



**BOREHOLE COMPENSATED
SONIC LOG**

Pioneer Energy Services

Company MURFIN DRILLING COMPANY, INC.
Well JEAN 'A' #1-7
Field WILDCAT
County KANSAS
State CHEYENNE

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Location: API #: 15-023-21509-00-00
1320' FSL & 330' FEL
SEC 7 TWP 1S RGE 37W
Permanent Datum GROUND LEVEL Elevation 3163'
Log Measured From KELLY BUSHING
Drilling Measured From KELLY BUSHING
Other Services DIL/MEL CNL/CDL
Elevation K.B. 3168' D.F. N/A G.L. 3163'

Date	5/6/2019						
Run Number	TWO						
Type Log	BHCS						
Depth Driller	4700'						
Depth Logger	4700'						
Bottom Logged Interval	4689'						
Top Logged Interval	300'						
Type Fluid In Hole	CHEMICAL						
Salinity, PPM CL	900						
Density	9.2						
Level	FULL						
Max. Rec. Temp. F	123 DEG/F						
Operating Rig Time	5 HOURS						
Equipment -- Location	P-108 HAYS						
Recorded By	J. HENRICKSON						
Witnessed By	ROBERT HENDRIX						
Borehole Record							
Run No.	Bit	From	To	Size	Wgt.	From	To
ONE	12.25"	0	330'	8.625"	23#	0	330'
TWO	7.875"	330'					
Casing Record							

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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.
BIRD CITY KANSAS
NORTH TO DD ROAD, 3 EAST TO THE T, 1 SOUTH, WEST INTO

Log Measured From: KELLY BUSHING 5 Ft. Above Permanent Datum

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

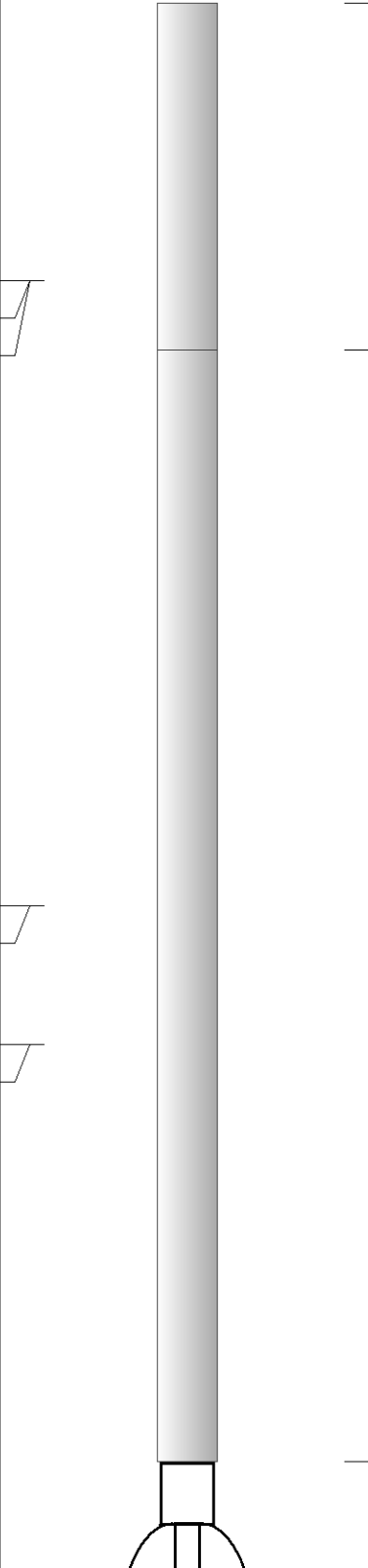
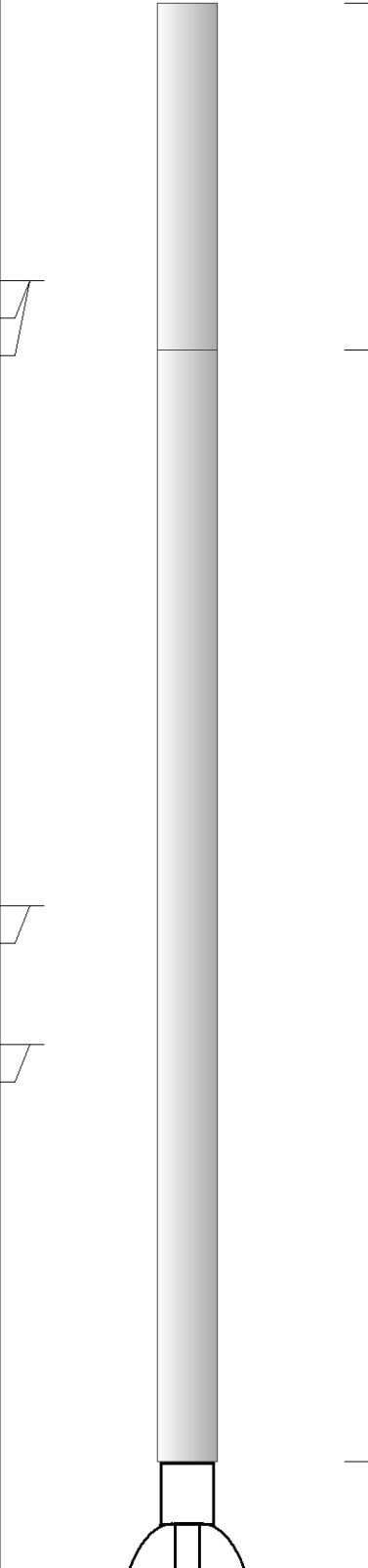
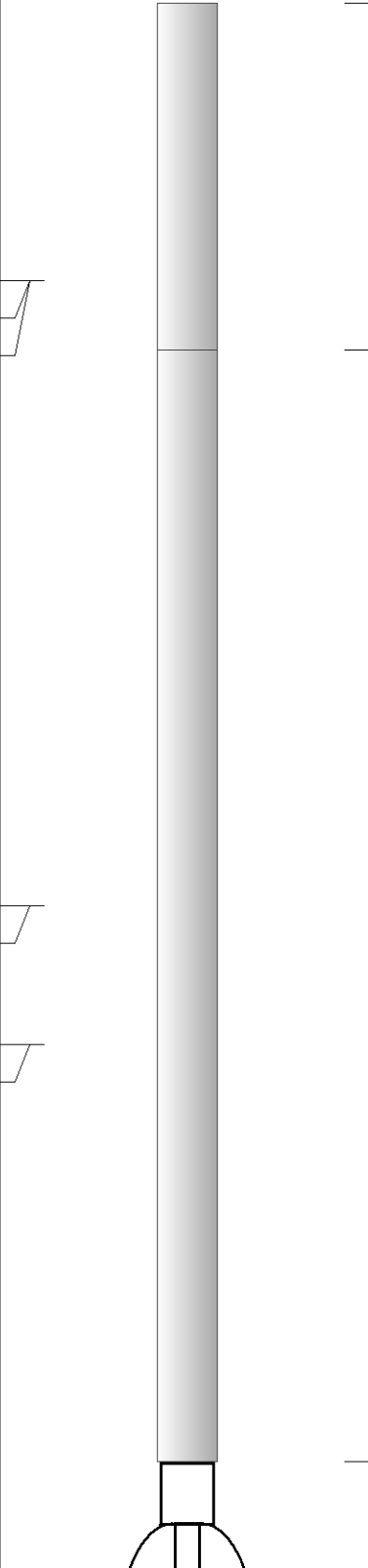
Your Pioneer Energy Services Crew		This Log Record Was Witnessed By	
Engineer: J. HENRICKSON	Operator:	Primary Witness: ROBERT HENDRIX	Secondary Witness:
Operator:	Operator:	Secondary Witness:	Secondary Witness:
Operator:		Secondary Witness:	

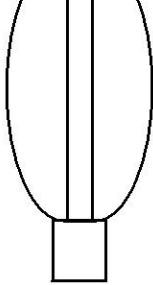
Log Variables

DatabaseC:\ProgramData\Warrior\Data\murfin_jean_a_1_7.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	123	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	340	46	Off	4700

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
MCAL MI MN	22.50 22.50 22.50		ML-Armadillo (Armadillo-1) Pengo micro log tool mandrel with Armadillo Electronics	5.00	3.50	100.00
WVF4 WVF1	13.50 13.50		SLT-PENGO (0001)	16.00	3.50	300.00
WVF3 WVF2	11.50 11.50					



CENT-PENGO

5.50

3.00

70.00

Dataset: murfin_jean_a_1_7.db: field/well/SONMEL/pass2
 Total length: 26.50 ft
 Total weight: 470.00 lb
 O.D.: 3.50 in

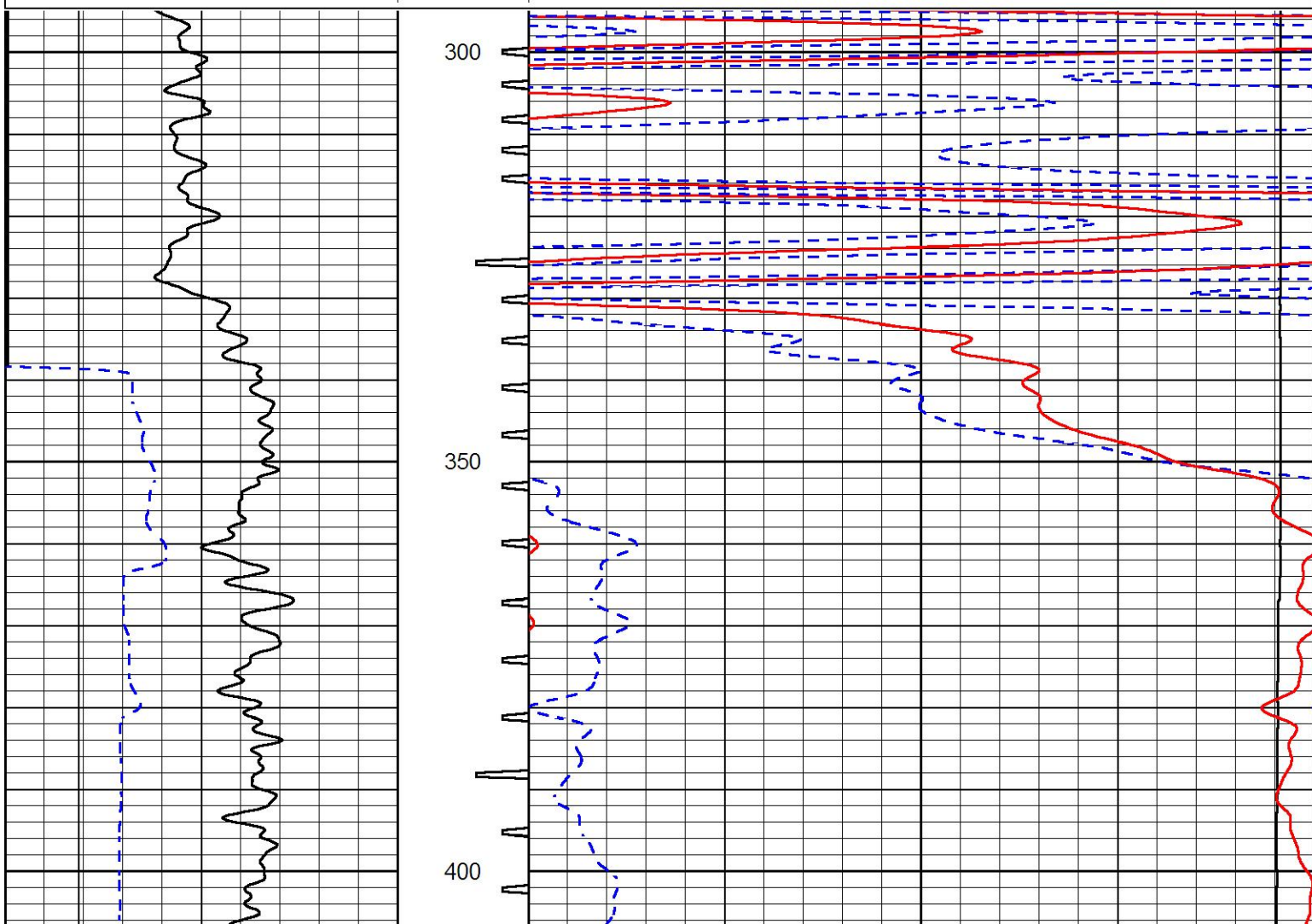
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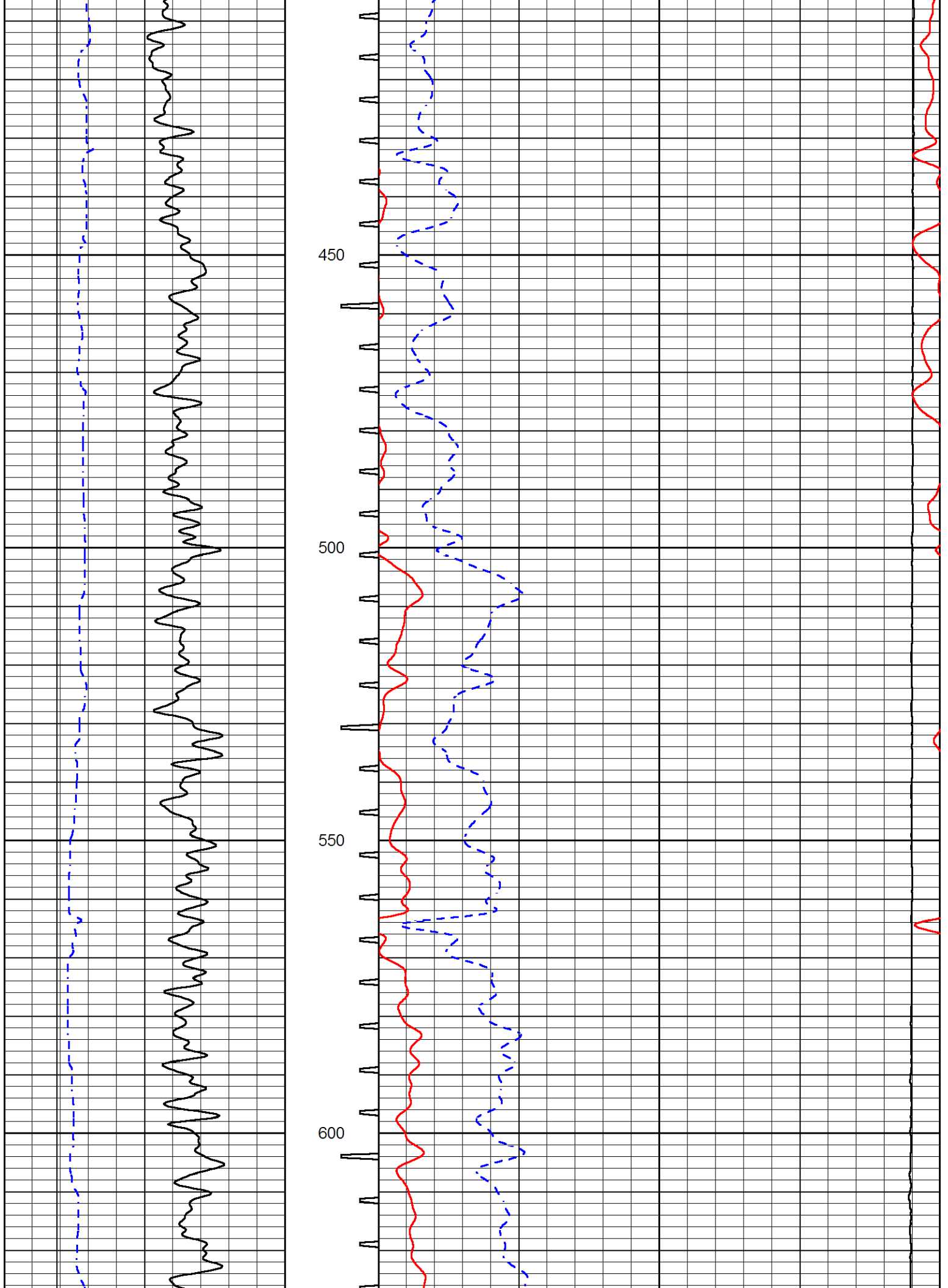
Pioneer Energy Services

