



**BOREHOLE COMPENSATED  
SONIC LOG**

Pioneer Energy Services

Company MURFIN DRILLING COMPANY, INC.  
Well BURR #1-6  
Field WILDCAT  
County CHEYENNE  
State KANSAS

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County CHEYENNE State KANSAS

Location: API #: 15-023-21530-00-00  
990' FSL & 330' FEL  
SEC 6 TWP 3S RGE 37W  
Permanent Datum GROUND LEVEL Elevation 3438'  
Log Measured From KELLY BUSHING  
Drilling Measured From KELLY BUSHING  
Other Services DIL/MEL CNL/CDL  
Elevation K.B. 3443'  
D.F. N/A  
G.L. 3438'

Date	1/16/2020						
Run Number	TWO						
Type Log	BHGS						
Depth Driller	5100'						
Depth Logger	5103'						
Bottom Logged Interval	5092'						
Top Logged Interval	350'						
Type Fluid In Hole	CHEMICAL						
Salinity, PPM CL	1300						
Density	9.1						
Level	FULL						
Max. Rec. Temp. F	127 DEG/F						
Operating Rig Time	4 HOURS						
Equipment -- Location	P-108 HAYS						
Recorded By	J. HENRICKSON						
Witnessed By	SAMAN SHARIFAIE						
Borehole Record							
Run No.	Bit	From	To	Size	Wgt.	From	To
ONE	12.25"	0	388'	8.625"	23#	0	388'
TWO	7.875"	388'		TD			
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  
EAST TO 30 RD, 4 1/4 NORTH, 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	Primary Witness: SAMAN SHARIFAIE
Operator:	Secondary Witness:
Operator:	Secondary Witness:
Operator:	Secondary Witness:

# Log Variables

DatabaseC:\ProgramData\Warrior\Data\murf\_in\_burr\_1\_6.db  
 Dataset field/well/stackml/pass3.1/\_vars\_



## Top - Bottom

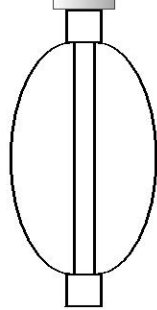
A	BOREID in	BOTTEMP degF	CASEOD in	CASETHCK in	FLUIDDEN g/cc	M	MATRXDEN g/cc
1	7.875	127	5.5	0	1	2	2.71
NPORSEL	PERFS	SNDERR mmho/m	SNDERRM mmho/m	SPSHIFT mV	SRFTEMP degF	SZCOR	TDEPTH ft
Limestone	0	0	0	380	0	Off	5103

## 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

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

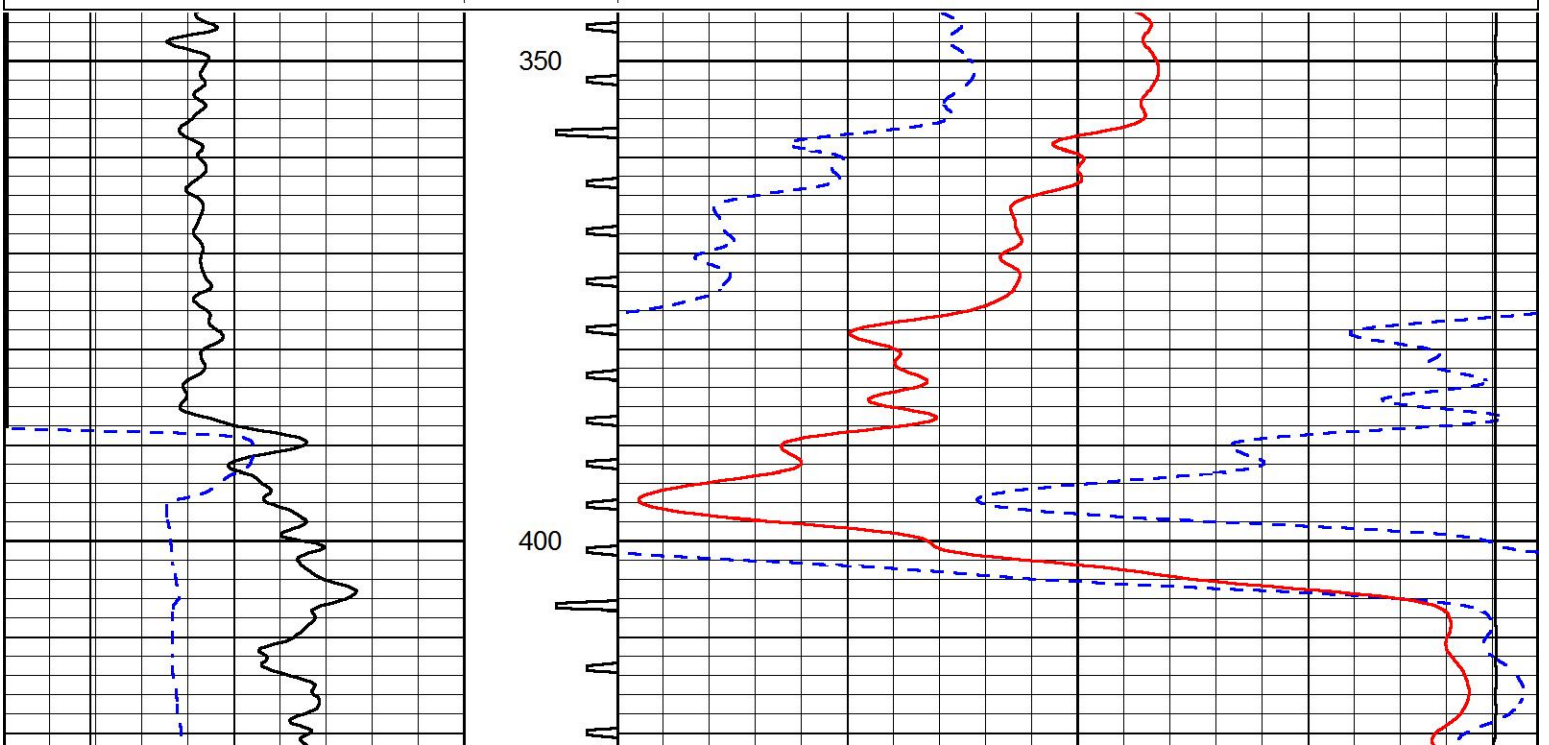
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 Total length: 19.00 ft  
 Total weight: 310.00 lb  
 O.D.: 3.50 in

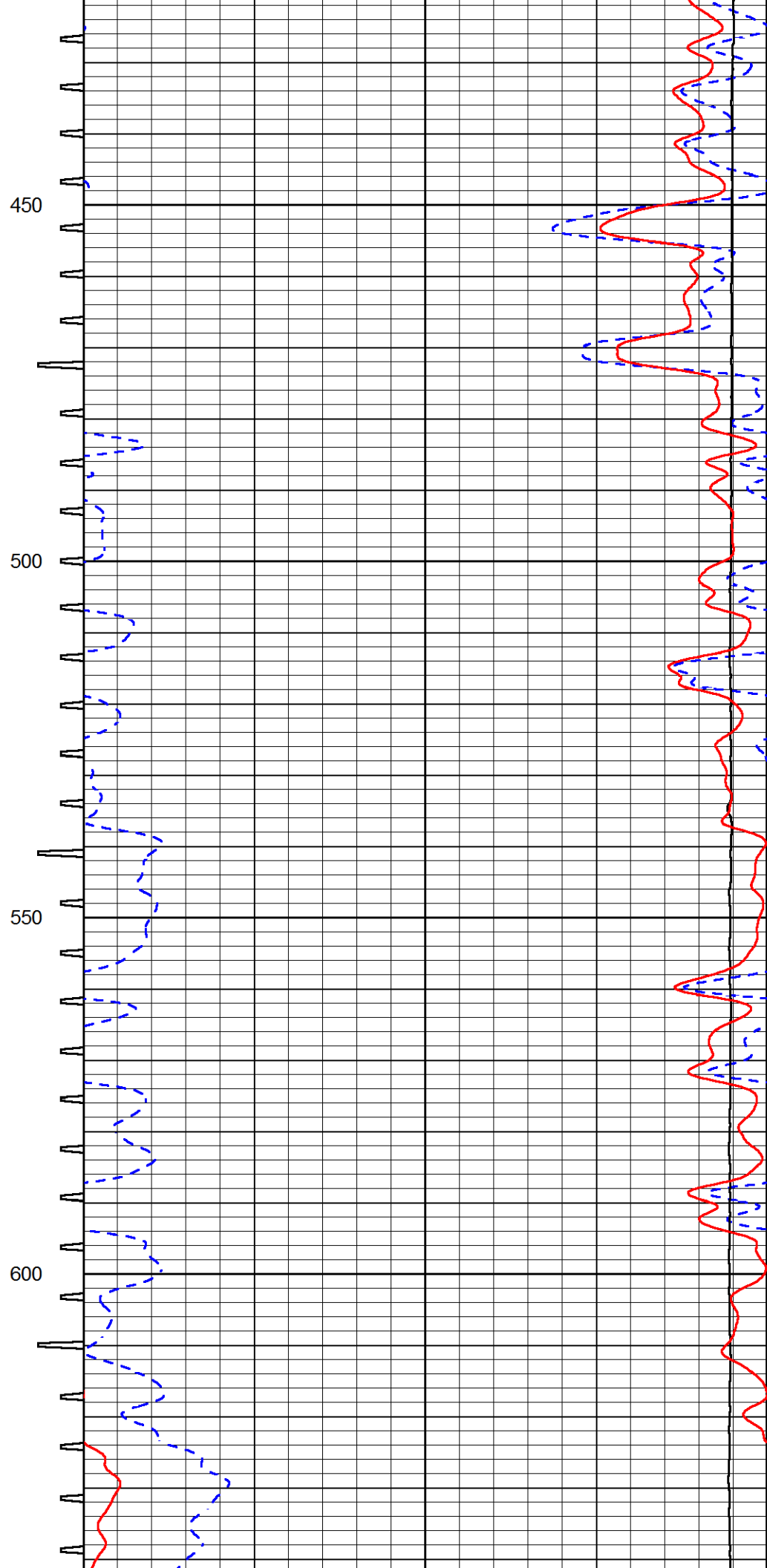
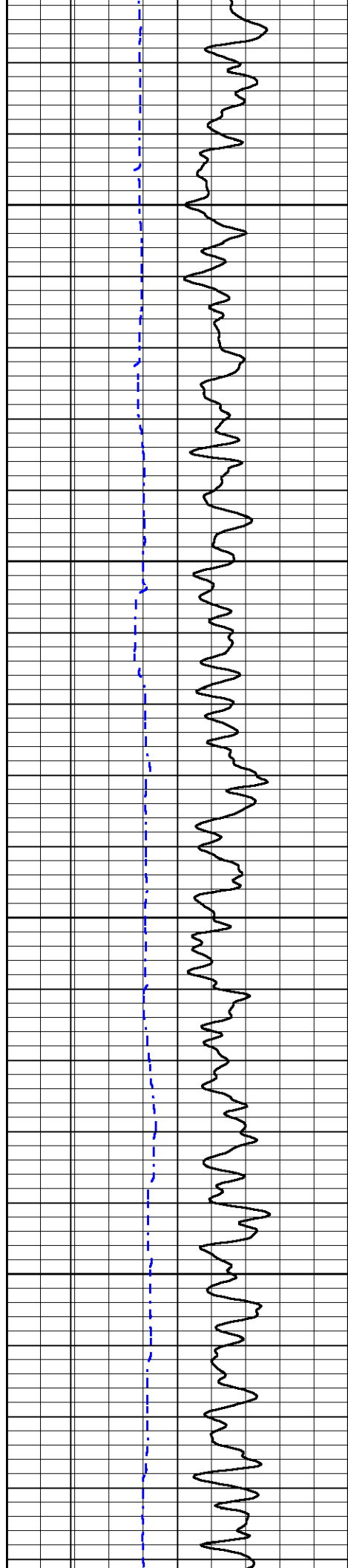


