



PIONEER

Pioneer Energy Services

Borehole Compensated Sonic Log

API No.

15-007-24181-00-00

Company Lario Oil & Gas Company

Well Houlton #5

Field Whelan Southwest

County Barber State Kansas

Location 1650' FSL & 2310' FEL

Sec: 4 Twp: 32S Rge: 12W

Permanent Datum Ground Level Elevation 1478
Log Measured From Kelly Bushing 10 Ft. Above Perm. Datum
Drilling Measured From Kelly Bushing

Other Services
CNL/CDL
MEL/DIL

Elevation
K.B. 1488
D.F.
G.L. 1478

Date 6/20/2014

Run Number Two

Type Log BHC Sonic

Depth Driller 4525

Depth Logger 4523

Bottom Logged Interval 4512

Top Logged Interval 250

Type Fluid In Hole Chemical

Salinity, PPM CL 4000

Density 9.3

Level Full

Max. Rec. Temp. F 123

Operating Rig Time 6 Hours

Equipment -- Location 91 Hays

Recorded By D. Schmidt

Witnessed By Jeff Quimby

Borehole Record

Casing Record

Run No	Bit	From	To	Size	Wgt.	From	To
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One	12.25	00	290	8.625	23#	00	290
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Two	7.875	290	TD				
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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.

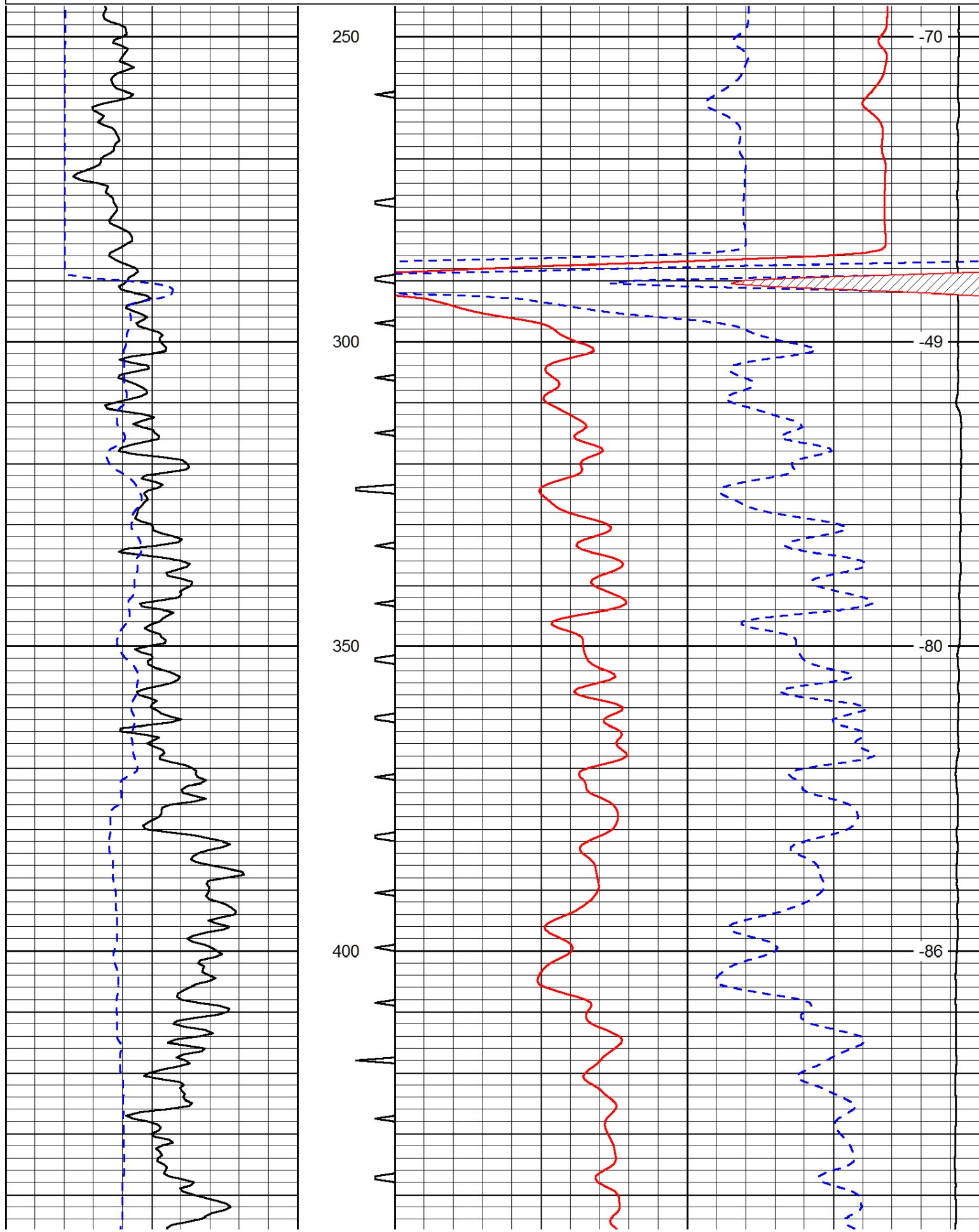
Comments

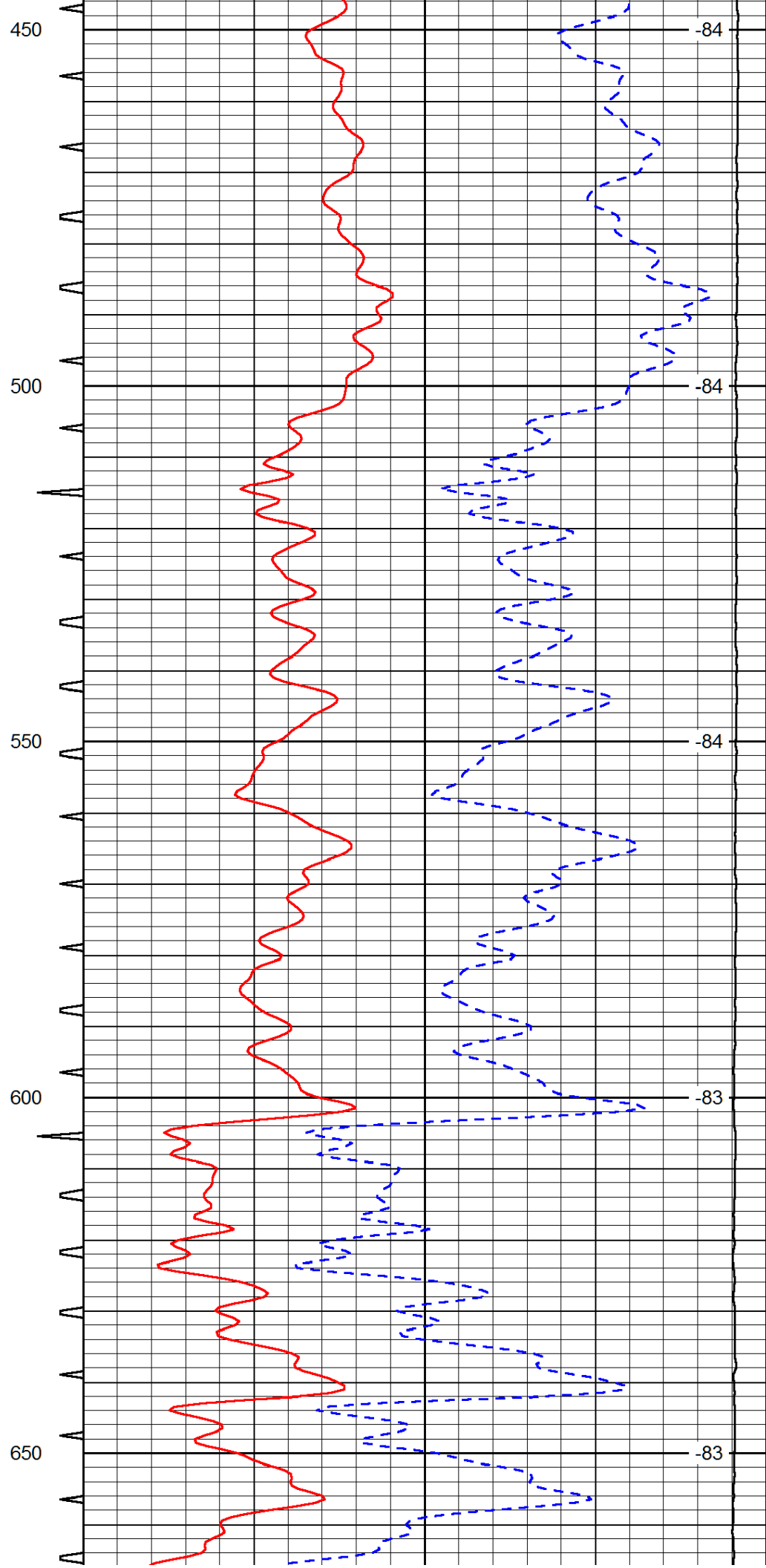
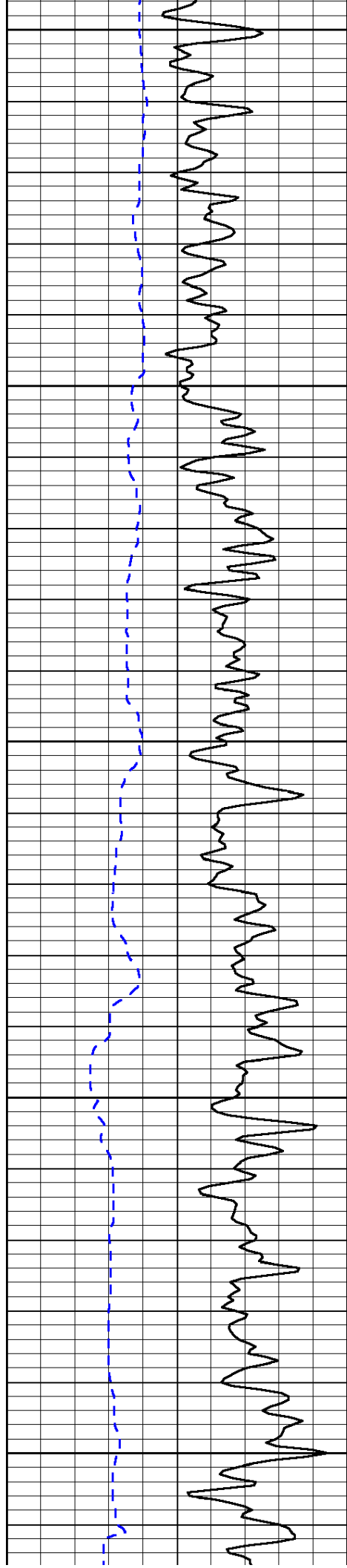
Thank you for using Log-Tech, Inc.
(785) 625-3858

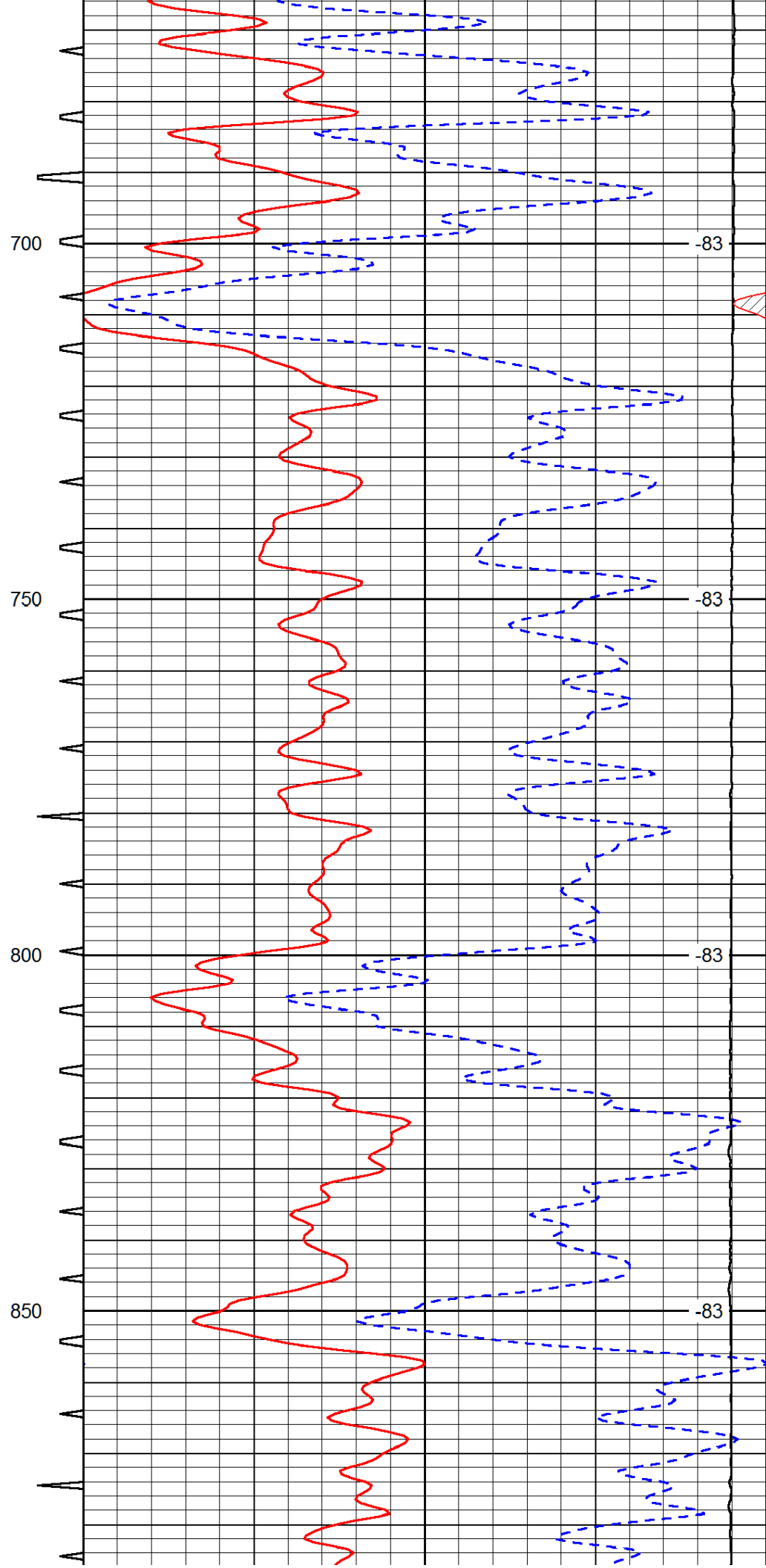
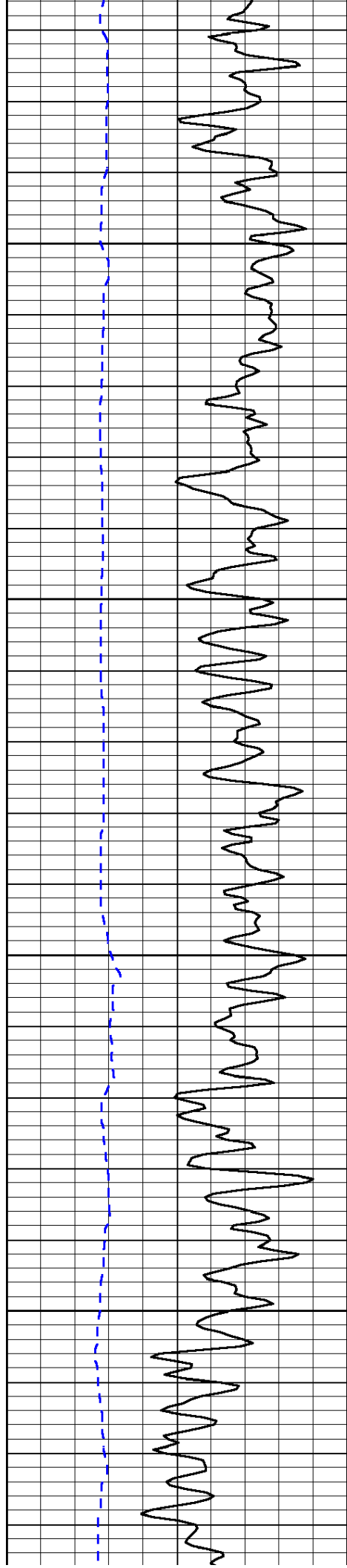
Medicine Lodge,
West on River Road to Spring Creek Road,
1/4 South, East into

