



Radial Cement Bond
Gamma Ray
Casing Collar Log

Company Kerr-McGee Oil & Gas Onshore, L.P.		Company Kerr-McGee Oil & Gas Onshore, L.P.	
Well USA Fed 28N-36HZ		Well USA Fed 28N-36HZ	
Field Wattenberg		Field Wattenberg	
County Weld		County Weld	
State Colorado		State Colorado	
Location:		API # : 05-123-36846	
SHL: 664' FSL & 1931' FWL SESW Lat / Long: 40.176483 / -104.728084		Other Services Gauge Ring CIL	
SEC 36 TWP 3N RGE 66W		Elevation	
Permanent Datum		Ground Level	
Log Measured From		Kelly Bushing (13 FT)	
Drilling Measured From		Kelly Bushing	
Date		31-Aug-2013	
Run Number		One	
Depth Driller		11703 FT	
Depth Logger		6825 FT	
Bottom Logged Interval		6820 FT	
Top Log Interval		Surface	
Open Hole Size		8.750"	
Type Fluid		Water	
Density / Viscosity		8.34 lbm/gal	
Max. Recorded Temp.		240 degF	
Estimated Cement Top		33 FT	
Time Well Ready		13:30	
Time Logger on Bottom		14:30	
Equipment Number		HD-0119	
Location		Fort Lupton, CO.	
Recorded By		Sam Hopper	
Witnessed By		Rick Duntford	
Borehole Record		Tubing Record	
Run Number		Bit	
		From	
		To	
		Size	
		Weight	
		From	
		To	
Casing Record		Size (in)	
Surface Casing		9-5/8"	
Intermediate #1		7"	
Intermediate #2		4-1/2"	
Liner		4-1/2"	
		Wgt (lbs/ft)	
		36#	
		Grade	
		J-55	
		HCP-110	
		Surface	
		7713 FT	
		P-110	
		6745 FT	
		11688 FT	

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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

Radial Cement Bond Log - Casing Inspection Log is first recorded log in hole.
Depth reference to Casing Tally reported Top of Liner at 6745'.
Adjusted -13.5' to Top of Liner at 6745' from a 13' KB zero.
RCBL-CIL ran with 2500 PSI surface induced pressure.
Estimated Cement Top recorded at 33'.

Thank you for choosing FMC Technologies Completion Services!!



Main Pass

Recorded with 2500 PSI surface induced pressure.

Database File:anadarko_usa fed 28n-36hz_rcbl_cil_31-aug-2013_w7.db

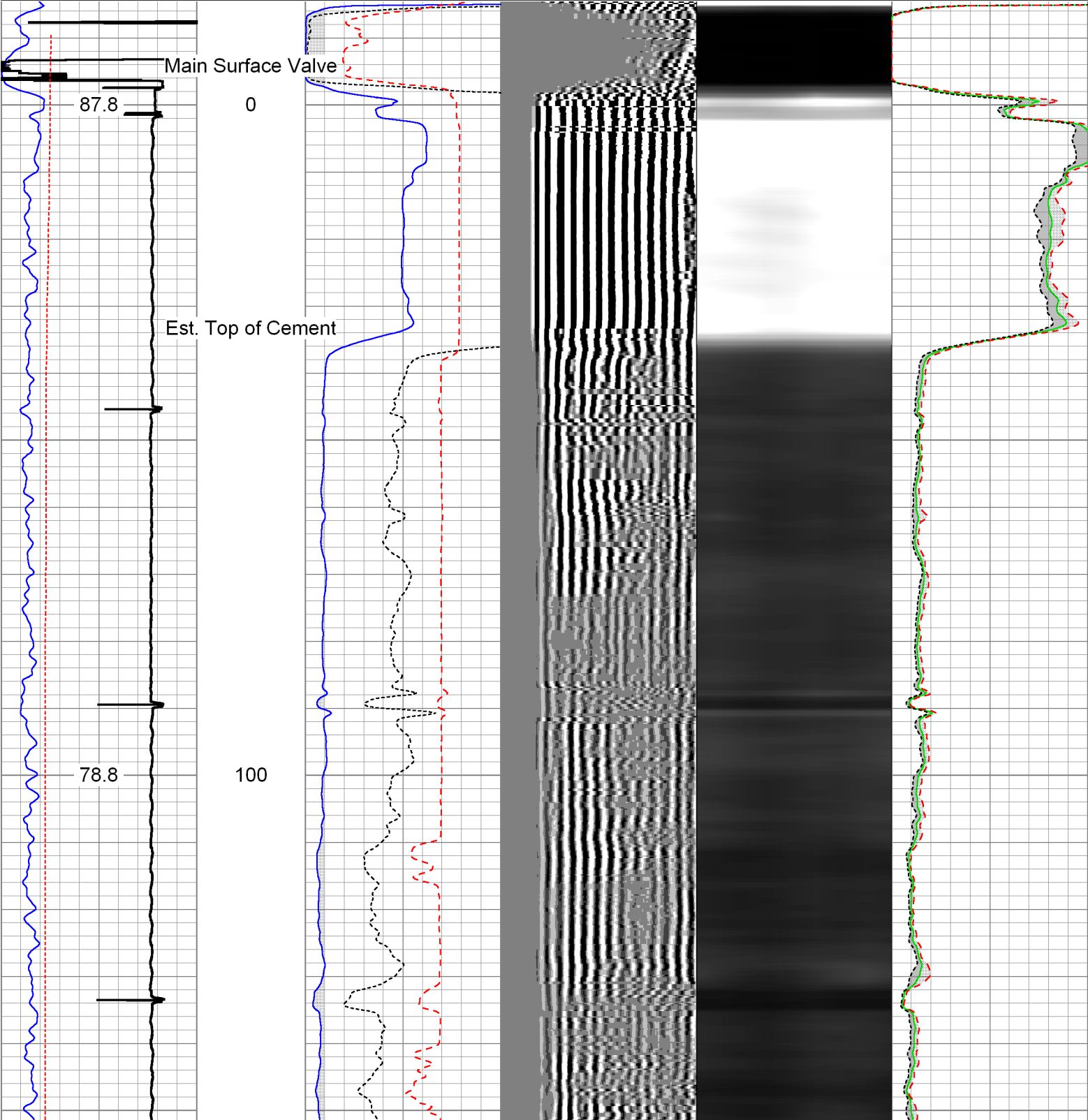
Dataset Pathname:main

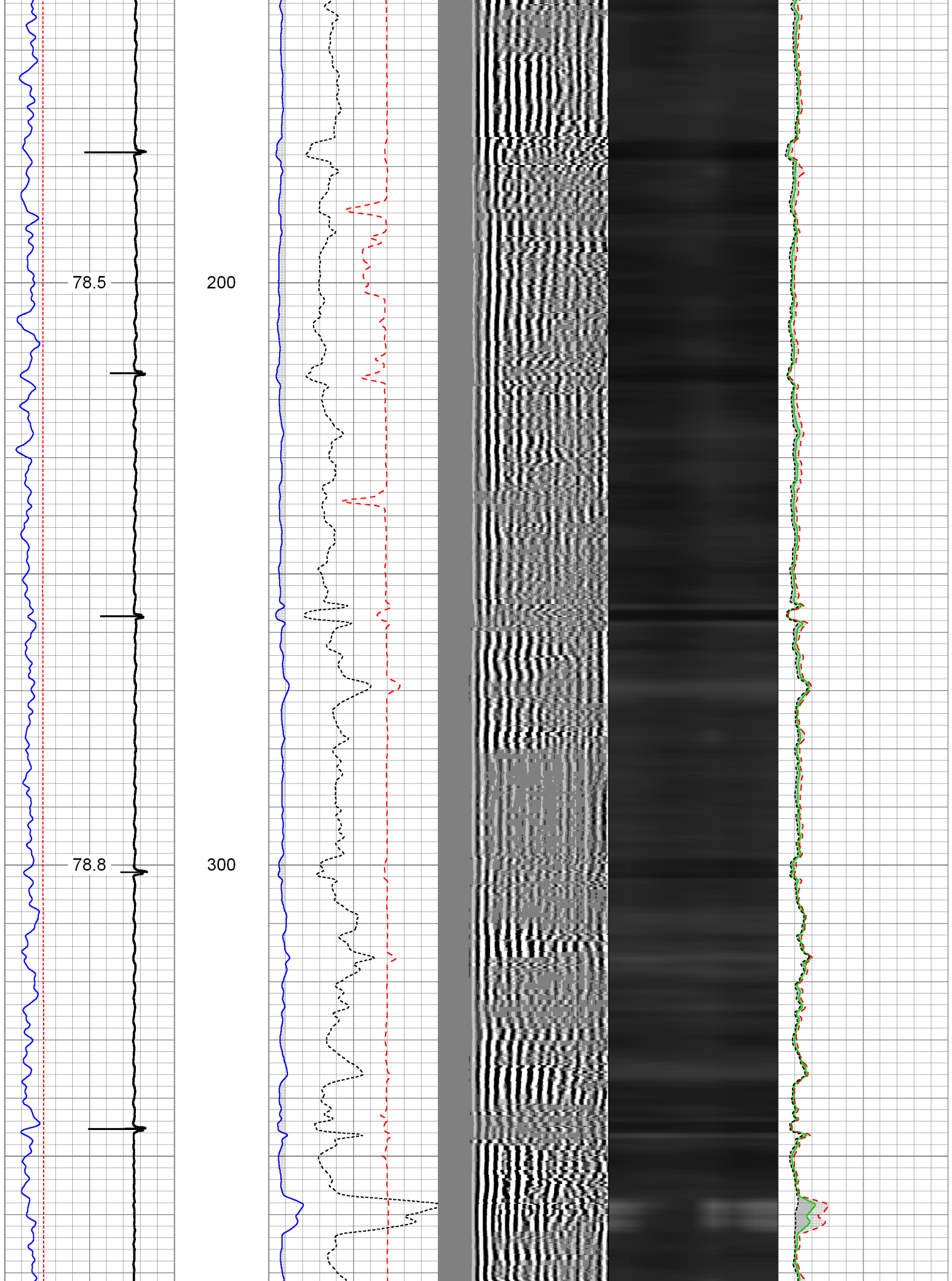
Presentation Format:7 rib

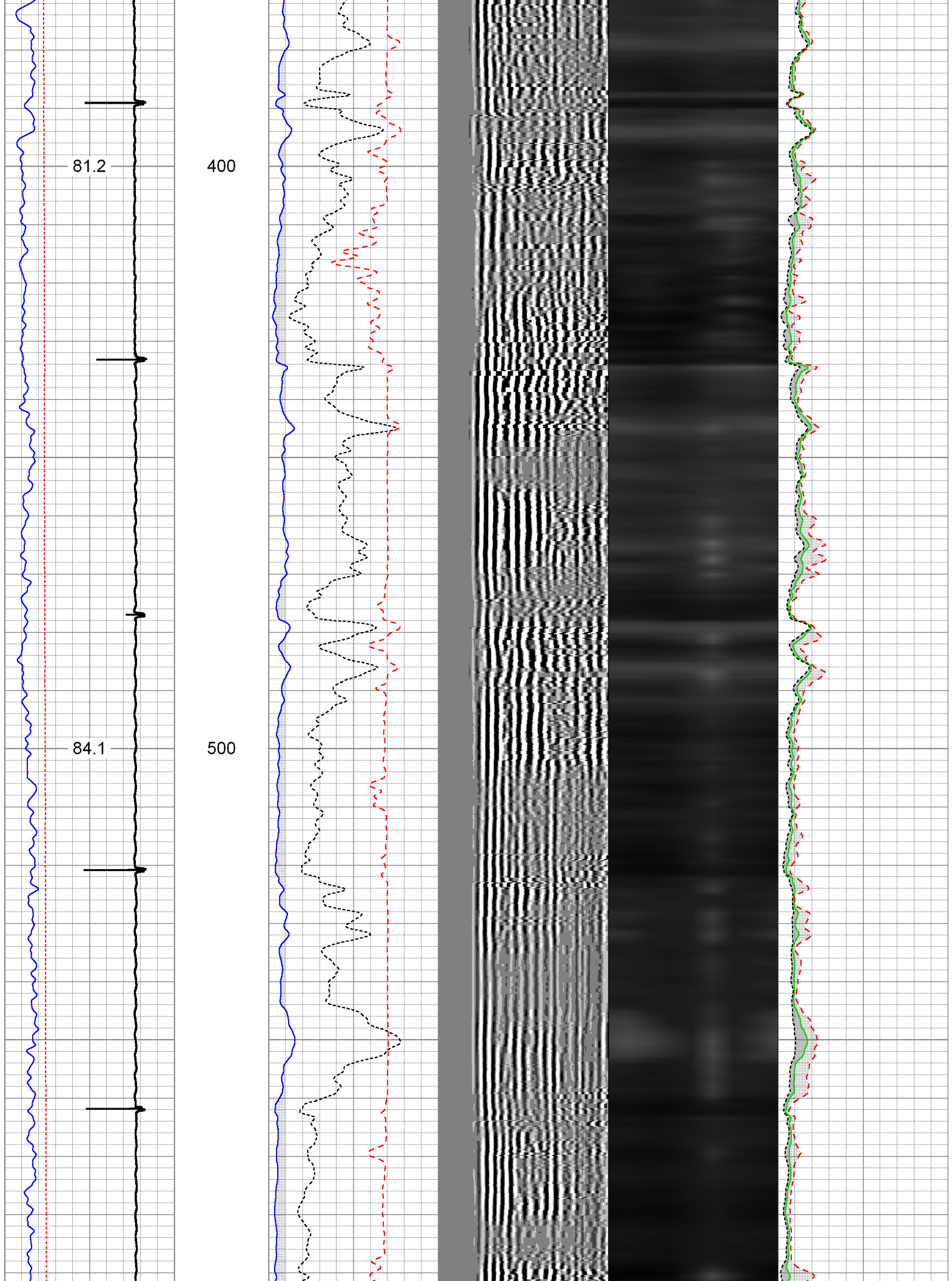
Dataset Creation:Sat Aug 31 14:33:50 2013 by Log Sondex V7.03

