



Borehole Compensated Sonic Log

Pioneer Energy Services

API No.

15-055-22,275-00-00

Company American Warrior, Inc.

Well Neeley No. 9-33

Field Congdon

County Finney

State Kansas

Location

SW-NE-NW-NE
346' FNL & 1662' FEL

Other Services
CNL/CDL
MEL/DIL

Sec: 33

Twp: 23S

Rge: 32W

Elevation

Permanent Datum Ground Level Elevation 2831
Log Measured From Kelly Bushing 11 Ft. Above Perm. Datum
Drilling Measured From Kelly Bushing

K.B. 2842
D.F. 2831
G.L. 2831

Date

2/24/14

Run Number

Two

Type Log

BHC Sonic

Depth Driller

4850

Depth Logger

4845

Bottom Logged Interval

4834

Top Logged Interval

1700

Type Fluid In Hole

Chemical

Salinity, PPM CL

3.500

Density

9.4

Level

Full

Max. Rec. Temp. F

125

Operating Rig Time

5 Hours

Equipment -- Location

15 Hays

Recorded By

J. Henrickson

Witnessed By

Kevin Timson

Borehole Record

Casing Record

Run No.

Bit

From

To

Size

Wgt.

From

To

One

12.25

00

1737

8.625

23#

00

1737

Two

7.875

1737

TD

<<< 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.

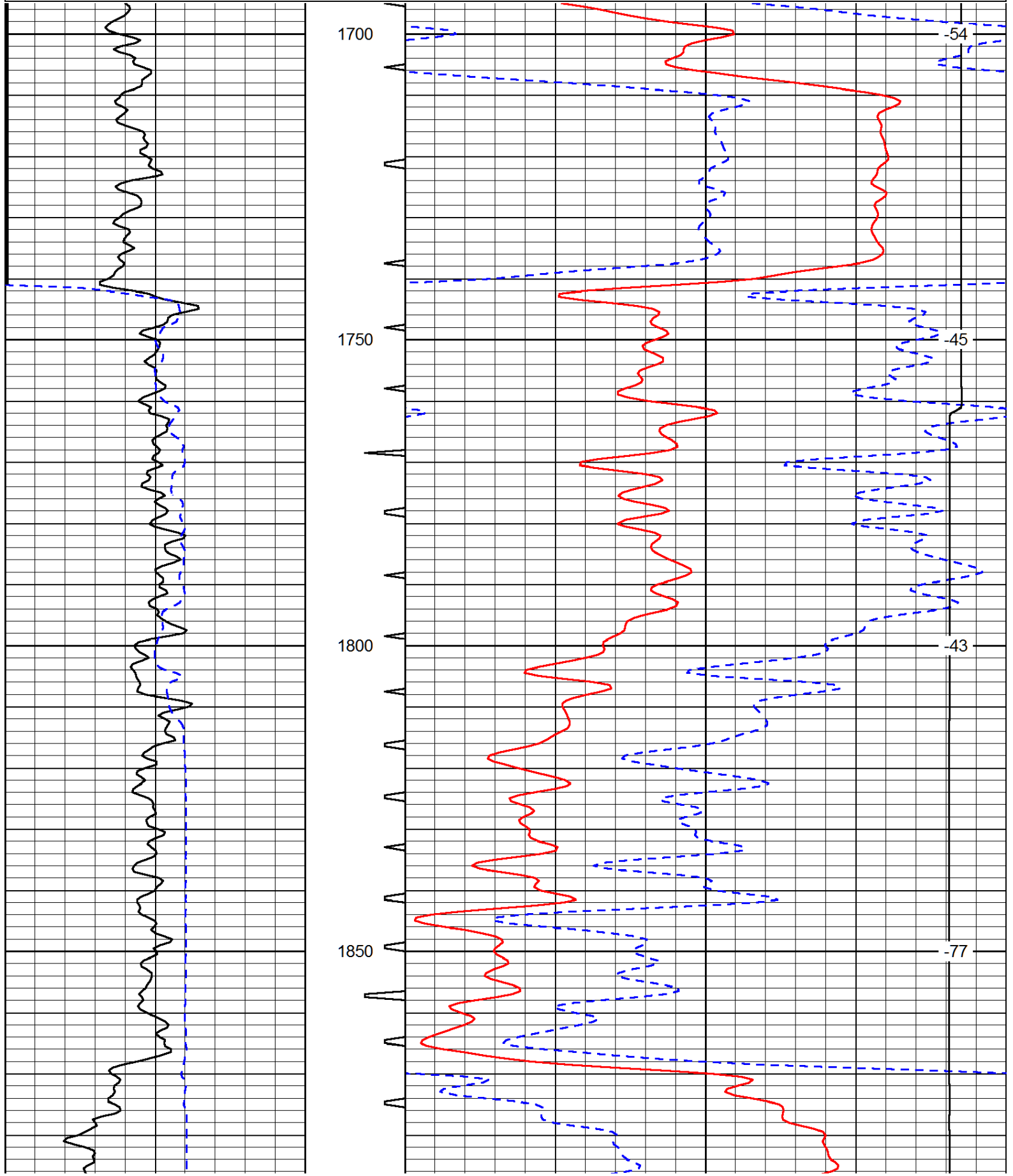
Comments

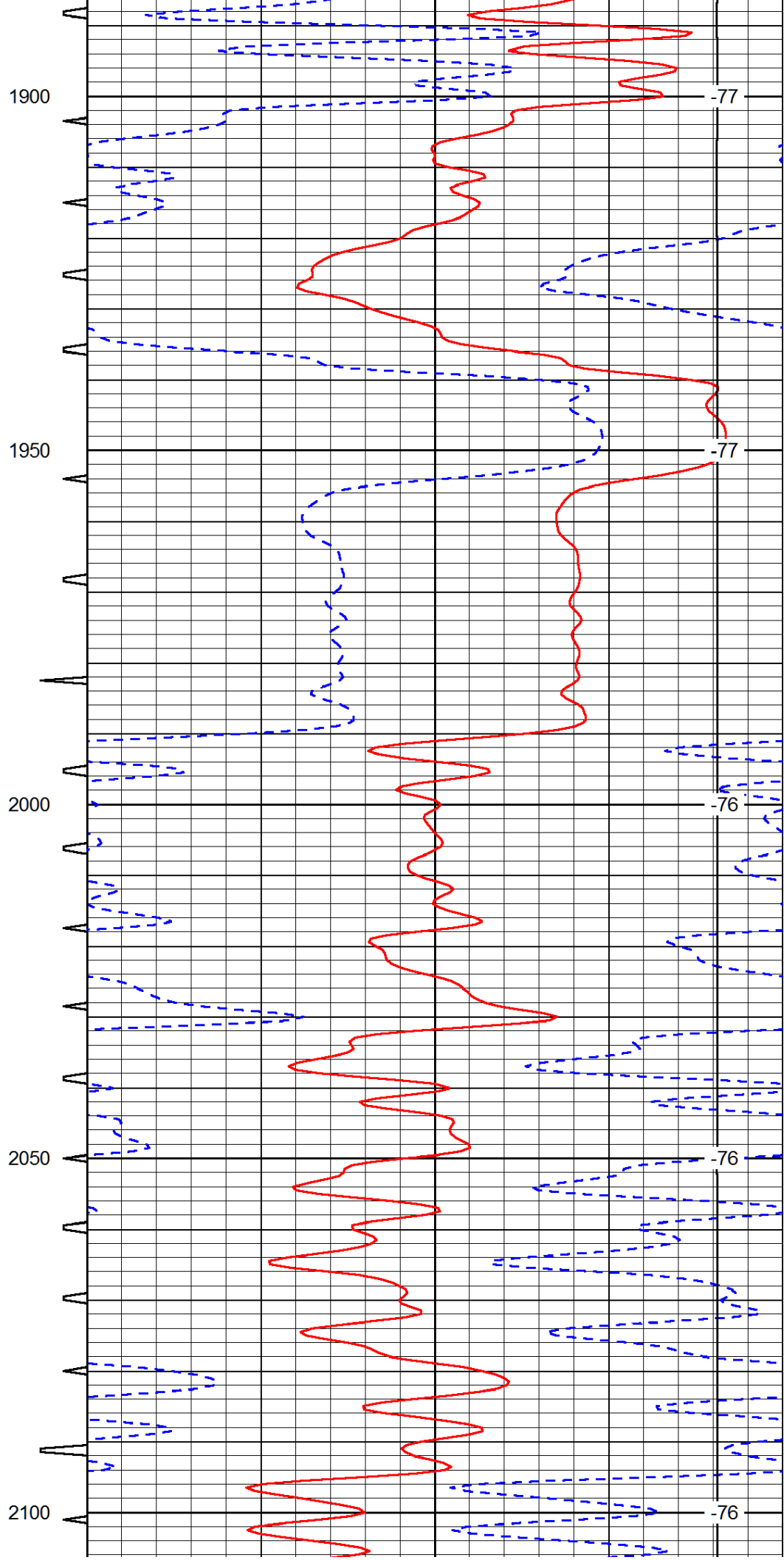
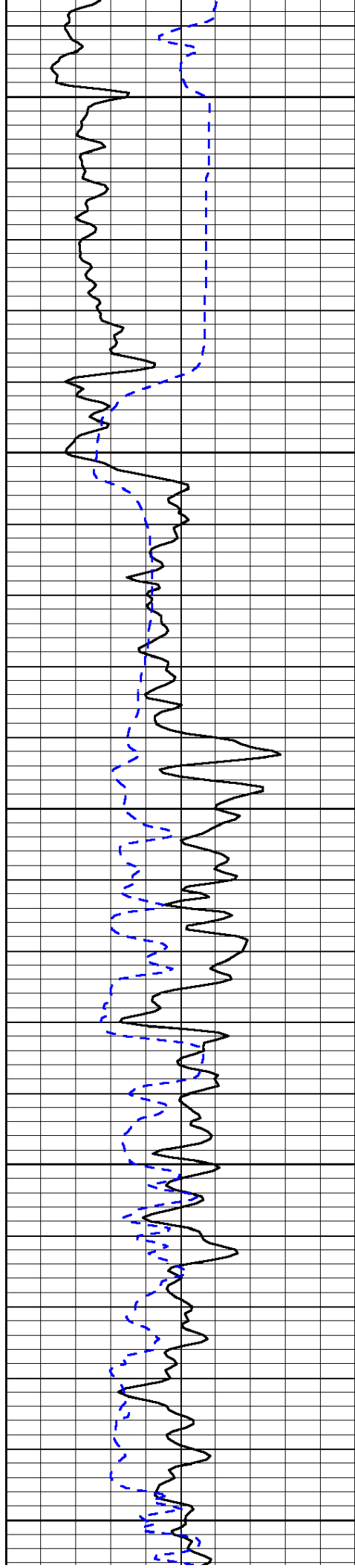
Thank you for using Log-Tech, Inc.
(785) 625-3858

