



MIDWEST WIRELINE

BOREHOLE COMPENSATED SONIC LOG

Company Ritchie Exploration, Inc.
Well #3 Wyrill 19A
Field Todd Northeast
County Rooks **State Kansas**

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Location: 63 S & 112 W of S2 NW/NE 1053 FNL & 2092 FEL SEC 19 TWP 6S RGE 20W	API #: 15-163-24446-00-00 Other Services CNL/CDL MEL/DIL
Permanent Datum Log Measured From Drilling Measured From	Ground Level Kelly Bushing Kelly Bushing
	Elevation 2281 Elevation 2288 Elevation 2281

Date	11/28/2021			
Run Number	Two			
Type Log	BHCS			
Depth Driller	3840			
Depth Logger	3838			
Bottom Logged Interval	3826			
Top Logged Interval	200			
Type Fluid In Hole	Chemical			
Salinity, PPM CL	2000			
Density	9.3			
Level	Full			
Max. Rec. Temp. F	114			
Operating Rig Time	4 Hours			
Equipment -- Location	P-24 Hays			
Recorded By	T. Martin			
Witnessed By	Kent Matson			

Borehole Record				Casing Record			
Run No.	Bit	From	To	Size	Wgt.	From	To
One	12.25	00	215	8.625	23	00	215
Two	7.875	215	TD				

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All interpretations are opinions based on inferences from electrical or other measurements and Midwest Wireline LLC cannot and does not guarantee the accuracy or correctness of any interpretation, and Midwest Wireline 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

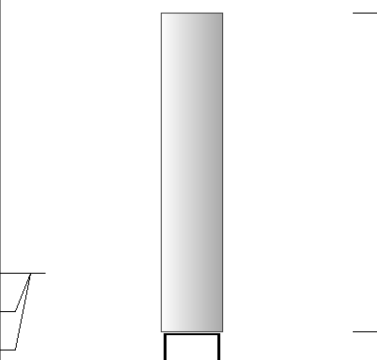
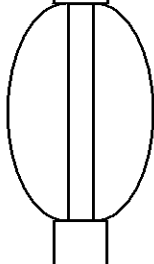
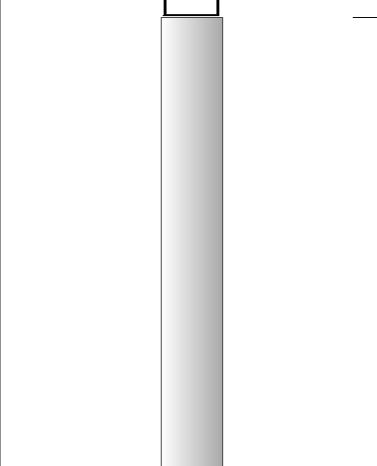
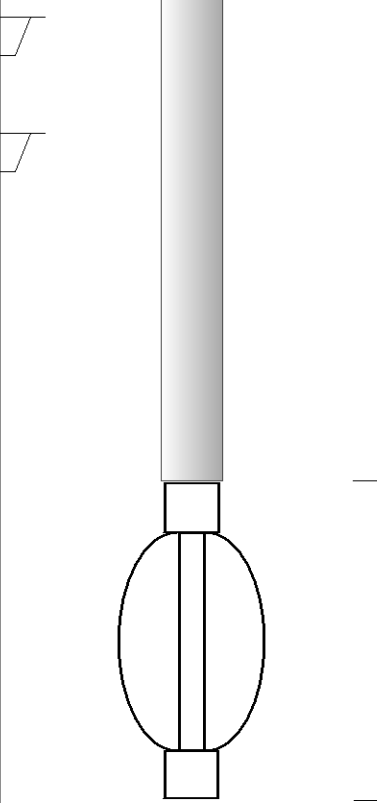
N/A DENOTES NOT AVAILABLE OR NON-APPLICABLE.

Stockton, KS, 5 N to Rd E,
15 W to Rd 3, 1 N, 1 W, S & W into

Log Measured From: Kelly Bushing 7 Ft. Above Permanent Datum

THANK YOU FOR USING MIDWEST WIRELINE LLC
785-625-3858

Your Midwest Wireline Crew Engineer: T. Martin Operator: Operator: Operator:	This Log Record Was Witnessed By Primary Witness: Kent Matson Secondary Witness: Secondary Witness: Secondary Witness:
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Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
MCAL MI MN	28.00 28.00 28.00		ML-Pengo (Pengo3)	5.50	3.50	100.00
			CENT-PENGO (4-PENGO)	5.50	3.00	70.00
WVF4 WVF1	13.50 13.50		SLT-PENGO (0001)	16.00	3.50	300.00
WVF3 WVF2	11.50 11.50		CENT-PENGO (3-PENGO)	5.50	3.00	70.00

Dataset: ritchie_#3 wyrill 19a.db: field/well/SonMel/pass3
 Total length: 32.50 ft
 Total weight: 540.00 lb
 O.D.: 3.50 in

Log Variables

DatabaseC:\ProgramData\Warrior\Data\ritchie_#3 wyrill 19a.db
 Dataset field/well/Stack/pass3.1/_vars_

Top - Bottom

A	BOREID in	BOTTEMP degF	CASEOD in	CASETHCK in	FLUIDDEN g/cc	M	MATRXDEN g/cc
1	7.875	114	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	145	50	Off	3838

Variable Description

A : Cement Factor (a)
 BOREID : Borehole I.D.
 BOTTEMP : Bottom Hole Temperature
 CASEOD : Casing O.D.
 CASETHCK : Casing Thickness
 FLUIDDEN : Fluid Density
 M : Cement Exp (m)
 MATRXDEN : Matrix Density

NPORSEL : Neutron Porosity Curve Select
 PERFS : Perforation Flag
 SNDERR : Deep Sonde Error Correction
 SNDERRM : Medium Sonde Error Correction
 SPSHIFT : S.P. Baseline Offset
 SRFTEMP : Surface Temperature
 SZCOR : CN Size Cor. ?
 TDEPTH : Total Depth

