



PIONEER

Pioneer Energy Services

Borehole Compensated Sonic Log

API No.

15-009-25986-00-00

Company Bird Dog Oil, LLC

Well Lakin-Sieker # 2-23

Field Lanterman

County Barton

State Kansas

Location

1305' FNL & 140' FWL

Other Services
CNL/CDL
MEL/DIL

Sec: 23

Twp: 19 S

Rge: 11 W

Permanent Datum Ground Level Elevation 1777

Log Measured From Kelly Bushing 8 Ft. Above Perm. Datum

Drilling Measured From Kelly Bushing

K.B. 1785
D.F. 1777
G.L. 1777

Date 06-21-2014

Run Number Two

Type Log BHC Sonic

Depth Driller 3420

Depth Logger 3419

Bottom Logged Interval 3408

Top Logged Interval 250

Type Fluid In Hole Chemical

Salinity, PPM CL 6100

Density 9.3

Level Full

Max. Rec. Temp. F 112

Operating Rig Time 5 Hours

Equipment -- Location 91 Hays

Recorded By Y. Ruiz

Witnessed By Adam Kennedy

Borehole Record

Casing Record

Run No

Bit

From

To

Size

Wgt.

From

To

One 12.25

00

263

TD

8.625

23#

00

263

Two 7.875

263

TD

TD

TD

TD

TD

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.

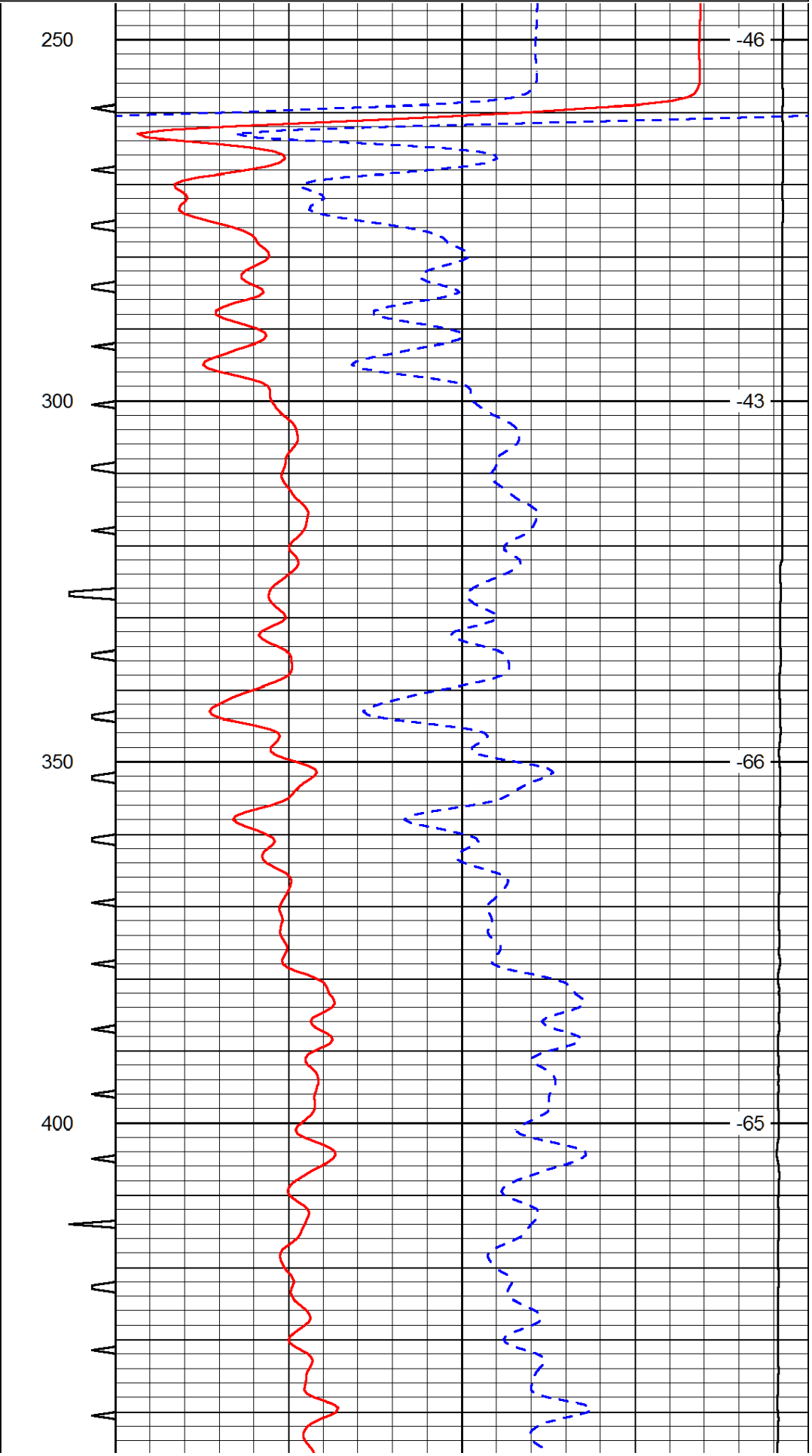
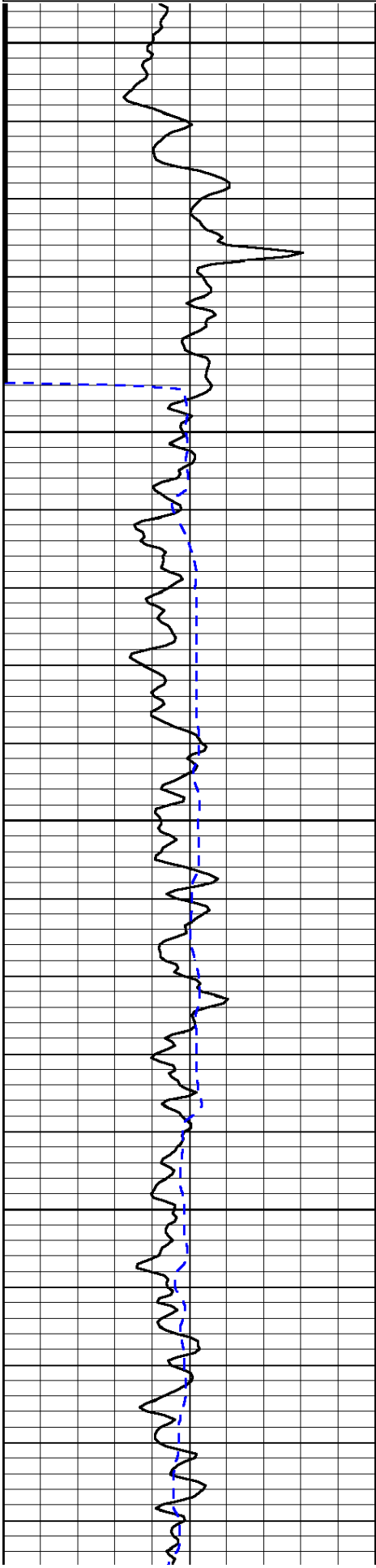
Comments

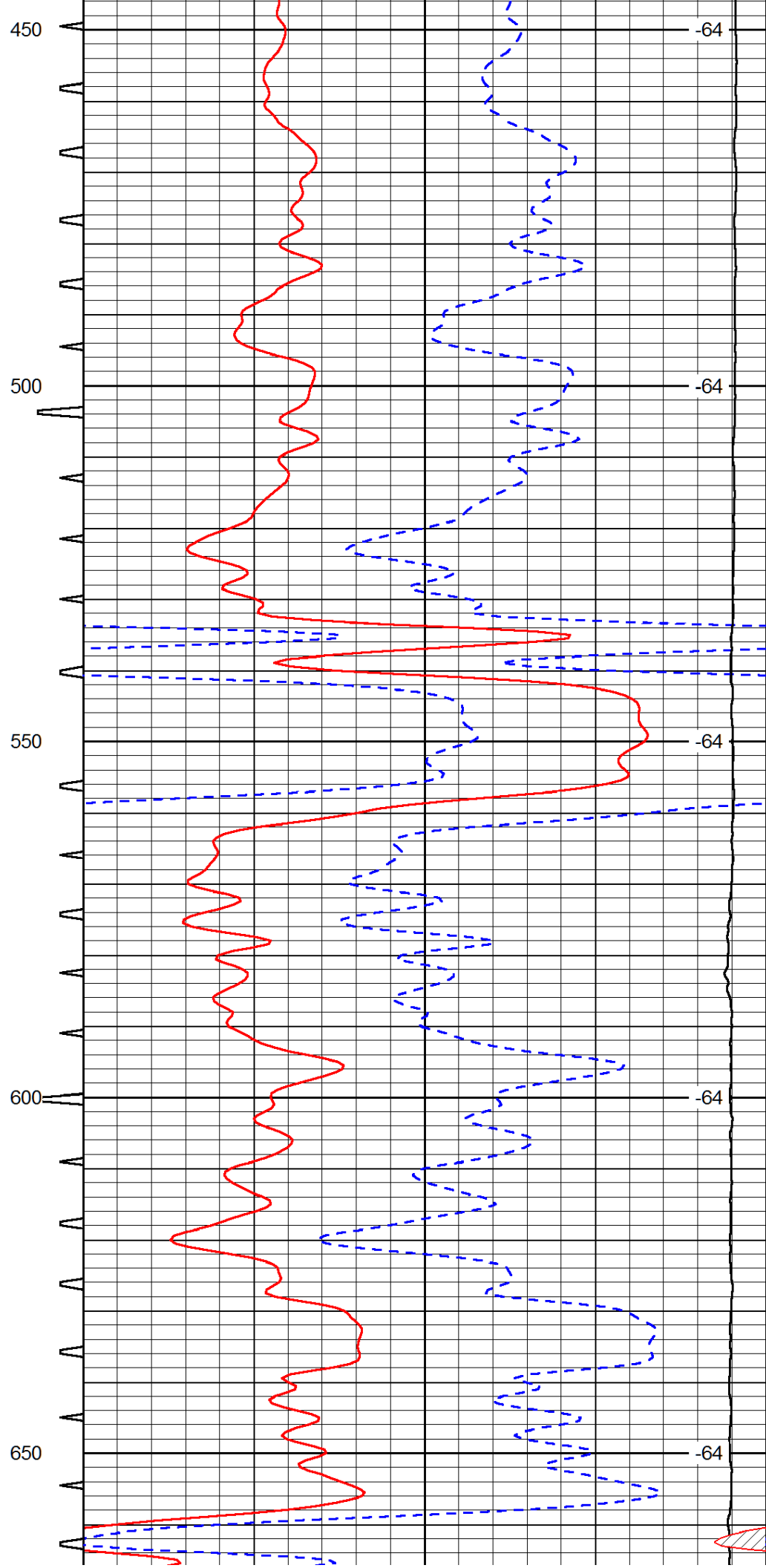
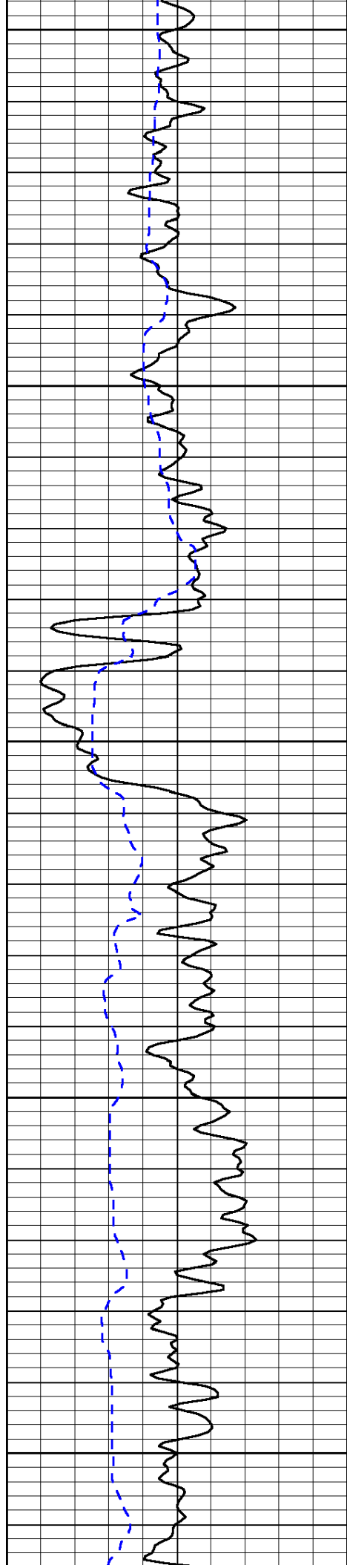
Thank you for using Log-Tech, Inc.
(785) 625-3858