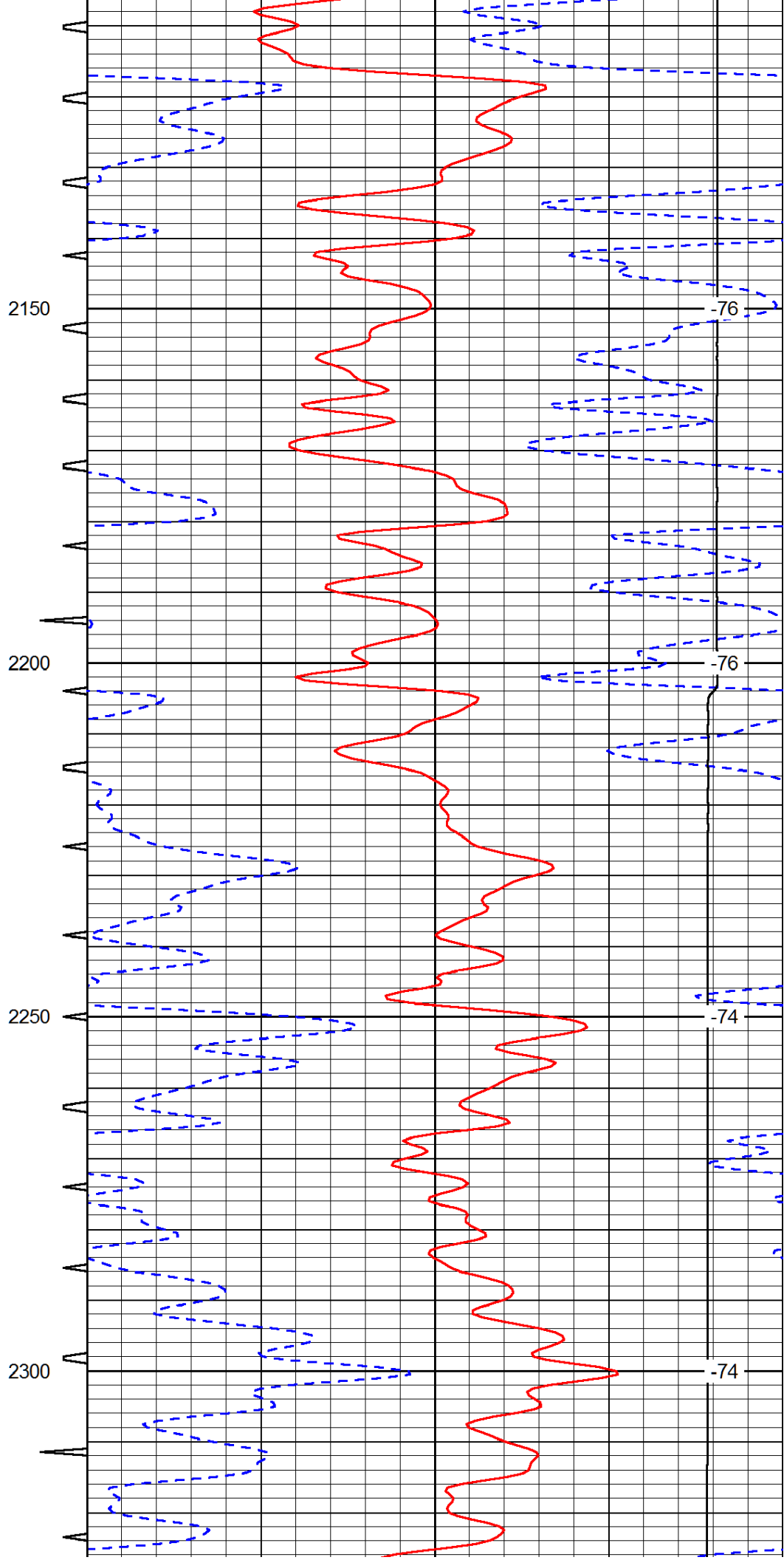
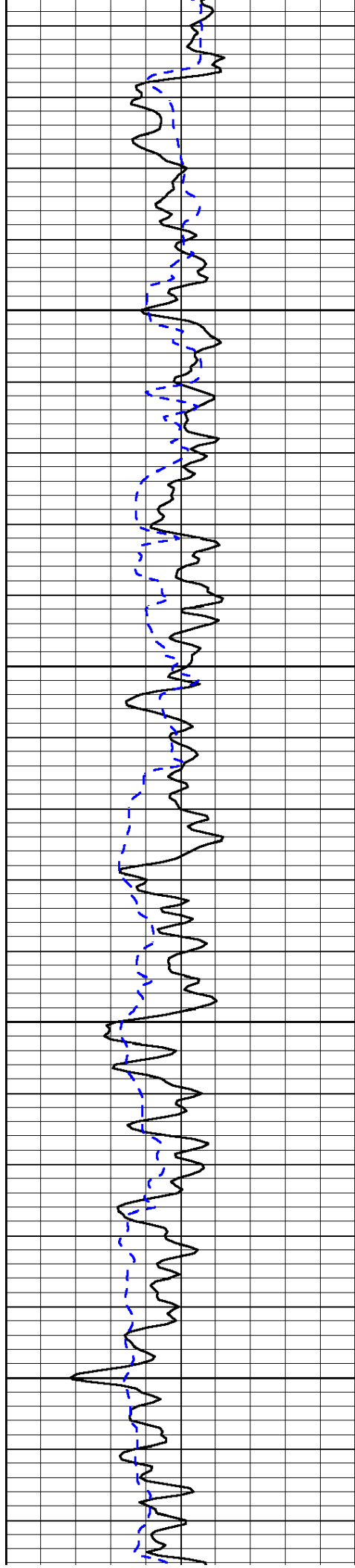
Garden City Kansas
1 North on HWY 83 to Rodkey Rd, 2 3/4 East, South Into

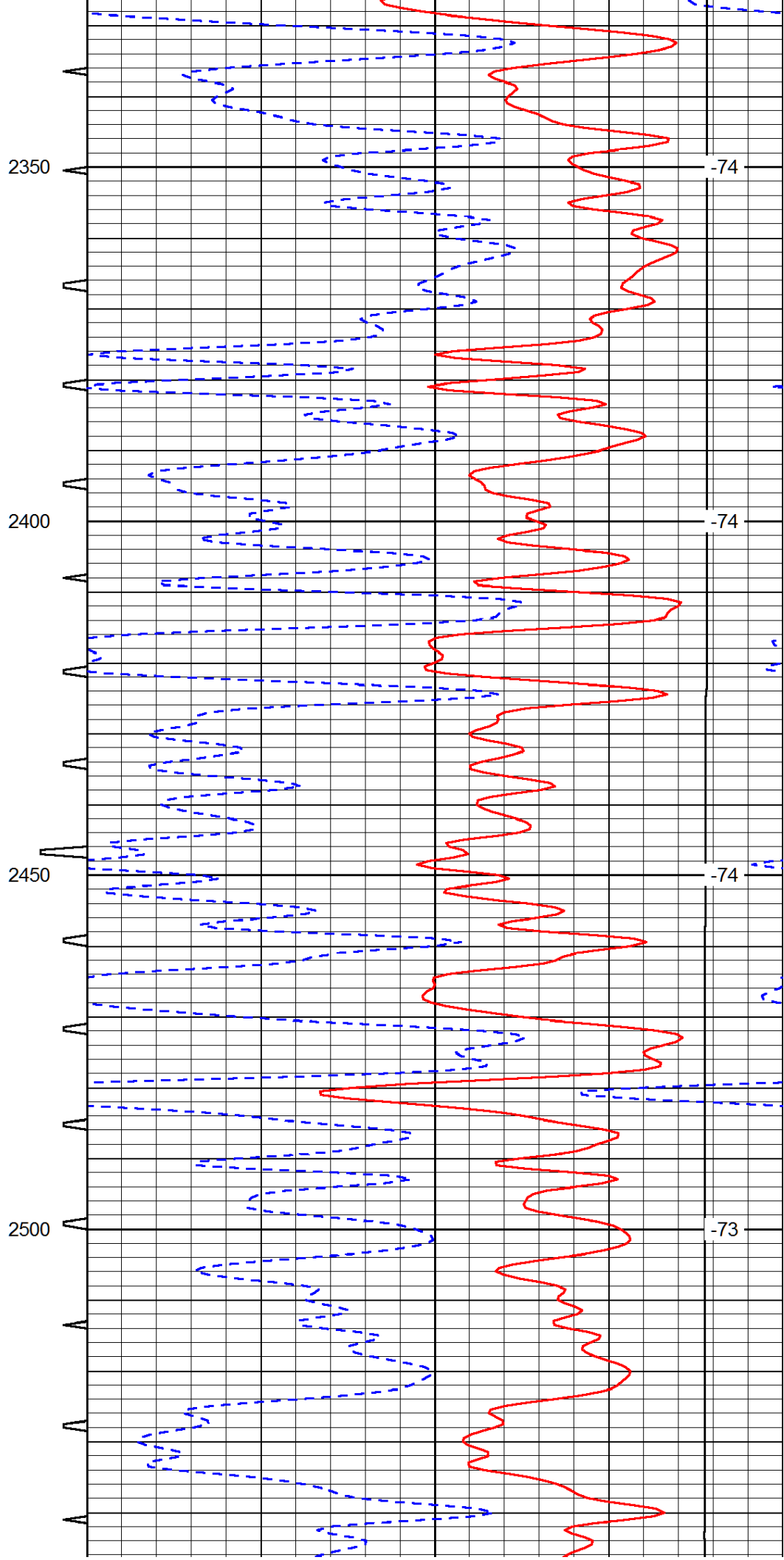
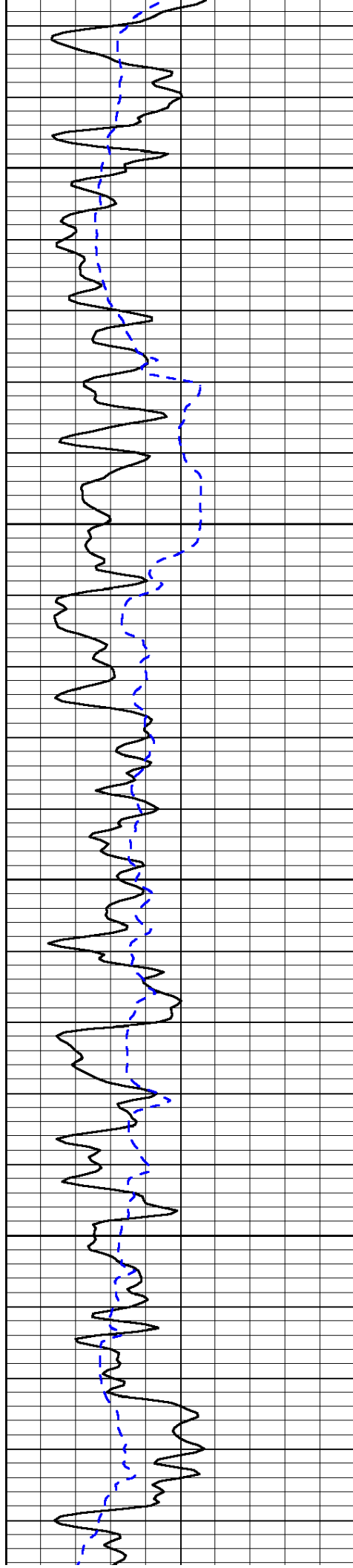
Database File: american_warrior_neeley_9_33hd.db
Dataset Pathname: DIL/awstk
Presentation Format: sonic
Dataset Creation: Mon Feb 24 06:50:03 2014
Charted by: Depth in Feet scaled 1:240

