



PIONEER

Pioneer Energy Services

BOREHOLE COMPENSATED SONIC LOG

Company **AMERICAN WARRIOR, INC.**

Well **CRIST NO. 1-28**

Field **WILDCAT**

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

Location: API #: 15-055-22483-00-00

Permanent Datum

2288' FSL & 440' FWL

SEC 28 TWP 21S RGE 34W

Log Measured From **KELLY BUSHING**
Drilling Measured From **KELLY BUSHING**

Elevation
K.B. 2990'
D.F. N/A
G.L. 2979'

Date **4/9/2018**

Run Number **TWO**

Type Log **BHCS**

Depth Driller **5000'**

Depth Logger **4996'**

Bottom Logged Interval **4985'**

Top Logged Interval **1700'**

Type Fluid In Hole **CHEMICAL**

Salinity, PPM CL **2800**

Density **9.4**

Level **FULL**

Max. Rec. Temp. F **126 DEG/F**

Operating Rig Time **4 HOURS**

Equipment -- Location **108 HAYS**

Recorded By **J. HENRICKSON**

Witnessed By **LUKE THOMPSON**

Borehole Record

Casing Record

Run No.

Bit

From

To

Size

Wgt.

From

To

ONE 12.25"

0

1741'

8.625"

23#

0

1741'

TWO 7.875"

1741'

TD

<<< 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.

SCOTT CITY KANSAS
SOUTH TO GANO ROAD, 10 WEST, NORTH 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: J. HENRICKSON
Operator:
Operator:
Operator:

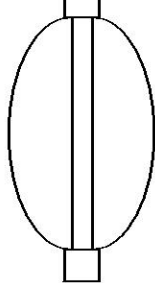
This Log Record Was Witnessed By

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

Top - Bottom

A	BOREID	BOTTEMP	CASEOD	CASETHCK	FLUIDDEN	M	MATRXDEN
1	in 7.875	degF 126	in 5.5	in 0	g/cc 1	2	g/cc 2.71
NPORSEL	PERFS	SNDERR	SNDERRM	SPSHIFT	SRFTEMP	SZCOR	TDEPTH
Limestone	0	mmho/m -2	mmho/m 3	mV -230	degF 53	Off	ft 4996

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

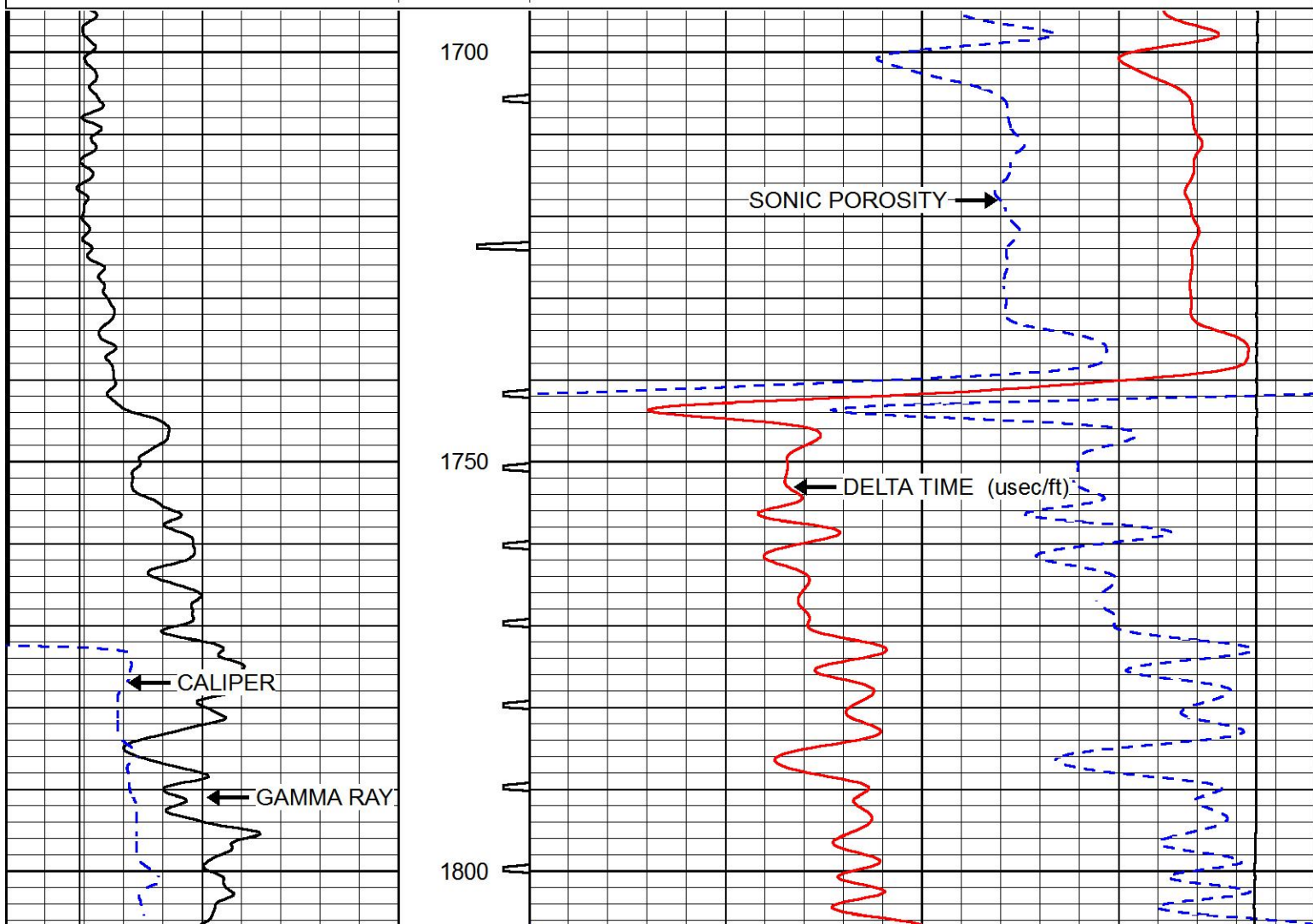
Dataset: american_warrior_crist_1_28.db: field/well/SONIC/pass2
Total length: 19.00 ft
Total weight: 310.00 lb
O.D.: 3.50 in

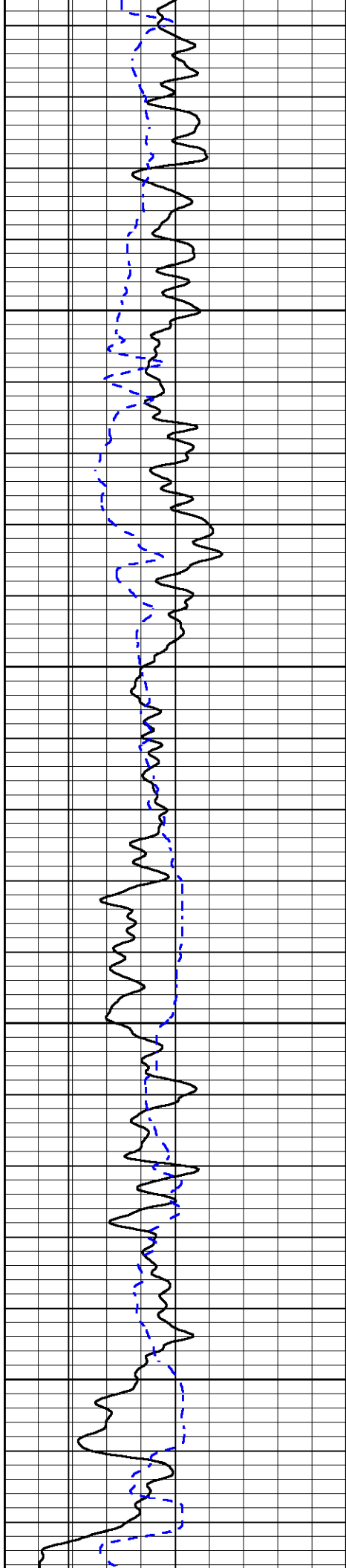
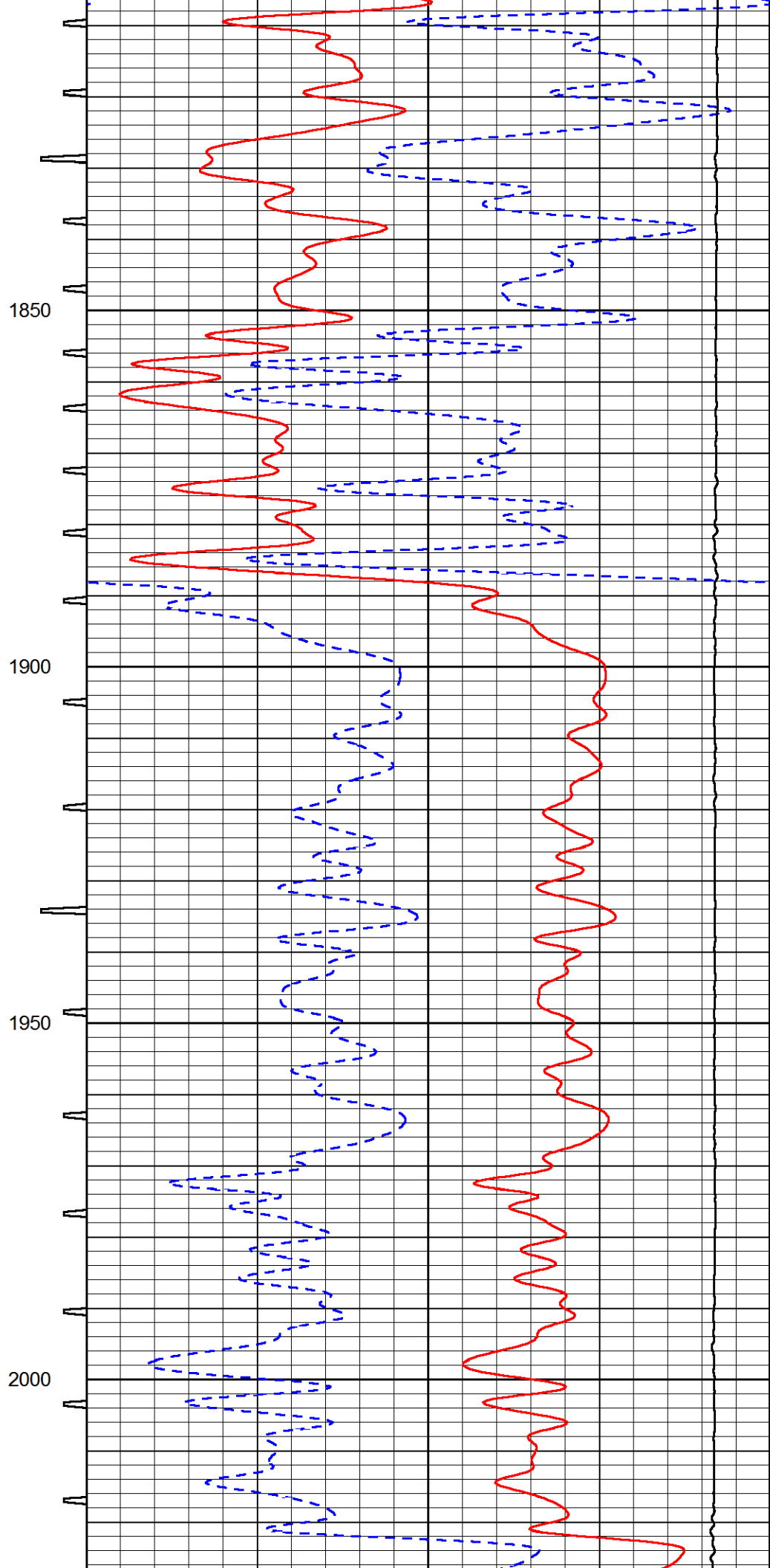