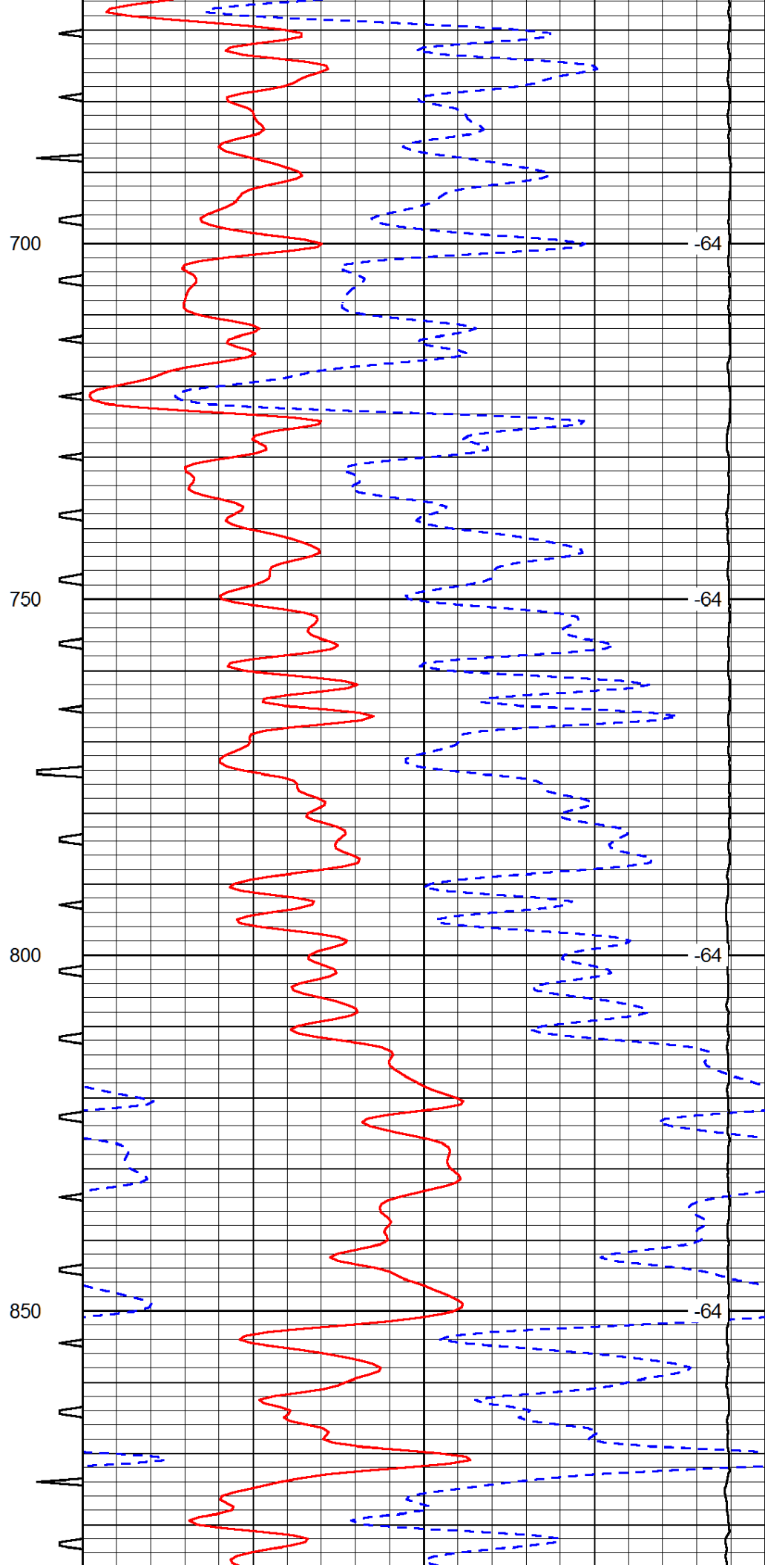
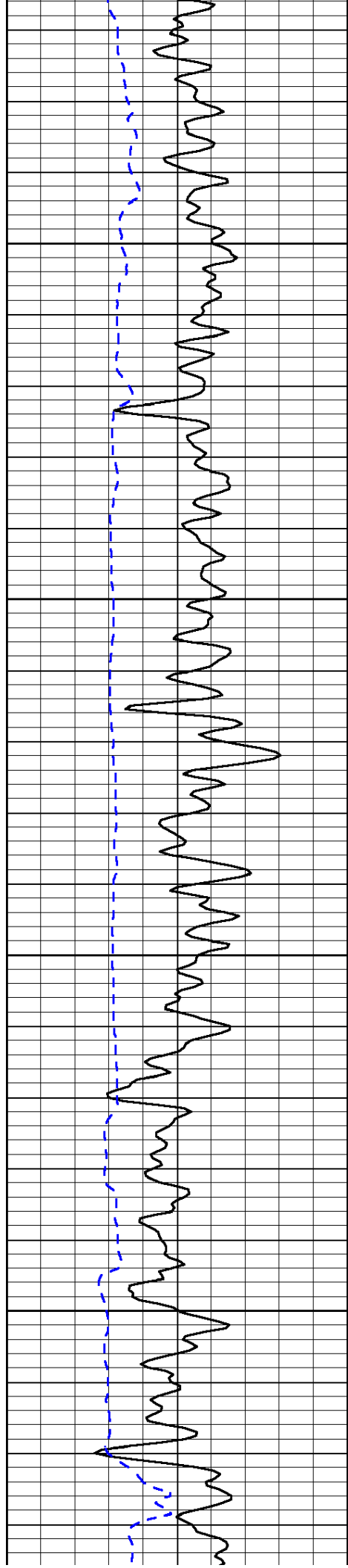
Ellinwood,
3 East to 140 Rd, 2 North,
East into

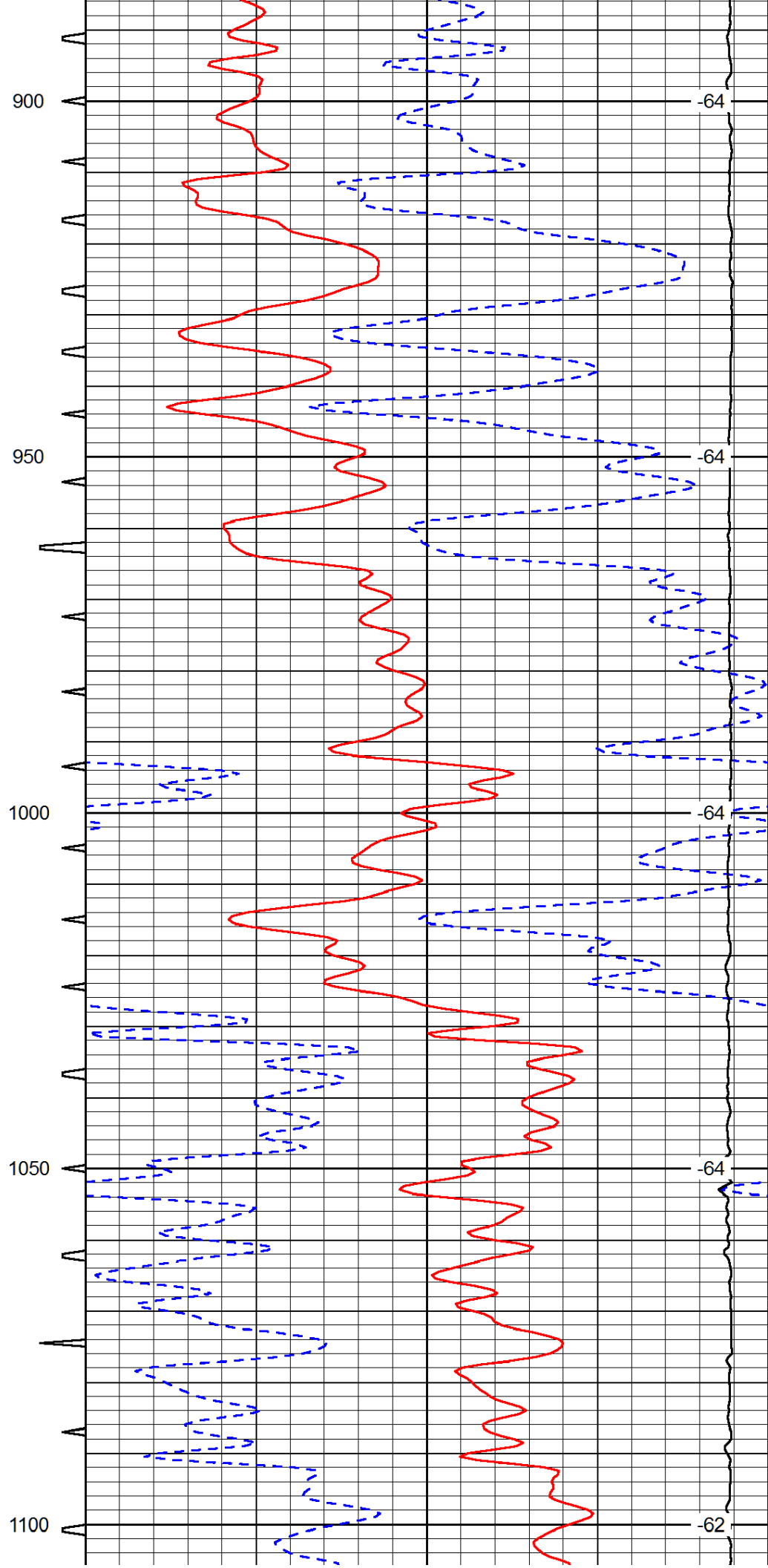
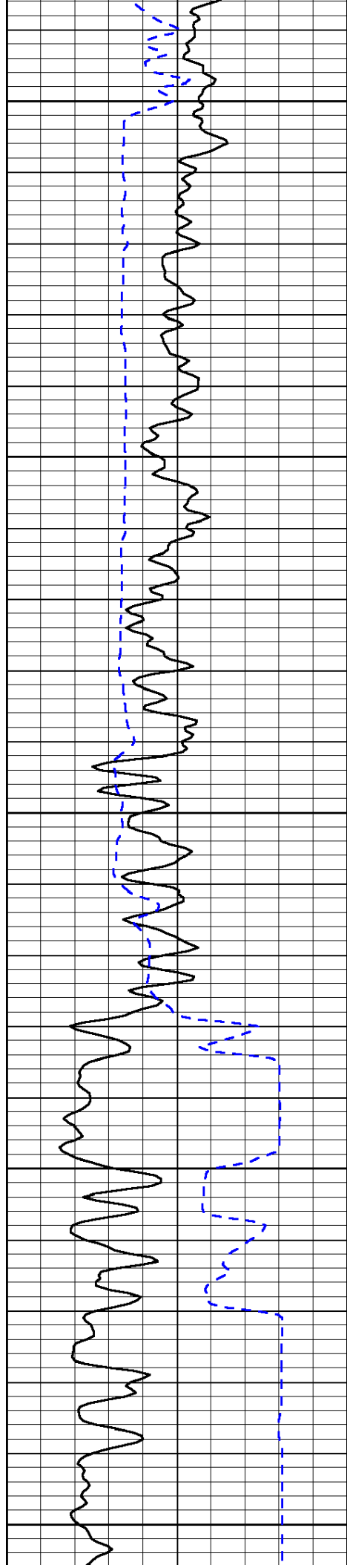
Database File: bird_dog 062114hd.db
Dataset Pathname: DIL/bdstk
Presentation Format: sonic
Dataset Creation: Sun Jun 22 01:54:53 2014
Charted by: Depth in Feet scaled 1:240

