



CEMENT BOND LOG

Company Extraction Oil and Gas, Inc.
Well Rinn Valley East N17-20-14N
Field Wattenberg
County Weld
State Colorado

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Field Wattenberg
County Weld State Colorado

API # : 05 123 47177
Location:

SE/SE
201 FSL
561 FEL

Other Services

Elevation

K.B. 4694
D.F. 4693
G.L. 4939

Permanent Datum: Ground Level
Log Measured From: Kelly Bushing
Drilling Measured From: Kelly Bushing
Elevation: 4939
25 ft. above Permanent Datum.

Date 23 September 2018

Run Number One
Plug Back T.D. Driller
Plug Back T.D. Logger
Bottom Logged Interval 7596
Top Log Interval Surface
Type Fluid Water
Density / Viscosity
Max. Recorded Temp. 231
Time Logger on Bottom 15:45
Equipment Number GDI14
Location Casper, WY
Recorded By GS Yarbrow
Witnessed By Mr. Cary

Casing Record

Tubing Record

Size Weight From To Size Weight From To

9 5/8 25 25
5 1/2 25 25

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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.

Ticket # : RM0918PCBW 905
Your Crew Today: Graham, Pena
Log Correlated to: Surface

Cement Data	
Date Cemented	----
Primary / Squeeze	Primary
Type / Weight	----
Main Pass Press.	Zero
Repeat Pass Press.	Zero
Bond Index	
Index %	Est Top Depth
20 % Bond	130
40 % Bond	300
60 % Bond	410
80 % Bond	1004
100 % Bond	----

Comments

Estimated Top of Cement
(20% Bond Index) @ 130

Log Variables

Databased:\warrior\data\20180923_extraction_rinn valley east n17-20-14n_cbl\20180923_extraction_rinn valley east n17-20-14n_cbl
Dataset field/well/run1/pass3.1/_vars_

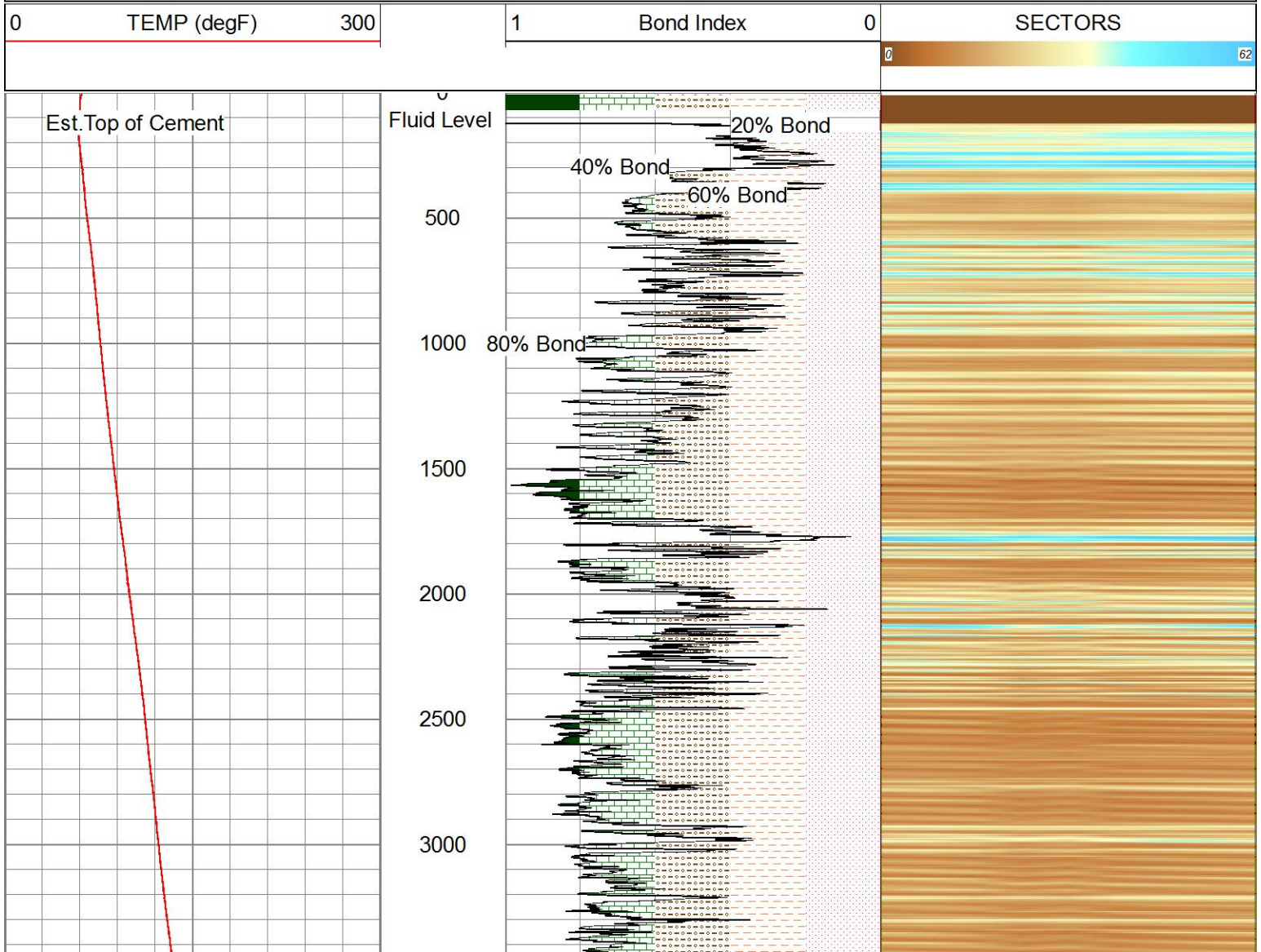
Top - Bottom

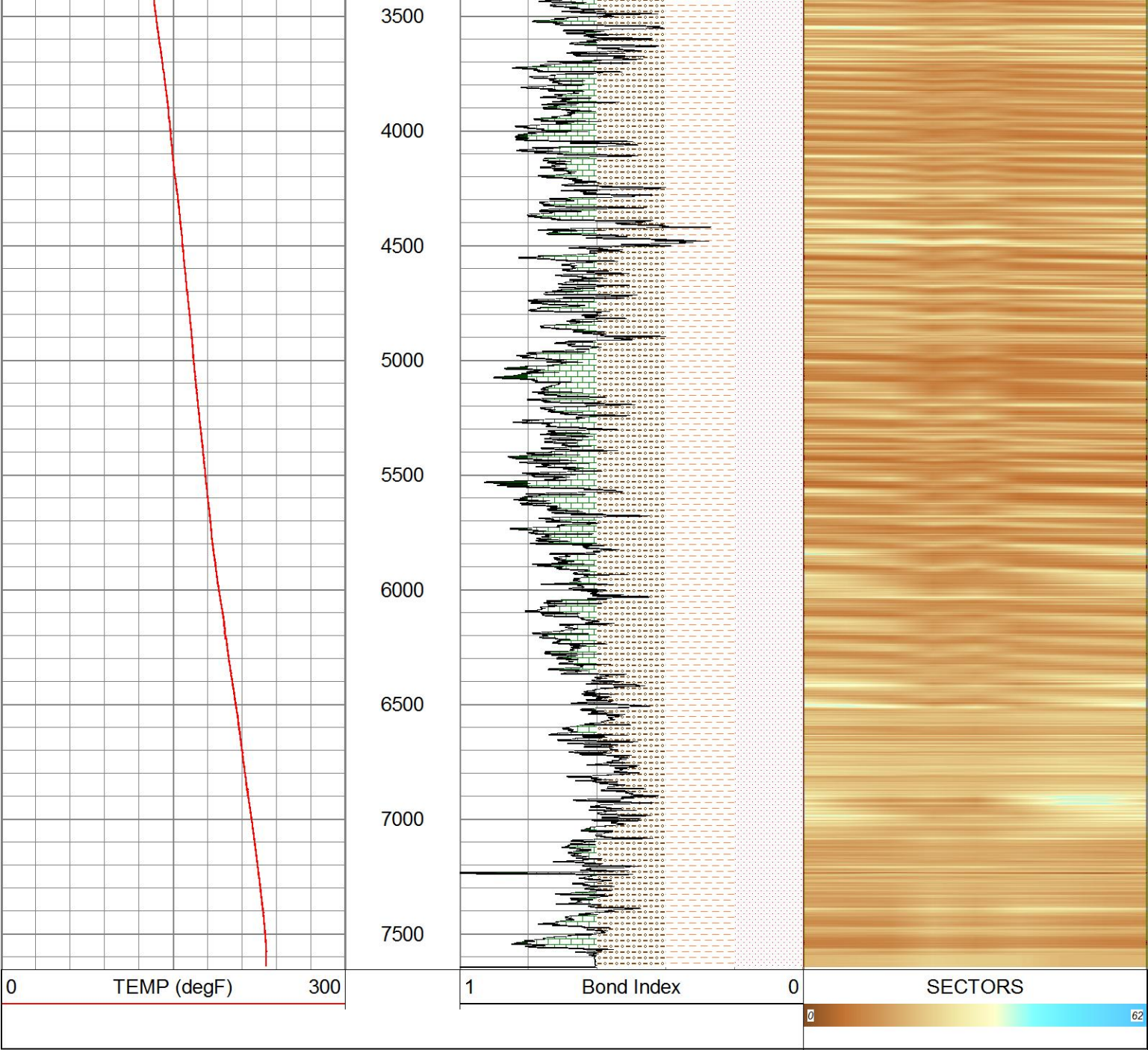
BHTEMP_Src TEMP	BOREID in 8.5	BOTTEMP degF 100	CASEOD in 5.5	CASETHCK in 0.361	CASEWGHT lb/ft 20	MAXAMPL mV 71.9	MaxAPIID in 4.923
MINAMPL mV 1.9	MinAPIID in 4.751	MINATTN db/ft 0	PPT usec 235	TDEPTH ft 0			


gyrodata

BOND INDEX

Database File 20180923_extraction_rinn valley east n17-20-14n_cbl\20180923_extraction_rinn valley east n17-20-14n_cbl
Dataset Pathname ./.bndindx
Presentation Format BNDIND~1
Dataset Creation Sun Sep 23 19:23:34 2018
Charted by Depth in Feet scaled 1:7500





		MAIN PASS - Ran with 0 PSI			
		5 in / 100 ft			
Database File		20180923_extraction_rinn valley east n17-20-14n_cbl\20180923_extraction_rinn valley east n17-20-14n_c			
Dataset Pathname		pass3.1			
Presentation Format		rcbl_8s			
Dataset Creation		Sun Sep 23 19:19:09 2018			
Charted by		Depth in Feet scaled 1:240			
CCL - Analog	np - Analog C	0	Amplitude (mV)100	AVG Sector Amplitude	Acoustic Waveform
Gamma	(degF)	0	Amplitude x10	0 100	200 (usec) 1200
(GAPI) 200	300	0	(mV) 10	MAX Sector Amplitude	
300(Line Tens (lb) 0				0 100	
Predicted TT				MIN Sector Amplitude	
				0 100	