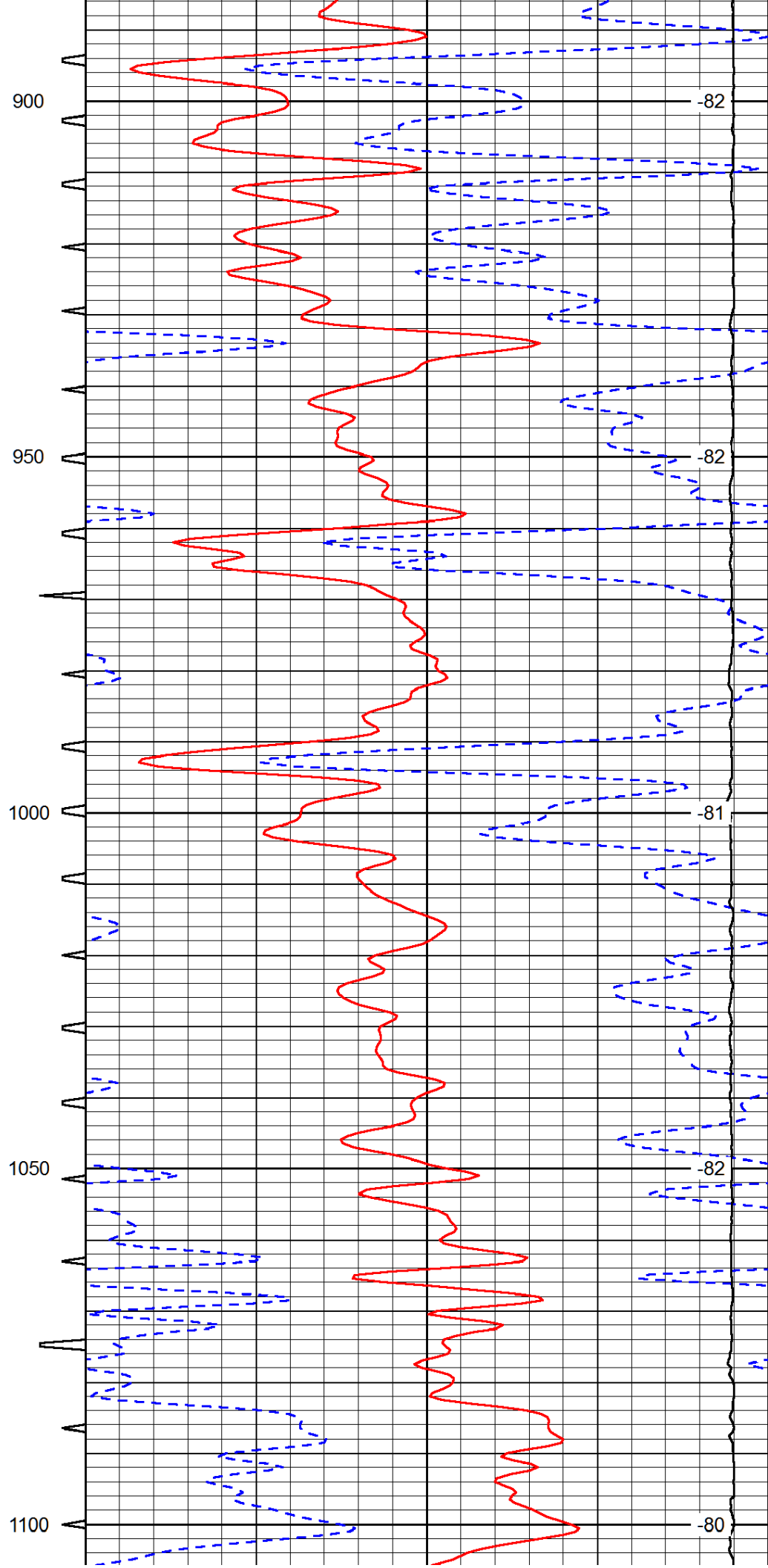
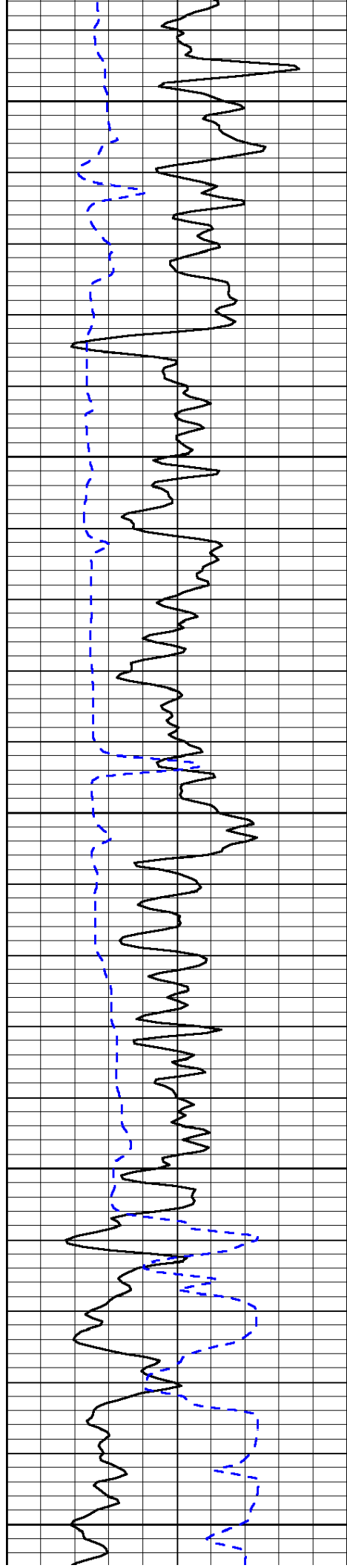
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Dataset Pathname: dil\\lastack
Presentation Format: sonic
Dataset Creation: Fri Jun 20 19:13:33 2014
Charted by: Depth in Feet scaled 1:240

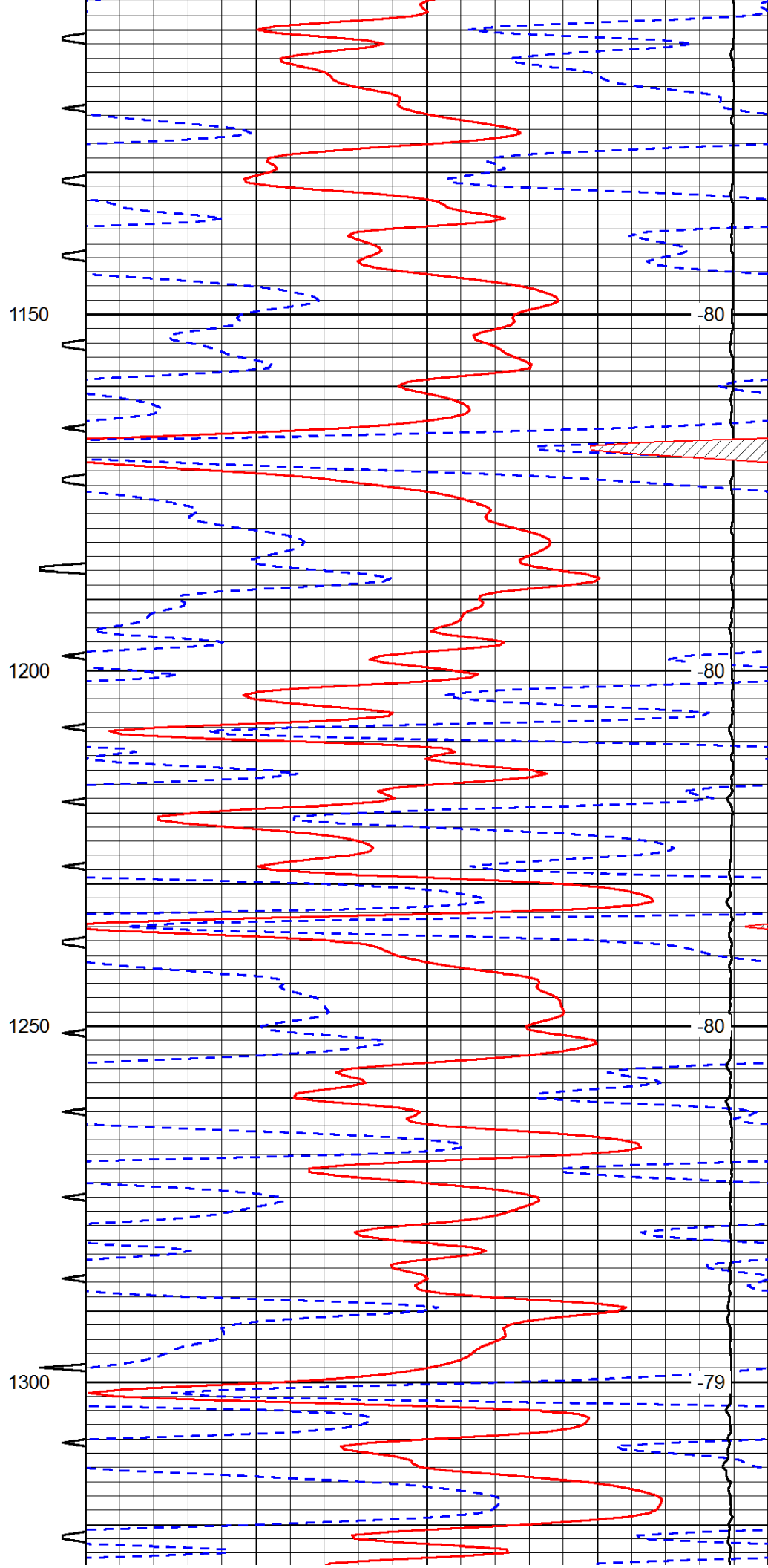
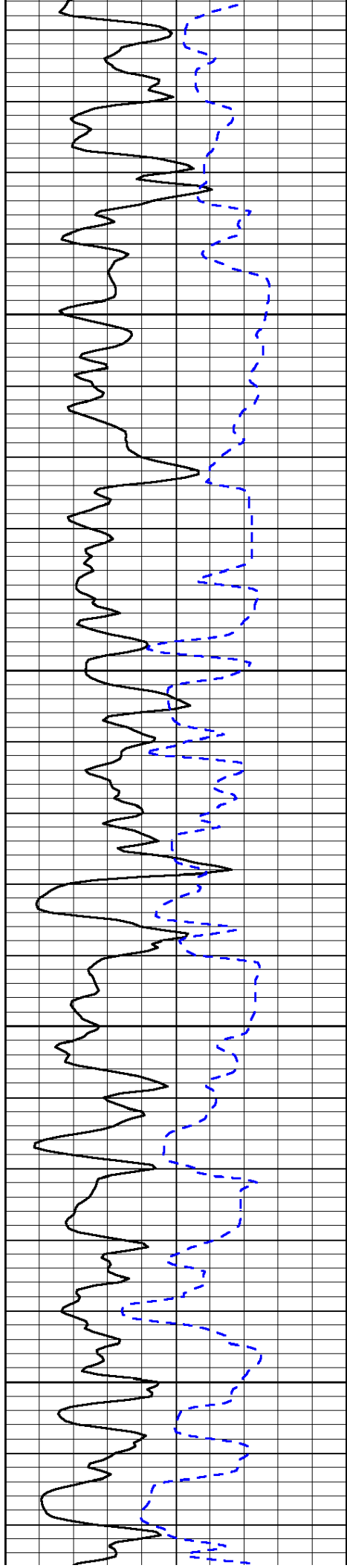
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150	Gamma Ray	300	5	0	Sonic Porosity	-10
6	dCAL (GAPI)	16		15000	LTEN (lb)	0
						LSPD