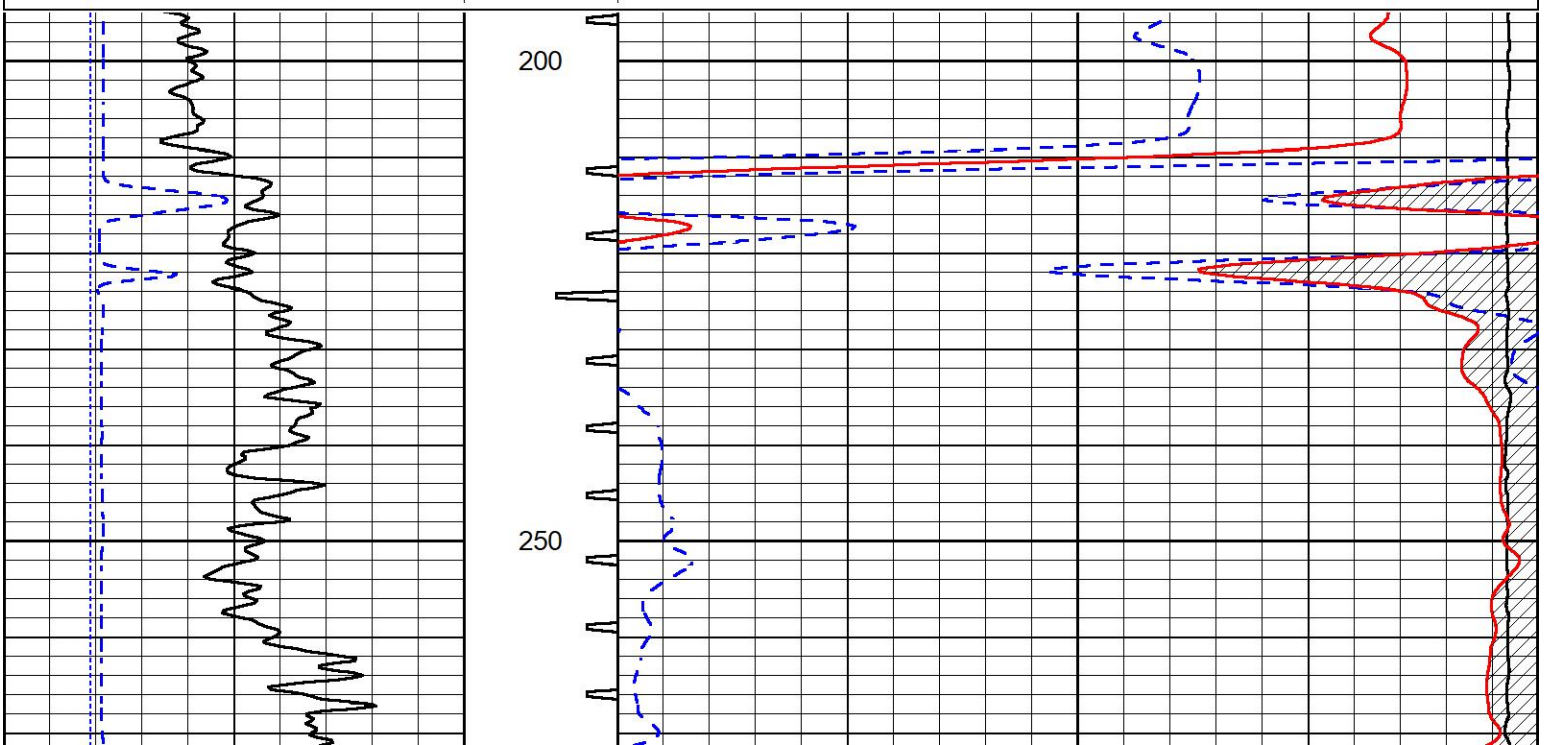


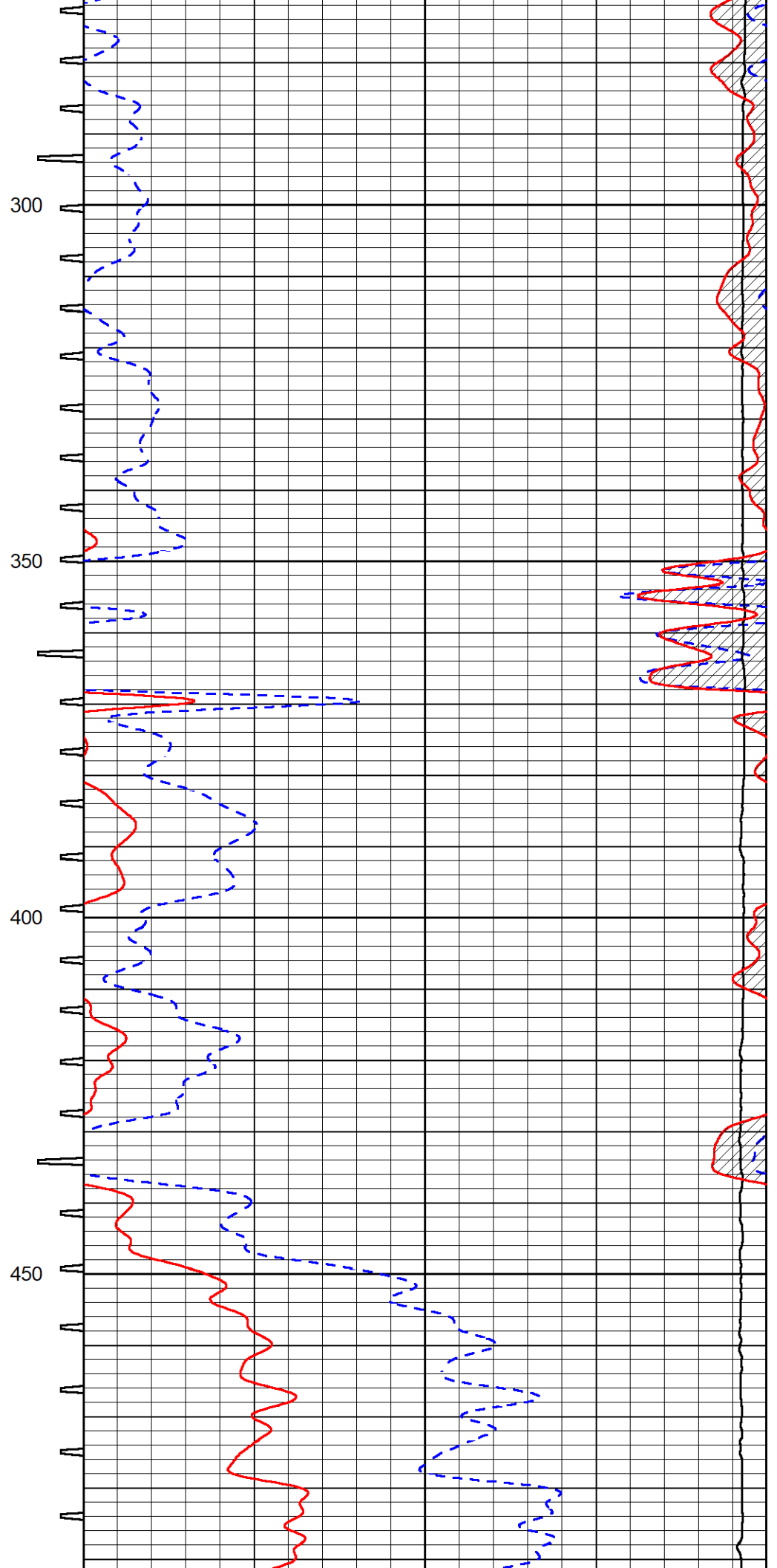
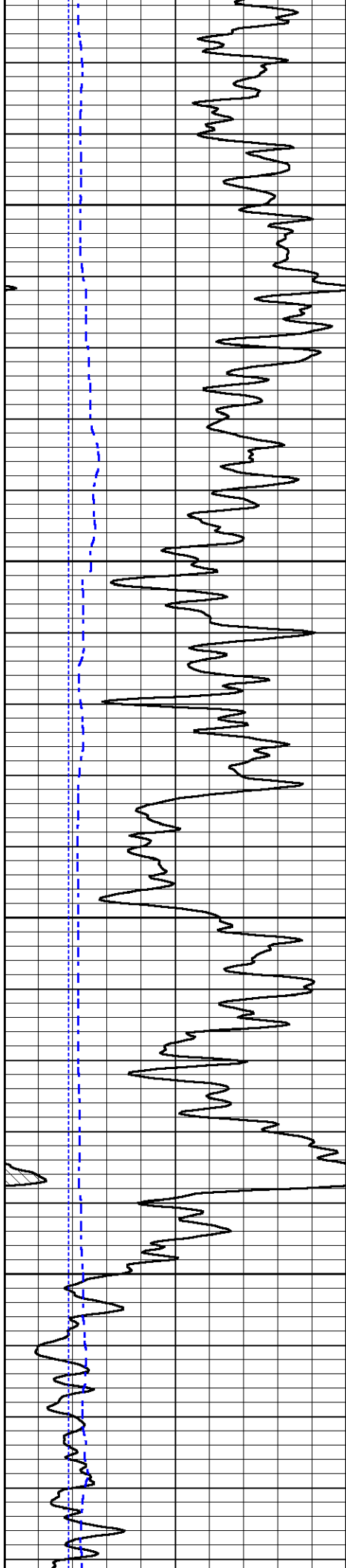
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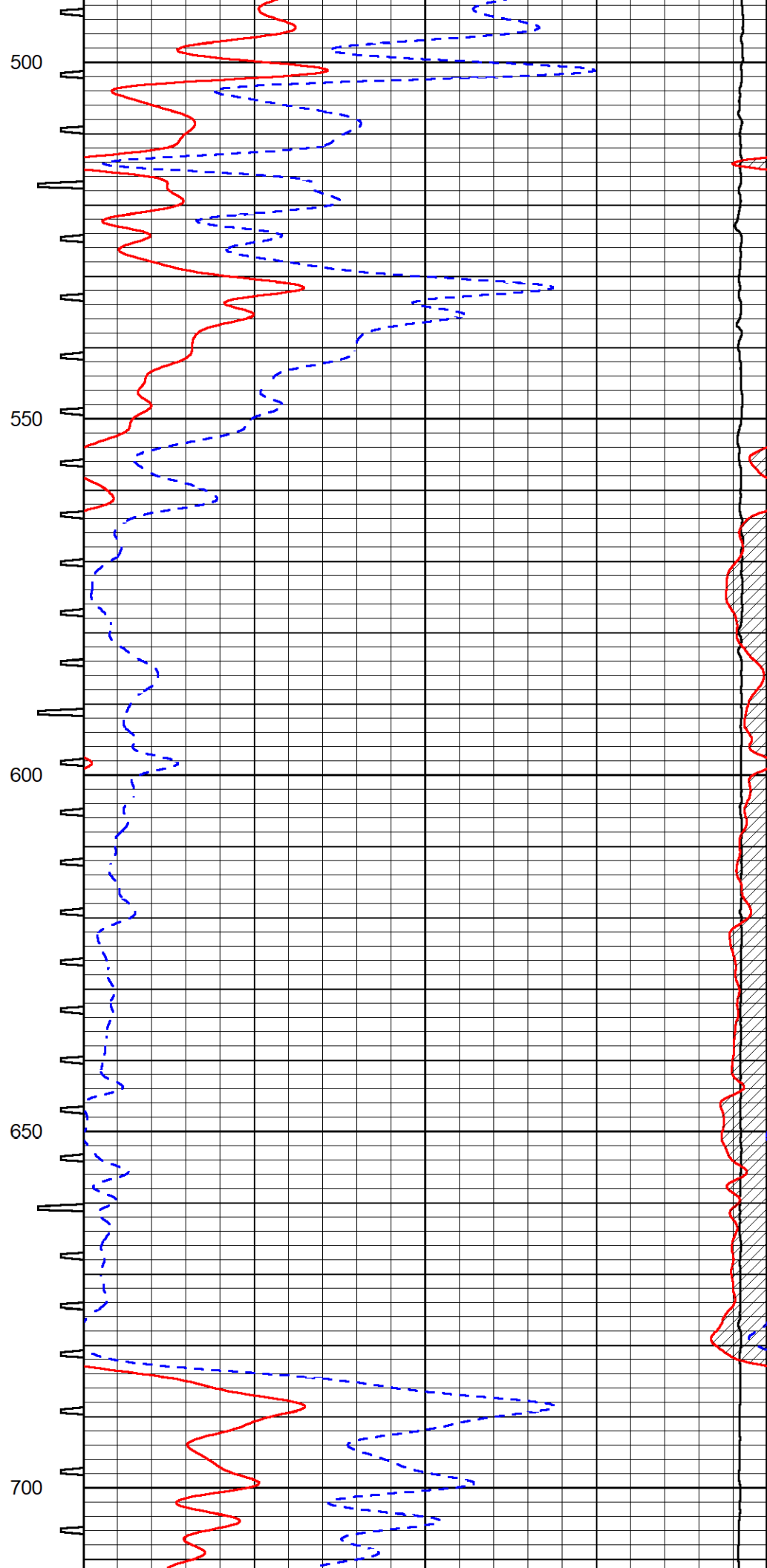
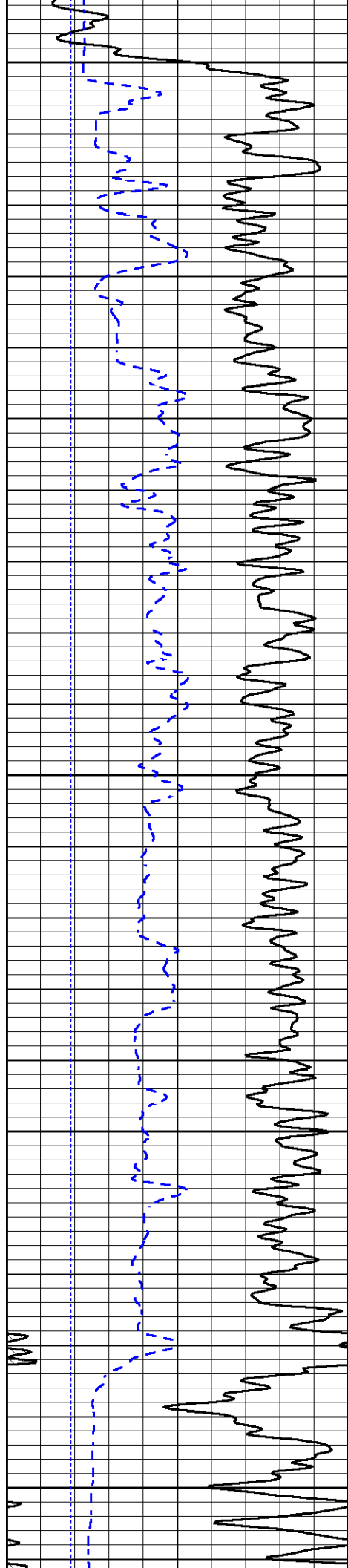
MAIN PASS

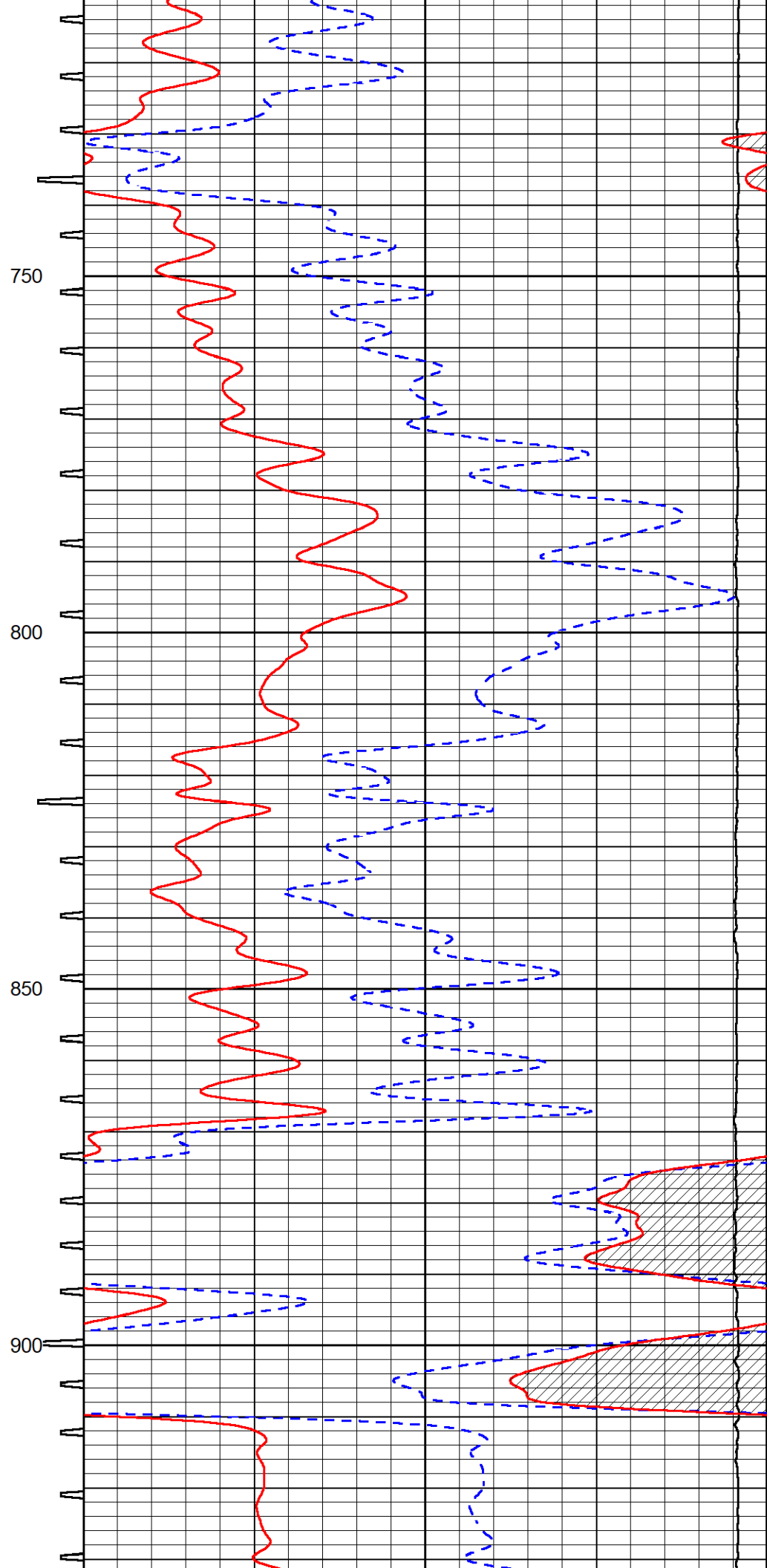
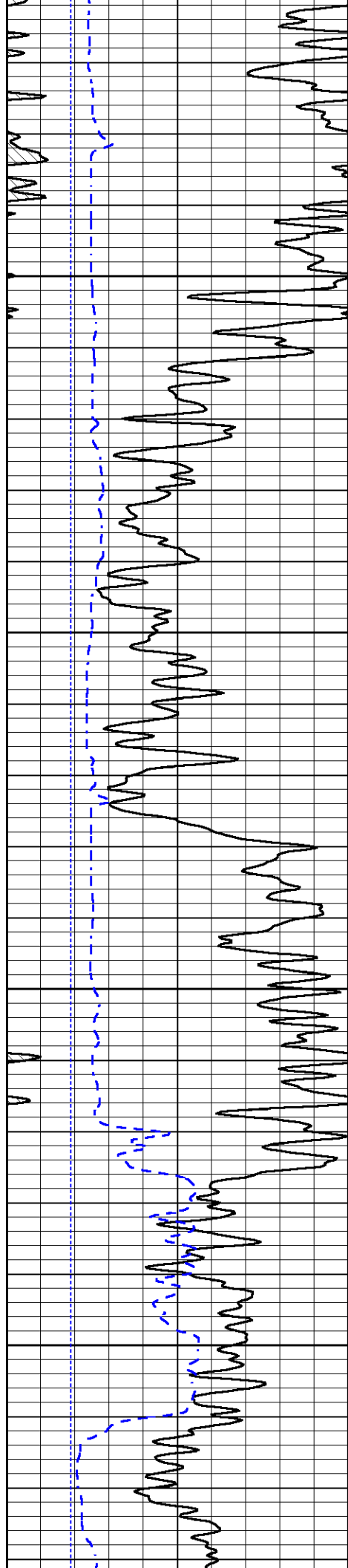
Database File ritchie_#3 wyrill 19a.db
 Dataset Pathname Stack/pass3.1
 Presentation Format _sonic
 Dataset Creation Sun Nov 28 12:34:00 2021
 Charted by Depth in Feet scaled 1:240

