



**SECTOR CEMENT BOND
GAMMA RAY
CCL LOG**

Comp. VERDAD RESOURCES
Well FAWN 2833-02H
Field WELD COUNTY
Co. WELD
State COLORADO

Company **VERDAD RESOURCES**
Well **FAWN 2833-02H**
Field **WELD COUNTY**
County **WELD** State **COLORADO**

Location: API #: 05-123-51849
244' FSL & 2254' FWL
SEC 22 TWP 1N RGE 65W
Permanent Datum G.L. Elevation 5104'
Log Measured From G.L. 0' Above Perm. Datum
Drilling Measured From N/A
Other Services
N/A
K.B. 5125'
D.F. N/A
G.L. 5104'

Date of Service	28-MARCH-2023				
Run Number	ONE				
Depth Driller or PBTD	18734'				
Depth Logger	8755'				
Bottom Log Interval	8750'				
Top Log Interval	SURFACE				
Open Hole Size	8.75"				
Type Fluid	WATER				
Fluid Level	FULL				
Fluid Density	8.34 PPG				
Max. Recorded Temperature	220 DEG. F.				
Max. Wellhead Pressure	0 PSI				
Wellhead Connection	7-1/16" 15K				
Estimated Cement Top	2554'				
Unit Number	1096				
Wireline Size	9/32"				
Location	BRIGHTON,CO				
Recorded By	HARPER				
Witnessed By	HANSEN				
Surface Casing	9-5/8"	Size	WFt	Top	Bottom
Production Casing	5.5"	36#	SURFACE	SURFACE	2374'
Liner Casing	N/A	20#	SURFACE	SURFACE	18719'
Tubing Record	N/A	N/A	N/A	N/A	N/A

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All interpretations are opinions based on inferences from electrical or other measurements and Ranger Energy Services cannot and does not guarantee the accuracy or correctness of any interpretation, and Ranger Energy Services 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.
LOG CORRELATED TO GROUND LEVEL

THANK YOU FOR USING RANGER ENERGY SERVICES! FIELD TICKET #....534574

Your Ranger Energy Services Crew		Tool Data - Services		Serial Number	
Engineer: B.HARPER	Operator: B.HECHT	Operator: C.PROBST	Operator:	PROBE RADII BOND	RBT-PROBE-070150
				GAMMA RAY/CCL	GR-ANALOG 071129

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)	
ErrCt	17.33		Cable_Head-1_7/16 Titan 1 7/16" Cable Head	1.02	1.44	3.31	
IntTemp	15.07						
WVFS8	11.82			RBT-Probe (070150) Probe Radii Bond Tool with Digital Telemetry	8.75	2.75	90.00
WVFS7	11.82						
WVFS6	11.82						
WVFS5	11.82						
WVFS4	11.82						
WVFS3	11.82						
WVFS2	11.82						
WVFS1	11.82						
WVFCAL	11.82						
WVF3FT	11.82						
WVF5FT	10.82						
CCL	6.62						
GR	5.38		GR_analog-GR275B (071129) 275 Gamma-CCL (Pulse) Top Detector	4.57	2.75	55.00	
			Centralizers-8071-275-200 Tekco 2 3/4" Adjustable Centralizer	2.73	2.75	25.00	
			Bull_Plug-1_7/16_GO Titan 1 7/16" Female Bull Plug	0.27	1.44	1.00	

Dataset: verdad_fawn 2833-02h_05-123-51849_03-28-23.db: field/well/run1/pass3
 Total length: 17.33 ft
 Total weight: 174.31 lb
 O.D.: 2.75 in

Log Variables

DatabaseC:\ProgramData\Warrior\Data\verdad_fawn 2833-02h_05-123-51849_03-28-23.db
 Dataset field/well/run1/pass3/_vars_

Top - Bottom

BOREID in 8.75	BOTTEMP degF 220	CASEOD in 5.5	CASETHCK in 0.361	CASEWGHT lb/ft 20	MAXAMPL mV 71.9	MINAMPL mV 2.2	MINATTN db/ft 0.8
PERFS No	PPT usec 261	SRFTEMP degF 21	TDEPTH ft 18661				

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

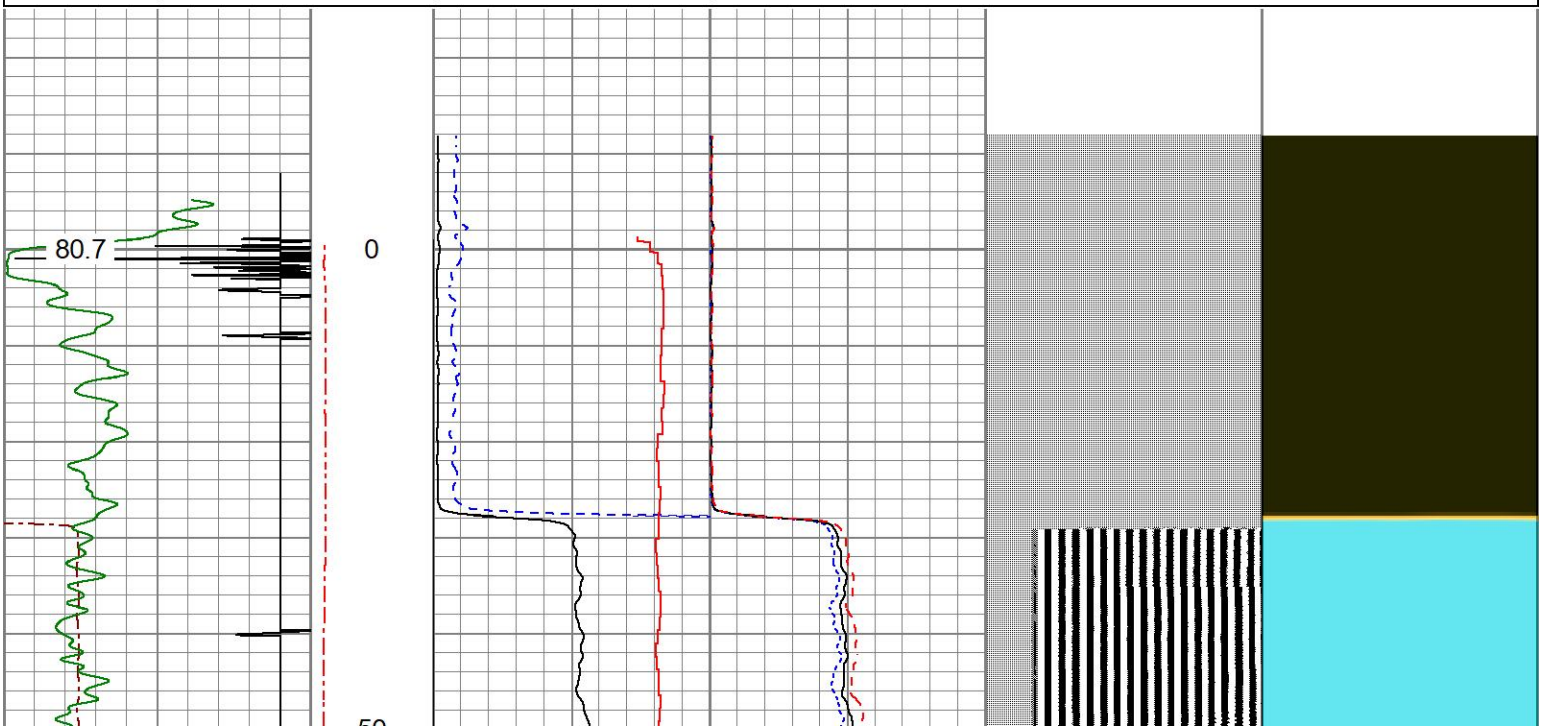


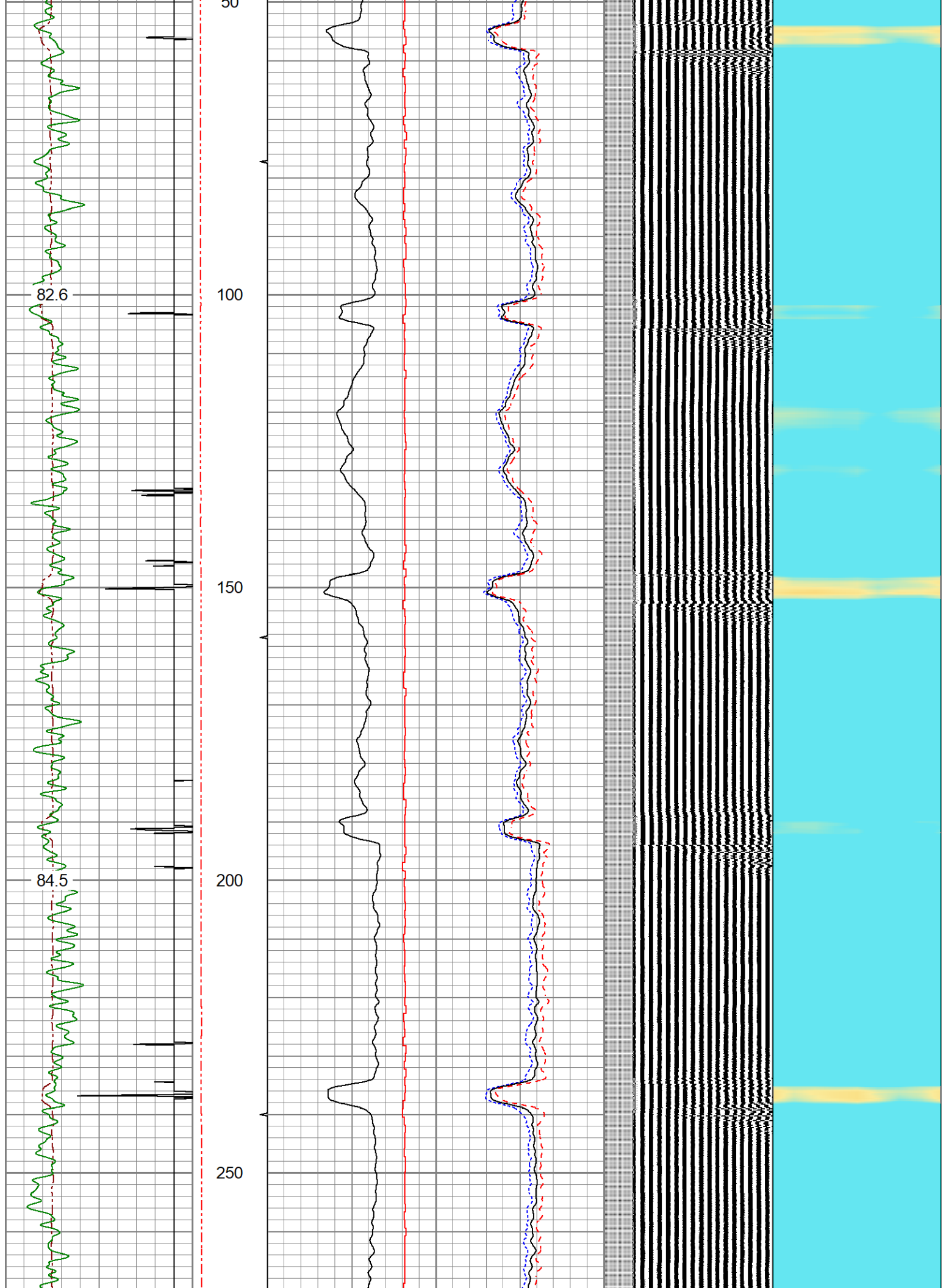
MAIN PASS

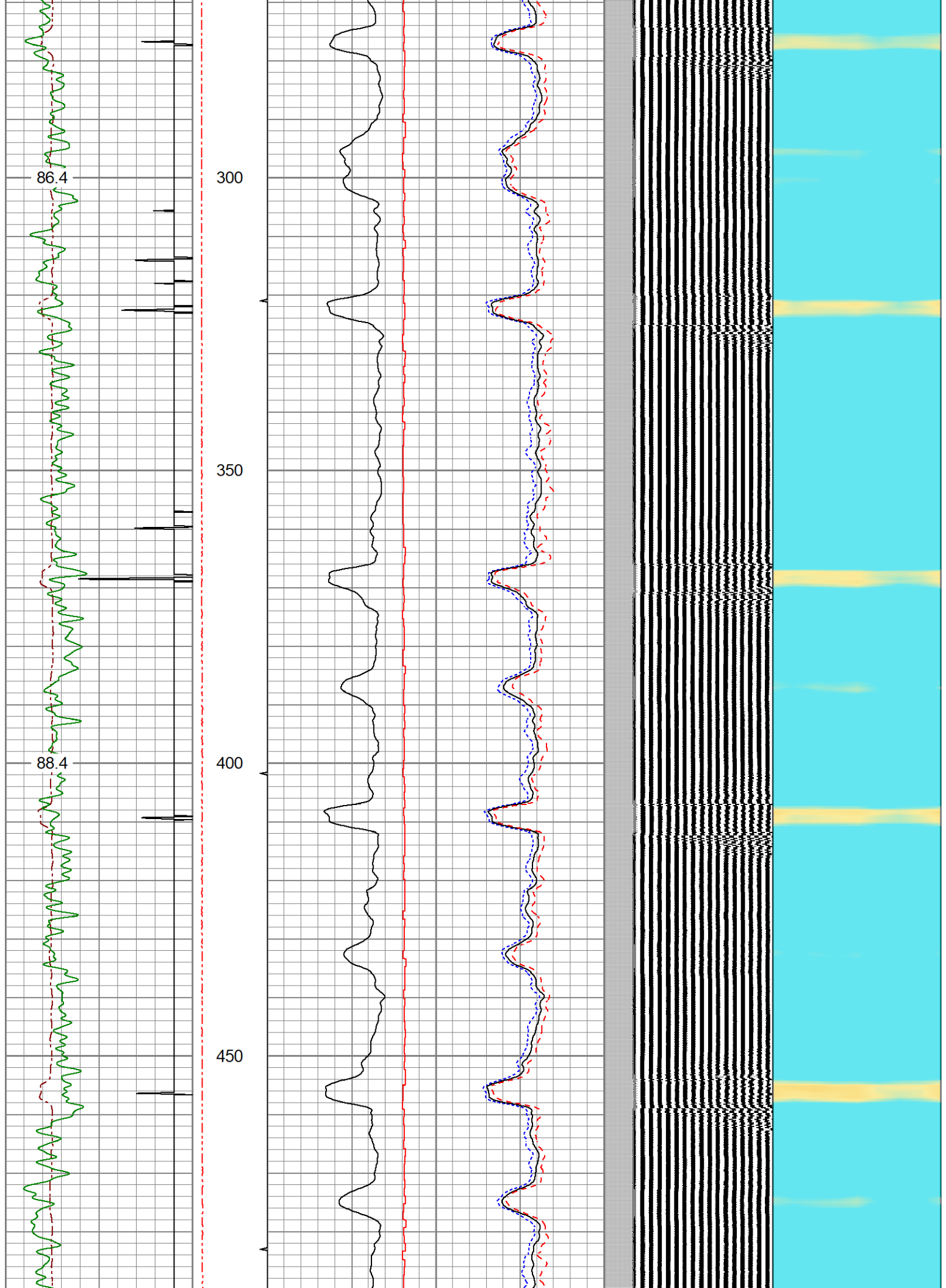
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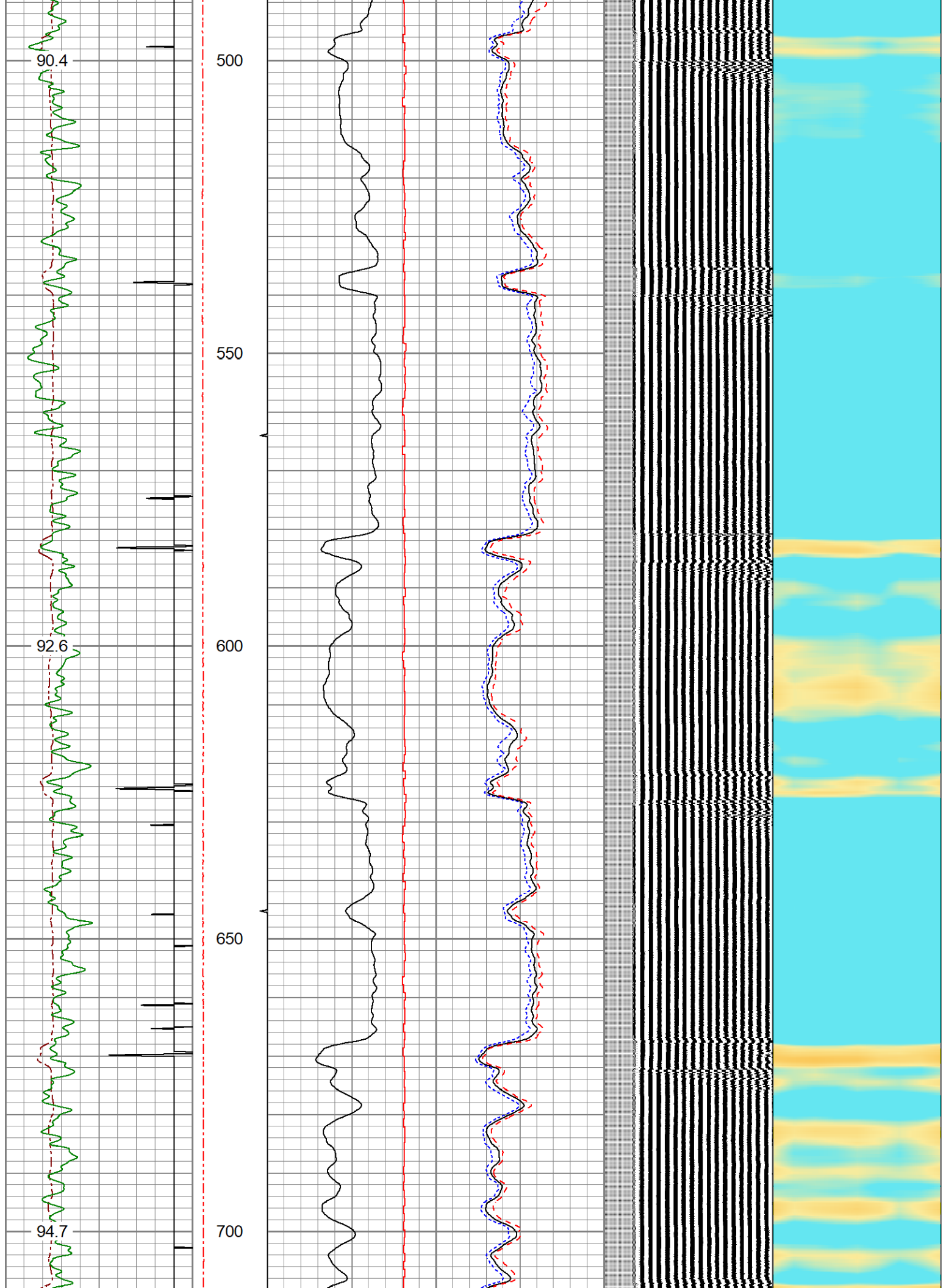
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 Presentation Format: res_scbl 8sec_co_verdad
 Dataset Creation: Tue Mar 28 10:29:22 2023
 Charted by: Depth in Feet scaled 1:240

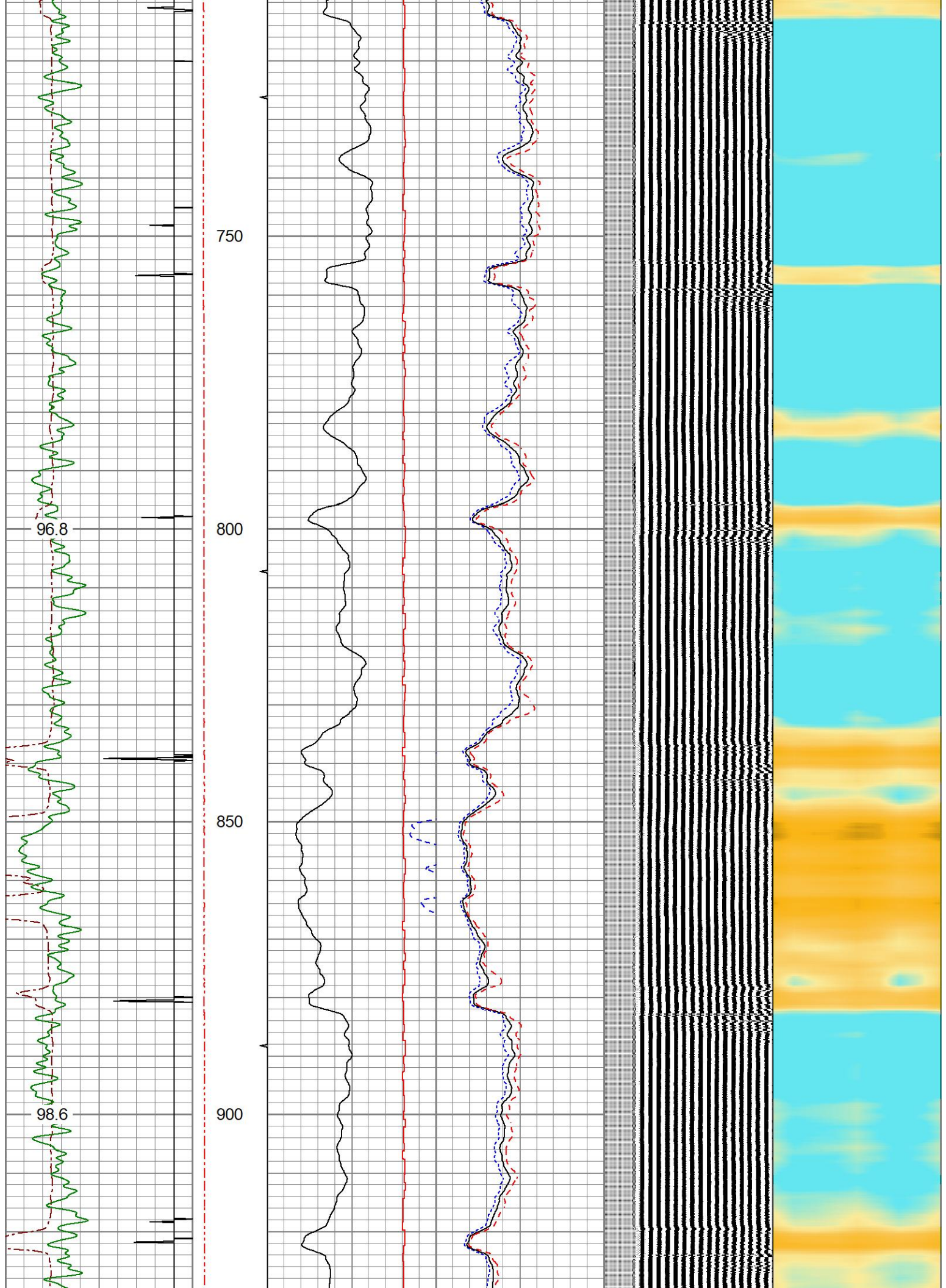
280 3FT TT (usec) 180	LTEN	3' Amplitude	0 Sector Min Amp	150	200 VDL (usec) 1200	1 Sector Map	8
-9 Collar Locator 1	(lb)	(mV)	Sector Avg Amp				
Gamma Ray	0 2000	3' Amplified	0	150			
0 (GAPI) 150	MINMK	Amplitude X 5	Sector Max Amp				
TEMP	10 0	(mV)	0	150			
(degF)		LSPD (ft/min)-100					

