



RADIAL CEMENT BOND LOG

Company KERR-MCGEE OIL AND GAS
Well UPRR 42 PAN AM M 1
Field WATTENBERG
County WELD
State COLORADO

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Well UPRR 42 PAN AM M 1
Field WATTENBERG
County WELD State COLORADO

Location: API #: 05-123-08153-0000
SEC: 15 TWP: 1N RGE: 67W
SW NE
1650' FNL & 1540' FEL
Permanent Datum GROUND LEVEL Elevation 5040'
Log Measured From KELLY BUSHING = 10'
Drilling Measured From KELLY BUSHING
Other Services
NONE
Elevation
K.B. 5050'
D.F. 5049'
G.L. 5040'

Date	25 APRIL 2016		
Run Number	ONE		
Depth Driller	8250'		
Depth Logger	8010'		
Bottom Logged Interval	8010'		
Top Log Interval	SURFACE		
Open Hole Size	7-7/8"		
Type Fluid	WATER		
Density / Viscosity	~8.3#		
Max. Recorded Temp.	233 DEG F		
Estimated Cement Top	7522'		
Time Well Ready	N/A		
Time Logger on Bottom	N/A		
Equipment Number	W-062		
Location	WINDSOR, CO		
Recorded By	Z. EMICK		
Witnessed By	C. ROW		
Borehole Record		Tubing Record	
Run Number	Bit	From	To
		Size	Weight
Casing Record	Size	Wgt/Ft	Top
Surface String	8-5/8"	24#	0'
Prot. String			
Production String	4.5"		0'
Liner			8240'

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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

FREE PIPE READING = 82mV LOG RAN WITH 0 PSI ON WELL

FREE PIPE CORRELATED AT 3995'

LOG NOT CORRELATED TO ANY OTHER LOG

CREW TODAY: Z. EMICK, J. JACKSON, A. MACKEY

THANK YOU FOR CHOOSING CUTTERS WIRELINE SERVICE

WE APPRECIATE YOUR BUSINESS, CUTTERS WIRELINE, WINDSOR CO. (970) 834-2495

Calibration Report

Database File: uprr_42_pan_am_m_1.db
Dataset Pathname: pass5
Dataset Creation: Mon Apr 25 18:02:52 2016 by Log SCH 110630

Temperature Calibration Report

Serial Number: 060110
Tool Model: 1.375TEMP
Performed: Fri Apr 08 10:43:22 2016

	Reference	Reading
Low Reference:	1.00 degF	10.00 cps
High Reference:	100.00 degF	1000.00 cps
Gain:	0.10	
Offset:	0.00	
Delta Spacing	1	

Gamma Ray Calibration Report

Serial Number: 060108
Tool Model: Probe
Performed: Mon Oct 01 09:23:25 2012

Calibrator Value: 185.2 GAPI

Background Reading: 4.8 cps
Calibrator Reading: 200.0 cps

Sensitivity: 0.9487 GAPI/cps

Segmented Cement Bond Log Calibration Report

Serial Number: 060113_45
Tool Model: Probe

Calibration Casing Diameter: 4.500 in
Calibration Depth: 3395.099 ft

Master Calibration, performed Mon Apr 25 17:43:50 2016:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.006	0.243	2.000	81.196	334.765	-0.154
CAL	0.007	2.493				
5'	0.007	0.214	2.000	81.196	382.397	-0.521
SUM						
S1	0.006	0.236	0.000	100.000	434.358	-2.603
S2	0.006	0.248	0.000	100.000	413.445	-2.640
S3	0.006	0.245	0.000	100.000	419.243	-2.579
S4	0.006	0.239	0.000	100.000	428.923	-2.660
S5	0.006	0.230	0.000	100.000	447.601	-2.754
S6	0.006	0.223	0.000	100.000	462.433	-2.896
S7	0.006	0.230	0.000	100.000	447.650	-2.842
S8	0.006	0.244	0.000	100.000	420.793	-2.733

Internal Reference Calibration, performed Wed Dec 31 17:00:00 1969:

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.007	2.493	1.000	0.000

Air Zero Calibration, performed Tue Mar 29 08:51:45 2016:

	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

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

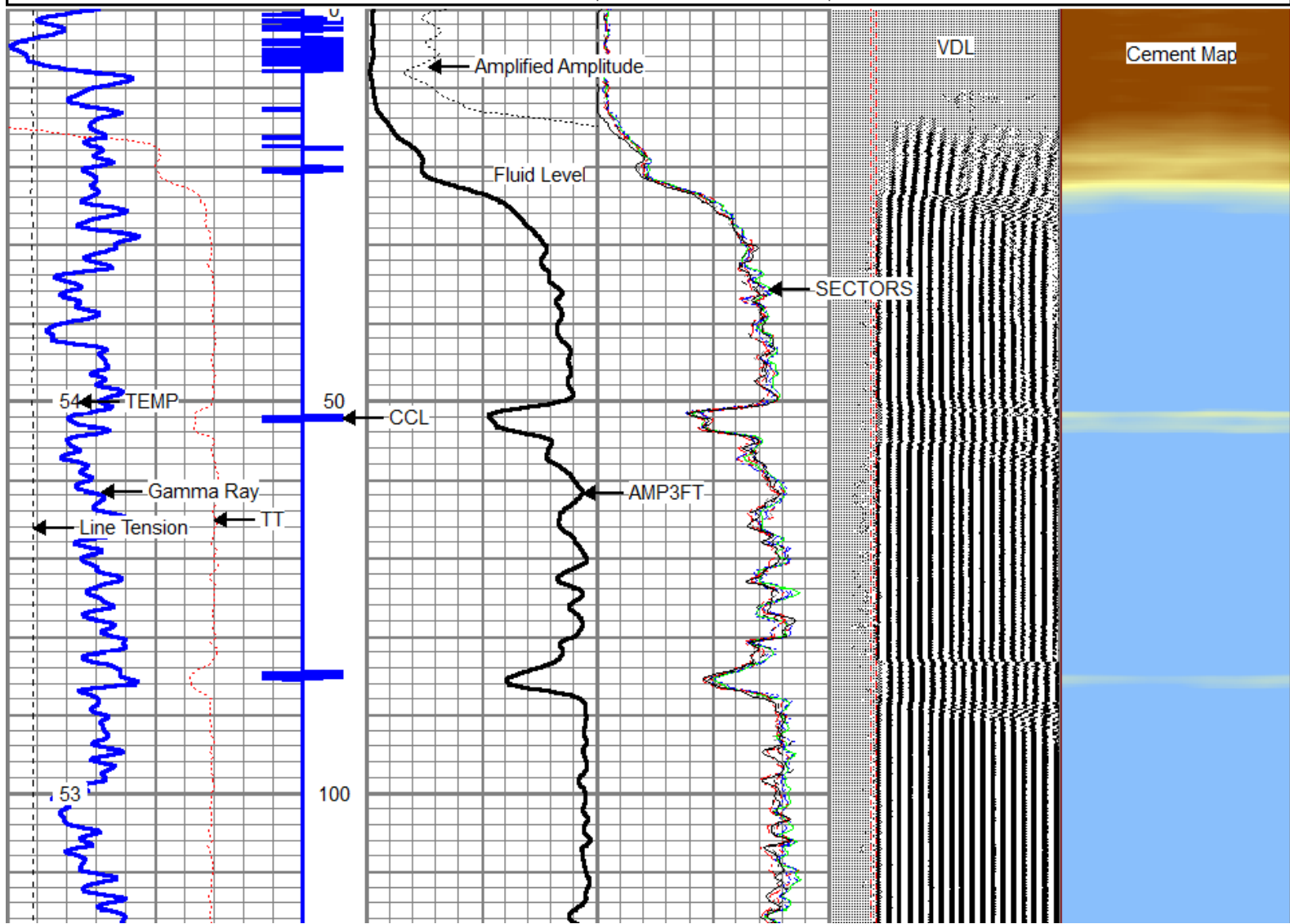


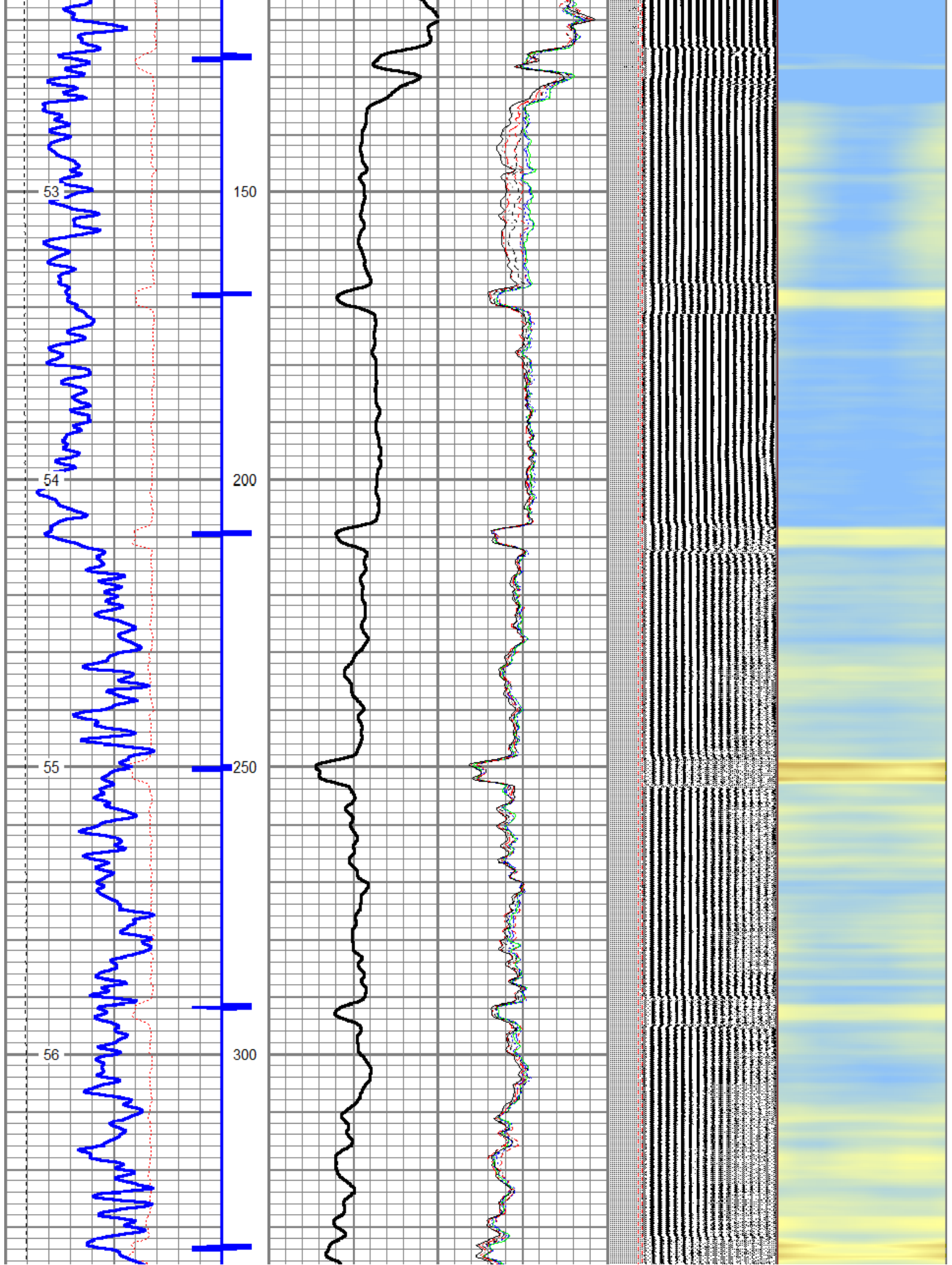
MAIN PASS 0 PSI

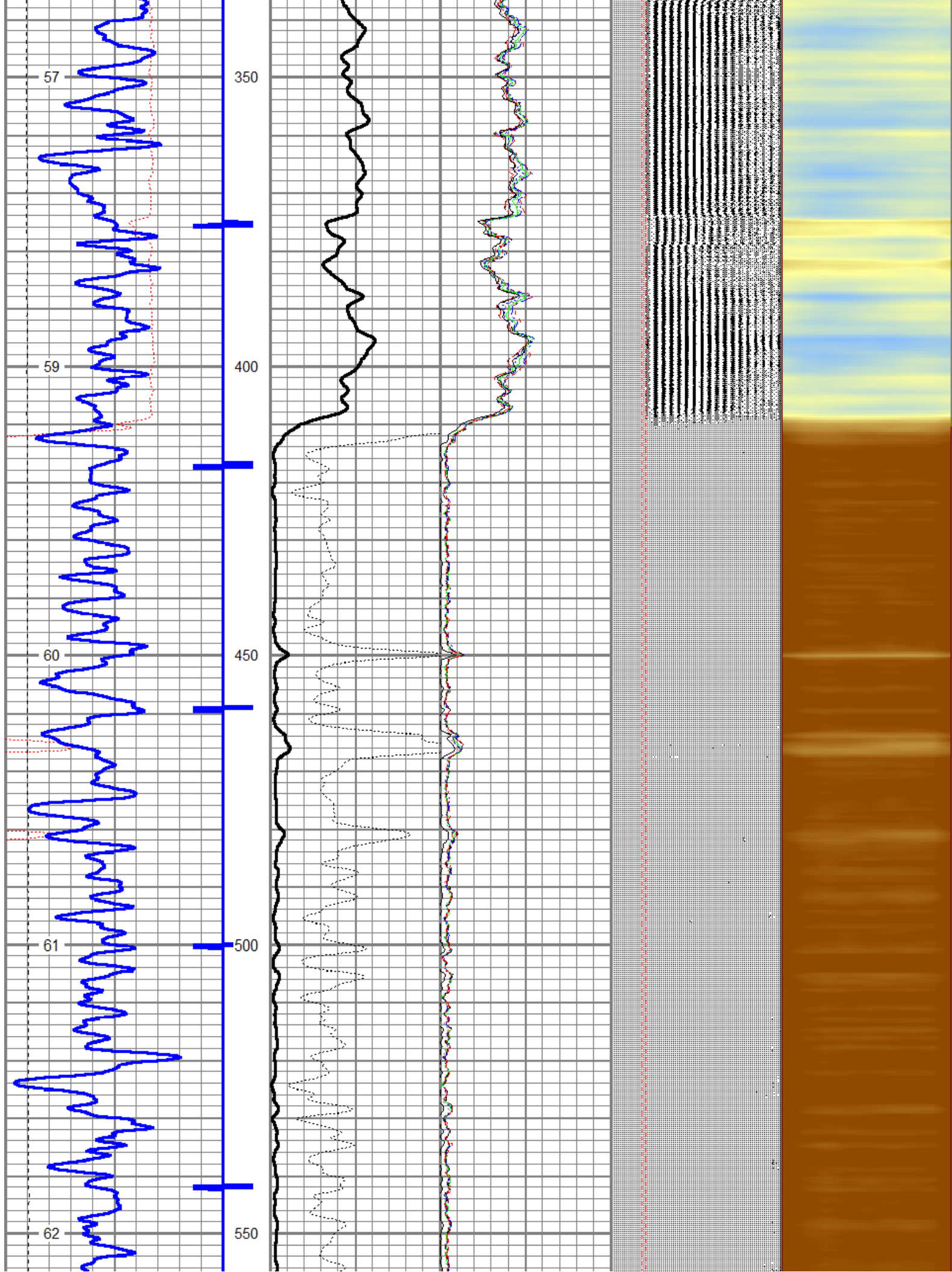
5" = 100'

Database File: uprr_42_pan_am_m_1.db
 Dataset Pathname: pass5
 Presentation Format: rbl55
 Dataset Creation: Mon Apr 25 18:02:52 2016 by Log SCH 110630
 Charted by: Depth in Feet scaled 1:240

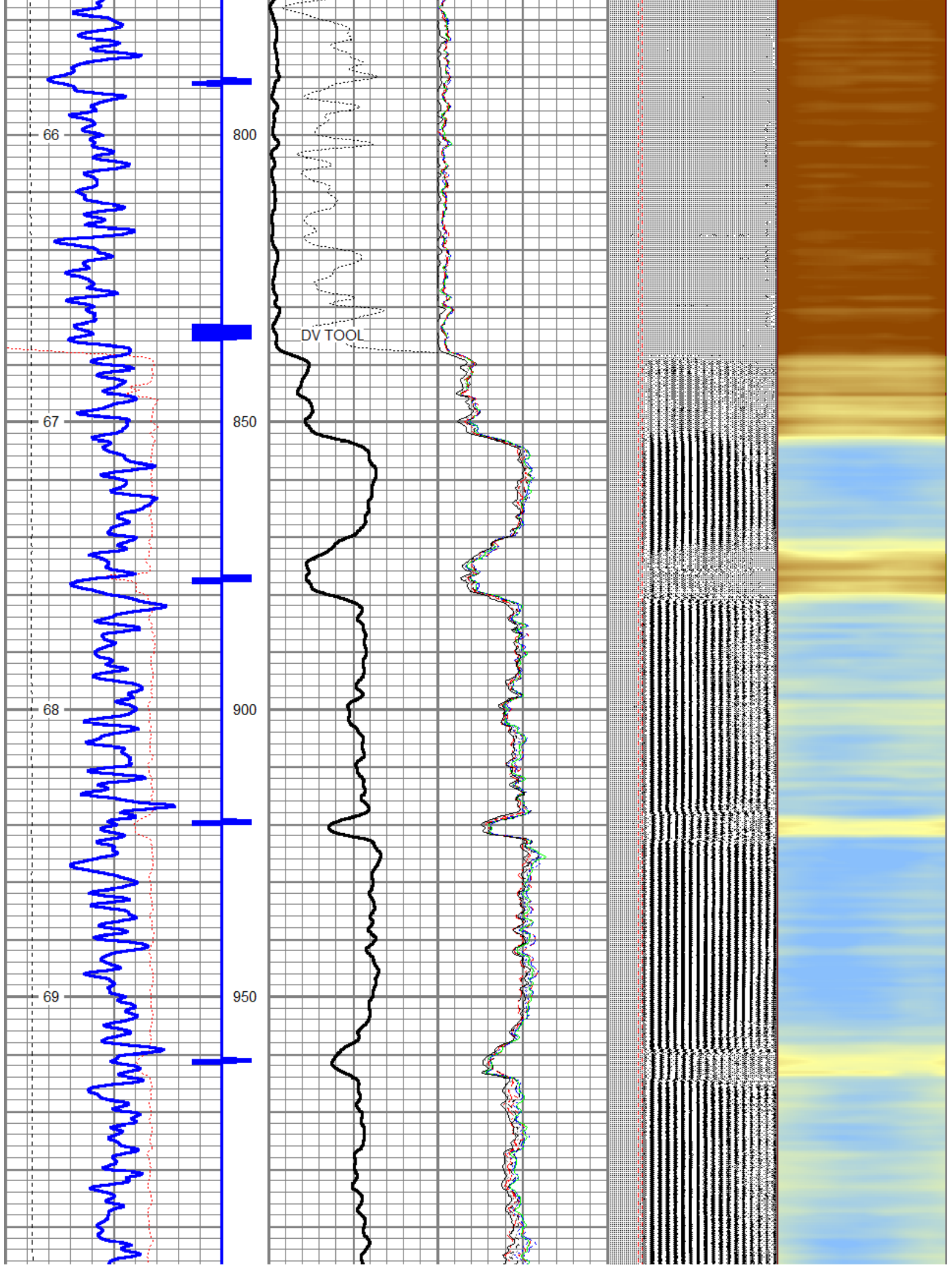
343	TT (usec)	243	0	Amplitude (mV)	100	-5	AMPS2	150	200	WVF5FT	1200	Cement Map
0	GR (GAPI)	200	0	Amplified Amplitude		-5	AMPS3	150				80
0	LTEN (lb)	4000	0	(mV)	10	-5	AMPS4	150		Free Pipe Gate		
	TEMP (degF)					-5	AMPS5	150				
						-5	AMPS6	150				
						-5	AMPS7	150				
						-5	AMPS8	150				
						-5	AMPS1	150				

