



County Weld State Colorado

Permanent Datum	Ground Level	Elevation	5062'
Log Measured From	Kelly Bushing	16 FT	K.B. 5078'
Drilling Measured From	Kelly Bushing		D.F. 5077'
			G.L. 5062'

Other Services
Gauge ring
MIT
Elevation

Date	11-Oct-2014
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Depth Driller	11987 FT
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Bottom Logged Interval	7285 FT
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Open Hole Size	9.625"
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Density / Viscosity	8.34 lbm/gal
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Estimated Cement Top	Surface
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Time Logger on Bottom	10:30 AM
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Location	Ft. Lupton, Co
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Witnessed By	D. Frederick
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Run Number	Bit	From	To
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Project Description	Start Date	End Date	Status
Project A	2023-01-01	2023-03-31	Completed
Project B	2023-04-01	2023-06-30	In Progress
Project C	2023-07-01	2023-09-30	Planned

Surface Casing	9.625	36	
Intermediate #1	7	26	

intermediate #2		
inter	45	116

Comments

Log ran as per customer request.

Depth reference to Casing Tally reported Liner Top at 6482 FT.

Adjusted -3 FT to correlate to liner top.

Gauge Ring/Junk Basket ran to 7215 FT

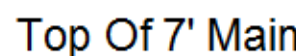
Log ran from as deep as possible to surface.

Log ran with 2800 PSI surface induced pressure

Logging tools were clean and free of any debris upon completion of operations.

Skip at 1840 to 1846 Sondex pannel power down at 103 FT

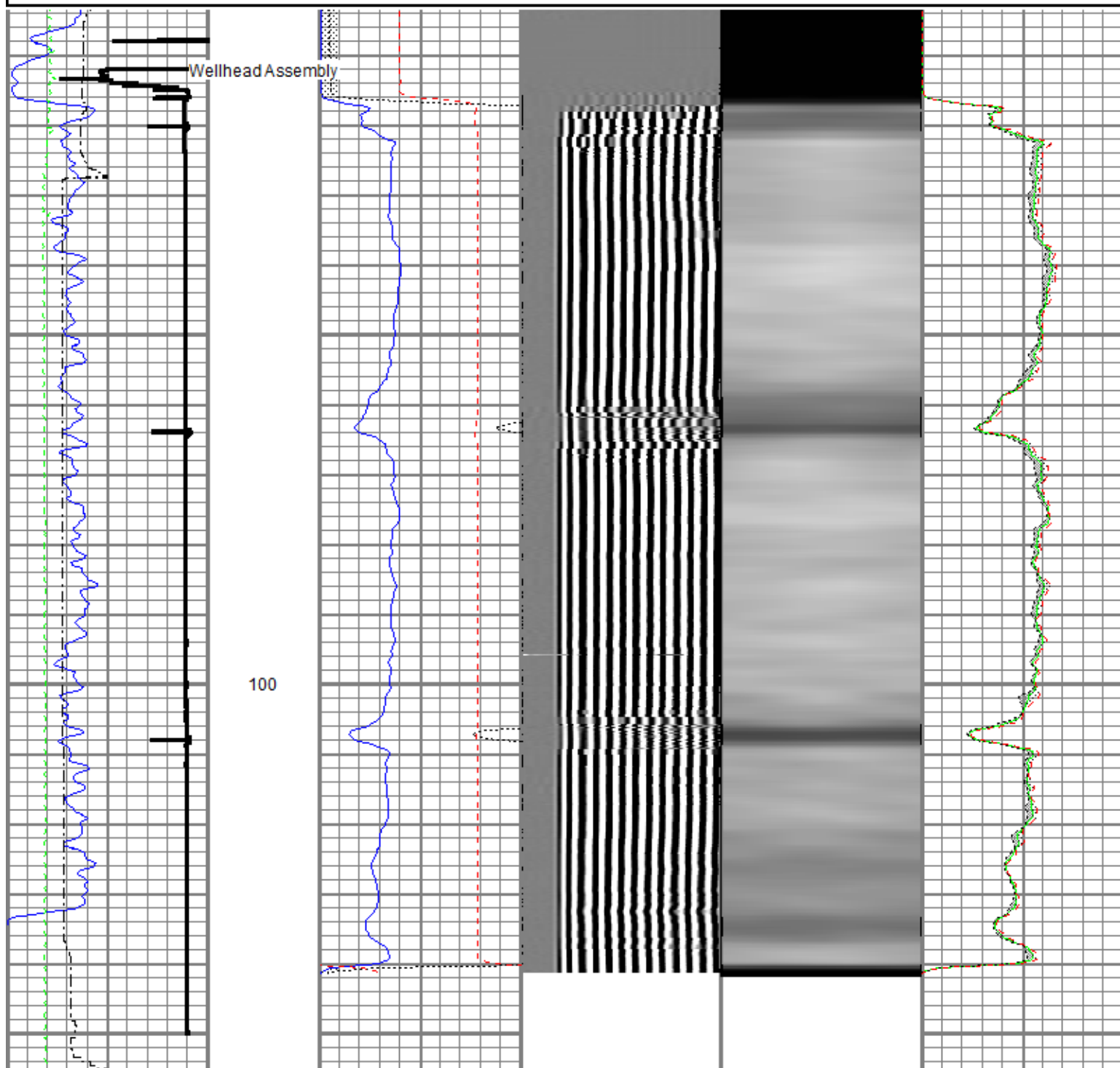
Thank you for choosing FMC Technologies Completion Services, Inc.!!



Logged With No Pressure


Database File: anadarko_burkhardt_16c-3hz_cil-rcbl.db
 Dataset Pathname: 7main_top
 Presentation Format: rbt4_mit
 Dataset Creation: Sat Oct 11 13:17:52 2014 by Log 7.0 B1
 Charted by: Depth in Feet scaled 1:240

Gamma Ray	0 3' Amplitude (mV) 100	5' Variable Density Log	Sector Map	Average Amplitude
0 (GAPI) 120	3' Amplitude x 5	200 1200		0 100
Casing Collar Locator	0 (mV) 20			Minimum Amplitude
Line Speed	3' Travel Time			0 100
-100 (ft/min) 100	650 (usec) 150			Maximum Amplitude
0 Line Tension (lb) 000				0 100



Gamma Ray	0 3' Amplitude (mV) 100	5' Variable Density Log	Sector Map	Average Amplitude
0 (GAPI) 120	3' Amplitude x 5	200 1200		0 100
Casing Collar Locator	0 (mV) 20			Minimum Amplitude
Line Speed	3' Travel Time			0 100
-100 (ft/min) 100	650 (usec) 150			Maximum Amplitude
0 Line Tension (lb) 000				0 100

100 (lb/min)	100	650 (usec)	150	Maximum Amplitude	0	100
0 Line Tension (lb) 000						

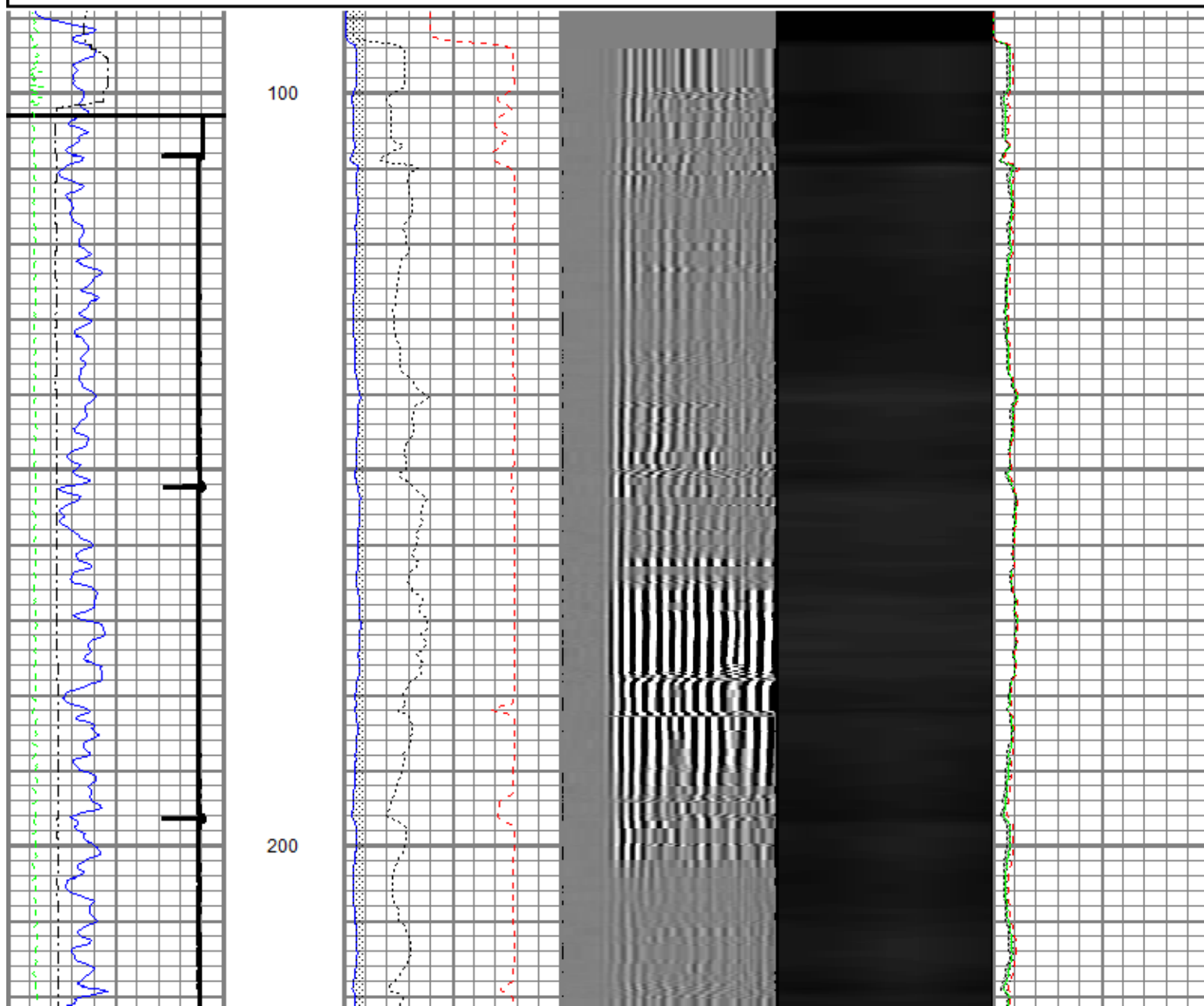


7' Main Pass

Logged With 2800PSI Surface Induced

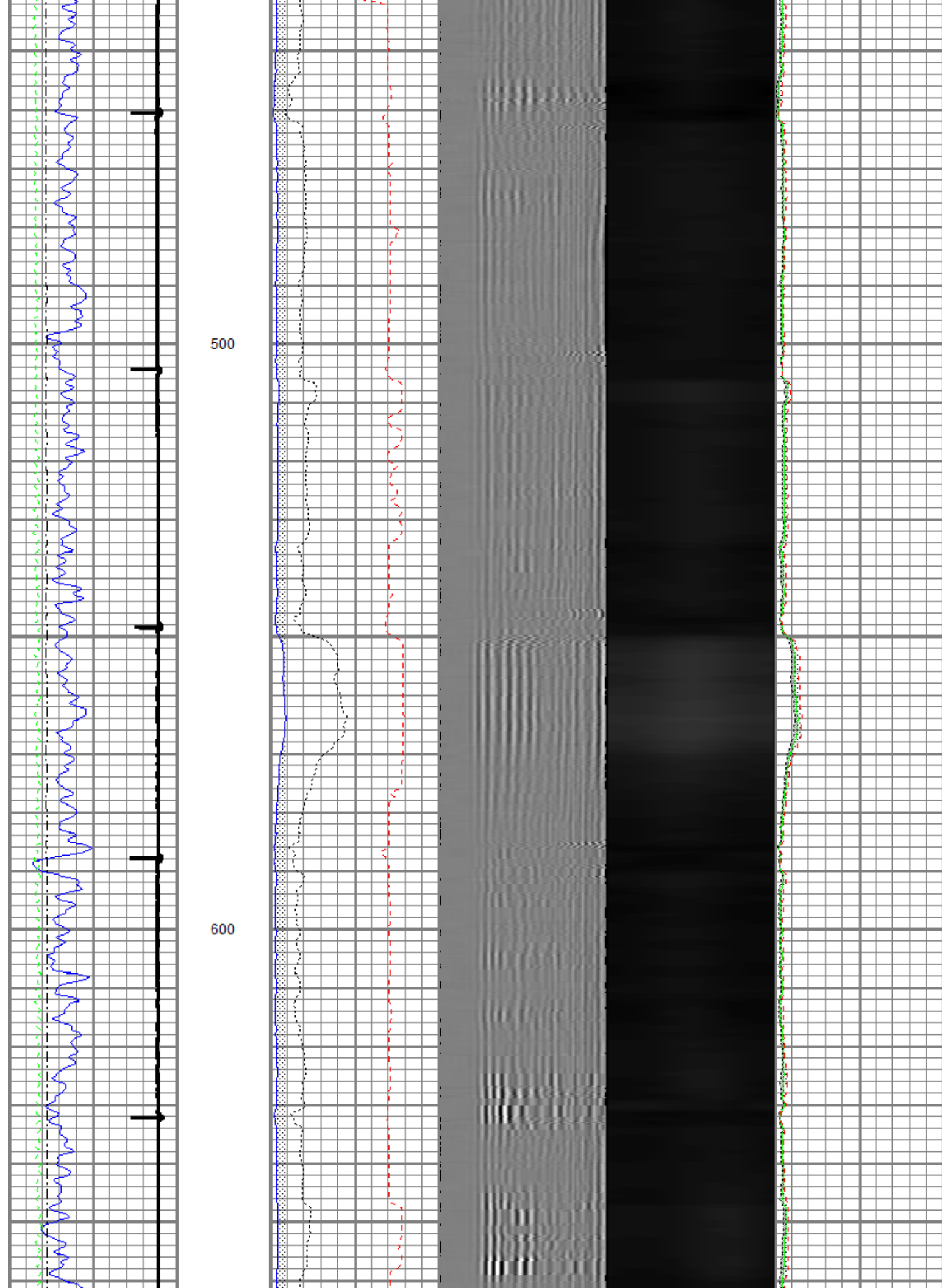
Database File: anadarko_burkhardt_16c-3hz_cil-rcbl.db
 Dataset Pathname: 7main
 Presentation Format: rbt4_mit
 Dataset Creation: Sat Oct 11 11:03:42 2014 by Log 7.0 B1
 Charted by: Depth in Feet scaled 1:240

Gamma Ray	0	3' Amplitude (mV)	100	5' Variable Density Log	Sector Map	Average Amplitude
0 (GAPI) 120		3' Amplitude x 5	200	1200		0 100
Casing Collar Locator	0	(mV)	20			Minimum Amplitude
Line Speed		3' Travel Time				0 100
-100 (ft/min) 100	650	(usec)	150			Maximum Amplitude
0 Line Tension (lb) 000						0 100



