

Company Chevron USA, Inc.  
Well Rigby A 3X  
Field Weber Rangely Sand Unit  
County Rio Blanco  
State Colorado Country USA

Location: API #: 05-103-07910

SEC 24 TWP 103WRGE 6  
SESW

Permanent Datum Ground Level Elevation 5,427'  
Log Measured From Kelly Bushing = 15'  
Drilling Measured From Kelly Bushing

Other Services  
CBL  
Elevation  
K.B. 5,442'  
D.F. 5,441'  
G.L. 5,427'

Date November 16, 2015

Run Number One

Depth Driller 5,780 FT

Depth Logger 5,480 FT

Bottom Logged Interval 5,480 FT

Top Log Interval Surface

Open Hole Size 8.75"

Type Fluid Water

Density / Viscosity 8.33 ppG

Max. Recorded Temp. --

Estimated Cement Top

Time Well Ready 08:30

Time Logger on Bottom 09:15

Equipment Number HD-0264

Location Grand Junction, CO

Recorded By J. Allemang

Witnessed By A. Ward

### Borehole Record

Run Number	Bit	From	To	Size	Weight	From	To
Surface	13.75	Surface	776 FT				
Production	8.75	776 FT	5,780 FT				

### Tubing Record

Casing Record	Size	Wdth	Top	Bottom
Surface String	9.625	40#	Surface	776 FT
Prot. String				
Production String	7.000	23#	Surface	5,780 FT
Liner				

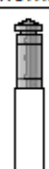
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All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on 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

Log correlated to Gamma Ray of  
Schlumberger's  
Compensated Neutron Log  
Dated January 13, 1977

Thank you for choosing FMC Technologies Surface Integrated Services.

Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
Titan_Electric	C28.05-leads		T_CH14375_1_GO Titan 1-7/16" Assembled Electric Cable Head with 1" Fishing Neck	1.03	1.44	4.00
			UW_XTU-UW_XTU_002 (10012277)	1.58	1.69	6.50

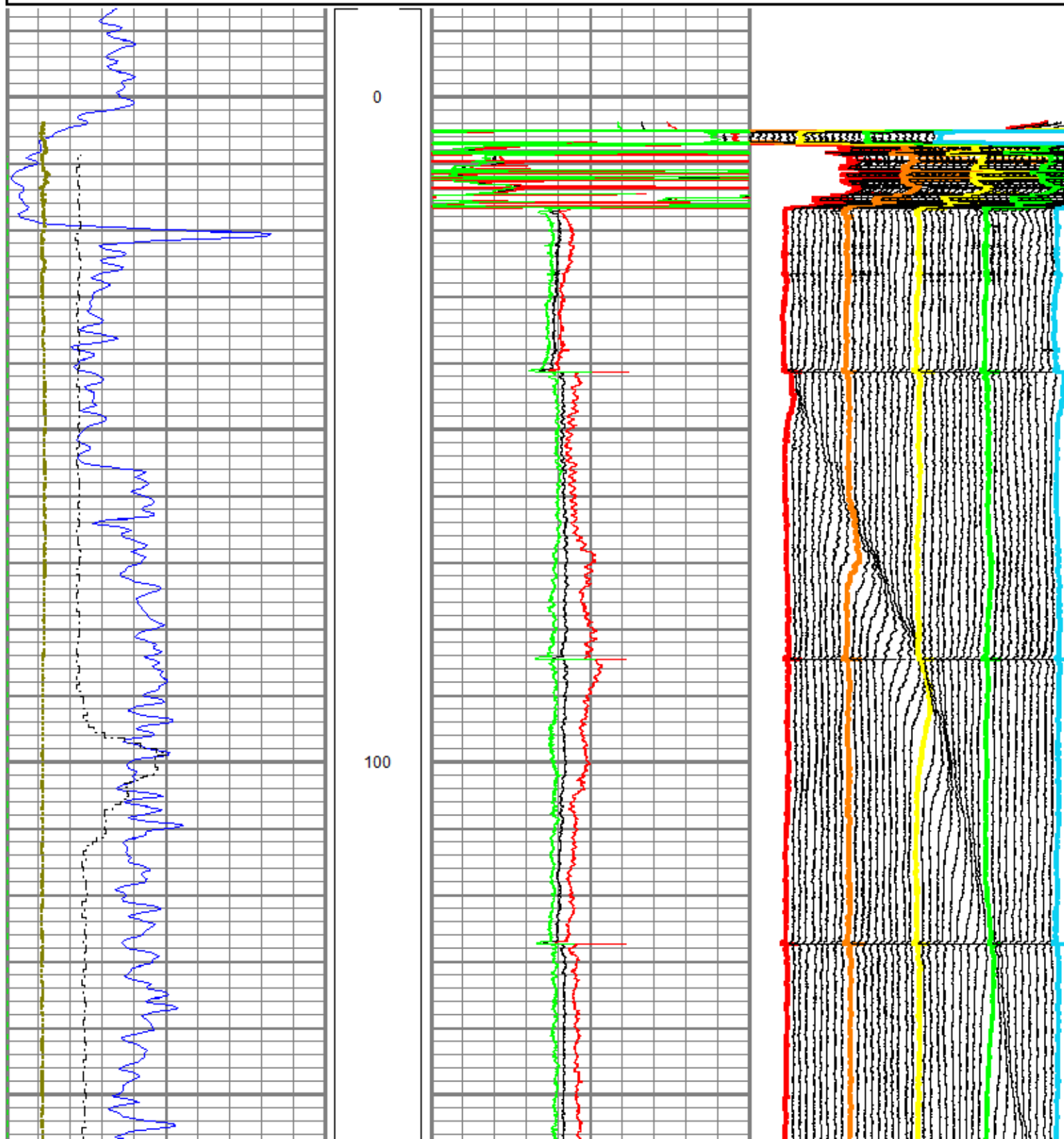
			Crossover Ultrawire Toolbus to Ultralink			
GR	24.02		UW_PGR-UW_PGR_020 (10019371) Production Gamma Ray	1.93	1.69	9.50
CCL	22.43		UW_CCL-UW_CCL_3_1_8 (10024819) UW 3-1/8" CCL	1.63	3.13	25.00
DSS	21.89					
			DSS-2-3/4" (RAC.20.085SX) DSS 2-3/4" 5 Arm Centralizer W/ Sondex Ends	2.55	2.75	
UW_RBT	19.34					
WVFS3FT	15.00					
WVFS1	15.00		UW_RBT-UW_RBT_004 (10012639) Sondex Ultrawire 3-1/8" Radial Bond Tool	9.47	3.13	140.00
WVFS2	15.00					
WVFS3	15.00					
WVFS4	15.00					
WVFS5	15.00					
WVFS6	15.00					
WVFS7	15.00					
WVFS8	15.00					
CBLTEMP	15.00					
CBLROT	15.00					
WVFS5FT	14.00					
DSS	9.86		DSS #2 -2-3/4" (RAC.20.086SX) DSS 2-3/4" 5 Arm Centralizer W/ Sondex Ends	2.55	2.75	
MIT	4.98		UW_MIT-UW_MIT40_042 (10014703) 40 Multifinger Imaging Tool	4.54	2.75	61.10
DSS	2.77					
UW_BUL	0.22		DSS #3 -2-3/4" (RAC.20.087SX) DSS 2-3/4" 5 Arm Centralizer W/ Sondex Ends	2.55	2.75	
TSTAMP	0.00					
ITEMPX	0.00		UW_BUL-UW_BUL_006 (10019616) Sondex Ultrawire Bullnose Terminator	0.22	1.69	1.20
HVOLT_X	0.00					
Dataset: riga3x.db: field/well/run1/main Total Length: 28.05 ft Total Weight: 247.30 lb O.D.: 3.13 in						

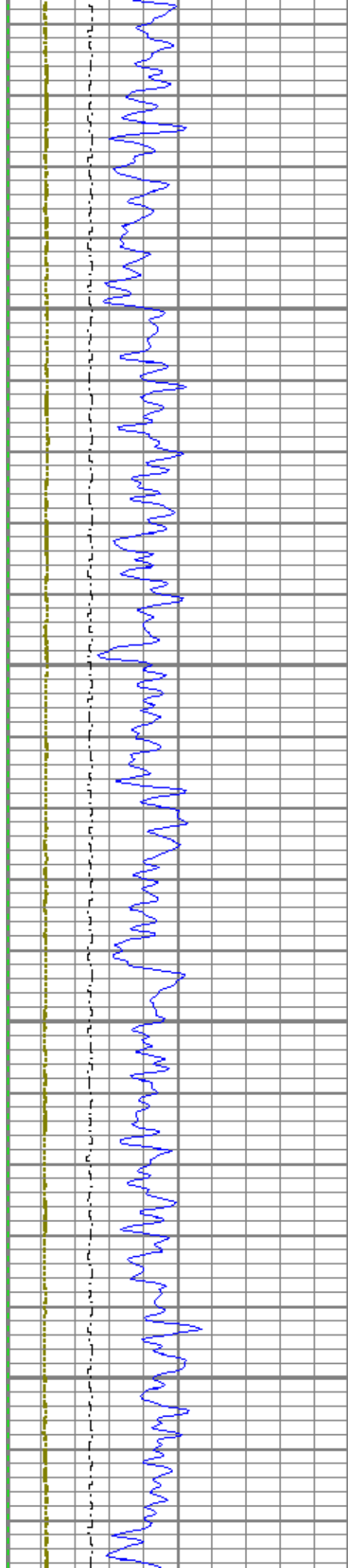
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 Dataset Pathname: merge4  
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 Dataset Creation: Mon Nov 16 14:24:45 2015  
 Charted by: Depth in Feet scaled 1:240

0	Gamma Ray (GAPI)	120
-100	Line Speed (ft/min)	100
-10	Deviation (°)	90
Casing Collar Locator		
0	Line Tension (lb)	2000

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

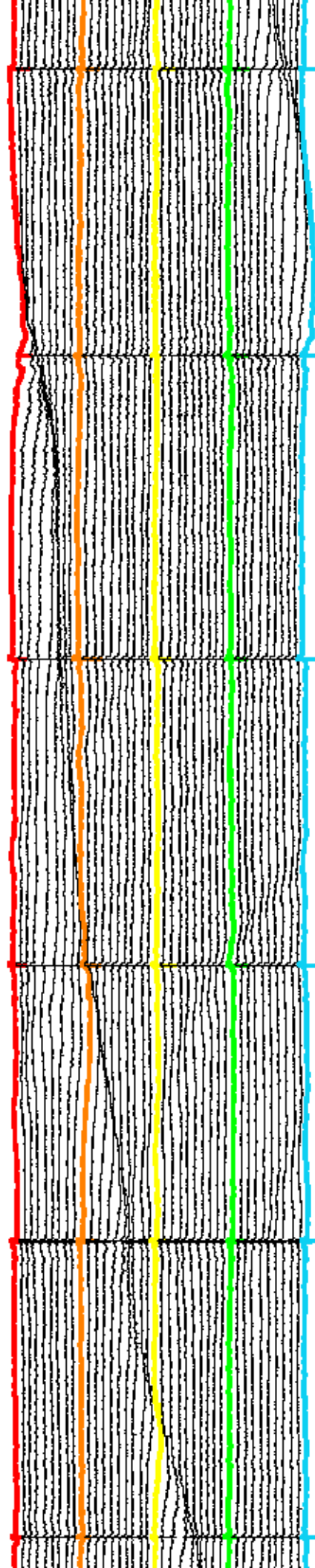
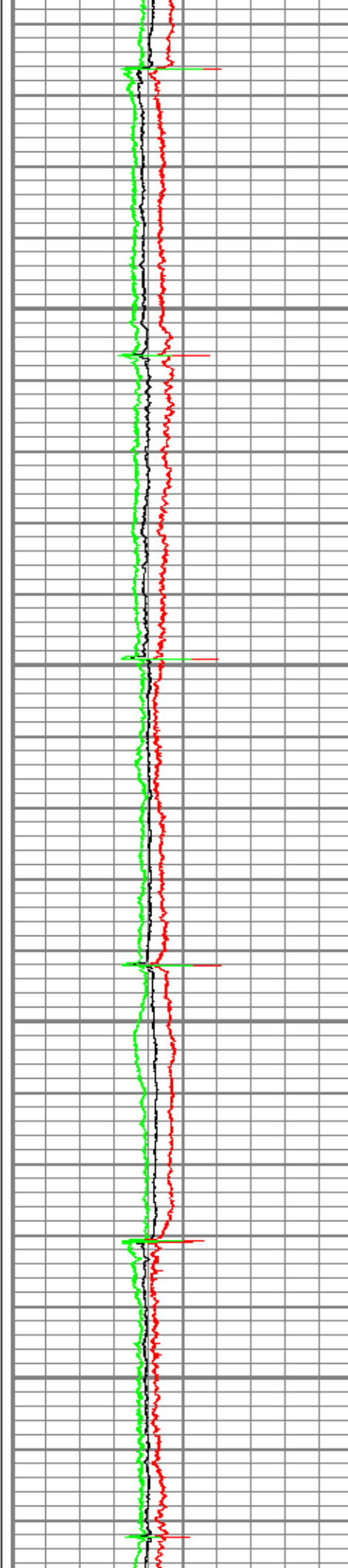
Caliper #1
Caliper #10
Caliper #20
Caliper #30
Caliper #40

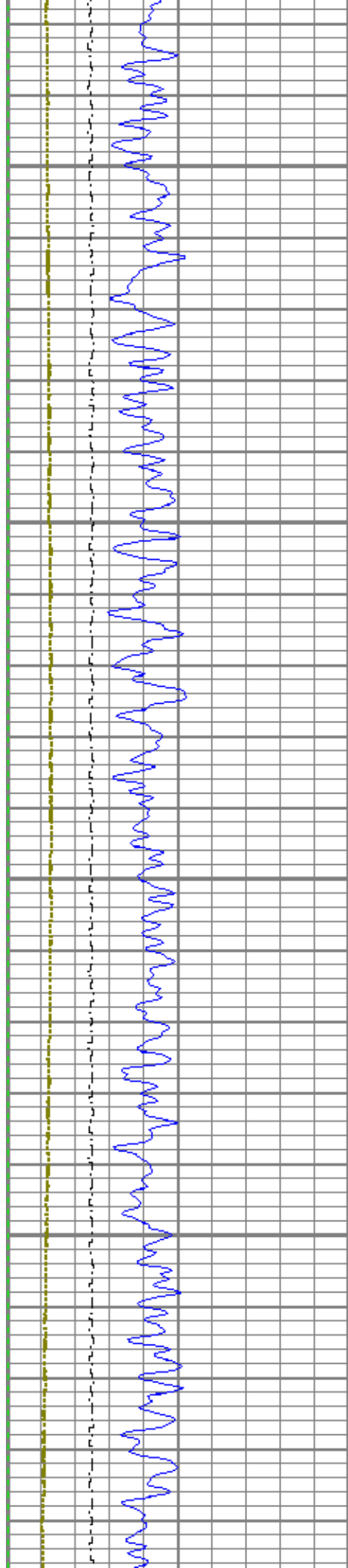




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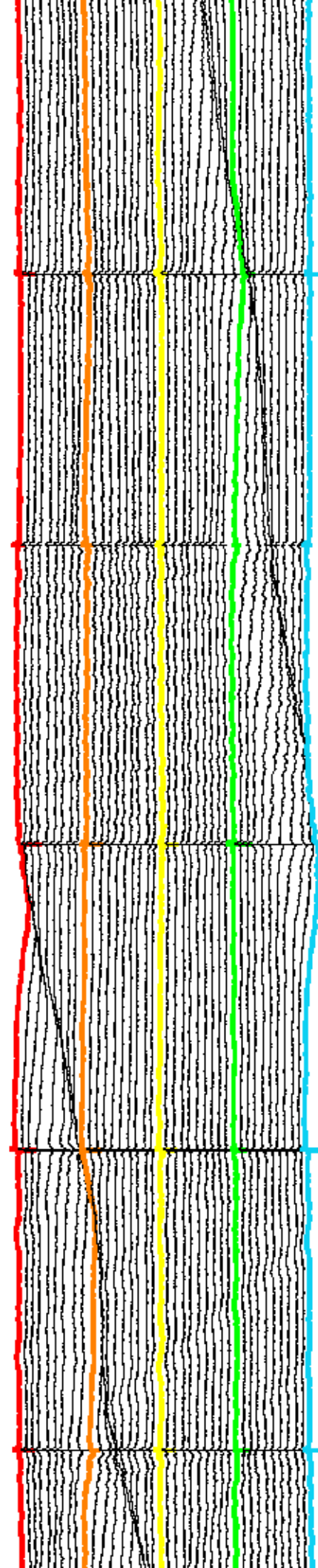
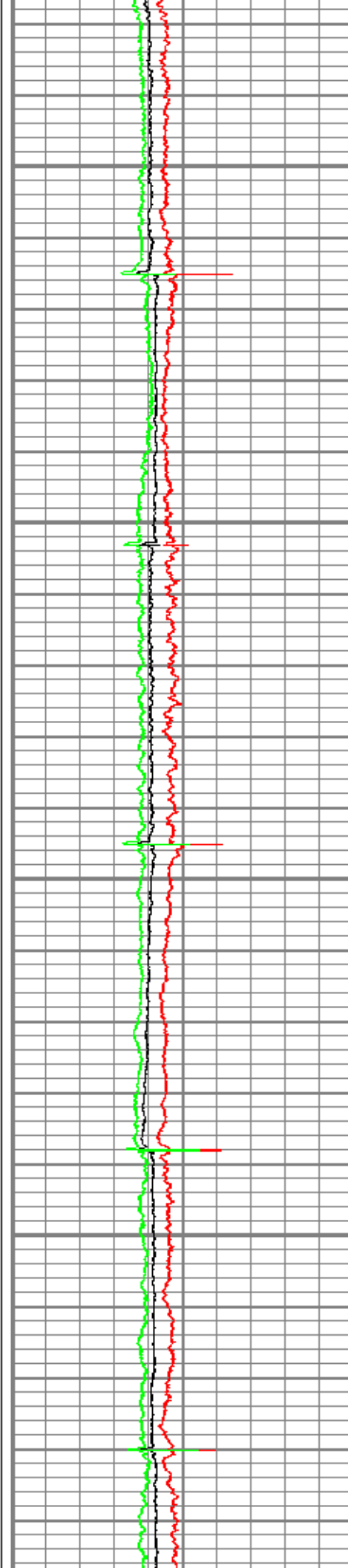
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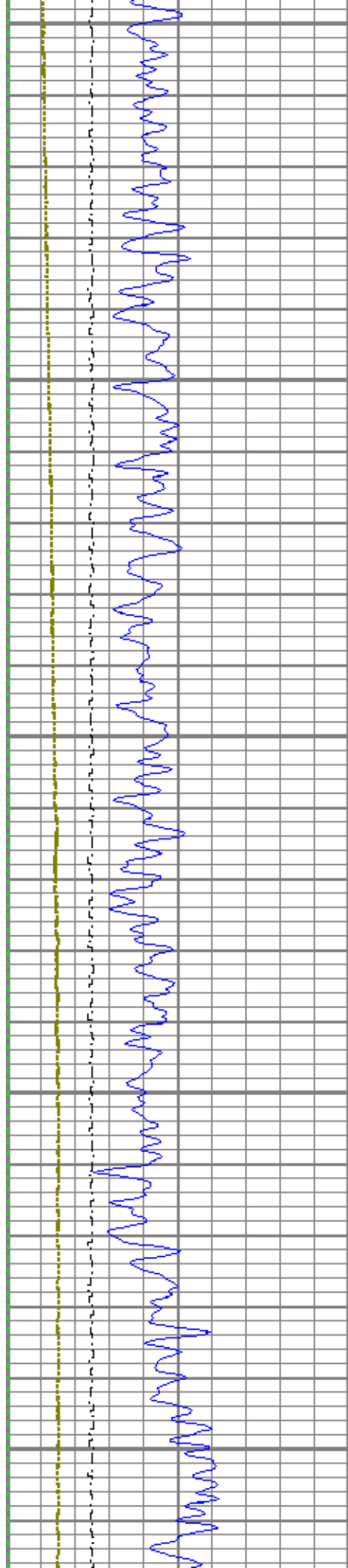


