



Pioneer Energy Services

# Borehole Compensated Sonic Log

15-153-20,912-00-00

API No.

Company **Murfin Drilling Company, Inc.**

Well **Frisbie No.1-23**

Field

County **Rawlins**

State **Kansas**

Location

**2310' FNL & 2310' FWL**

Other Services  
CNL/CDL  
MEL/DIL

Sec: **23**

Twp: **2S**

Rge: **36W**

Elevation

K.B. 3305

D.F. 3295

G.L. 3295

Permanent Datum Ground Level Elevation 3295  
Log Measured From Kelly Bushing 10 Ft. Above Perm. Datum  
Drilling Measured From Kelly Bushing

Date 11/30/2012

Run Number Two

Type Log BHC Sonic

Depth Driller 4990

Depth Logger 4986

Bottom Logged Interval 4975

Top Logged Interval 350

Type Fluid In Hole Chemical

Salinity, PPM CL 1,400

Density 9.3

Level Full

Max. Rec. Temp. F 126

Operating Rig Time 5 Hours

Equipment -- Location 17 Days

Recorded By C. Desaire

Witnessed By Rocky Milford

**Borehole Record**

**Casing Record**

Run No.	Bit	From	To	Size	Wgt.	From	To
1	12.25	00	391	8.625	24#	00	391
2	7.875	391	4990				

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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**

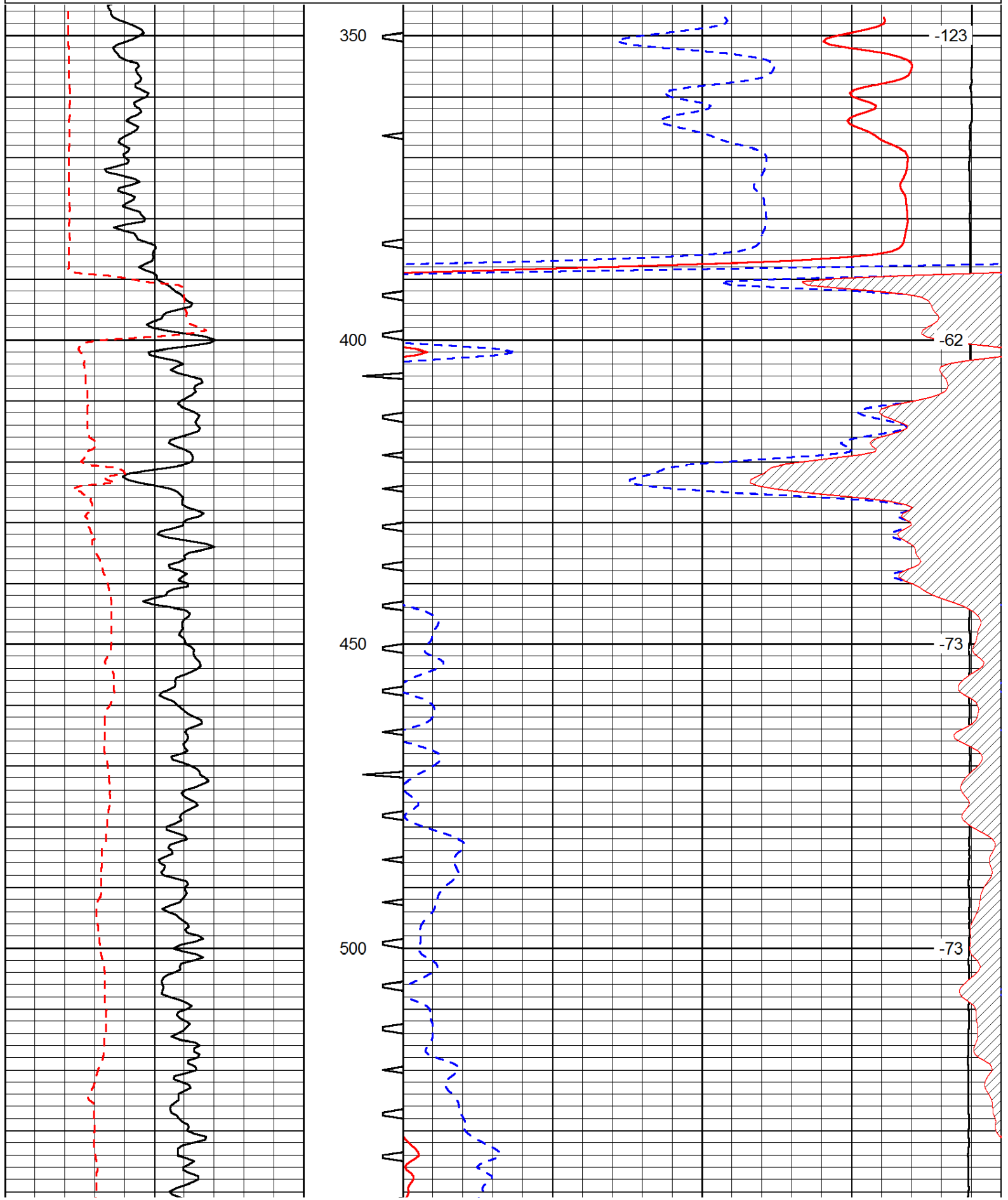
Thank you for using Pioneer Energy Services  
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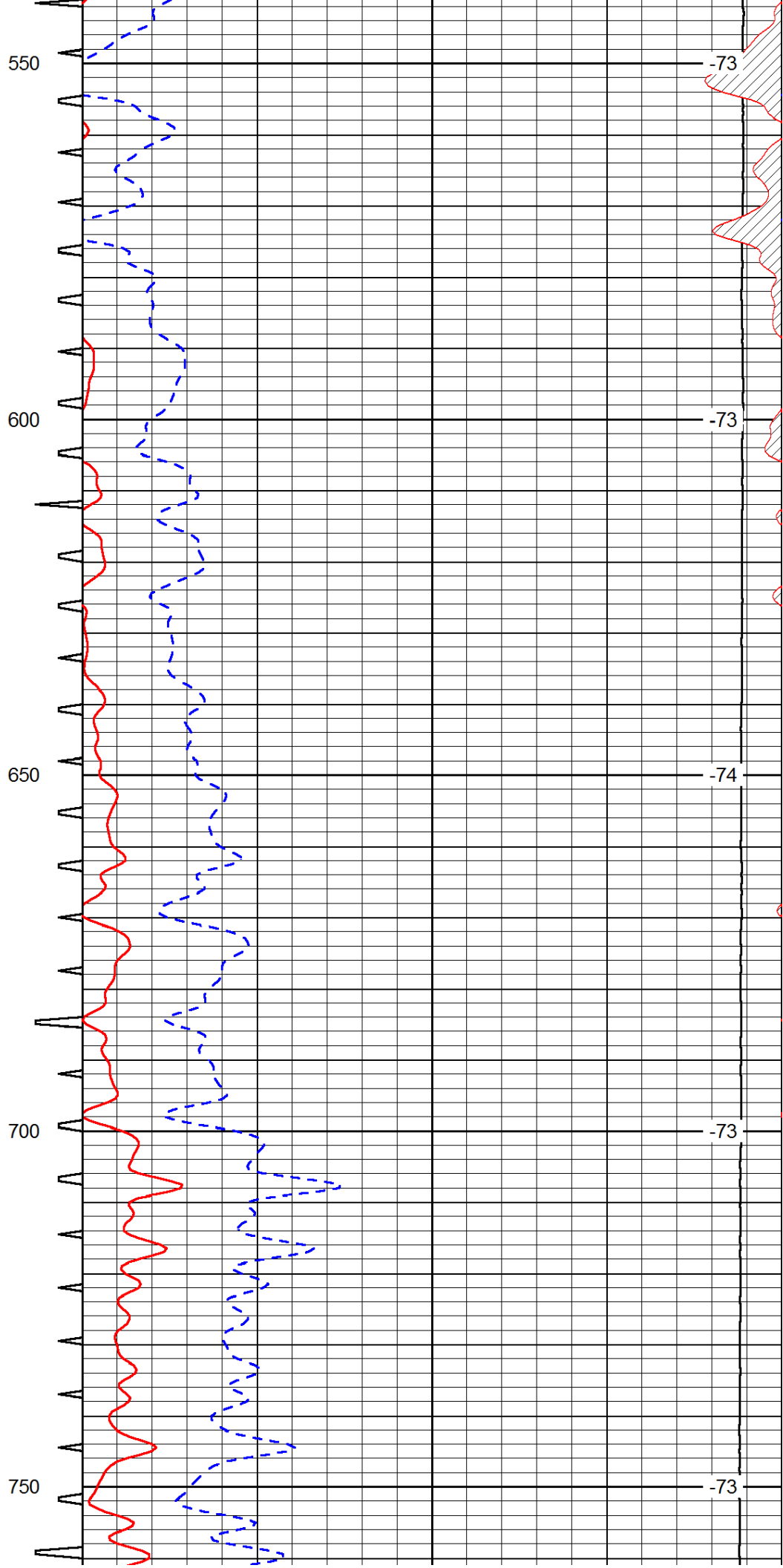
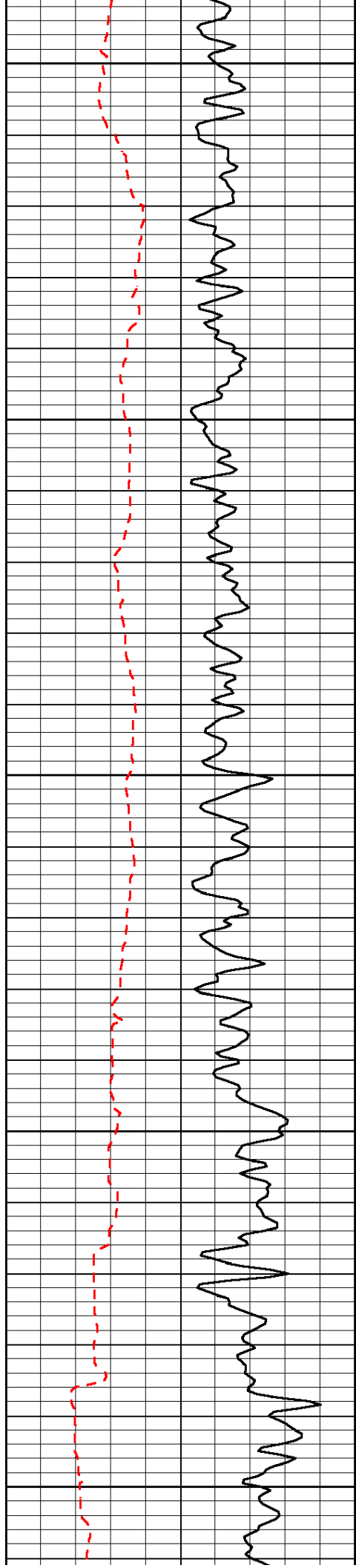
Atwood KS, 16 W to 5 Rd,  
6 N to V Rd, 1/2 E, S Into

