



Pioneer Energy Services

Borehole Compensated Sonic Log

API No.

15-065-24,020-00-00

Company Culbreath Oil & Gas Company, Inc.

Well Toll #1-9

Field

County

Graham

State Kansas

Location

2,600' FNL & 1,980' FWL

Other Services
CNL/CDL
MEL/DIL

Sec: 9

Twp: 8S

Rge: 25W

Elevation

Permanent Datum Ground Level Elevation 2406
Log Measured From Kelly Bushing 10 Ft. Above Perm. Datum
Drilling Measured From Kelly Bushing

K.B. 2416
D.F.
G.L. 2406

Date

4/6/2014

Run Number

Two

Type Log

BHC Sonic

Depth Driller

3950

Depth Logger

3950

Bottom Logged Interval

3939

Top Logged Interval

250

Type Fluid In Hole

Chemical

Salinity, PPM CL

1800

Density

9.1

Level

Full

Max. Rec. Temp. F

116

Operating Rig Time

5 Hours

Equipment -- Location

108 Hays

Recorded By

J. Long

Witnessed By

Steve Murphy

Borehole Record

Casing Record

Run No.

Bit

From

To

Size

Wgt.

From

To

1

12.25

00

261

8.625

24#

00

261

2

7.875

261

3950

<<< Fold Here >>>

All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, 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. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.

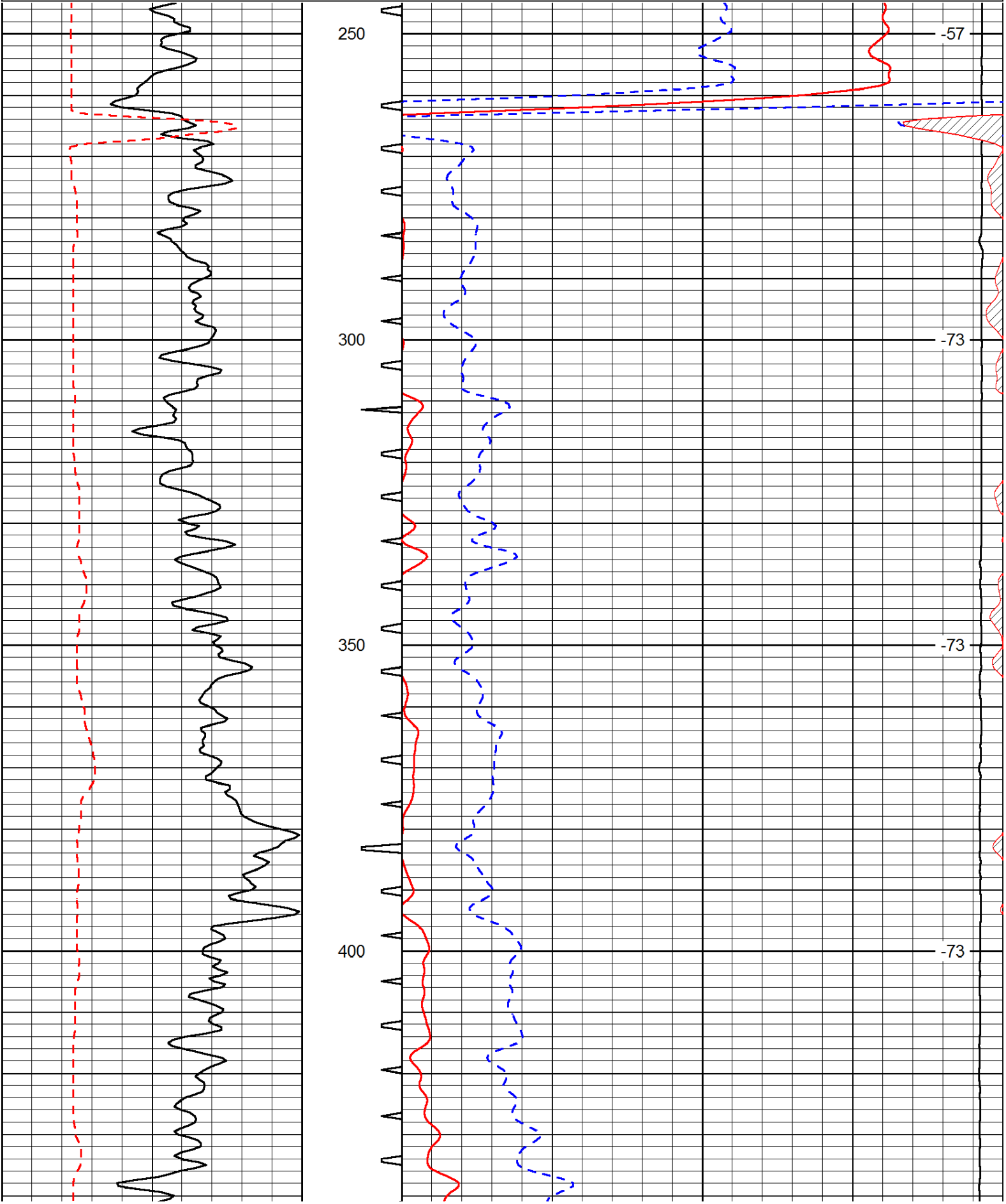
Comments

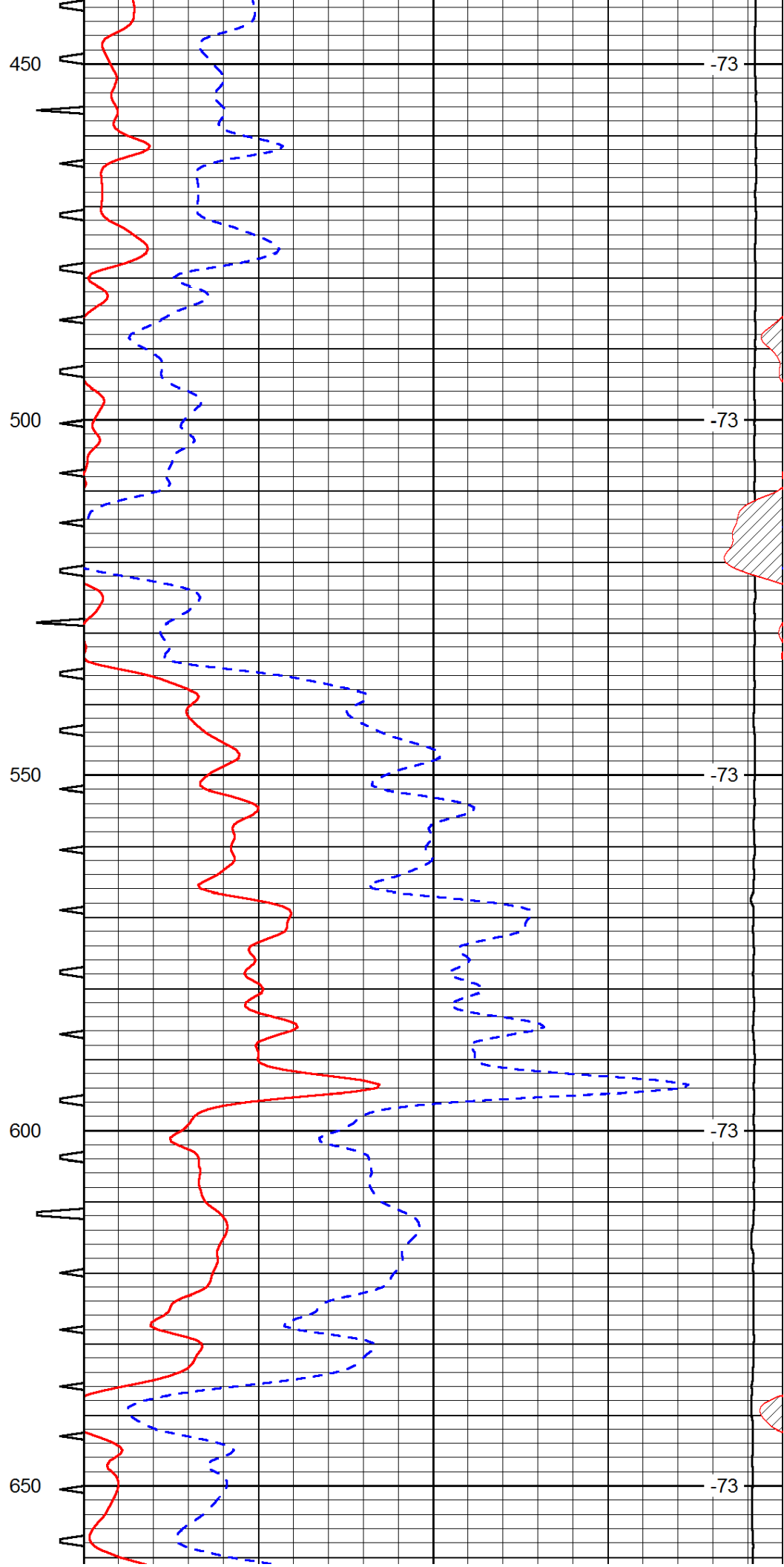
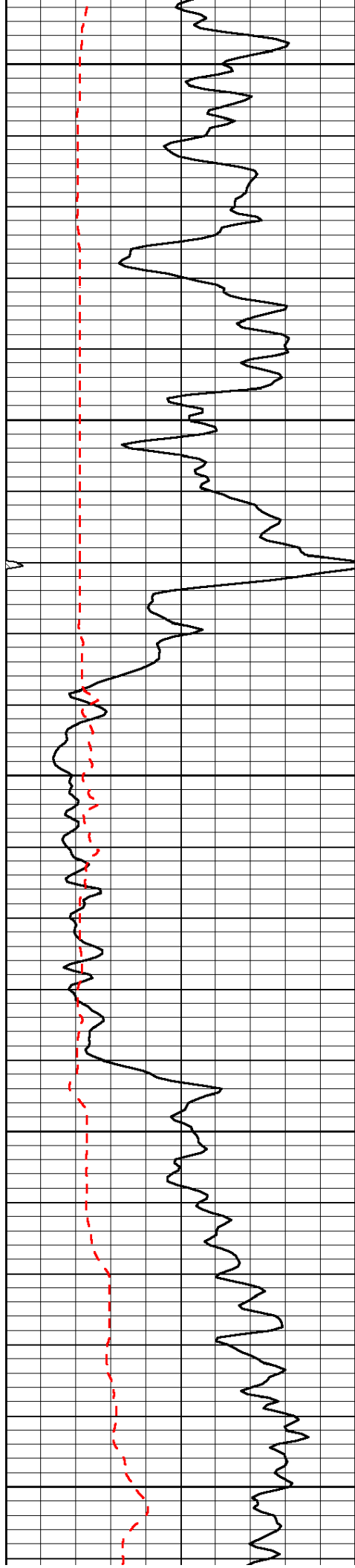
Thank you for using Pioneer Energy Services
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785 625 3858