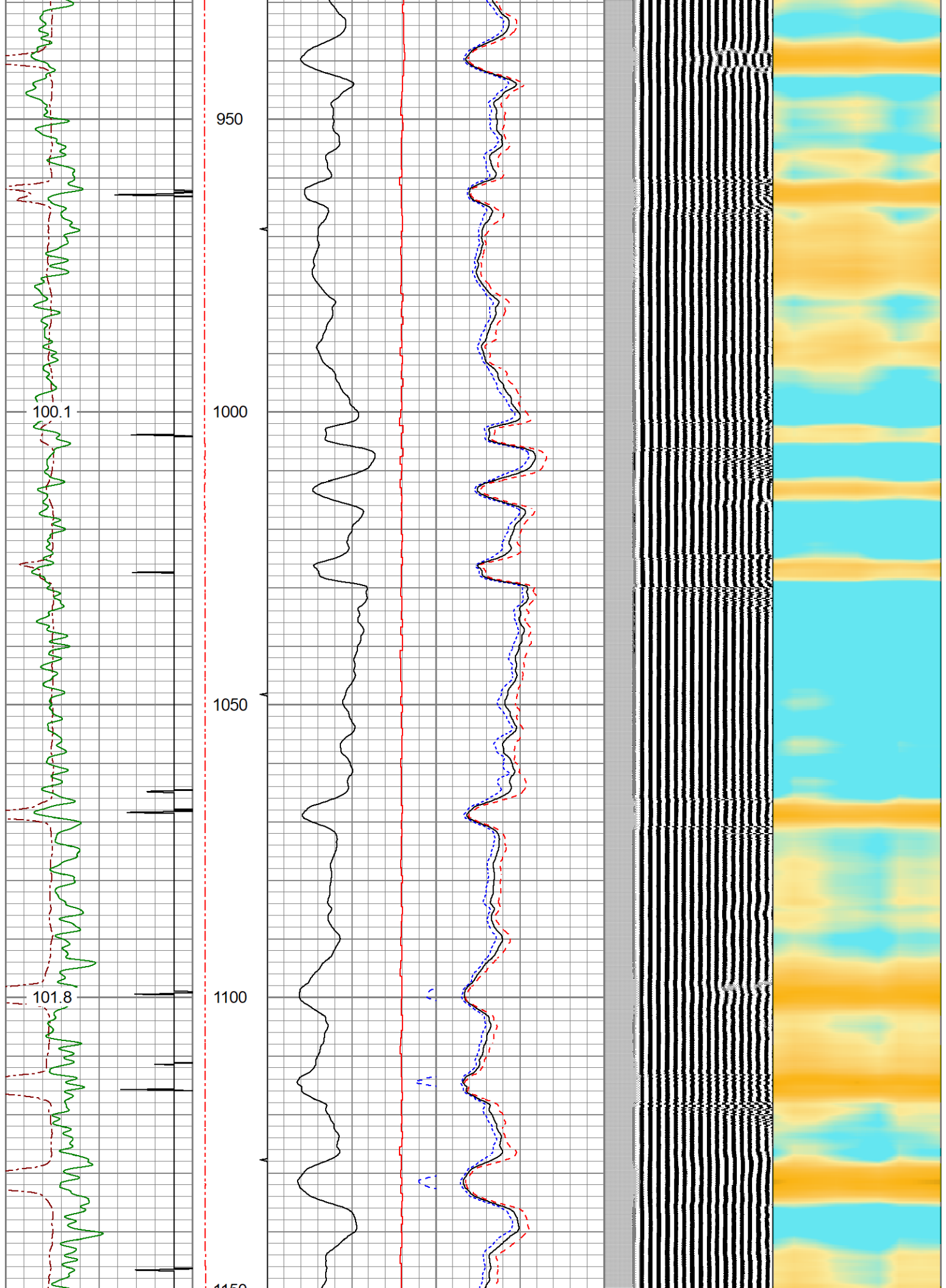


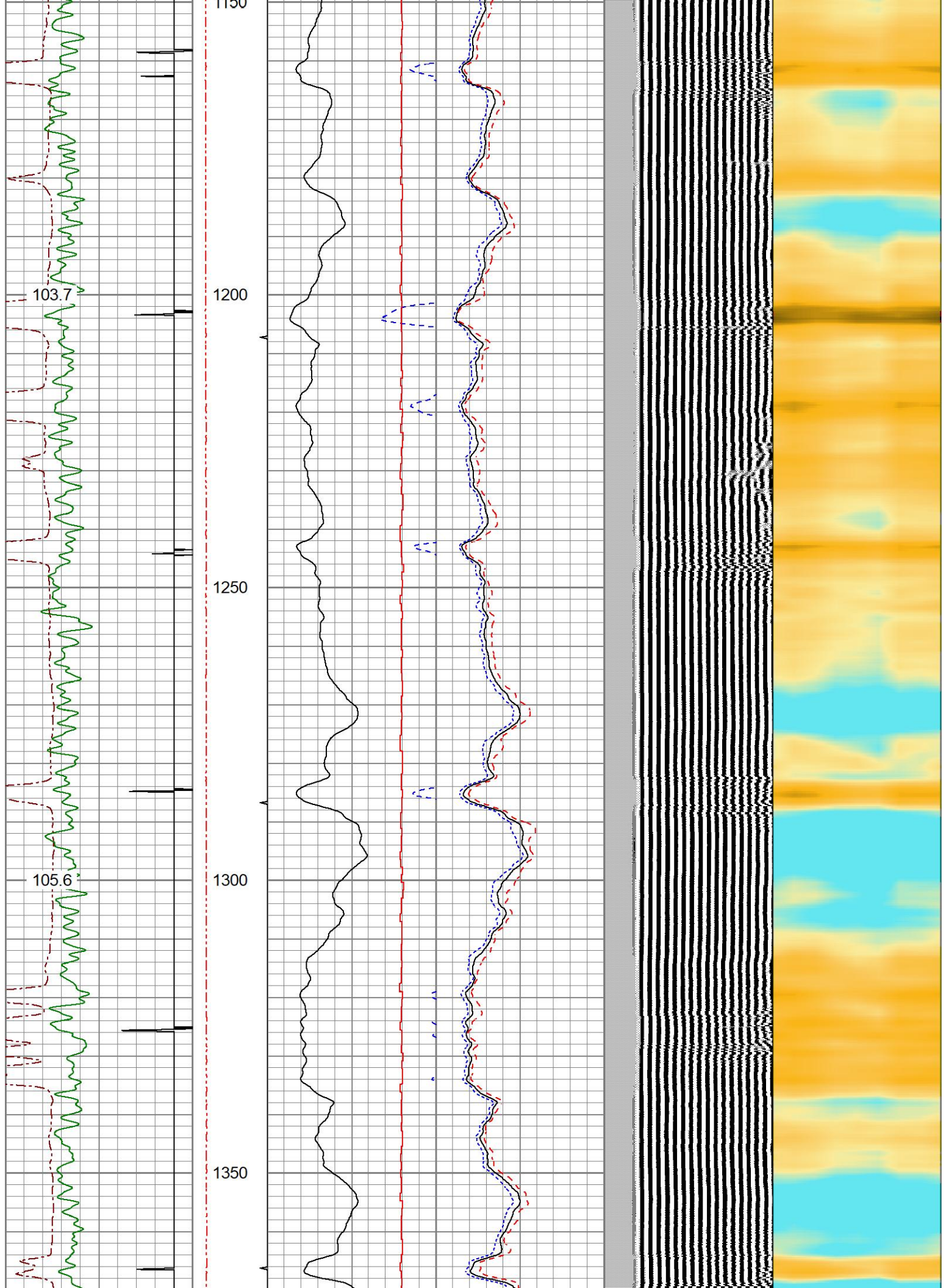


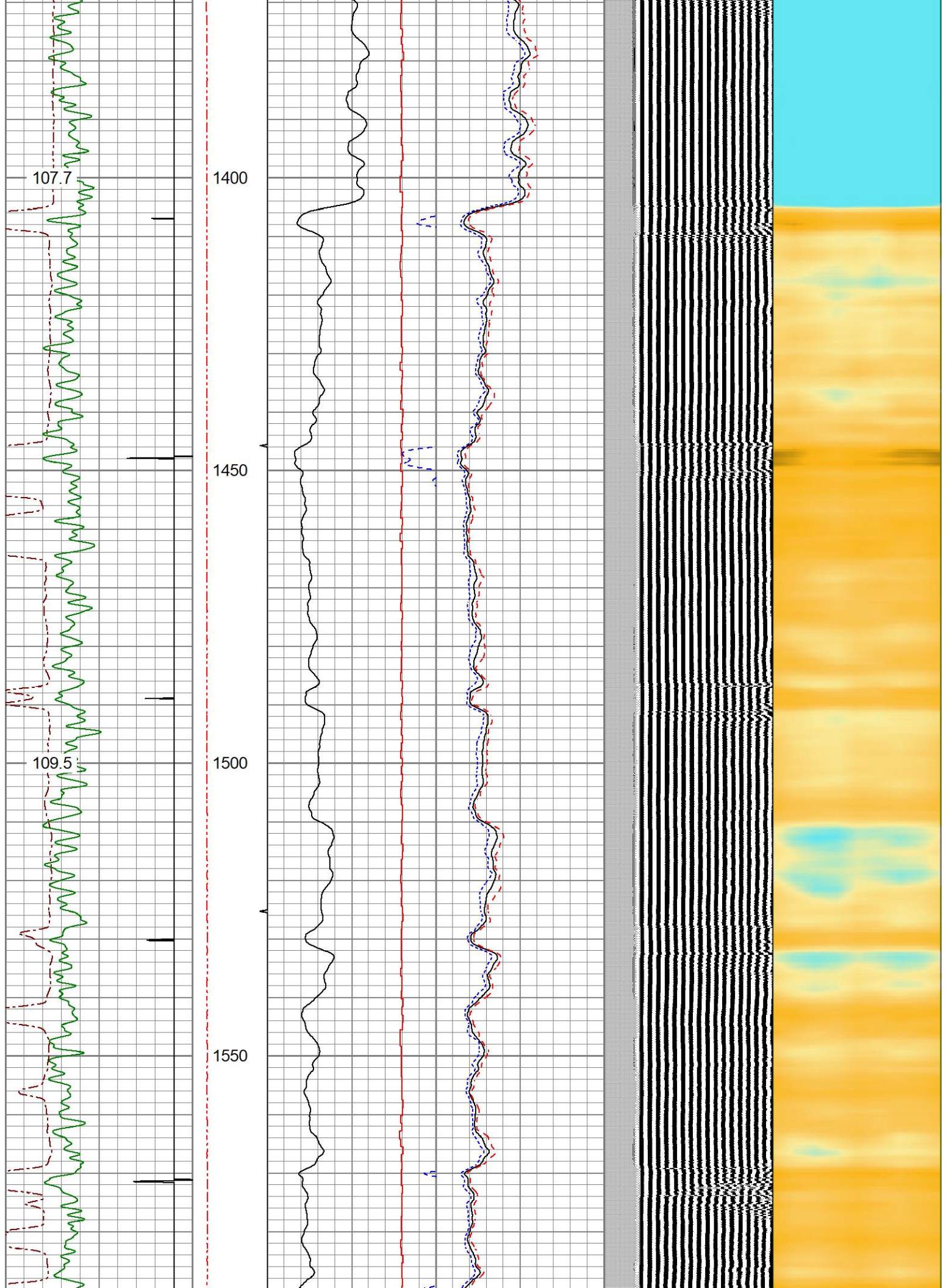


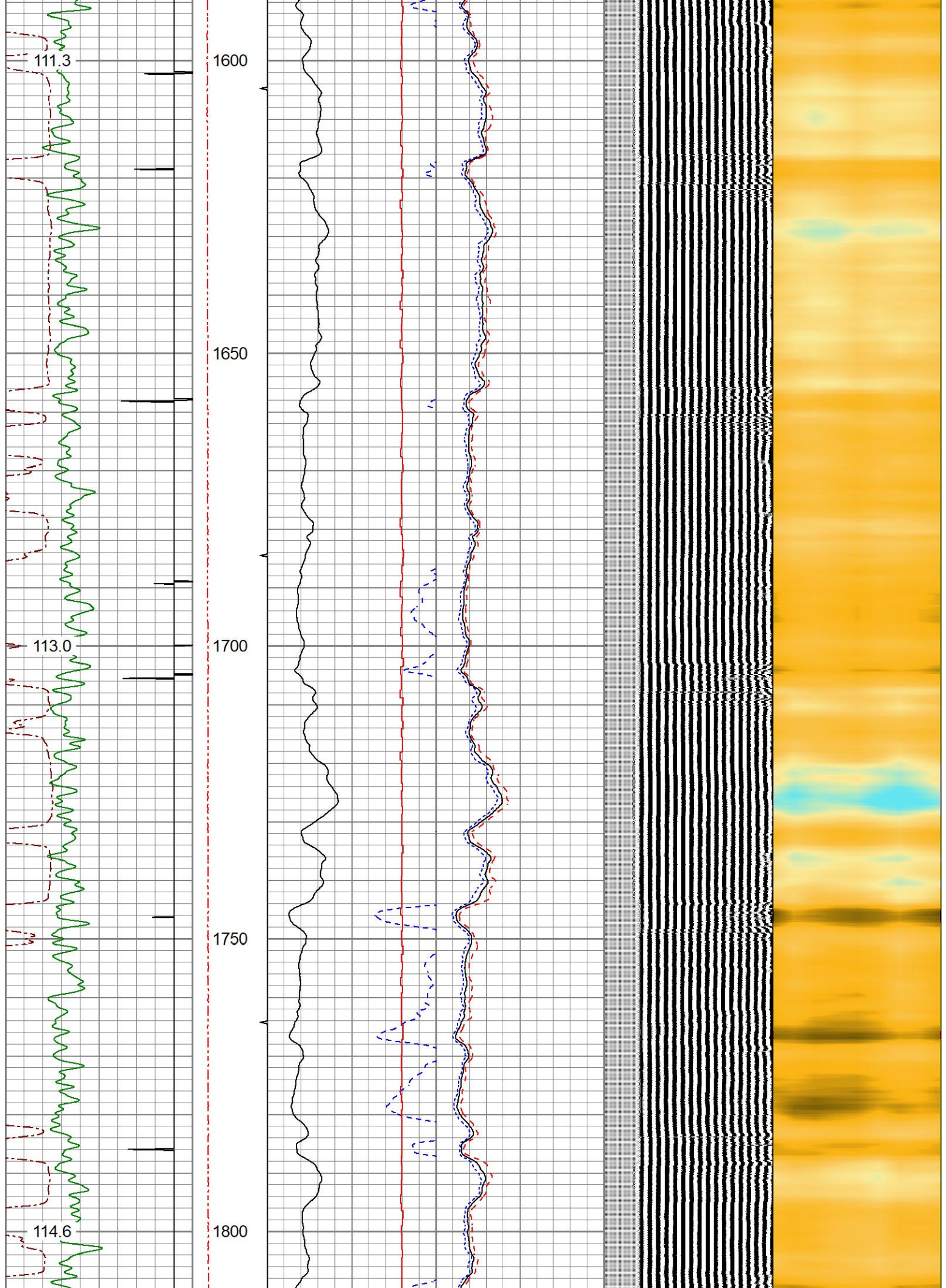


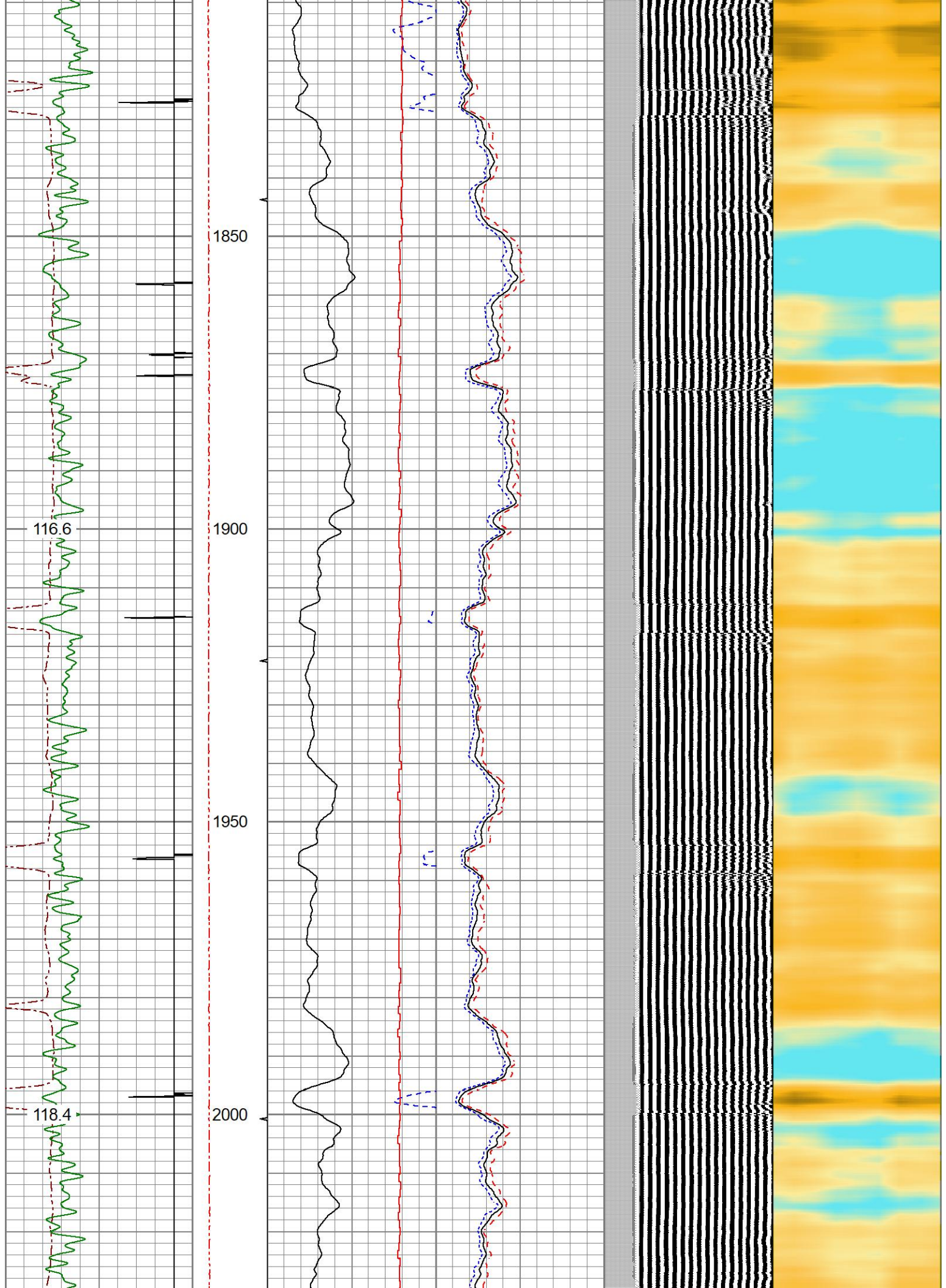


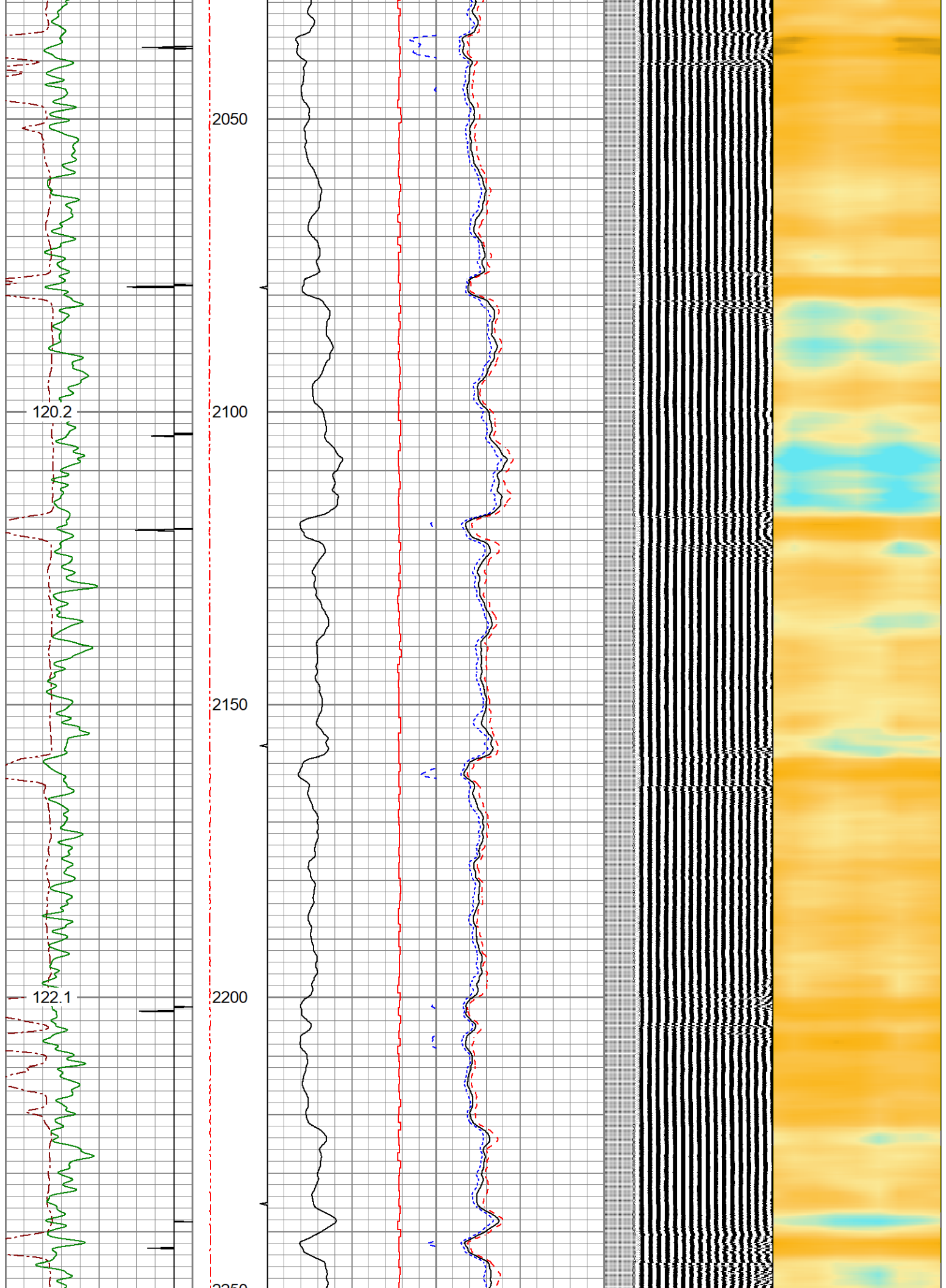