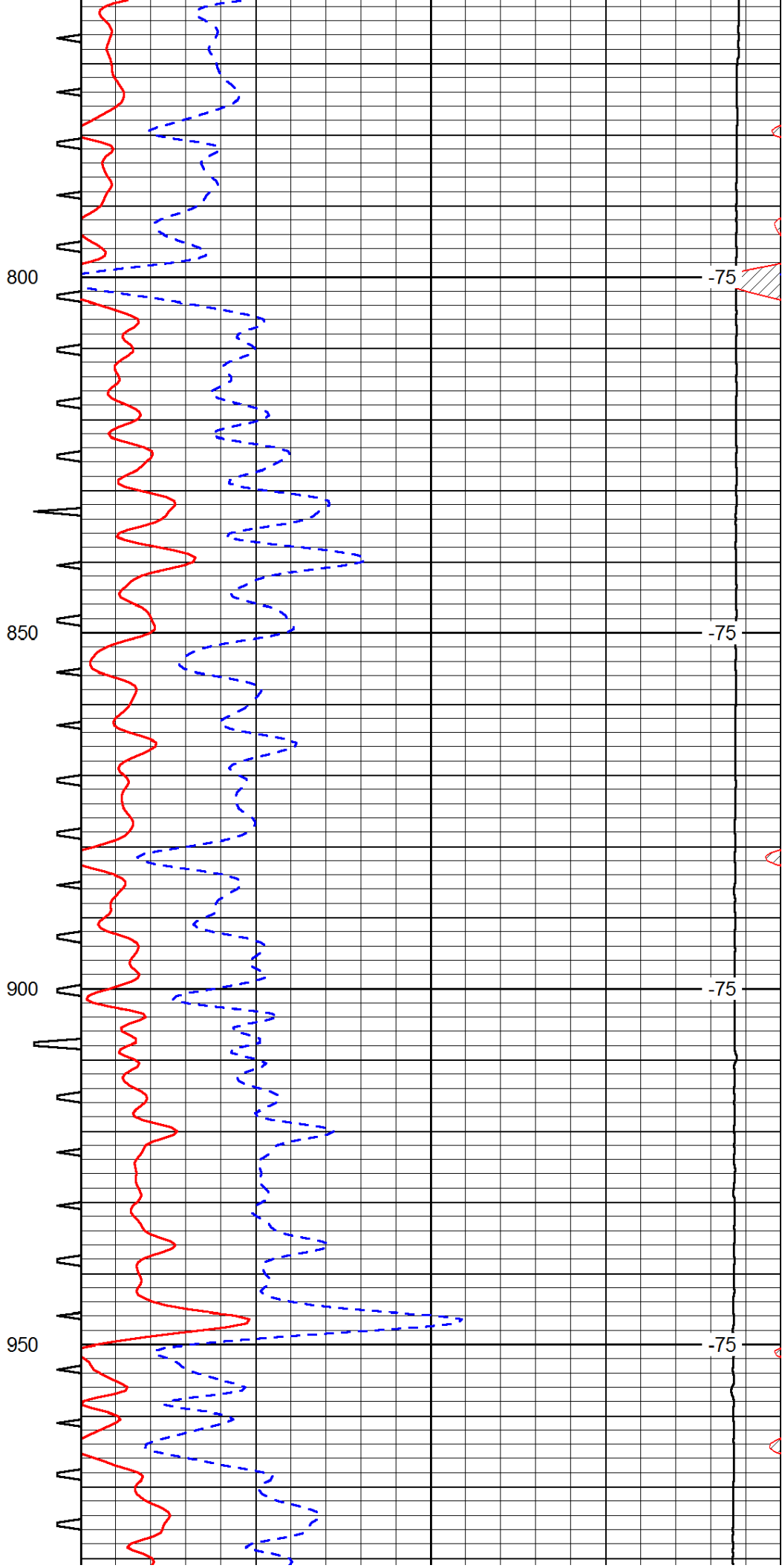
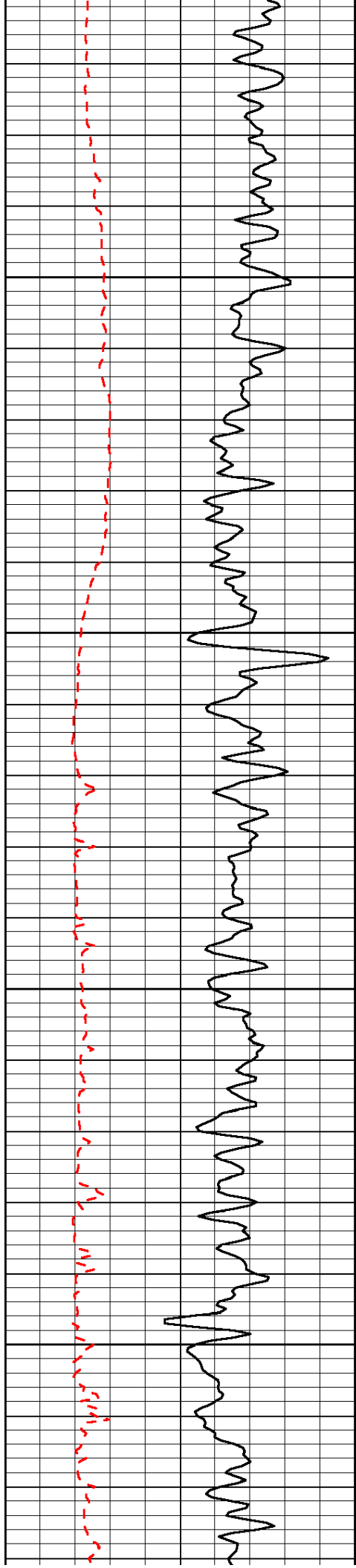
Database File: c:\warrior\data\murfin\_frisbie #1-23\murfhd.db  
Dataset Pathname: dil/murfstk  
Presentation Format: sonic  
Dataset Creation: Fri Nov 30 17:56:53 2012  
Charted by: Depth in Feet scaled 1:240

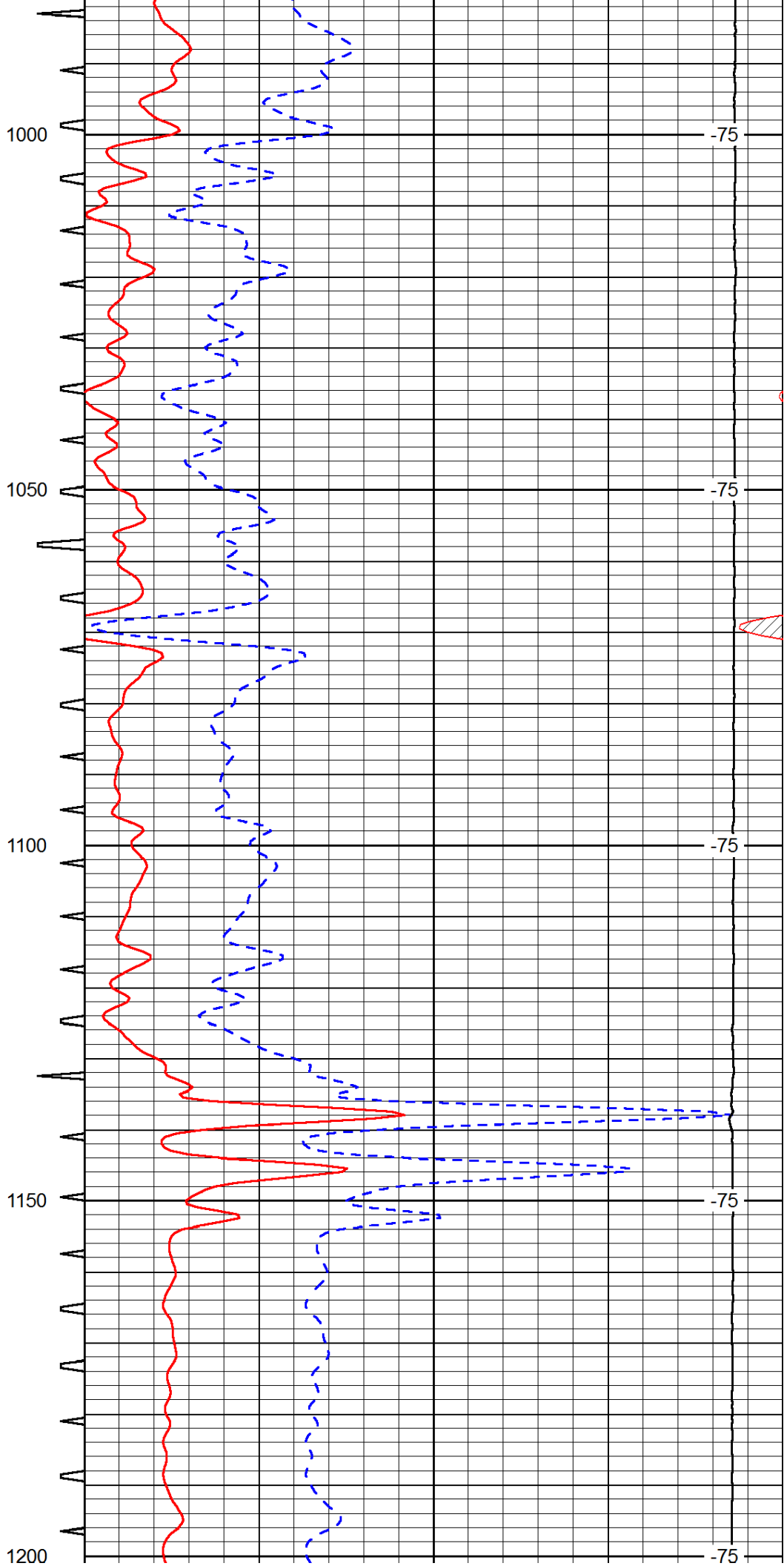
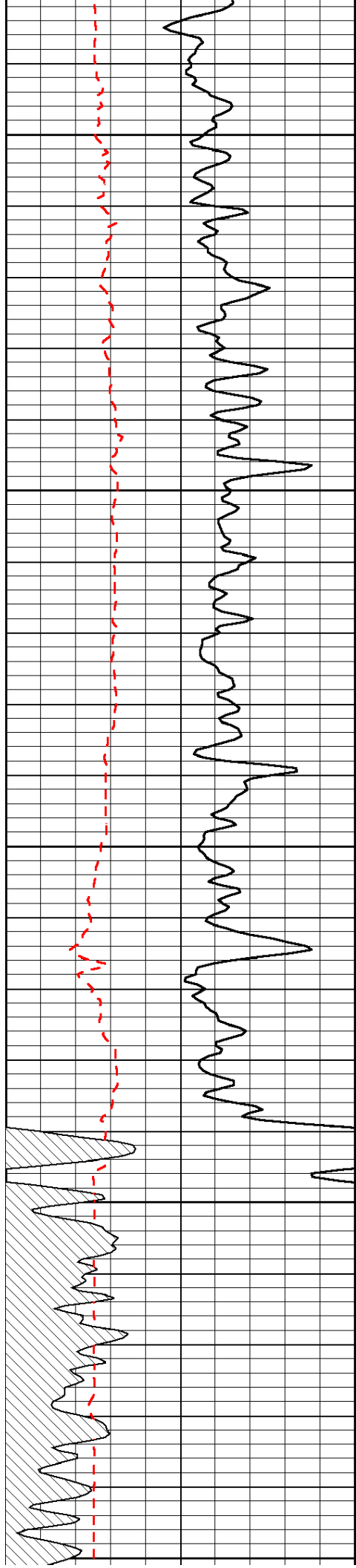
0	Gamma Ray	150	Sonic Int	140	Delta Time (usec/ft)	40
150	Gamma Ray	300	5	0	SPOR	-10
6	Caliper (GAPI)	16		15000	LTEN (lb)	0

