



Pioneer Energy Services

BOREHOLE COMPENSATED SONIC LOG

Company **PALMER OIL, INC.**

Well WILLIS #1-20

Field UNKNOWN

County **FINNEY** State **KANSAS**

Location: API #: 15-055-22478-00-00

NE SW SE NE
2038' FNL & 737' FEL

SEC 20 TWP 26S RGE 33W

Permanent Datum	GROUND LEVEL	Elevation	2926
Log Measured From	KELLY BUSHING		
Drilling Measured From	KELLY BUSHING		

	Elevation
K.B.	2937'
D.F.	N/A
G.L.	2926'

Date	2/24/2018
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Run Number	TWO
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Type Log	BHCS
...	...

Depth Driller	5400'
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Depth Logger	5400'
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Bottom Logged Interval	5389
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Top Logged Interval	1/30
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Type Fluid in Hole	CHEMICAL
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Salinity, PPM CL	2600
Density	0.997

Density	9.23

Level	FOLL
New Doc Items F	430 DEC 1

Operating Risk Time	130 Days
Max. Rec. Temp. 1	4011BS

Equipment	100	HM
Operating	1100	100

Recorded By	T MARTIN	
Equipment --	100	1/1

Witnessed By	I. WAIN
Witnessed By	I LIKE THOMP

[illegible]

Bin No	Bit	From	To

ONE	12 25"	00'	1780'
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ONE	7 875"	1780'	TD
TWO	7 875"	1780'	TD

[illegible]

<<< Fold Here >>>

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.

GARDEN CITY, S ON 83 APPX 14 MI TO W TV RD,
5 W TO SANDHILL RD. 1/4 S. W INTO

Log Measured From: KELLY BUSHING 11 Ft. Above Permanent Datum

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

Your Pioneer Energy Services Crew

Engineer: T. MARTIN
Operator:
Operator:
Operator:

This Log Record Was Witnessed By

Primary Witness: LUKE THOMPSON
Secondary Witness:
Secondary Witness:
Secondary Witness:

Log Variables

DatabaseC:\ProgramData\Warrior\Data\palmer_willis_#1-20.db
Dataset field/well/stack/pass3.1/_vars_

Top - Bottom

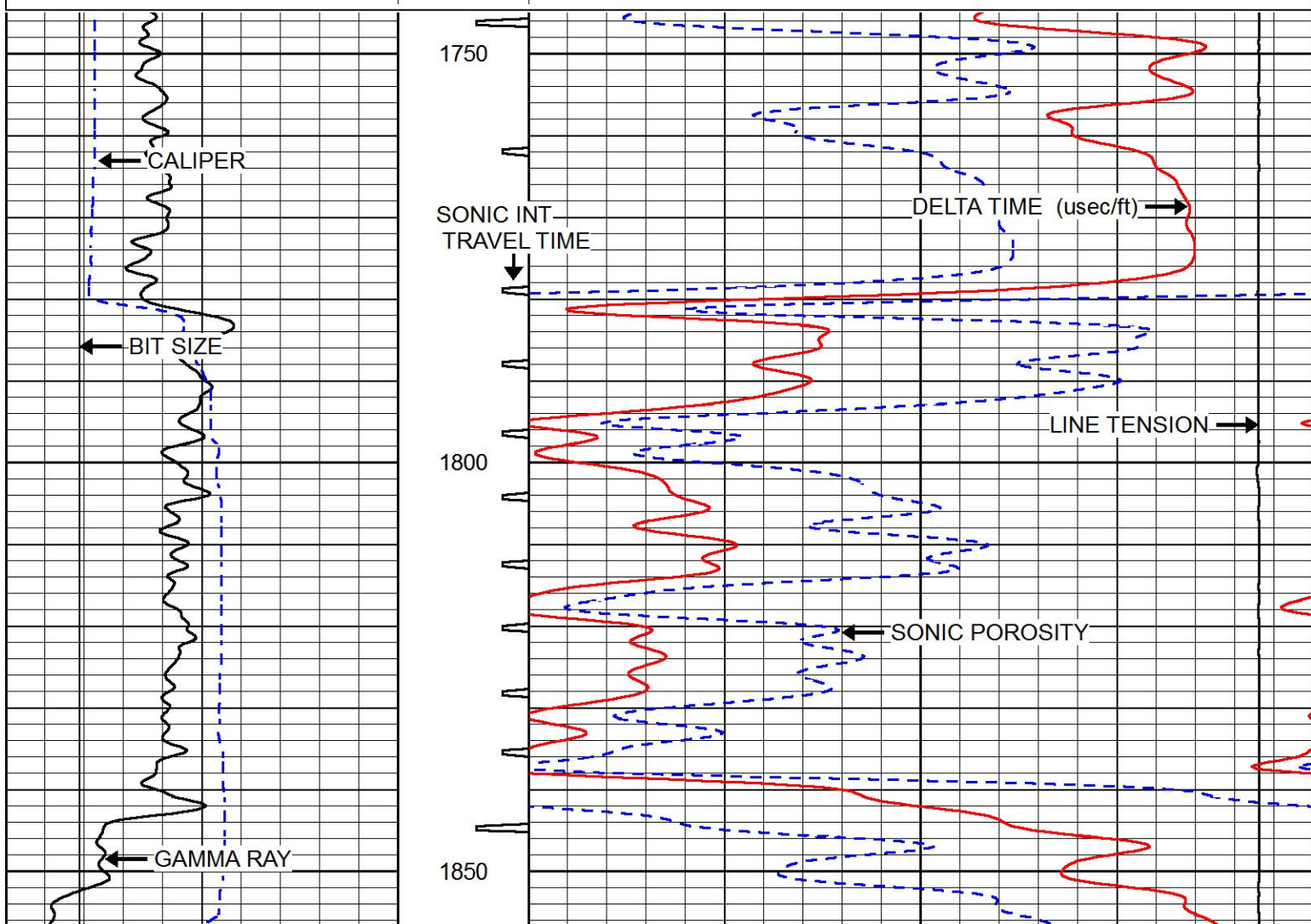
A	BOREID	BOTTEMP	CASEOD	CASETHCK	FLUIDDEN	M	MATRXDEN
1	in	degF	in	in	g/cc	2	g/cc
	7.875	130	5.5	0	1		2.71
NPORSEL	PERFS	SNDERR	SNDERRM	SPSHIFT	SRFTEMP	SZCOR	TDEPTH
Limestone	0	mmho/m	mmho/m	mV	degF	Off	ft
		0	0	-210	30		5400

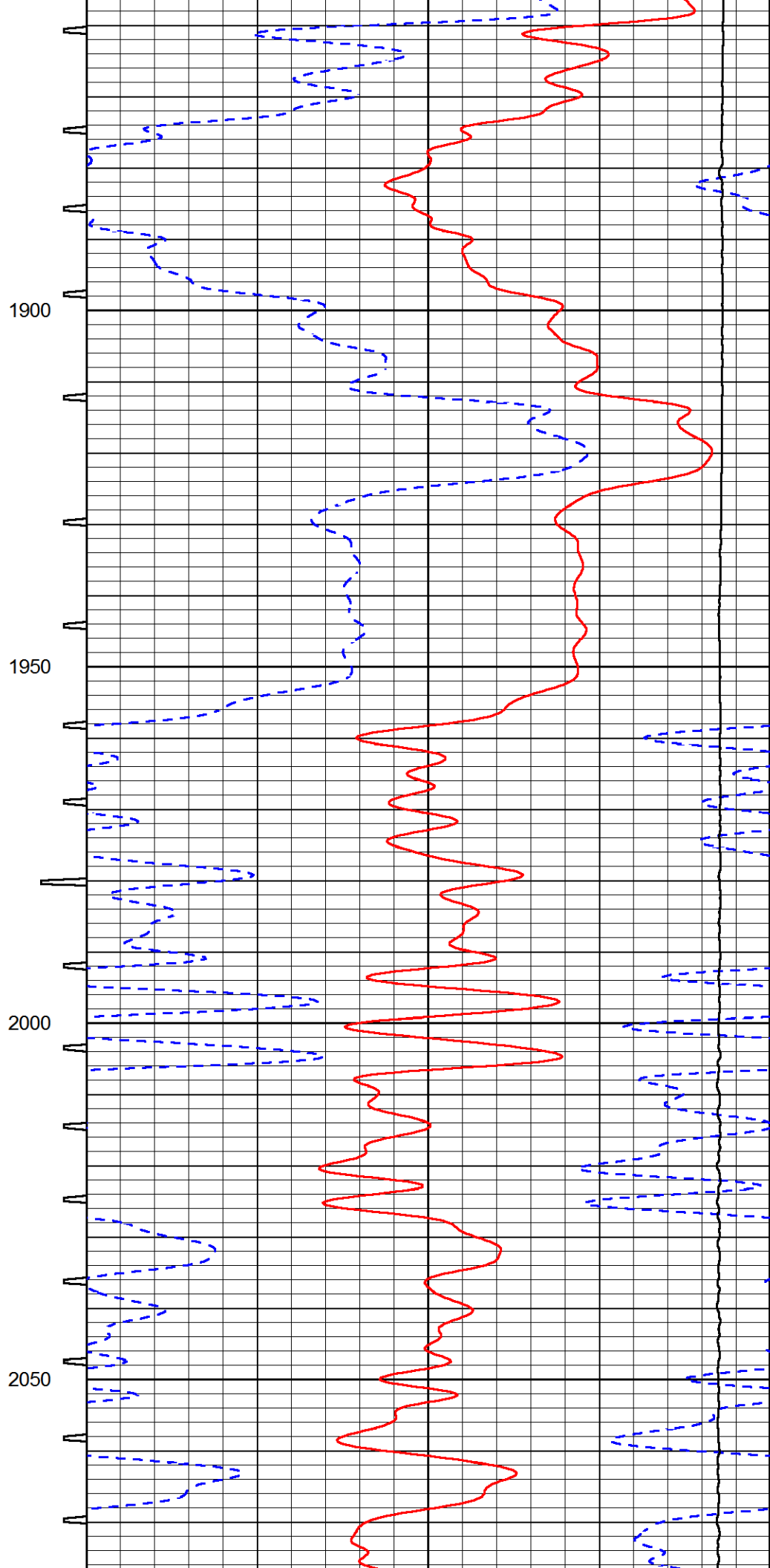
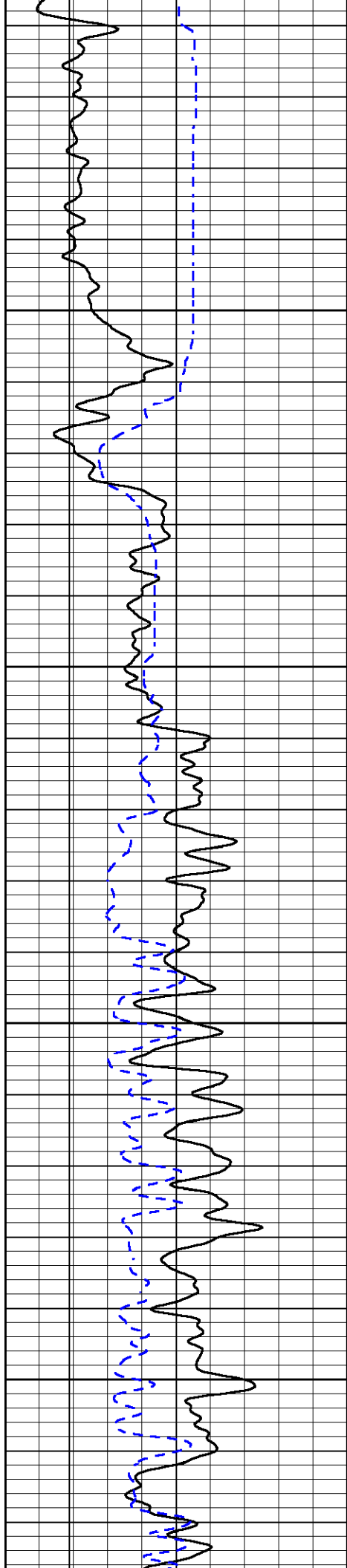


