



# COMPENSATED NEUTRON LOG

Company CHEVRON  
Well GUTTERSEN D12-755  
Field WATTENBERG  
County WELD State COLORADO

Location: API # : 05-123-49077  
Other Services None  
SEC 1 TWP 3N RGE 64W  
Permanent Datum GL Elevation 4745'  
Log Measured From KB  
Drilling Measured From KB

Company CHEVRON  
Well GUTTERSEN D12-755  
Field WATTENBERG  
County WELD  
State COLORADO

Date May 17, 2022

Run Number	ONE
Depth Driller	17,374 FT
Depth Logger	6940 FT
Bottom Logged Interval	6916 FT
Top Log Interval	Surface
Open Hole Size	8.50"
Type Fluid	Water
Density / Viscosity	---
Max. Recorded Temp.	229
Estimated Cement Top	See Log
Time Well Ready	07:00
Time Logger on Bottom	9:42
Equipment Number	67
Location	Platteville, CO
Recorded By	M. Steinman
Witnessed By	Andy Dockins

Borehole Record				Tubing Record			
Run Number	Bit	From	To	Size	Weight	From	To

Casing Record	Size	Mgt/ft	Top	Bottom
Surface String	9-5/8"	36.00	Surface	1939.9 FT
Prot. String				
Production String	5-1/2"	17.00	Surface	17,364.2 FT
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

LOG CORRELATED TO MARKER JOINT @ 5972'-5982'  
THANK YOU FOR CHOOSING KLX ENERGY SERVICES

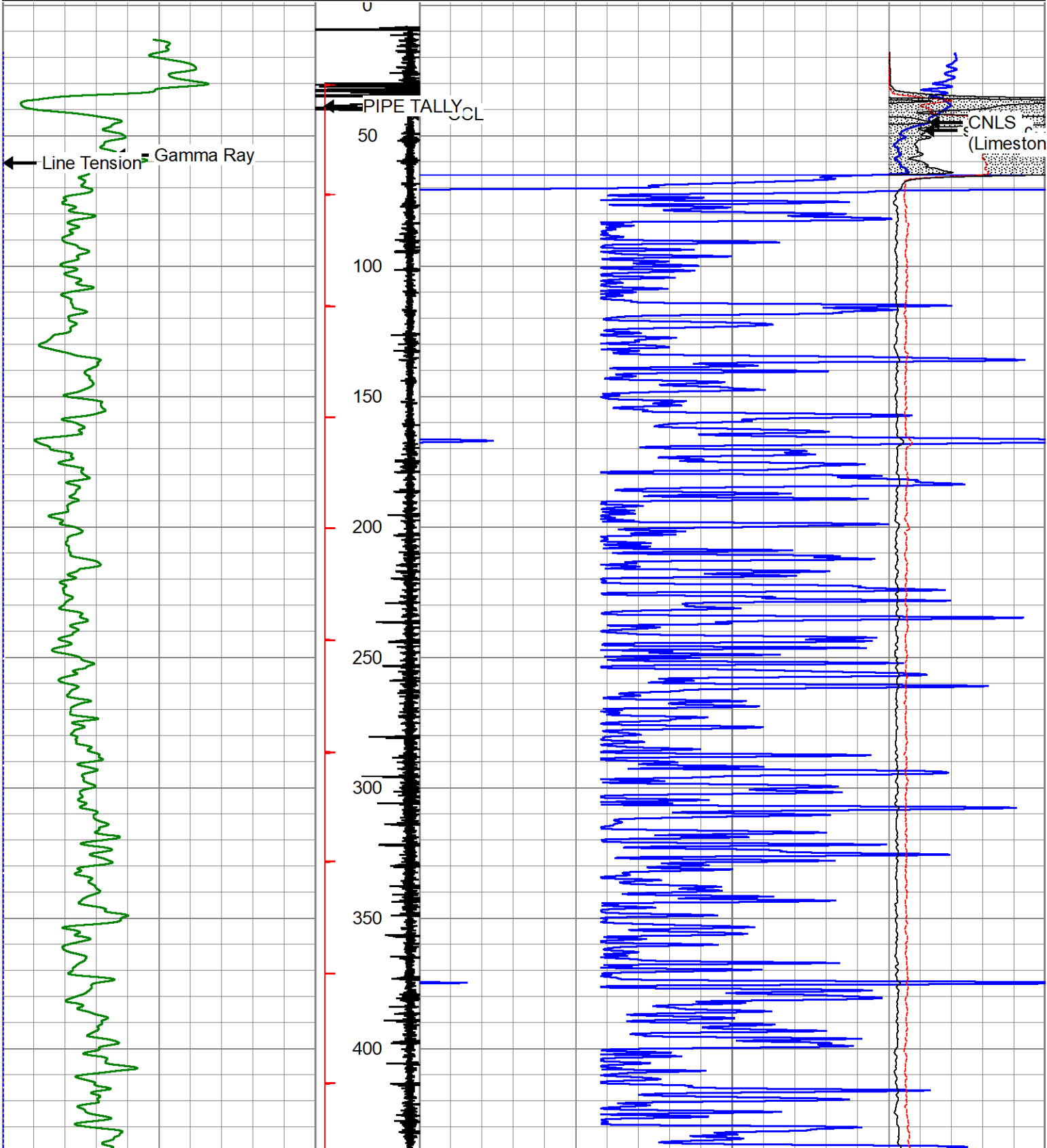


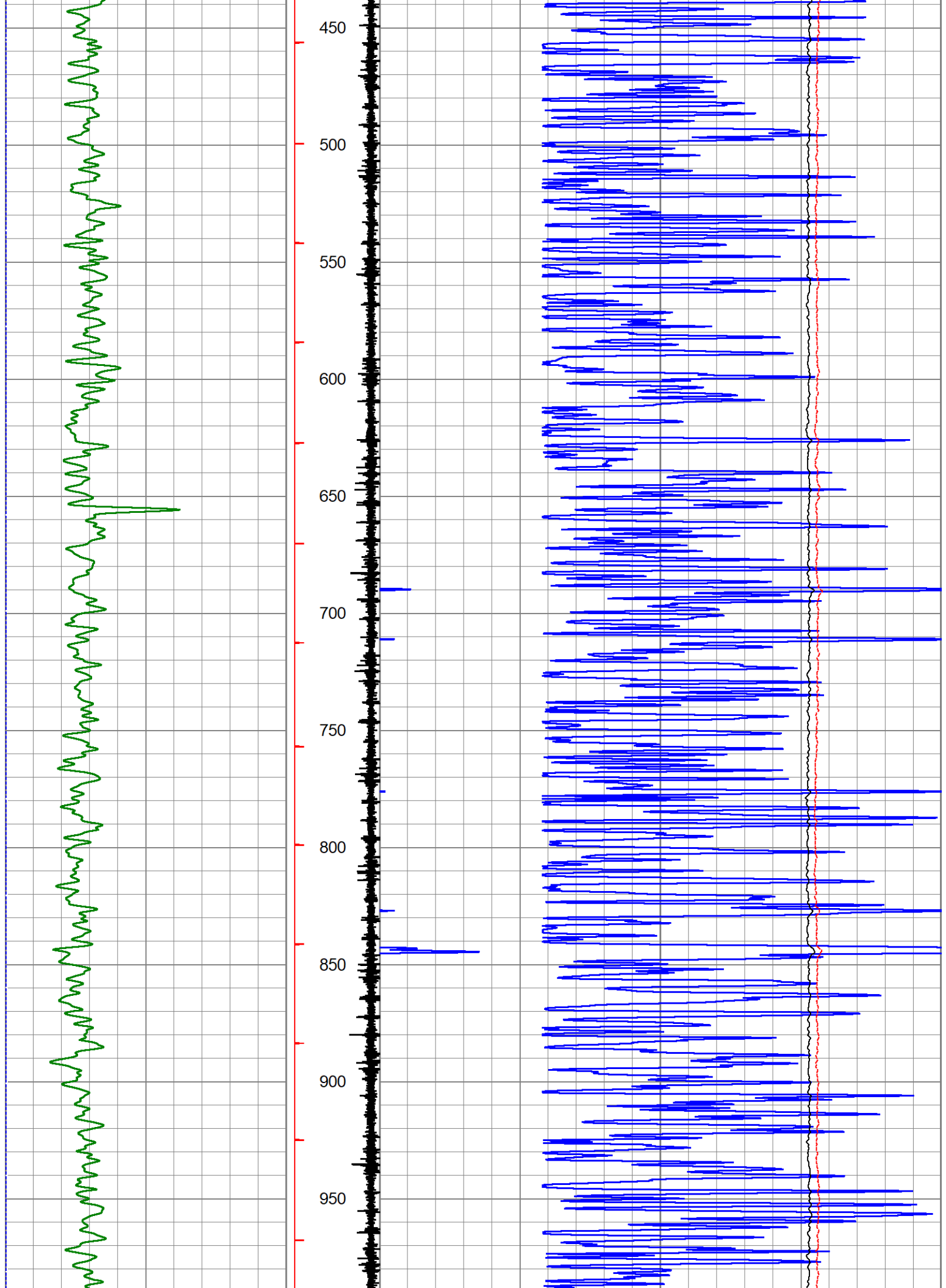
Main Pass

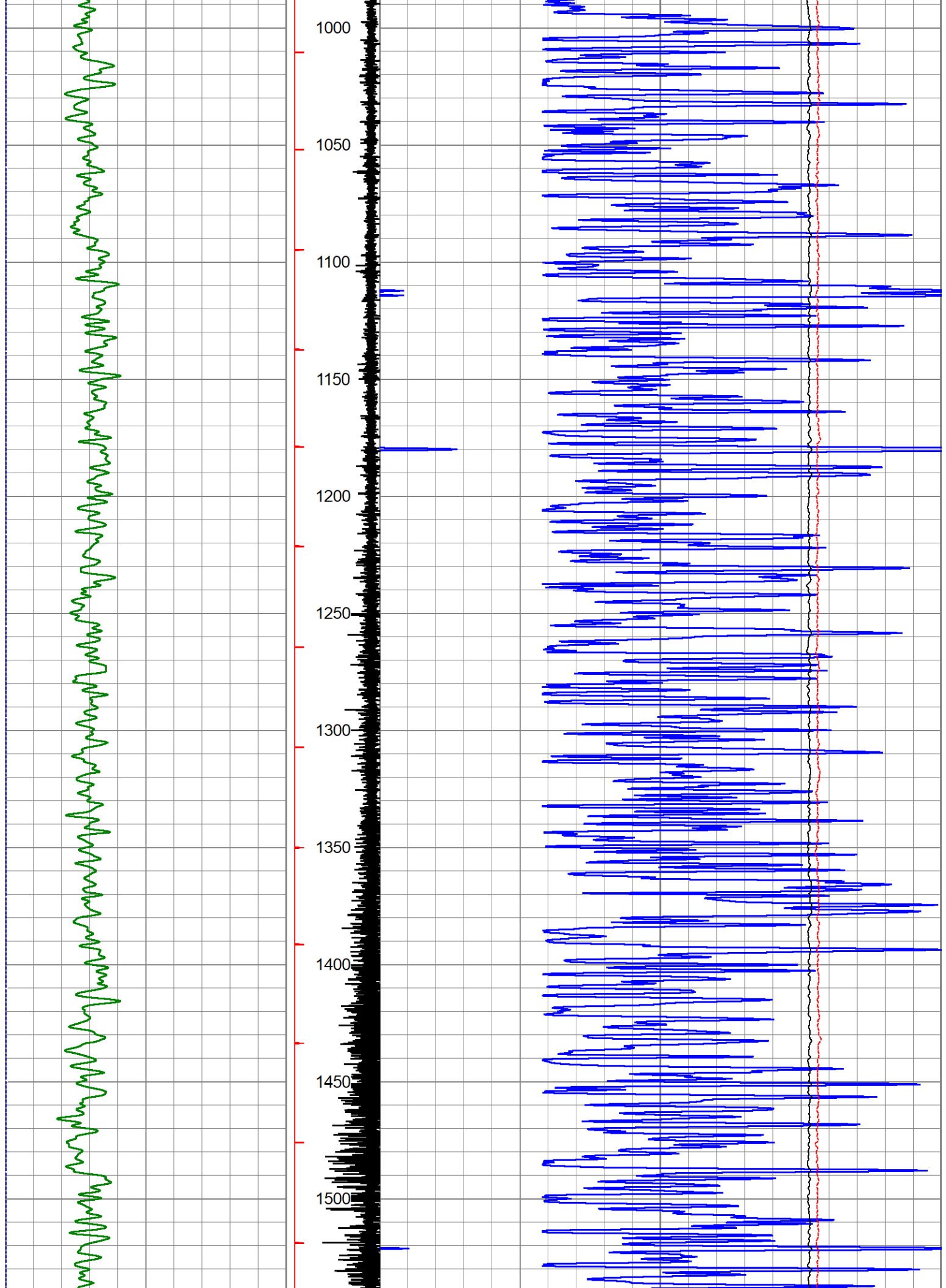
Recorded With 2500 PSI Surface Induced Pressure

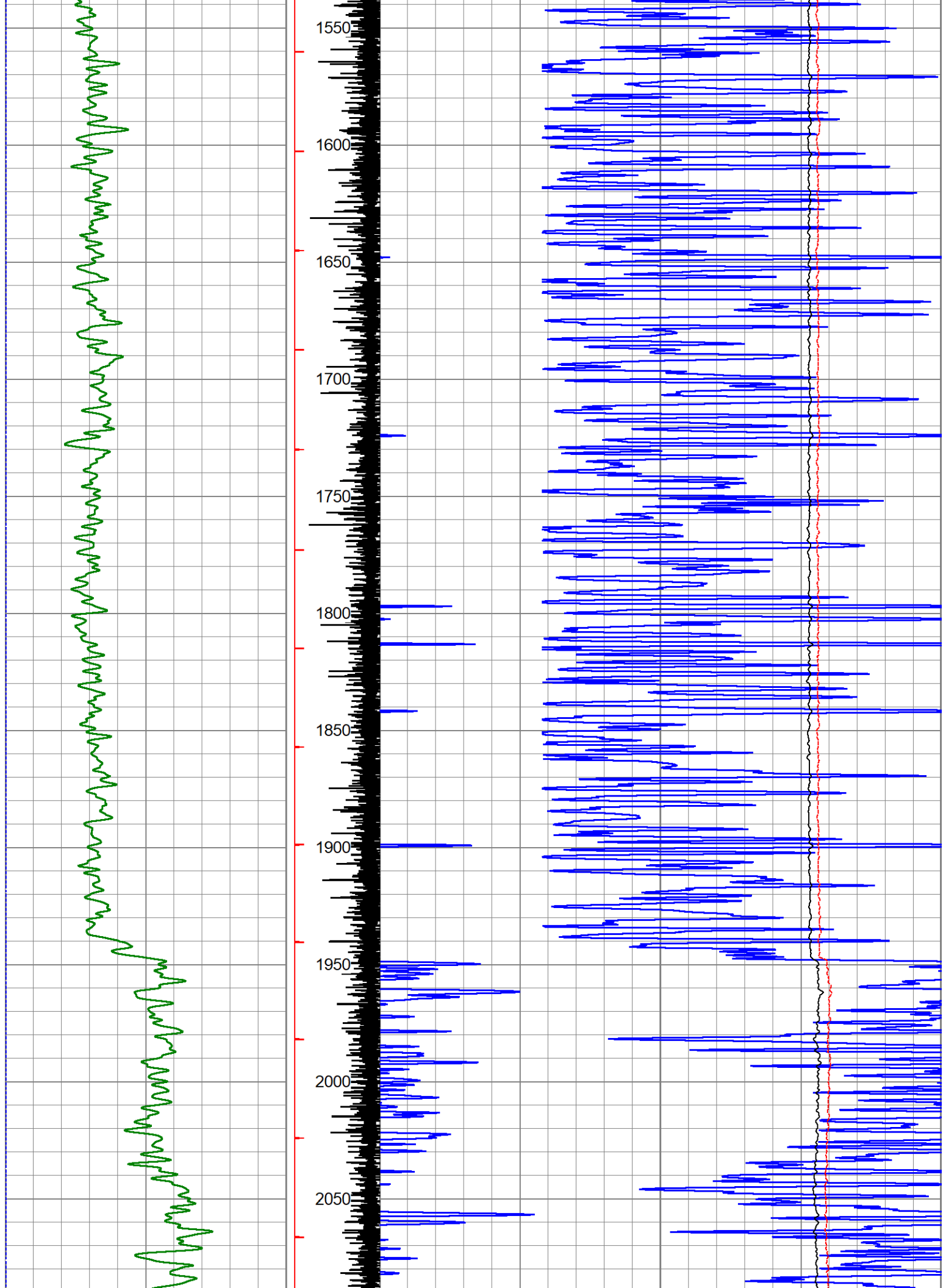
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Dataset Pathname	main/pass1.4		
Presentation Format	chevron_cnl_032822		
Dataset Creation	Tue May 24 12:52:08 2022		
Charted by	Depth in Feet scaled 1:600		

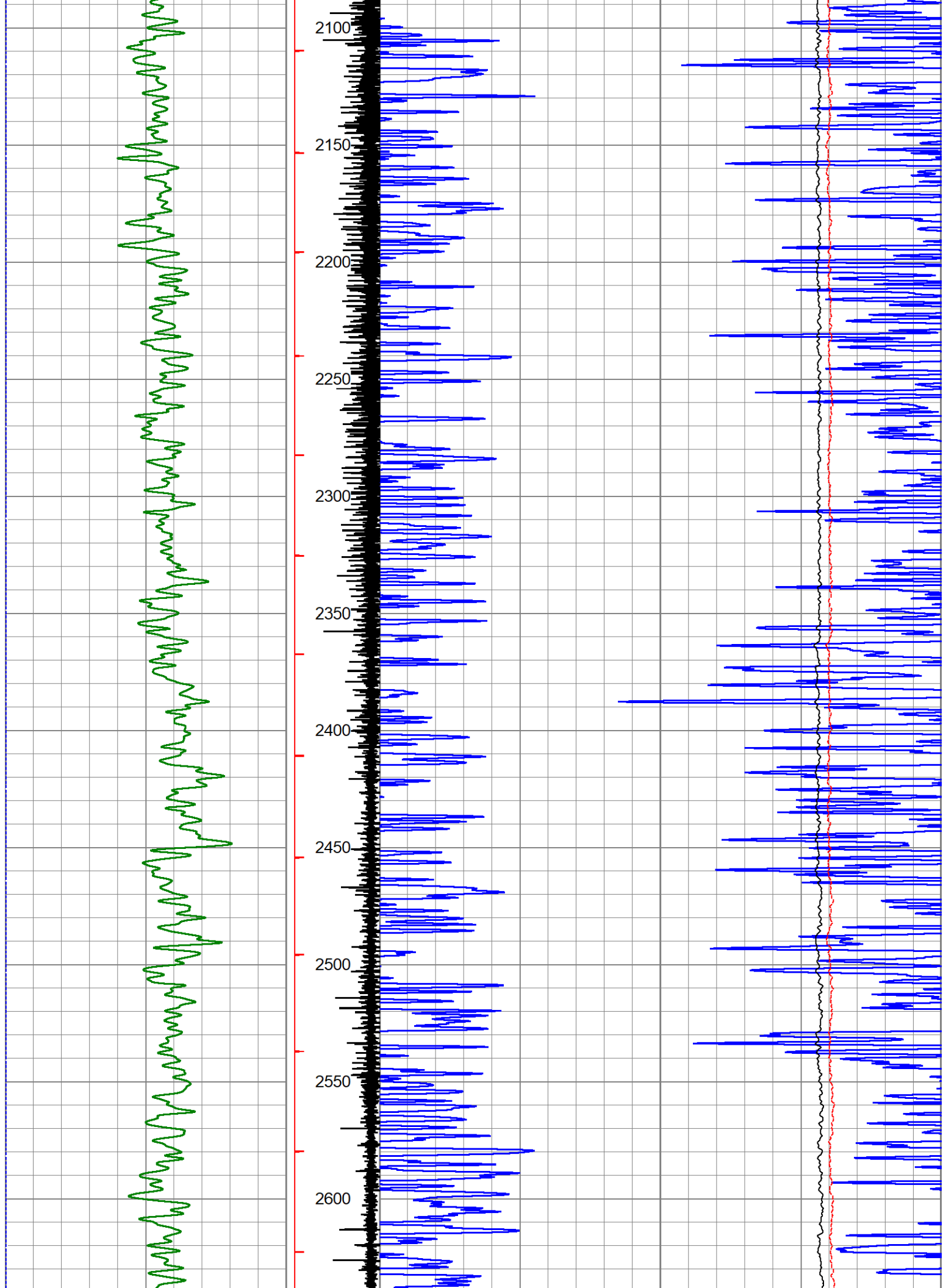
0	Gamma Ray (GAPI)	150	CCL	30	CNLS (Limestone) (pu)	-10
0	Line Tension (lb)	3500	PIPE TALLY			CNLS
			-1	10		0 (cps) 1500
						CNSSC
						0 (cps) 7000

