



Radial Cement Bond Gamma Ray / CCL Log

Company Cub Creek Energy
Well Marham 6
Field Wattenberg
County Weld
State Colorado Country USA

Location: API #: 05-123-43244
Section: 32, Township: 4N, Range: 68W
SHL: 2357 FSL & 1515 FEL
SEC TWP RGE
Permanent Datum Ground Level Elevation 5042'
Log Measured From K.B. 17' APD
Drilling Measured From K.B.
Other Services
None
Elevation
K.B. 5059'
D.F. 5058'
G.L. 5042'

Company Cub Creek Energy
Well Marham 6
Field Wattenberg
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Date	10-26-2016
Run Number	One
Depth Driller	12023'
Depth Logger	7322'
Bottom Logged Interval	7322'
Top Log Interval	Surface
Open Hole Size	8.75"
Type Fluid	Water
Density / Viscosity	8.3
Max. Recorded Temp.	217.29 degF
Estimated Cement Top	See Log
Time Well Ready	ROA
Time Logger on Bottom	See Log
Equipment Number	W-200
Location	Windsor, CO
Recorded By	W. Richardson
Witnessed By	R. Pape

Borehole Record				Tubing Record			
Run Number	Bit	From	To	Size	Weight	From	To
One	13 1/4"	0'	1540'				
Two	8 3/4"	0'	12023'				

Casing Record				Tubing Record			
Run Number	Size	Wgt/Ft	Top	Bottom	From	To	
Surface String	9 5/8"	36#	Surface	1539'			
Prod. String							
Production String	5 1/2"	17#	Surface	12014'			
Liner							

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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.

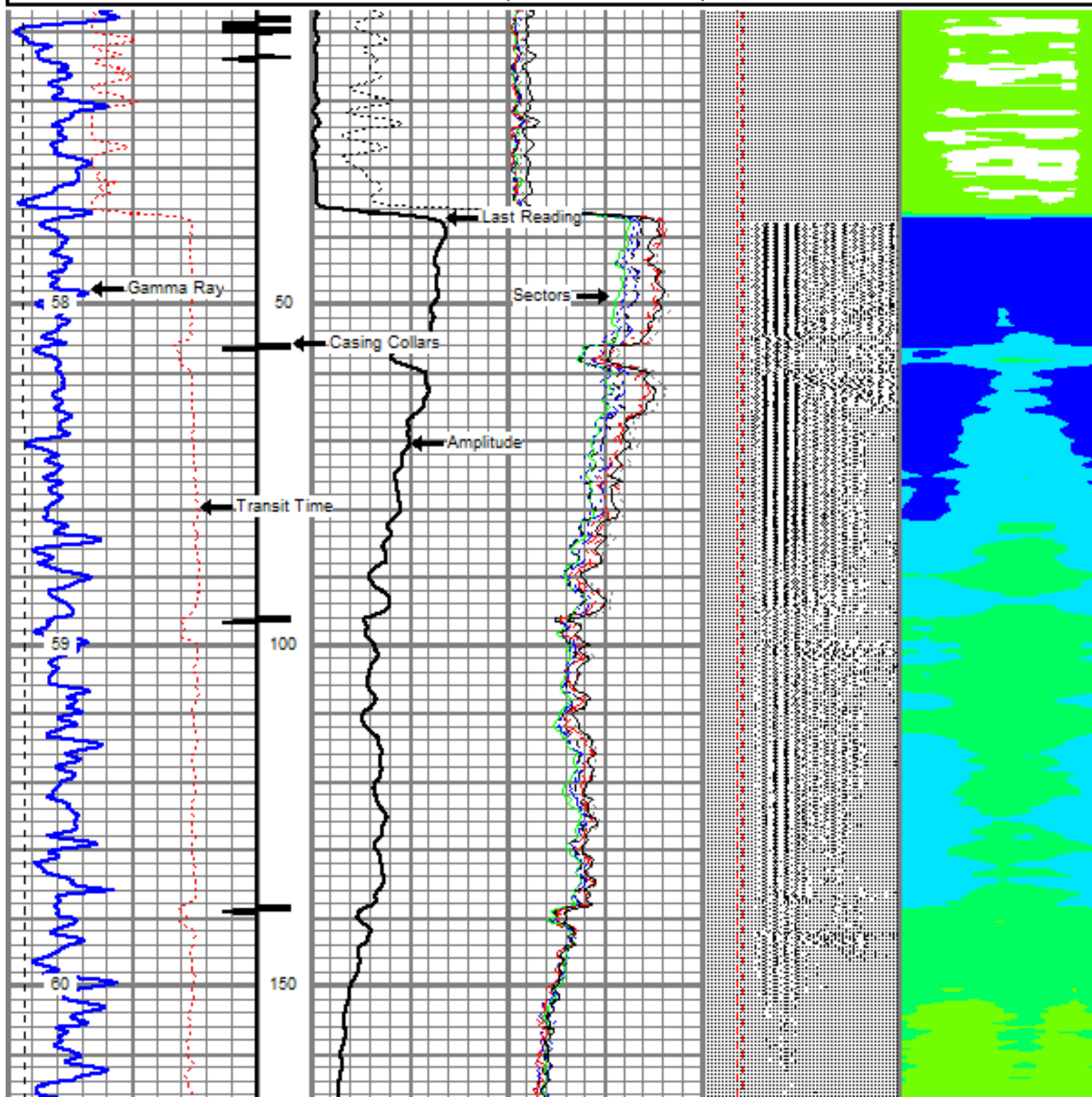
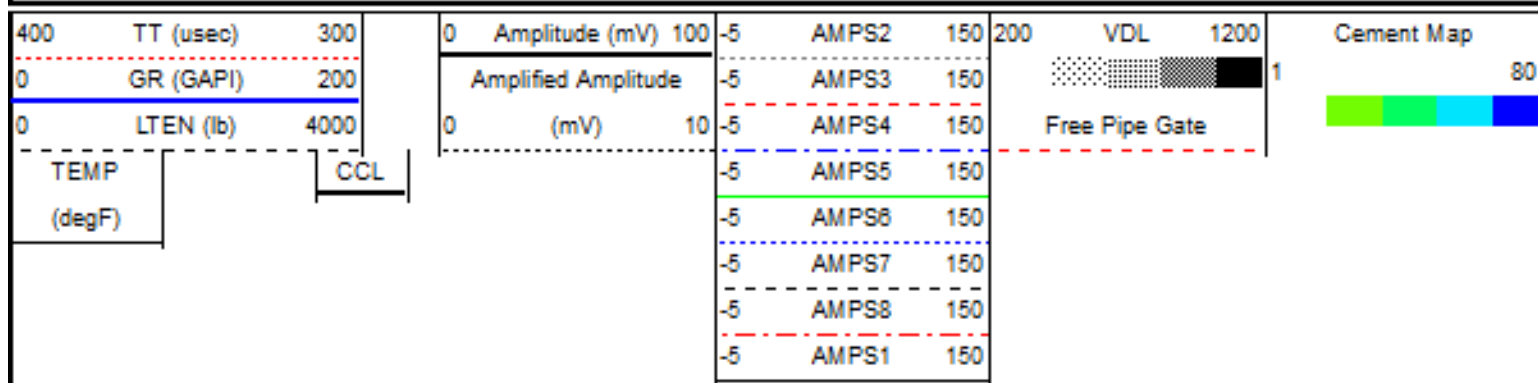
Comments

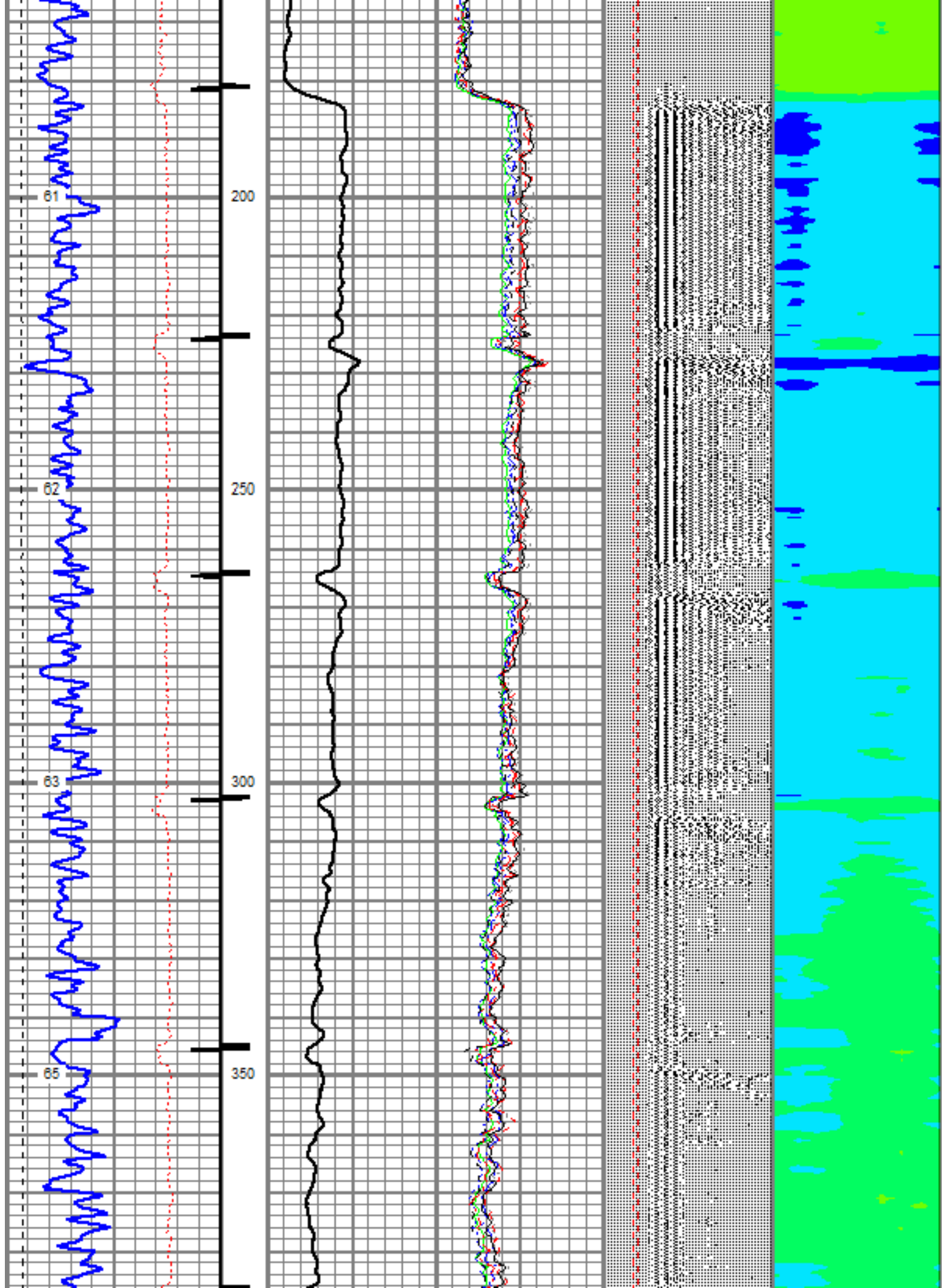
*****Thank You For Using Cutters Wireline*****
Log Ran as First Log In Well
Logged with 0 PSI

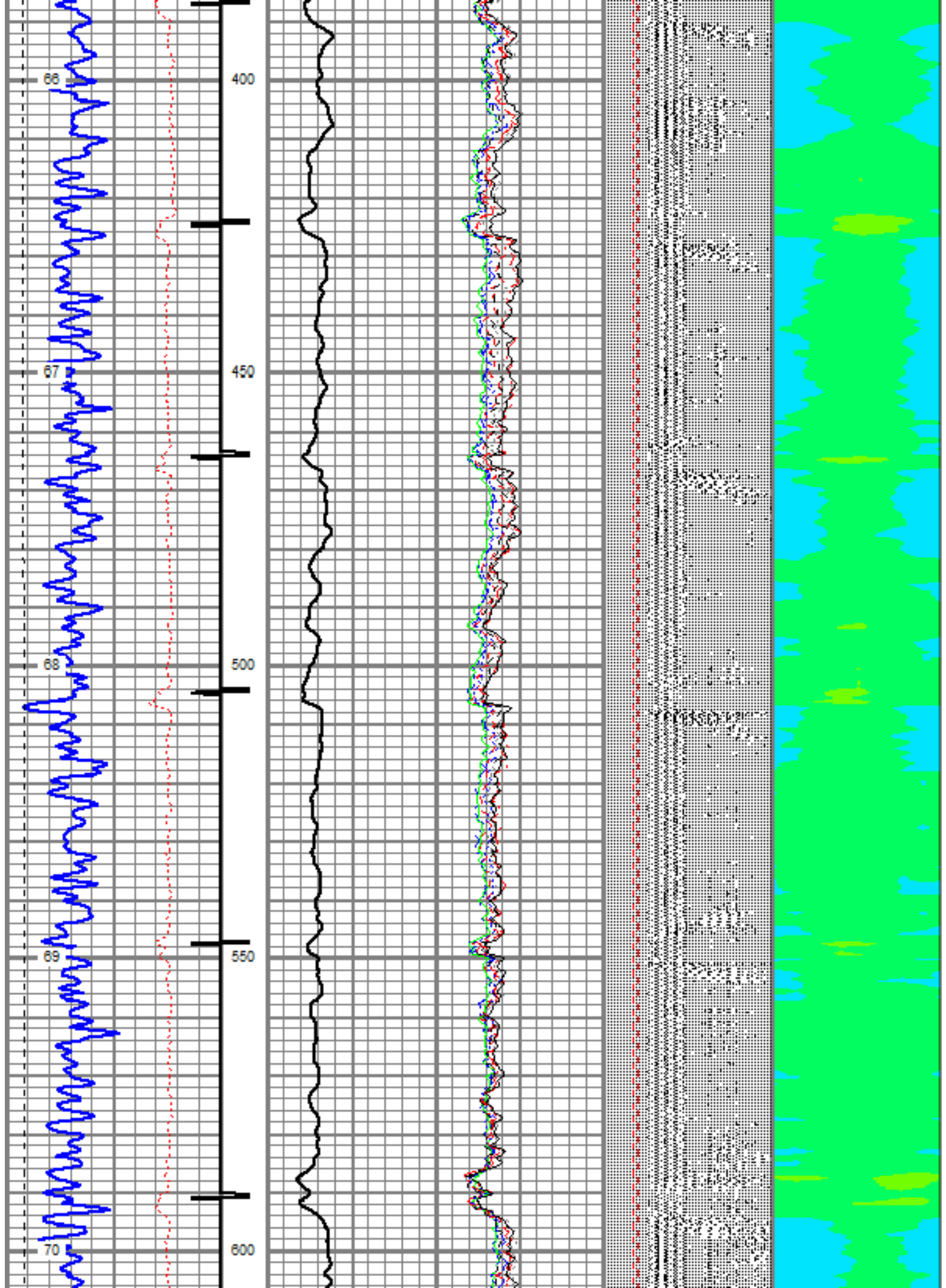


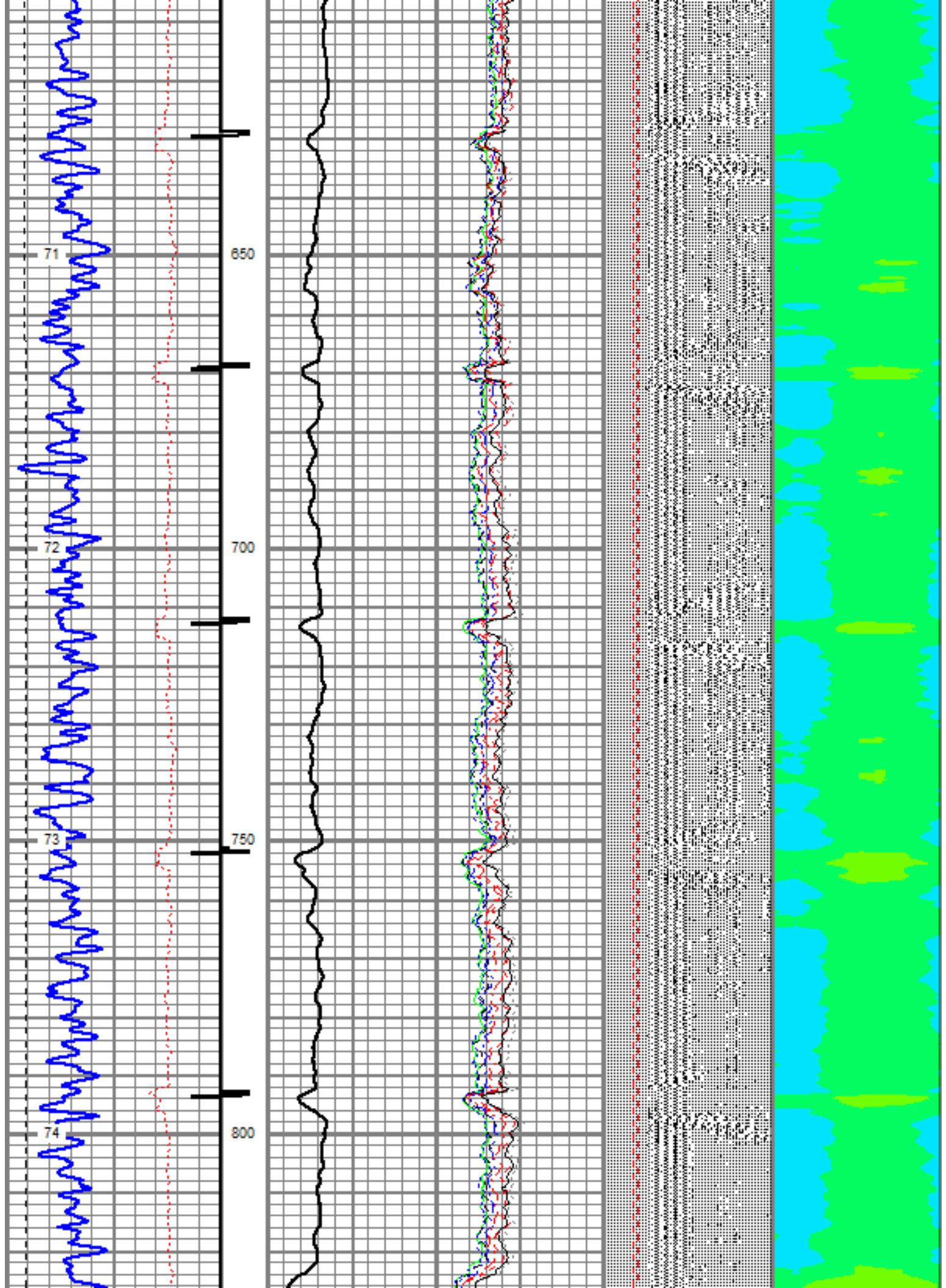
Main Pass 5" = 100'