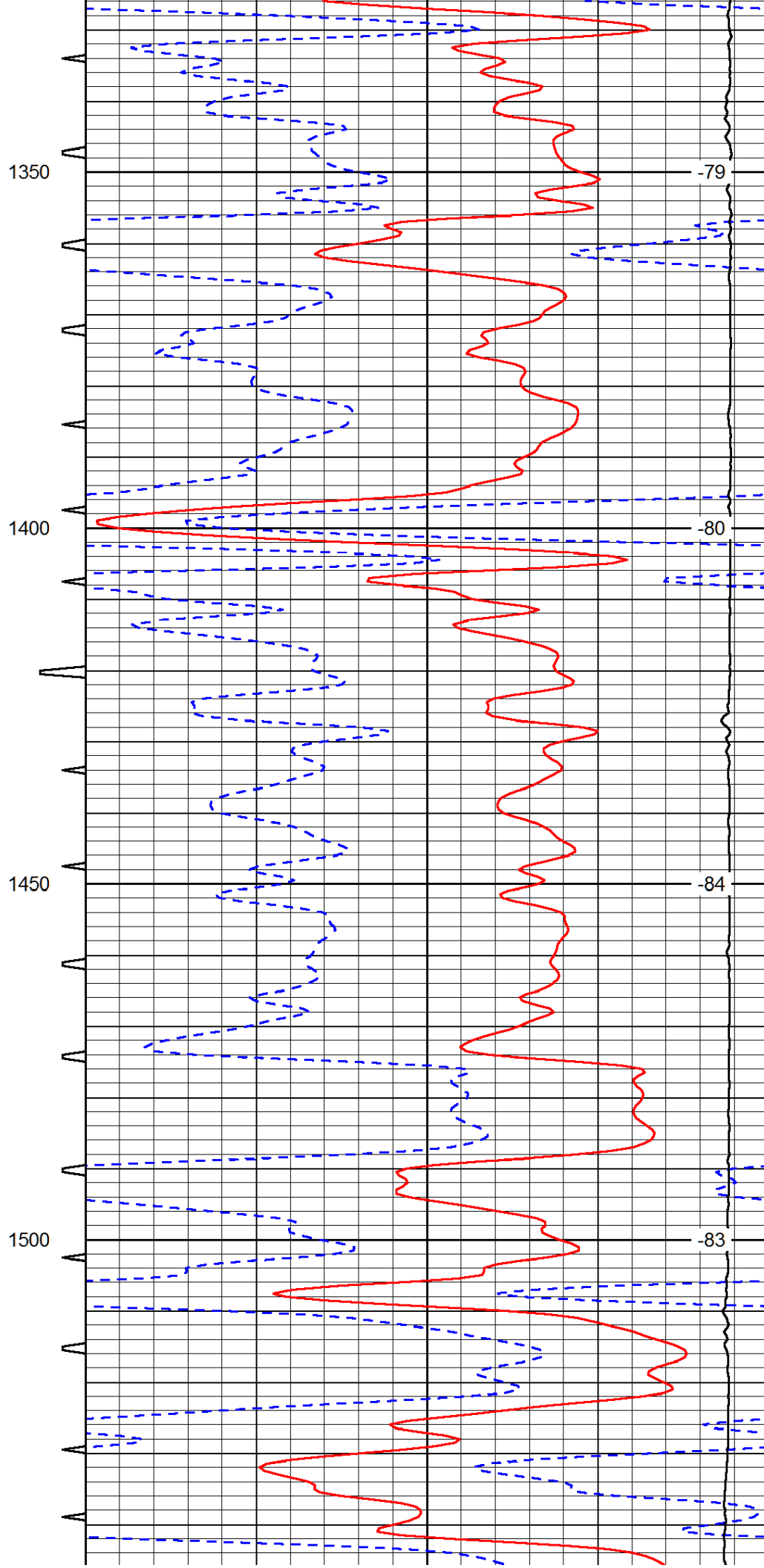
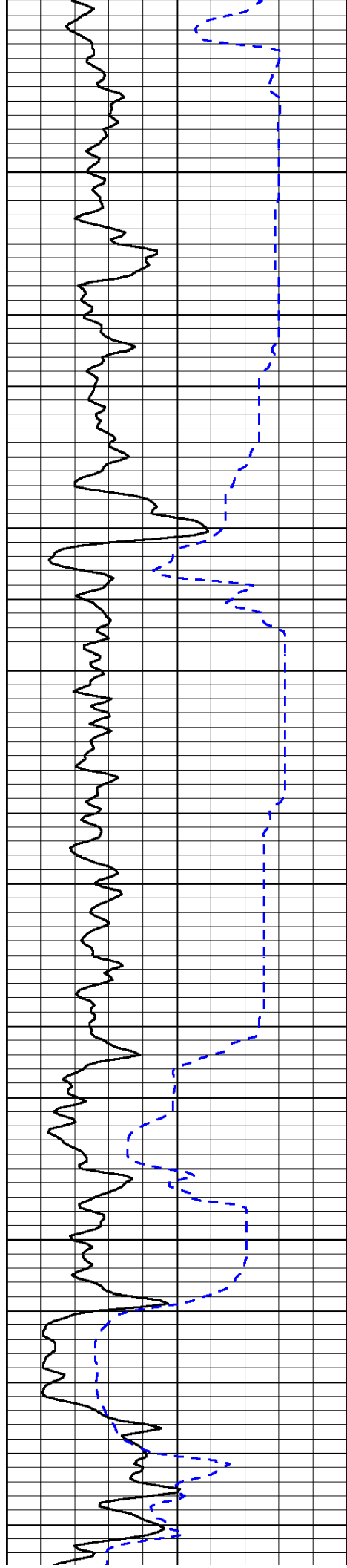


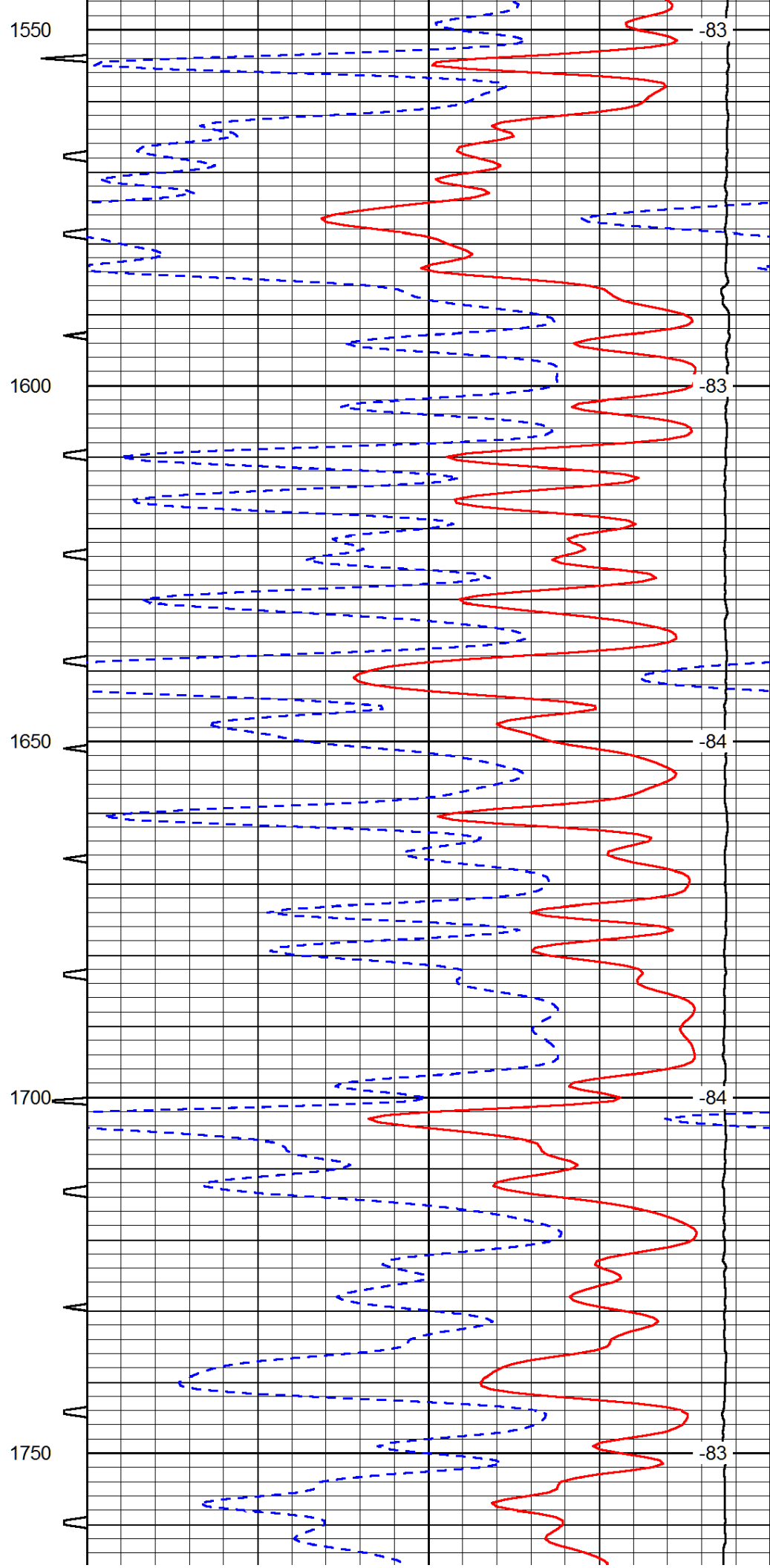
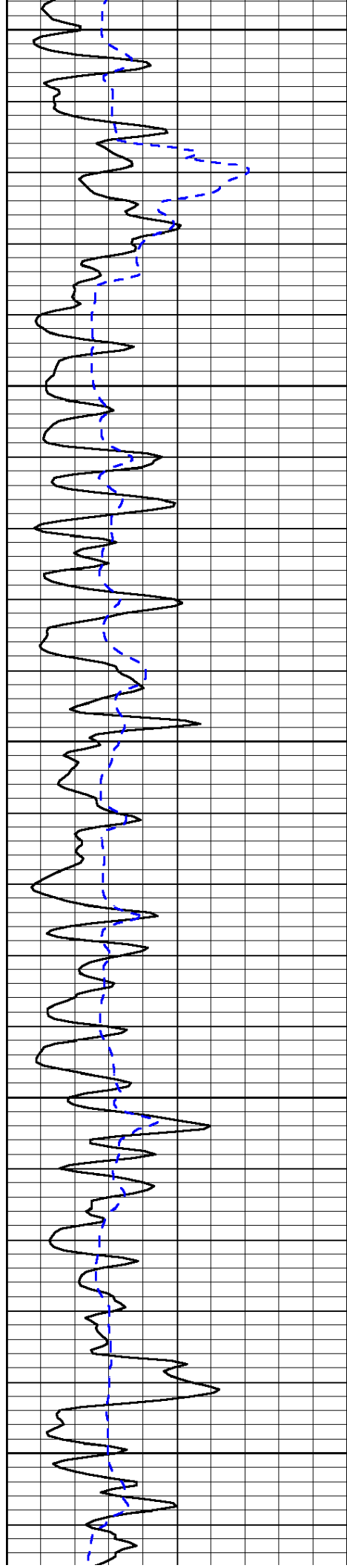


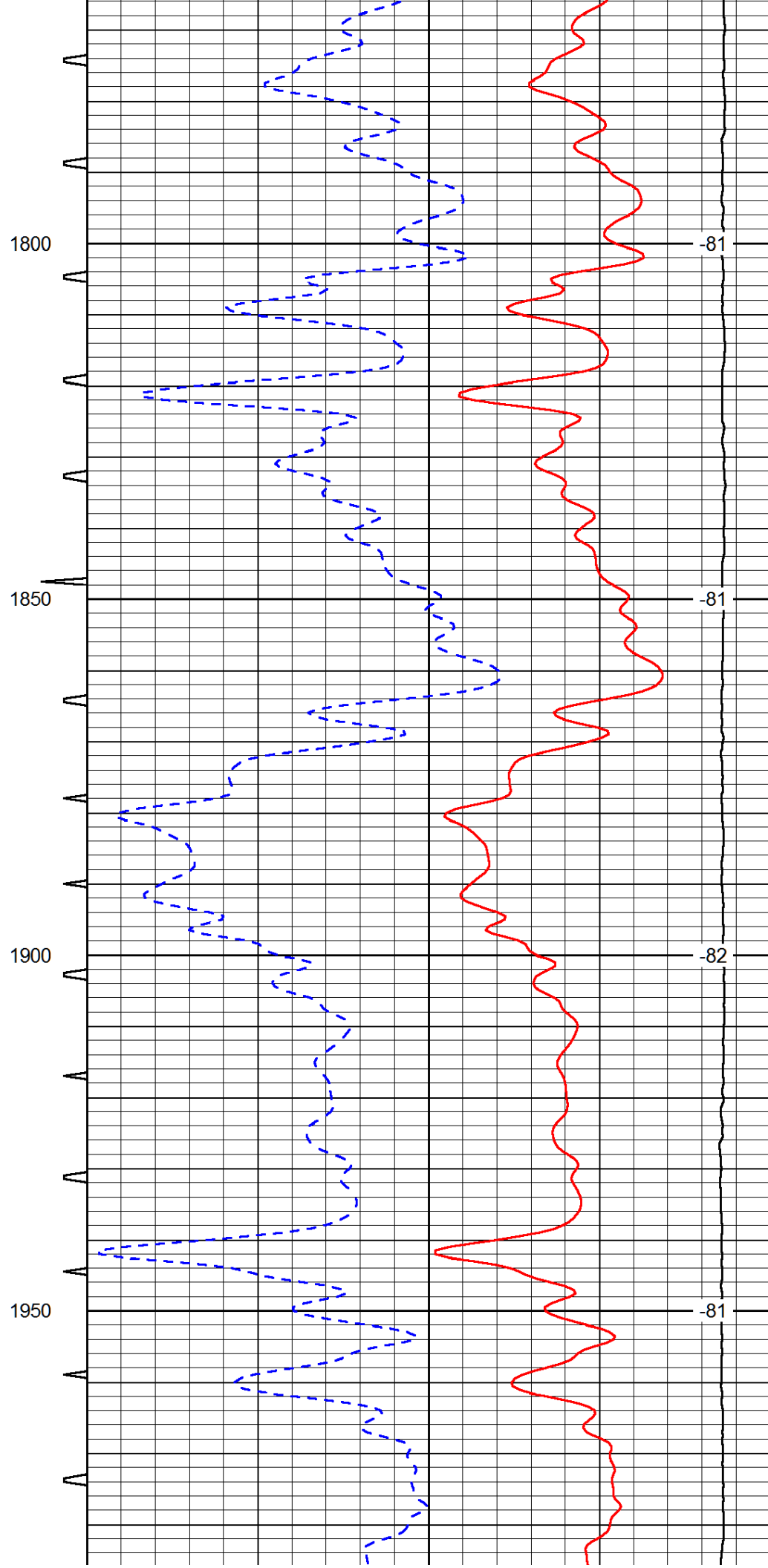
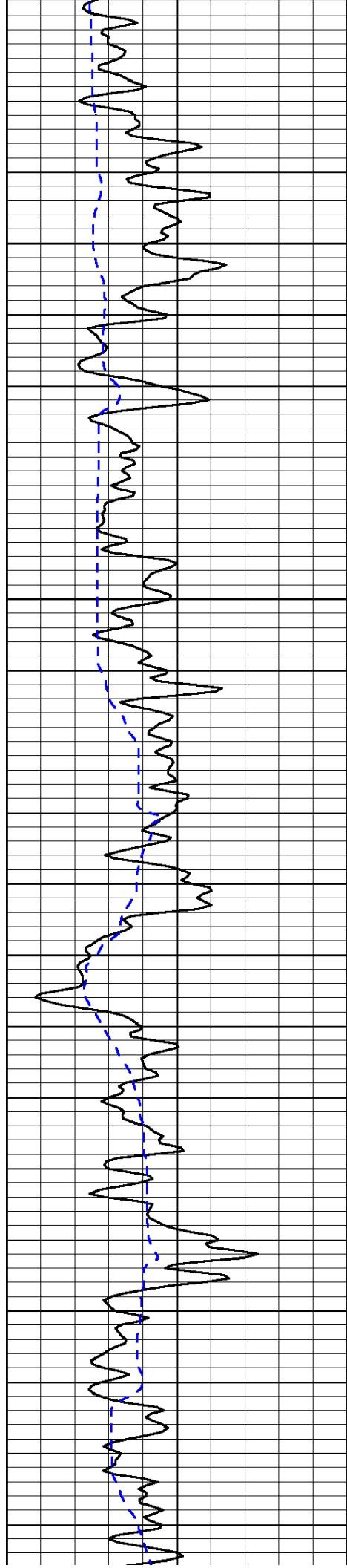