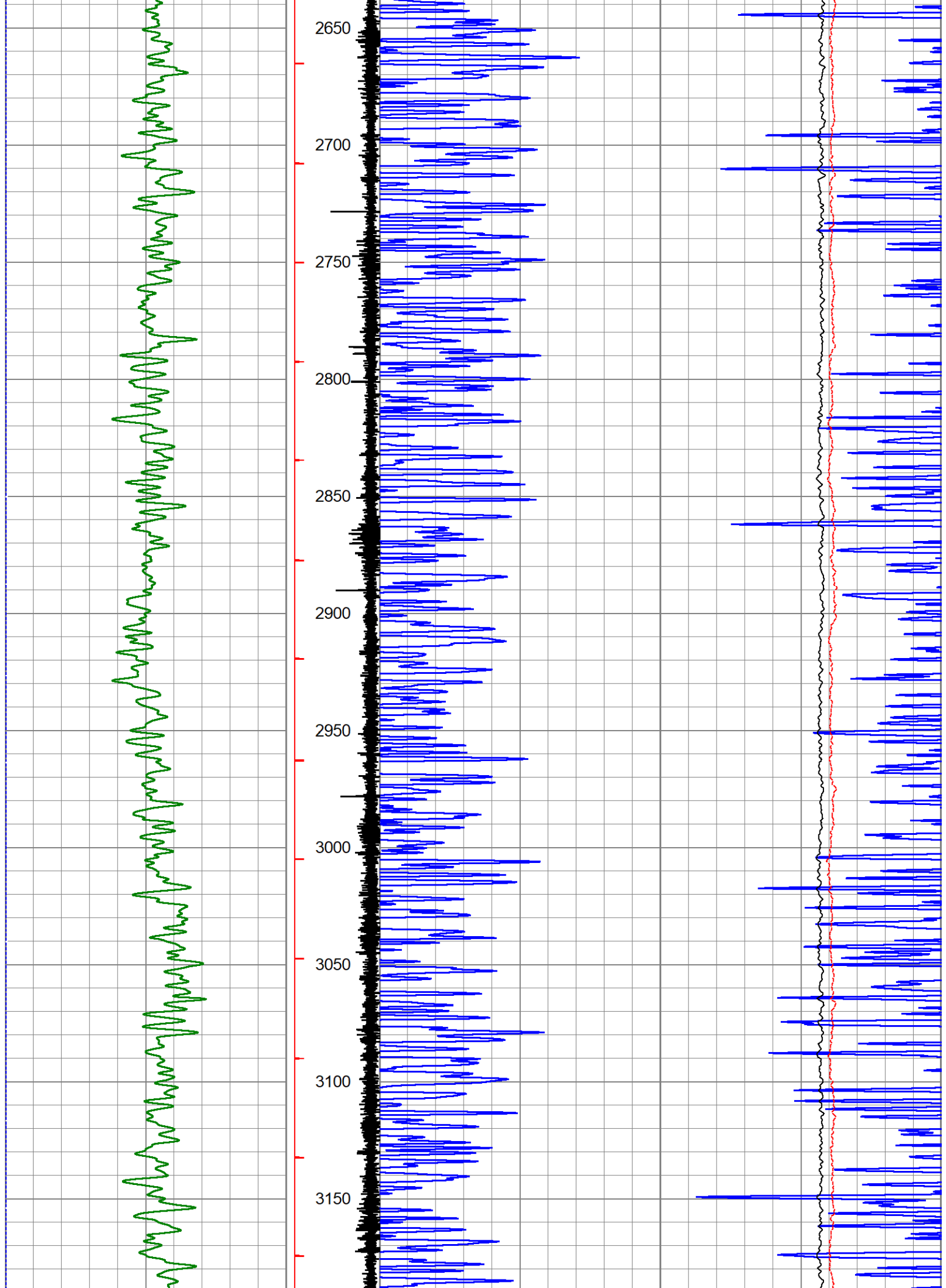


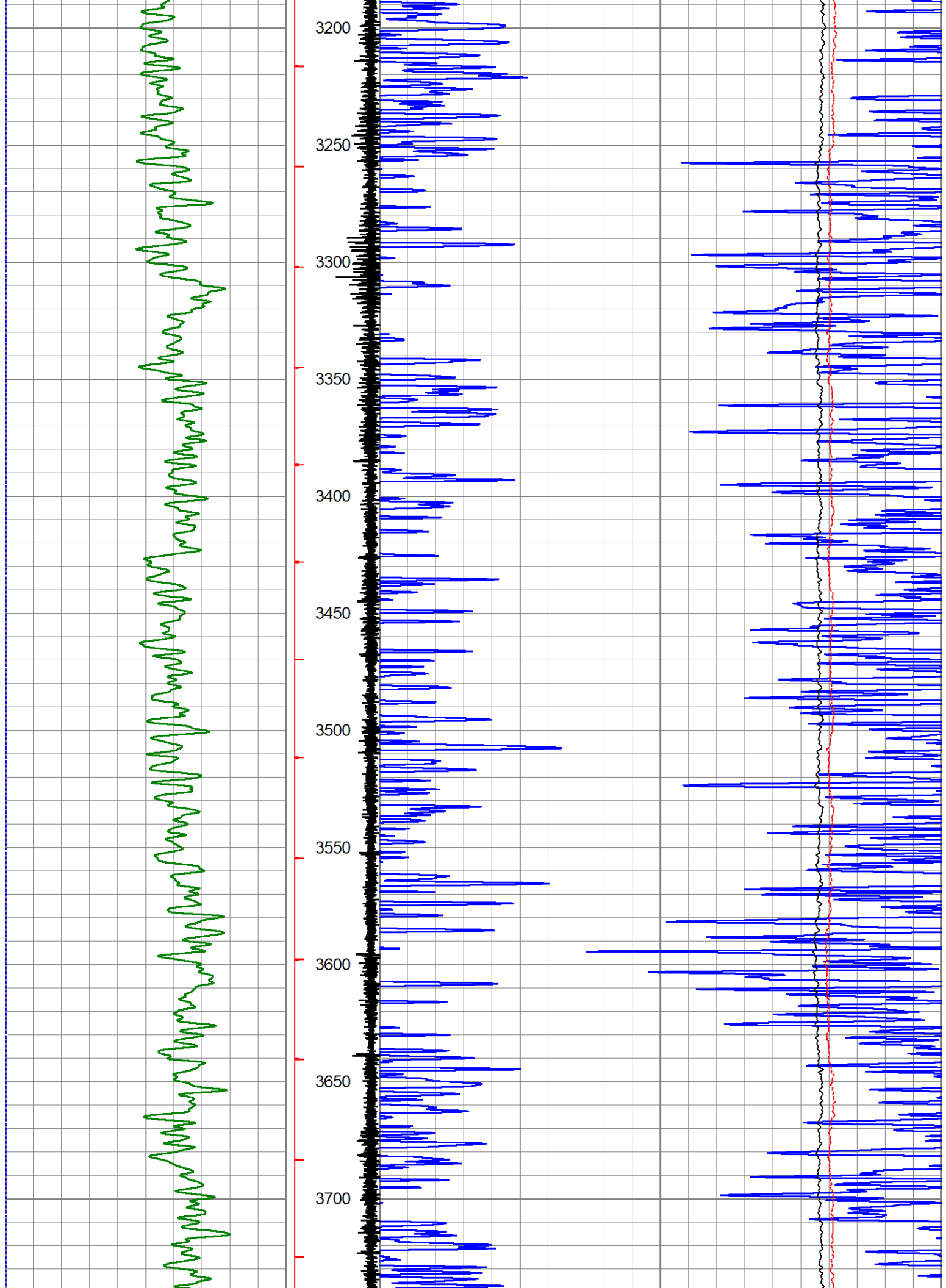




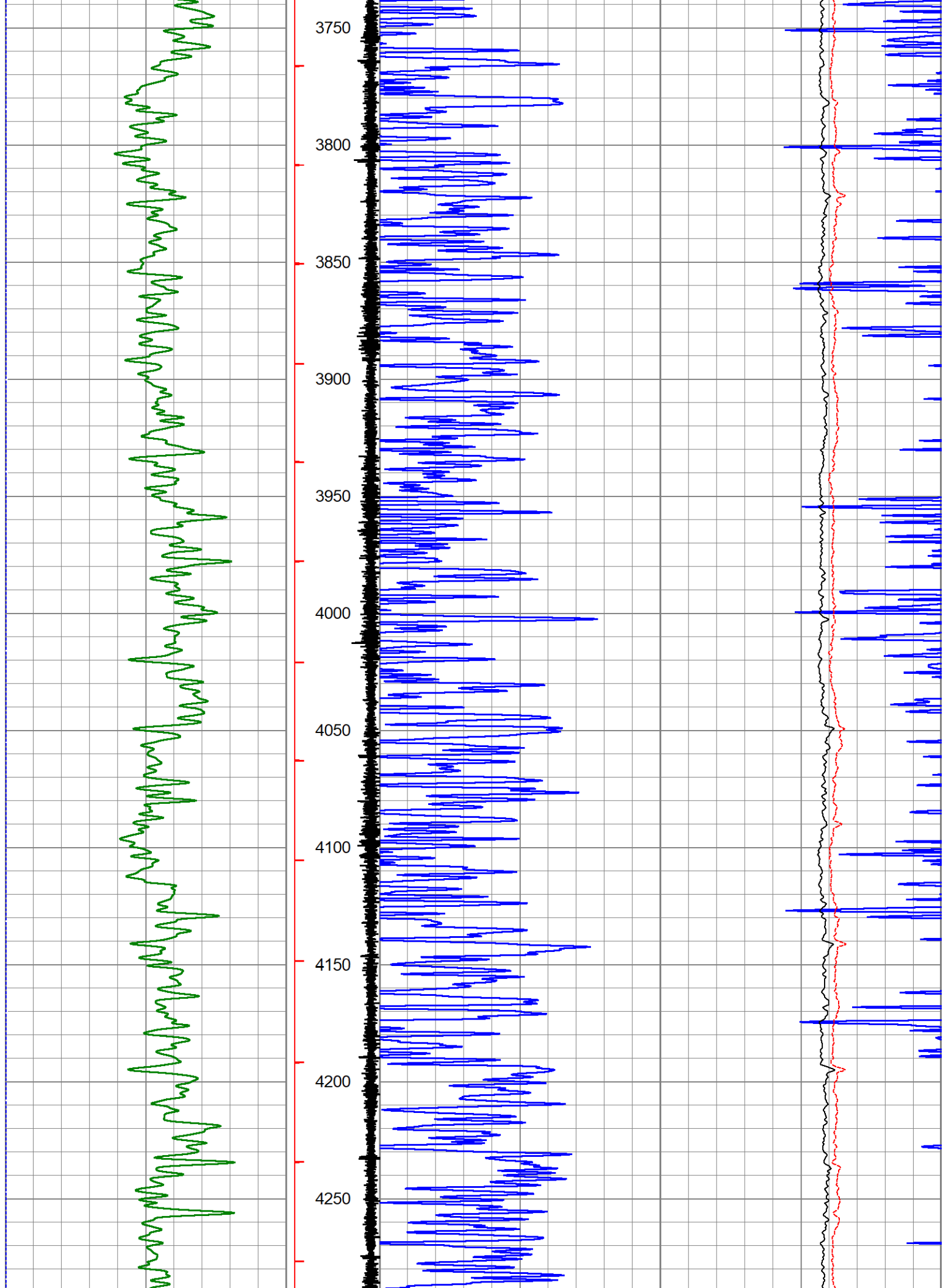


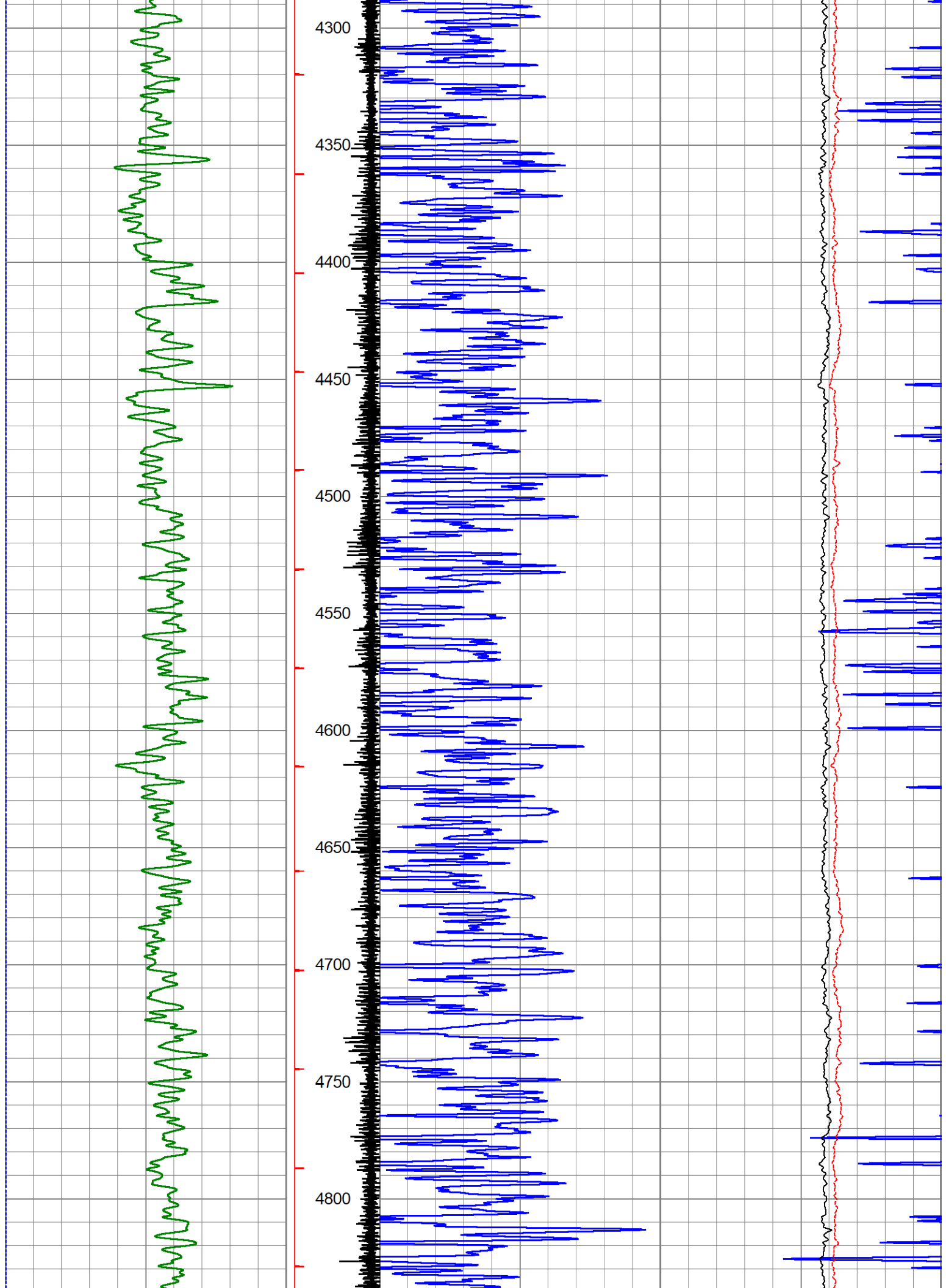


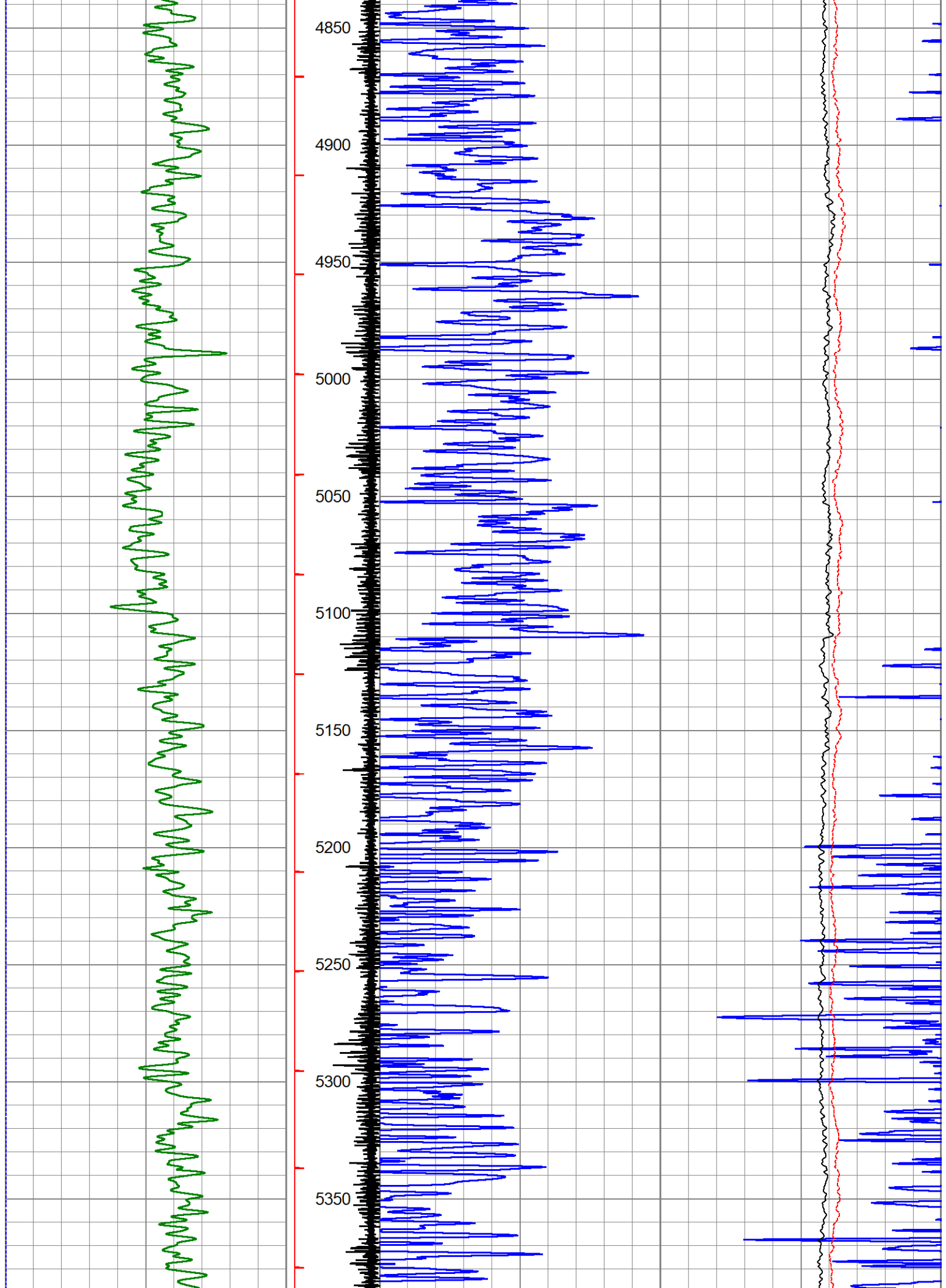


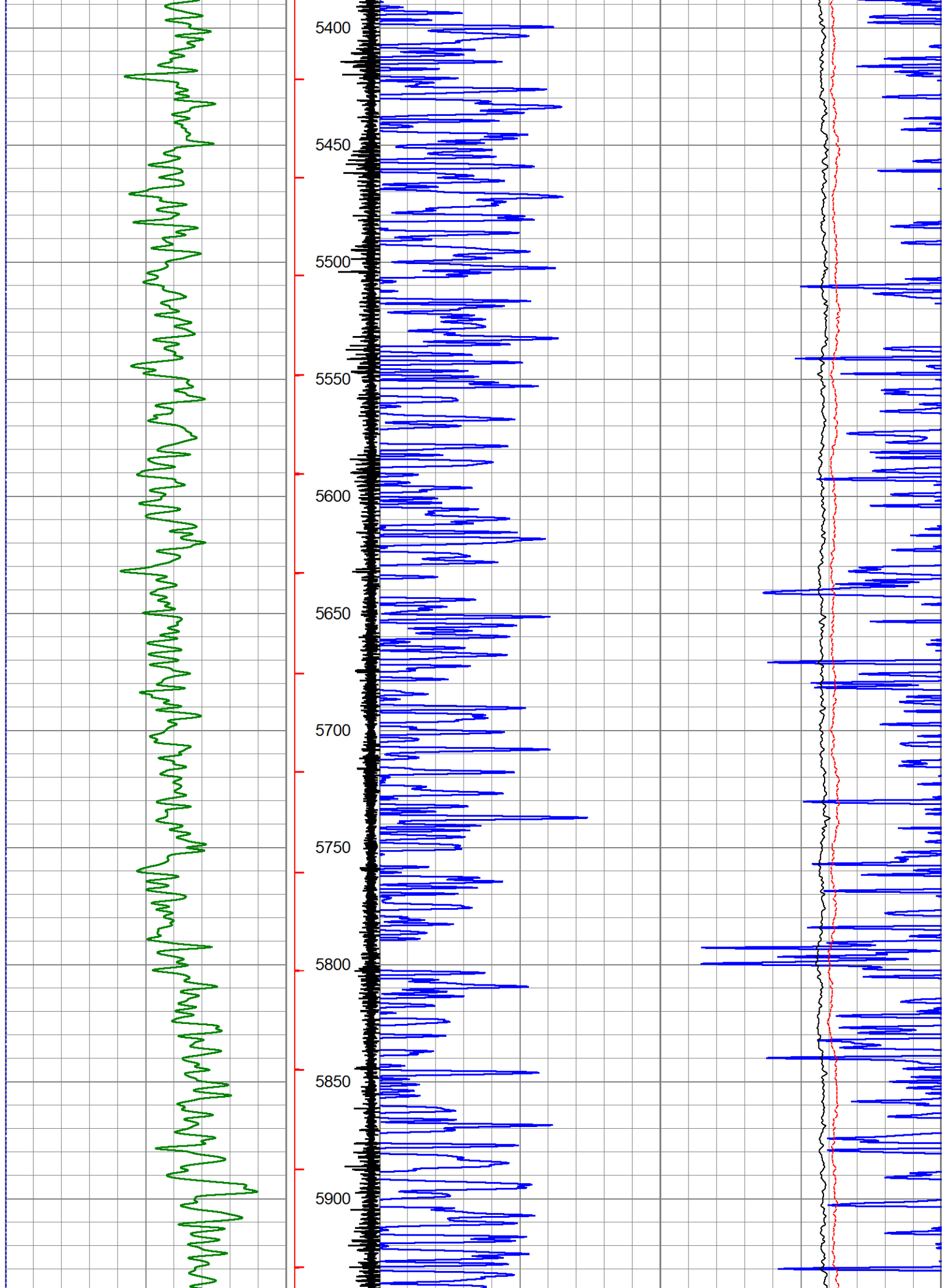


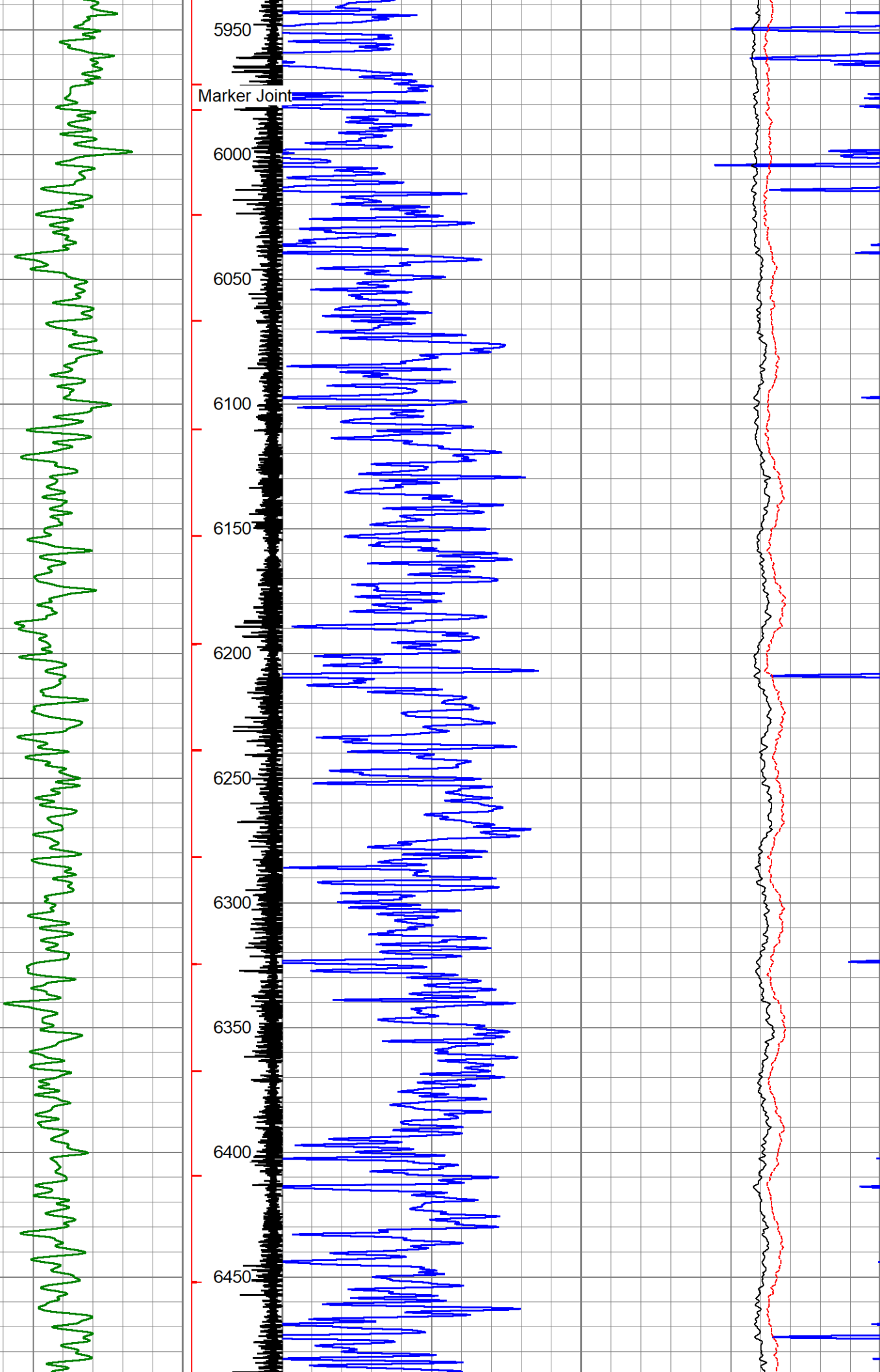


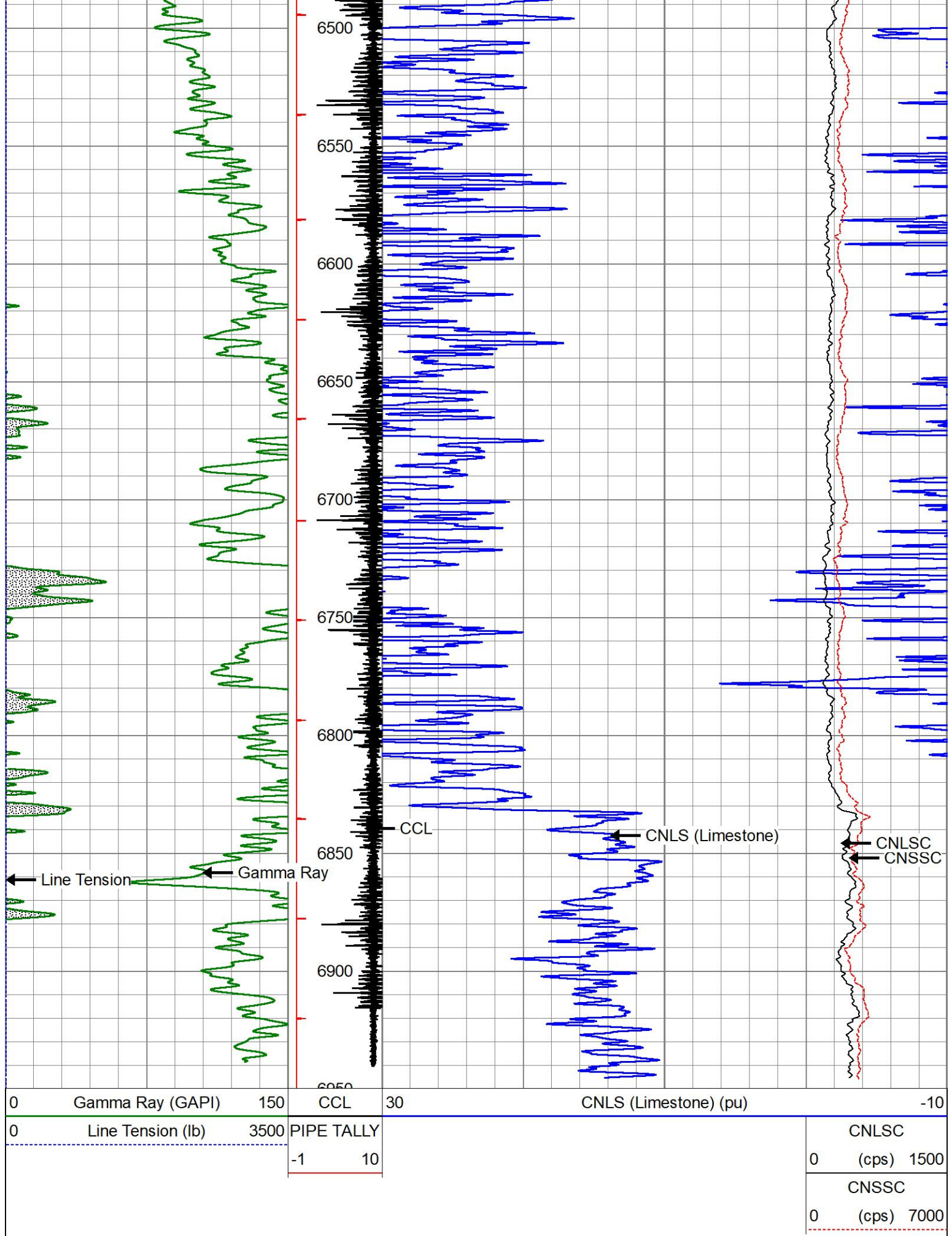








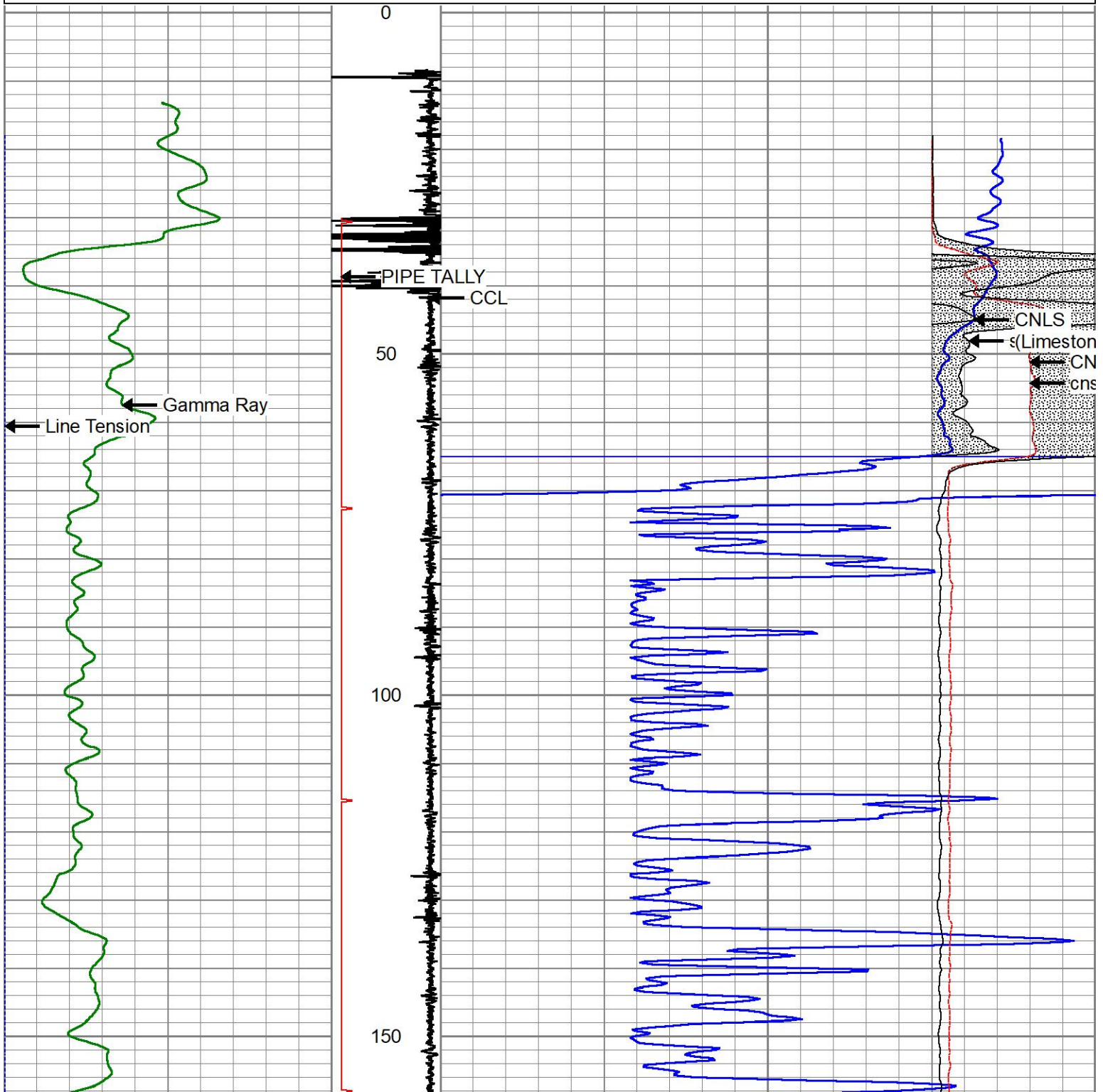


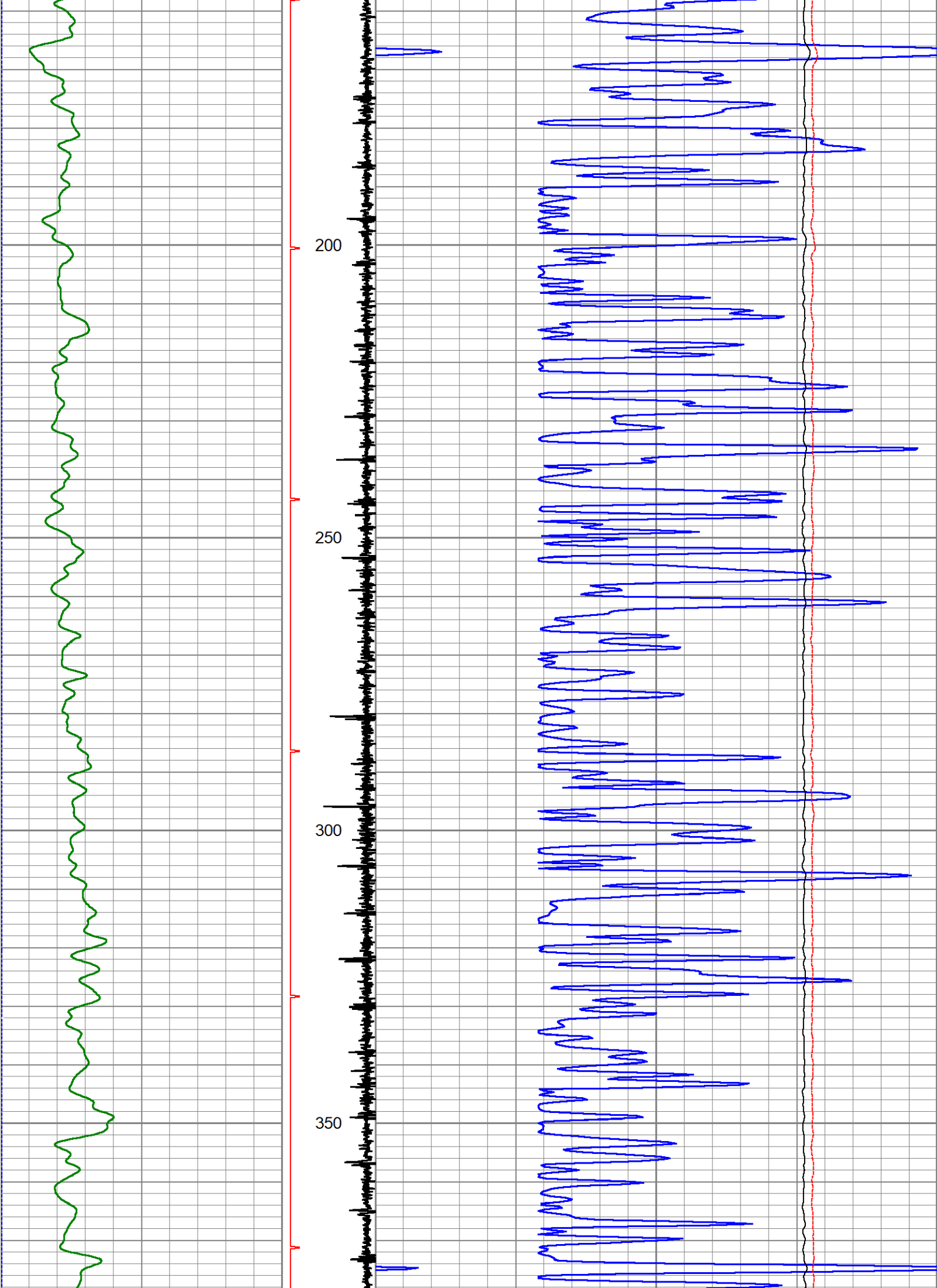