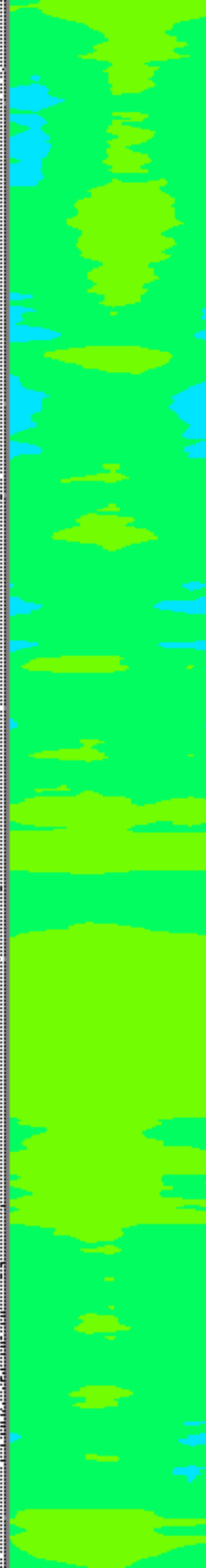
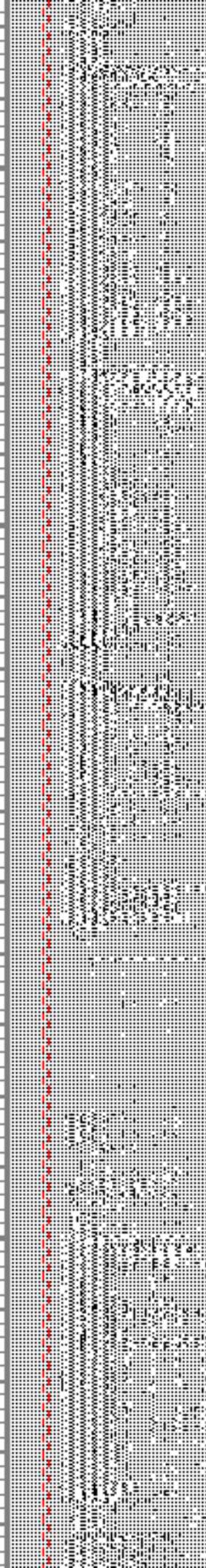
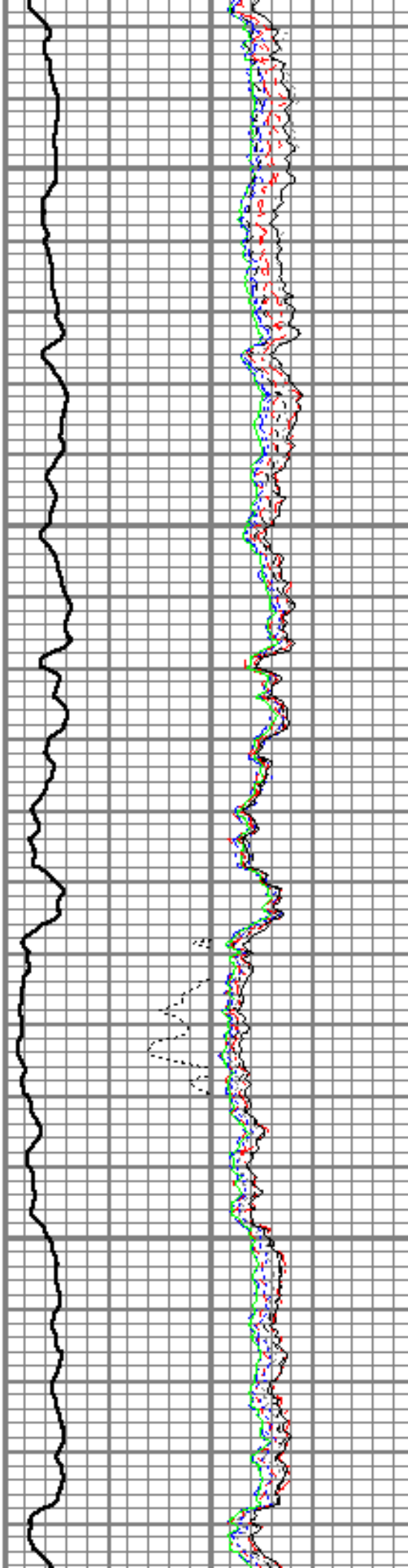
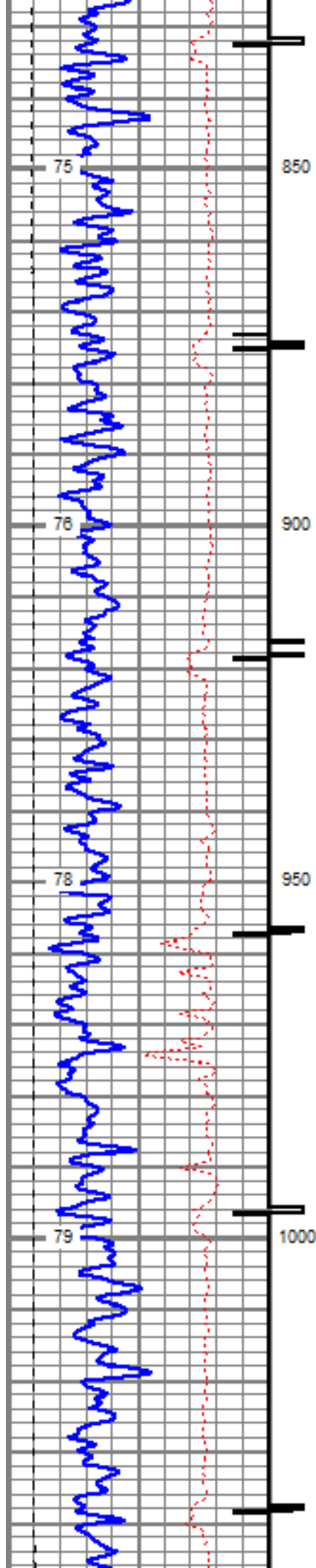
Database File: cub_creek_markham_6.db
 Dataset Pathname: pass10.2
 Presentation Format: rbl55
 Dataset Creation: Wed Oct 26 12:18:31 2016 by Calc Std Casedhole 09061
 Charted by: Depth in Feet scaled 1:240

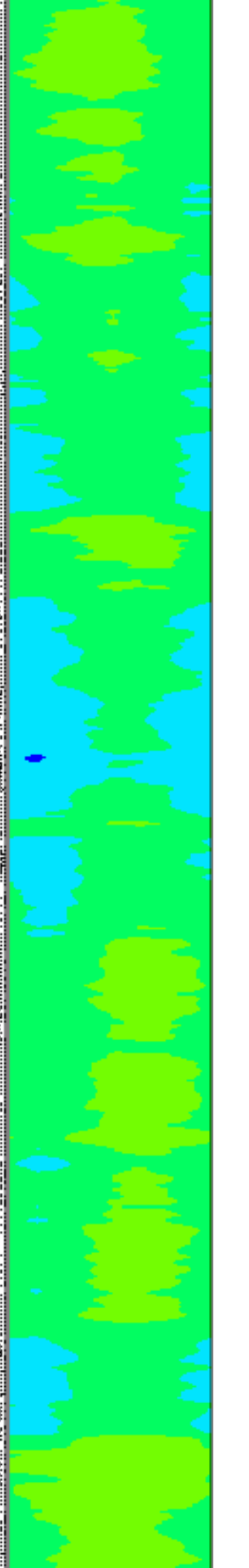
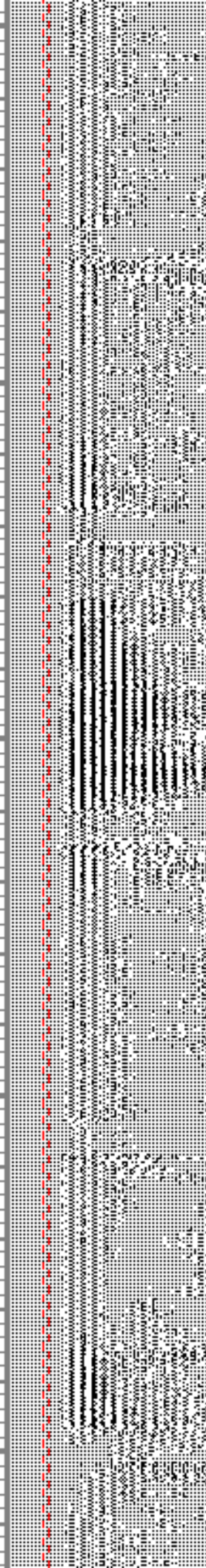
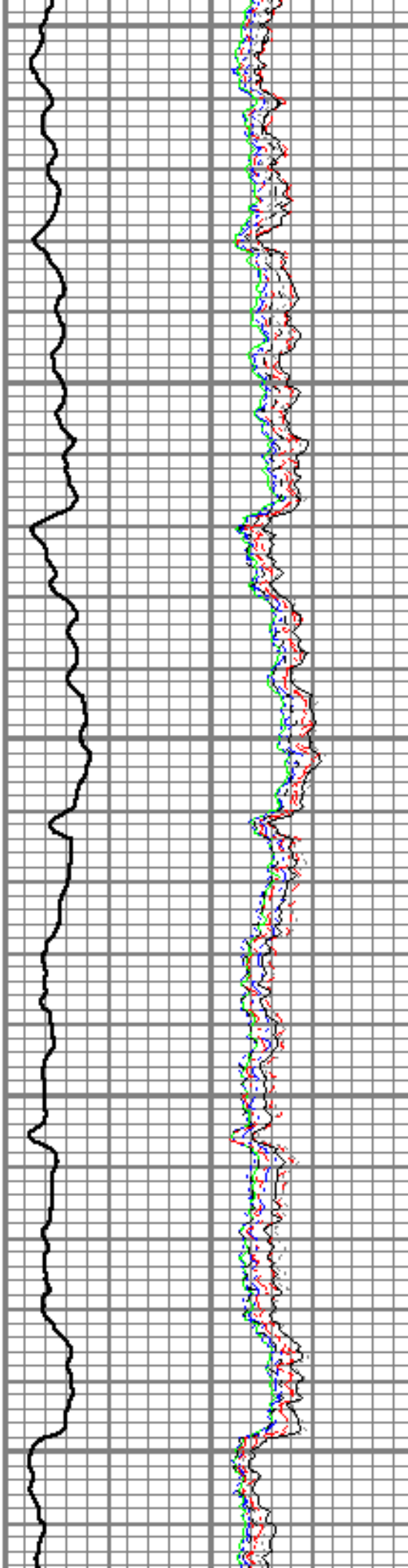
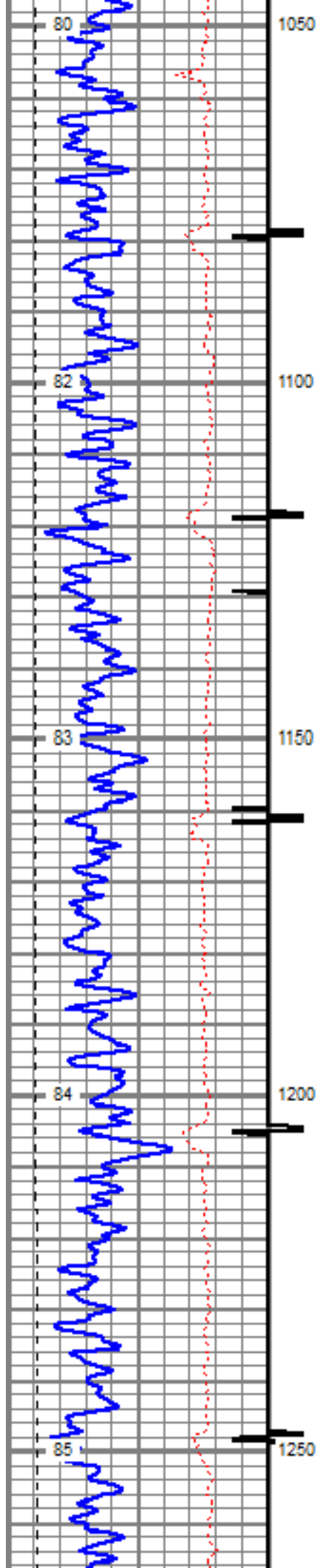


