



PIONEER

Pioneer Energy Services

**RADIAL BOND LOG
WITH GAMMA RAY**

Company **VERDAD RESOURCES**
Well **KBL 1930-12H**
Field **WATTENBERG**
County **WELD** State **CO**

Location: **API # : 05-123-50886**
1806FSL 2111FFEL
Other Services
CCL
TEMP
SEC 19 TWP 2N RGE 63W
Permanent Datum GL
Log Measured From KB 21' Elevation 4863'
Drilling Measured From KB Above Perm. Datum
K.B. 4884'
D.F. N/A
G.L. 4863'

Comp. **VERDAD RESOURCES**
Well **KBL 1930-12H**
Field **WATTENBERG**
Co. **WELD**
State **CO**

Date of Service	8-19-2021		
Run Number	ONE		
Depth Driller or P8TD	14398'		
Depth Logger	7210'		
Bottom Log Interval	7210'		
Top Log Interval	50'		
Open Hole Size	8.5"		
Type Fluid	FRESH WATER		
Fluid Level	50'		
Fluid Density	N/A		
Max. Recorded Temperature	191 DEG F		
Max. Wellhead Pressure	ZERO PSI		
Wellhead Connection	N/A		
Estimated Cement Top	550'		
Unit Number	P-132		
Wireline Size	9/32"		
Location	FORT MORGAN		
Recorded By	AJ SPILLMAN		
Witnessed By	JASON TURNER		
	Size	Wt/Ft	Top
Tubing Record			Bottom
Surface Casing	9.625"	36#	SURFACE
Production Casing	5.5"	17#	SURFACE
Liner Record			

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All interpretations are opinions based on inferences from electrical or other measurements and Pioneer Wireline Services, LLC cannot and does not guarantee the accuracy or correctness of any interpretation, and Pioneer Wireline Services, LLC will not 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.

Comments

N/A DENOTES NOT AVAILABLE OR NON-APPLICABLE.
CORRELATED TO FIVE FOOT MARKER AT SURFACE

THANK YOU FOR USING PIONEER ENERGY SERVICES!

Your Pioneer Energy Services Crew	Tool Data - Services	Serial Number
Engineer: A,SPILLMAN Operator: M,BATREZ Operator: O.ESTUPINAN Operator:		

Top - Bottom


BOREID in 7.875	BOTTEMP degF 100	CASEOD in 5.5	CASETHCK in 0	CASEWGHT lb/ft 17	MAXAMPL mV 0	MINAMPL mV 1
MINATTN db/ft 0.08	PERFS No	PPT usec 0	SRFTEMP degF 0	TDEPTH ft 0		


Variable Description

BOREID : Borehole I.D.
BOTTEMP : Bottom Hole Temperature
CASEOD : Casing O.D.
CASETHCK : Casing Thickness
CASEWGHT : Casing Weight
MAXAMPL : Maximum Amplitude

MINAMPL : Minimum Amplitude
MINATTN : Minimum Attenuation
PERFS : Perforation Flag
PPT : Predicted Pipe Time
SRFTEMP : Surface Temperature
TDEPTH : Total Depth

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
			Cable Head-Titan_144 1 7/16" Titan Cable Head	1.03	1.44	2.00
			Centralizer-275 Probe 2 3/4" Probe Adjustable Spring Centralizer	2.88	2.75	15.00
			PROBE-RBT-DIGITAL-RBL-DC (FW 1304-33) Probe 2 3/4" Radii Bond-Corrosion Package	8.75	2.75	100.00
WVFS8	12.09					
WVFS7	12.09					
WVFS6	12.09					
WVFS5	12.09					
WVFS4	12.09					
WVFS3	12.09					
WVFS2	12.09					
WVFS1	12.09					
WVFCAL	12.09					
WVF3FT	12.09					
WVF5FT	11.09					
HEADVOLT	7.90					
			Centralizer-275 Probe	2.88	2.75	15.00

CCL	4.20				
GCT_TEMP	3.41				
GR	2.83		4.69	2.75	60.00
			0.33	1.38	1.00
Dataset: verdad resources_kbl 1930-12h_0512350886_20210819_scbl.db: field/well/run1/pass4 Total length: 20.56 ft Total weight: 193.00 lb O.D.: 2.75 in					

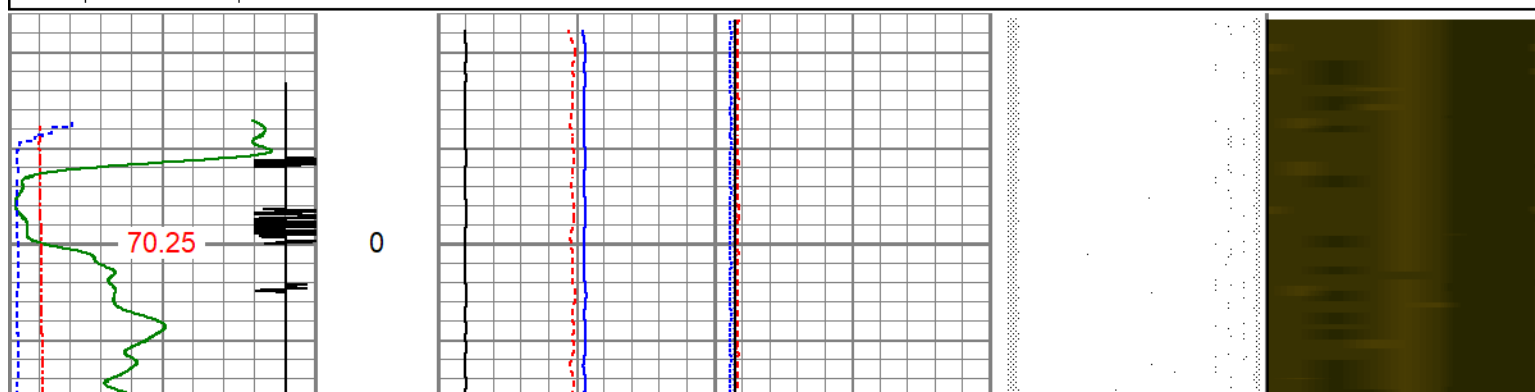


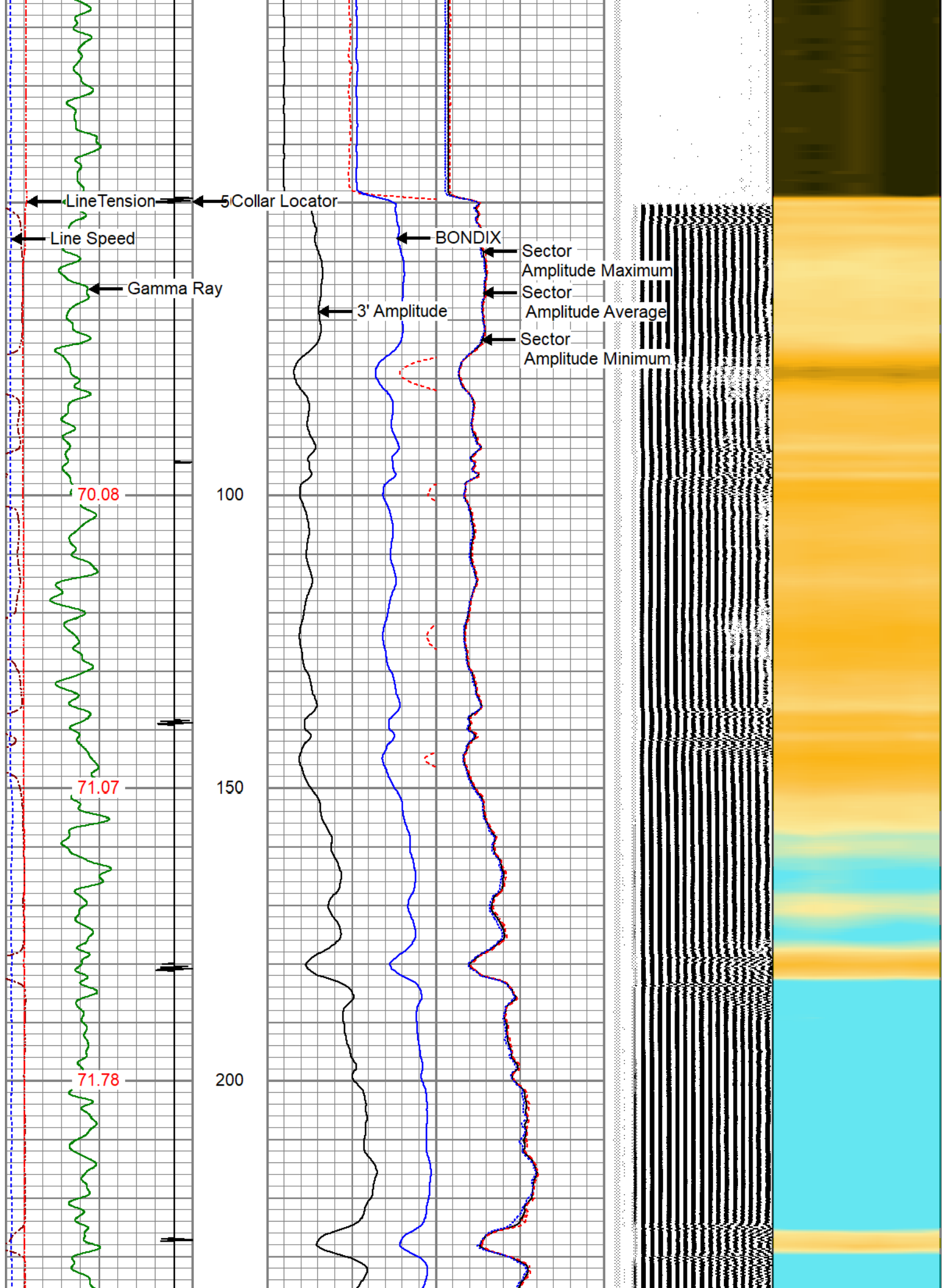
MAIN LOG

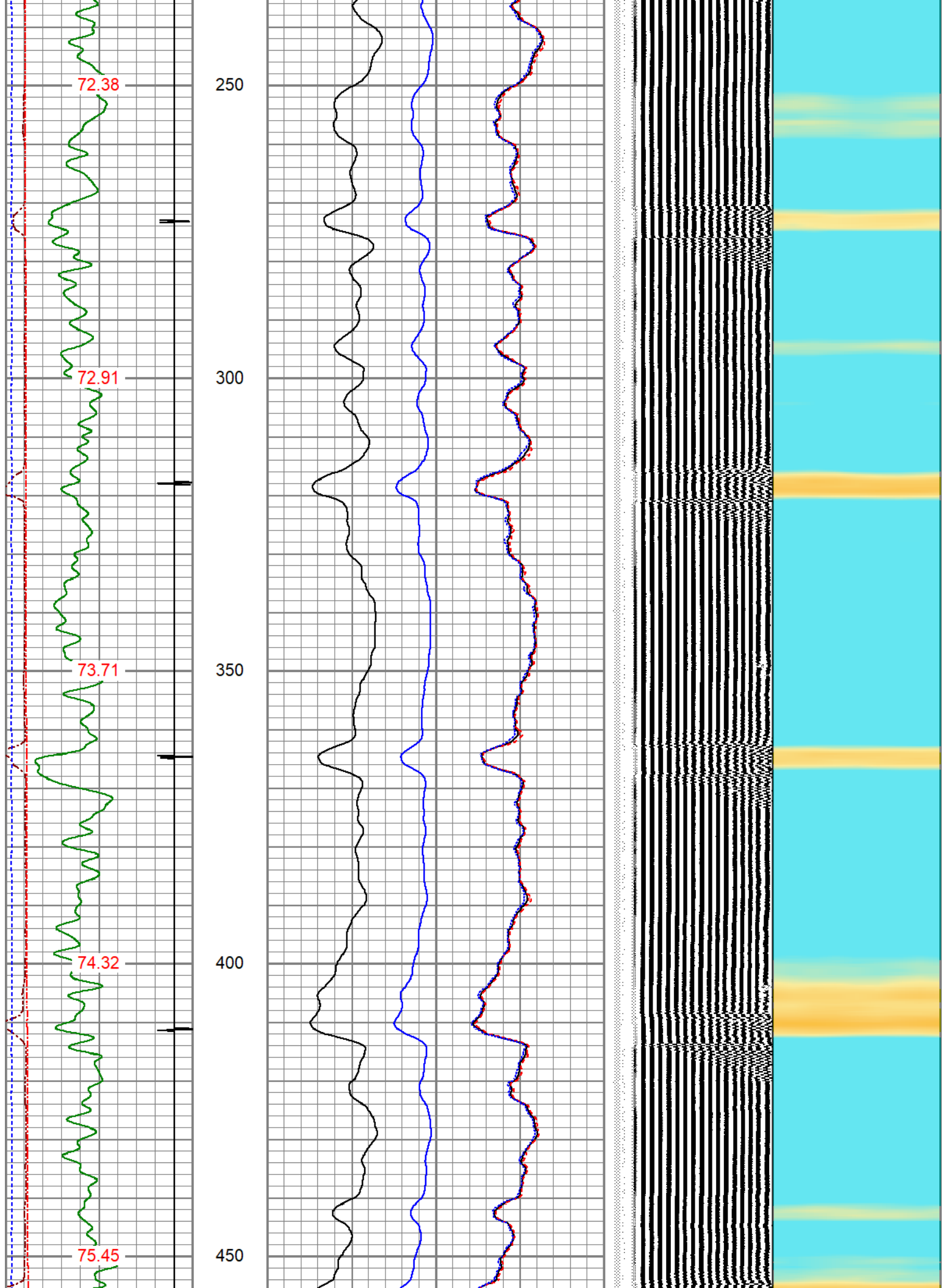
ZERO PSI APPLIED AT SURFACE

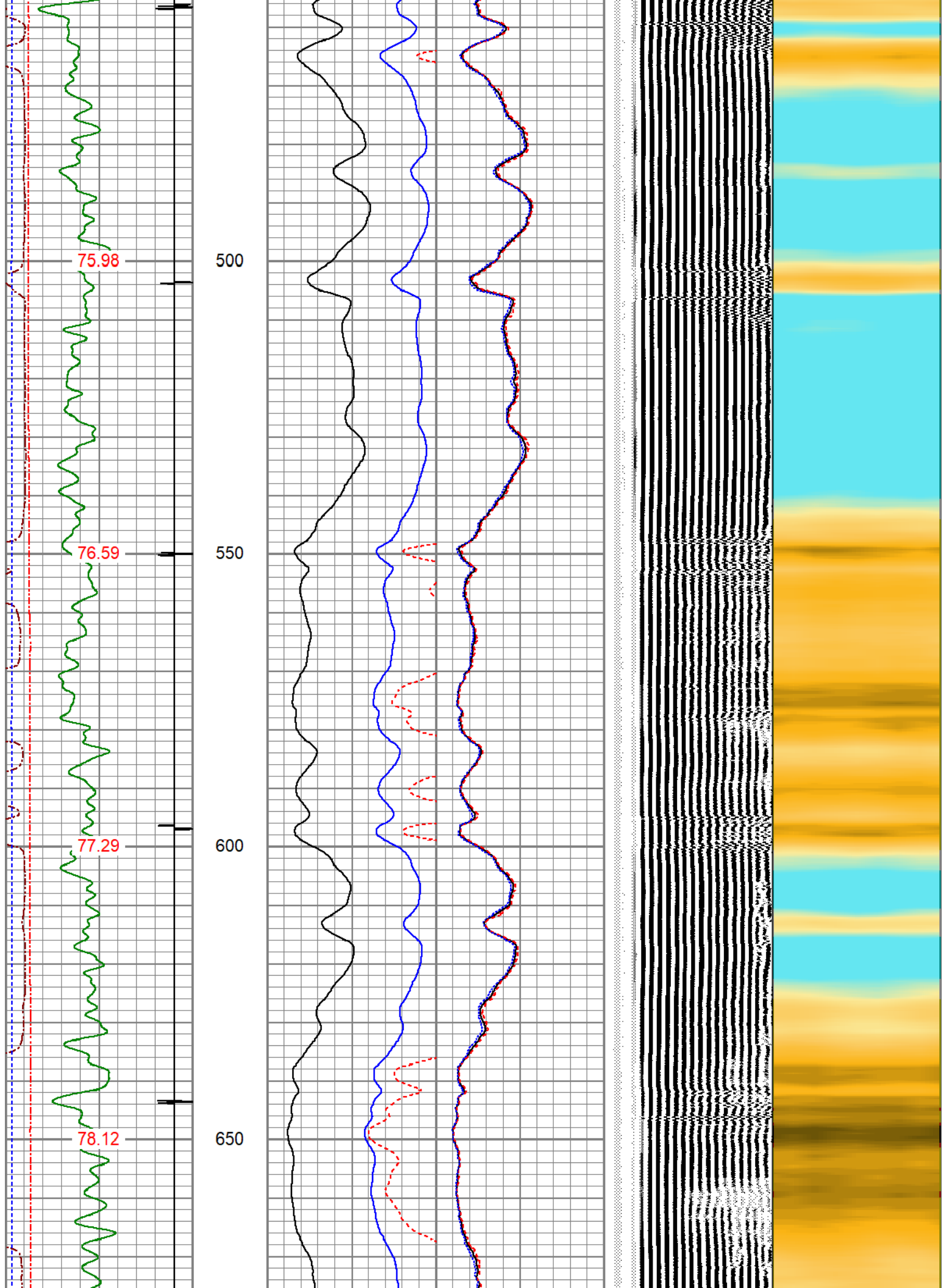
Database File	verdad resources_kbl 1930-12h_0512350886_20210819_scbl.db
Dataset Pathname	pass4
Presentation Format	pinr_scbl
Dataset Creation	Thu Aug 19 08:40:55 2021
Charted by	Depth in Feet scaled 1:240

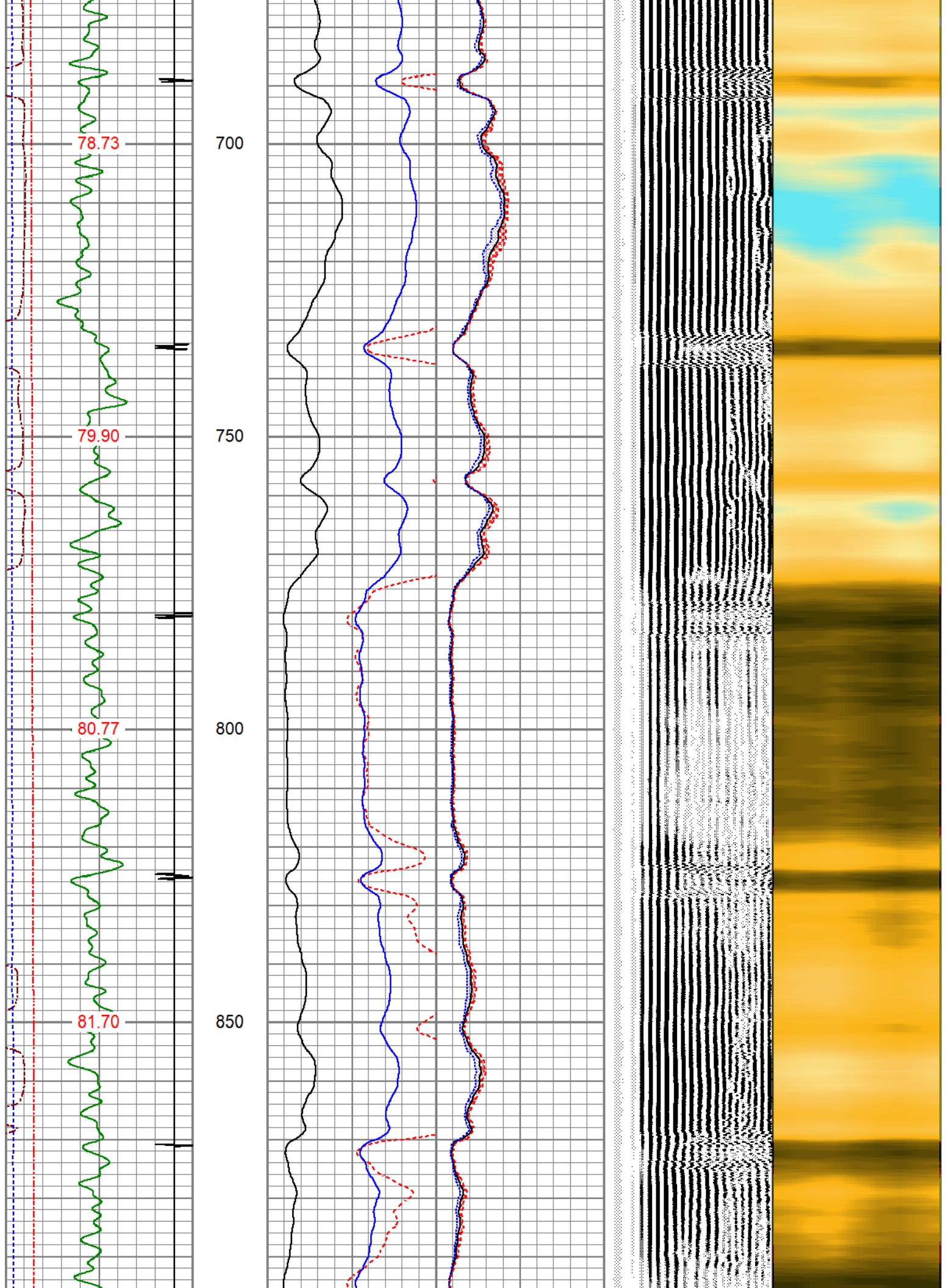
3Ft Travel Time	3' Amplitude	Sector Amplitude Average	VDL	1	Sector Map	8
275 (usec) 175	0 (mV) 100	0 150	200 (usec) 1200			
-9 Collar Locator 1	3' Amplified Amplitude X 5					
Gamma Ray	0 (mV) 20	Sector Amplitude Maximum				
0 (GAPI) 150	1 BONDIX 0	0 150				
LineTension		Sector Amplitude Minimum				
0 (lb) 2000		0 150				
Line Speed						
-100 (ft/min) 100						
TEMP (degF)						

