



Pioneer Energy Services

Dual Induction Log

API No.

15-189-22,792-00-00

Company American Warrior, Inc.

Well Larrabee No. 3 - 13

Field Unknown

County Stevens State

Kansas

Location 641' FSL & 1983' FEL

Sec: 13 Twp: 32 S Rge: 35 W

Other Services
CDL/ CNL
MEL

Permanent Datum Ground Level Elevation 2972

Log Measured From Kelly Bushing 11 Ft. Above Perm. Datum

Elevation
K.B. 2983
D.F. 2972
G.L. 2972

Date 3/01/2013

Run Number One

Depth Driller 6350

Depth Logger 6353

Bottom Logged Interval 6352

Top Log Interval 1700

Casing Driller 8.625 @ 1745

Casing Logger 1745

Bit Size 7.875

Type Fluid in Hole Chemical

Salinity,ppm CL 3900

Density / Viscosity 9.1 55

pH / Fluid Loss 10.5 6.0

Source of Sample Flowline

Rm @ Meas. Temp .58 @ 50

Rmf @ Meas. Temp .44 @ 50

Rmc @ Meas. Temp .78 @ 50

Source of Rmf / Rmc Charts

Rm @ BHT .21 @ 140

Operating Rig Time 6 1/2 Hours

Max Rec. Temp. F 140

Equipment Number 17

Location Hays

Recorded By D. Martin

Witnessed By Austin Garner

<<< Fold Here >>>

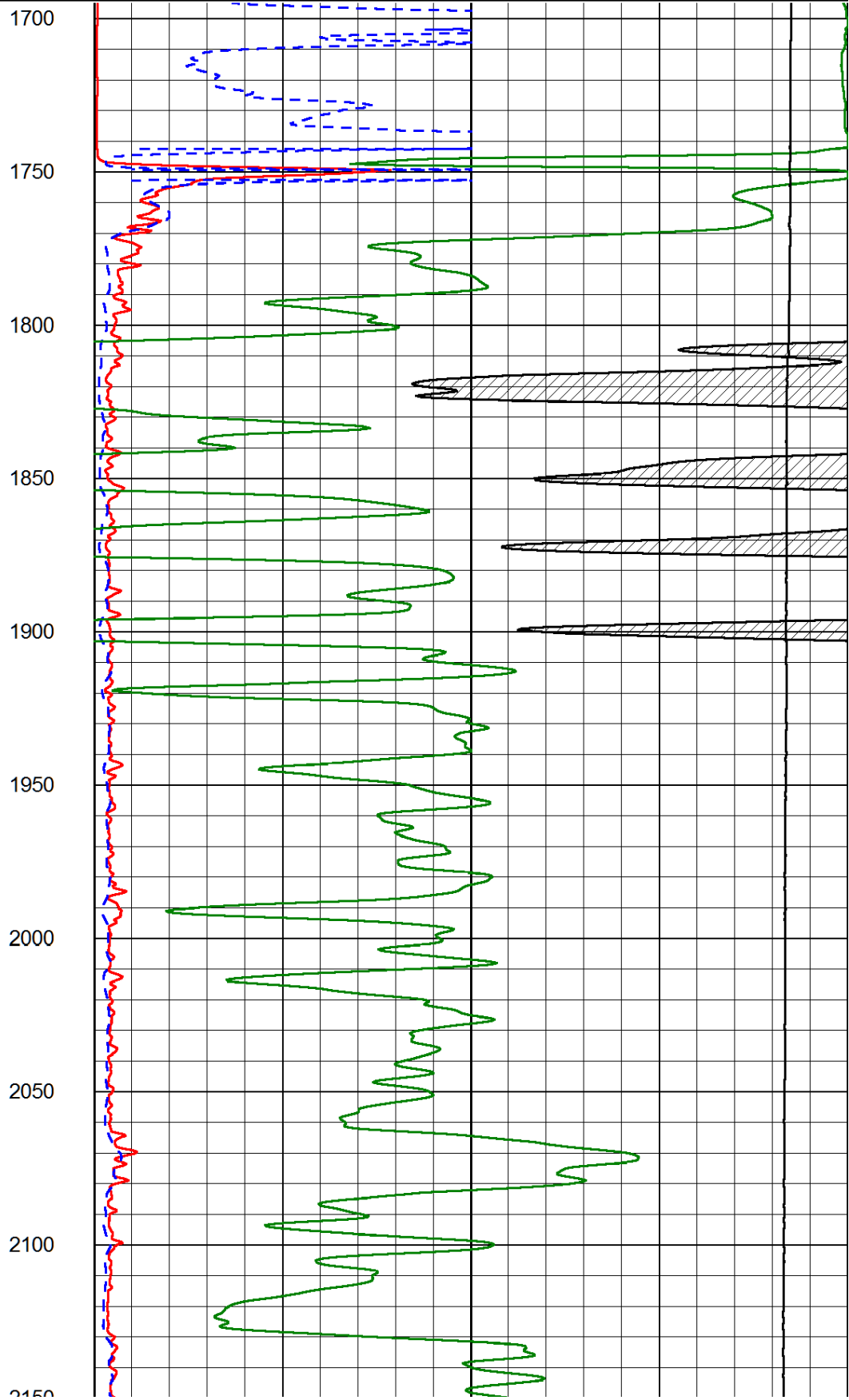
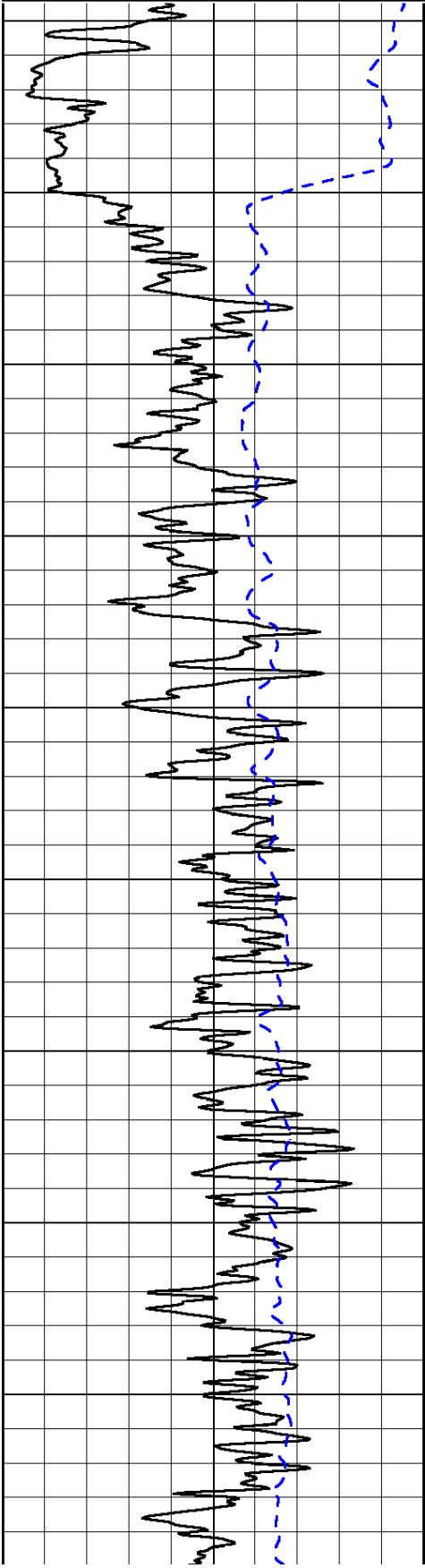
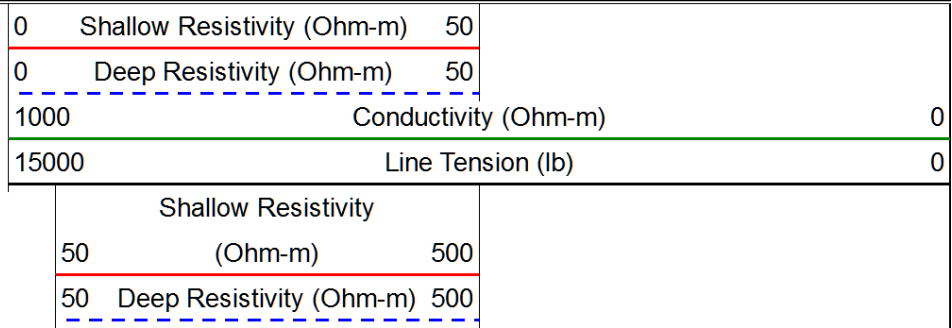
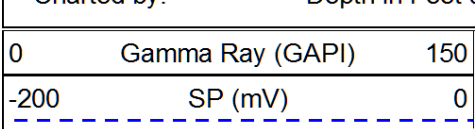
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, 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.

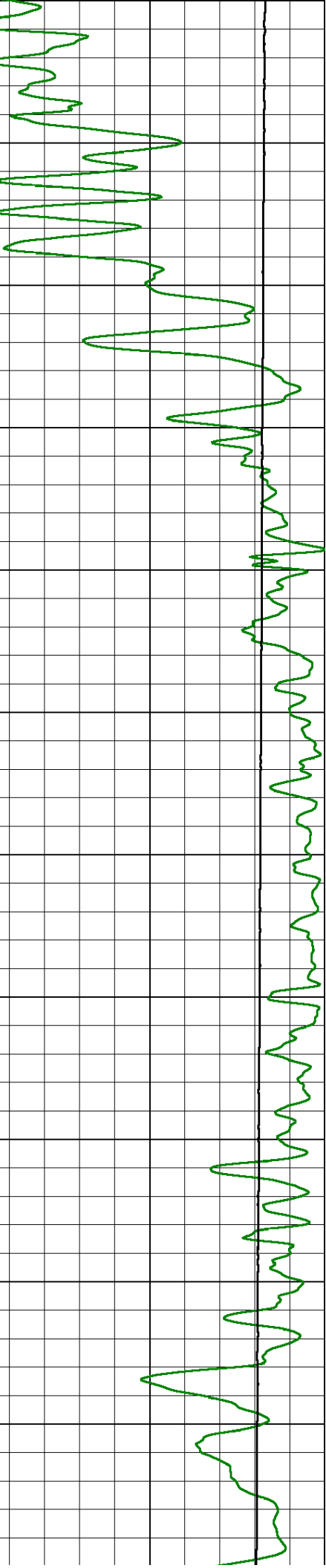
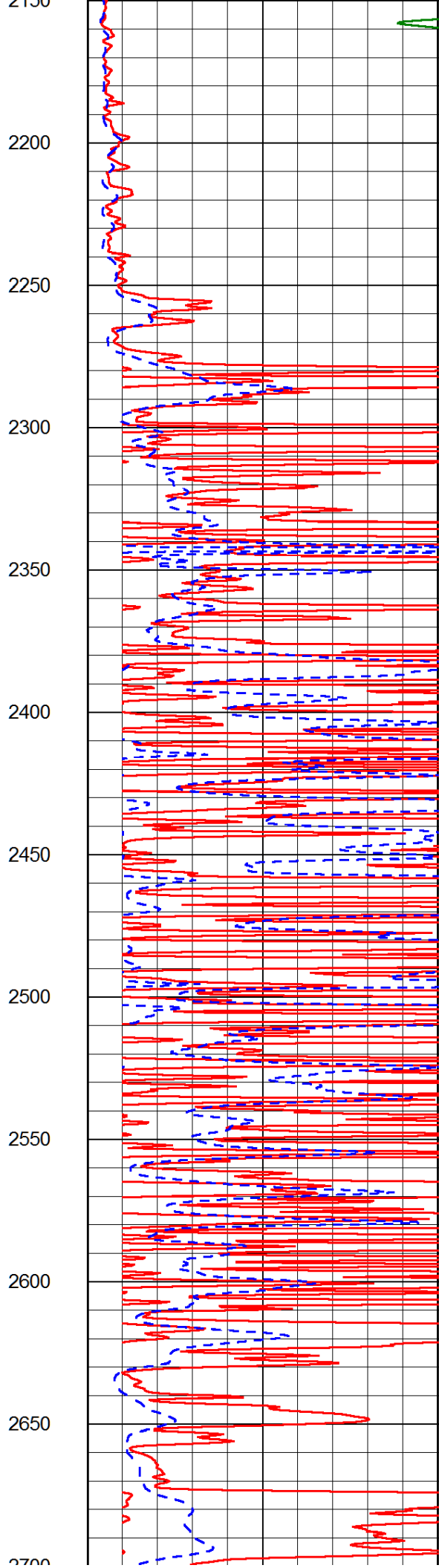
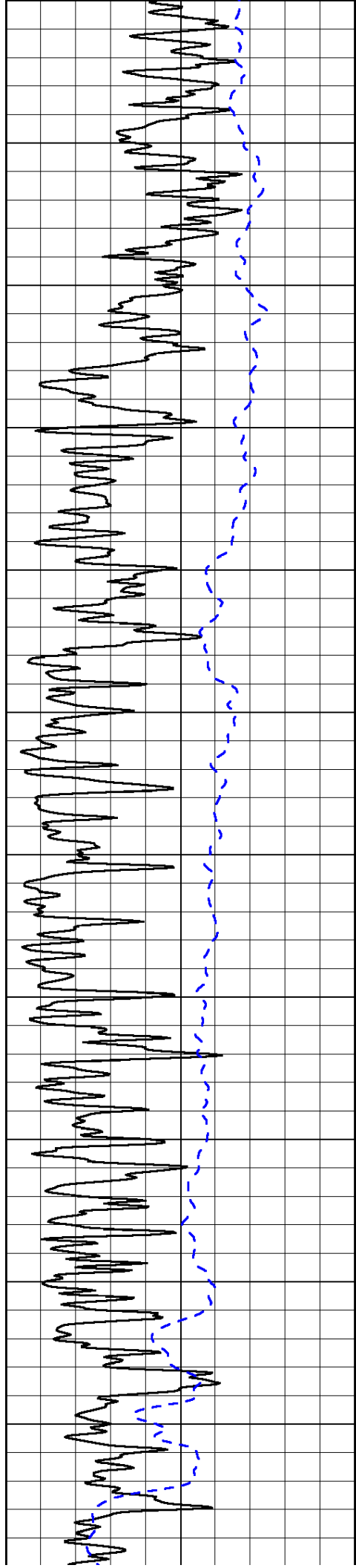
Comments