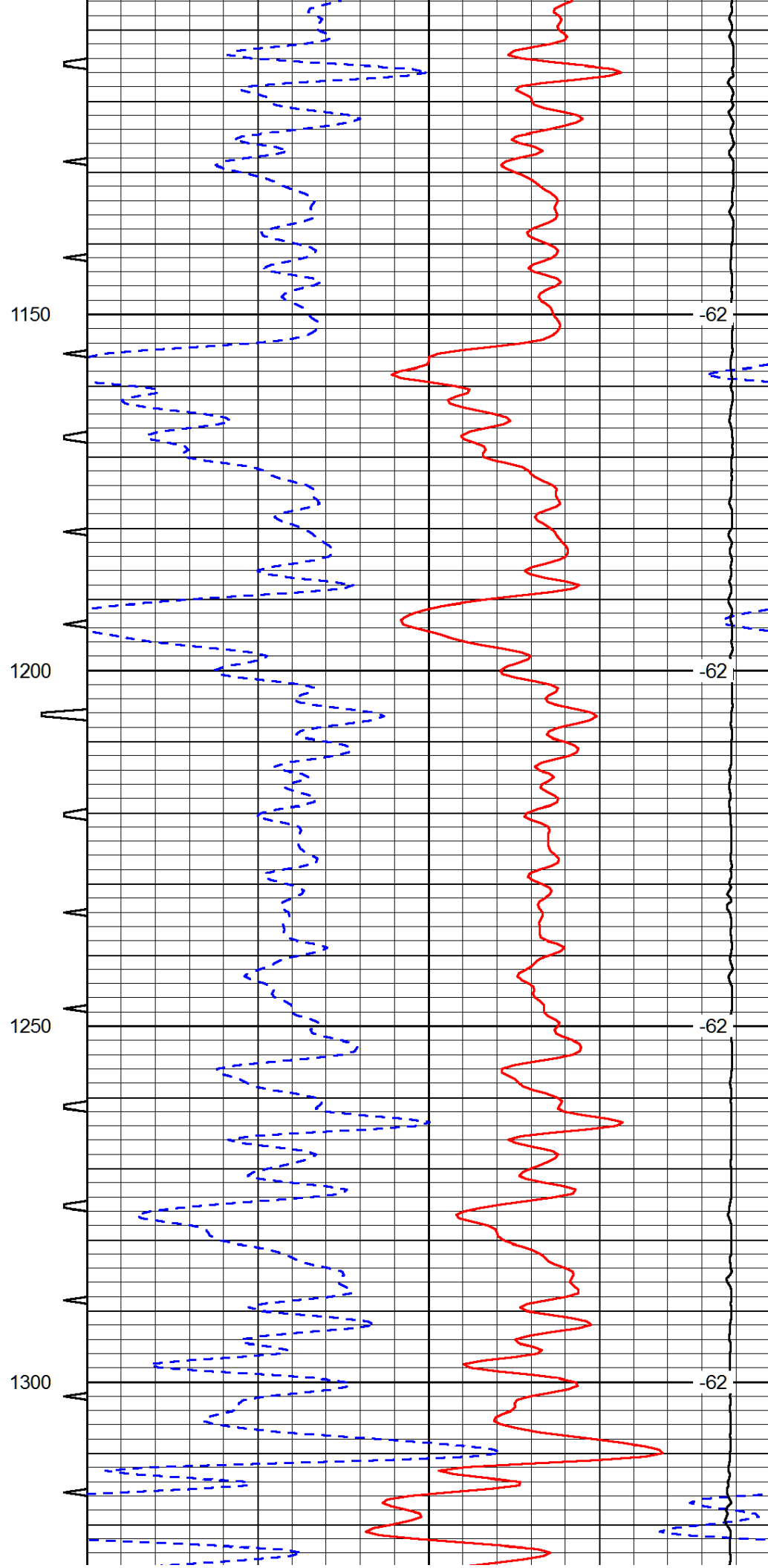
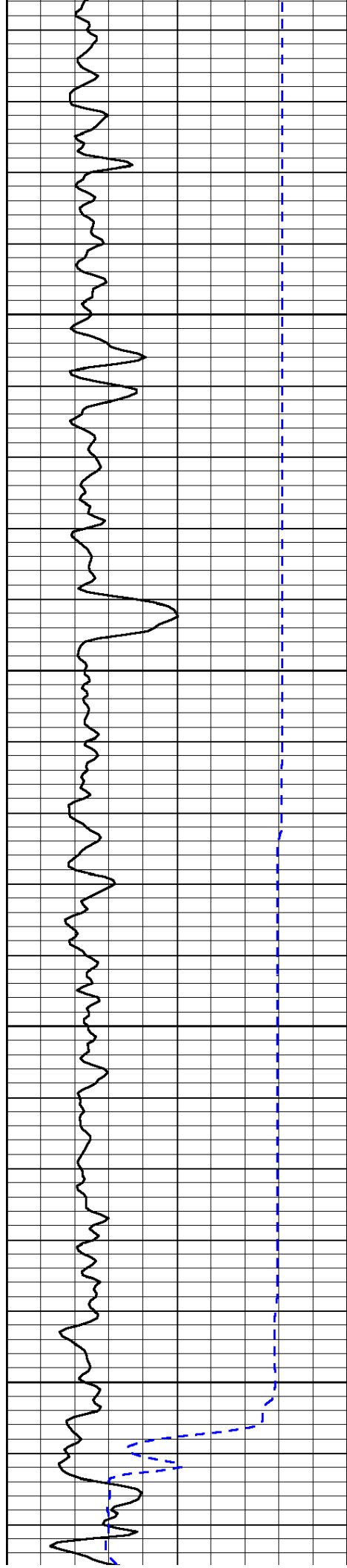
0	Gamma Ray	150	Sonic Int	140	Delta Time (usec/ft)	40
150	Gamma Ray	300	5	0	Sonic Porosity	-10
6	dCAL (GAPI)	16		15000	LTEN (lb)	0
						LSPD