TT
+[10 usec]-

50

100

150

Est.Top of Cement

Fluid Level

20% Bond

Amplitude

AVG Sector Amplitude

MAX Sector Amplitude

MIN Sector Amplitude

CCL - Analog

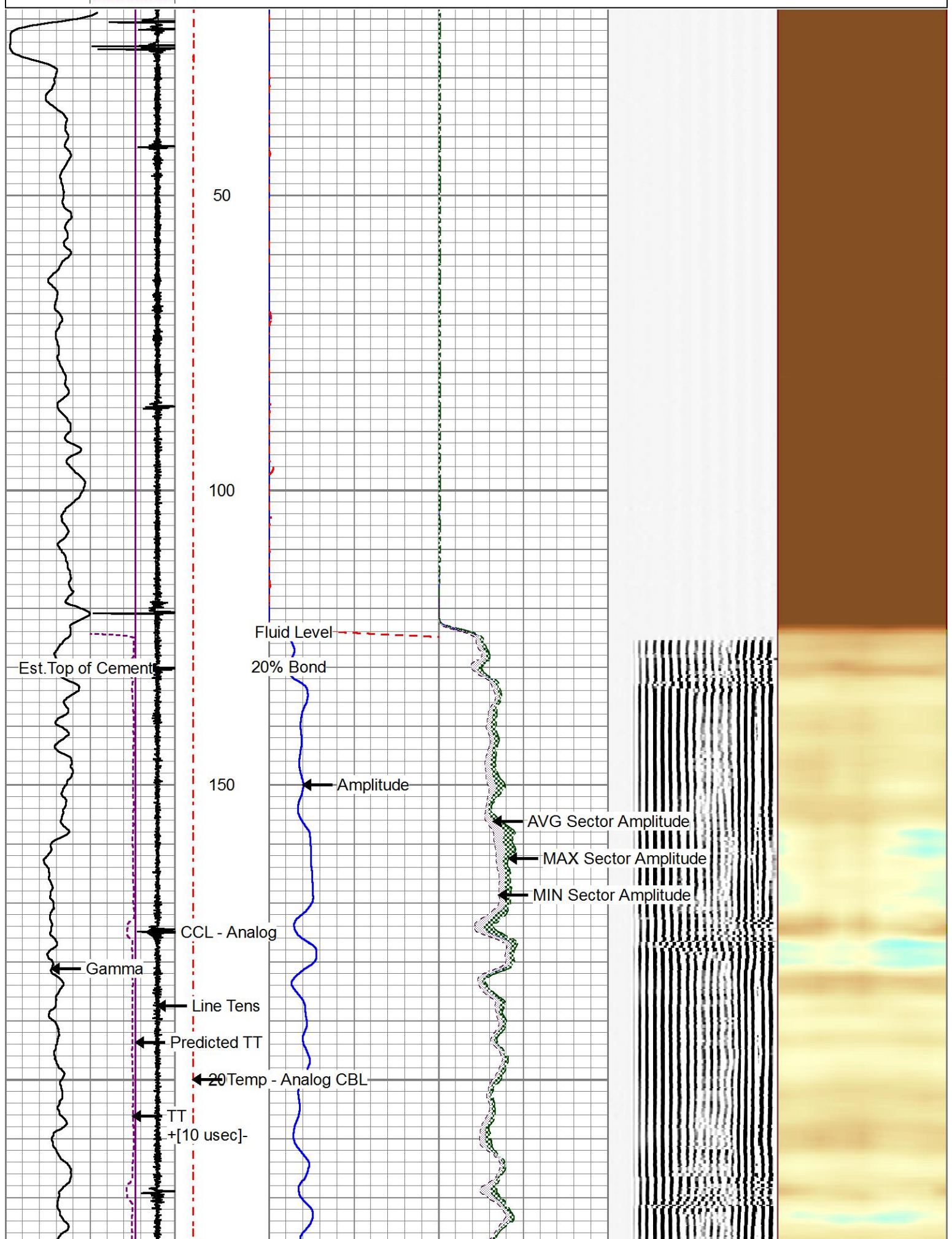
Gamma

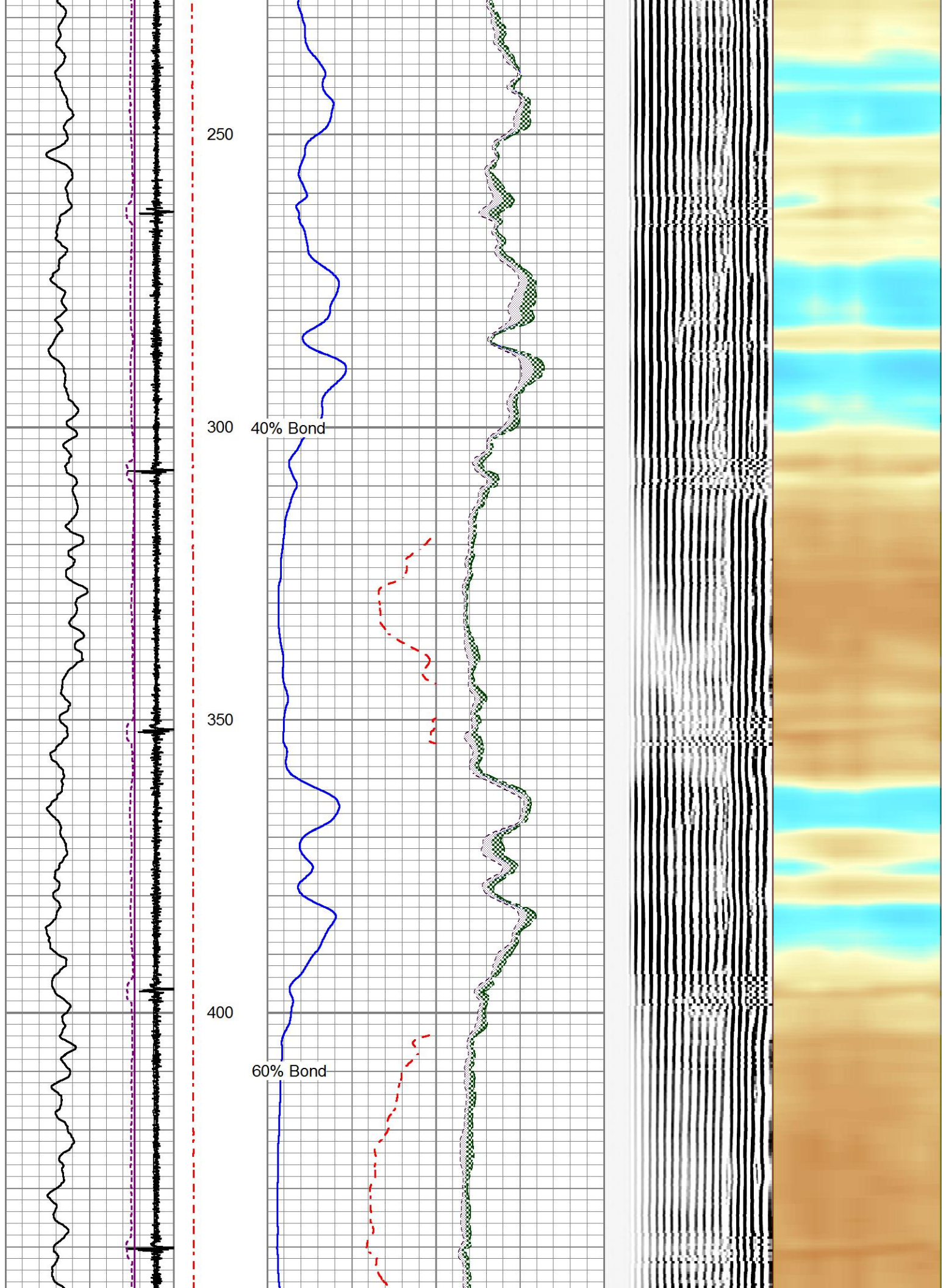
Line Tens

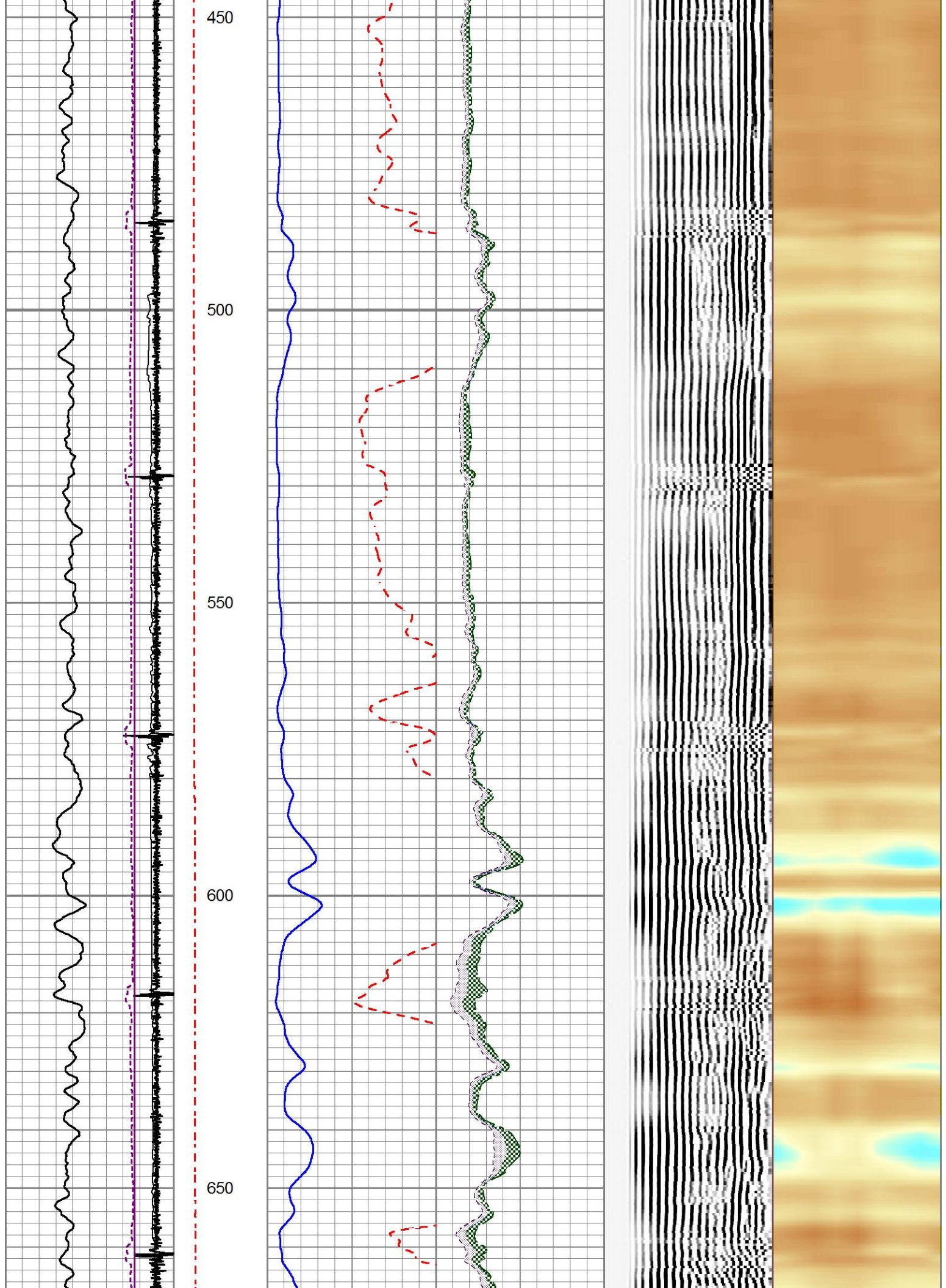
Predicted TT