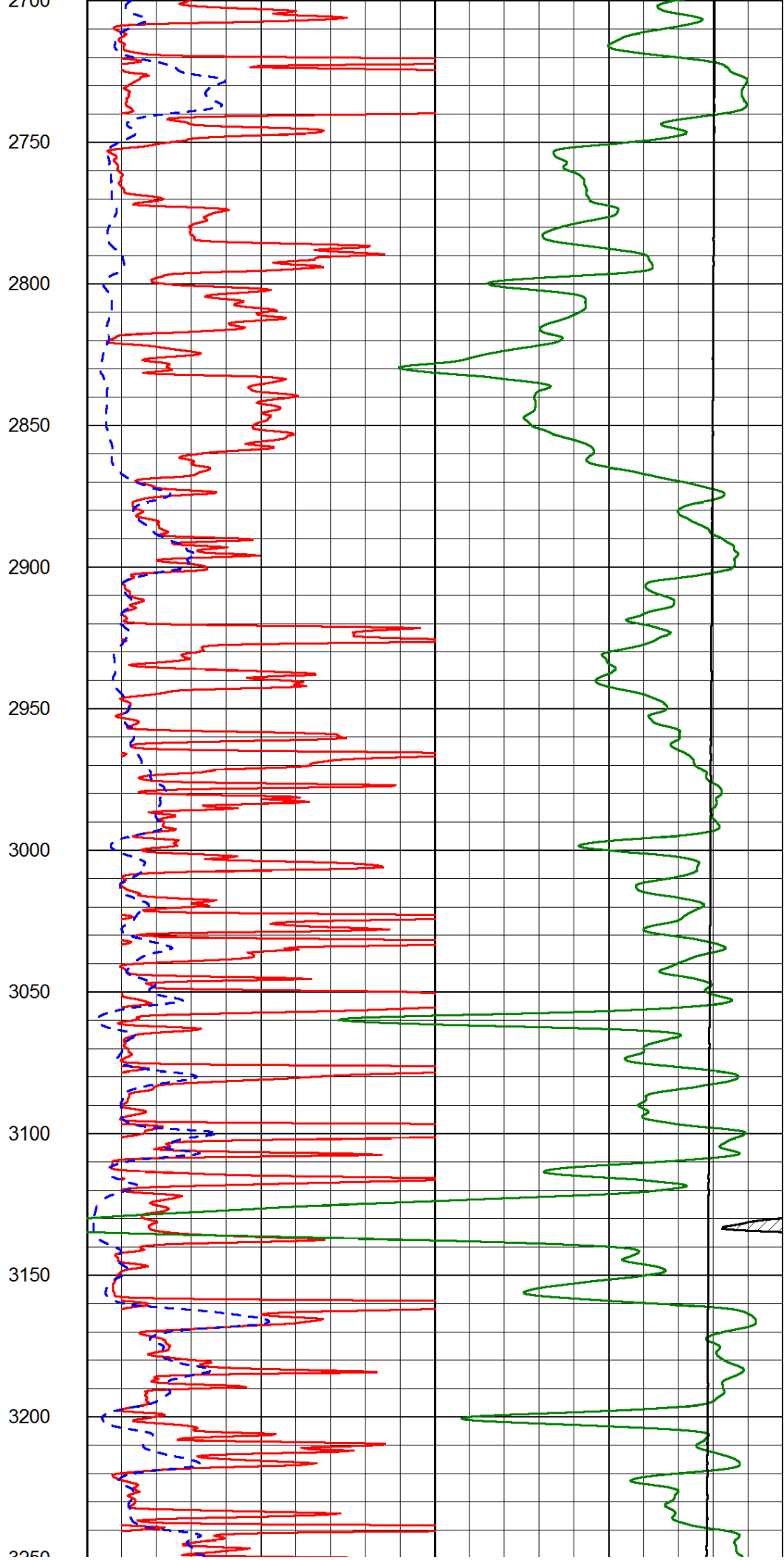
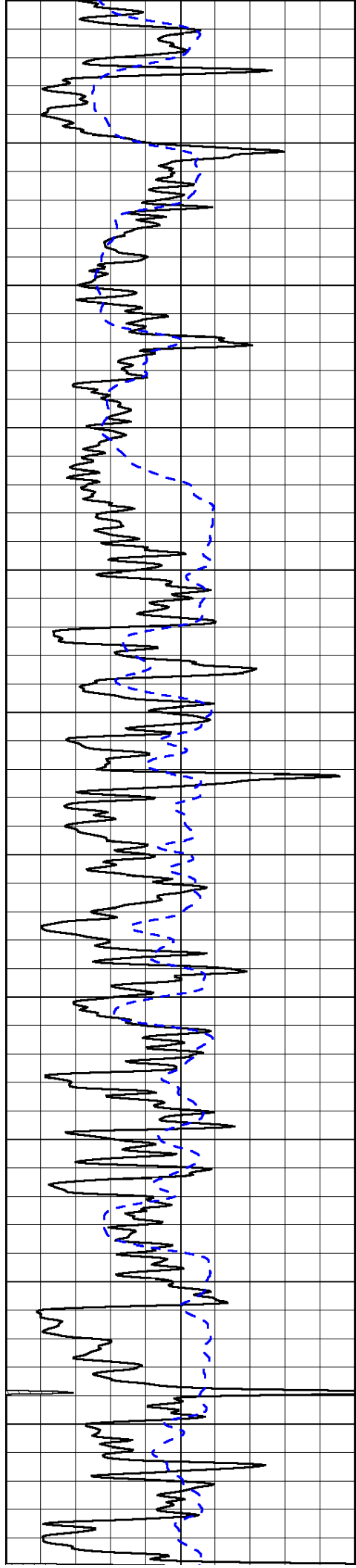
Thank you for using Log-Tech, Inc.
(785) 625-3858

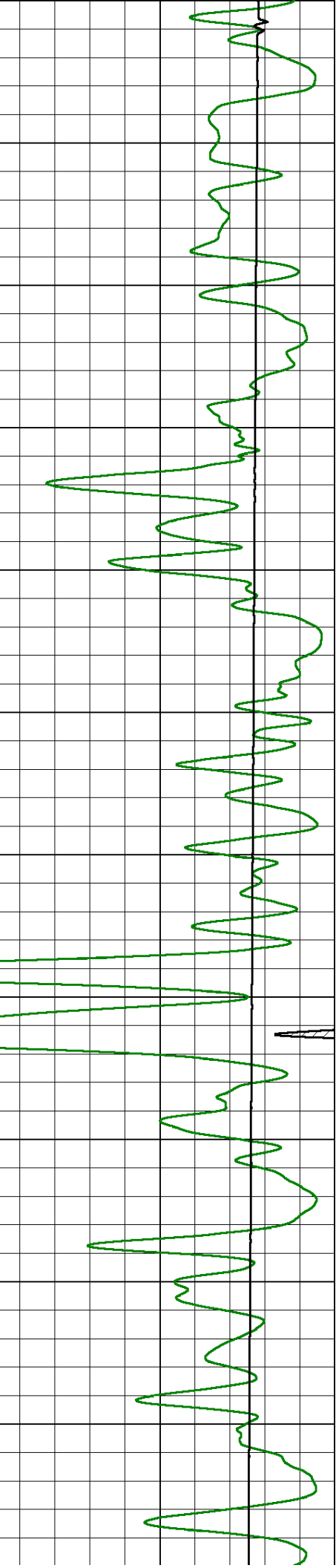
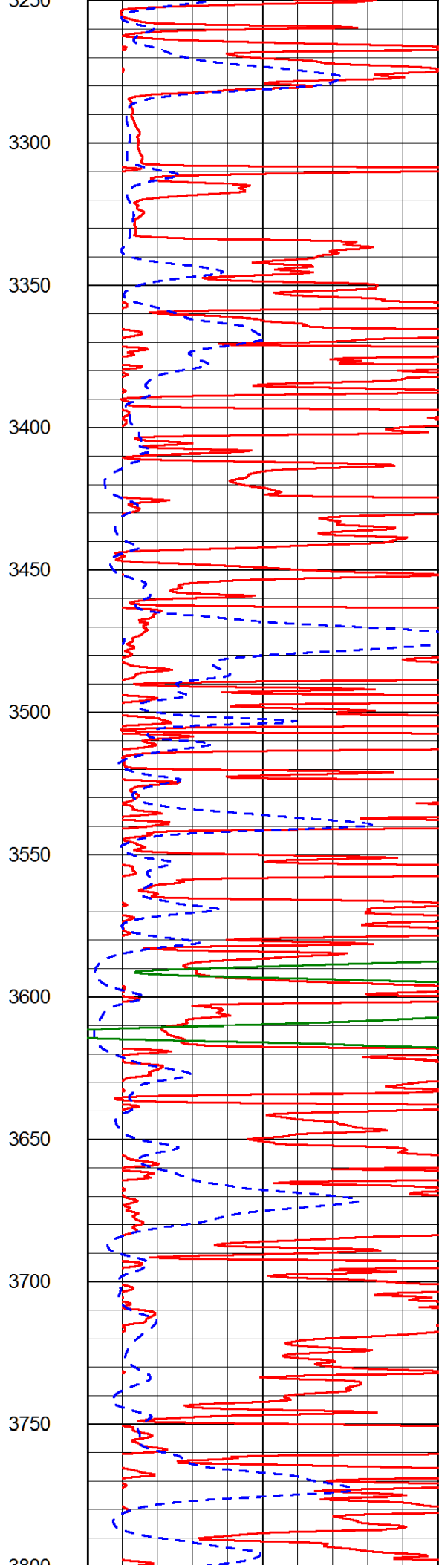
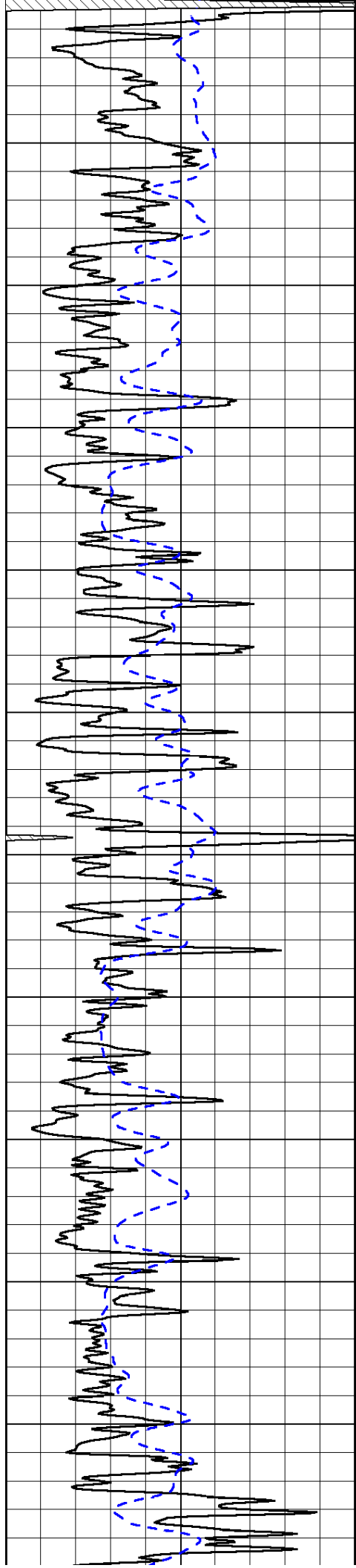
Satanta, KS
SW across river to B Rd., 8 S to stop sign,
1W, 1 1/2 S, 1/2 W, N Into