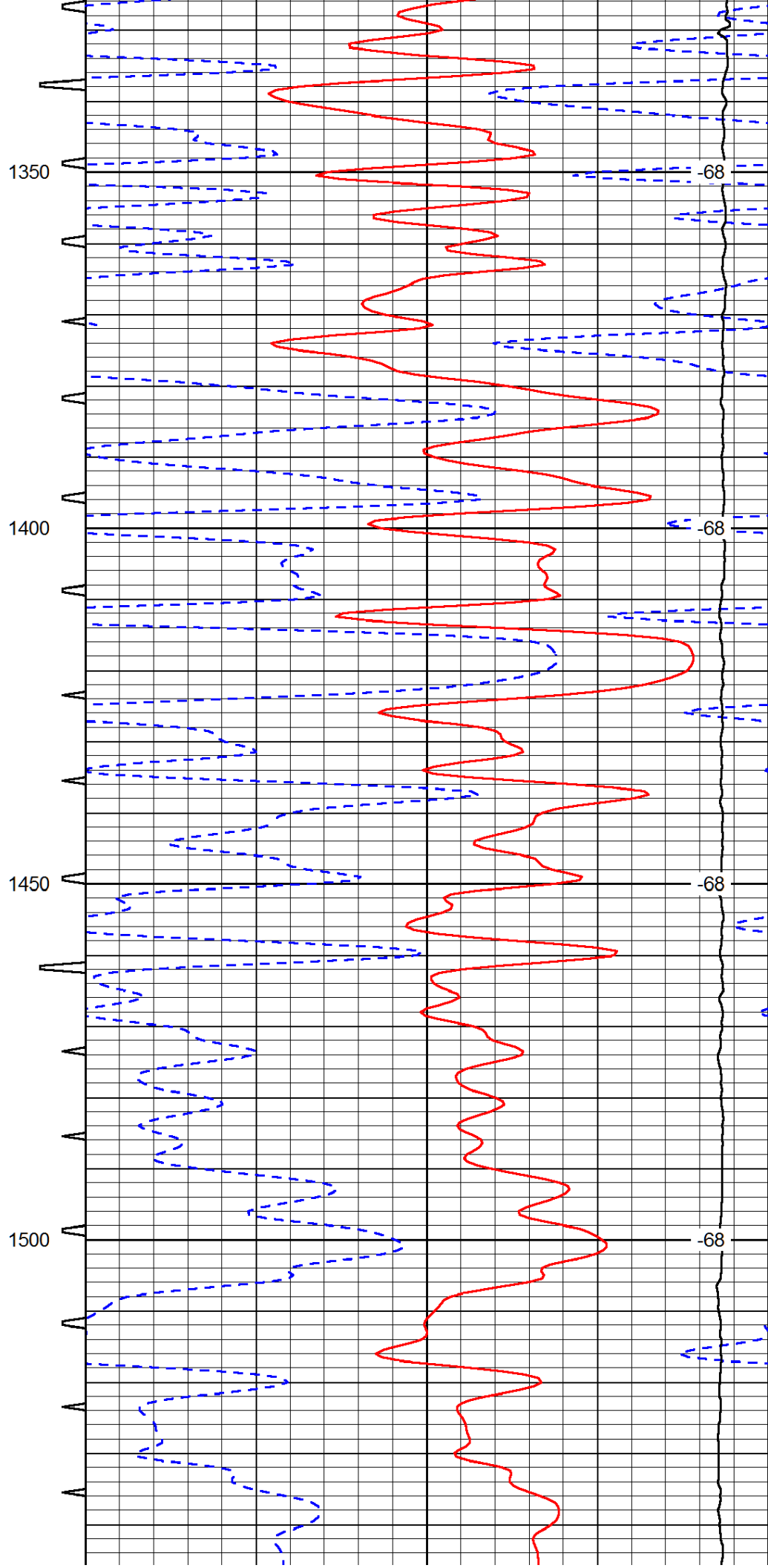
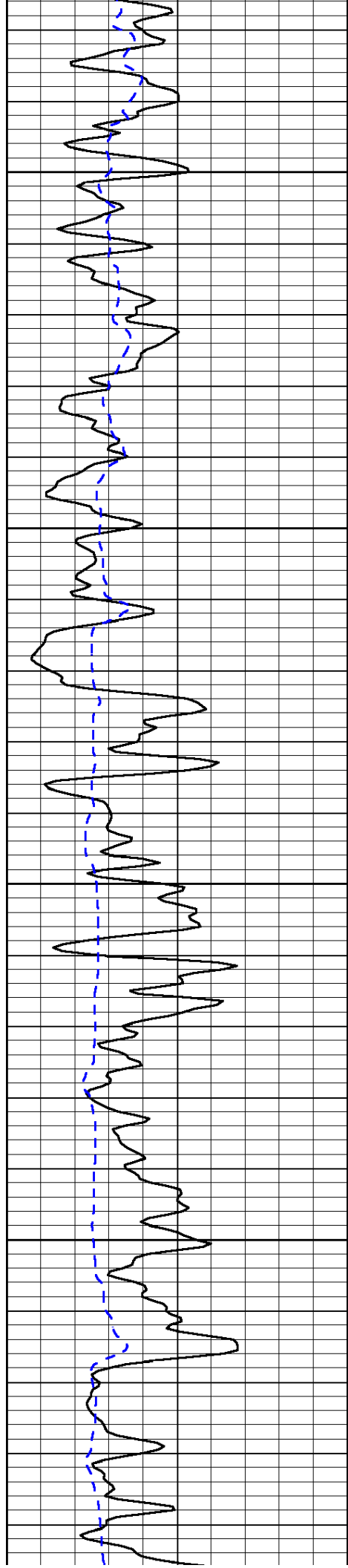


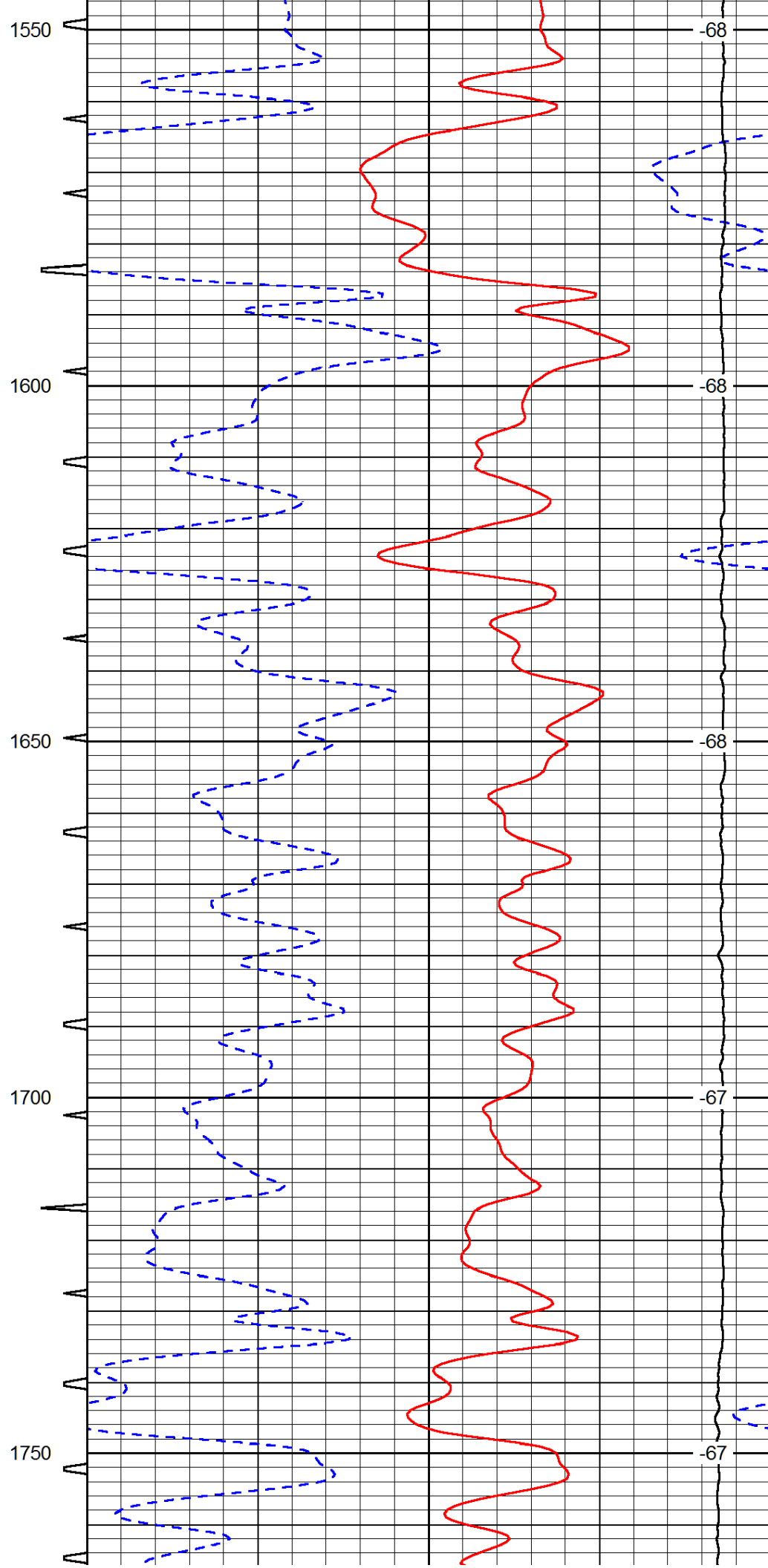
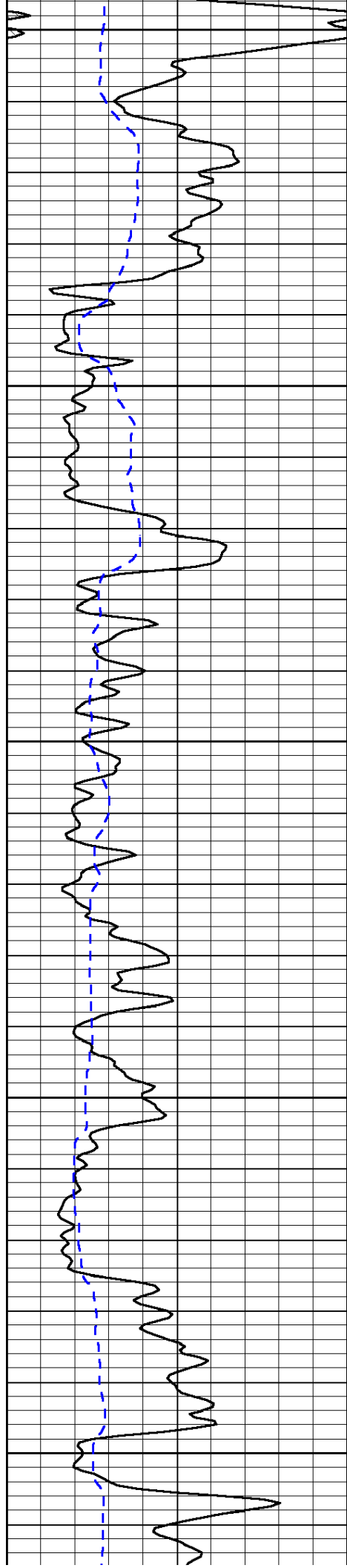