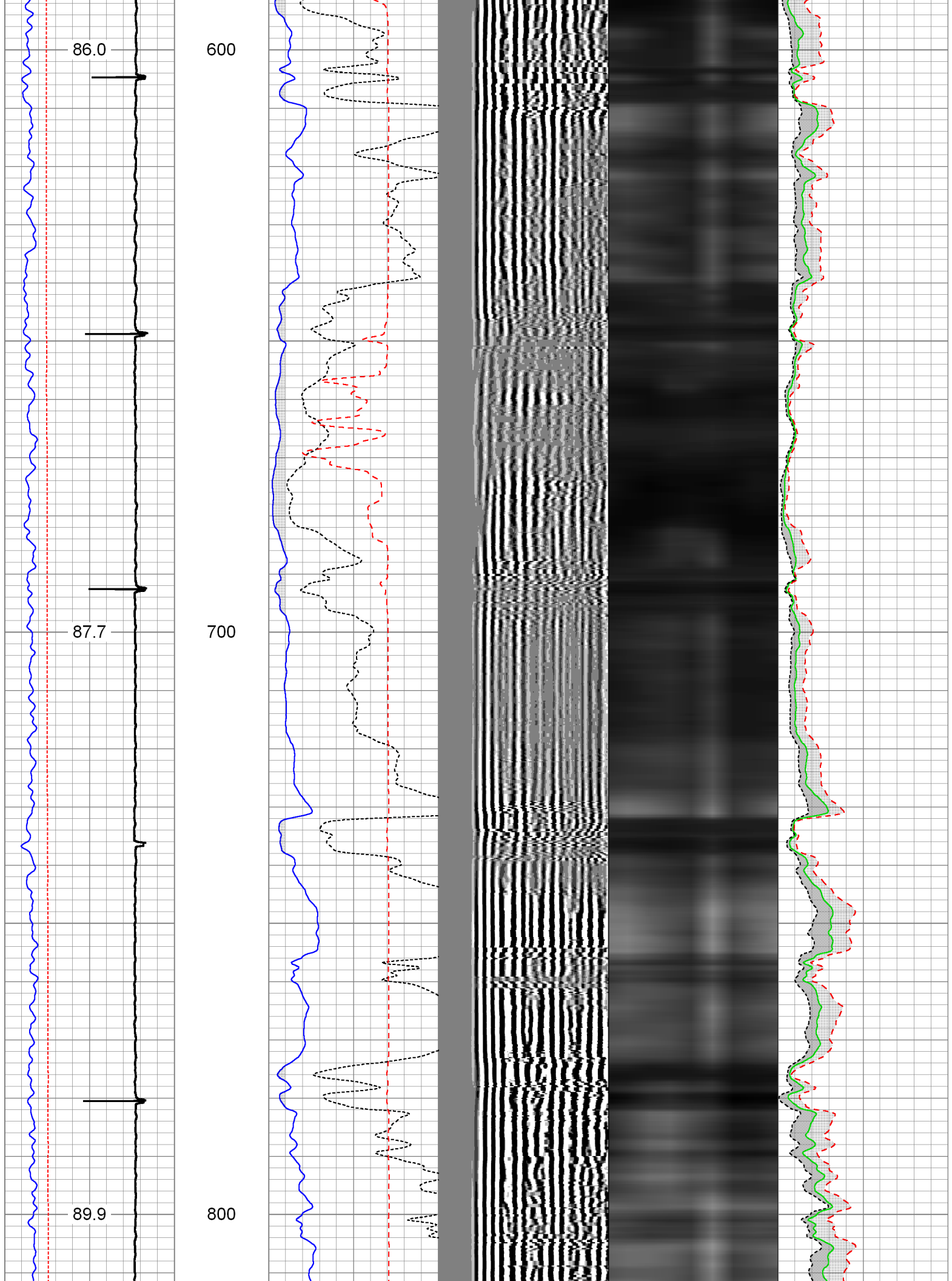
Charted by:Depth in Feet scaled 1:240

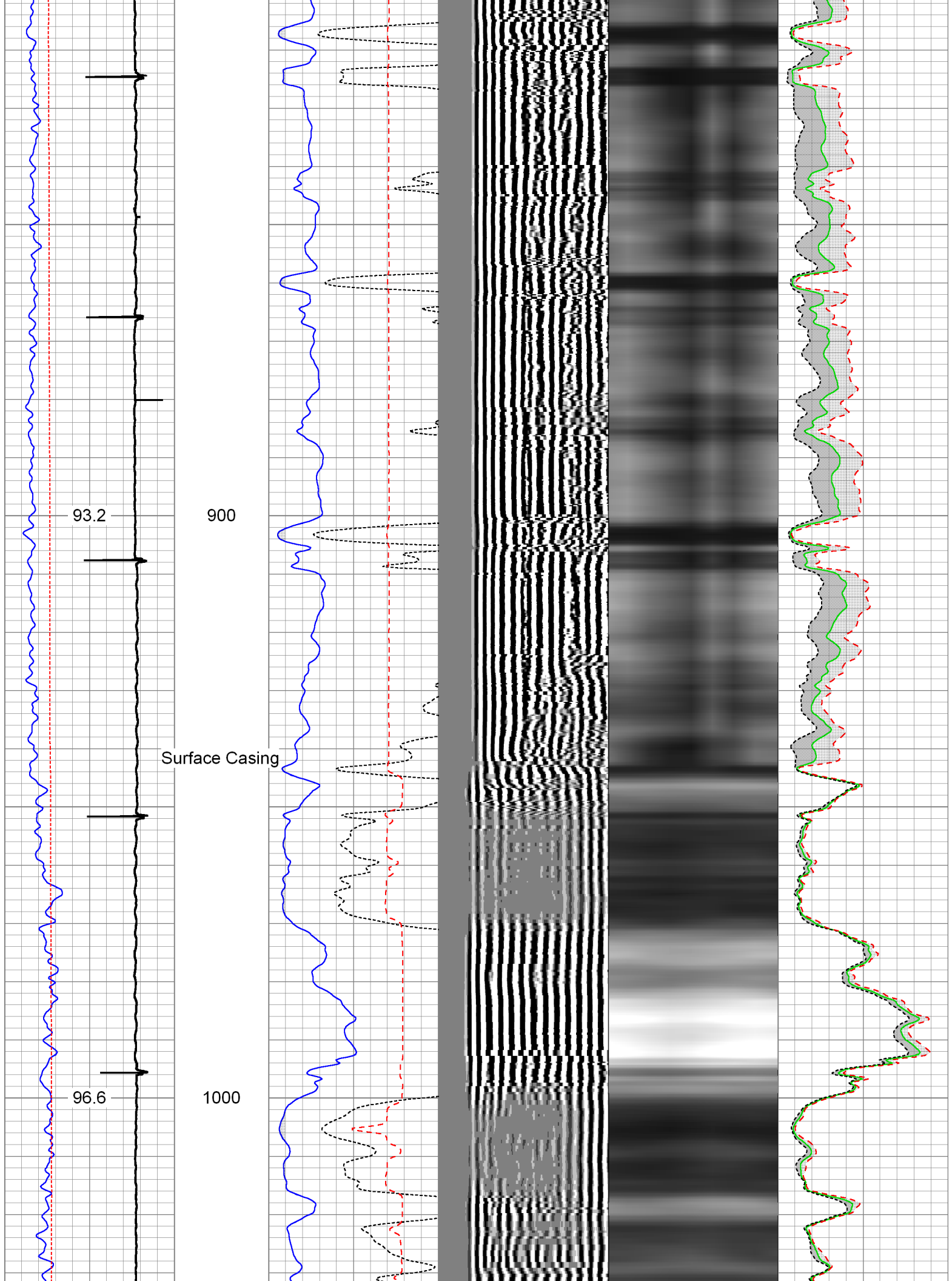
Gamma Ray	3' Amplitude	5' Variable Density Log	Sector Map	Average Amplitude
0 (GAPI) 150	0 (mV) 100	200 1200		0 100
Casing Collar	3' Amplitude x 5			Minimum Amplitude
Temperature	0 (mV) 20			0 100
0 (degF) 350	3' Travel Time			Maximum Amplitude
	650 (usec) 150			0 100