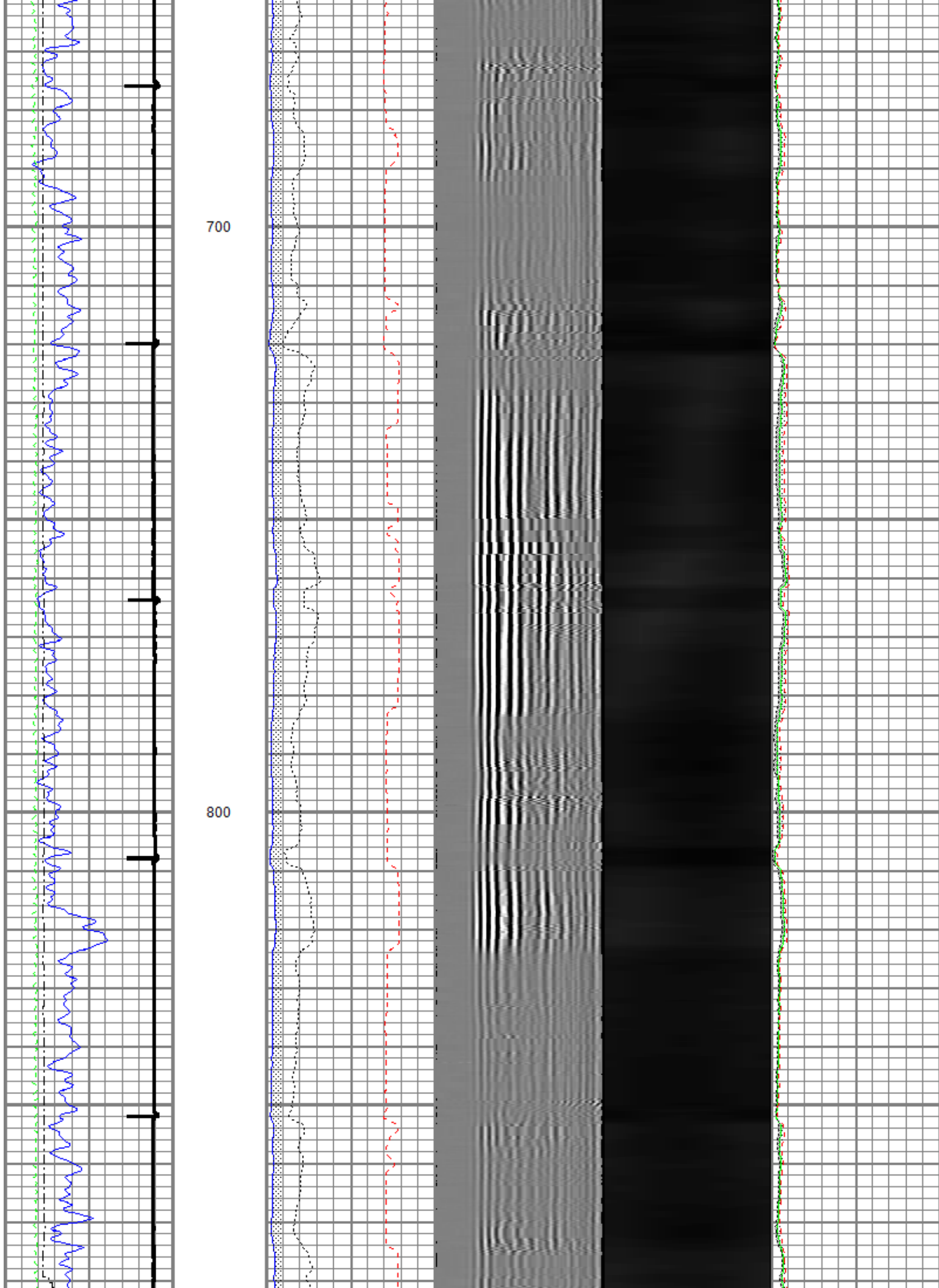
300

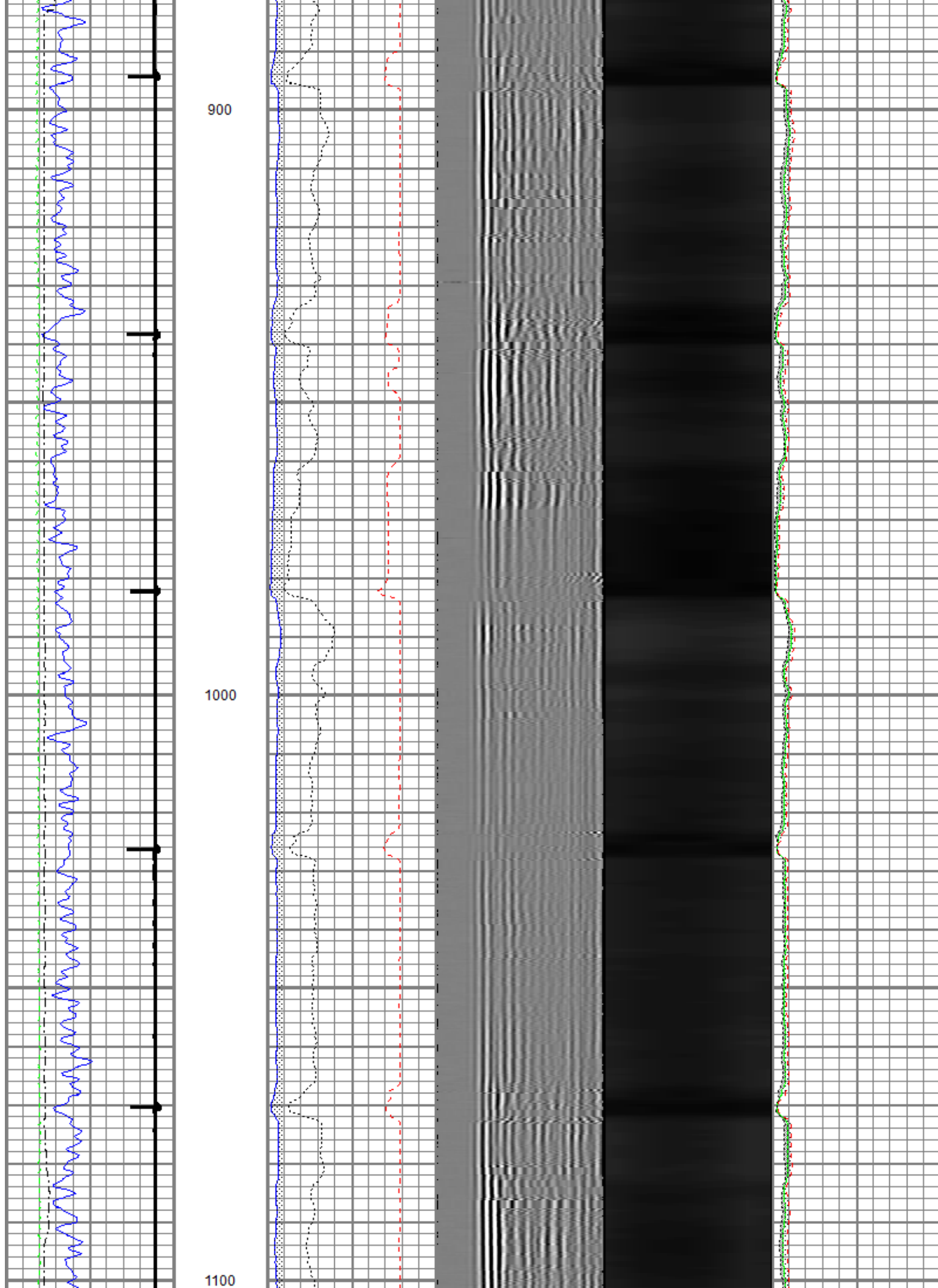
400

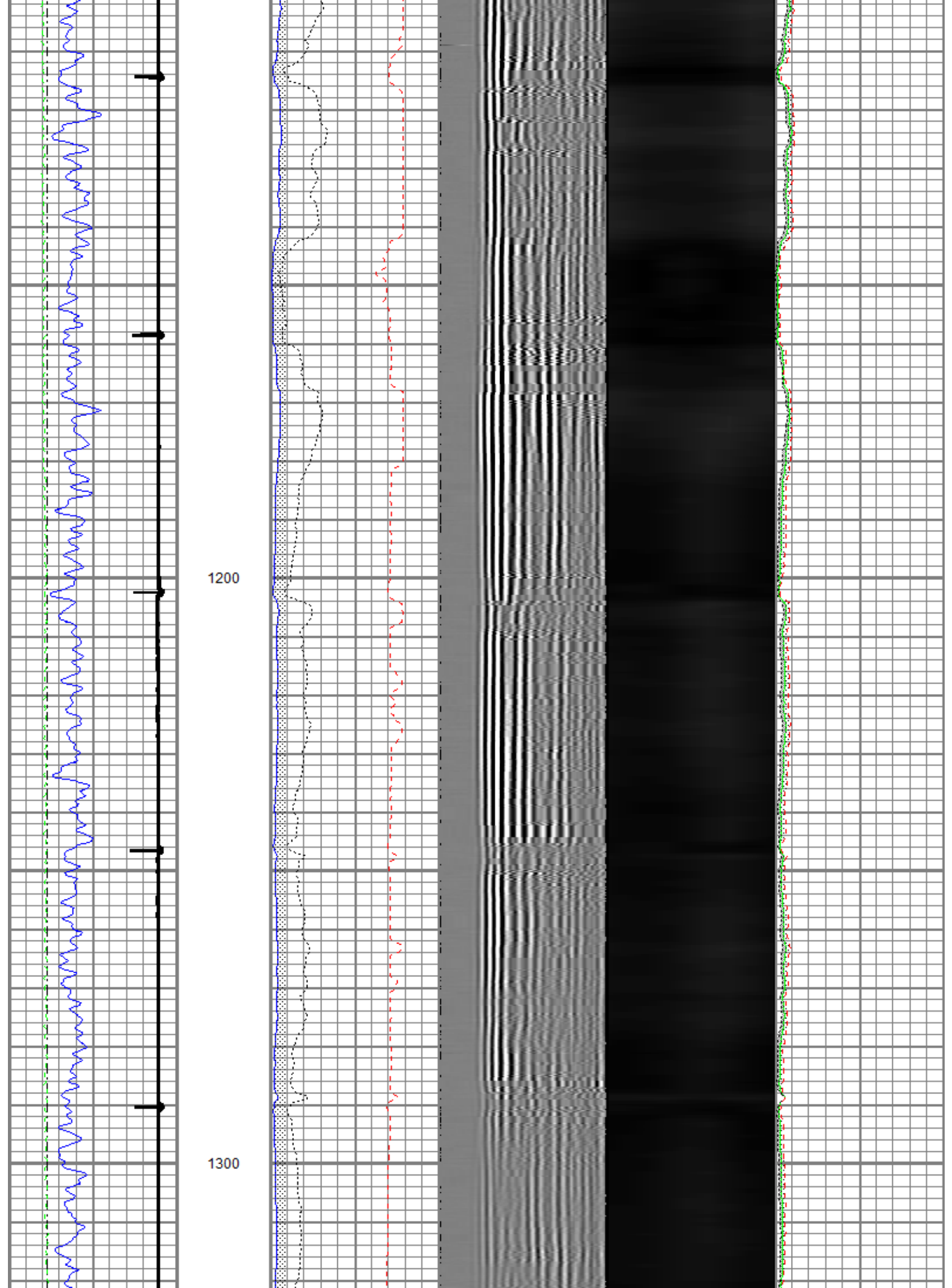


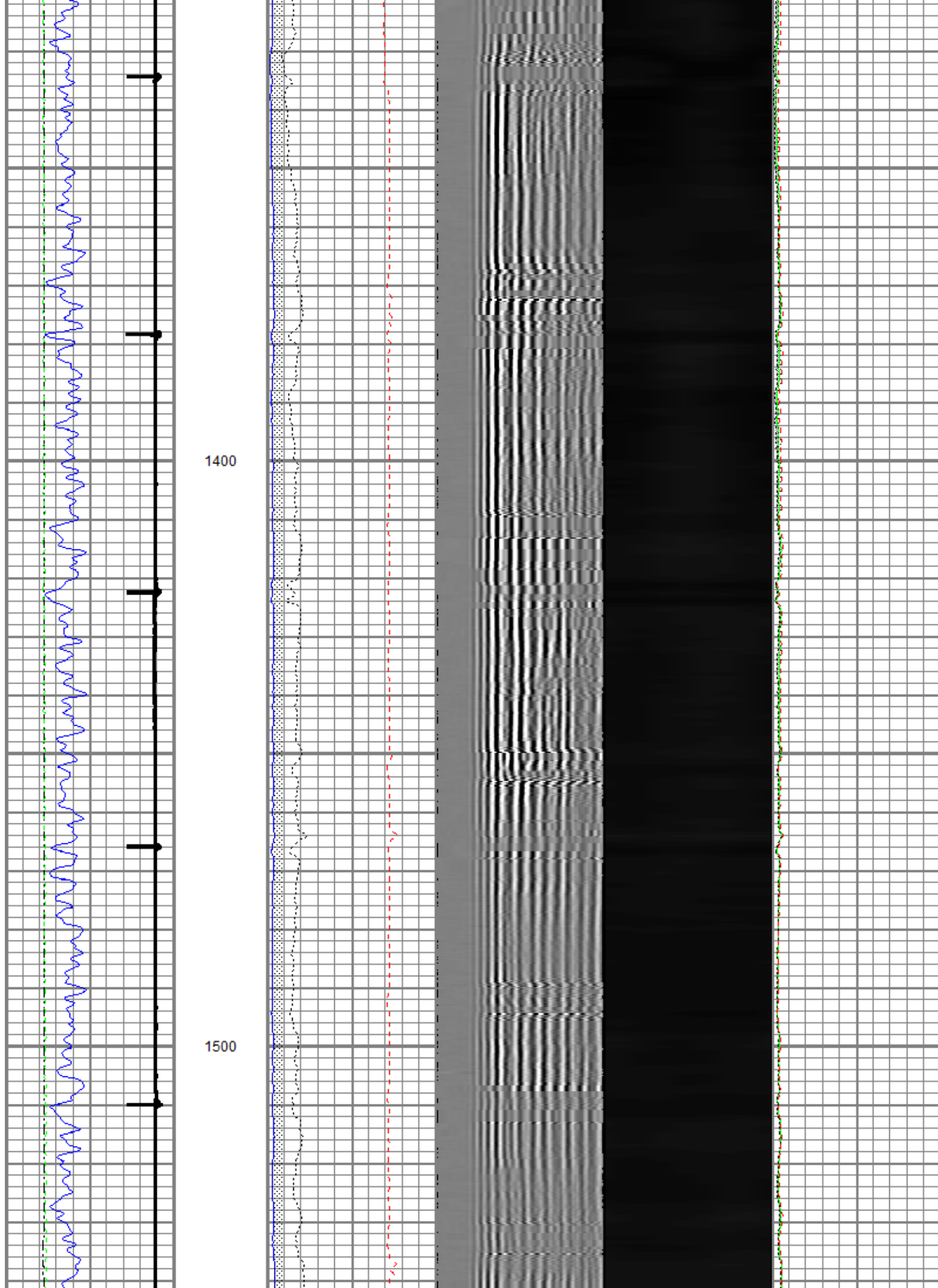
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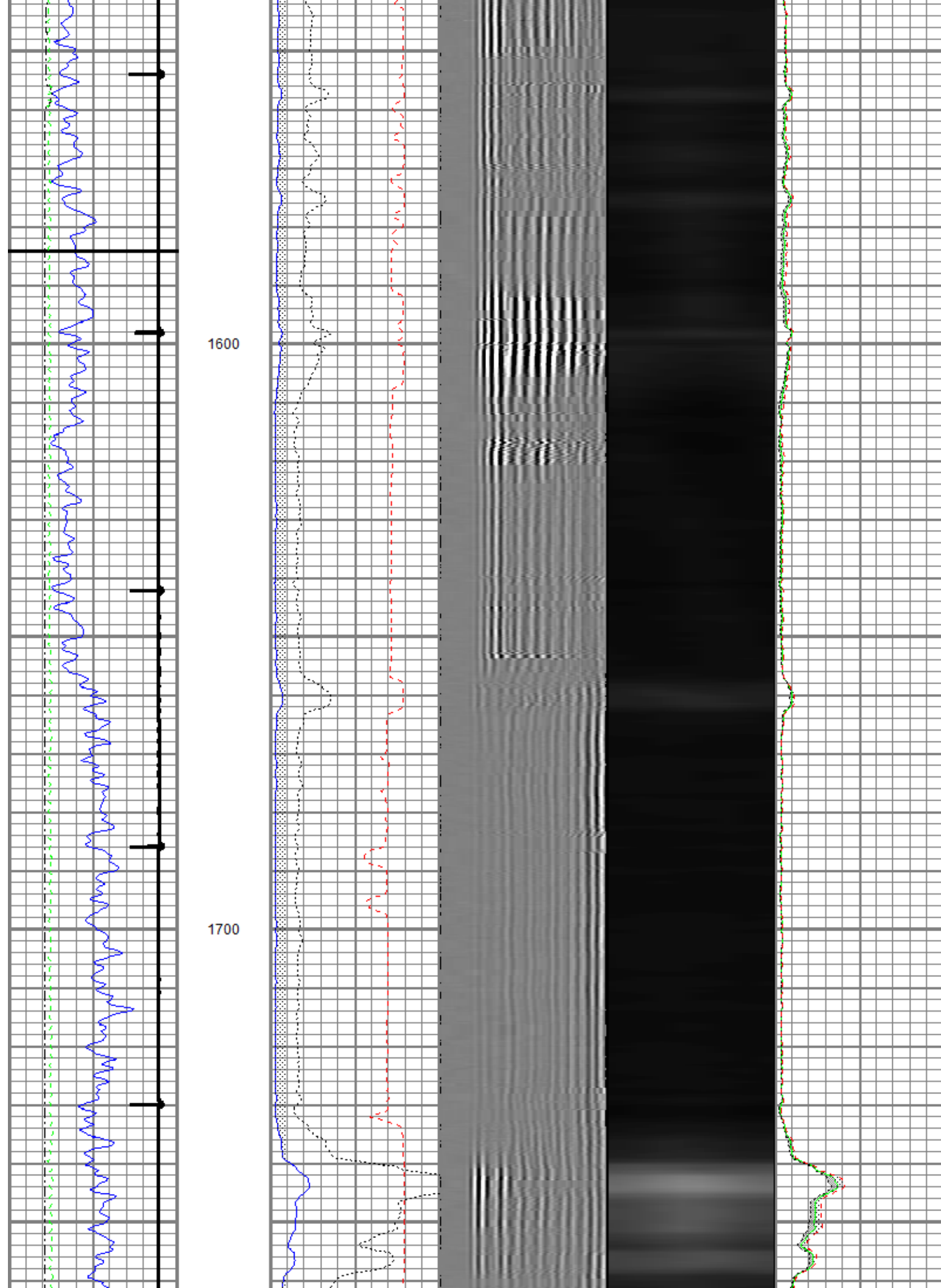
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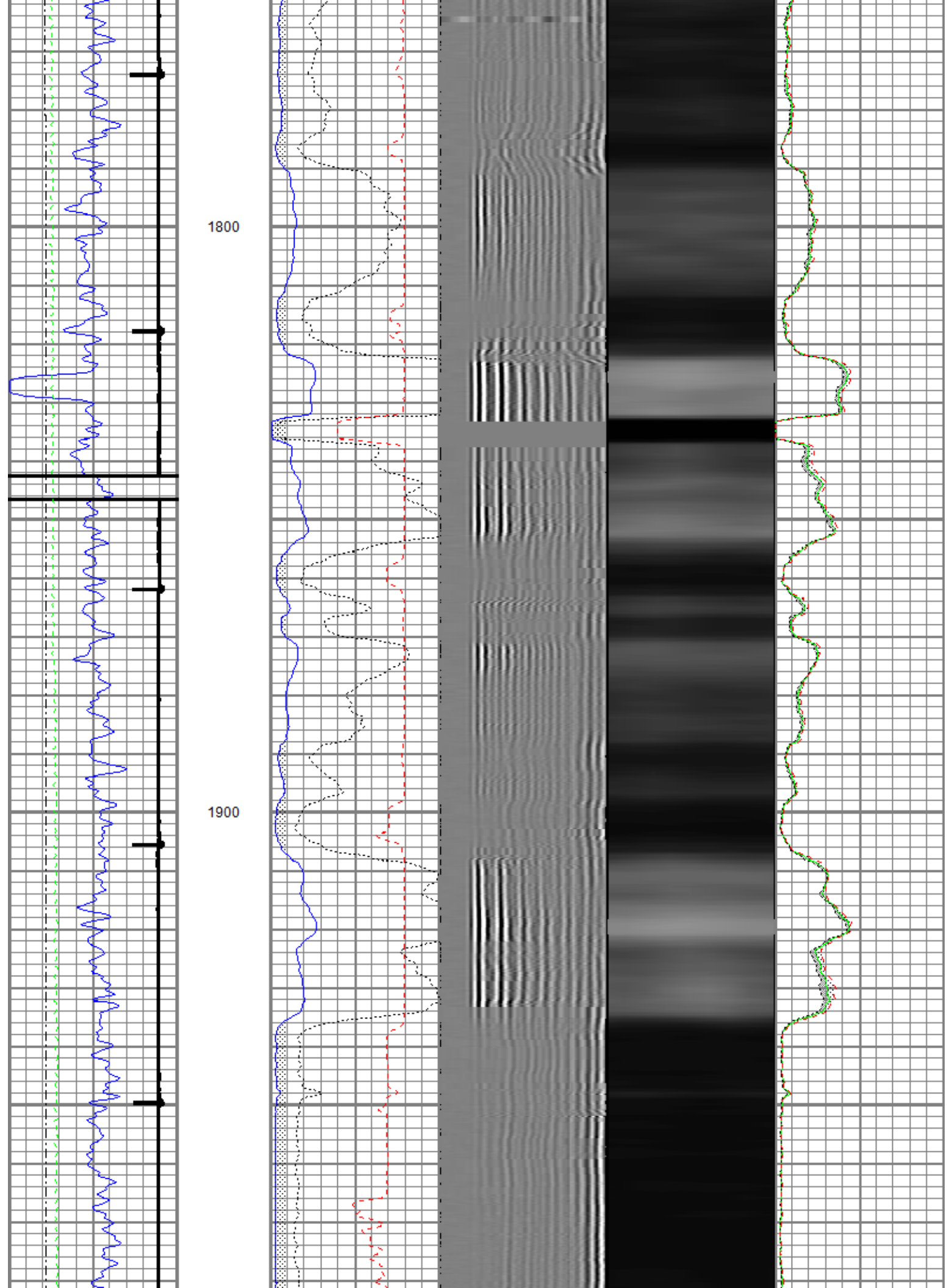


