

County Weld State Colorado

Other Services	RBL JBGR	Elevation
		K.B. 4995' D.F. --- G.L. 4974'

41/2	11.6	
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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.

Log ran as per customer request
Depth referenced to Casing Tally reported Liner Top at 5784 FT
Adjusted -2 FT to correlate with Liner Top
Gauge Ring/Junk Basket ran to 7650 FT with no debris
Log ran from as deep as possible in heel to Surface
Recorded with 2800 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!!

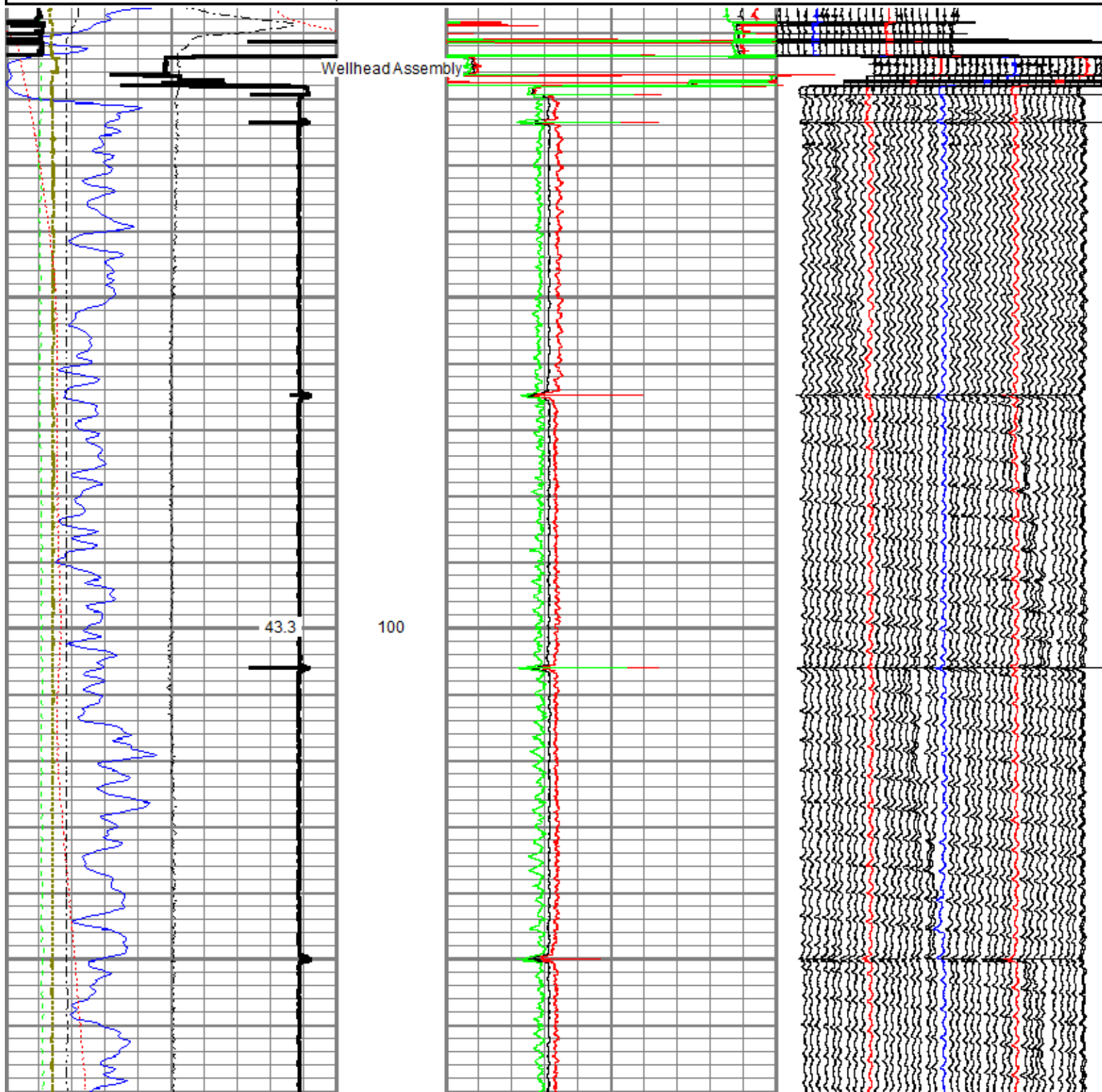
Main Pass

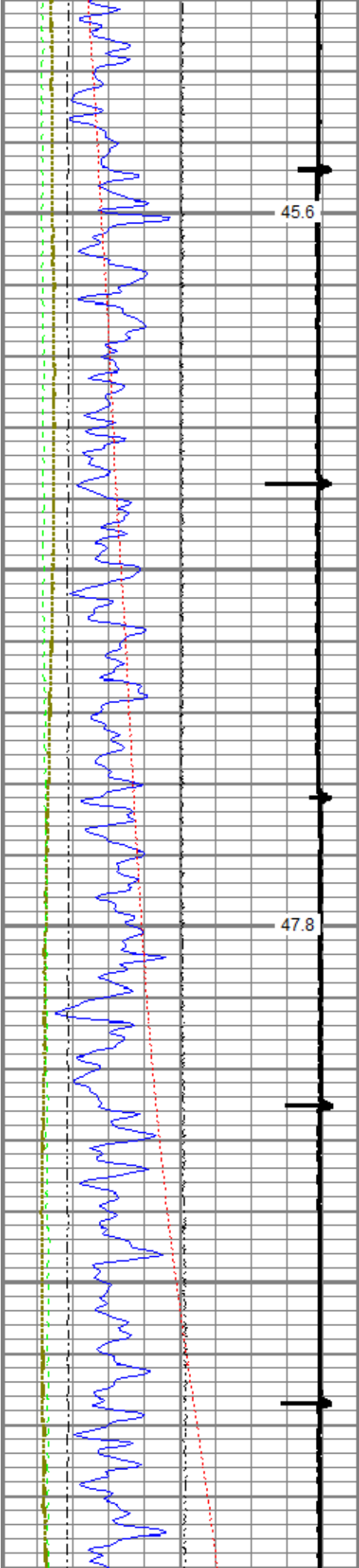


Database File	0512343470_anadarko_wagner 27n-10hz_mit_rbl_12-31-17\processed_0512343470_anadarko_wagner 27n-10hz_mit_rbl_1
Dataset Pathname	pass4
Presentation Format	ros_70mit40sx
Dataset Creation	Sun Dec 31 09:08:57 2017
Charted by	Depth in Feet scaled 1:240

0	Gamma Ray (GAPI)	120
-100	Line Speed (ft/min)	100
-10	Deviation (deg)	90
0	Line Tension (lb)	2000
-2	Differential Temperature (degF)	2
0	Temperature (degF)	20
Casing Collar Locator		

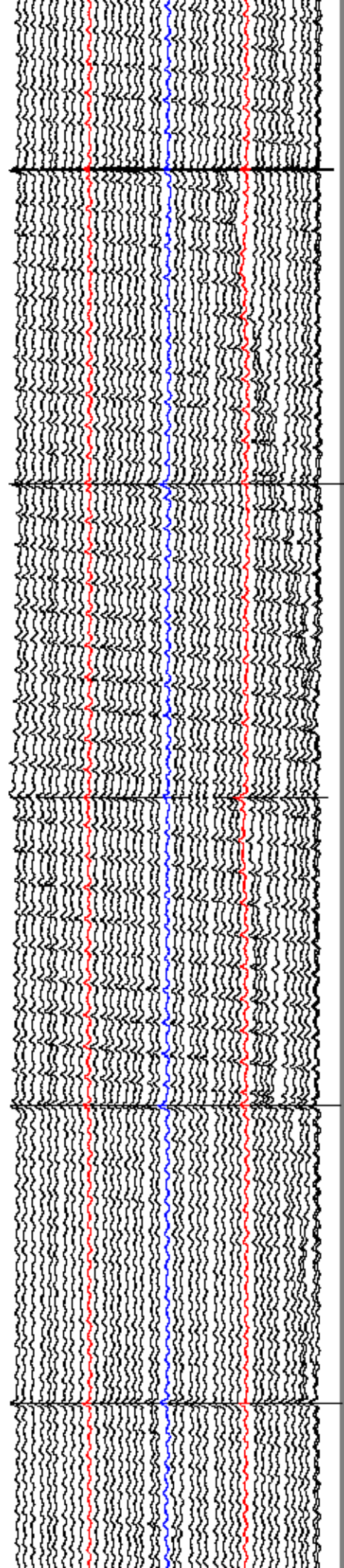
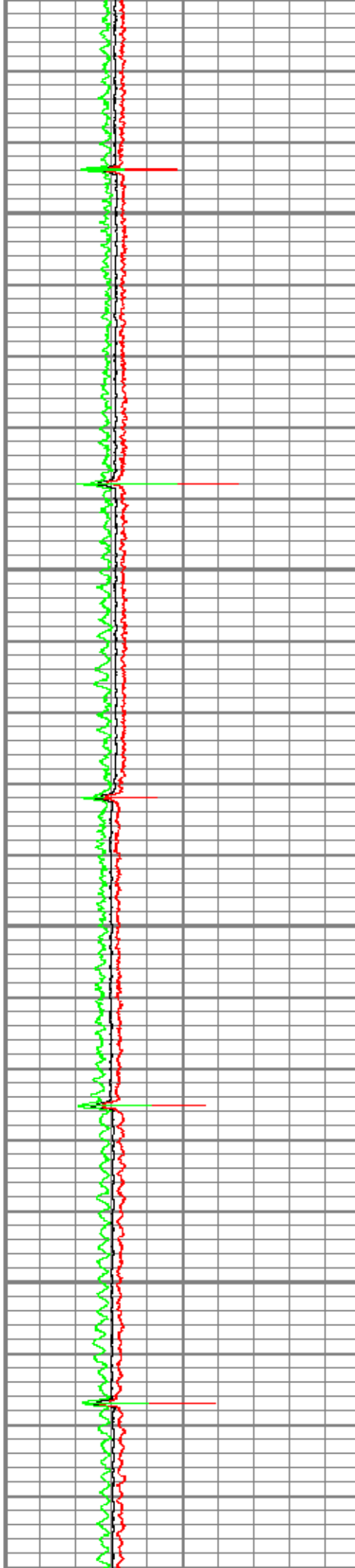
6	Average Diameter (in)	7	Caliper #10
6	Maximum Diameter (in)	7	Caliper #20
6	Minimum Diameter (in)	7	Caliper #30

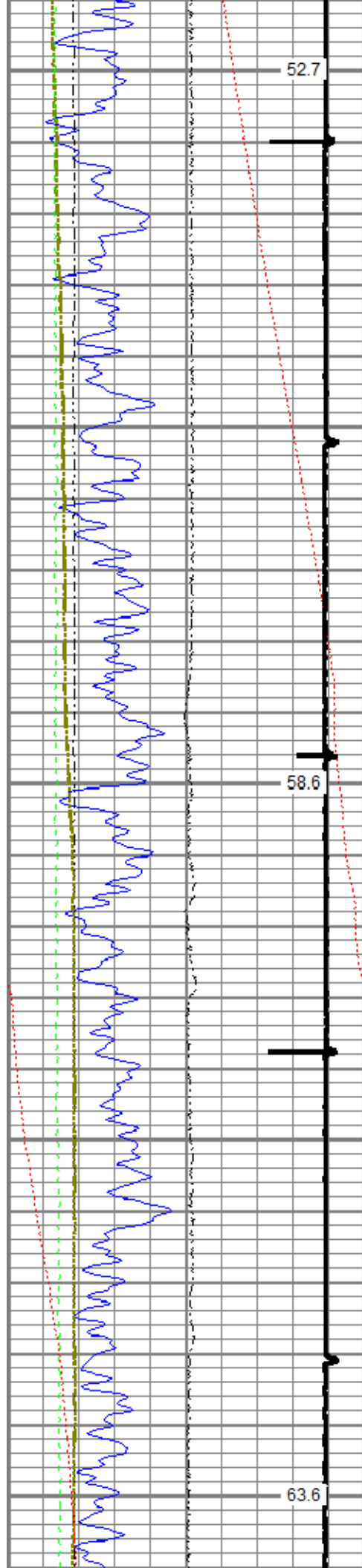




200

300

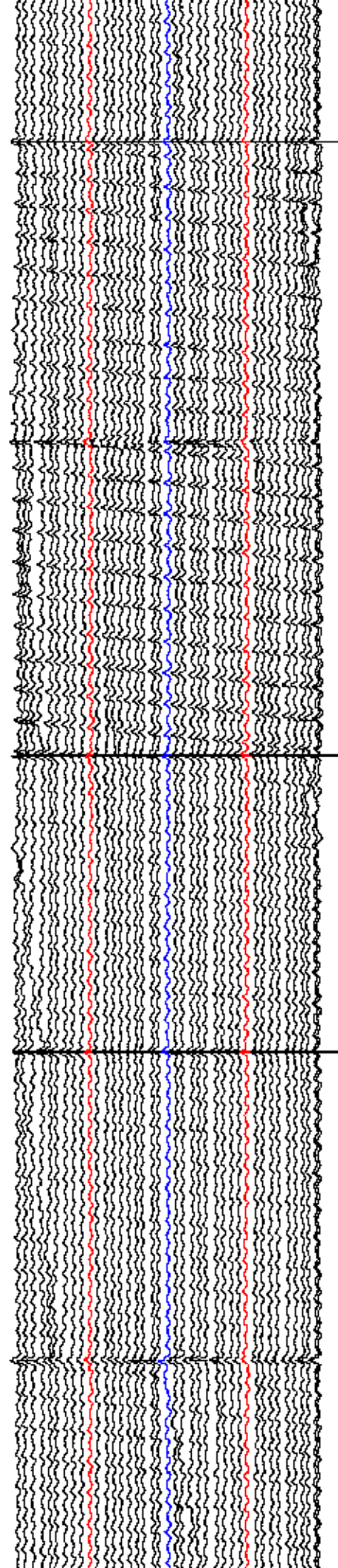
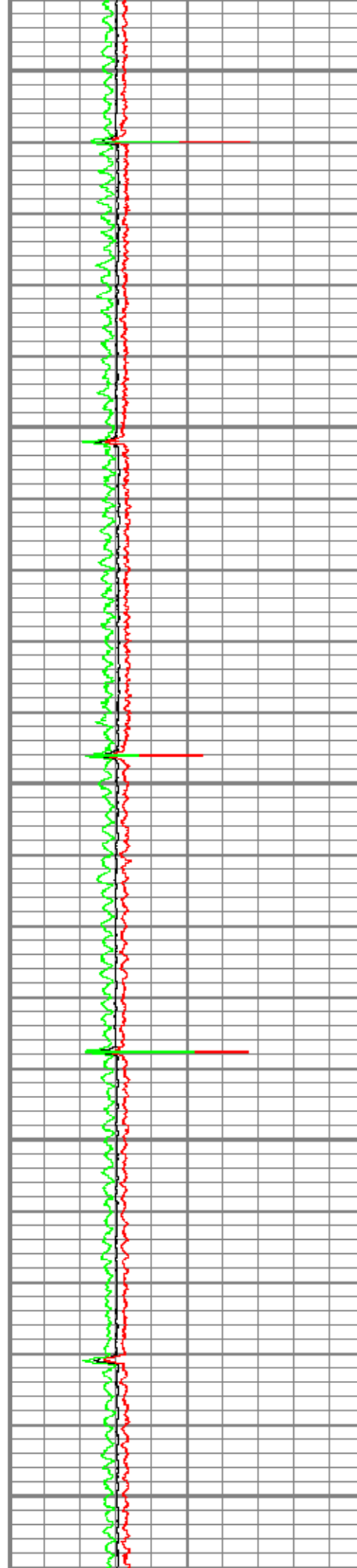


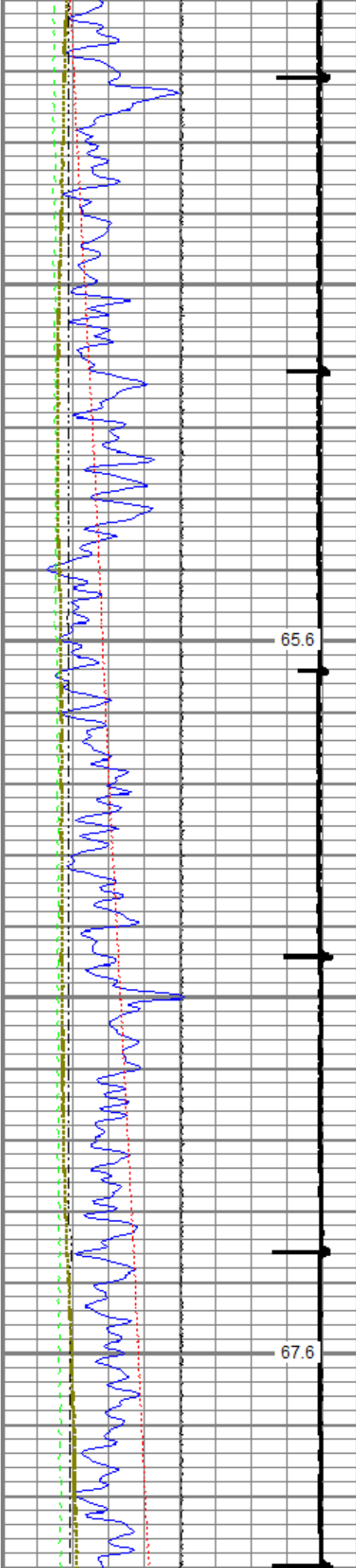


400

500

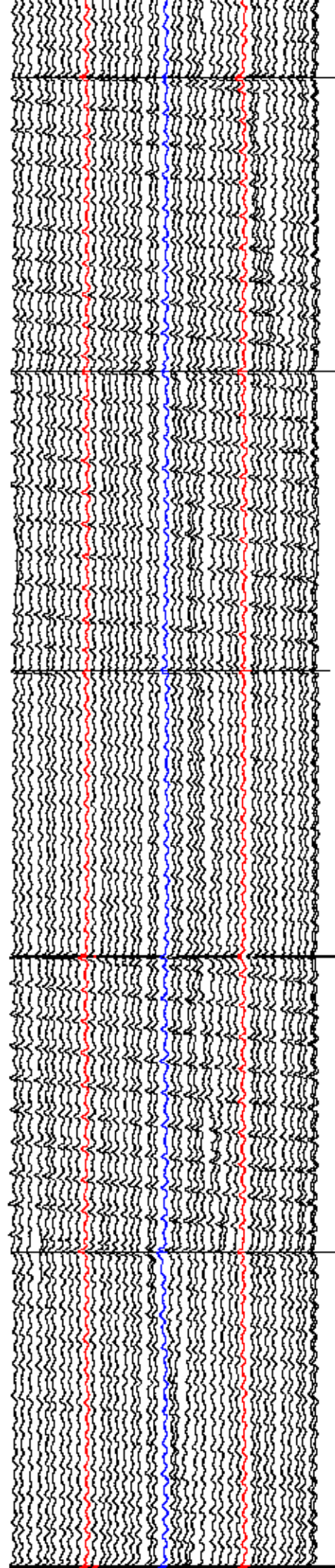
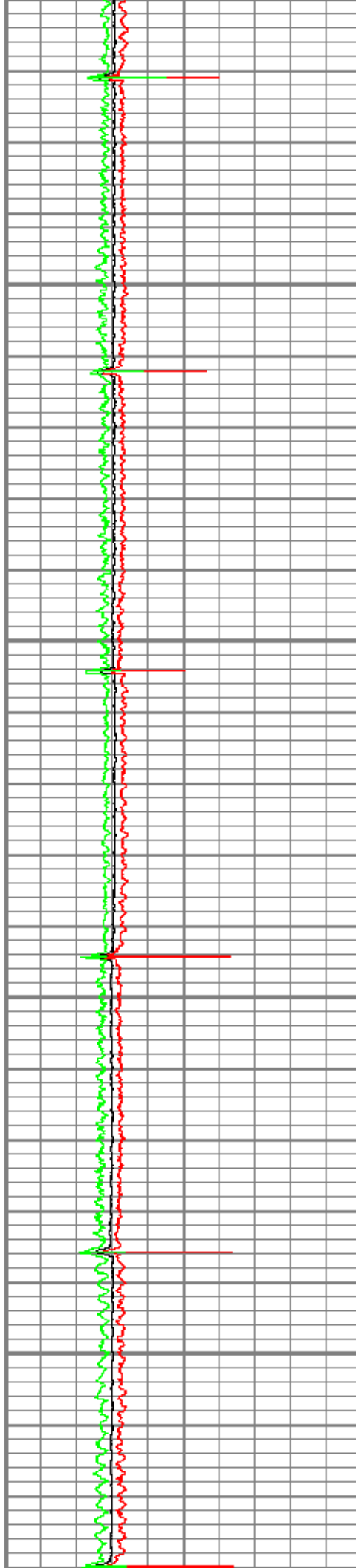
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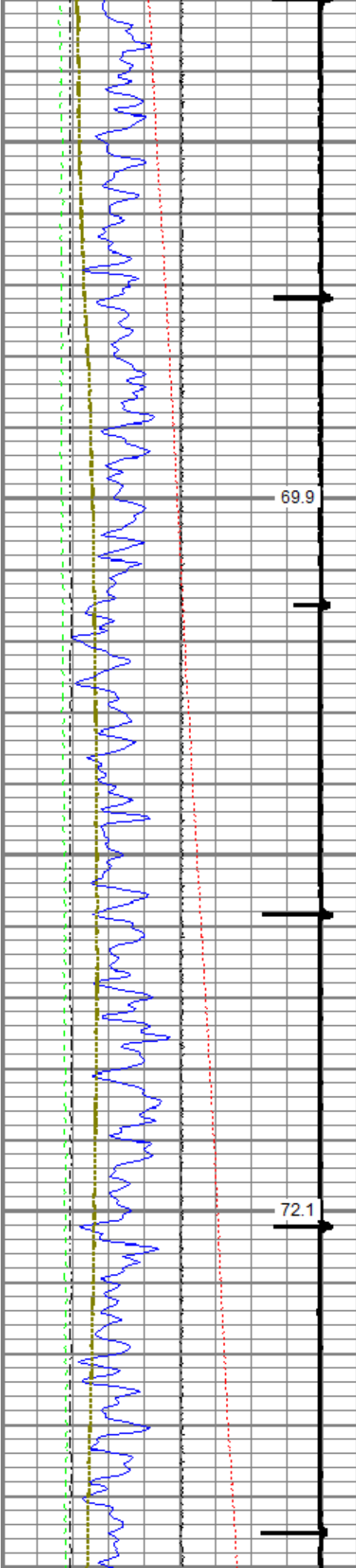




