



Dual Induction Log

Pioneer Energy Services

API No.

15-189-22,825-00-00

Company Palmer Oil, Inc.

Well Willis # 23-5

Field Willis

County Stevens State

Kansas

Location

NE NW SE NE
1,600' FNL & 700' FEL

Other Services
CNL/CDL
MEL

Sec: 23 Twp: 32S Rge: 37W

Elevation

K.B. 3120
D.F.
G.L. 3107

Permanent Datum
Log Measured From Kelly Bushing

Ground Level
Elevation 3107
13 Ft. Above Perm. Datum

Drilling Measured From Kelly Bushing

Date 12/1/2013

Run Number One

Depth Driller 6500

Depth Logger 6475

Bottom Logged Interval 6474

Top Log Interval 1750

Casing Driller 8.625 @ 1758

Casing Logger 1756

Bit Size 7.875

Type Fluid in Hole Chemical

Salinity, ppm CL 2000

Density / Viscosity 9.3 52

pH / Fluid Loss 9.5 8.0

Source of Sample Flowline

Rm @ Meas. Temp .82 @ 66

Rmf @ Meas. Temp .62 @ 66

Rmc @ Meas. Temp 1.11 @ 66

Source of Rmf / Rmc Charts

Rm @ BHT .38 @ 141

Operating Rig Time 5 Hours

Max Rec. Temp. F 141

Equipment Number 108

Location Hays

Recorded By J. Long

Witnessed By Wyatt Urban

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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

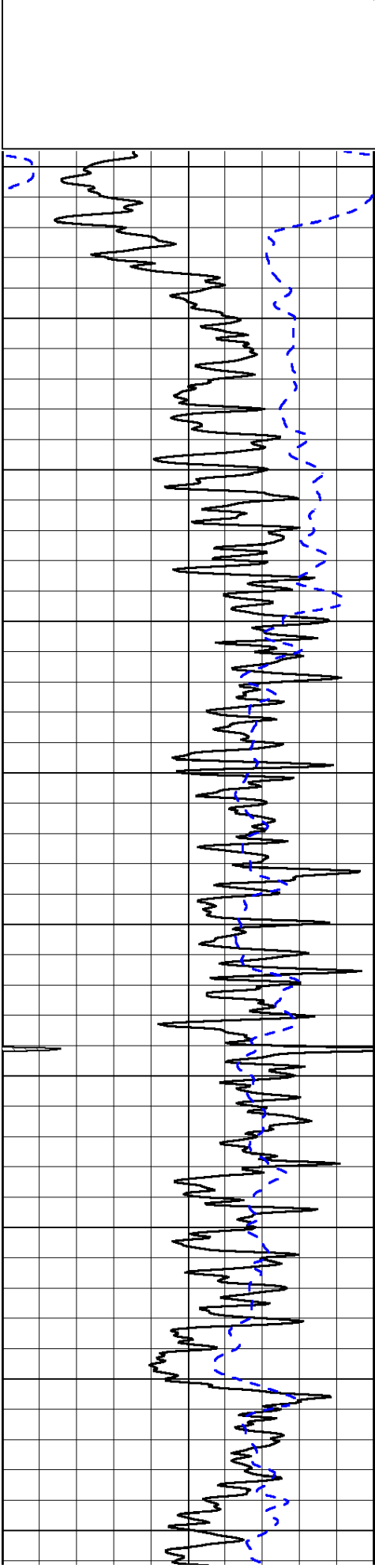
Thank you for using Pioneer Energy Services
www.pioneerenergy.com
785 625 3858

Moscow, 5 Southwest On Highway 56 to Road U, 1 West, 1/4 South, West Into

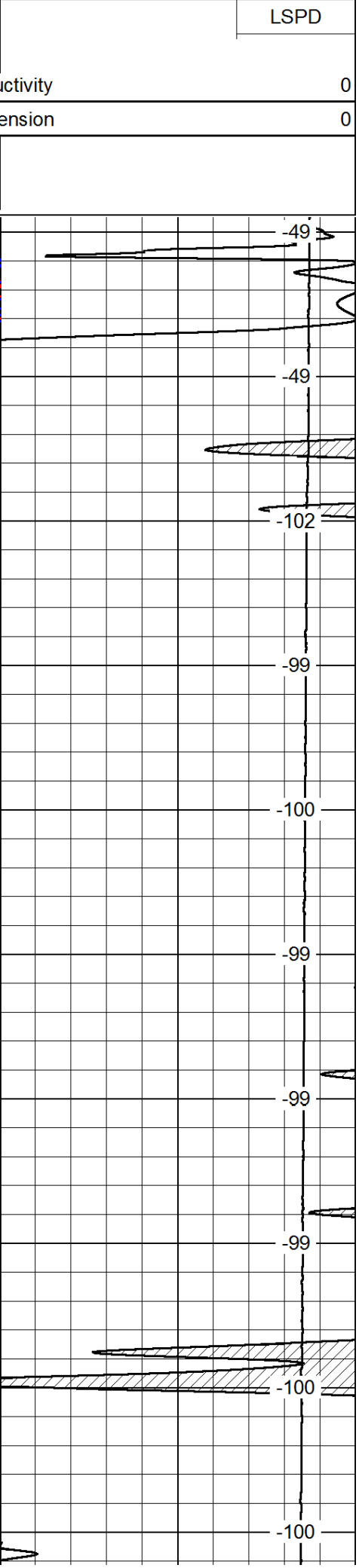
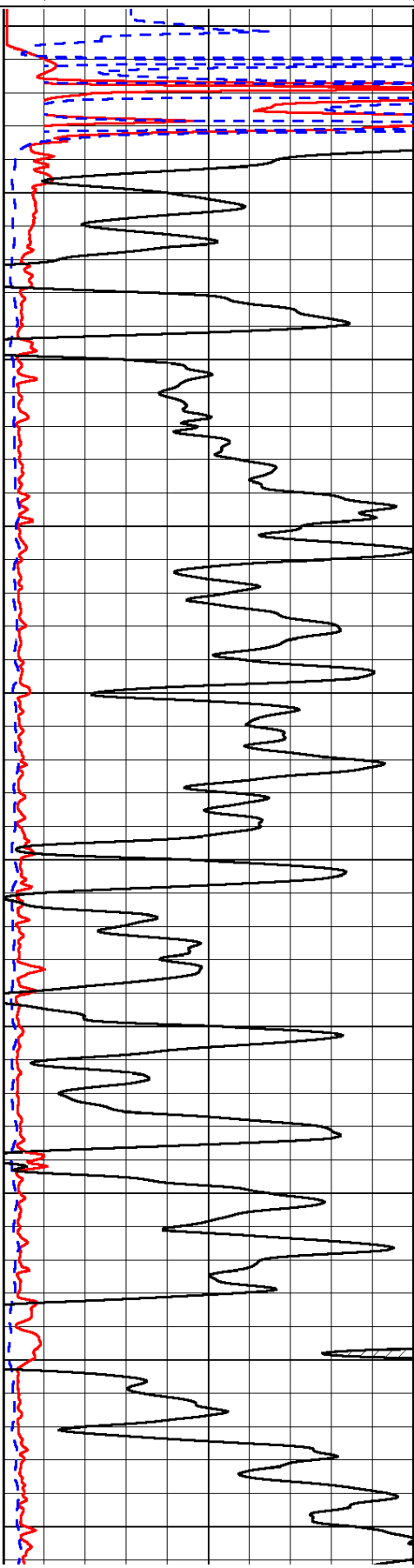
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Presentation Format: dil2in
Dataset Creation: Sun Dec 01 05:58:58 2013
Charted by: Depth in Feet scaled 1:600