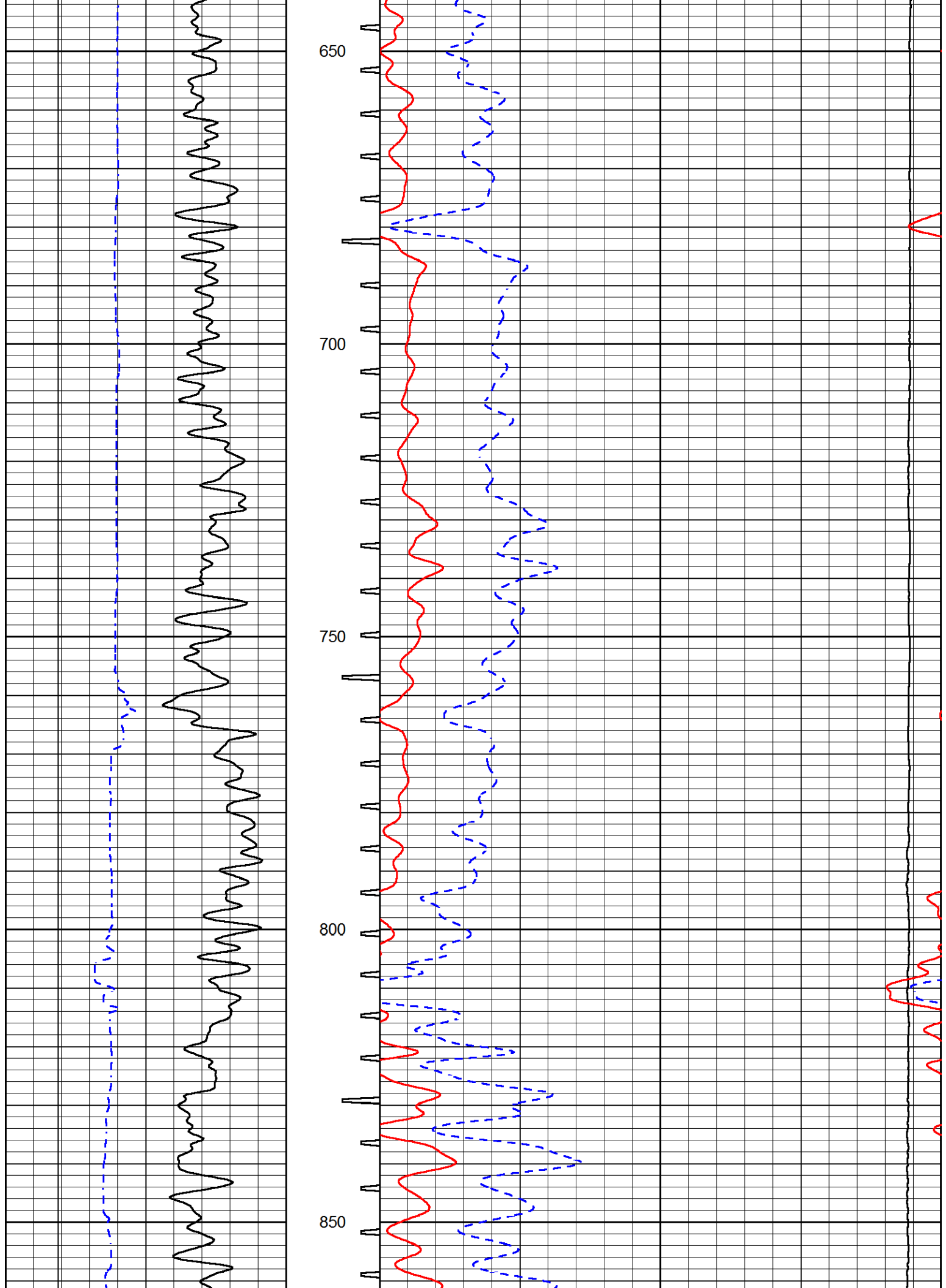
# MAIN PASS

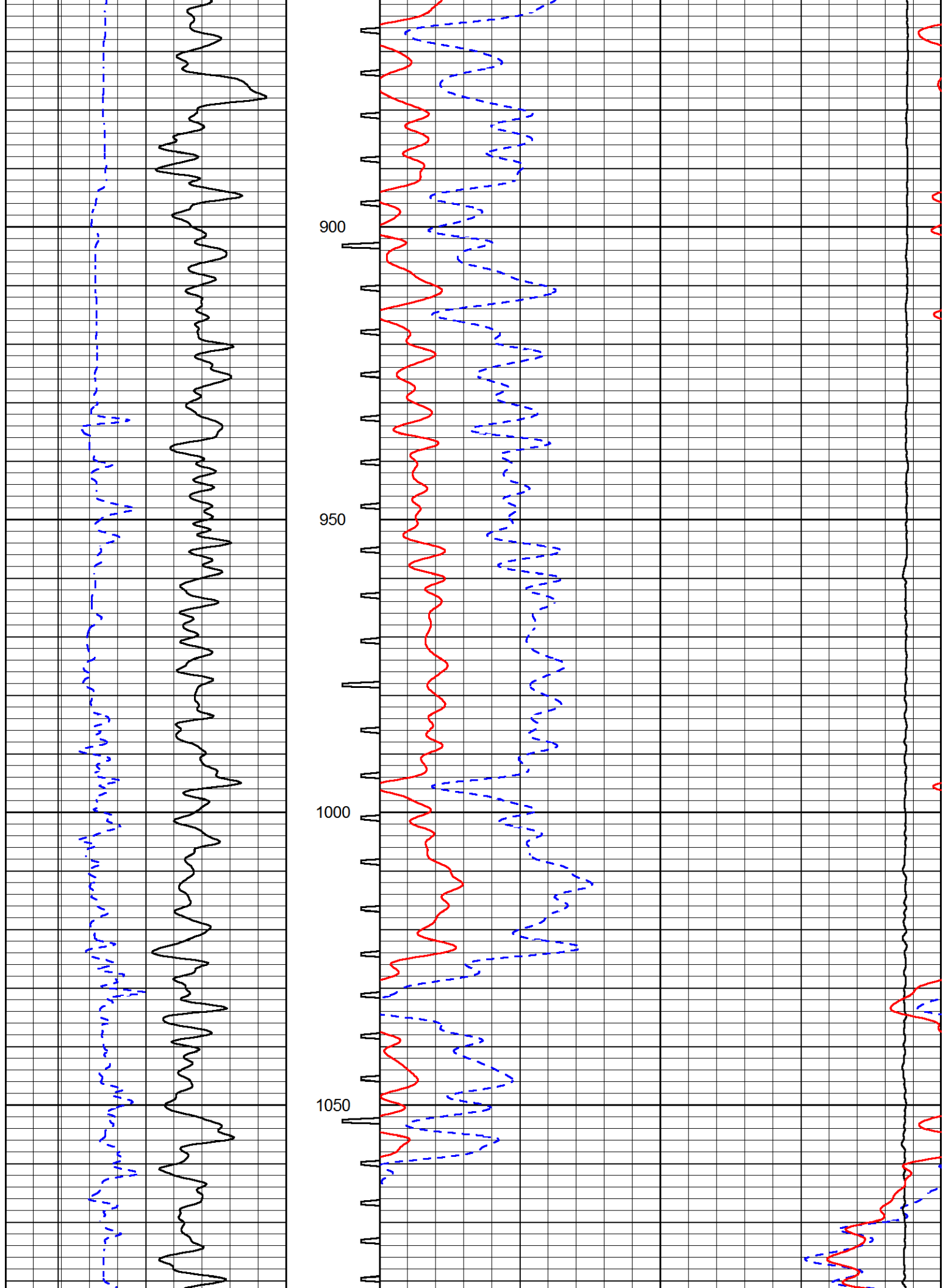
Database File murfin\_burr\_1\_6.db  
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 Presentation Format sonic  
 Dataset Creation Fri Jan 17 00:32:42 2020  
 Charted by Depth in Feet scaled 1:240

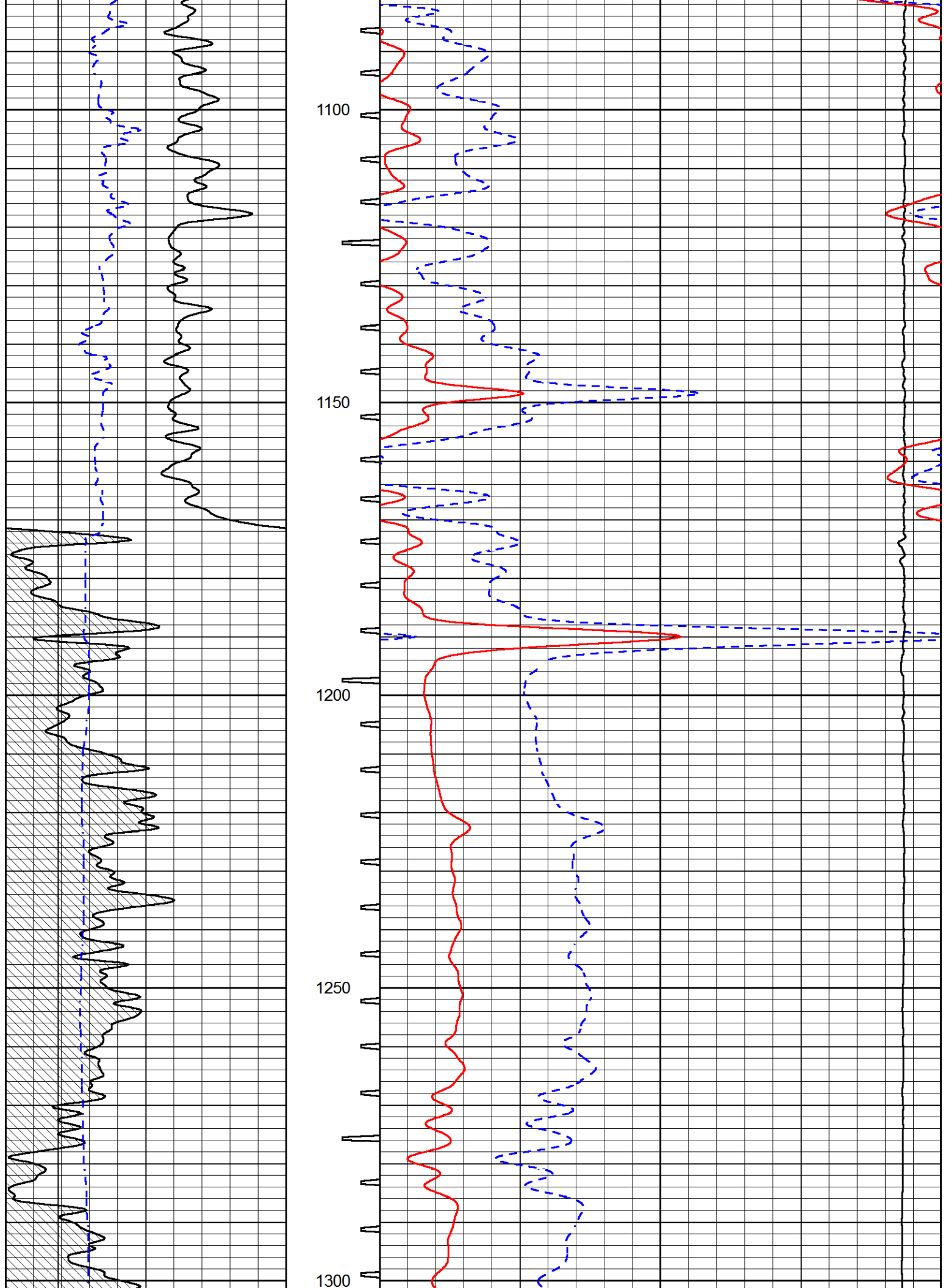
0	GAMMA RAY (GAPI)	150	SONIC INT	140	DELTA TIME (usec/ft) (usec/ft)	40
6	CALIPER (in)	16	TRAVEL TIME	30	SONIC POROSITY (pu)	-10
6	BIT SIZE	16	(msec)	15000	LINE TENSION (lb)	0

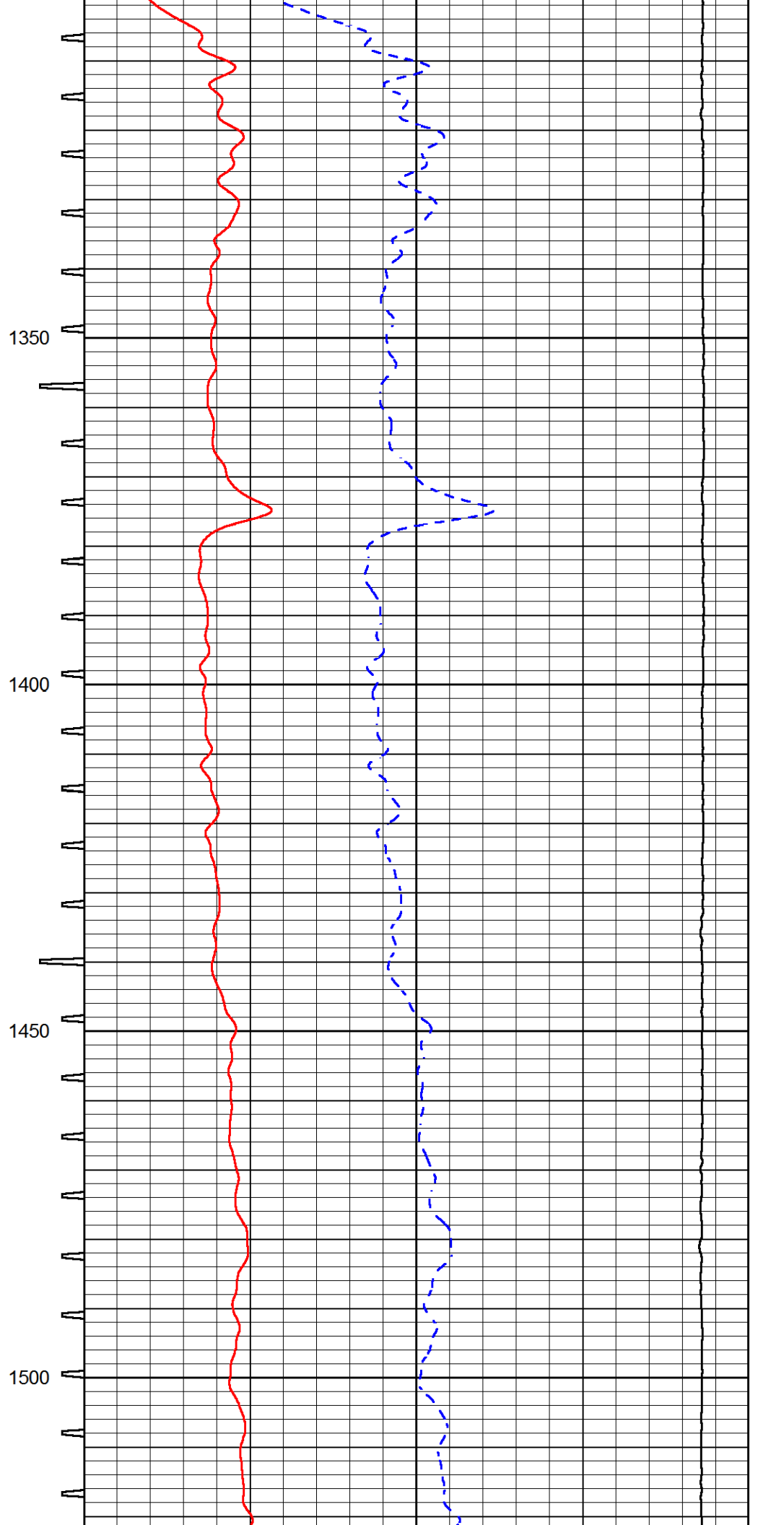
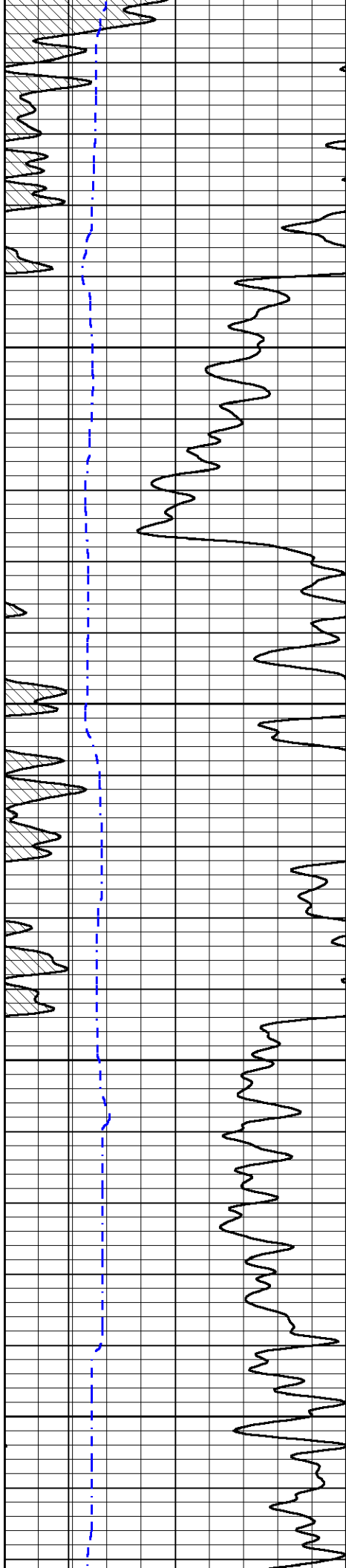