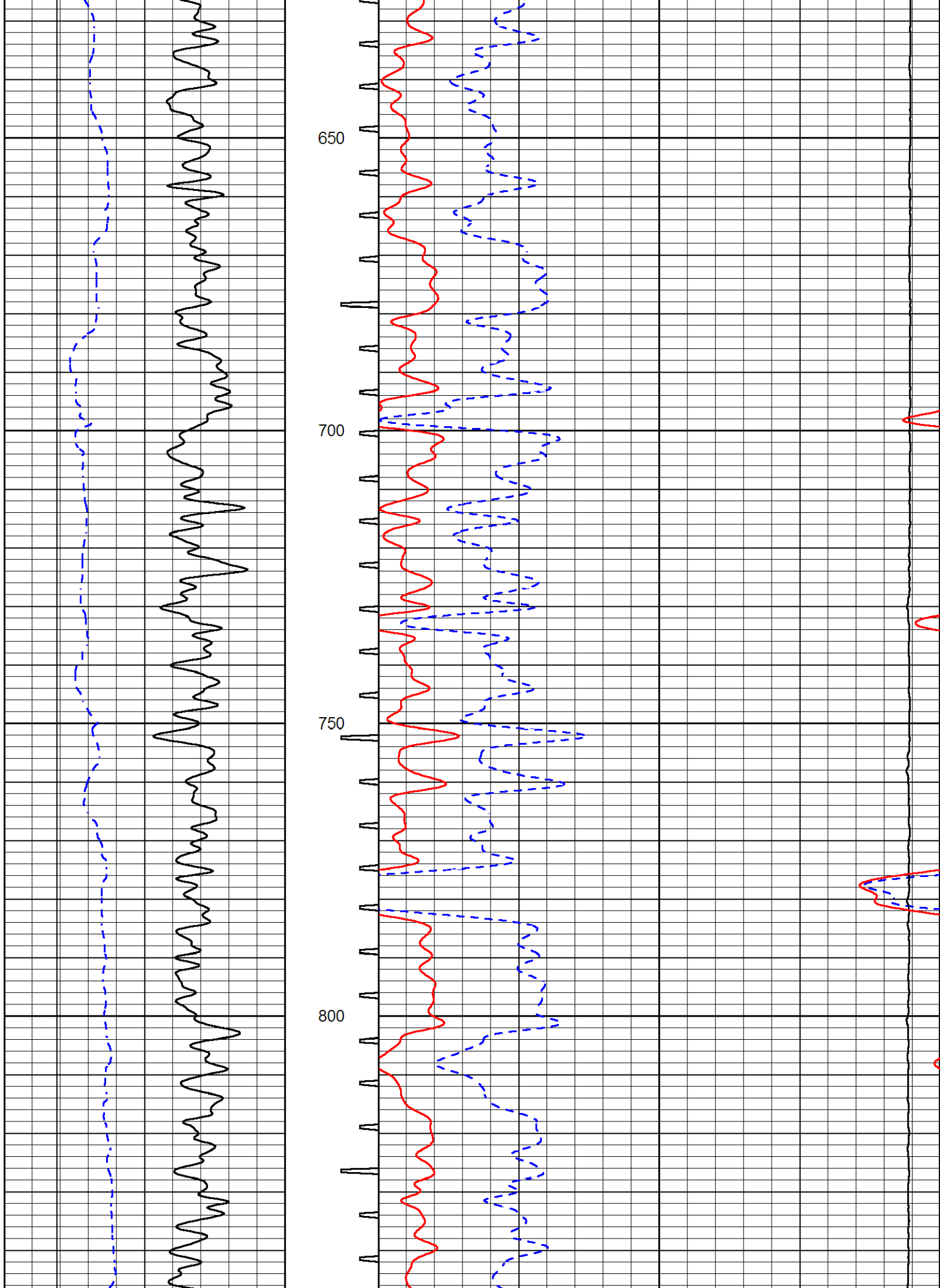
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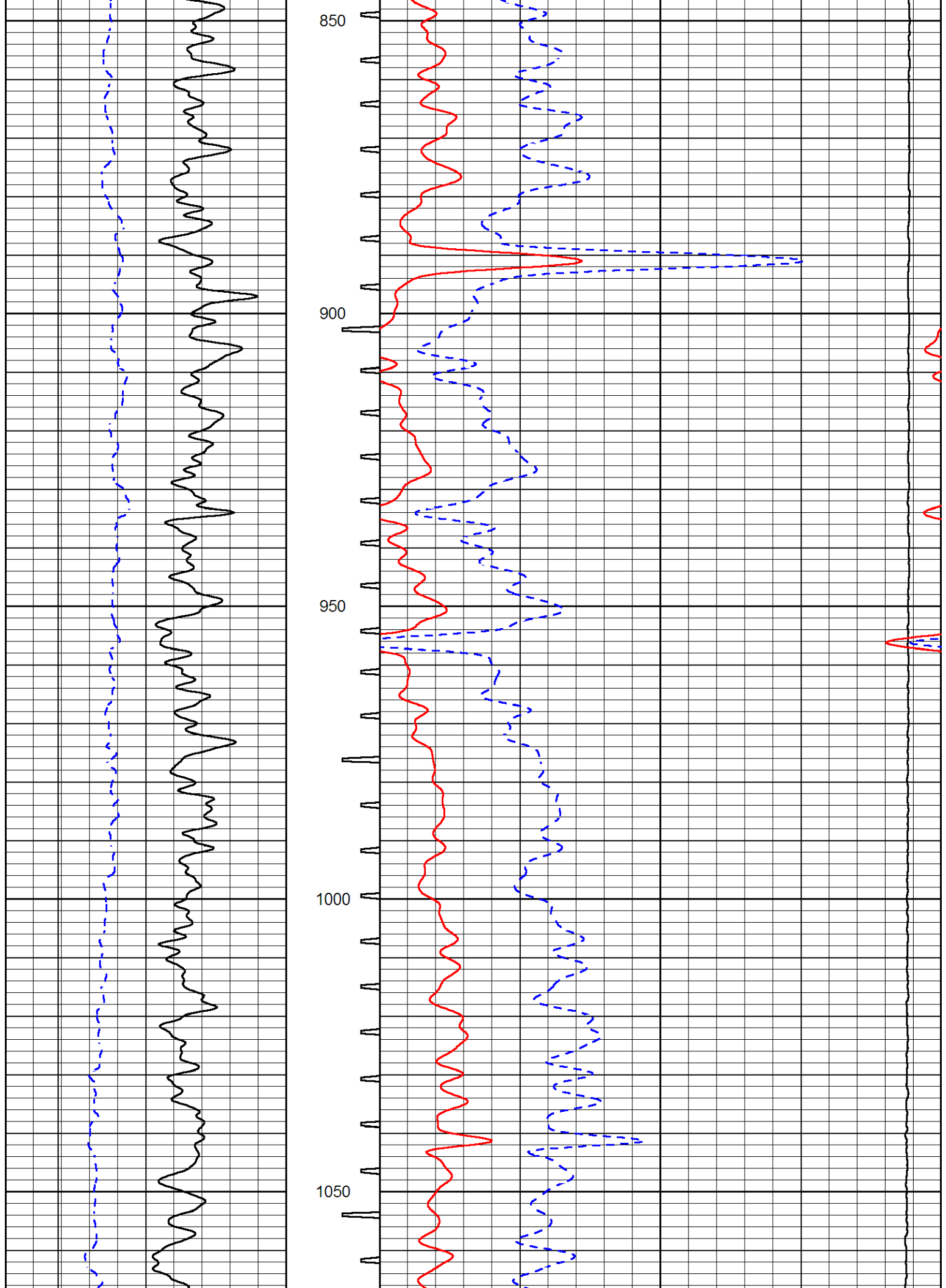
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 Dataset Pathname stackml/pass3.1
 Presentation Format sonic
 Dataset Creation Mon May 06 21:28:50 2019
 Charted by Depth in Feet scaled 1:240

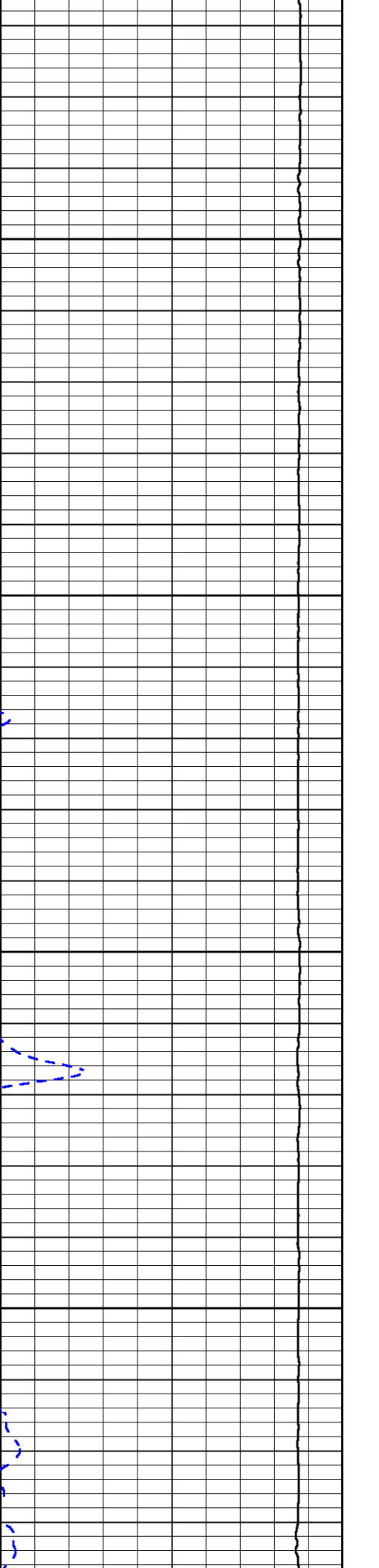
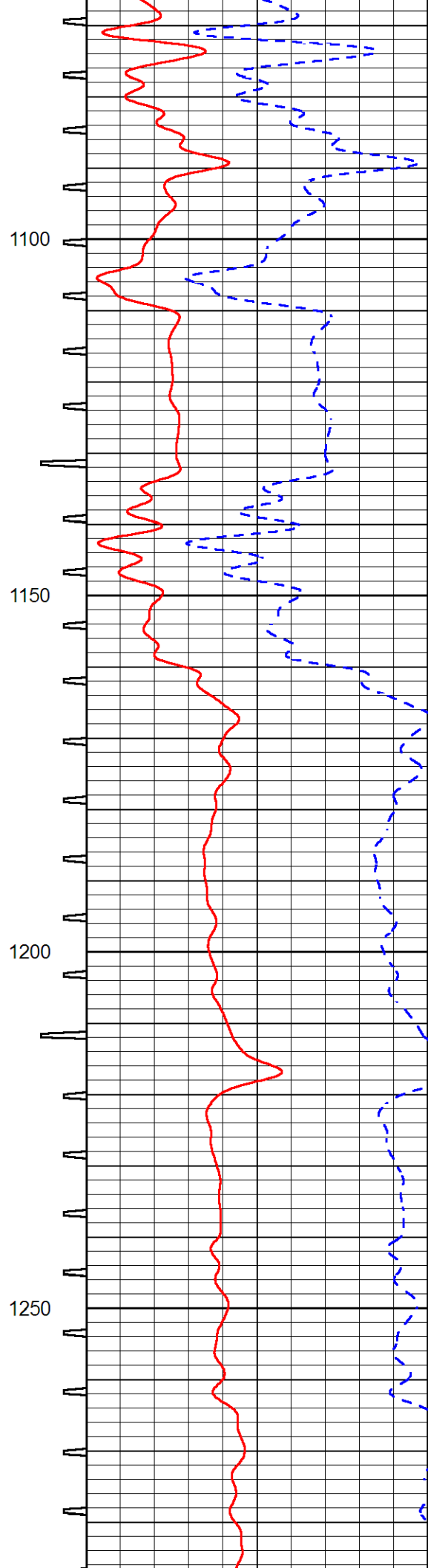
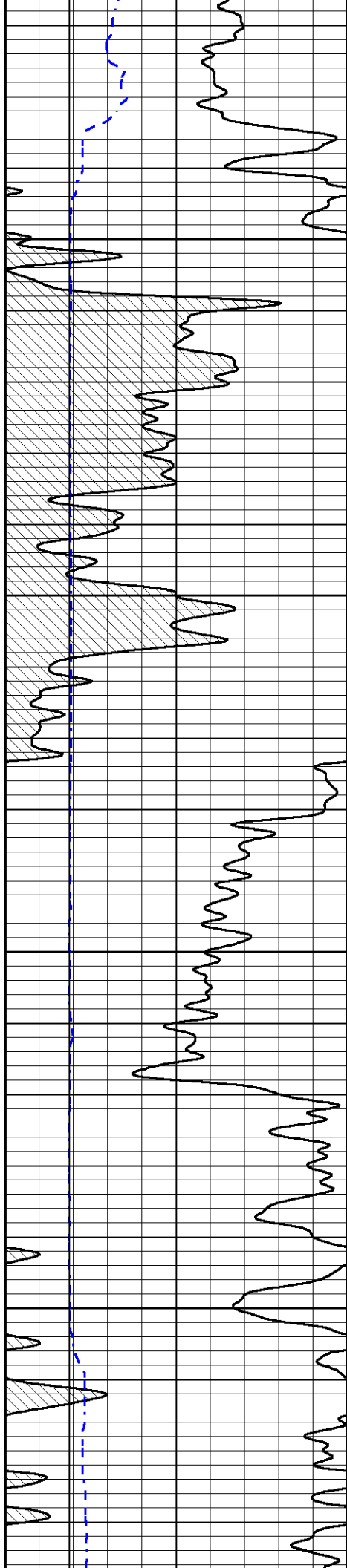
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6	CALIPER (in)	16	TRAVEL TIME	30	SONIC POROSITY (pu)	-10
6	BIT SIZE	16	(msec)	15000	LINE TENSION (lb)	0