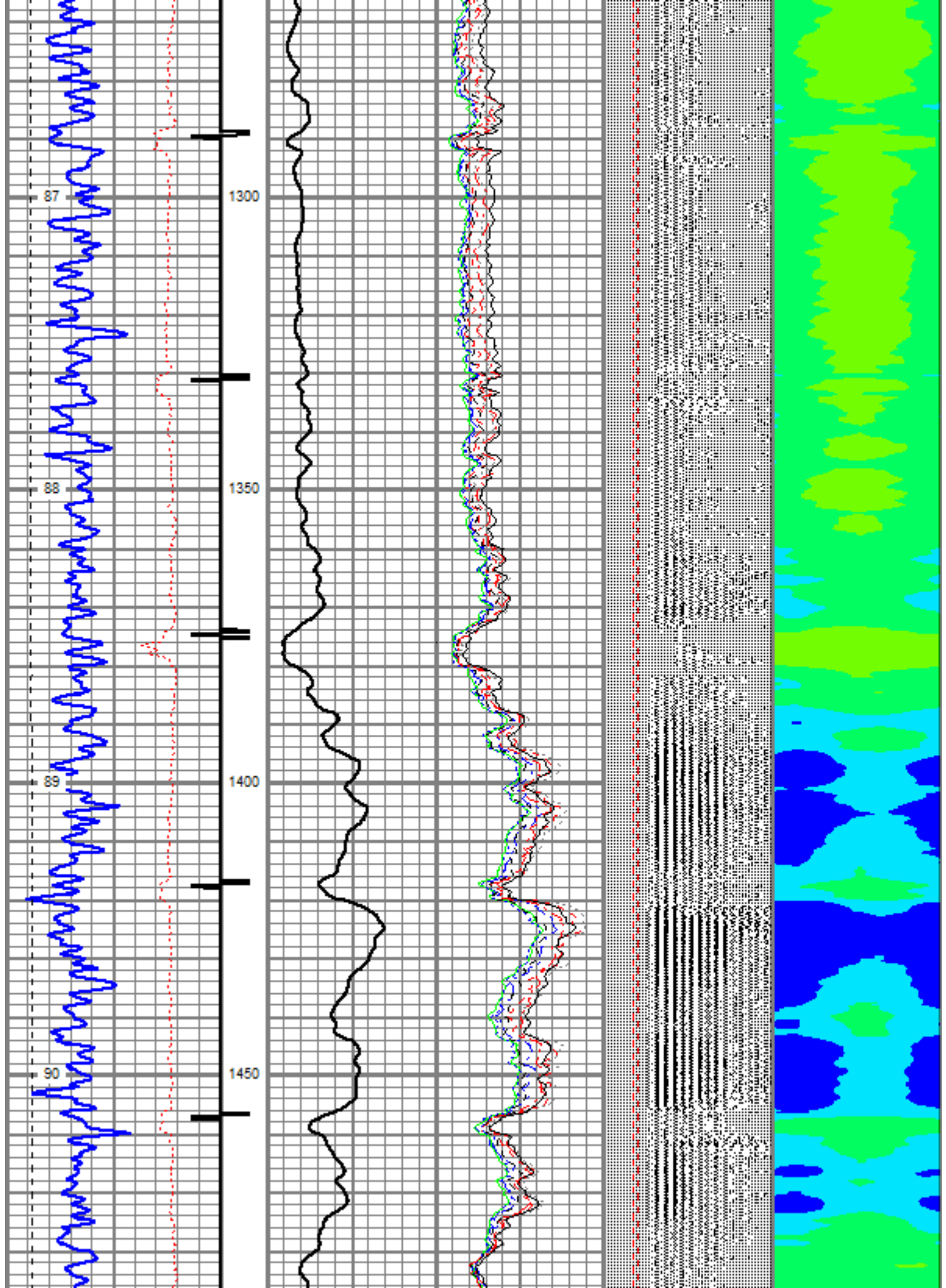


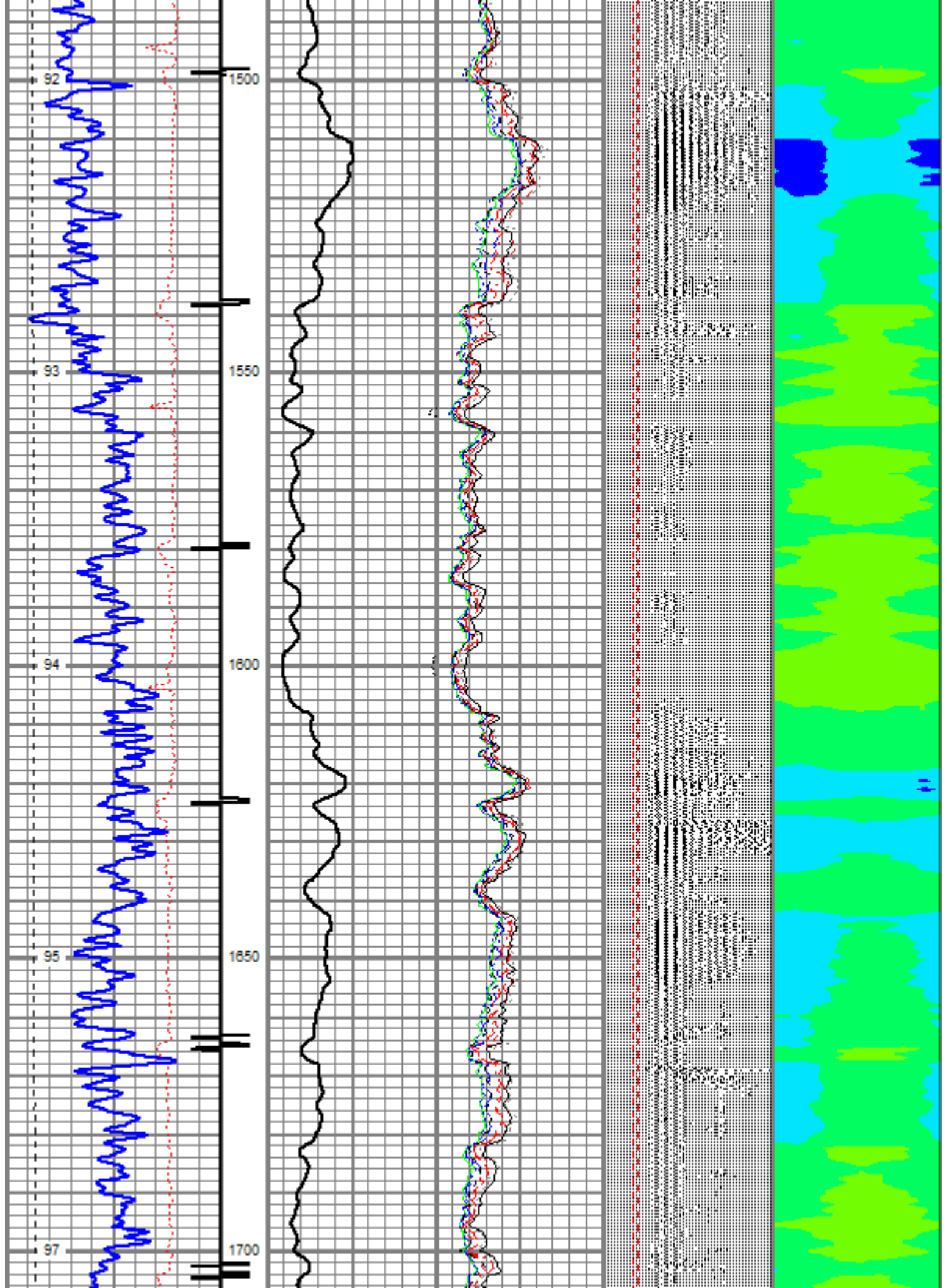


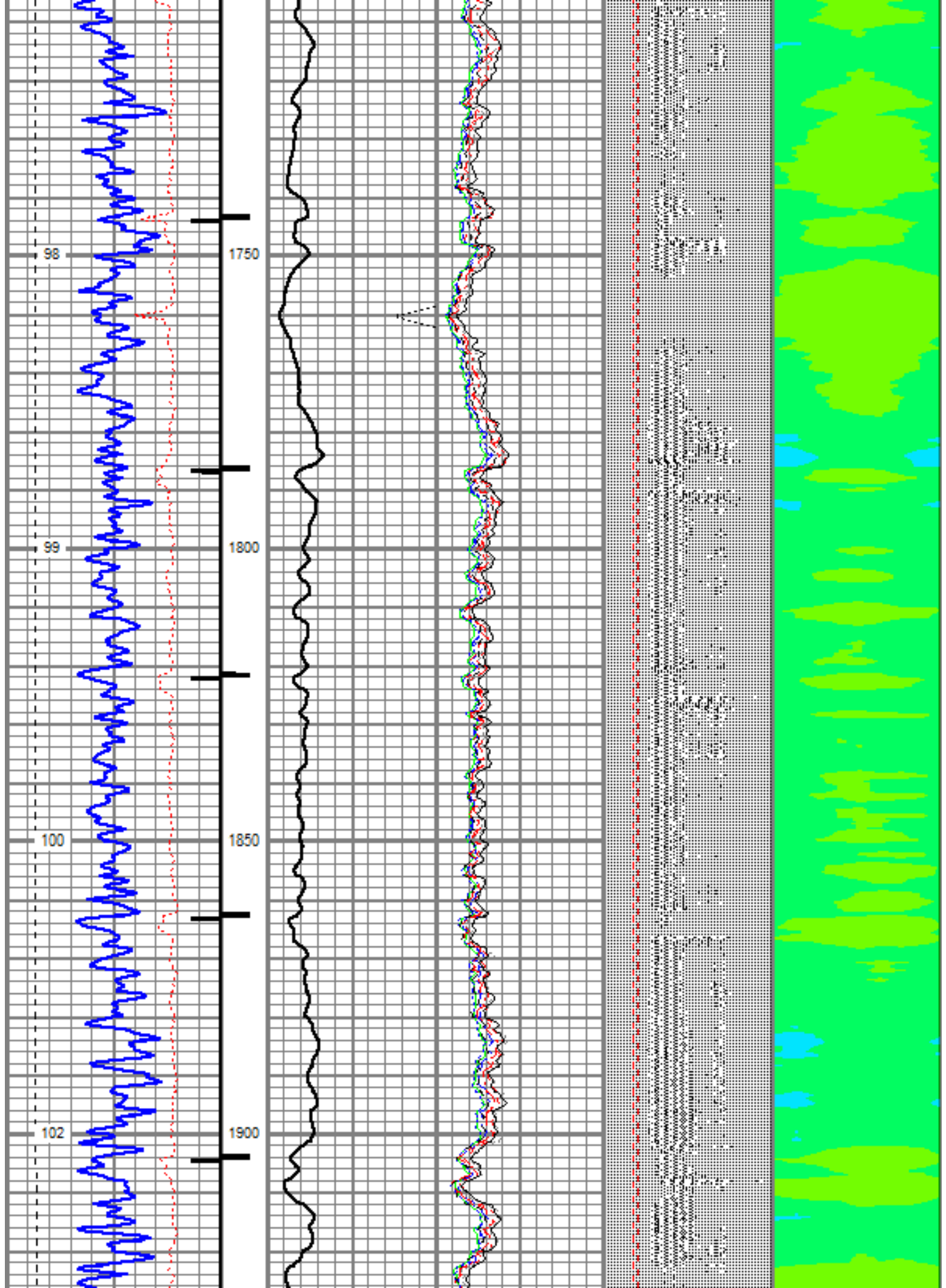


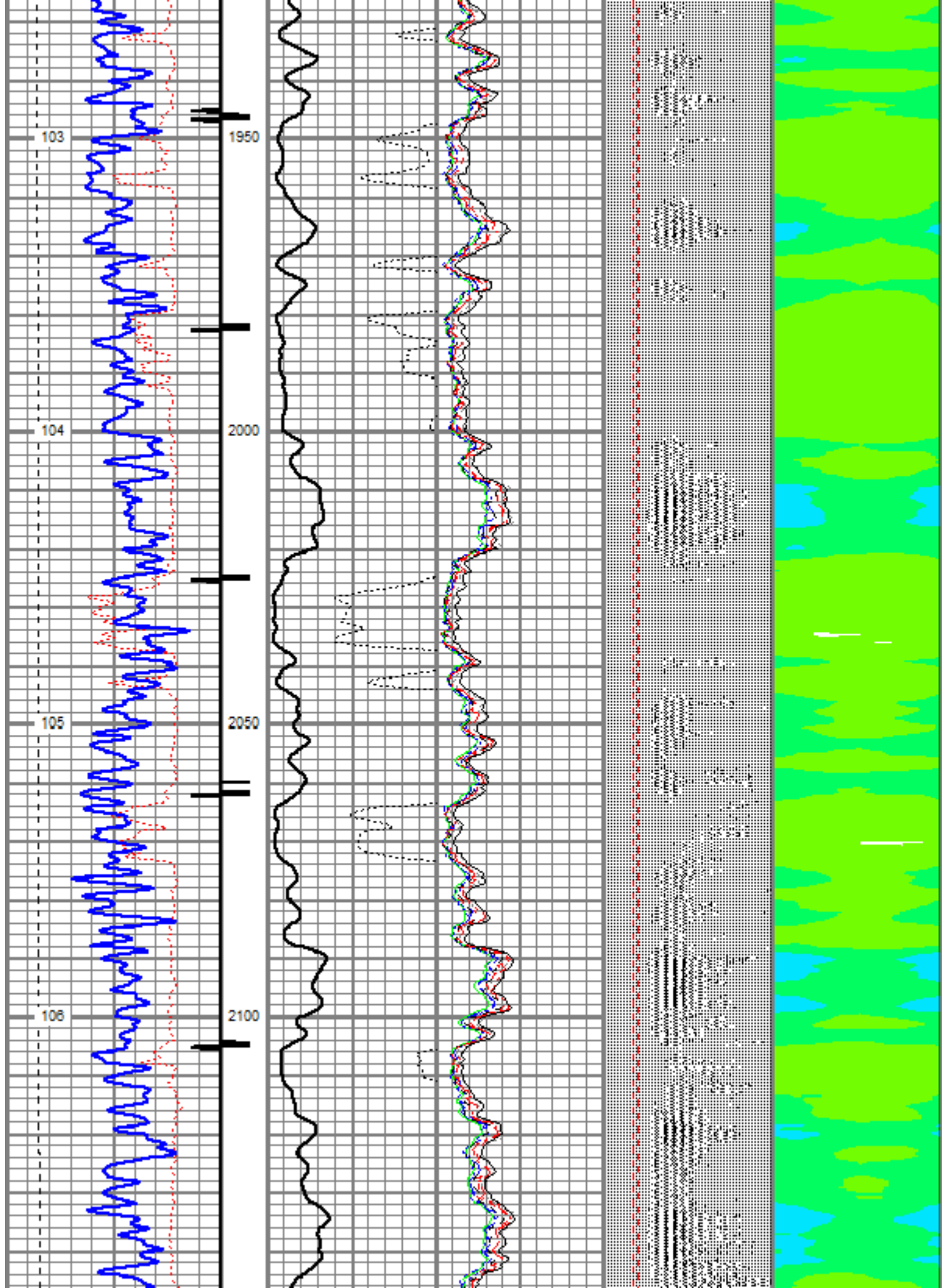


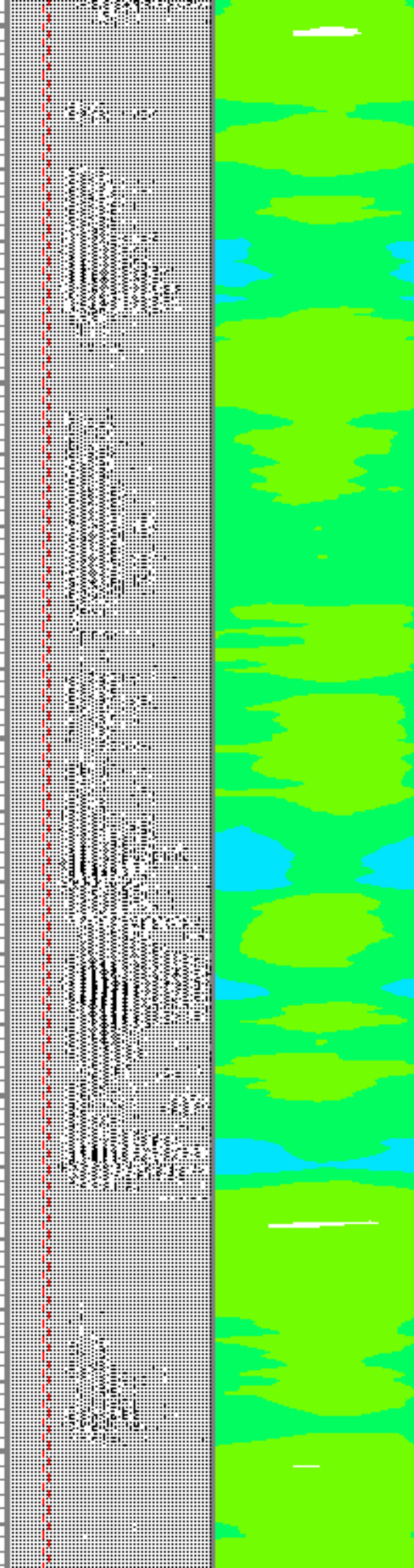
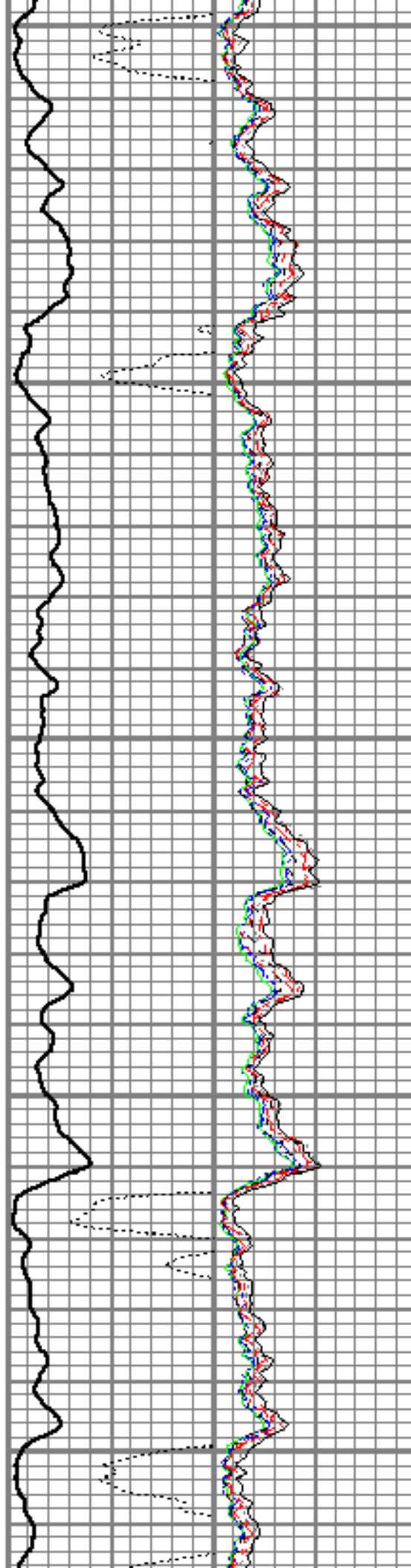
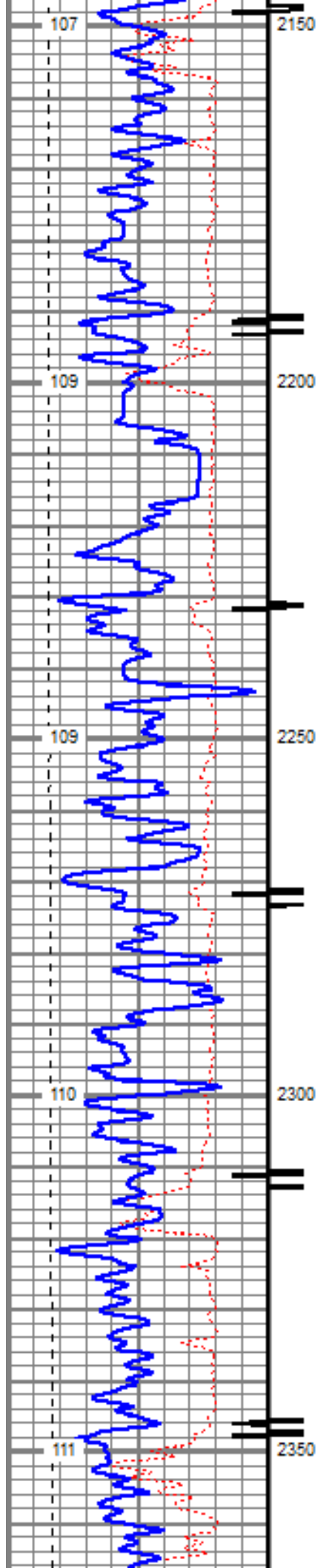