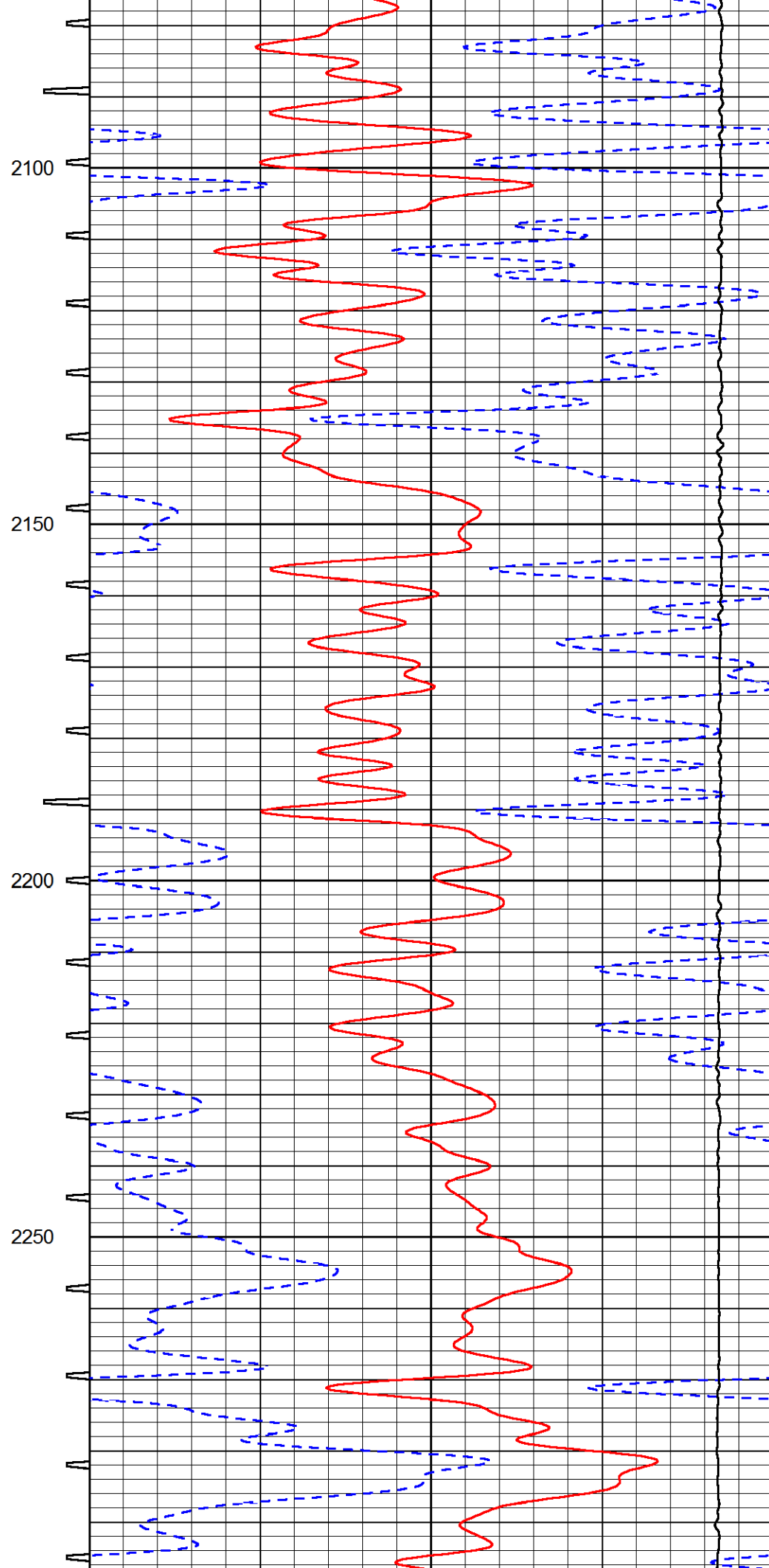
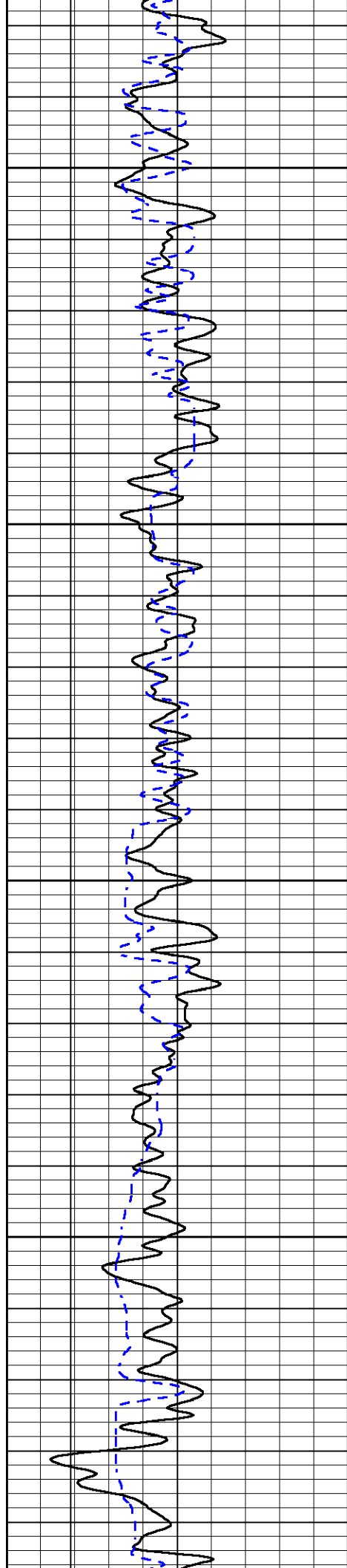
MAIN PASS

Database File palmer_willis_#1-20.db
Dataset Pathname stack/pass3.1
Presentation Format sonic
Dataset Creation Sat Feb 24 07:55:27 2018
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	RAVEL TIM	30	SONIC POROSITY (pu)	-10
6	BIT SIZE	16	(msec)	15000	LINE TENSION (lb)	0