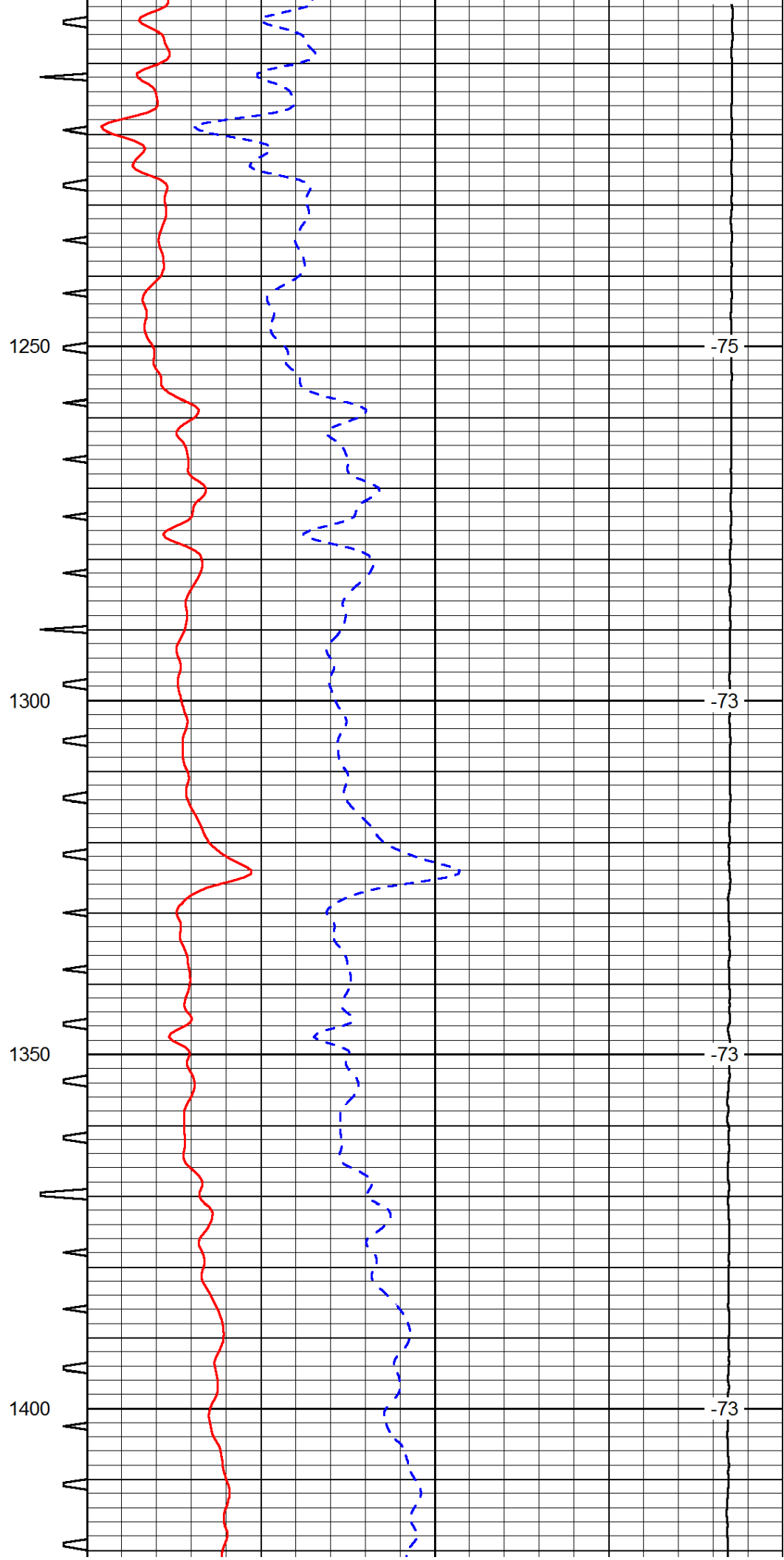
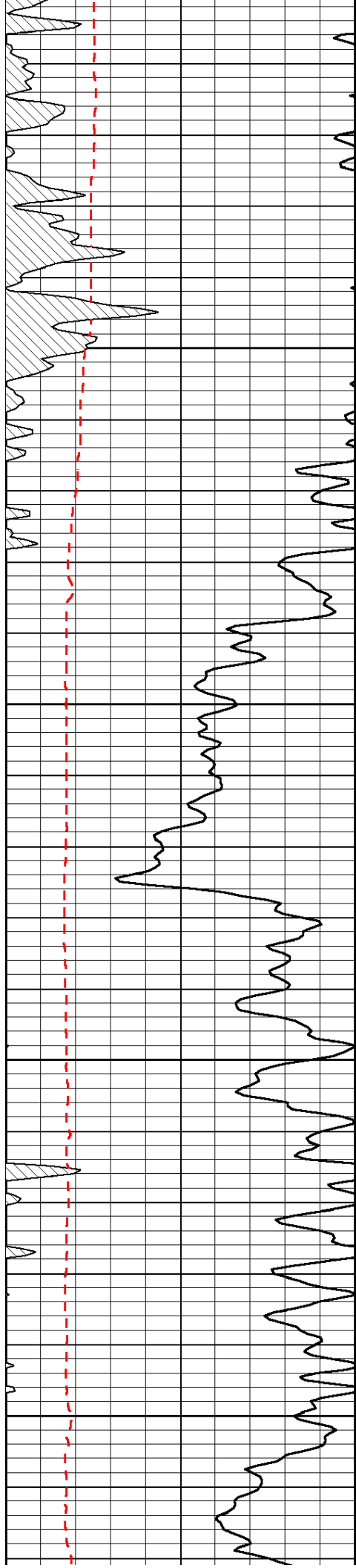
LSPD

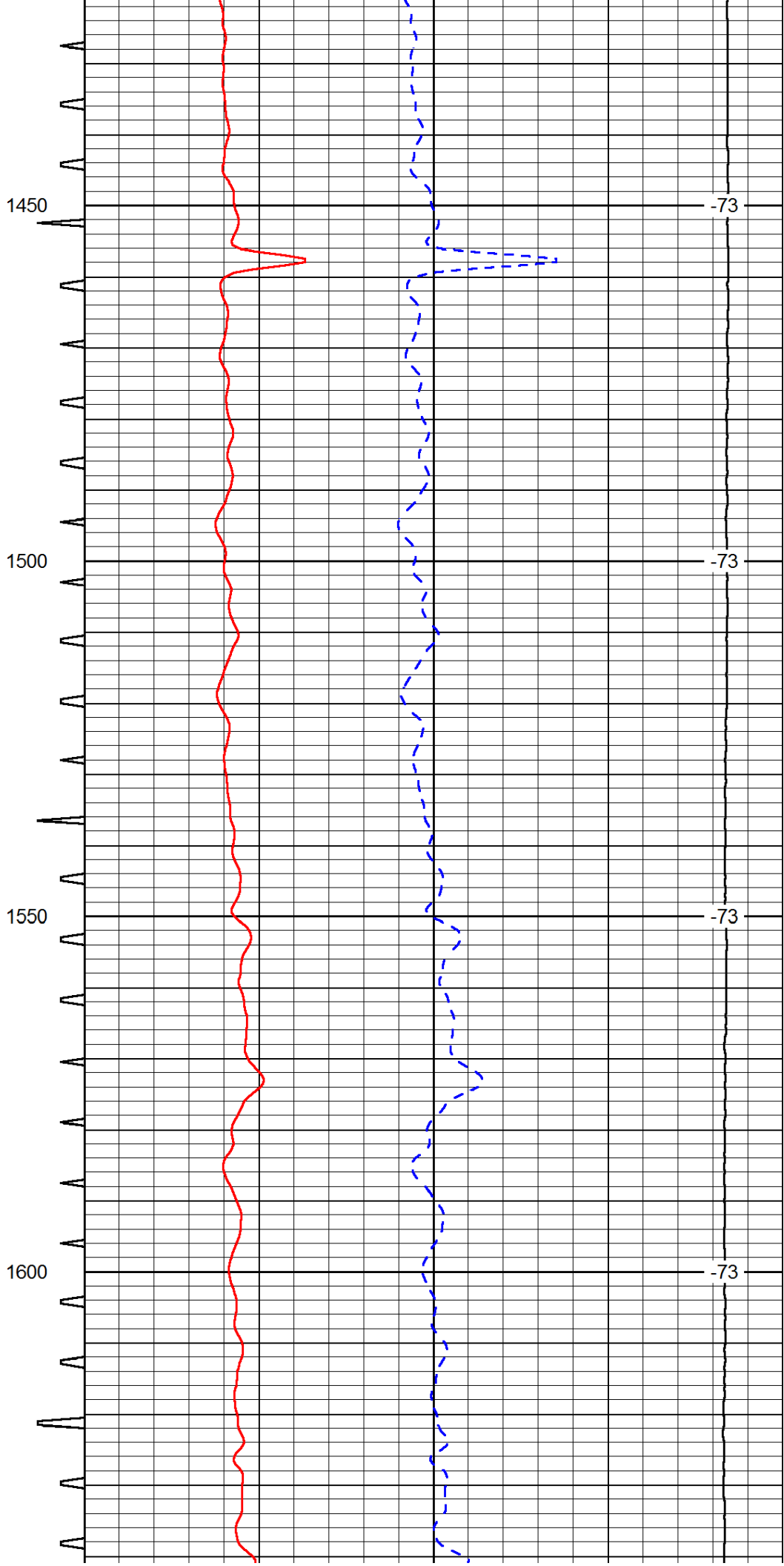
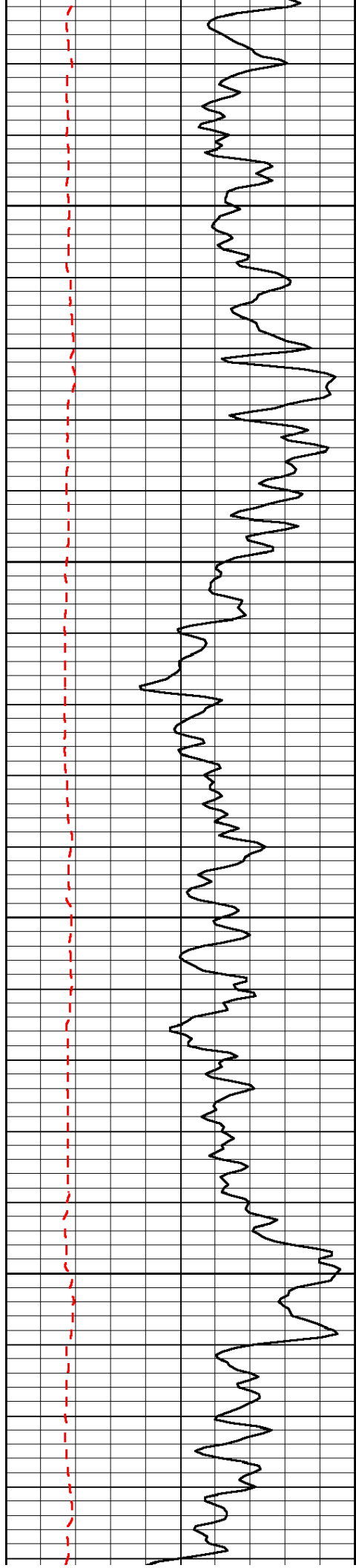


