



**RADIAL CEMENT BOND
GAMMA RAY/CCLVDL**

Company ANTERO RESOURCES CORPORATION
 Well SPOCK UNIT 3H
 Field MARCELLUS
 County TYLER
 State W.V.

Company ANTERO RESOURCES CORPORATION
 Well SPOCK UNIT 3H
 Field MARCELLUS
 County TYLER State W.V.

Location: API #: 47095024280000

Other Services

Permanent Datum	SEC	TWP	RGE	Elevation	N/A	K.B. N/A
Log Measured From						D.F. N/A
Drilling Measured From						G.L. N/A

Date	2/3/19						
Run Number	ONE						
Depth Driller	17699'						
Depth Logger	7202'						
Bottom Logged Interval	7202'						
Top Log Interval	SURFACE						
Open Hole Size	8.5"						
Type Fluid	H2O						
Density / Viscosity	N/A						
Max. Recorded Temp.	142 DEG						
Estimated Cement Top	858'						
Time Well Ready	N/A						
Time Logger on Bottom	N/A						
Equipment Number	340						
Location	BRIDGEPORT.WV						
Recorded By	JBOGGS						
Witnessed By	JAY TEPFER						
Borehole Record		Casing Record					
Run Number	Bit	From	To	Size	Weight	From	To
				5.5	23	0	17699

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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

THANK YOU FOR USING KLX ENERGY SERVICES
 LOG WAS SHIFTED 7' DOWN HOLE TO MATCH CASING TALLY
 TOP OF CEMENT @ 858'
 BOTTOM HOLE TEMP-142 DEG
 MARKER JOINT @ 6047'-6058'



MAIN LOG 1500 PSI

Database File: f:\2019 antero\pyle run\spock3h.db
 Dataset Pathname: pass5.1
 Presentation Format: antero
 Dataset Creation: Sun Feb 03 21:48:45 2019 by Calc 7.0 B1
 Charted by: Depth in Feet scaled 1:240

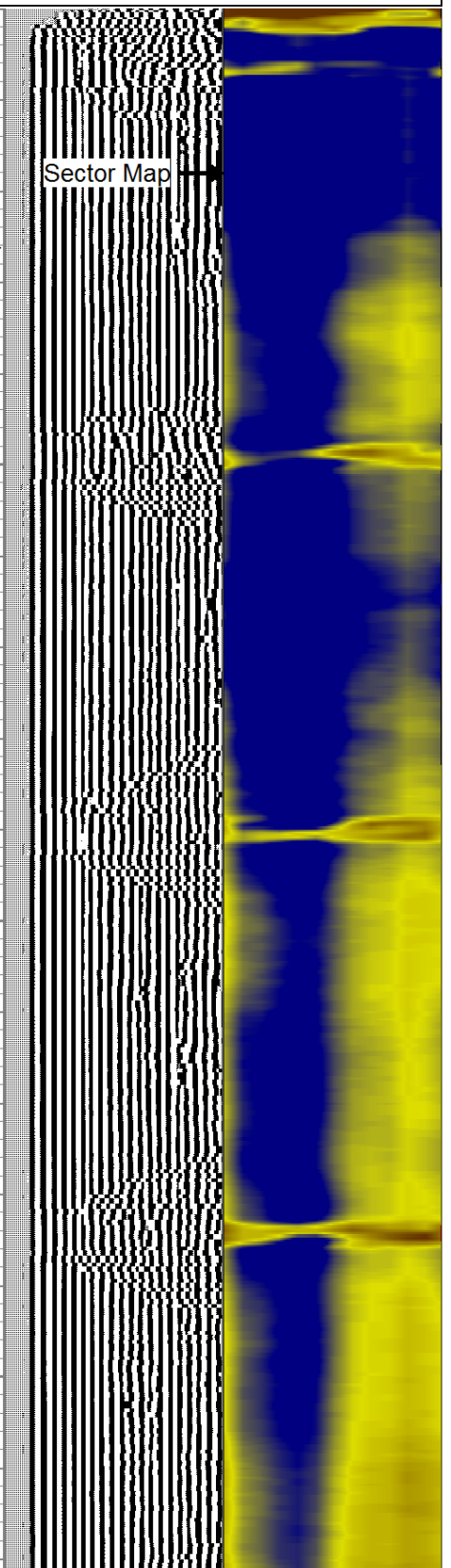
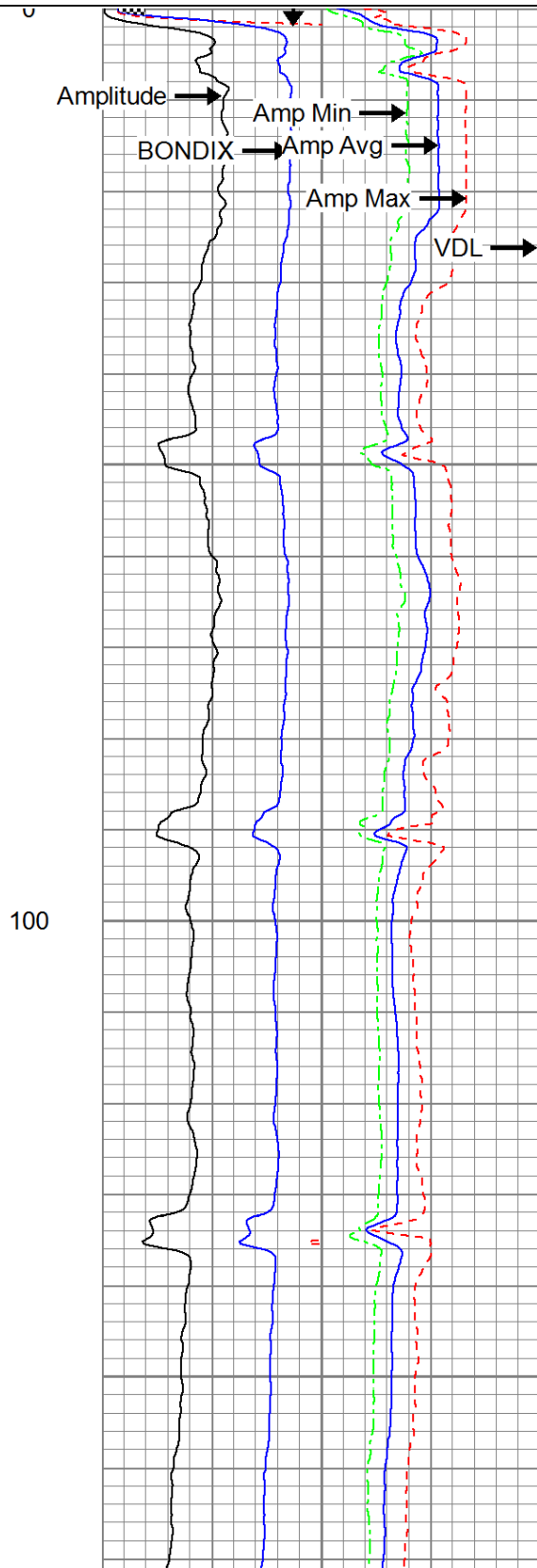
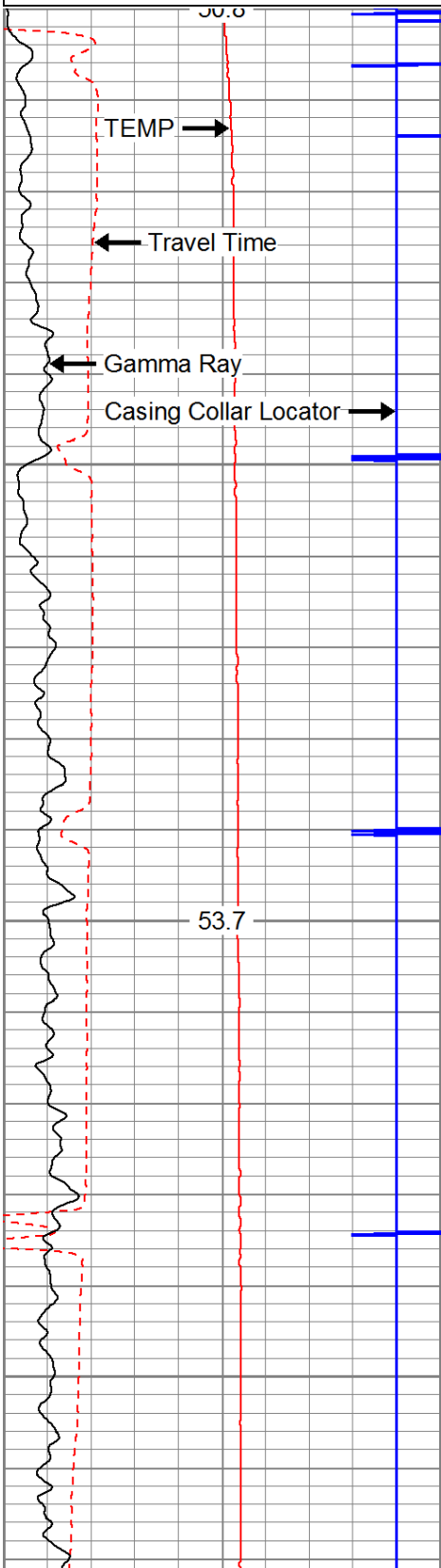
225	Travel Time (usec)	125
9	Casing Collars	-1
0	Gamma Ray	180
0	TEMP (degF)	100

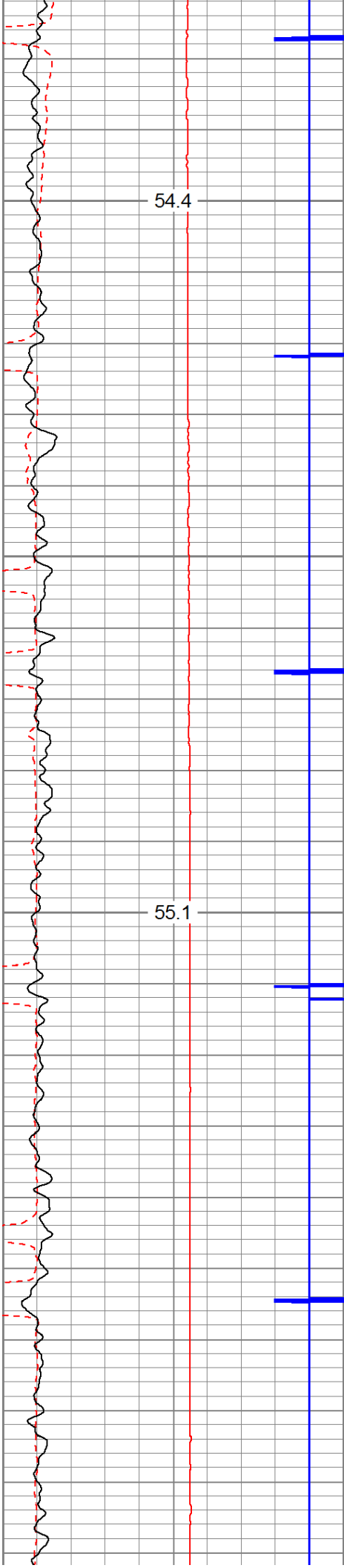
Amplitude	0	Amp Avg	150	200	VDL	1200
(mV)	100	Amp Max	150			
AmpX5 (mV)	20	Amp Min	150			
BONDIX	0					

1	Sector Map	12
20		60



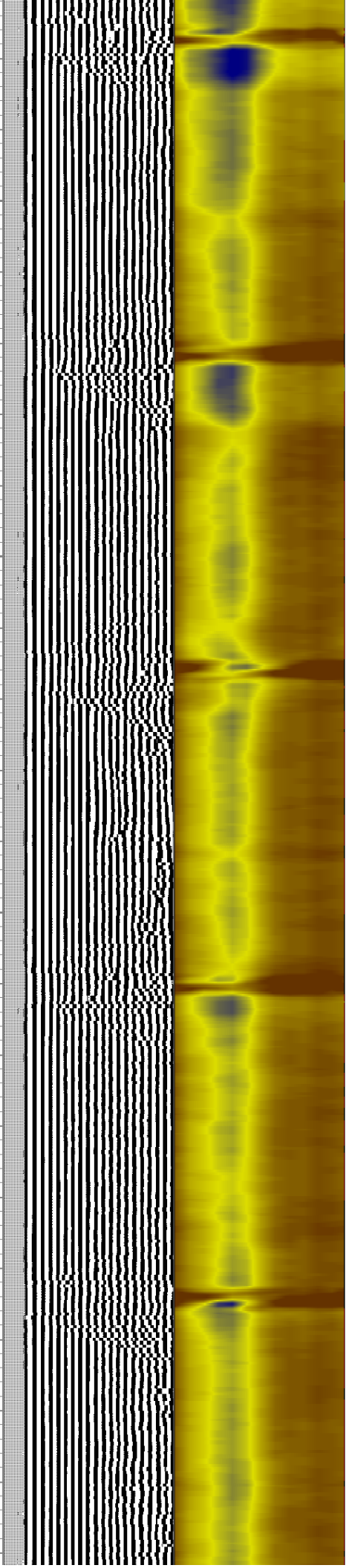
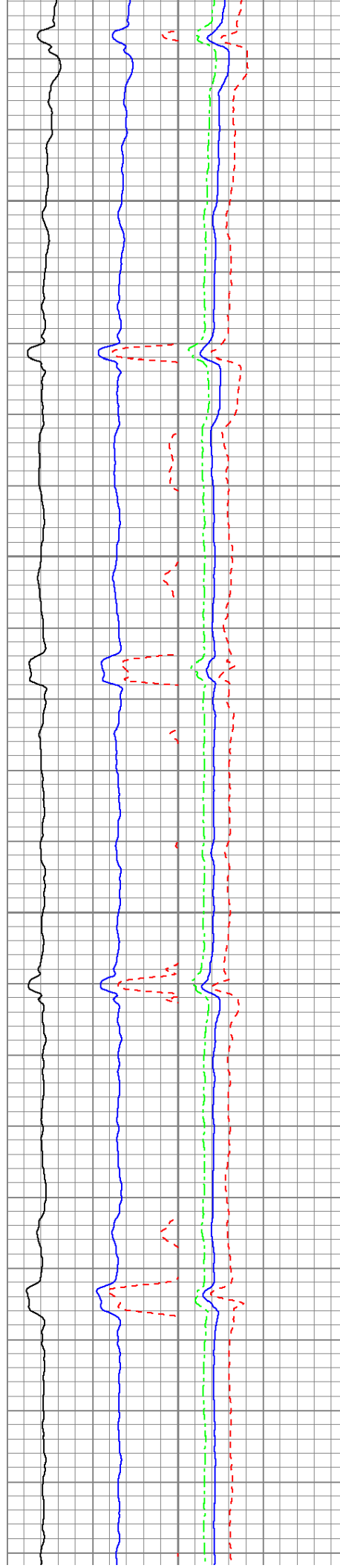
TEMP (degF)

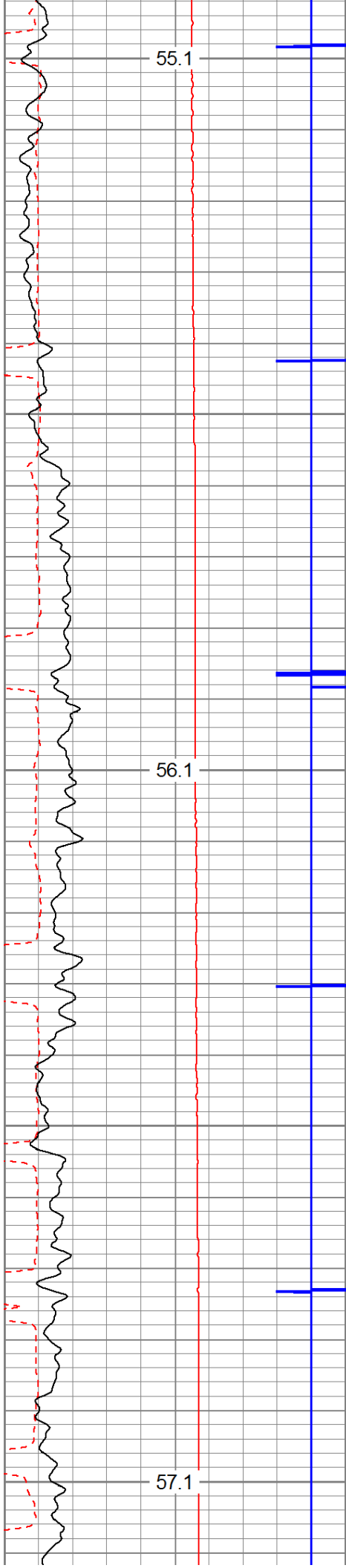




200

300

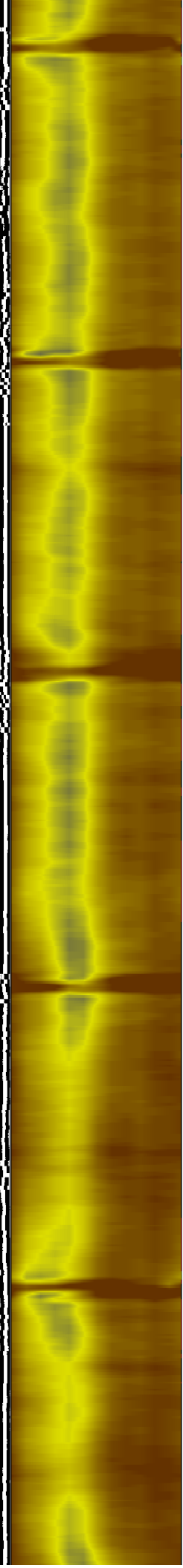
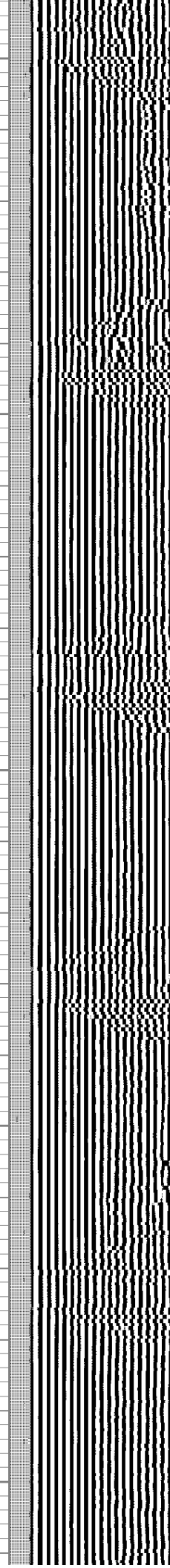
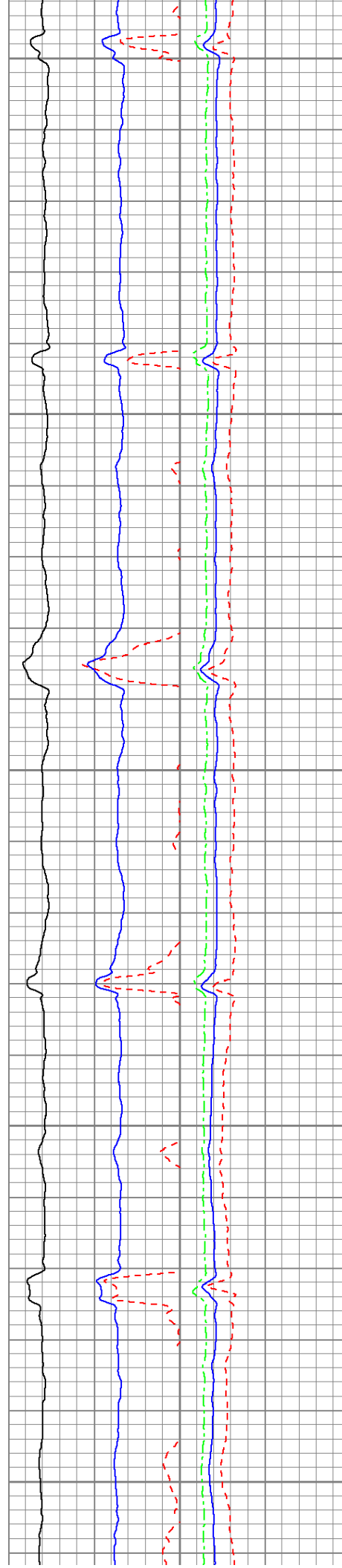