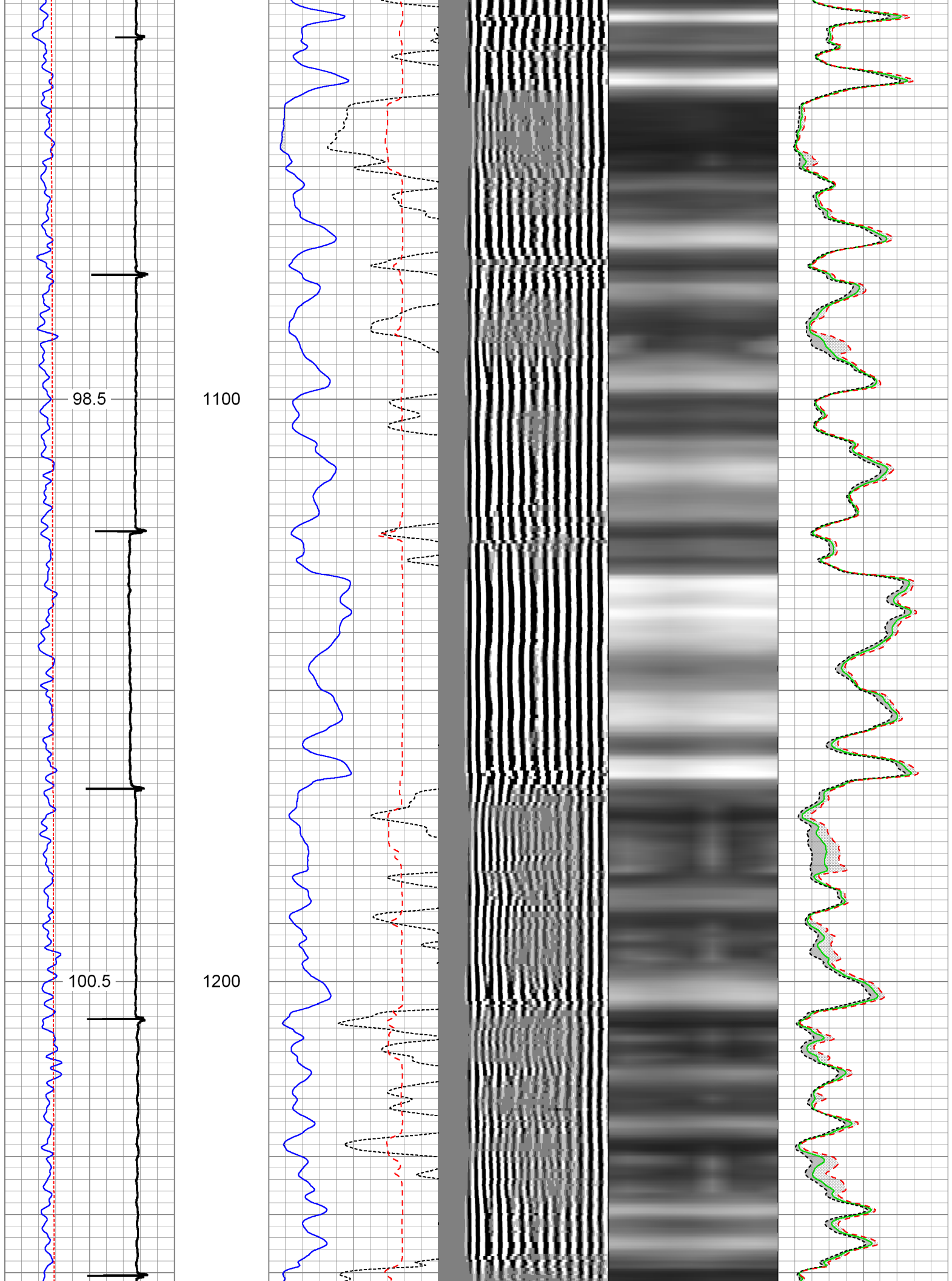


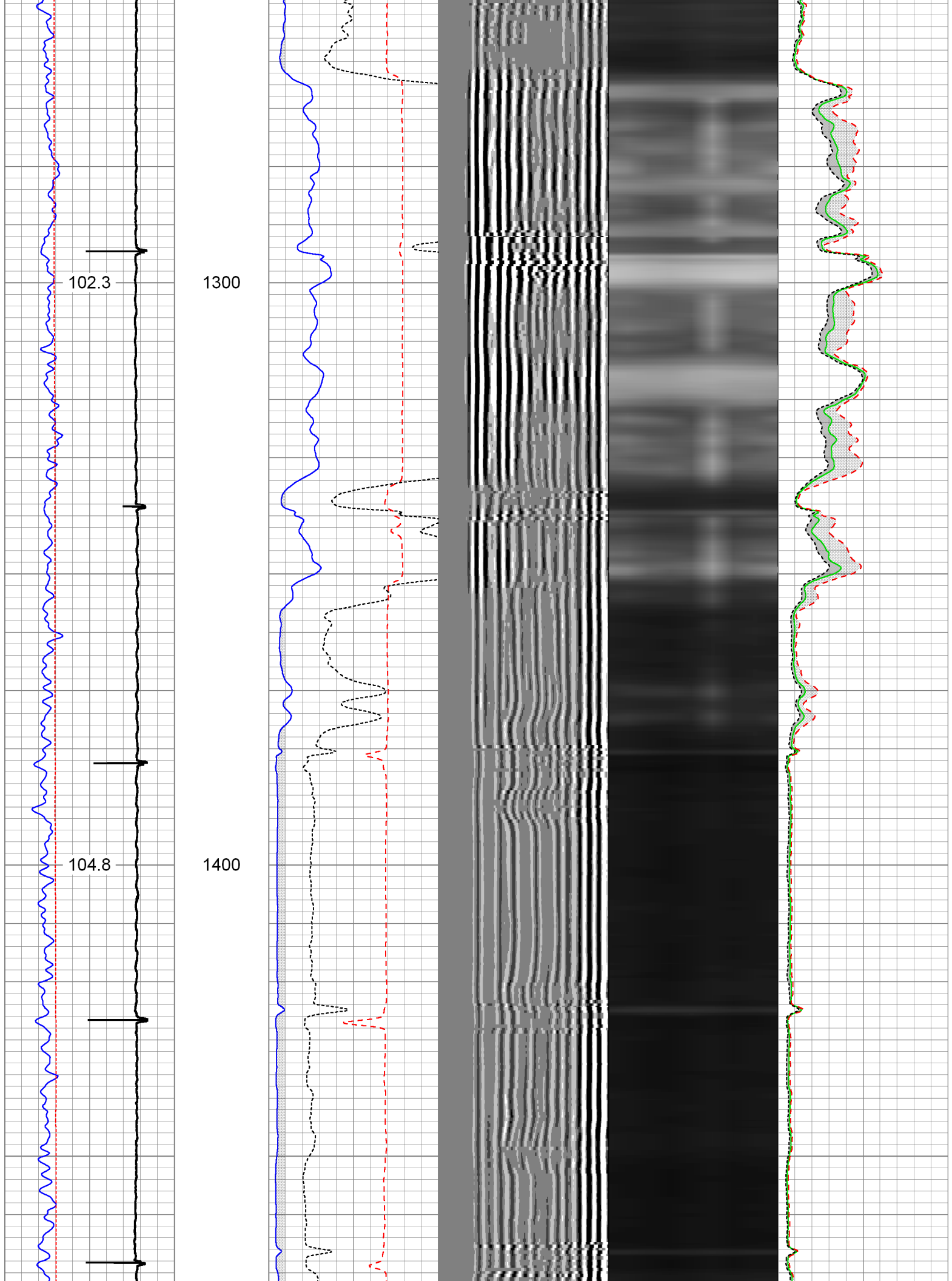


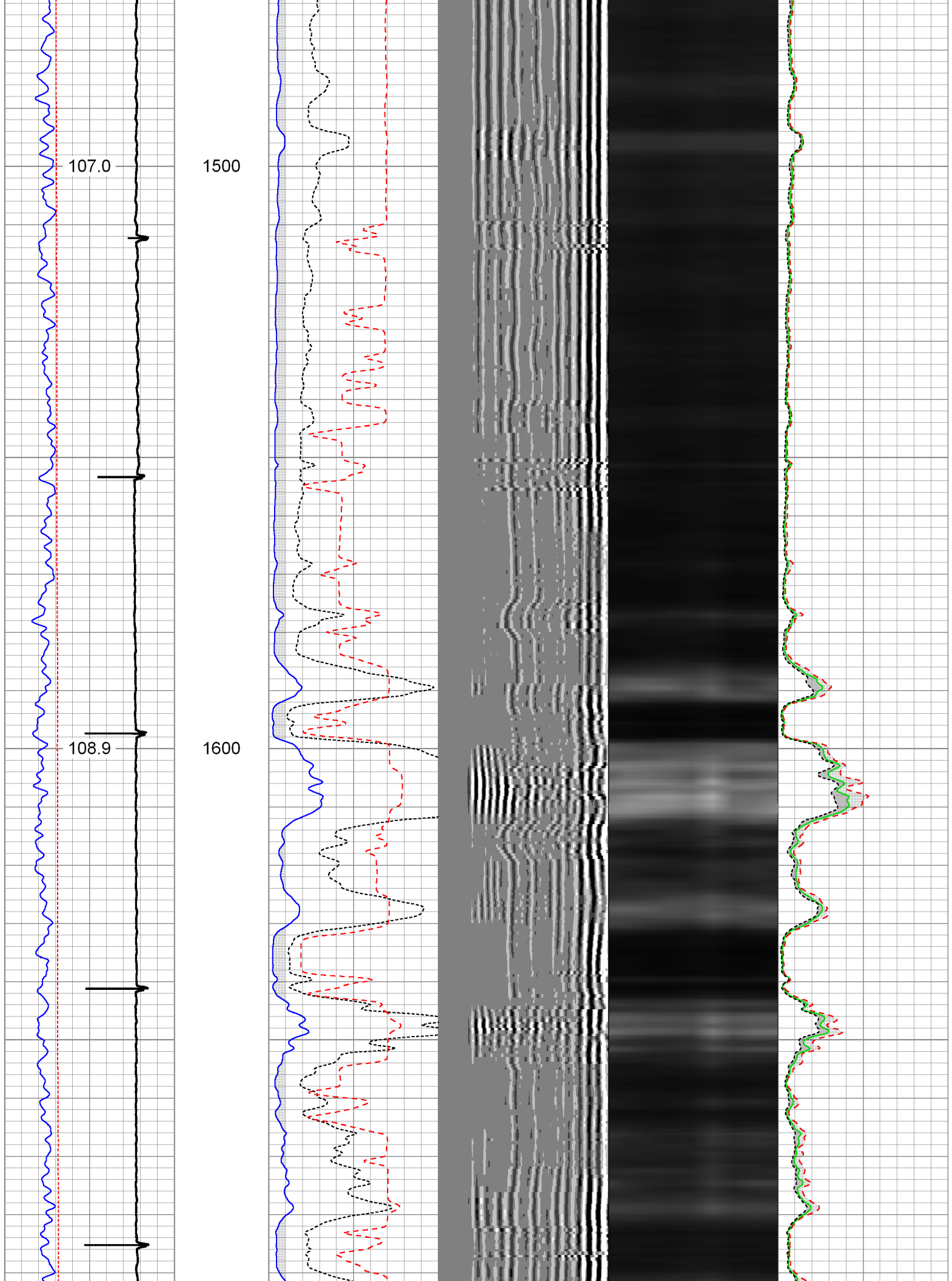


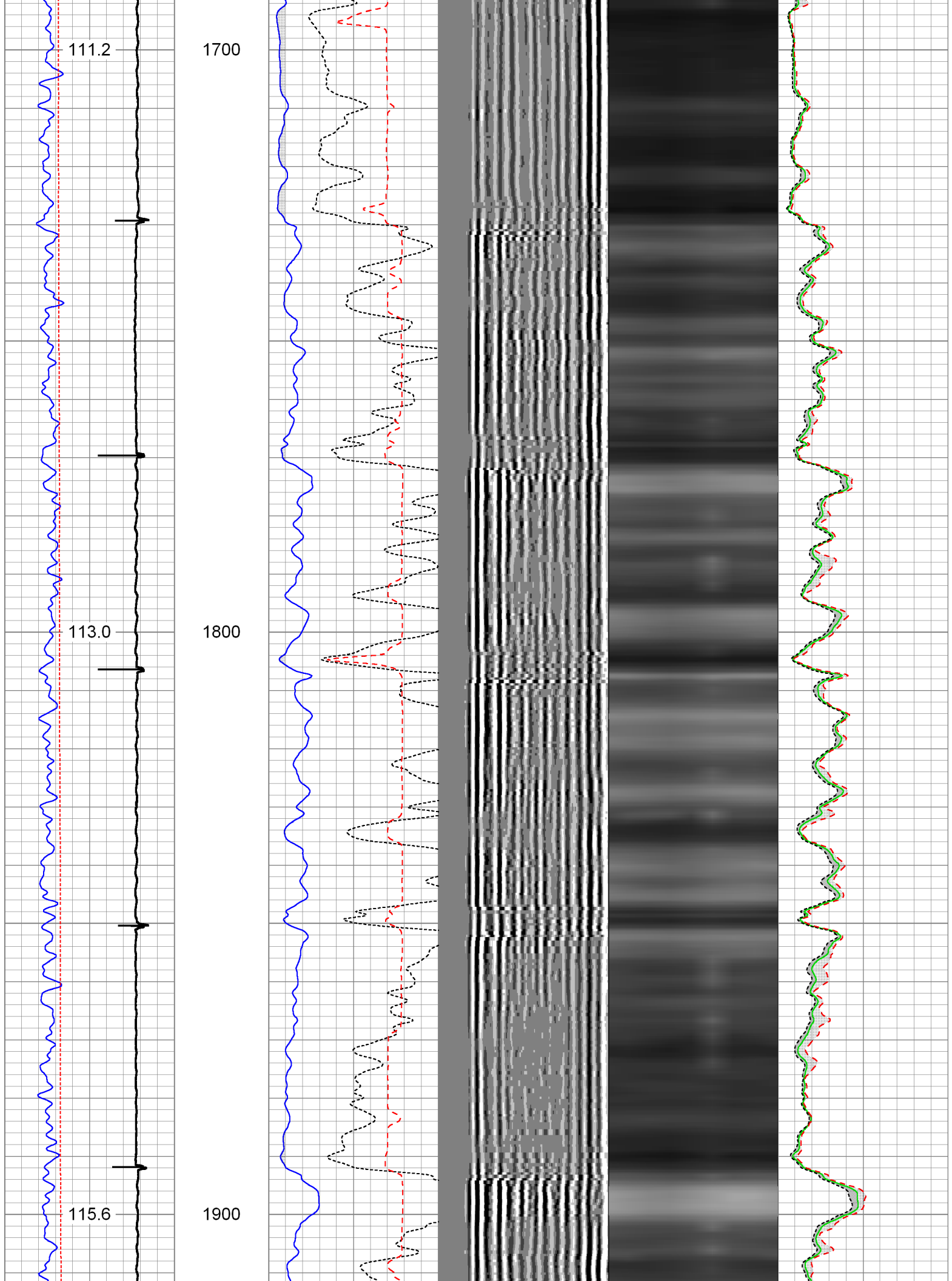


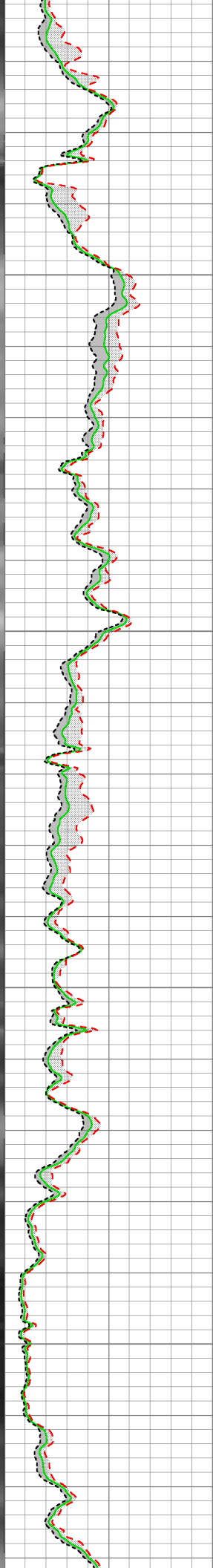
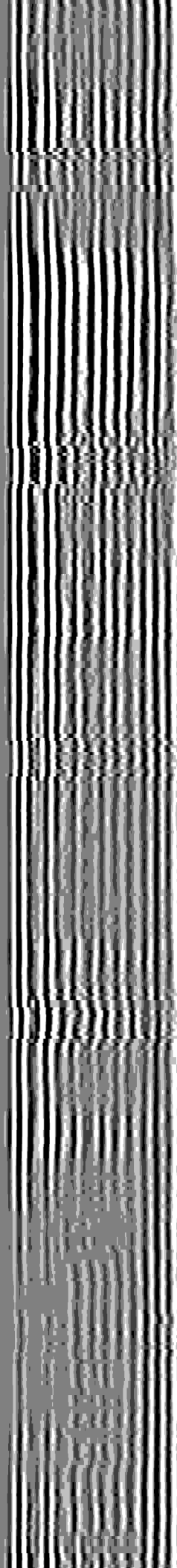
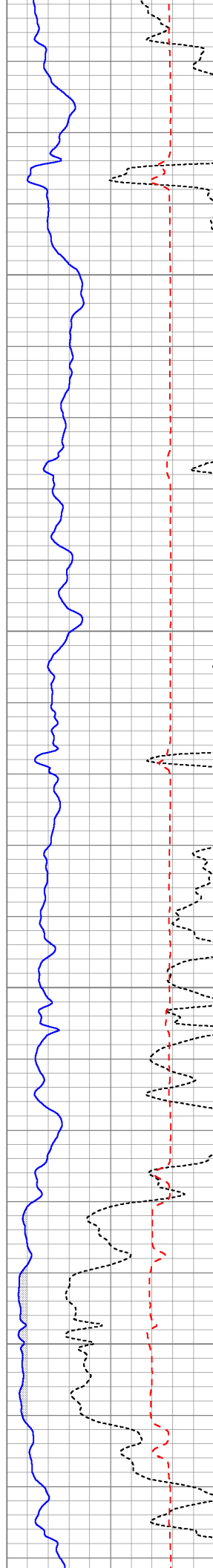
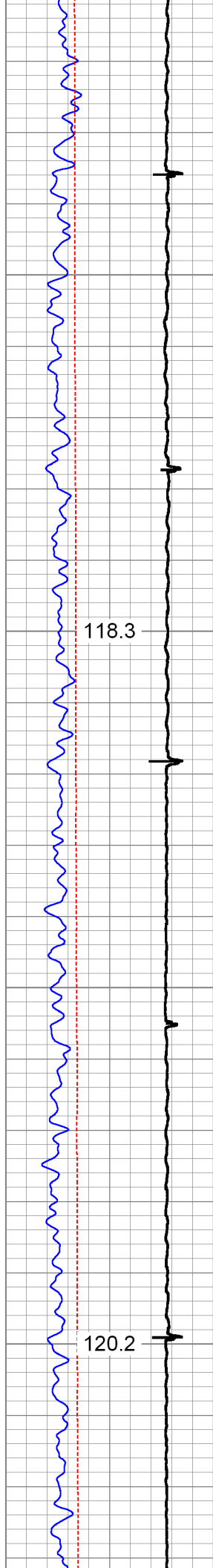