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500



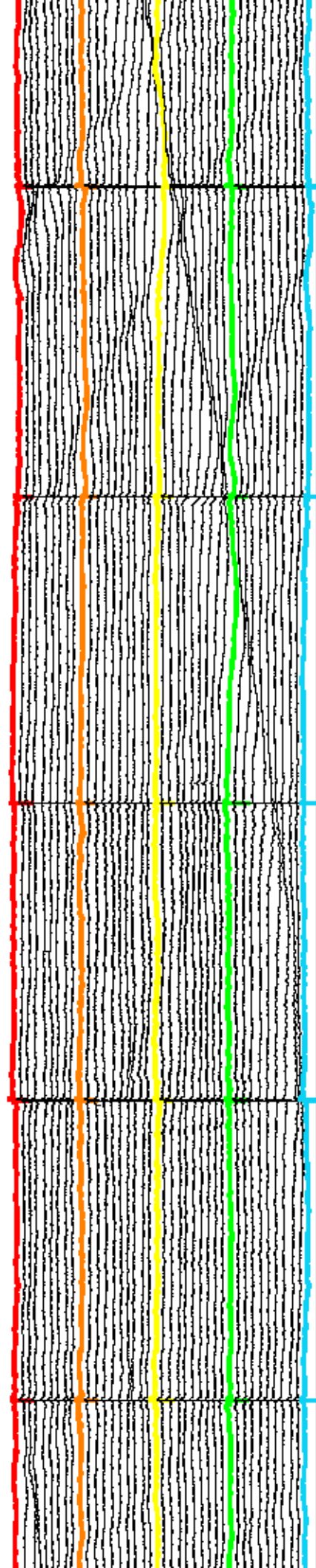
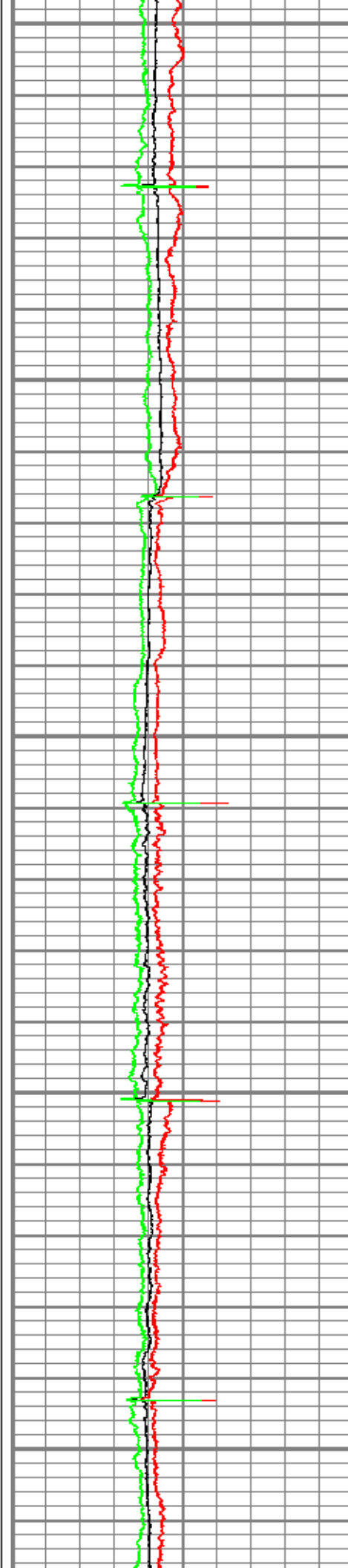


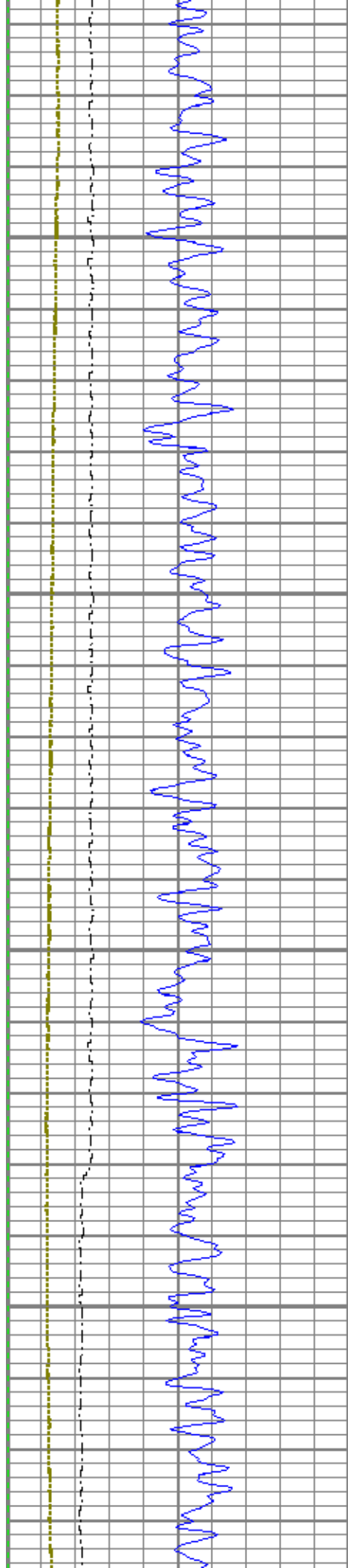


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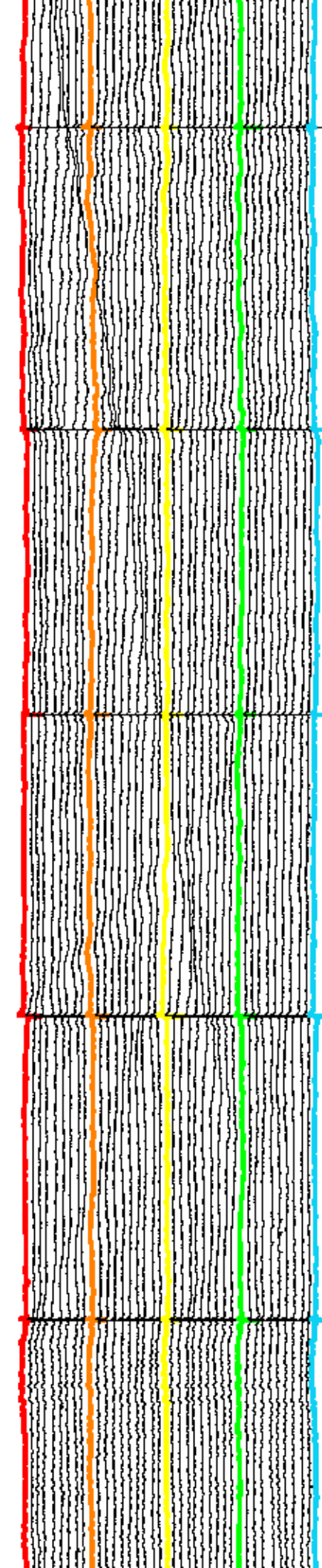
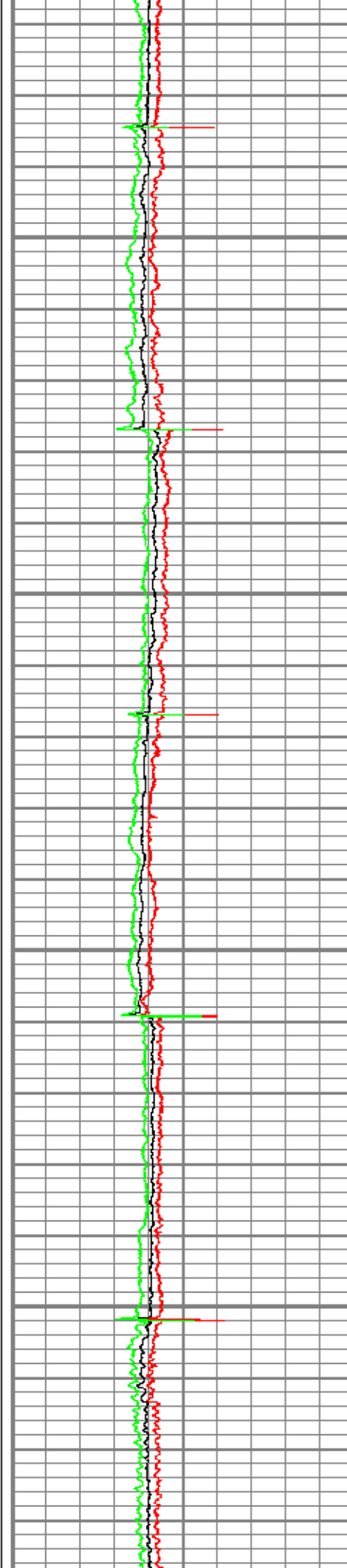
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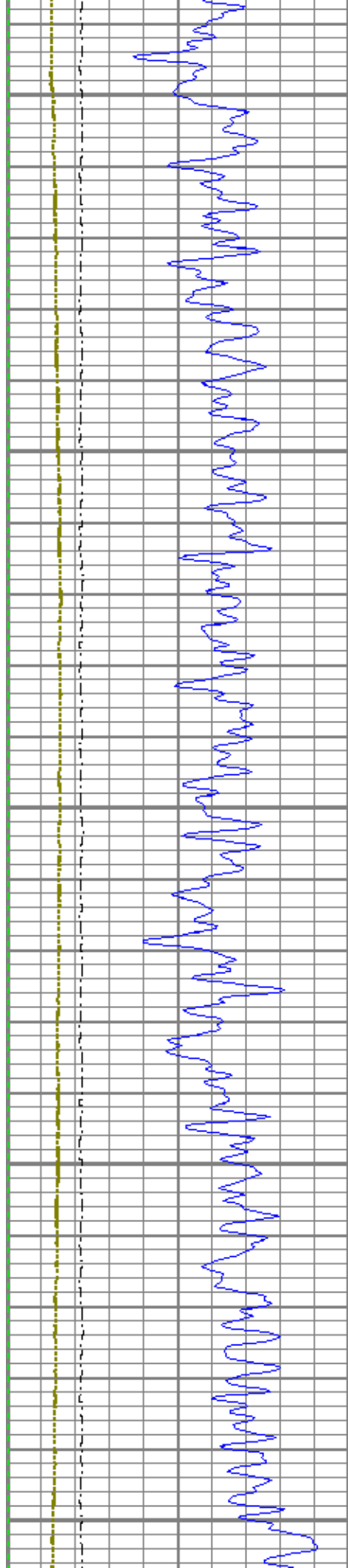




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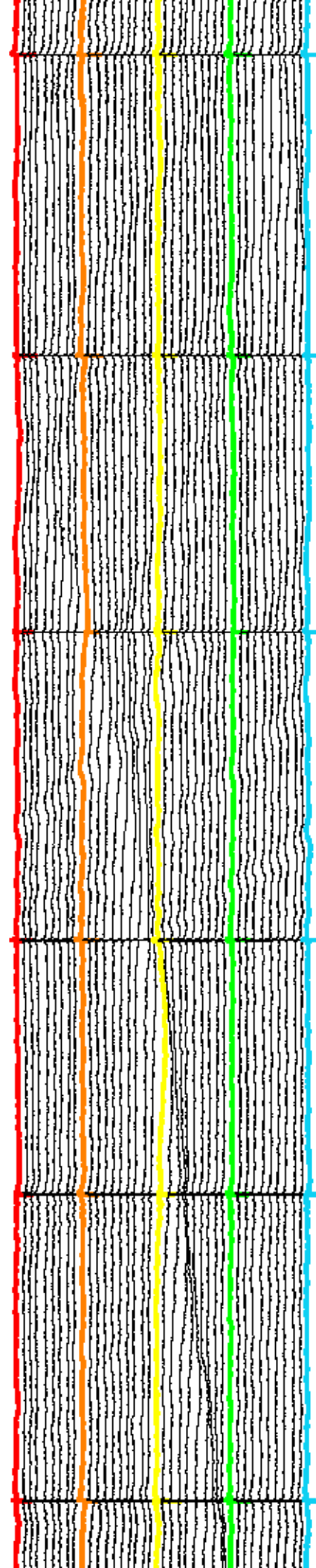
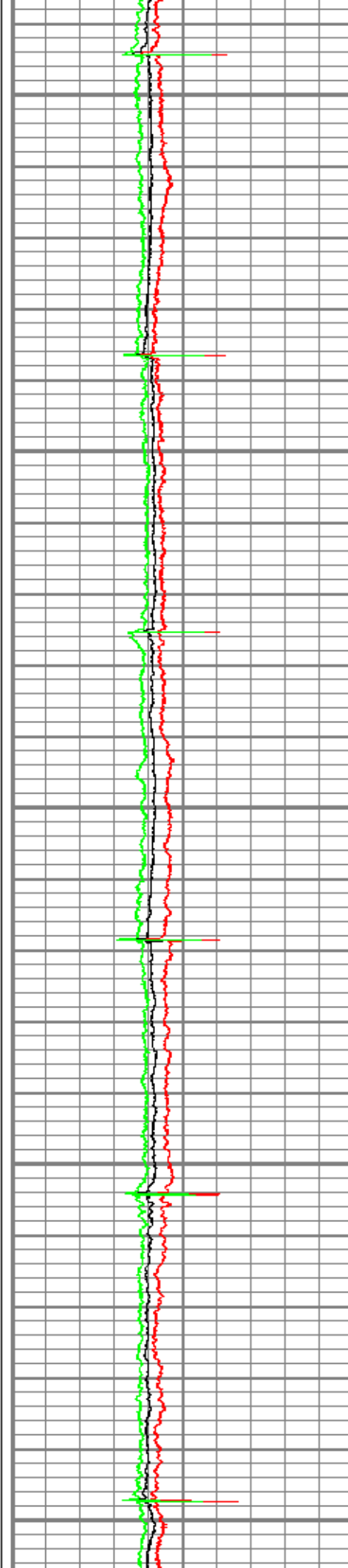
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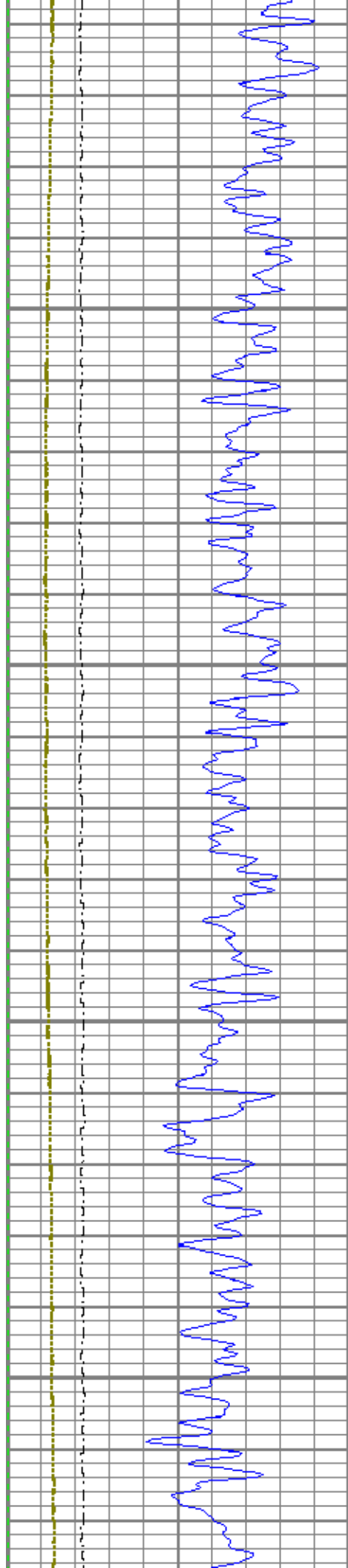