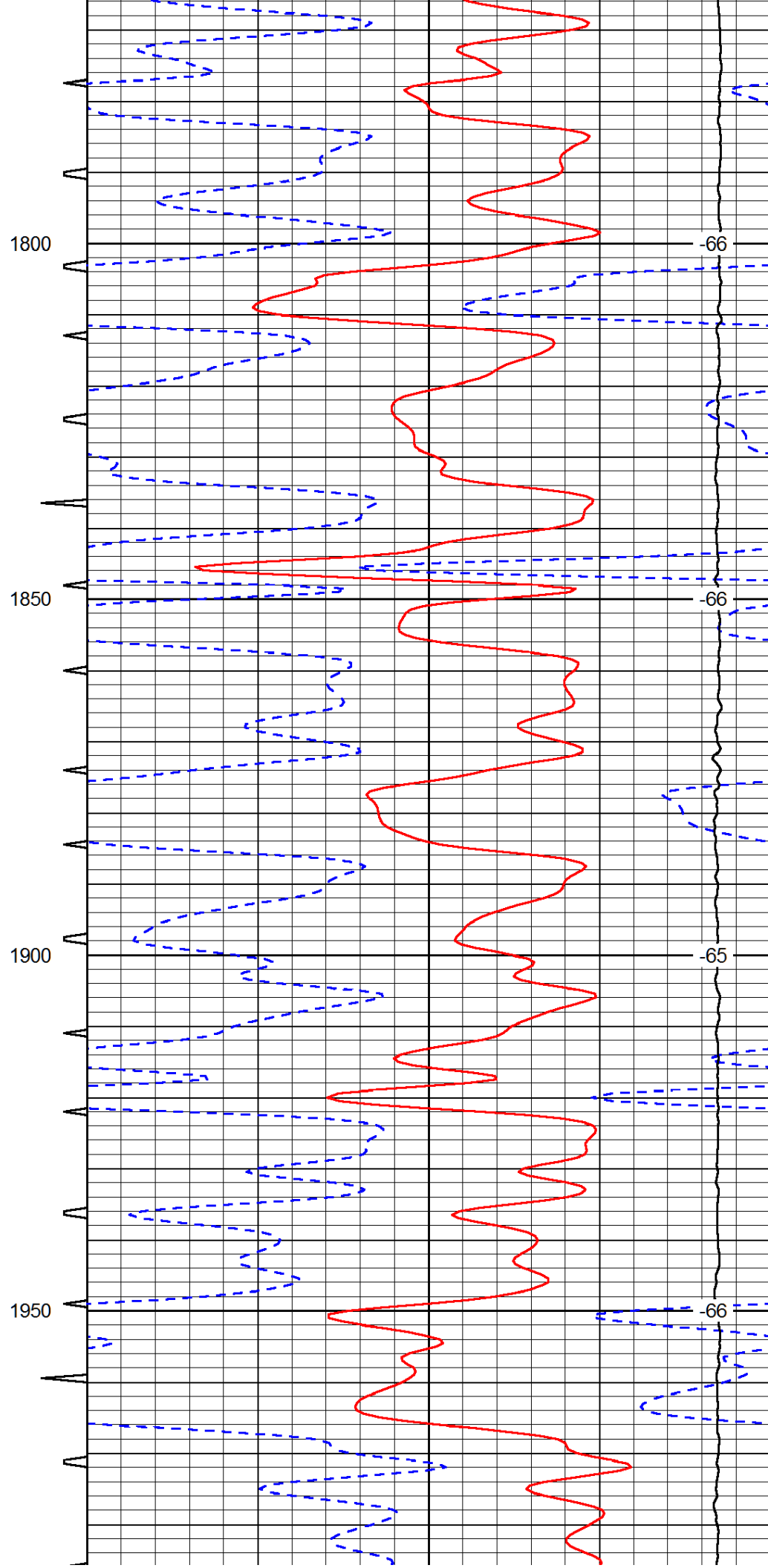
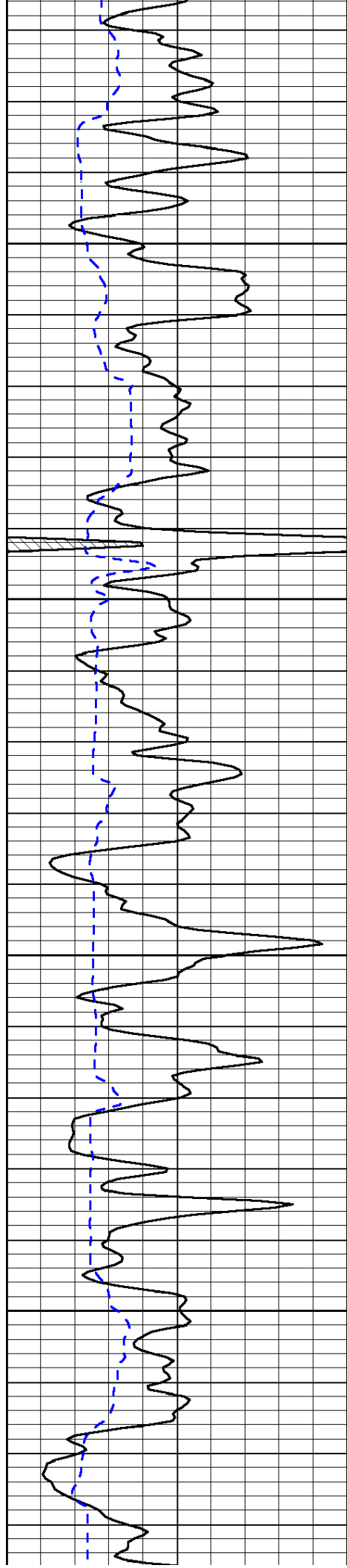


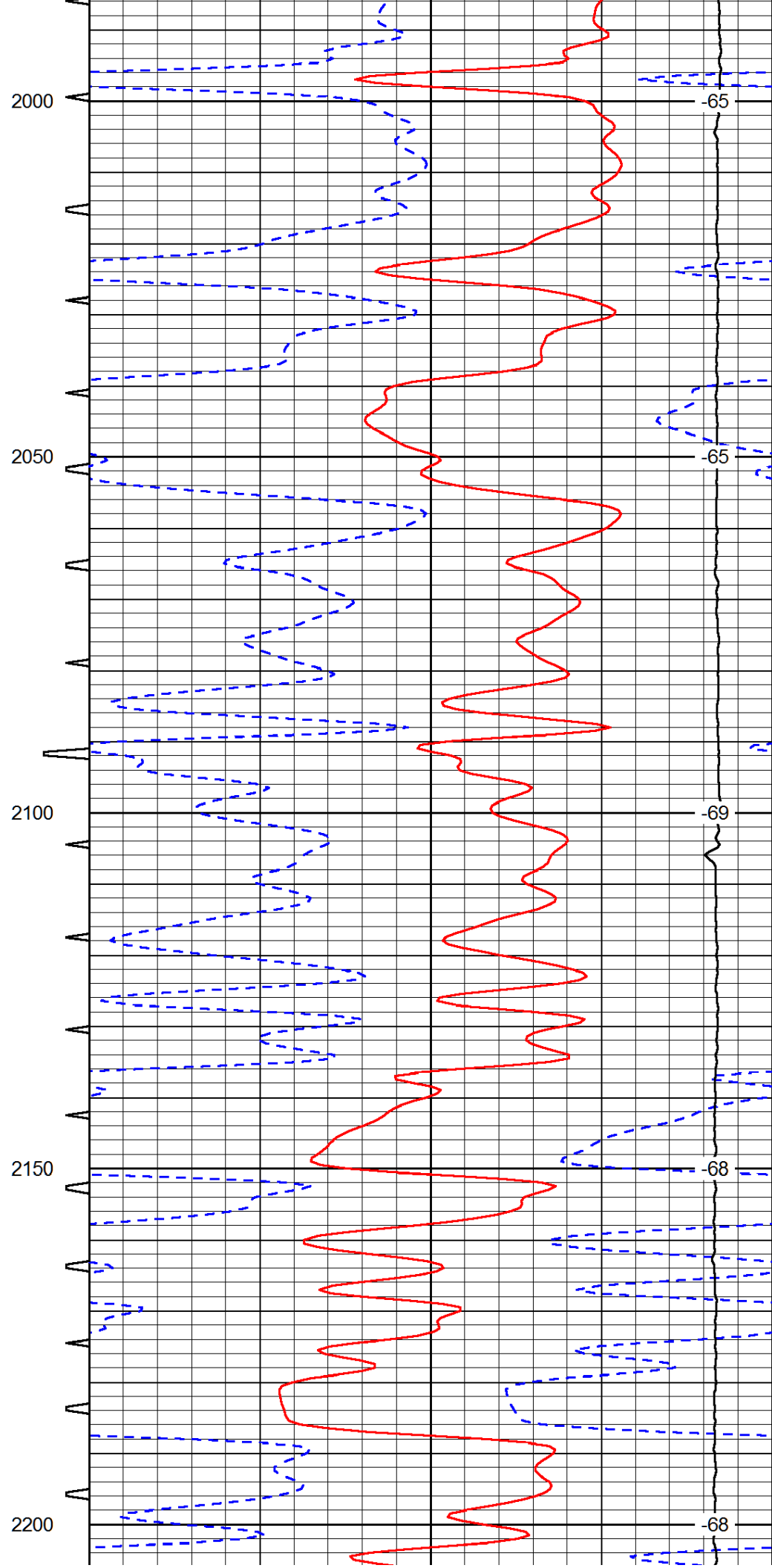
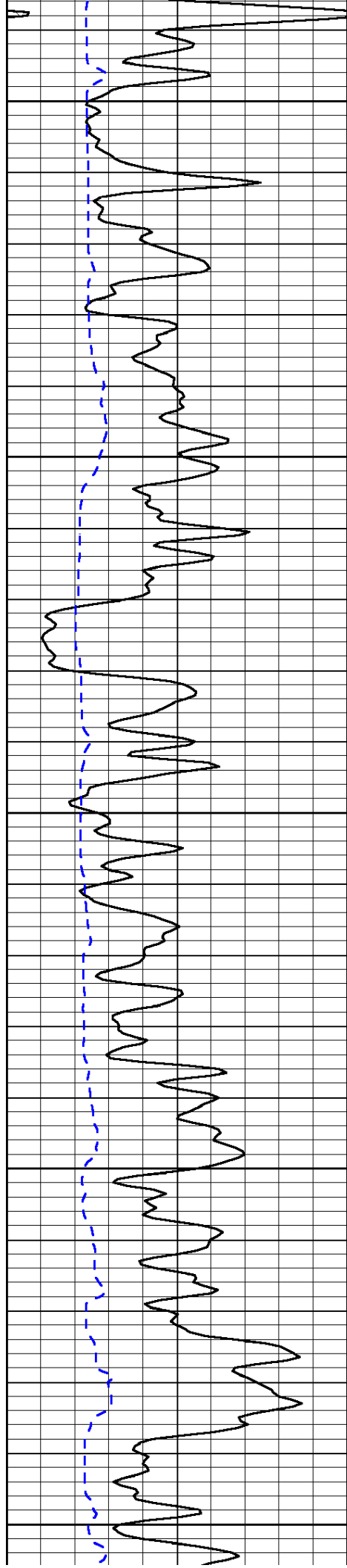