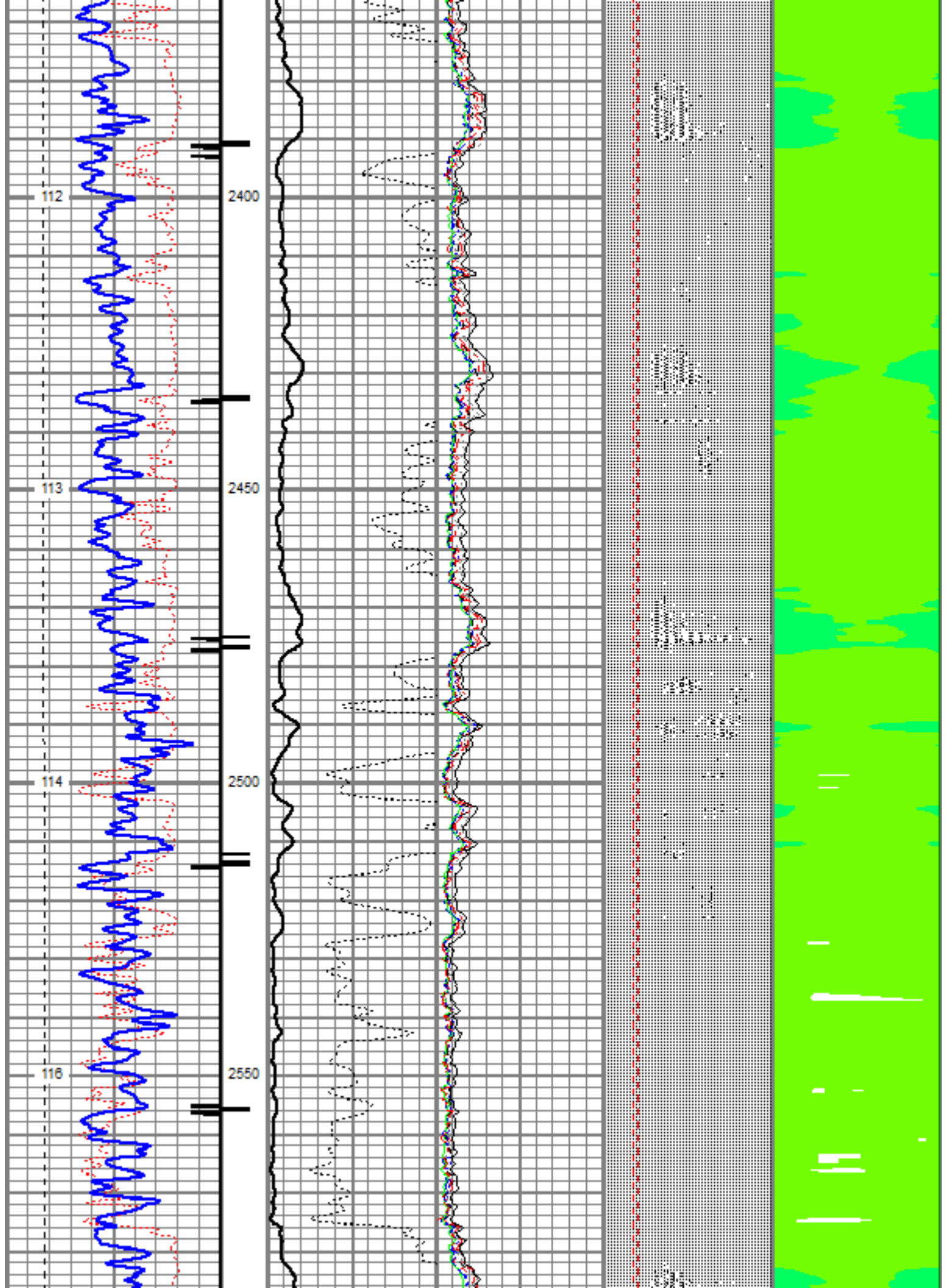


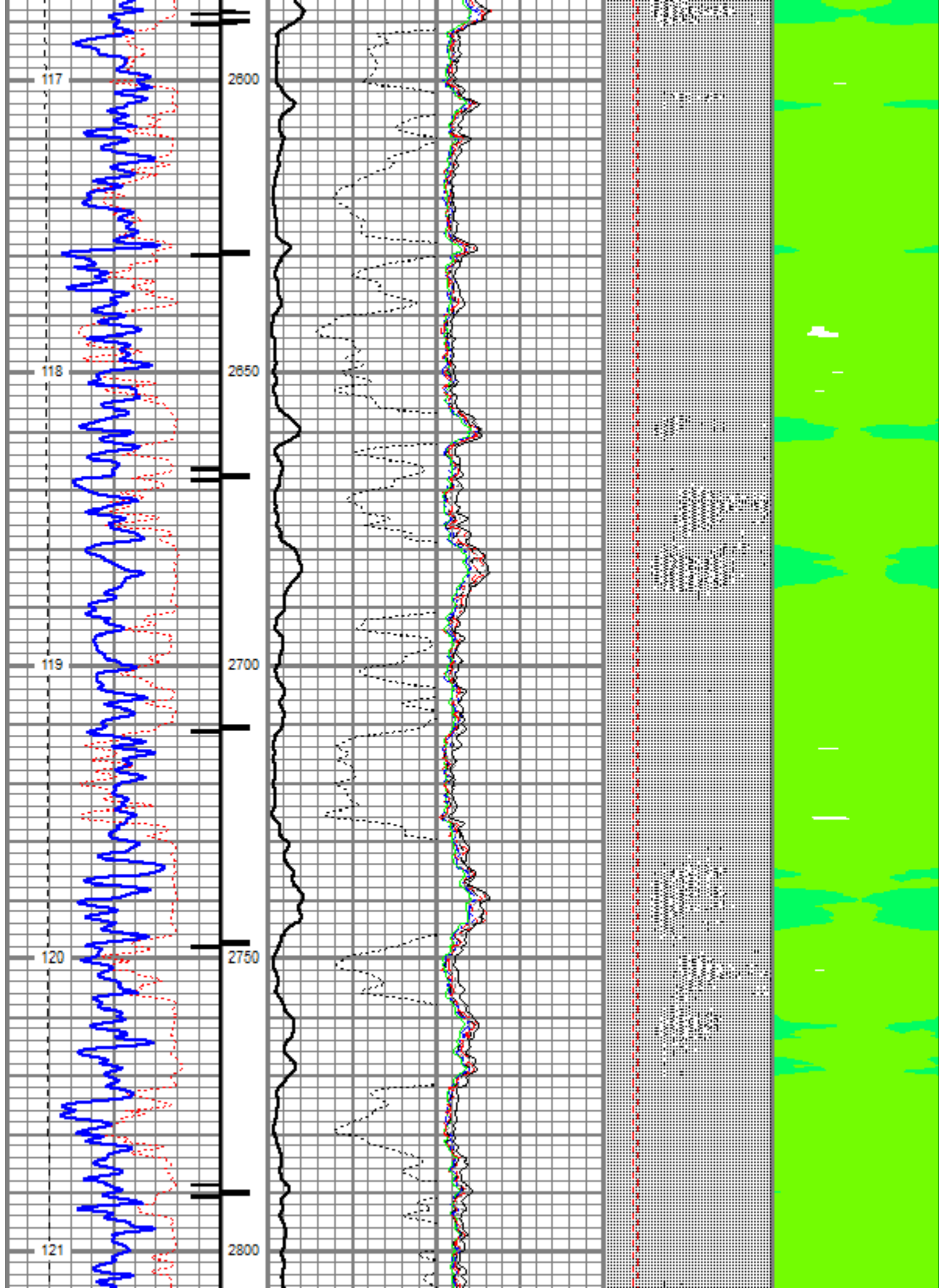


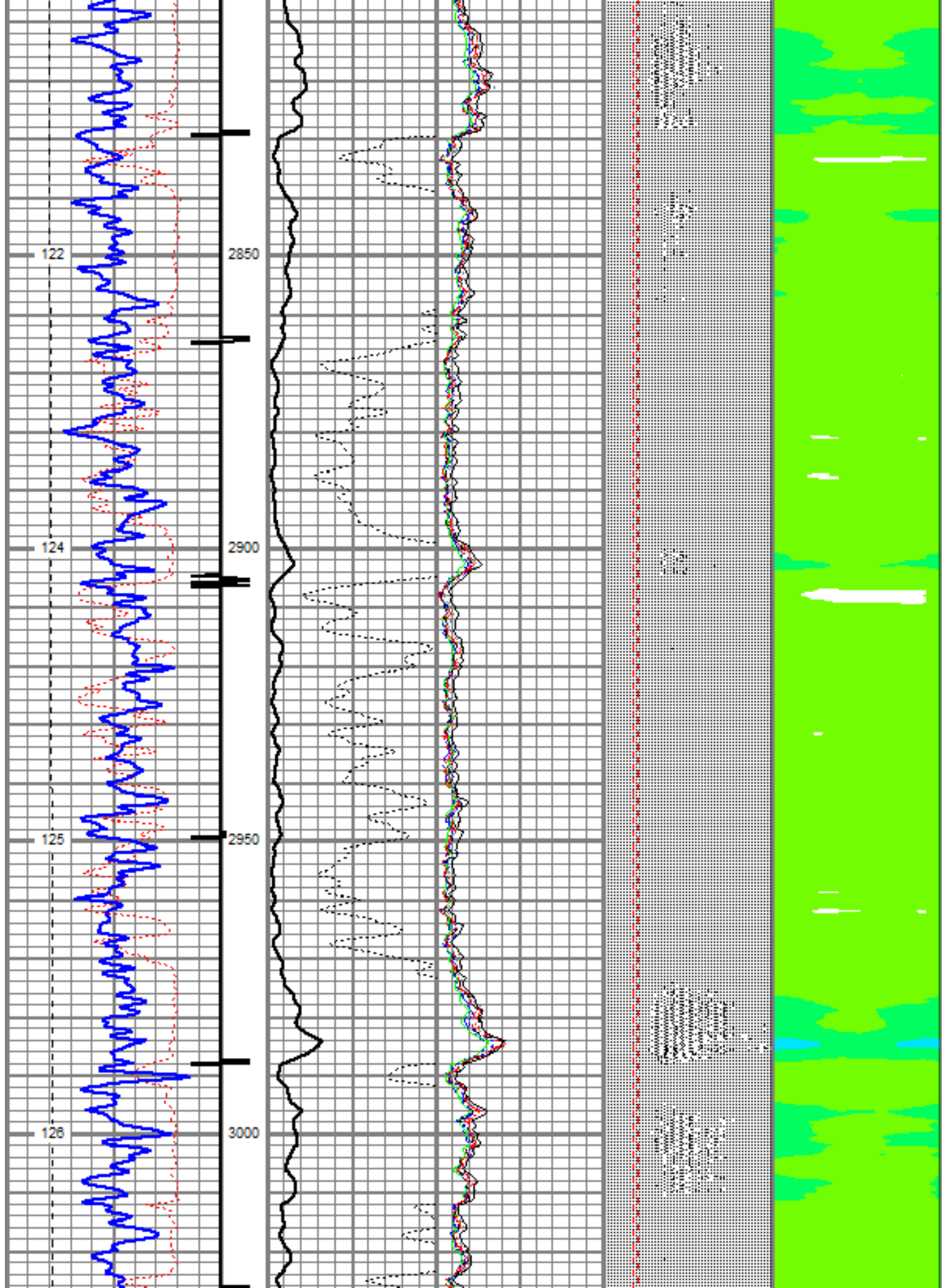


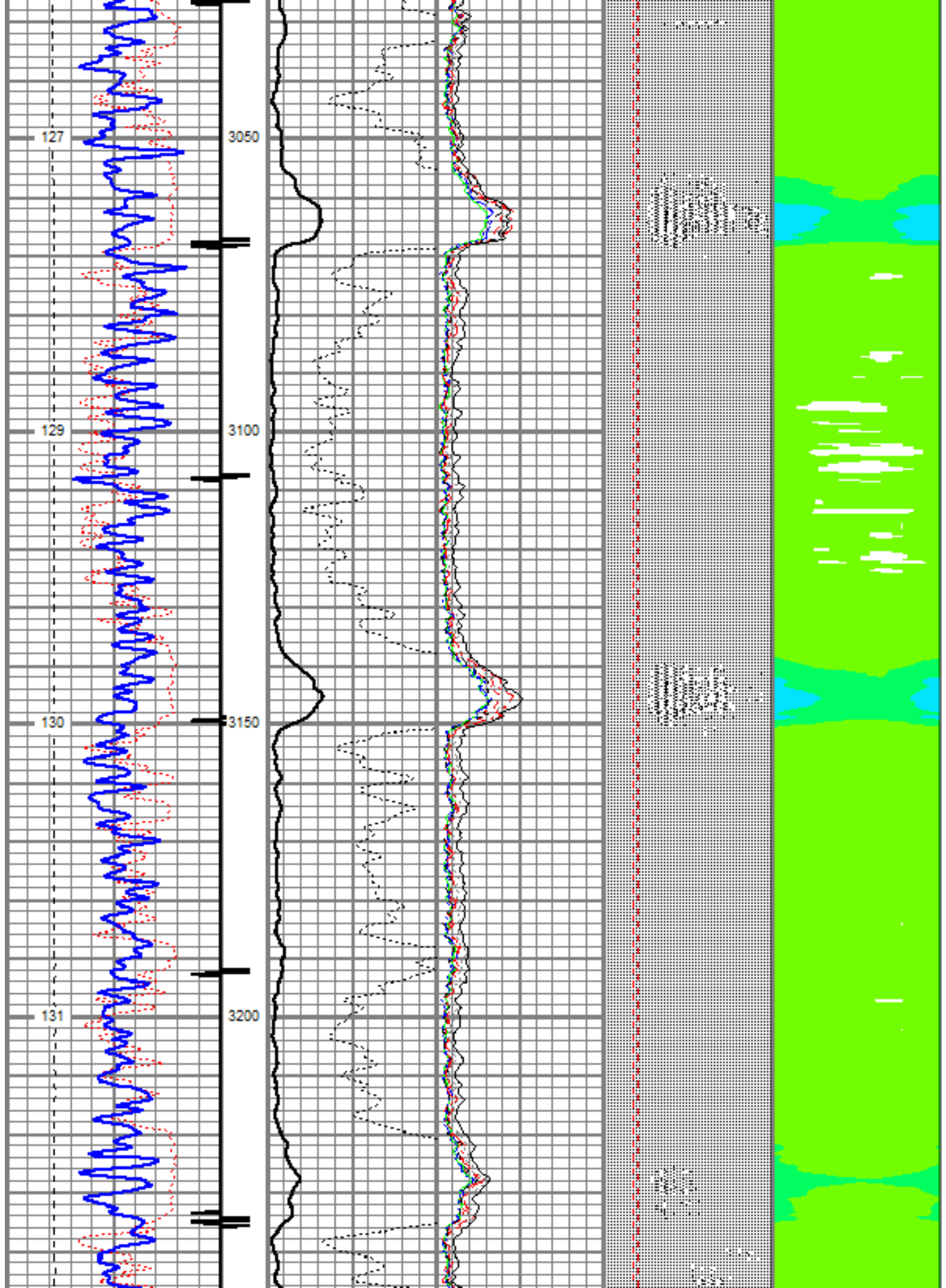


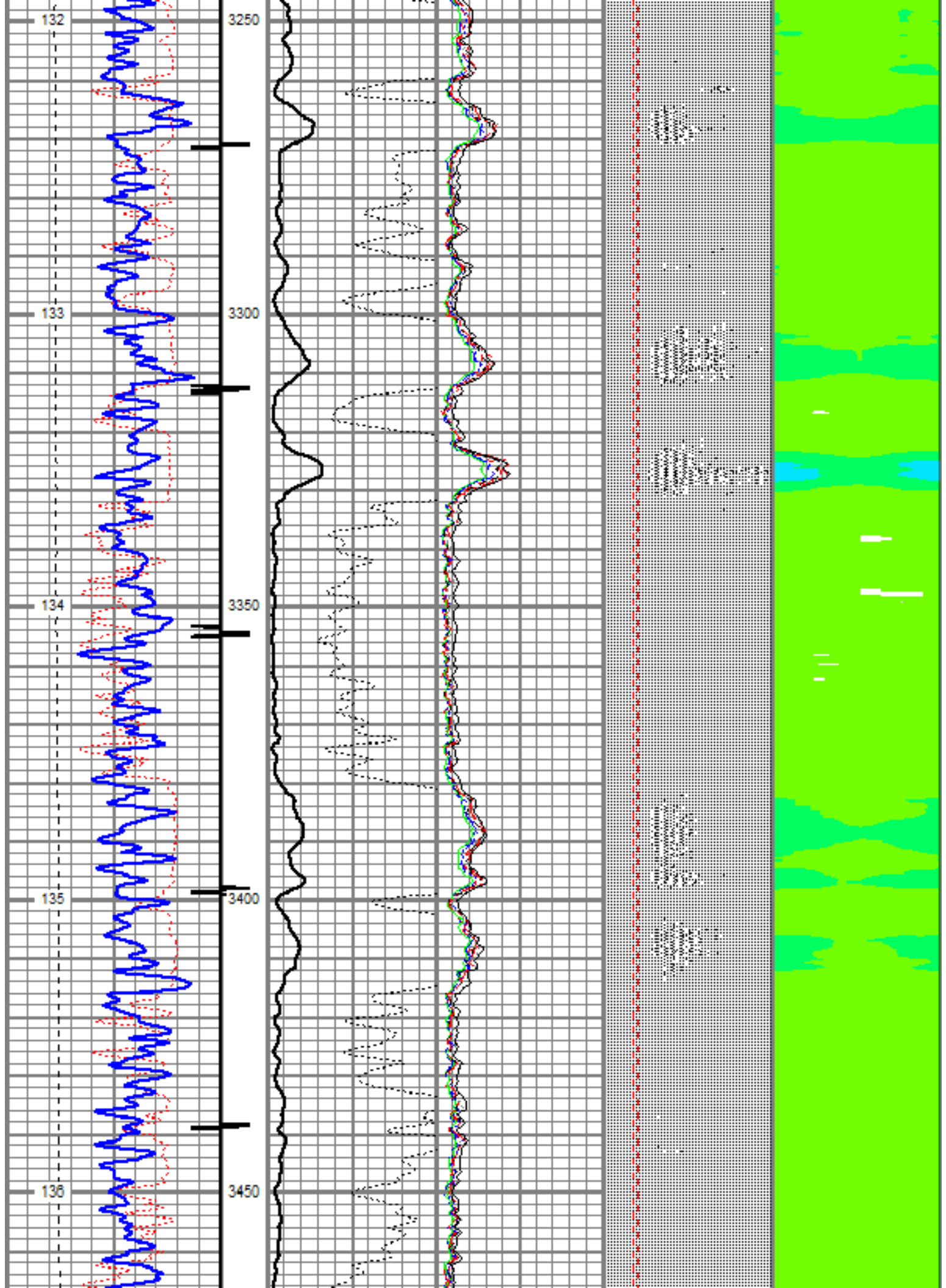


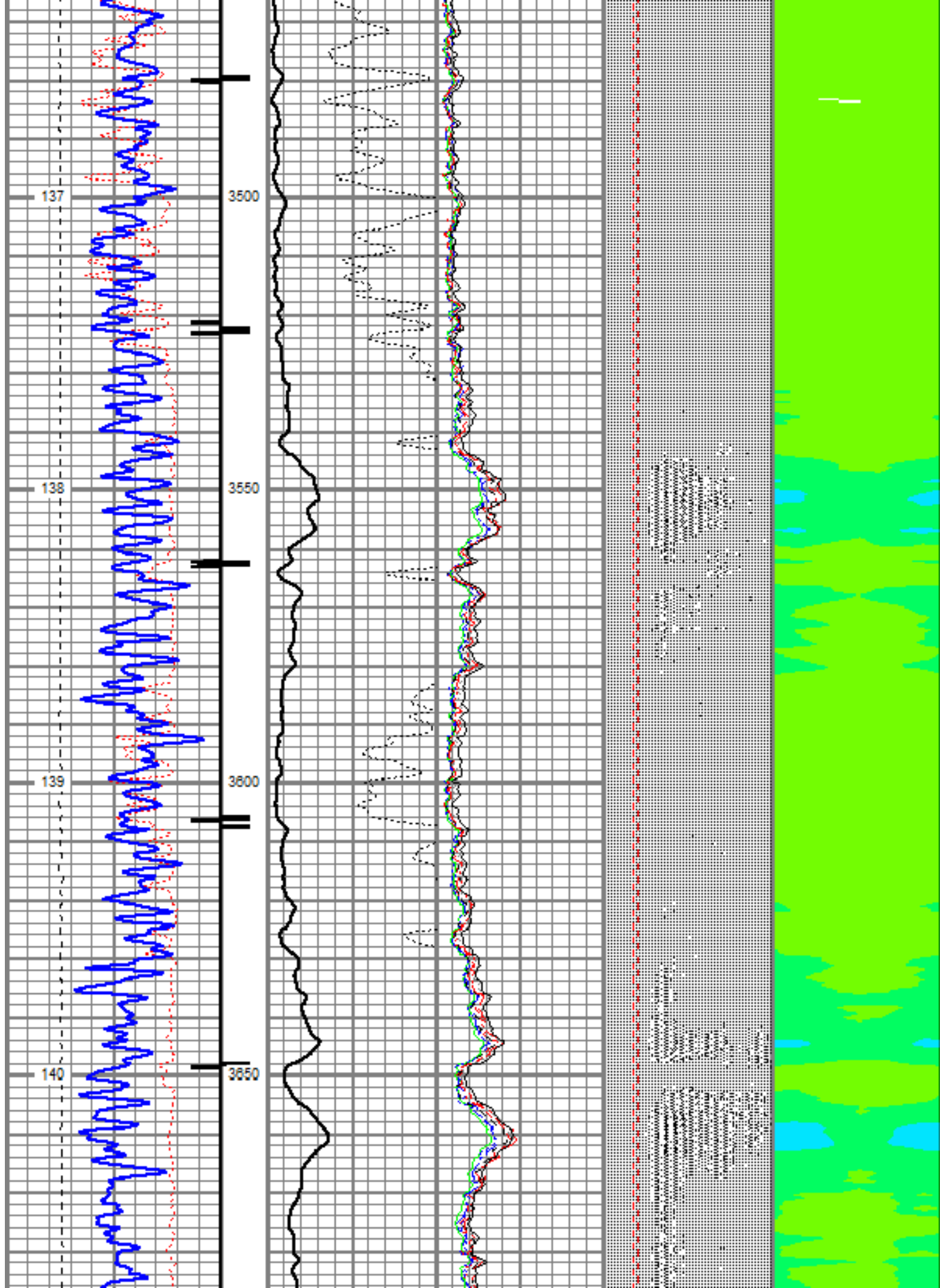


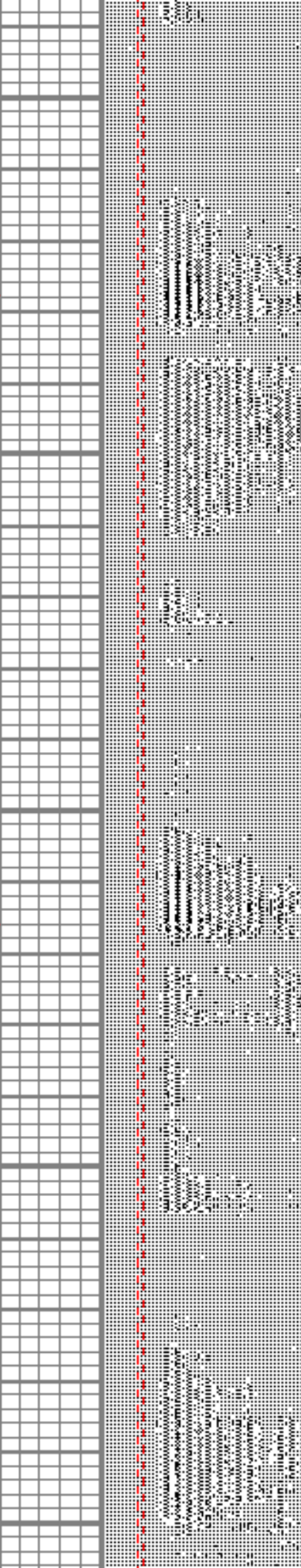
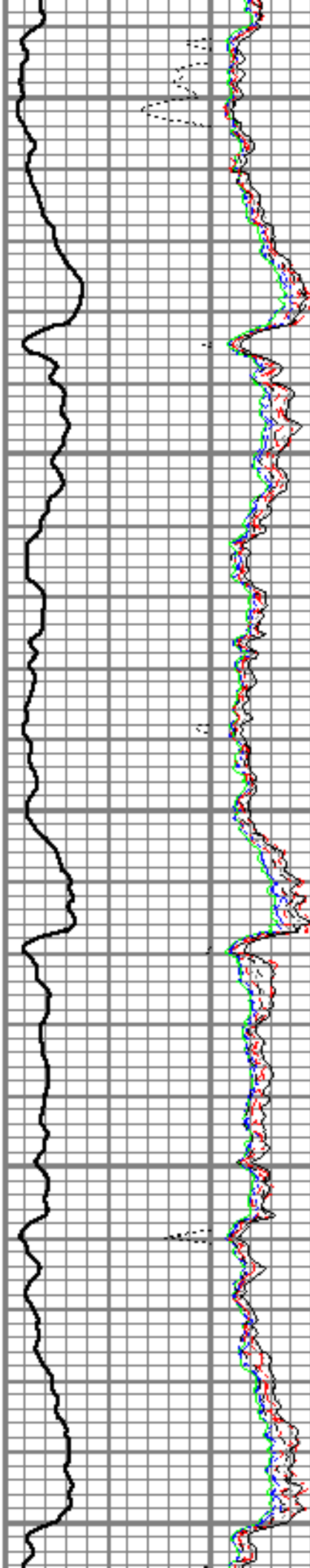
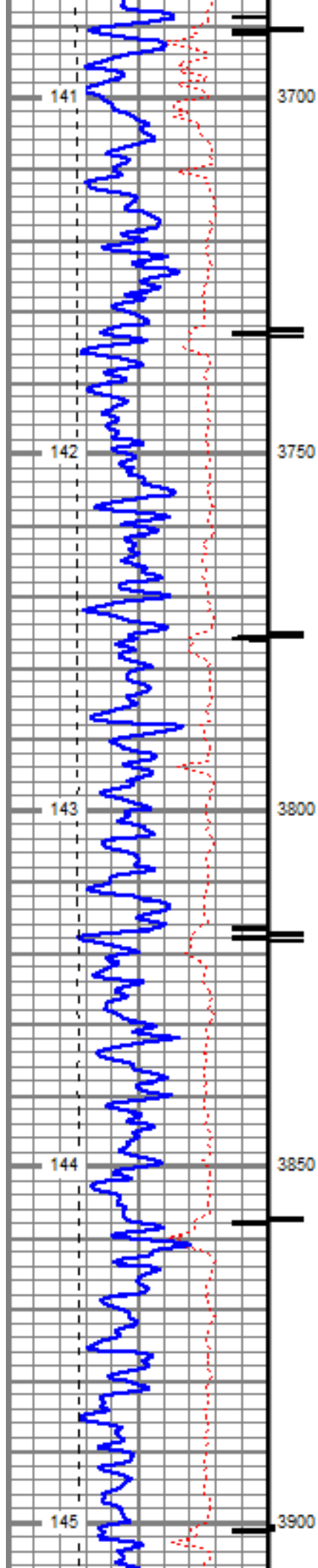