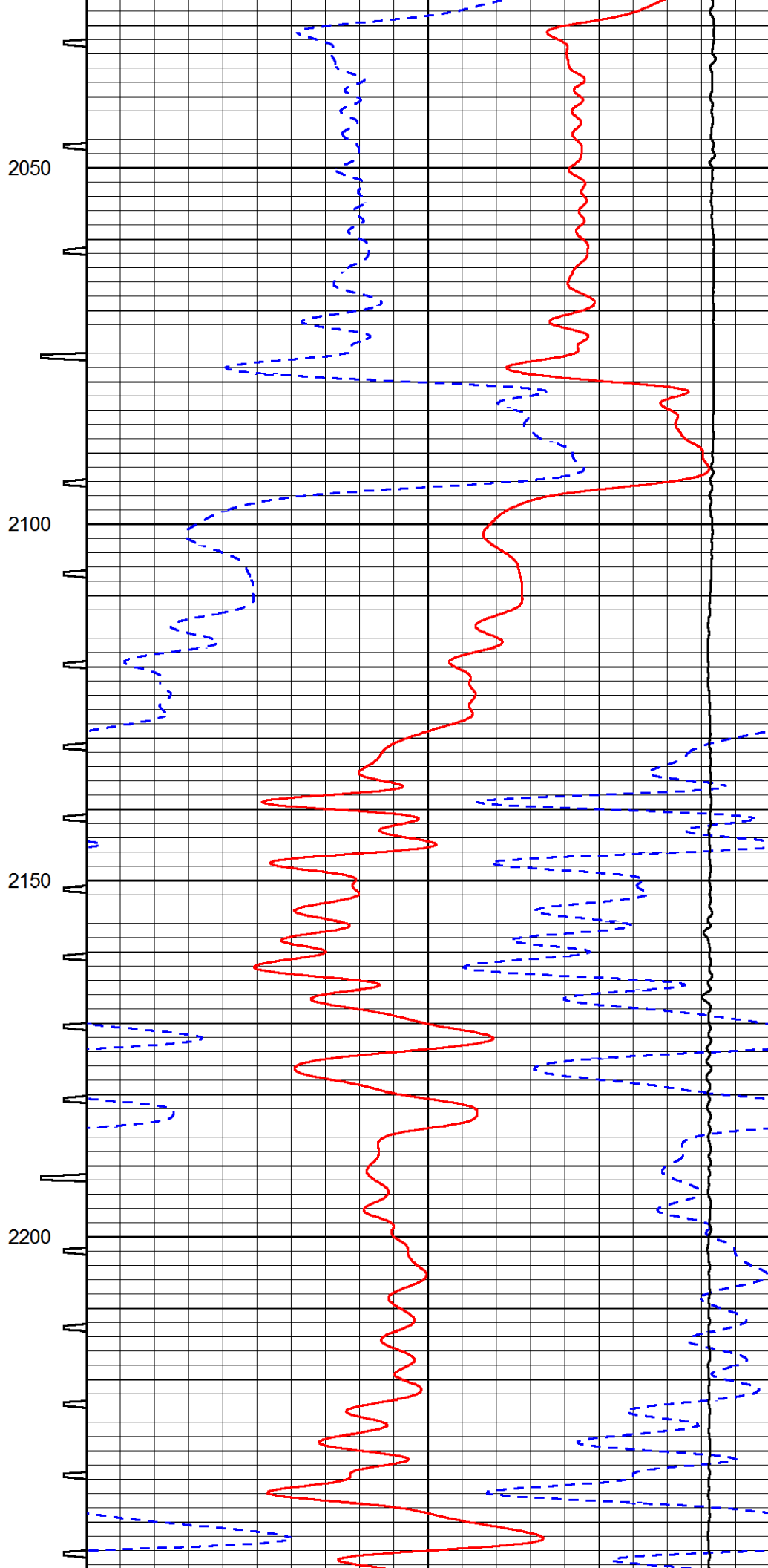
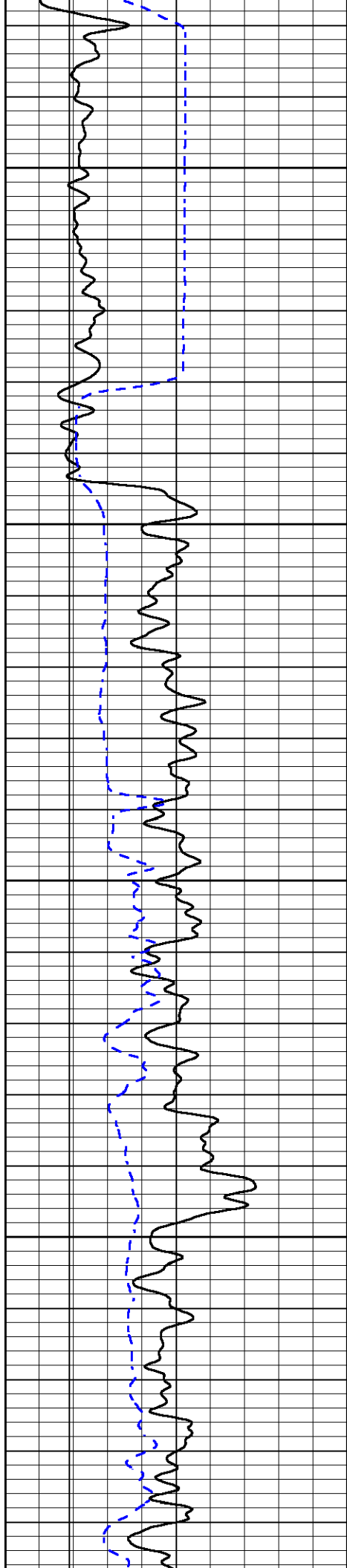
MAIN PASS

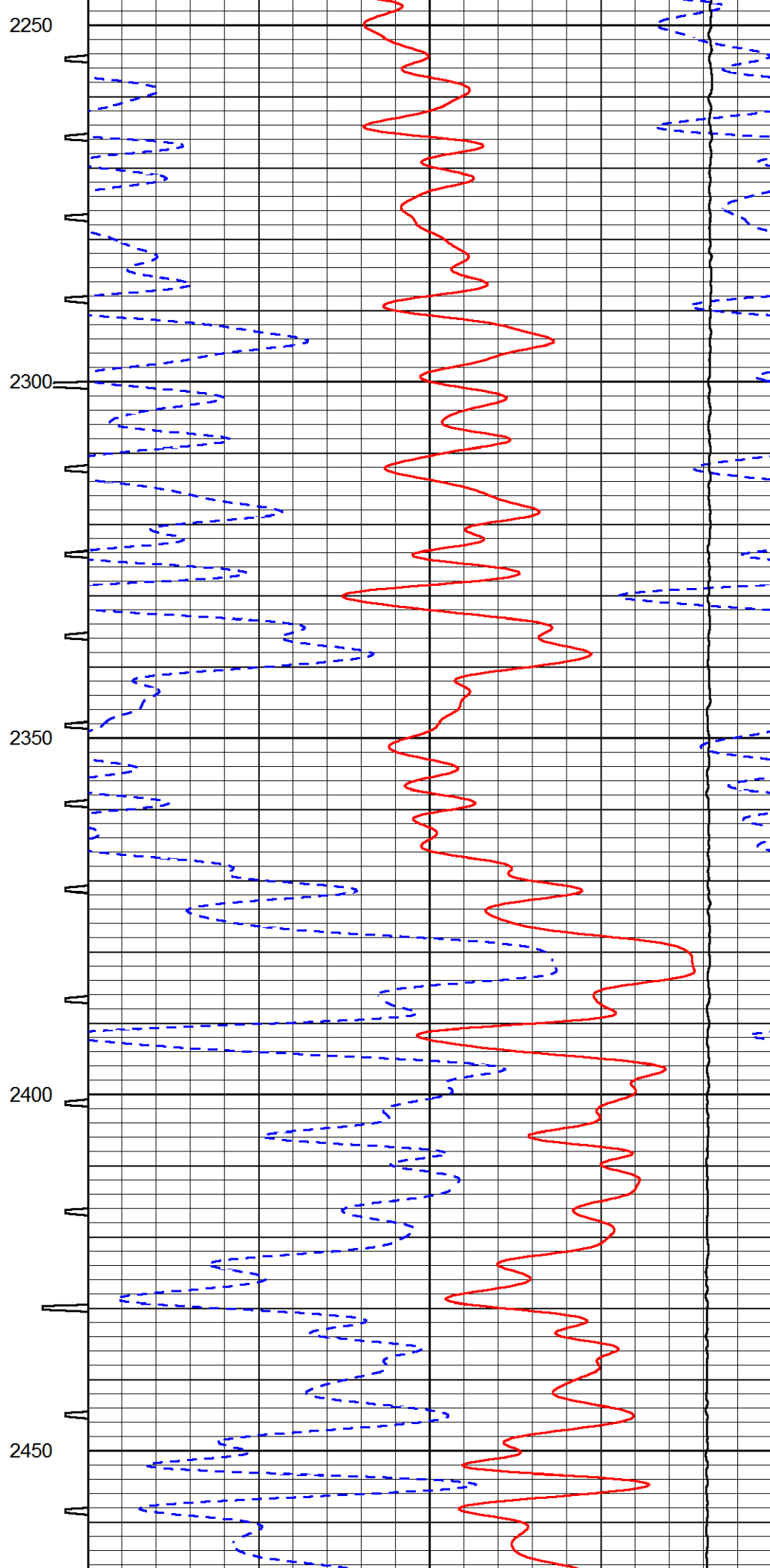
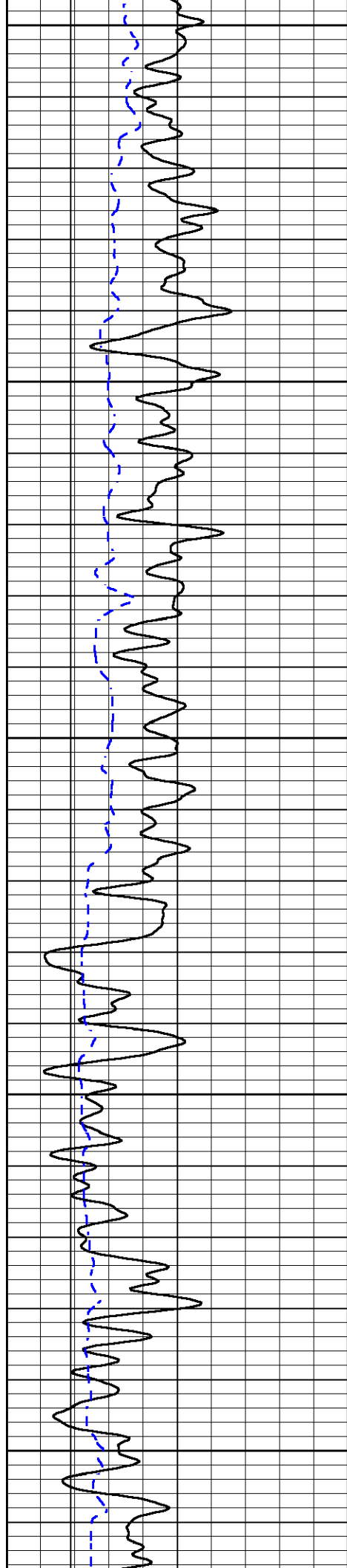
Database File american_warrior_crist_1_28.db
Dataset Pathname stackml/pass3.1
Presentation Format sonic
Dataset Creation Mon Apr 09 15:21:54 2018
Charted by Depth in Feet scaled 1:240