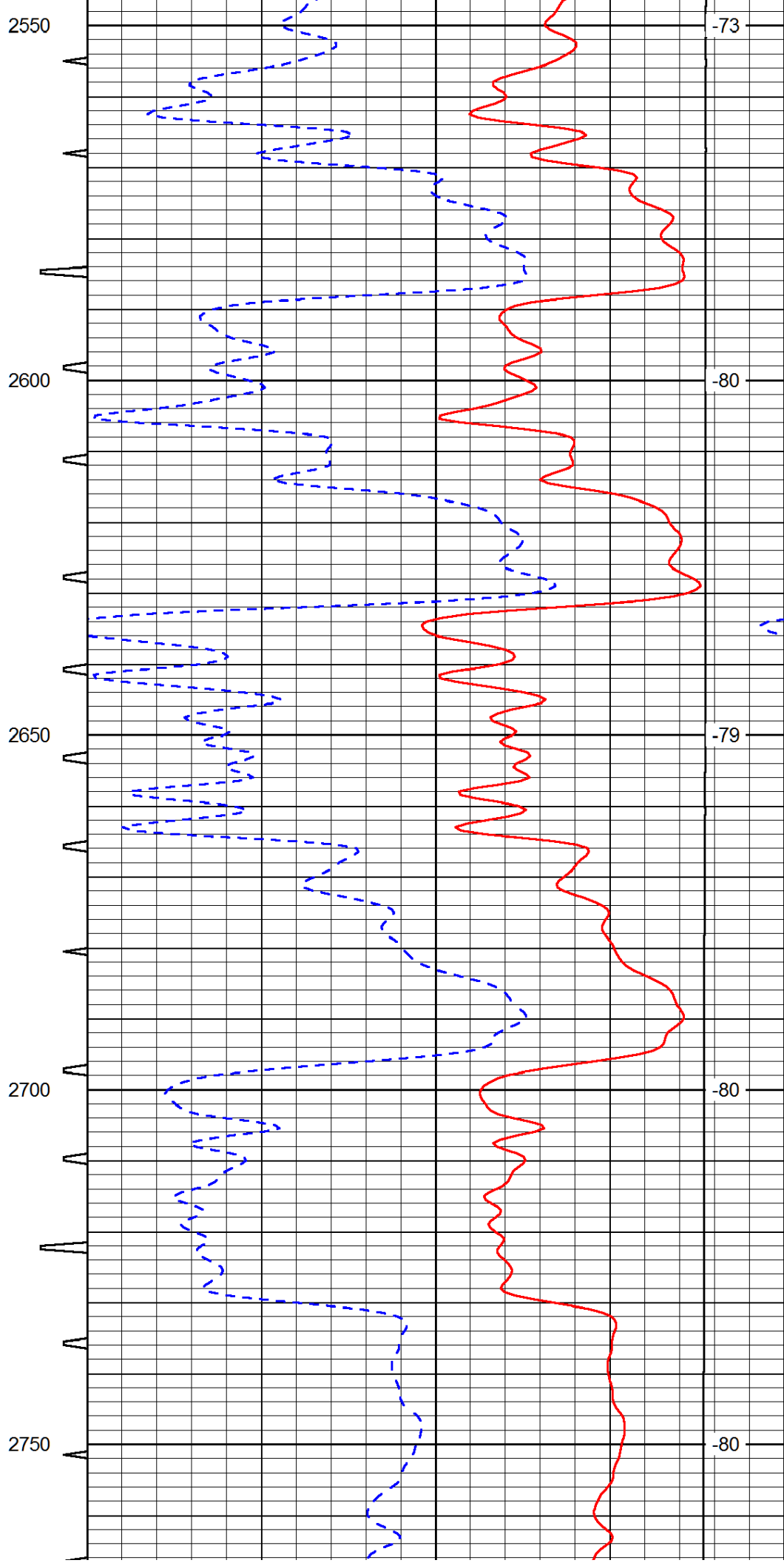
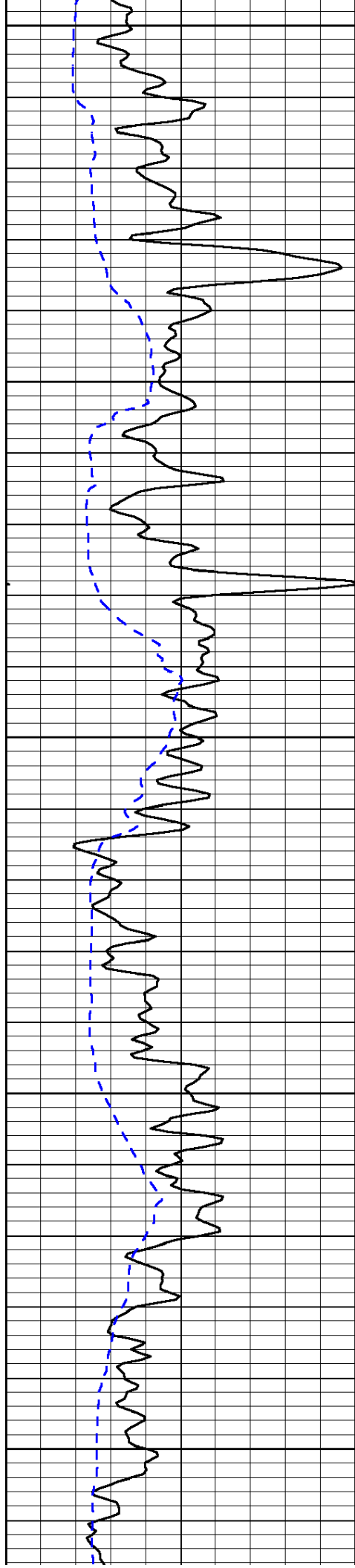
0	Gamma Ray (GAPI)	150	Sonic Int	140	Delta Time (usec/ft) (usec/ft)	40
150	Gamma Ray (GAPI)	300	5 (msec) 0	30	Sonic Porosity (pu)	-10
6	dCAL (in)	16		15000	LTEN (lb) (lb)	0
						LSPD (ft/min)

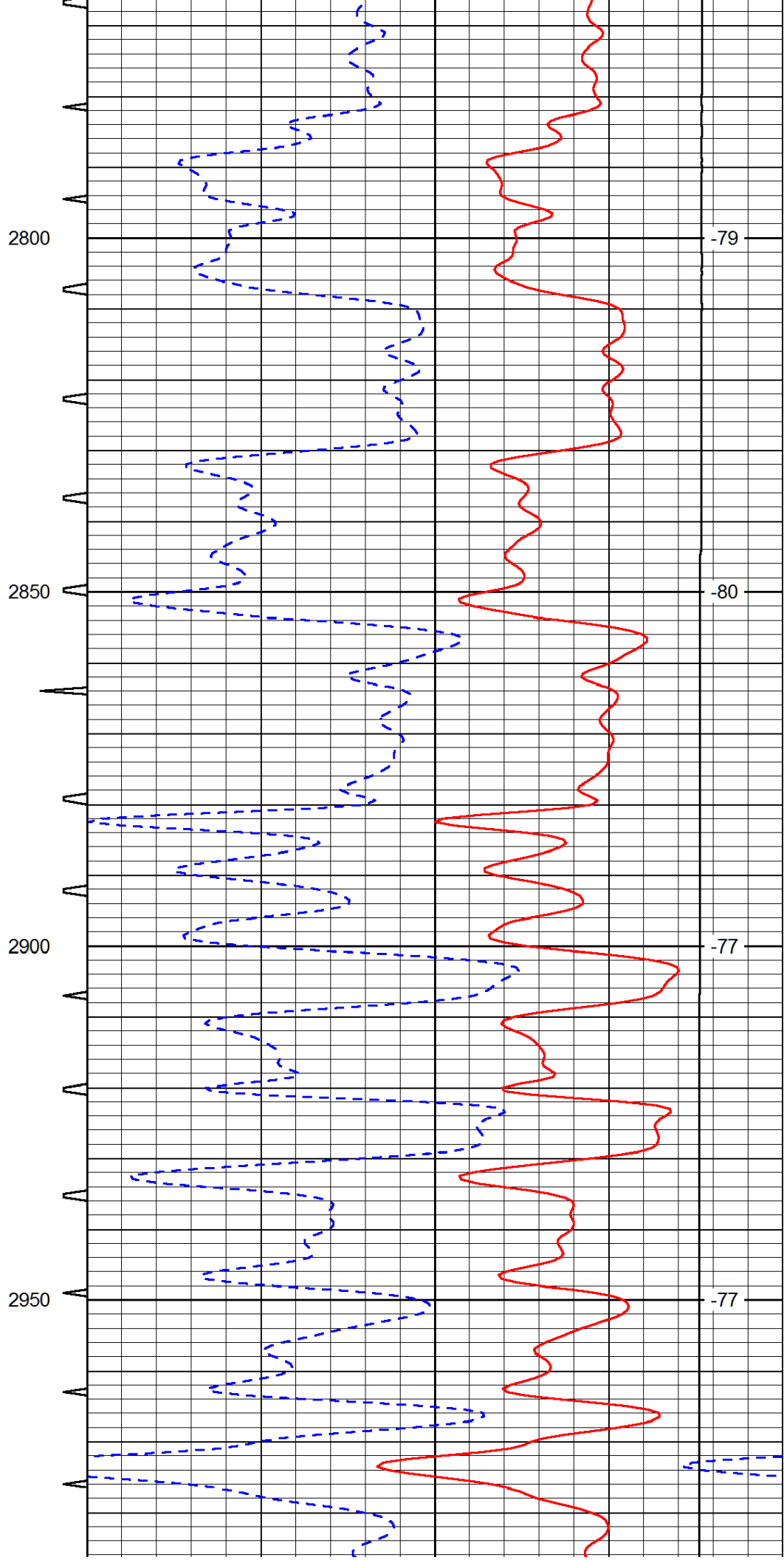
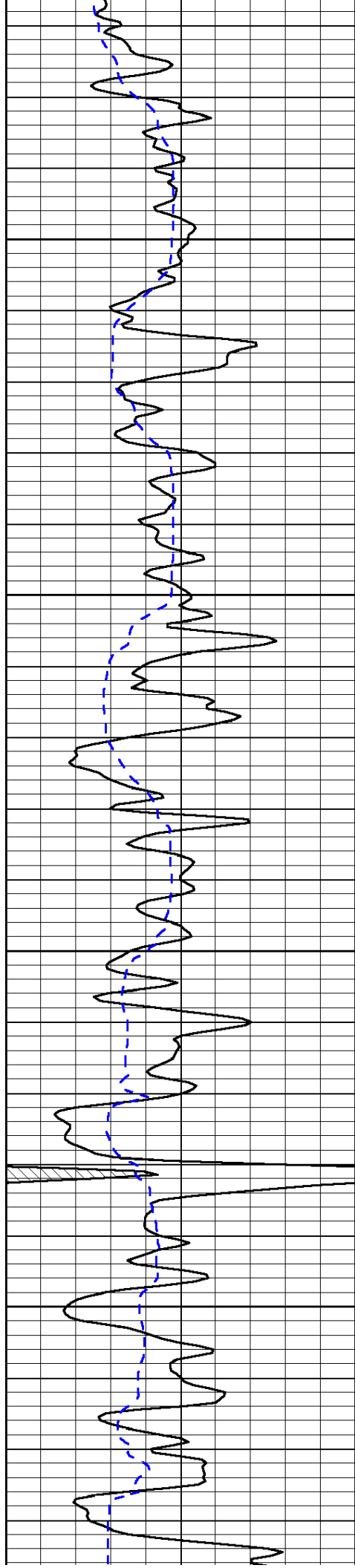