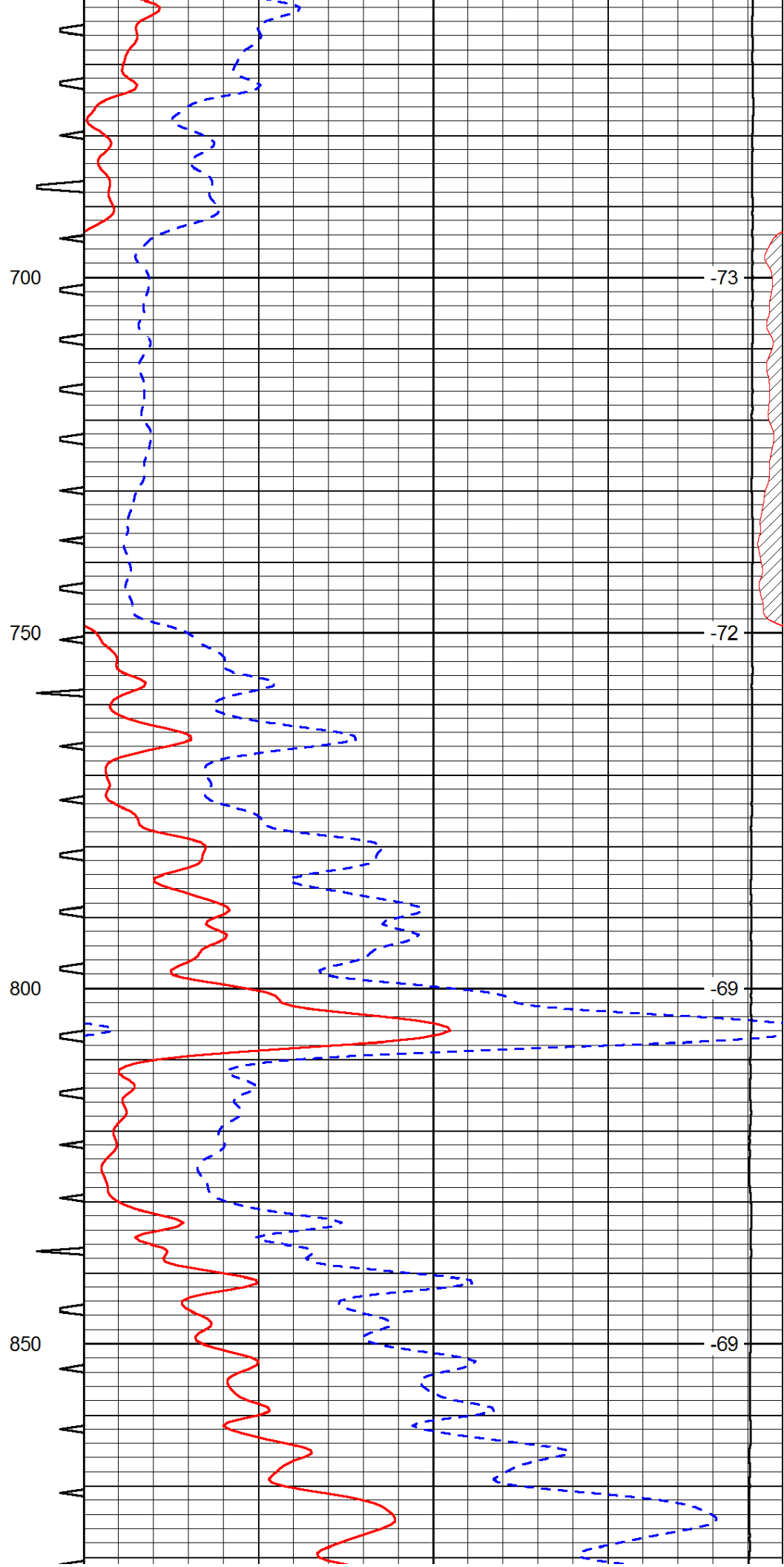
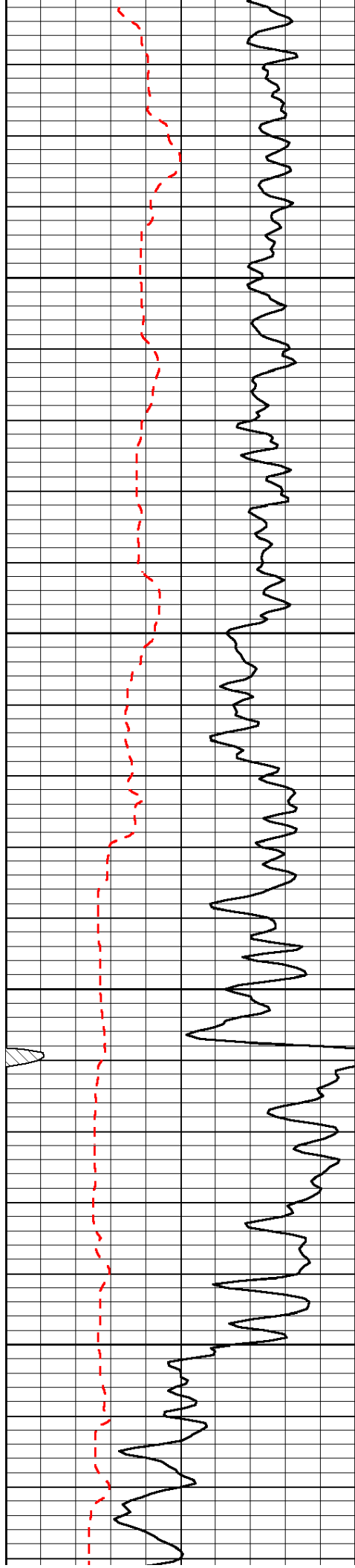
Hill City, 14 West (Antelope Lake Road), 1/2 North, 100 Yards West,
West & South Into

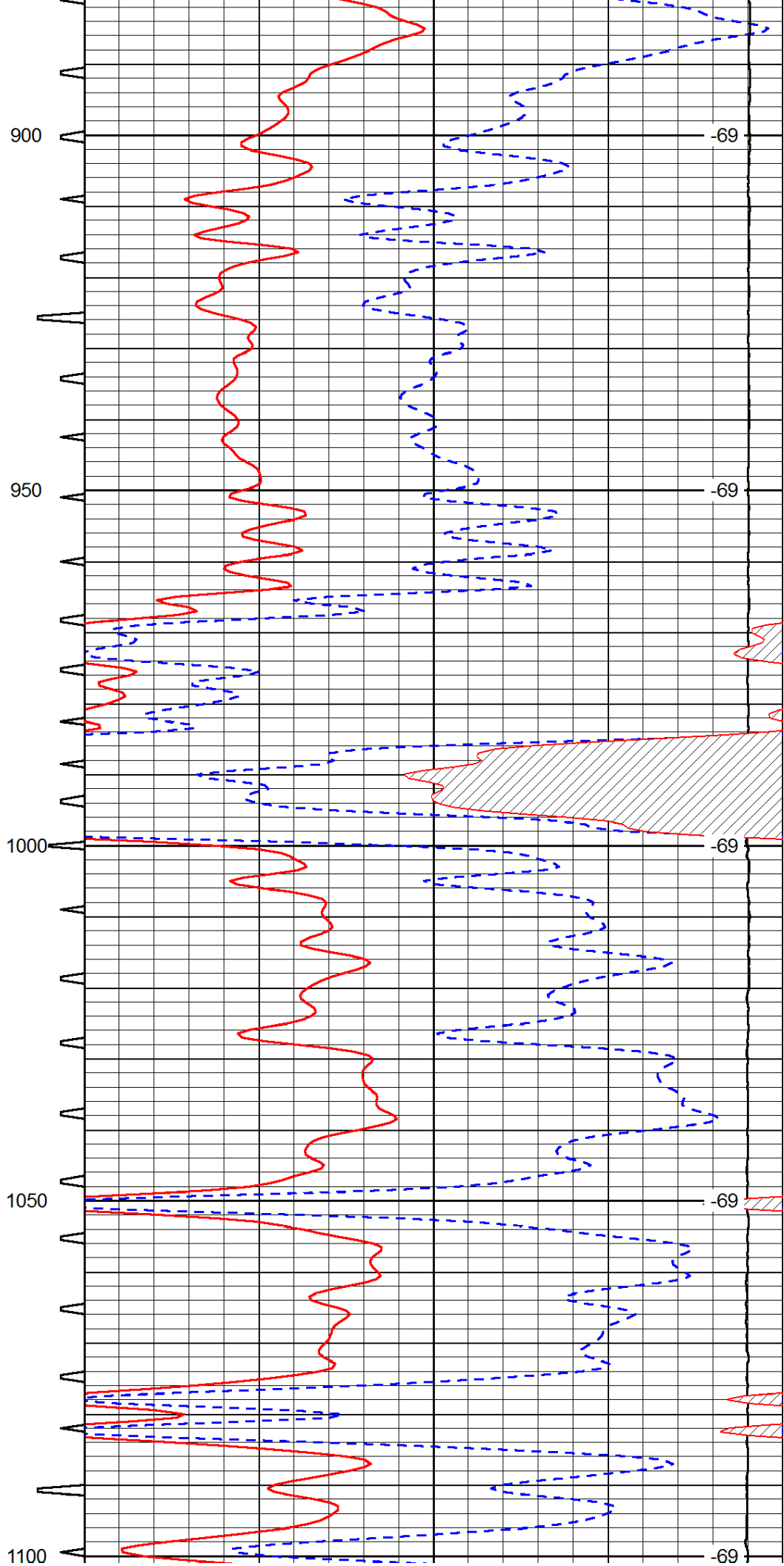
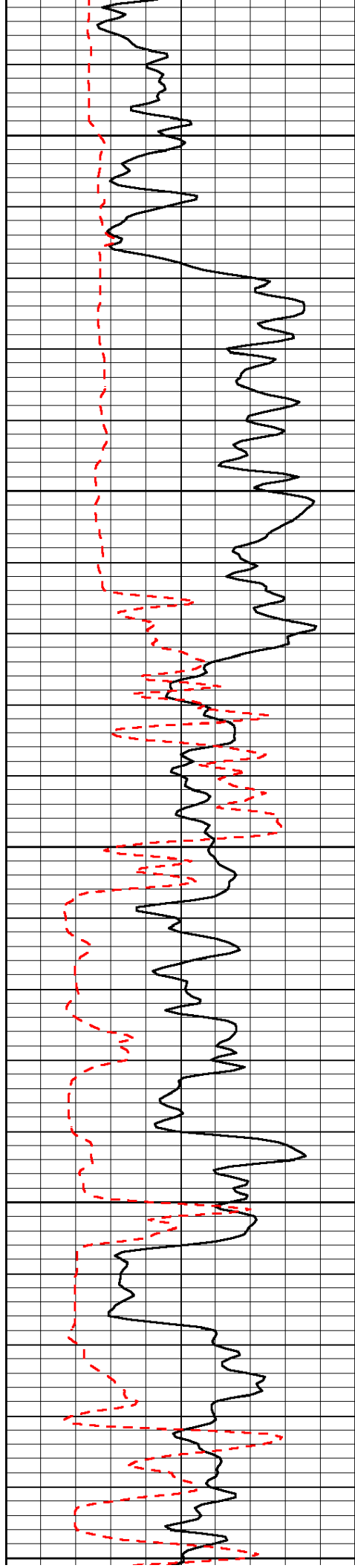
Database File: c:\warrior\data\culbreath_toll # 1-9\culbreath_toll_1-9hd.db
Dataset Pathname: dil/culstck
Presentation Format: sonic
Dataset Creation: Sun Apr 06 04:42:02 2014
Charted by: Depth in Feet scaled 1:240