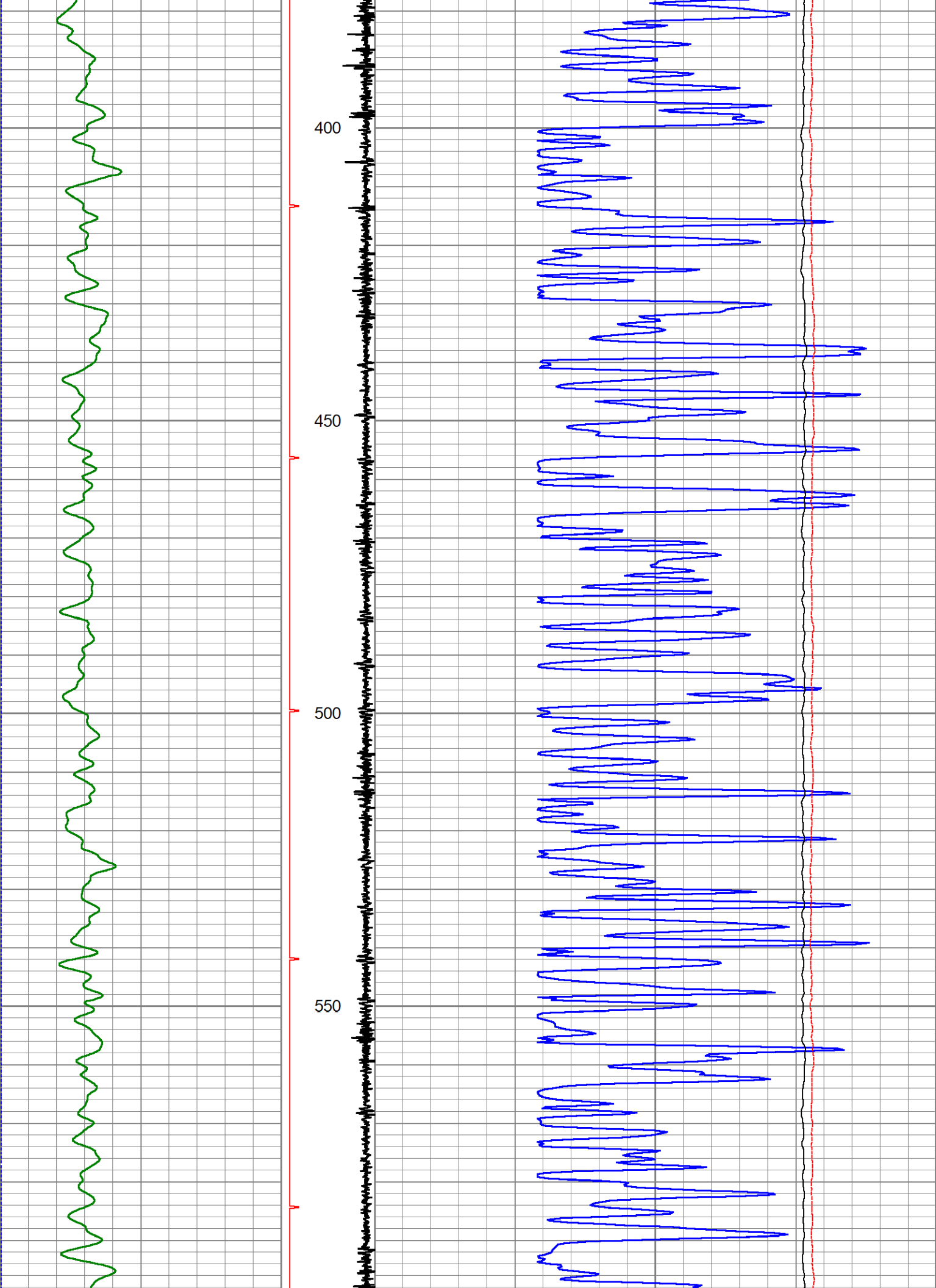
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 Presentation Format chevron\_cnl\_032822  
 Dataset Creation Tue May 24 12:52:08 2022  
 Charted by Depth in Feet scaled 1:240

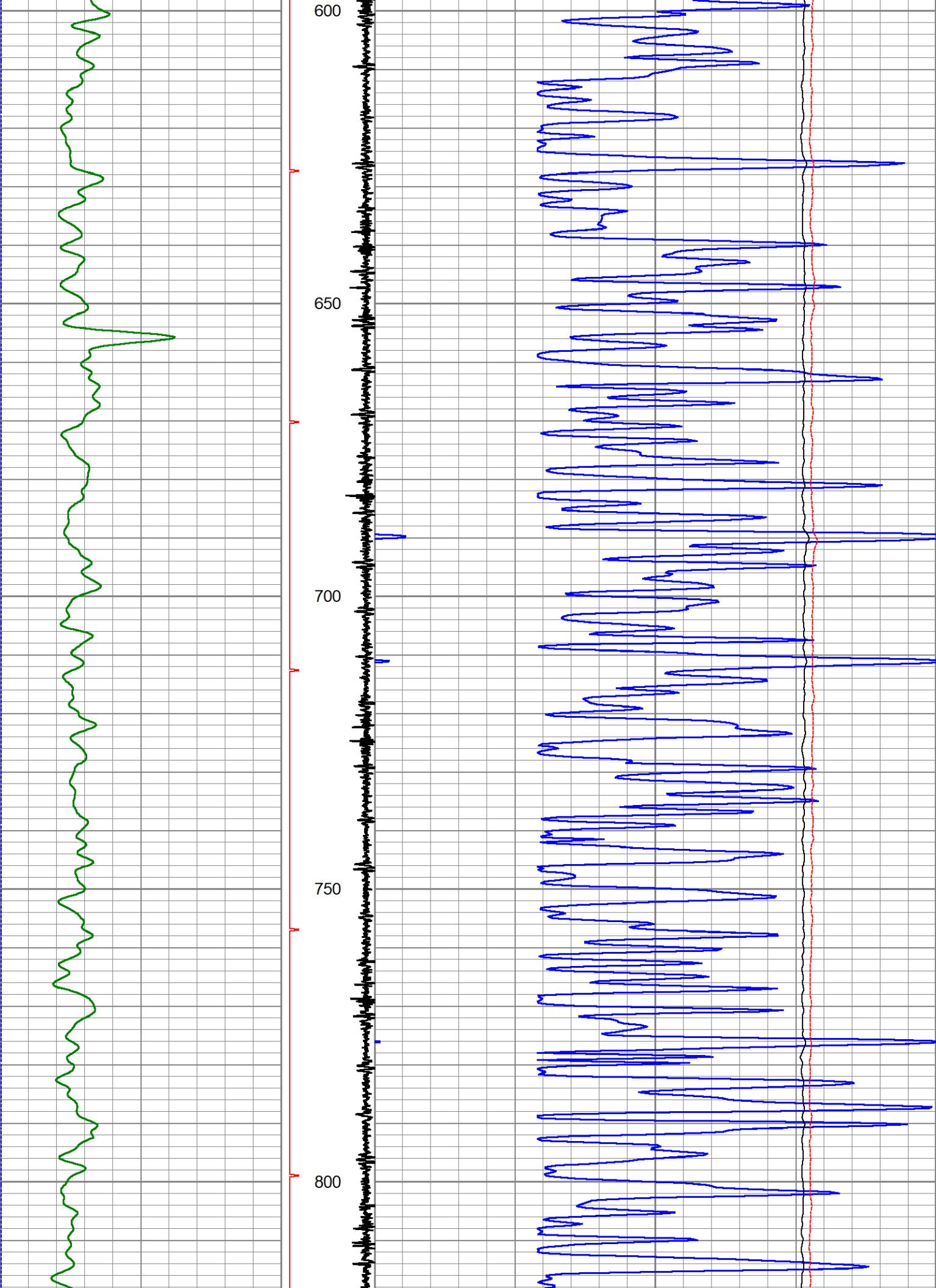
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0	Line Tension (lb)	3500	PIPE TALLY			CNLS SC
			-1	10		0 (cps) 1500
						CNSSC
						0 (cps) 7000