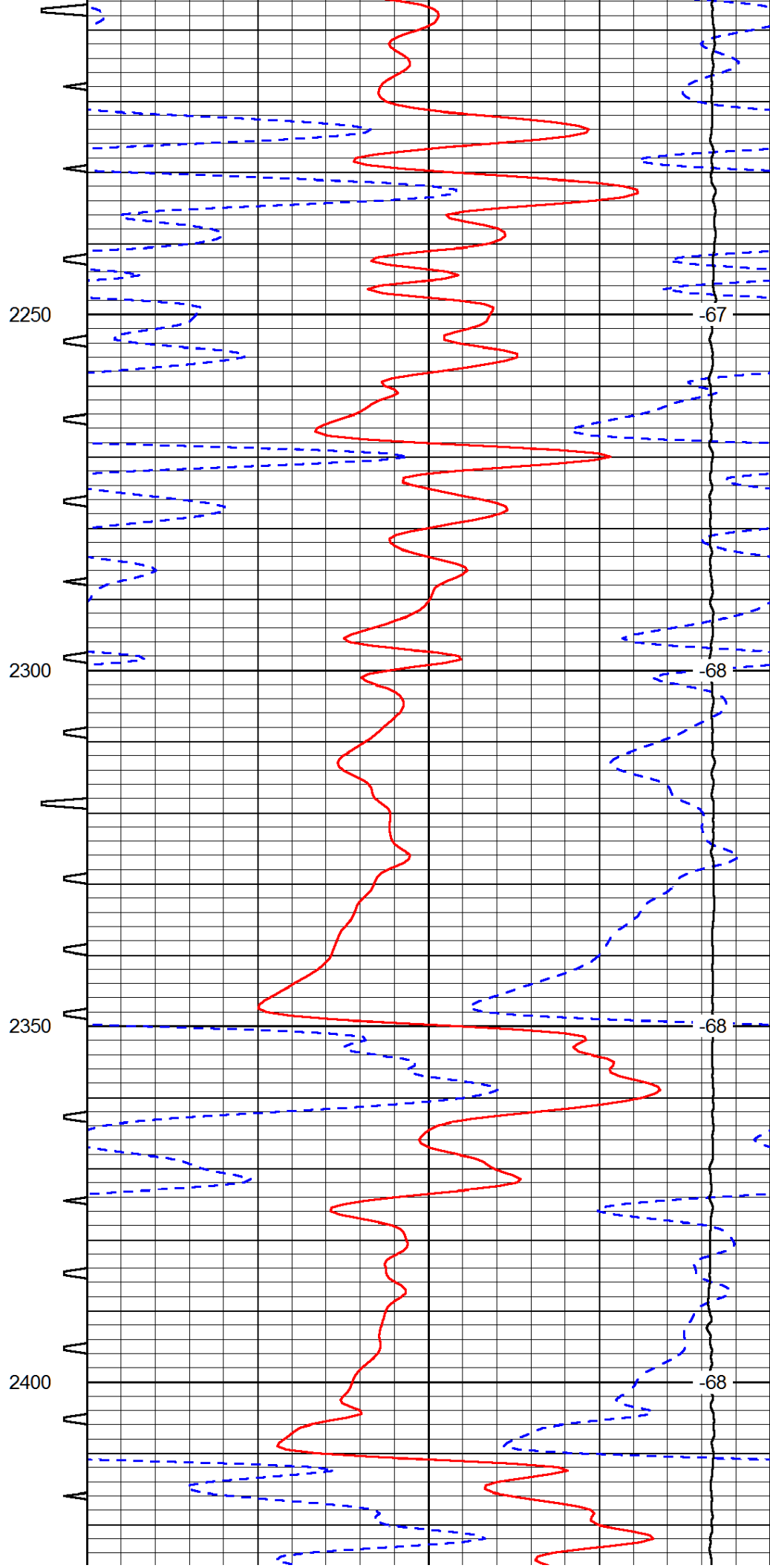
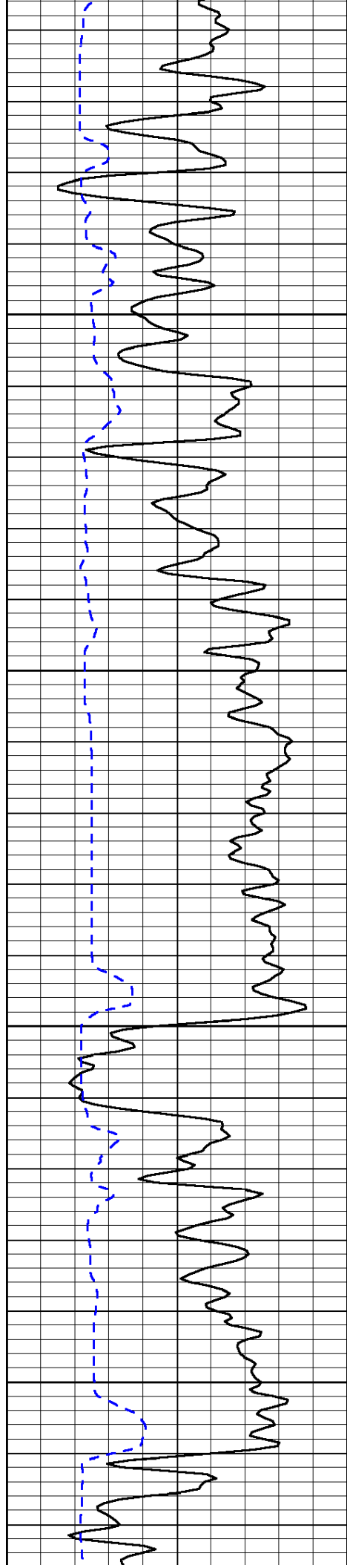


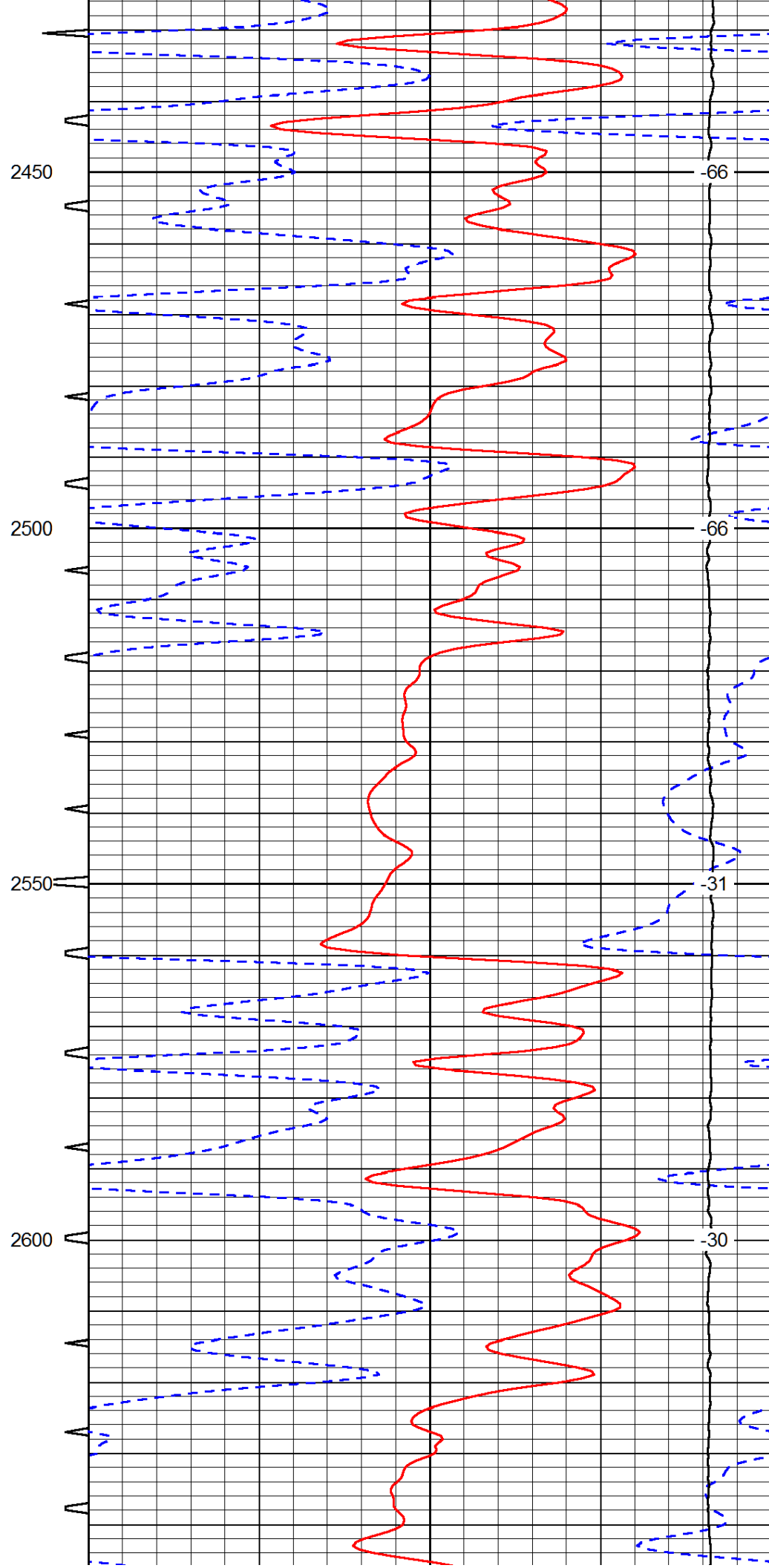
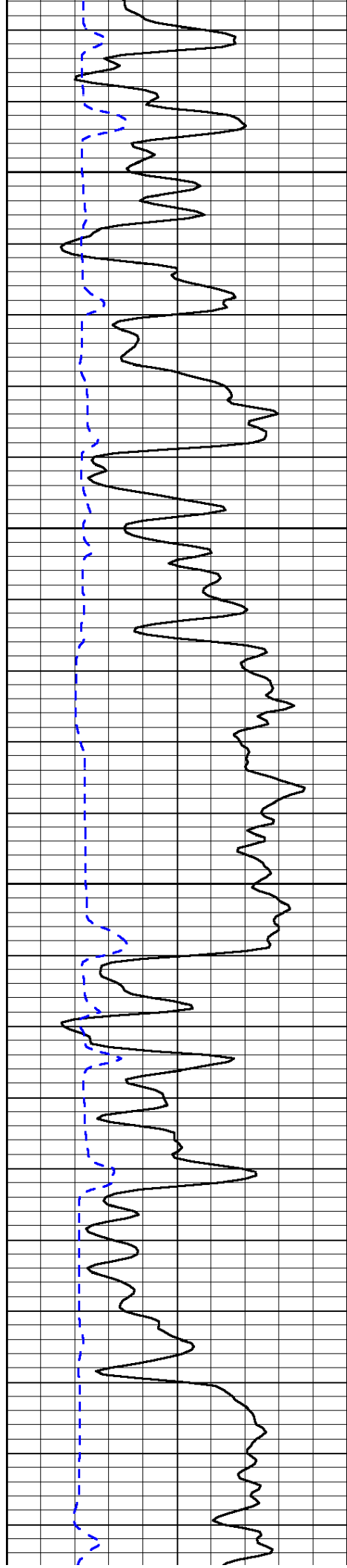


