



**RADIAL CEMENT BOND / CCL
GAMMA RAY / VDL**

Company ANTERO RESOURCES CORPORATION
Well RODZINA 2H
Field MARCELLUS
County TYLER
State W.V.

Company ANTERO RESOURCES CORPORATION
Well RODZINA 2H
Field MARCELLUS
County TYLER State W.V.

Location: API #: 4709502586

Other Services

SEC	TWP	RGE	Elevation
Permanent Datum	G.L.		1009'
Log Measured From	K.B.		K.B. 1039'
Drilling Measured From	K.B. OF 30'		D.F. 1039'
			G.L. 1009'

Date	10/9/19	
Run Number	ONE	
Depth Driller	20532'	
Depth Logger	7138'	
Bottom Logged Interval	7138'	
Top Log Interval	SURFACE	
Open Hole Size	N/A	
Type Fluid	H2O	
Density / Viscosity	N/A	
Max. Recorded Temp.	143 DEG	
Estimated Cement Top	2020'	
Time Well Ready	N/A	
Time Logger on Bottom	N/A	
Equipment Number	340	
Location	BRIDGEPORT, WV	
Recorded By	JBOGGS	
Witnessed By	BRYAN HEMARD	

Borehole Record

Casing Record

Run Number	Bit	From	To	Size	Weight	From	To
				13 3/8"	N/A	582'	SURFACE
				9 5/8"	N/A	2595'	SURFACE
				5 1/2"	N/A	20532'	SURFACE

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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
TOP OF CEMENT @ 2020'
MARKER JOINT @ 6172'-6182'
BOTTOM HOLE TEMP- 143 DEG



LOGGED UNDER 1500 PSI.

Database File: e:\rodzina 2h.db
 Dataset Pathname: pass3.1
 Presentation Format: antero
 Dataset Creation: Wed Oct 09 14:58:43 2019 by Calc 7.0 B1
 Charted by: Depth in Feet scaled 1:240

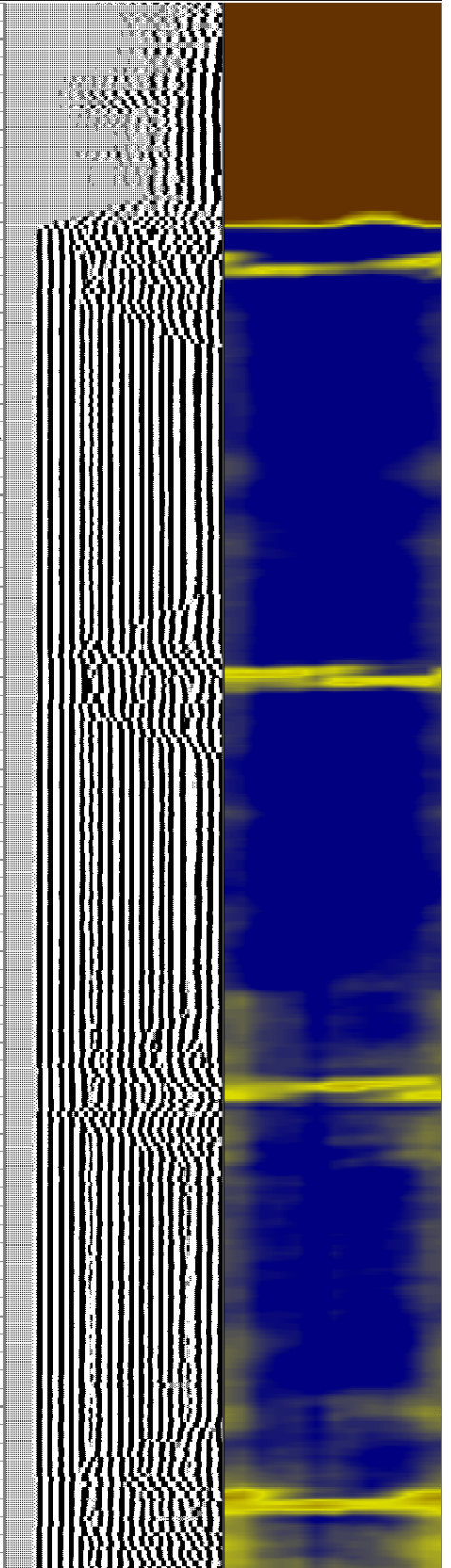
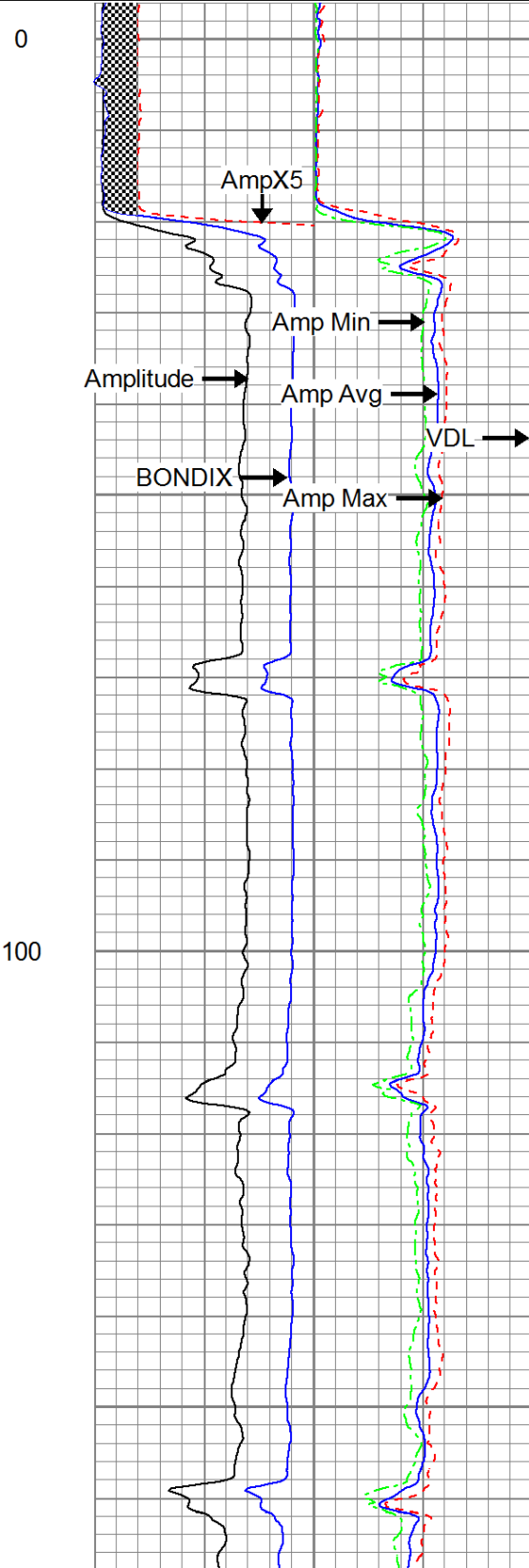
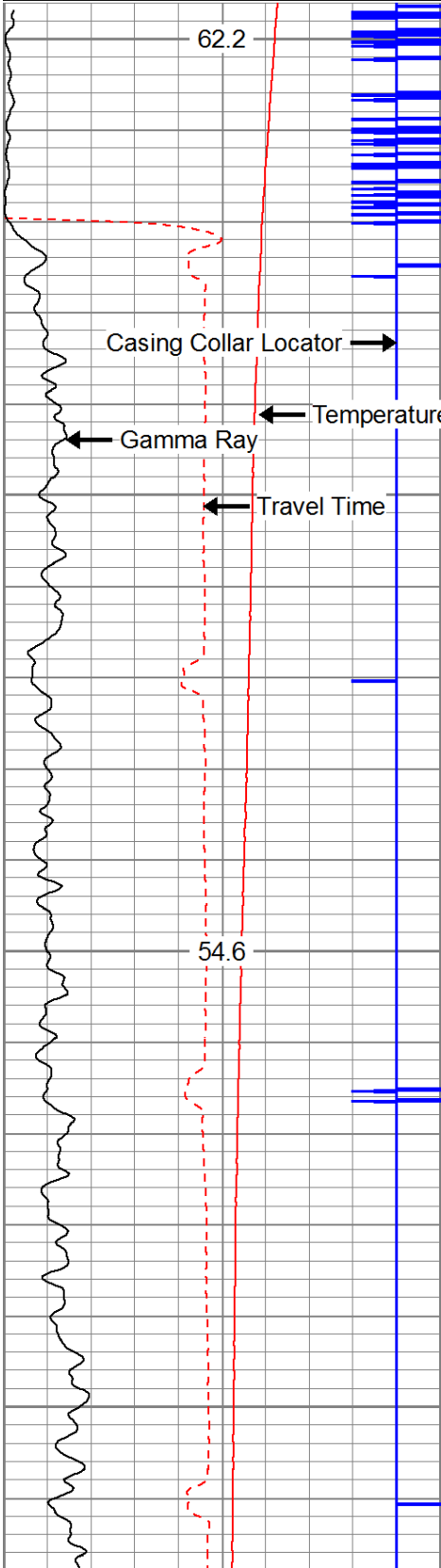
280	Travel Time (usec)	180
9	Casing Collars	-1
0	Gamma Ray	180
0	TEMP (degF)	100

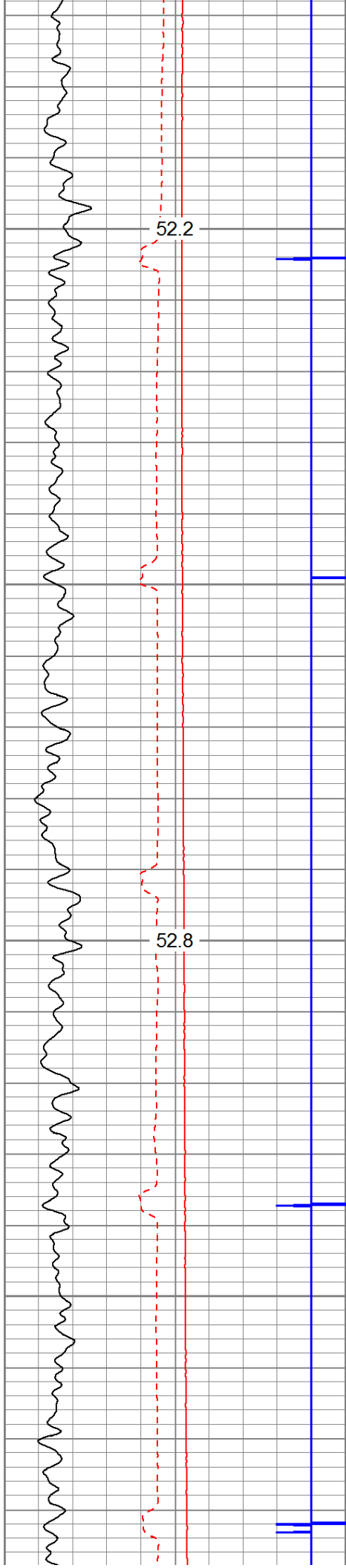
Amplitude	0	Amp Avg	150	200	VDL	1200
0 (mV)	100	0	Amp Max	150		
0 AmpX5 (mV)	20	0	Amp Min	150		
1 BONDIX	0					

1	Sector Map	12
20		80



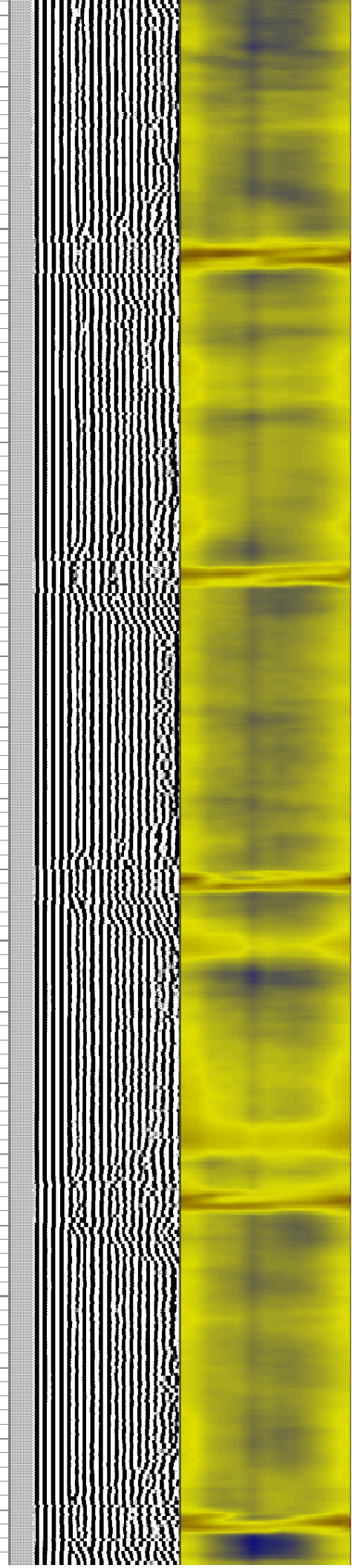
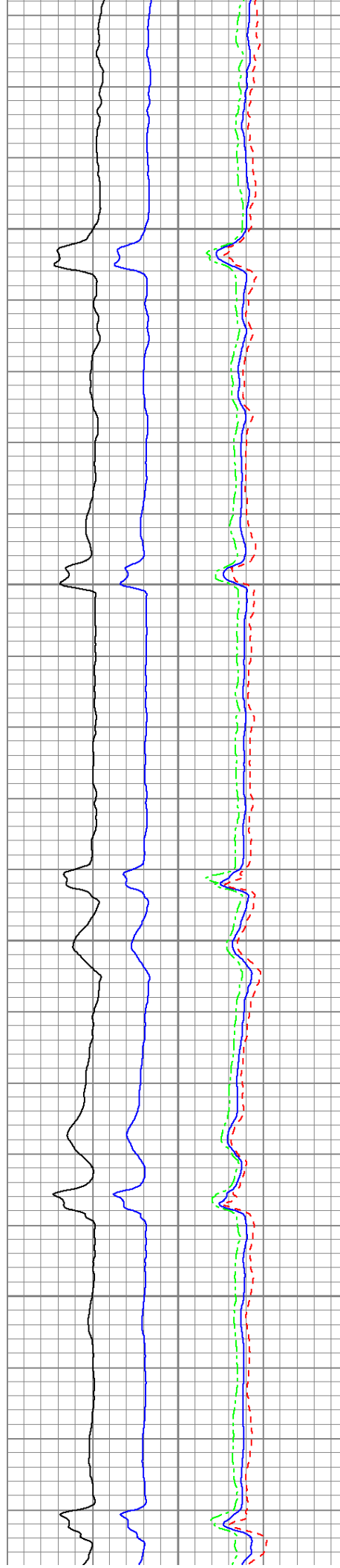
TEMP (degF)

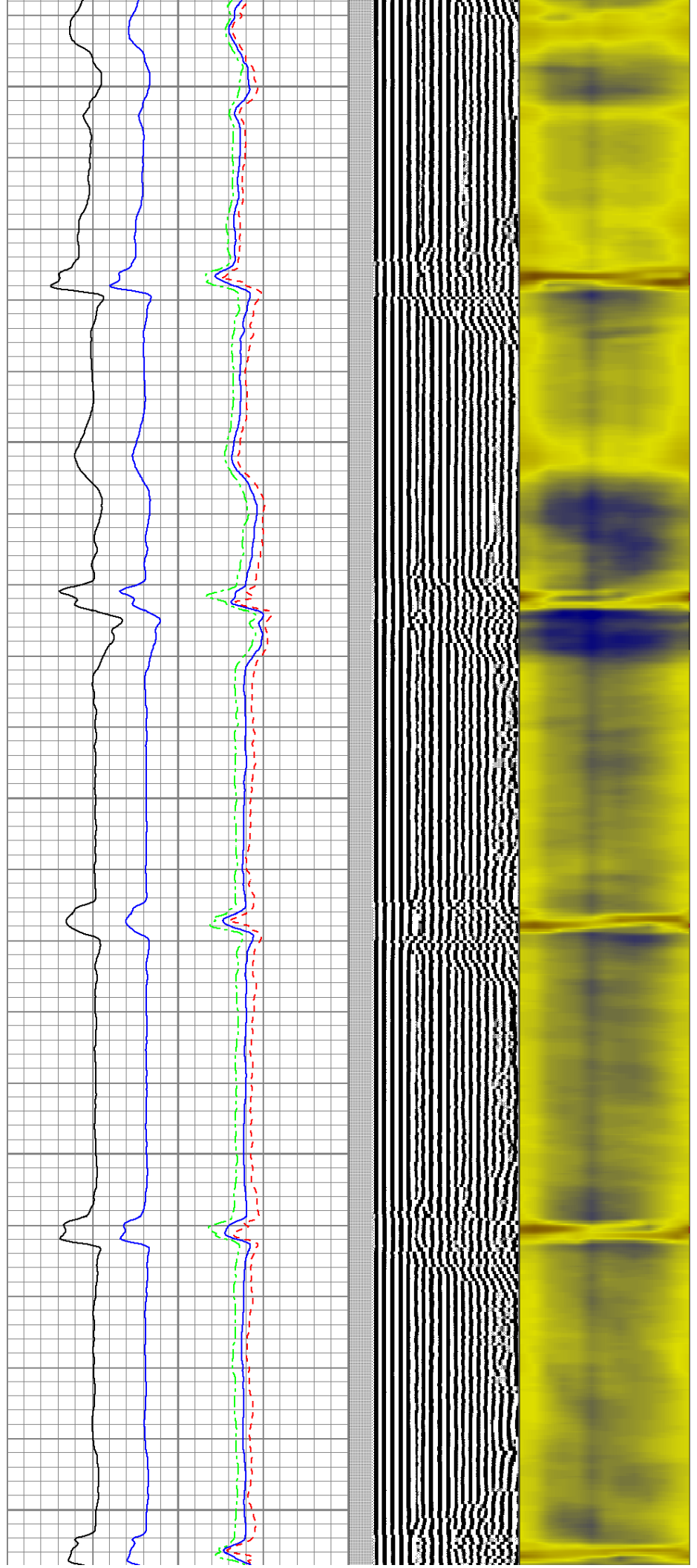
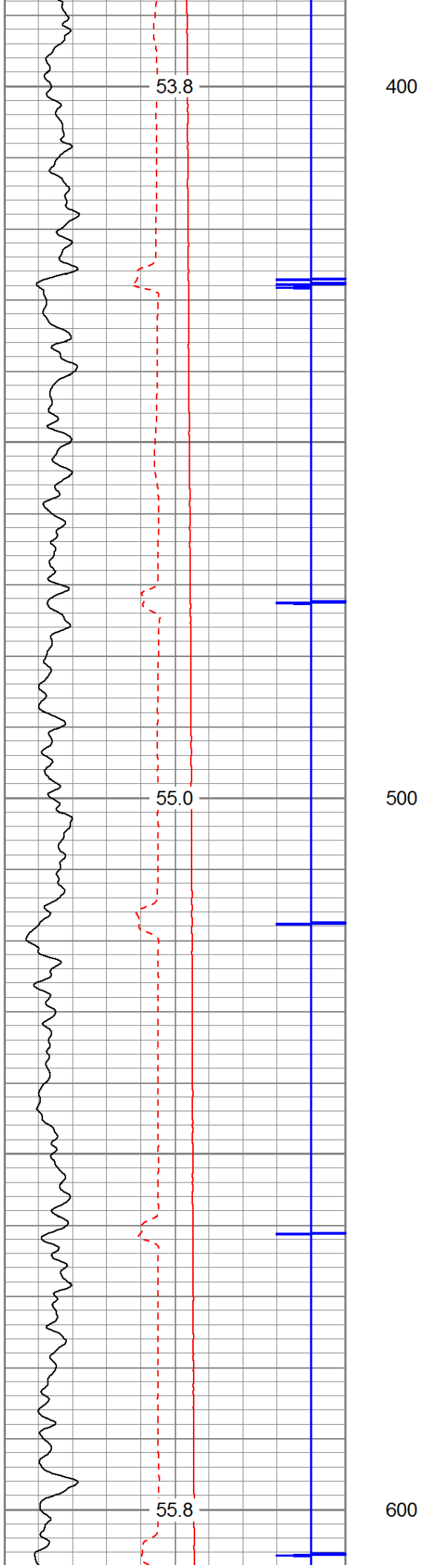


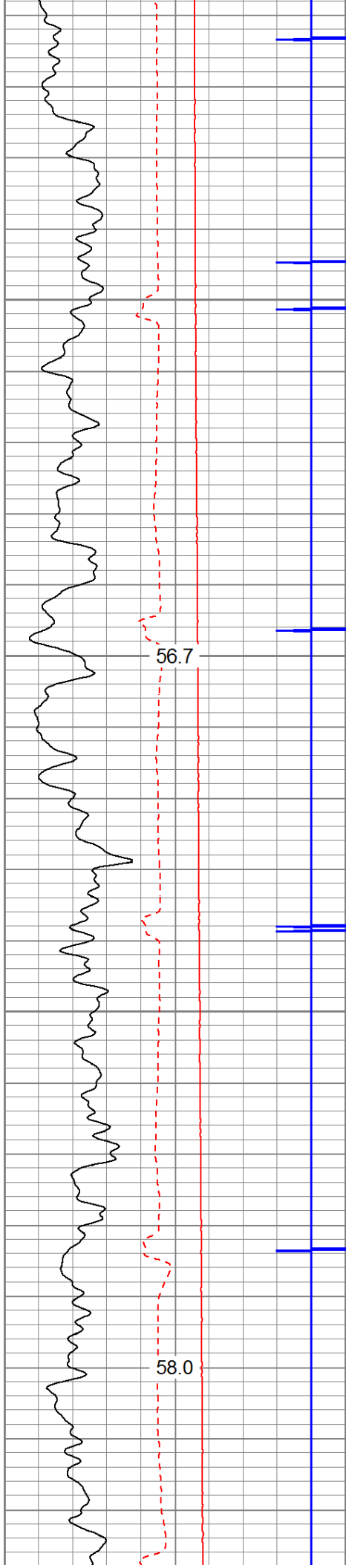


200

300

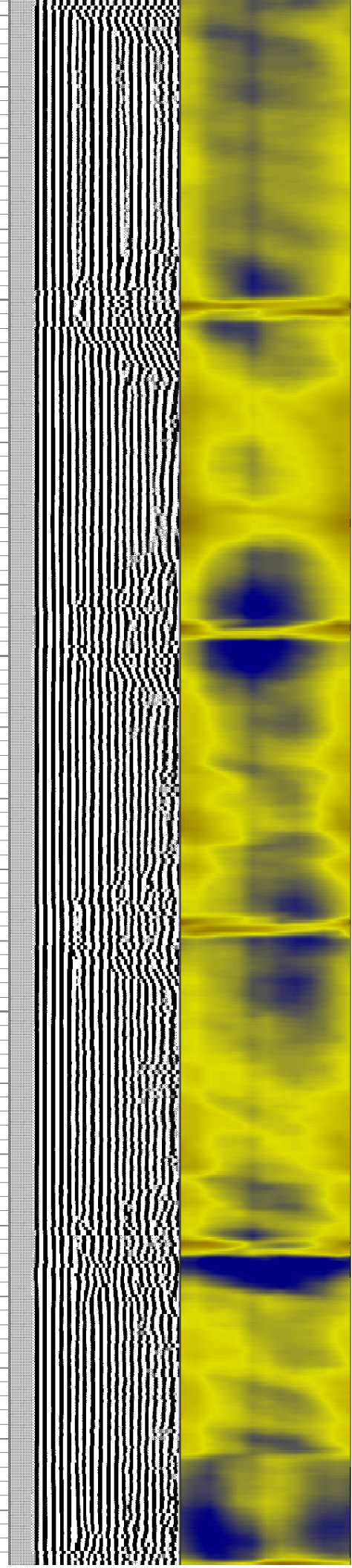
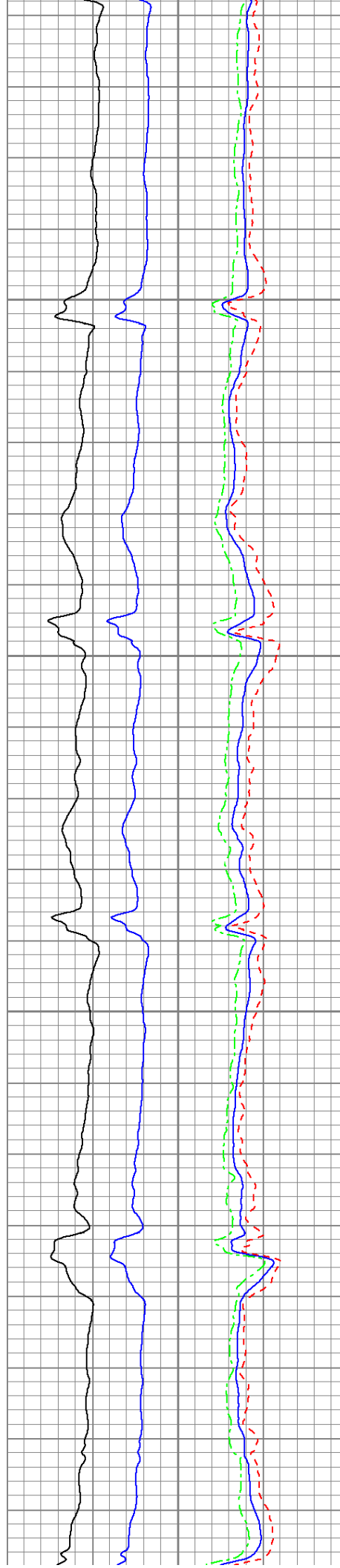