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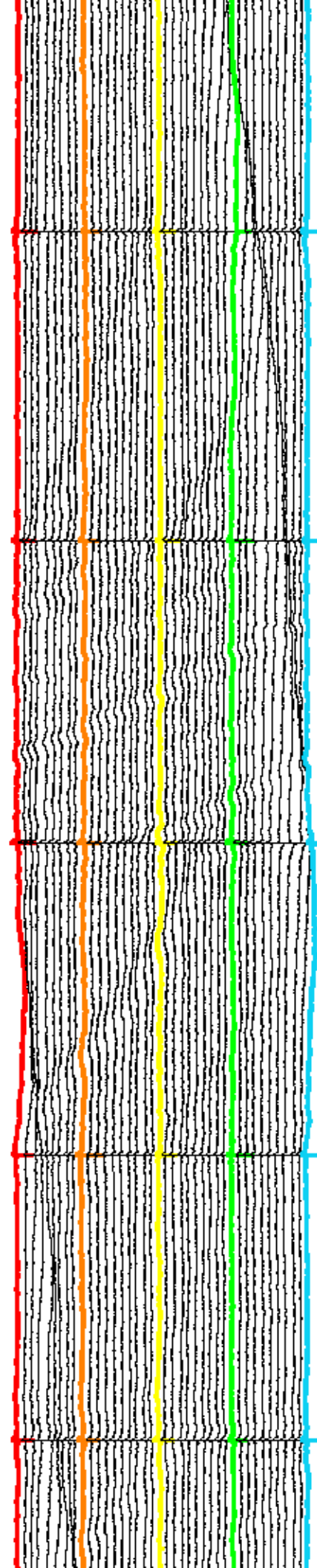
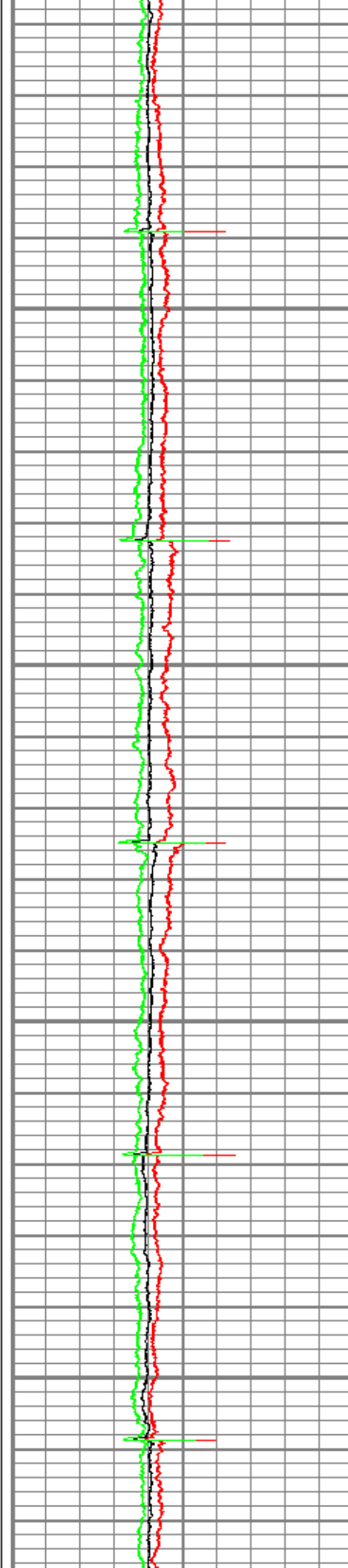


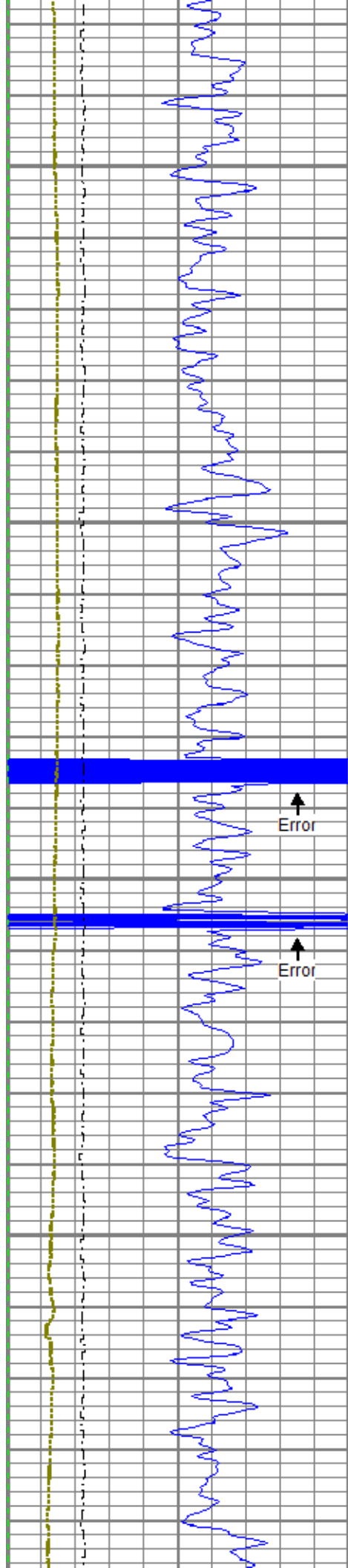




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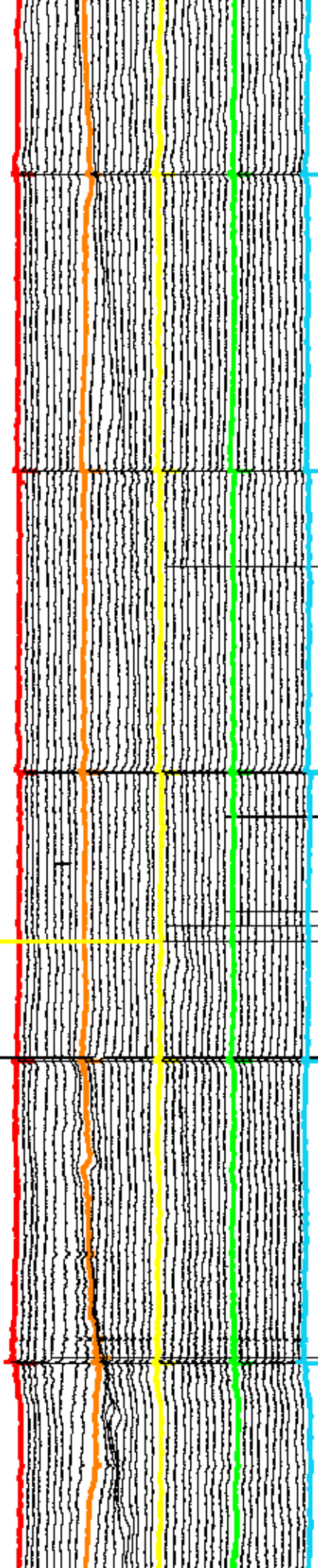
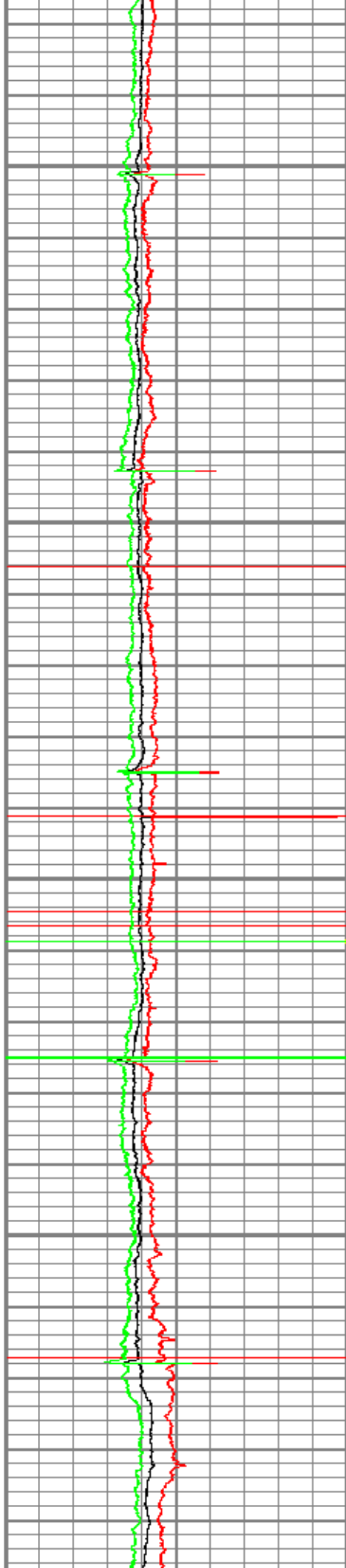
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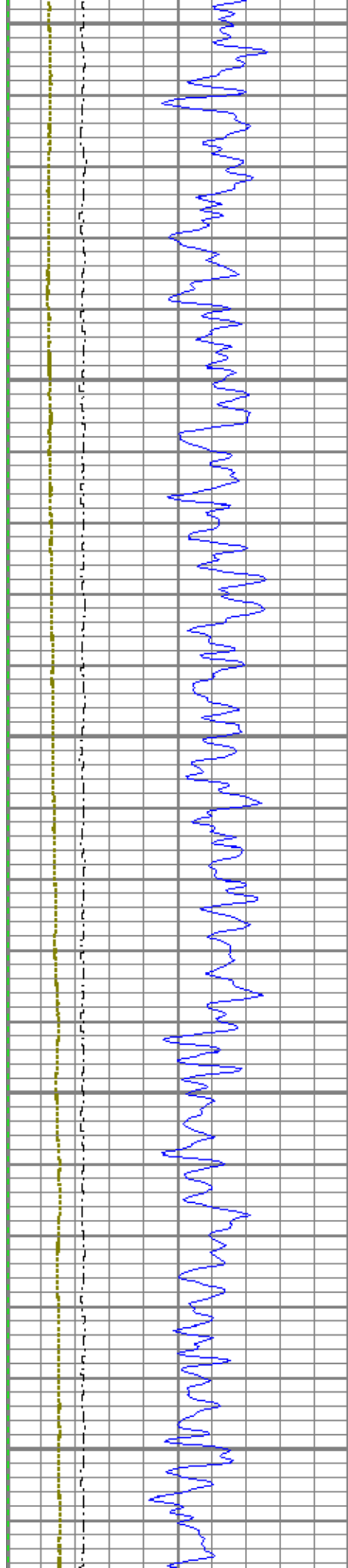




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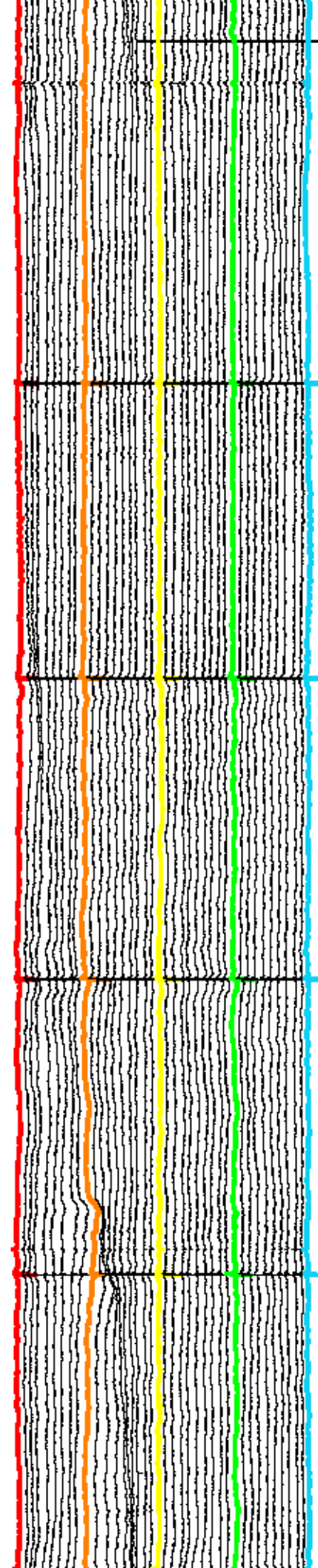
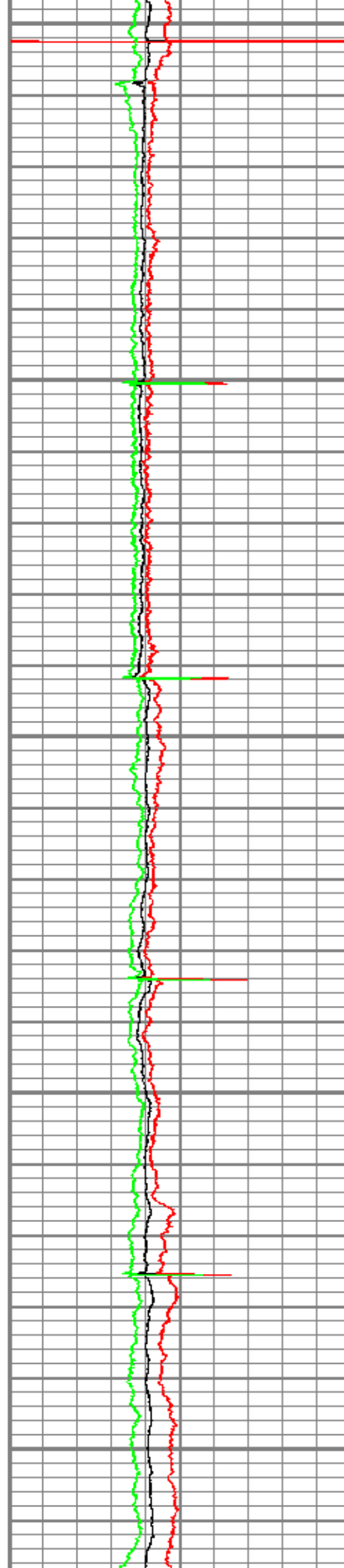


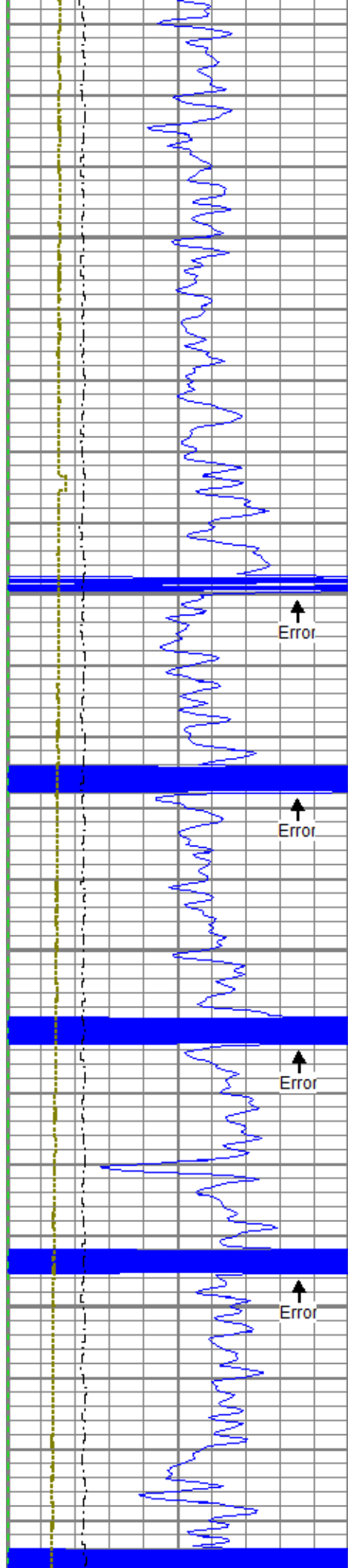


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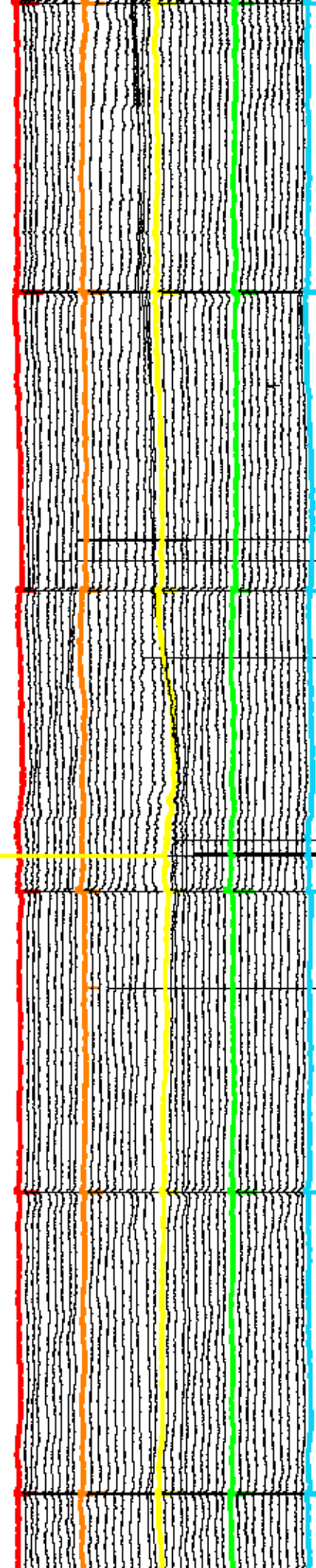
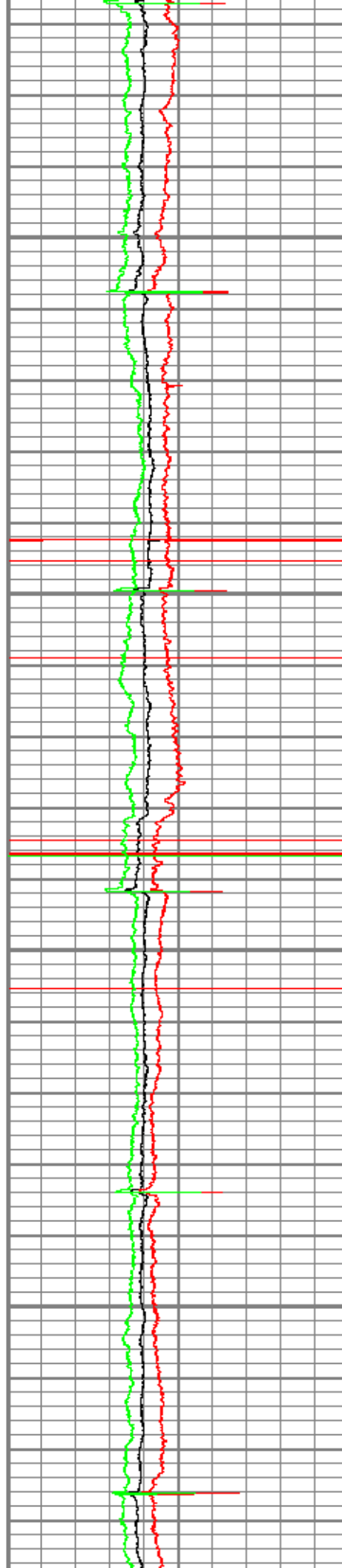
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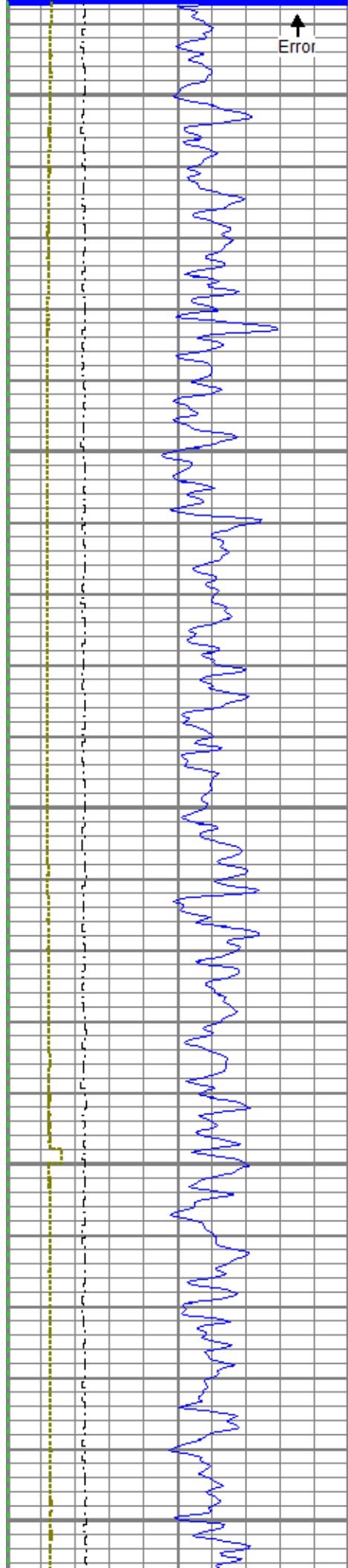