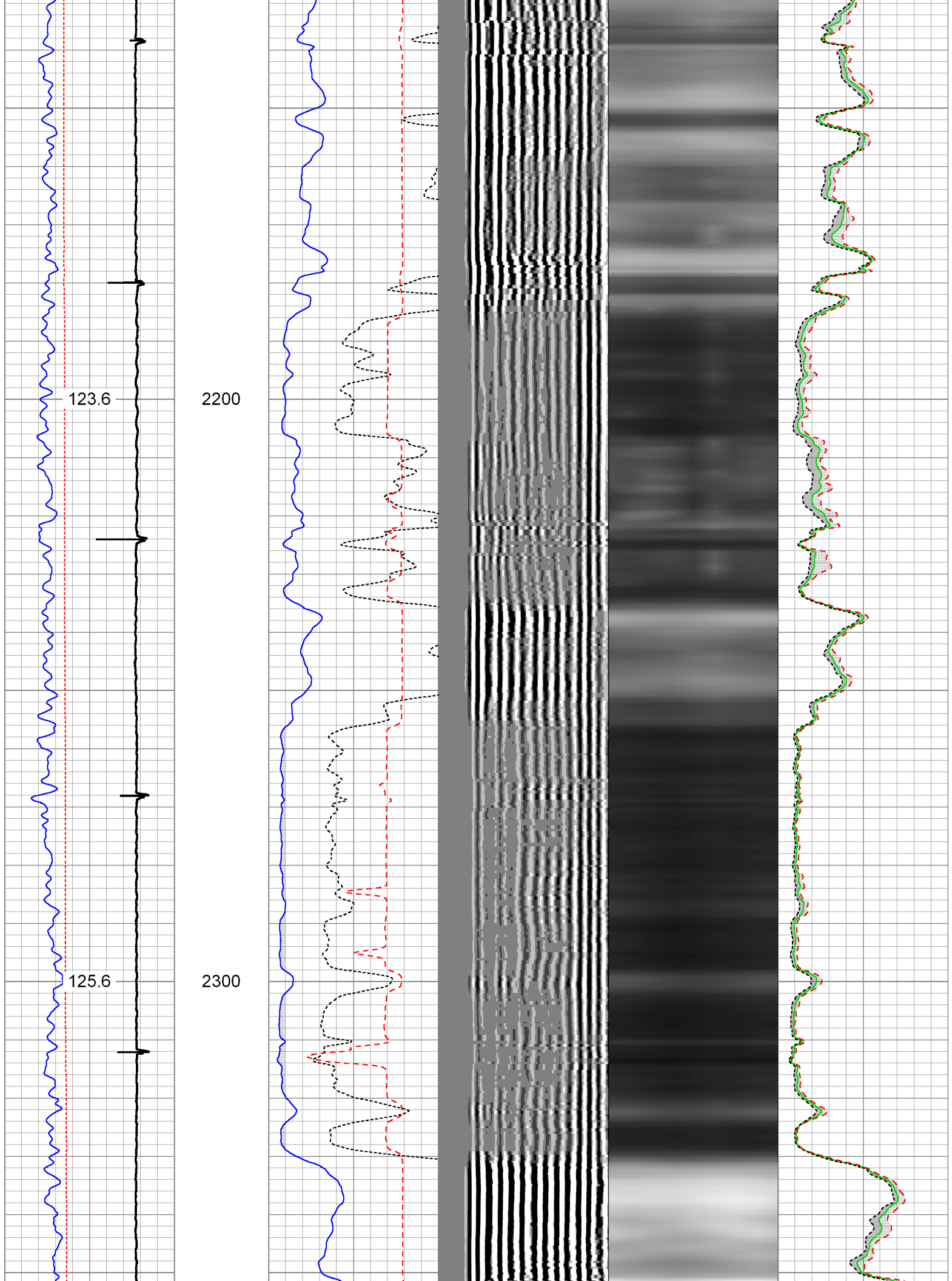


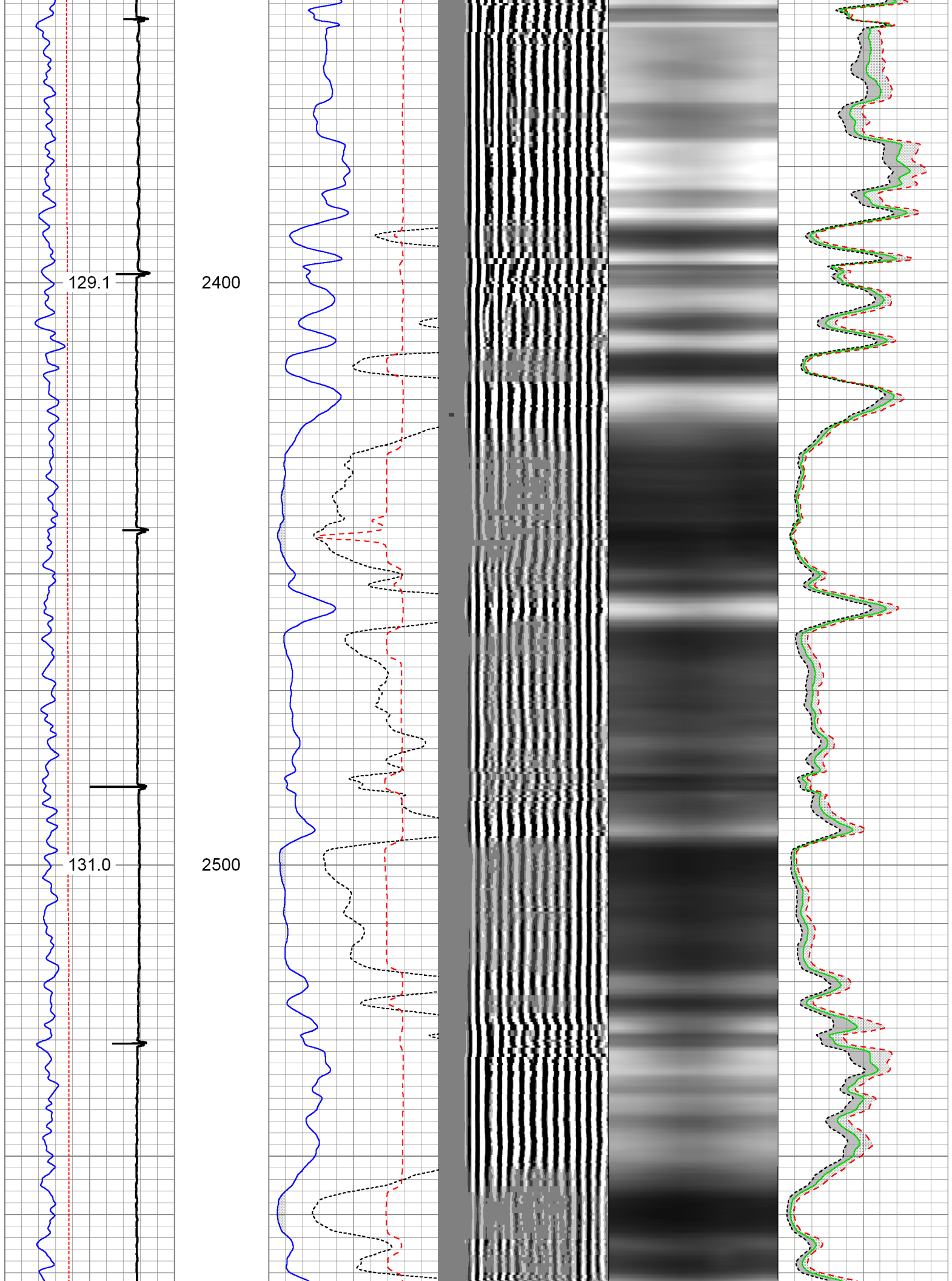


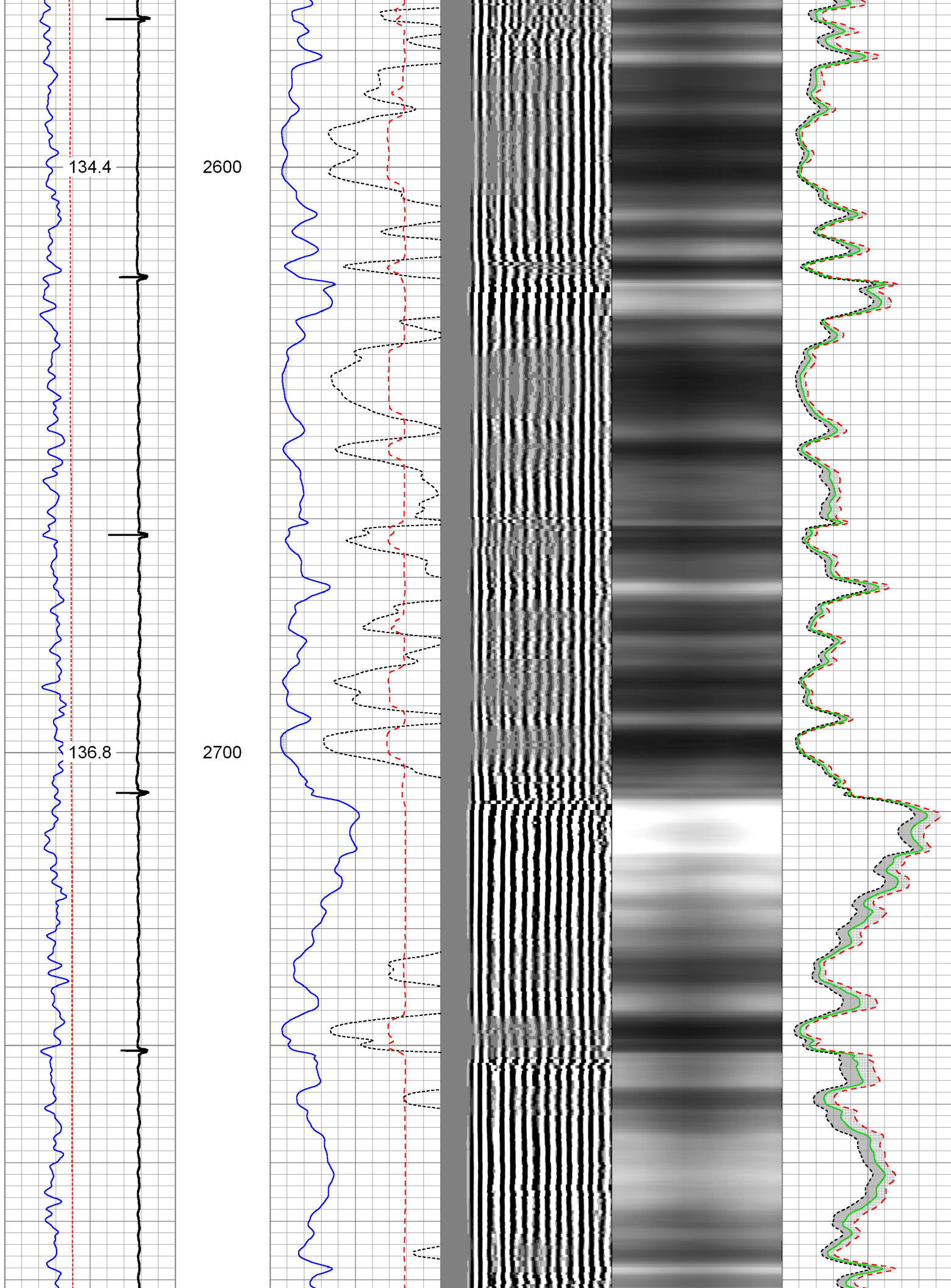


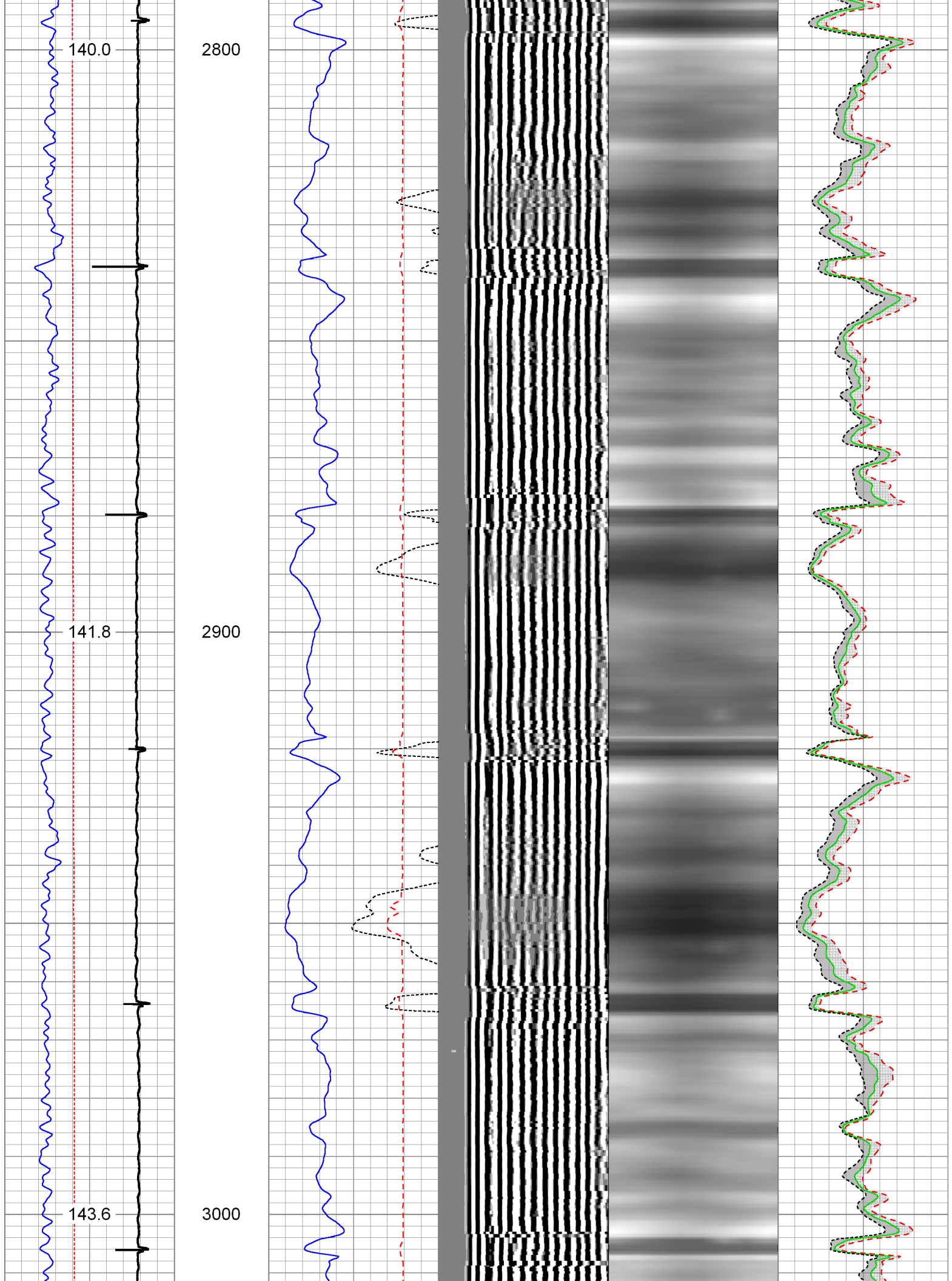


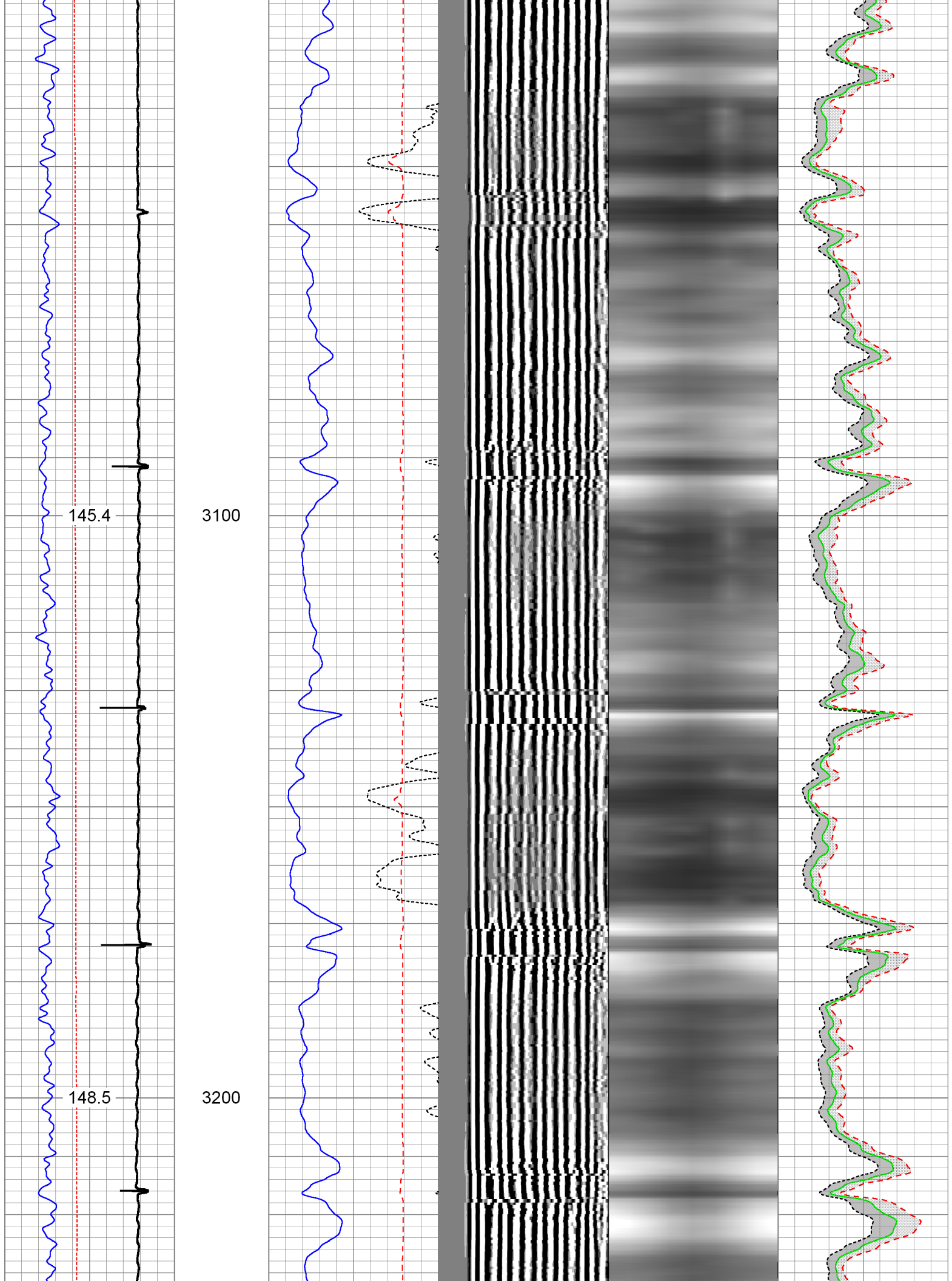


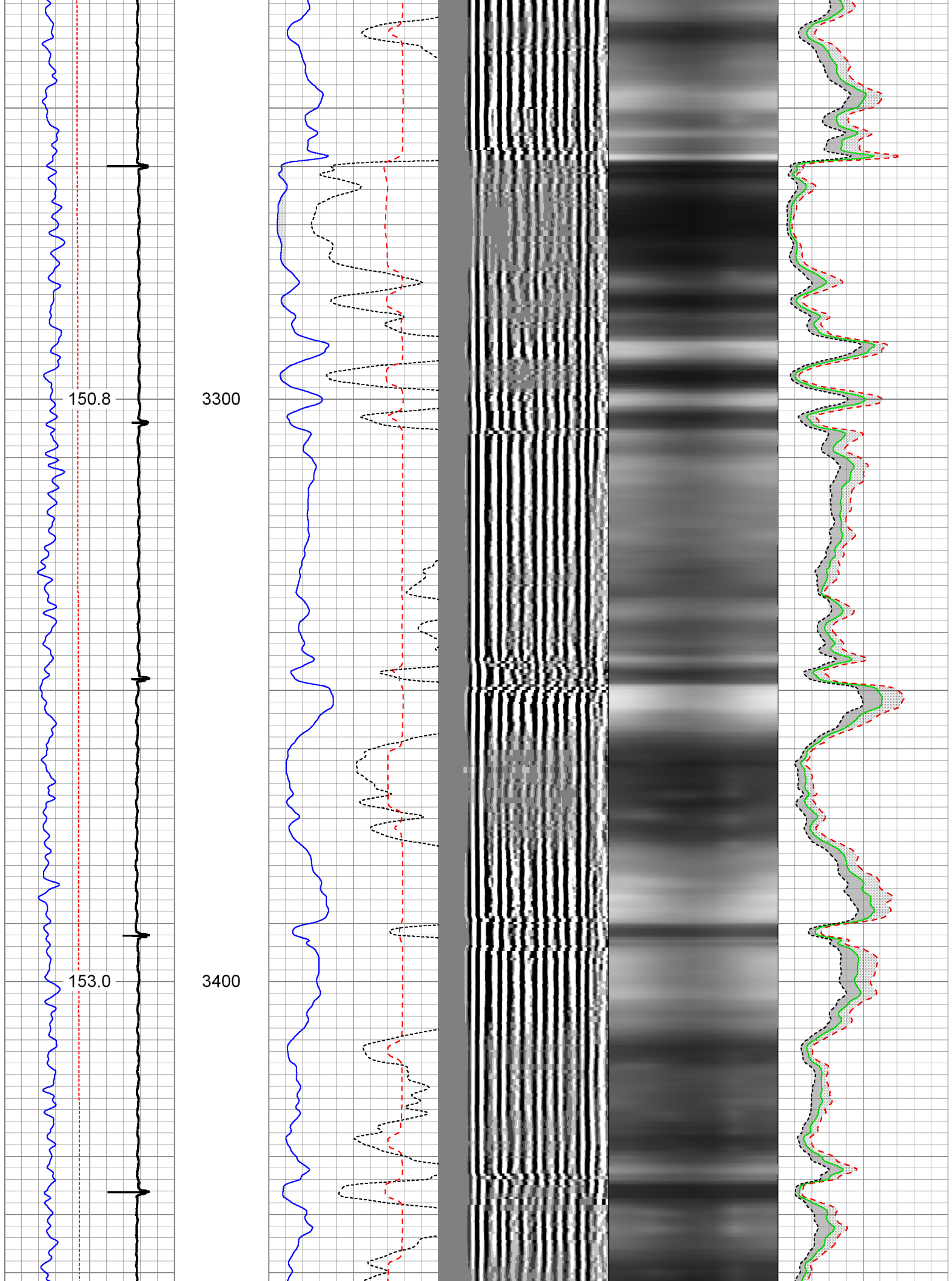


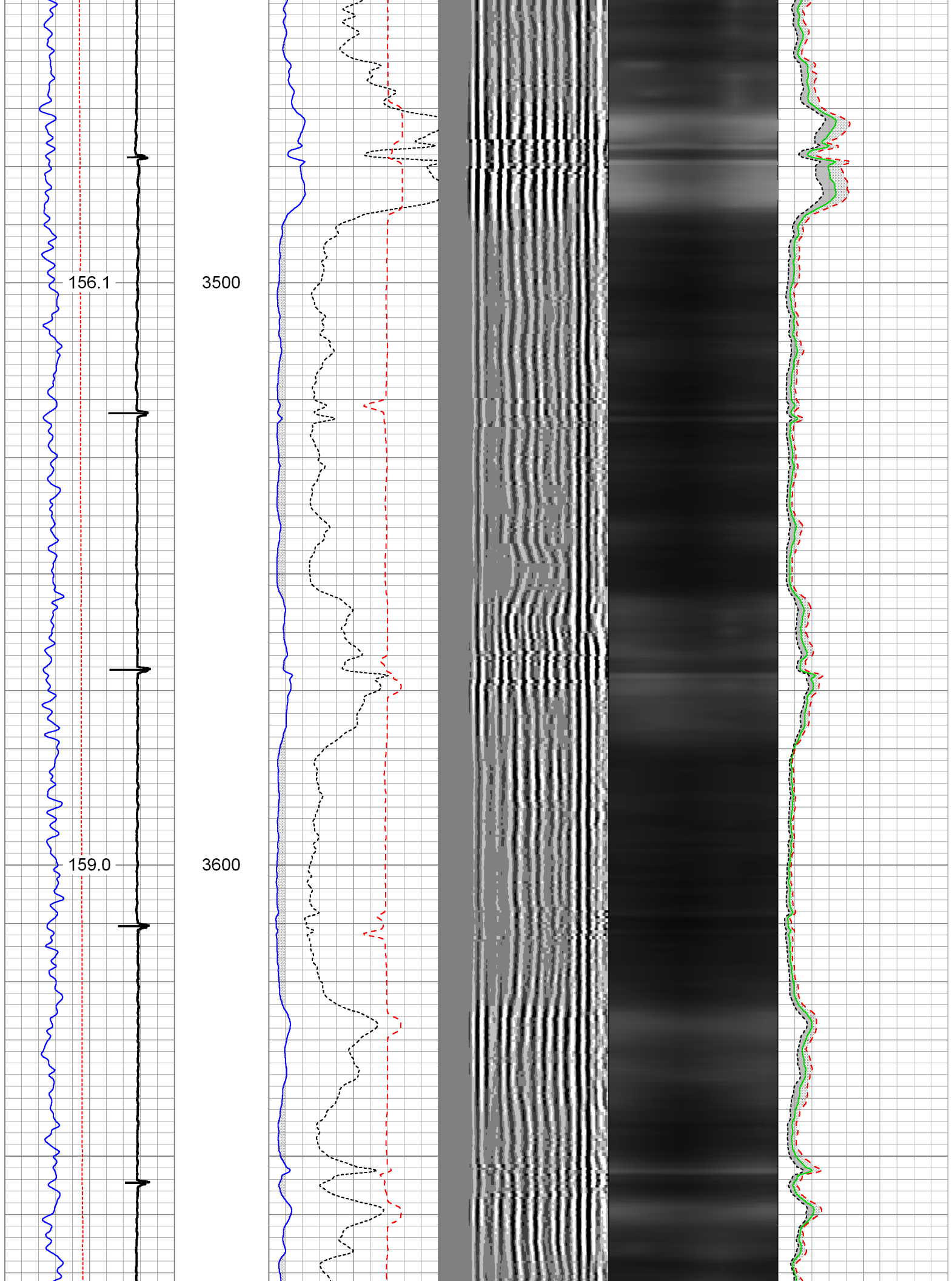


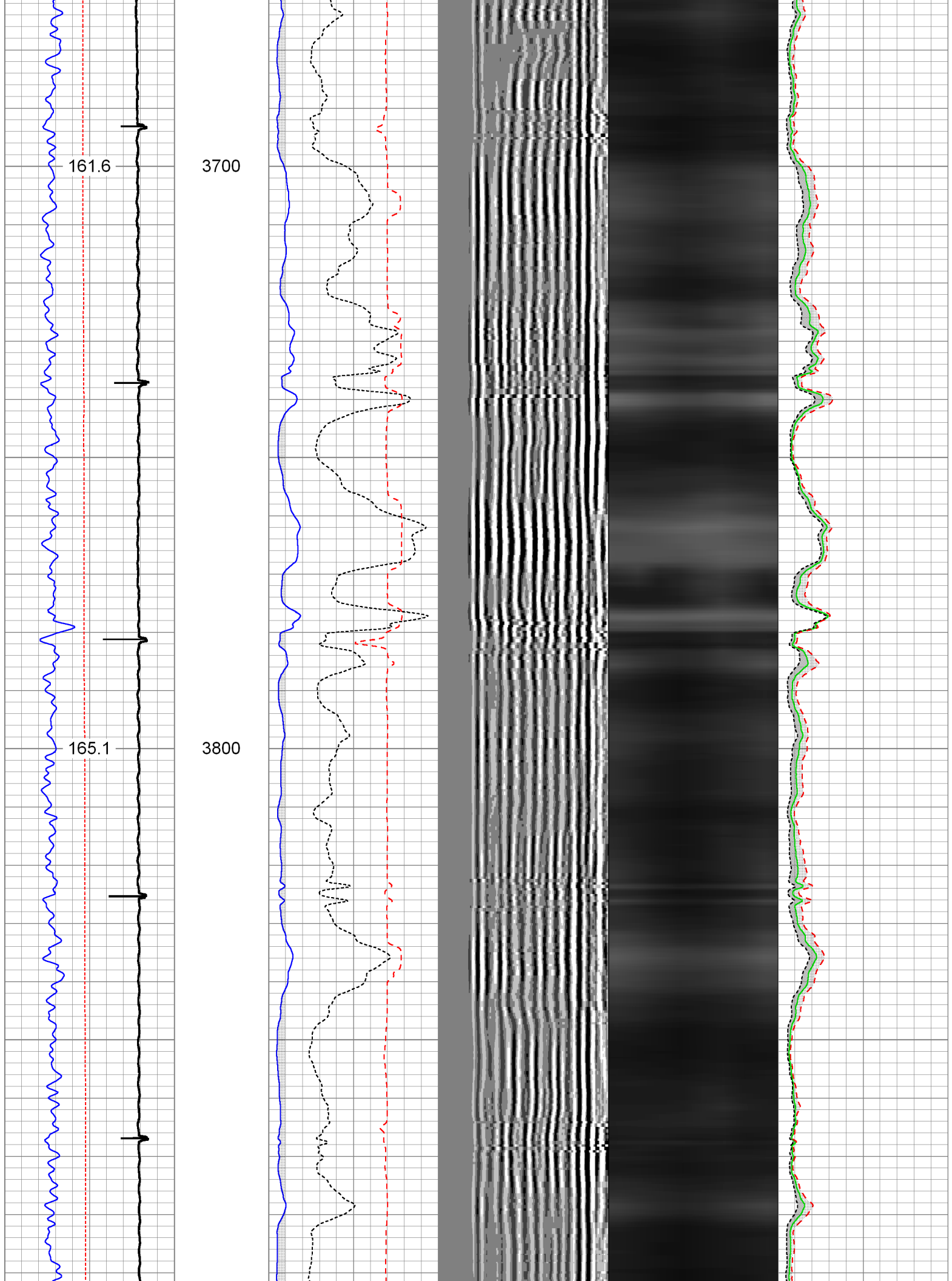