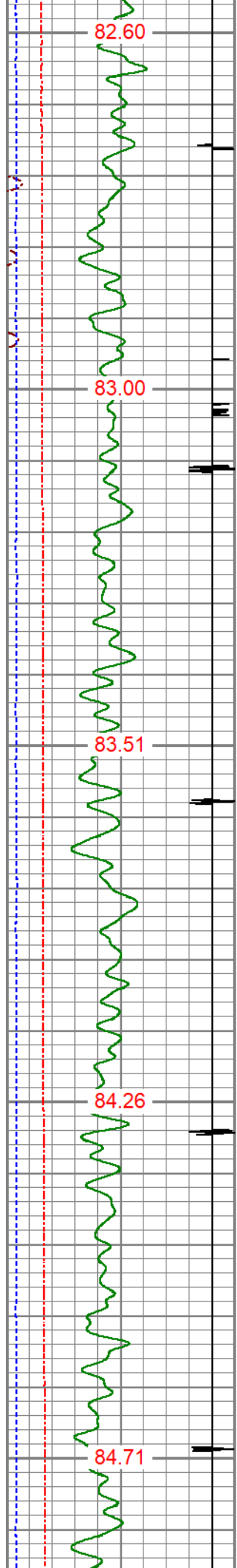




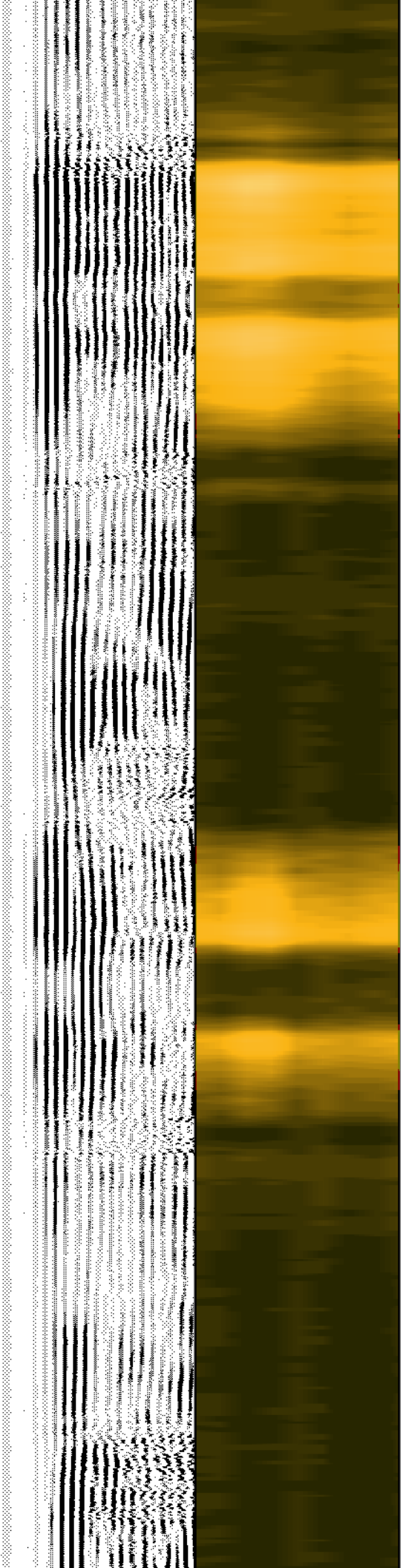


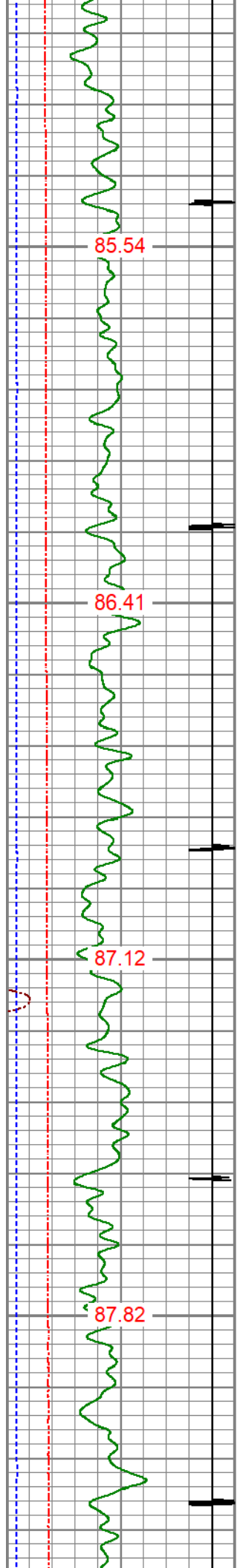






900
950
1000
1050
1100



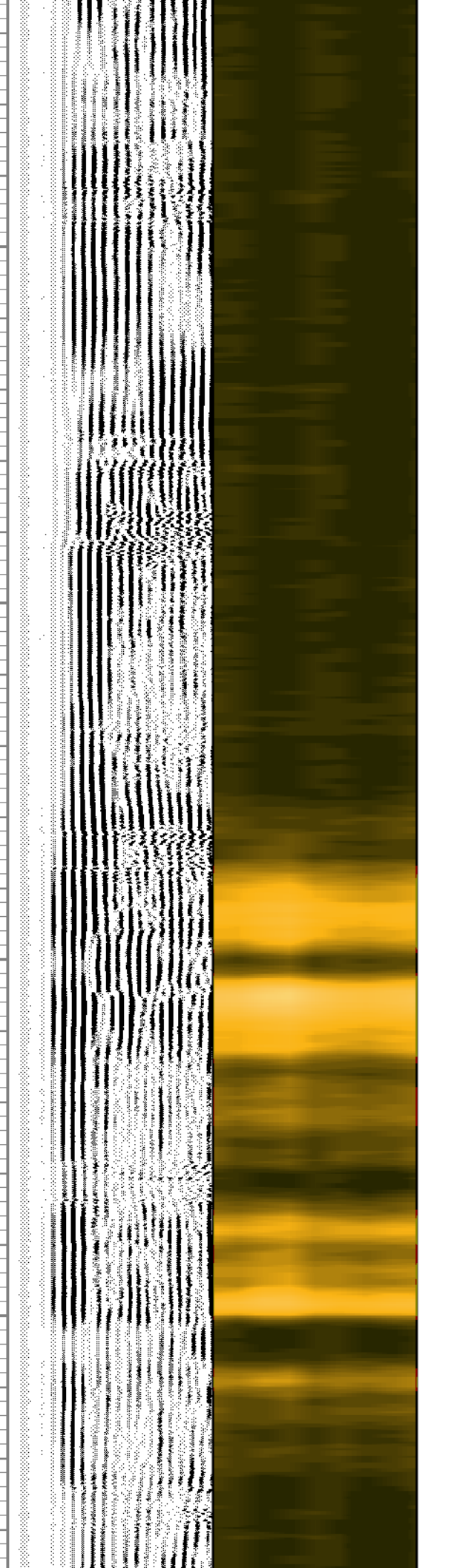


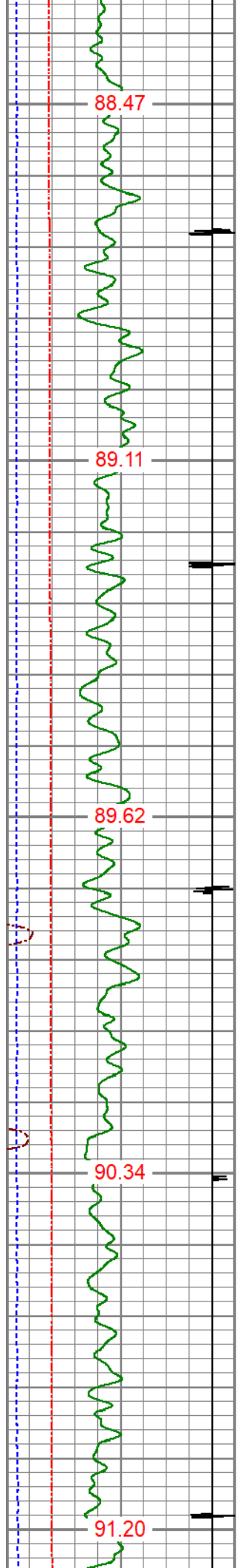
1150

1200

1250

1300





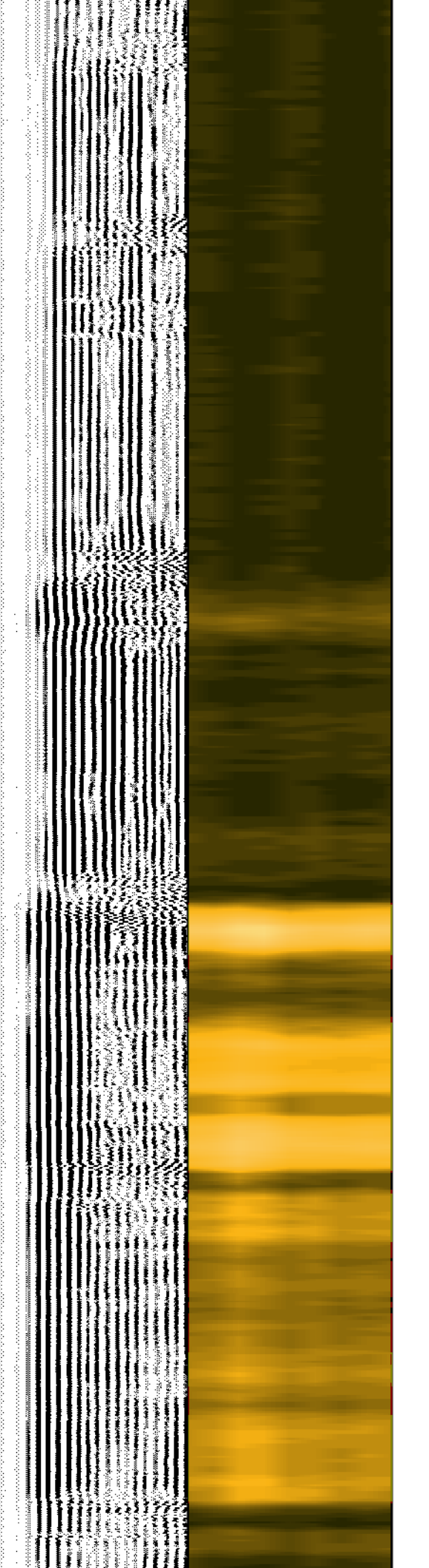
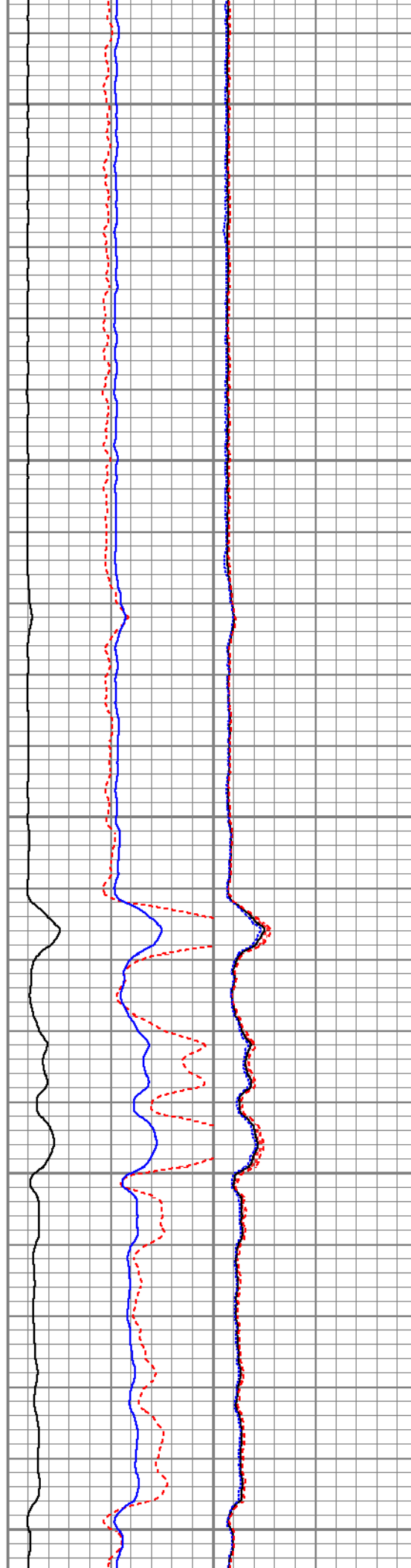
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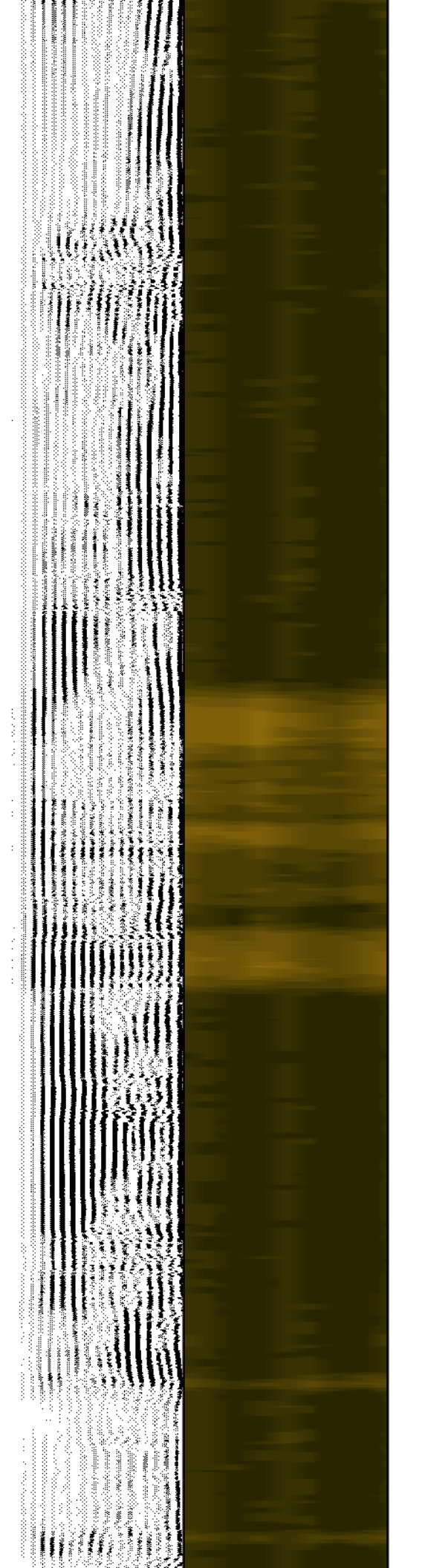
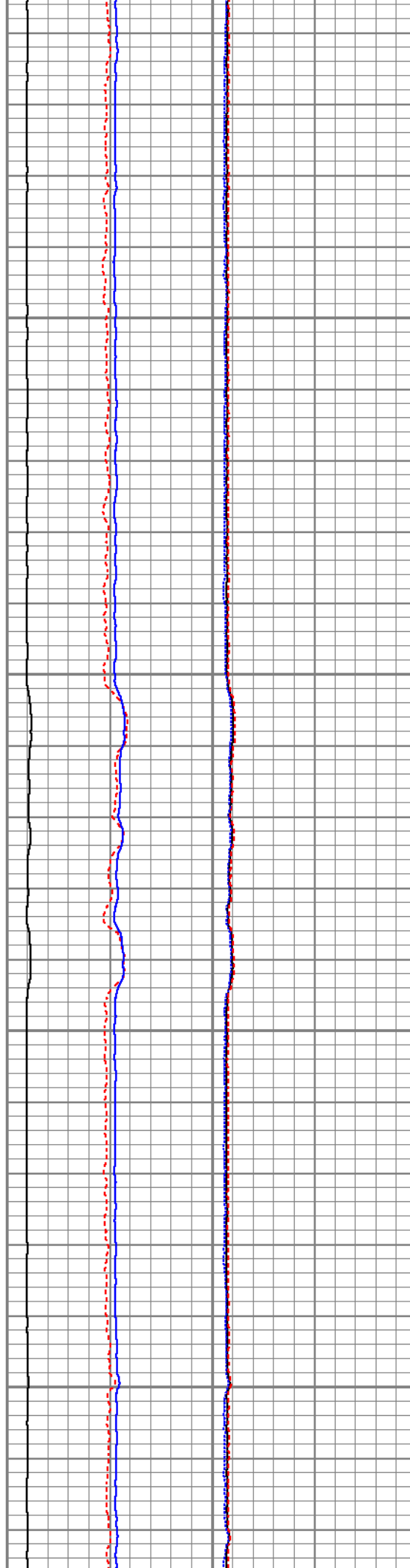
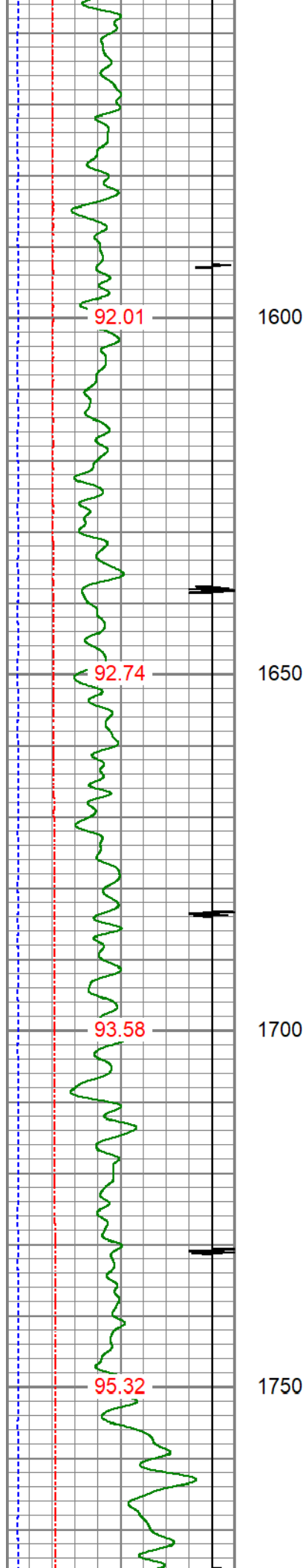
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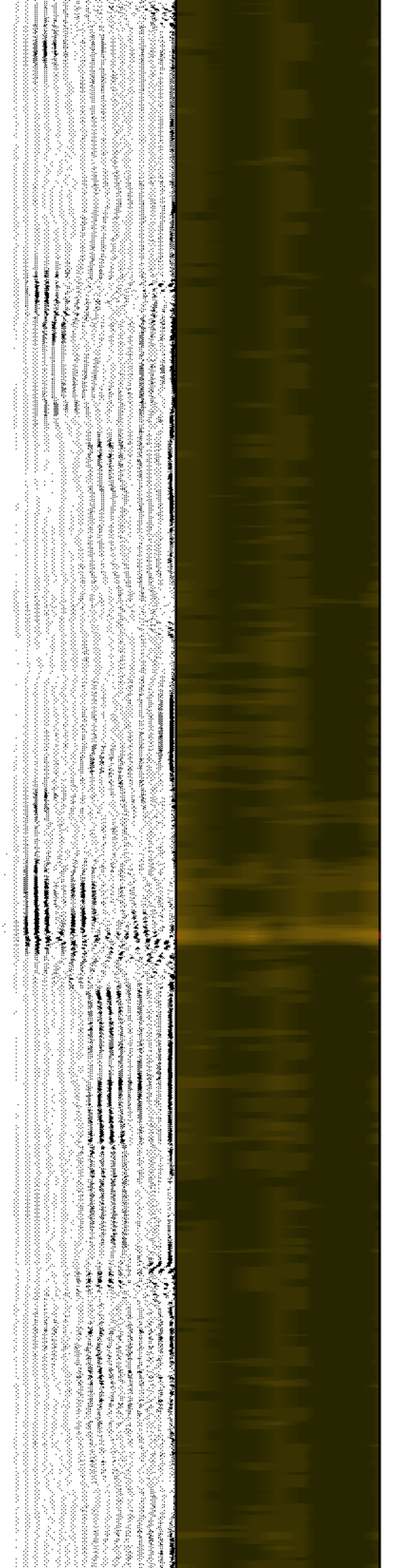
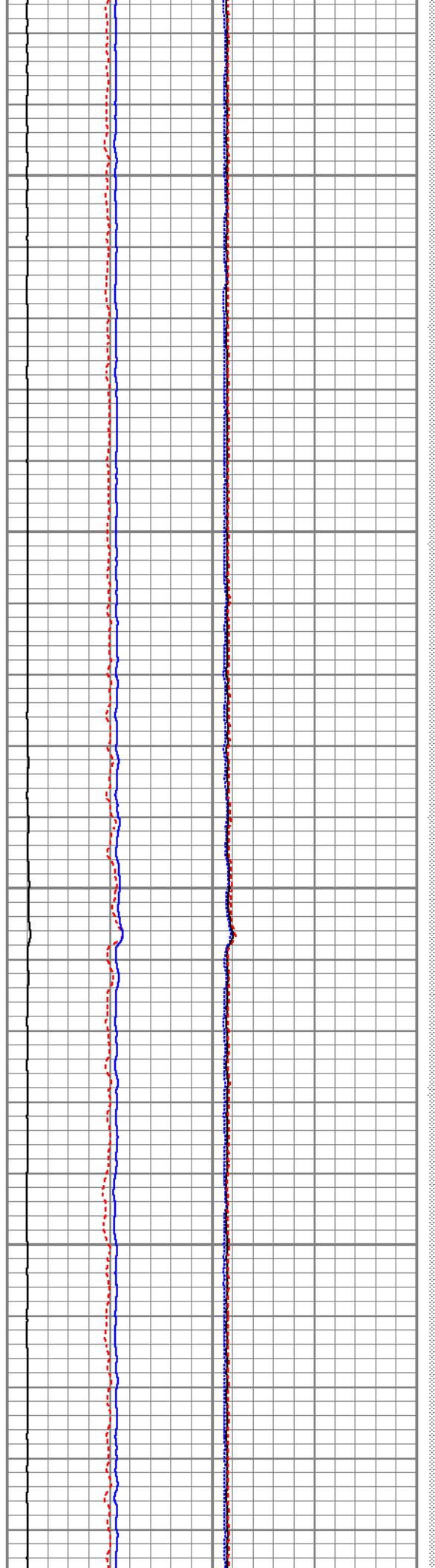
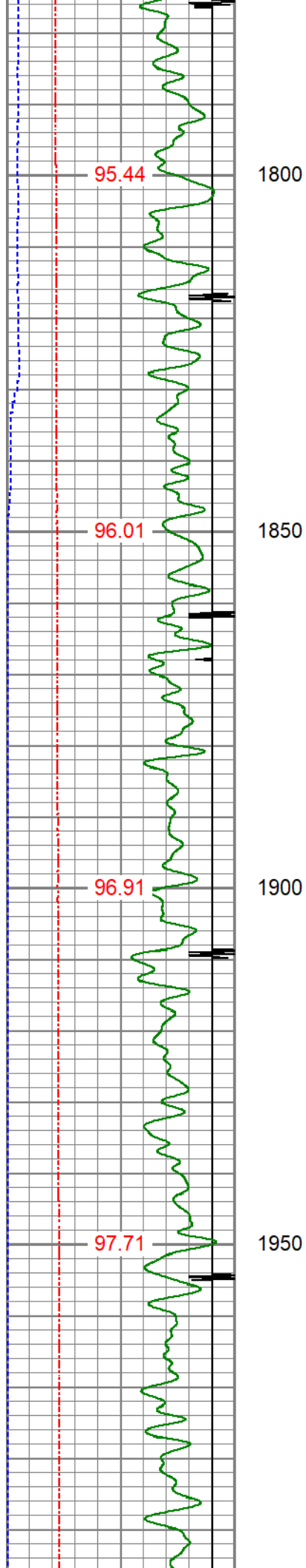
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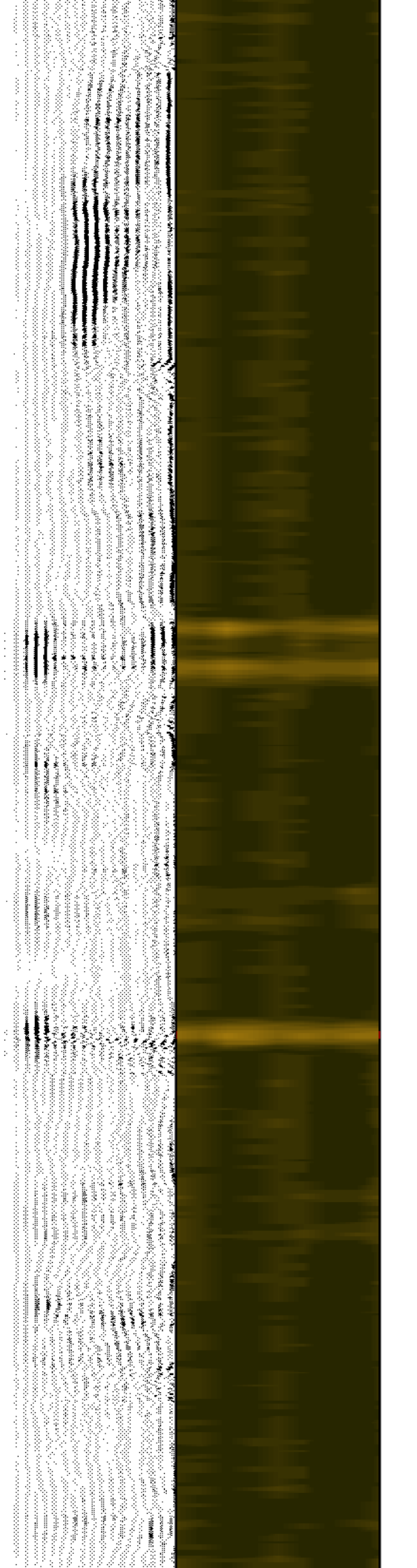
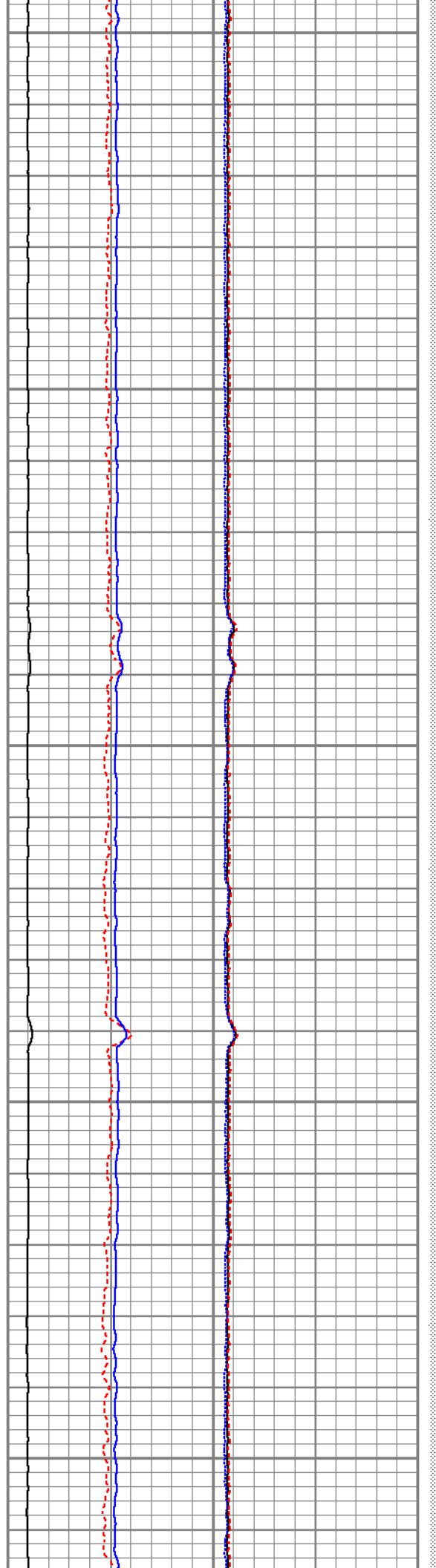
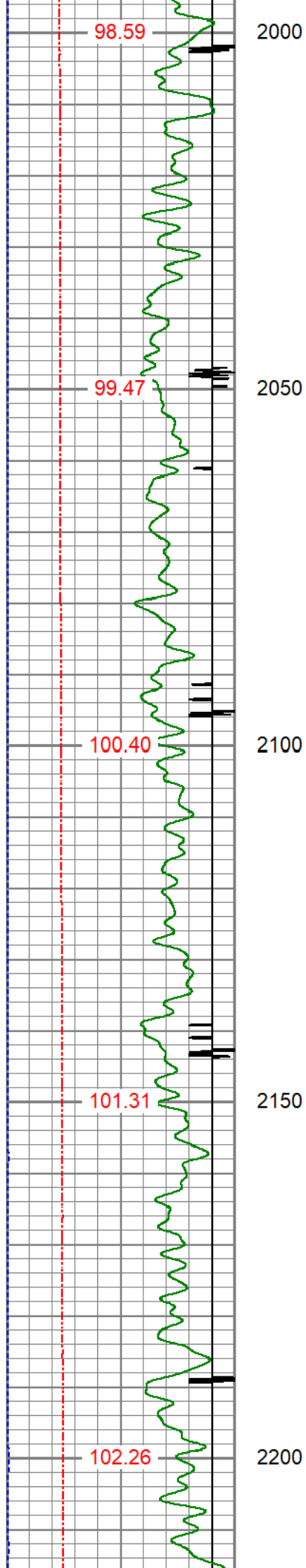
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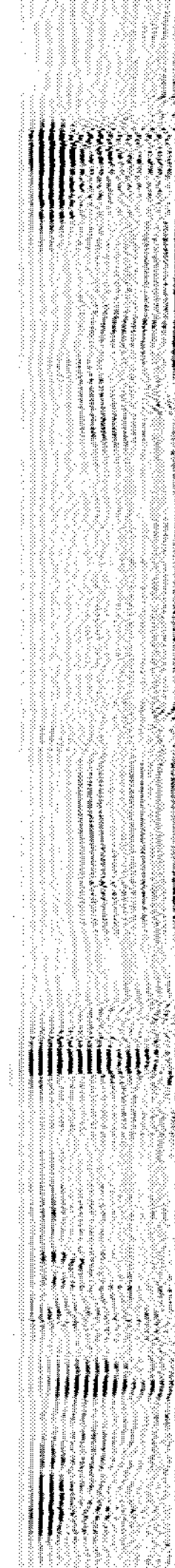
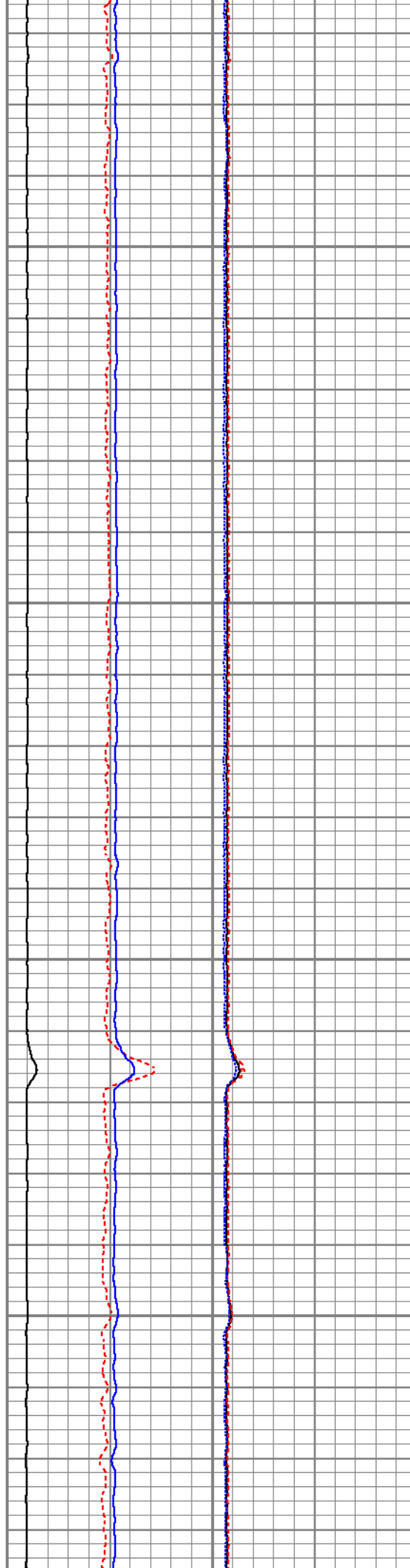
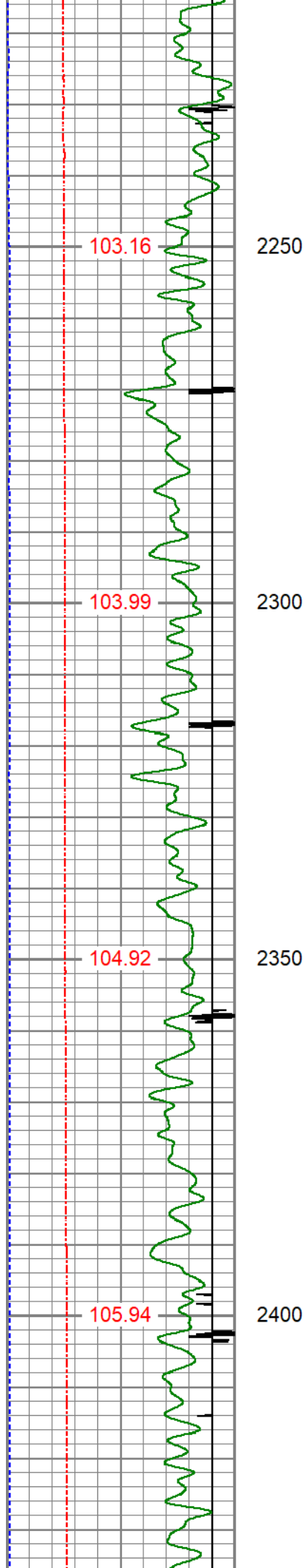
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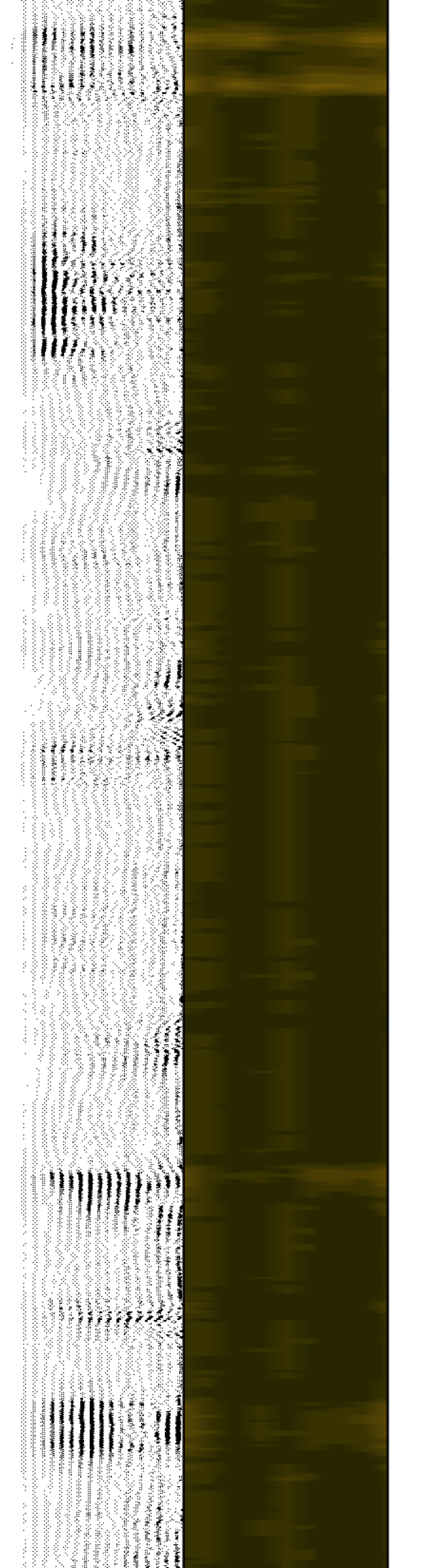
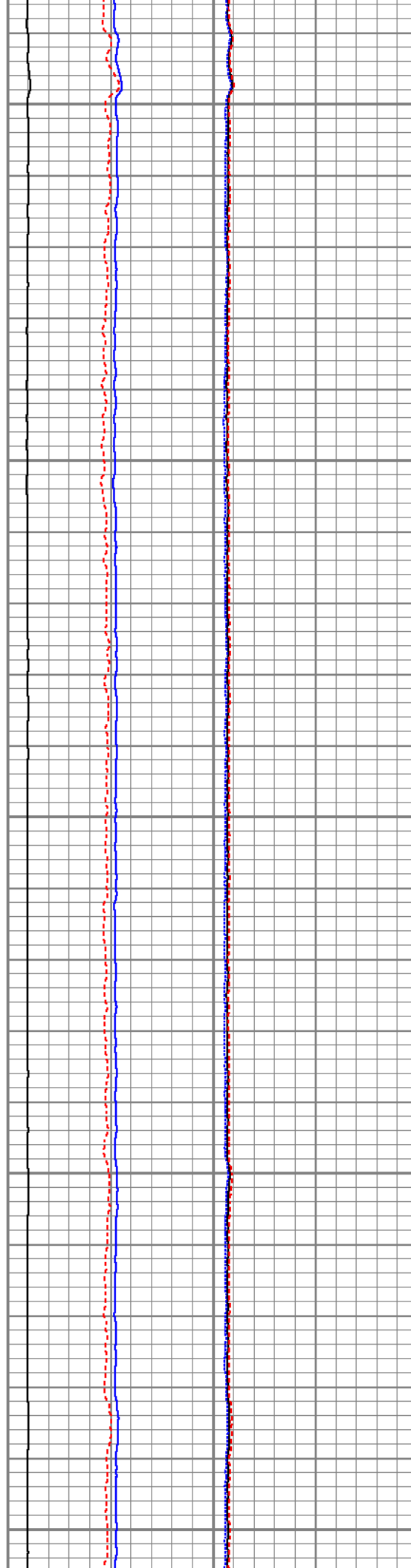
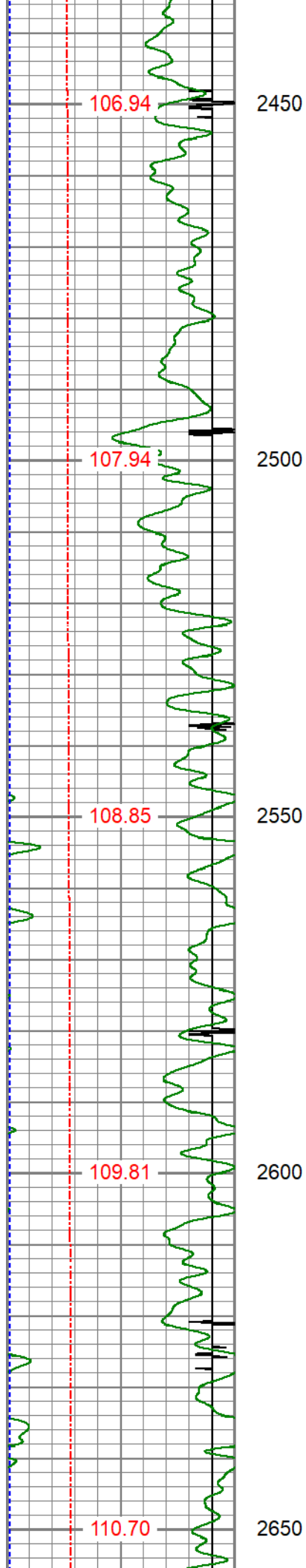