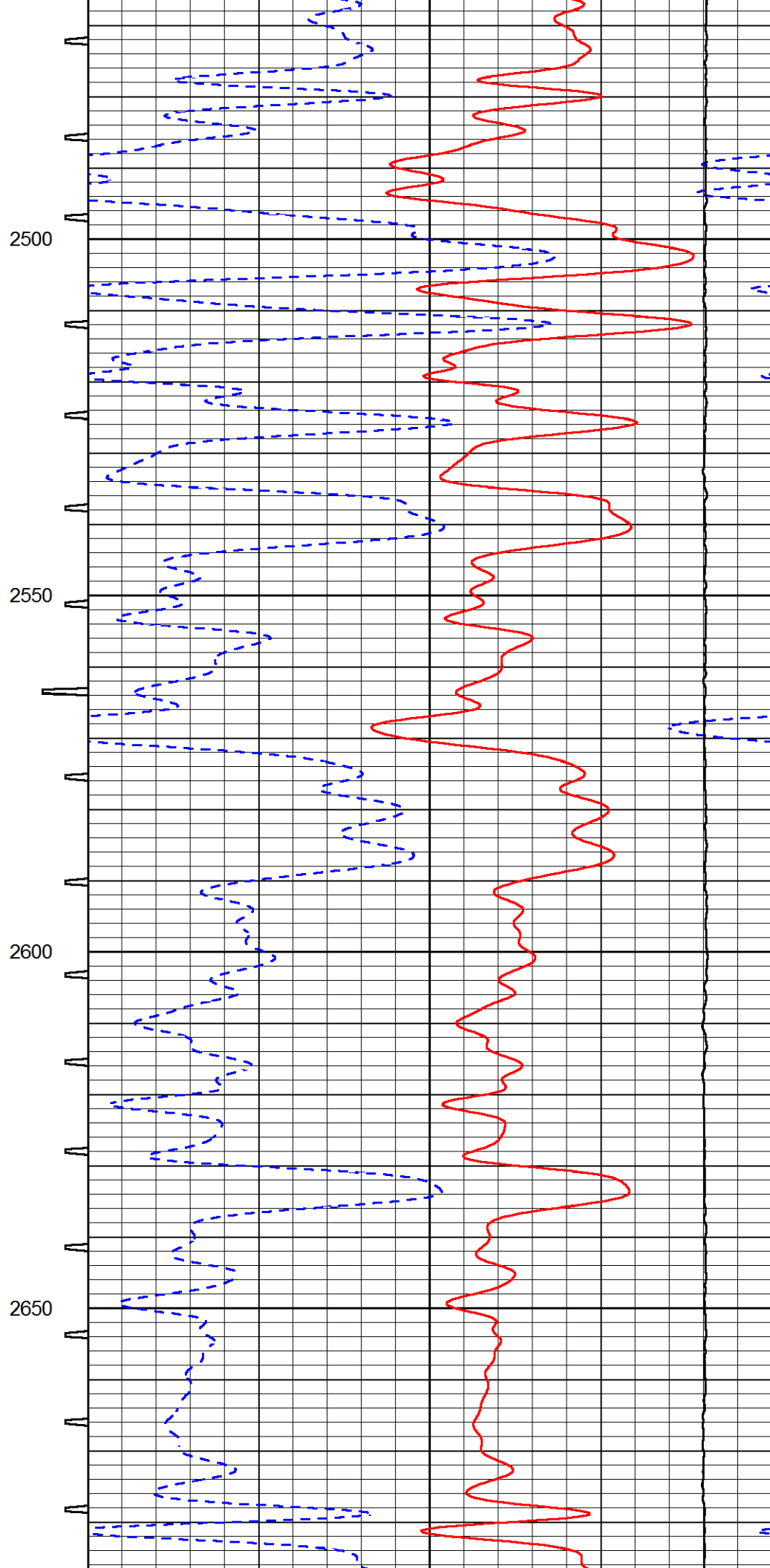
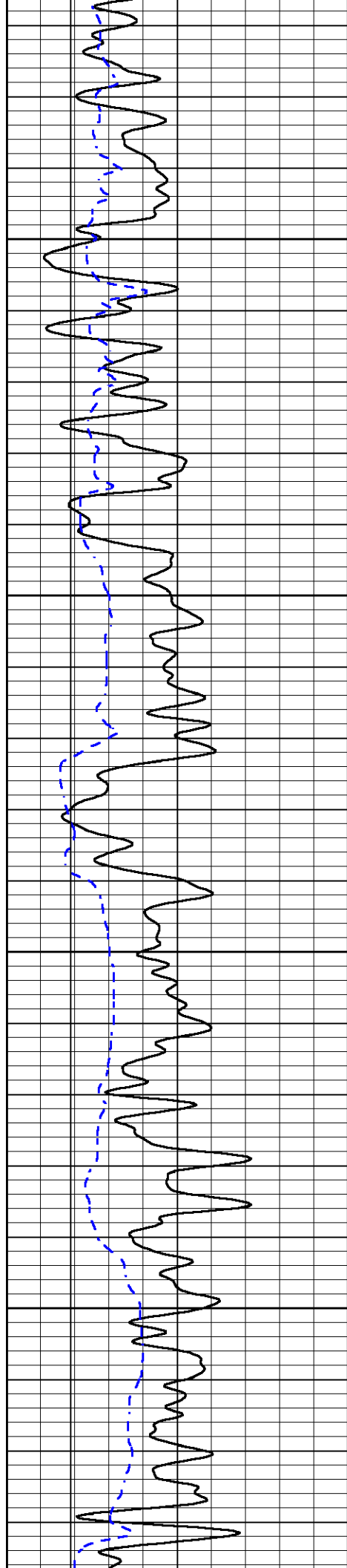
0	GAMMA RAY (GAPI)	150	SONIC INT	140	DELTA TIME (usec/ft) (usec/ft)	40
6	CALIPER (in)	16	RAVEL TIM	30	SONIC POROSITY (pu)	-10
6	BIT SIZE	16	(msec)	15000	LINE TENSION (lb)	0

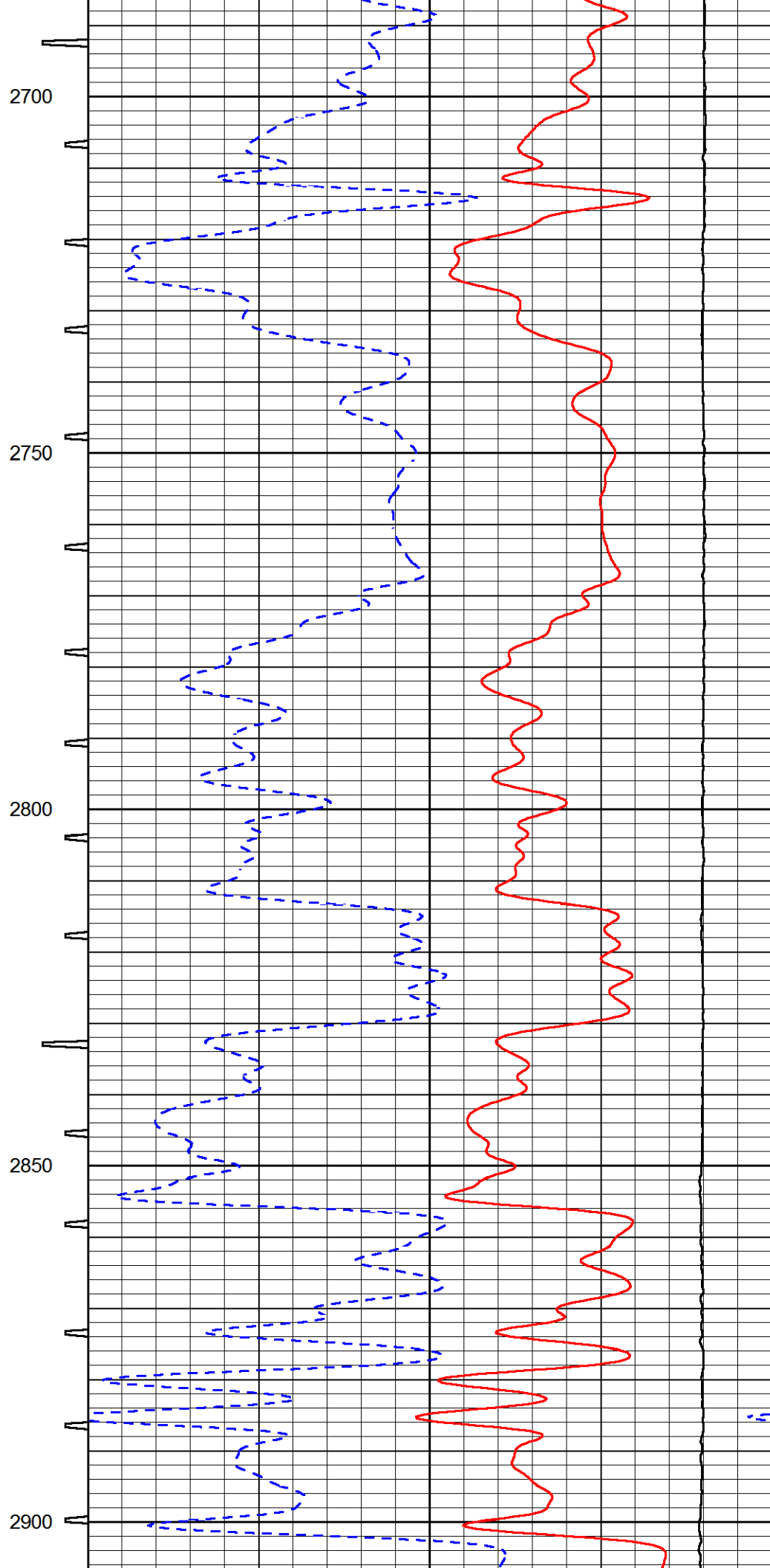
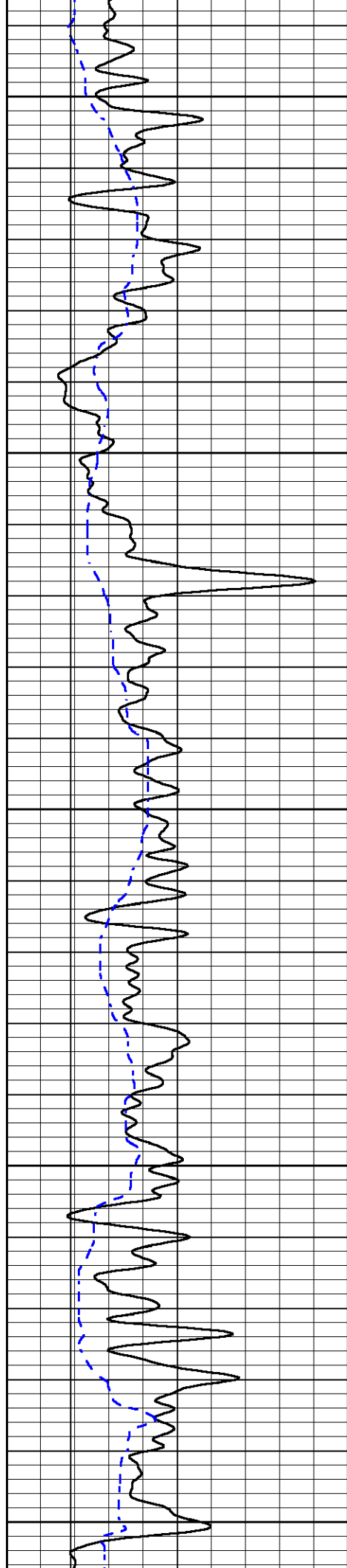