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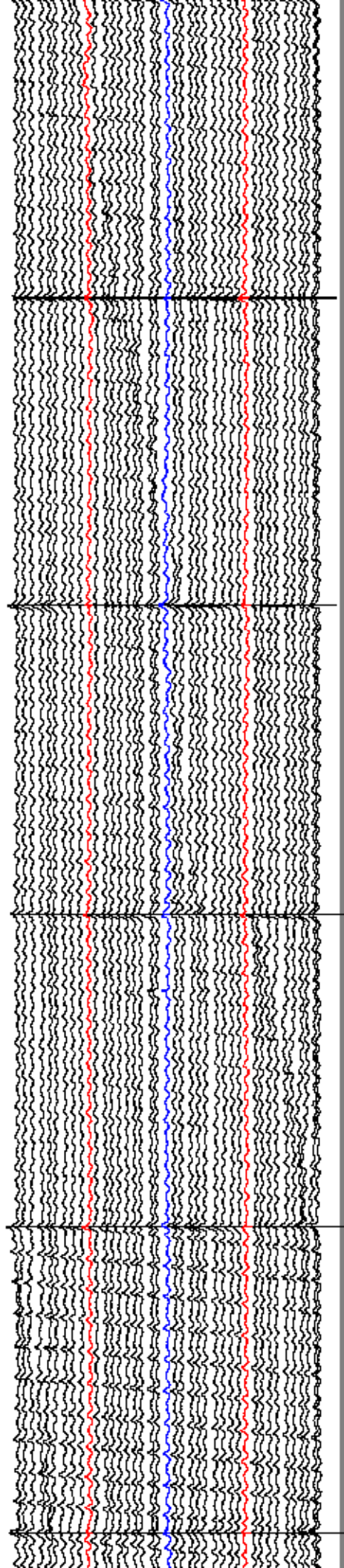
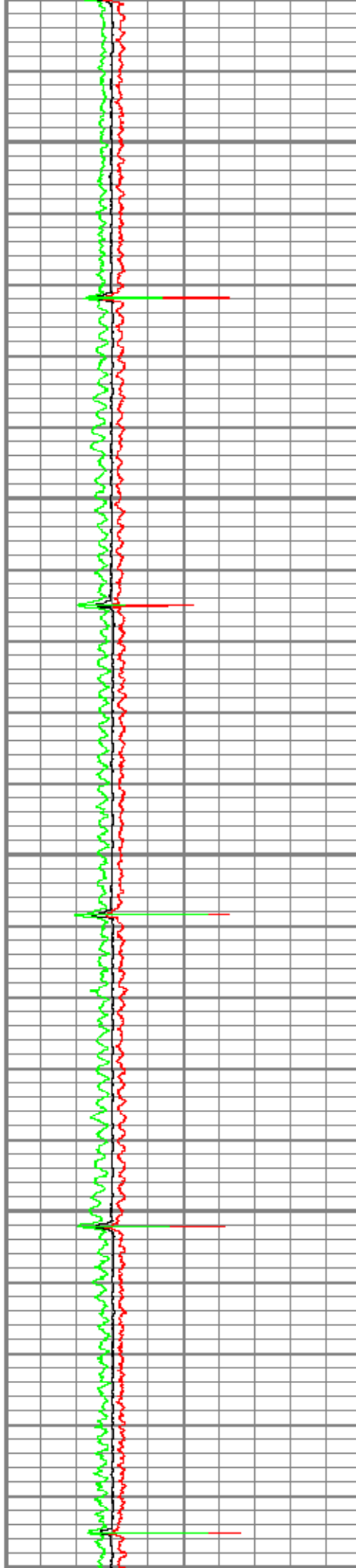
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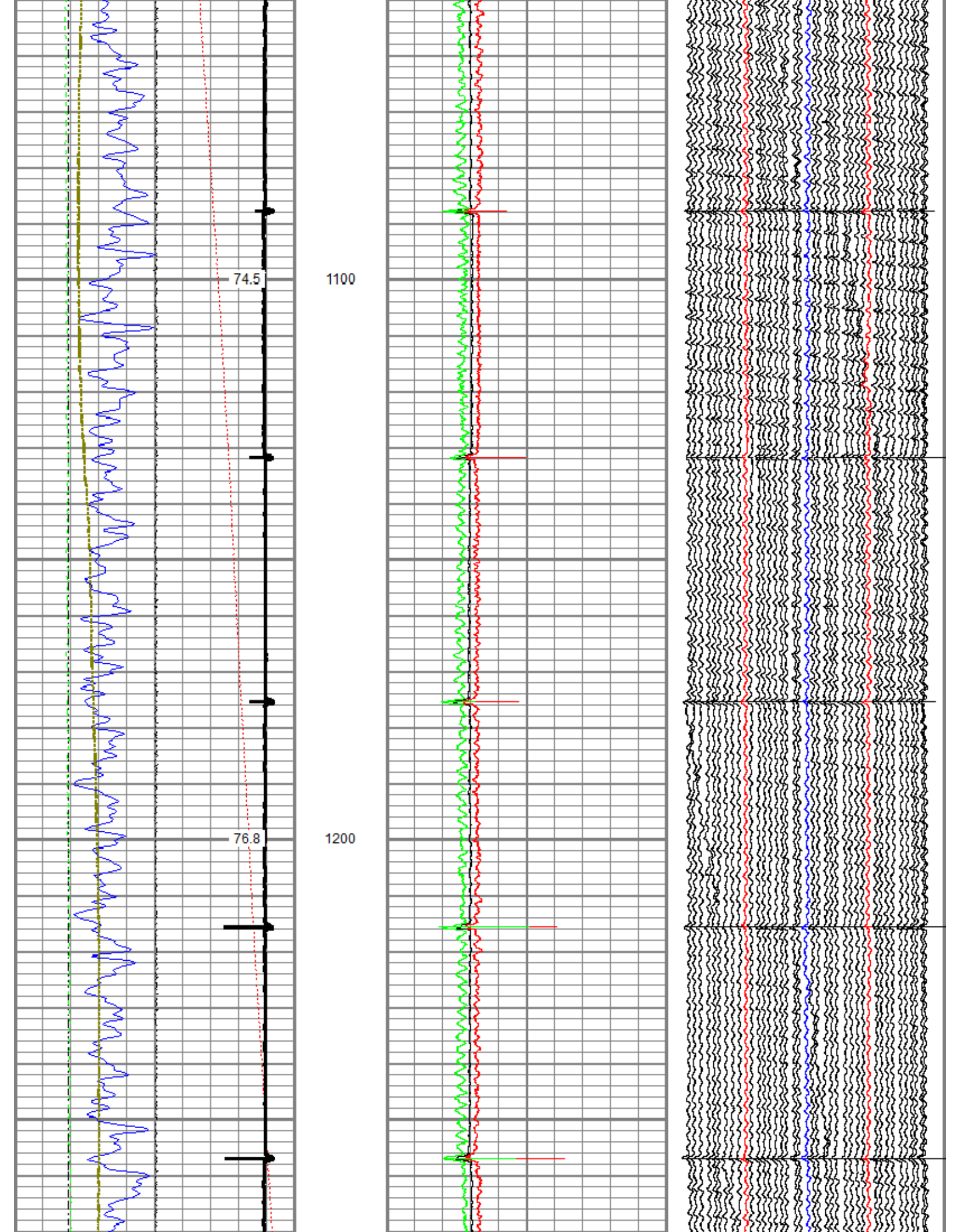


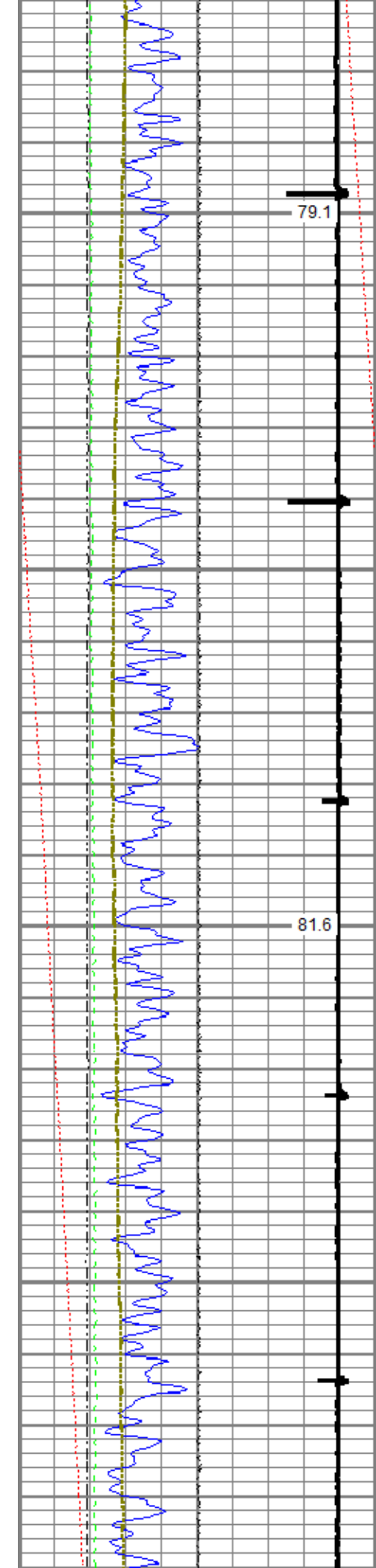


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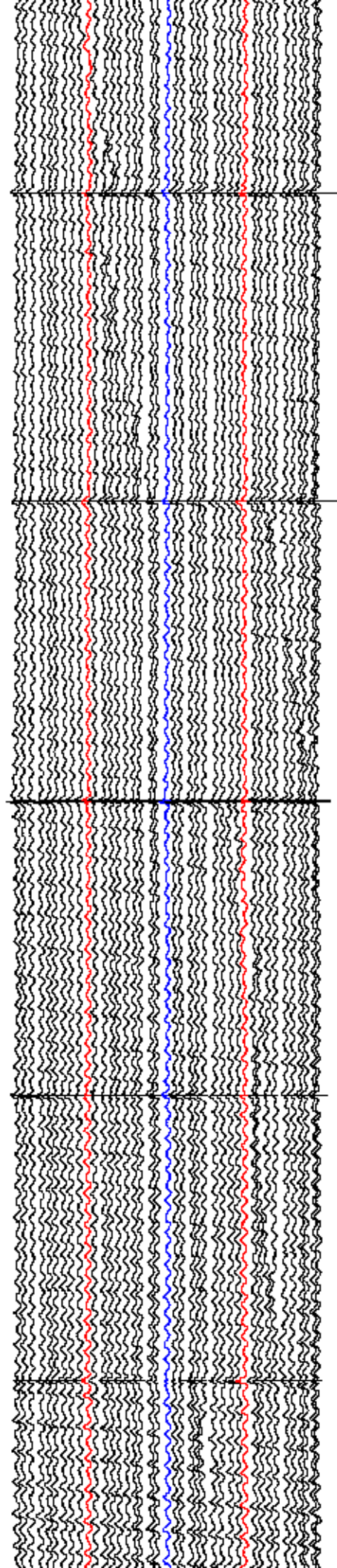
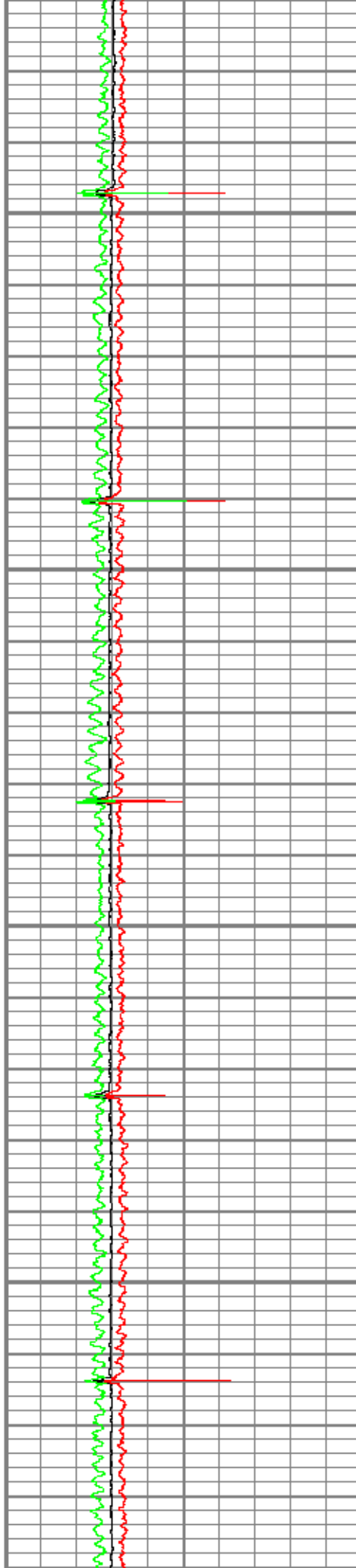


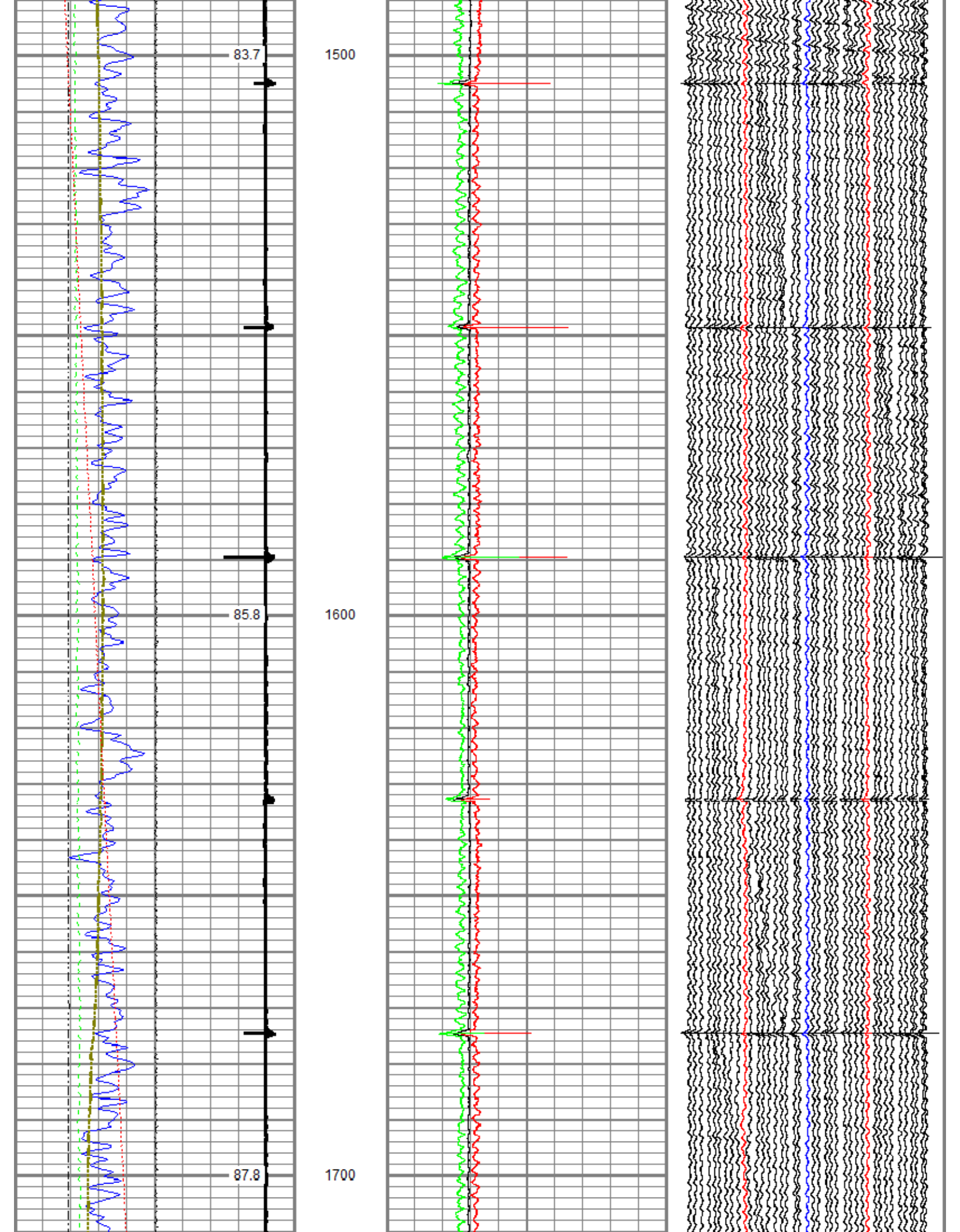


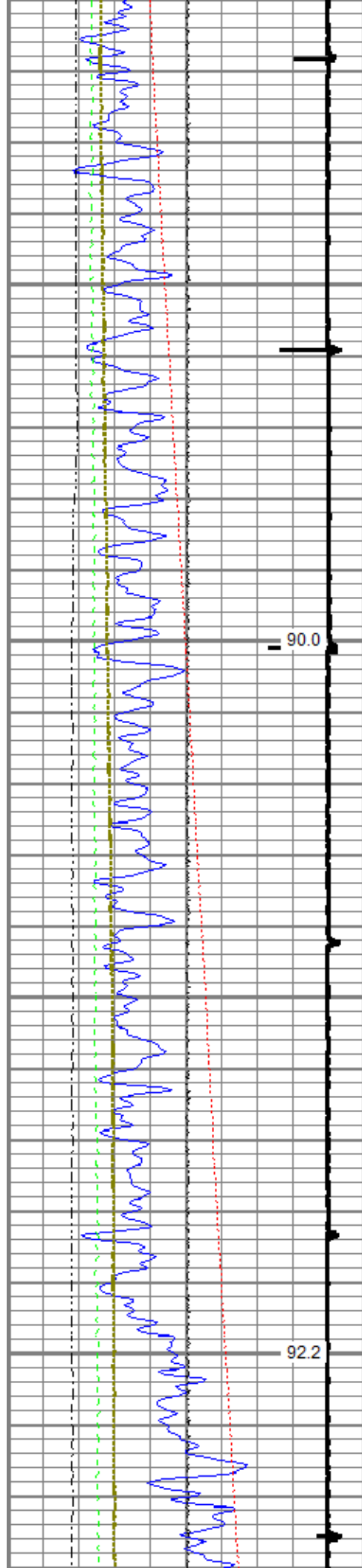


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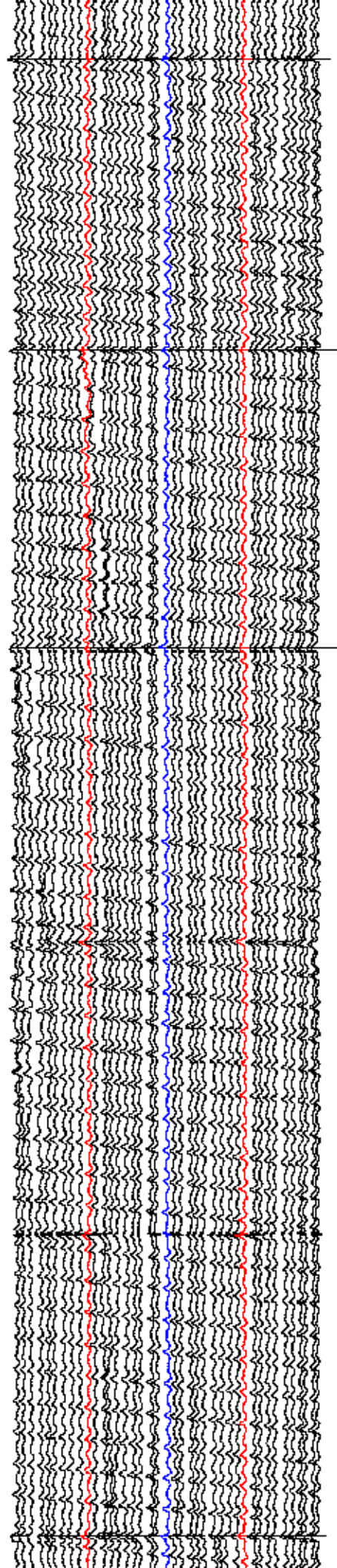
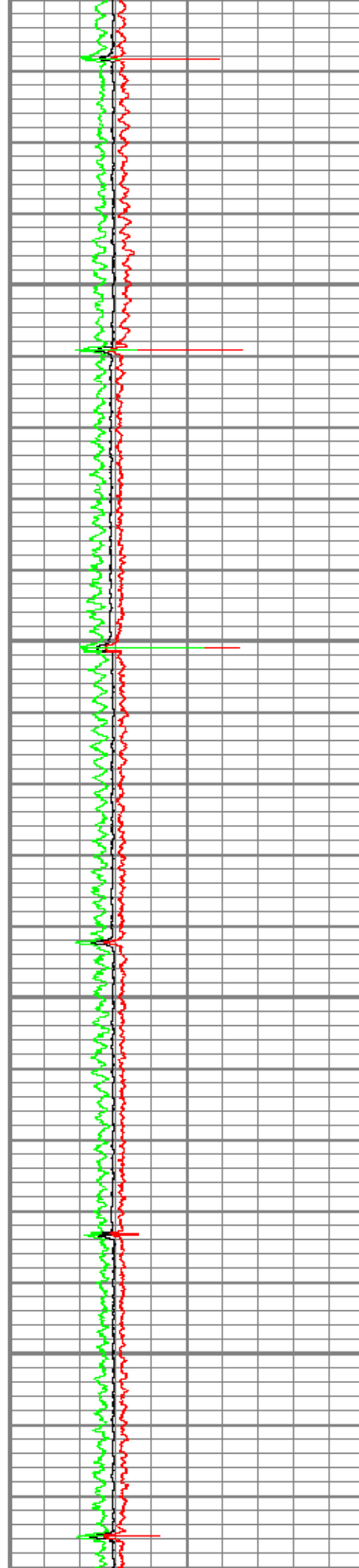


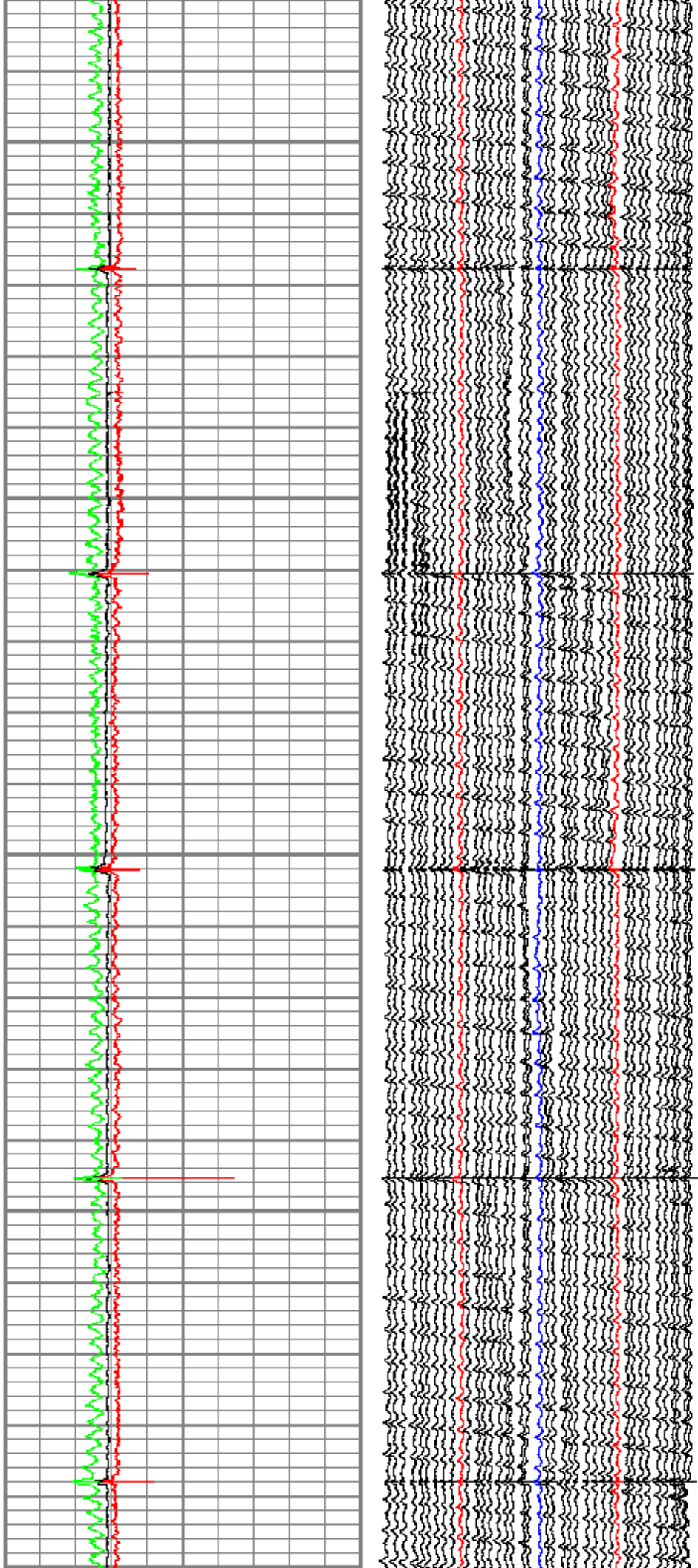
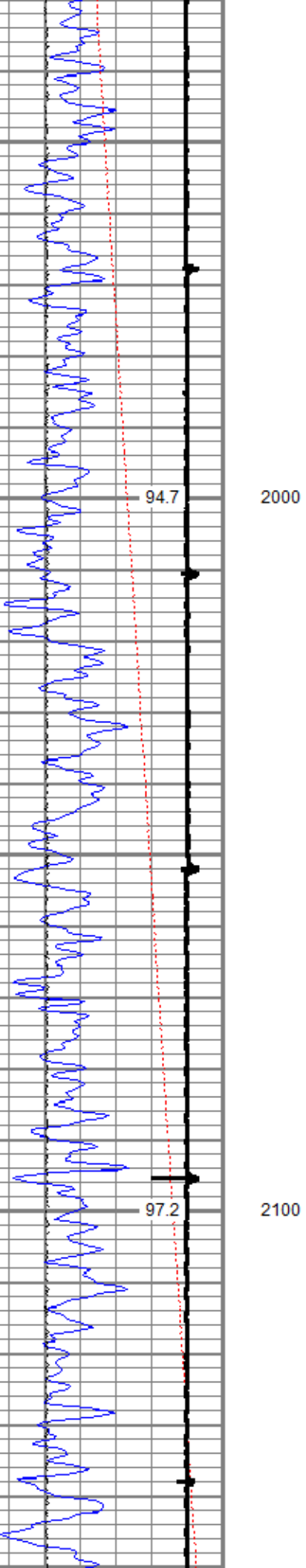