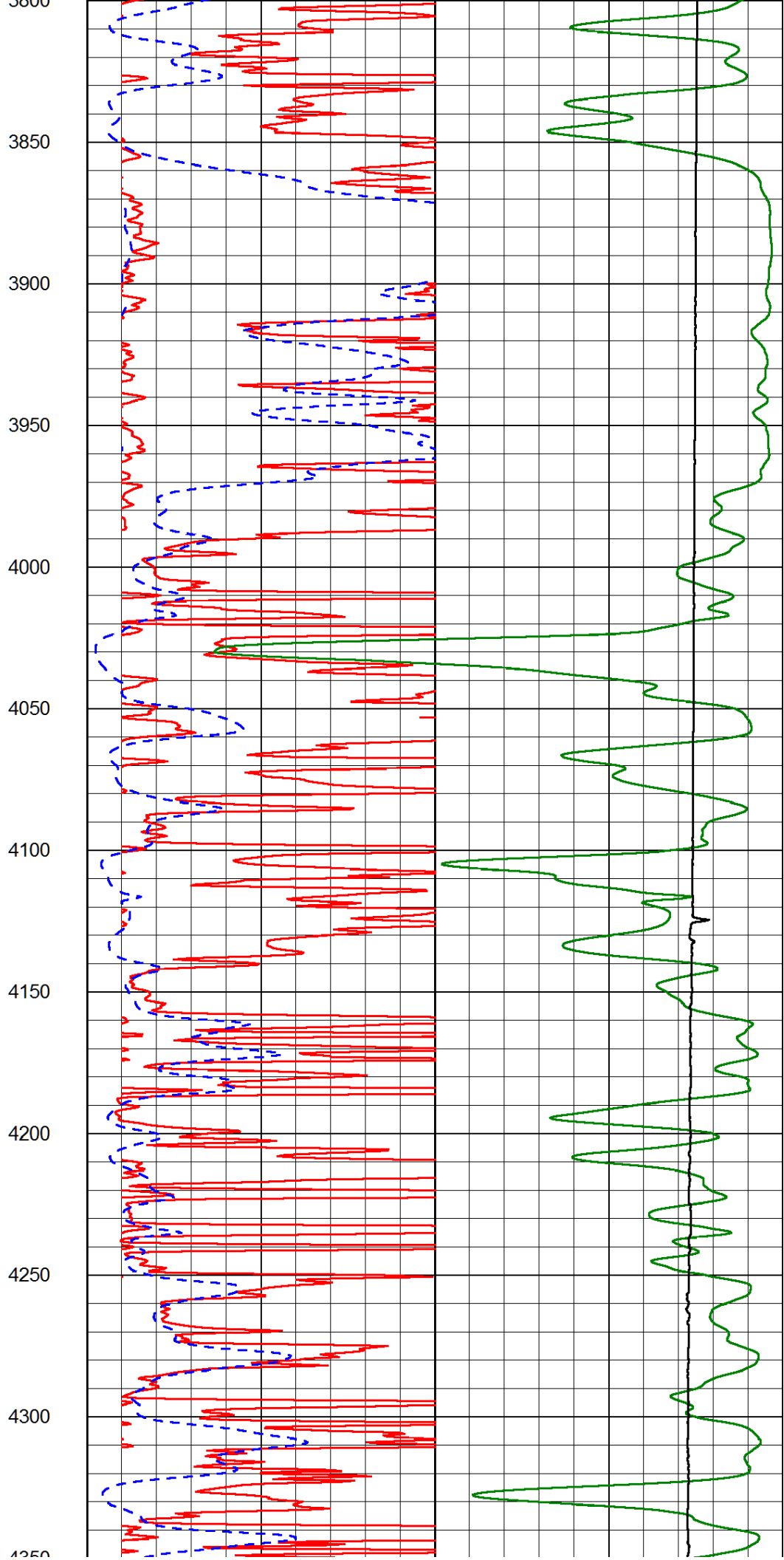
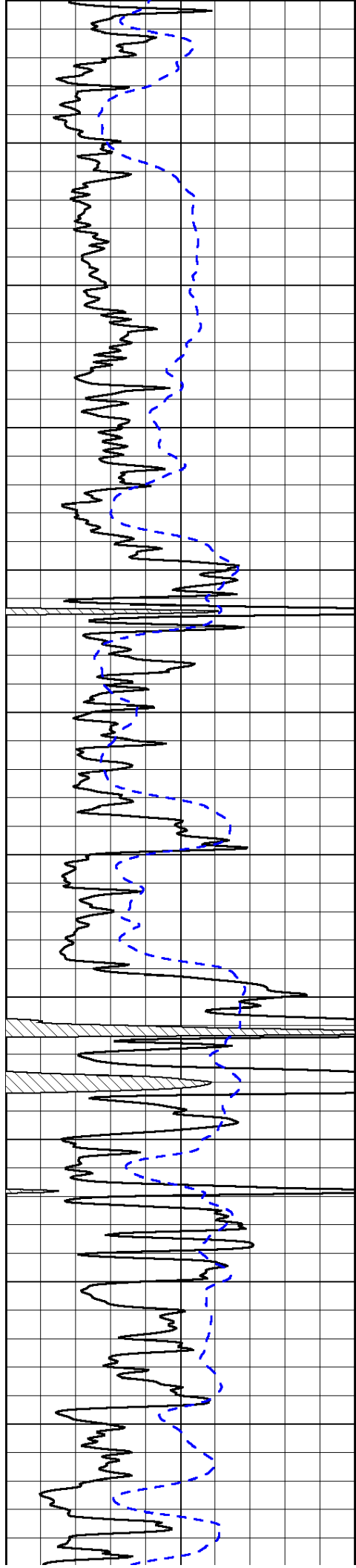
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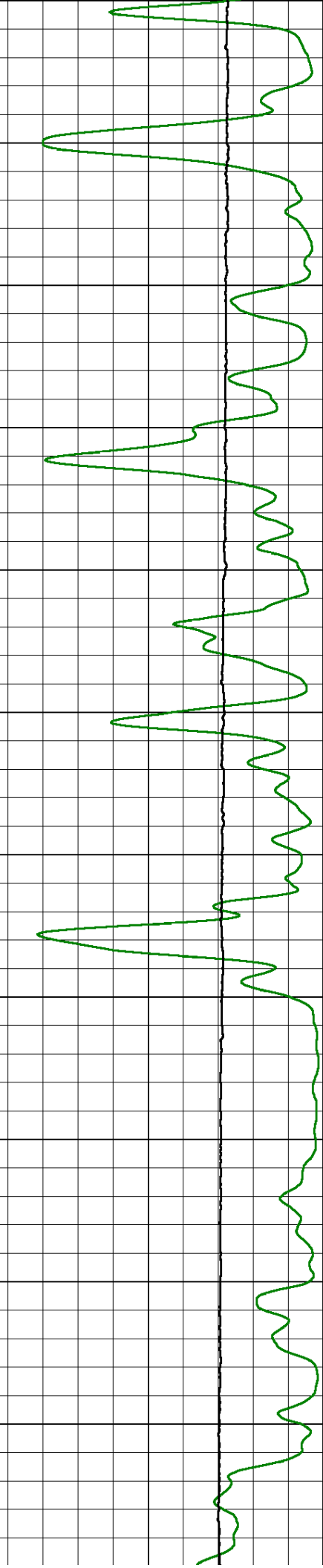
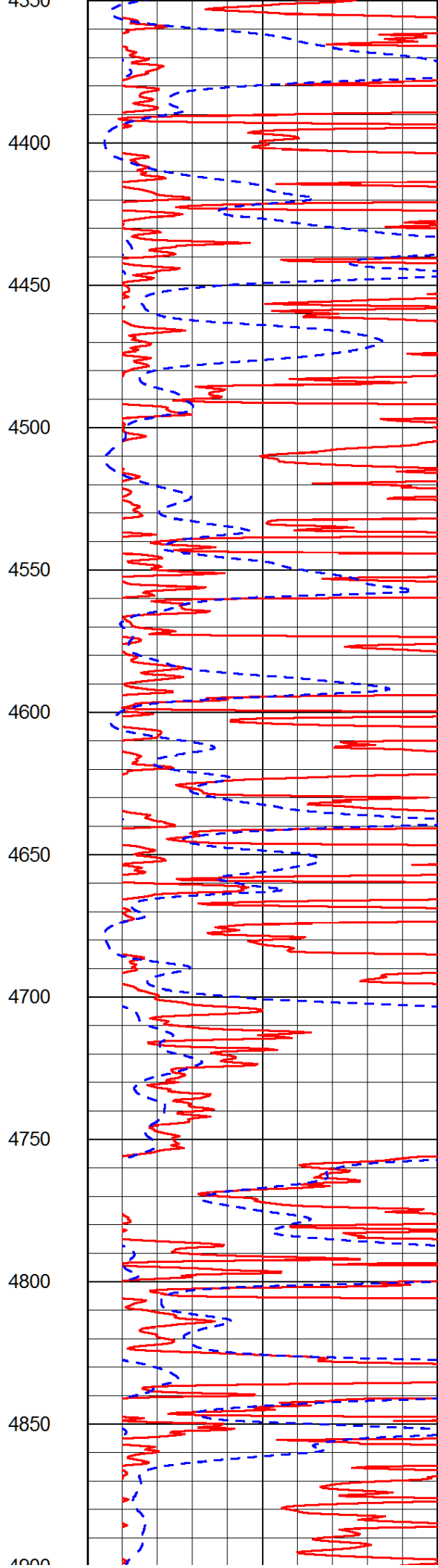
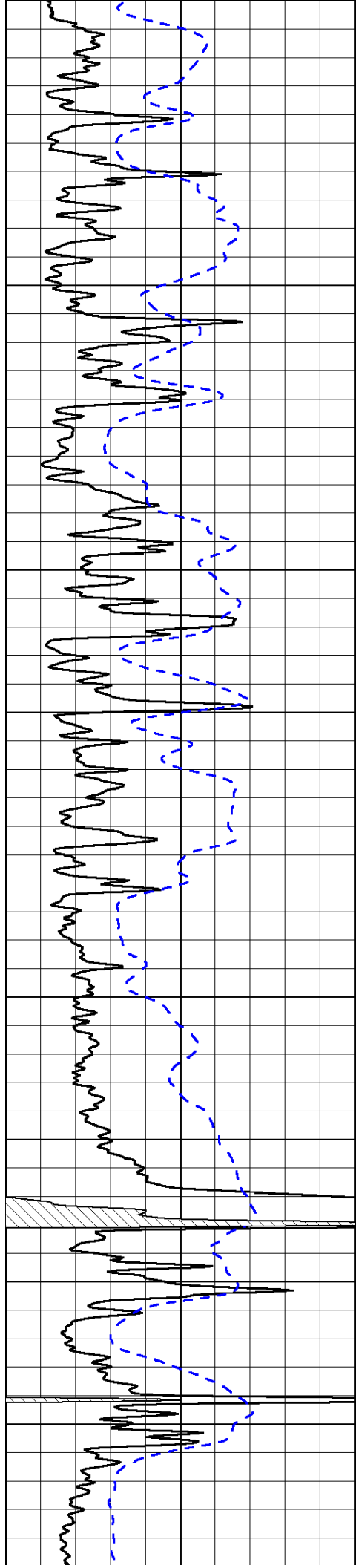


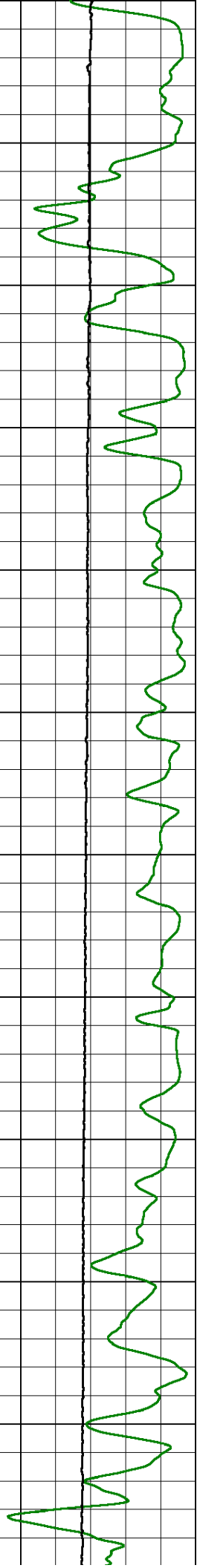
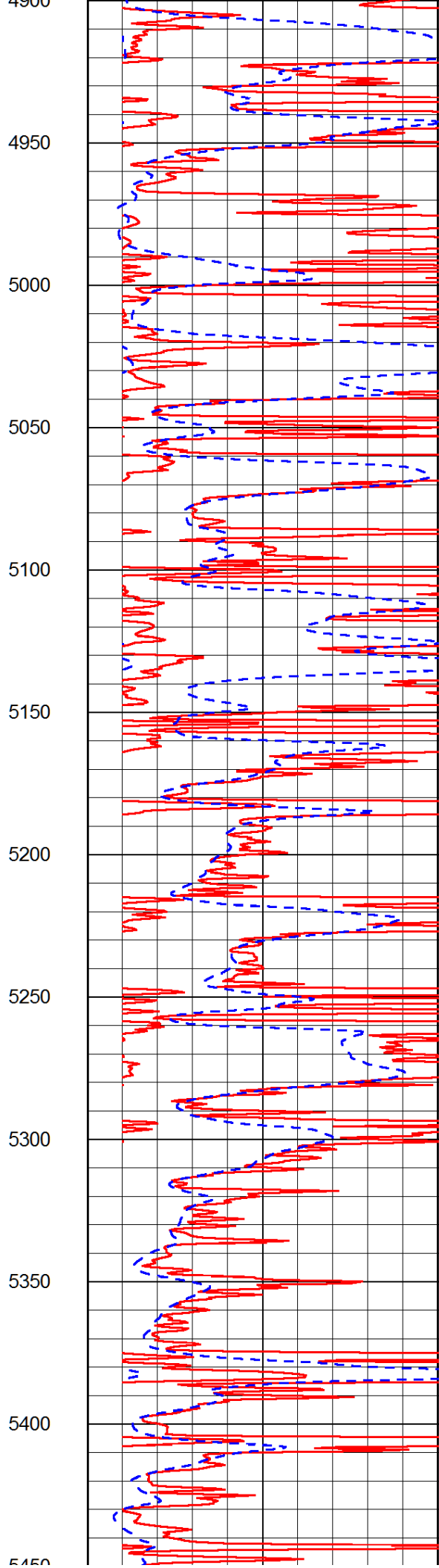
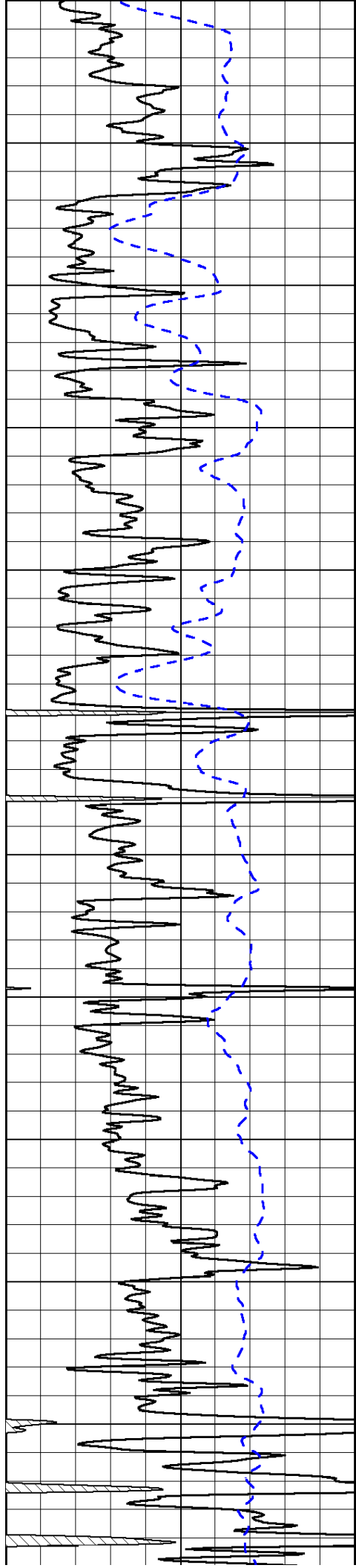