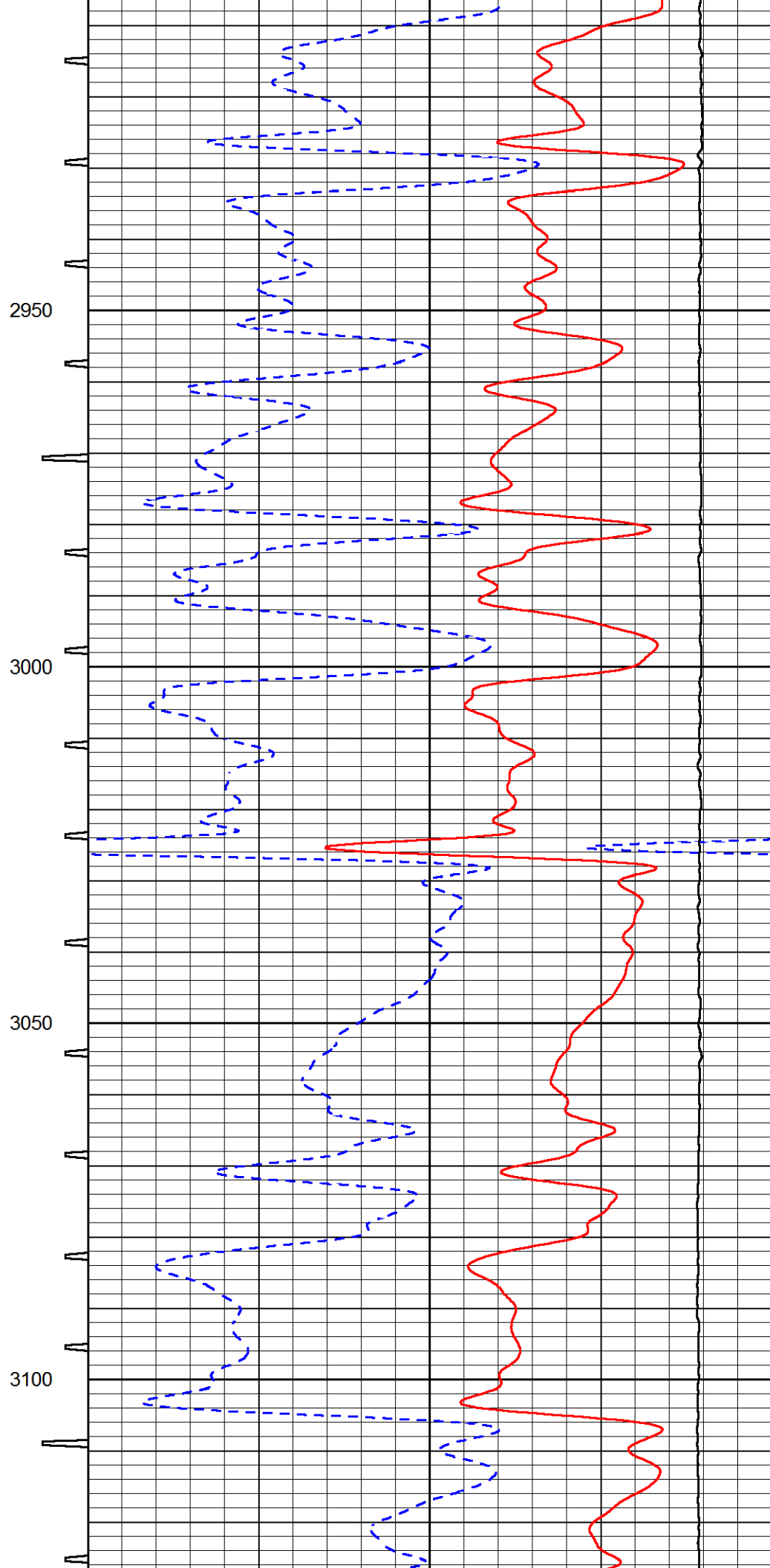
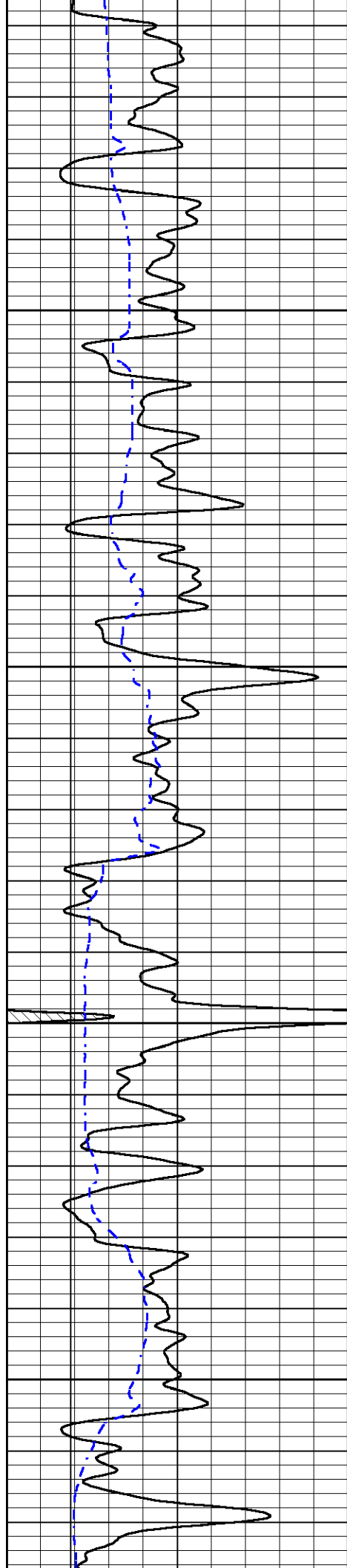


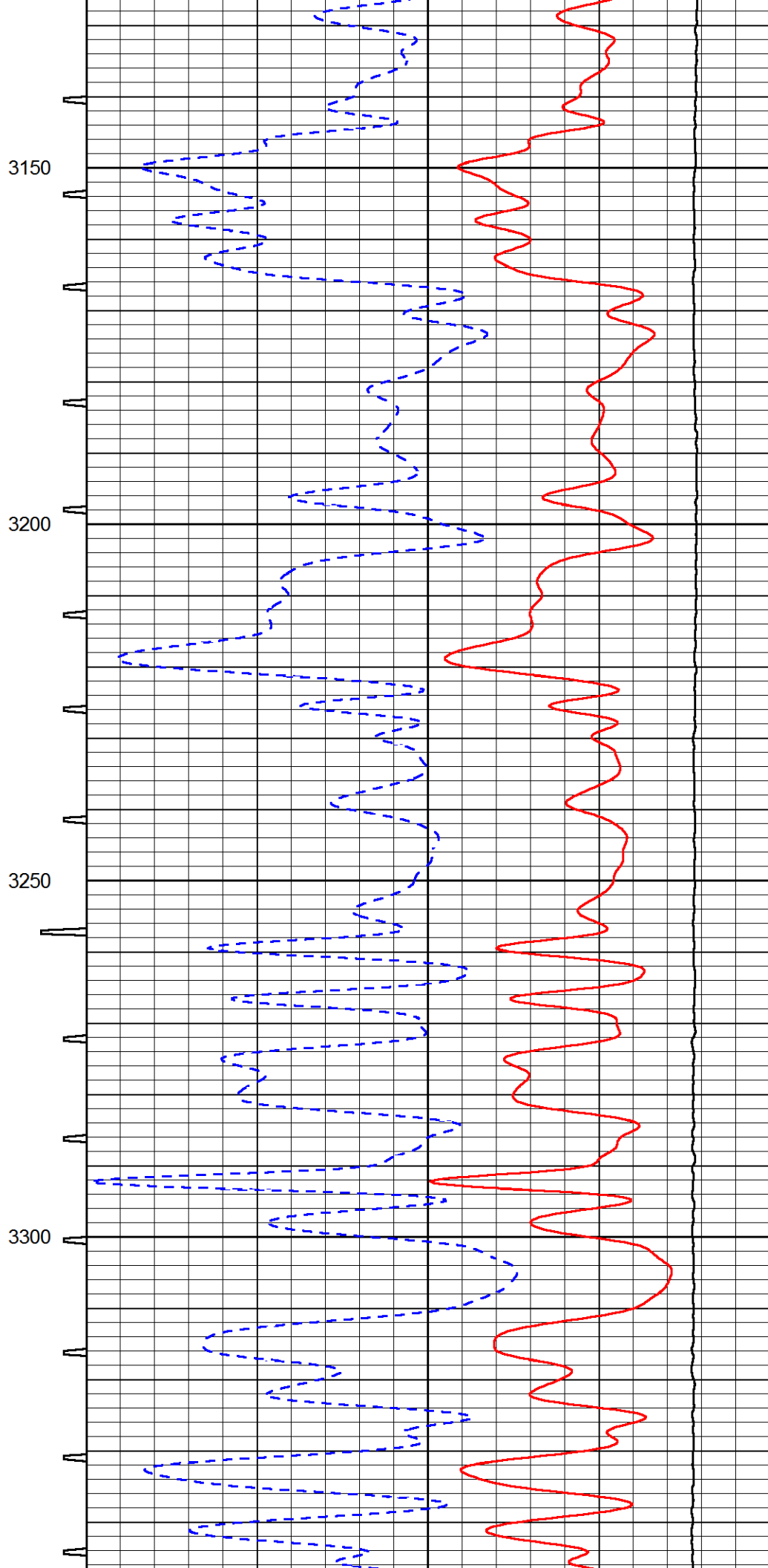
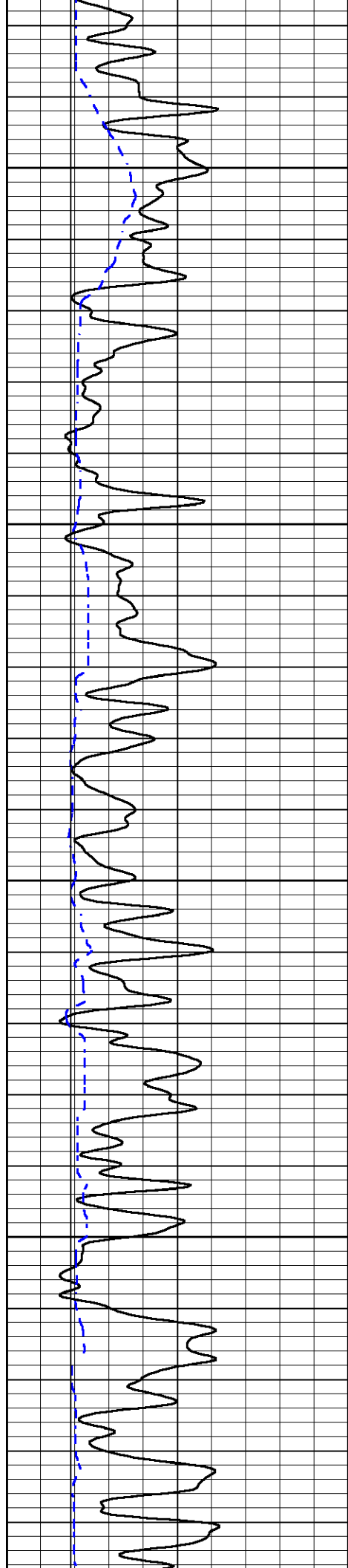