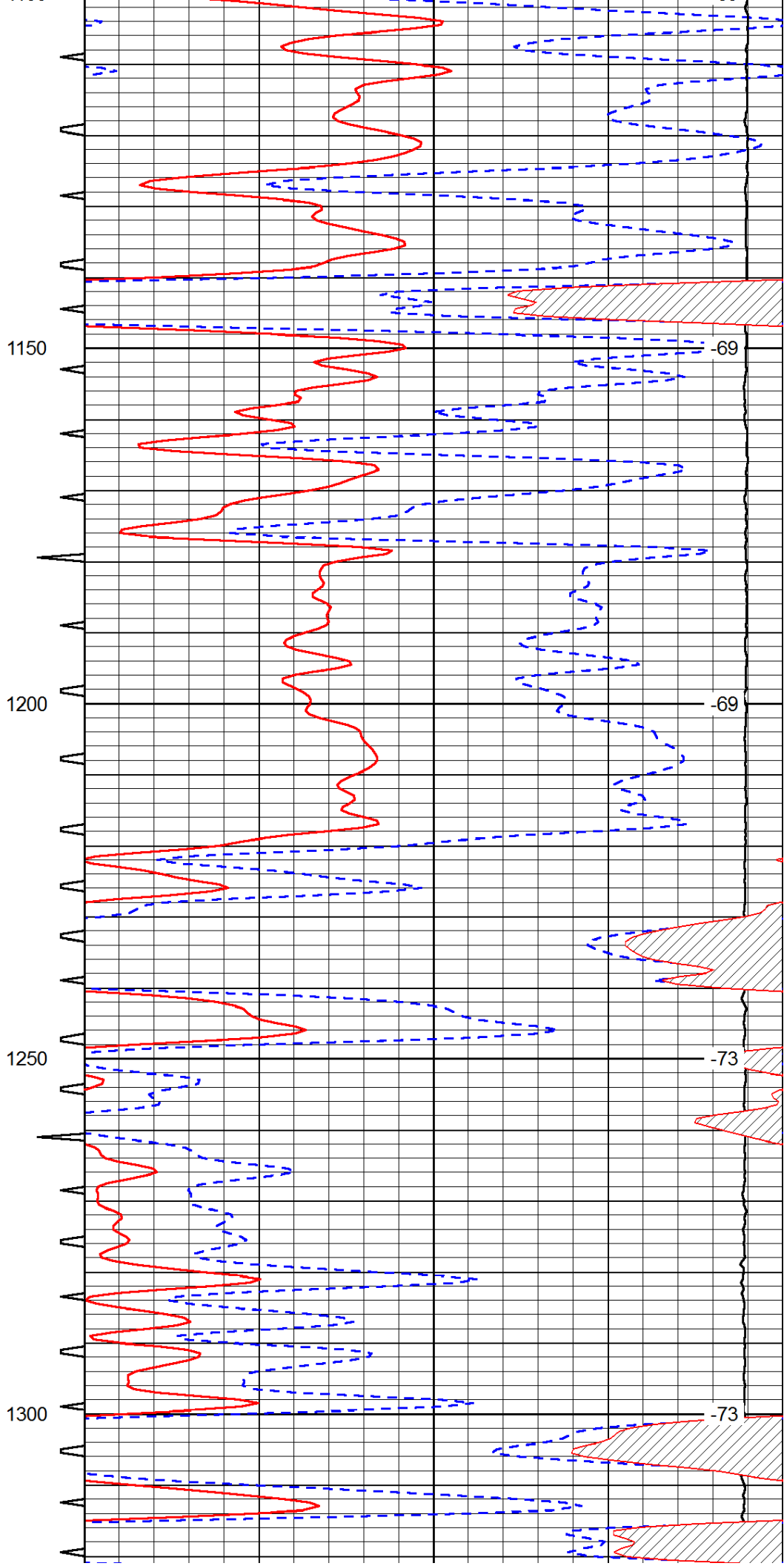
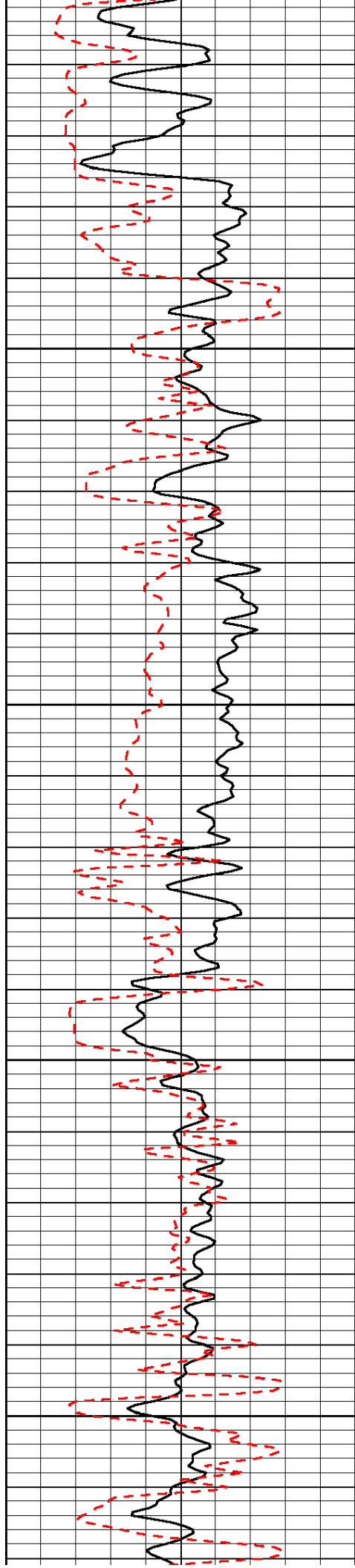
Charted by:		Depth in Feet scaled 1:210						
0	Gamma Ray	150	Sonic Int	140	Delta Time (usec/ft)	40		
150	Gamma Ray	300		5	0	30	SPOR	-10
6	Caliper (GAPI)	16				15000	LTEN (lb)	0
							LSPD	

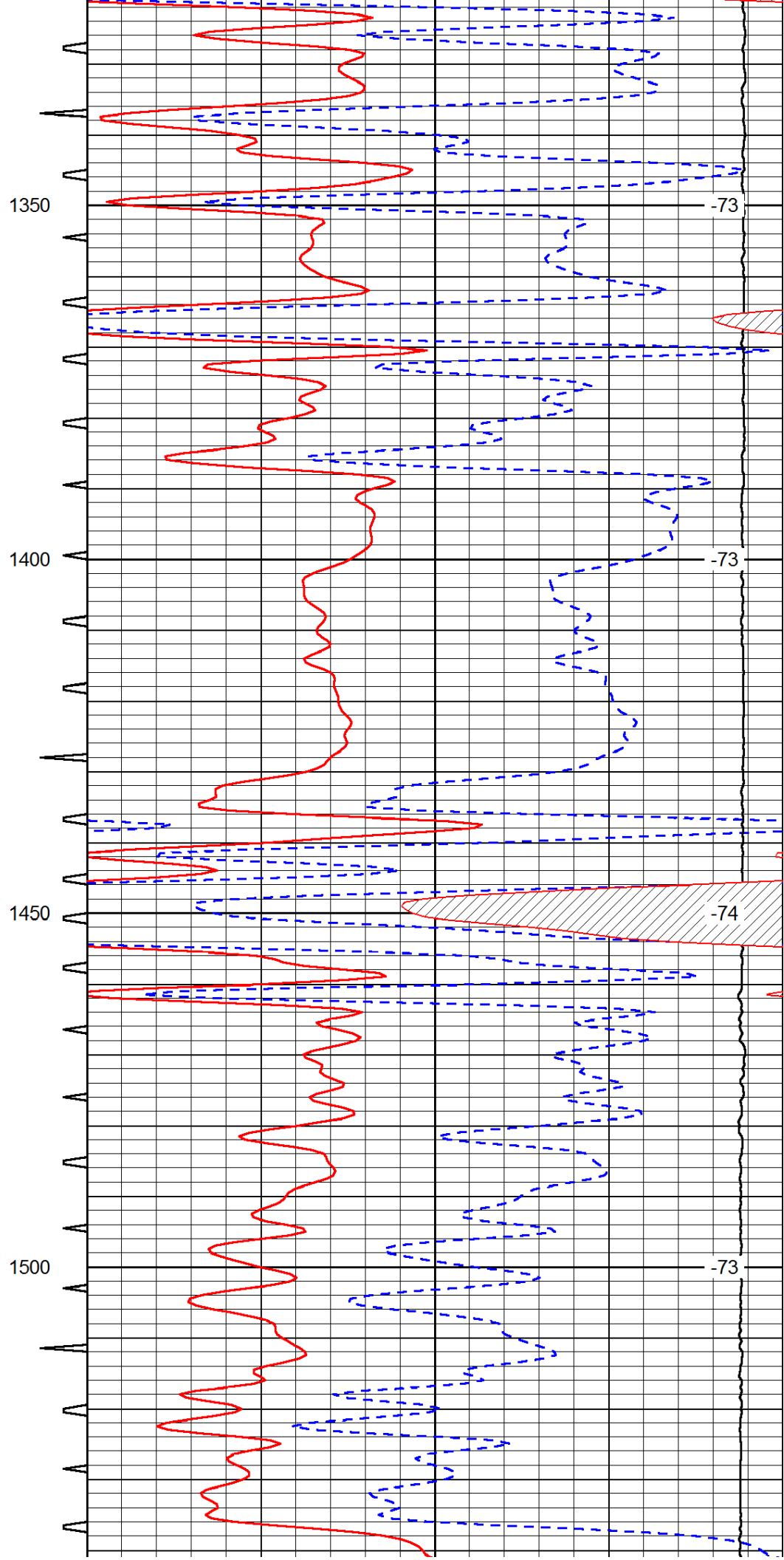
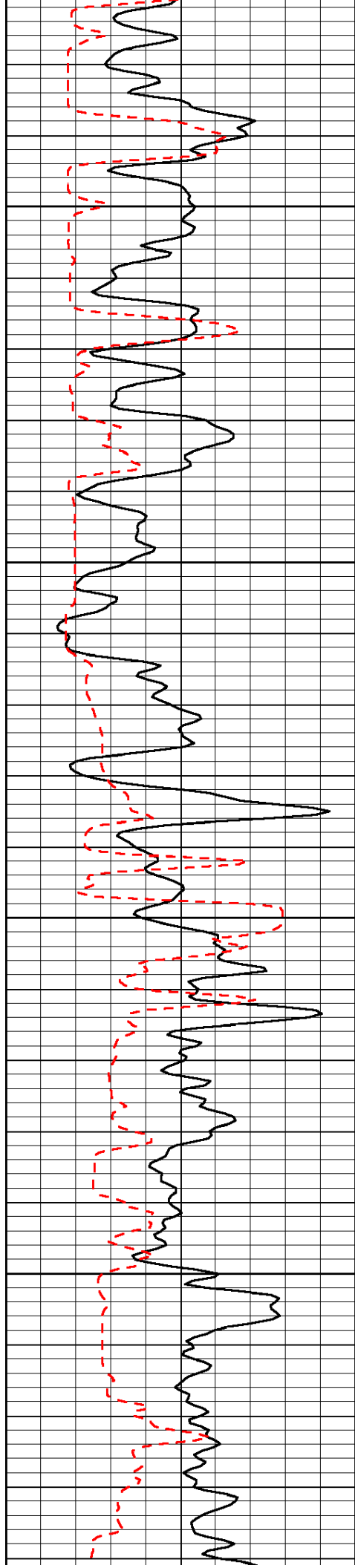