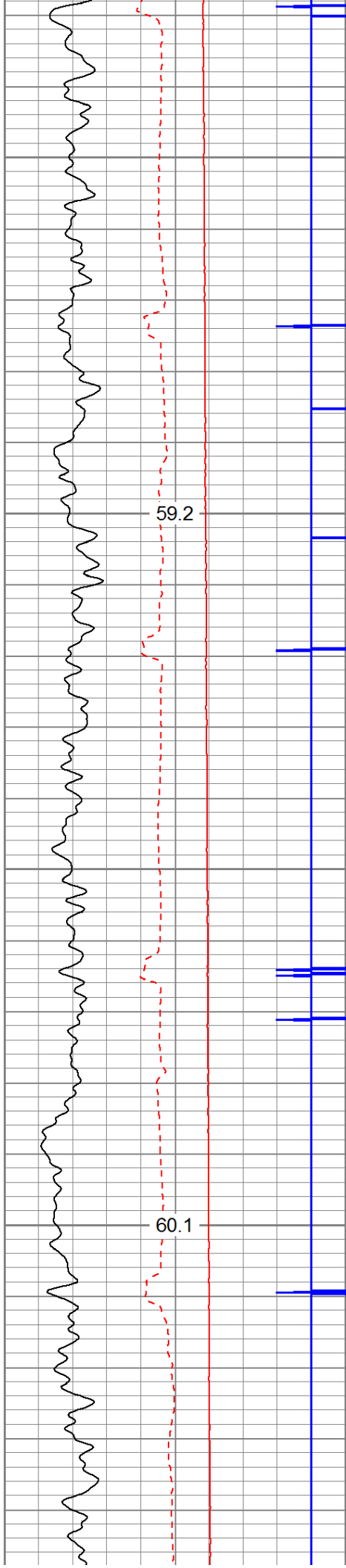




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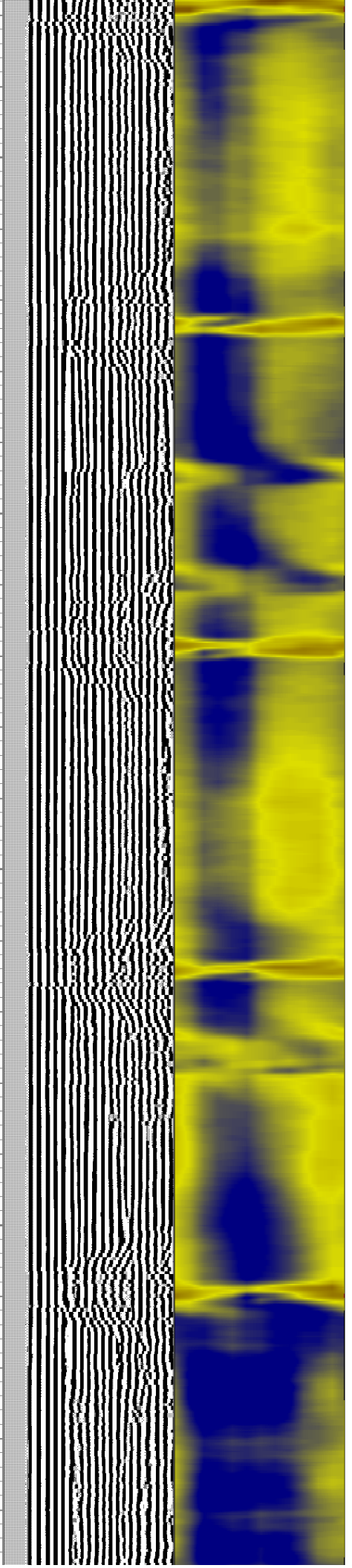
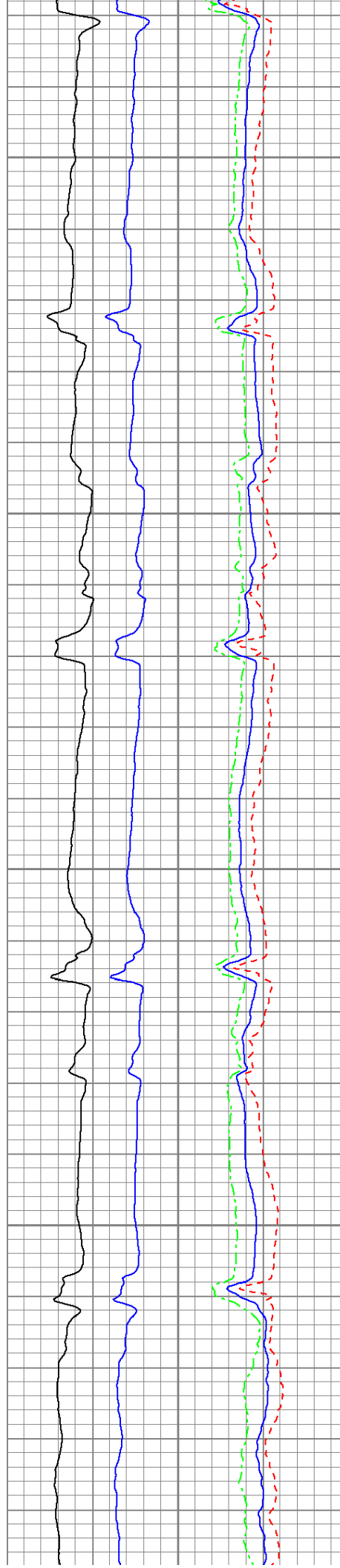
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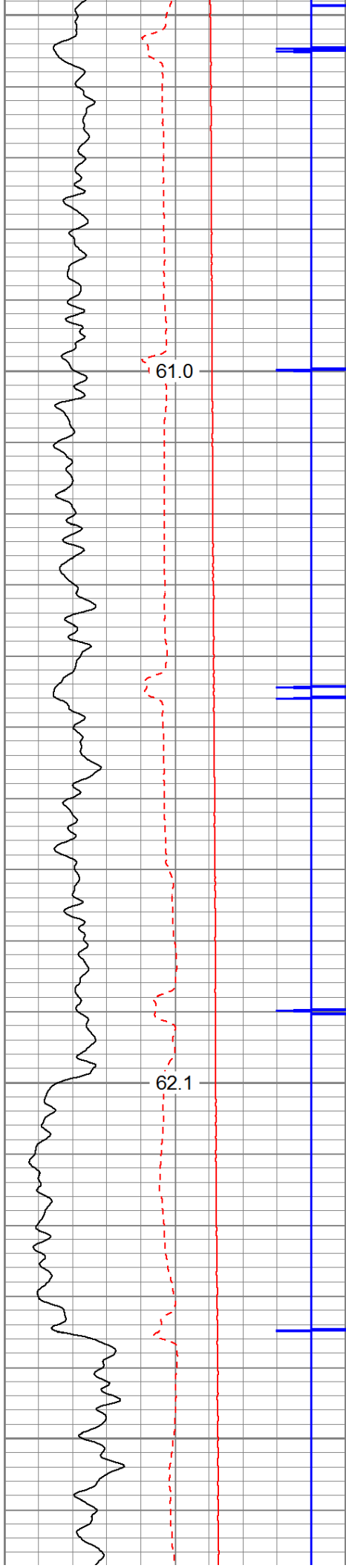




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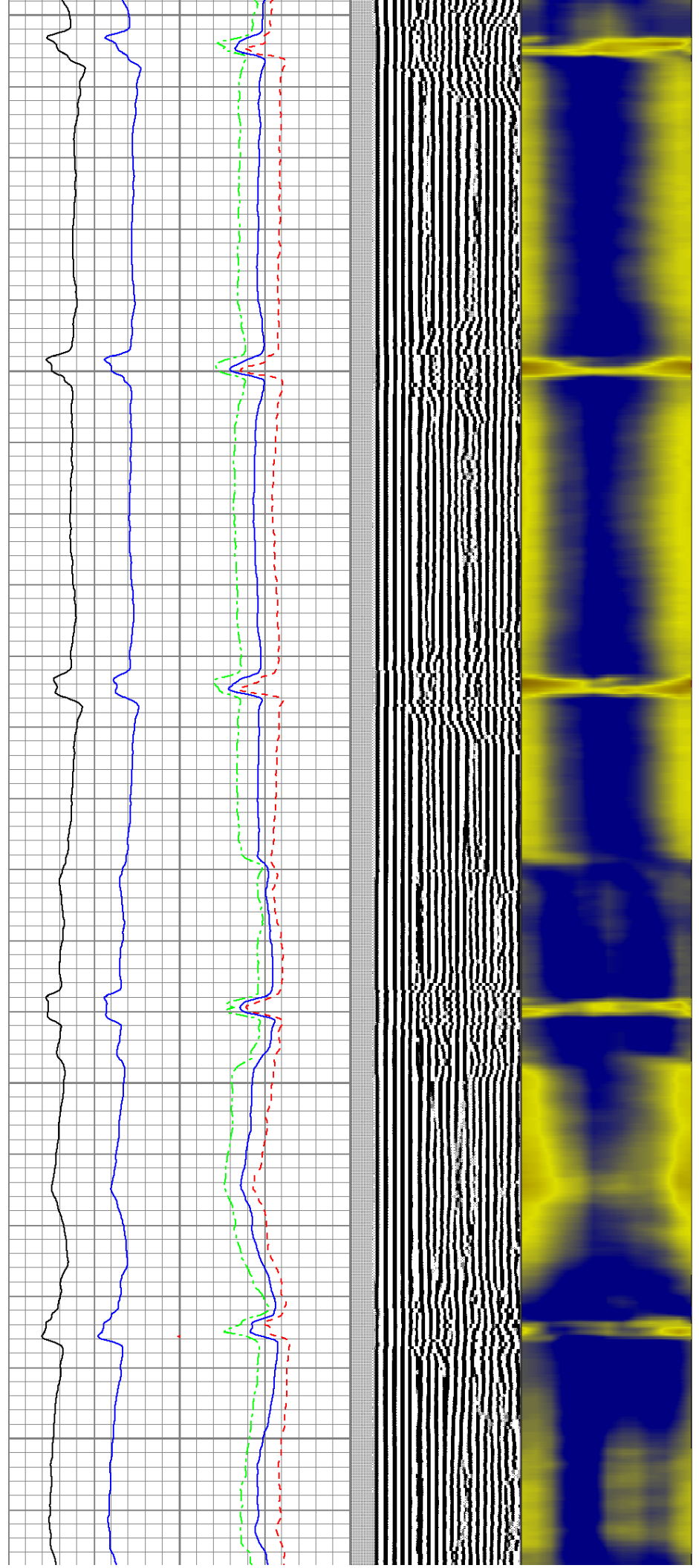


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62.1

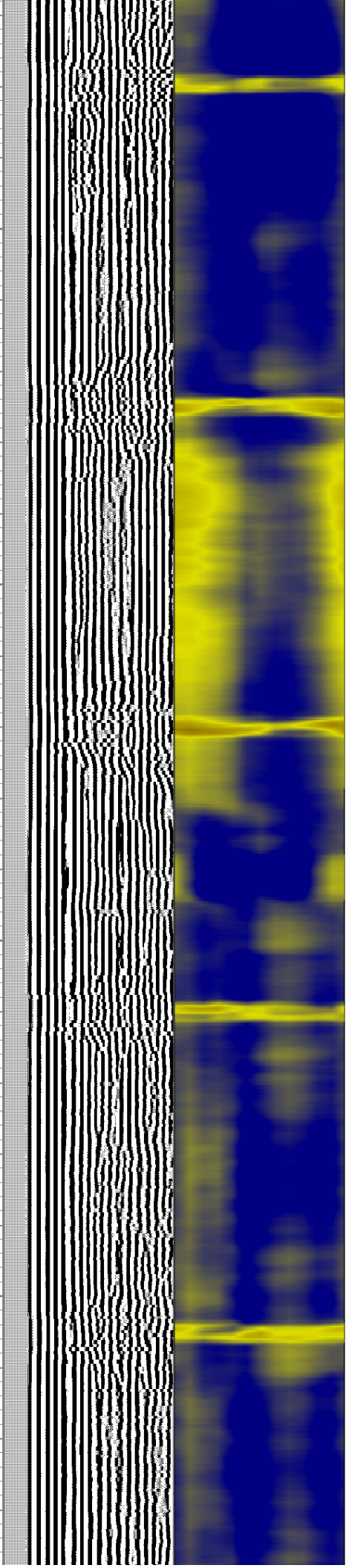
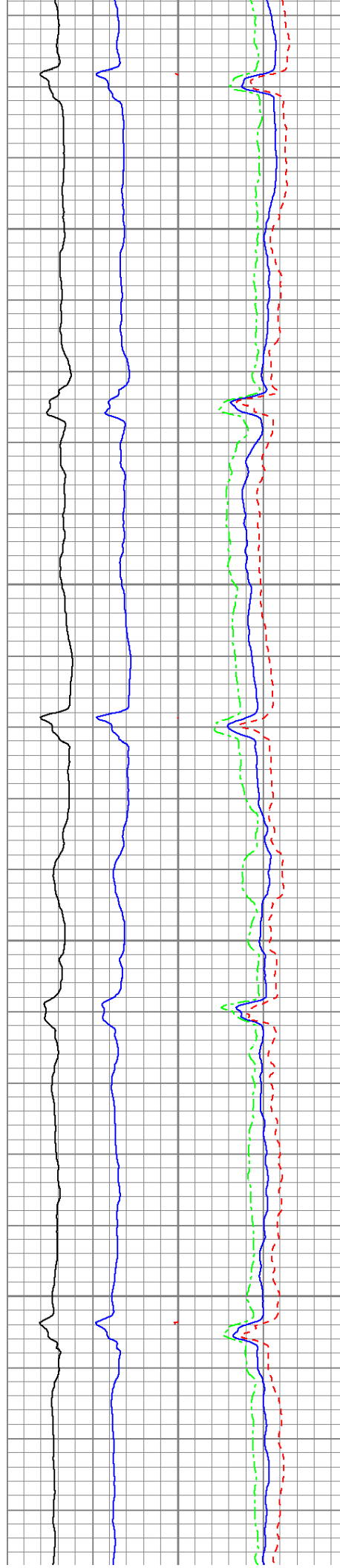
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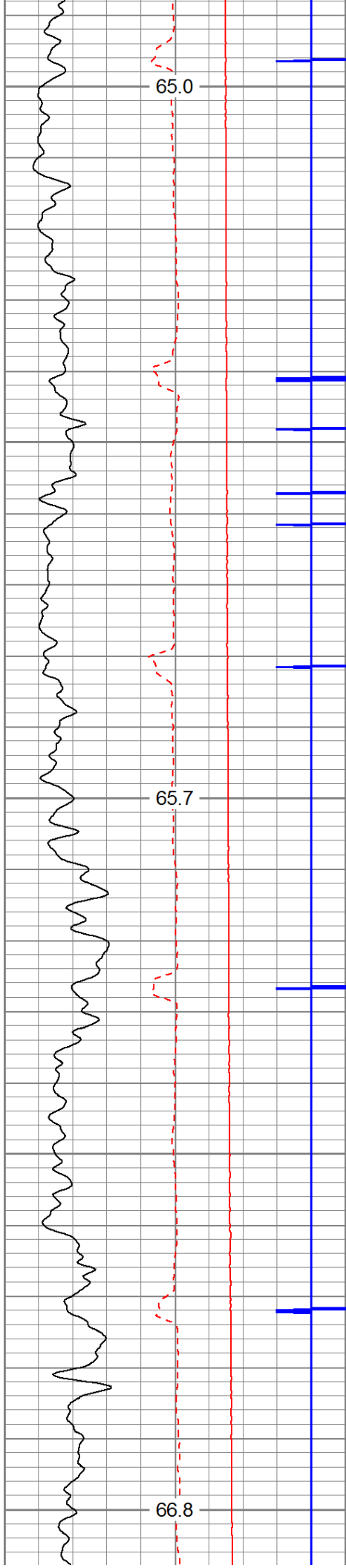




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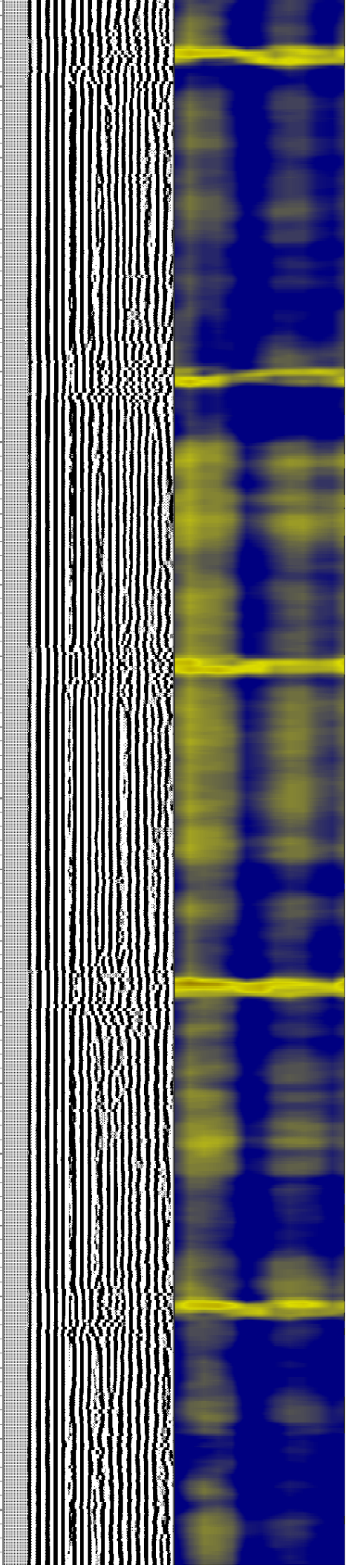
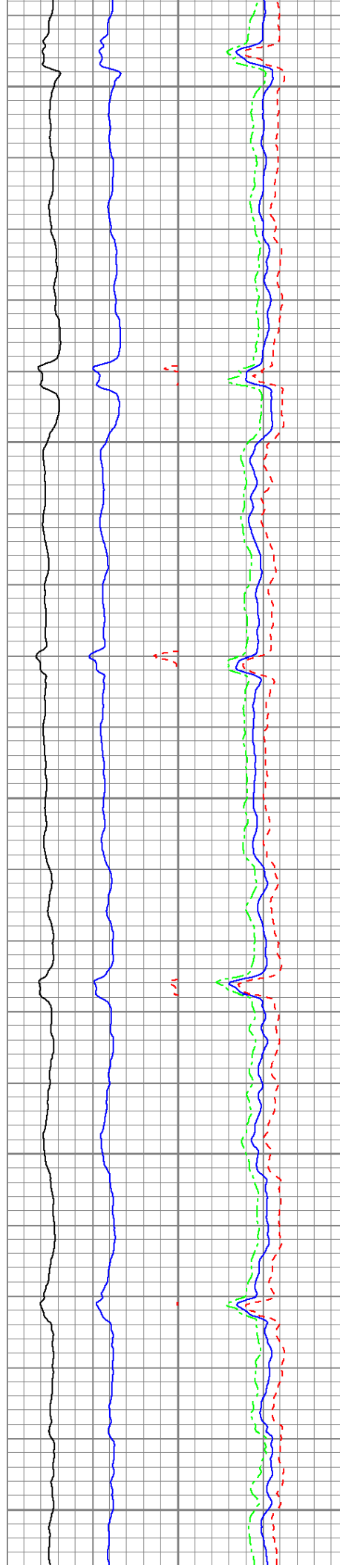