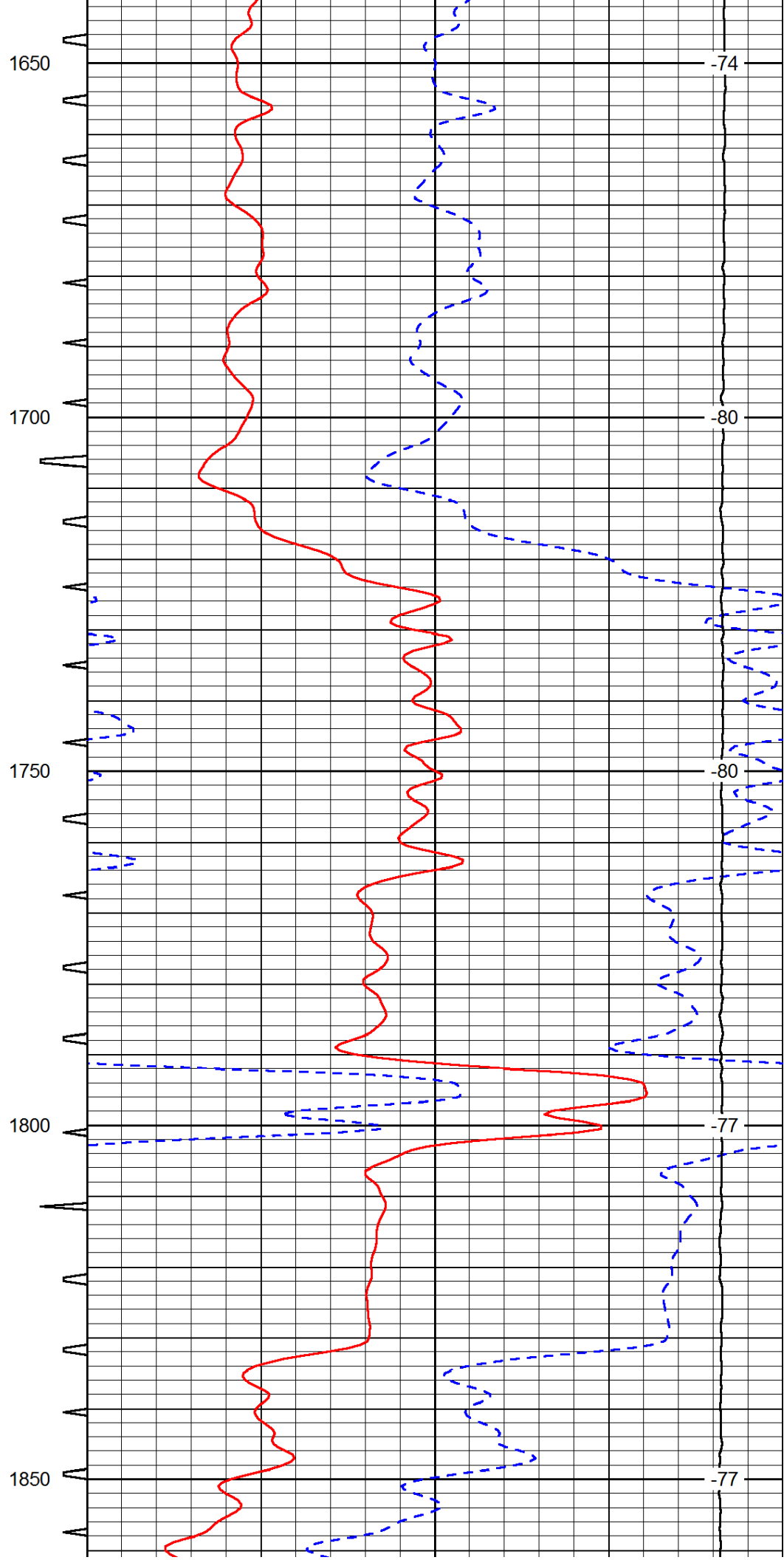
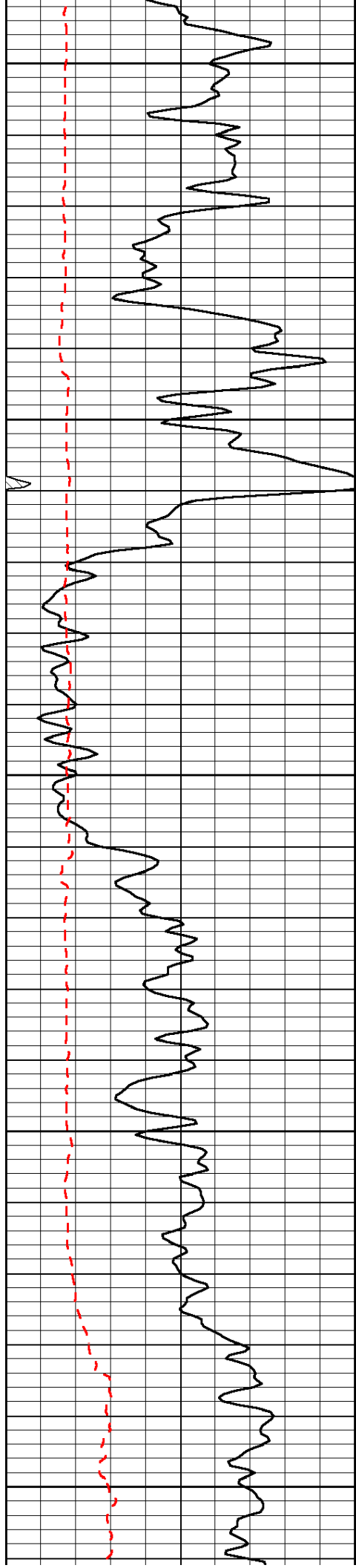




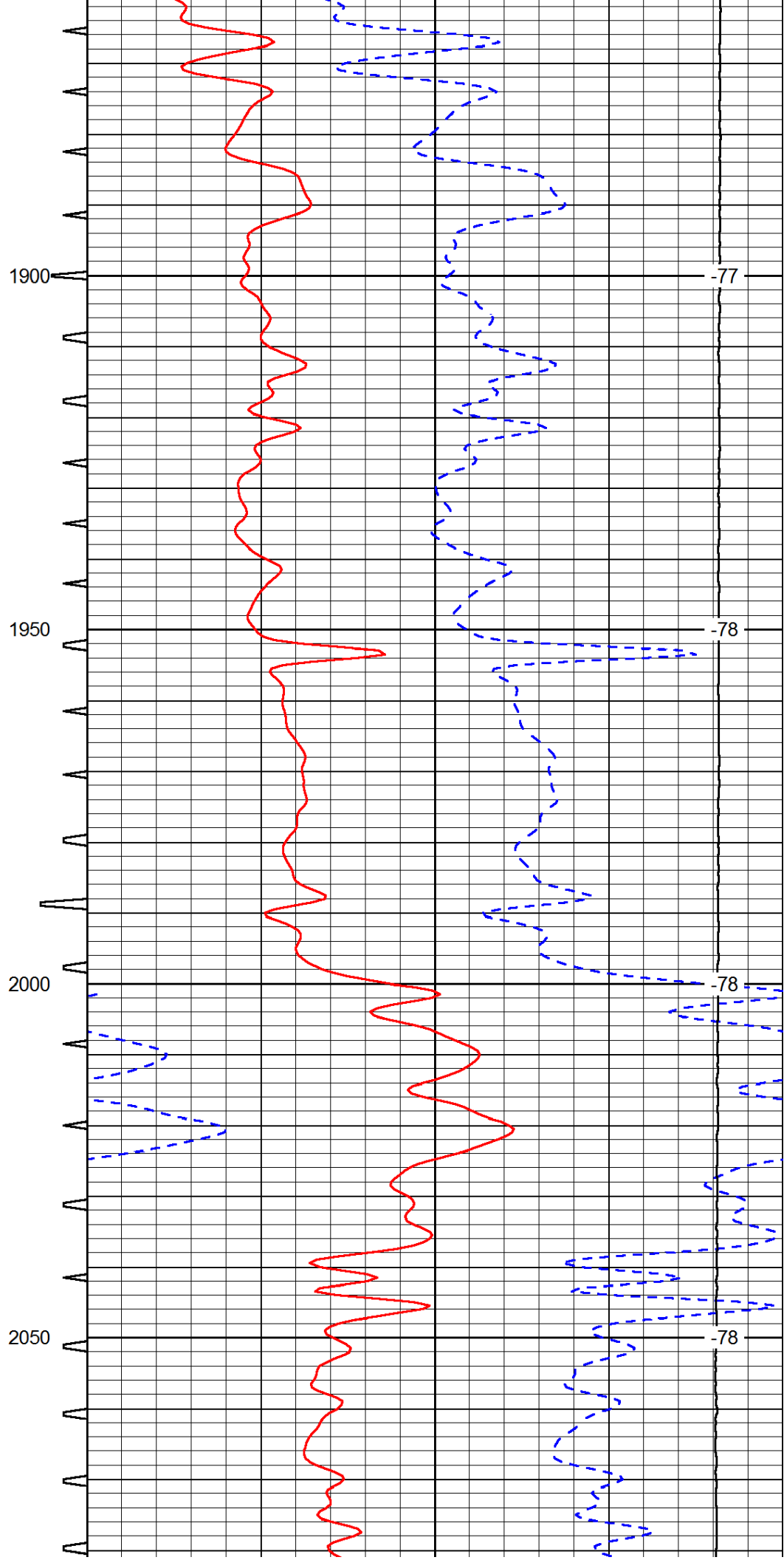
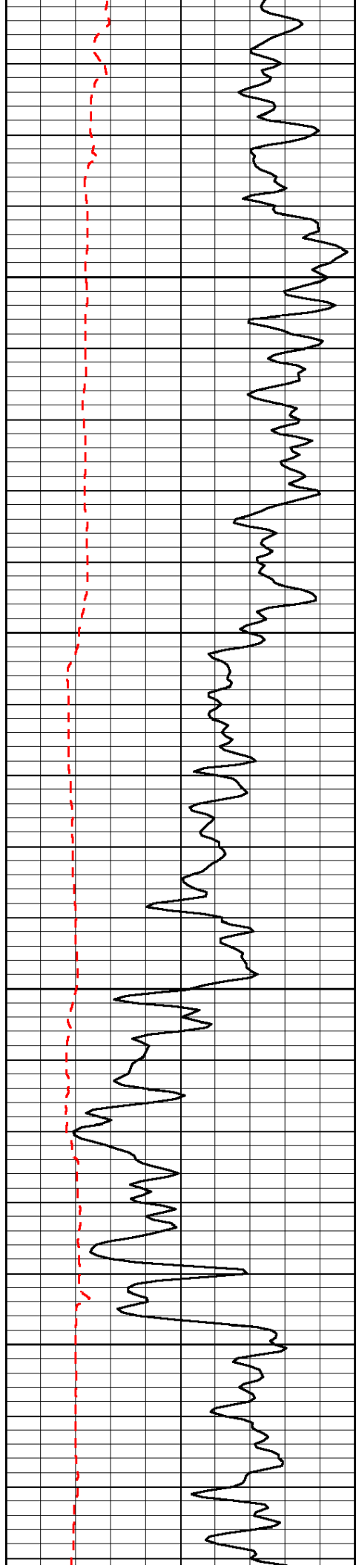