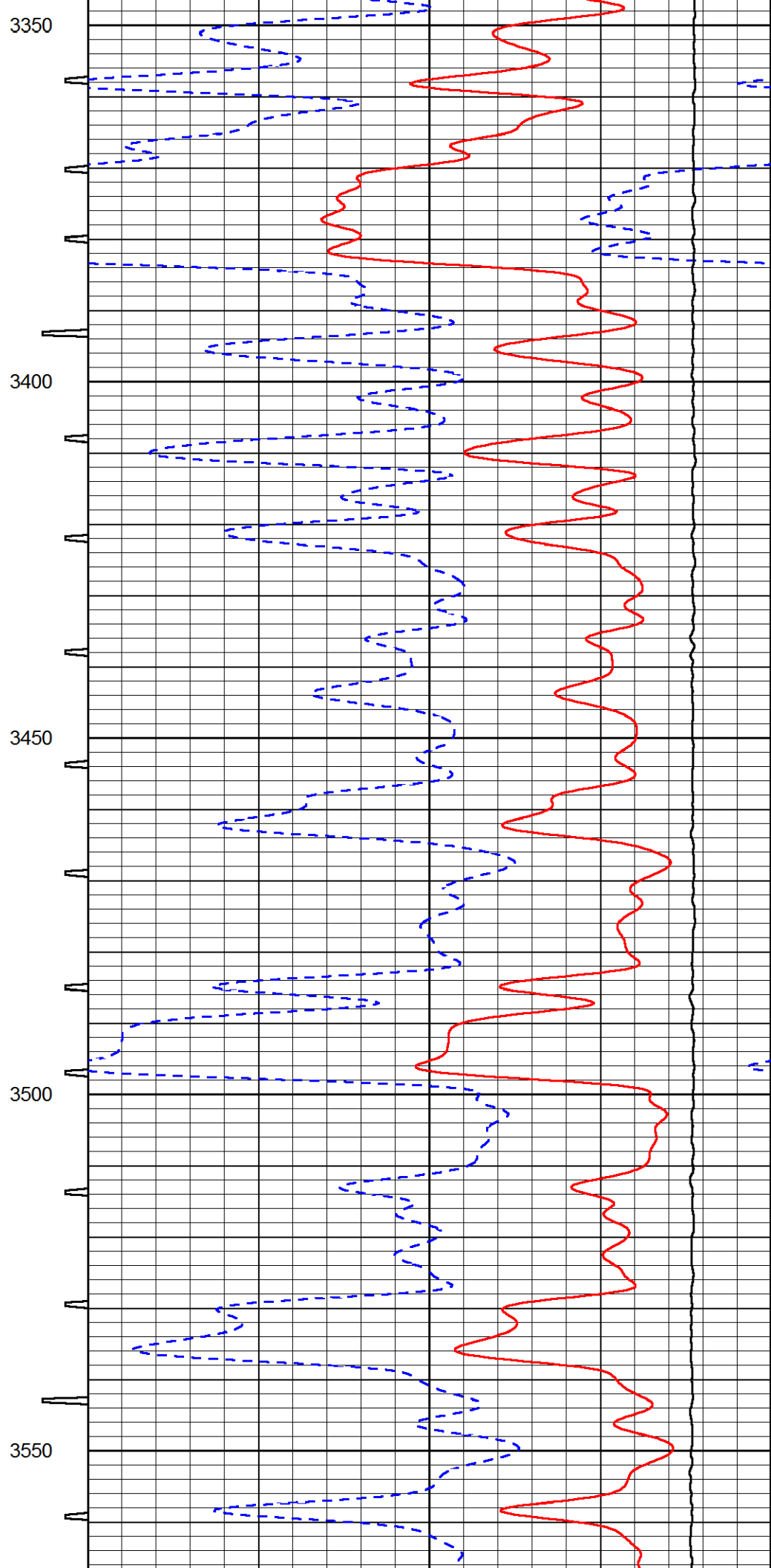
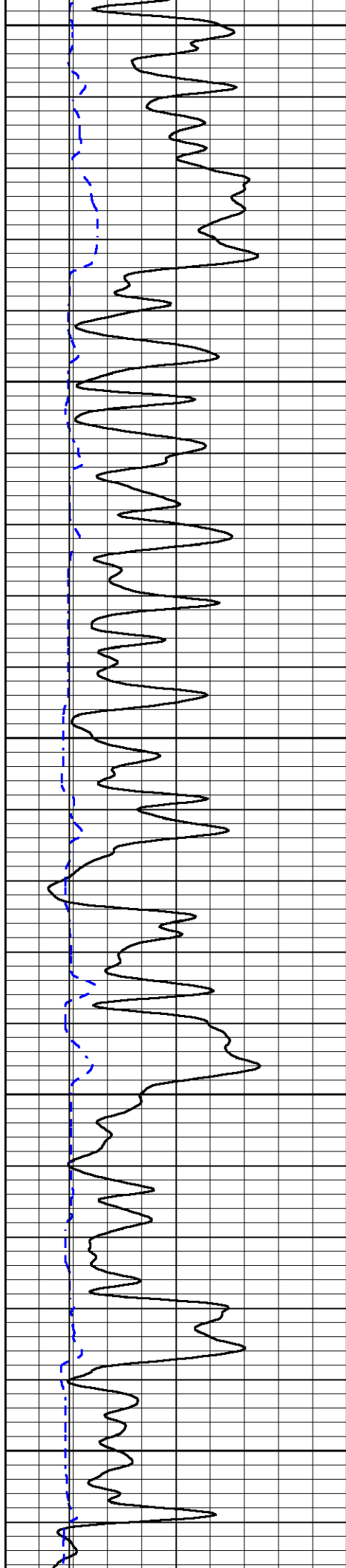


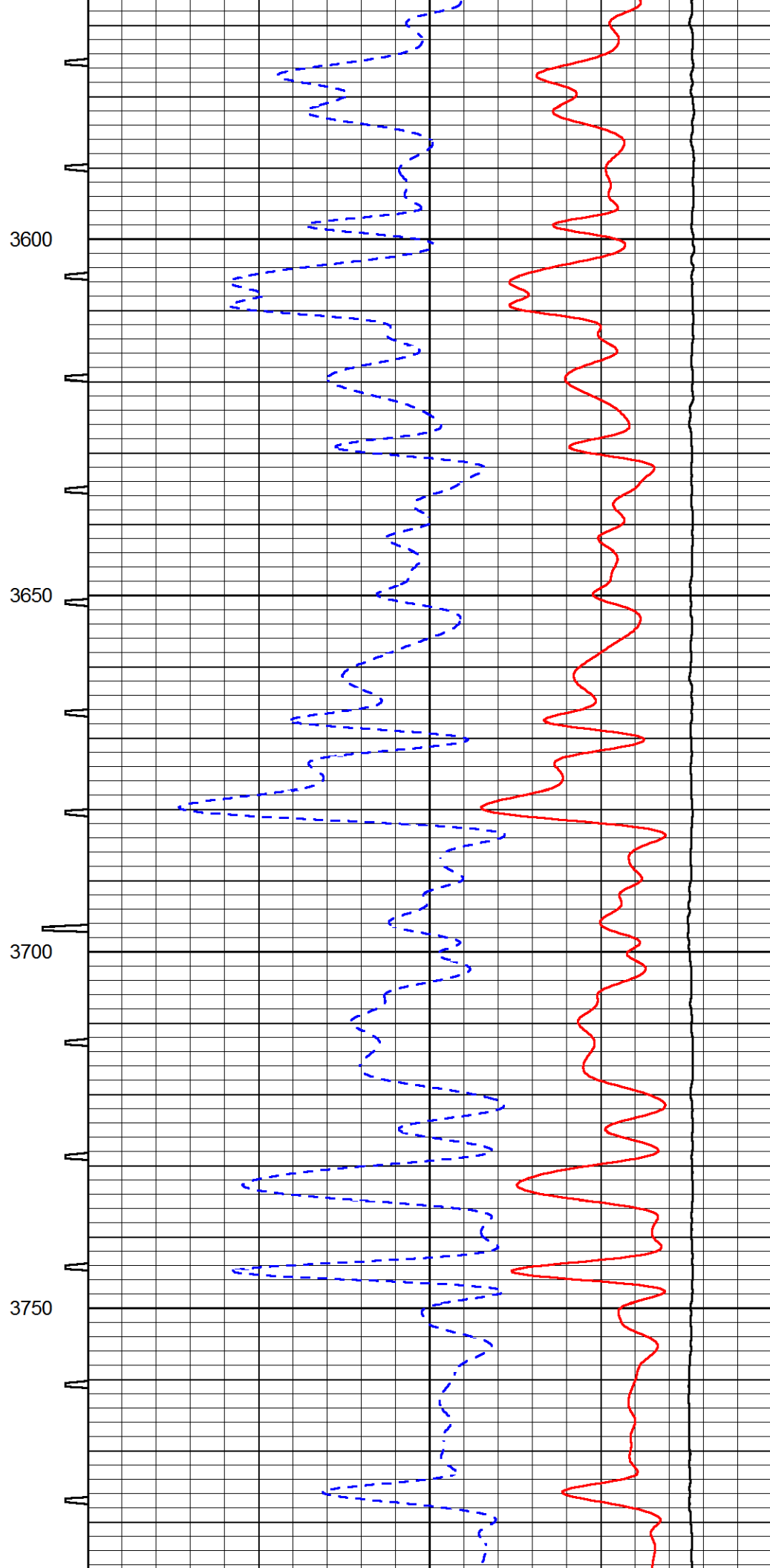
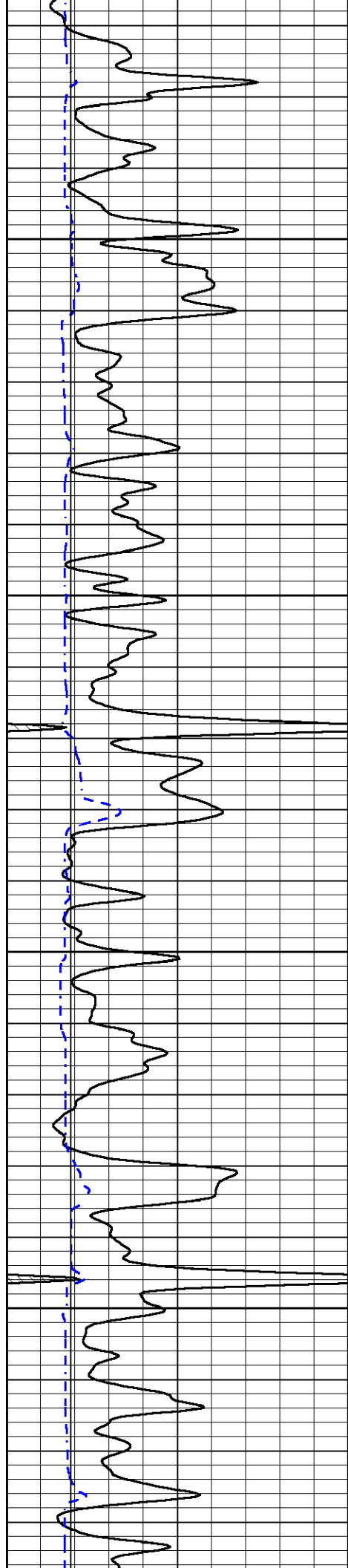