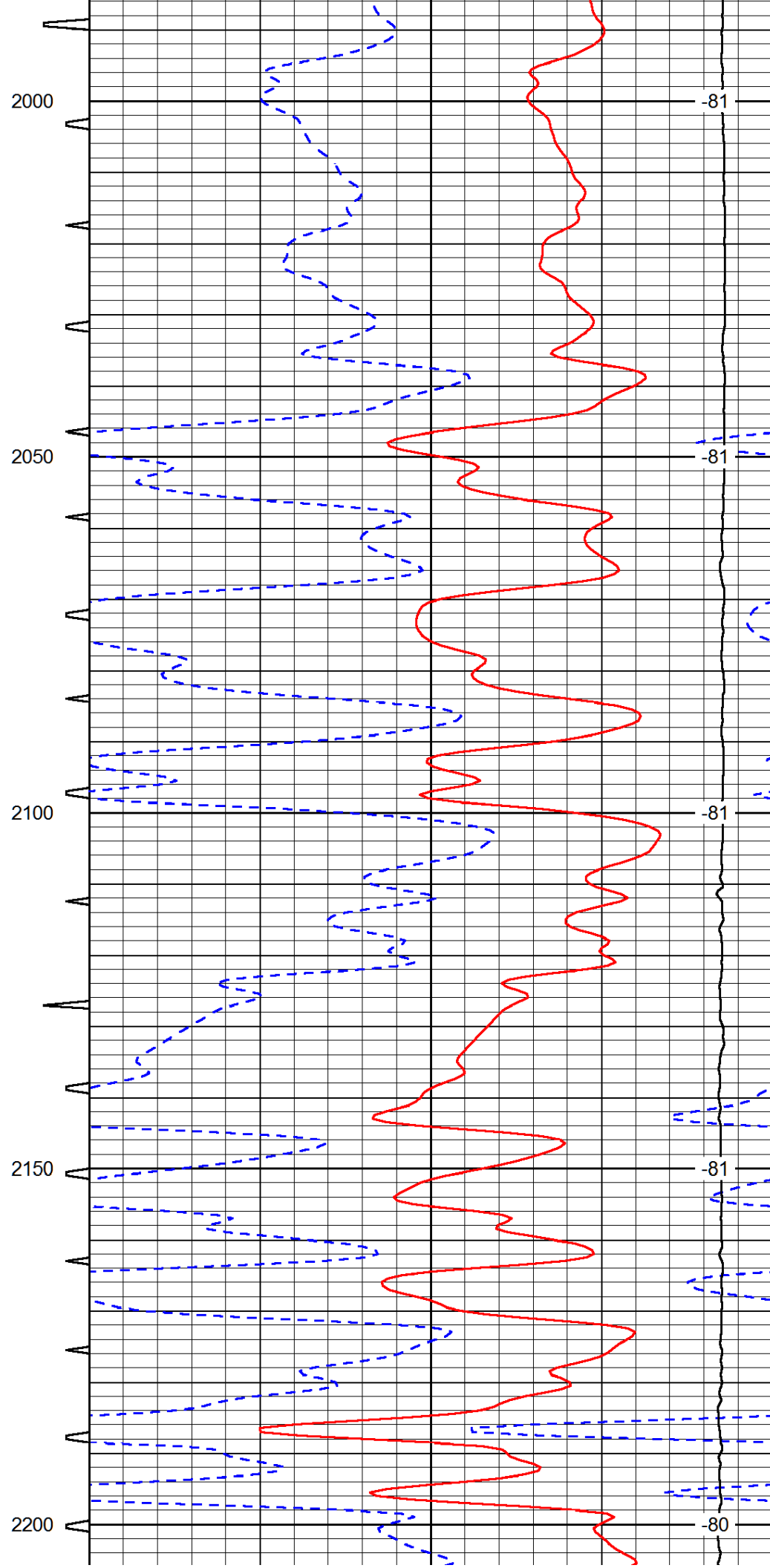
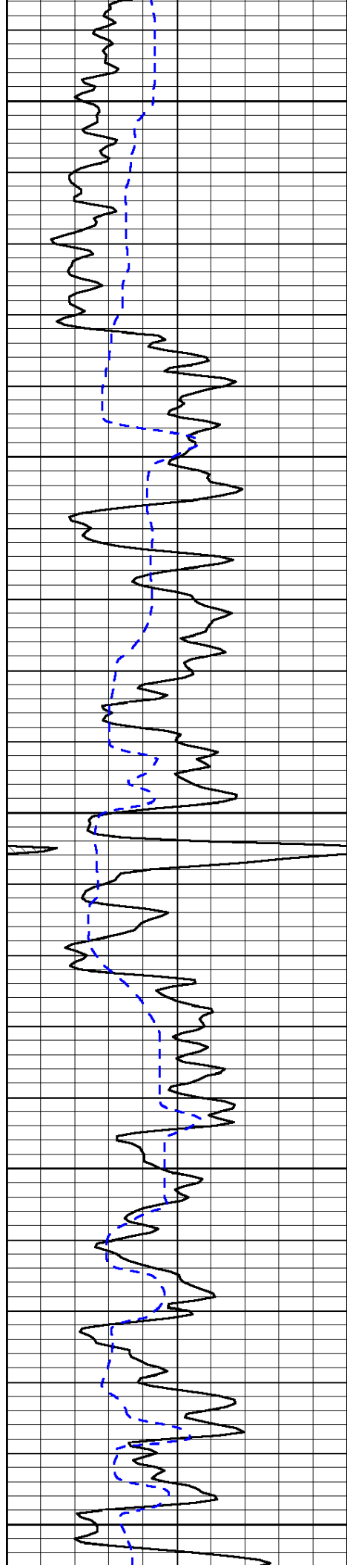


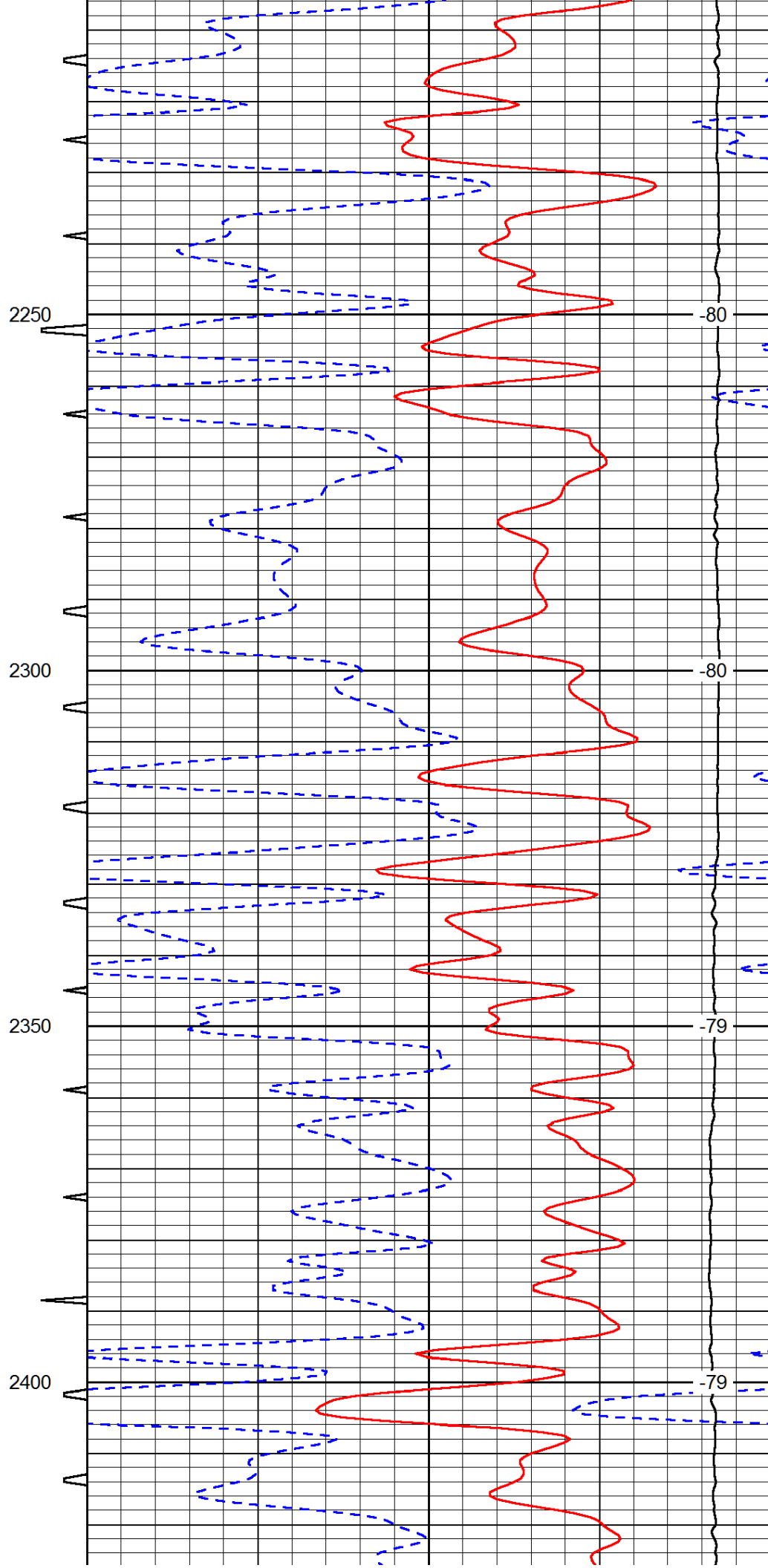
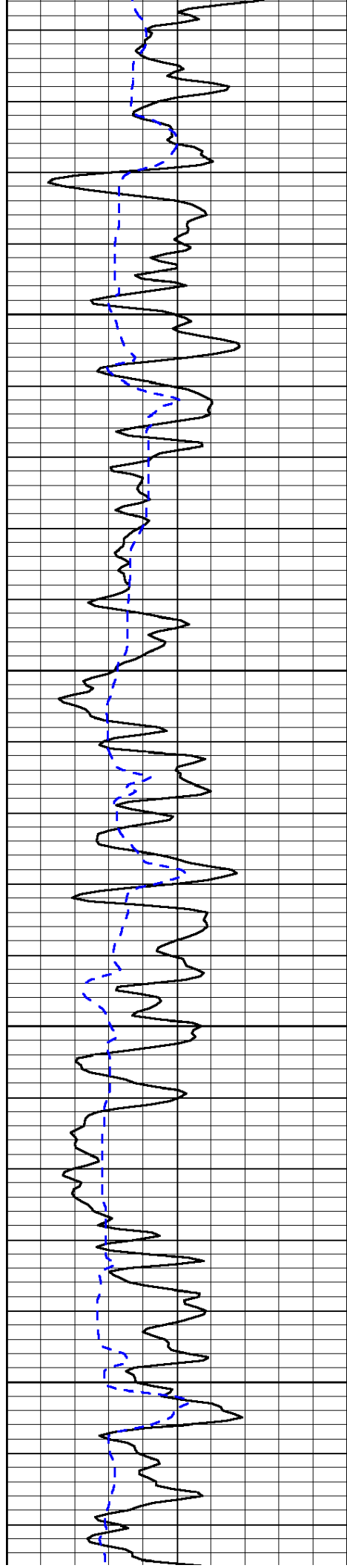