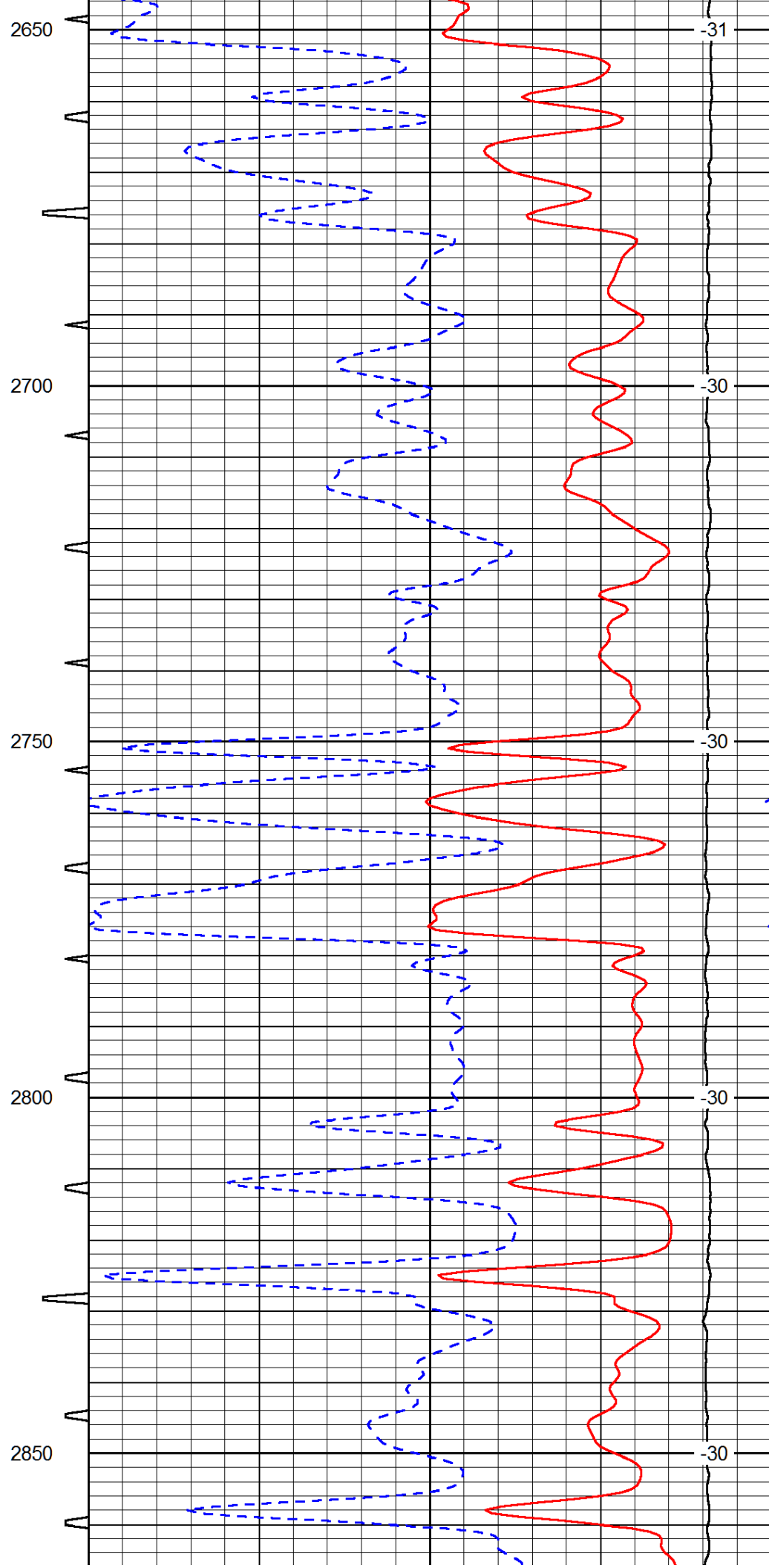
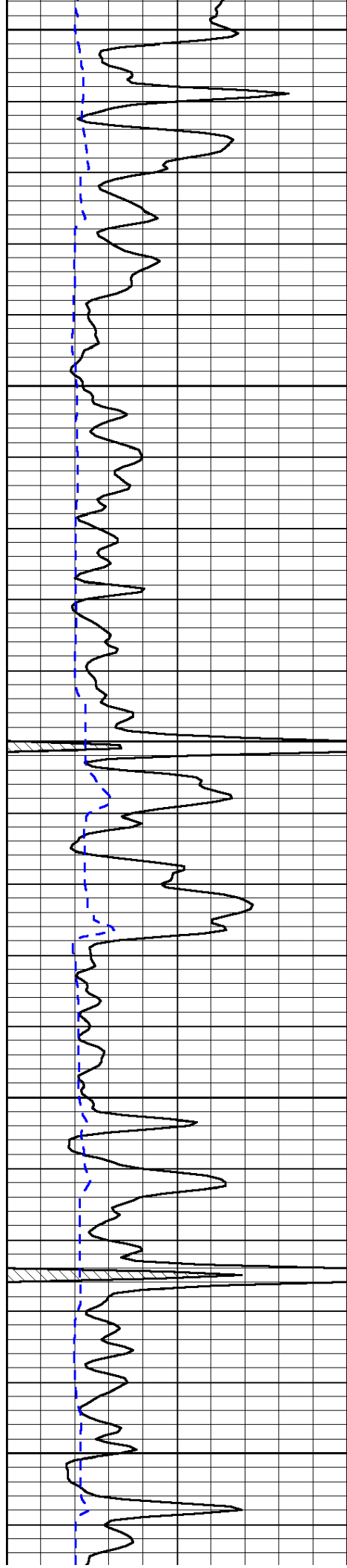


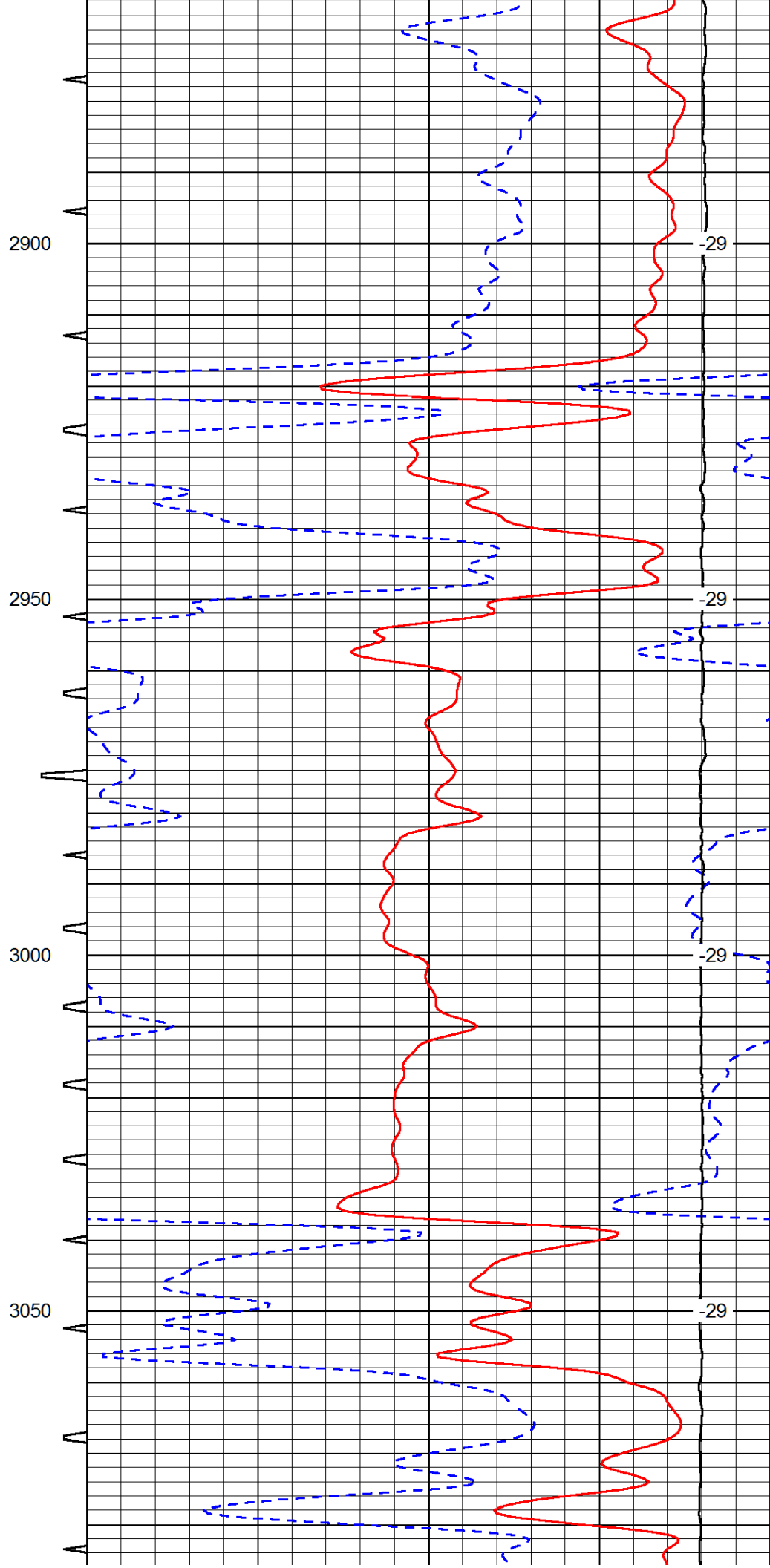
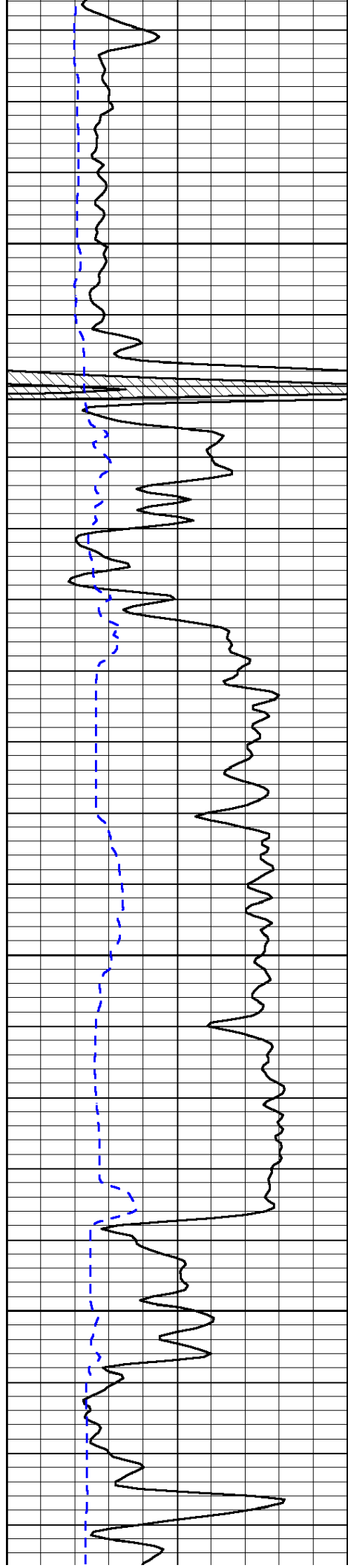