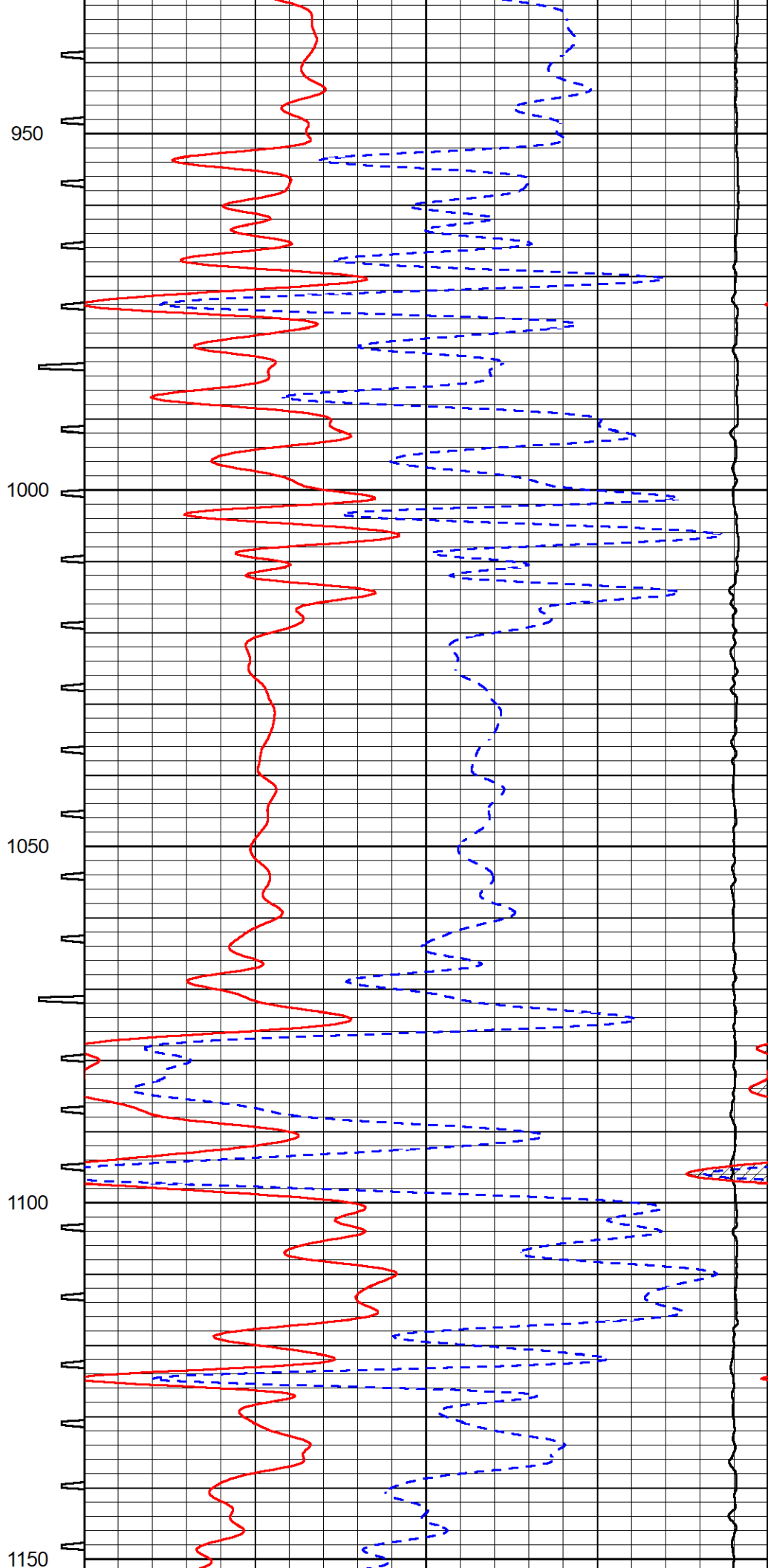
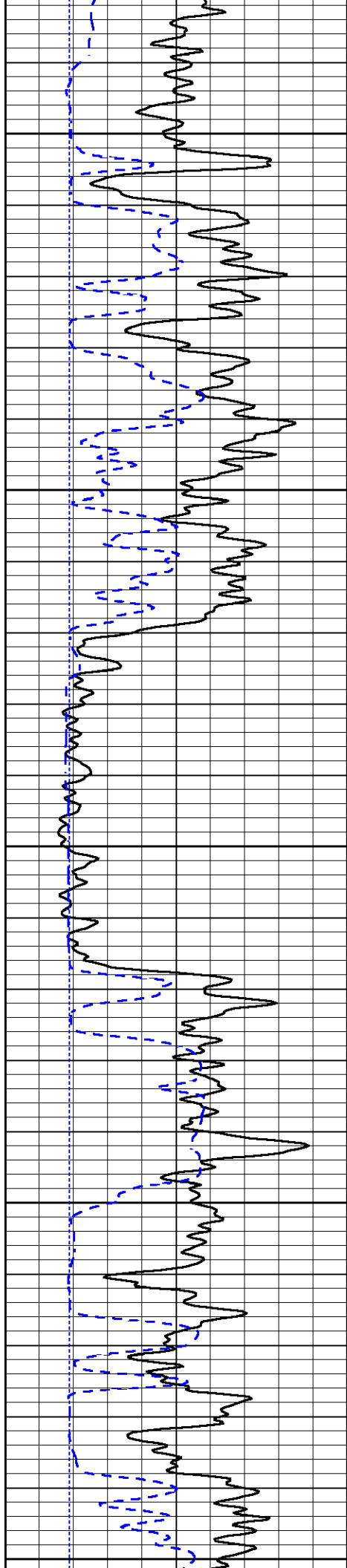
0	Gamma Ray (GAPI)	150	Sonic Int	140	Delta Time (usec/ft) (usec/ft)	40
150	GR (GAPI)	300	5 (msec) 0	30	Sonic Porosity (pu) (pu)	-10
6	Caliper (in)	16		15000	Line Tension (lb)	0