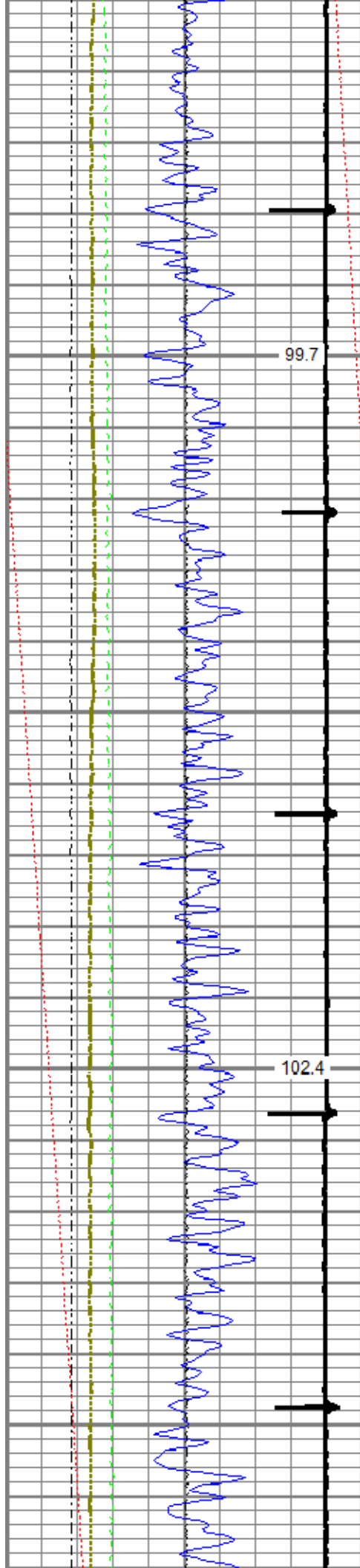


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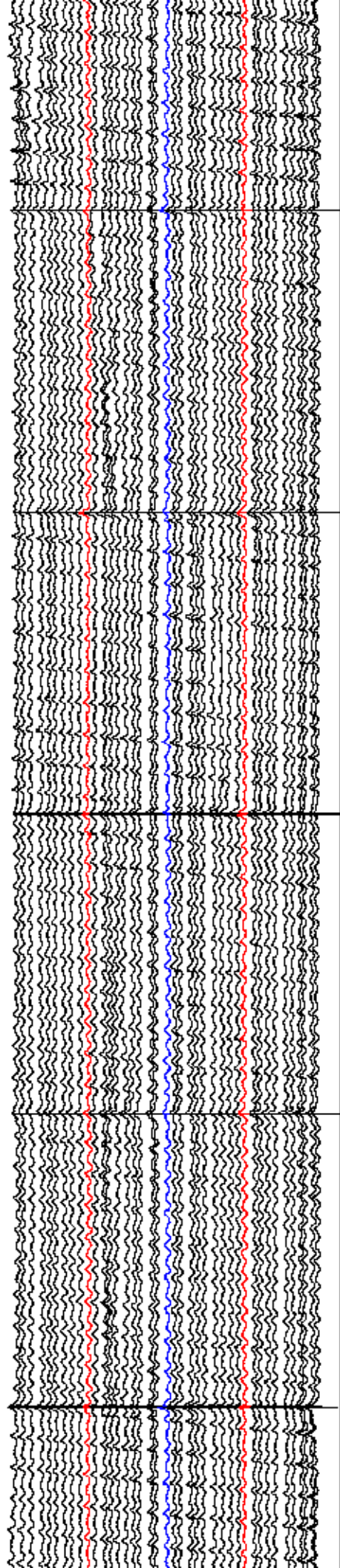
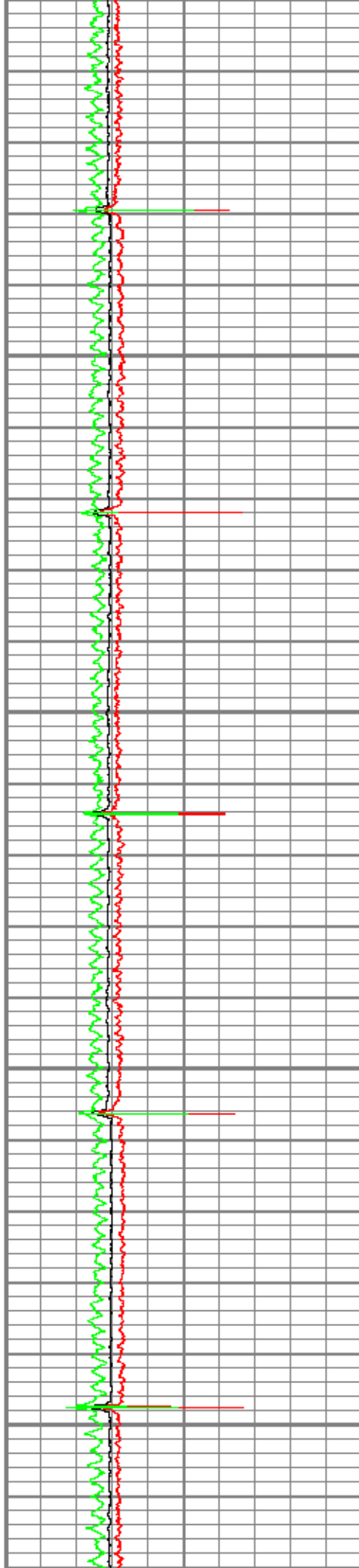


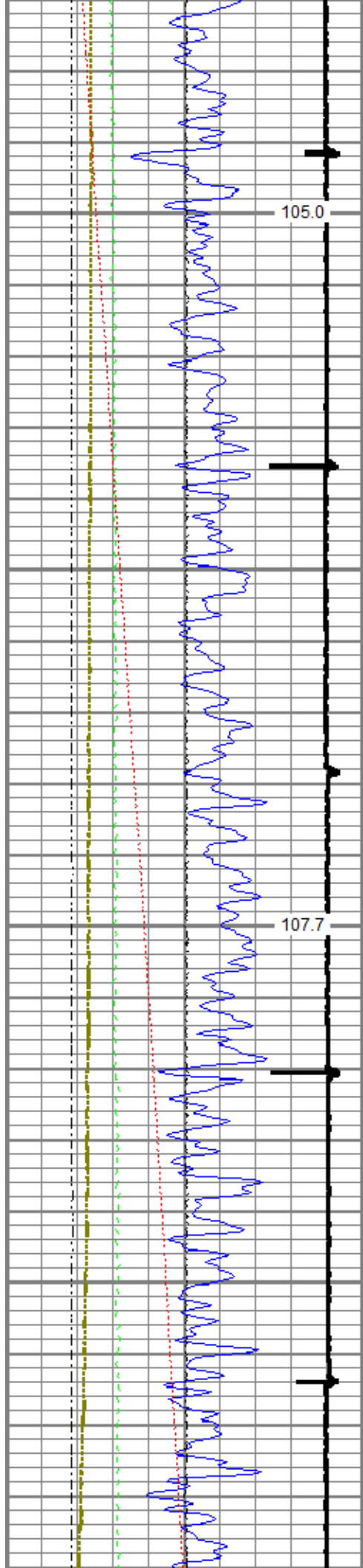




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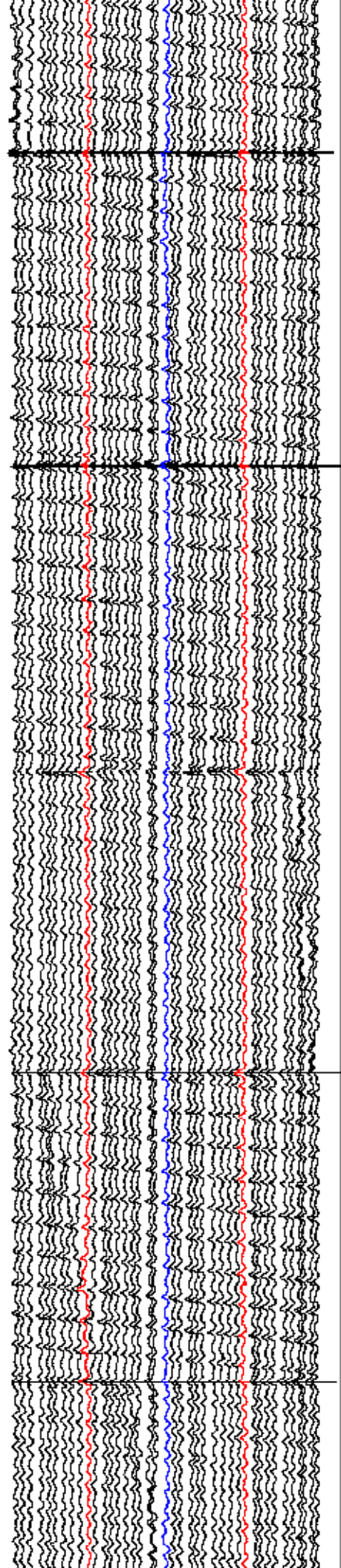
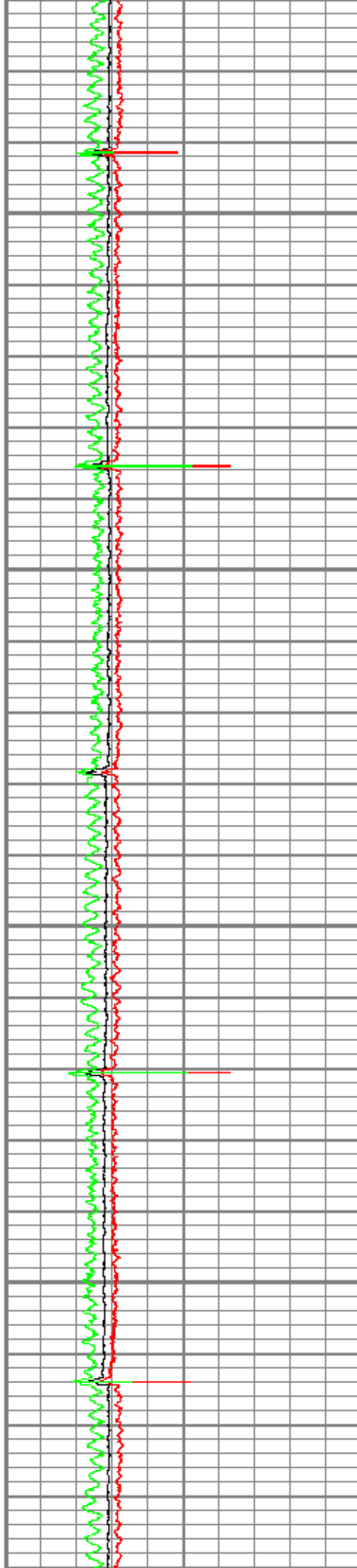
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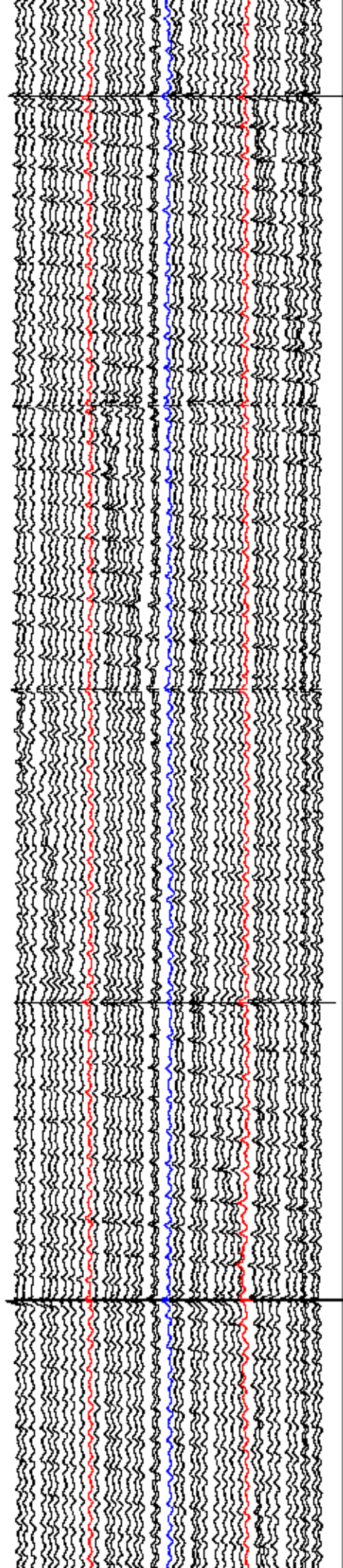
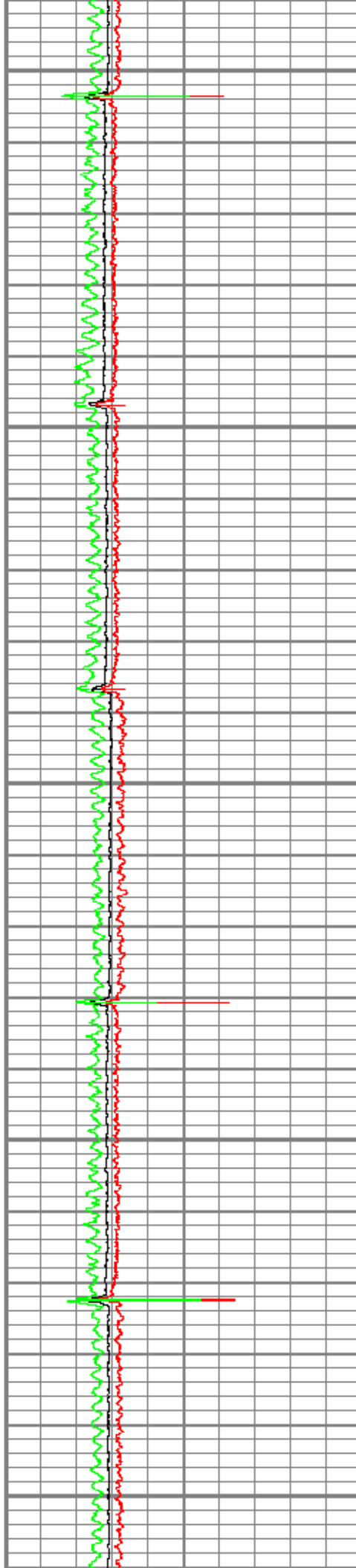
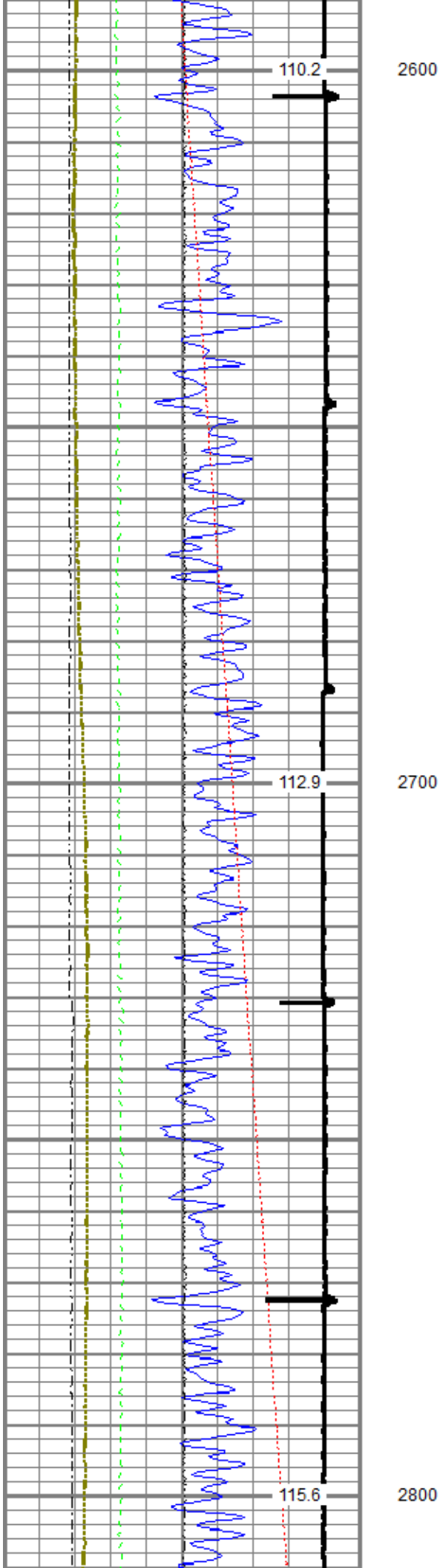


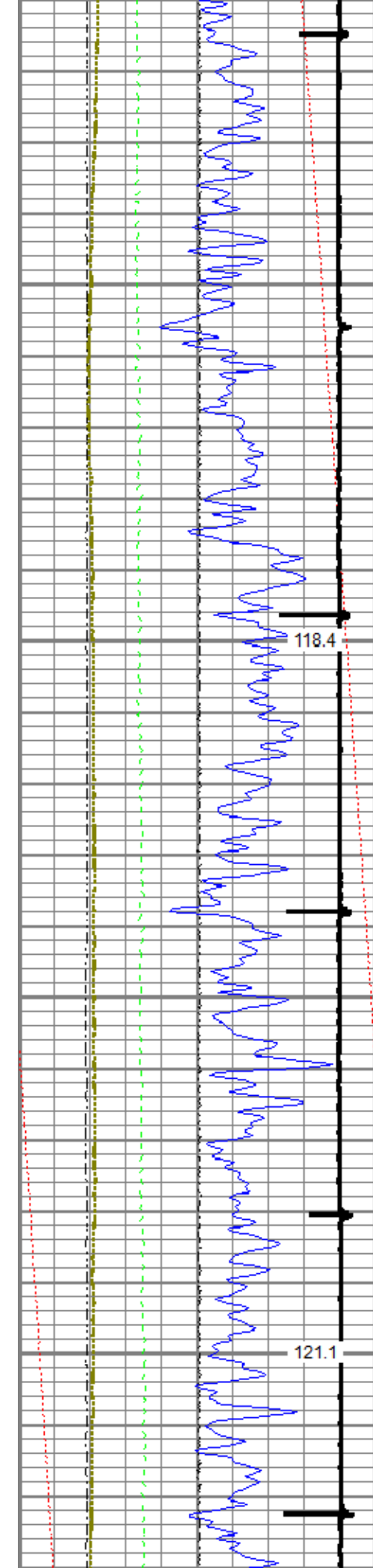


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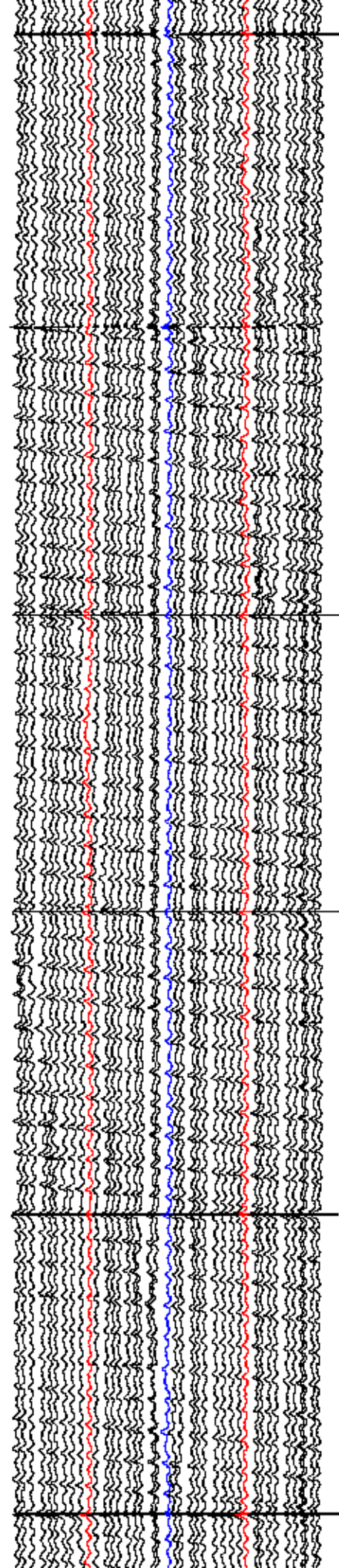
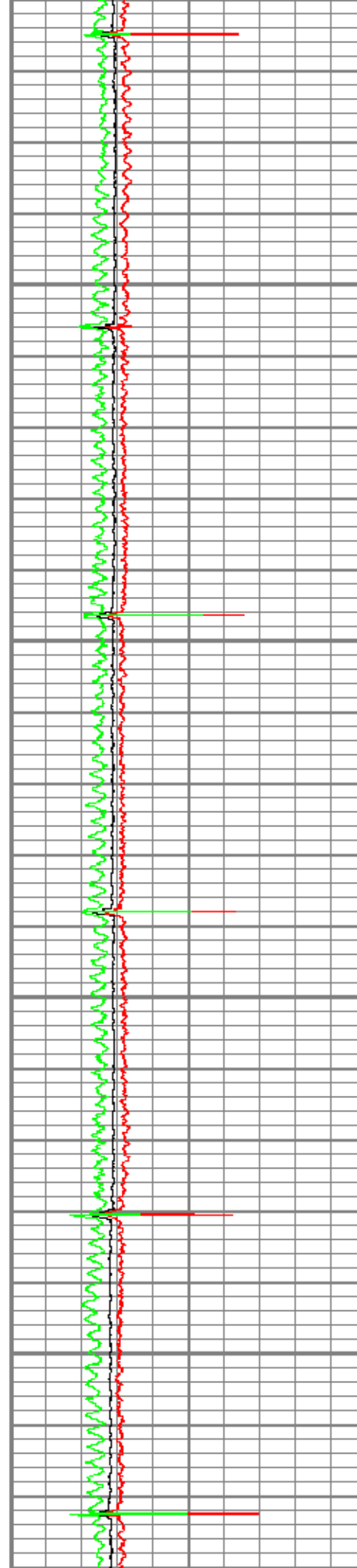