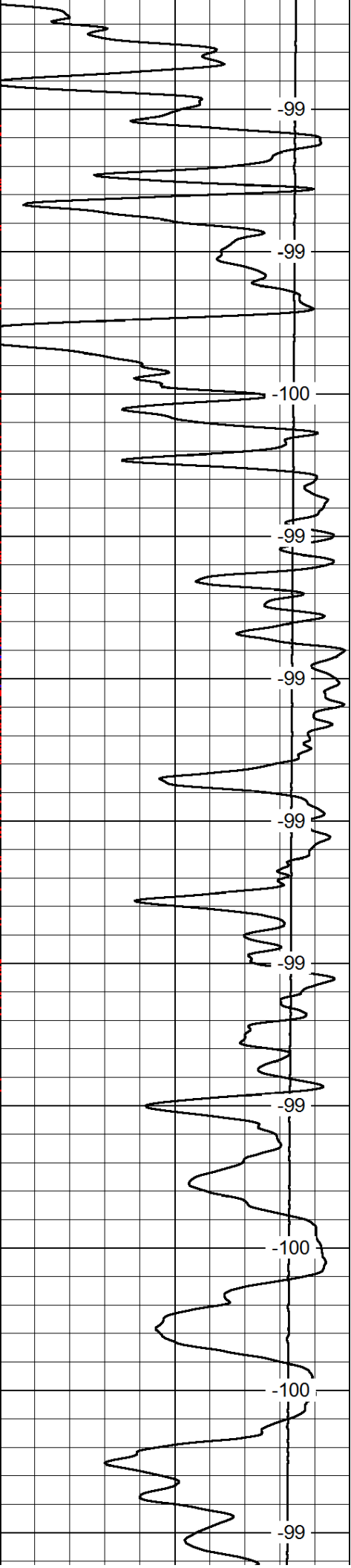
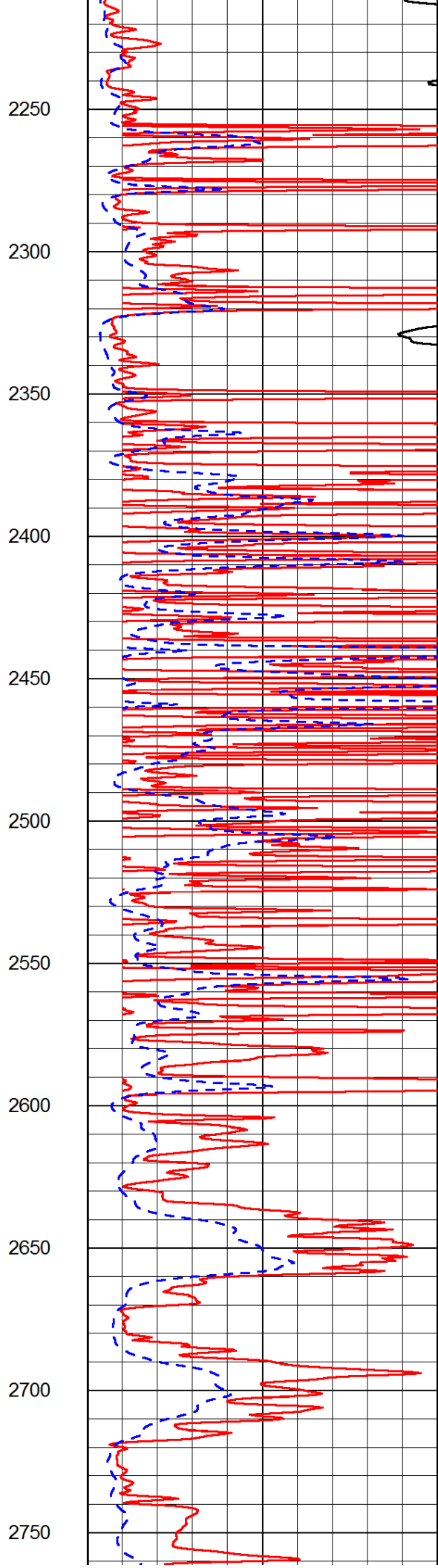
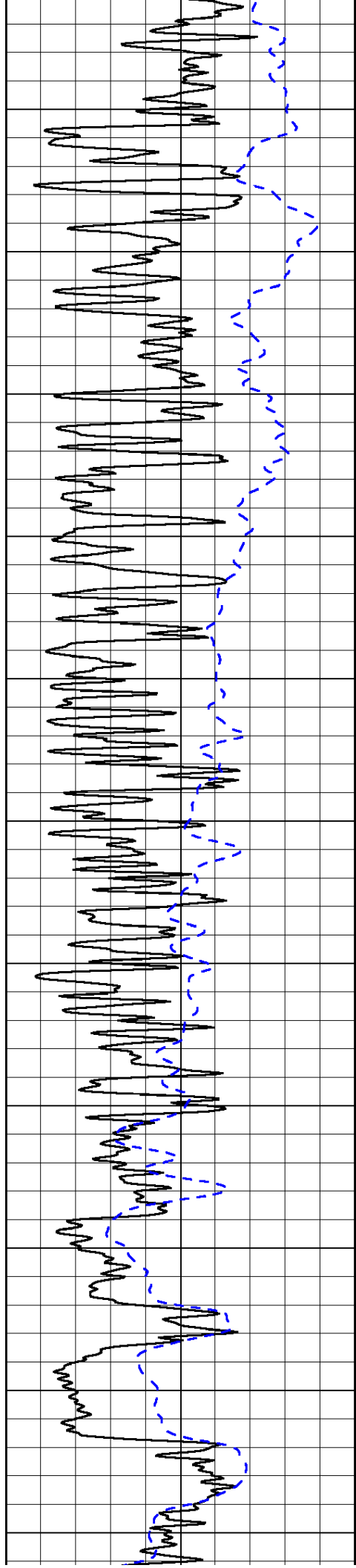
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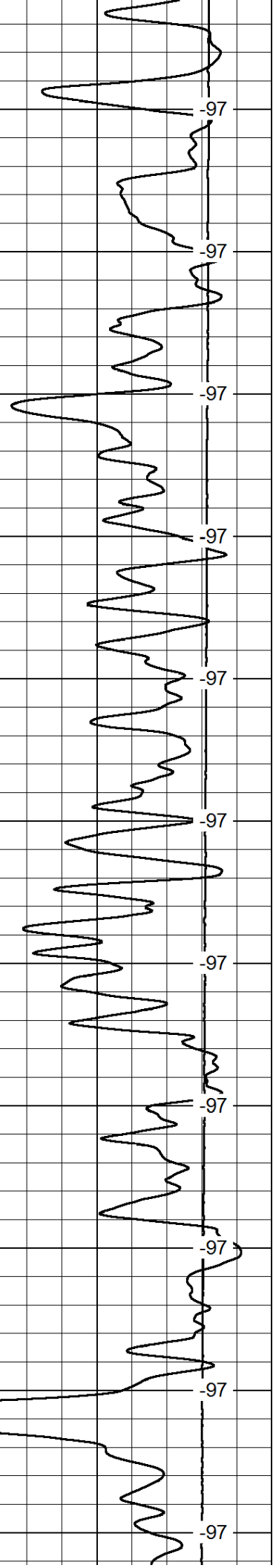
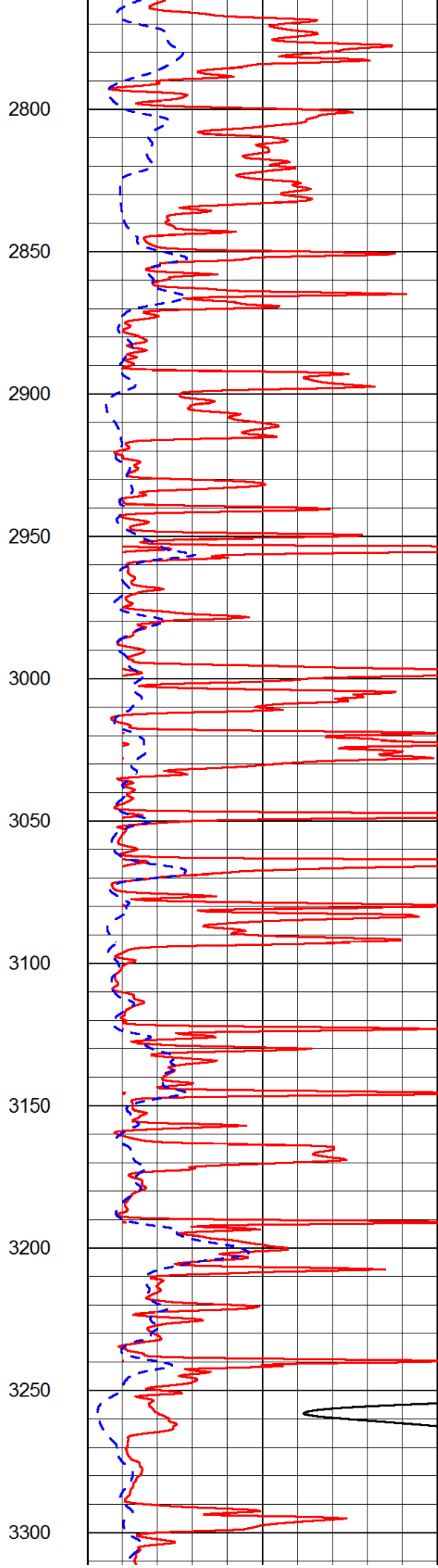
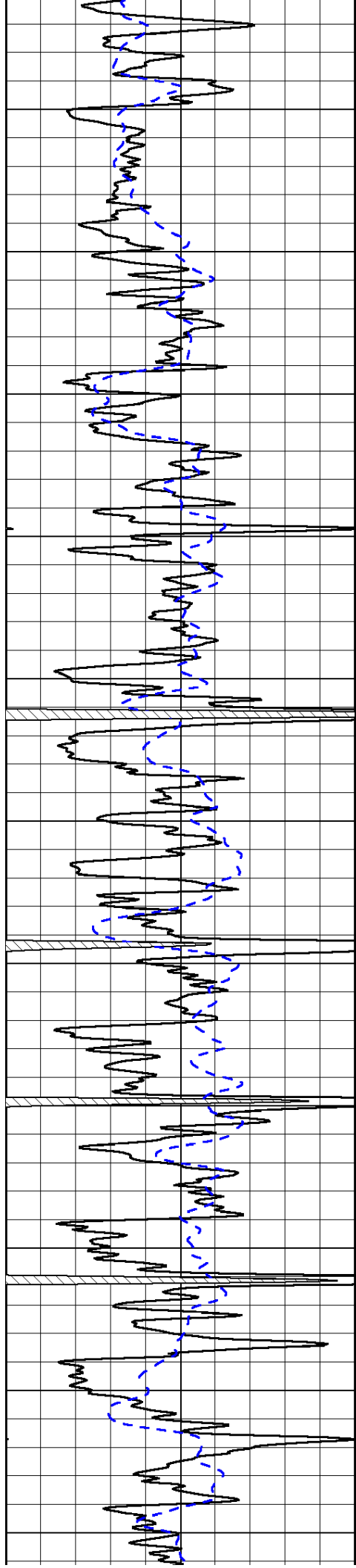
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-200	SP (mV)	0

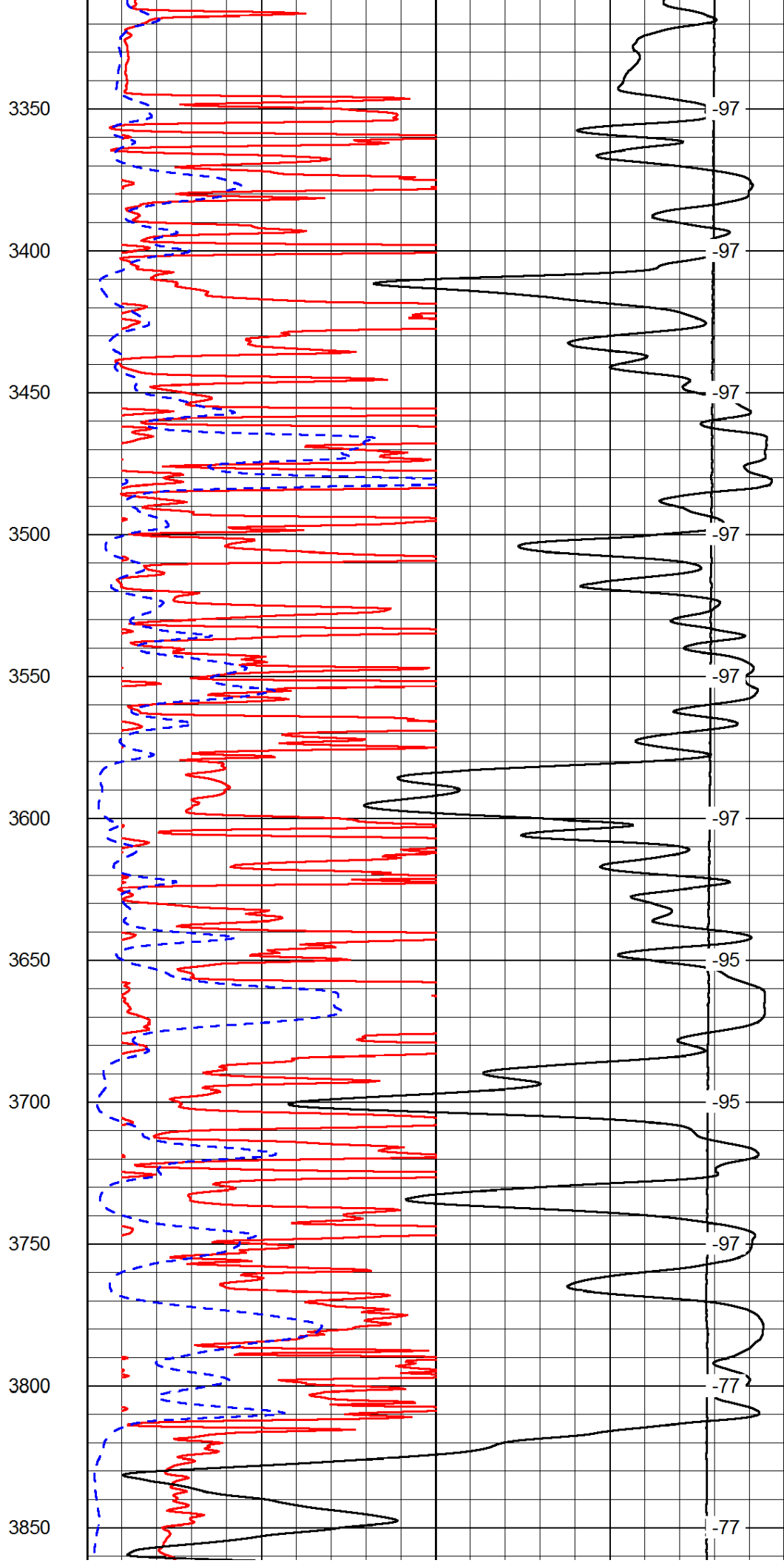
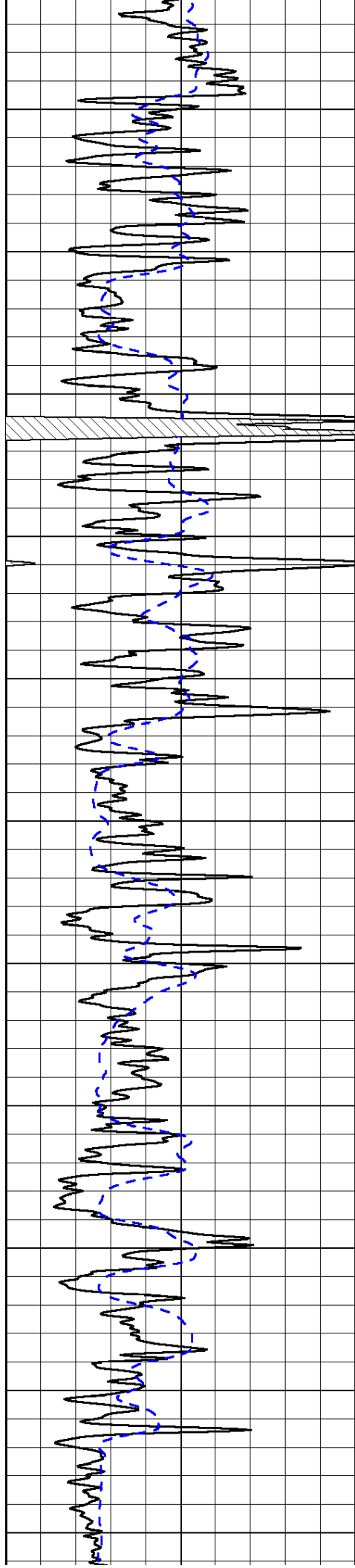