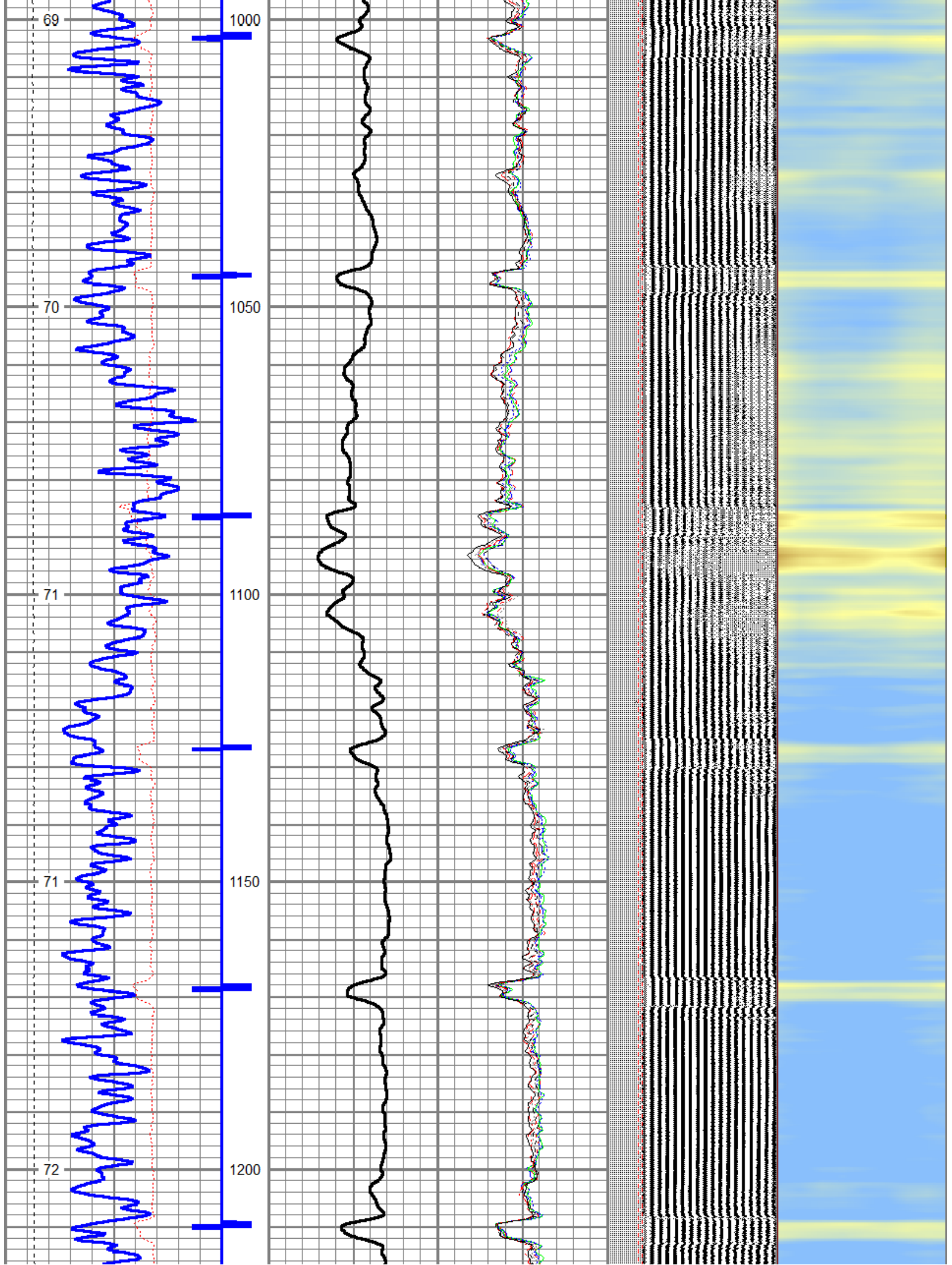


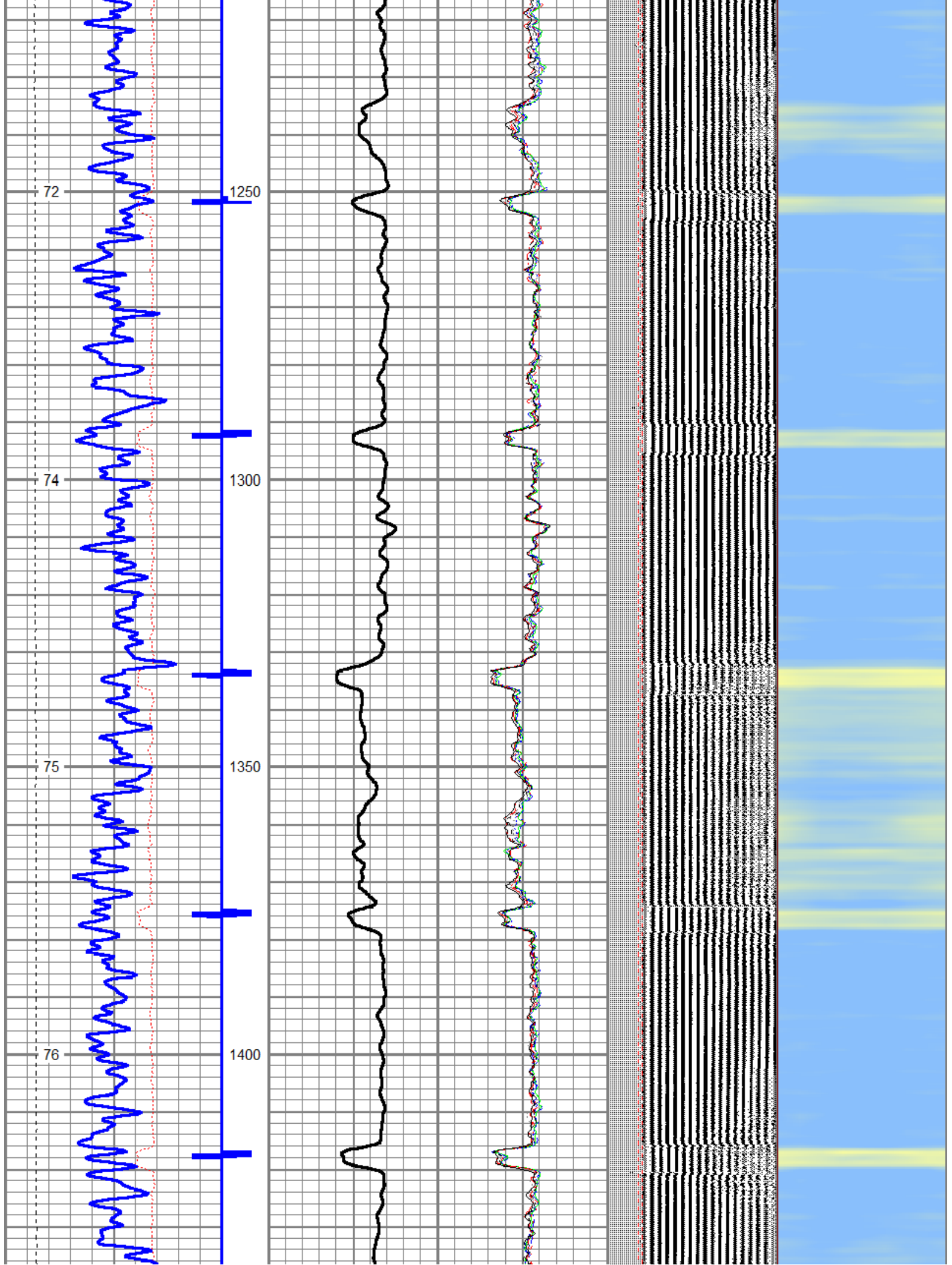


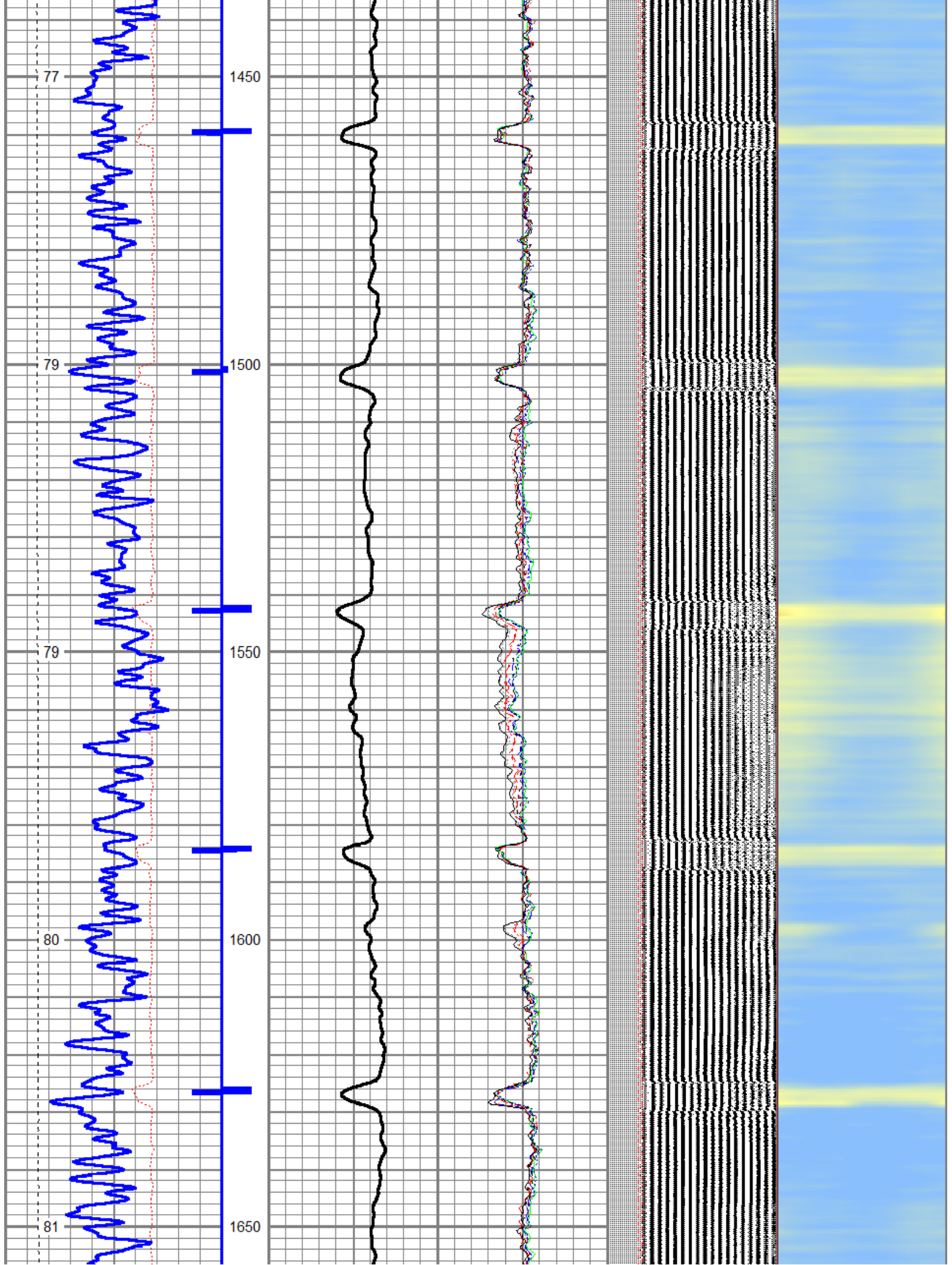


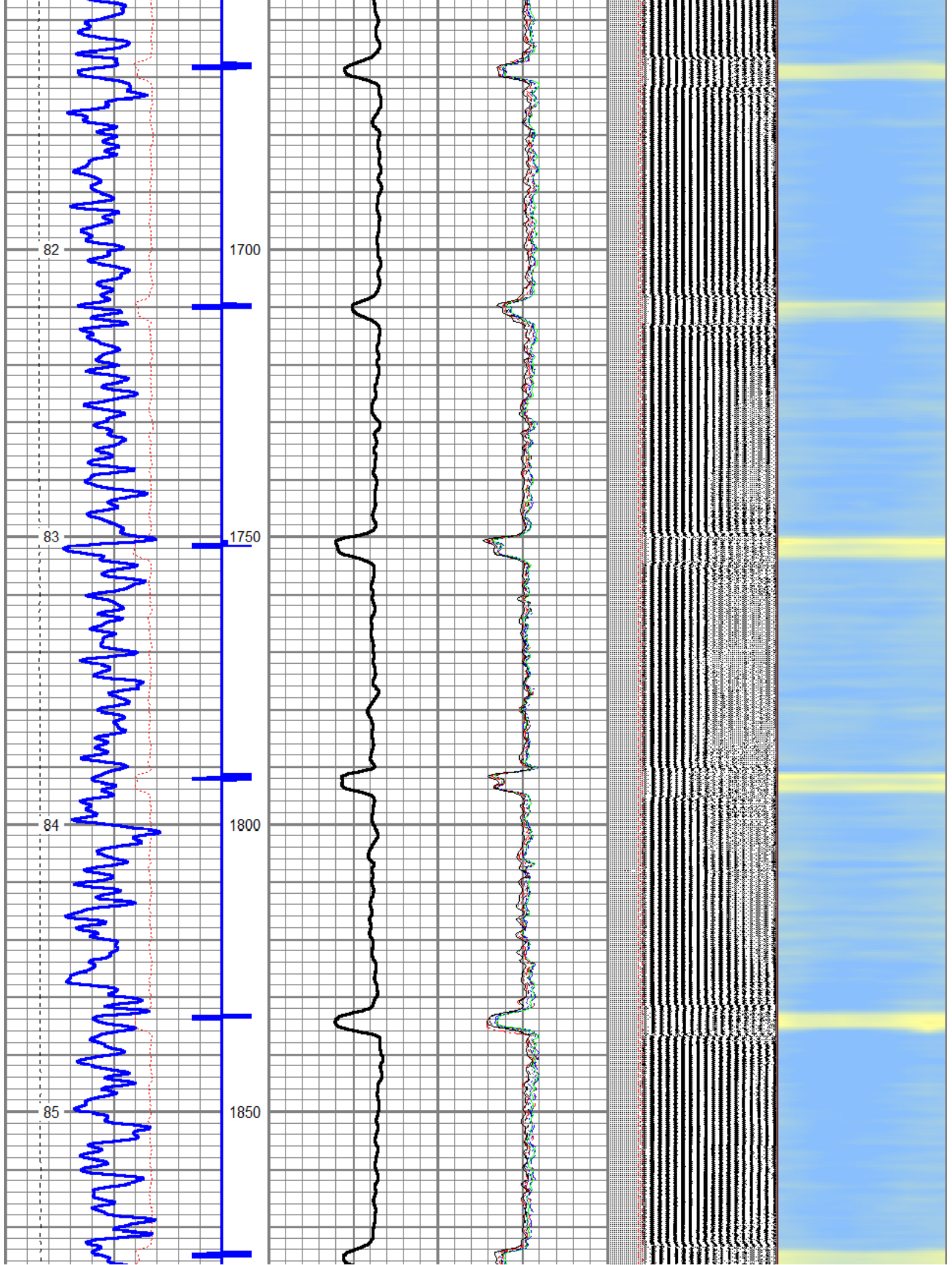


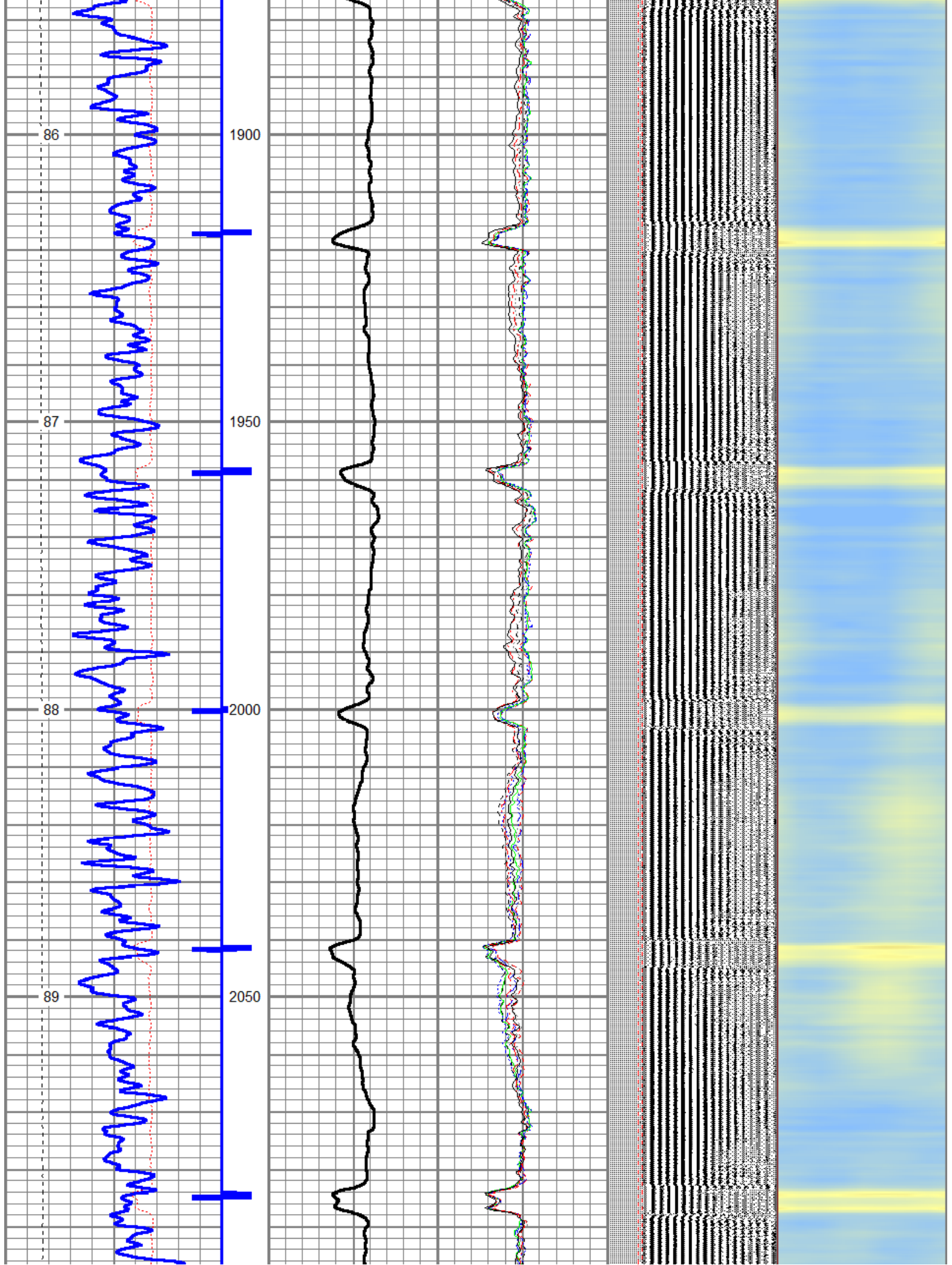


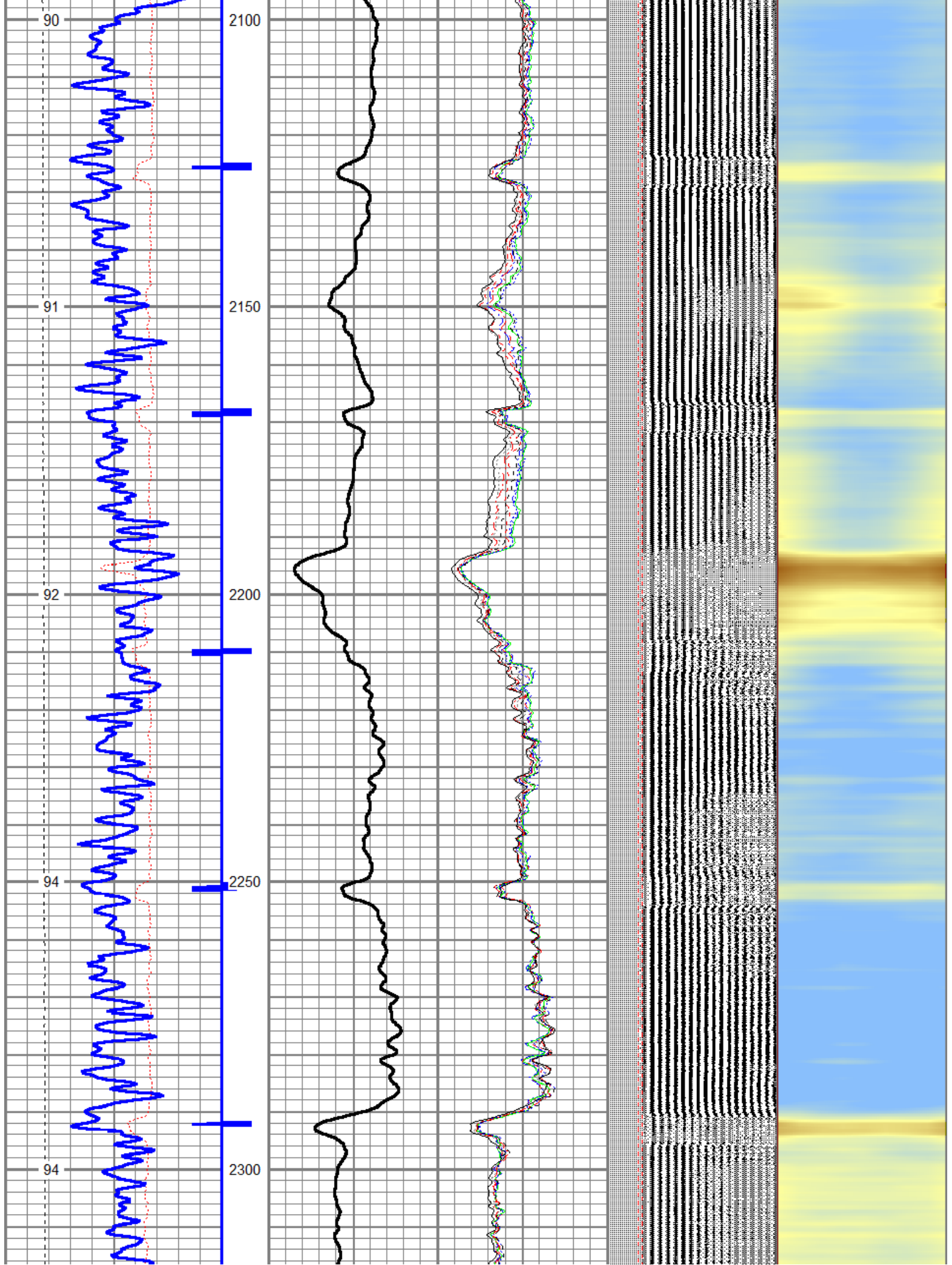


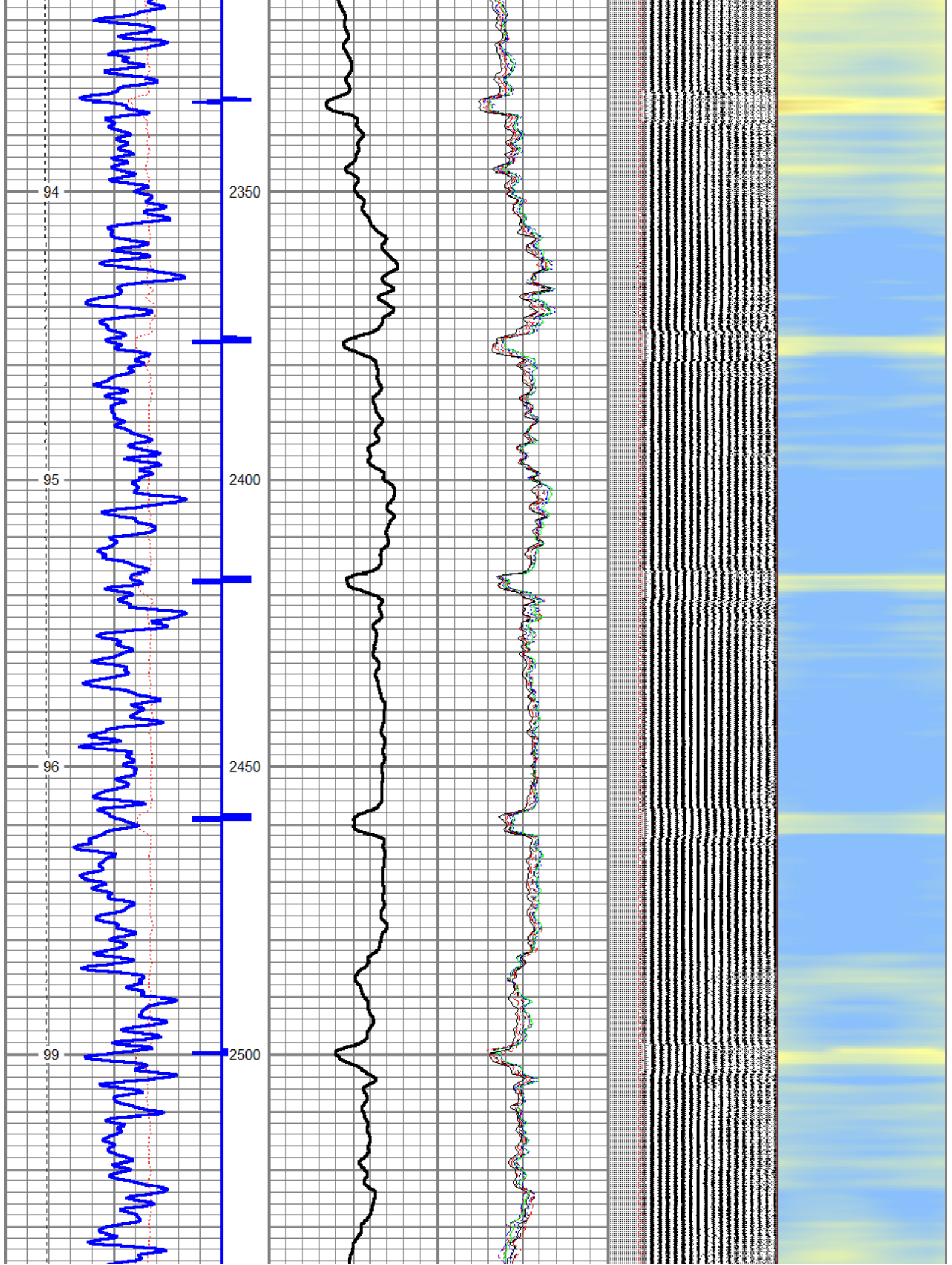


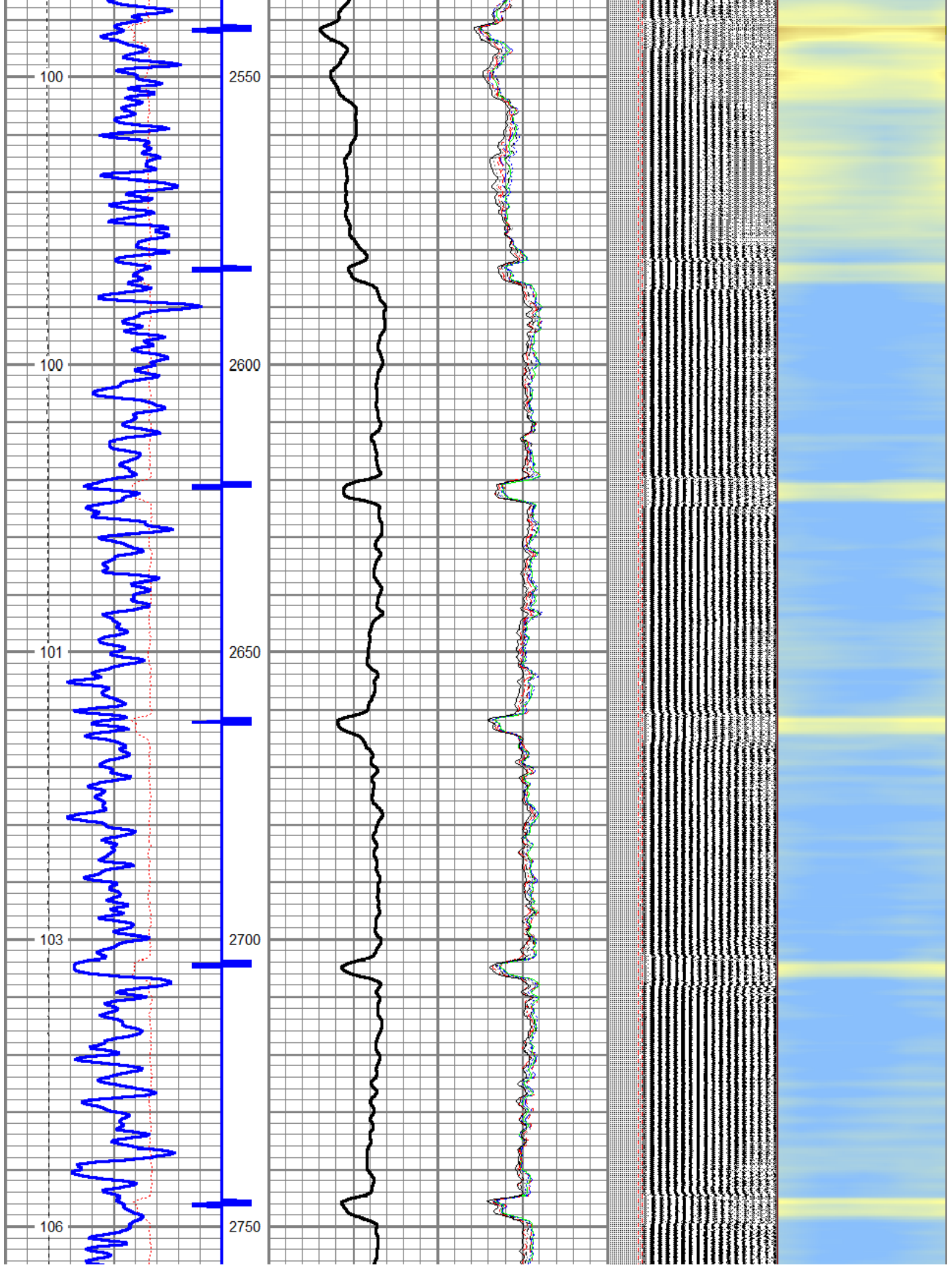


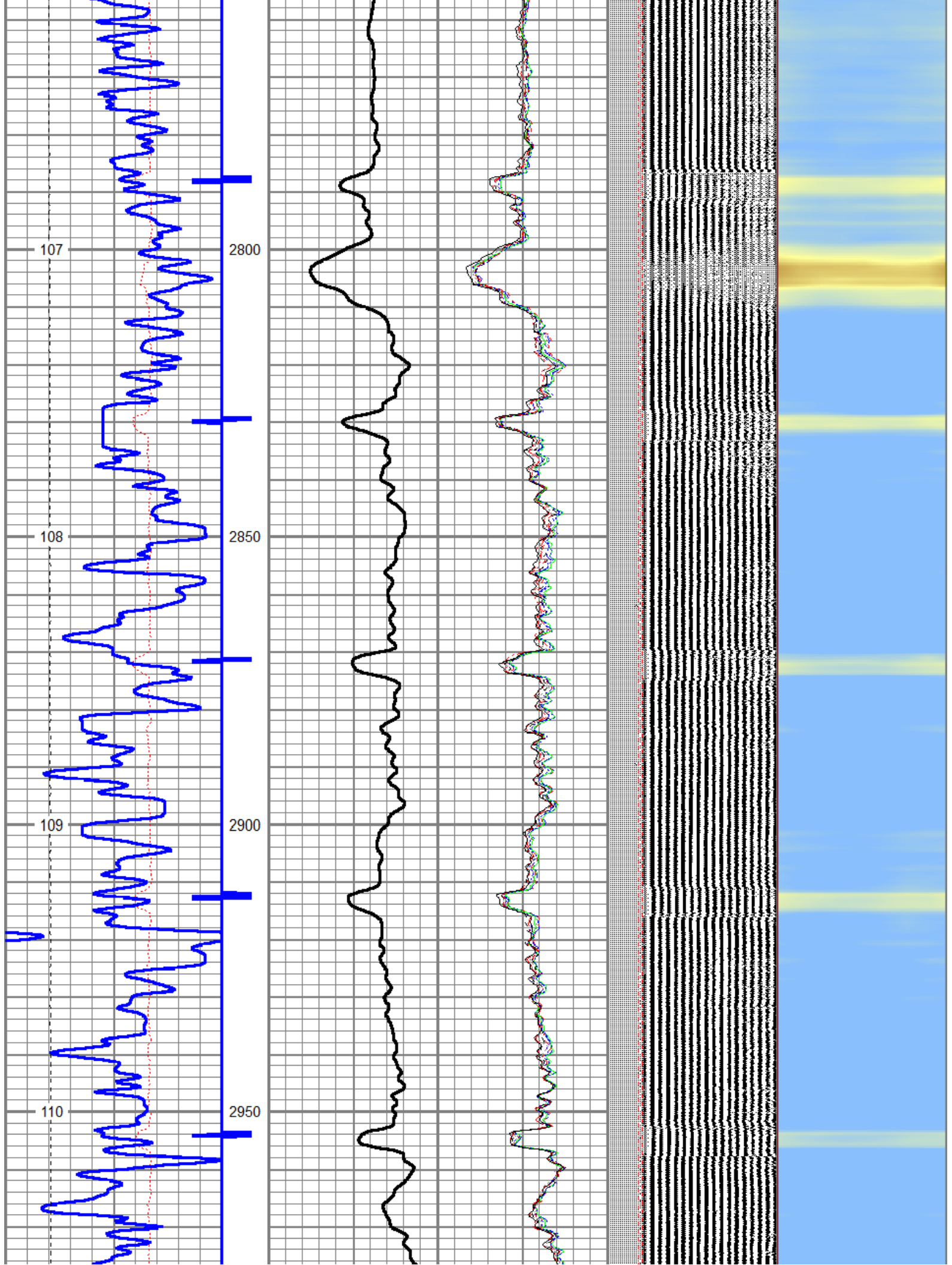