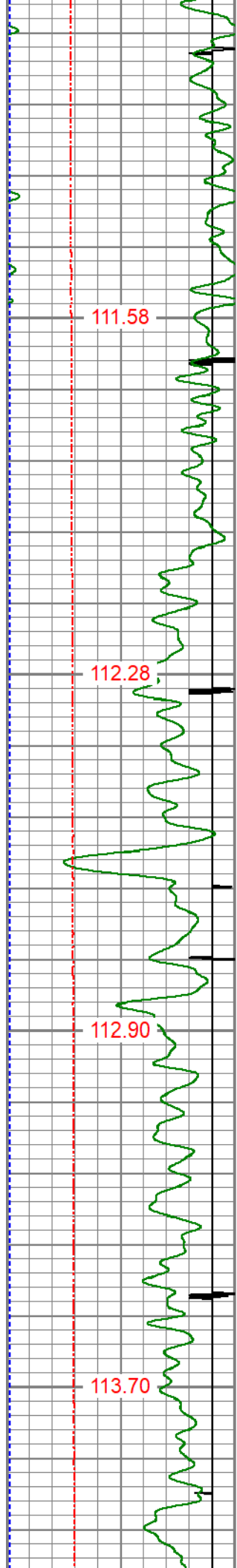










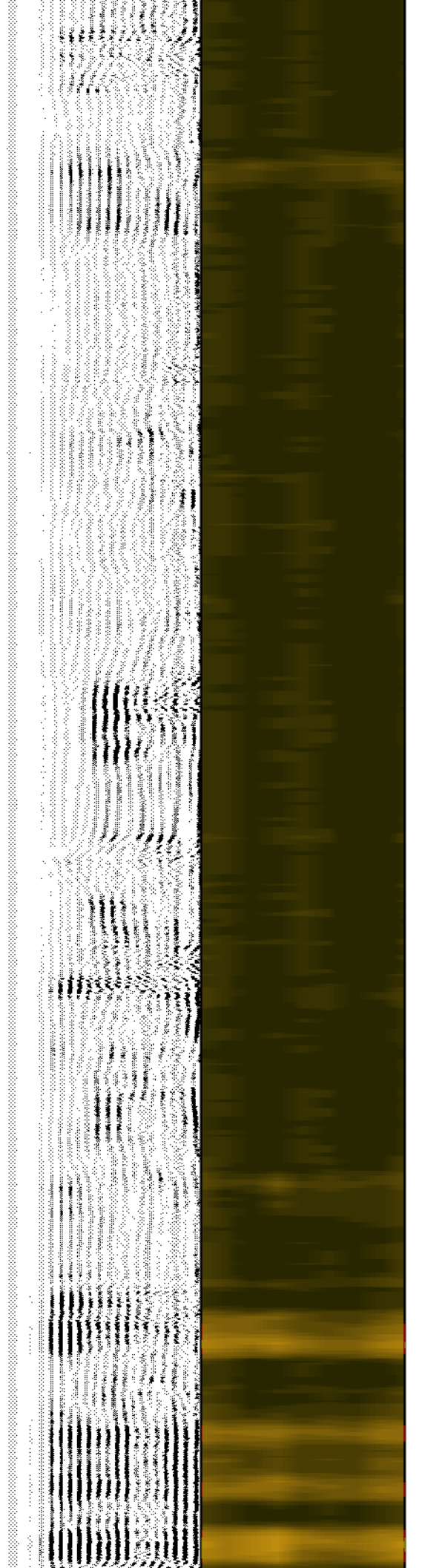
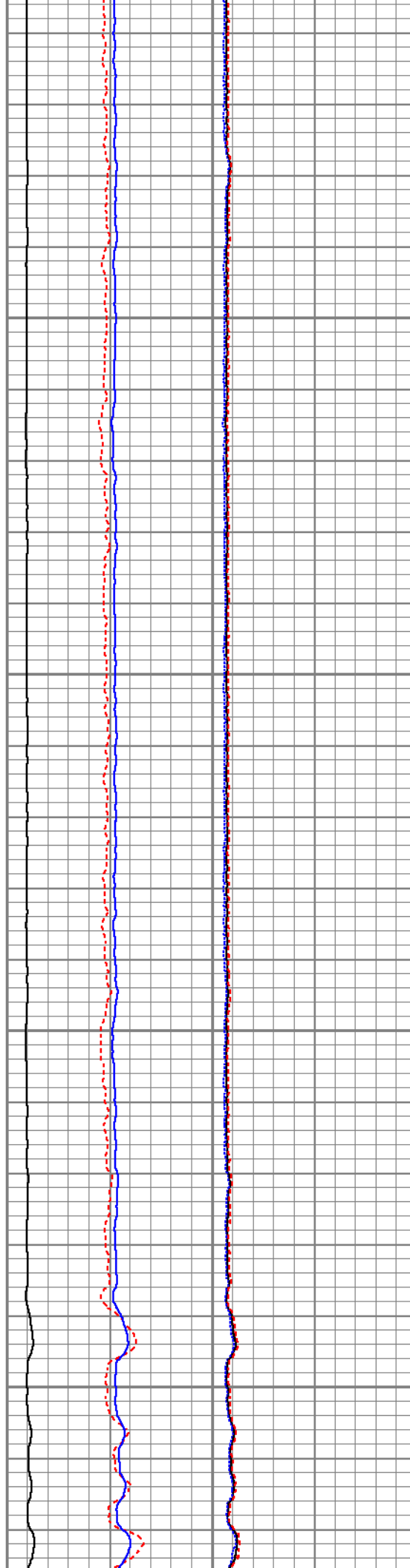


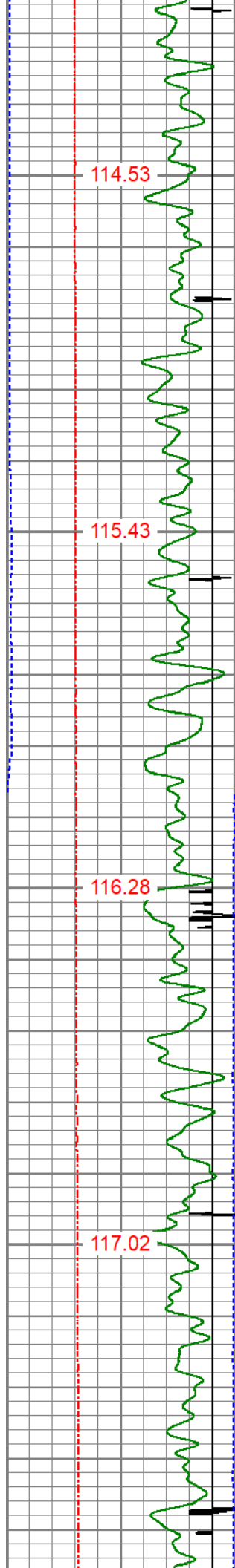
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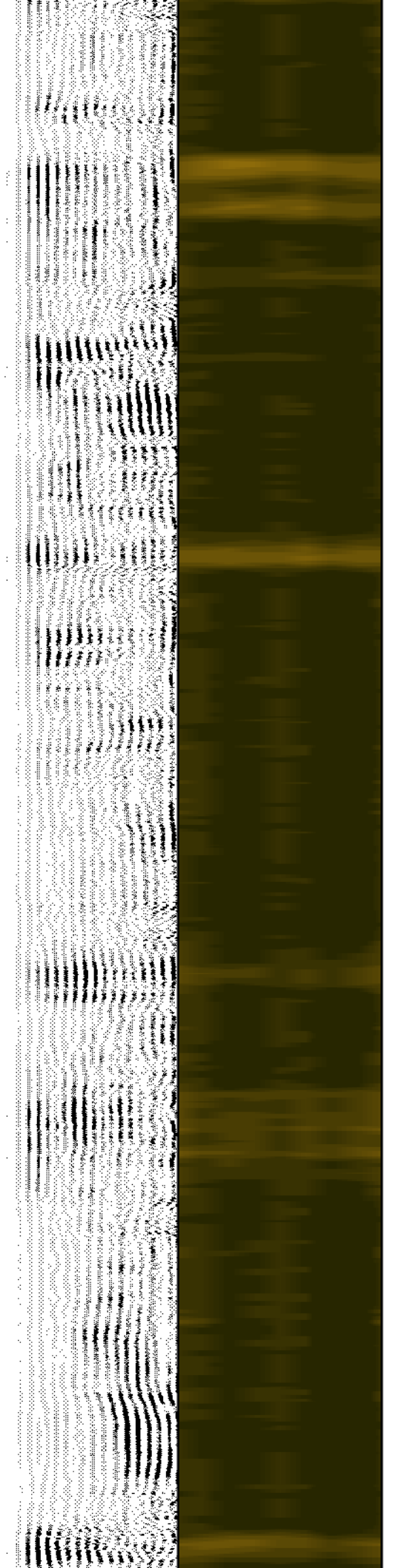
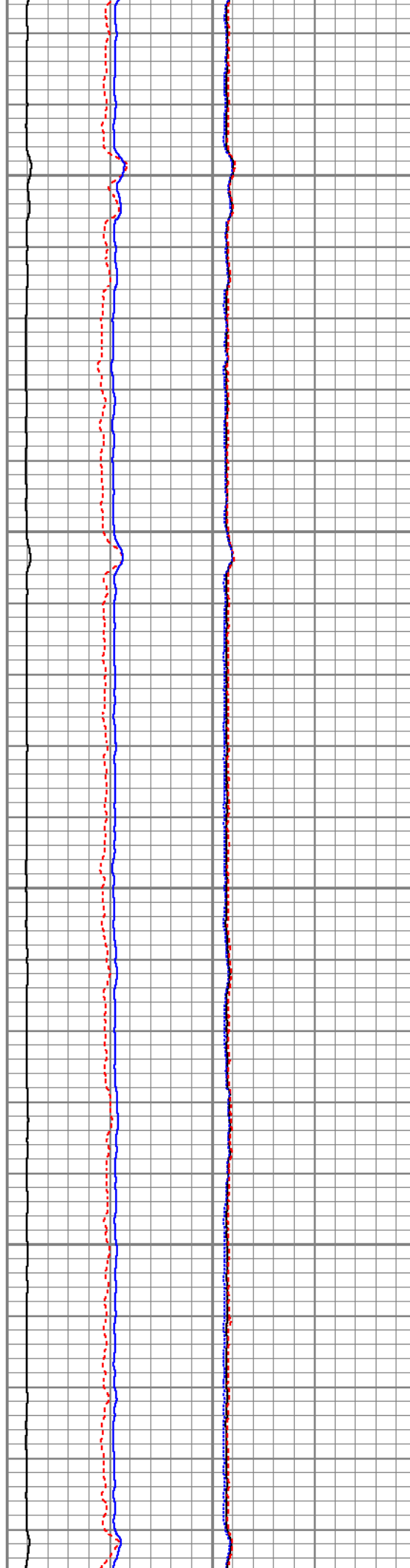


