



Pioneer Energy Services

Dual Induction Log

15-039-21,161-00-00

API No.

Company **Murfin Drilling Company, Inc.**

Well **Phillips "A" No. 1-22**

Field **None**

County **Decatur** State **Kansas**

Location **1,800' FNL & 1,800' FEL**

Sec: **22** Twp: **4 S** Rge: **30 W**

Permanent Datum **Ground Level** Elevation **2738**

Log Measured From **Kelly Bushing** 5 Ft. Above Perm. Datum

Drilling Measured From **Kelly Bushing**

Other Services
CNL/CDL
MEL/BHCS

Elevation

K.B. 2743
D.F.
G.L. 2738

Date **10/18/2012**

Run Number **One**

Depth Driller **4450**

Depth Logger **4451**

Bottom Logged Interval **4450**

Top Log Interval **00**

Casing Driller **8.625 @ 221**

Casing Logger **216**

Bit Size **7.875**

Type Fluid in Hole **Chemical**

Salinity,ppm CL **1,000**

Density / Viscosity **9.1 69**

pH / Fluid Loss **11.5 4.8**

Source of Sample **Flowline**

Rm @ Meas. Temp **1.20 @ 70**

Rmf @ Meas. Temp **.90 @ 70**

Rmc @ Meas. Temp **1.62 @ 70**

Source of Rmf / Rmc **Charts**

Rm @ BHT **.70 @ 121**

Operating Rig Time **5 Hours**

Max Rec. Temp. F **121**

Equipment Number **15**

Location **Hays**

Recorded By **D.Kerr**

Witnessed By **Rocky Milford**

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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.pioneerres.com
785 625 3858

