



**BOREHOLE COMPENSATED  
SONIC LOG**

Company SAPPHERE RESOURCE, LLC  
 Well TRACY NO.1 OWWO DEEPENING  
 Field GROENDYCKE SOUTH  
 County BARBER  
 State KANSAS

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Location: API #: 15-007-22153-00-01  
 4950' FSL & 1650' FEL  
 SEC 11 TWP 34S RGE 12W  
 Permanent Datum GROUND LEVEL Elevation 1502'  
 Log Measured From KELLY BUSHING  
 Drilling Measured From KELLY BUSHING  
 Other Services  
 CNL/CDL  
 DIL/MEL  
 Elevation  
 K.B. 1515'  
 D.F. N/A  
 G.L. 1502'

Date	2/03/2020	
Run Number	TWO	
Type Log	BHCS	
Depth Driller	5386'	
Depth Logger	5390'	
Bottom Logged Interval	5379'	
Top Logged Interval	300'	
Type Fluid In Hole	CHEMICAL	
Salinity, PPM CL	4000	
Density	9.2	
Level	FULL	
Max. Rec. Temp. F	130 DEG. F.	
Operating Rig Time	5 HOURS	
Equipment -- Location	P-108 HAYS	
Recorded By	M. HISS	
Witnessed By	RICK D. BRISCOE	

Borehole Record		Casing Record					
Run No.	Bit	From	To	Size	Wgt.	From	To
ONE	12.25"	00'	303'	8.625"	24#	00'	303'
TWO	7.875"	303'	TD				

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All interpretations are opinions based on inferences from electrical or other measurements and Pioneer Wireline Services, LLC cannot and does not guarantee the accuracy or correctness of any interpretation, and Pioneer Wireline Services, LLC 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.  
 MEDICINE LODGE  
 SOUTH TO SCOTT CANYON RD, 1 WEST, 1 NORTH,  
 1/2 WEST, SOUTH INTO.

Log Measured From: KELLY BUSHING      13 Ft. Above Permanent Datum

THANK YOU FOR USING PIONEER ENERGY SERVICES  
 www.pioneerenergy.com      785-625-3858

Your Pioneer Energy Services Crew	This Log Record Was Witnessed By
Engineer: M. HISS	Primary Witness: RICK D. BRISCOE
Operator:	Secondary Witness:
Operator:	Secondary Witness:
Operator:	Secondary Witness:

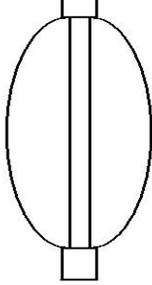
# Log Variables

DatabaseC:\ProgramData\Warrior\Data\sapphire\_tracy\_#1\_owwo.db  
 Dataset field/well/STACKML/pass3.1/\_vars\_

## Top - Bottom

A	BOREID in	BOTTEMP degF	CASEOD in	CASETHCK in	FLUIDDEN g/cc	M	MATRXDEN g/cc
1	7.875	130	5.5	0	1	2	2.71
NPORSEL	PERFS	SNDERR mmho/m	SNDERRM mmho/m	SPSHIFT mV	SRFTEMP degF	SZCOR	TDEPTH ft
Limestone	0	0	0	240	50	Off	5390

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
WVF4 WVF1	11.00 11.00		SLT-PENGO (0001)	16.00	3.50	300.00
WVF3 WVF2	9.00 9.00					



CENT-SIE

3.00

2.00

10.00

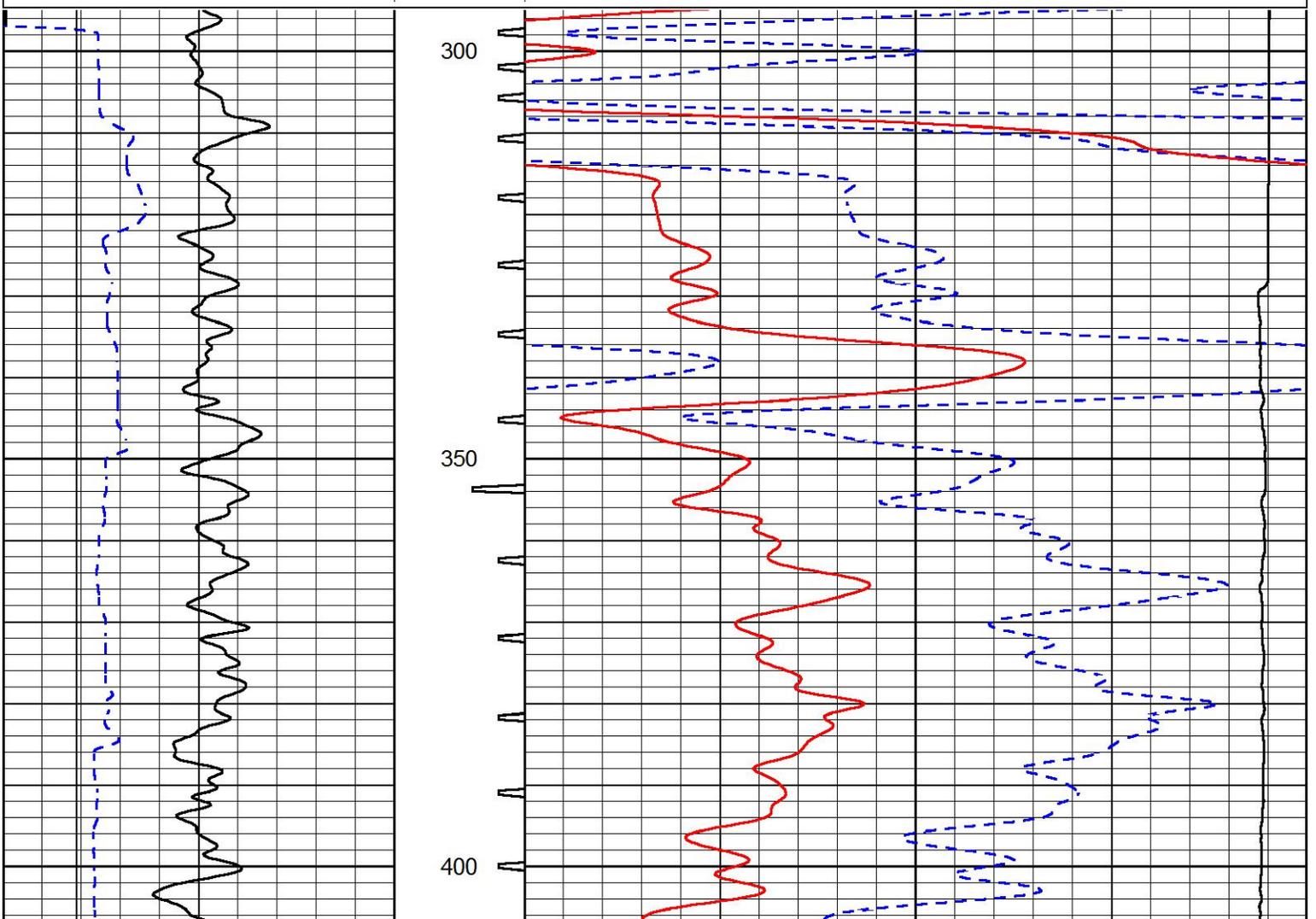
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 Total weight: 310.00 lb  
 O.D.: 3.50 in

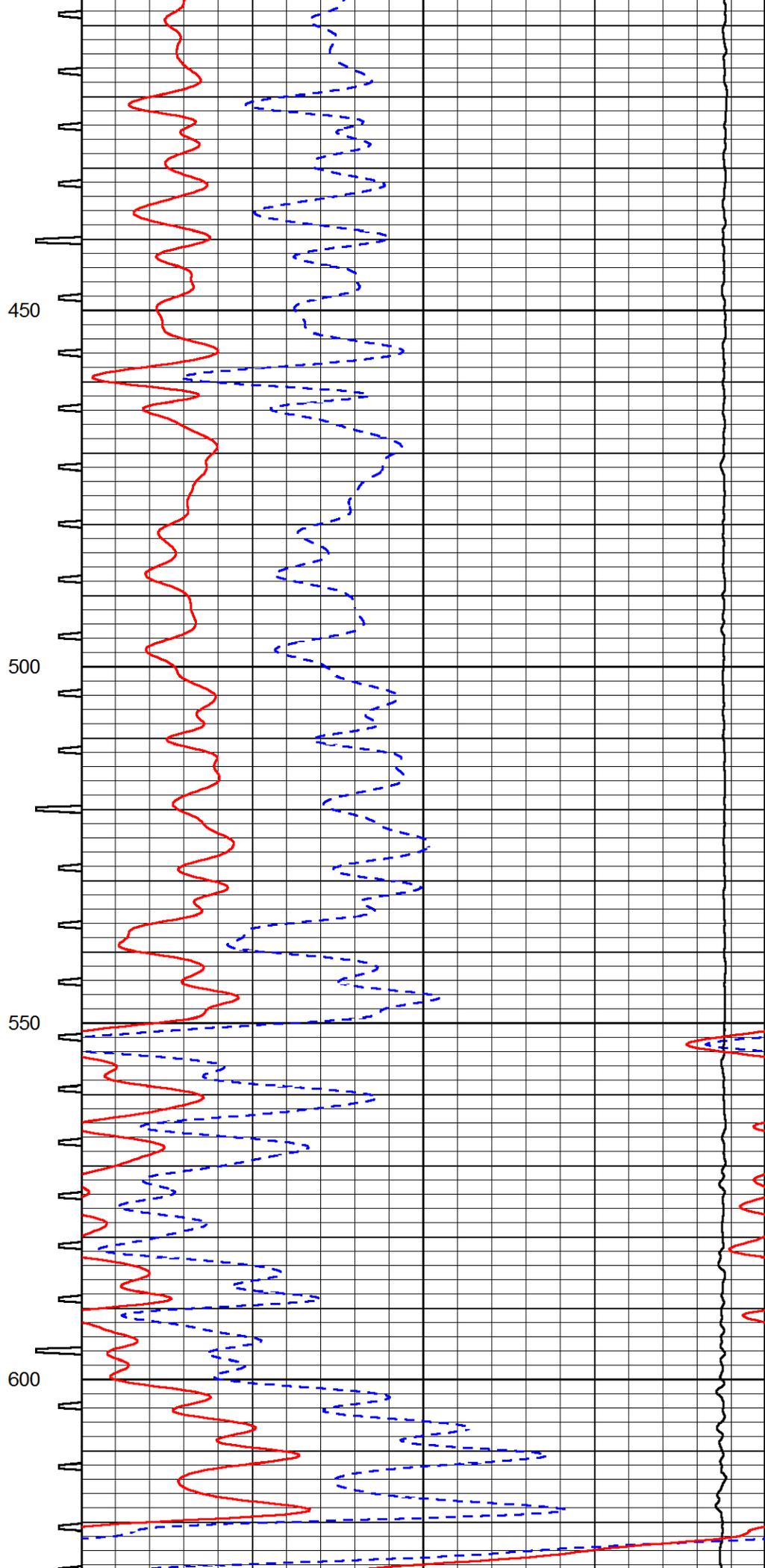
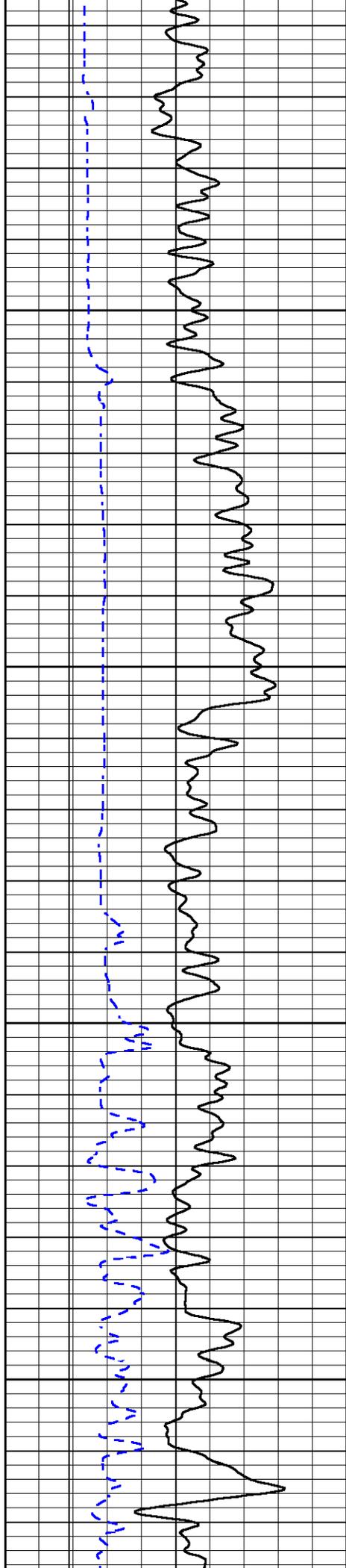