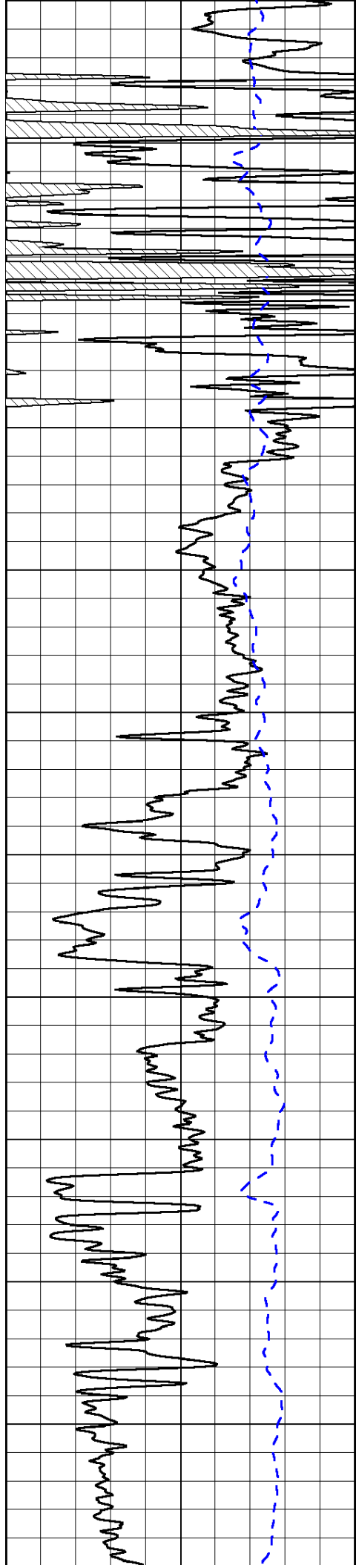




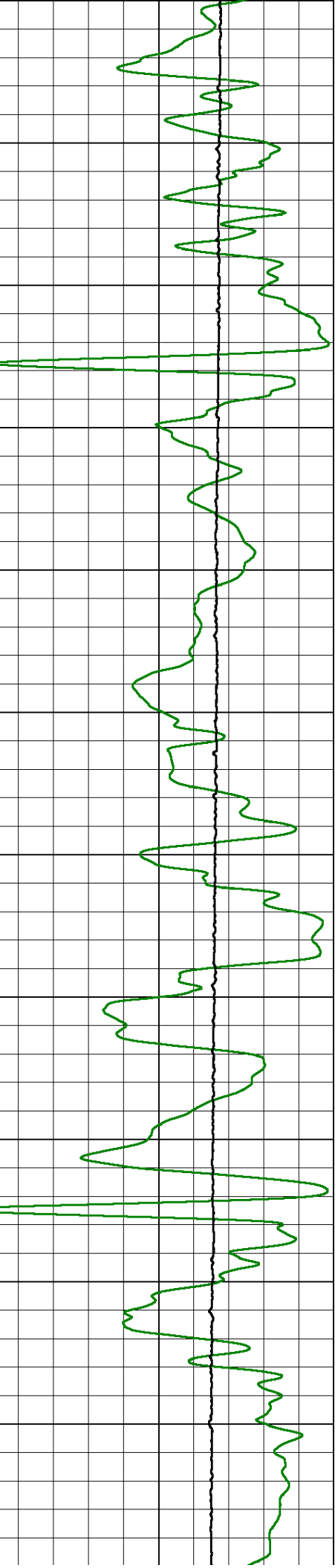
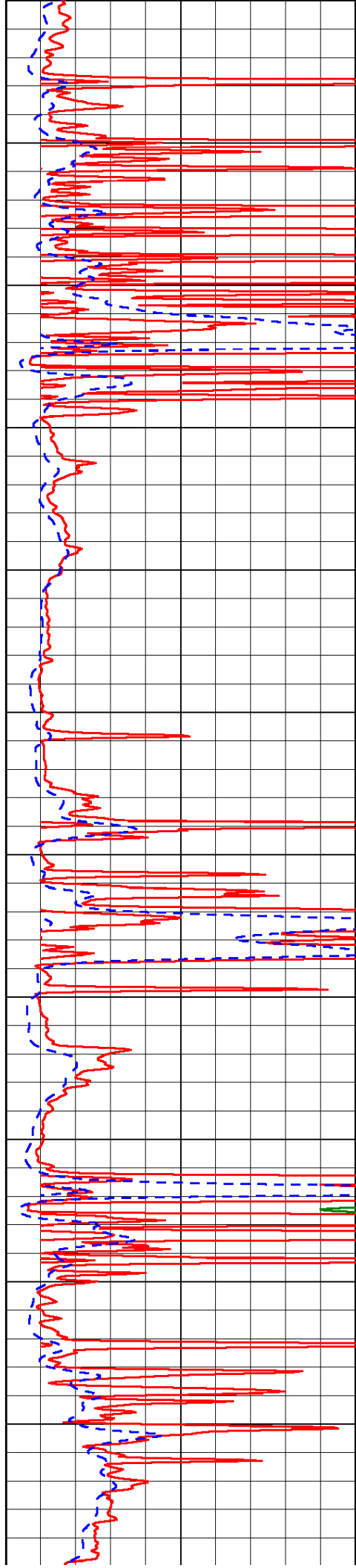


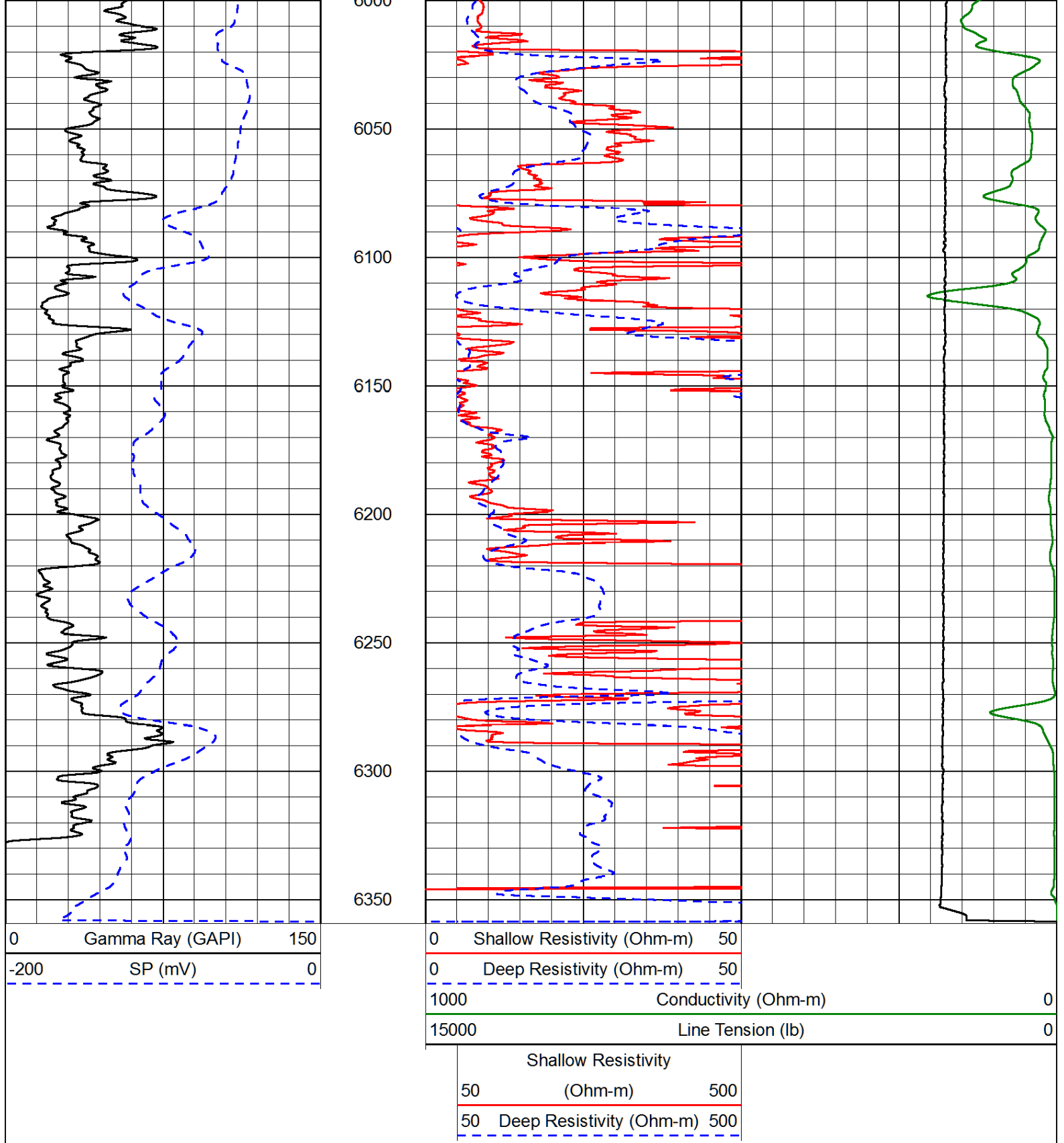






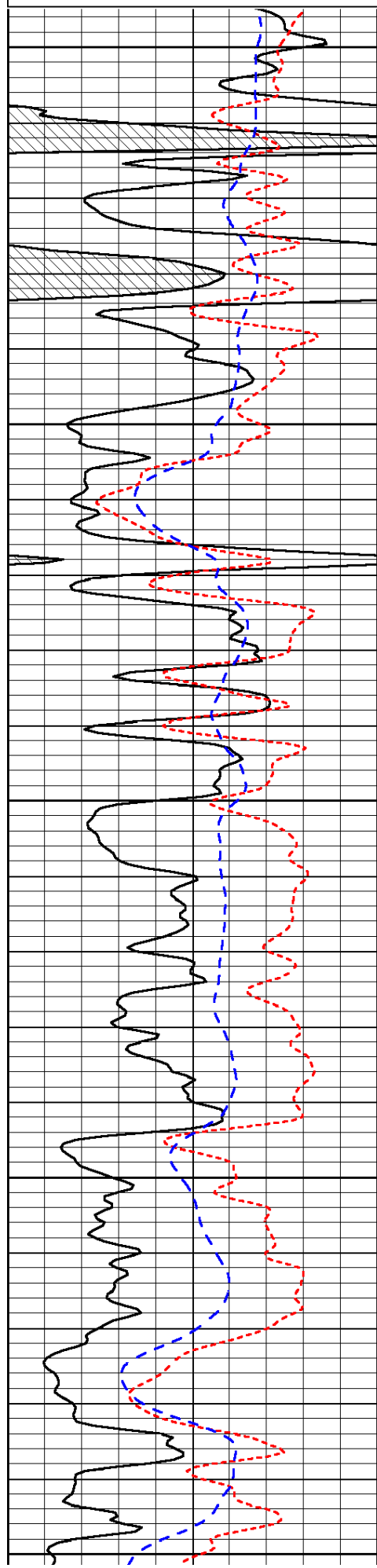
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-160	RXO/RT	40	0.2	Medium Resistivity (Ohm-m)	2000
-200	SP (mV)	0	0.2	Shallow Resistivity (Ohm-m)	2000
			10000	Line Tension (lb)	0