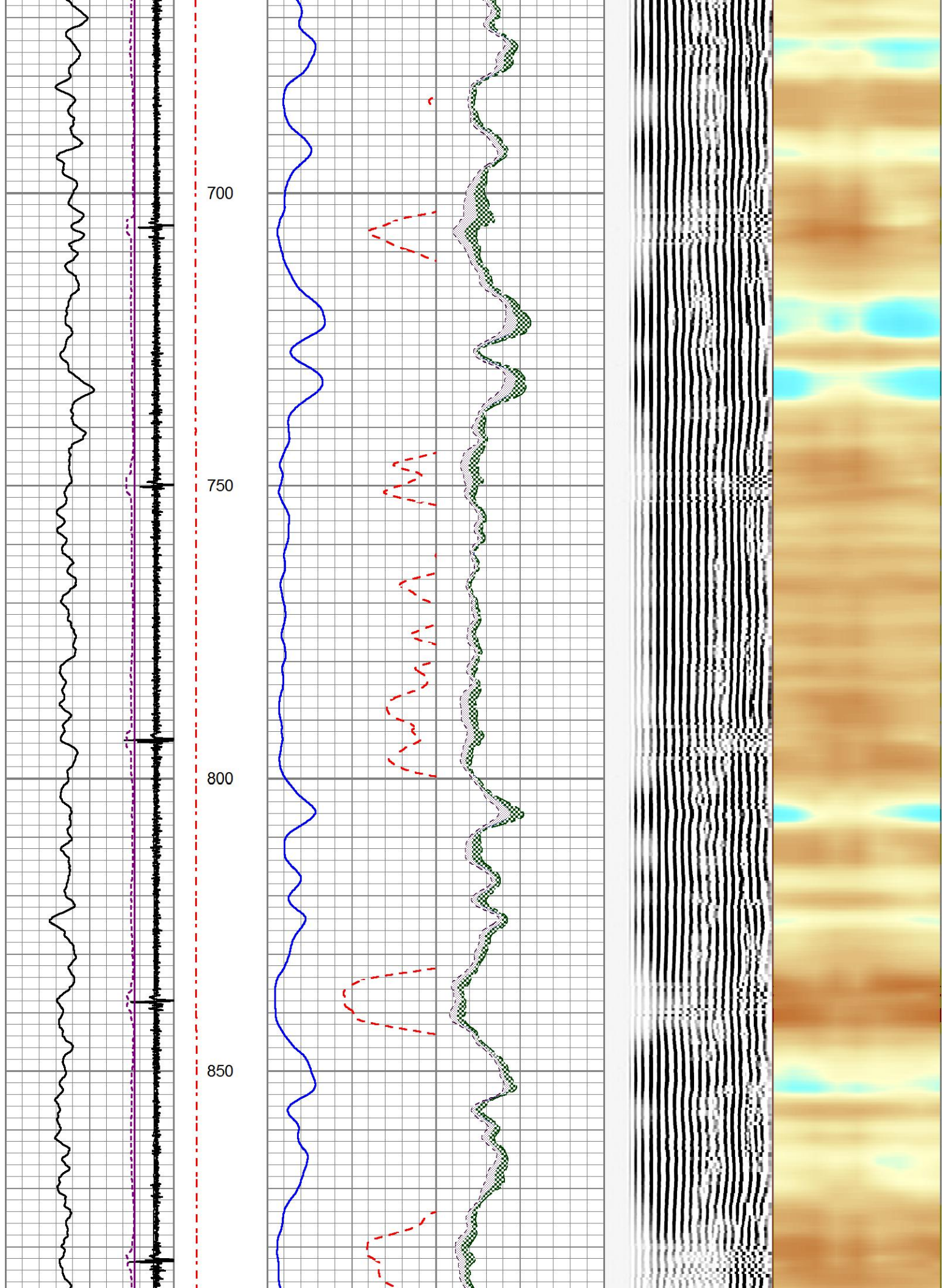
20Temp - Analog CBL

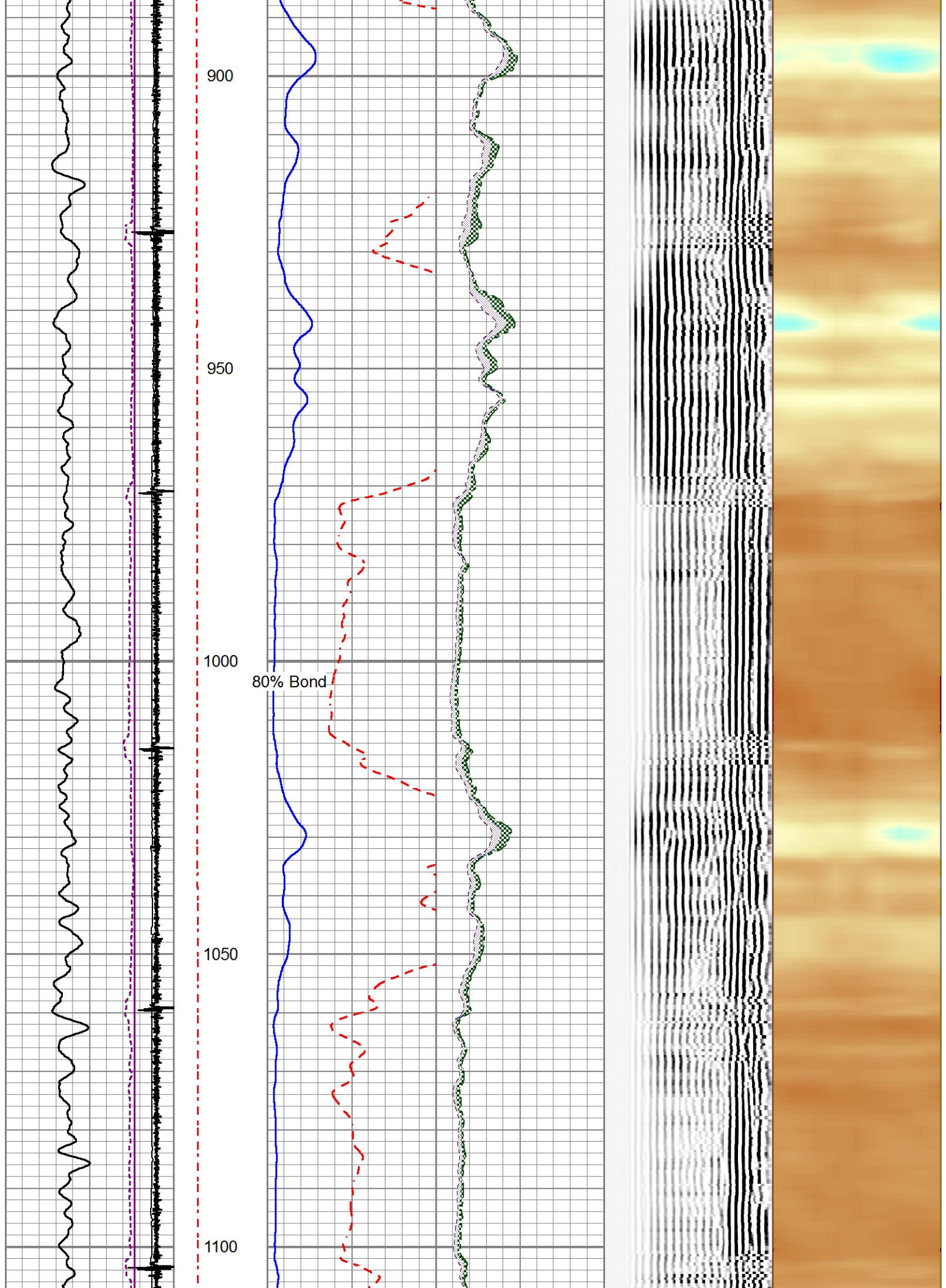
TT
+[10 usec]-

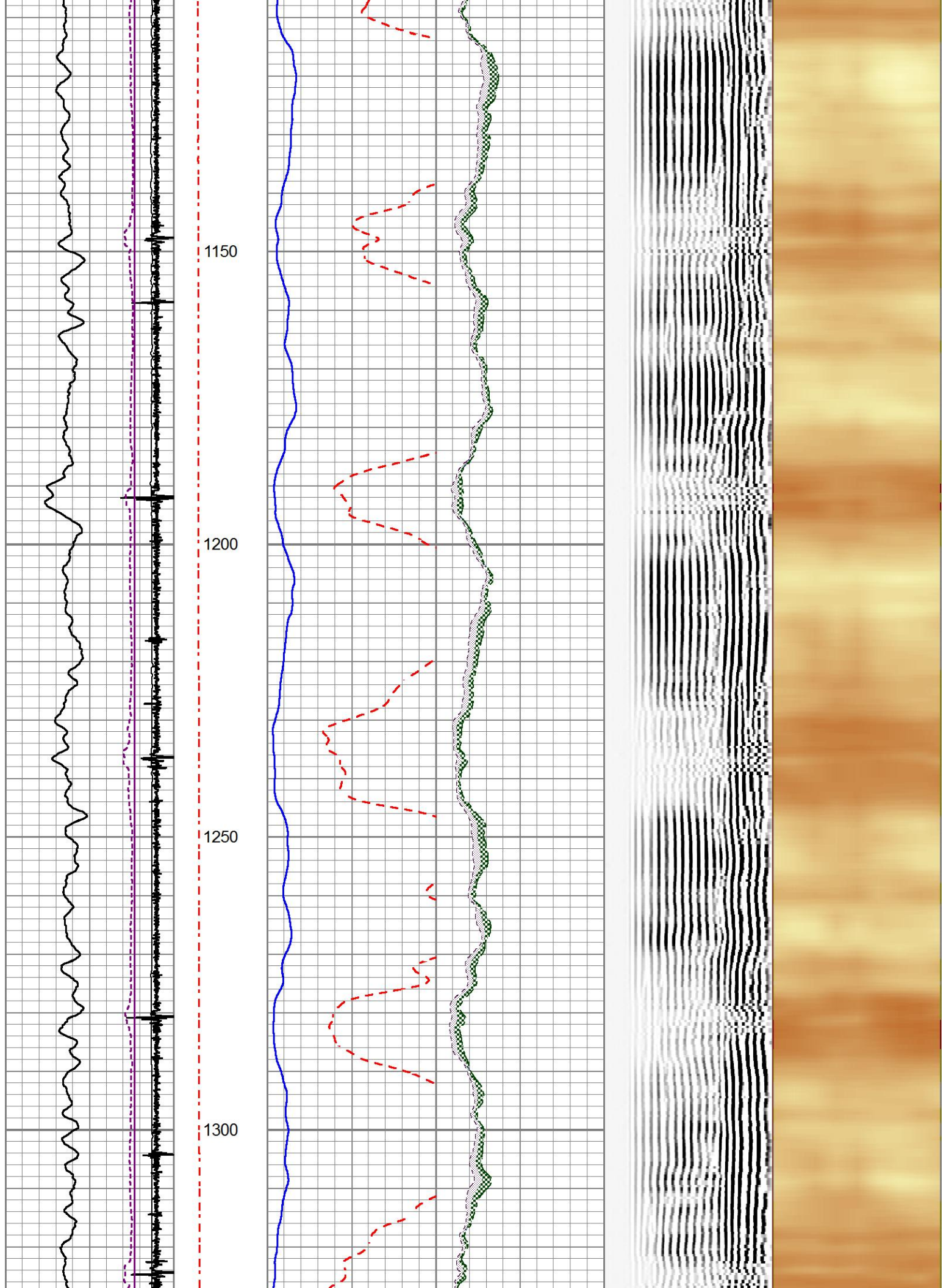


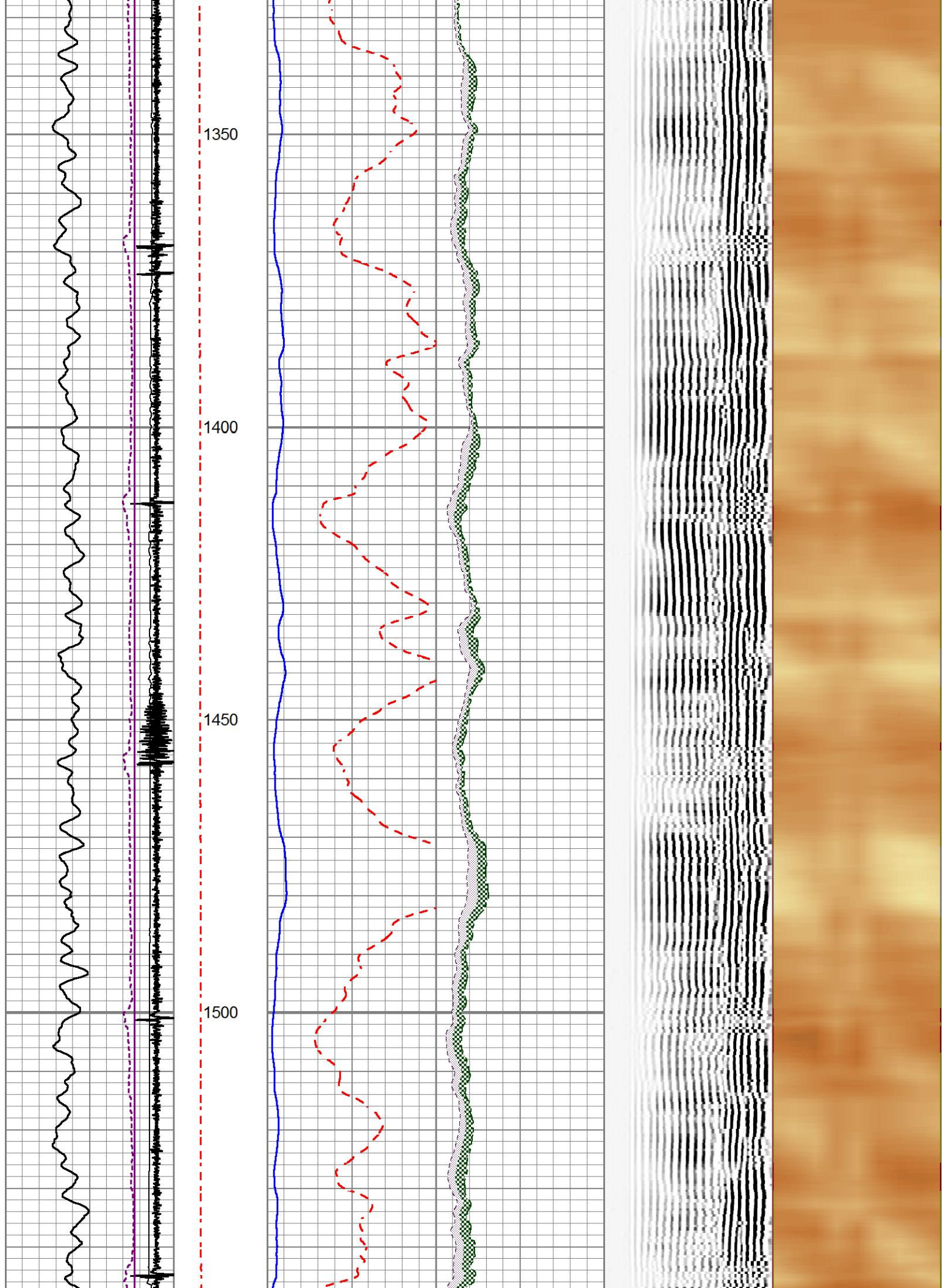


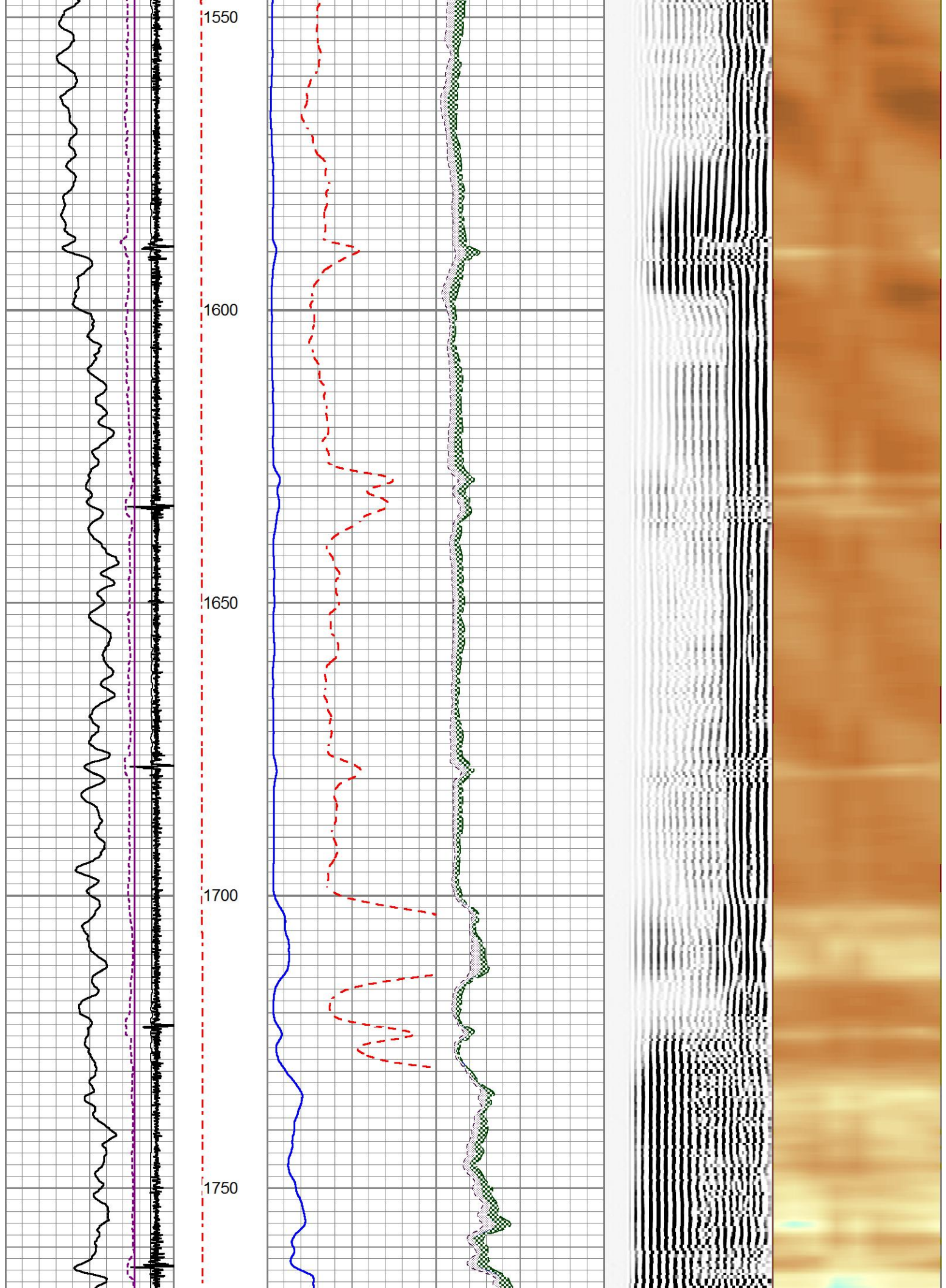


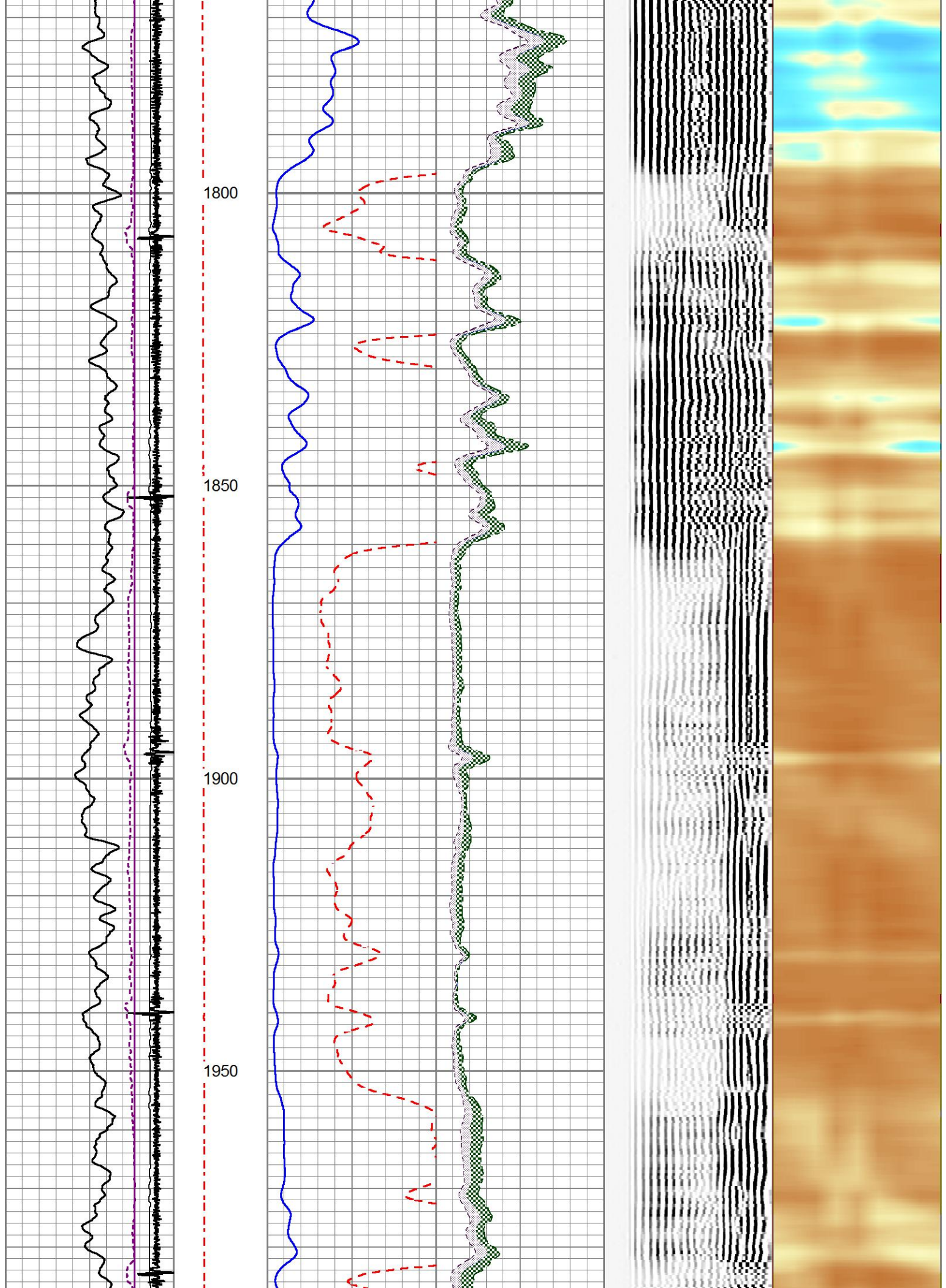


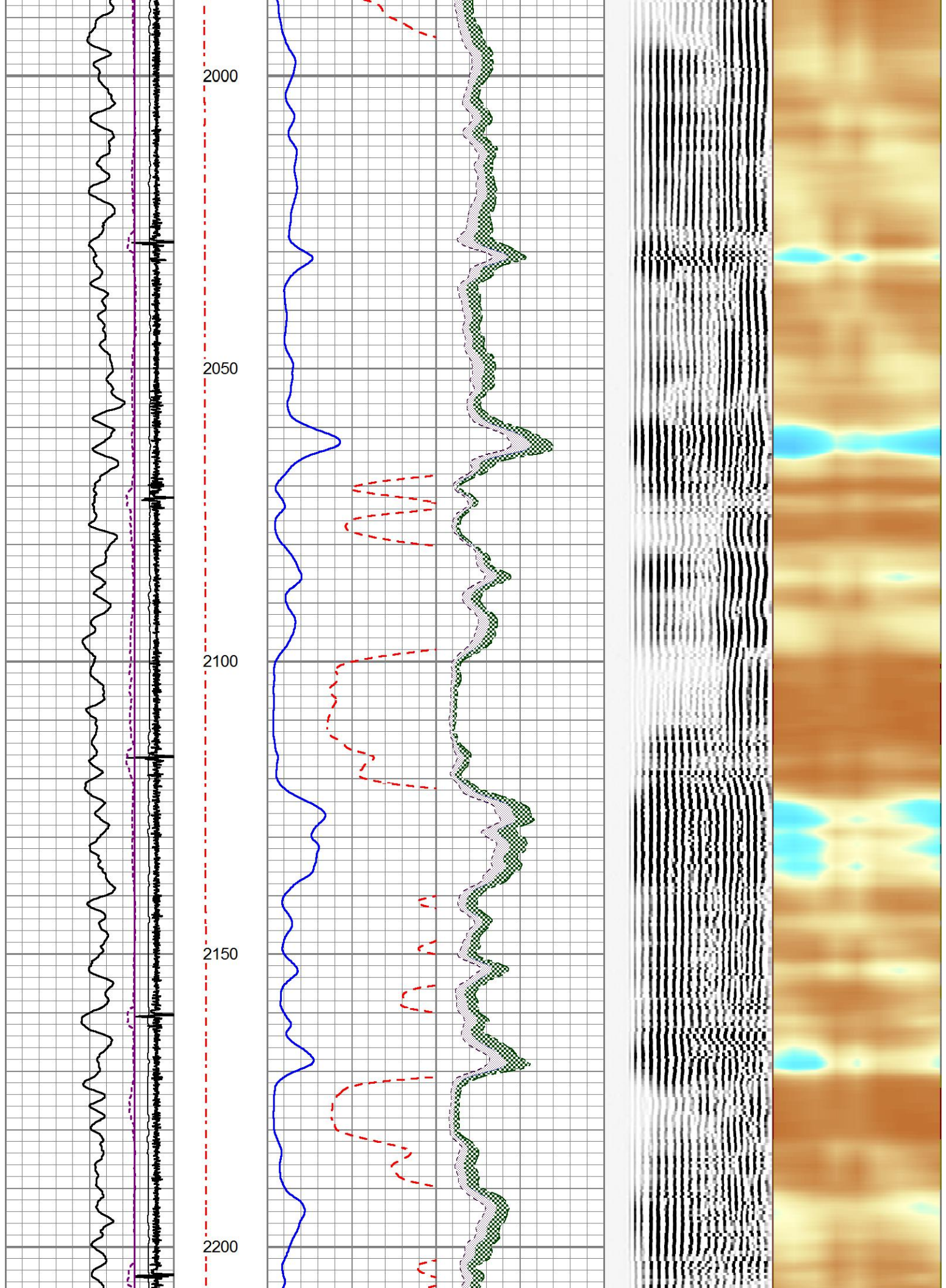