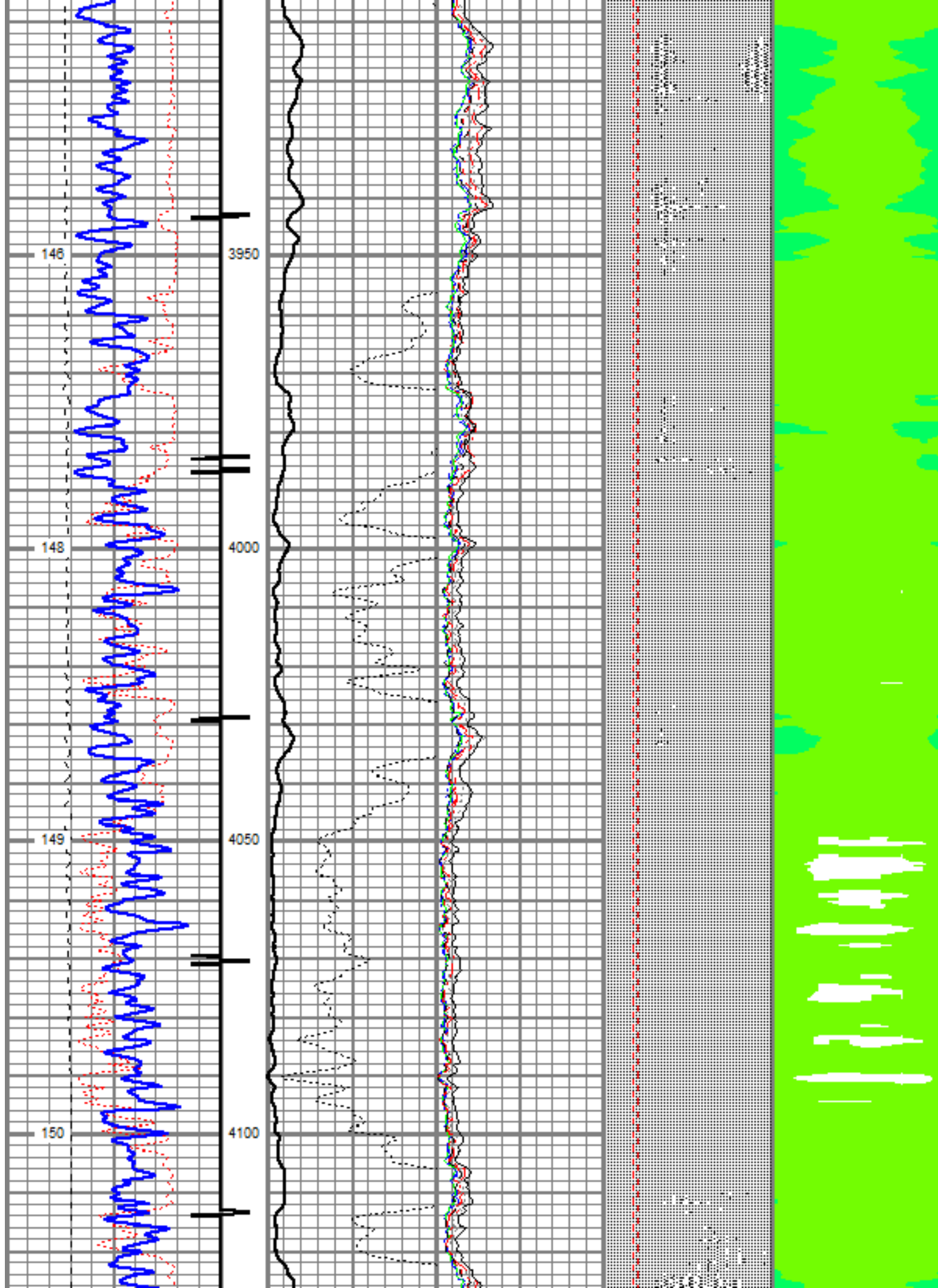


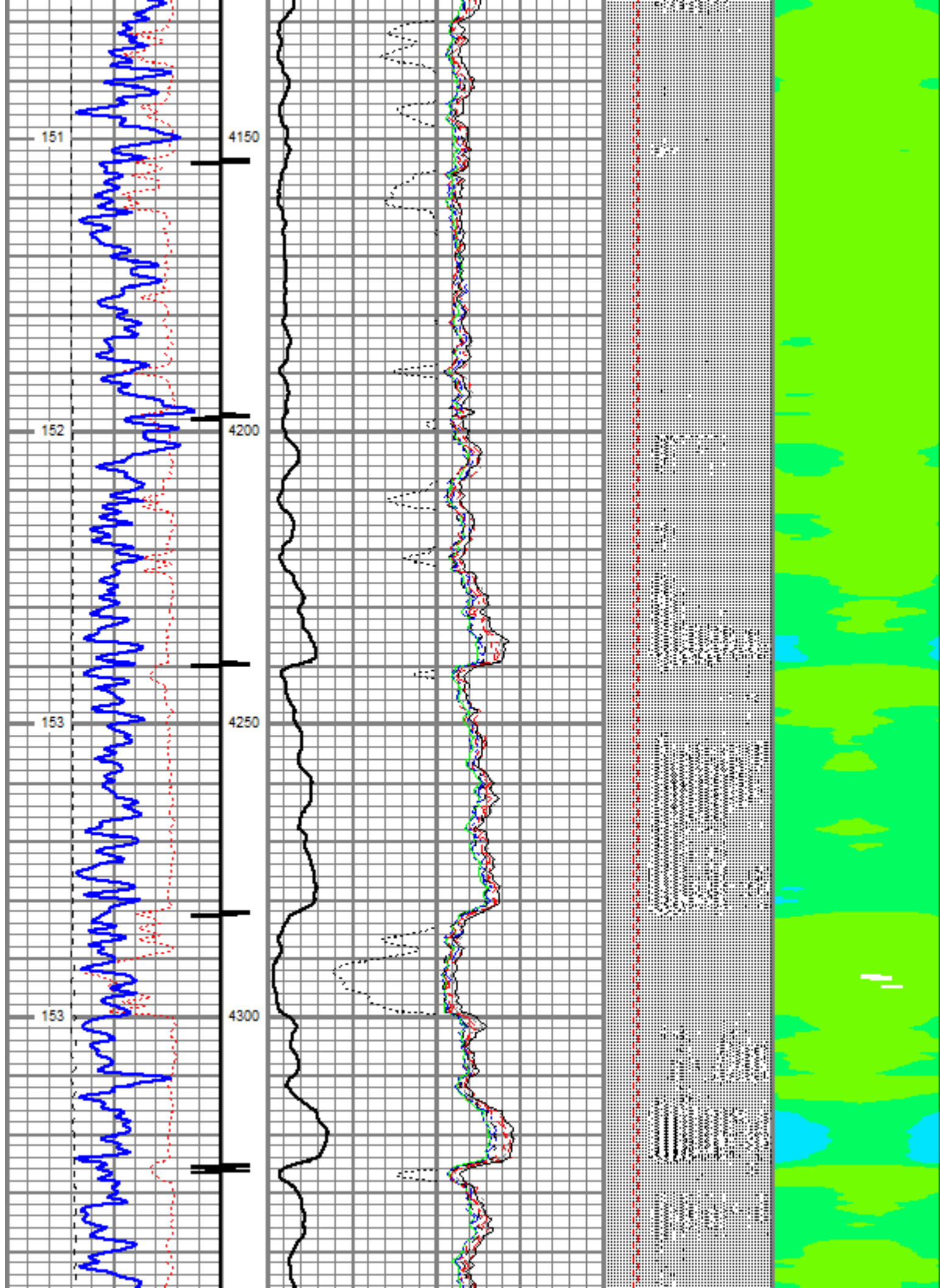


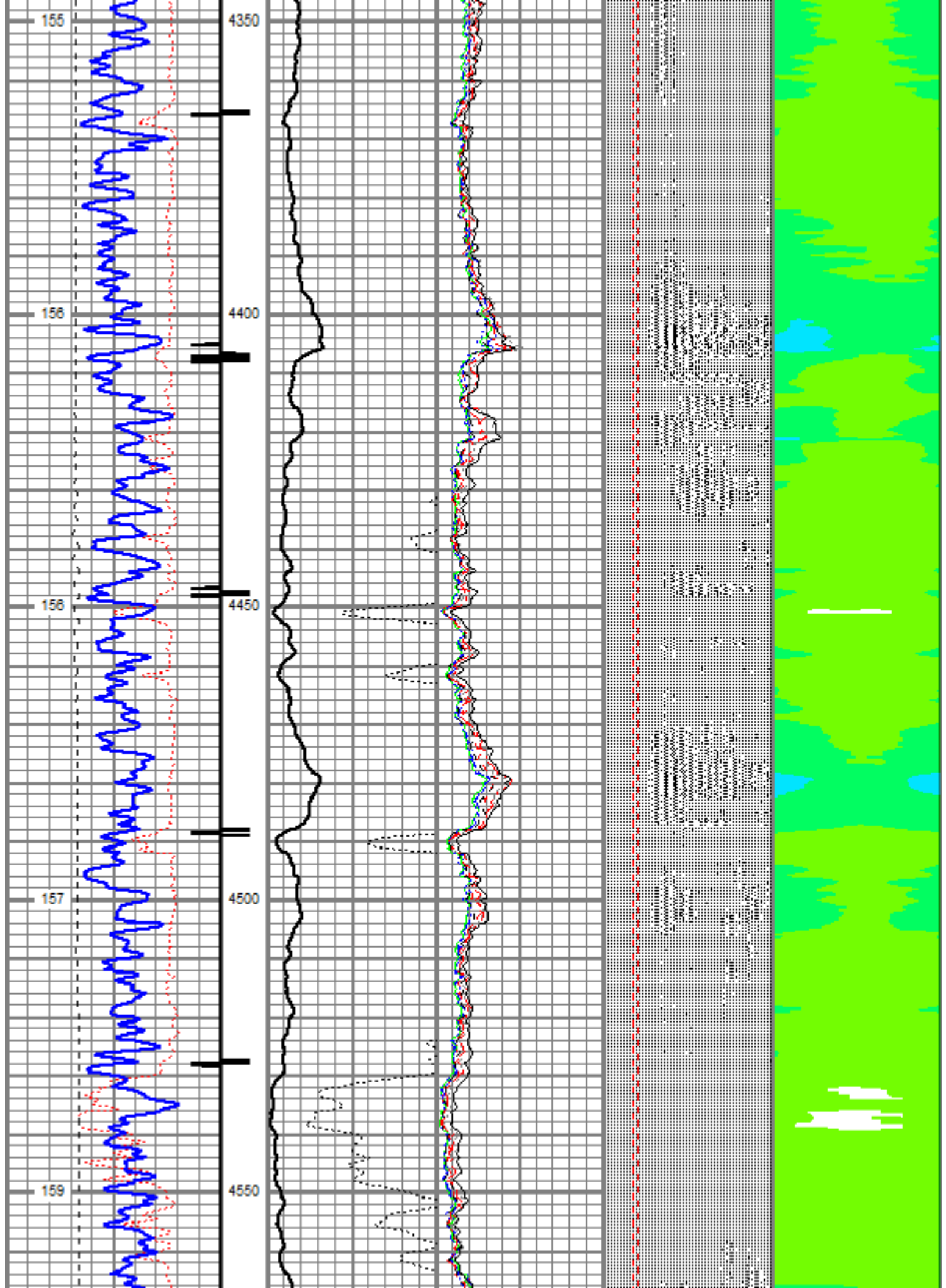


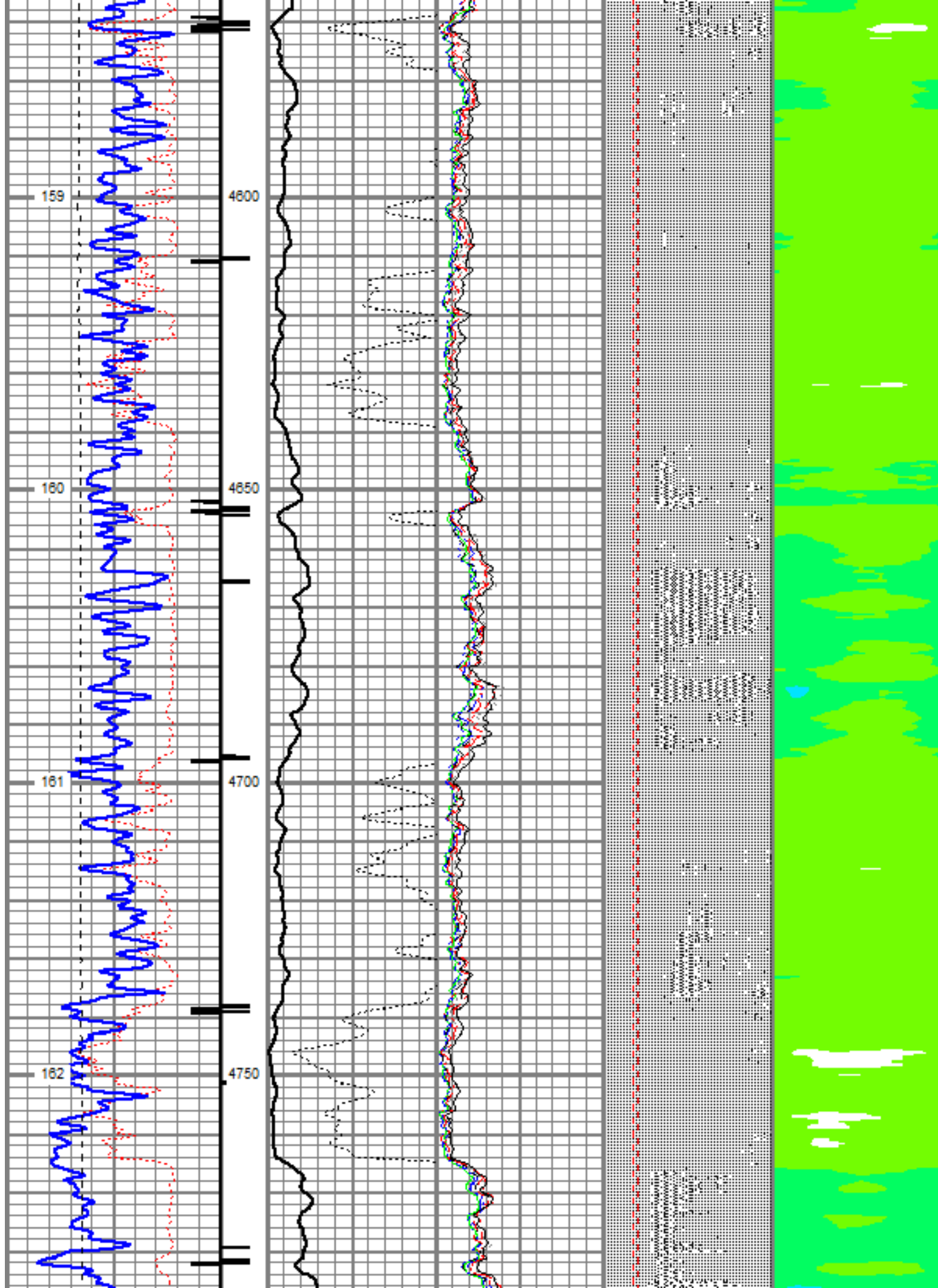


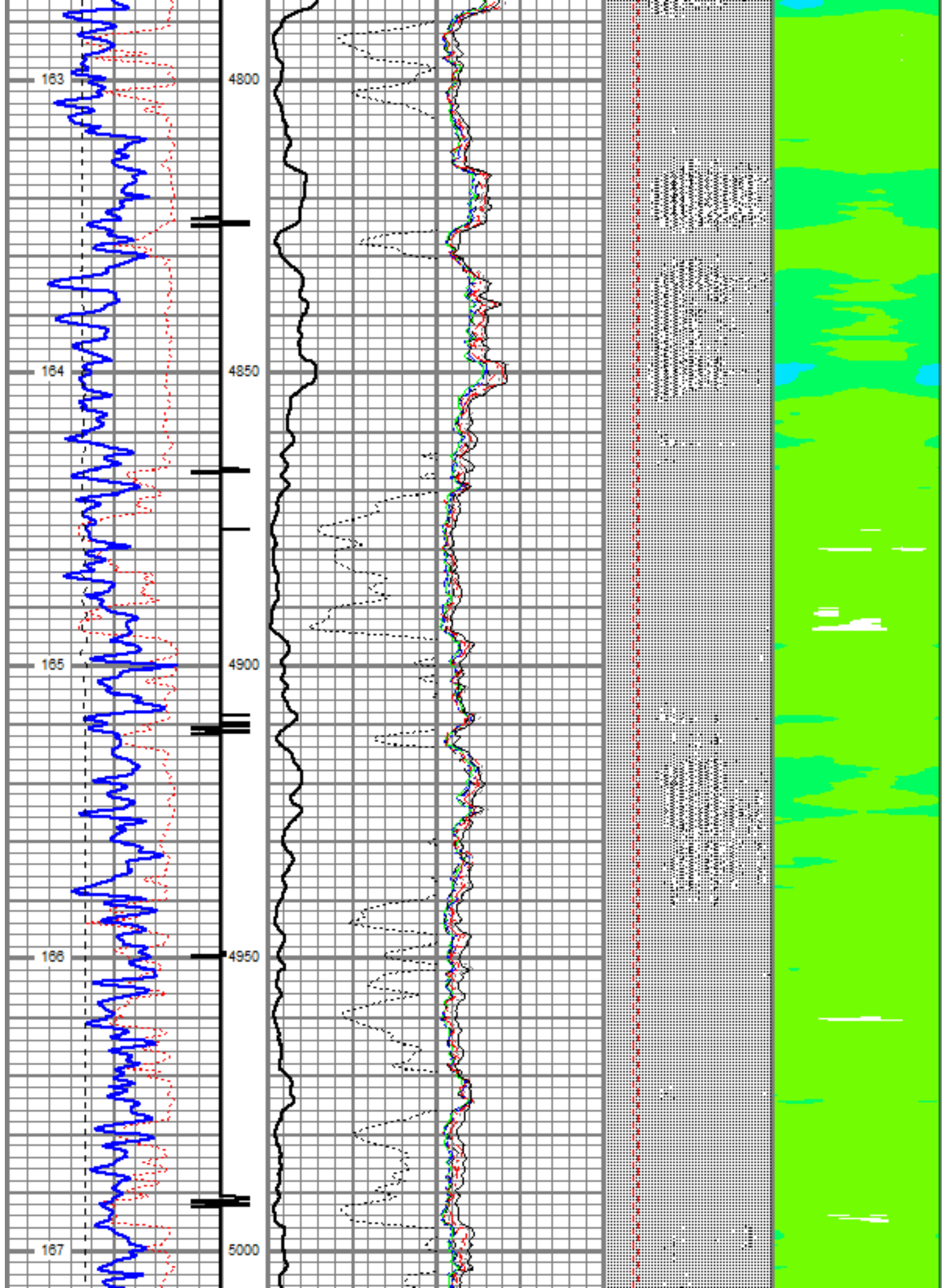


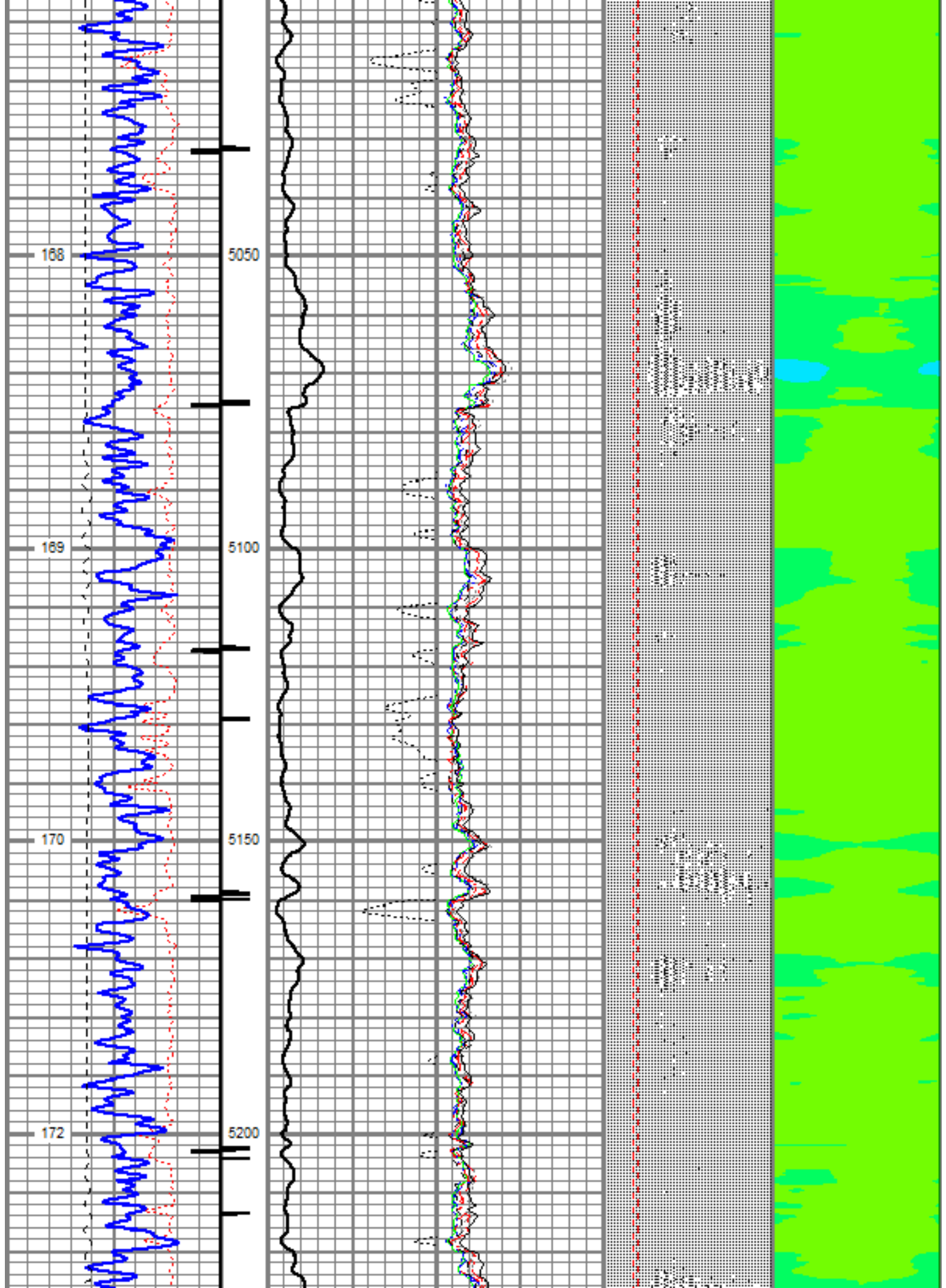