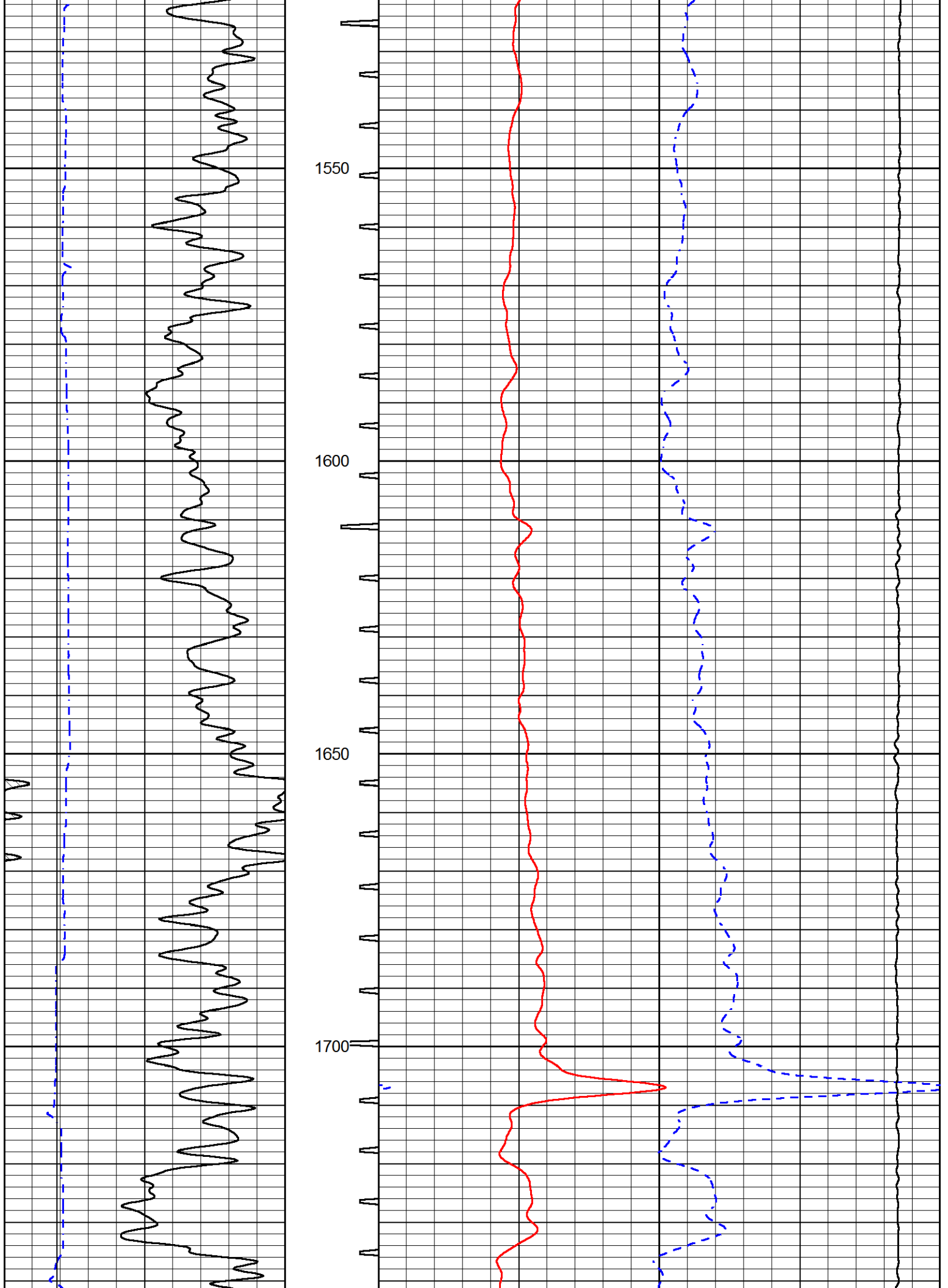


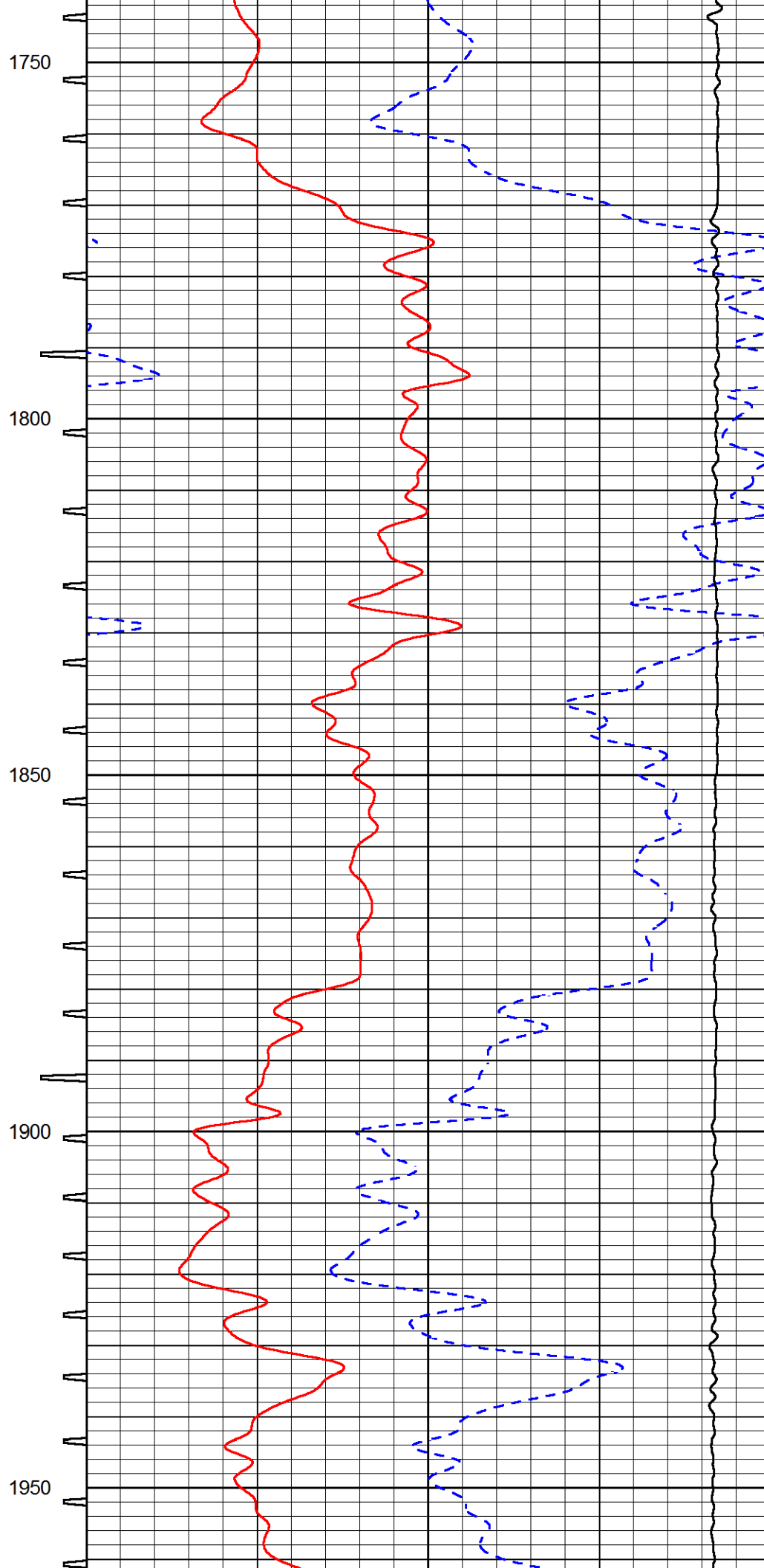
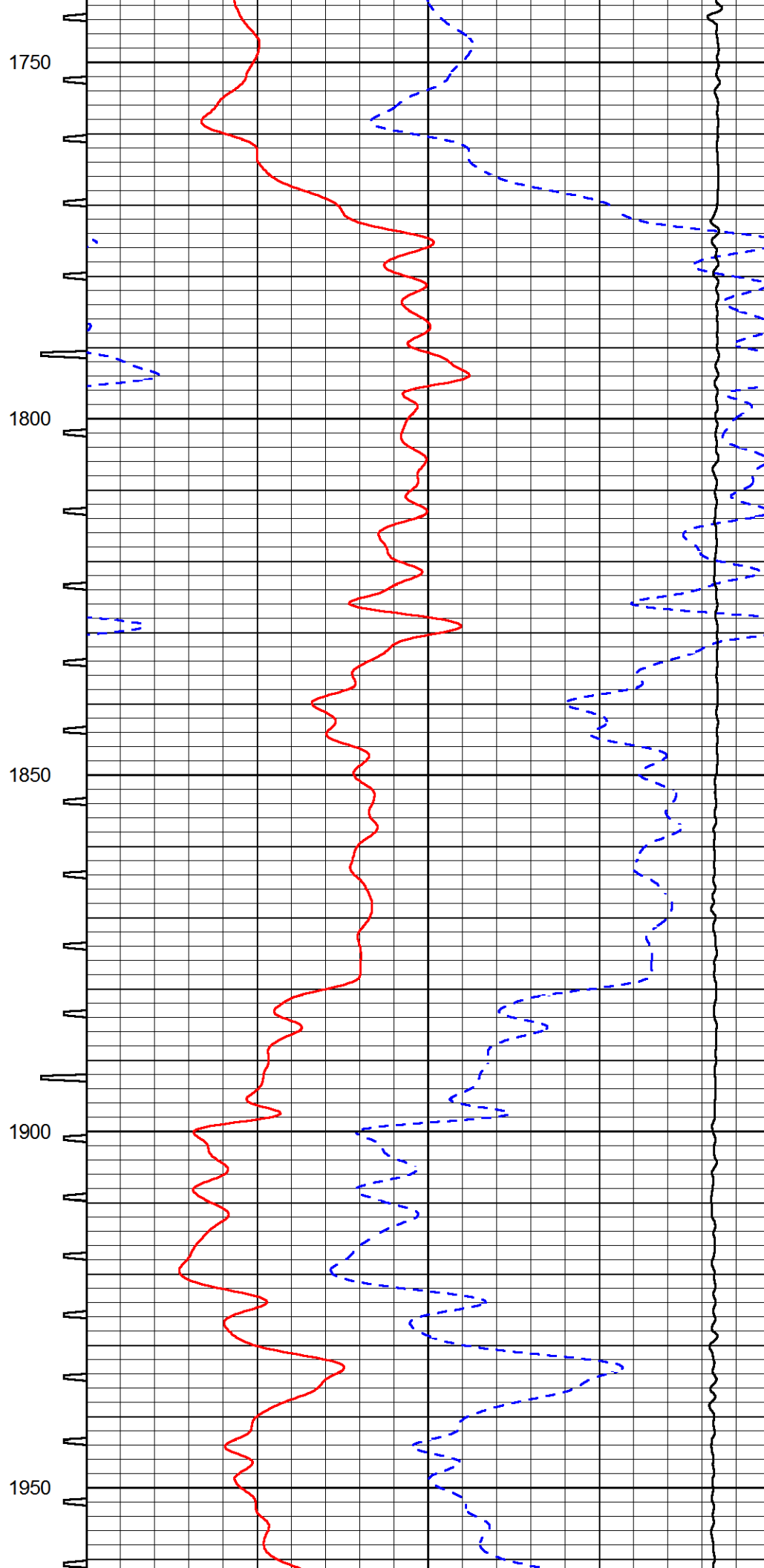
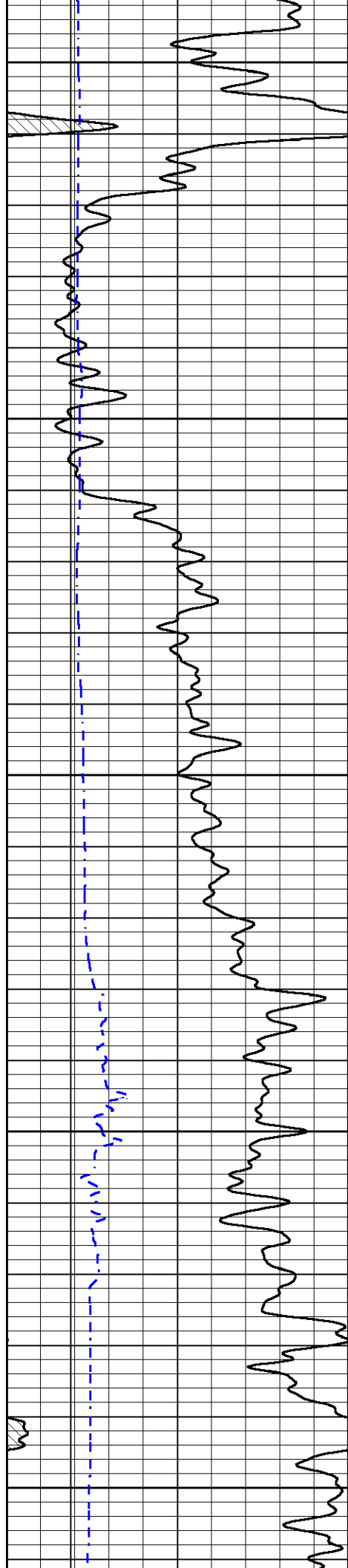


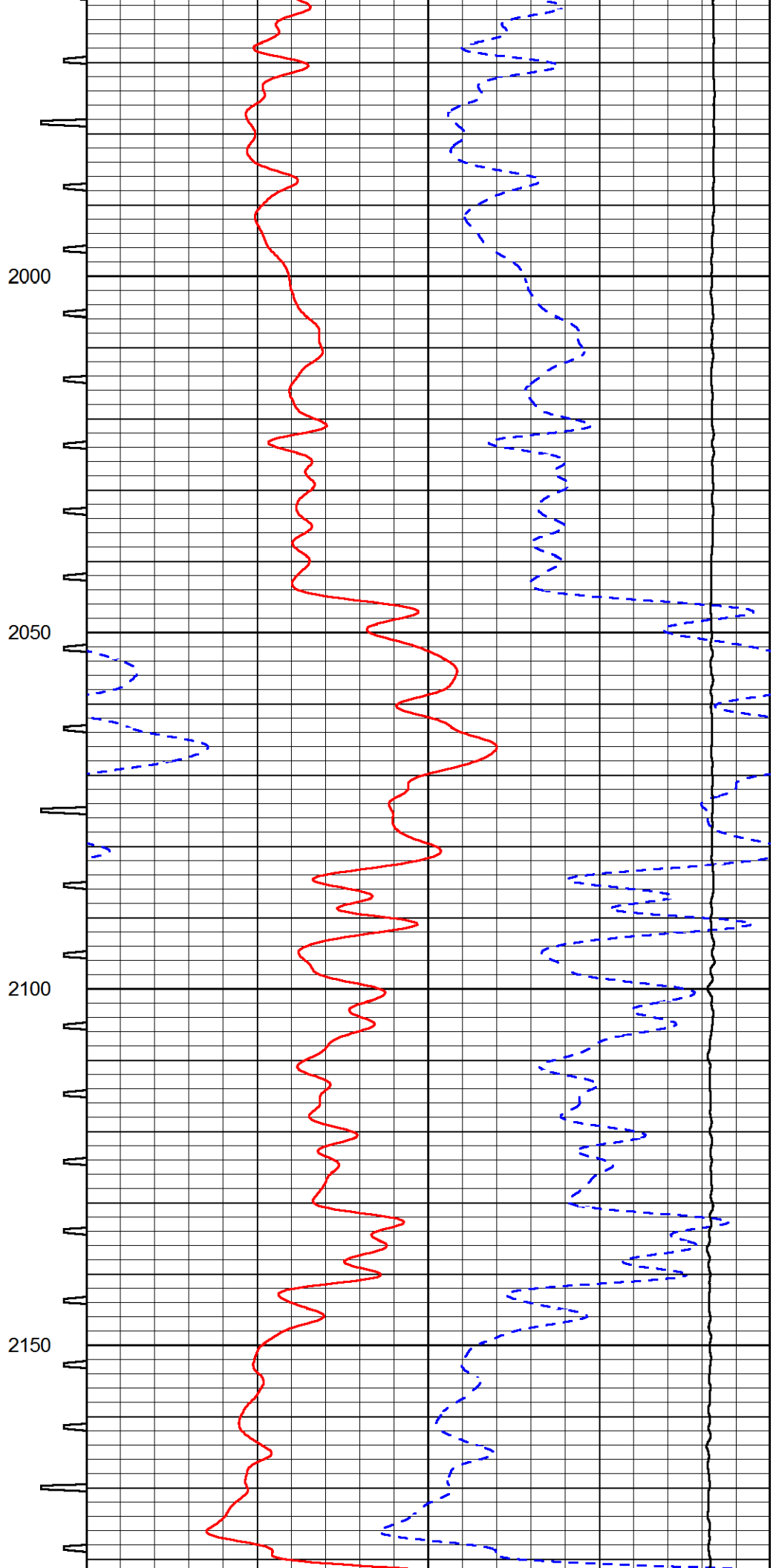
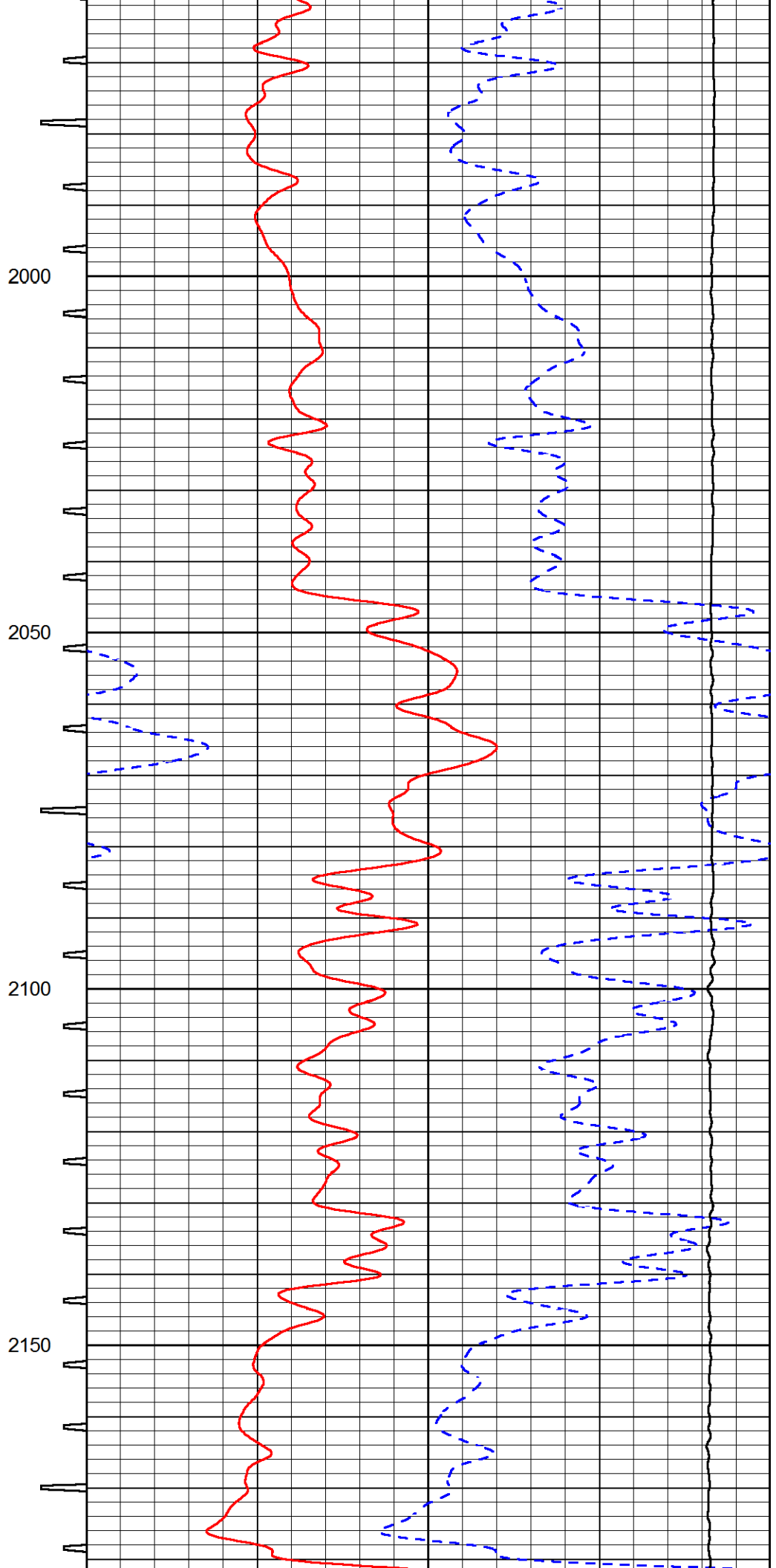
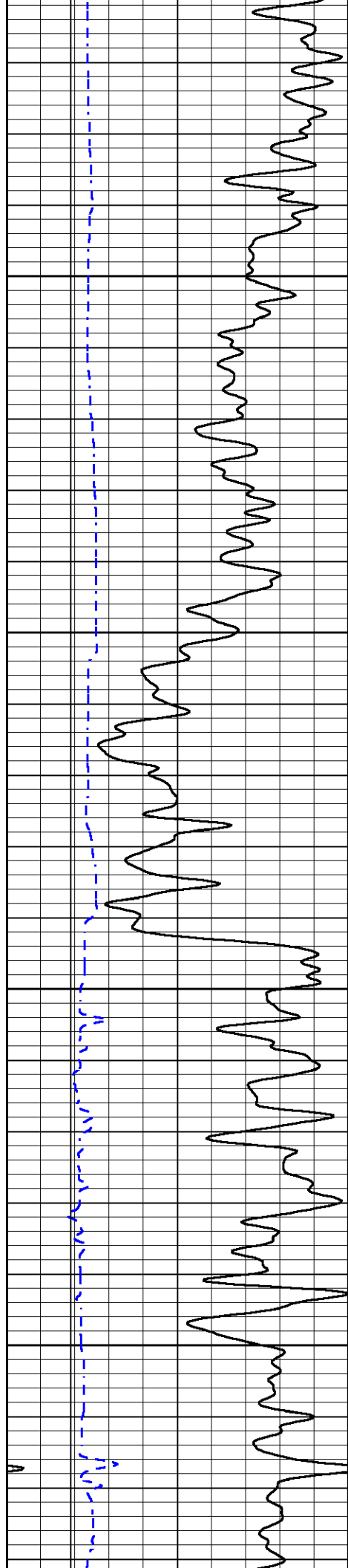