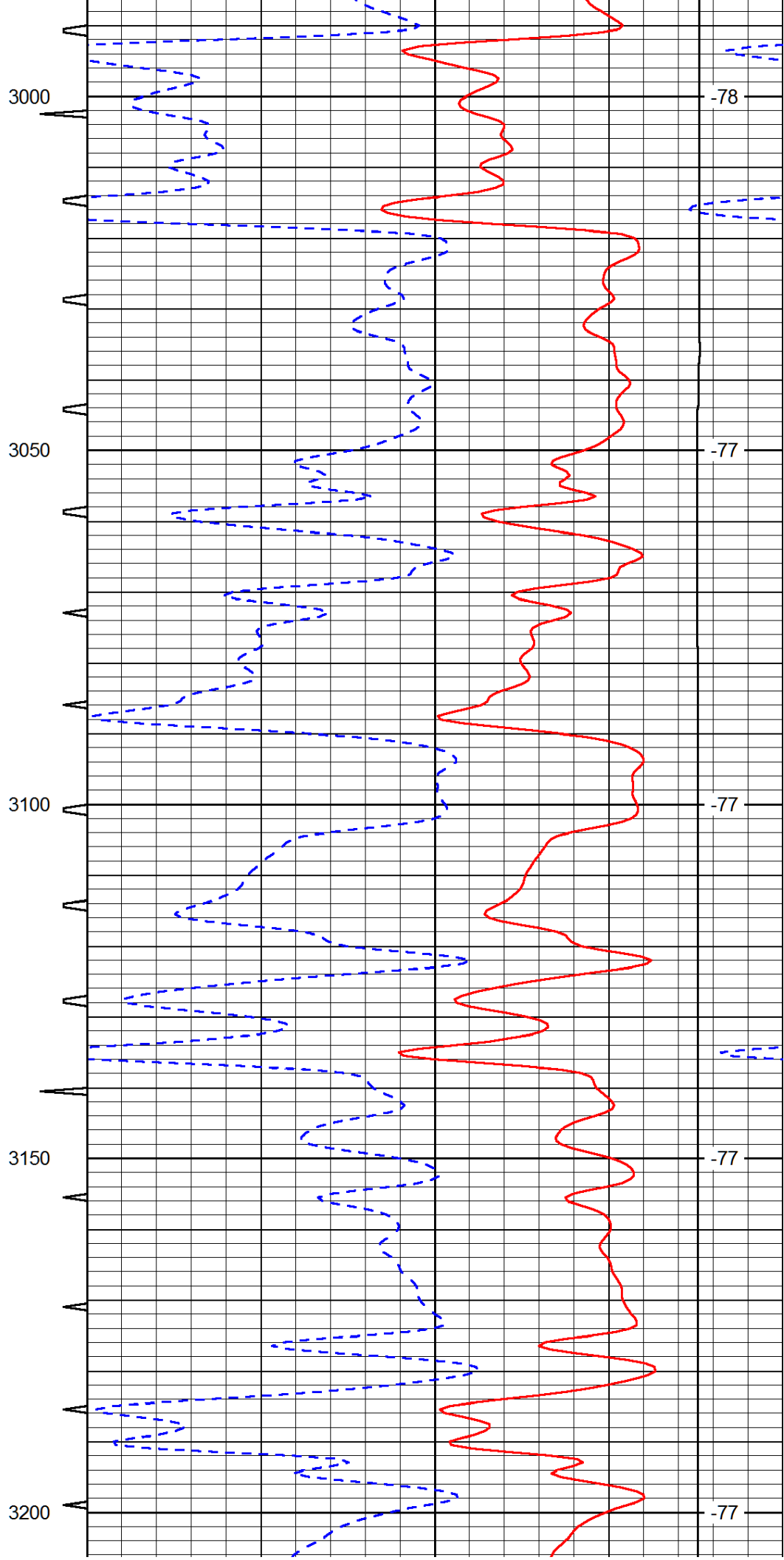
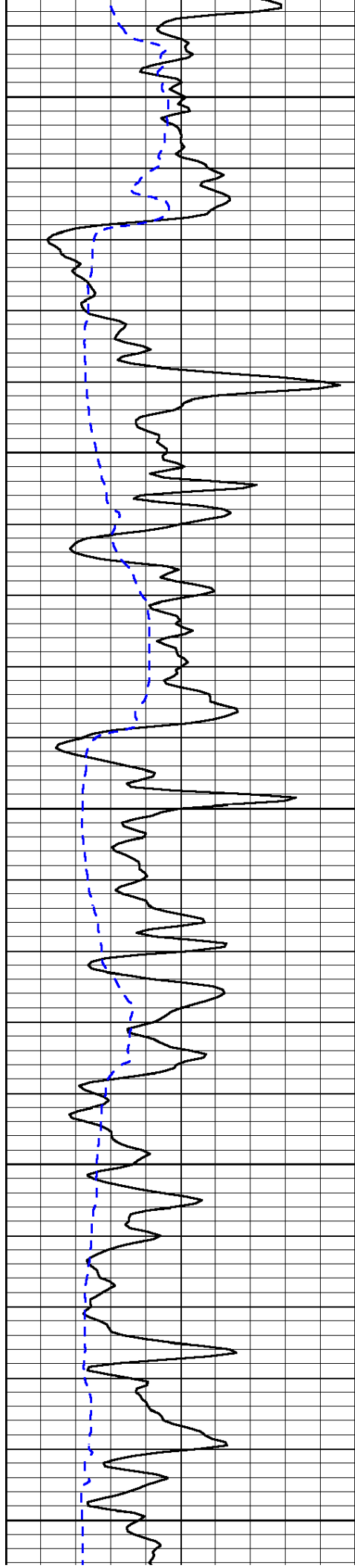