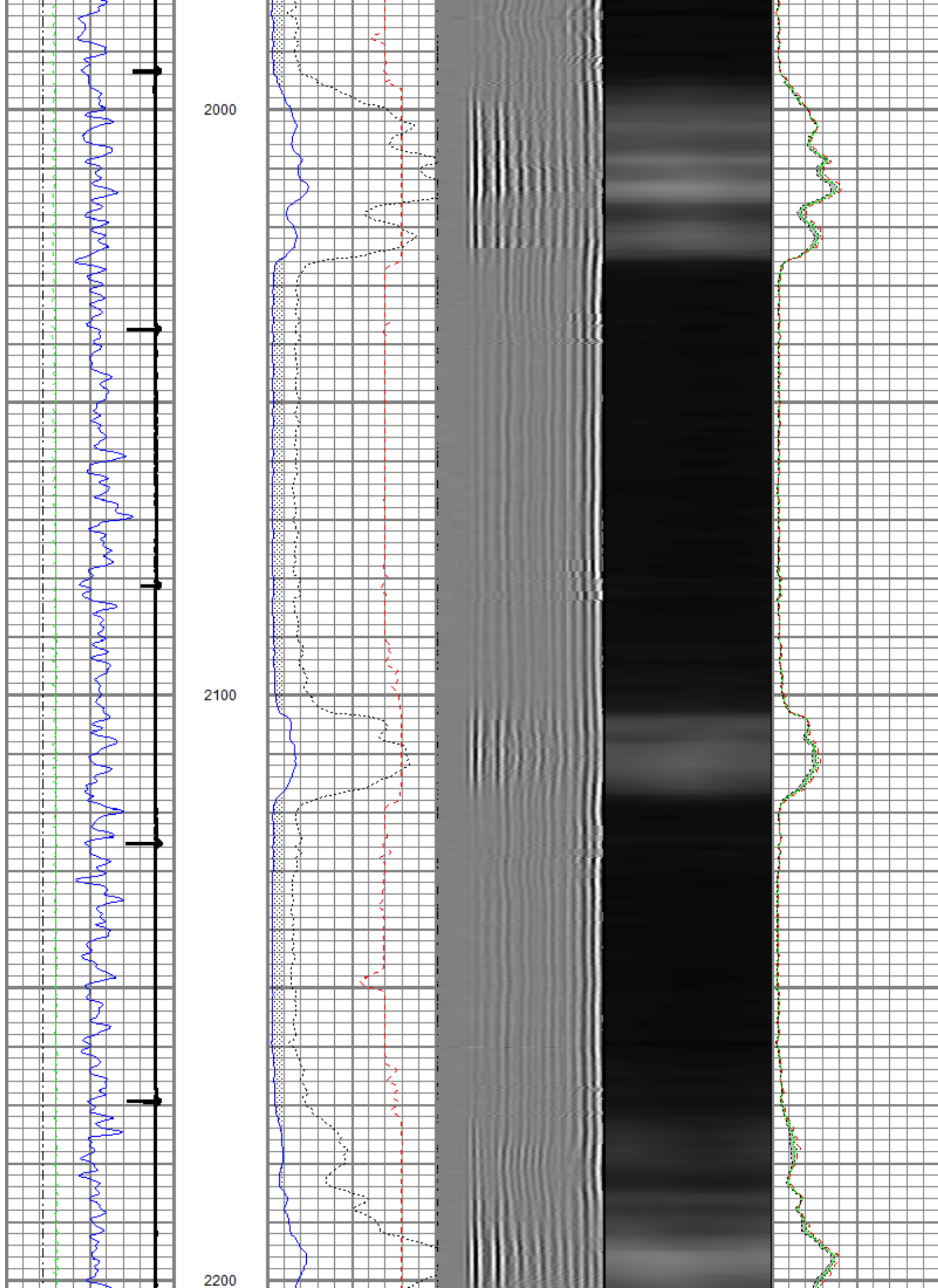


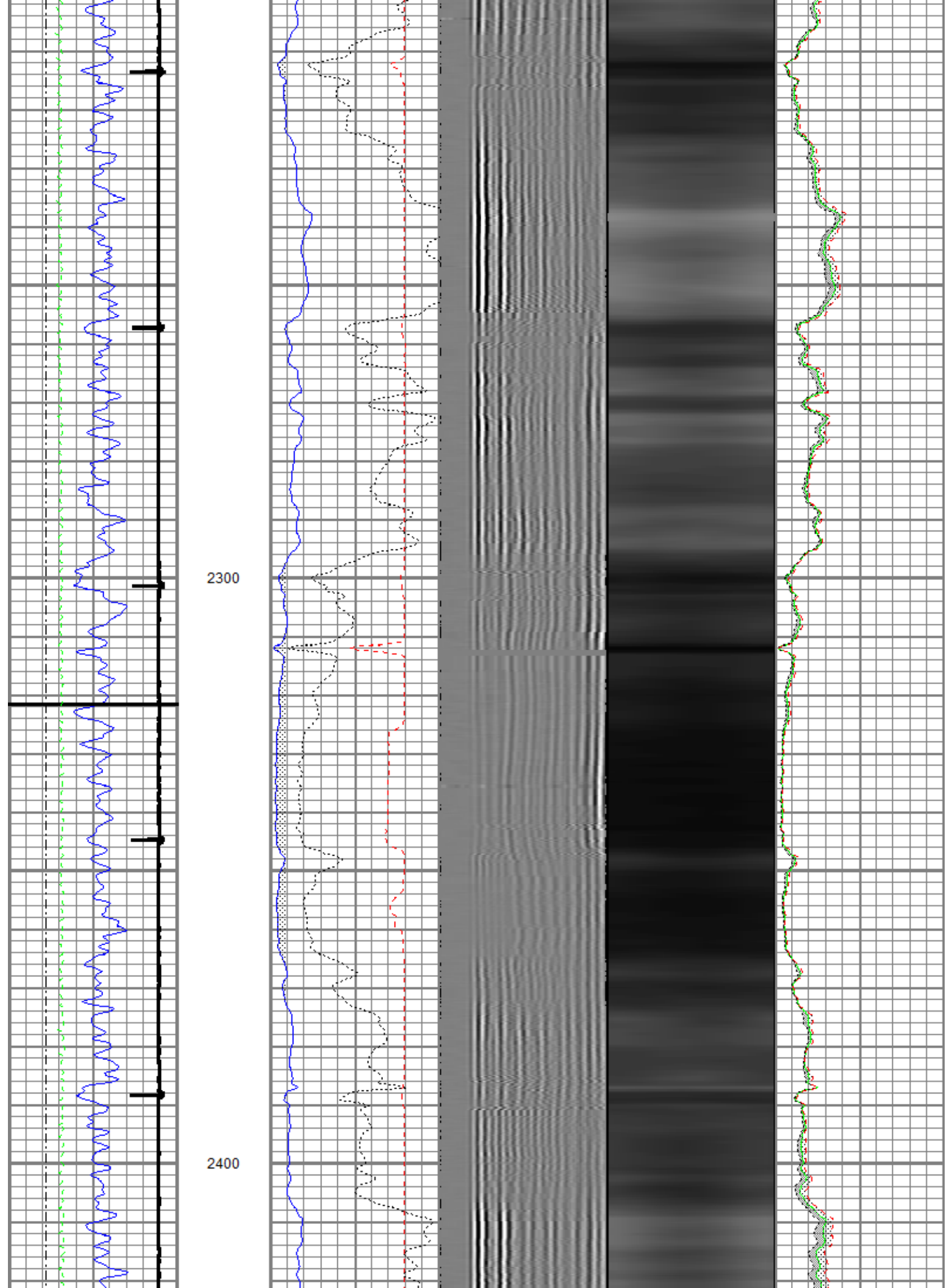


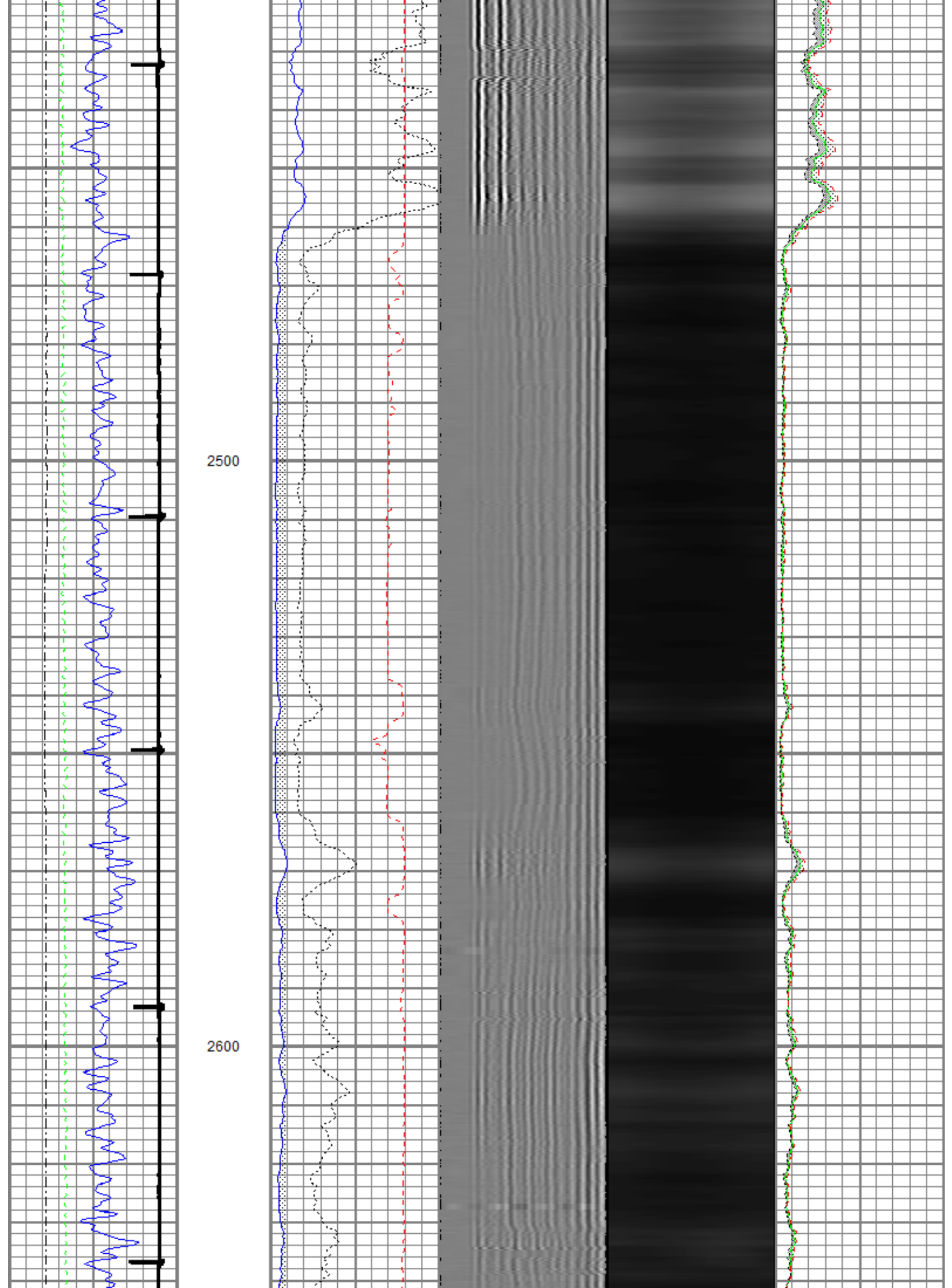


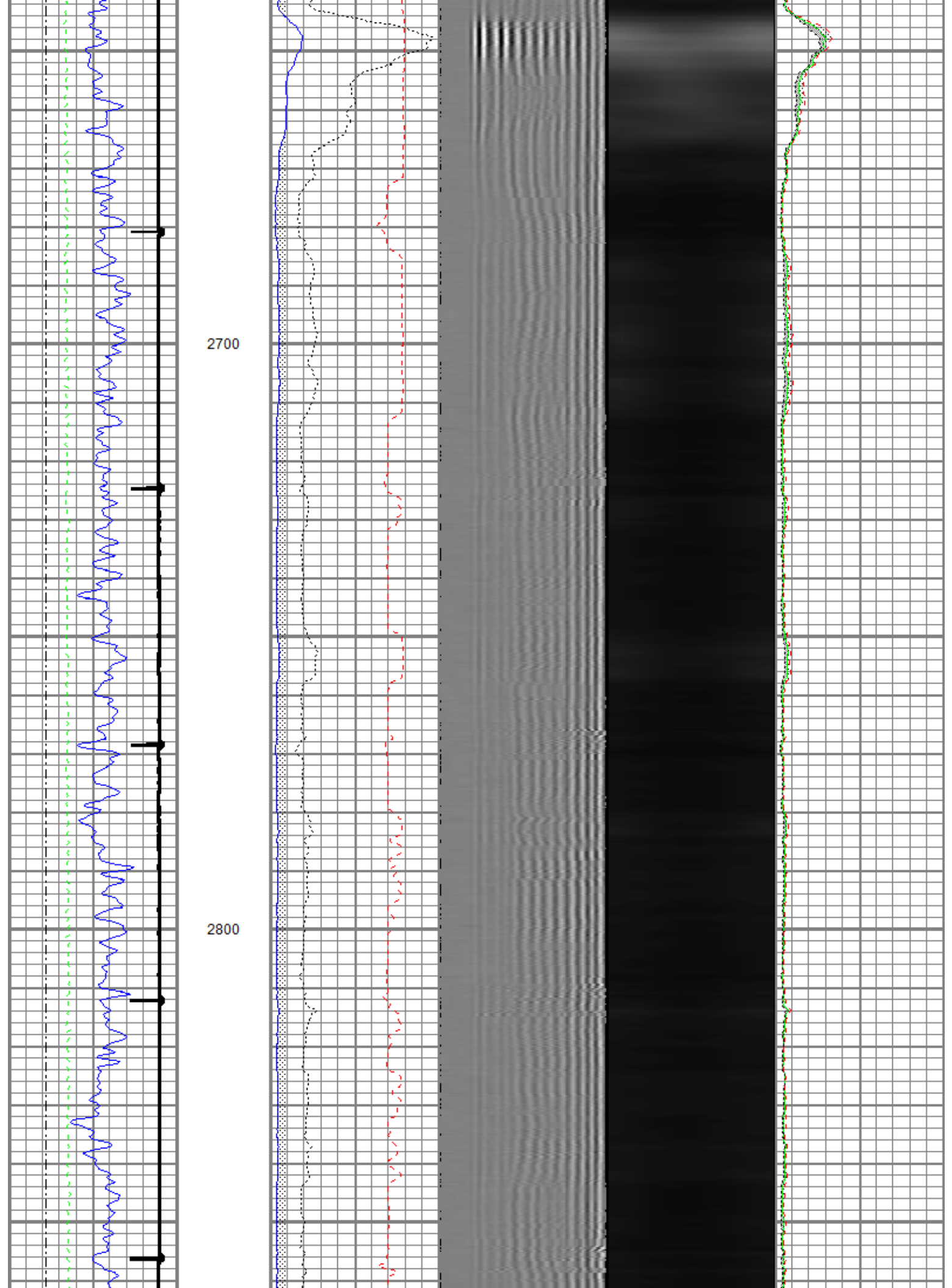


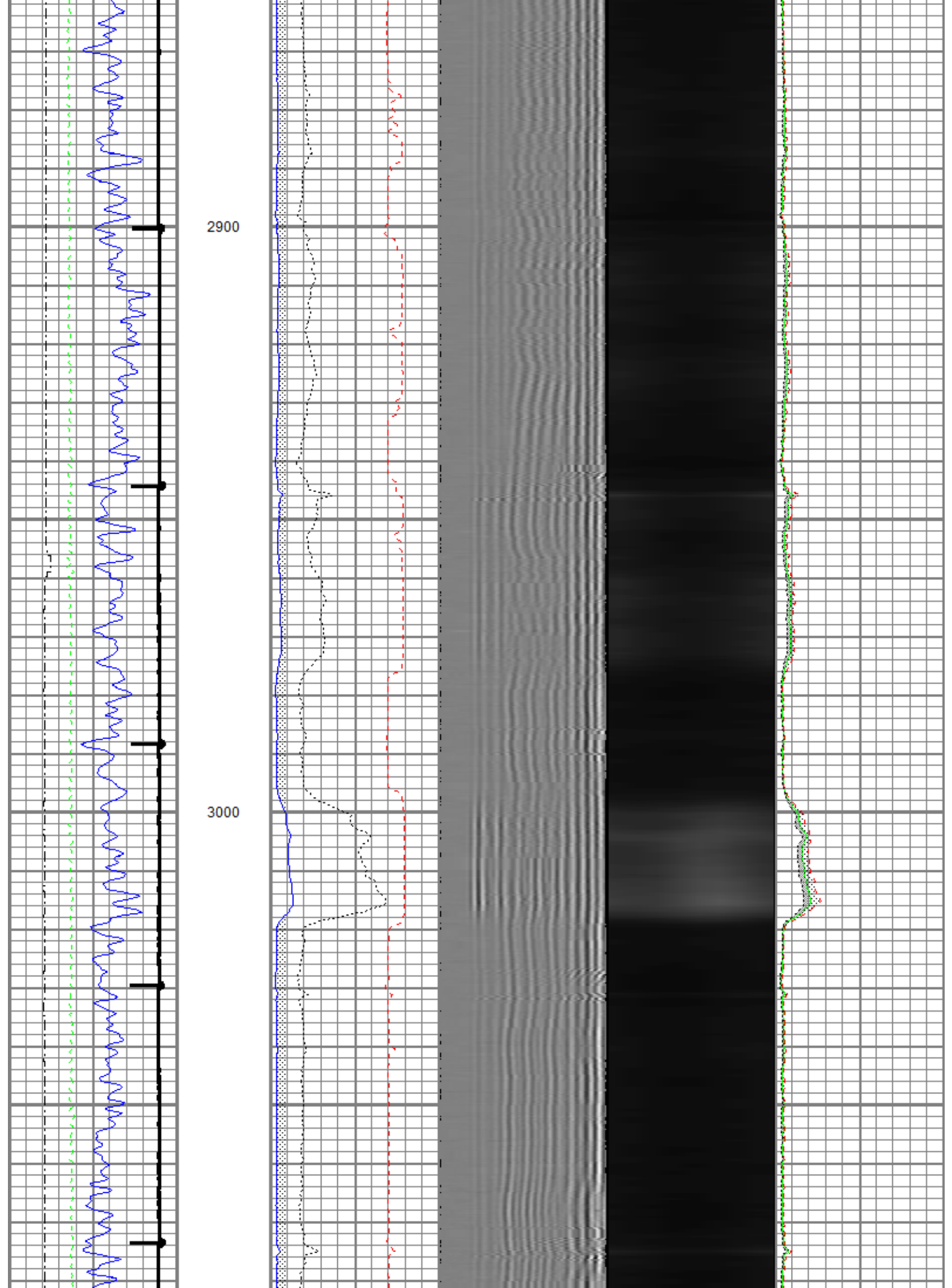


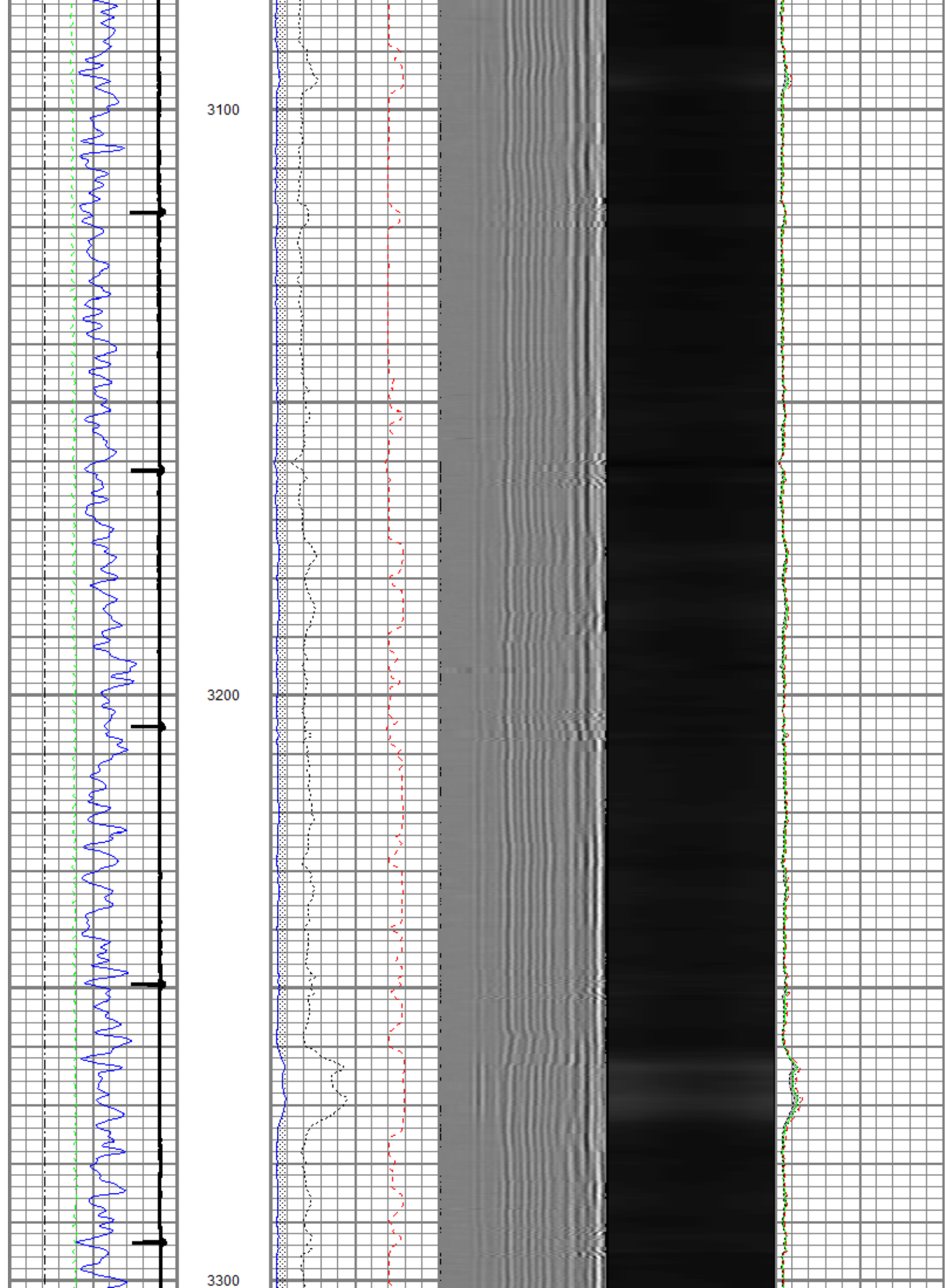


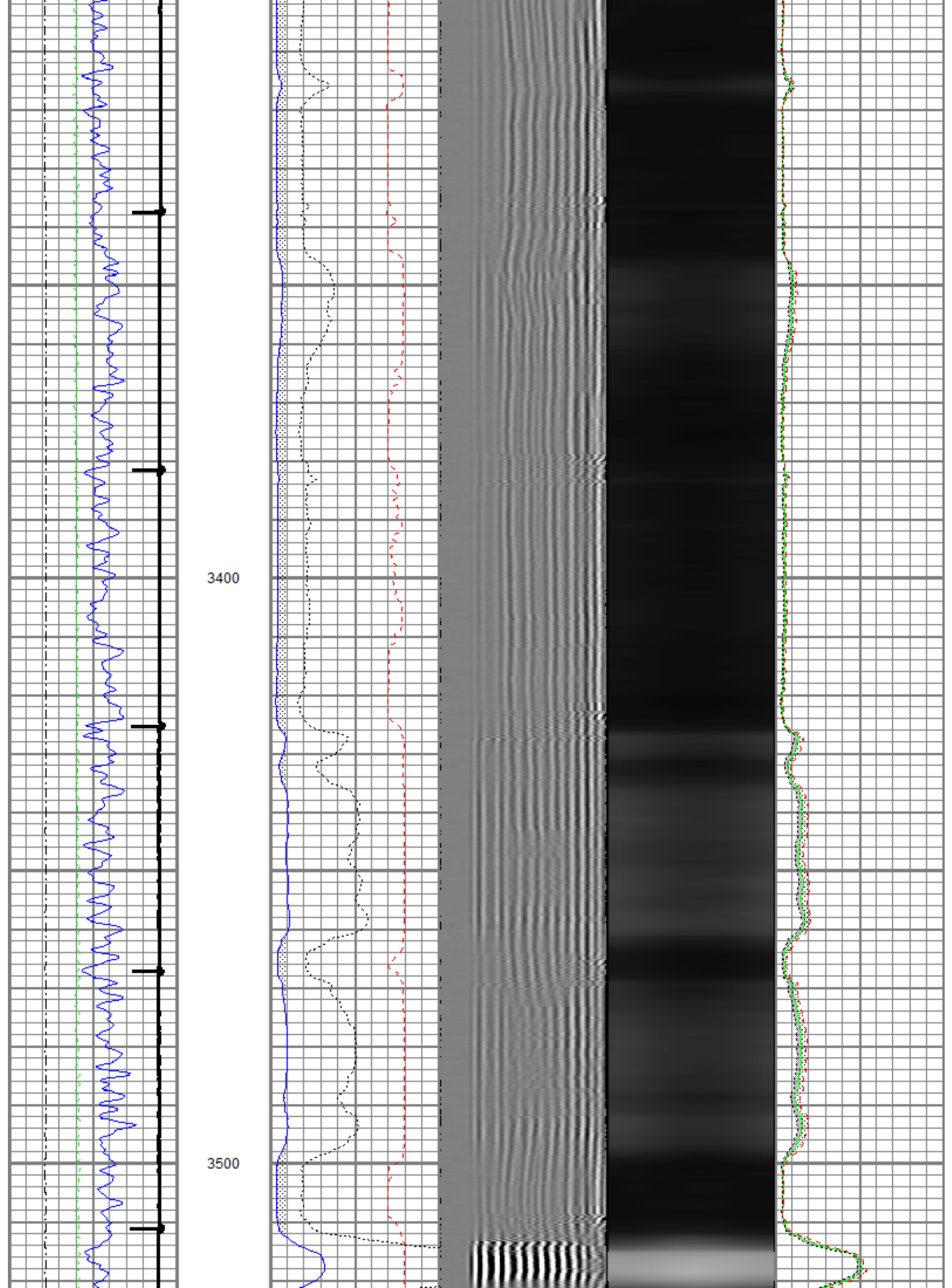