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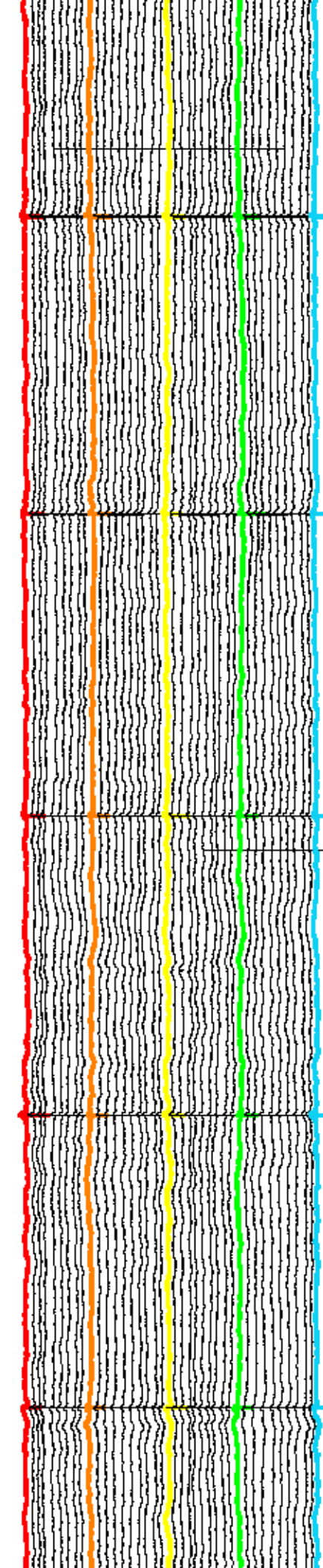
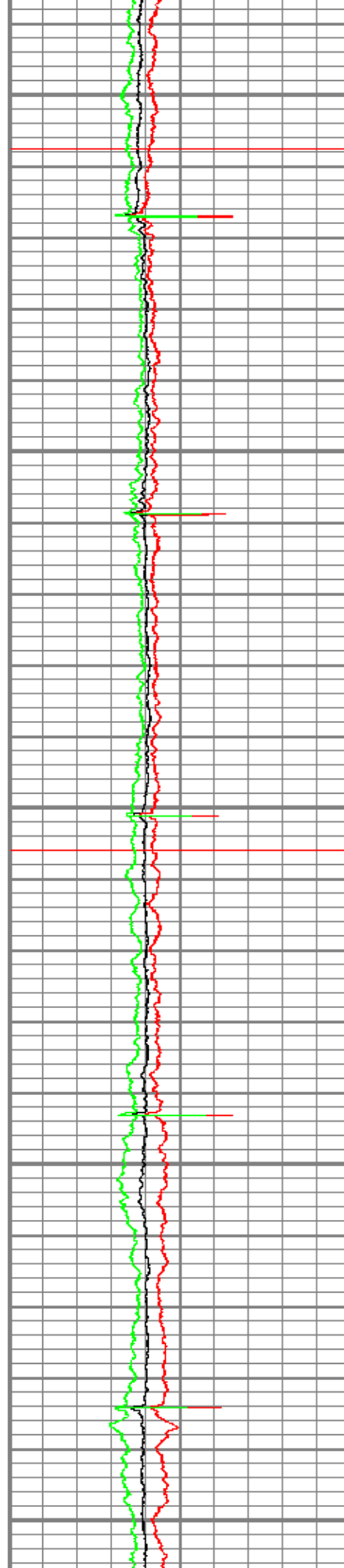


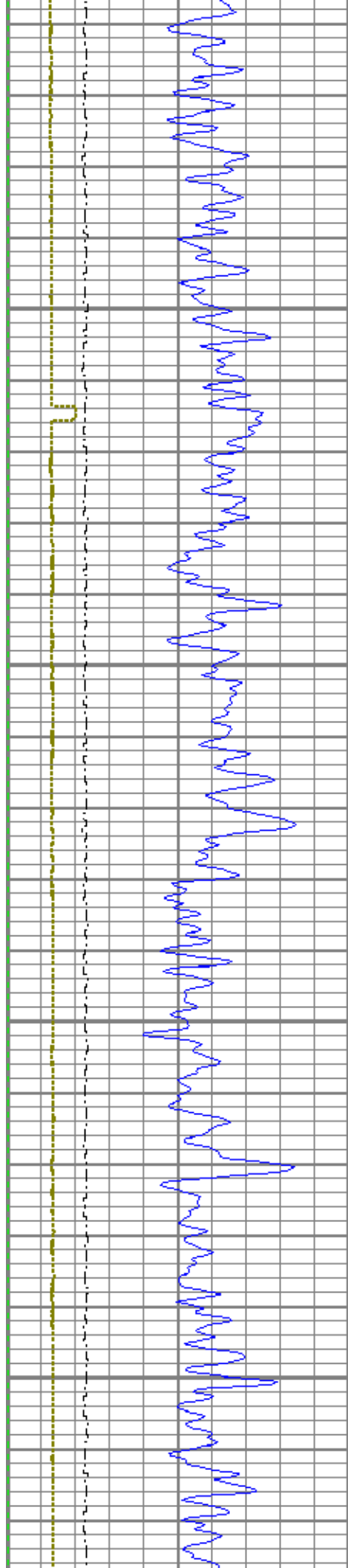




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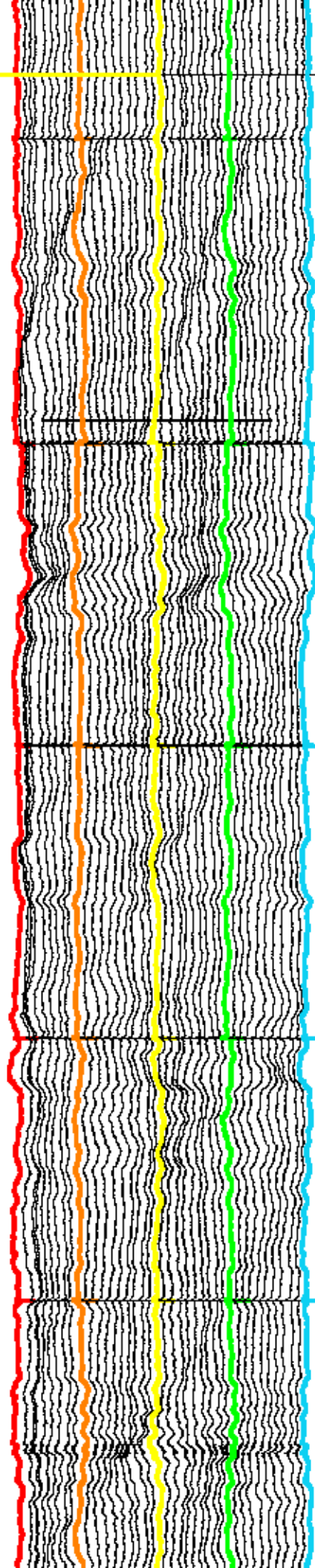
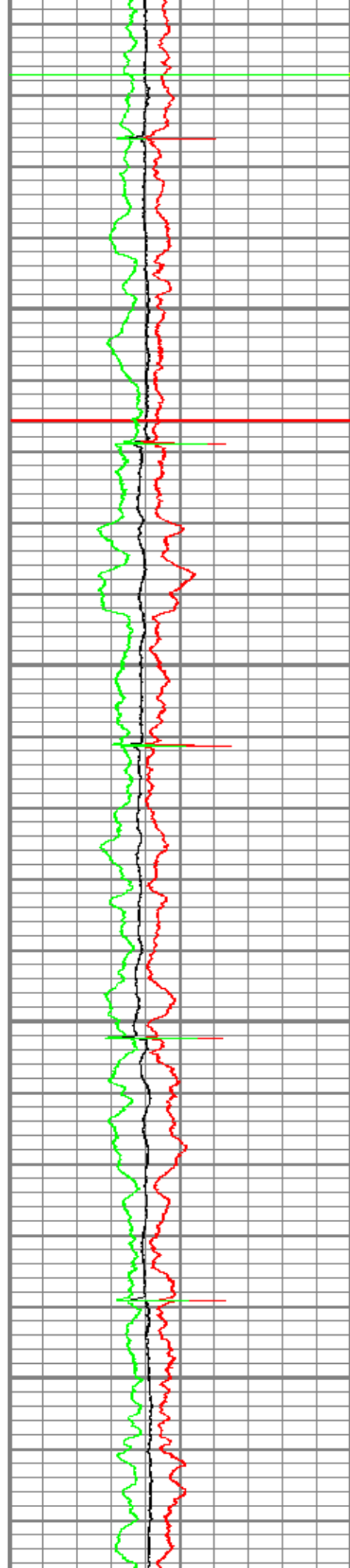
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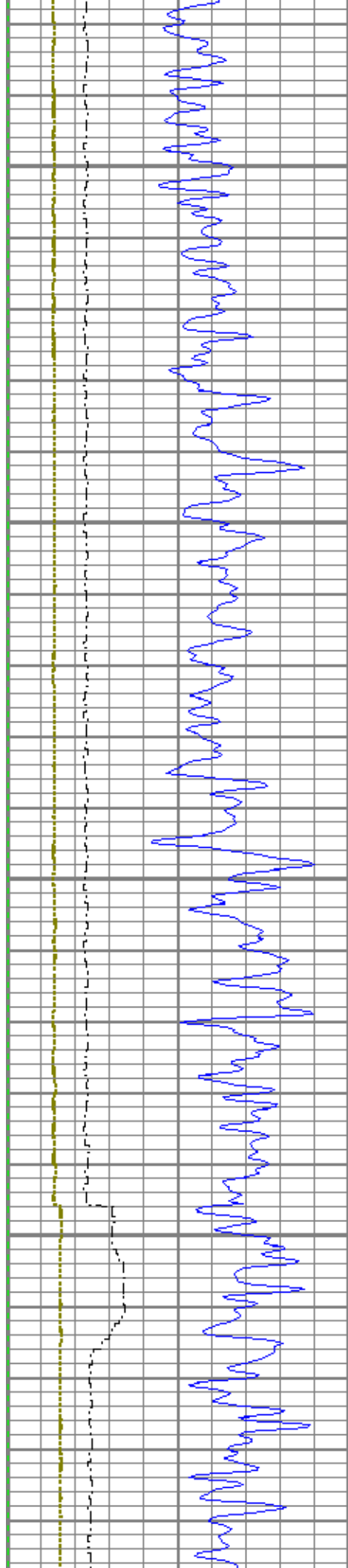




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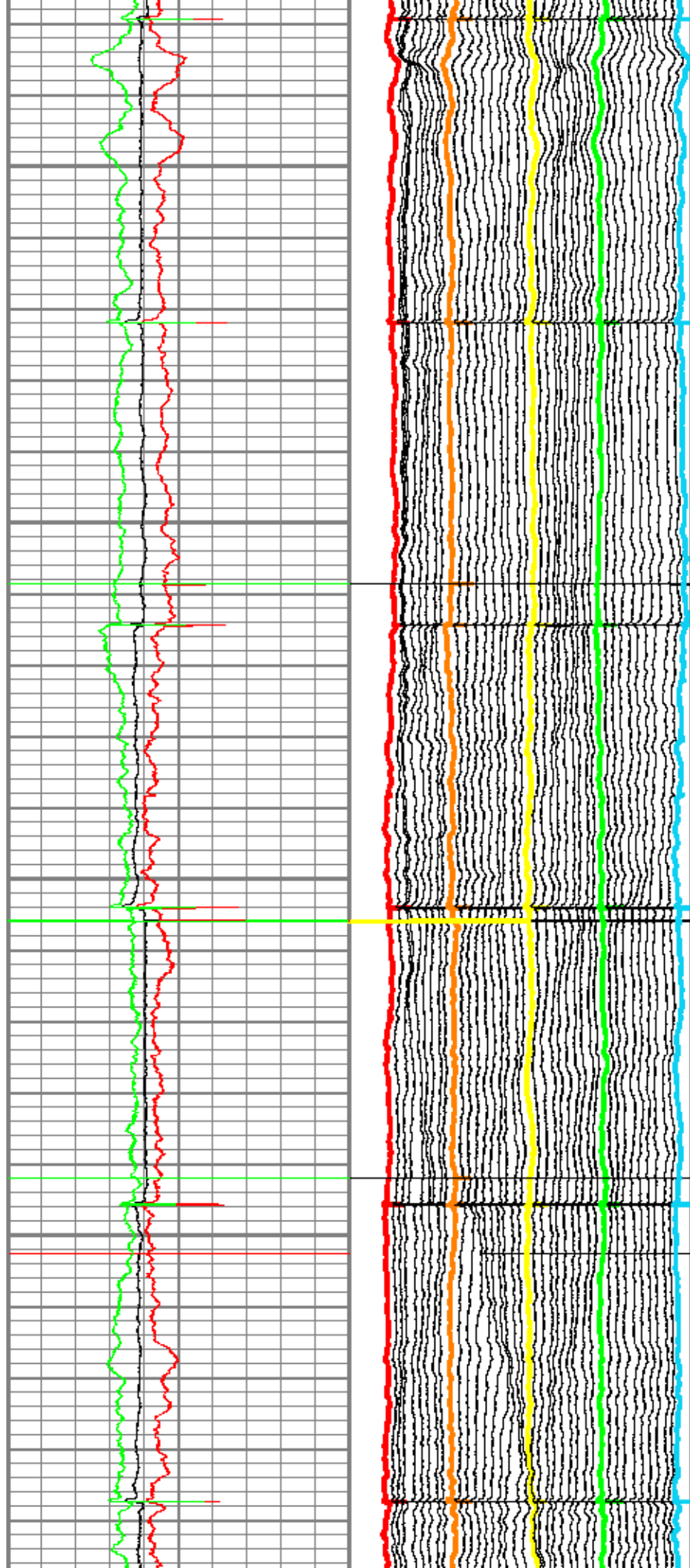
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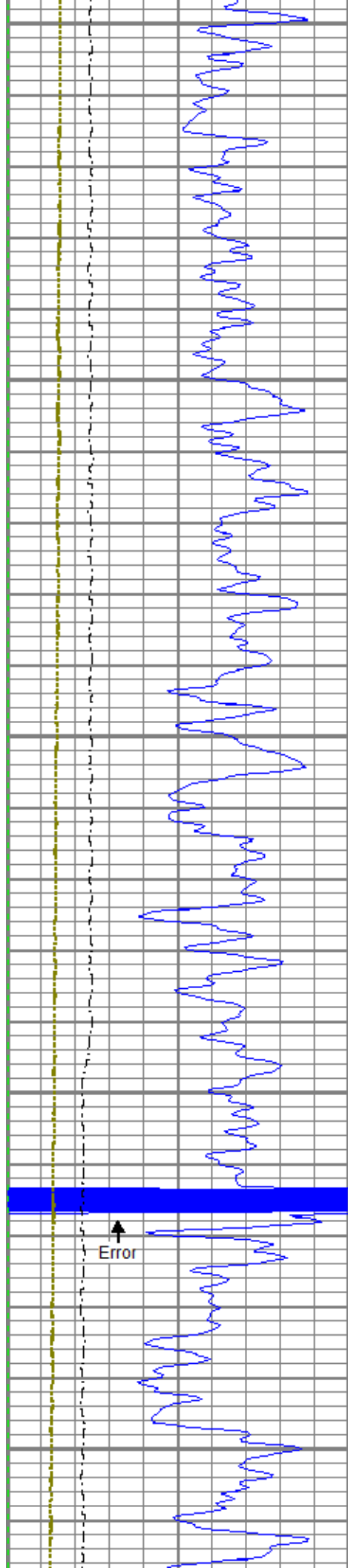




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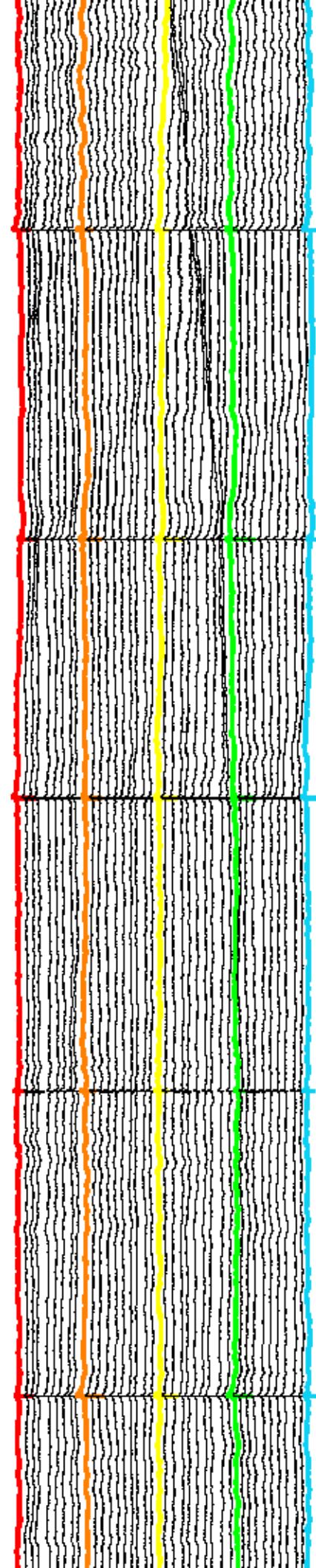
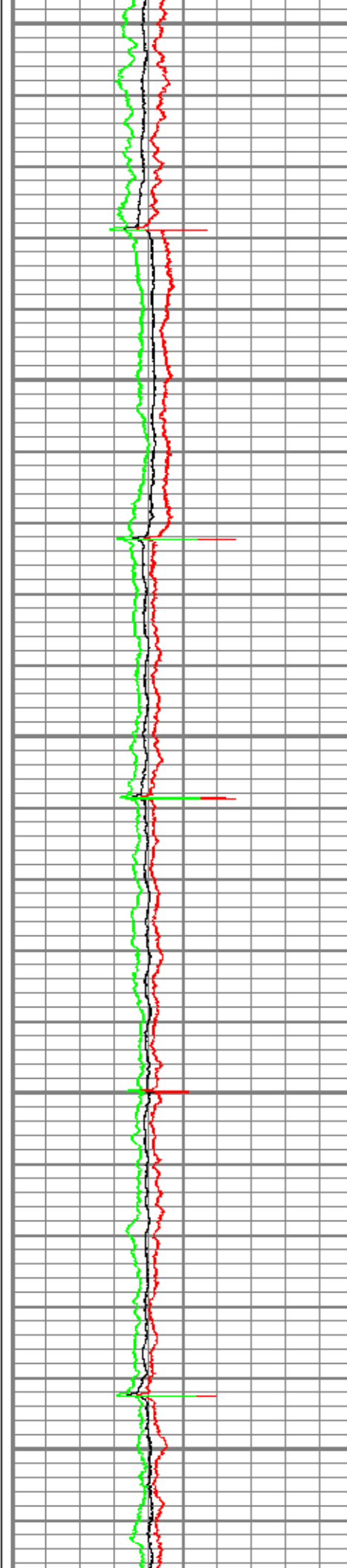