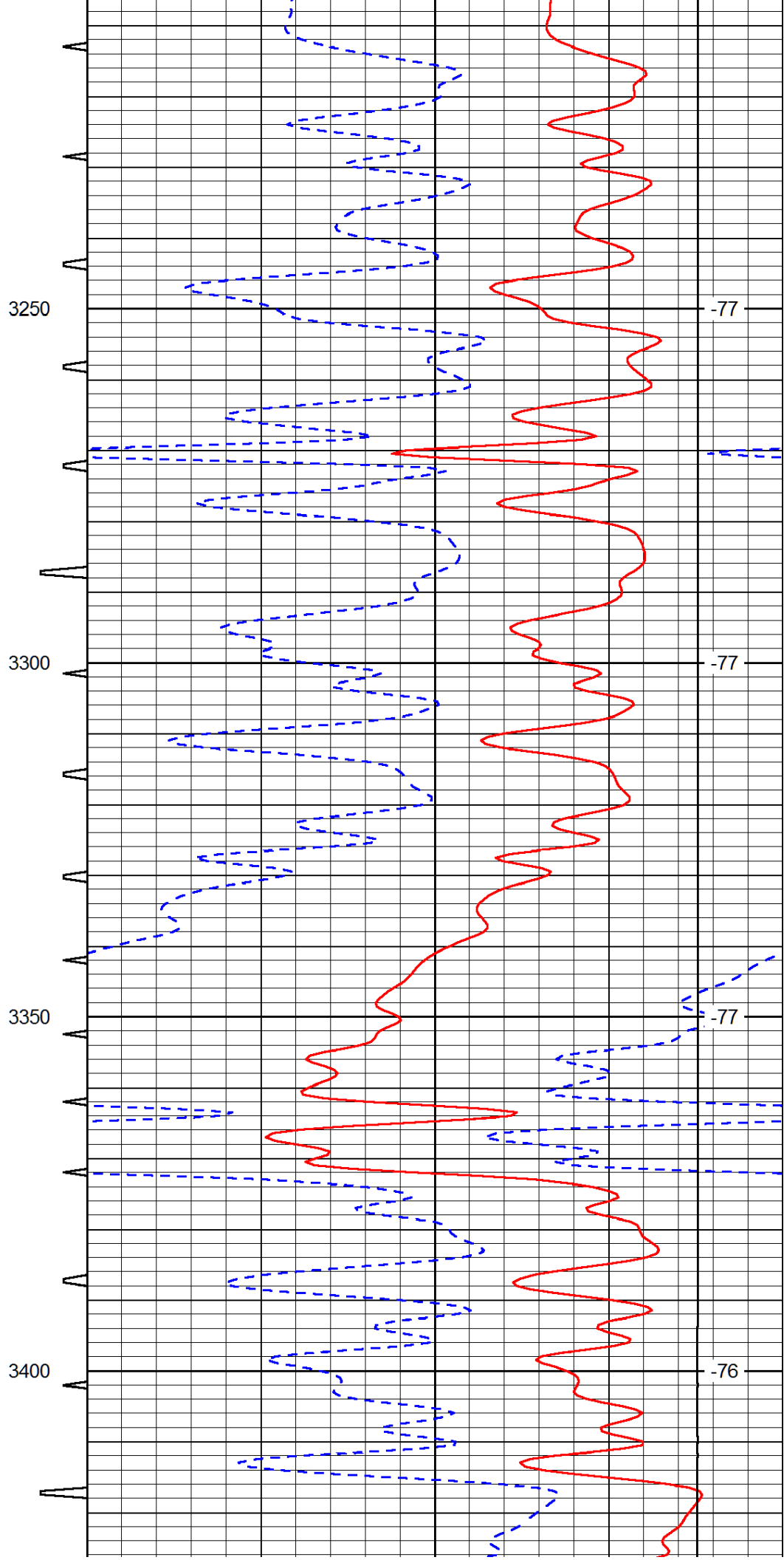
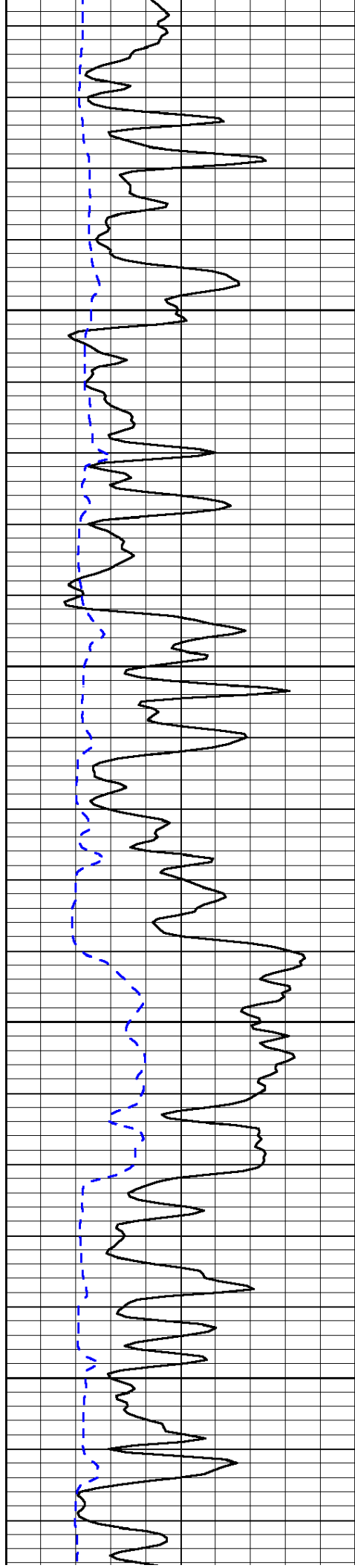


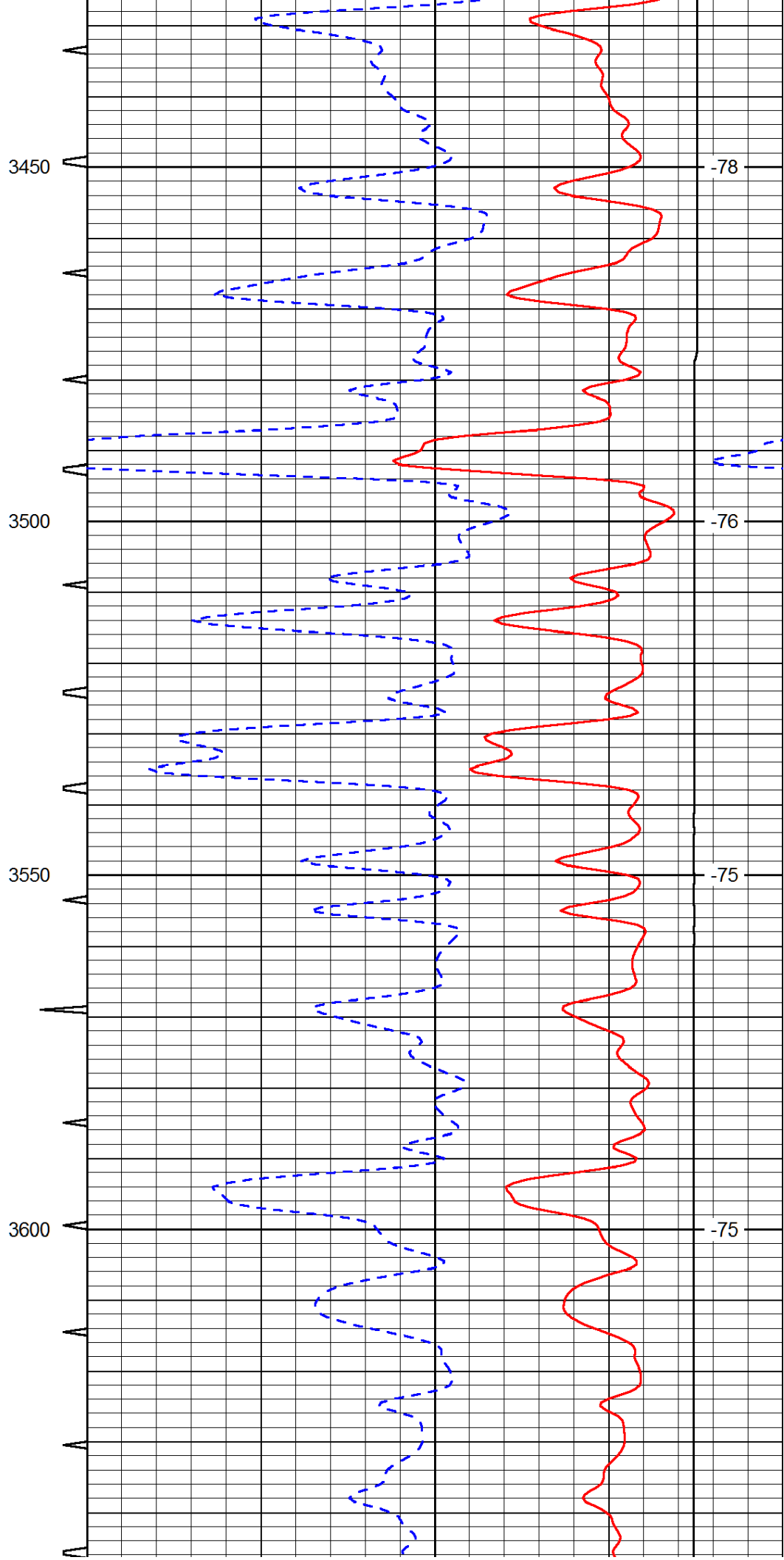
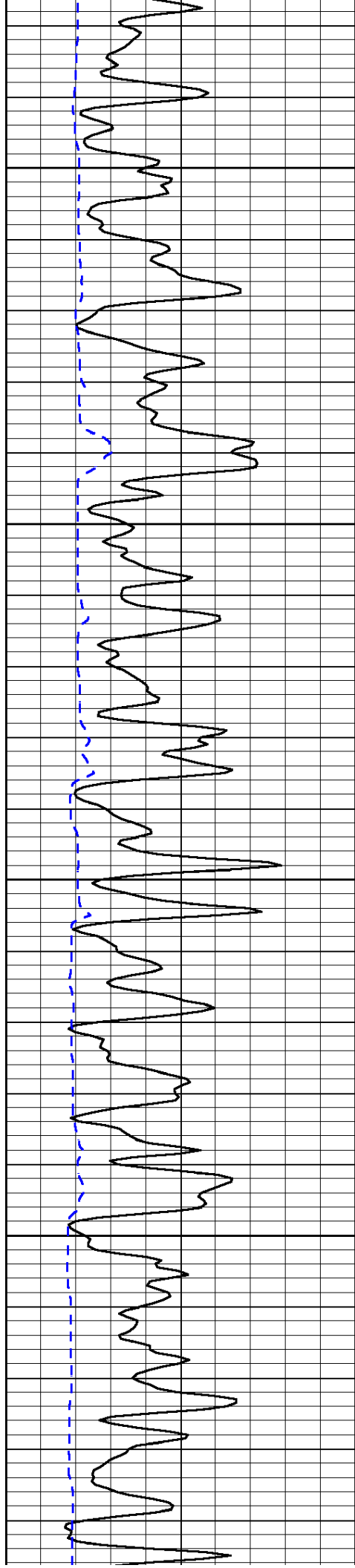