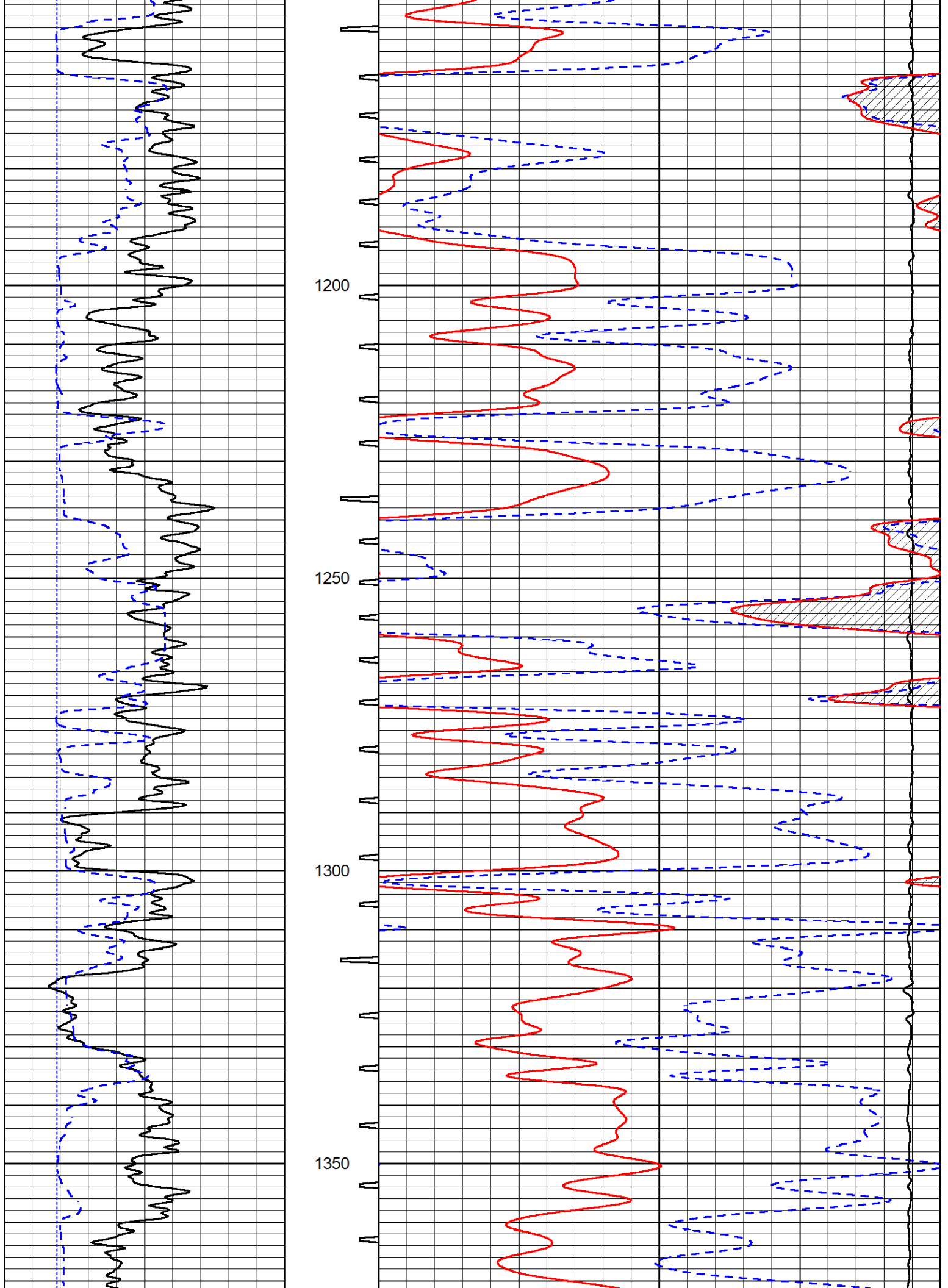


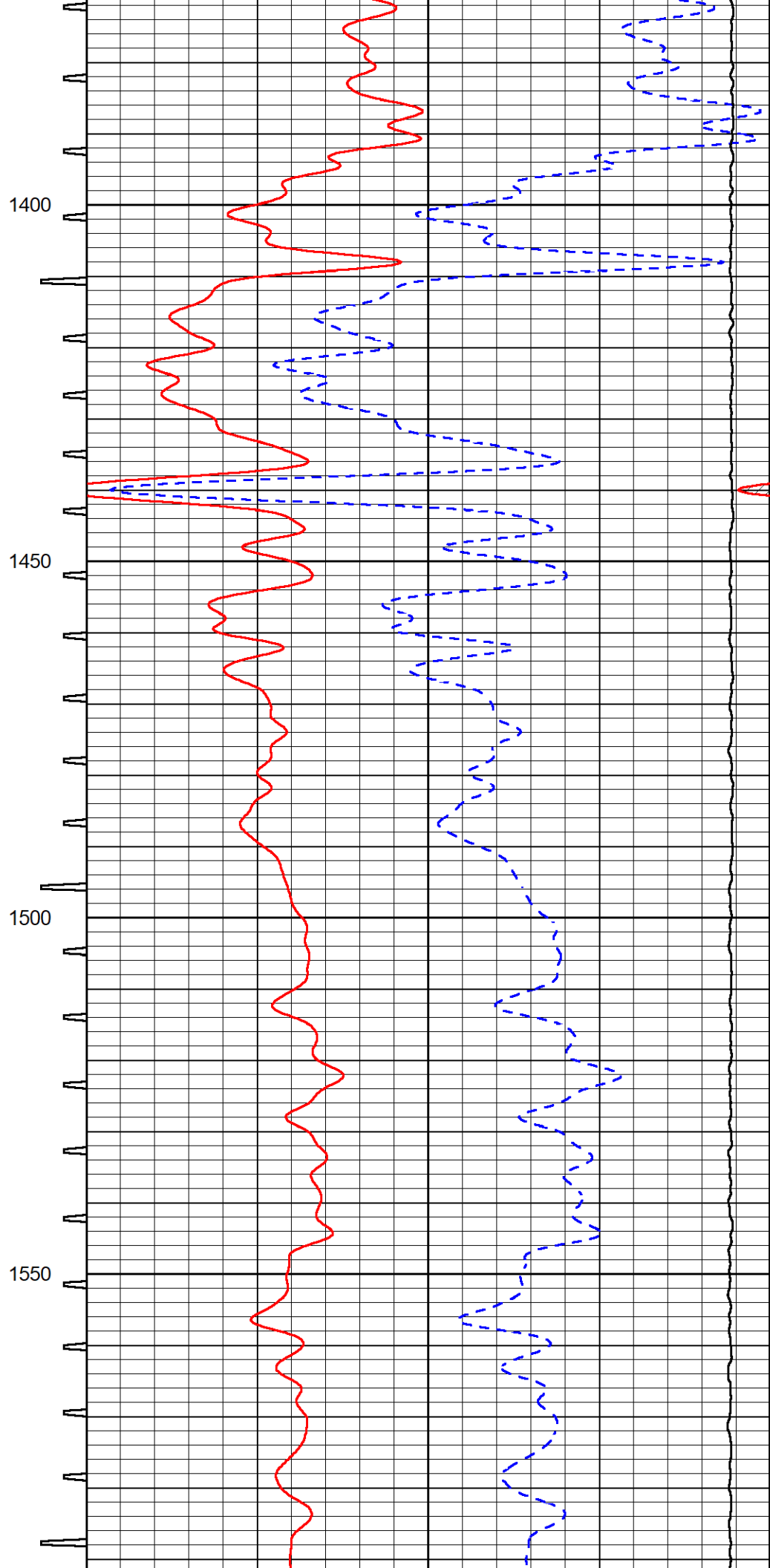
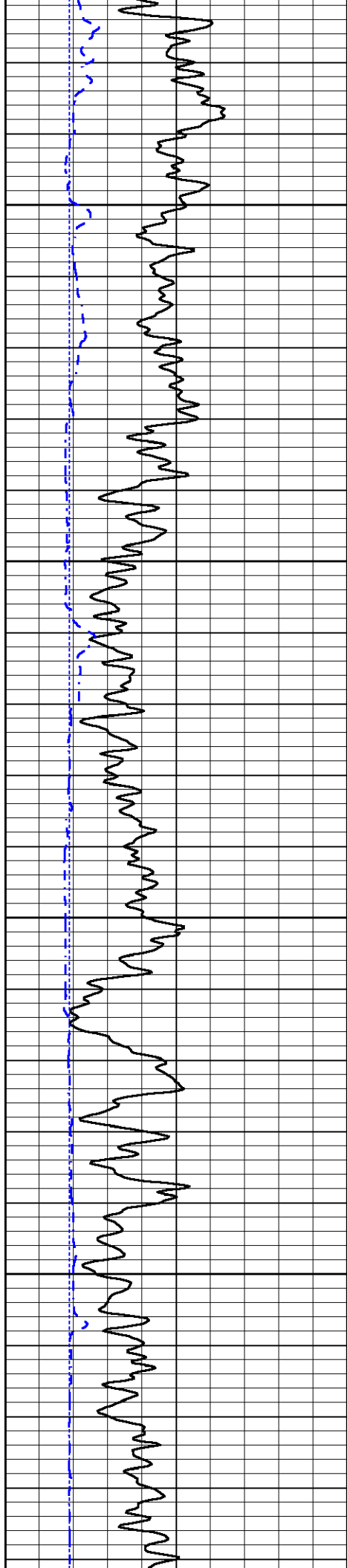