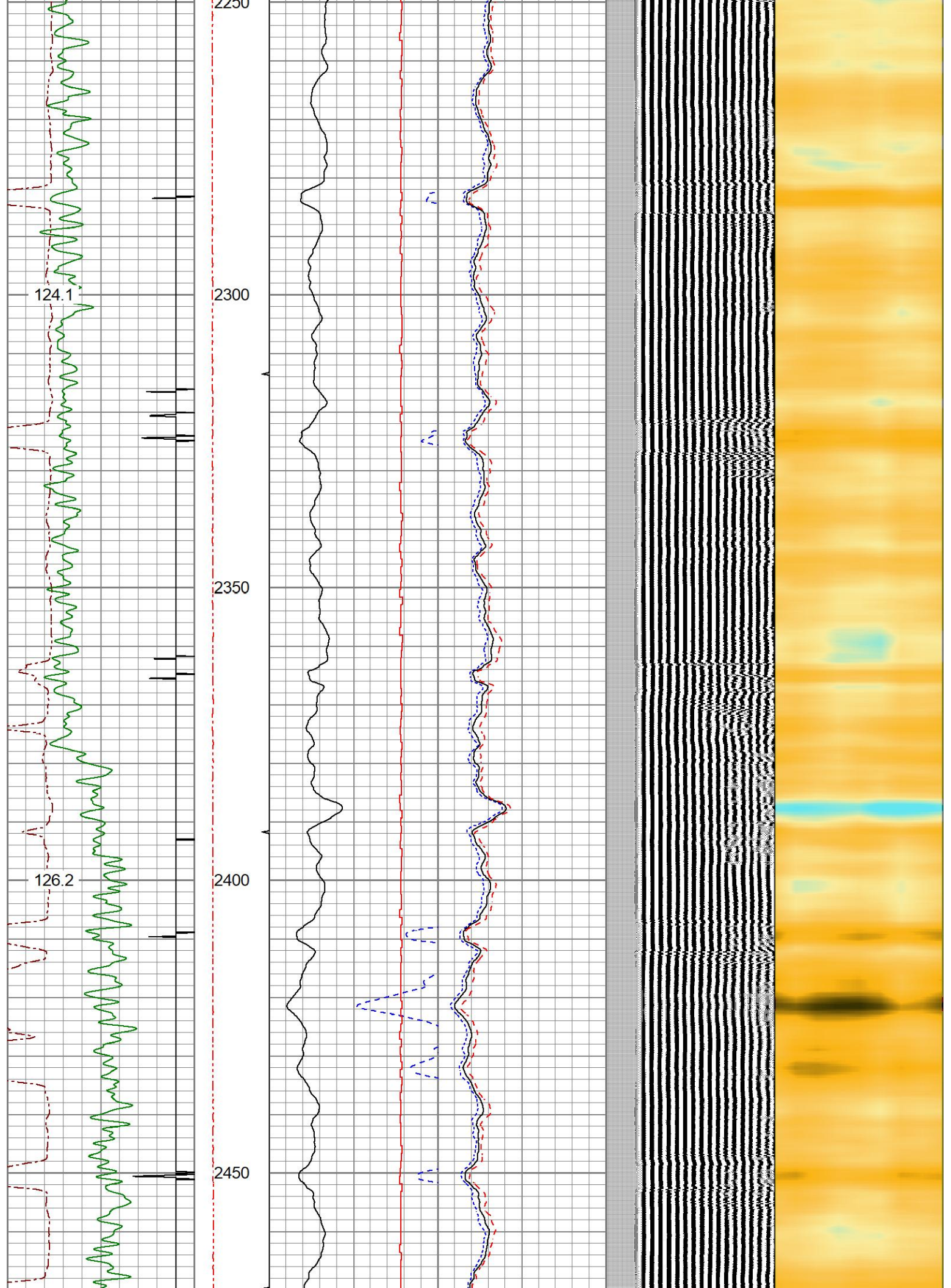


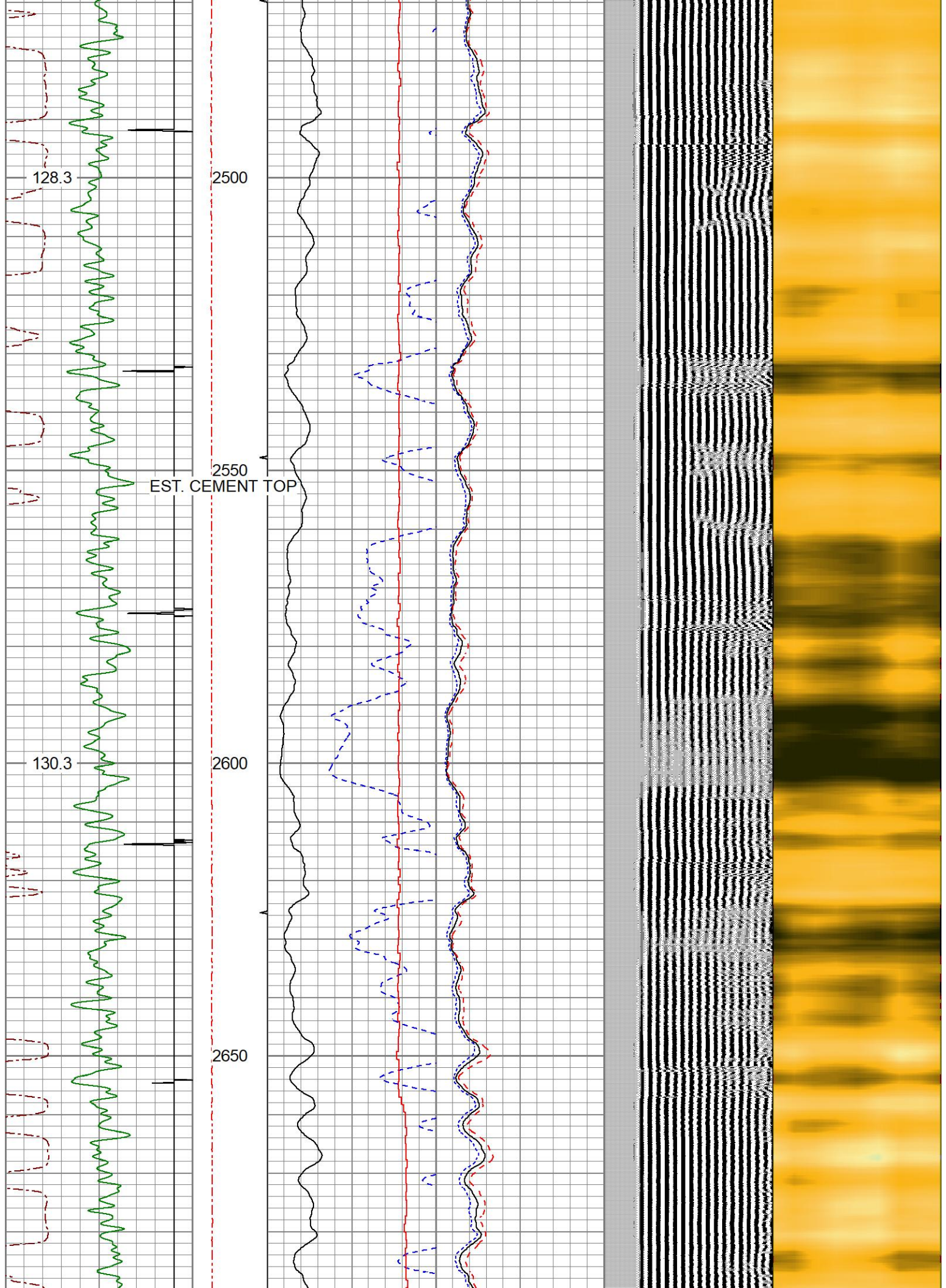


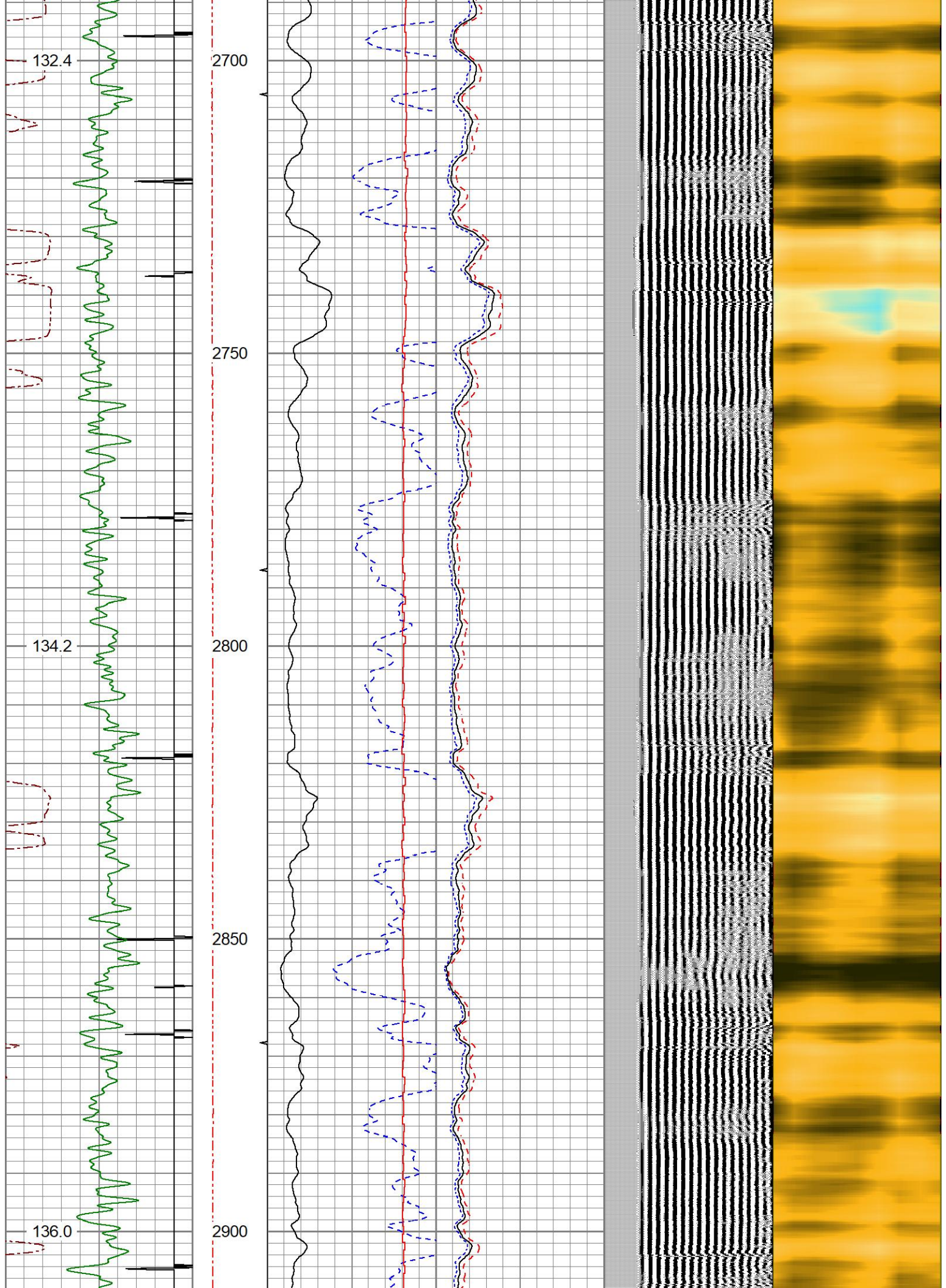


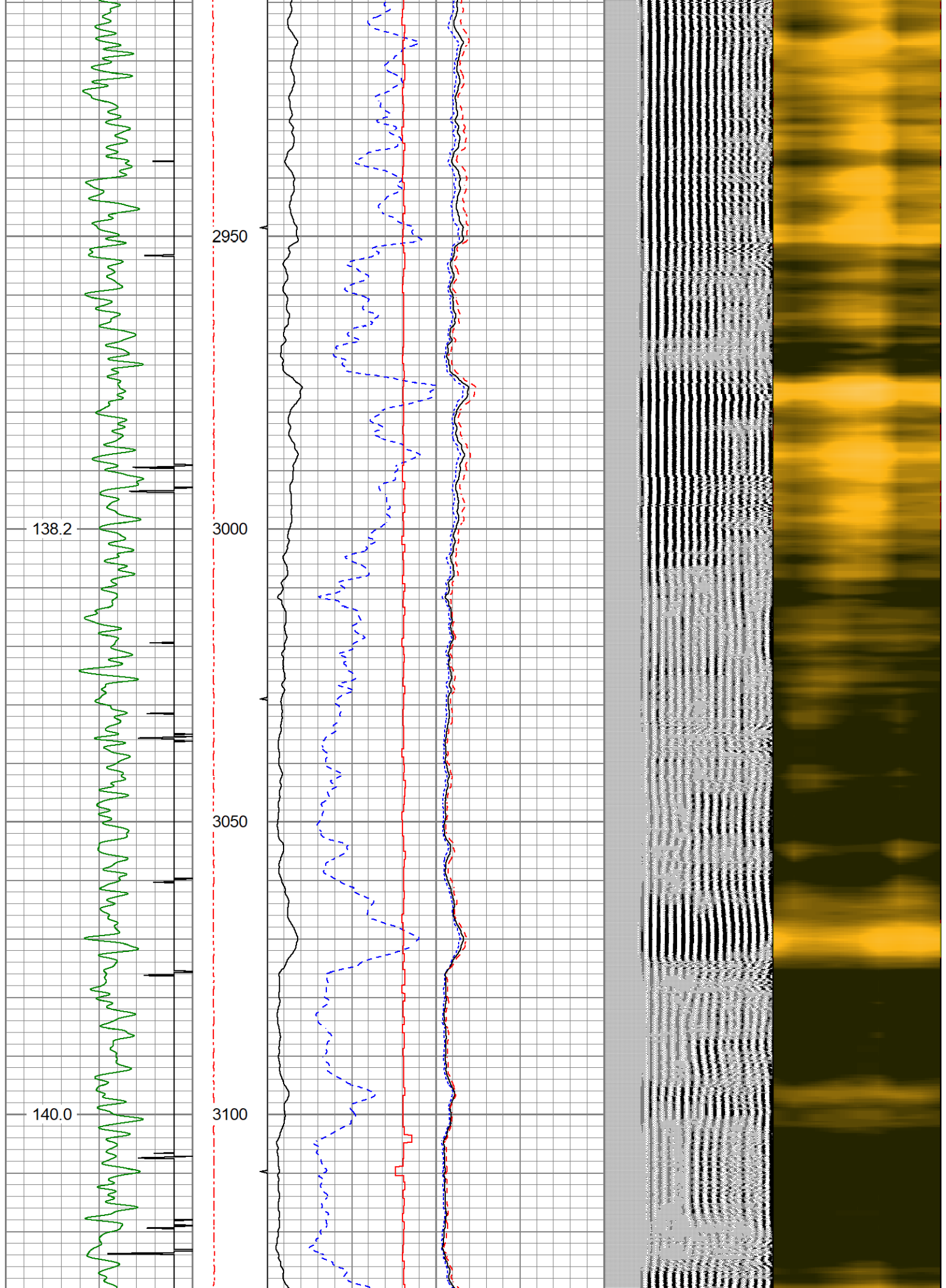


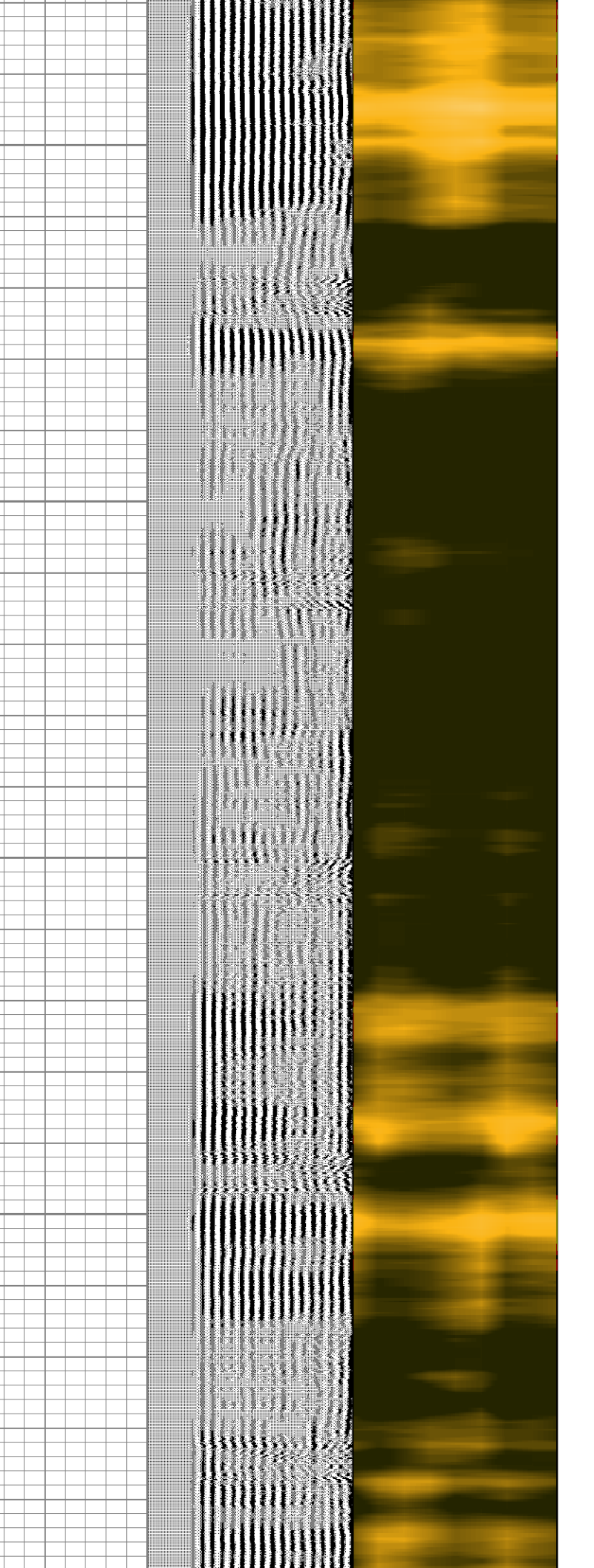
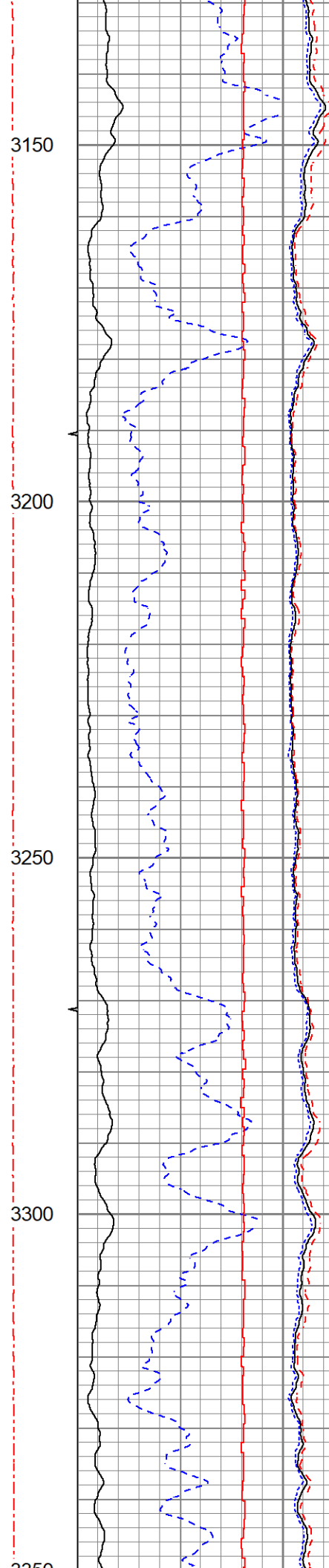
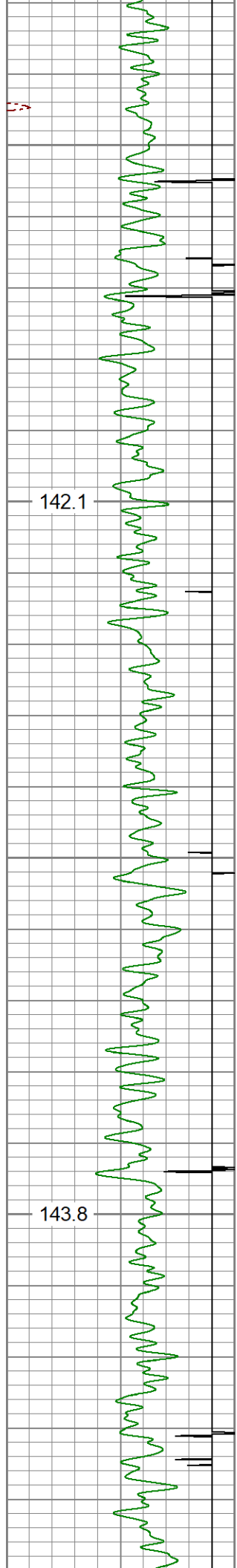