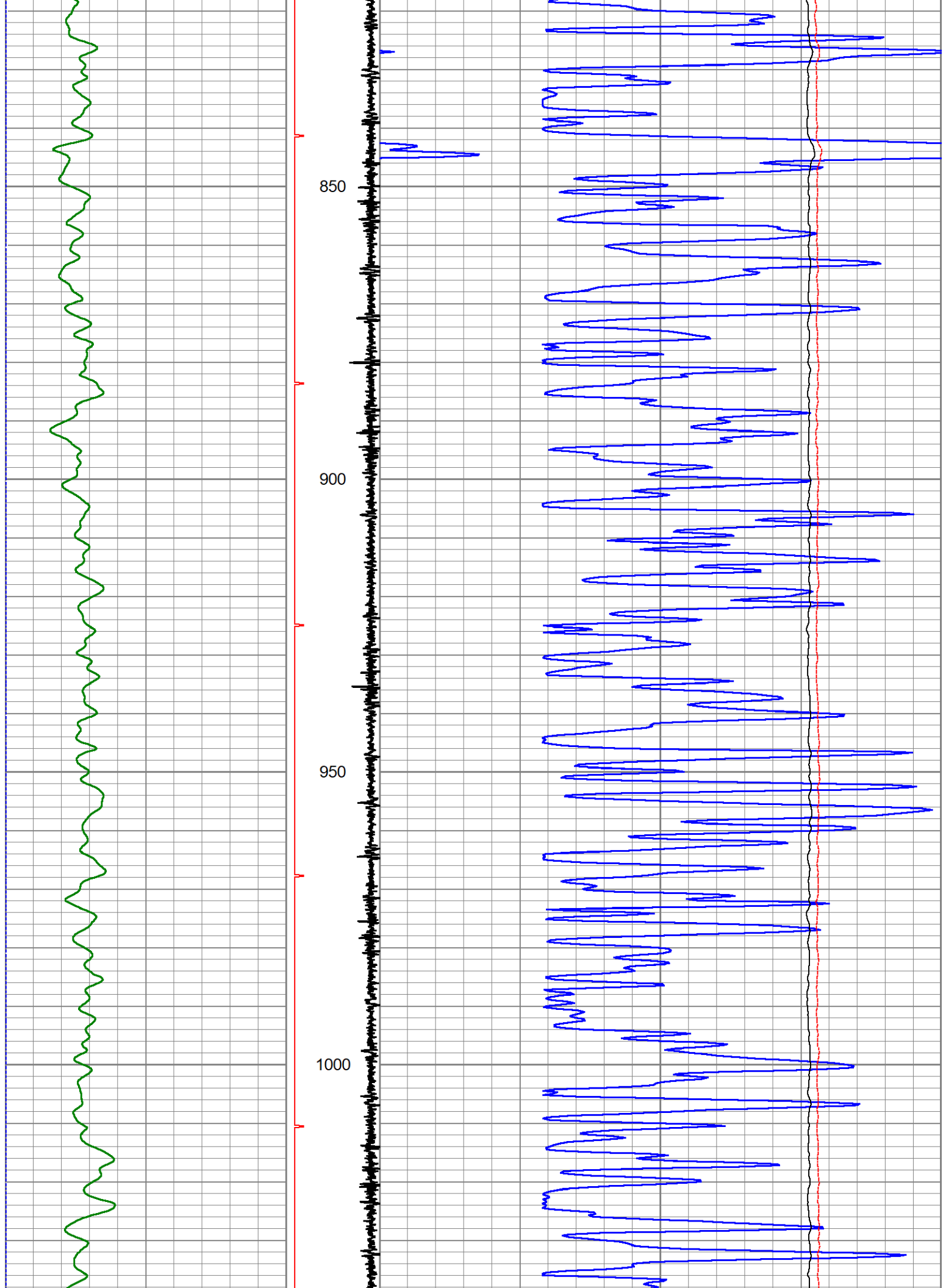


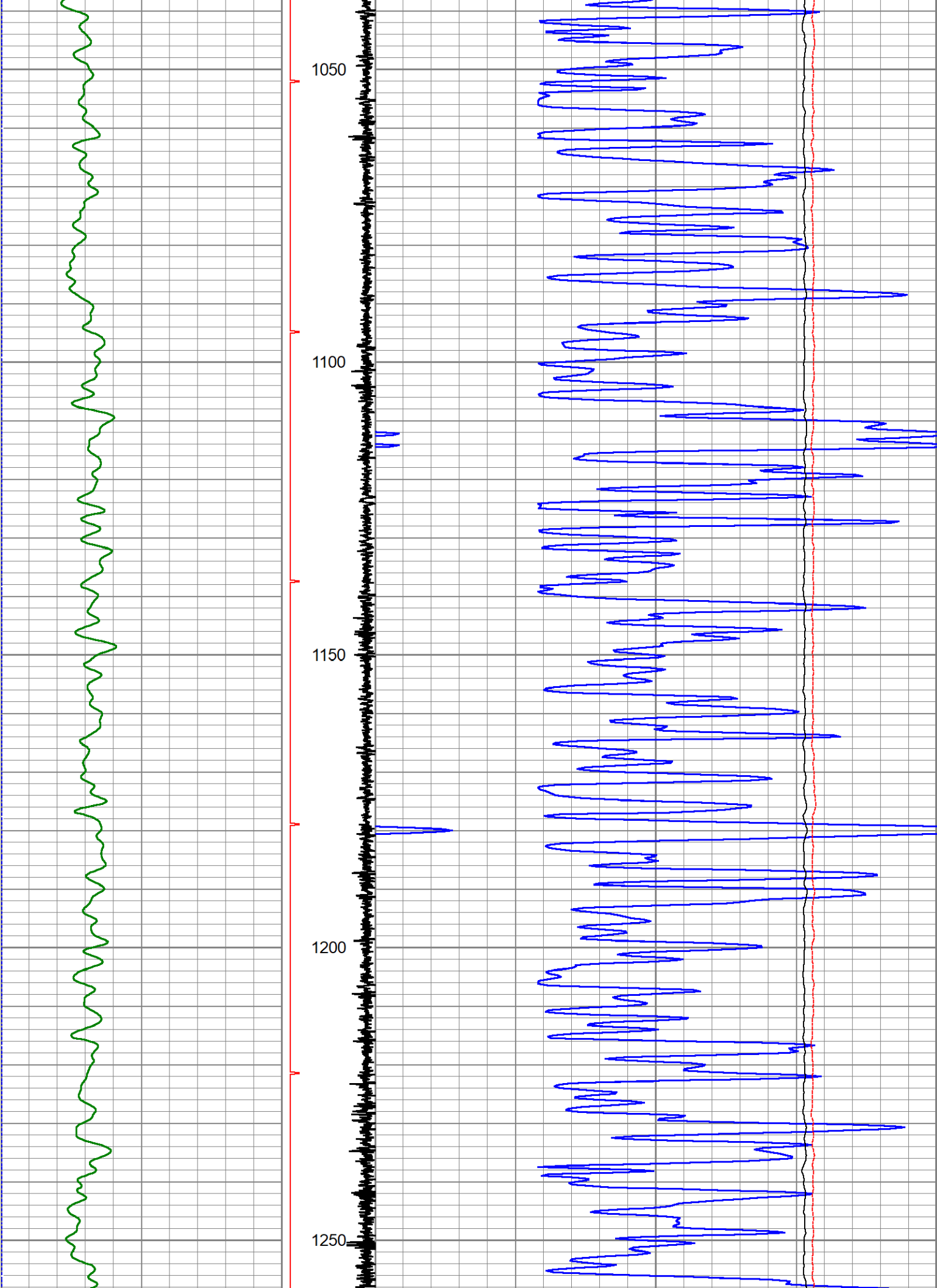


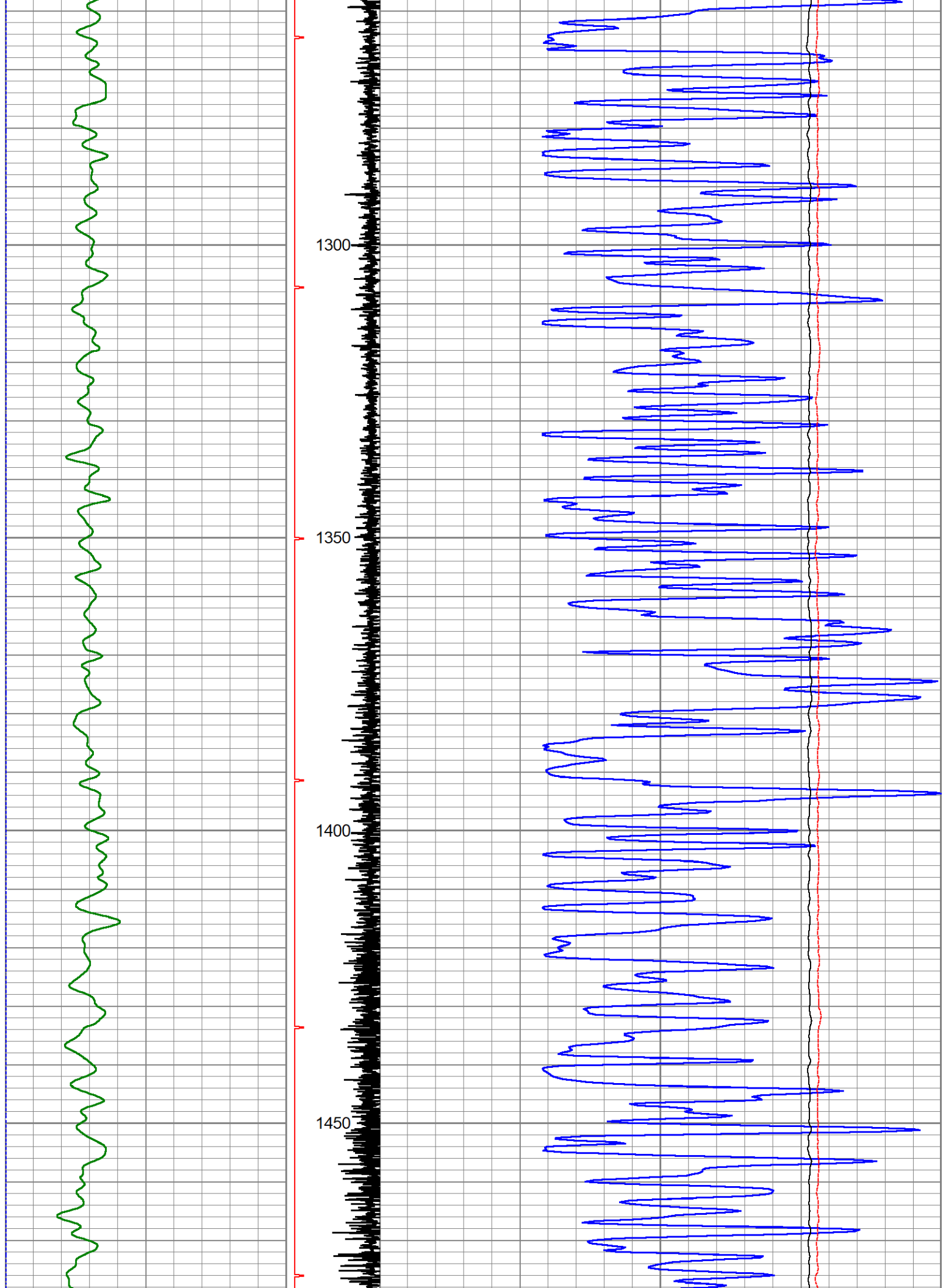


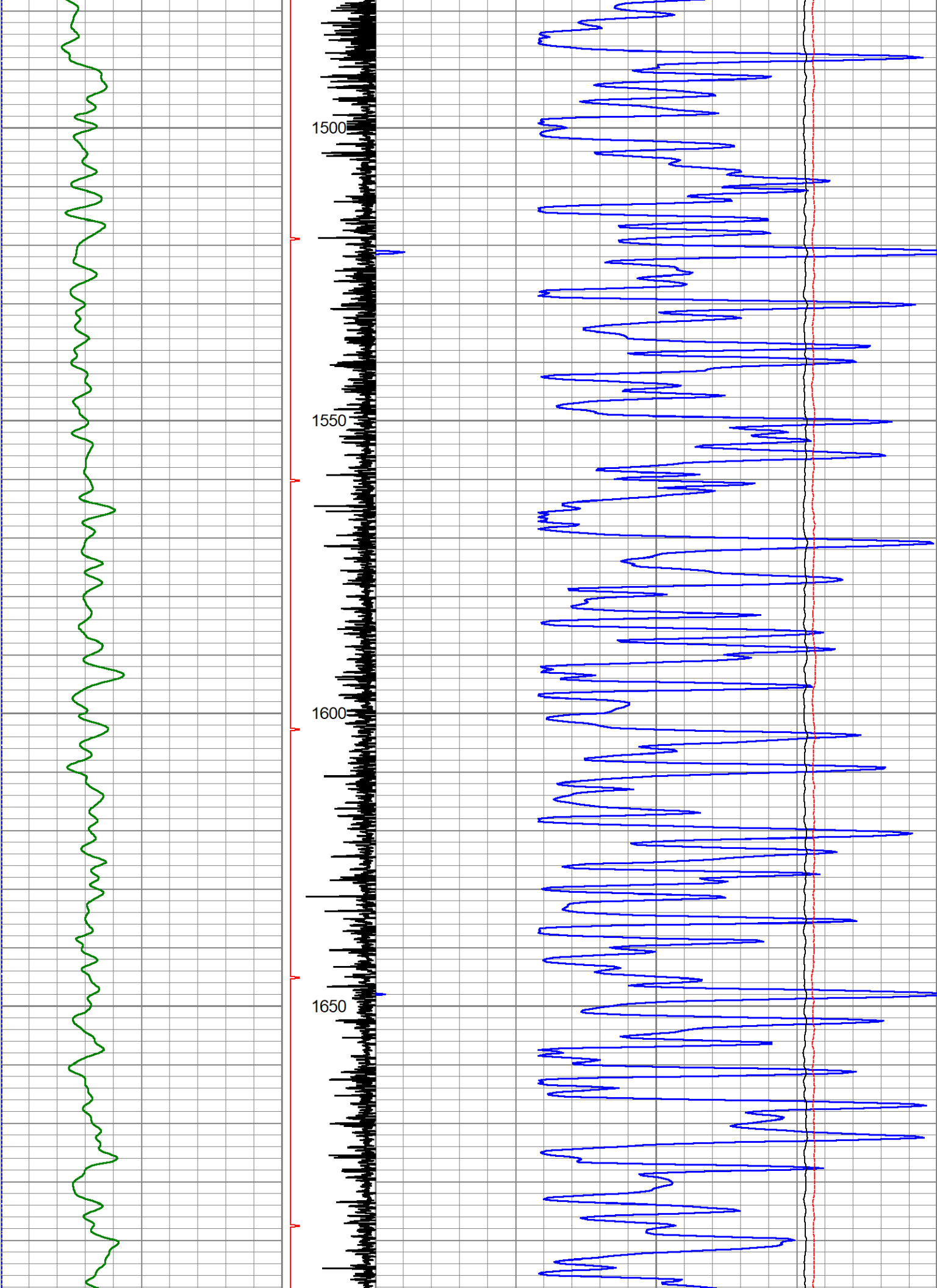


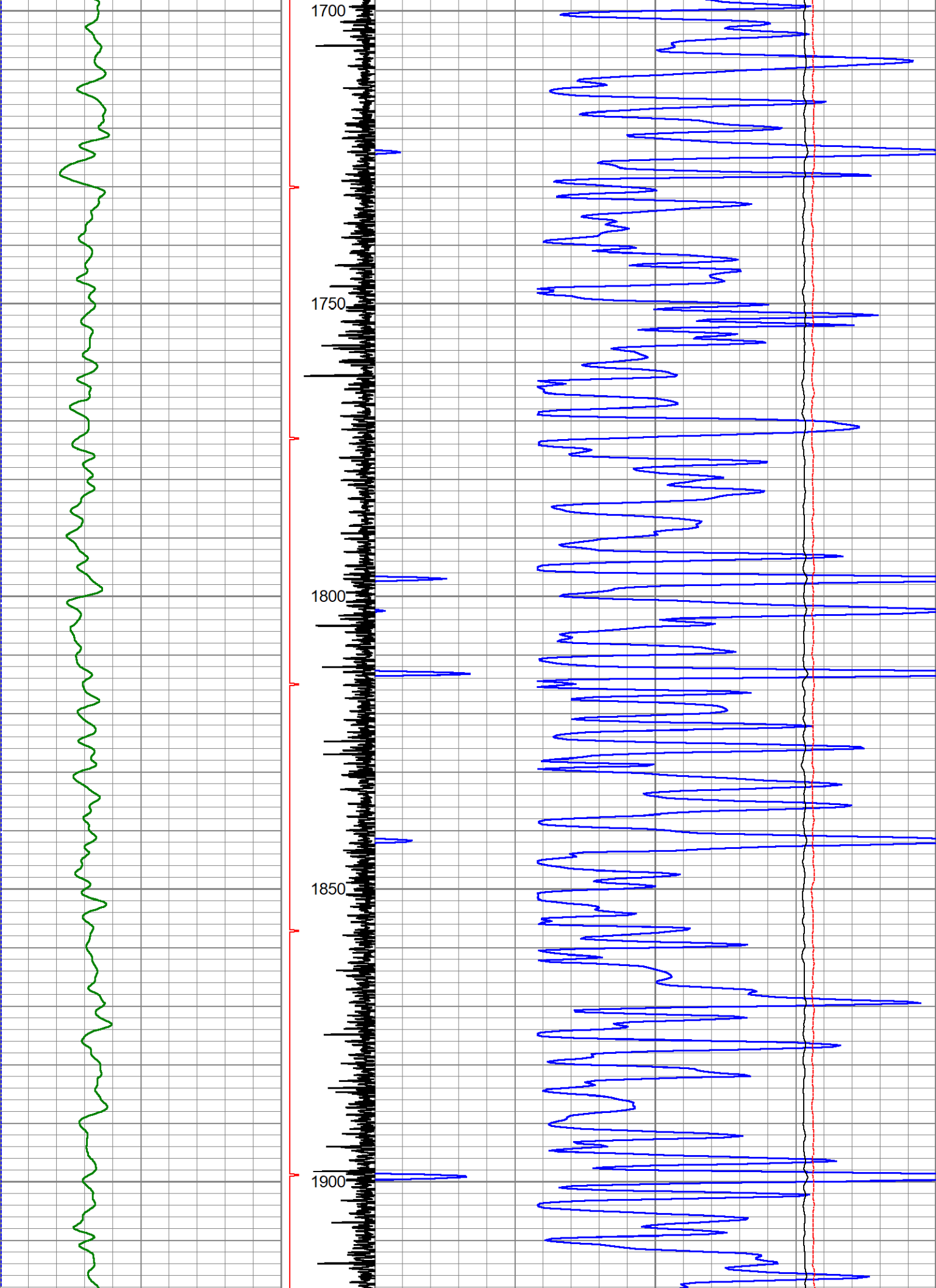


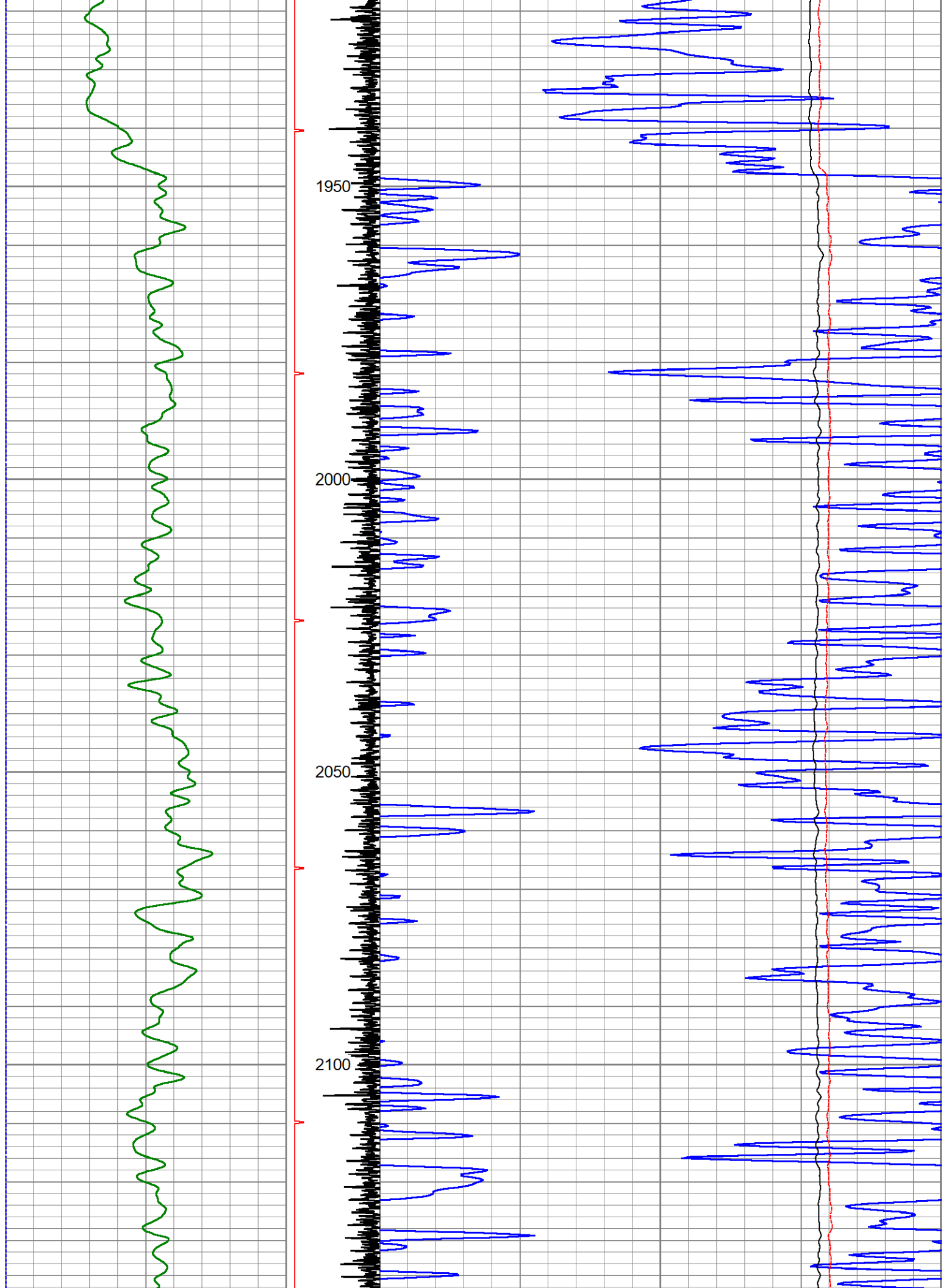




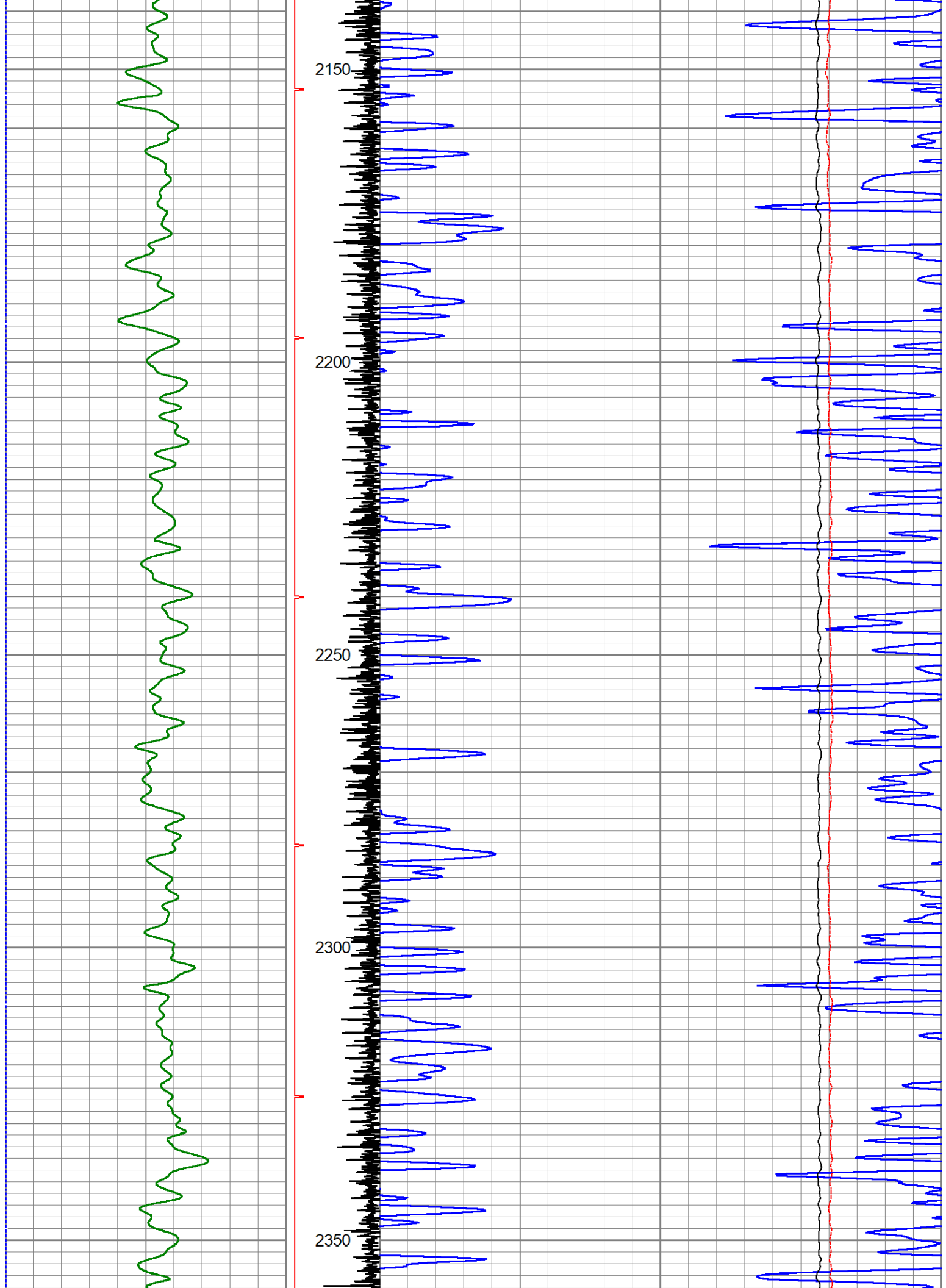


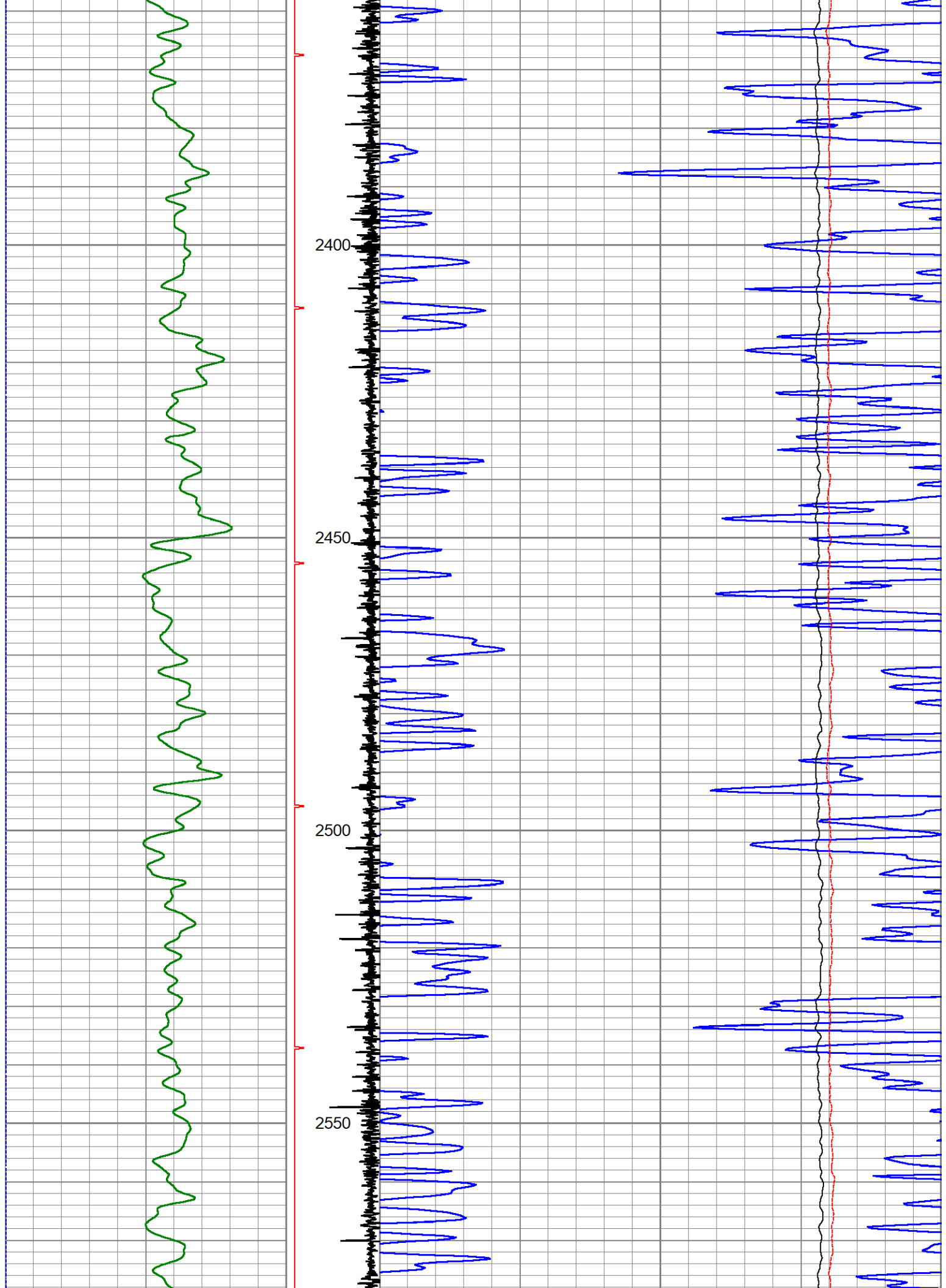


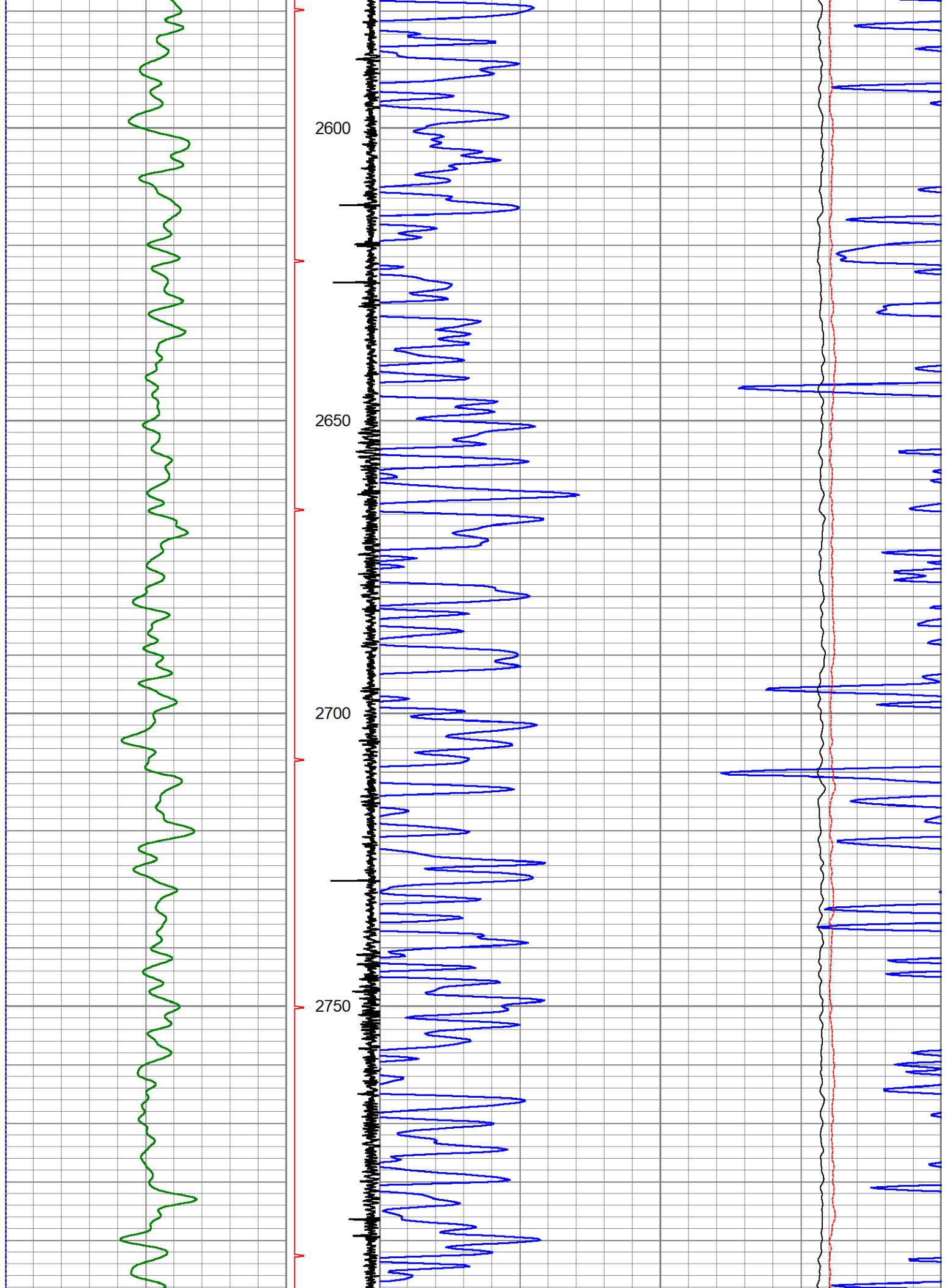


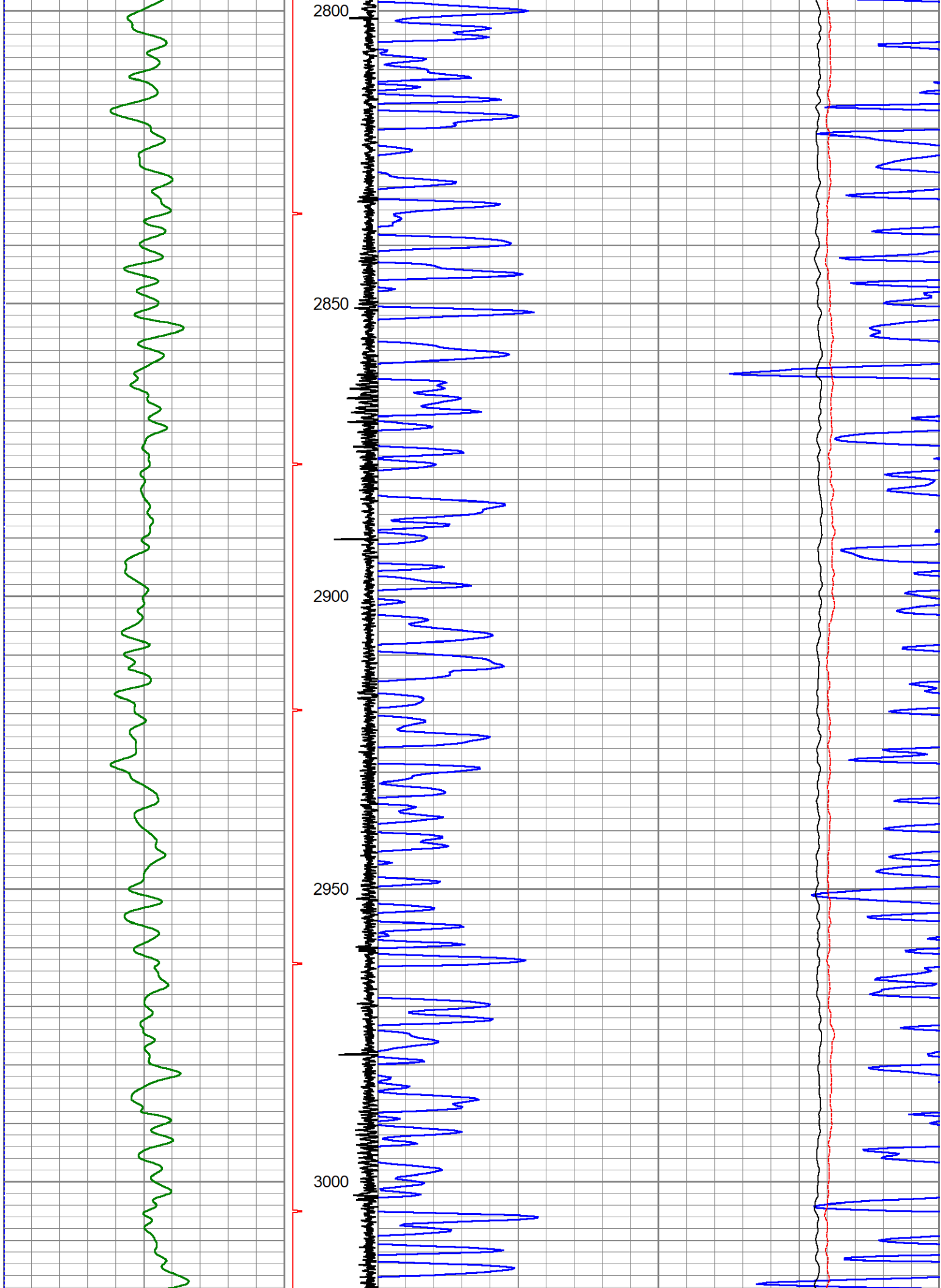


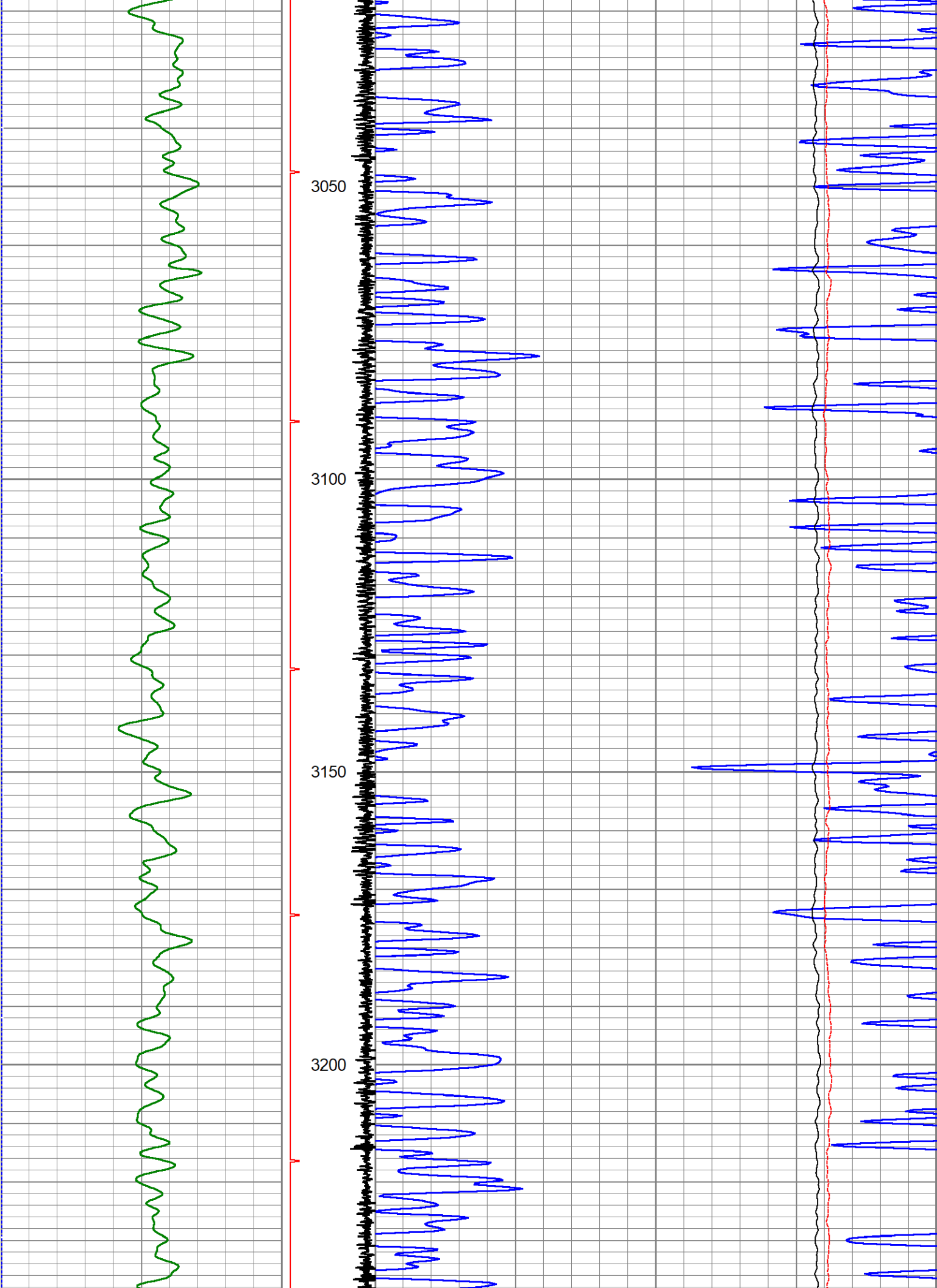


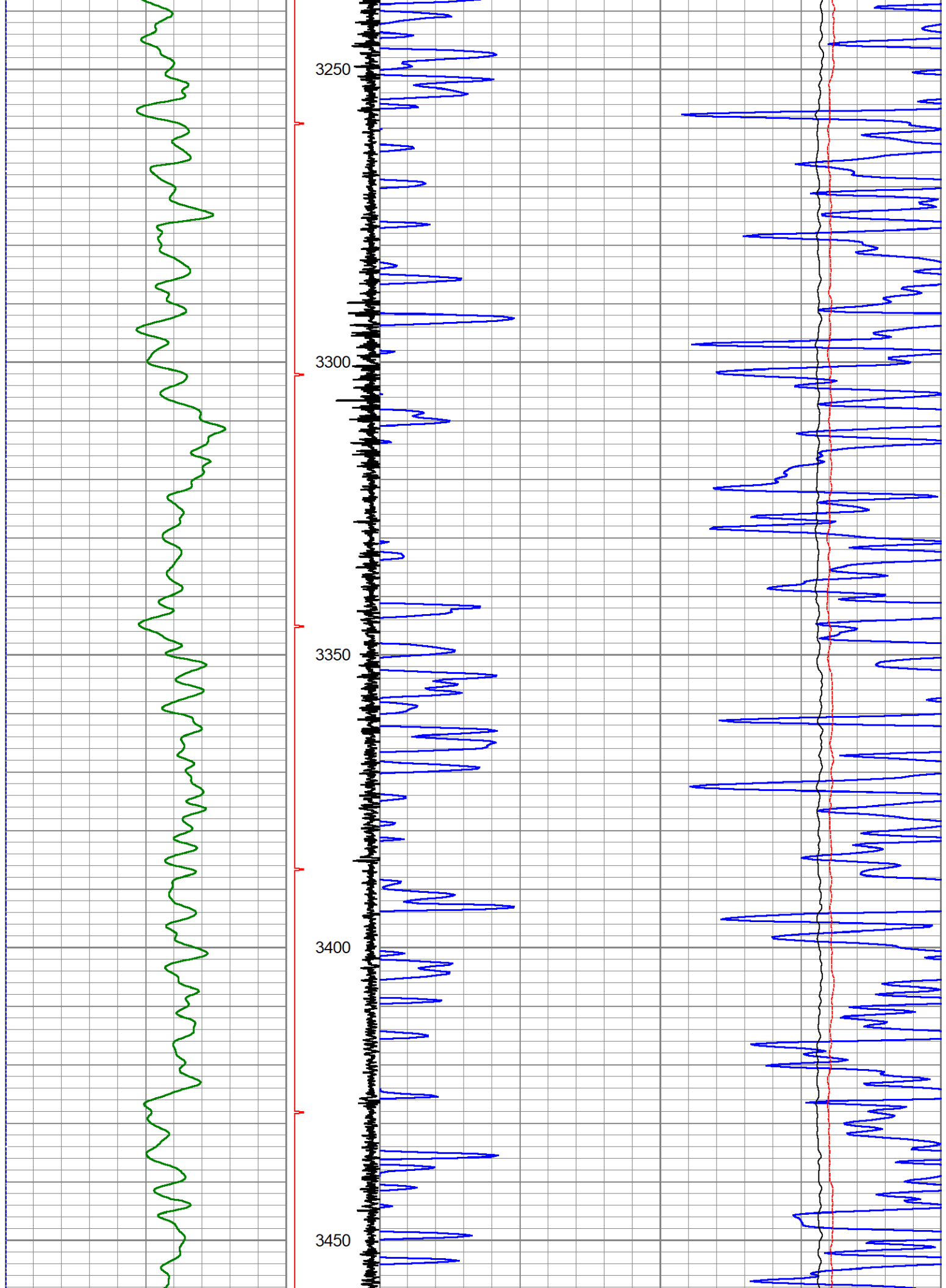


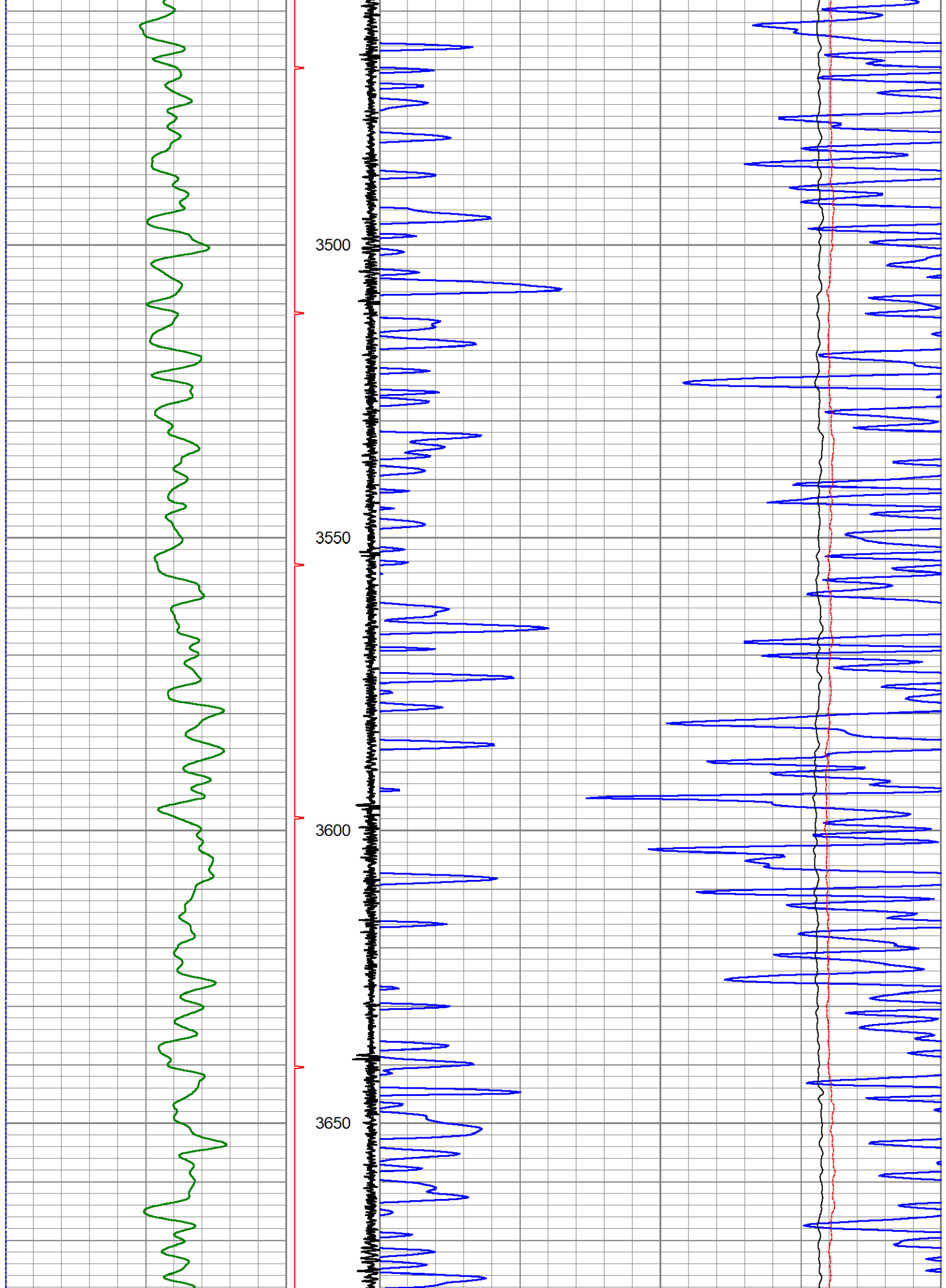


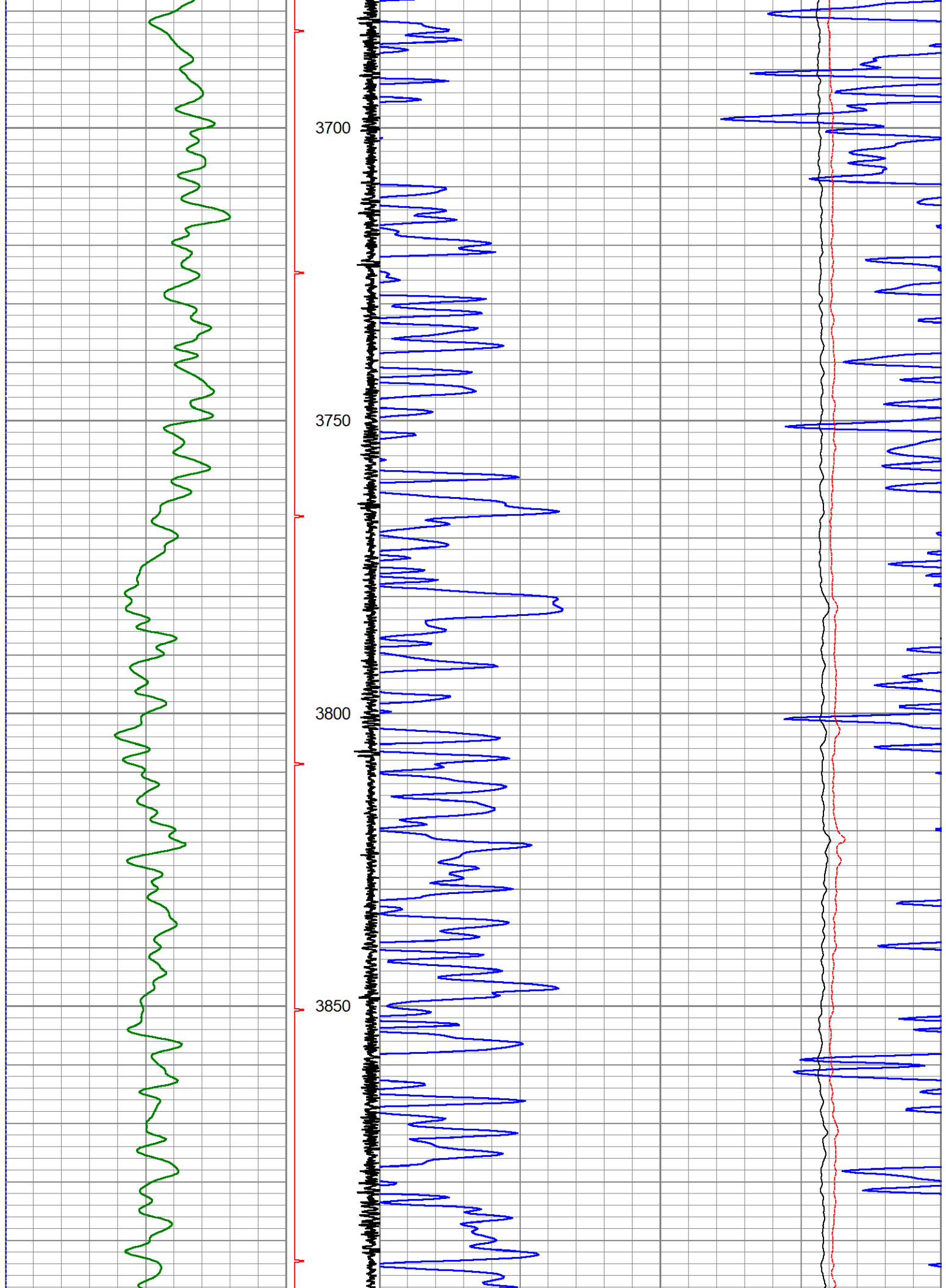




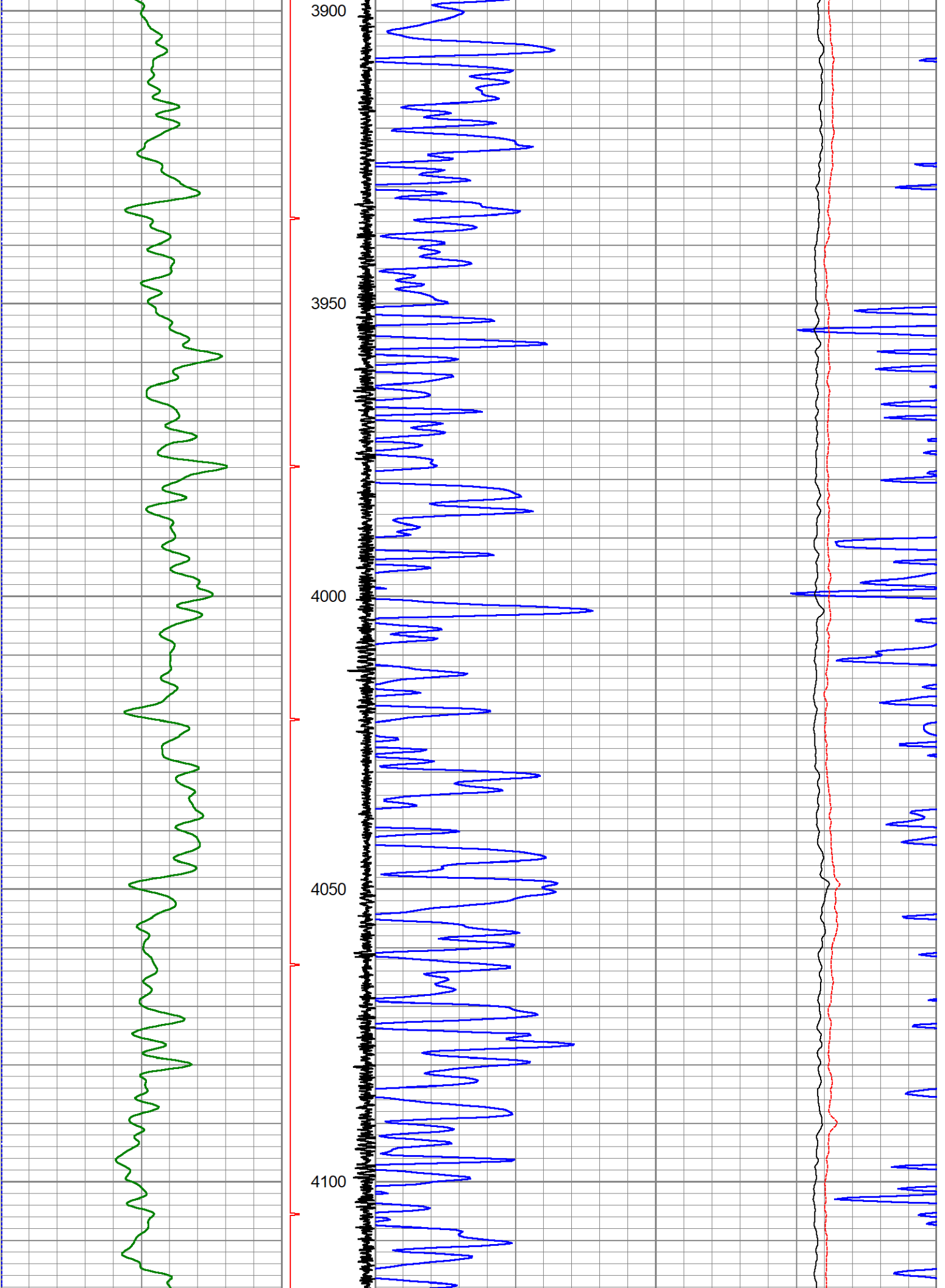


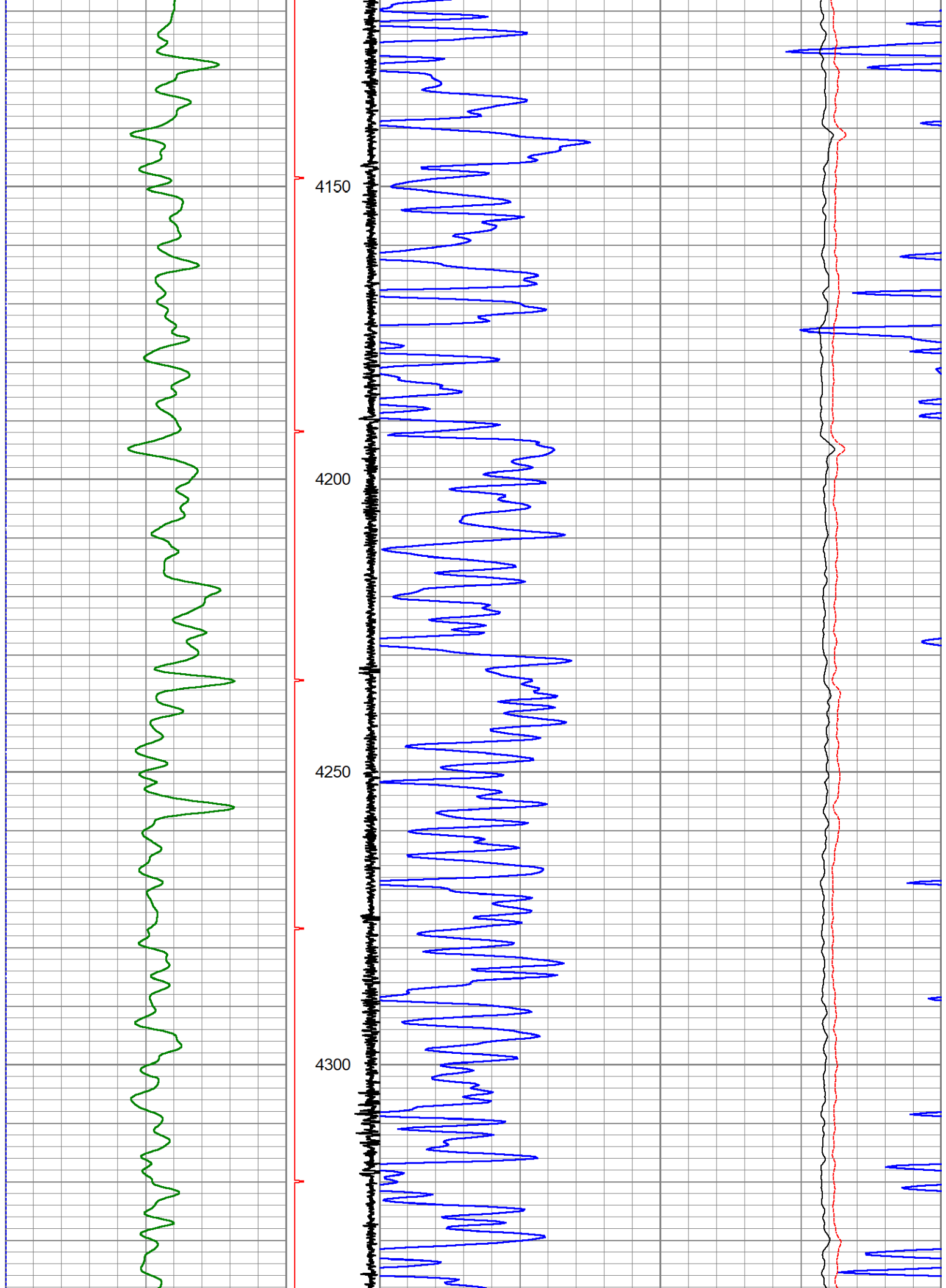


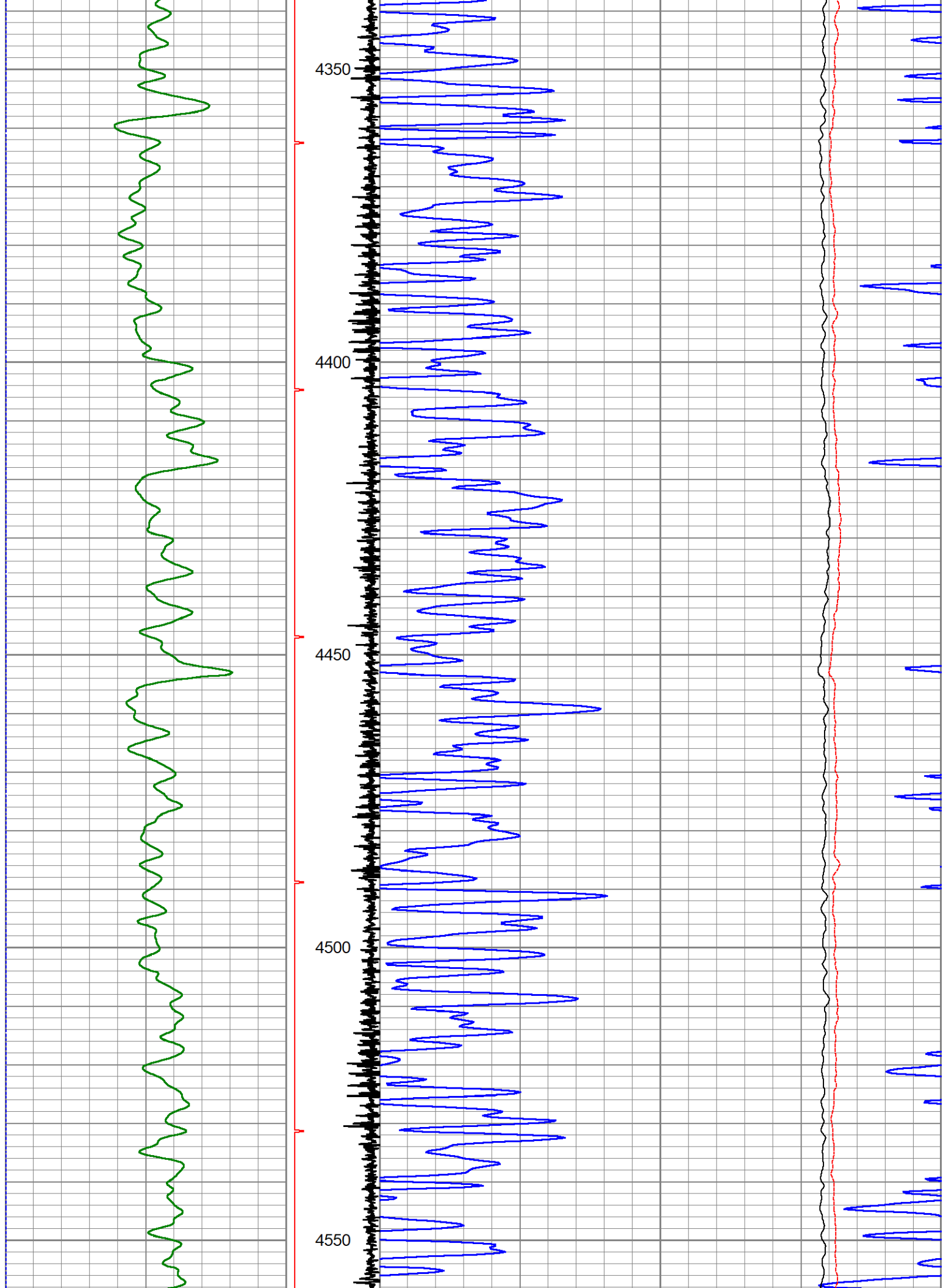


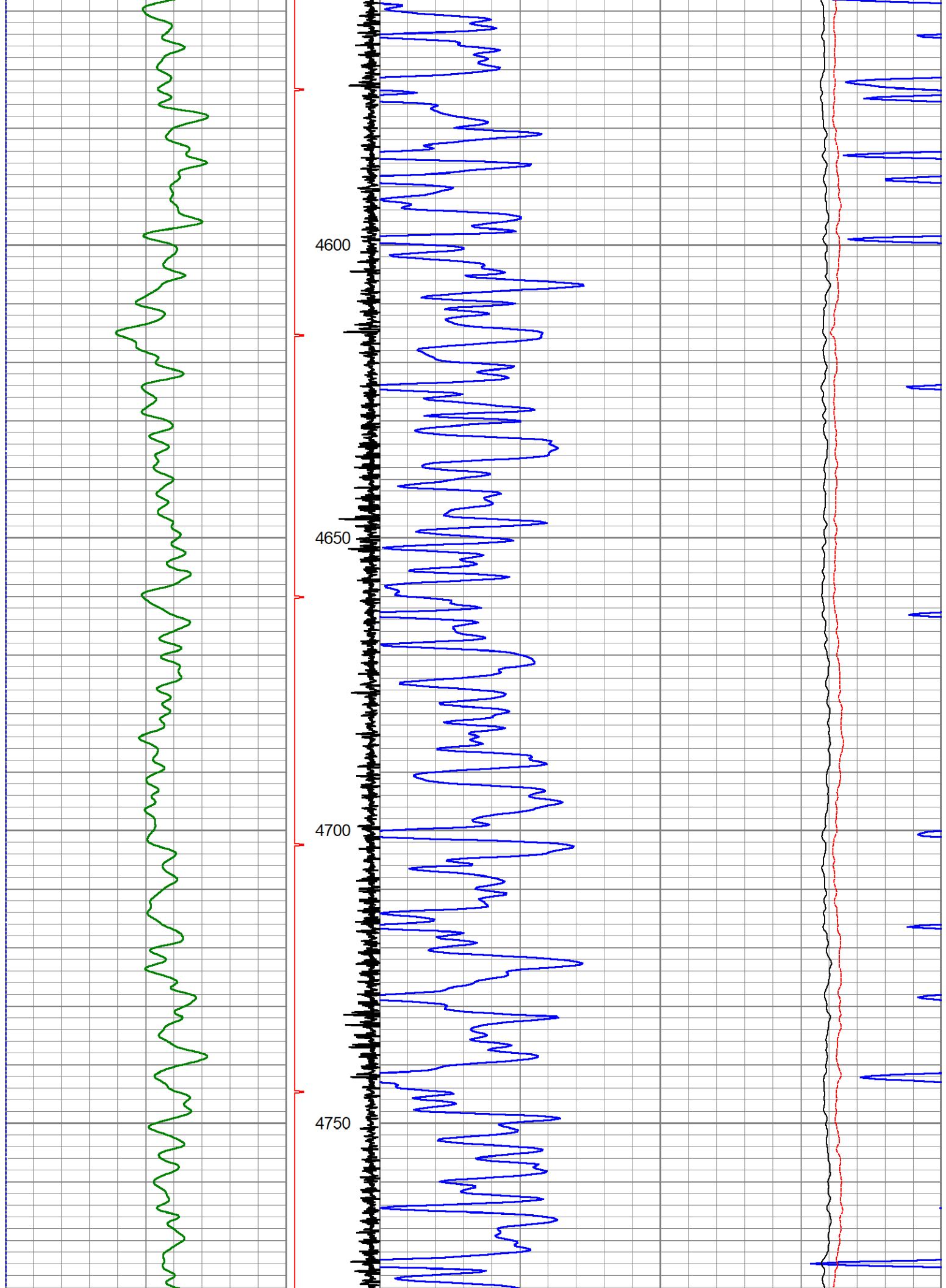


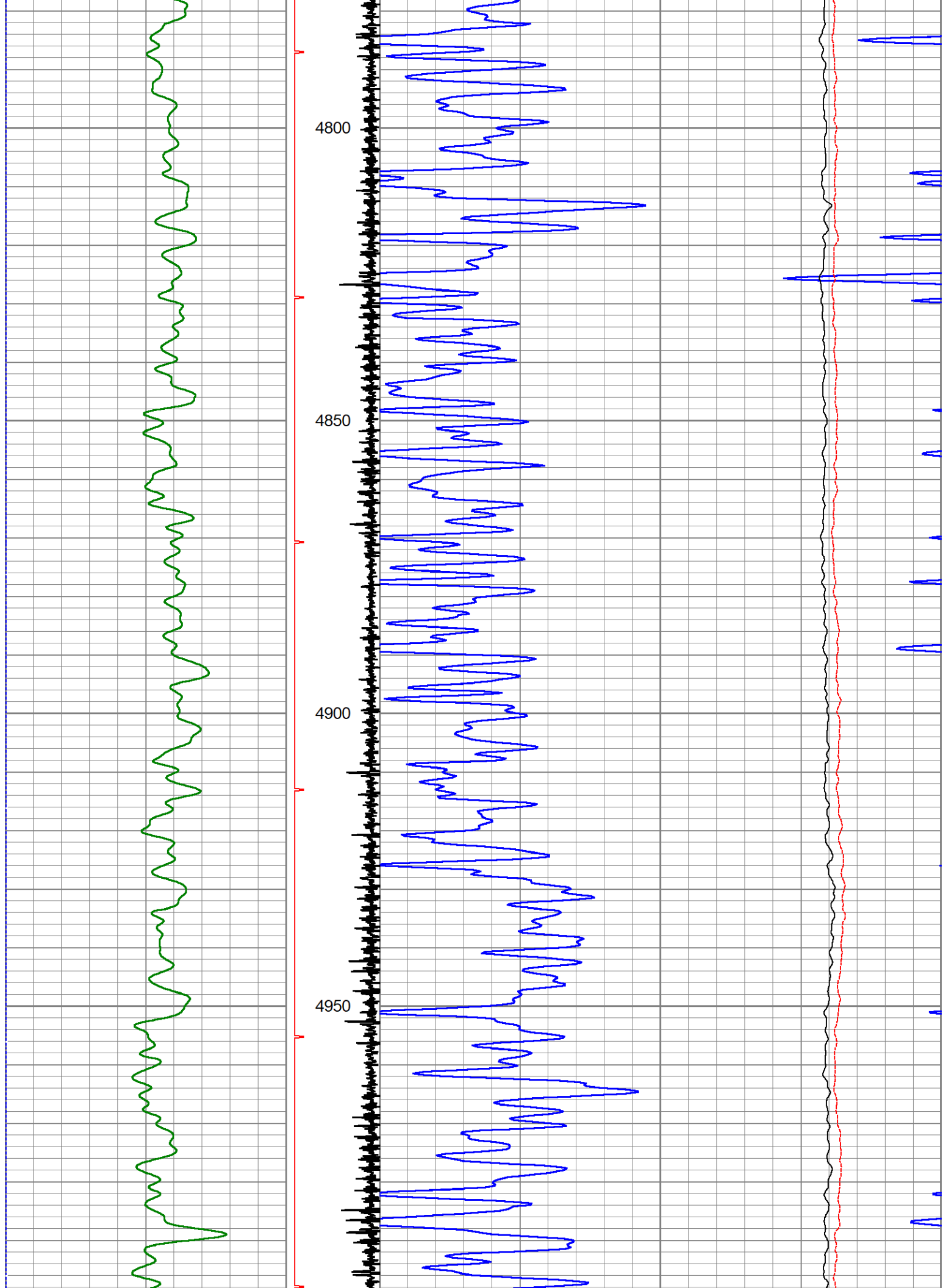


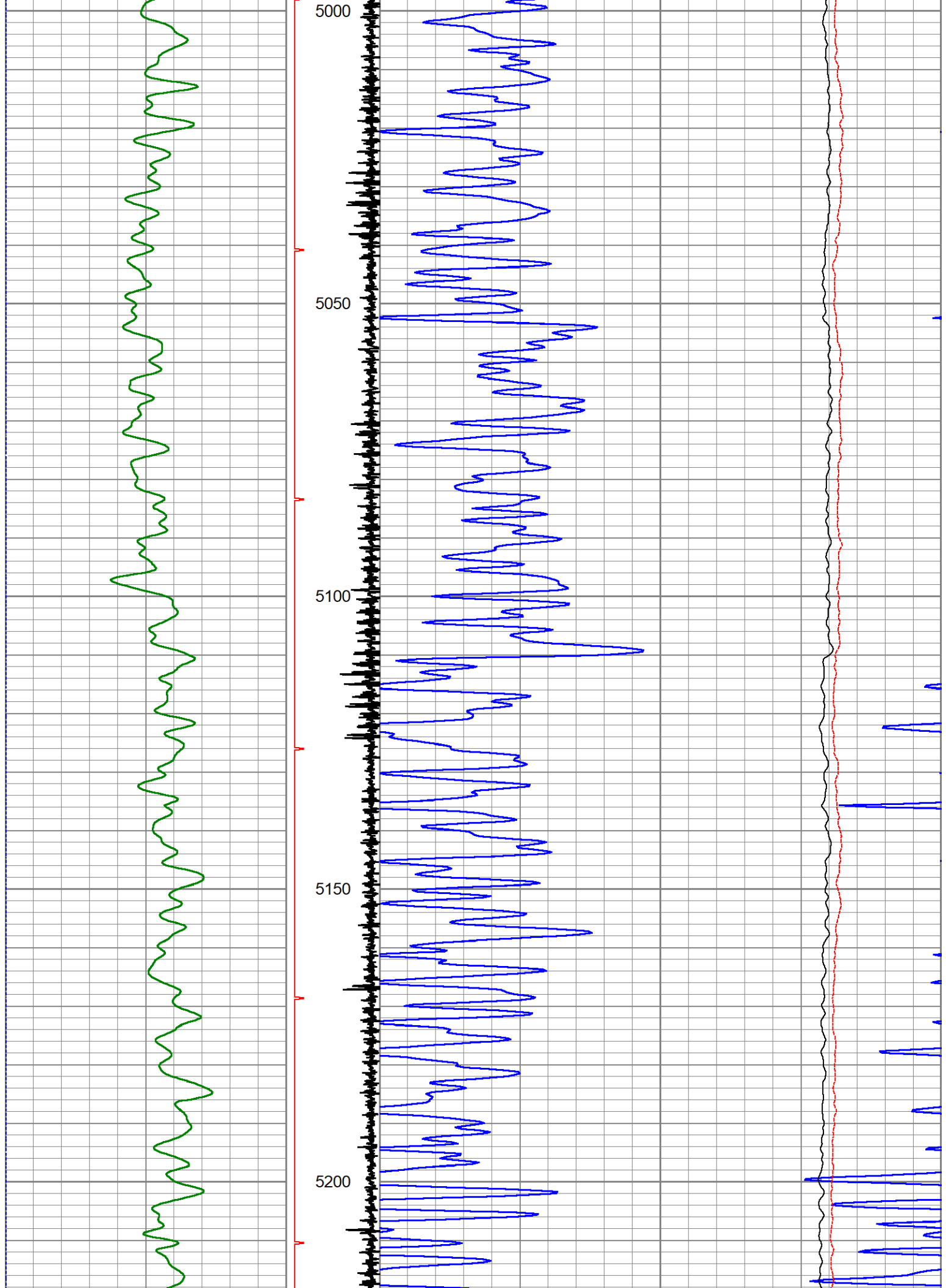


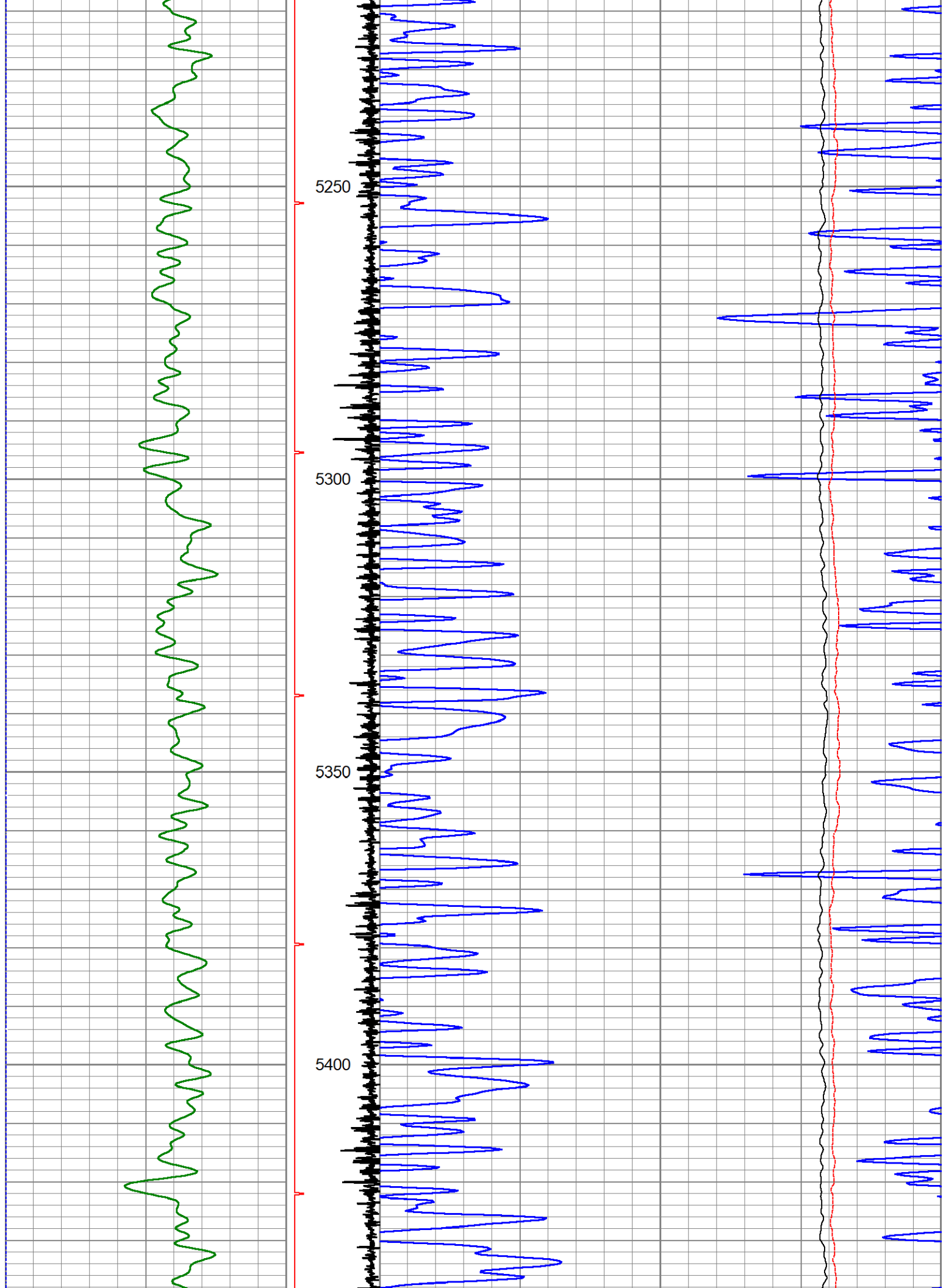


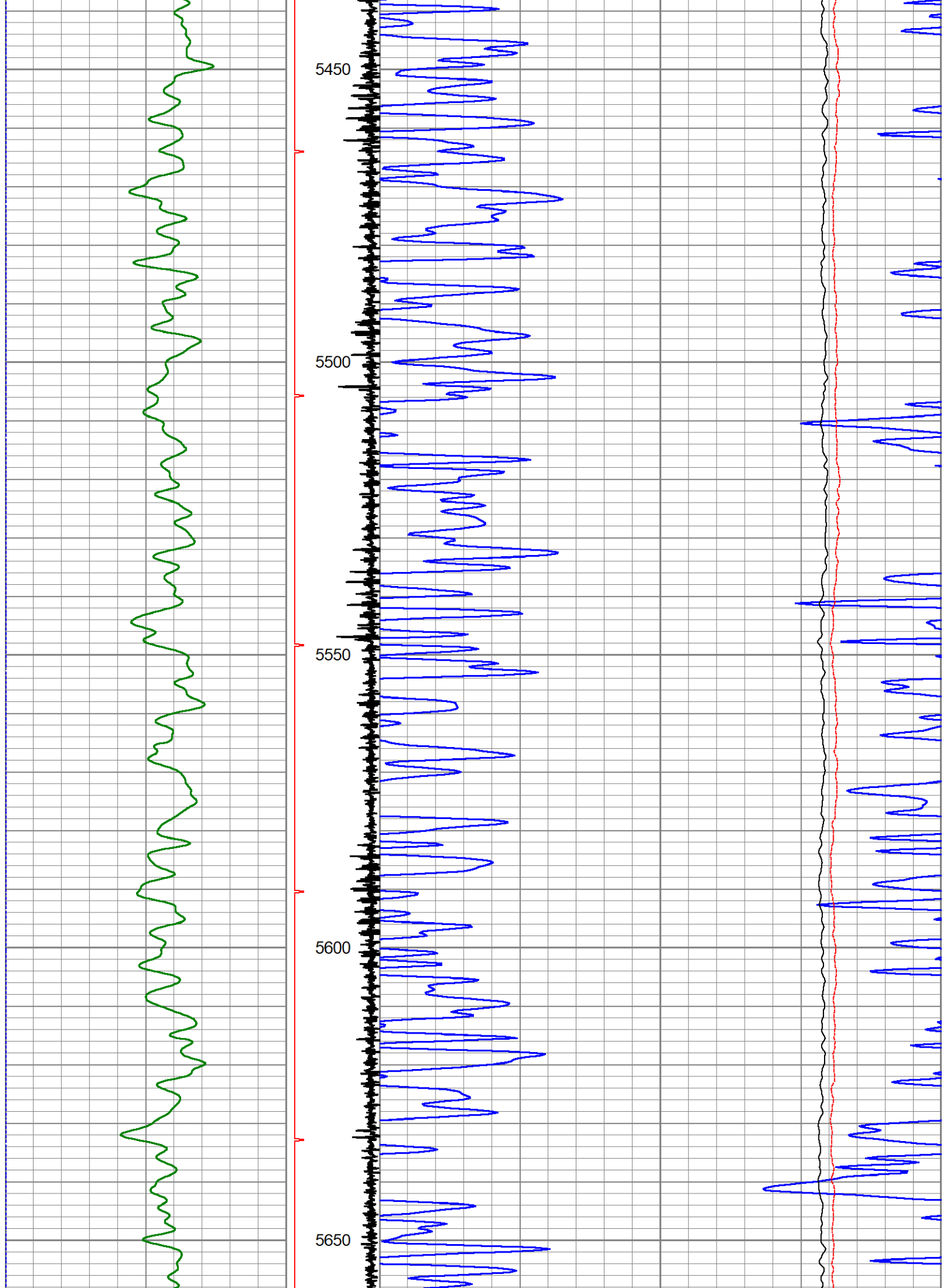




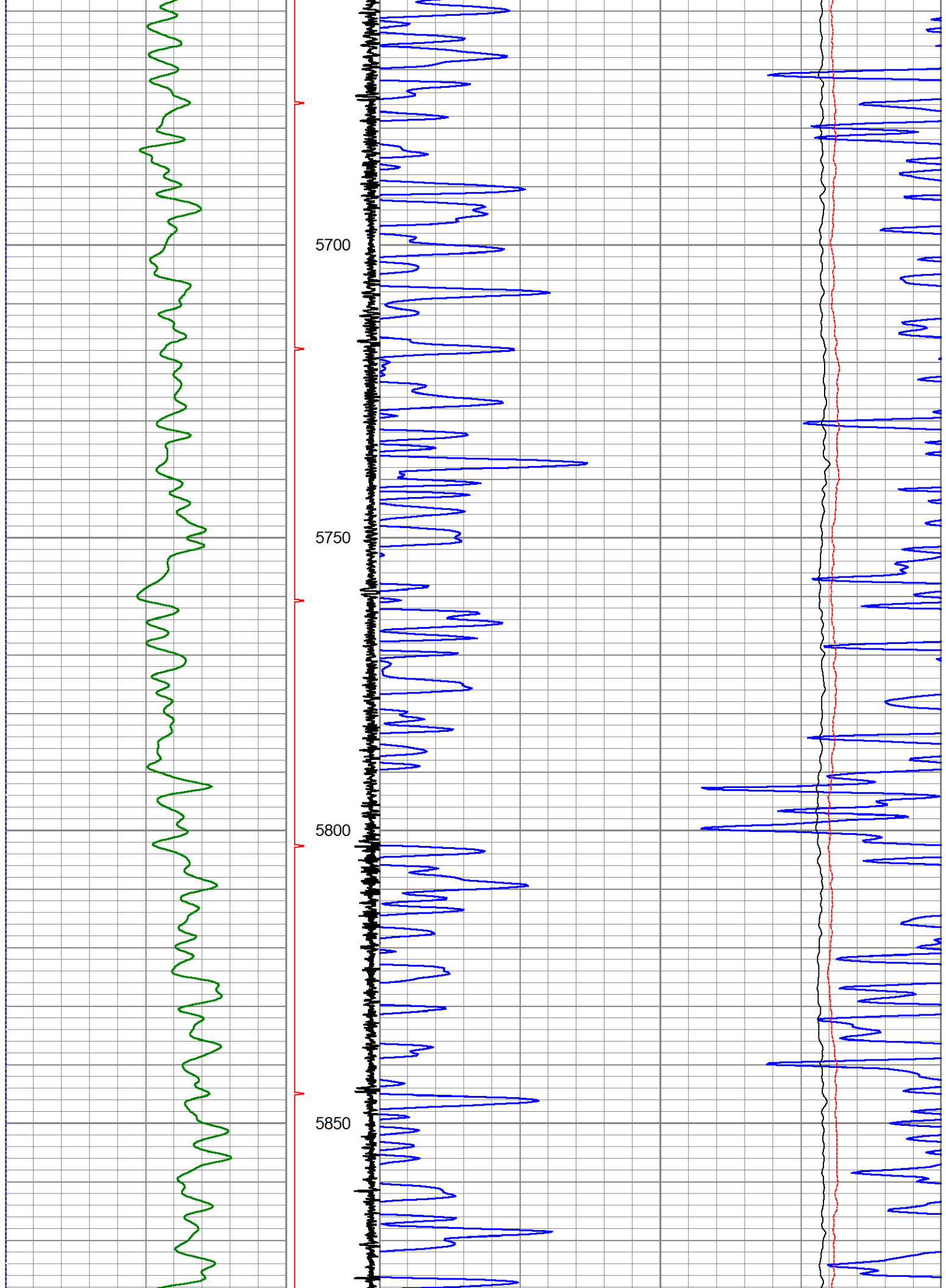


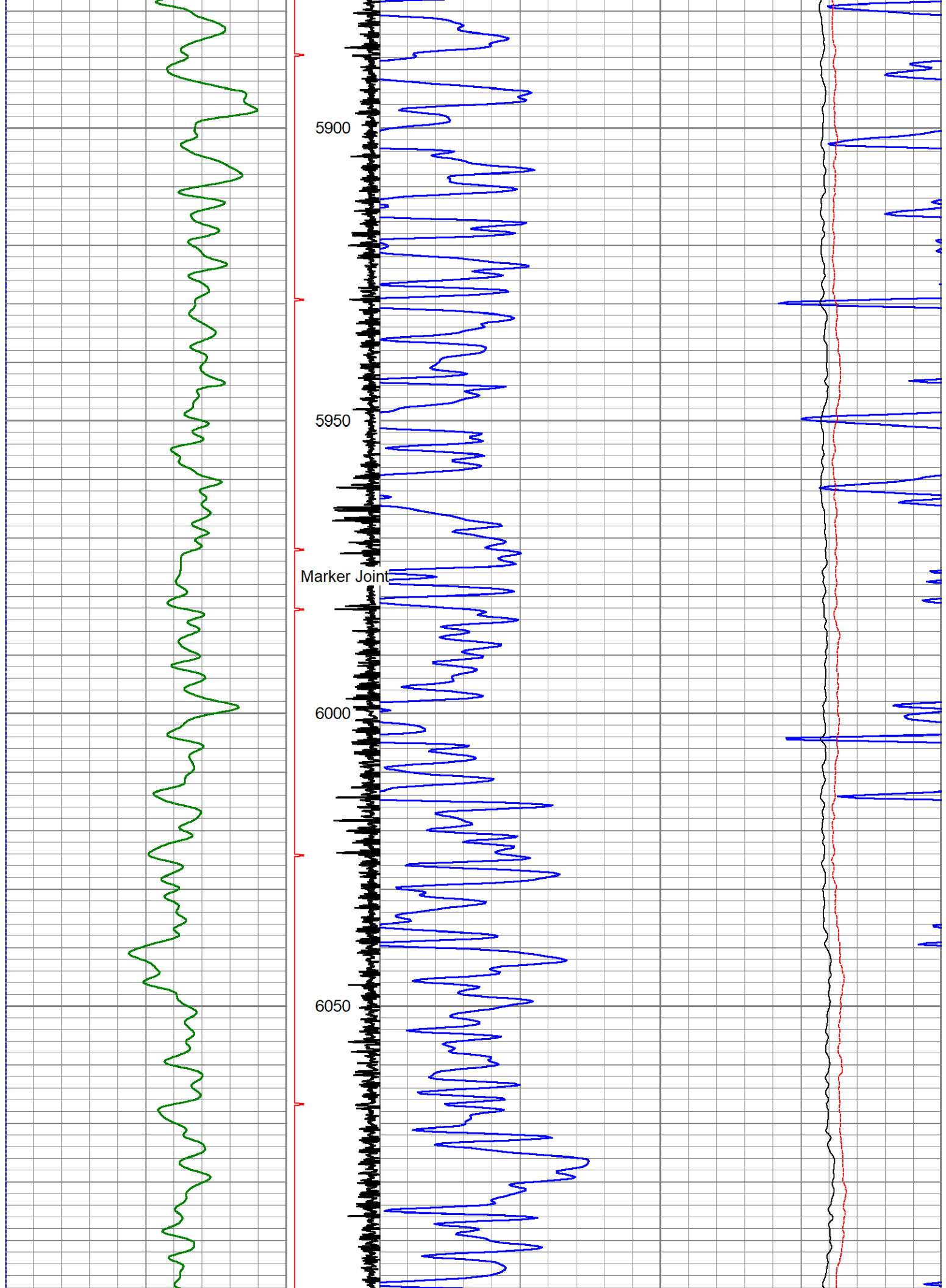


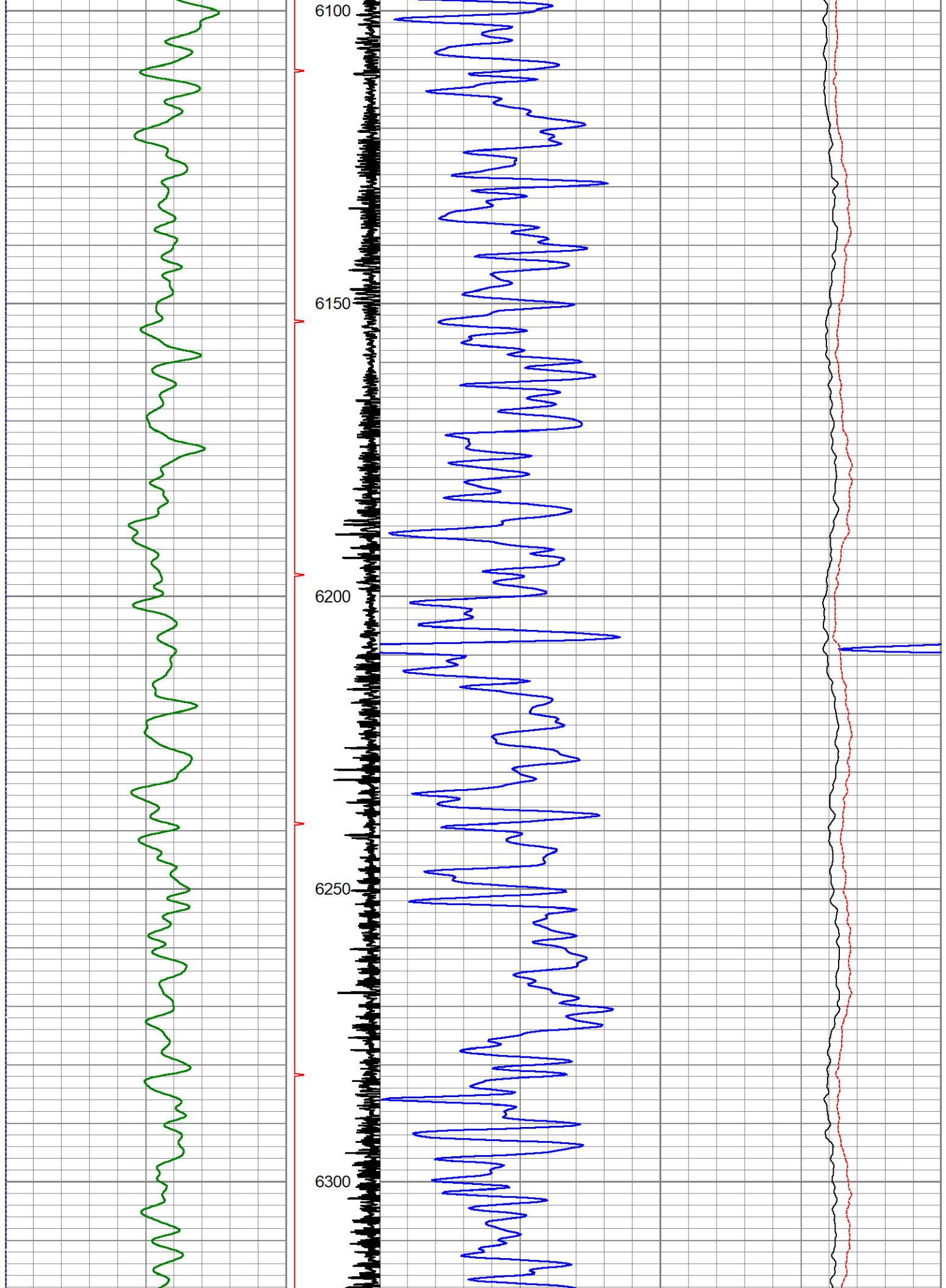