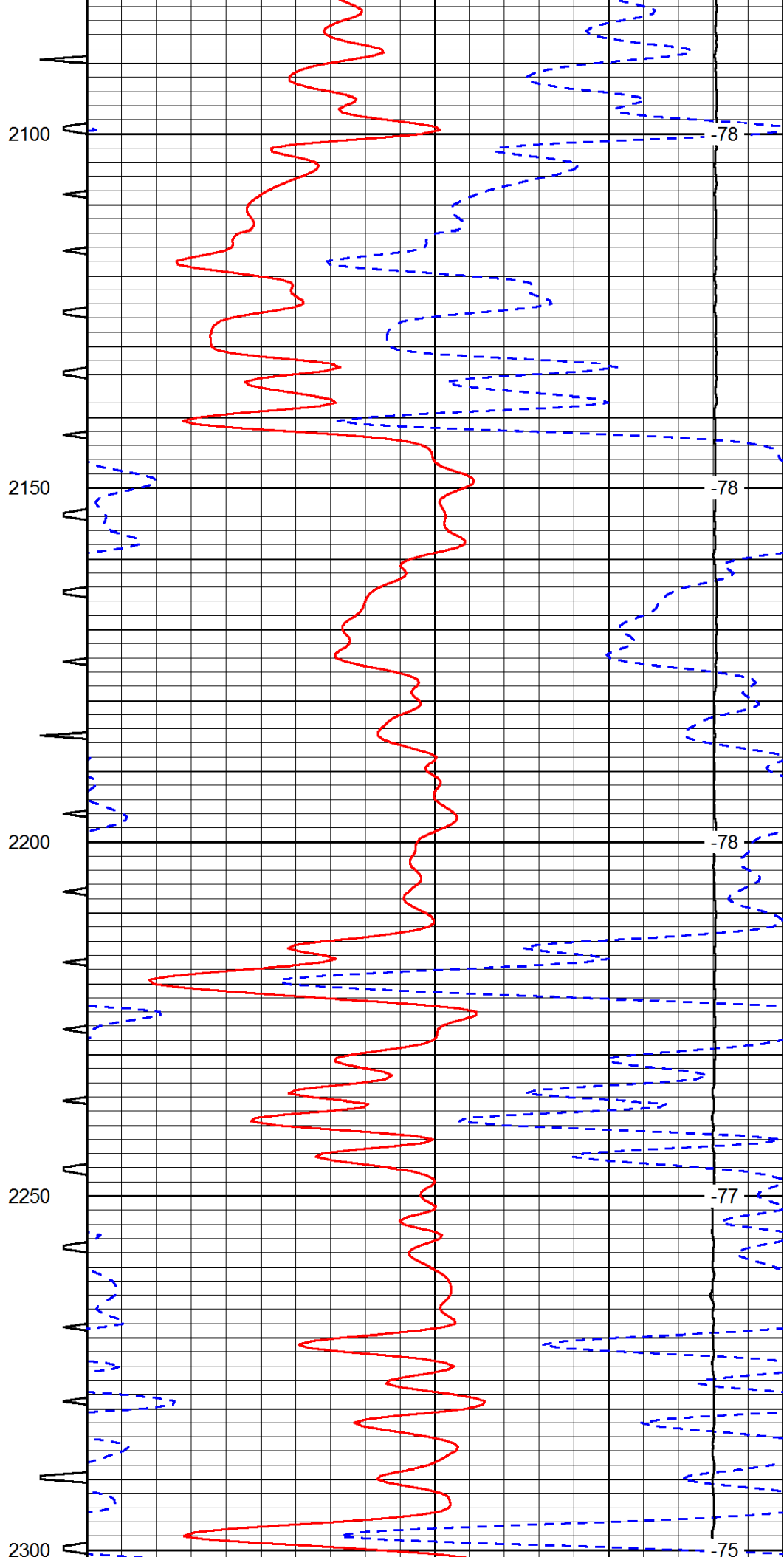
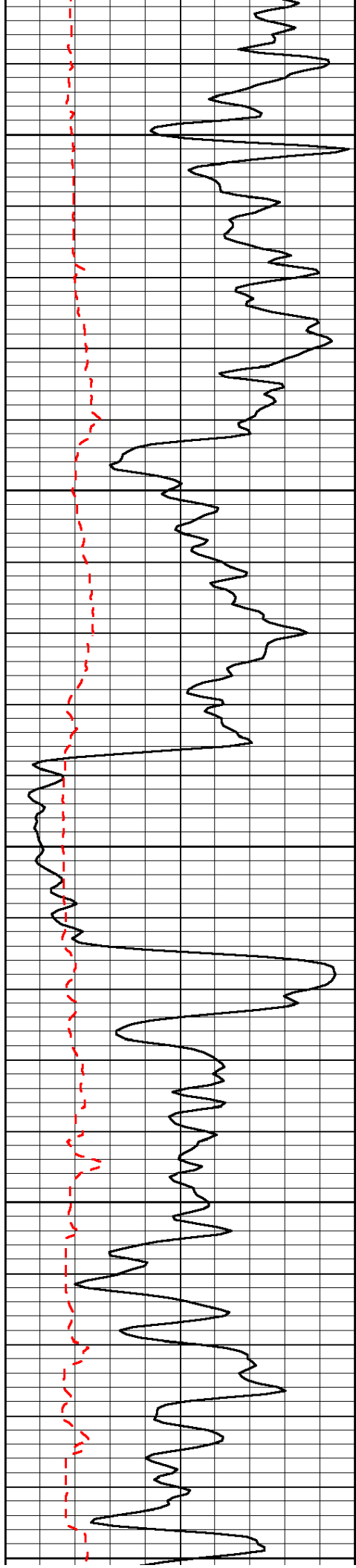


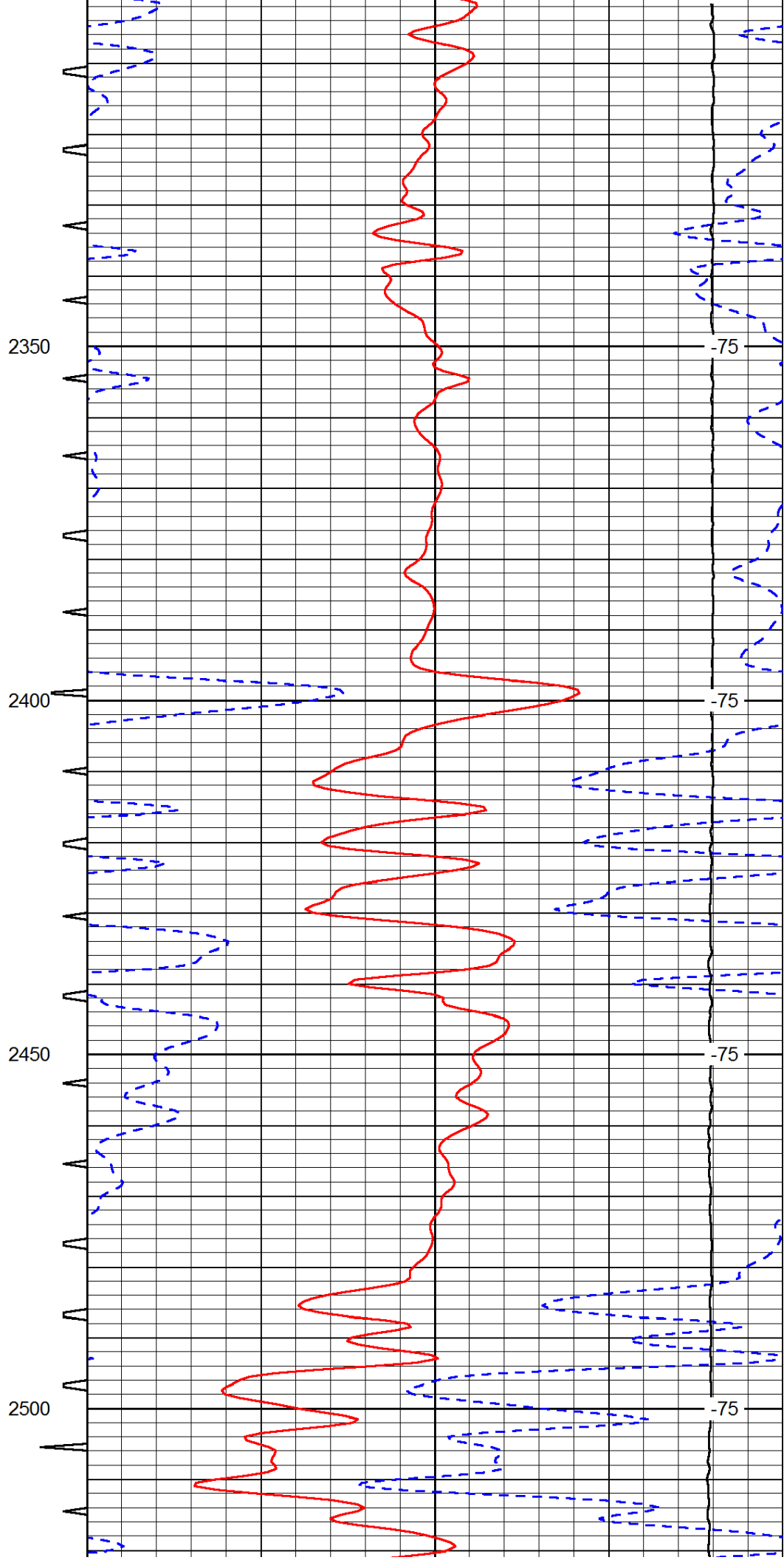
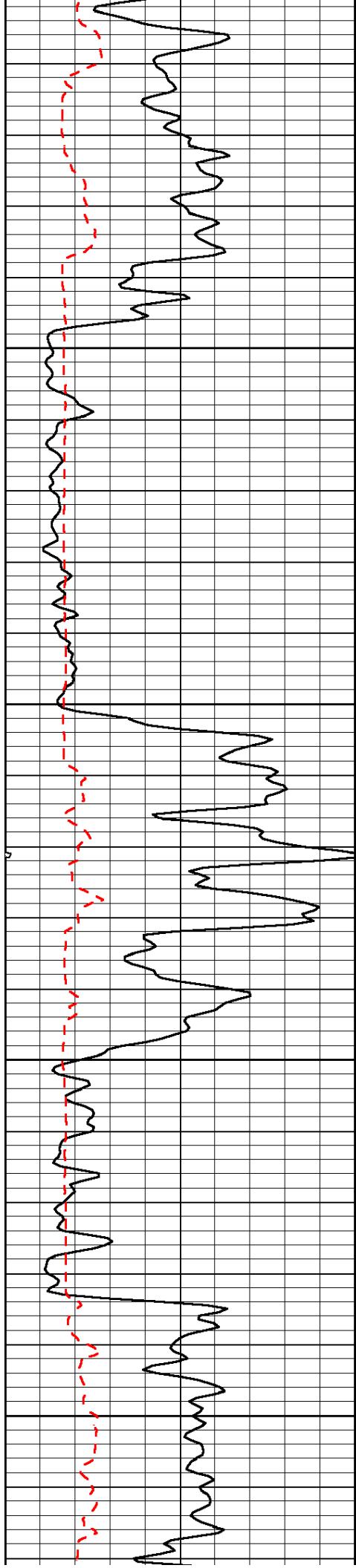


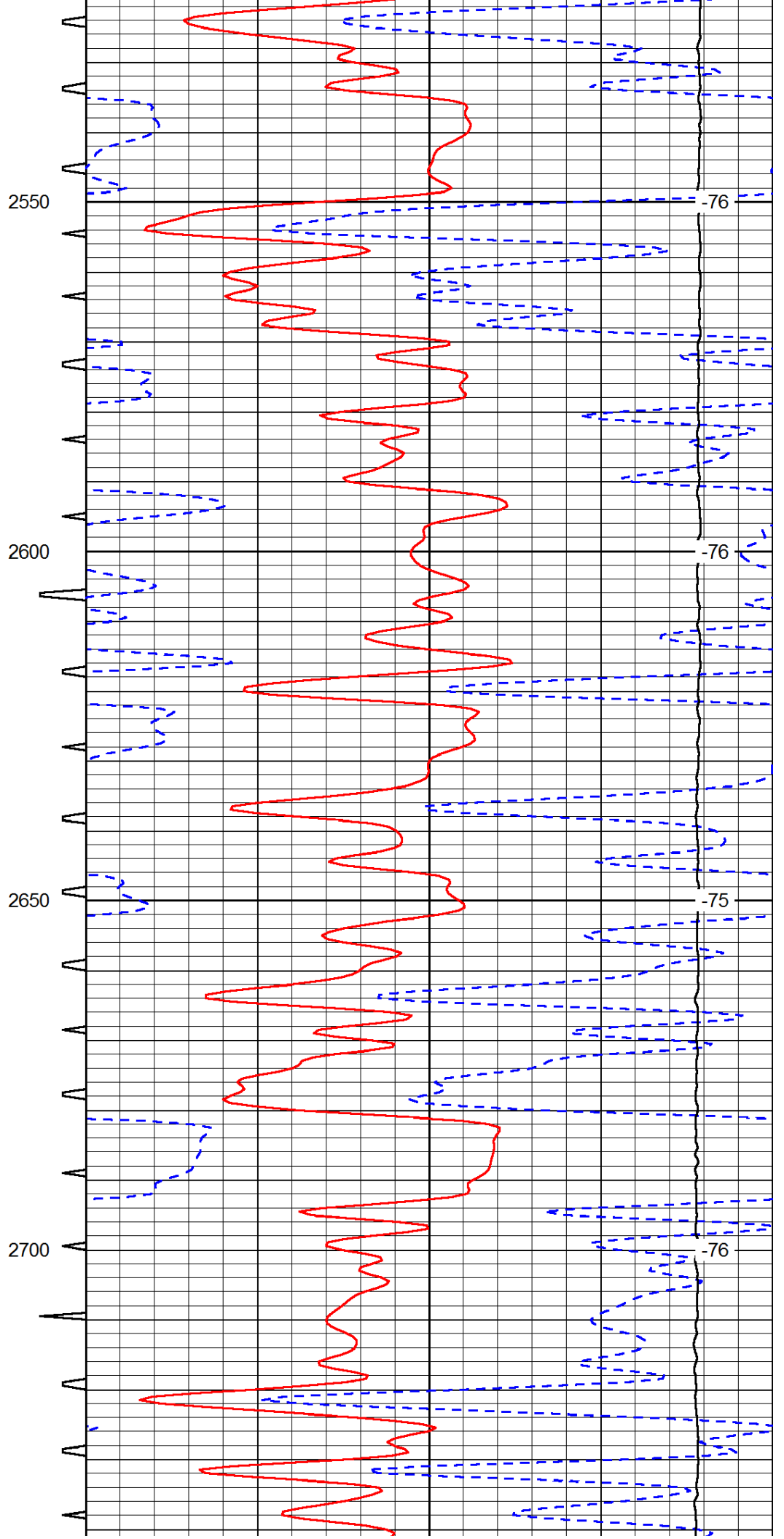
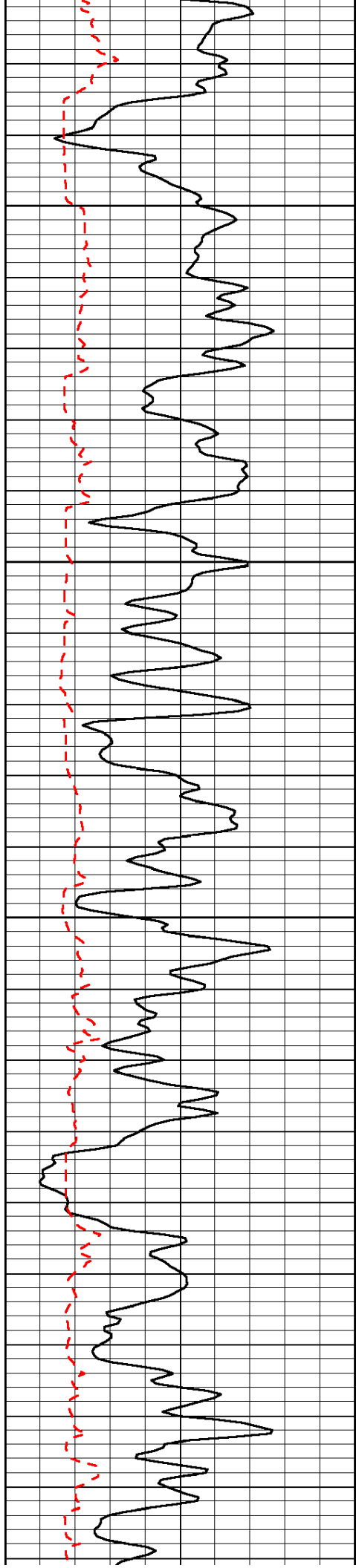