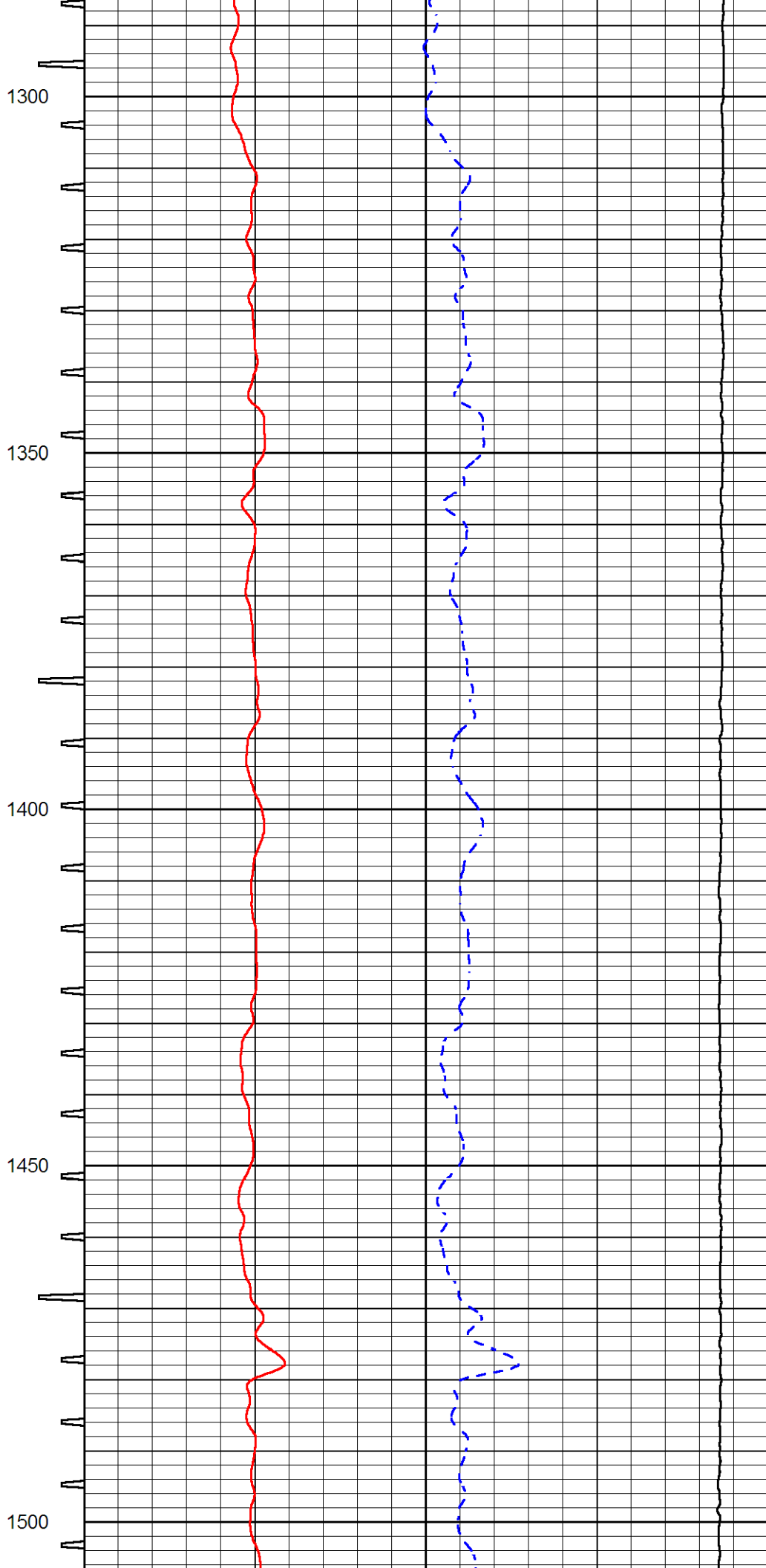
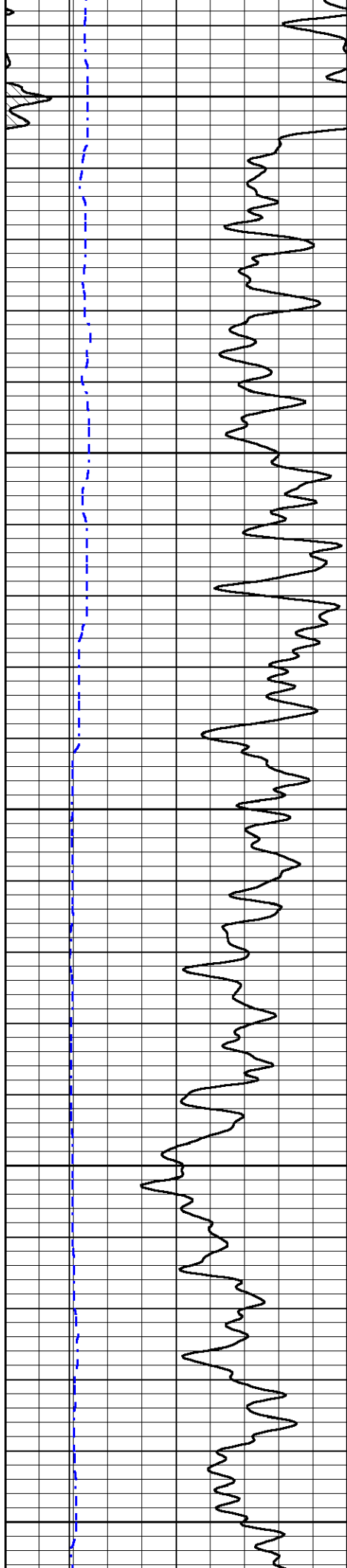