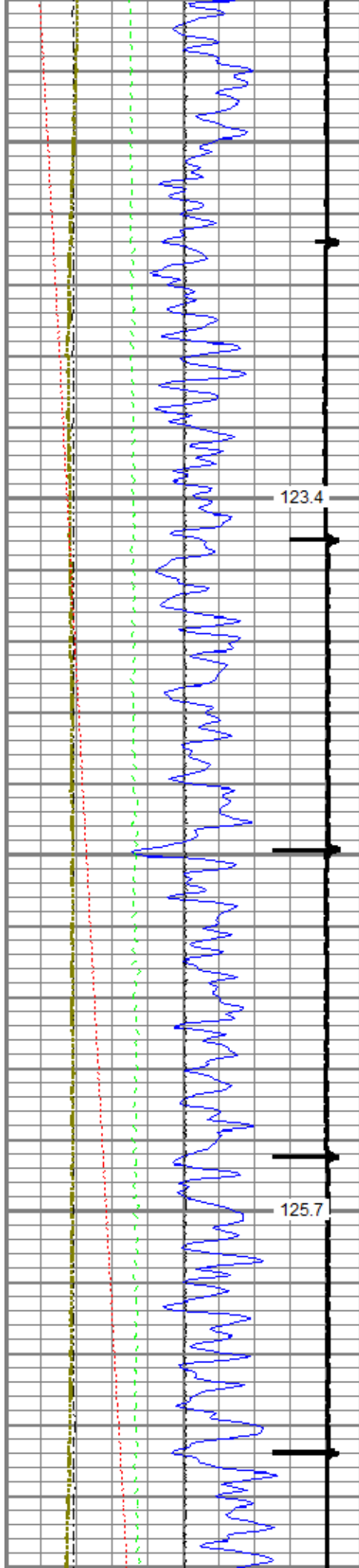




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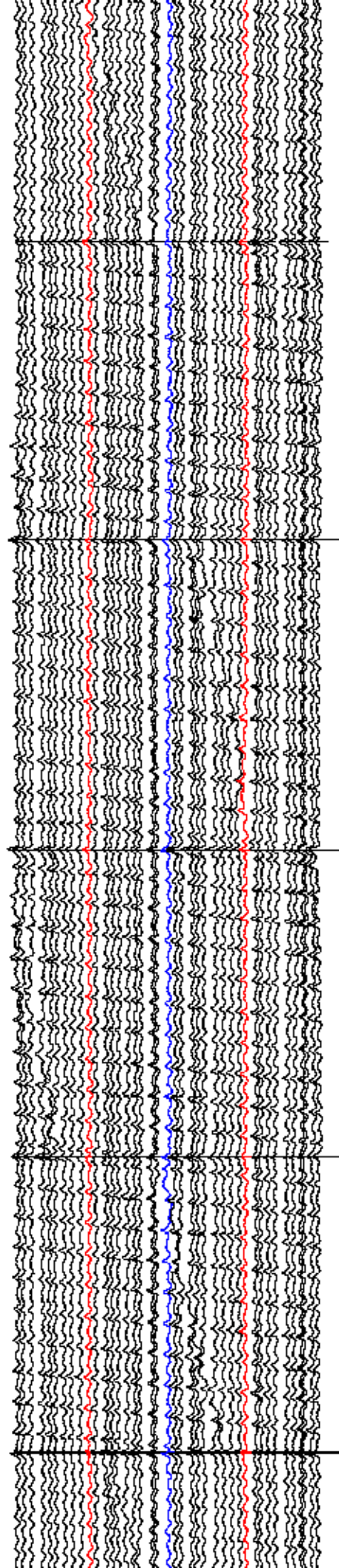
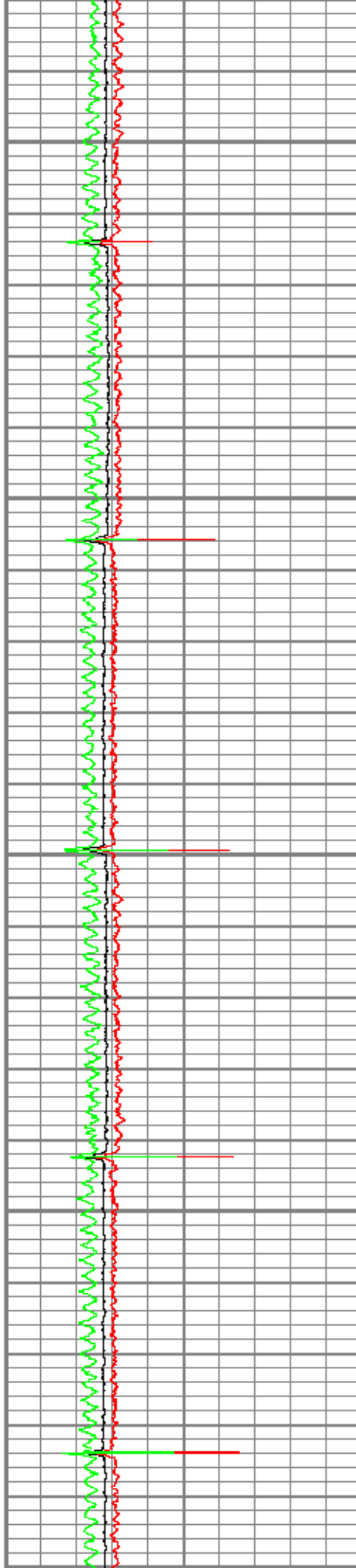
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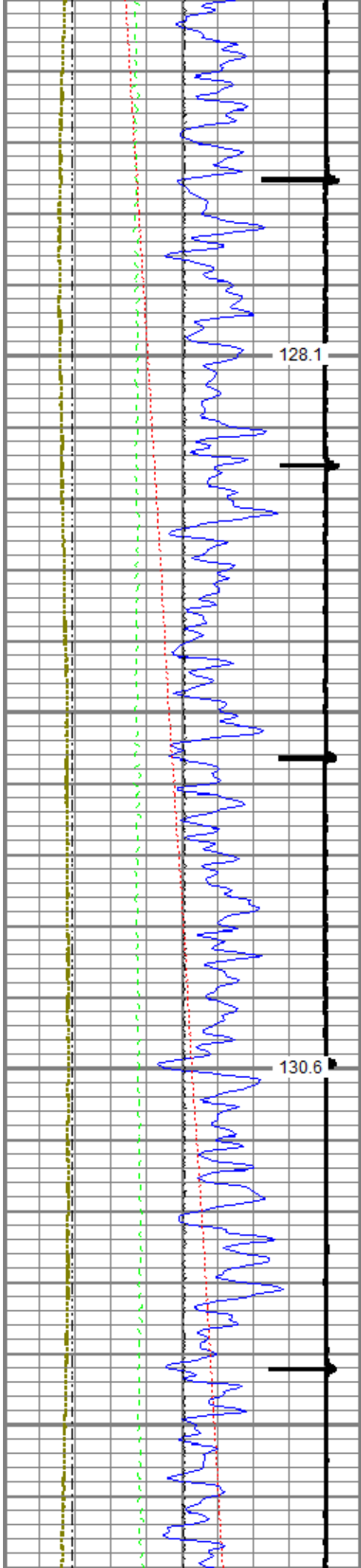




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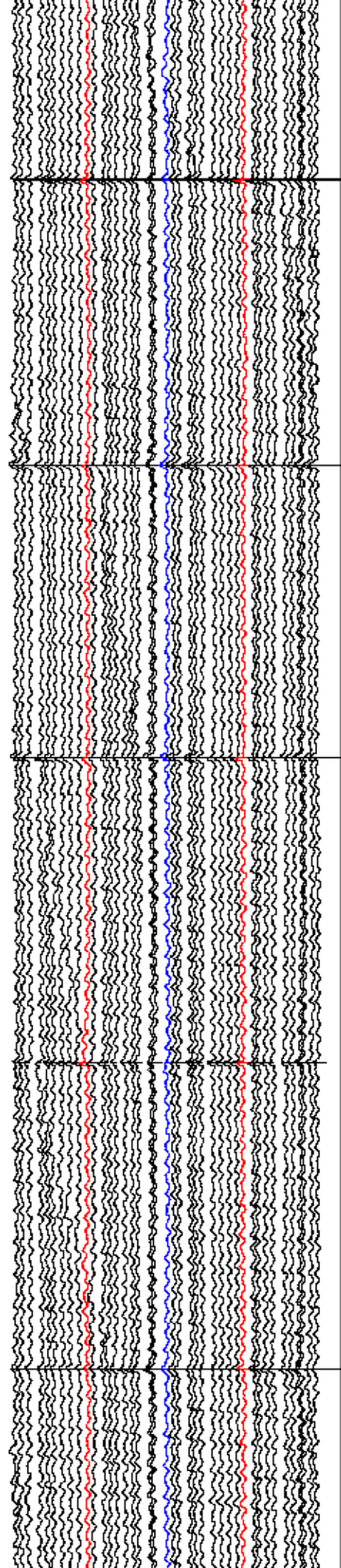
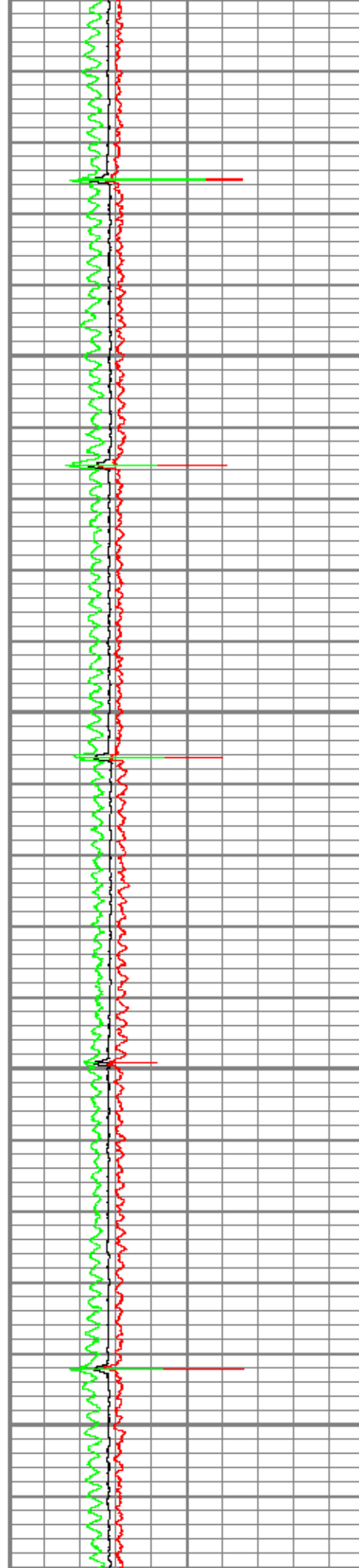
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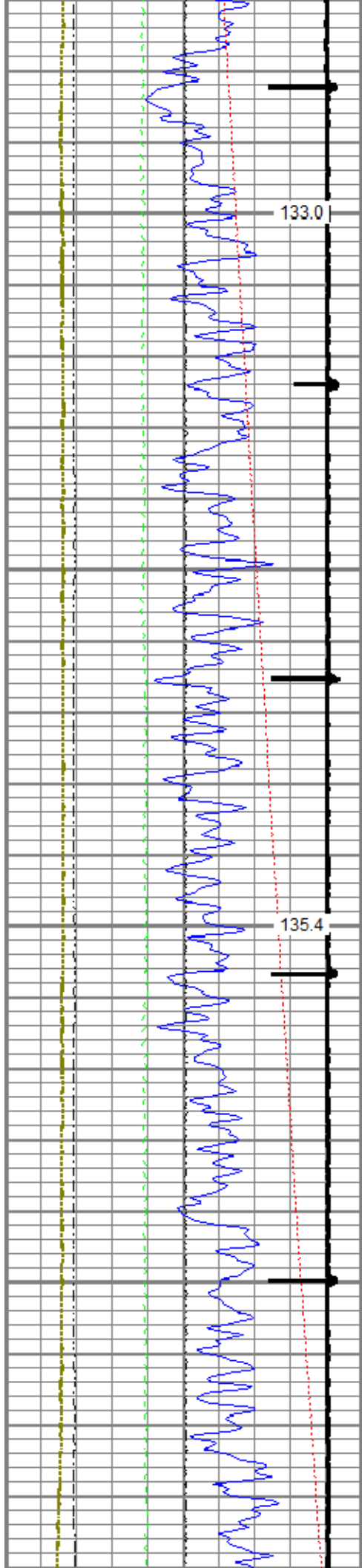




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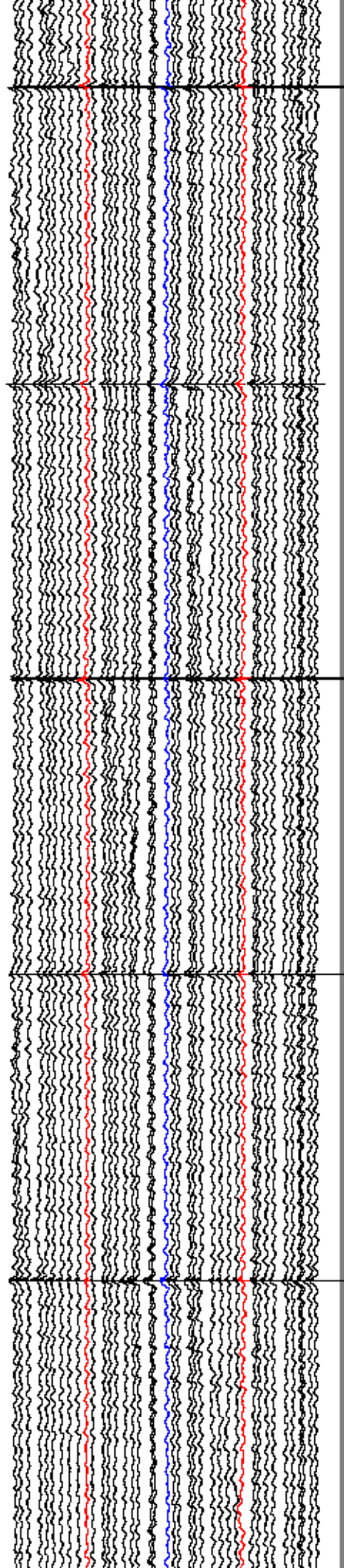
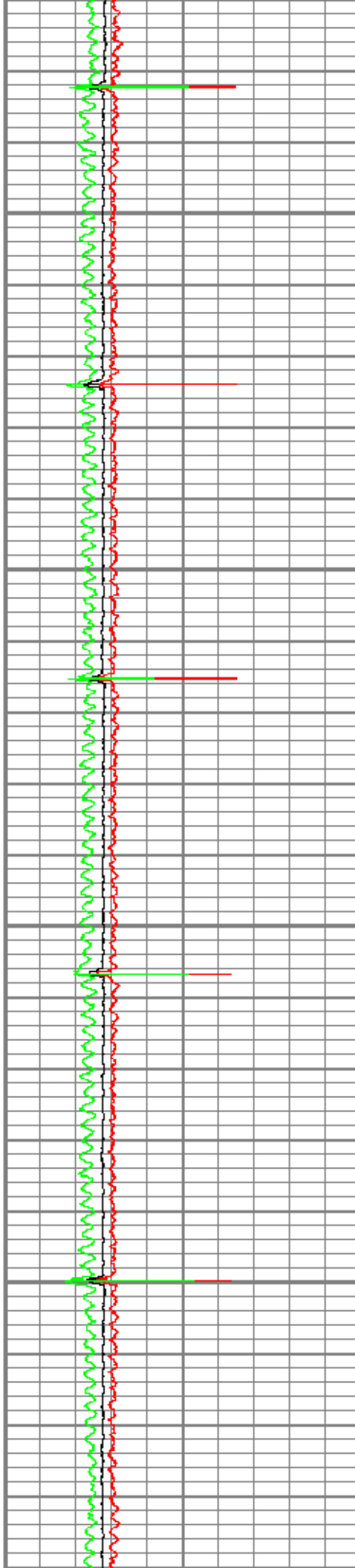
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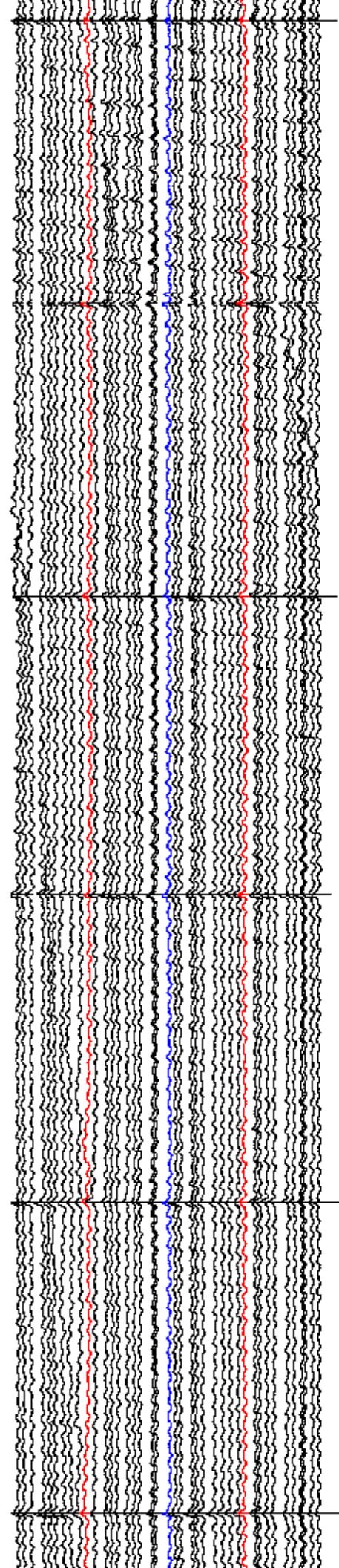
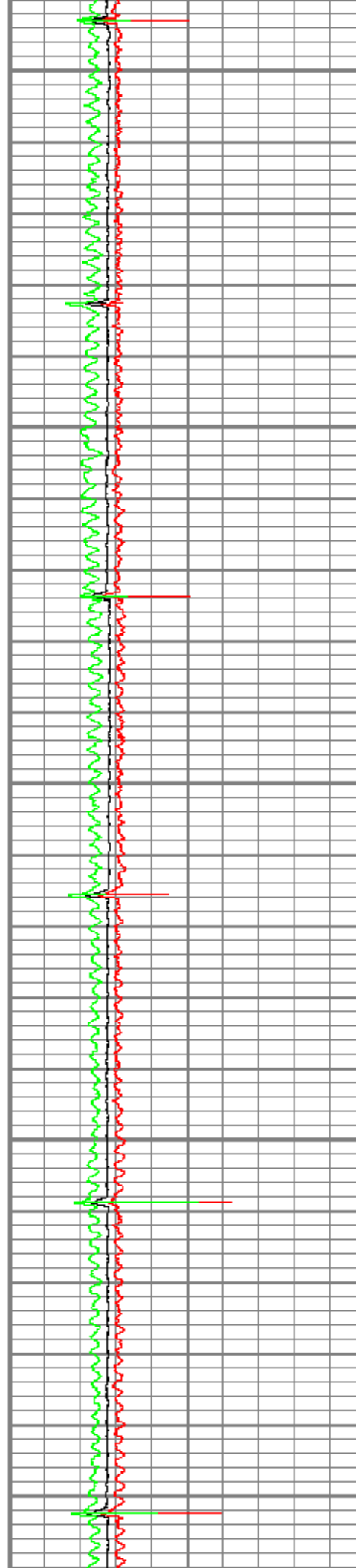
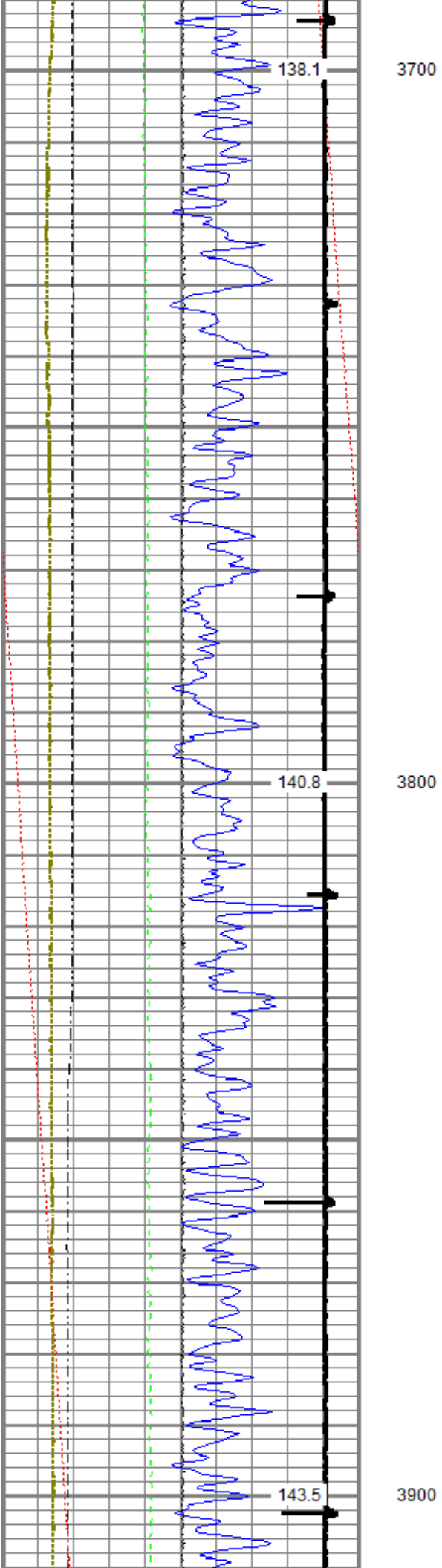