LSPD
(ft/min)

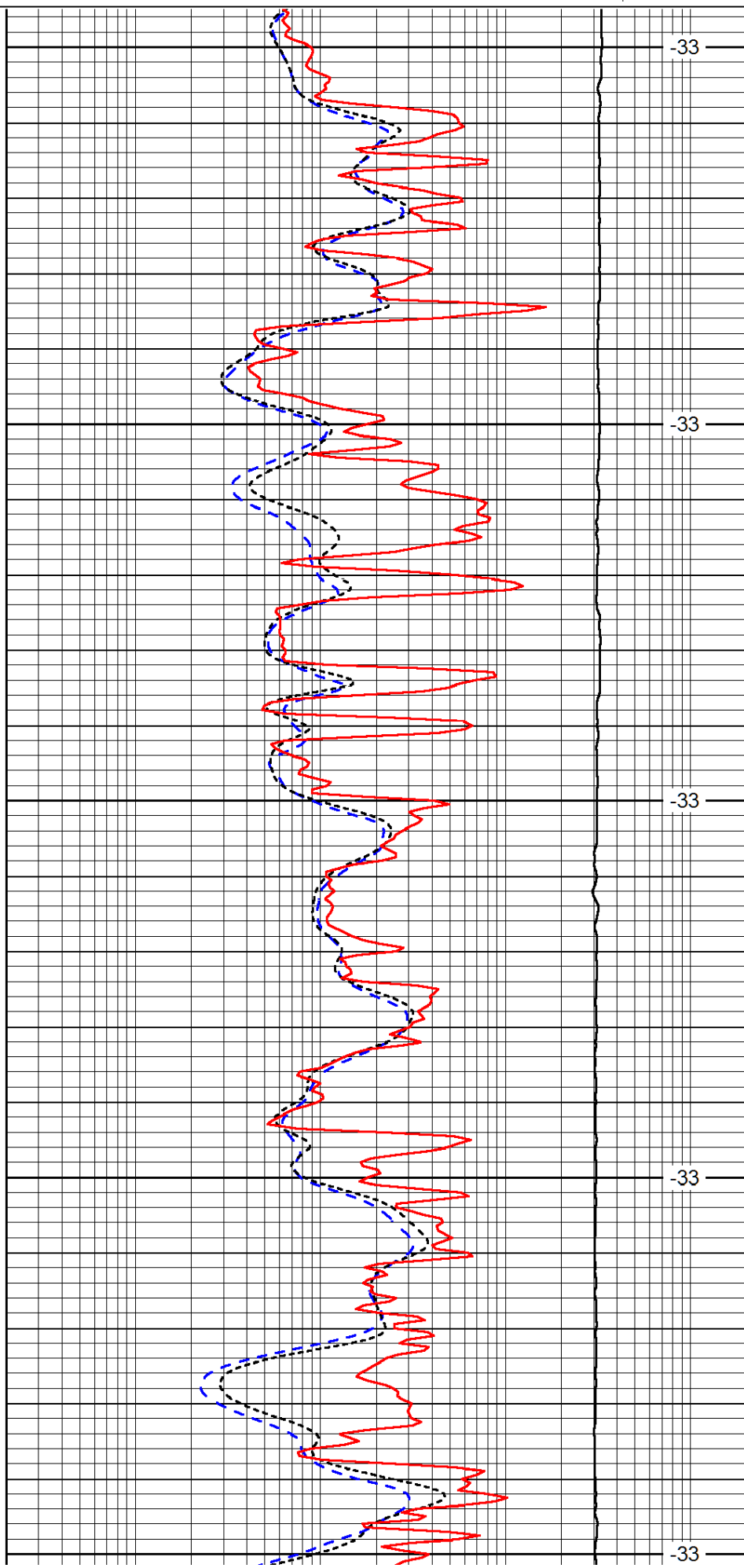
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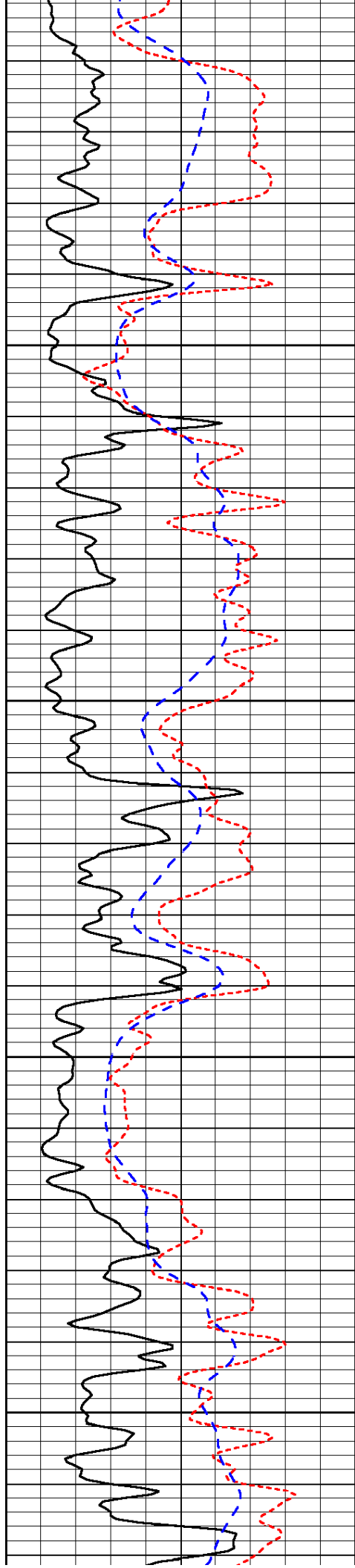
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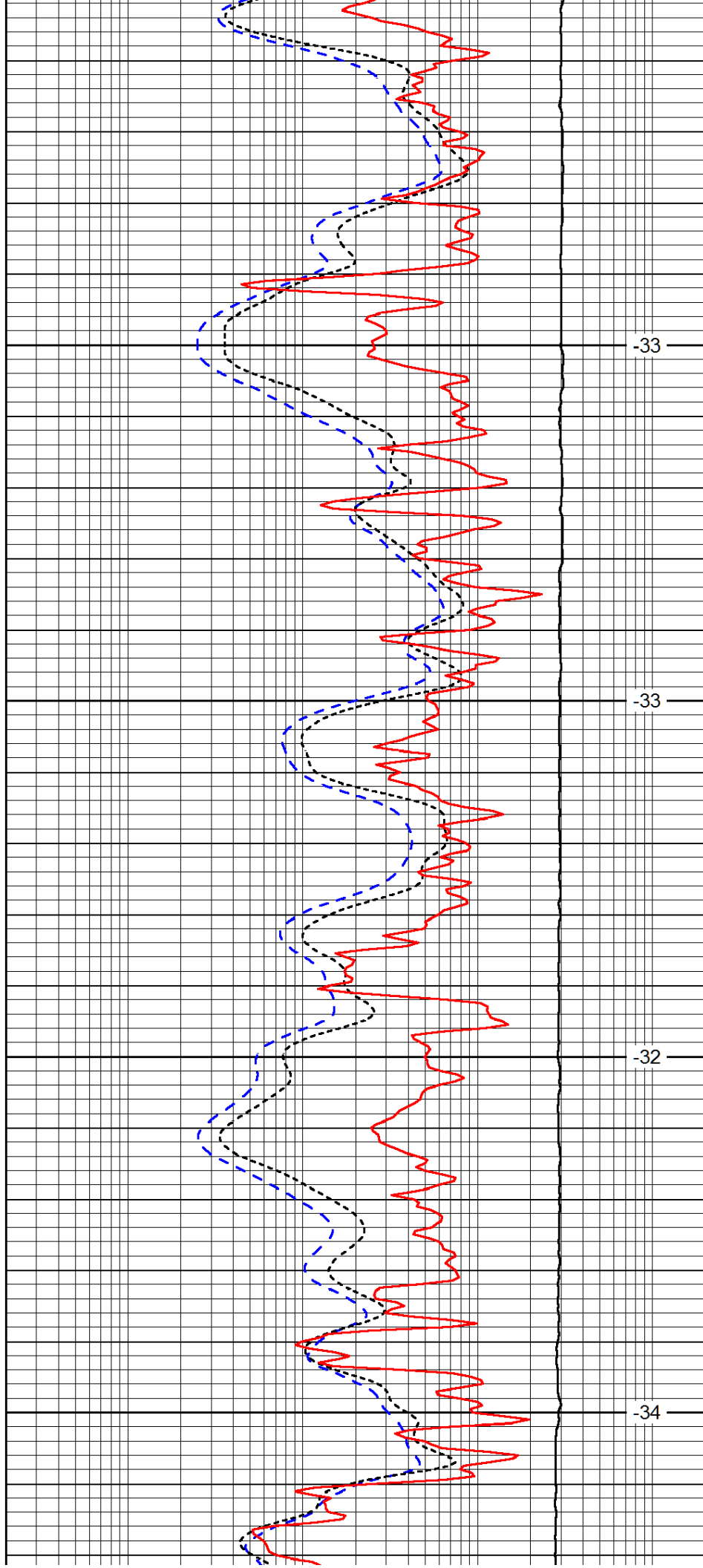


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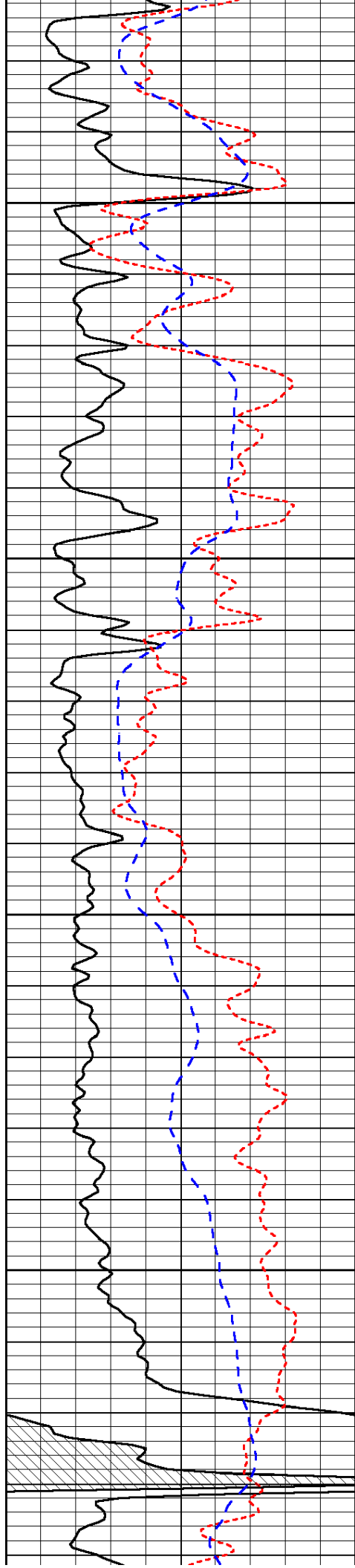


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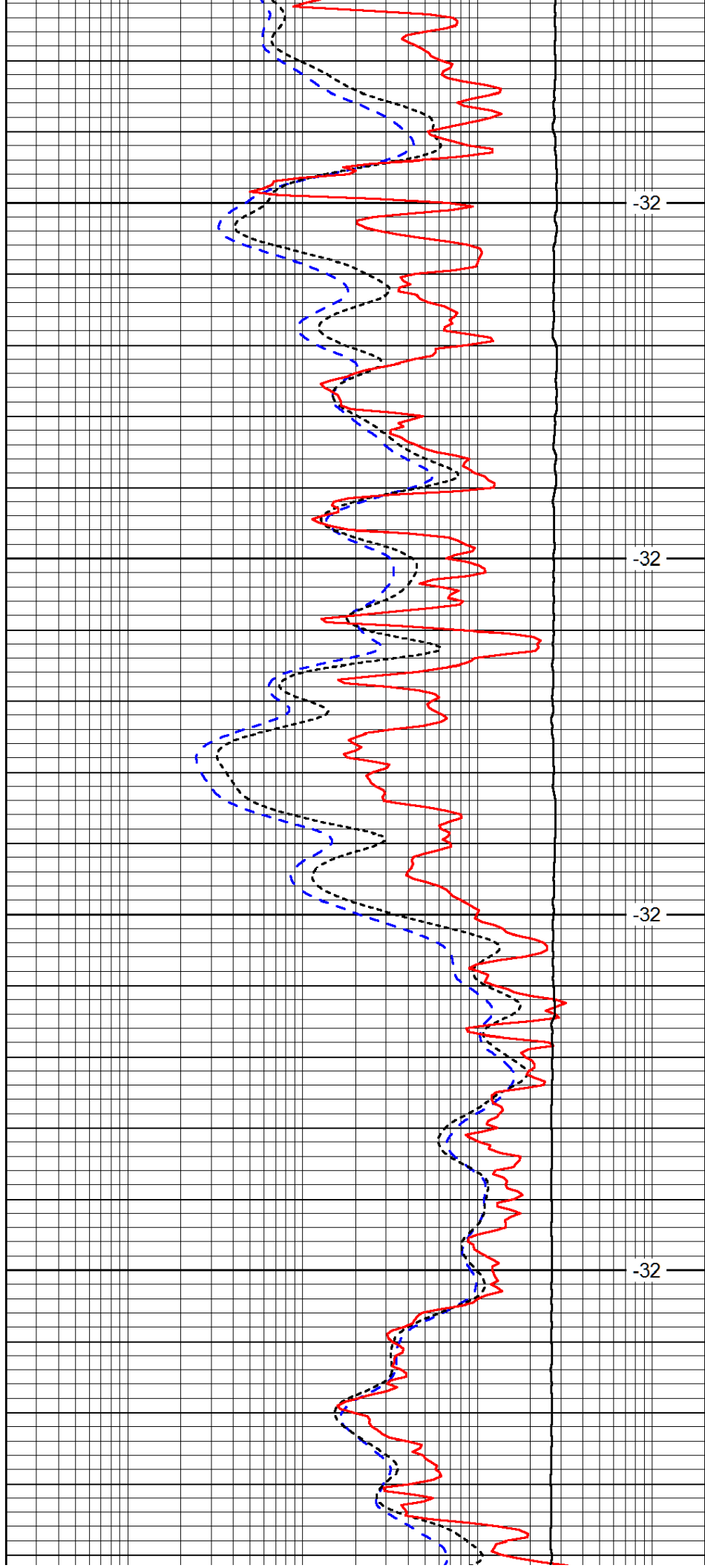