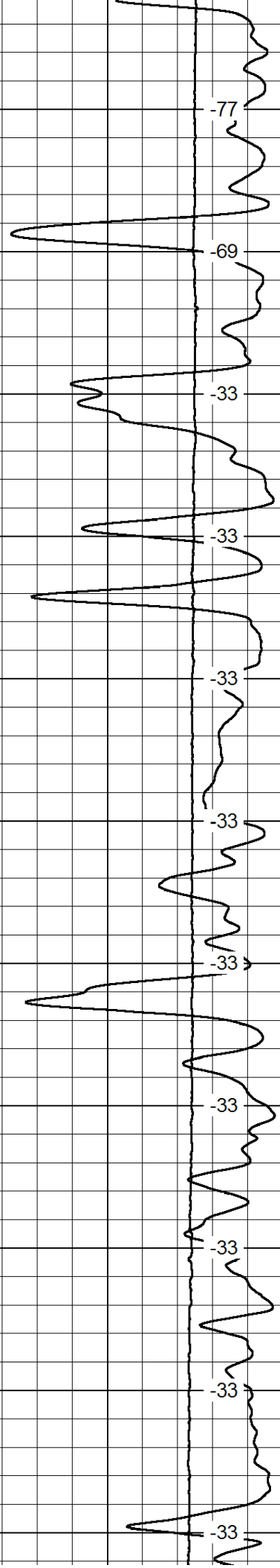
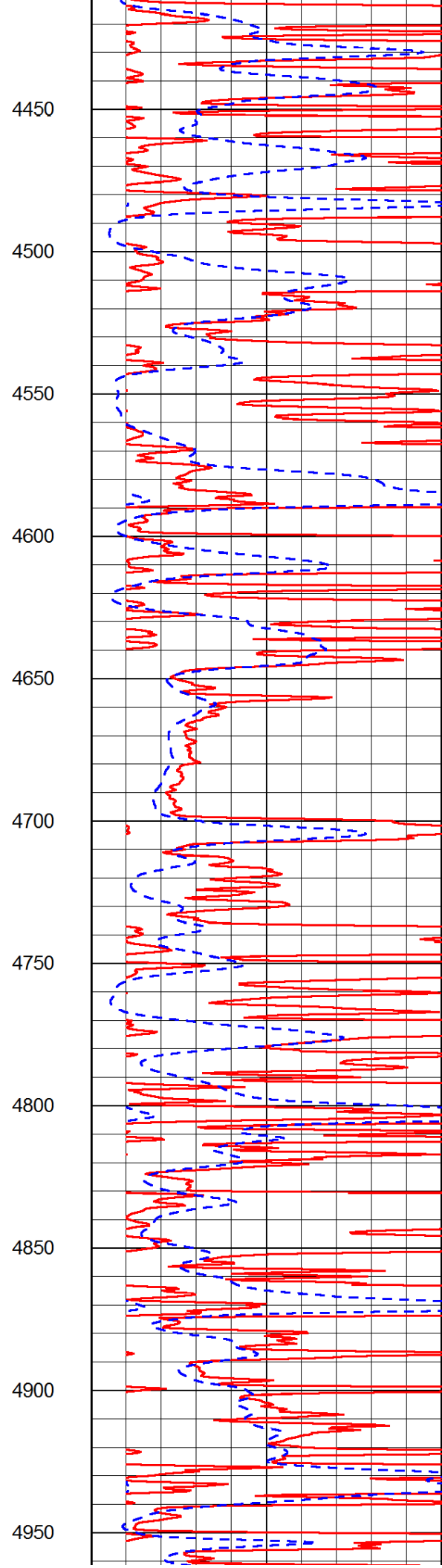
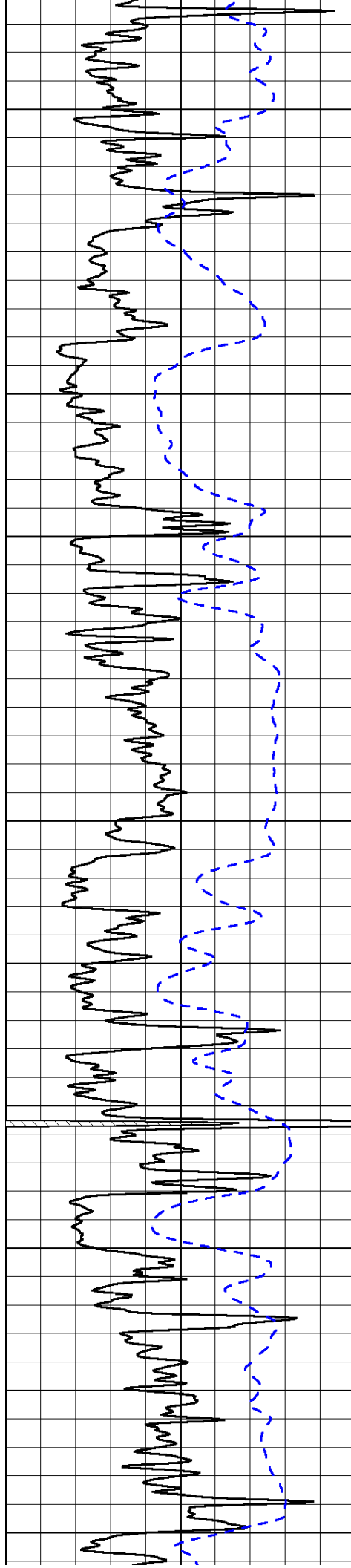
0	Shallow Resistivity	50
0	Deep Resistivity	50
1000	Conductivity	0
15000	Line Tension	0
50	Shallow Resistivity	500
50	Deep Resistivity	500

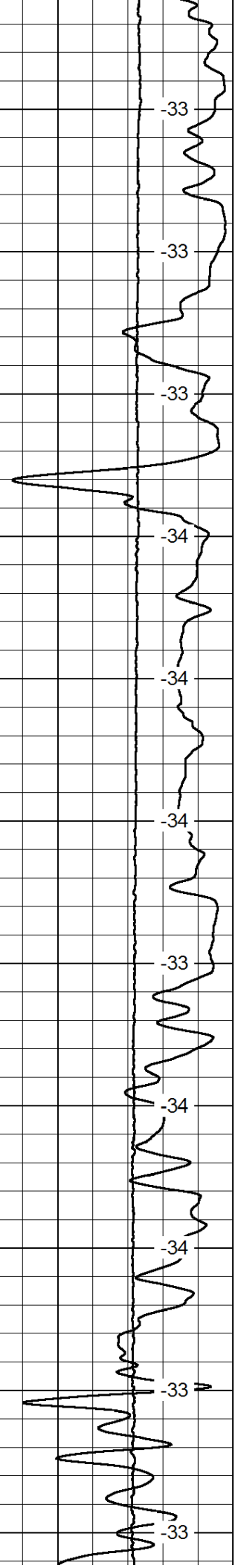
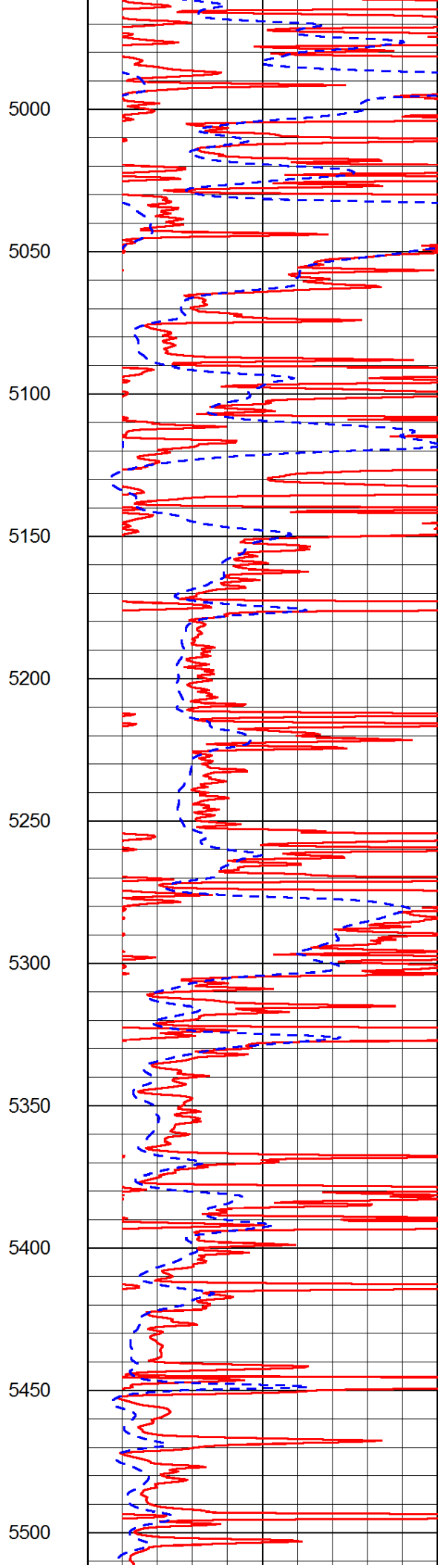
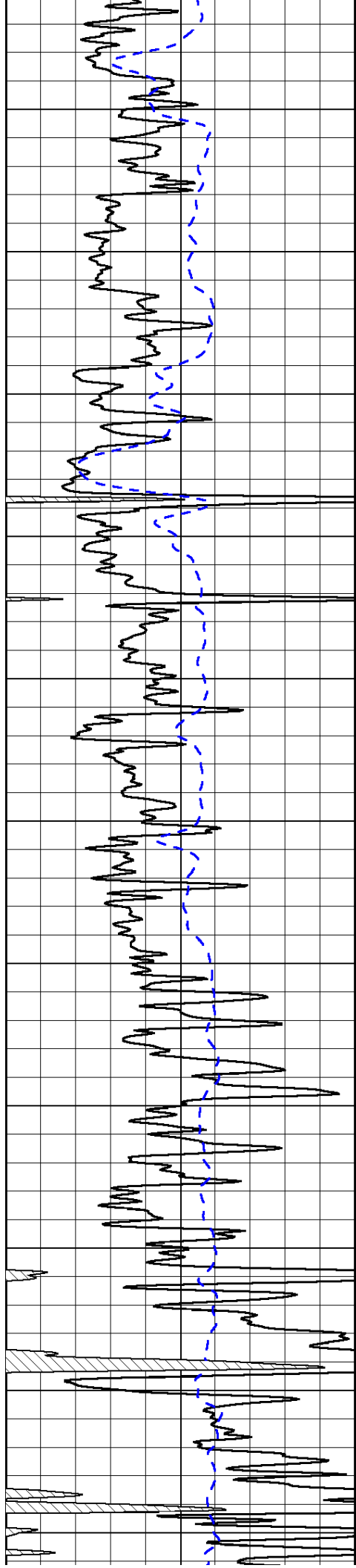