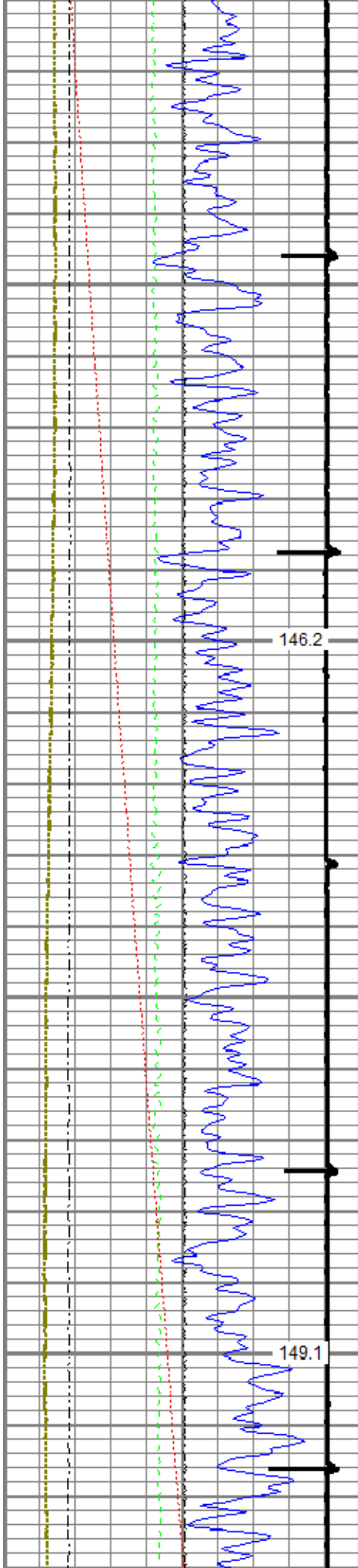


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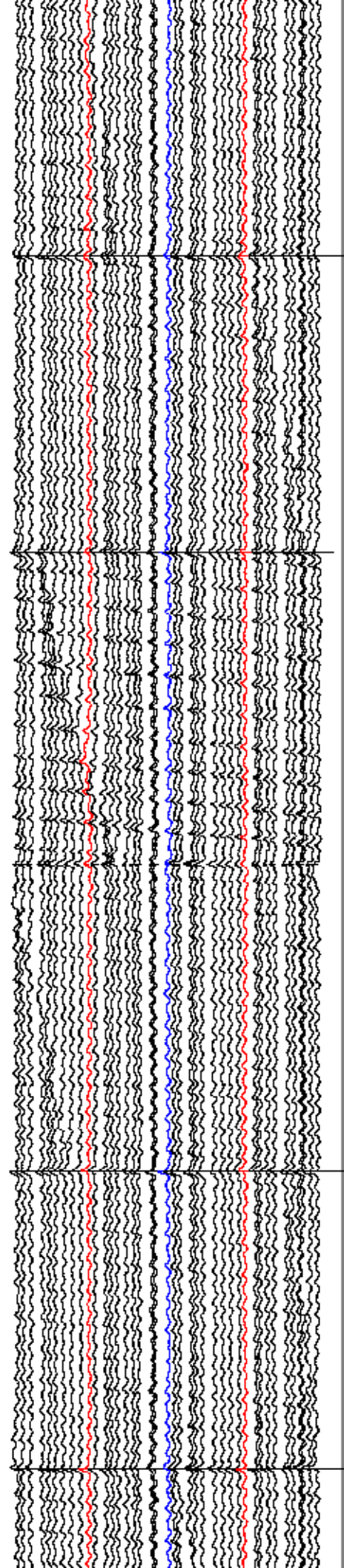
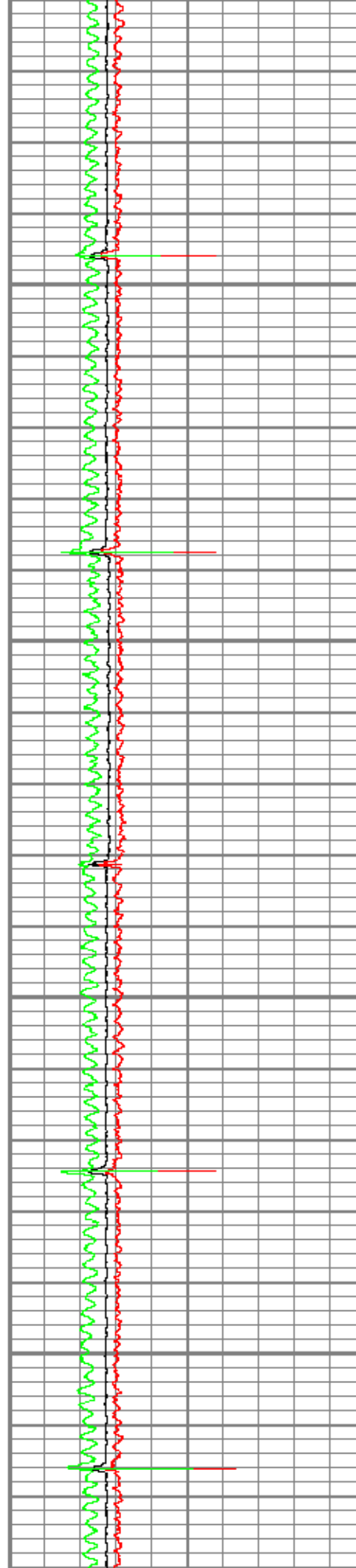


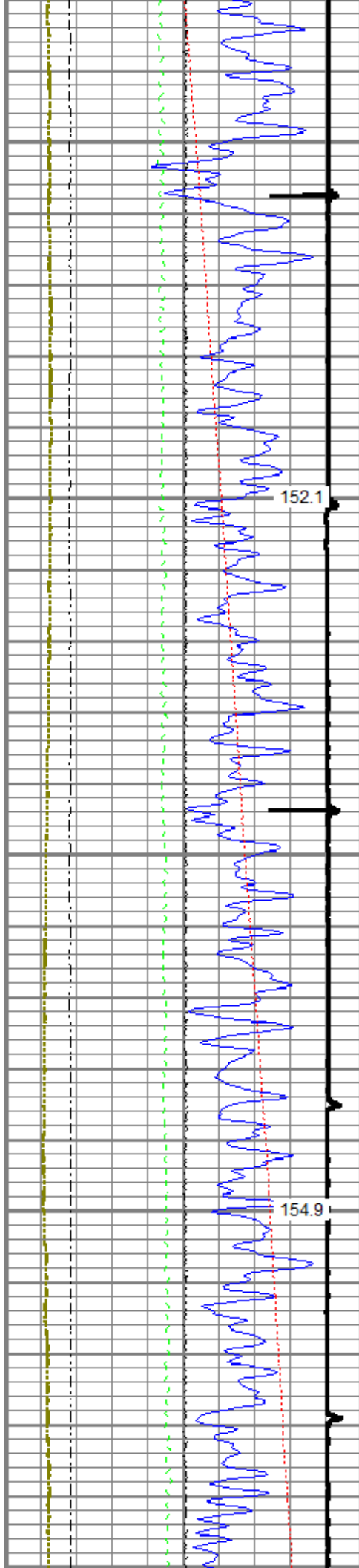




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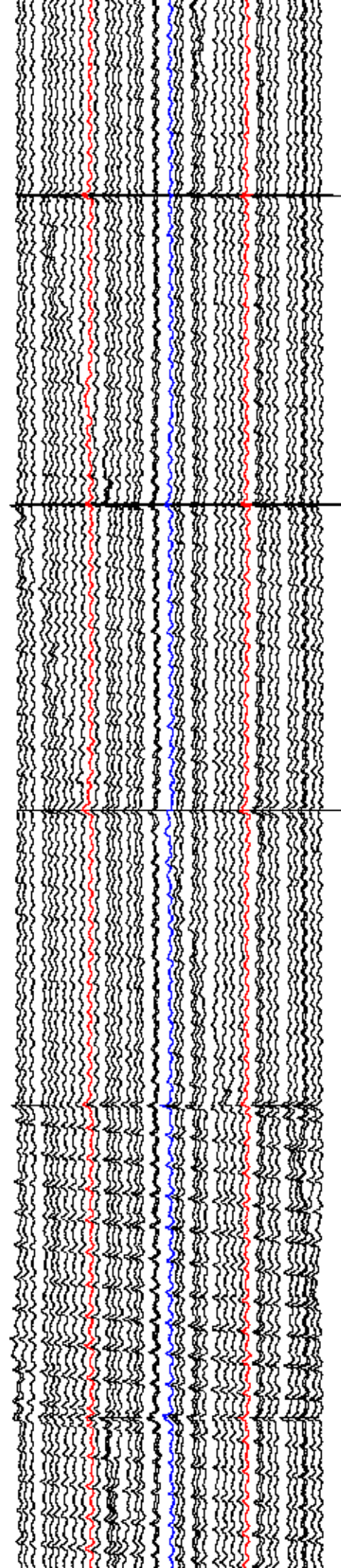
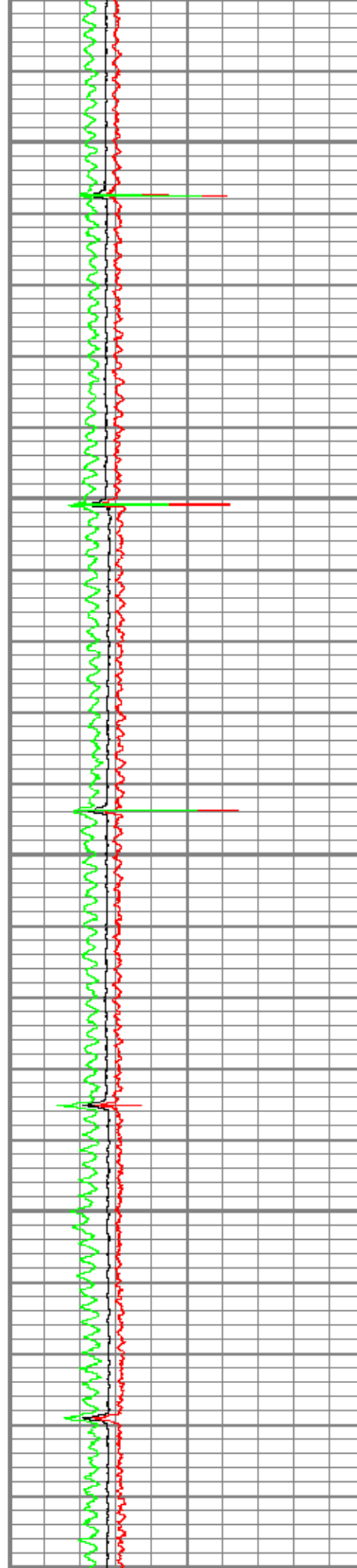
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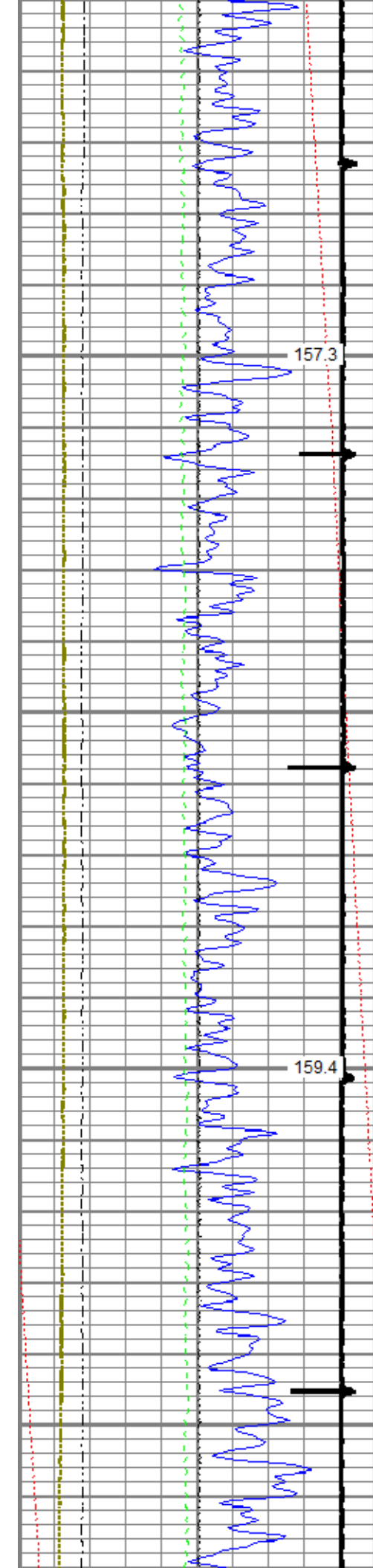




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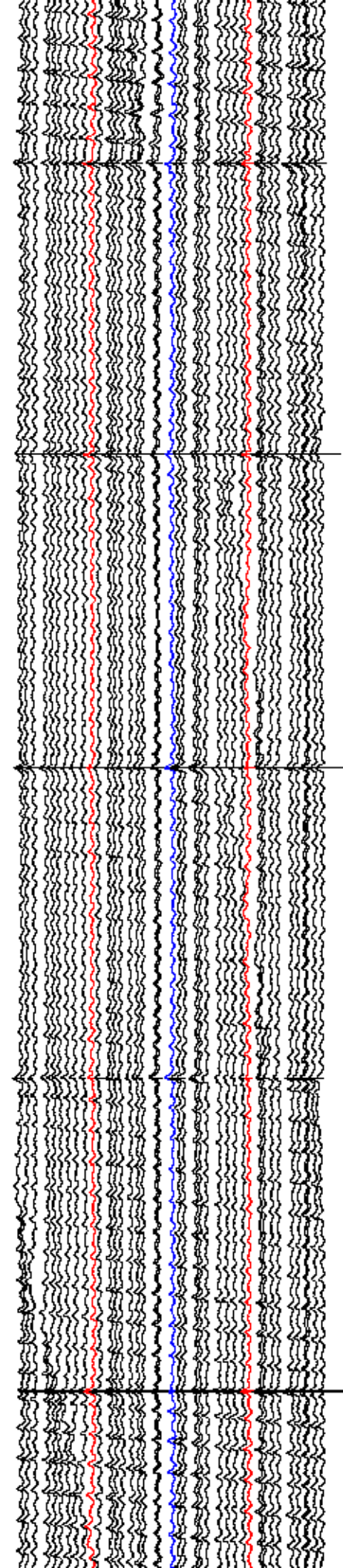
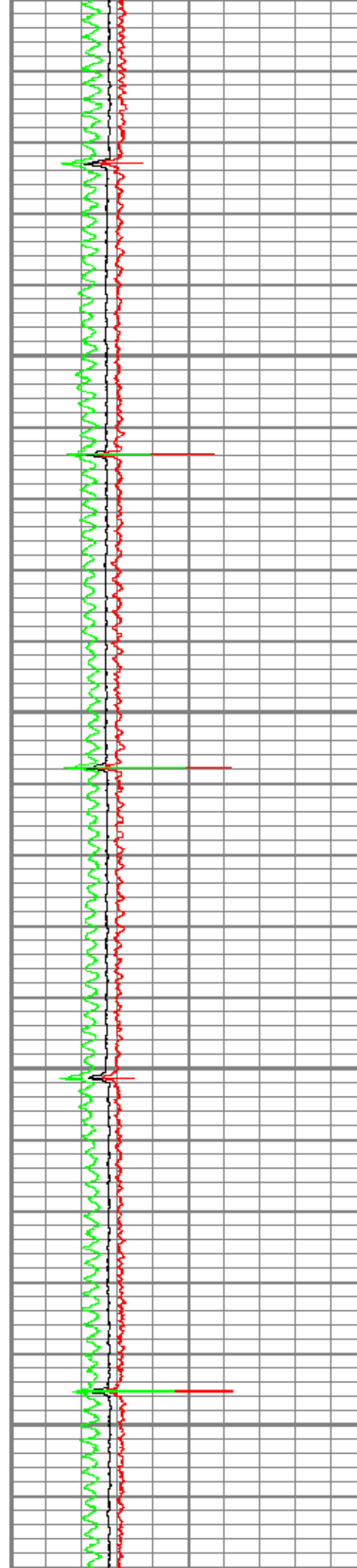
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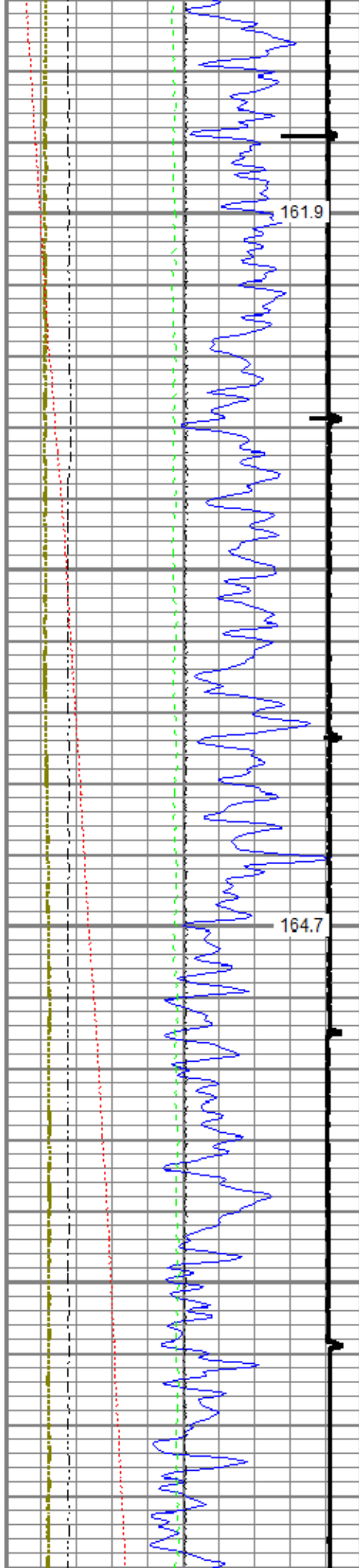




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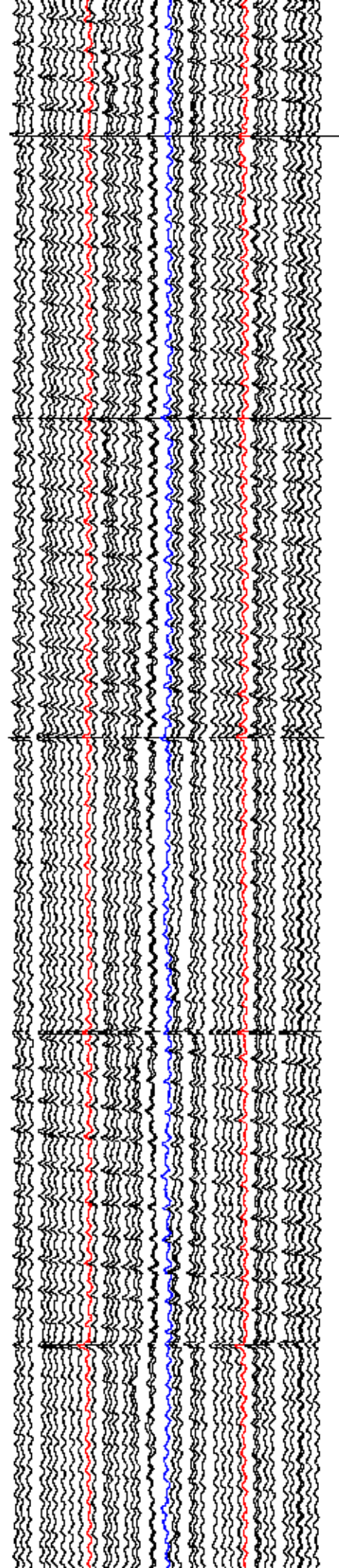
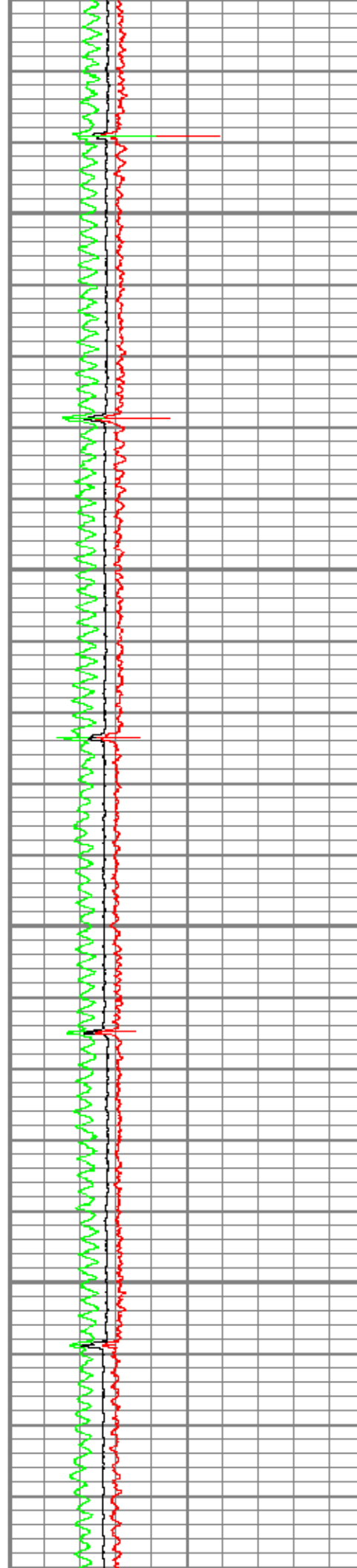
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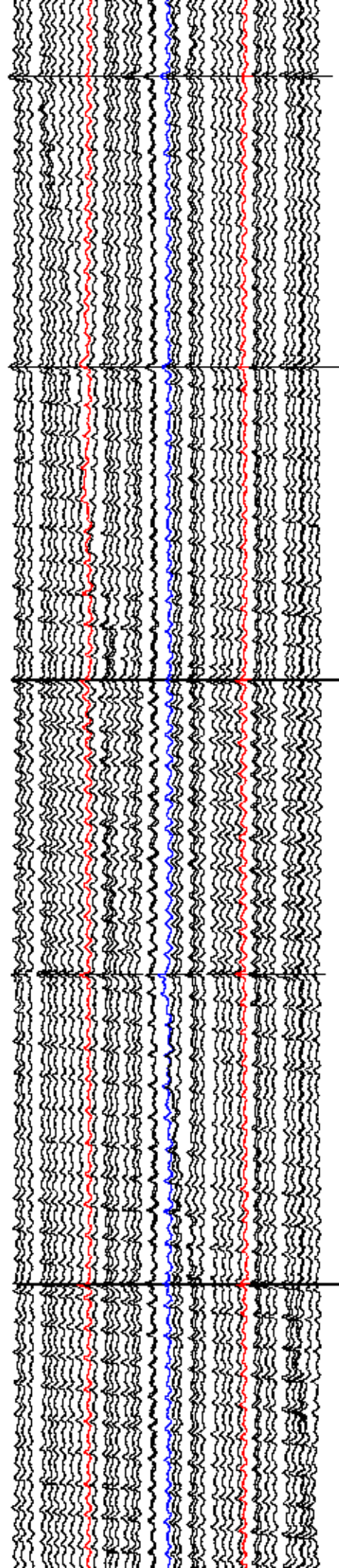
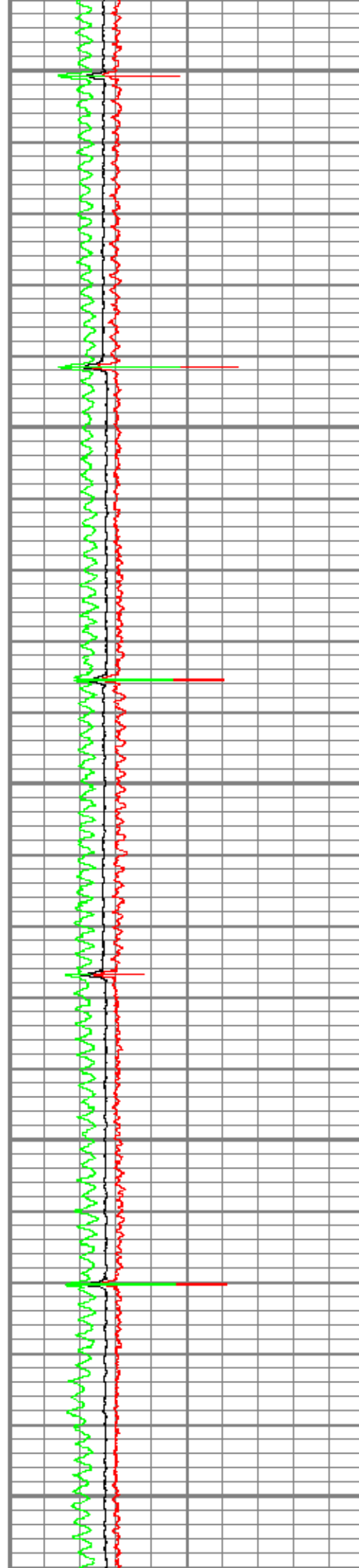
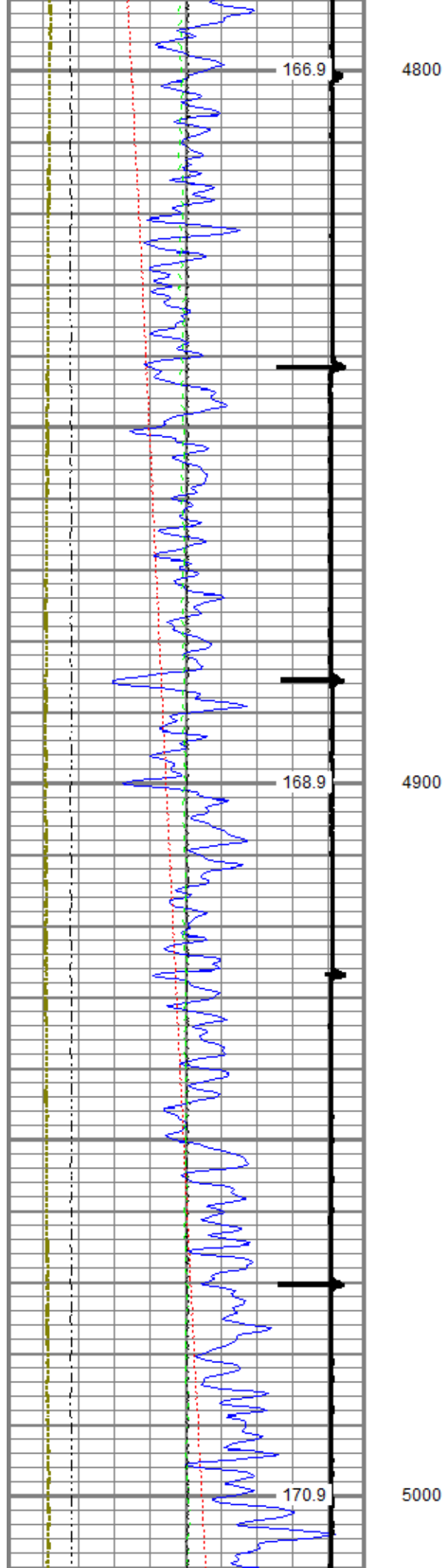