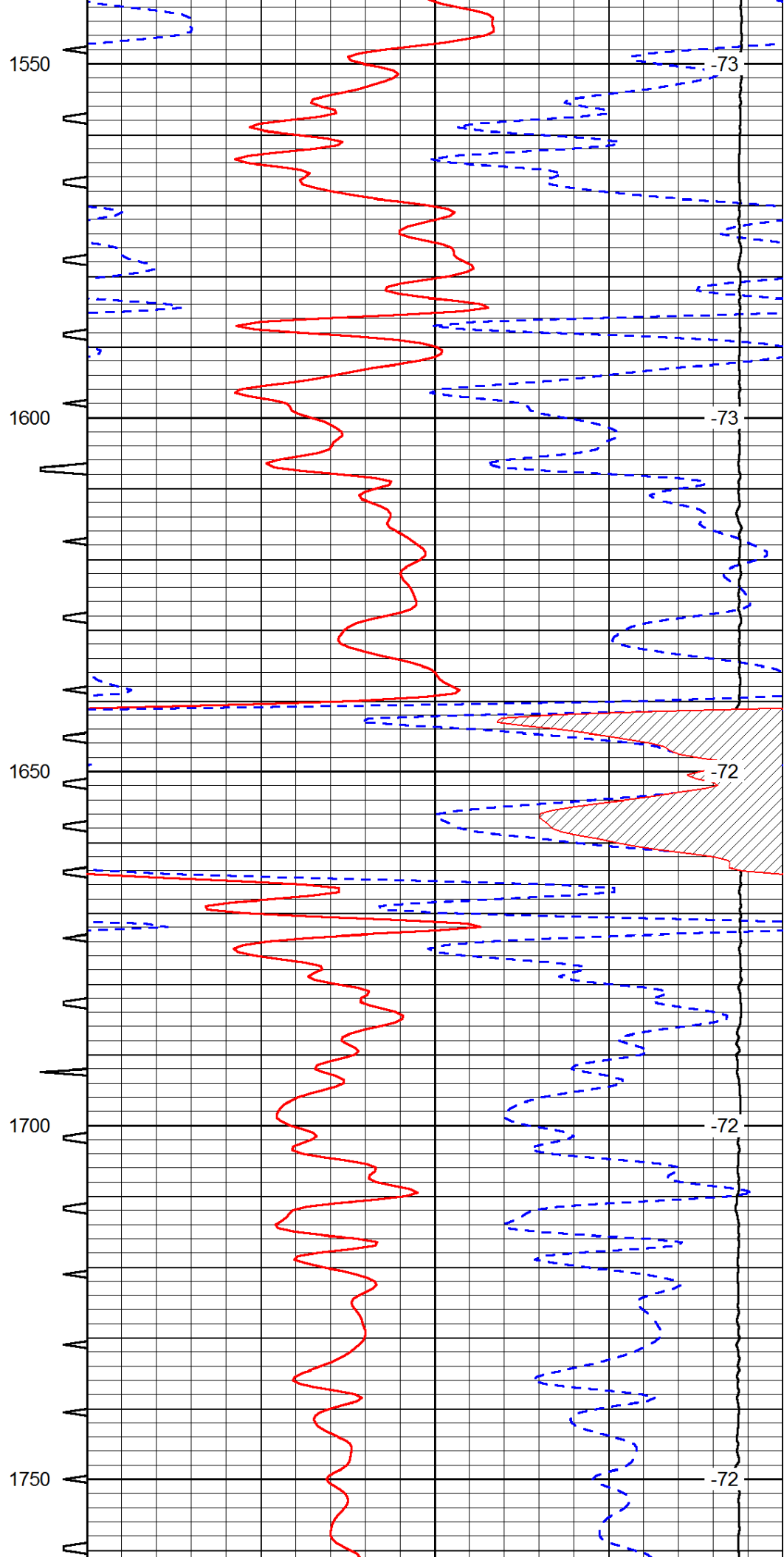
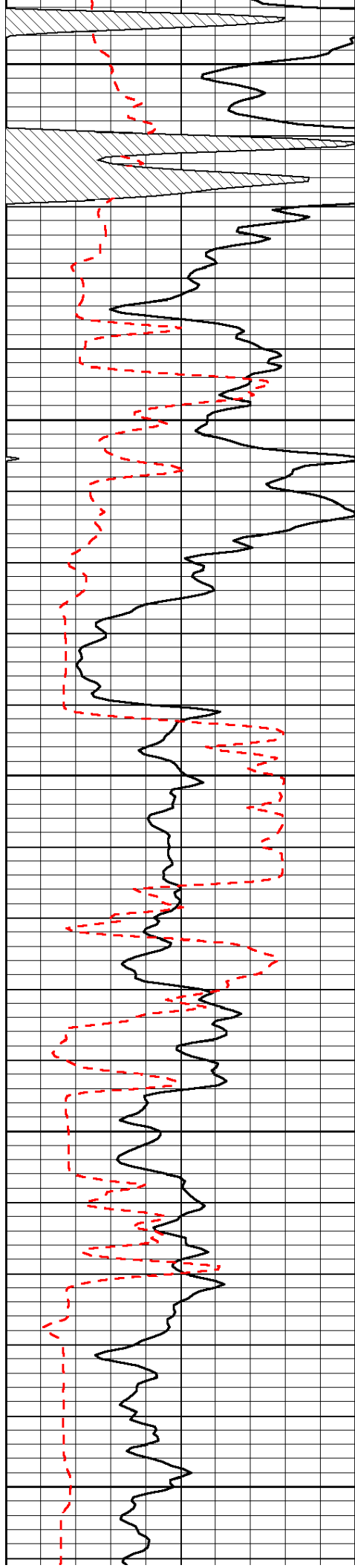


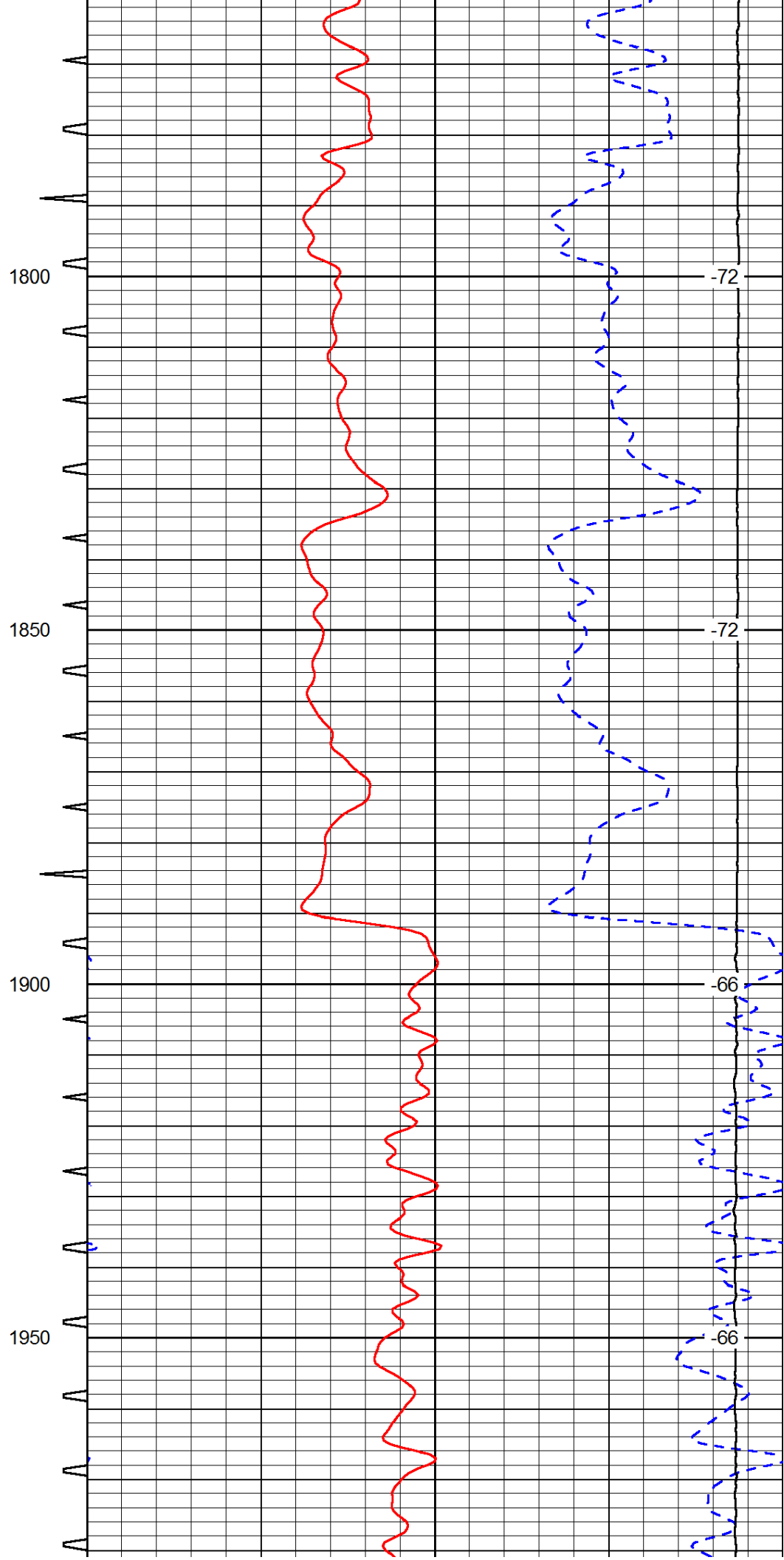
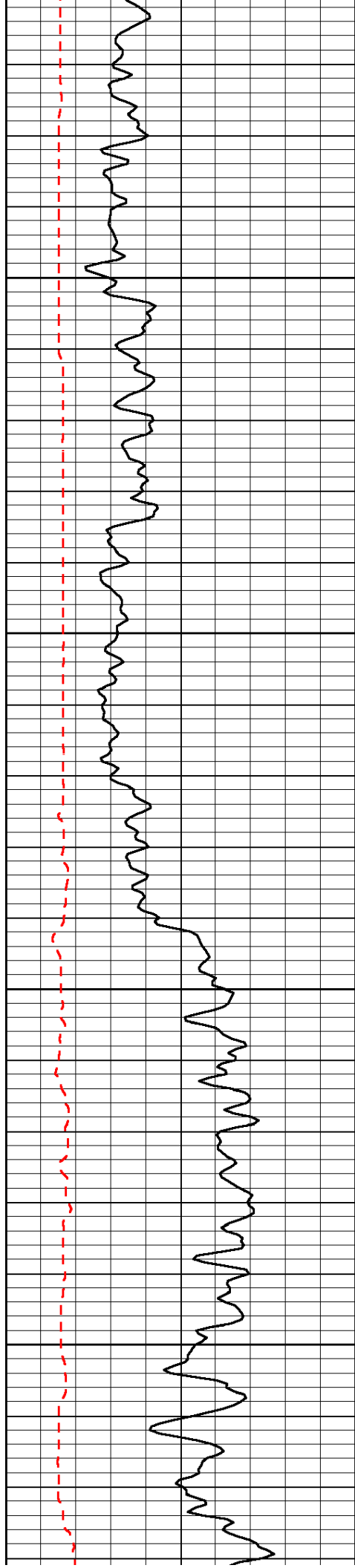