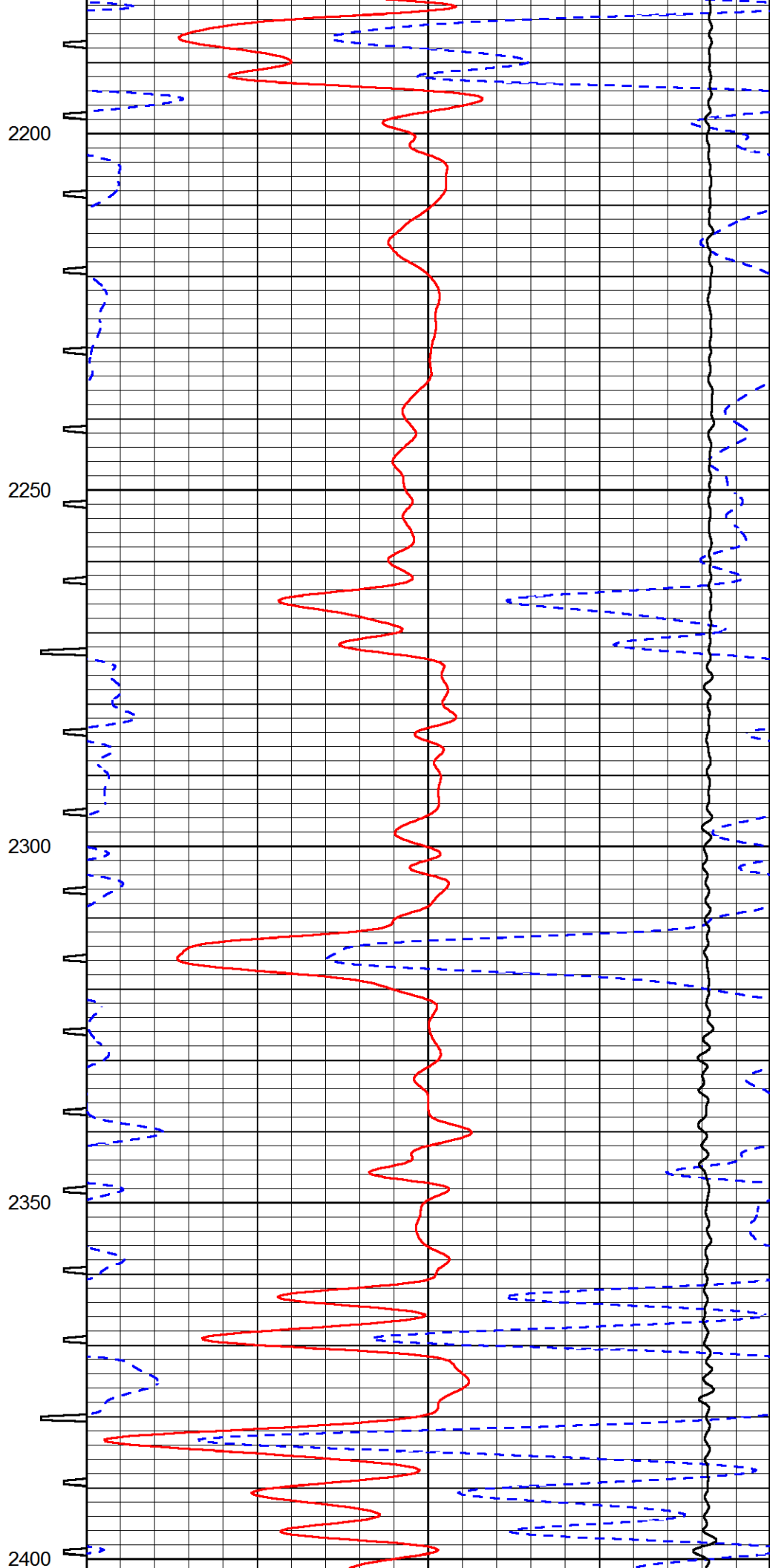
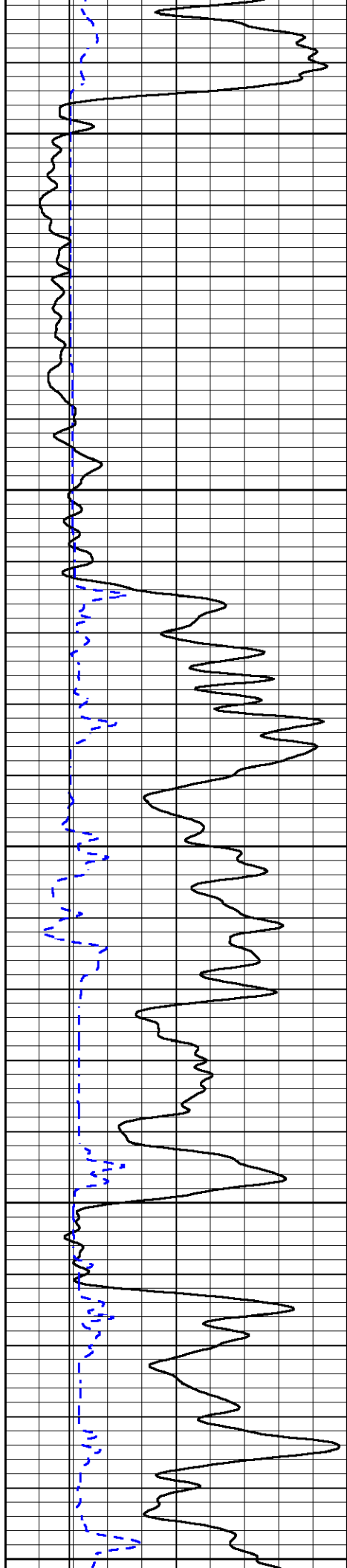


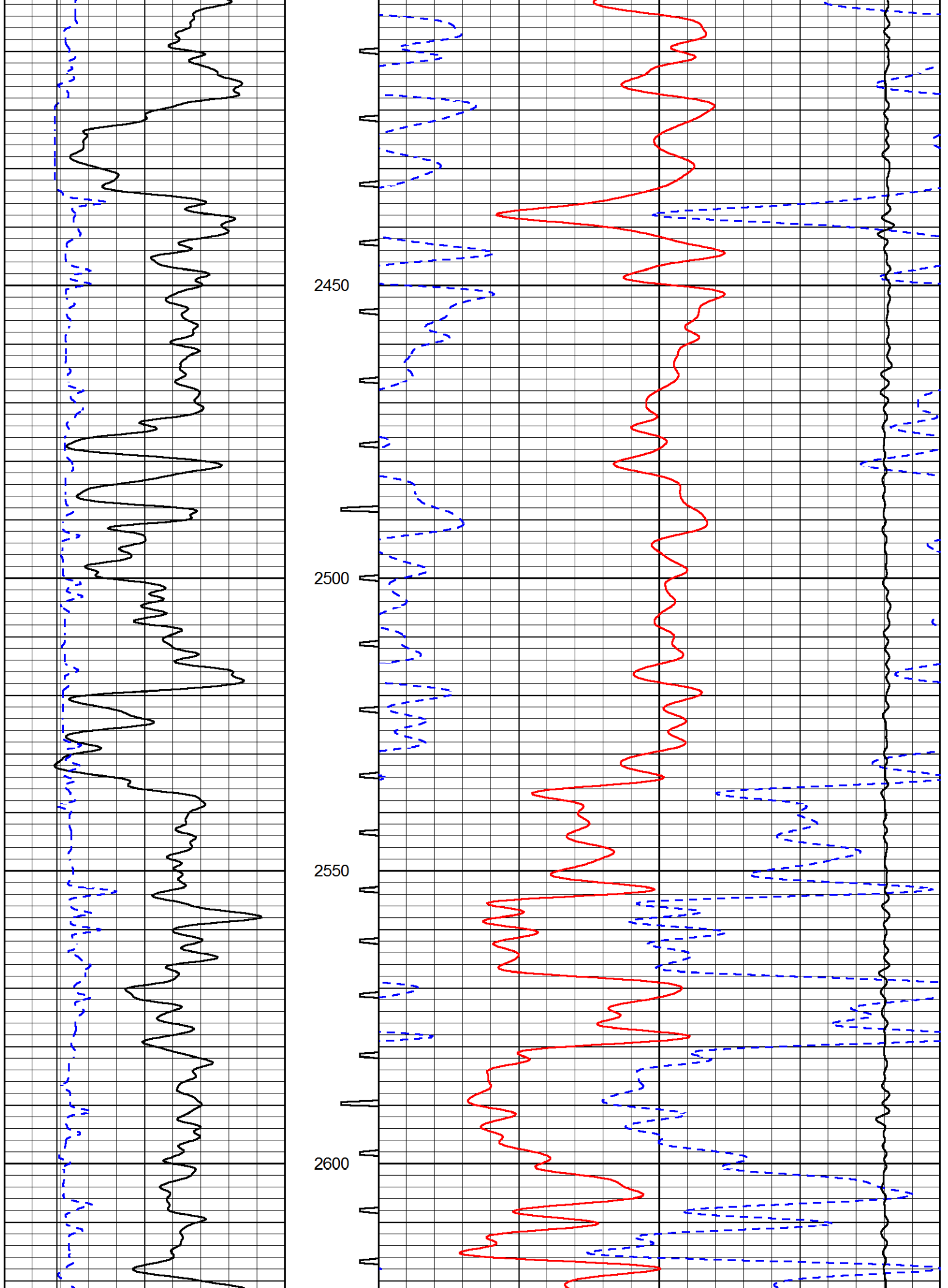


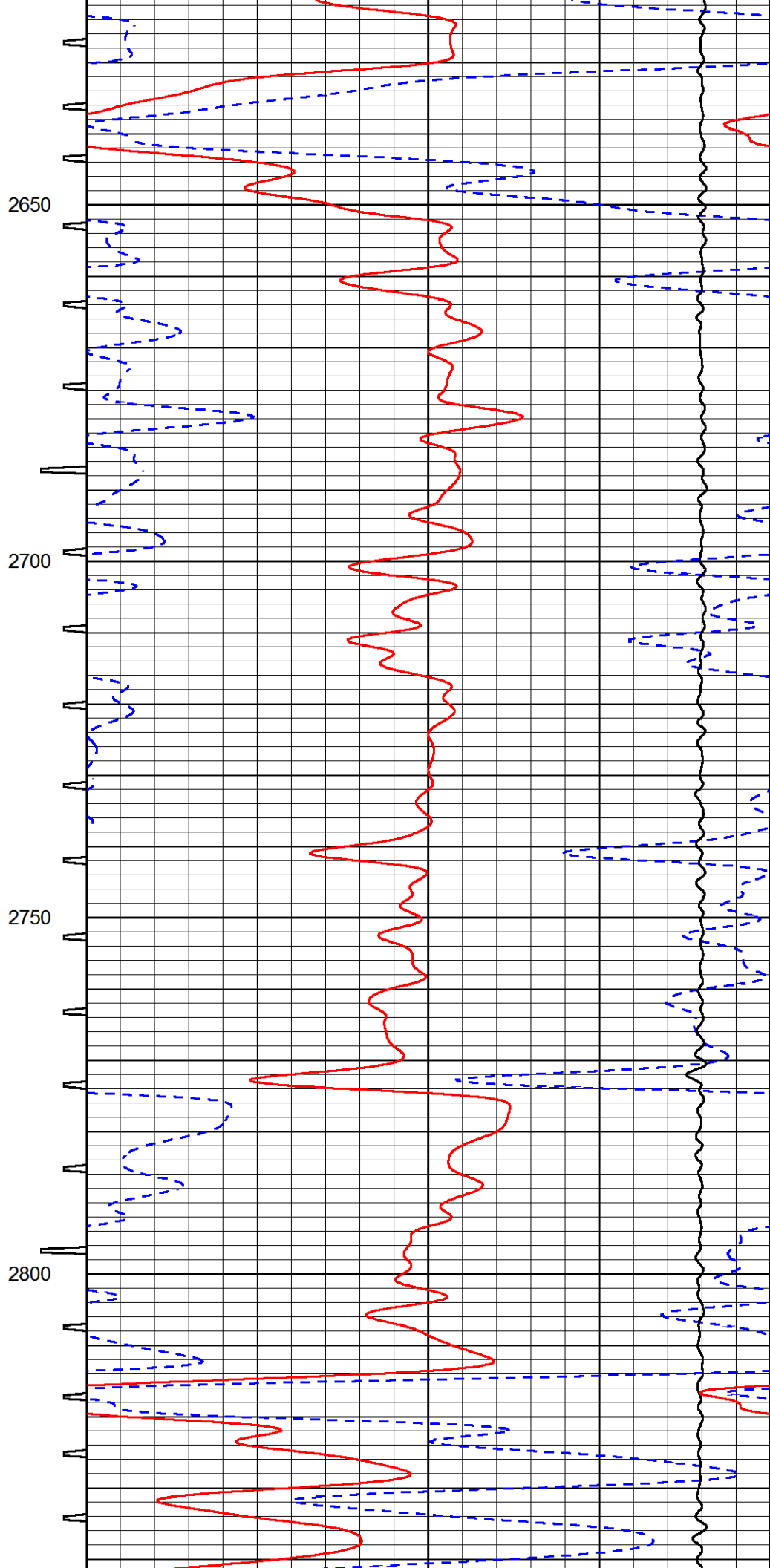
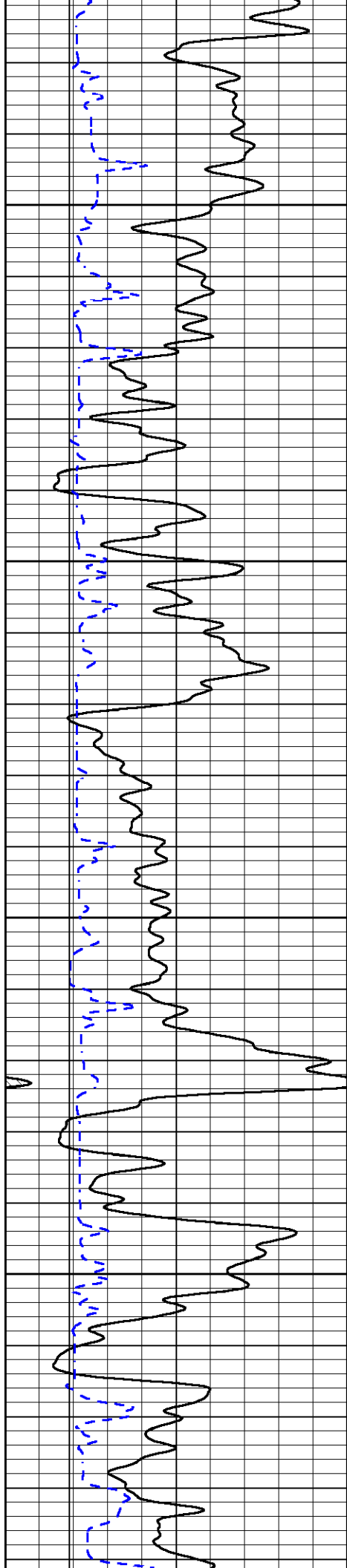