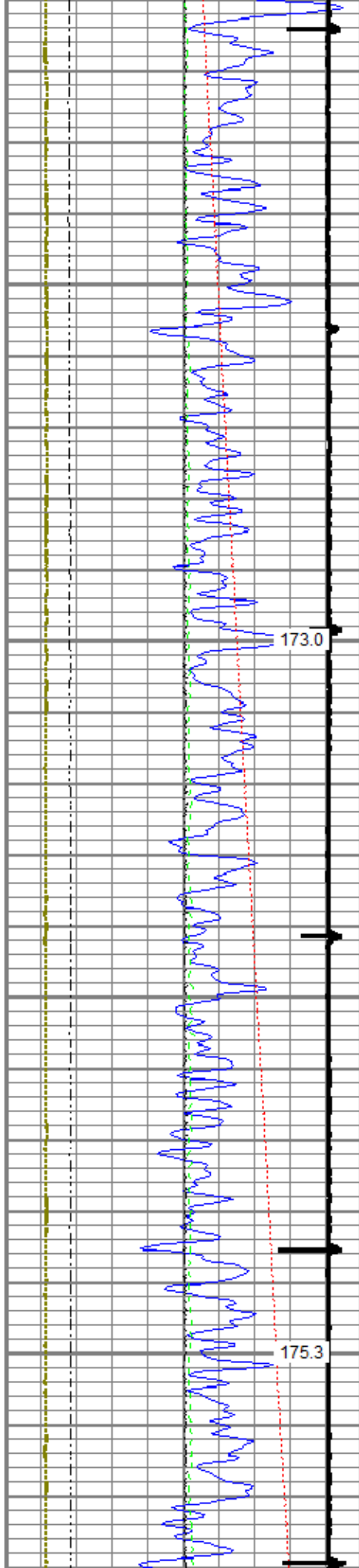


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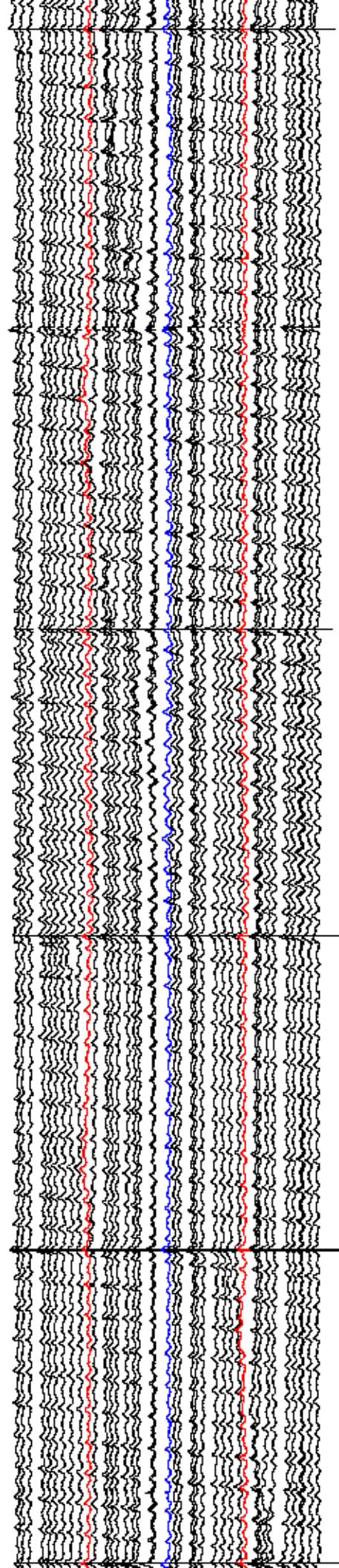
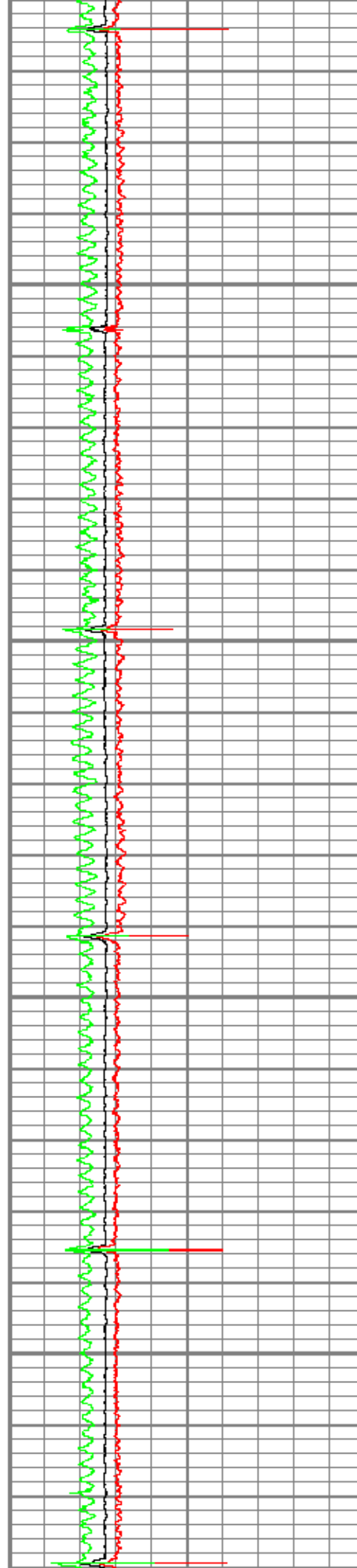


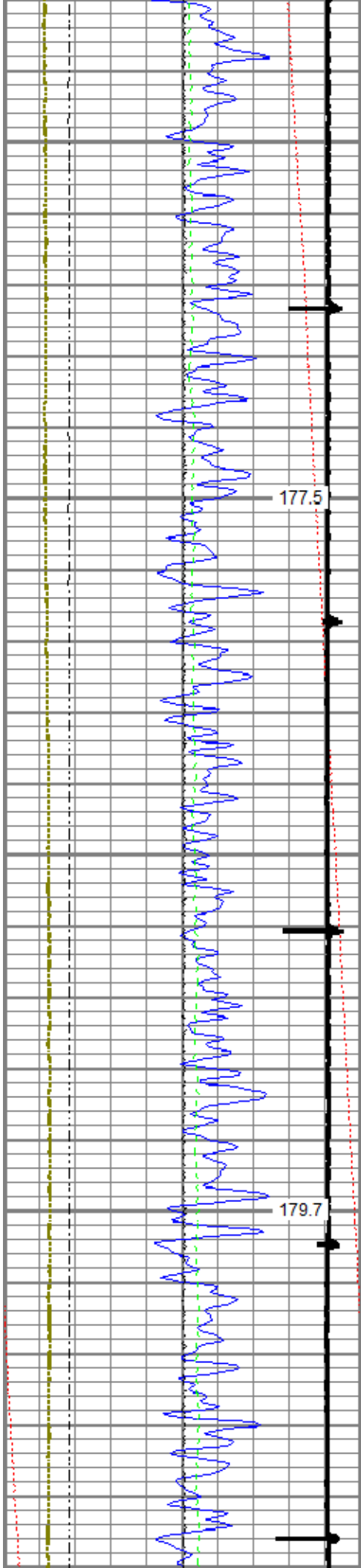




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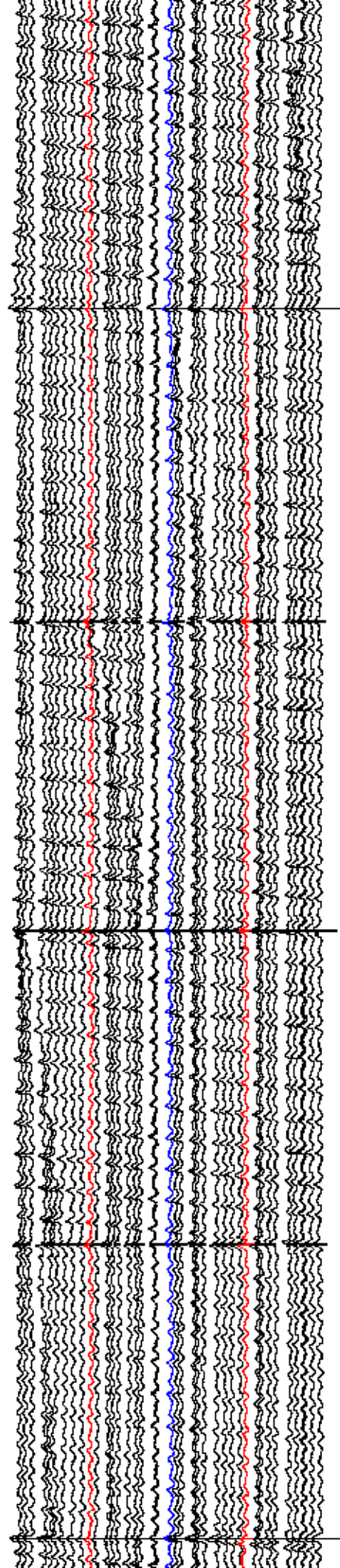
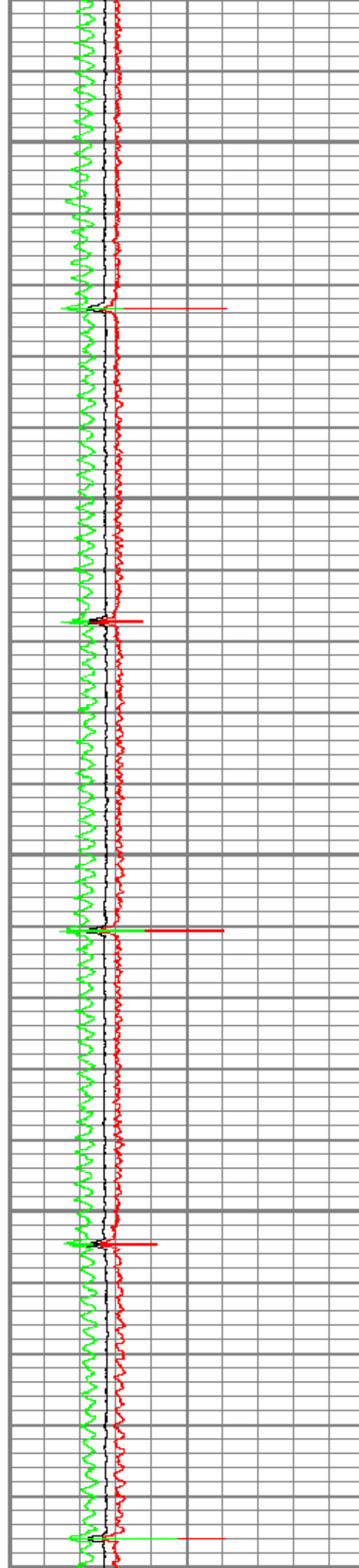
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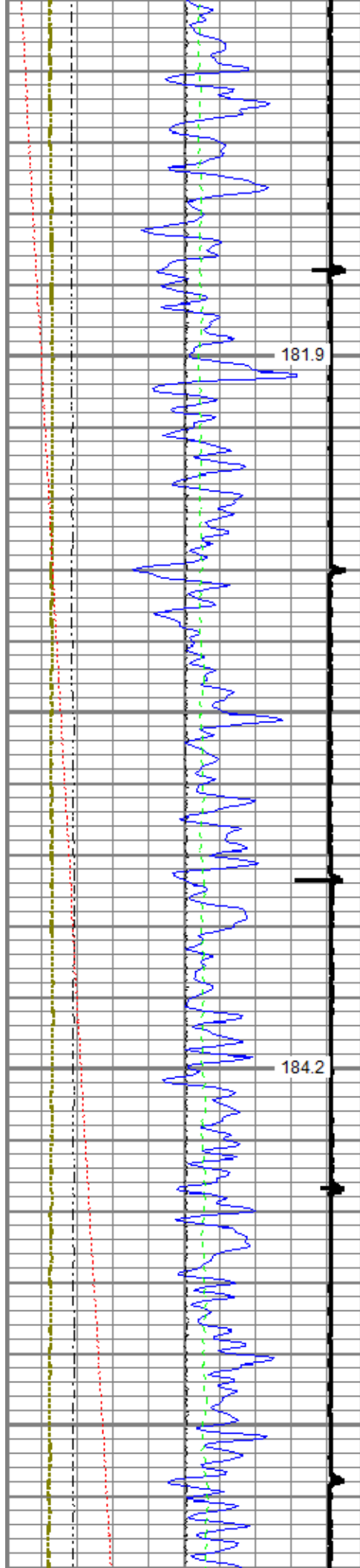




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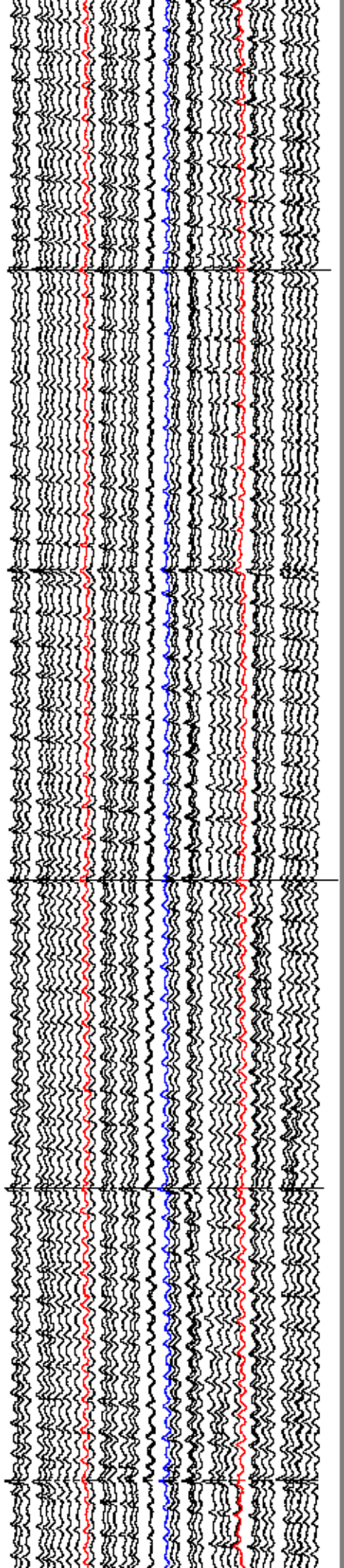
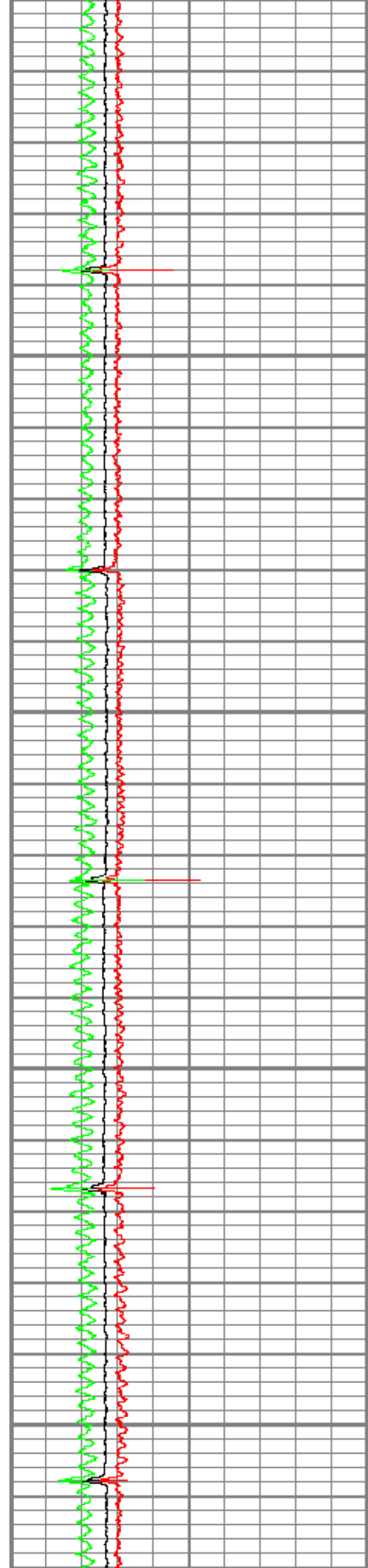


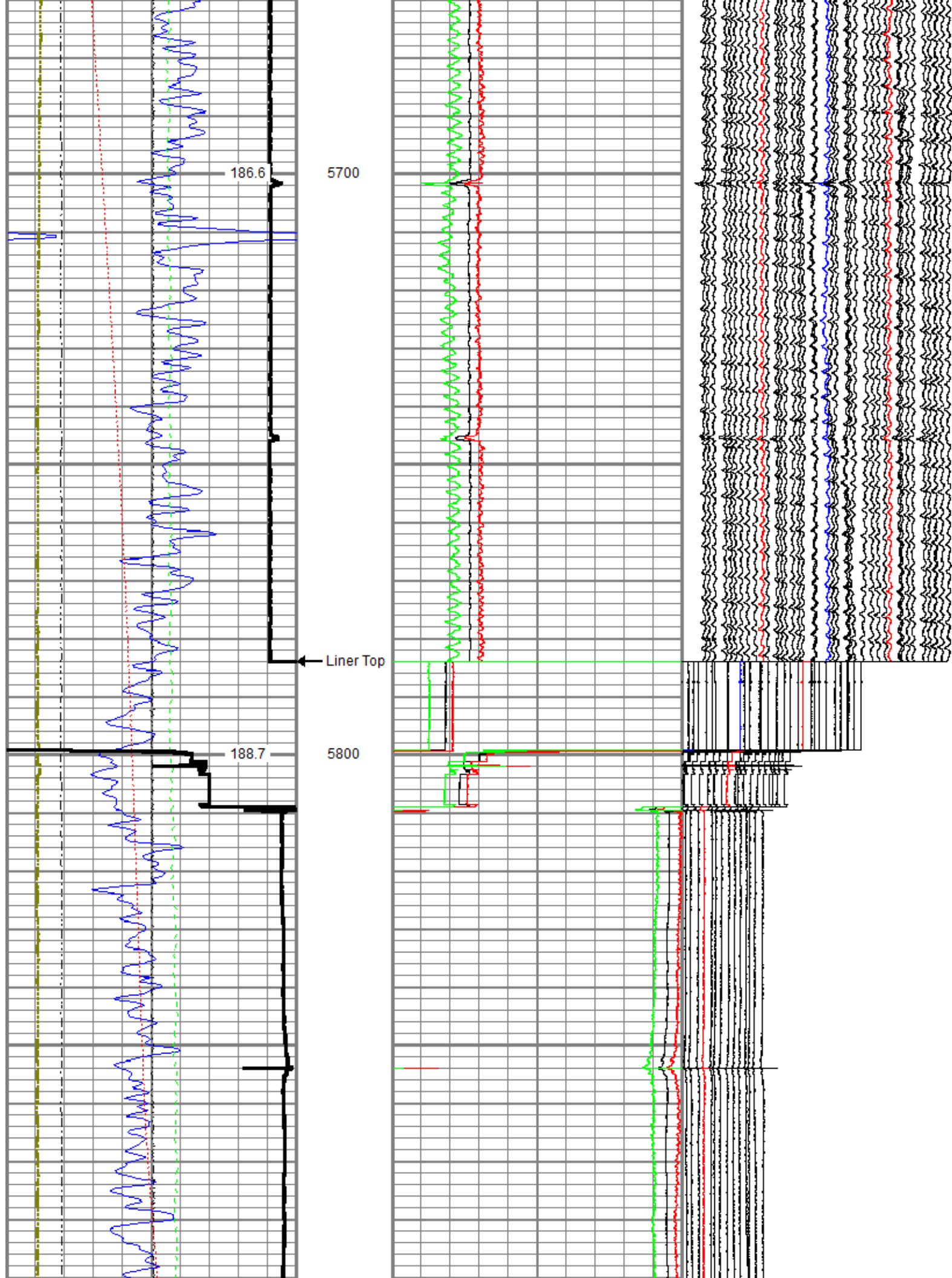
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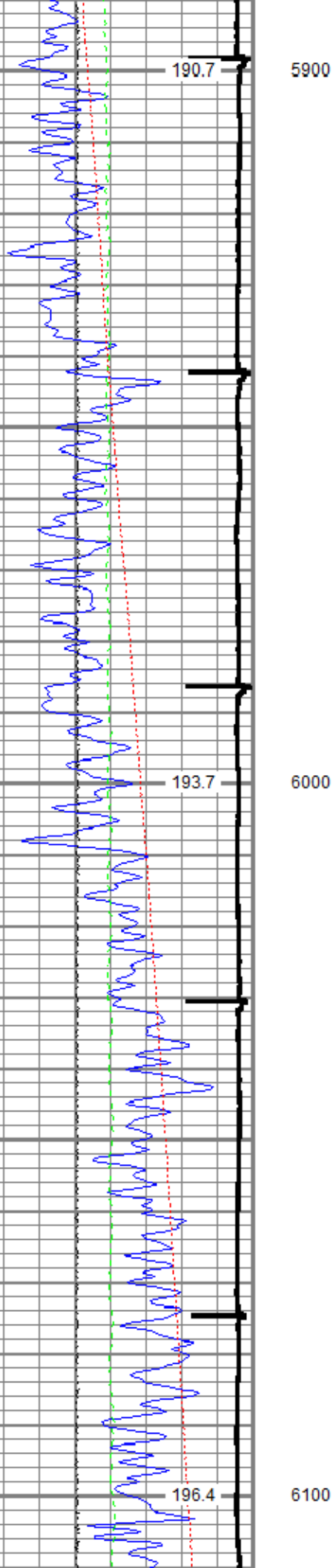
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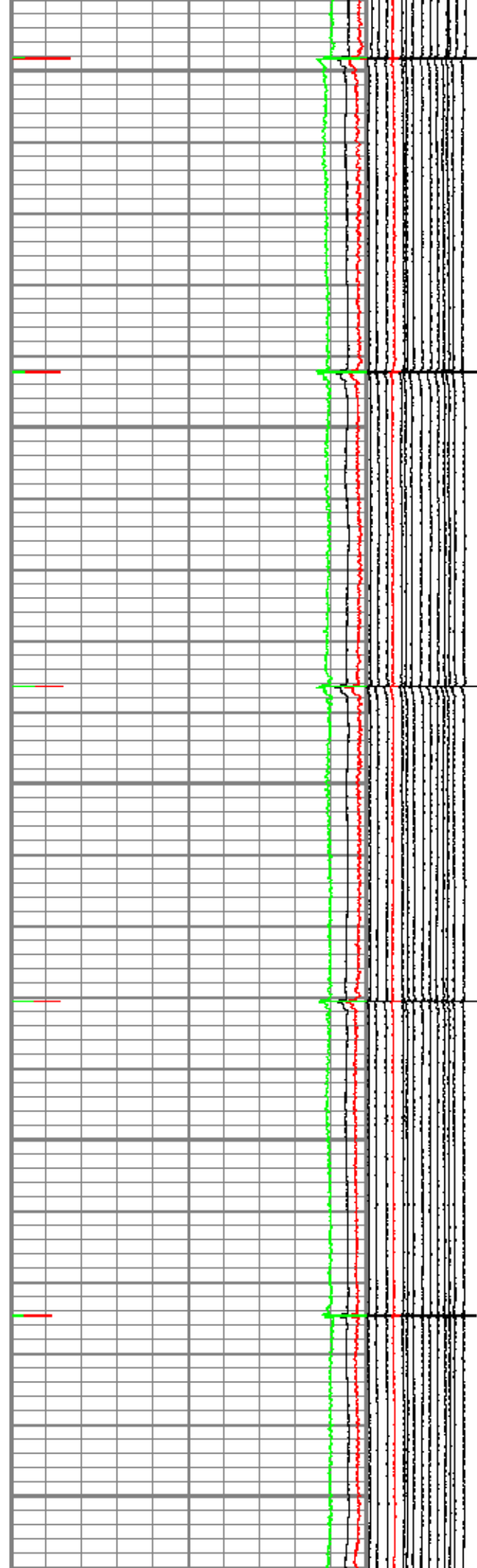


