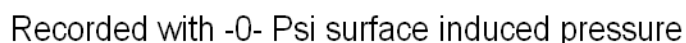




<<< Fold Here >>>
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible 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
<p>Log ran as per customer request. Log correlated to KB provided by customer.</p> <p>Thank you for choosing FMC Technologies Completion Services, Inc.</p>

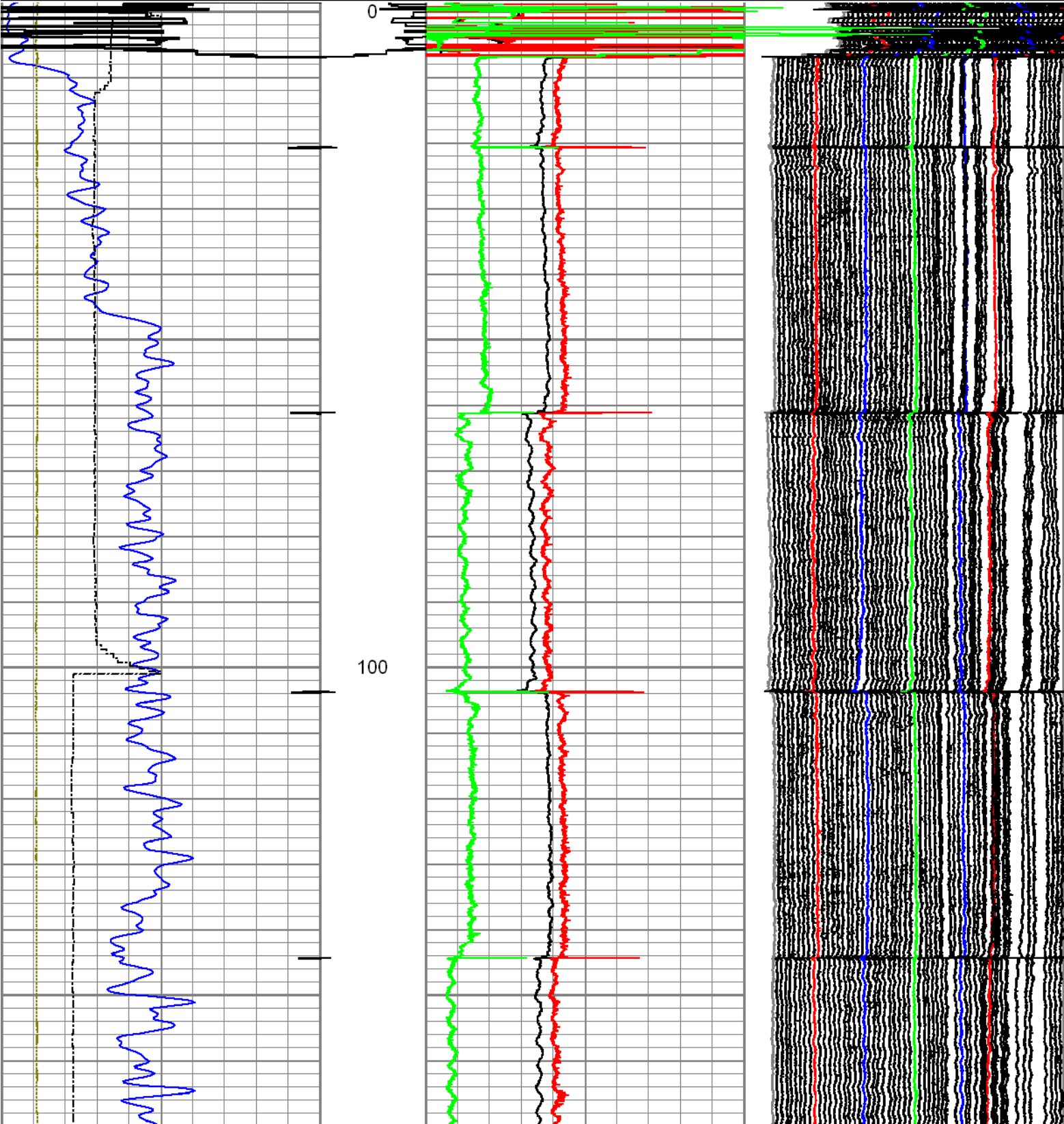


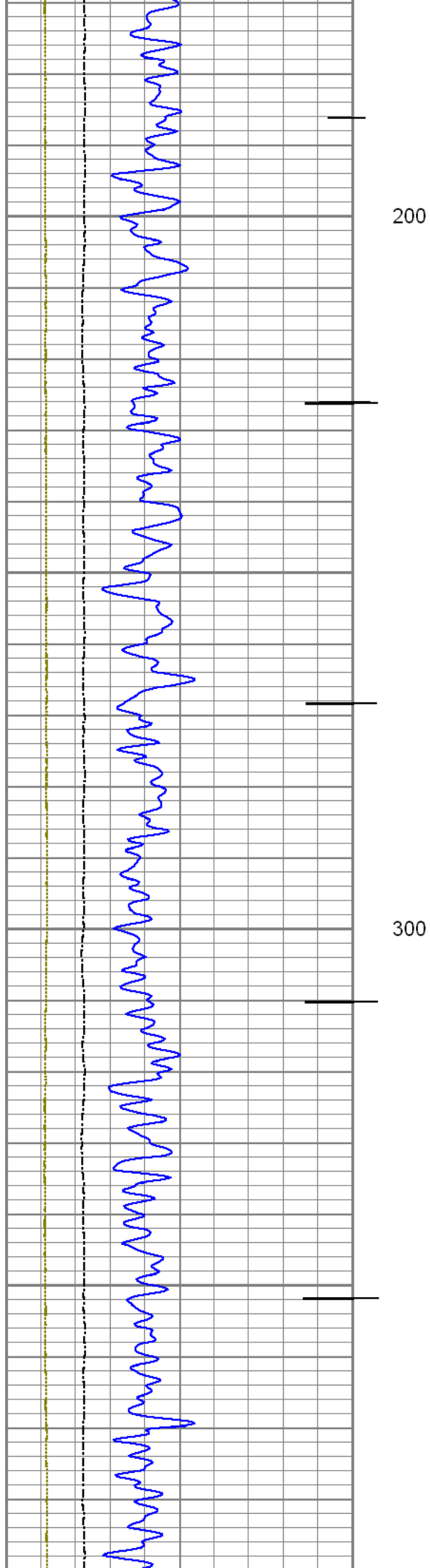
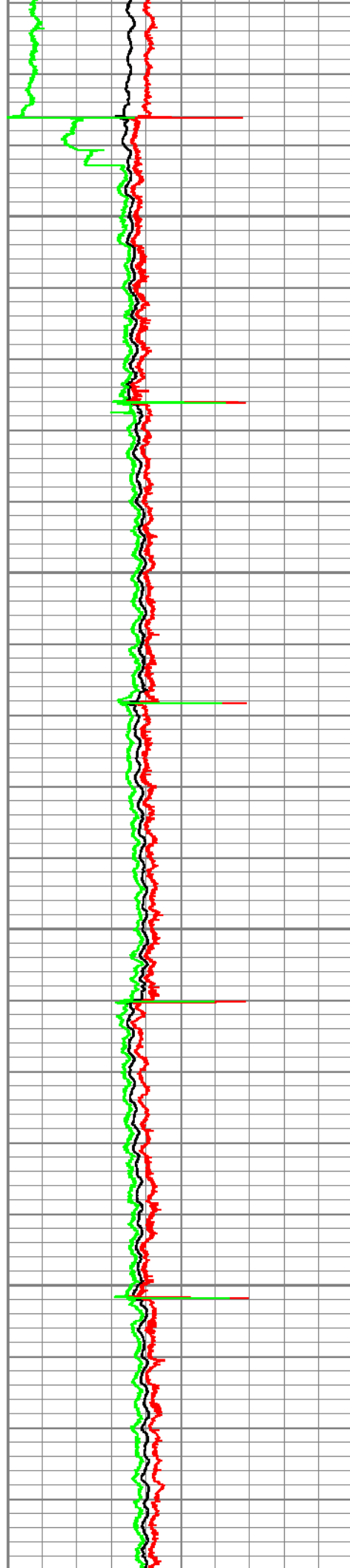
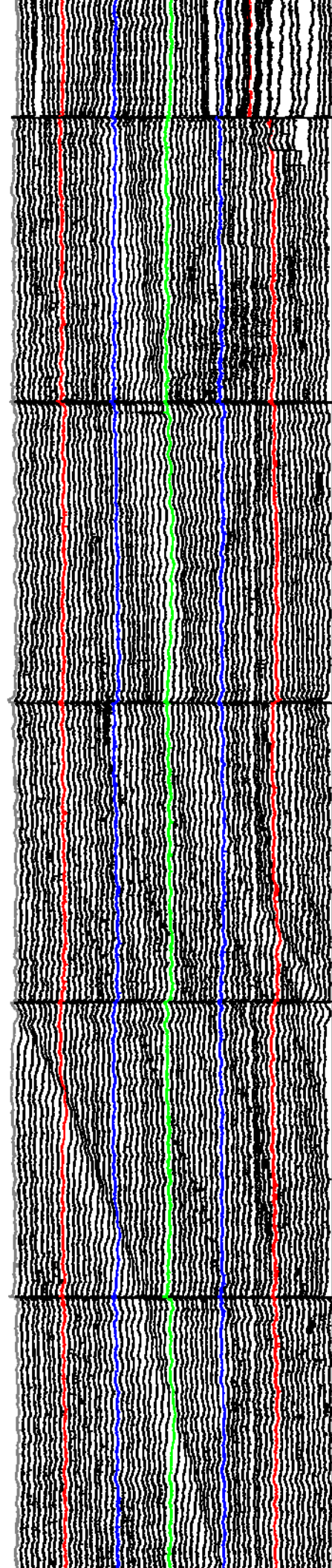
Database File: 01-08-15\_chevron\_coltharp 9x\_mit.db  
Dataset Pathname: fullmain/pass11  
Presentation Format: 70mit60s  
Dataset Creation: Thu Jan 08 08:30:00 2015 by Log 7.0 B1  
Charted by: Depth in Feet scaled 1:240

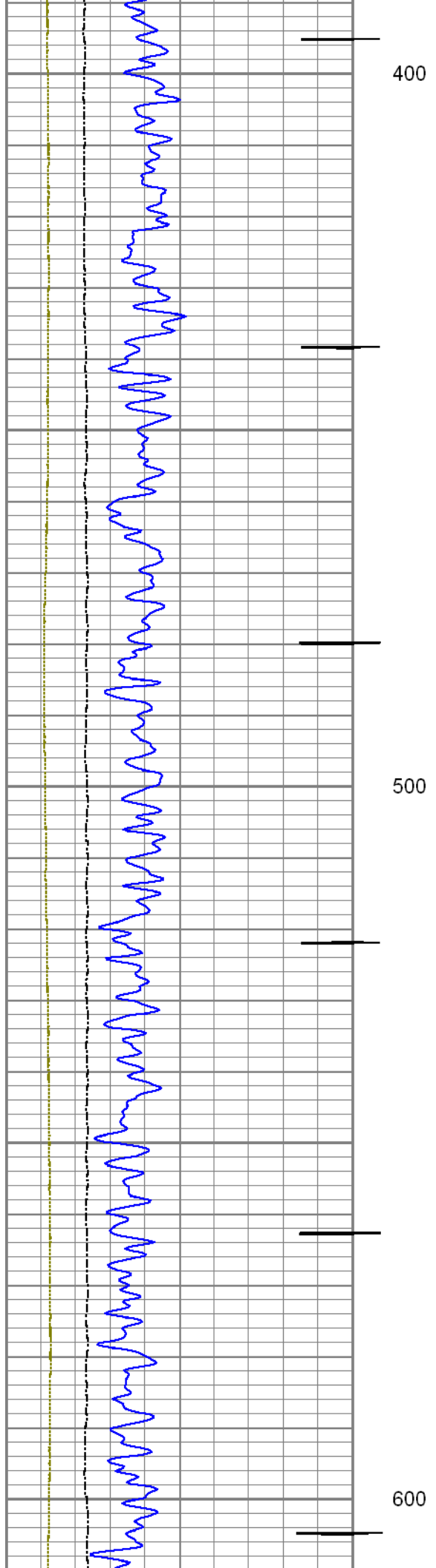
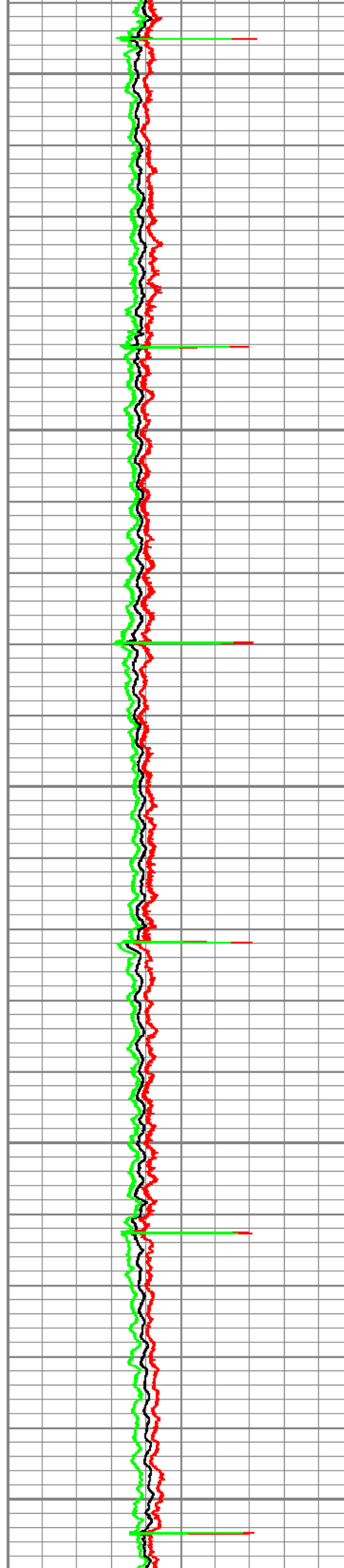
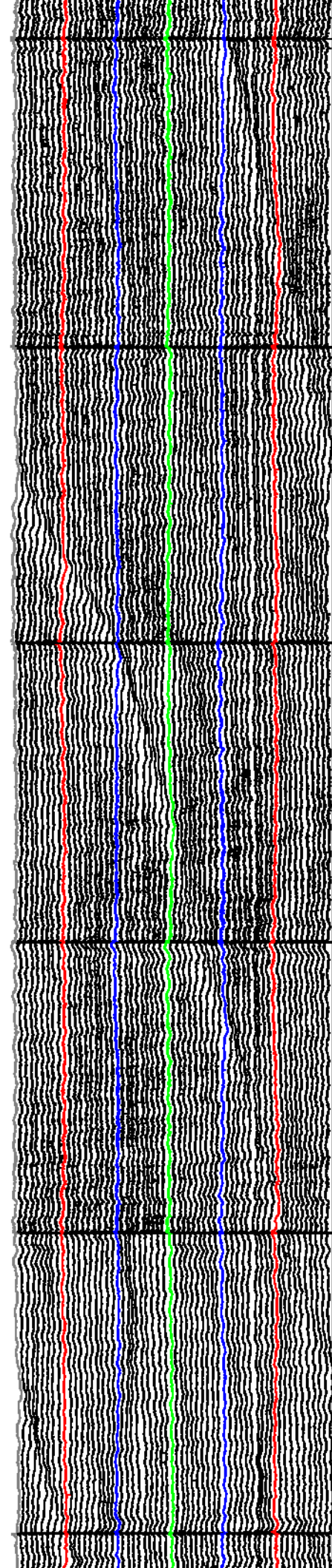
0	Gamma Ray (GAPI)	120
-100	Line Speed (ft/min)	100
-10	Deviation (°)	90
Casing Collar Locator		

