531	-0.192
S8	0.002	0.755	0.000	100.000	132.799	-0.258

Temperature Calibration Report

Serial Number: 10025100
 Tool Model: 016
 Performed: Sun Nov 12 14:30:03 2017

Point #	Reading		Reference	
1	13249.00	cps	68.00	degF
2	18454.00	cps	104.00	degF
3	29735.00	cps	176.00	degF
4	41457.00	cps	248.00	degF
5	52851.00	cps	320.00	degF
6	59128.00	cps	356.00	degF
7		cps		degF
8		cps		degF
9		cps		degF
10		cps		degF

Gamma Ray Calibration Report

Serial Number: 211727
 Tool Model: 020
 Performed: Sun Nov 12 06:37:04 2017

Calibrator Value: 637.0 GAPI

Background Reading: 78.8 cps
 Calibrator Reading: 1069.9 cps

Sensitivity: 0.6427 GAPI/cps



Company Kerr-McGee Oil & Gas Onshore, L.P.
Well Yellowhammer 34N-17HZ
Field Wattenberg
County Weld
State Colorado