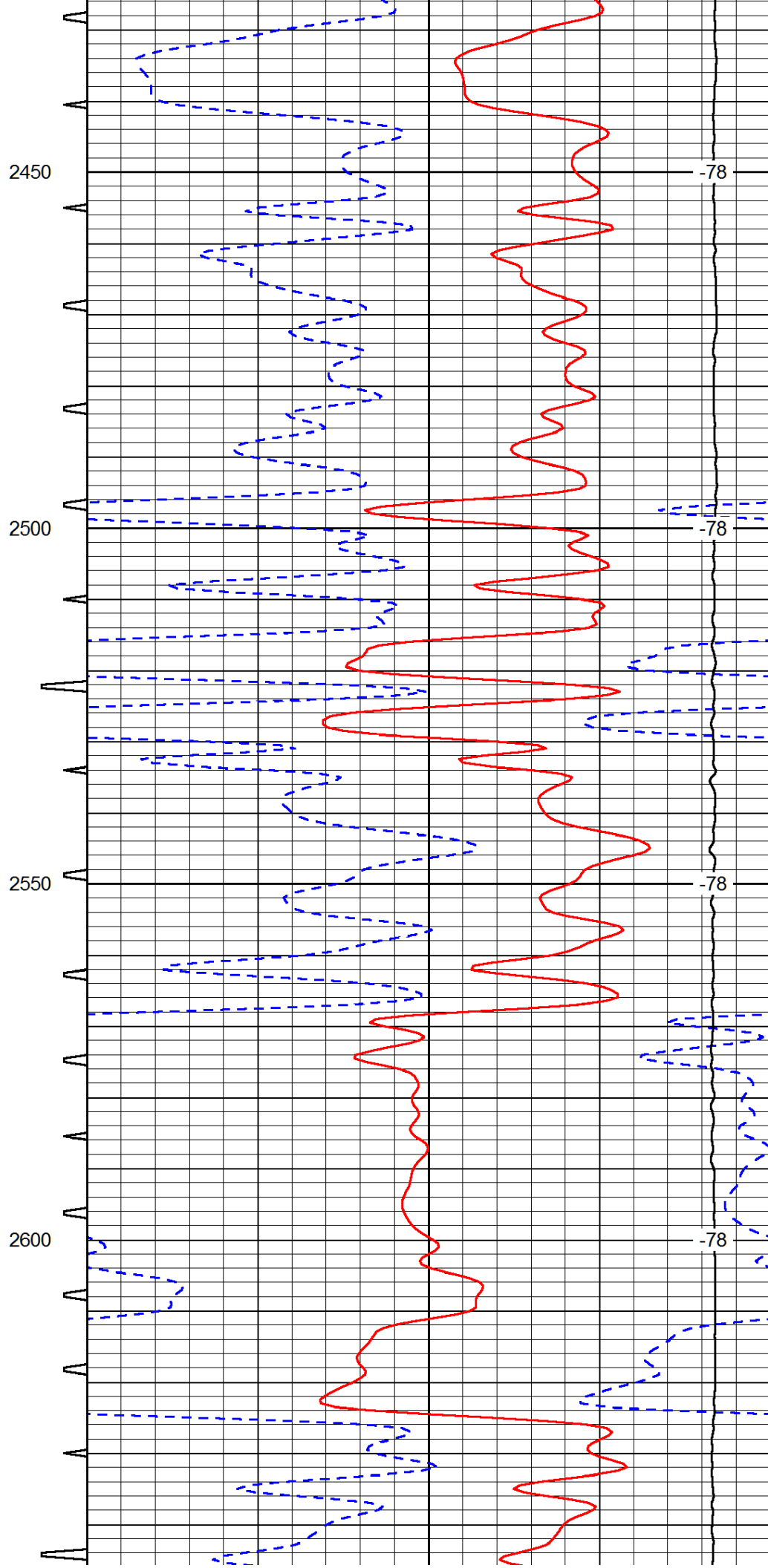
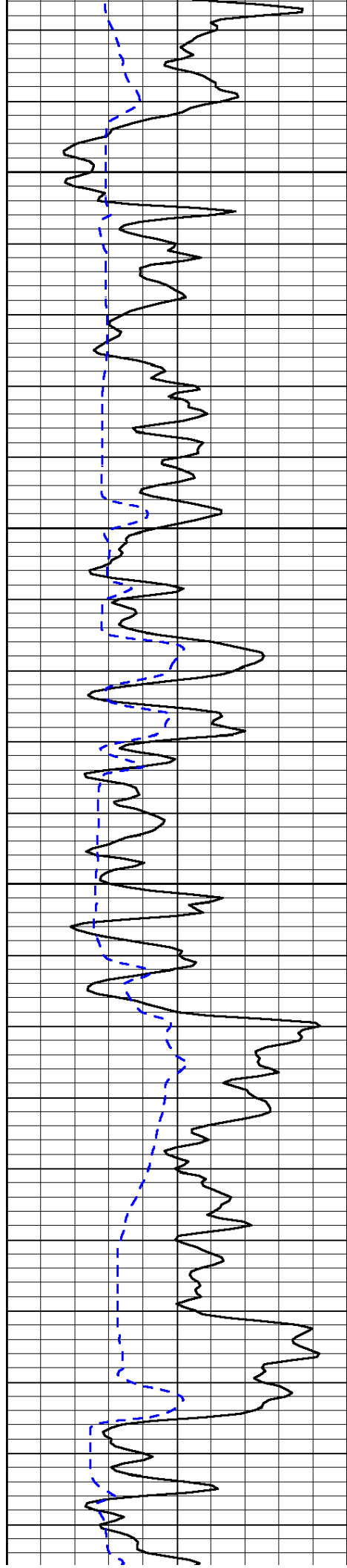


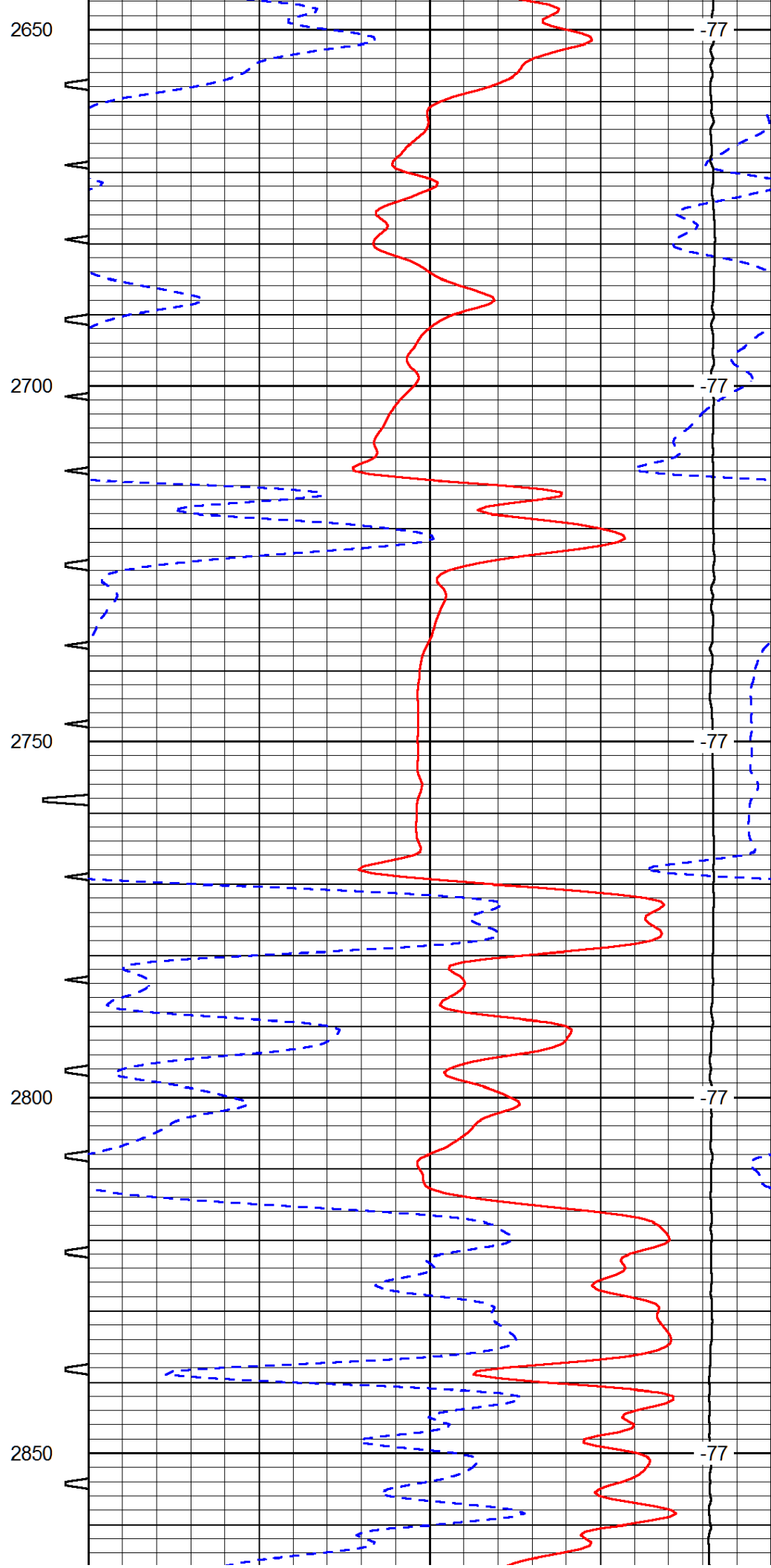
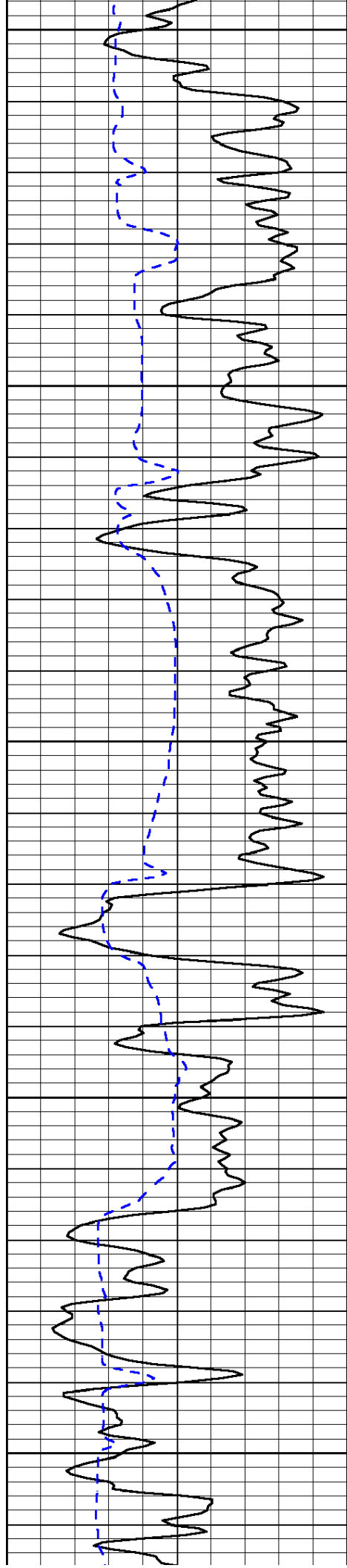


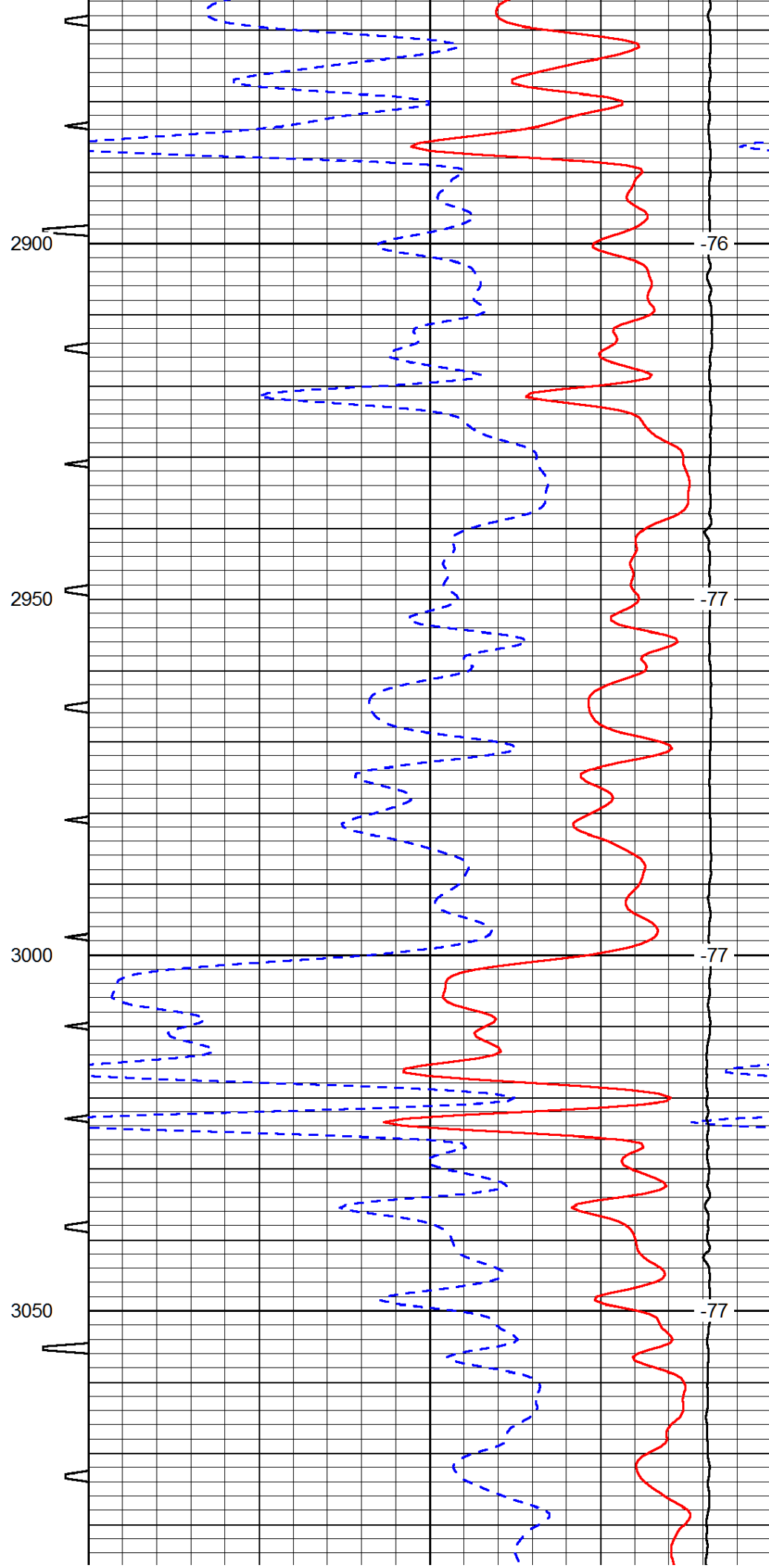
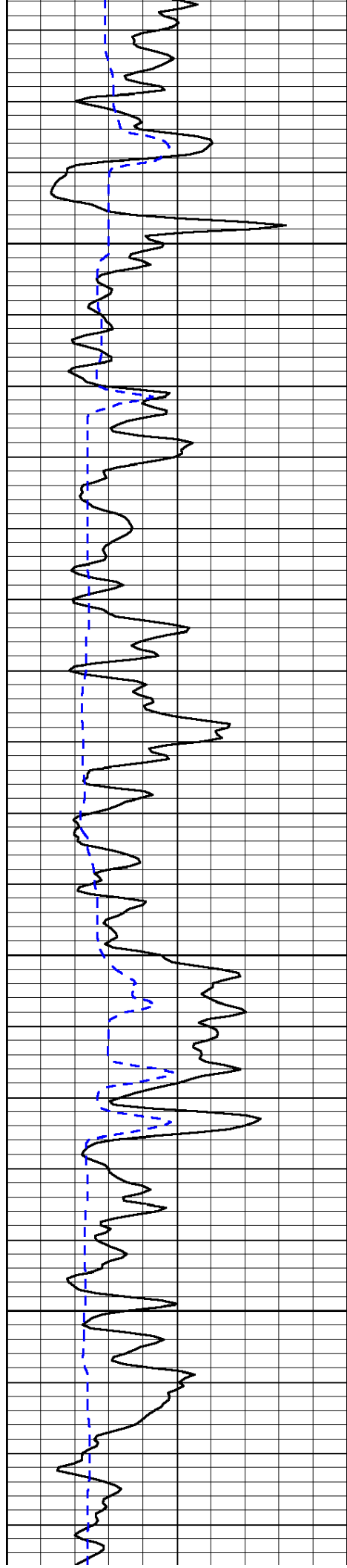