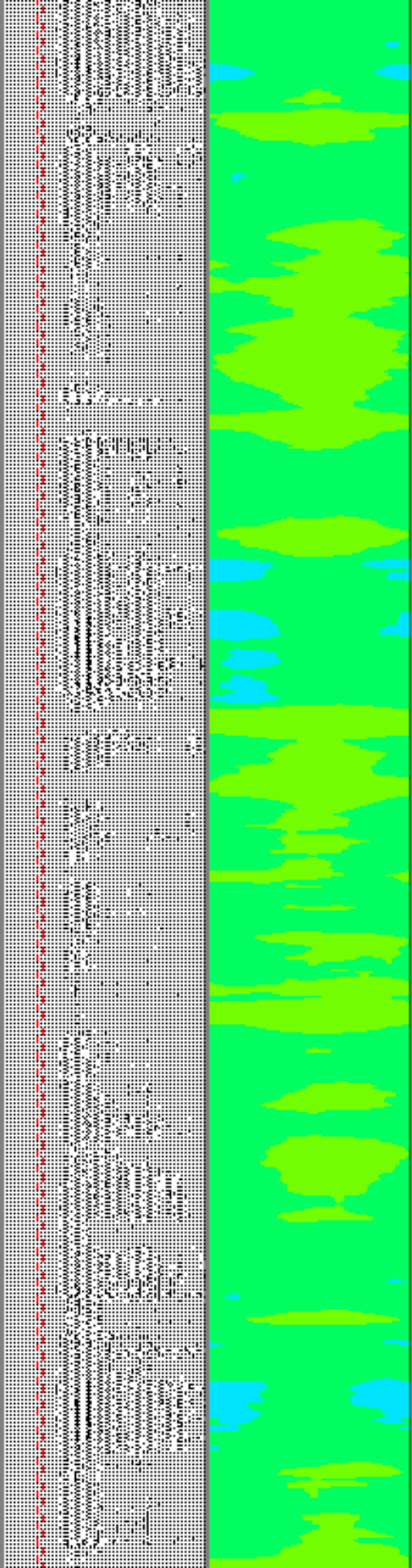
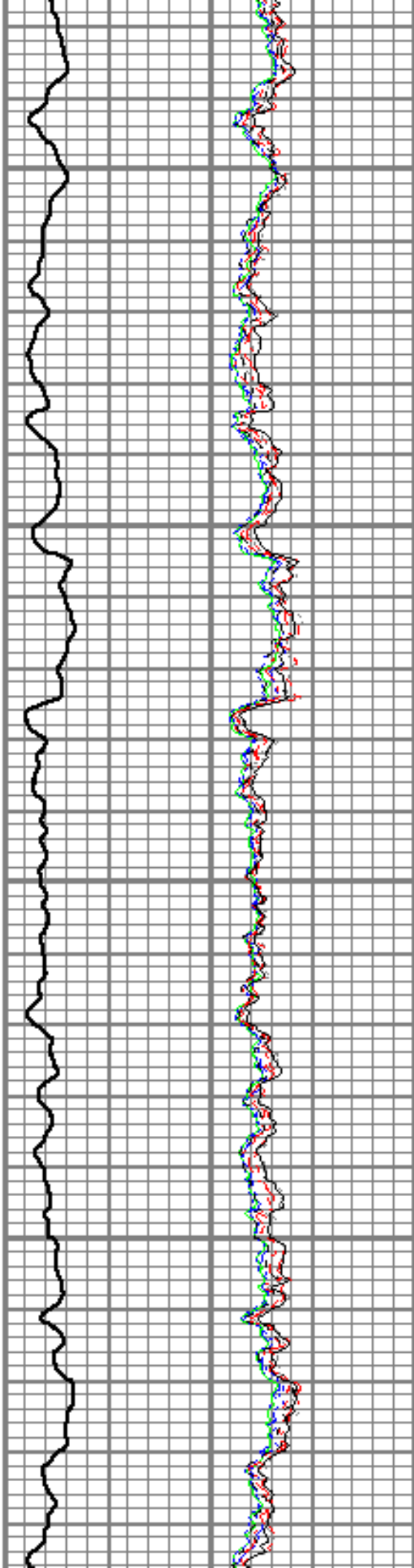
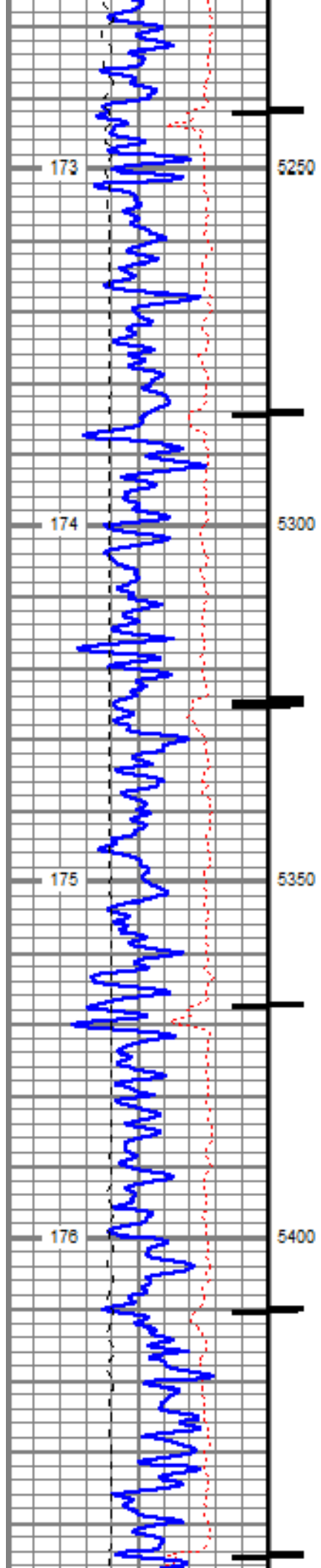


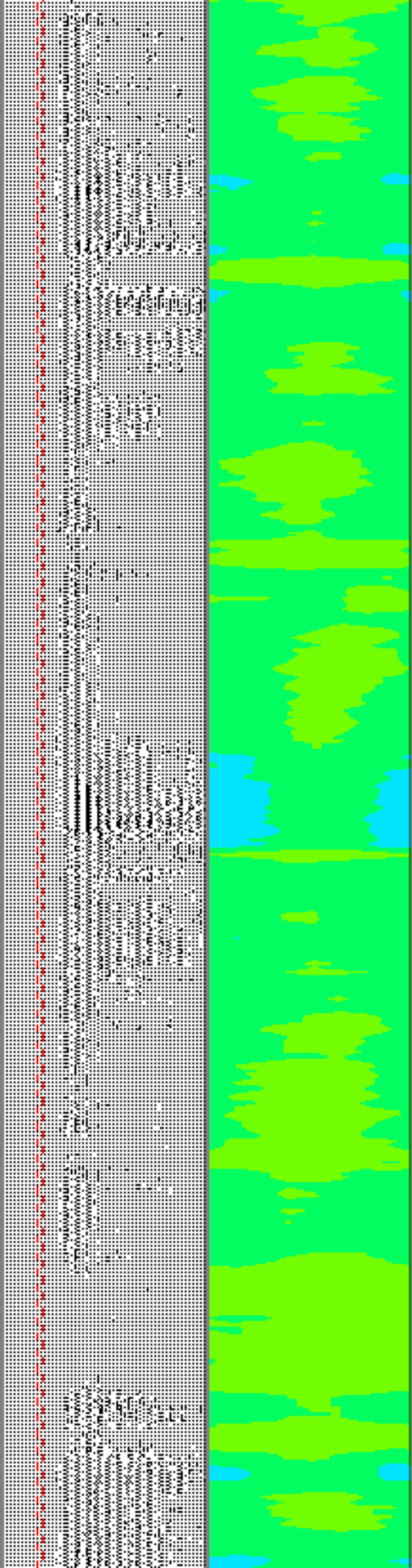
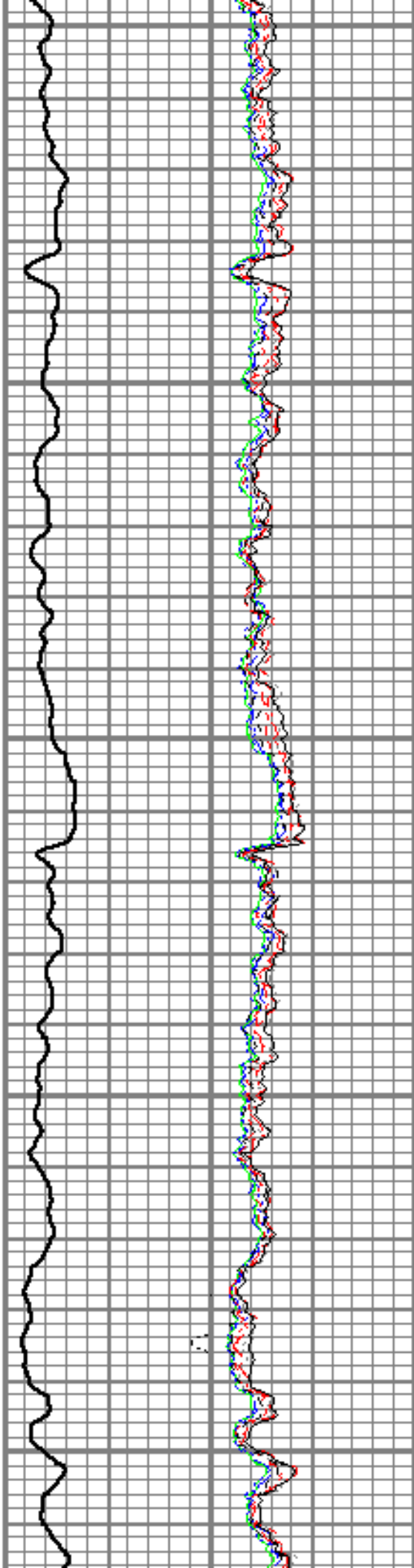
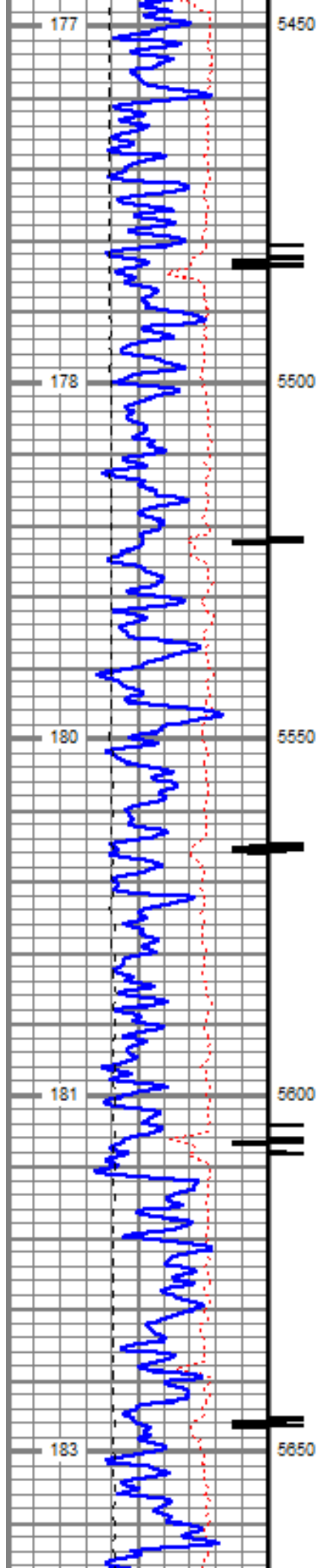