6	Average Diameter (in)	7
6	Maximum Diameter (in)	7
6	Minimum Diameter (in)	7

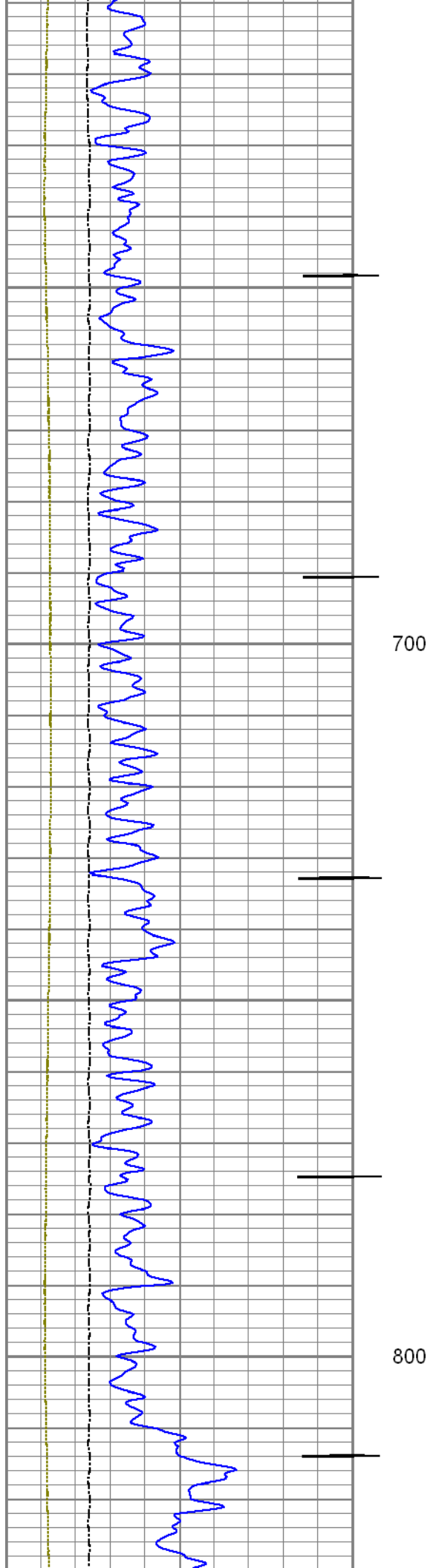
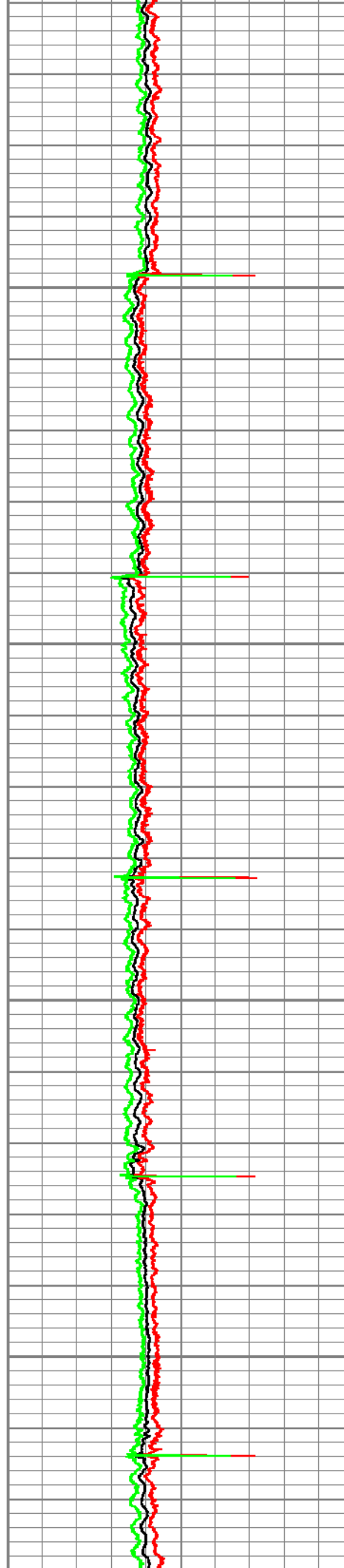
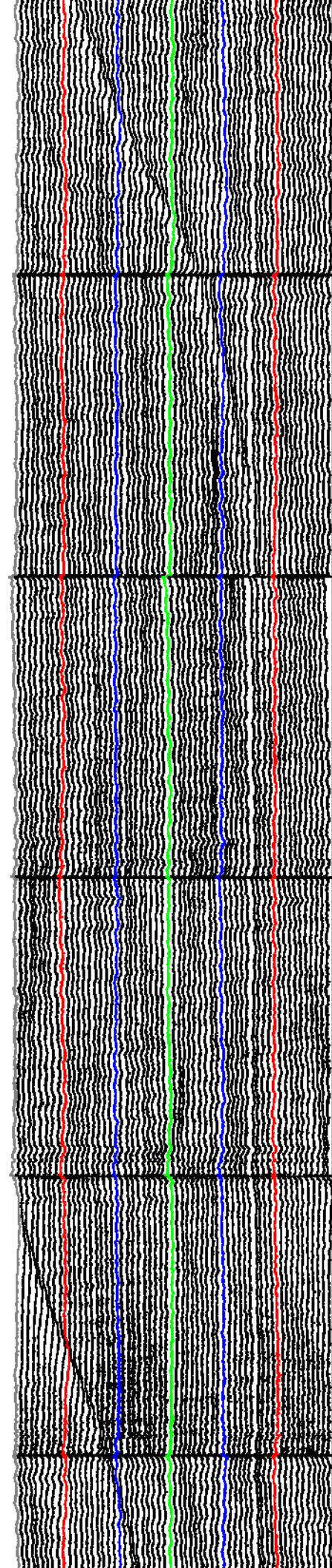
Caliper #10
Caliper #20
Caliper #30
Caliper #40
Caliper #50

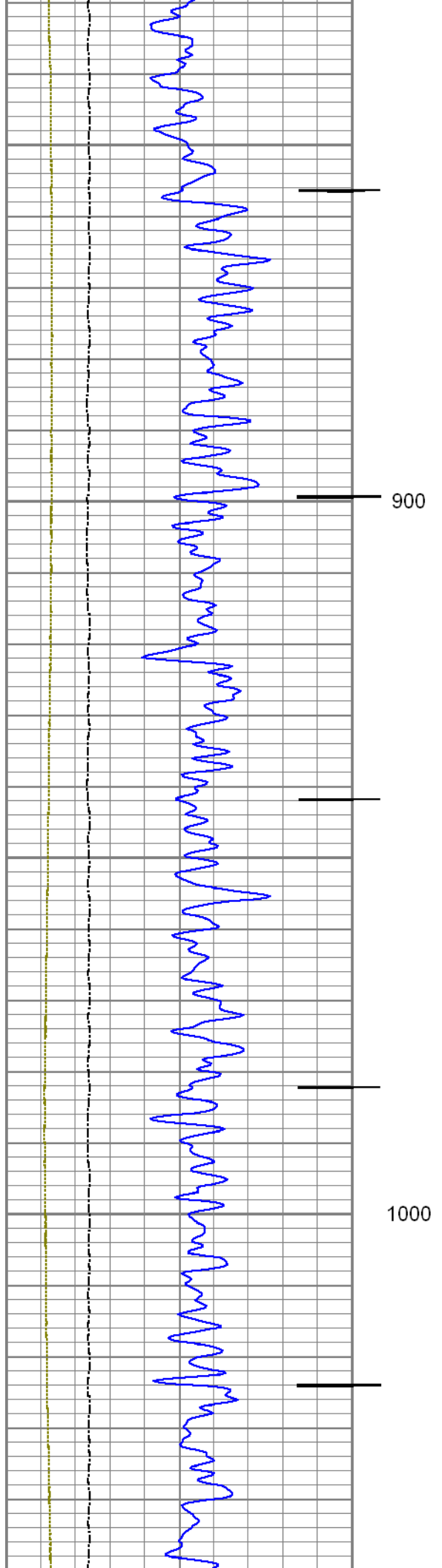
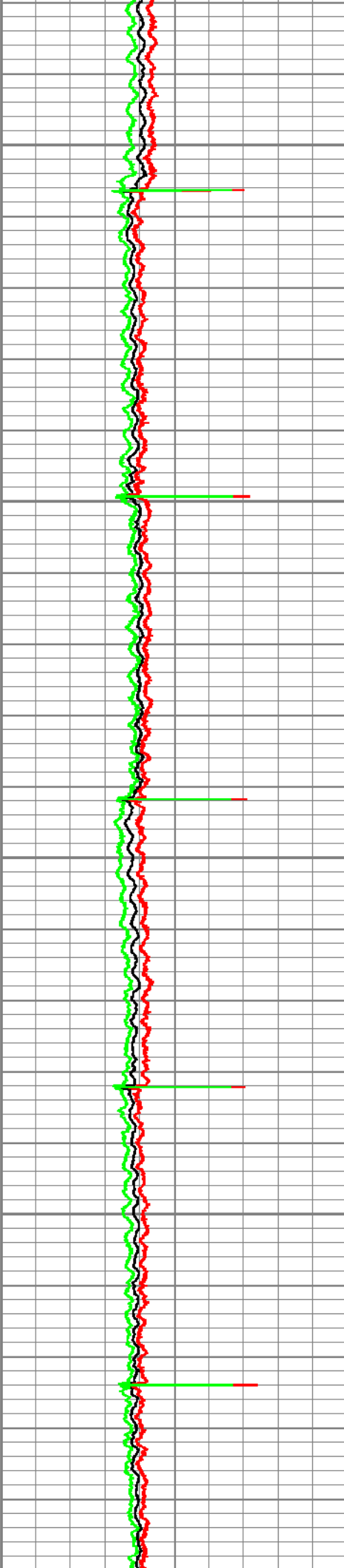
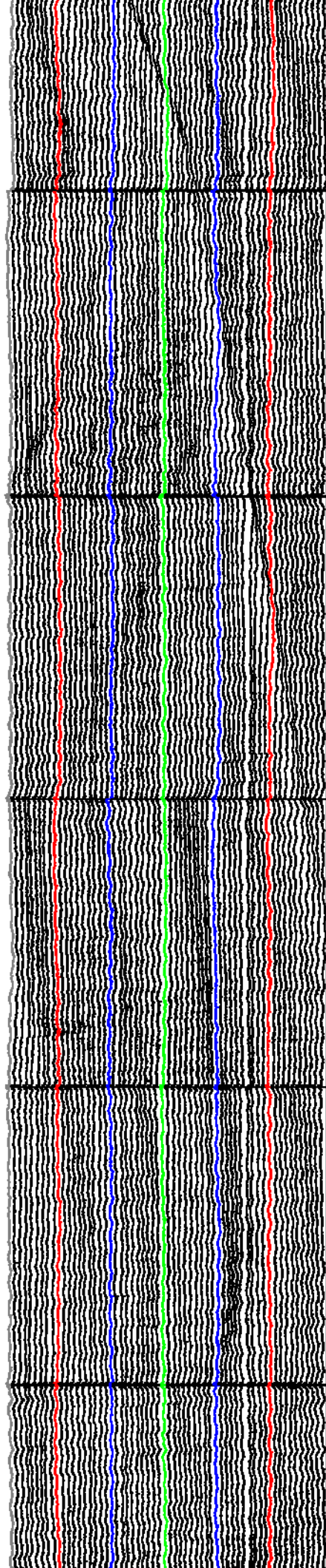