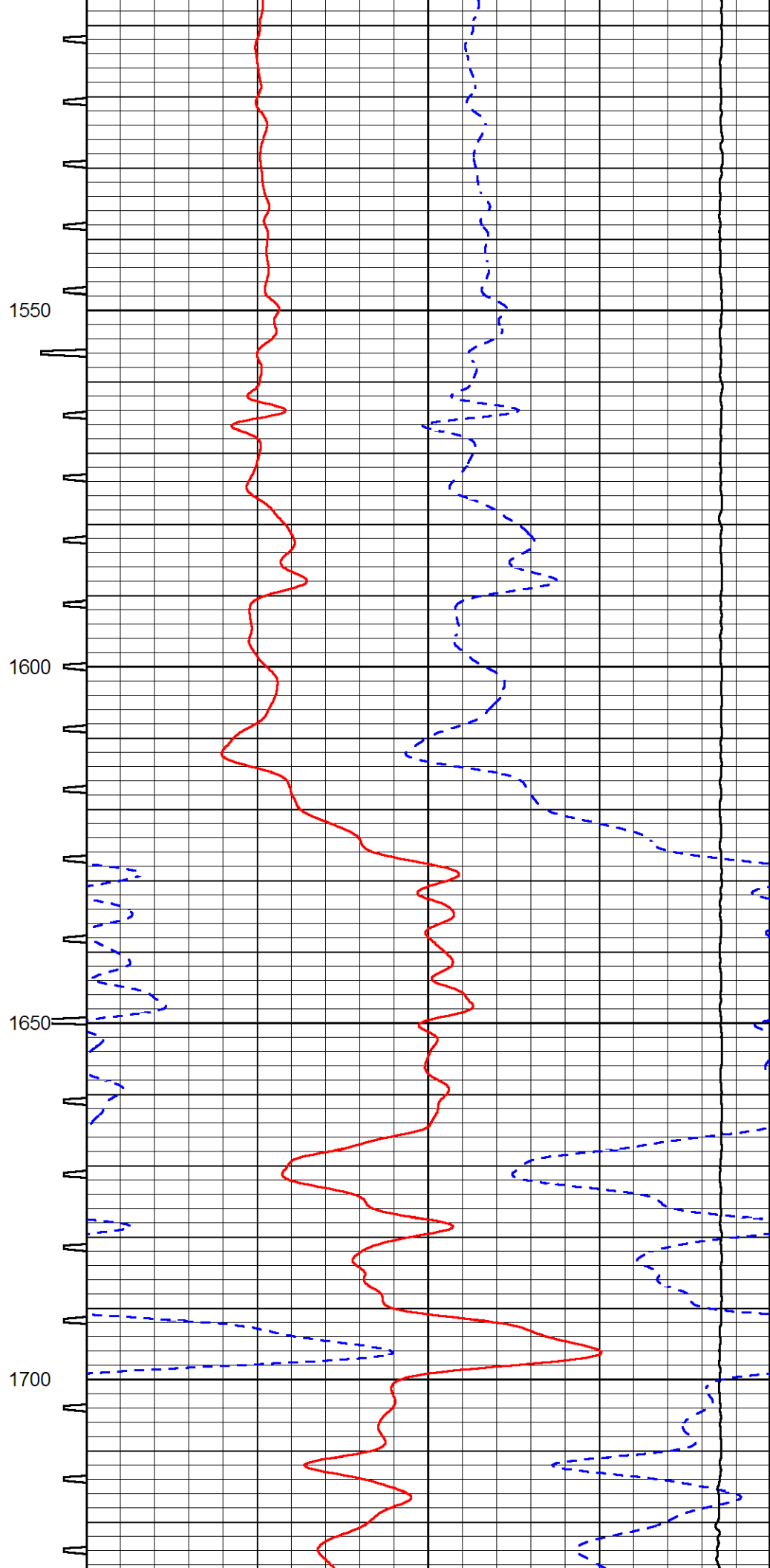
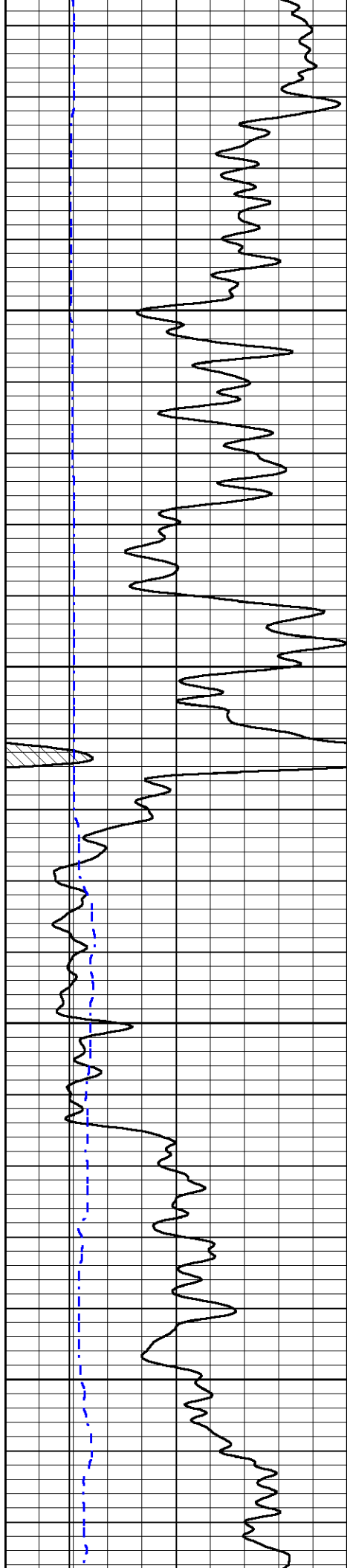
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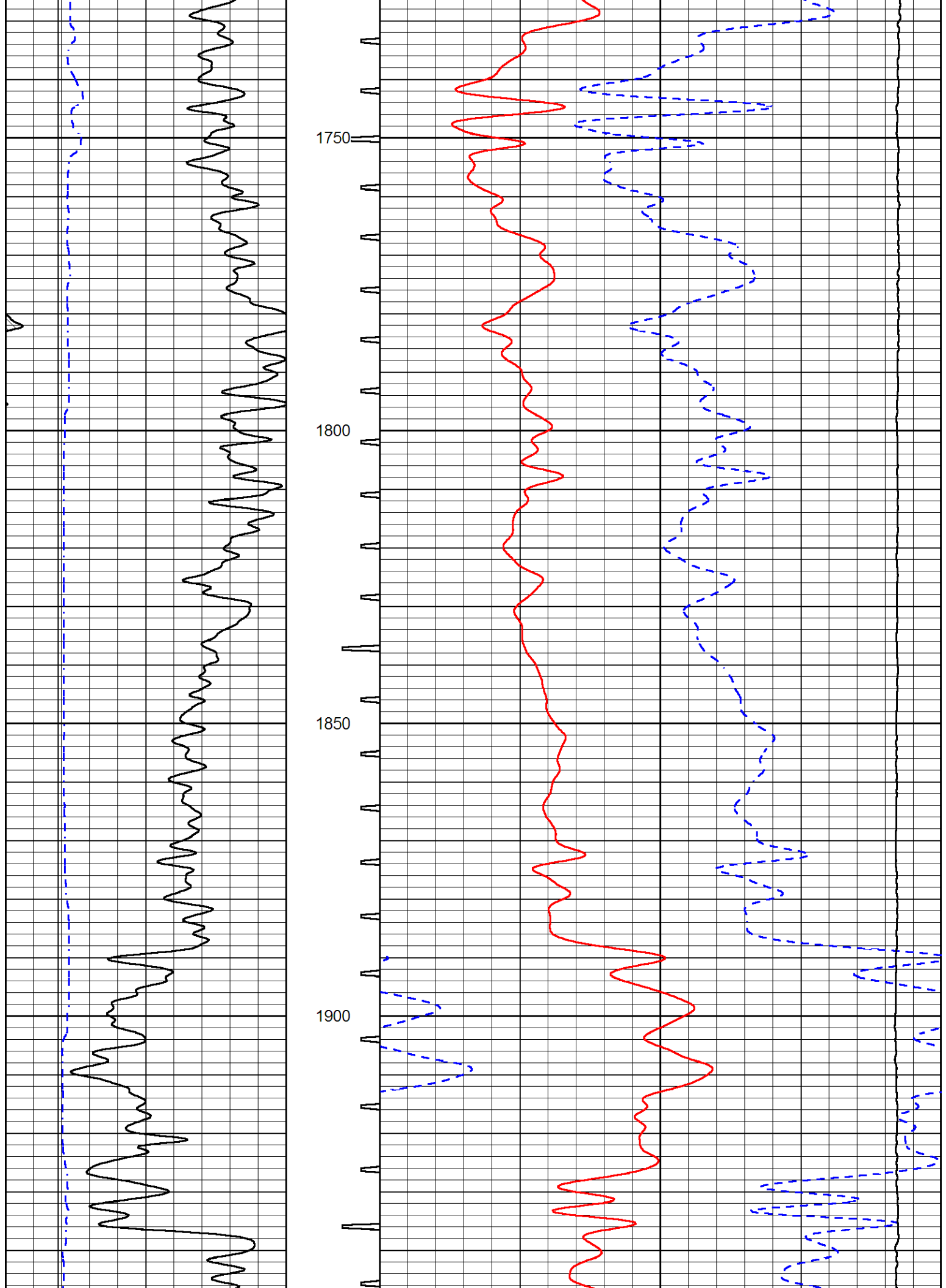
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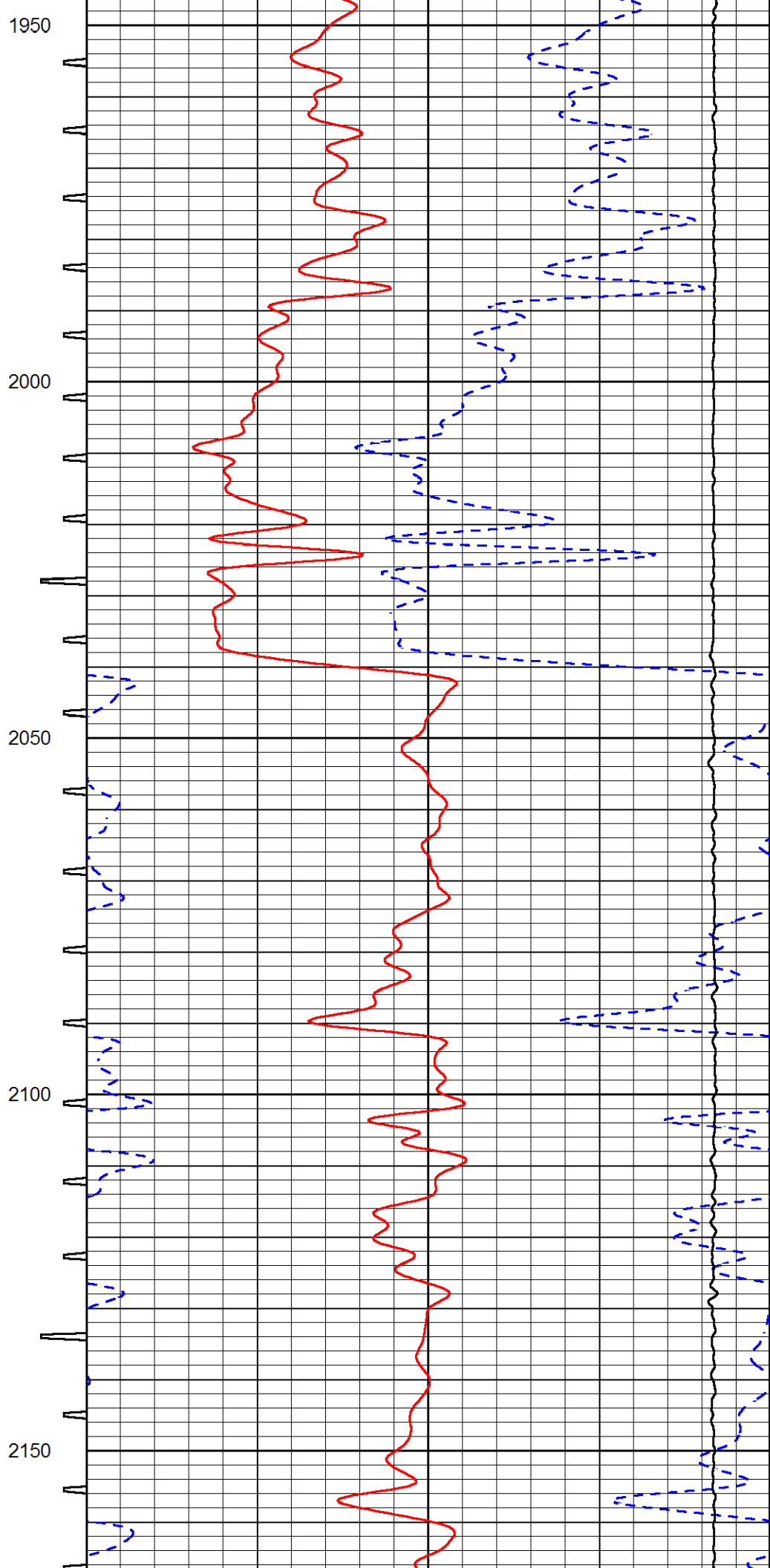
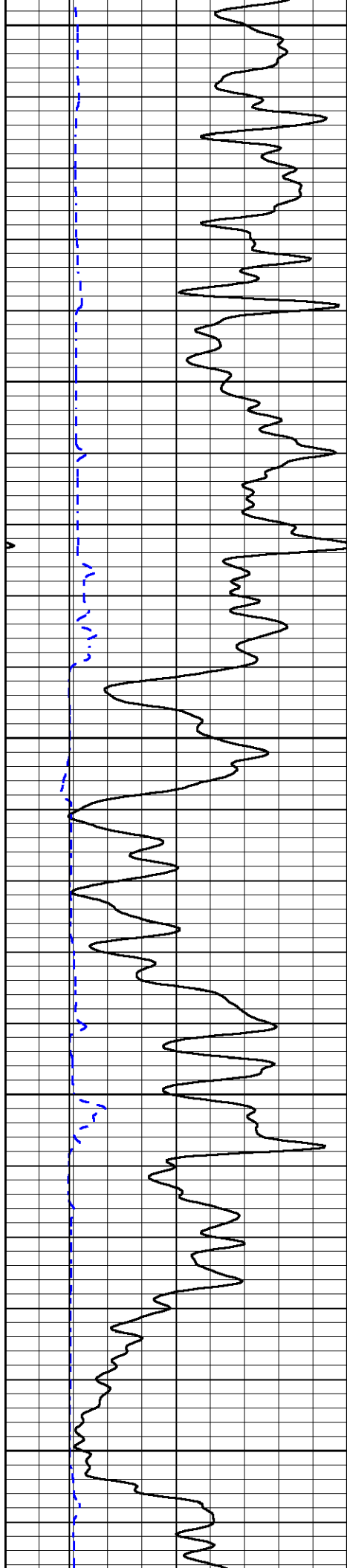
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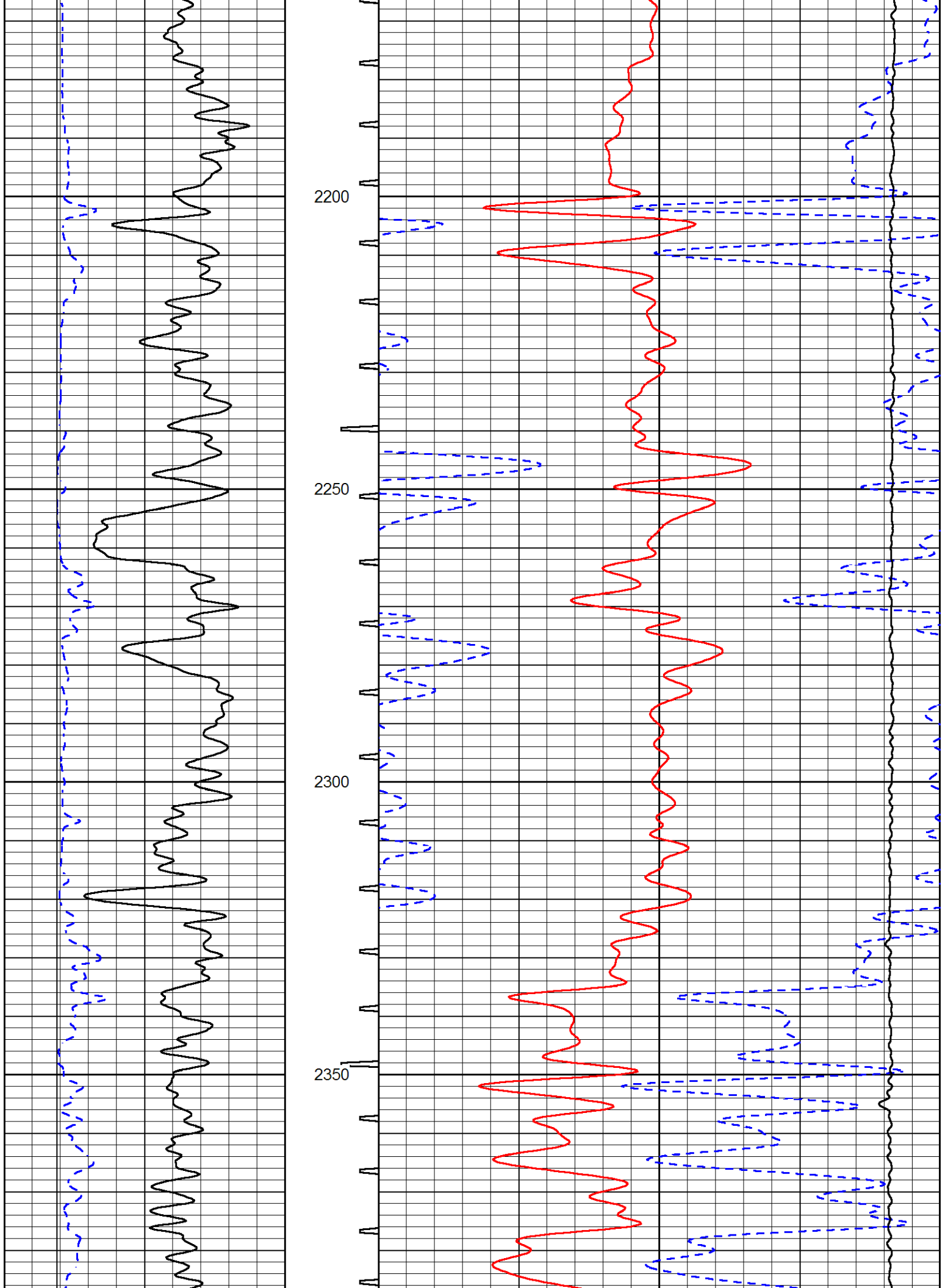
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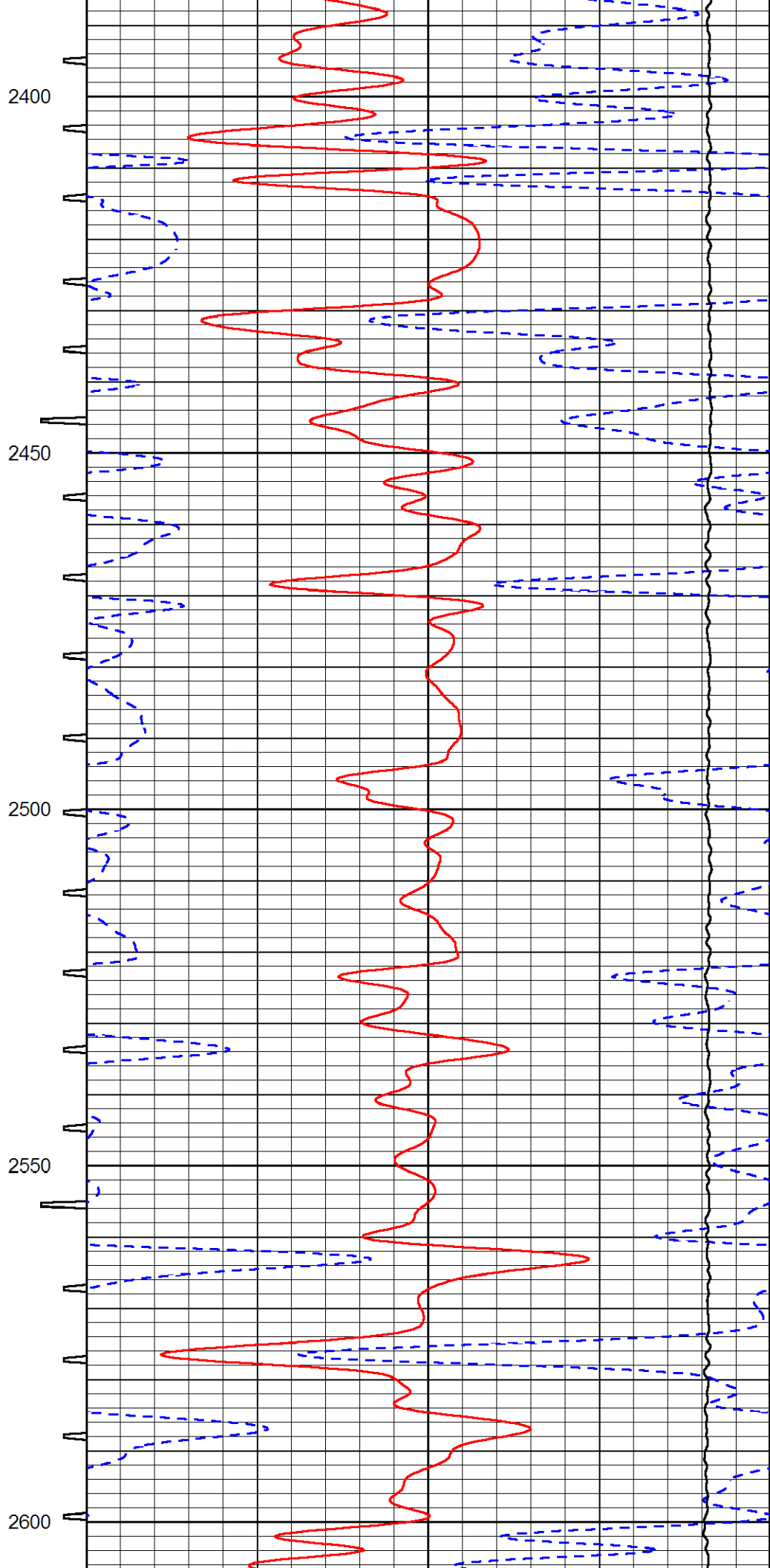
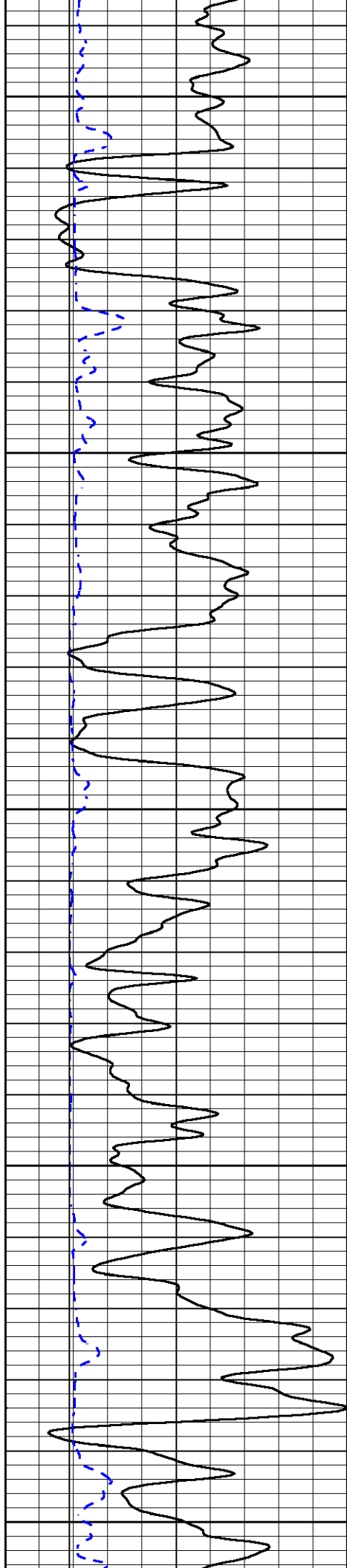