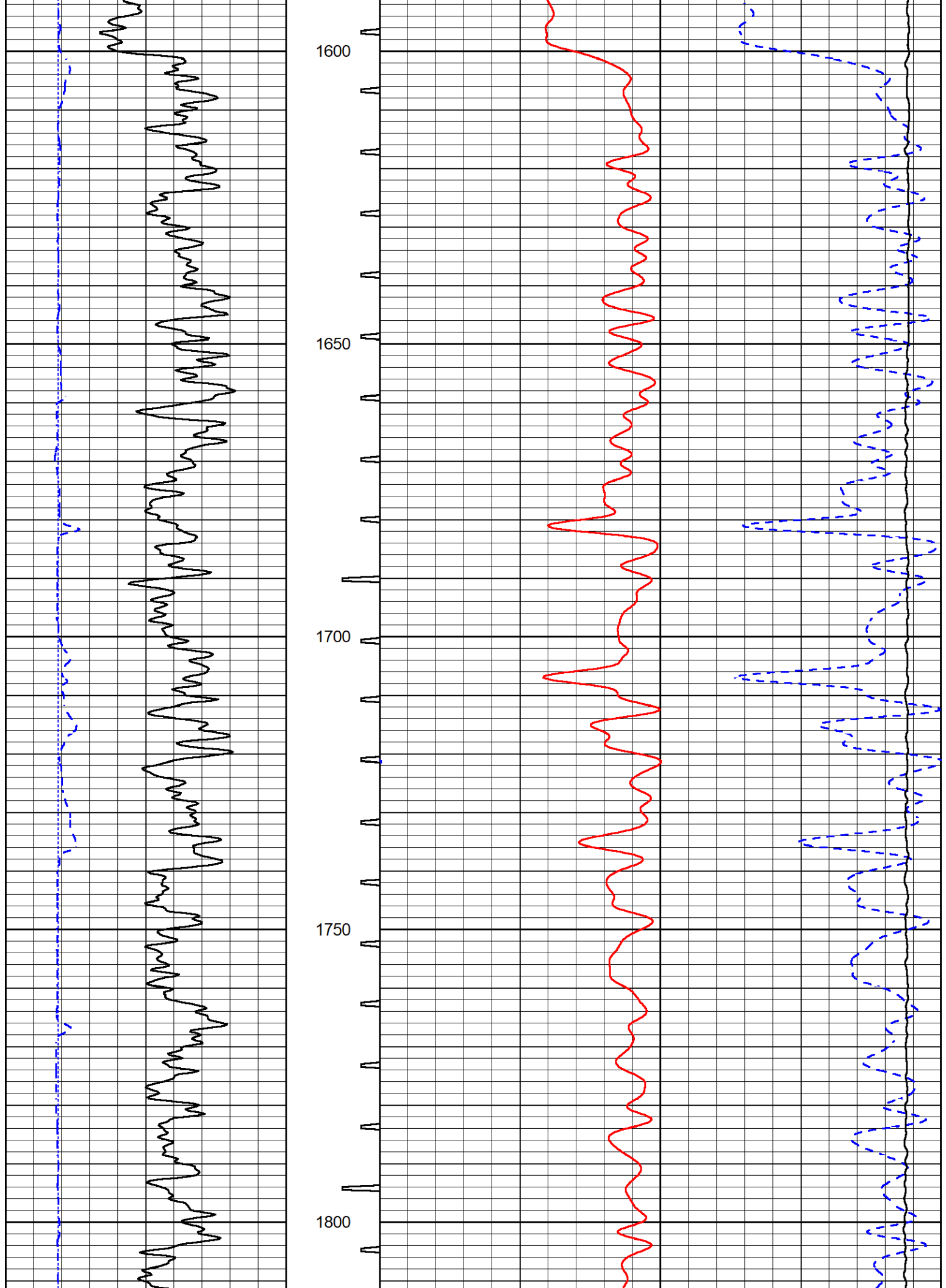


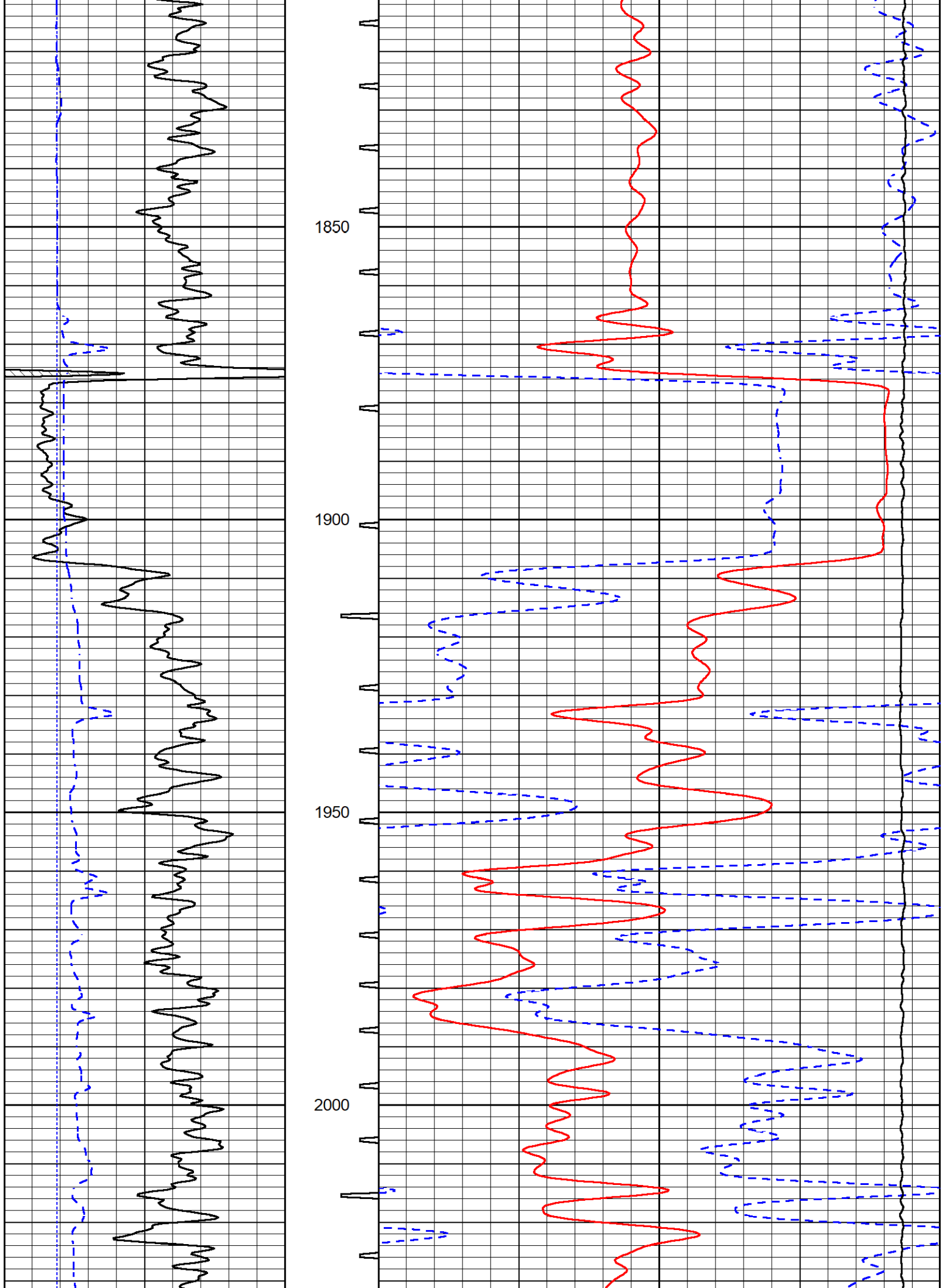


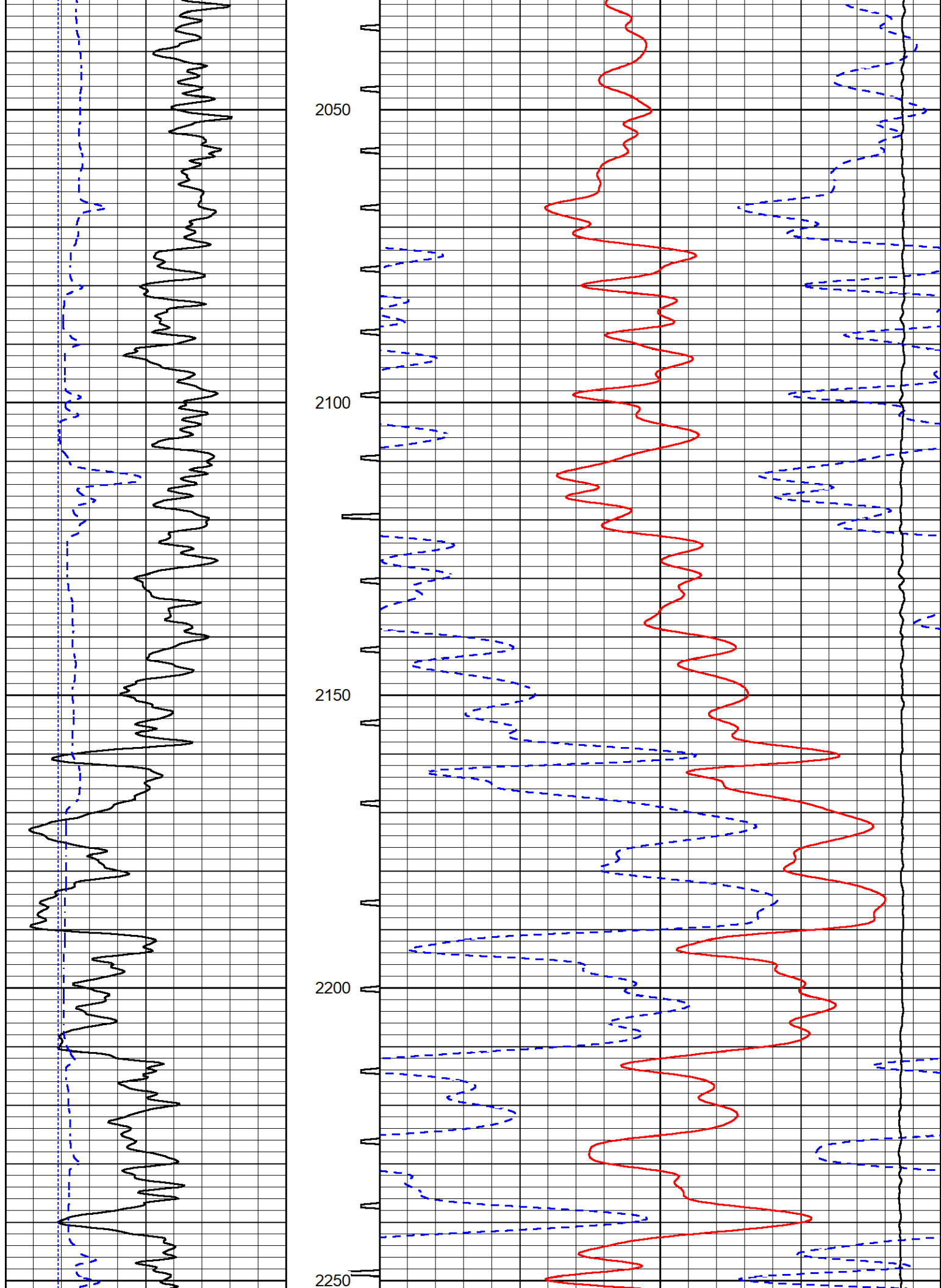


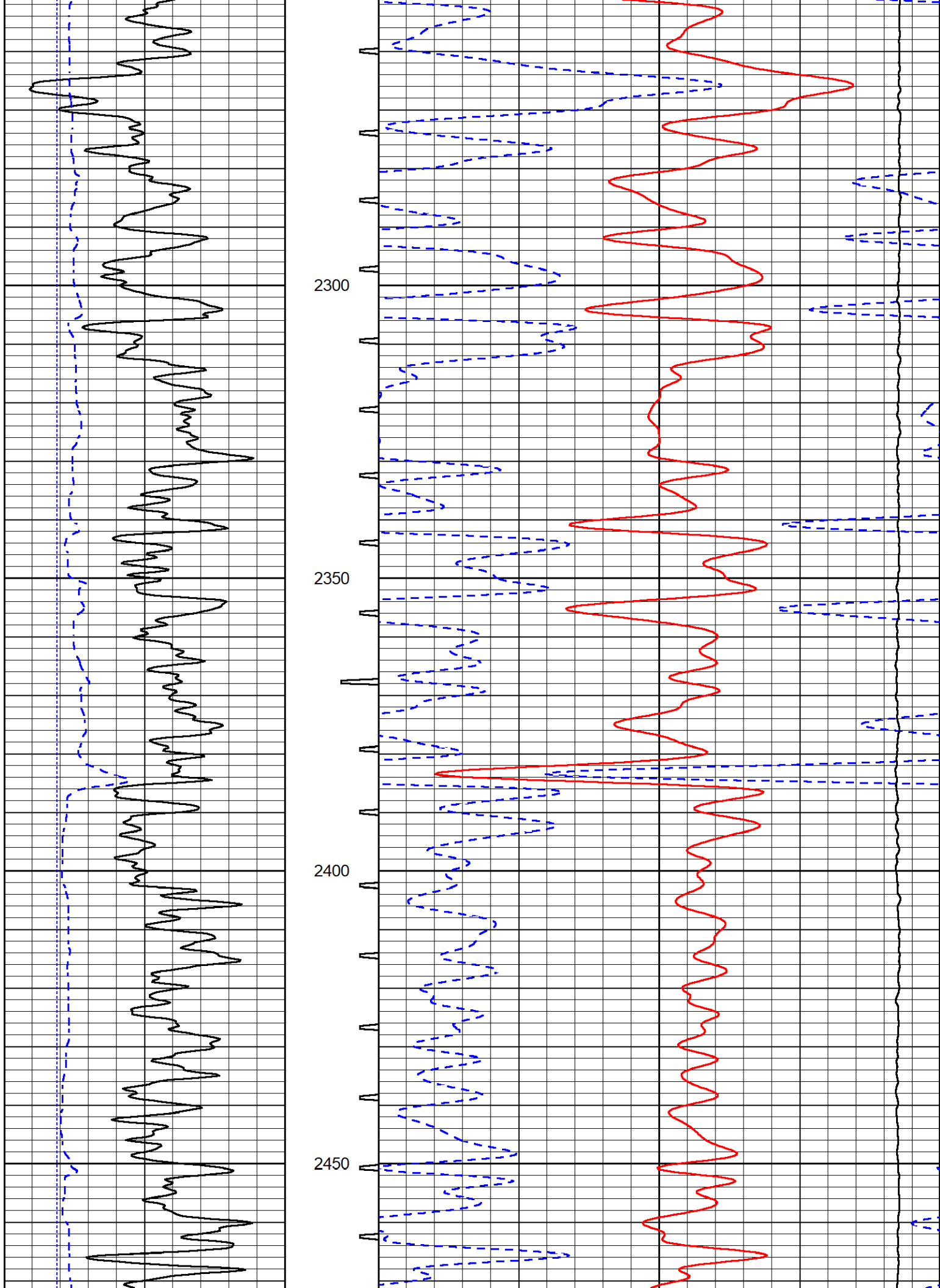


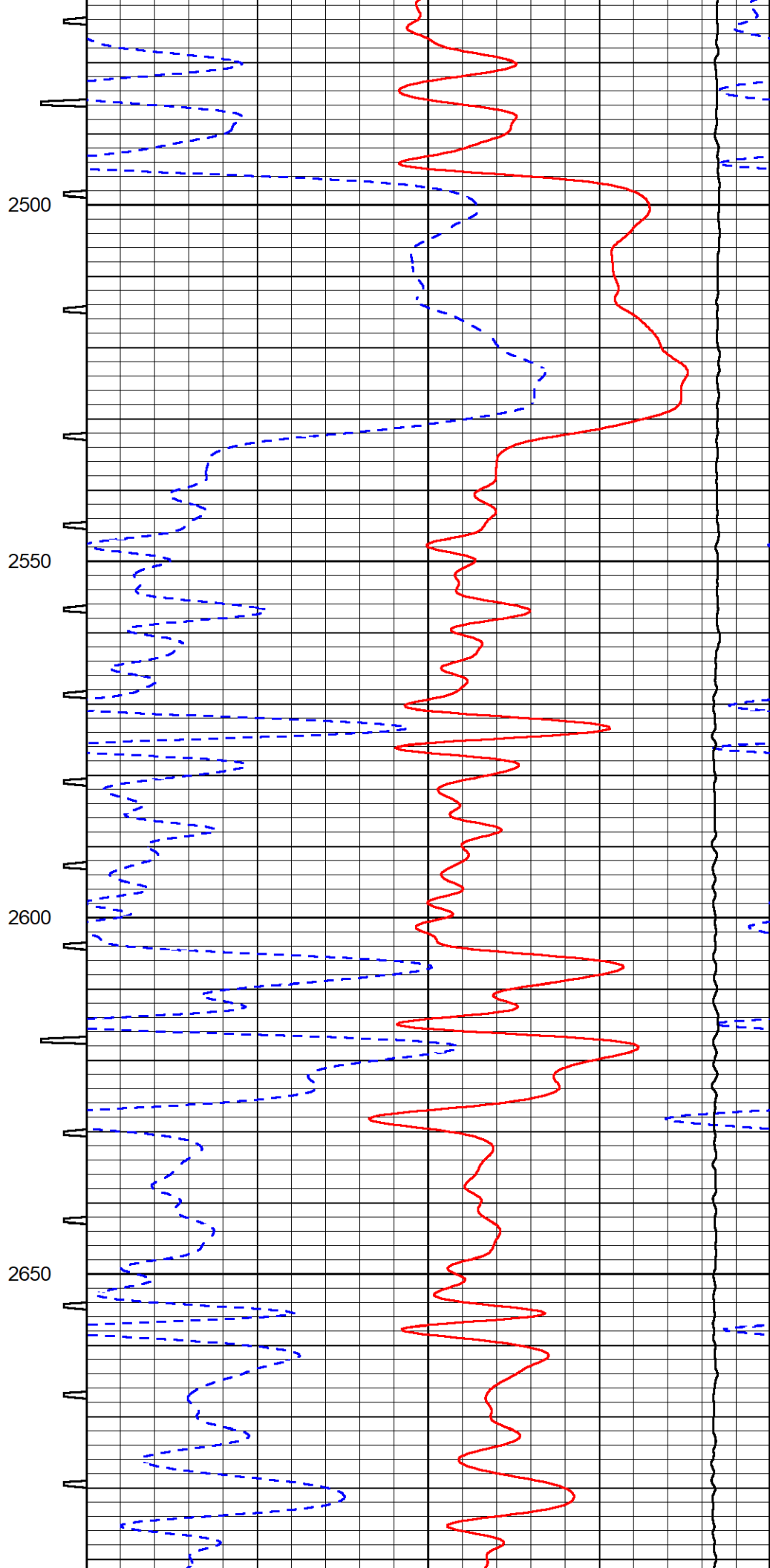
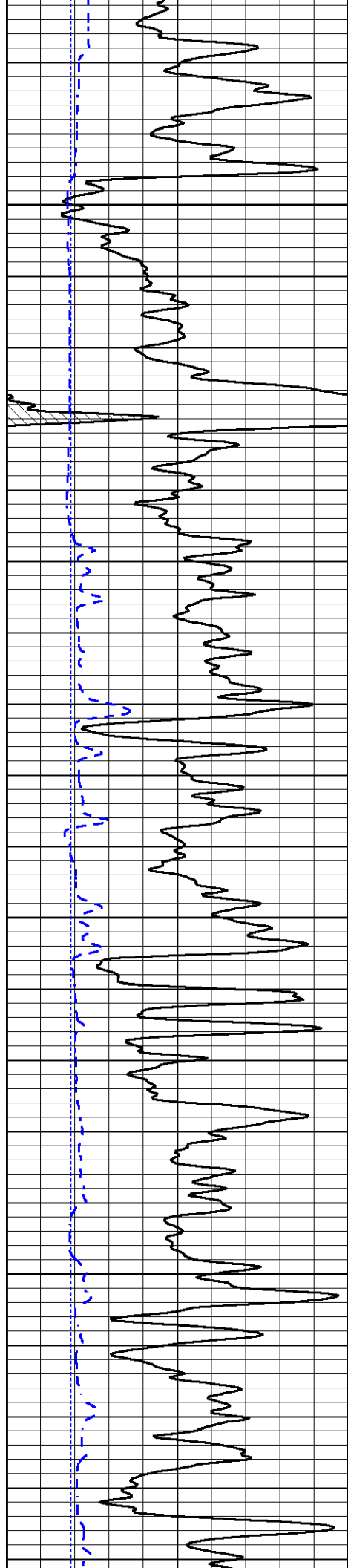