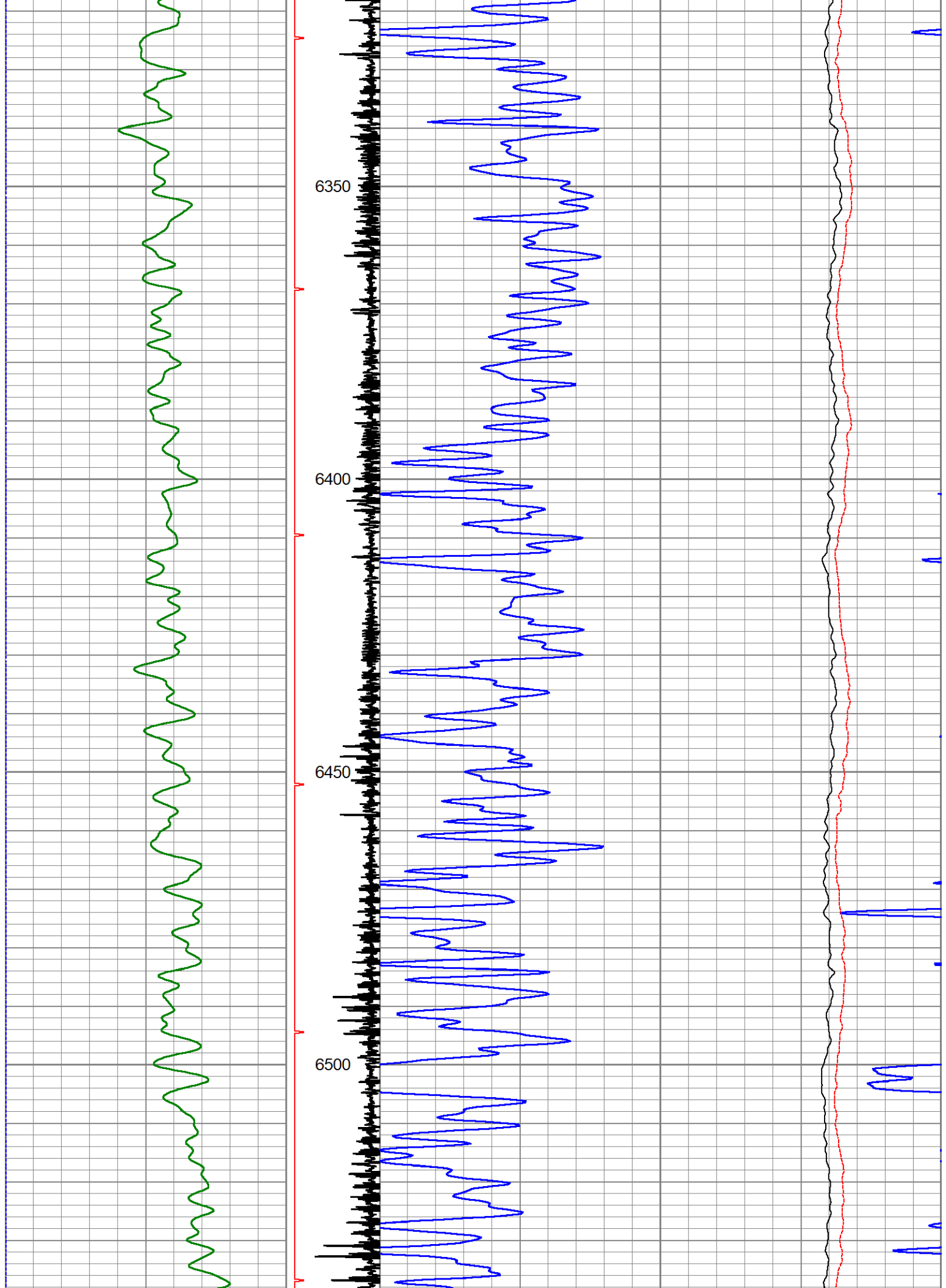


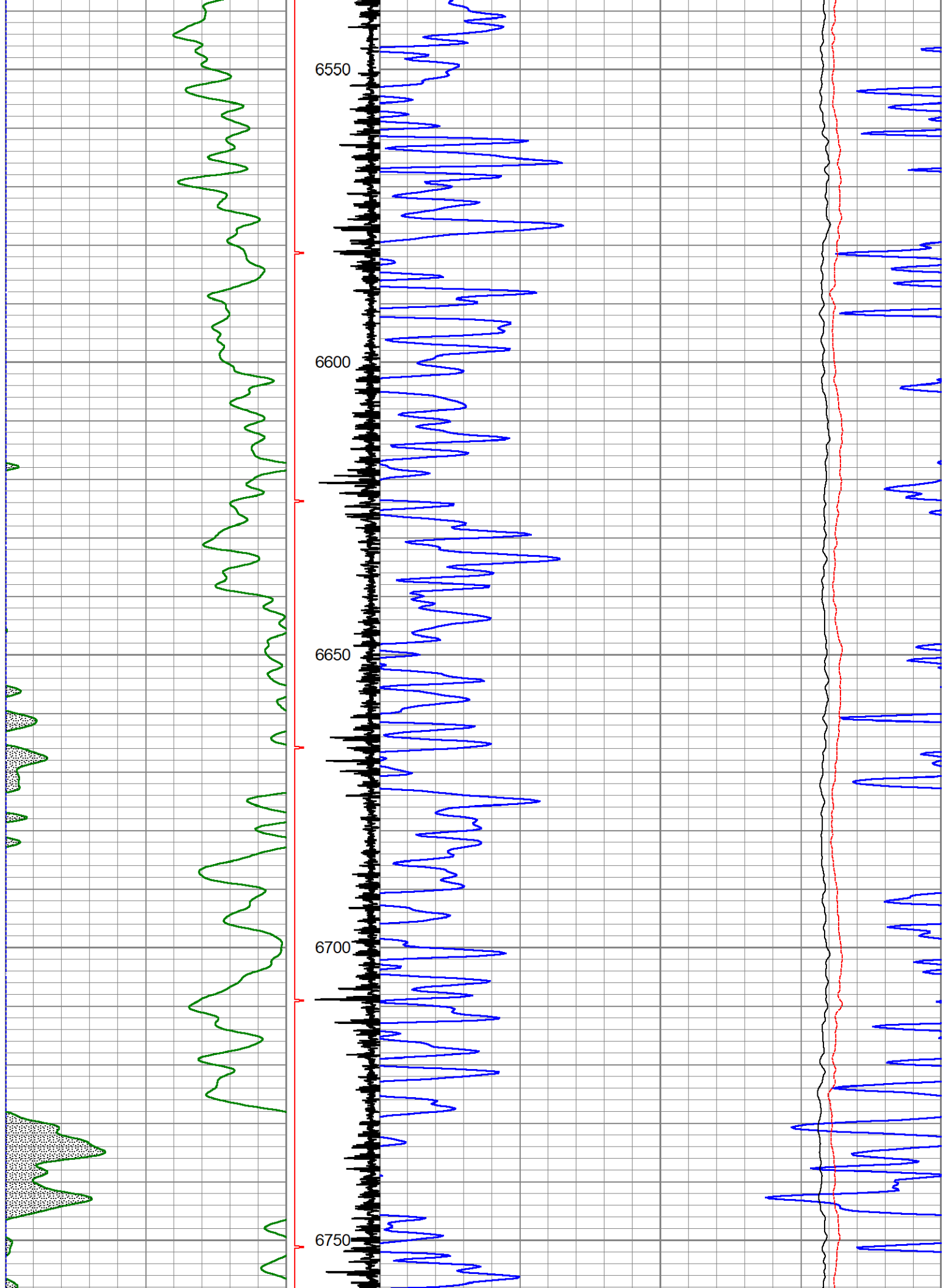


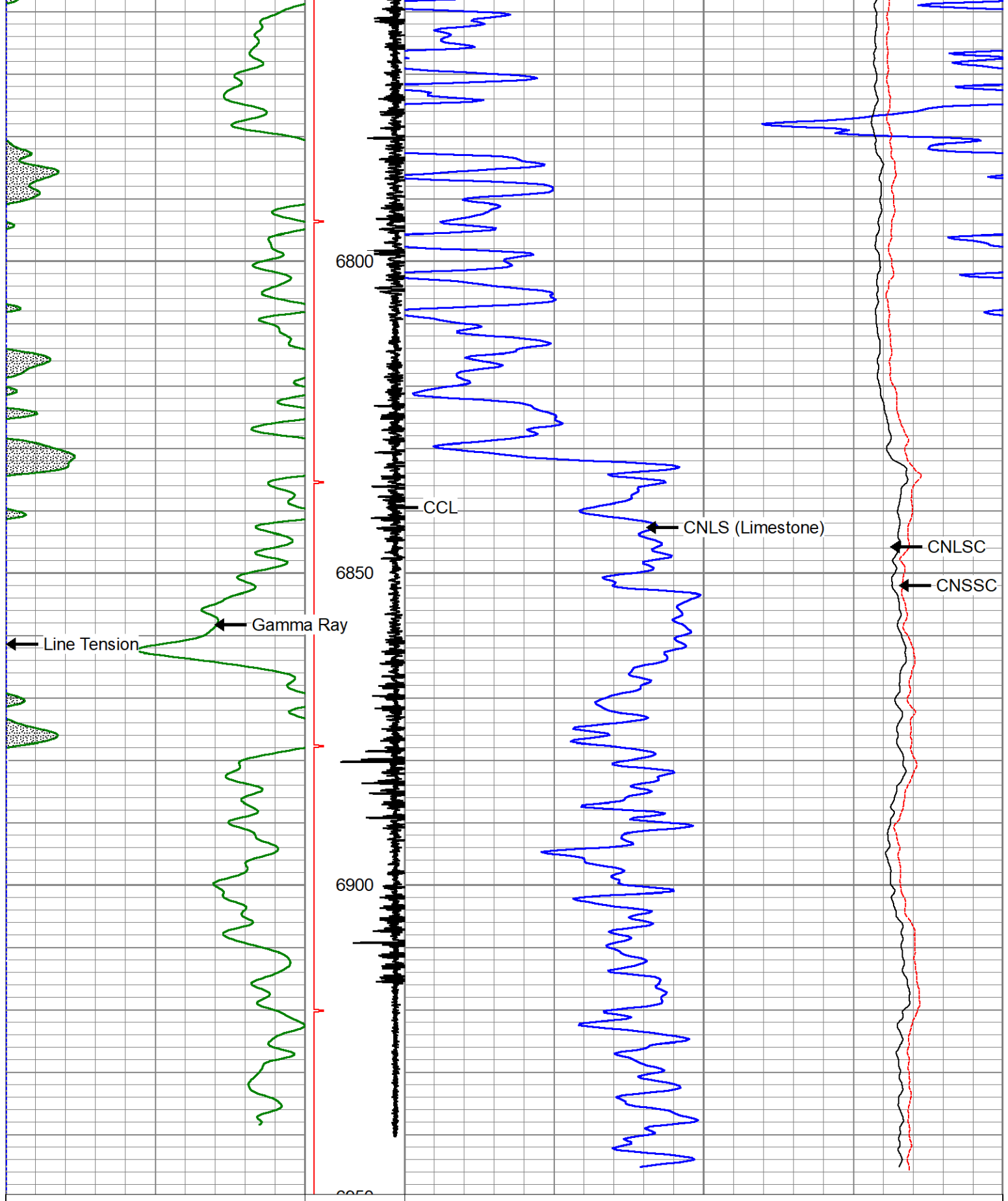




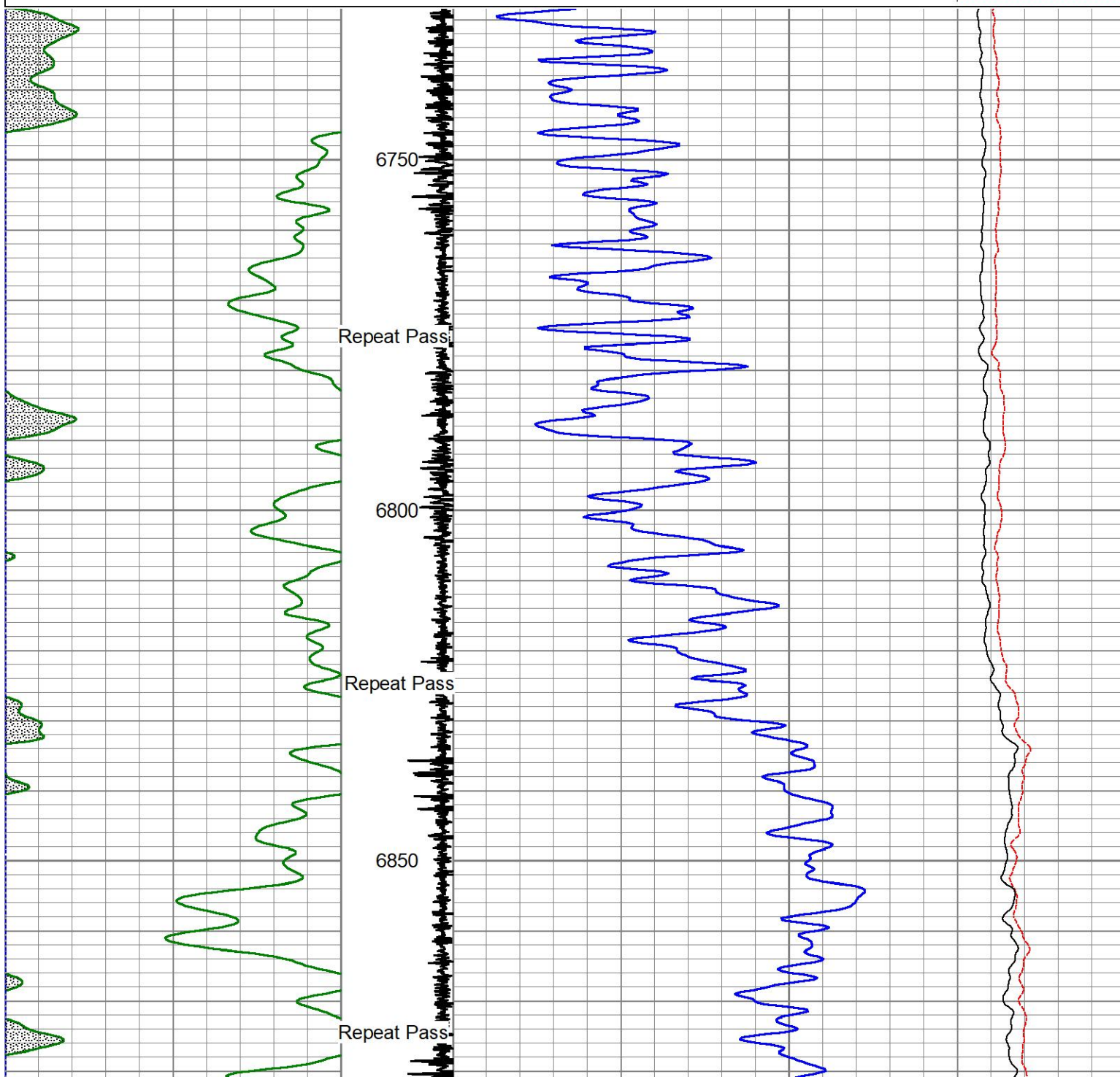


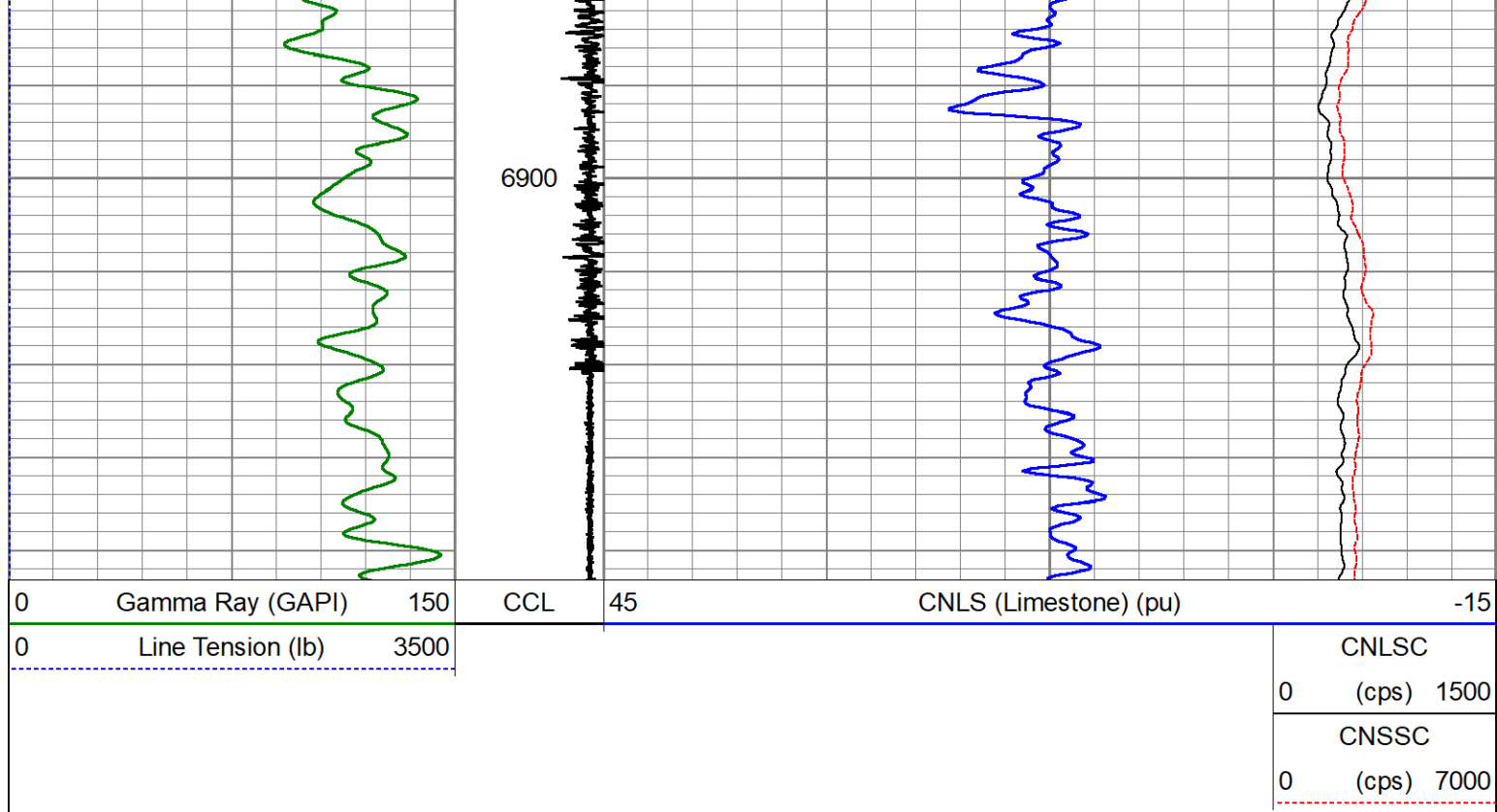






0	Gamma Ray (GAPI)	150	CCL	30	CNLS (Limestone) (pu)	-10
0	Line Tension (lb)	3500	PIPE TALLY			CNLSC
			-1	10		0 (cps) 1500
						CNSSC
						0 (cps) 7000





## Log Variables

DatabaseC:\ProgramData\Warrior\Data\chevron\_guttersen\_d12\_755\_cnl\_rcbl\_05-17-2022\_depth.d  
Dataset field/well/main/pass1.4/\_vars\_

### Top - 76.10 ft

BHTEMP_Src	BOREID	BOTTEMP	CASED?	CASEOD	CASETHCK	CASEWGHT	CMNTTHCK
TEMP	in	degF	Yes	in	in	lb/ft	in
	8.5	200		5.5	0.304	17	1.5
CMTTKCOR	CSTKCOR	MAXAMPL	MINAMPL	MINATTN	NPORSEL	PERFS	PPT
On	On	mV	mV	db/ft	Limestone	No	usec
		71.9	1	0.8			263
SRFTEMP	SZCOR	TDEPTH					
degF		ft					
0	On	0					

### 76.10 ft - Bottom

BOTTEMP
degF
100

### Variable Description

BHTEMP\_Src : BHTEMP Input Source Selector  
BOREID : Borehole I.D.  
BOTTEMP : Bottom Hole Temperature  
CASED? : Cased hole ?  