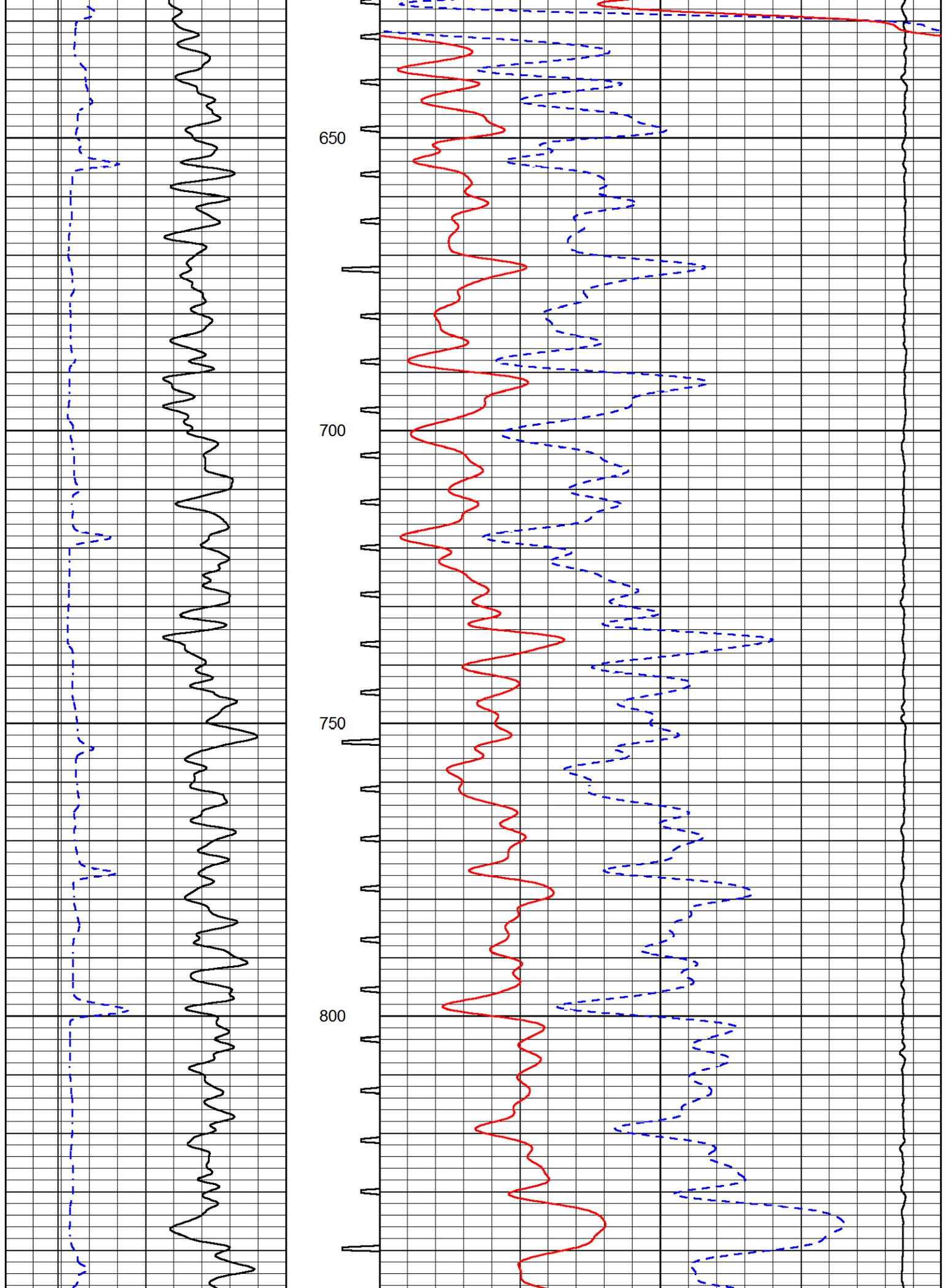
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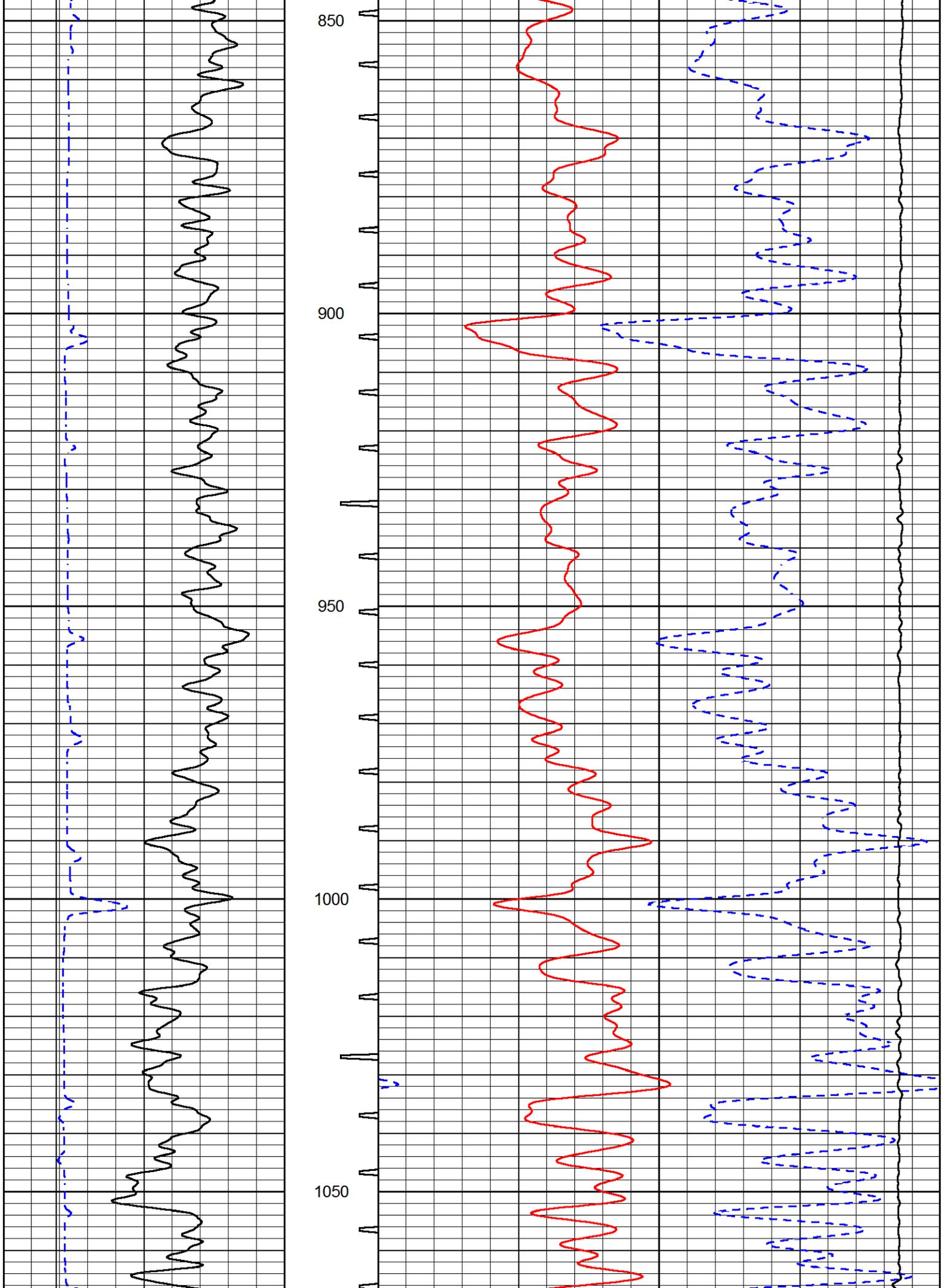
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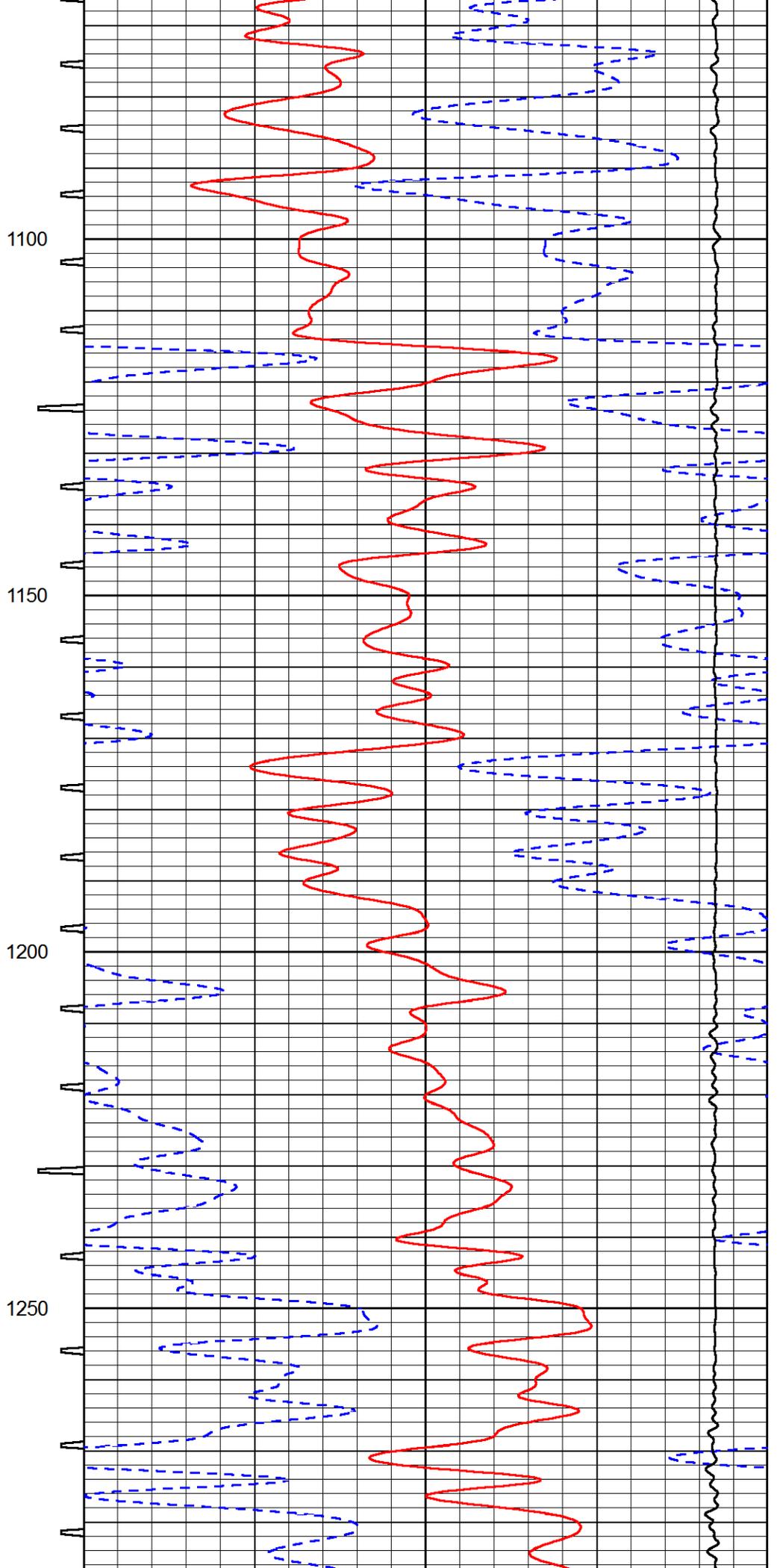
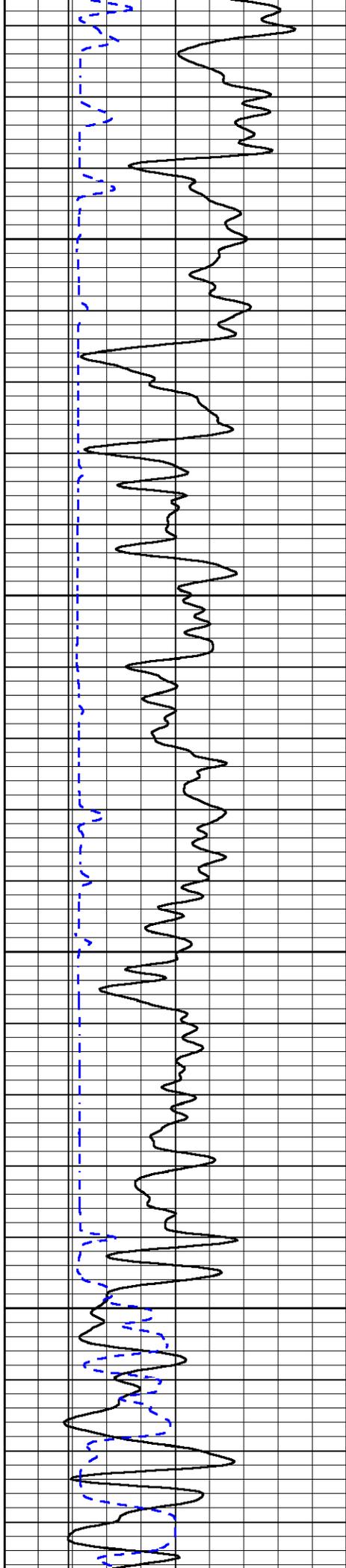
0	GAMMA RAY (GAPI)	150	SONIC INT	140	DELTA TIME (usec/ft) (usec/ft)	40
6	CALIPER (in)	16	TRAVEL TIME	30	SONIC POROSITY (pu)	-10
6	BIT SIZE	16	(msec)	15000	LINE TENSION (lb)	0

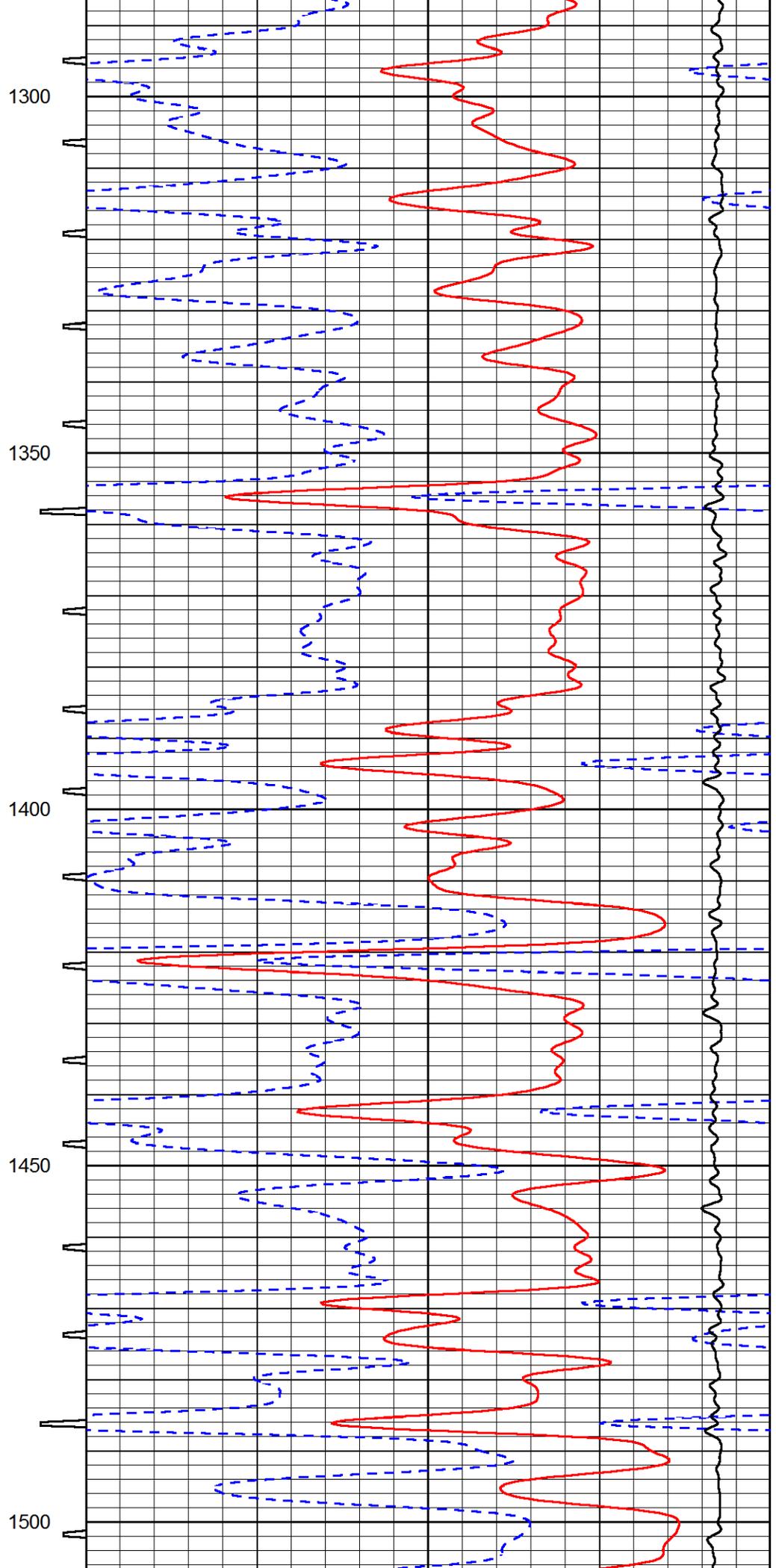
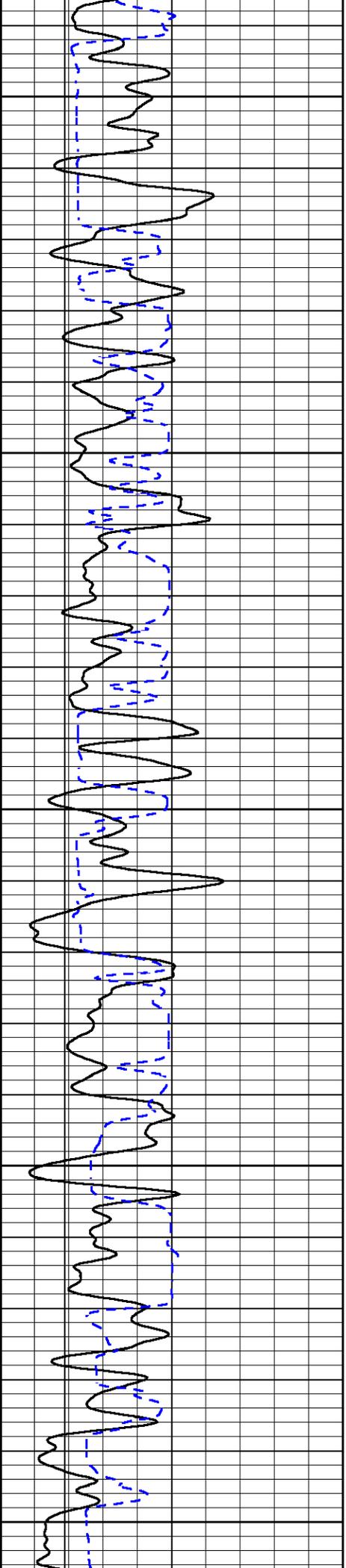