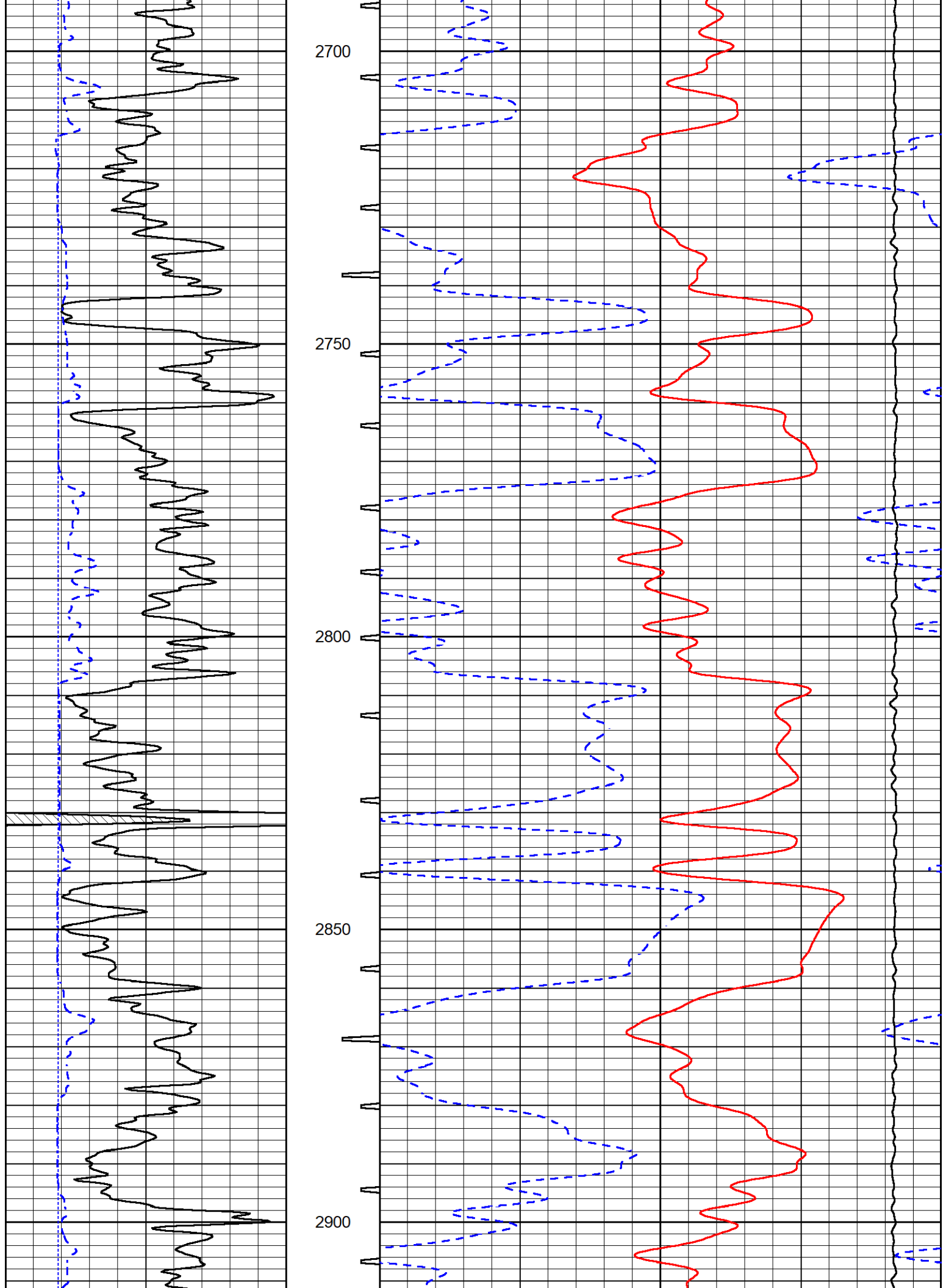


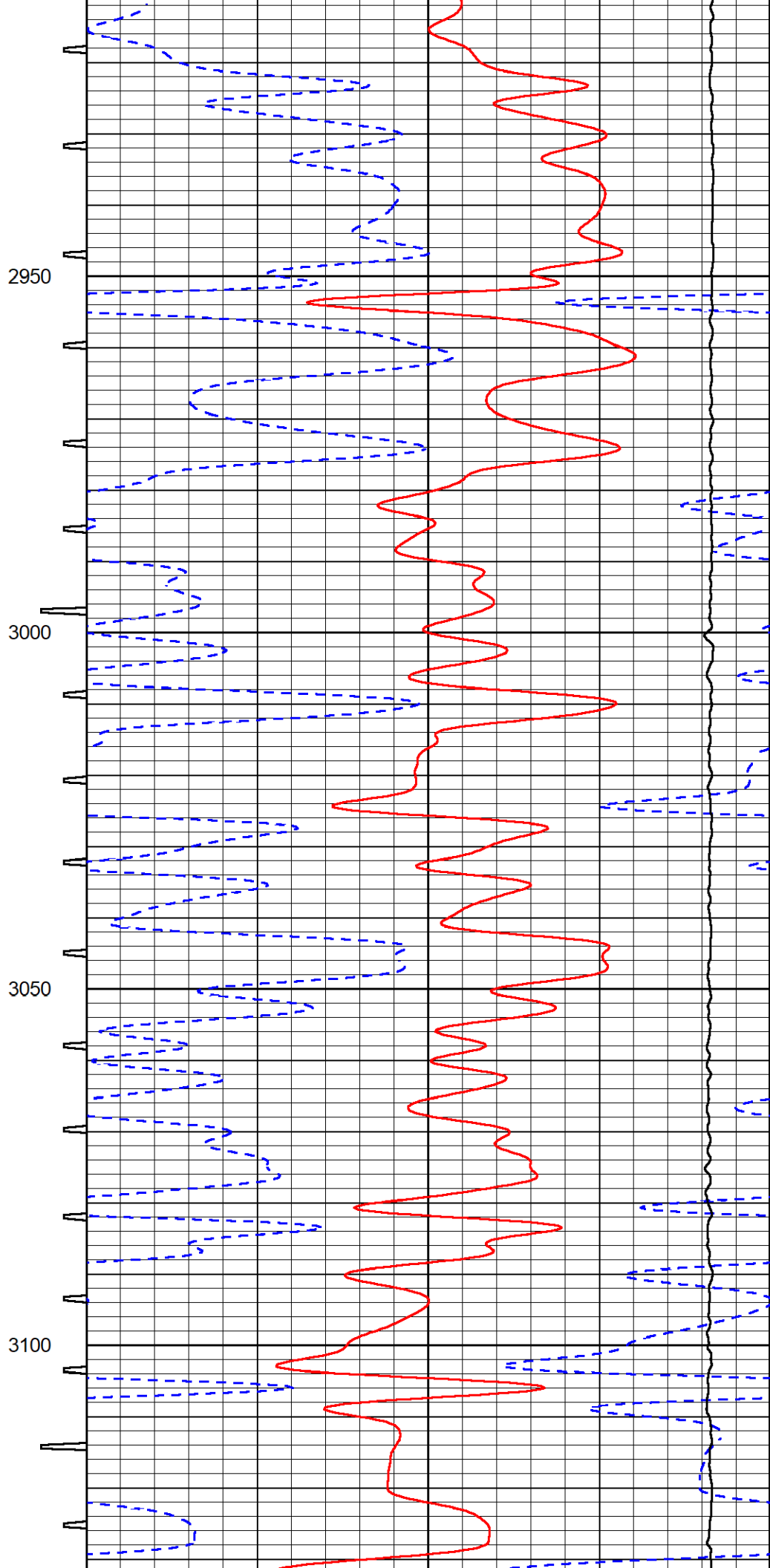
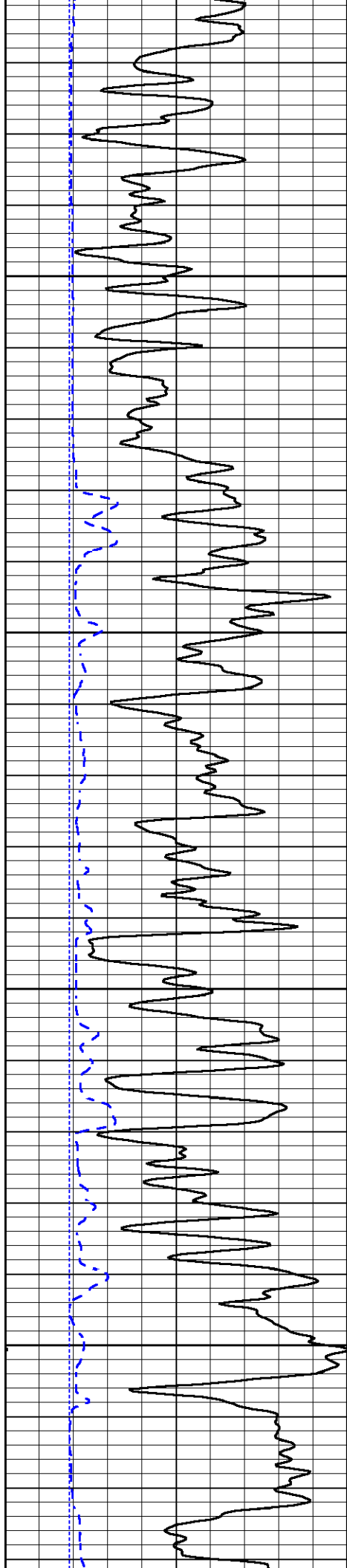