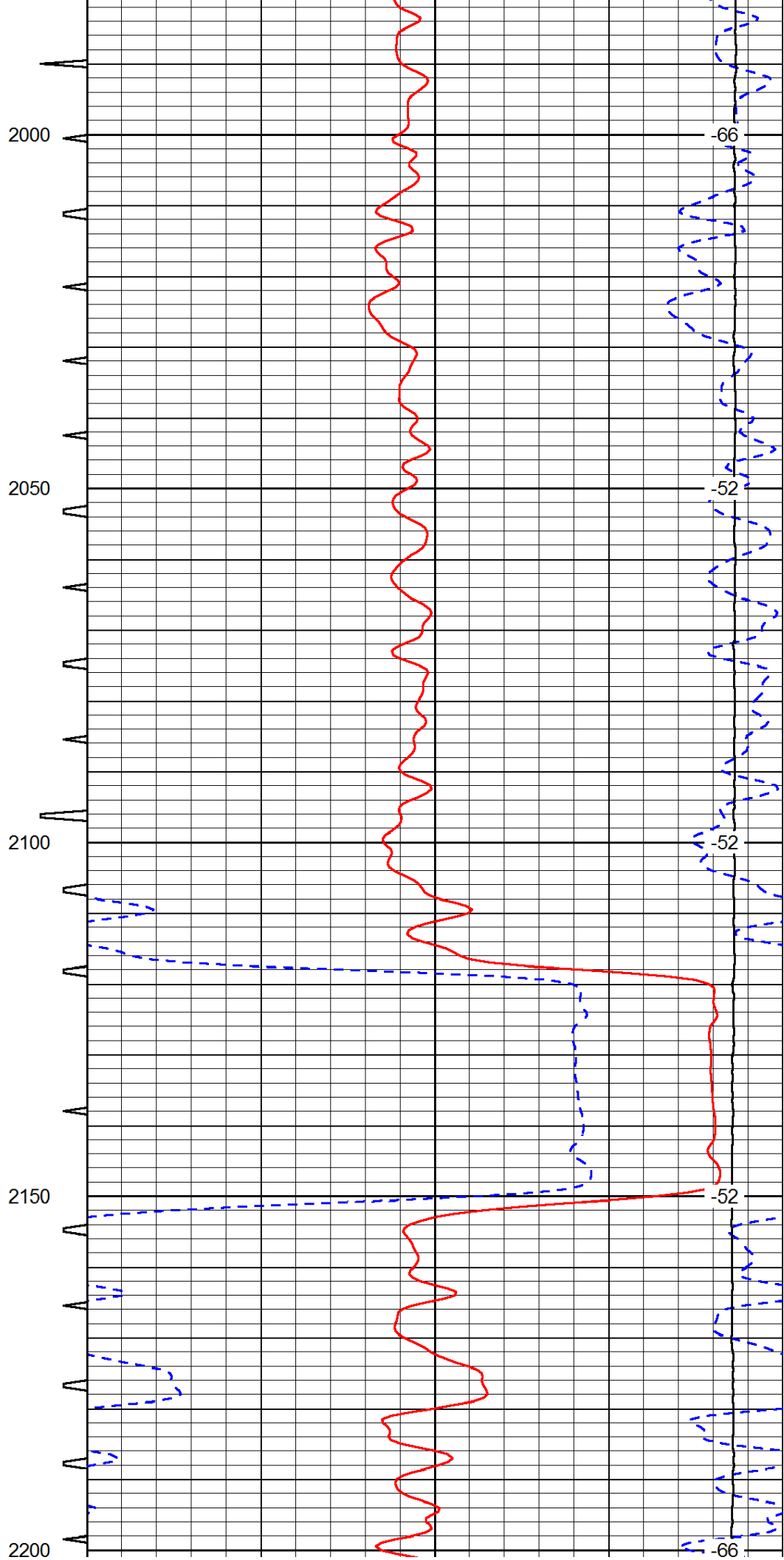
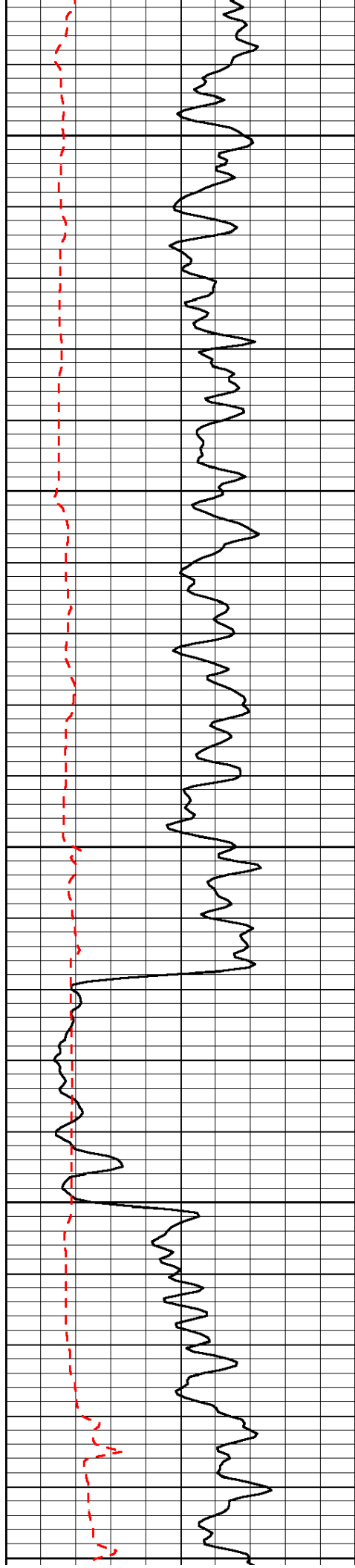


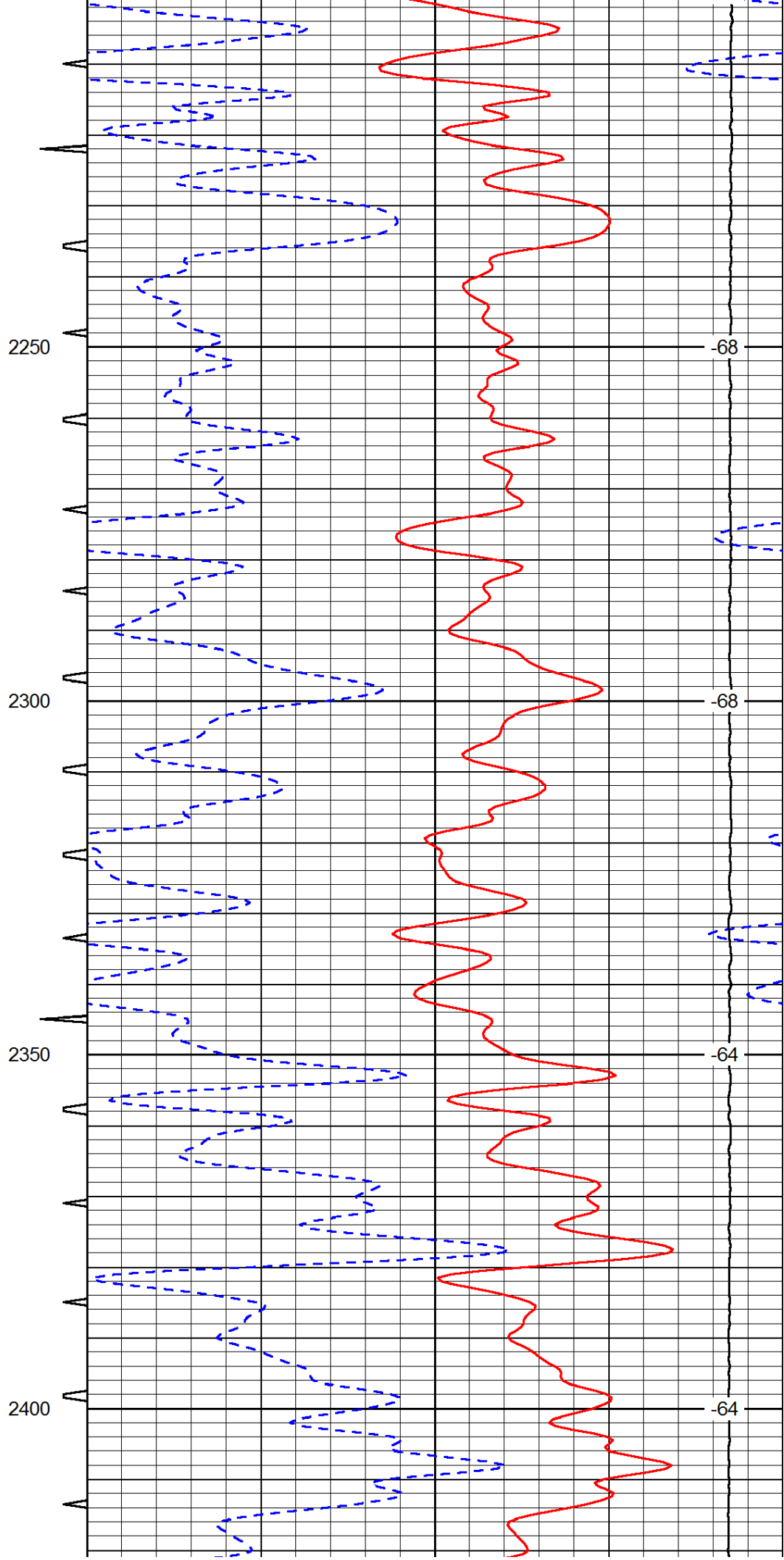
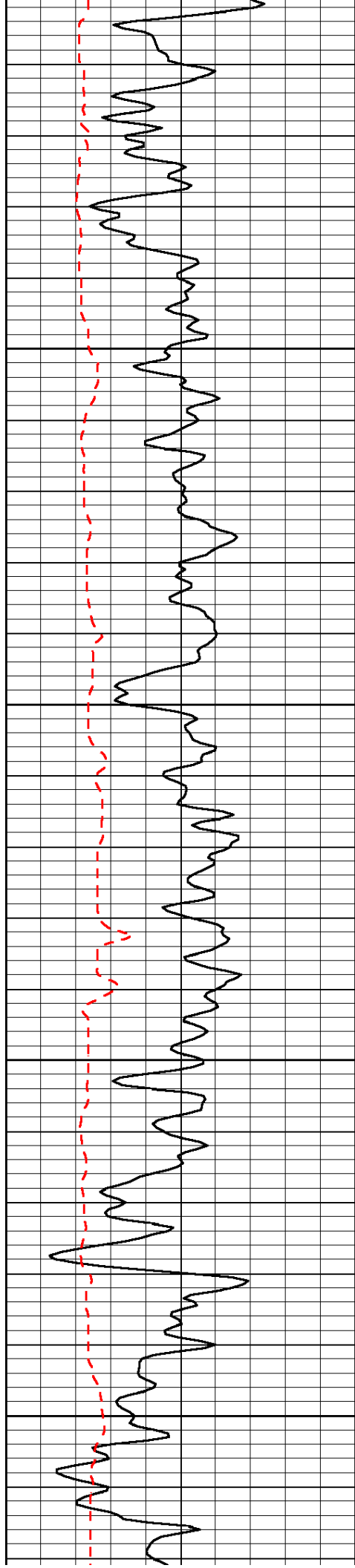


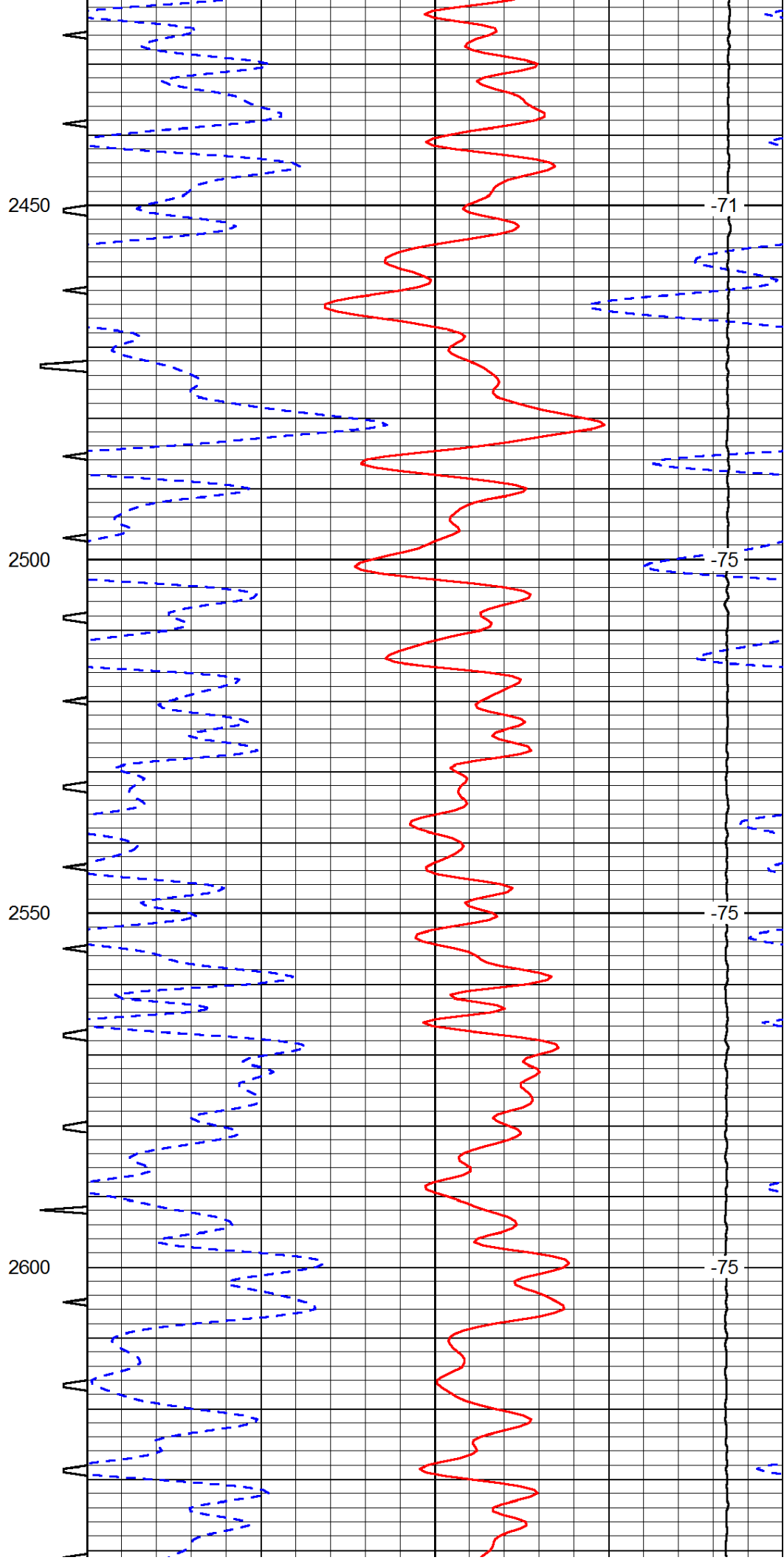
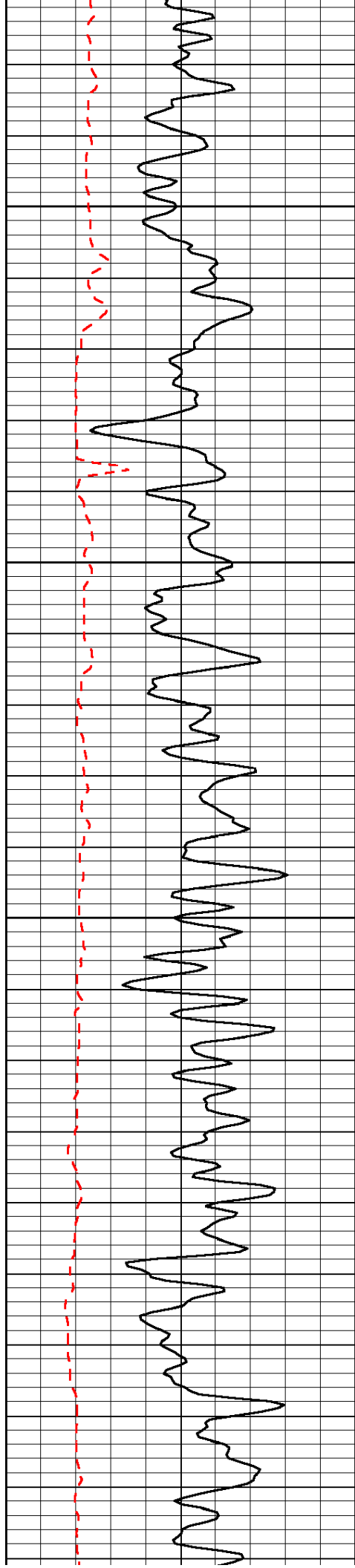