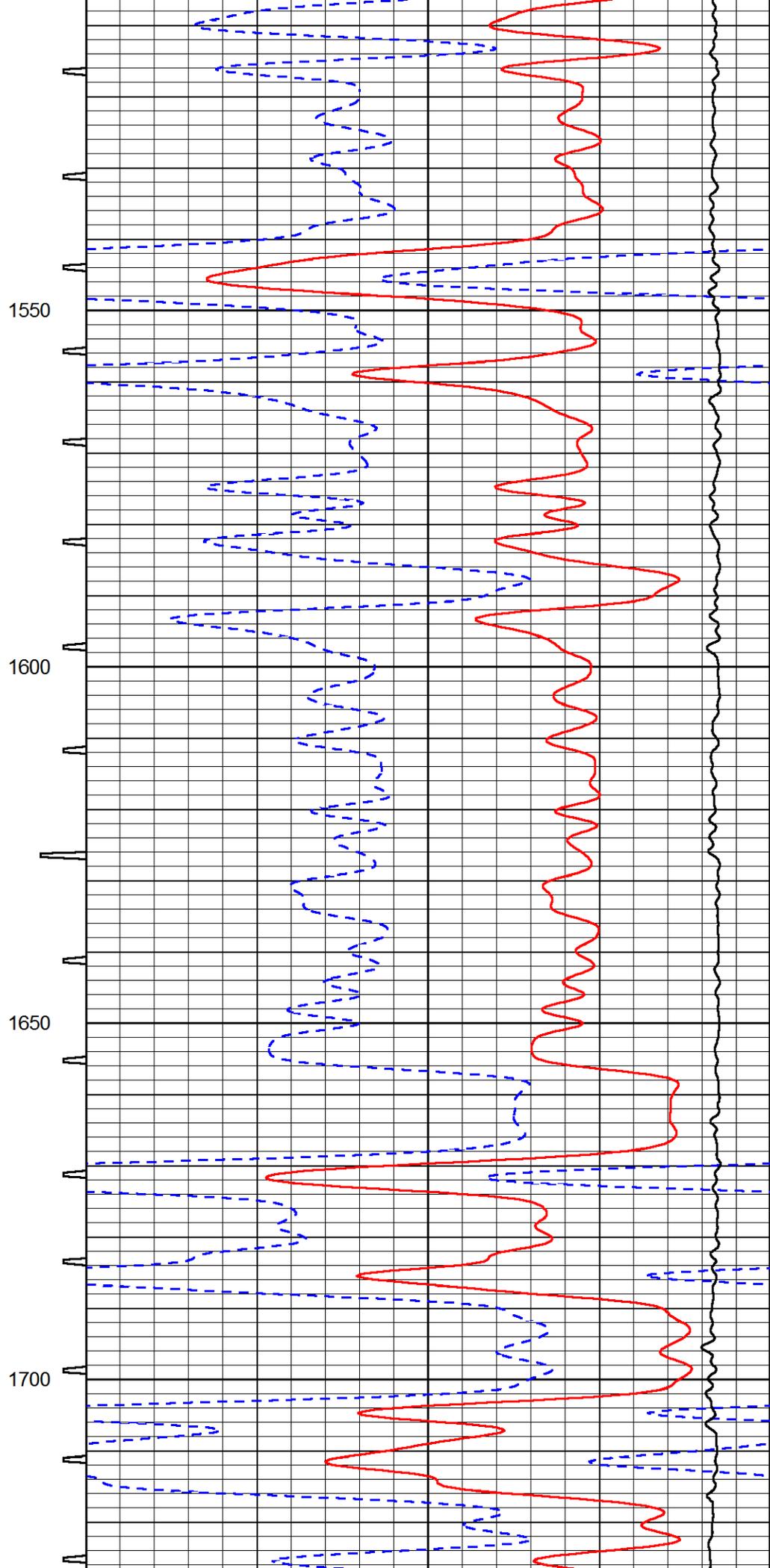
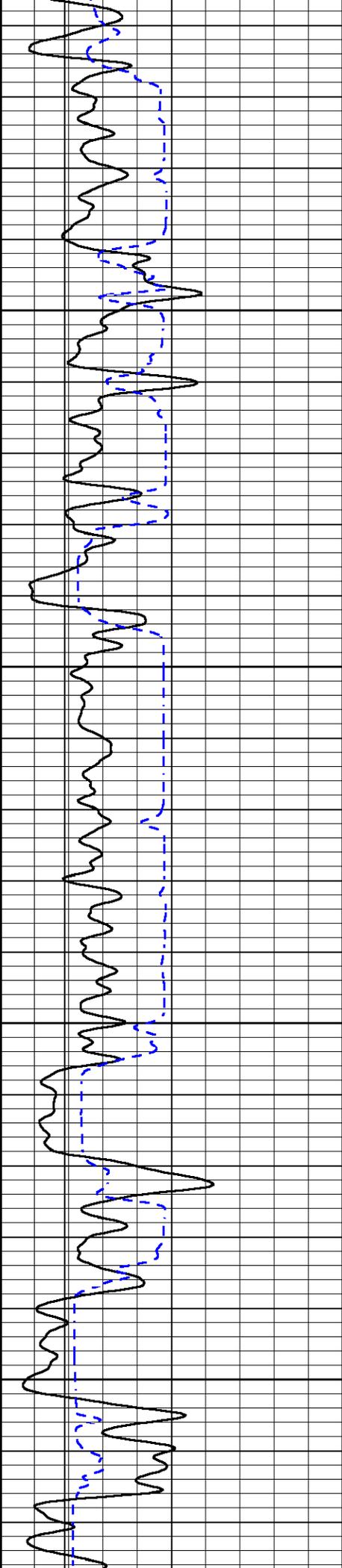
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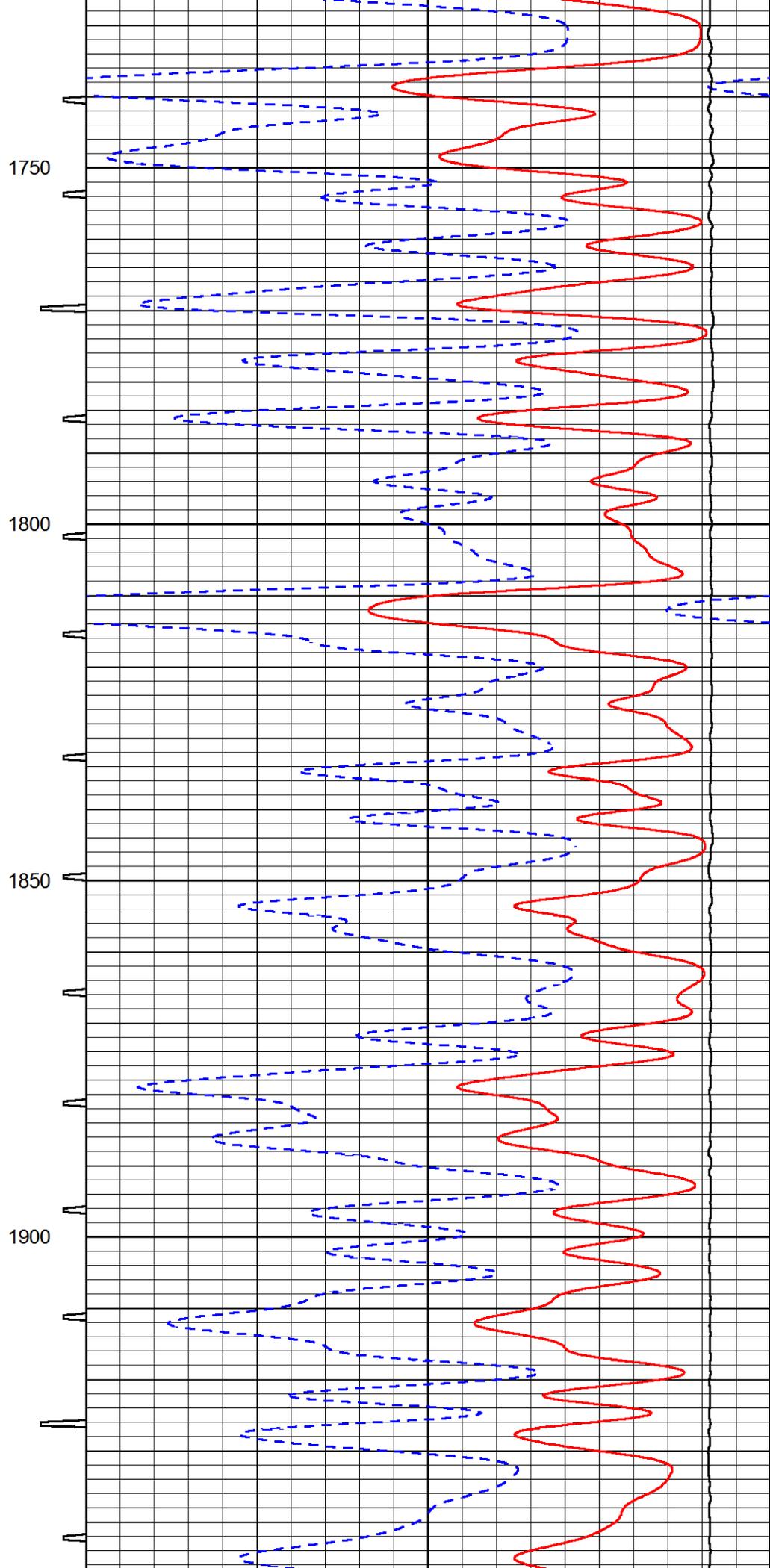
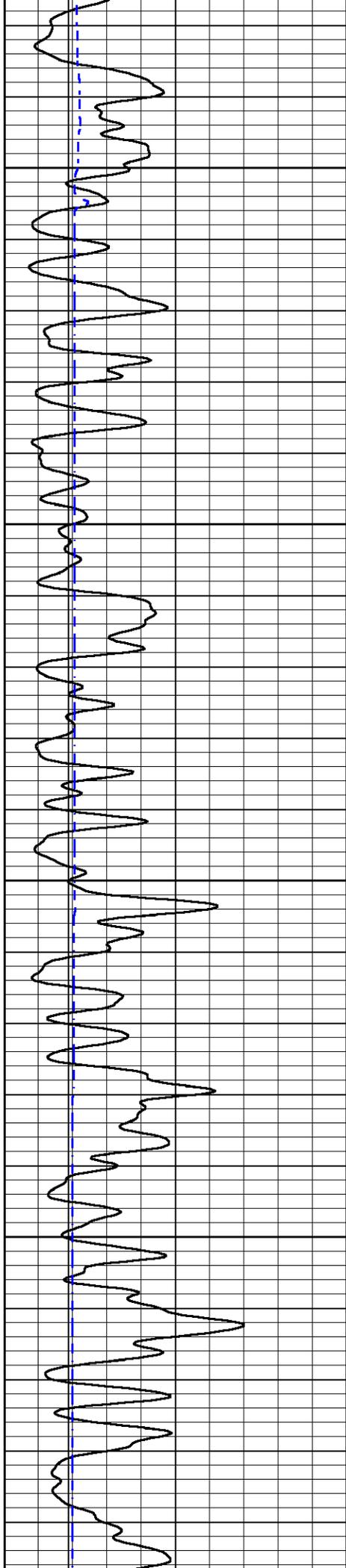
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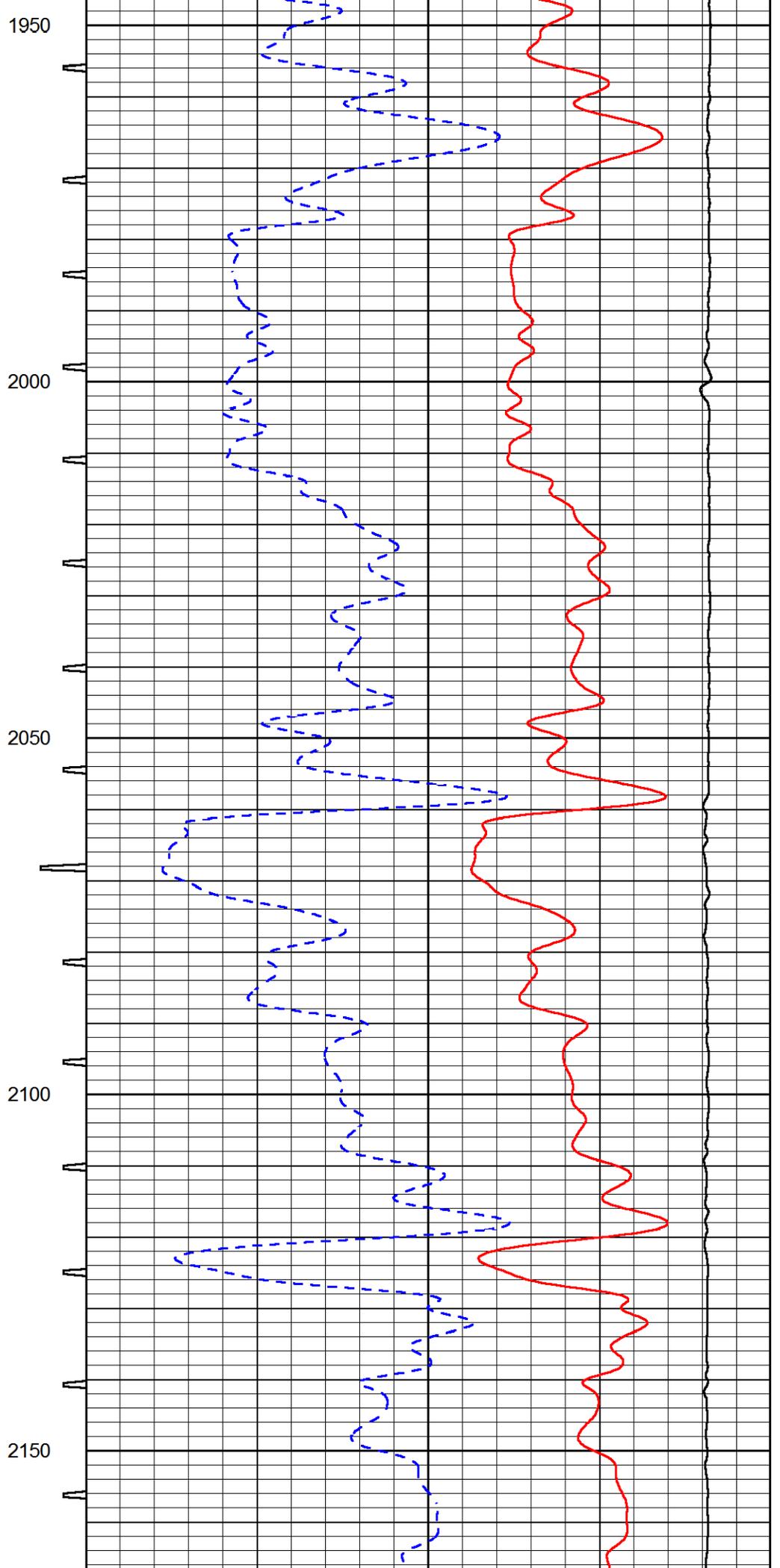
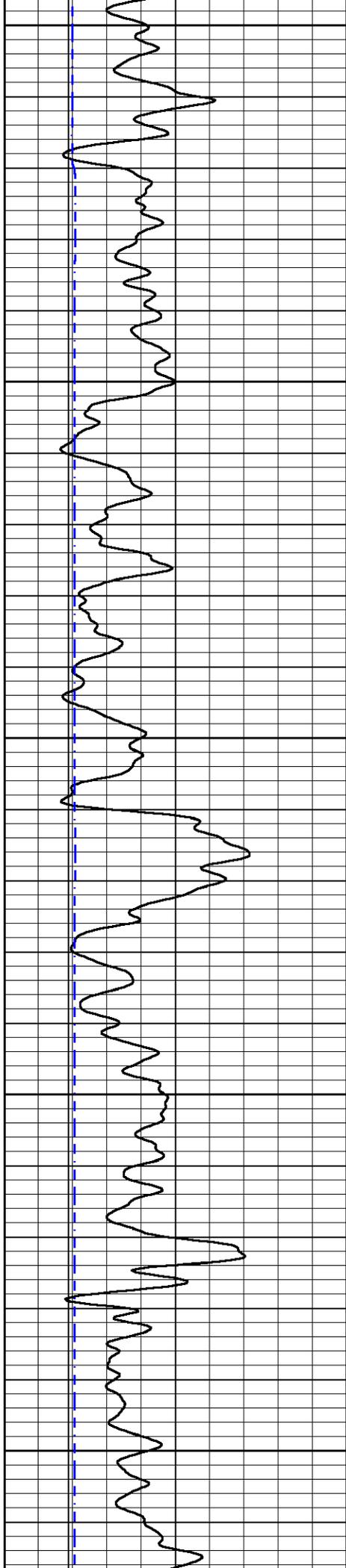
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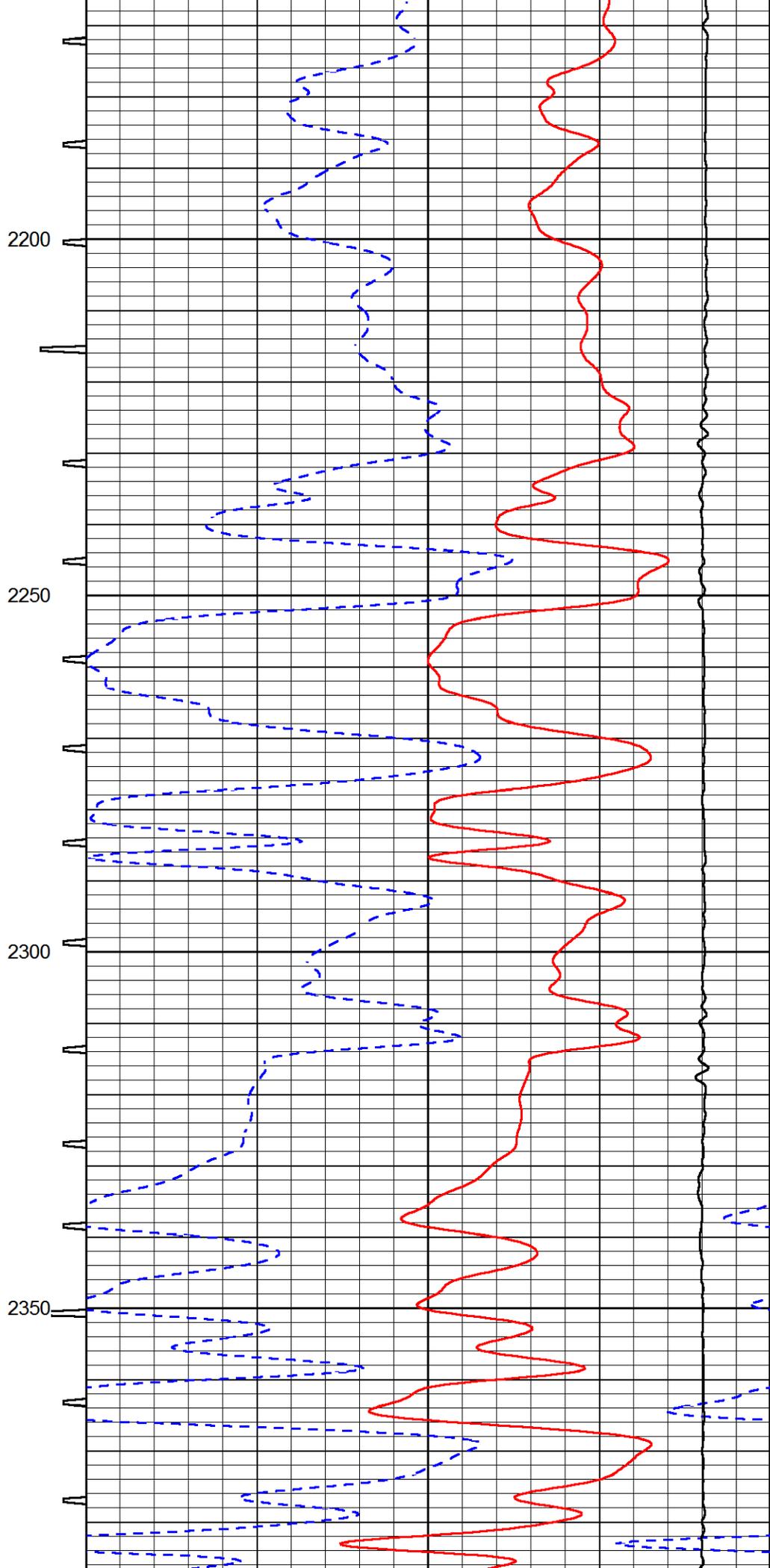
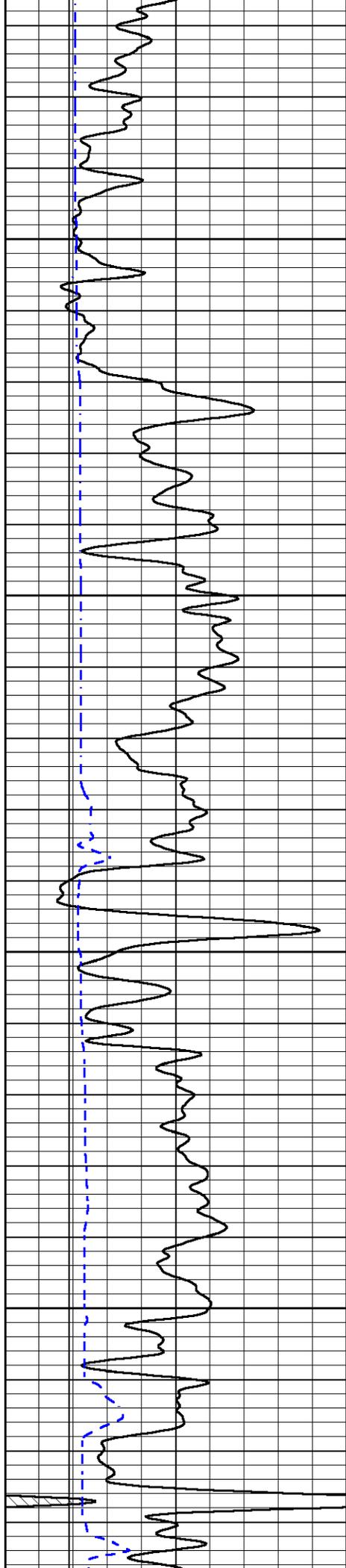
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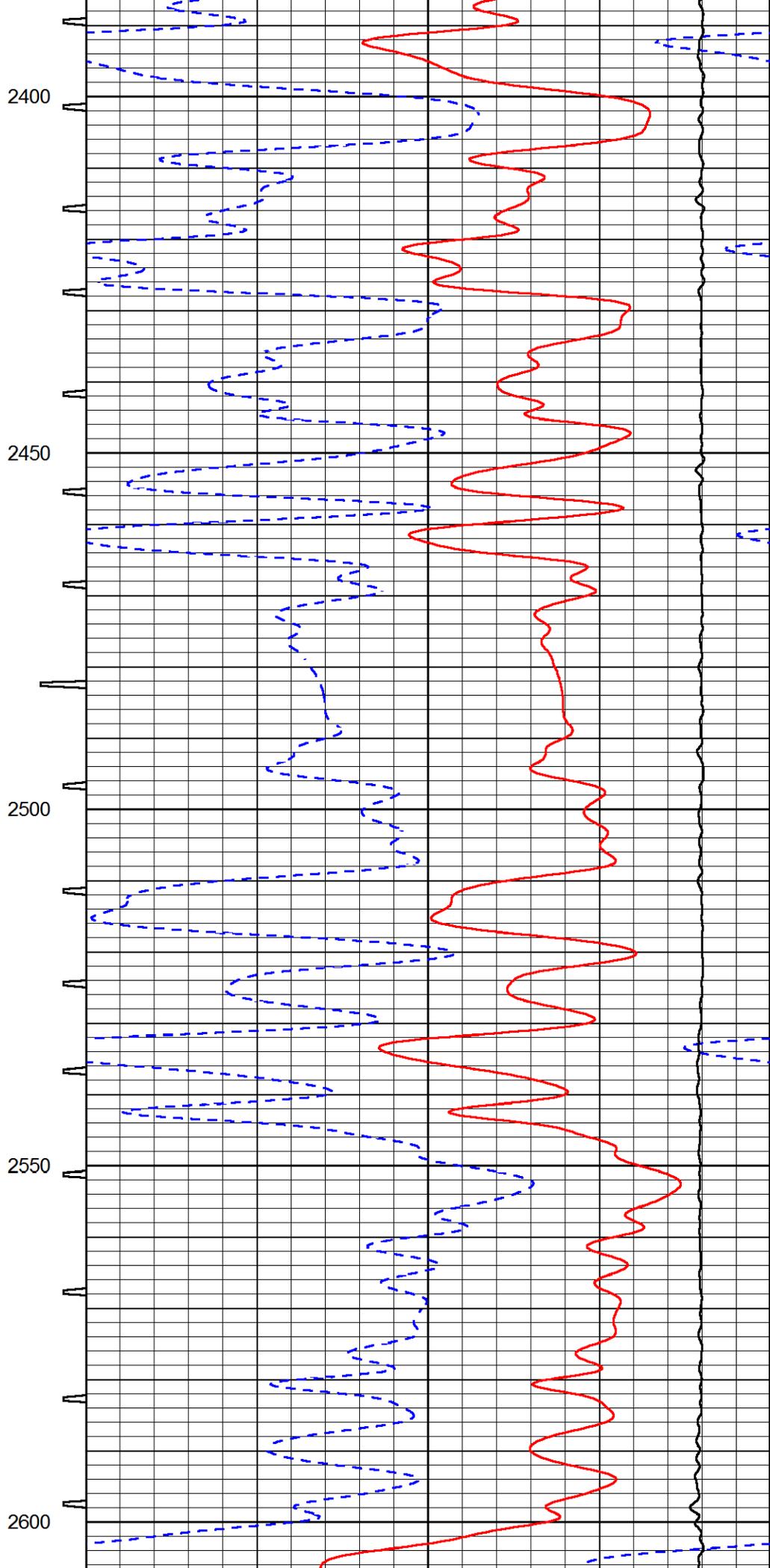
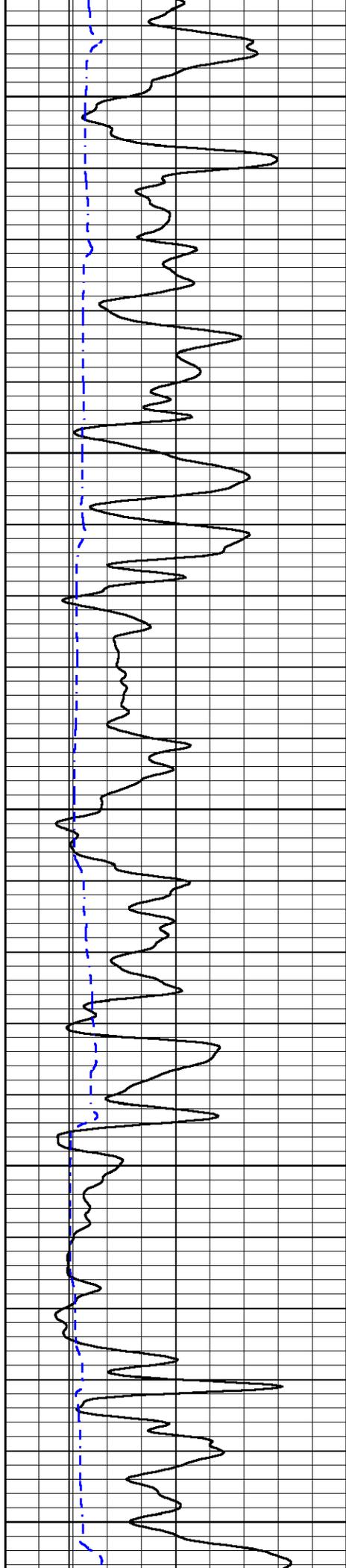
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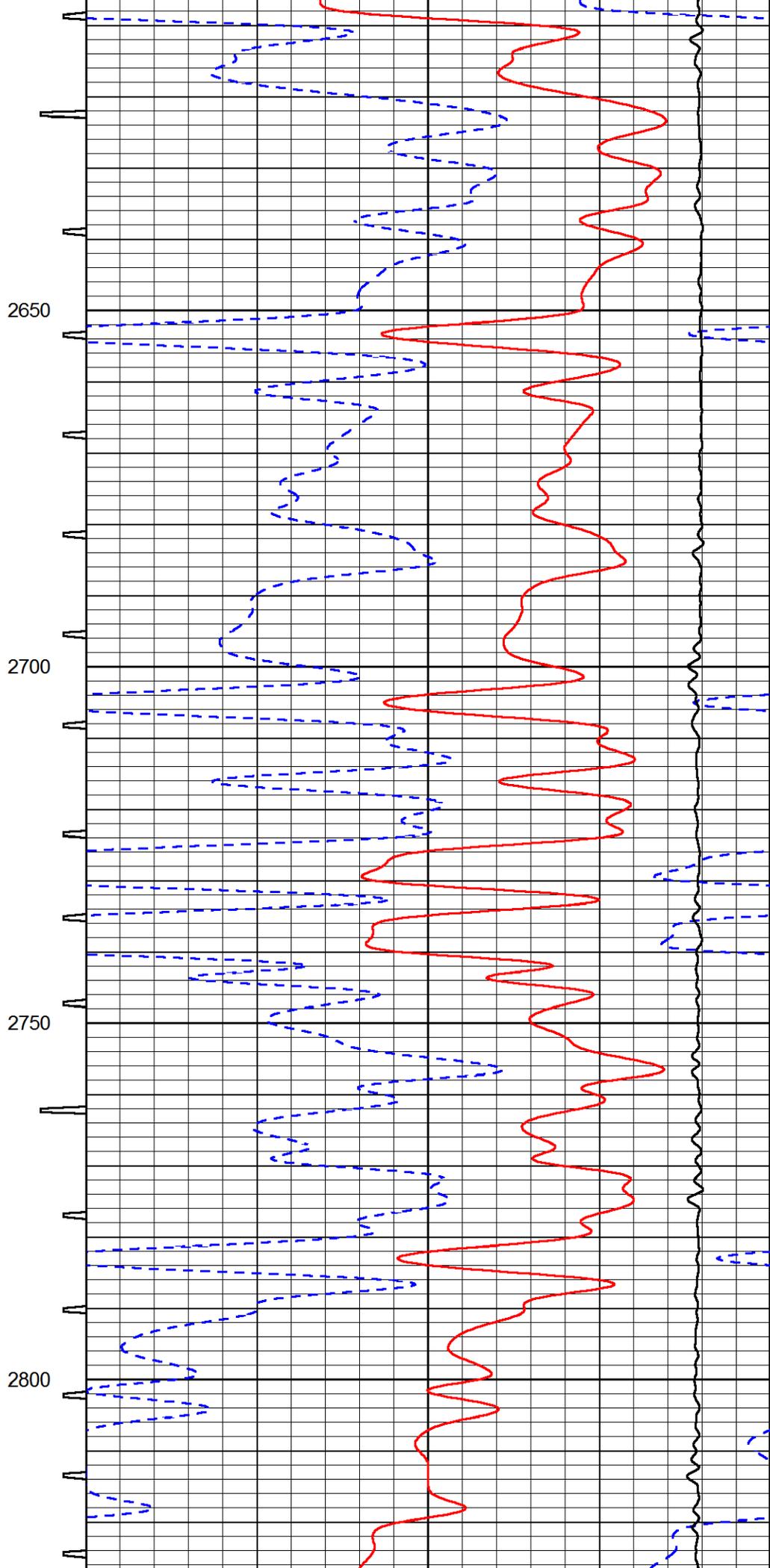
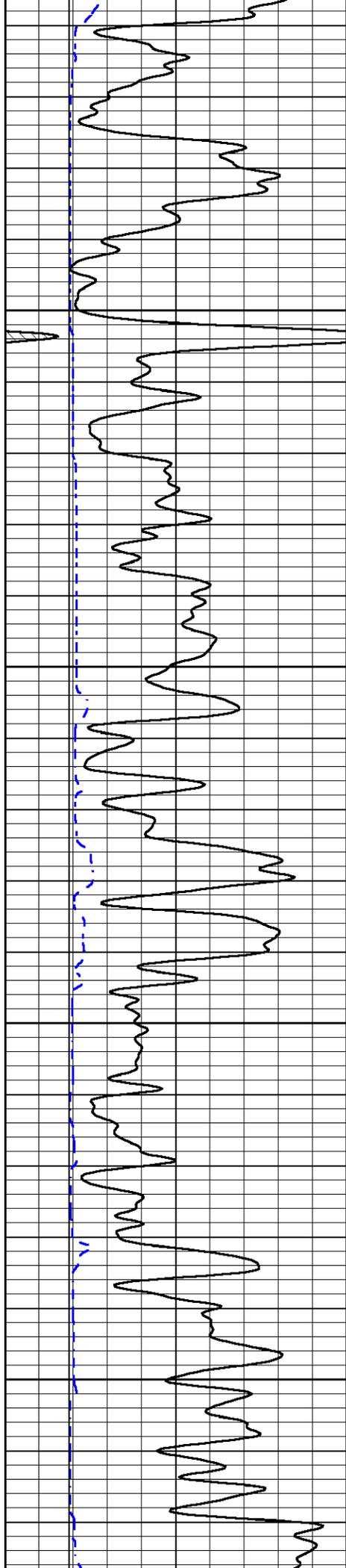