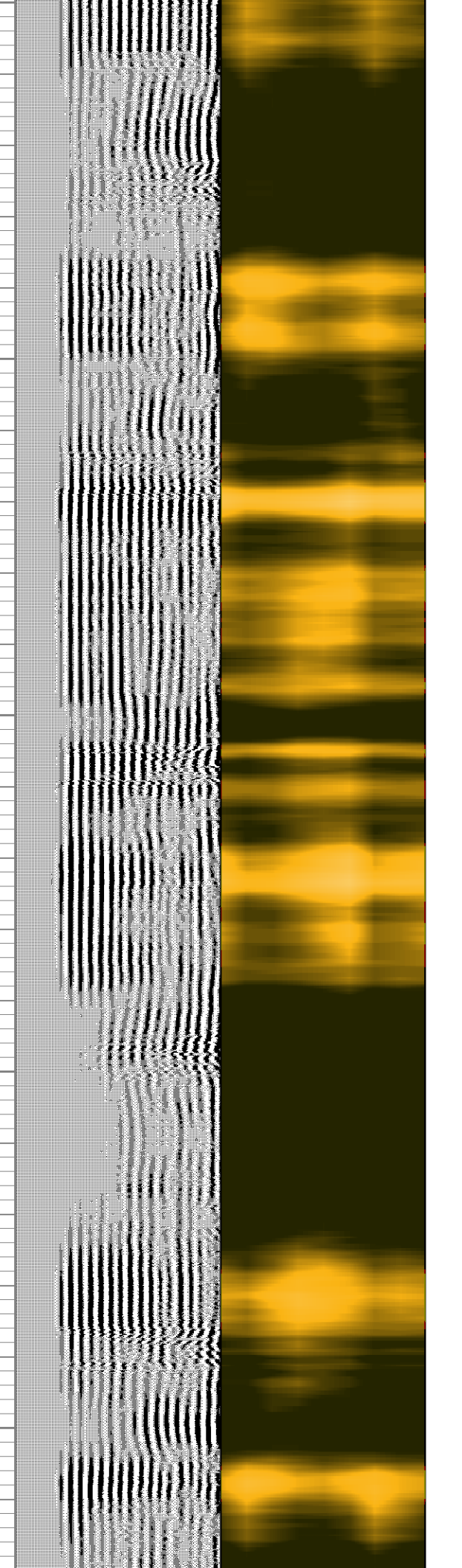
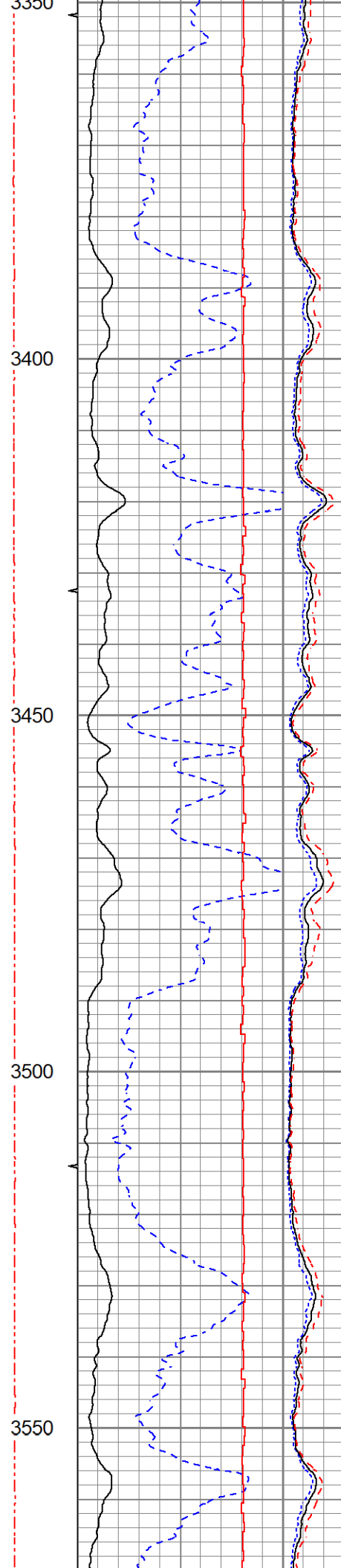
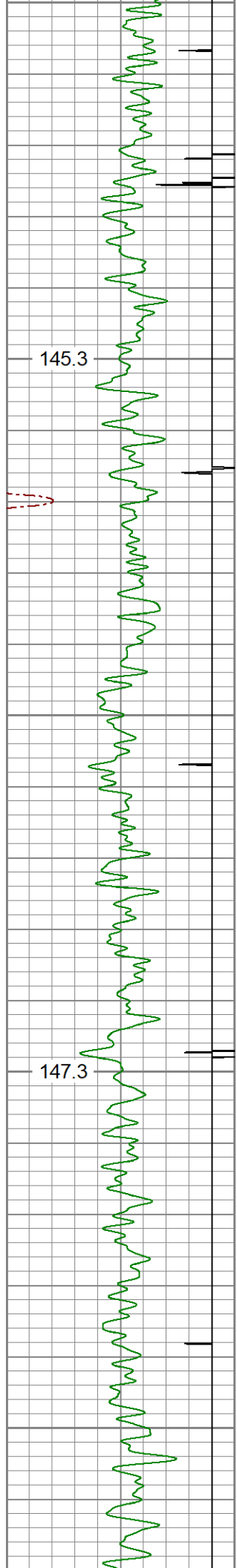


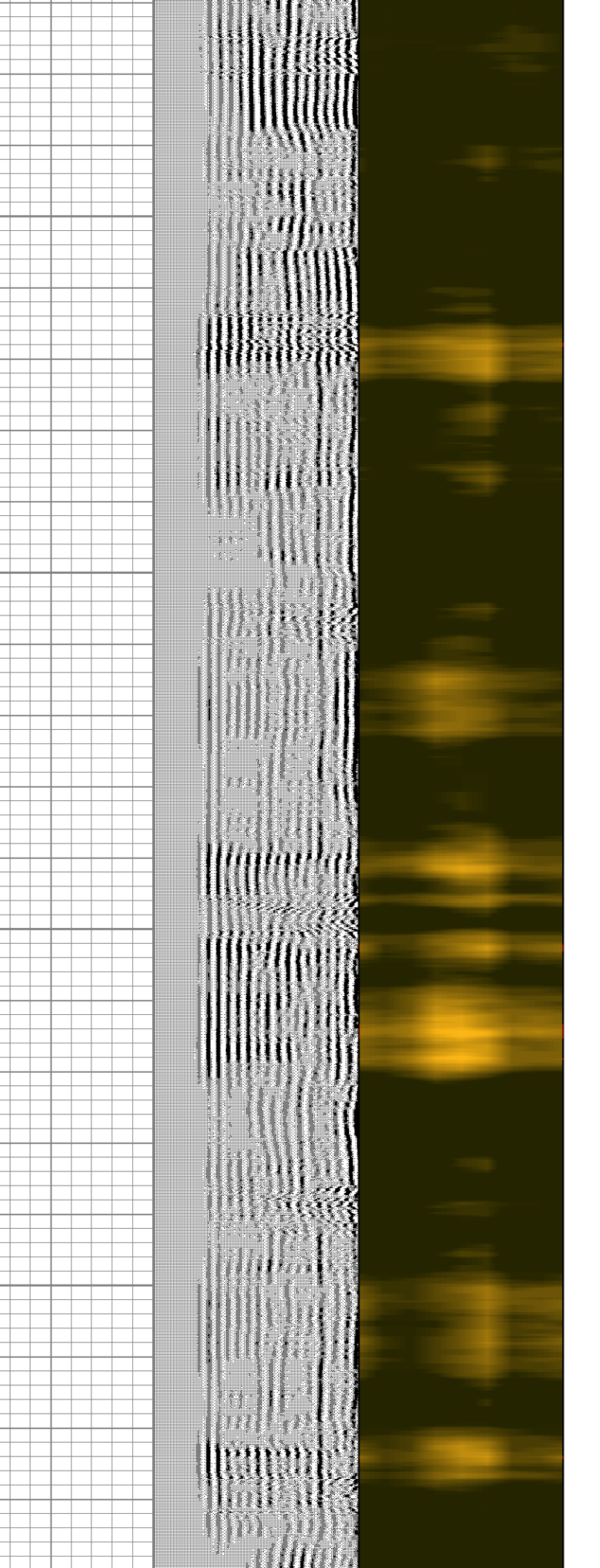
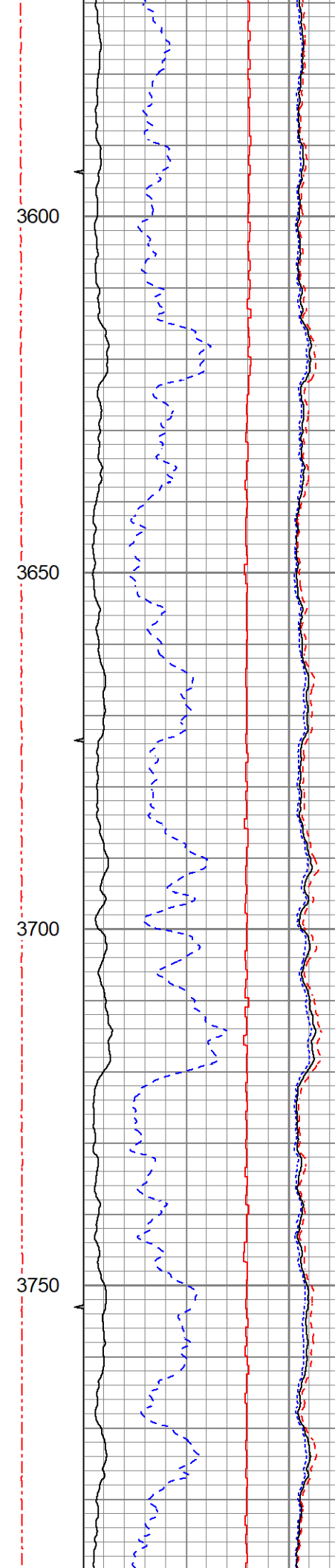
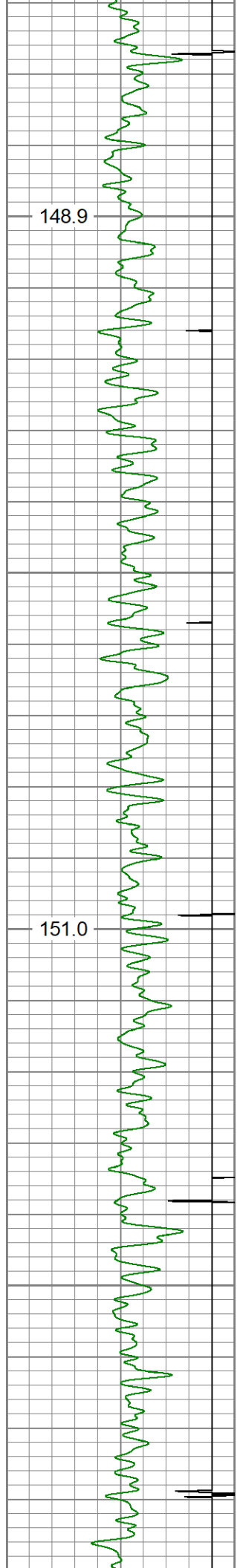


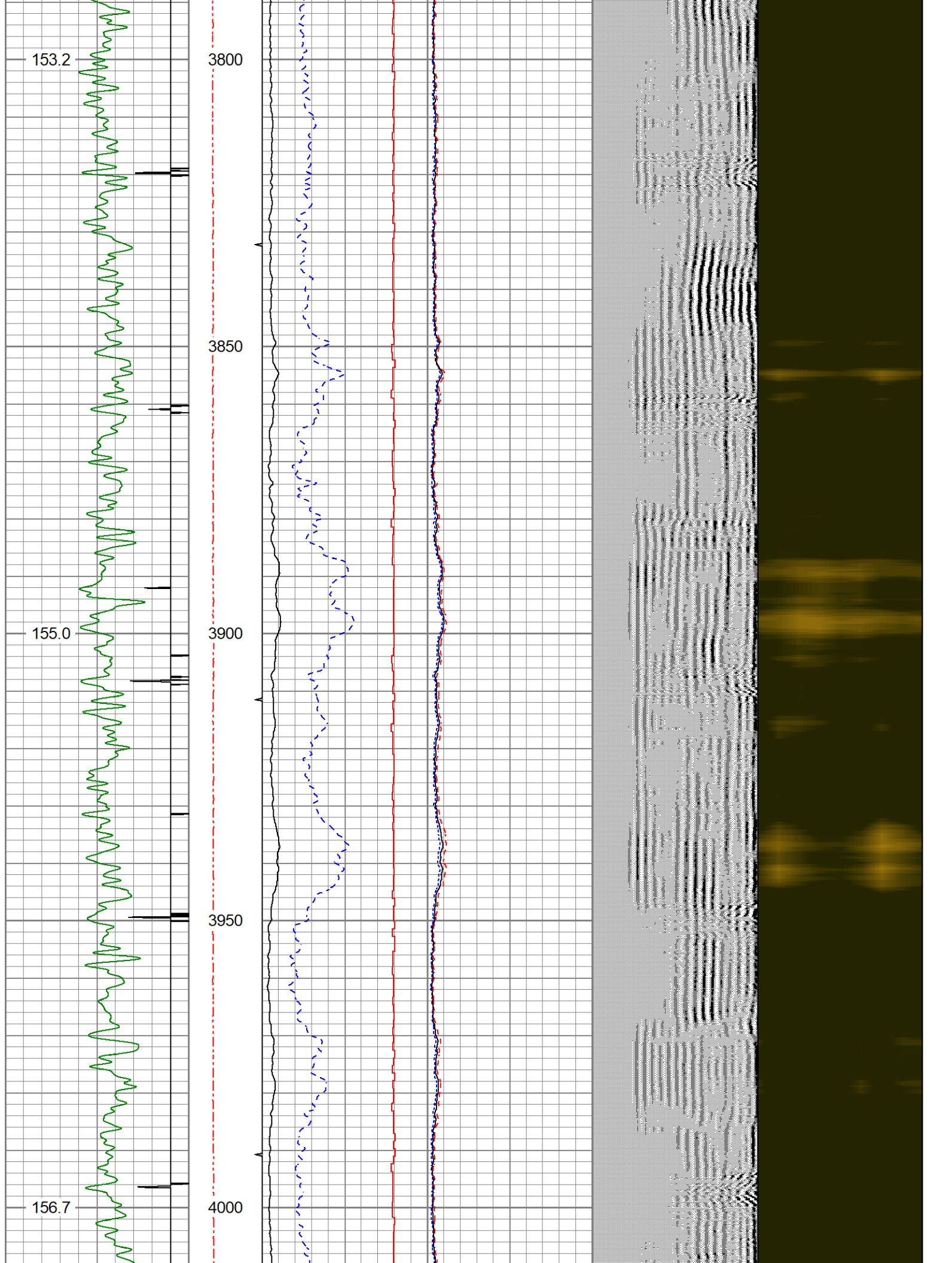


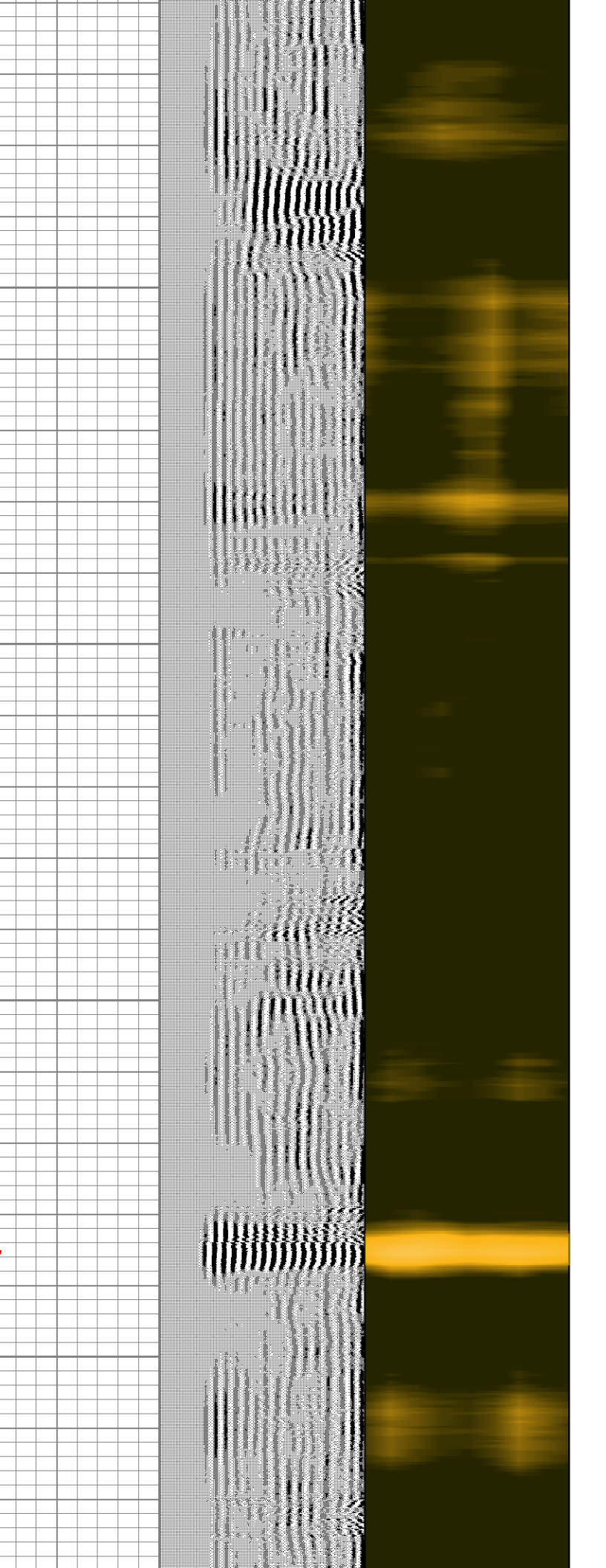
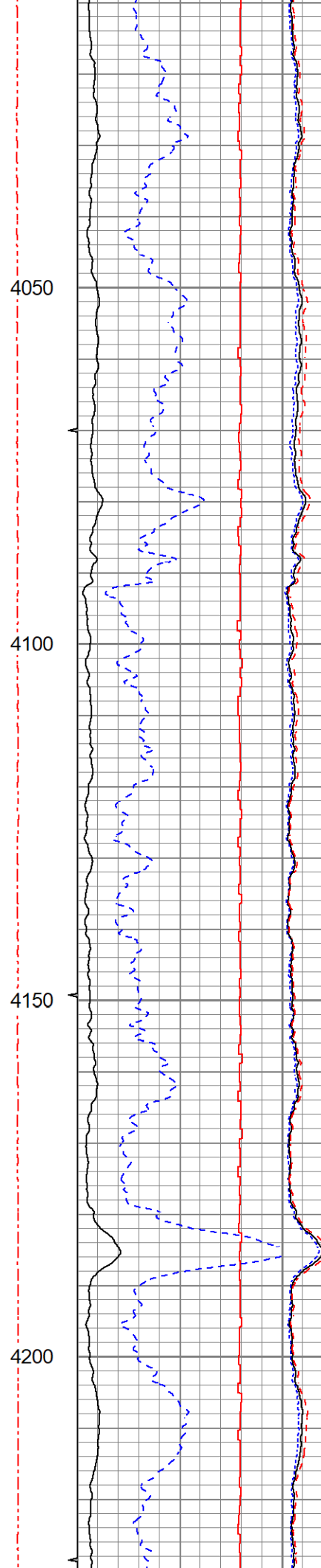
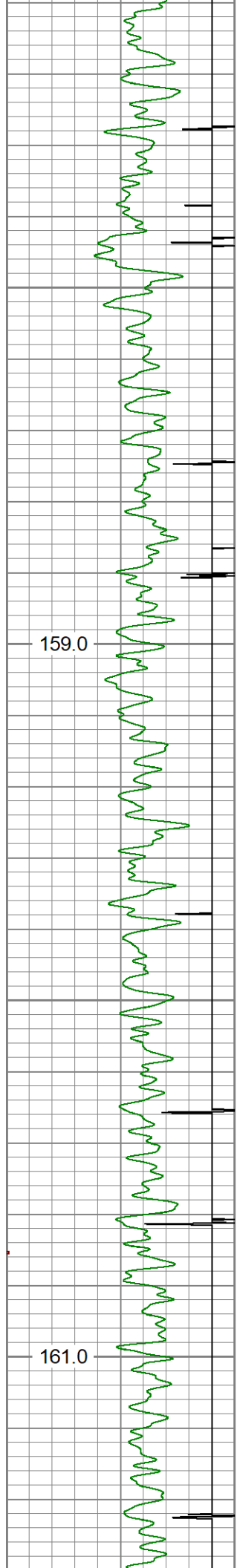