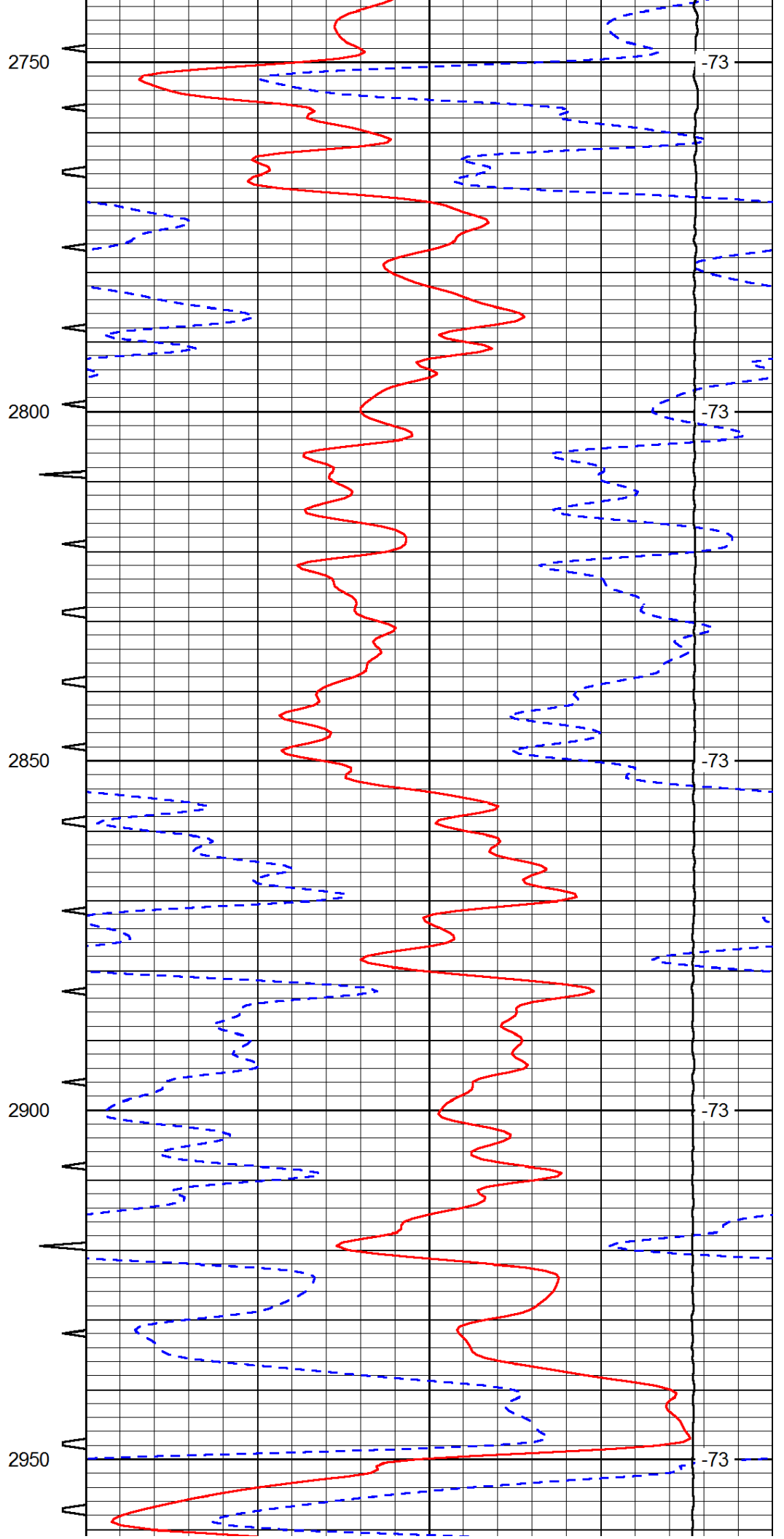
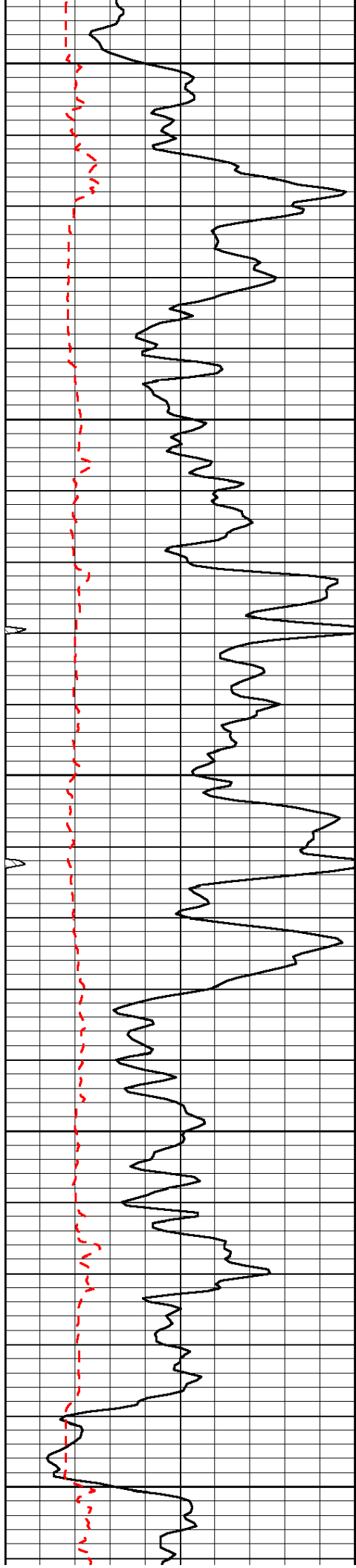


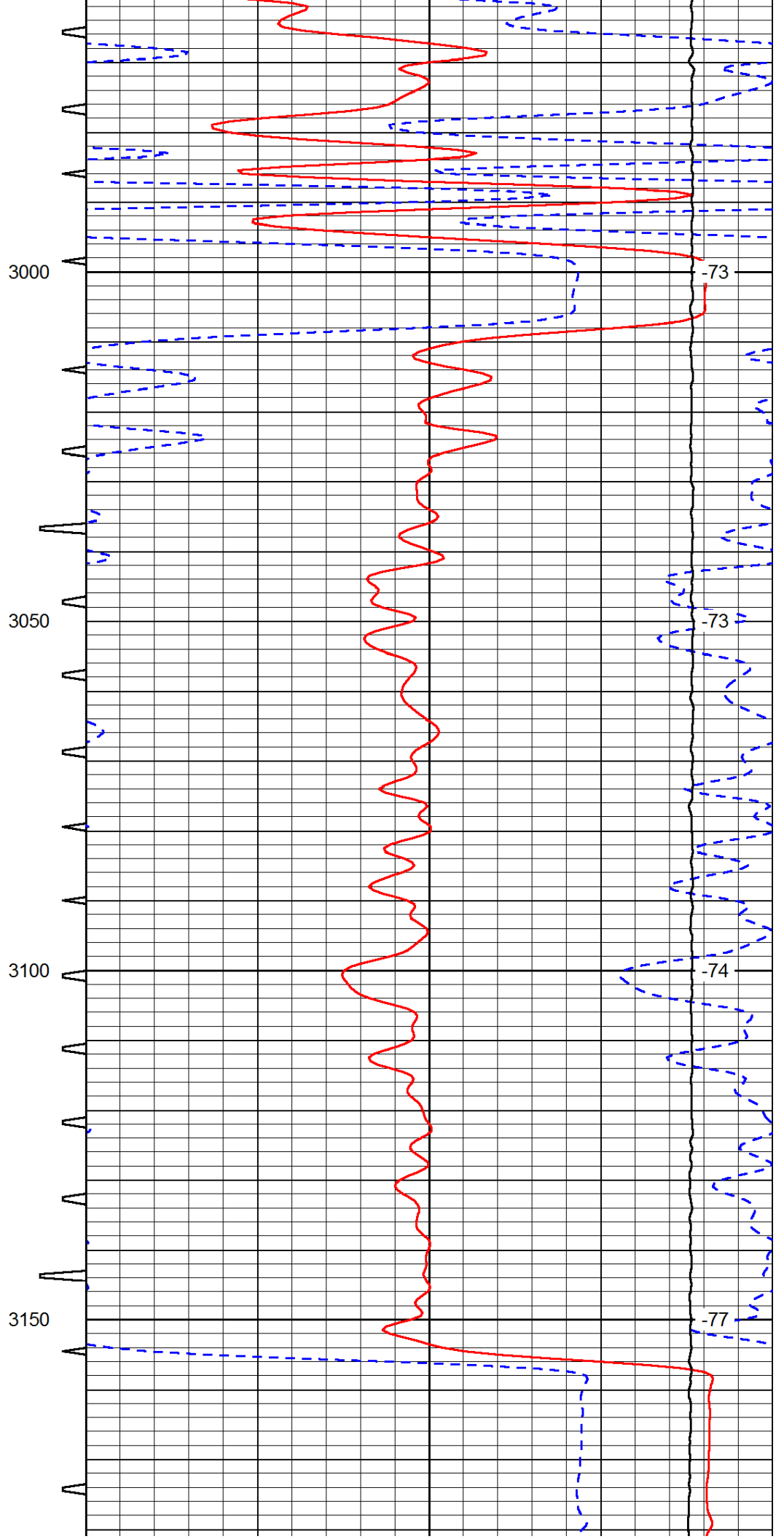
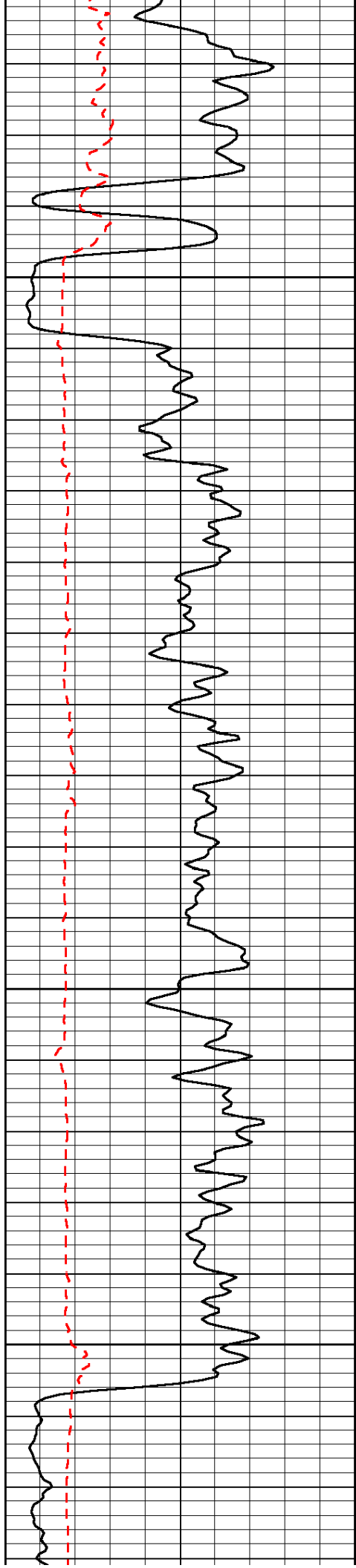