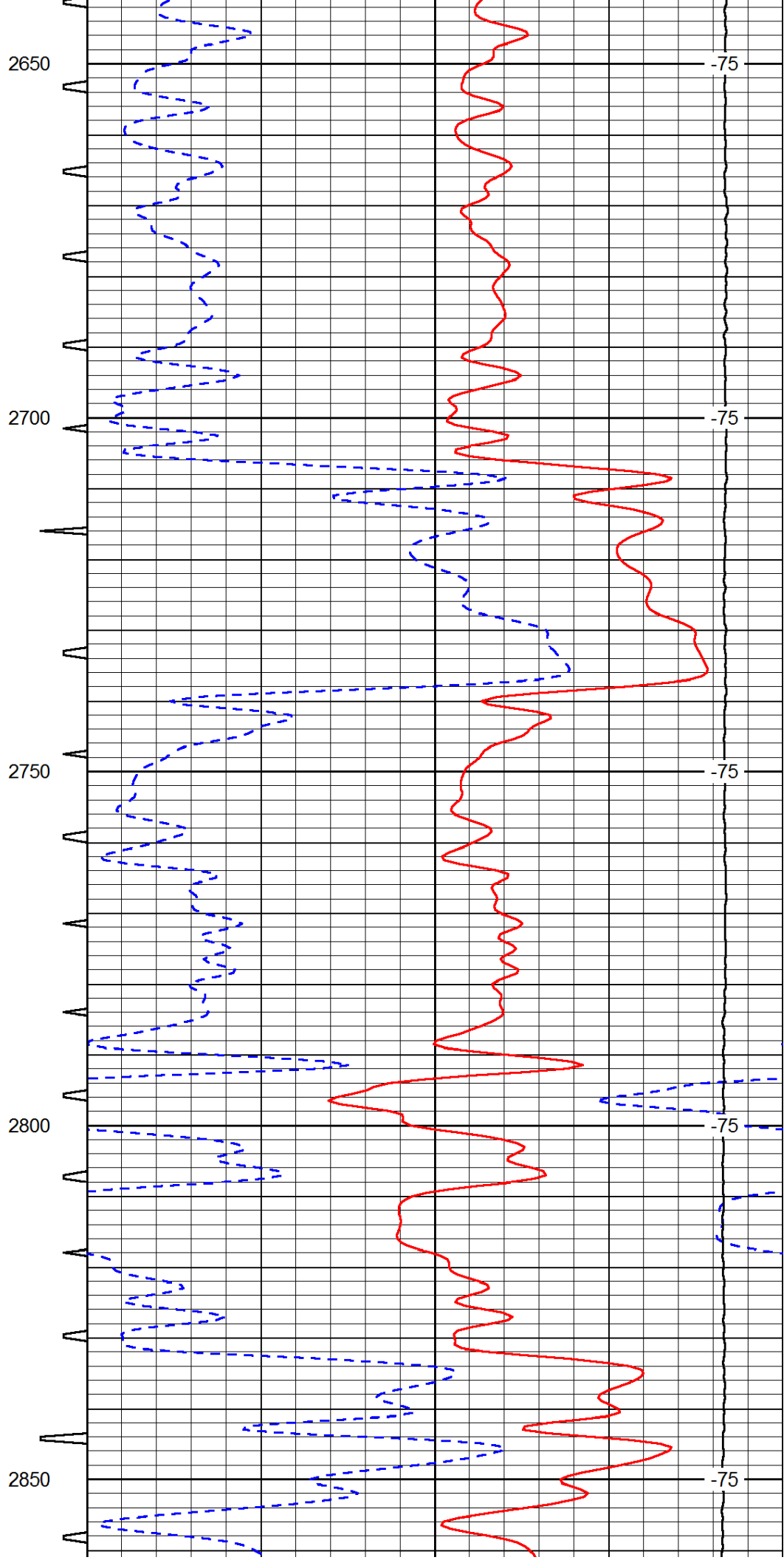
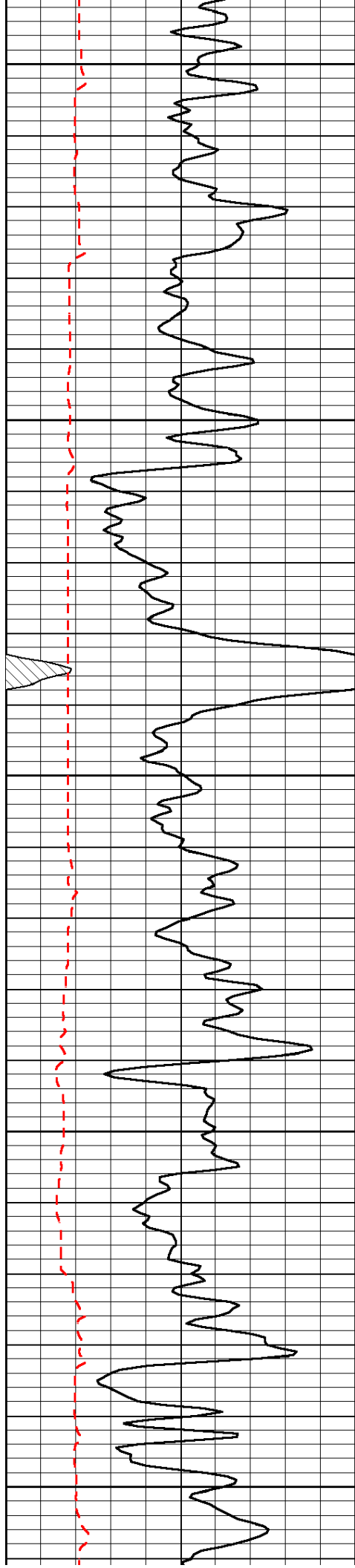


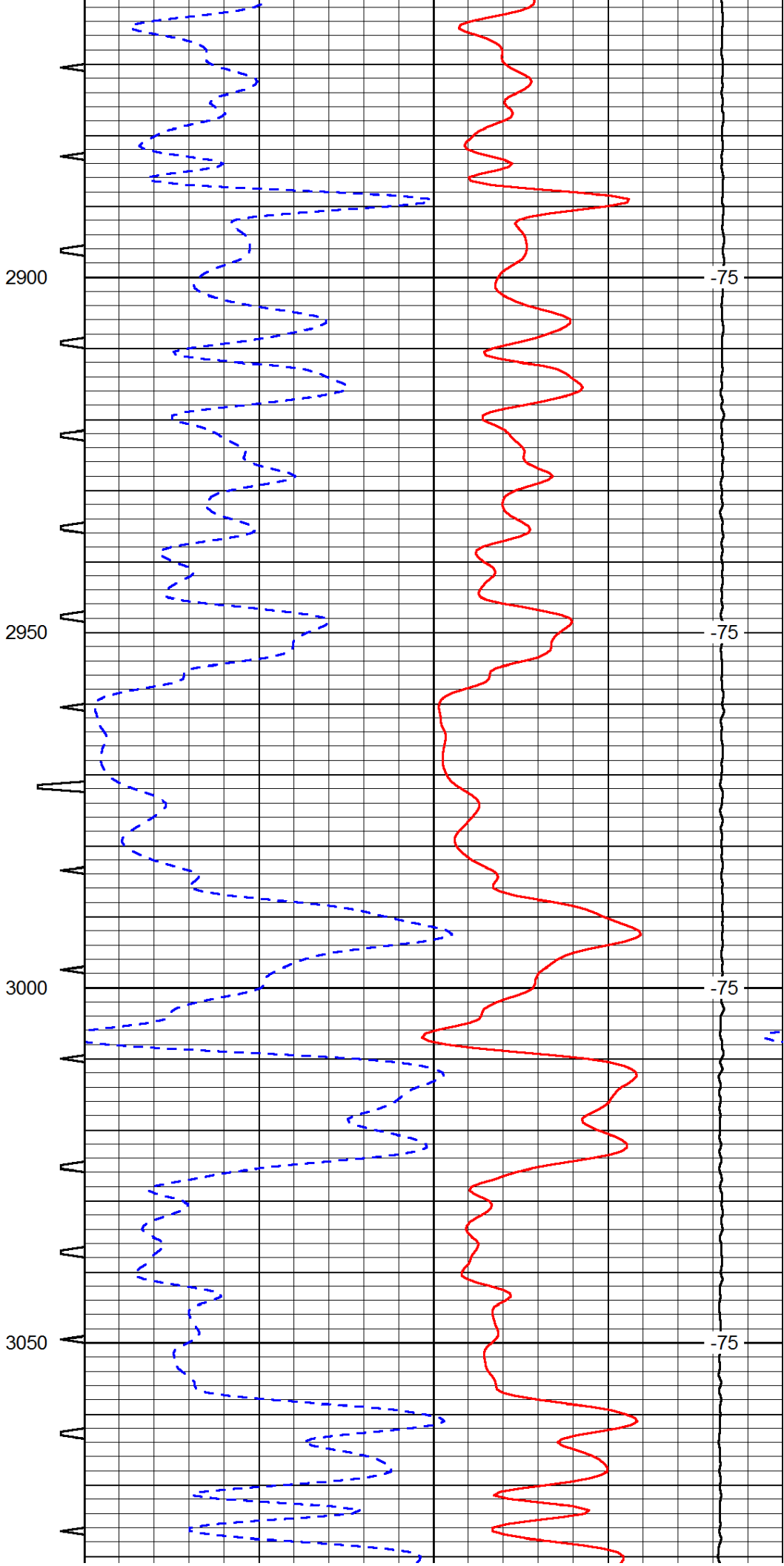
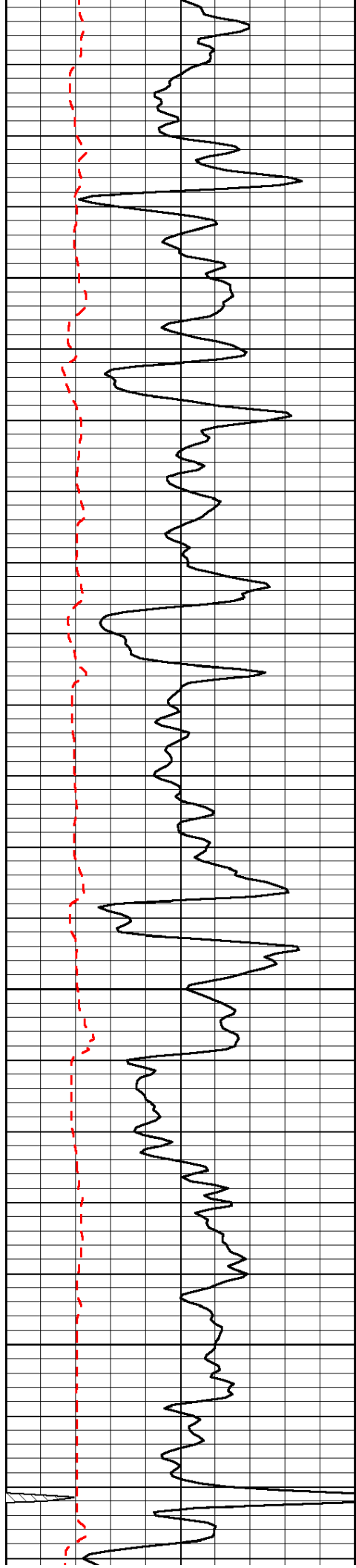