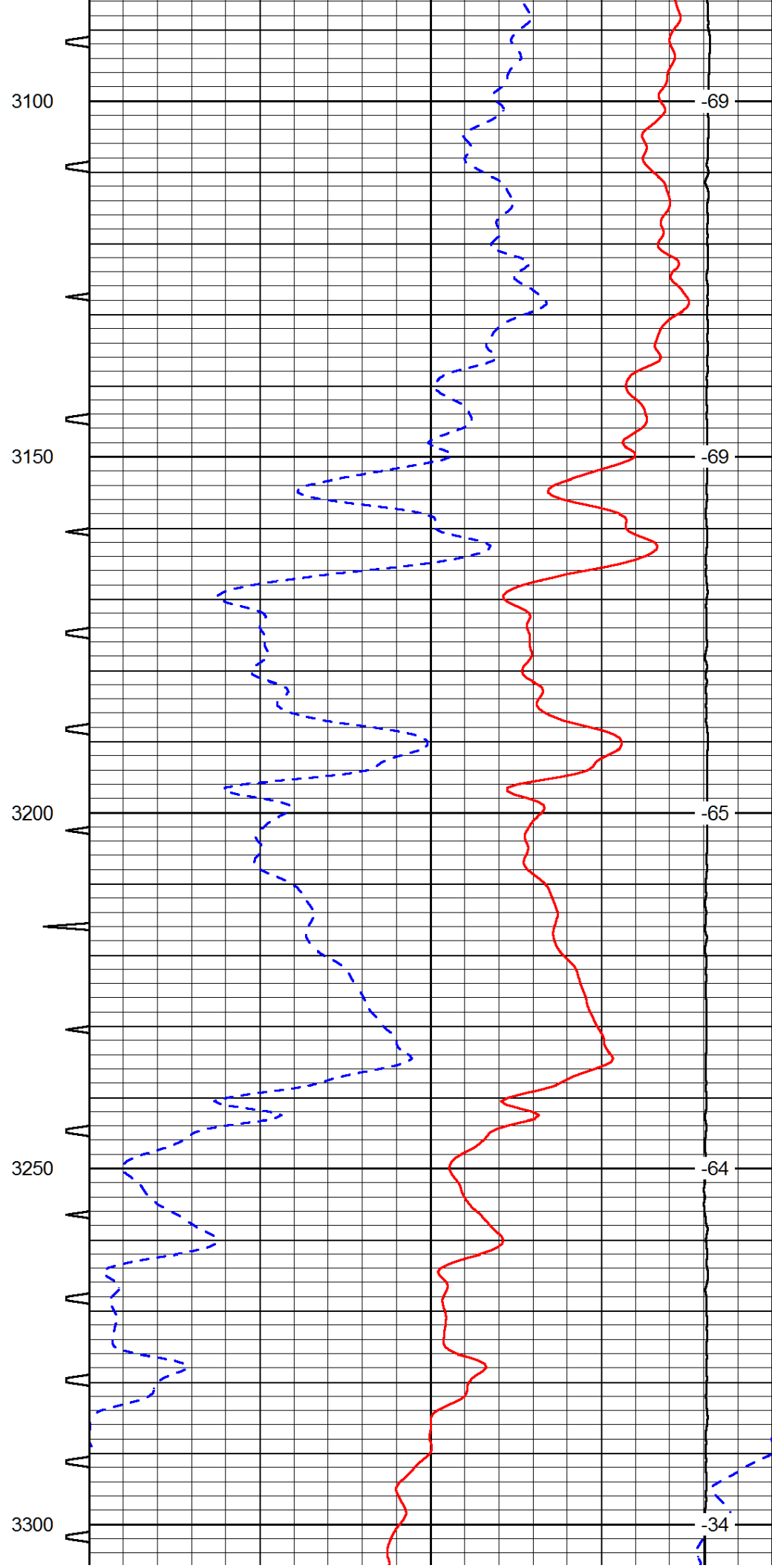
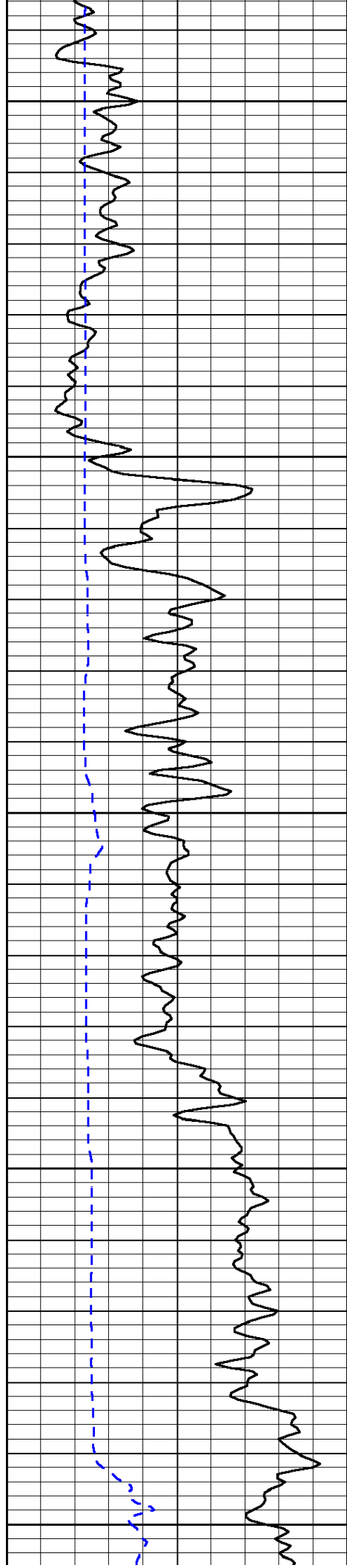


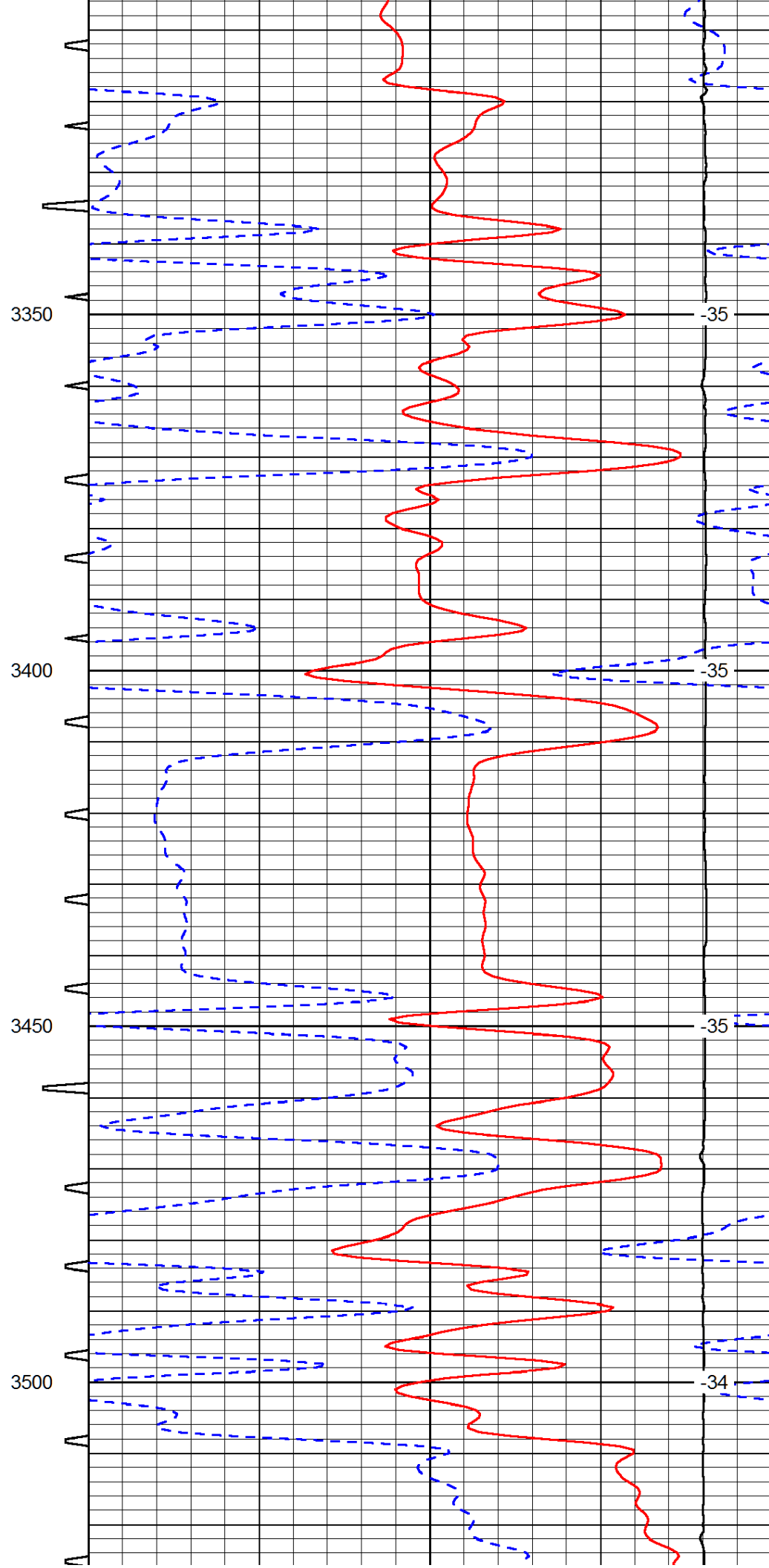
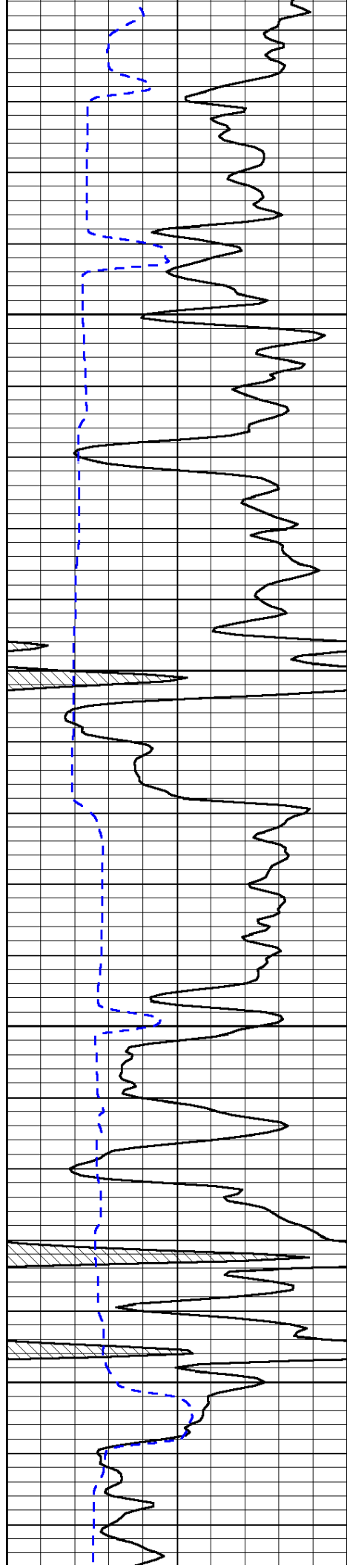