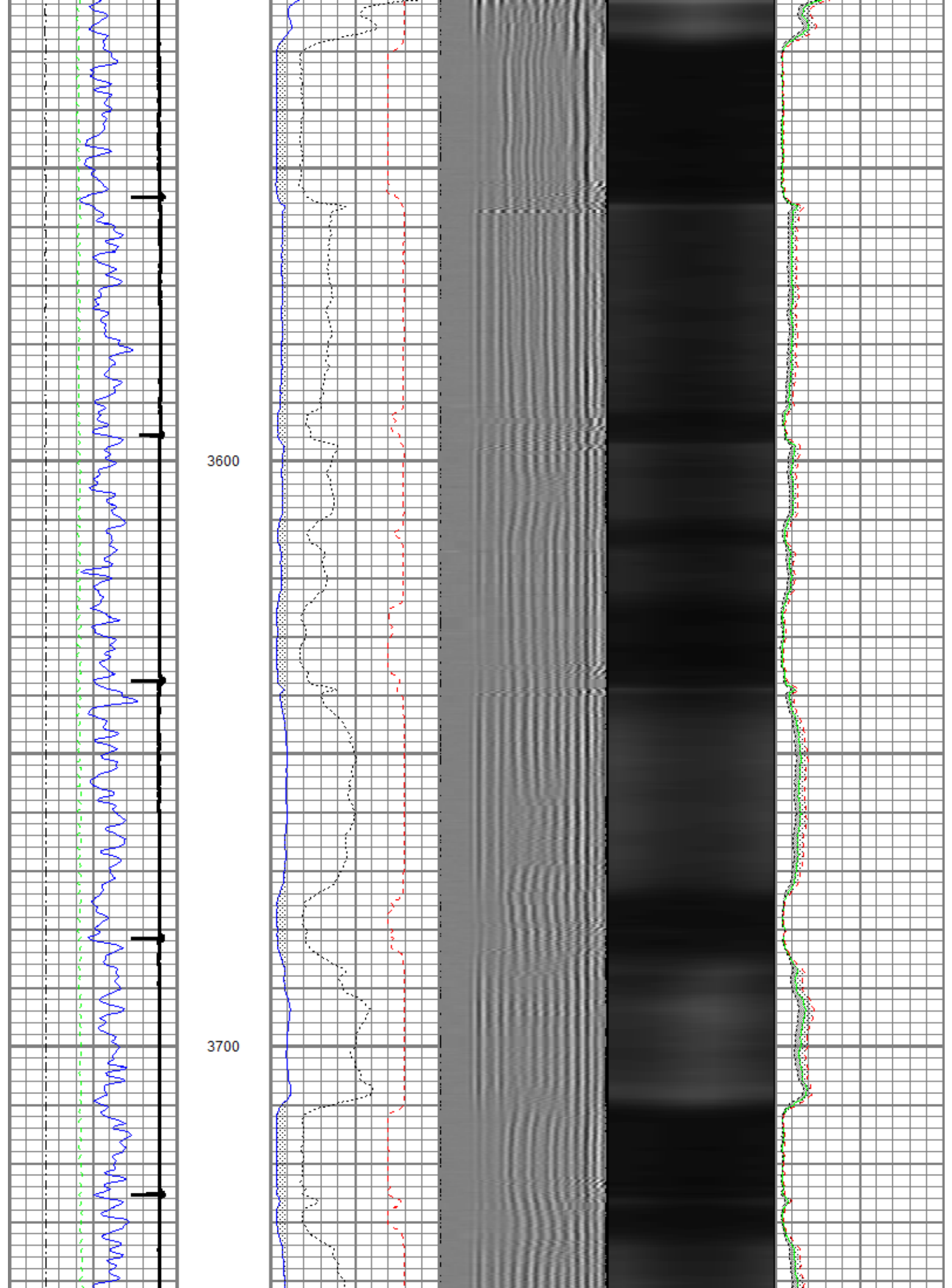


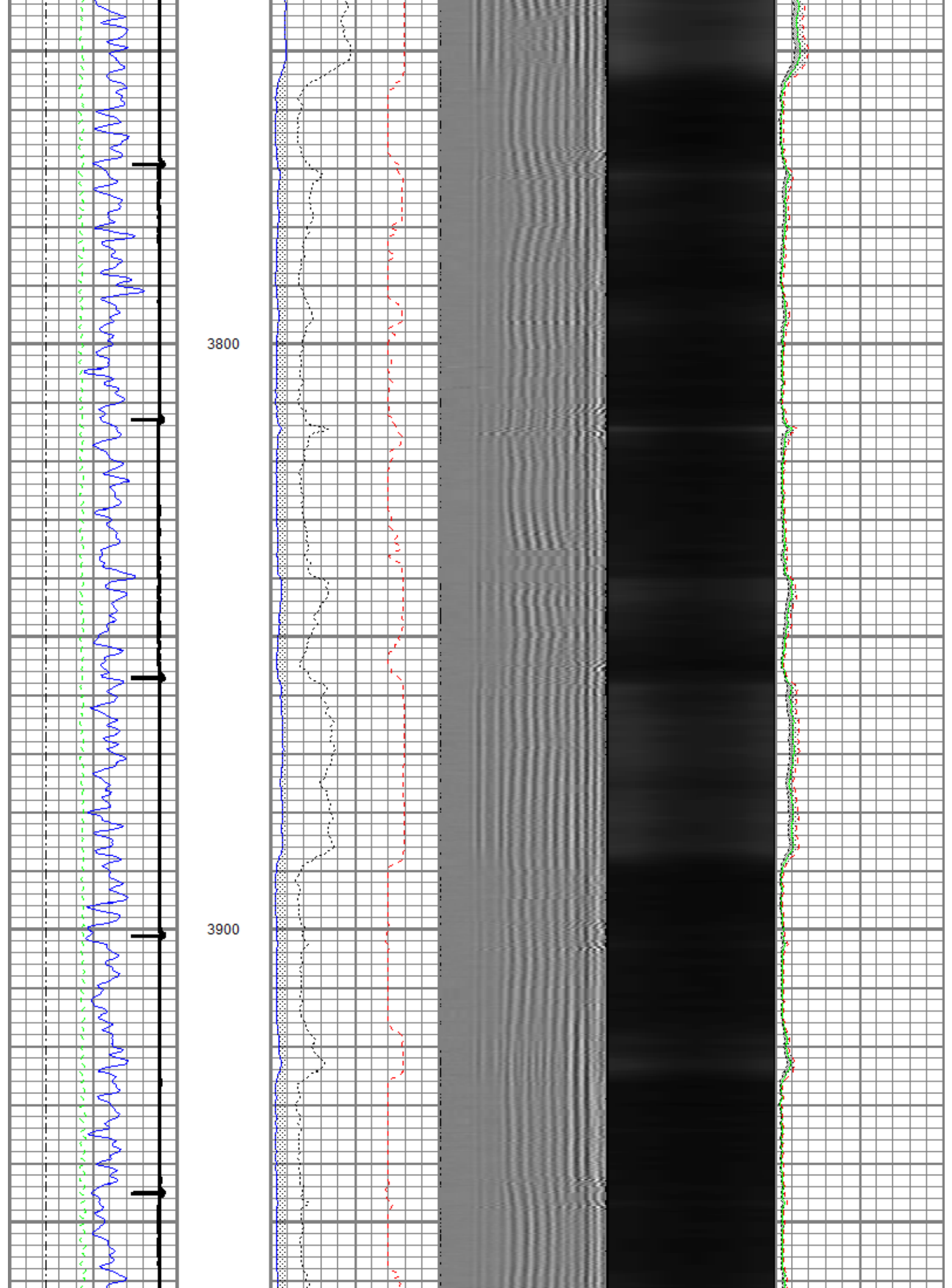


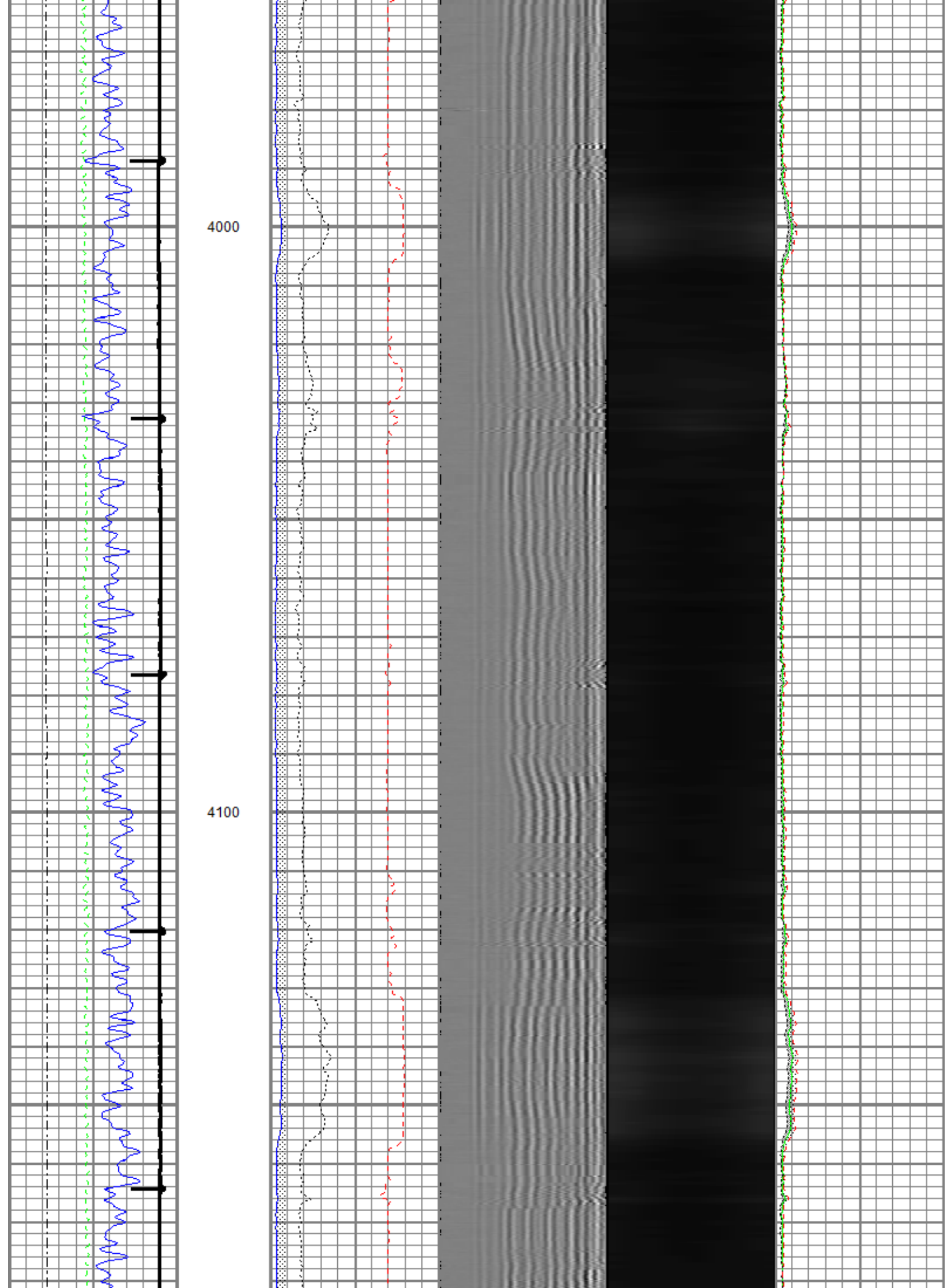


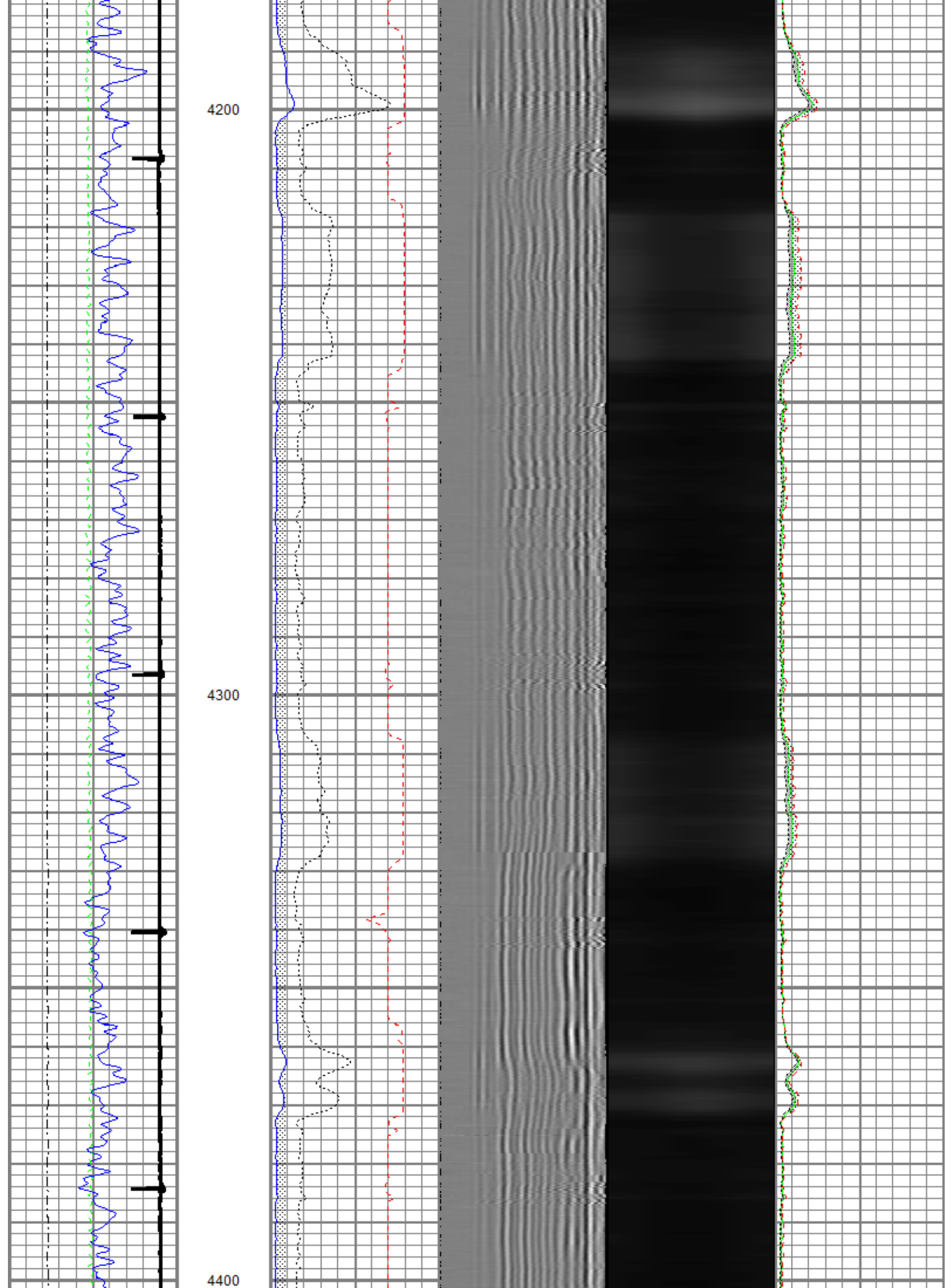


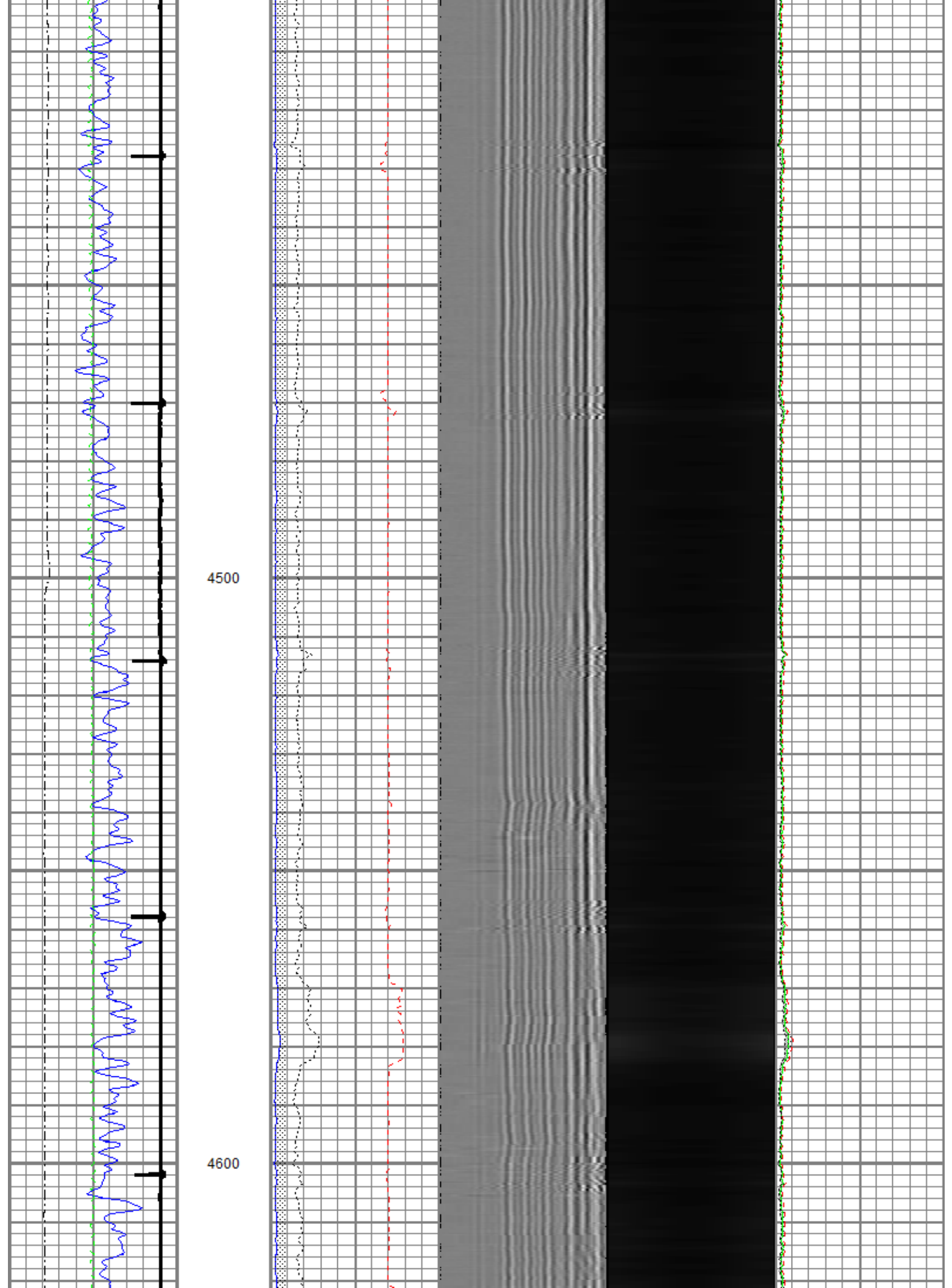


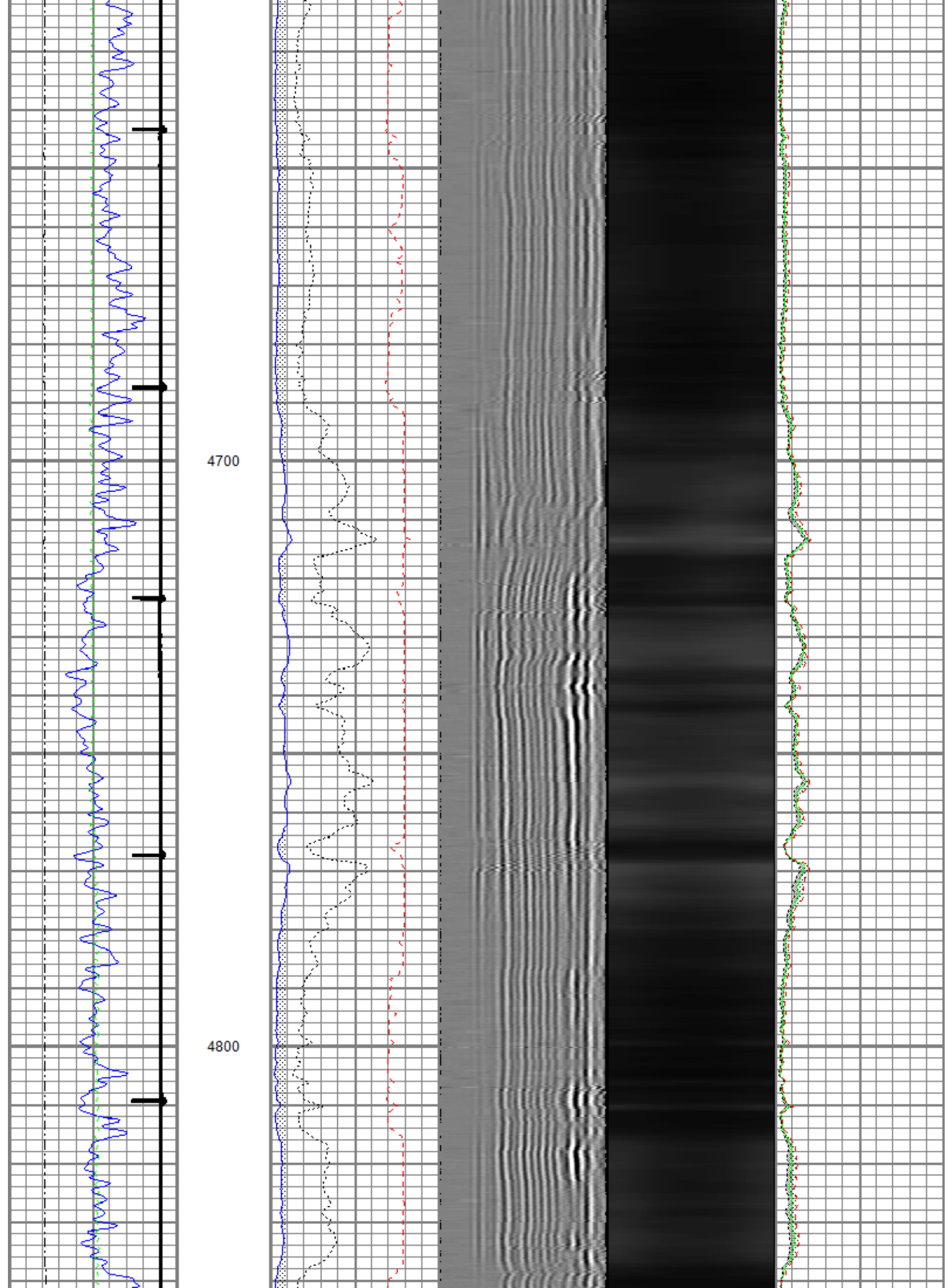


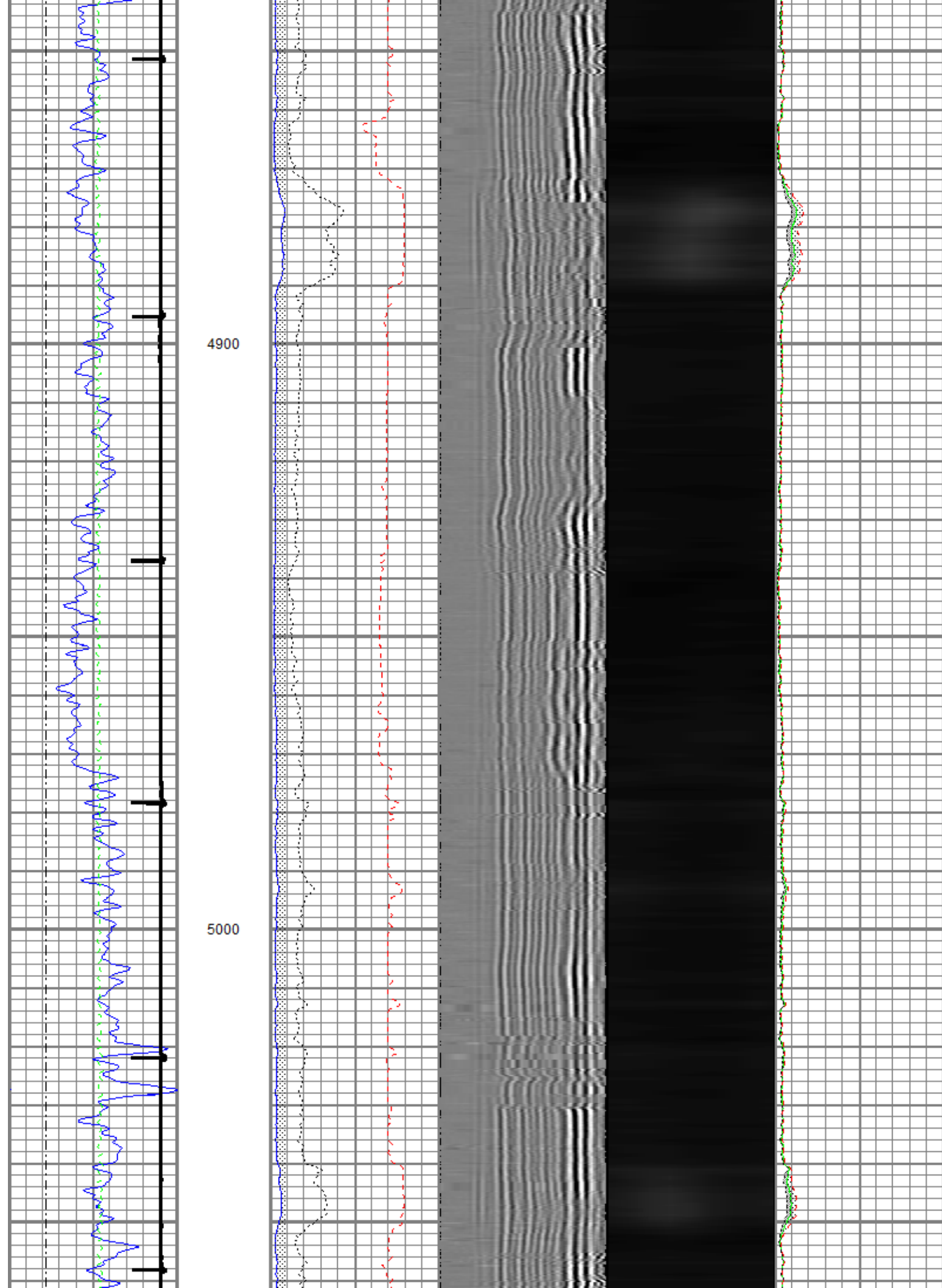


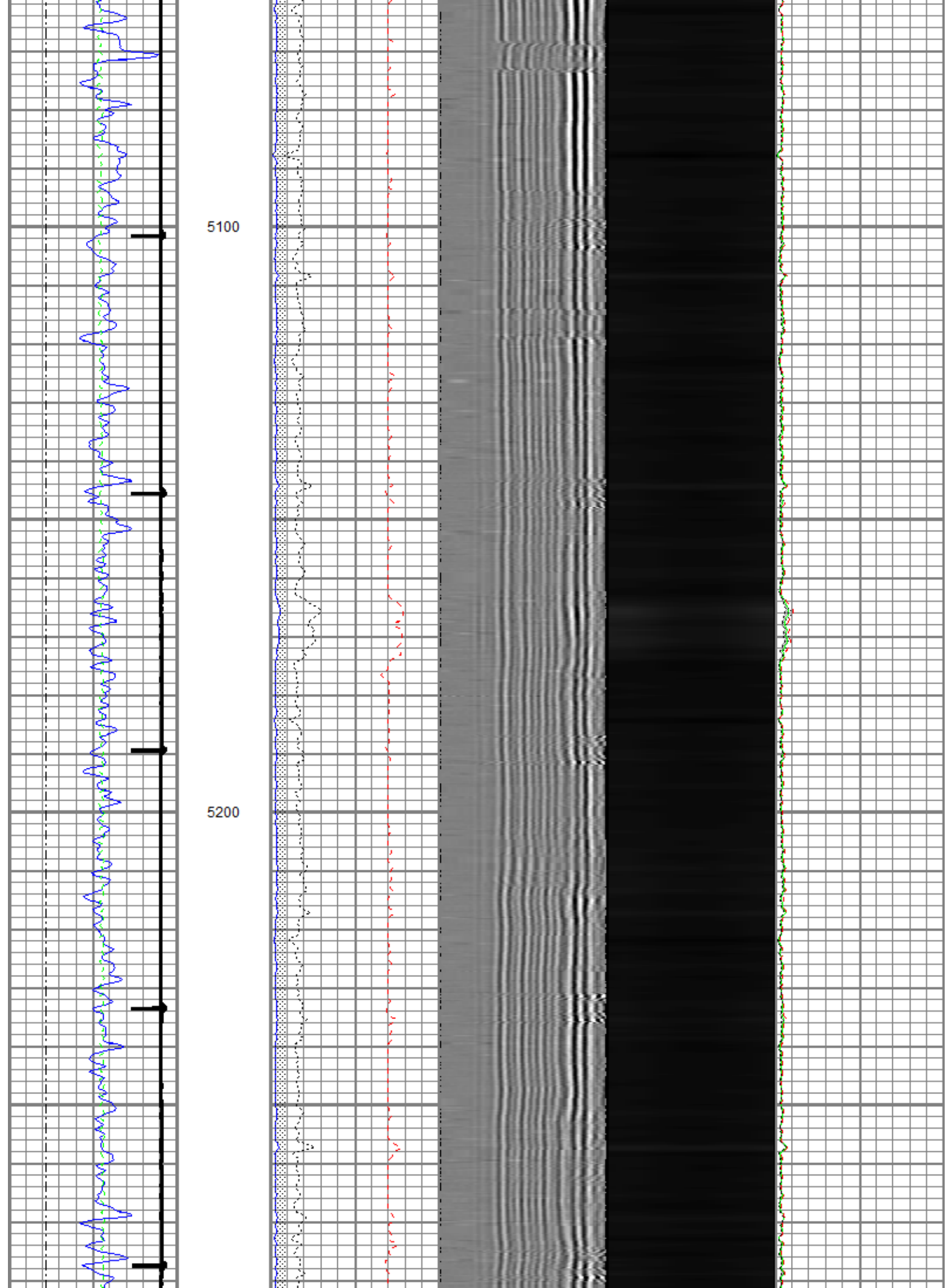