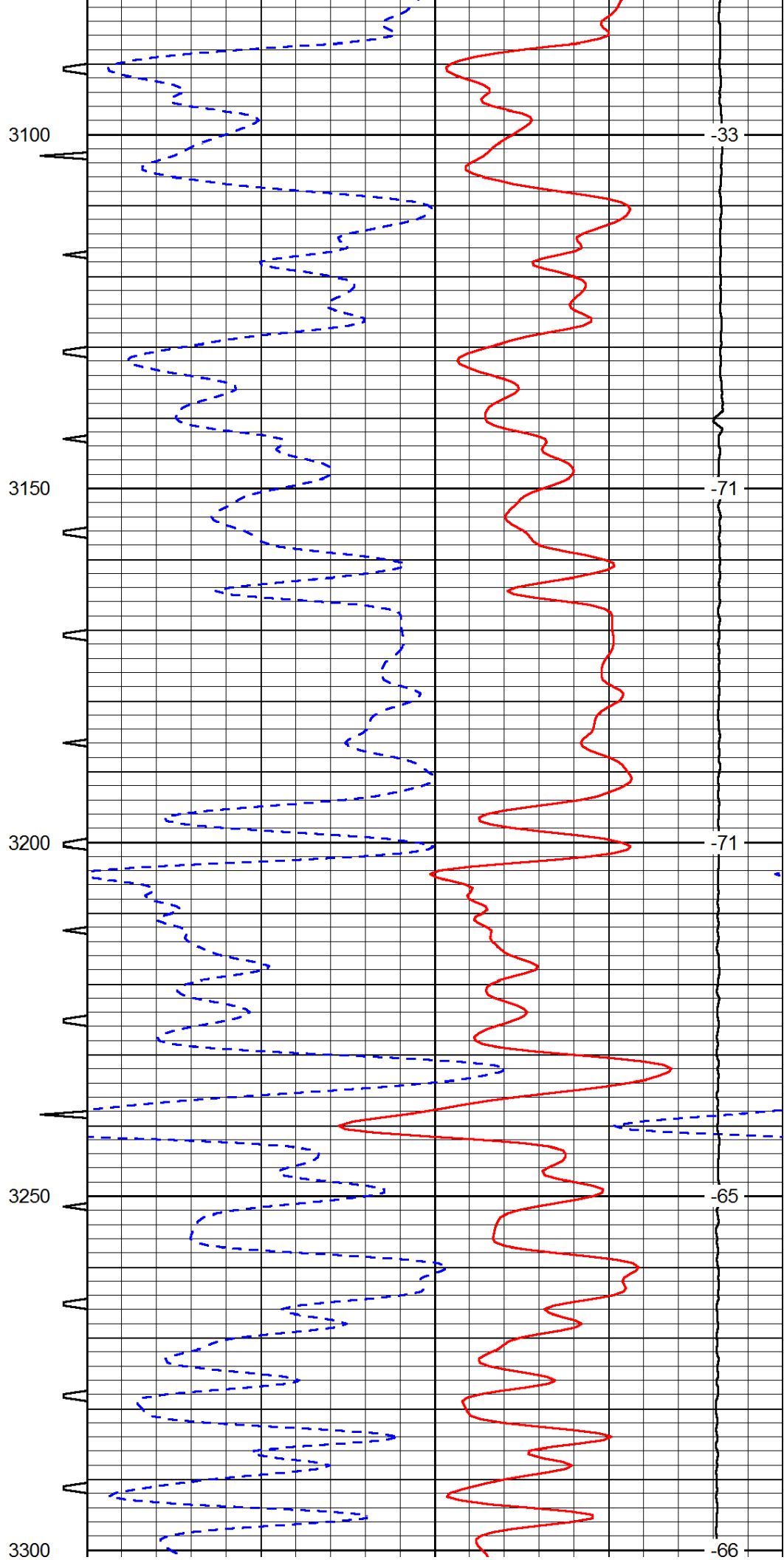
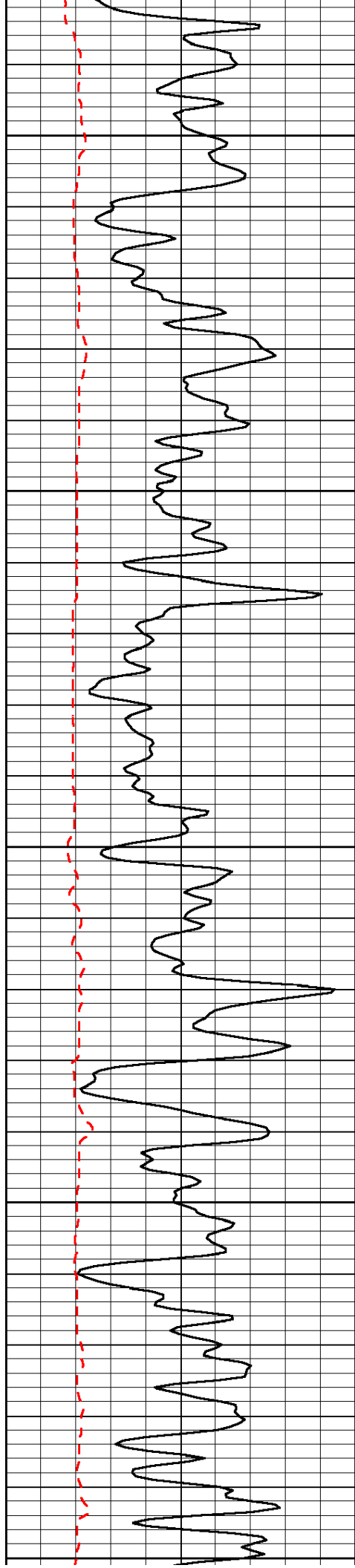


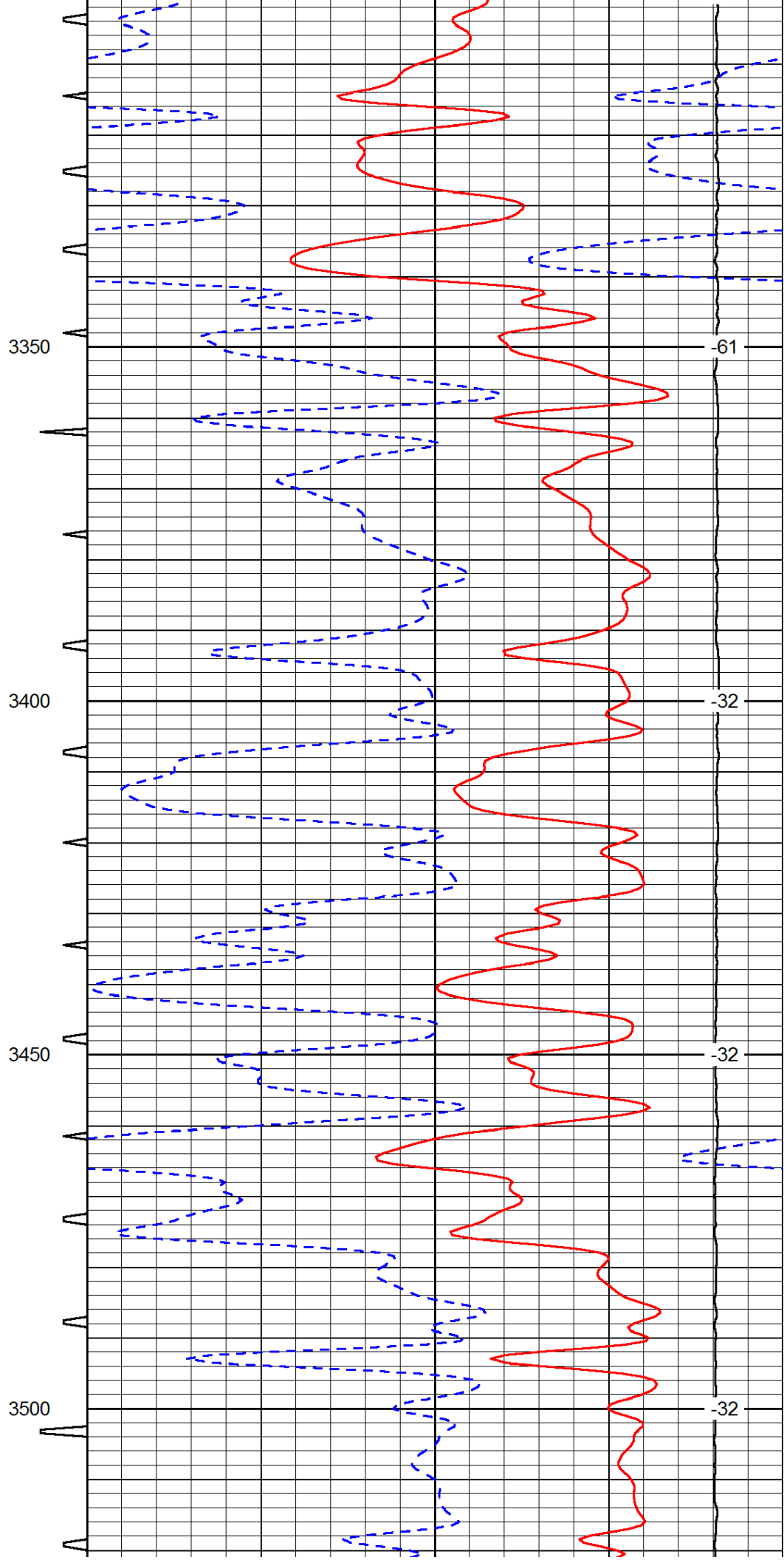
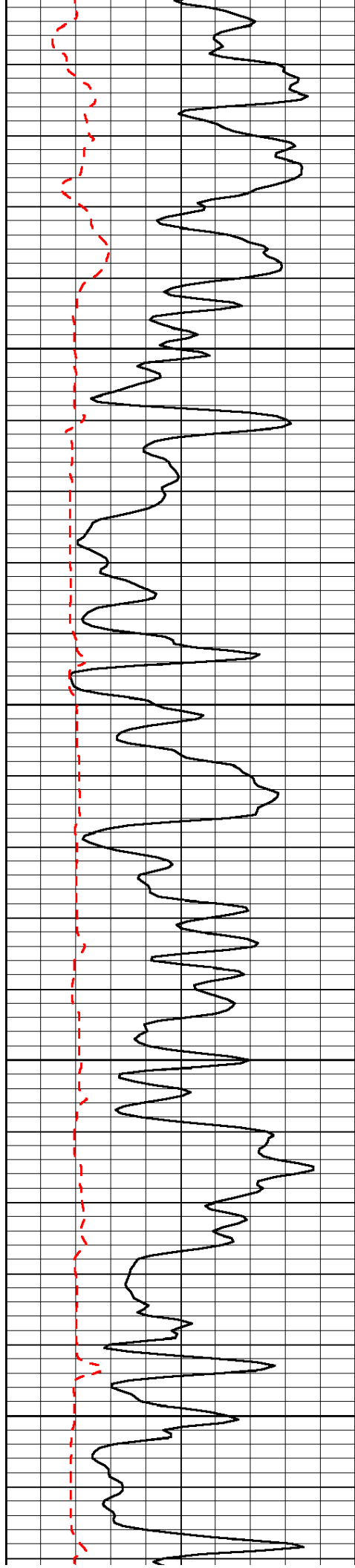