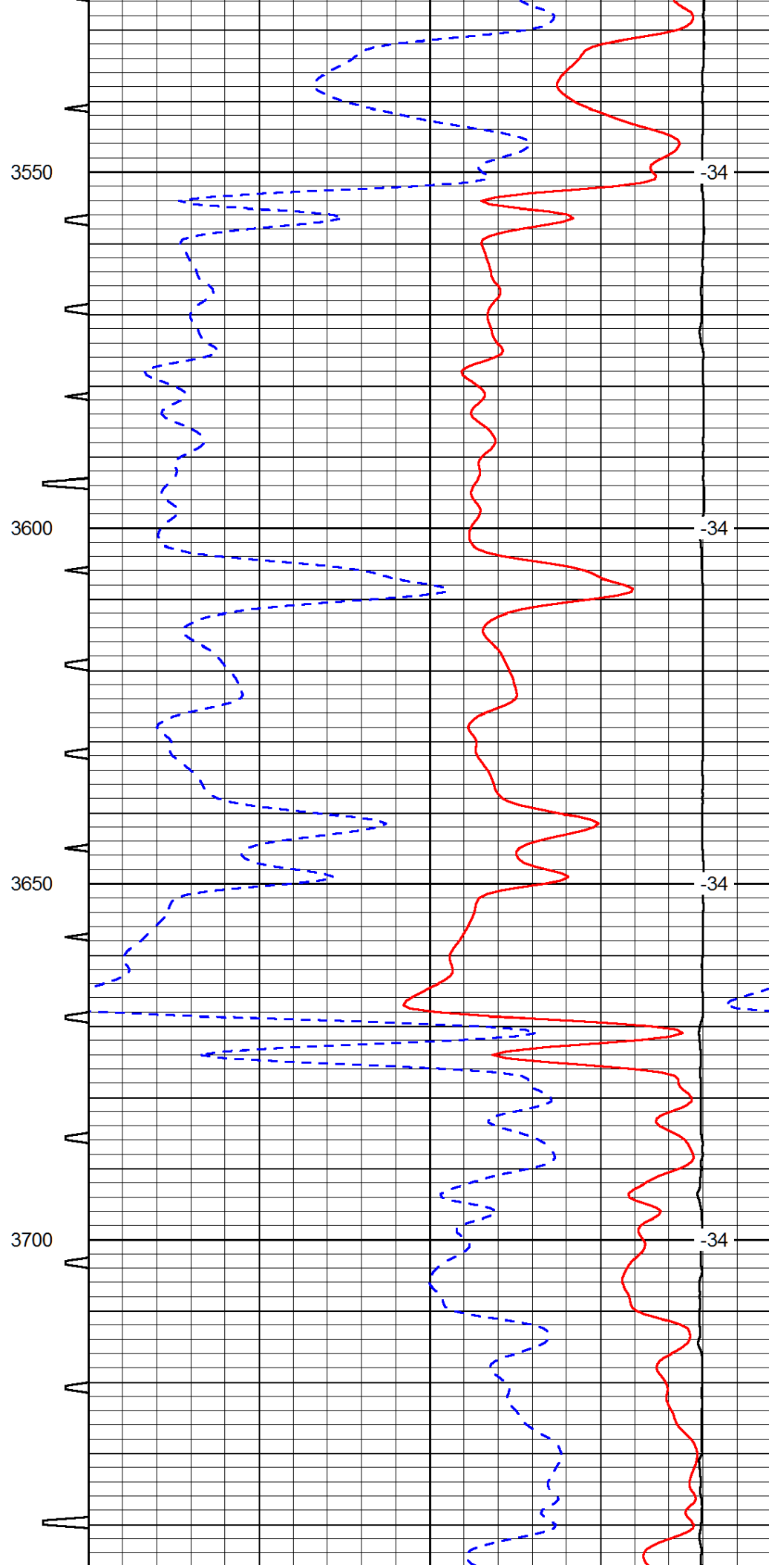
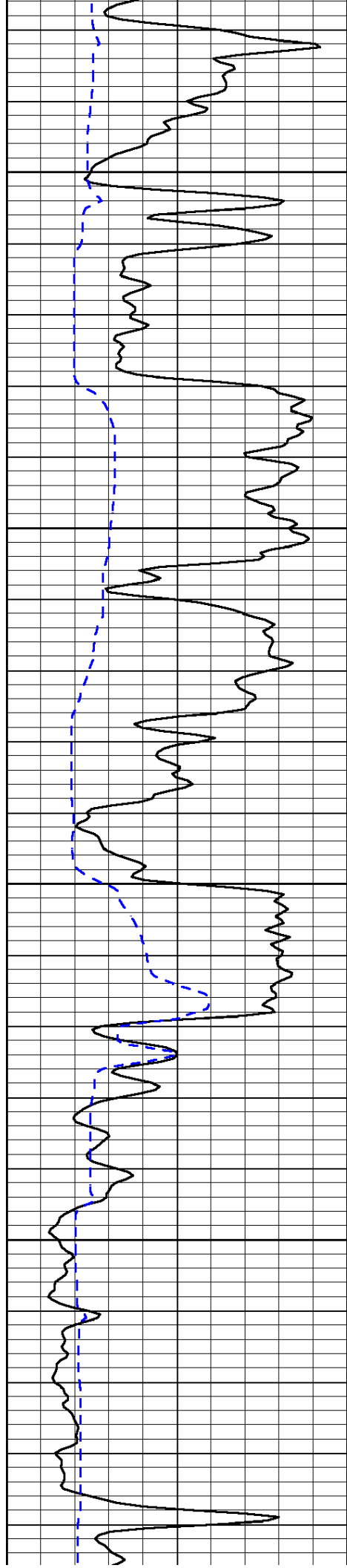


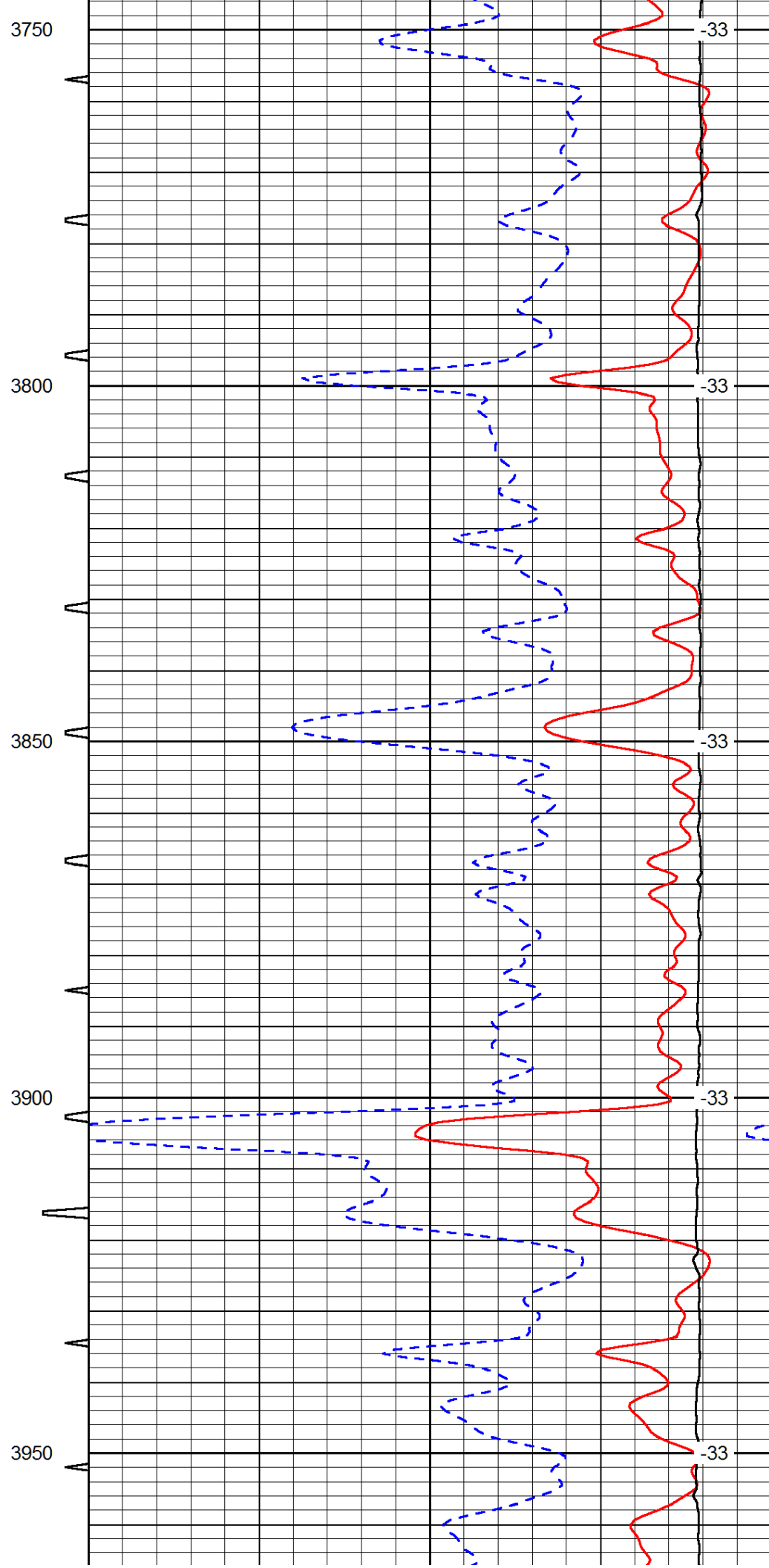
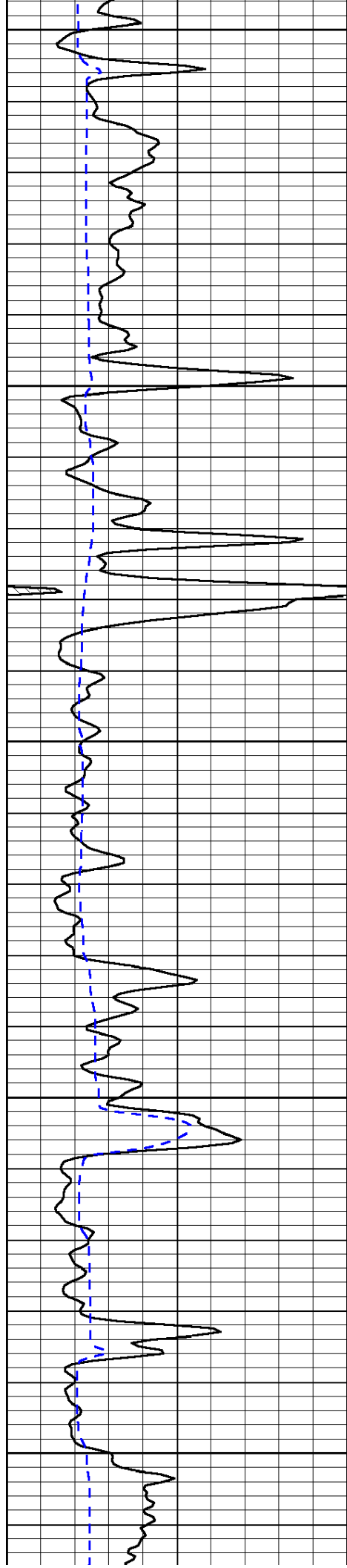