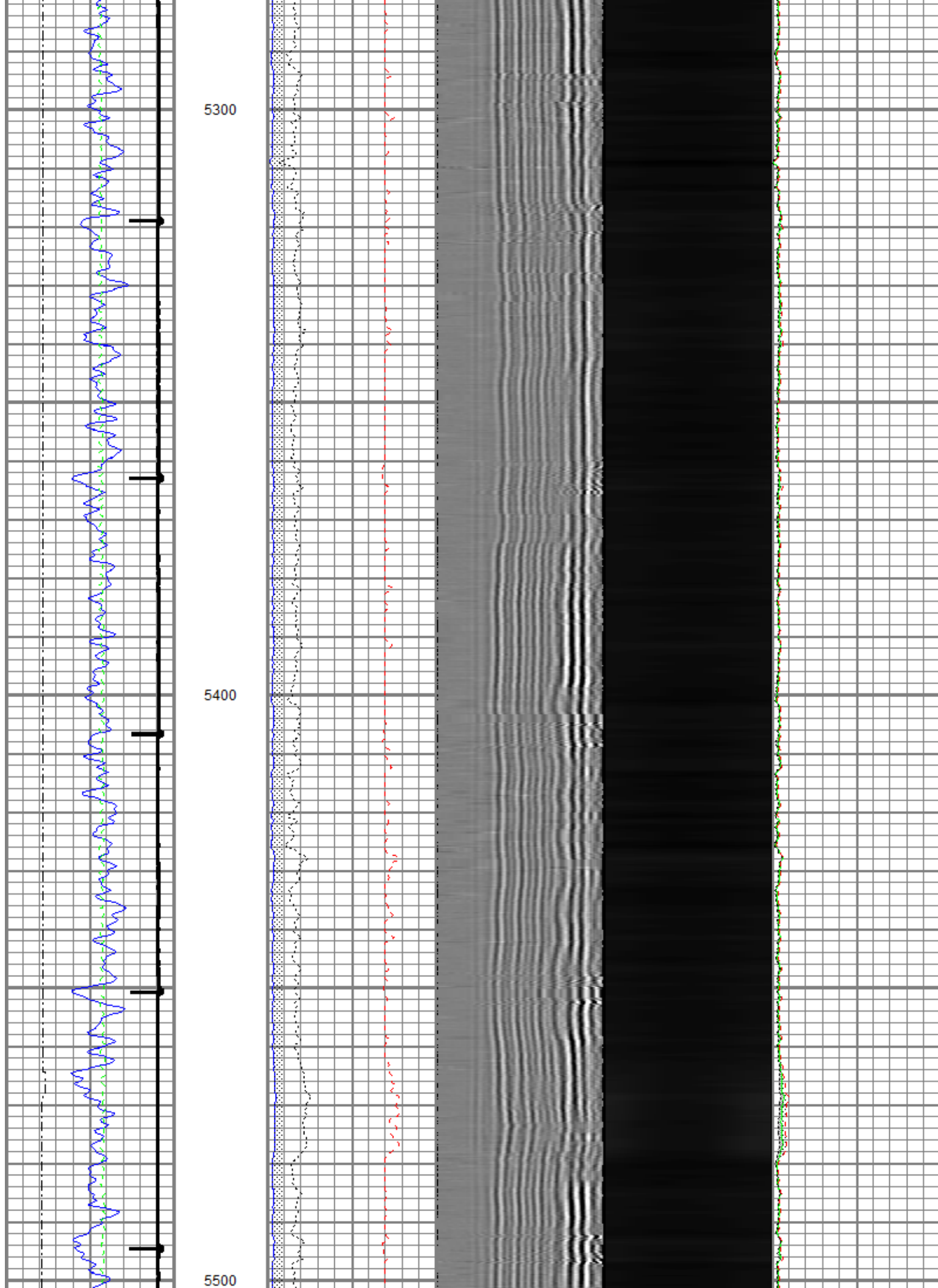


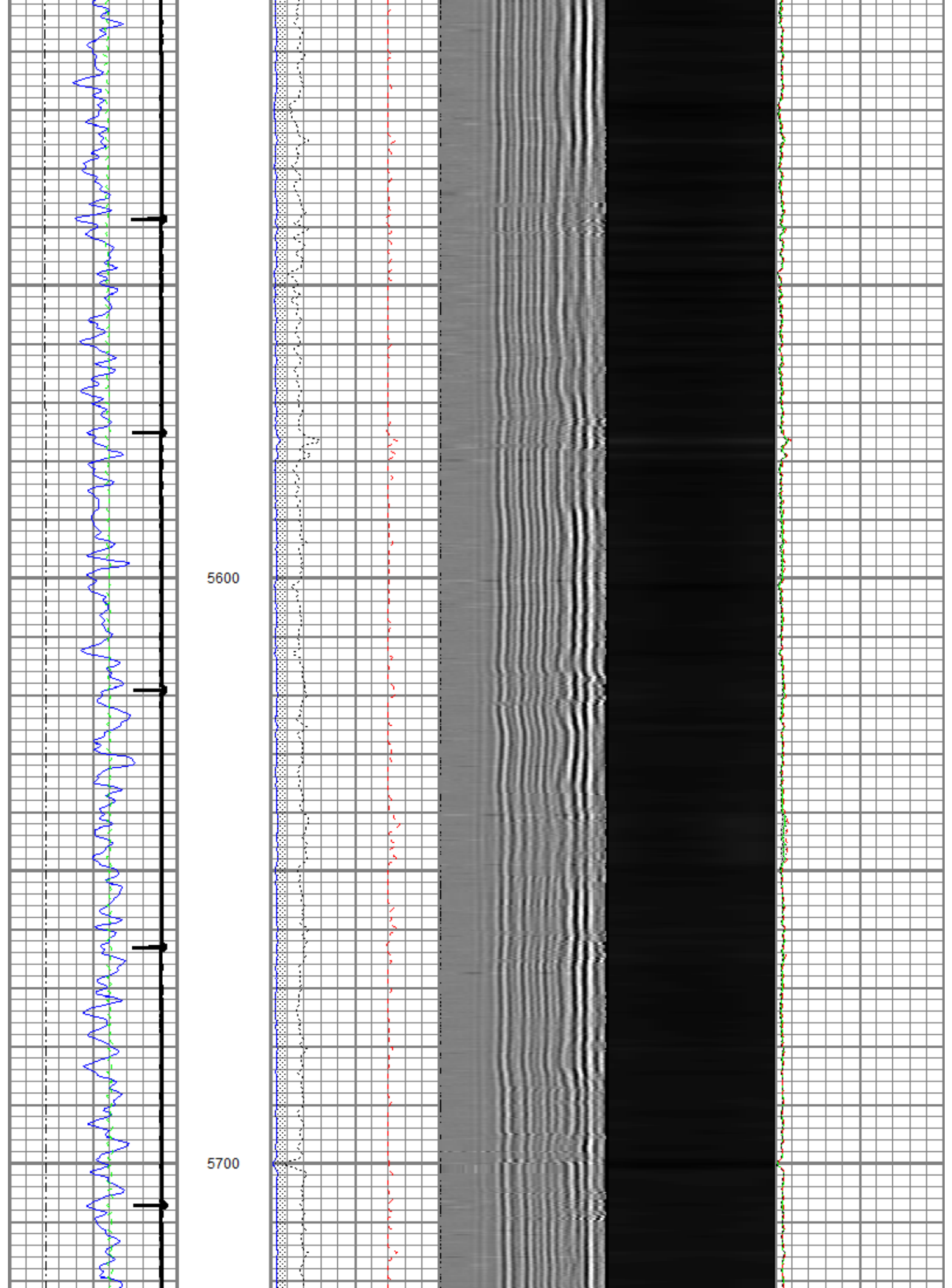


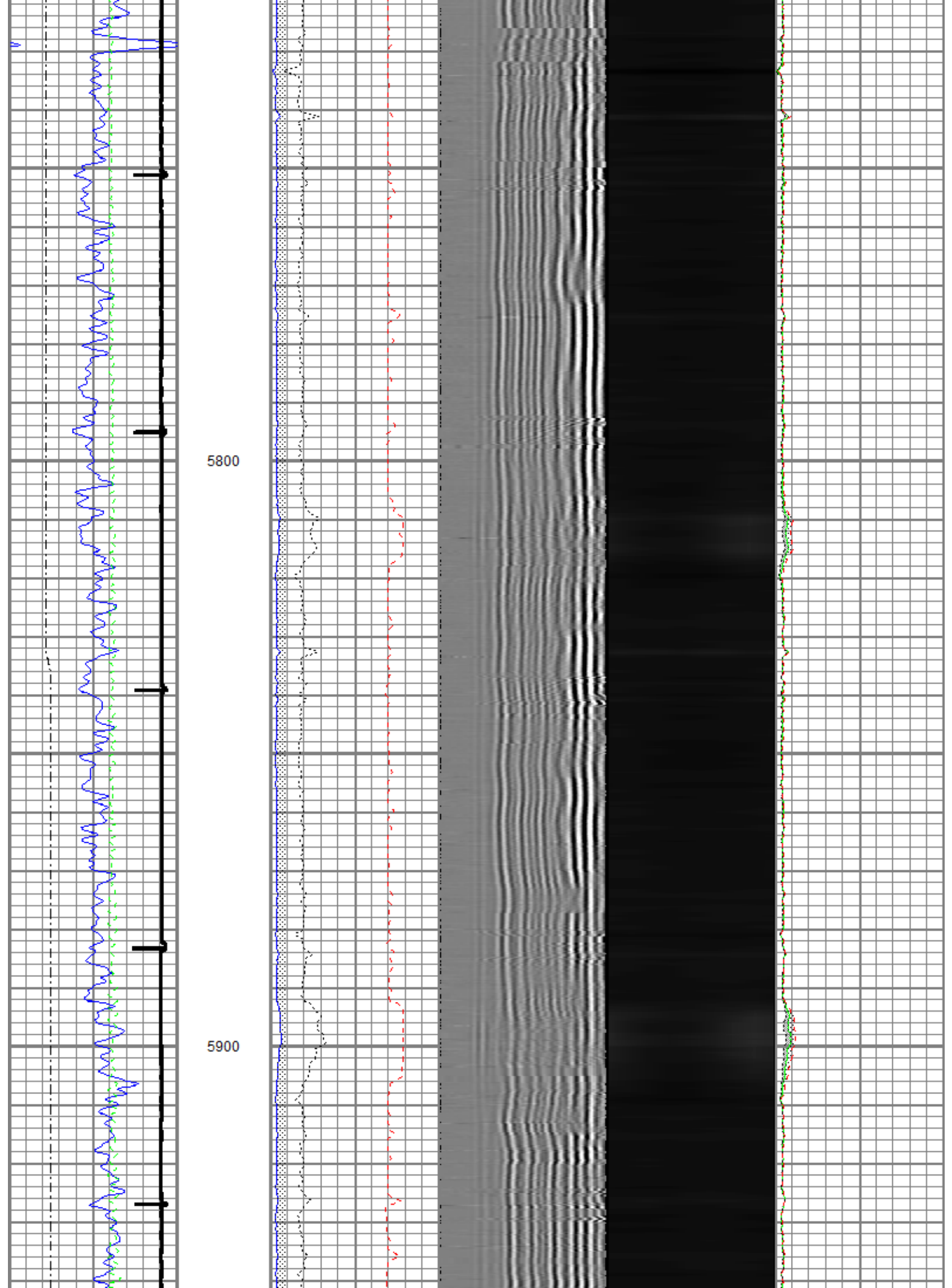


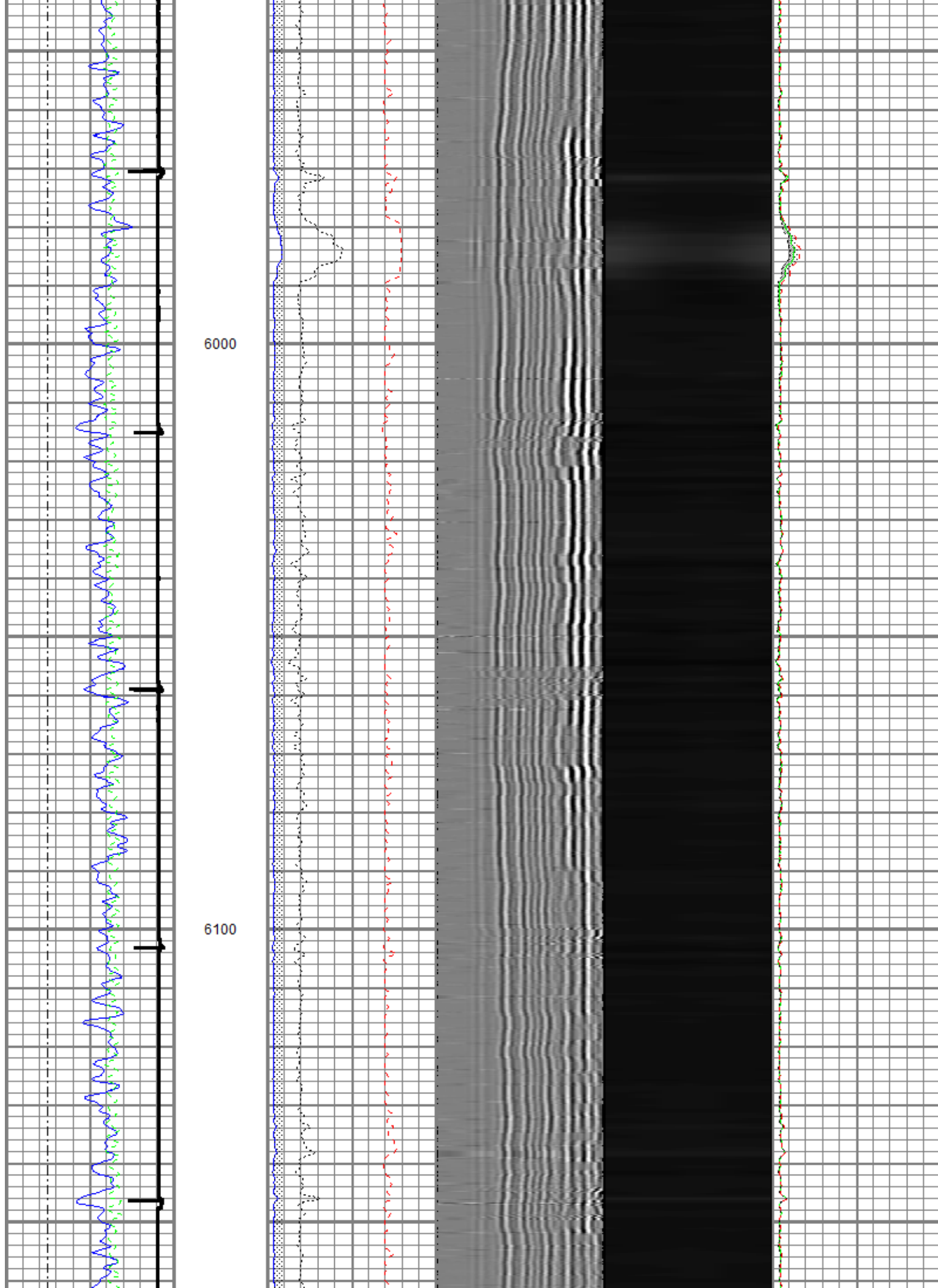


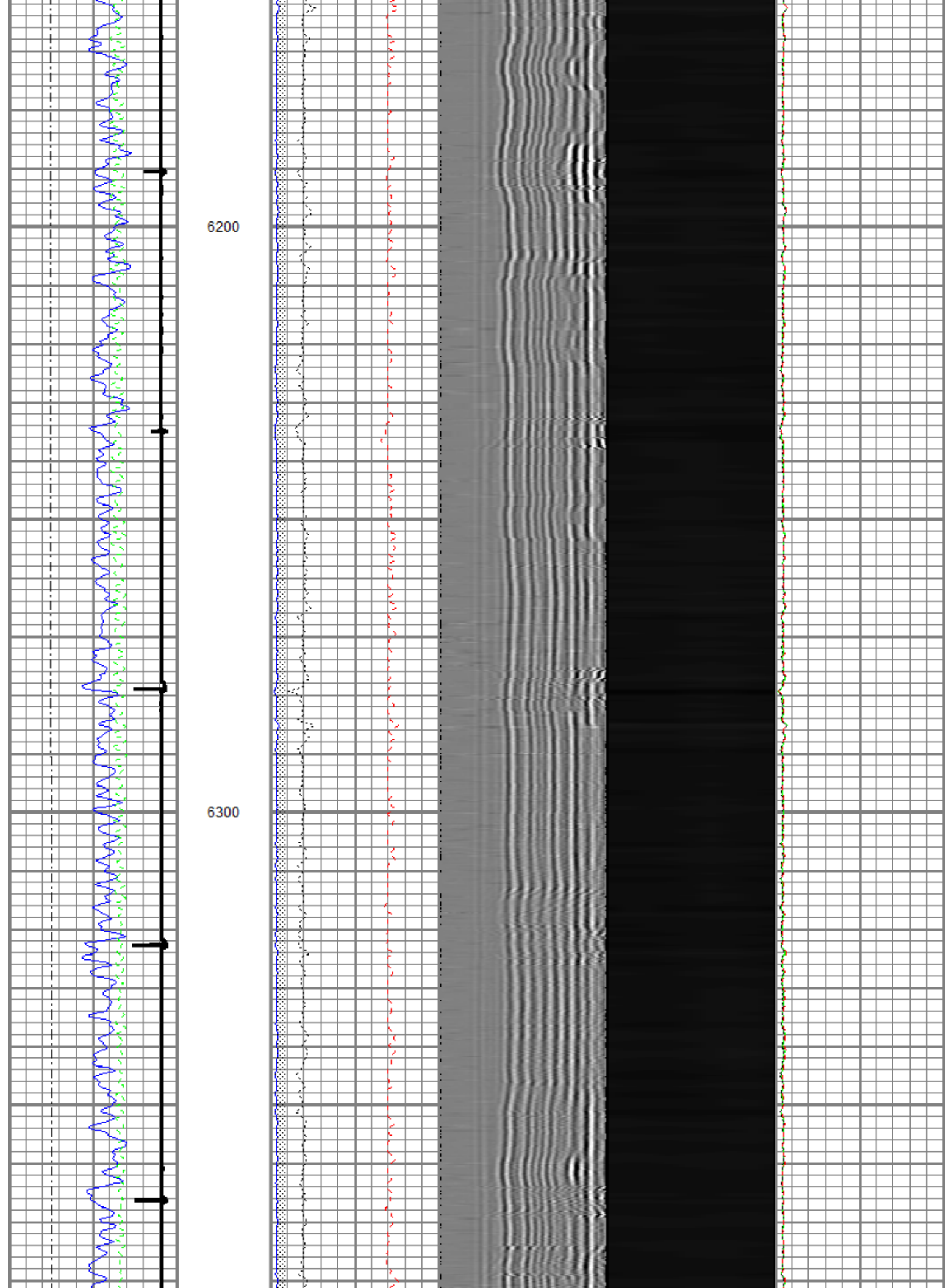


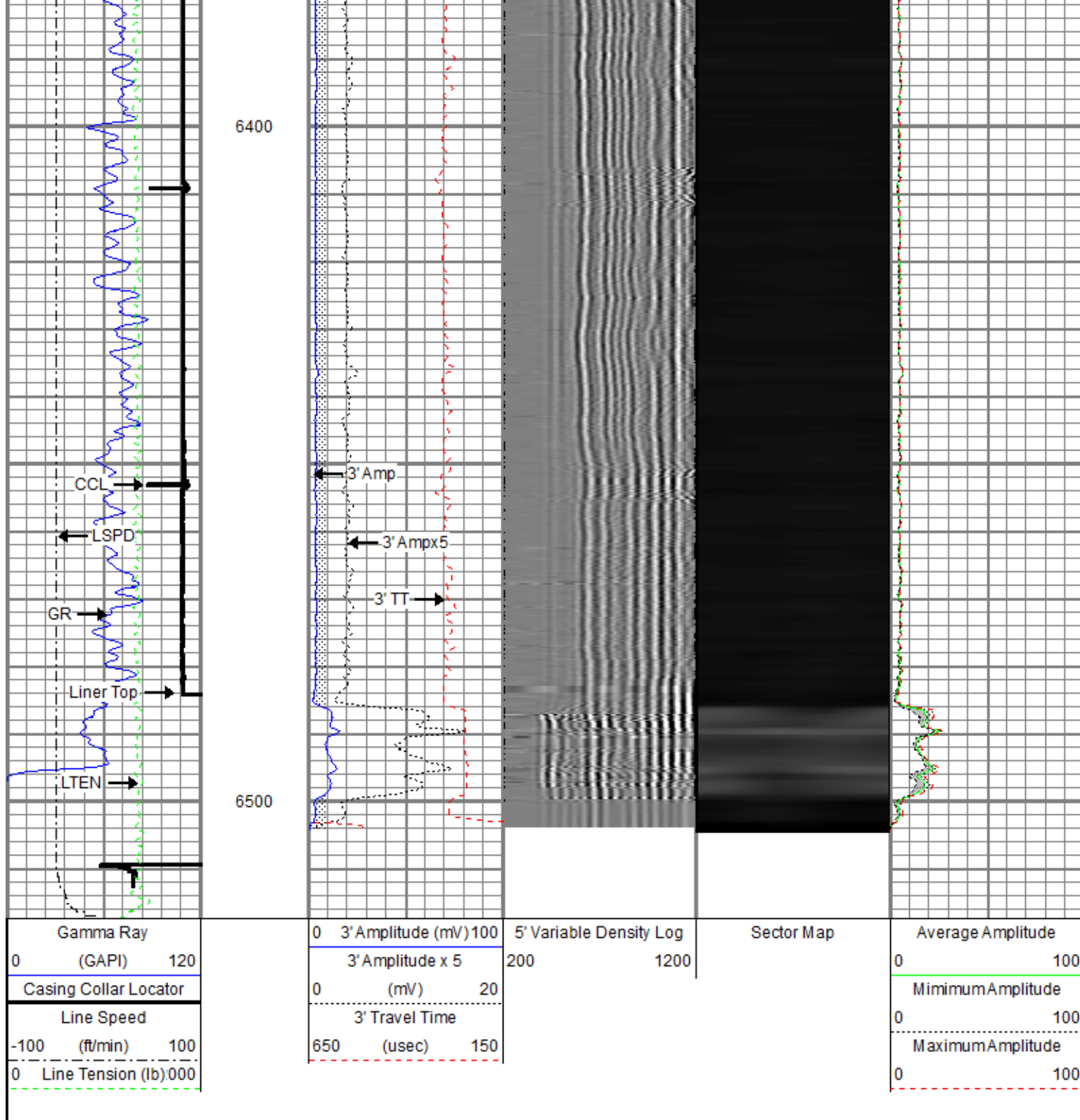








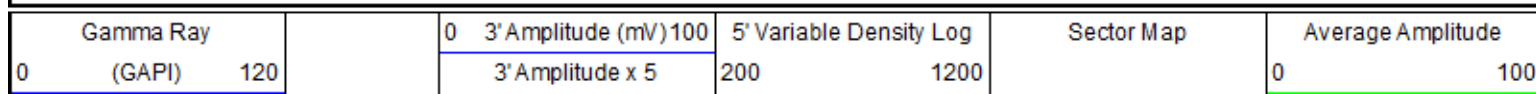