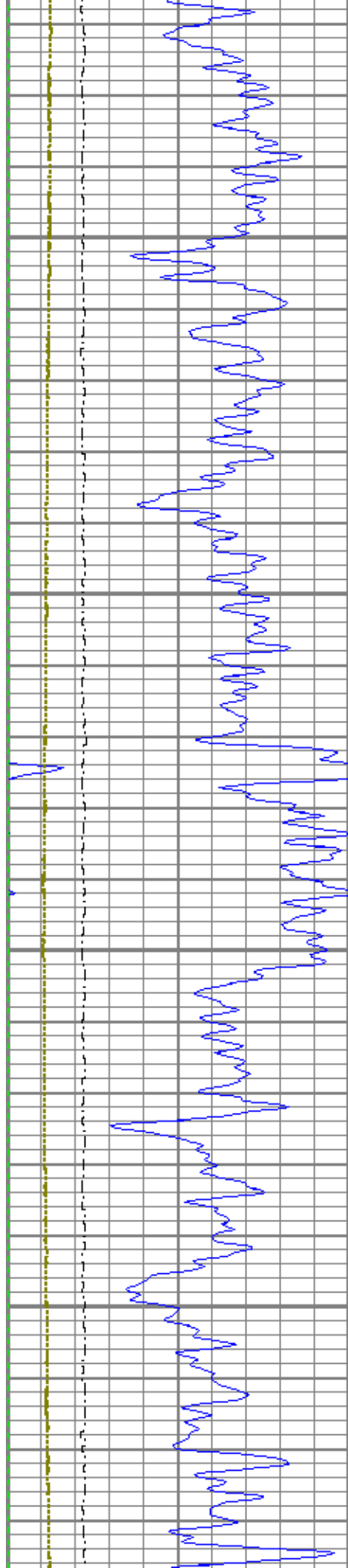
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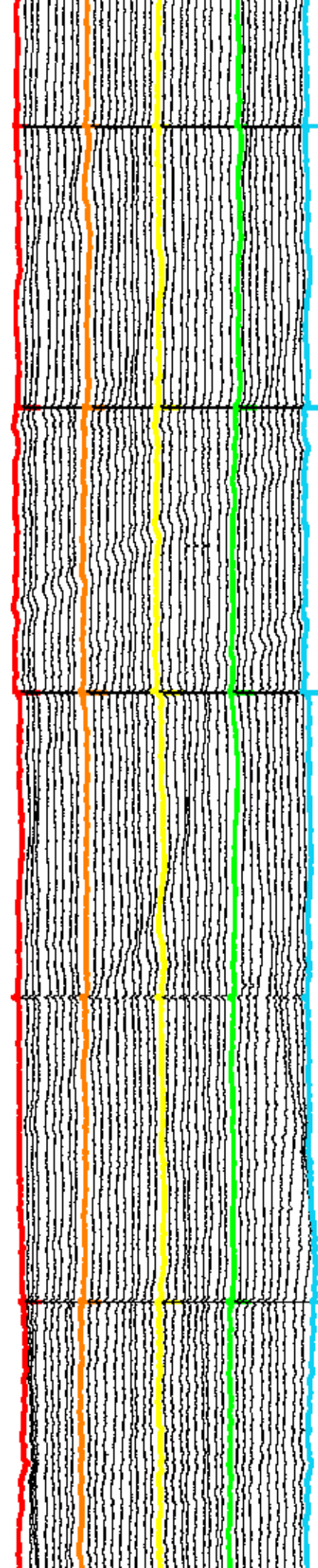
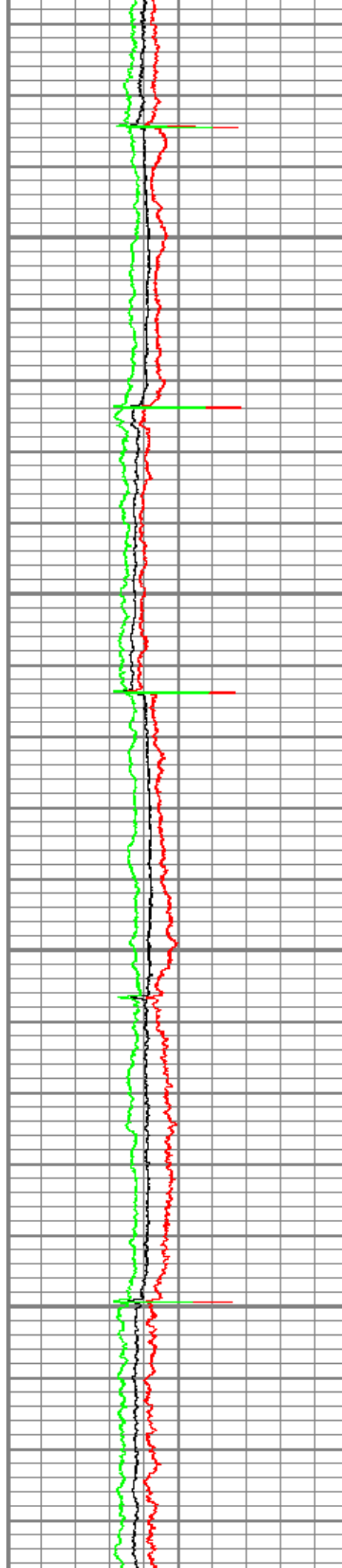


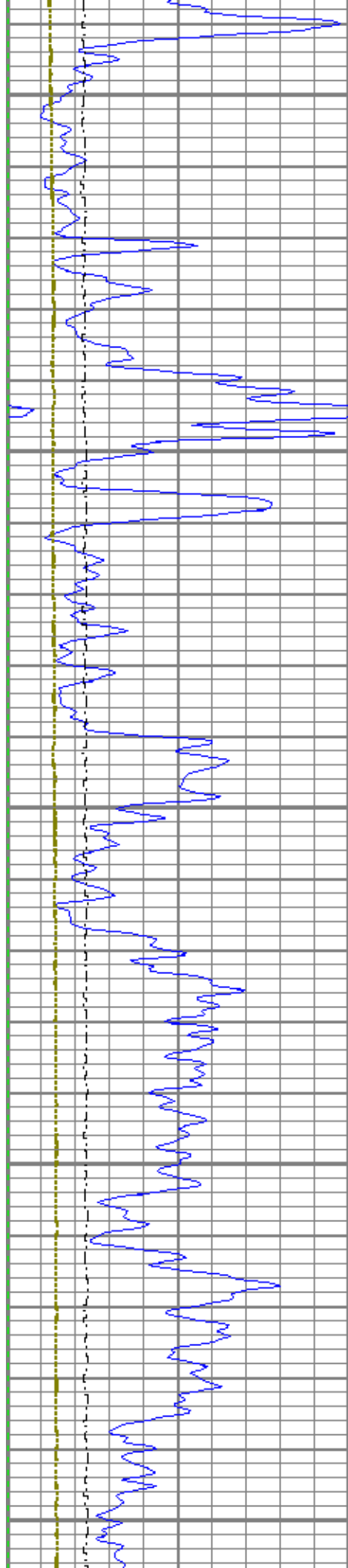




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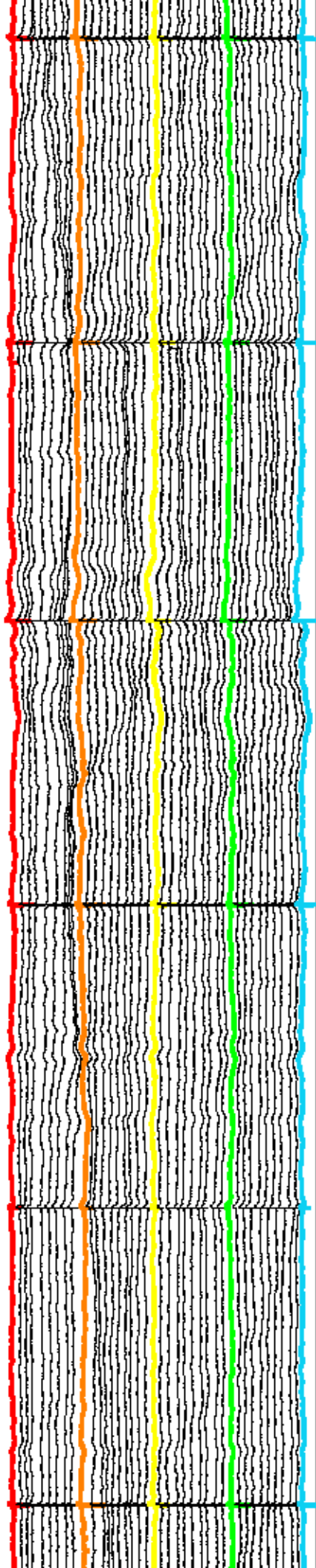
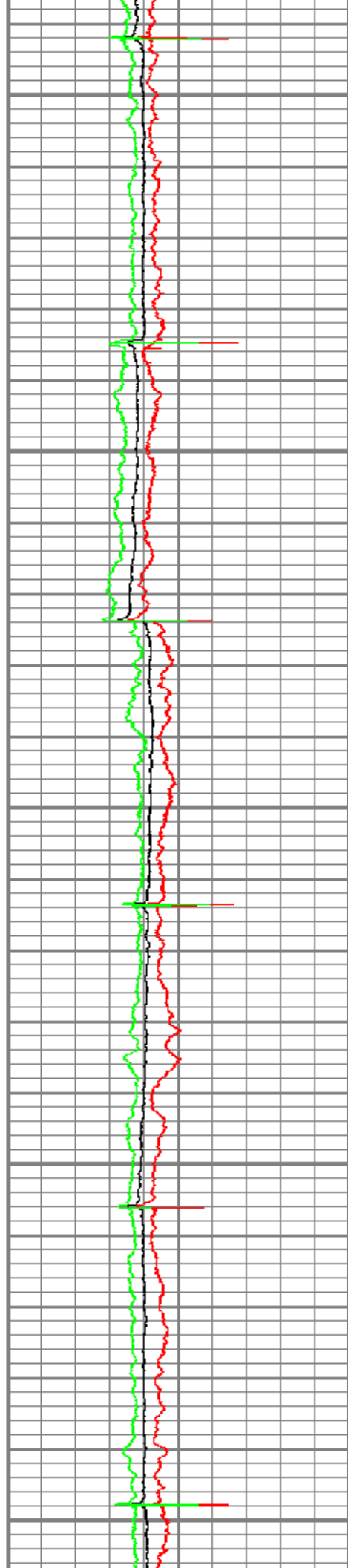
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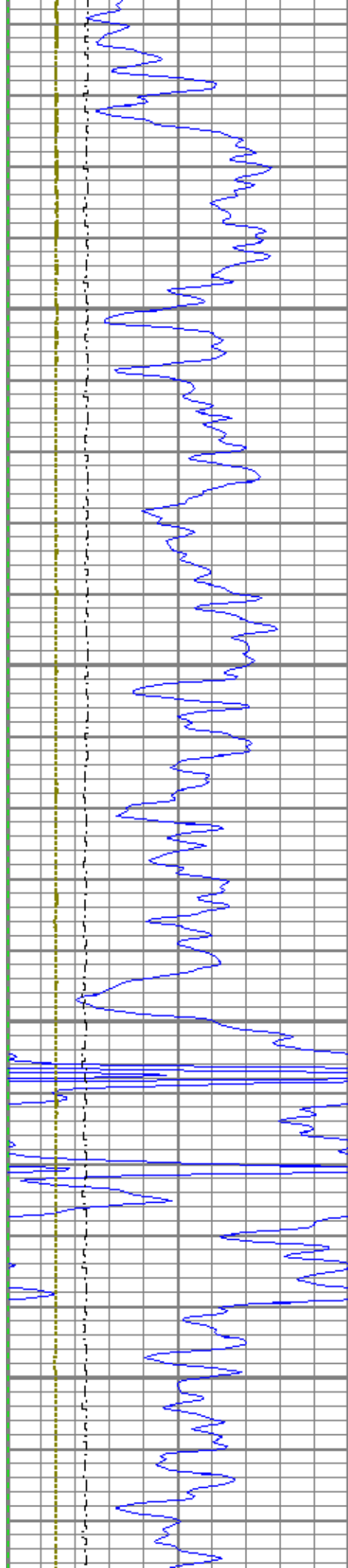




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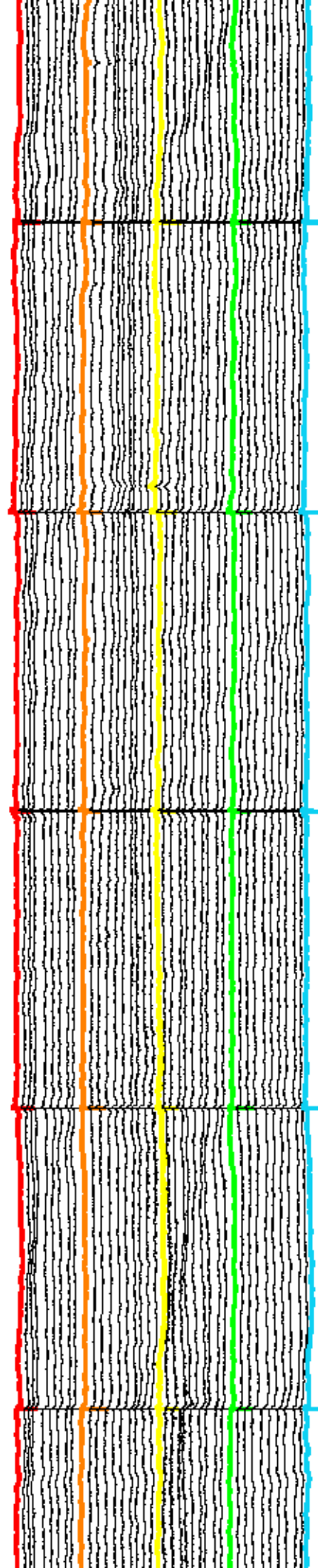
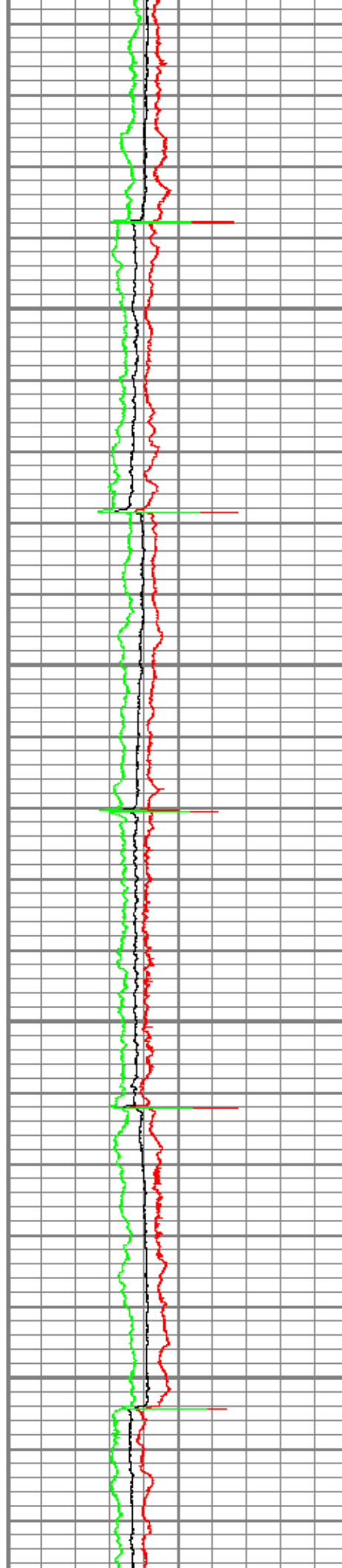
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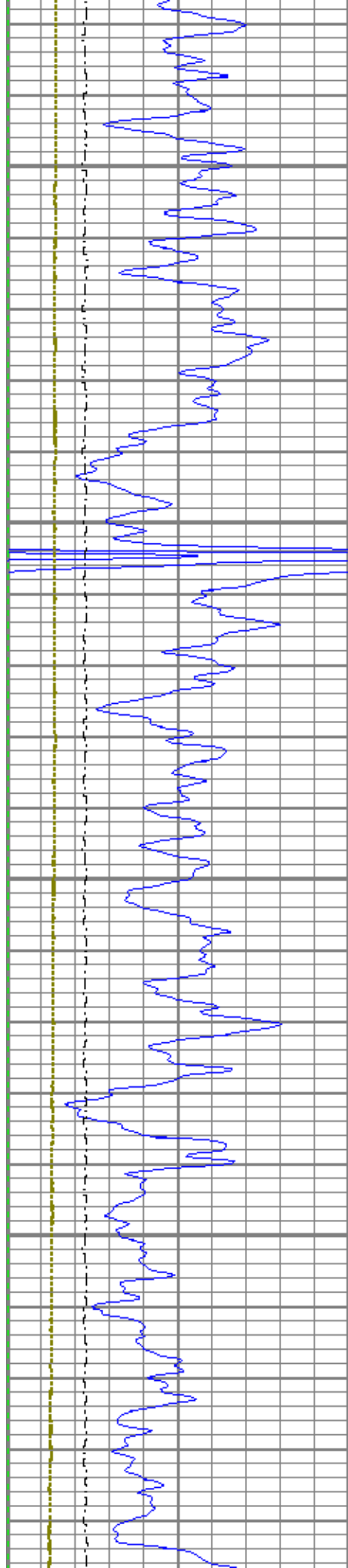