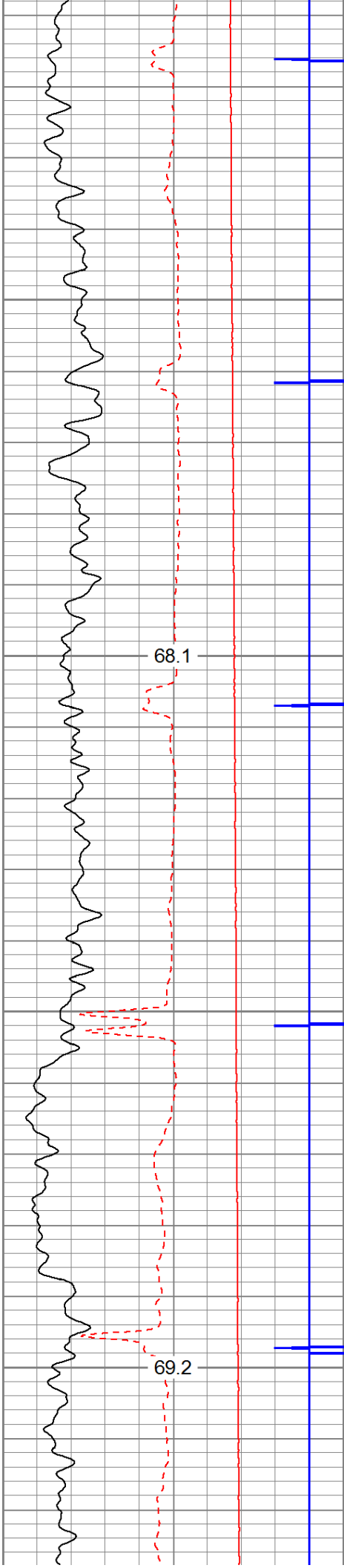


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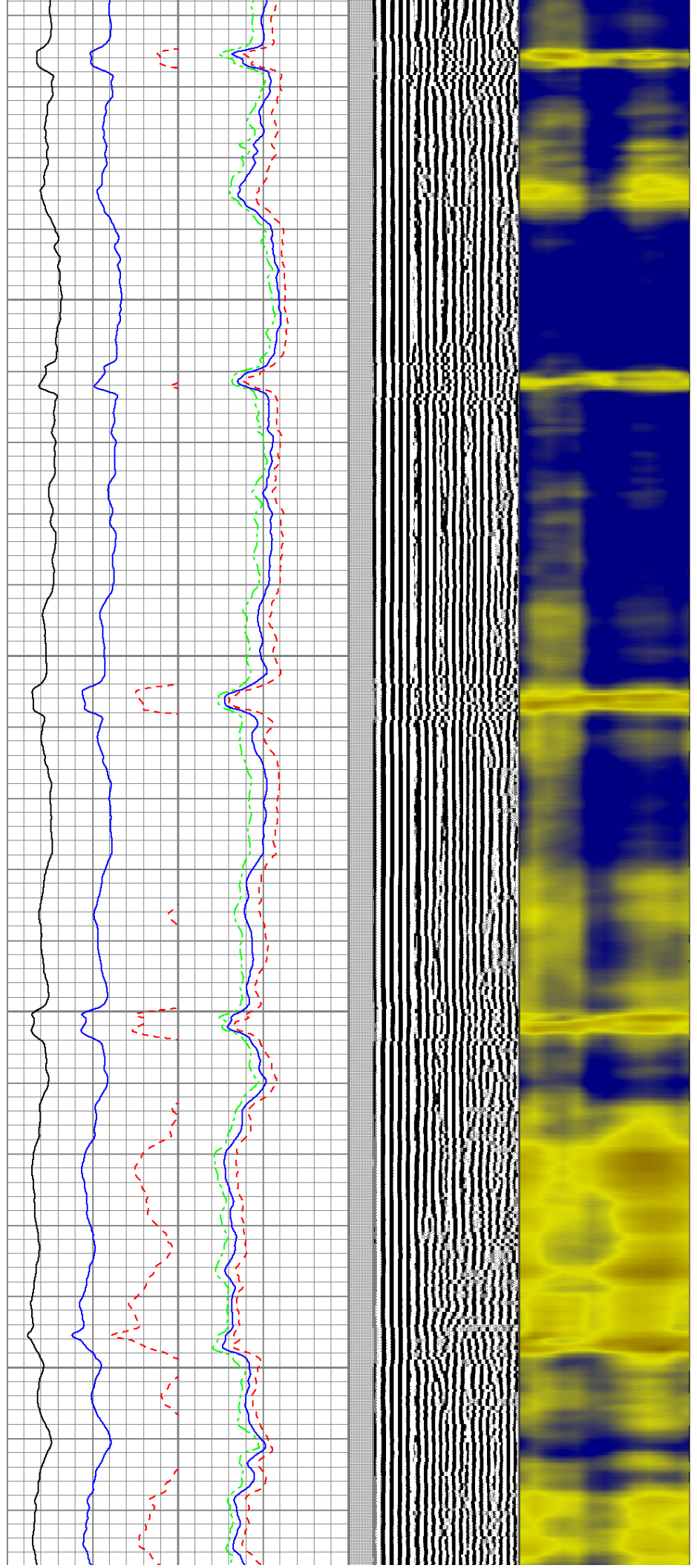
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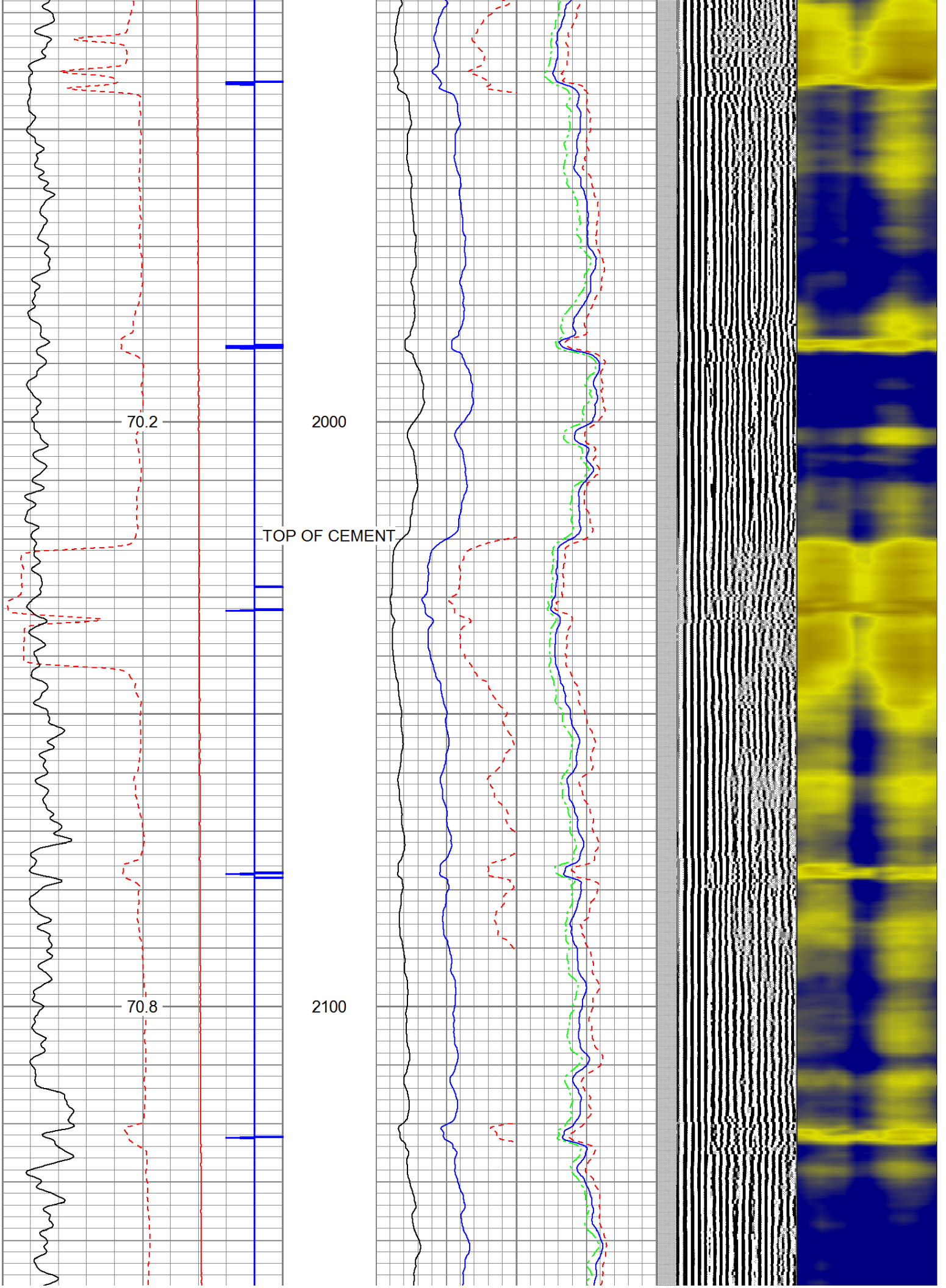


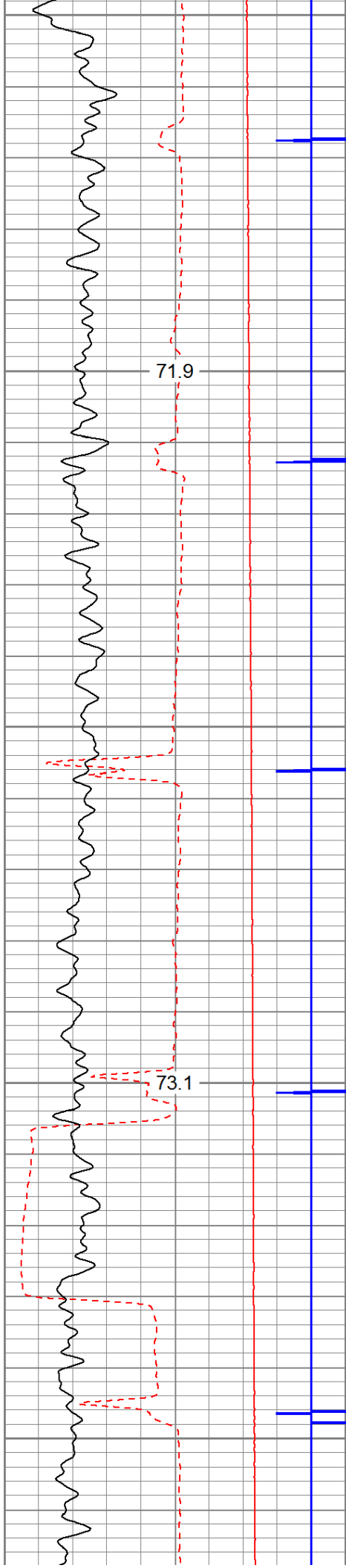


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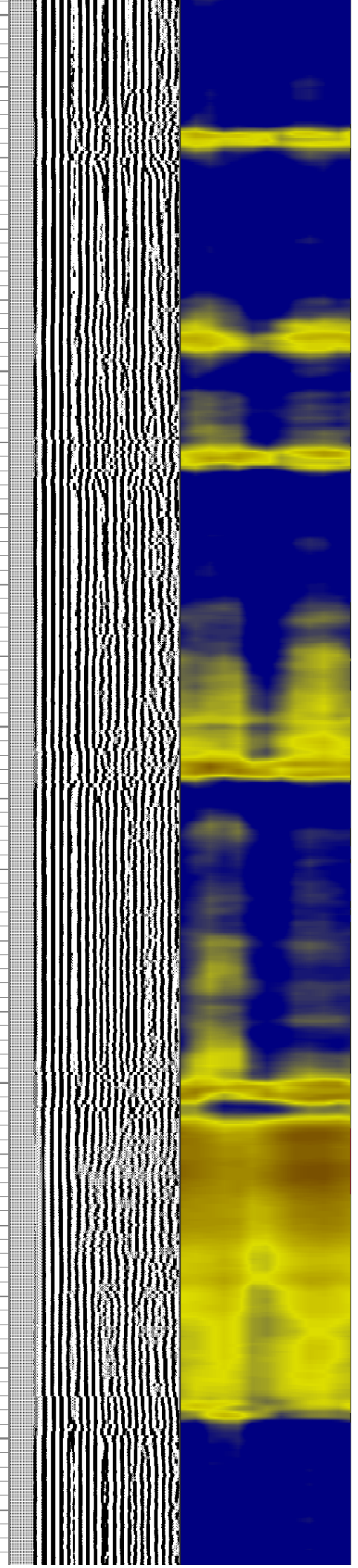
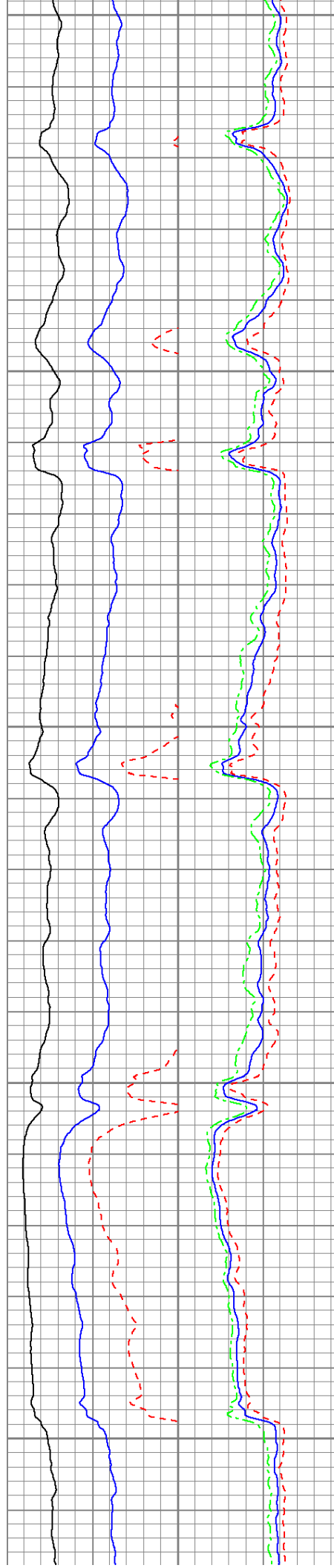


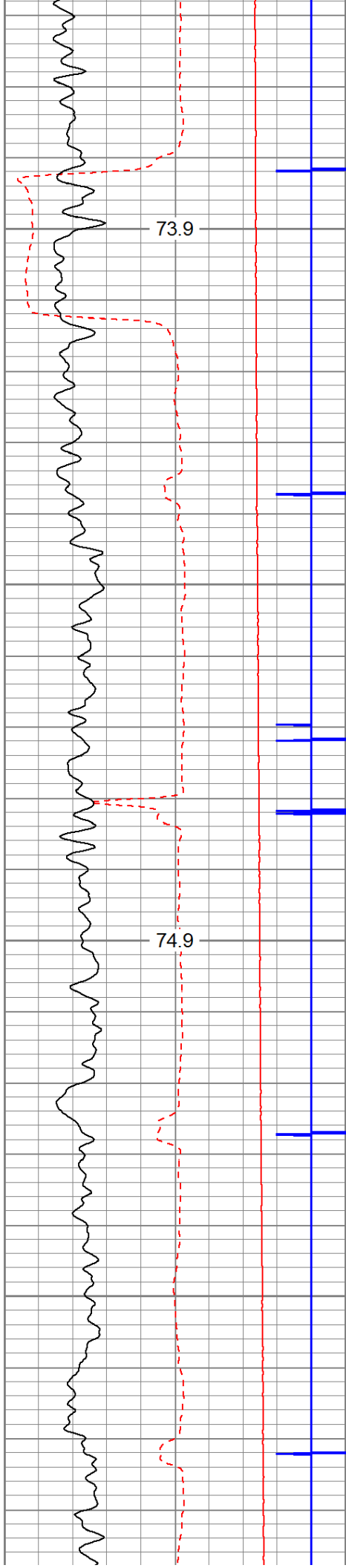




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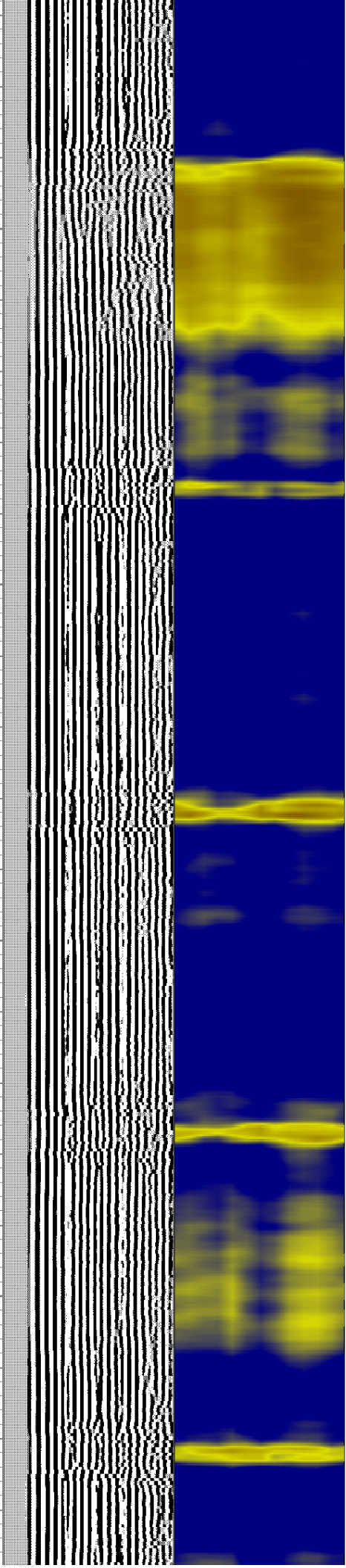
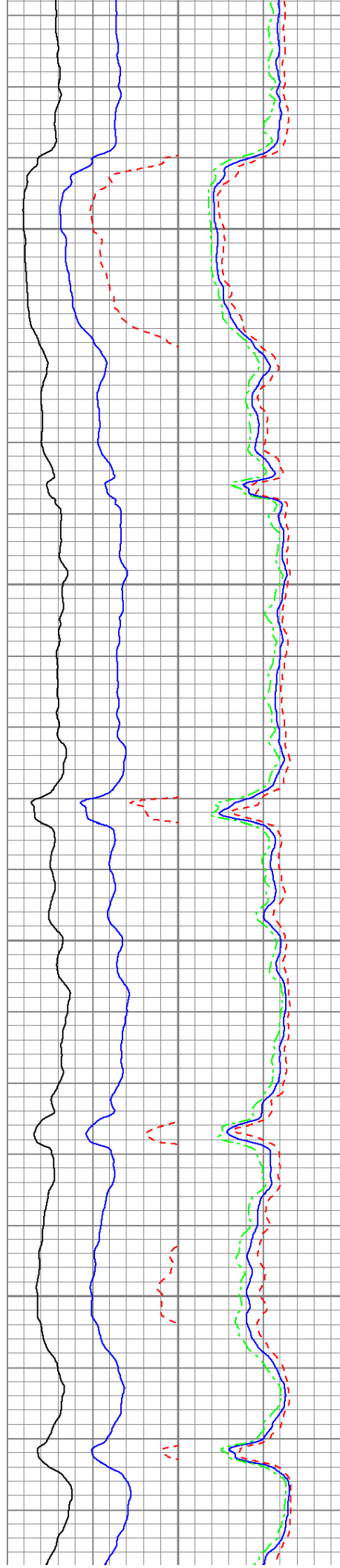
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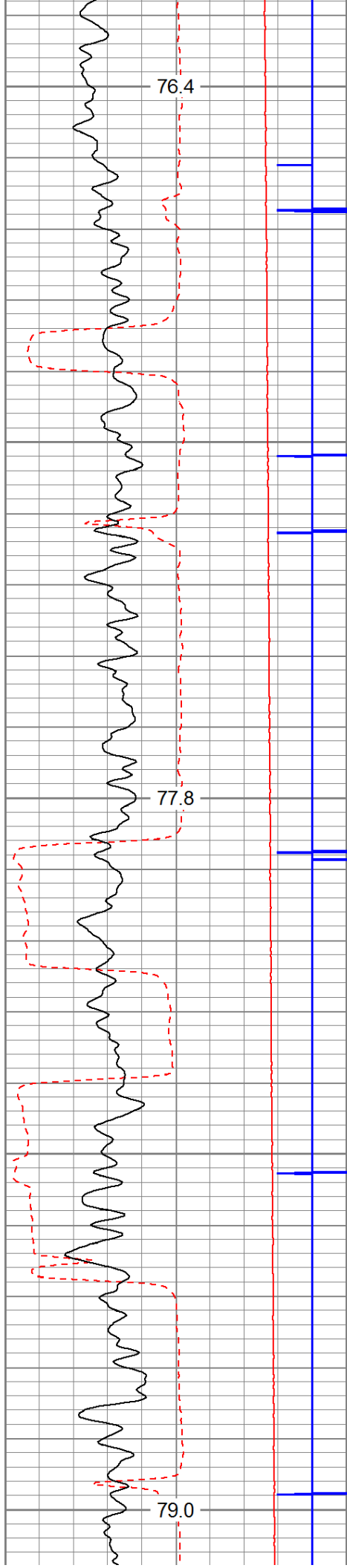




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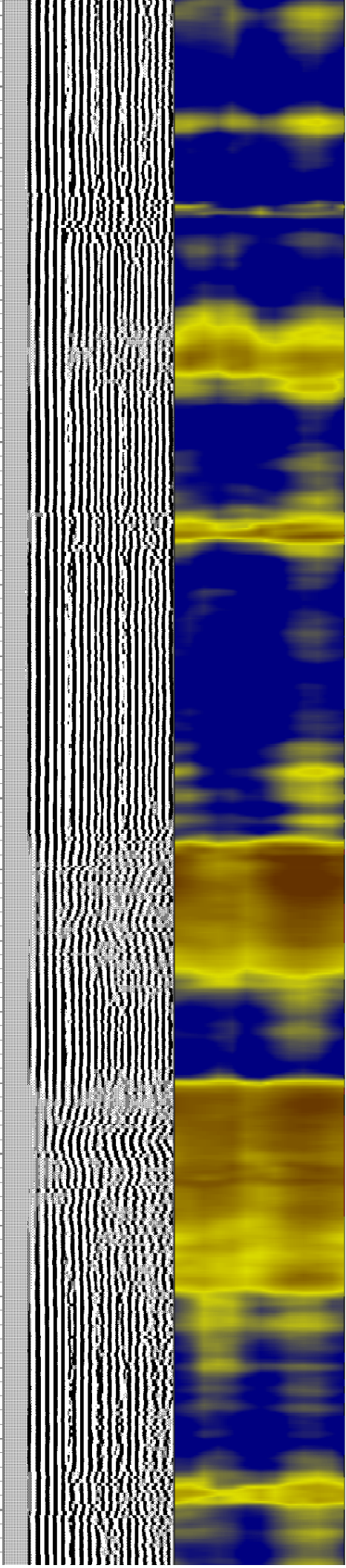
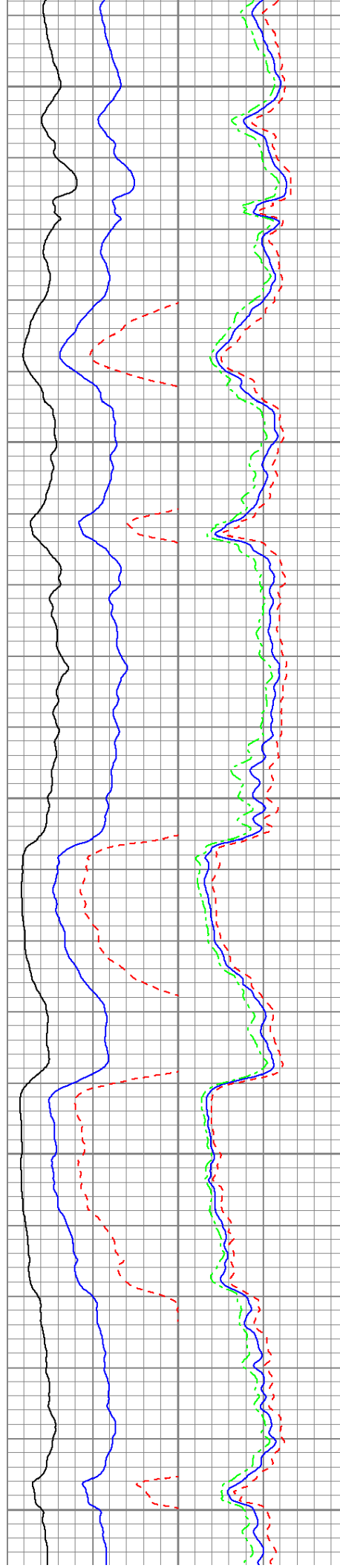