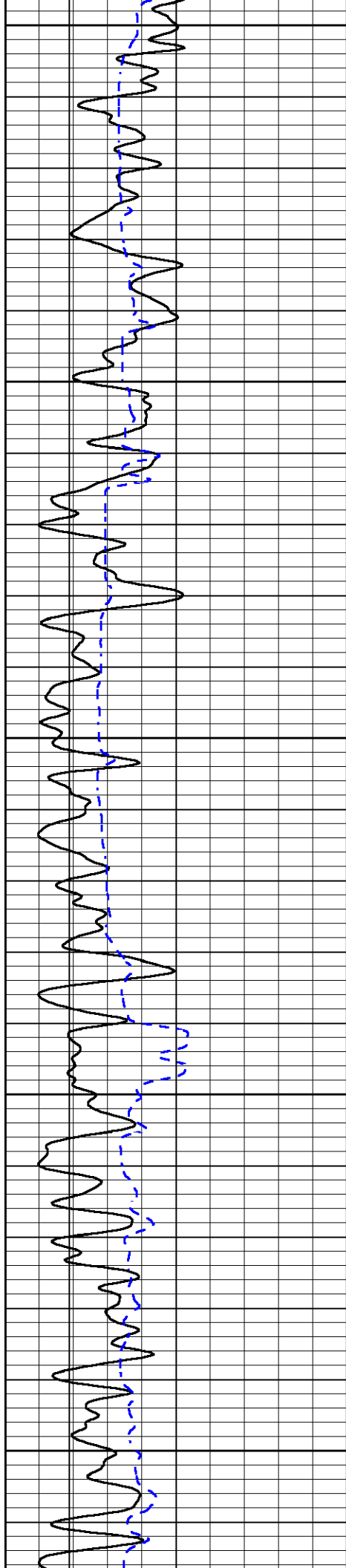
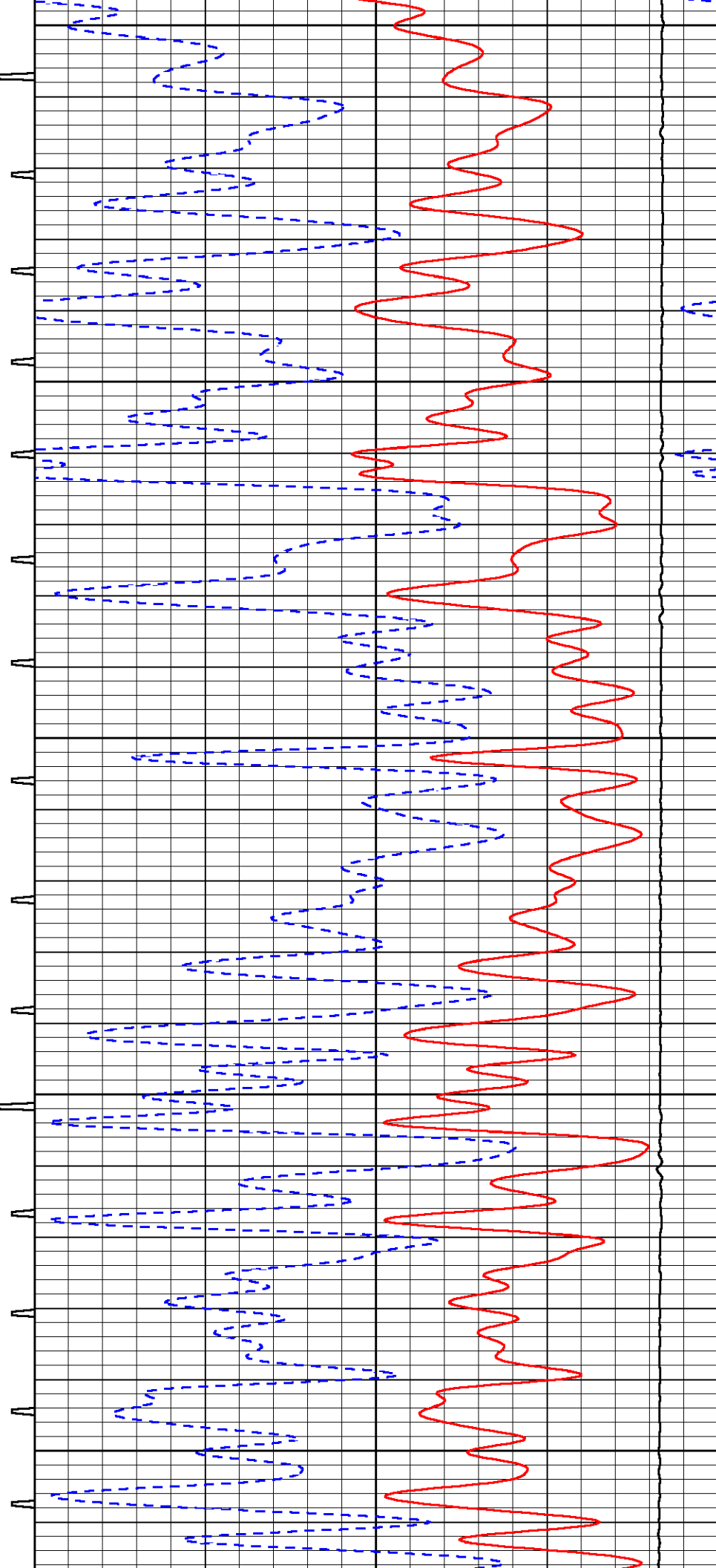
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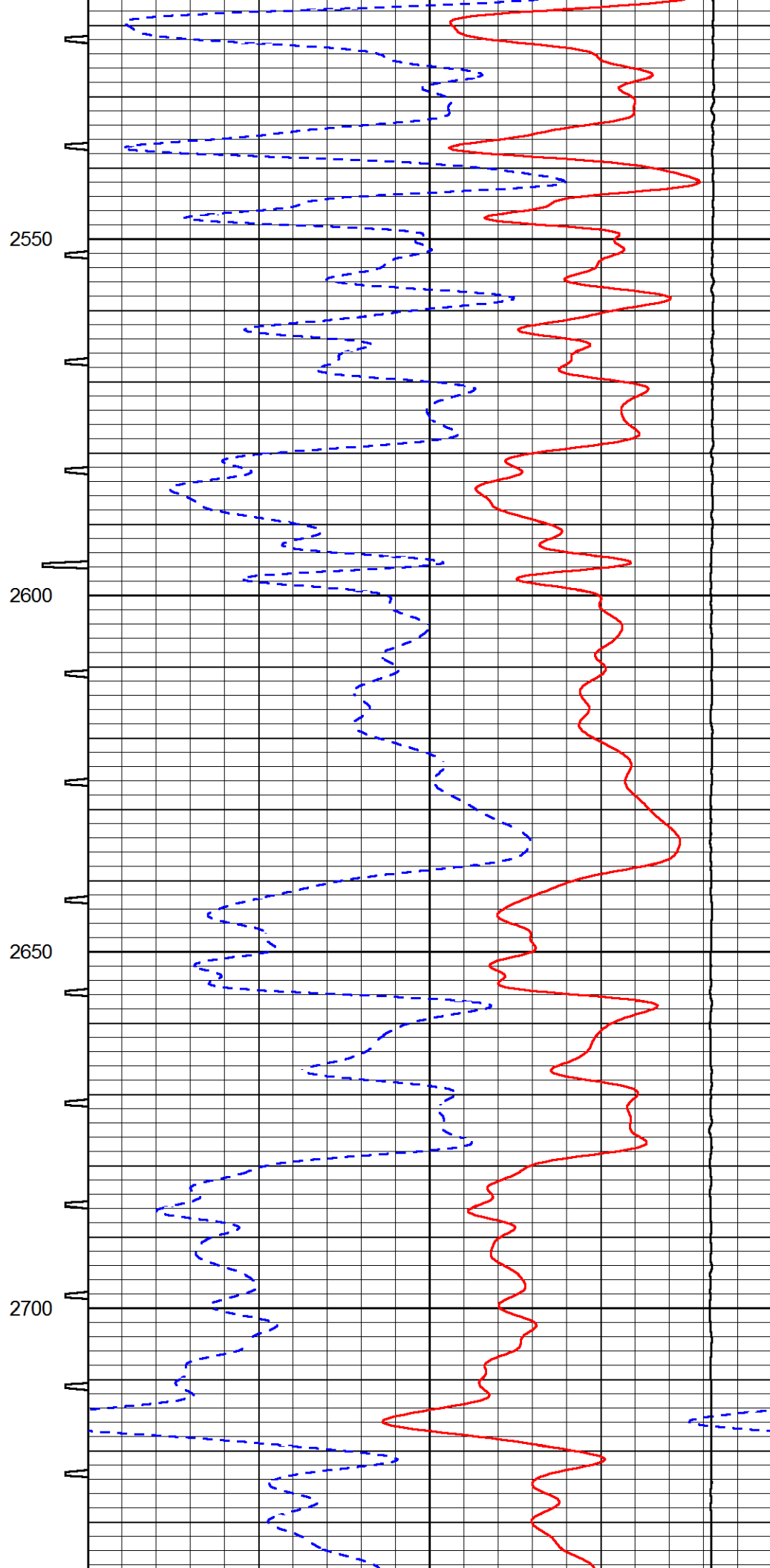
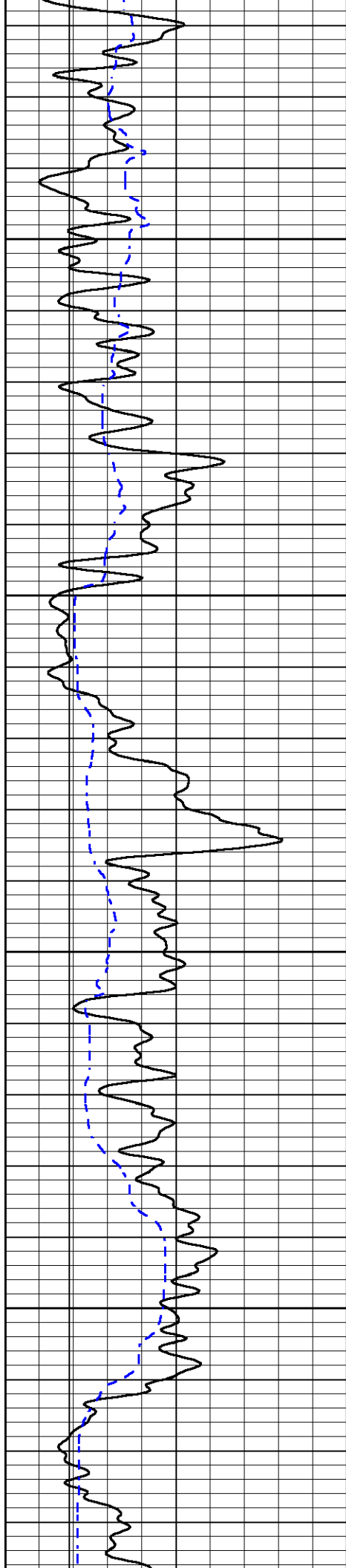
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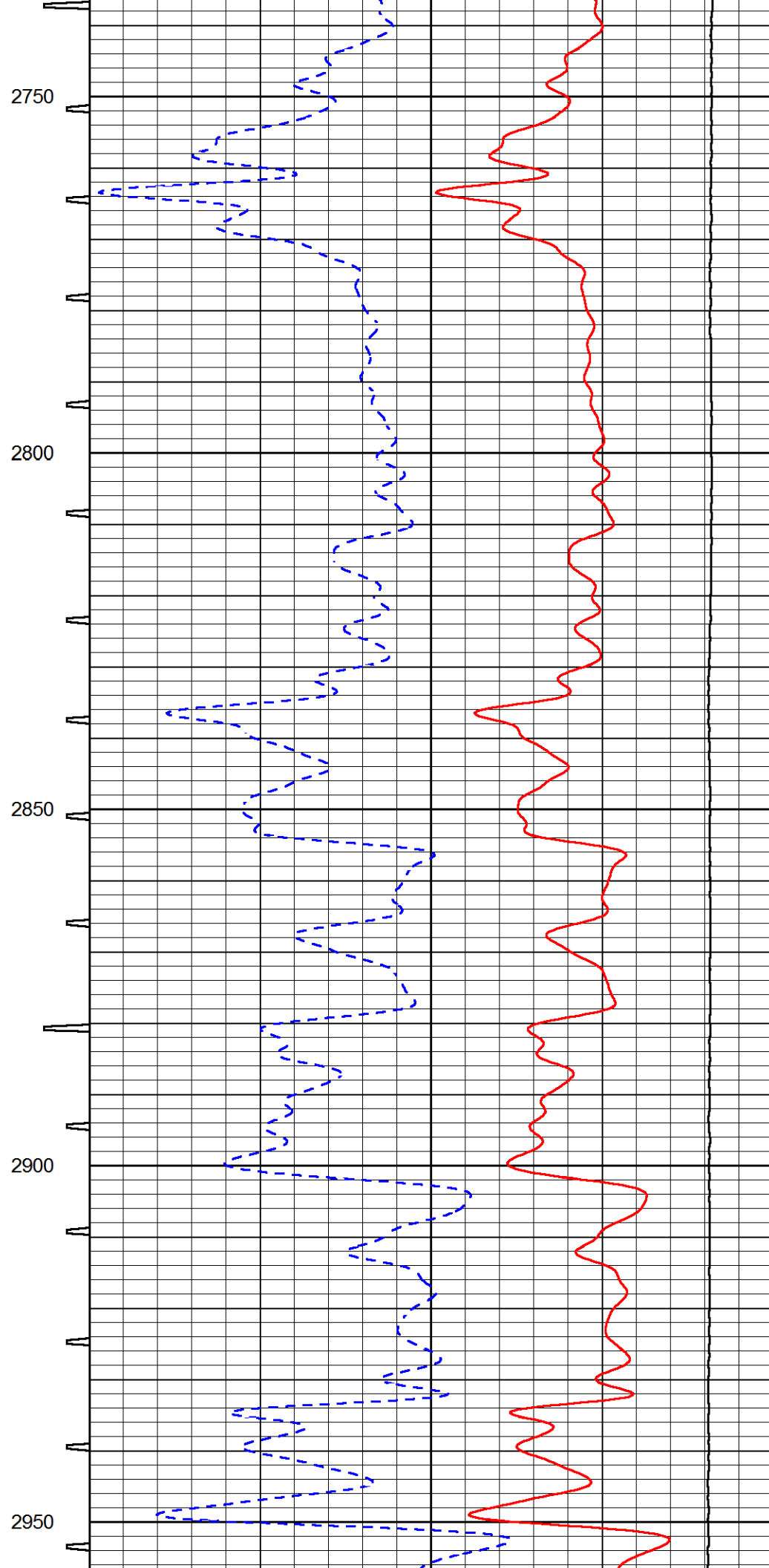
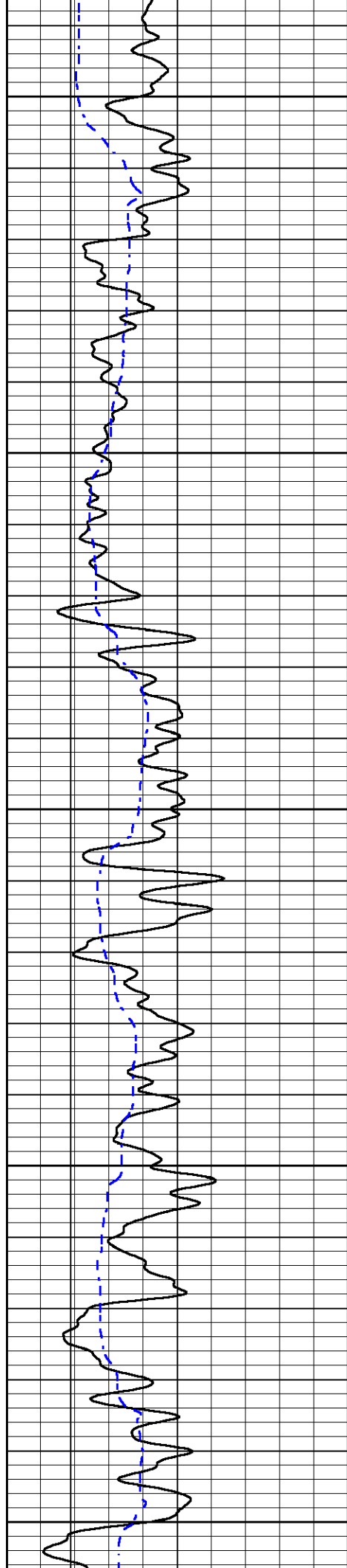
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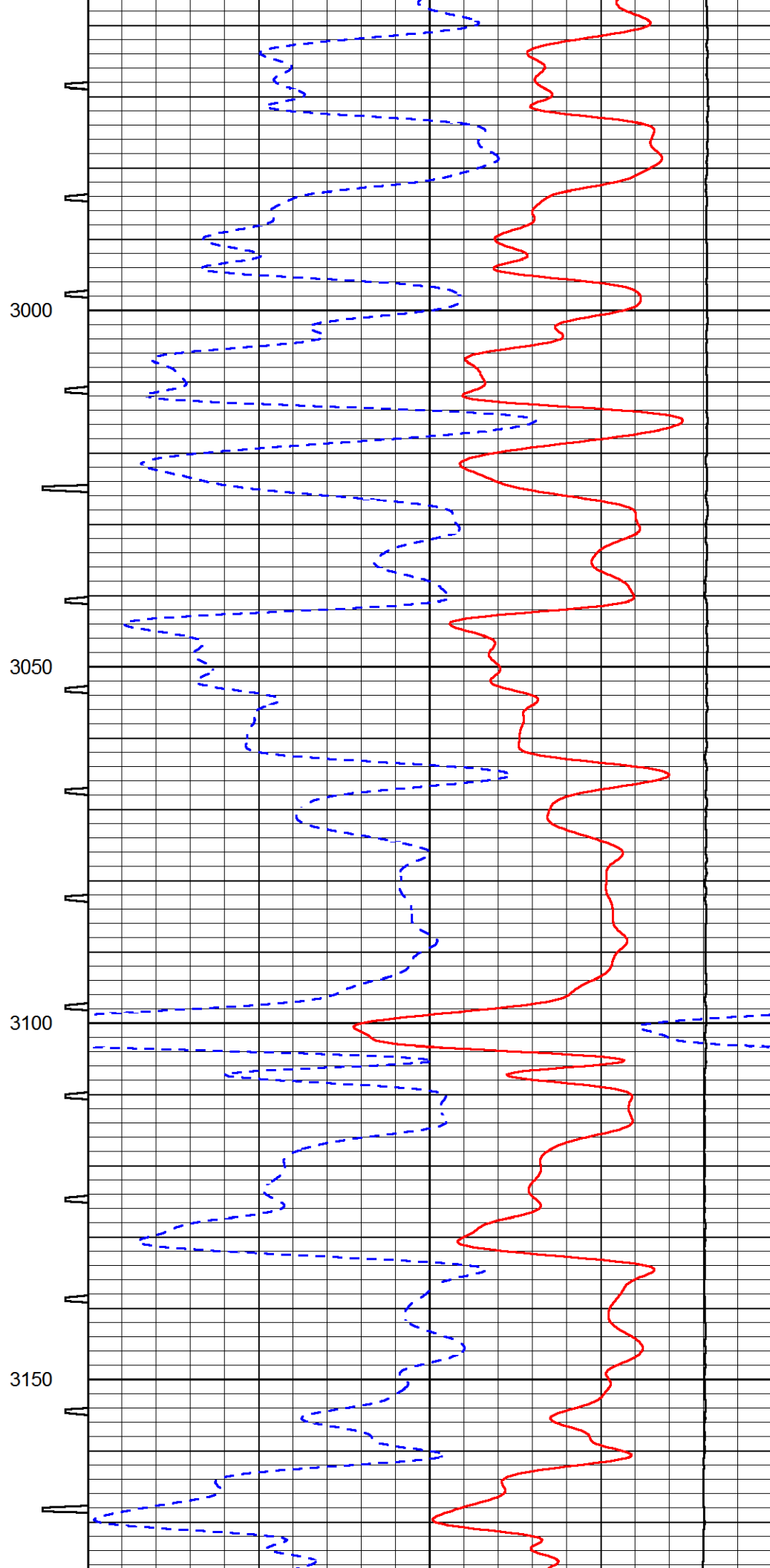
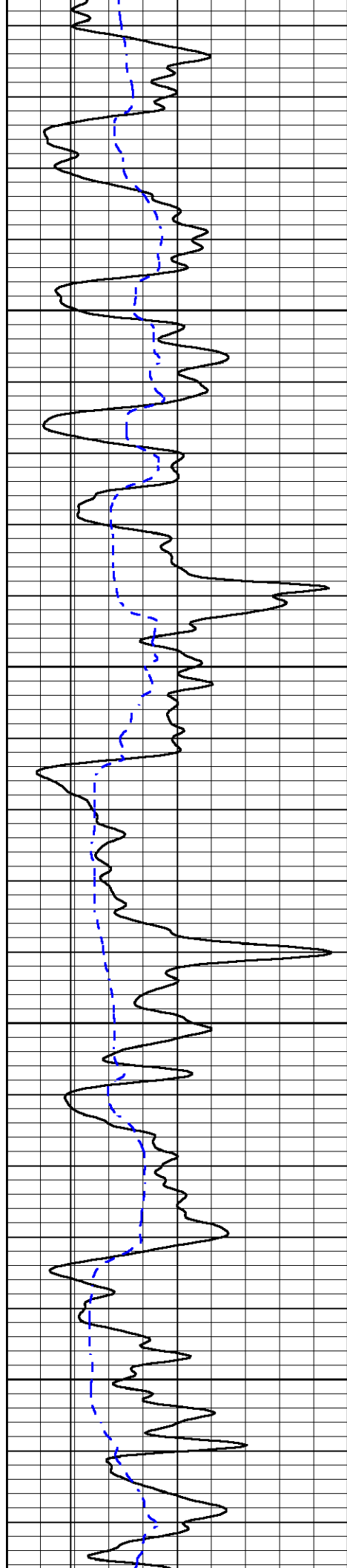
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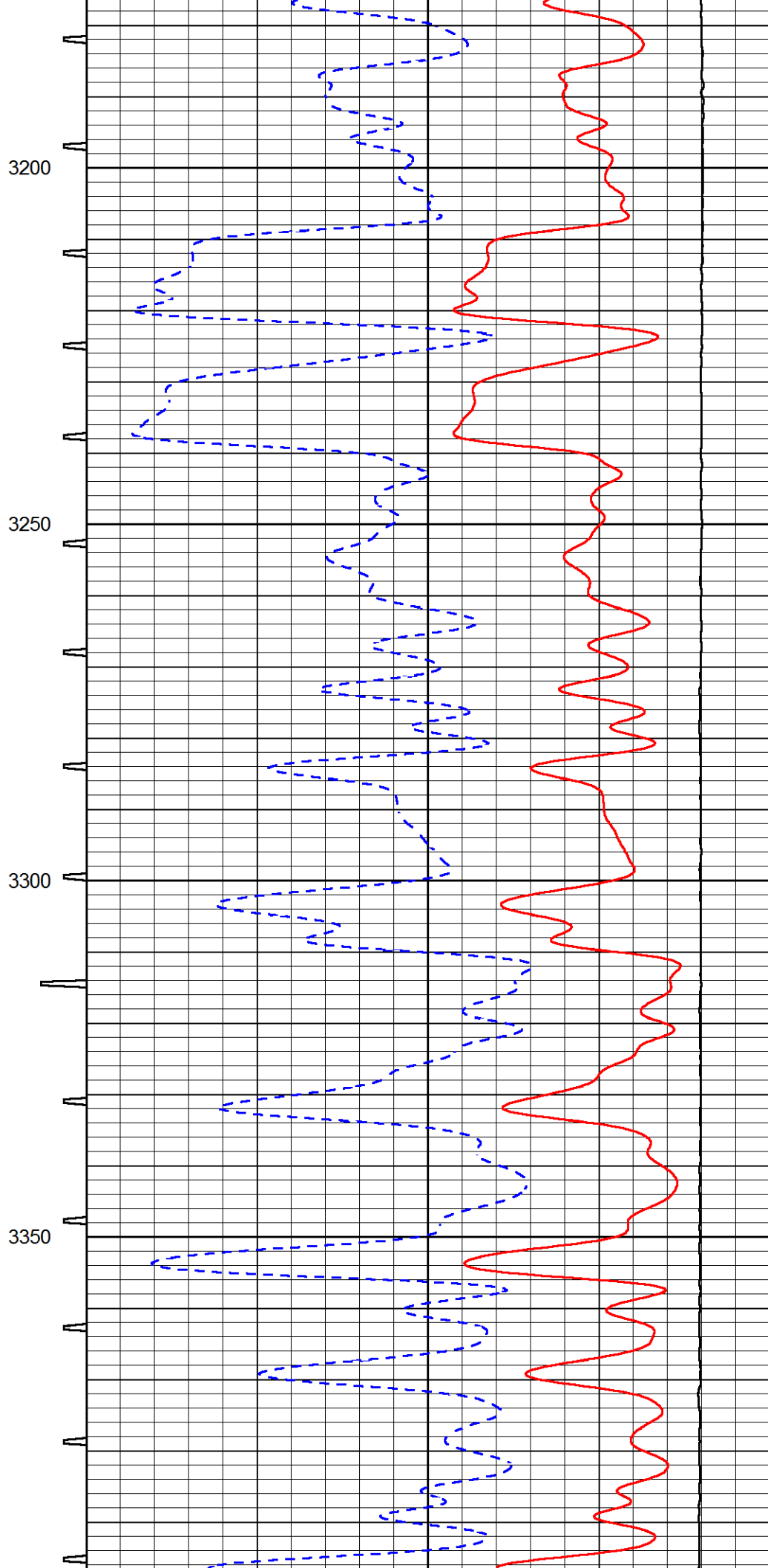
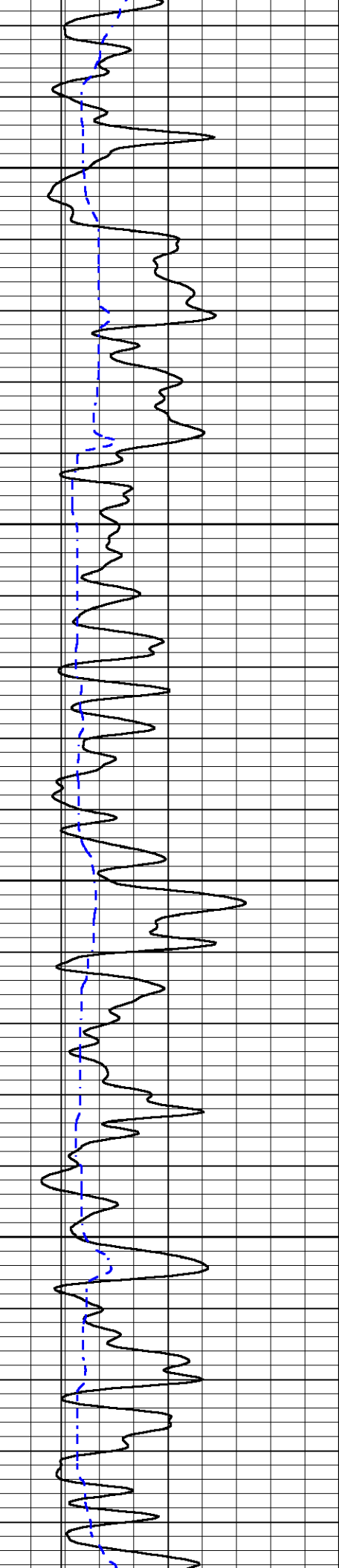
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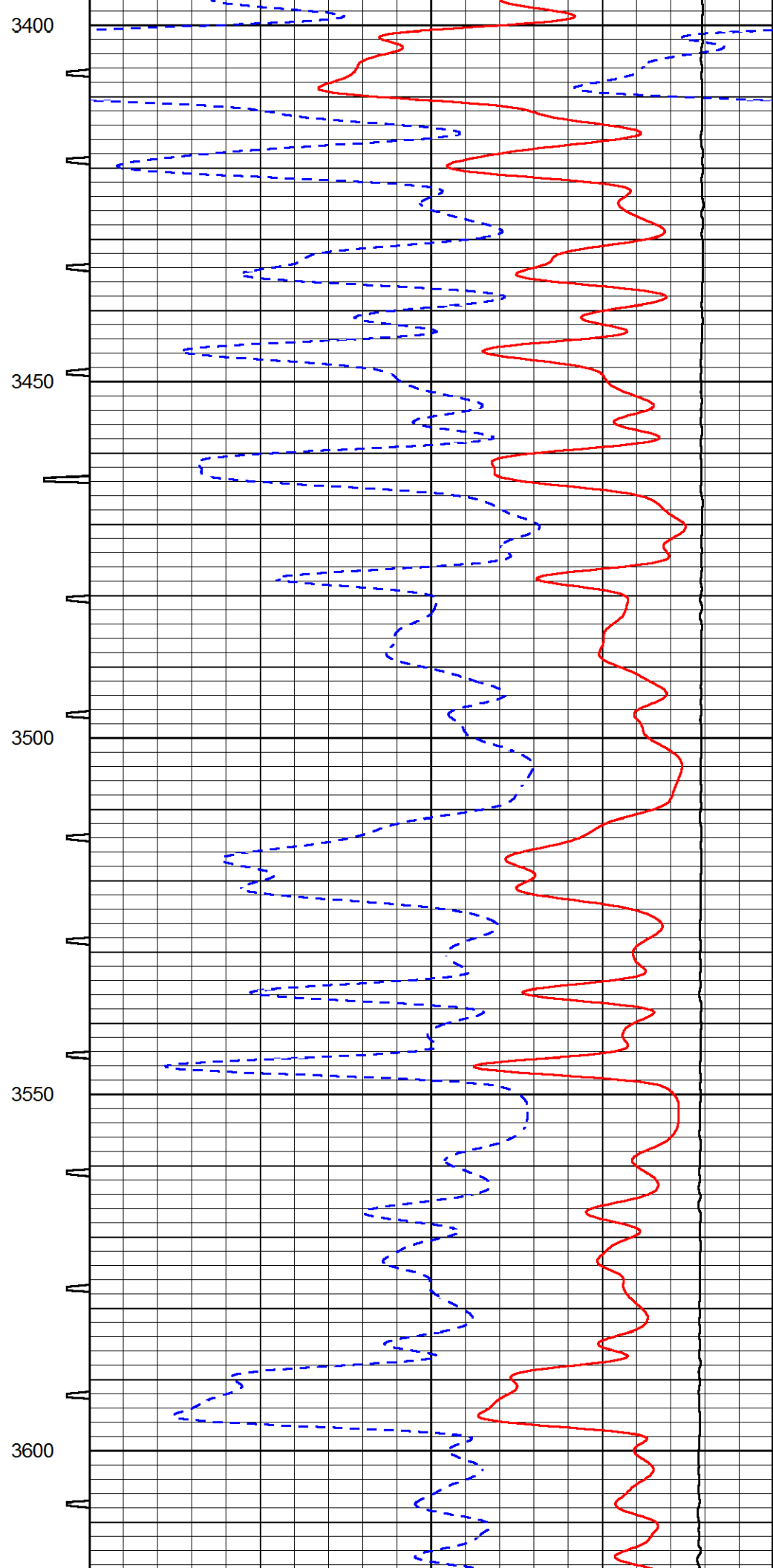
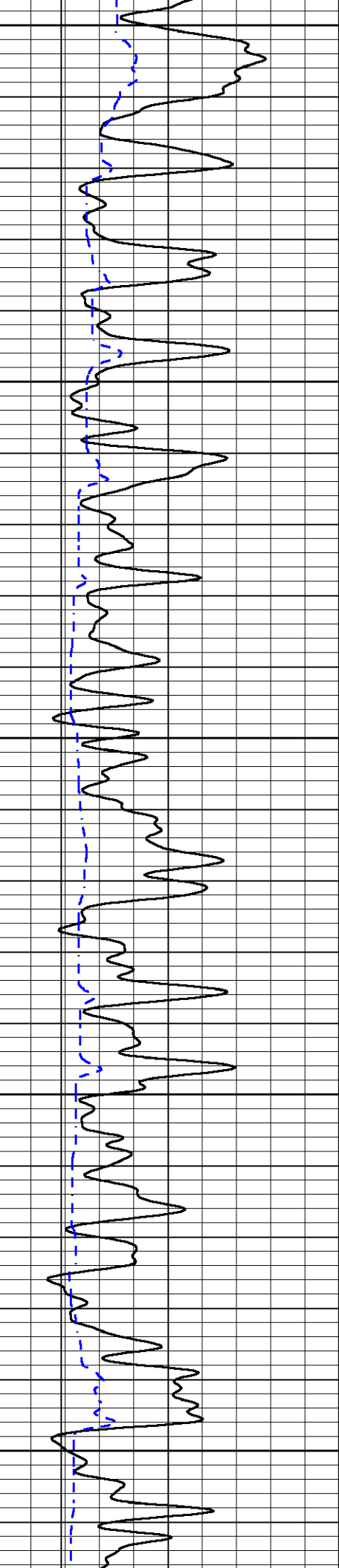