CASEOD : Casing O.D.  
CASETHCK : Casing Thickness  
CASEWGHT : Casing Weight  
CMNTTHCK : Cement Thickness  
CMTTKCOR : CN CemThk. Cor. ?  
CSTKCOR : CN CasThk. Cor. ?

MAXAMPL : Maximum Amplitude  
MINAMPL : Minimum Amplitude  
MINATTN : Minimum Attenuation  
NPORSEL : Neutron Porosity Curve Select  
PERFS : Perforation Flag  
PPT : Predicted Pipe Time  
SRFTEMP : Surface Temperature  
SZCOR : CN Size Cor. ?  
TDEPTH : Total Depth



Calibration Report	
Database File	chevron_guttersen_d12_755_cnl_rcbl_05-17-2022_depth.db
Dataset Pathname	main/pass1.4
Dataset Creation	Tue May 24 12:52:08 2022

# Compensated Neutron Calibration Report

Type / Serial:	275_CNL / 070614_#08275010
Source / Verifier:	/
Temperature:	

SHOP CALIBRATION		Mon Feb 15 08:02:36 2016		
	Cal Tube	Units		
Tank Ratio		SS/LS		
Tank Porosity		pu		
LS Detector		cps		
SS Detector		cps		
Tool Ratio		SS/LS		
Tool Porosity		pu		
Tool Constant =				
Field Verifier	SS Detector	LS Detector	Ratio	Porosity

PRE-SURVEY VERIFICATION		Fri Jun 24 08:48:36 2005		
SS Detector	LS Detector	Ratio	Porosity	