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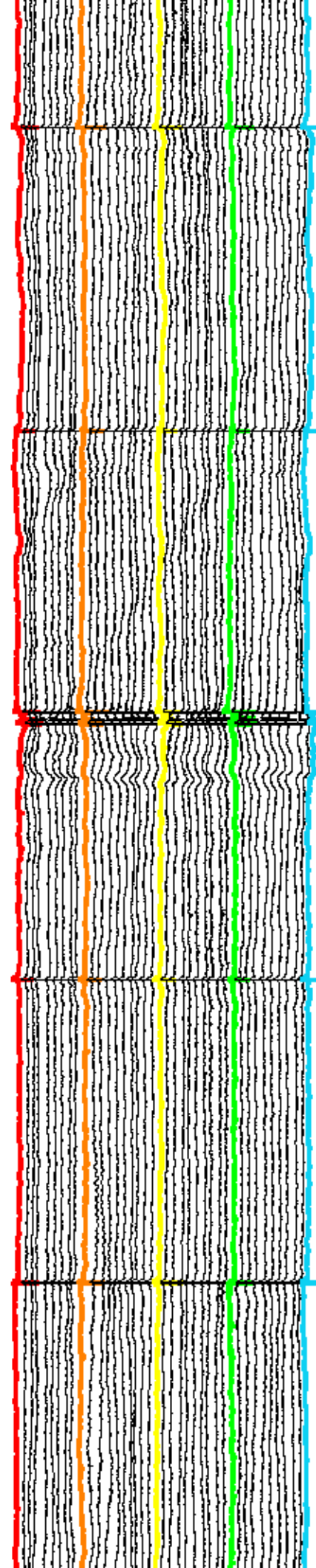
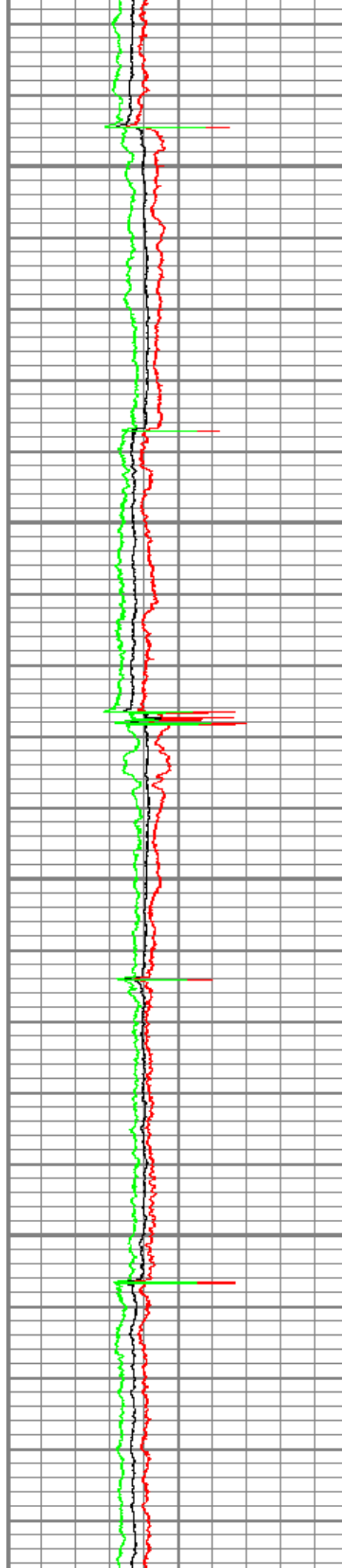
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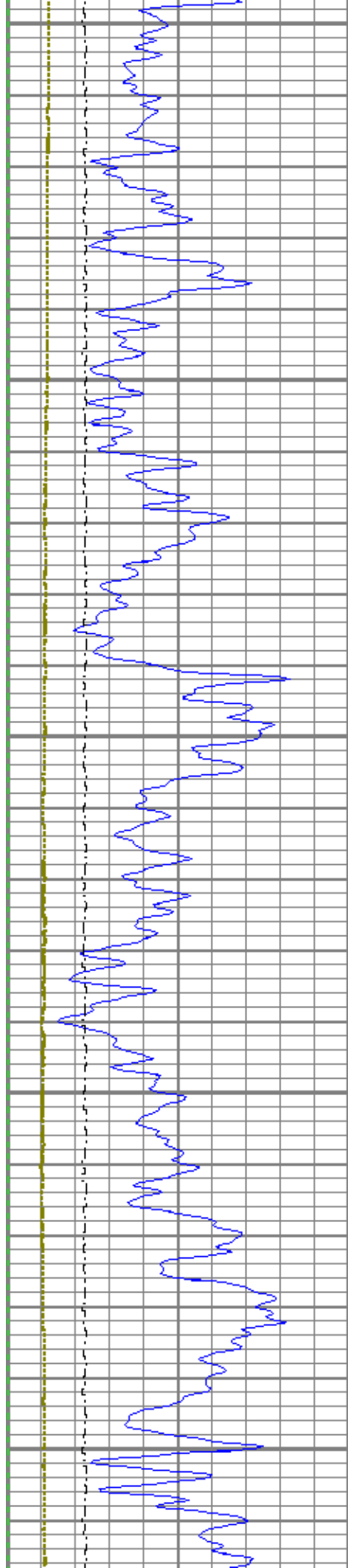


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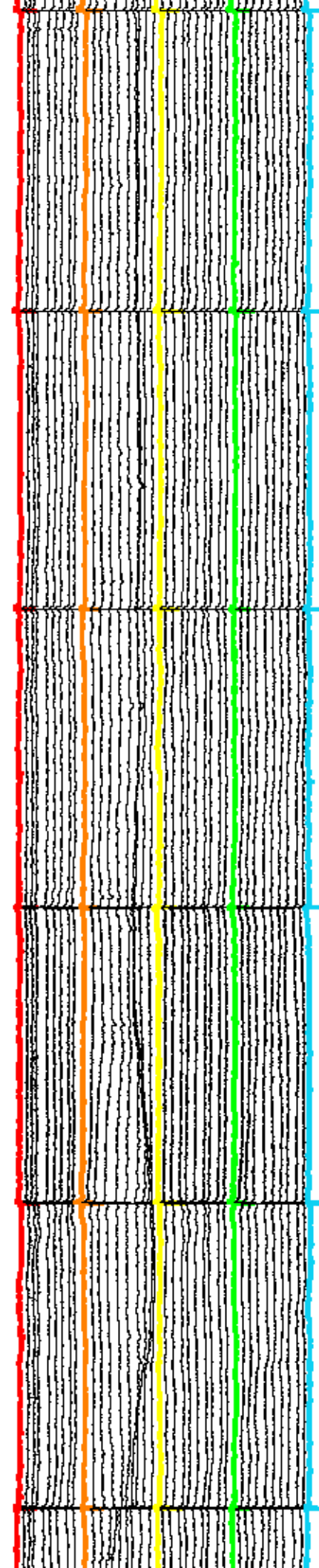
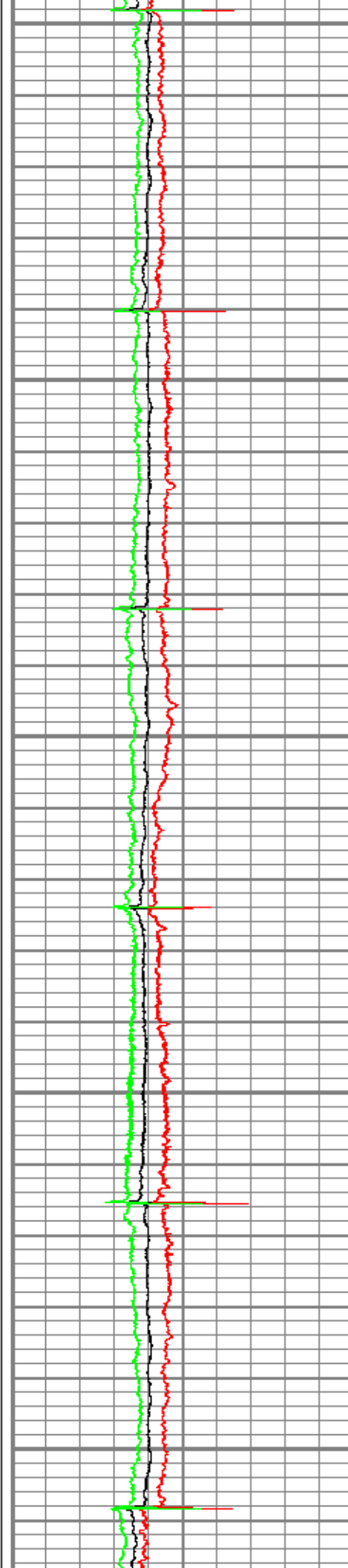


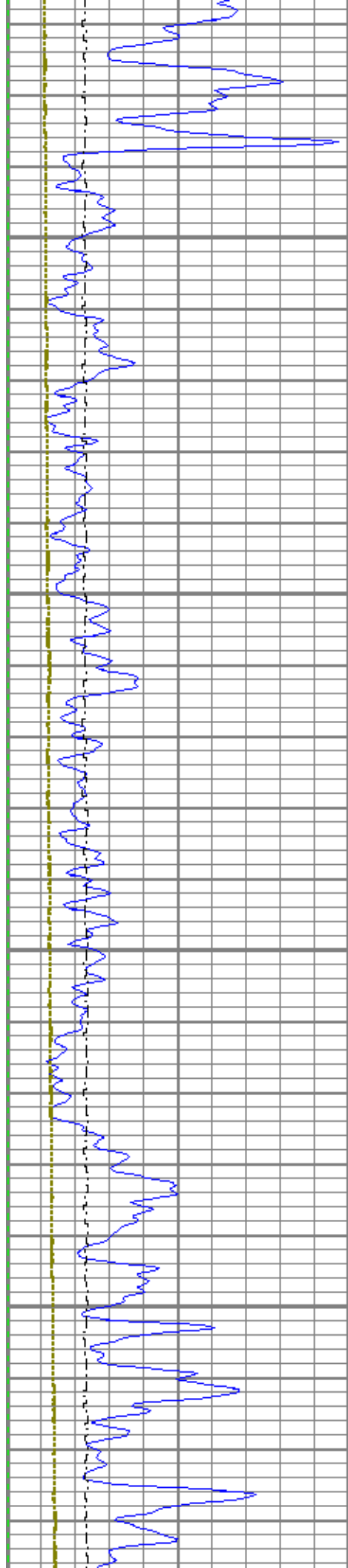


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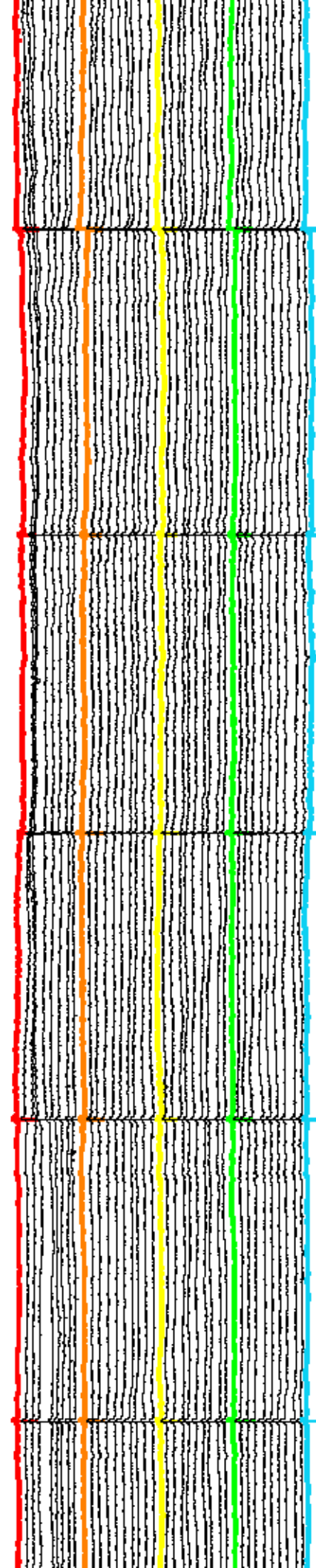
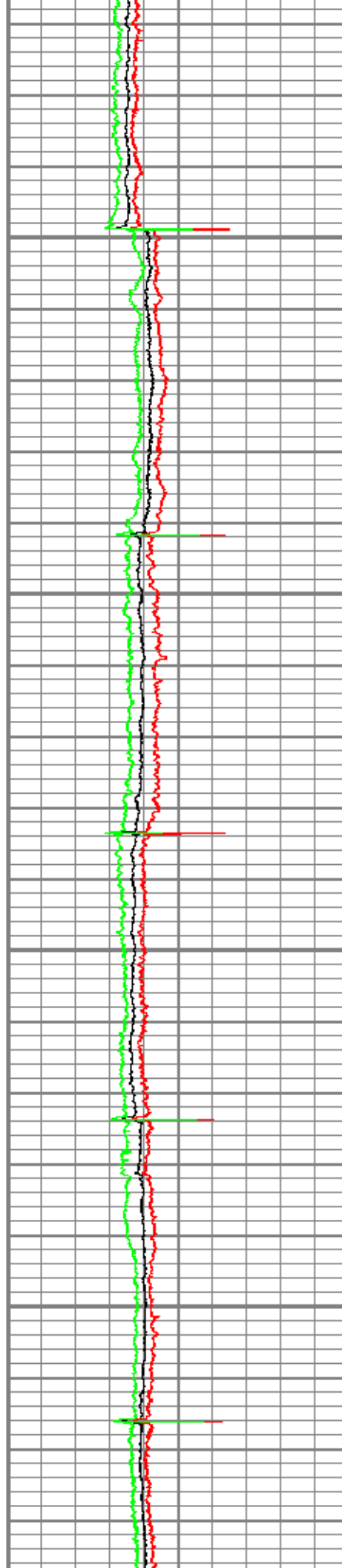
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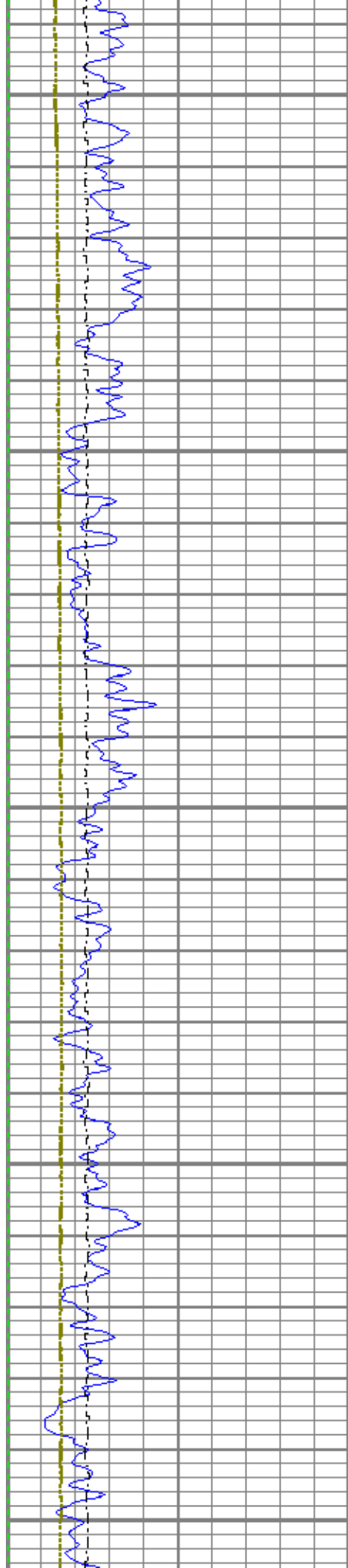