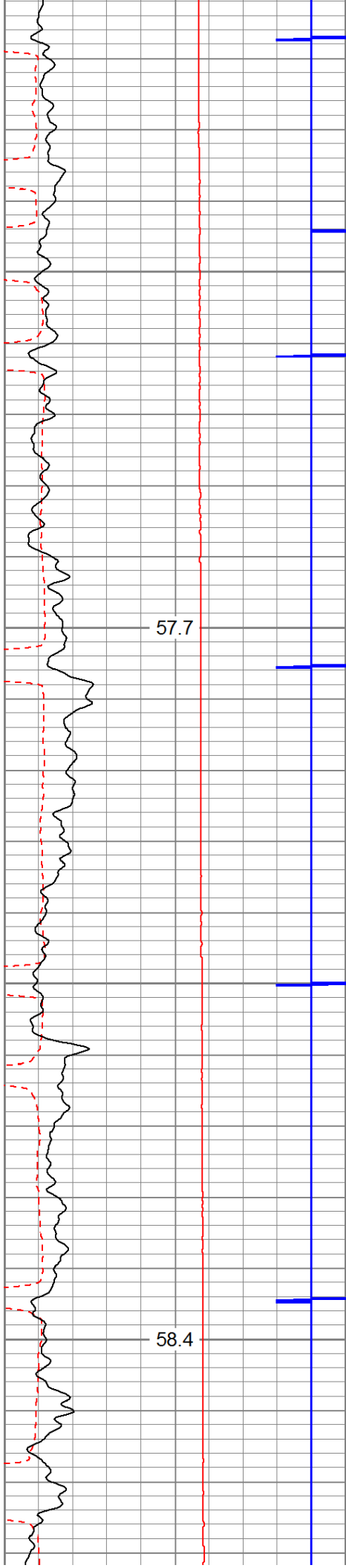


400

500

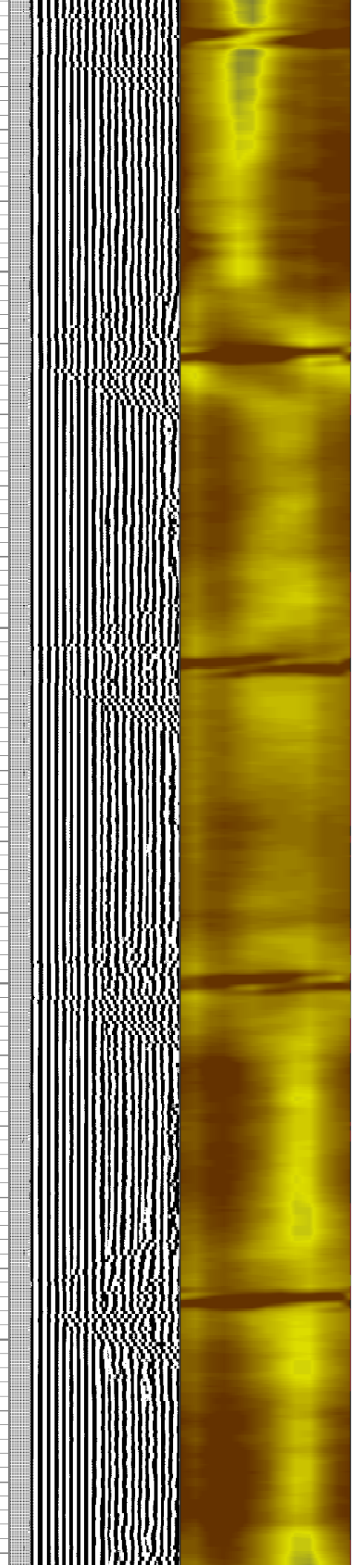
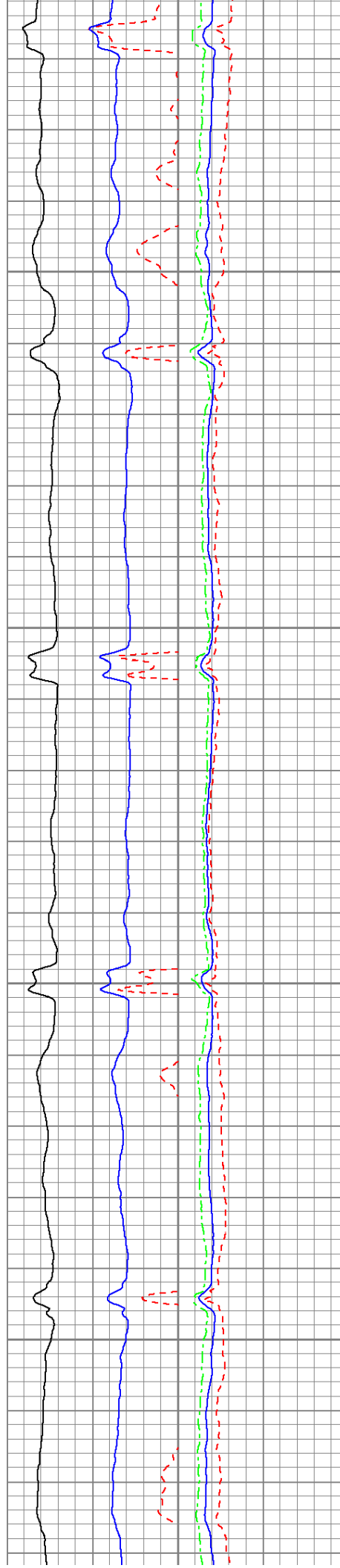
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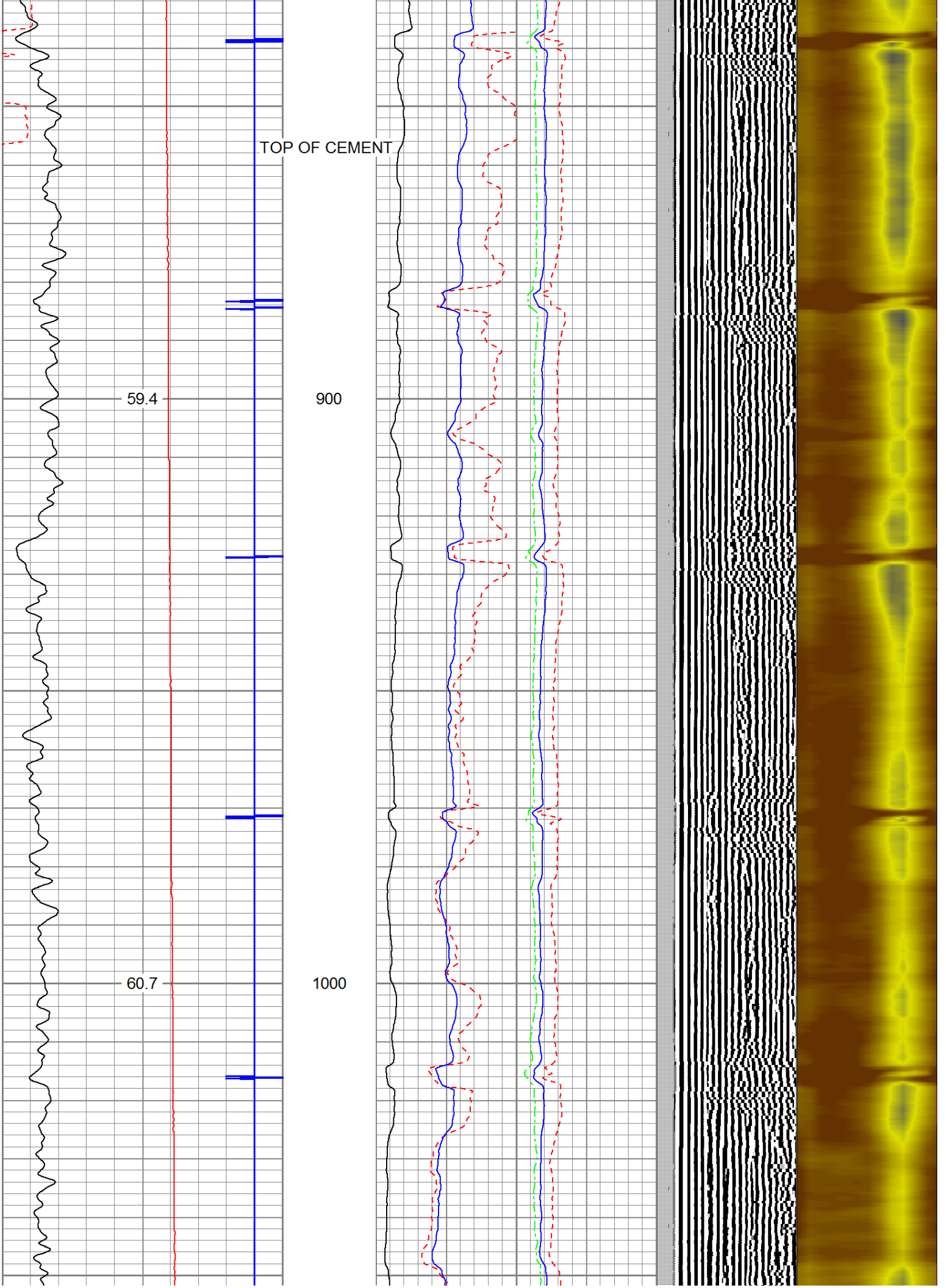


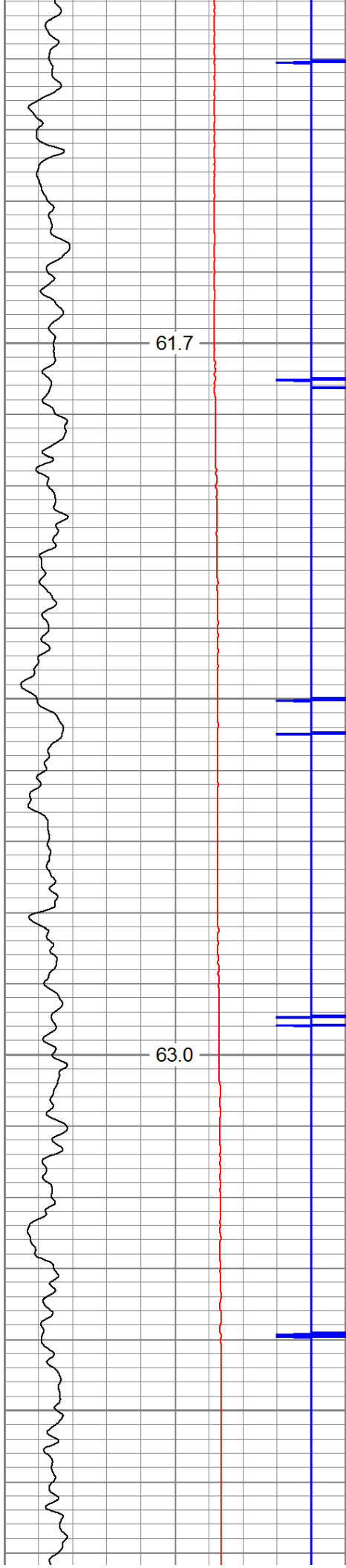


700

800





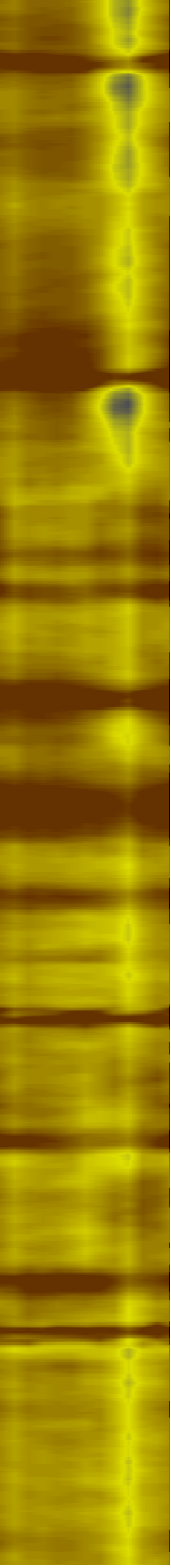
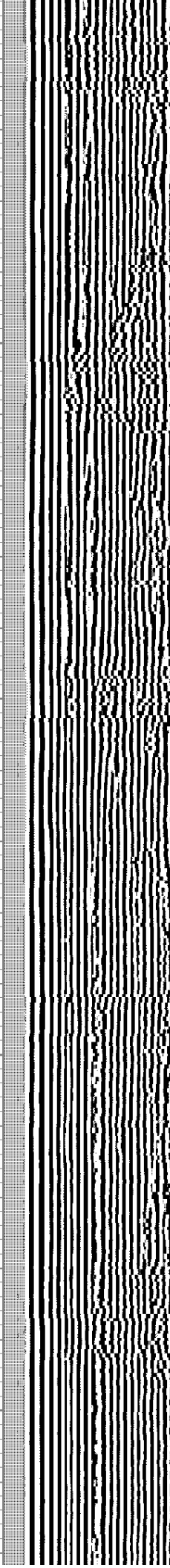
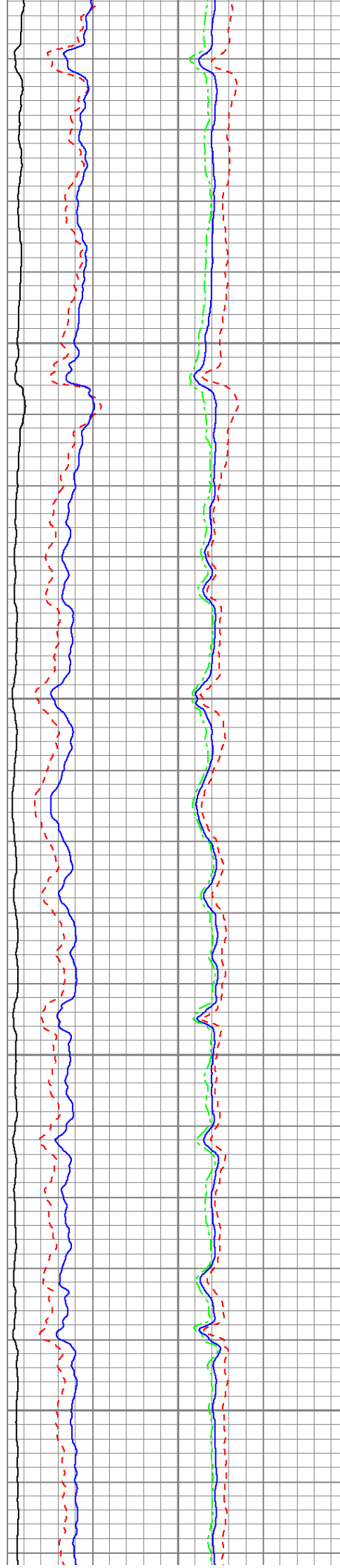


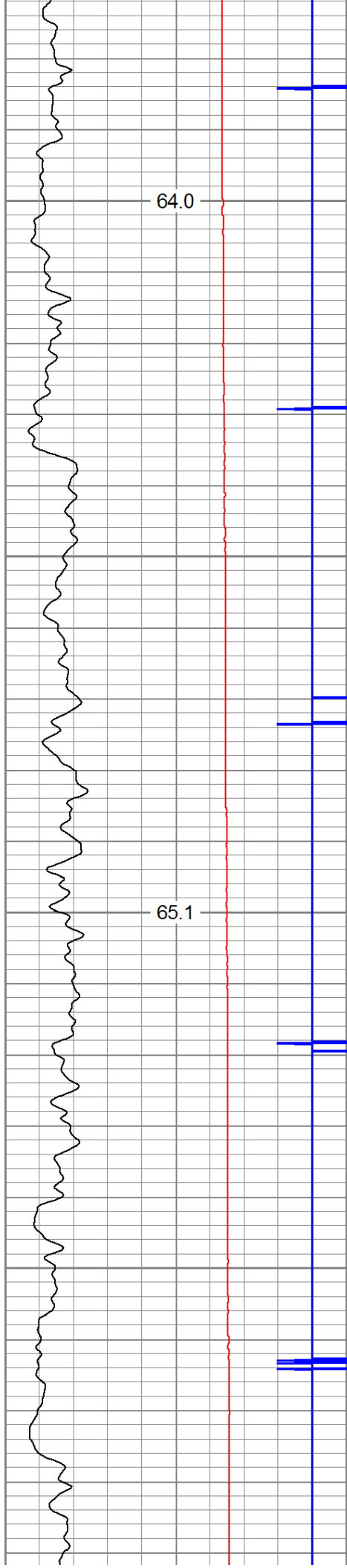
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63.0

1100

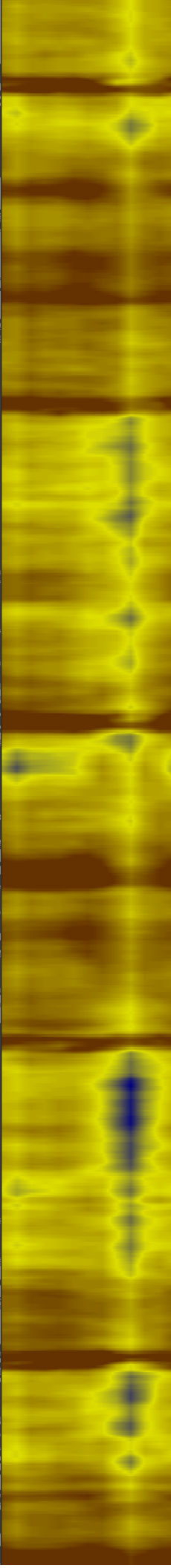
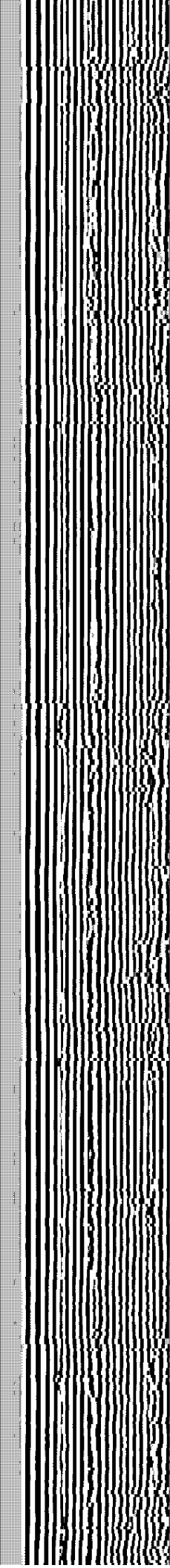
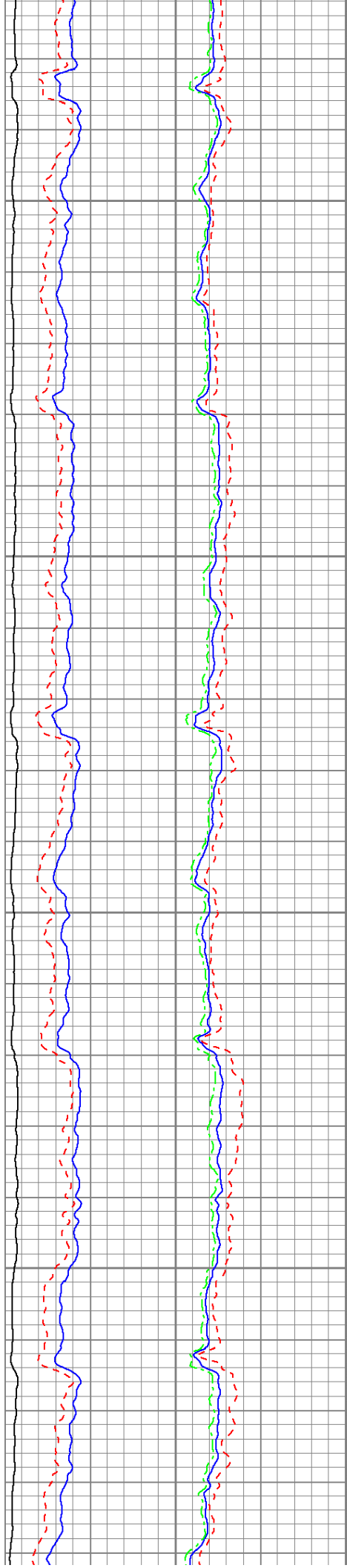
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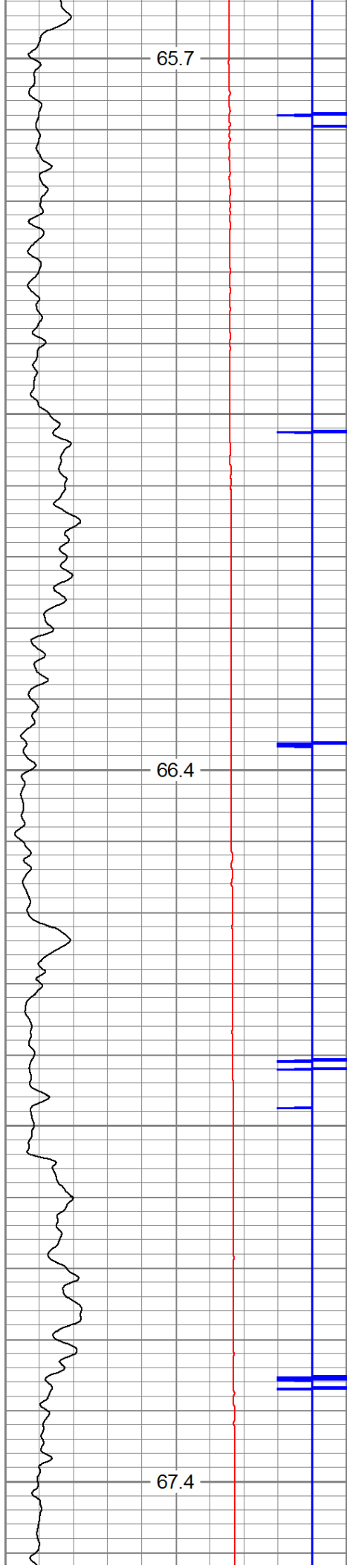




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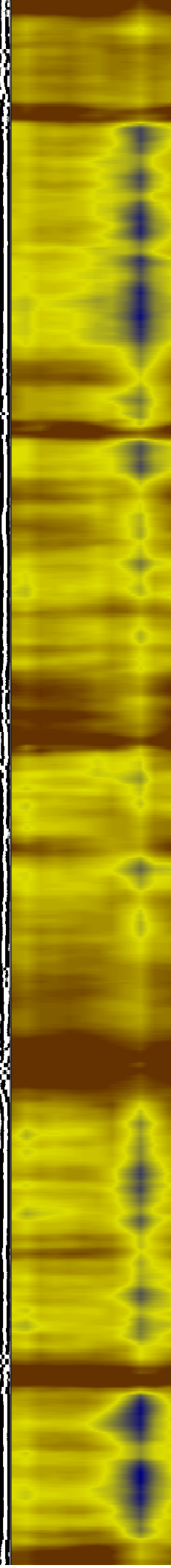
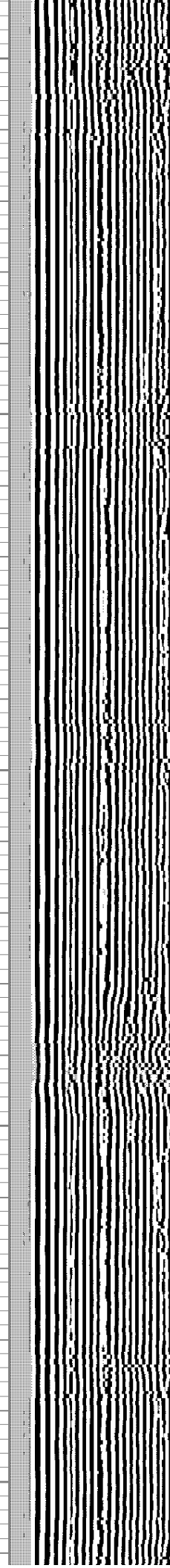
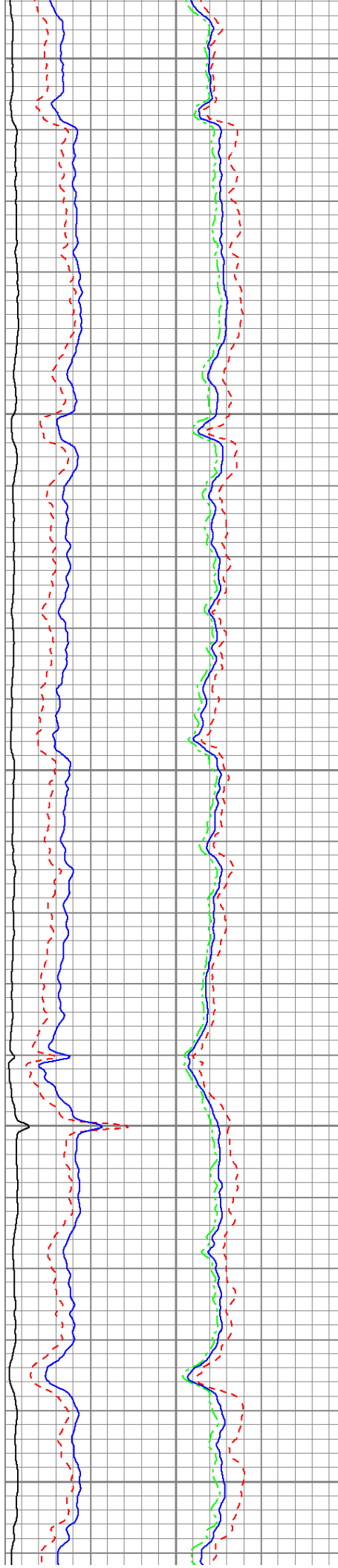