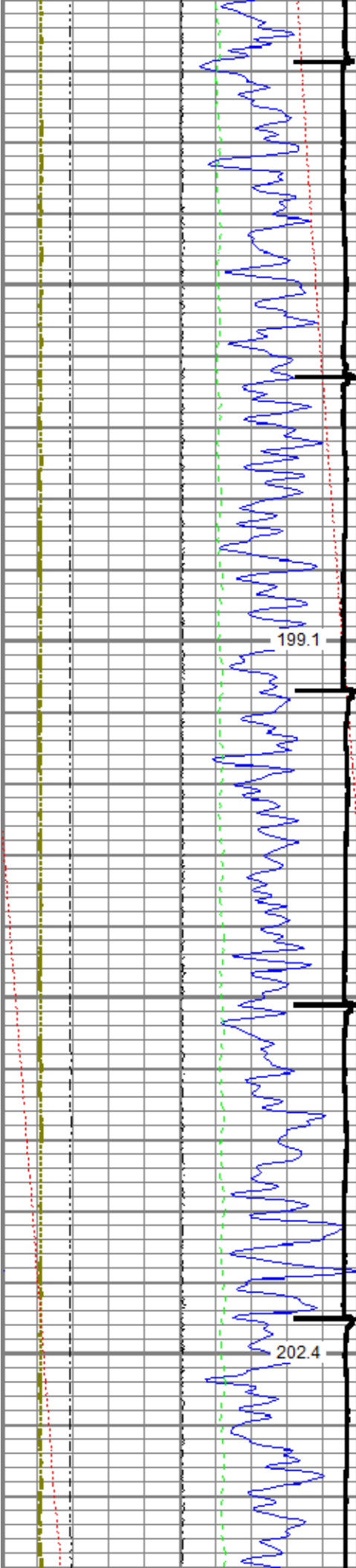


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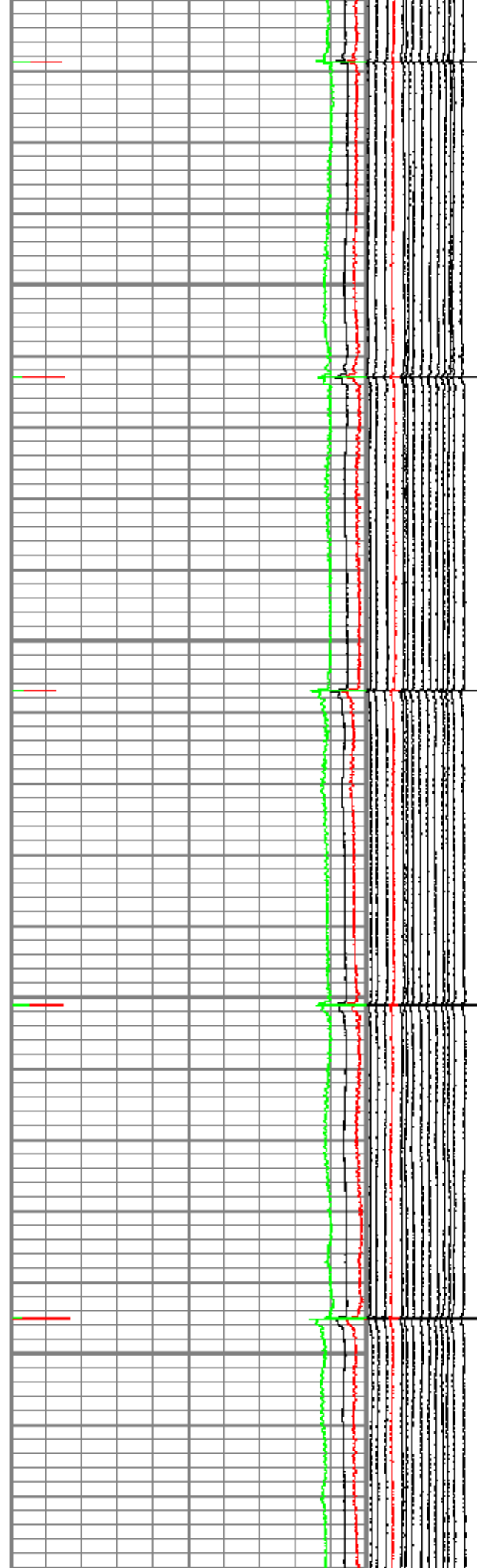
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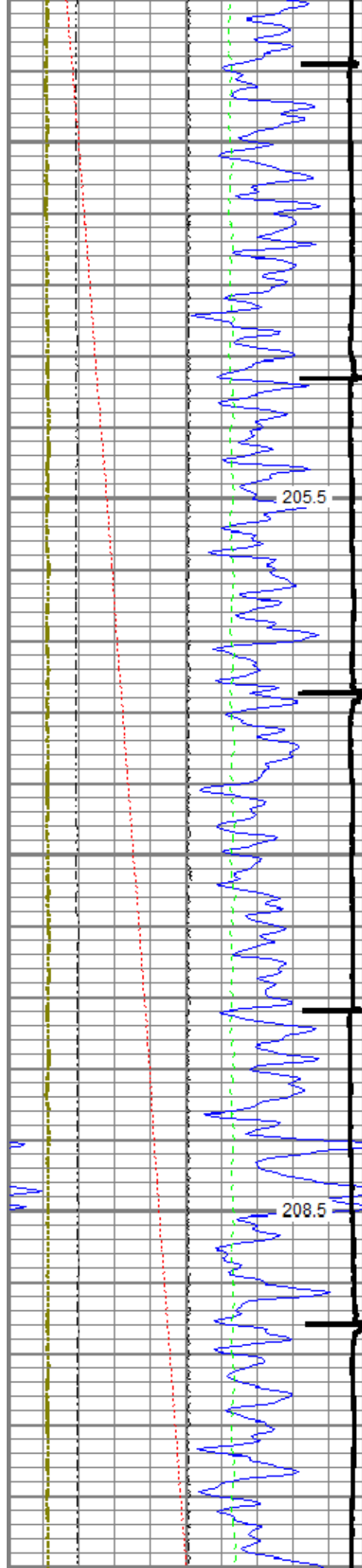




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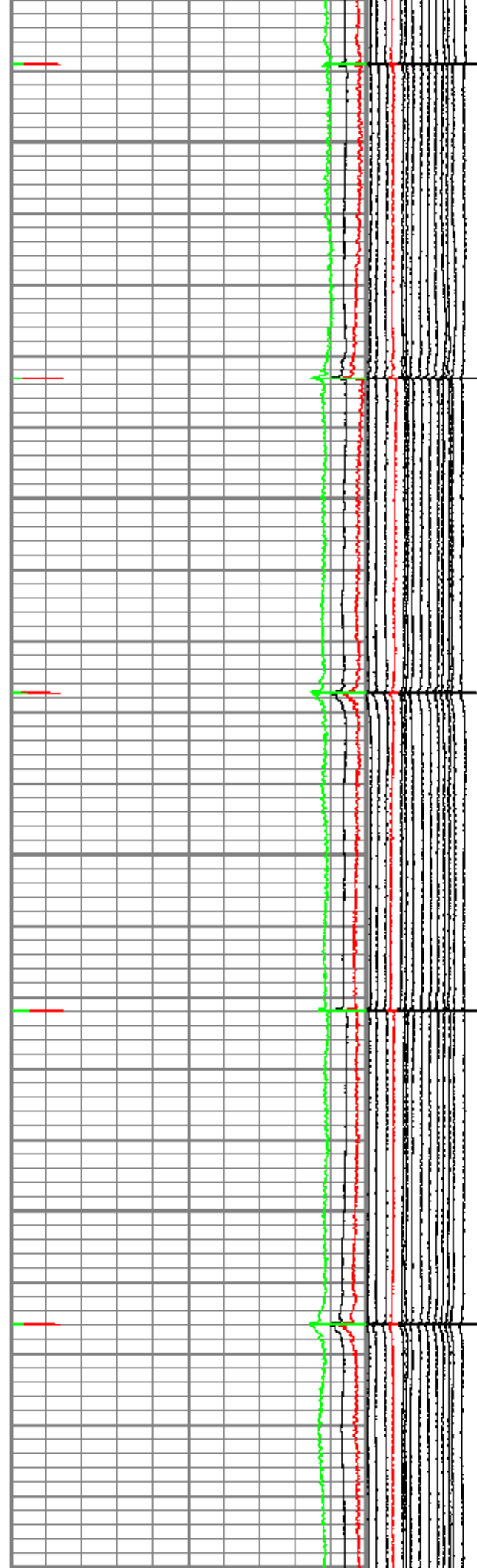
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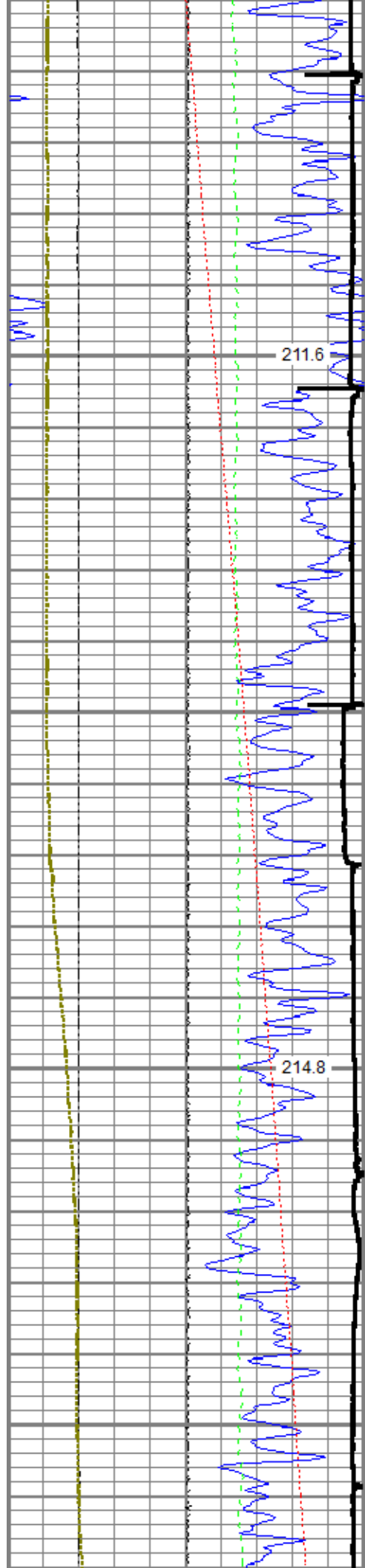




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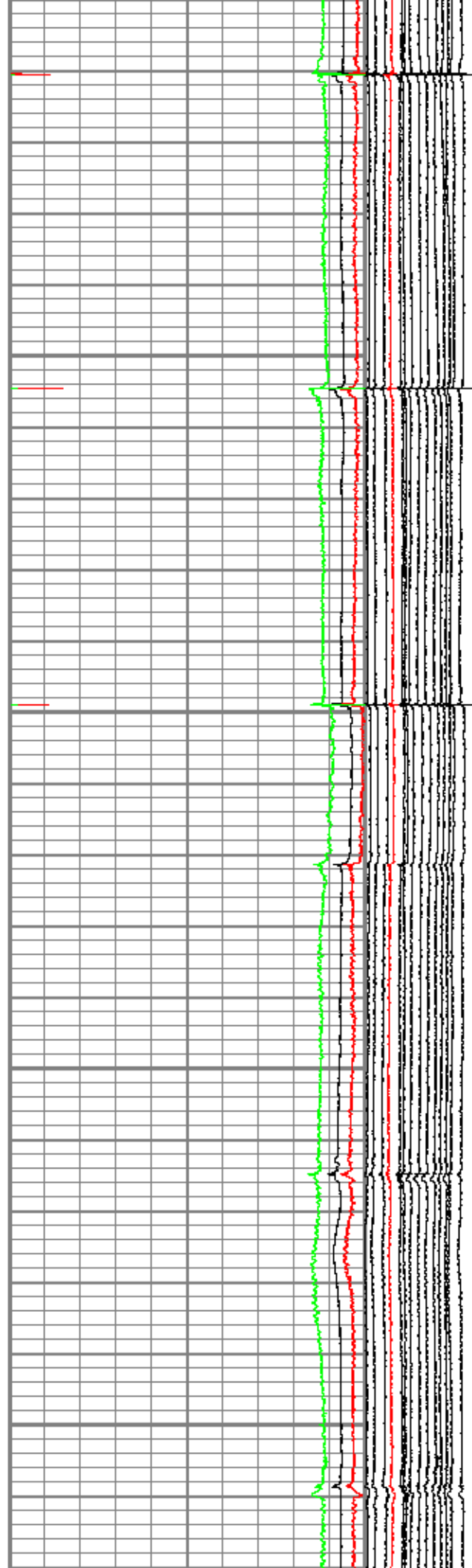
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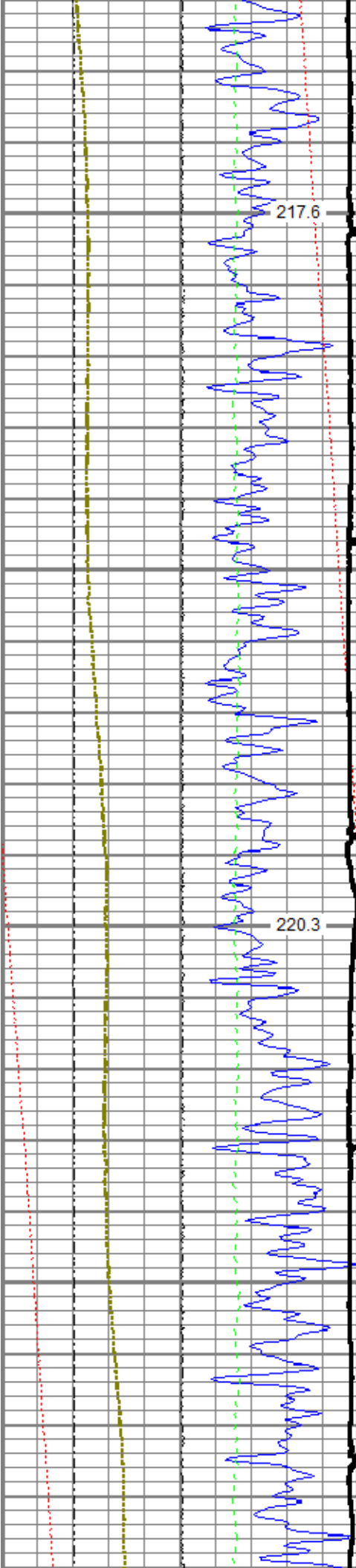




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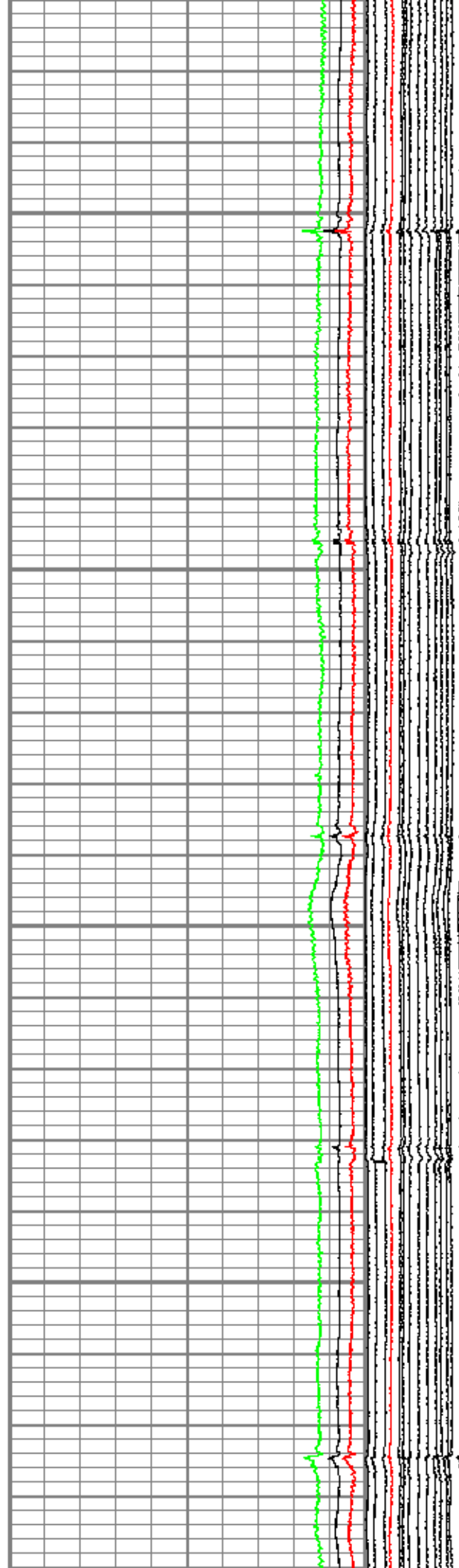


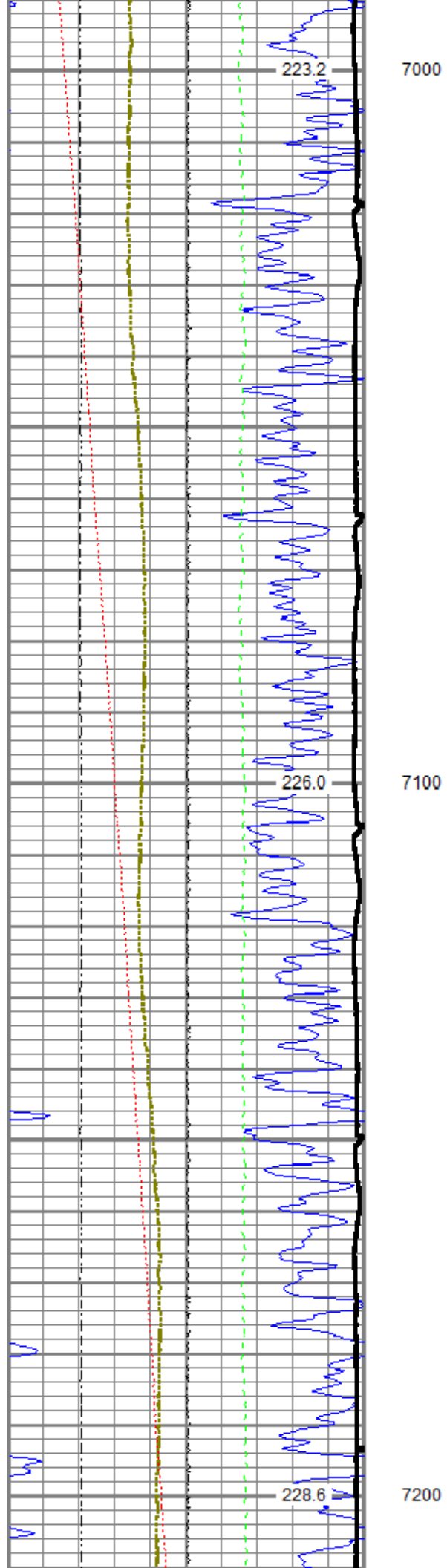
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6800

220.3

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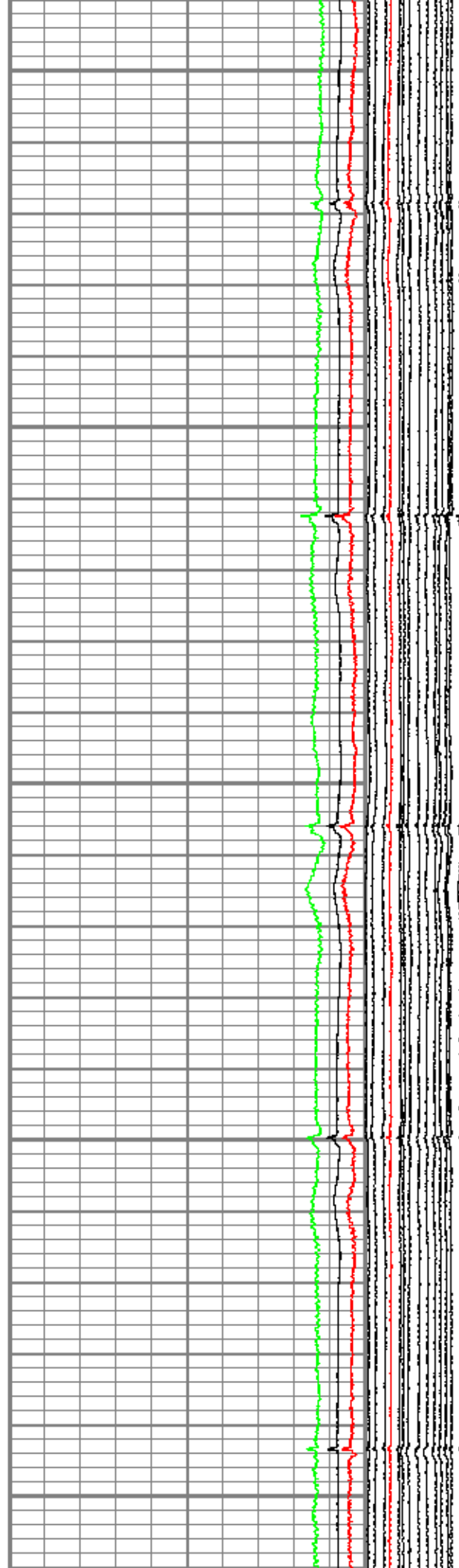