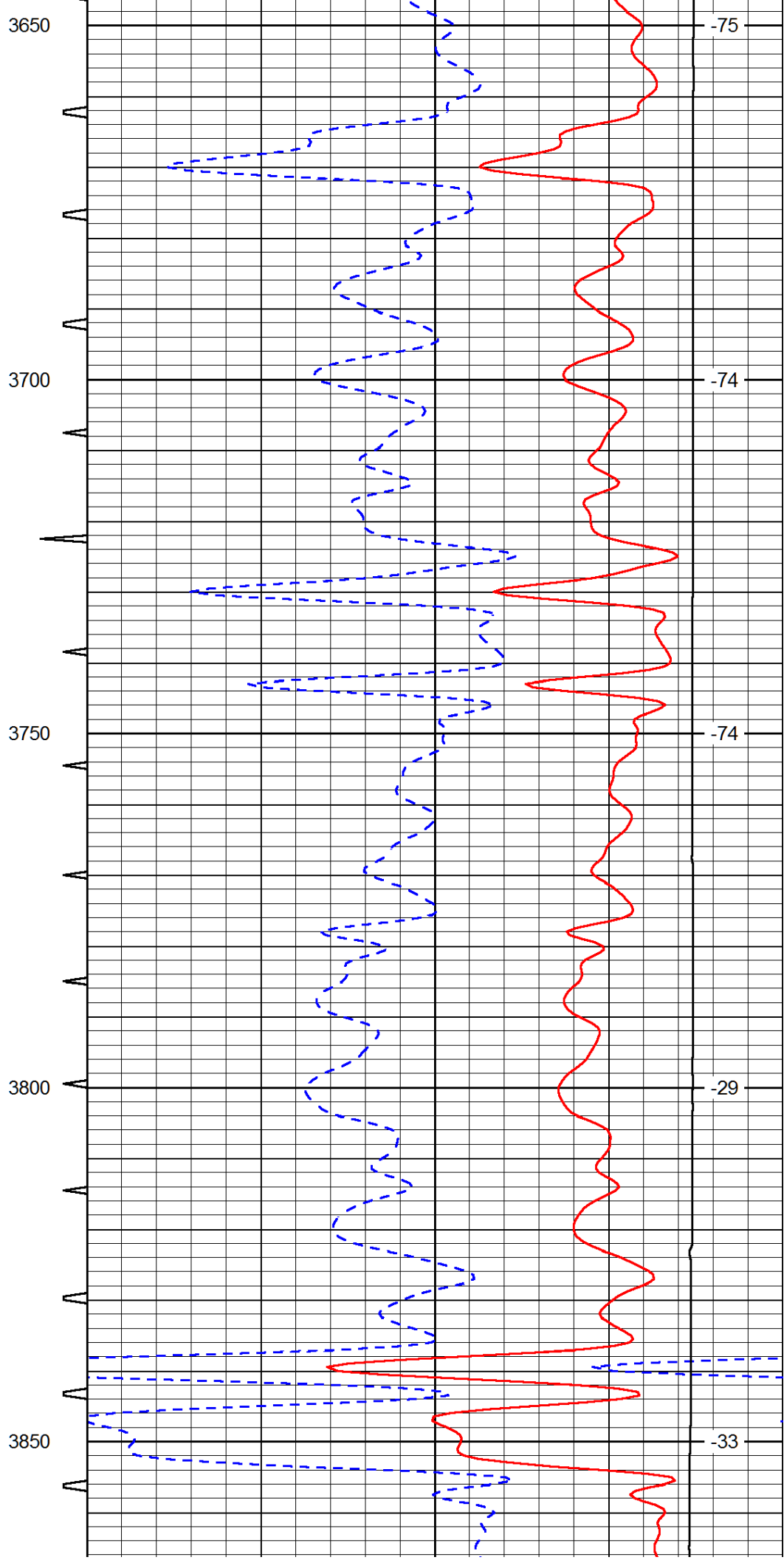
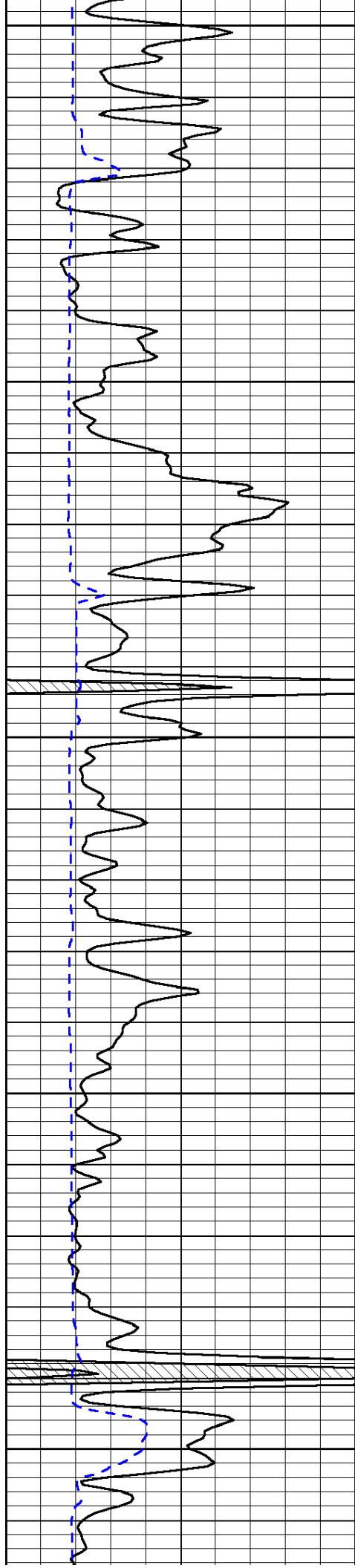


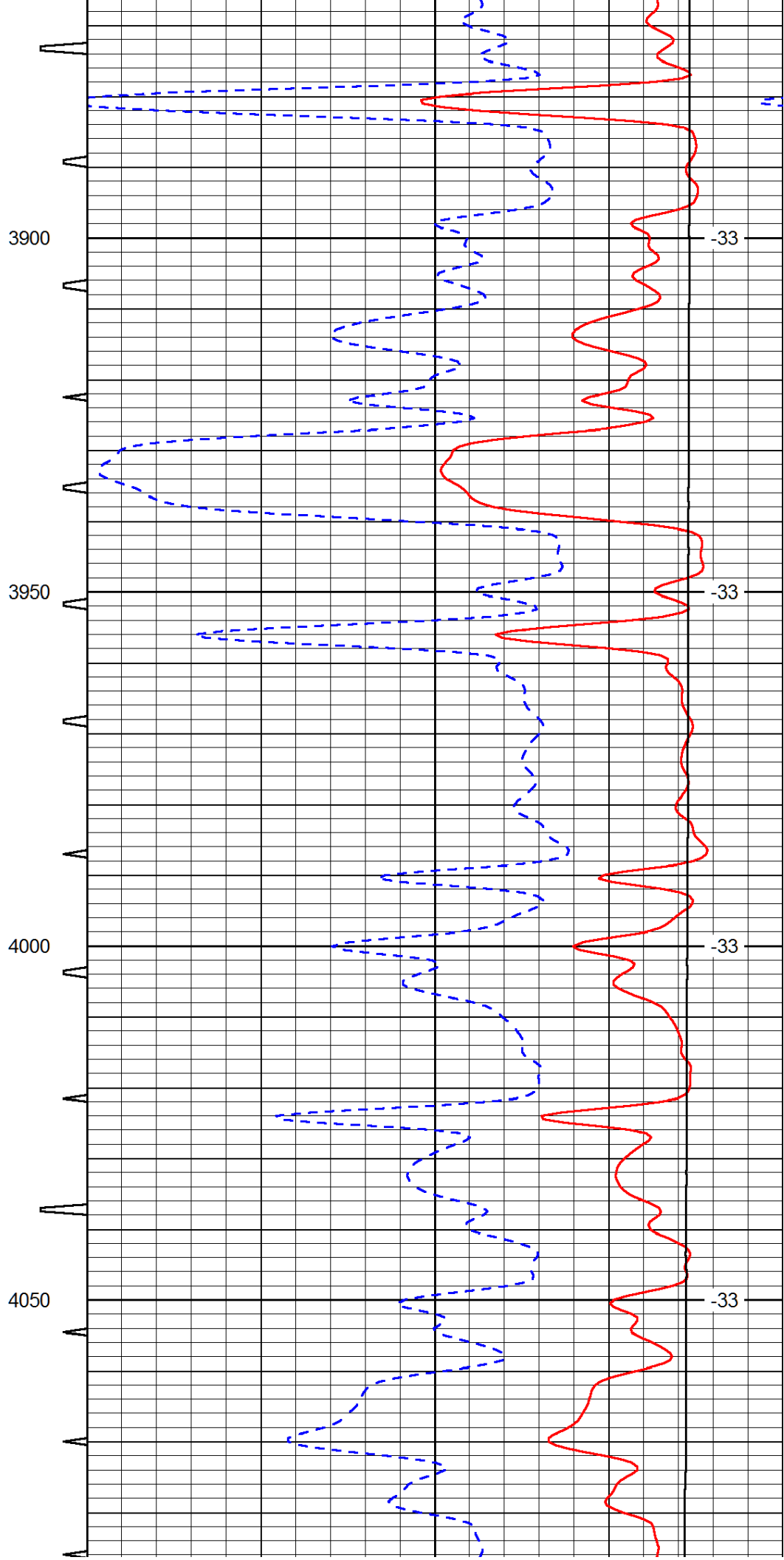
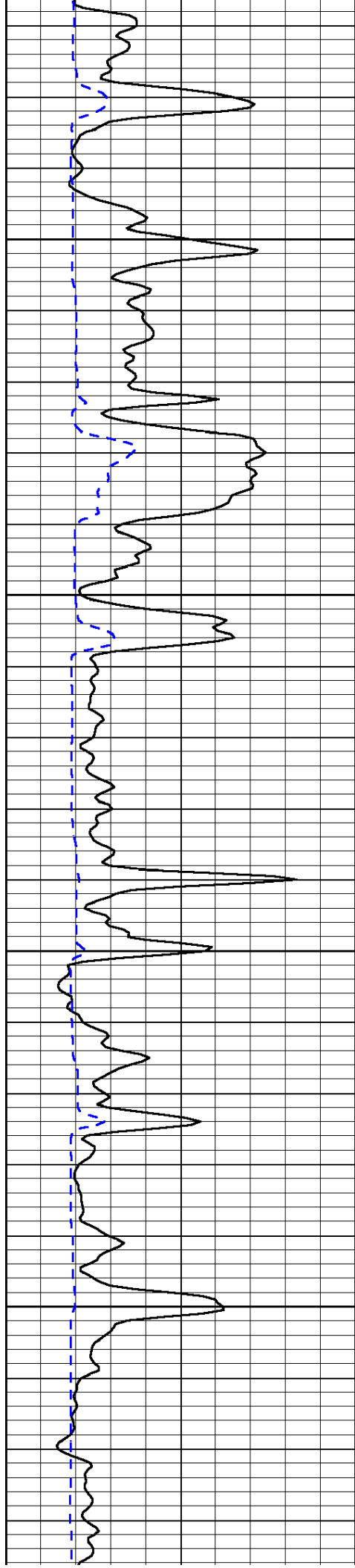