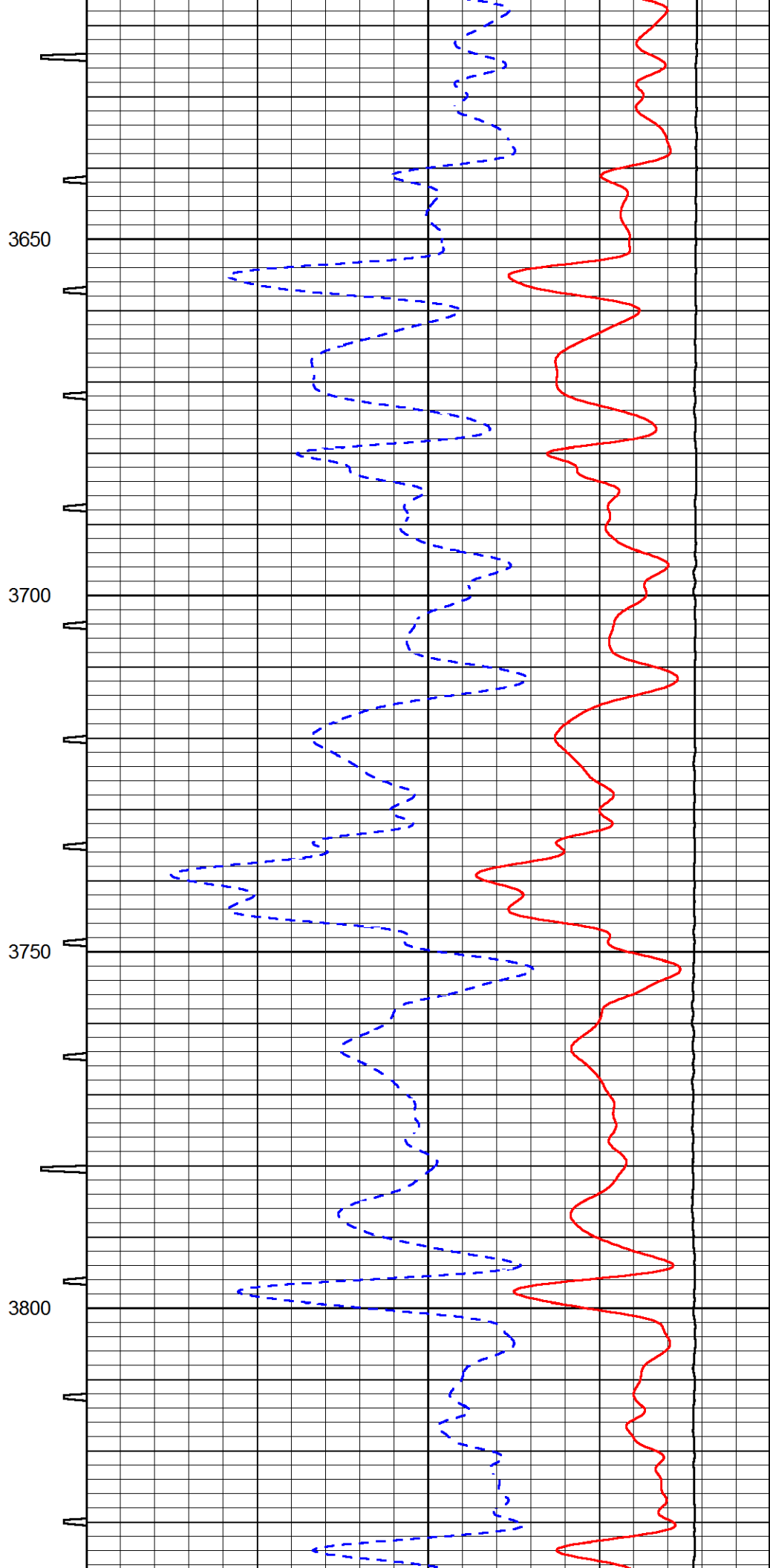
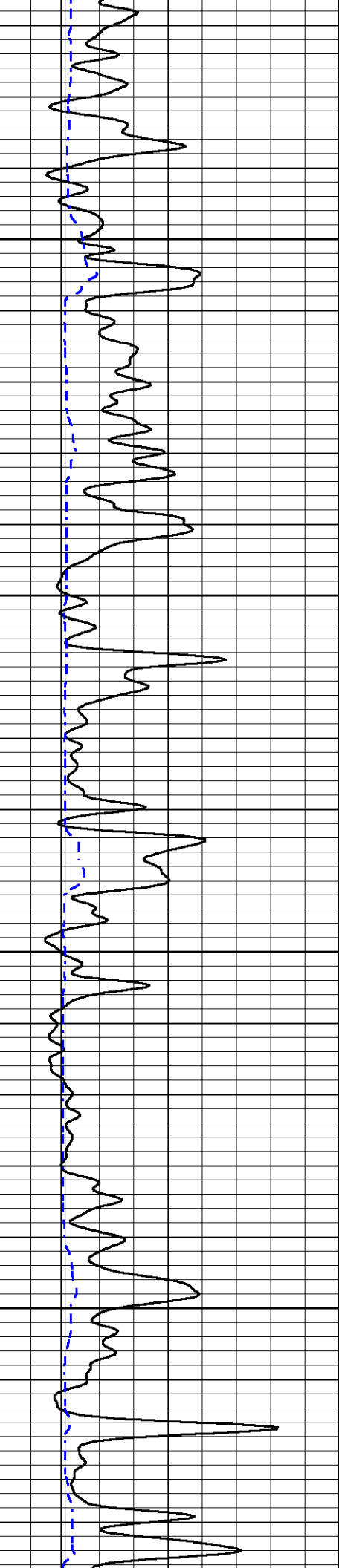