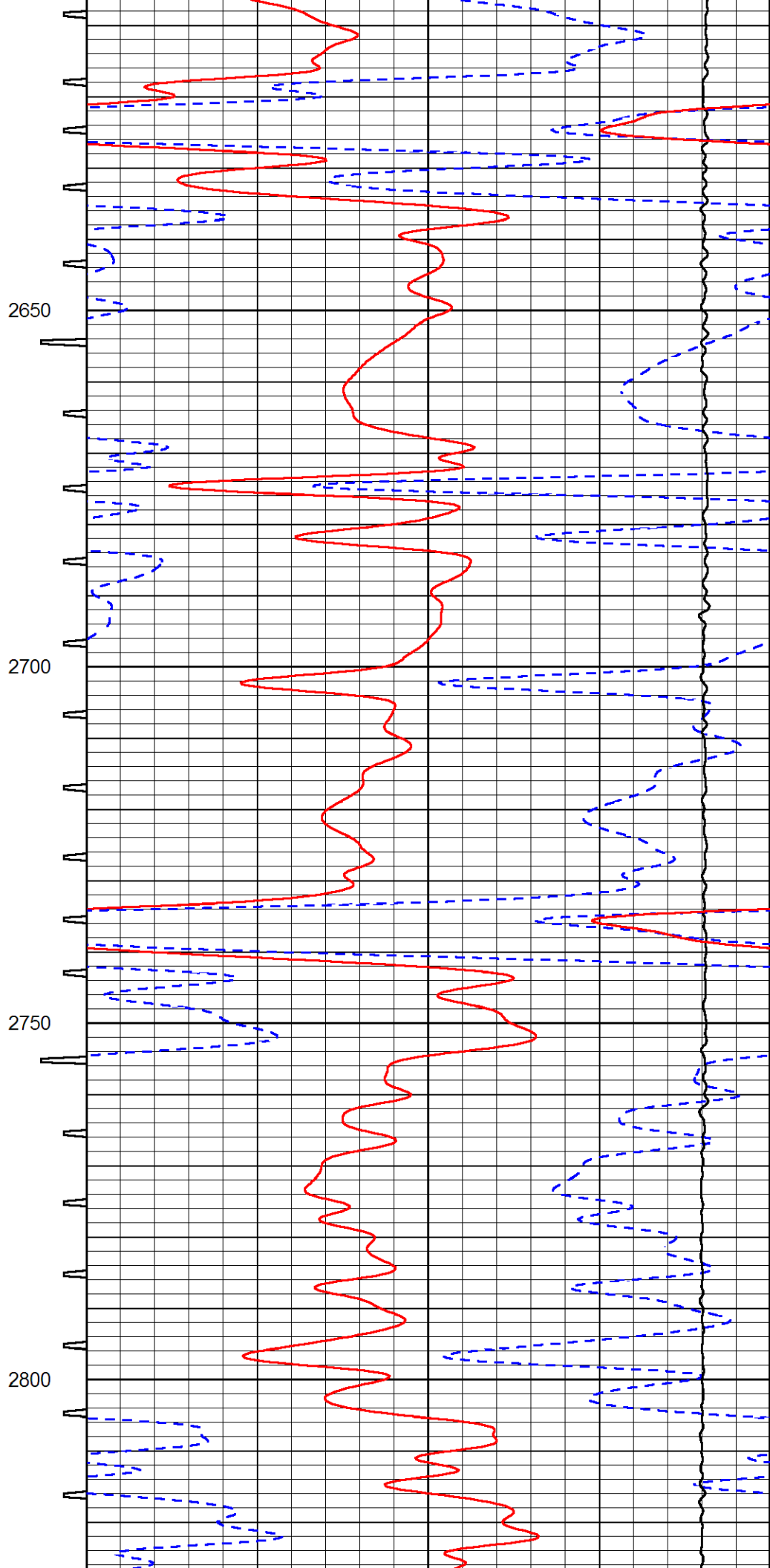
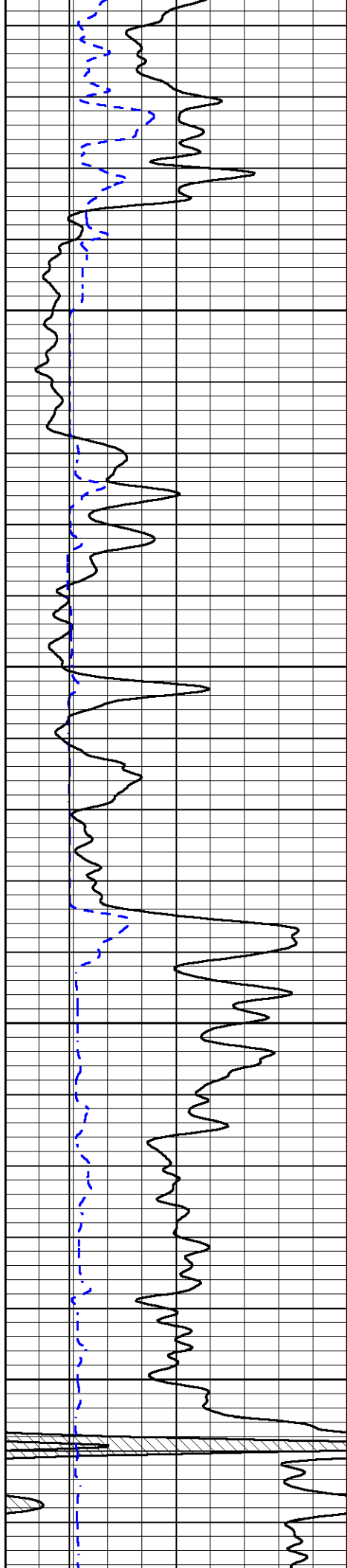


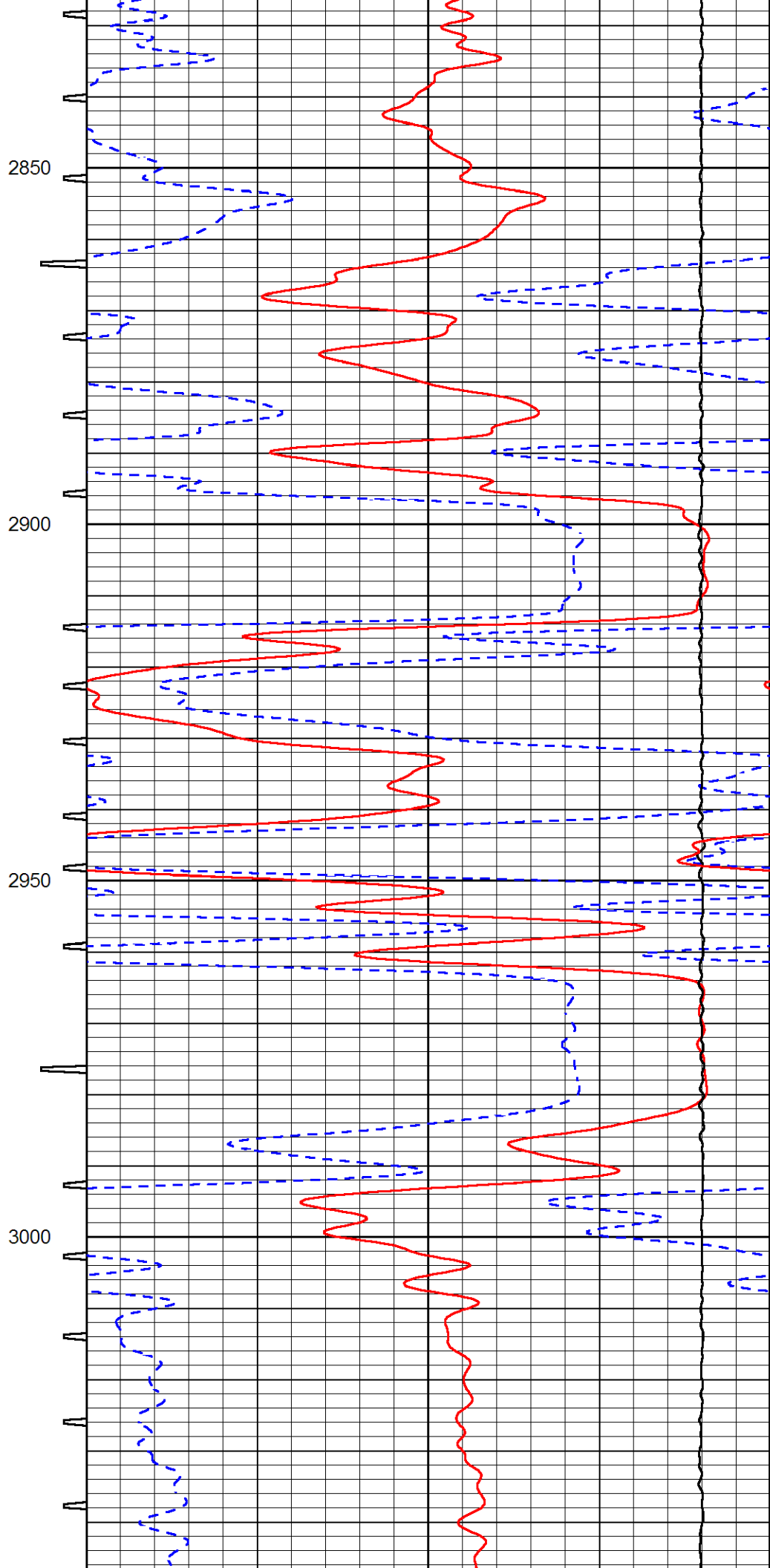
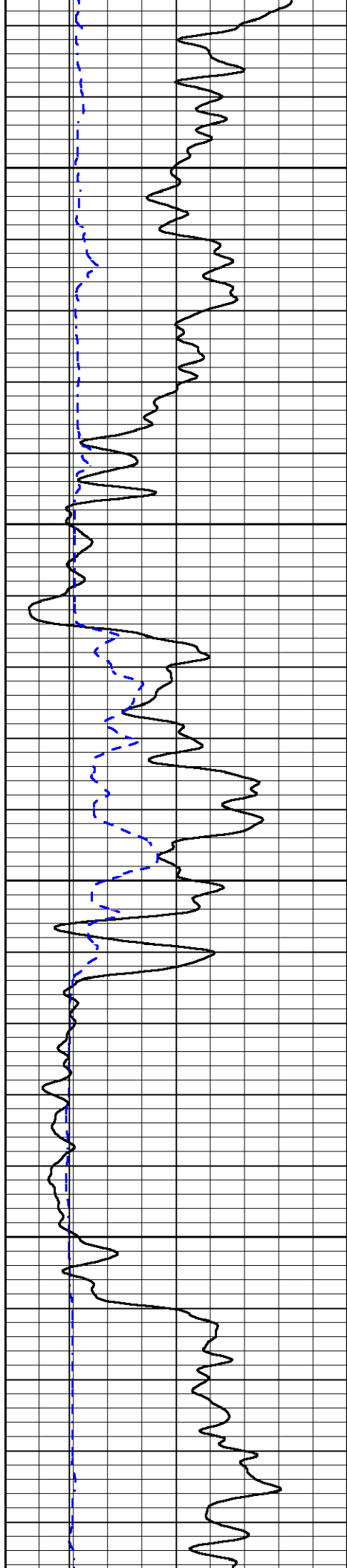


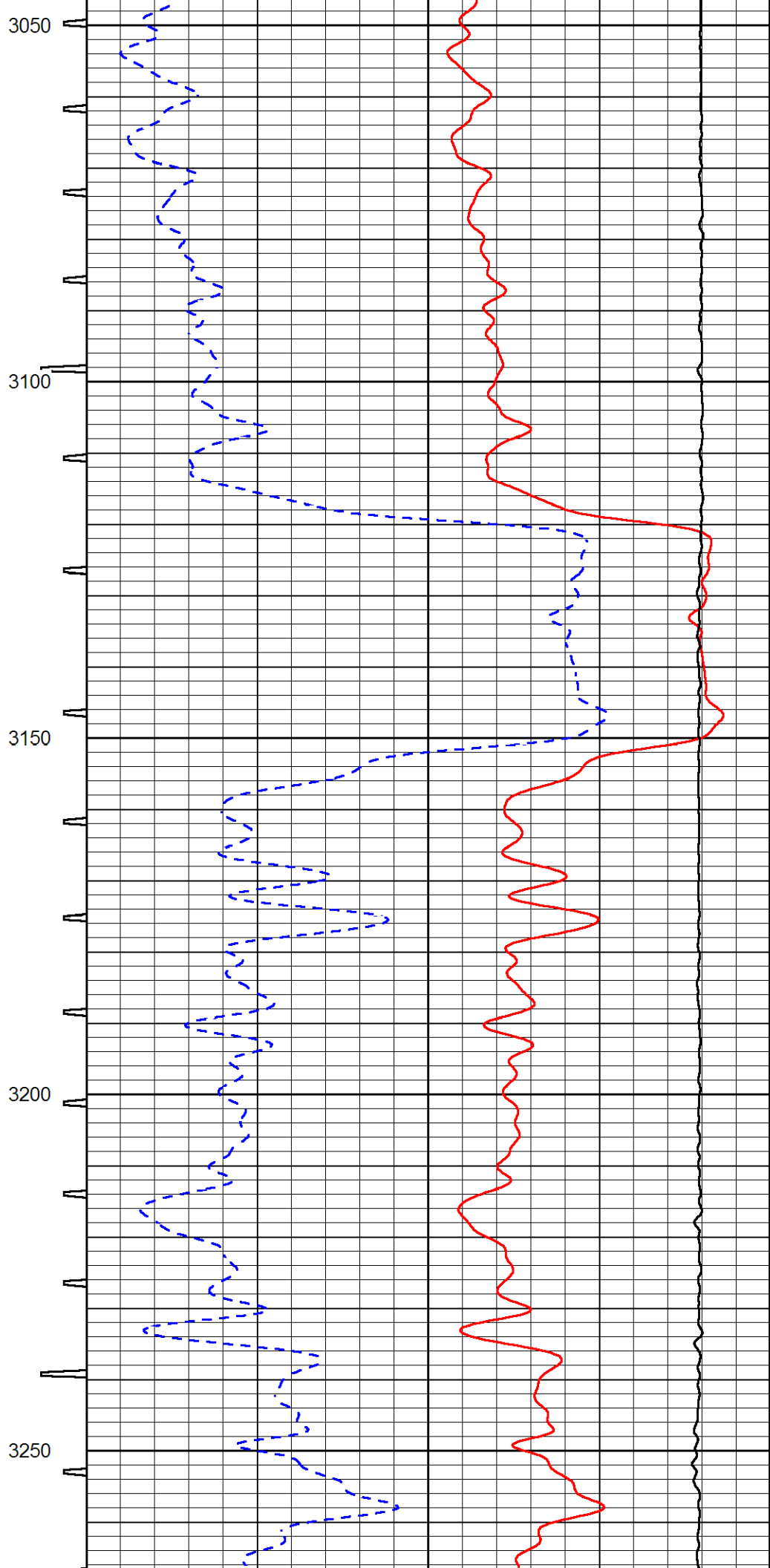
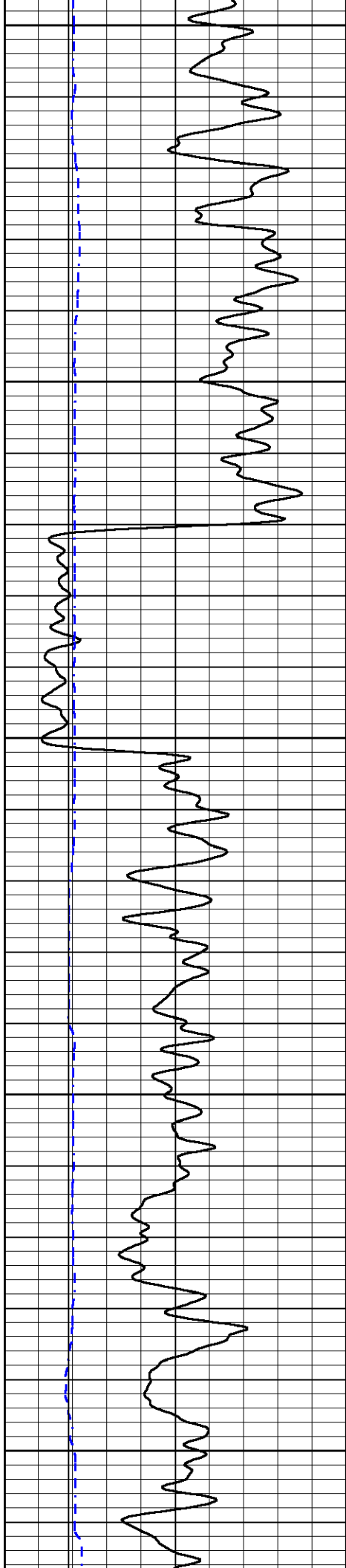