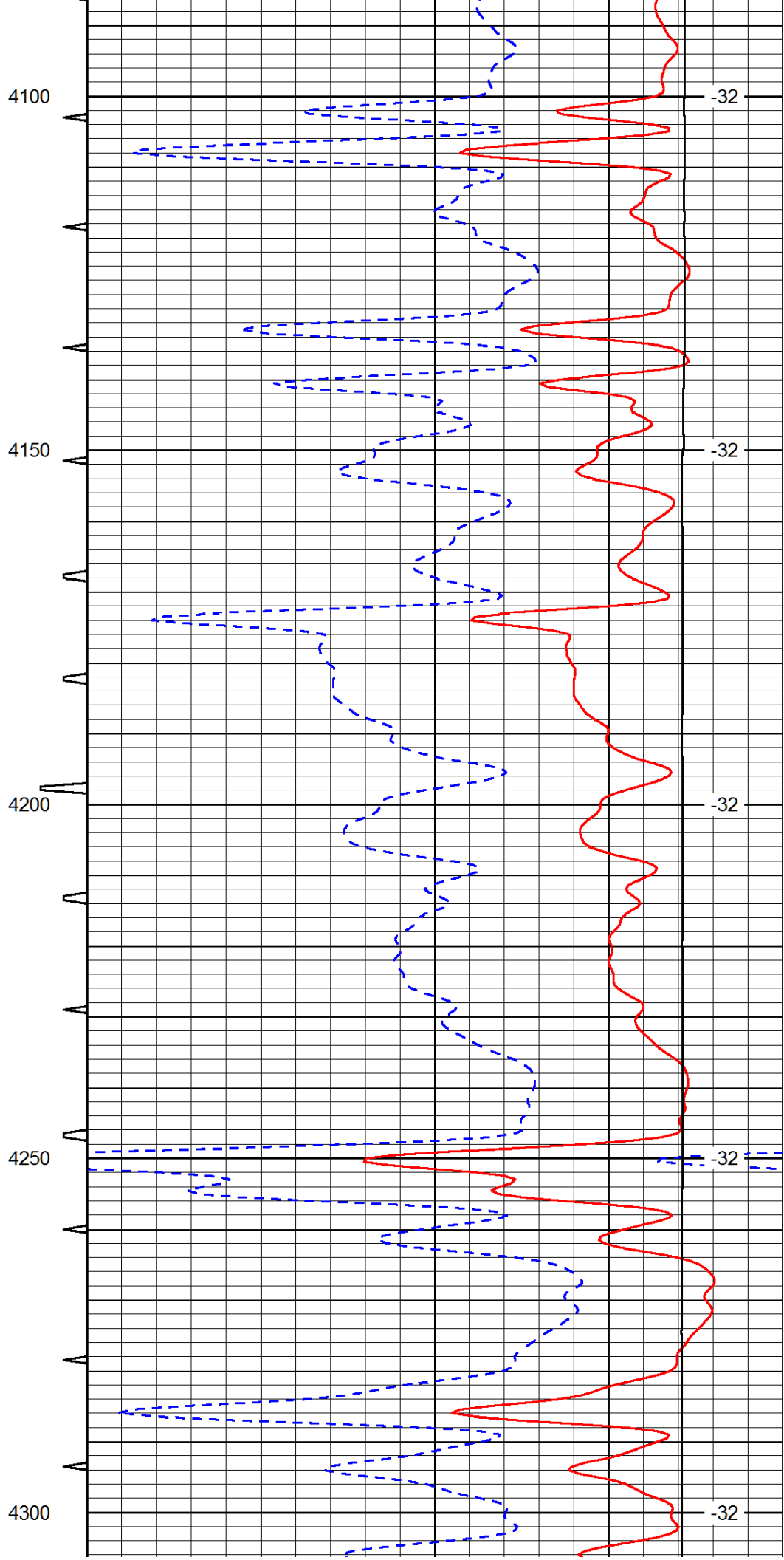
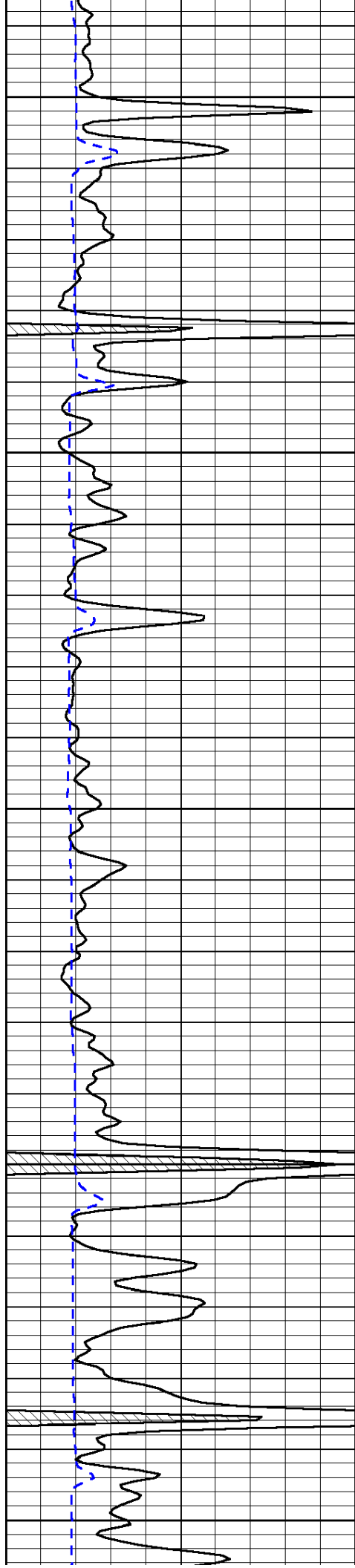


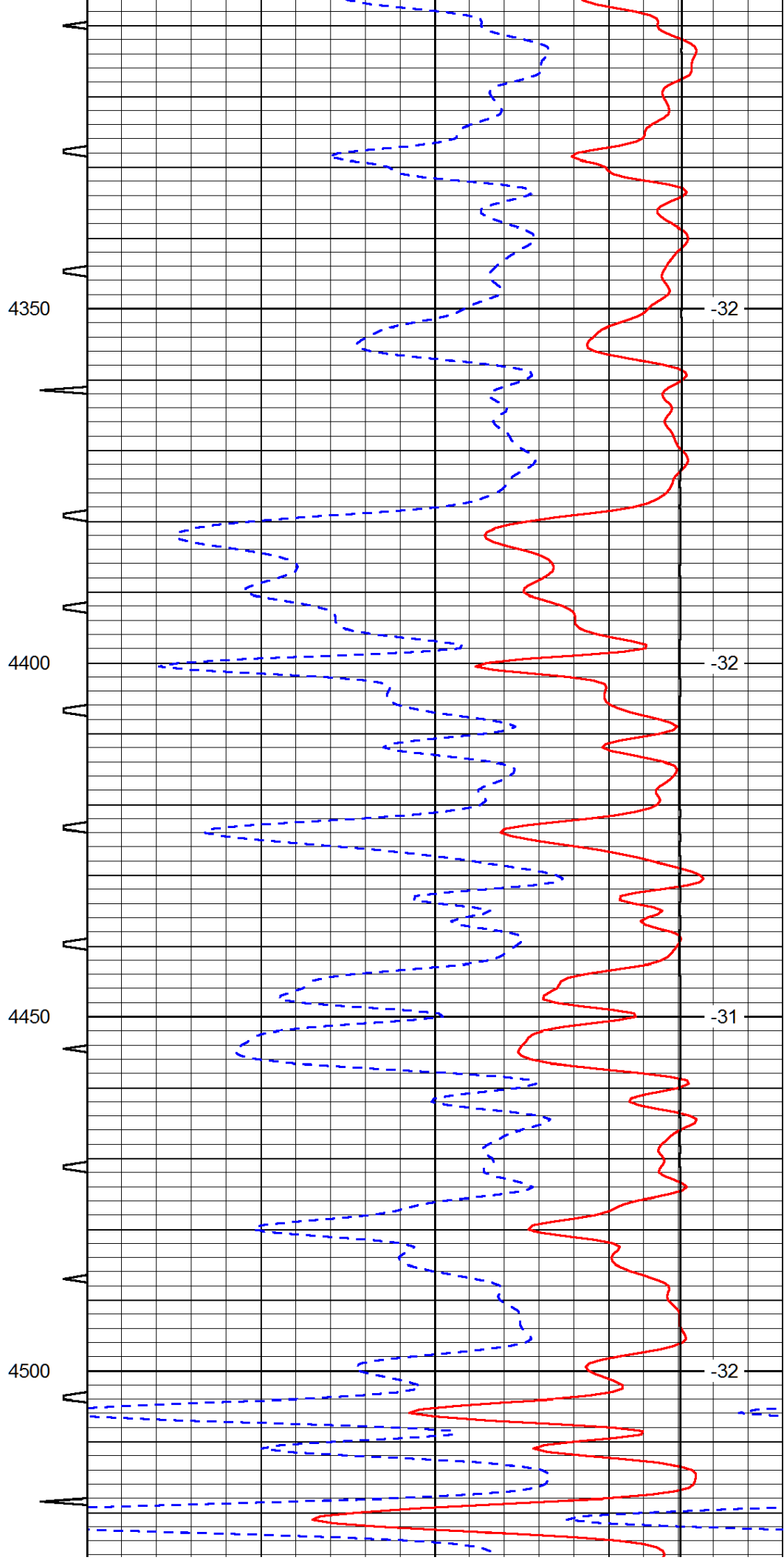
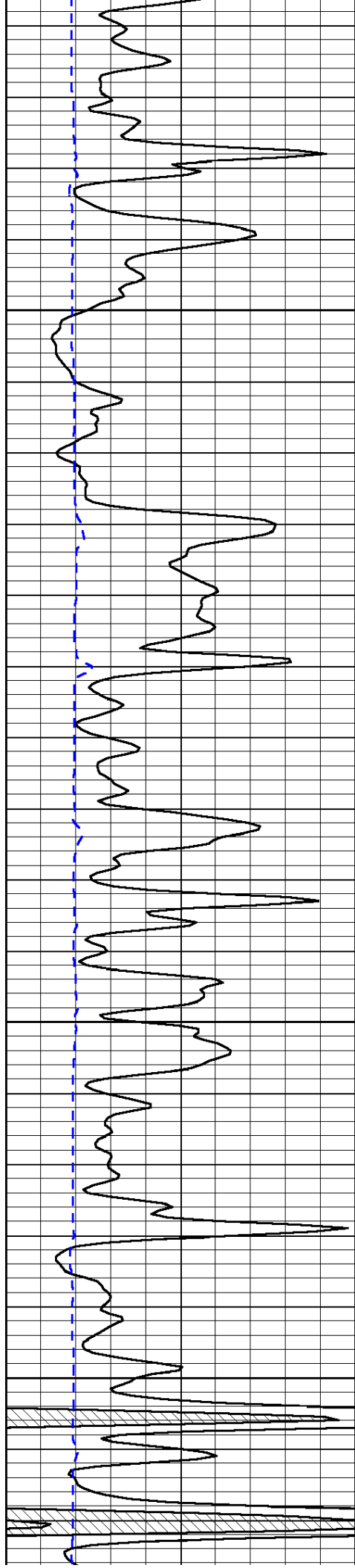