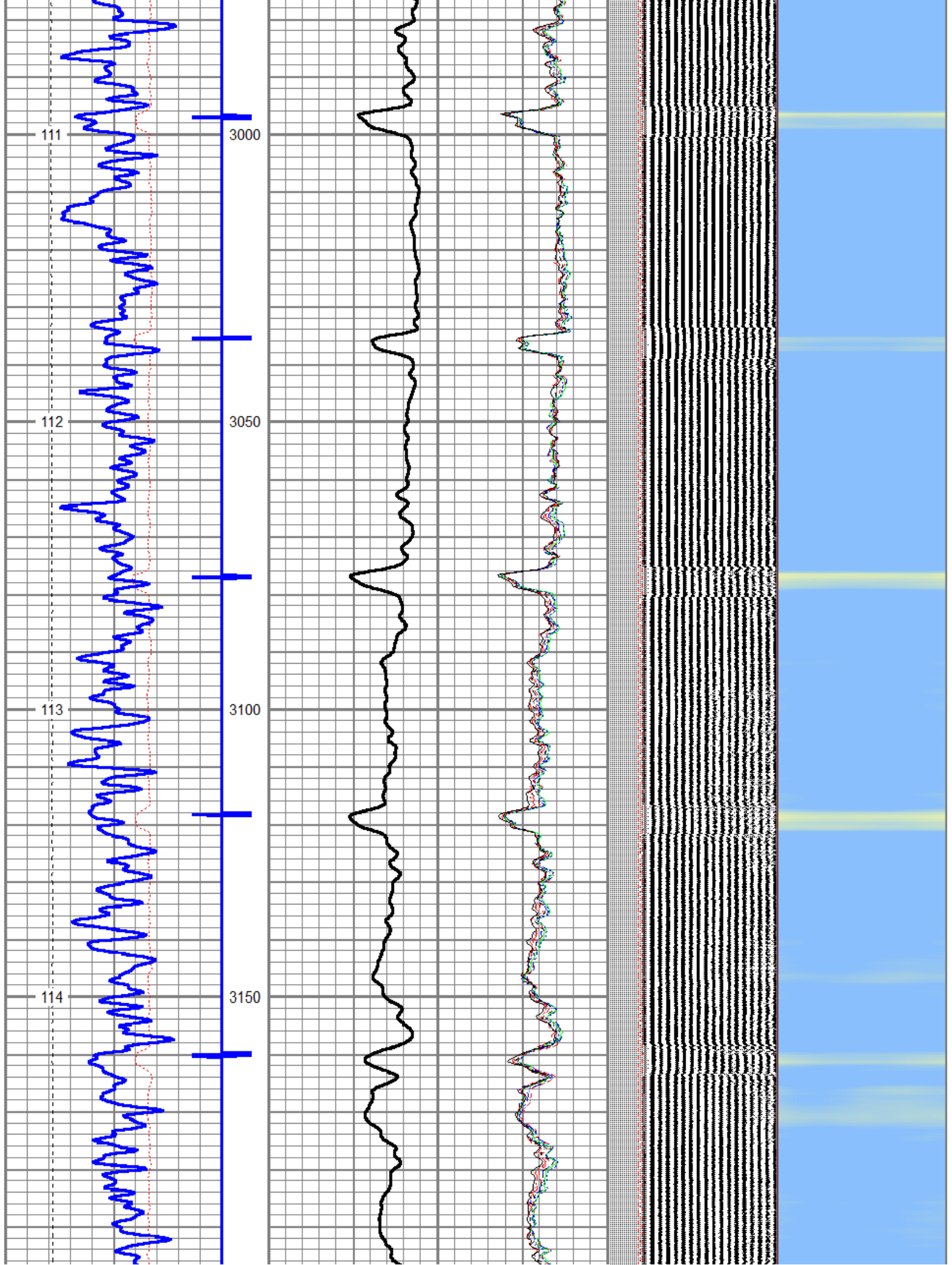


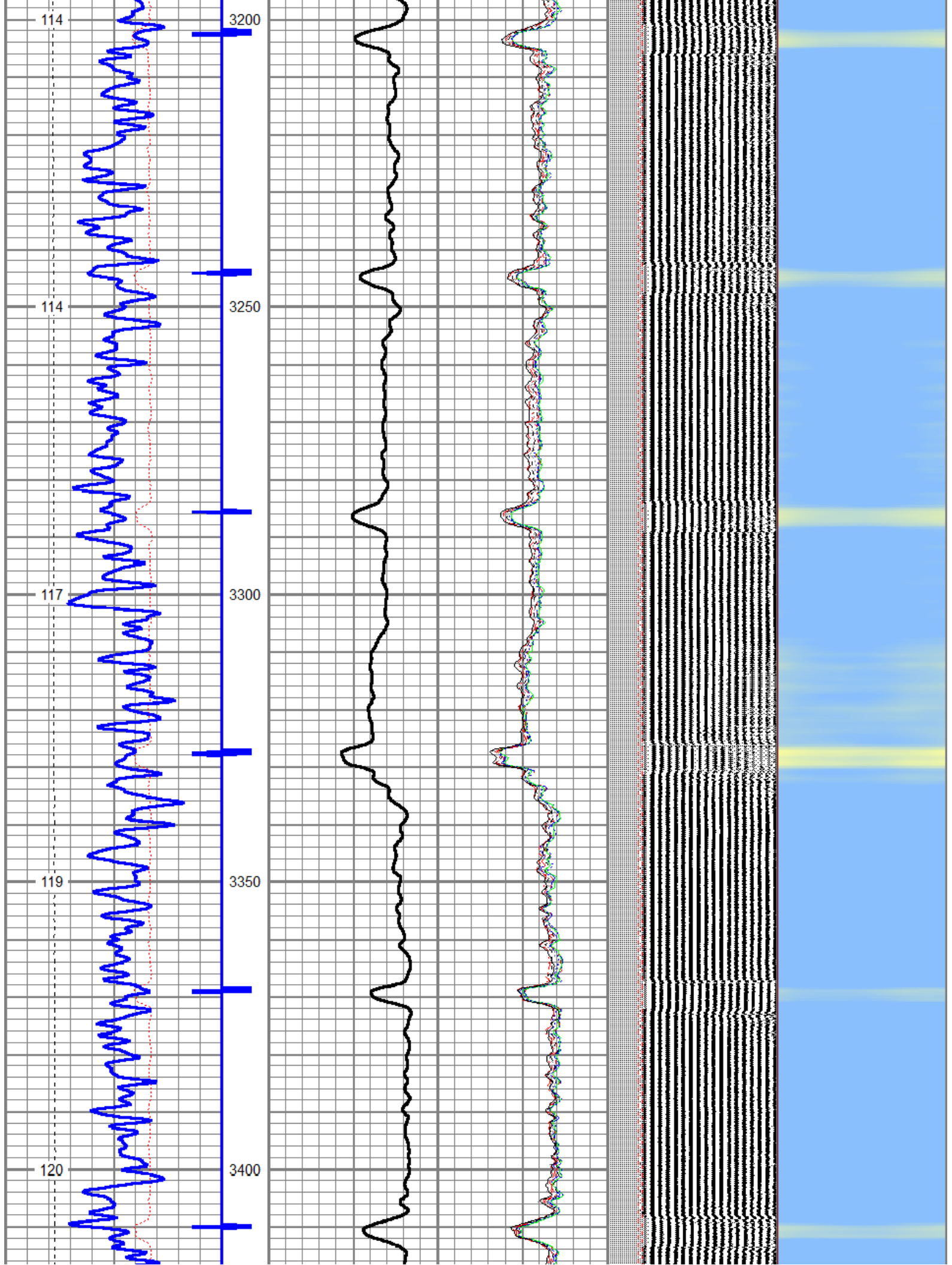


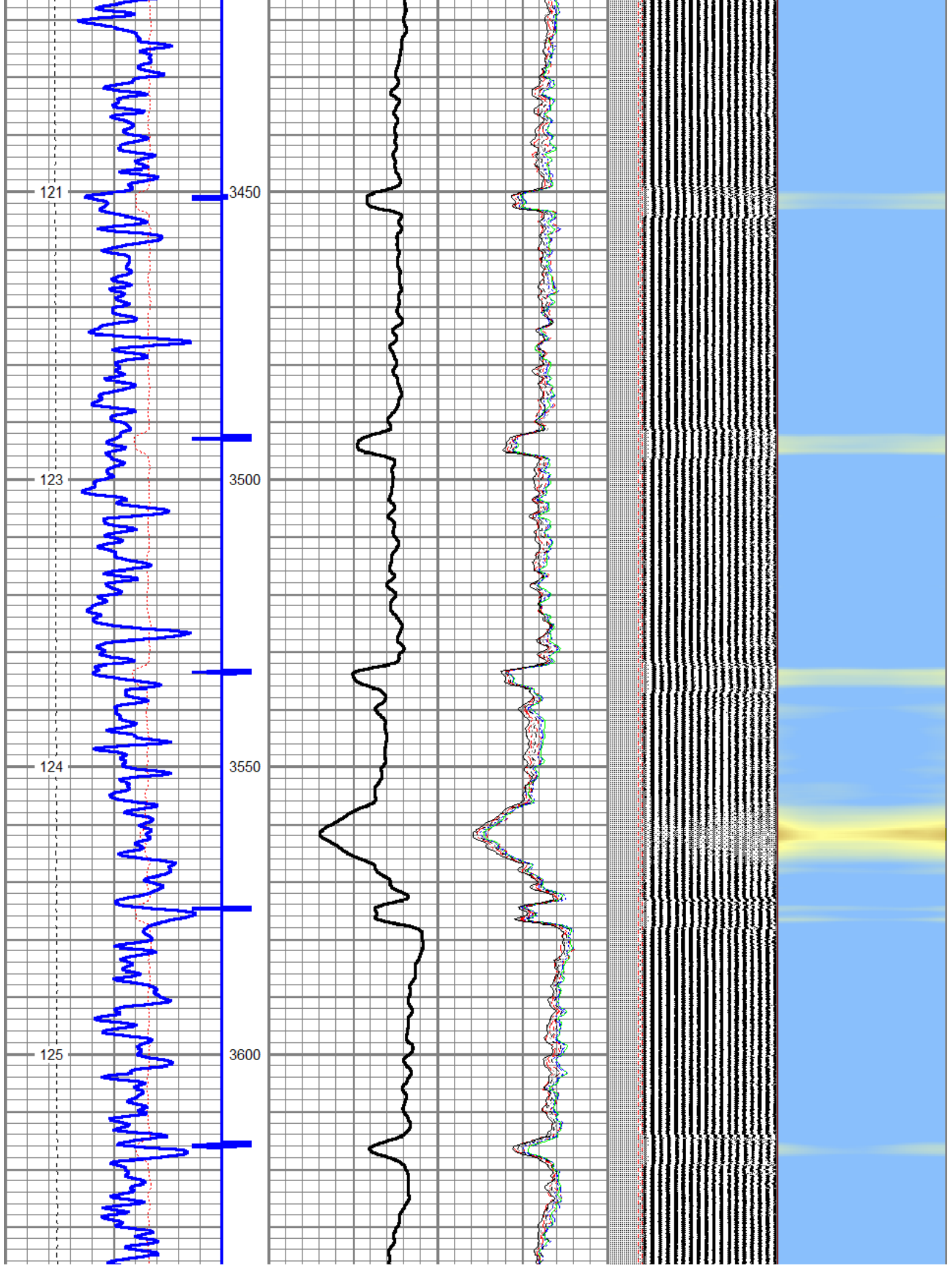


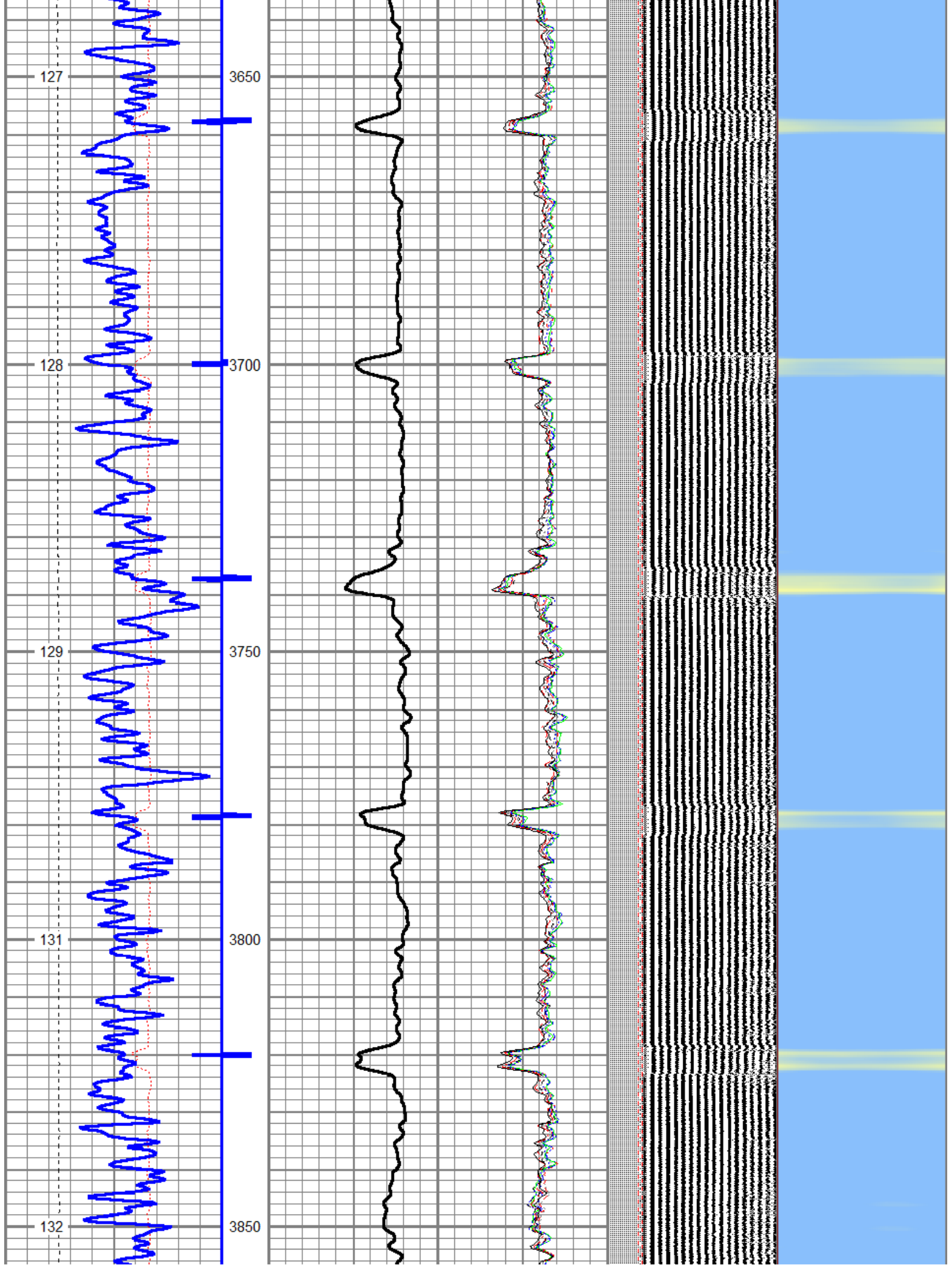


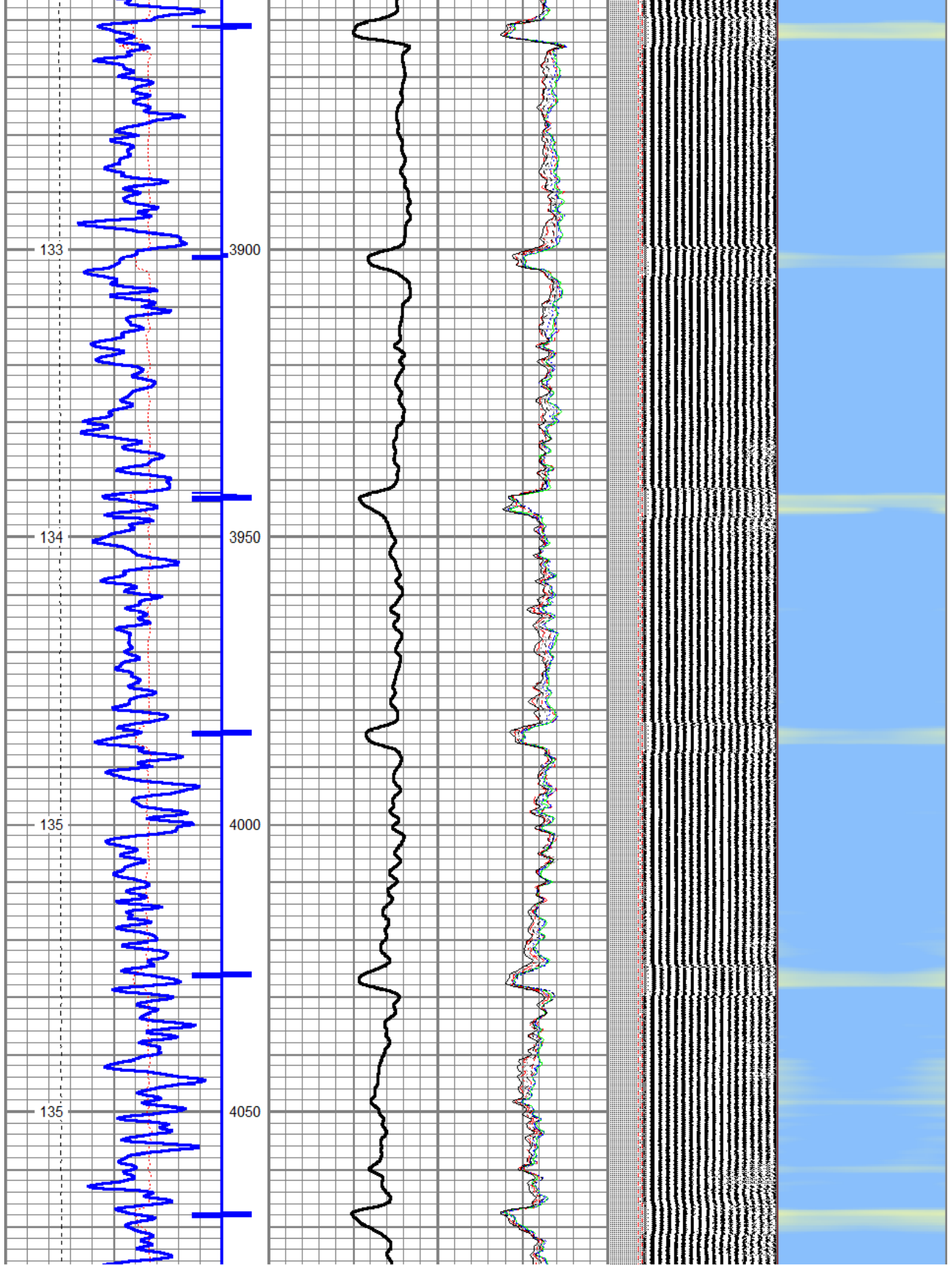


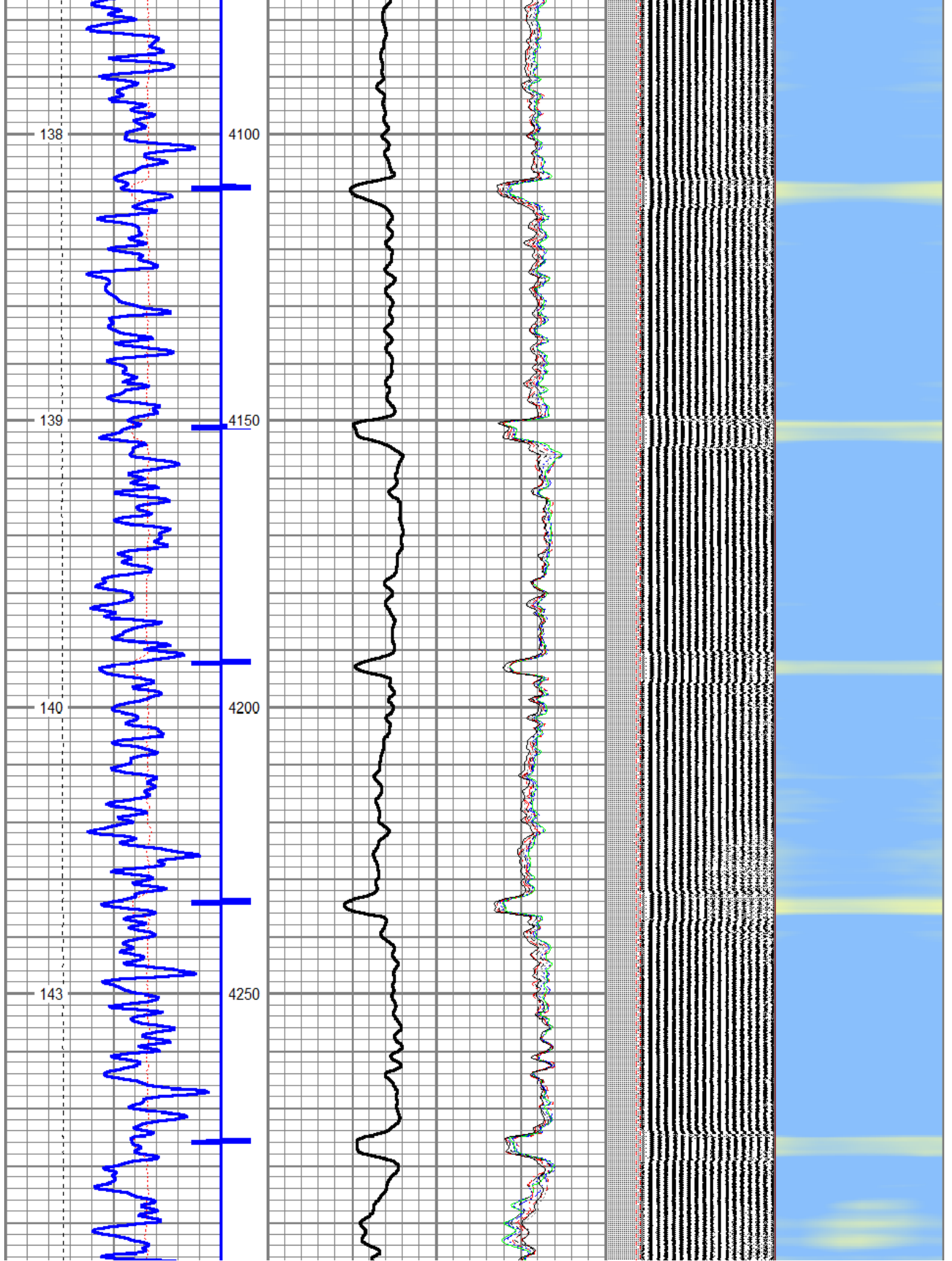


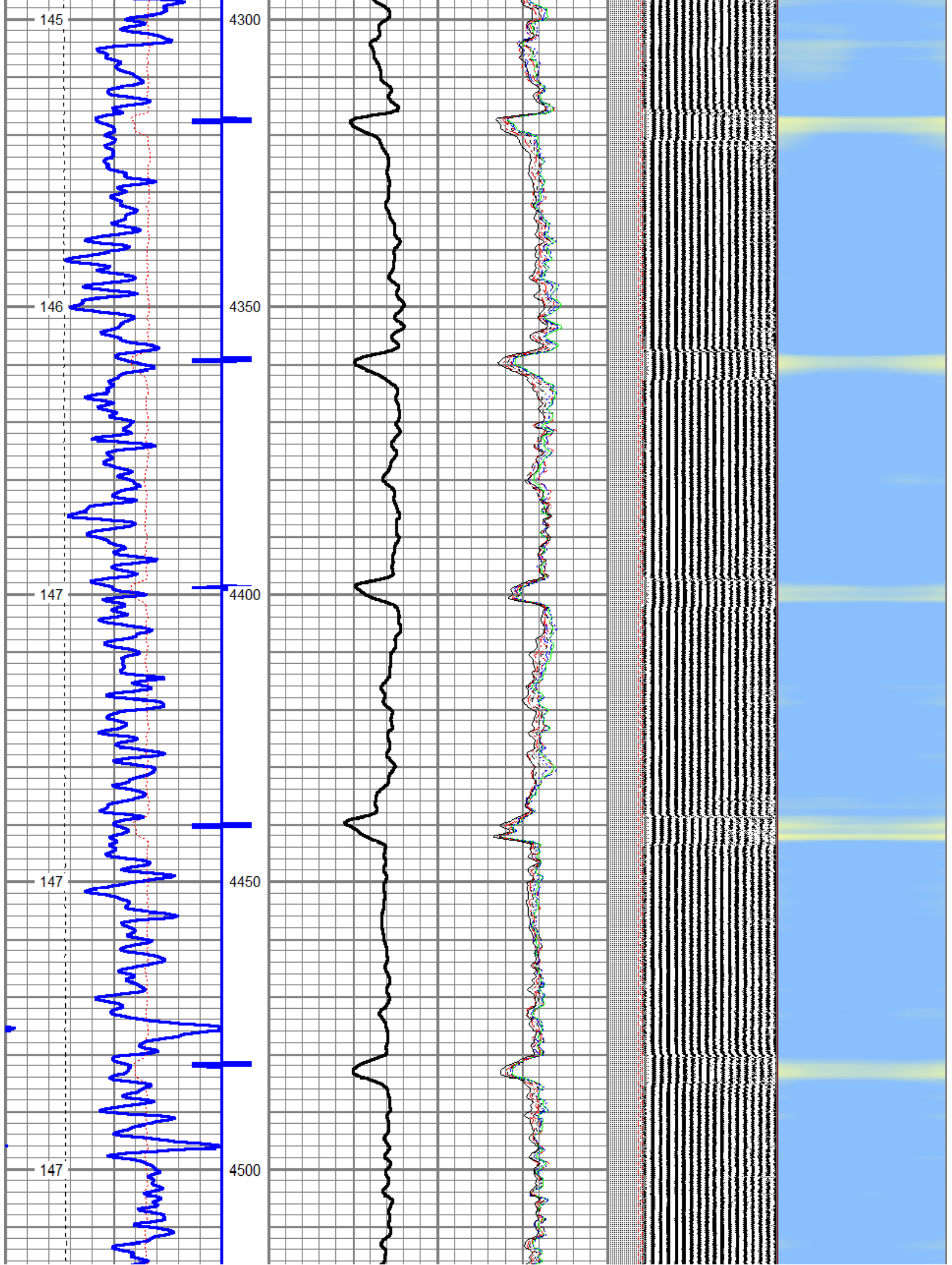


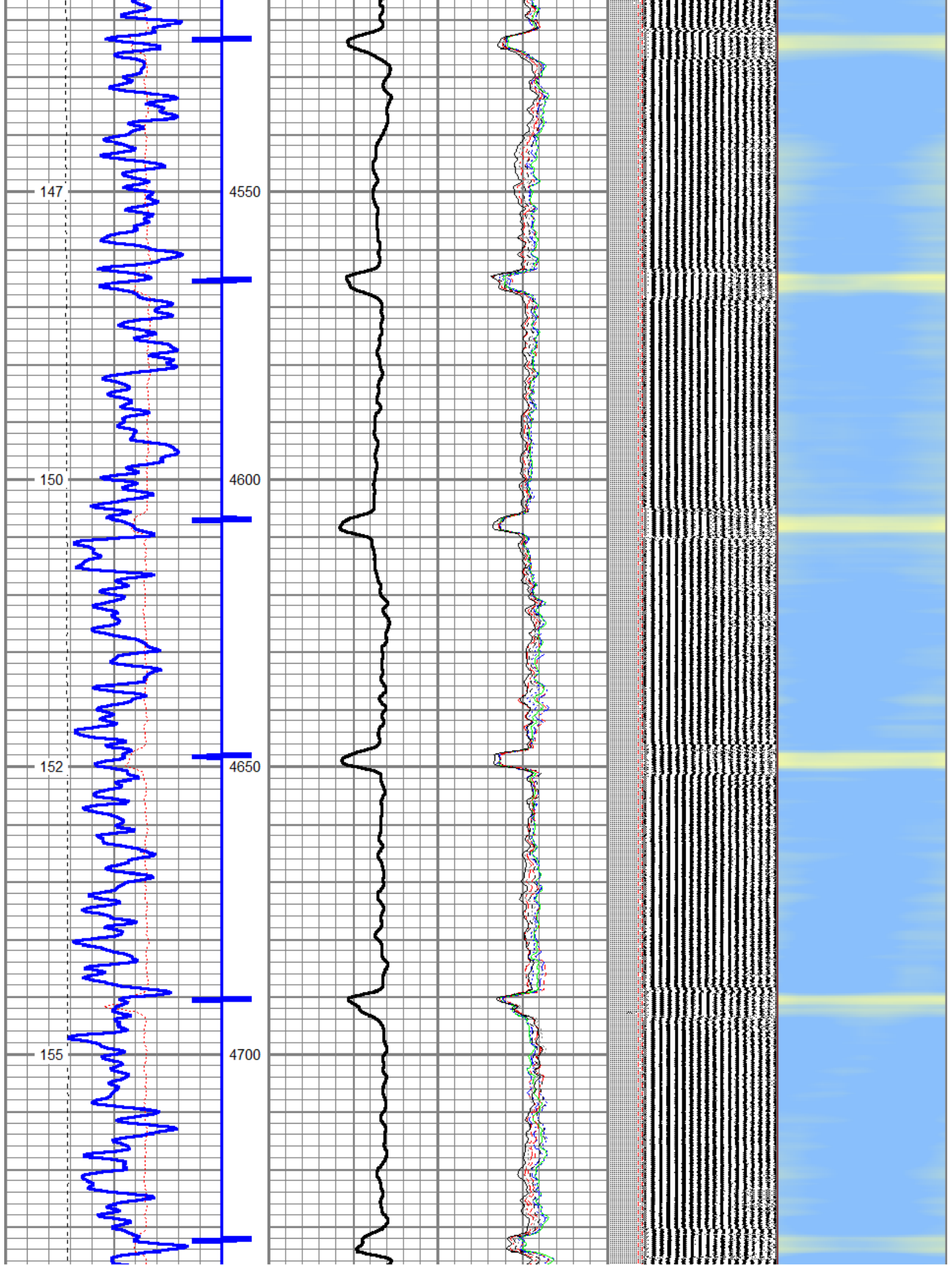