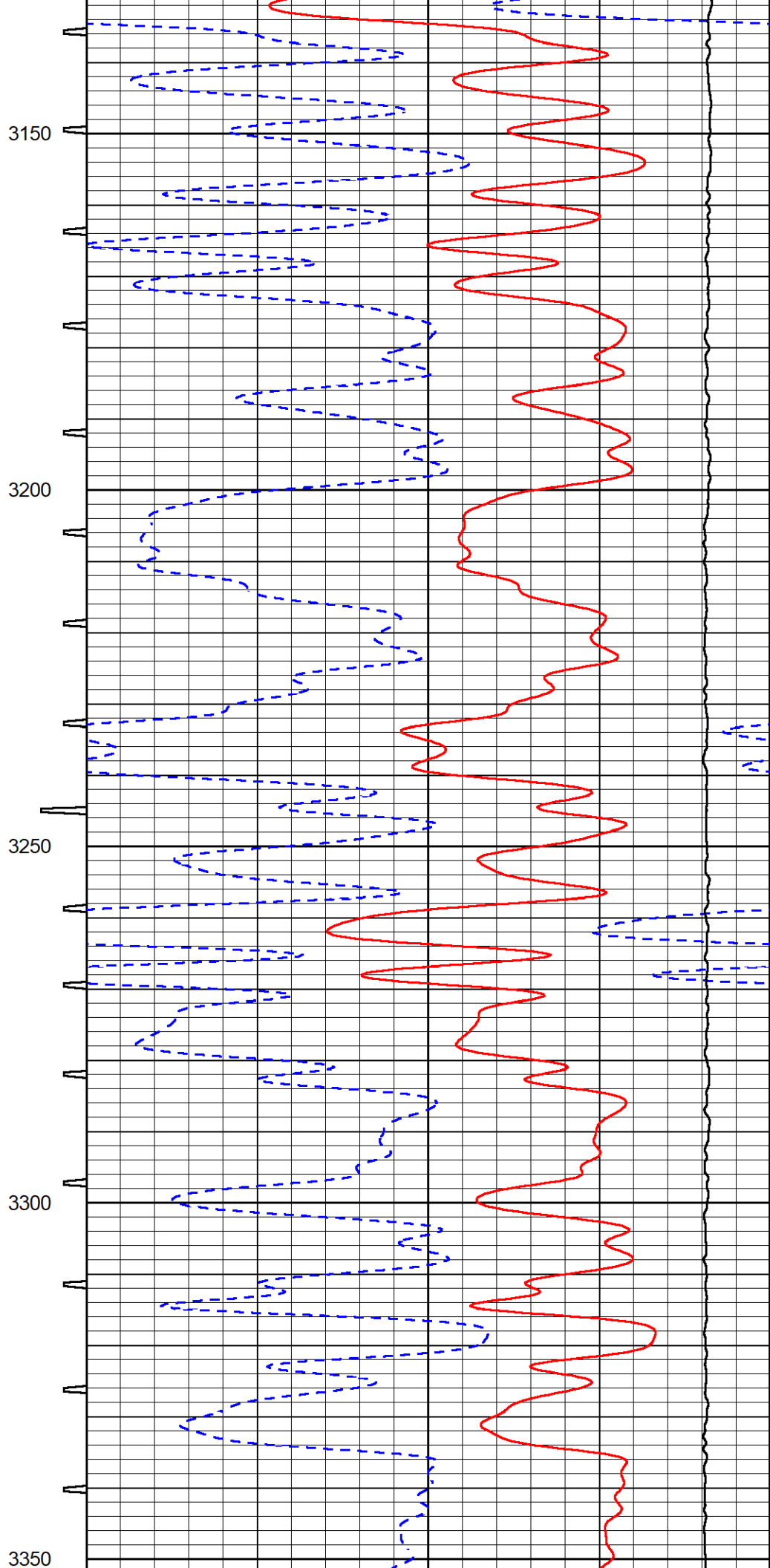
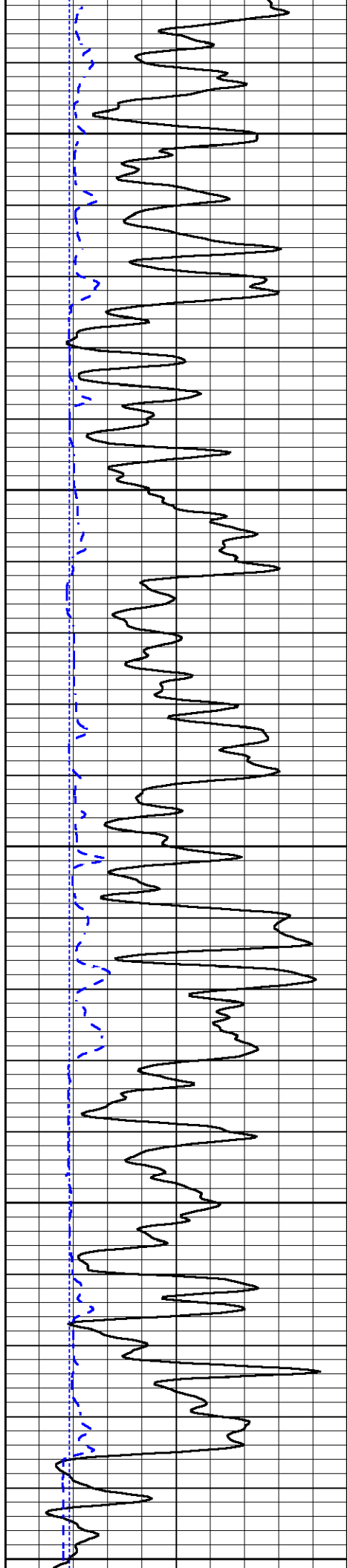


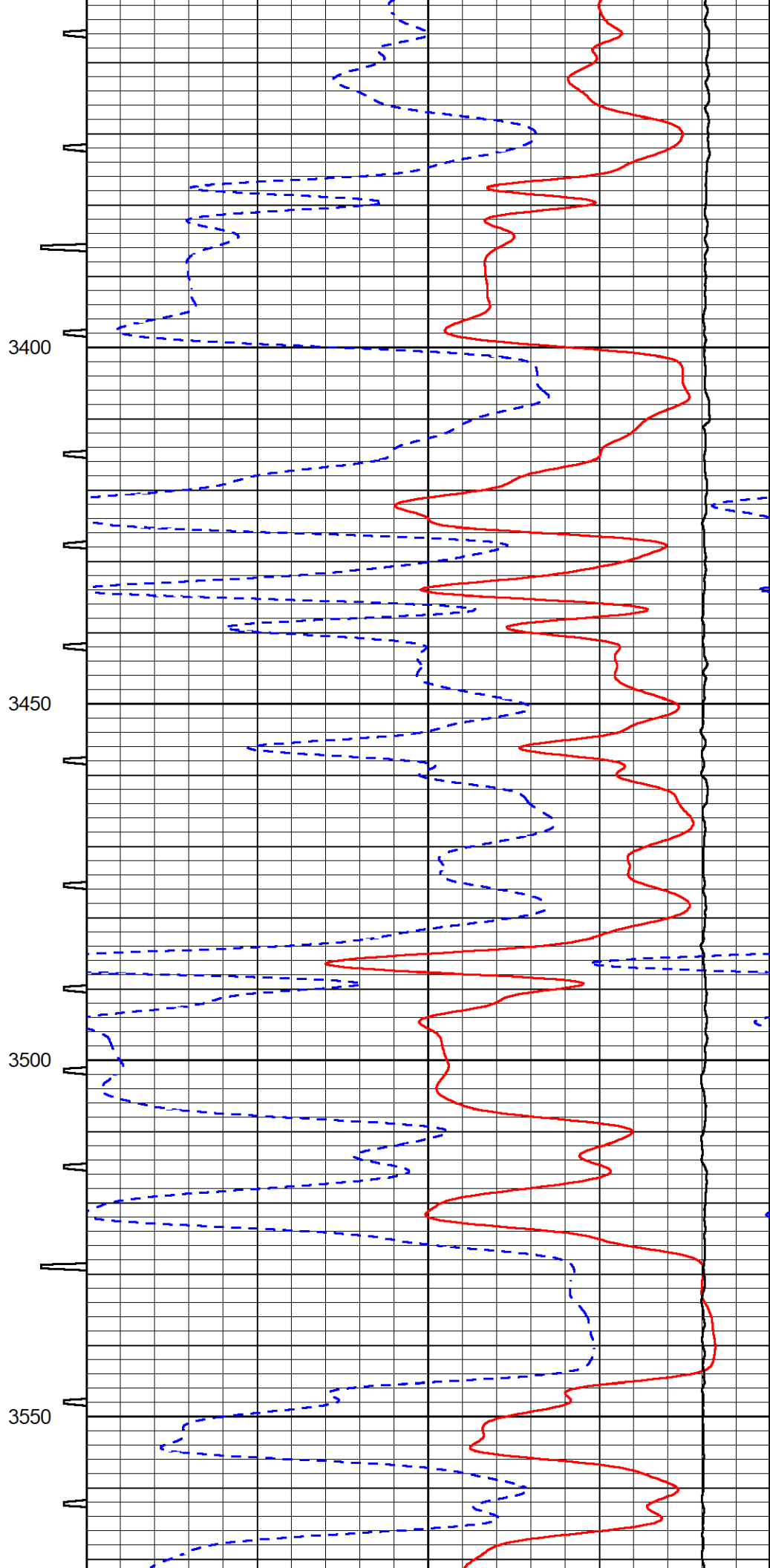
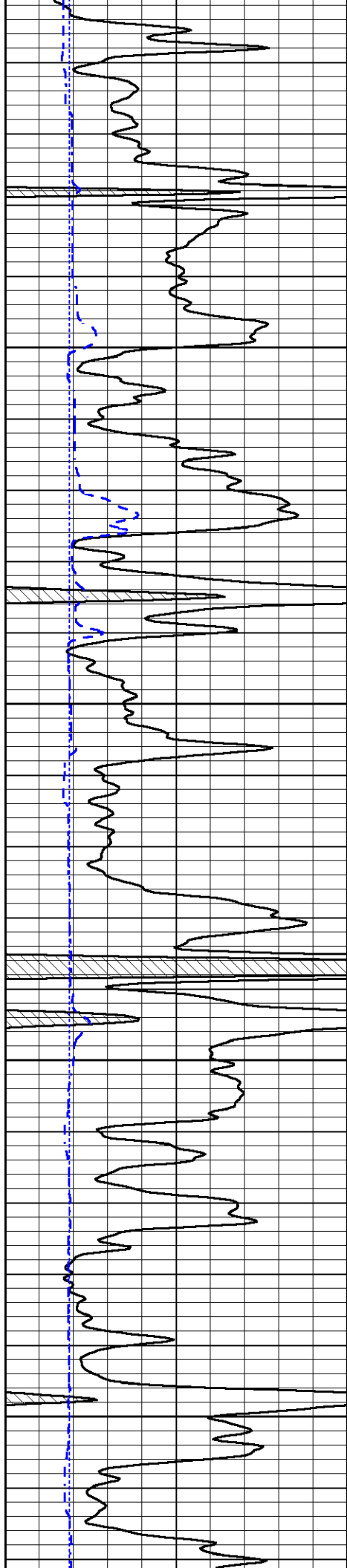
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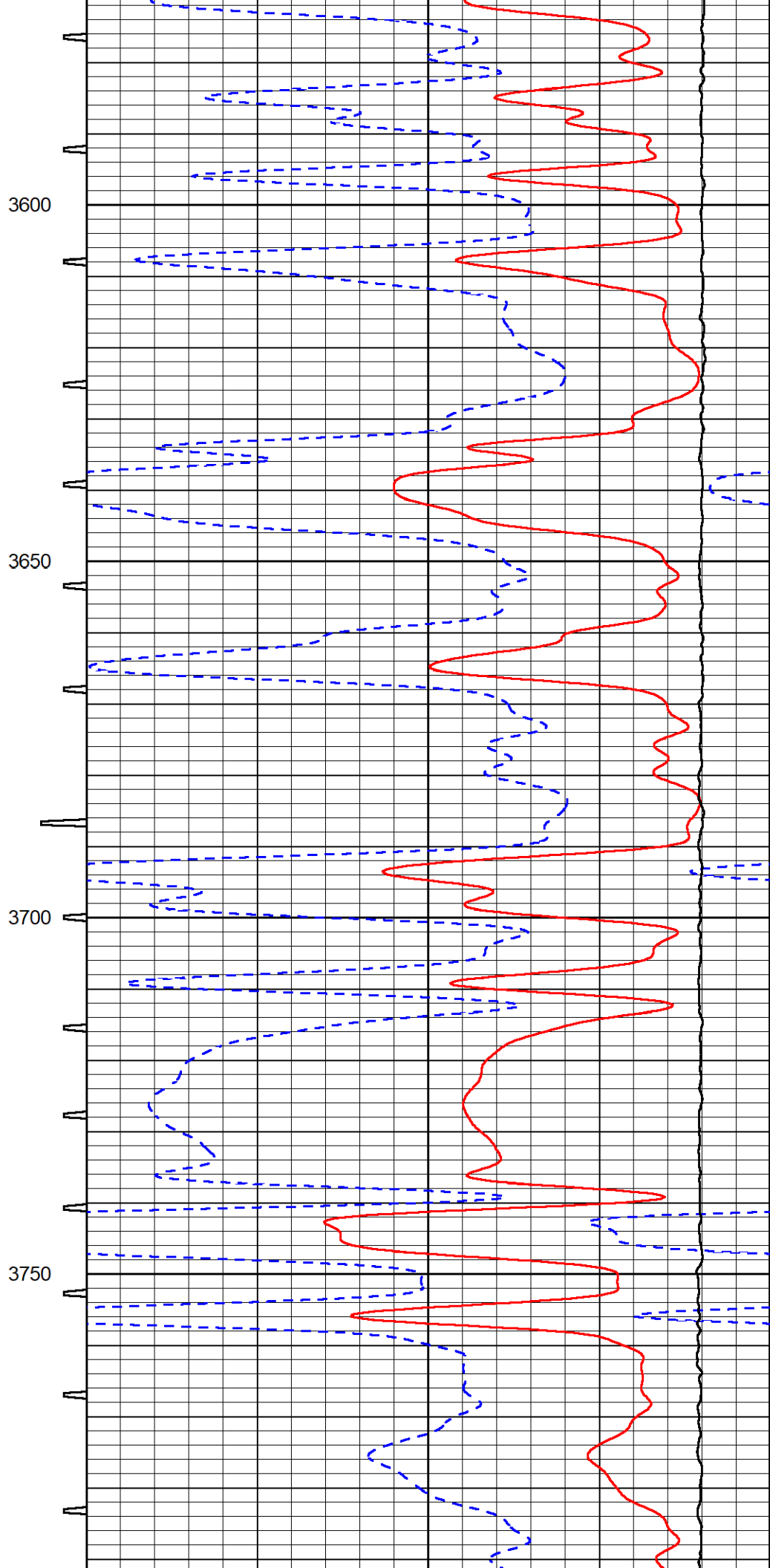
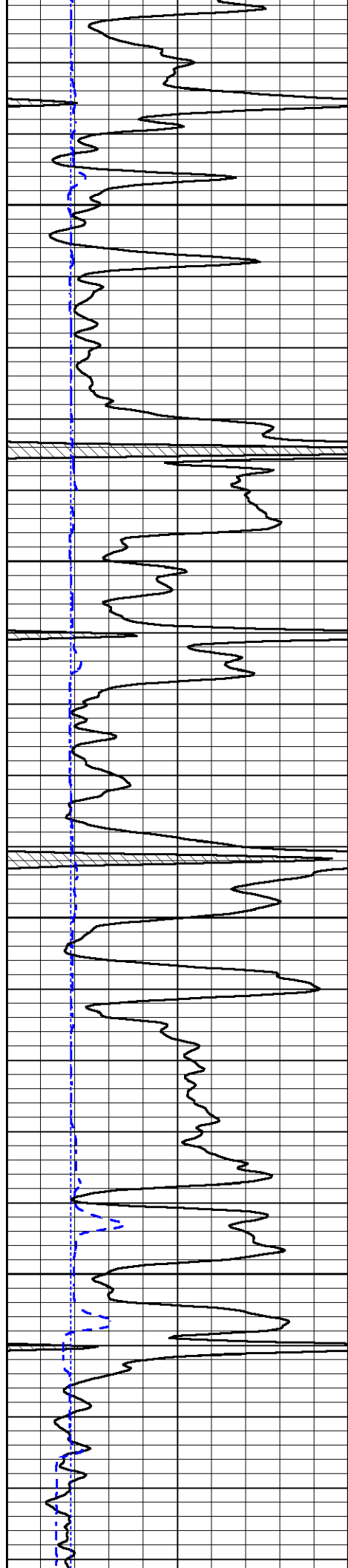
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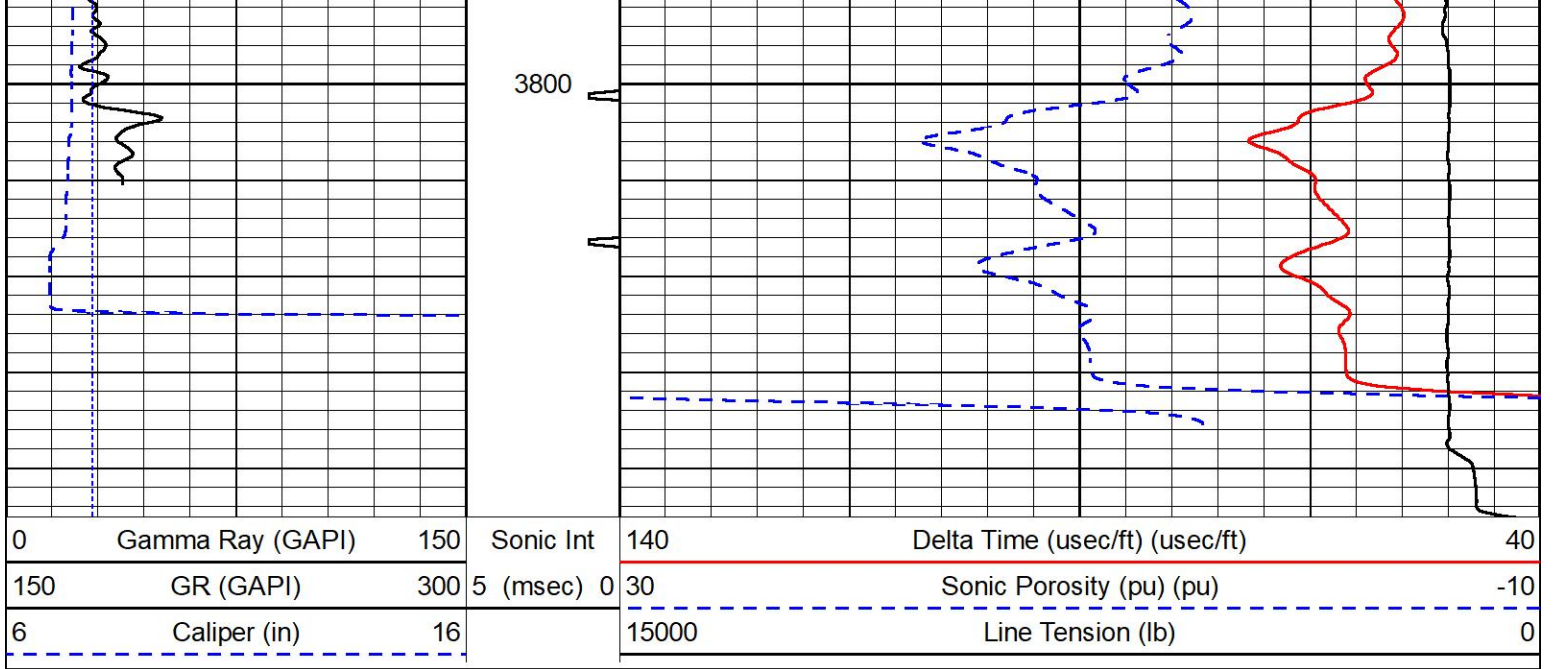
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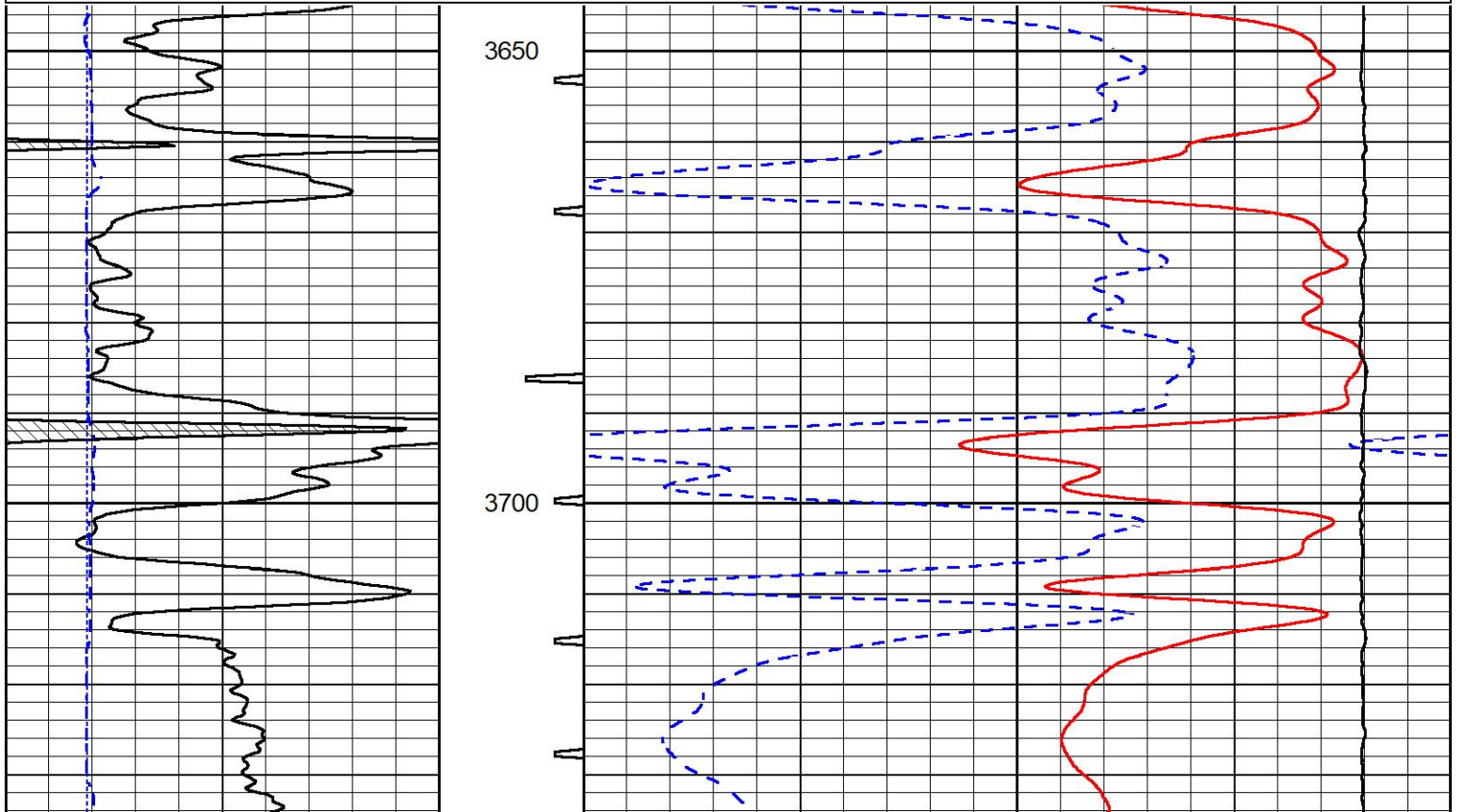
MIDWEST WIRELINE