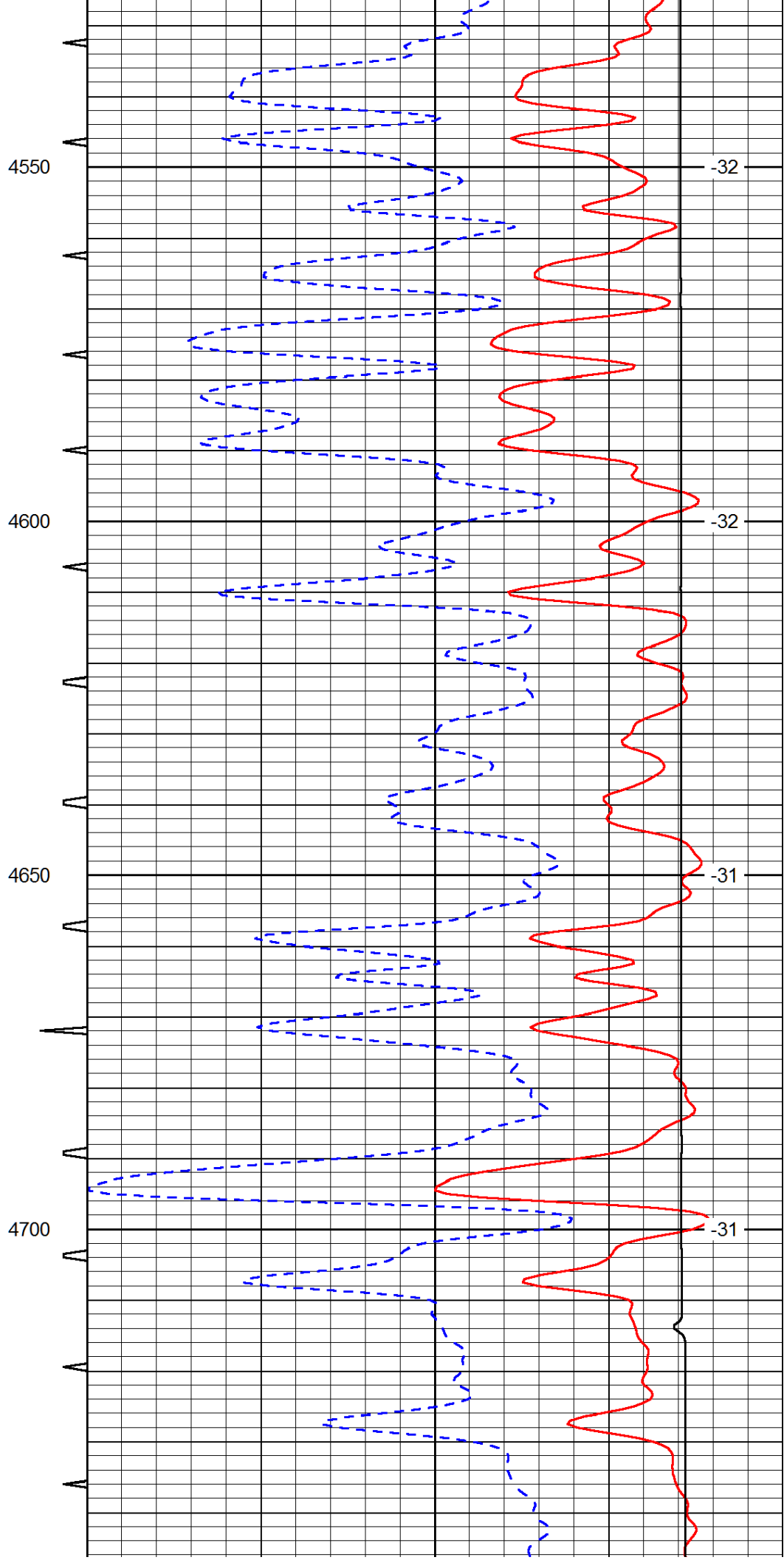
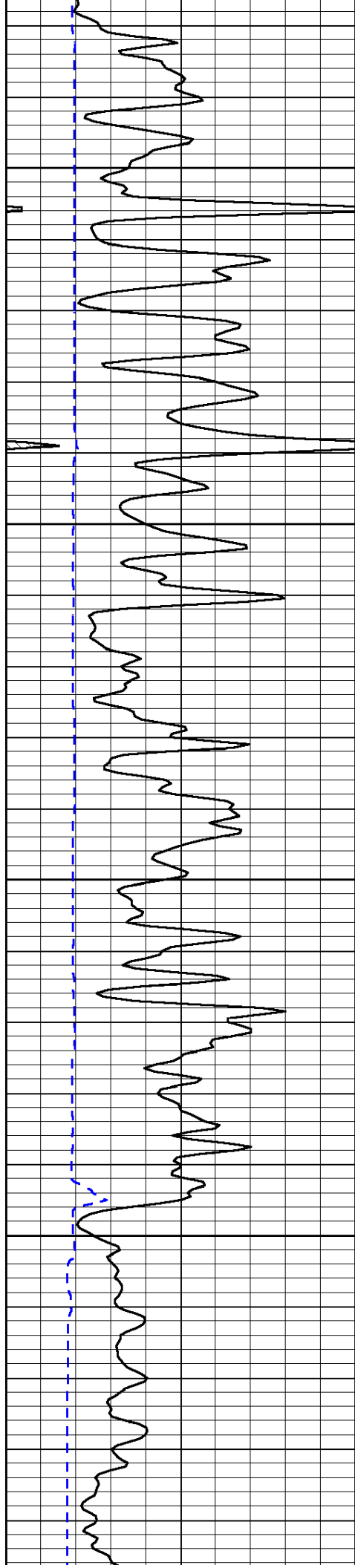


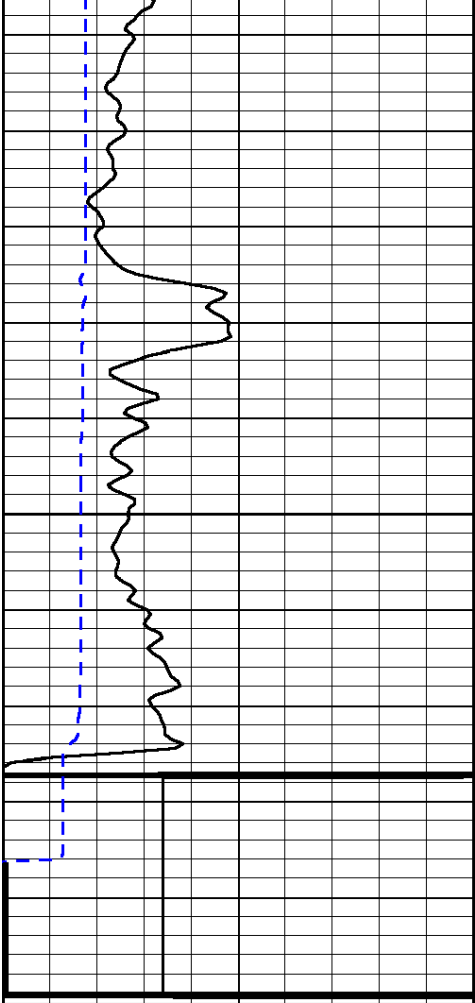




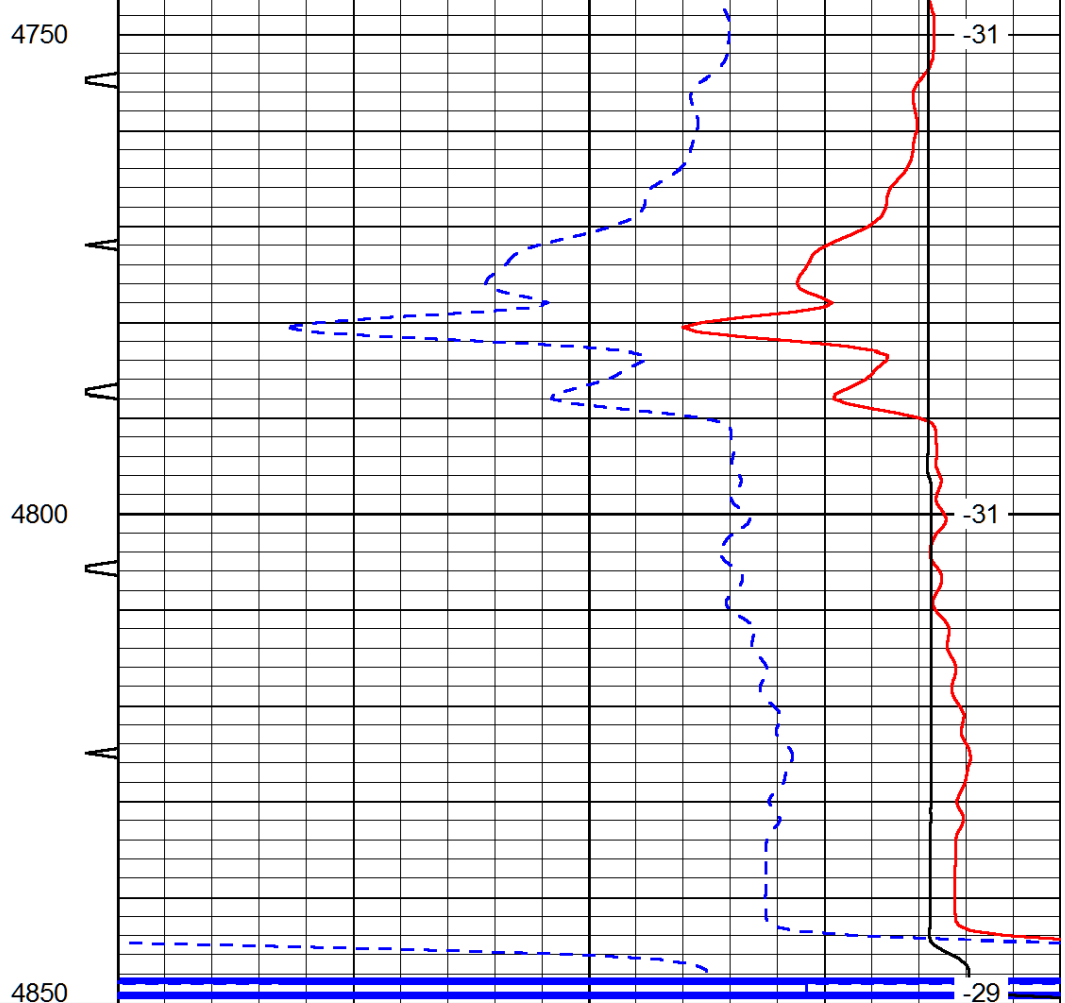








0	Gamma Ray (GAPI)	150
150	Gamma Ray (GAPI)	300
6	dCAL (in)	16



Sonic Int	140	Delta Time (usec/ft) (usec/ft)	40
5 (msec)	0	Sonic Porosity (pu)	-10
	30	LTEN (lb) (lb)	0
	15000		

LSPD
(ft/min)