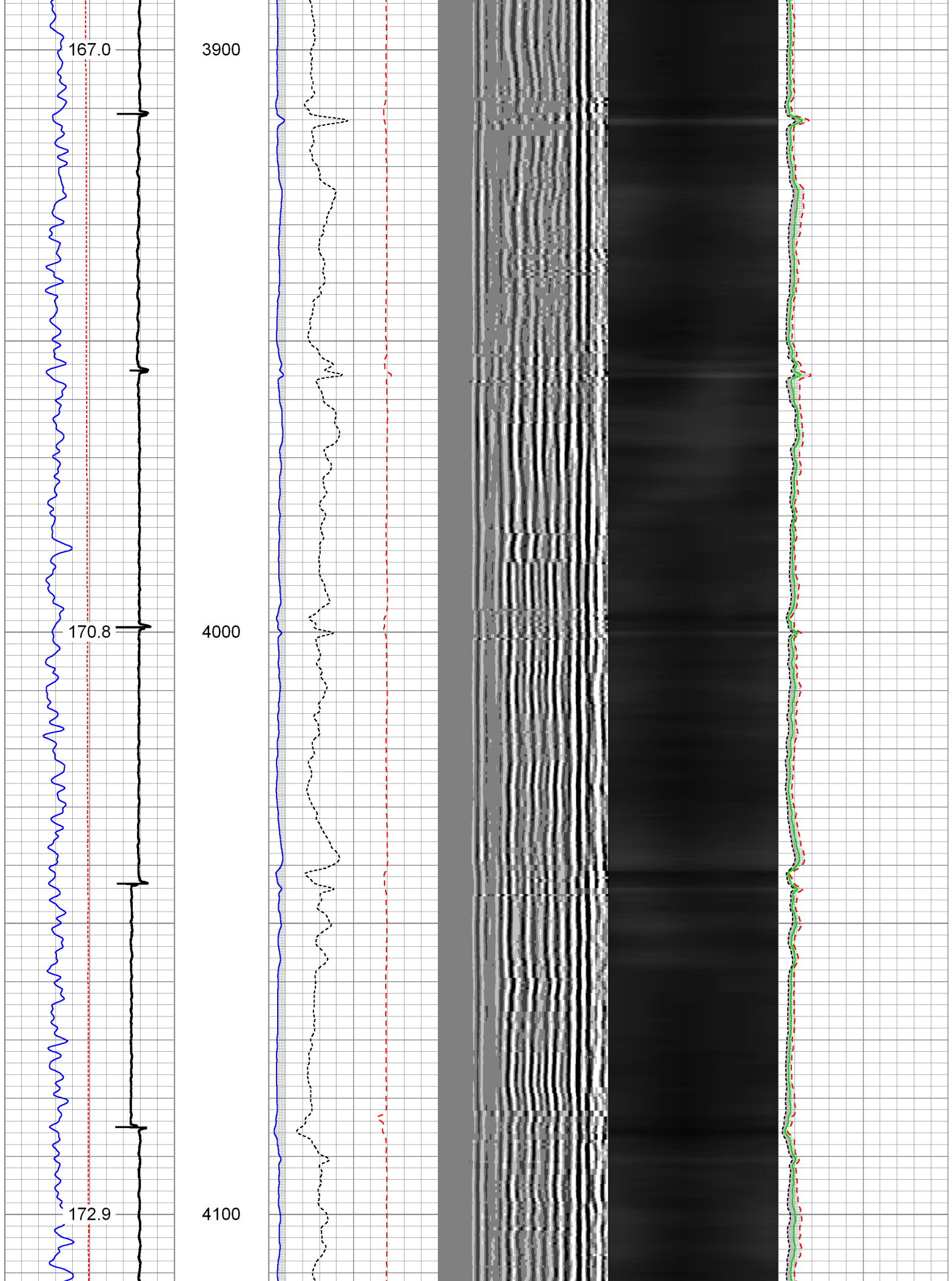


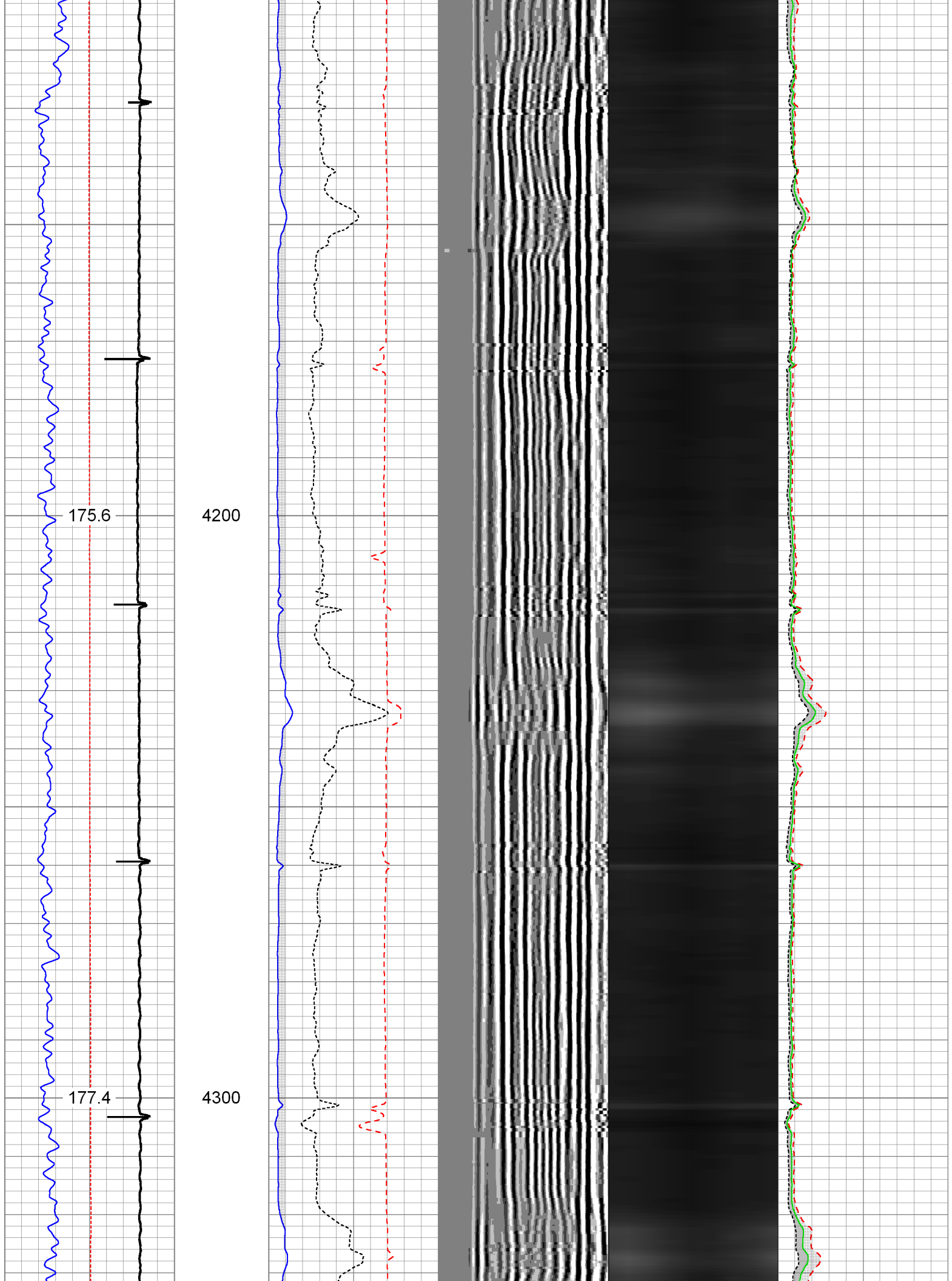


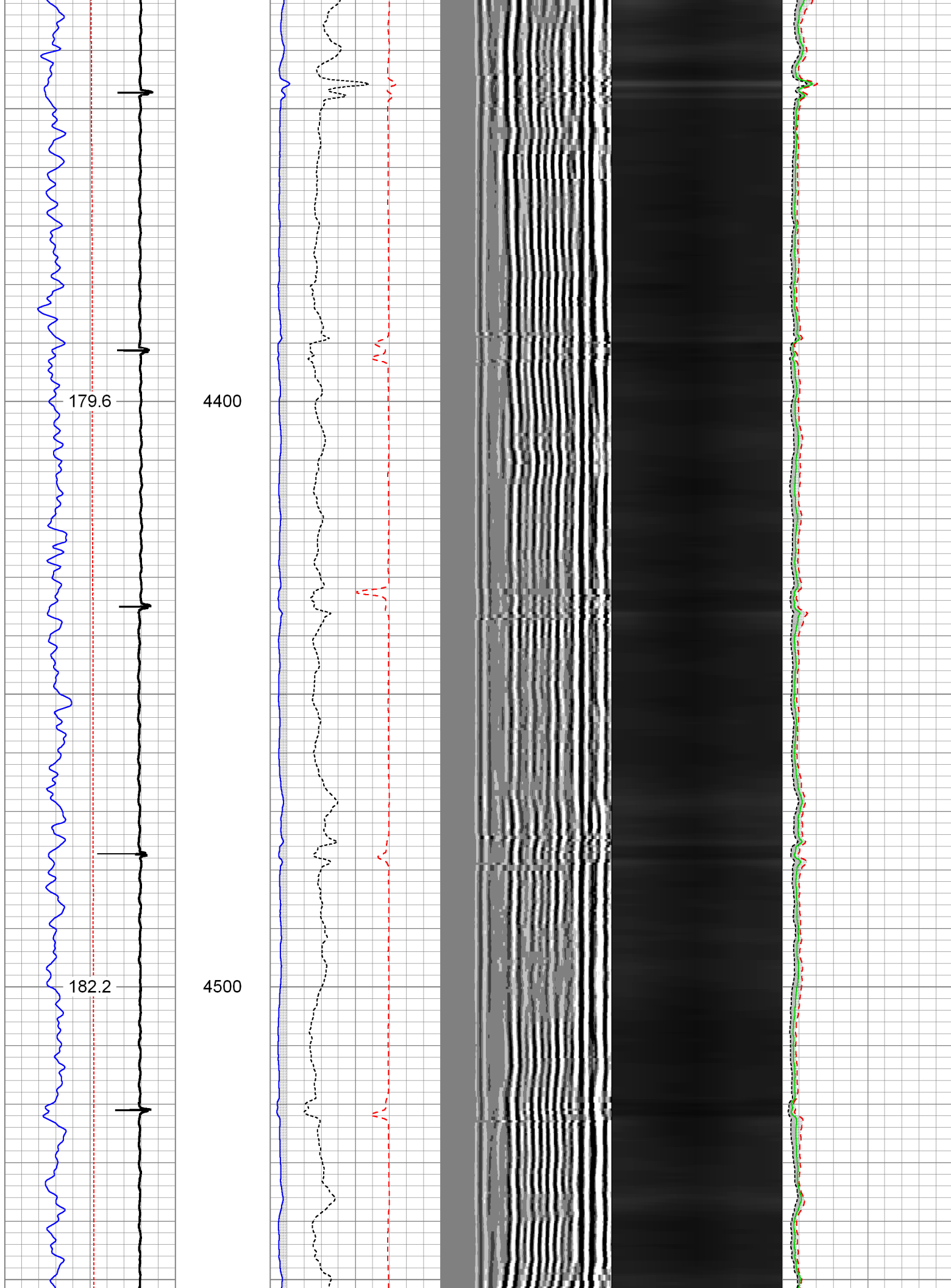


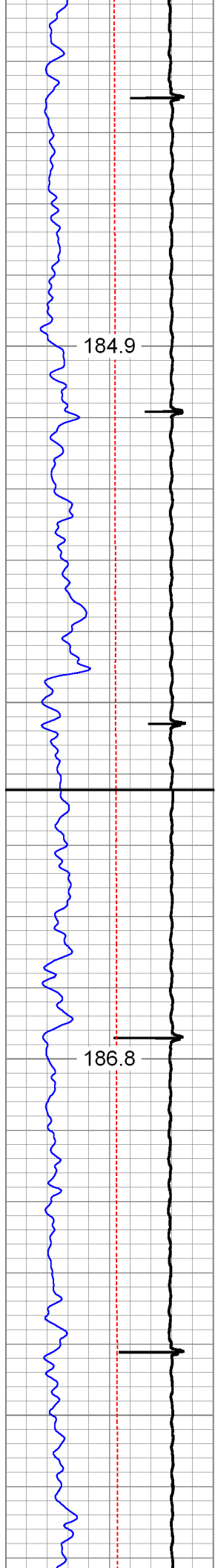










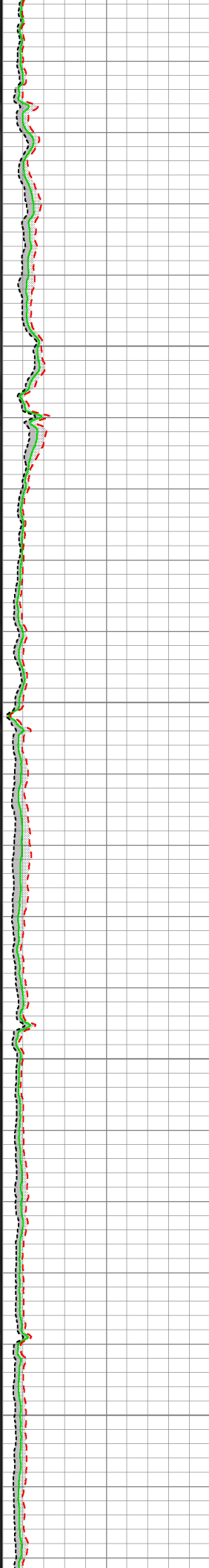
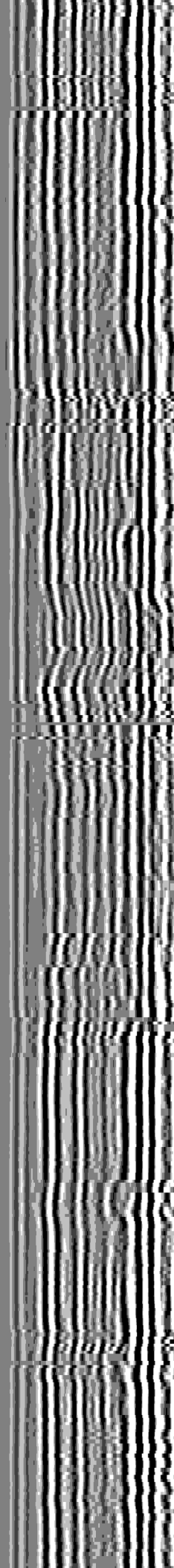
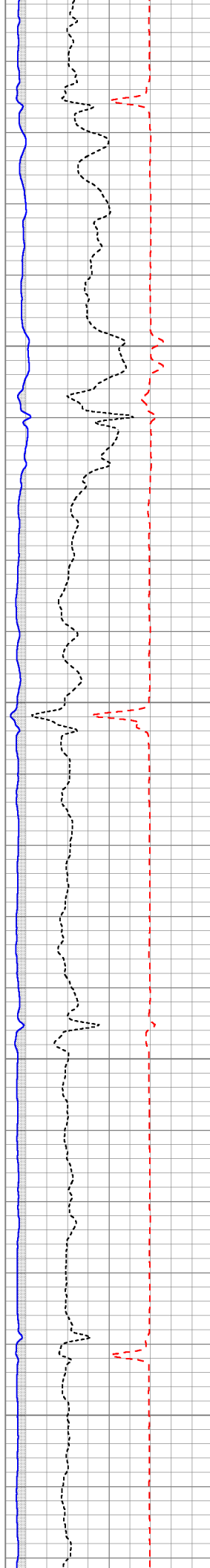