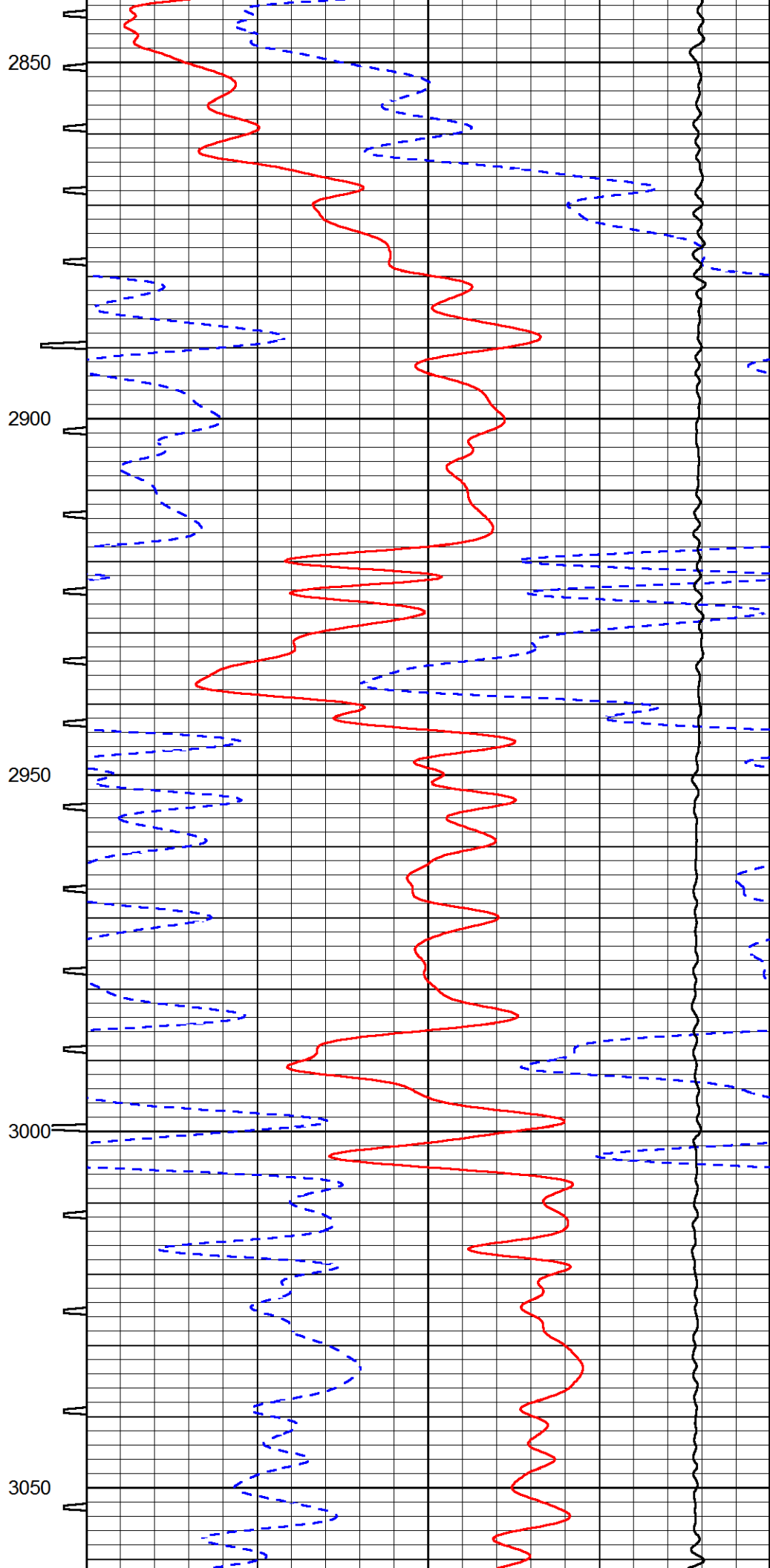
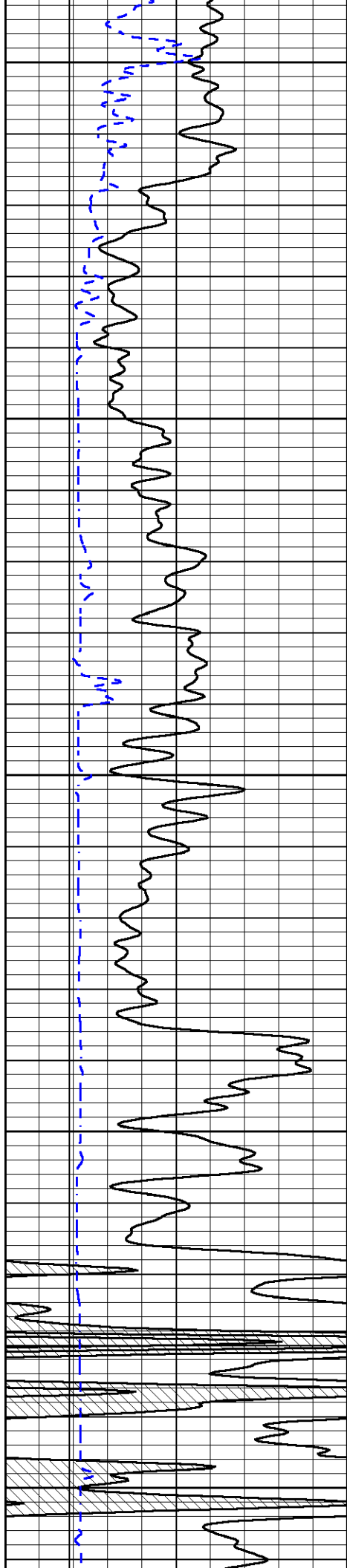


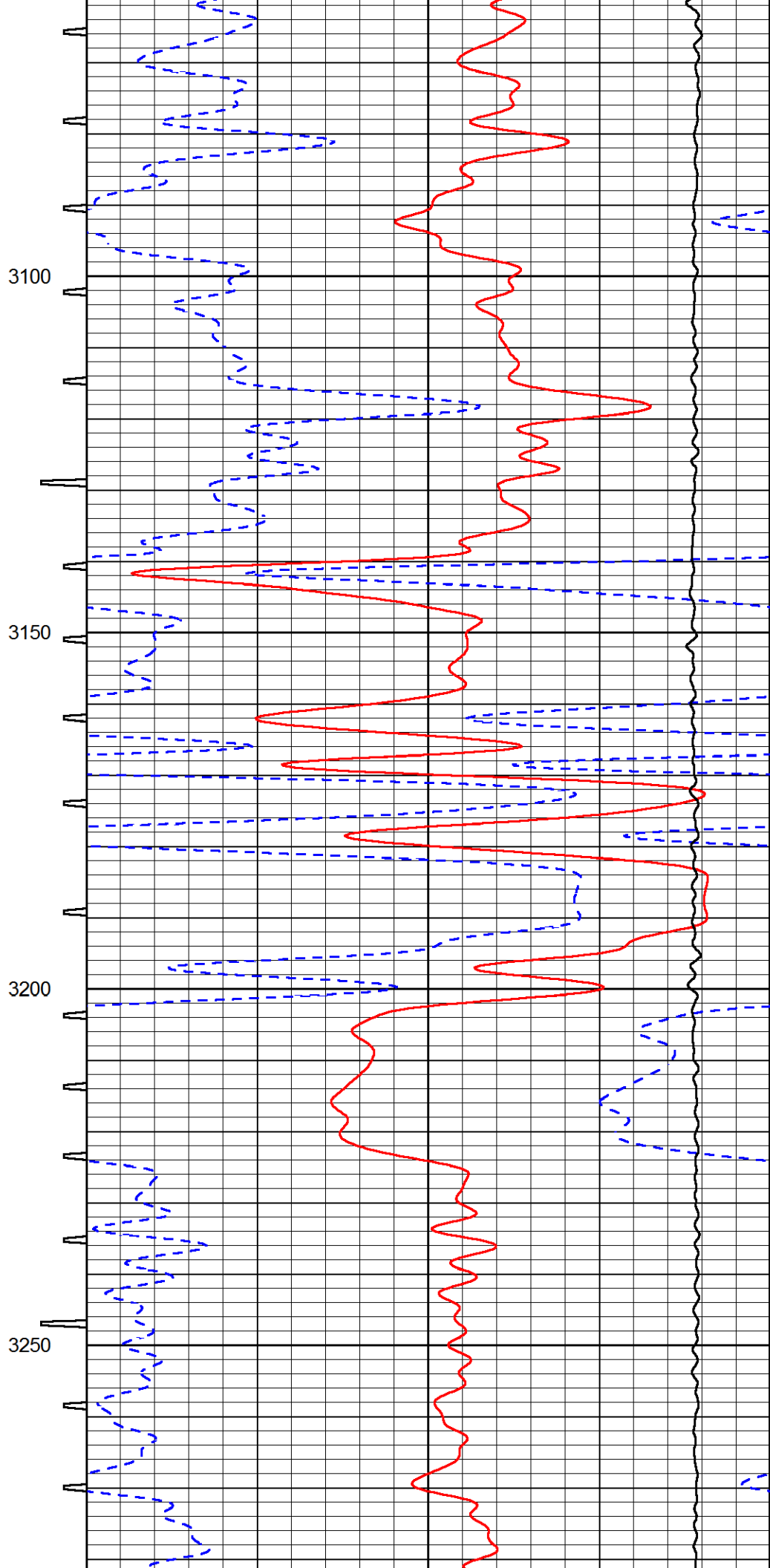
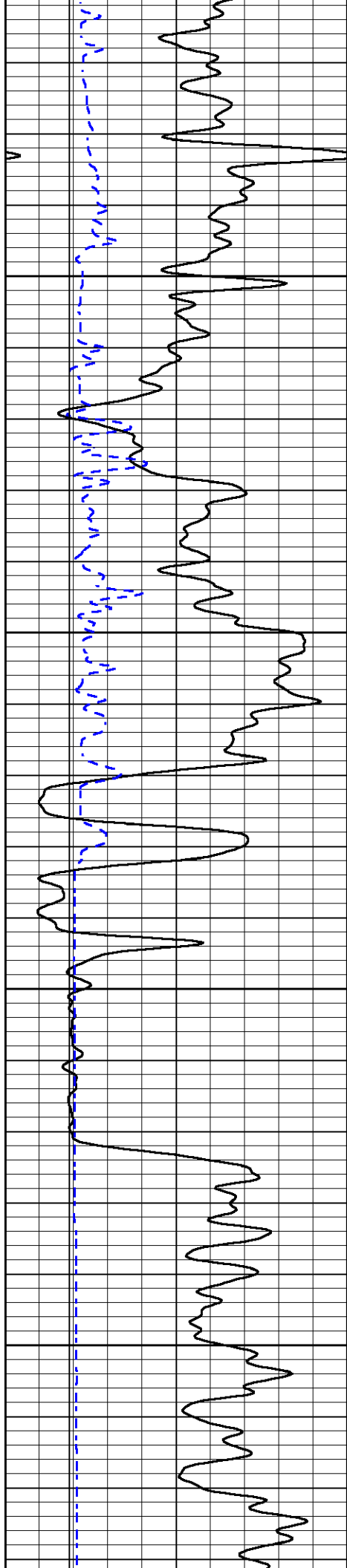


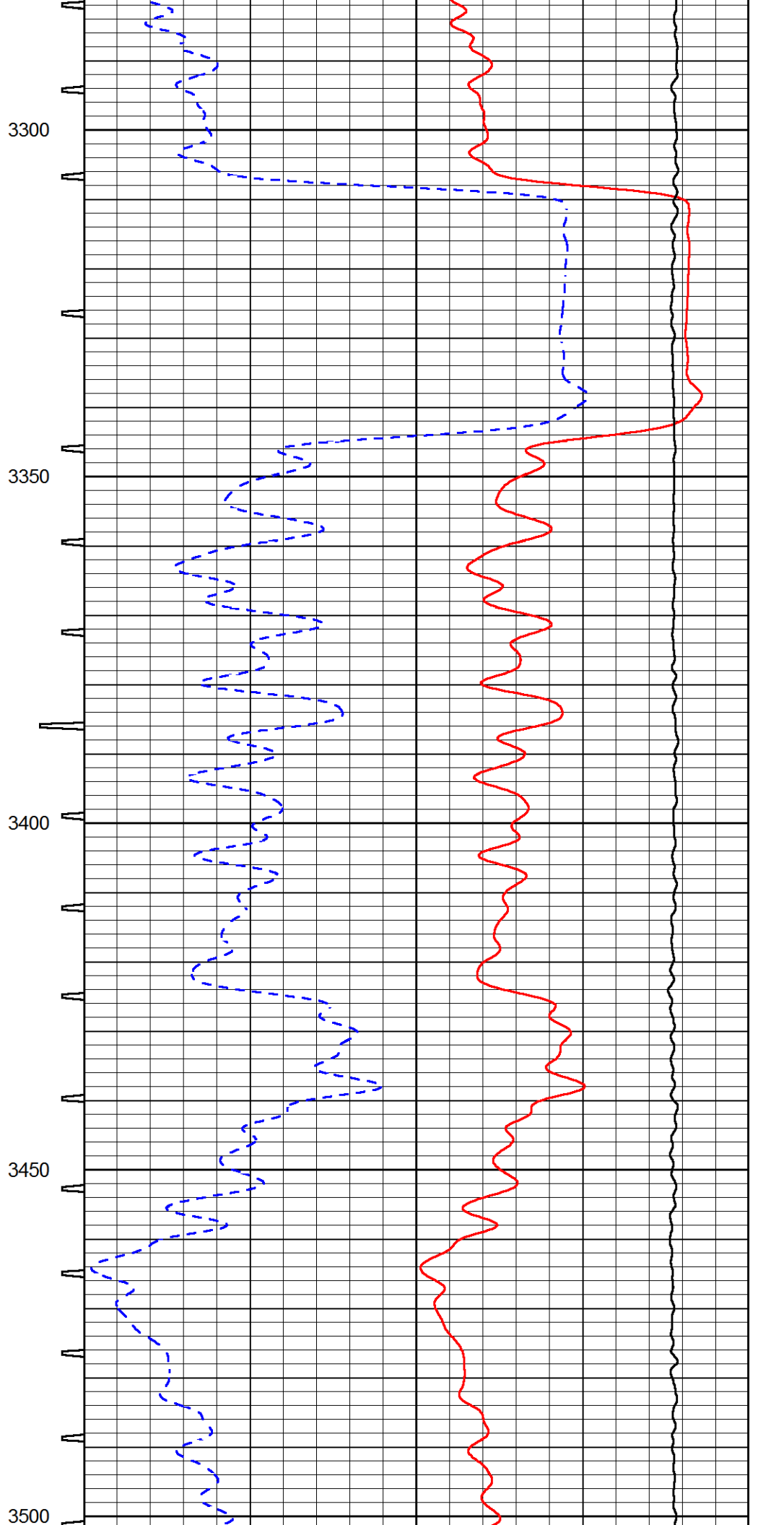
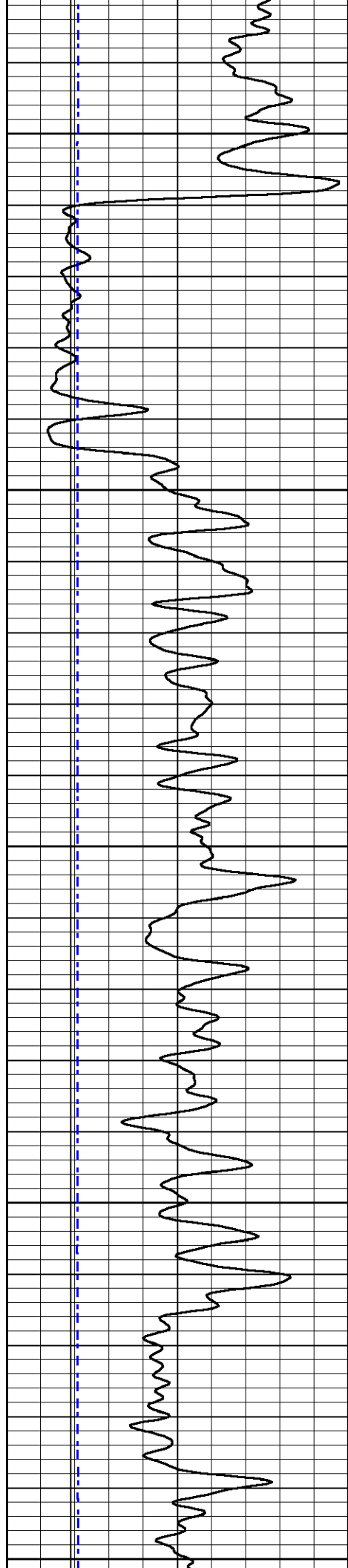