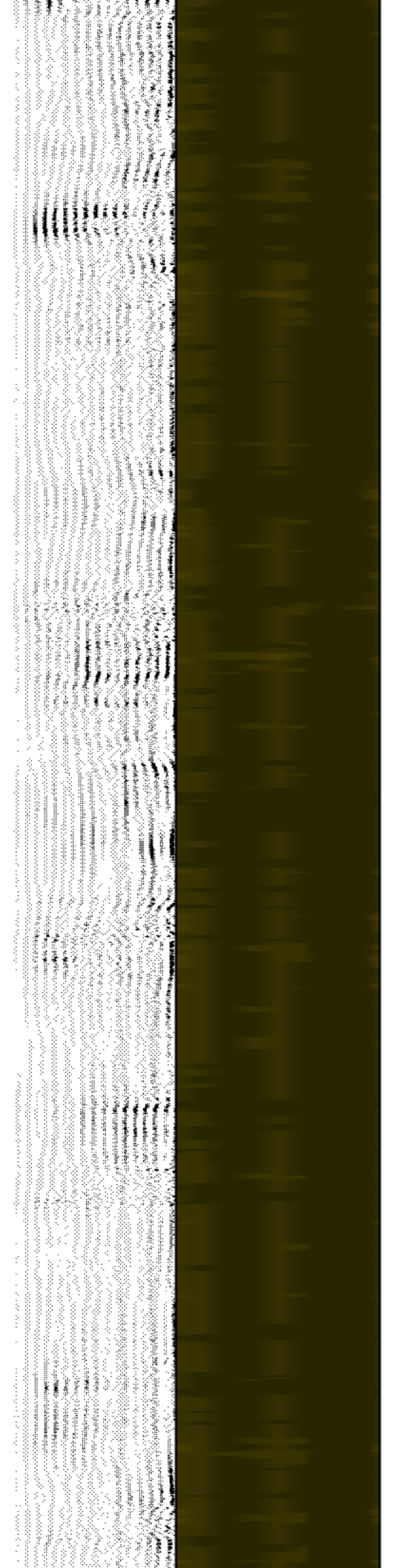
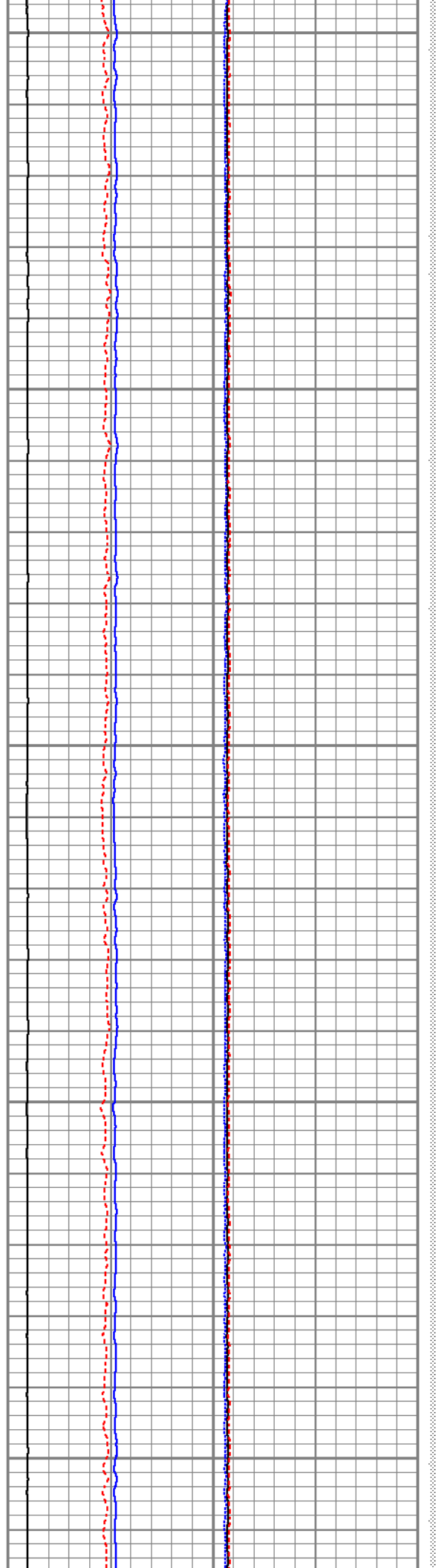
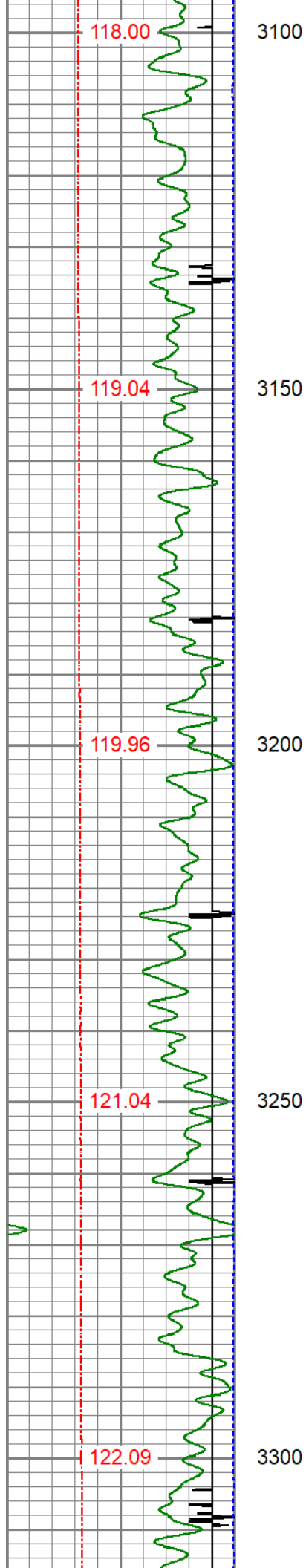
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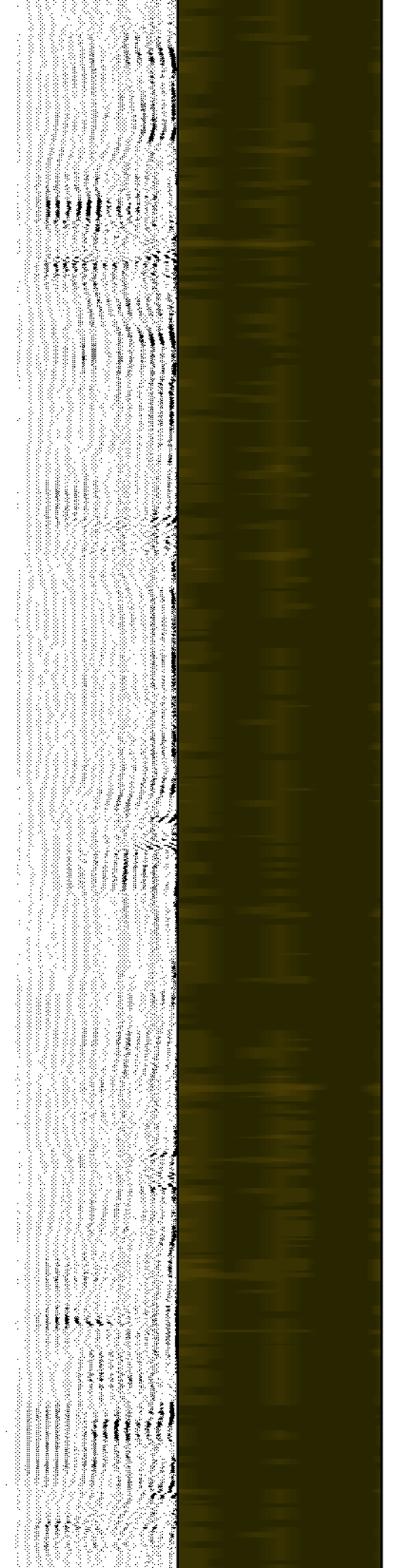
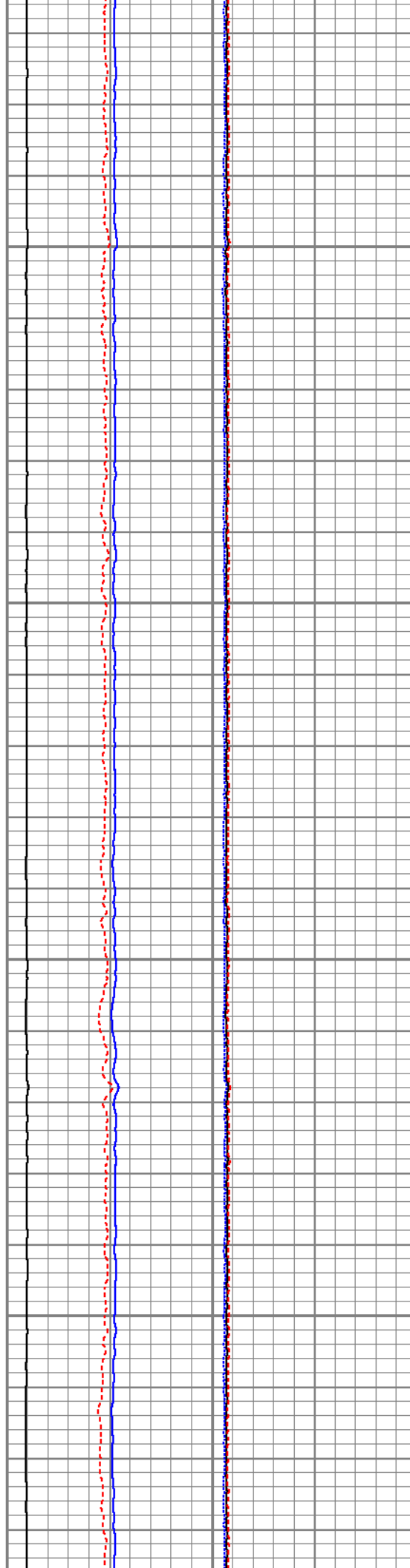
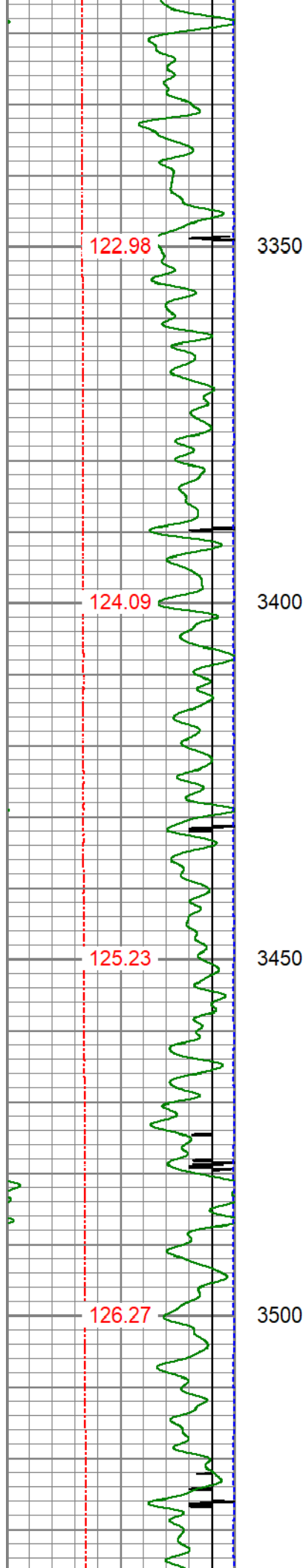
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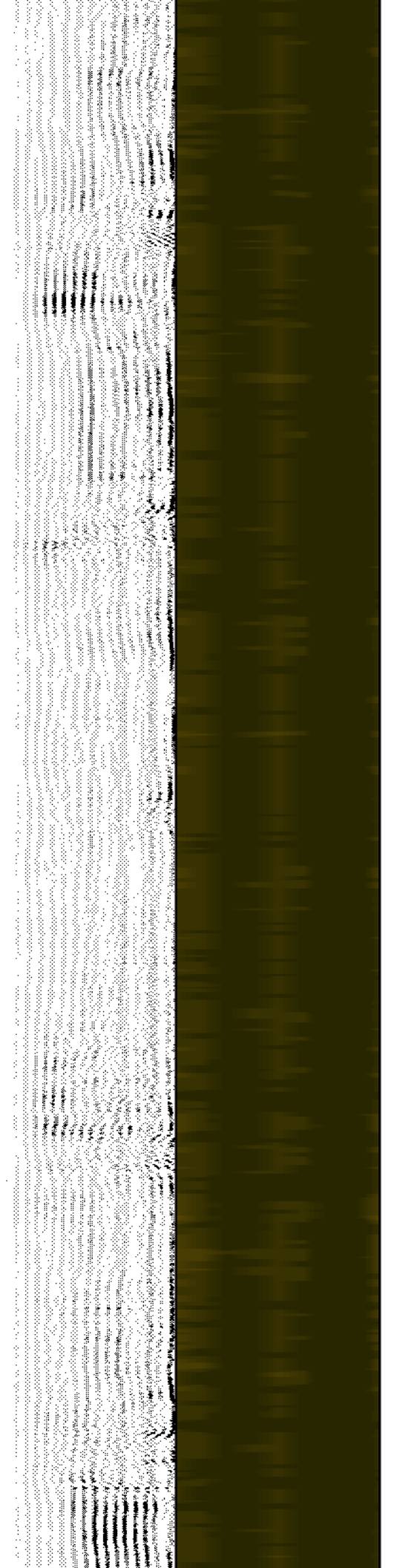
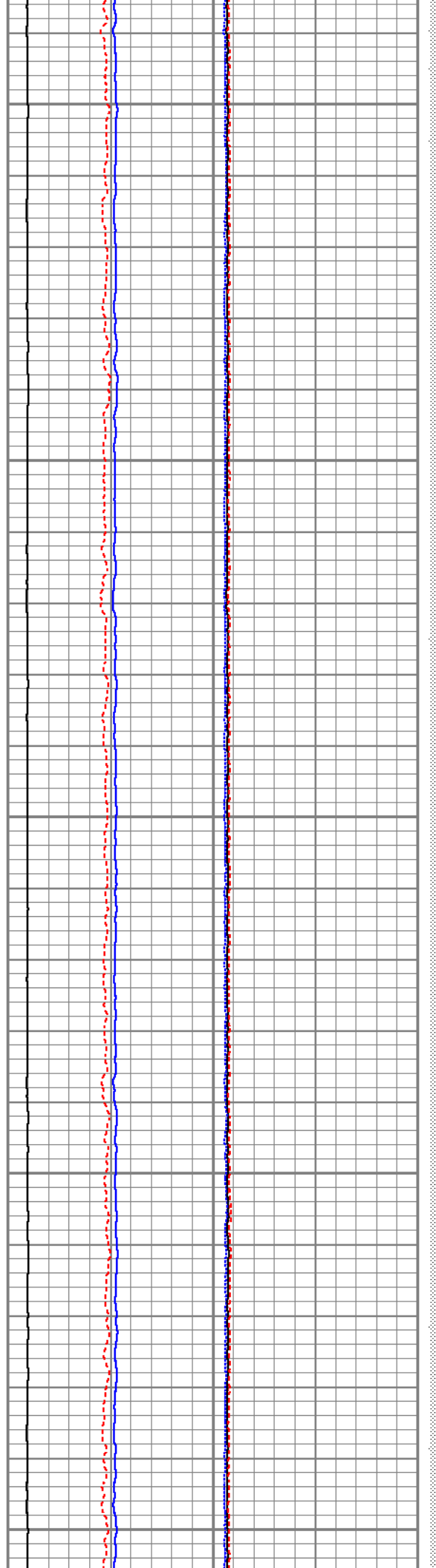
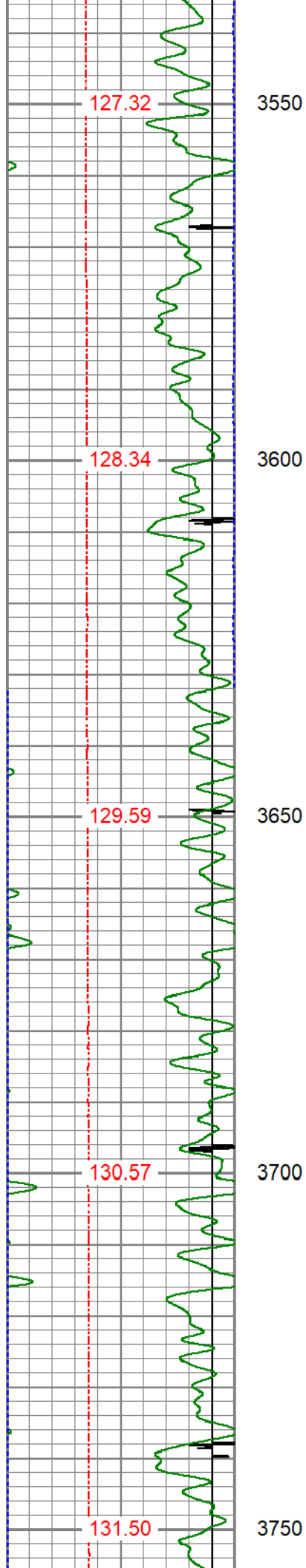
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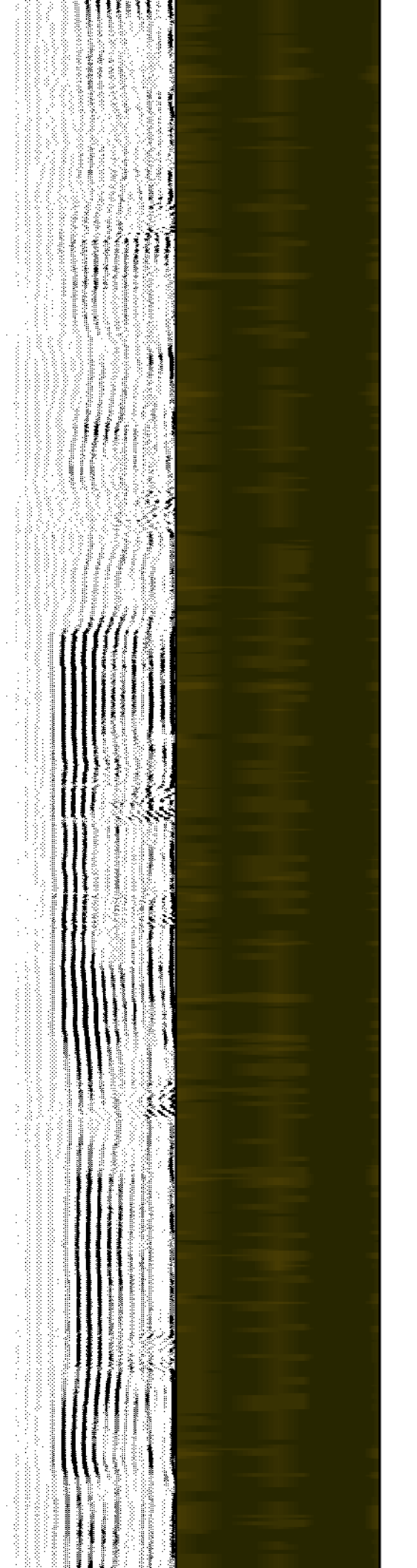
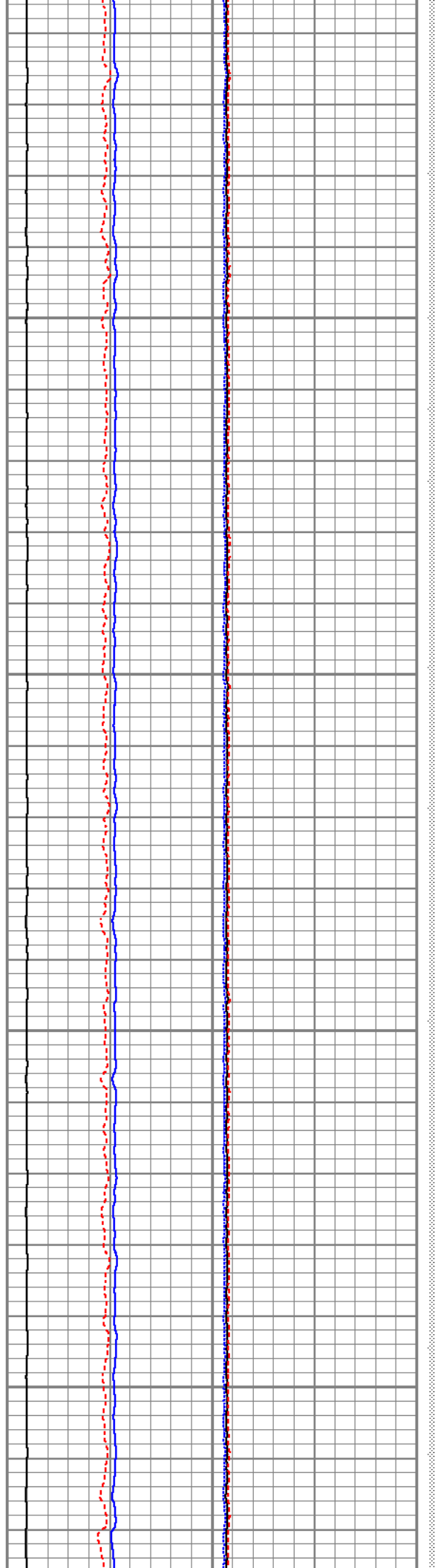
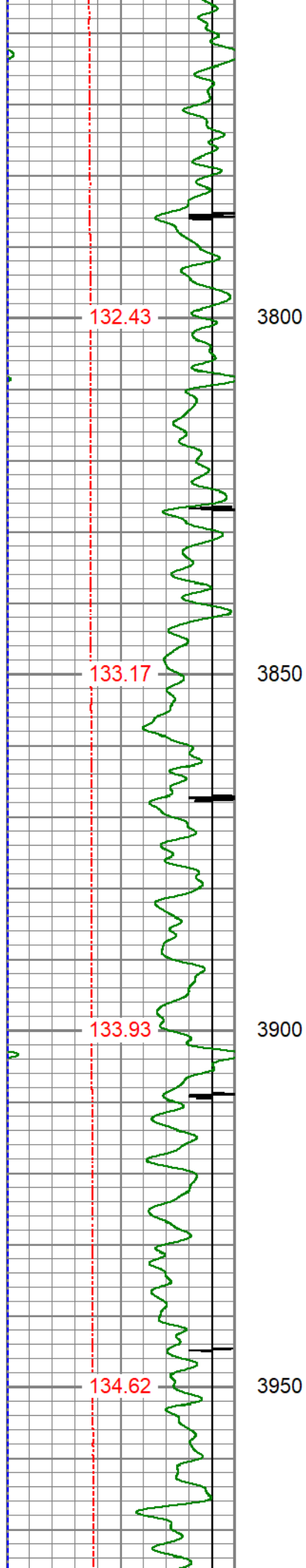
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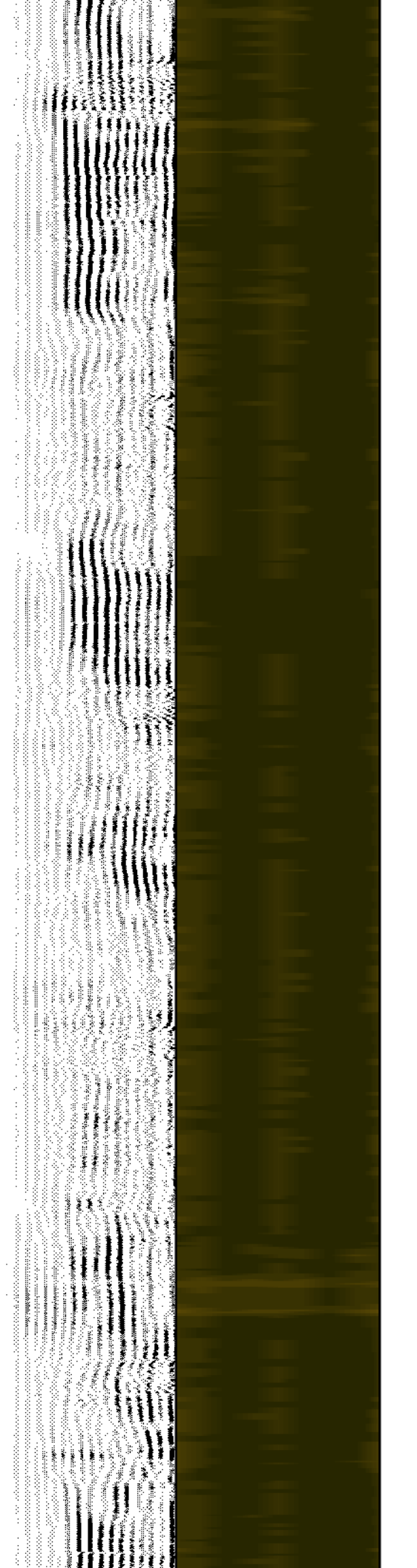
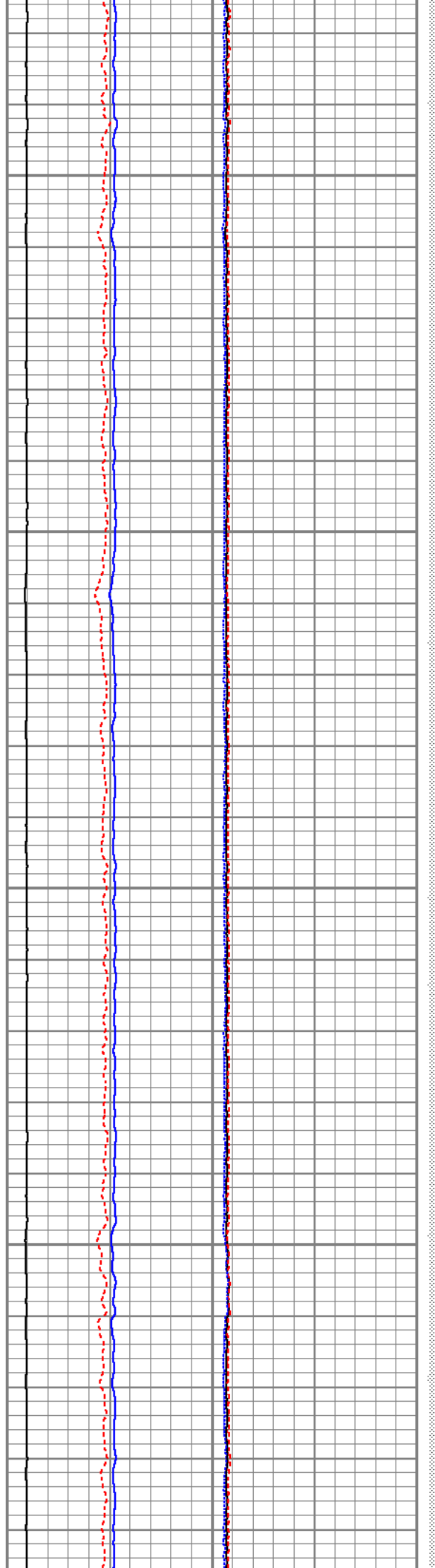
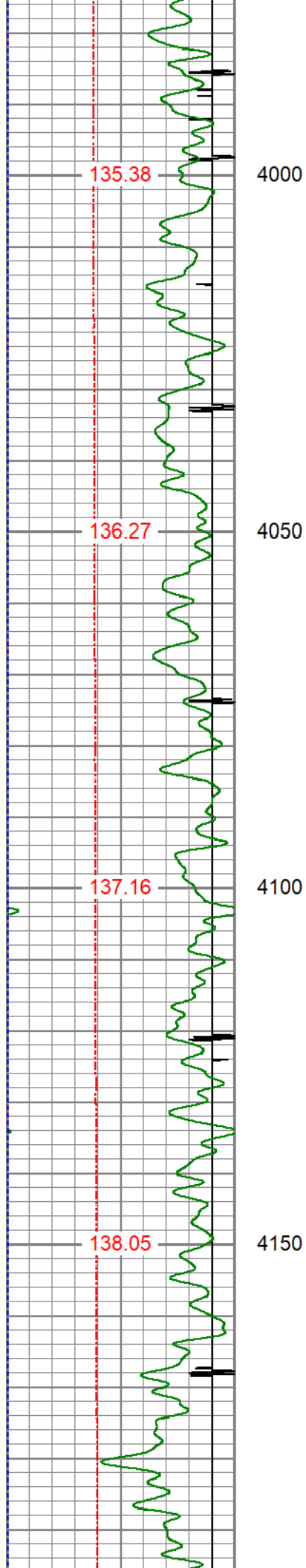