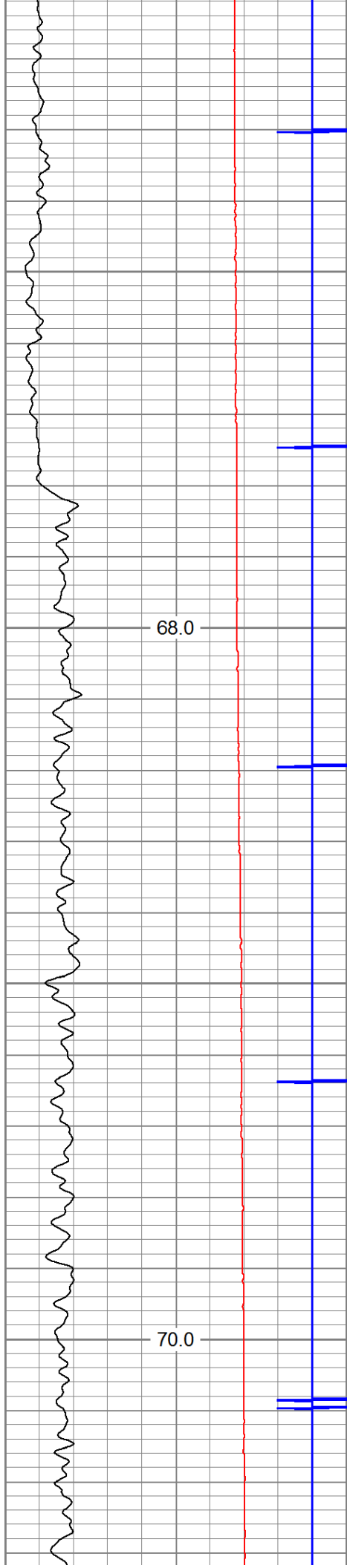


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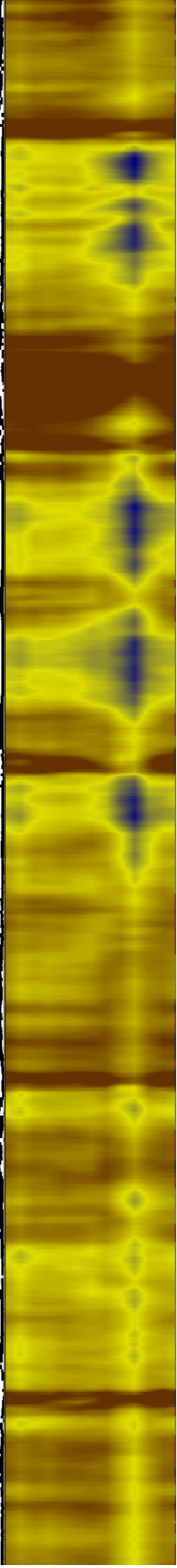
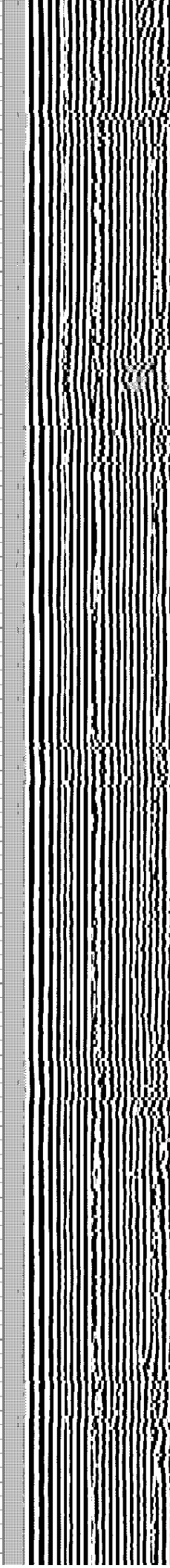
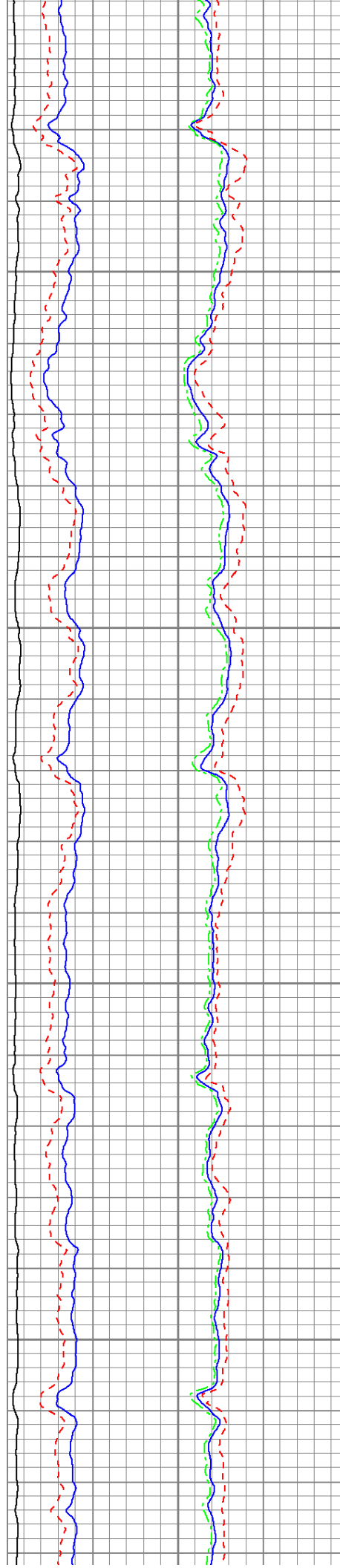
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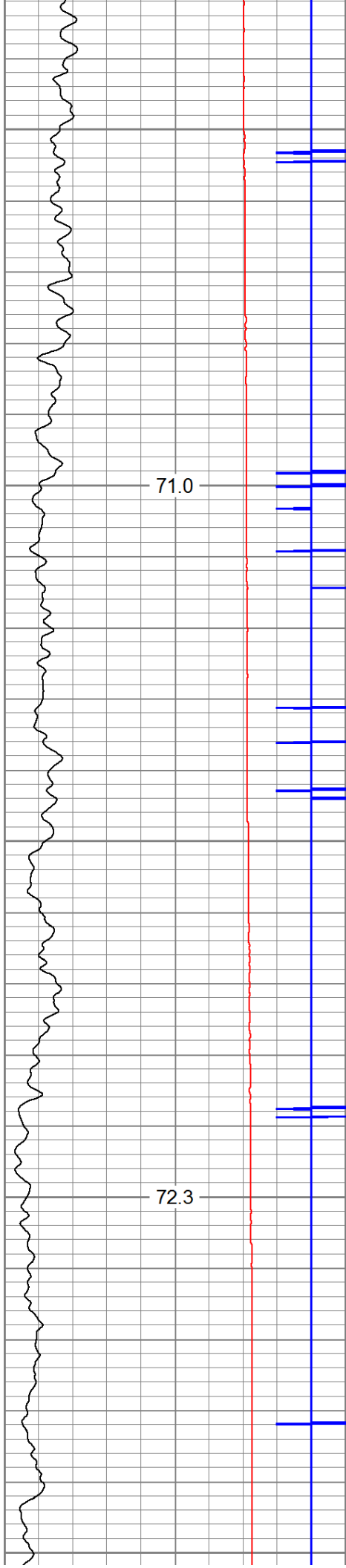




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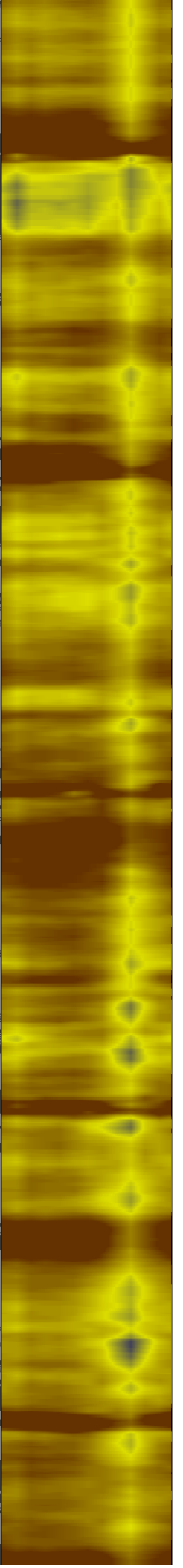
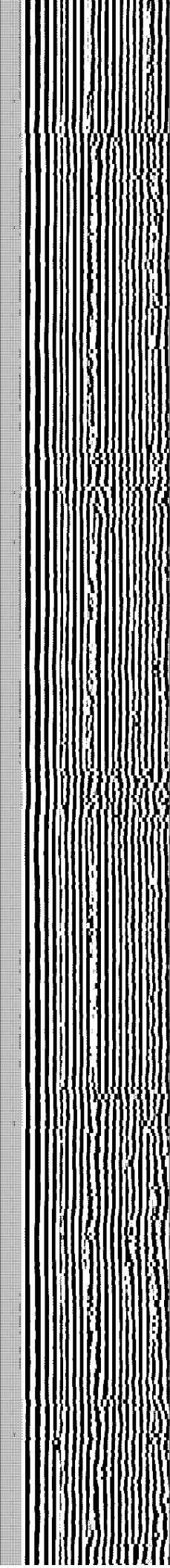
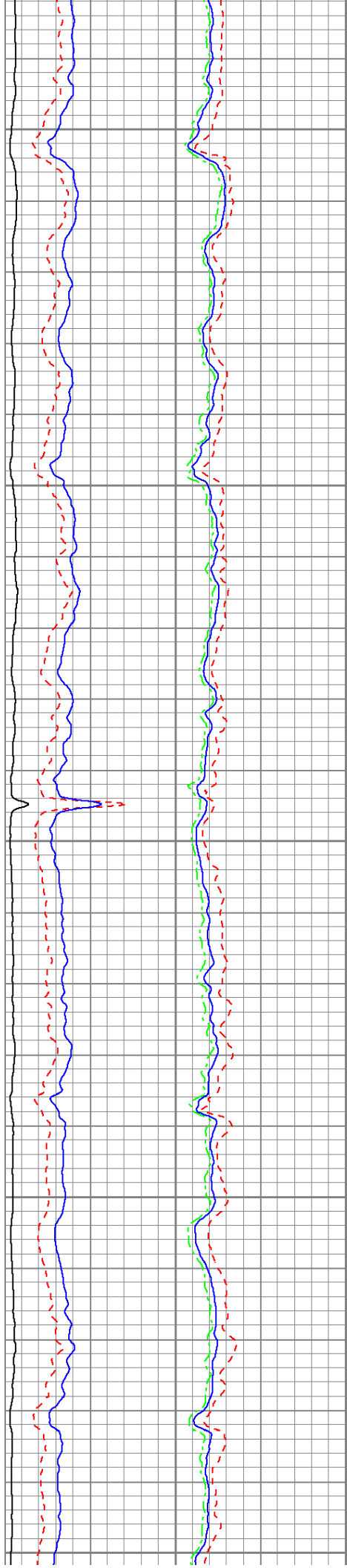
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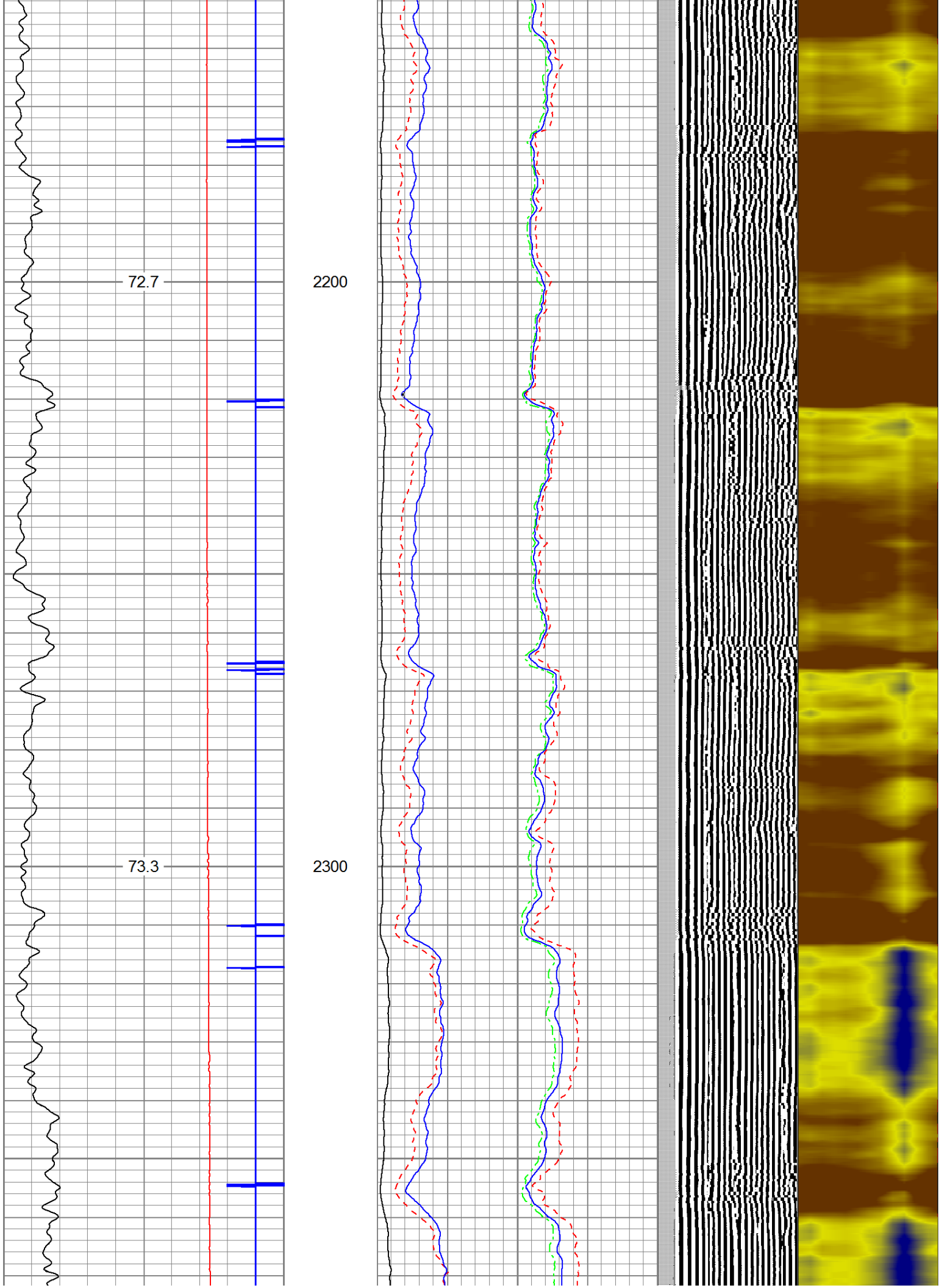


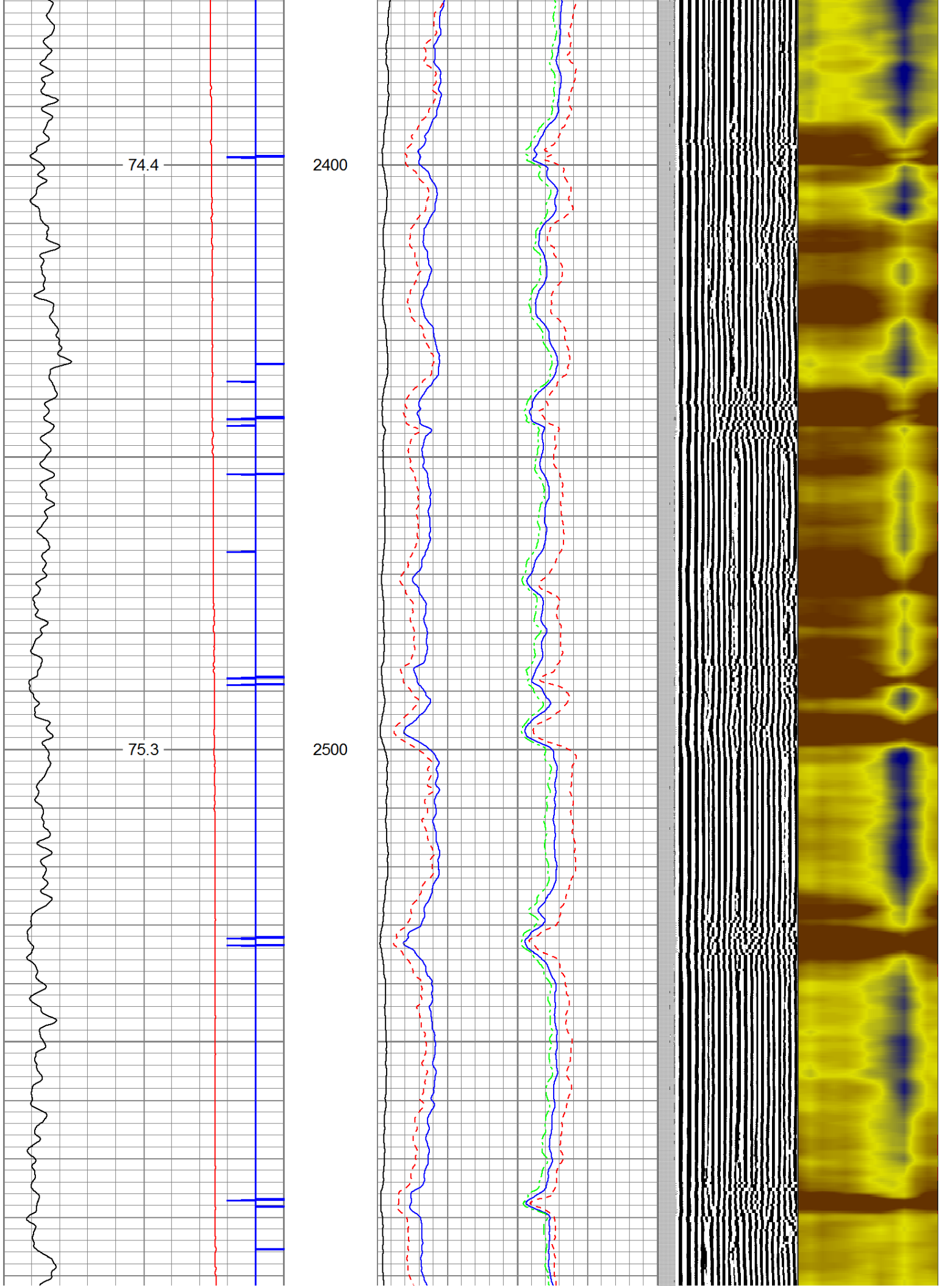


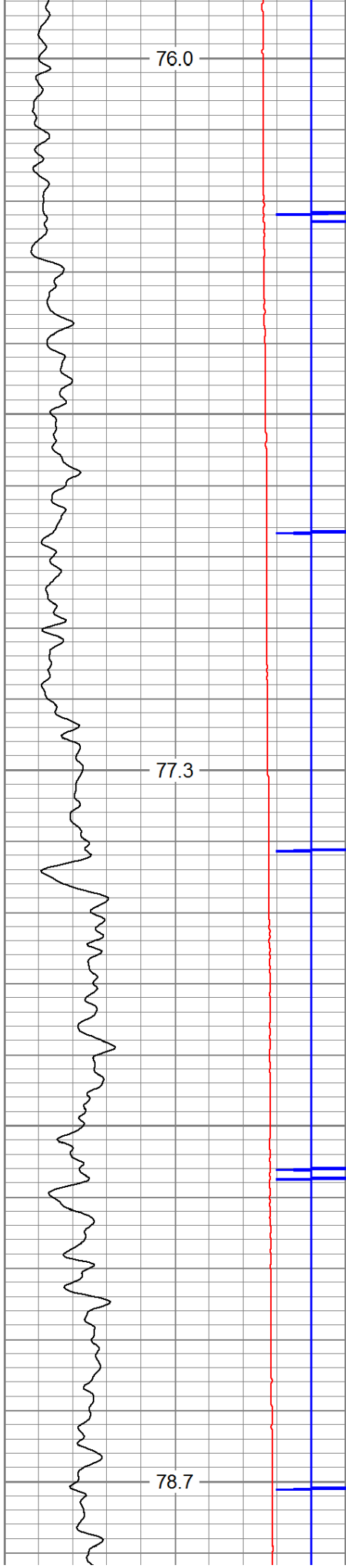
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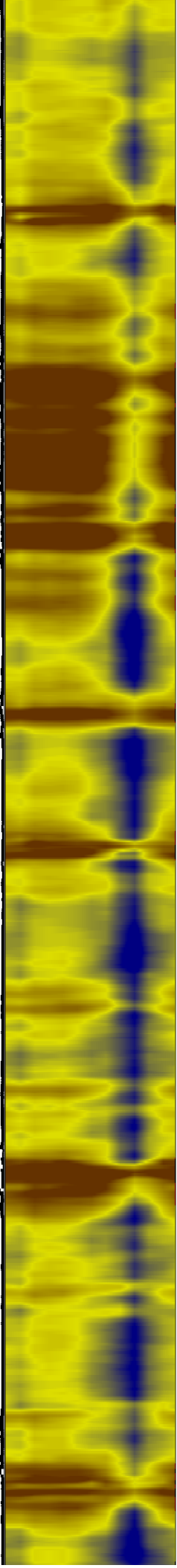
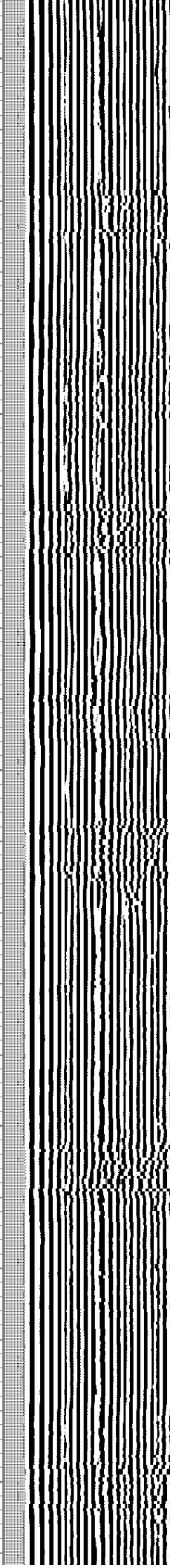
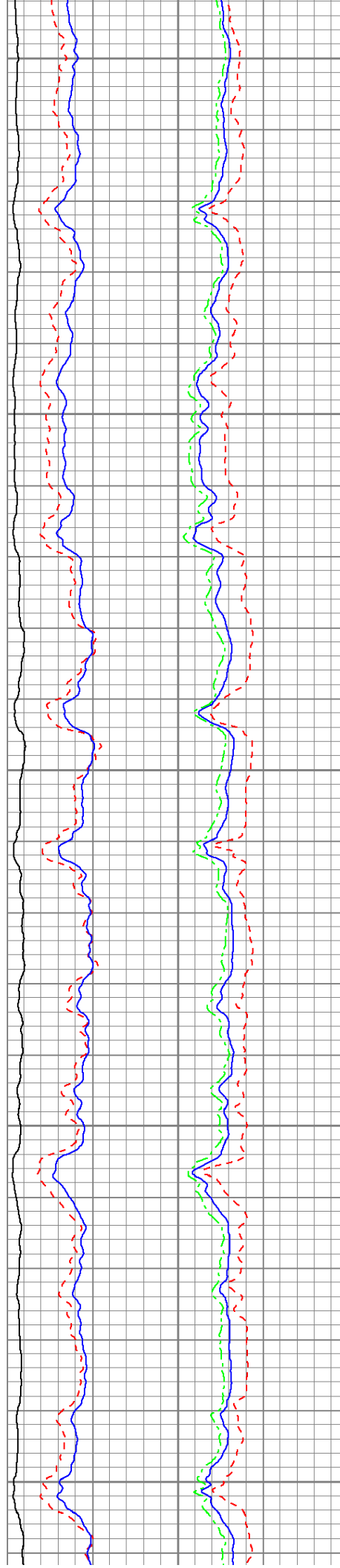