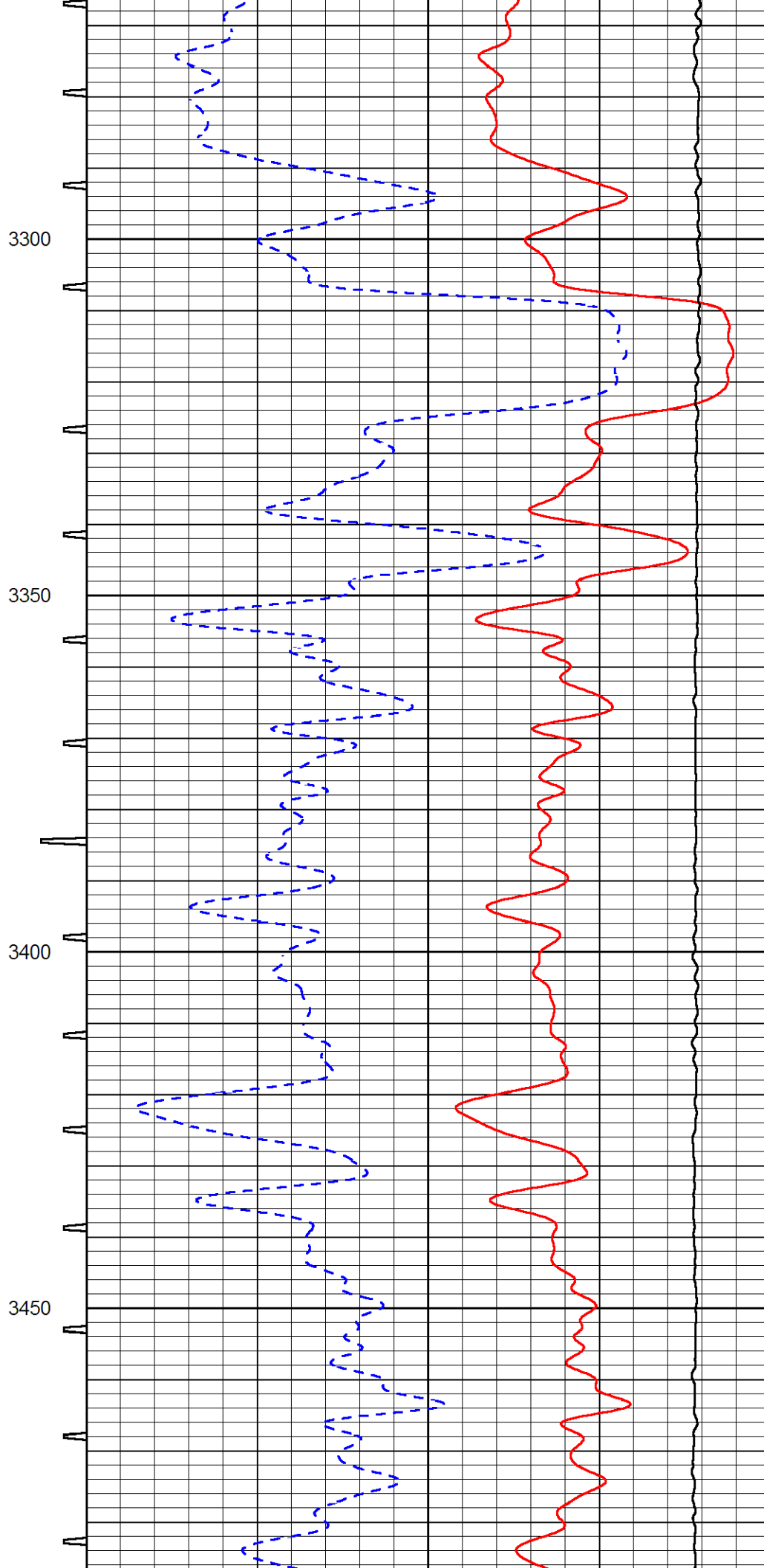
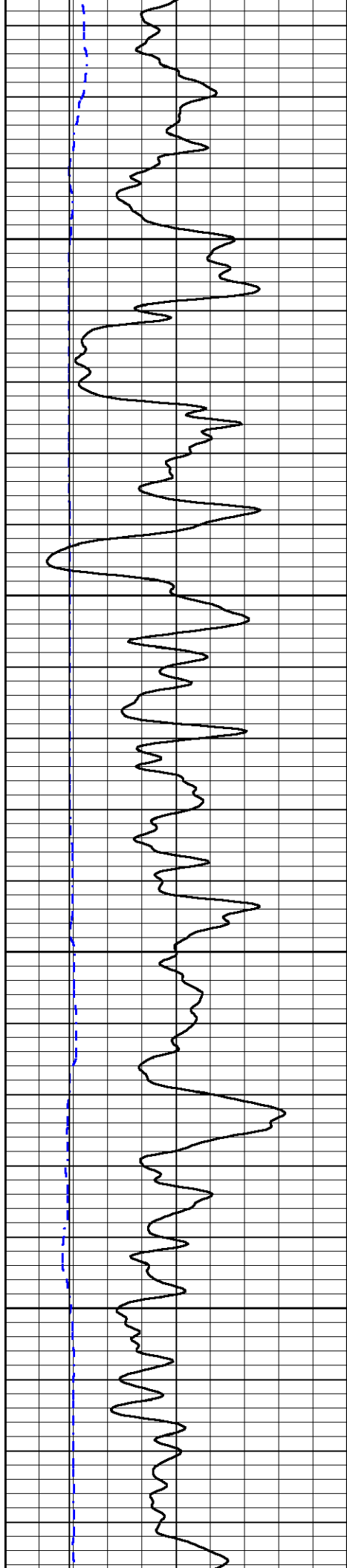


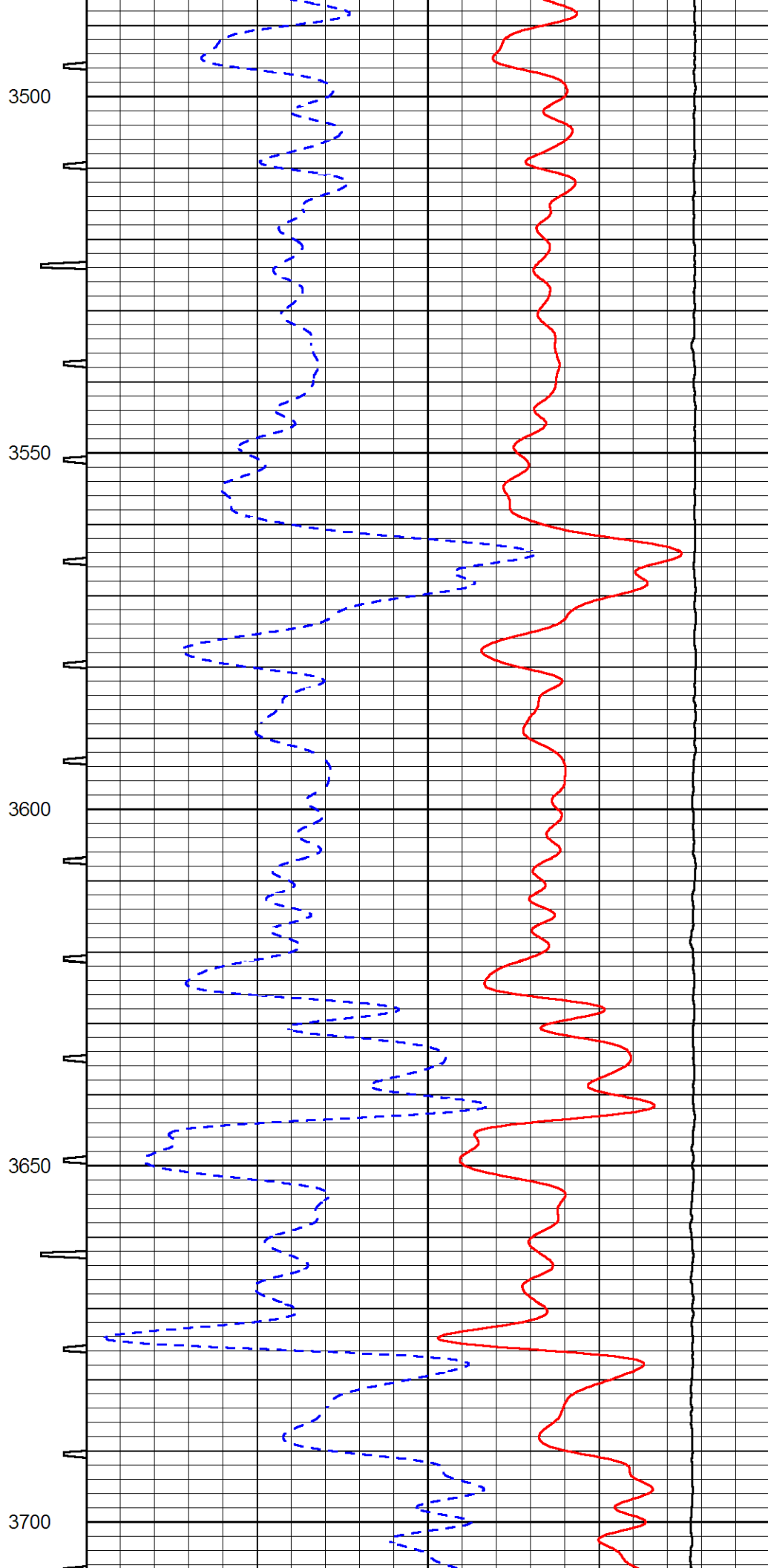
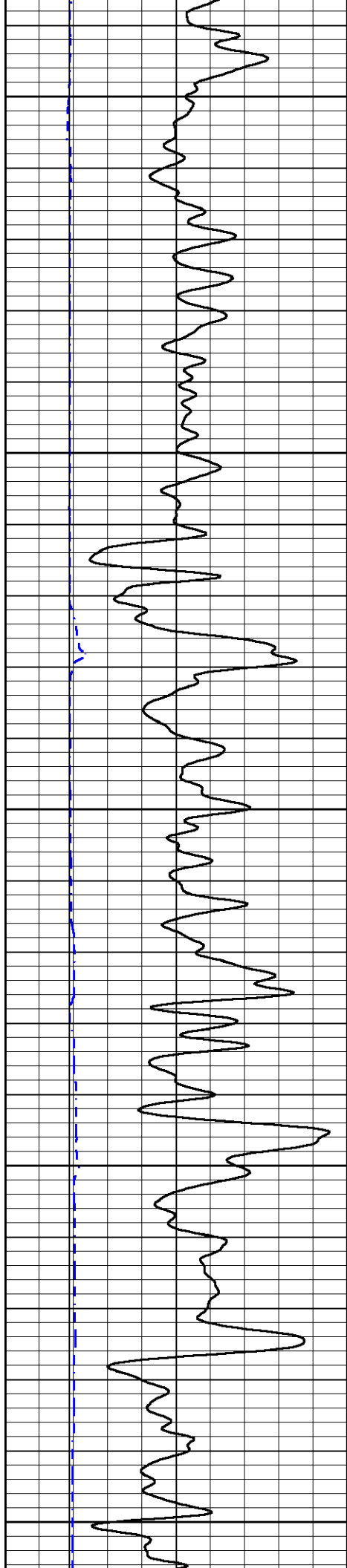