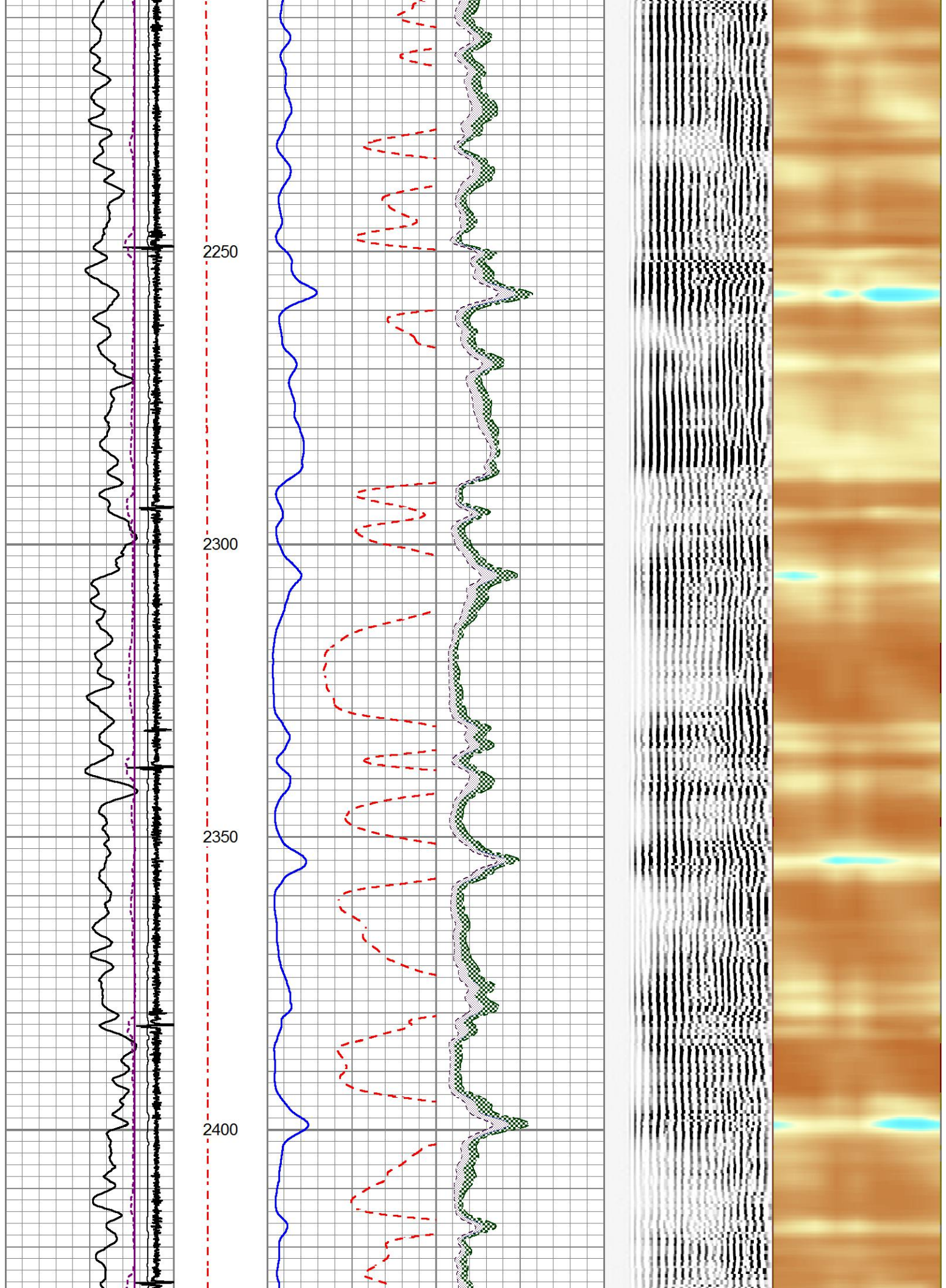


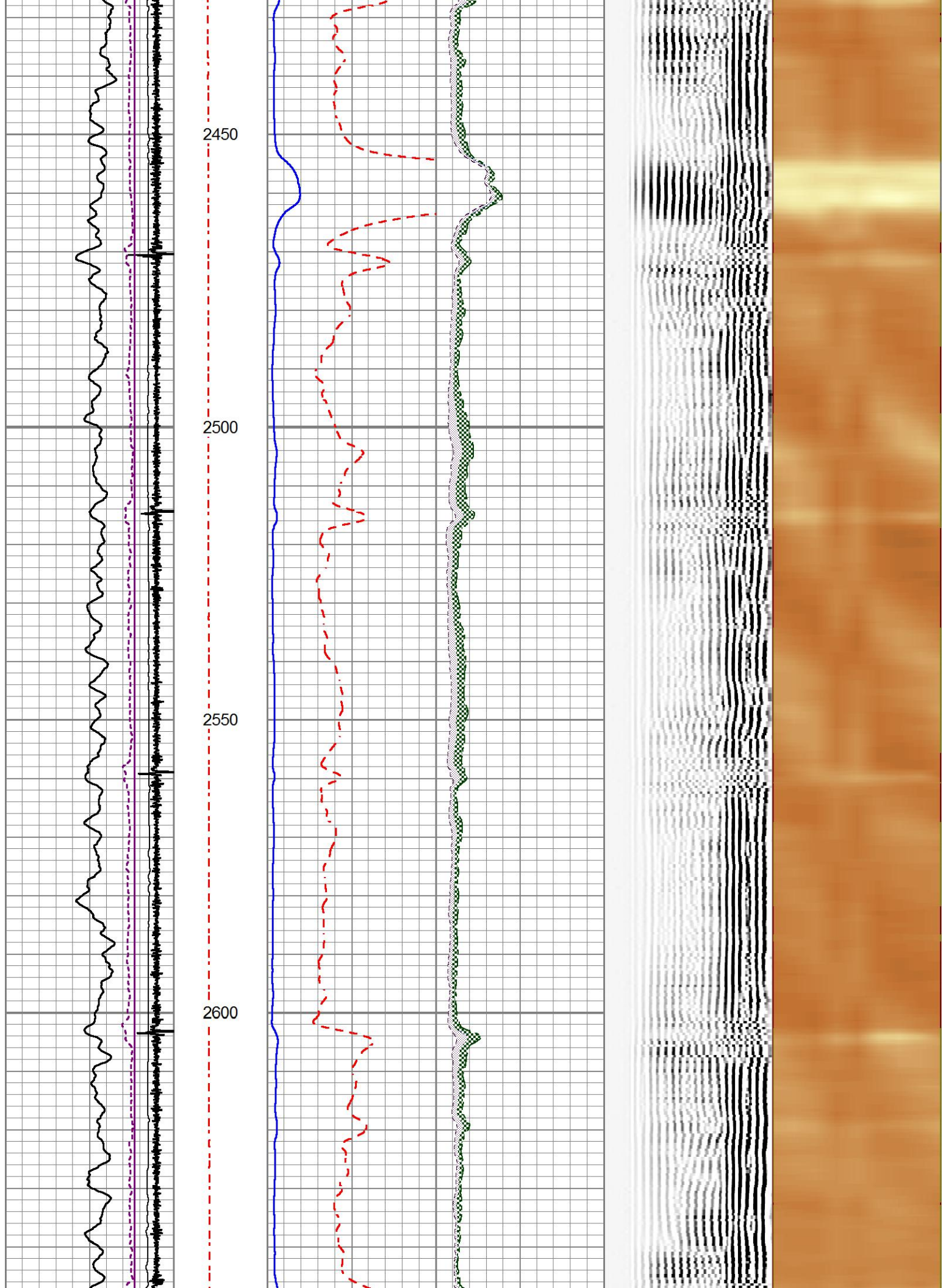


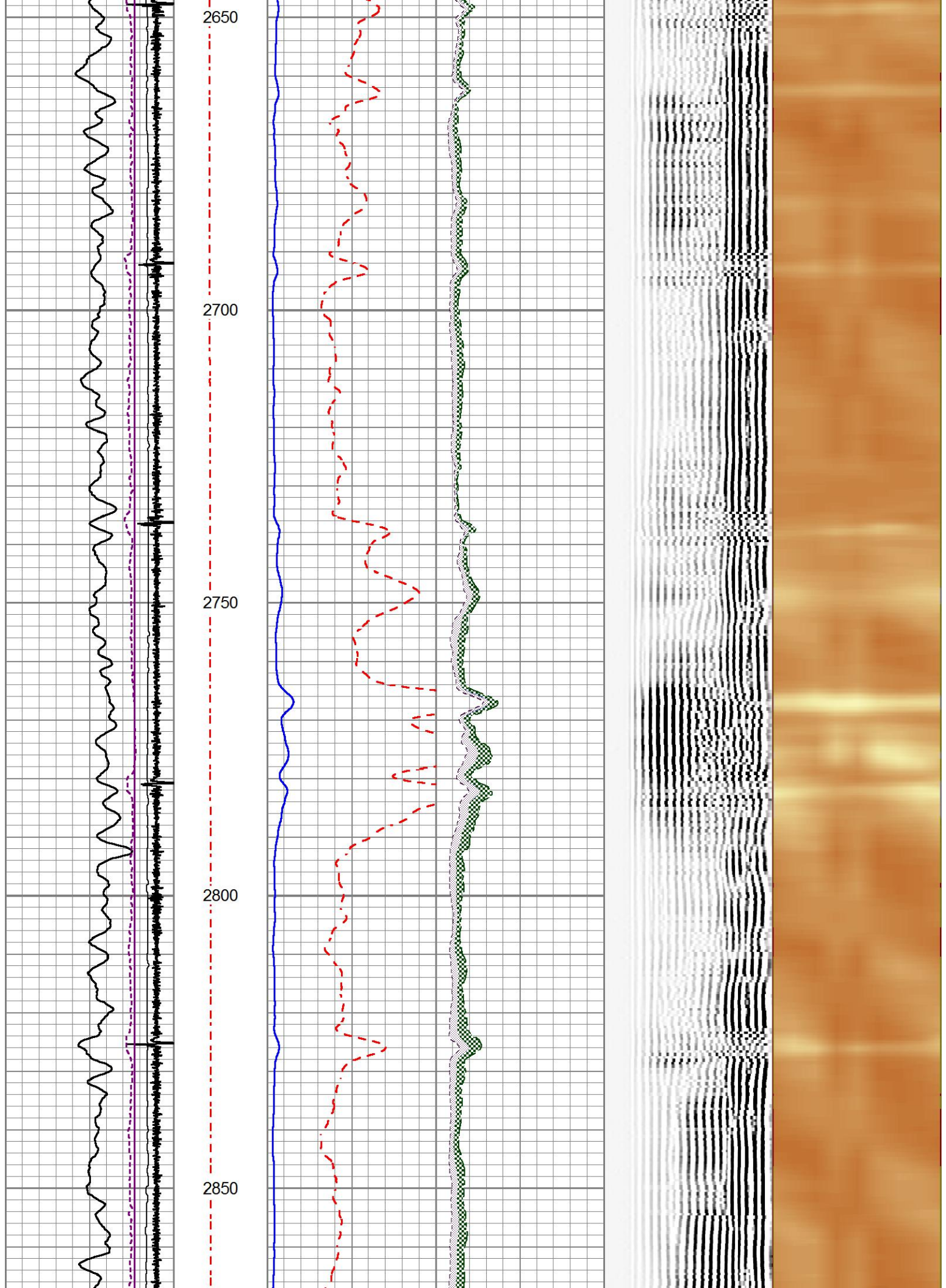


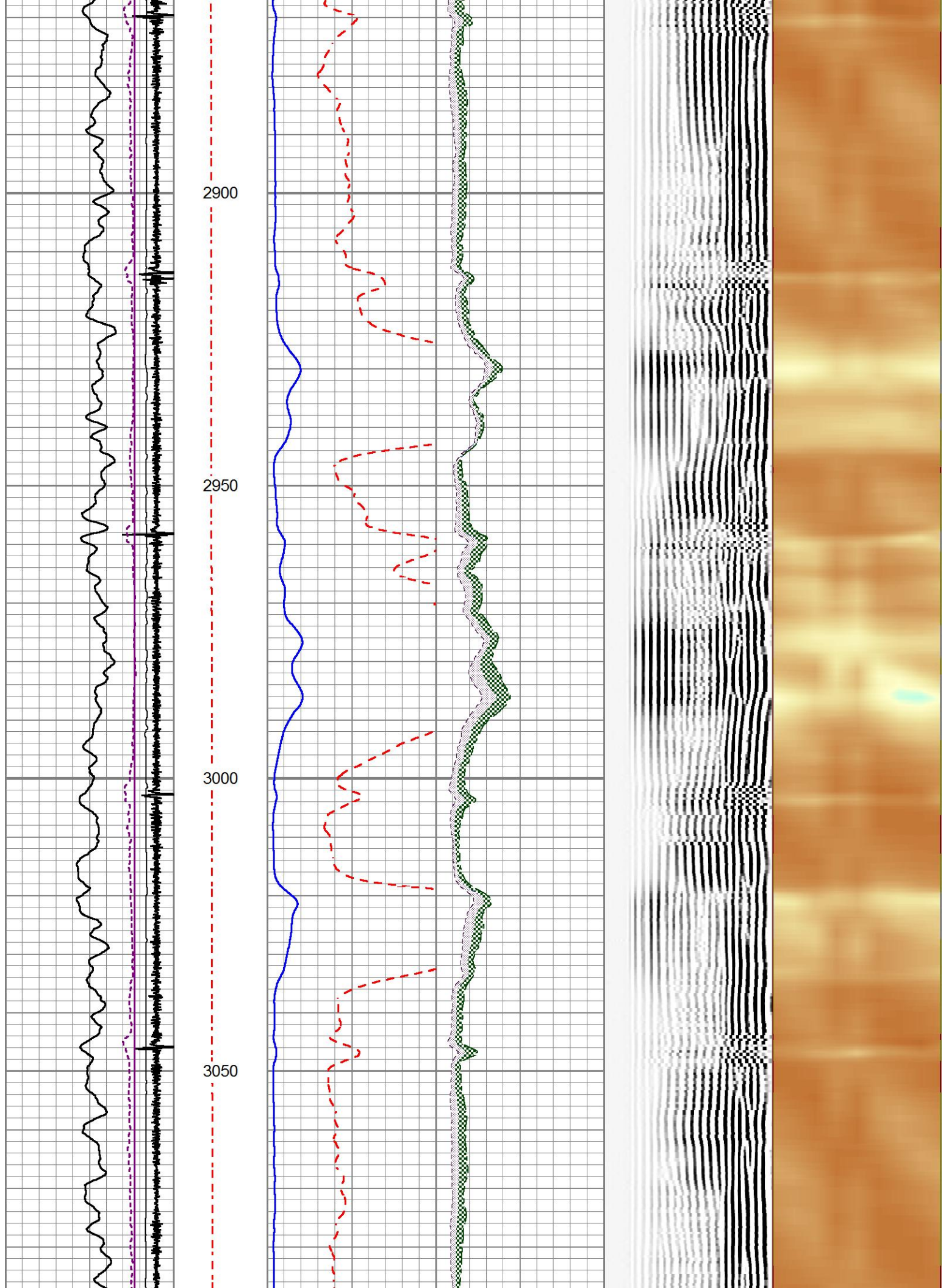


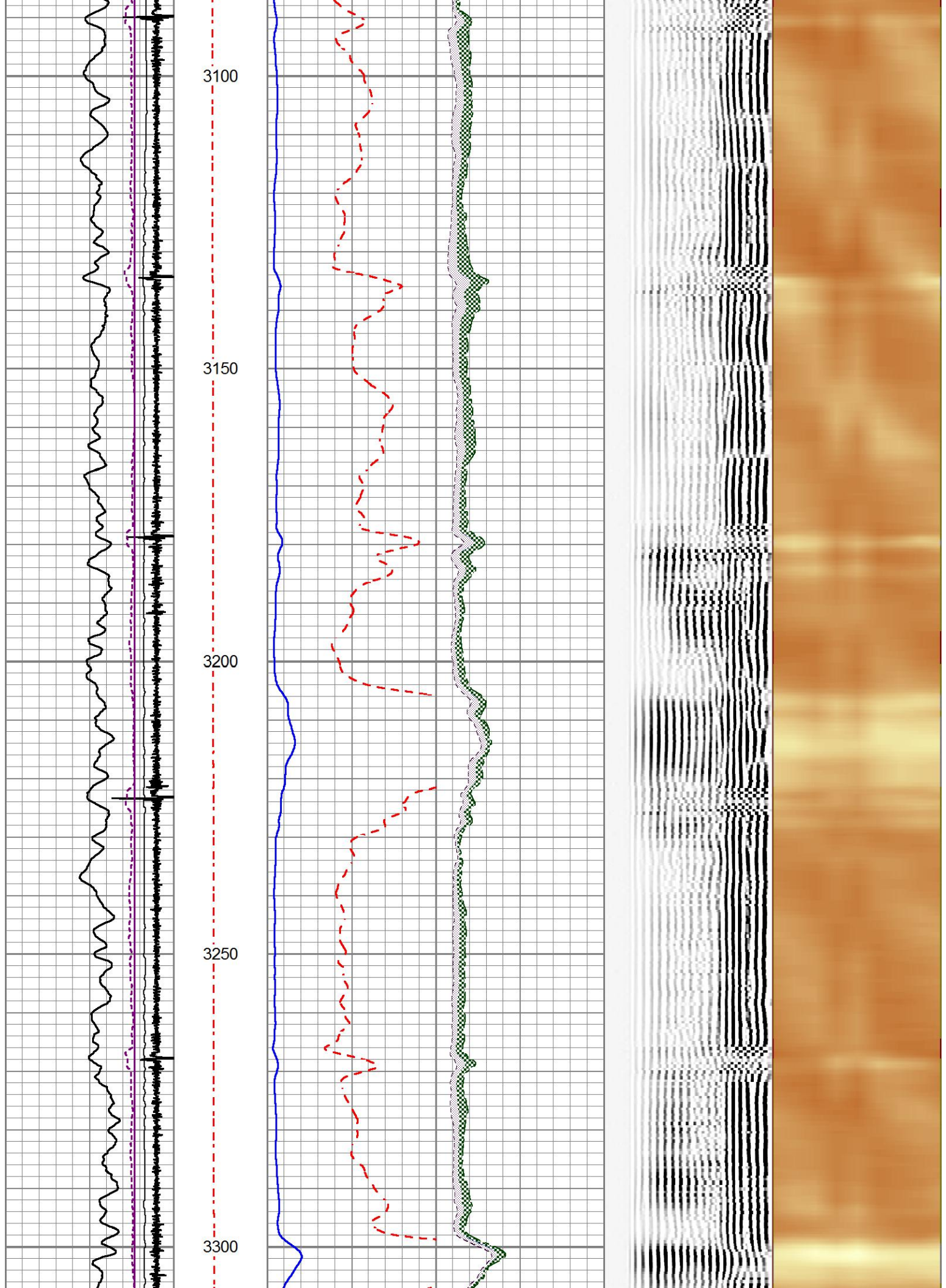


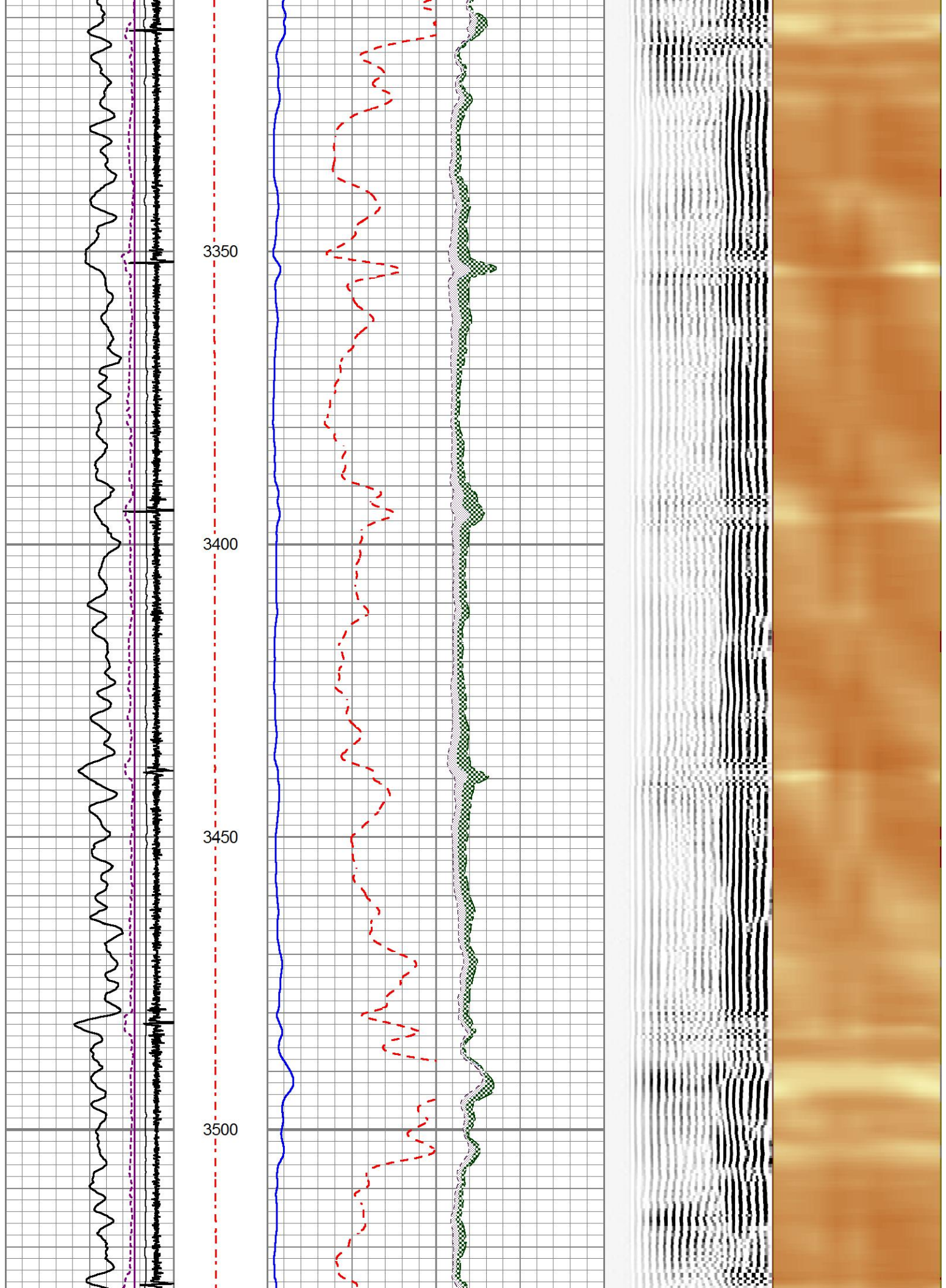


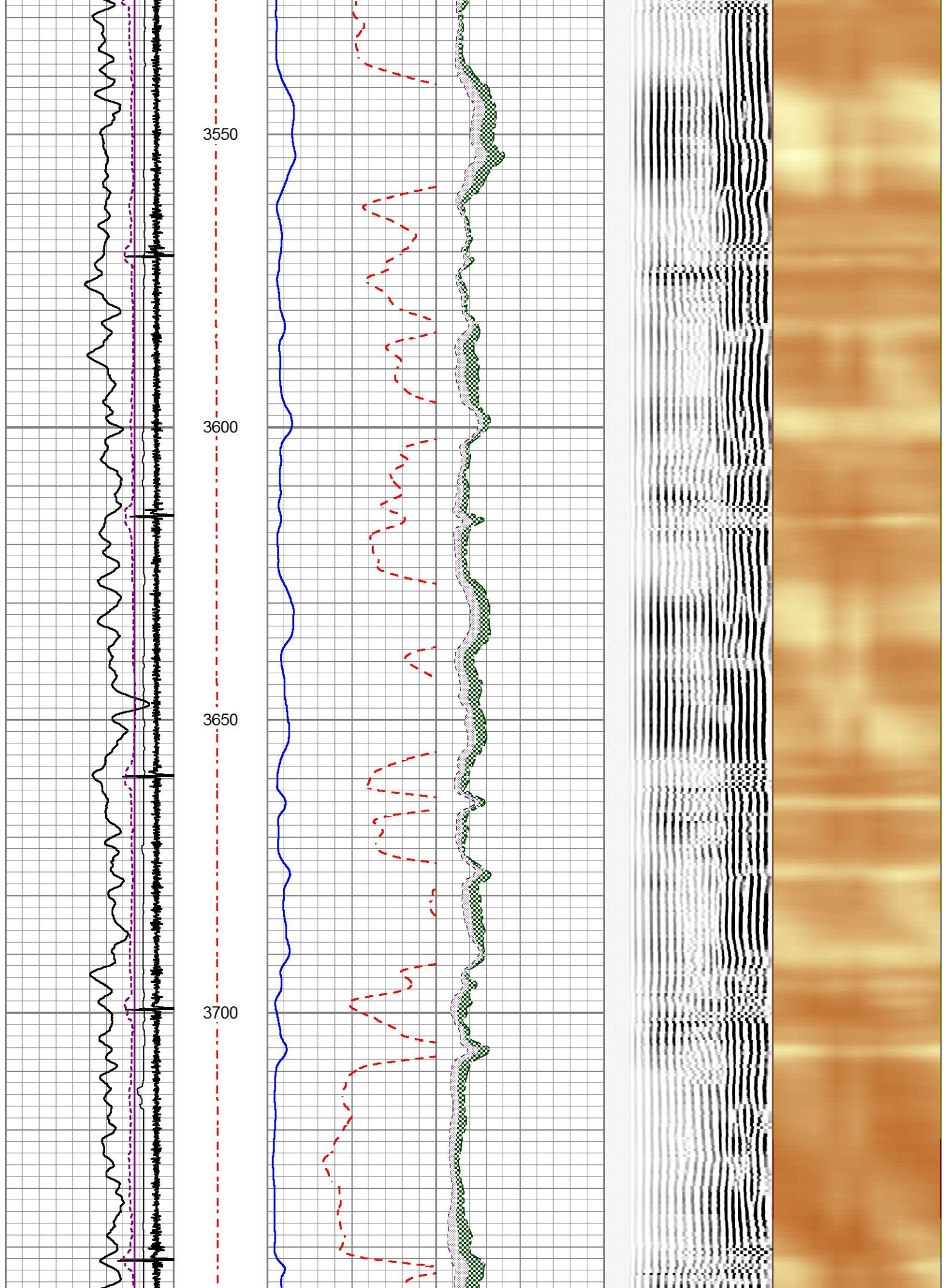


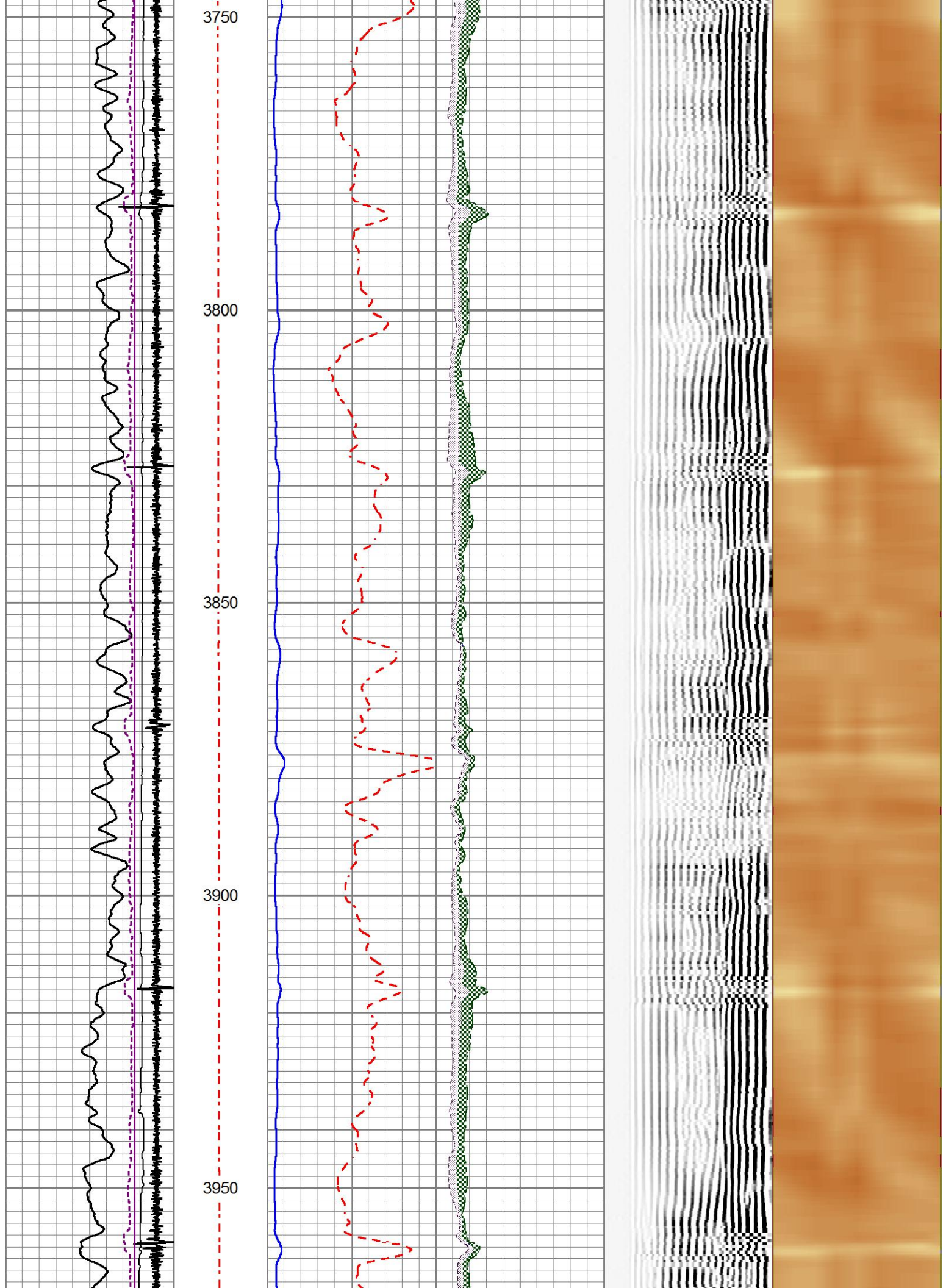