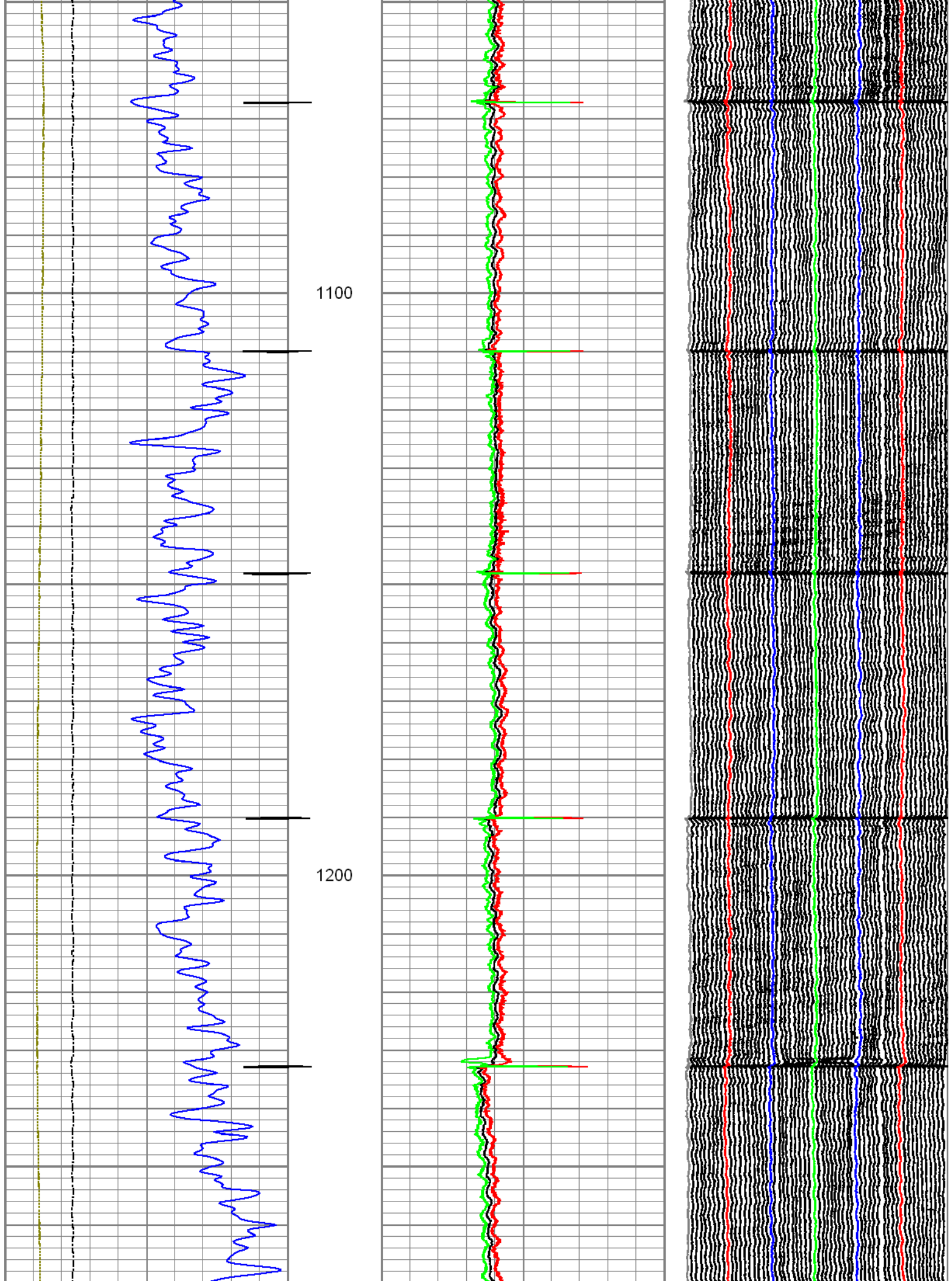




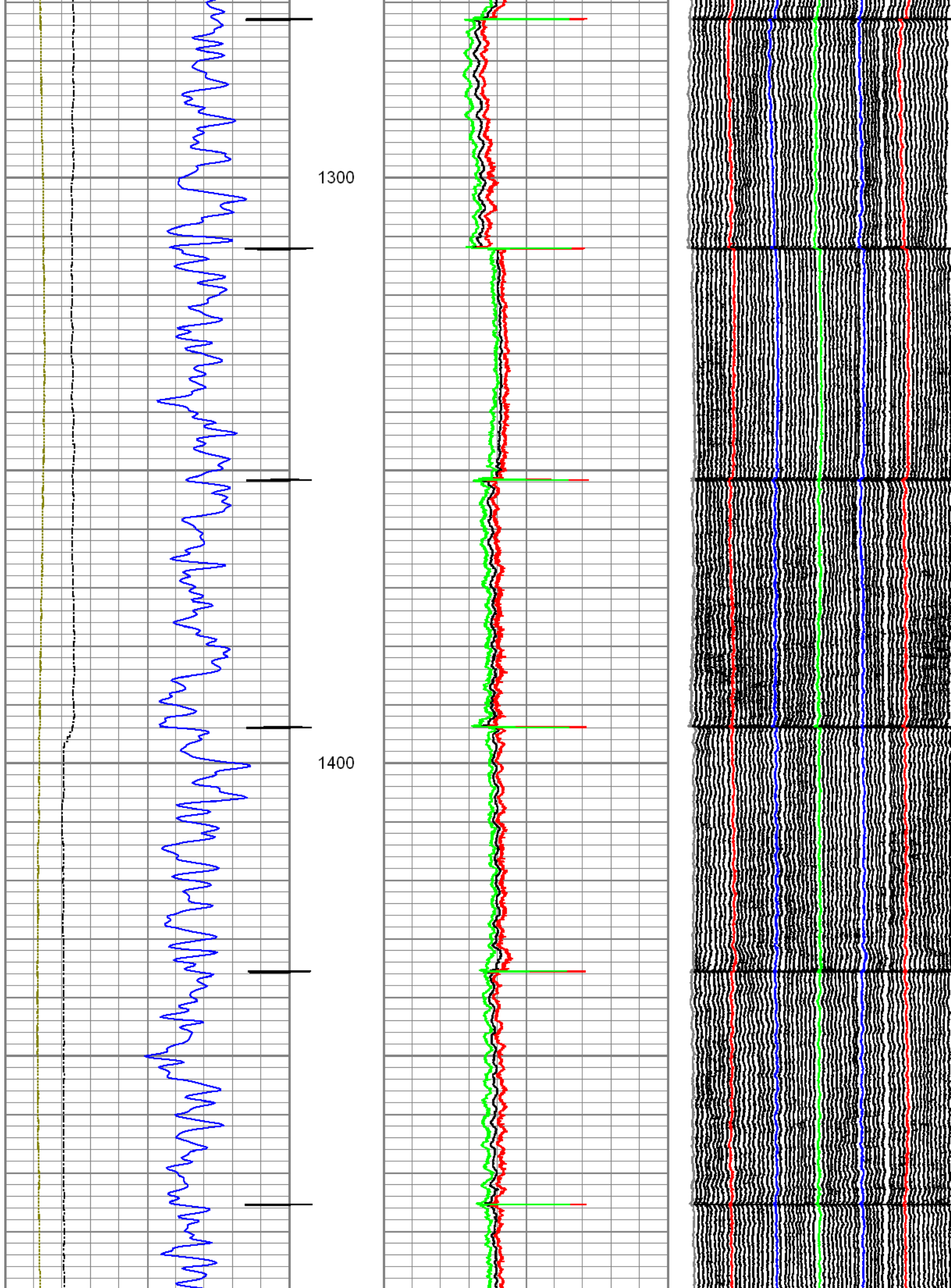




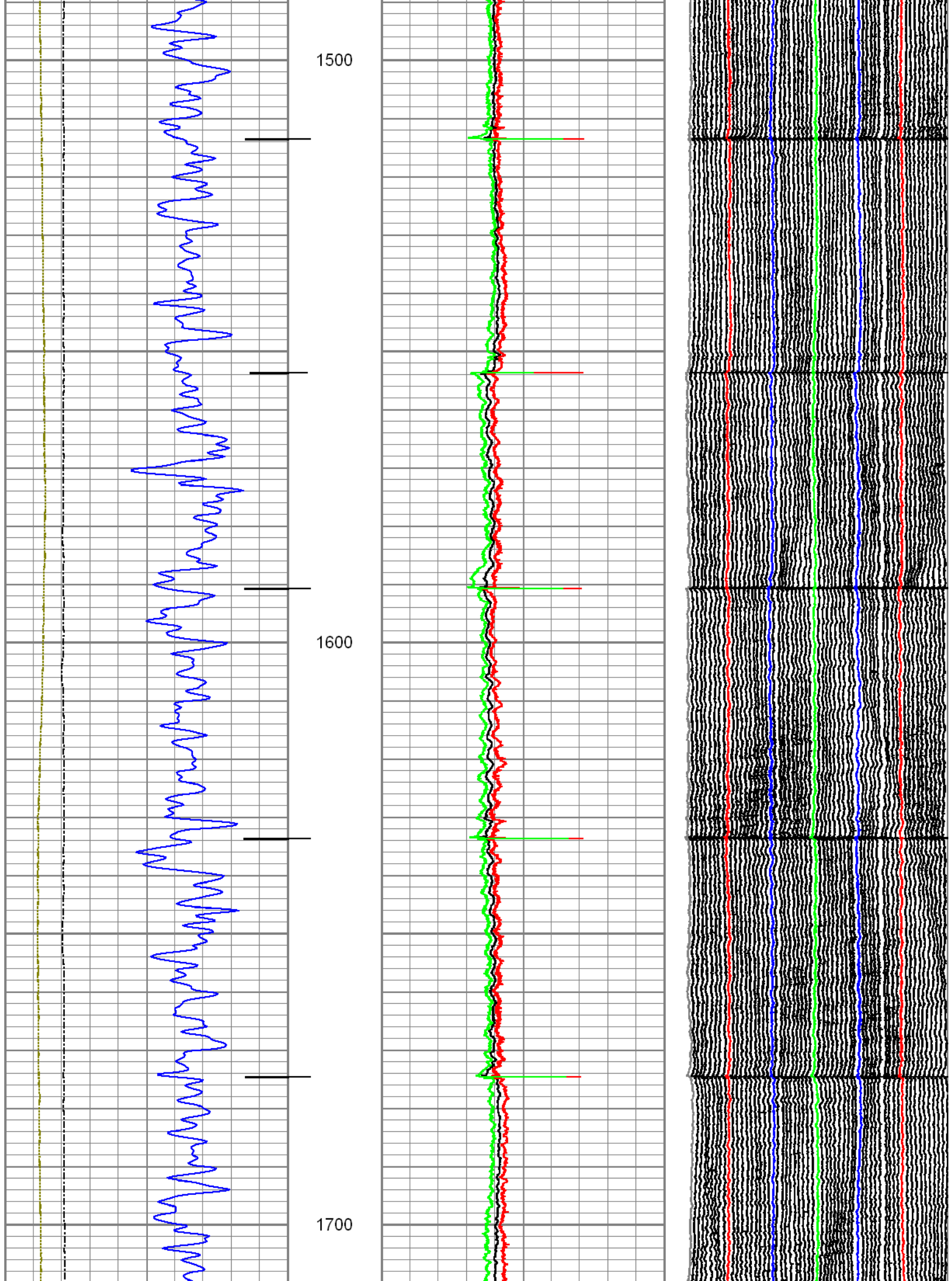


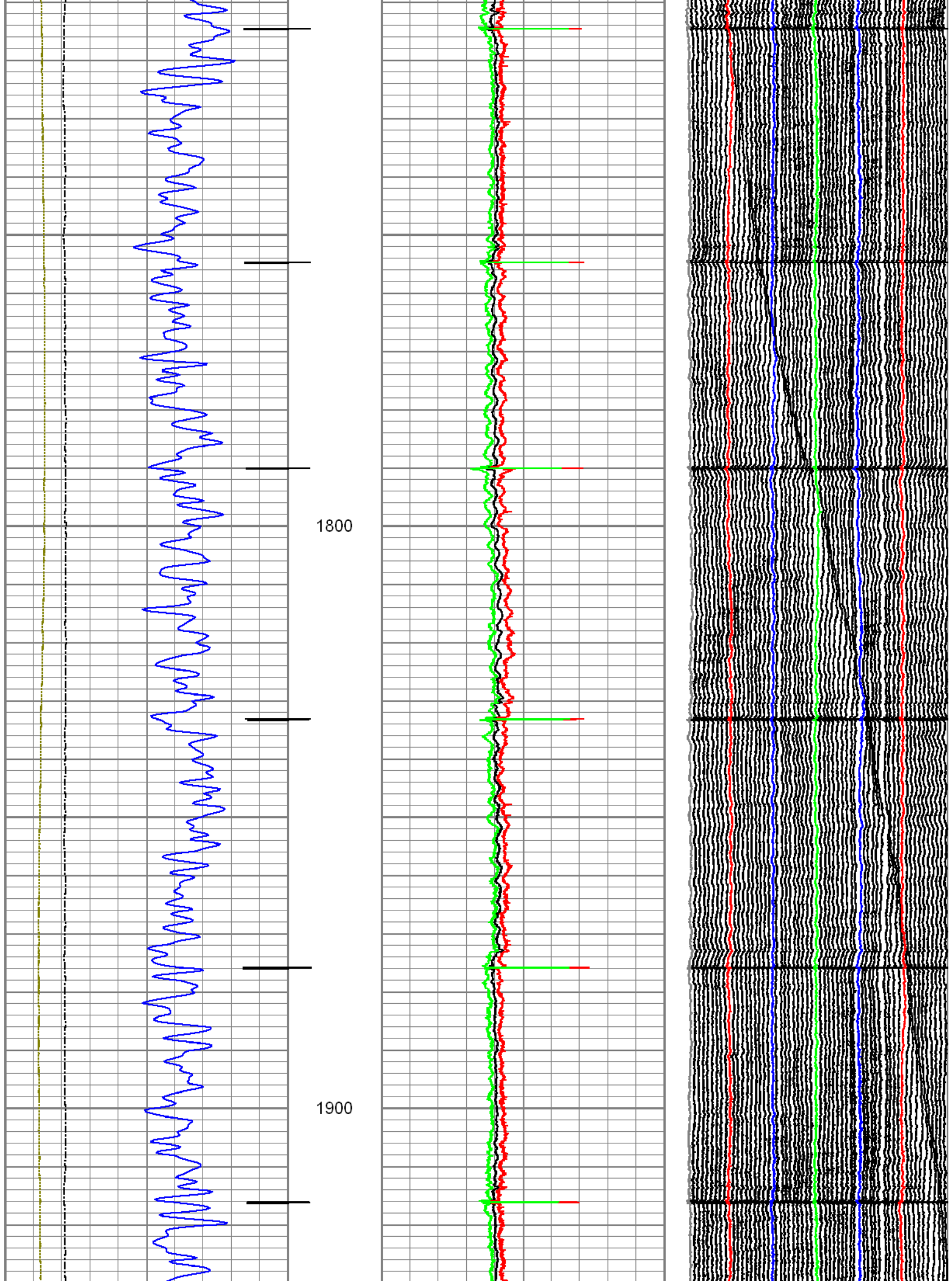


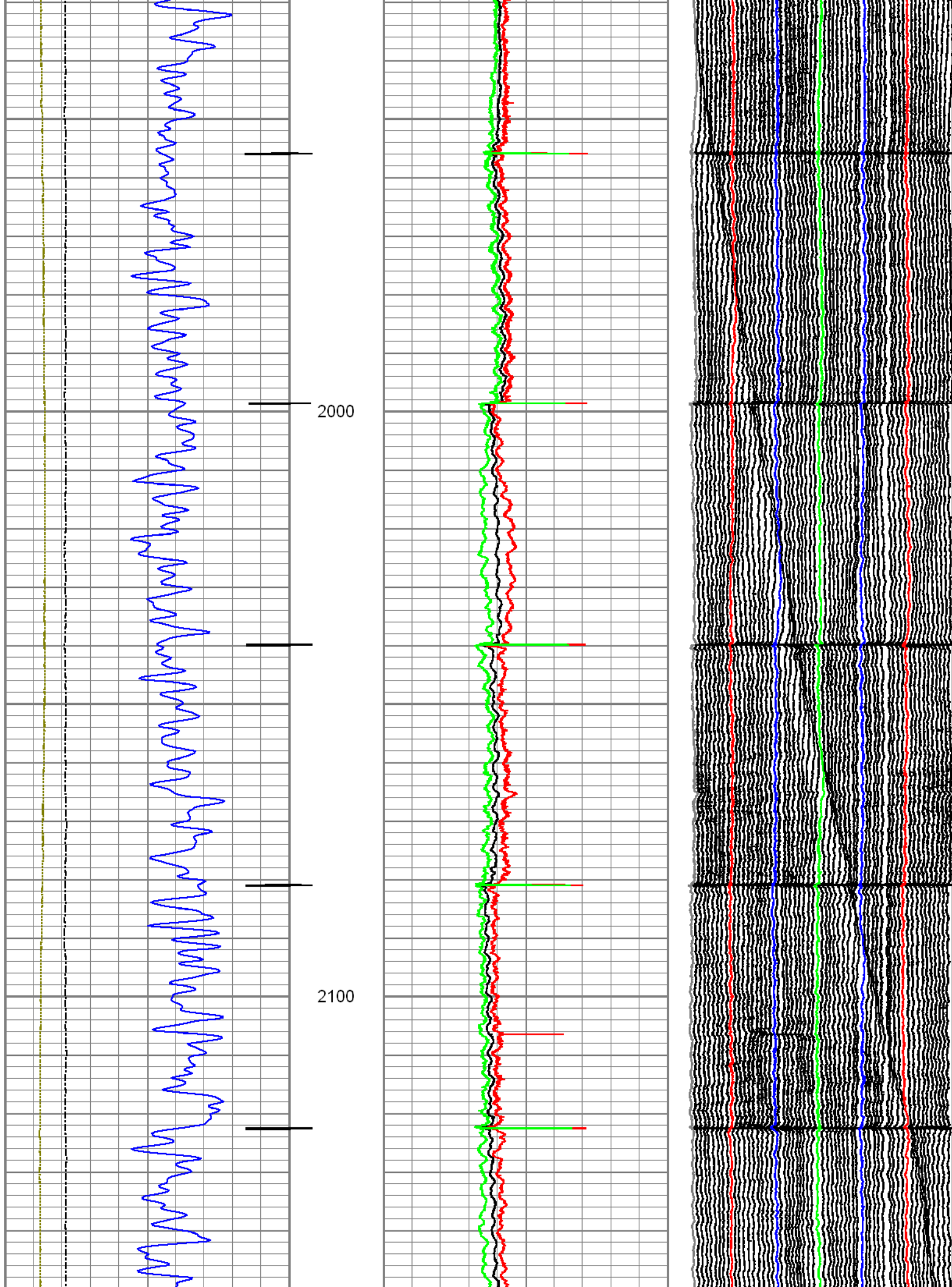




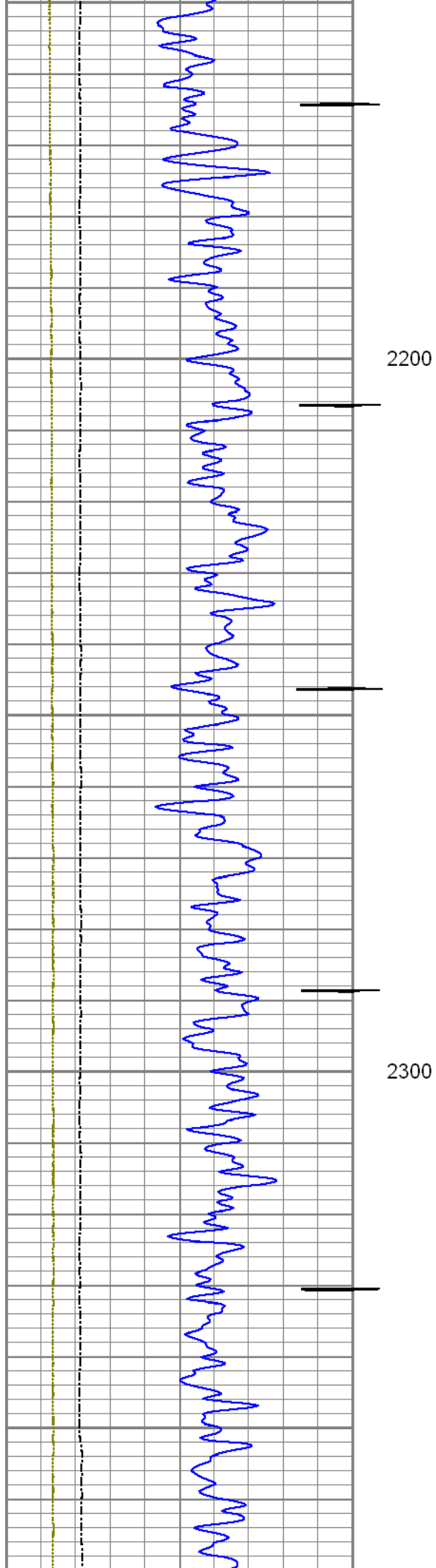
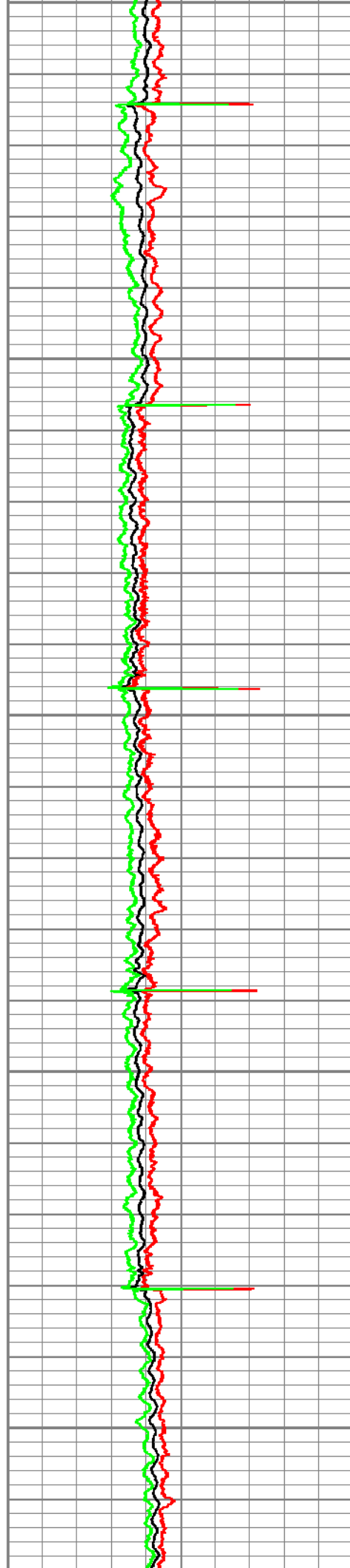
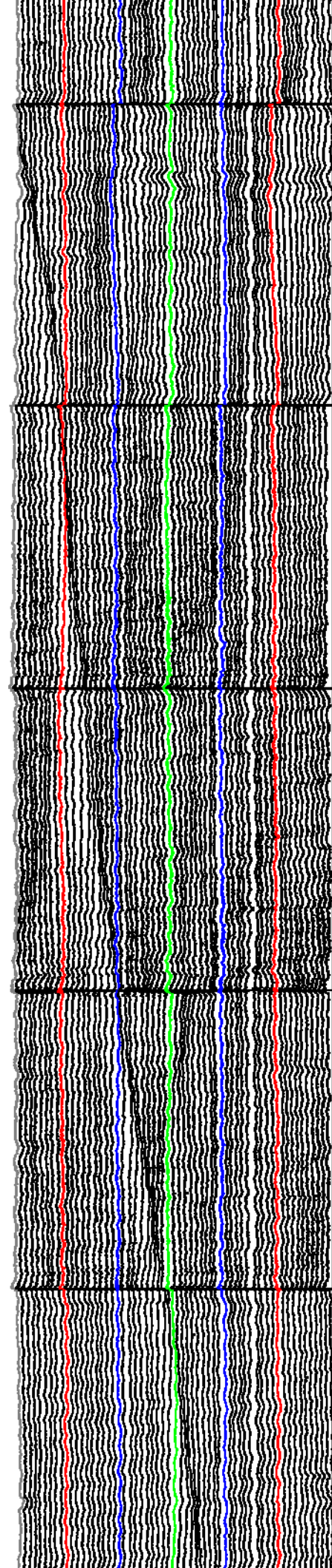