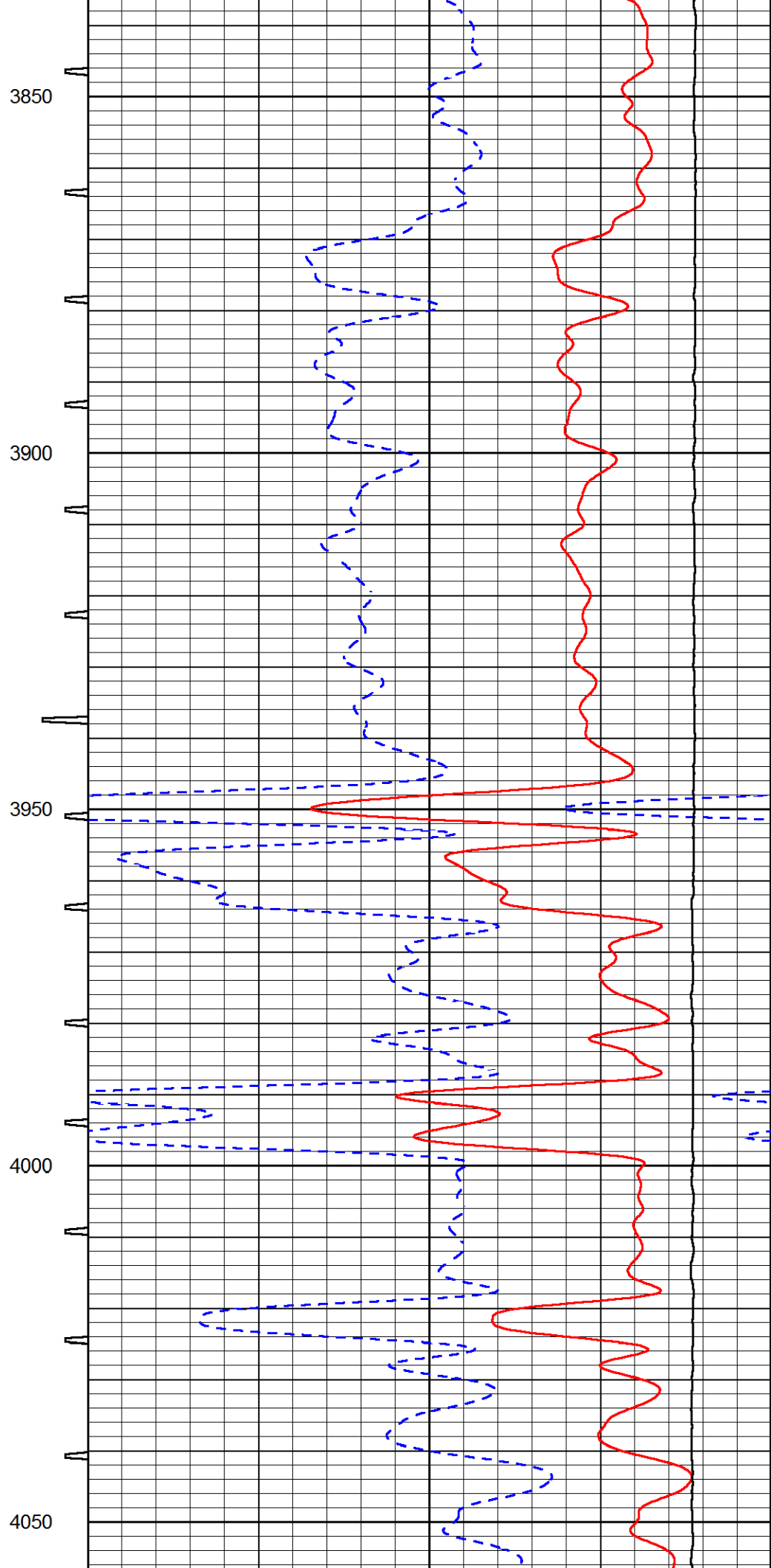
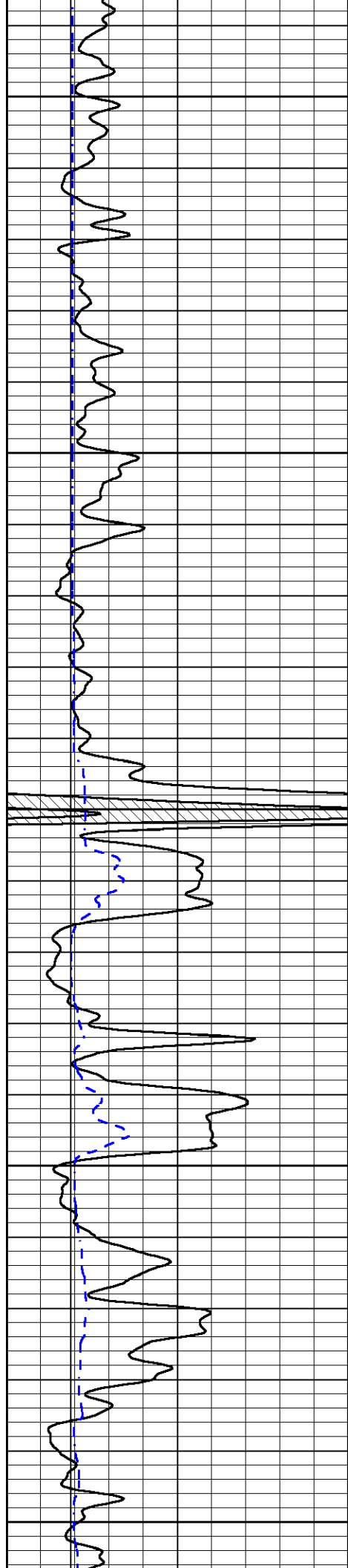


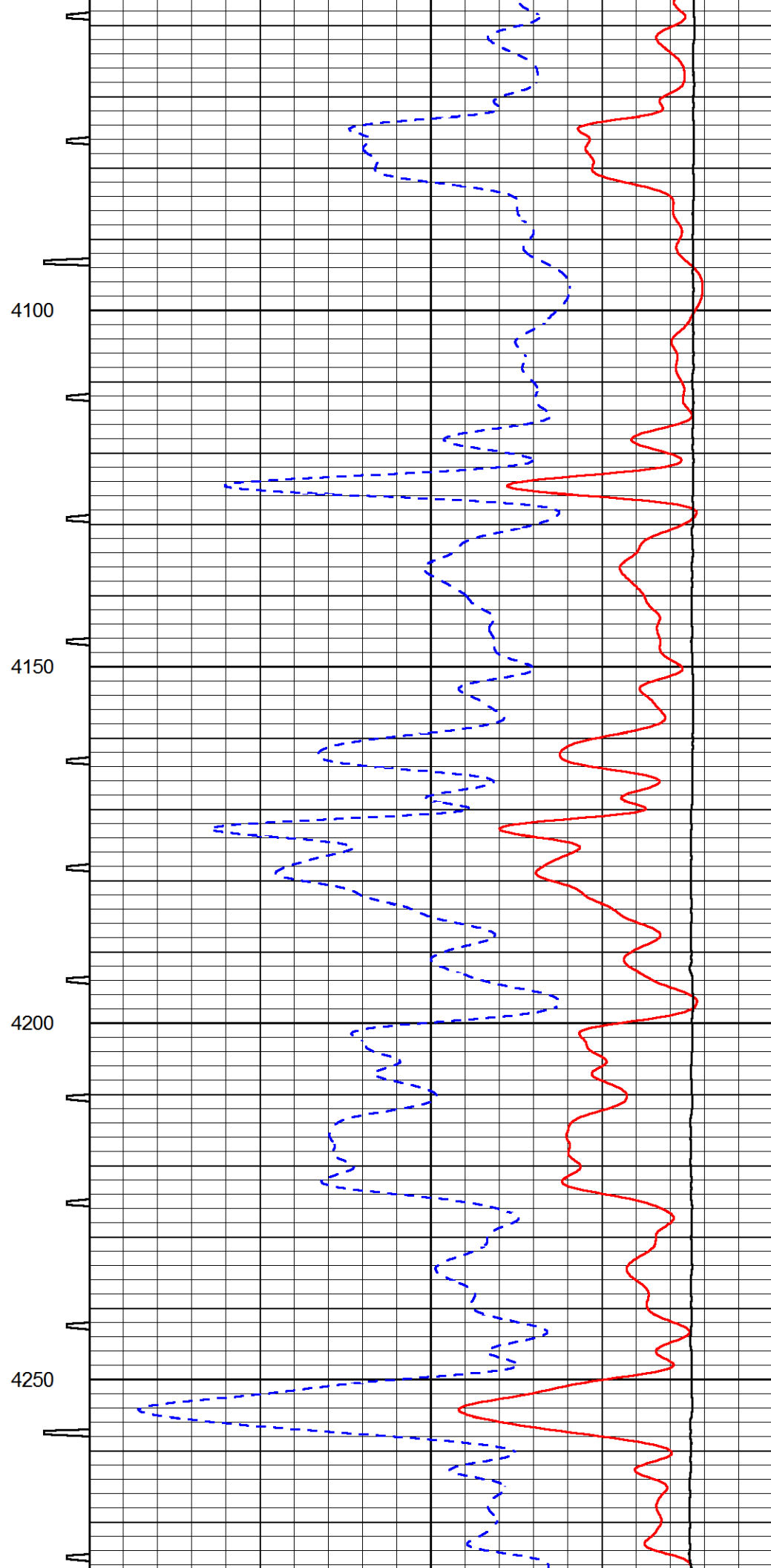
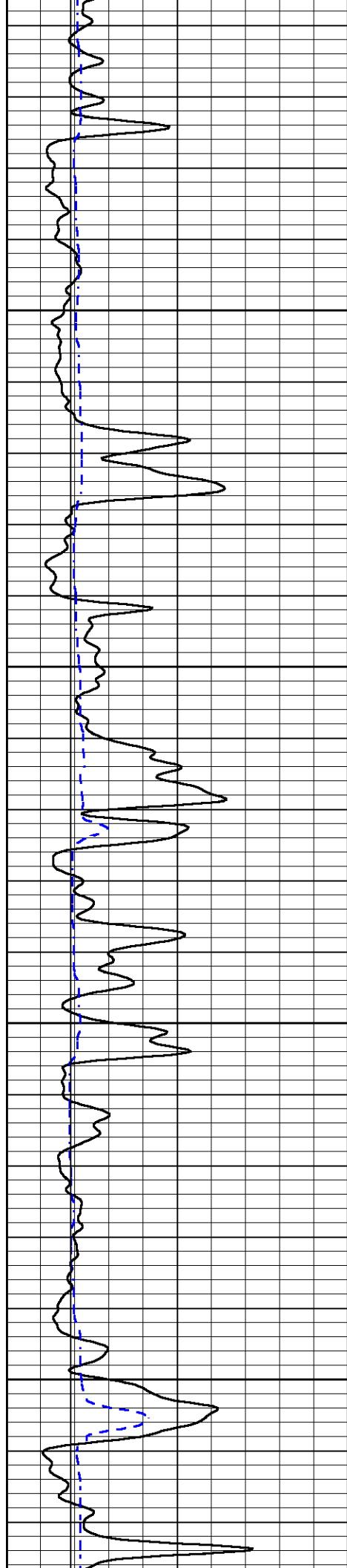