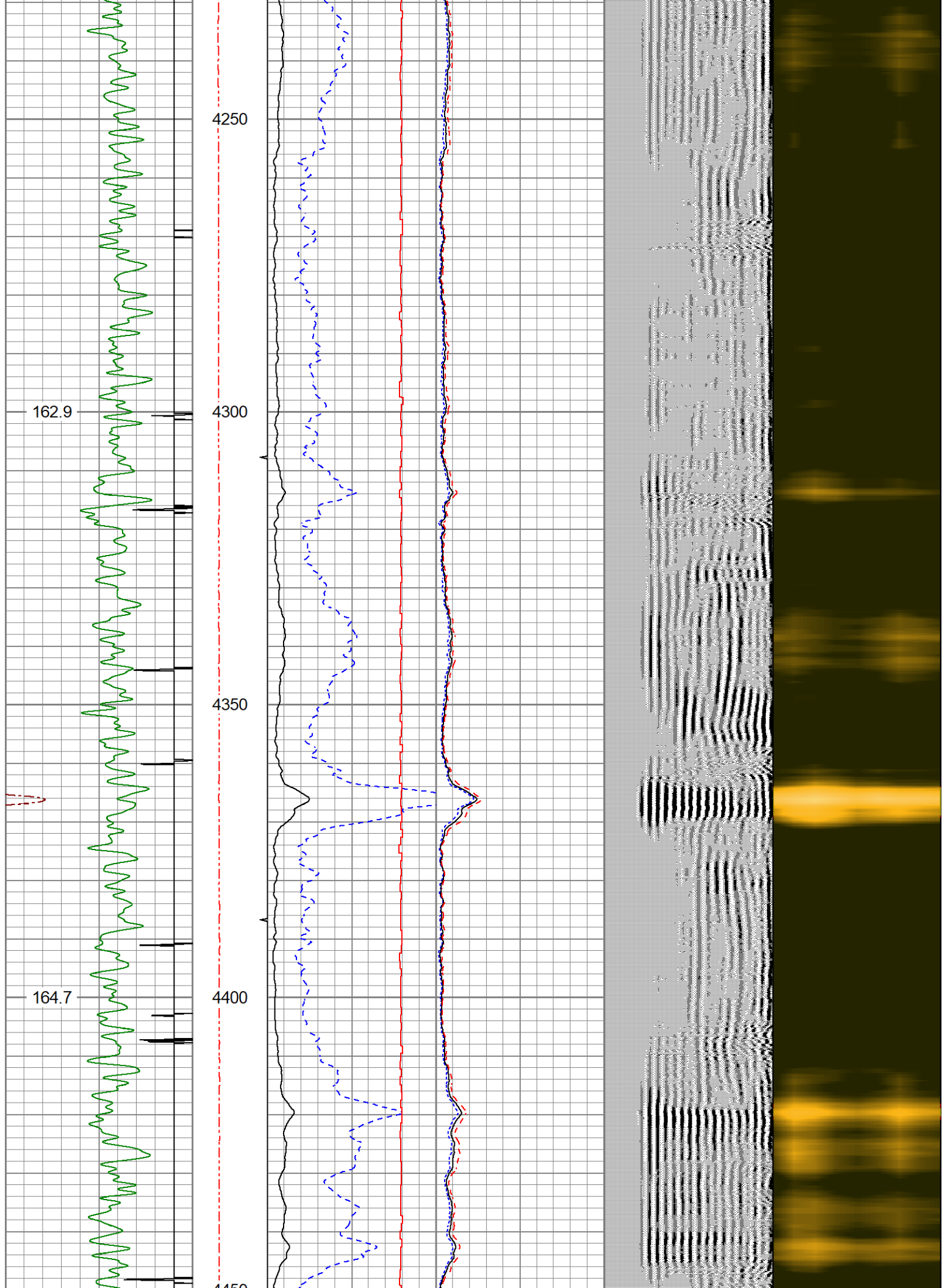


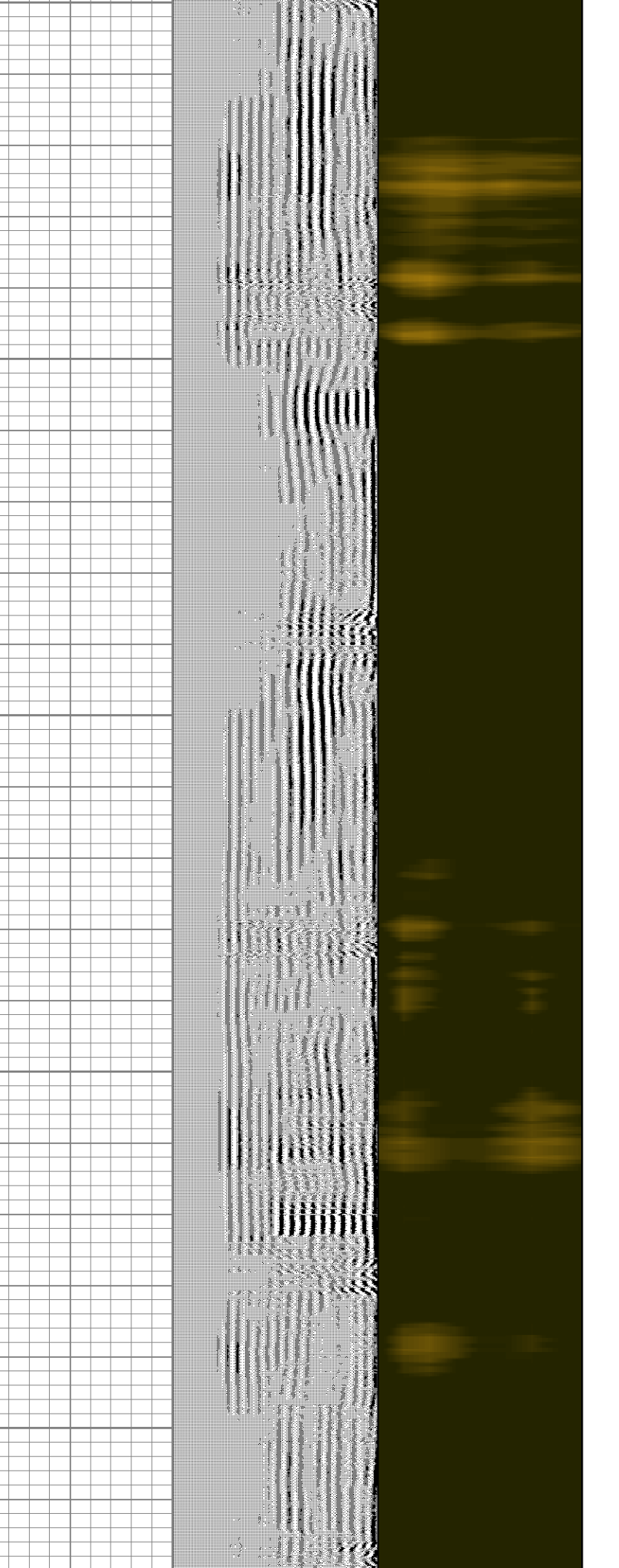
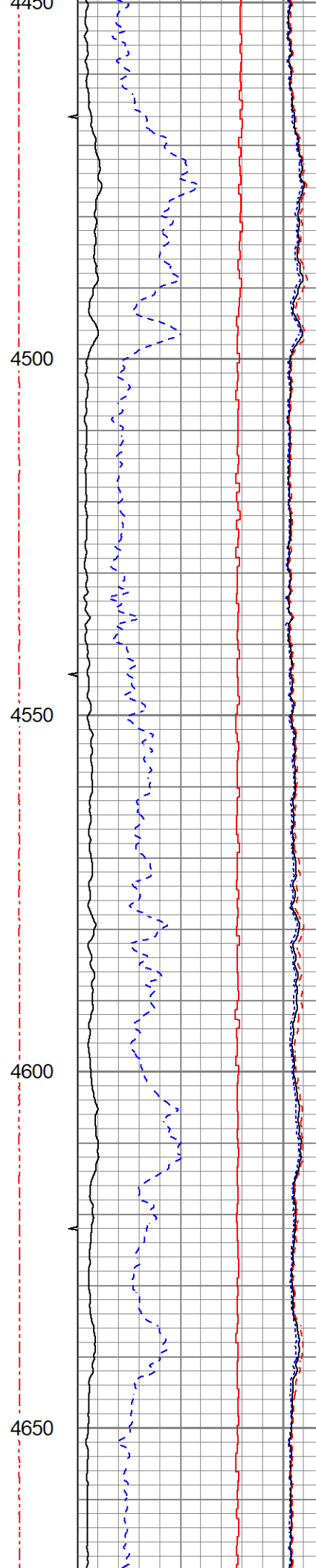
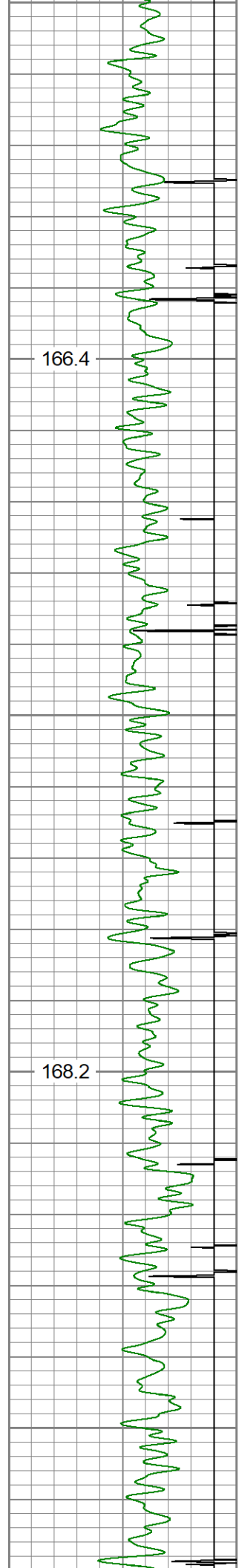












169.6

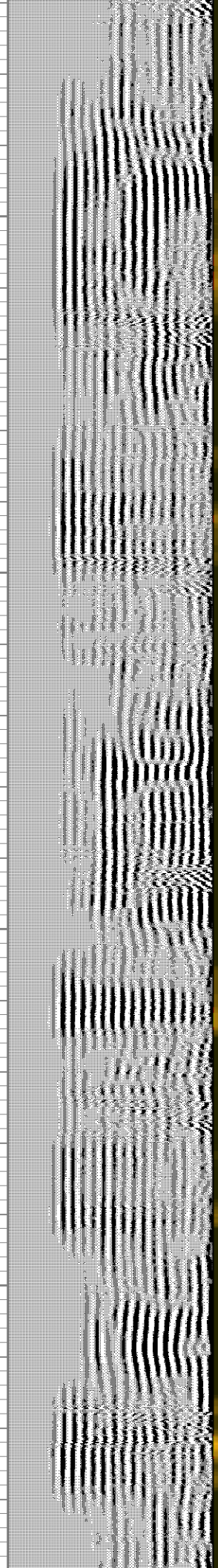
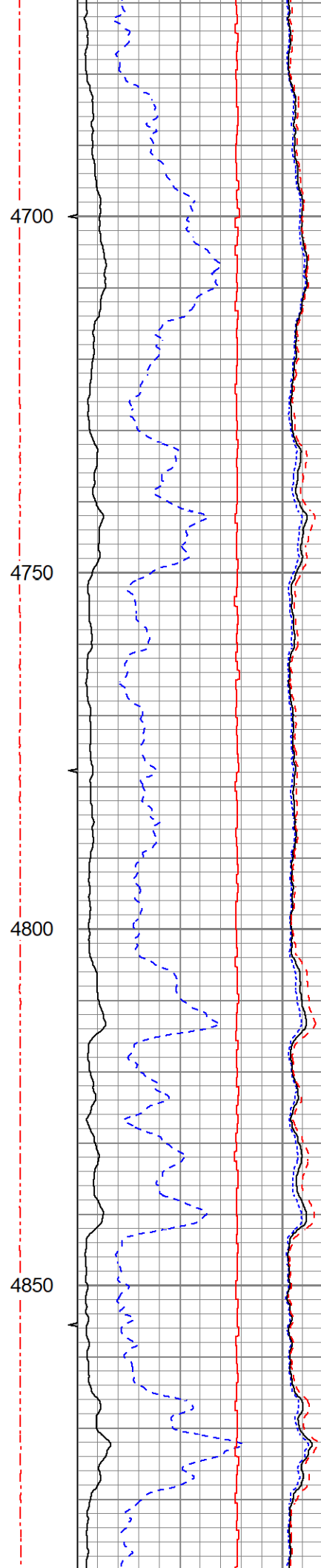
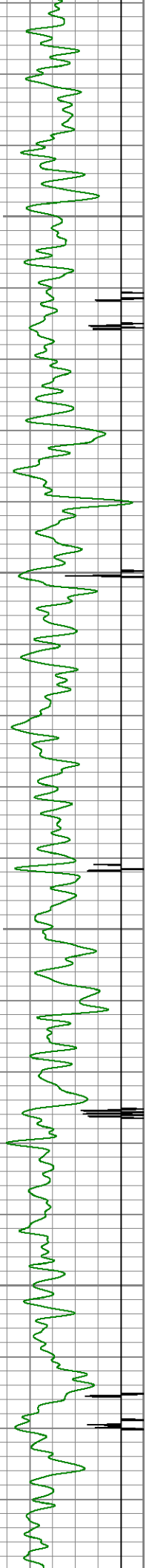
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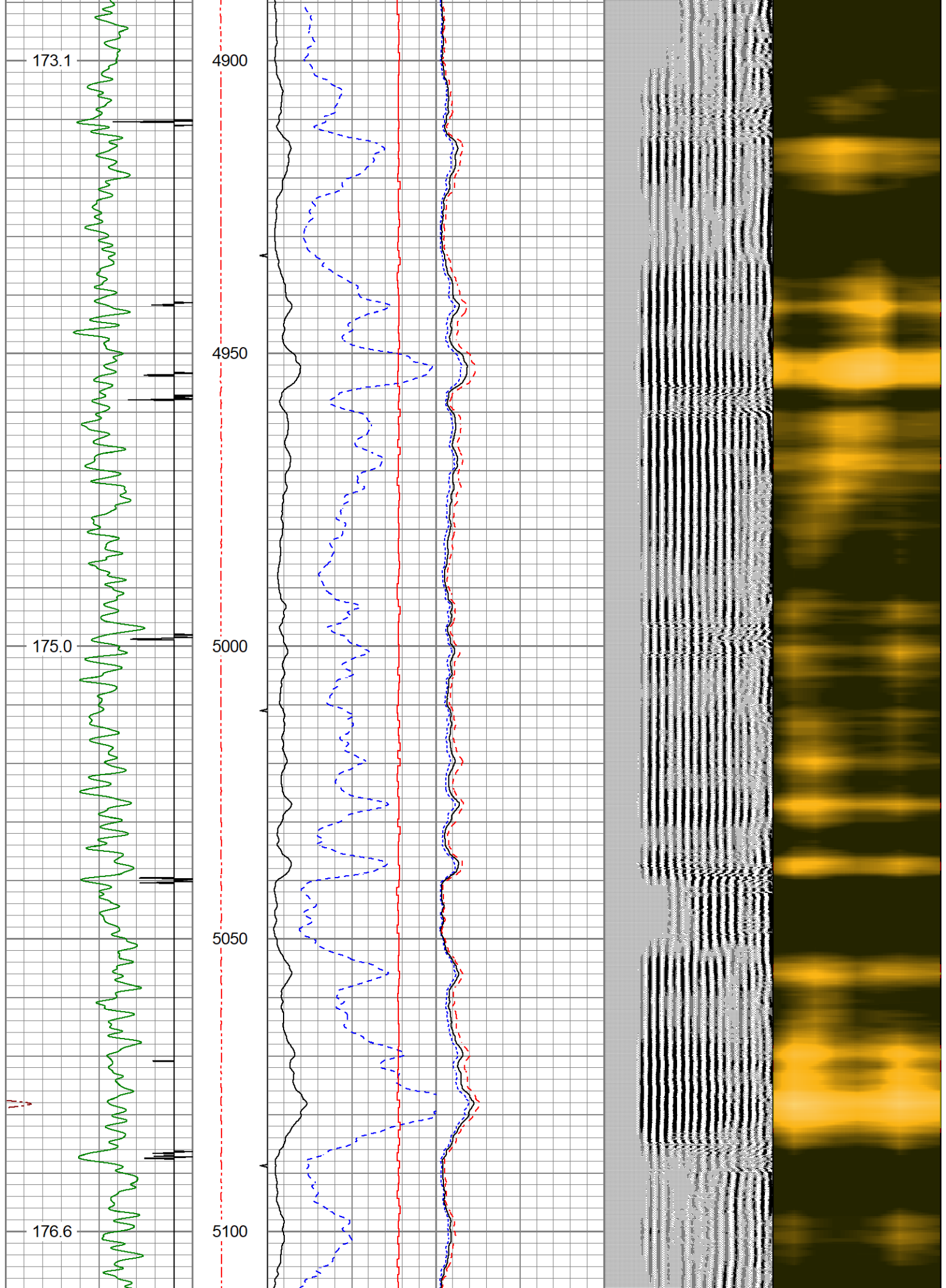
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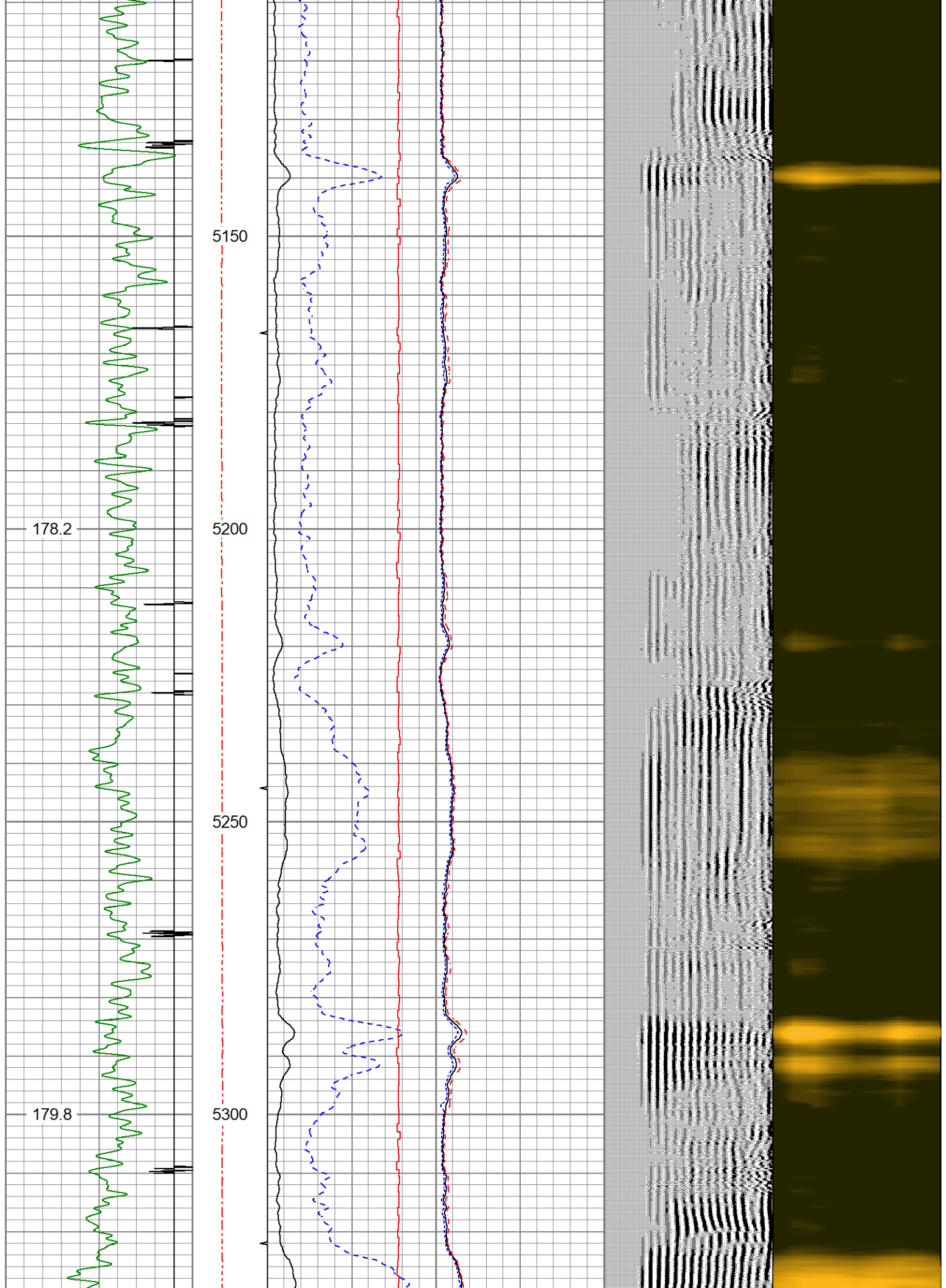
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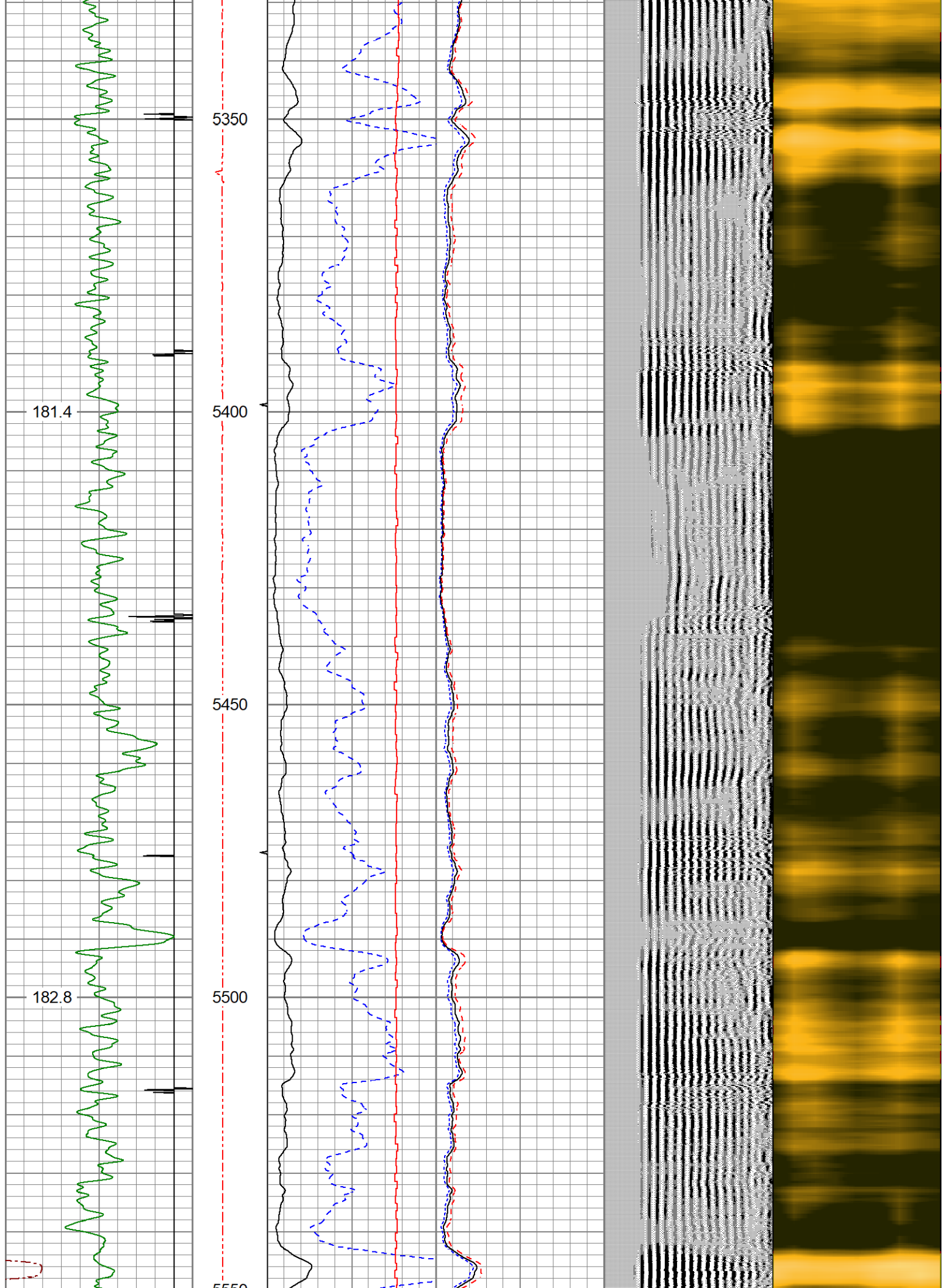
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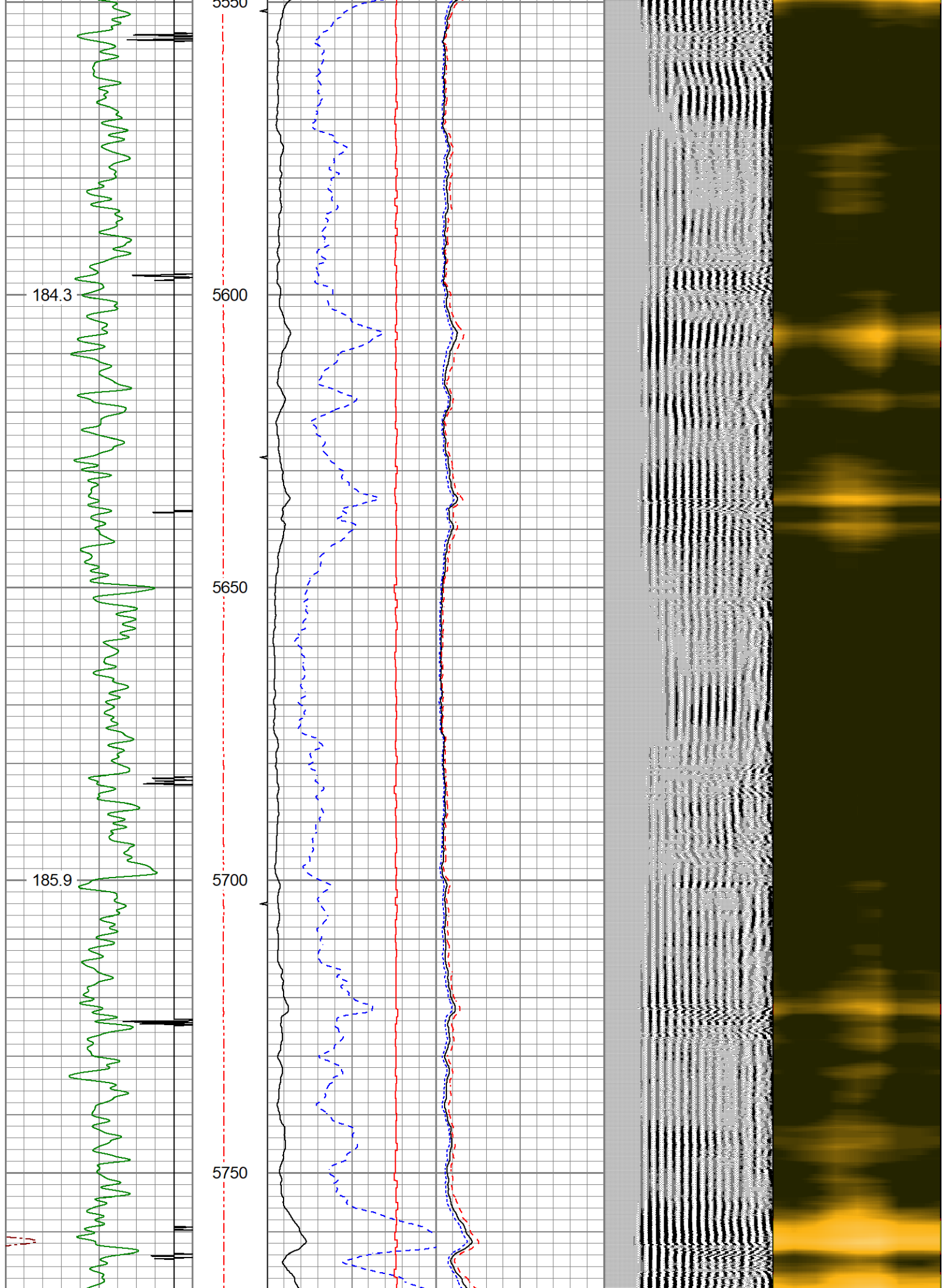
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187.6