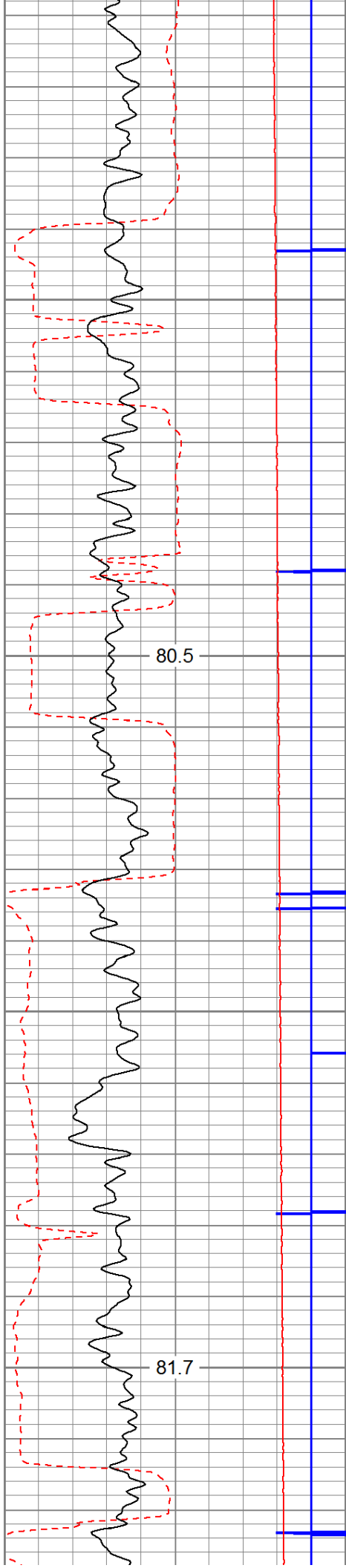


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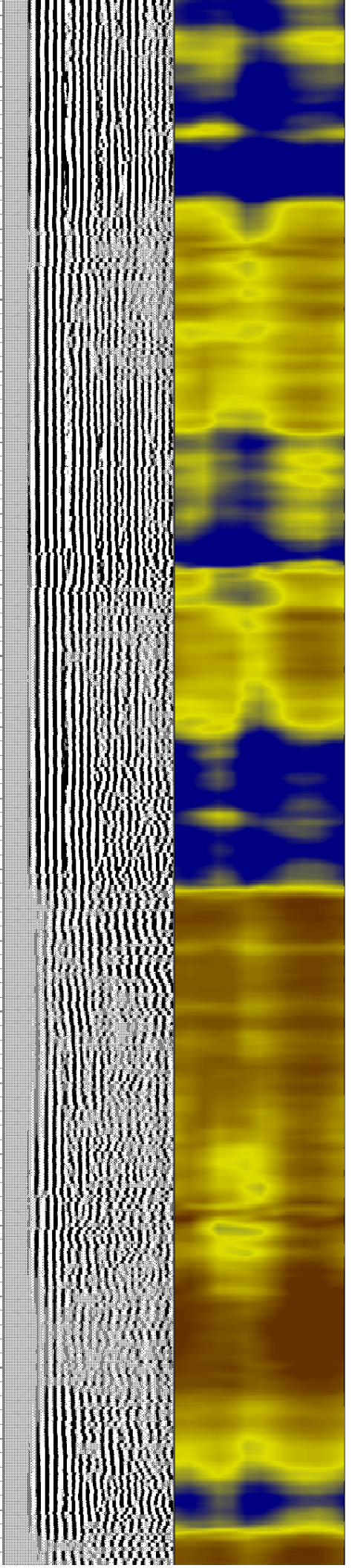
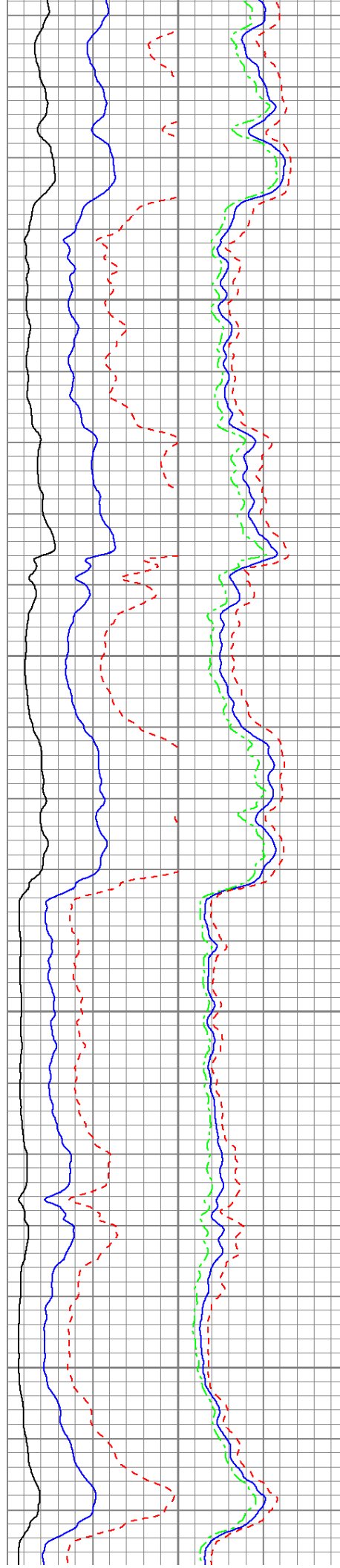
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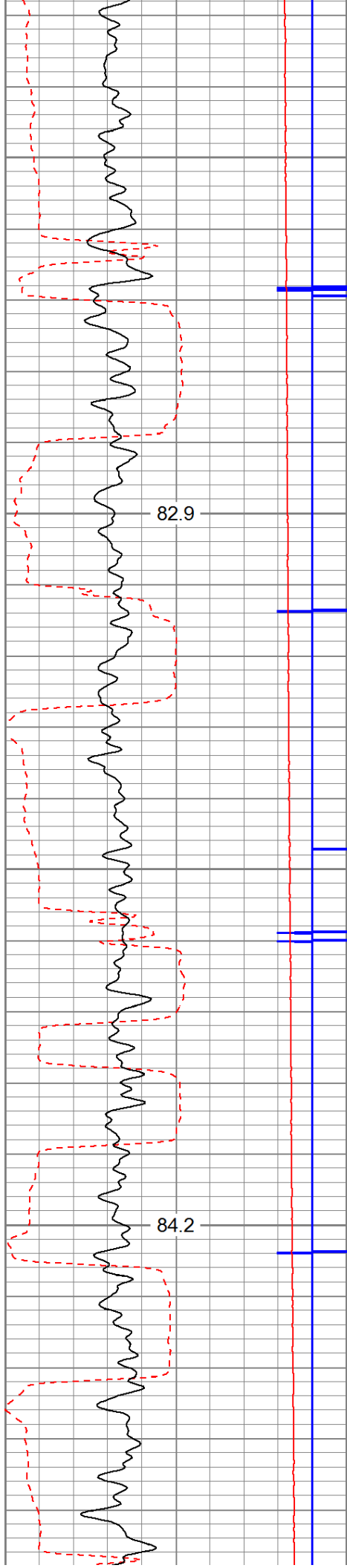




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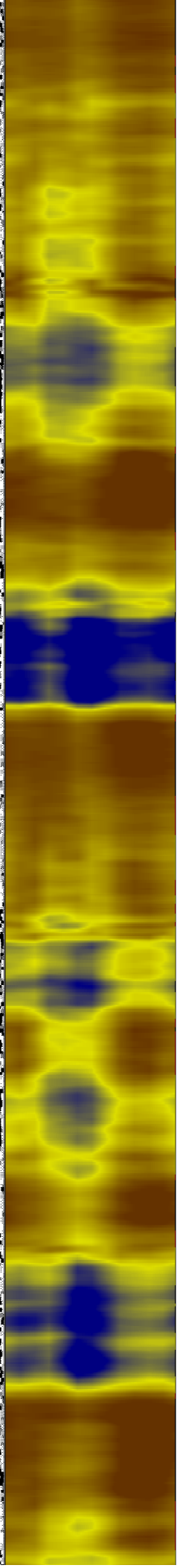
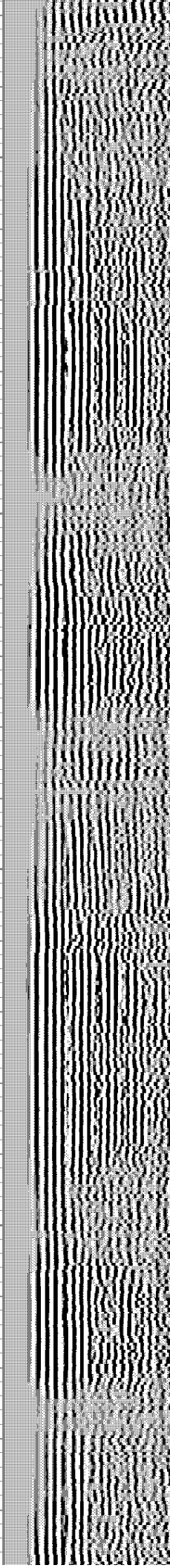
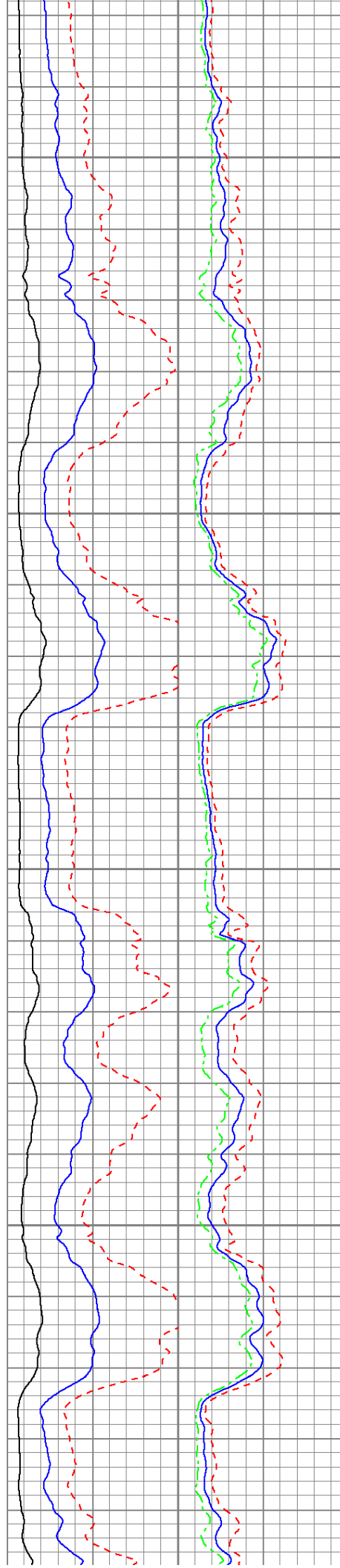
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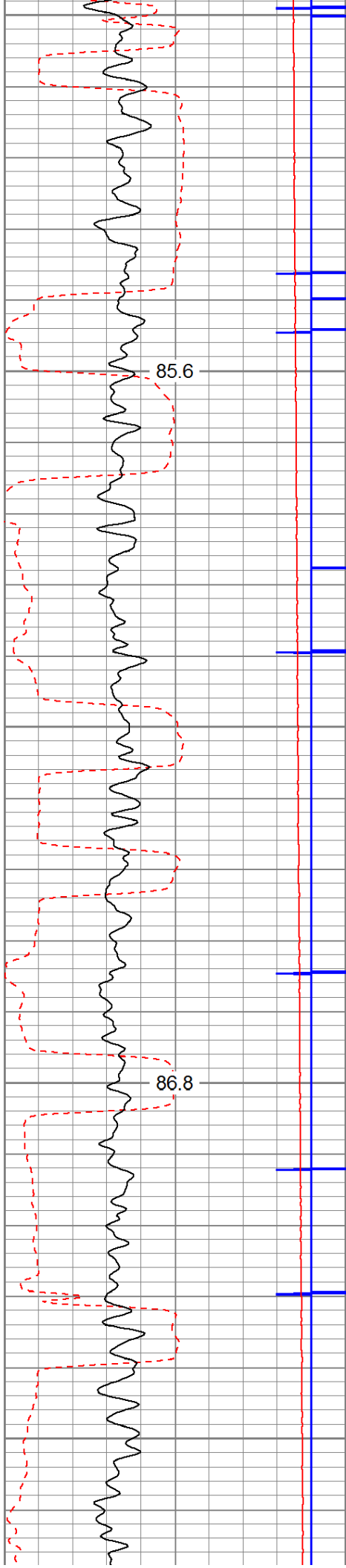




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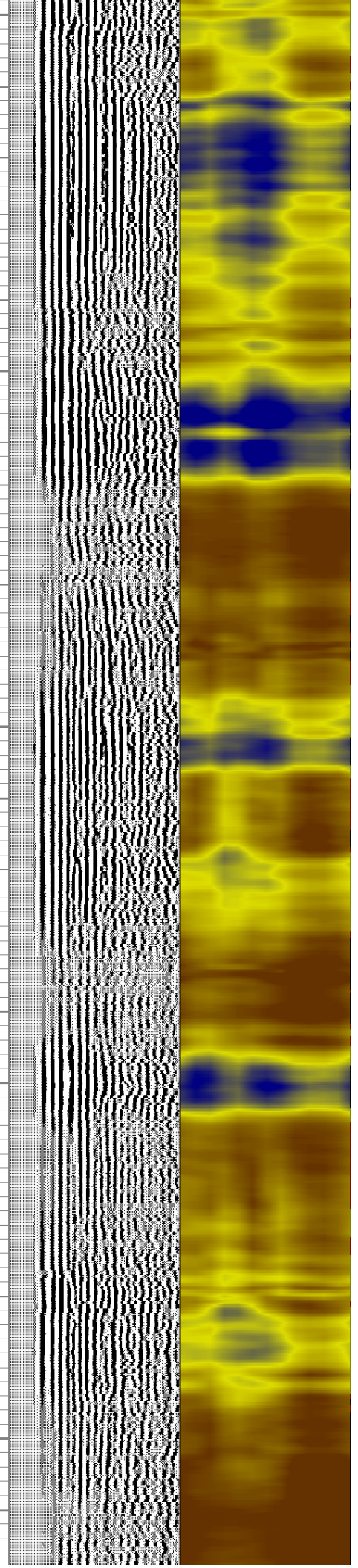
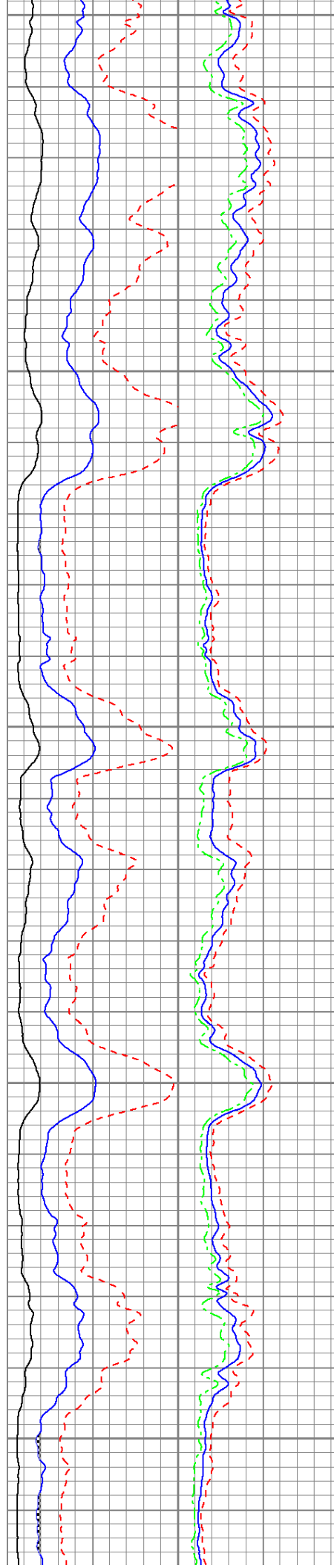
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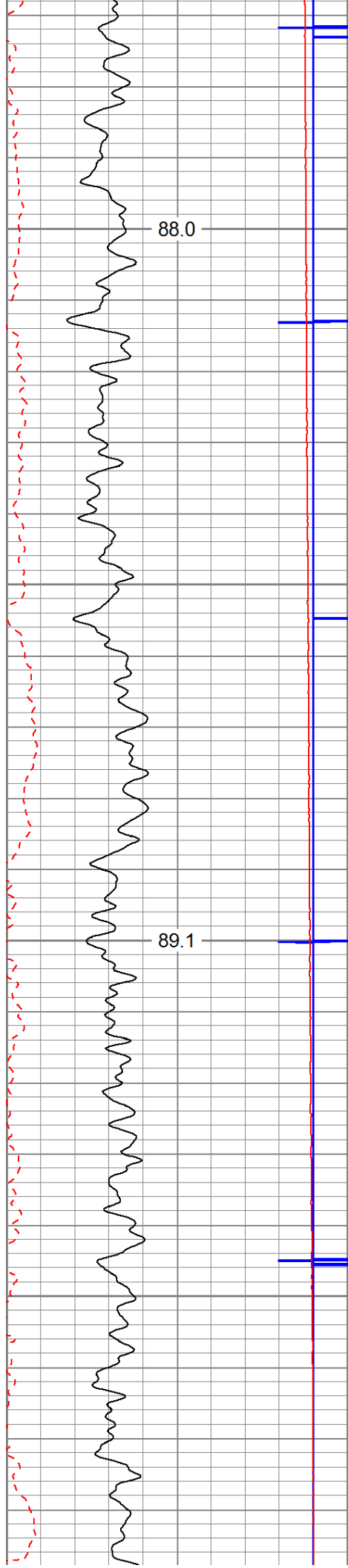




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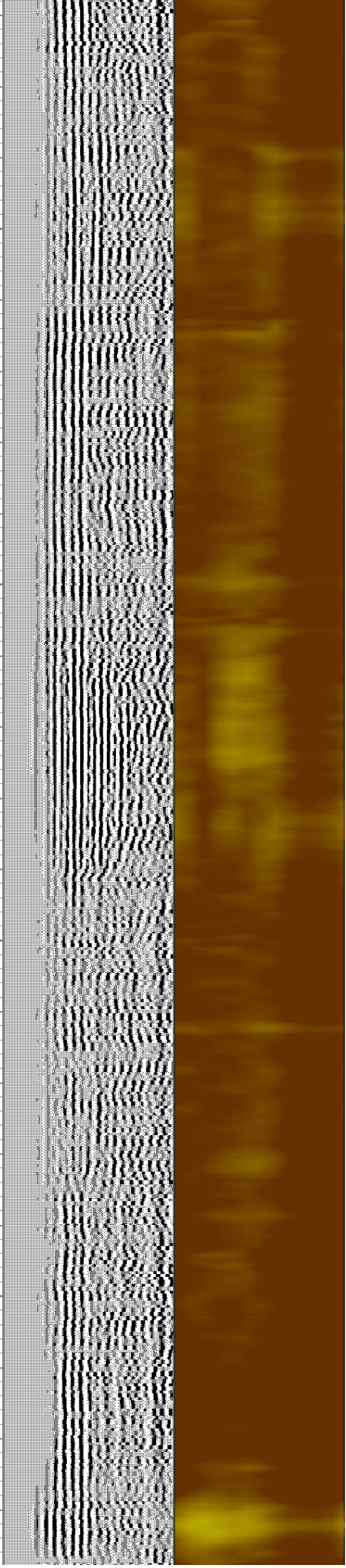
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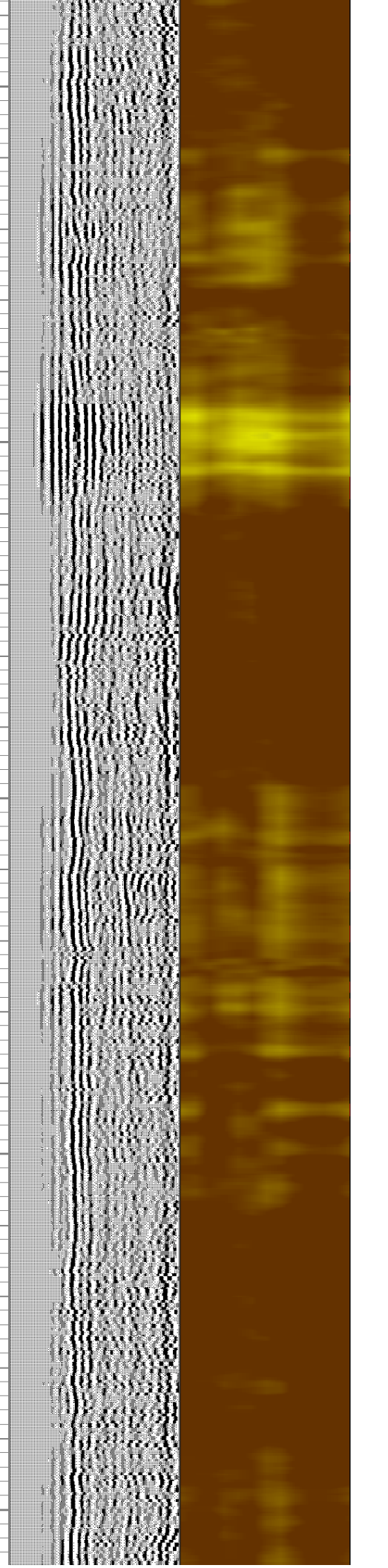
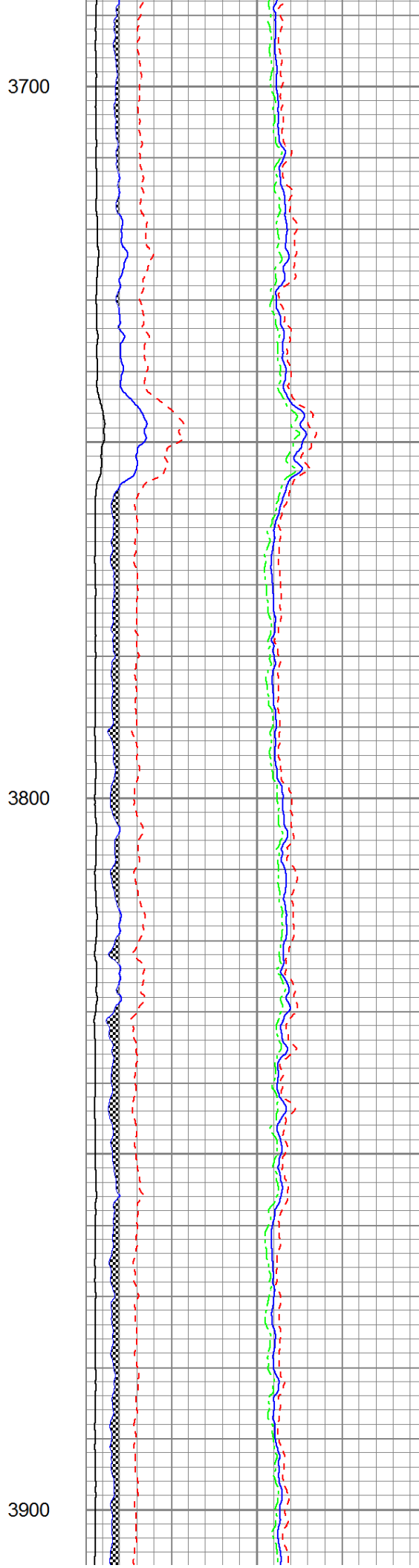
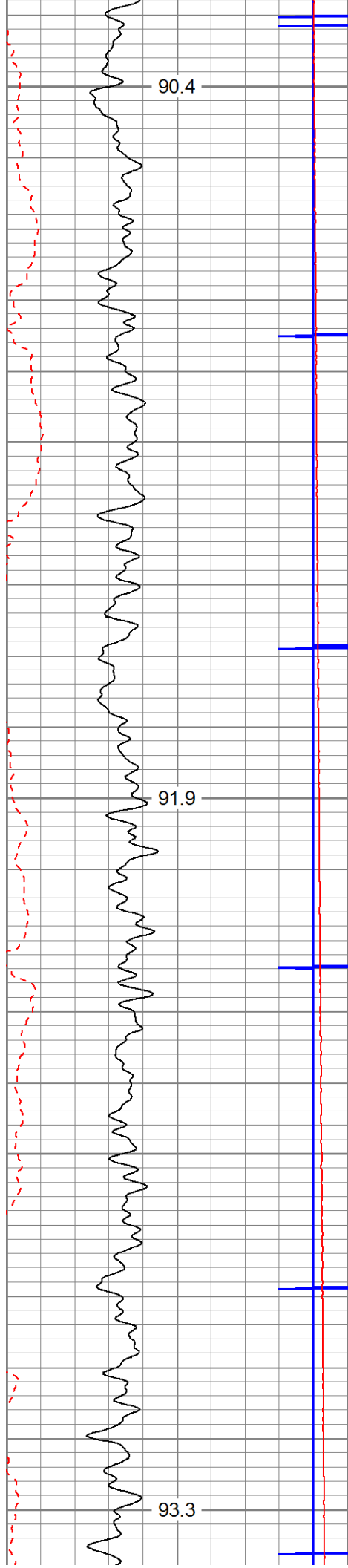