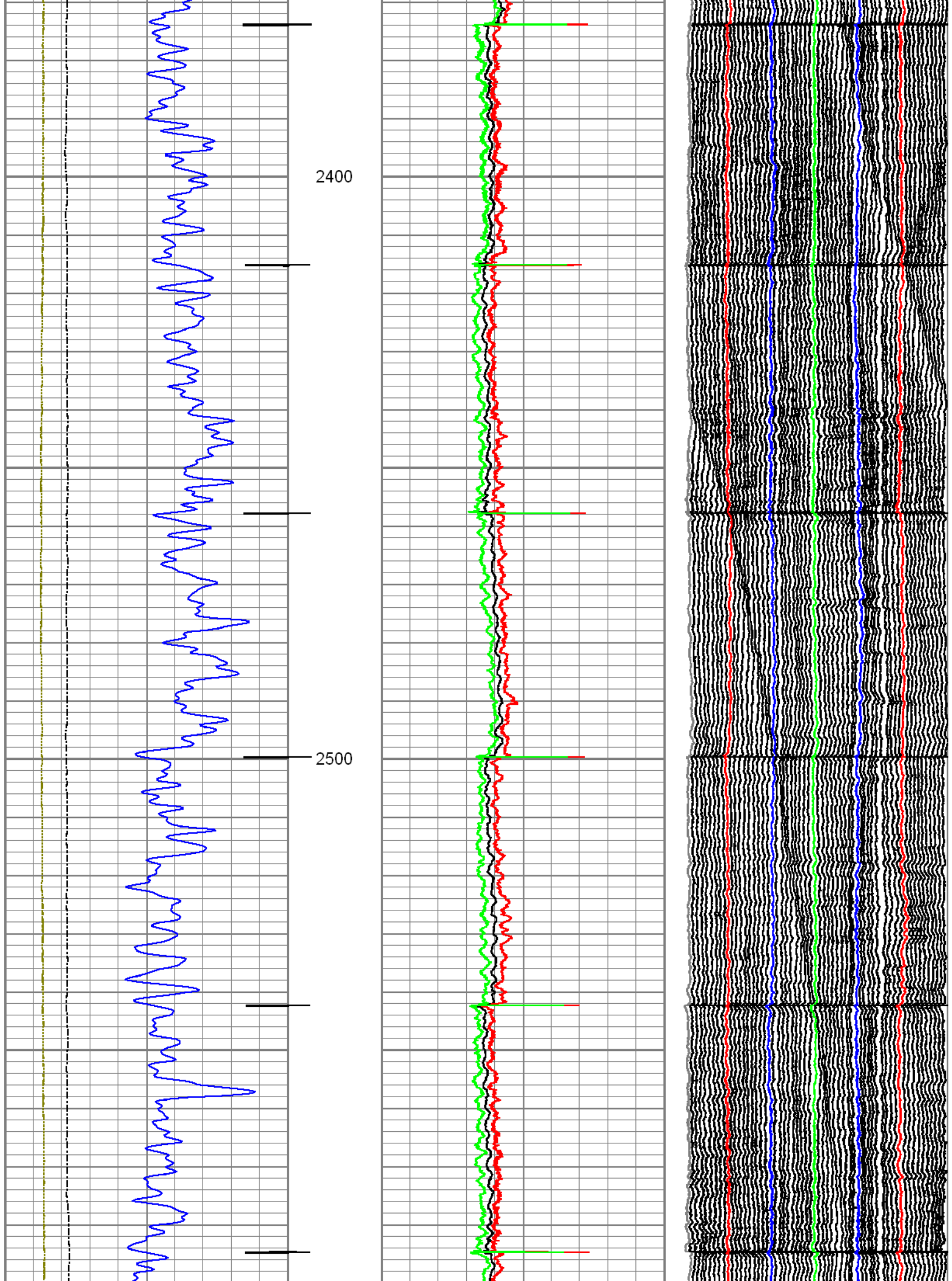


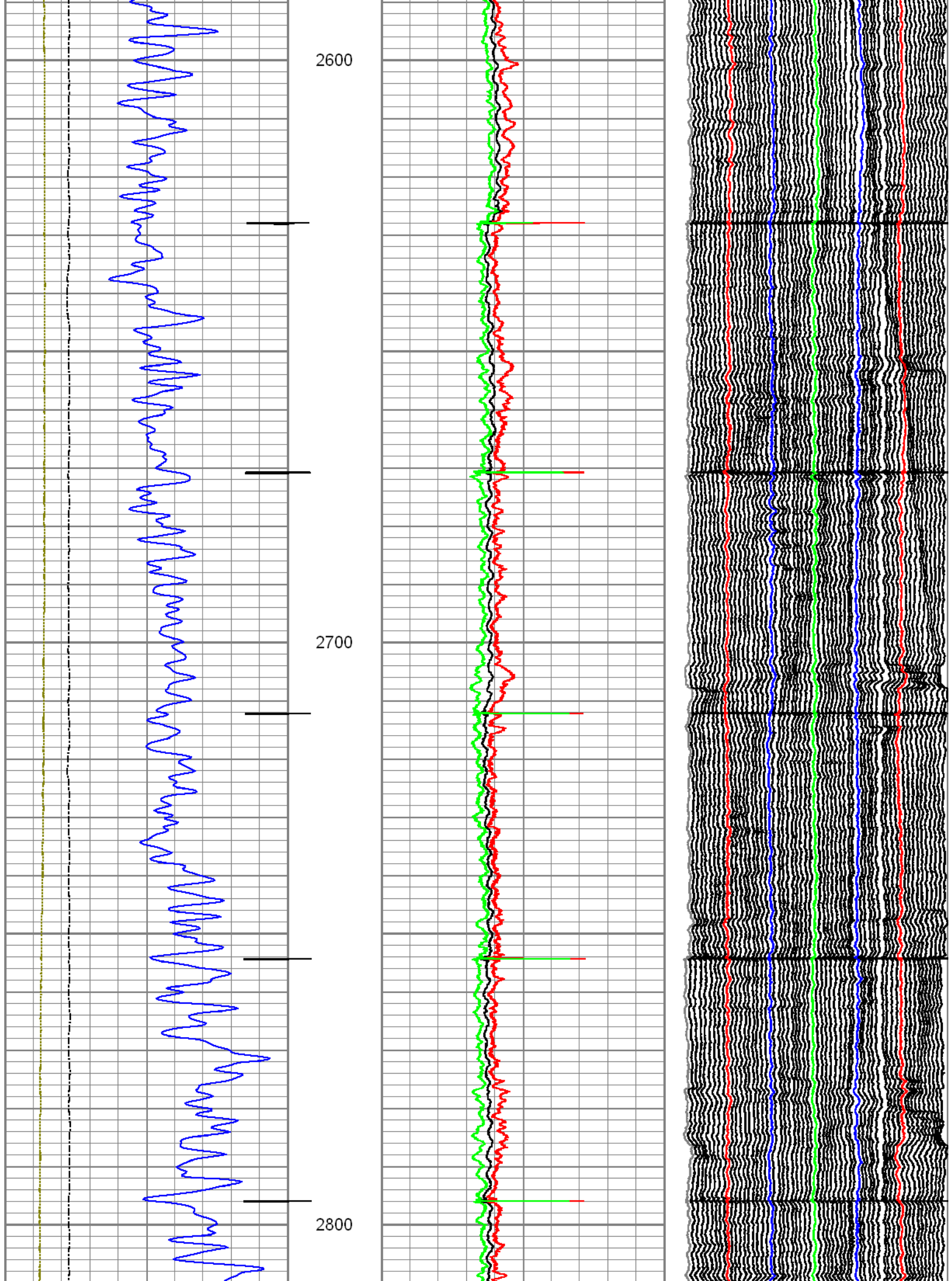




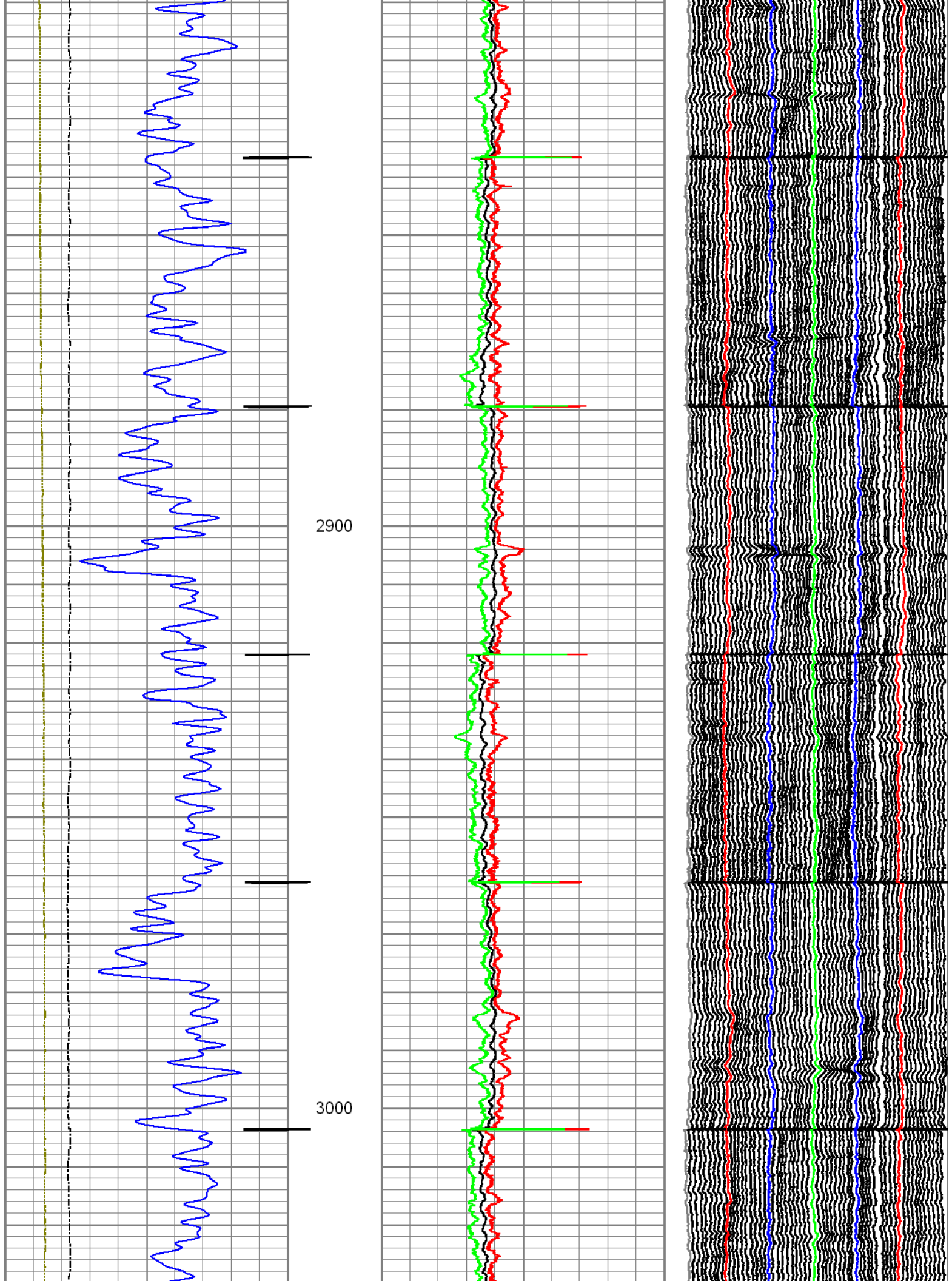


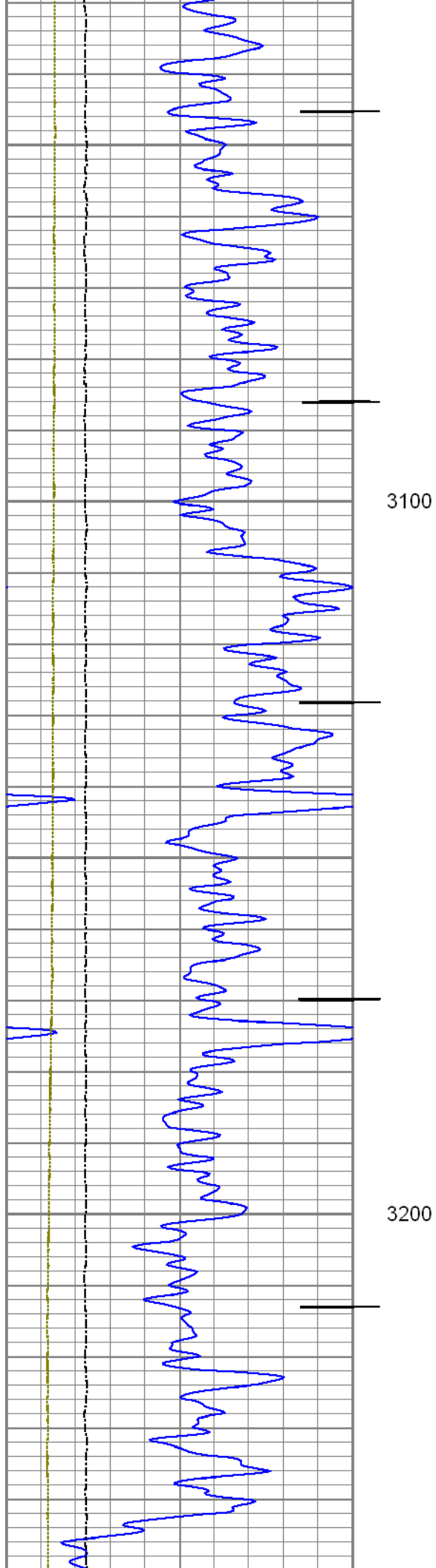
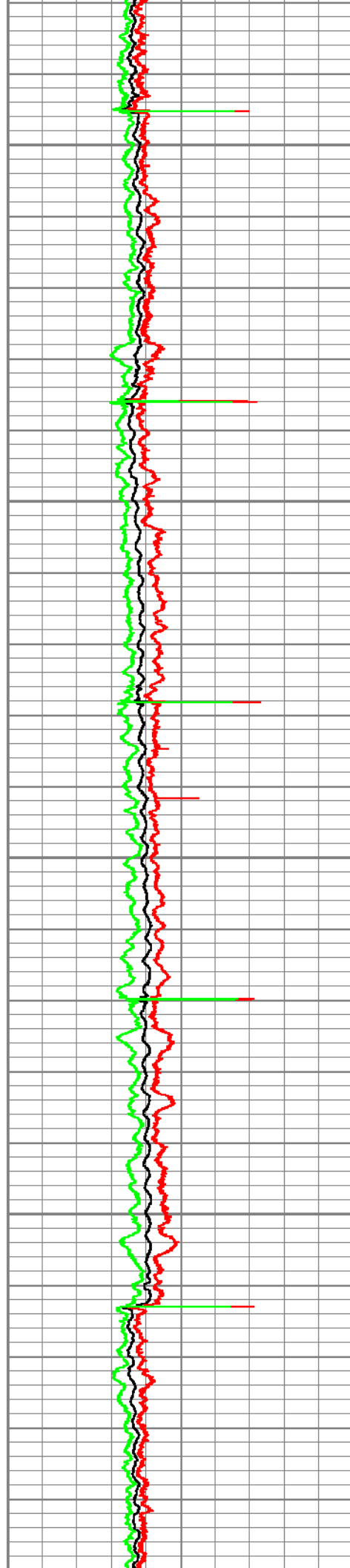
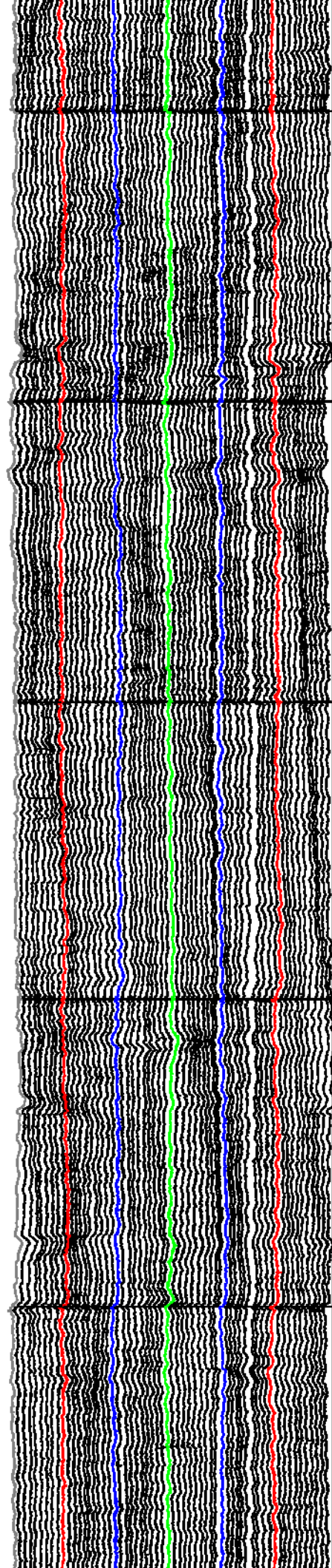