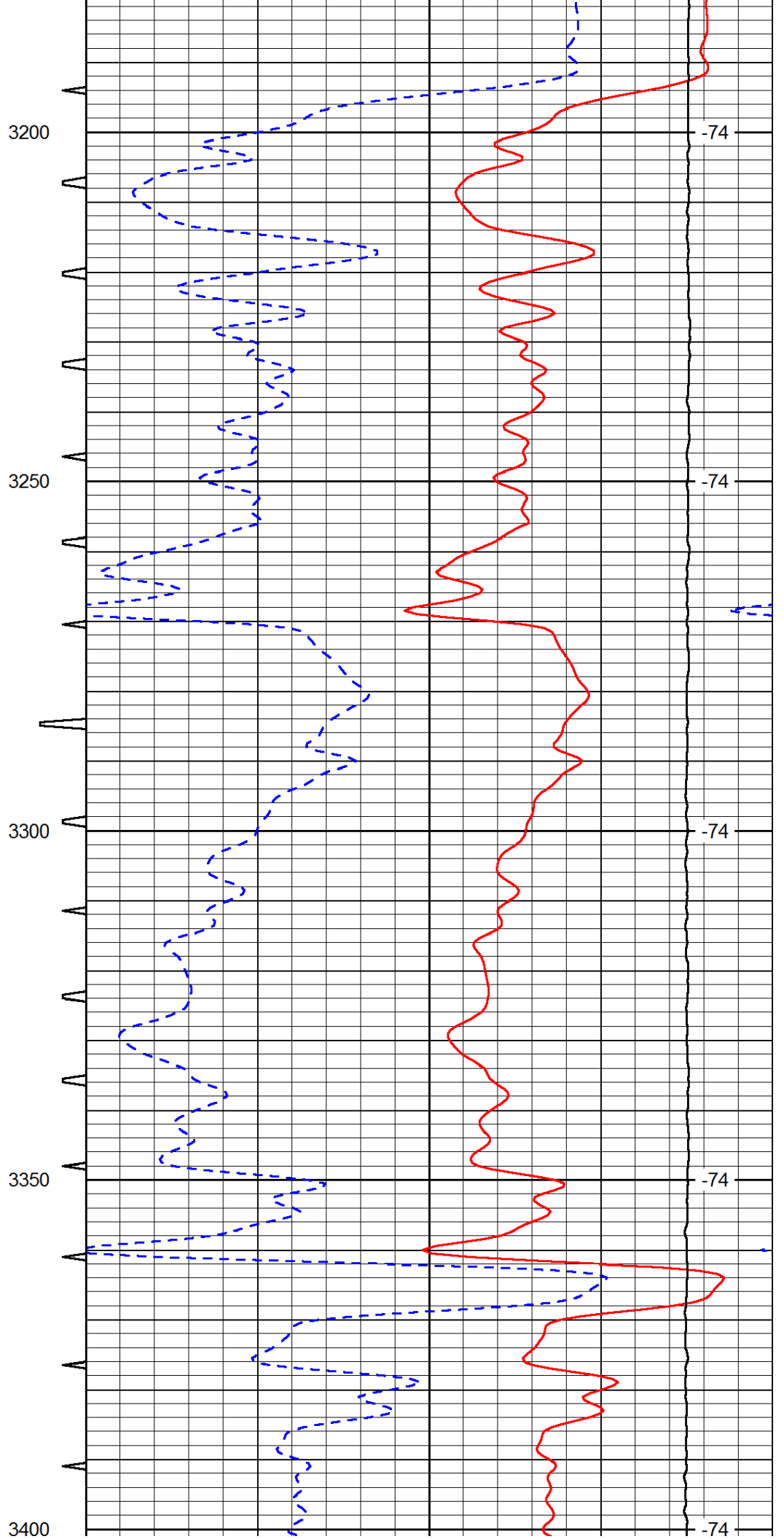
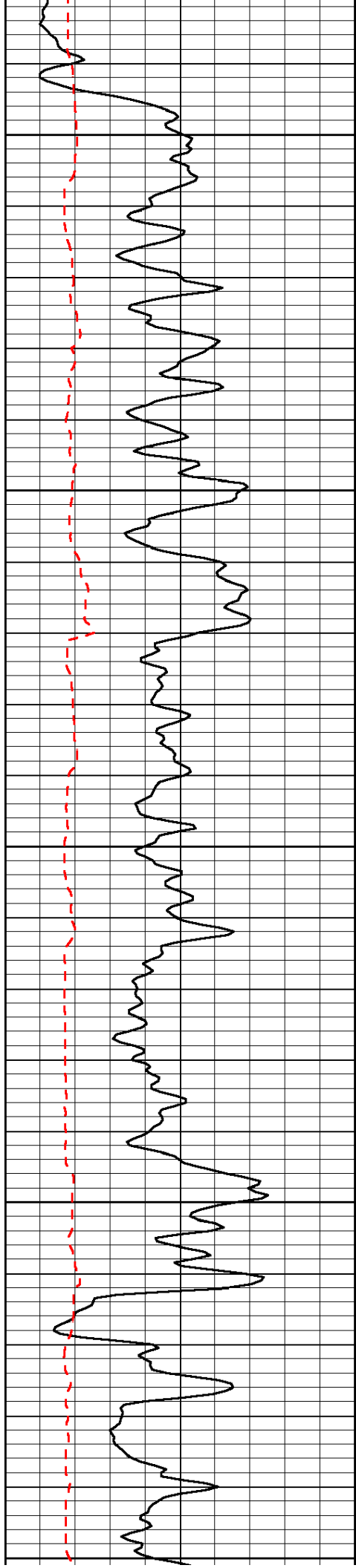


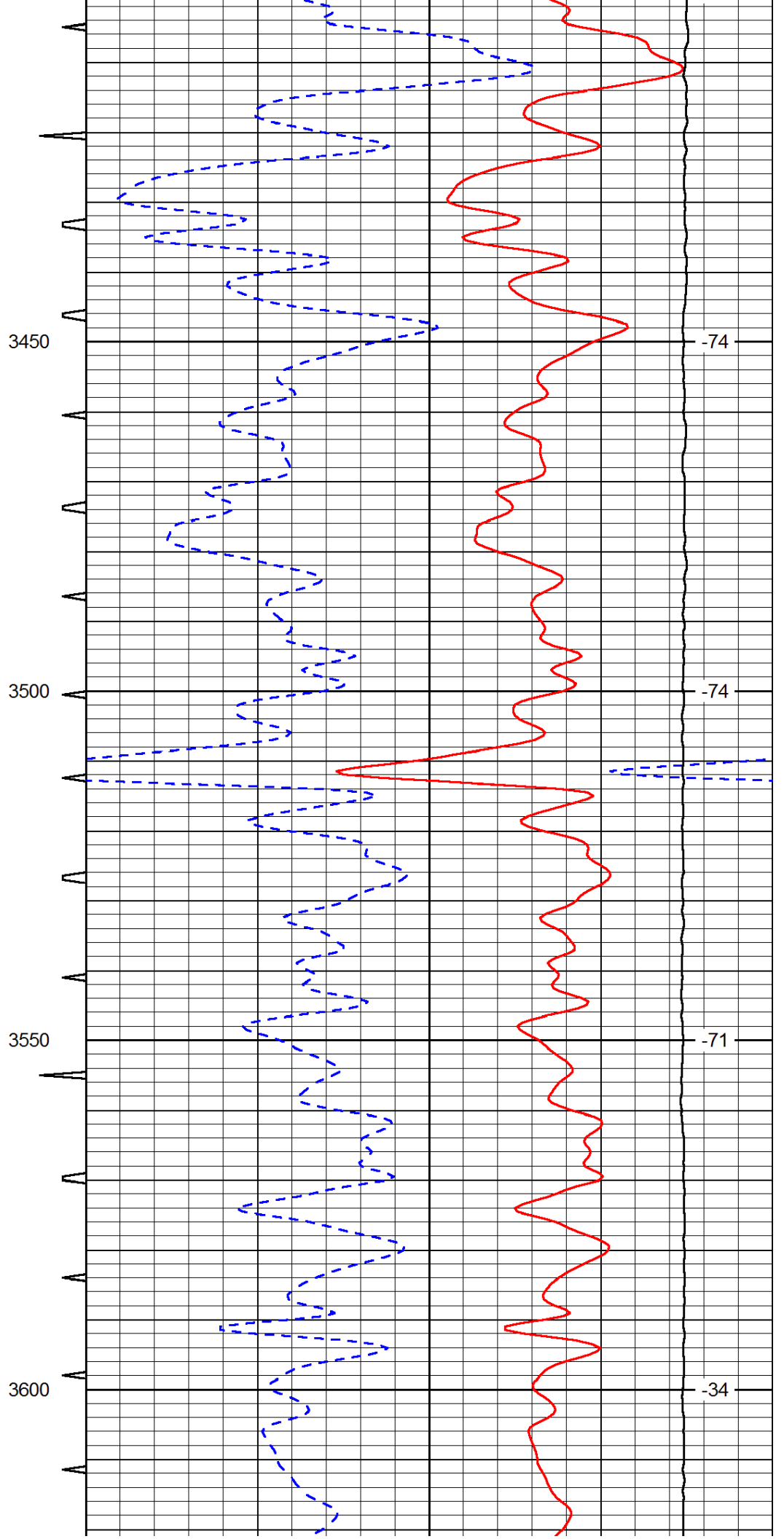
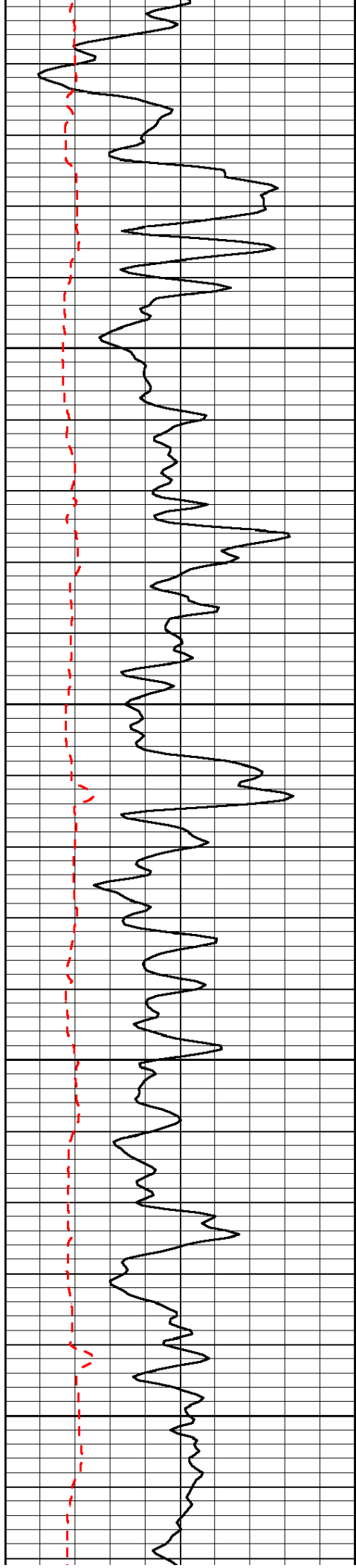