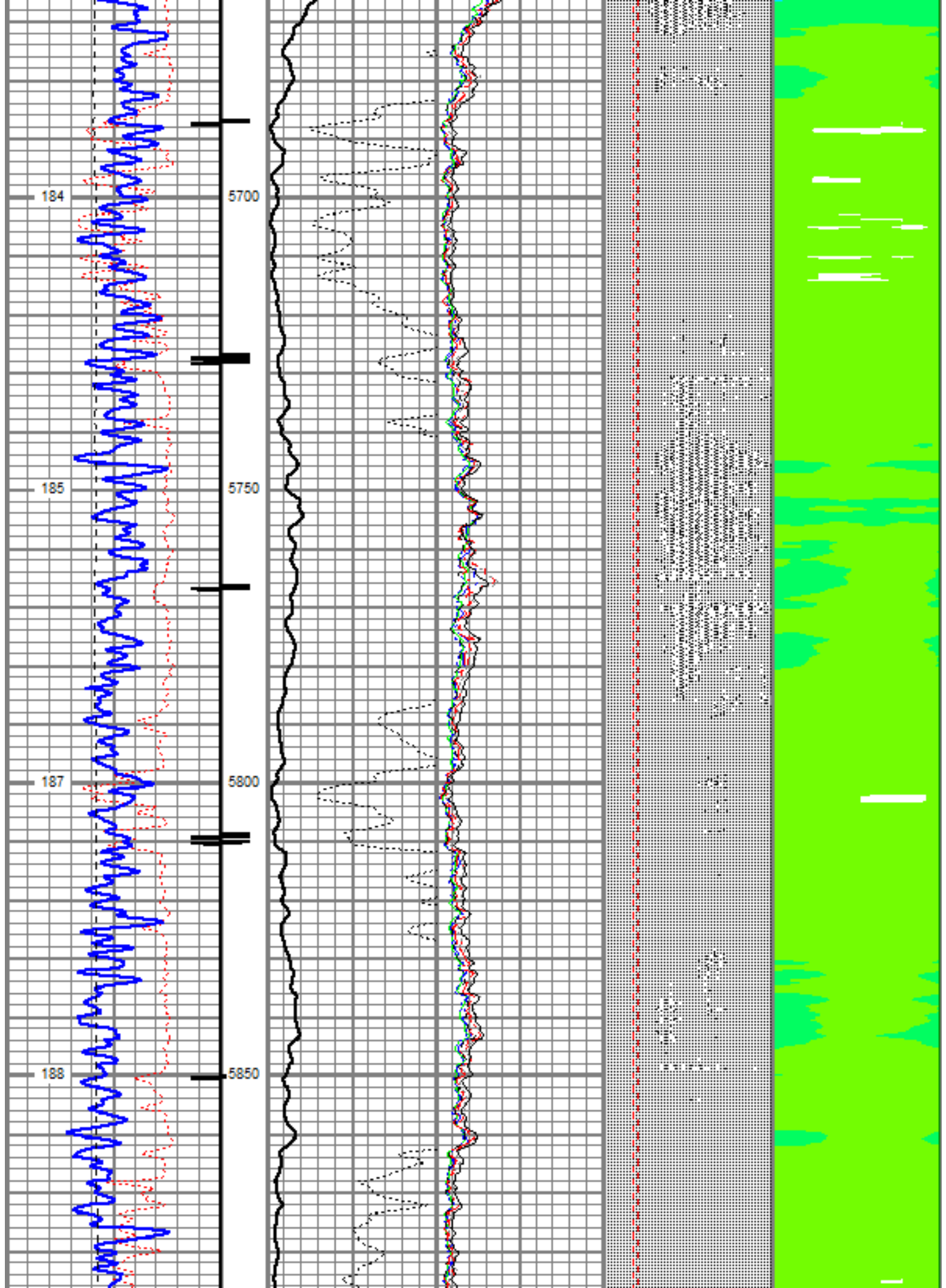


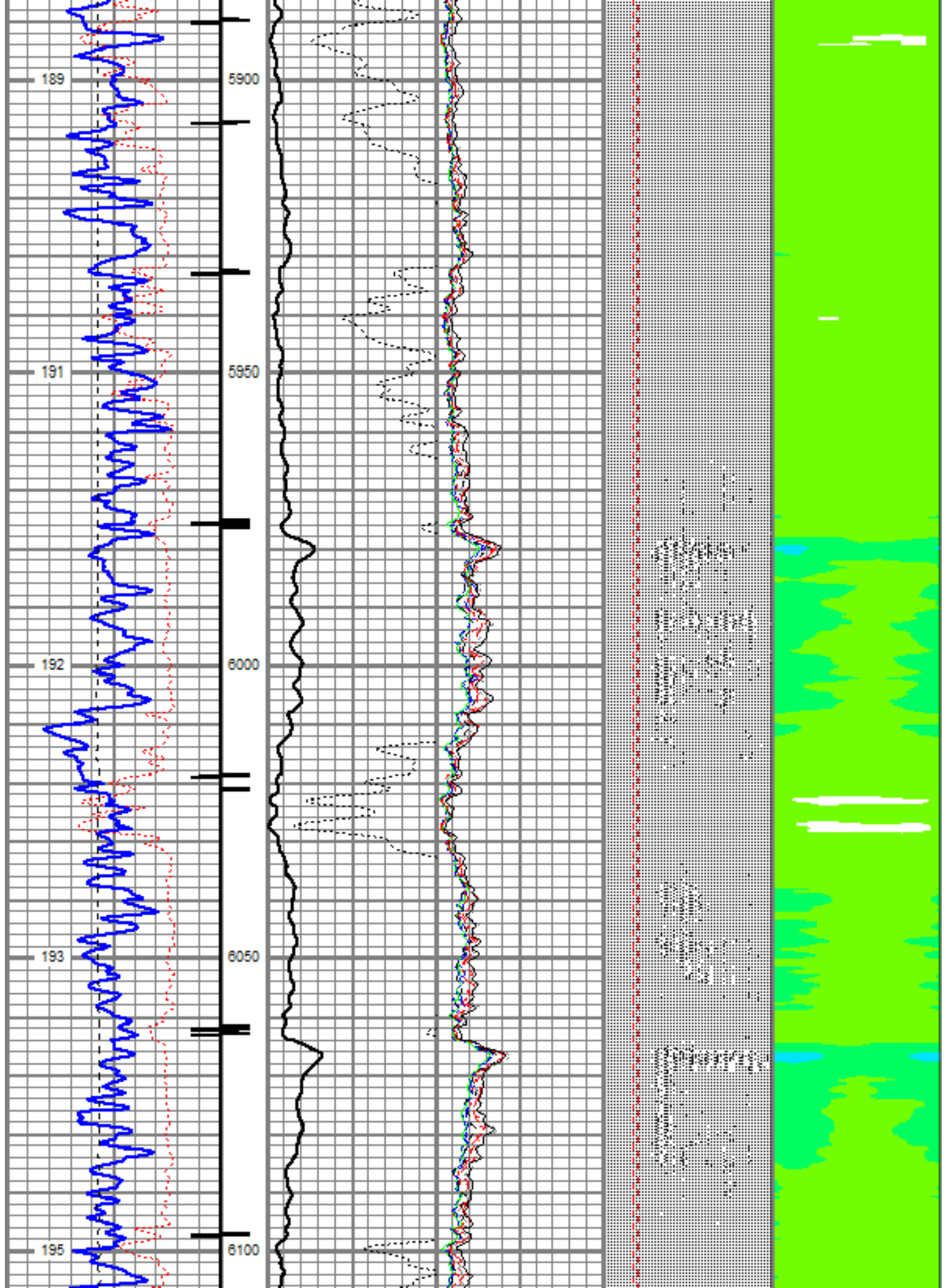


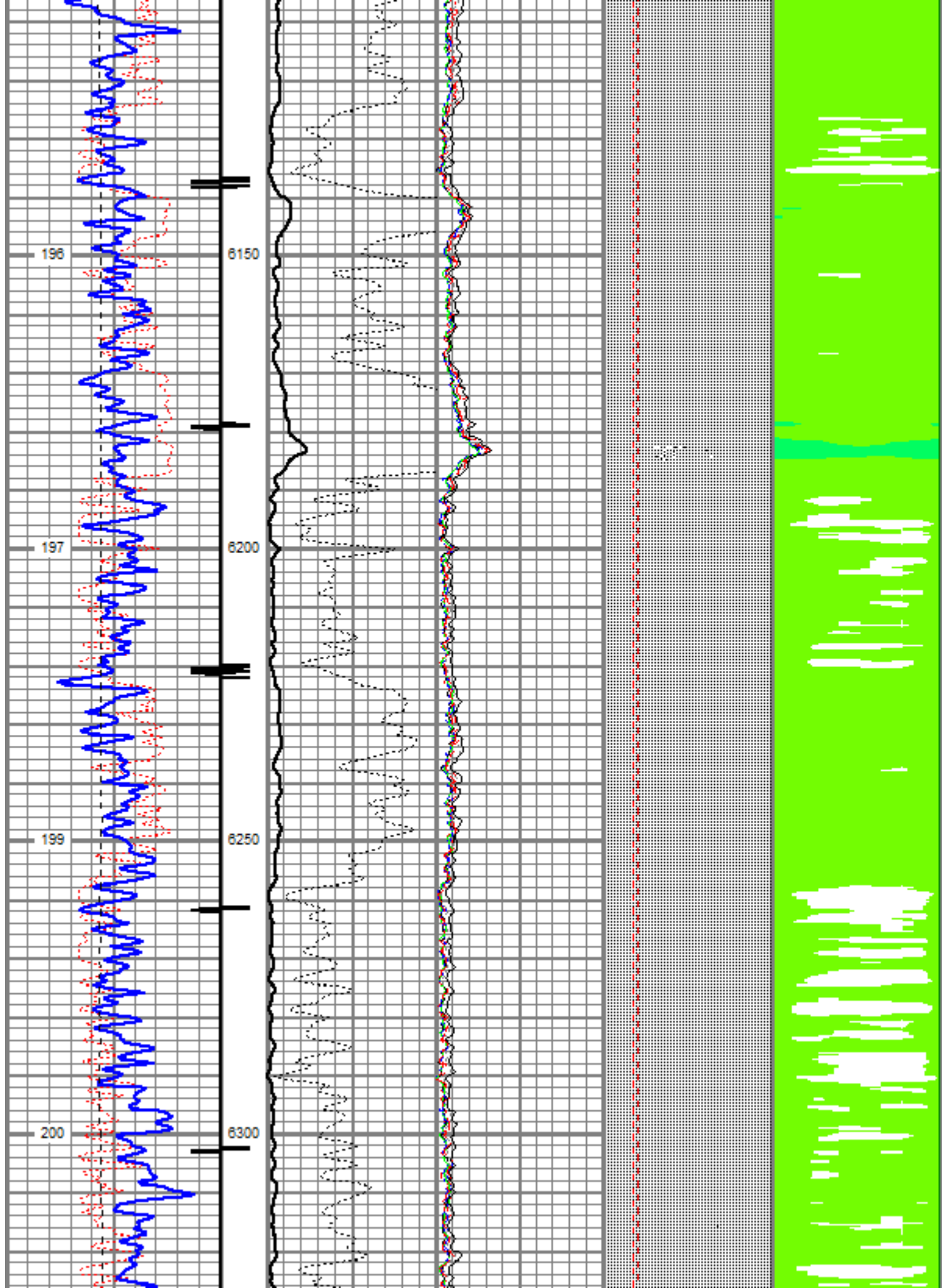


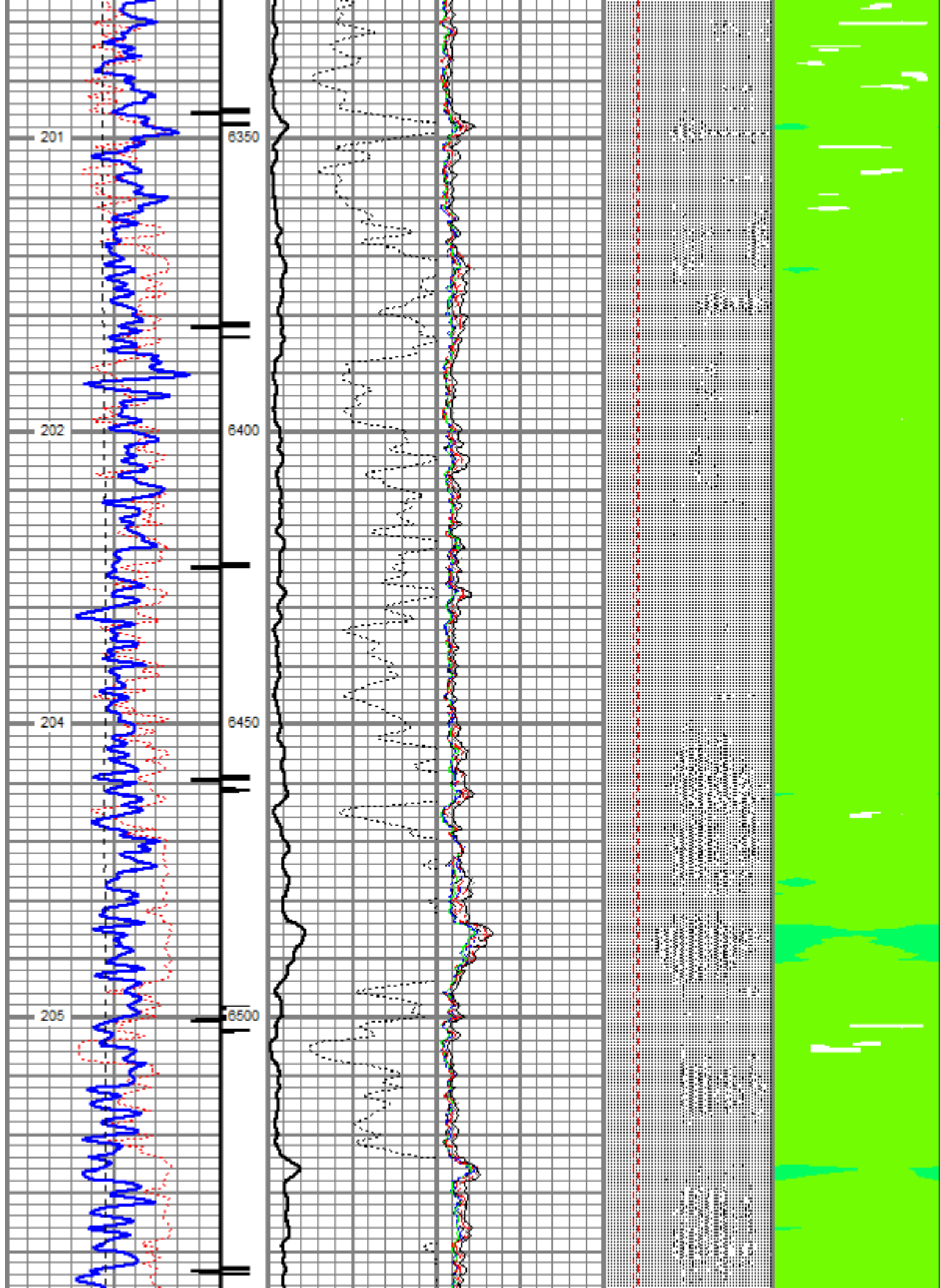


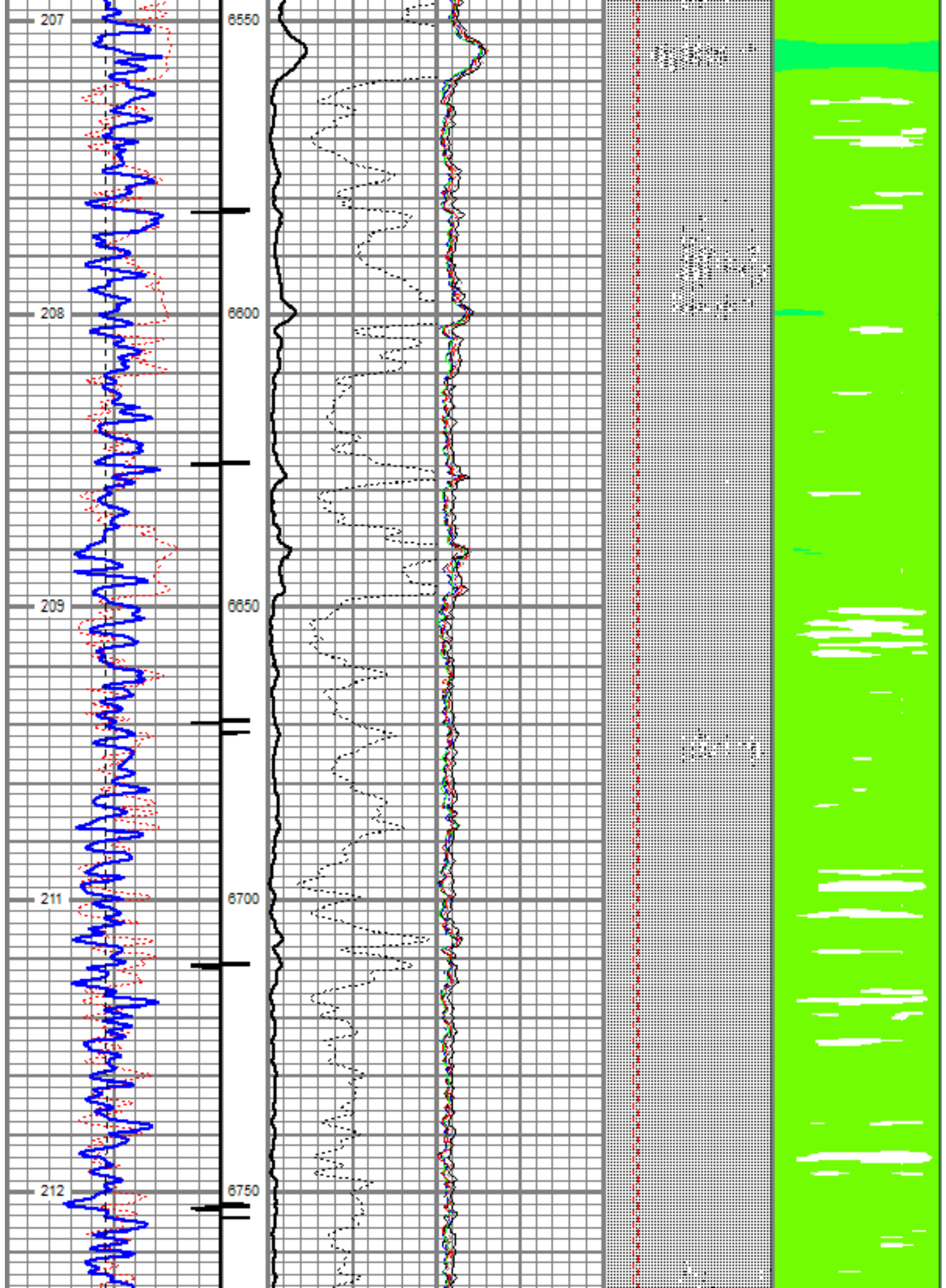


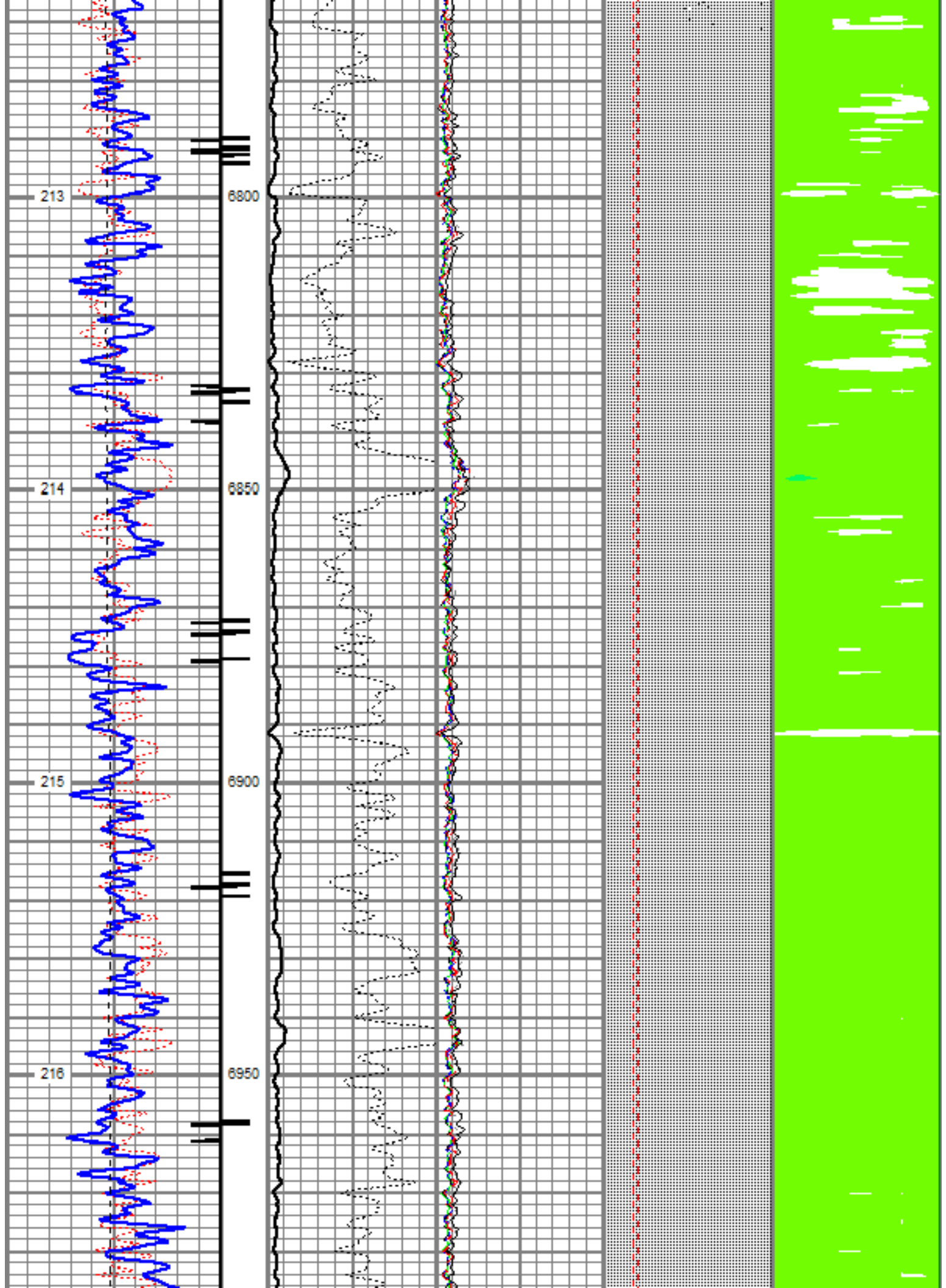


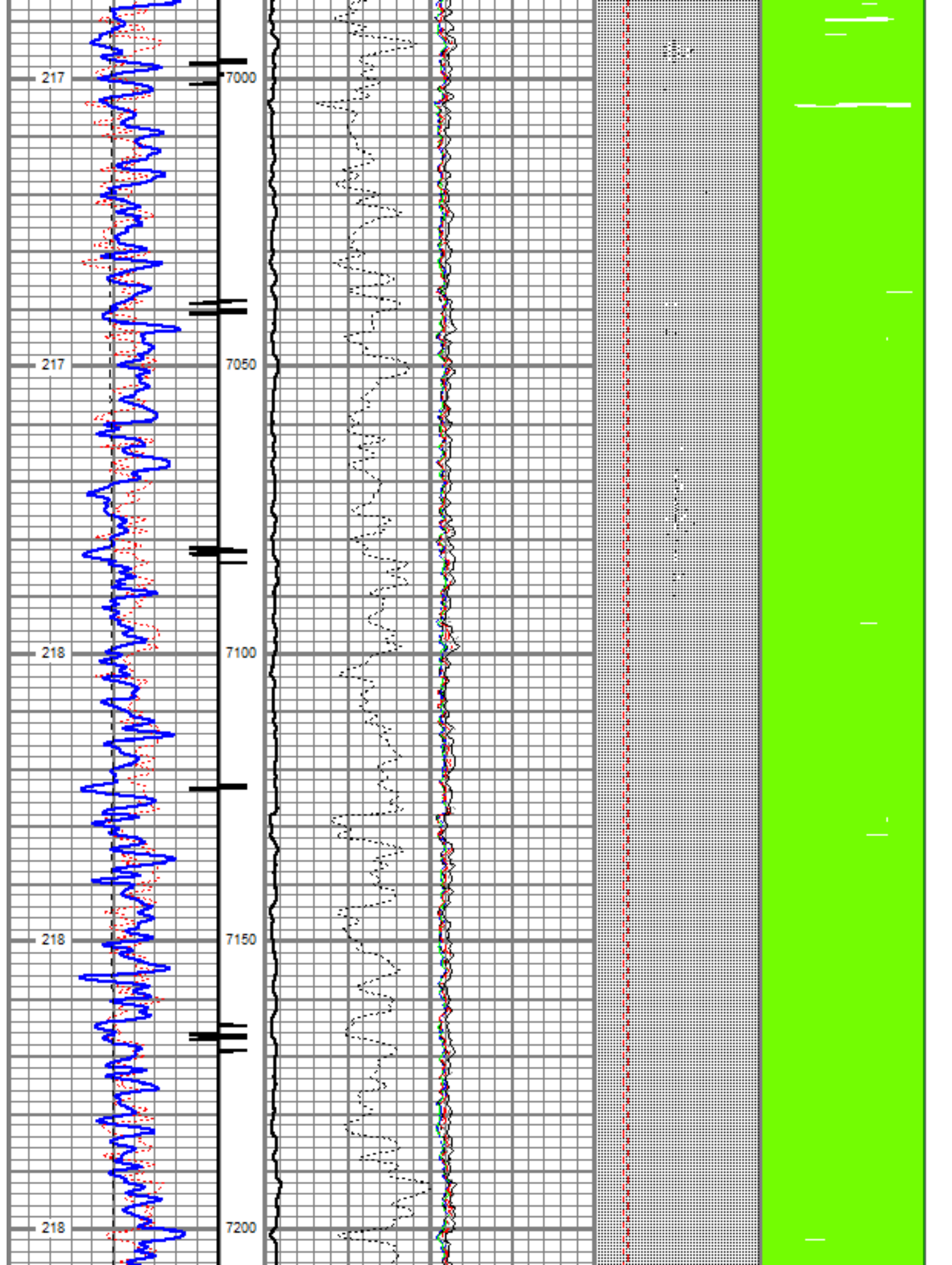


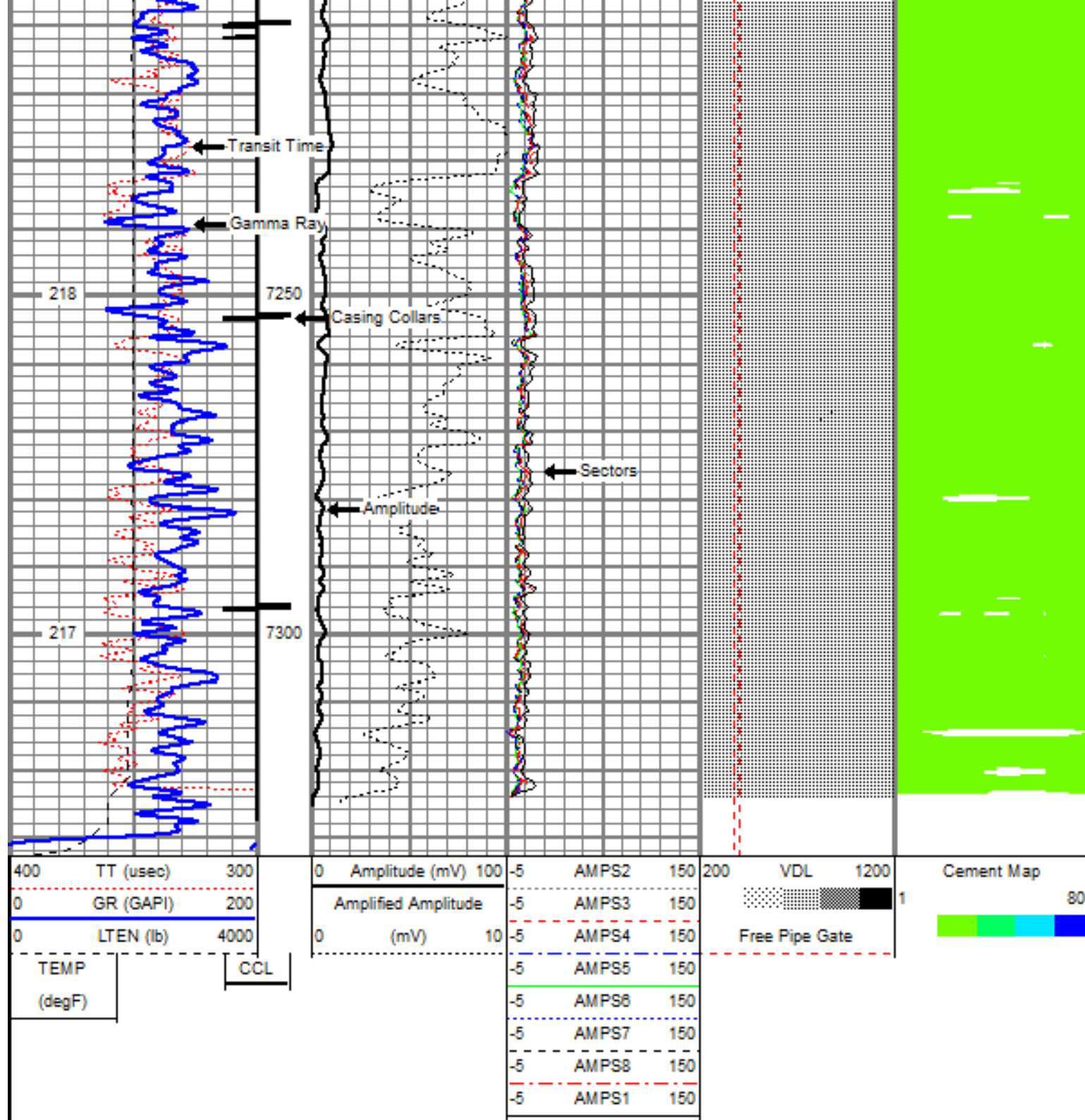






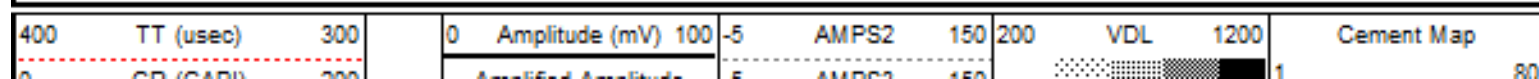


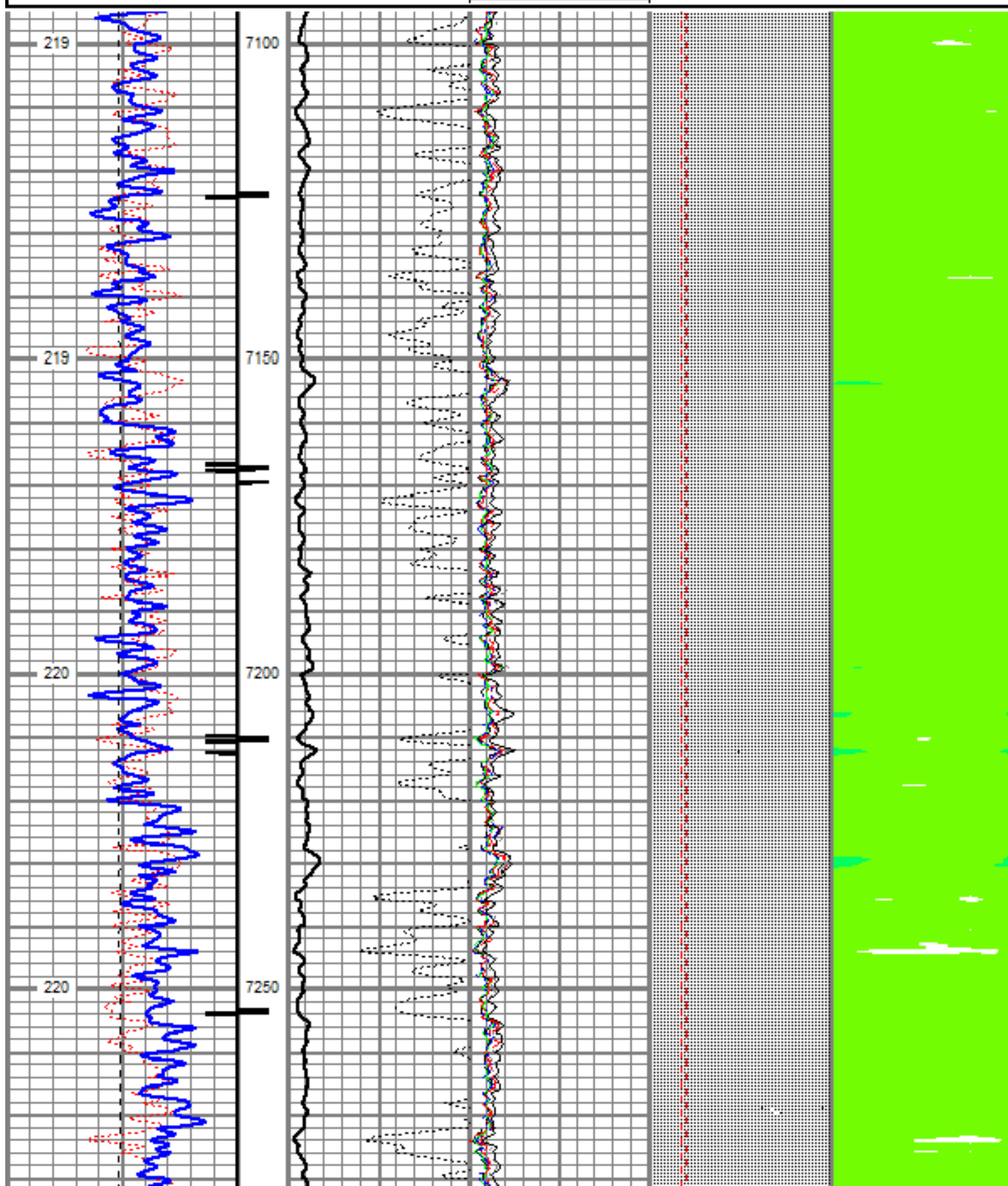
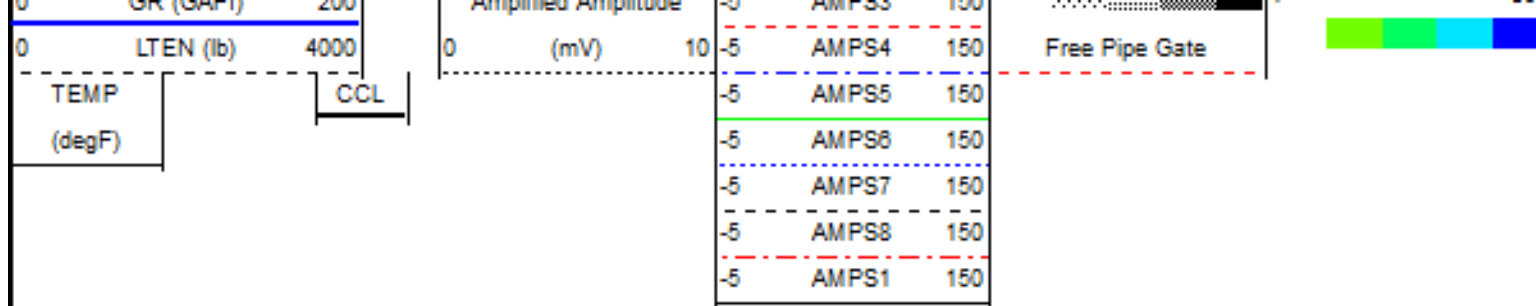


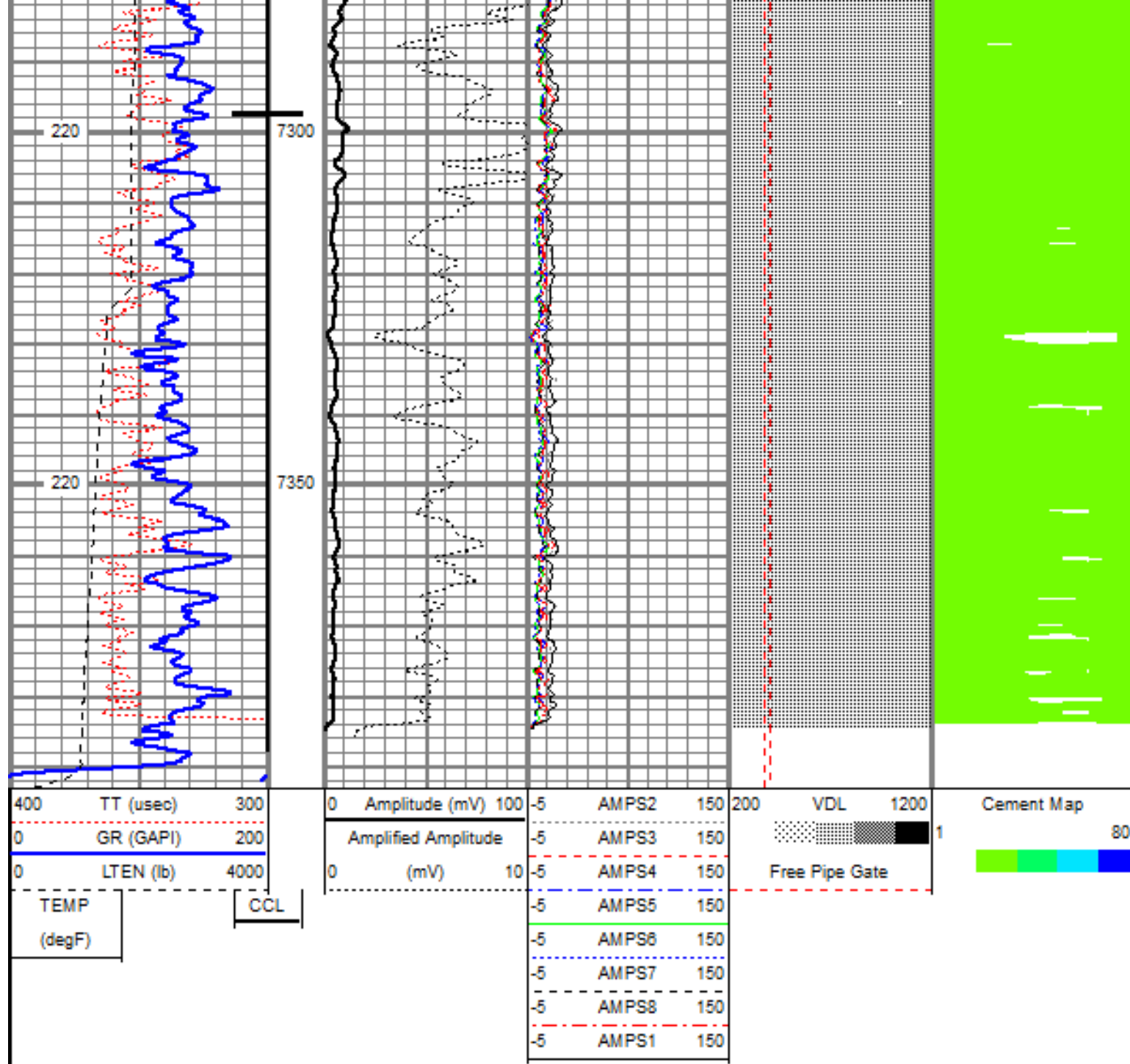


Repeat Pass 5" = 100'

Database File: cub_creek_markham_6.db
 Dataset Pathname: pass9
 Presentation Format: rbl55
 Dataset Creation: Wed Oct 26 11:00:23 2016 by Log Std Casedhole 09061
 Charted by: Depth in Feet scaled 1:240







Log Variables

Database: C:\Warrior\Data\cub_creek_markham_6.db
Dataset: field/well/run1/pass10.2

Top - Bottom

XXXX	PPT uSec	CASEWGHT lb/ft	MAXAMPL mV	MINAMPL mV	MINATTN db/ft	SRFTEMP degF	CASEOD in	PERFS
0	0	17	72	1	0.8	0	5.5	0
TDEPTH ft	BOTTEMP degF	BOREID in						
0	100	7.875						

Calibration Report

Database File: cub_creek_markham_6.db
Dataset Pathname: pass10.2
Dataset Creation: Wed Oct 26 12:18:31 2016 by Calc Std Casedhole 09081

Temperature Calibration Report

Serial Number: 0001
Tool Model: 1.375TEMP
Performed: Mon Mar 21 11:57:52 2016

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

Gamma Ray Calibration Report

Serial Number: 060109
Tool Model: Probe
Performed: Mon Jan 26 10:19:58 2009

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: 5.500 in
Calibration Depth: 247.417 ft