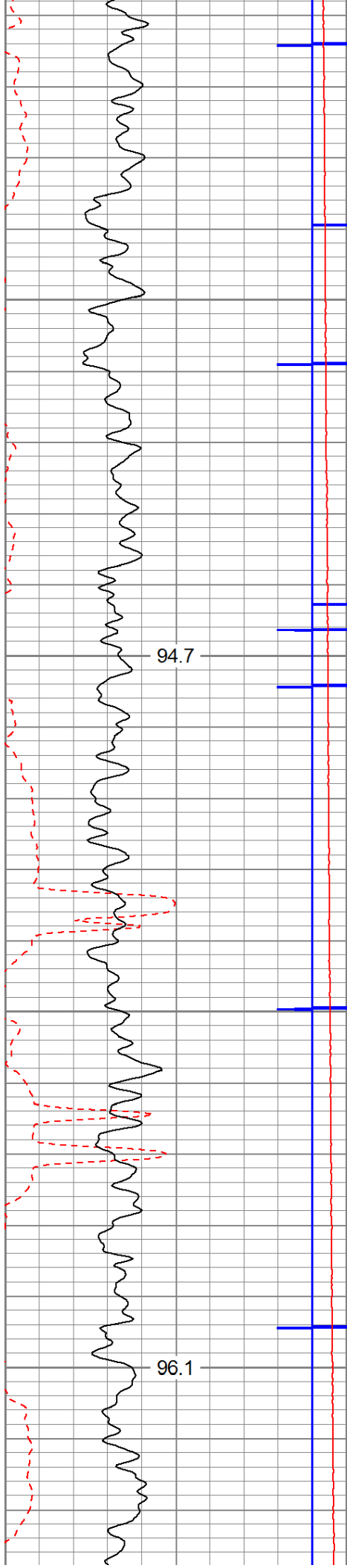


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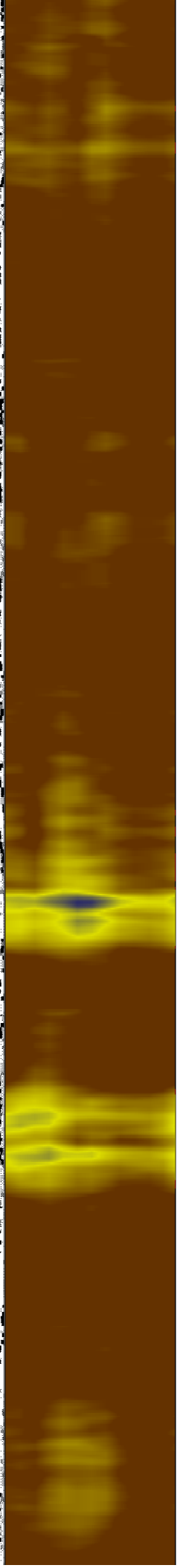
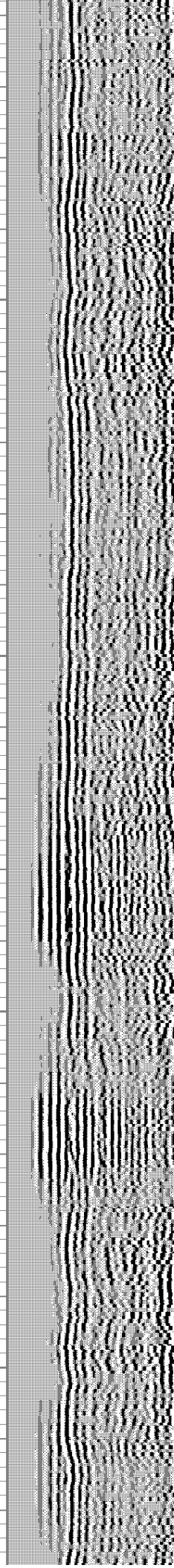
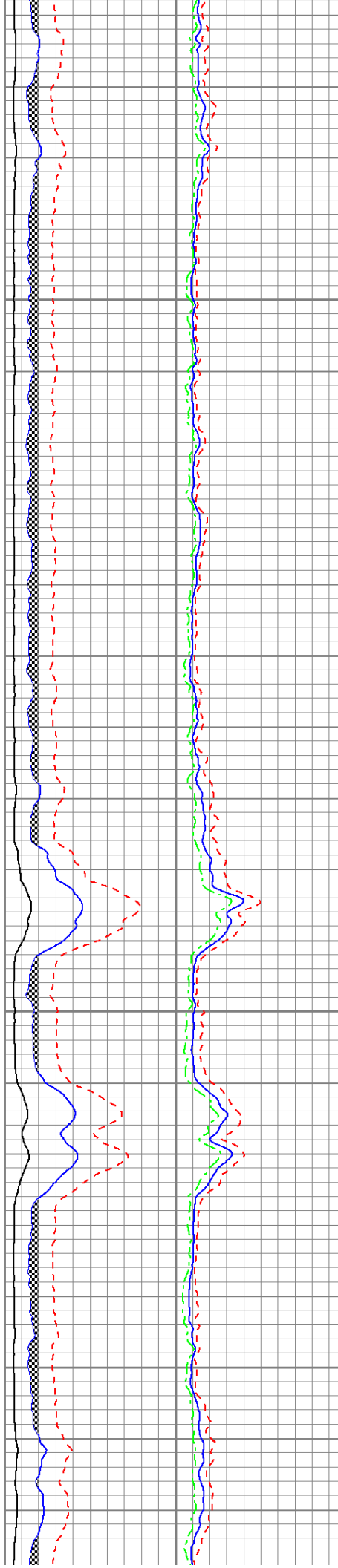


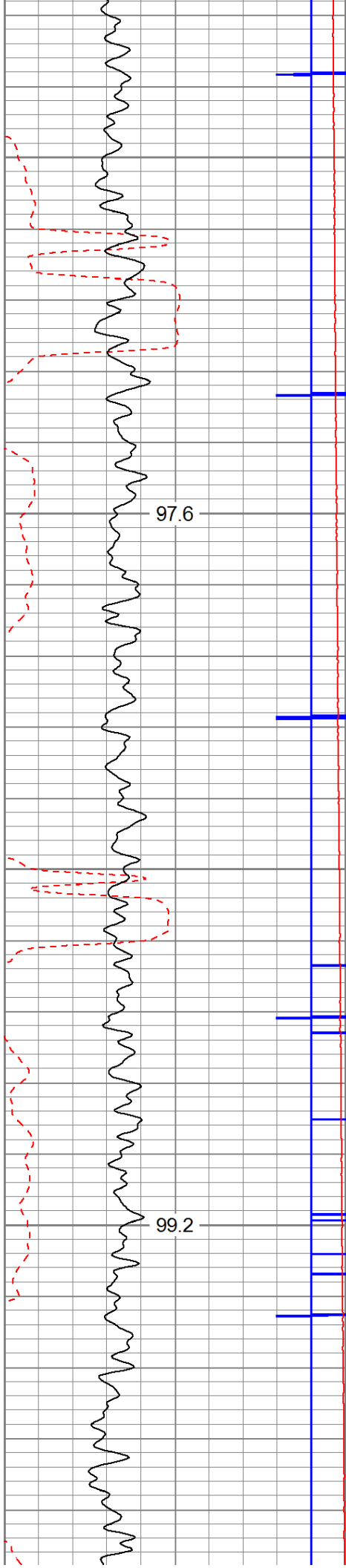




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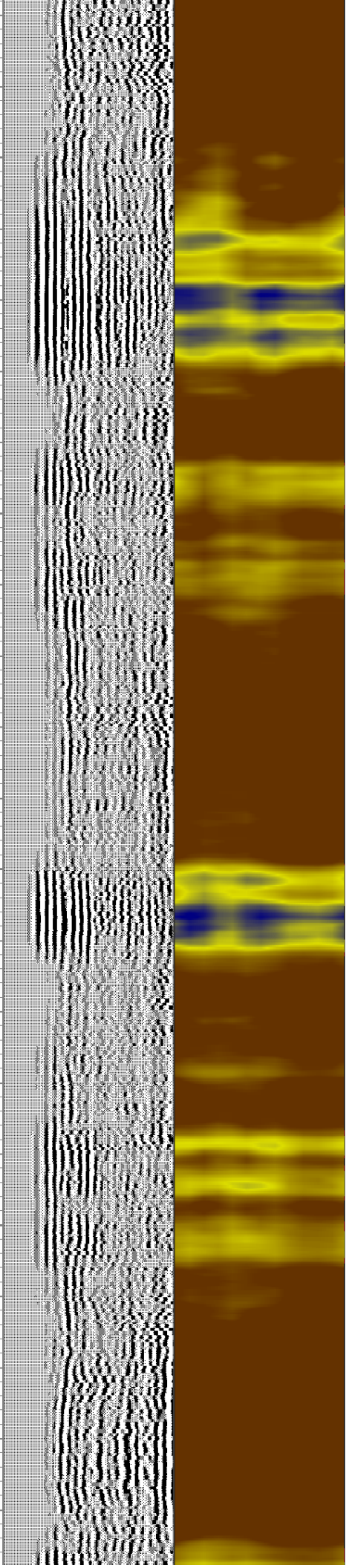
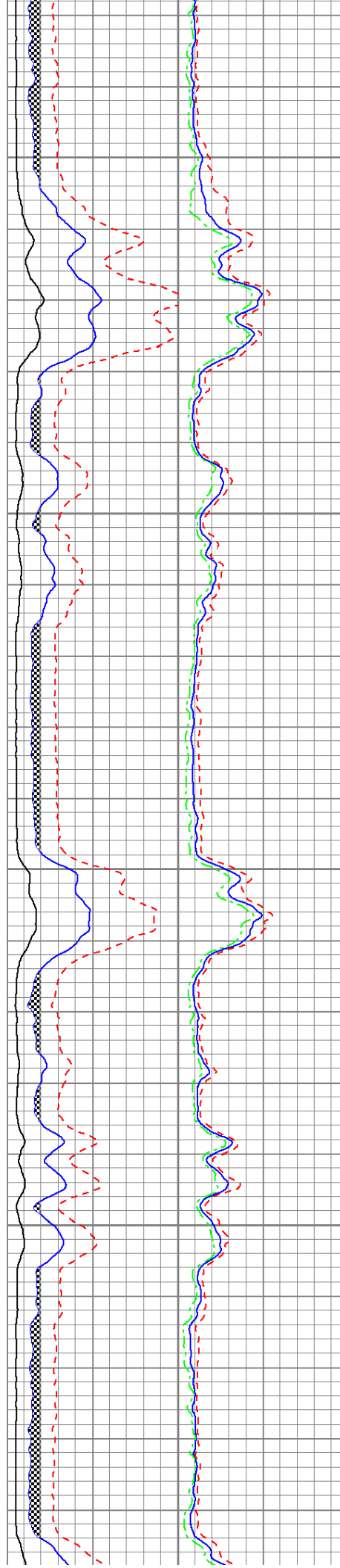
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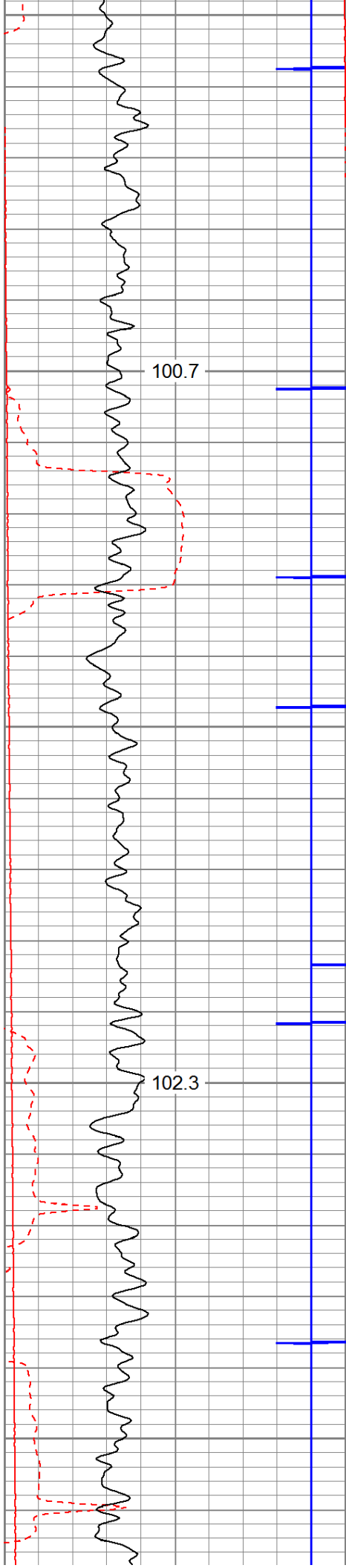




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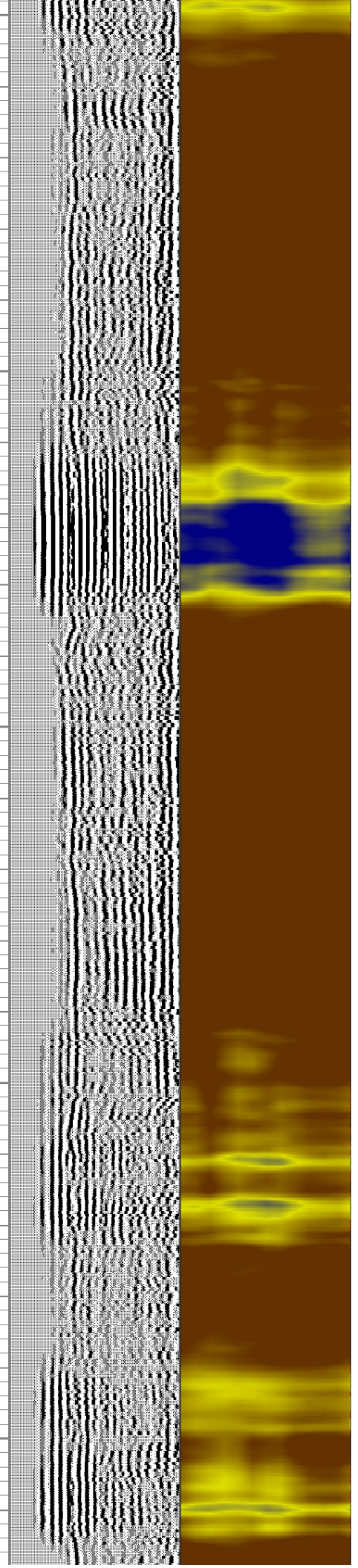
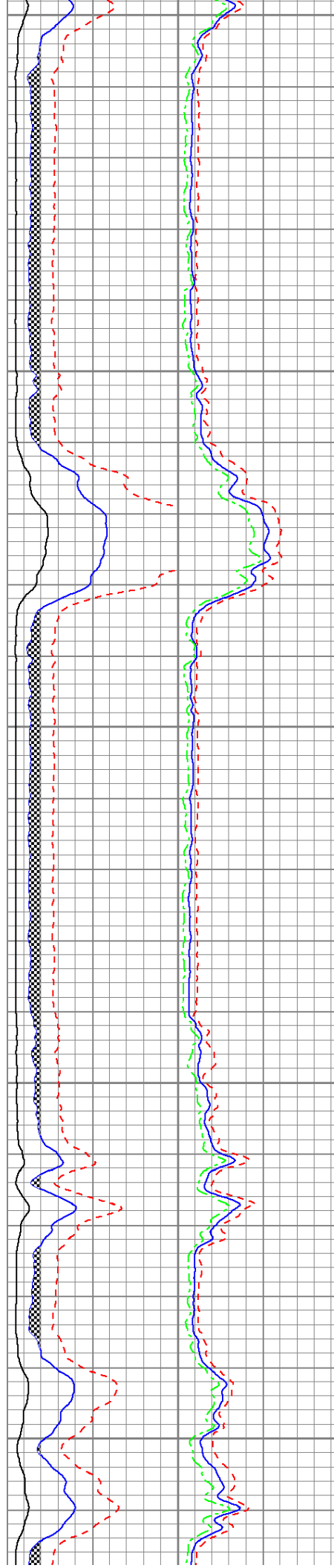
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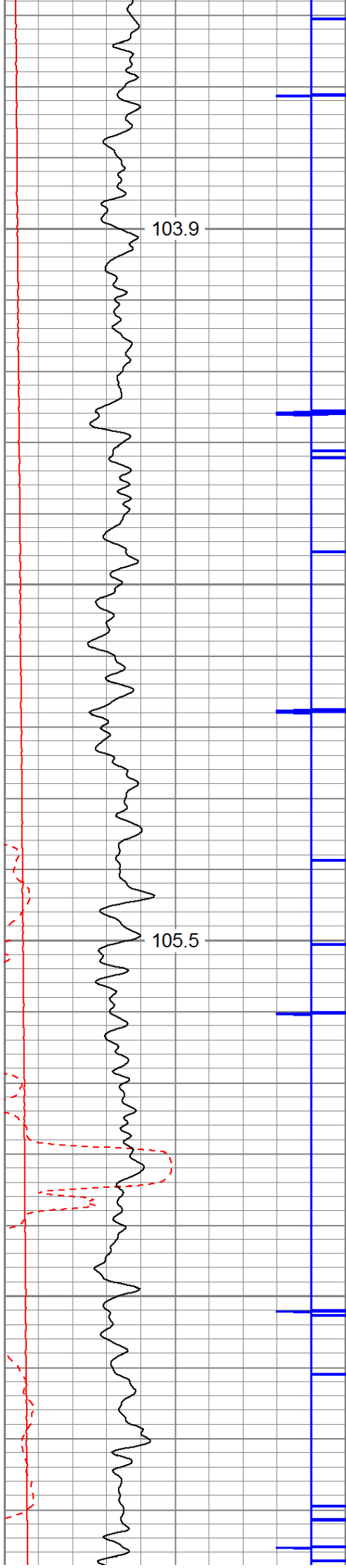




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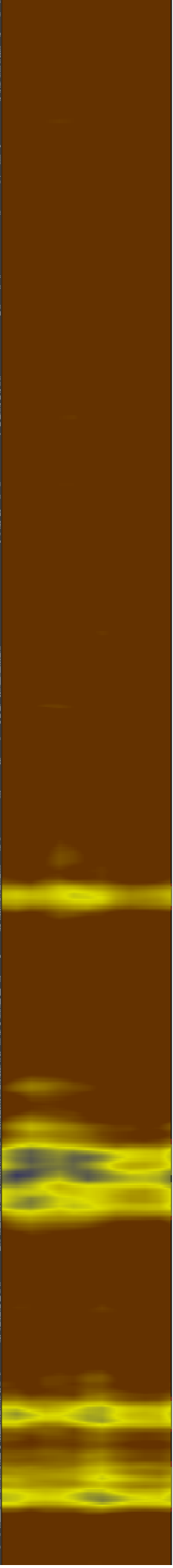
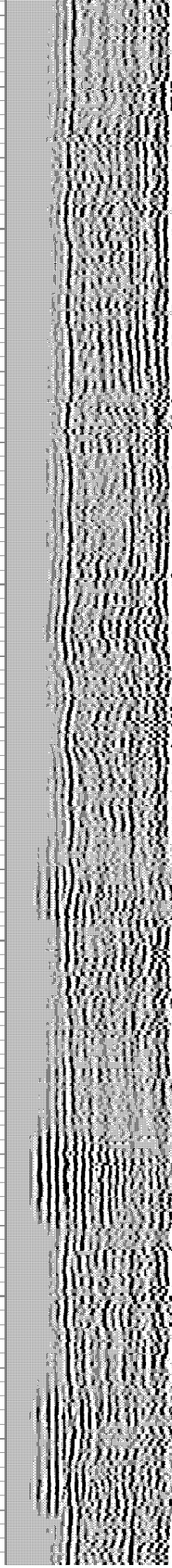
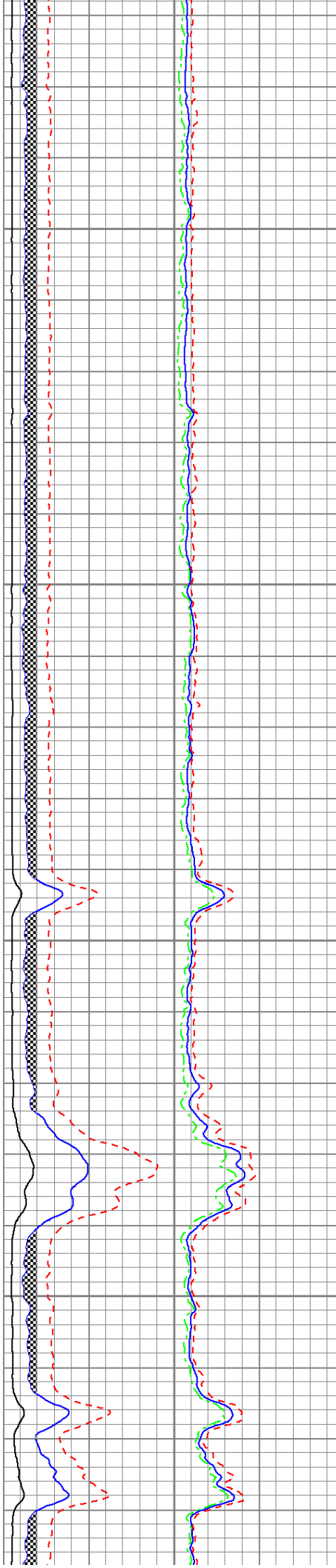
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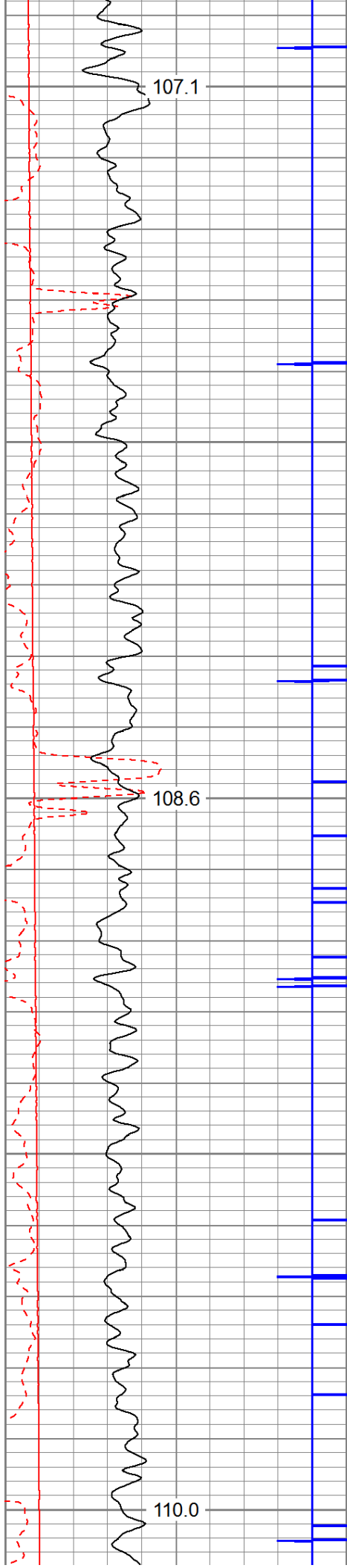