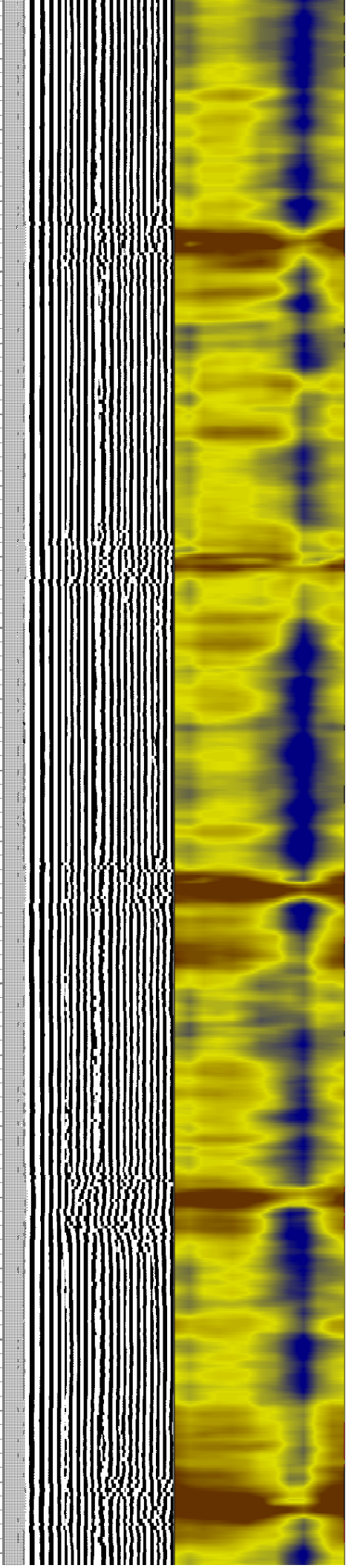
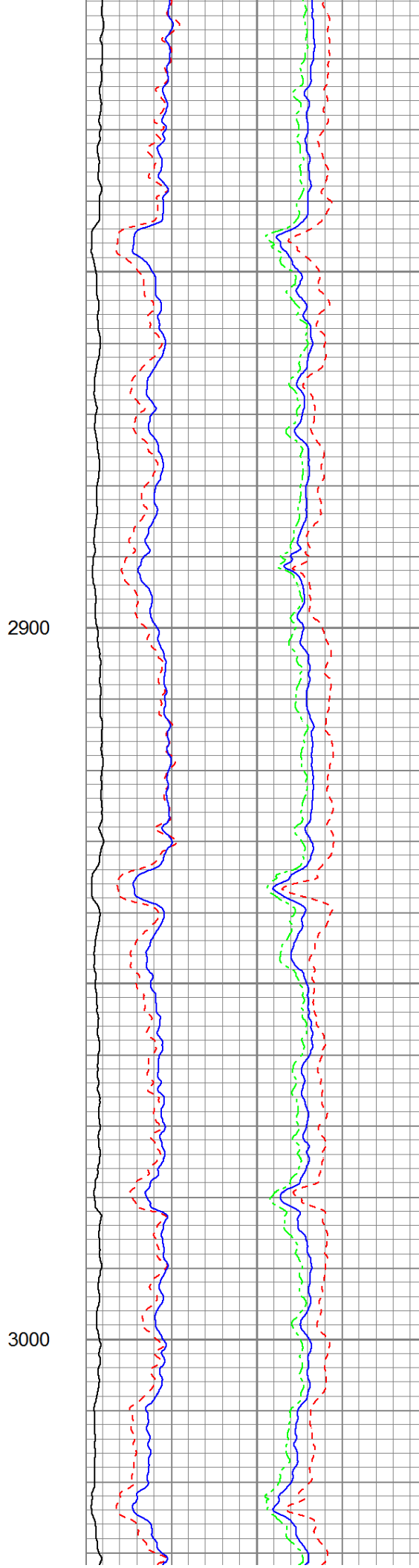
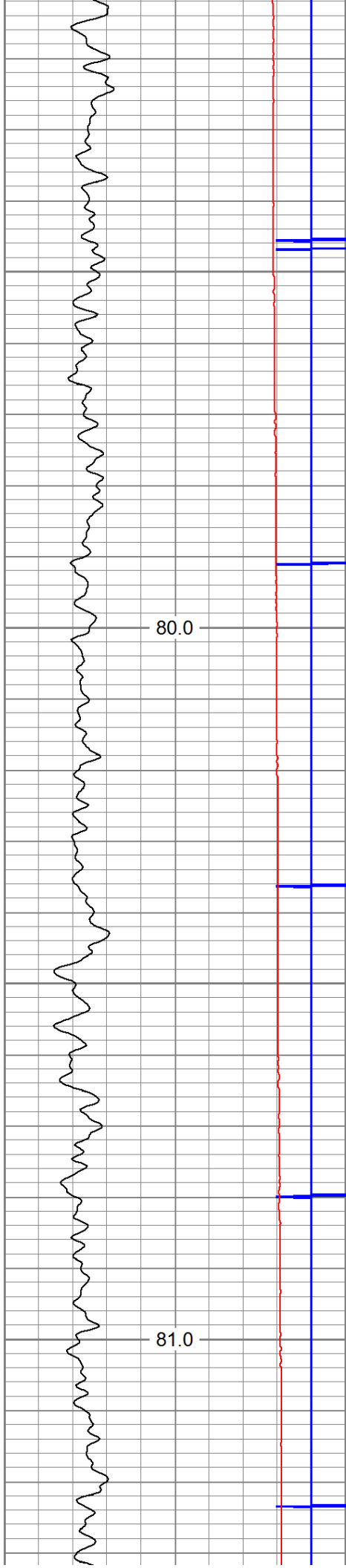


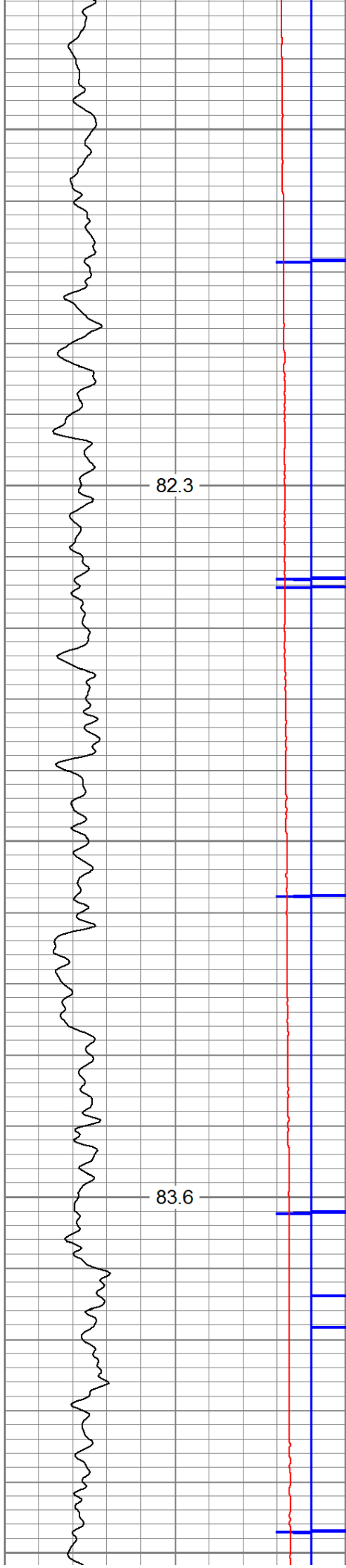
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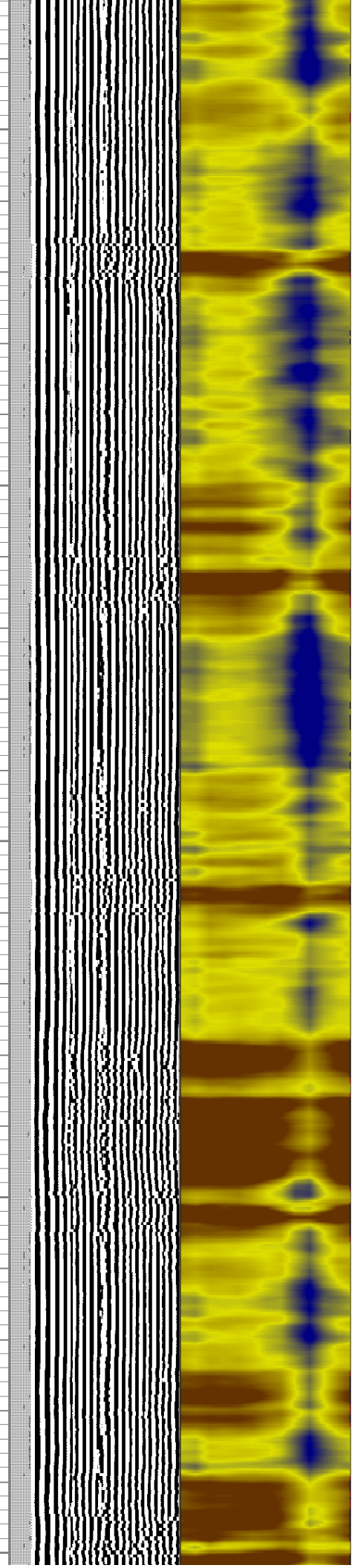
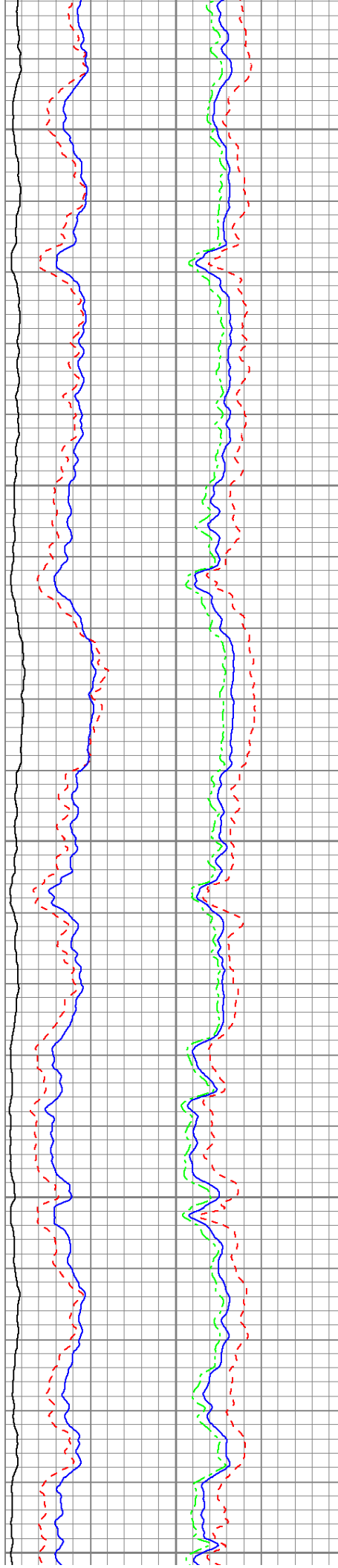


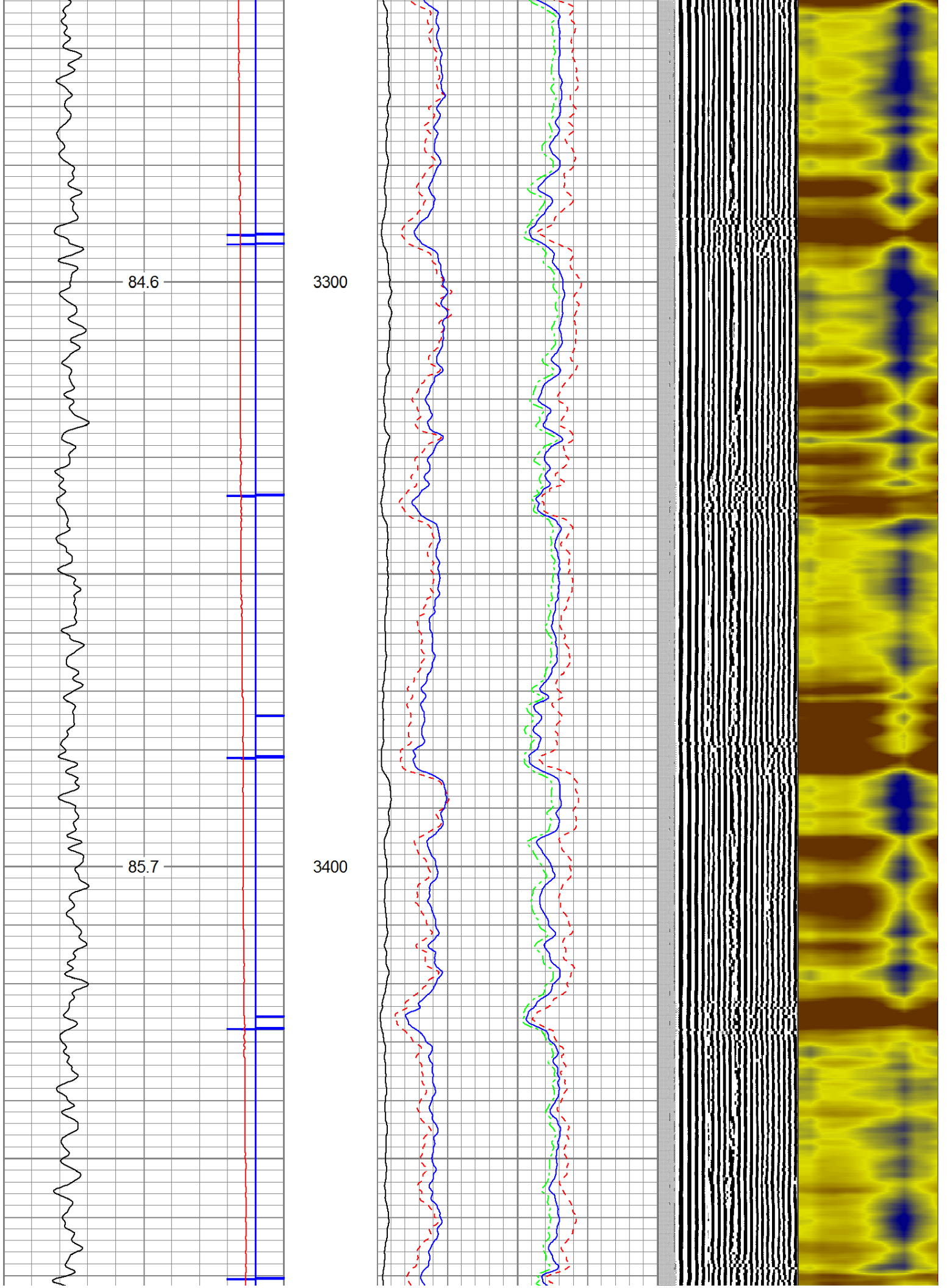


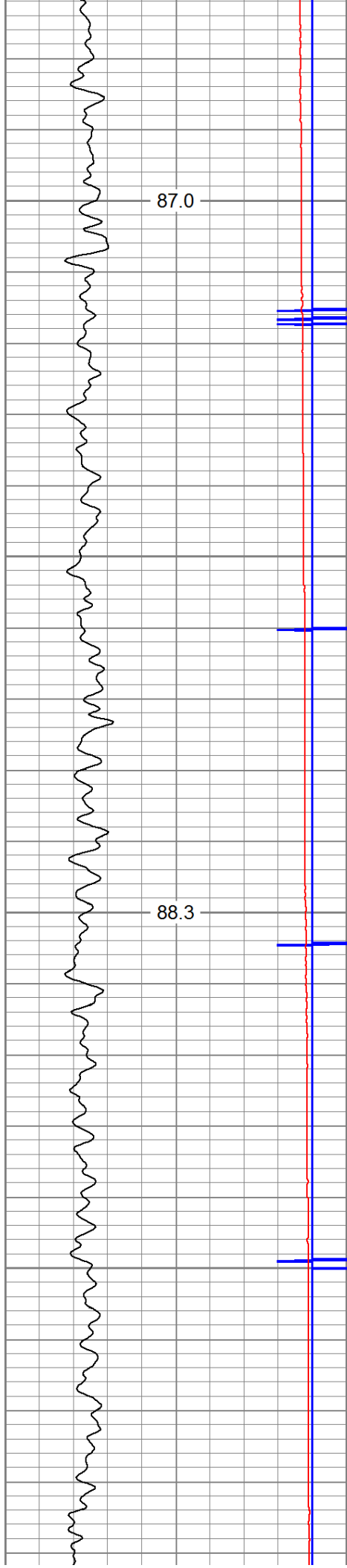


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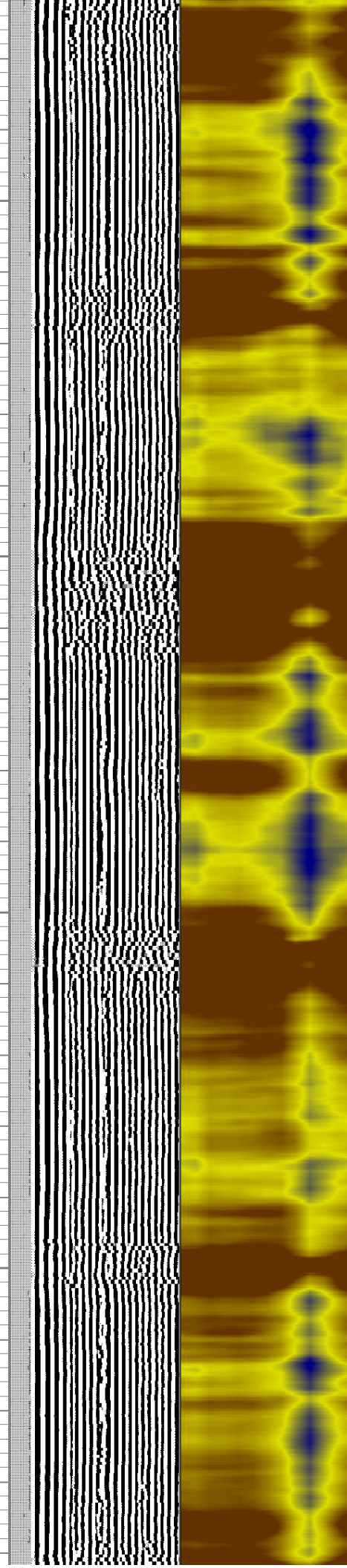
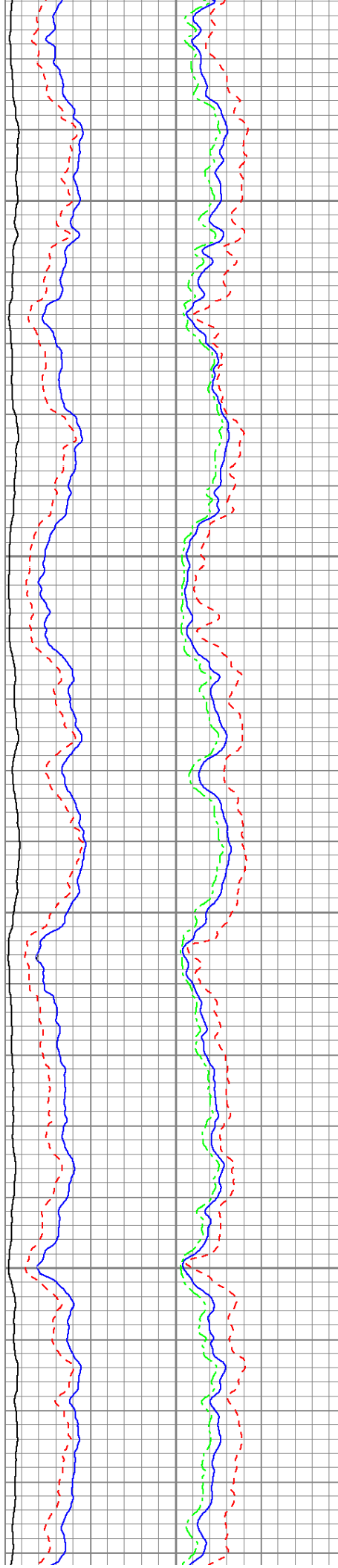


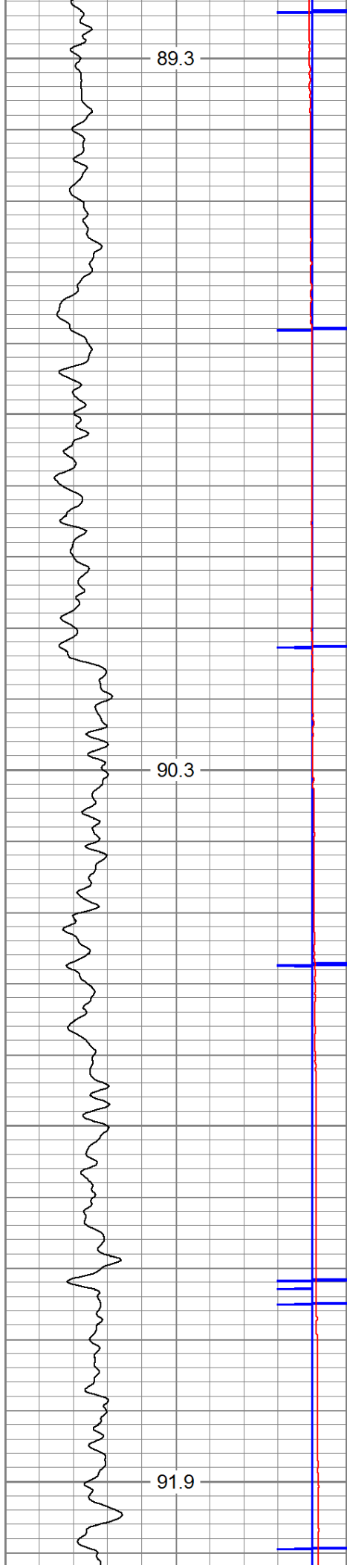




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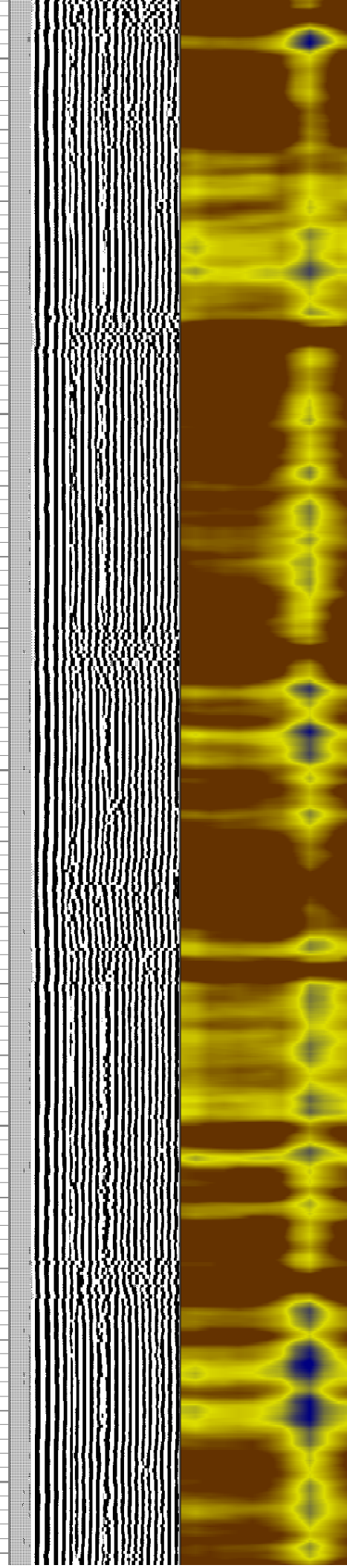
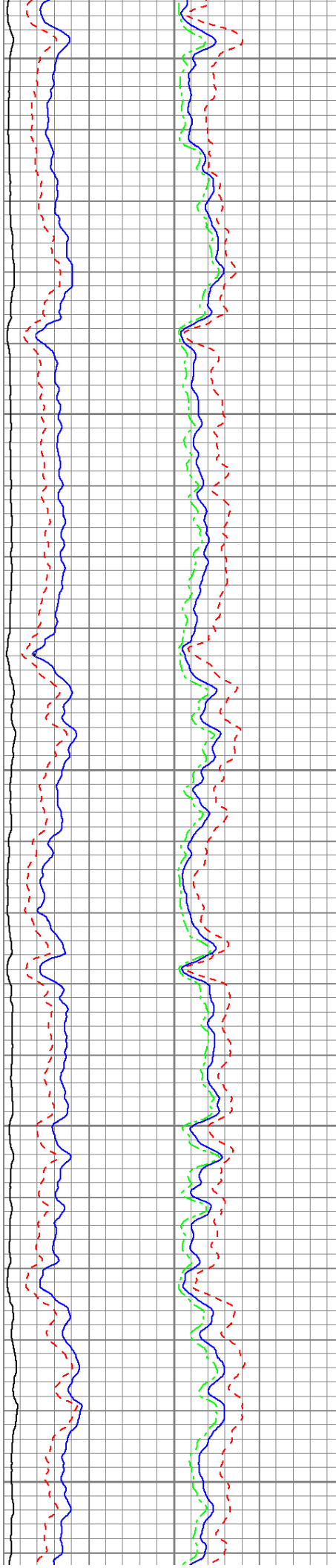