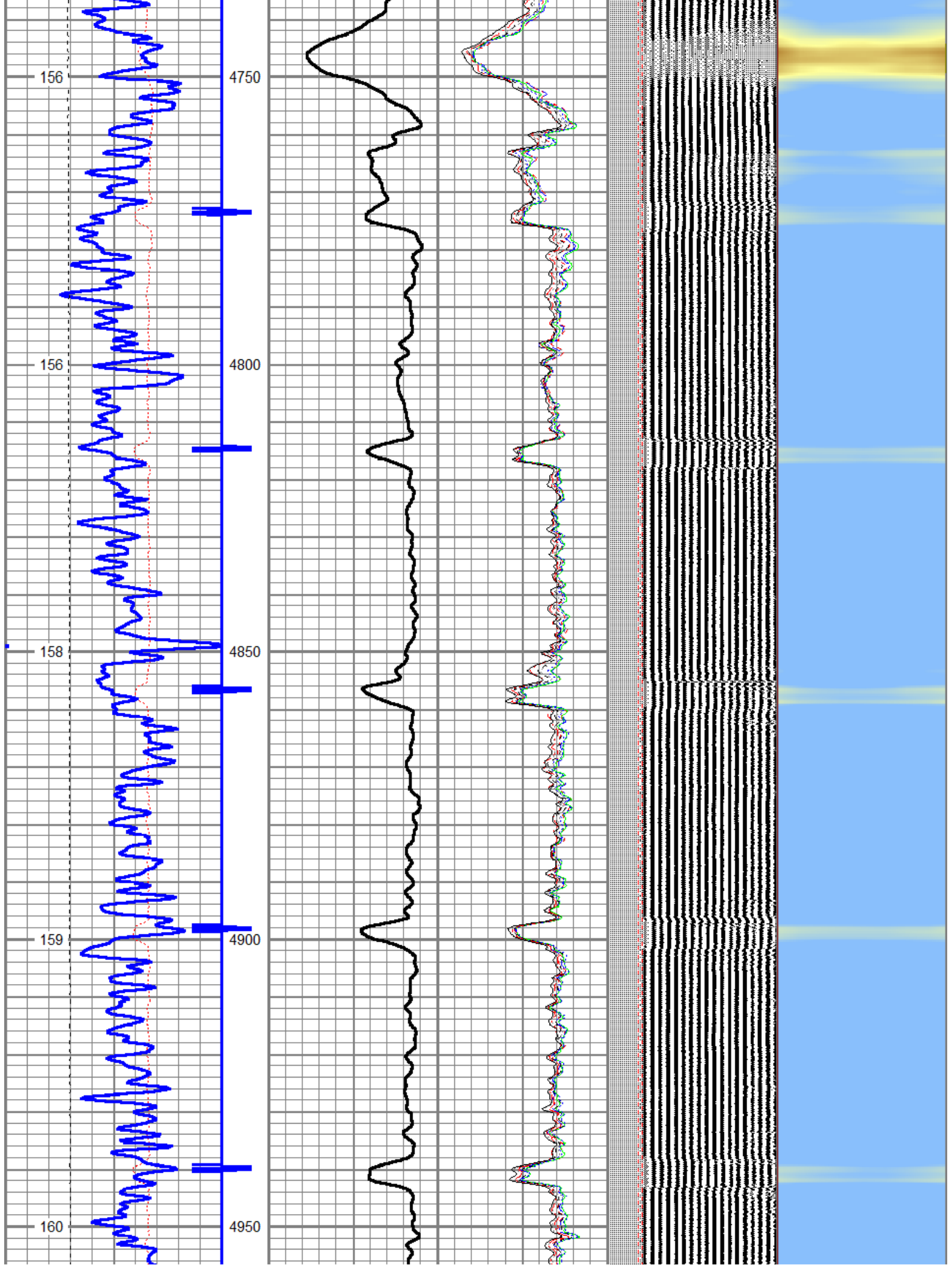


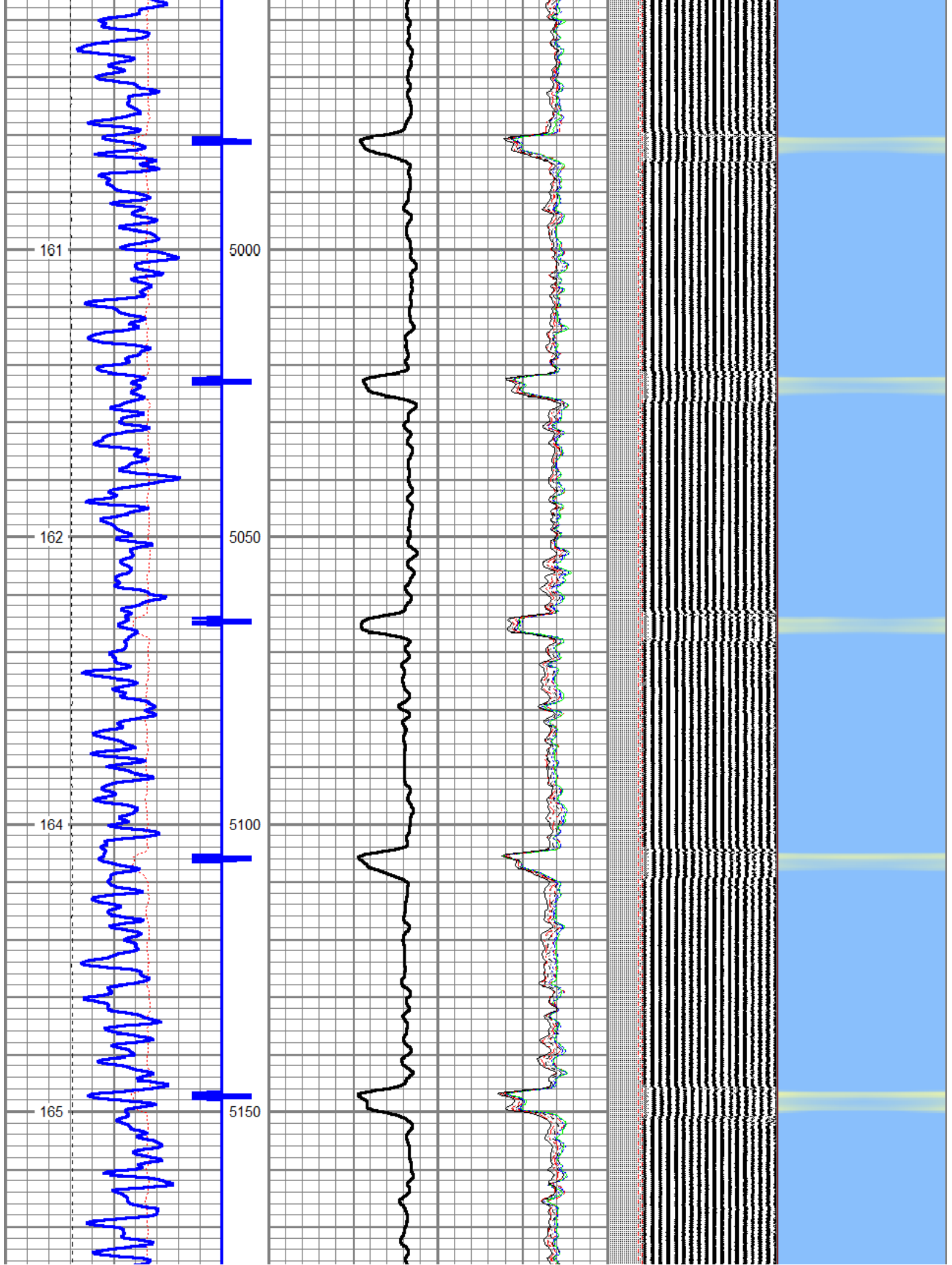


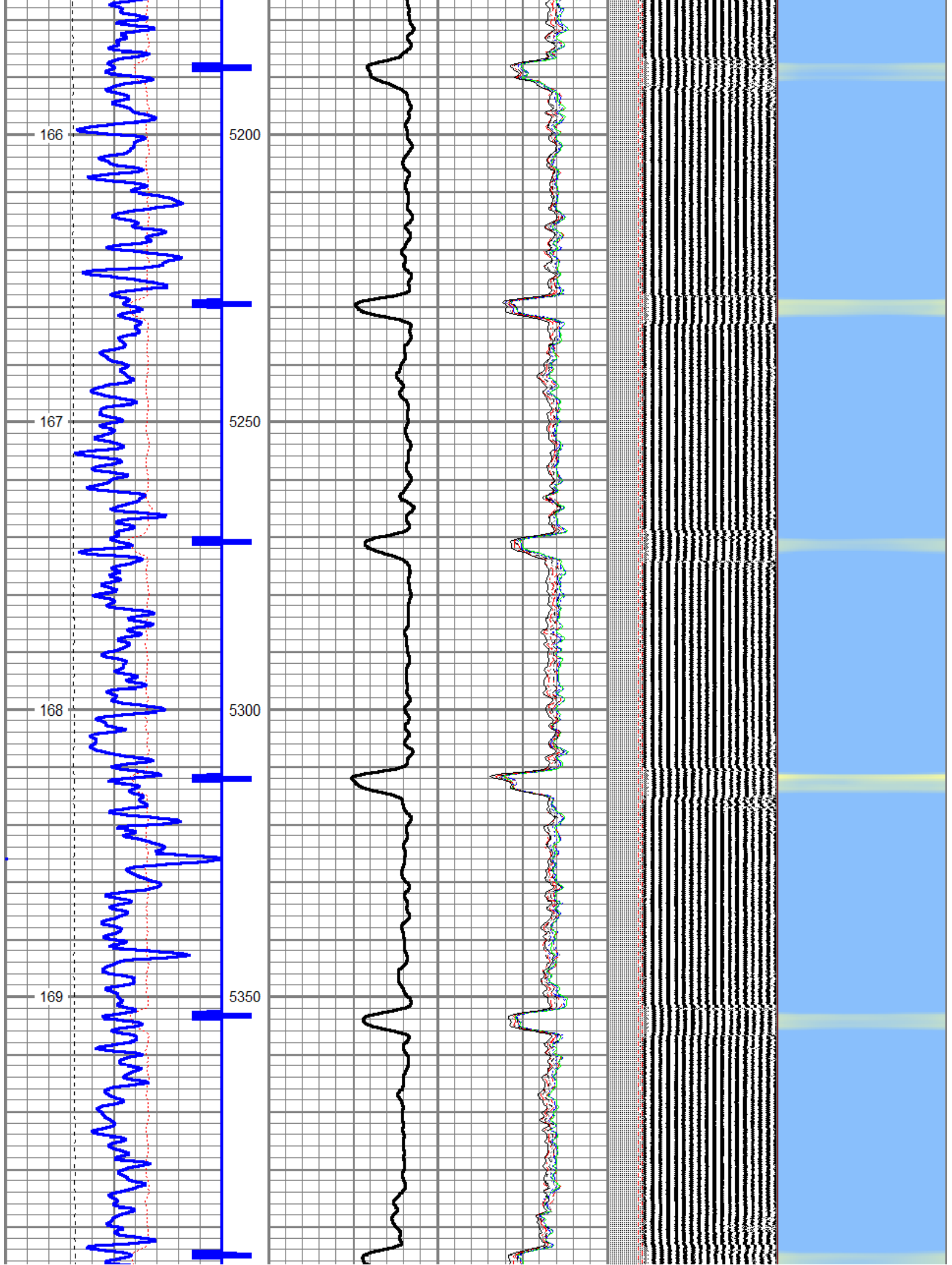


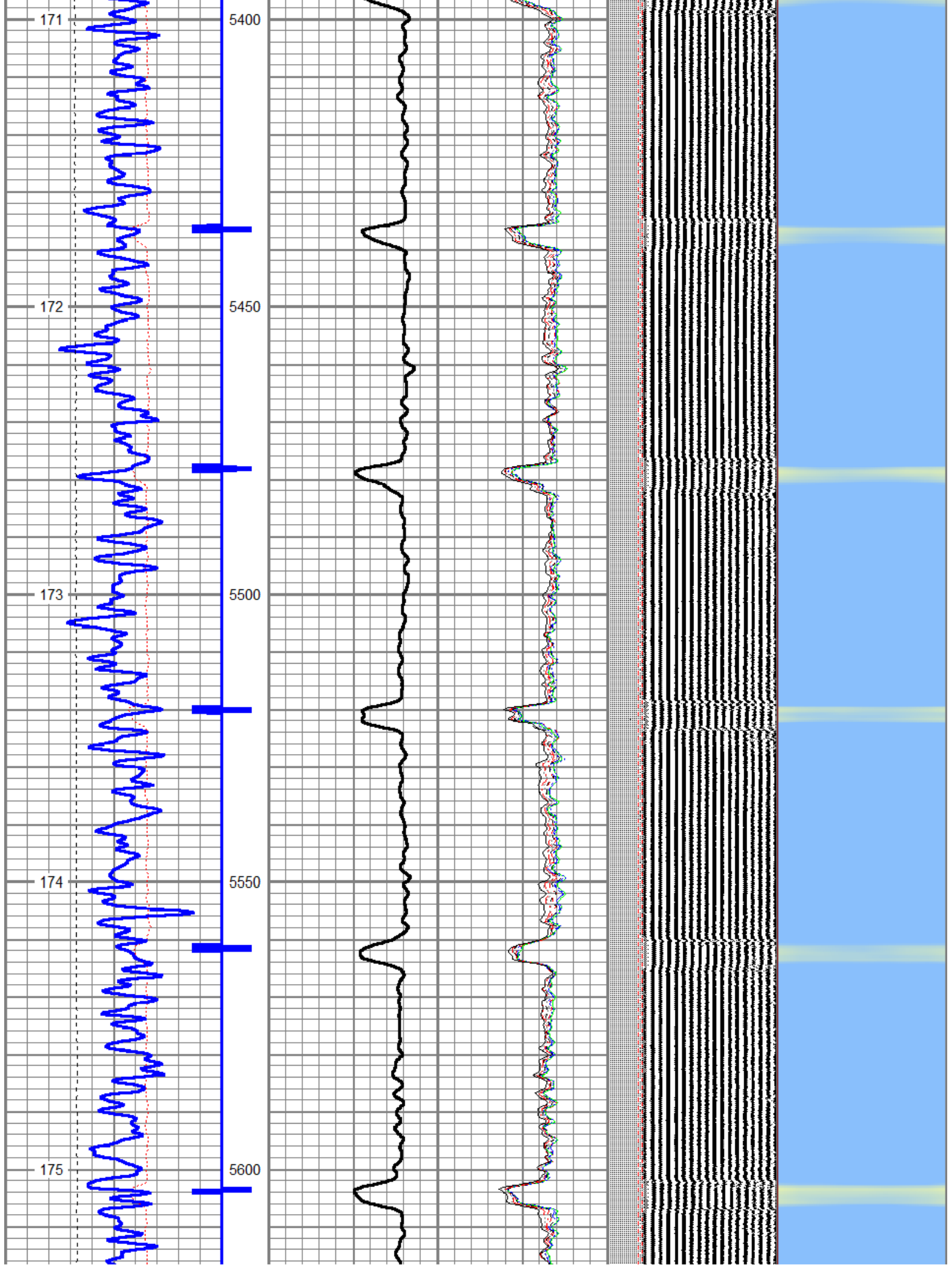


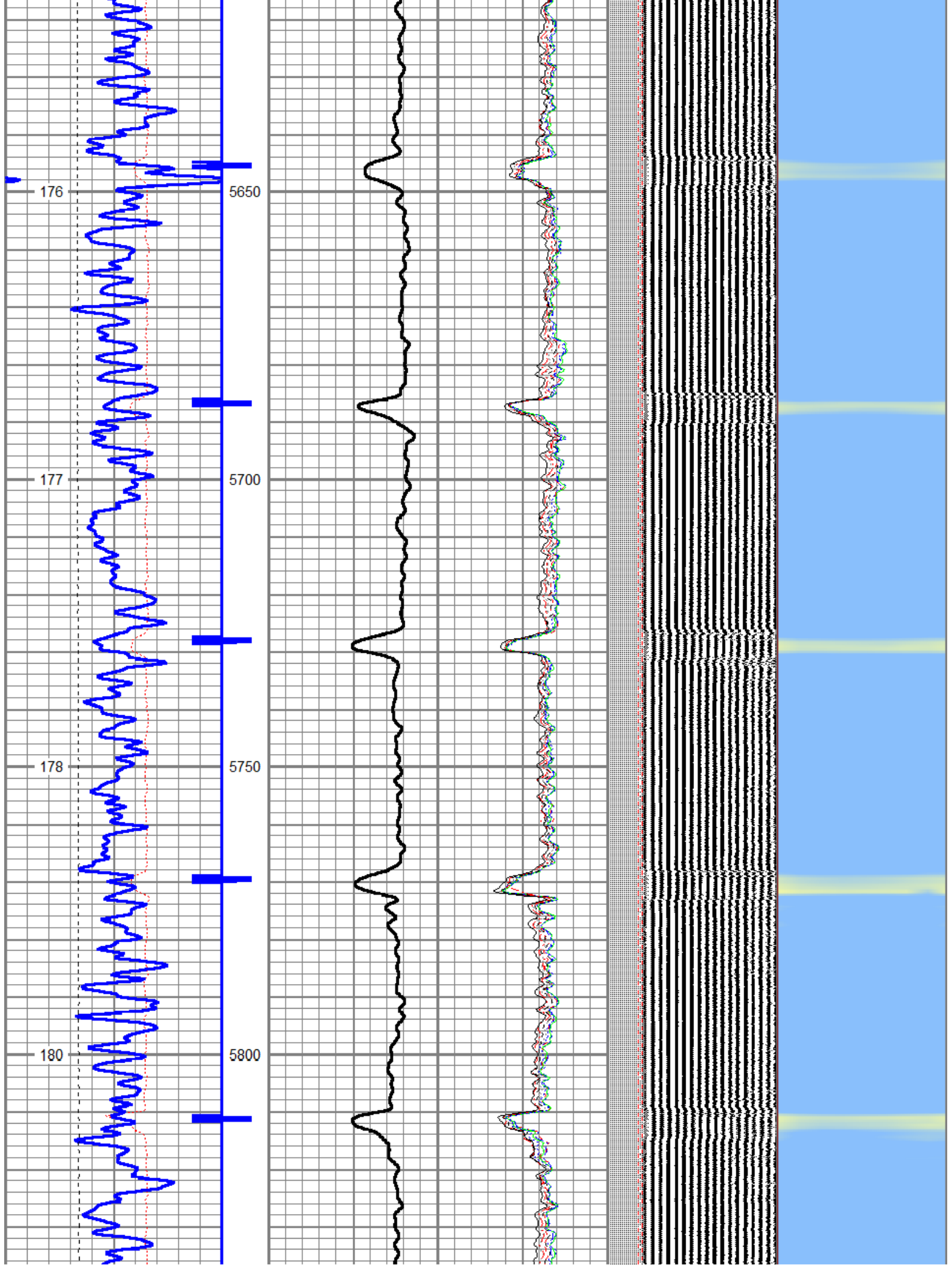


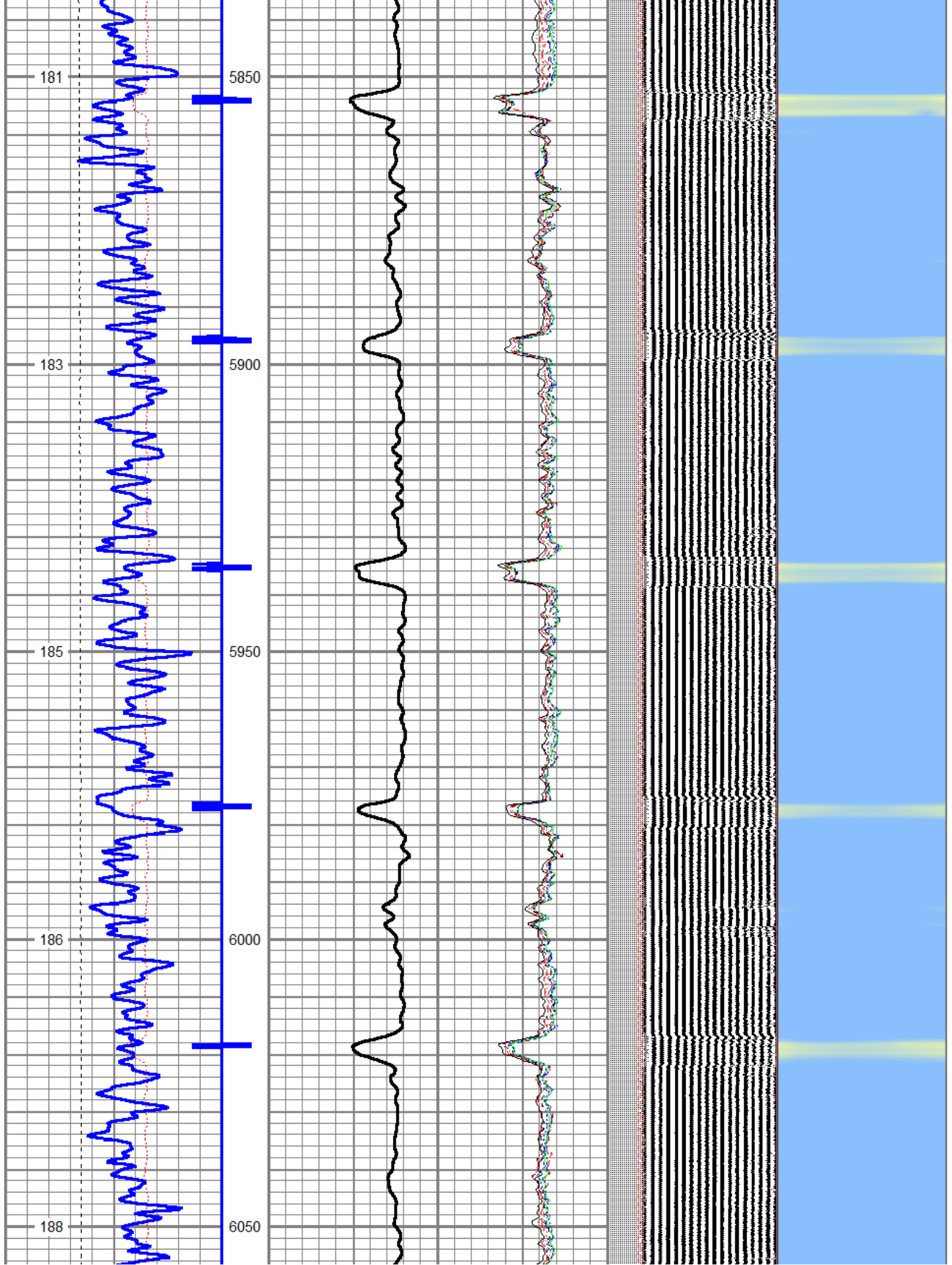


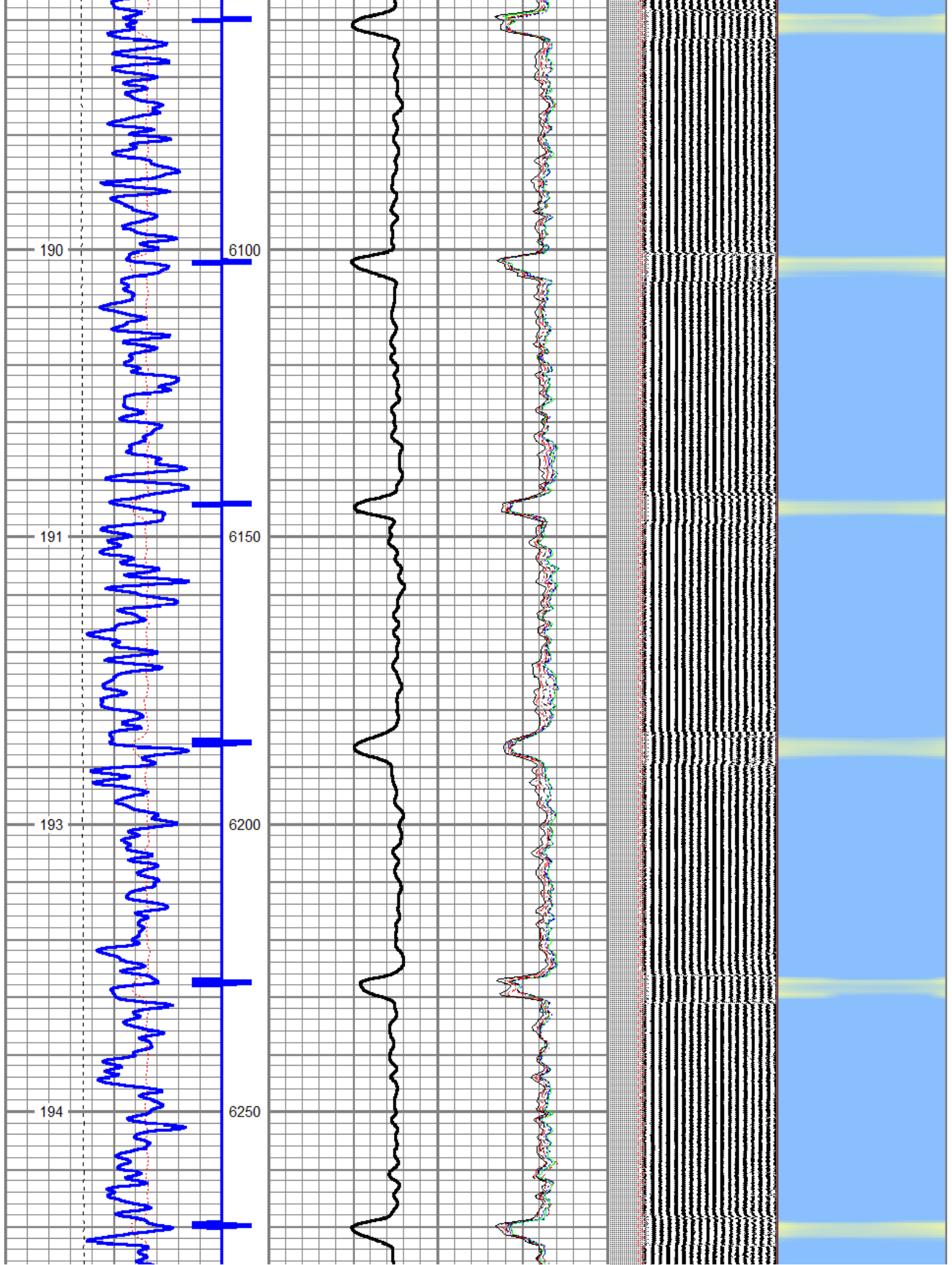


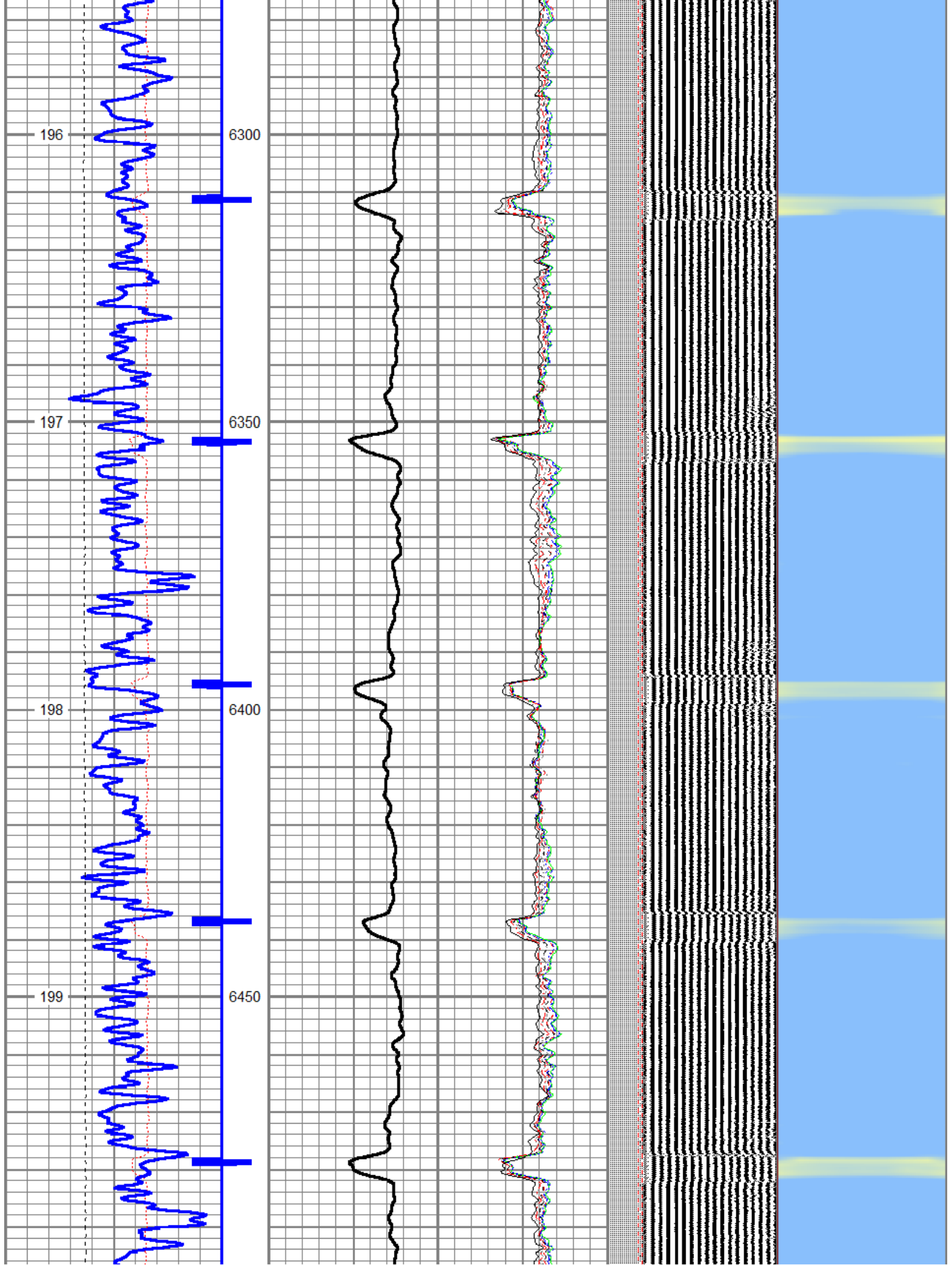


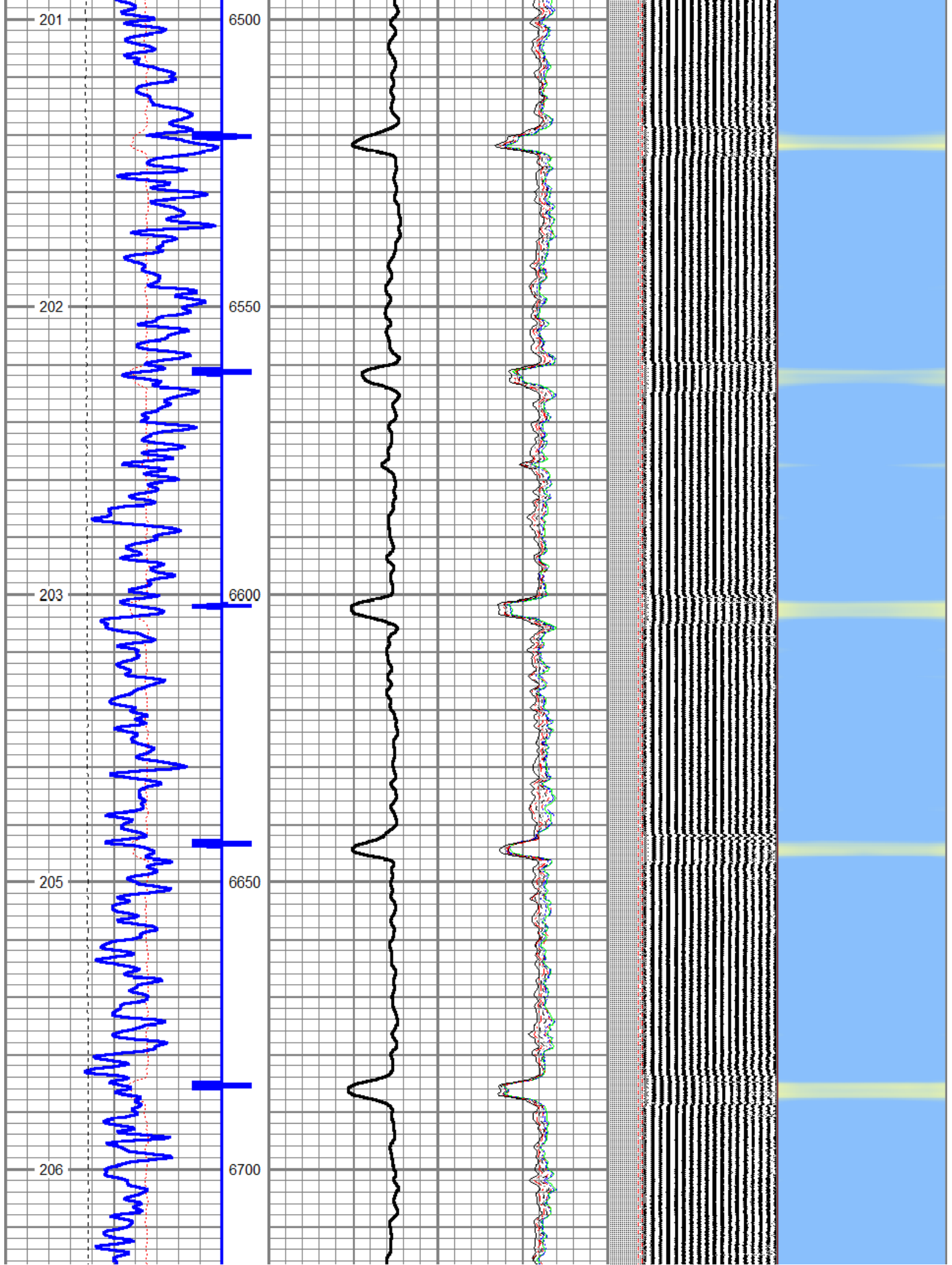