3230.24	1376.79	2.35	1.62	

POST-SURVEY VERIFICATION		Fri Jun 24 11:30:46 2005		
SS Detector	LS Detector	Ratio	Porosity	
3222.46	1380.27	2.33	1.58	

Gamma Ray Calibration Report
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Serial Number:	FW1401-53	
Tool Model:	Probe275	
Performed:	(Not Performed)	
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:	FW1304-128		
Tool Model:	Probe 2.75 Radii W/Temp		
Calibration Casing Diameter:	5.500	in	
Calibration Depth:	658.150	ft	

Master Calibration, performed Tue May 17 09:11:48 2022:						
	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.003	0.455	1.000	71.921	156.743	0.600
CAL	-0.001	0.717				
5'	0.009	0.435	1.000	71.921	166.859	-0.585
SUM						

SUM	0.005	0.481	0.000	100.000	210.121	-0.988
S2	-0.025	0.478	0.000	100.000	198.840	4.976
S3	-0.027	0.476	0.000	100.000	198.874	5.431
S4	-0.026	0.466	0.000	100.000	203.029	5.353
S5	-0.029	0.448	0.000	100.000	209.637	6.057
S6	-0.026	0.434	0.000	100.000	217.047	5.704
S7	-0.028	0.415	0.000	100.000	225.781	6.367
S8	-0.027	0.424	0.000	100.000	221.987	5.940