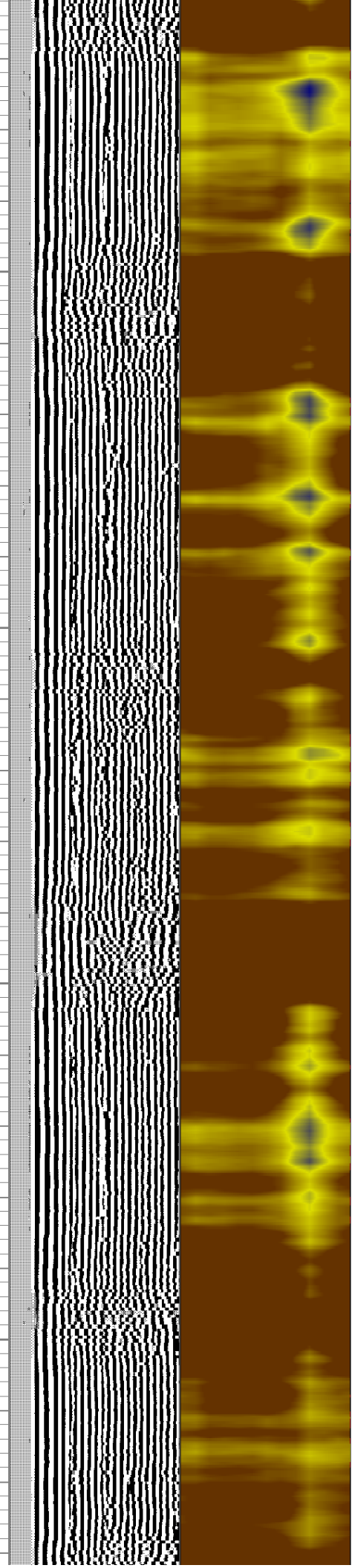
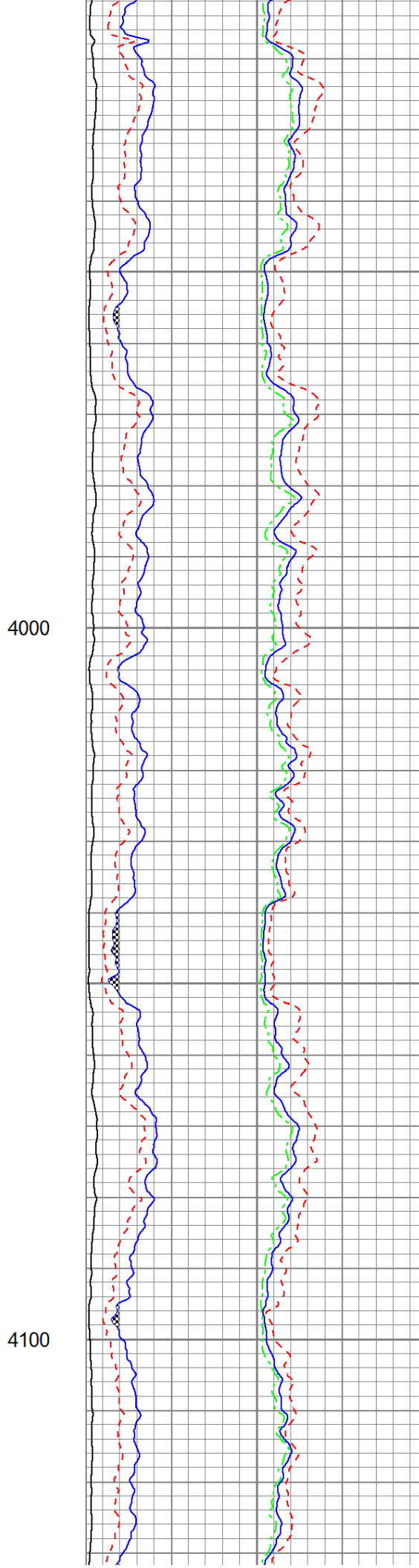
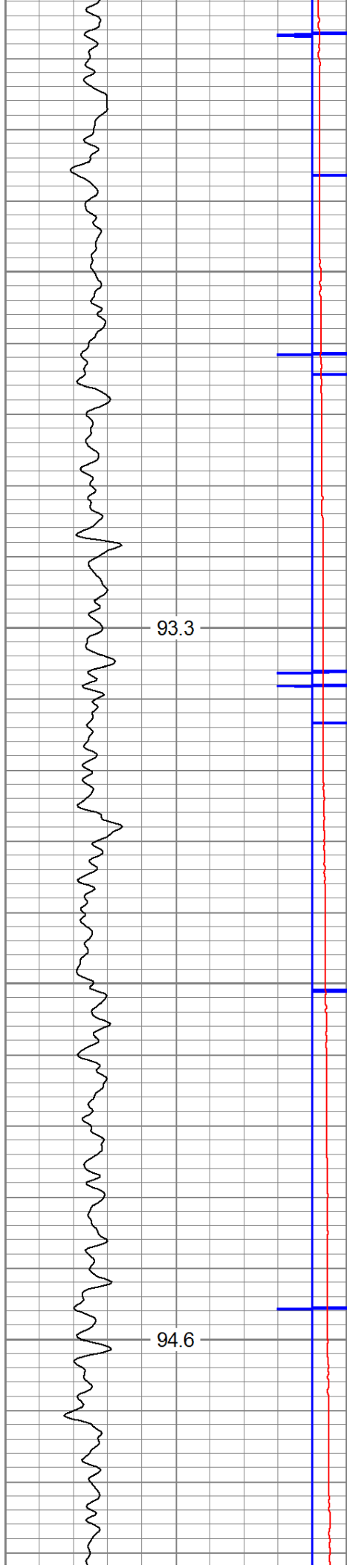


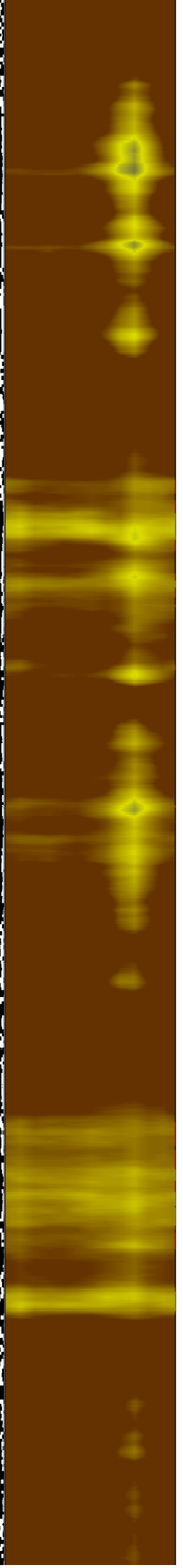
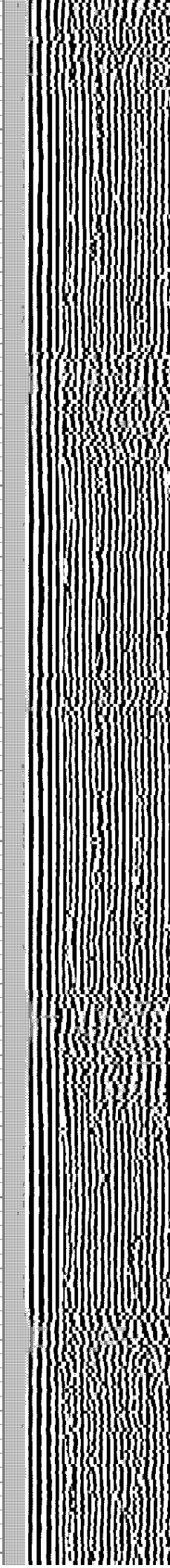
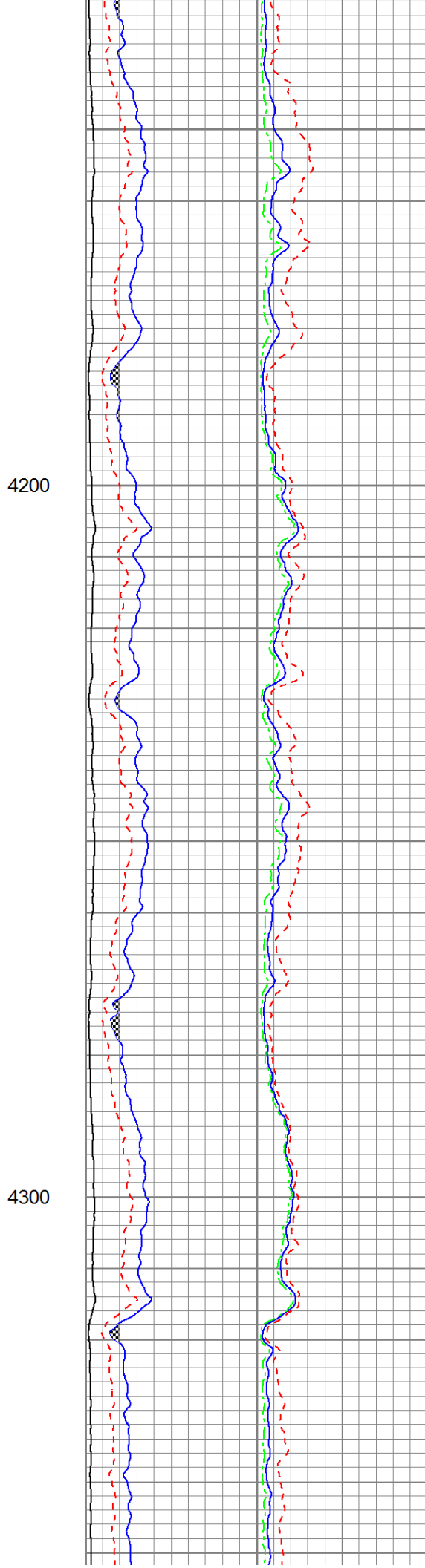
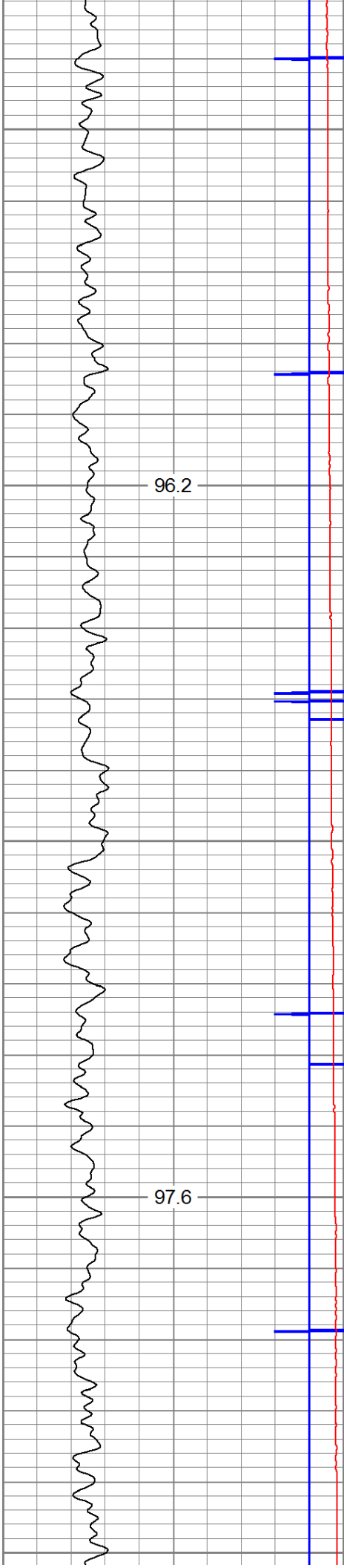
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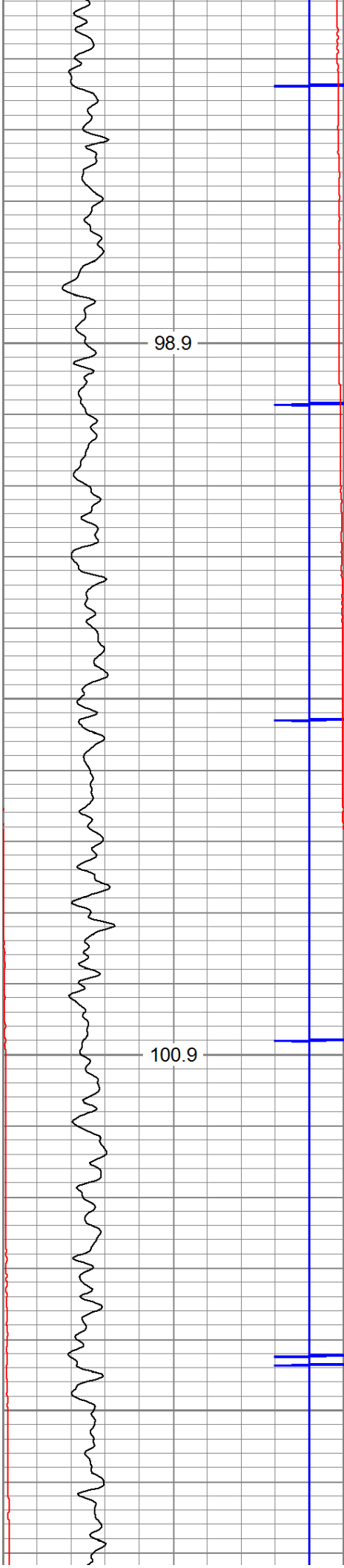
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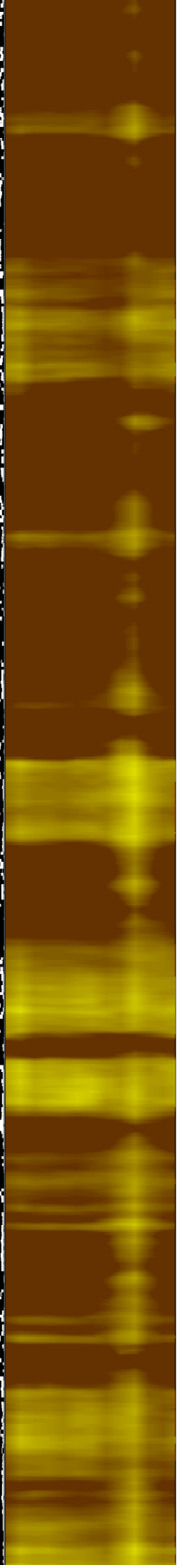
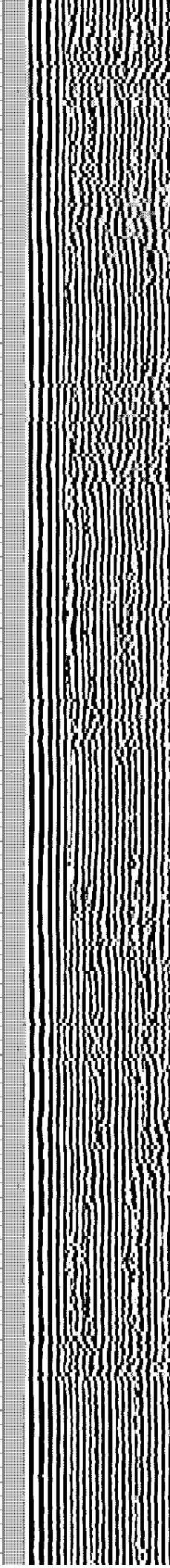
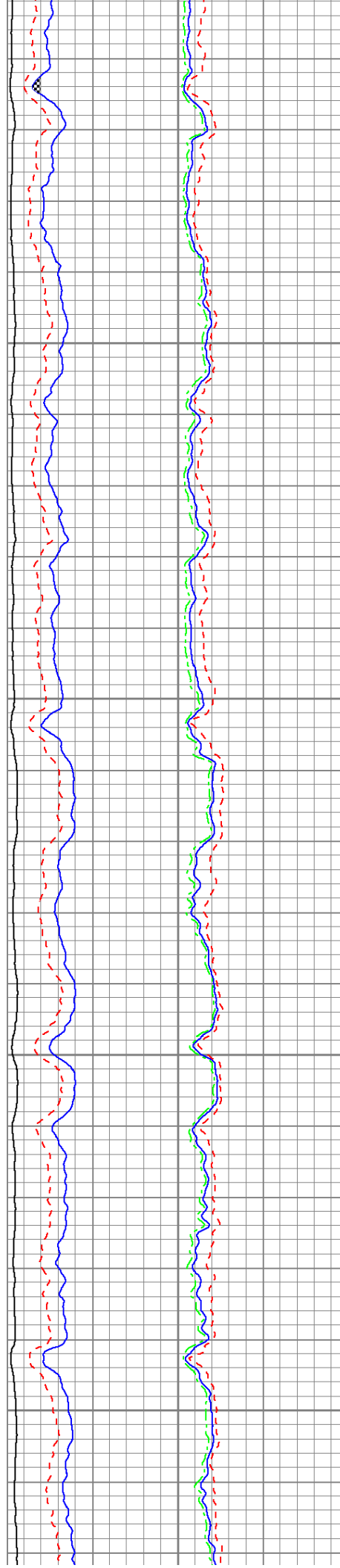


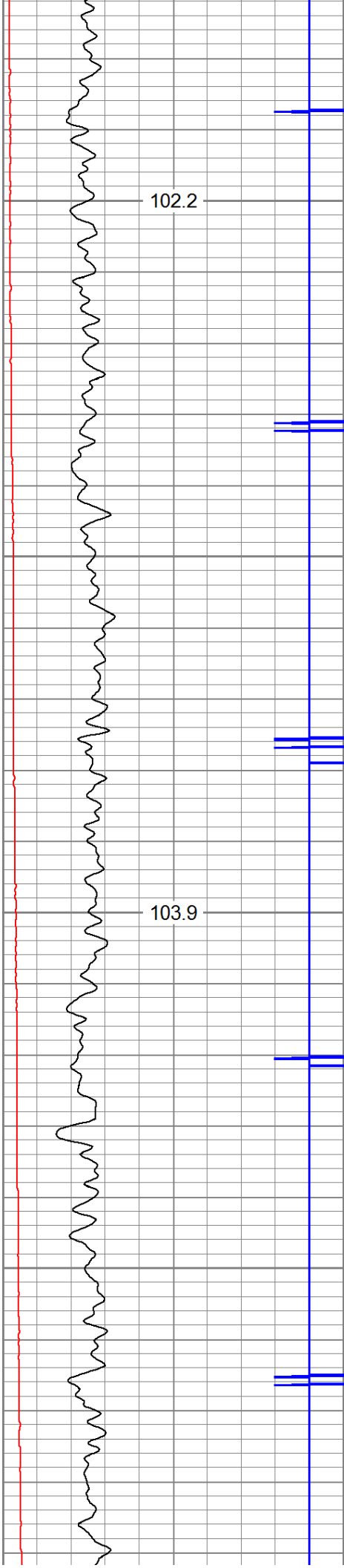




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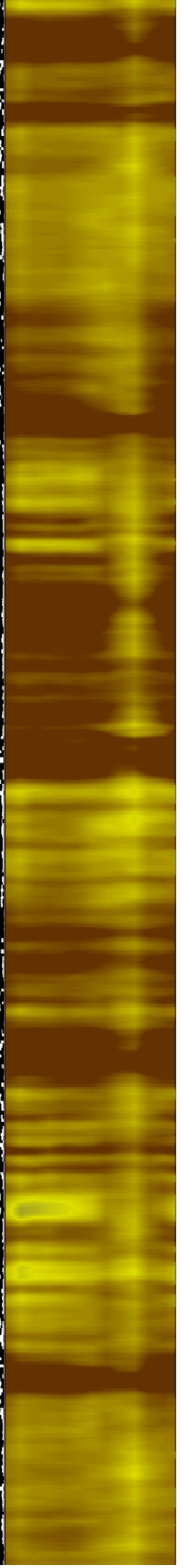
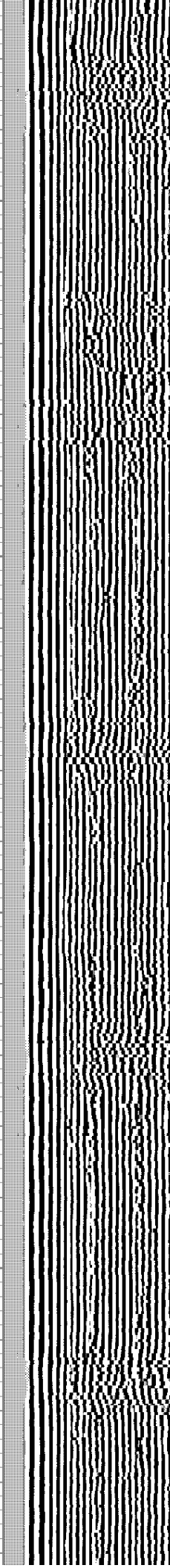
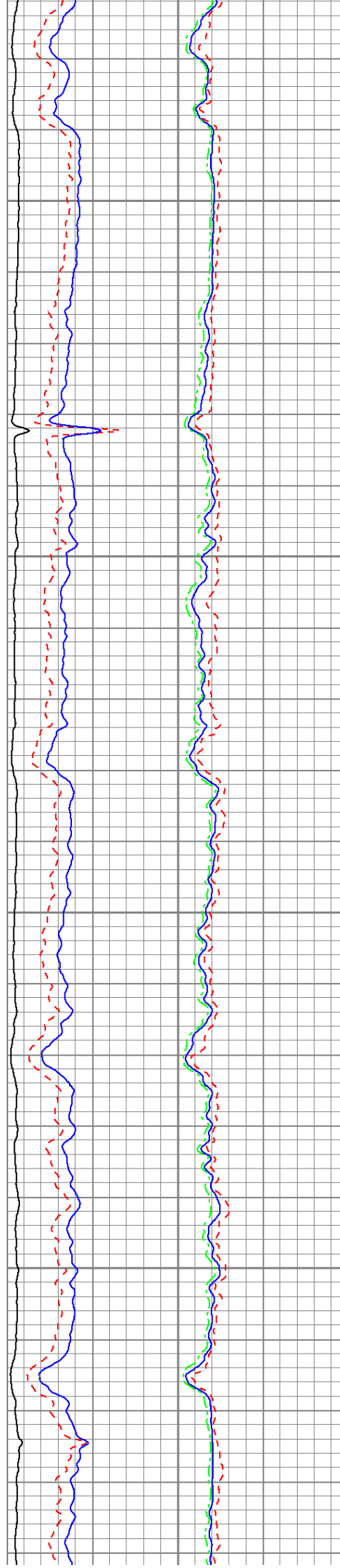
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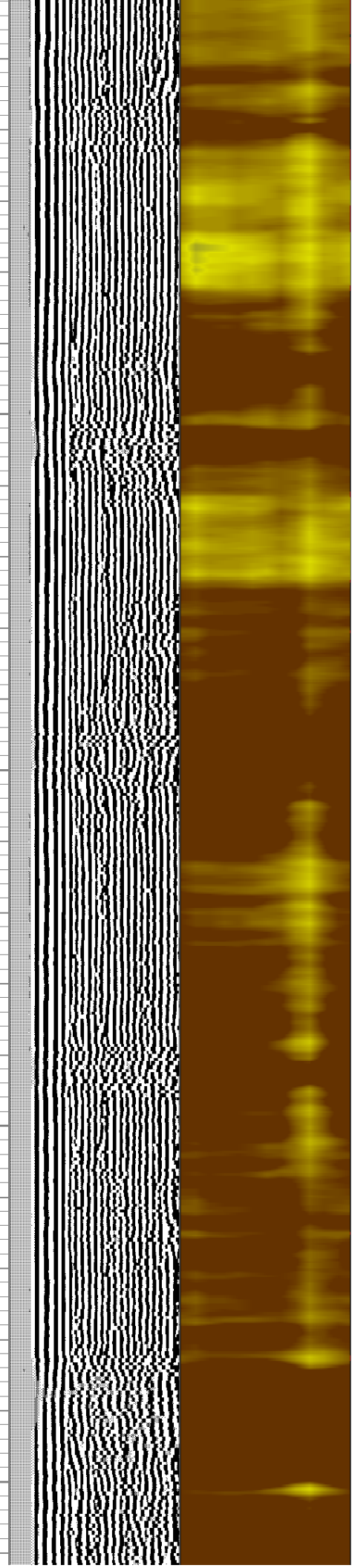
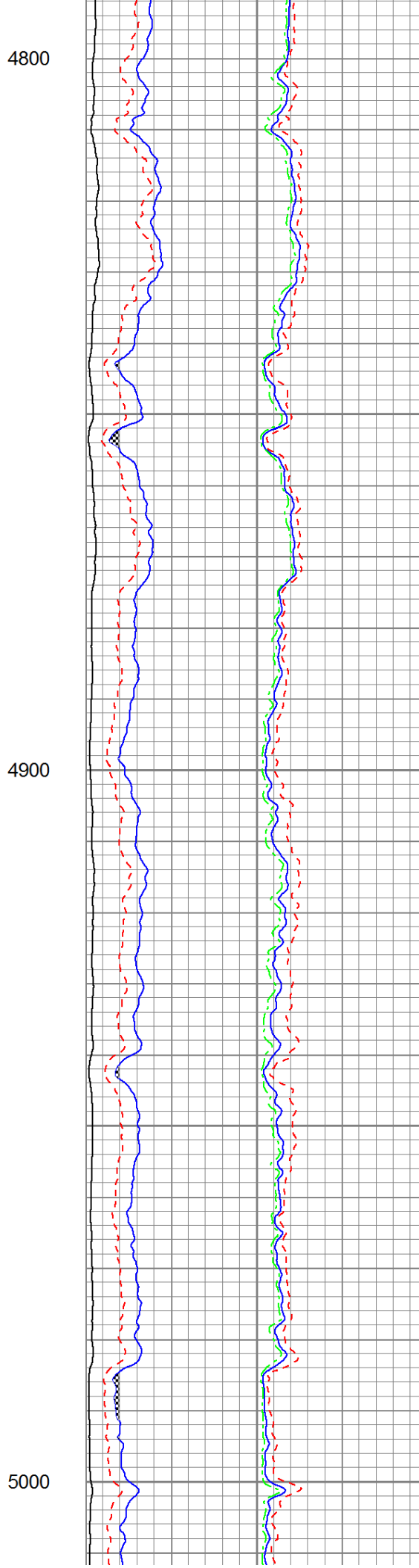
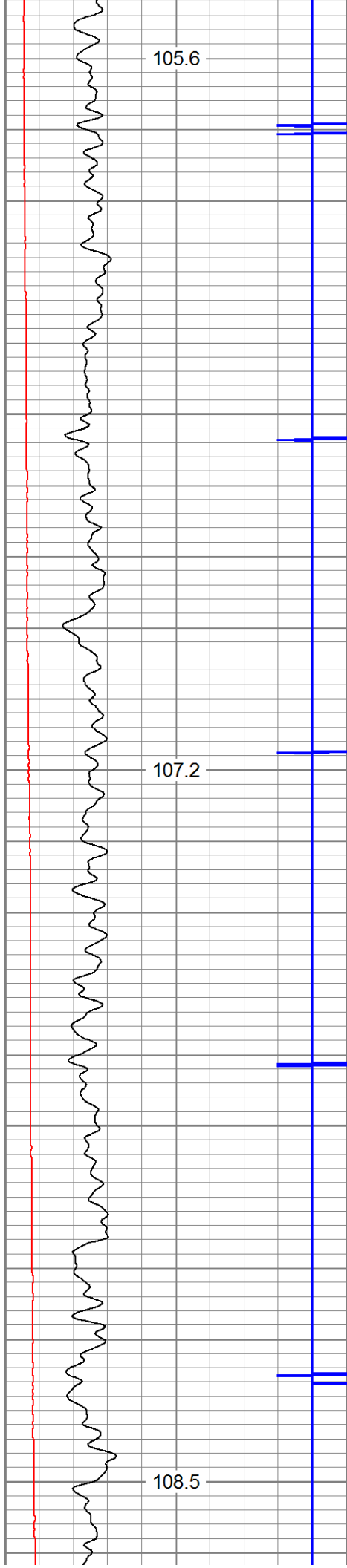