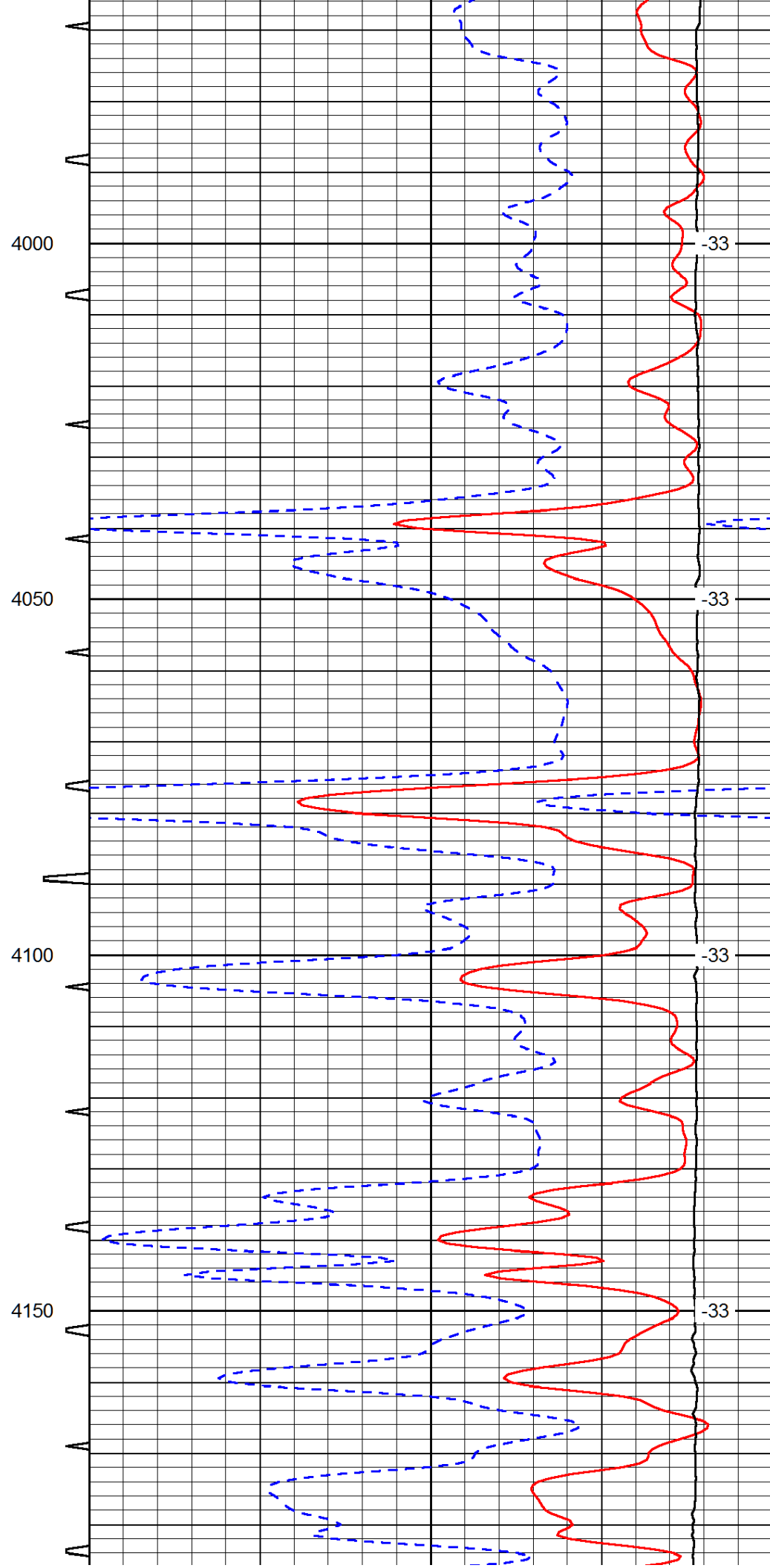
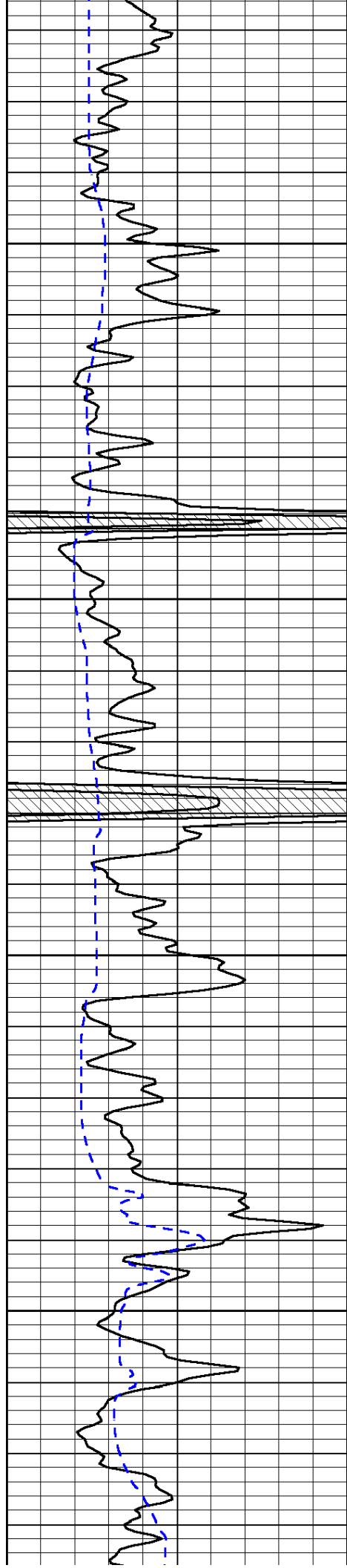


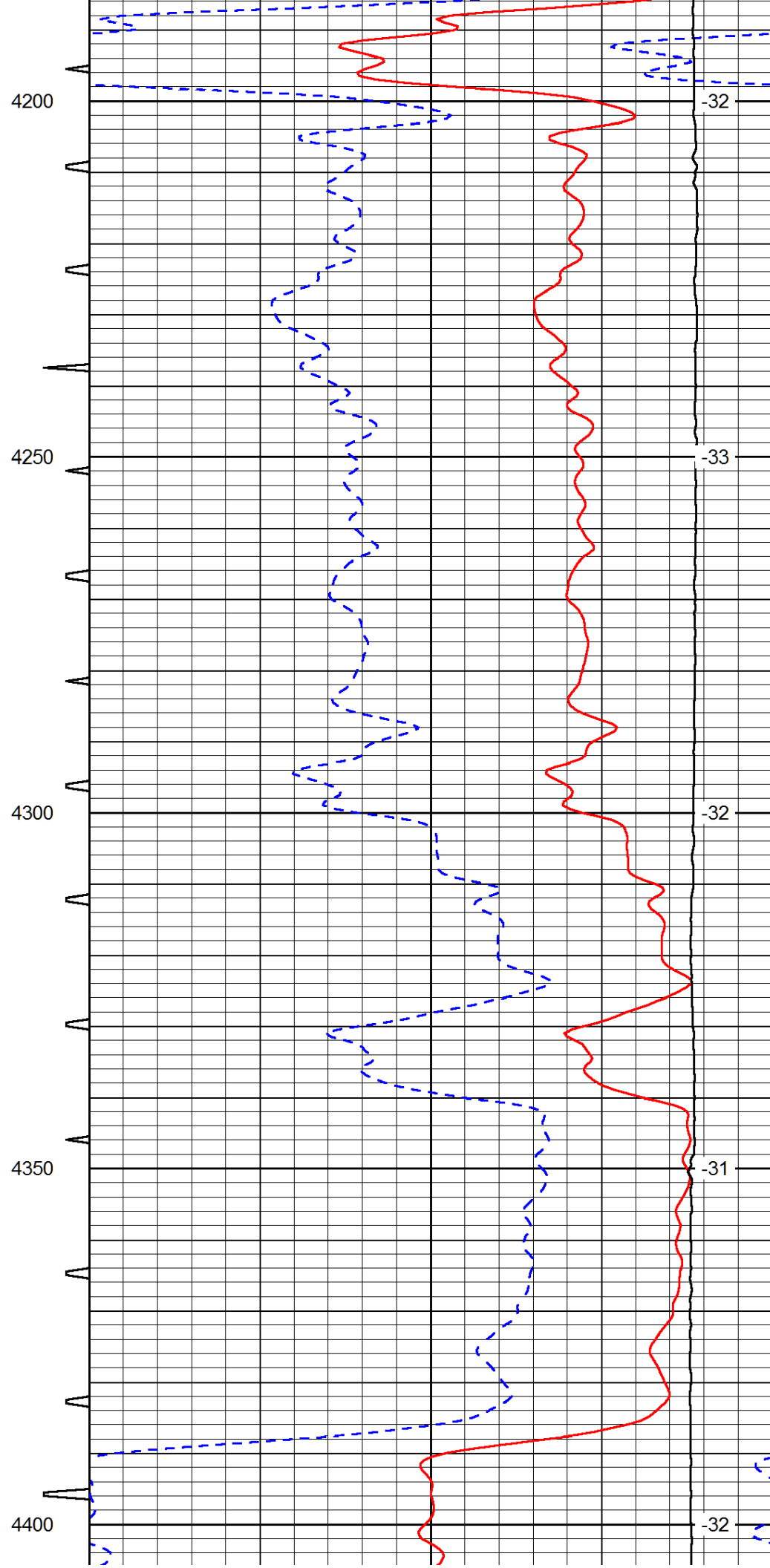
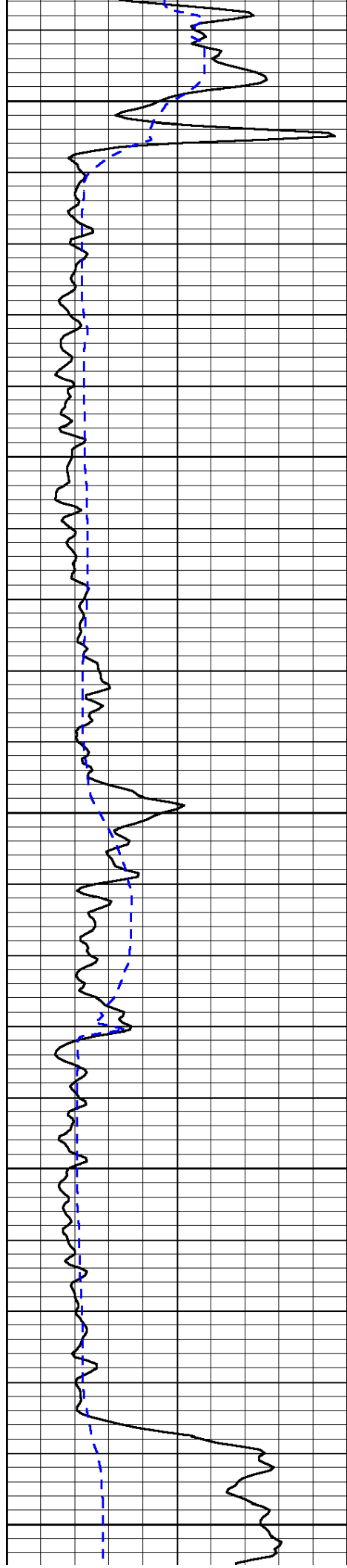


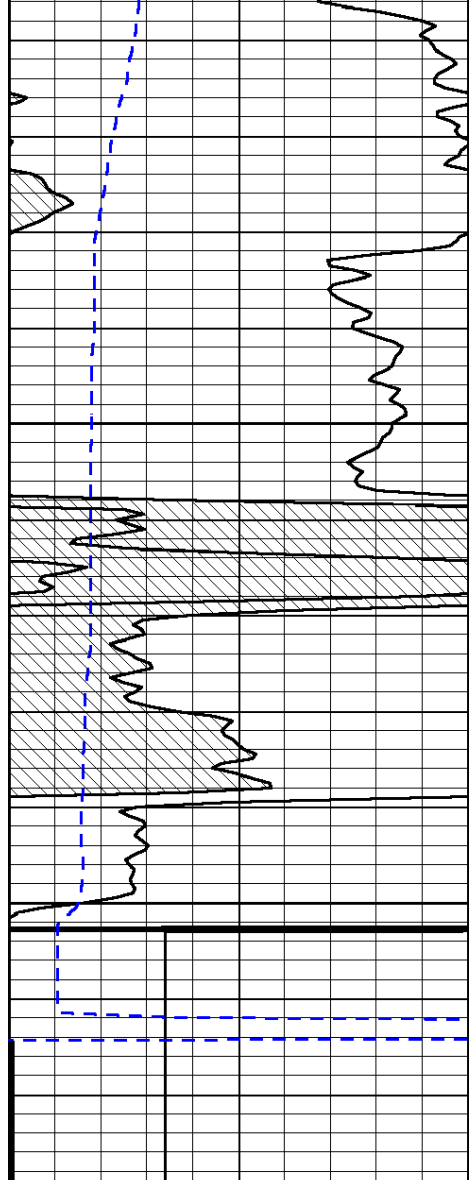




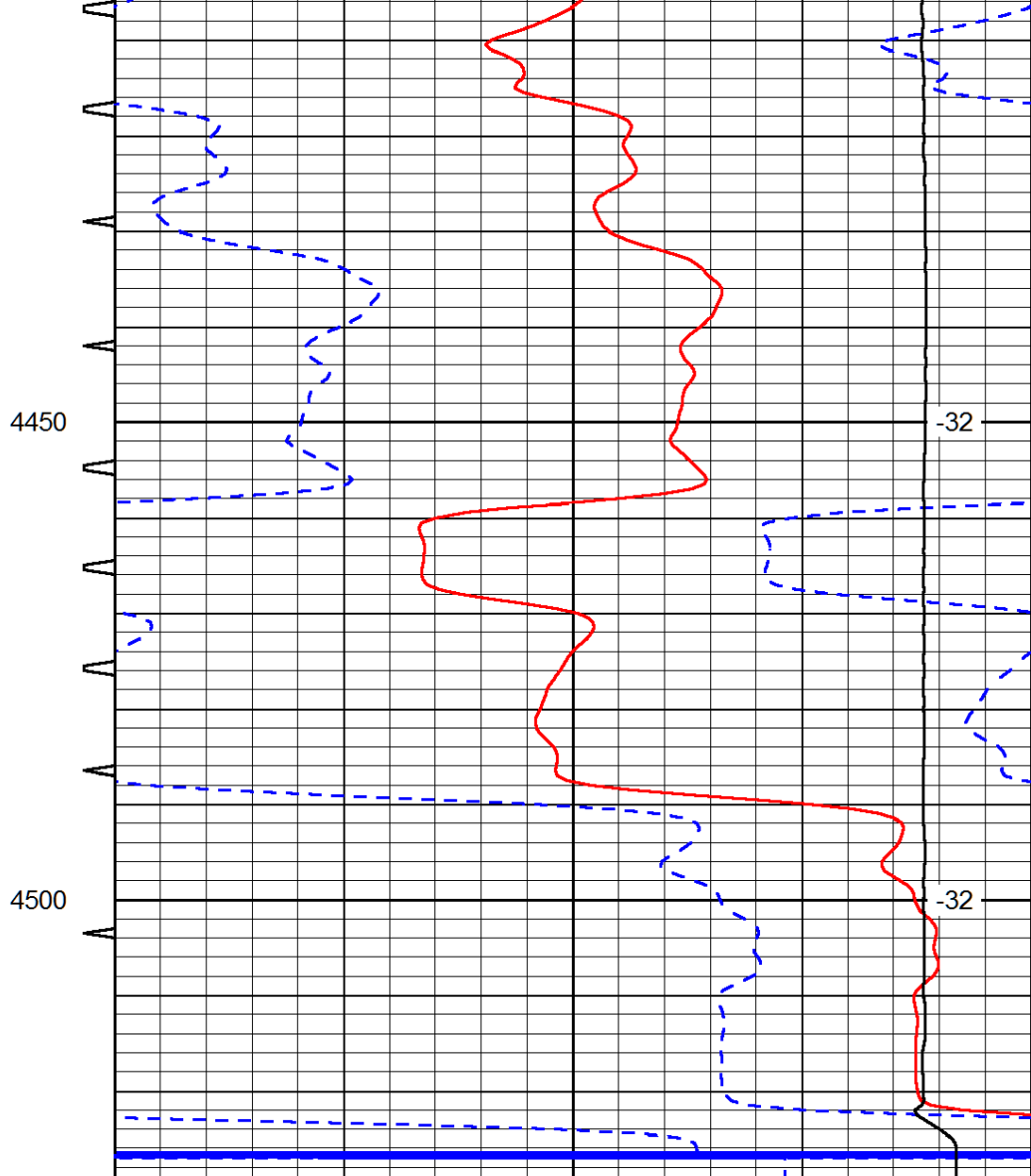








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