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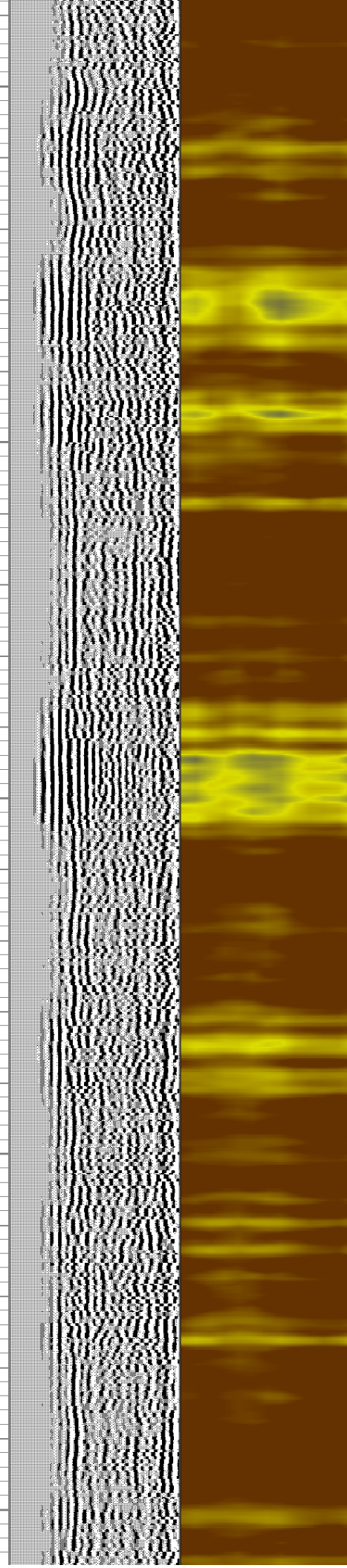
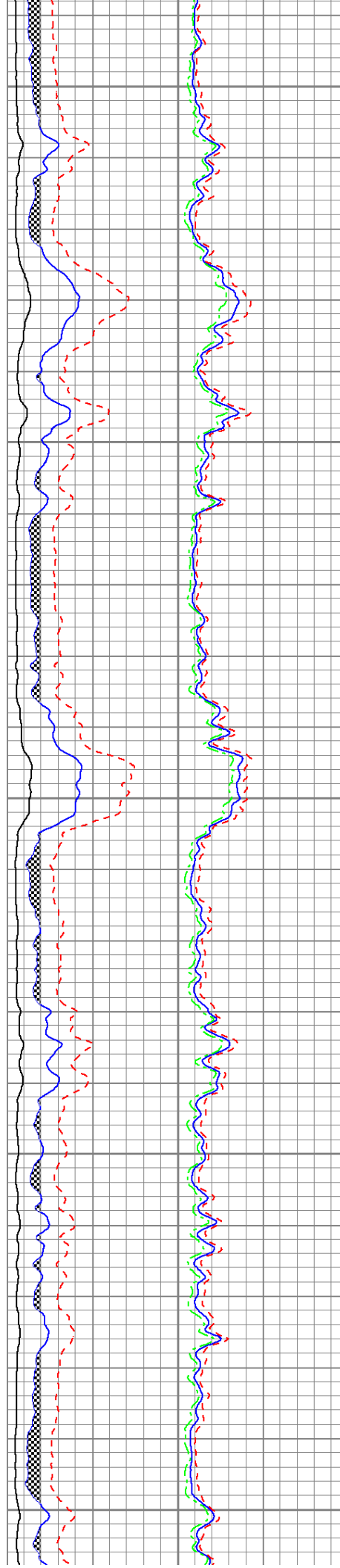


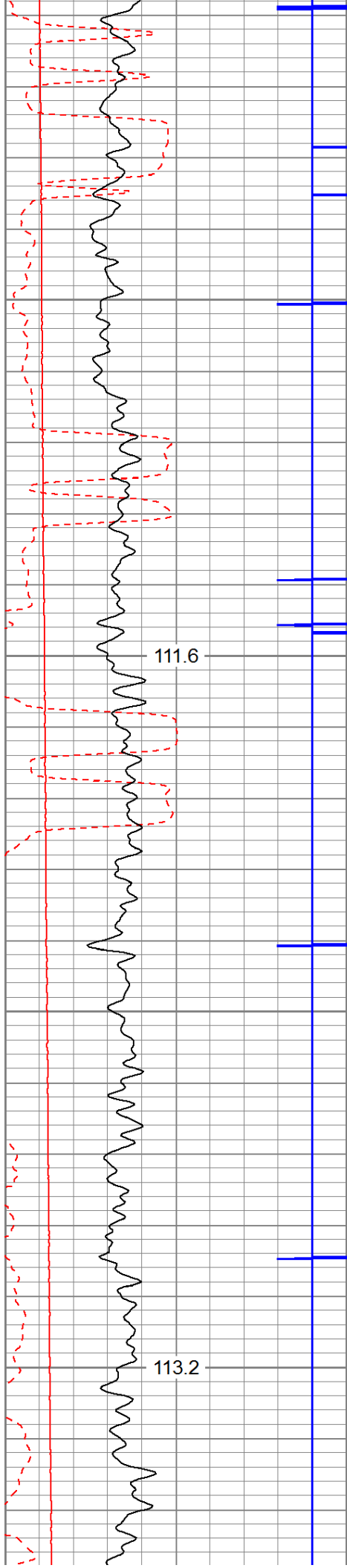


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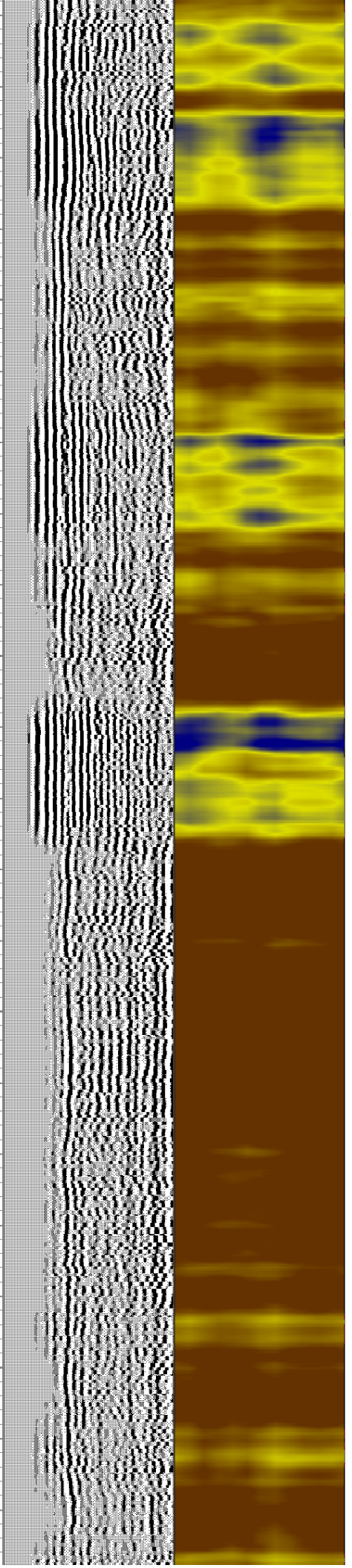
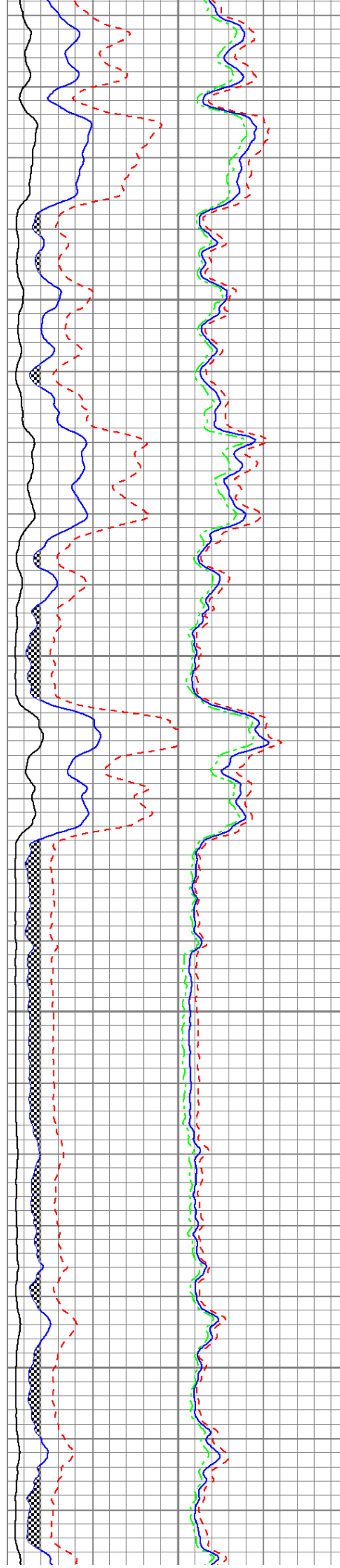
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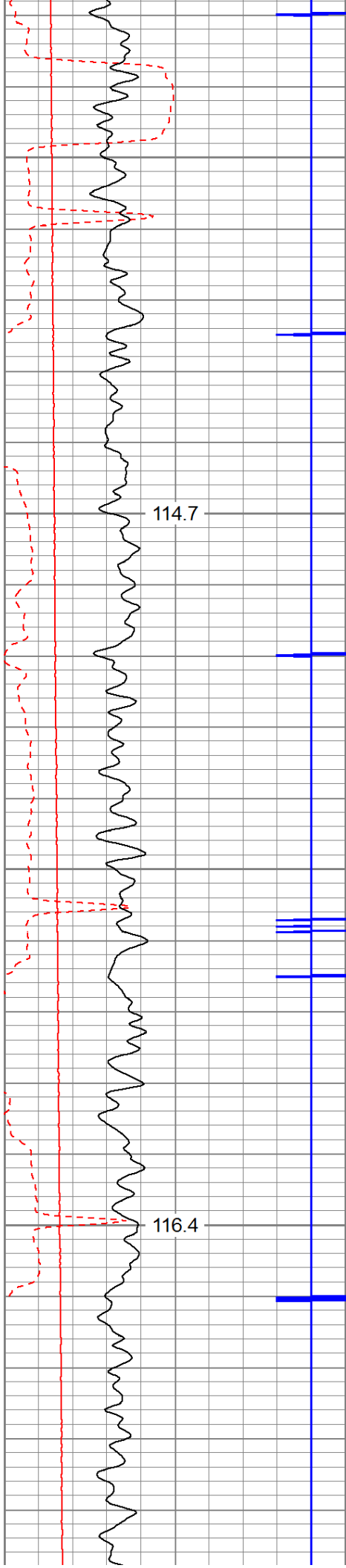




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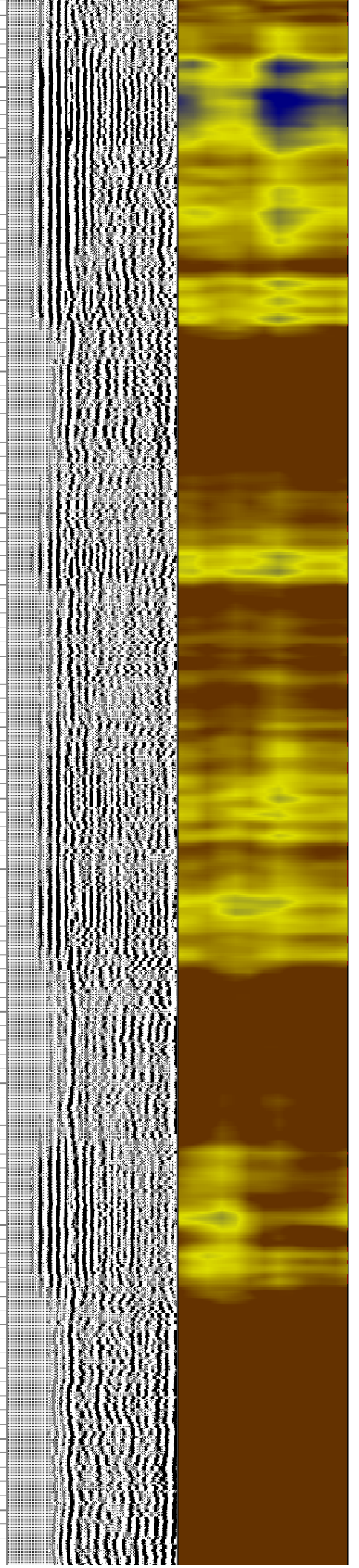
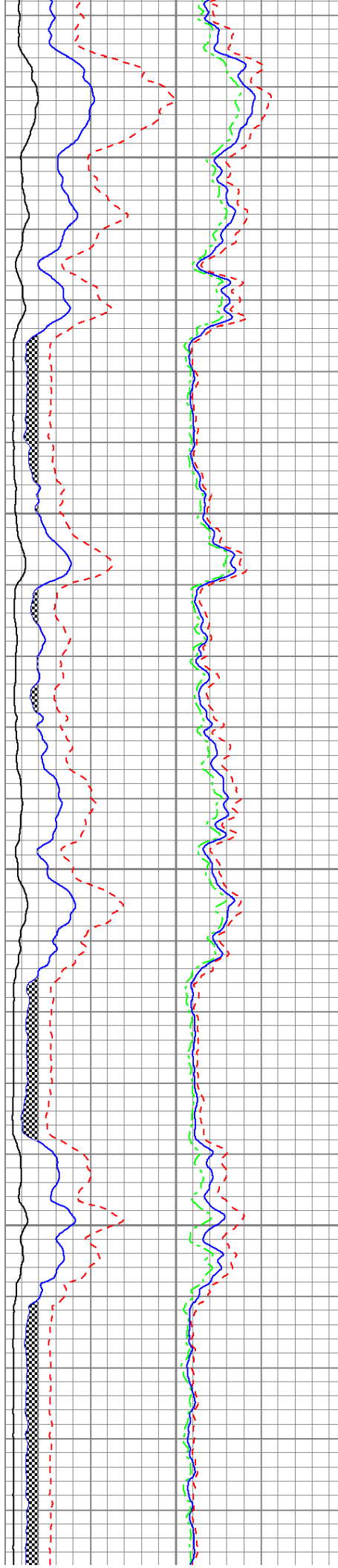
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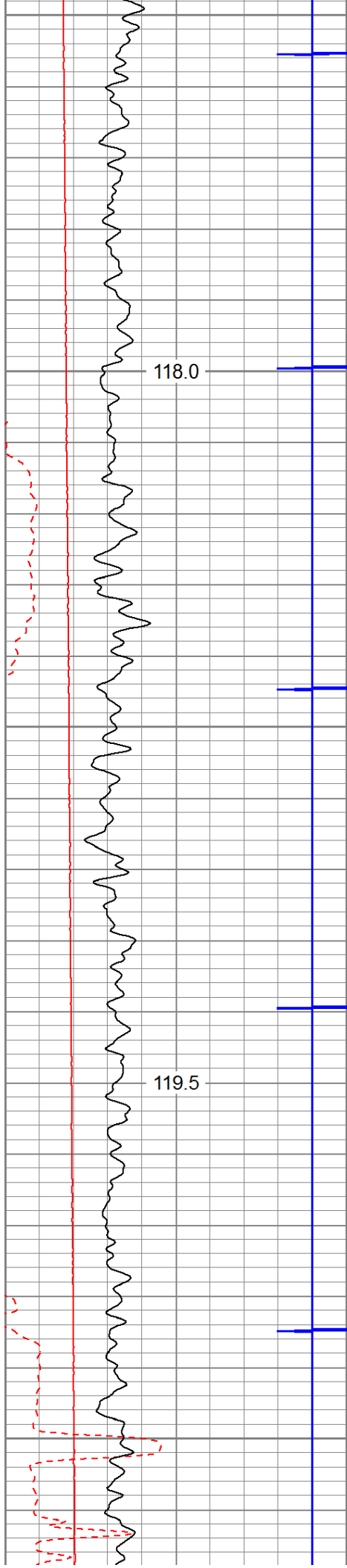




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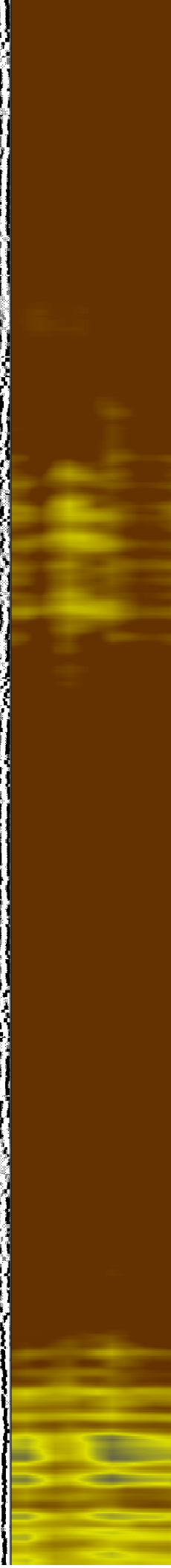
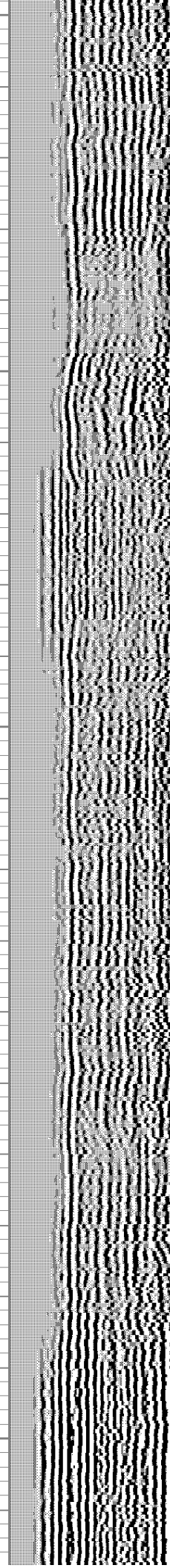
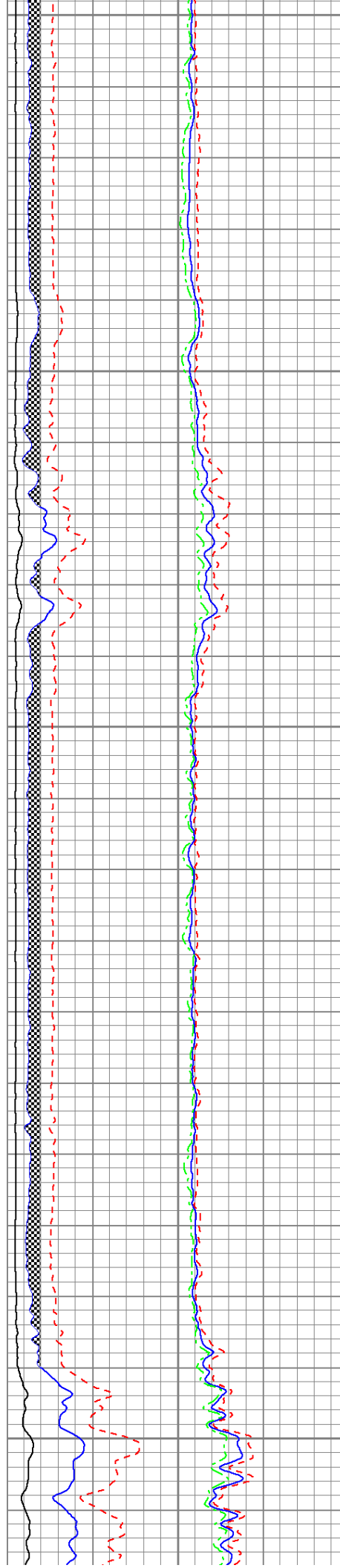
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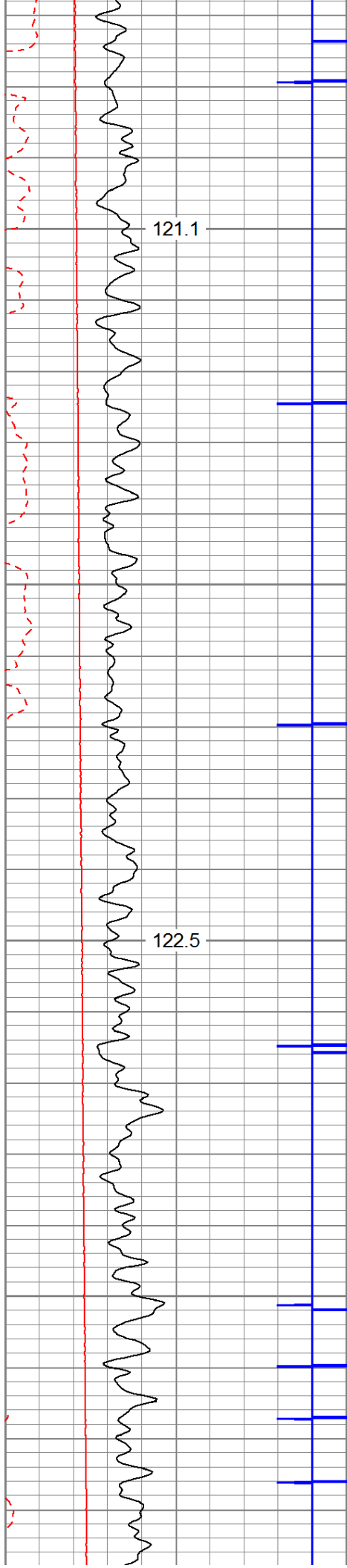