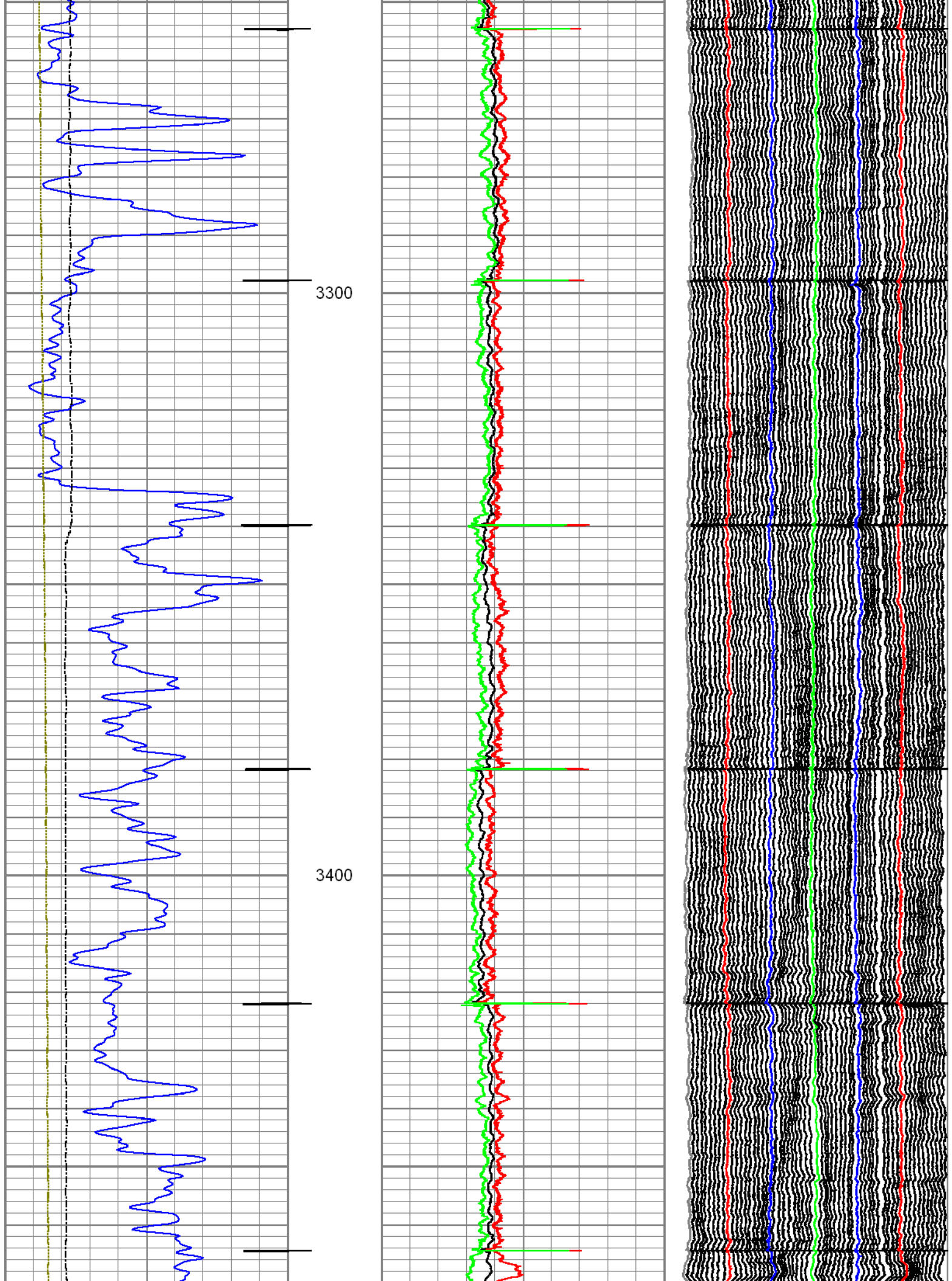




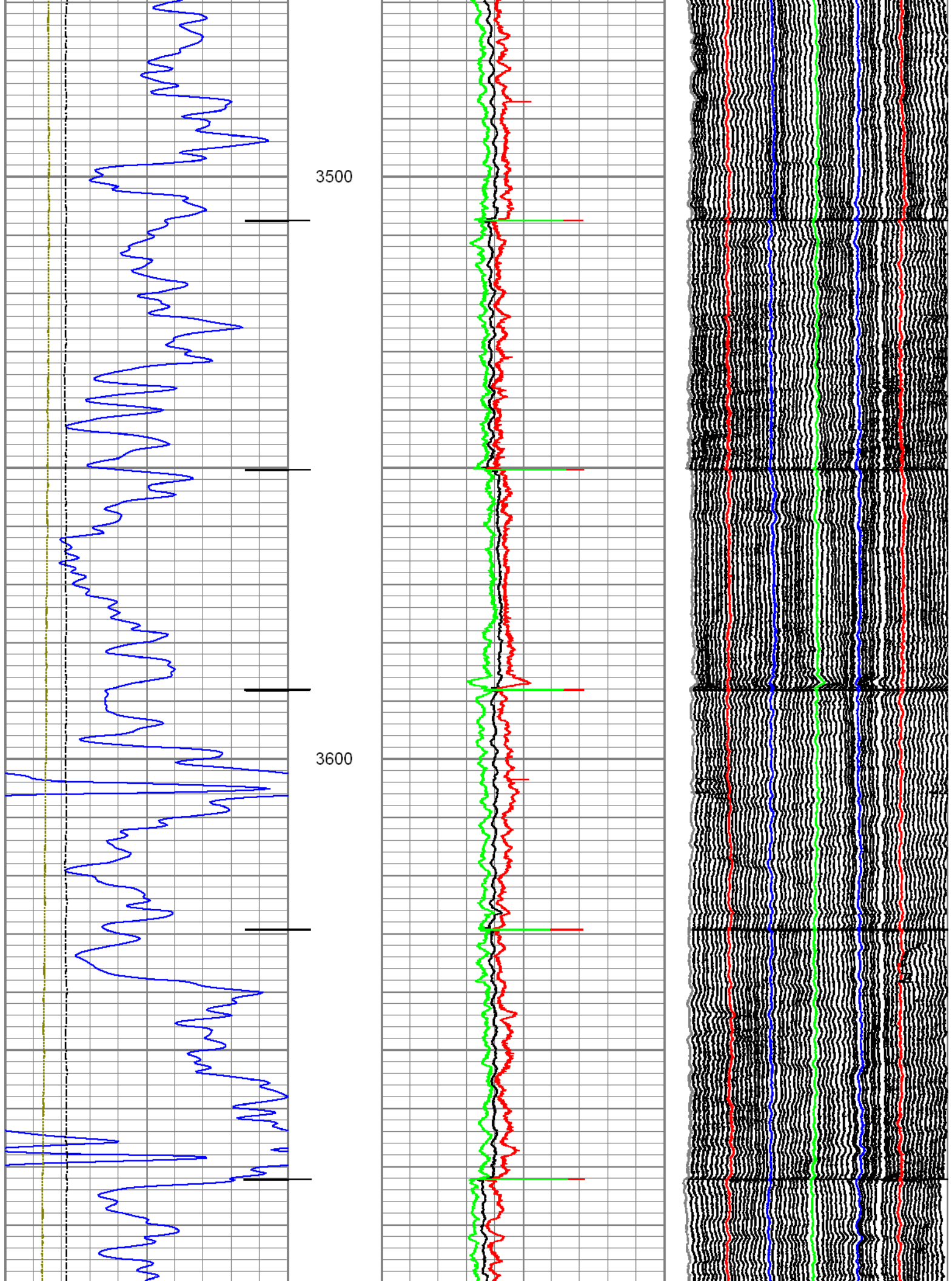


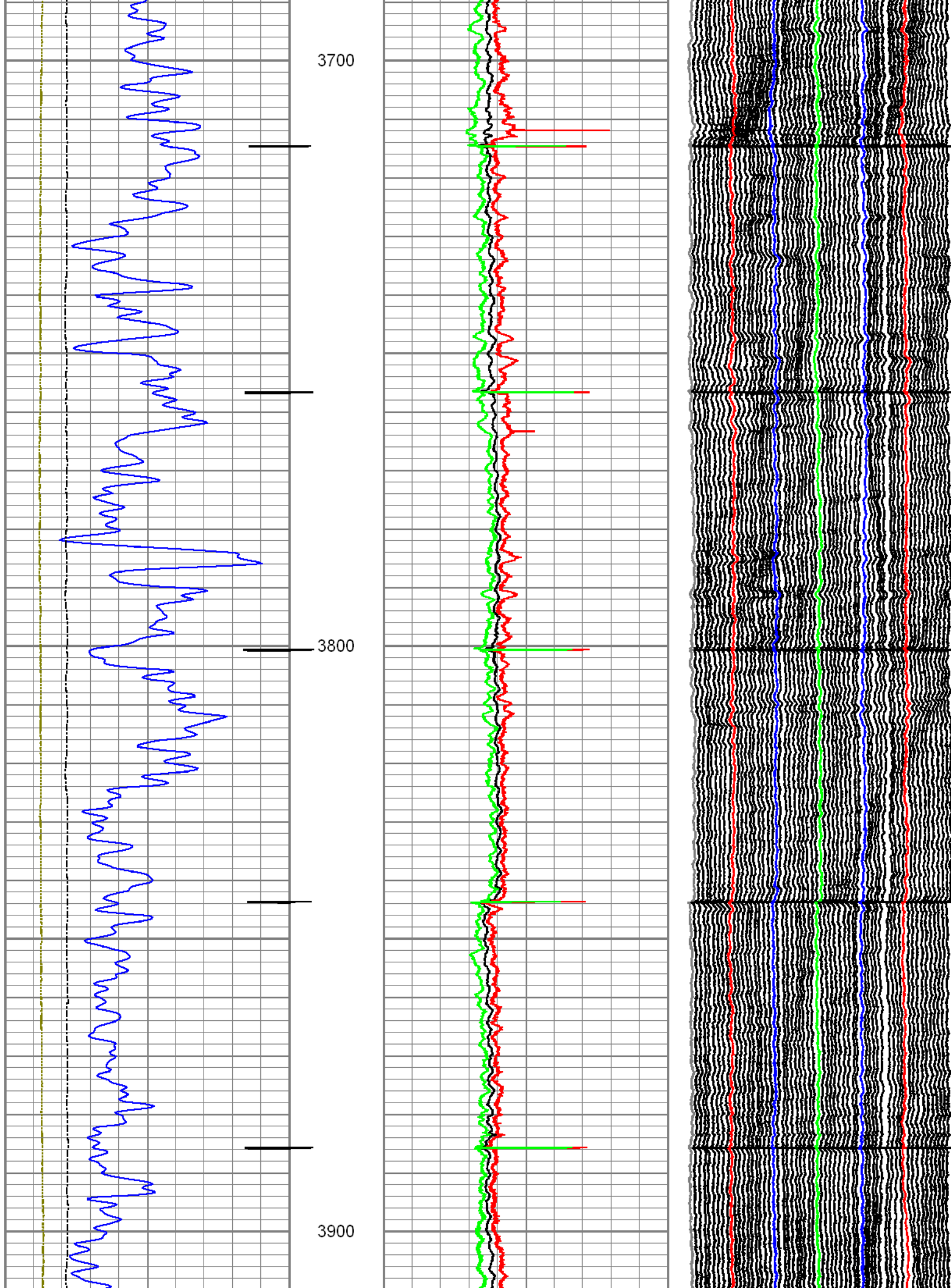


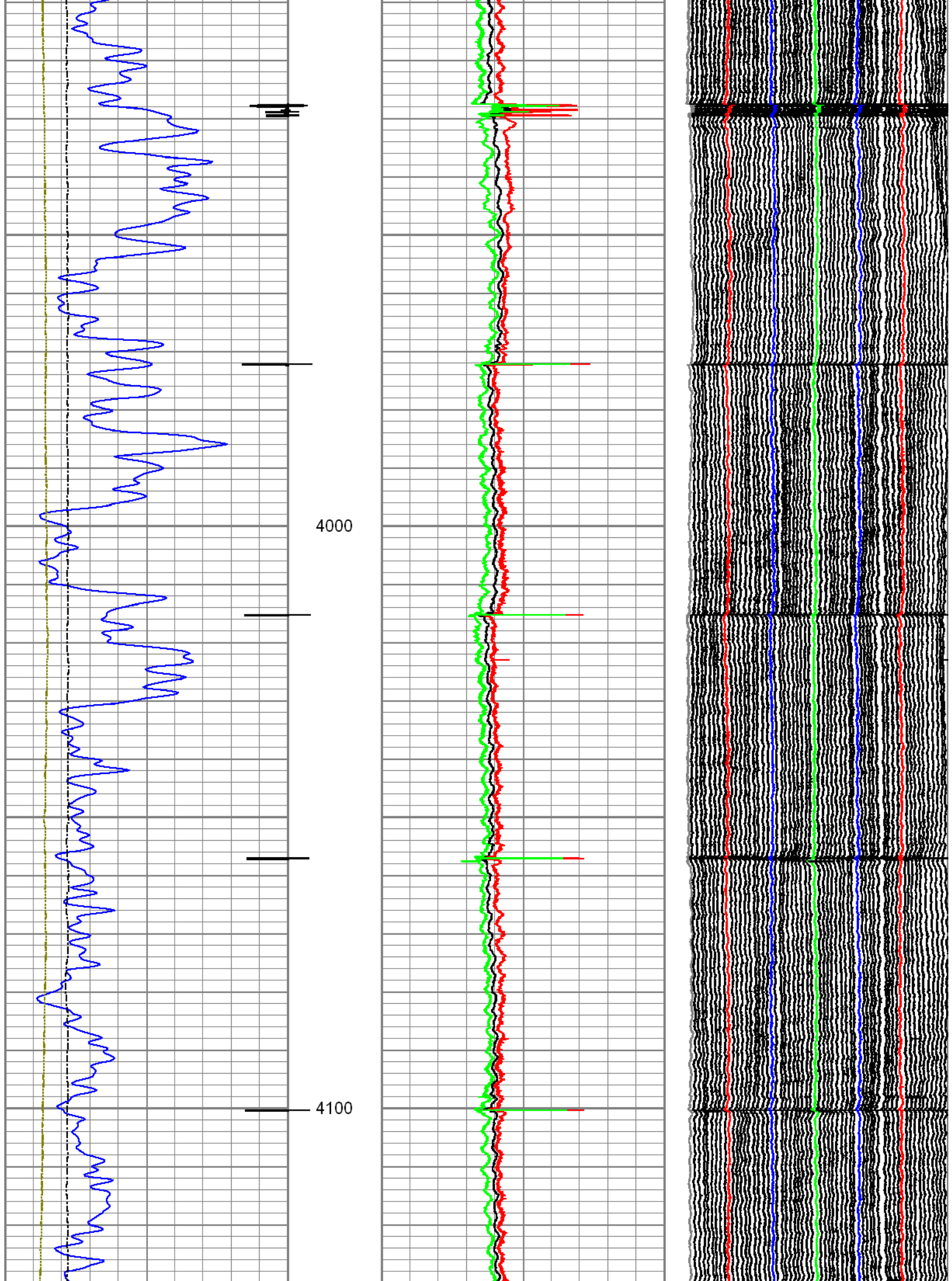




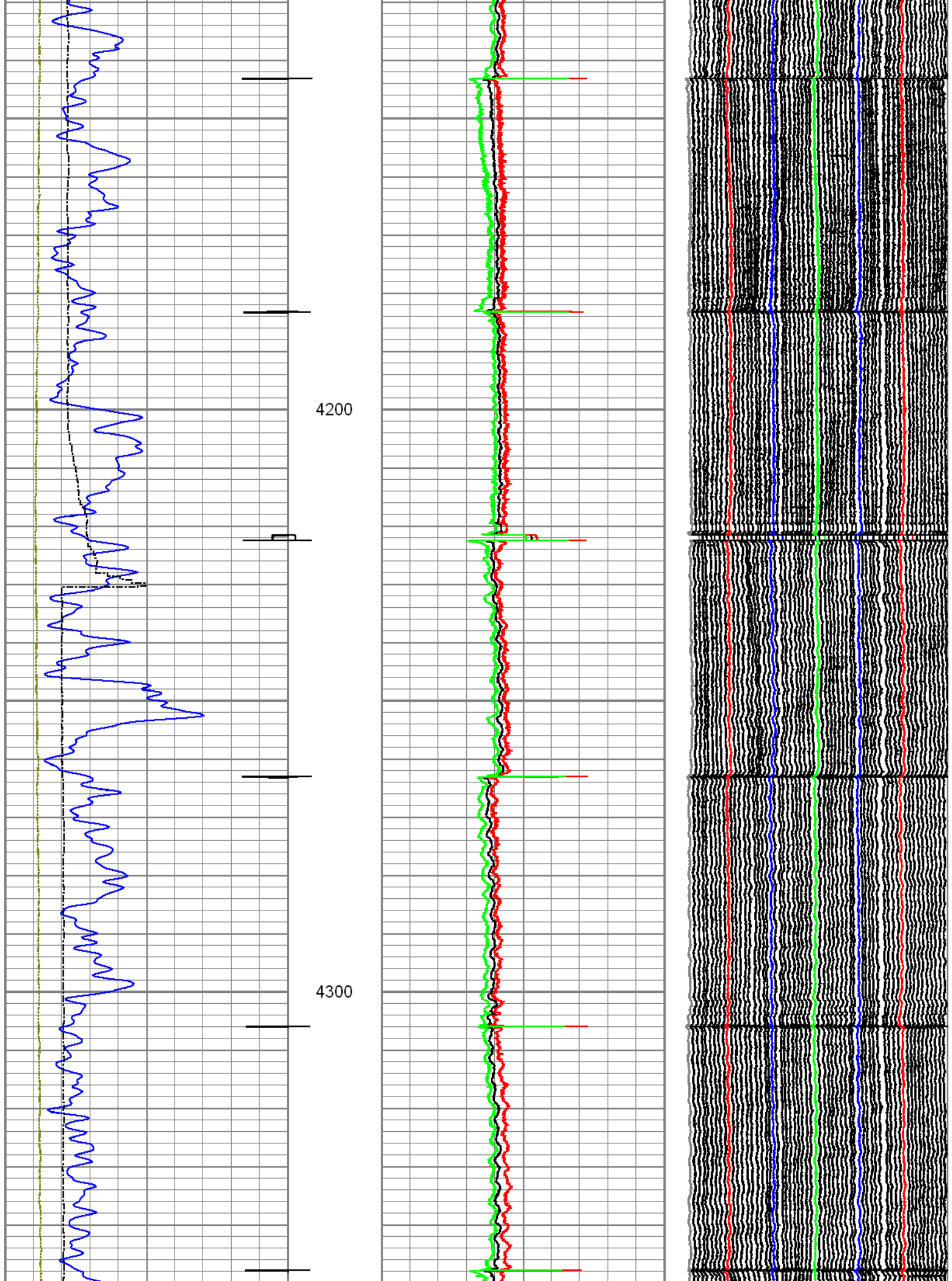


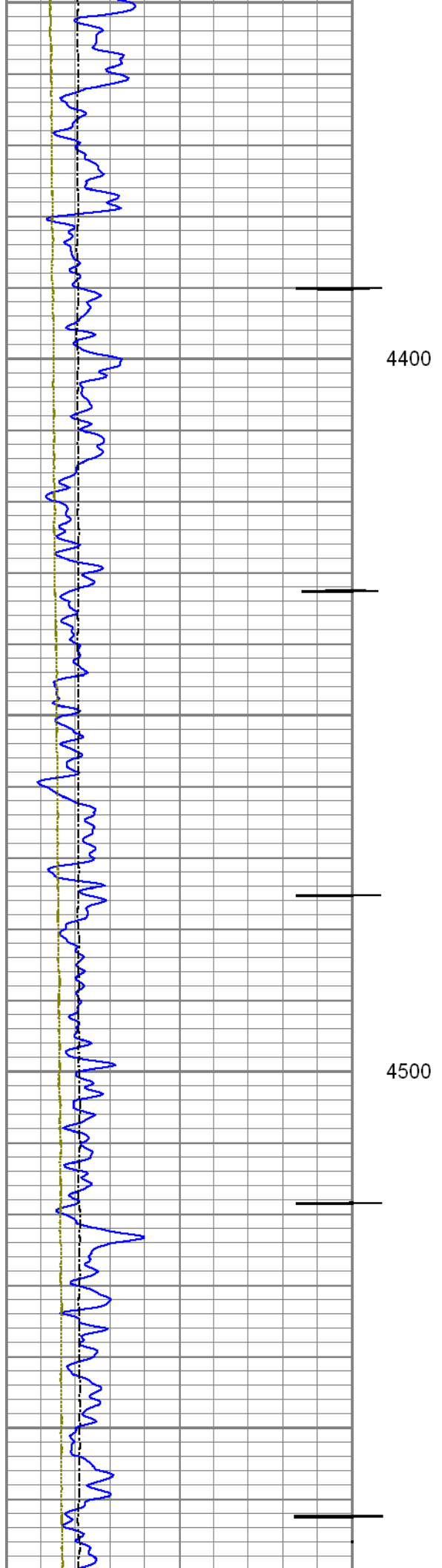
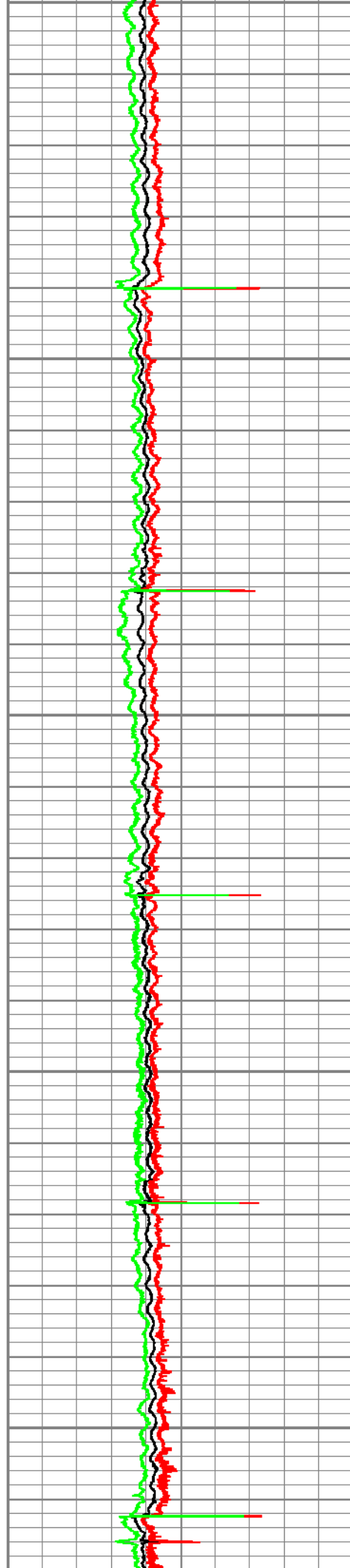