Master Calibration, performed Wed Oct 26 10:26:17 2016:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.001	0.155	2.000	71.921	303.985	1.496
CAL	0.001	0.888				
5'	0.001	0.178	2.000	71.921	244.812	1.610
SUM						
S1	0.001	0.154	0.000	100.000	504.575	-0.711
S2	0.001	0.140	0.000	100.000	567.589	-0.797
S3	0.001	0.149	0.000	100.000	524.738	-0.708
S4	0.001	0.171	0.000	100.000	436.693	-0.580
S5	0.001	0.179	0.000	100.000	412.753	-0.508
S6	0.001	0.170	0.000	100.000	450.542	-0.555
S7	0.001	0.155	0.000	100.000	500.487	-0.656
S8	0.001	0.140	0.000	100.000	570.480	-0.790


Internal Reference Calibration, performed Wed Dec 31 18:00:00 1989:


	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.001	0.888	1.000	0.000

Air Zero Calibration, performed Wed Oct 26 07:57:51 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
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

Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
			Standard Standard Cable Head	1.00	1.69	1.00
WVF3FT	9.44		RBT-Probe (060113_45) Probe 2.75" Radial Bond Tool	9.39	2.75	90.00
WVFCAL	9.44					
WVFS1	9.44					
WVFS2	9.44					
WVFS3	9.44					
WVFS4	9.44					
WVFS5	9.44					
WVFS6	9.44					
WVFS7	9.44					
WVFS8	9.44					
WVF5FT	8.44					
CCL	4.75		GR-Probe (060109)	4.00	2.75	30.00

GR	2.25		Probe 2.75" 4 Channel Pulse			
TEMP	0.08		TEMP-1.375TEMP (0001) Temperature Tool	1.25	1.38	30.00
Dataset: cub_creek_markham_6.db: field/well/run1/pass10.2 Total Length: 15.64 ft Total Weight: 151.00 lb O.D. 2.75 in						

	Company	Cub Creek Energy	
	Well	Marham 6	
	Field	Wattenberg	
	County	Weld	
	State	Colorado	Country USA