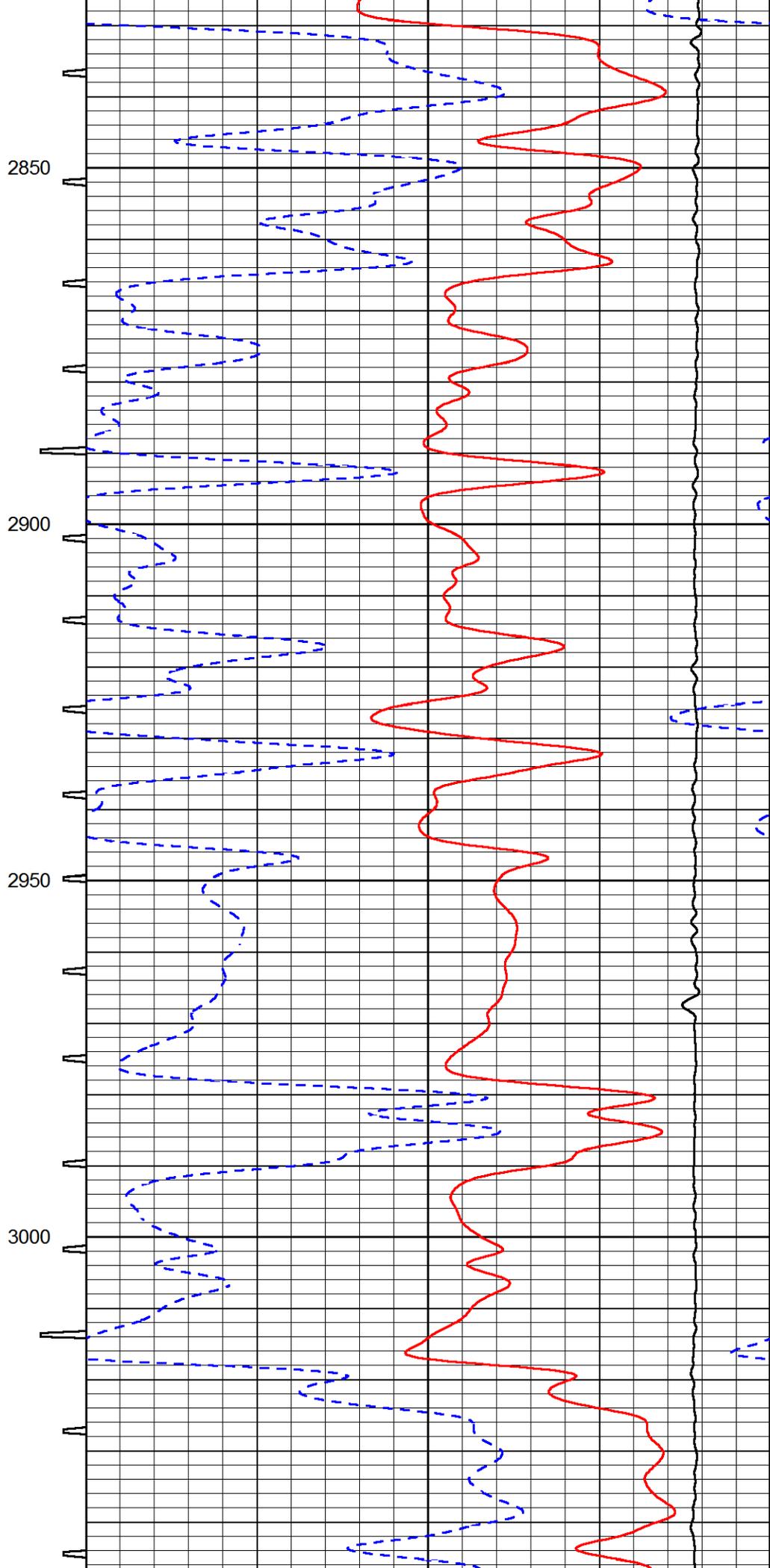
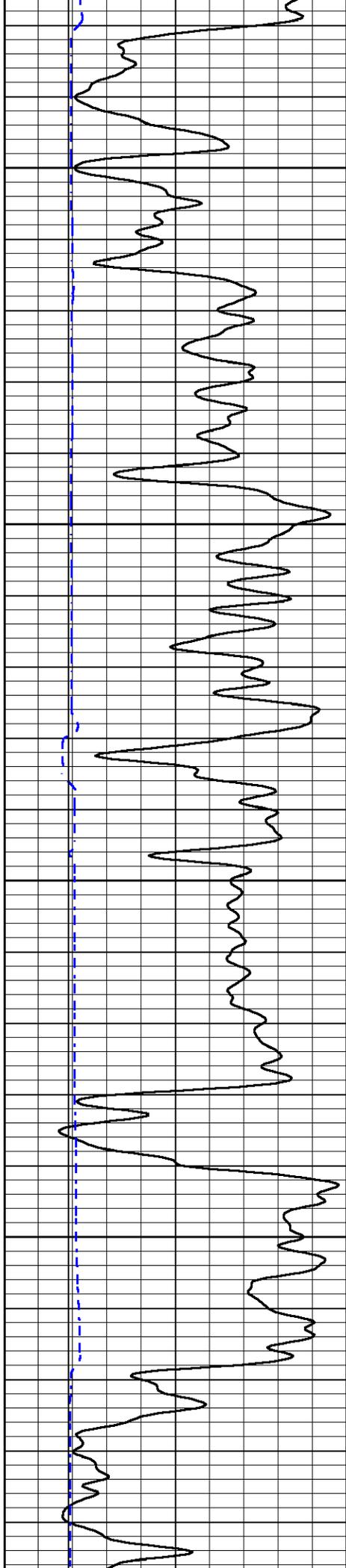