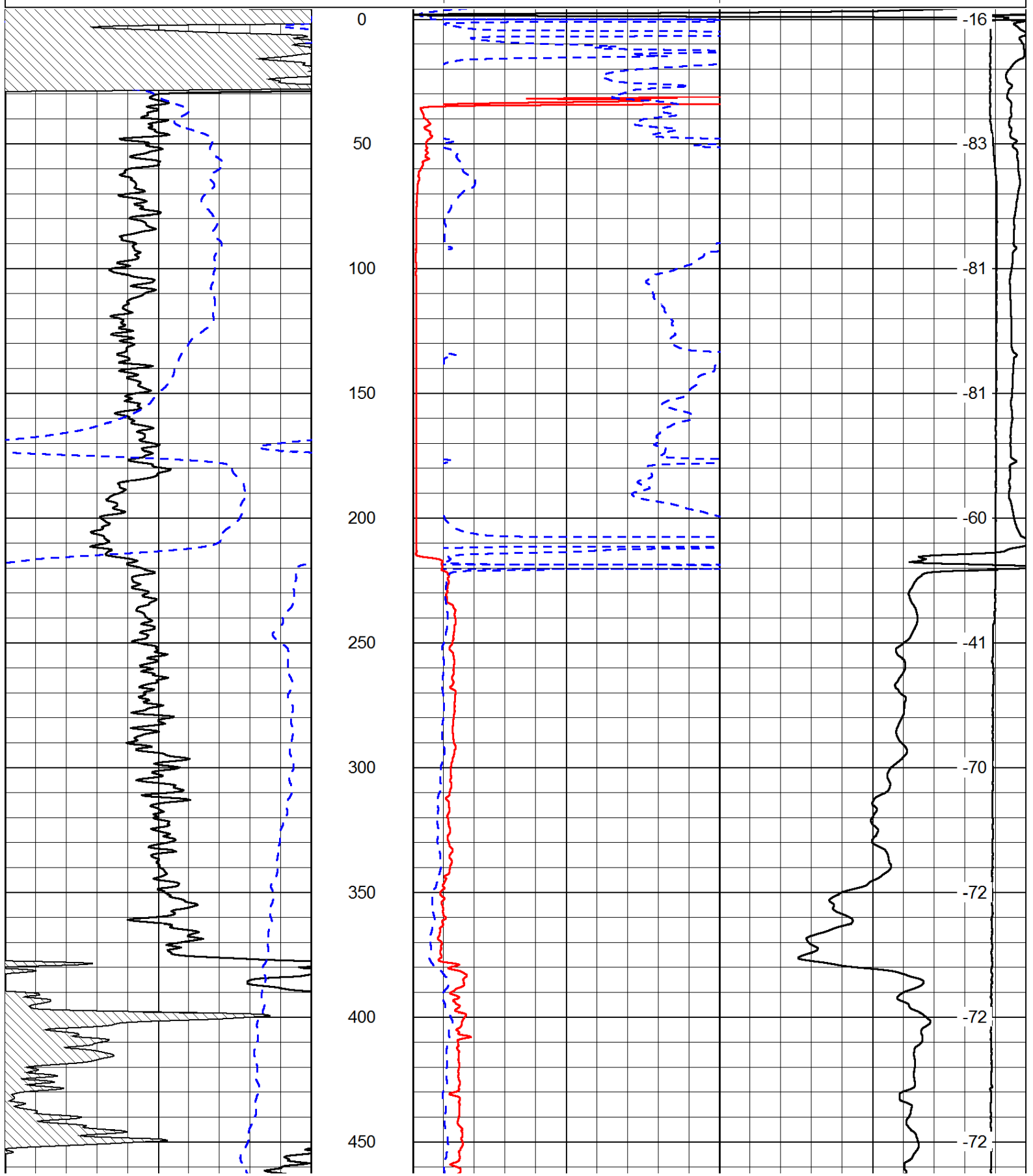
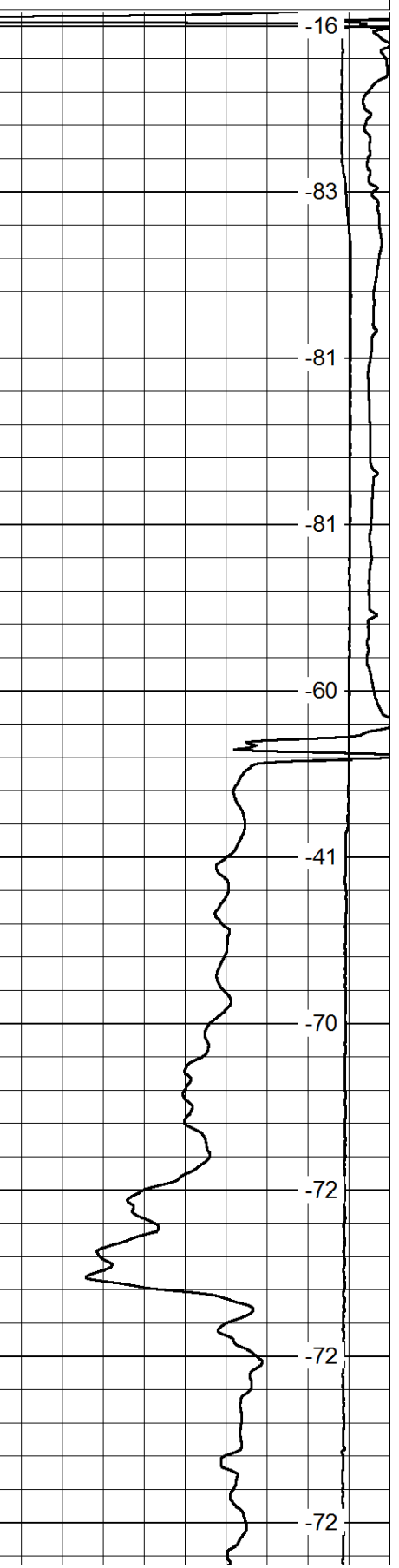
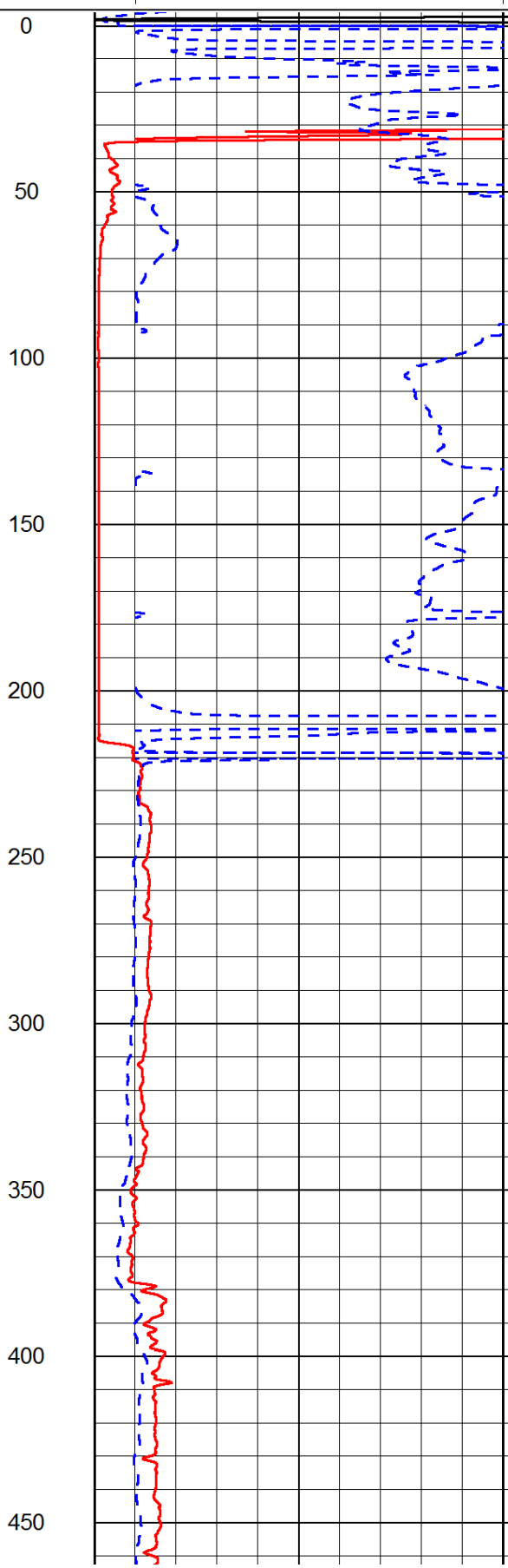