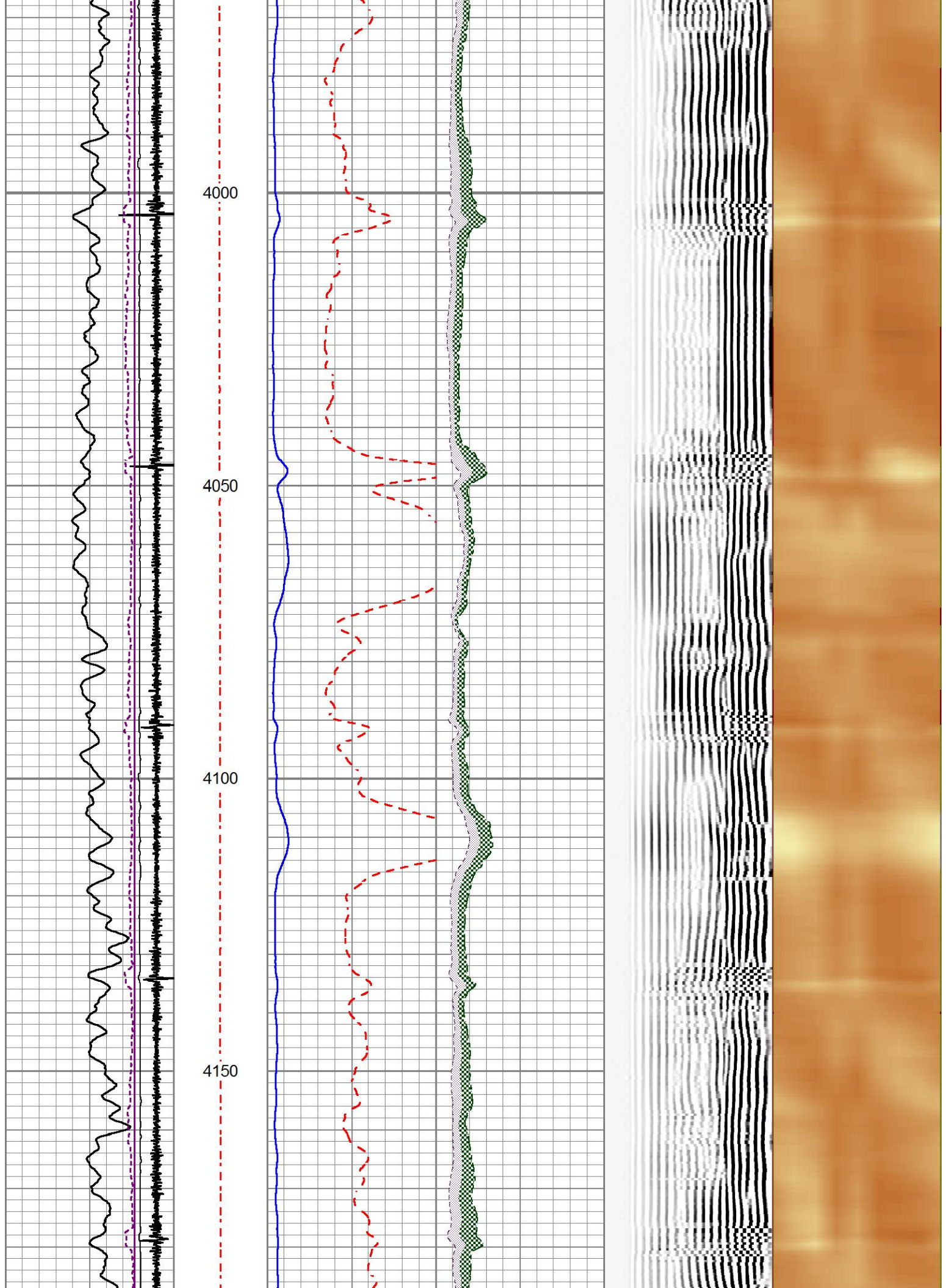


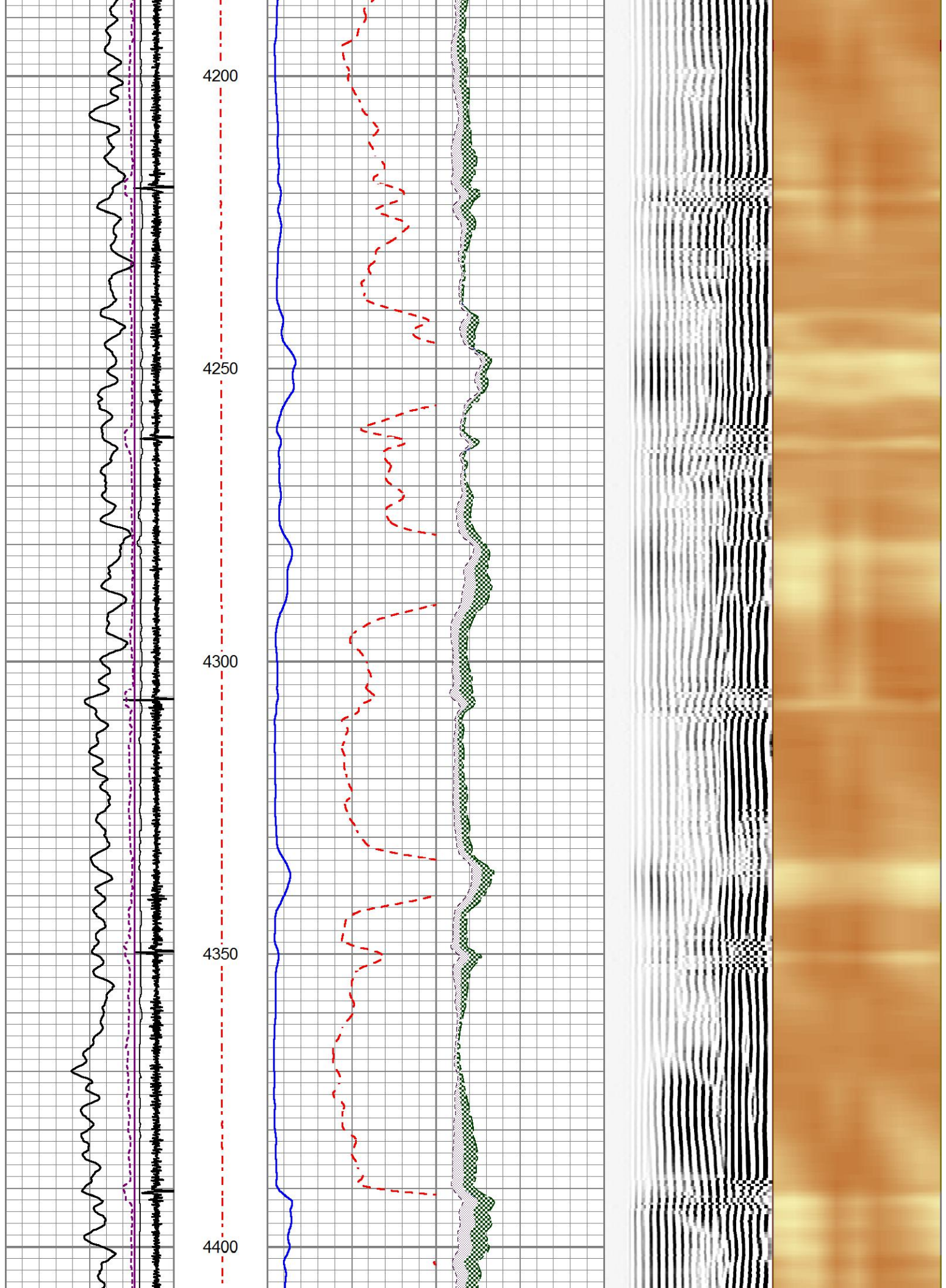


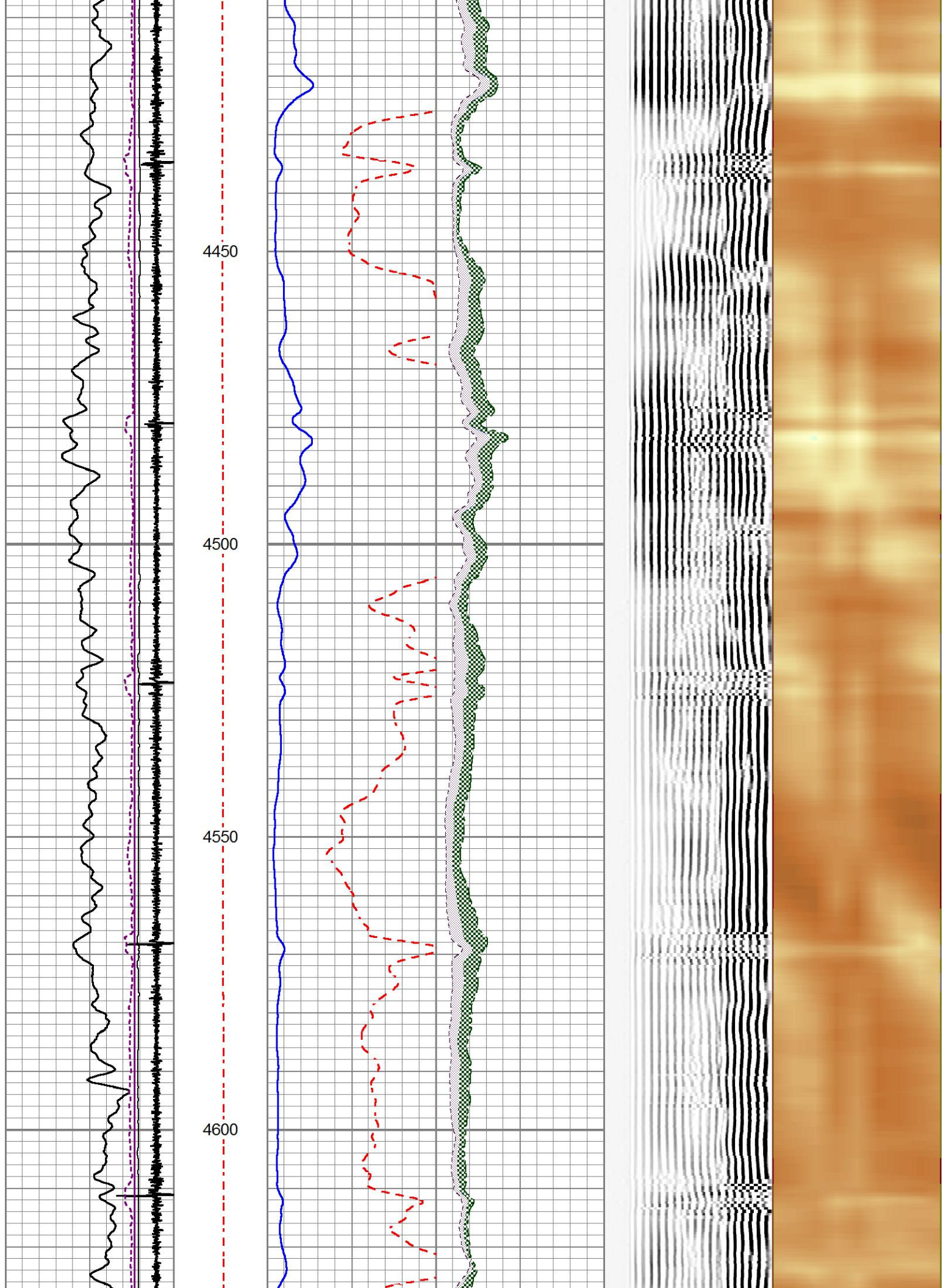


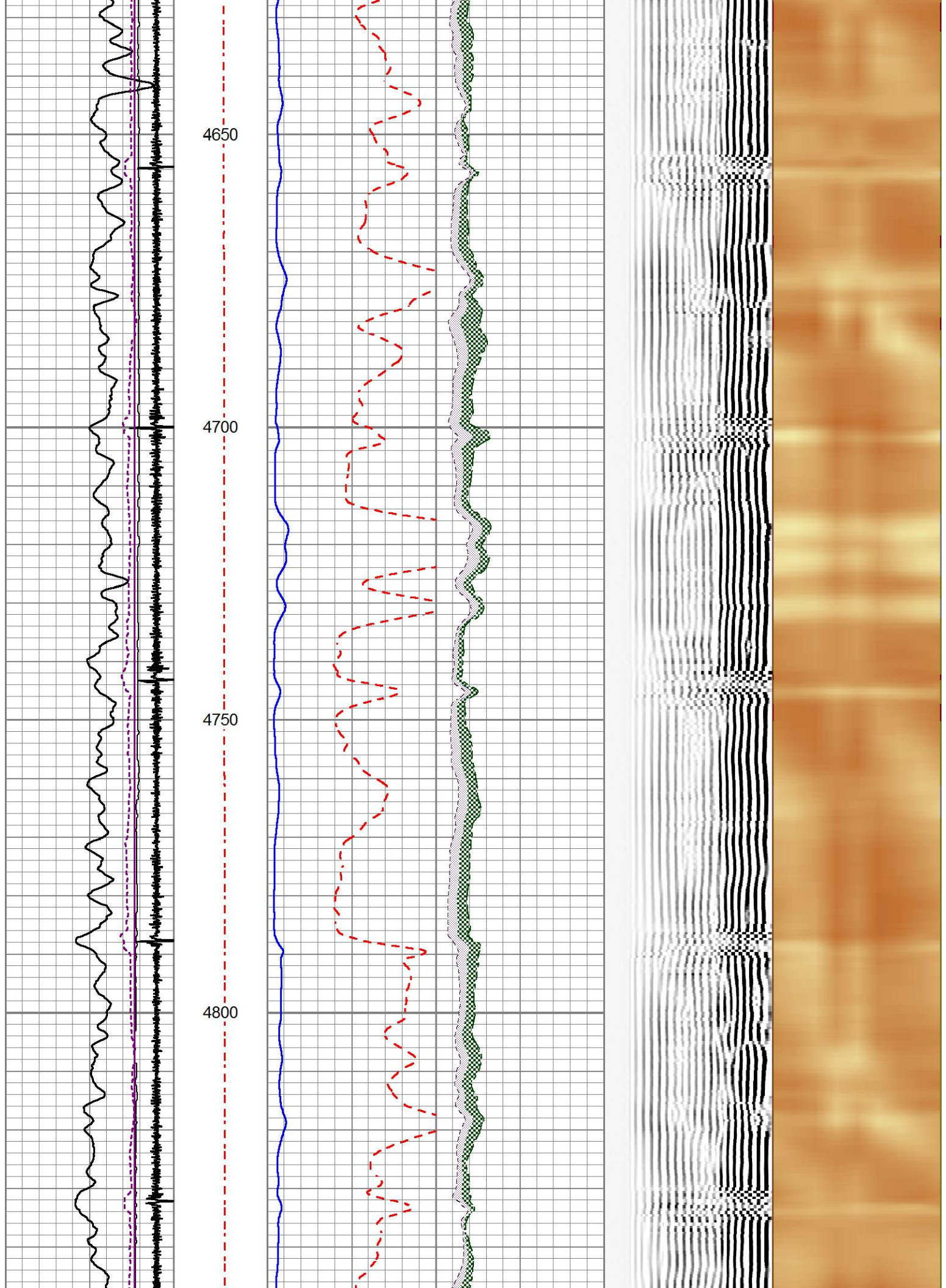


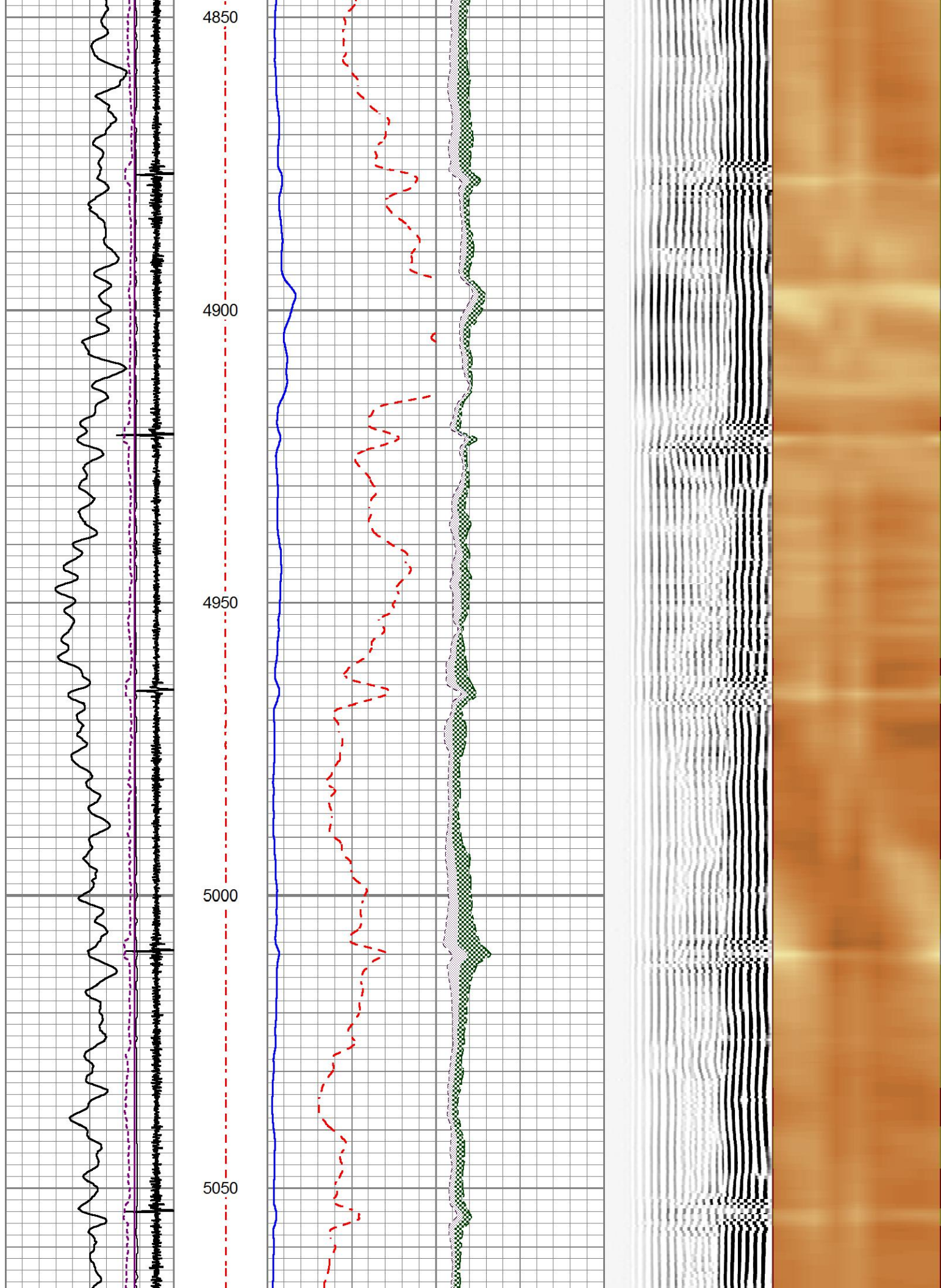


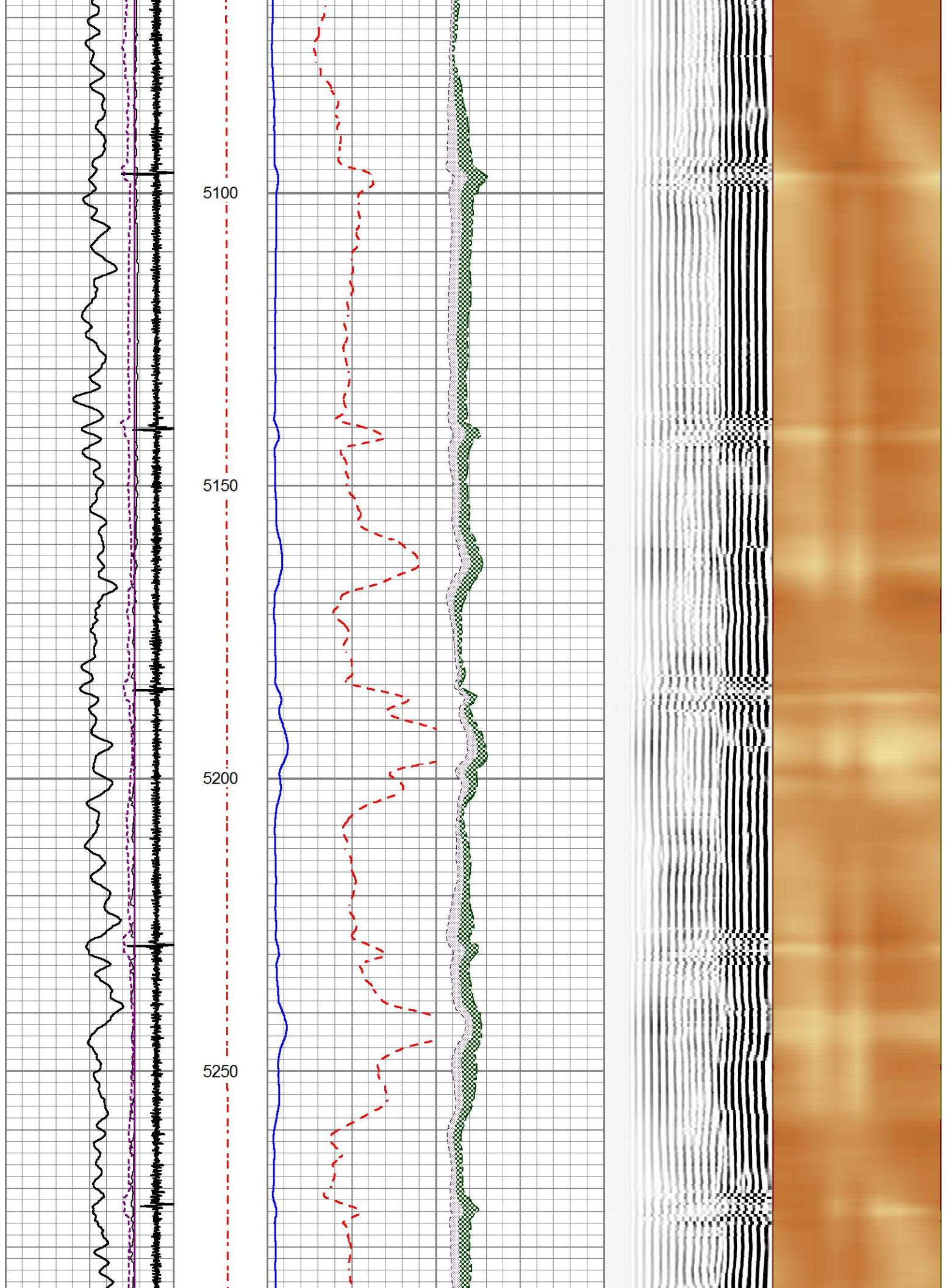


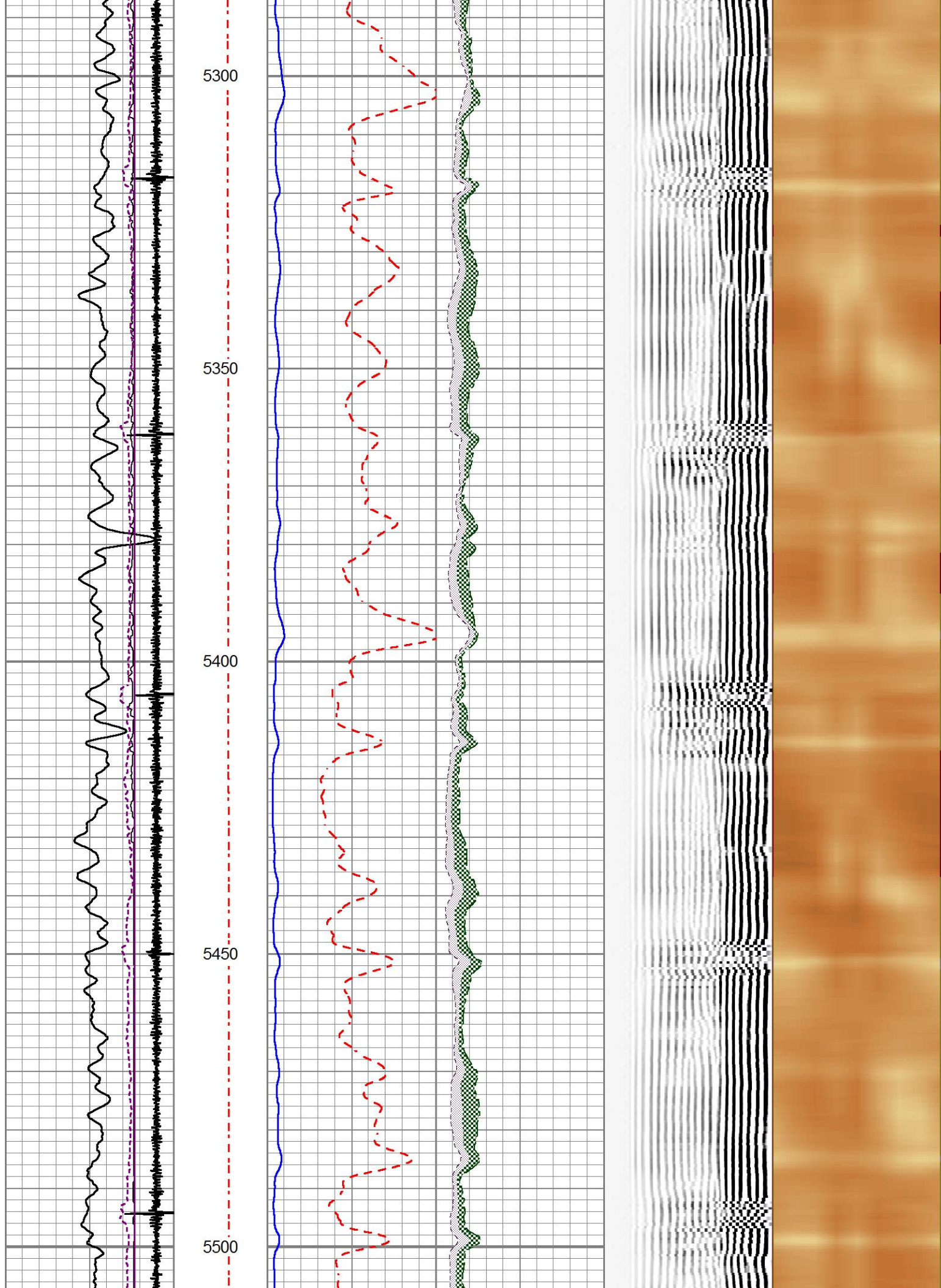


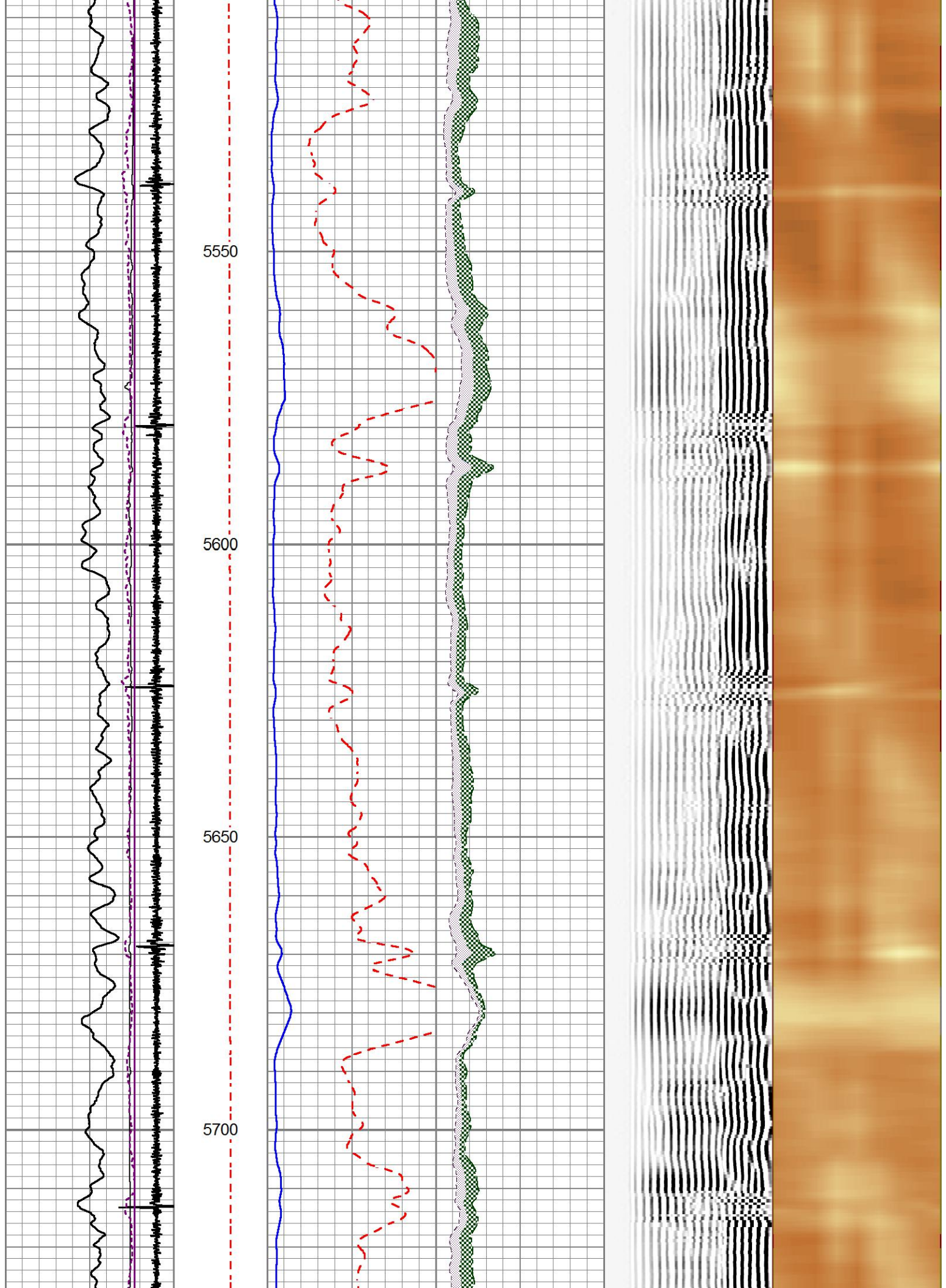