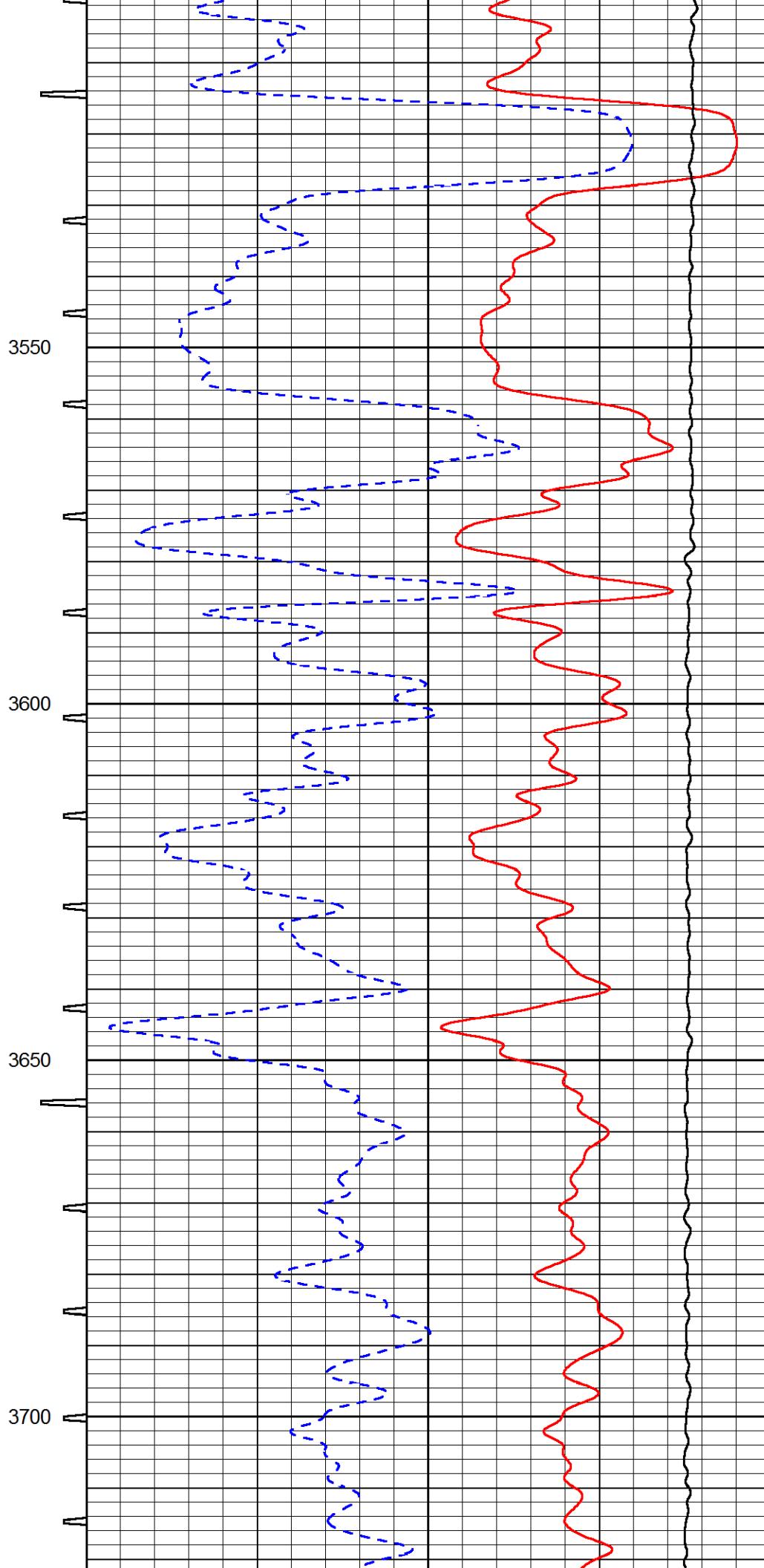
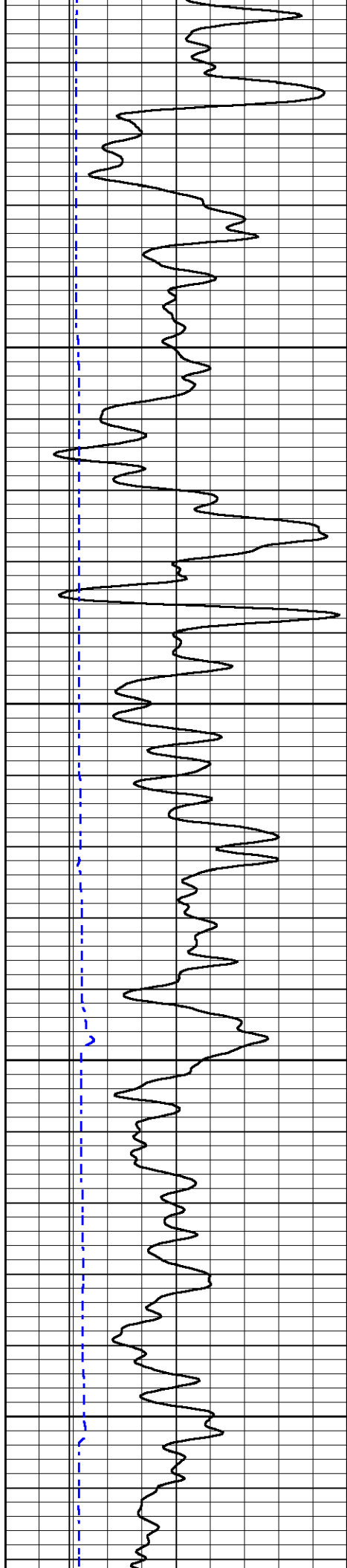


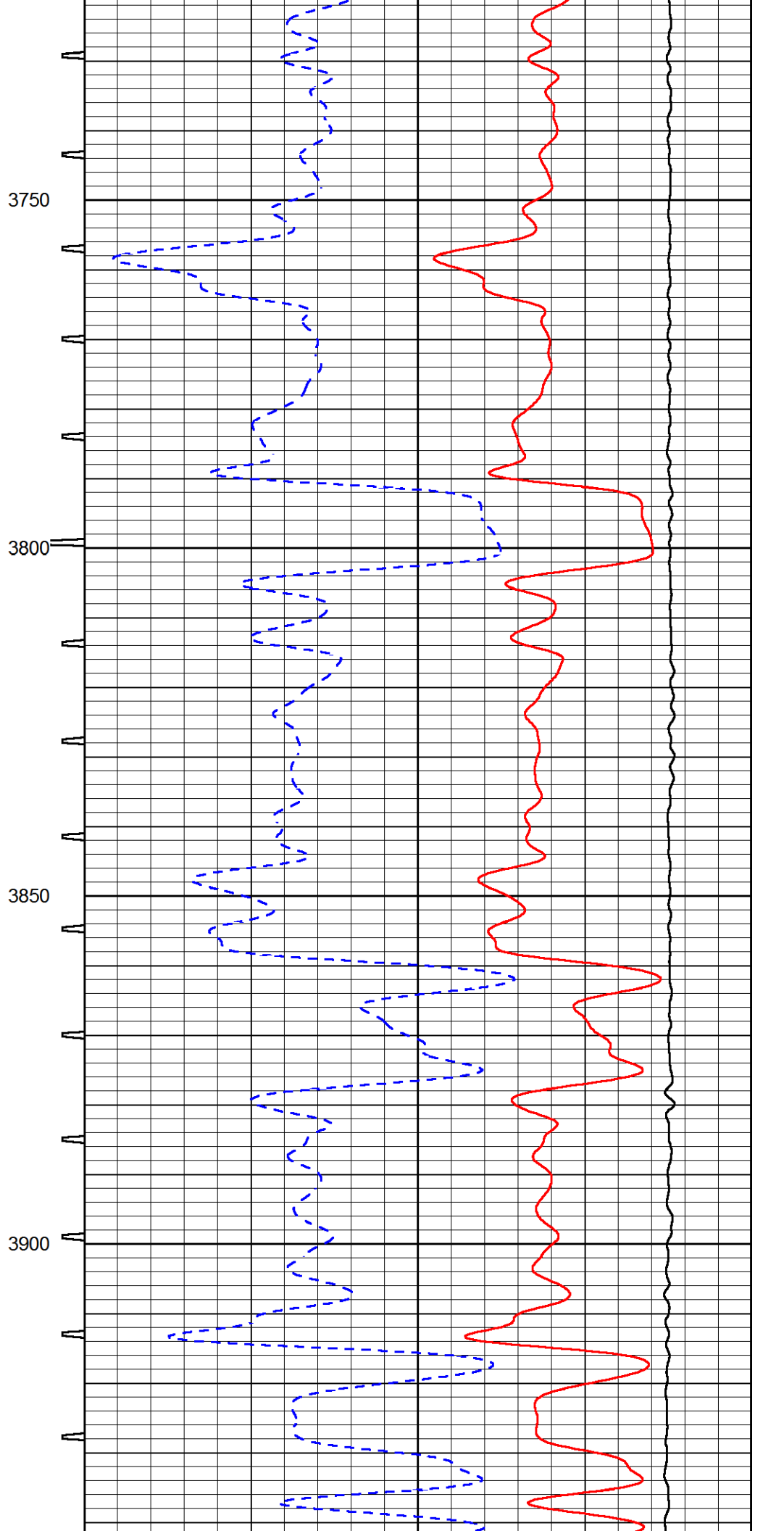
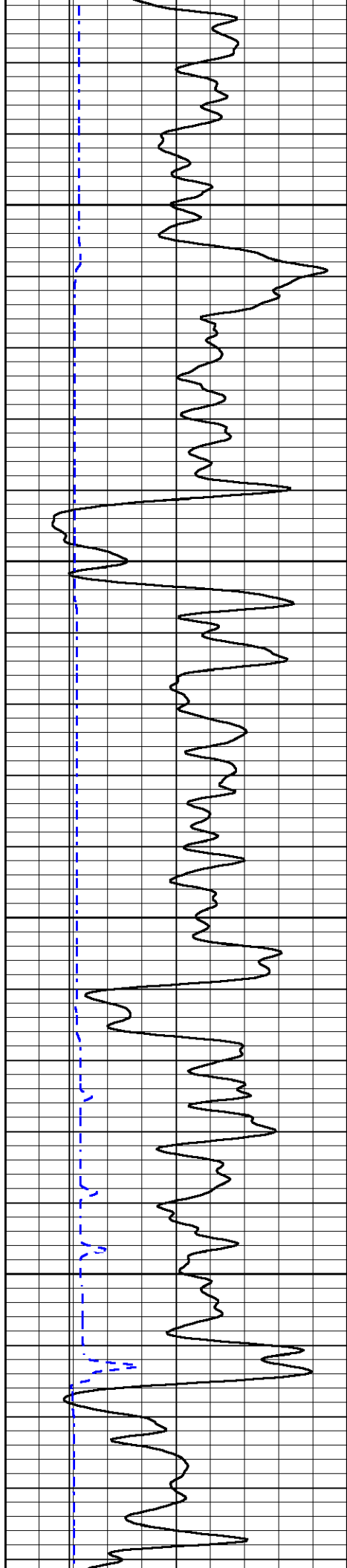