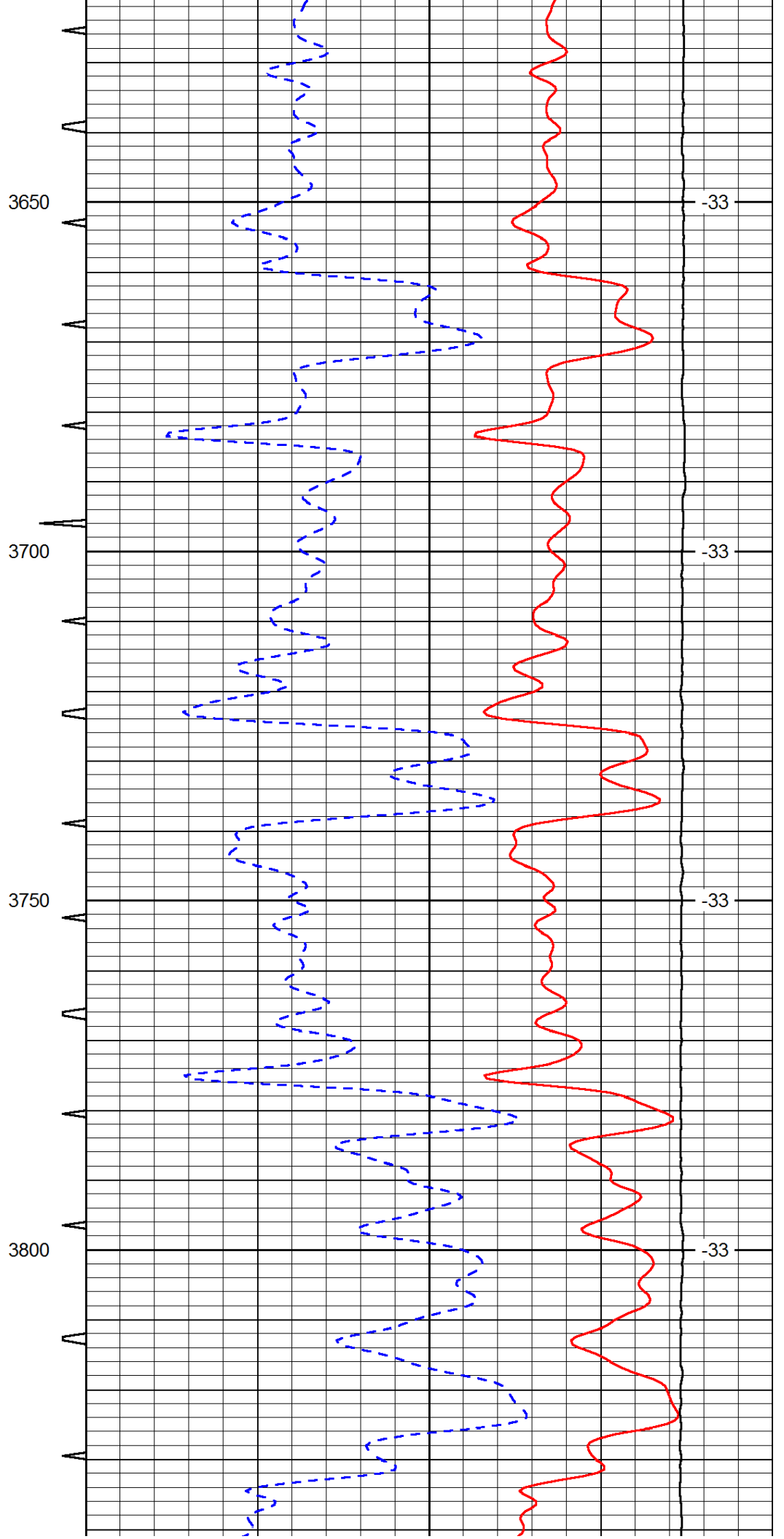
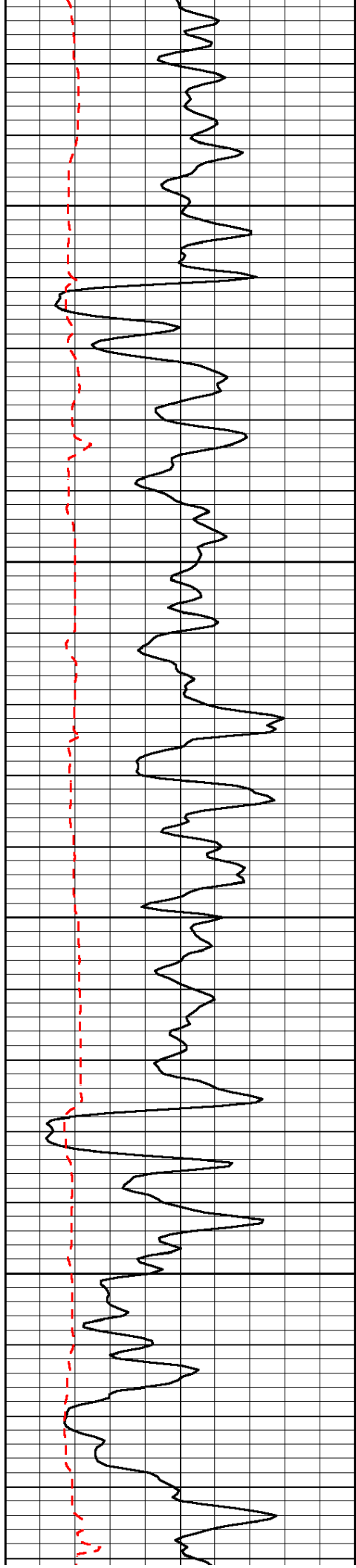


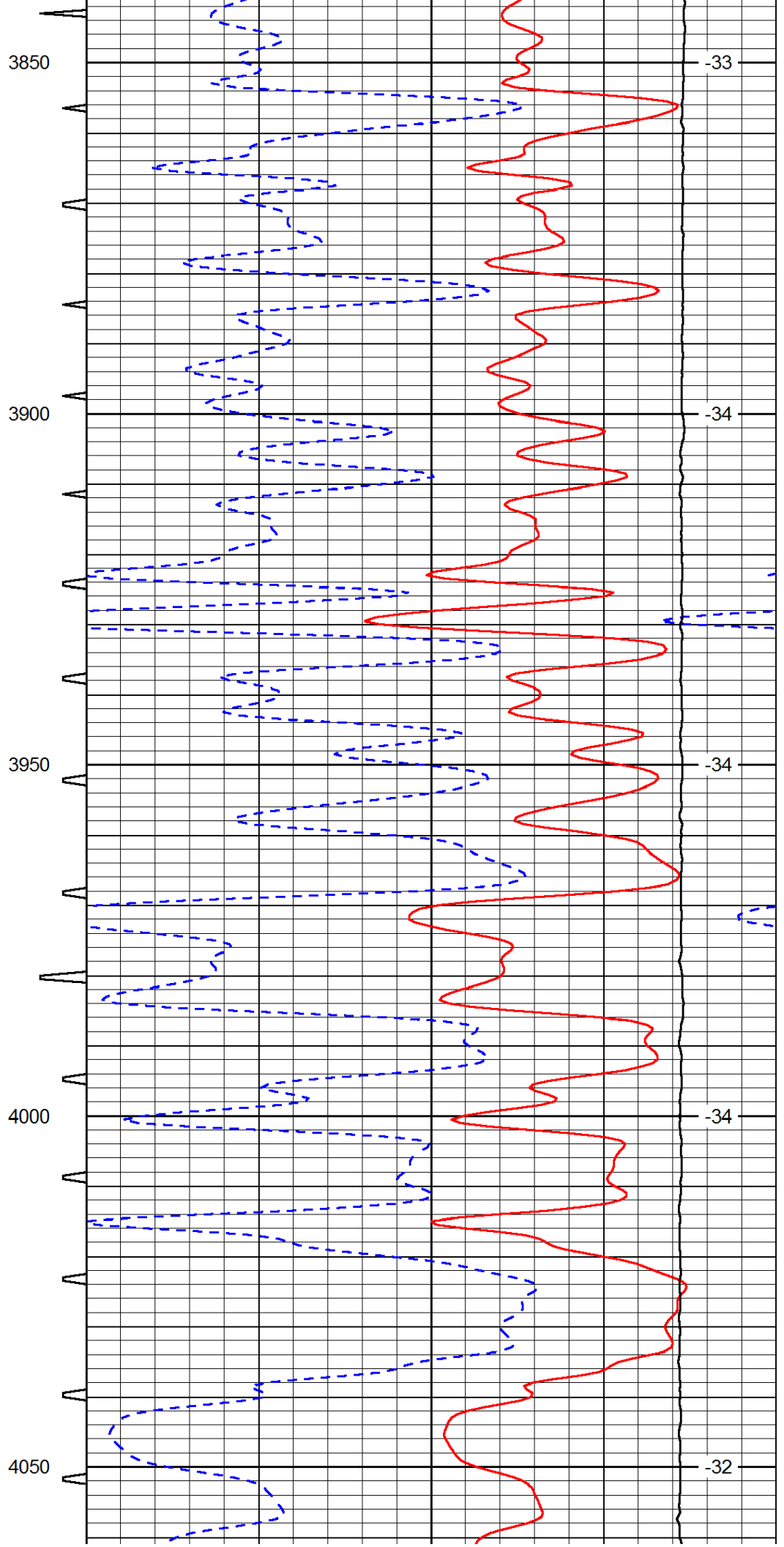
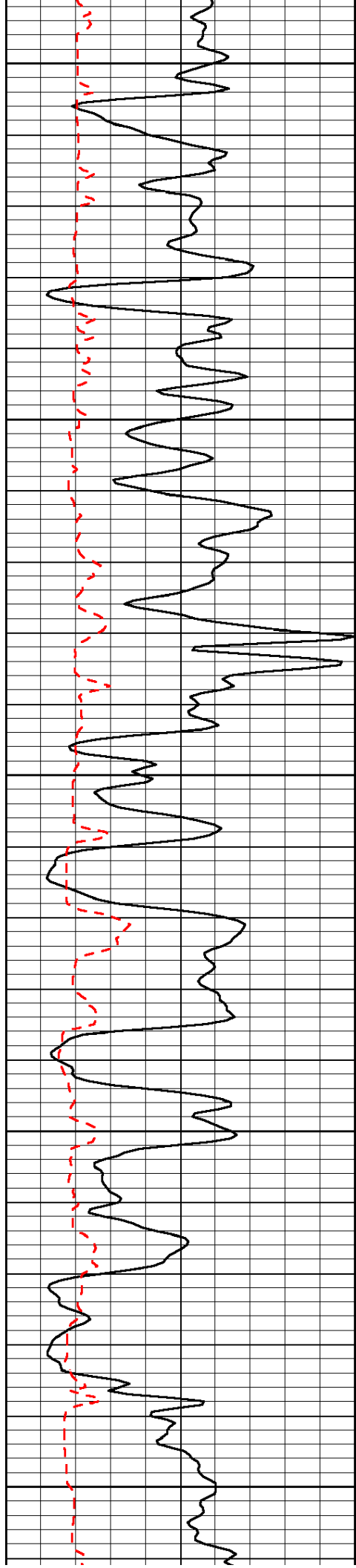












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