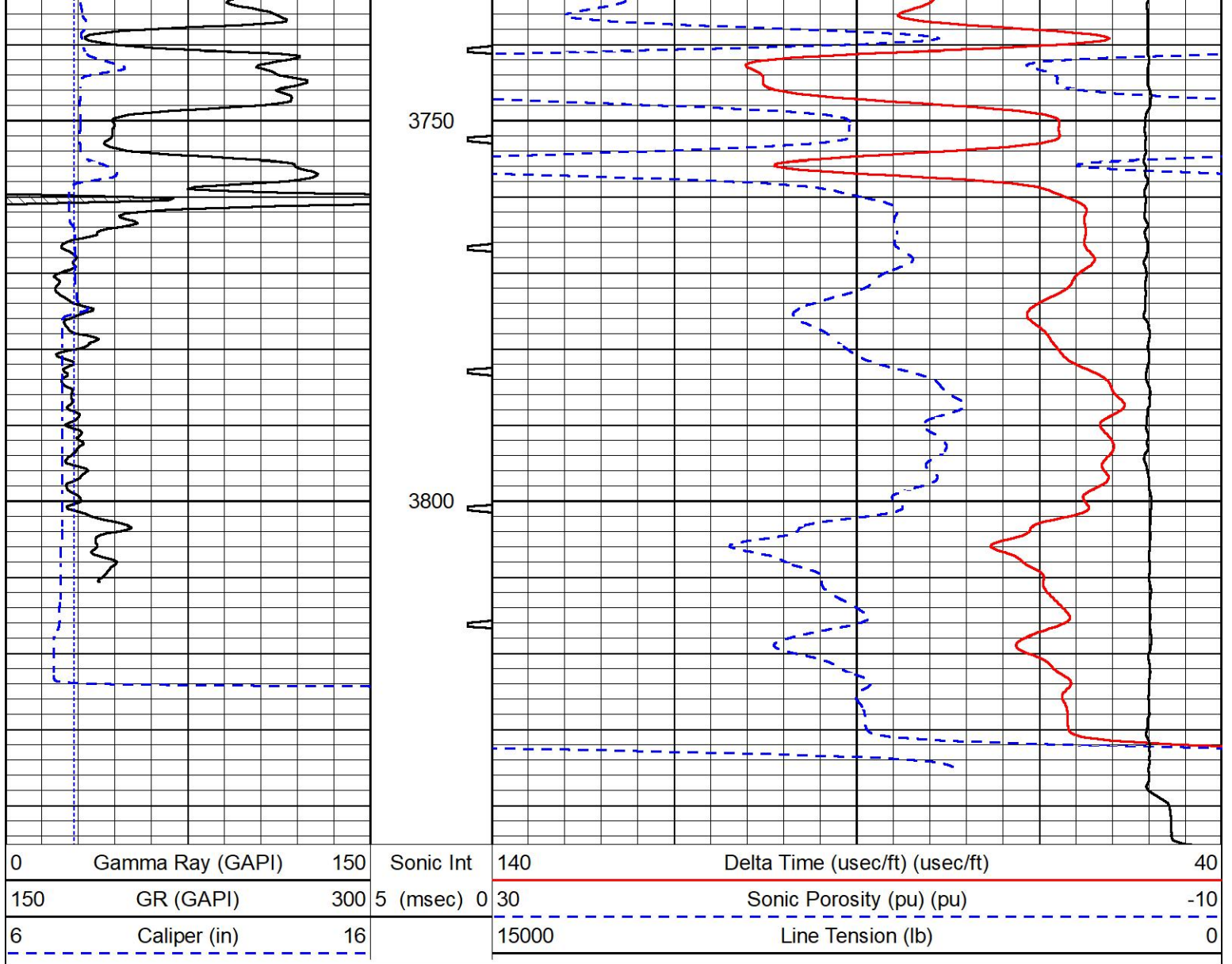
REPEAT SECTION

REPEAT PASS

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 Presentation Format _sonic
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