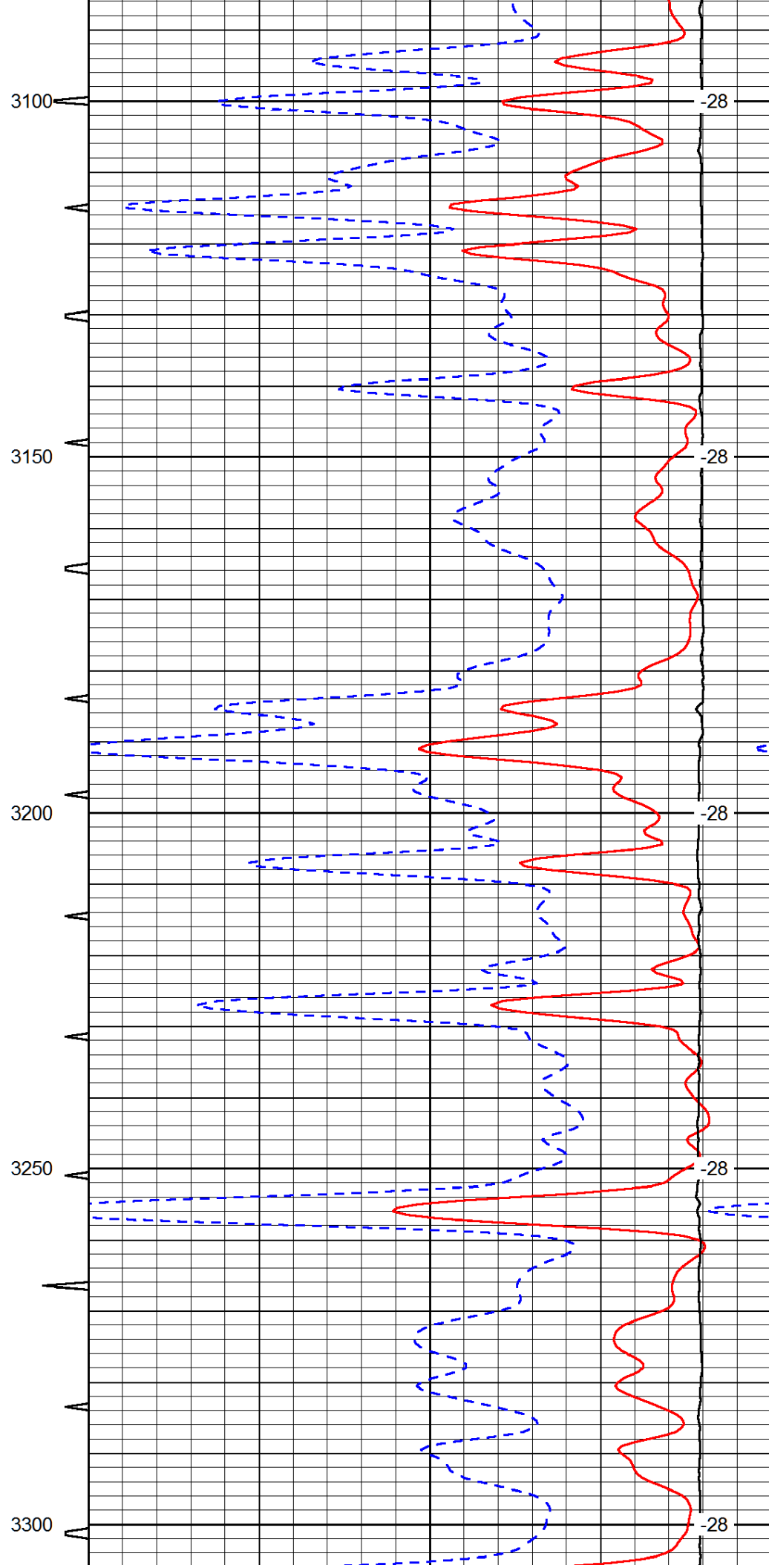
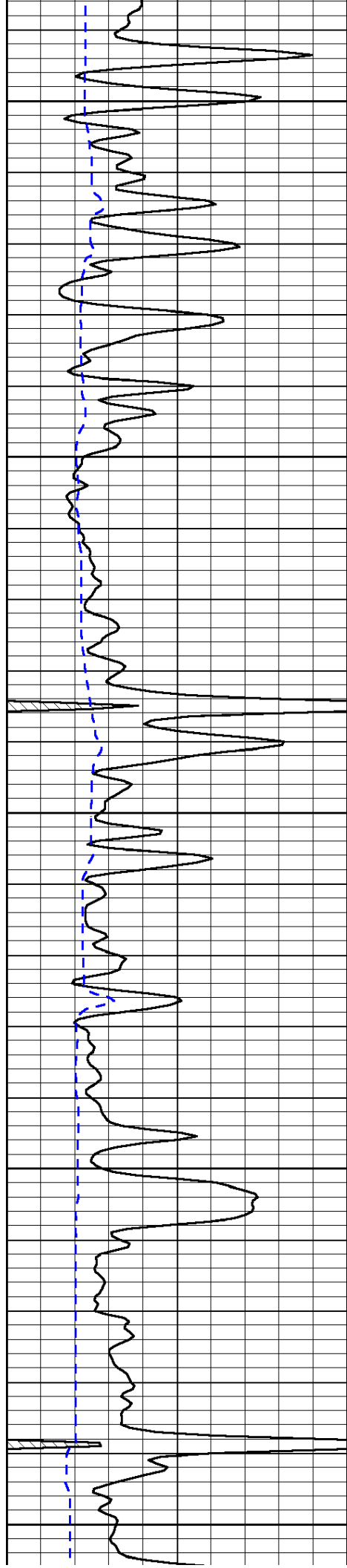


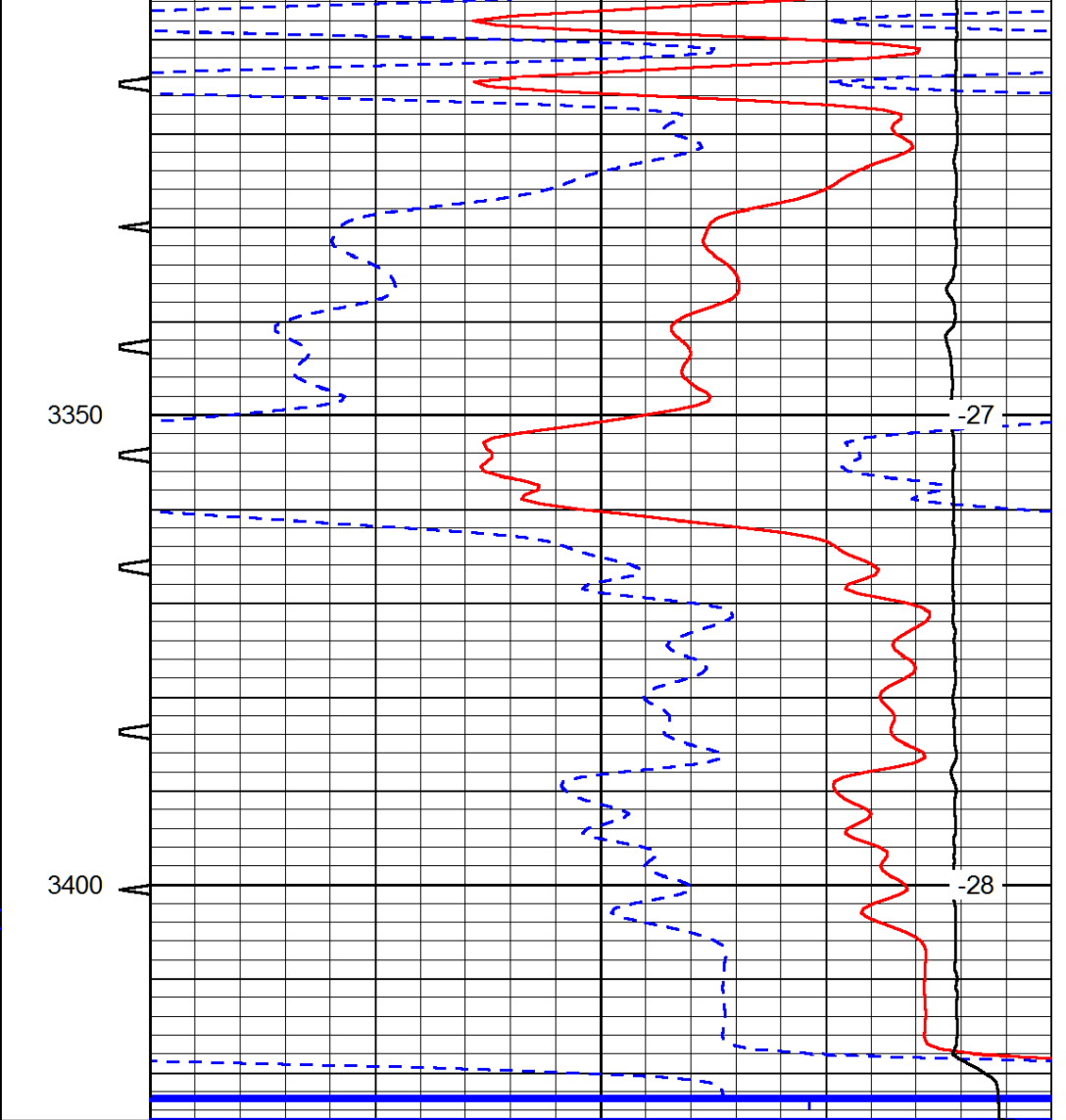
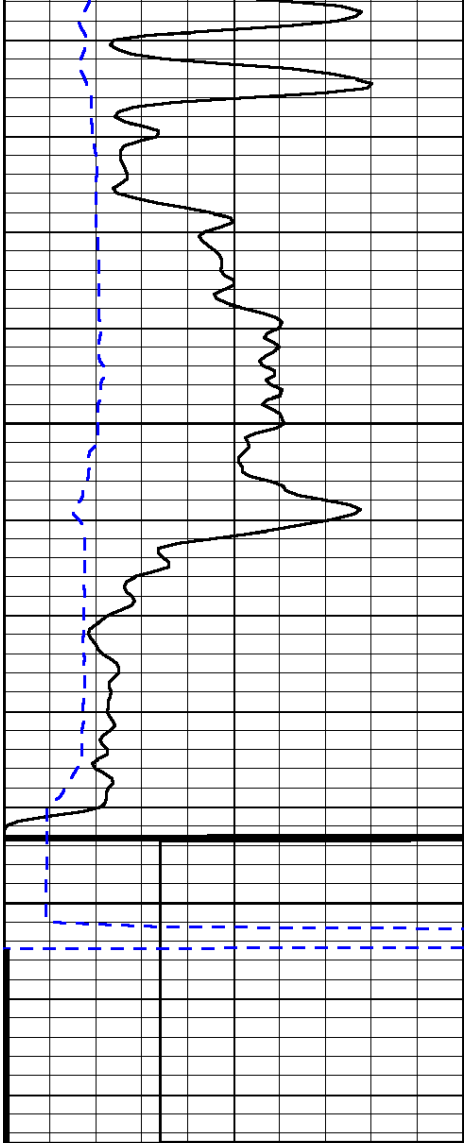












0	Gamma Ray	150	Sonic Int	140	Delta Time (usec/ft)	40
150	Gamma Ray	300	5	0	Sonic Porosity	-10
6	dCAL (GAPI)	16		15000	LTEN (lb)	0
						LSPD