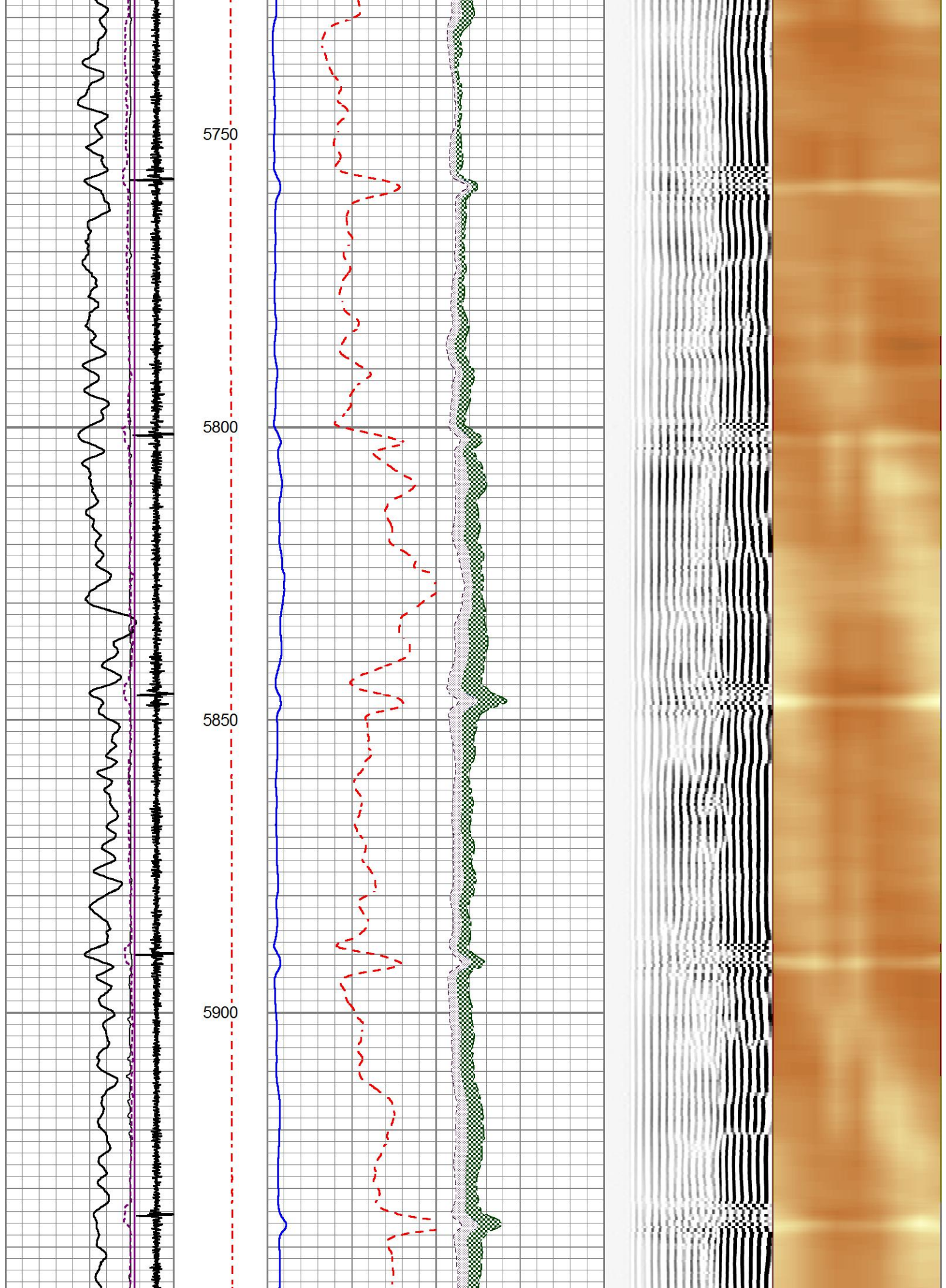


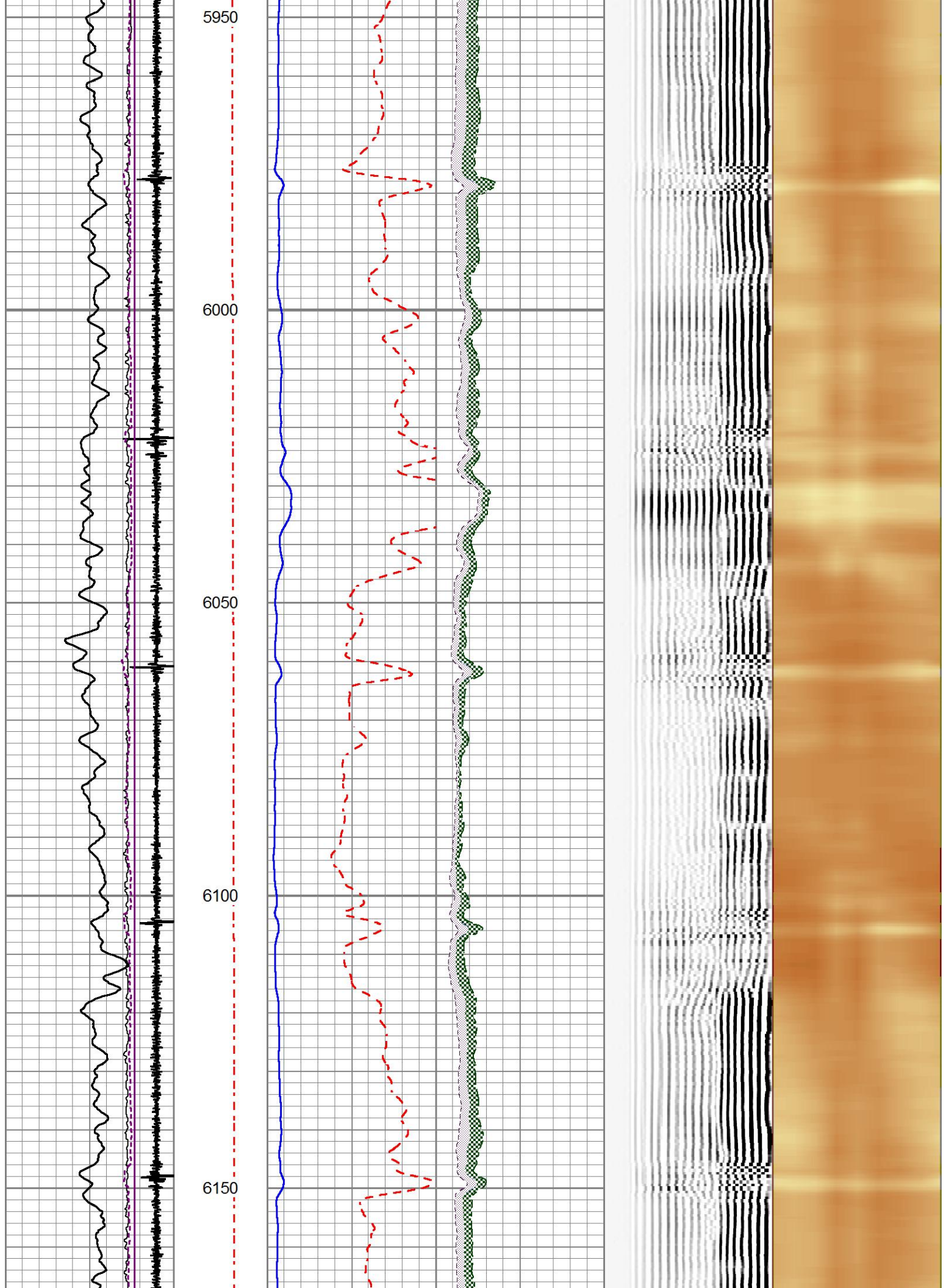


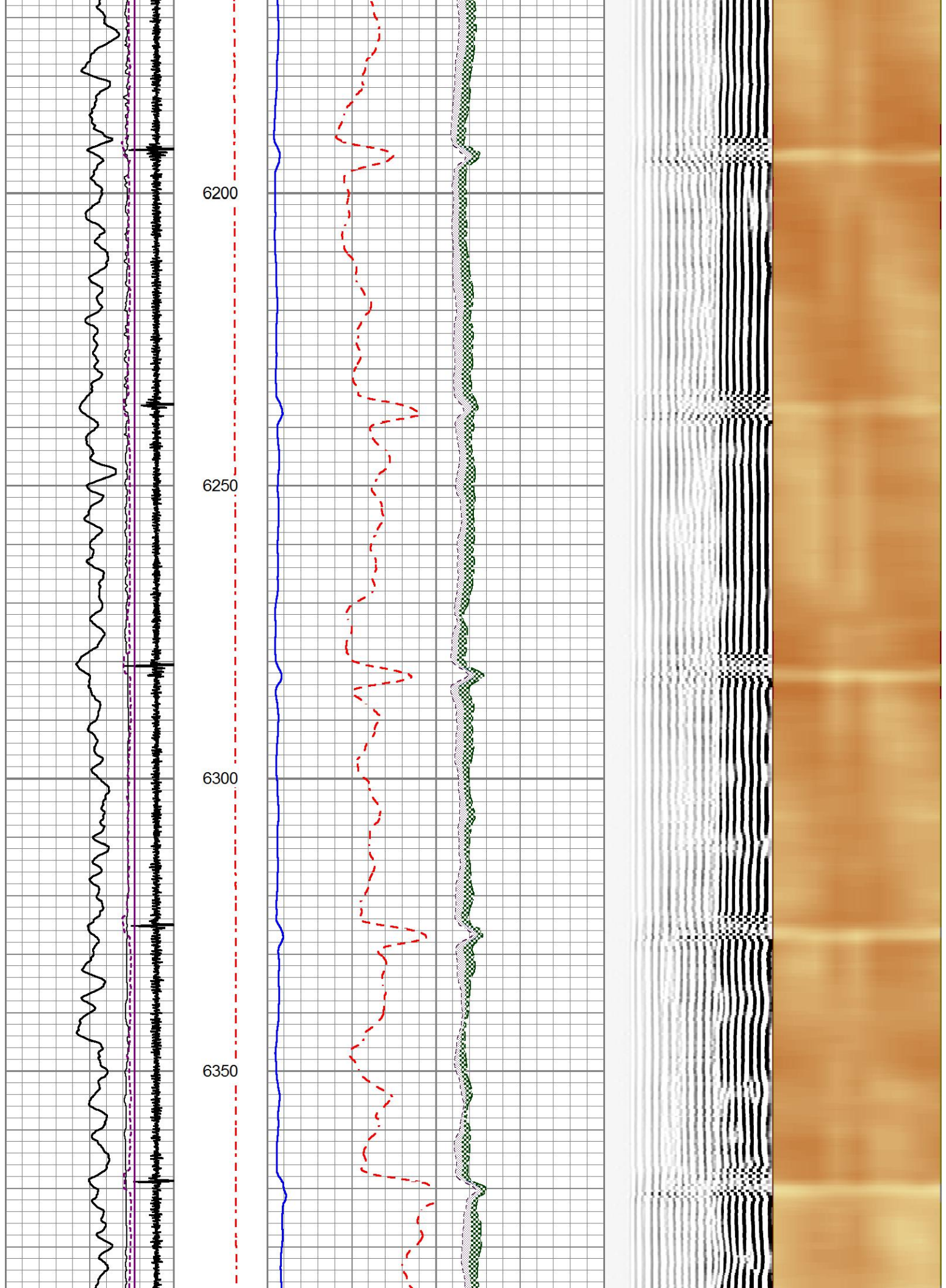


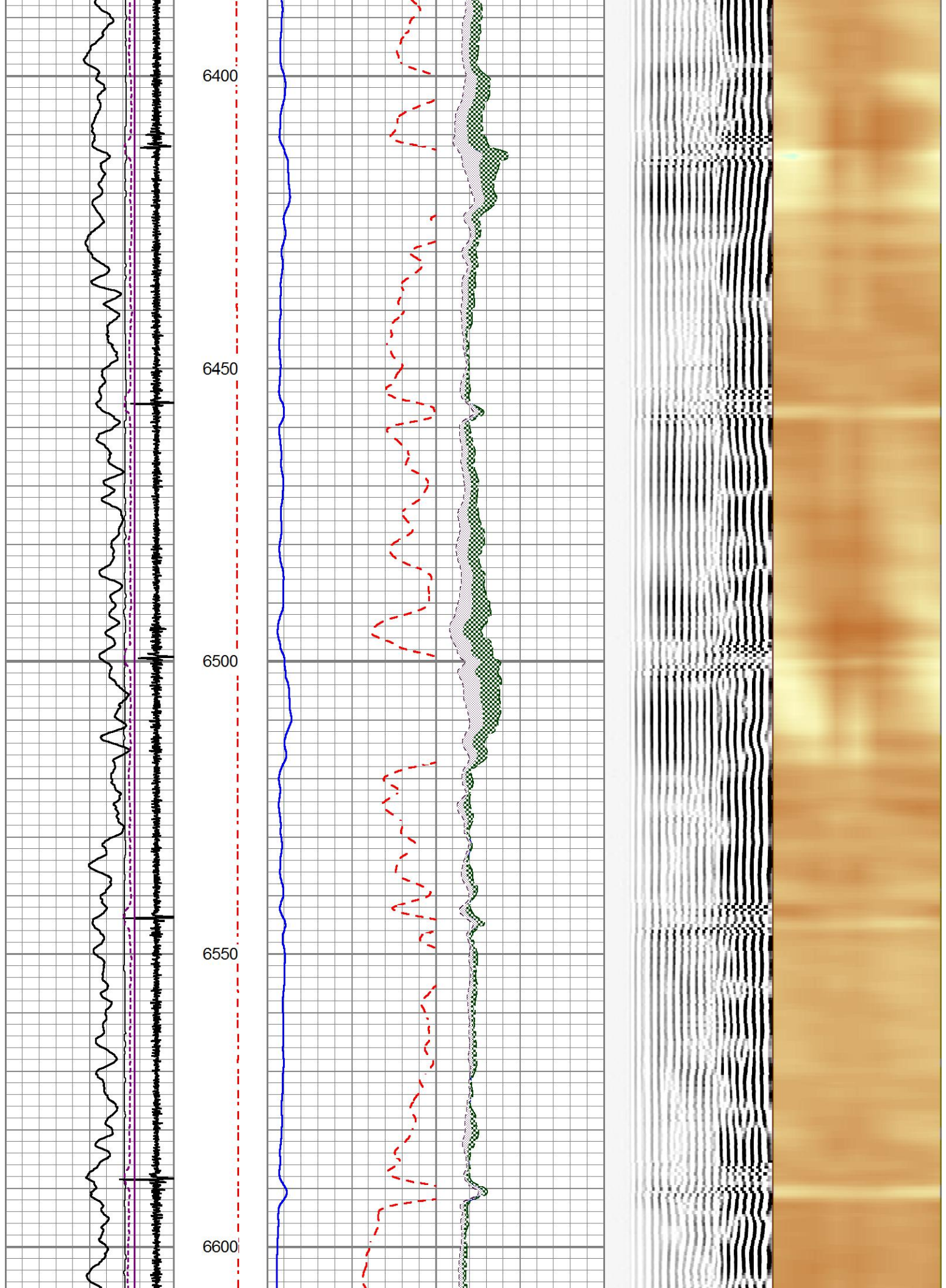


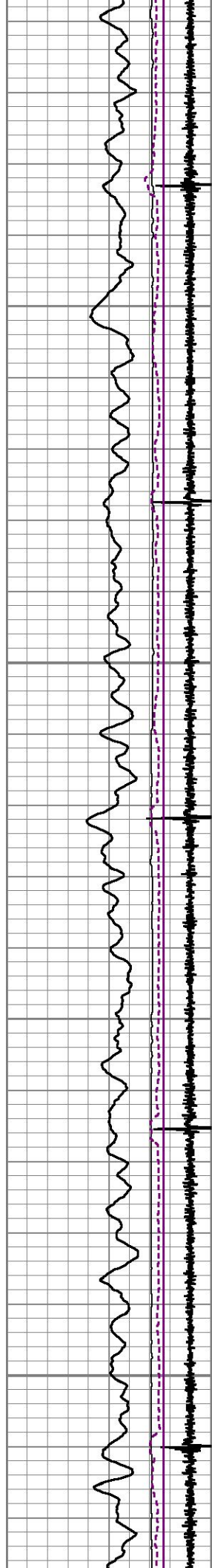










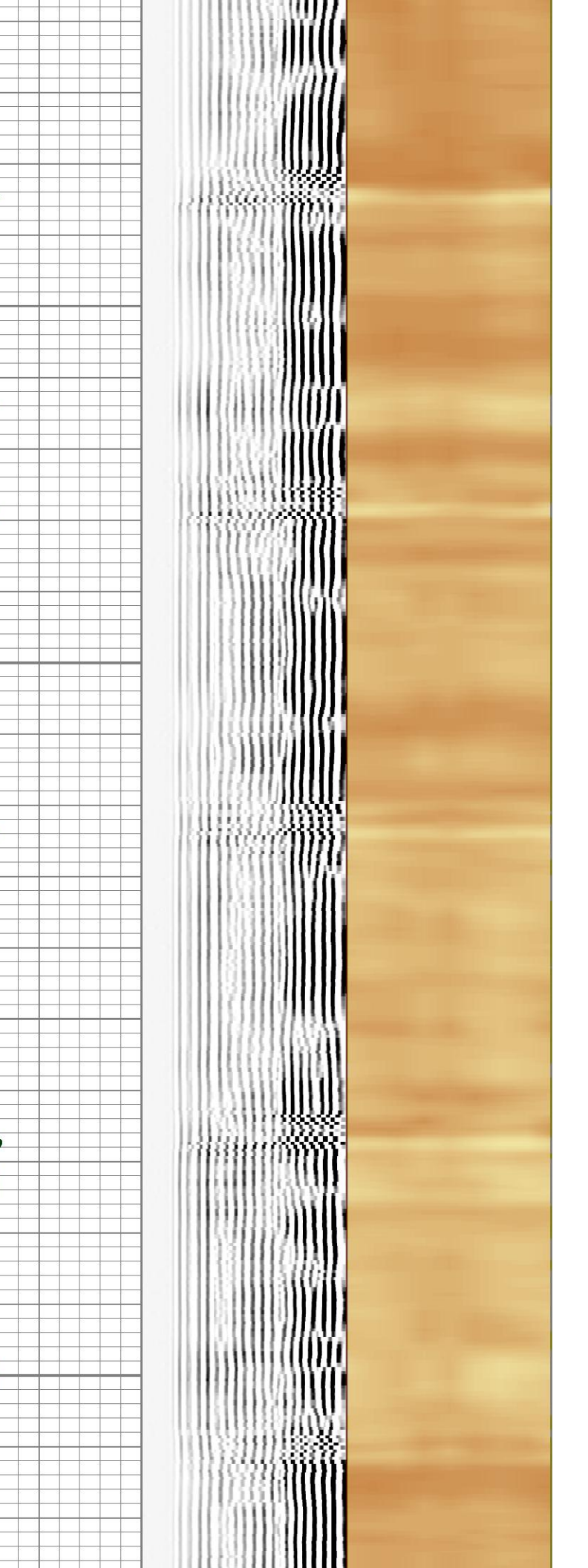
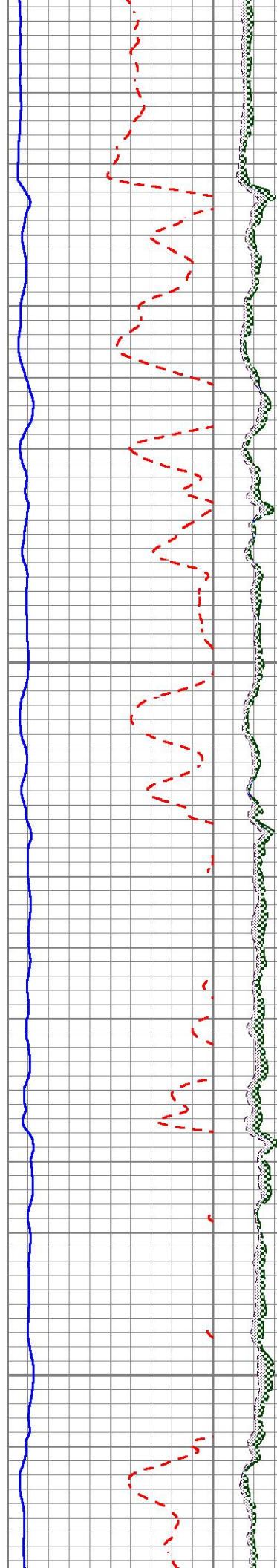