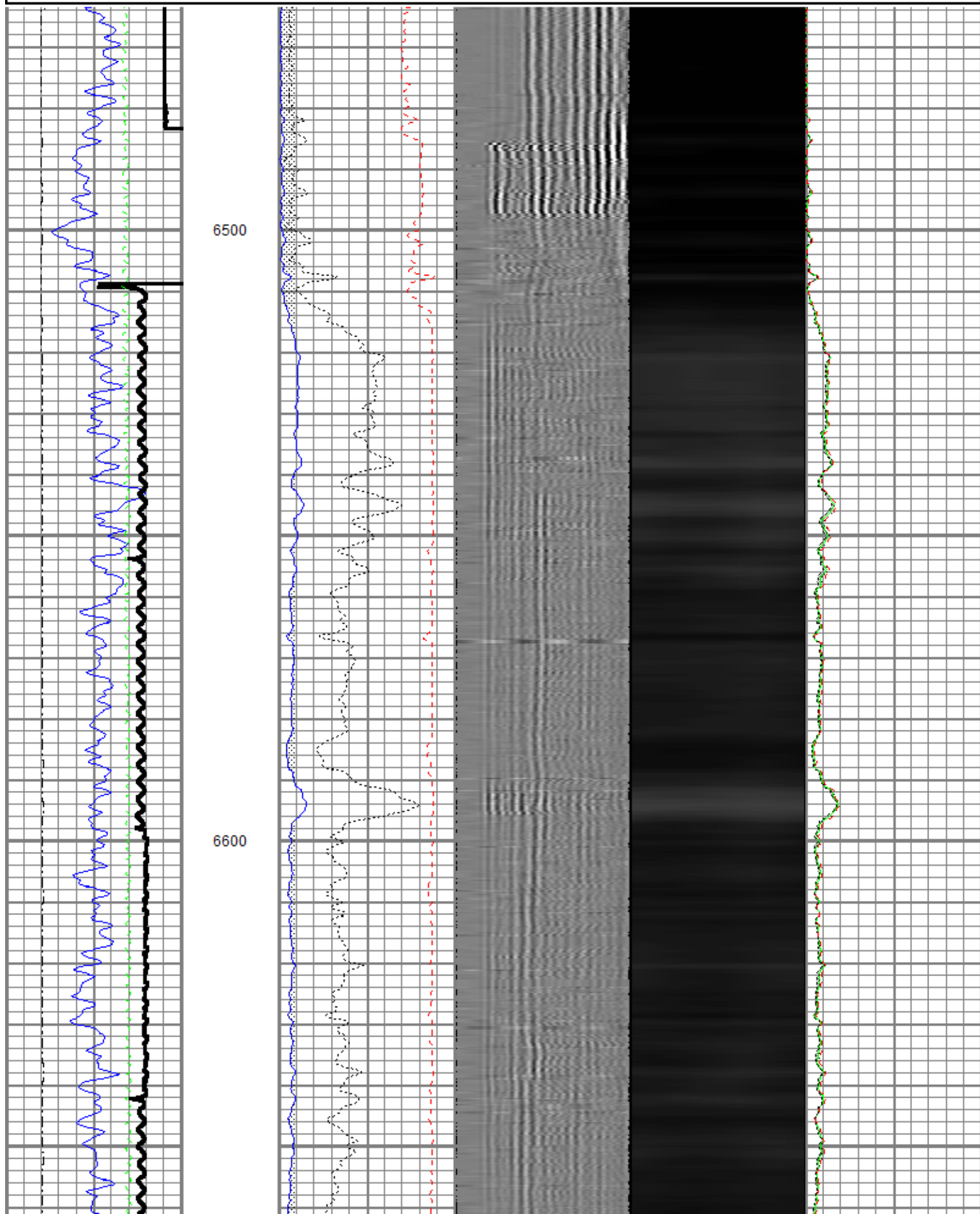
4.5 Main Pass

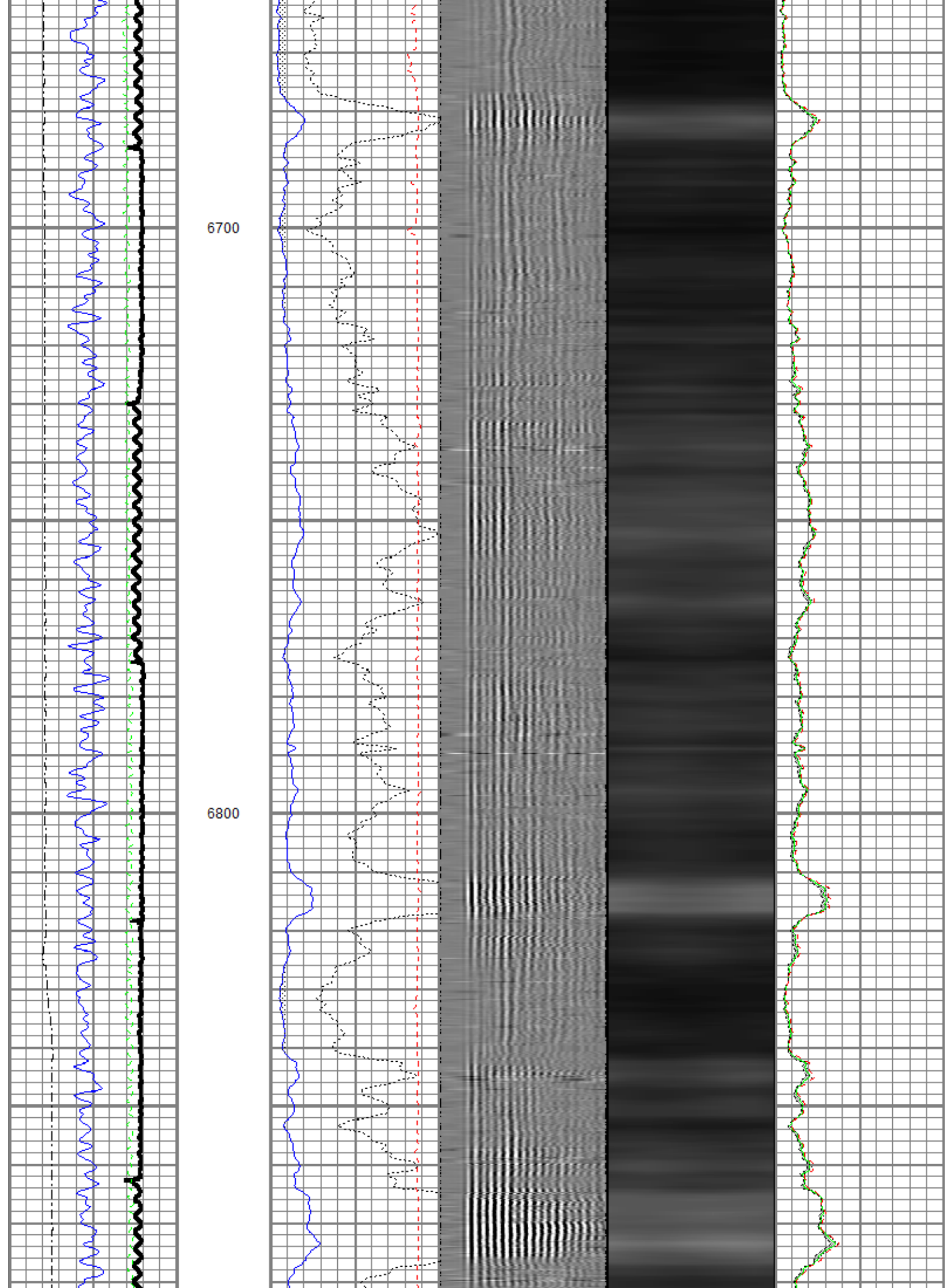
Logged With 2800 PSI Surface Induced

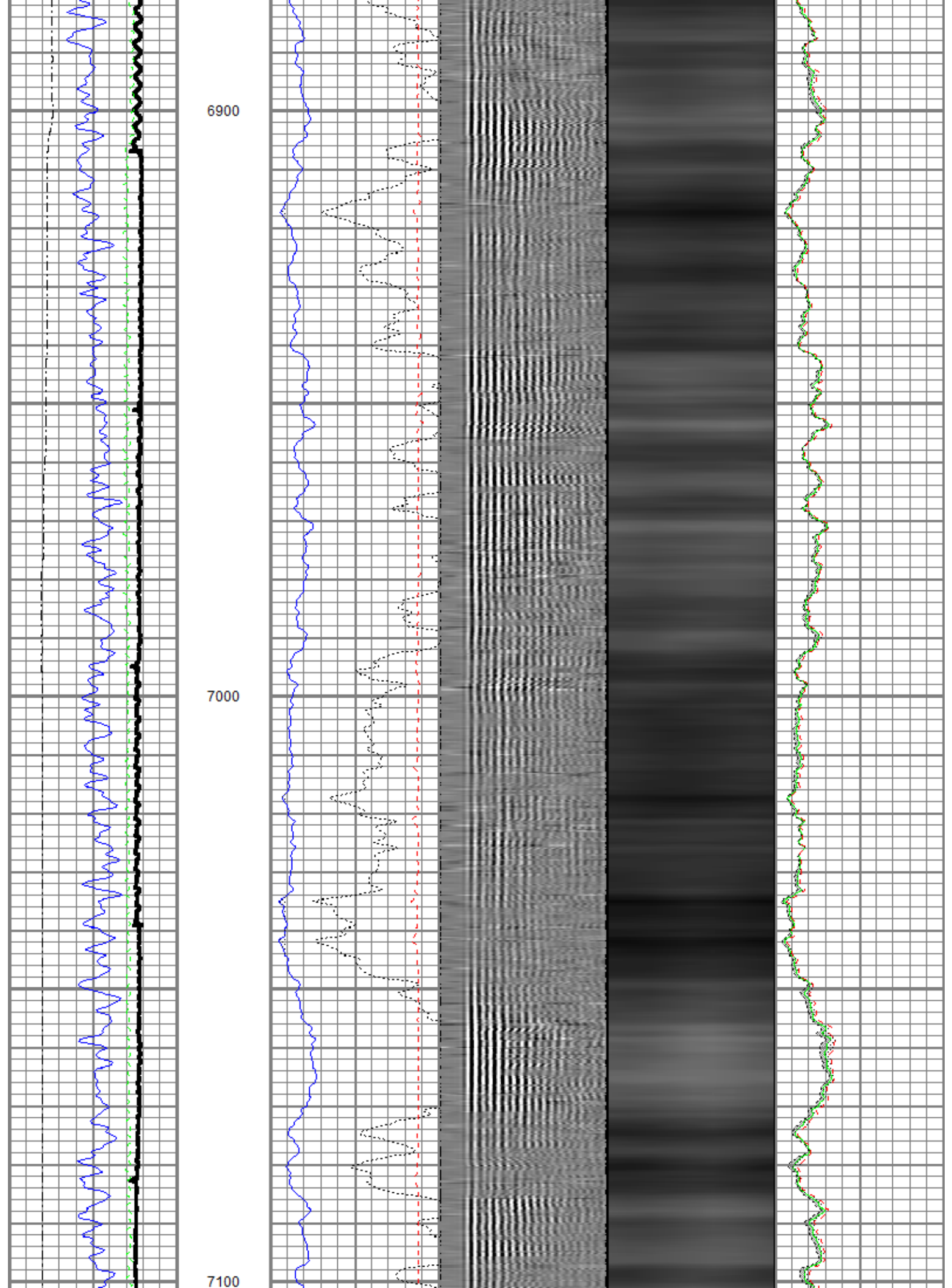
Database File: anadarko_burkhardt_16c-3hz_cil-rcbl.db
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 Presentation Format: rbt4_mit