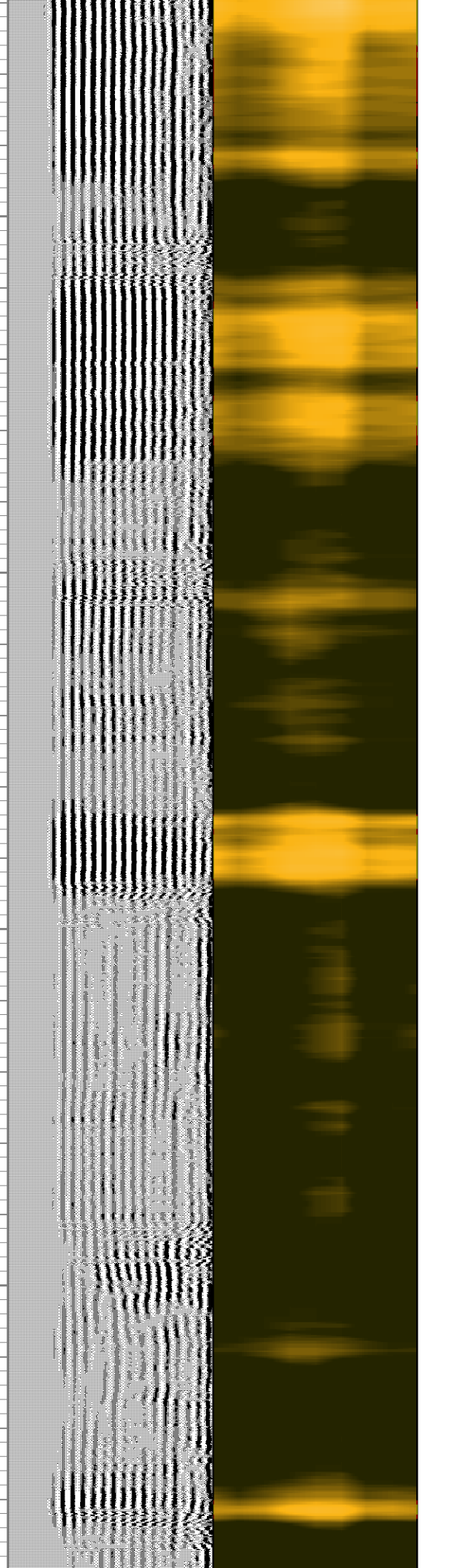
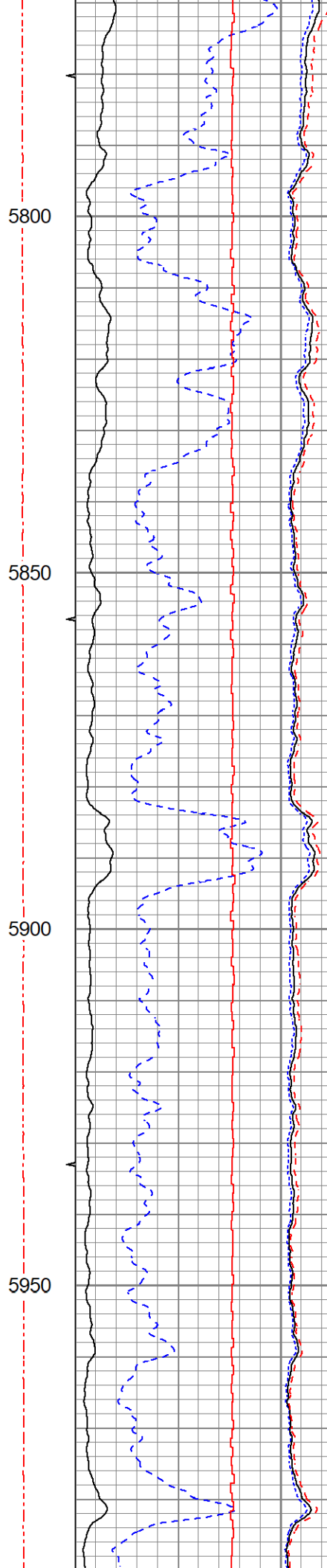
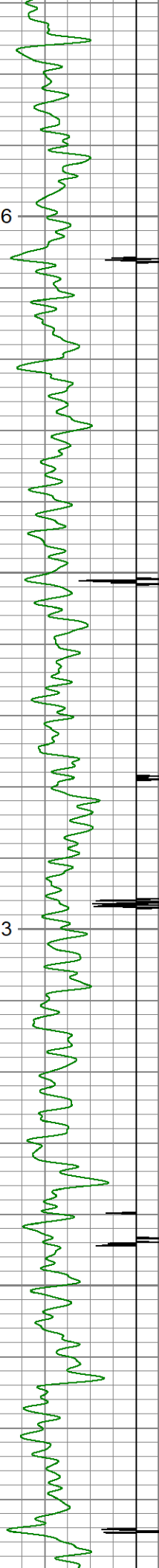
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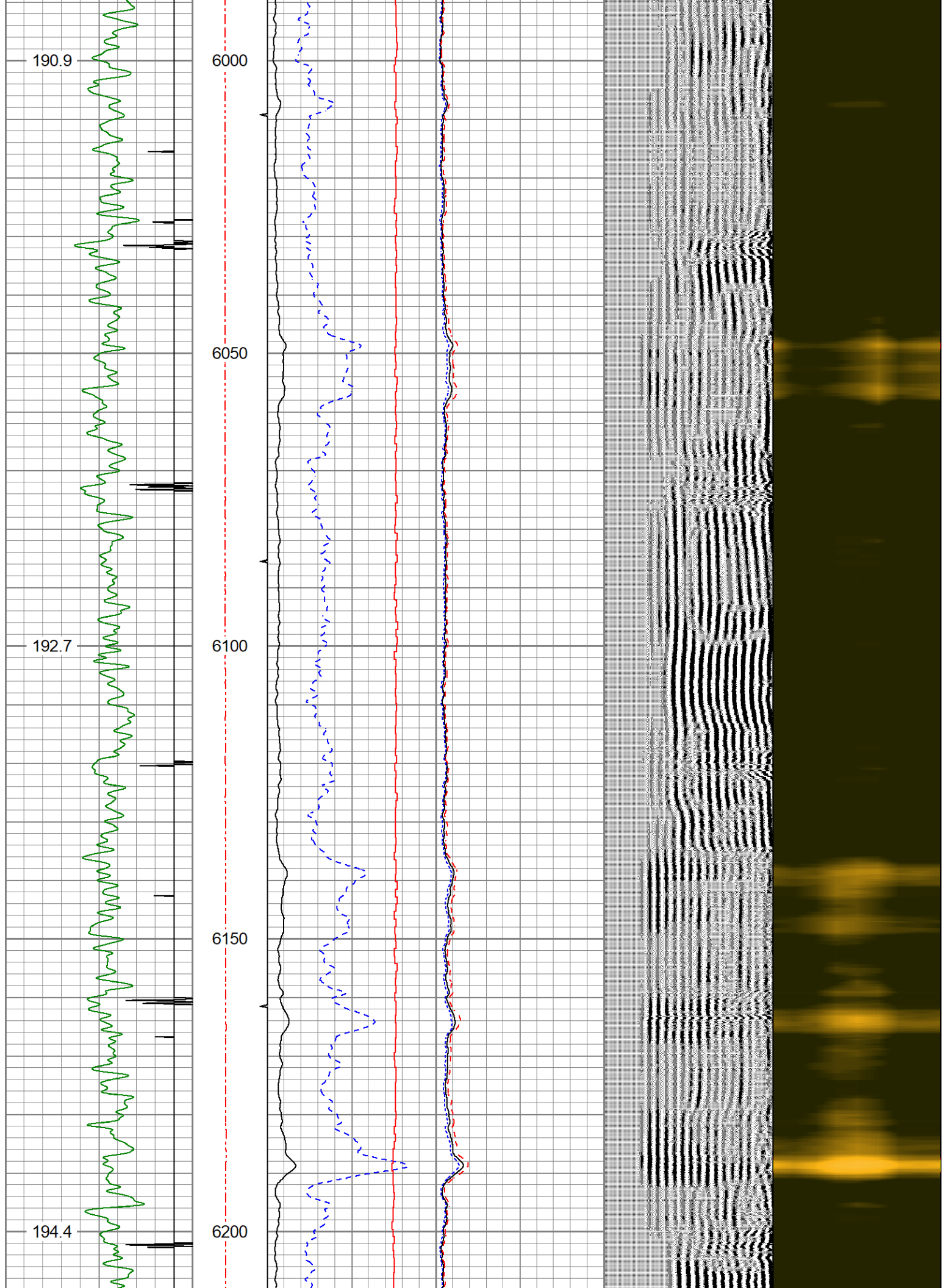
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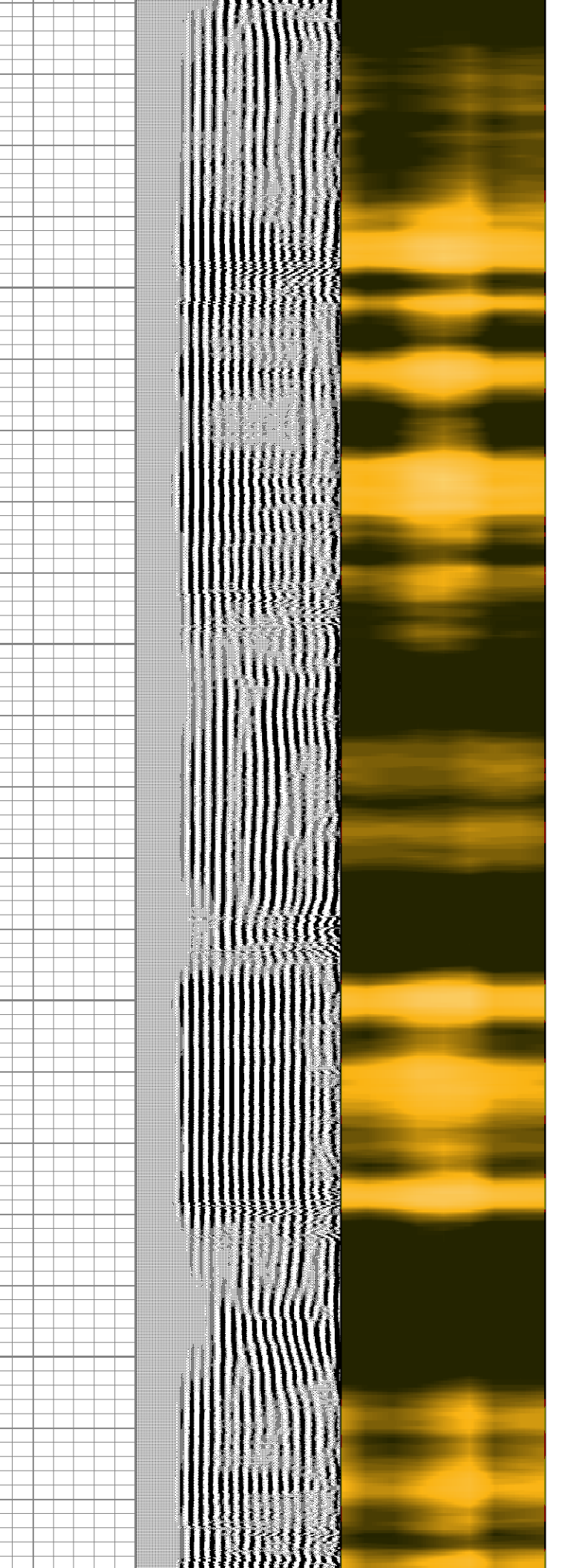
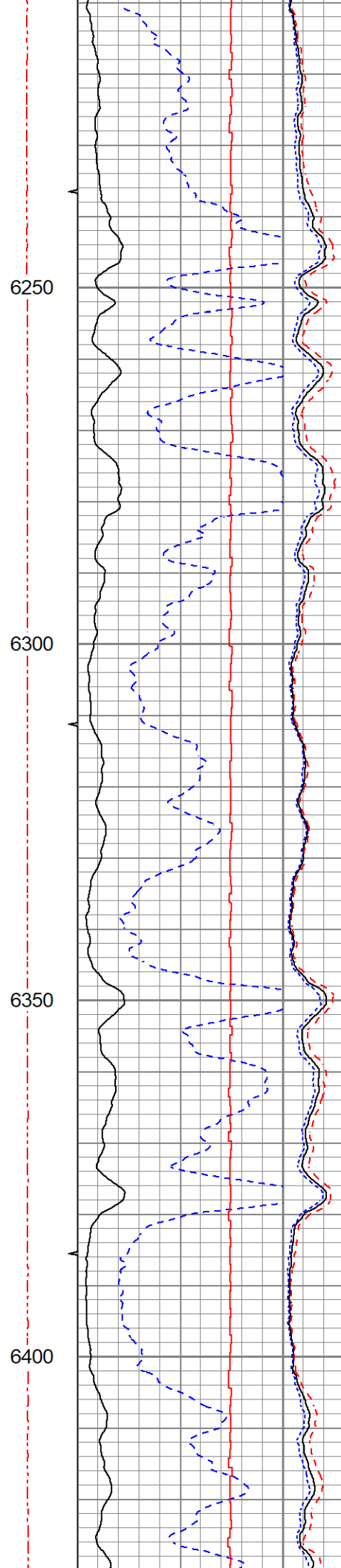
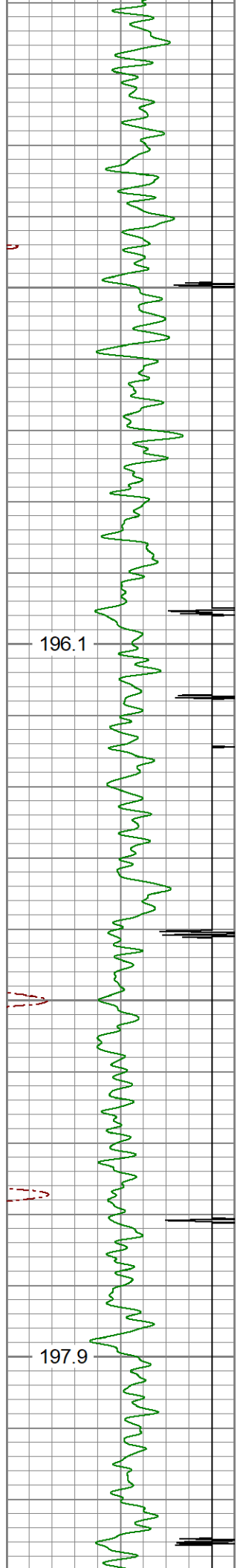
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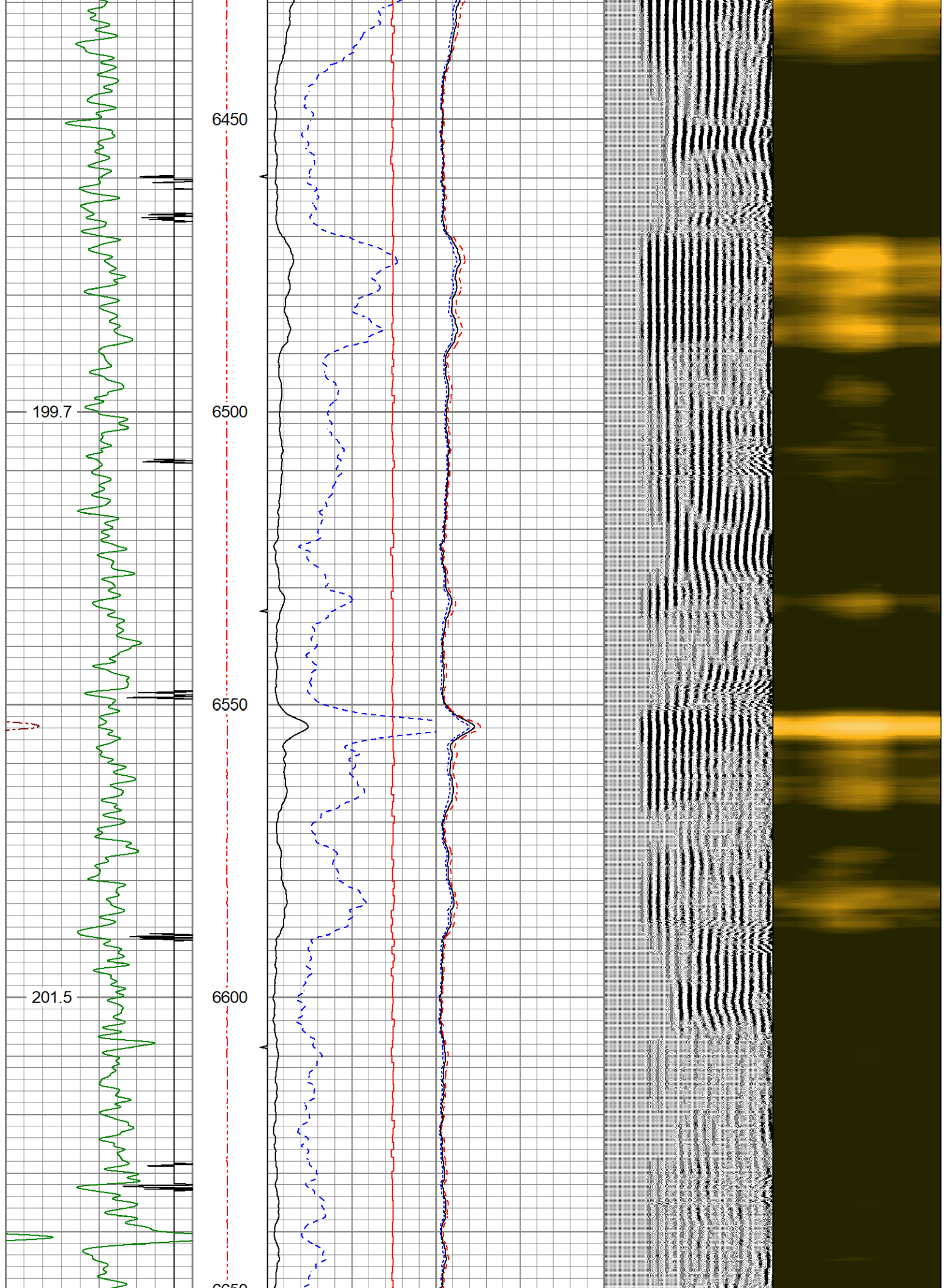
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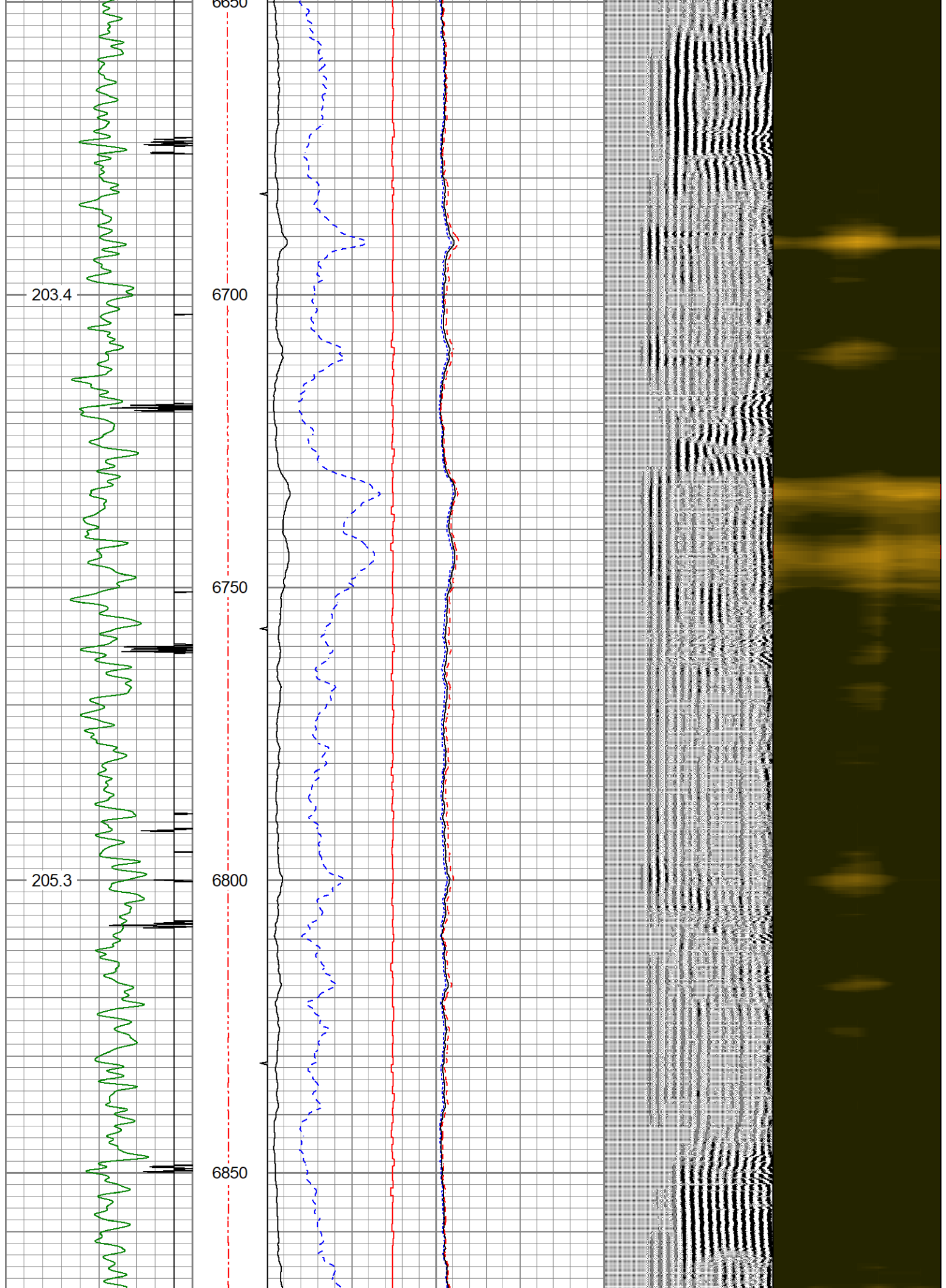
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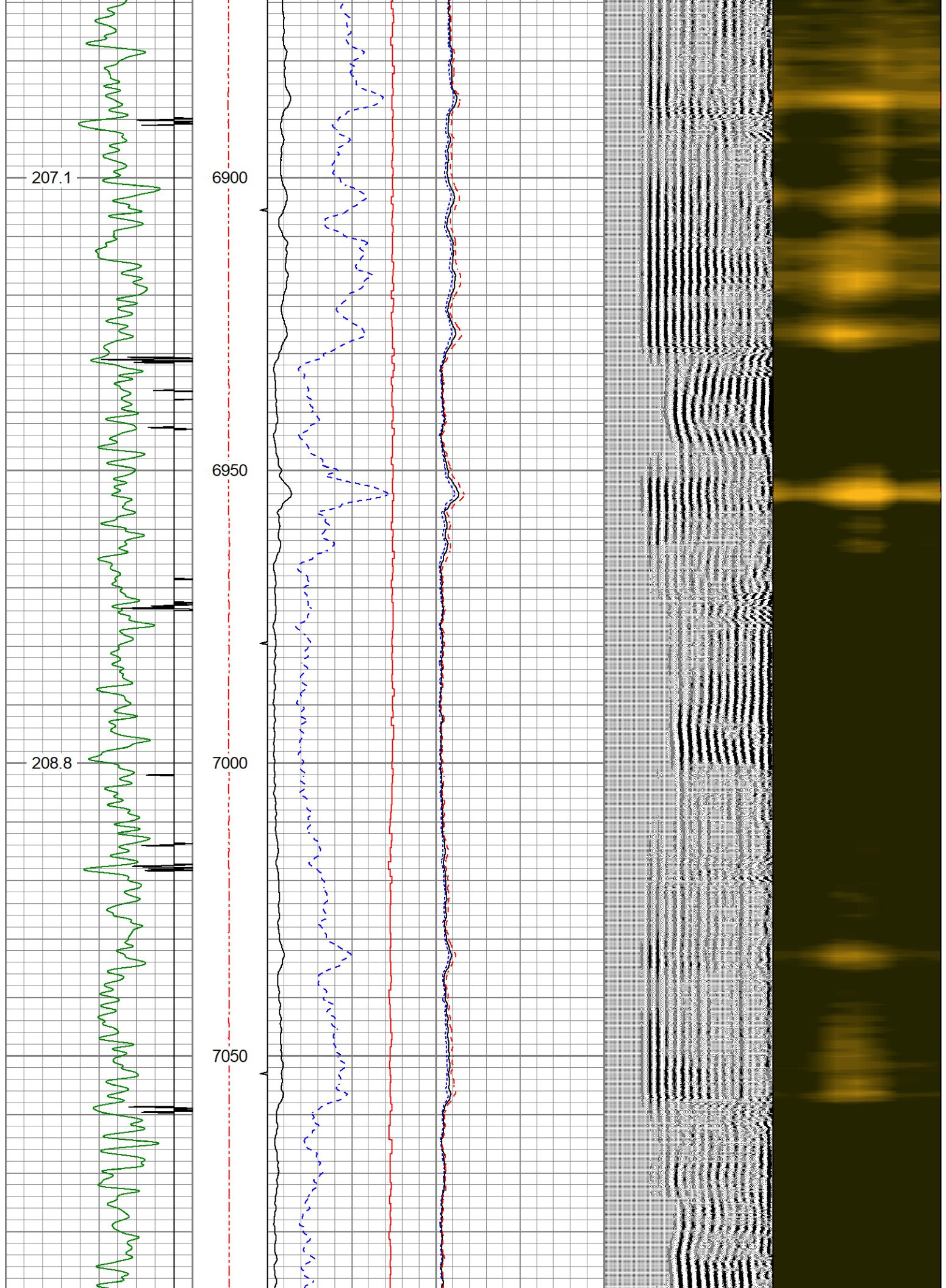