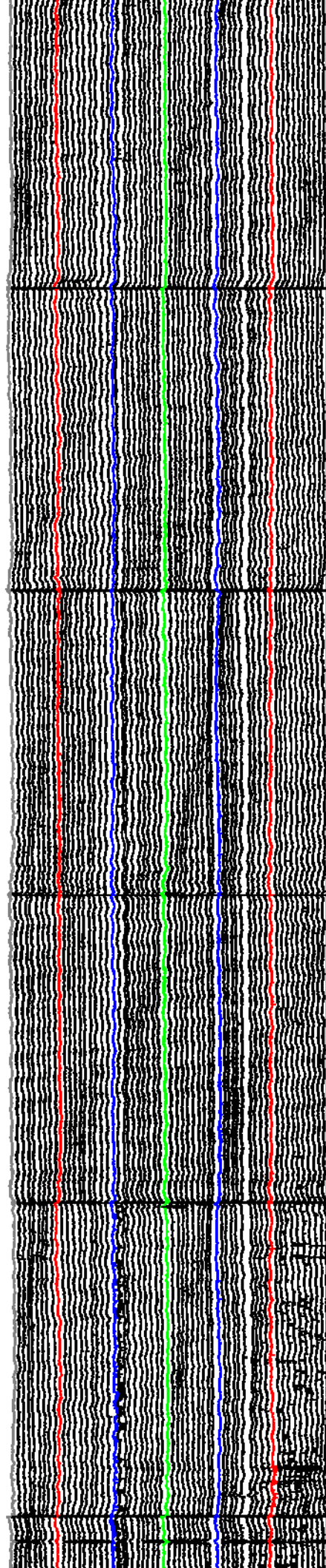


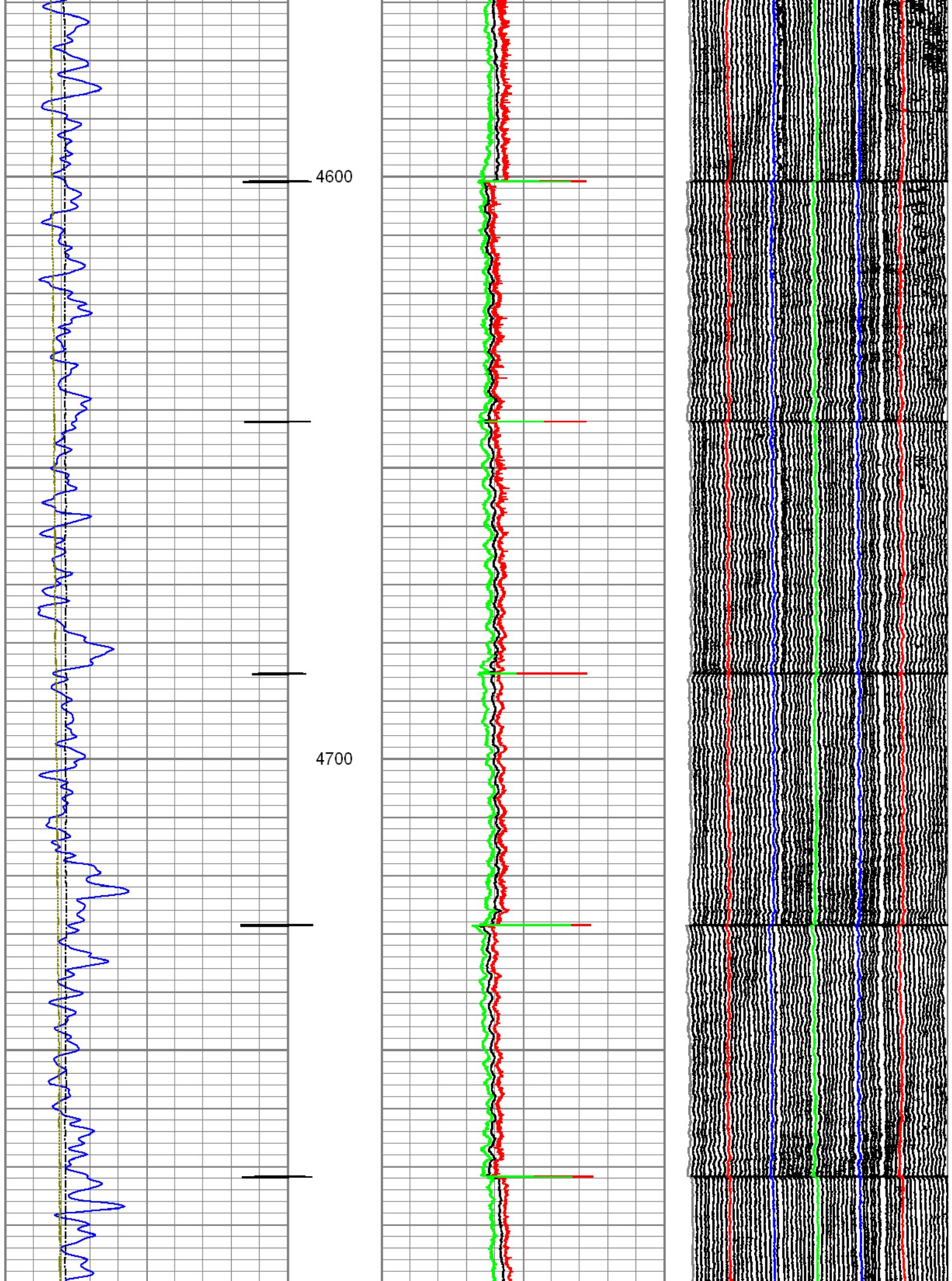




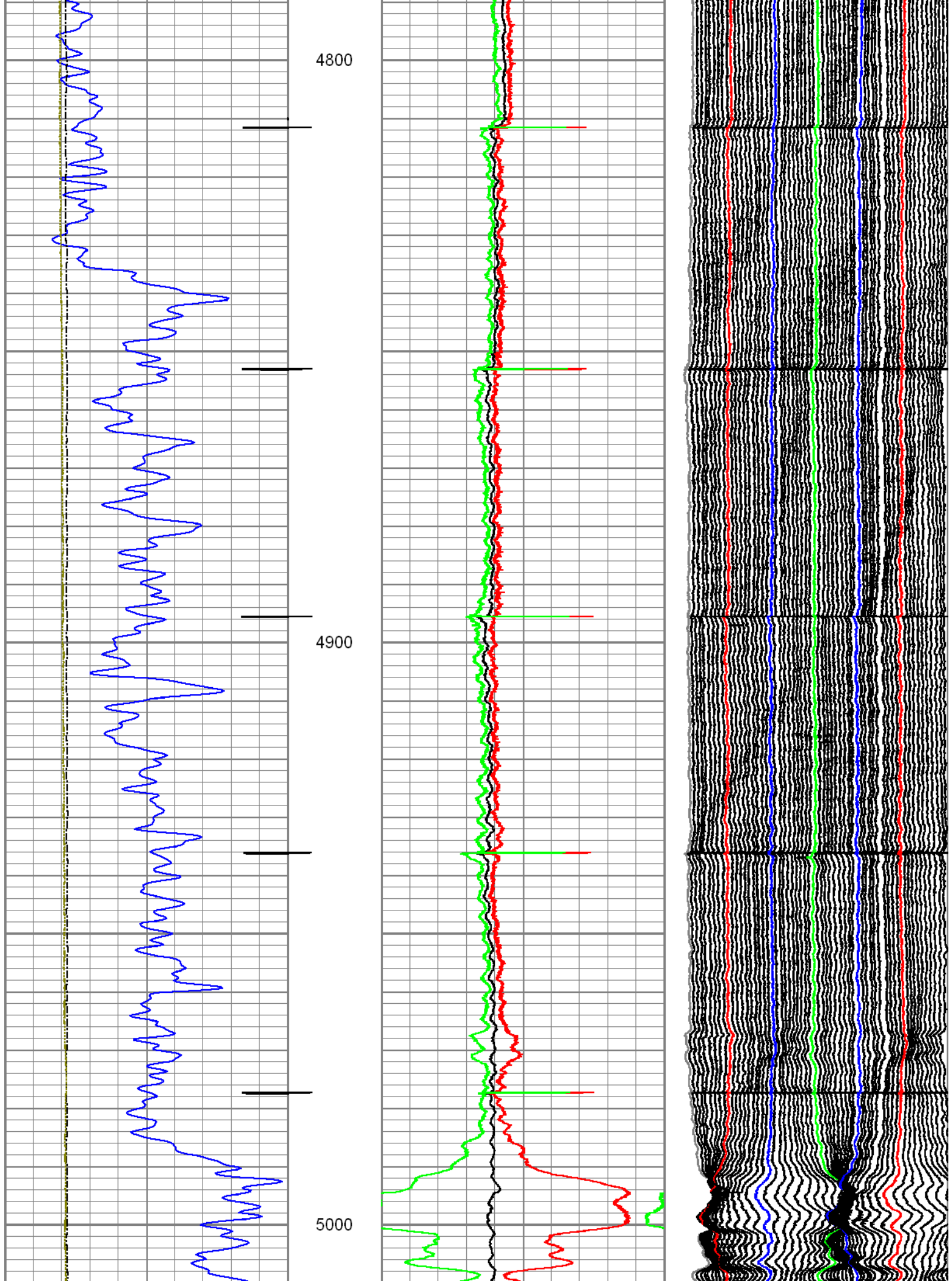


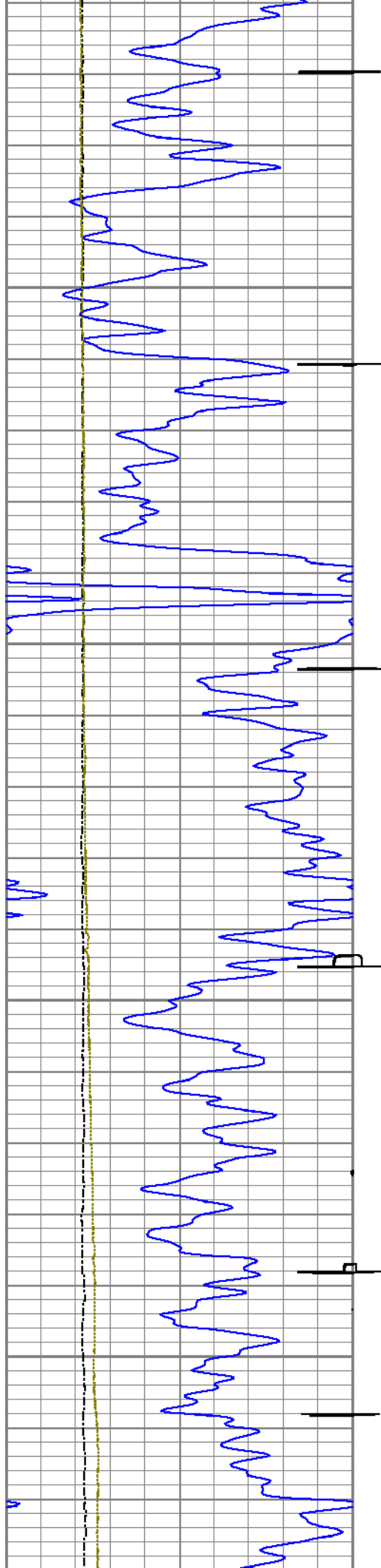






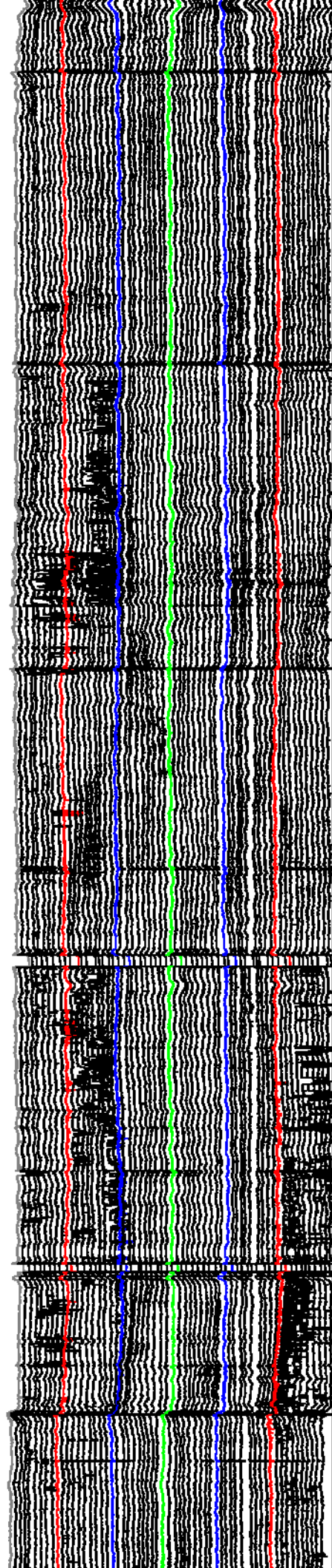
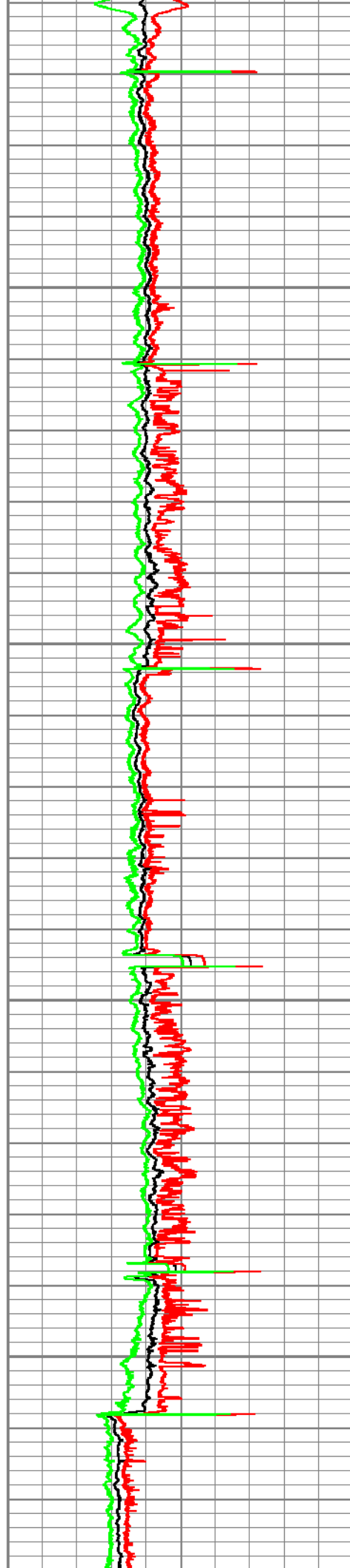