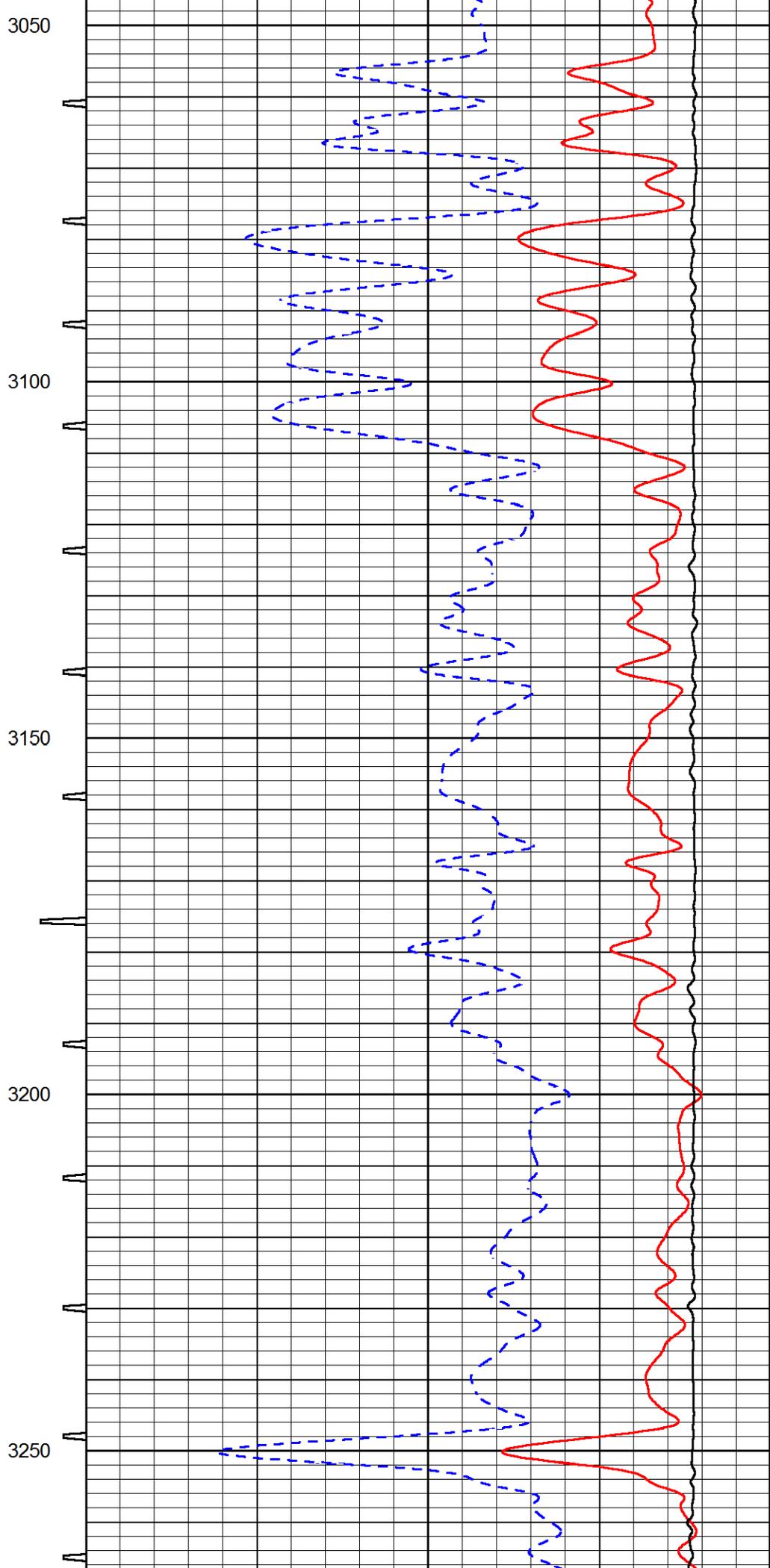
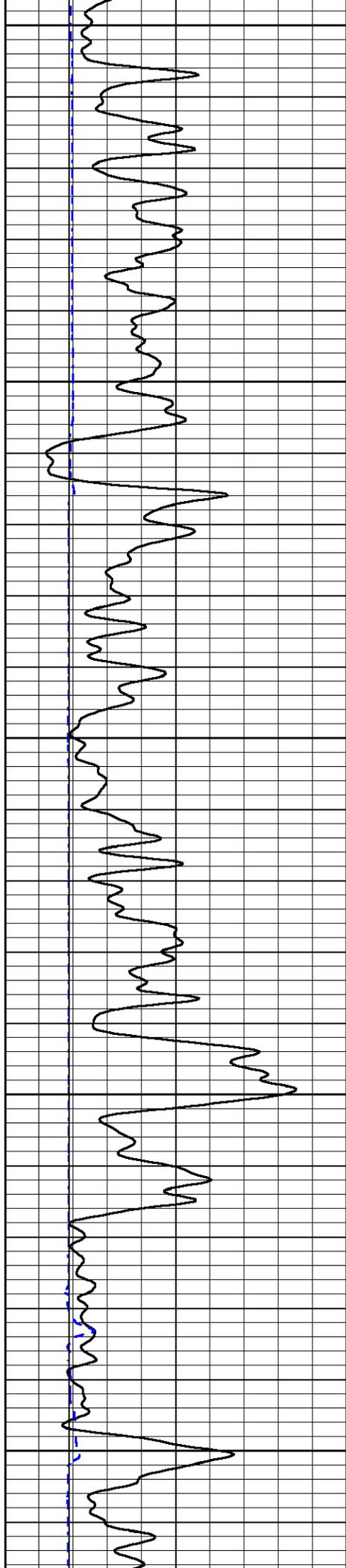


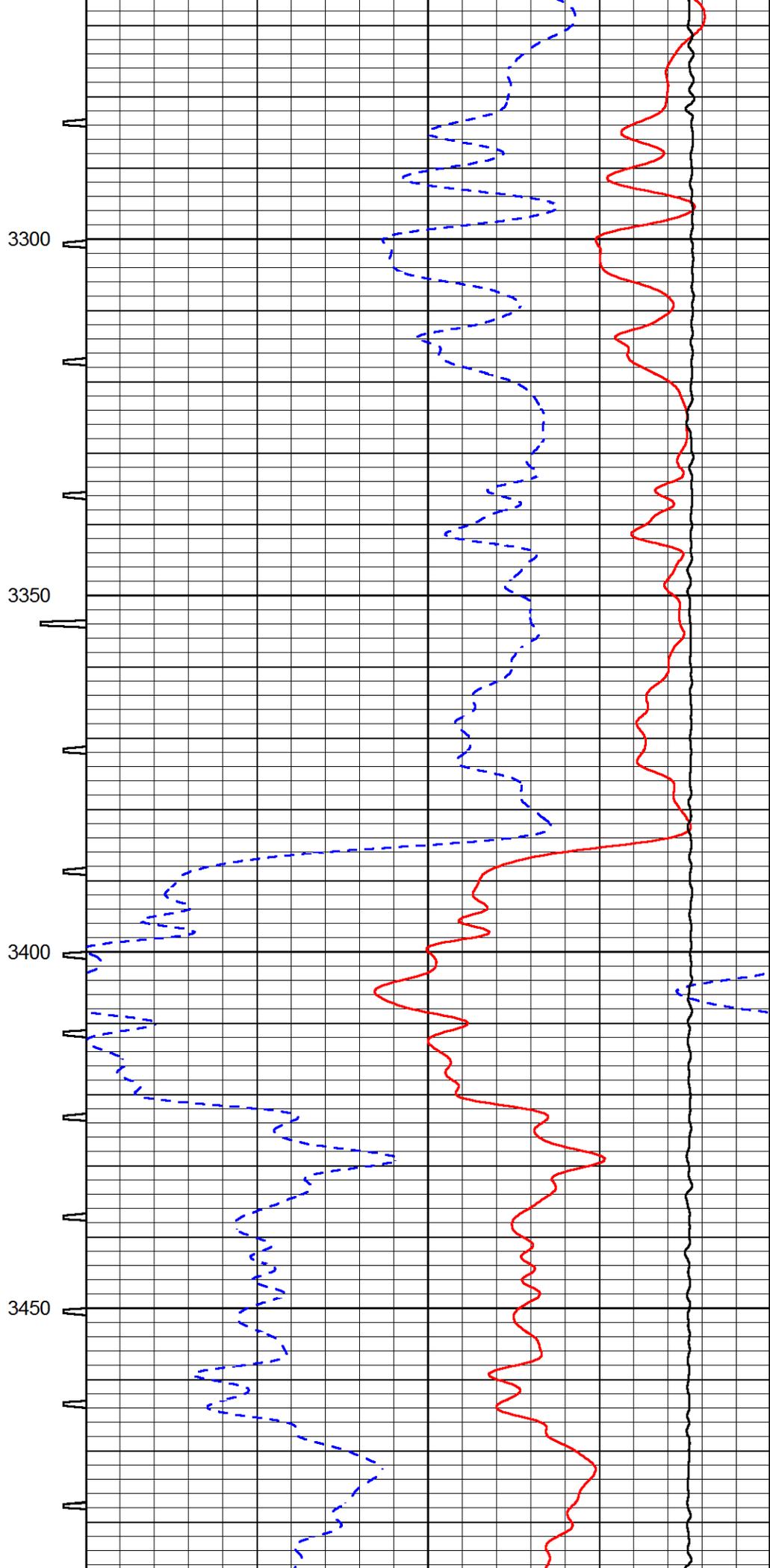
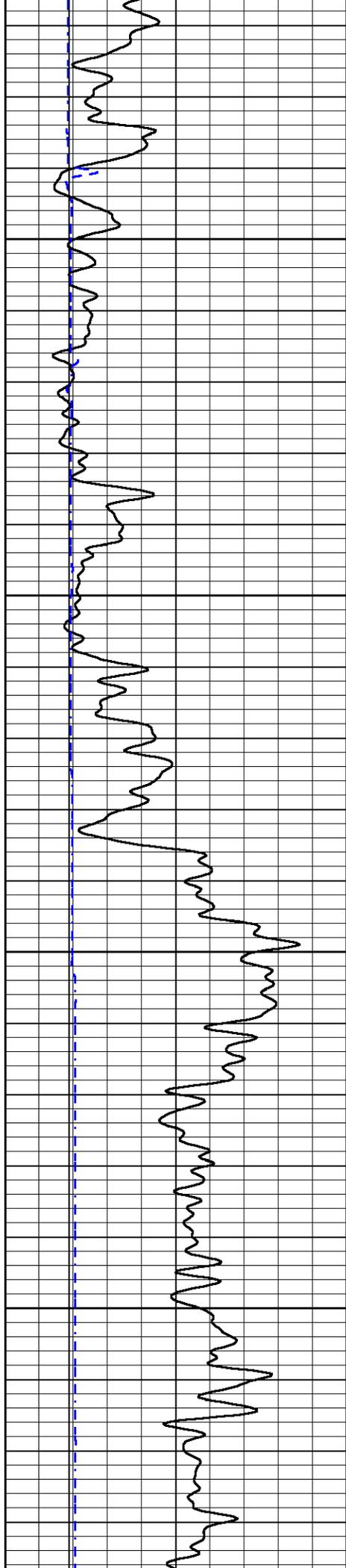