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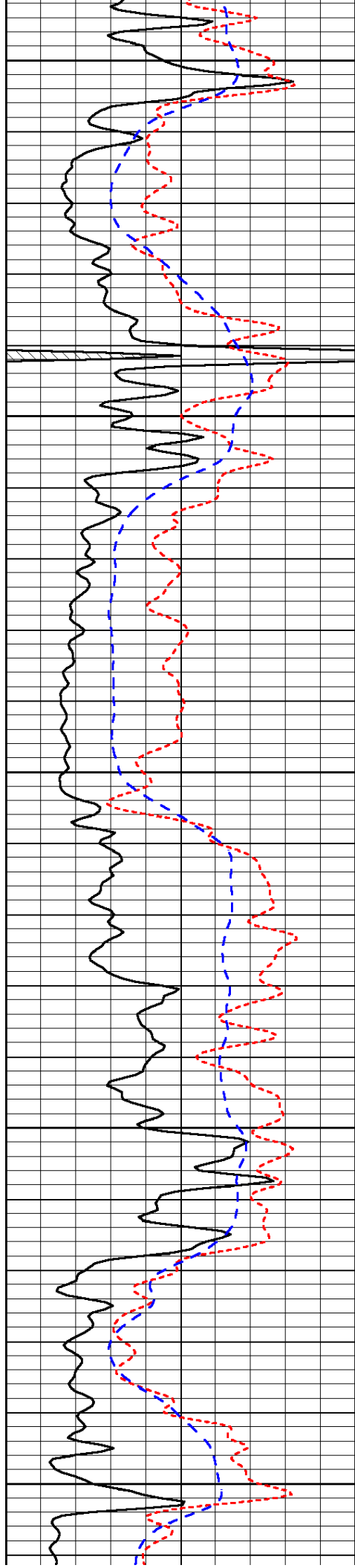


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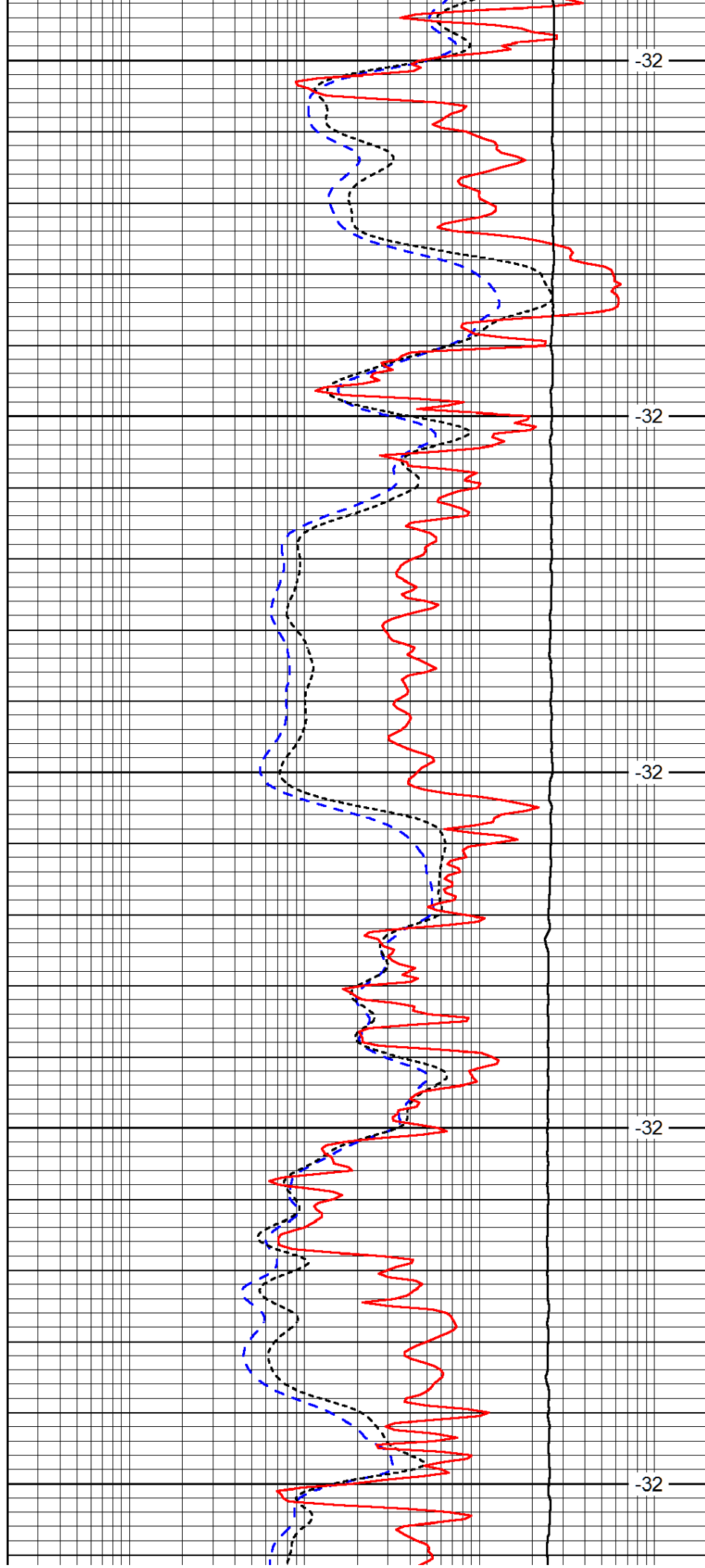
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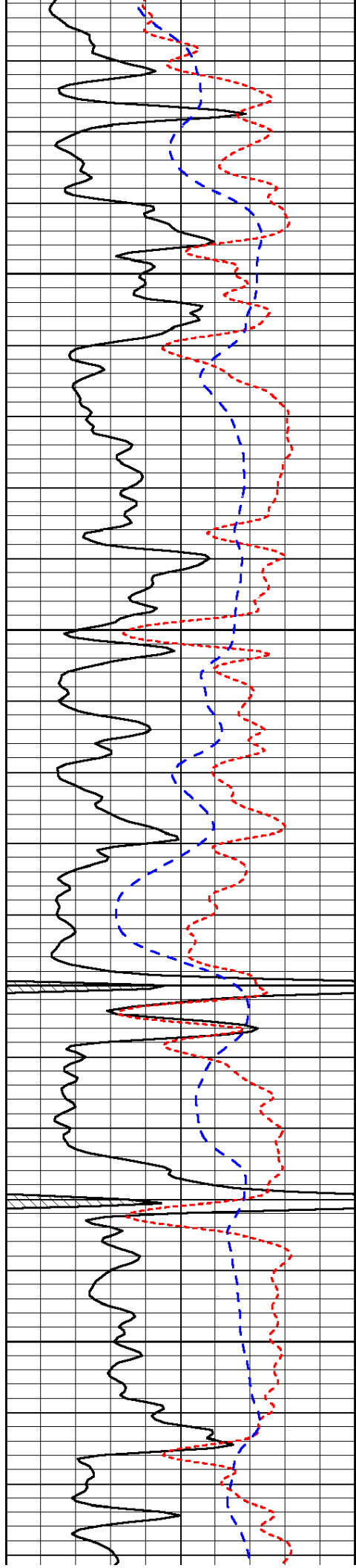
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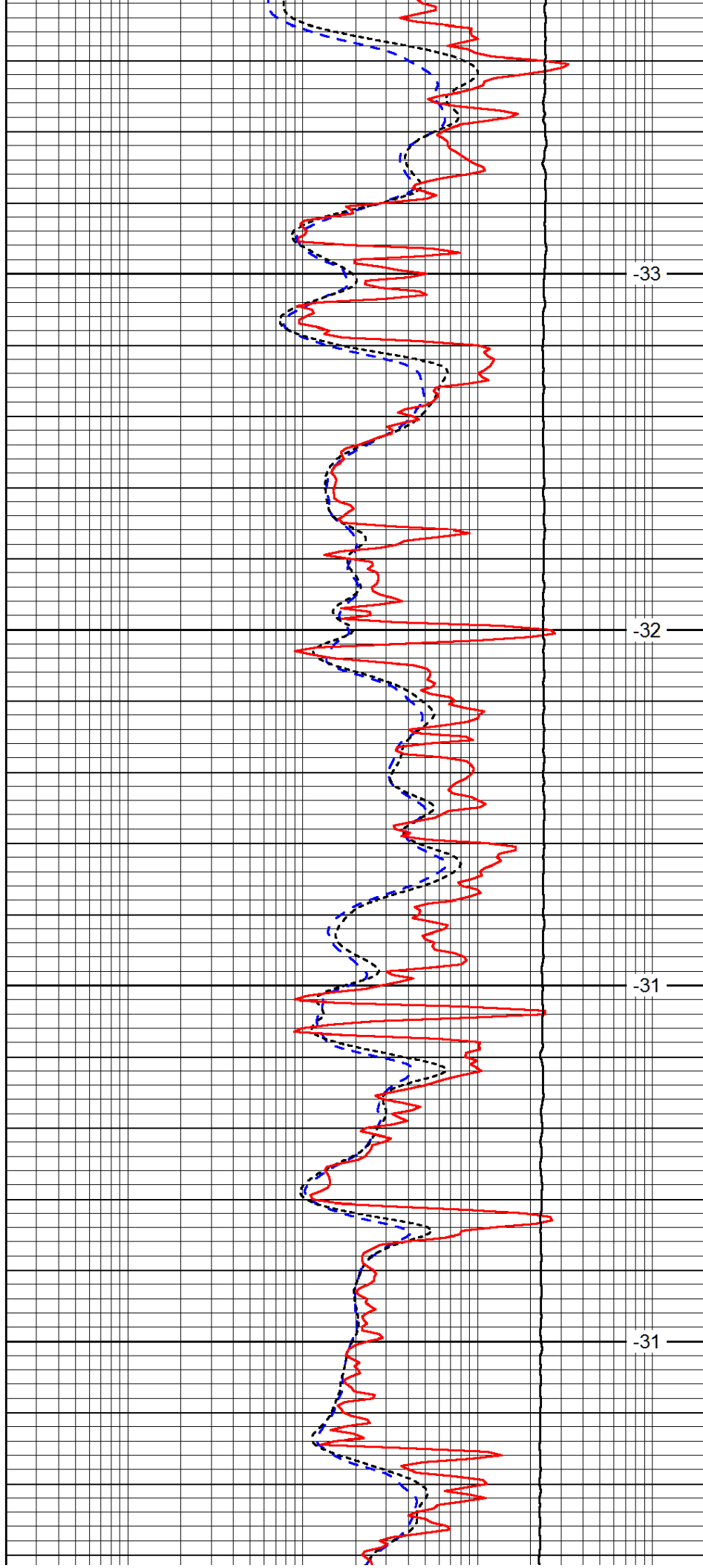


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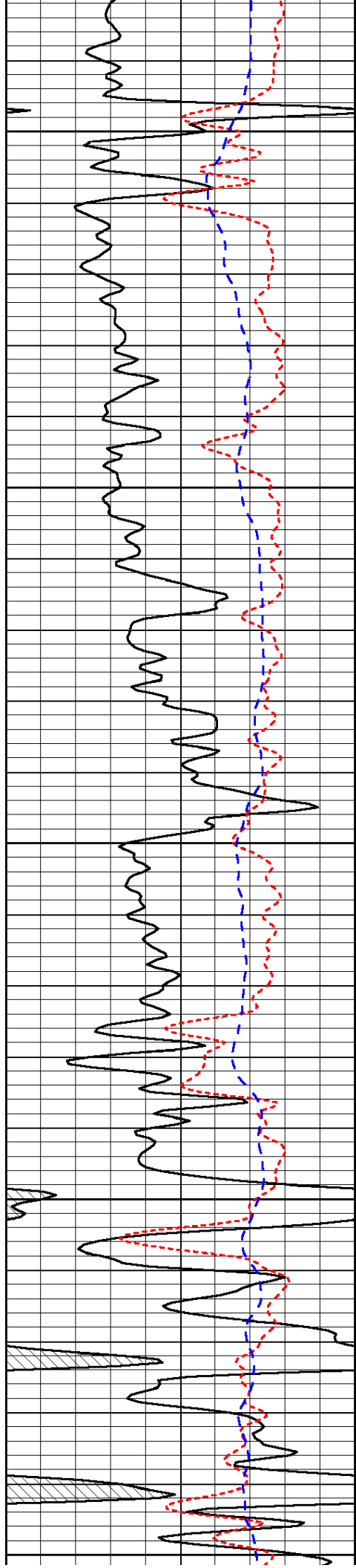