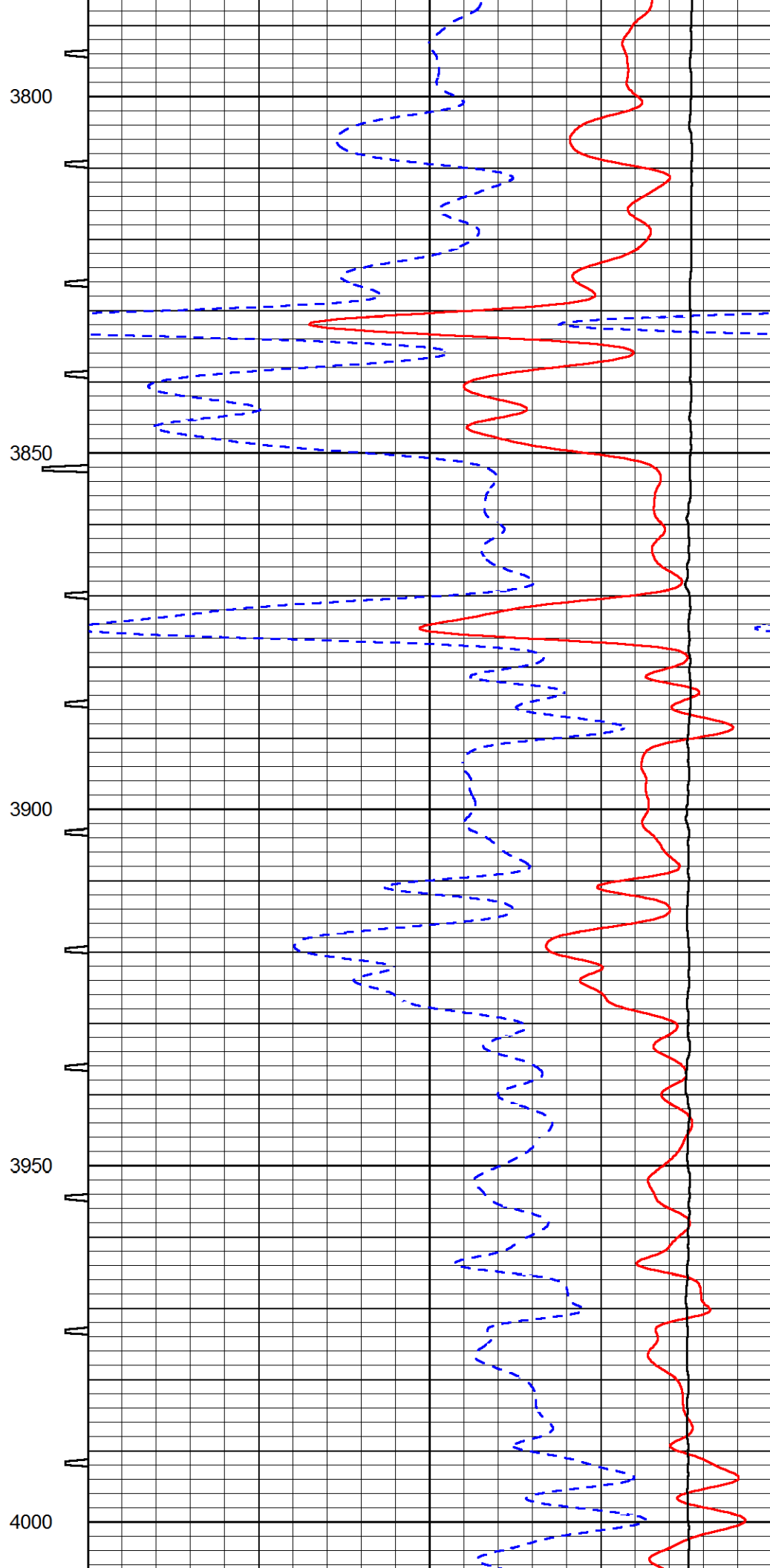
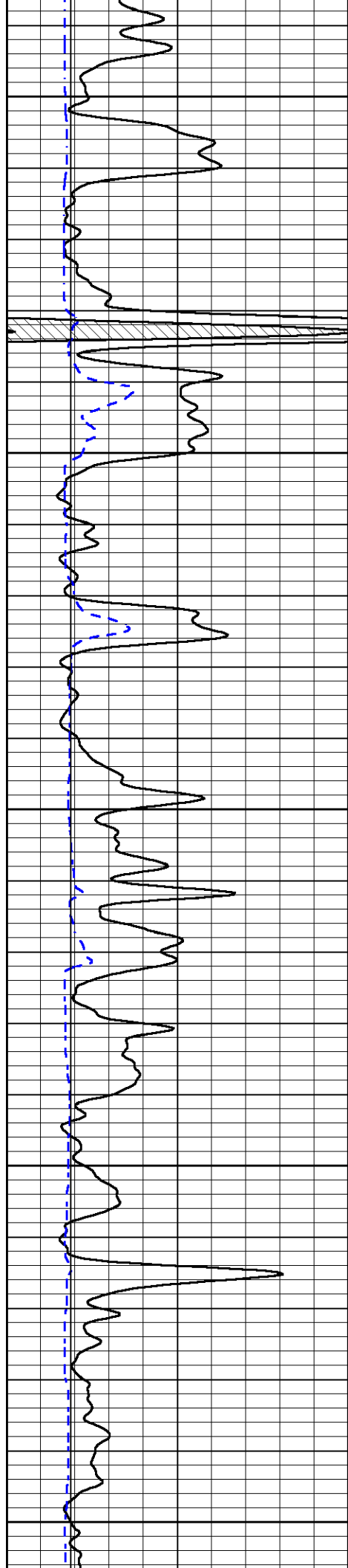


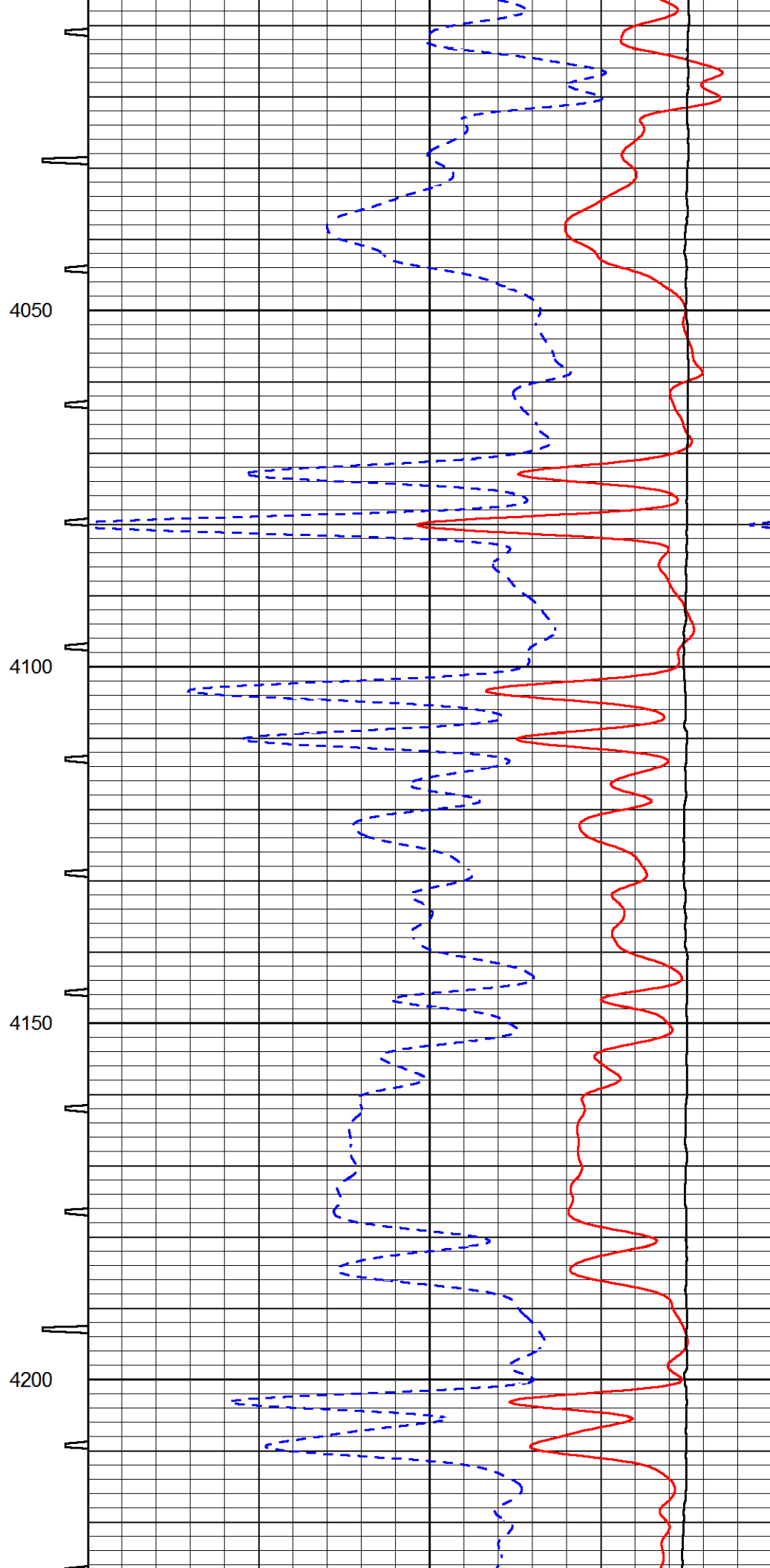
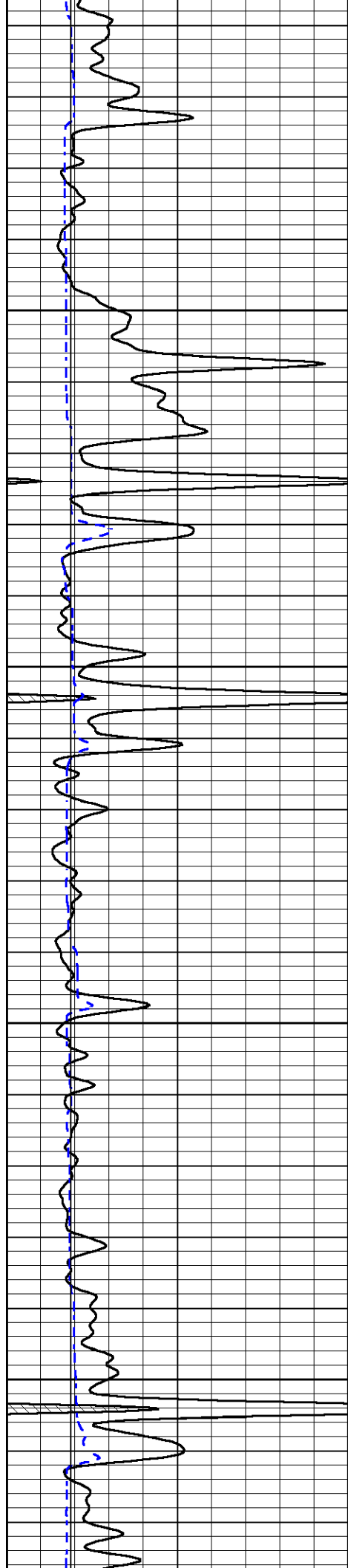