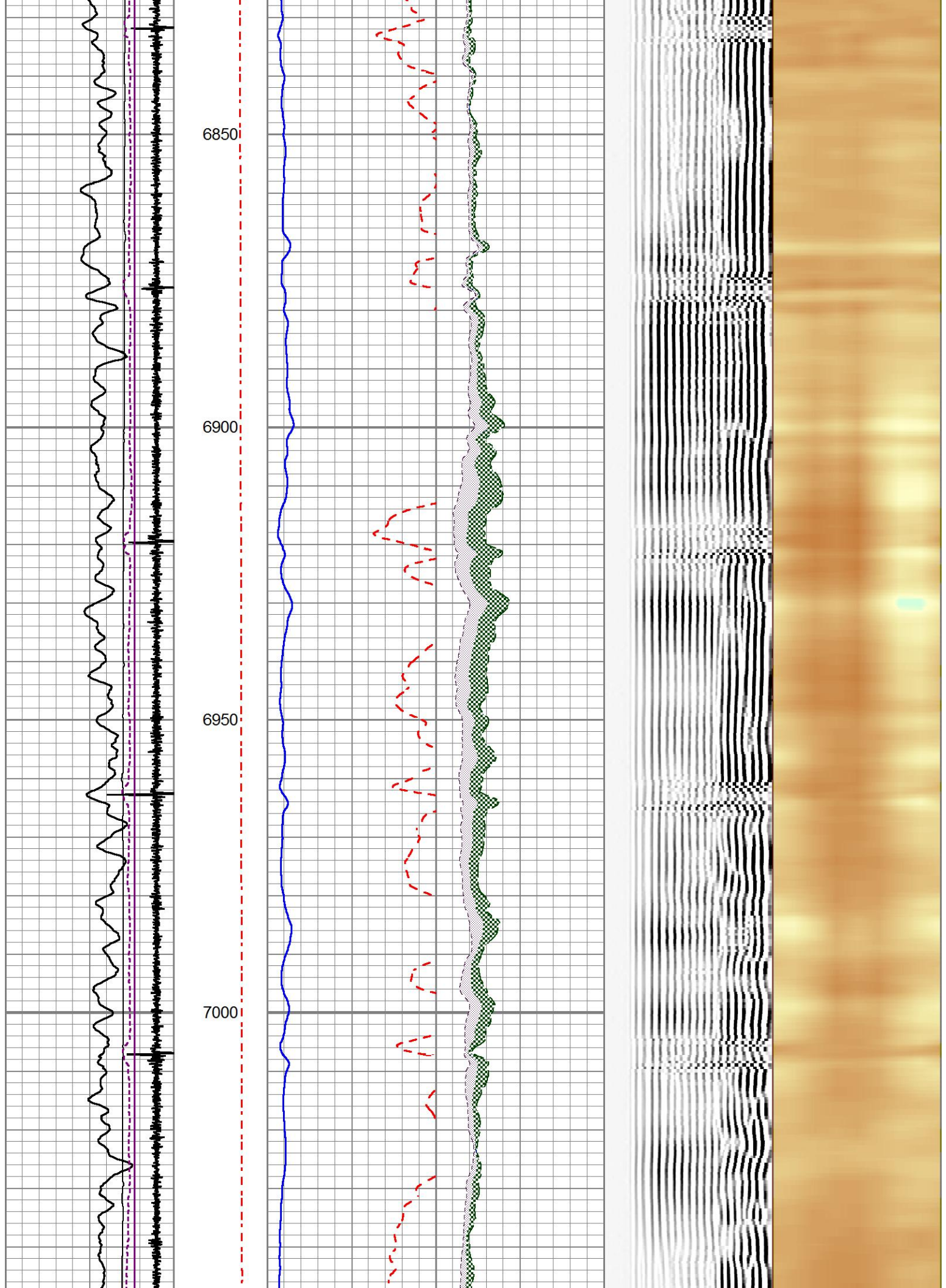
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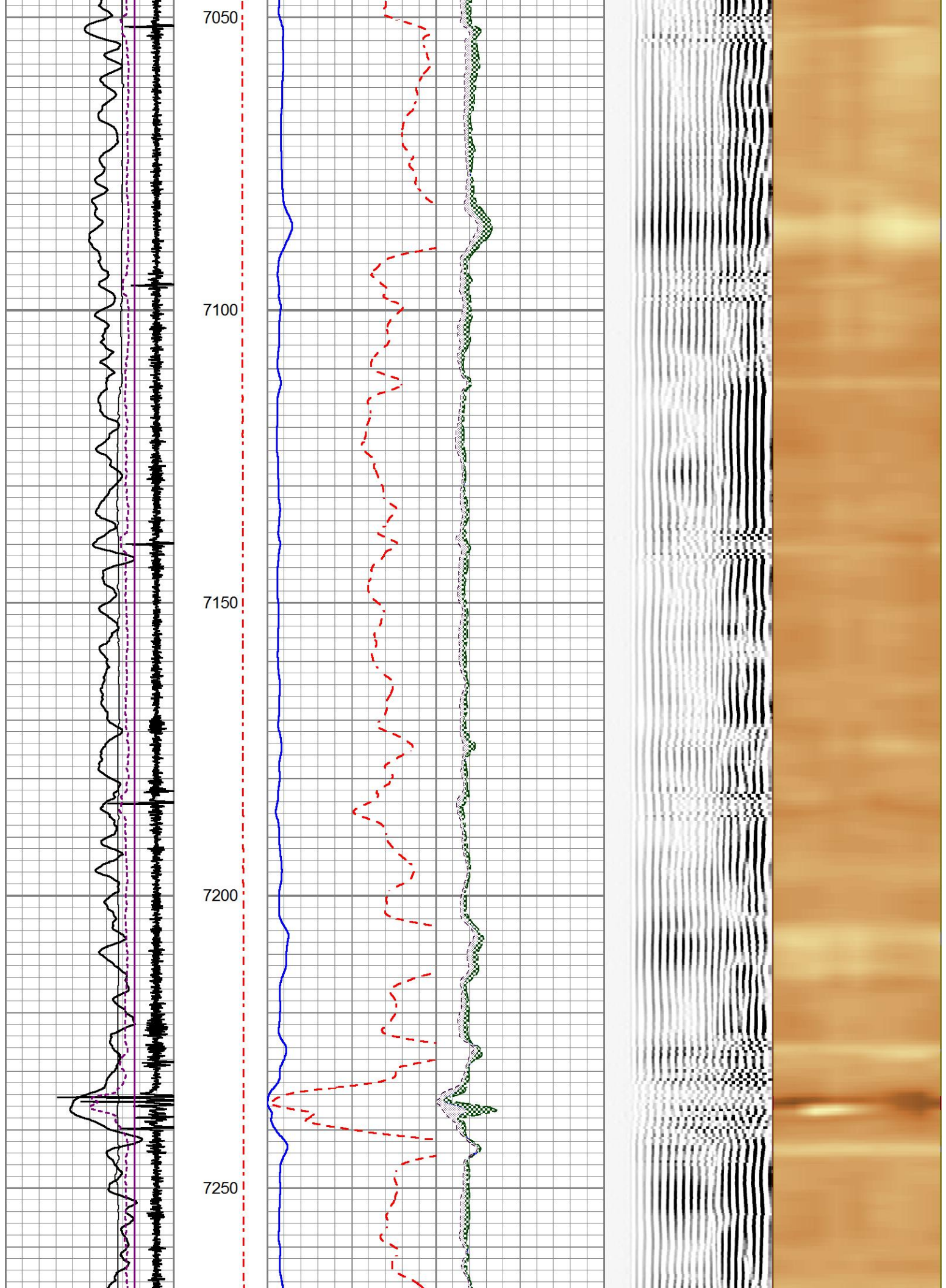
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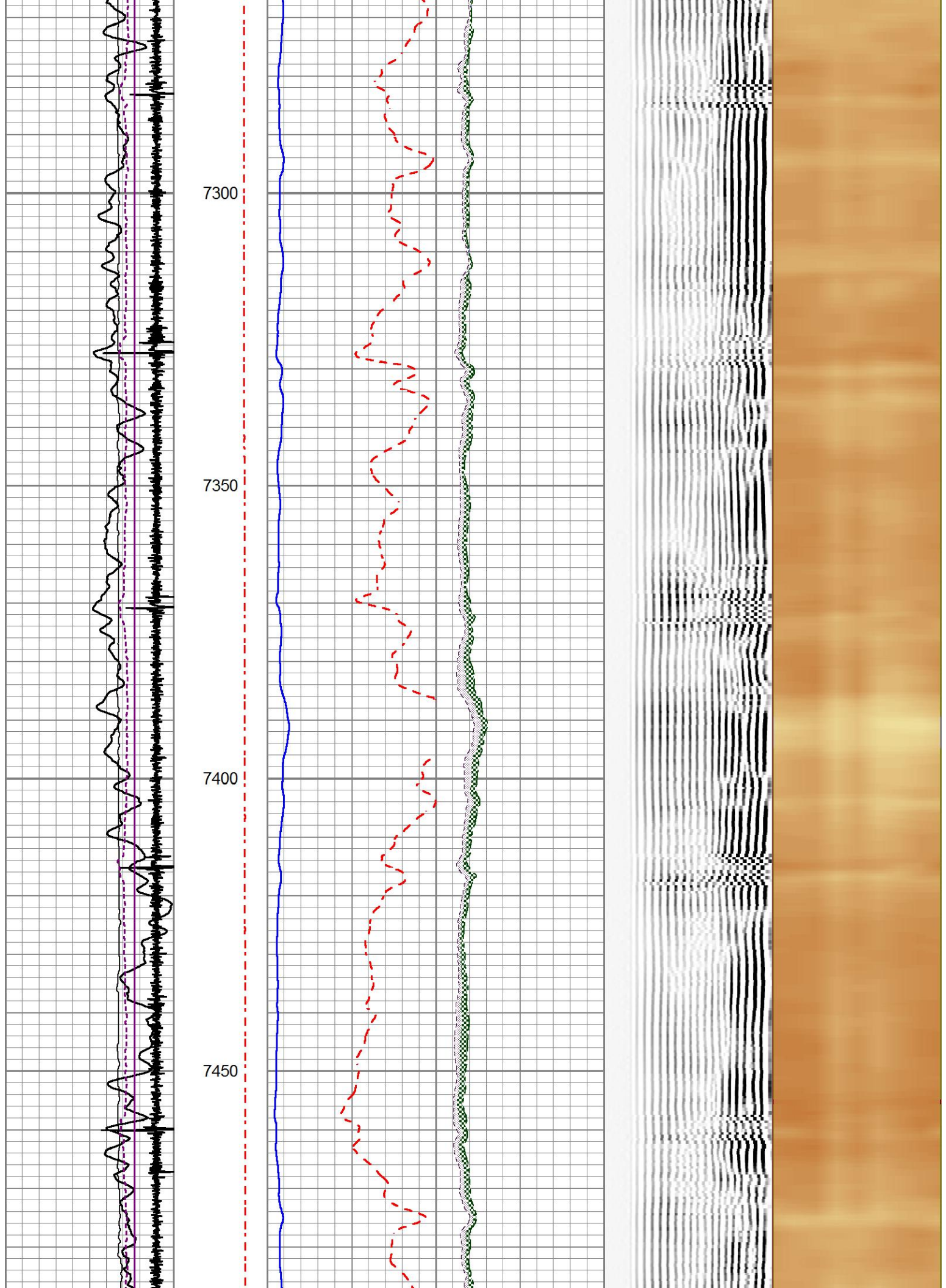
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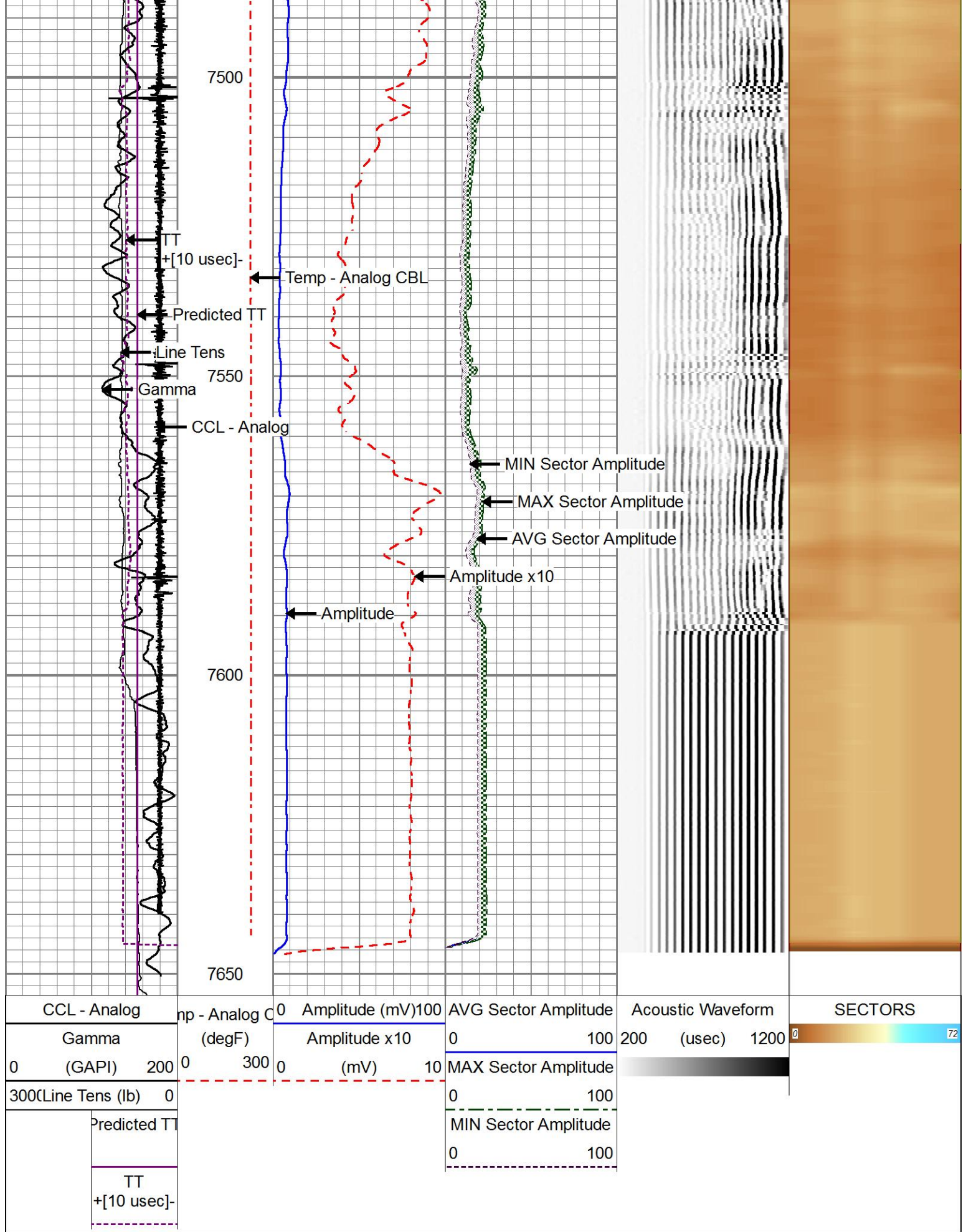
6800