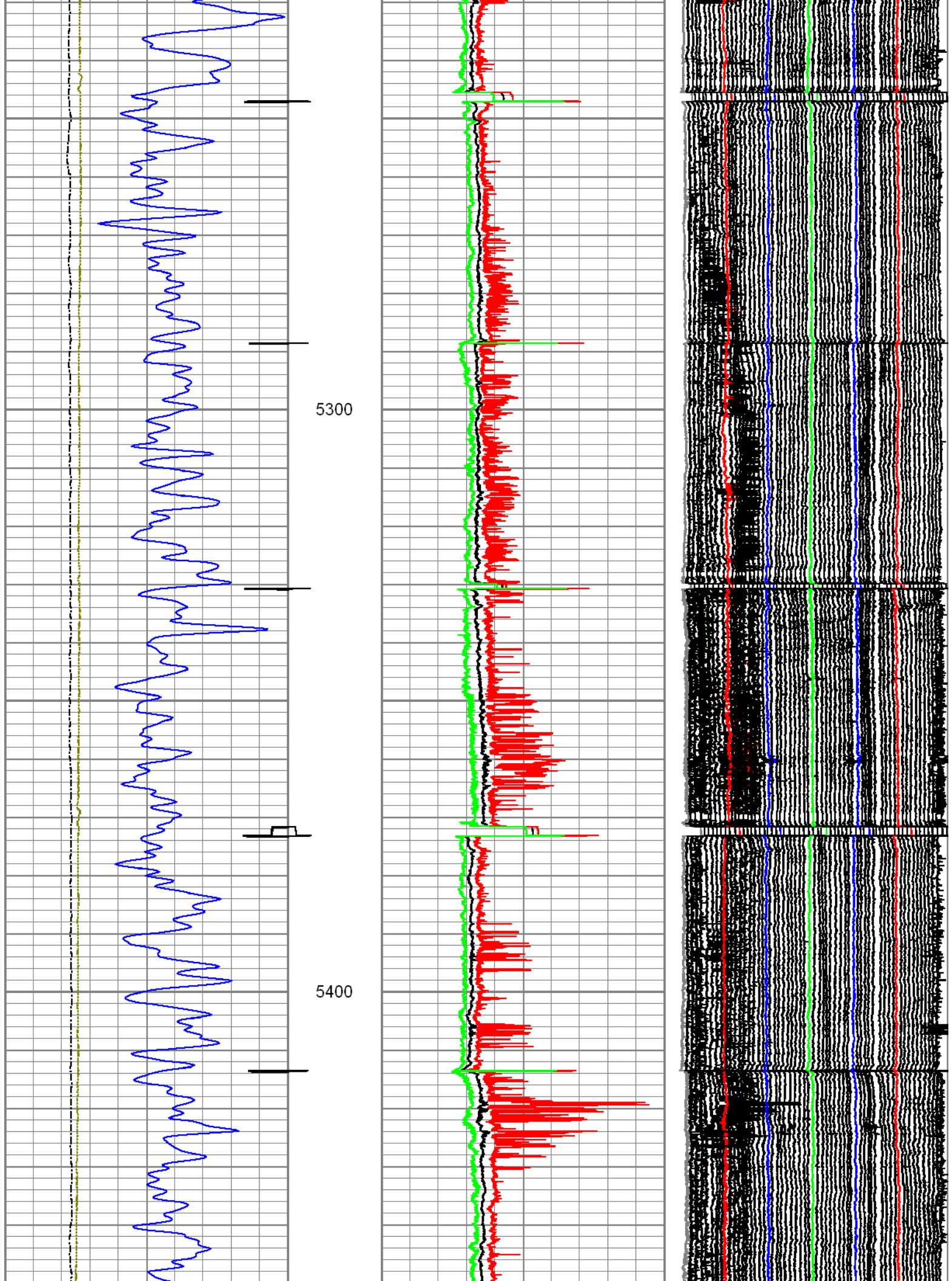




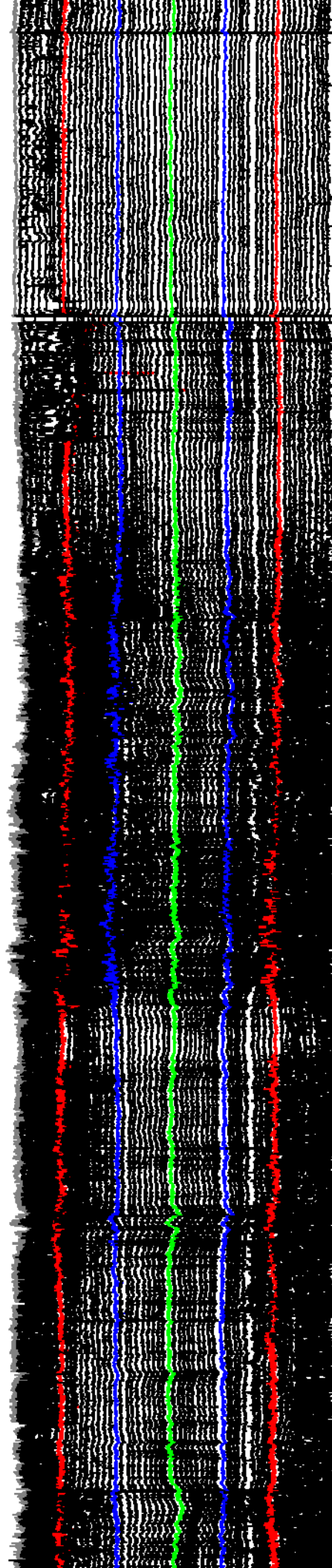
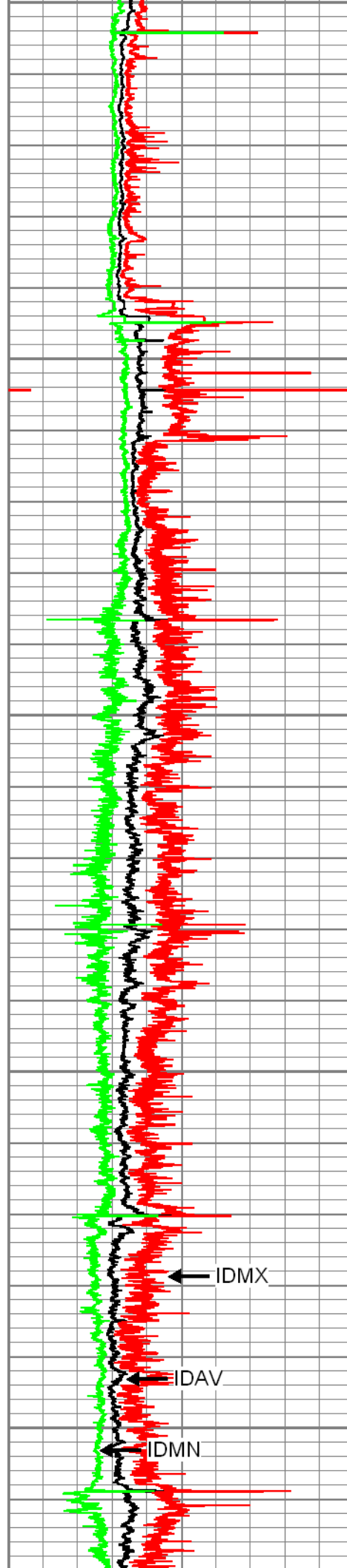
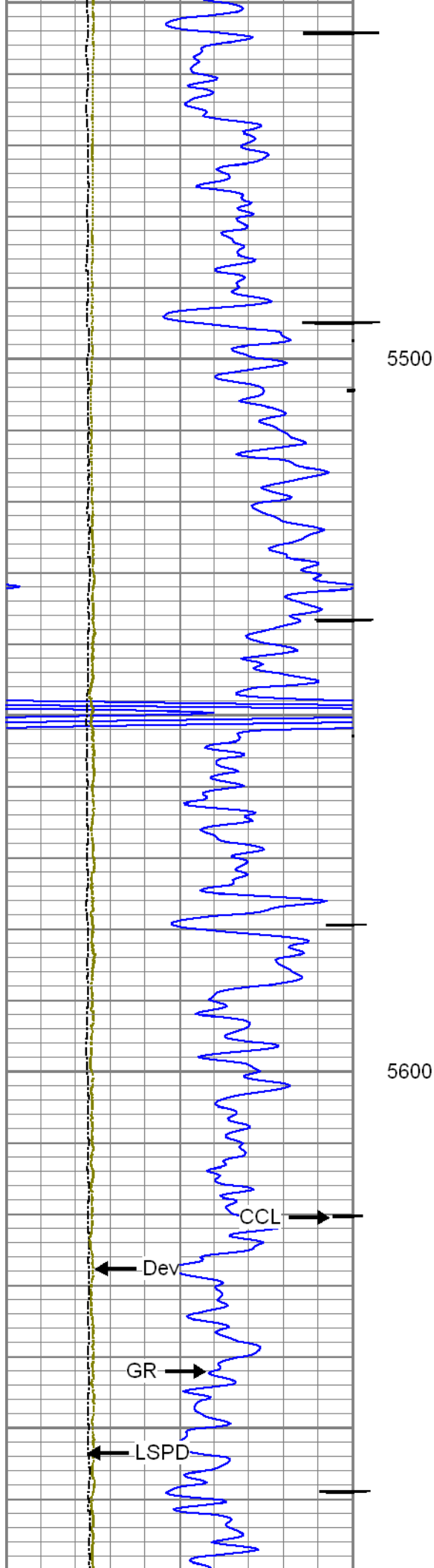
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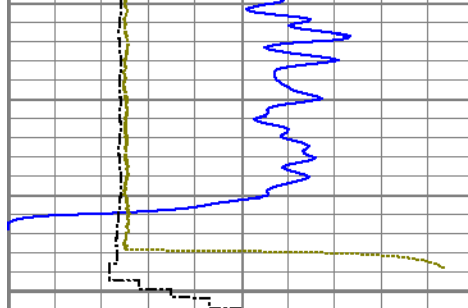
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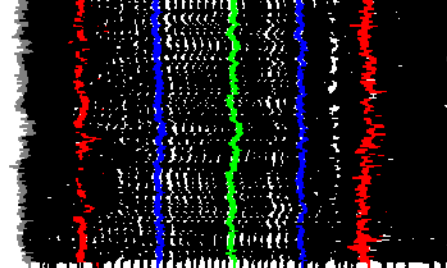
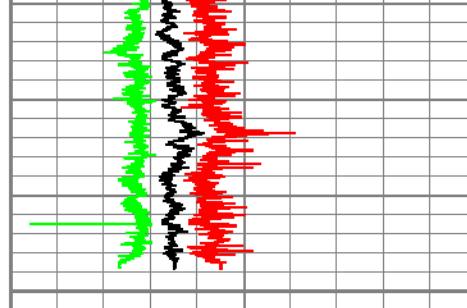








5700



0	Gamma Ray (GAPI)	120
-100	Line Speed (ft/min)	100
-10	Deviation (°)	90
Casing Collar Locator		

6	Average Diameter (in)	7
6	Maximum Diameter (in)	7
6	Minimum Diameter (in)	7

Caliper #10
Caliper #20
Caliper #30
Caliper #40
Caliper #50



## Repeat Pass

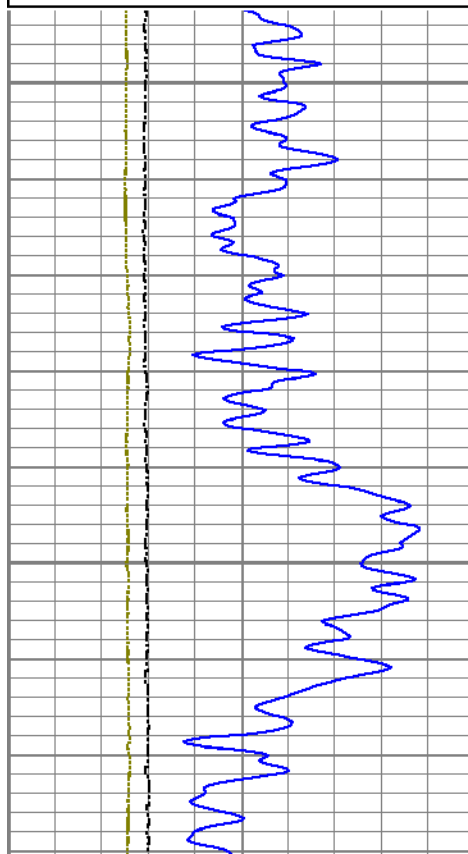
Recorded with -0- Psi surface induced pressure

Database File: 01-08-15\_chevron\_coltharp 9x\_mit.db  
 Dataset Pathname: mainpass/pass11  
 Presentation Format: 70mit60s  
 Dataset Creation: Thu Jan 08 08:05:51 2015 by Log 7.0 B1  
 Charted by: Depth in Feet scaled 1:240

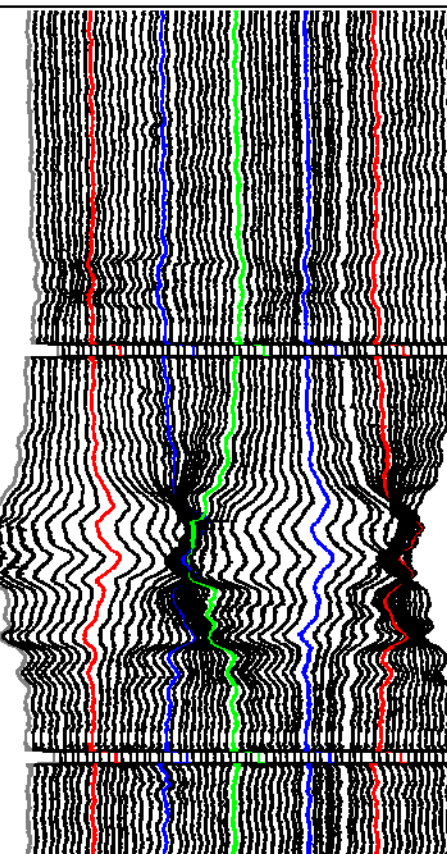
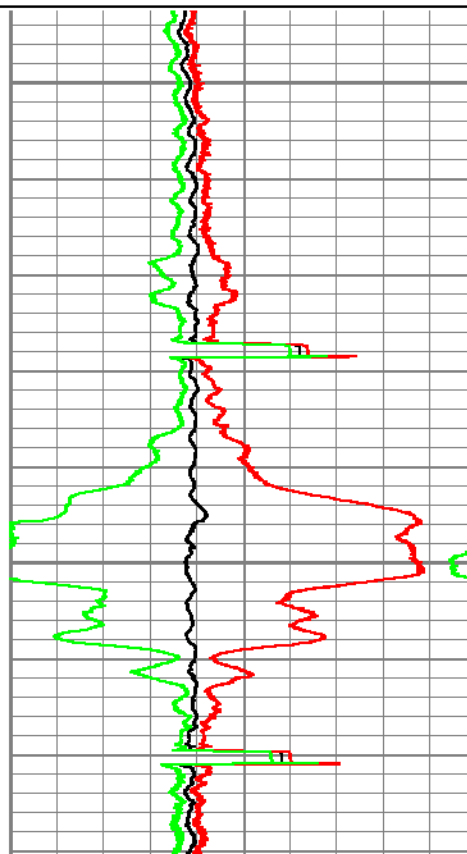
0	Gamma Ray (GAPI)	120
-100	Line Speed (ft/min)	100
-10	Deviation (°)	90

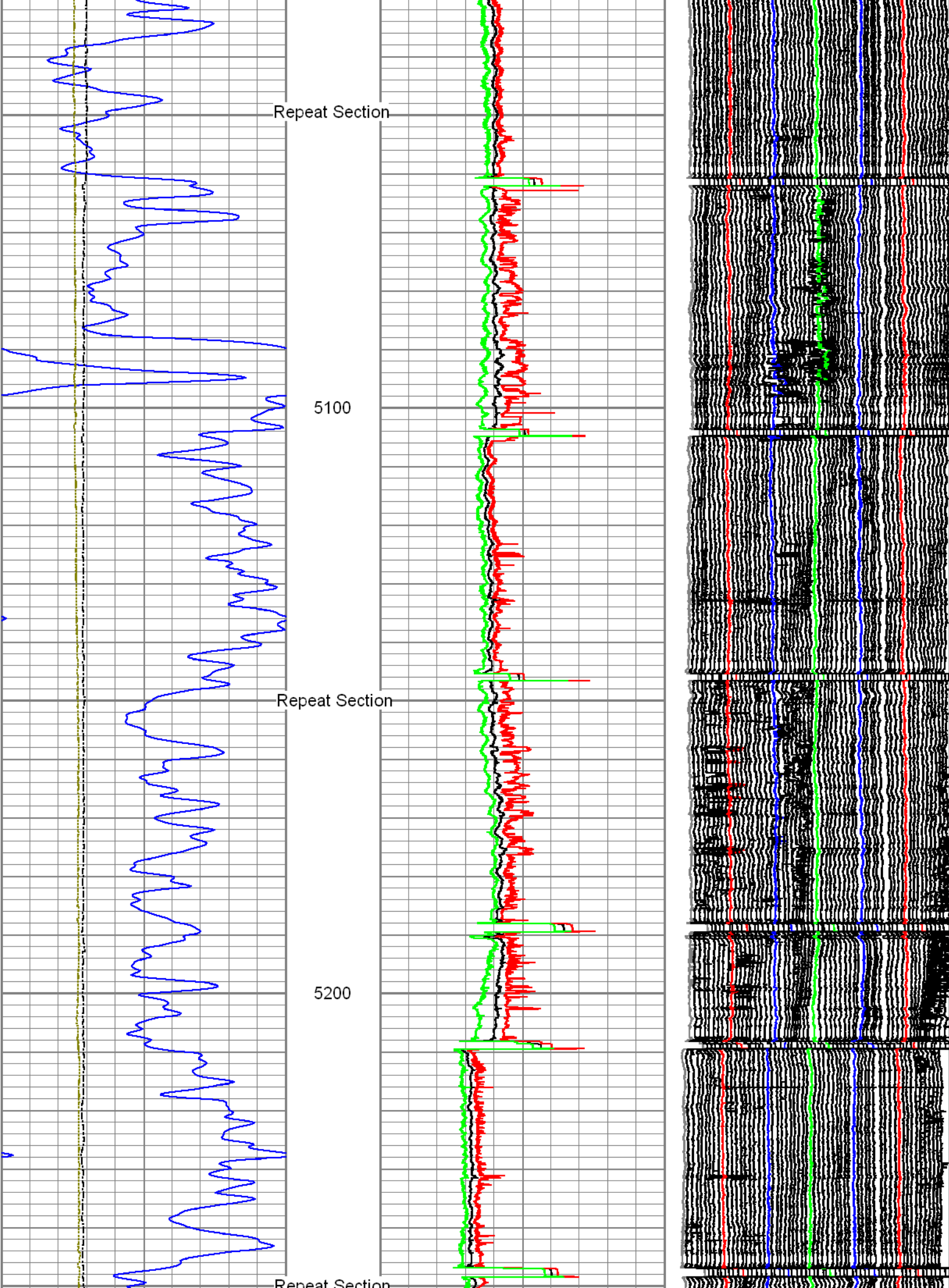
6	Average Diameter (in)	7
6	Maximum Diameter (in)	7
6	Minimum Diameter (in)	7