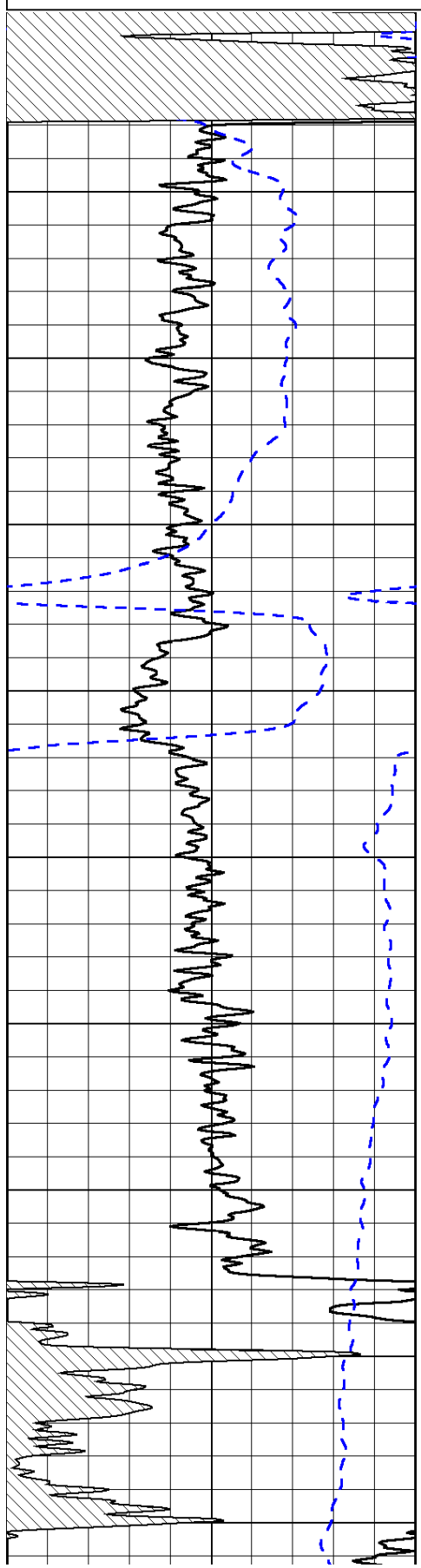
Selden KS, East to Hwy Junction 83 & Hwy 23,
7 1/2 North to 11 S Rd., 8 West, 1 3/4 North,
East Into, 1 Mile Into