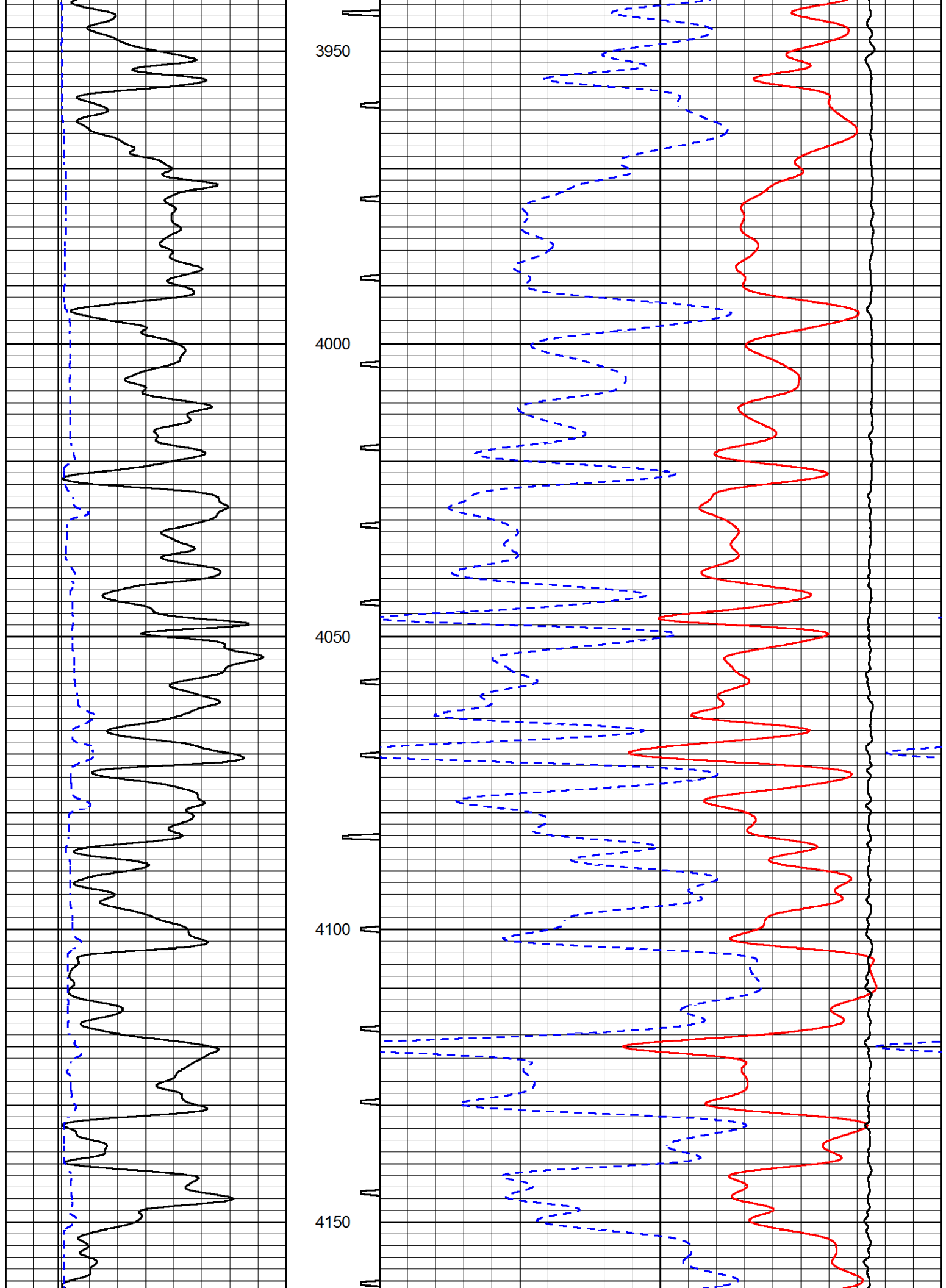


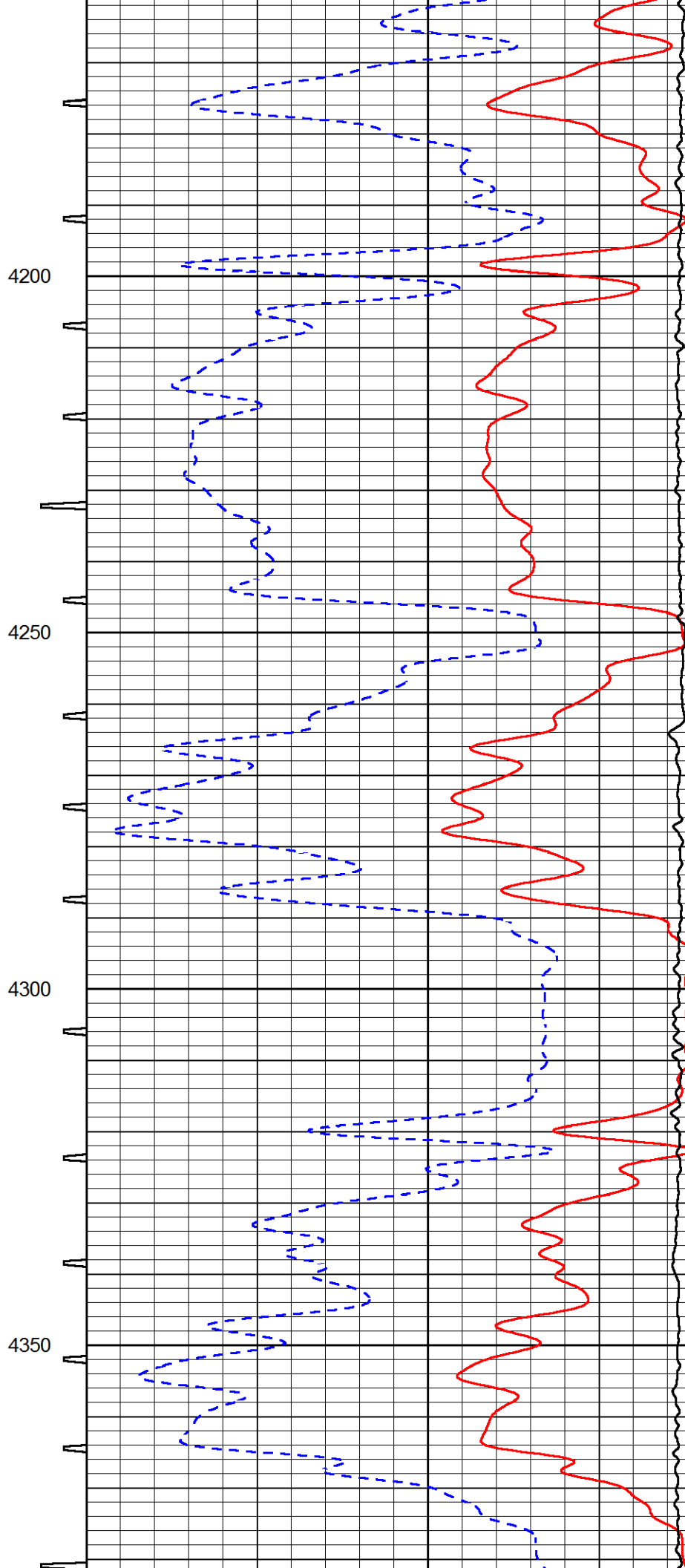
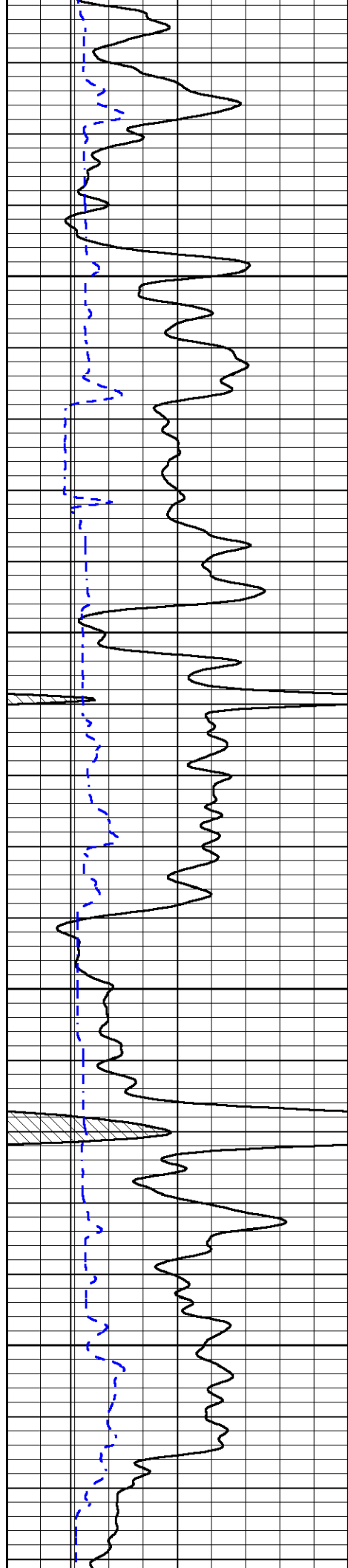


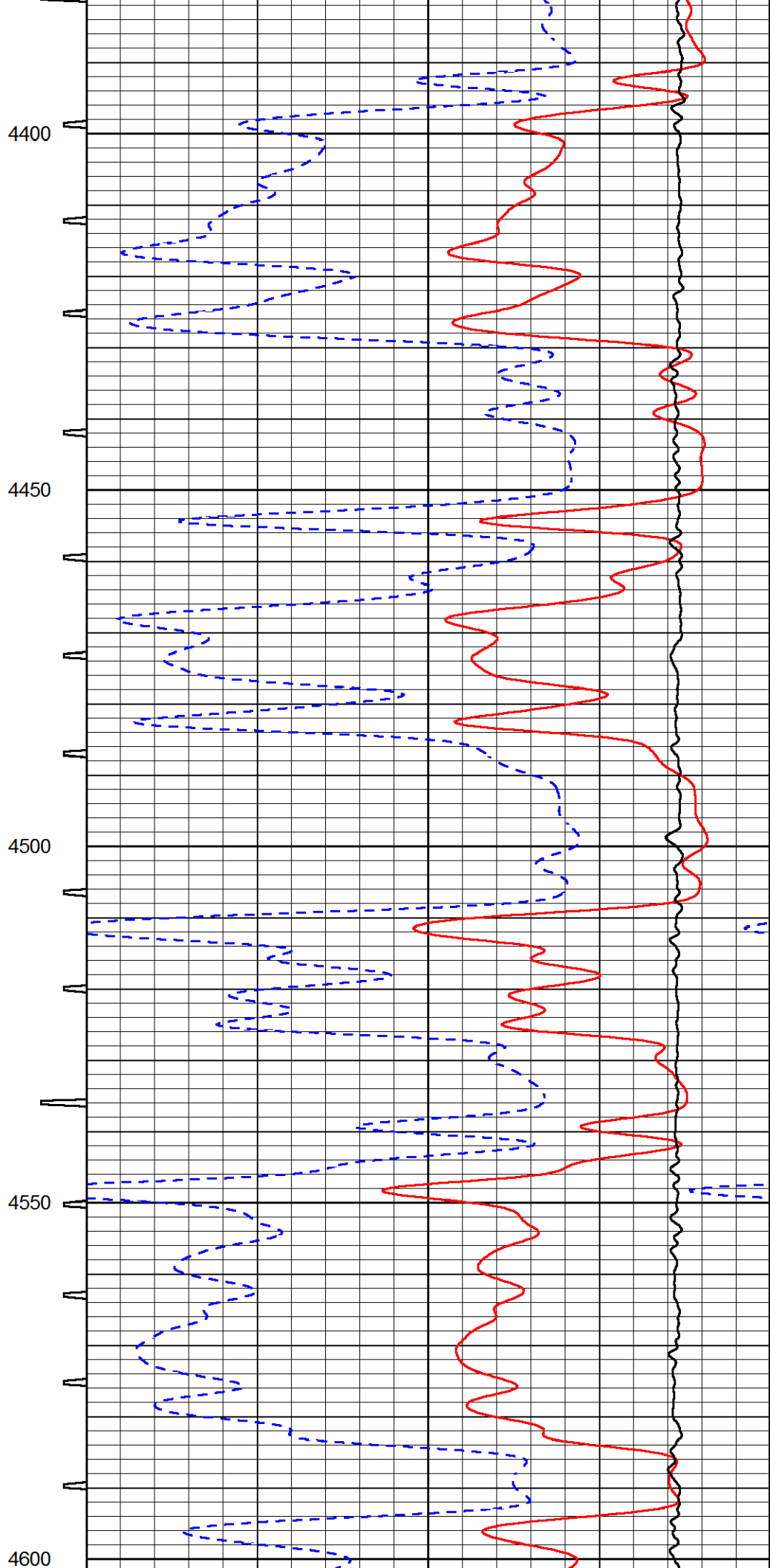
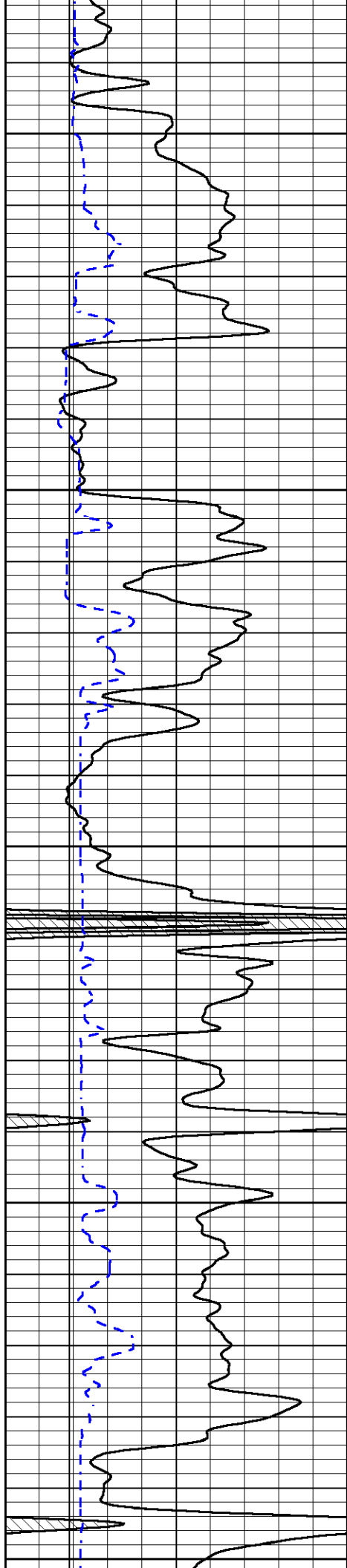


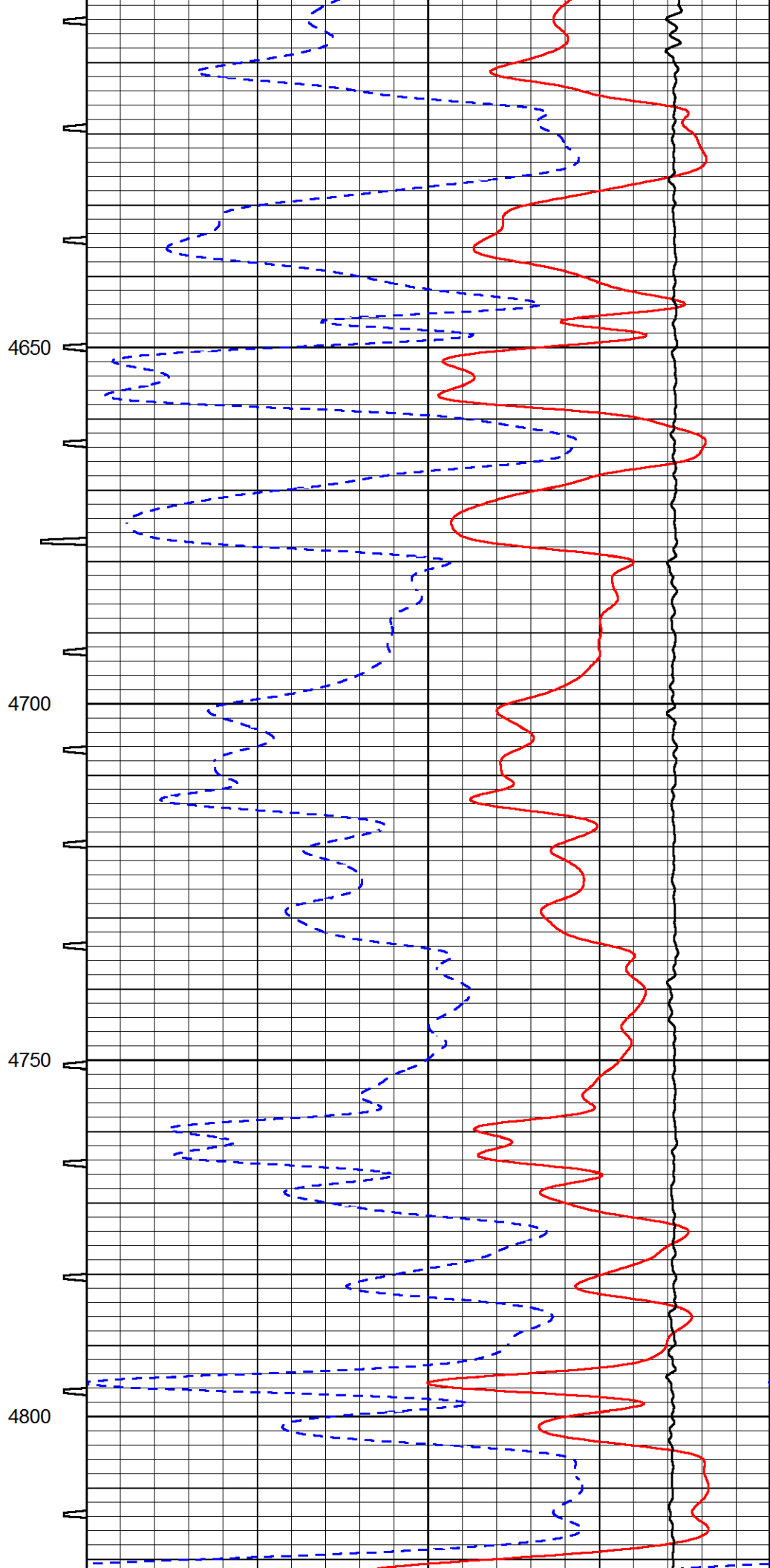
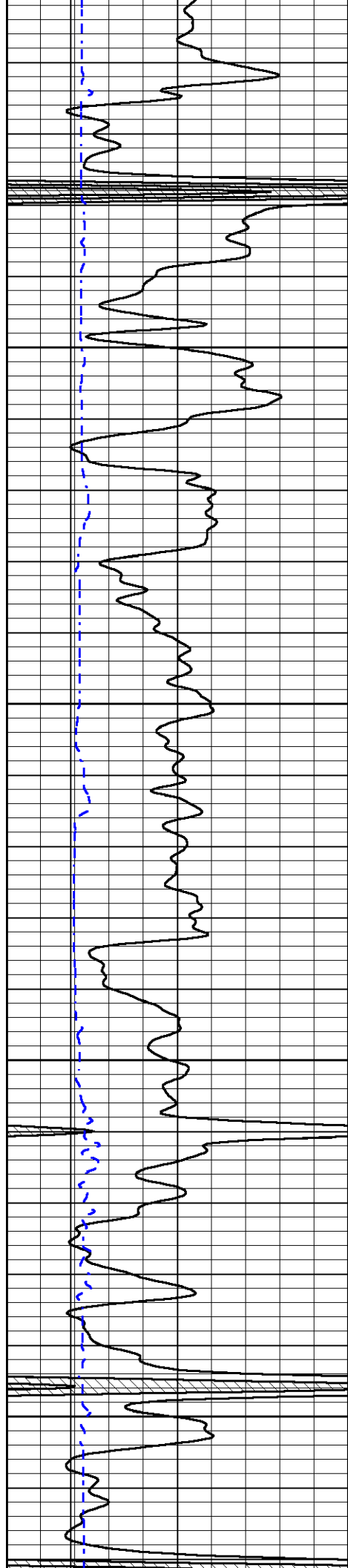