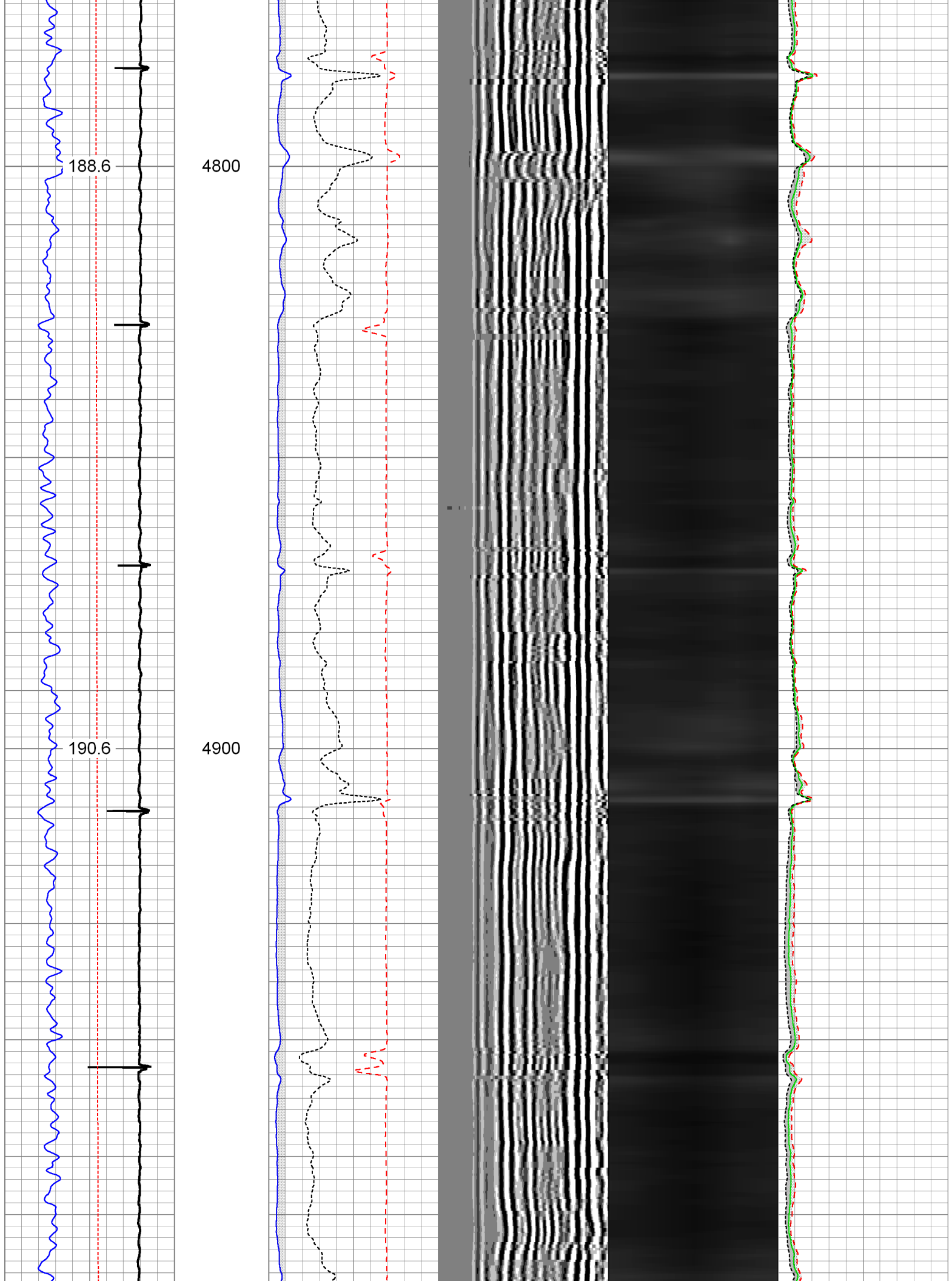
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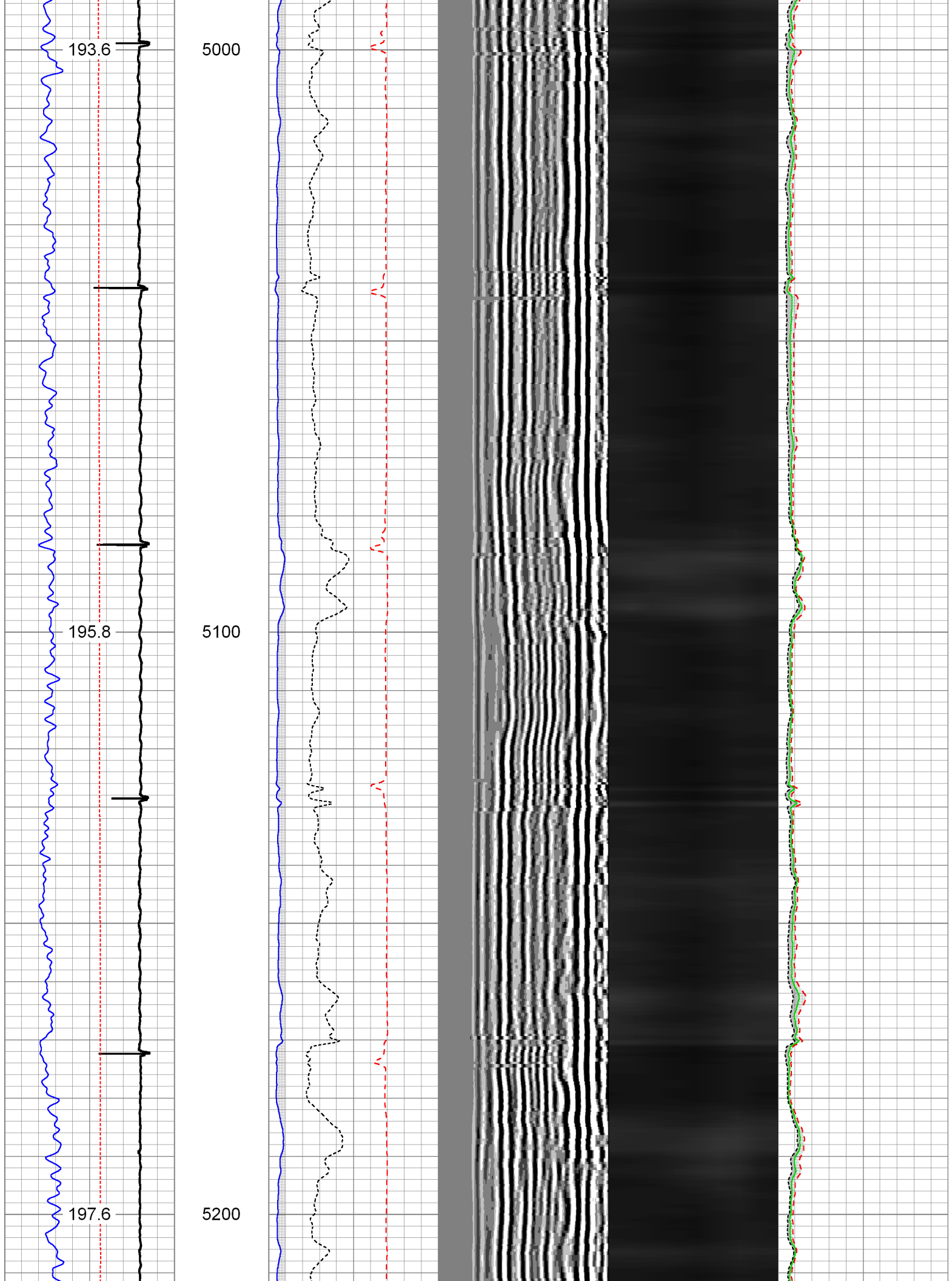
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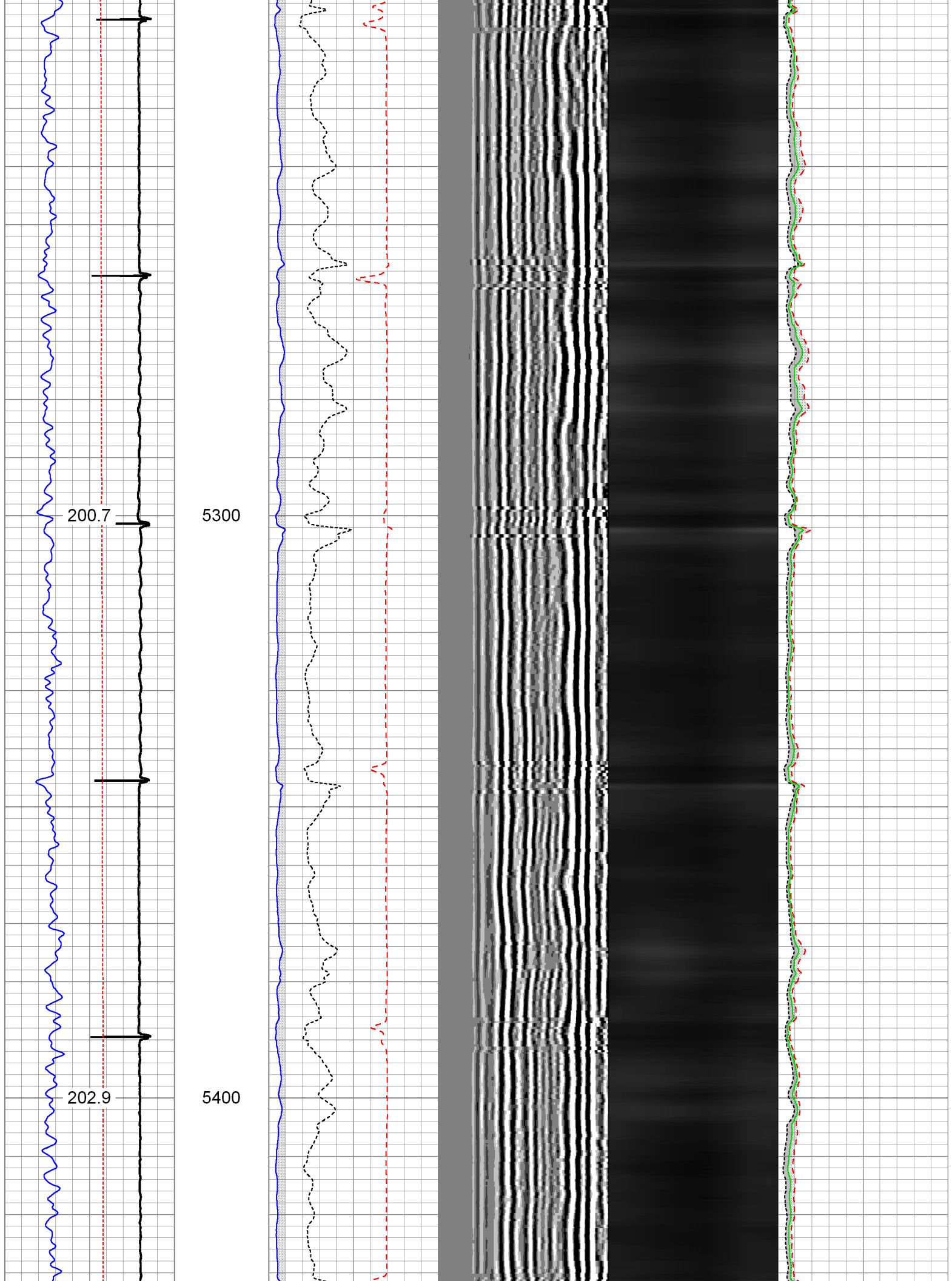
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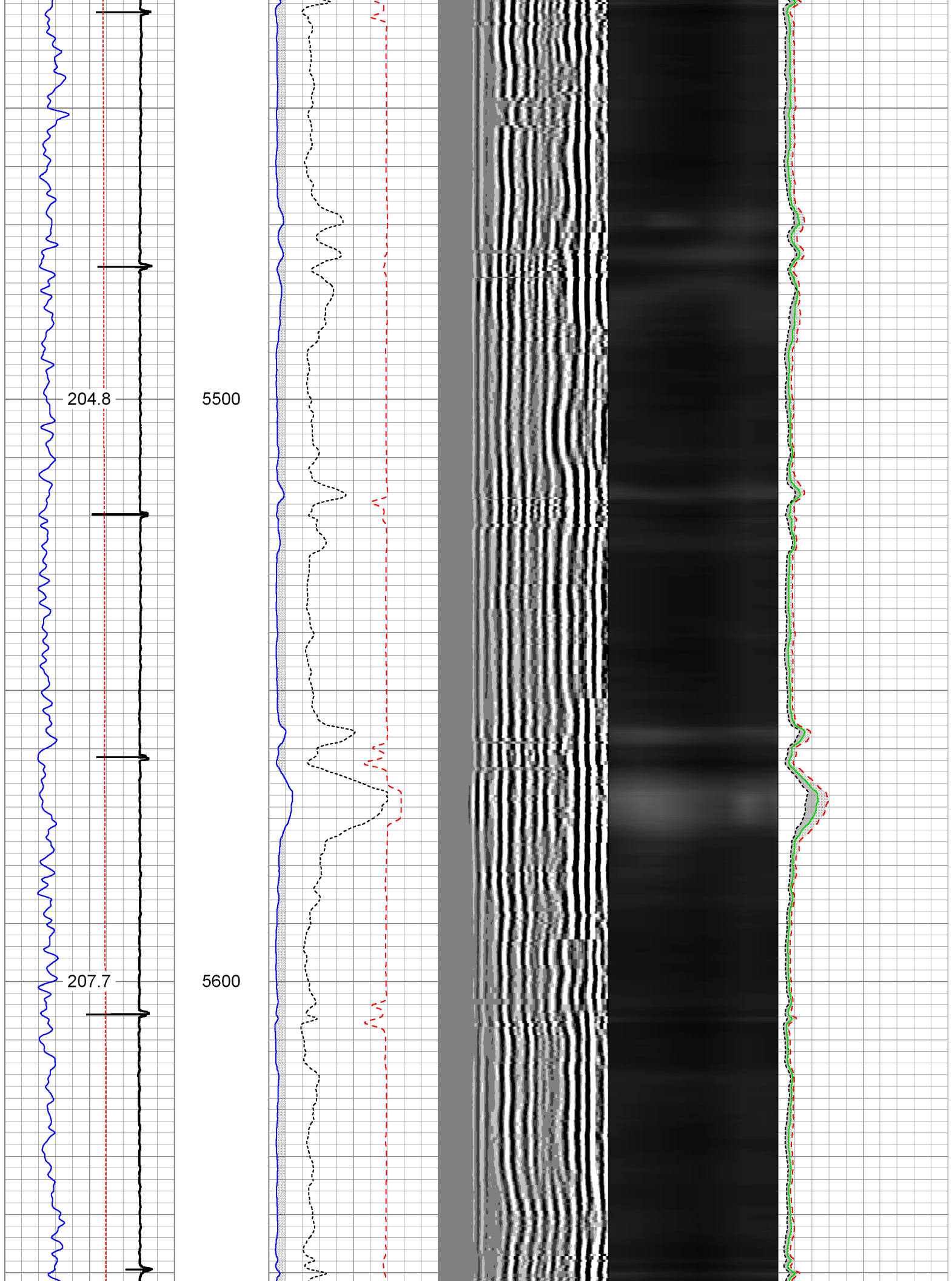
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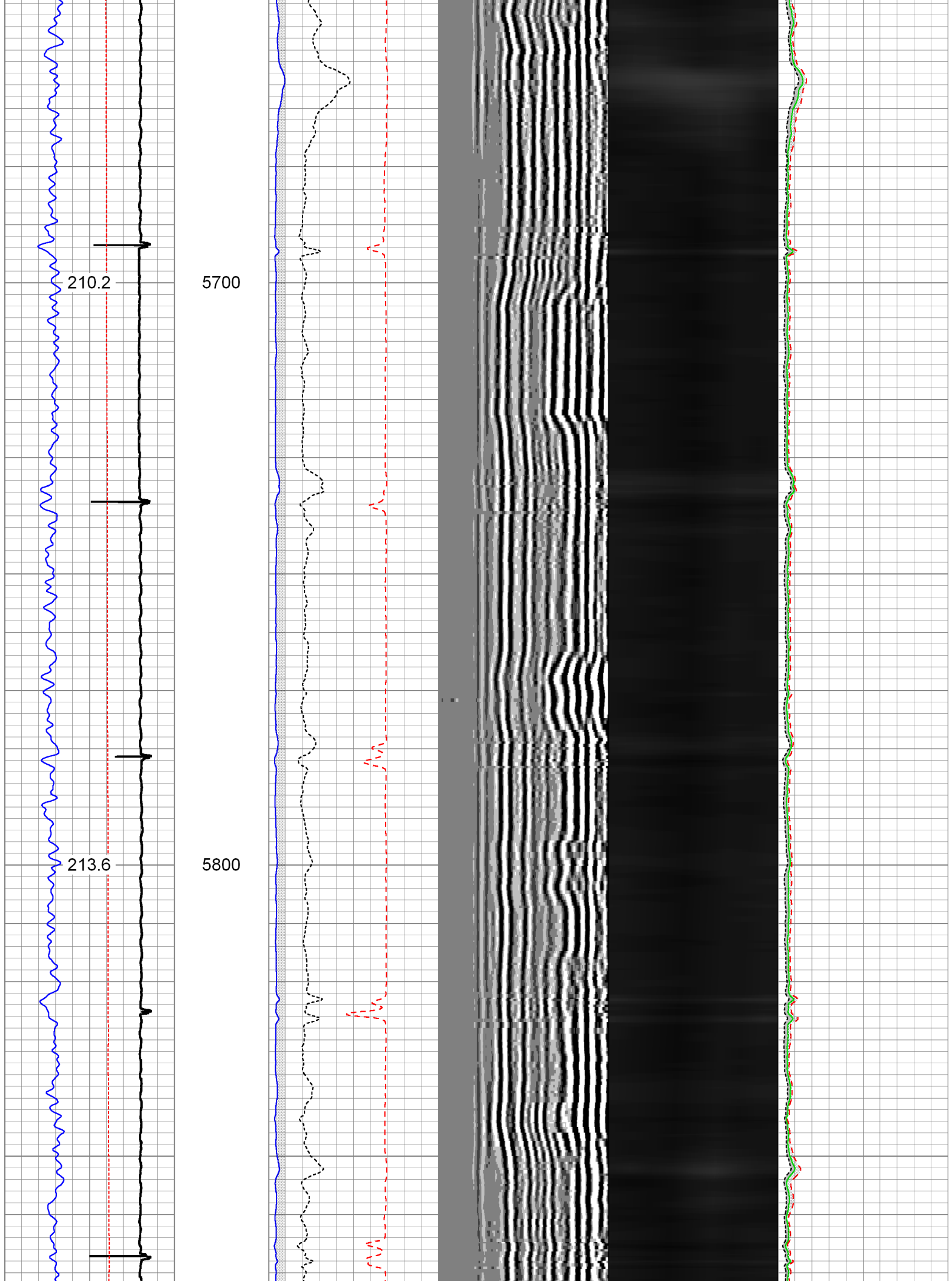