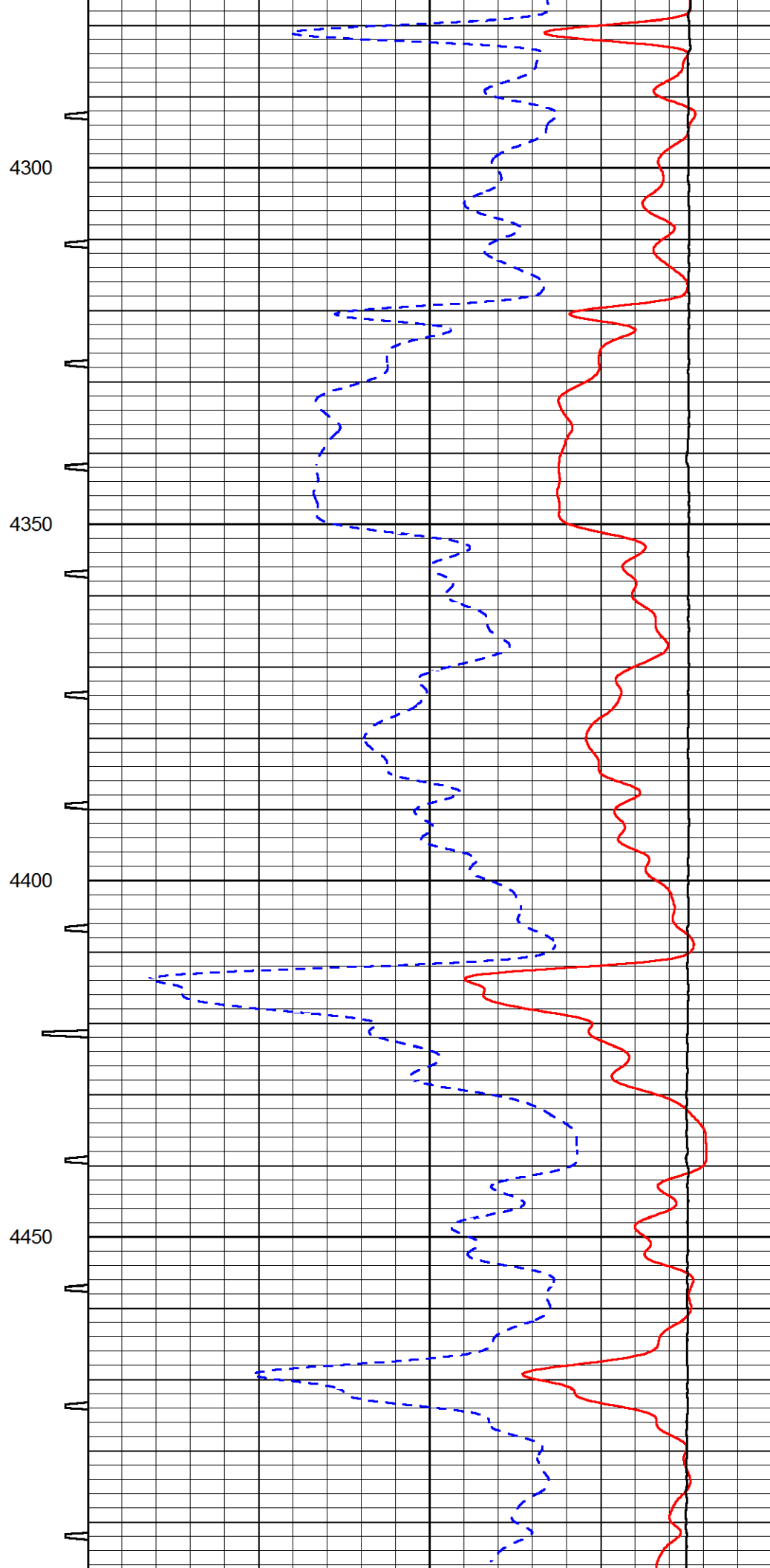
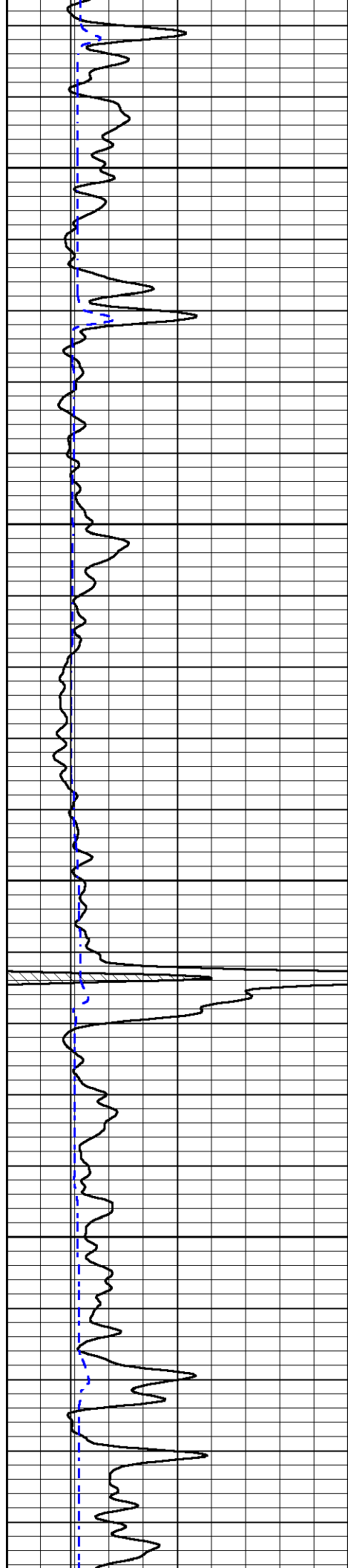


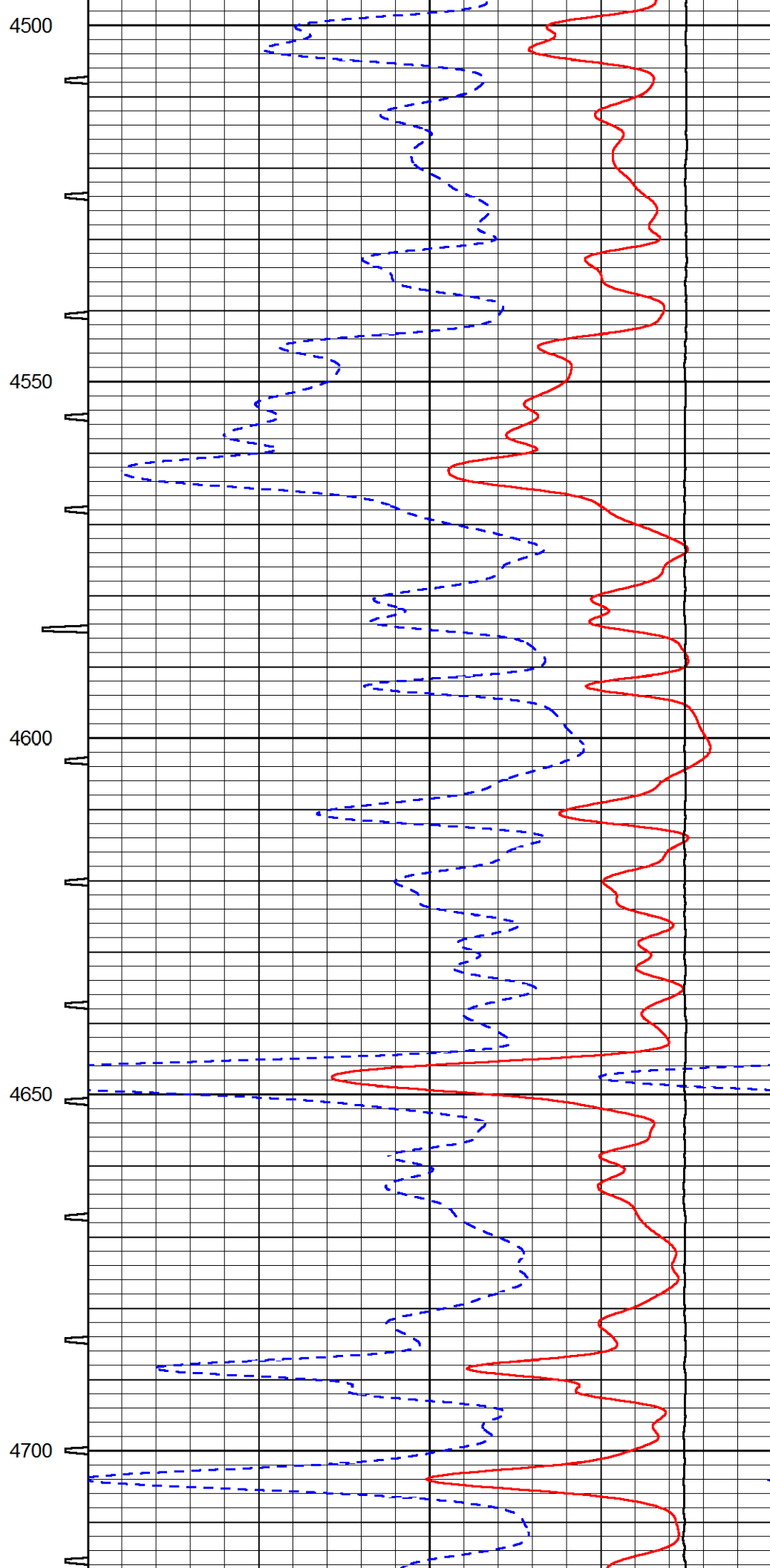
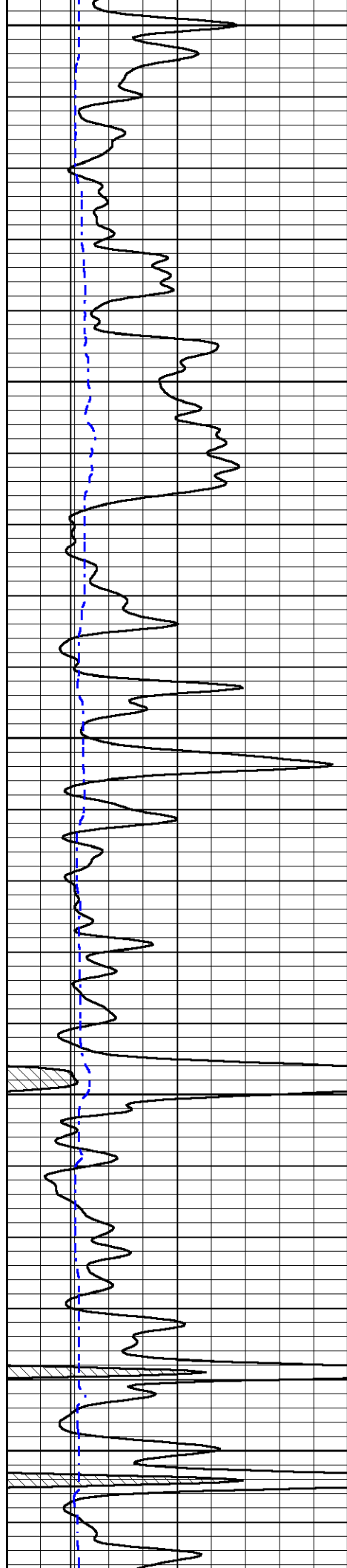