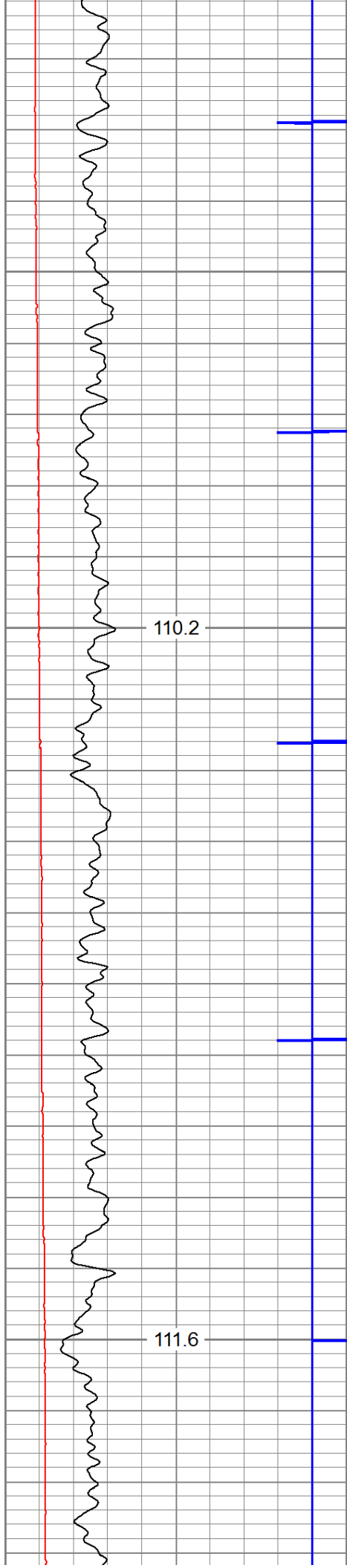


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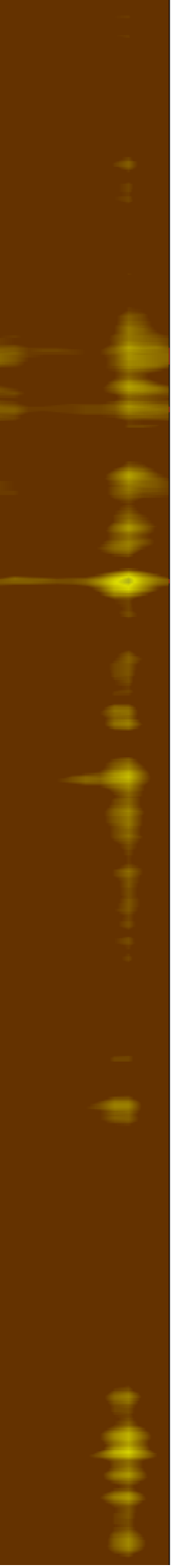
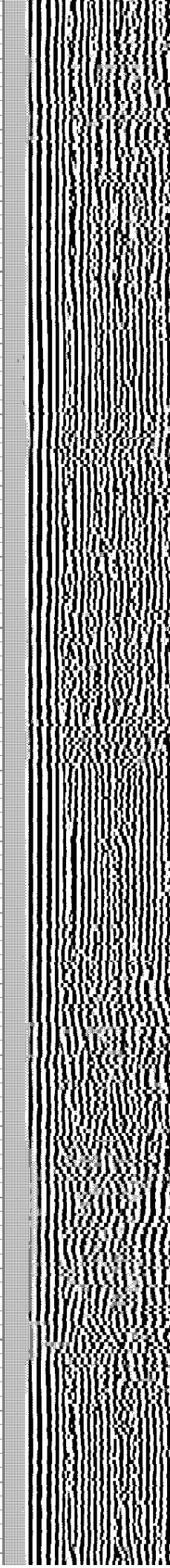
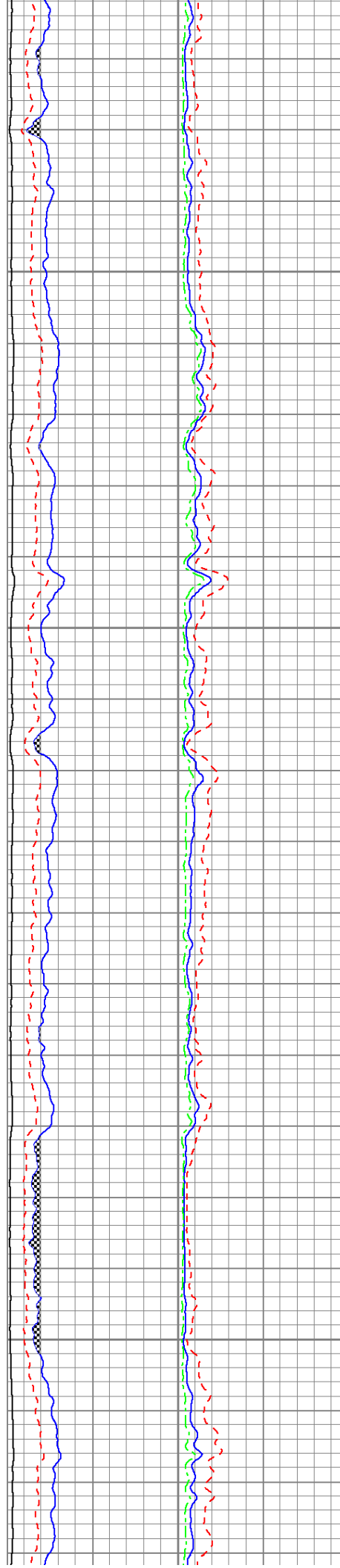


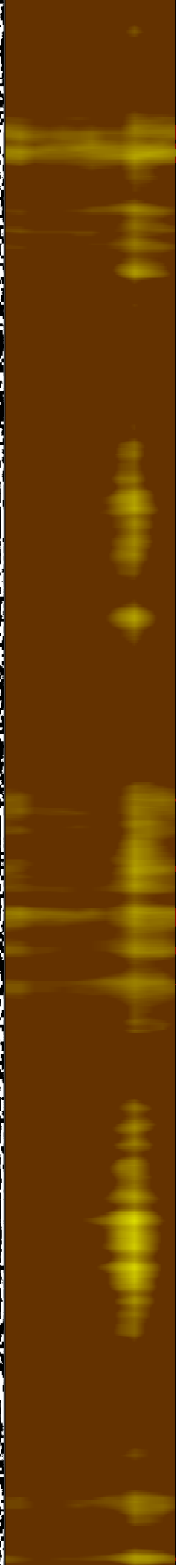
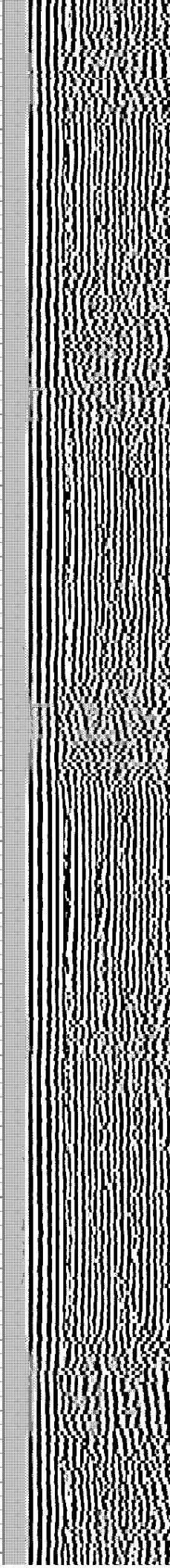
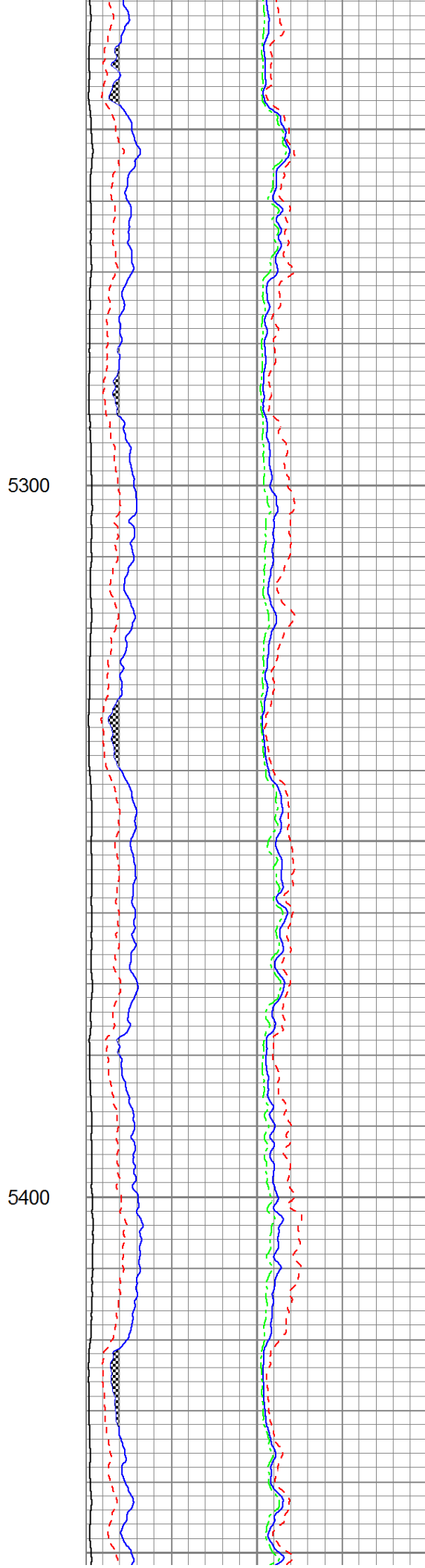
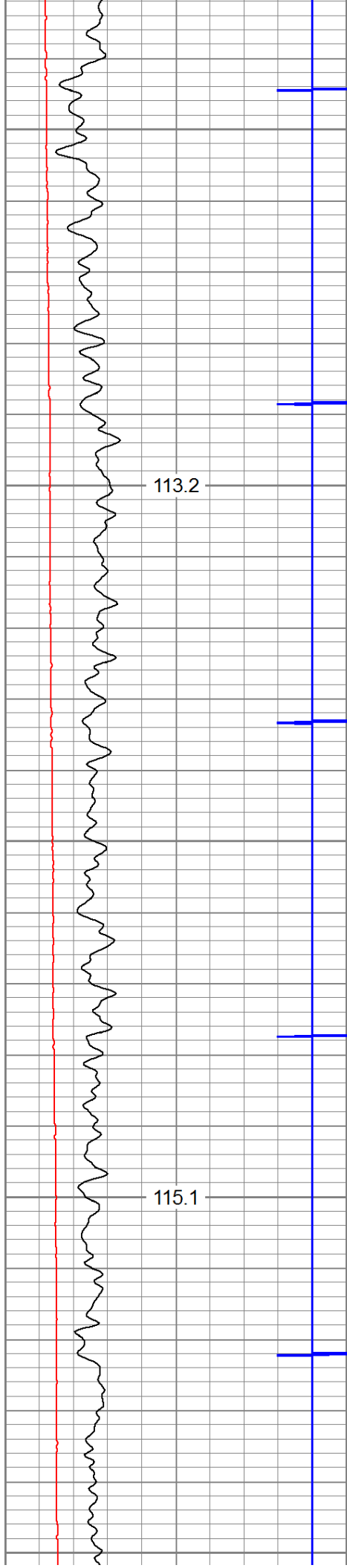


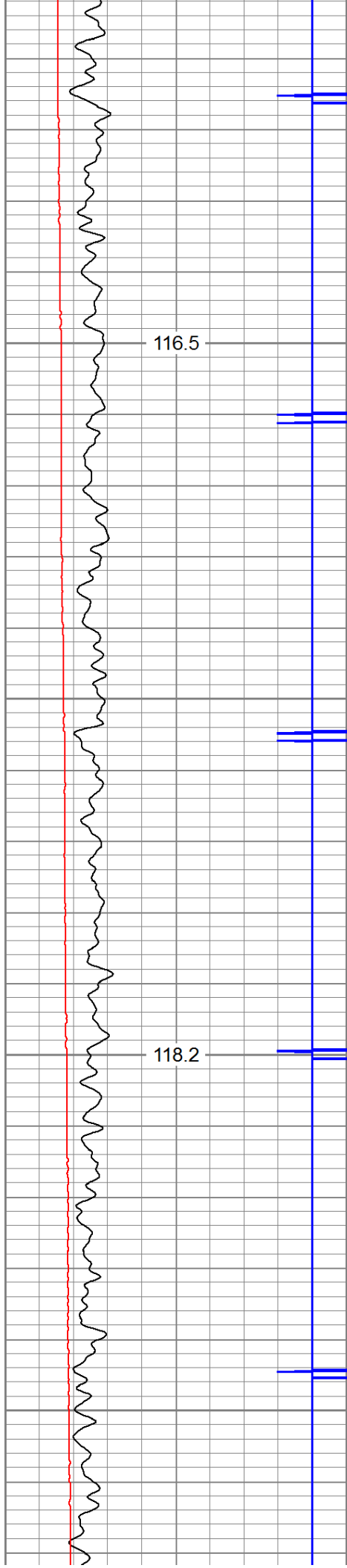


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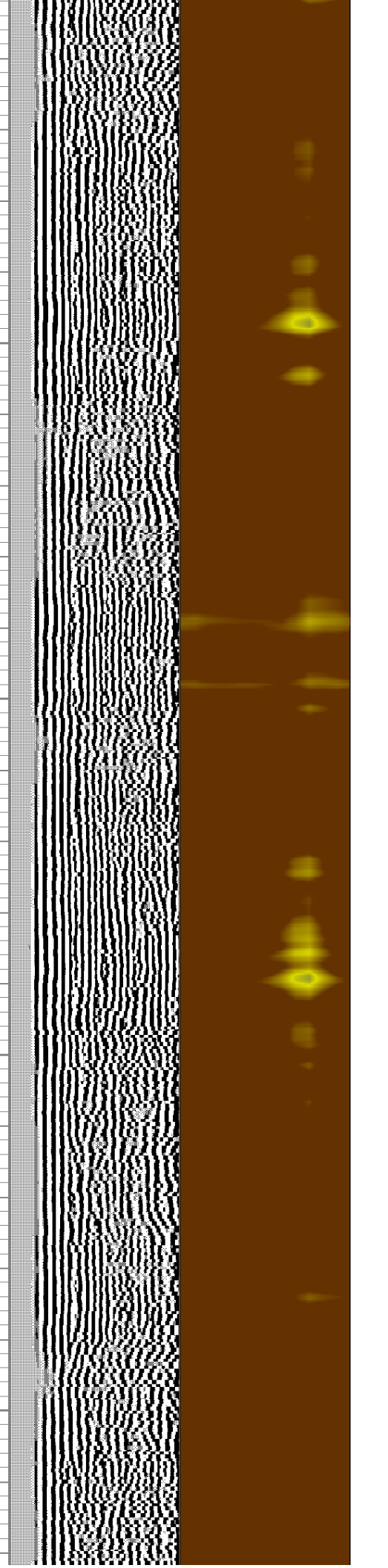
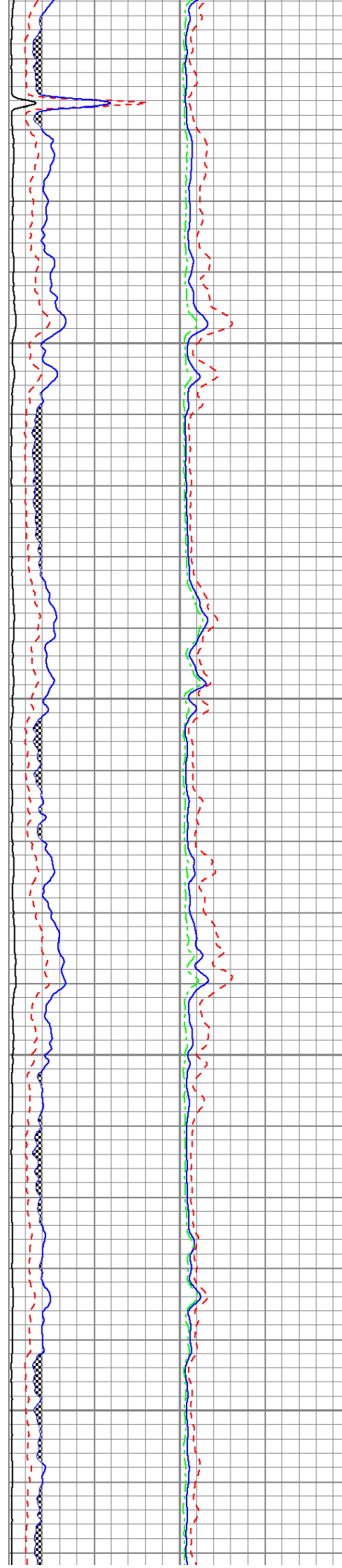