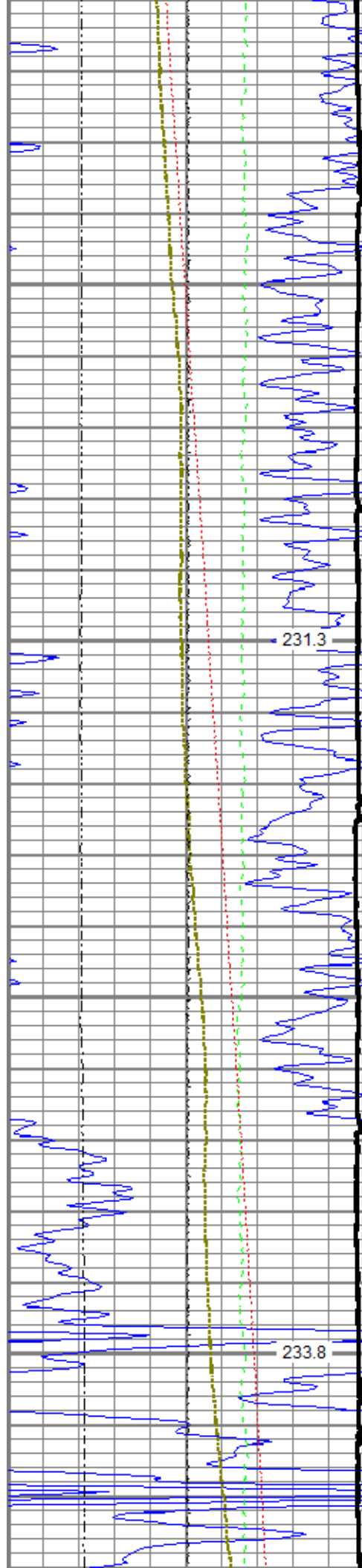


7000

7100

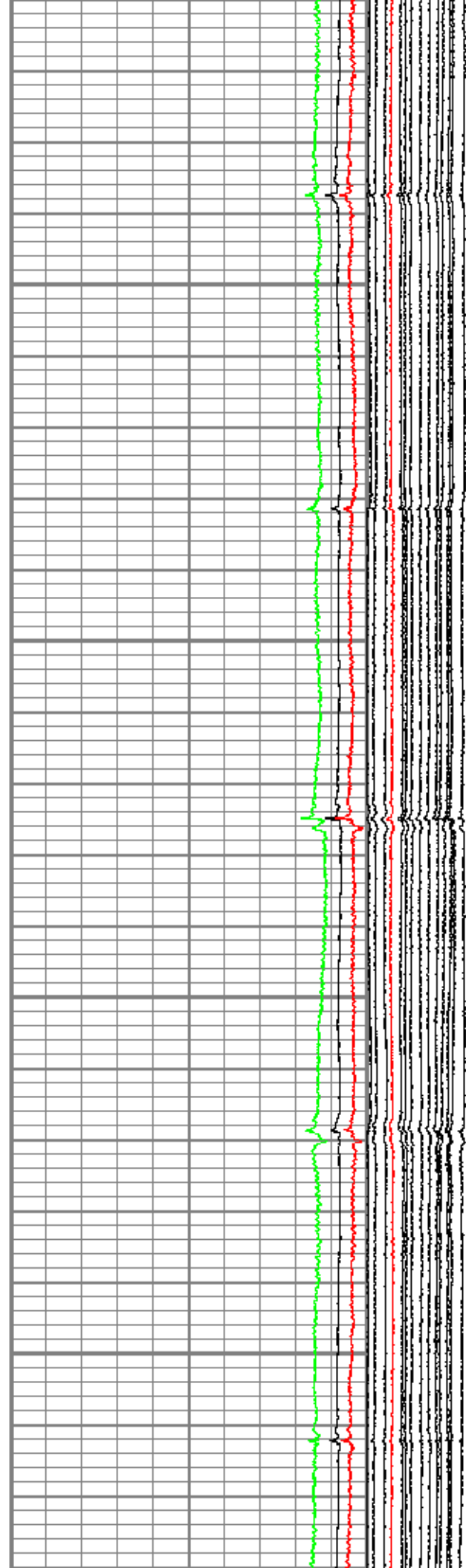
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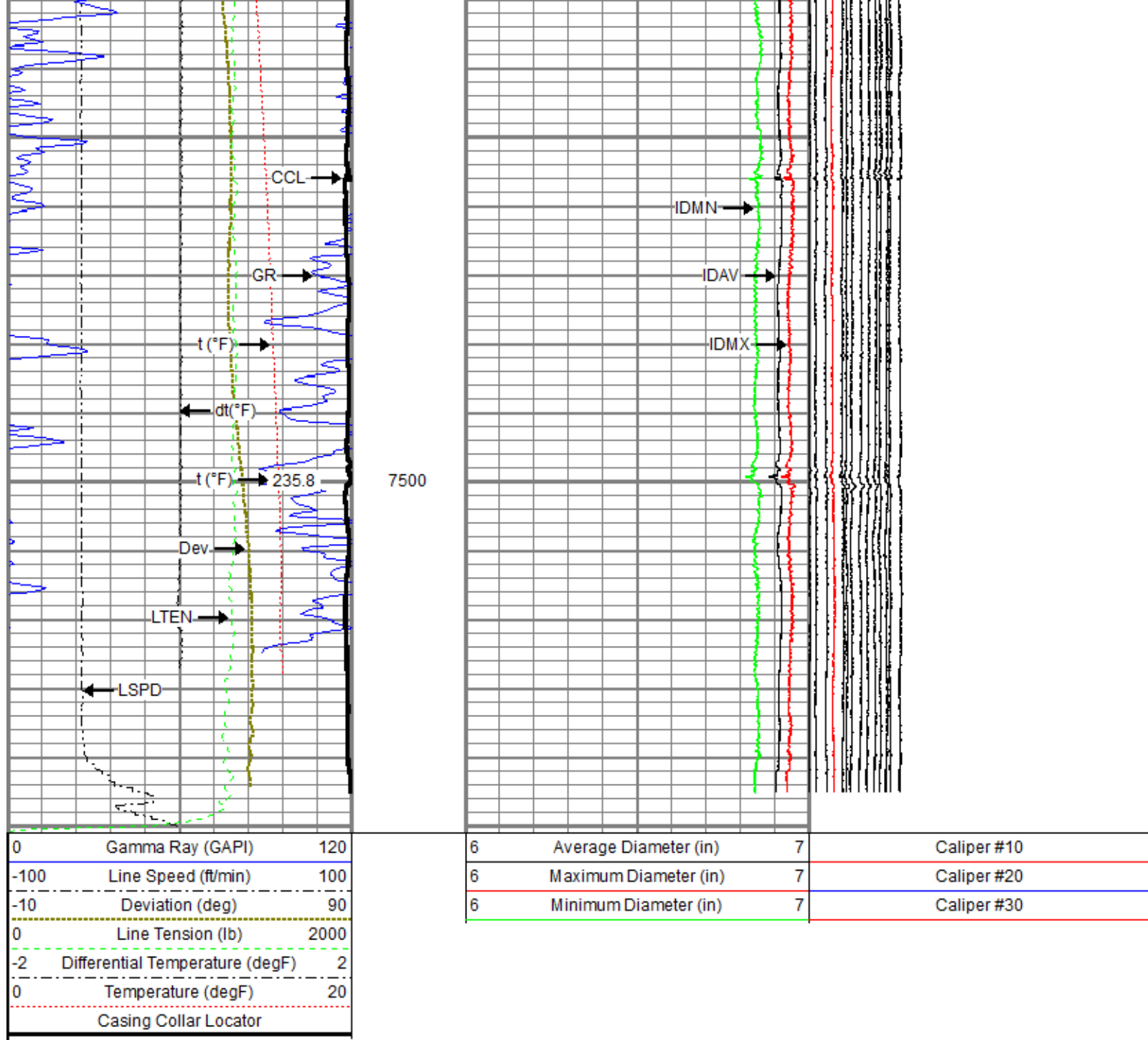




7300

7400

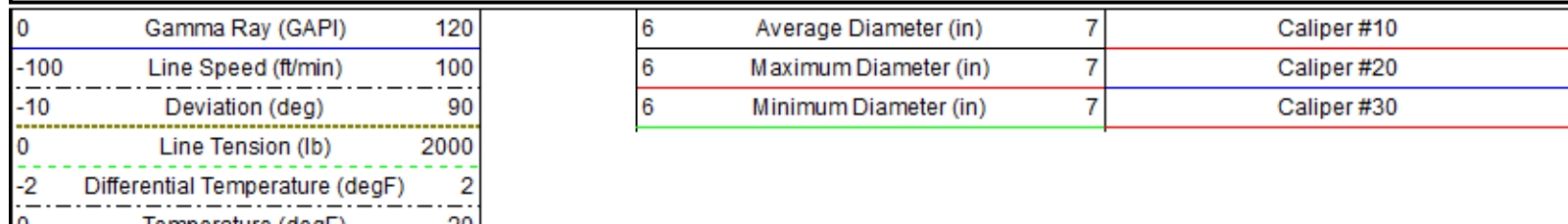


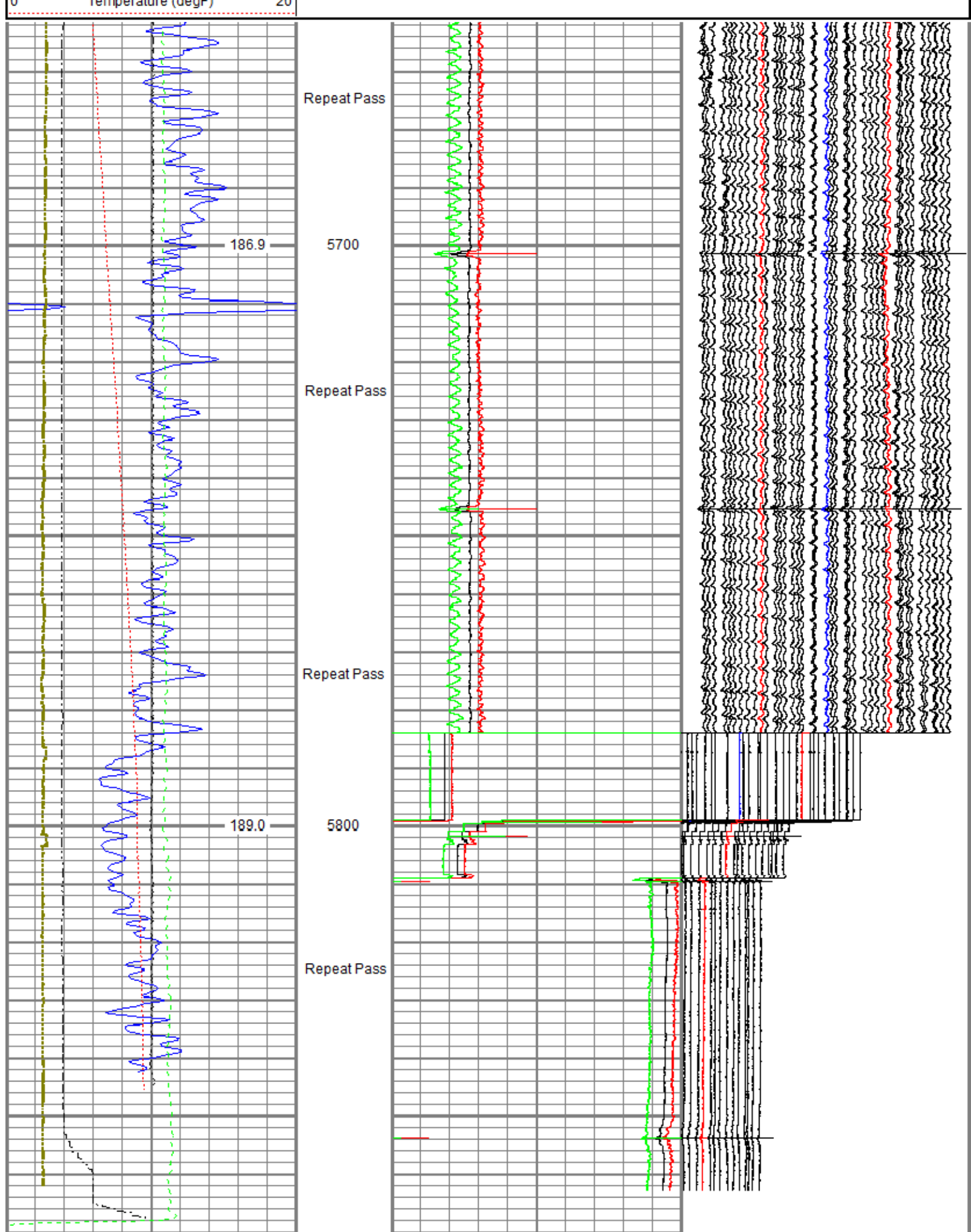


Repeat Pass

Recorded With 2800 PSI Surface Induced Pressure

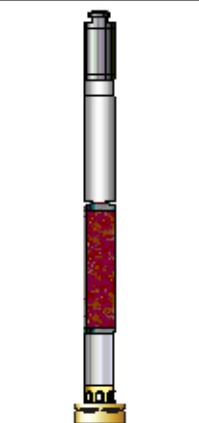
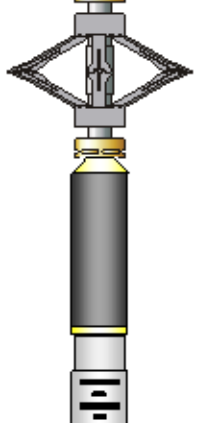
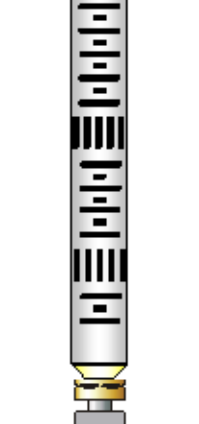
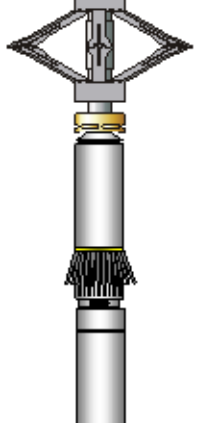
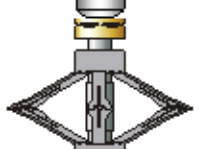
Database File 0512343470_anadarko_wagner 27n-10hz_mit_rbl_12-31-17\processed_0512343470_anadarko_wagner 27n-10hz_mit_rbl_1.
 Dataset Pathname pass2
 Presentation Format ros_70mit40sx
 Dataset Creation Sun Dec 31 08:55:12 2017
 Charted by Depth in Feet scaled 1:240








-10	Deviation (deg)	90
0	Line Tension (lb)	2000
-2	Differential Temperature (degF)	2
0	Temperature (degF)	20

6	Minimum Diameter (in)	7	Caliper #30
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Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
GR	23.41		Titan_Electric_Cable_Heads-Titan_1-11/16"	1.03	1.69	5.40
			Electric Cable Head with 1" Fishing Neck			
			UW_AGS-UW_AGS_001 (219135)	0.21	1.69	1.00
			Sondex Adapter - GO Box to Sondex Pin			
TEMP	22.02		UW_XTU-UW_XTU_002 (051219)	1.58	1.69	6.50
			Crossover Ultrawire Toolbus to Ultralink			
			UW_PGR-UW_PGR_020 (10013902)	1.92	1.69	9.50
			Production Gamma Ray			
			UW_PRT-PRT_016 (10025097)	1.04	1.69	5.20
			Platinum Resistance Thermometer			
			DSS_RAC-RAC_5-Arm	2.55	2.75	32.00
			5 Arm 2-3/4" Roller Centralizer			
CBLROT	14.99		UW_RBT-UW_RBT_004 (10022773)	9.48	3.13	140.00
CBLTEMP	14.99					
WVFS8	14.99					
WVFS7	14.99					
WVFS6	14.99					
WVFS5	14.99					
WVFS4	14.99					
WVFS3	14.99					
WVFS2	14.99					
WVFS1	14.99					
WVF3FT	14.99					
WVF5FT	13.99					
CBLTEMP	9.85					
MIT	5.11		DSS_RAC-RAC_5-Arm	2.55	2.75	32.00
			5 Arm 2-3/4" Roller Centralizer			
HVOLT	0.00		UW_MIT-UW_MIT40_042 (10012912)	4.54	2.75	65.00
			40 Multifinger Imaging Tool Ext.			
MIT	5.11		DSS_RAC-RAC_5-Arm	2.55	2.75	32.00
			5 Arm 2-3/4" Roller Centralizer			

ITEMPX	0.00				UW_BUL-UW_BUL_006 (031422)	0.22	1.69	1.20
TSTAMP	0.00	Sondex Ultrawire Bullnose Terminator						
Dataset: processed_0512343470_anadarko_wagner 27n-10hz_mit_rbl_12-31-17.db: field/well/run1/pass4								
Total length: 27.66 ft								
Total weight: 329.80 lb								
O.D.: 3.13 in								

Calibration Report			
Database File	c:\programdata\warrior\data\0512343470_anadarko_wagner 27n-10hz_mit_rbl_12-31-17\processed_0512343470_anadarko_w		
Dataset Pathname	pass4		
Dataset Creation	Sun Dec 31 09:08:57 2017		
Multifinger Imaging Tool Calibration Report			
Serial Number:		10012912	
Number of Fingers:		40	
Tool Model:		UW_MIT40_042	
Inclinometer Calibration Report			
Performed:		Mon Jul 15 09:39:36 2013	
Calibration Angle:		45	
		Inc X	Inc Y
Vertical:		1968	1974
Finger 1 up:		1740	1744
Finger 31 up:		2215	1741
Finger 21 up:		2205	2224
Finger 11 up:		1731	2217
Sensitivity ratio:		0.992868	
X-axis angle:		134.307	
Deviation const.:		335.589	

Finger Calibration Report						
Performed:			Sun Dec 31 07:19:57 2017			
Ring size:	4	5	6	7		
(in)	Sens	Sens	Sens			
Finger 01:	1063	353.0	1416	397.0	1813	409.0
Finger 02:	1204	364.0	1568	394.0	1962	402.0
Finger 03:	1084	374.0	1458	404.0	1862	426.0
Finger 04:	1116	360.0	1476	395.0	1871	417.0
Finger 05:	1116	366.0	1482	395.0	1877	413.0
Finger 06:	1116	367.0	1483	406.0	1889	409.0
Finger 07:	1099	374.0	1473	400.0	1873	419.0
Finger 08:	1131	365.0	1496	395.0	1891	419.0
Finger 09:	1119	362.0	1481	395.0	1876	413.0
Finger 10:	1125	364.0	1489	393.0	1882	414.0
Finger 11:	1129	359.0	1488	389.0	1877	407.0
Finger 12:	1128	356.0	1484	388.0	1872	409.0
Finger 13:	1139	358.0	1497	384.0	1881	400.0
Finger 14:	1128	363.0	1491	393.0	1884	413.0
Finger 15:	1080	366.0	1446	405.0	1851	430.0
Finger 16:	1087	364.0	1451	403.0	1854	427.0
Finger 17:	1005	343.0	1348	388.0	1736	427.0
Finger 18:	1133	354.0	1487	388.0	1875	409.0
Finger 19:	1105	359.0	1464	393.0	1857	414.0
Finger 20:	1088	362.0	1450	400.0	1850	423.0
Finger 21:	1097	360.0	1457	396.0	1853	407.0
Finger 22:	1076	360.0	1436	402.0	1838	426.0
Finger 23:	1021	361.0	1382	408.0	1790	437.0
Finger 24:	1112	356.0	1468	385.0	1853	397.0
Finger 25:	1049	362.0	1411	407.0	1818	431.0
Finger 26:	1171	348.0	1519	373.0	1892	391.0
Finger 27:	1104	359.0	1463	394.0	1857	415.0
Finger 28:	1139	352.0	1491	378.0	1869	406.0
Finger 29:	1067	359.0	1426	402.0	1828	425.0
Finger 30:	1095	359.0	1454	397.0	1851	416.0
Finger 31:	1128	355.0	1483	389.0	1872	407.0
Finger 32:	1191	385.0	1576	422.0	1998	436.0
Finger 33:	1184	361.0	1545	374.0	1919	385.0

Finger 34:	1124	364.0	1488	402.0	1890	420.0	2310
Finger 35:	996	336.0	1332	377.0	1709	408.0	2117
Finger 36:	1097	360.0	1457	398.0	1855	422.0	2277
Finger 37:	1131	360.0	1491	400.0	1891	411.0	2302
Finger 38:	1162	354.0	1516	392.0	1908	394.0	2302
Finger 39:	1174	354.0	1528	388.0	1916	398.0	2314
Finger 40:	1117	364.0	1481	401.0	1882	416.0	2298

Segmented Cement Bond Log Calibration Report

Serial Number:	10022773
Tool Model:	UW_RBT_004
Calibration Casing Diameter:	7.000 in
Calibration Depth:	-76.502 ft

Master Calibration, performed Fri Dec 29 11:27:31 2017:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3FT	0.002	0.773	0.800	62.165	79.638	0.606
5FT	-0.002	0.768	0.800	62.165	79.716	0.925
S1	0.002	0.769	0.000	100.000	130.427	-0.318
S2	0.001	0.788	0.000	100.000	127.133	-0.155
S3	0.002	0.788	0.000	100.000	127.264	-0.222
S4	0.001	0.788	0.000	100.000	127.085	-0.186
S5	0.002	0.776	0.000	100.000	129.185	-0.279
S6	0.001	0.765	0.000	100.000	130.877	-0.171
S7	0.002	0.750	0.000	100.000	133.710	-0.326
S8	0.002	0.755	0.000	100.000	132.829	-0.281

Temperature Calibration Report

Serial Number:	10025097
Tool Model:	PRT_016
Performed:	Sun Oct 11 12:34:58 2015


Point #	Reading		Reference	
1	13053.00	cps	68.00	degF
2	18014.00	cps	104.00	degF
3	29668.00	cps	176.00	degF
4	41181.00	cps	248.00	degF
5	52983.00	cps	320.00	degF
6	58931.00	cps	356.00	degF
7		cps		degF
8		cps		degF
9		cps		degF
10		cps		degF

Gamma Ray Calibration Report

Serial Number:	10013902	
Tool Model:	UW_PGR_020	
Performed:	(Not Performed)	
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	Wagner 27N-10HZ
Field	Wattenberg

 DILFIELD SERVICES	<table><tr><td data-bbox="669 0 867 52">Field</td><td data-bbox="867 0 1635 52">Windsong</td></tr><tr><td data-bbox="669 52 867 105">County</td><td data-bbox="867 52 1635 105">Weld</td></tr><tr><td data-bbox="669 105 867 130">State</td><td data-bbox="867 105 1635 130">Colorado</td></tr></table>	Field	Windsong	County	Weld	State	Colorado
Field	Windsong						
County	Weld						
State	Colorado						