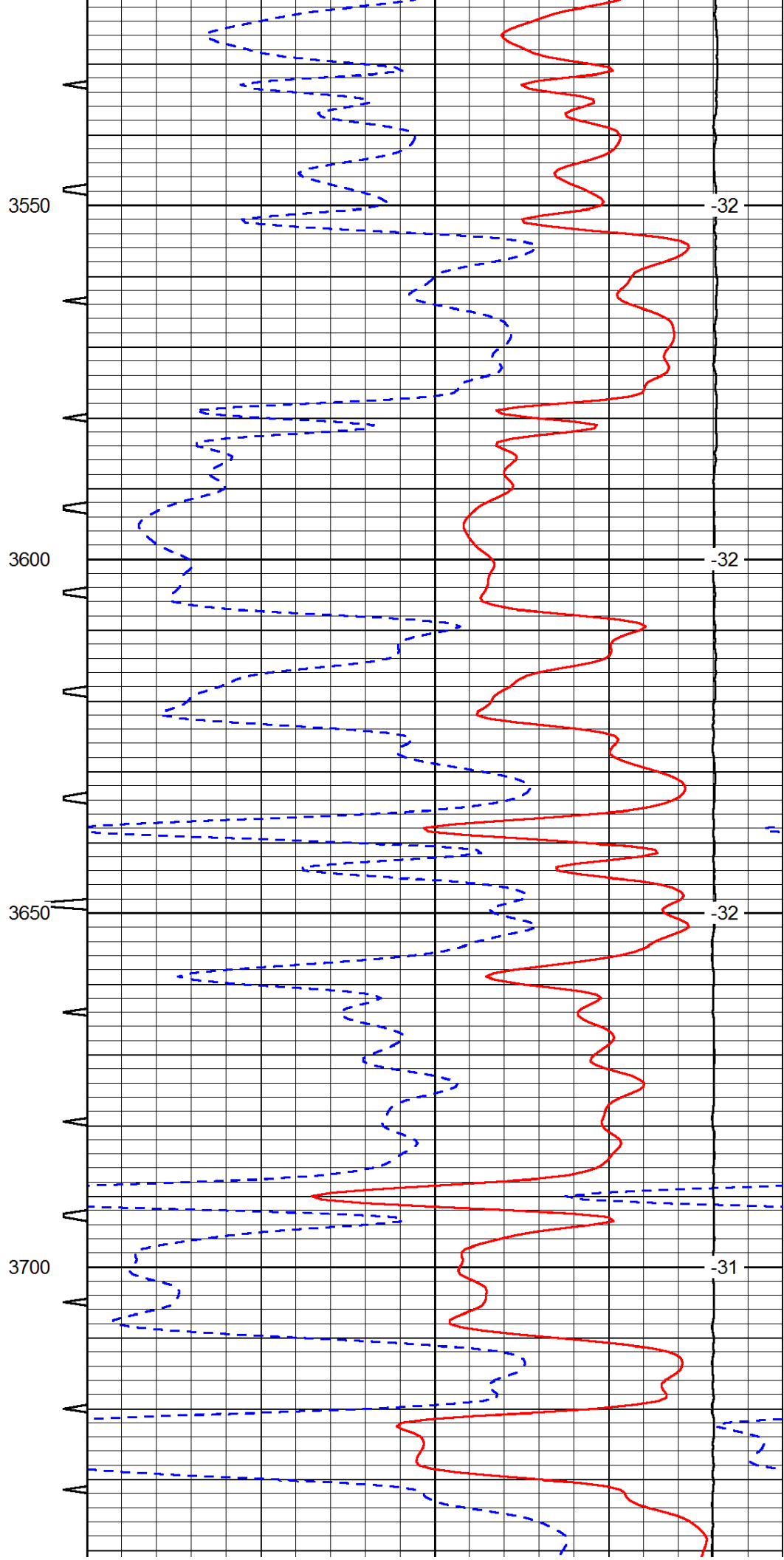
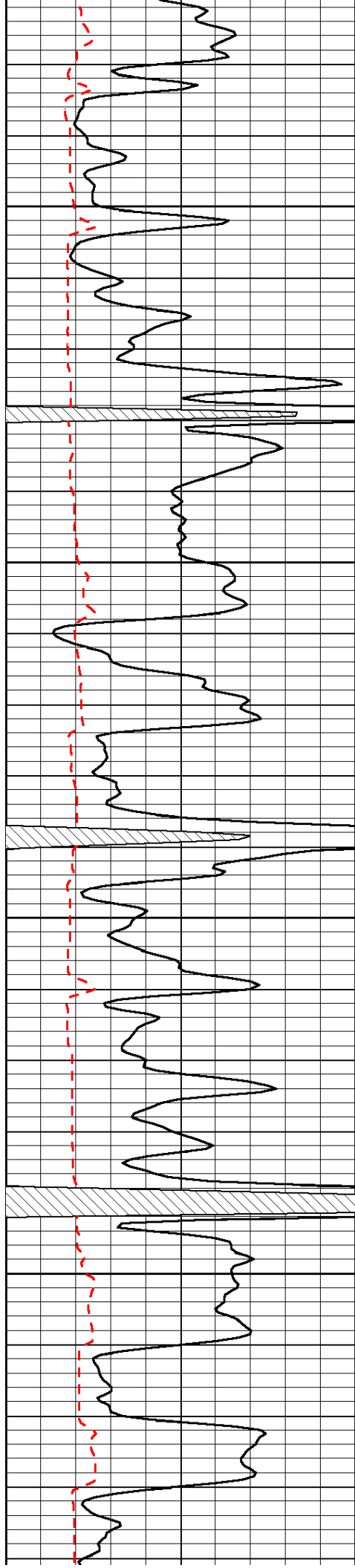


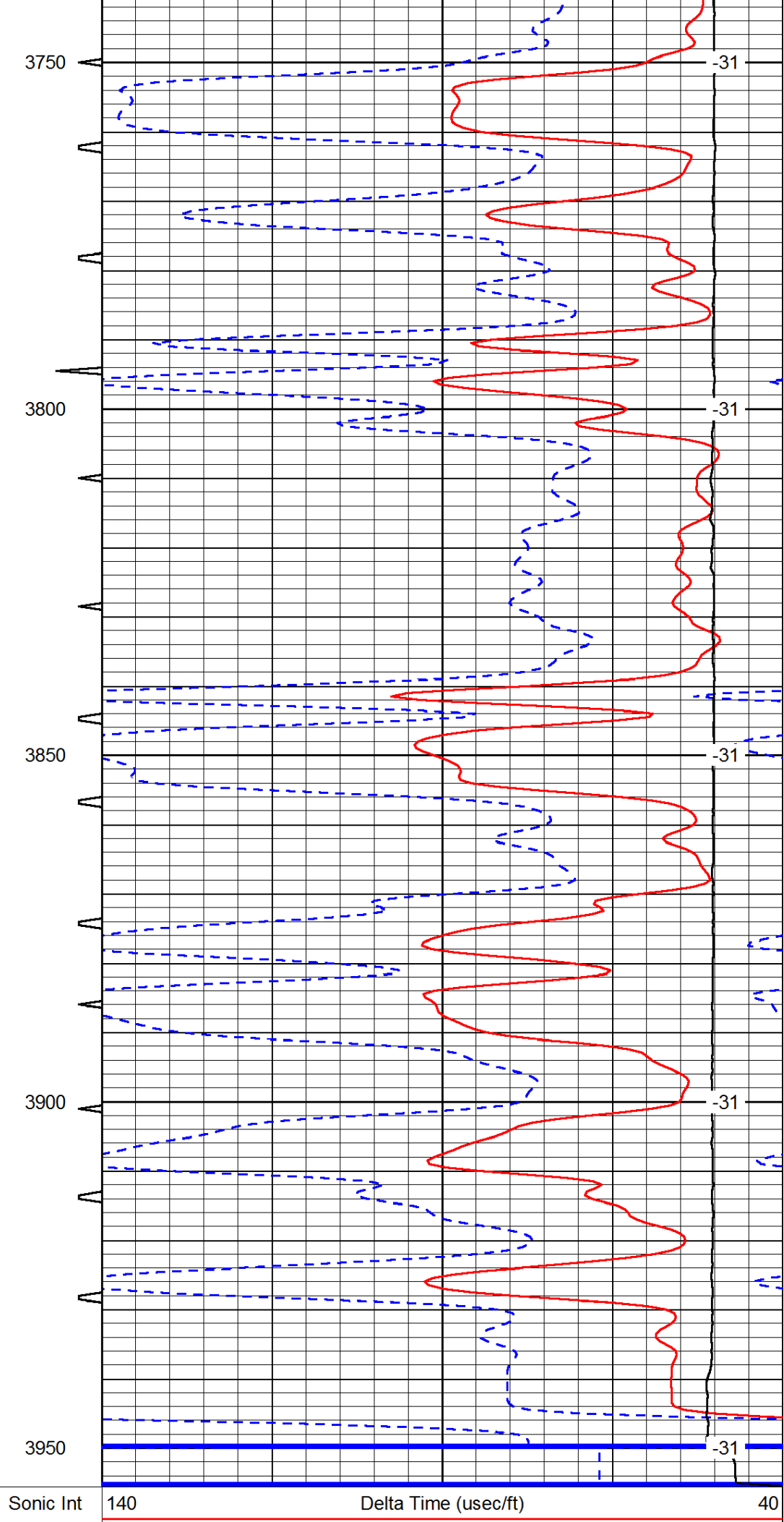
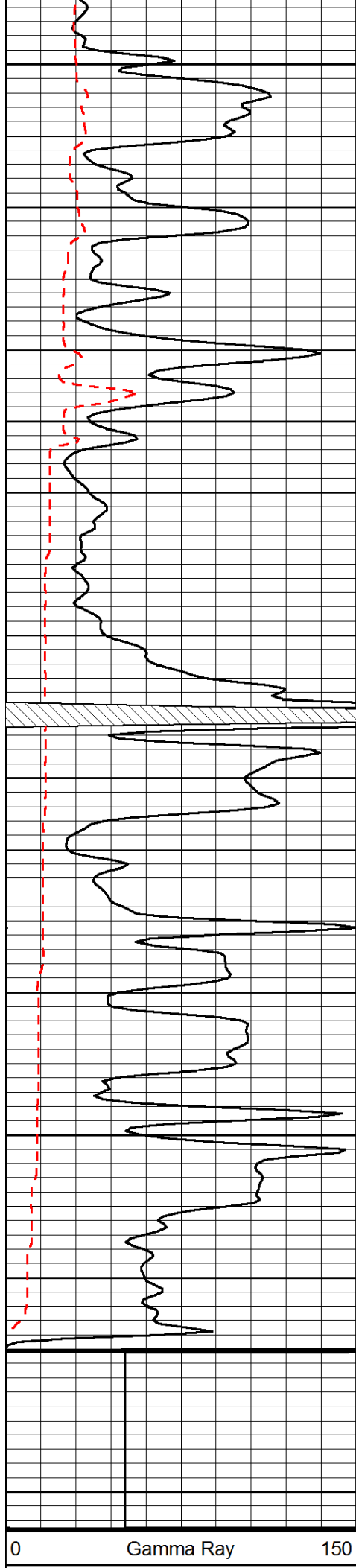












150	Gamma Ray	300	5	0	30	SPOR	-10
6	Caliper (GAPI)	16			15000	LTEN (lb)	0
						LSPD	