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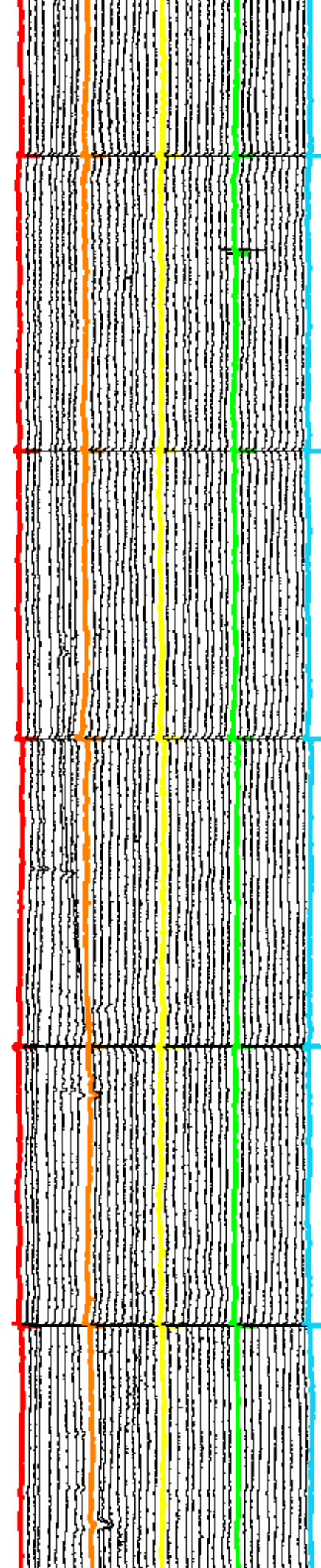
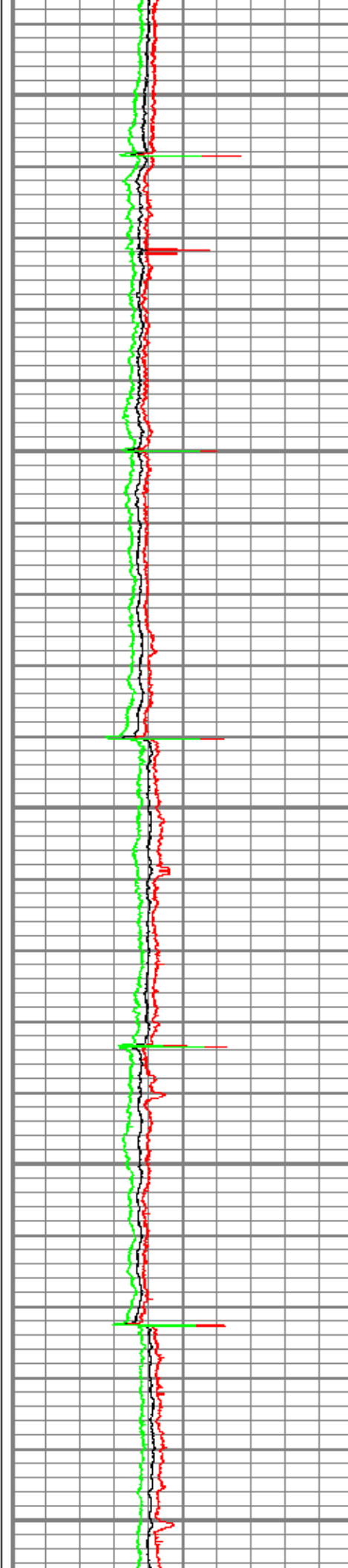
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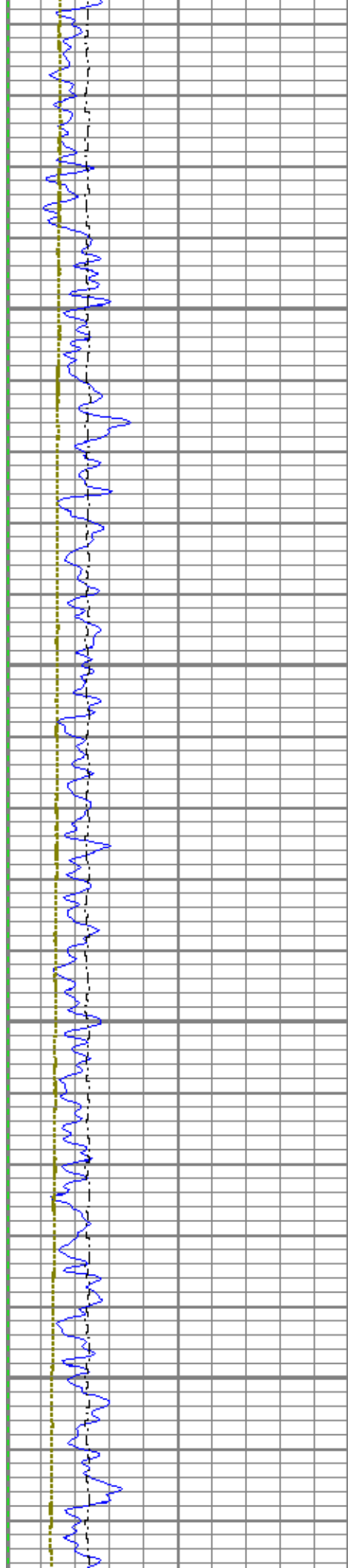




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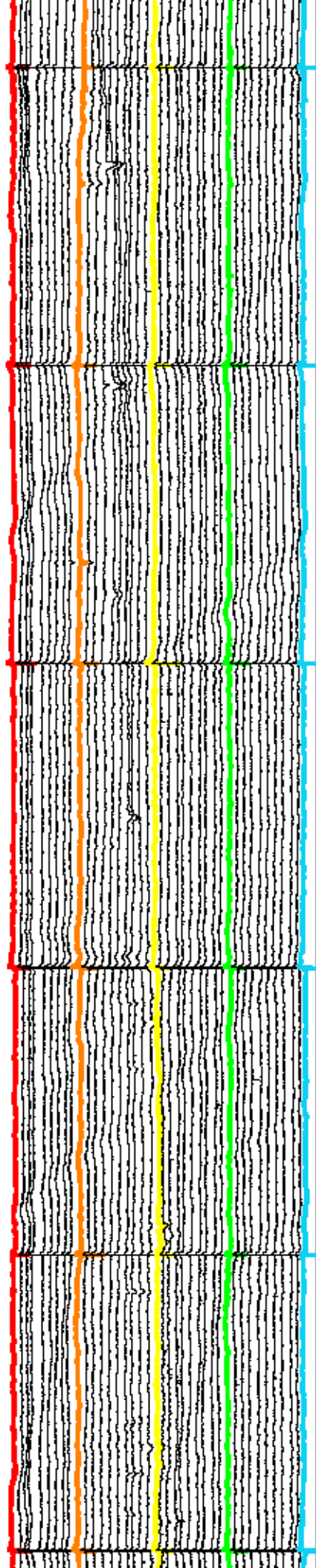
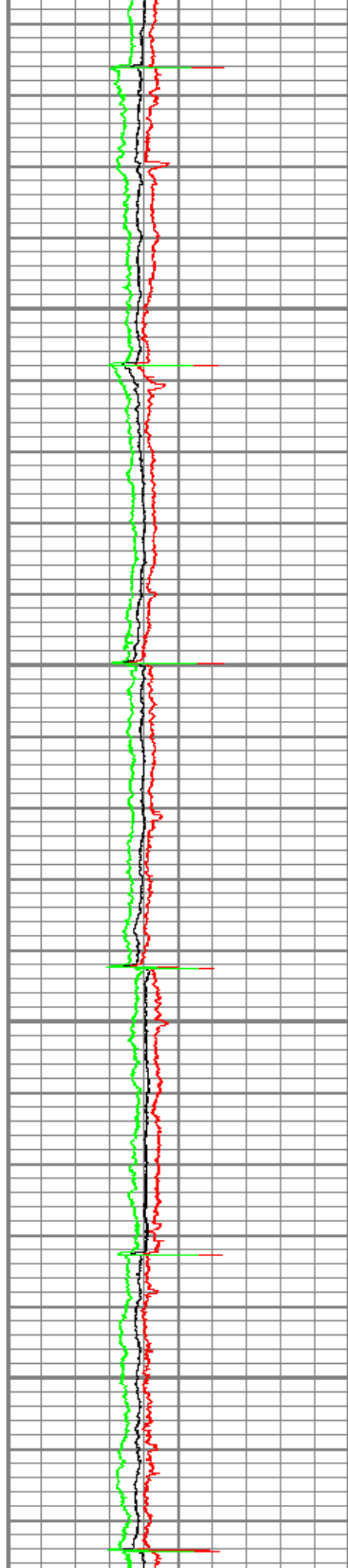
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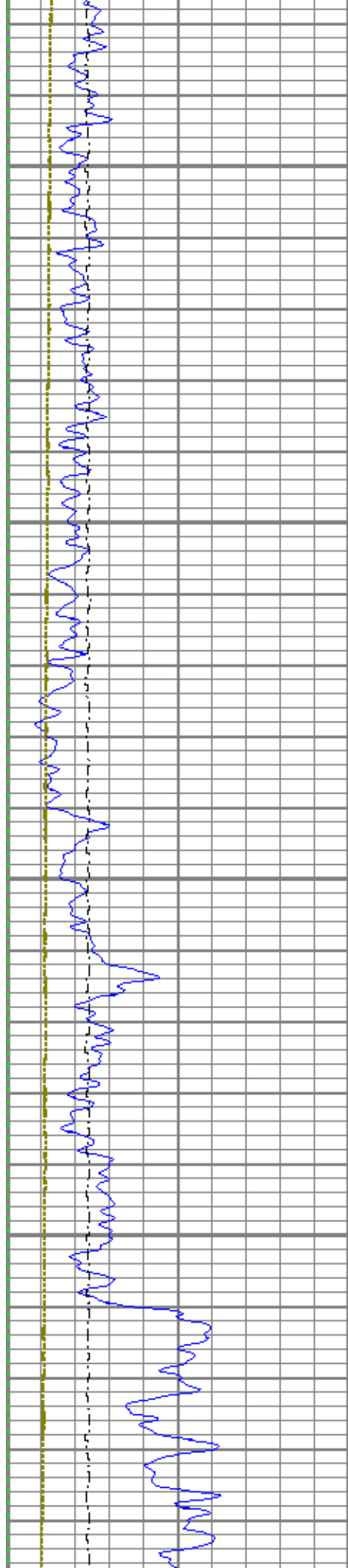


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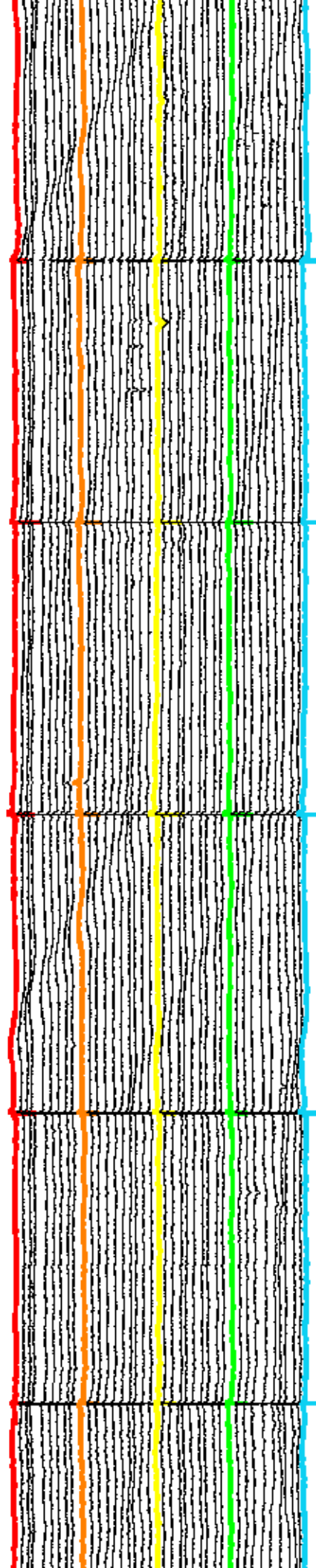
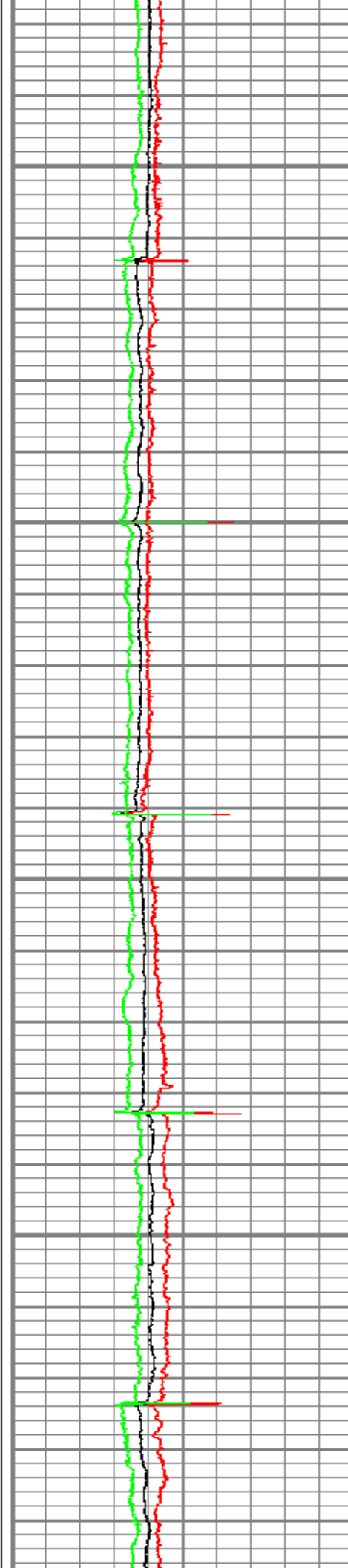


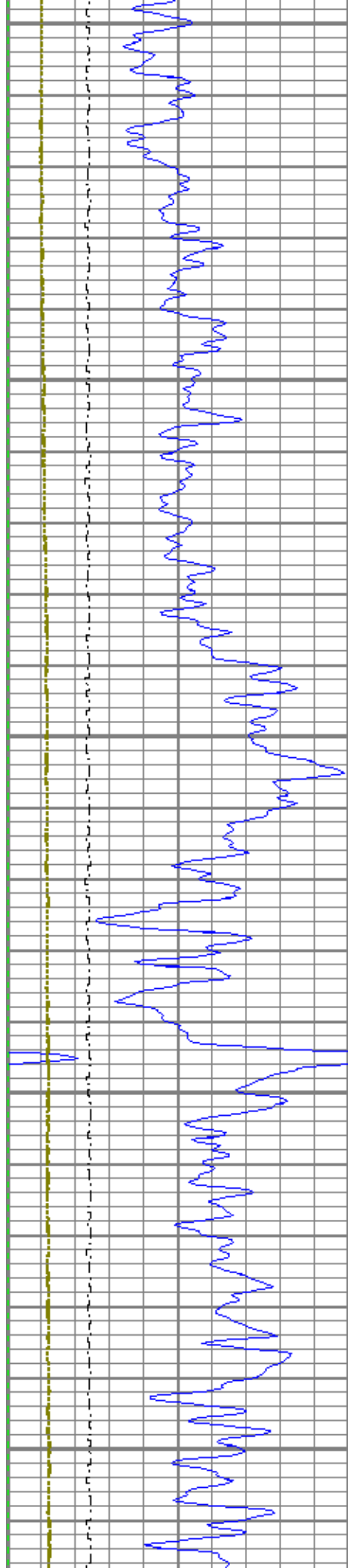




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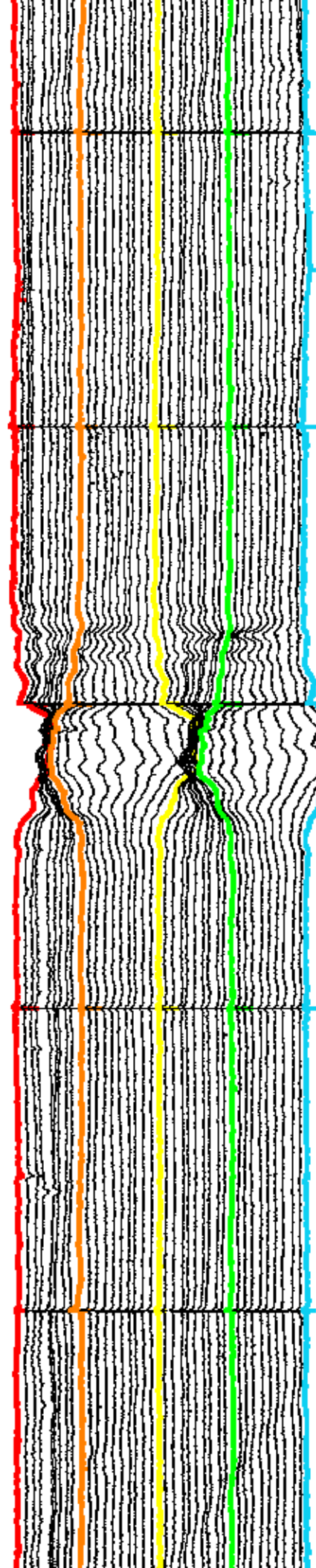
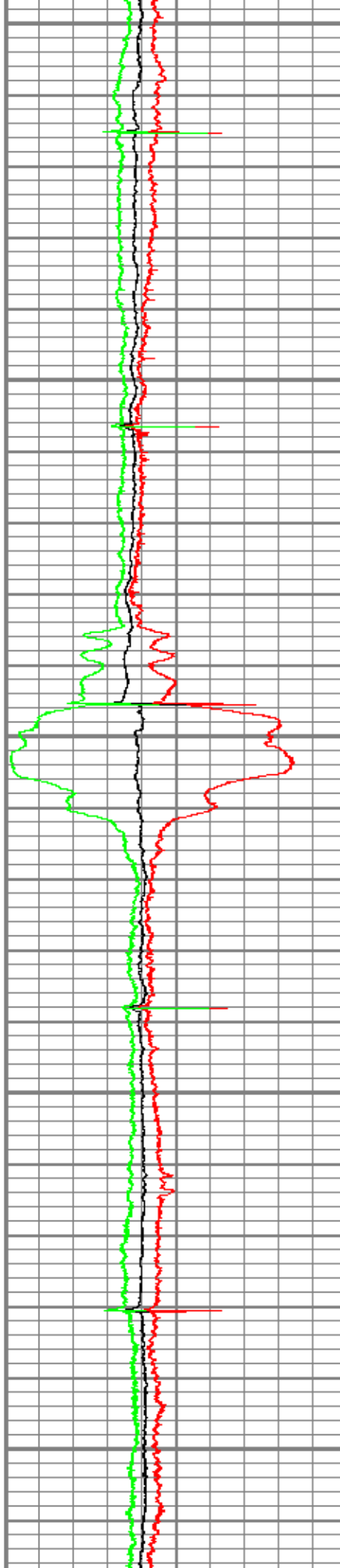