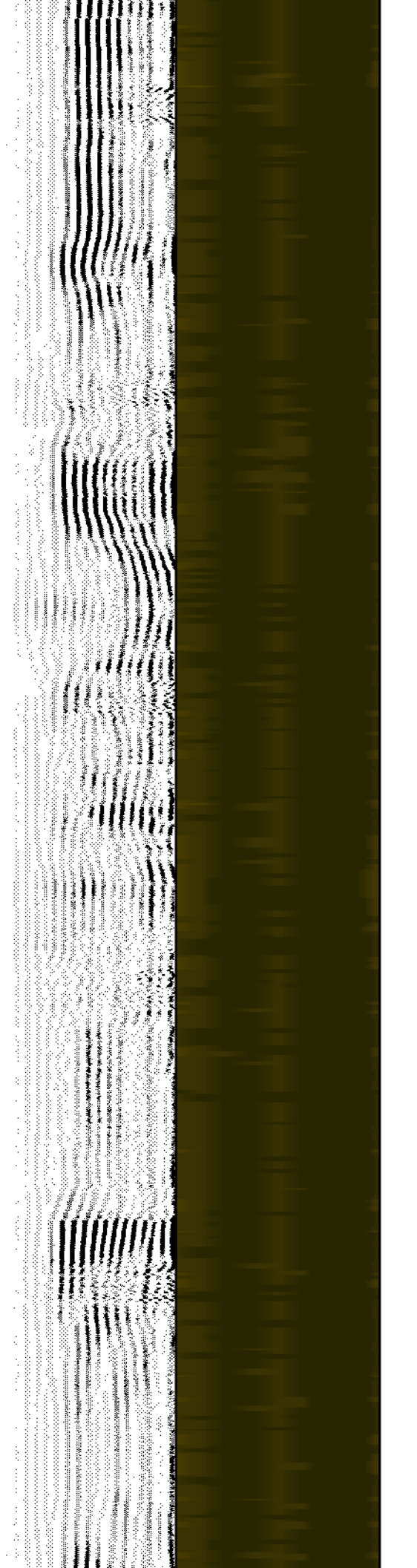
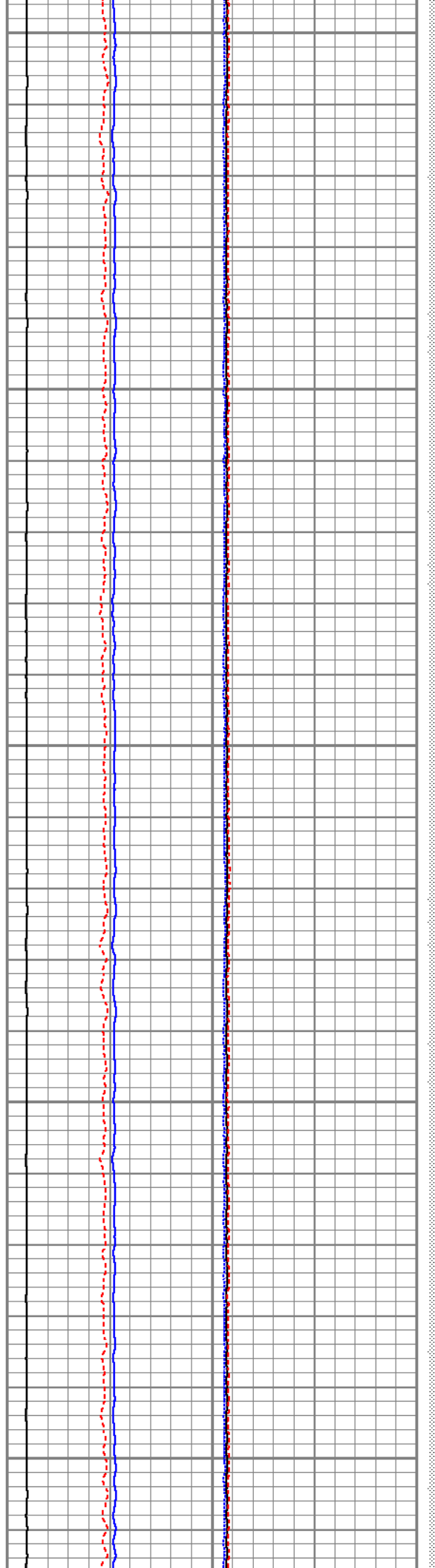
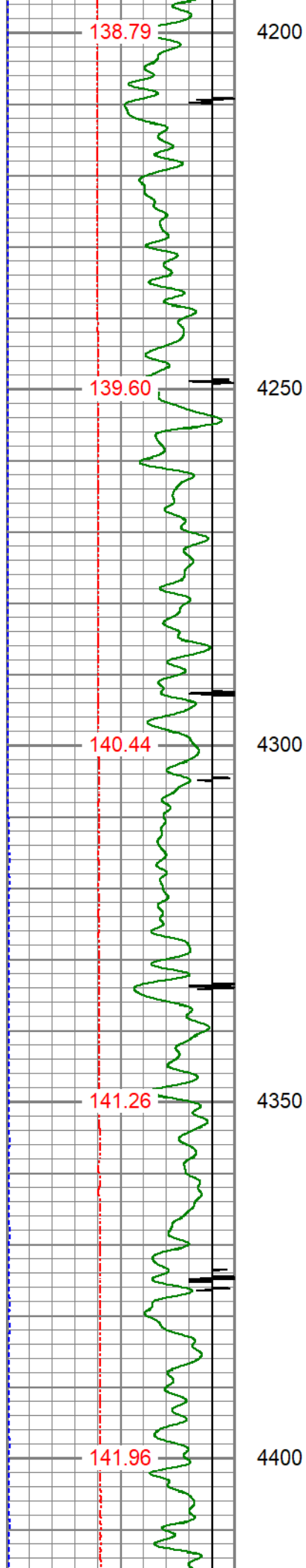


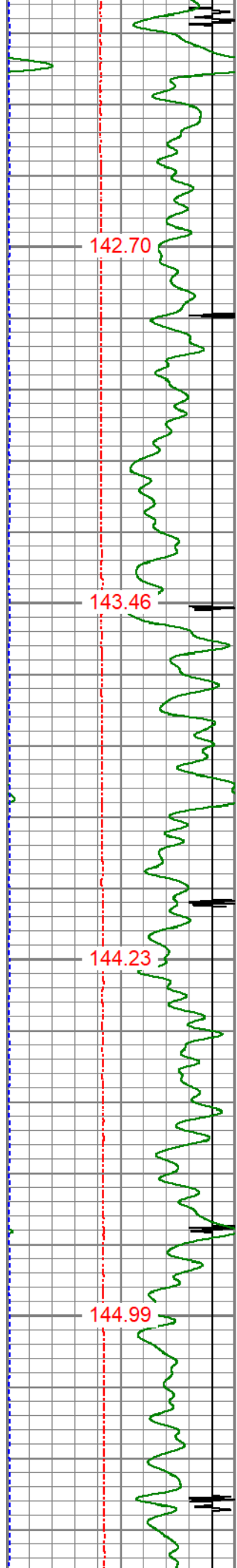










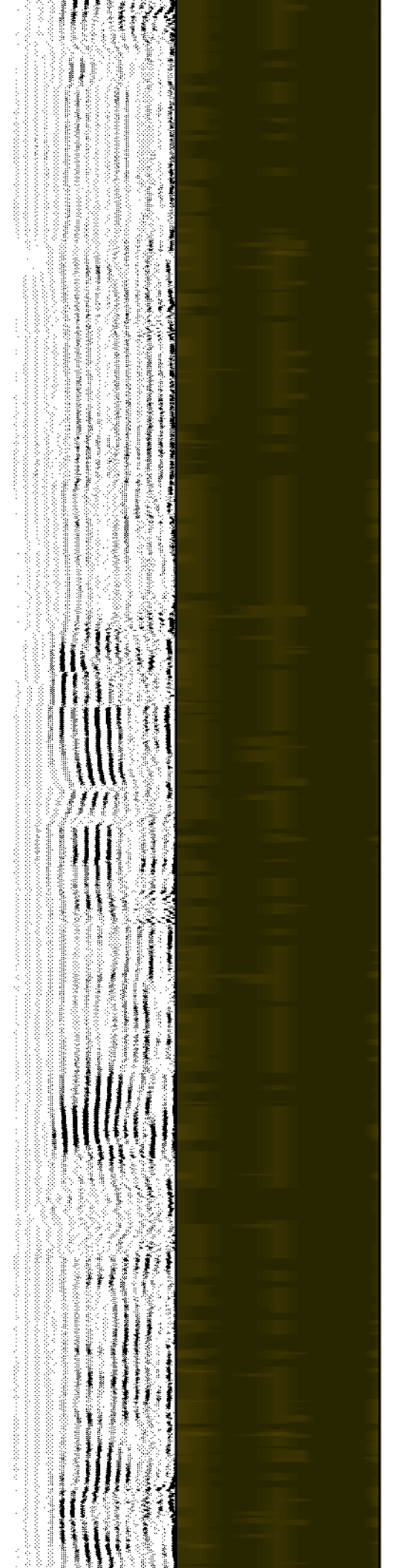
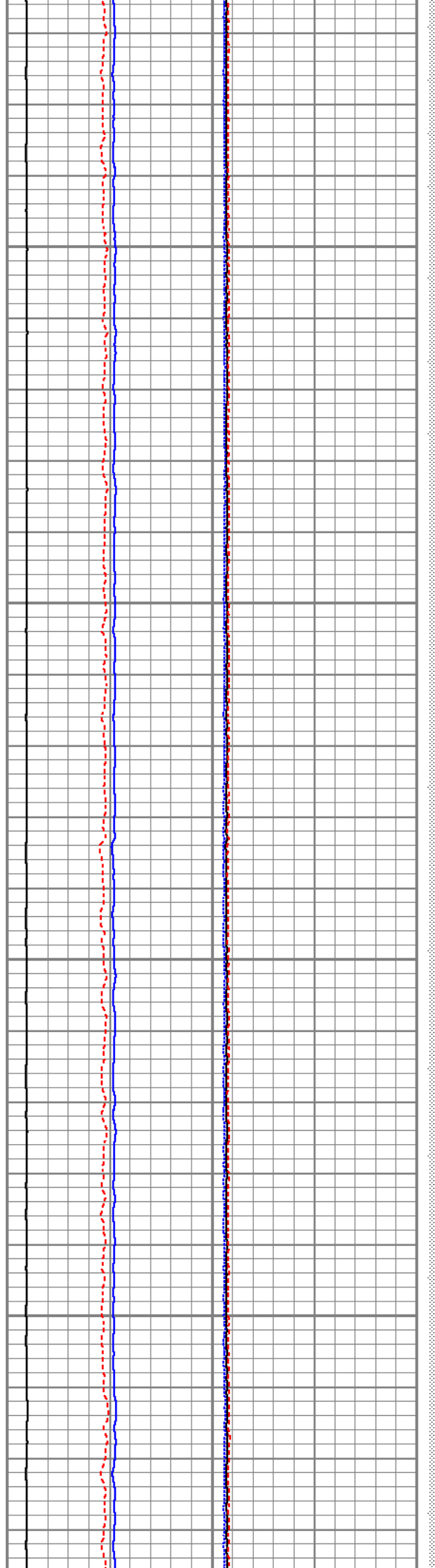


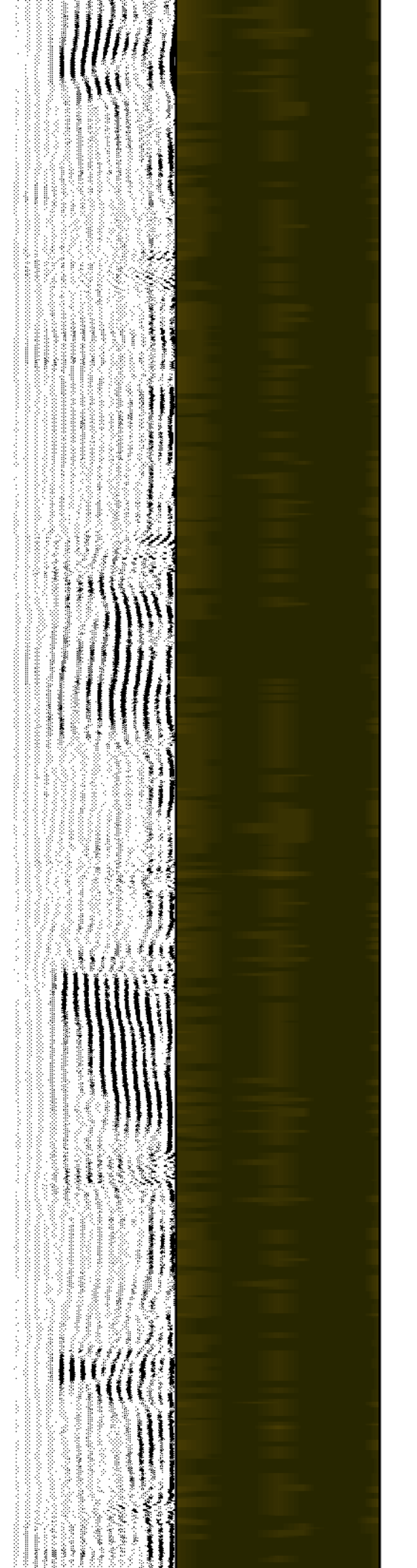
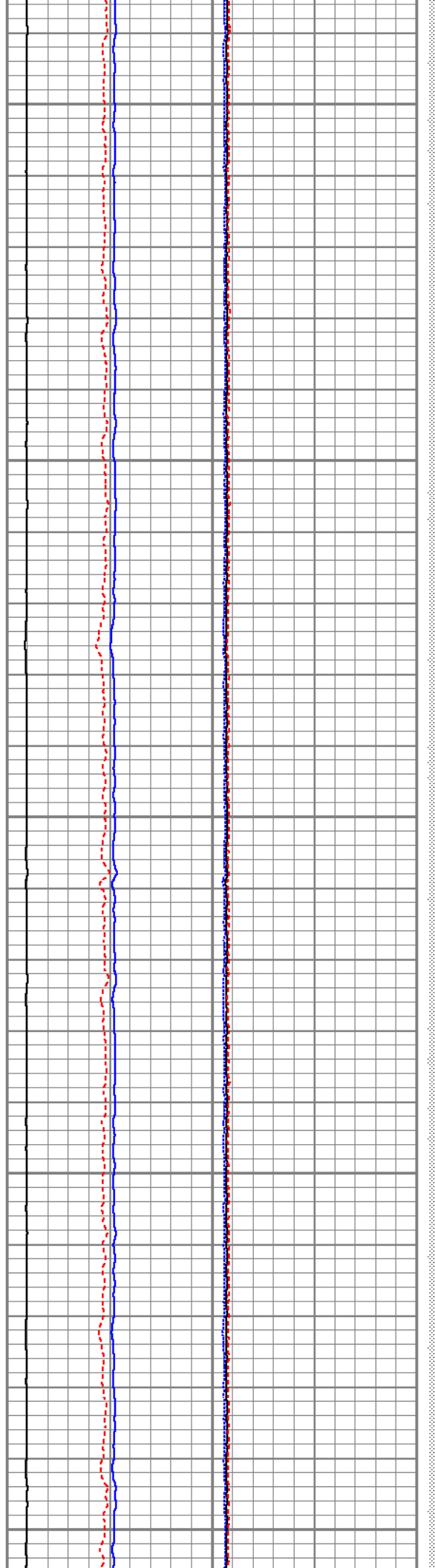
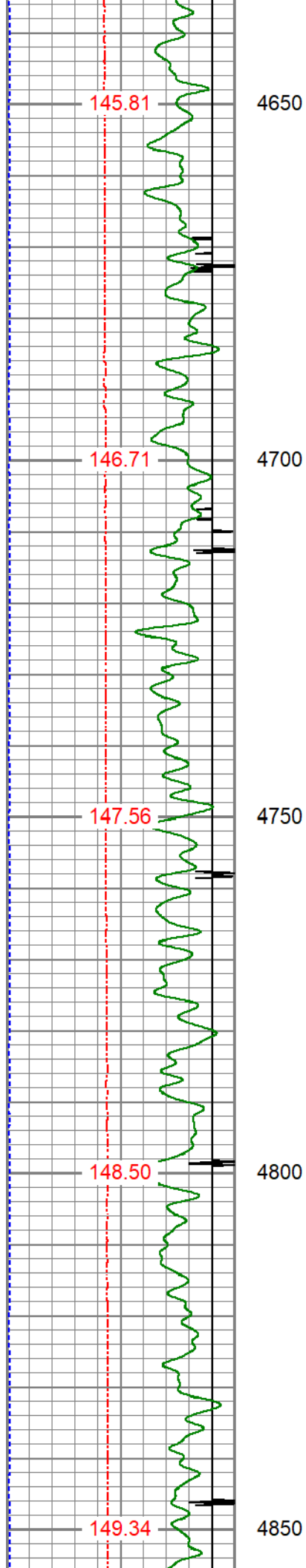
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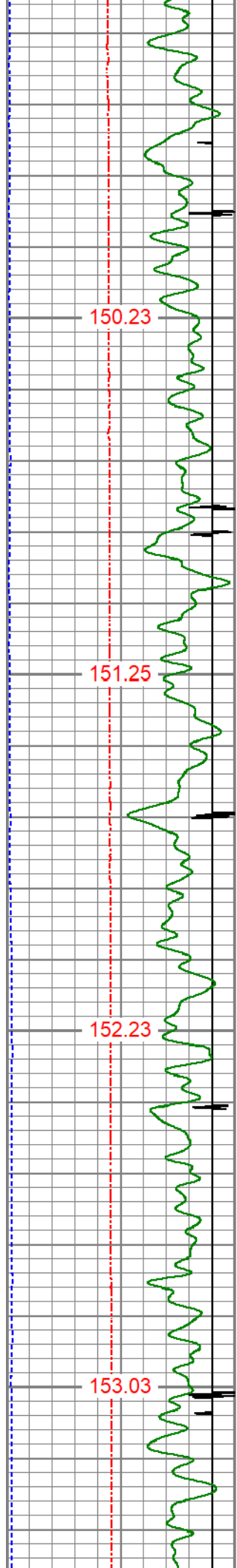
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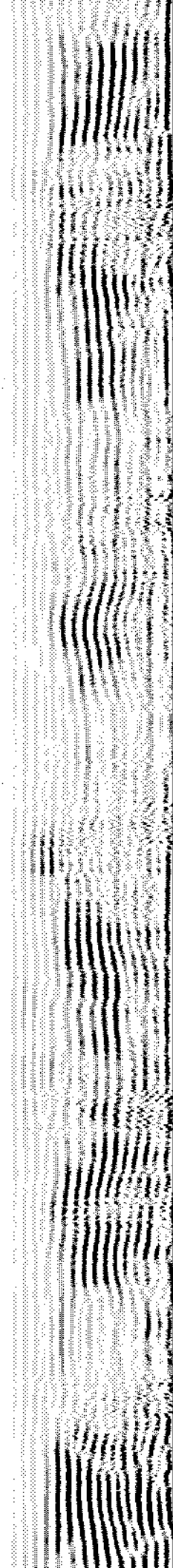