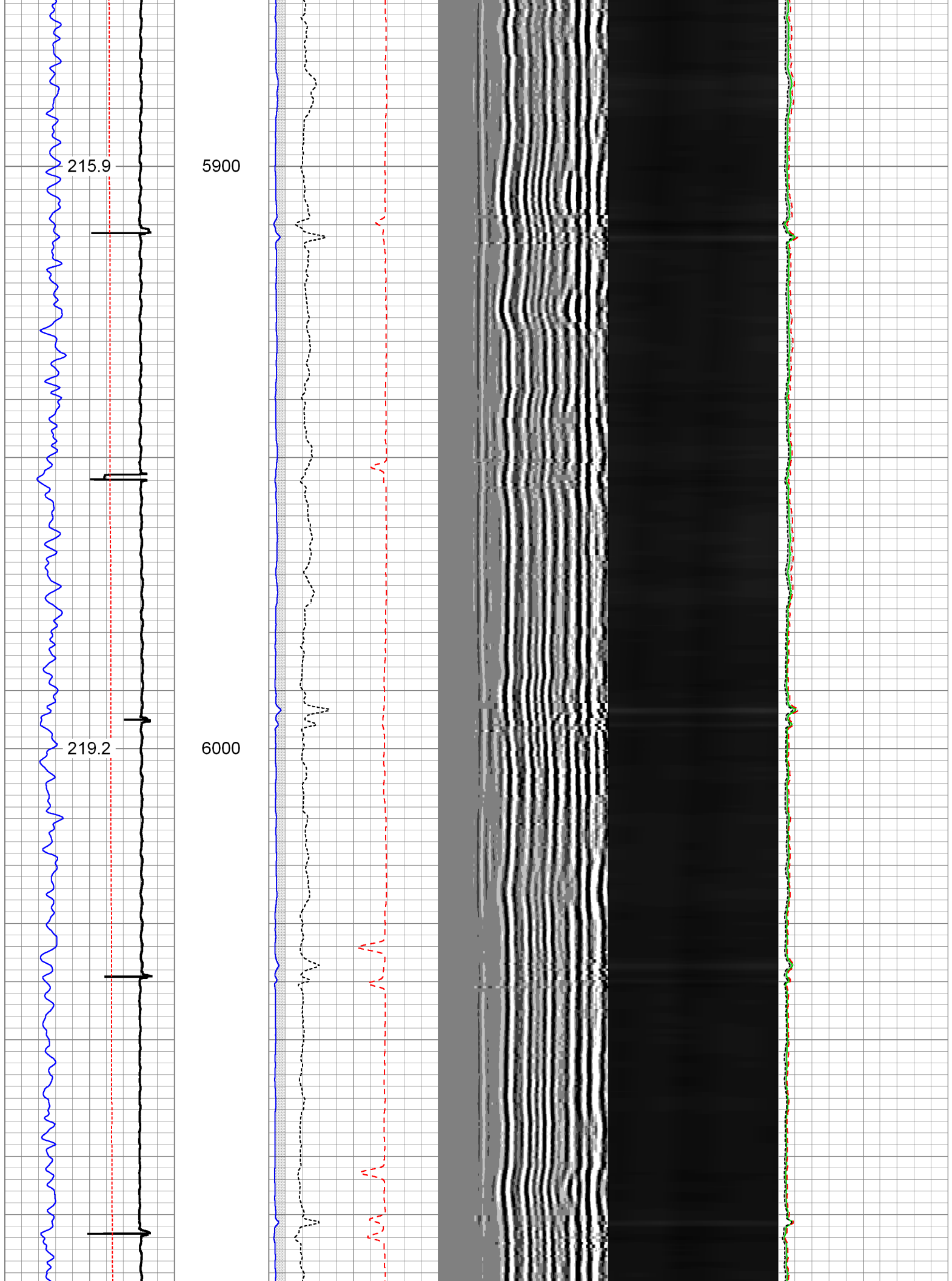


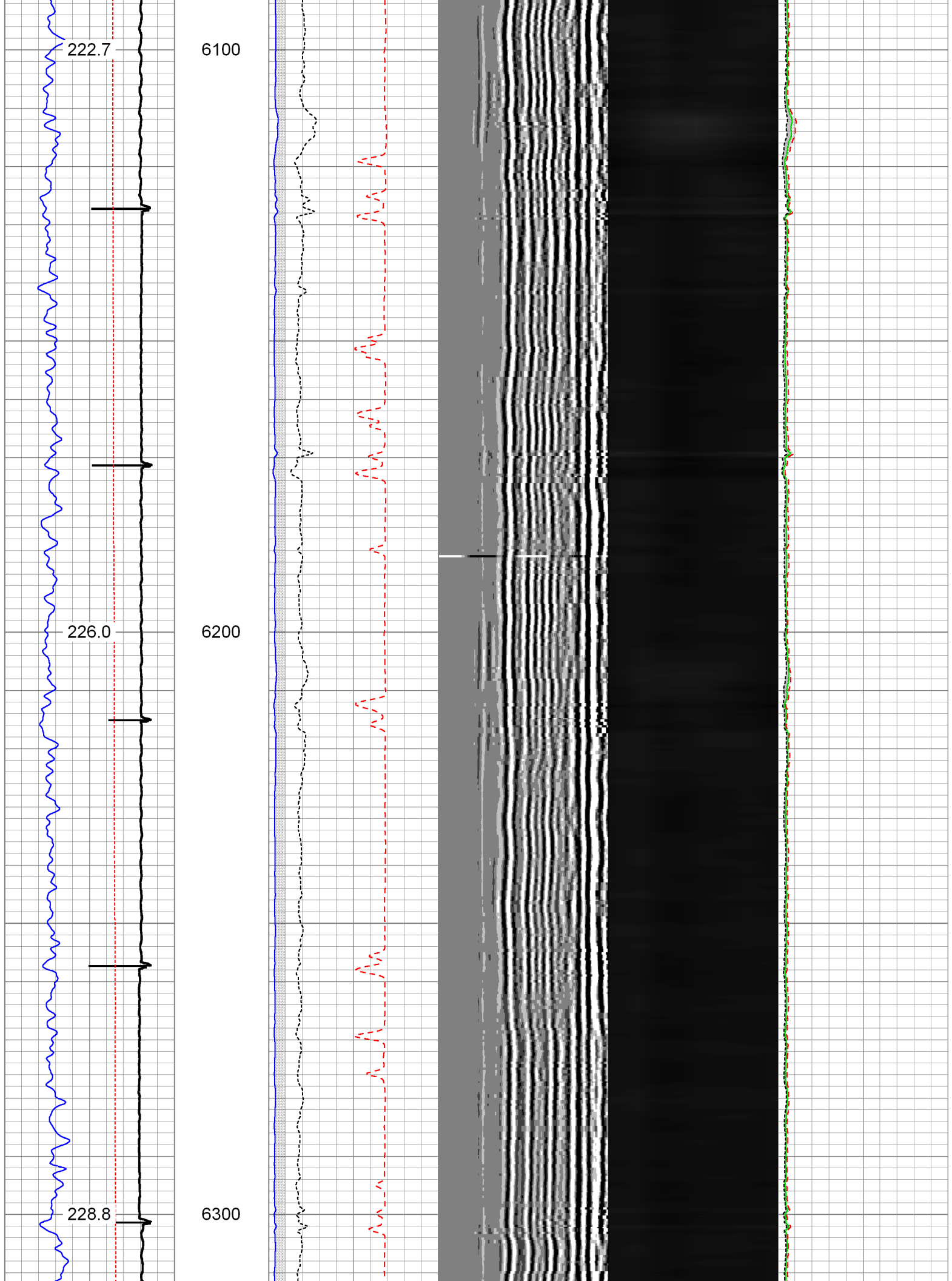


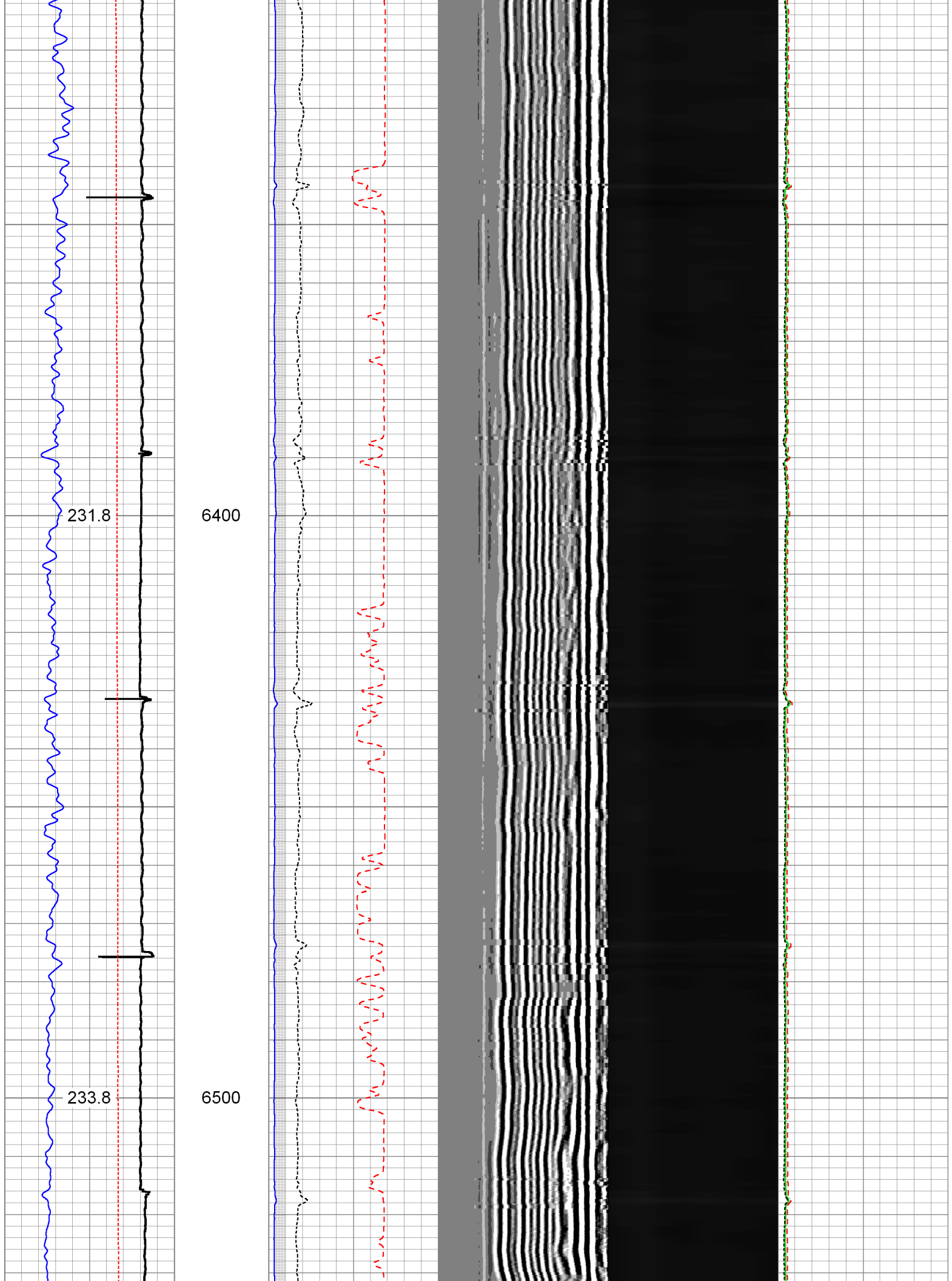


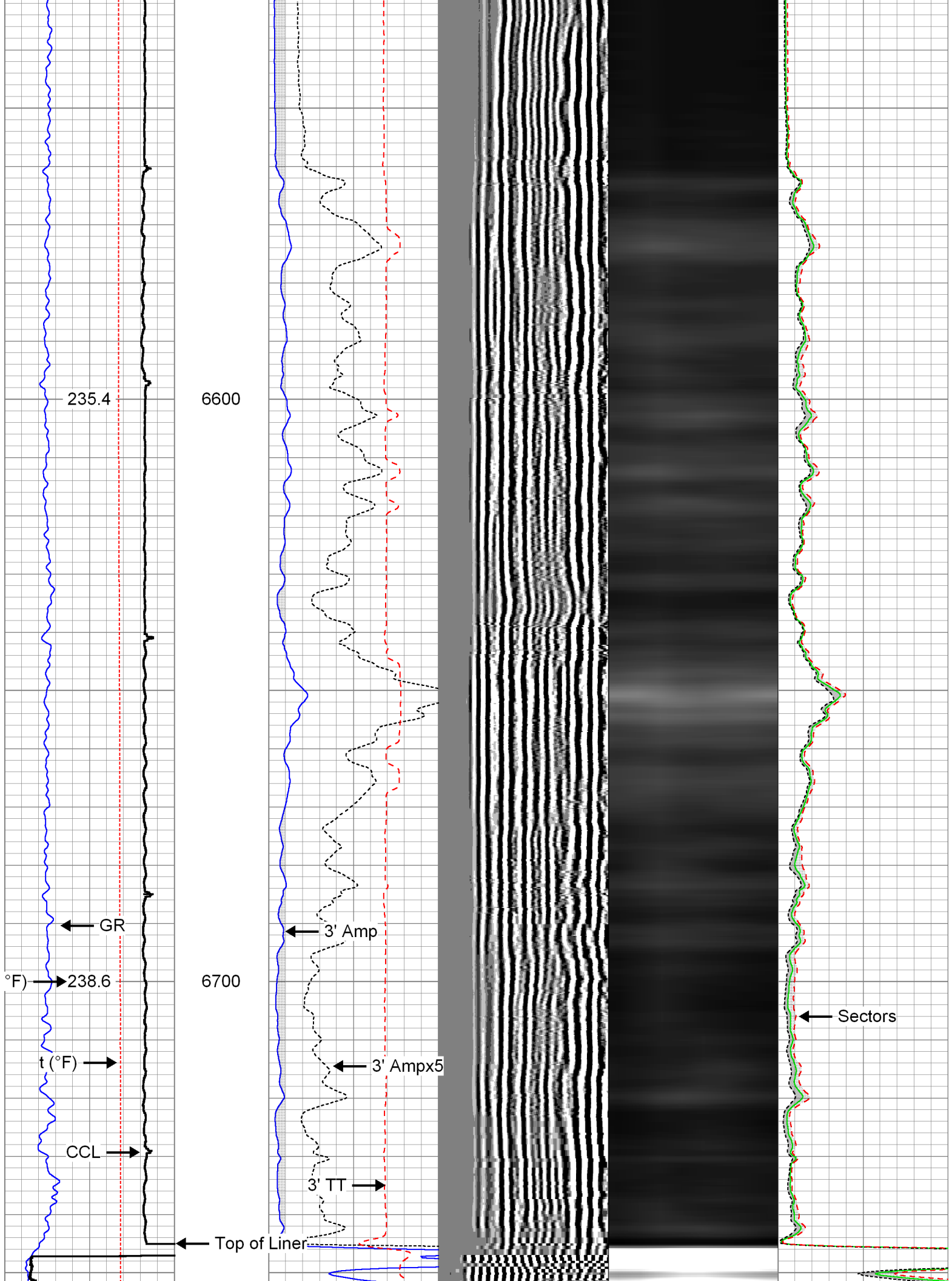


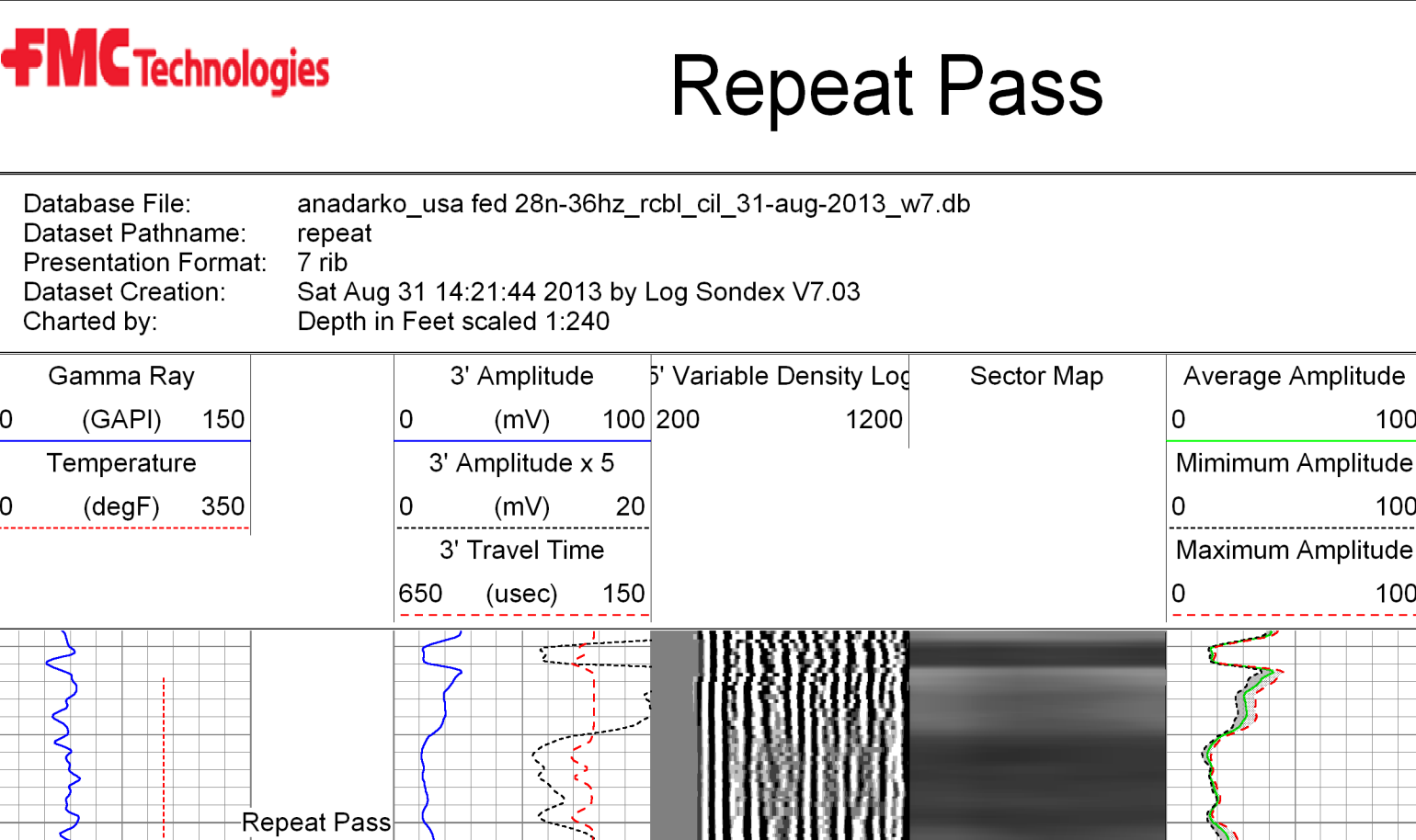
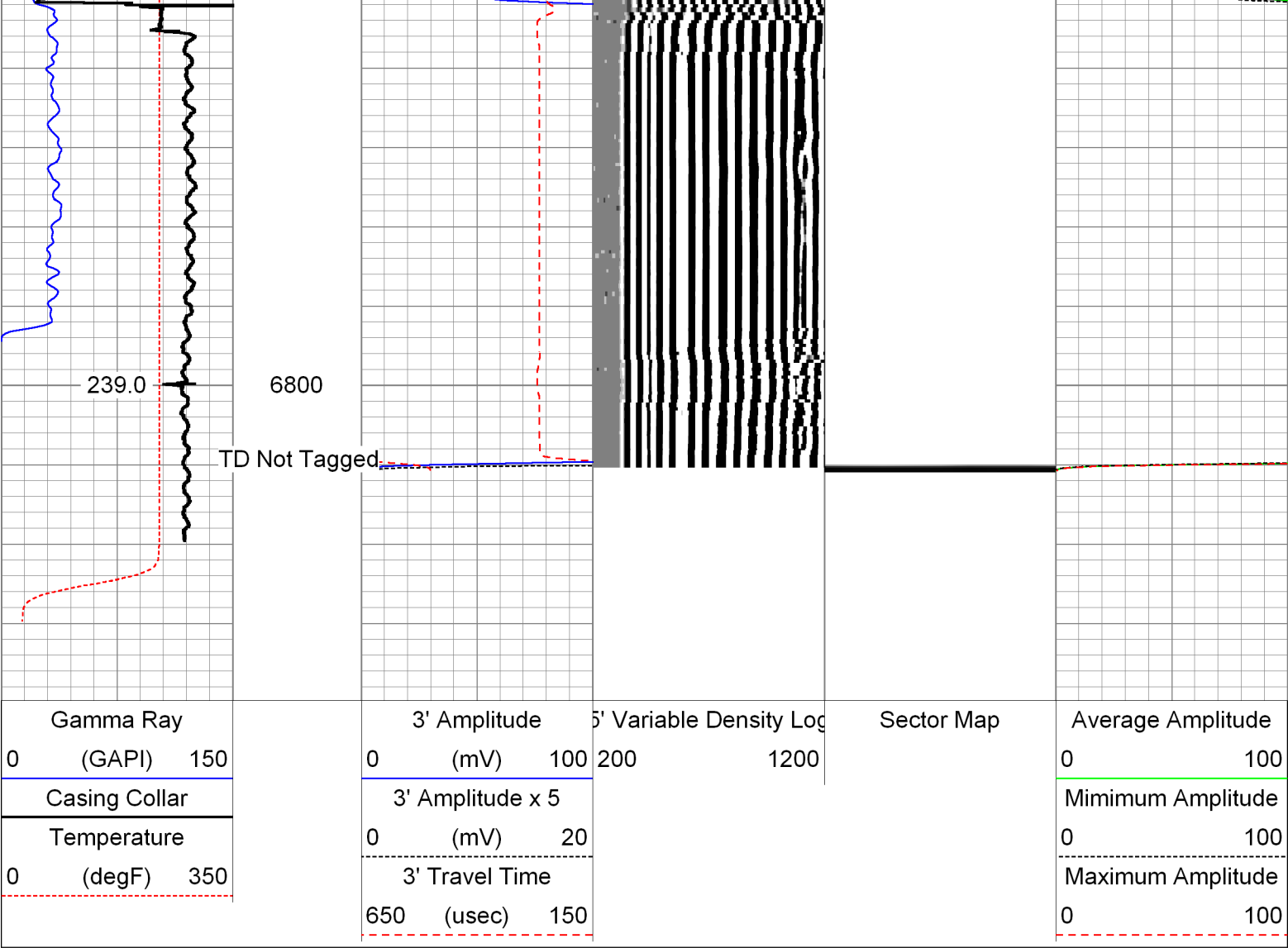


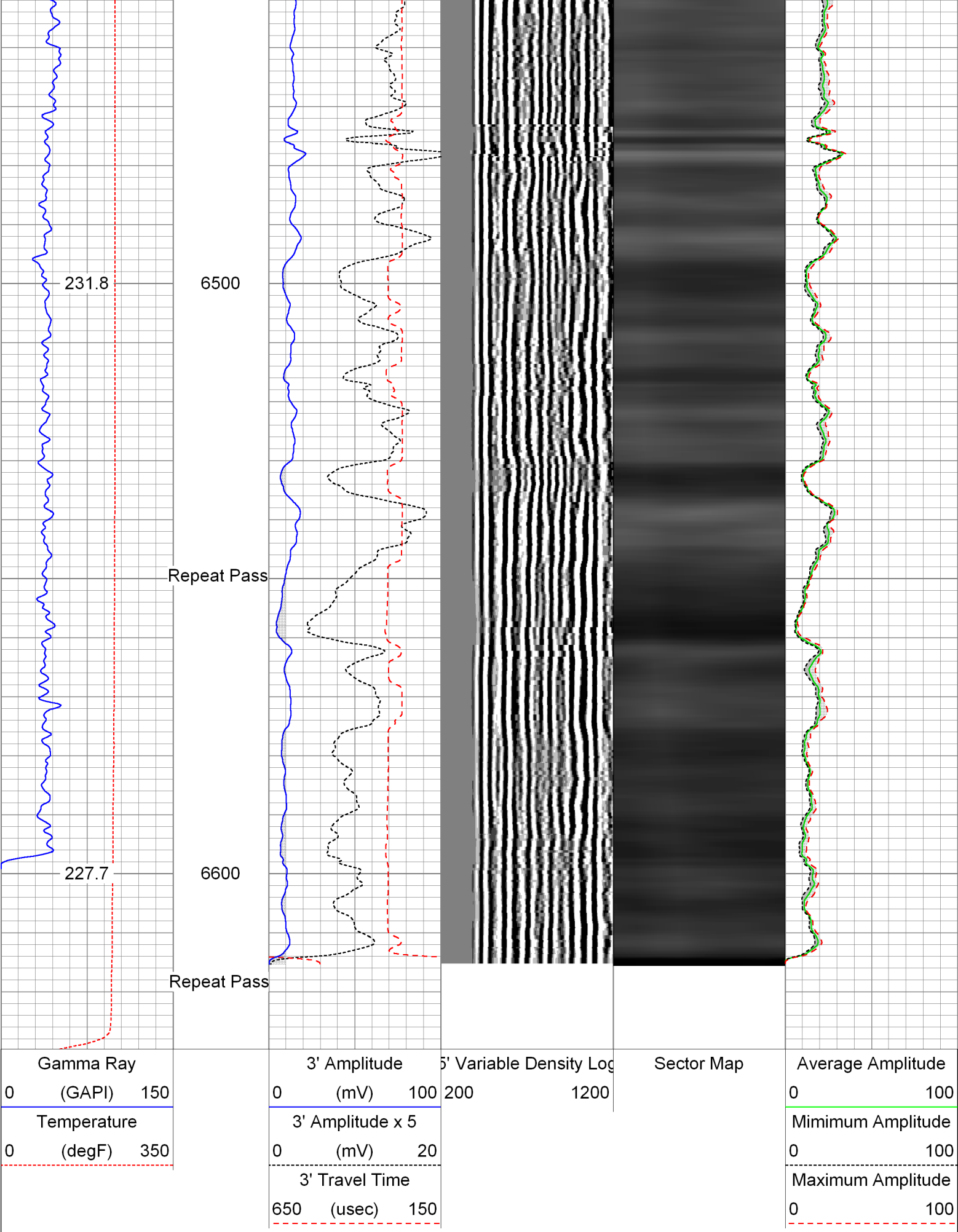












Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)

Calibration Report

Database File: anadarko_usa fed 28n-36hz_rcbl_cil_31-aug-2013_w7.db
 Dataset Pathname: main
 Dataset Creation: Sat Aug 31 14:33:50 2013 by Log Sondex V7.03

Multi-finger Imaging Tool Calibration Report

Serial Number: 218950
 Number of Fingers: 40
 Tool Model: 027

Inclinometer Calibration Report

Performed: Fri, Oct, 10 10:41:51 2008
 Calibration Angle: 45

		Inc X	Inc Y
Vertical:		1996	1975
Finger 1 up:		2238	2226
Finger 31 up:		1760	2216
Finger 21 up:		1769	1745
Finger 11 up:		2250	1738
Sensitivity ratio:	1.00023		
X-axis angle:	314.283		
Deviation const.:	339.139		

Finger Calibration Report

Performed: Sat Aug 31 13:17:13 2013

Ring size: (in)	4	Sens	5	Sens	6	Sens	7
Finger 01:	1457	271.0	1728	282.0	2010	284.0	2294
Finger 02:	1495	259.0	1754	268.0	2022	270.0	2292
Finger 03:	1453	283.0	1736	300.0	2036	303.0	2339
Finger 04:	1449	271.0	1720	283.0	2003	289.0	2292
Finger 05:	1514	257.0	1771	267.0	2038	272.0	2310
Finger 06:	1500	259.0	1759	275.0	2034	284.0	2318
Finger 07:	1501	273.0	1774	290.0	2064	295.0	2359
Finger 08:	1560	245.0	1805	258.0	2063	268.0	2331
Finger 09:	1509	276.0	1785	294.0	2079	300.0	2379
Finger 10:	1536	265.0	1801	277.0	2078	280.0	2358
Finger 11:	1502	267.0	1769	285.0	2054	297.0	2351
Finger 12:	1494	279.0	1773	297.0	2070	311.0	2381
Finger 13:	1535	272.0	1807	286.0	2093	294.0	2387
Finger 14:	1528	270.0	1798	289.0	2087	301.0	2388
Finger 15:	1530	263.0	1793	291.0	2084	305.0	2389
Finger 16:	1503	273.0	1776	288.0	2064	306.0	2370
Finger 17:	1492	276.0	1768	297.0	2065	314.0	2379
Finger 18:	1537	259.0	1796	284.0	2080	289.0	2369
Finger 19:	1554	253.0	1807	268.0	2075	282.0	2357
Finger 20:	1487	273.0	1760	294.0	2054	309.0	2363