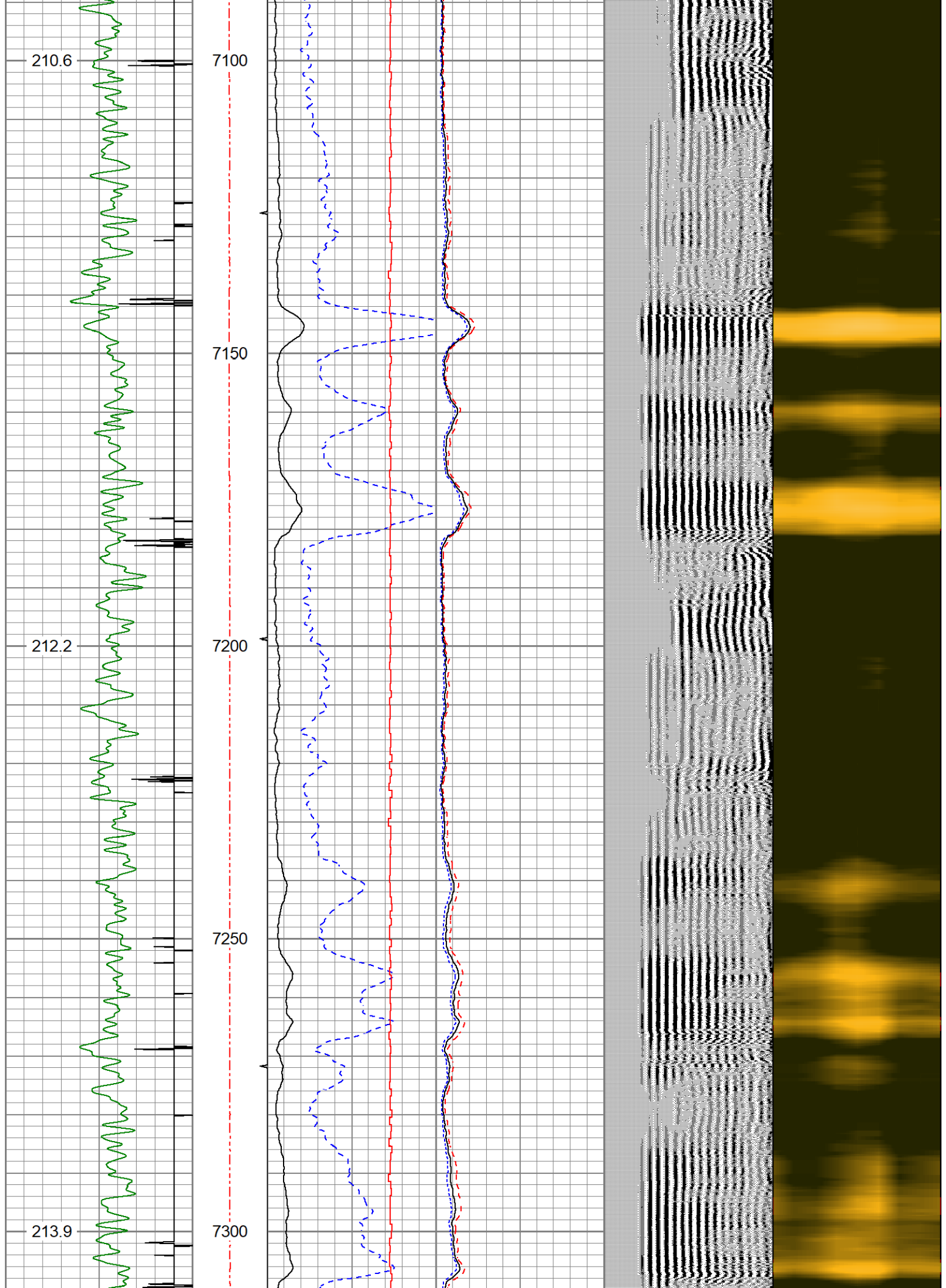


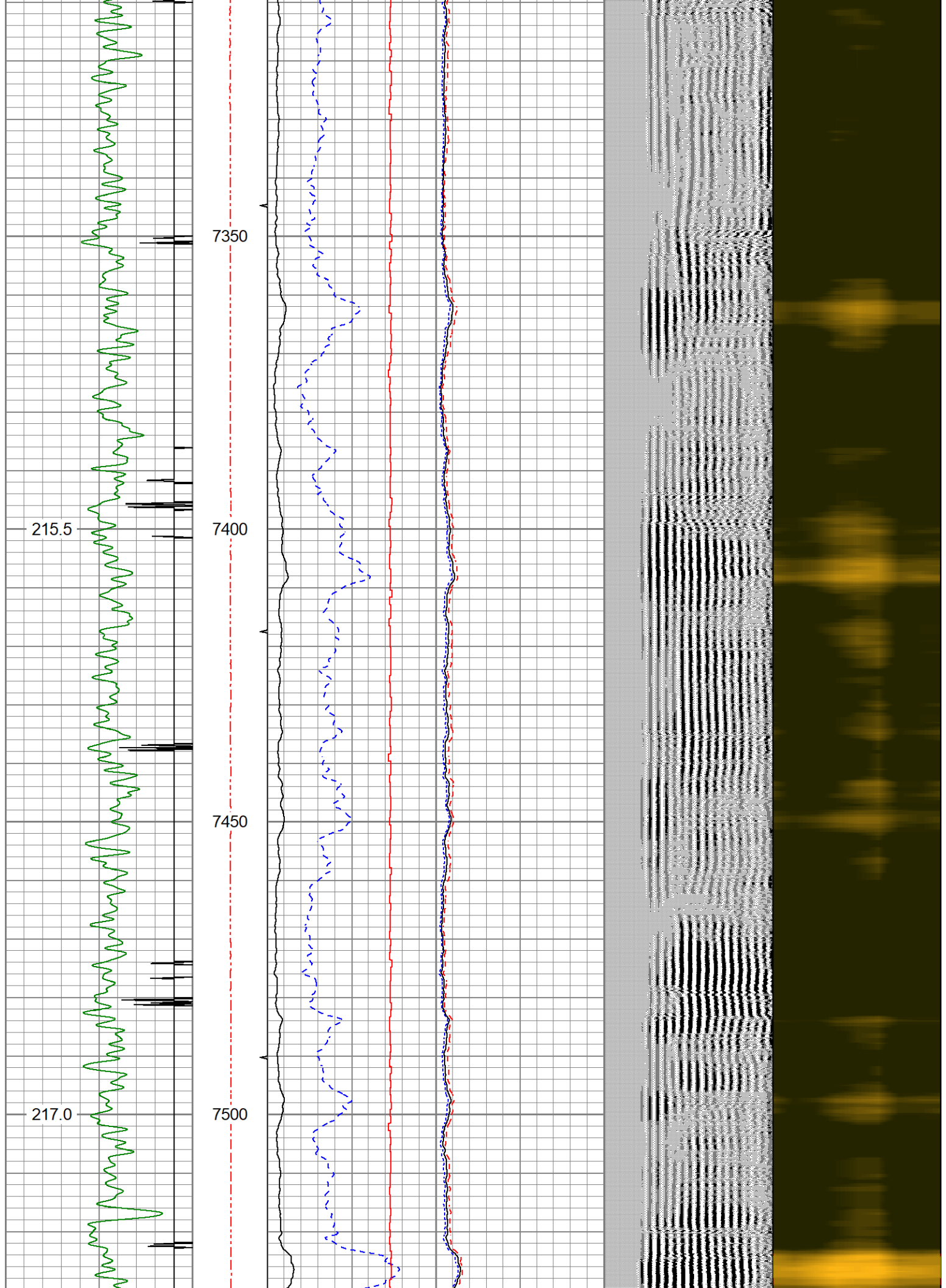


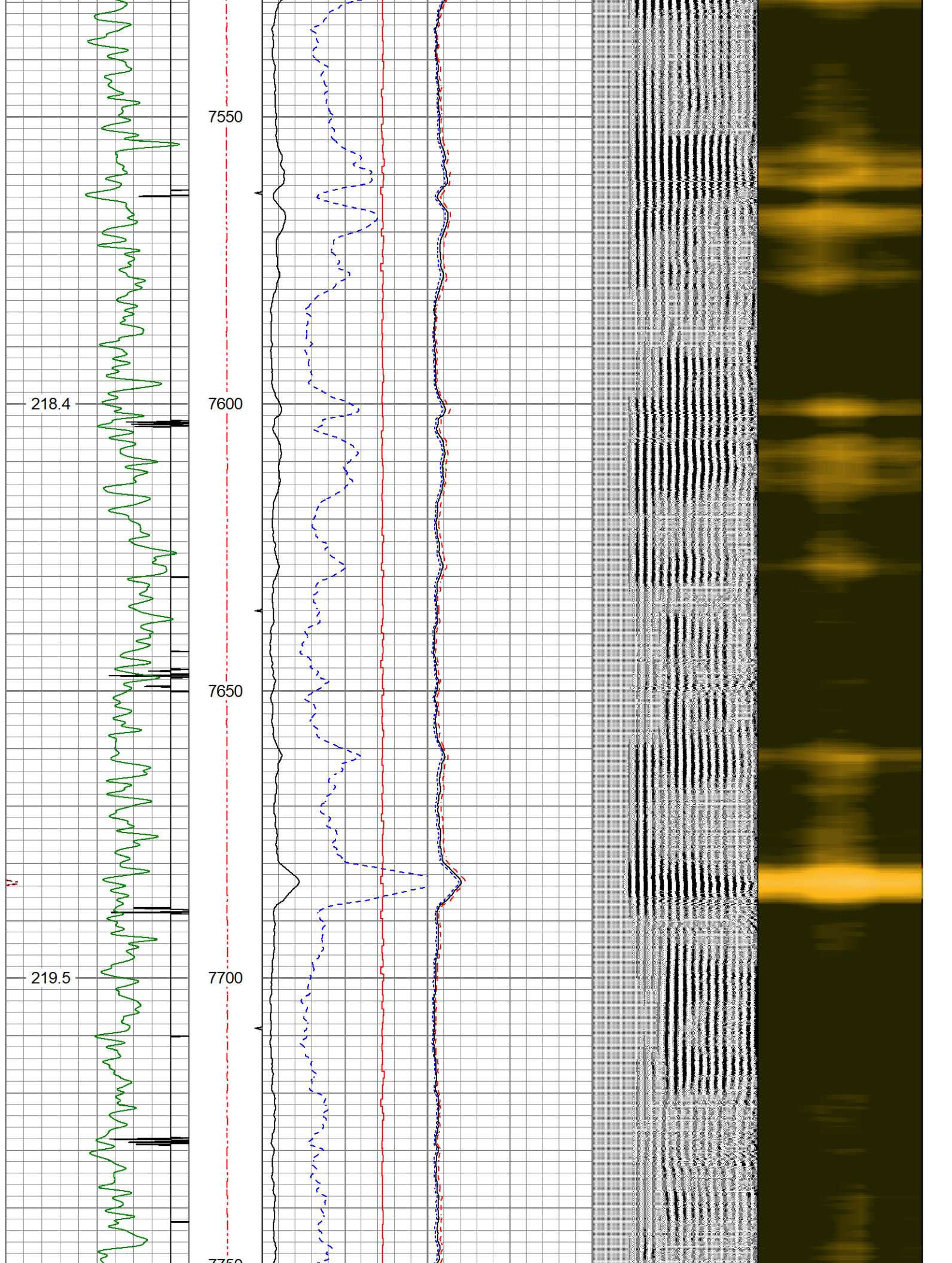


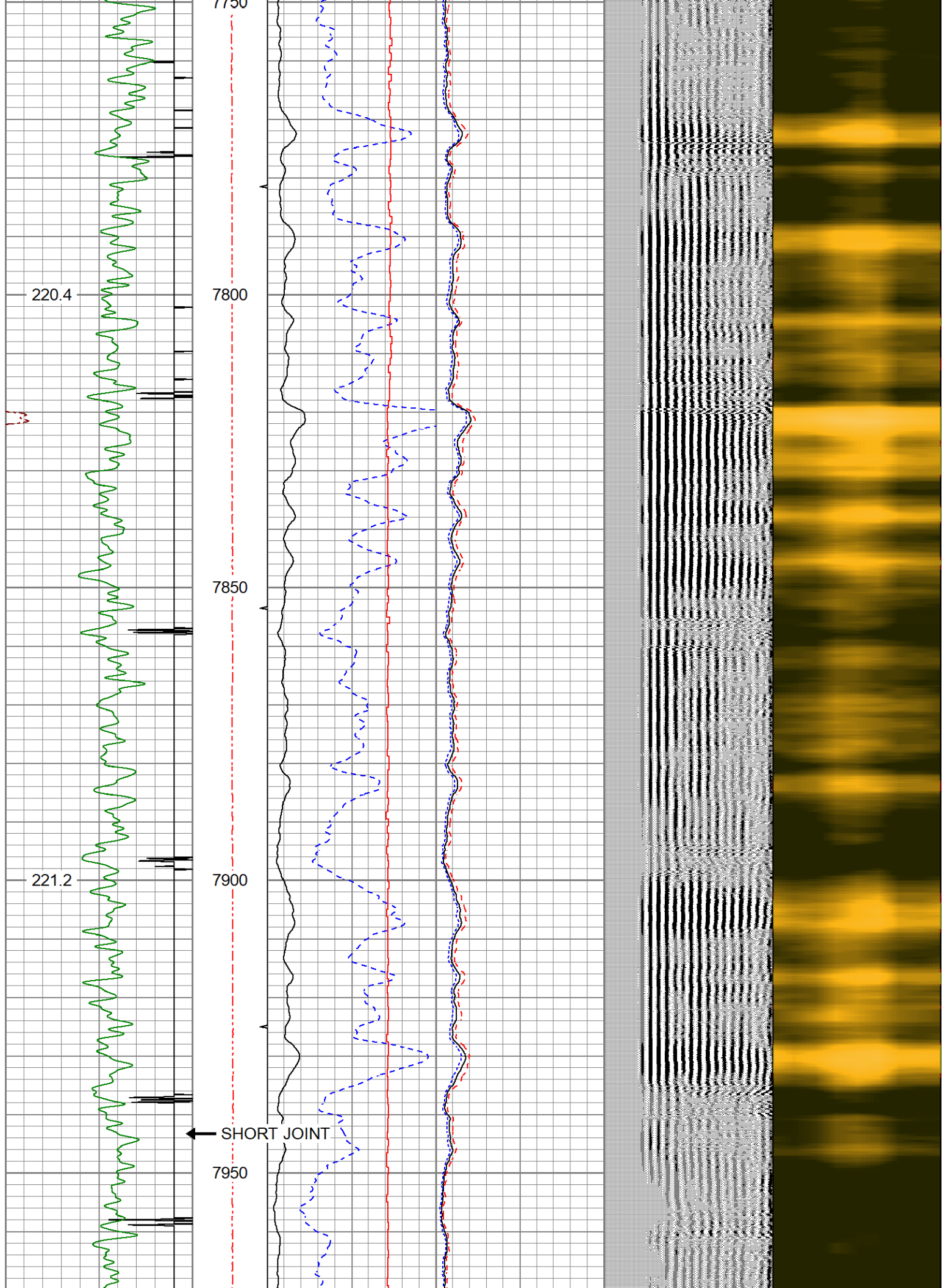












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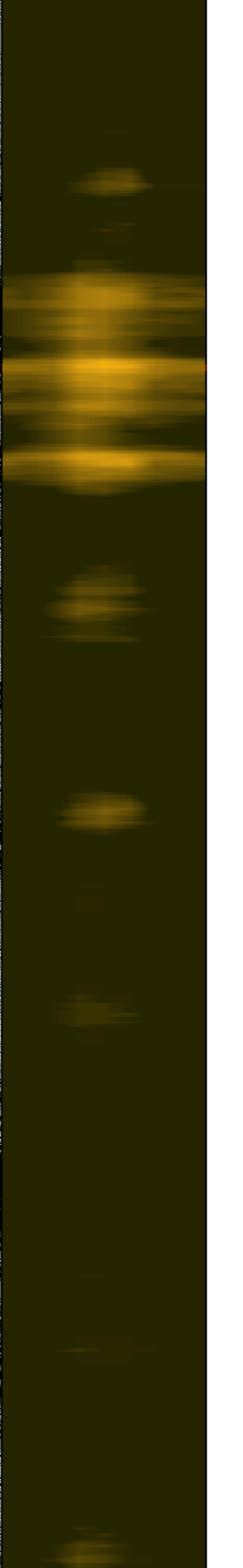
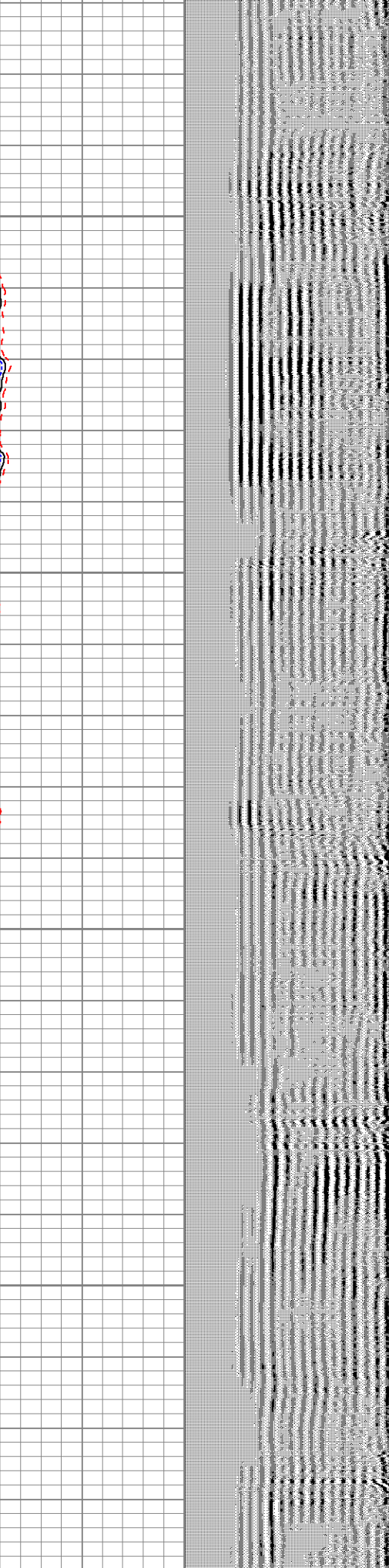
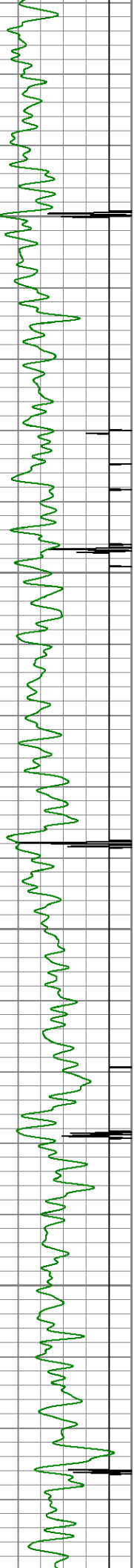
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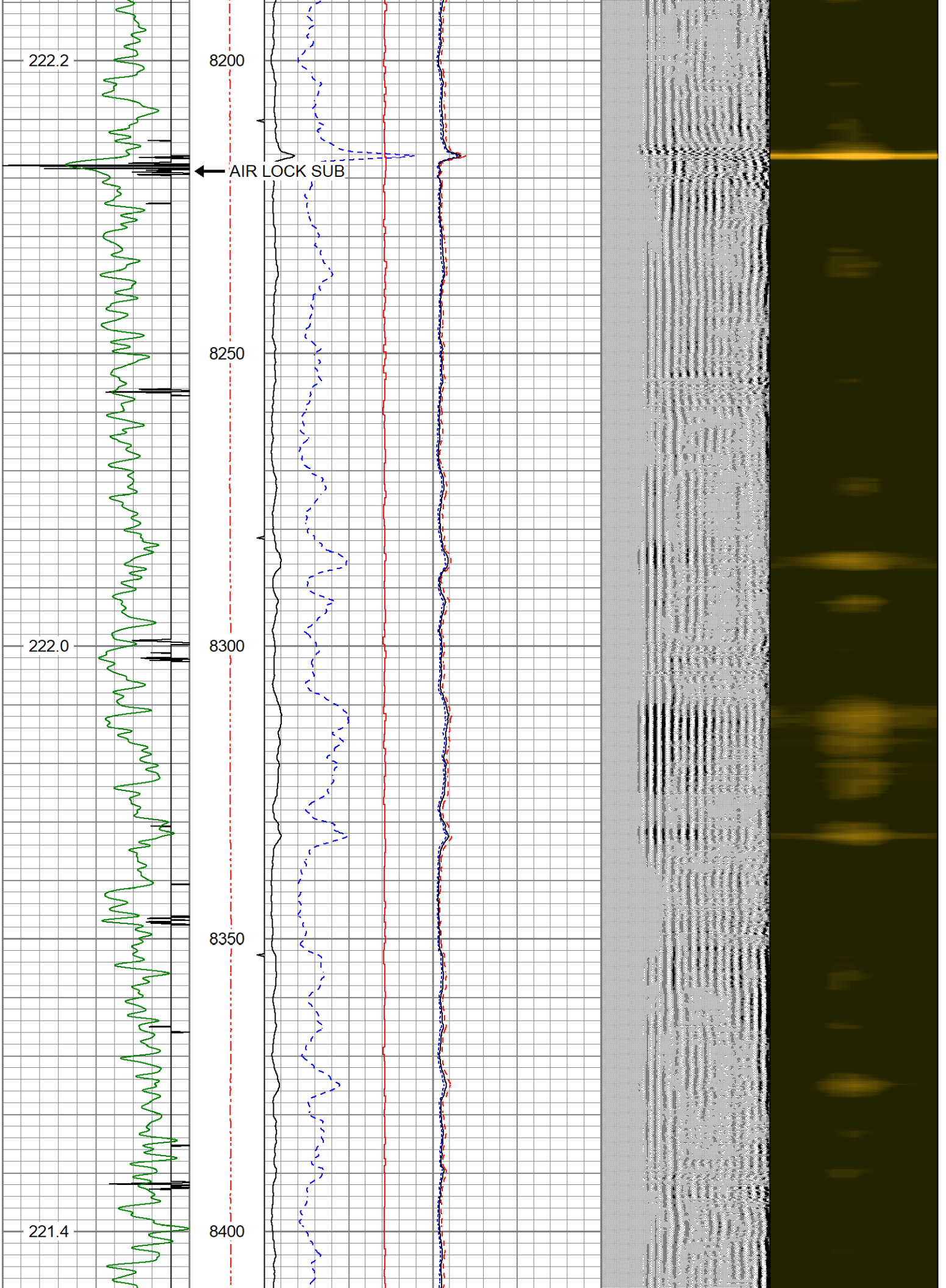
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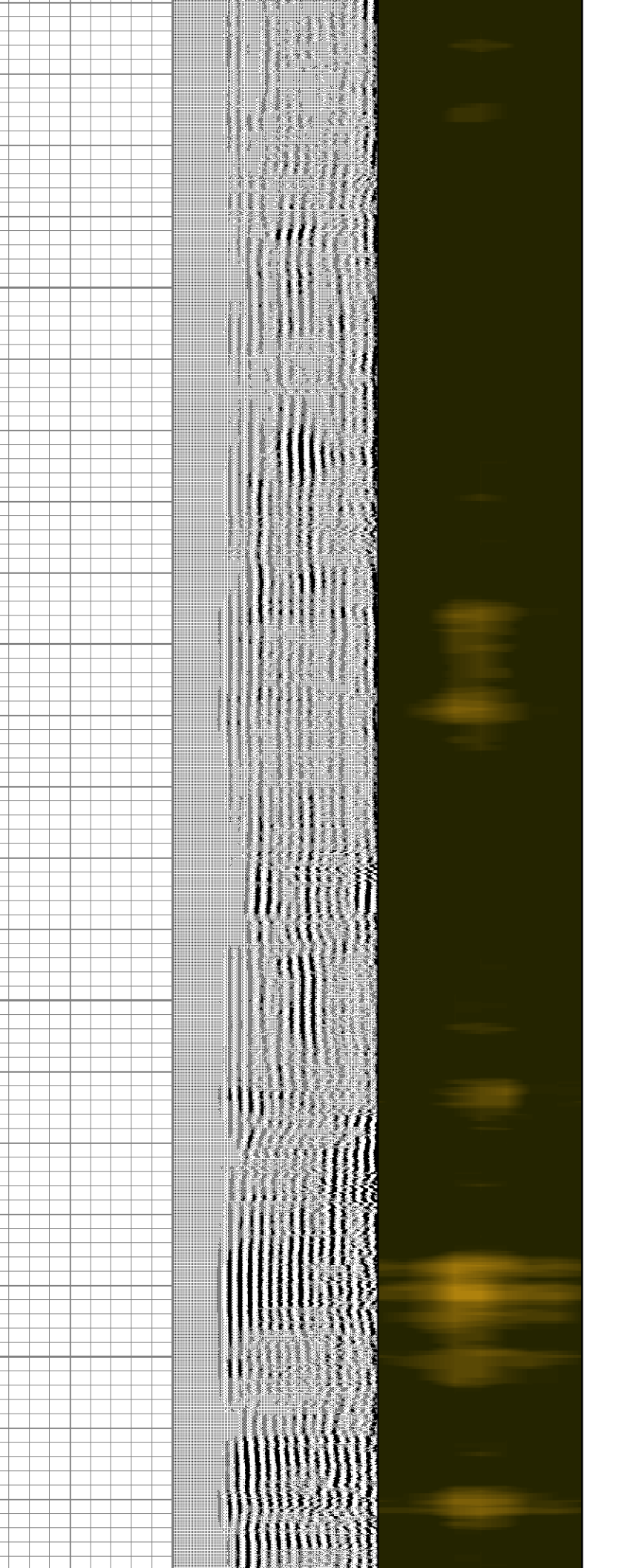
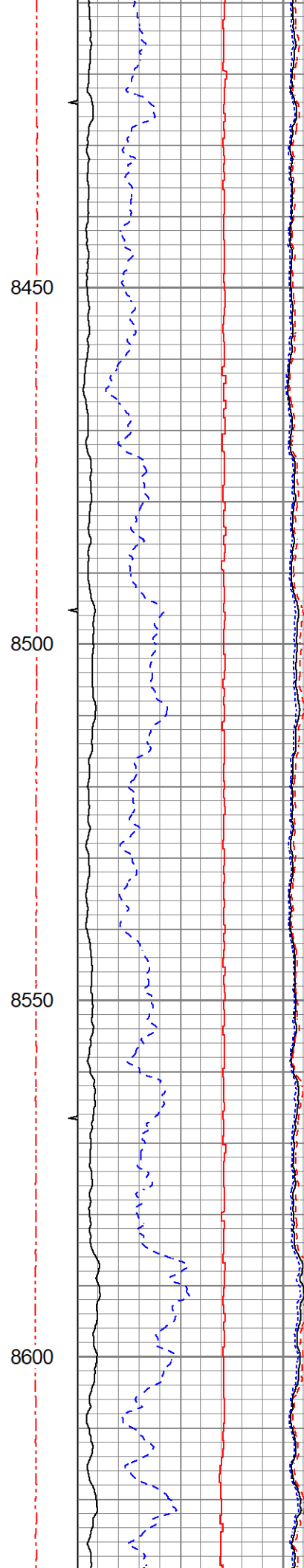
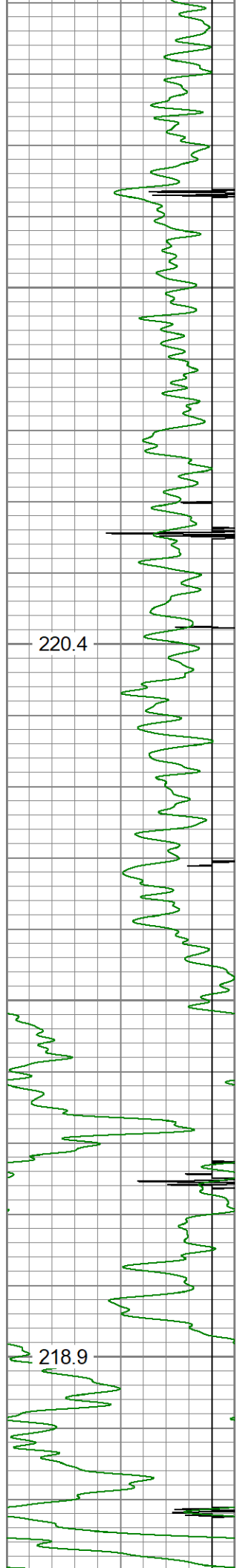
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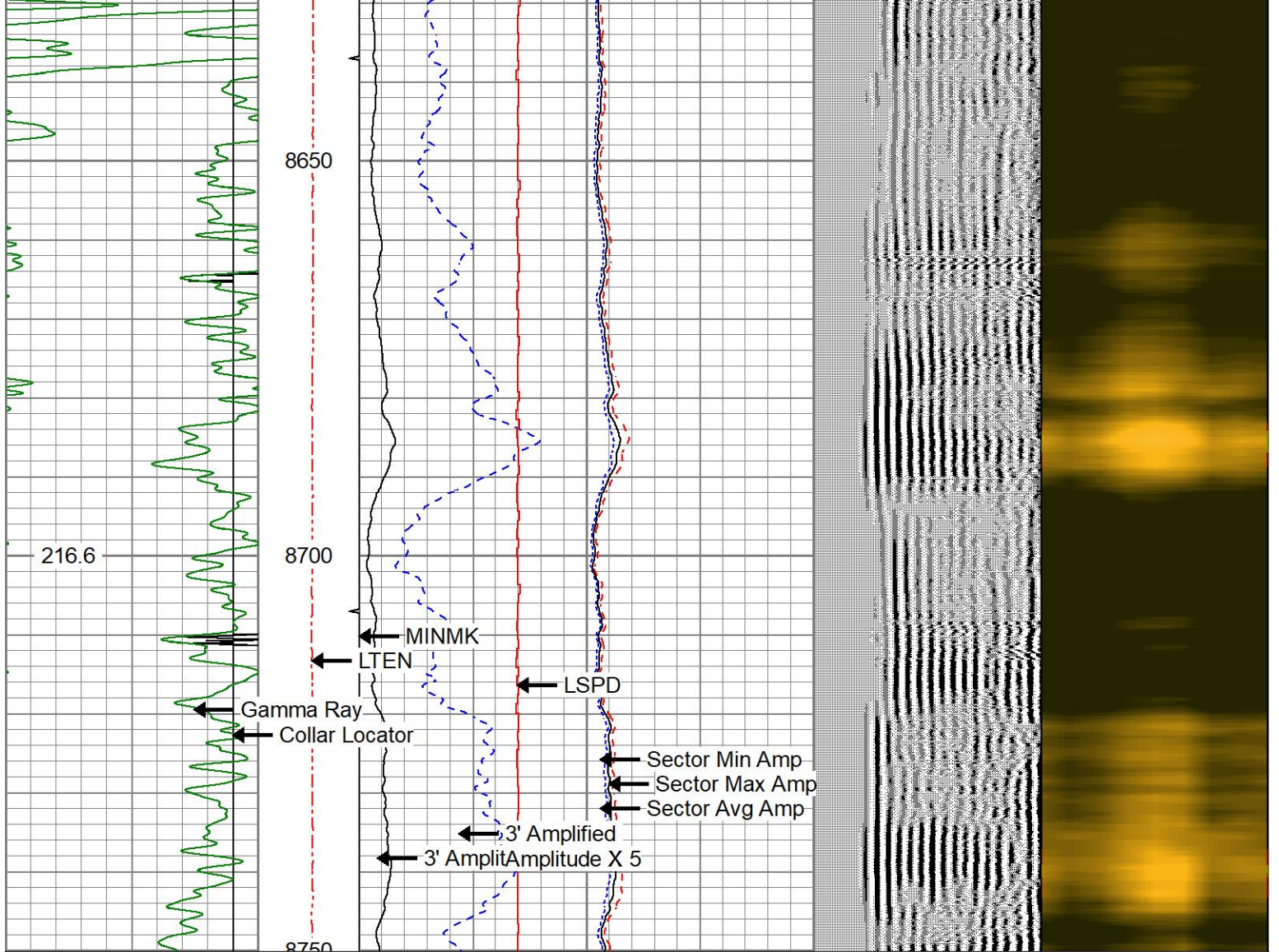
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8150









280	3FT TT (usec)	180	LTEN	3' Amplitude	0	Sector Min Amp	150	200	VDL (usec)	1200	1	Sector Map	8
-9	Collar Locator	1	(lb)	(mV)	100	Sector Avg Amp							
0	Gamma Ray (GAPI)	150	MINMK	3' Amplified Amplitude X 5	0	Sector Max Amp	150						
10	TEMP (degF)	0	0	(mV)	20	0	150						
0			0	LSPD (ft/min)-100									



MAIN PASS

0 PSI APPLIED AT SURFACE



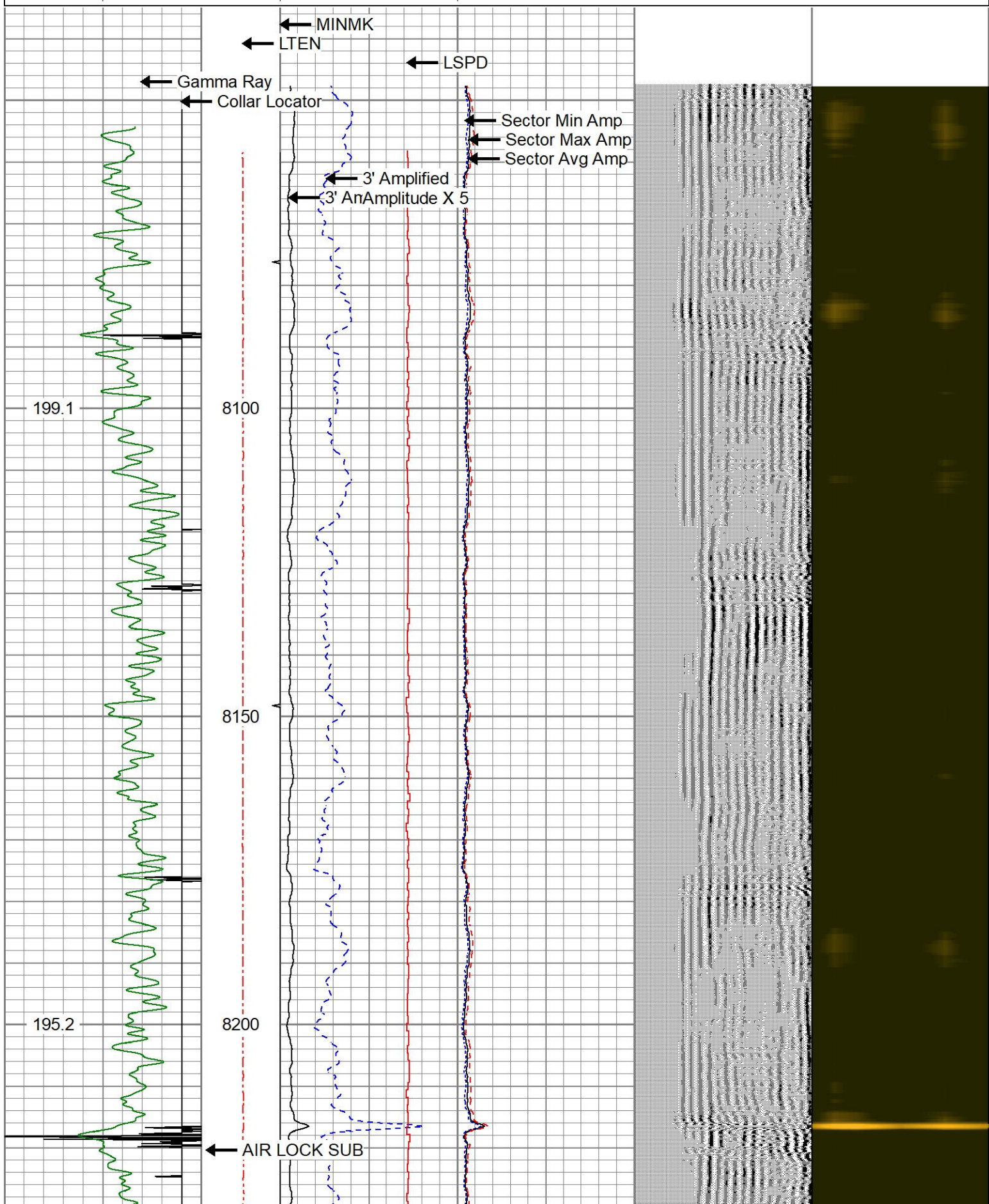
REPEAT PASS

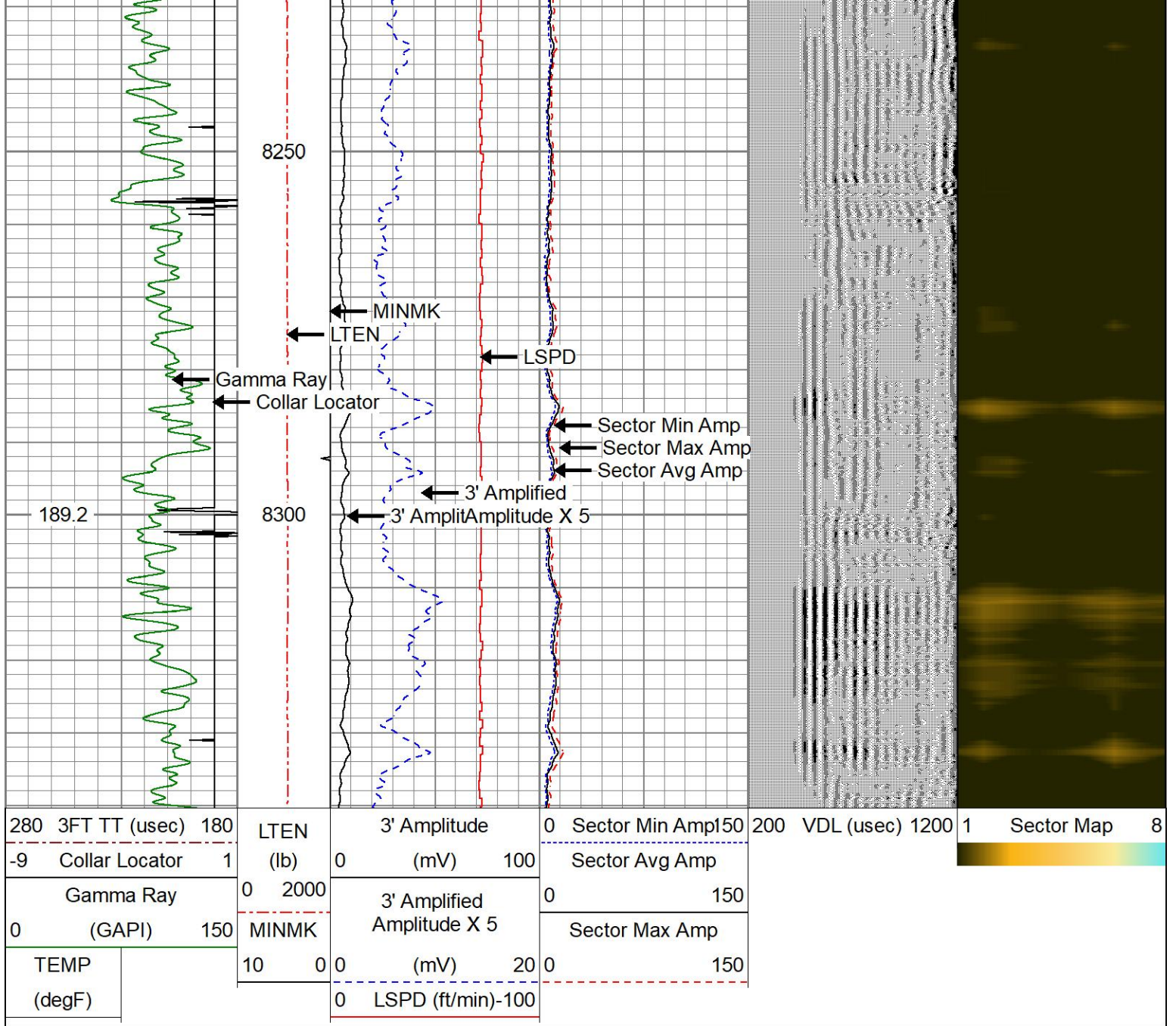
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 Dataset Pathname: pass2
 Presentation Format: res_scb1 8sec_co_verdad
 Dataset Creation: Tue Mar 28 10:20:36 2023
 Charted by: Depth in Feet scaled 1:240

280	3FT TT (usec)	180	LTEN	3' Amplitude	0	Sector Min Amp	150	200	VDL (usec)	1200	1	Sector Map	8
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-9	Collar Locator	1	(lb)	(mV)	100	Sector Avg Amp
0	Gamma Ray	2000		3' Amplified	0	150
0	(GAPI)	150	MINMK	Amplitude X 5		Sector Max Amp
TEMP		10	0	(mV)	20	0
(degF)				0	LSPD (ft/min)-100	150