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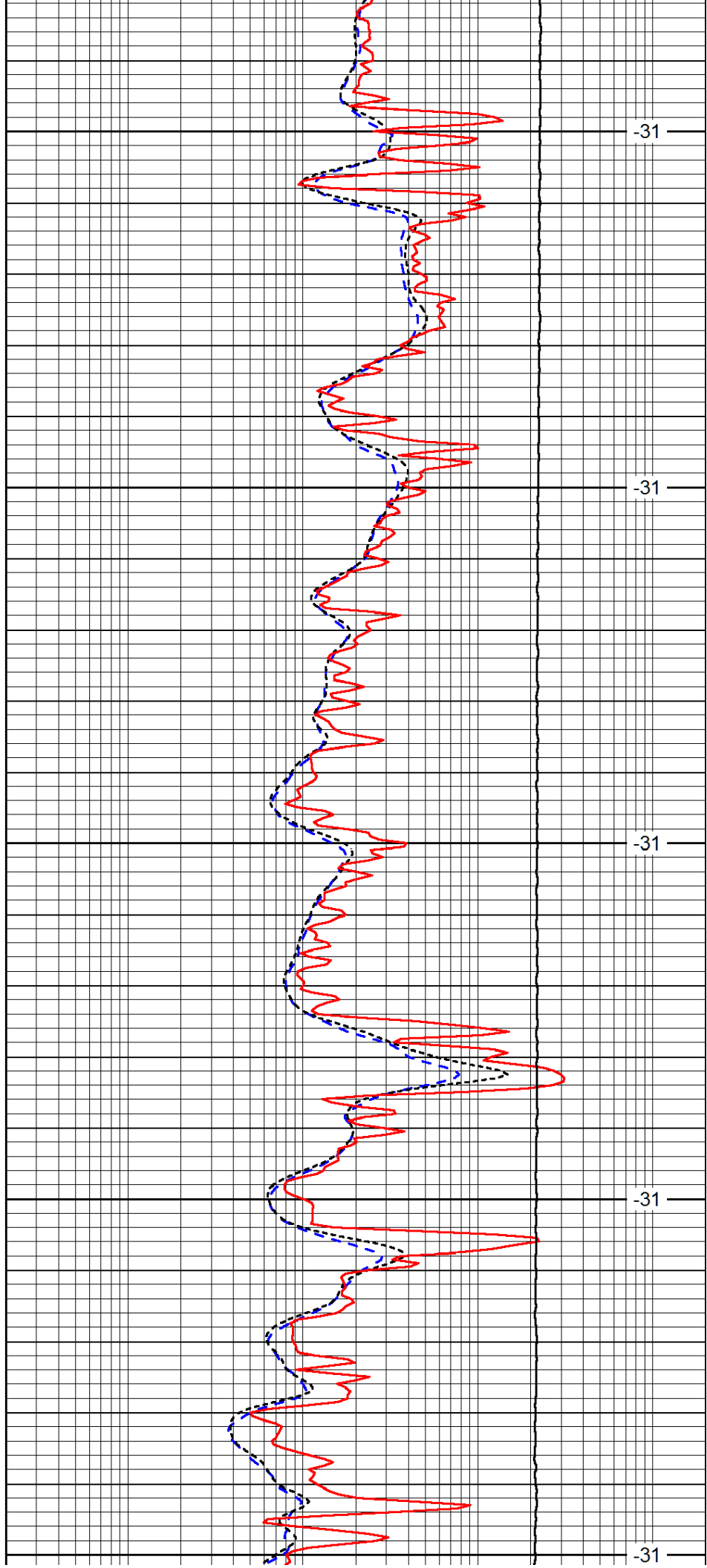
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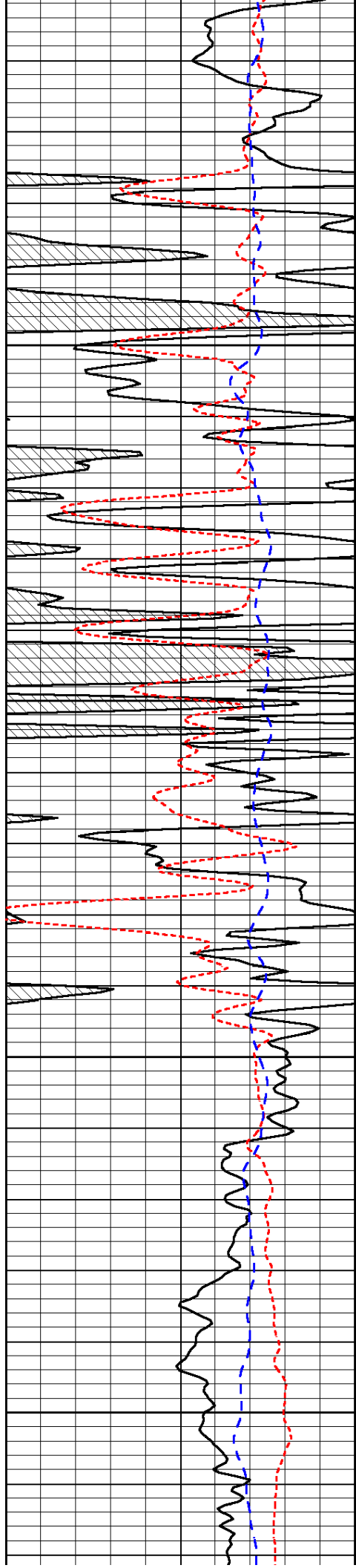
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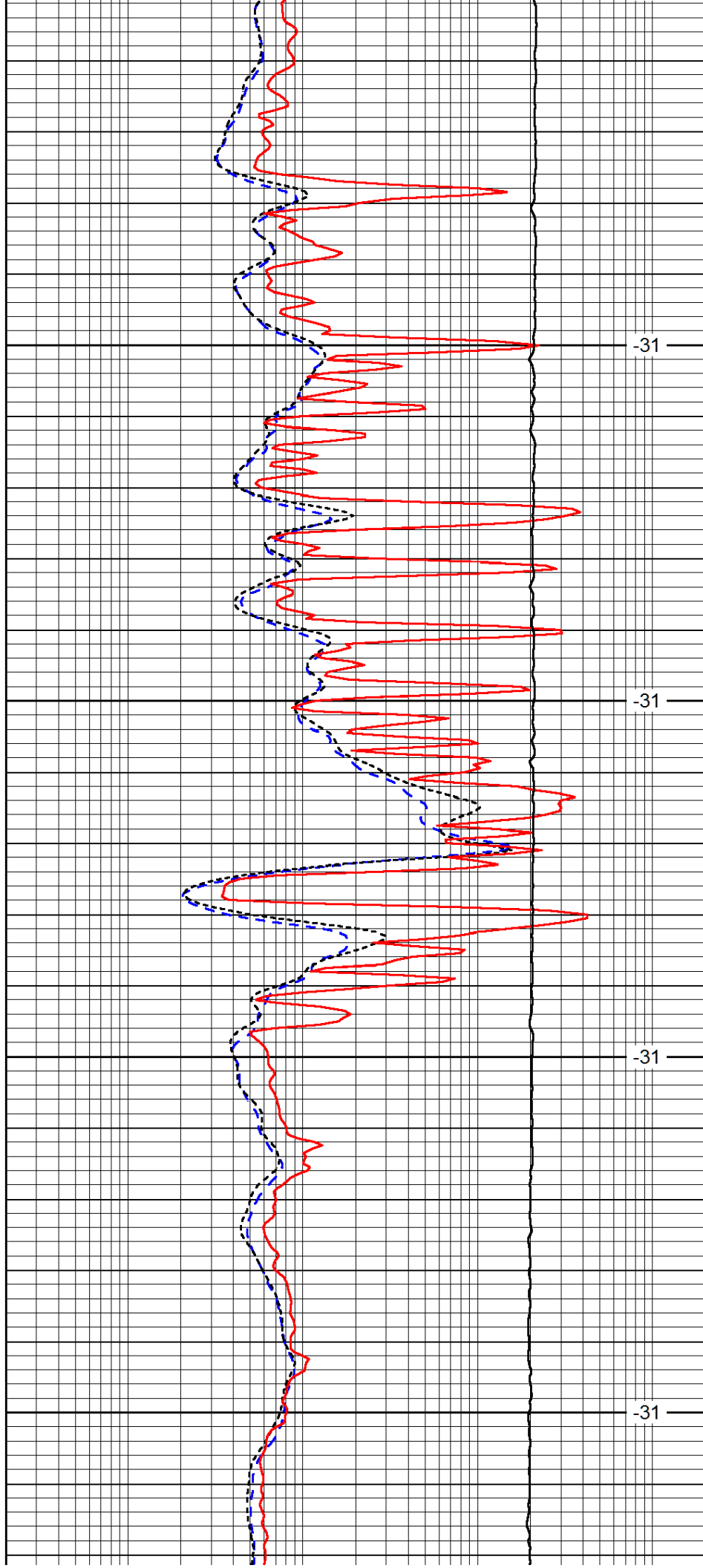


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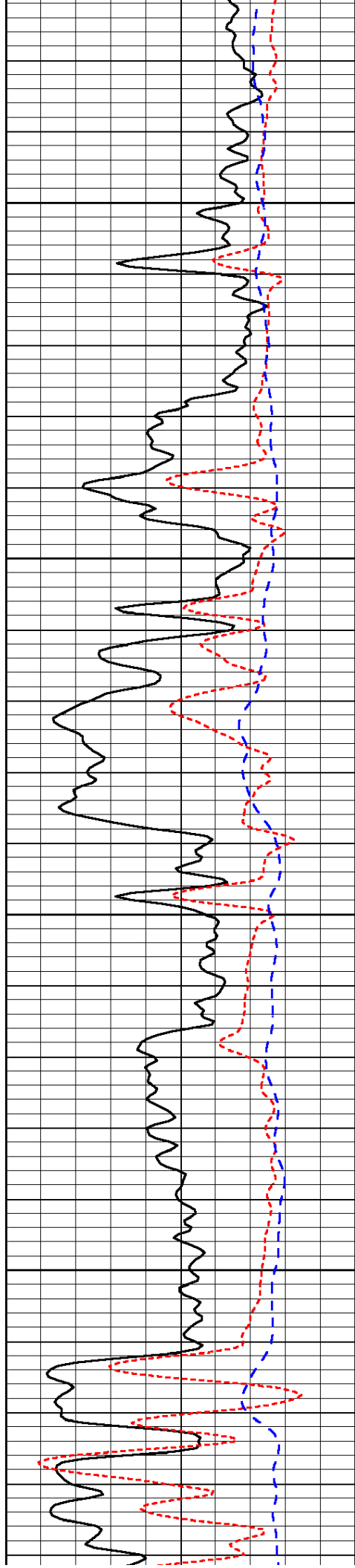


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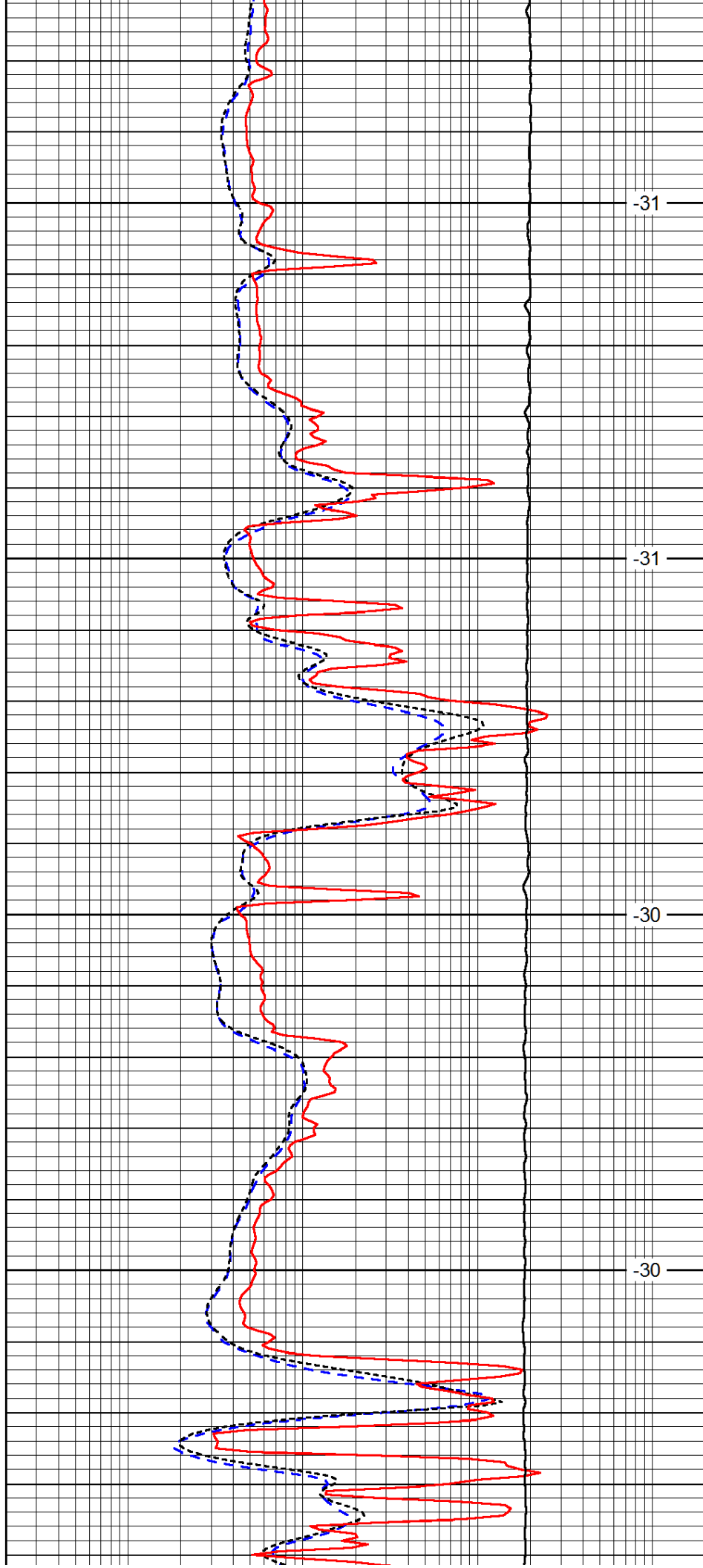