Caliper #10
Caliper #20
Caliper #30
Caliper #40
Caliper #50

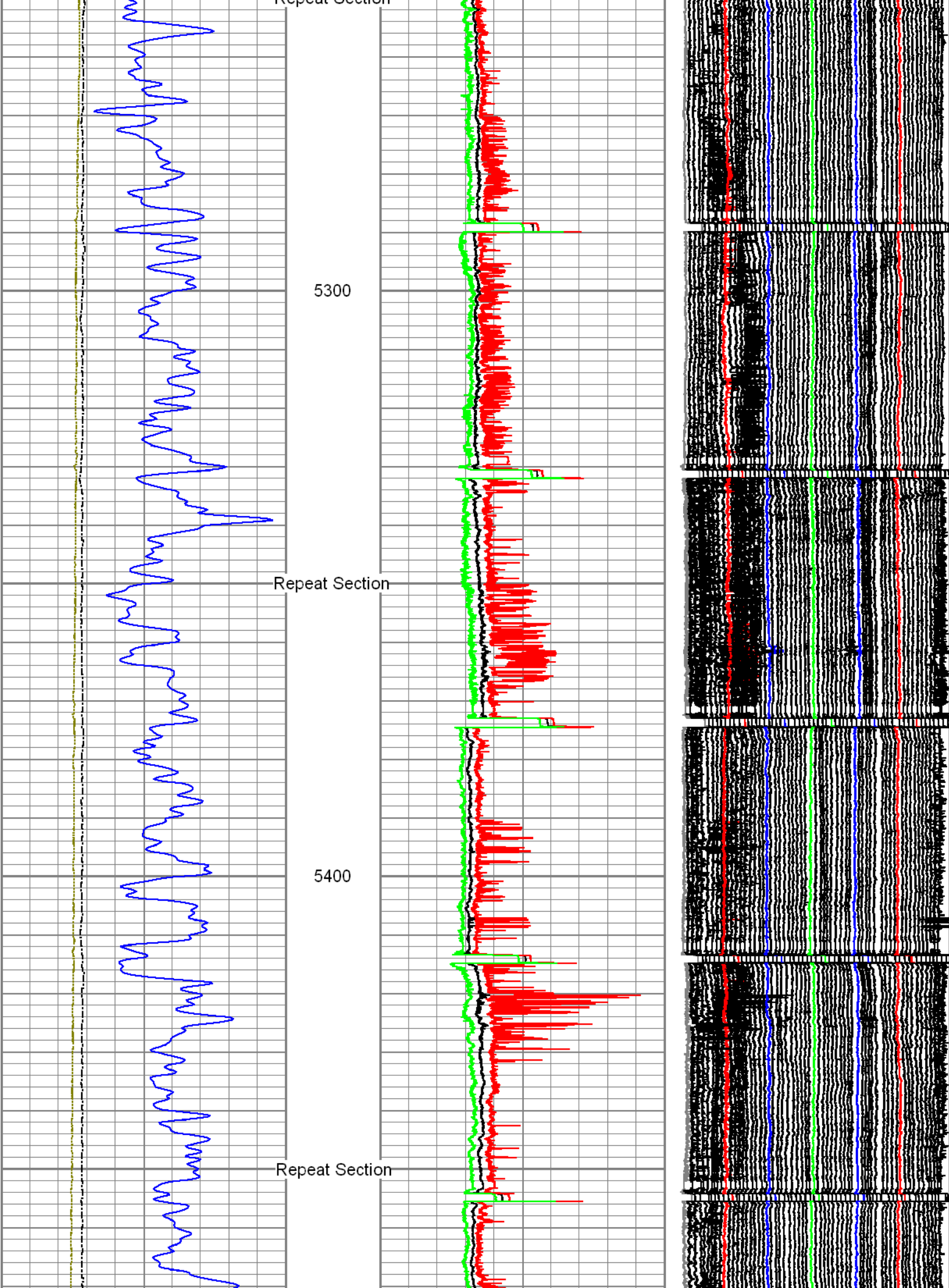


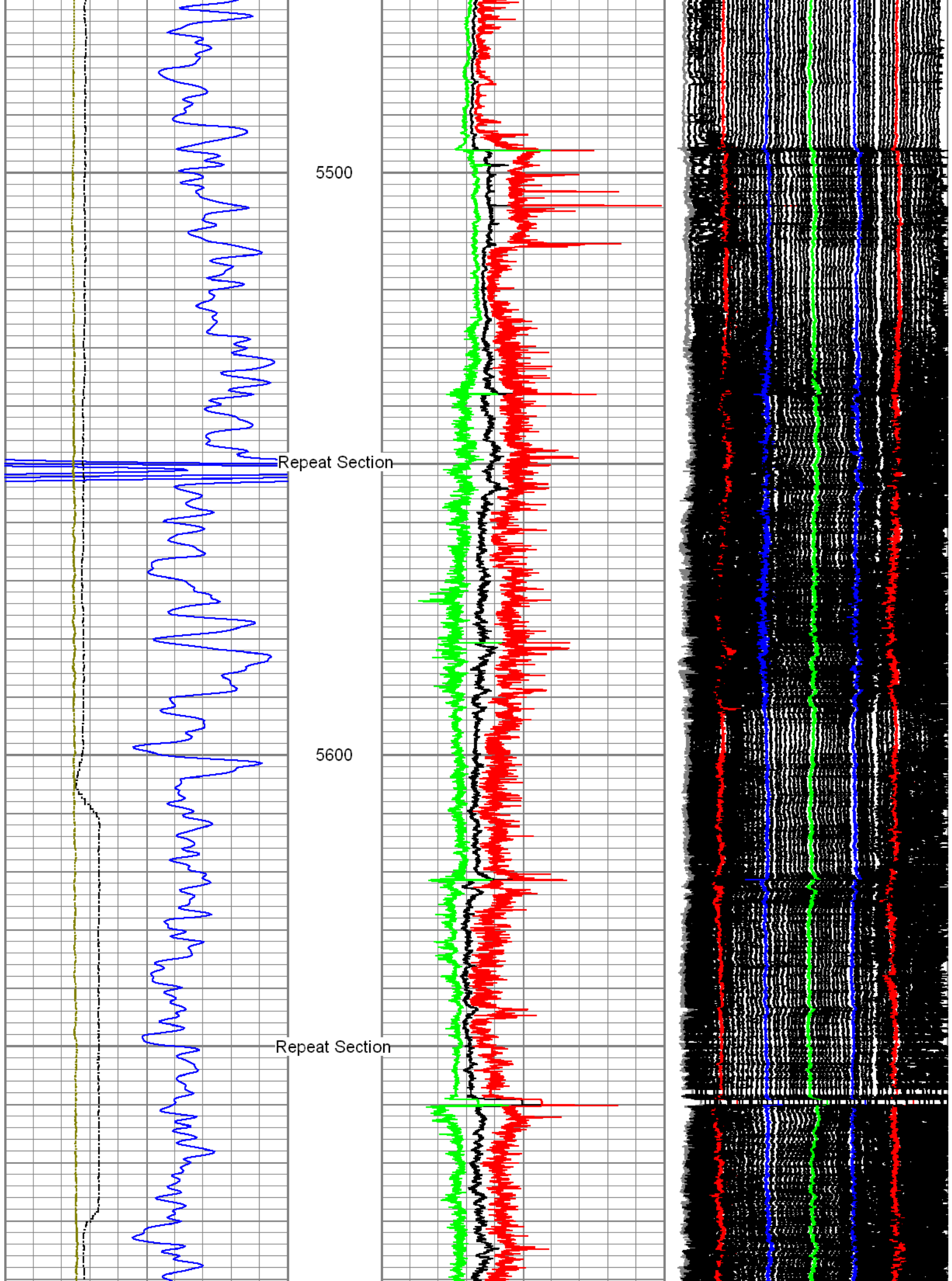
5000

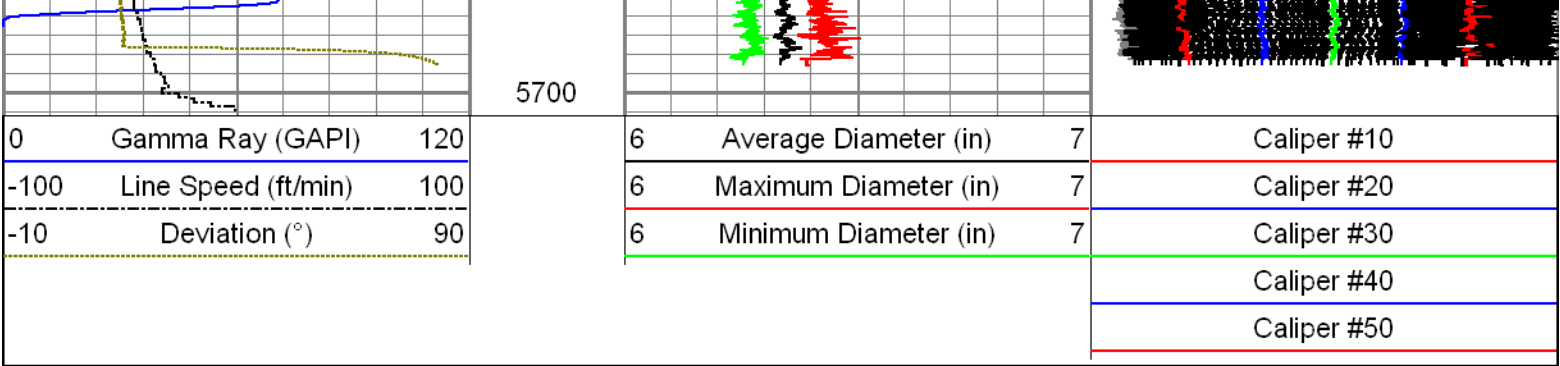






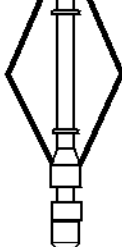






Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
Titan_Electric	15.09	Heads				
UW_AGS	14.06		T_CH14375_1_GO Titan 1-7/16" Assembled Electric Cable Head with 1" Fishing Neck	1.03	1.44	4.00
			UW_AGS-UW_AGS_001 (218848) Sondex Adapter - GO Box to Sondex Pin	0.21	1.69	1.00
			UW_XTU-UW_XTU_002 (10012277) Crossover Ultrawire Toolbus to Ultralink	1.58	1.69	6.50
GR	10.84		UW_PGR-UW_PGR_020 (10013902) Production Gamma Ray	1.93	1.69	9.50
DSS	10.34		DSS #2 -2-3/4" (RAC.20.086SX) DSS 2-3/4" 5 Arm Centralizer W/ Sondex Ends	2.55	2.75	
MIT	5.00		UW_MIT-UW_MIT60_029 (10018255) 60 Multifinger Imaging Tool	5.02	4.00	90.00
DSS	2.77					



UW_BUL TSTAMP	0.22		DSS #3 -2-3/4" (RAC.20.087SX) DSS 2-3/4" 5 Arm Centralizer W/ Sondex Ends	2.55	2.75	1.20
	0.00		UW_BUL-UW_BUL_006 (10019616) Sondex Ultrawire Bullnose Terminator	0.22	1.69	
Dataset: 01-08-15_chevron_coltharp 9x_mit.db: field/well/fullmain/pass11 Total Length: 15.09 ft Total Weight: 112.20 lb O.D. 4.00 in						

Calibration Report	
Database File:	01-08-15_chevron_coltharp 9x_mit.db
Dataset Pathname:	fullmain/pass11
Dataset Creation:	Thu Jan 08 08:30:00 2015 by Log 7.0 B1

Multi-finger Imaging Tool Calibration Report
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Serial Number:	10018255
Number of Fingers:	60
Tool Model:	UW_MIT60_029

Inclinometer Calibration Report		
Performed:	Wed Aug 13 14:30:27 2014	
Calibration Angle:	45	
	Inc X	Inc Y
Vertical:	1988	1978
Finger 1 up:	1778	2208
Finger 46 up:	1786	1720
Finger 31 up:	2139	1685
Finger 16 up:	2216	2155
Sensitivity ratio:	0.825339	
X-axis angle:	230.117	
Deviation const.:	280.723	


Finger Calibration Report
Performed: Wed Jan 07 15:33:51 2015

Ring size:	5.5		6		6.5		7		7.5		8
(in)		Sens		Sens		Sens		Sens		Sens	
Finger 01:	1462	382.0	1653	396.0	1851	398.0	2050	414.0	2257	420.0	2467
Finger 02:	1454	396.0	1652	406.0	1855	402.0	2056	410.0	2261	412.0	2467
Finger 03:	1441	404.0	1643	420.0	1853	418.0	2062	430.0	2277	432.0	2493
Finger 04:	1458	390.0	1653	402.0	1854	404.0	2056	414.0	2263	416.0	2471
Finger 05:	1427	418.0	1636	430.0	1851	432.0	2067	434.0	2284	426.0	2497
Finger 06:	1444	406.0	1647	418.0	1856	422.0	2067	436.0	2285	434.0	2502
Finger 07:	1451	398.0	1650	414.0	1857	416.0	2065	424.0	2277	428.0	2491
Finger 08:	1454	398.0	1653	408.0	1857	416.0	2065	420.0	2275	426.0	2488
Finger 09:	1458	400.0	1658	412.0	1864	418.0	2073	422.0	2284	422.0	2495
Finger 10:	1468	390.0	1663	402.0	1864	406.0	2067	408.0	2271	410.0	2476
Finger 11:	1448	396.0	1646	406.0	1849	416.0	2057	418.0	2266	416.0	2474
Finger 12:	1448	404.0	1650	416.0	1858	426.0	2071	424.0	2283	424.0	2495
Finger 13:	1438	412.0	1644	422.0	1855	436.0	2073	432.0	2289	430.0	2504
Finger 14:	1459	396.0	1657	410.0	1862	424.0	2074	416.0	2282	420.0	2492
Finger 15:	1443	406.0	1646	420.0	1856	432.0	2072	424.0	2284	422.0	2495
Finger 16:	1443	406.0	1646	414.0	1853	430.0	2068	418.0	2277	418.0	2486
Finger 17:	1434	410.0	1639	426.0	1852	440.0	2072	430.0	2287	428.0	2501
Finger 18:	1425	414.0	1632	432.0	1848	452.0	2074	444.0	2296	442.0	2517
Finger 19:	1474	390.0	1669	396.0	1867	412.0	2073	402.0	2274	404.0	2476
Finger 20:	1403	422.0	1614	444.0	1836	466.0	2069	458.0	2298	454.0	2525
Finger 21:	1458	390.0	1653	408.0	1857	426.0	2070	416.0	2278	418.0	2487

Finger 22:	1449	392.0	1645	410.0	1850	430.0	2065	424.0	2277	422.0	2488
Finger 23:	1420	408.0	1624	428.0	1838	452.0	2064	446.0	2287	446.0	2510
Finger 24:	1425	402.0	1626	422.0	1837	444.0	2059	436.0	2277	434.0	2494
Finger 25:	1447	380.0	1637	394.0	1834	414.0	2041	408.0	2245	404.0	2447
Finger 26:	1433	400.0	1633	420.0	1843	440.0	2063	434.0	2280	432.0	2496
Finger 27:	1393	402.0	1594	424.0	1806	450.0	2031	446.0	2254	448.0	2478
Finger 28:	1419	402.0	1620	418.0	1829	440.0	2049	440.0	2269	442.0	2490
Finger 29:	1440	394.0	1637	410.0	1842	432.0	2058	428.0	2272	434.0	2489
Finger 30:	1453	382.0	1644	400.0	1844	420.0	2054	420.0	2264	422.0	2475

Finger 31:	1462	384.0	1654	400.0	1854	412.0	2060	412.0	2266	414.0	2473
Finger 32:	1422	400.0	1622	420.0	1832	440.0	2052	438.0	2271	434.0	2488
Finger 33:	1422	390.0	1617	408.0	1821	428.0	2035	432.0	2251	436.0	2469
Finger 34:	1413	402.0	1614	424.0	1826	444.0	2048	448.0	2272	452.0	2498
Finger 35:	1416	400.0	1616	420.0	1826	438.0	2045	444.0	2267	450.0	2492
Finger 36:	1434	382.0	1625	402.0	1826	420.0	2036	428.0	2250	436.0	2468
Finger 37:	1439	384.0	1631	402.0	1832	416.0	2040	420.0	2250	430.0	2465
Finger 38:	1421	394.0	1618	418.0	1827	430.0	2042	436.0	2260	450.0	2485
Finger 39:	1423	386.0	1616	406.0	1819	422.0	2030	436.0	2248	446.0	2471
Finger 40:	1420	396.0	1618	416.0	1826	424.0	2038	436.0	2256	440.0	2476
Finger 41:	1409	390.0	1604	412.0	1810	422.0	2021	440.0	2241	448.0	2465
Finger 42:	1432	384.0	1624	402.0	1825	412.0	2031	428.0	2245	438.0	2464
Finger 43:	1488	370.0	1673	376.0	1861	380.0	2051	398.0	2250	414.0	2457
Finger 44:	1449	378.0	1638	394.0	1835	398.0	2034	414.0	2241	426.0	2454
Finger 45:	1444	378.0	1633	392.0	1829	400.0	2029	418.0	2238	428.0	2452
Finger 46:	1409	390.0	1604	410.0	1809	418.0	2018	440.0	2238	450.0	2463
Finger 47:	1423	390.0	1618	412.0	1824	412.0	2030	434.0	2247	442.0	2468
Finger 48:	1435	386.0	1628	400.0	1828	406.0	2031	428.0	2245	438.0	2464
Finger 49:	1437	388.0	1631	410.0	1836	412.0	2042	434.0	2259	446.0	2482
Finger 50:	1458	376.0	1646	388.0	1840	392.0	2036	416.0	2244	424.0	2456
Finger 51:	1445	386.0	1638	402.0	1839	400.0	2039	420.0	2249	430.0	2464
Finger 52:	1424	398.0	1623	414.0	1830	410.0	2035	432.0	2251	438.0	2470
Finger 53:	1443	394.0	1640	406.0	1843	400.0	2043	426.0	2256	428.0	2470
Finger 54:	1453	380.0	1643	394.0	1840	394.0	2037	416.0	2245	420.0	2455
Finger 55:	1434	392.0	1630	408.0	1834	406.0	2037	432.0	2253	436.0	2471
Finger 56:	1476	374.0	1663	382.0	1854	378.0	2043	392.0	2239	400.0	2439
Finger 57:	1438	400.0	1638	410.0	1843	408.0	2047	424.0	2259	428.0	2473
Finger 58:	1428	400.0	1628	420.0	1838	420.0	2048	438.0	2267	450.0	2492
Finger 59:	1422	398.0	1621	414.0	1828	412.0	2034	430.0	2249	434.0	2466
Finger 60:	1440	396.0	1638	406.0	1841	404.0	2043	422.0	2254	426.0	2467

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					

	Company	Chevron USA Inc.
	Well	Coltharp 9X
	Field	Rangely
	County	Rio Blanco
	State	Colorado