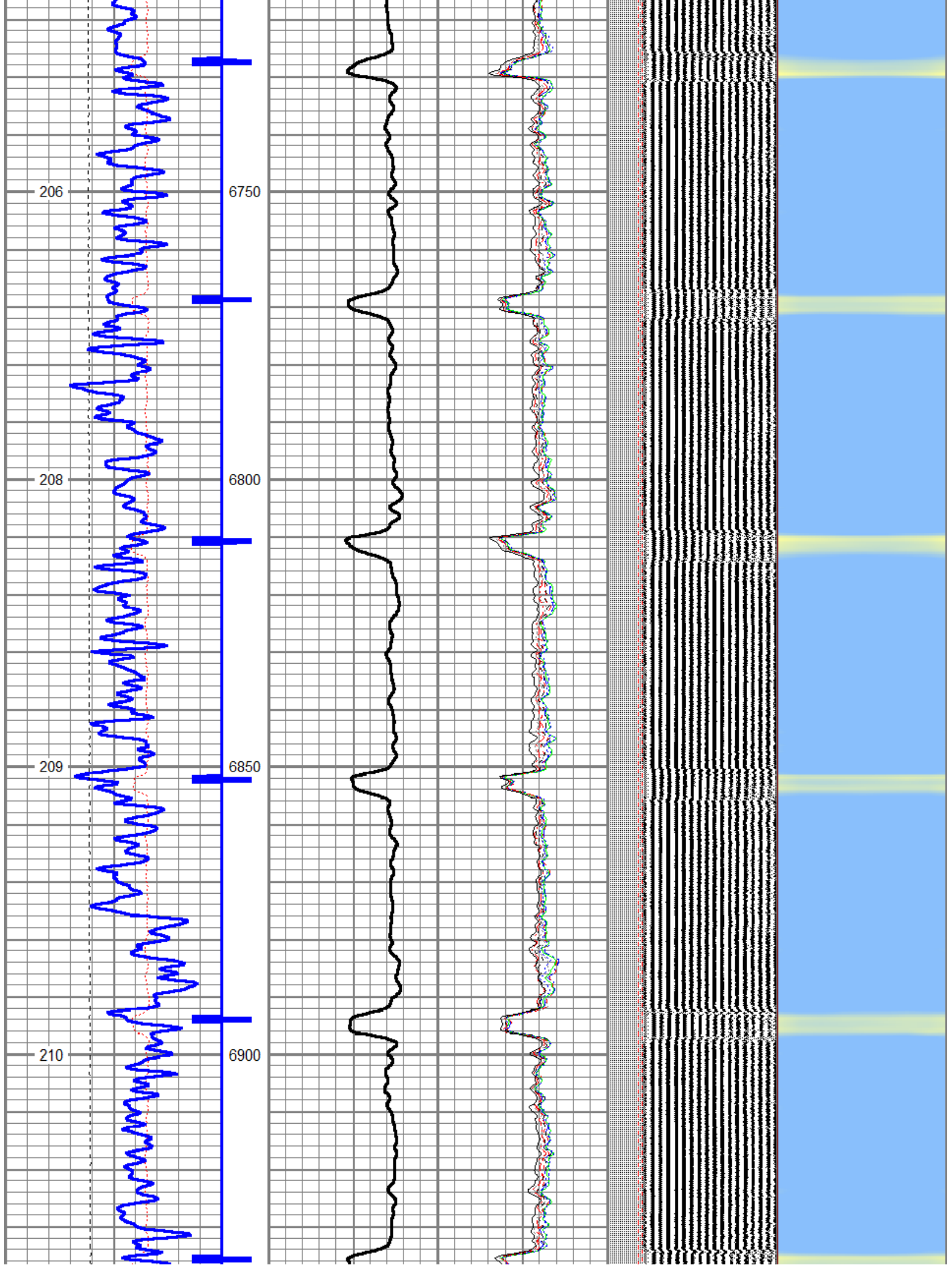


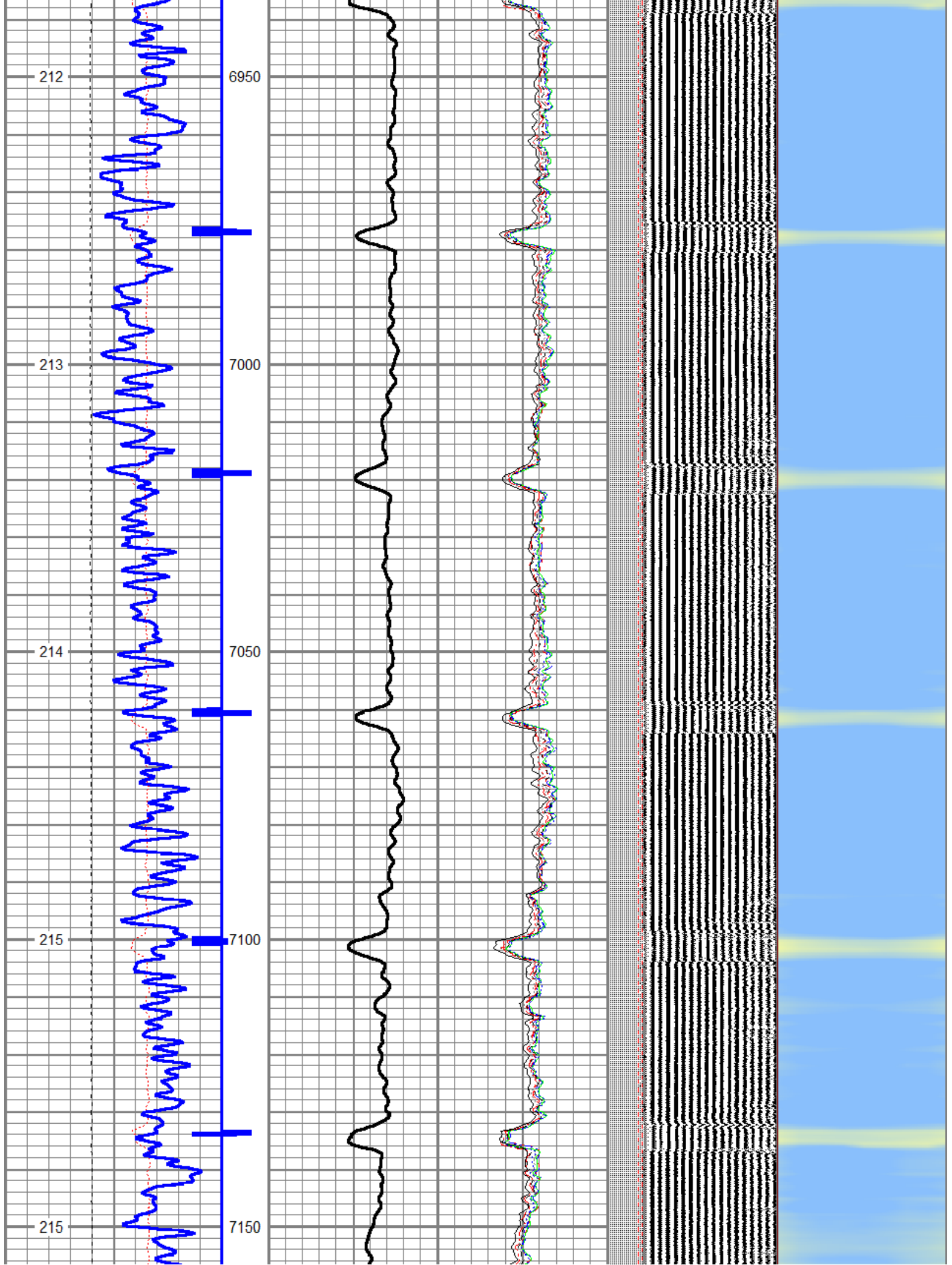


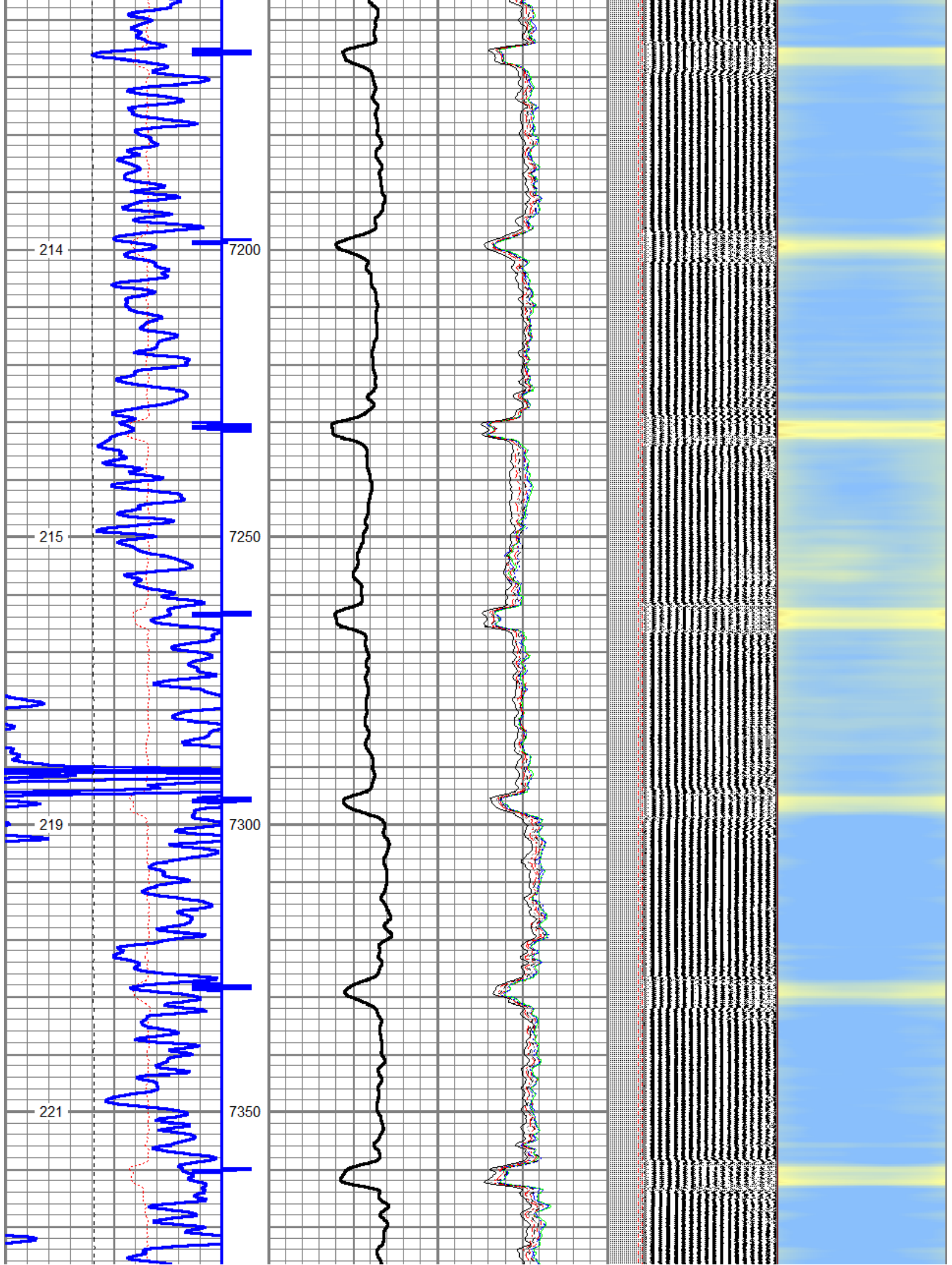


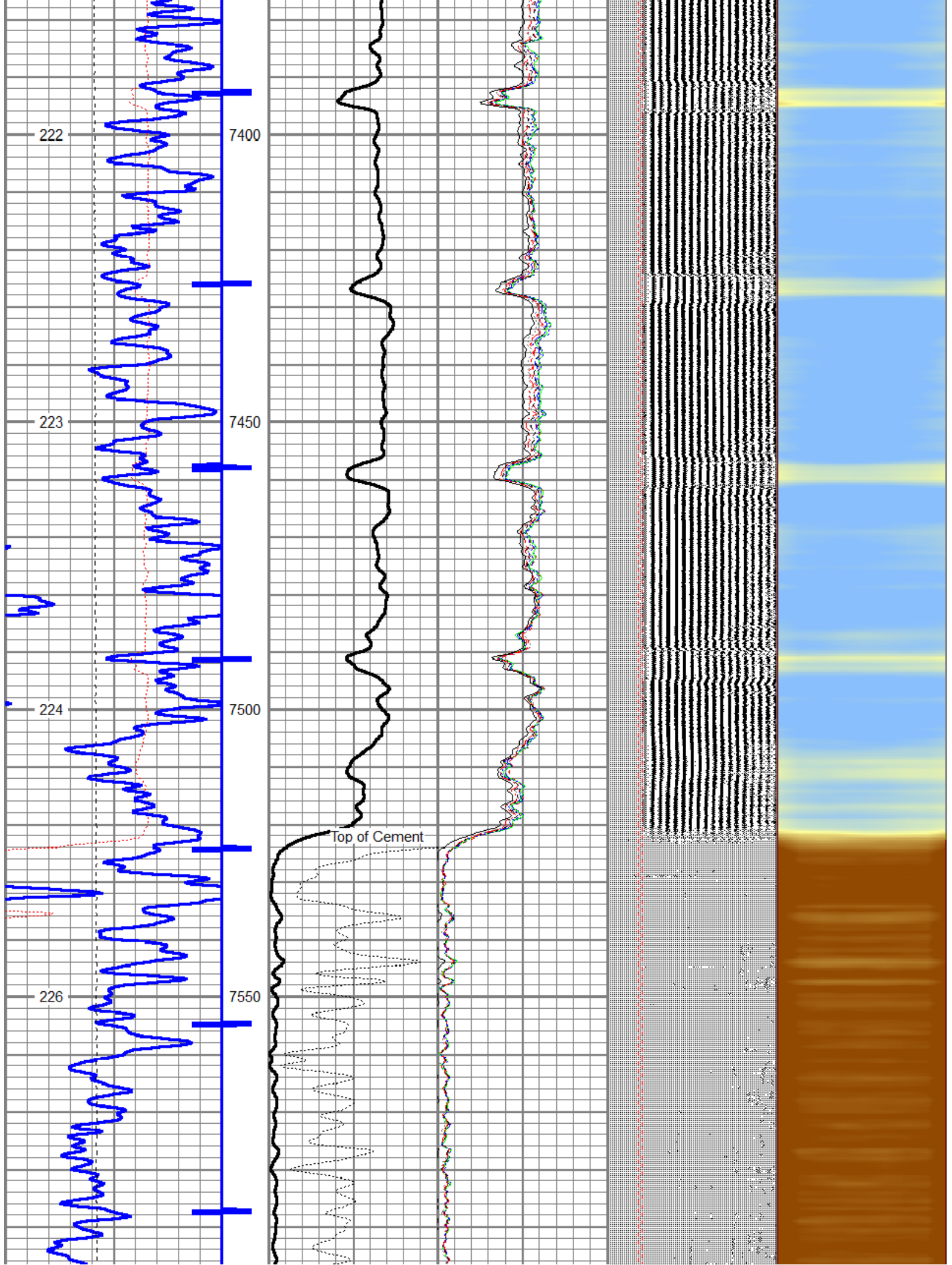


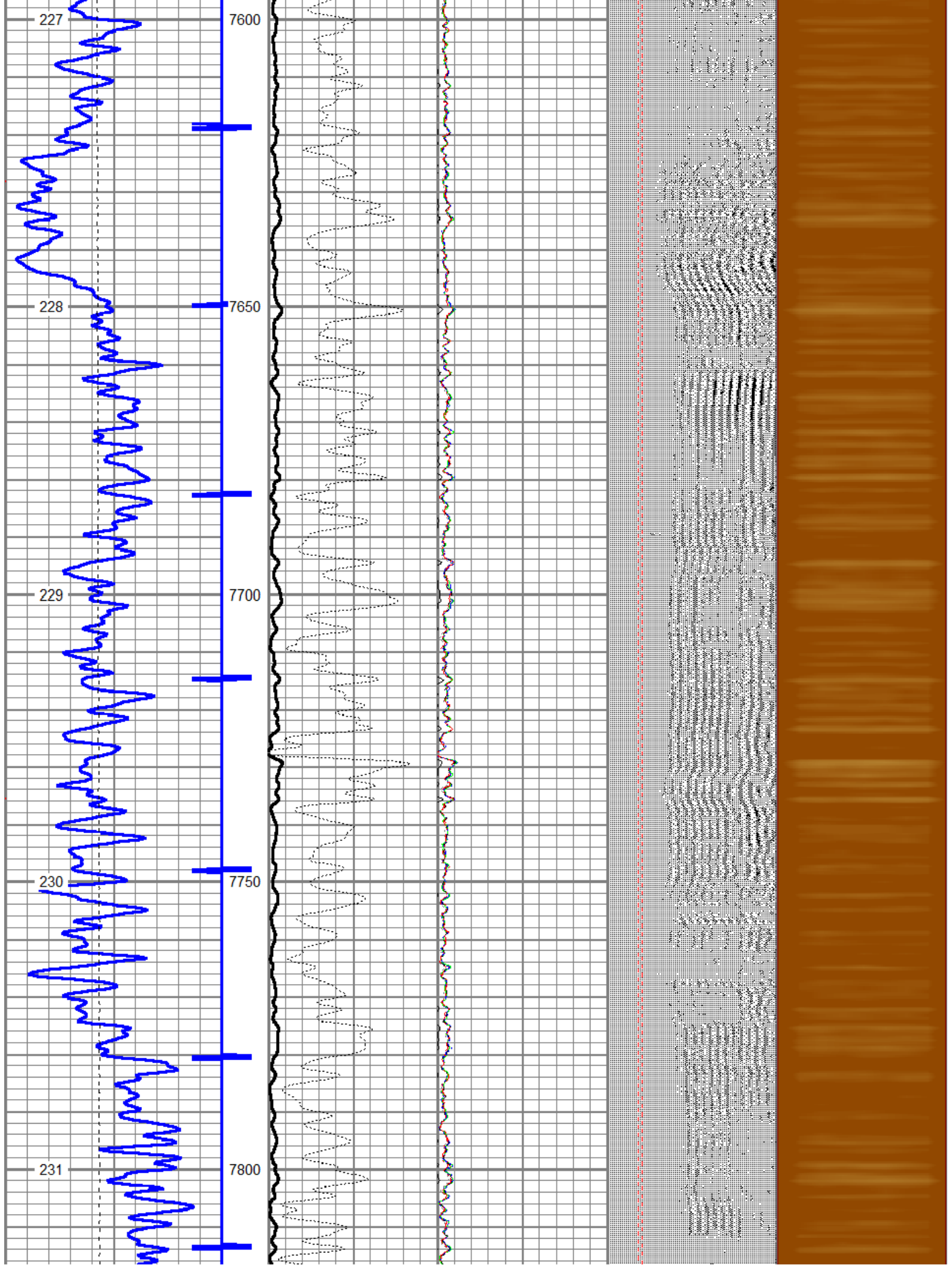


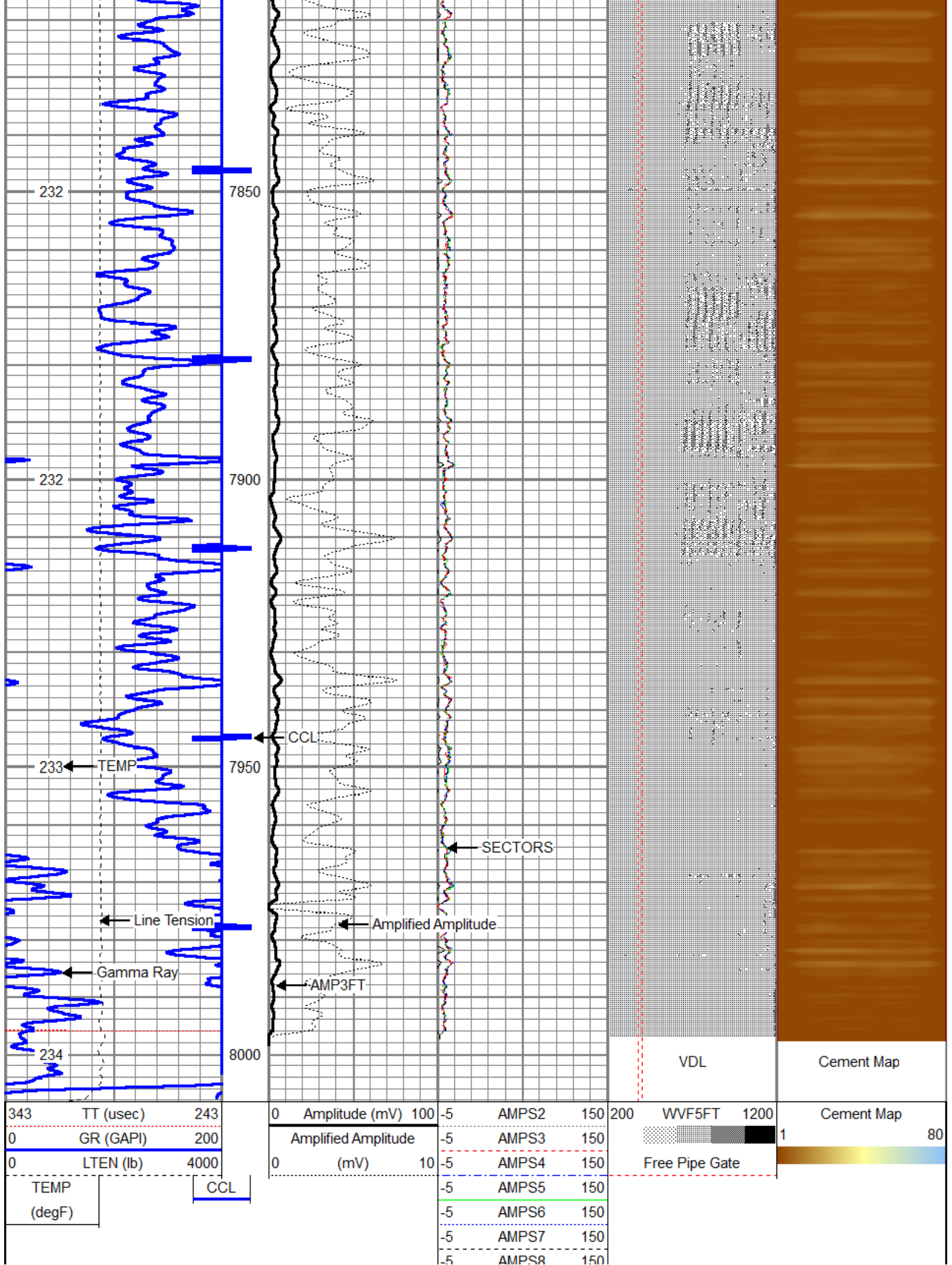










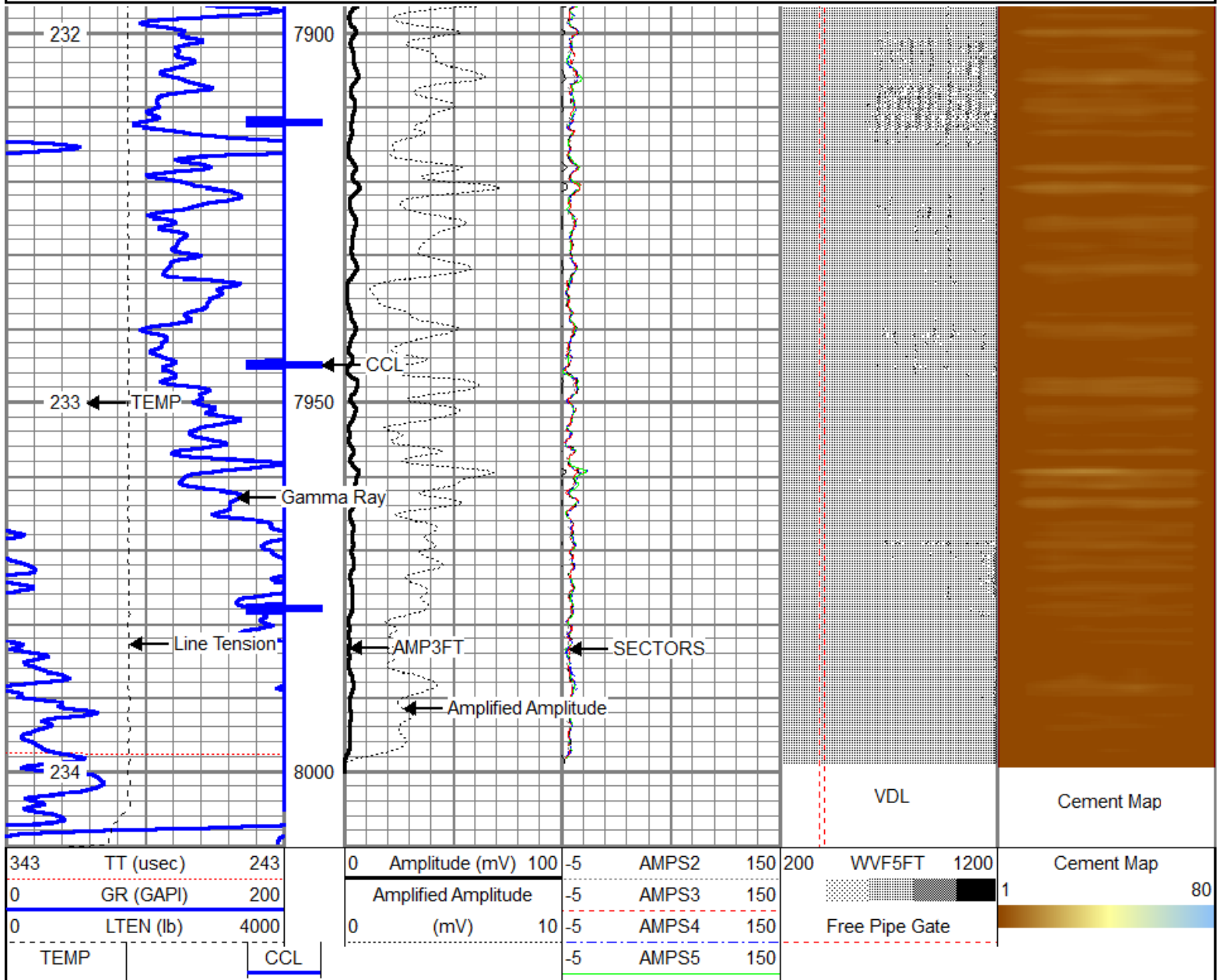
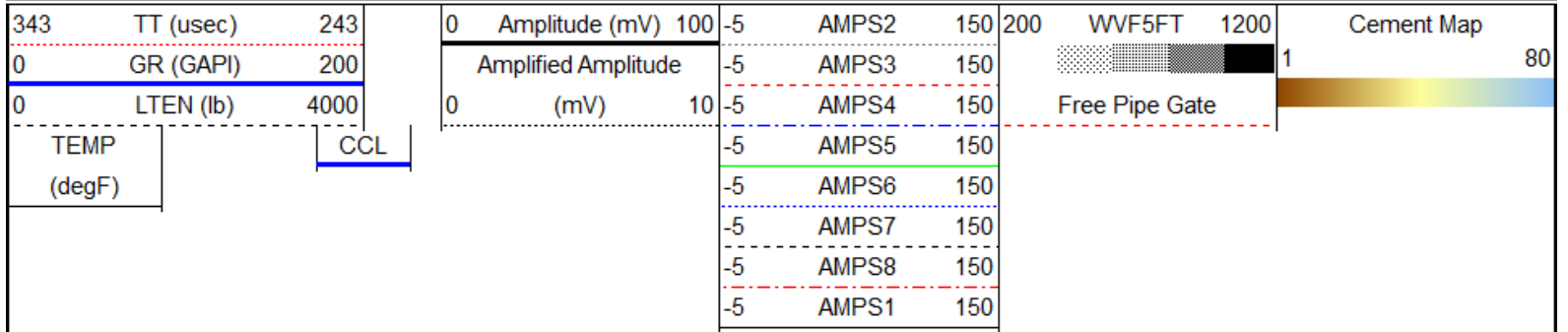