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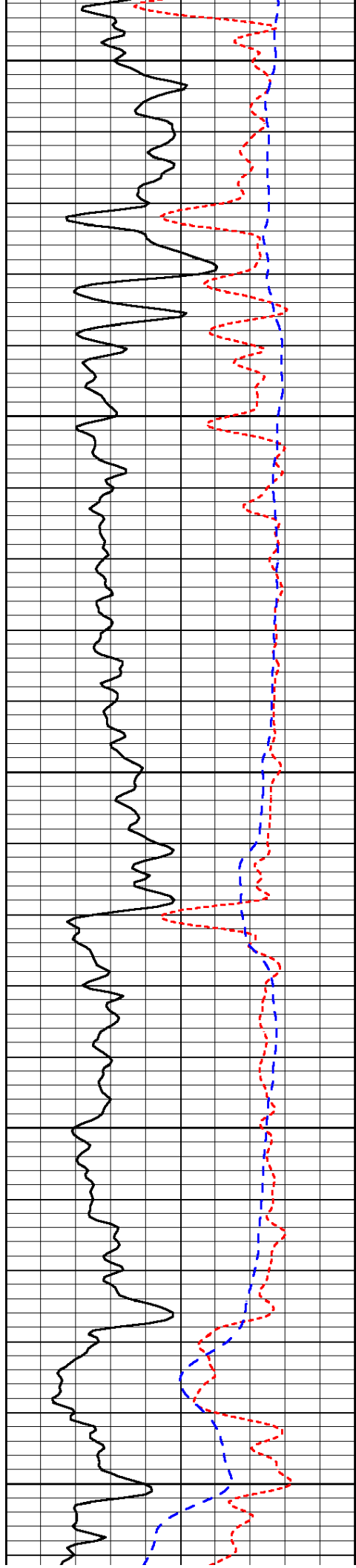


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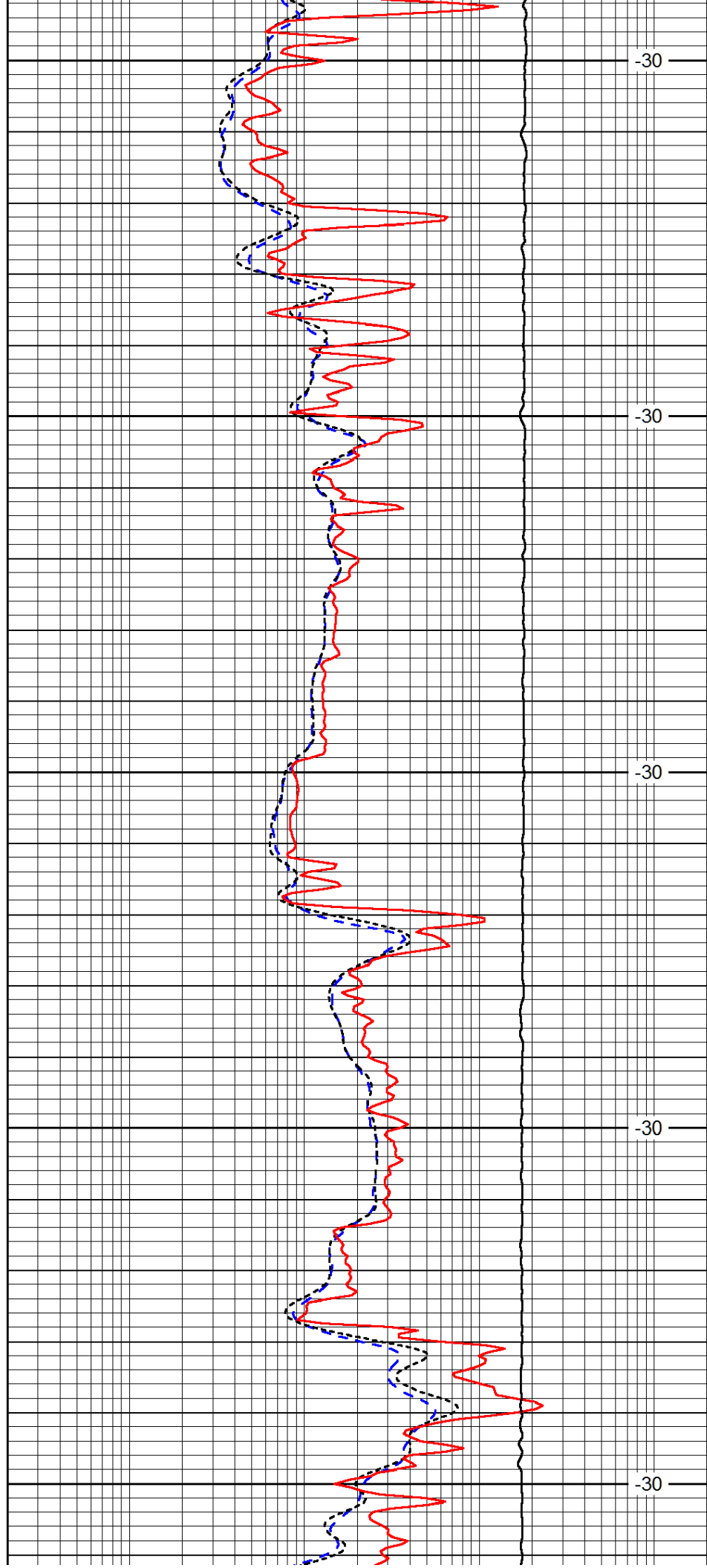
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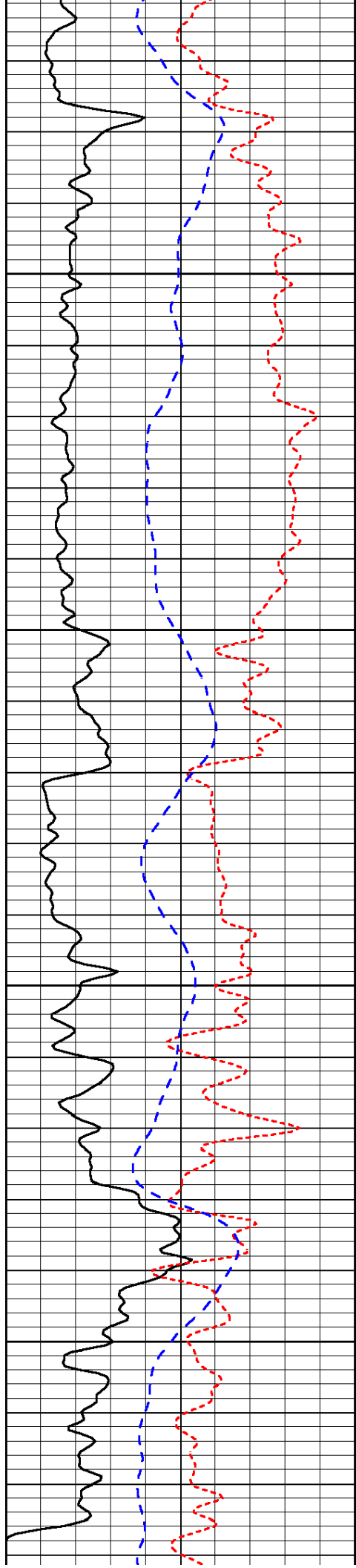
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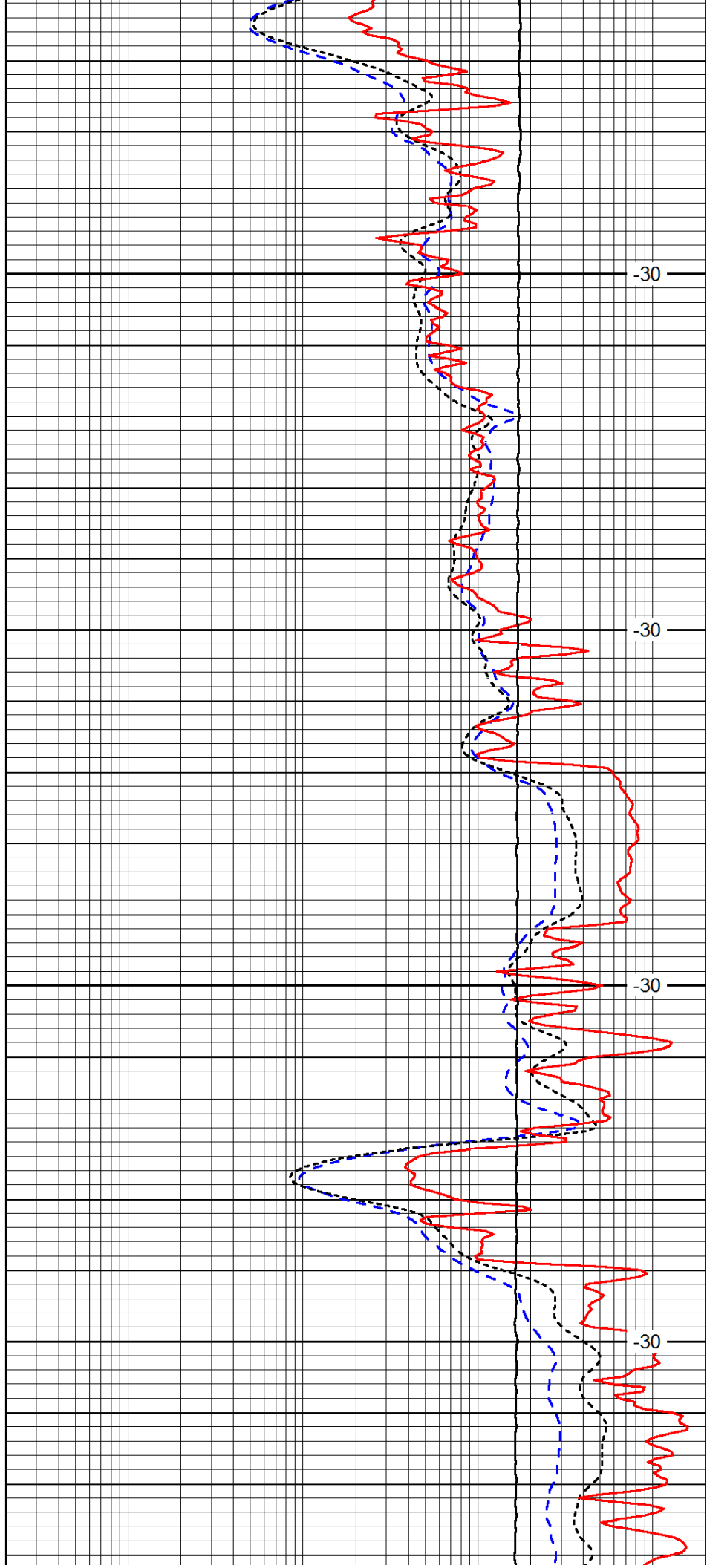


6150

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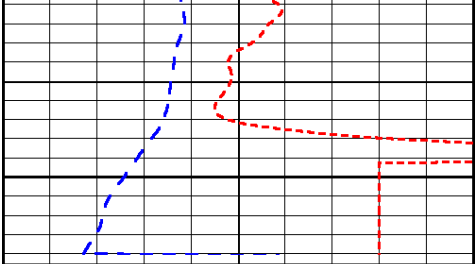


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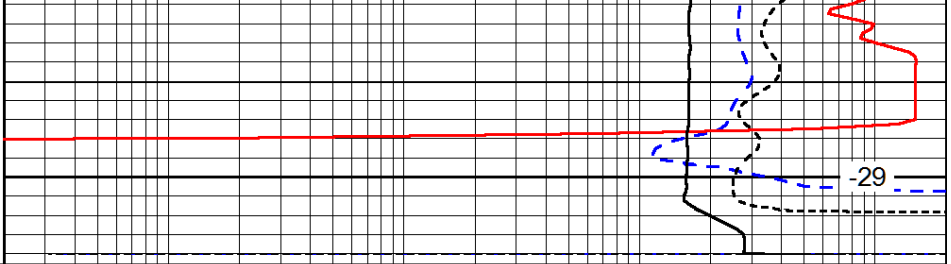
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6350



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