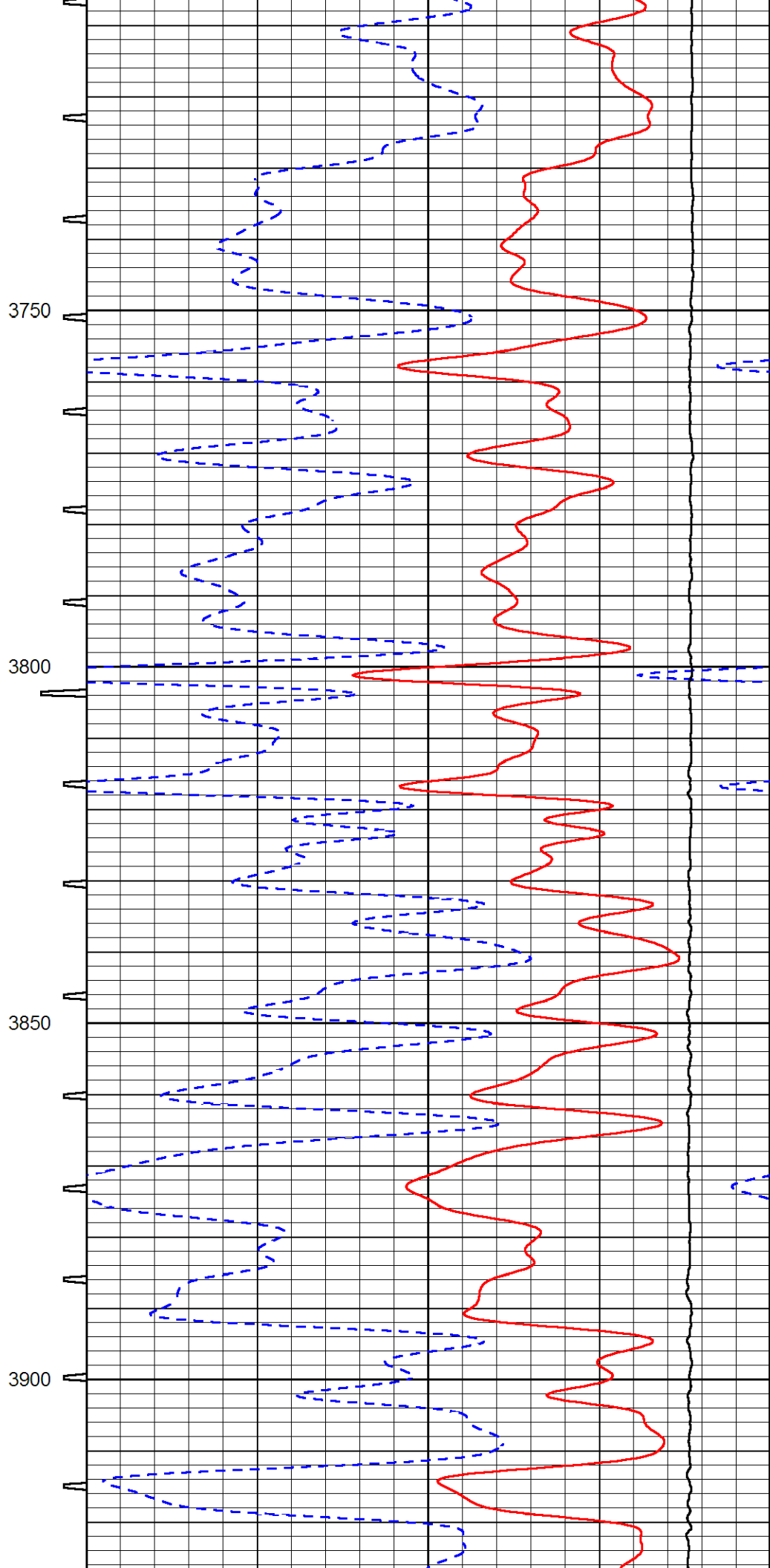
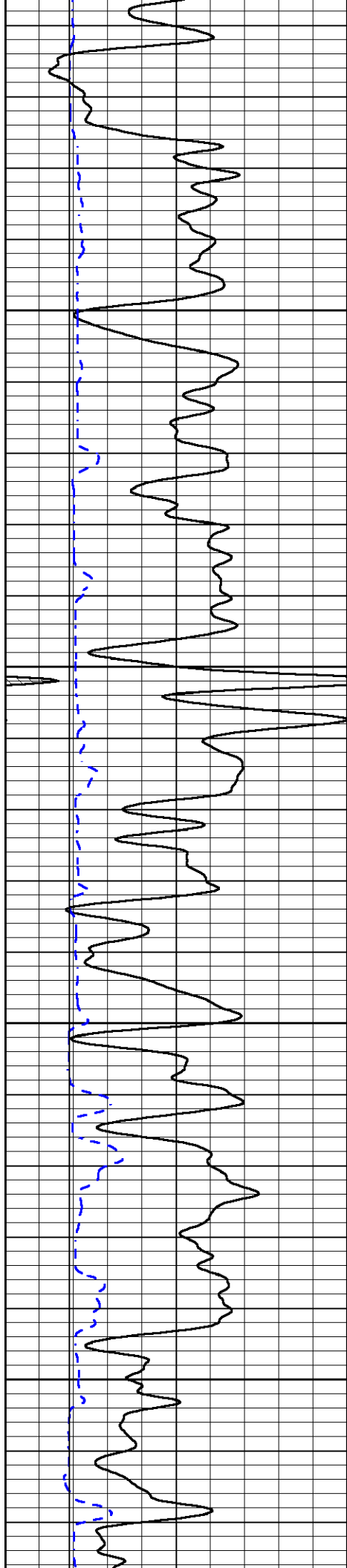


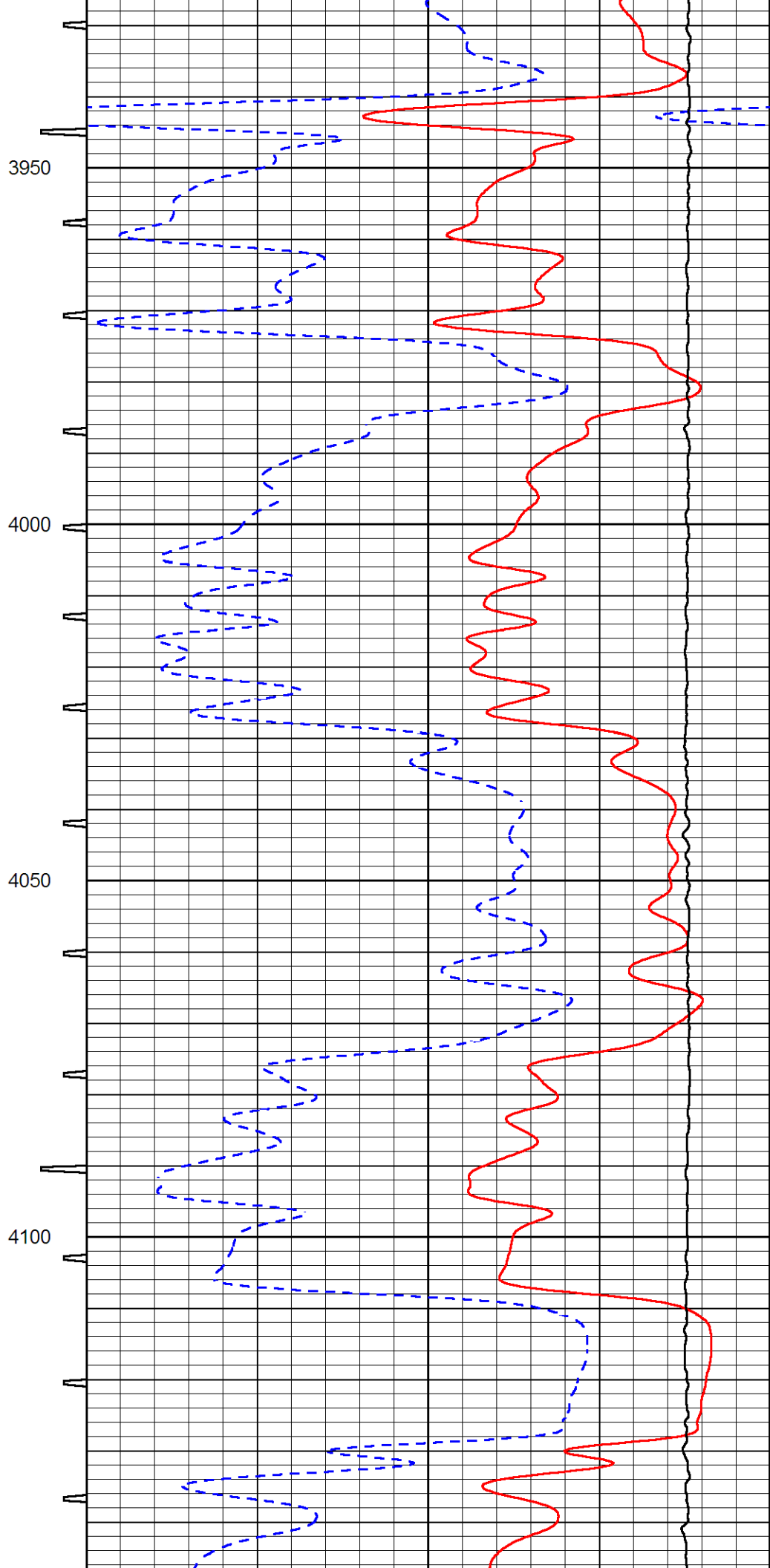
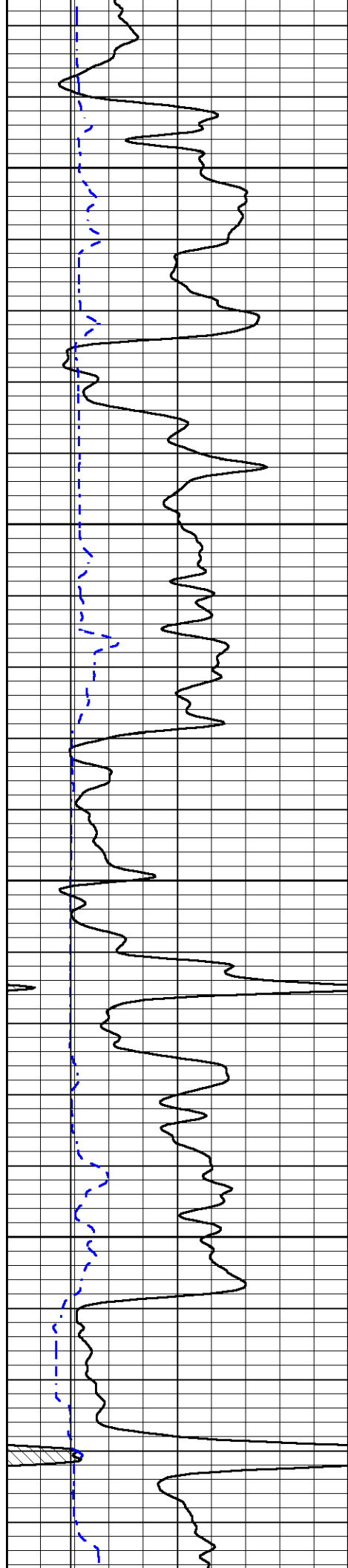


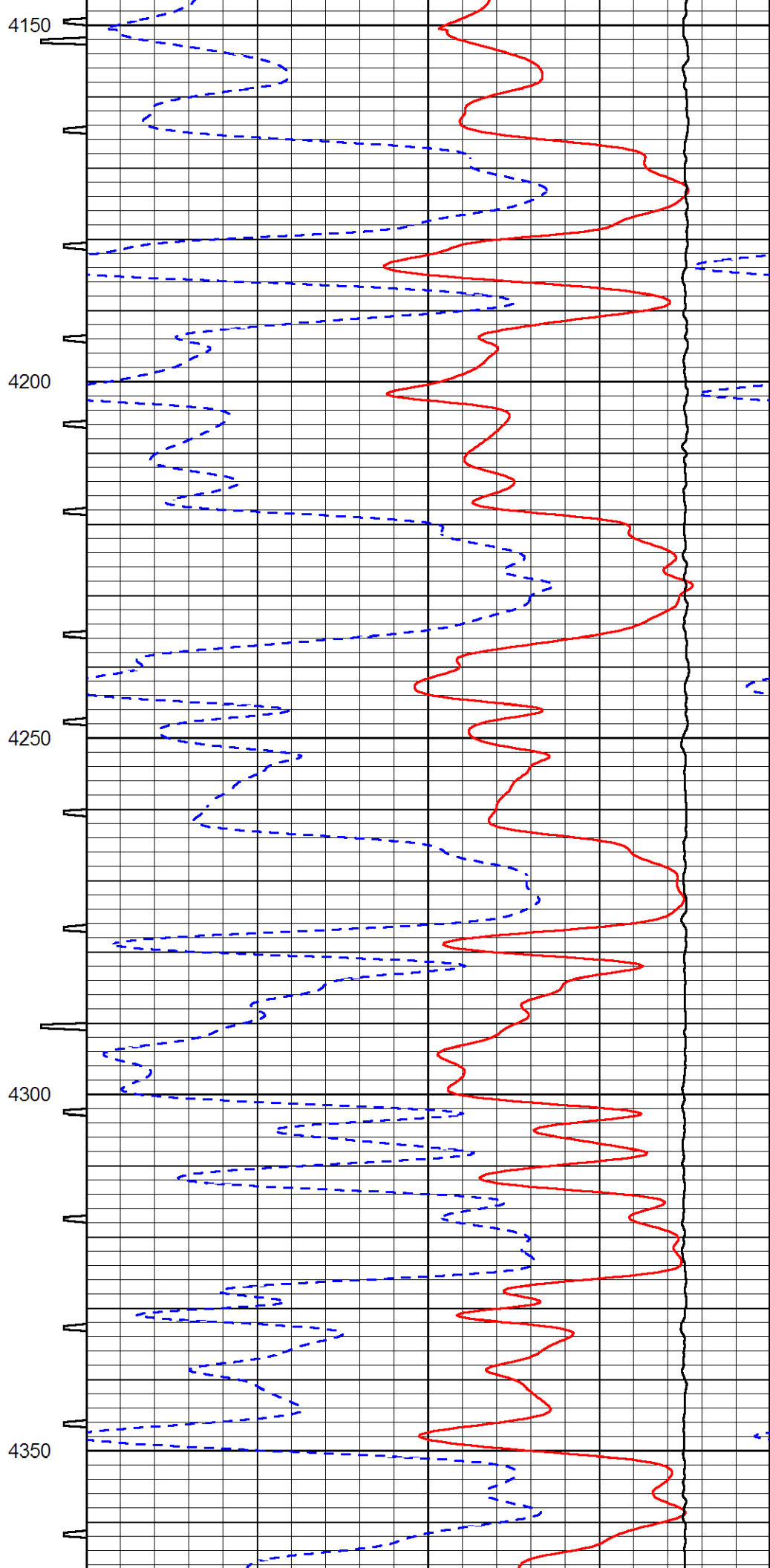
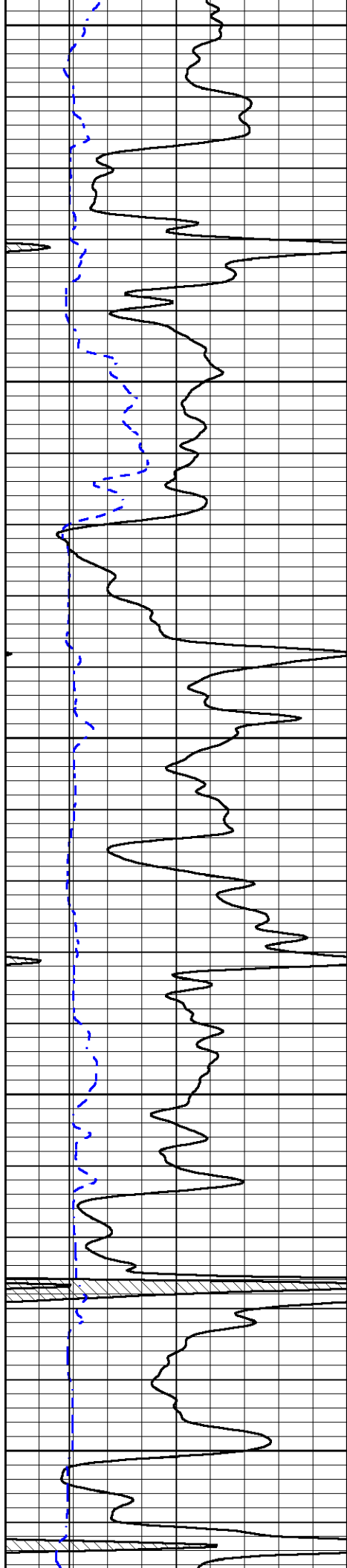