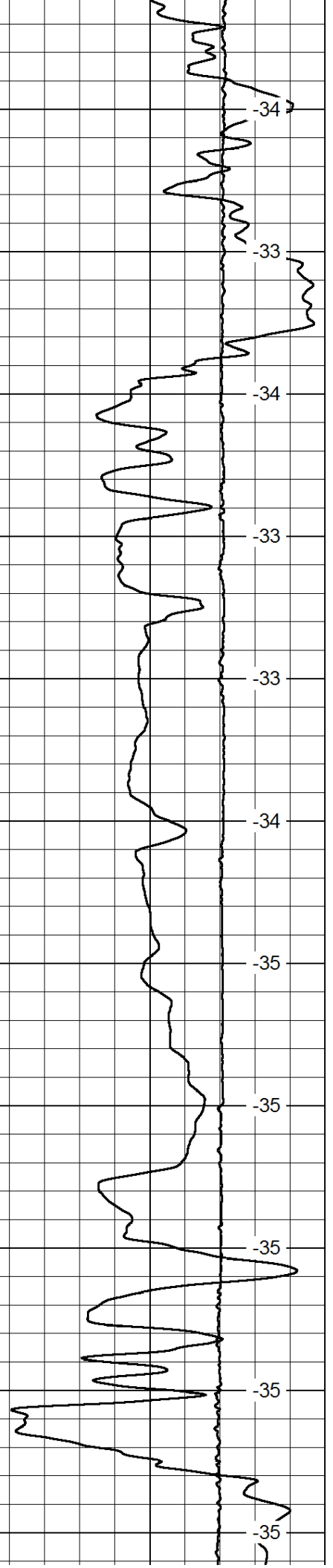
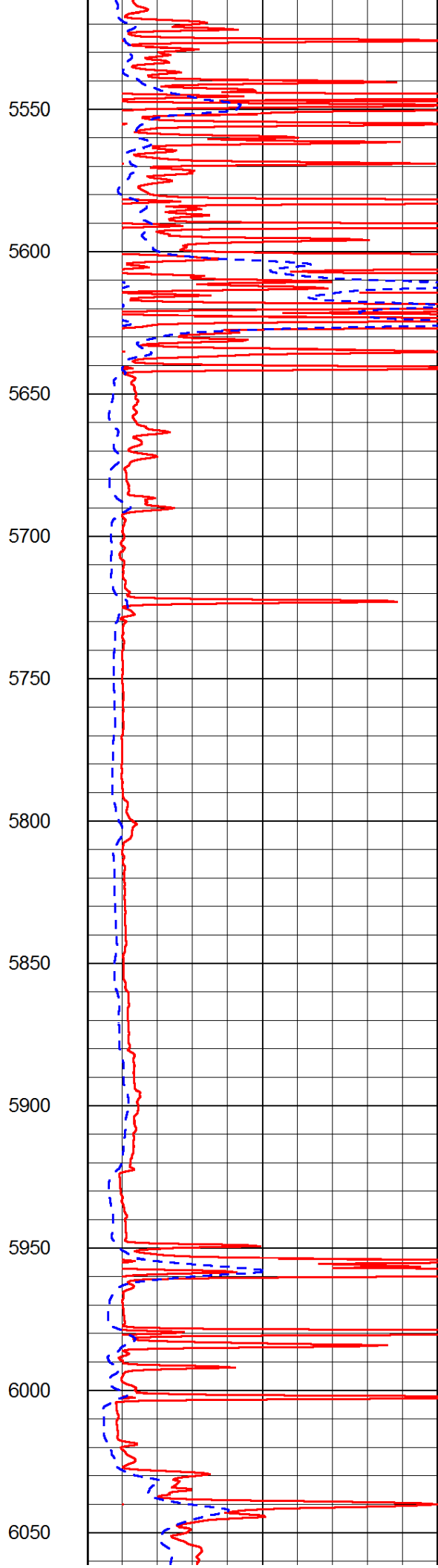
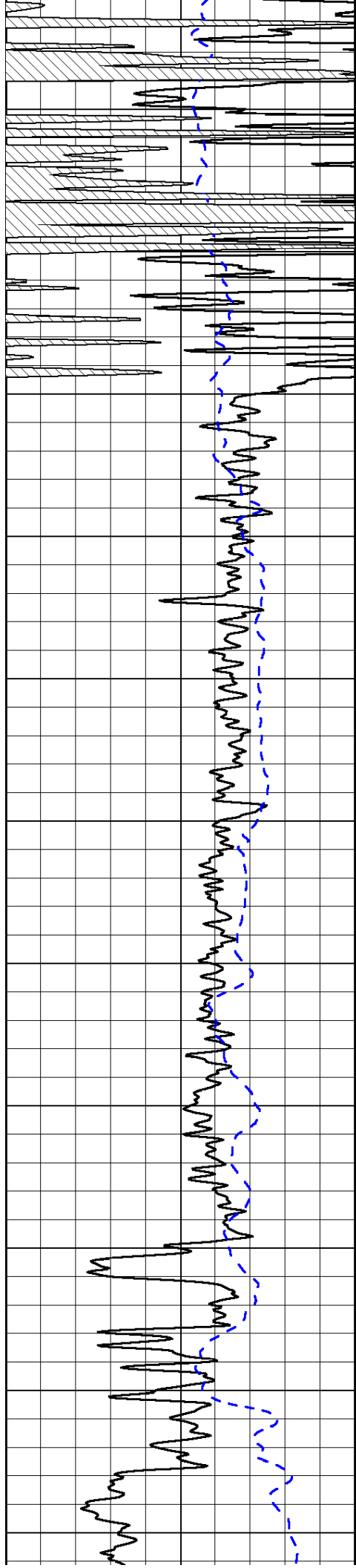


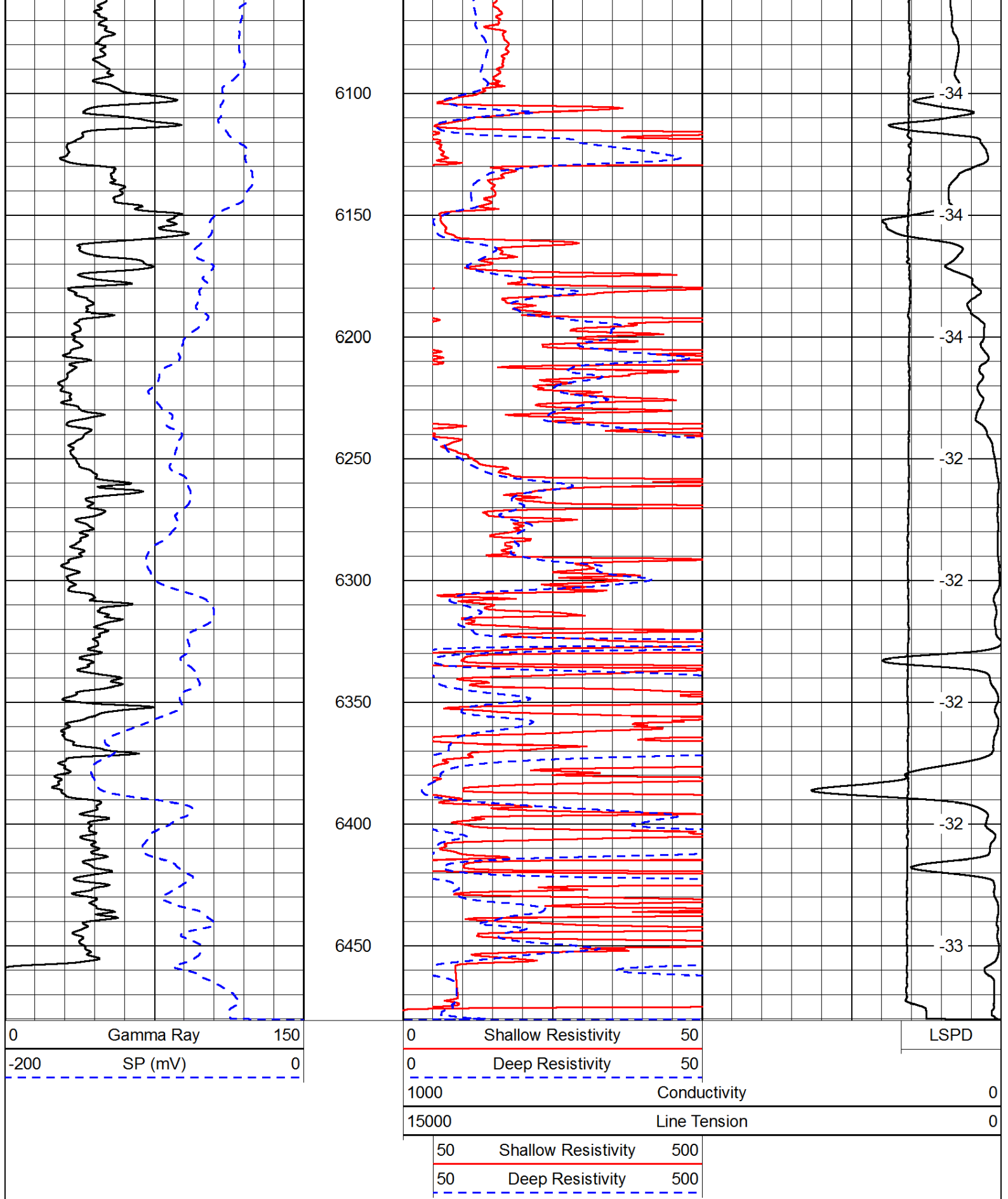










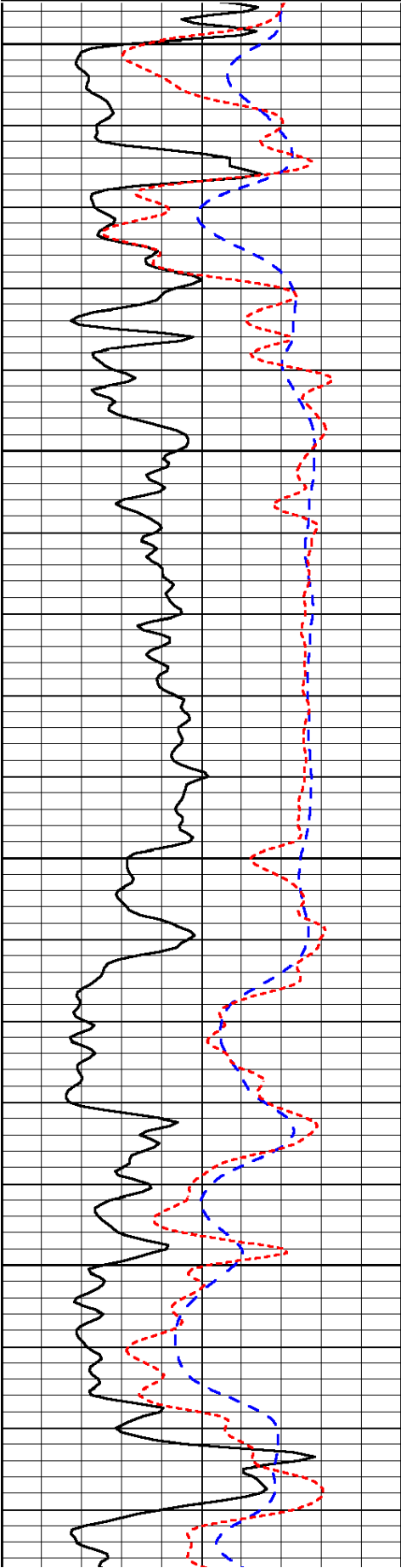


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 Dataset Pathname: dil/palmstck
 Presentation Format: dil
 Dataset Creation: Sun Dec 01 05:58:58 2013
 Charted by: Depth in Feet scaled 1:240