 Dataset Creation: Sat Oct 11 10:37:17 2014 by Log 7.0 B1
 Charted by: Depth in Feet scaled 1:240

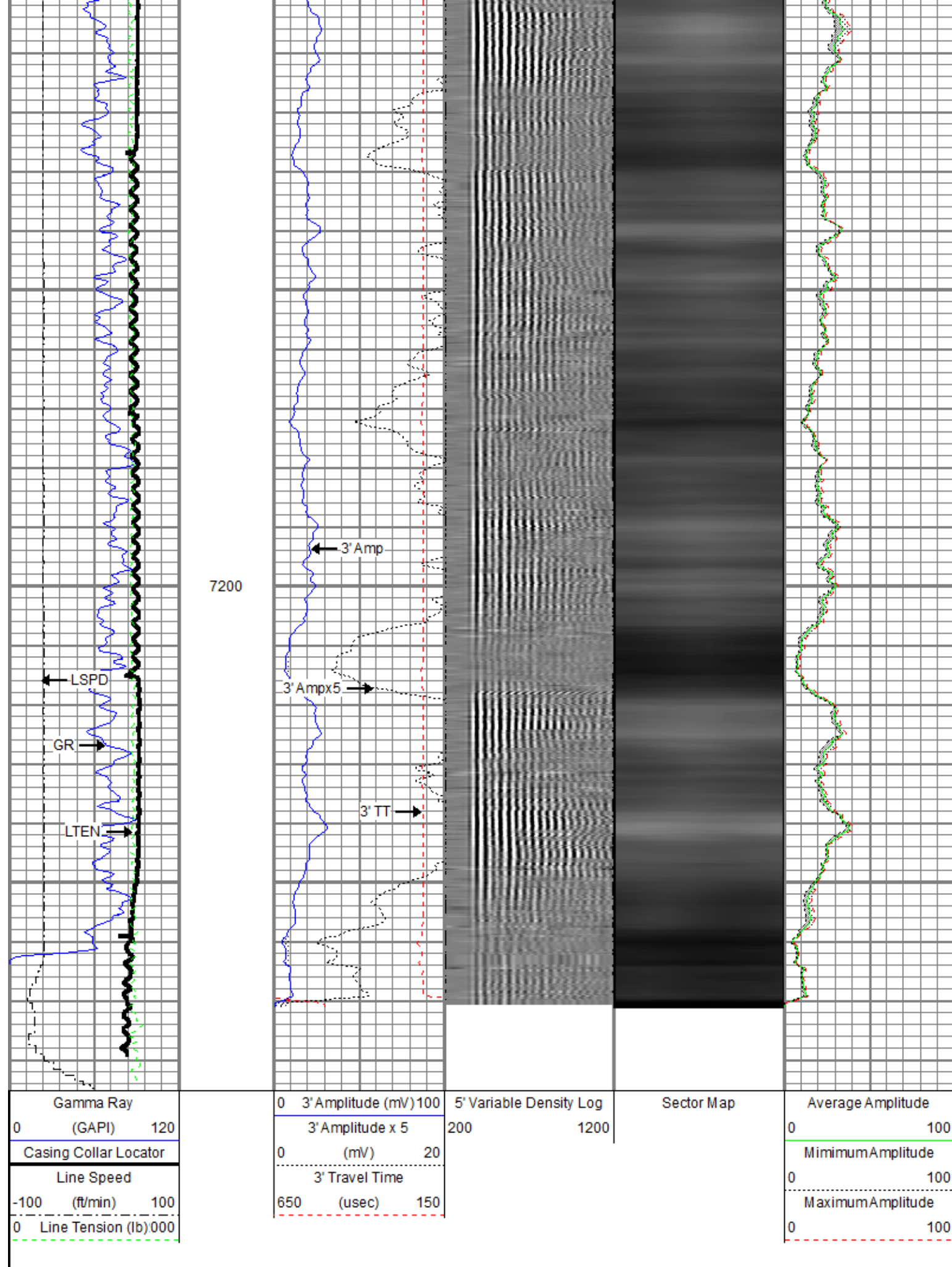


Casing Collar Locator			0	(mV)	20	MinimumAmplitude	
Line Speed			3' Travel Time			0	100
-100	(ft/min)	100	650	(usec)	150	MaximumAmplitude	
0	Line Tension (lb)	000					