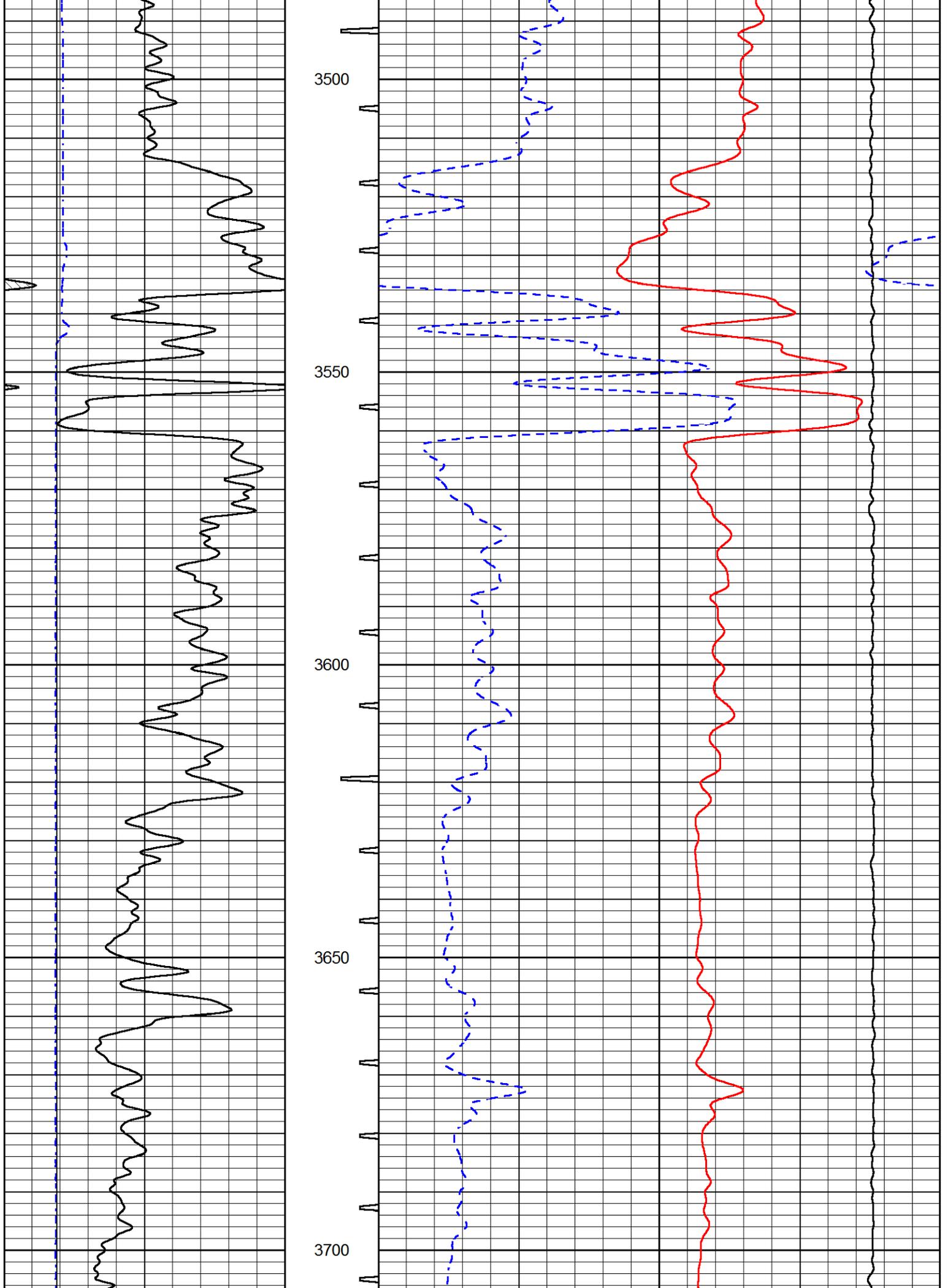


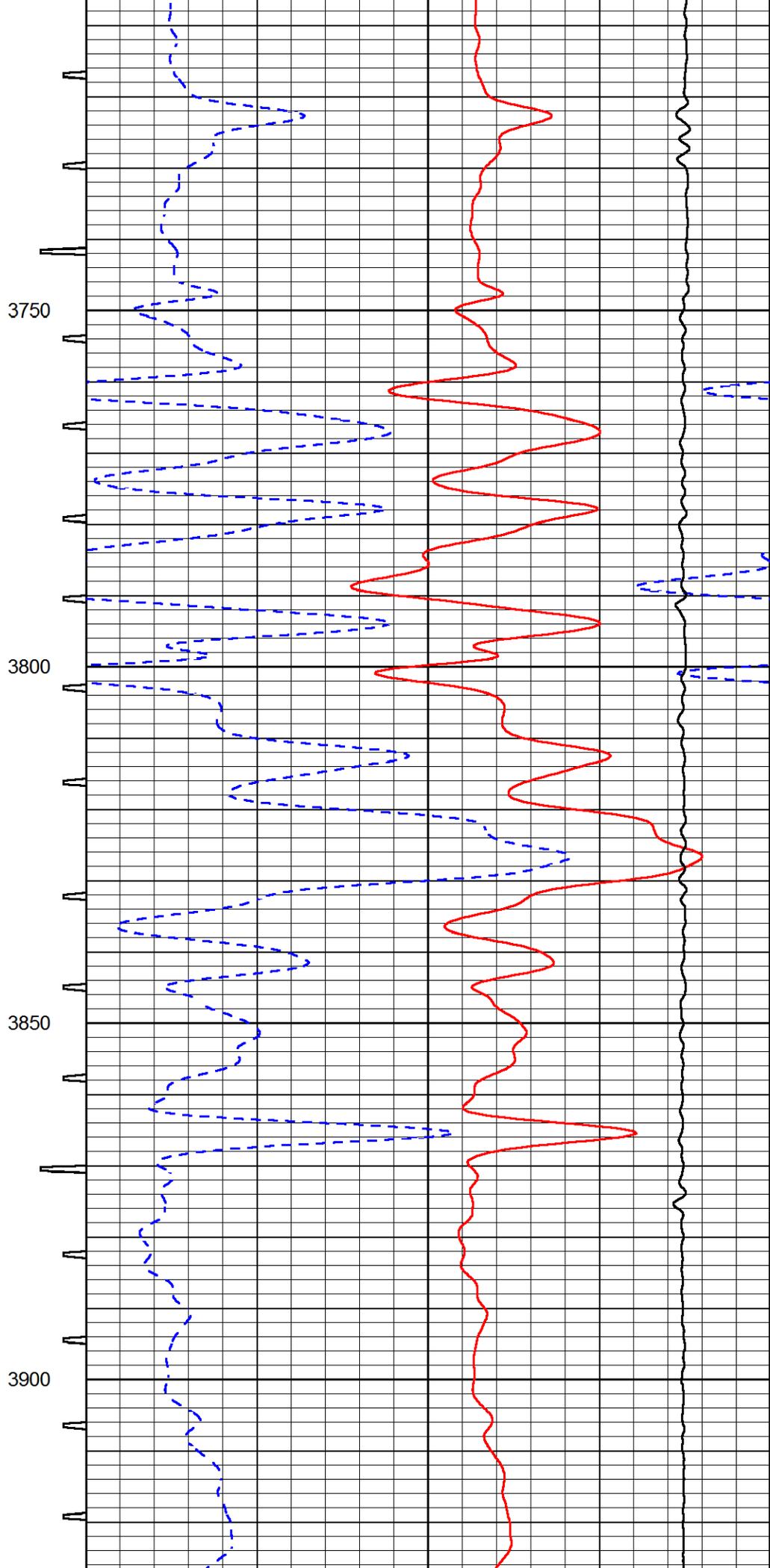
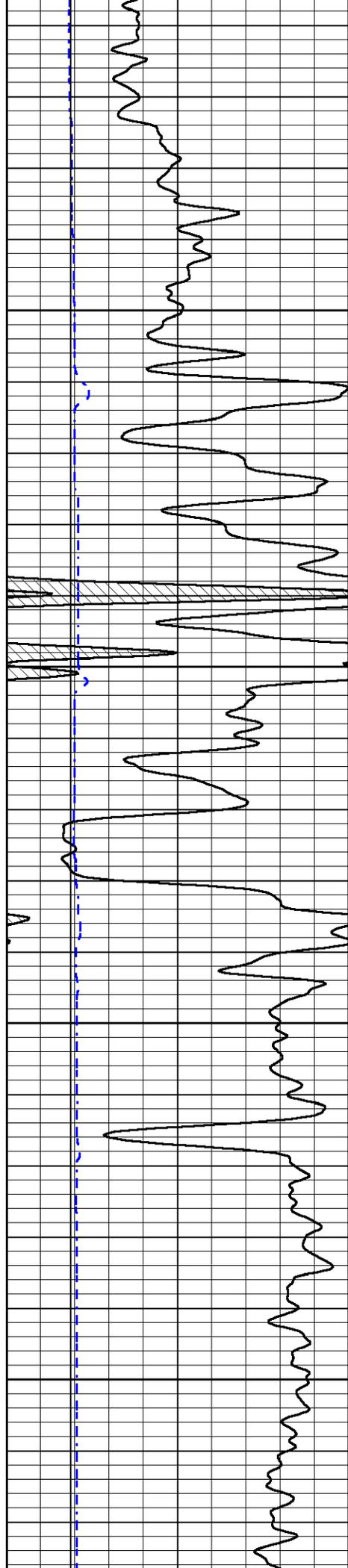


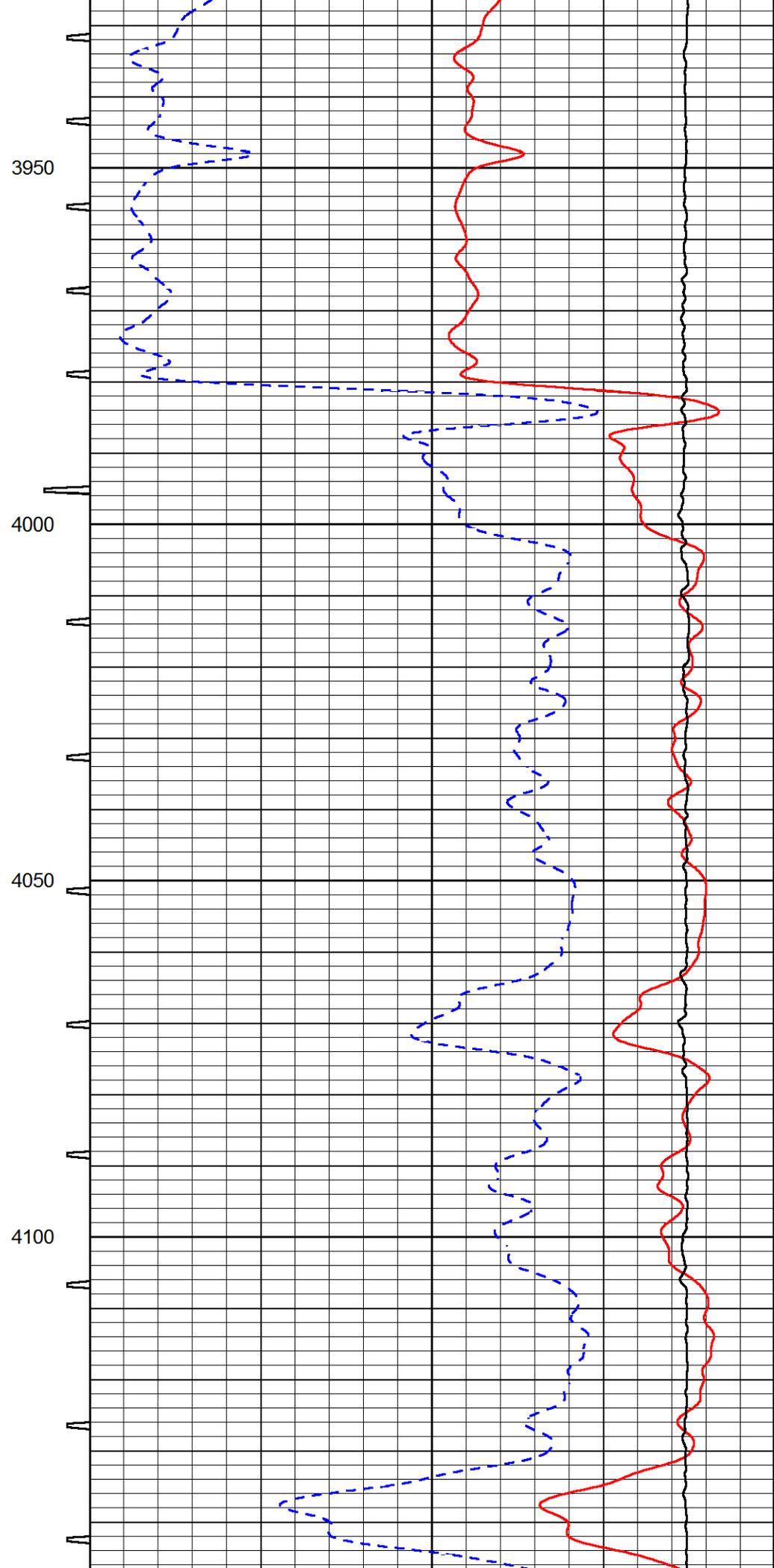
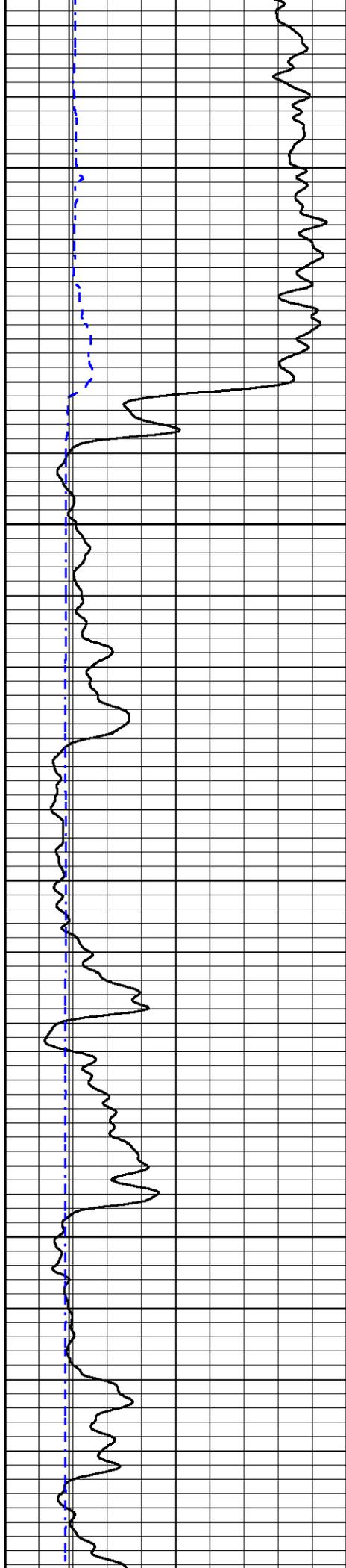


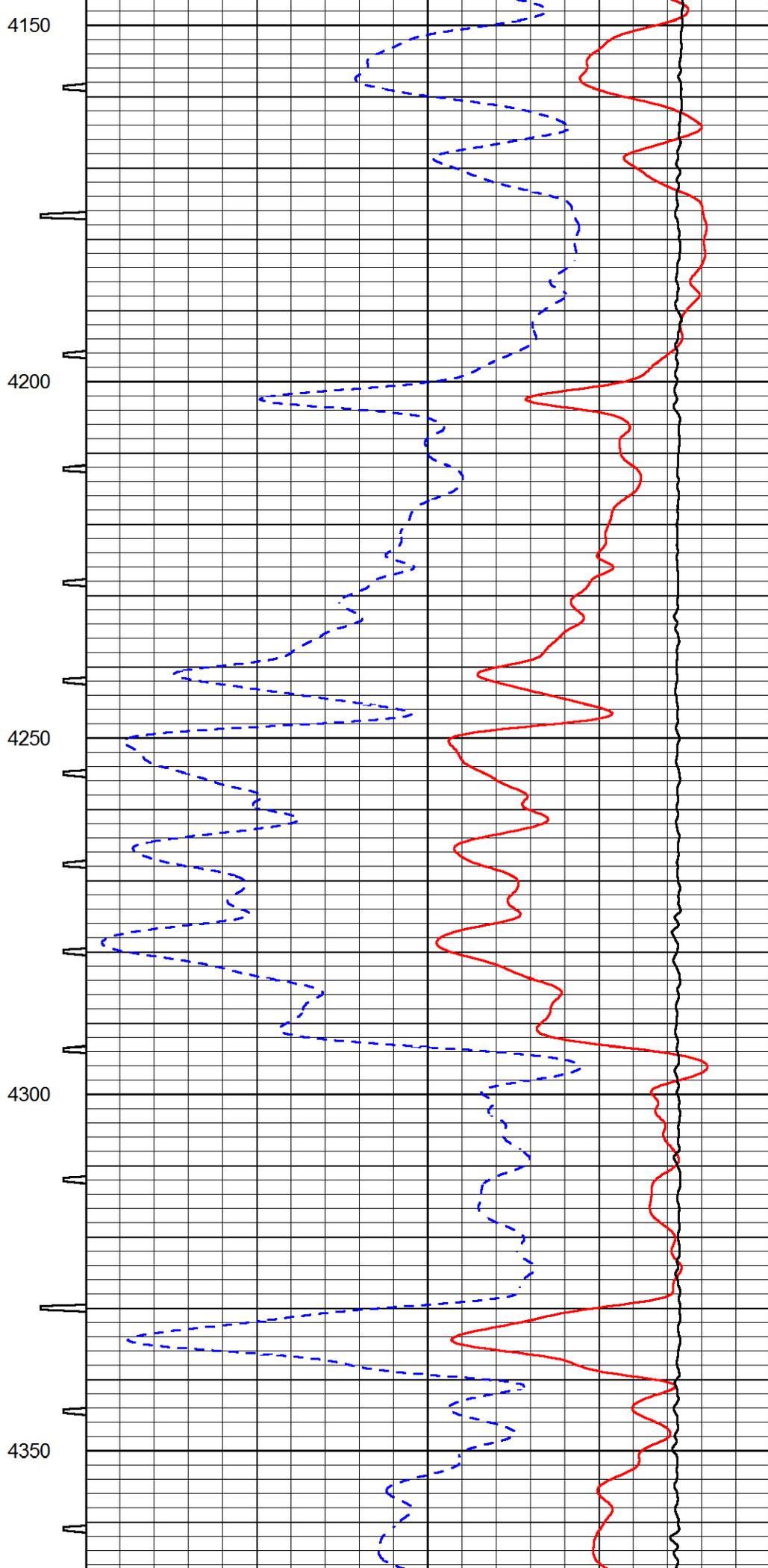
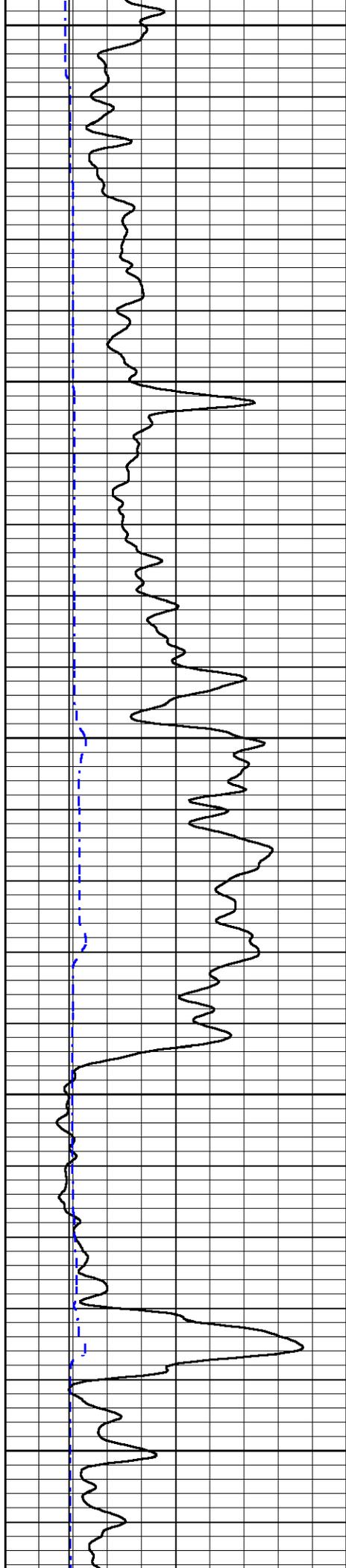