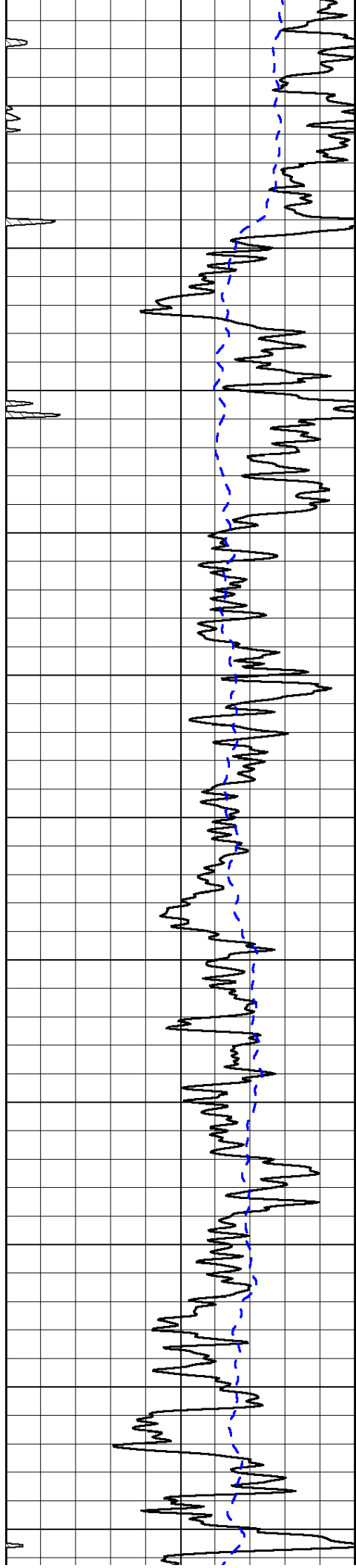
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Dataset Pathname: DIL\murfstk
Presentation Format: dil2in
Dataset Creation: Fri Oct 19 00:08:57 2012
Charted by: Depth in Feet scaled 1:600