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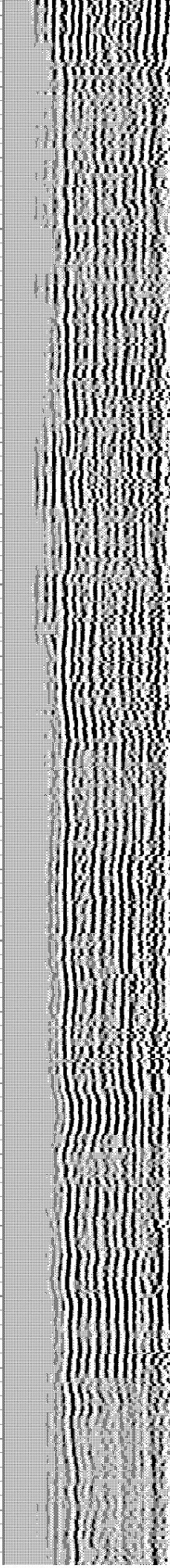
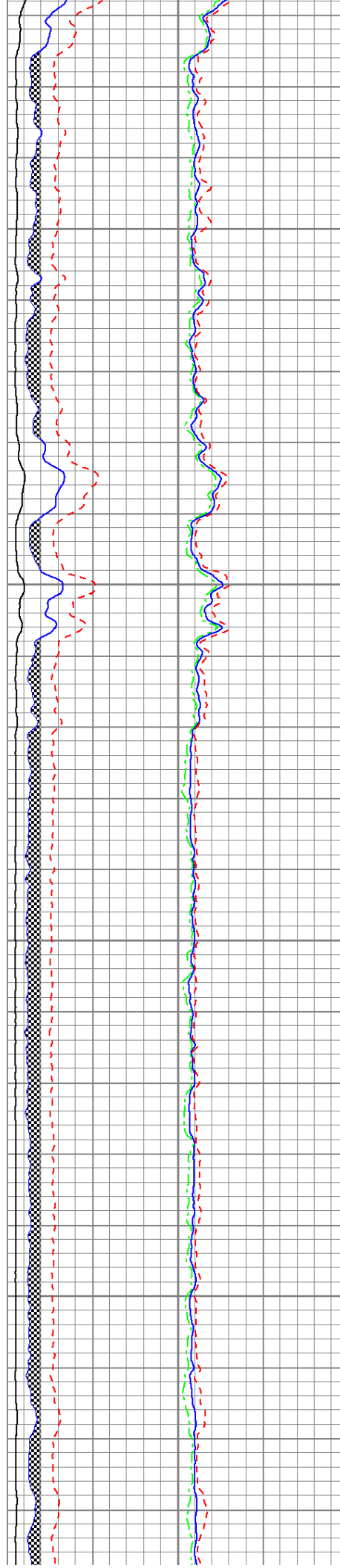
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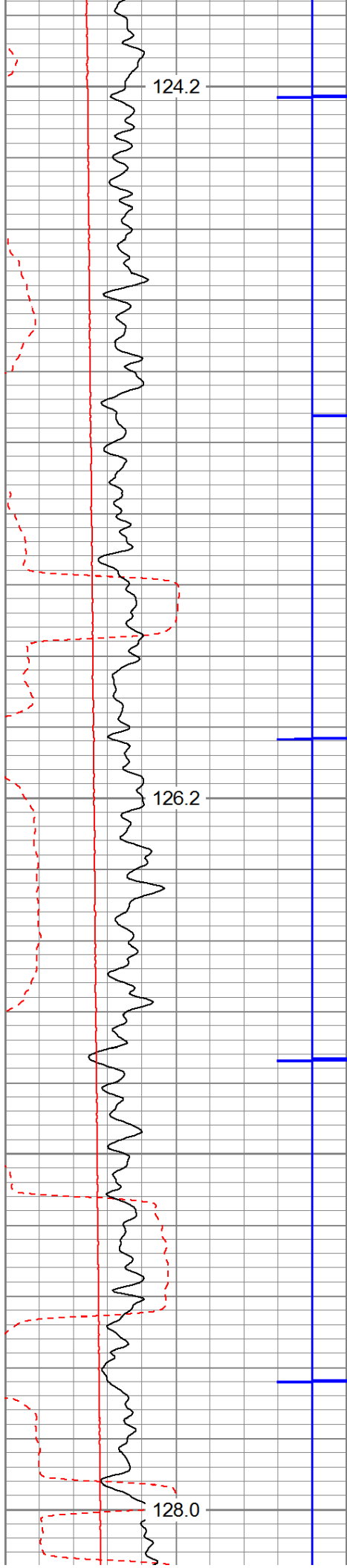




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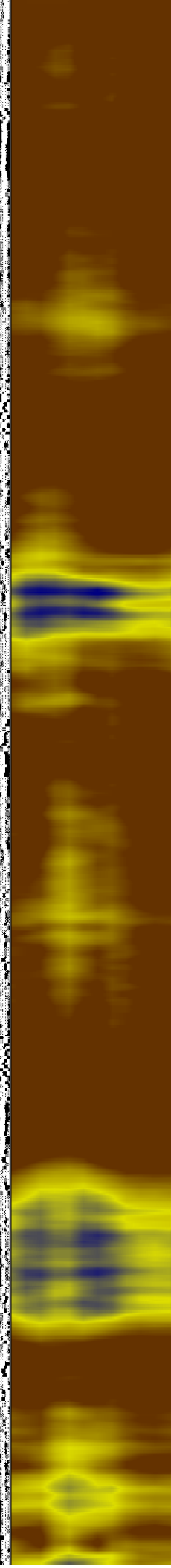
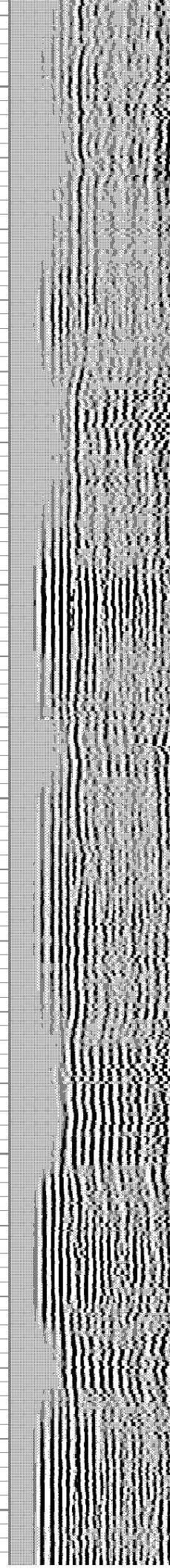
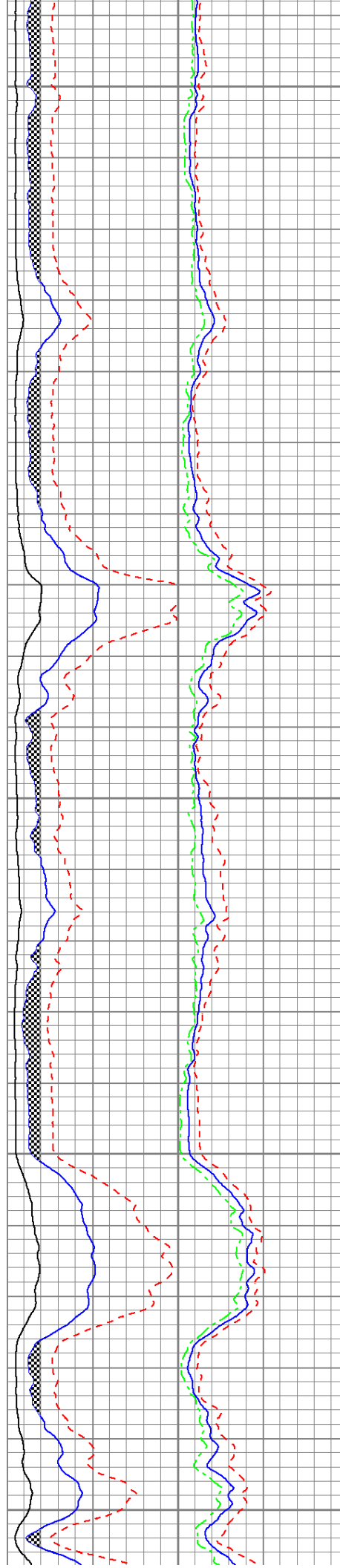


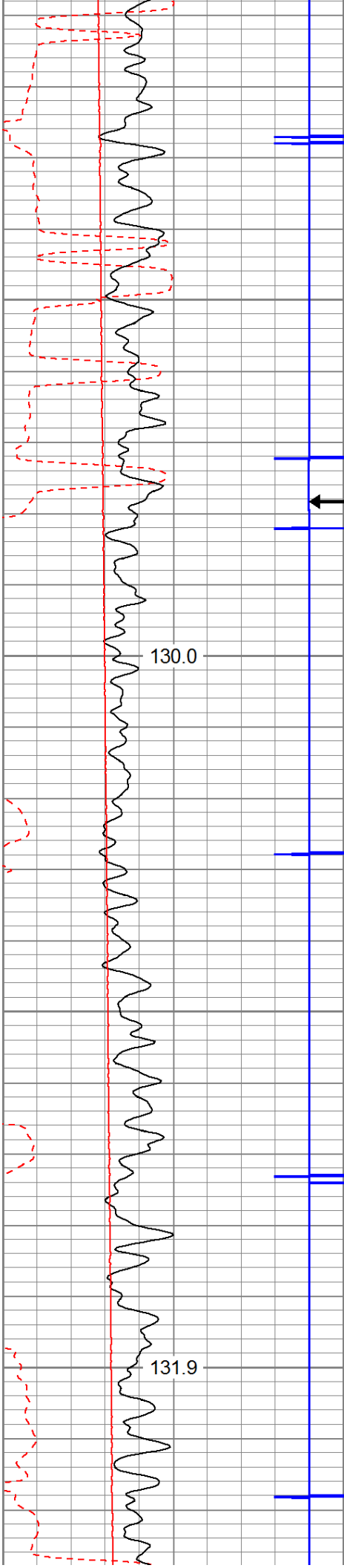


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6100

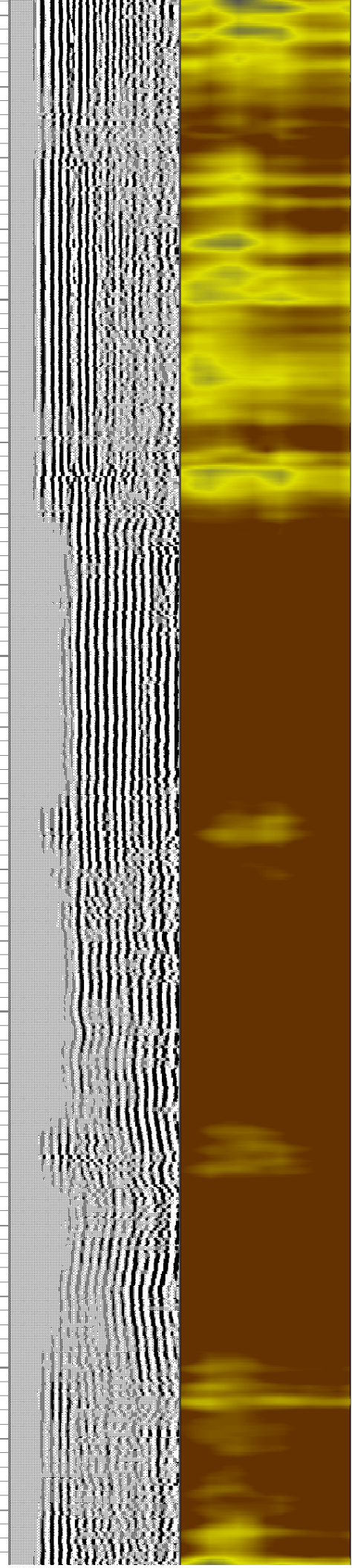
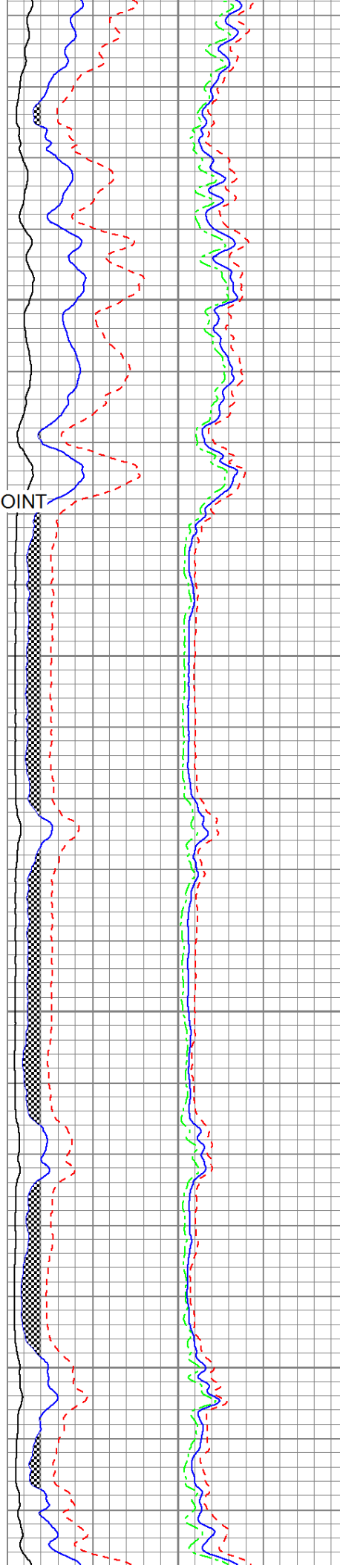


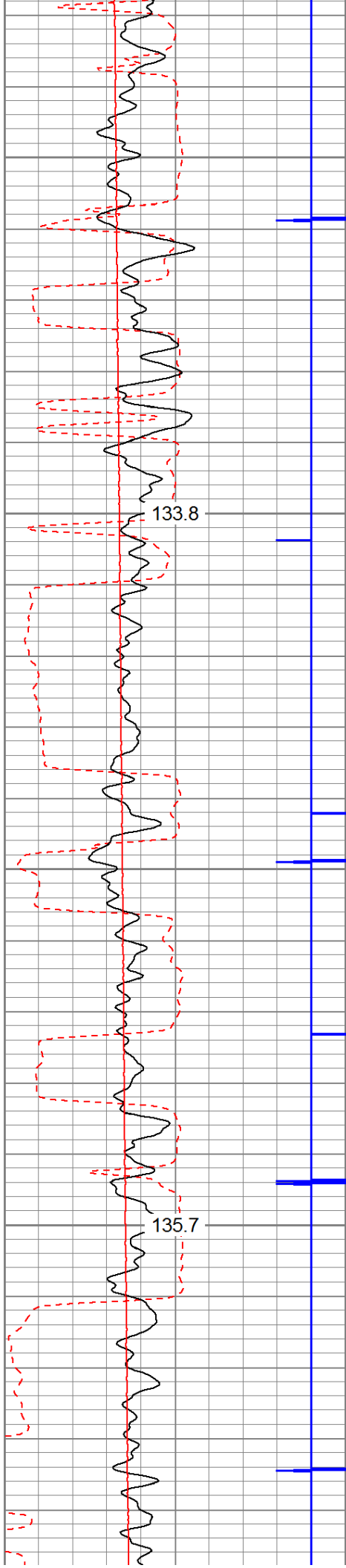


← MARKER JOINT

6200

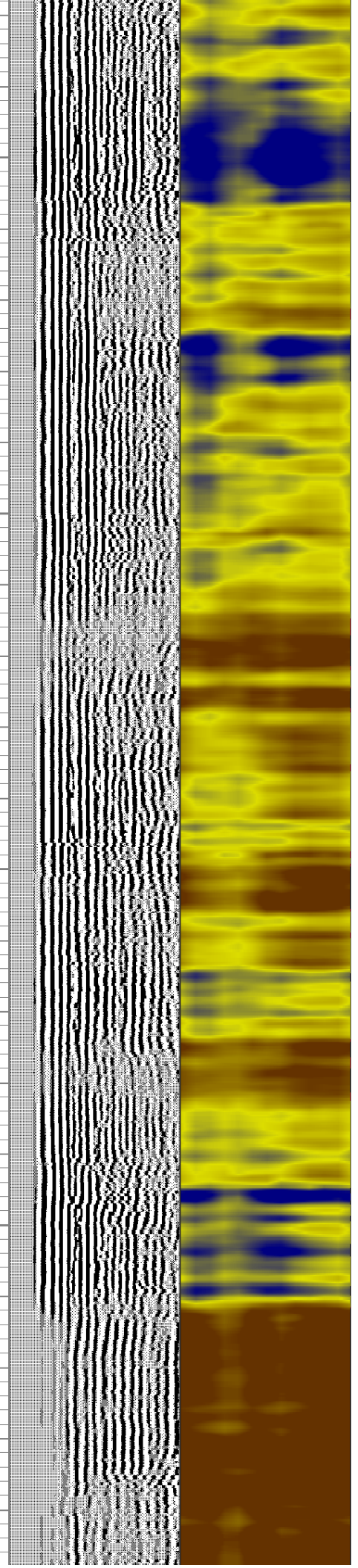
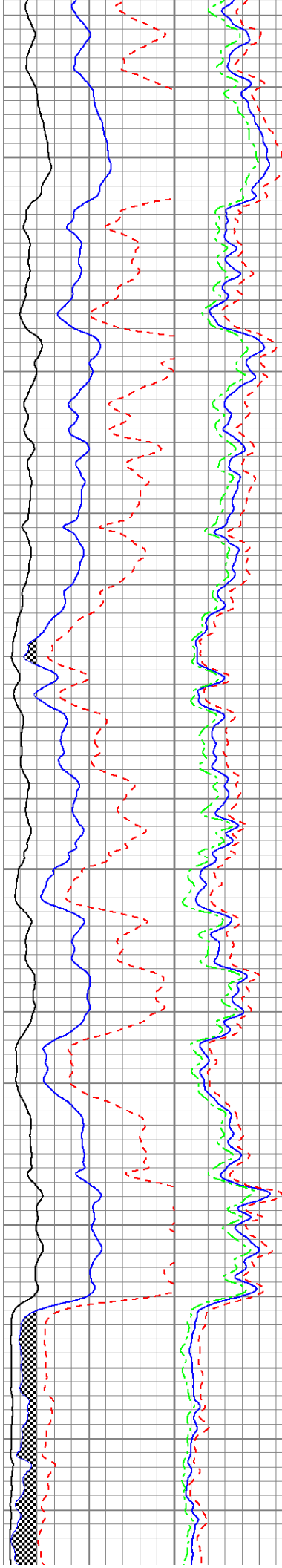
6300

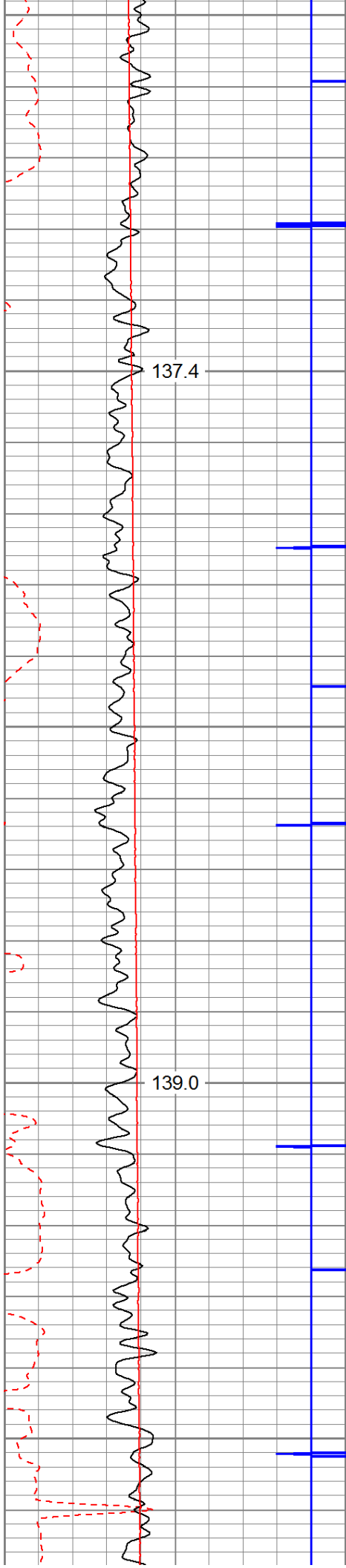




6400

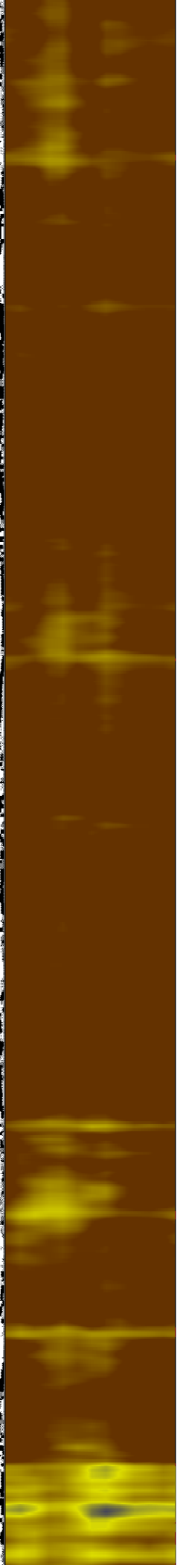
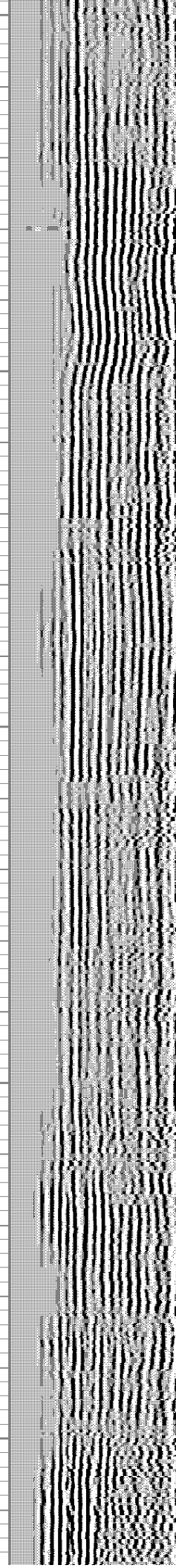
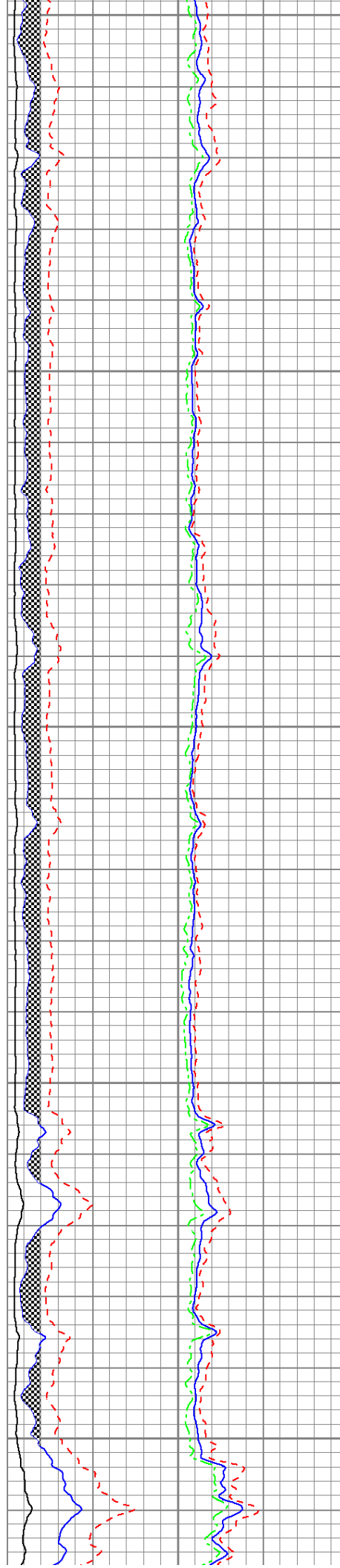
6500