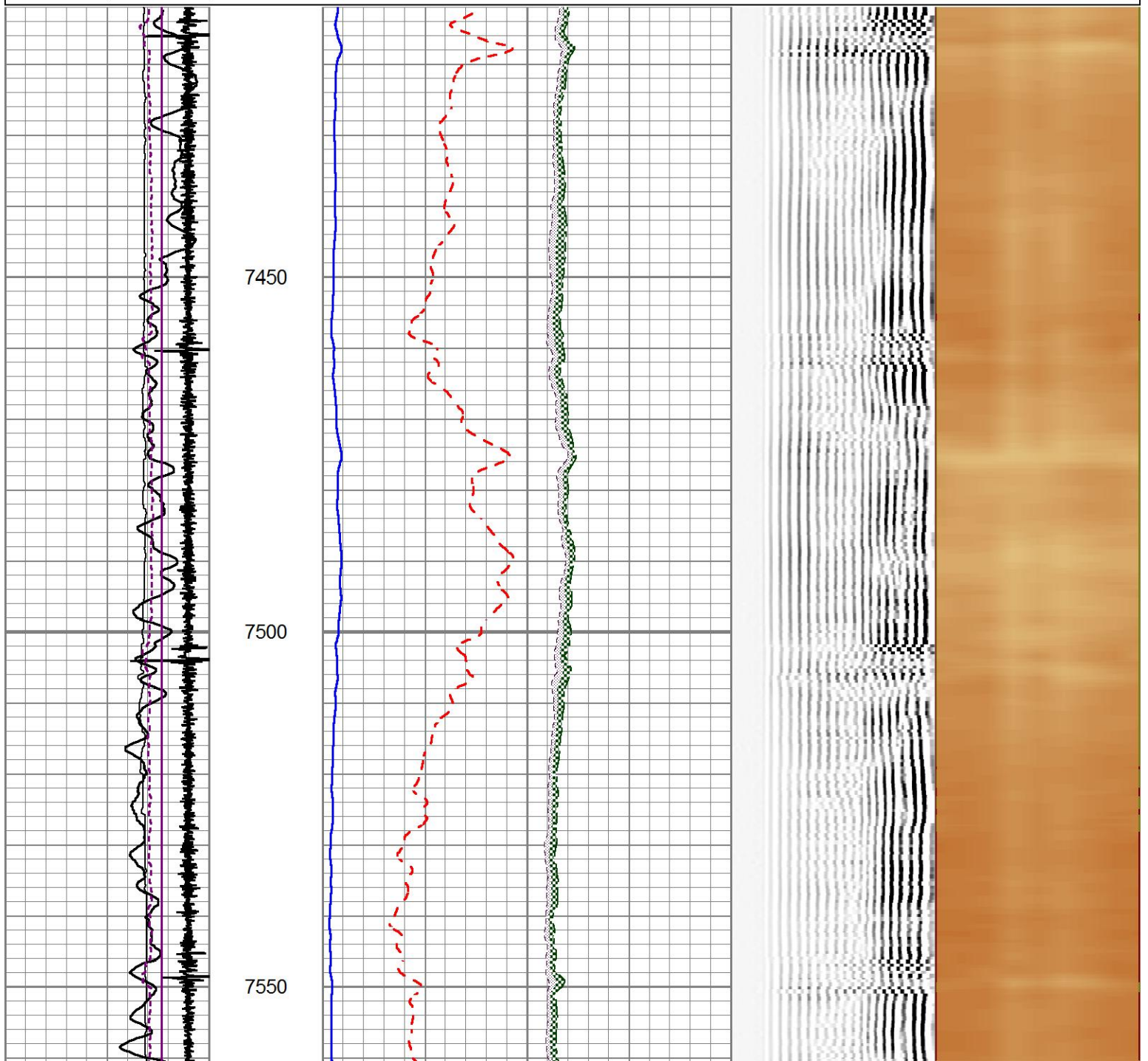
REPEAT PASS - Ran with

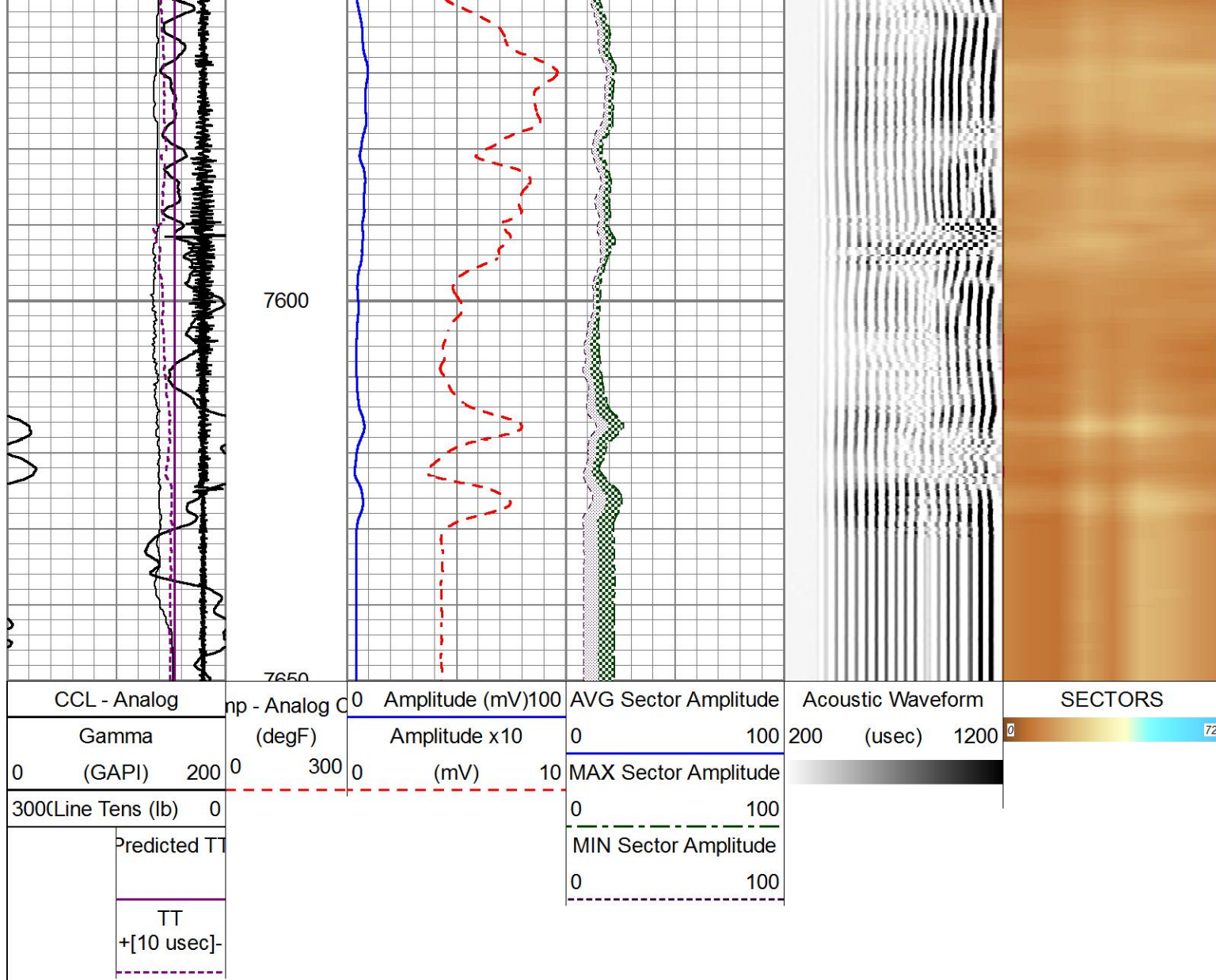
0

PSI

Database File	20180923_extraction_rinn valley east n17-20-14n_cbl\20180923_extraction_rinn valley east n17-20-14n_c
Dataset Pathname	pass2.1
Presentation Format	rcbl_8s
Dataset Creation	Sun Sep 23 19:21:33 2018
Charted by	Depth in Feet scaled 1:240

CCL - Analog	np - Analog C	0	Amplitude (mV)	100	AVG Sector Amplitude	Acoustic Waveform	SECTORS
Gamma	(degF)		Amplitude x10		0	100	0
(GAPI)	200	0	(mV)	10	MAX Sector Amplitude	200 (usec) 1200	72
300(Line Tens (lb)	0				0		
Predicted TT					MIN Sector Amplitude		
TT					0		
+ [10 usec]-							





Calibration Report		
Database File	d:\warrior\data\20180923_extraction_rinn valley east n17-20-14n_cbl\20180923_extraction_rinn valley east r	
Dataset Pathname	pass3.1	
Dataset Creation	Sun Sep 23 19:19:09 2018	

Gamma Ray Calibration Report		
Serial Number:	IXEM9-01	
Tool Model:	2 3/4" TekCo	
Performed:	Tue Dec 13 00:01:19 2016	
Calibrator Value:	194.0	GAPI
Background Reading:	59.5	cps
Calibrator Reading:	300.8	cps
Sensitivity:	0.8039	GAPI/cps

Segmented Cement Bond Log Calibration Report		
Serial Number:	IPPO2-01	
Tool Model:	2 3/4" RIB Analog	
Calibration Casing Diameter:	5.500	in
Calibration Depth:	0.000	ft

Master Calibration, performed (Derived):

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	-0.009	1.375	0.000	72.000	52.026	0.480
CAL	0.000	0.750				
5'	-0.006	1.860	0.000	72.000	38.585	0.248
SUM						
S1	0.016	1.201	0.000	72.000	60.760	-0.990
S2	0.016	1.256	0.000	72.000	58.104	-0.951
S3	0.019	1.479	0.000	72.000	49.306	-0.948
S4	0.020	1.756	0.000	72.000	41.489	-0.848
S5	0.020	1.703	0.000	72.000	42.786	-0.858
S6	0.022	1.532	0.000	72.000	47.662	-1.034
S7	0.021	1.289	0.000	72.000	56.771	-1.198
S8	0.018	1.158	0.000	72.000	63.164	-1.160

Internal Reference Calibration, performed Fri Aug 25 16:15:12 2017:

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.750	0.000	0.750	1.000	0.000

Air Zero Calibration, performed Fri Aug 25 16:15:12 2017:


	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	

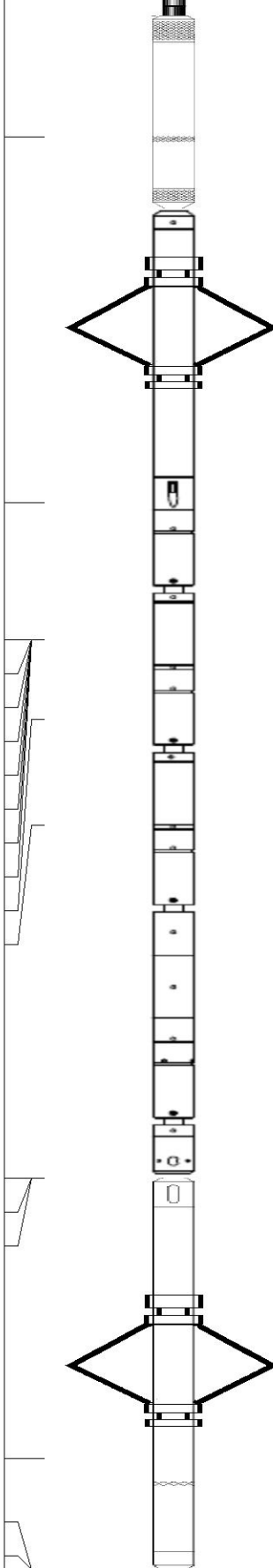

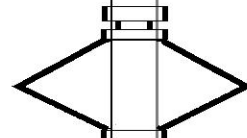

Temperature Calibration Report

Serial Number: IPPO2-01
Tool Model: 2 3/4" RIB Analog
Performed: Fri Aug 26 11:07:15 2016

	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: 1

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
			CableHead-TitanConeType2	1.03	1.44	3.60

CCL	13.50		CCL_Log-2 3/4" TekCo (IS2T1-09)	1.83	2.75	33.00	
			Antelope-Overbody	1.25	2.75		
TEMP	10.05						
WVFS8	8.76			RBTA-2 3/4" RIB Analog (IPPO2-01)	9.13	2.75	102.00
WVFS7	8.76						
WVFS6	8.76						
WVFS5	8.76						
WVFS4	8.76						
WVFS3	8.76						
WVFS2	8.76						
WVFS1	8.76						
WVF3FT	8.01						
WVF5FT	7.01						
WVFSYNC	3.68						
WVFTEMP	3.68						
WVFCAL	3.68						
			Antelope-Overbody	1.25	2.75		
			GR_Log-2 3/4" TekCo (IXEM9-01)	3.68	2.75	47.00	
GR	1.04						
LOCTIM	0.00						
UTCTIM	0.00						
Dataset: 20180923_extraction_rinn valley east n17-20-14n_cbl.db: field/well/run1/pass3.1 Total length: 15.67 ft Total weight: 185.60 lb O.D.: 2.75 in							



Well Rinn Valley East N17-20-14N
Field Wattenberg
County Weld
State Colorado

Country U.S.A.