0	Gamma Ray	150
-200	SP (mV)	0

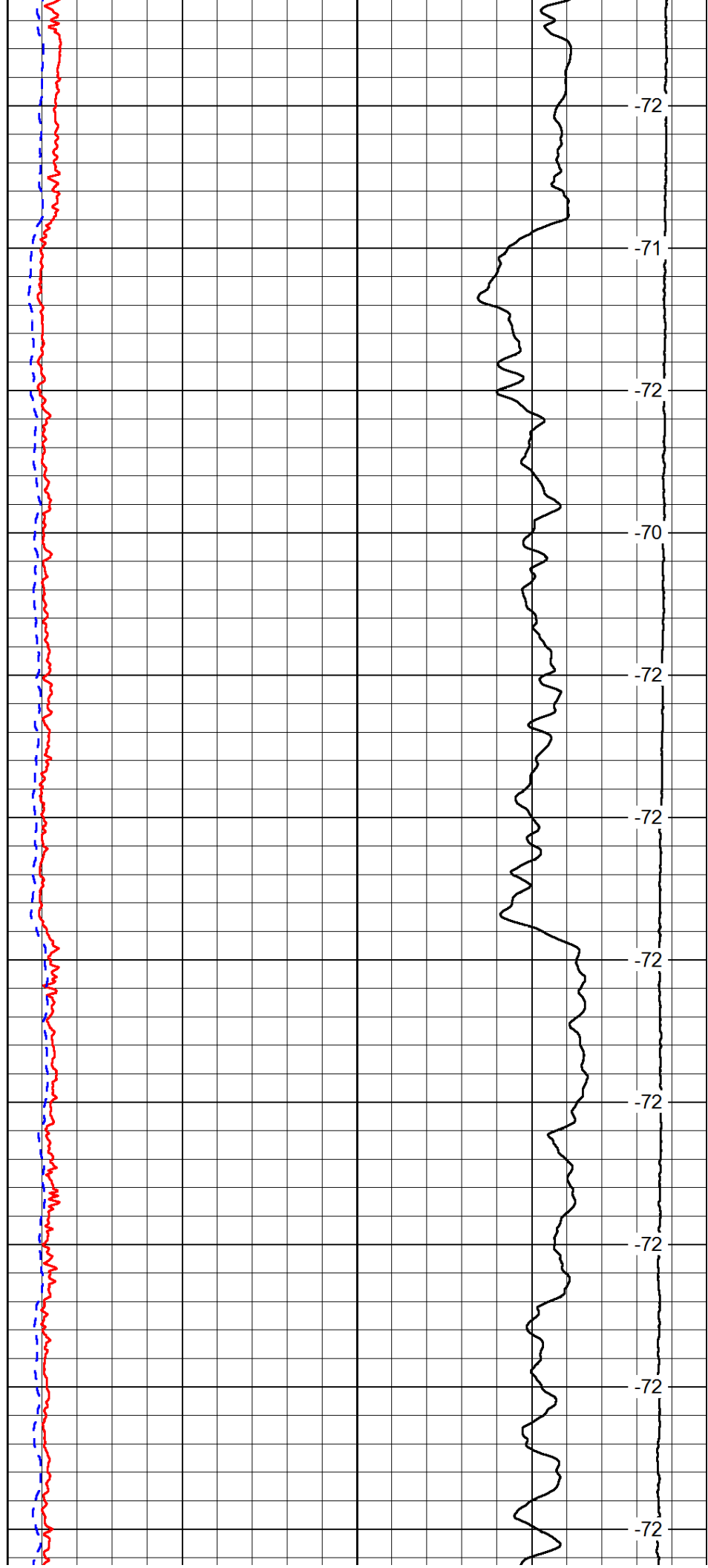
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0	Deep Resistivity	50
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15000	Line Tension	0
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50	Deep Resistivity	500