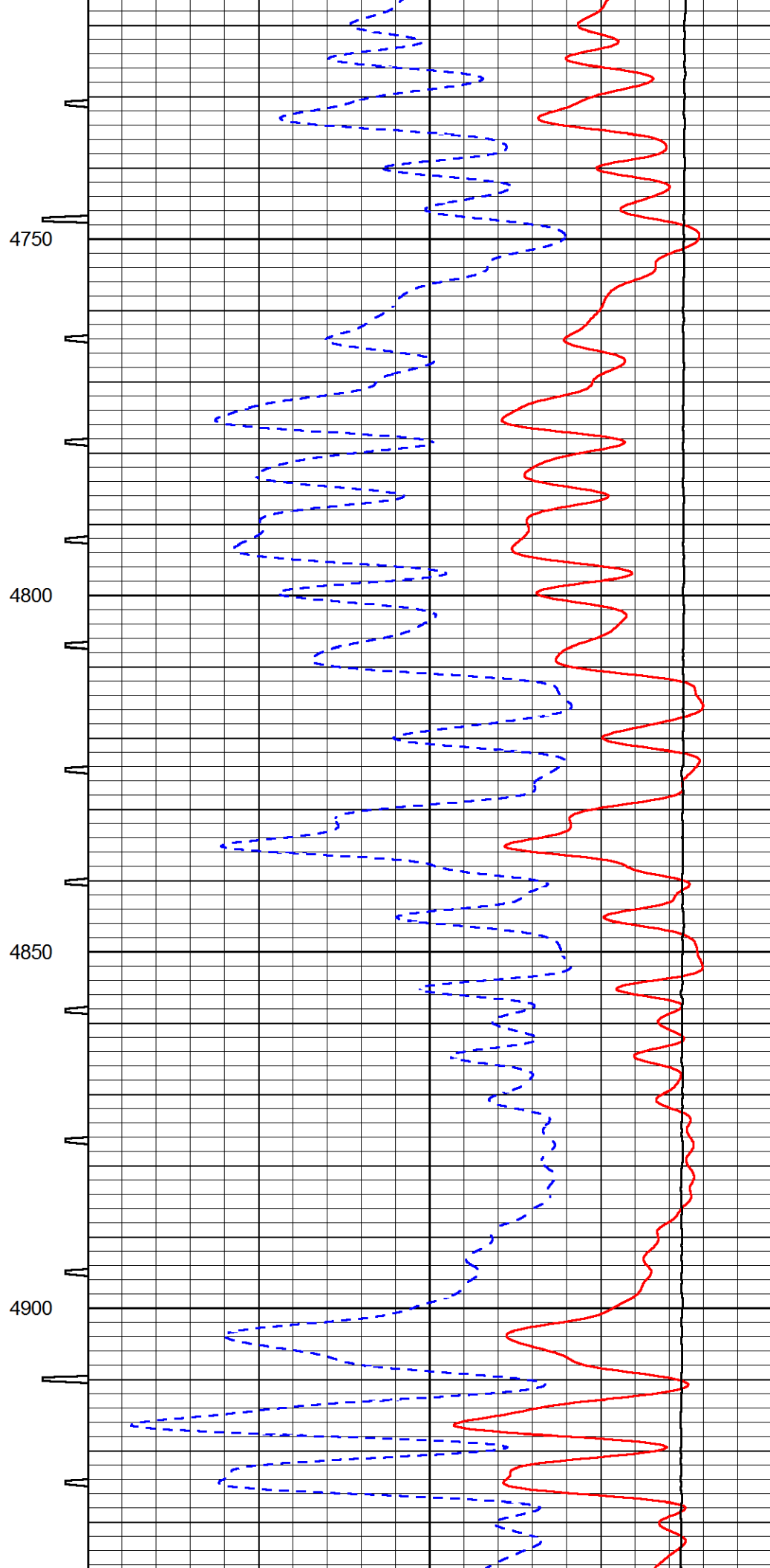
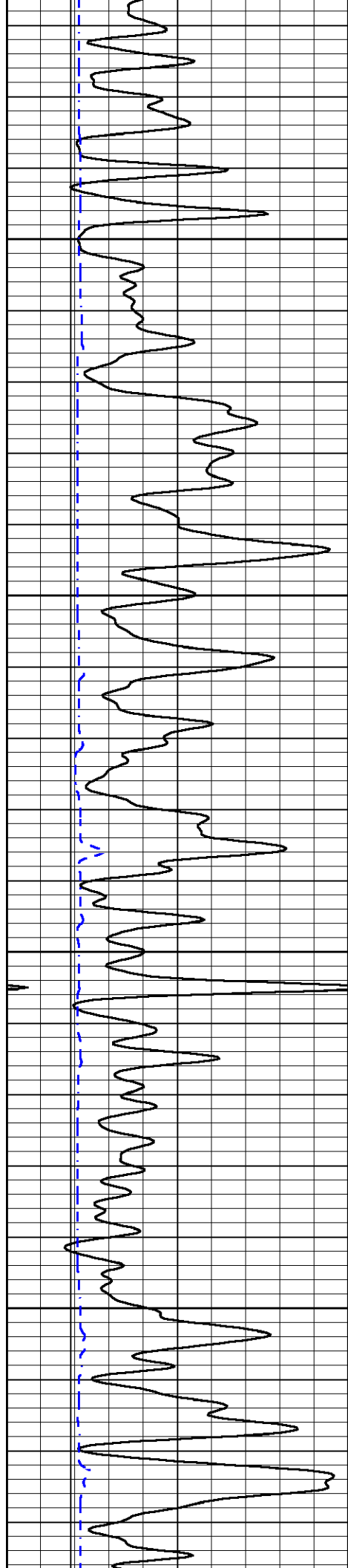


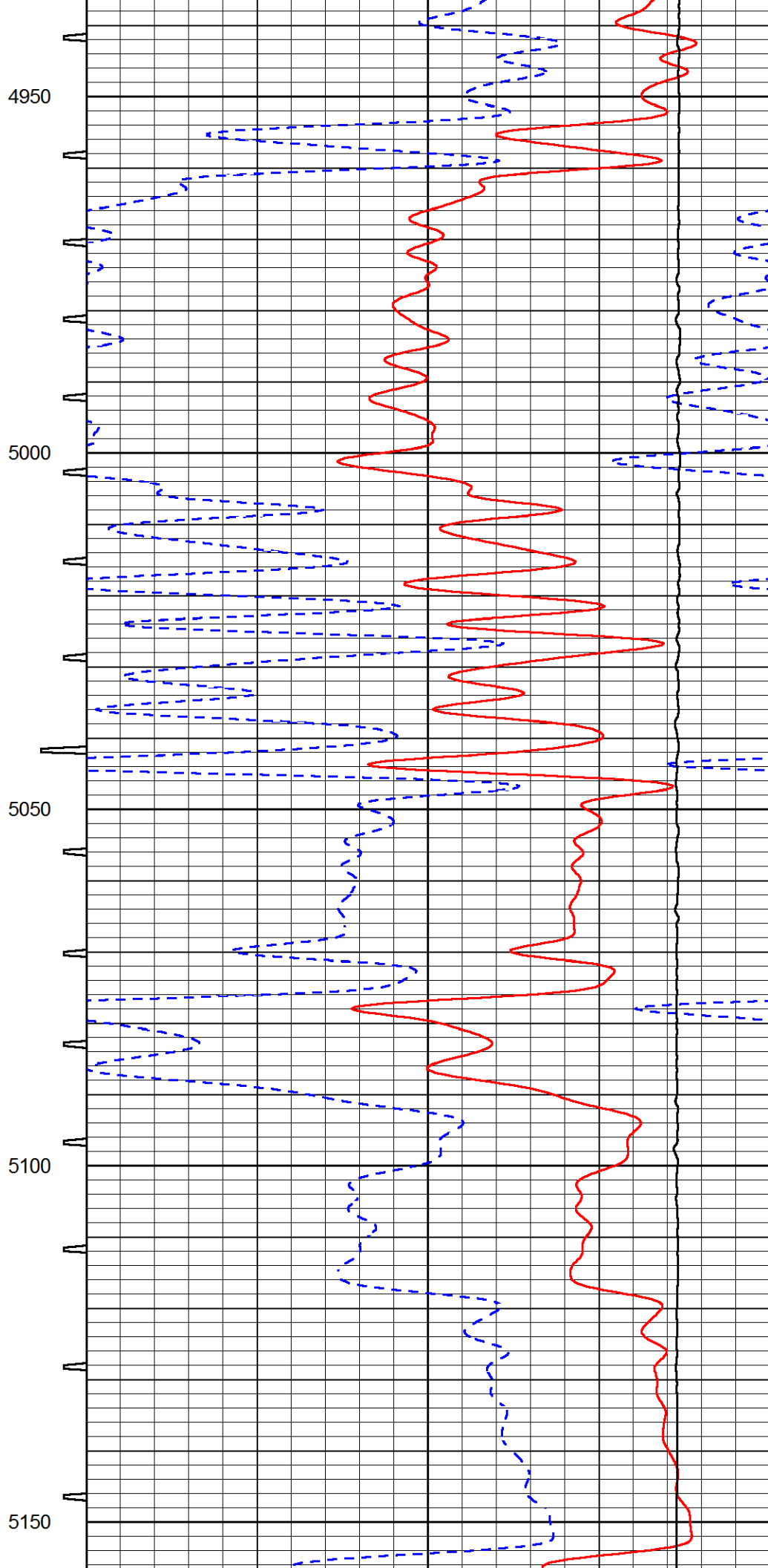
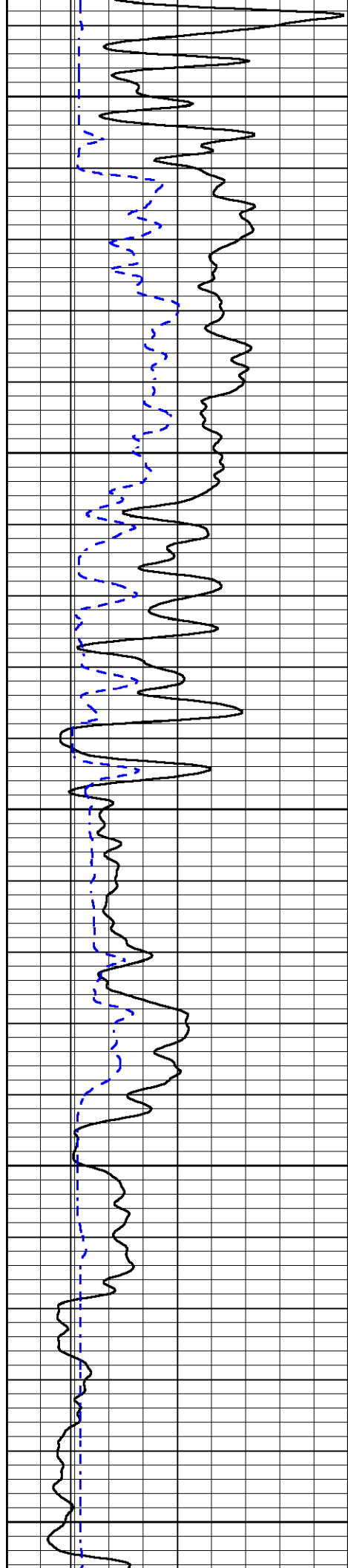