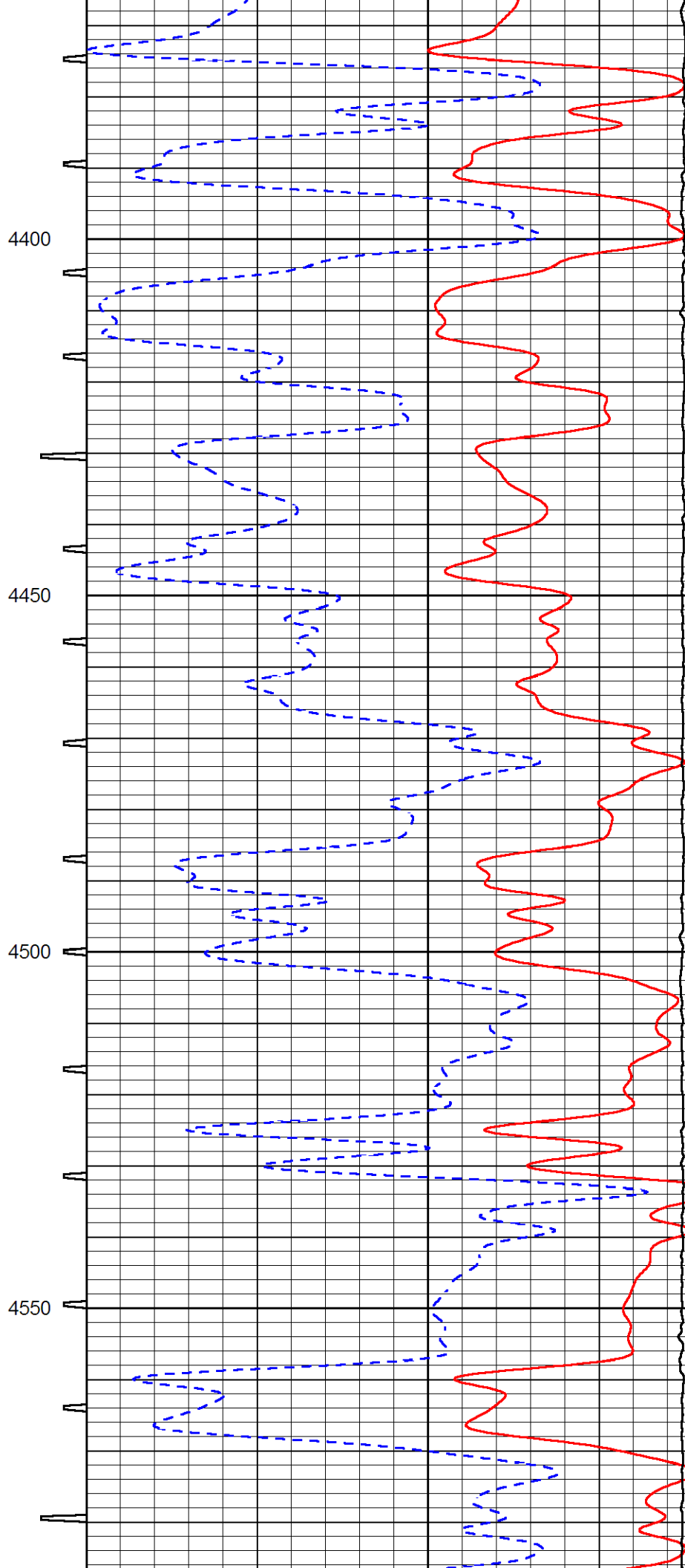
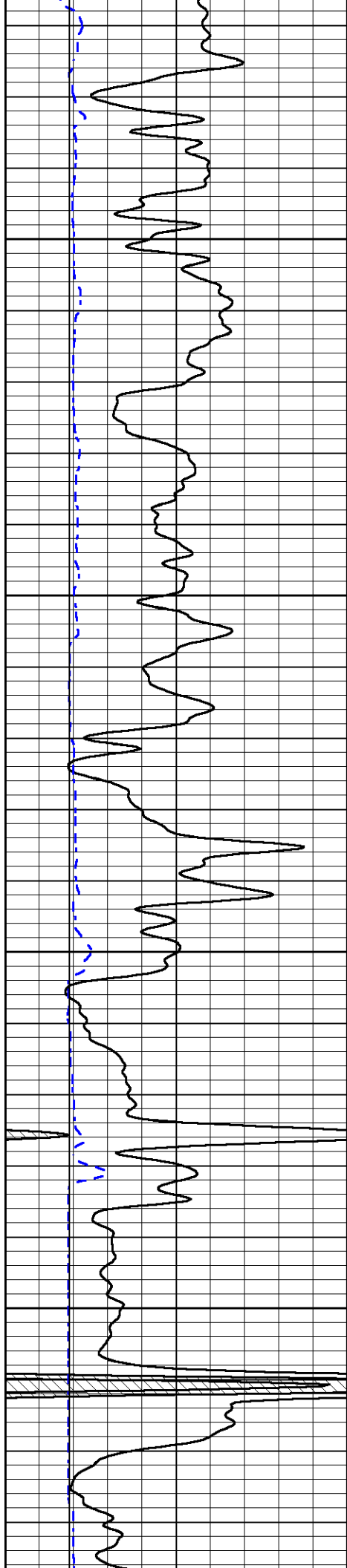


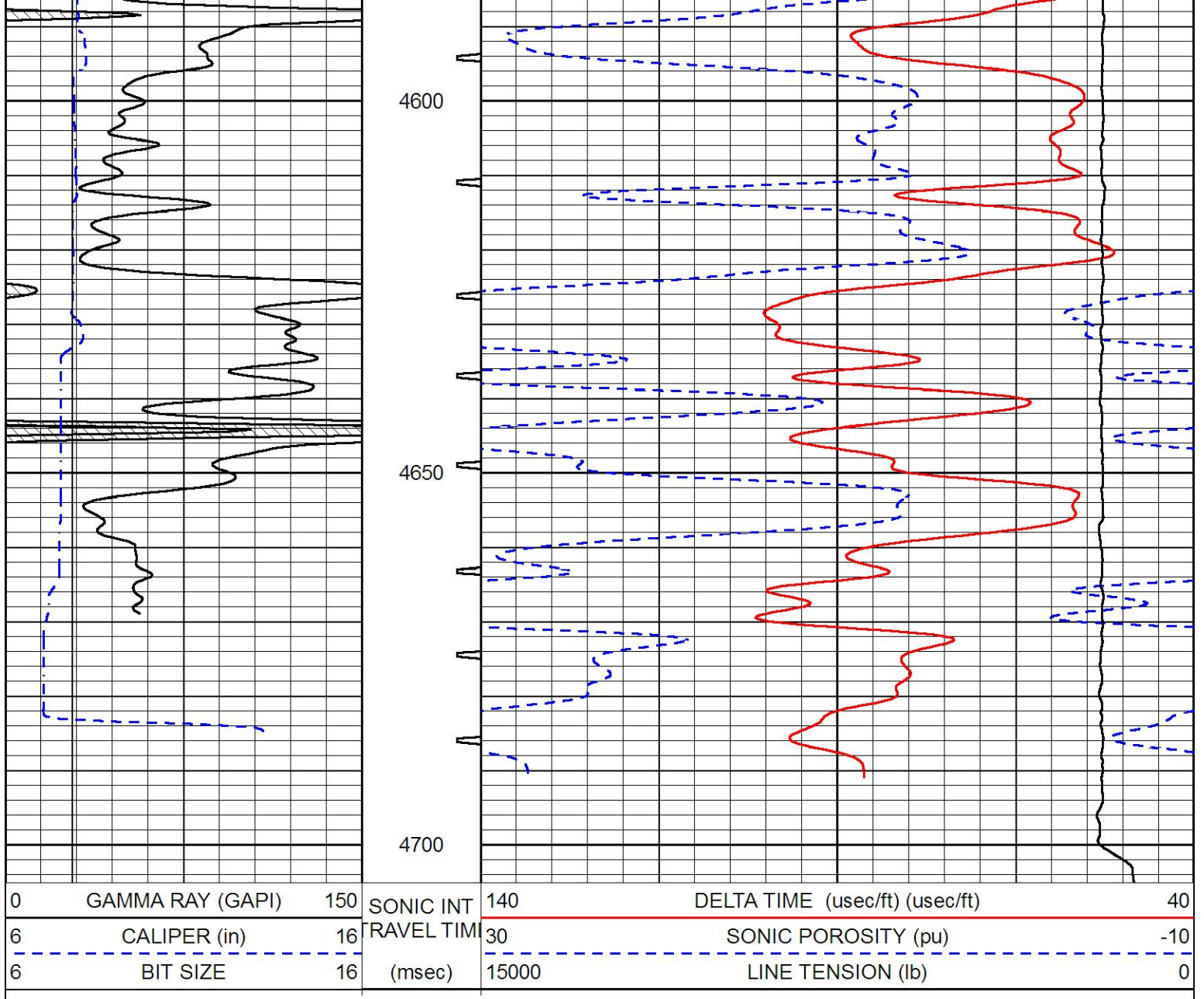








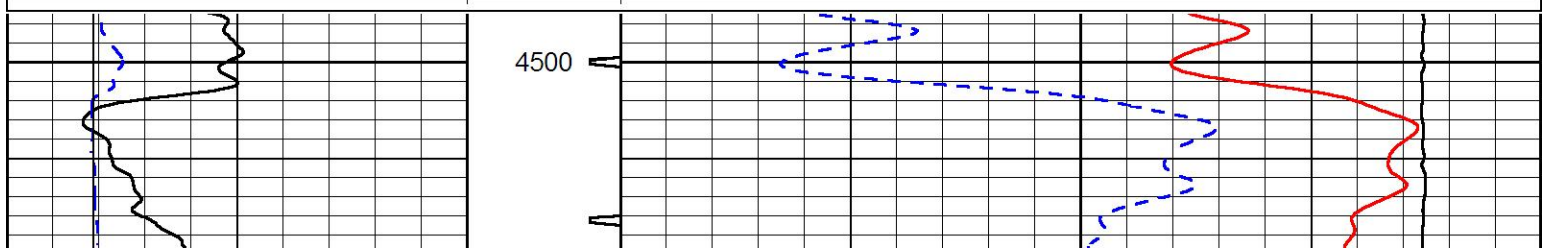


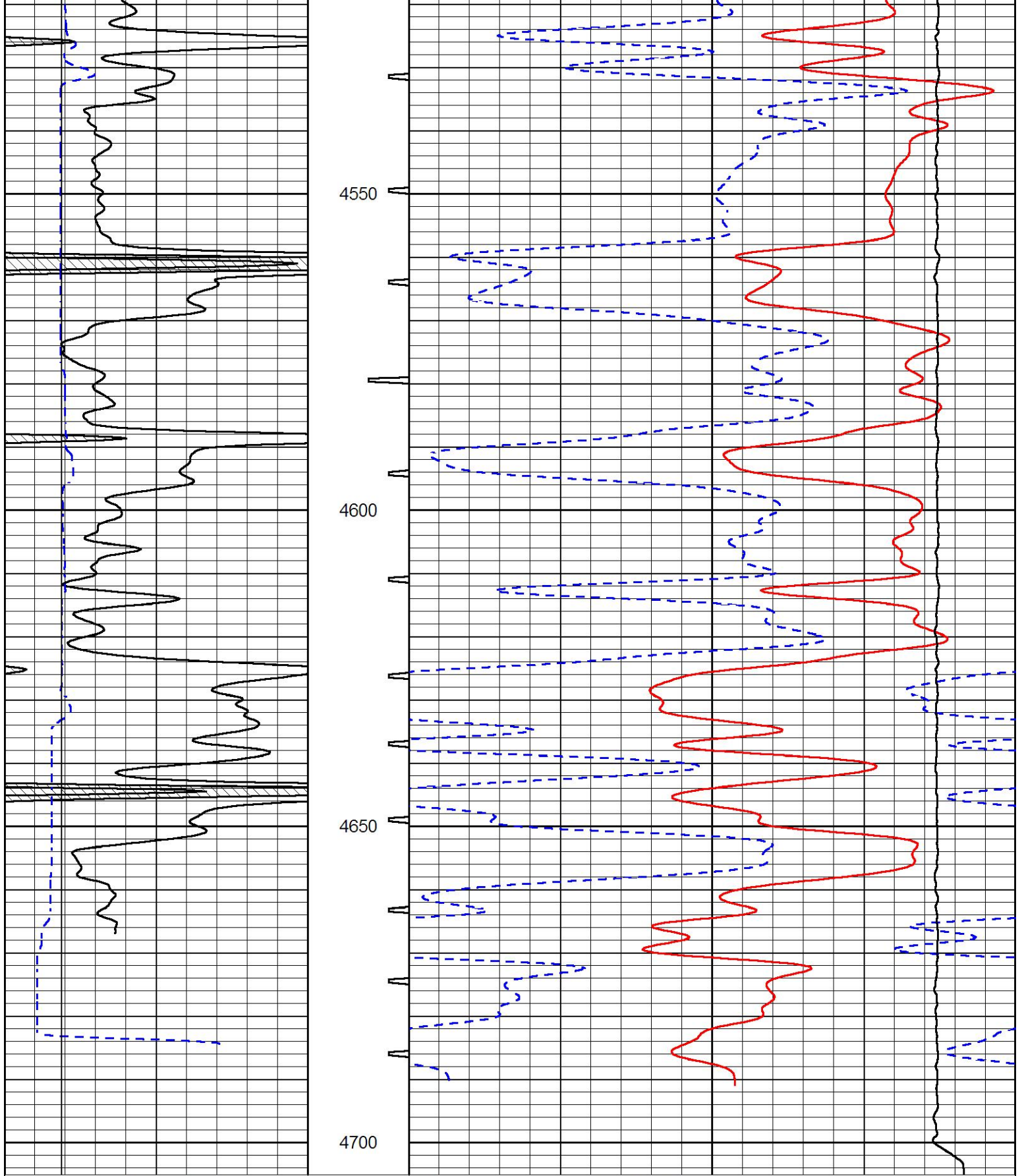


REPEAT SECTION

Database File murfin_jean_a_1_7.db
 Dataset Pathname stackml/pass2.1
 Presentation Format sonic
 Dataset Creation Mon May 06 21:22:06 2019
 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 TIM	30	SONIC POROSITY (pu)	-10
6	BIT SIZE	16	(msec)	15000	LINE TENSION (lb)	0





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 Well JEAN 'A' #1-7

PIONEER

Pioneer Energy Services

Field

WILDCAT

County

KANSAS

State

CHEYENNE