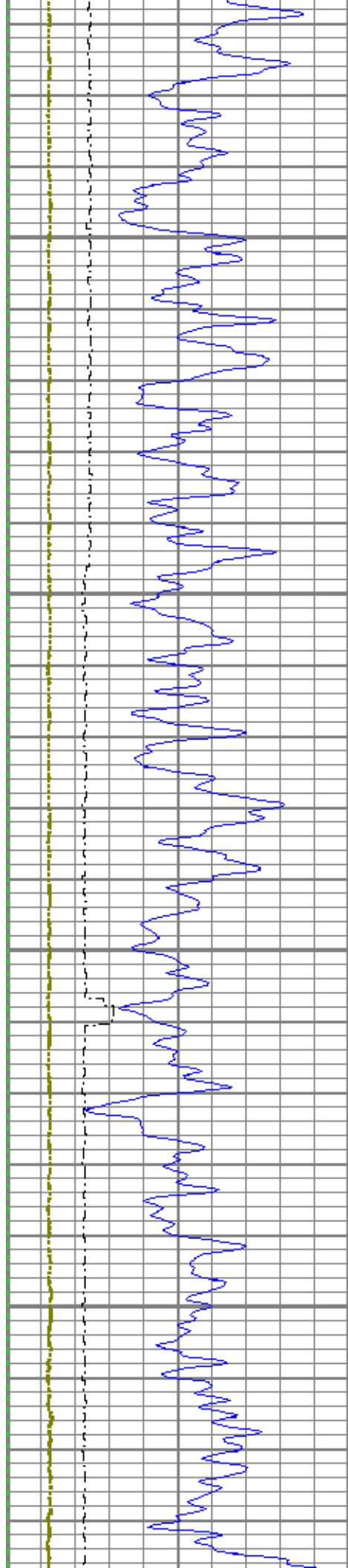


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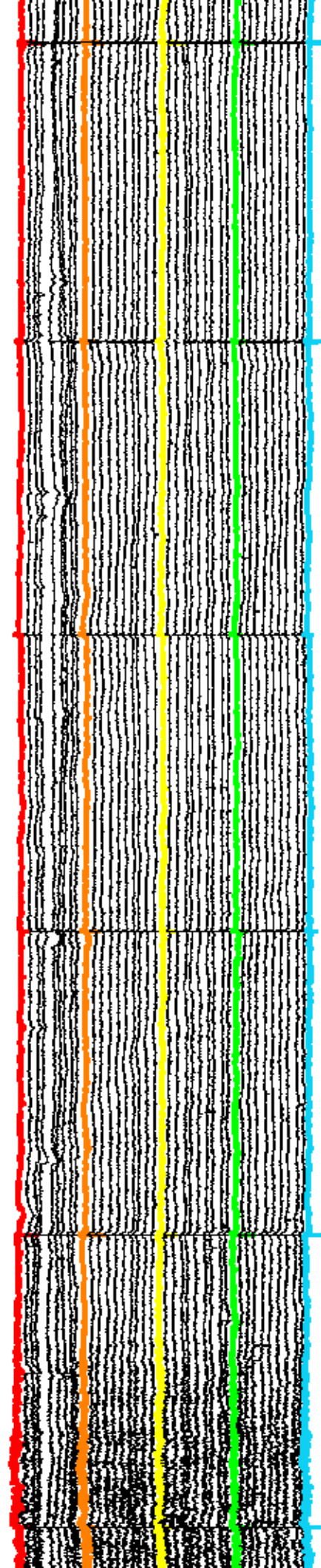
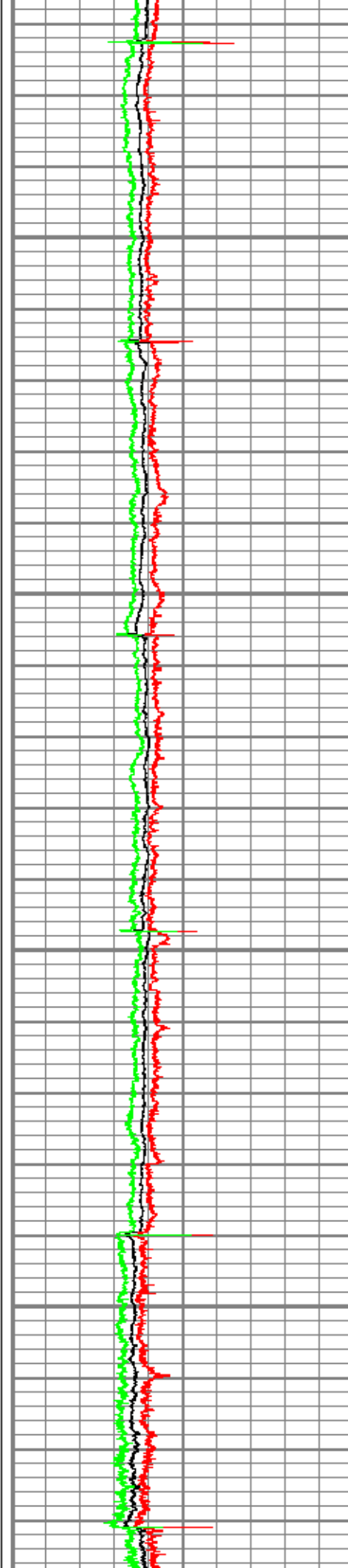
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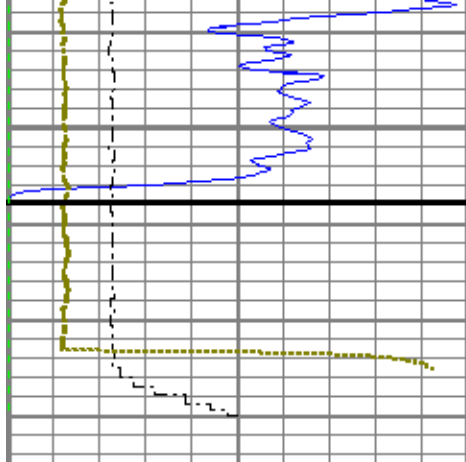




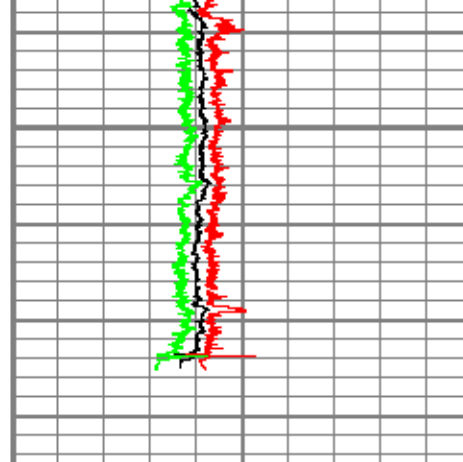
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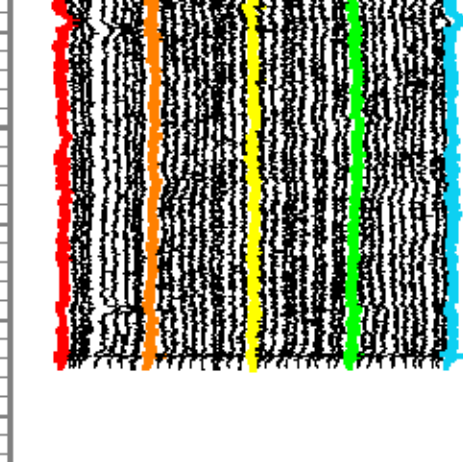




0	Gamma Ray (GAPI)	120
-100	Line Speed (ft/min)	100
-10	Deviation (°)	90
Casing Collar Locator		
0	Line Tension (lb)	2000



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



Caliper #1
Caliper #10
Caliper #20
Caliper #30
Caliper #40



## Repeat Pass

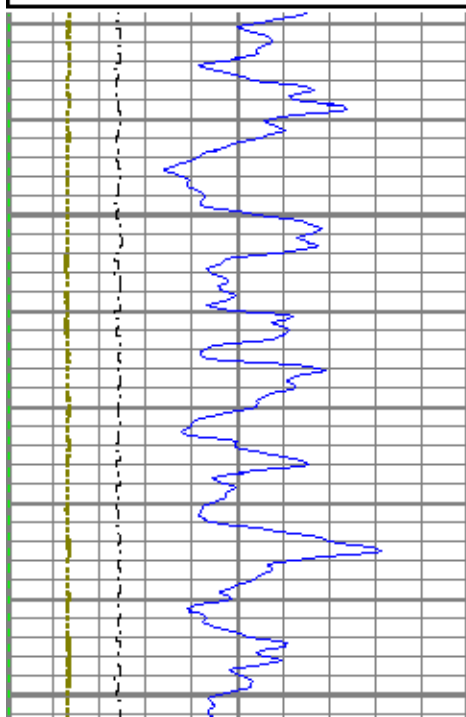
Logged under no surface induced pressure.

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 Dataset Creation: Mon Nov 16 09:18:50 2015 by Log 7.0 B1  
 Charted by: Depth in Feet scaled 1:240

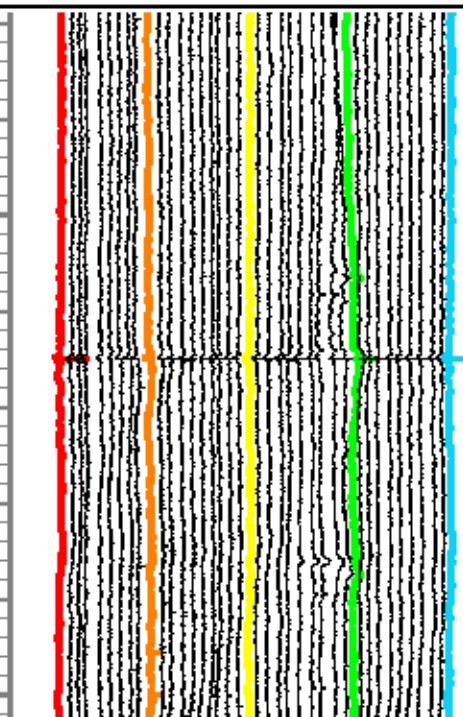
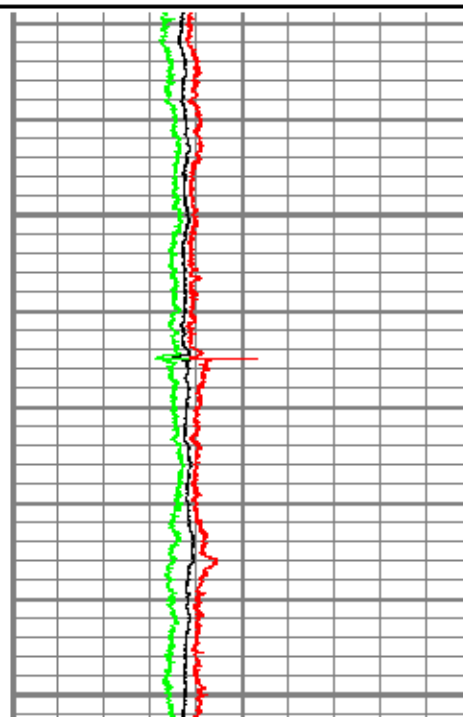
0	Gamma Ray (GAPI)	120
-100	Line Speed (ft/min)	100
-10	Deviation (°)	90
Casing Collar Locator		
0	Line Tension (lb)	2000

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

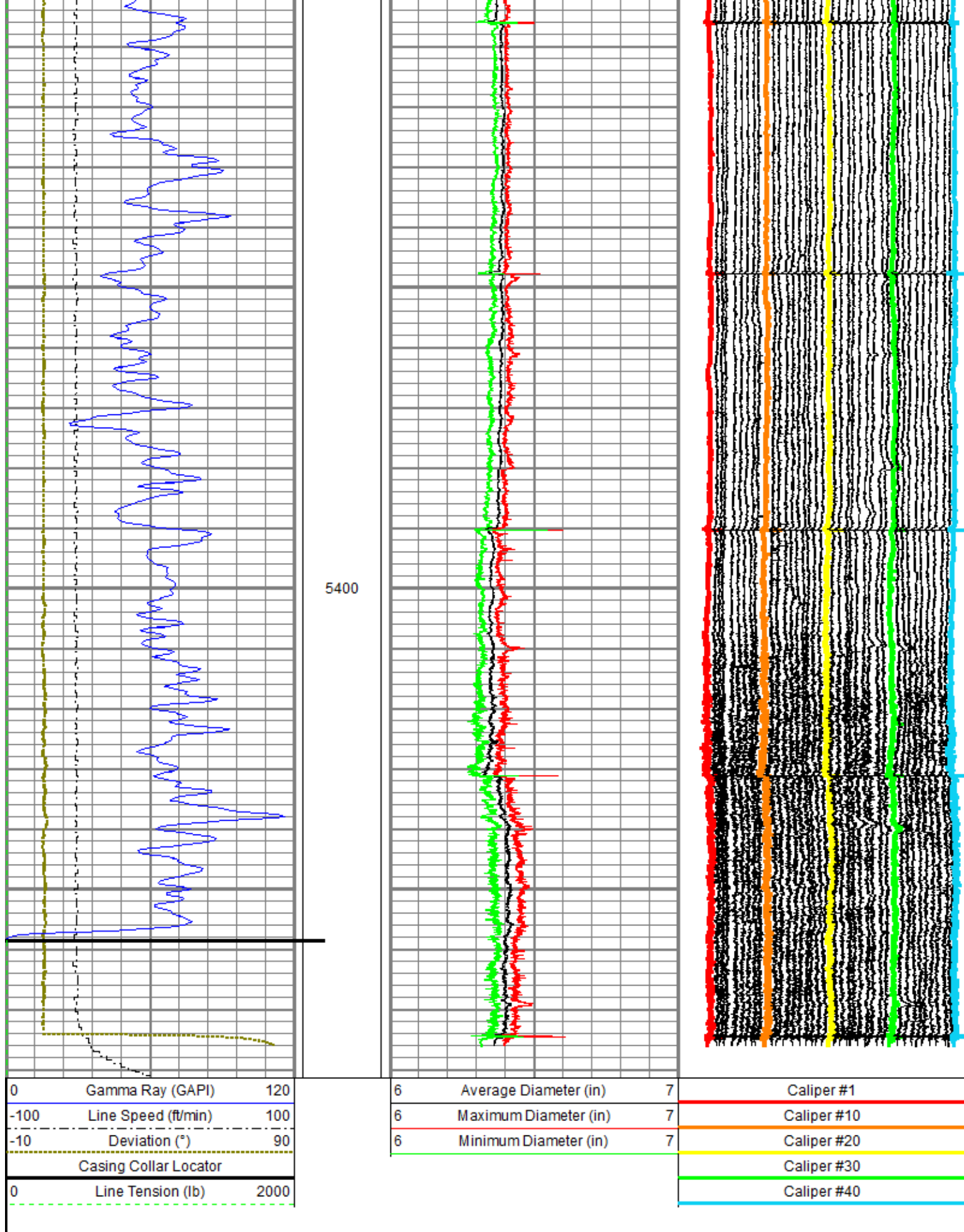
Caliper #1
Caliper #10
Caliper #20
Caliper #30
Caliper #40



5300







# Calibration Report

Database File: riga3x.db  
 Dataset Pathname: merge4.1

### Multi-finger Imaging Tool Calibration Report

Serial Number: 10014703  
 Number of Fingers: 40  
 Tool Model: UW\_MIT40\_042

### Inclinometer Calibration Report

Performed: Thu Oct 02 11:11:59 2014  
 Calibration Angle: 45

	Inc X	Inc Y
Vertical:	1972	1977
Finger 1 up:	1714	1761
Finger 31 up:	2241	1786
Finger 21 up:	2216	2226
Finger 11 up:	1725	2225
Sensitivity ratio:	1.12575	
X-axis angle:	133.782	
Deviation const.:	359.951	

### Finger Calibration Report

Performed: Sun Nov 15 15:34:06 2015

Ring size: (in)	3	Sens	4	Sens	5	Sens	6	Sens	7
Finger 01:	822	278.0	1100	349.0	1449	411.0	1860	392.0	2252
Finger 02:	785	270.0	1055	351.0	1406	429.0	1835	410.0	2245
Finger 03:	790	274.0	1064	338.0	1402	421.0	1823	389.0	2212
Finger 04:	739	254.0	993	348.0	1341	442.0	1783	416.0	2199
Finger 05:	755	257.0	1012	331.0	1343	413.0	1756	382.0	2138
Finger 06:	742	267.0	1009	341.0	1350	428.0	1778	395.0	2173
Finger 07:	727	275.0	1002	342.0	1344	416.0	1760	389.0	2149
Finger 08:	716	265.0	981	338.0	1319	432.0	1751	404.0	2155
Finger 09:	758	290.0	1048	343.0	1391	422.0	1813	379.0	2192
Finger 10:	726	277.0	1003	339.0	1342	419.0	1761	383.0	2144
Finger 11:	706	281.0	987	339.0	1326	420.0	1746	388.0	2134
Finger 12:	776	294.0	1070	339.0	1409	392.0	1801	359.0	2160
Finger 13:	737	284.0	1021	335.0	1356	401.0	1757	393.0	2150
Finger 14:	704	298.0	1002	351.0	1353	412.0	1765	407.0	2172
Finger 15:	674	292.0	966	350.0	1316	410.0	1726	415.0	2141
Finger 16:	718	306.0	1024	345.0	1369	391.0	1760	406.0	2166
Finger 17:	759	307.0	1066	345.0	1411	374.0	1785	392.0	2177
Finger 18:	783	323.0	1106	346.0	1452	370.0	1822	396.0	2218
Finger 19:	749	324.0	1073	356.0	1429	375.0	1804	411.0	2215
Finger 20:	690	308.0	998	355.0	1353	380.0	1733	430.0	2163
Finger 21:	775	328.0	1103	353.0	1456	363.0	1819	418.0	2237
Finger 22:	759	333.0	1092	362.0	1454	364.0	1818	425.0	2243
Finger 23:	799	341.0	1140	365.0	1505	360.0	1865	428.0	2293
Finger 24:	812	302.0	1114	335.0	1449	331.0	1780	404.0	2184
Finger 25:	800	333.0	1133	370.0	1503	363.0	1866	436.0	2302
Finger 26:	780	314.0	1094	355.0	1449	354.0	1803	438.0	2241
Finger 27:	934	355.0	1289	377.0	1666	359.0	2025	429.0	2454
Finger 28:	837	310.0	1147	348.0	1495	347.0	1842	431.0	2273
Finger 29:	791	305.0	1096	362.0	1458	363.0	1821	446.0	2267
Finger 30:	788	296.0	1084	361.0	1445	371.0	1816	453.0	2269
Finger 31:	967	343.0	1310	387.0	1697	381.0	2078	445.0	2523
Finger 32:	777	295.0	1072	355.0	1427	363.0	1790	429.0	2219
Finger 33:	857	316.0	1173	380.0	1553	394.0	1947	455.0	2402
Finger 34:	759	277.0	1036	353.0	1389	381.0	1770	436.0	2206
Finger 35:	893	306.0	1199	378.0	1577	405.0	1982	440.0	2422
Finger 36:	833	269.0	1102	340.0	1442	375.0	1817	407.0	2224
Finger 37:	873	300.0	1173	374.0	1547	412.0	1959	434.0	2393
Finger 38:	853	274.0	1127	346.0	1473	390.0	1863	407.0	2270
Finger 39:	849	264.0	1113	335.0	1448	382.0	1830	394.0	2224
Finger 40:	750	265.0	1015	360.0	1375	432.0	1807	439.0	2246

### Segmented Cement Bond Log Calibration Report

Serial Number: 10012639  
 Tool Model: UW\_RBT\_004

Calibration Casing Diameter:	7.000	in
Calibration Depth:	405.120	ft

Master Calibration, performed Mon Nov 16 08:38:40 2015:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3FT	0.000	1.100	0.000	62.165	56.514	0.000
5FT	0.000	1.100	0.000	62.165	56.514	0.000
S1	0.000	1.100	0.000	100.000	90.909	0.000
S2	0.000	1.100	0.000	100.000	90.909	0.000
S3	0.000	1.100	0.000	100.000	90.909	0.000
S4	0.000	1.100	0.000	100.000	90.909	0.000
S5	0.000	1.100	0.000	100.000	90.909	0.000
S6	0.000	1.100	0.000	100.000	90.909	0.000
S7	0.000	1.100	0.000	100.000	90.909	0.000
S8	0.000	1.100	0.000	100.000	90.909	0.000

Gamma Ray Calibration Report

Serial Number:	10019371	
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	Rigby A 3X
Field	Weber Rangely Sand Unit
County	Rio Blanco
State	Colorado
Country	USA