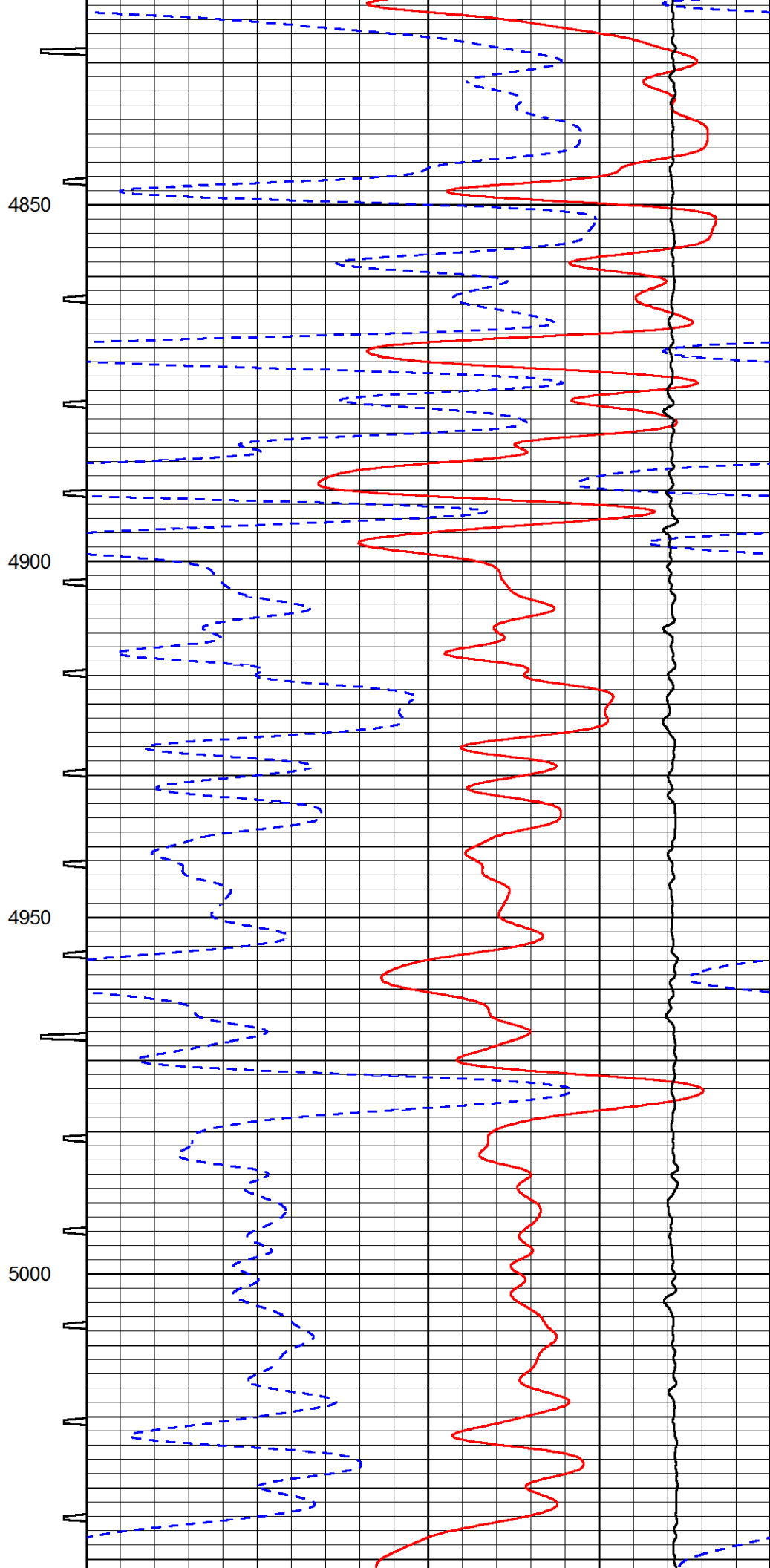
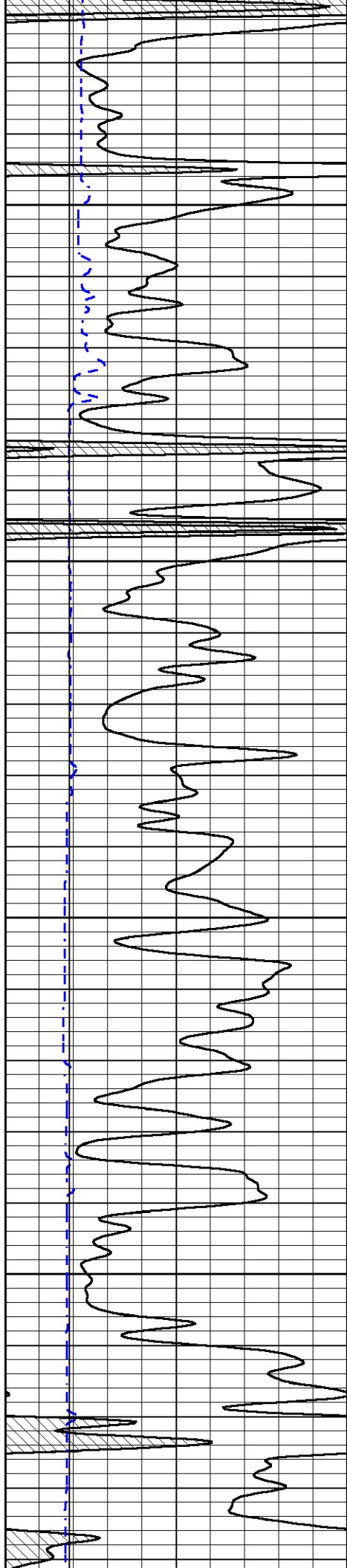


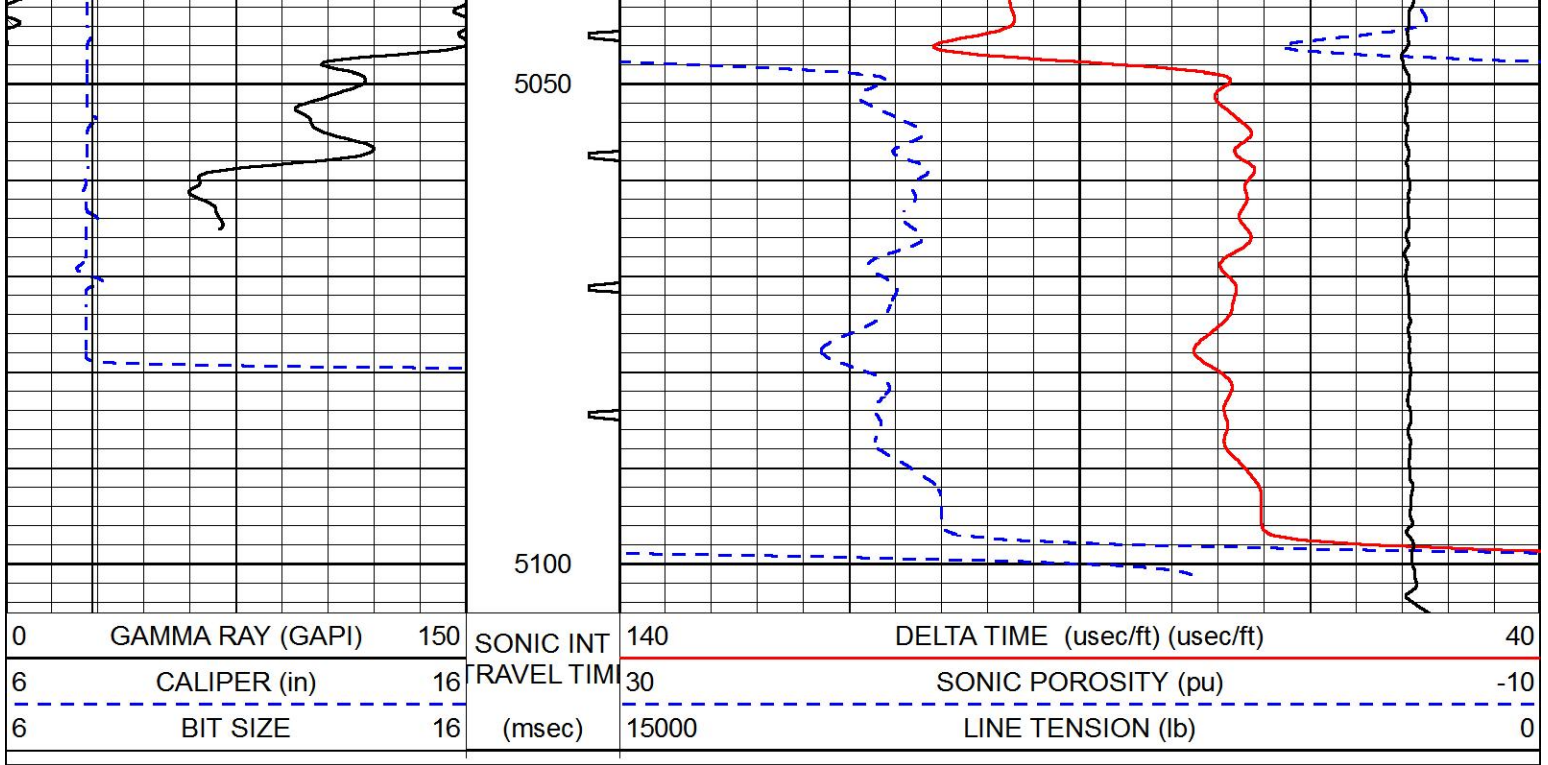








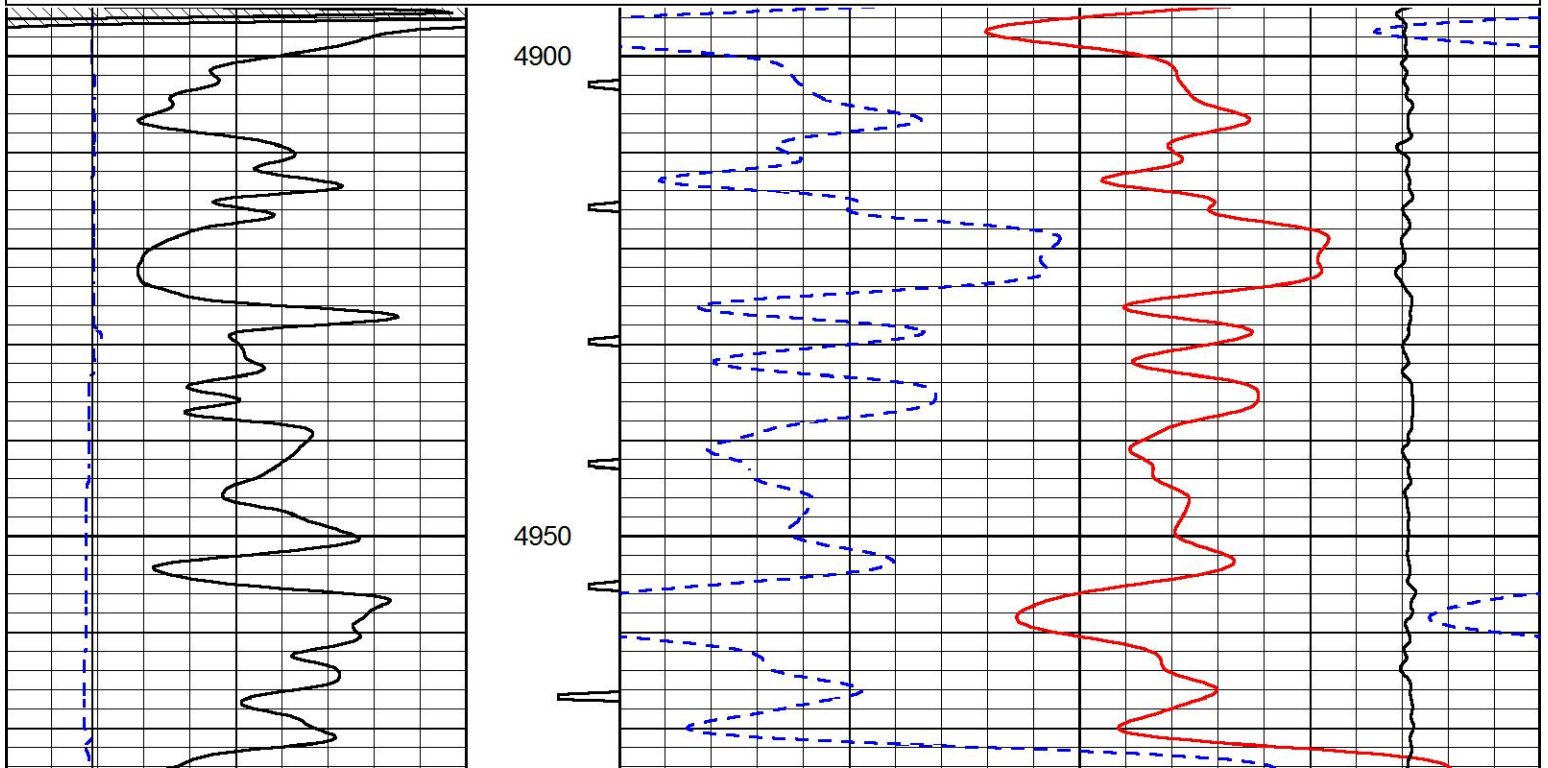


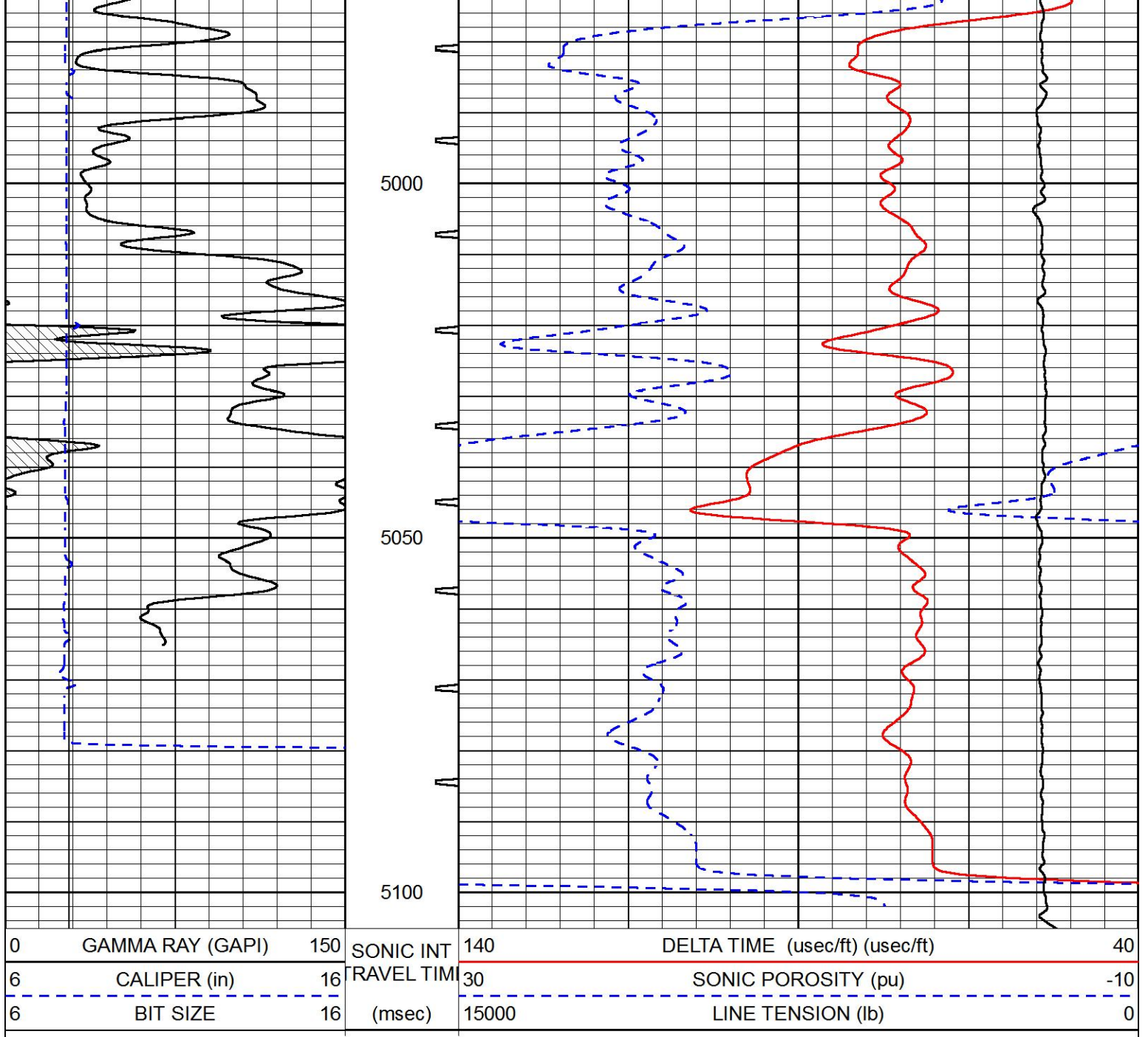




# REPEAT SECTION

Database File      murfin\_burr\_1\_6.db  
 Dataset Pathname    stackml/pass2.1  
 Presentation Format    sonic  
 Dataset Creation      Thu Jan 16 23:42:43 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	RAVEL TIM	30	SONIC POROSITY (pu)	-10
6	BIT SIZE	16	(msec)	15000	LINE TENSION (lb)	0







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