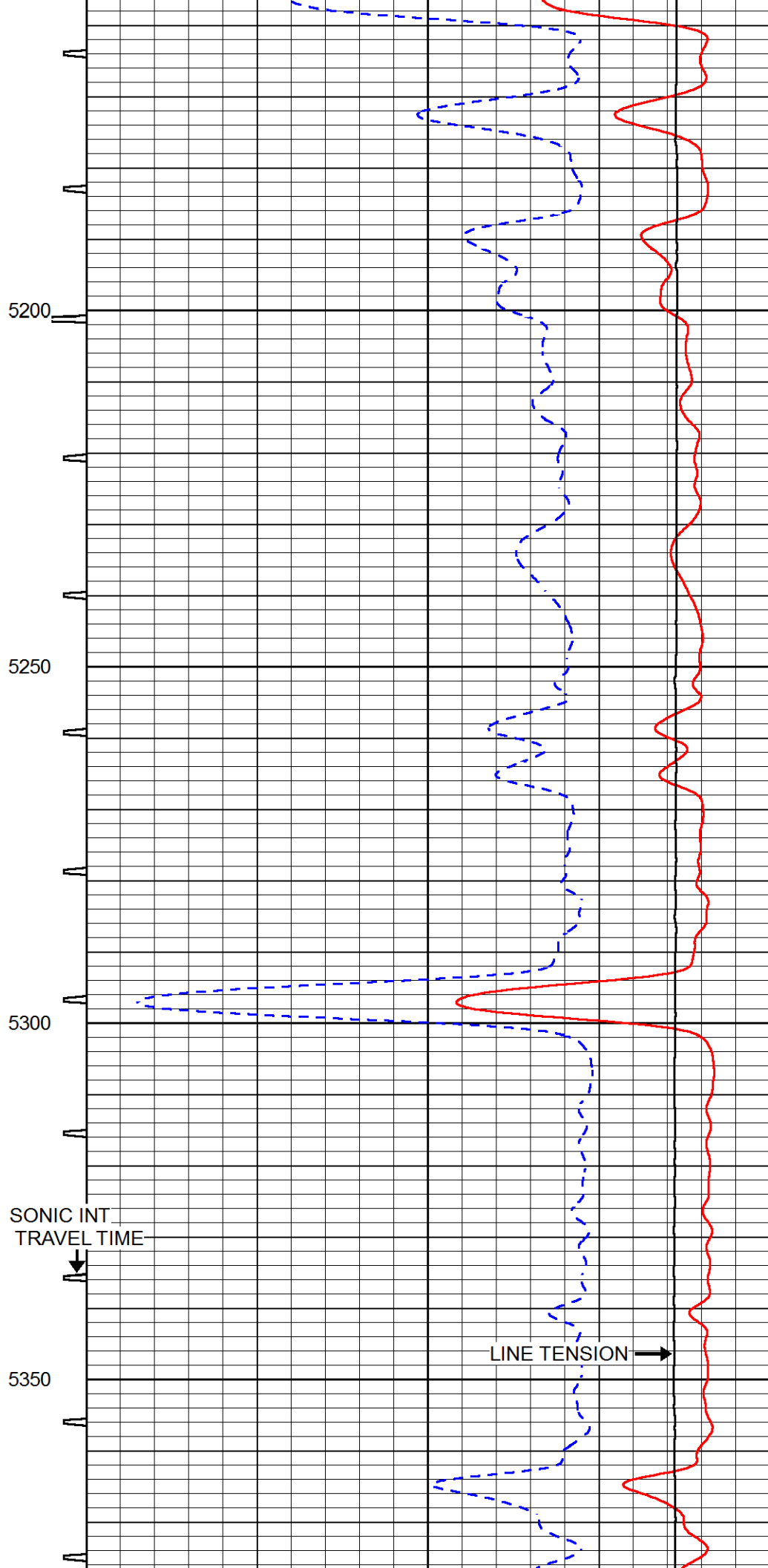
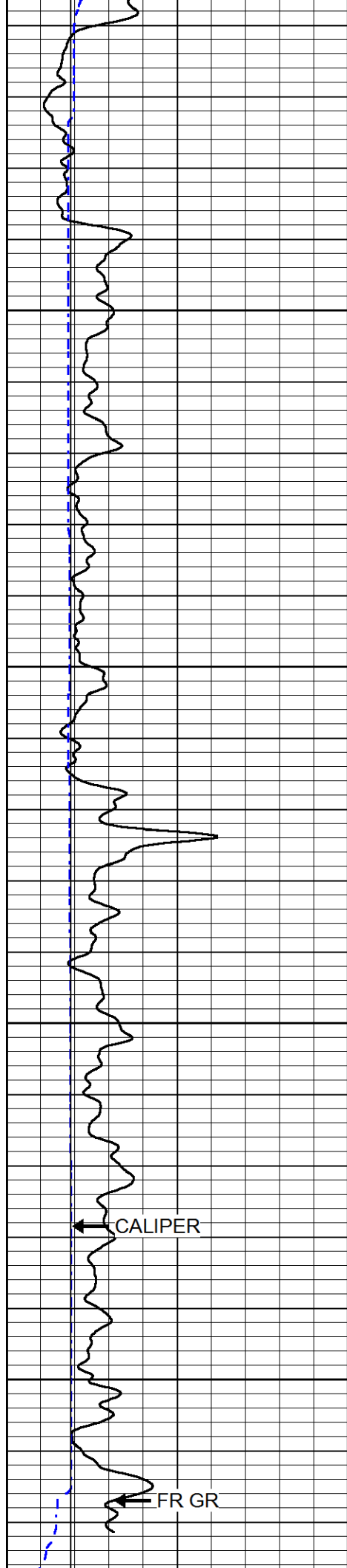


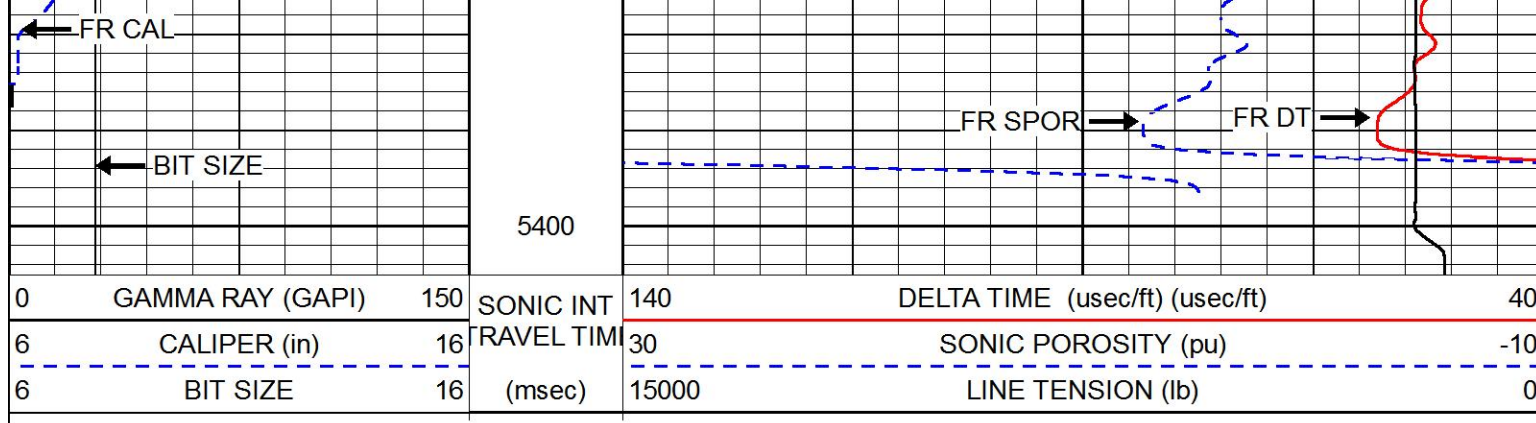








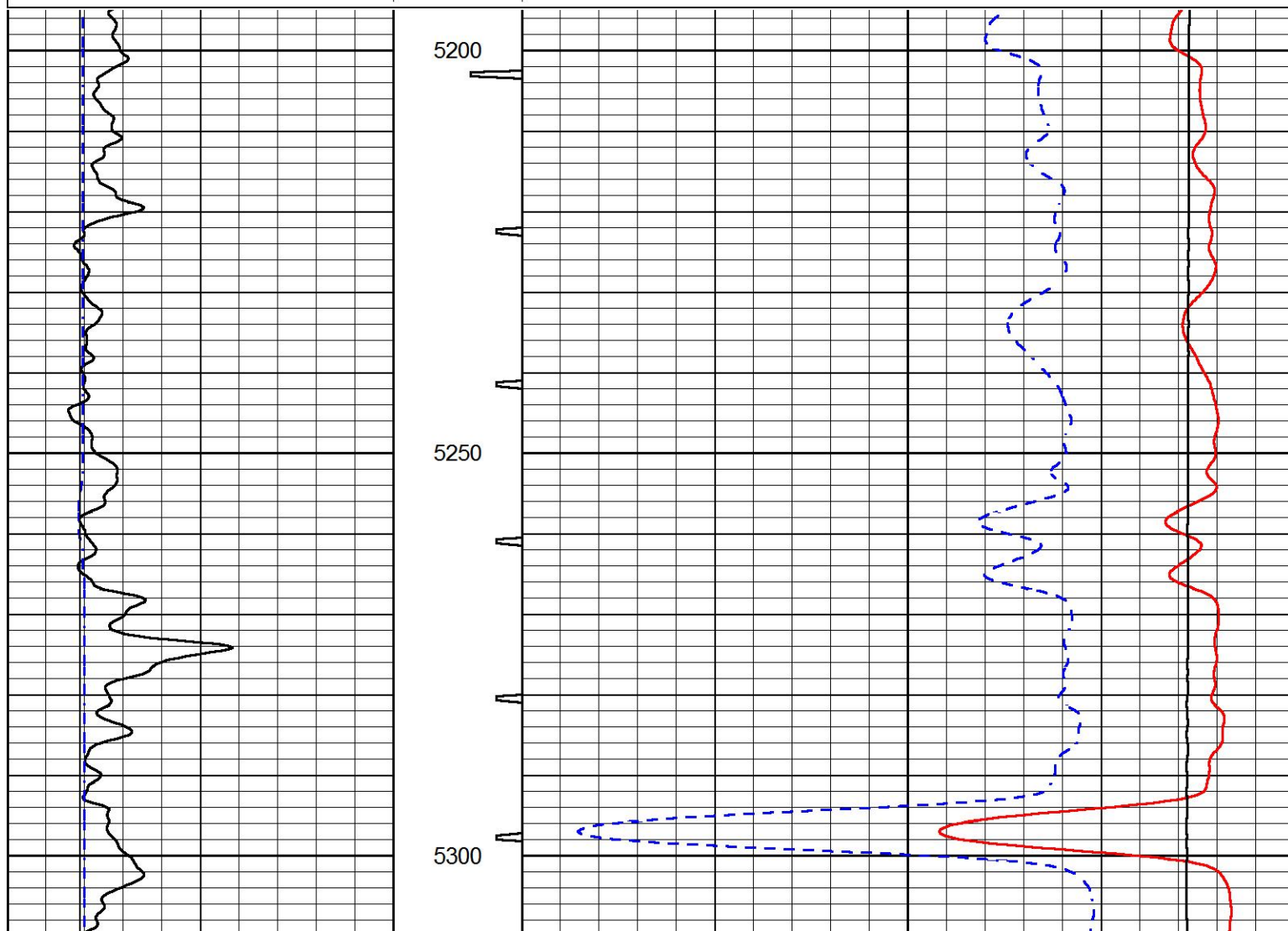


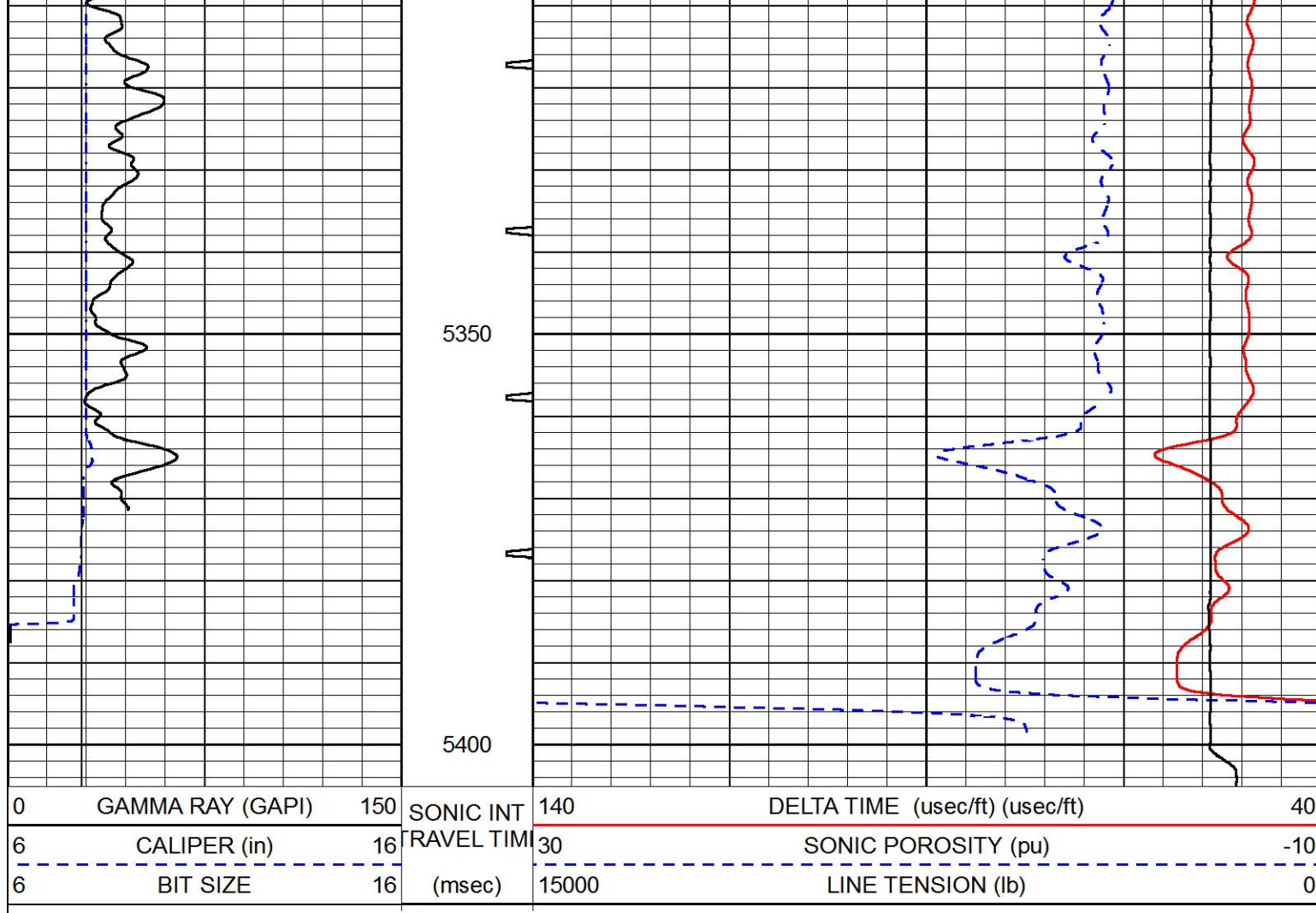


REPEAT SECTION

Database File palmer_willis_#1-20.db
 Dataset Pathname stack/pass2.1
 Presentation Format sonic
 Dataset Creation Sat Feb 24 07:09:43 2018
 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
6	BIT SIZE	16	(msec)	15000	LINE TENSION (lb)	0





	Company	PALMER OIL, INC.
	Well	WILLIS #1-20
	Field	UNKNOWN
	County	FINNEY
	State	KANSAS