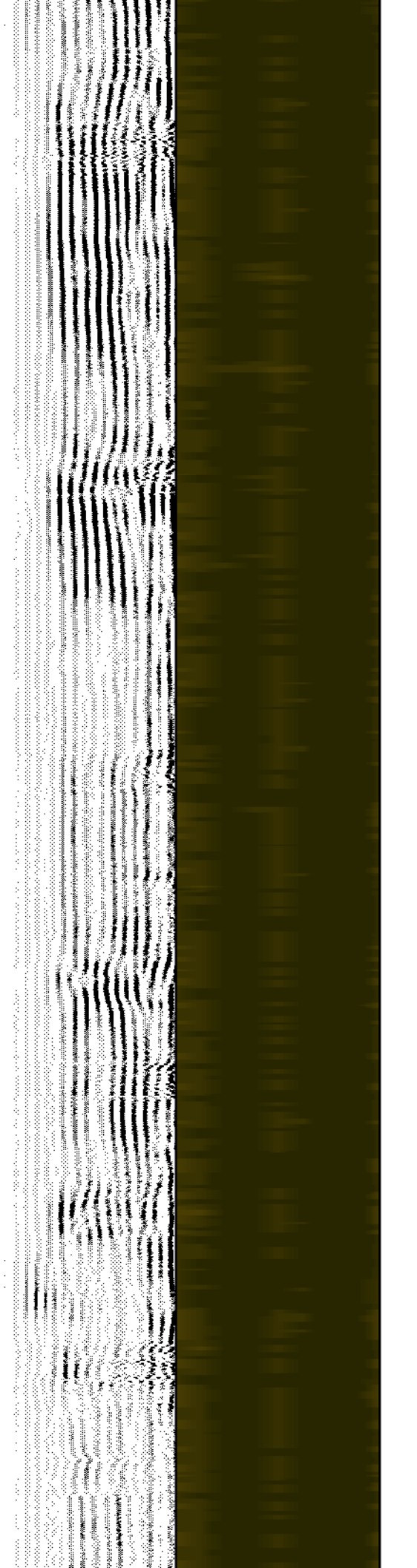
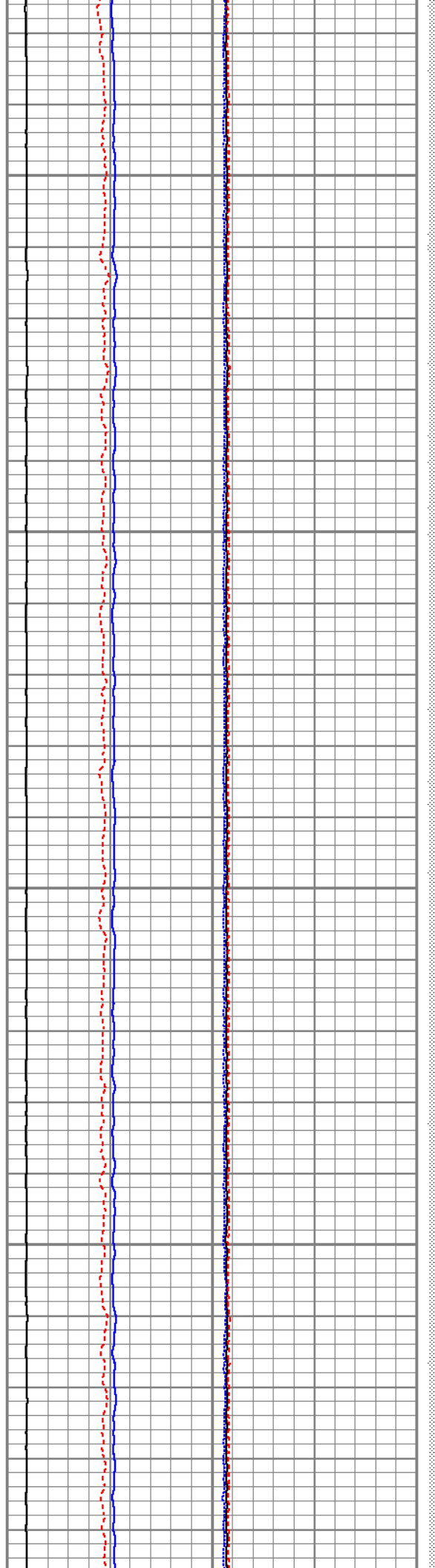
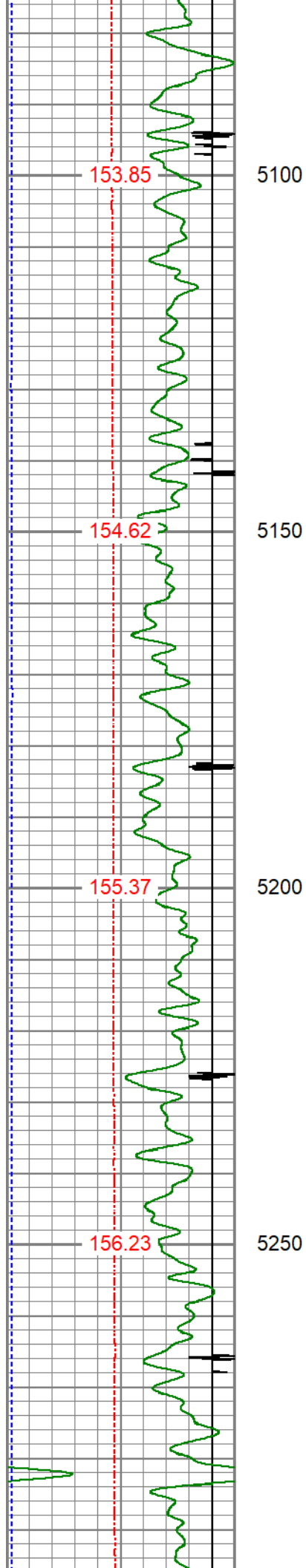
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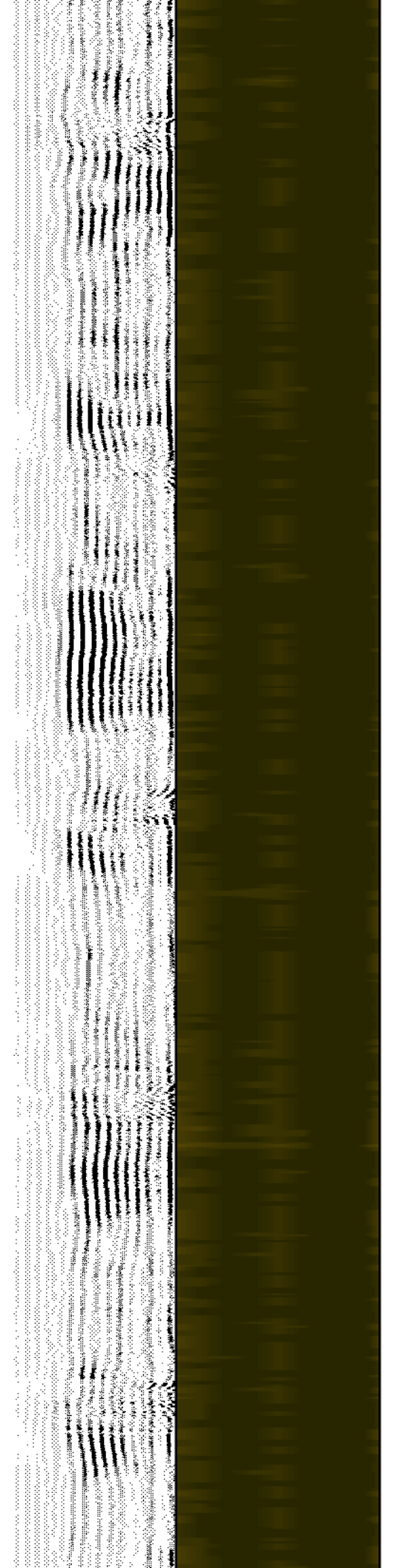
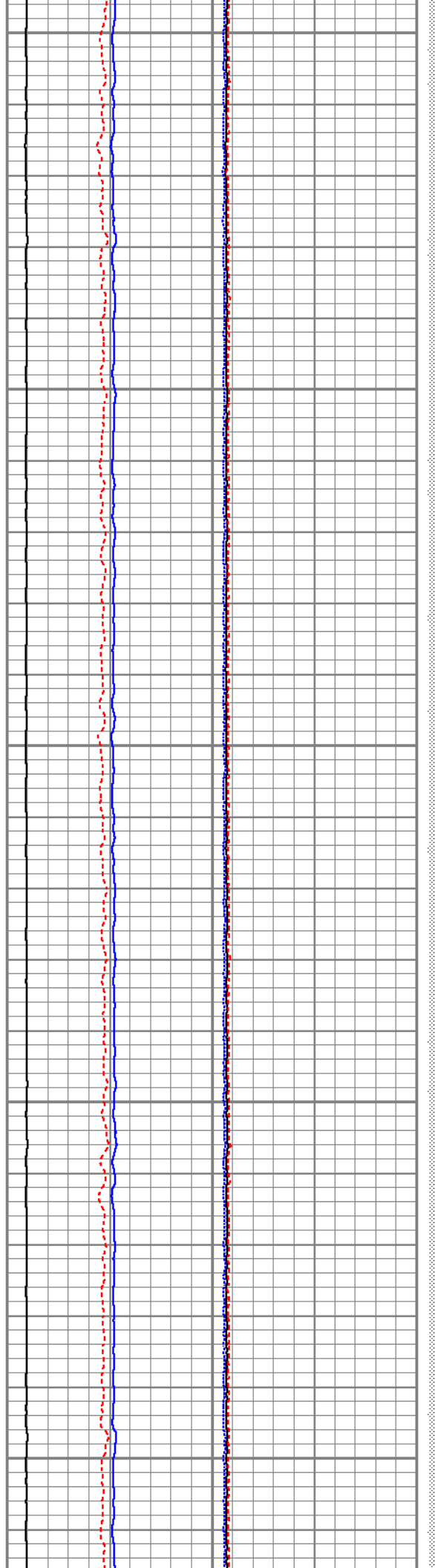
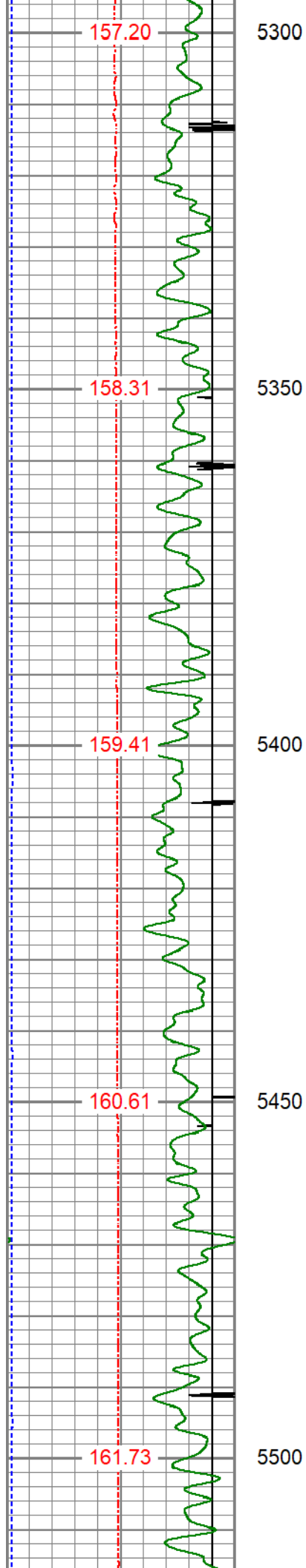
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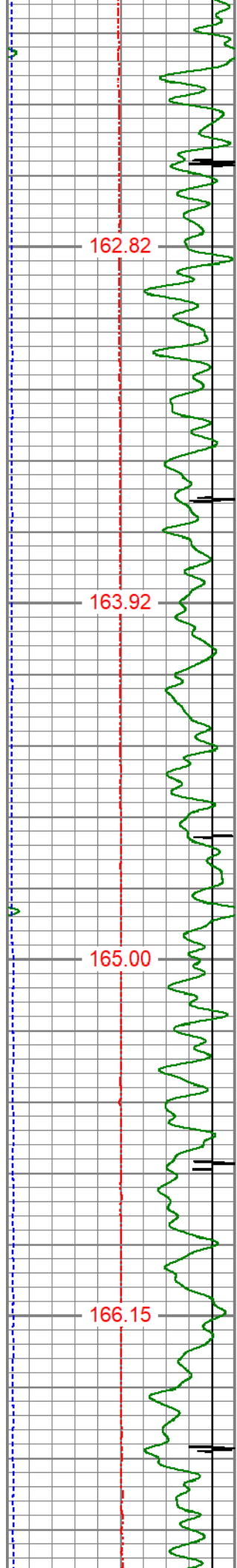
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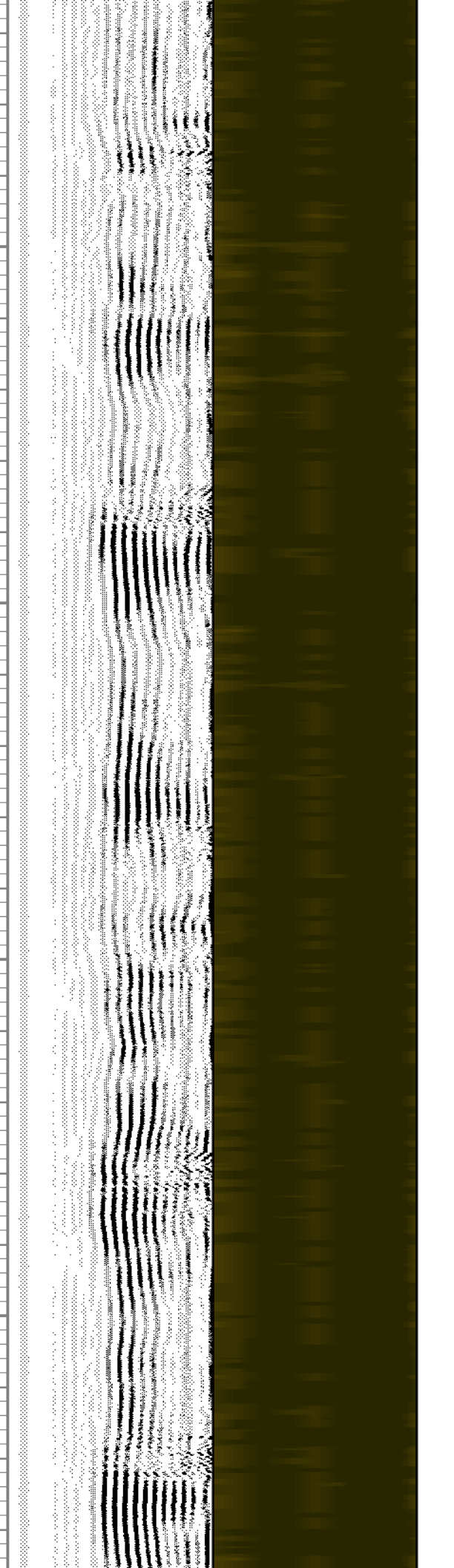
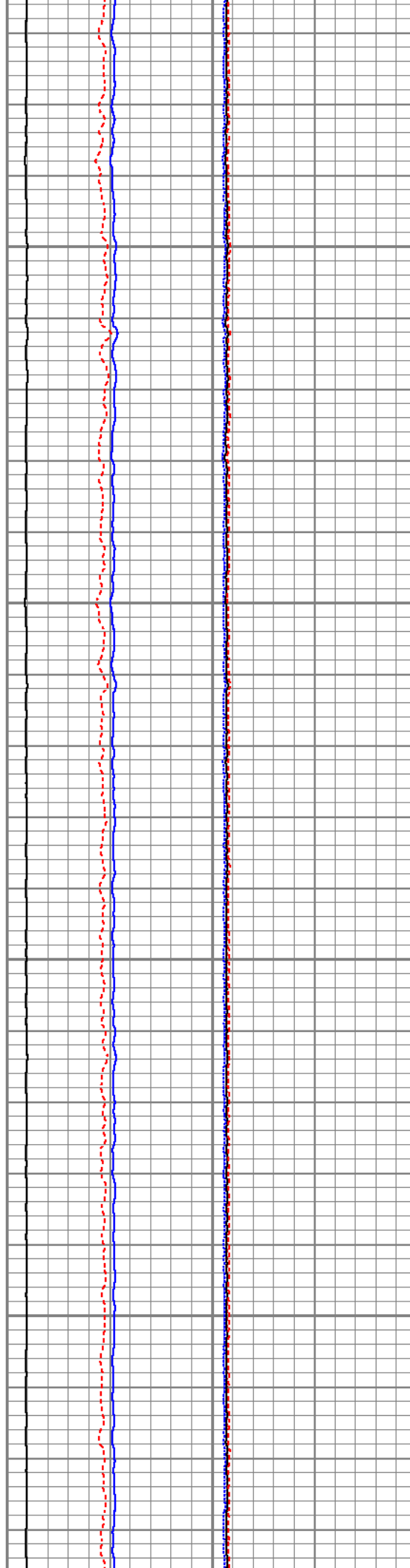


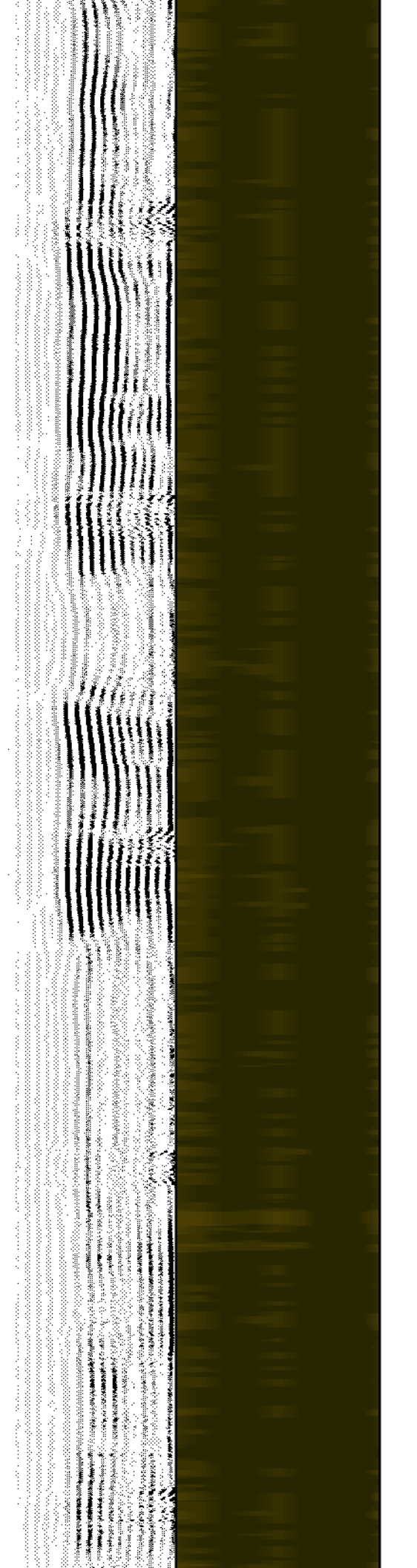
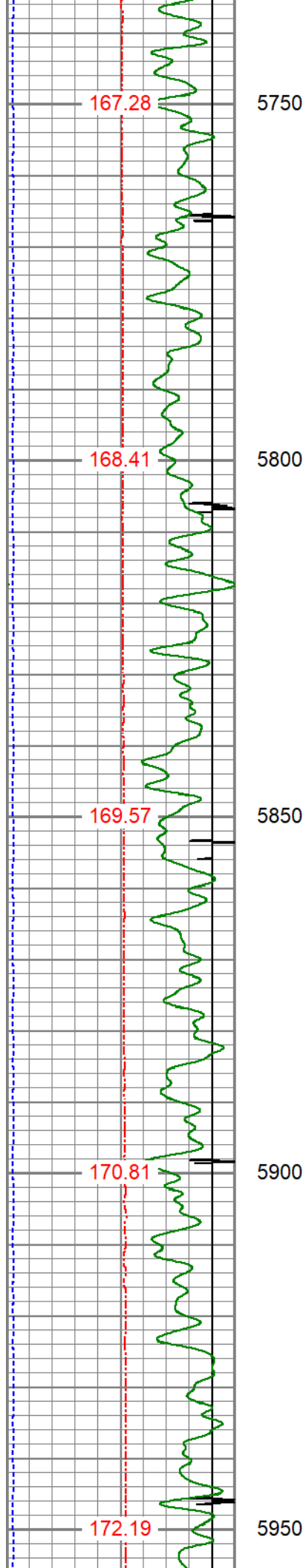
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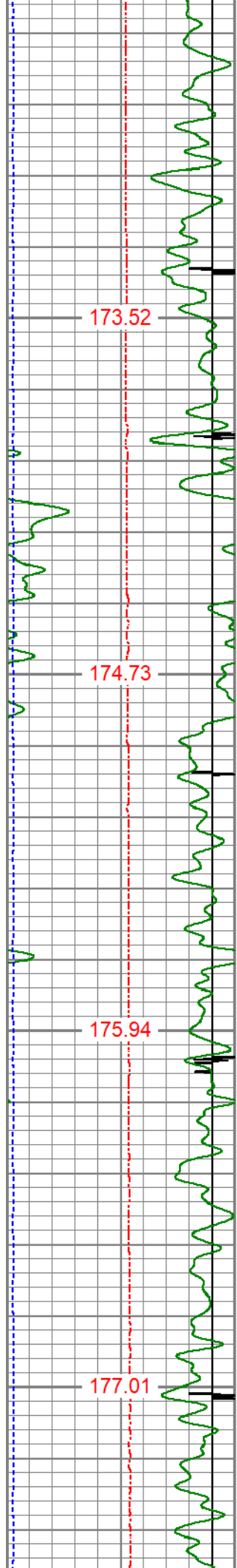
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5700