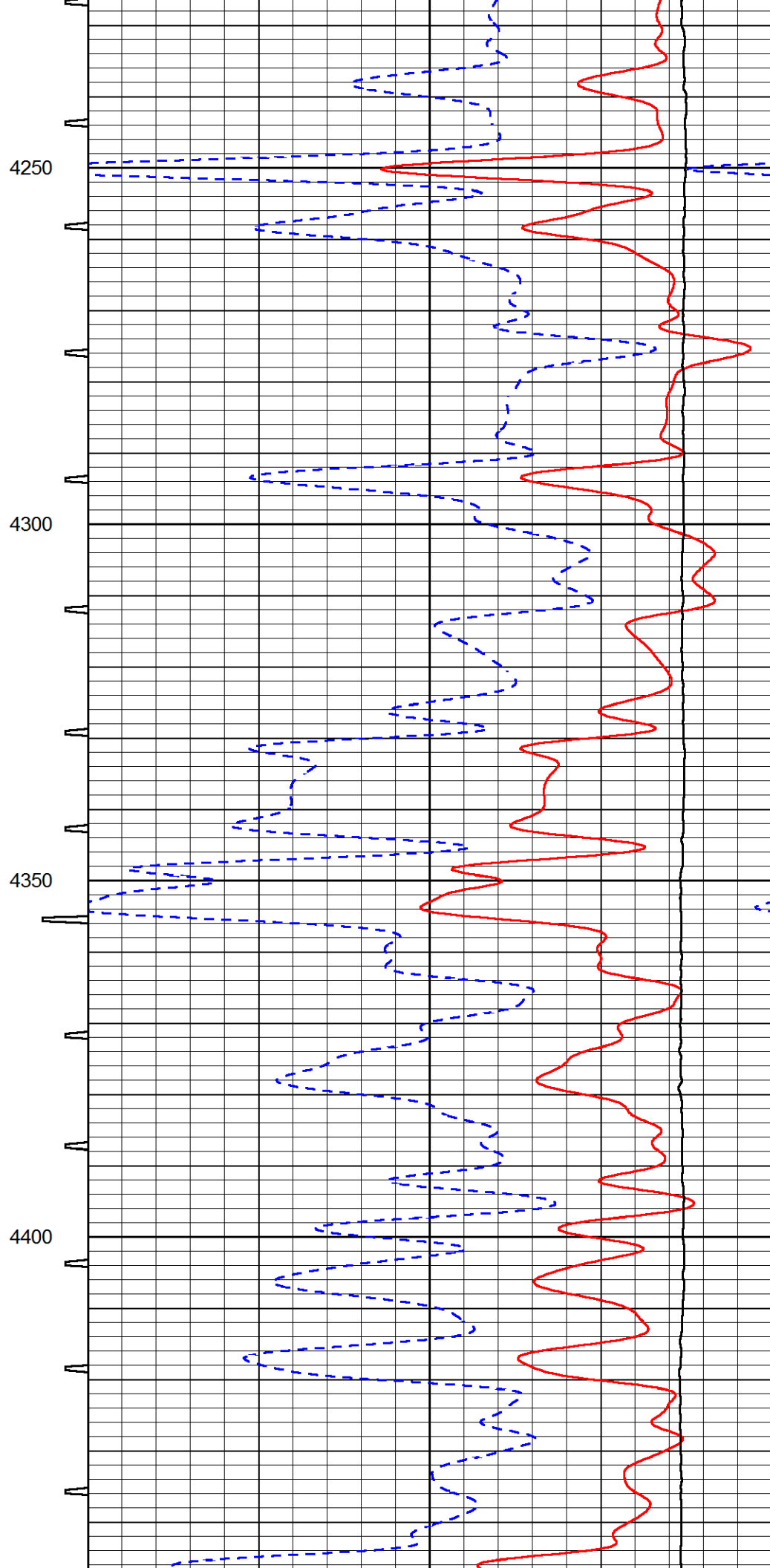
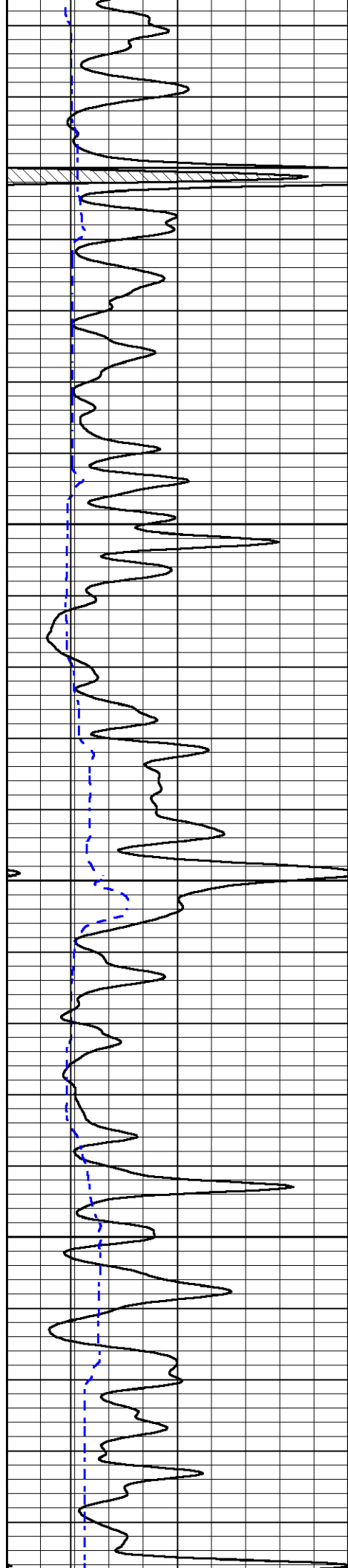


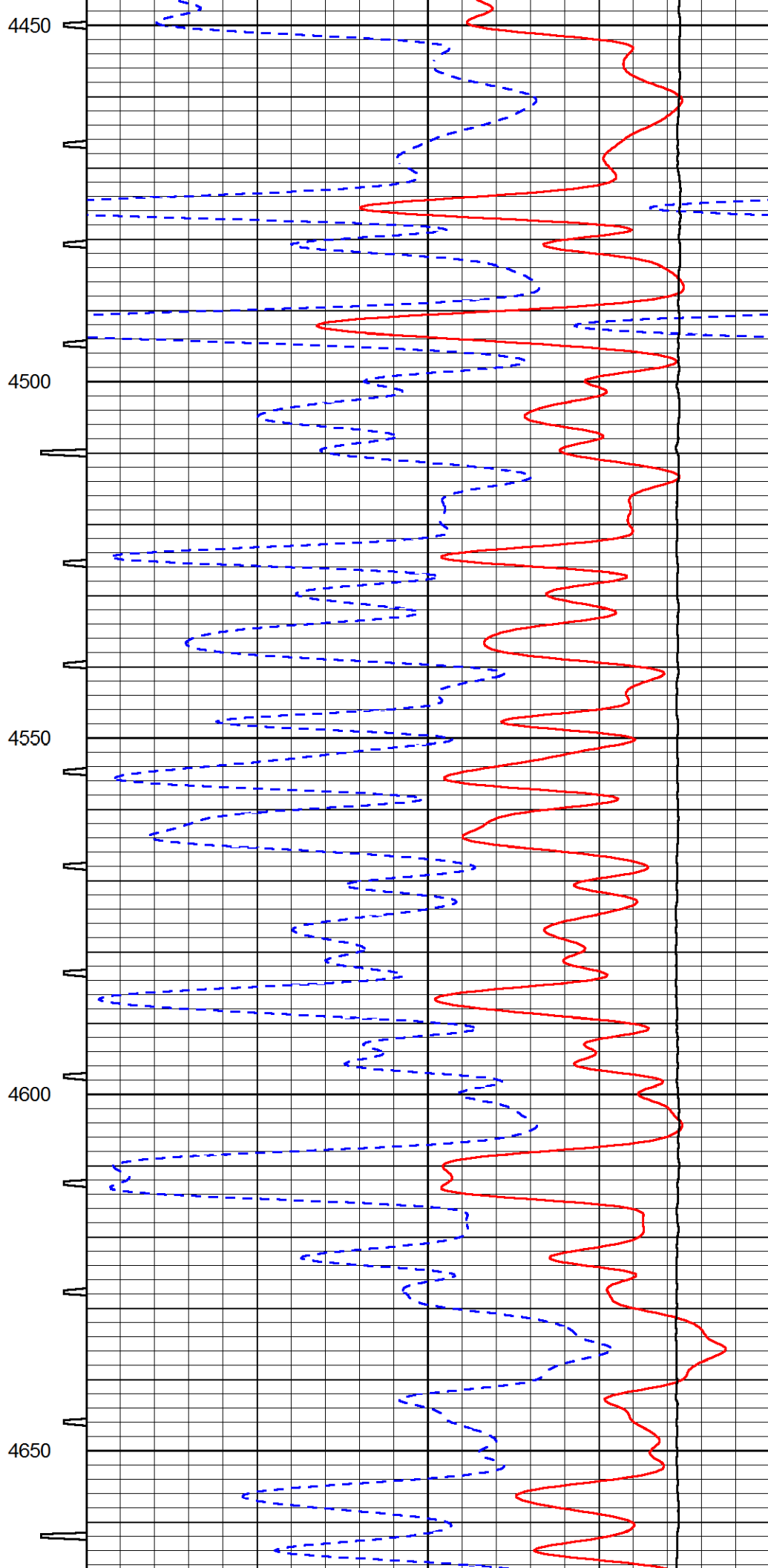
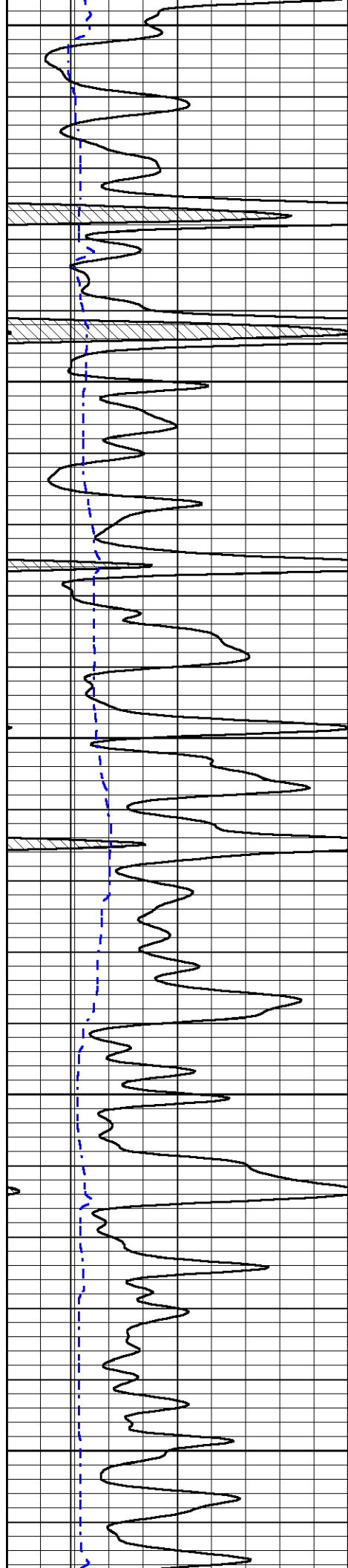


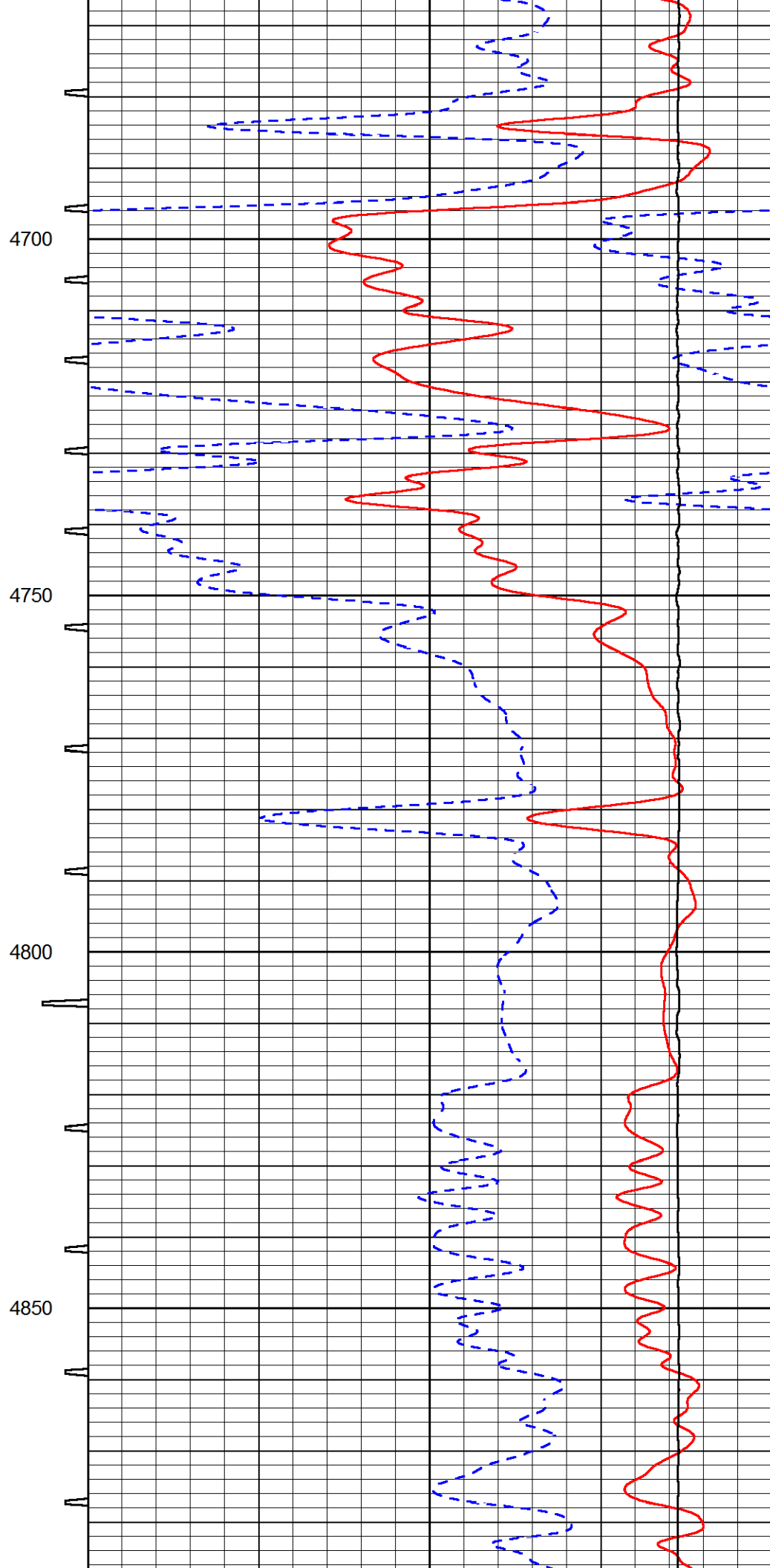
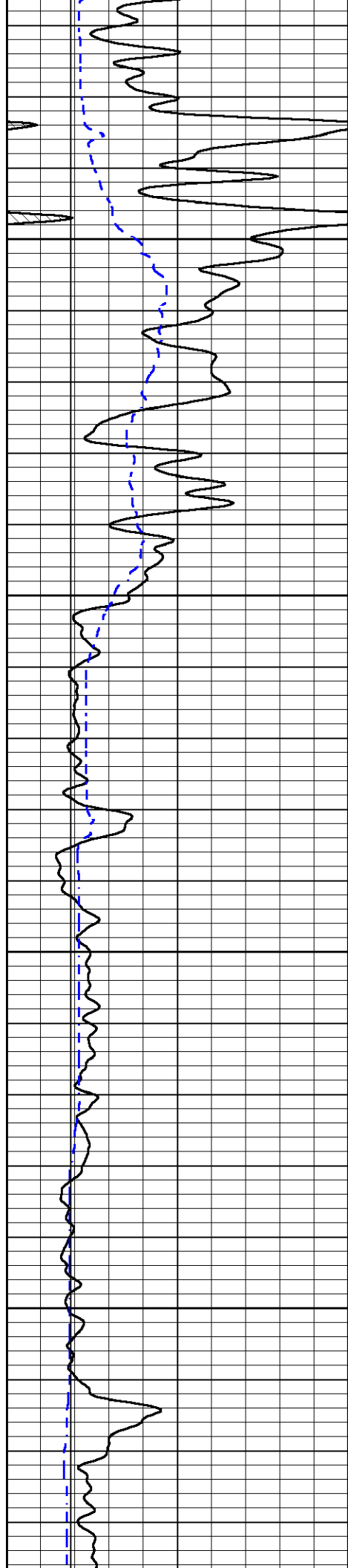