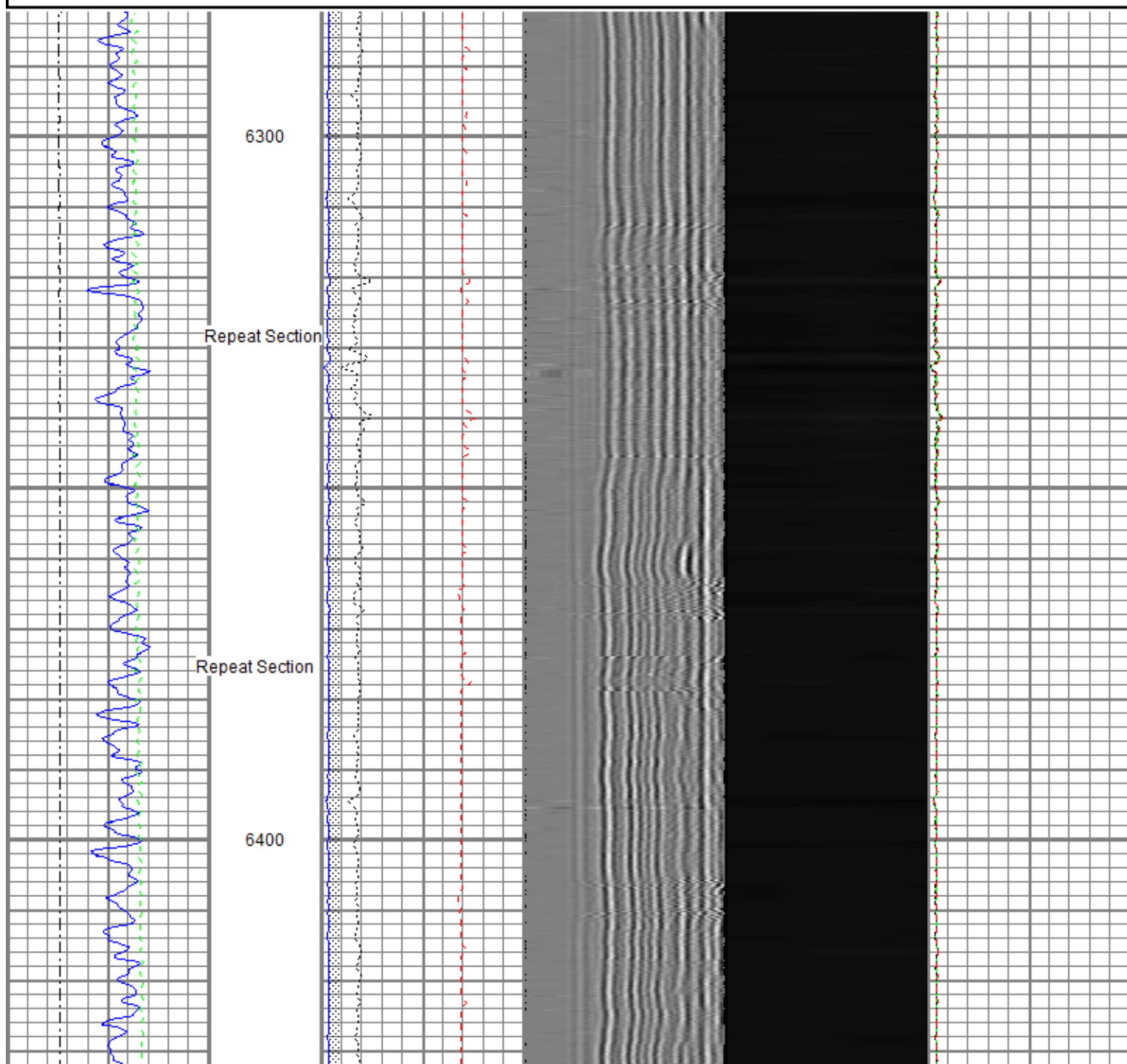


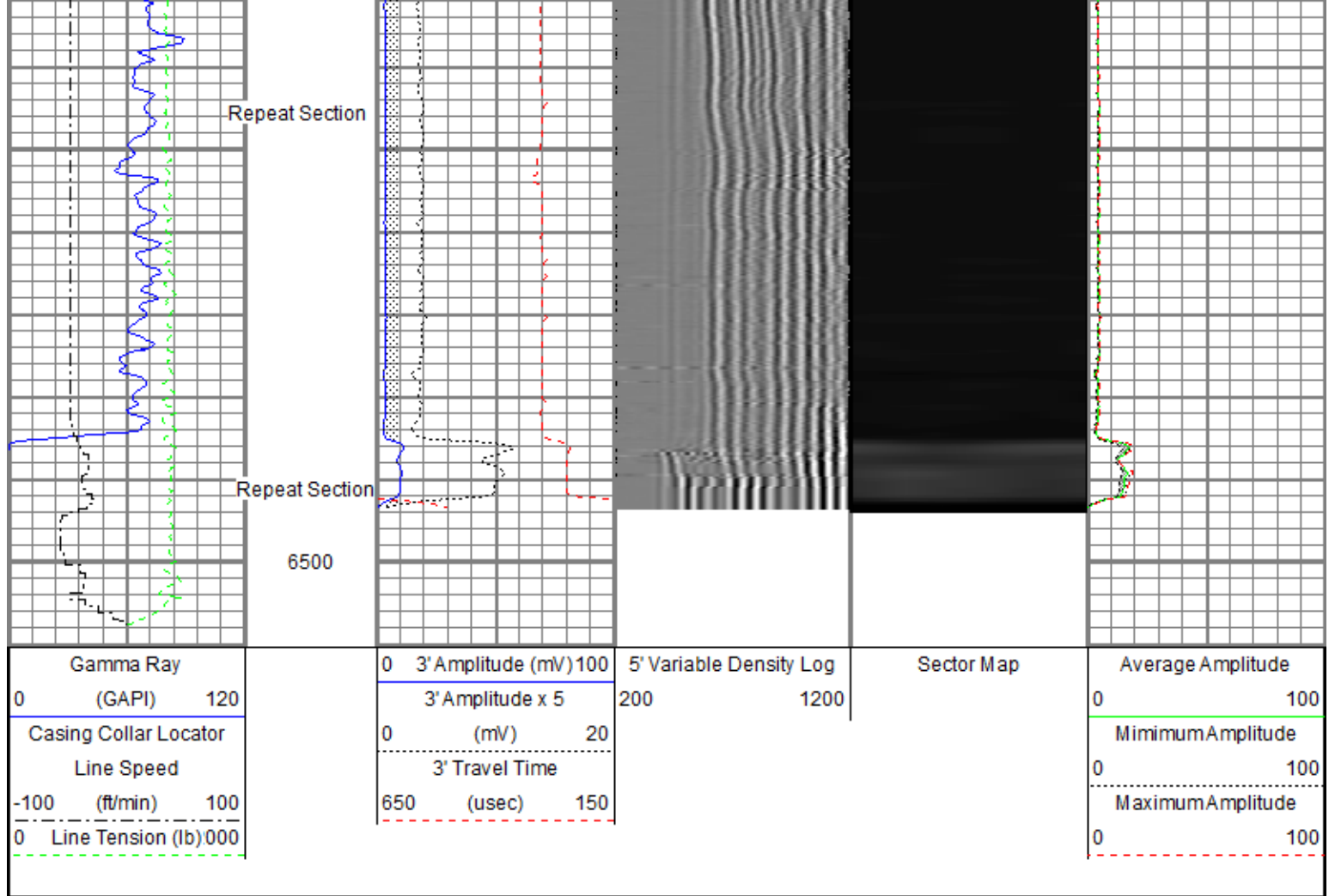


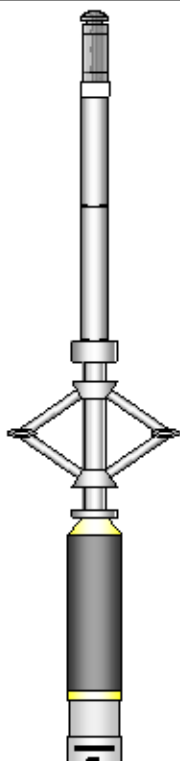



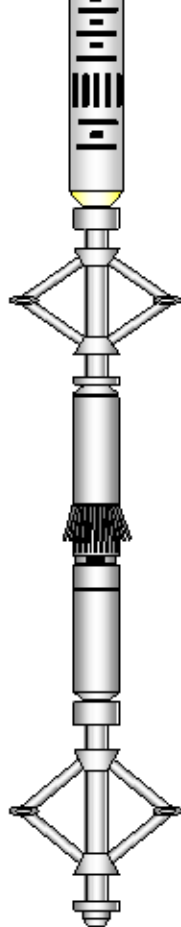
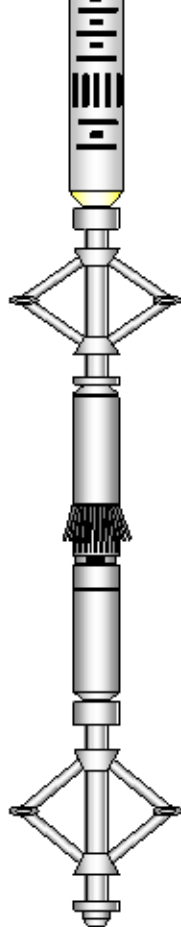
Database File: anadarko_burkhardt_16c-3hz_cil-rcbl.db
 Dataset Pathname: repeat
 Presentation Format: rbt4_mit
 Dataset Creation: Sat Oct 11 10:21:30 2014 by Log 7.0 B1
 Charted by: Depth in Feet scaled 1:240

Gamma Ray 0 (GAPI) 120	0 3' Amplitude (mV) 100 3' Amplitude x 5 0 (mV) 20 3' Travel Time 650 (usec) 150	5' Variable Density Log 200 1200	Sector Map	Average Amplitude 0 100 Minimum Amplitude 0 100 Maximum Amplitude 0 100
Casing Collar Locator Line Speed -100 (ft/min) 100				
0 Line Tension (lb) 000				





Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
GR	22.81		T_CH14375_1_GO Titan 1-7/16" Assembled Electric Cable Head with 1" Fishing Neck	1.03	1.44	4.00
			UW_AGS-UW_AGS_001 (215017) Sondex Adapter - GO Box to Sondex Pin	0.21	1.69	1.00
			UW_XTU-UW_XTU_002 (211461) Crossover Ultrawire Toolbus to Ultralink	1.58	1.69	6.50
			UW_PGR-UW_PGR_020 (10013902) Production Gamma Ray	1.93	1.69	9.50
			UW_PRC #4 -DSSRAC (082) 2-3/4" DSS 5 Arm Roller Centralizer	2.55	2.75	32.00
WVF3FT	15.42		UW_RBT-UW_RBT_004 (10013454) Sondex Ultrawire 3-1/8" Radial Bond Tool	9.47	3.13	140.00
WVFS1	15.42					
WVFS2	15.42					
WVFS3	15.42					
WVFS4	15.42					

WVFS4	15.42		UW_PRC-DSSRAC (083) 2-3/4" DSS 5 Arm Roller Centralizer	2.55	2.75	32.00
WVFS5	15.42					
WVFS6	15.42					
WVFS7	15.42					
WVFS8	15.42					
CBLTEMP	15.42					
CBLROT	15.42					
WVF5FT	14.42					
MIT	5.41		UW_MIT-UW_MIT40_027 (218950) 40 Multifinger Imaging Tool	4.54	2.75	61.10
TSTAMP	0.00		UW_PRC #3 -UW_PRC_057 (1037) Sondex 2-3/4" 4-Arm Production Roller Centraliser	2.98	2.75	32.00
ITEMPX	0.00		UW_BUL-UW_BUL_006 (218707) Sondex Ultrawire Bullnose Terminator	0.22	1.69	1.20
HVOLT	0.00					
Dataset: anadarko_burkhardt_16c-3hz_cil-rcbl.db: field/well/run1/7main Total Length: 27.05 ft Total Weight: 319.30 lb O.D. 3.13 in						

Calibration Report			
Database File:	anadarko_burkhardt_16c-3hz_cil-rcbl.db		
Dataset Pathname:	postcal		
Dataset Creation:	Sat Oct 11 14:10:42 2014 by Log 7.0 B1		
Multi-finger Imaging Tool Calibration Report			
Serial Number:	218950		
Number of Fingers:	40		
Tool Model:	UW_MIT40_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 Oct 11 09:46:19 2014					
Ring size:	4	5	6	7		
(in)	Sens	Sens	Sens	Sens		
Finger 01:	1444	272.0	1716	290.0	2006	299.0
Finger 02:	1494	253.0	1747	260.0	2007	266.0
Finger 03:	1398	278.0	1676	294.0	1970	302.0
					2272	

Finger 04:	1430	278.0	1708	290.0	1998	295.0	2293
Finger 05:	1468	268.0	1736	277.0	2013	284.0	2297
Finger 06:	1386	283.0	1669	294.0	1963	309.0	2272
Finger 07:	1387	283.0	1670	290.0	1960	302.0	2262
Finger 08:	1388	280.0	1668	286.0	1954	295.0	2249
Finger 09:	1400	286.0	1686	296.0	1982	304.0	2286
Finger 10:	1405	274.0	1679	287.0	1966	293.0	2259
Finger 11:	1390	287.0	1677	294.0	1971	302.0	2273
Finger 12:	1349	288.0	1637	302.0	1939	311.0	2250
Finger 13:	1450	270.0	1720	270.0	1990	279.0	2269
Finger 14:	1399	279.0	1678	284.0	1962	296.0	2258
Finger 15:	1395	292.0	1687	292.0	1979	307.0	2286
Finger 16:	1407	285.0	1692	286.0	1978	301.0	2279
Finger 17:	1402	292.0	1694	296.0	1990	308.0	2298
Finger 18:	1397	286.0	1683	283.0	1966	300.0	2266
Finger 19:	1448	284.0	1732	287.0	2019	299.0	2318
Finger 20:	1439	286.0	1725	287.0	2012	302.0	2314
Finger 21:	1370	300.0	1670	304.0	1974	322.0	2296
Finger 22:	1428	277.0	1705	281.0	1986	293.0	2279
Finger 23:	1422	291.0	1713	289.0	2002	301.0	2303
Finger 24:	1469	286.0	1755	282.0	2037	292.0	2329
Finger 25:	1448	287.0	1735	290.0	2025	301.0	2326
Finger 26:	1418	288.0	1706	290.0	1996	306.0	2302
Finger 27:	1476	276.0	1752	282.0	2034	290.0	2324
Finger 28:	1441	283.0	1724	290.0	2014	313.0	2327
Finger 29:	1525	267.0	1792	275.0	2067	282.0	2349
Finger 30:	1396	279.0	1675	292.0	1967	309.0	2276
Finger 31:	1457	282.0	1739	298.0	2037	304.0	2341
Finger 32:	1514	268.0	1782	277.0	2059	282.0	2341
Finger 33:	1432	288.0	1720	297.0	2017	309.0	2326
Finger 34:	1461	279.0	1740	295.0	2035	306.0	2341
Finger 35:	1484	260.0	1744	268.0	2012	276.0	2288
Finger 36:	1488	263.0	1751	282.0	2033	291.0	2324
Finger 37:	1465	277.0	1742	294.0	2036	299.0	2335
Finger 38:	1504	255.0	1759	258.0	2017	271.0	2288
Finger 39:	1445	268.0	1713	285.0	1998	289.0	2287
Finger 40:	1401	284.0	1685	298.0	1983	307.0	2290

Post Survey Calibration Check

Performed:

Sat Oct 11 14:10:31 2014

Ring size: (in)	4	Nom. wear	5	Nom. wear	6	Nom. wear	7	Nom. wear
Finger 01:	4.000	0.000	4.985	-0.007	5.992	-0.004	6.986	-0.007
Finger 02:	4.014	0.007	4.988	-0.006	5.998	-0.001	6.992	-0.004
Finger 03:	4.014	0.007	4.993	-0.003	5.994	-0.003	6.989	-0.006
Finger 04:	4.012	0.006	4.996	-0.002	5.999	-0.001	6.988	-0.006
Finger 05:	4.012	0.006	4.996	-0.002	6.004	0.002	6.991	-0.005
Finger 06:	4.024	0.012	5.006	0.003	6.010	0.005	6.988	-0.006
Finger 07:	4.013	0.006	4.991	-0.004	5.997	-0.001	6.991	-0.005
Finger 08:	4.008	0.004	4.987	-0.007	5.997	-0.001	6.990	-0.005
Finger 09:	4.014	0.007	5.003	0.002	5.998	-0.001	6.993	-0.003
Finger 10:	4.003	0.002	4.997	-0.001	5.993	-0.004	6.995	-0.003
Finger 11:	4.012	0.006	4.992	-0.004	5.982	-0.009	6.984	-0.008
Finger 12:	4.012	0.006	5.000	-0.000	5.988	-0.006	6.984	-0.008
Finger 13:	3.998	-0.001	4.991	-0.005	5.986	-0.007	6.989	-0.006
Finger 14:	4.004	0.002	4.977	-0.011	5.981	-0.010	6.981	-0.010
Finger 15:	4.006	0.003	4.976	-0.012	6.004	0.002	6.995	-0.003
Finger 16:	4.005	0.003	4.975	-0.013	5.997	-0.001	6.981	-0.009
Finger 17:	4.009	0.004	4.986	-0.007	6.001	0.001	6.996	-0.002
Finger 18:	3.983	-0.008	4.960	-0.020	5.983	-0.009	6.967	-0.017
Finger 19:	4.006	0.003	4.989	-0.006	6.002	0.001	6.994	-0.003
Finger 20:	3.998	-0.001	4.992	-0.004	5.997	-0.002	6.995	-0.002
Finger 21:	4.020	0.010	4.992	-0.004	5.983	-0.008	6.975	-0.012
Finger 22:	4.002	0.001	4.998	-0.001	5.999	-0.001	7.003	0.001
Finger 23:	4.048	0.024	5.021	0.010	6.007	0.003	7.001	0.001
Finger 24:	4.009	0.005	4.990	-0.005	6.001	0.001	7.002	0.001
Finger 25:	4.015	0.008	5.008	0.004	6.006	0.003	7.003	0.001
Finger 26:	4.011	0.006	4.998	-0.001	6.004	0.002	6.996	-0.002
Finger 27:	4.006	0.003	5.002	0.001	6.004	0.002	6.986	-0.007
Finger 28:	4.009	0.005	4.982	-0.009	5.988	-0.006	6.958	-0.021
Finger 29:	4.006	0.003	4.984	-0.008	5.987	-0.007	6.987	-0.006
Finger 30:	4.003	0.002	4.982	-0.009	5.986	-0.007	6.978	-0.011

Finger 31:	4.006	0.003	4.987	-0.006	5.991	-0.004	6.993	-0.004
Finger 32:	4.020	0.010	4.996	-0.002	5.996	-0.002	6.997	-0.002
Finger 33:	4.004	0.002	4.974	-0.013	5.987	-0.007	6.984	-0.008
Finger 34:	4.003	0.002	4.990	-0.005	5.988	-0.006	6.981	-0.009
Finger 35:	4.001	0.000	4.985	-0.008	5.996	-0.002	6.992	-0.004
Finger 36:	4.004	0.002	4.995	-0.003	5.997	-0.001	6.993	-0.003
Finger 37:	4.006	0.003	4.991	-0.004	5.996	-0.002	6.992	-0.004
Finger 38:	4.001	0.001	4.978	-0.011	5.992	-0.004	6.990	-0.005
Finger 39:	4.005	0.003	4.991	-0.005	5.996	-0.002	6.990	-0.005
Finger 40:	4.013	0.006	4.987	-0.006	5.997	-0.002	6.991	-0.004
Average:	4.009	0.004	4.990	-0.005	5.995	-0.002	6.989	-0.005

Segmented Cement Bond Log Calibration Report

Serial Number:	10013454
Tool Model:	UW_RBT_004
Calibration Casing Diameter:	7.000 in
Calibration Depth:	-118.548 ft

Master Calibration, performed Sat Oct 11 09:09:16 2014:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3FT	-0.001	1.002	0.800	62.165	61.159	0.875
5FT	-0.002	0.990	0.800	62.165	61.836	0.951
S1	-0.000	1.002	0.000	100.000	99.774	0.037
S2	-0.003	1.002	0.000	100.000	99.530	0.254
S3	-0.002	1.007	0.000	100.000	99.157	0.178
S4	-0.003	1.007	0.000	100.000	99.022	0.271
S5	-0.001	1.009	0.000	100.000	98.954	0.109
S6	-0.002	1.009	0.000	100.000	98.843	0.241
S7	-0.001	0.998	0.000	100.000	100.098	0.122
S8	-0.001	1.000	0.000	100.000	99.891	0.134

Gamma Ray Calibration Report

Serial Number:	10013902
Tool Model:	UW_PGR_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

FMC Technologies

Company	Kerr McGee Oil & Gas Onshore LP
Well	Burkhardt 16C-3HZ
Field	Wattenberg
County	Weld
State	Colorado