280	3FT TT (usec)	180	LTEN	3' Amplitude	0	Sector Min Amp	150	200	VDL (usec)	1200	1	Sector Map	8
-9	Collar Locator	1	(lb)	0	(mV)	100	Sector Avg Amp						
	Gamma Ray		0	2000			0	150					
0	(GAPI)	150	MINMK		3' Amplified Amplitude X 5		Sector Max Amp						
	TEMP		10	0	(mV)	20	0	150					
	(degF)				0	LSPD (ft/min)	-100						



REPEAT PASS

0 PSI APPLIED AT SURFACE

Calibration Report

Database File verdad_fawn 2833-02h_05-123-51849_03-28-23.db
 Dataset Pathname pass3
 Dataset Creation Tue Mar 28 10:29:22 2023

Gamma Ray Calibration Report

Serial Number: 071129
 Tool Model: GR275B
 Performed: Tue Mar 28 08:37:24 2023

Calibrator Value: 250.0 GAPI

Background Reading: 34.9 cps
 Calibrator Reading: 302.3 cps

Segmented Cement Bond Log Calibration Report

Serial Number: 070150
 Tool Model: Probe
 Calibration Casing Diameter: 5.500 in
 Calibration Depth: 3.267 ft

Master Calibration, performed Tue Mar 28 08:37:30 2023:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	-0.002	1.012	1.000	71.921	69.935	1.128
CAL	-0.002	1.002				
5'	-0.002	0.945	1.000	71.921	74.897	1.145
SUM						
S1	-0.001	0.993	0.000	100.000	100.597	0.142
S2	-0.002	1.008	0.000	100.000	99.015	0.198
S3	-0.002	1.002	0.000	100.000	99.653	0.151
S4	-0.002	1.000	0.000	100.000	99.829	0.180
S5	-0.002	1.015	0.000	100.000	98.336	0.186
S6	-0.002	0.999	0.000	100.000	99.871	0.202
S7	-0.002	1.010	0.000	100.000	98.891	0.170
S8	-0.001	1.008	0.000	100.000	99.029	0.144

Internal Reference Calibration, performed (Not Performed):

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	-0.002	1.002	1.000	0.000

Air Zero Calibration, performed Wed Jul 20 11:36:42 2022:

	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
S7	0.000		0.000			0.000
S8	0.000		0.000			0.000



Company

VERDAD RESOURCES

Well

FAWN 2833-02H

Field

WATTENBERG

County

WELD

State

COLORADO