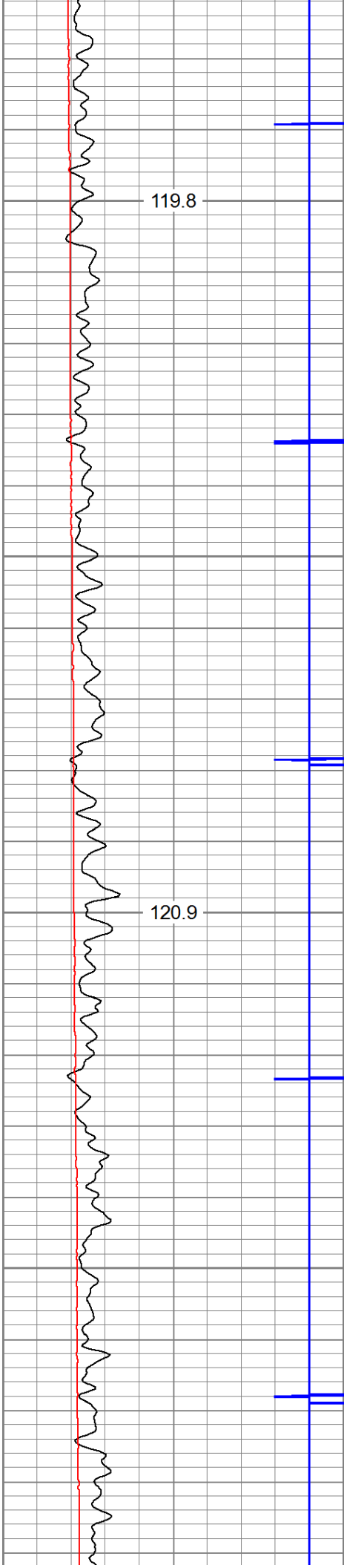




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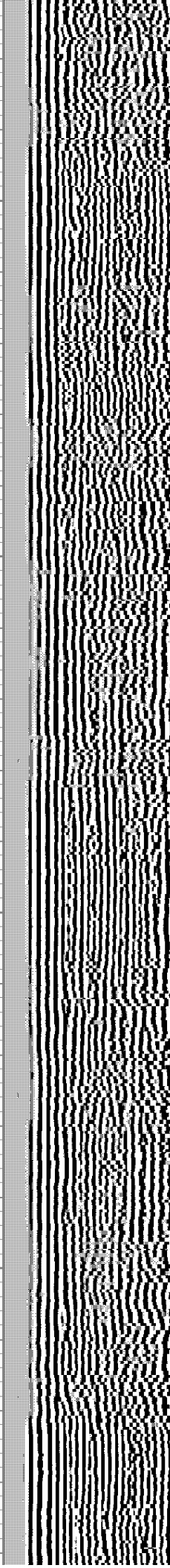
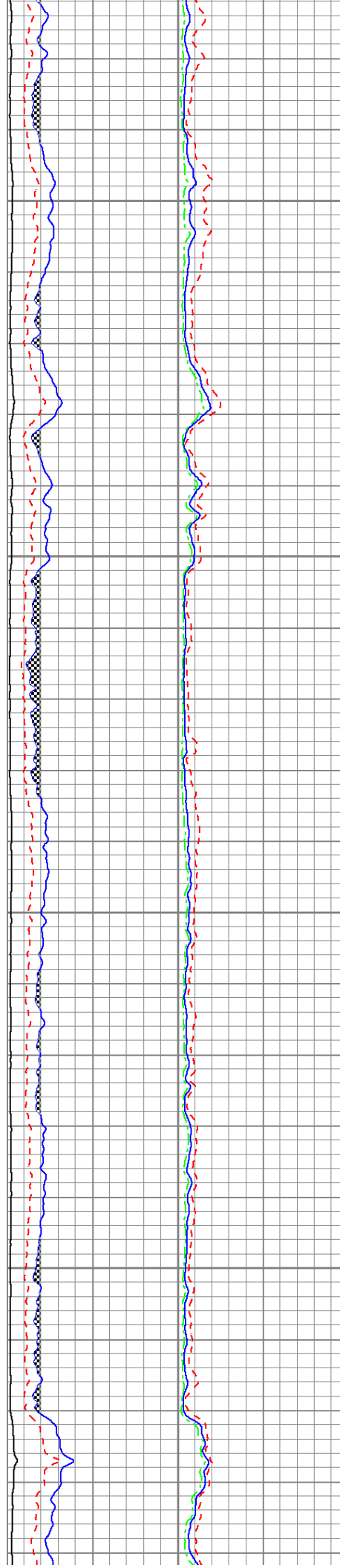
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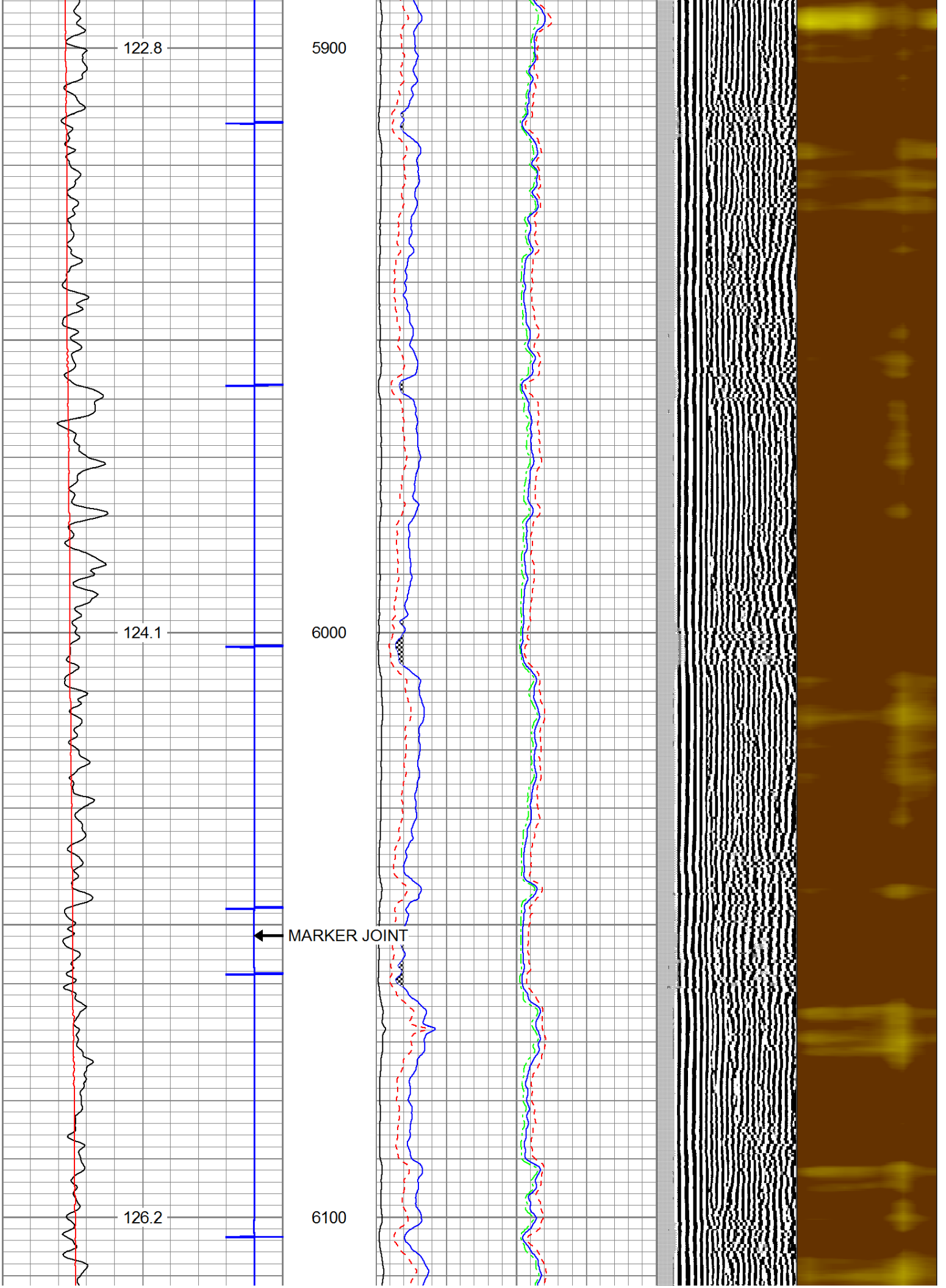


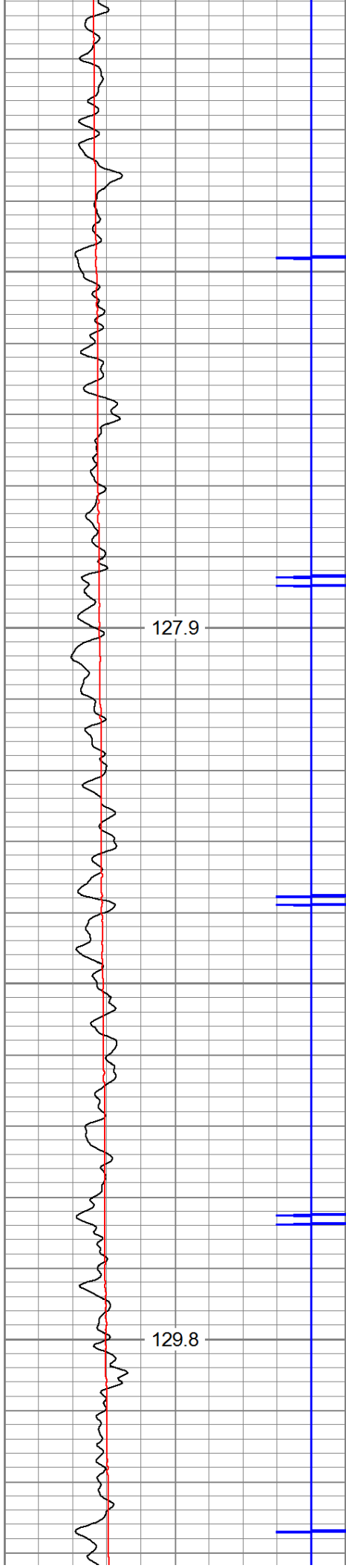


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5800

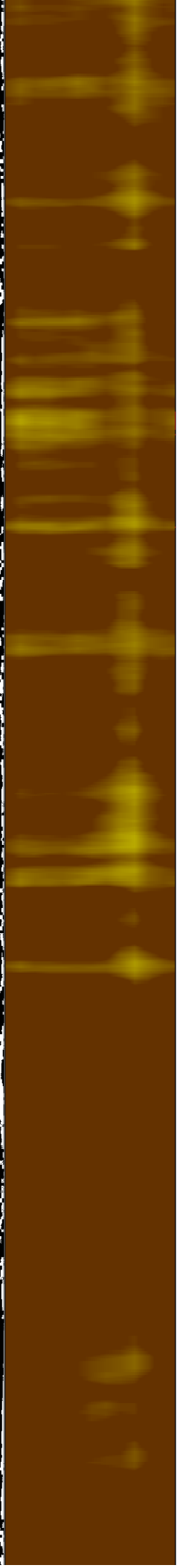
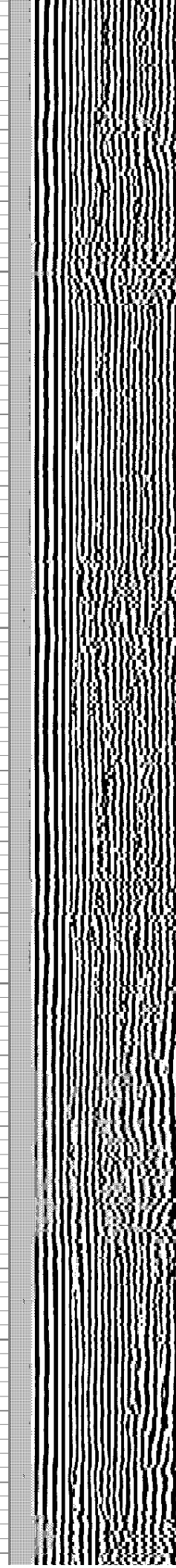
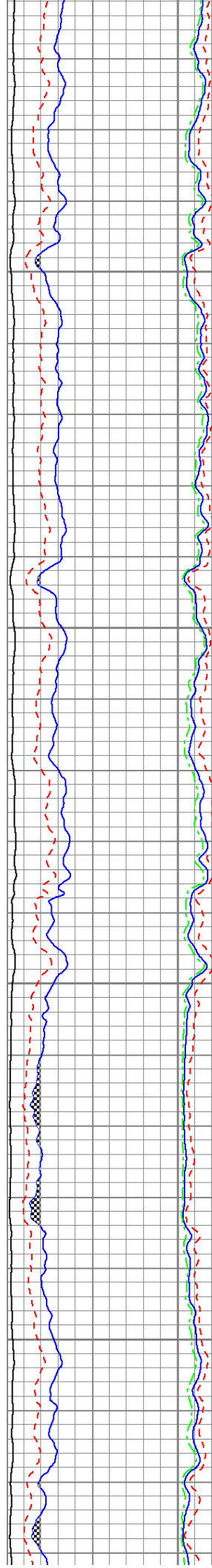


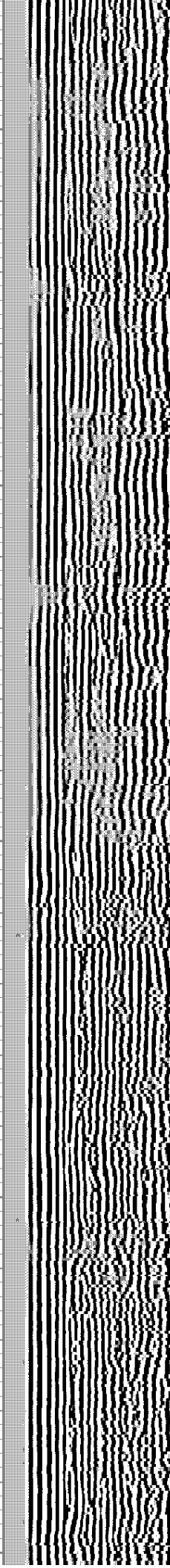
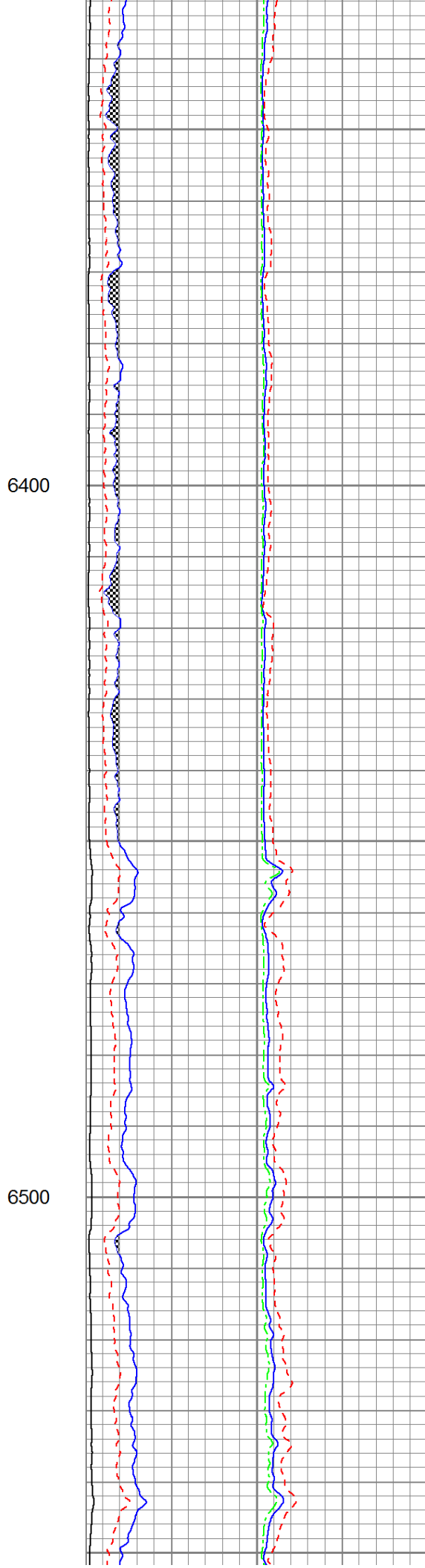
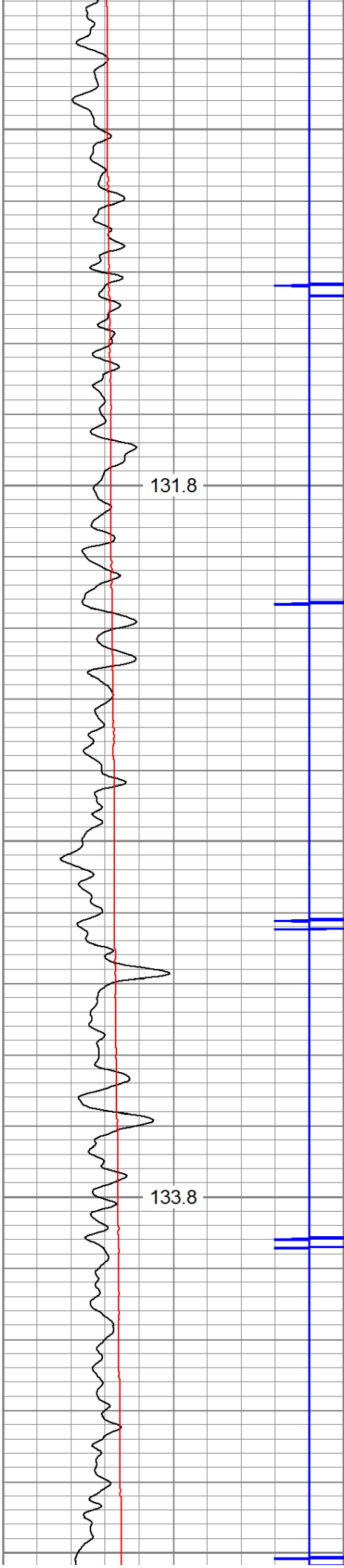


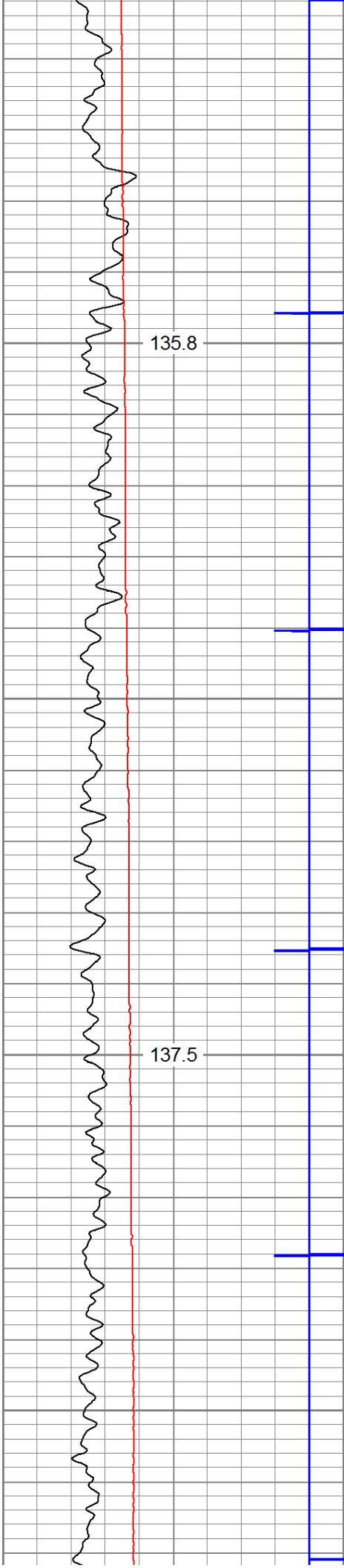


6200

6300

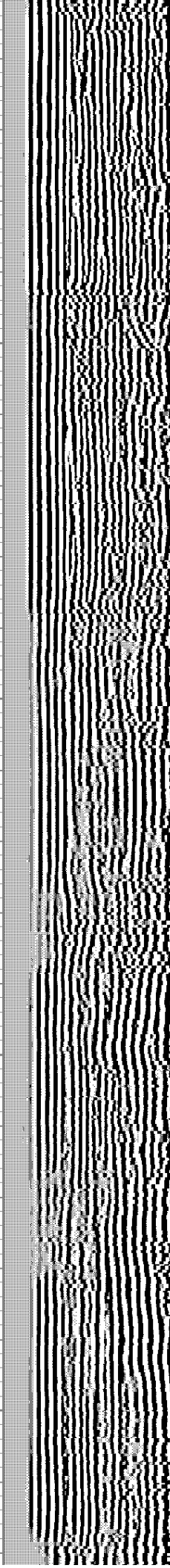
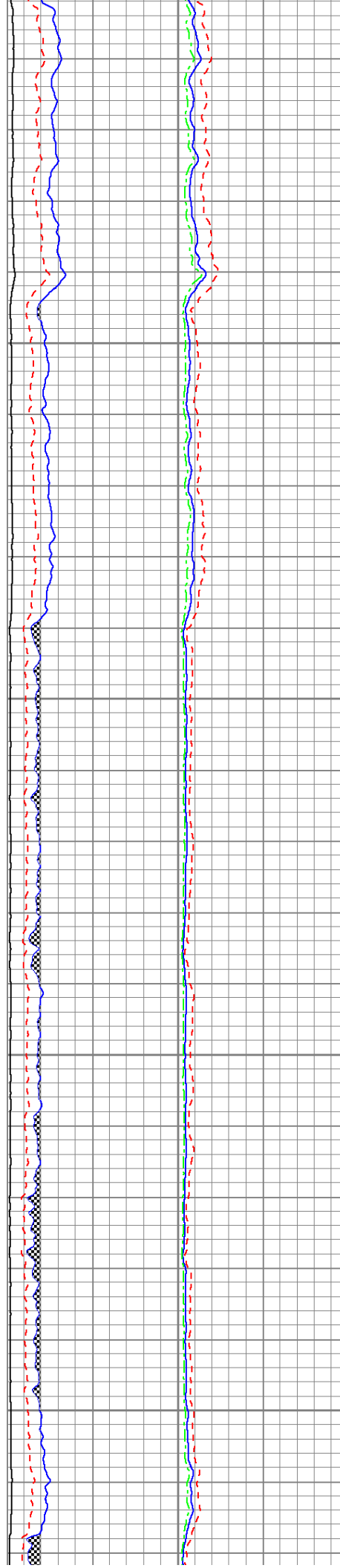