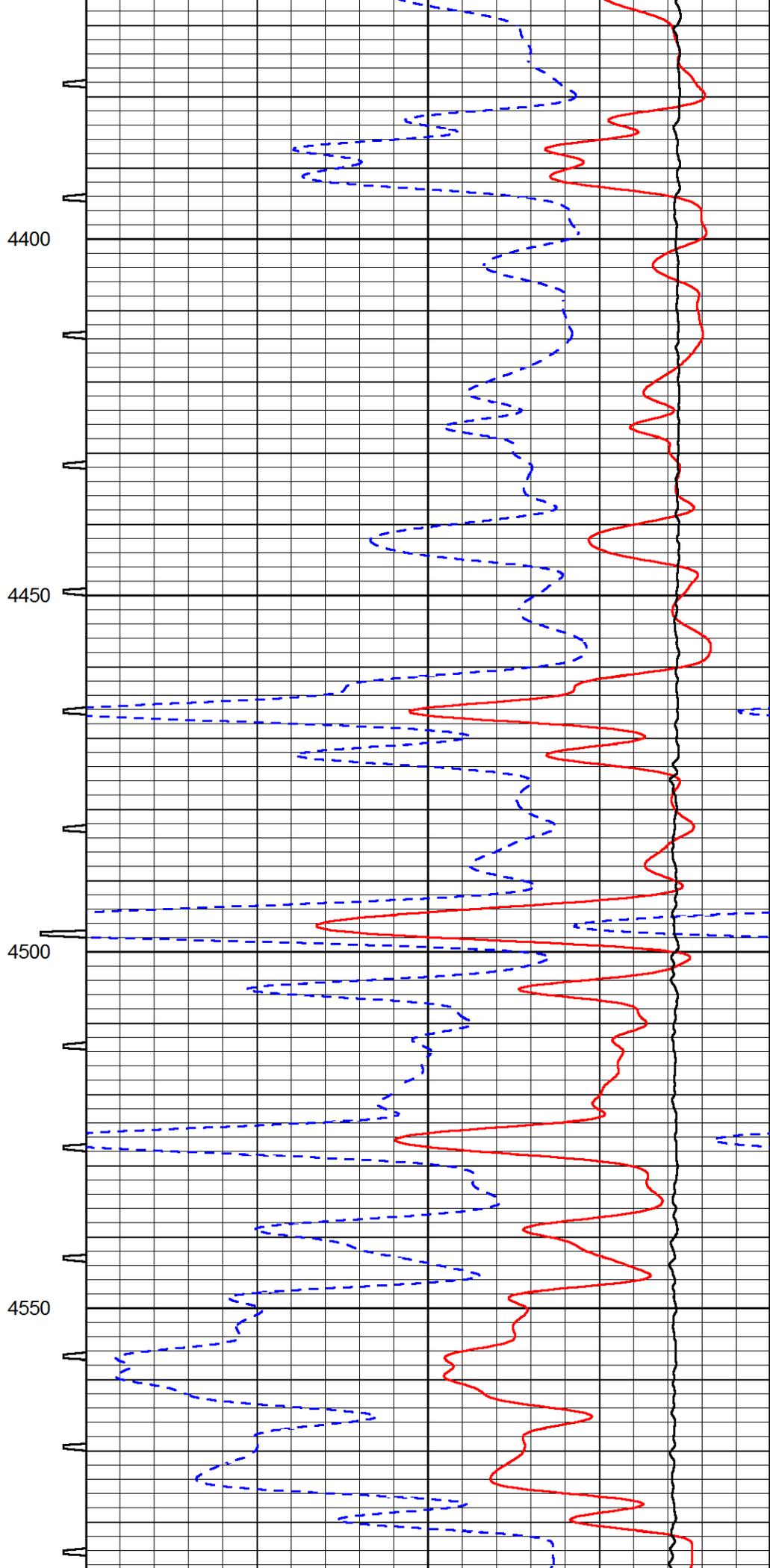
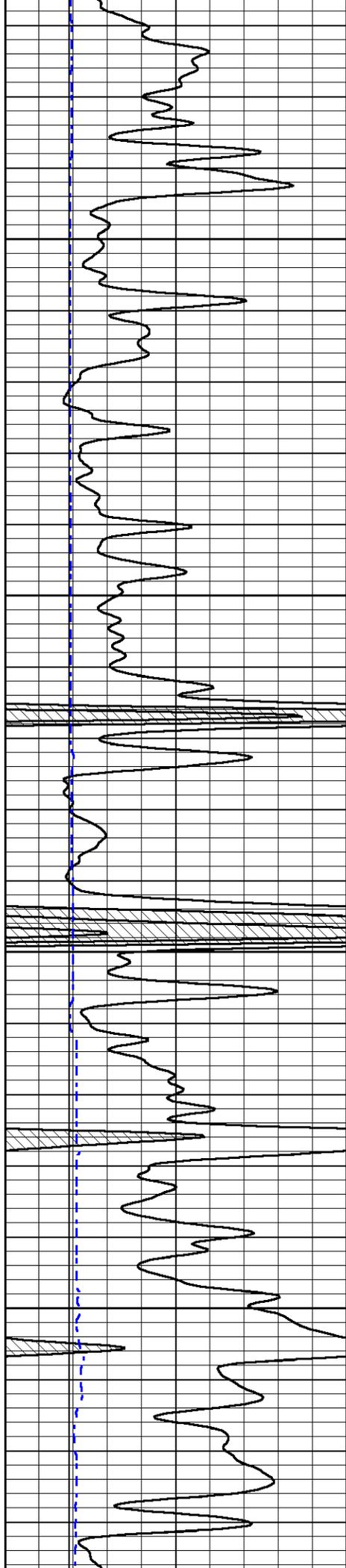


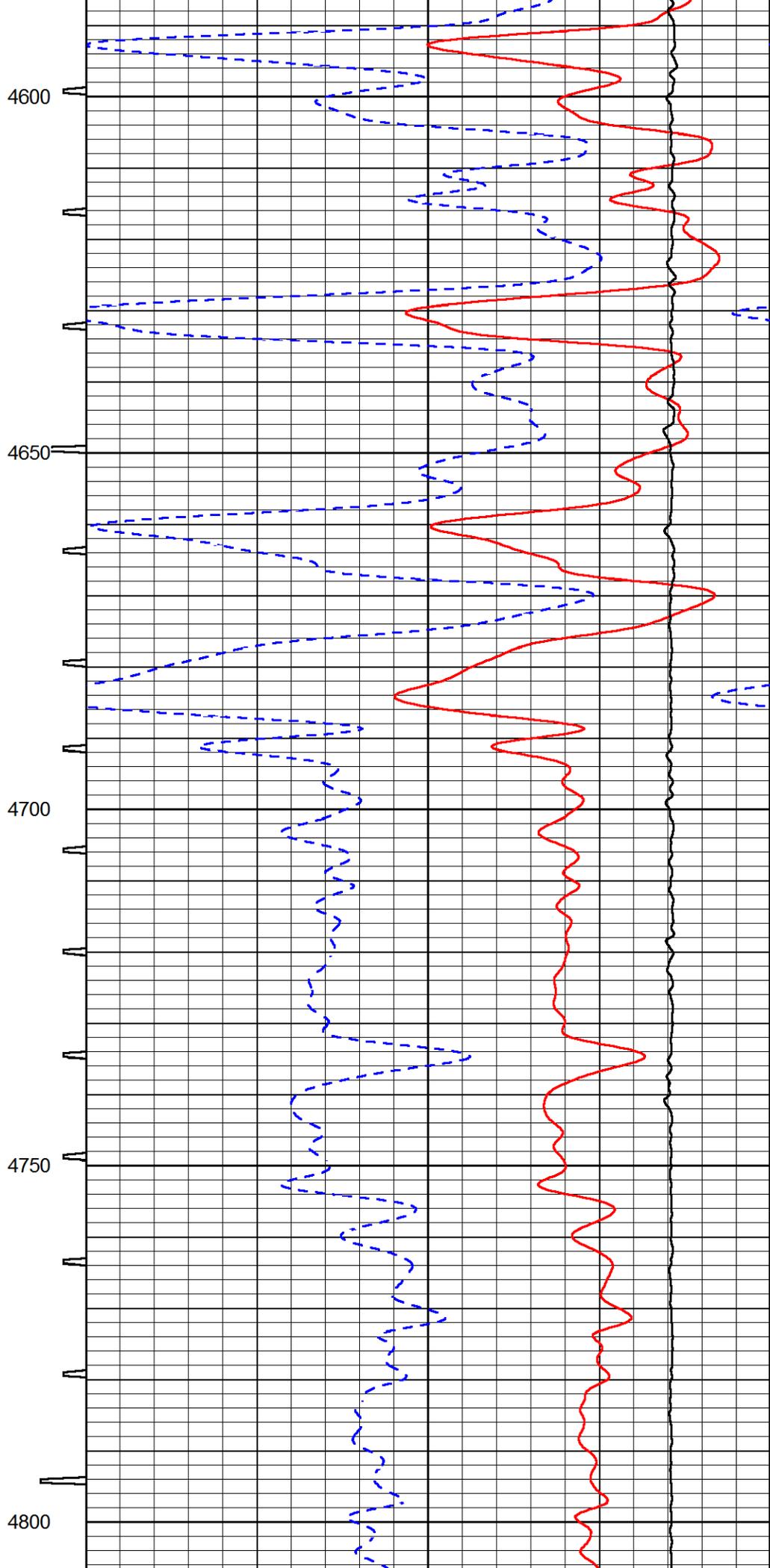
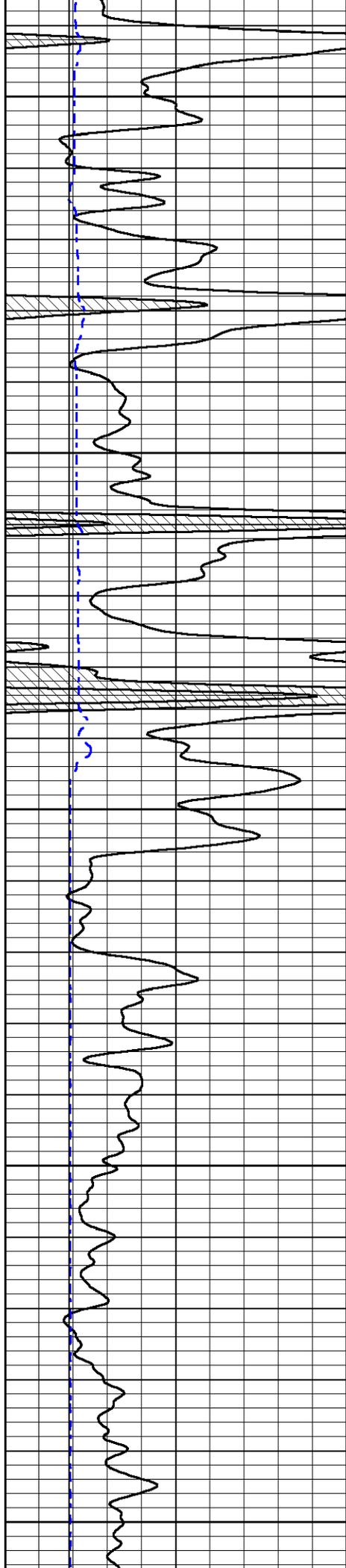


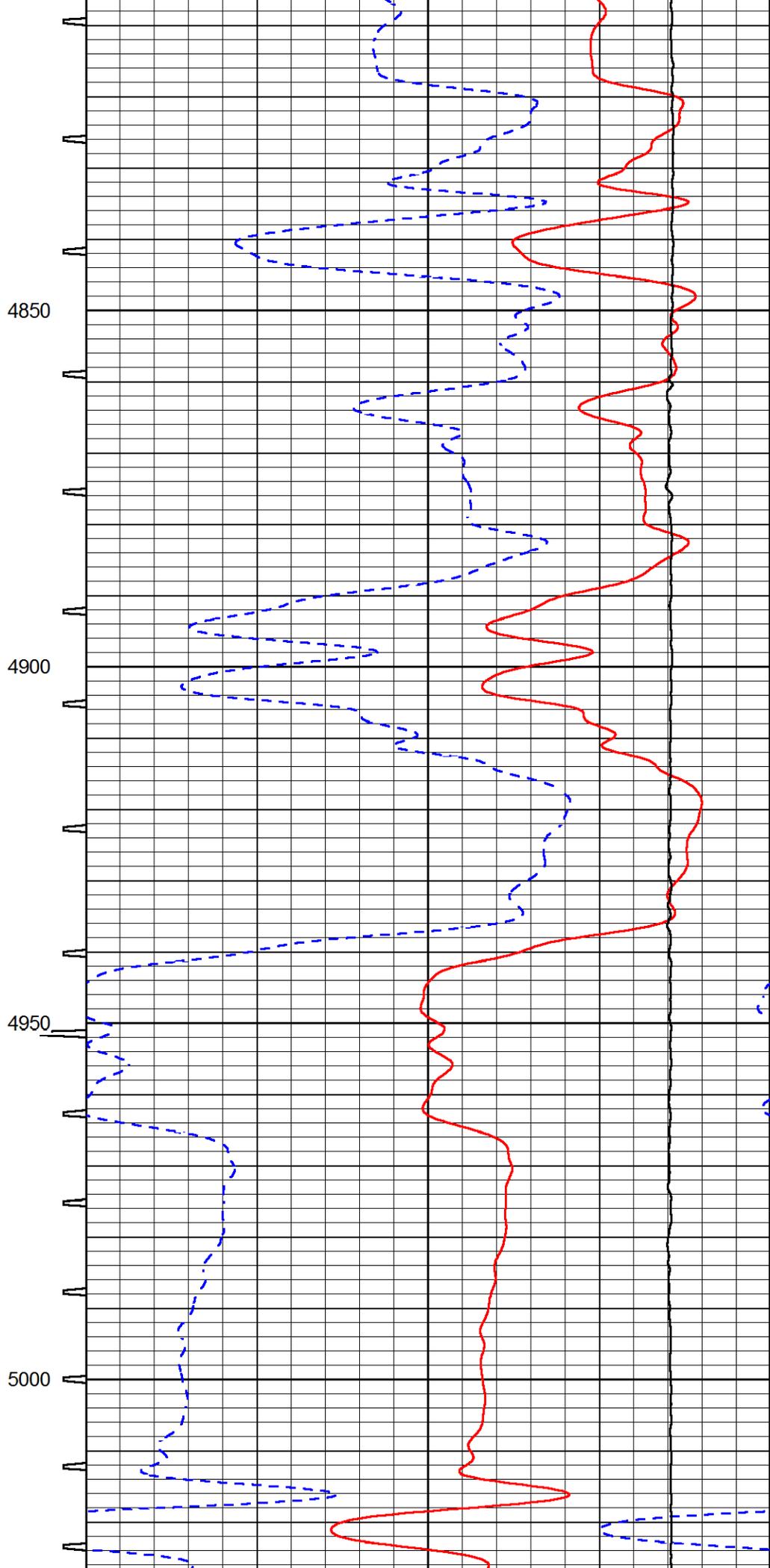
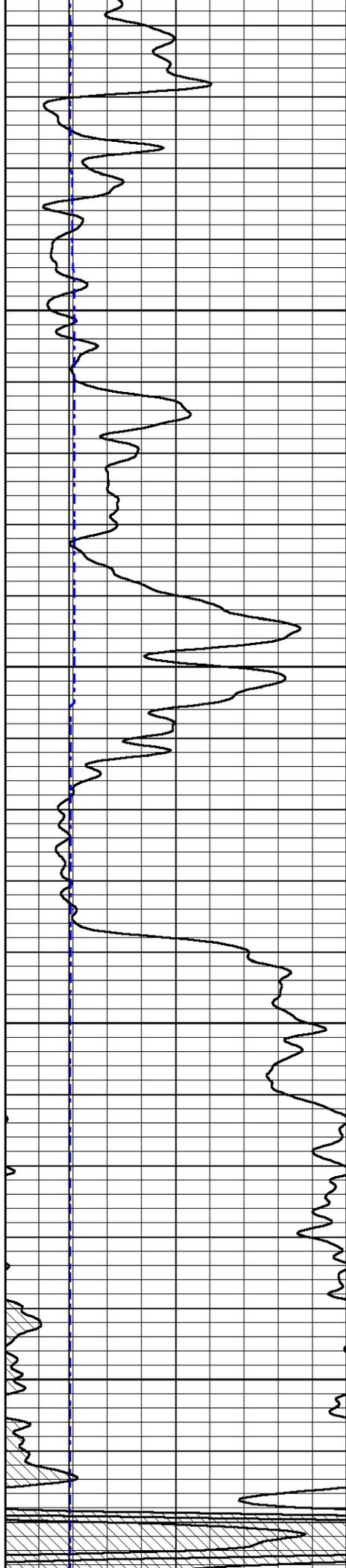