0	Gamma Ray	150
-200	SP (mV)	0
-160	RxoRt	40

0.2	Deep Resistivity	2000
0.2	Medium Resistivity	2000
0.2	Shallow Resistivity	2000
15000	Line Tension	0

LSPD

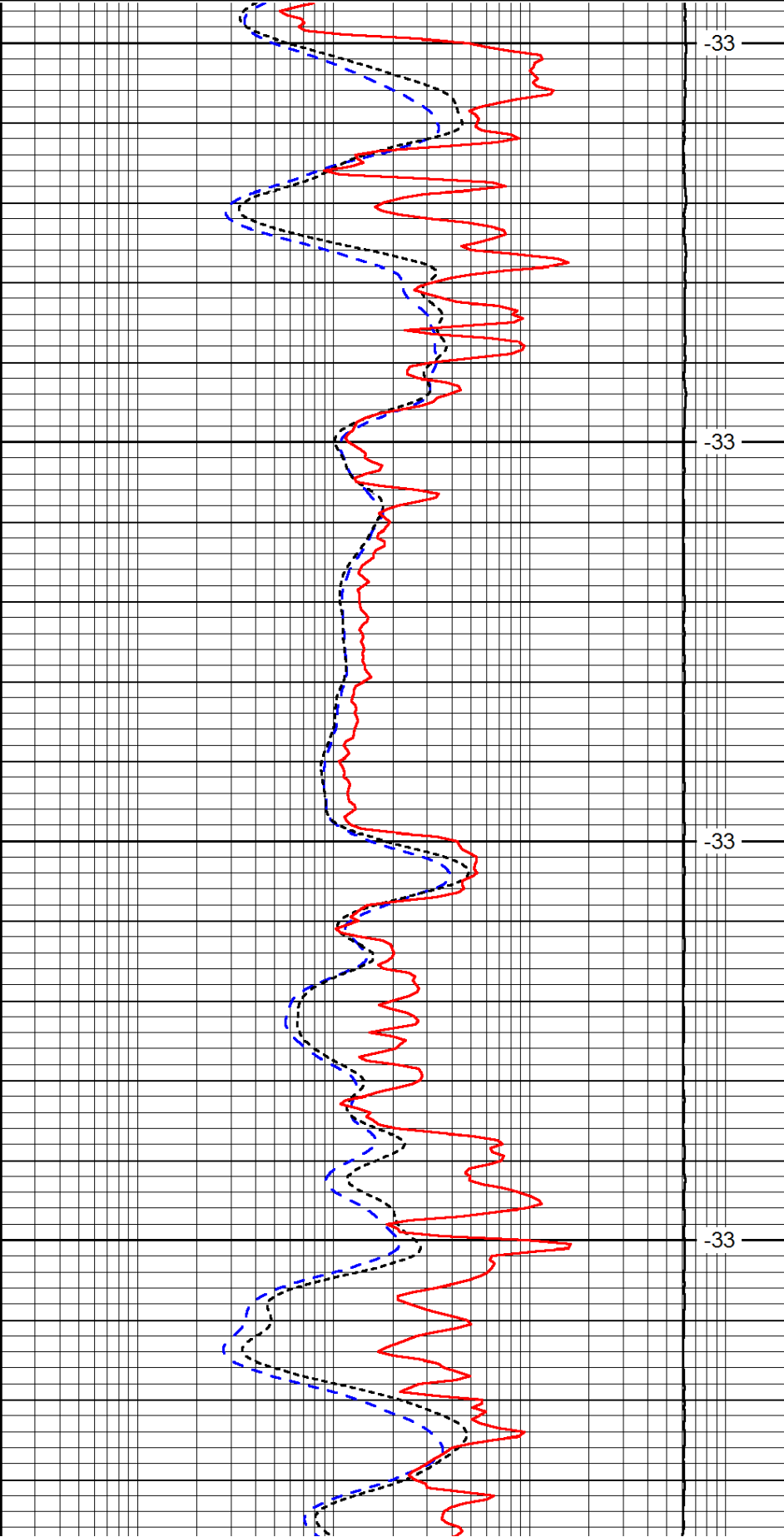


4600

4650

4700

4750

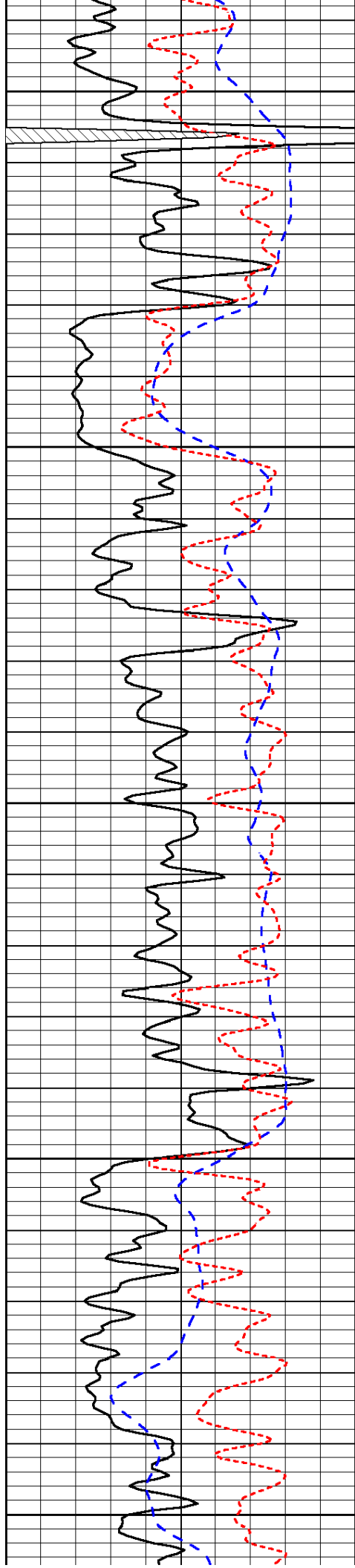


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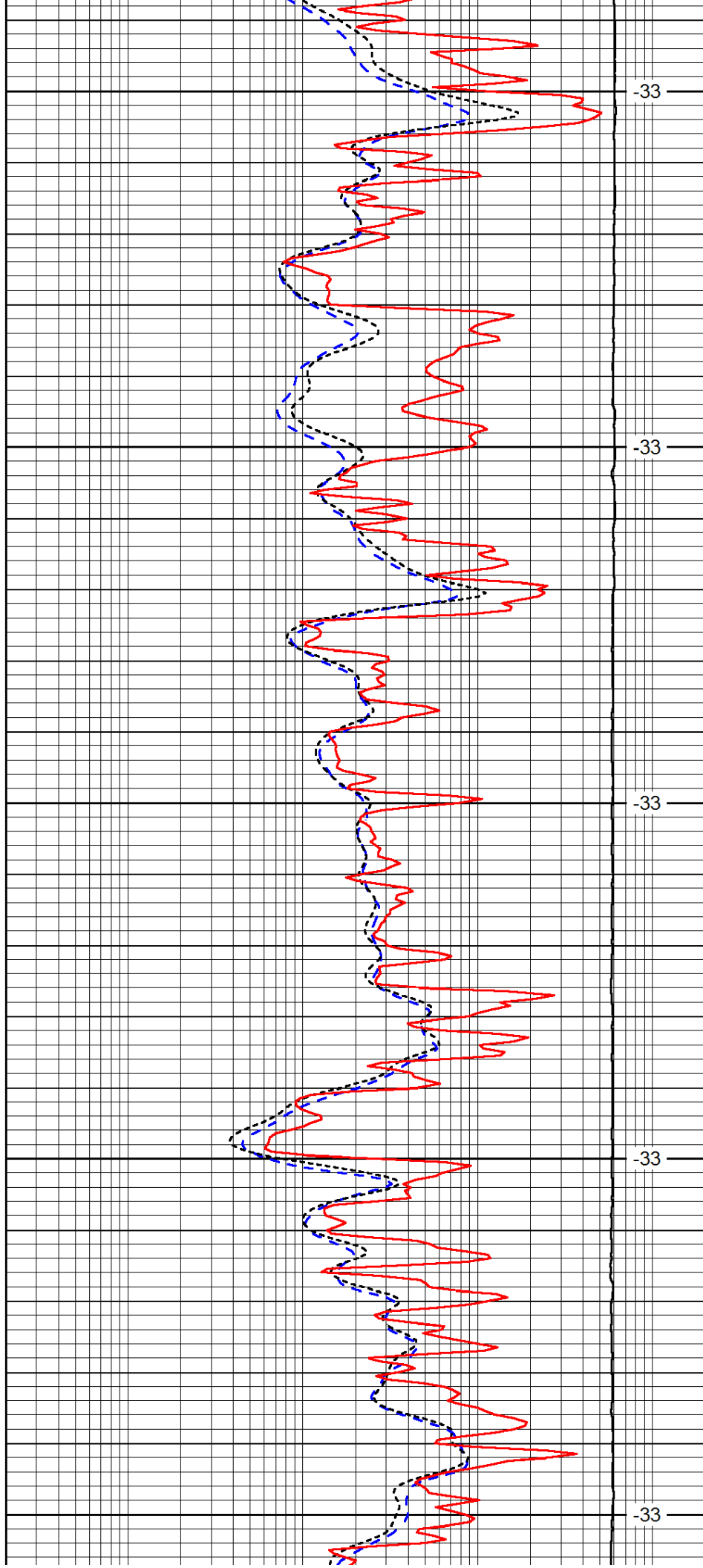
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4900

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5000



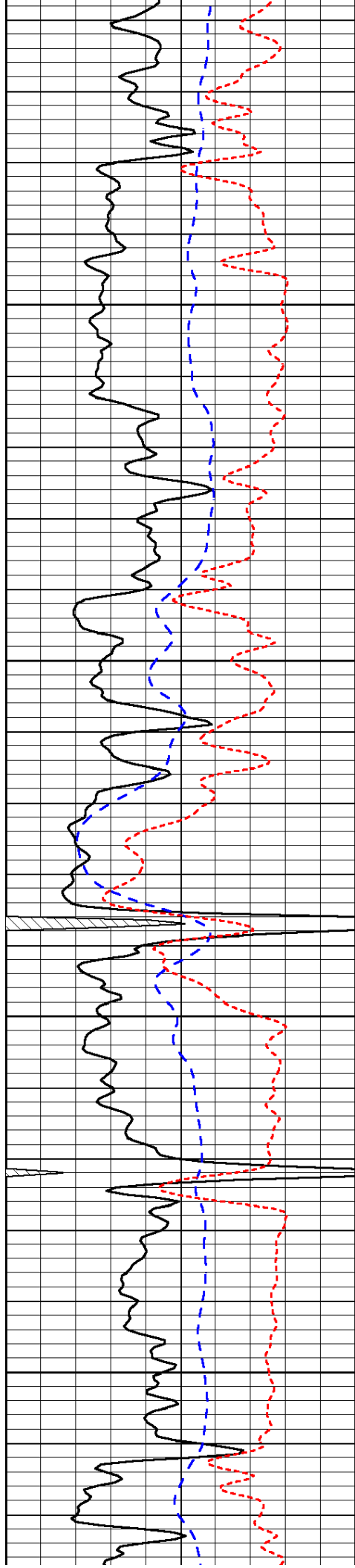
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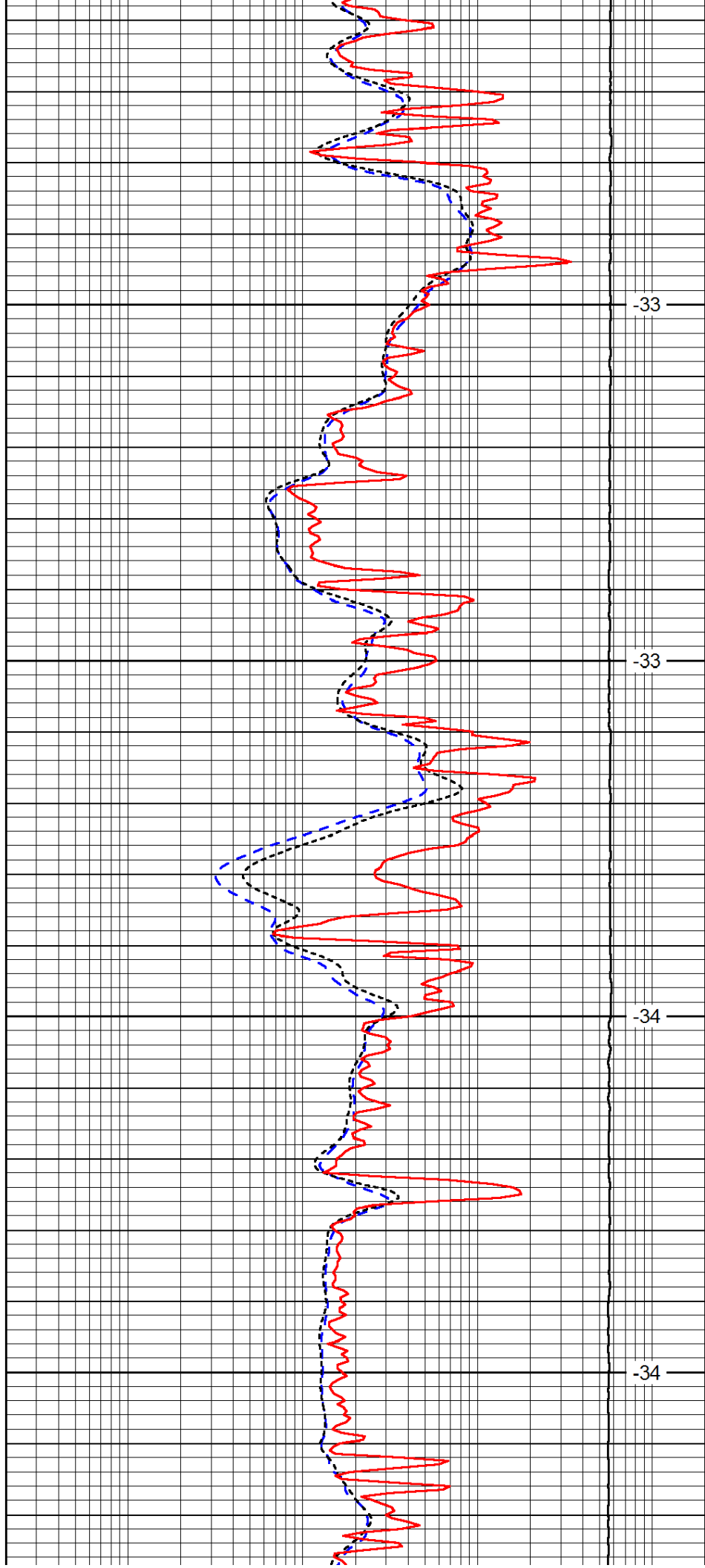