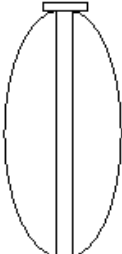


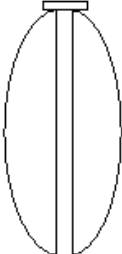

REPEAT PASS 0 PSI


5" = 100'


Database File: uprr_42_pan_am_m_1.db
 Dataset Pathname: pass4
 Presentation Format: rbl55
 Dataset Creation: Mon Apr 25 17:59:35 2016 by Log SCH 110630
 Charted by: Depth in Feet scaled 1:240



(degF)	-5	AMPS6	150
	-5	AMPS7	150
	-5	AMPS8	150
	-5	AMPS1	150

Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
			Probe	2.86	2.75	40.00
			RBT-Probe (060113_45) Probe 2.75" Radii Bond Tool	9.39	2.75	90.00
WVF3FT	12.30					
WVFCAL	12.30					
WVFS1	12.30					
WVFS2	12.30					
WVFS3	12.30					
WVFS4	12.30					
WVFS5	12.30					
WVFS6	12.30					
WVFS7	12.30					
WVFS8	12.30					
WVF5FT	11.30					
			Probe	2.86	2.75	40.00
CCL	4.75					
			GR-Probe (060108) Probe 2.75" 4 Channel Pulse	4.00	2.75	30.00
GR	2.25					
			TEMP-1.375TEMP (060110)	1.25	1.38	30.00

TEMP	0.08		Temperature Tool			
Dataset: uprr_42_pan_am_m_1.db: field/well/run1/pass5 Total Length: 20.36 ft Total Weight: 230.00 lb O.D. 2.75 in						

	Company	KERR-MCGEE OIL AND GAS
	Well	UPRR 42 PAN AM M 1
	Field	WATTENBERG
	County	WELD
	State	COLORADO