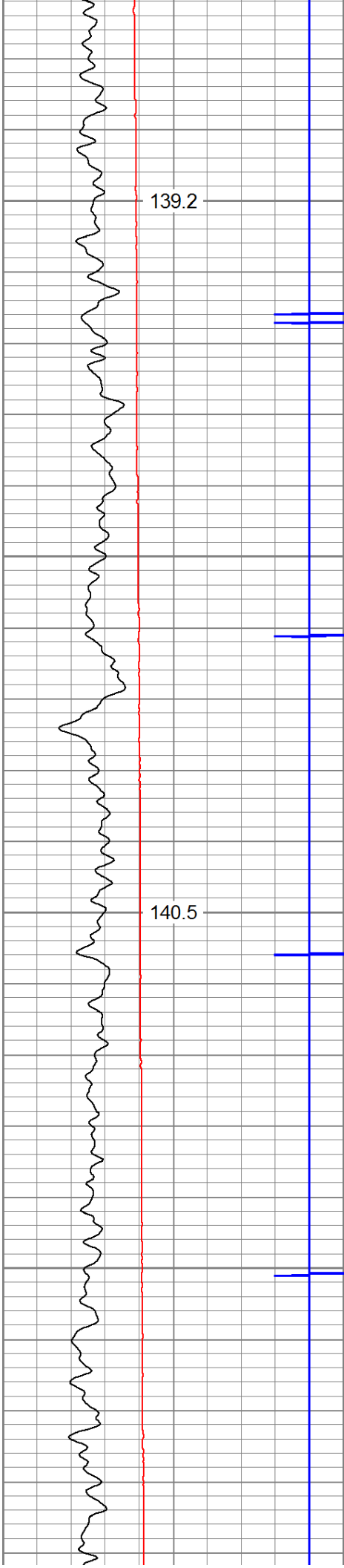




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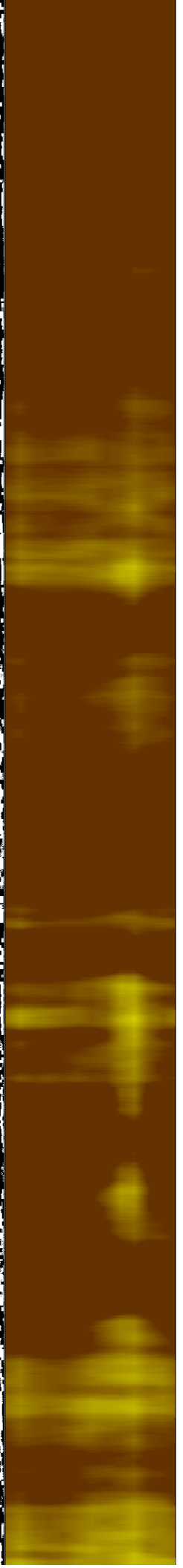
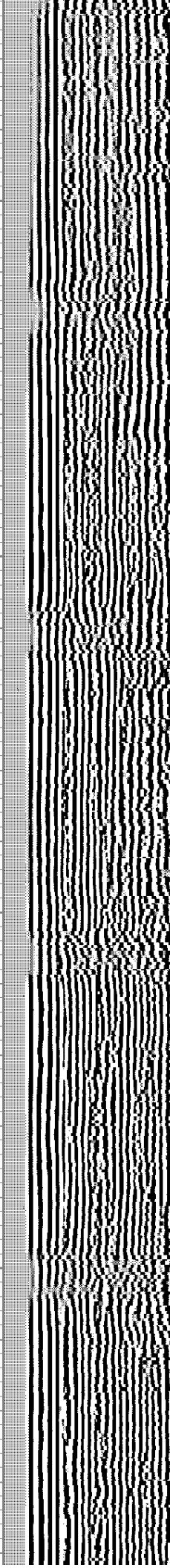
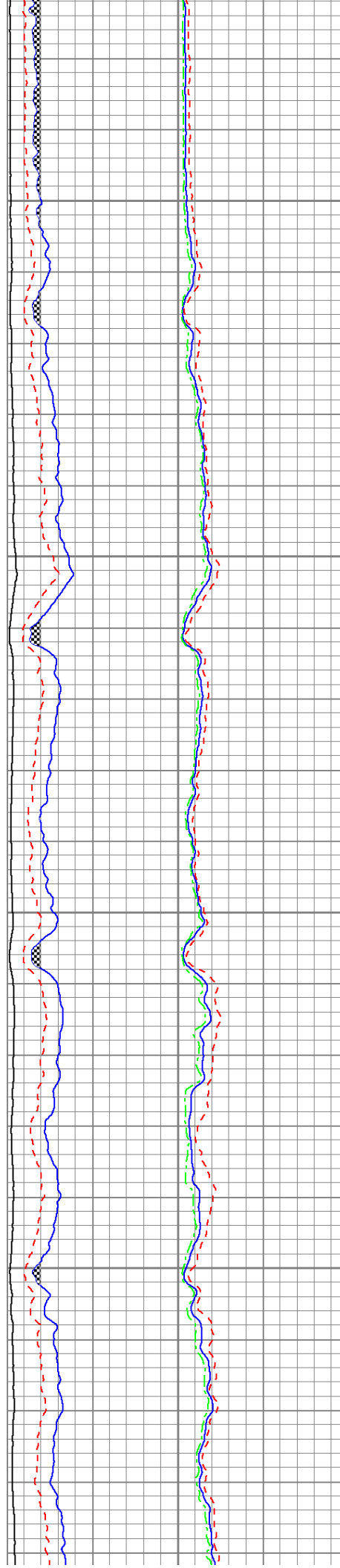
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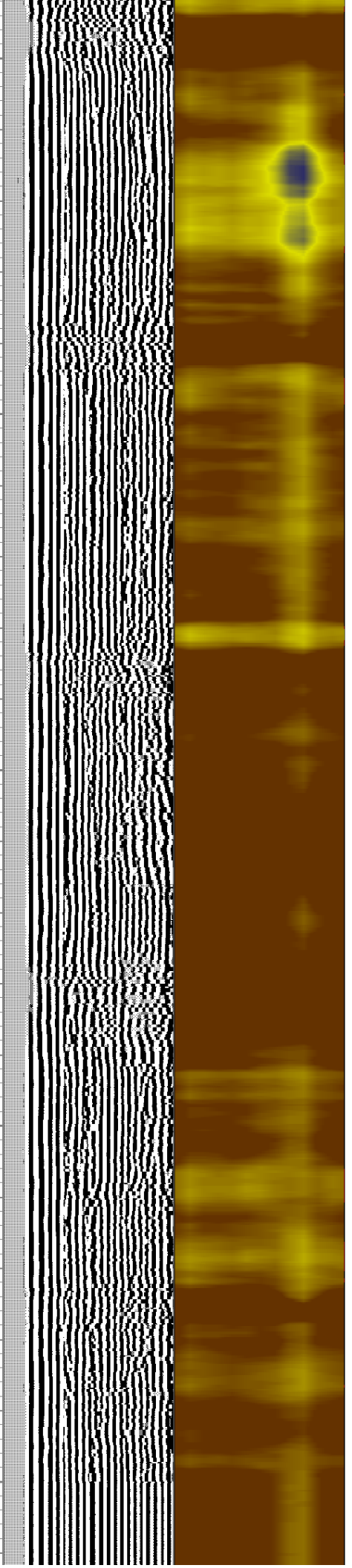
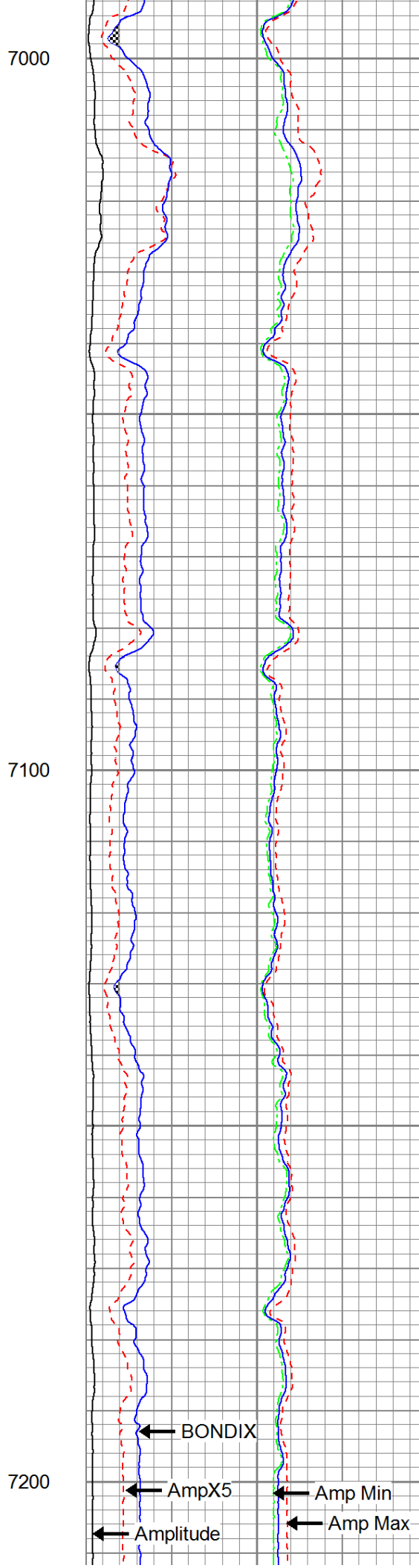
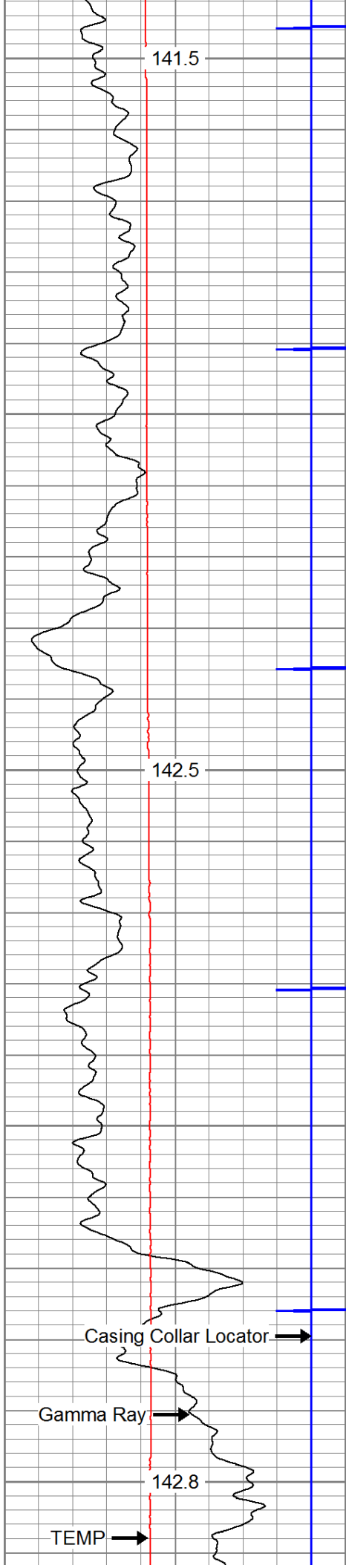


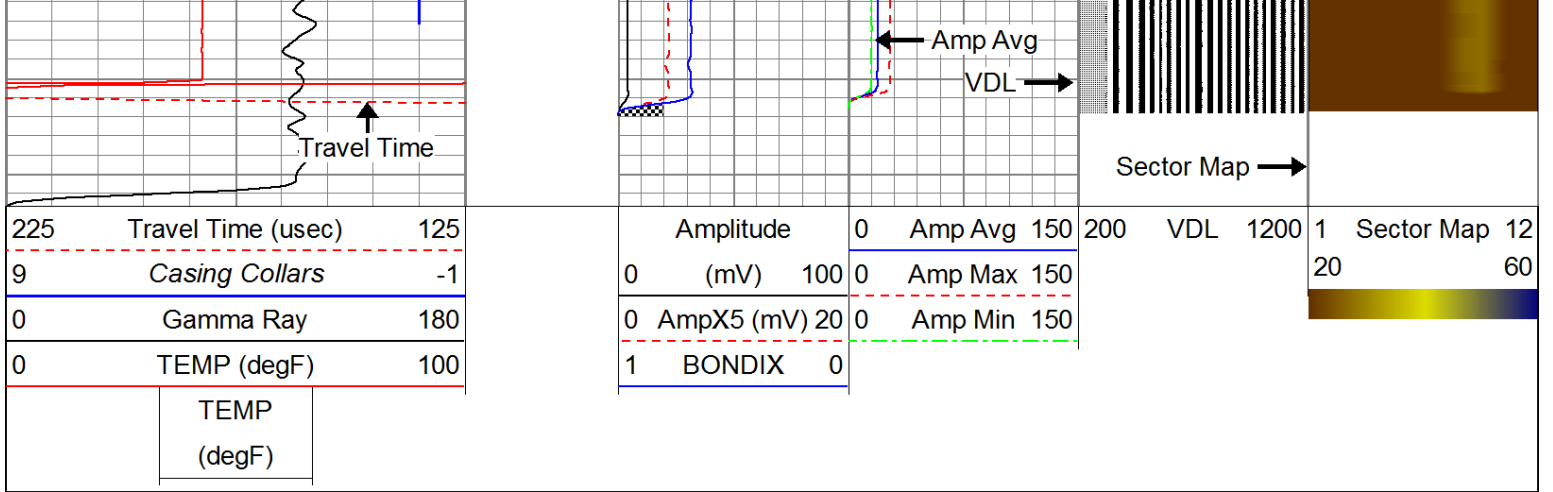


6800

6900

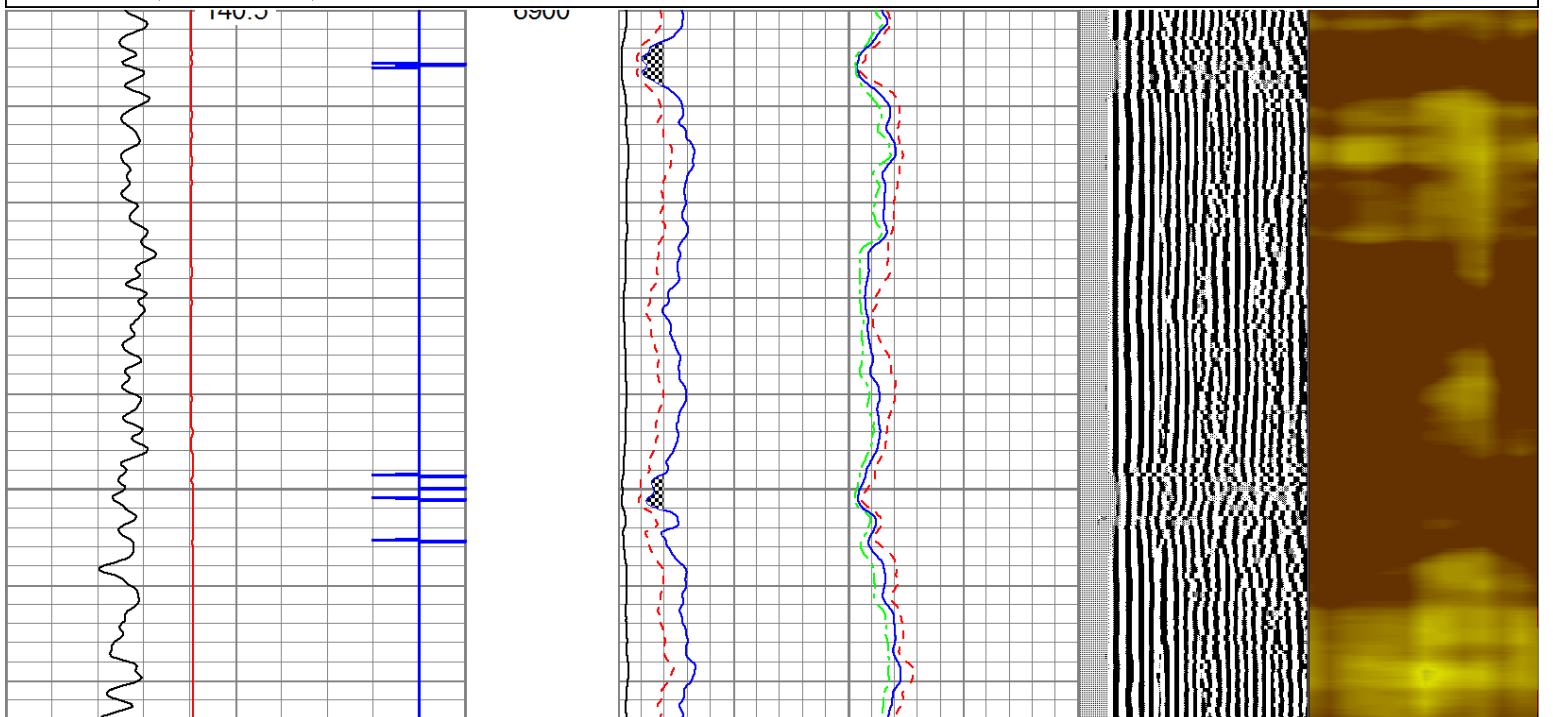
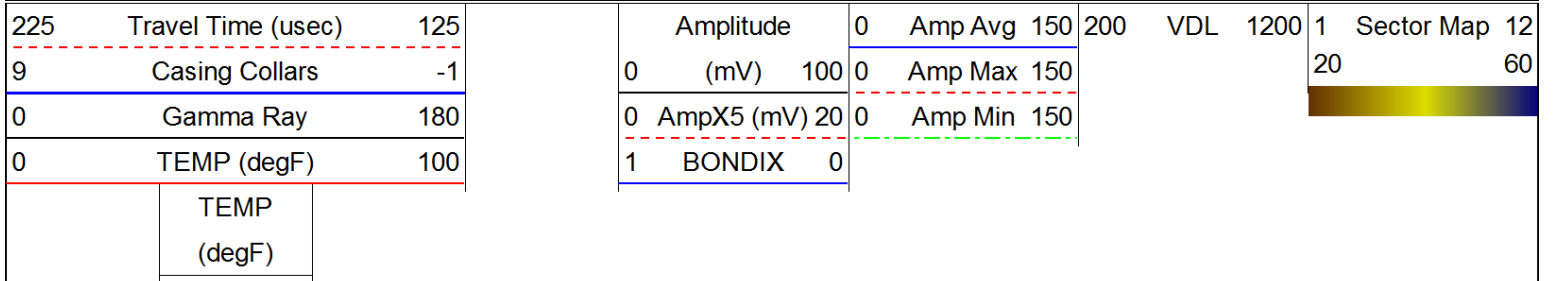


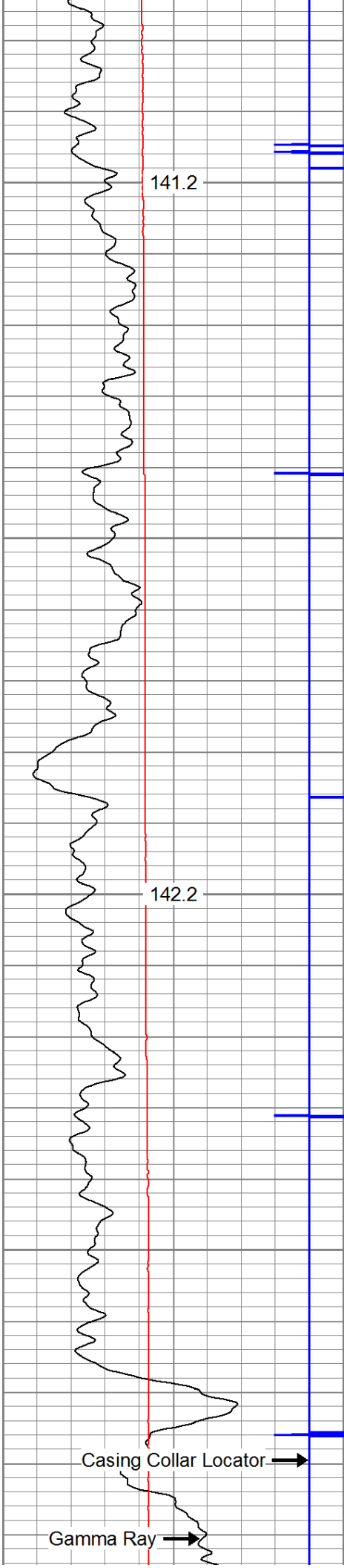




REPEAT SECTION 0 PSI

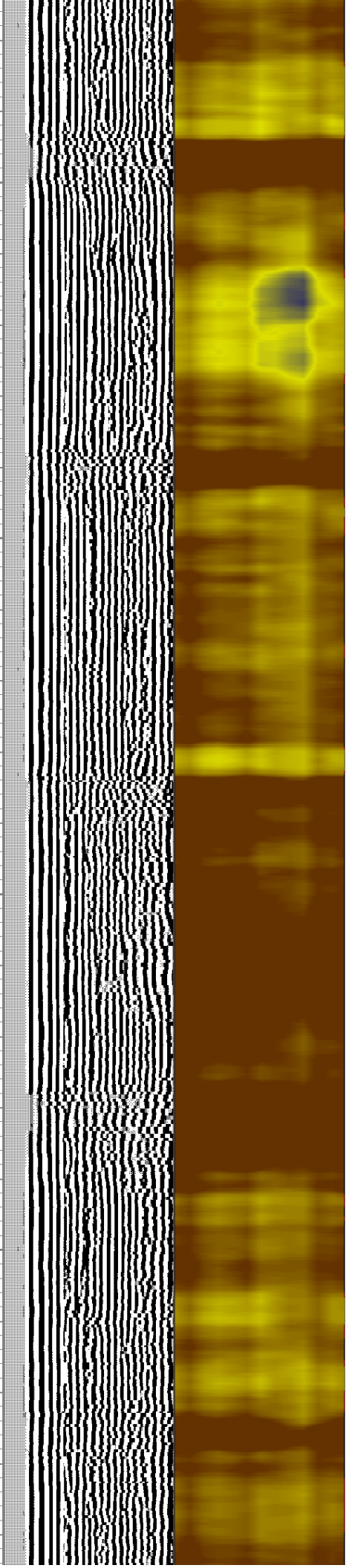
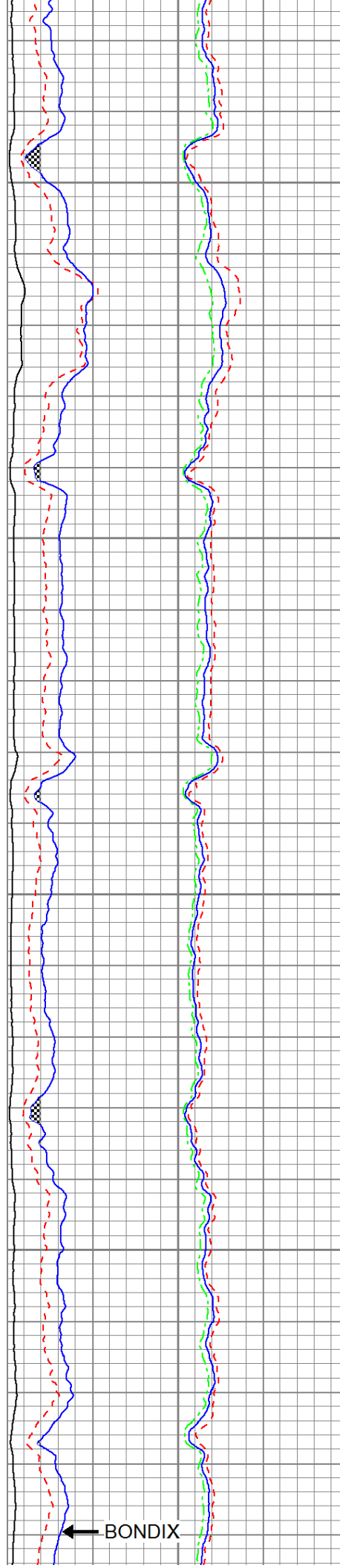
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 Dataset Pathname: pass4.1
 Presentation Format: antero
 Dataset Creation: Sun Feb 03 22:06:42 2019 by Calc 7.0 B1
 Charted by: Depth in Feet scaled 1:240

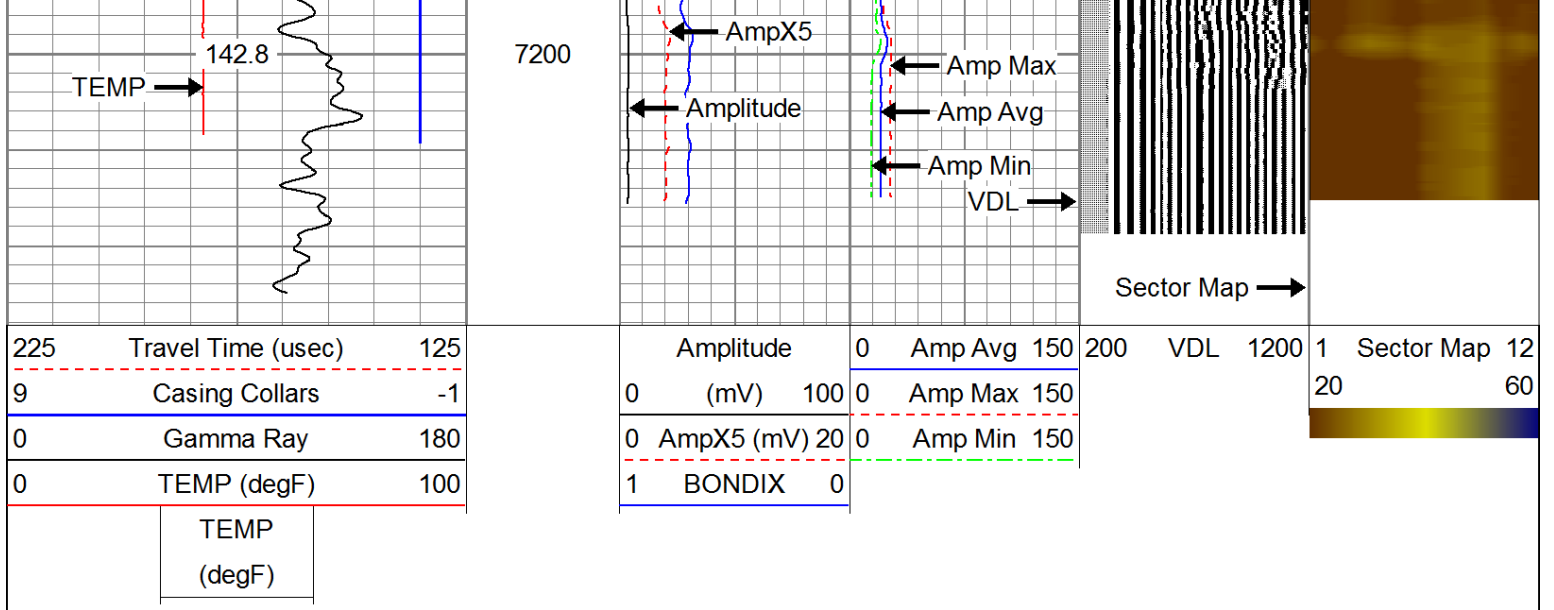




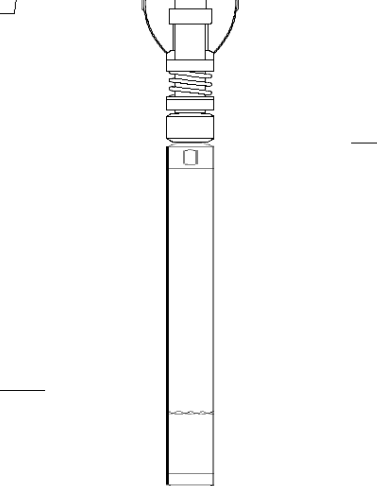
7000

7100





Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
CCL	18.93		CCL-312tekco (3.12TEKCO) Tekco 3 1/8" 450 Deg. "F" SmCo Logging CCL	1.82	3.12	25.00
			2.75 2 3/4" Tekco Adjustable Centralizer	2.73	2.75	25.00
TEMP	12.77					
WVFS1	11.48		SCBL-Tek12 (IOL40-05) Tekco 400 Deg F 12 Sector RIB with Temp	9.13	3.25	135.00
WVFS2	11.48					
WVFS3	11.48					
WVFS4	11.48					
WVFS5	11.48					
WVFS6	11.48					
WVFS7	11.48					
WVFS8	11.48					
WVFS9	11.48					
WVFS10	11.48					
WVFS11	11.48					
WVFS12	11.48					
WVF3FT	10.73					
WVFCAL	10.73					
WVF5FT	9.73					
WVFTEMP	6.40					

WVFSYNC	6.40		2.75 2 3/4" Tekco Adjustable Centralizer	2.73	2.75	25.00
GR	1.04		GR-Tek-Co 2 3/4 (IPSNO-03) Tekco 2 3/4" 400 Deg. F Logging Gamma Ray	3.67	2.75	40.00
		Dataset: spock3h.db: field/well/run1/pass5.1 Total Length: 20.07 ft Total Weight: 250.00 lb O.D.: 3.25 in				

Calibration Report


Database File: F:\2019 ANTERO\pyle run\spock3h.db
Dataset Pathname: pass5.1
Dataset Creation: Sun Feb 03 21:48:45 2019 by Calc 7.0 B1

Gamma Ray Calibration Report

Serial Number:	IPSNO-03		
Tool Model:	Tek-Co 2 3/4		
Performed:	Mon Nov 07 10:23:17 2016		
Calibrator Value:	1.0		
Background Reading:	0.0	cps	
Calibrator Reading:	1.0	cps	
Sensitivity:	0.3000	/cps	

Temperature Calibration Report

Serial Number:	IOL40-05		
Tool Model:	Tek12		
Performed:	Wed Jul 31 10:53:14 2013		
	Reference	Reading	
Low Reference:	0.00 degF	0.00	usec
High Reference:	1.00 degF	1.00	usec
Gain:	0.33		
Offset:	0.00		
Delta Spacing	2		

	Company	ANTERO RESOURCES CORPORATION		
	Well	SPOCK UNIT 3H		
	Field	MARCELLUS		
	County	TYLER		
	State	W.V.		
		Country	USA	