Finger 21:	1460	282.0	1742	302.0	2044	323.0	2367
Finger 22:	1477	276.0	1753	297.0	2050	311.0	2361
Finger 23:	1532	262.0	1794	274.0	2068	286.0	2354
Finger 24:	1531	265.0	1796	280.0	2076	297.0	2373
Finger 25:	1502	277.0	1779	296.0	2075	304.0	2379
Finger 26:	1445	278.0	1723	294.0	2017	308.0	2325
Finger 27:	1449	278.0	1727	297.0	2024	304.0	2328
Finger 28:	1479	283.0	1762	297.0	2059	304.0	2363
Finger 29:	1451	275.0	1726	290.0	2016	297.0	2313
Finger 30:	1458	279.0	1737	293.0	2030	300.0	2330
Finger 31:	1531	255.0	1786	260.0	2046	264.0	2310
Finger 32:	1455	279.0	1734	286.0	2020	293.0	2313
Finger 33:	1452	278.0	1730	288.0	2018	283.0	2301
Finger 34:	1423	280.0	1703	291.0	1994	295.0	2289
Finger 35:	1435	276.0	1711	287.0	1998	291.0	2289
Finger 36:	1430	273.0	1703	283.0	1986	286.0	2272

Finger 33:	1400	270.0	1700	250.0	1800	280.0	2272
Finger 37:	1499	271.0	1770	272.0	2042	269.0	2311
Finger 38:	1434	278.0	1712	291.0	2003	289.0	2292
Finger 39:	1411	277.0	1688	288.0	1976	292.0	2268
Finger 40:	1416	278.0	1694	292.0	1986	295.0	2281

Segmented Cement Bond Log Calibration Report

Serial Number: 2639
 Tool Model: 004
 Calibration Casing Diameter: 7.000 in
 Calibration Depth: 4599.603 ft

Master Calibration, performed Thu Aug 22 08:44:36 2013:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3FT	0.006	0.706	0.800	62.165	87.623	0.262
5FT	0.001	0.756	0.800	62.165	81.256	0.701
S1	0.010	0.726	0.000	100.000	139.527	-1.349
S2	0.005	0.649	0.000	100.000	155.140	-0.750
S3	0.003	0.616	0.000	100.000	163.110	-0.526
S4	0.002	0.628	0.000	100.000	159.985	-0.391
S5	0.006	0.685	0.000	100.000	147.320	-0.921
S6	0.008	0.767	0.000	100.000	131.662	-1.008
S7	0.004	0.822	0.000	100.000	122.209	-0.430
S8	0.001	0.802	0.000	100.000	124.721	-0.073

Gamma Ray Calibration Report

Serial Number: 000001
 Tool Model: 020
 Performed: Sun Jun 13 13:33:21 1993
 Calibrator Value: 1.0 GAPI
 Background Reading: 0.0 cps
 Calibrator Reading: 1.0 cps
 Sensitivity: 1.0000 GAPI/cps



Company Kerr-McGee Oil & Gas Onshore, L.P.
 Well USA Fed 28N-36HZ
 Field Wattenberg
 County Weld
 State Colorado