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5150

5200

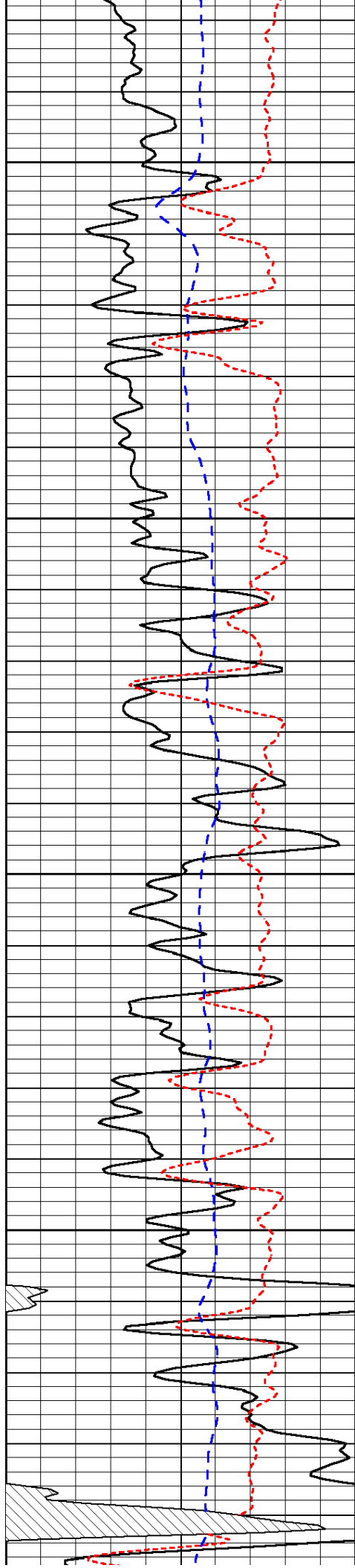


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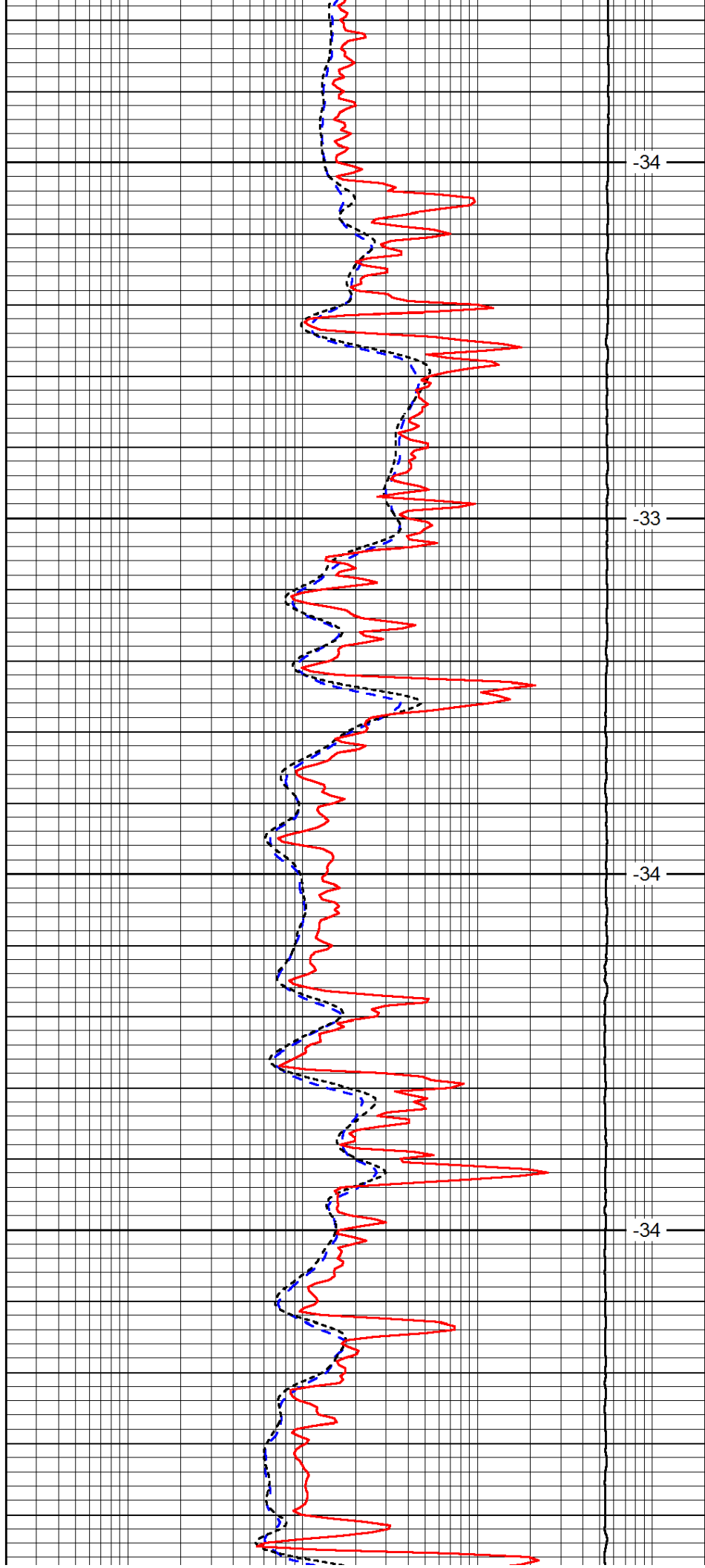