173.52

174.73

175.94

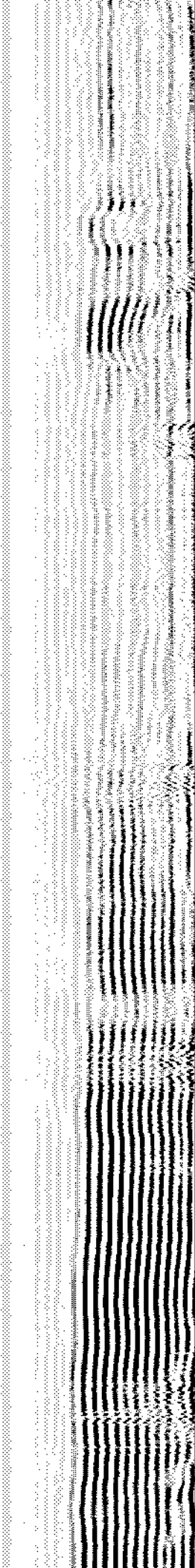
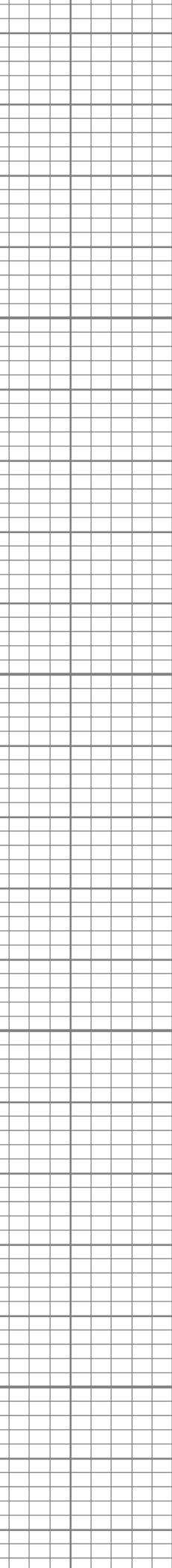
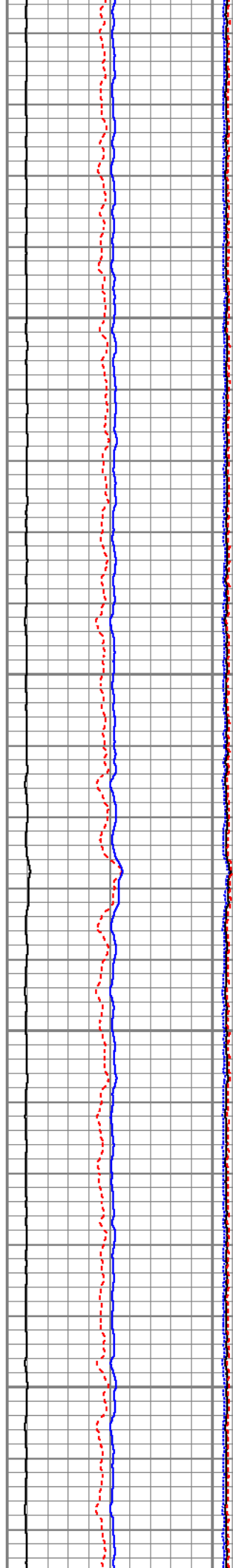
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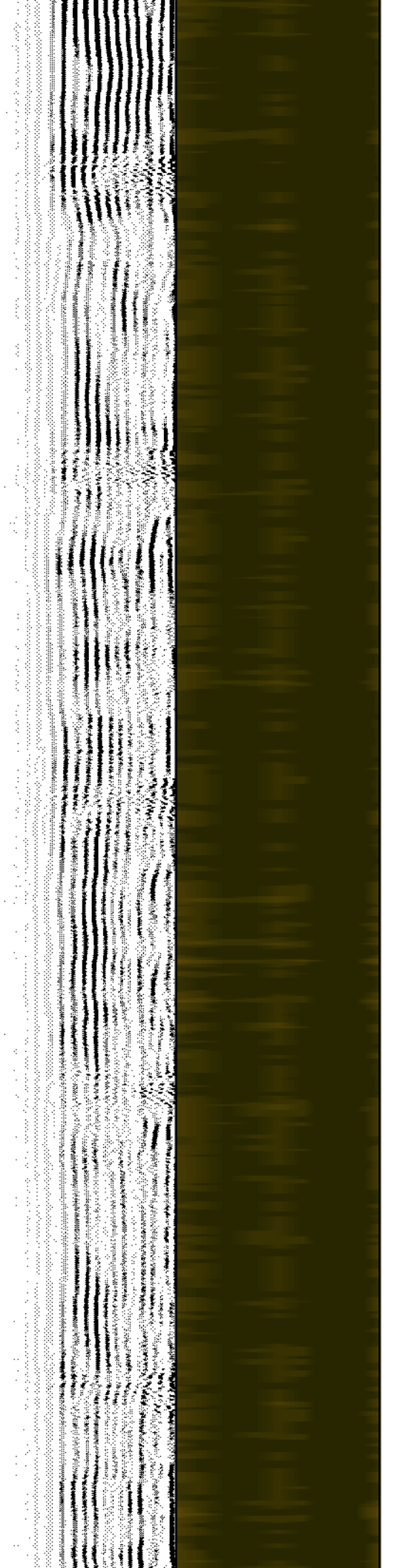
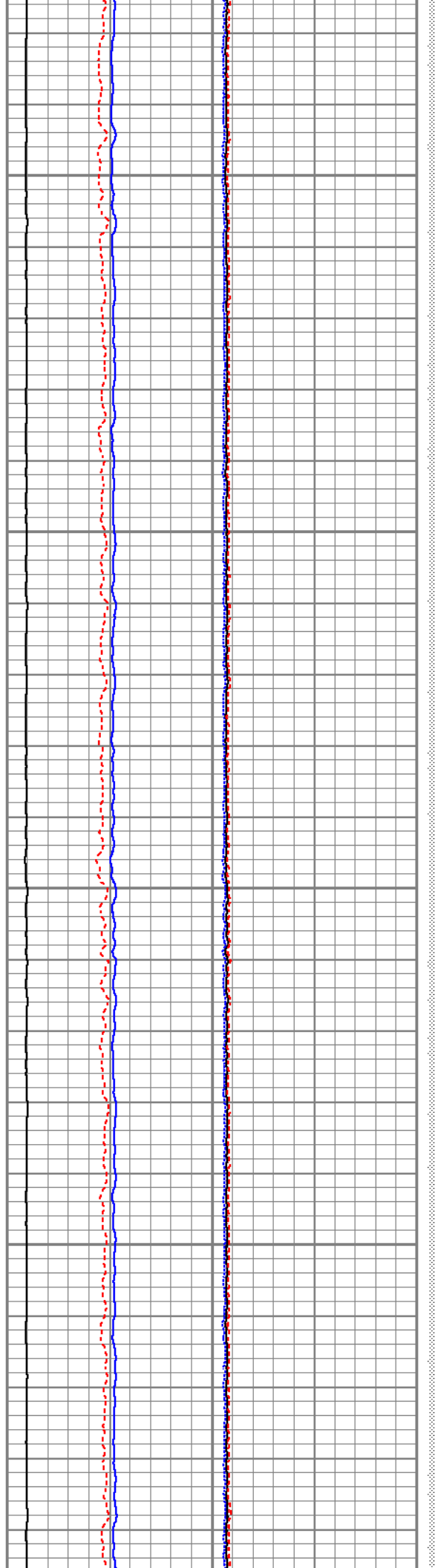
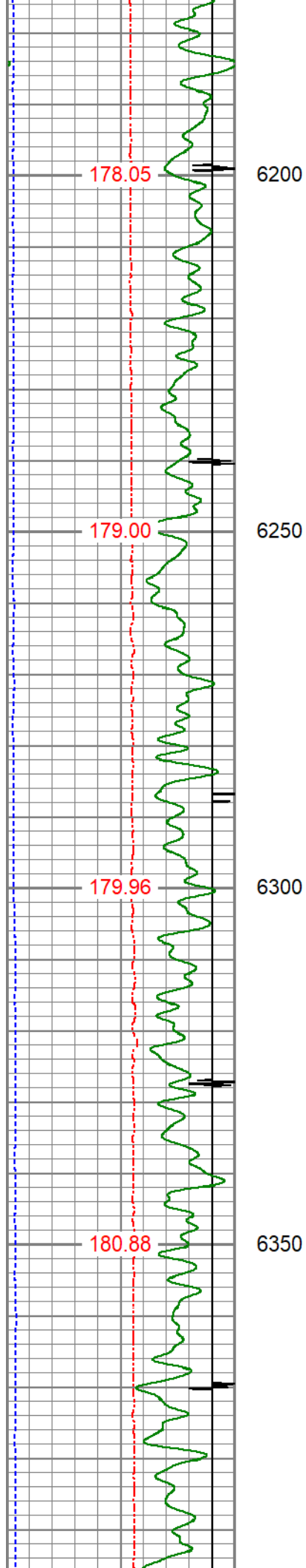
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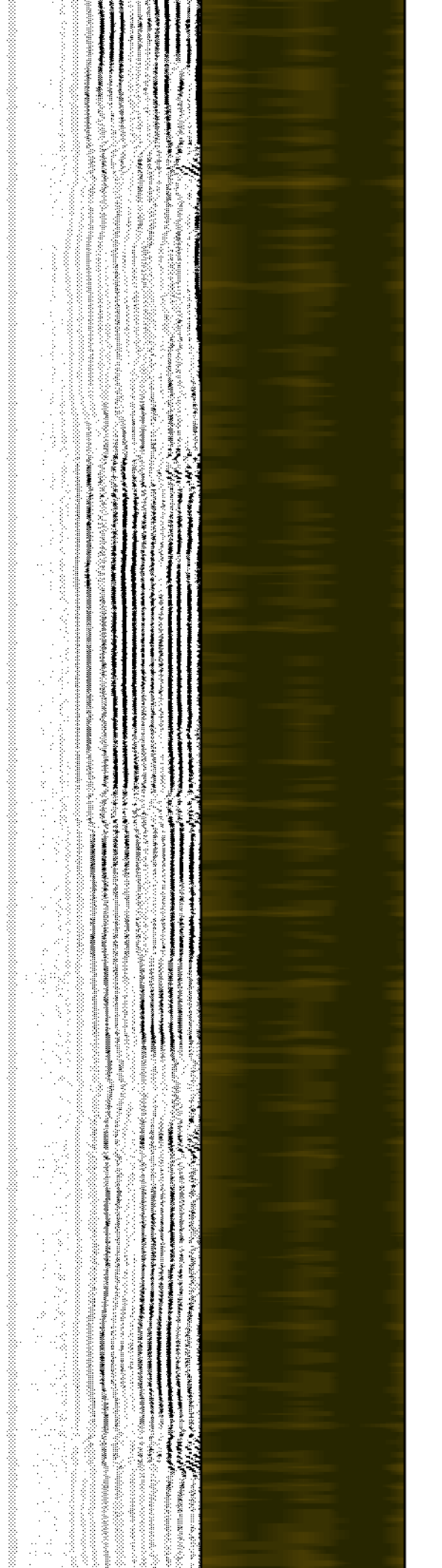
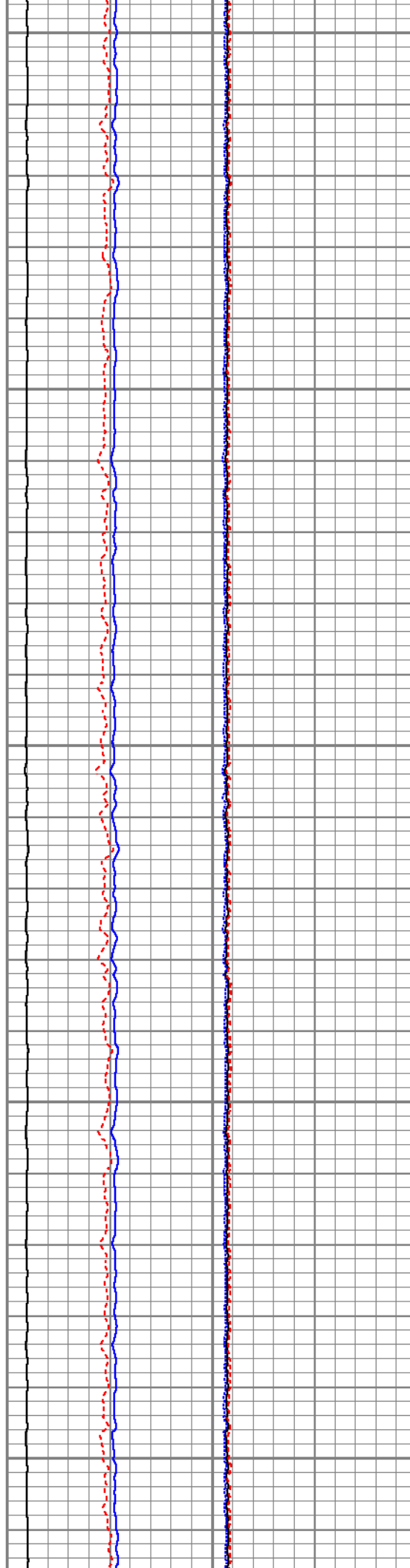
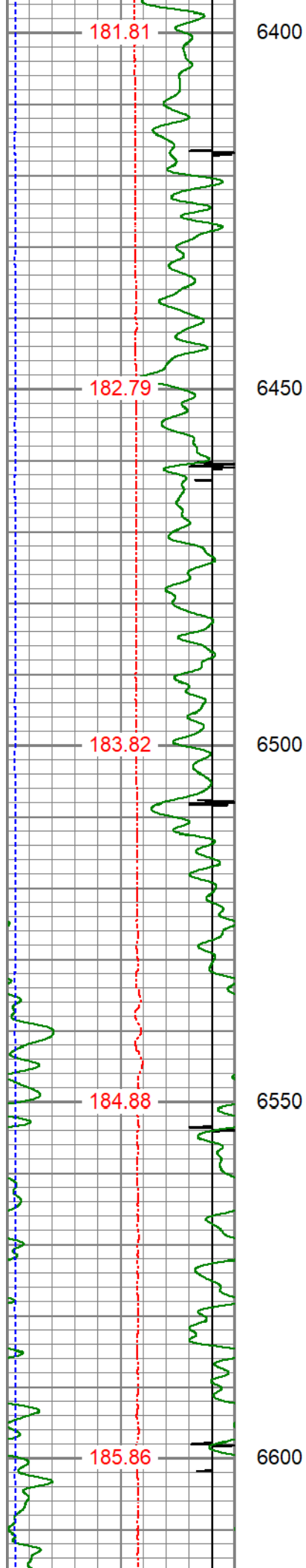
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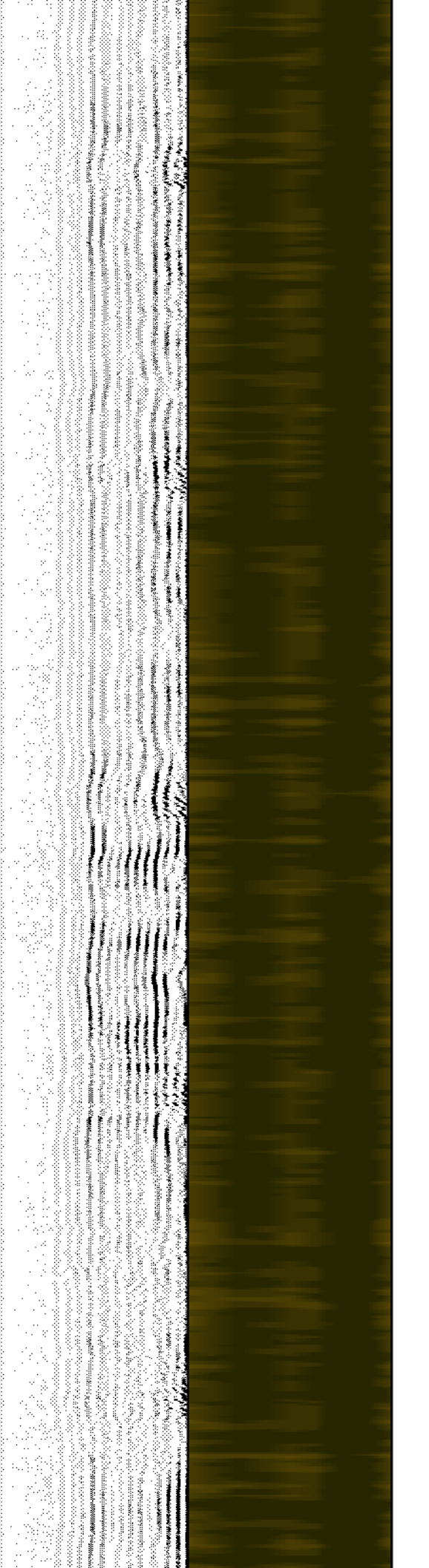
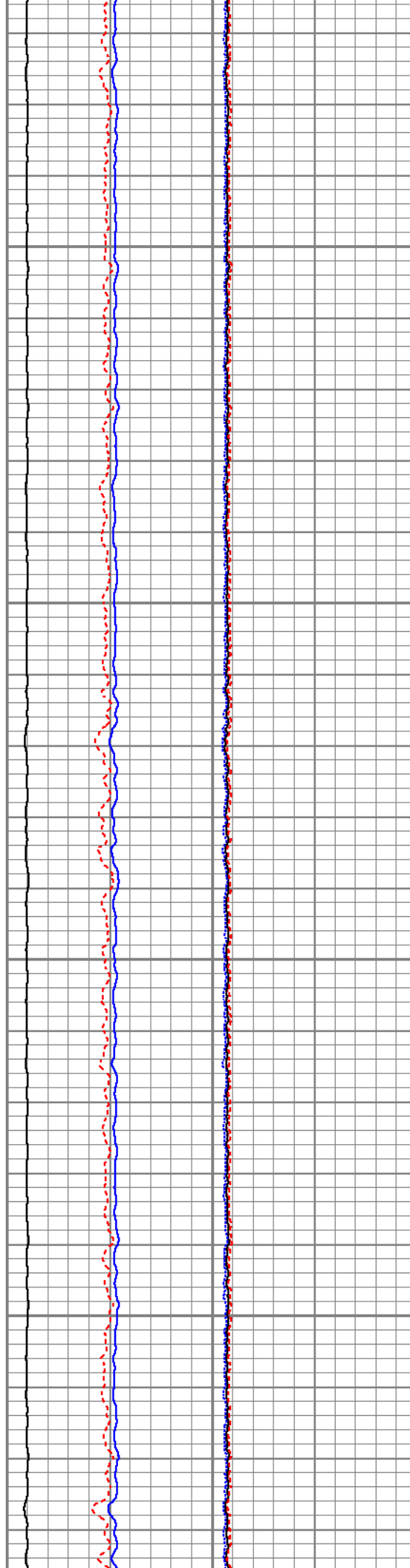
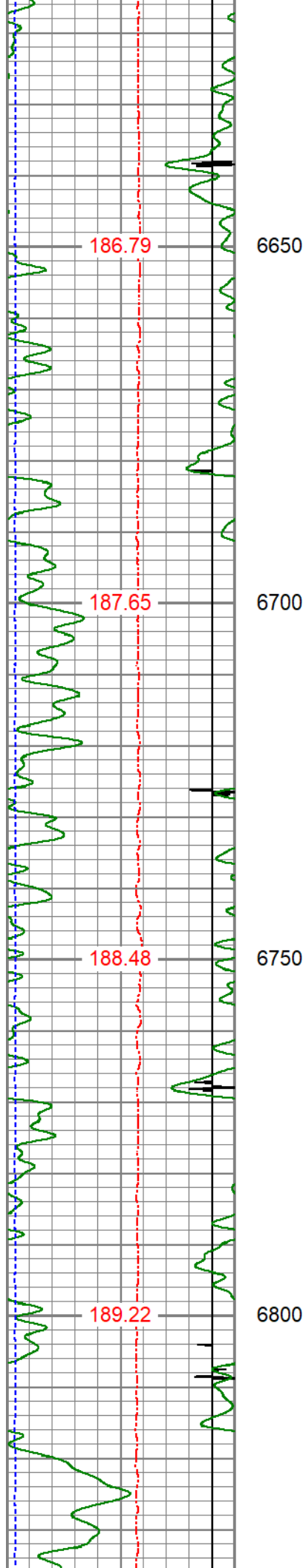
6100