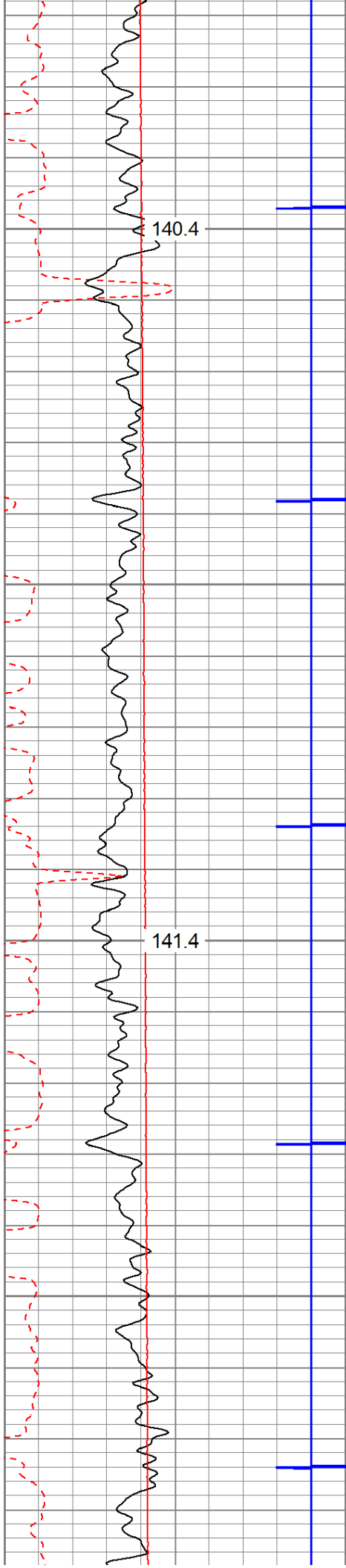




6600

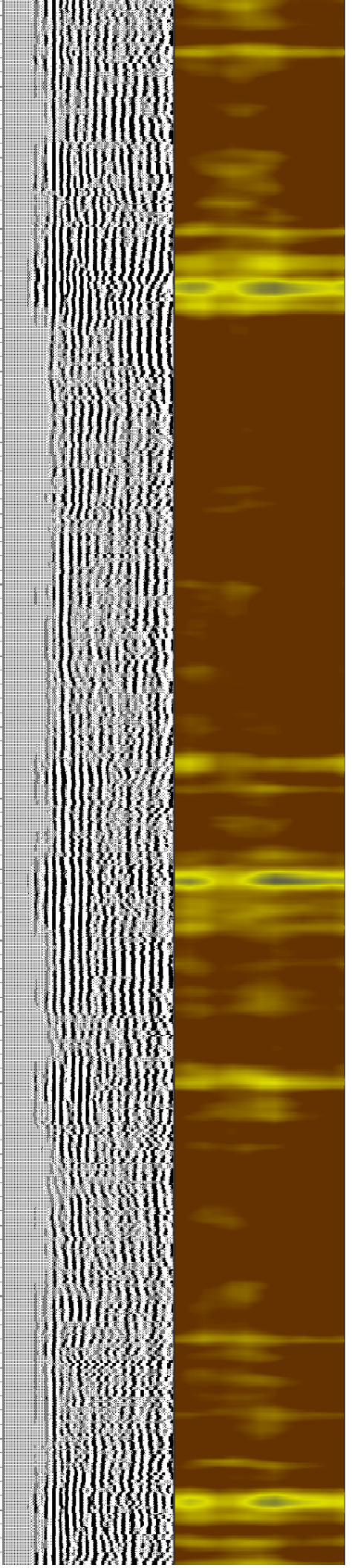
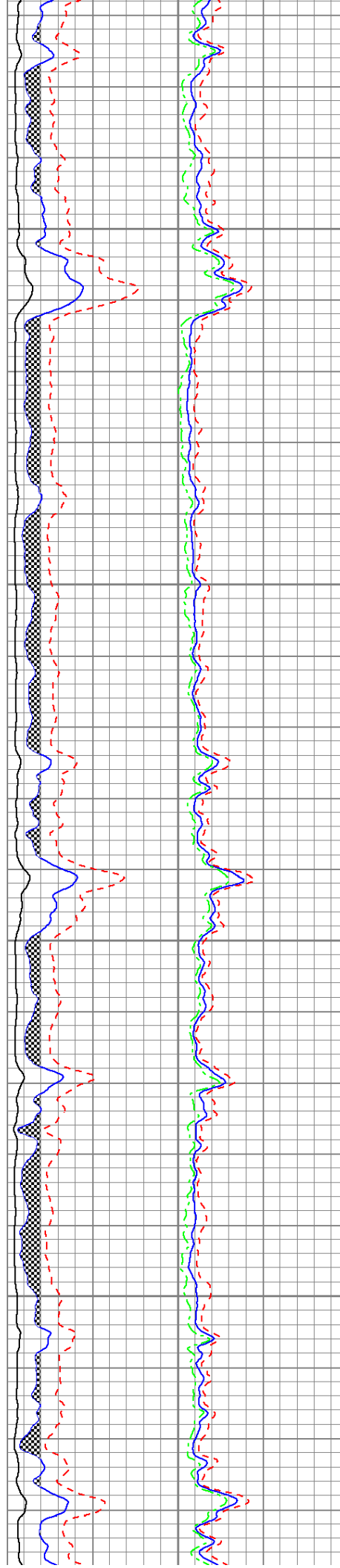
6700

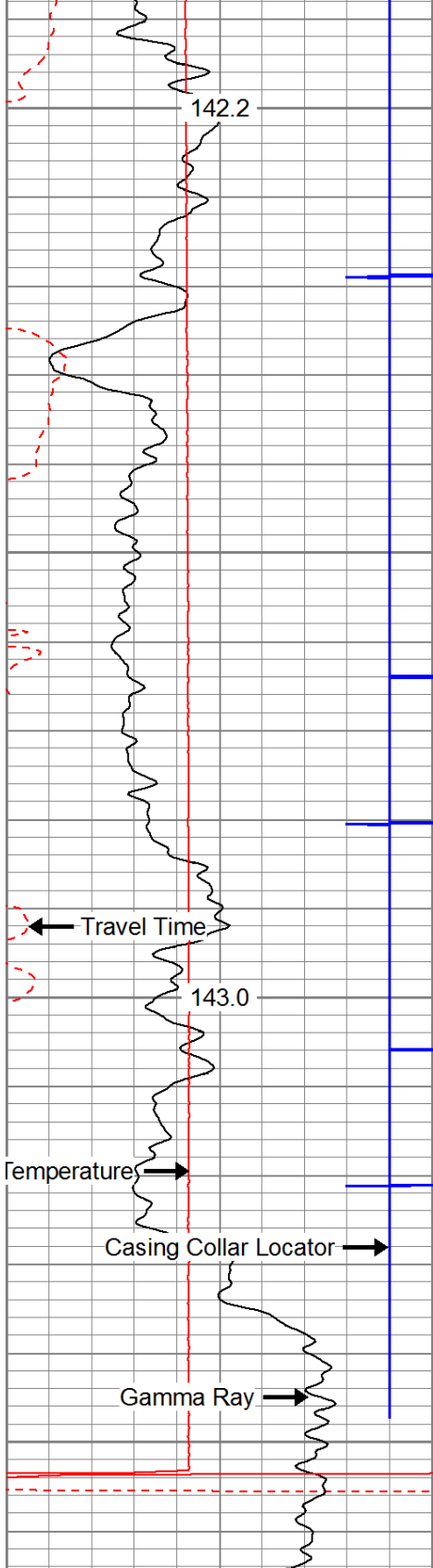




6800

6900





7000

7100

Travel Time

Temperature

Casing Collar Locator

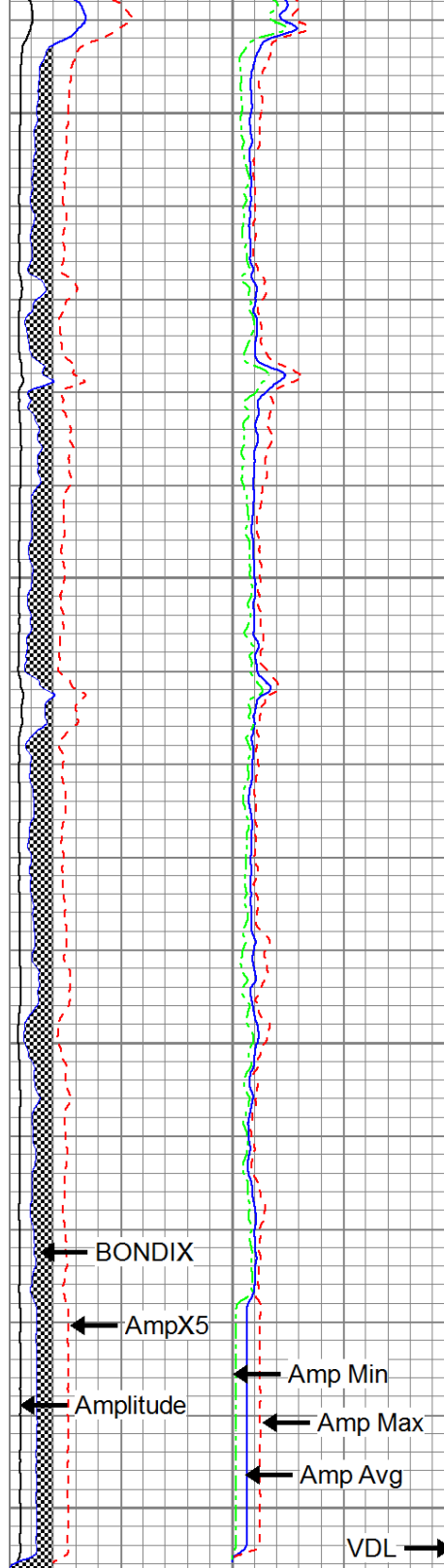
Gamma Ray

142.2

143.0

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

TEMP
(degF)



BONDIX

AmpX5

Amplitude

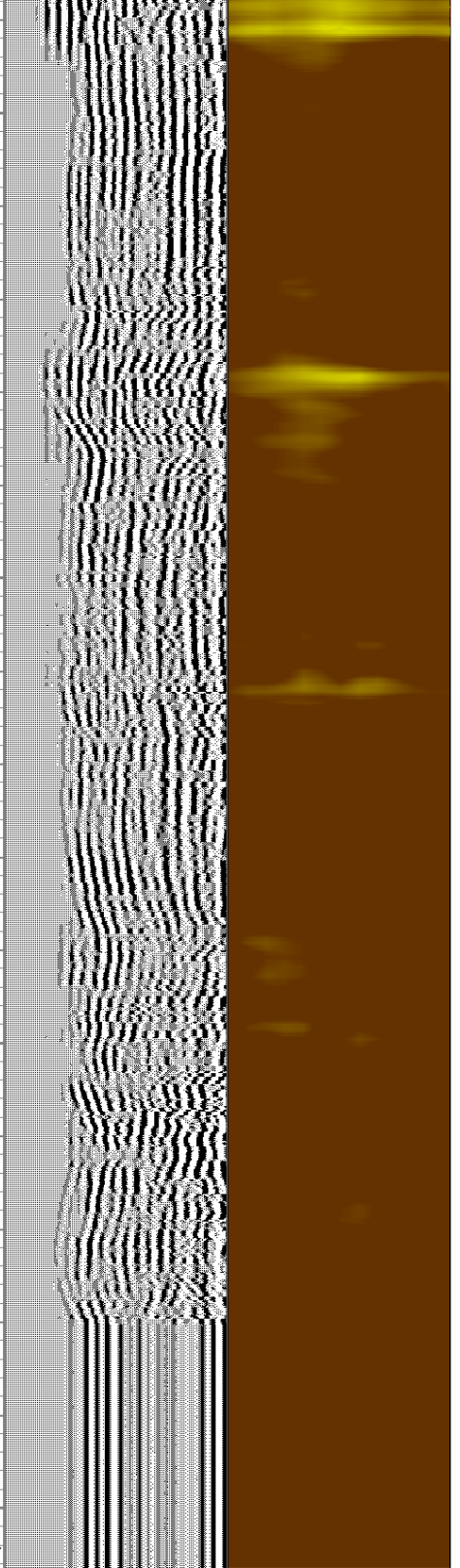
Amp Min

Amp Max

Amp Avg

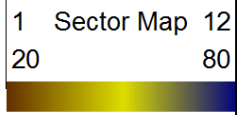
VDL

0	Amplitude	0	Amp Avg	150
0	(mV)	100	Amp Max	150
0	AmpX5 (mV)	20	Amp Min	150
1	BONDIX	0		



Sector Map

200	VDL	1200	1	Sector Map	12
			20		80



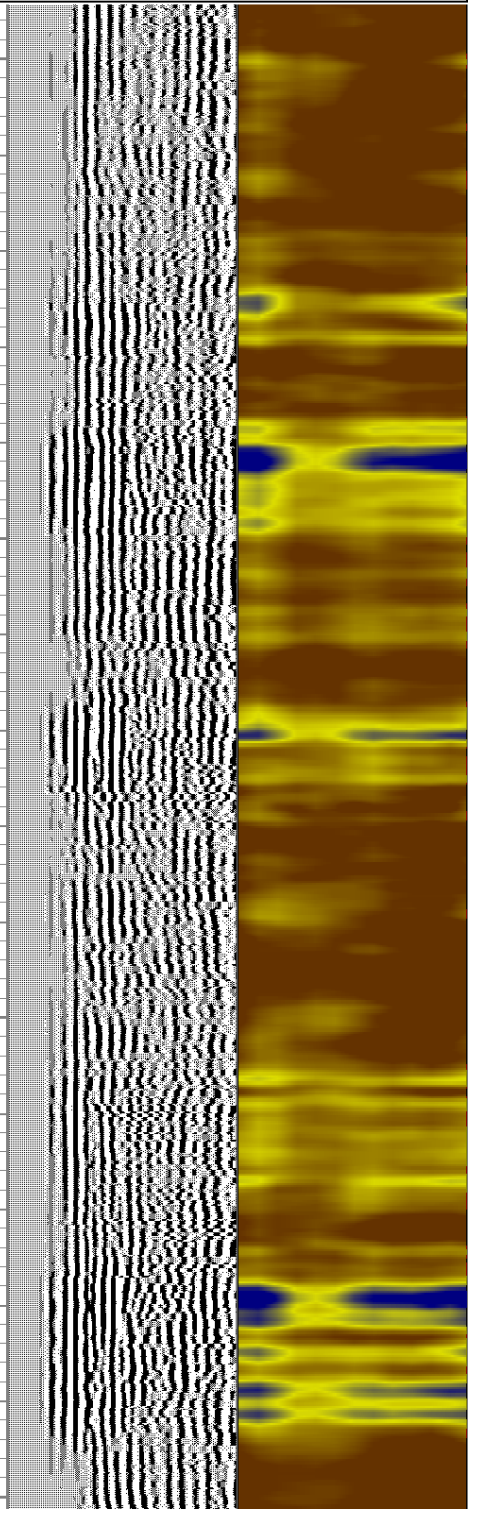
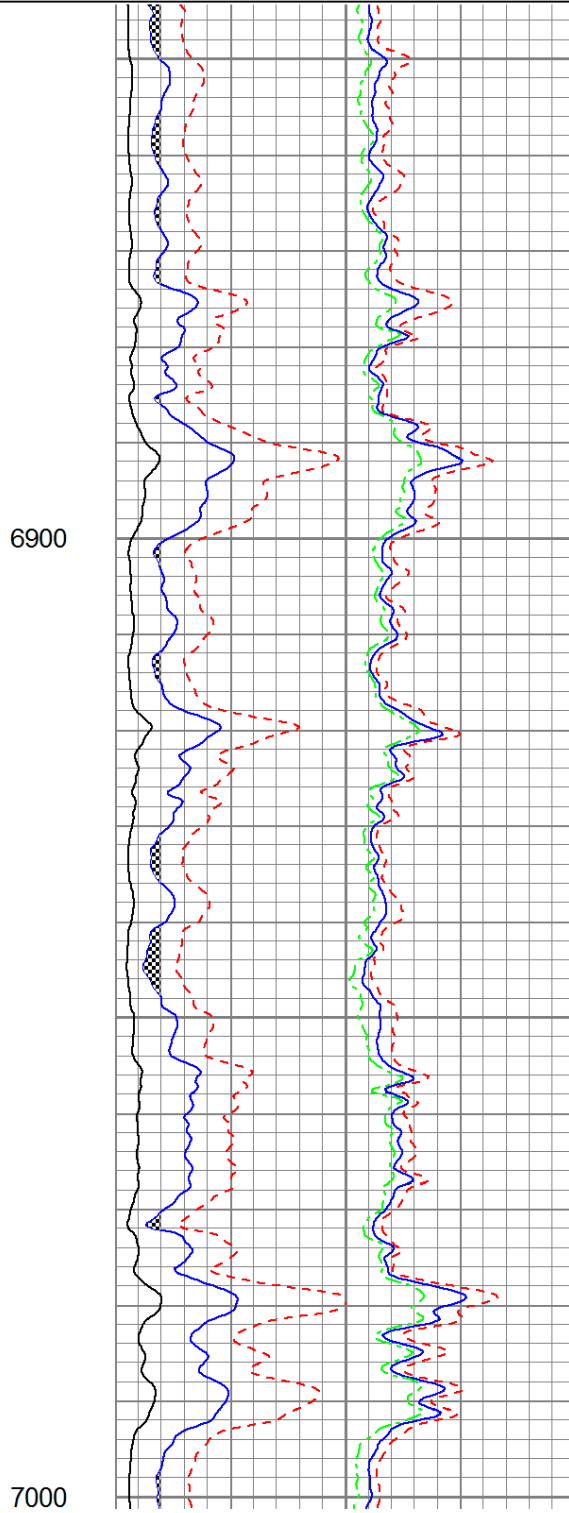
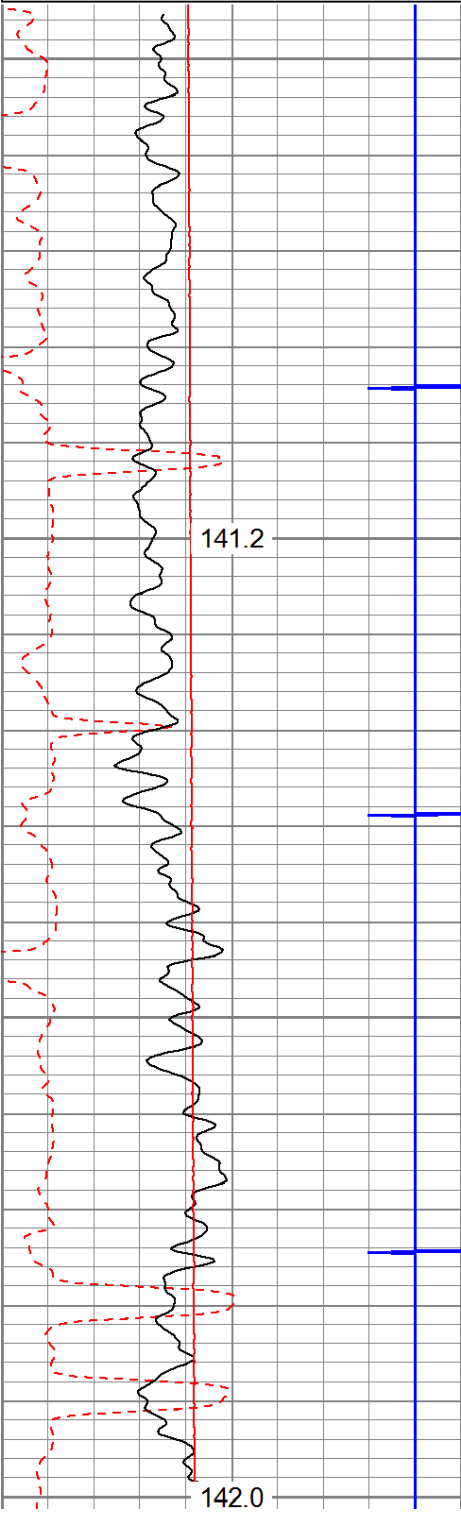
Database File: e:\rodzina 2h.db
 Dataset Pathname: pass2
 Presentation Format: antero
 Dataset Creation: Wed Oct 09 13:05:34 2019 by Log 7.0 B1
 Charted by: Depth in Feet scaled 1:240

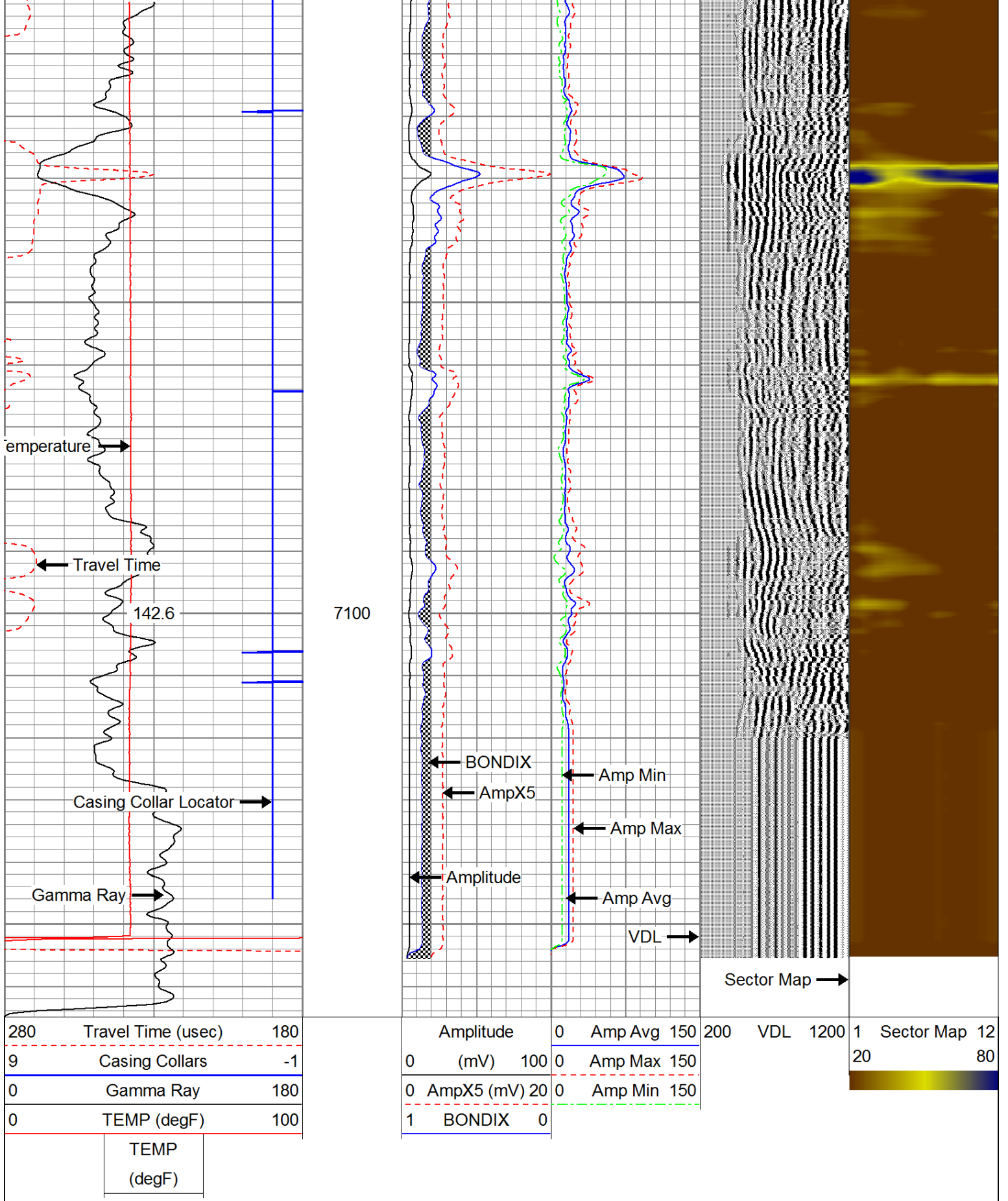
280	Travel Time (usec)	180
9	Casing Collars	-1
0	Gamma Ray	180
0	TEMP (degF)	100

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

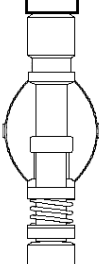

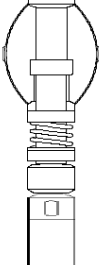

200	VDL	1200	1	Sector Map	12
			20		80

TEMP
(degF)





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: rodzina 2h.db: field/well/run1/pass3.1
 Total Length: 20.07 ft
 Total Weight: 250.00 lb
 O.D. 3.25 in

Calibration Report

Database File: E:\rodzina 2h.db
 Dataset Pathname: pass3.1
 Dataset Creation: Wed Oct 09 14:58:43 2019 by Calc 7.0 B1

Gamma Ray Calibration Report

Serial Number:	IPSNO-03	
Tool Model:	Tek-Co 2 3/4	
Performed:	Wed Oct 09 09:42:39 2019	
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	RODZINA 2H		
Field	MARCELLUS		
County	TYLER		
State	W.V.	Country	USA