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5300

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5400

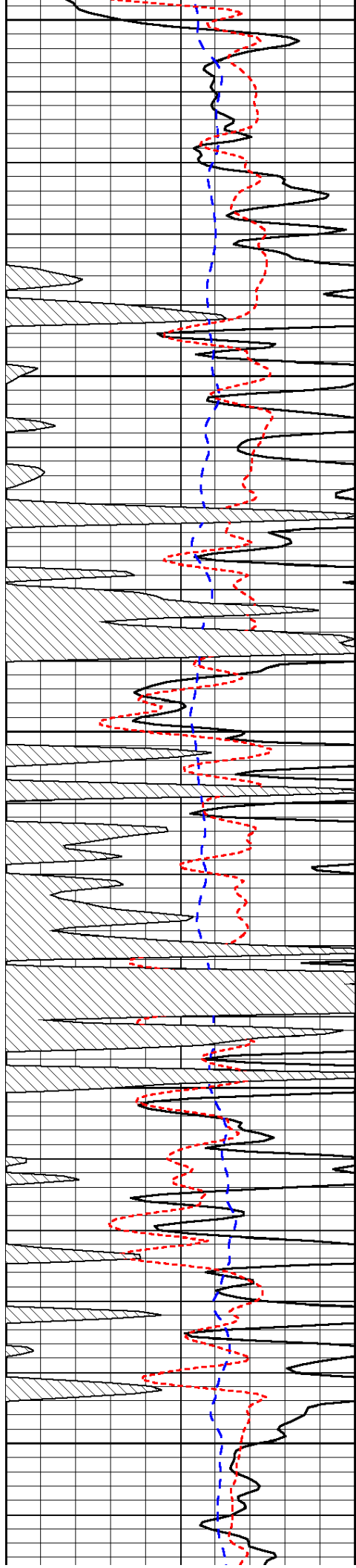


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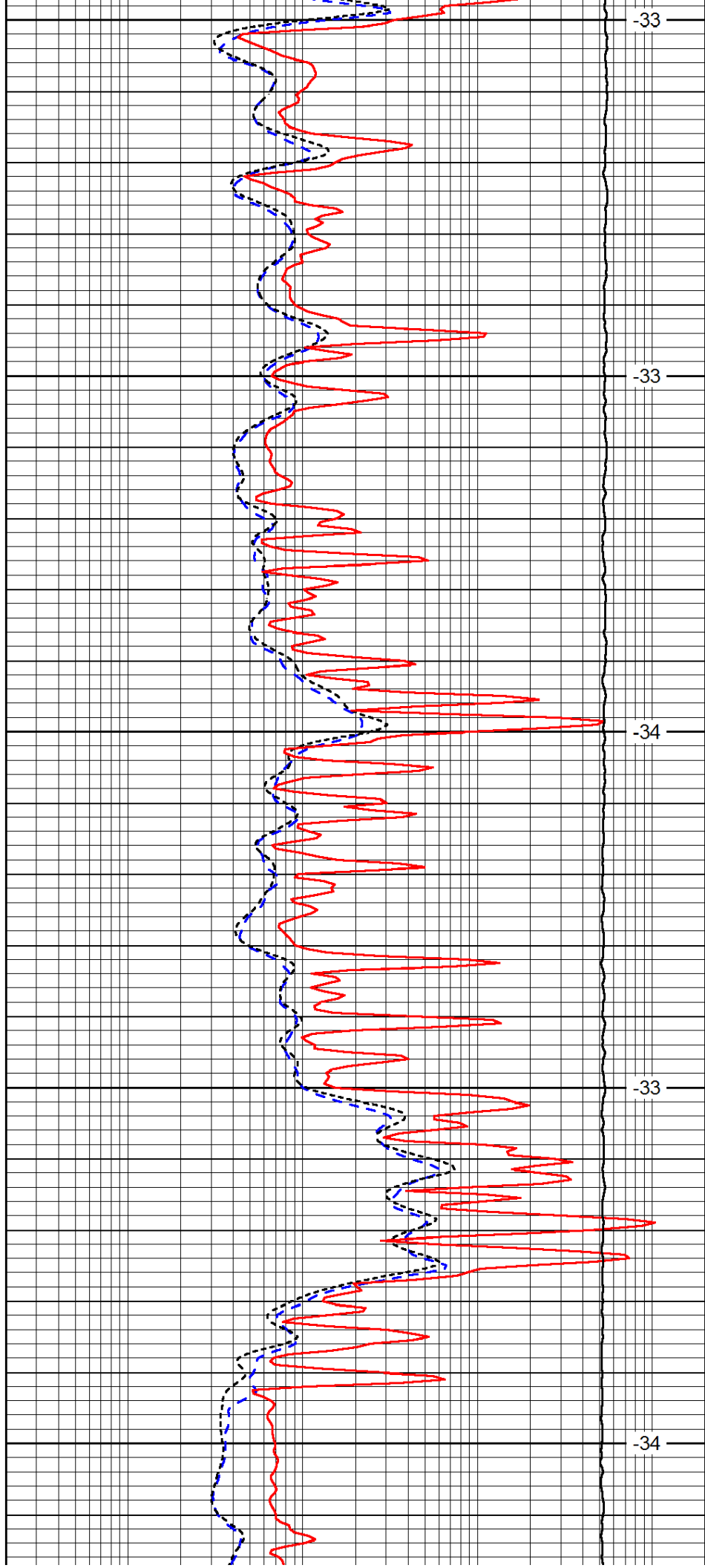
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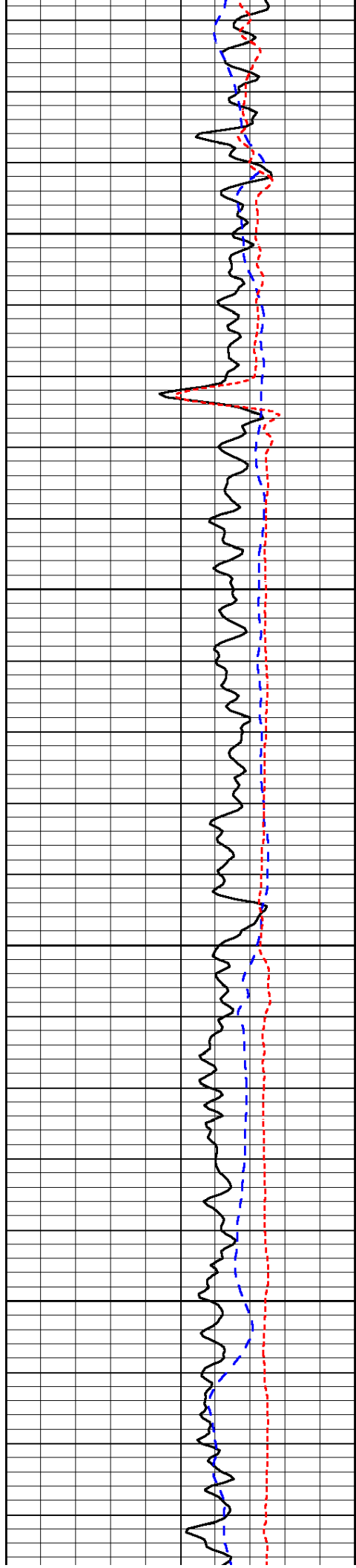
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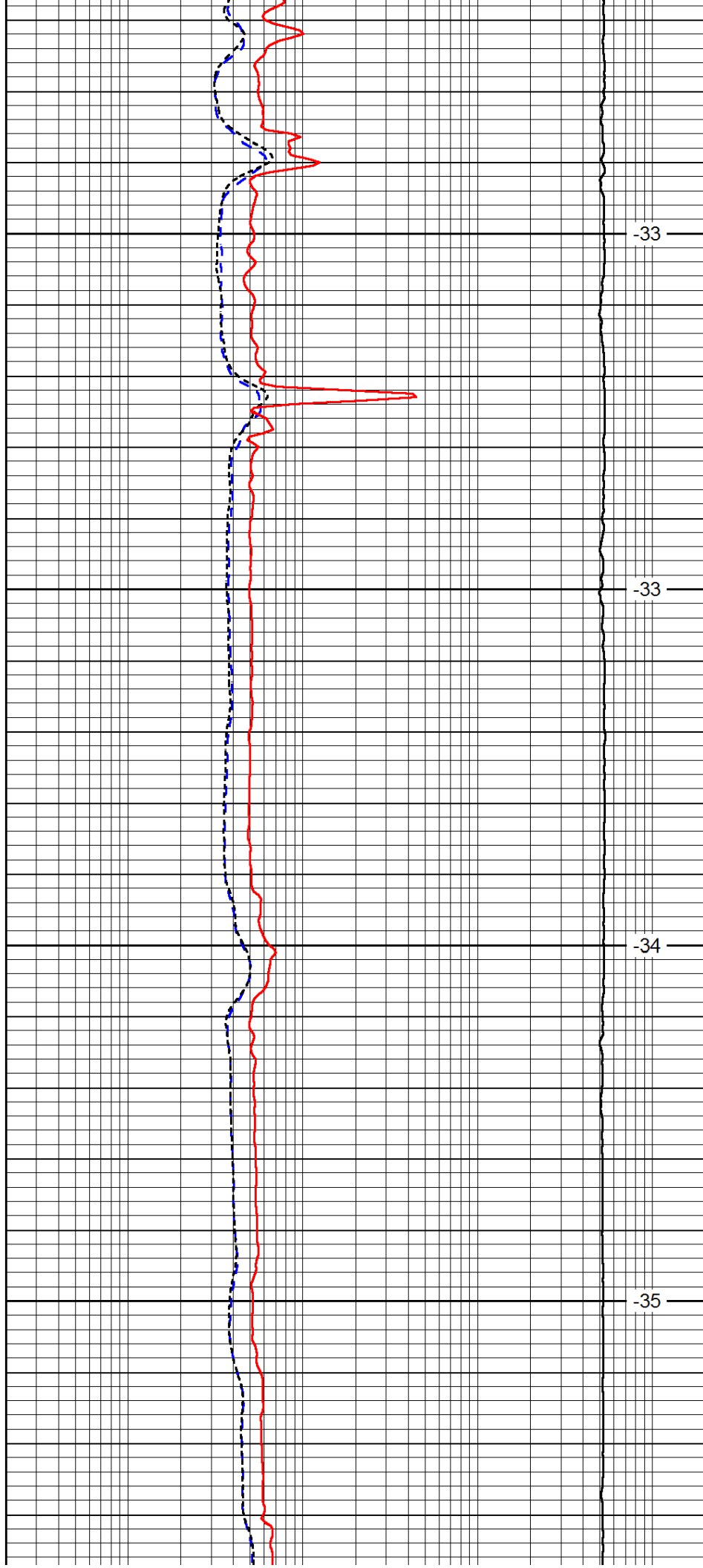


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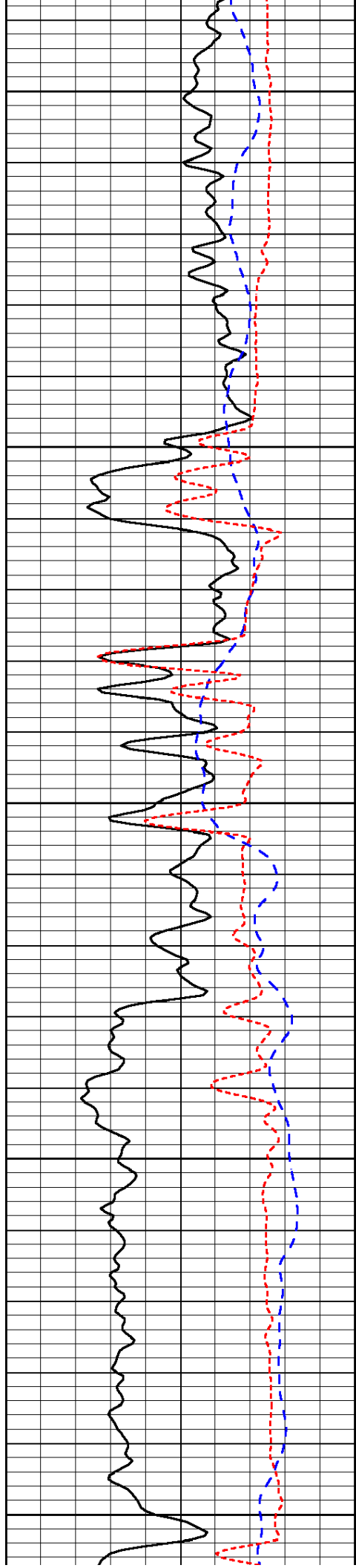


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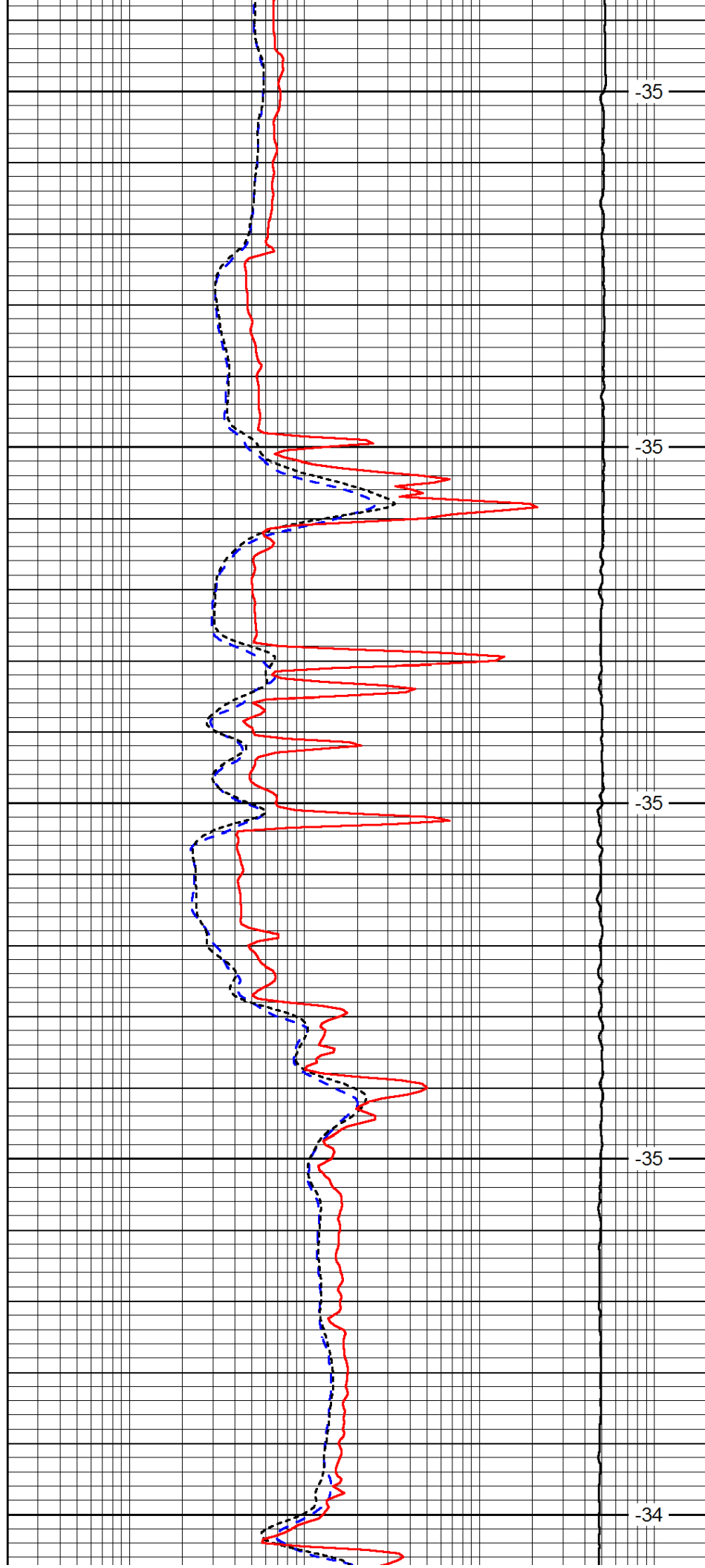
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6000