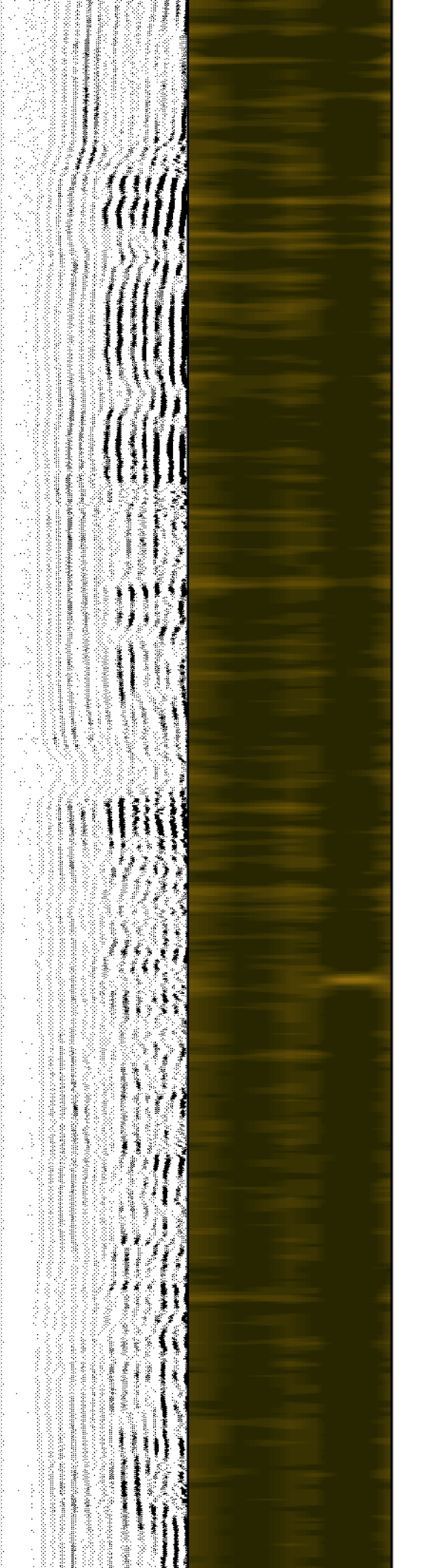
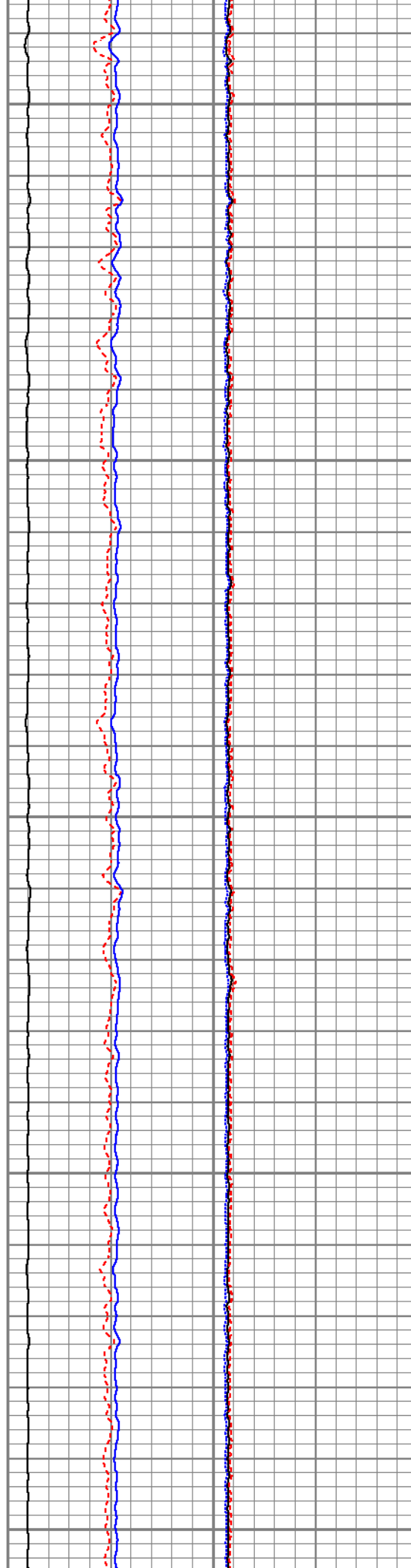
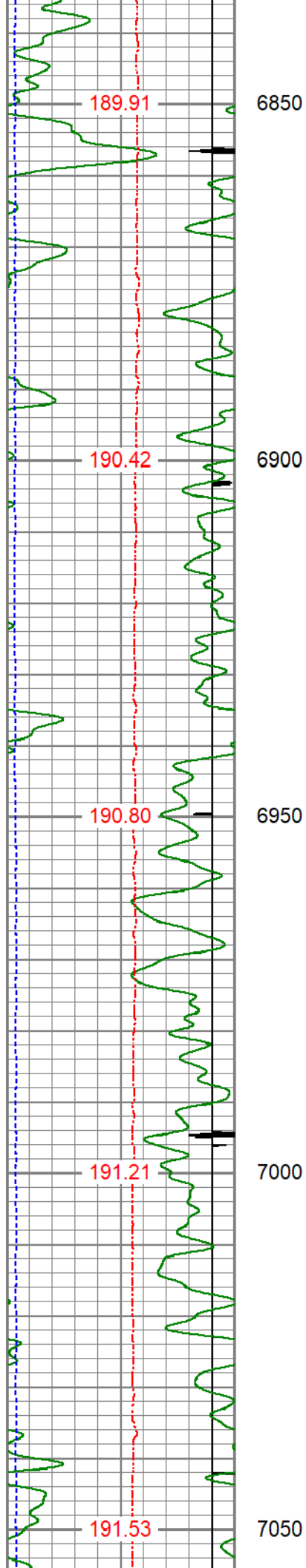
6150

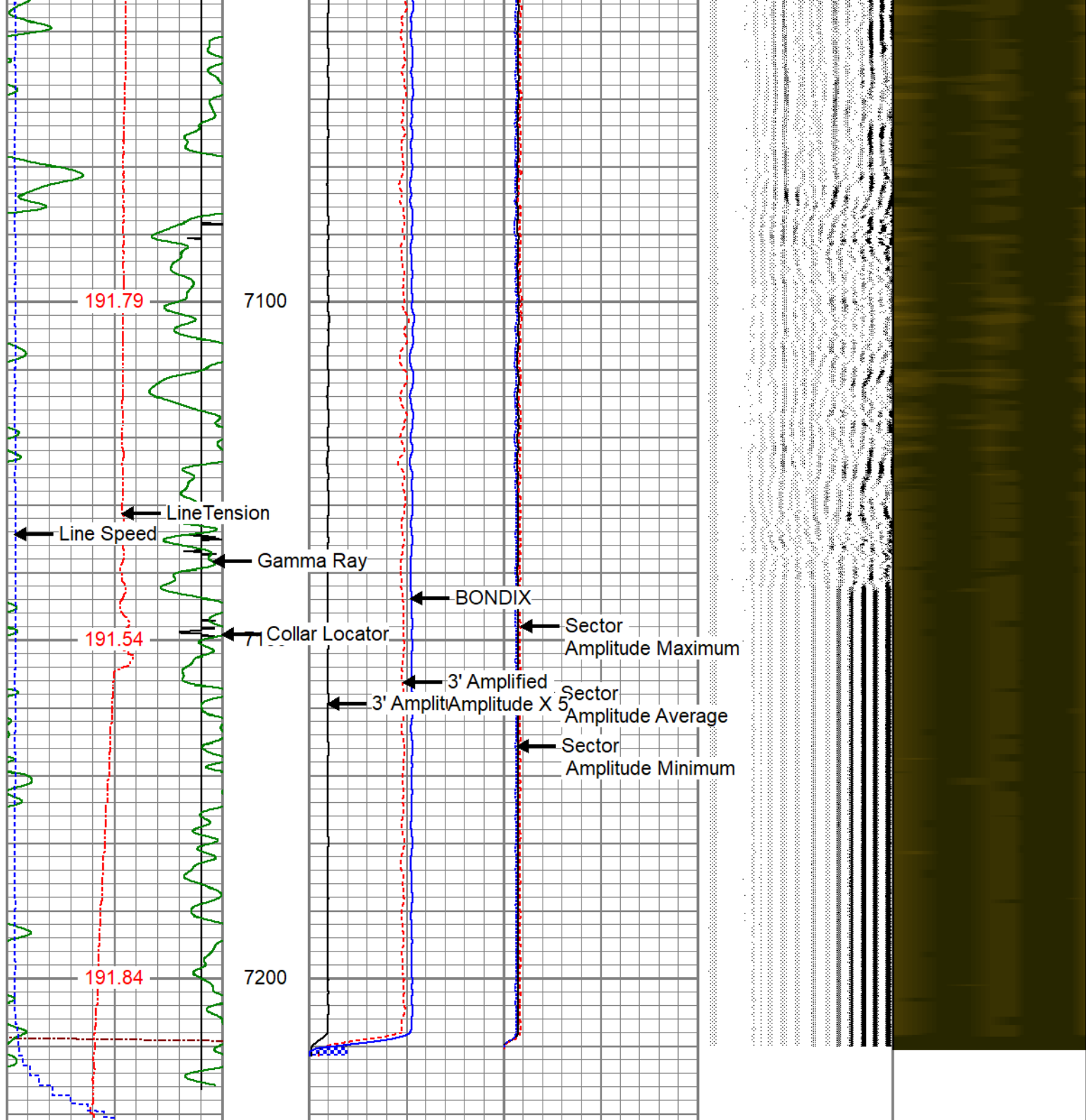












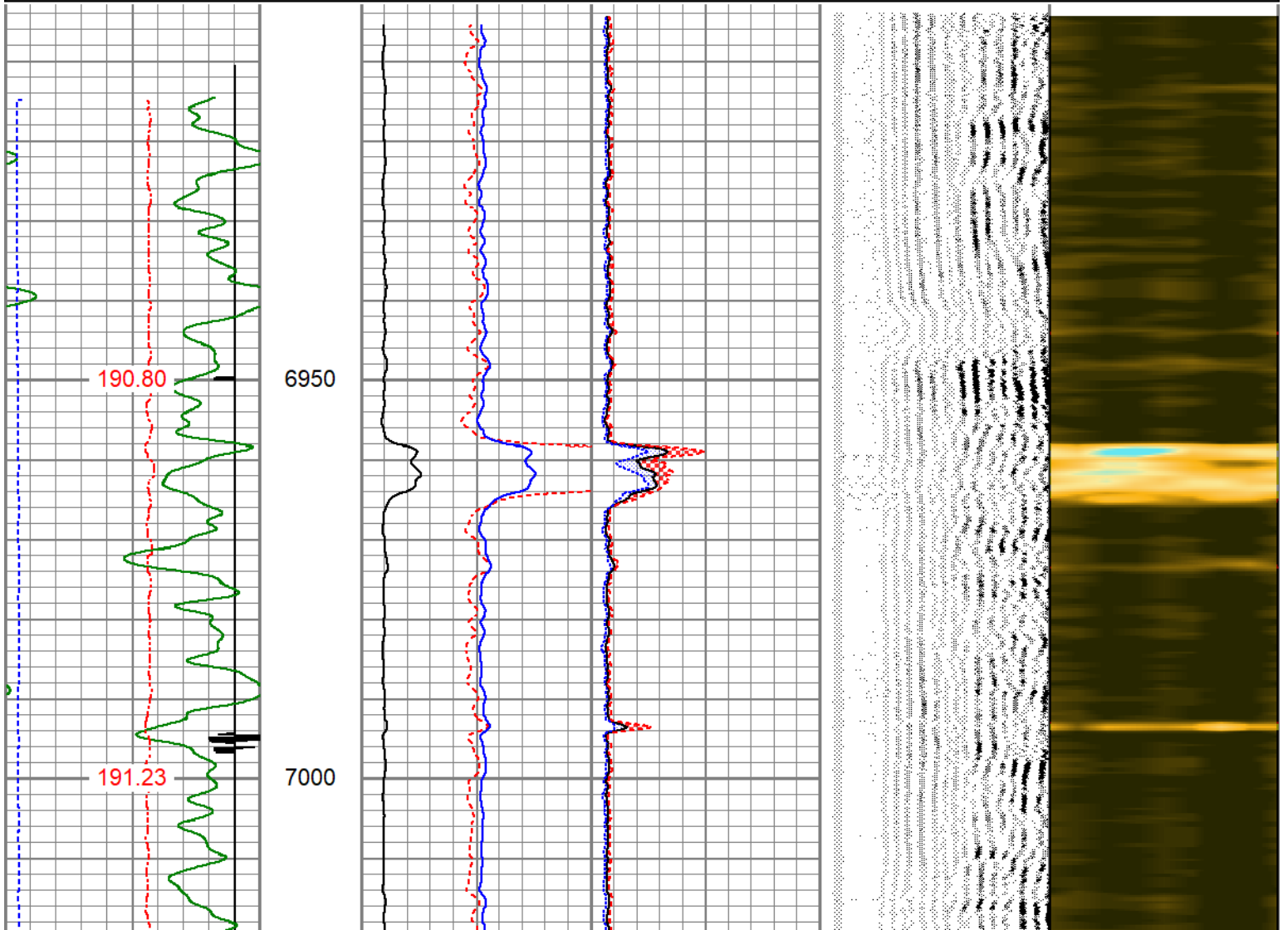
3Ft Travel Time	3' Amplitude	Sector Amplitude Average	VDL	1	Sector Map	8
275 (usec) 175	0 (mV) 100	0 150	200 (usec) 1200			
-9 Collar Locator 1	3' Amplified Amplitude X 5	0 150				
Gamma Ray	0 (mV) 20	Sector Amplitude Maximum				
0 (GAPI) 150	1 BONDIX 0	0 150				
LineTension		Sector Amplitude Minimum				
0 (lb) 2000		0 150				
Line Speed						
-100 (ft/min) 100						
TEMP						
(degF)						

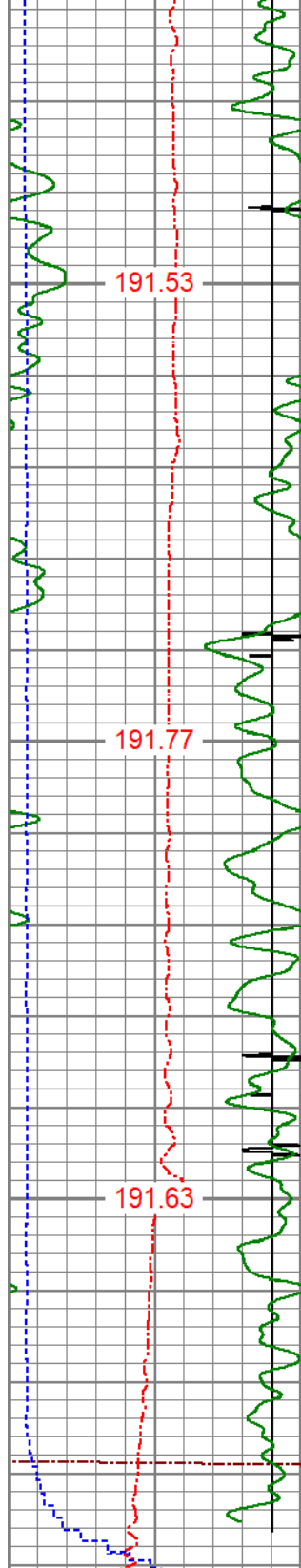
REPEAT SECTION

ZERO PSI APPLIED AT SURFACE

Database File: verdad resources_kbl 1930-12h_0512350886_20210819_scbl.db
 Dataset Pathname: pass2
 Presentation Format: pinr_scbl
 Dataset Creation: Thu Aug 19 08:36:39 2021
 Charted by: Depth in Feet scaled 1:240

3Ft Travel Time	3' Amplitude	Sector	VDL	1	Sector Map	8
275 (usec) 175	0 (mV) 100	Amplitude Average	200 (usec) 1200			
-9 Collar Locator 1	3' Amplified Amplitude X 5	0 150				
Gamma Ray	0 (mV) 20	Sector Amplitude Maximum				
0 (GAPI) 150	1 BONDIX 0	0 150				
LineTension		Sector Amplitude Minimum				
0 (lb) 2000		0 150				
Line Speed						
-100 (ft/min) 100						
TEMP						
(degF)						



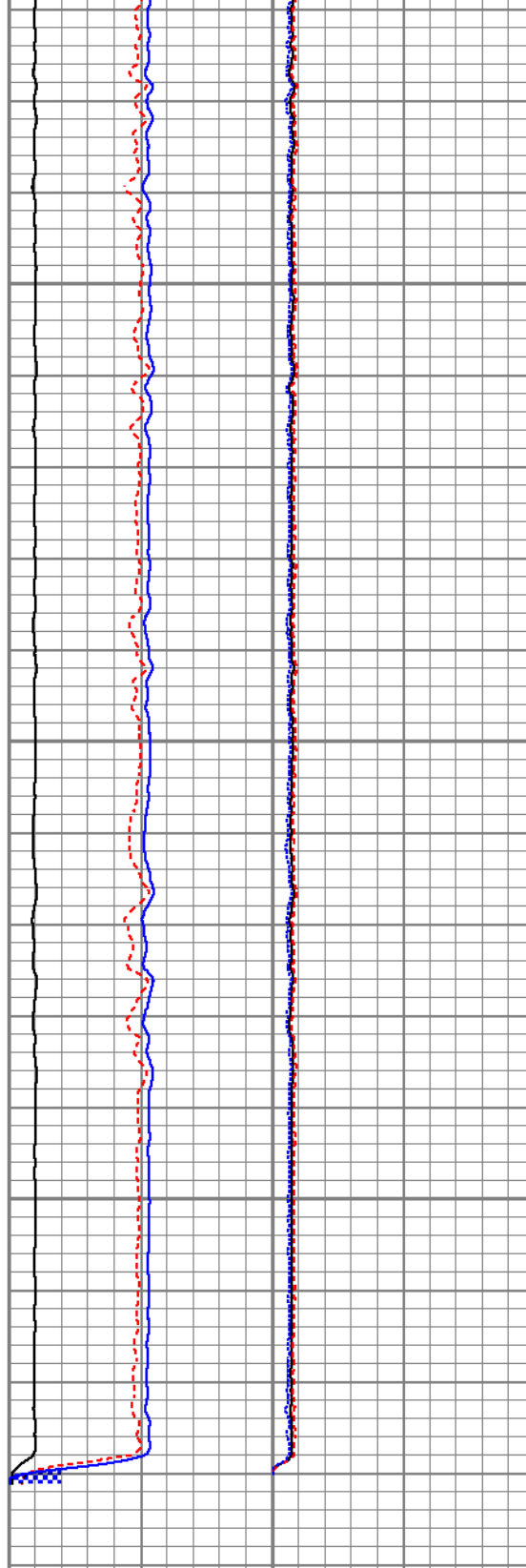


7050

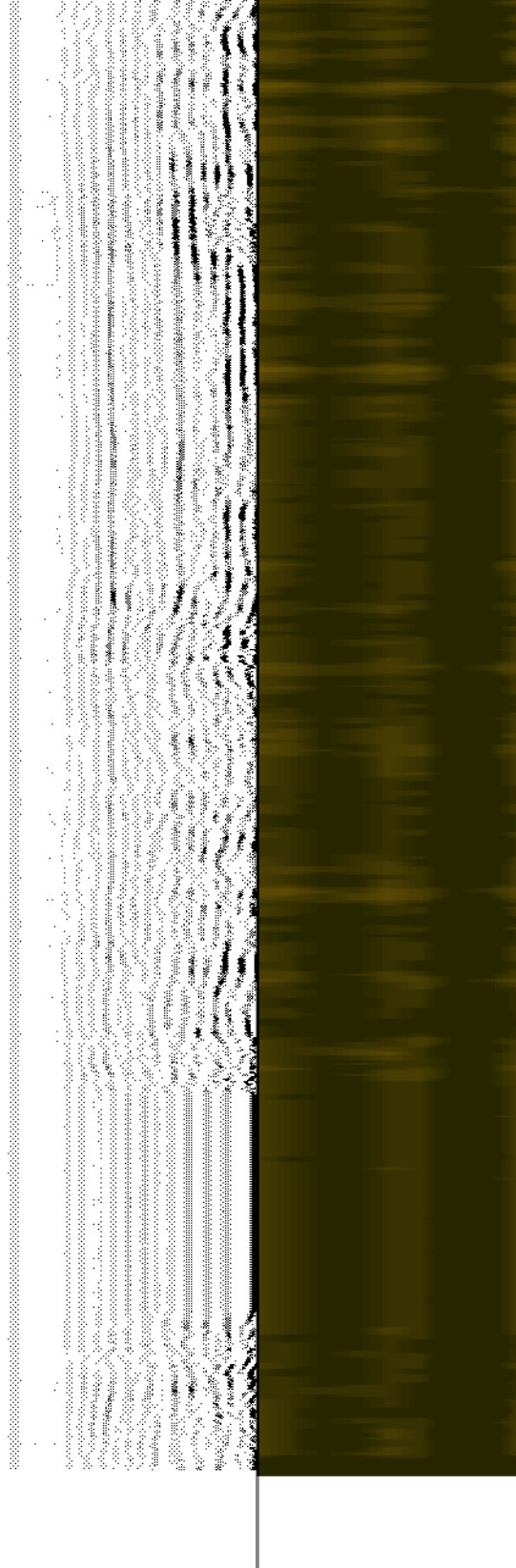
7100

7150

275	3Ft Travel Time (uSec)	175
-9	Collar Locator	1
0	Gamma Ray (GAPI)	150
0	LineTension (lb)	2000
-100	Line Speed (ft/min)	100
	TEMP	



0	3' Amplitude (mV)	100
0	3' Amplified Amplitude X 5 (mV)	20
1	BONDIX	0
0	Sector Amplitude Average	150
0	Sector Amplitude Maximum	150
0	Sector Amplitude Minimum	150



200	VDL (uSec)	1200
1	Sector Map	8

(degF)

Calibration Report

Database File verdad resources_kbl 1930-12h_0512350886_20210819_scbl.db
 Dataset Pathname pass4
 Dataset Creation Thu Aug 19 08:40:55 2021

Gamma Ray Calibration Report

Serial Number: 140181
 Tool Model: 275 Probe GCT
 Performed: Wed Aug 18 11:00:13 2021

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps
 Calibrator Reading: 1.0 cps

Sensitivity: 1.0000 GAPI/cps

Segmented Cement Bond Log Calibration Report

Serial Number: FW 1304-33
 Tool Model: RBL-DC

Calibration Casing Diameter: 5.500 in
 Calibration Depth: -128.507 ft


Master Calibration, performed Thu Aug 19 06:24:12 2021:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.000	1.278	1.000	71.921	55.494	1.000
CAL	0.000	1.222				
5'	0.000	1.211	1.000	71.921	58.564	1.000
SUM						
S1	0.000	1.189	0.000	100.000	84.104	0.000
S2	-0.006	1.249	0.000	100.000	79.681	0.478
S3	0.000	1.250	0.000	100.000	80.000	0.000
S4	0.000	1.279	0.000	100.000	78.186	0.000
S5	-0.003	1.297	0.000	100.000	76.923	0.231
S6	0.000	1.290	0.000	100.000	77.519	0.000
S7	0.000	1.282	0.000	100.000	78.003	0.000
S8	0.000	1.255	0.000	100.000	79.681	0.000

Air Zero Calibration, performed Wed Aug 18 10:56:40 2021:

	Raw (v)		Calibrated (v)		Results	
	Zero		Zero		Offset	
3'	0.000		0.000		0.000	
5'	0.000		0.000		0.000	
SUM						
S1	0.000		0.000		0.000	
S2	0.000		0.000		0.000	
S3	0.000		0.000		0.000	
S4	0.000		0.000		0.000	
S5	0.000		0.000		0.000	
S6	0.000		0.000		0.000	

S6	0.000	0.000	0.000
S7	0.000	0.000	0.000
S8	0.000	0.000	0.000

		Company	VERDAD RESOURCES
		Well	KBL 1930-12H
		Field	WATTENBERG
		County	WELD
		State	CO