Internal Reference Calibration, performed (Not Performed):

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	-0.001	0.717	1.000	0.000

Air Zero Calibration, performed Tue May 17 08:18:40 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

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
HeadVolt	20.89		CHD-Titan Titan 1 7/16" GO Cablehead	1.00	1.44	5.00
Temp	18.04					
WVFS8	15.81		RBT-Probe 2.75 Radii W/Temp (FW1304-128) Probe 2.75" Radial with Integral Temperature Sub	9.21	2.75	90.00
WVFS7	15.81					
WVFS6	15.81					
WVFS5	15.81					
WVFS4	15.81					
WVFS3	15.81					
WVFS2	15.81					
WVFS1	15.81					
WVFCAL	15.81					
WVF3FT	15.81					
WVF5FT	14.81					
HEADVOLT	11.56					
CCL	10.64					
GR	7.72		GR-Probe275 (FW1401-53) Probe 2 3/4" Logging Gamma Ray 6 Pin	6.42	2.75	57.00
CNLSC	1.77					
CNSSC	1.37		CNT-275BL (FW1210-54-N1310)	5.14	2.75	76.00

Dataset:
Probe Radii-Compensated Neutron Log

Total length:
21.77 ft

Total weight:
228.00 lb

O.D.:
2.75 in



Company	CHEVRON	
Well	GUTTERSEN D12-755	
Field	WATTENBERG	
County	WELD	
State	COLORADO	Country USA