6050

6100



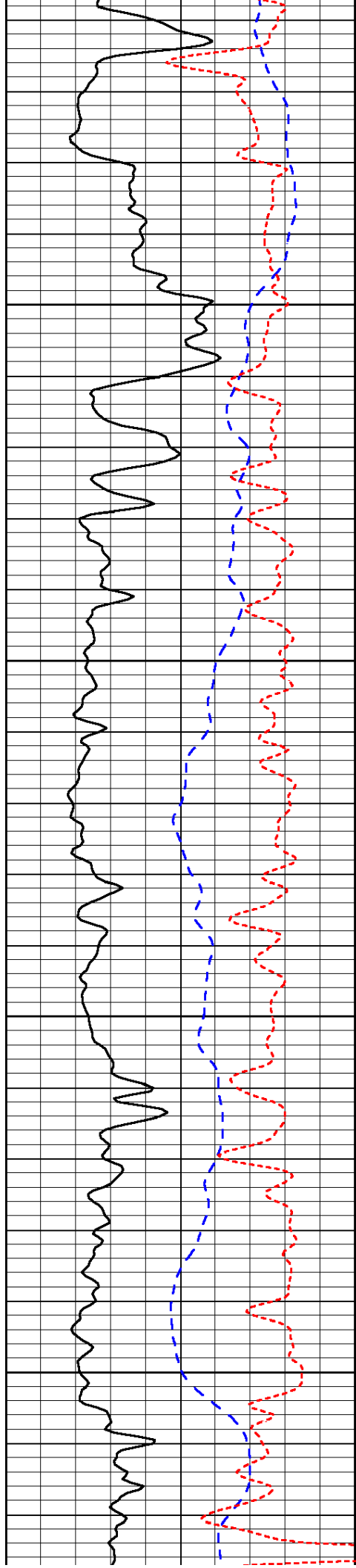
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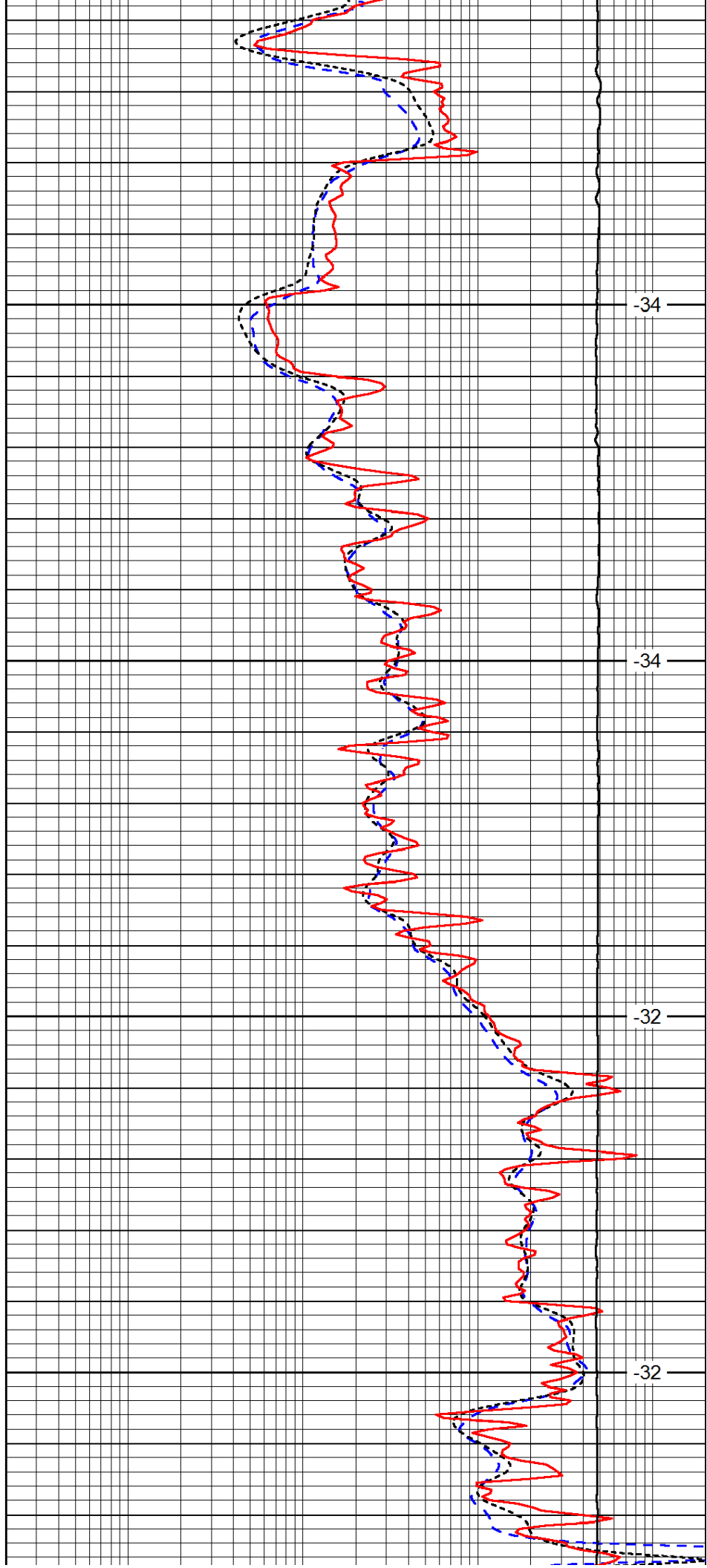


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6200

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6300

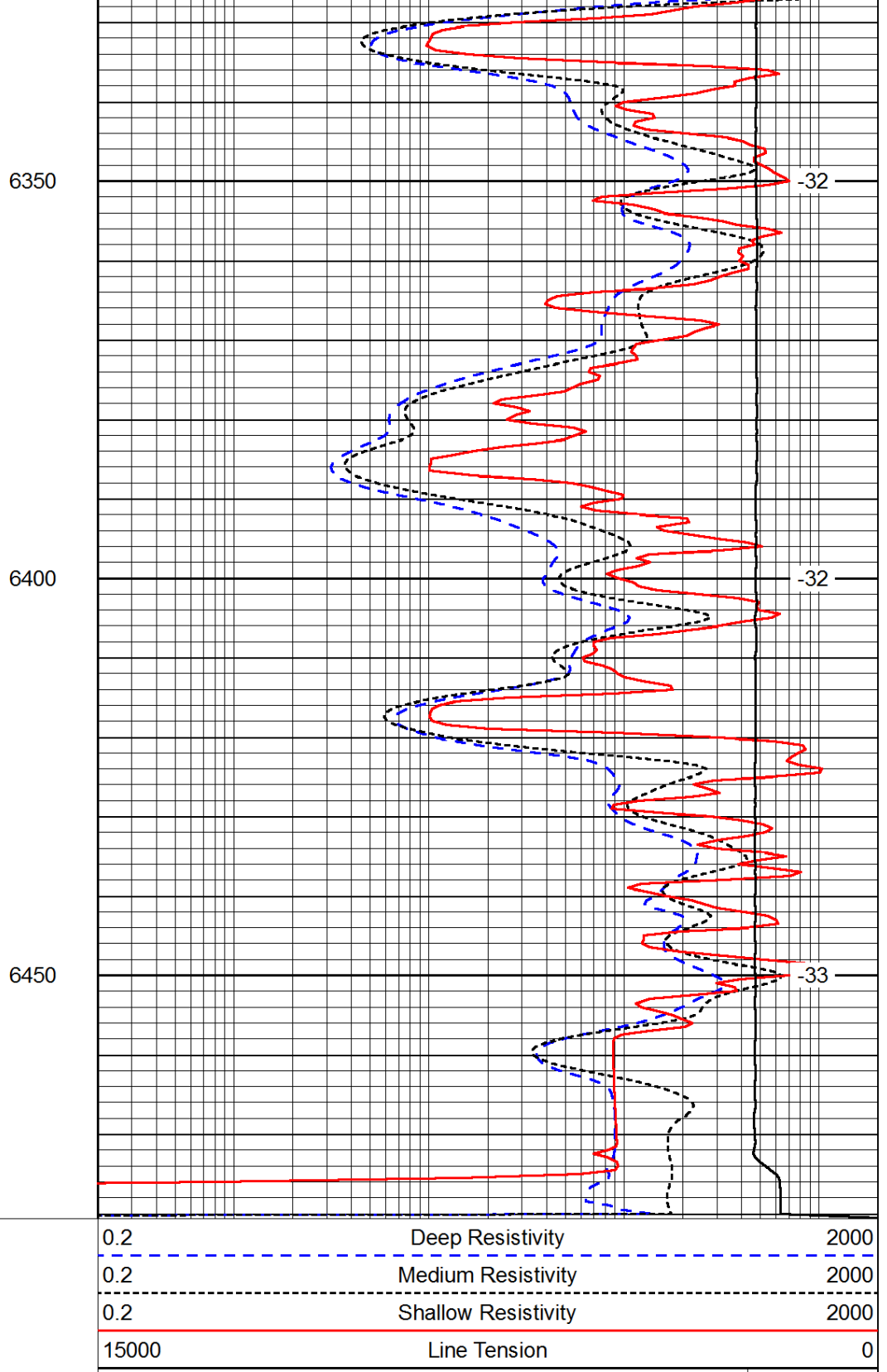
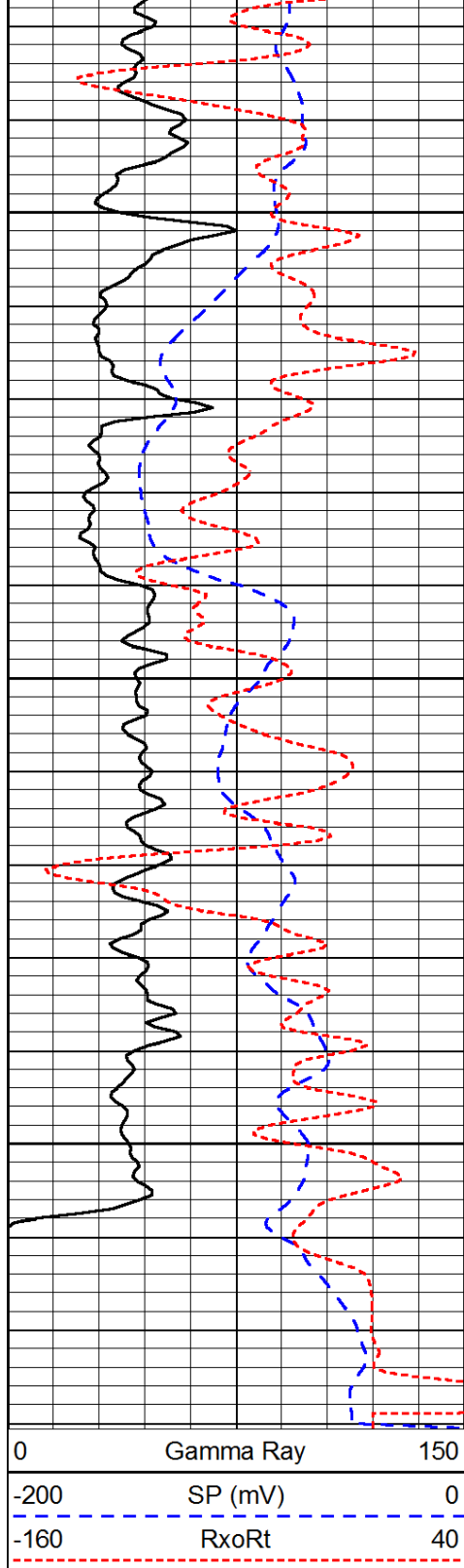


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LSPD