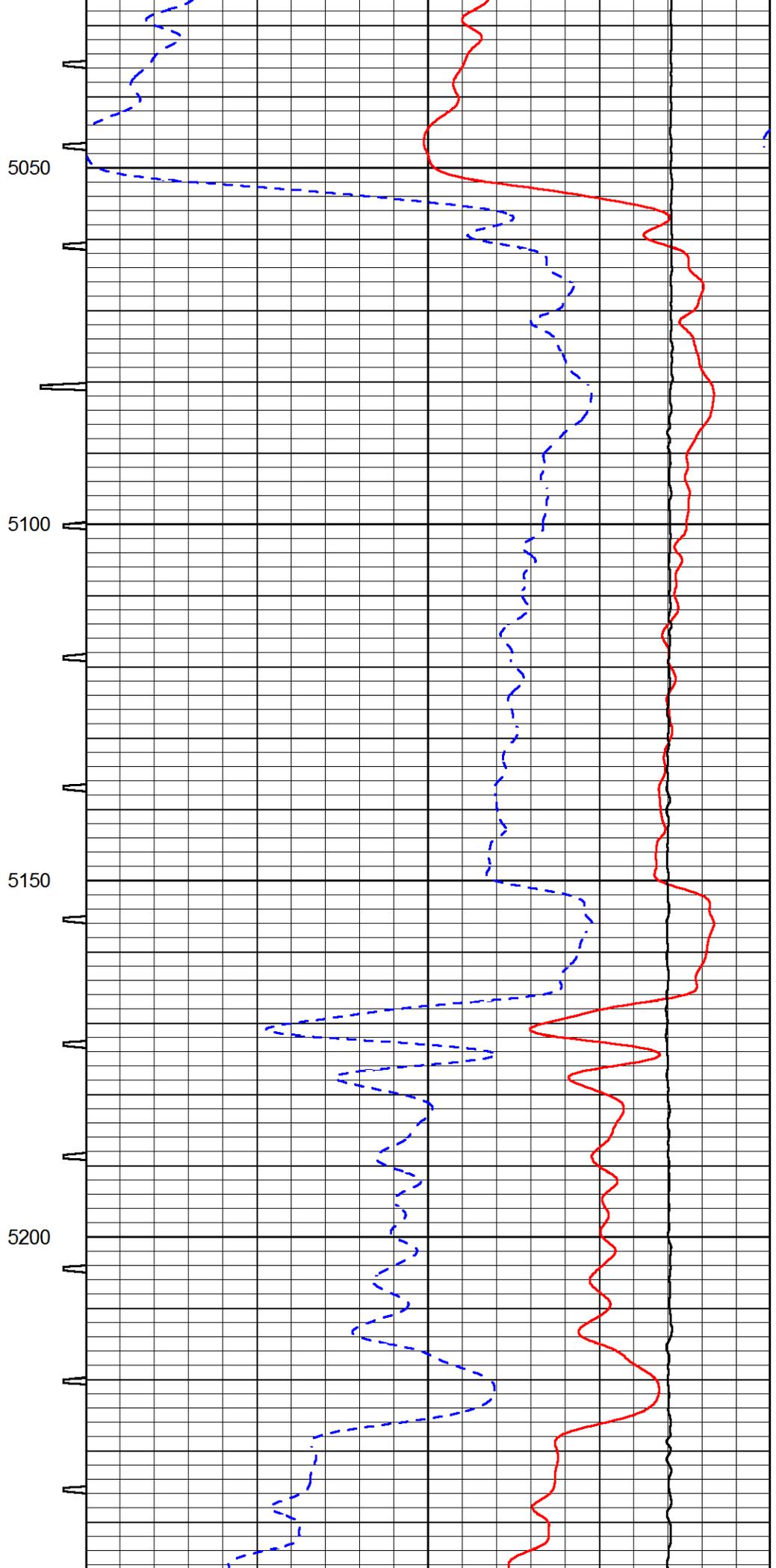
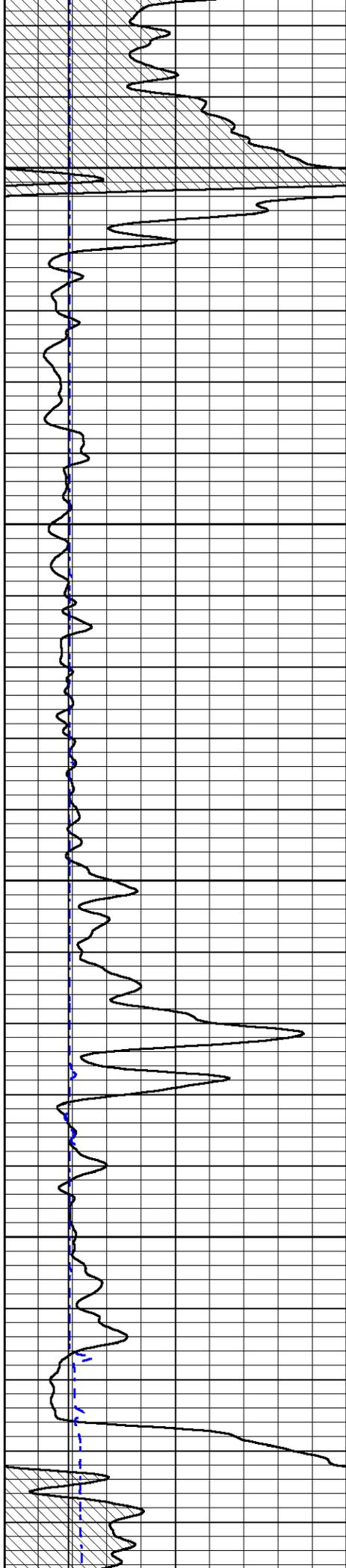


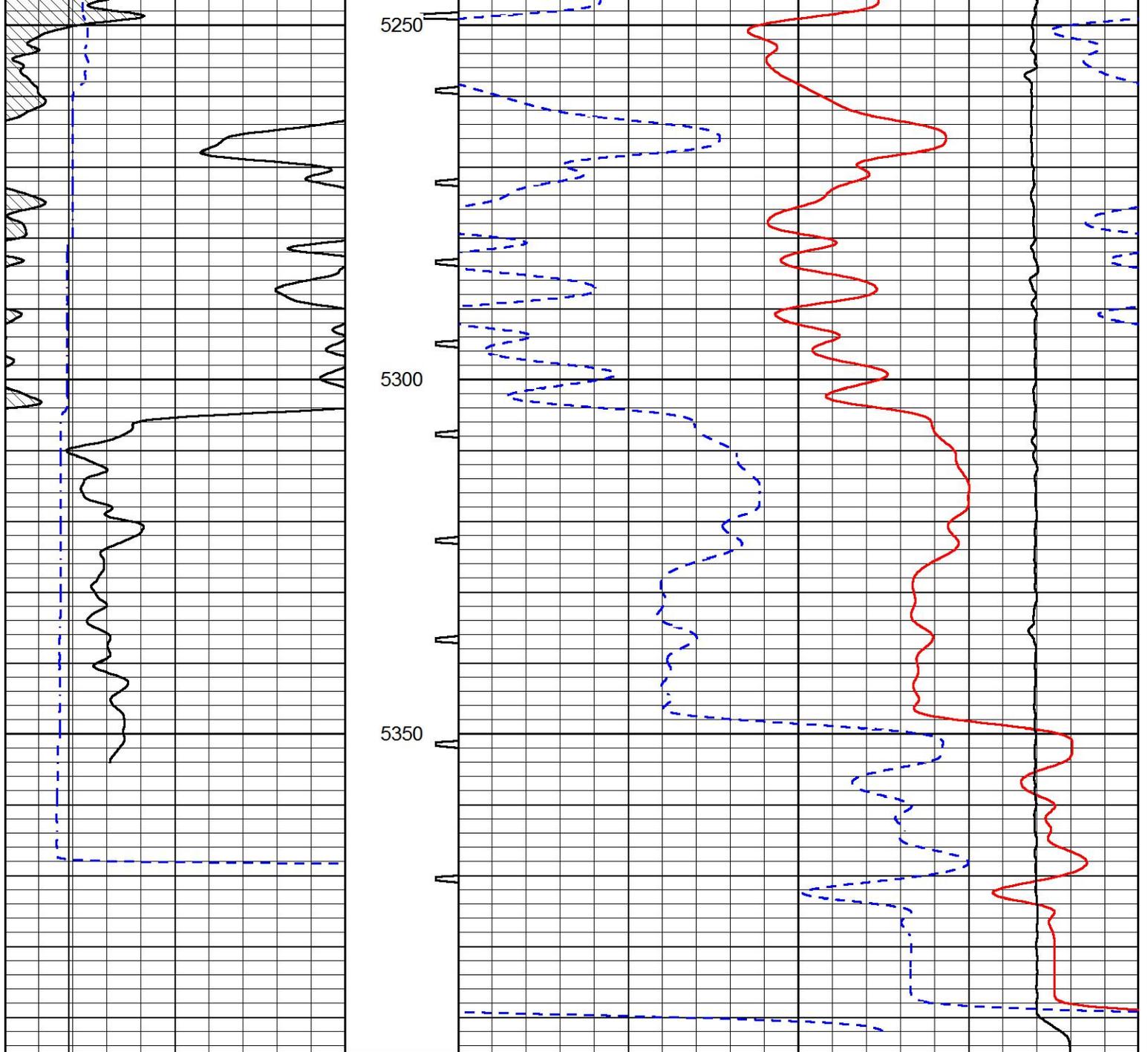












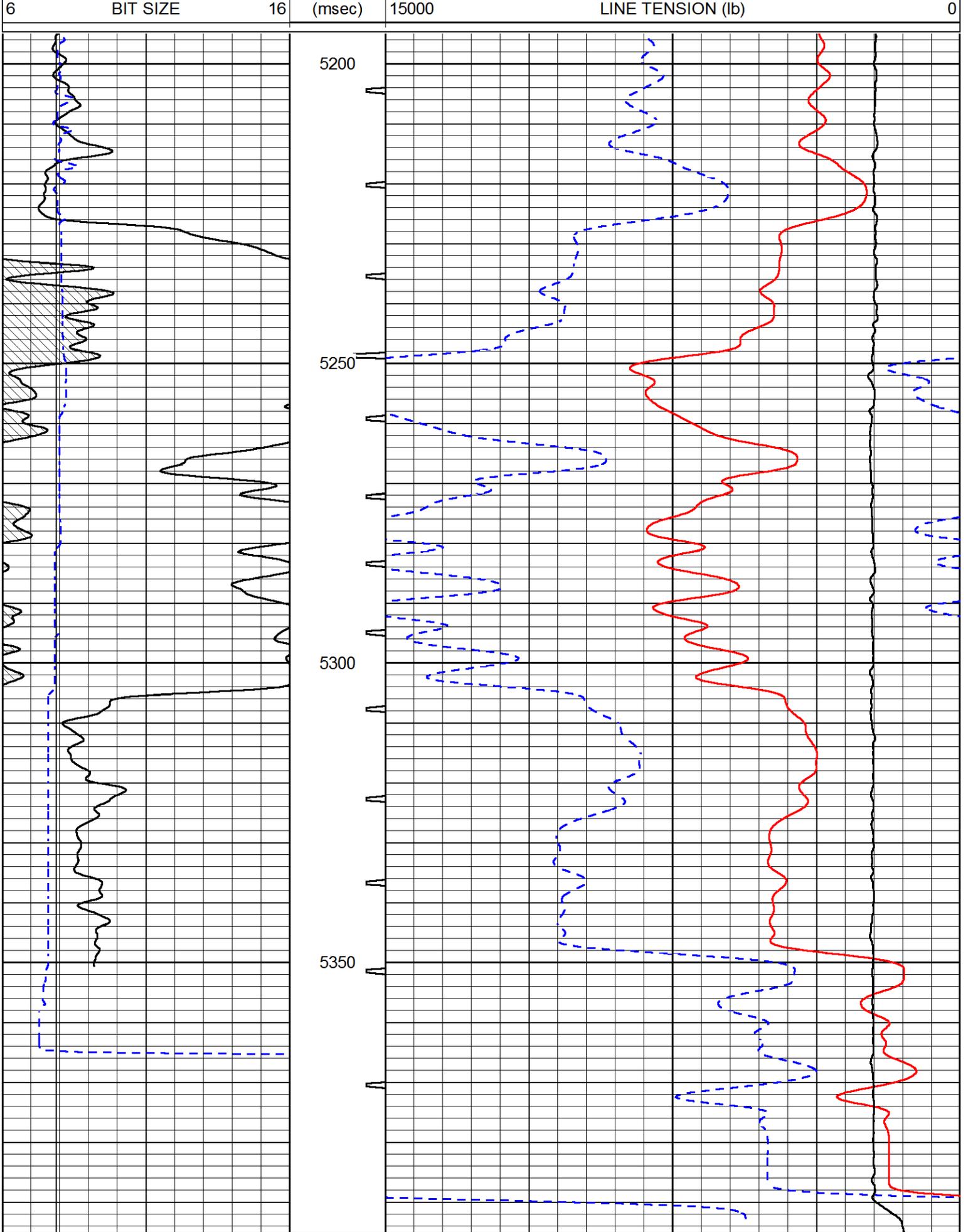
0	GAMMA RAY (GAPI)	150	SONIC INT	140	DELTA TIME (usec/ft) (usec/ft)	40
6	CALIPER (in)	16	TRAVEL TIME	30	SONIC POROSITY (pu)	-10
6	BIT SIZE	16	(msec)	15000	LINE TENSION (lb)	0



# REPEAT SECTION

Database File      sapphire\_tracy\_#1\_owwo.db  
 Dataset Pathname    STACKML/pass2.1  
 Presentation Format    sonic  
 Dataset Creation      Tue Feb 04 00:24:17 2020  
 Charted by            Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150	SONIC INT	140	DELTA TIME (usec/ft) (usec/ft)	40
6	CALIPER (in)	16	TRAVEL TIME	30	SONIC POROSITY (pu)	-10



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6	CALIPER (in)	16	TRAVEL TIM	30	SONIC POROSITY (pu)	-10
6	BIT SIZE	16	(msec)	15000	LINE TENSION (lb)	0



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