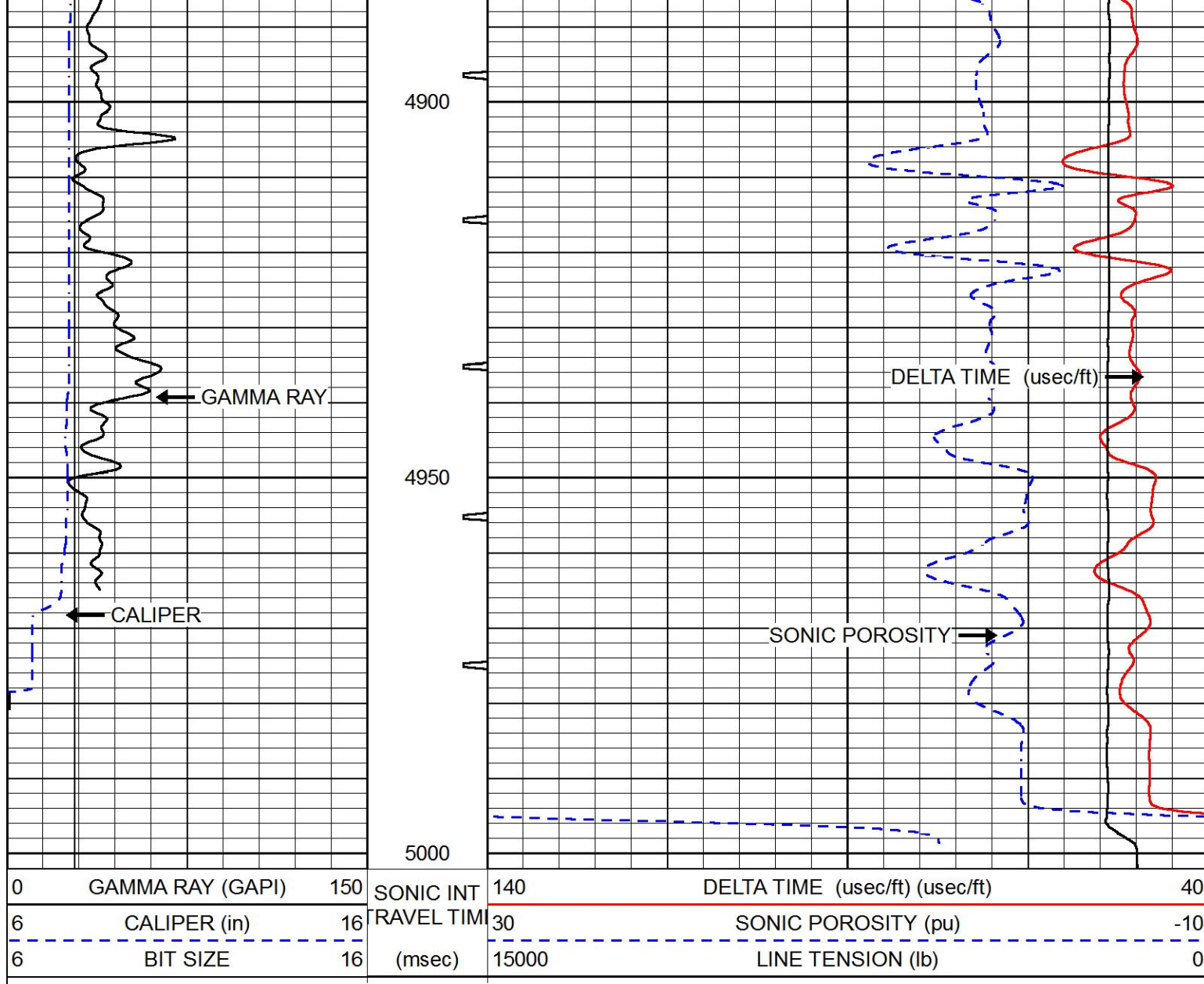








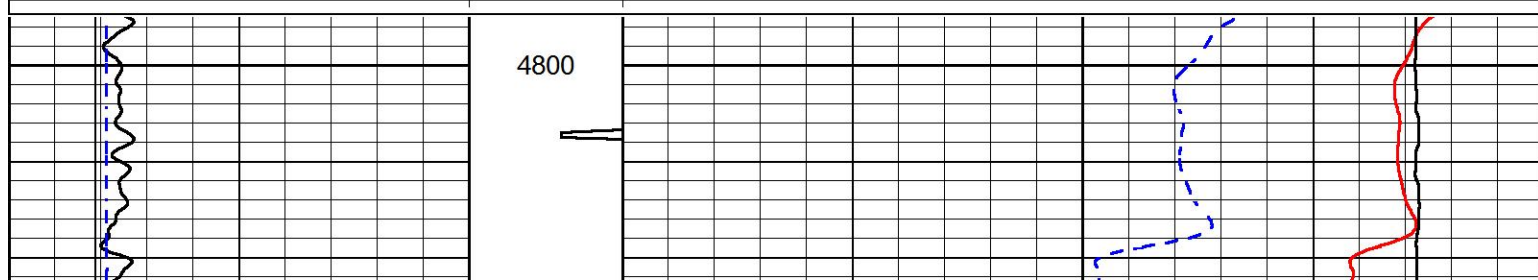


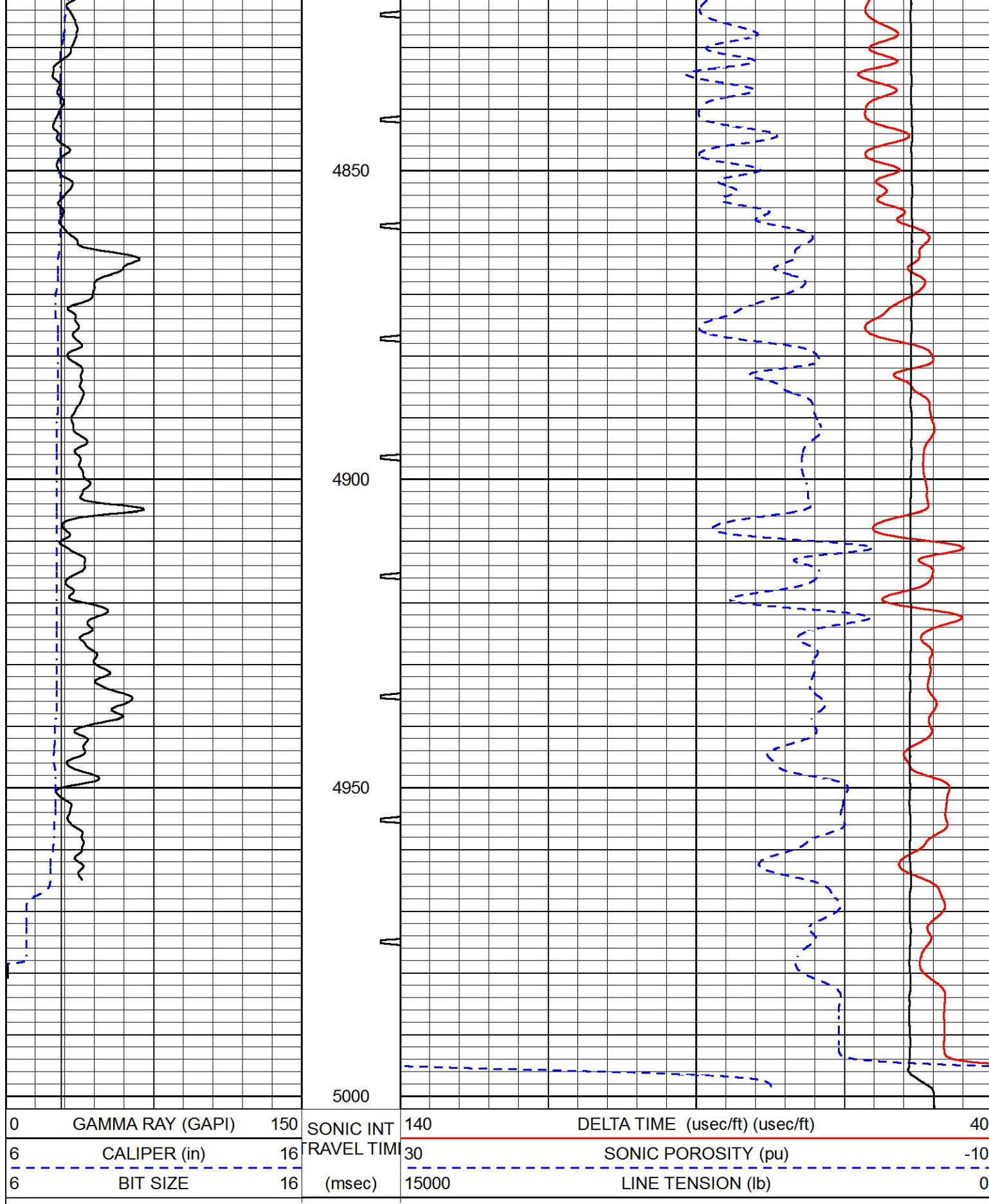


REPEAT SECTION

Database File	american_warrior_crist_1_28.db
Dataset Pathname	stackml/pass2.1
Presentation Format	sonic
Dataset Creation	Mon Apr 09 15:24:20 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





PIONEER

Pioneer Energy Services

County

FINNEY

State

KANSAS