LSPD

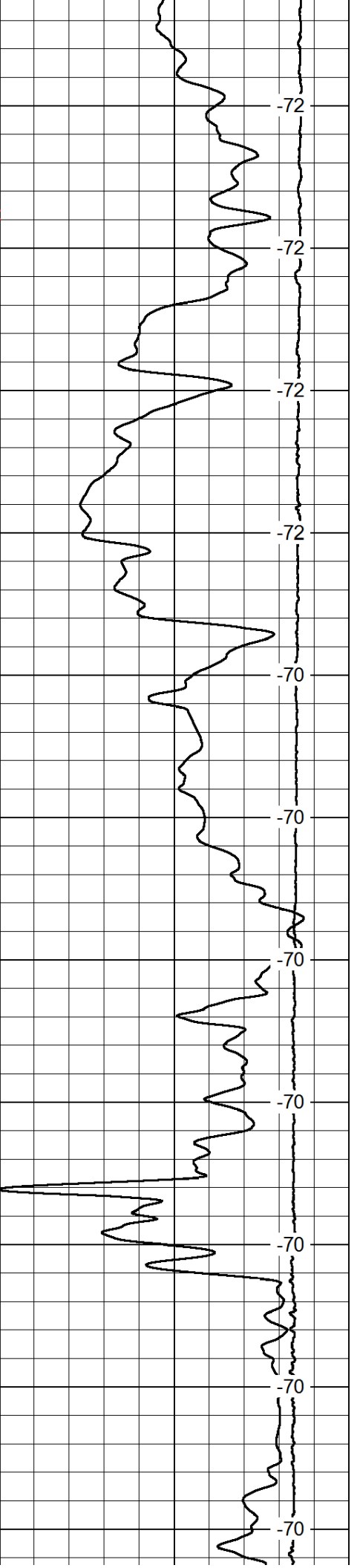
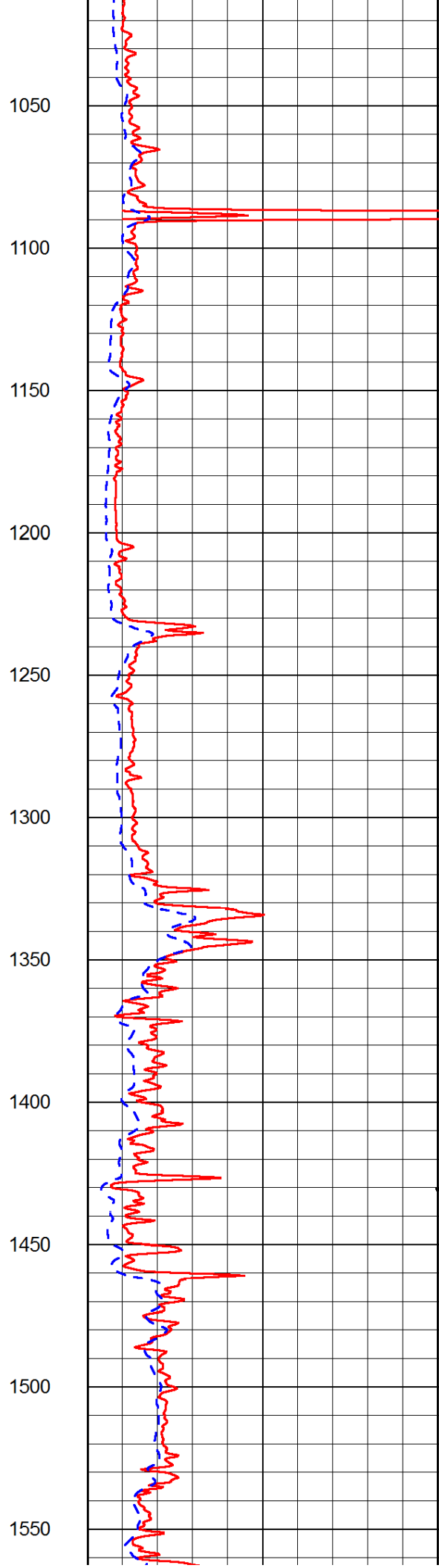
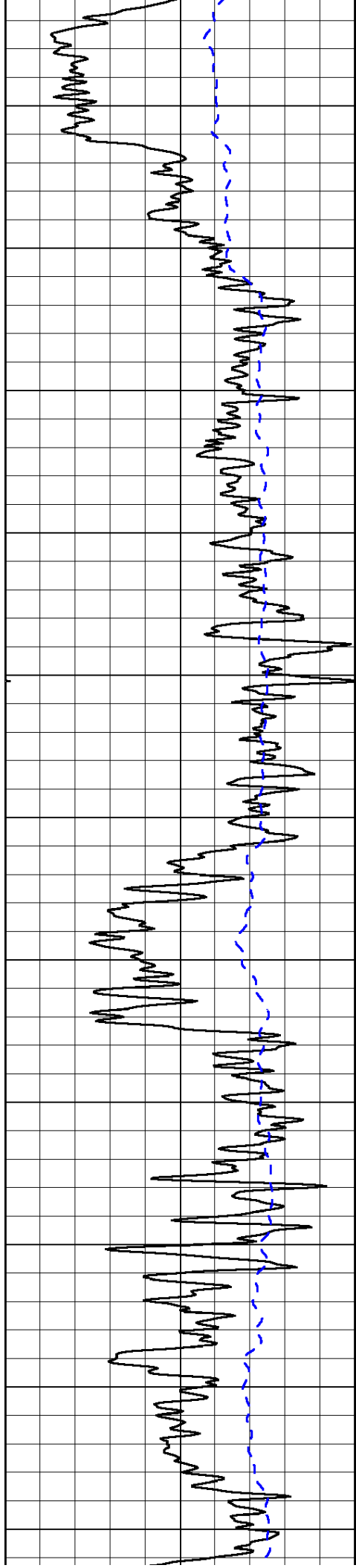


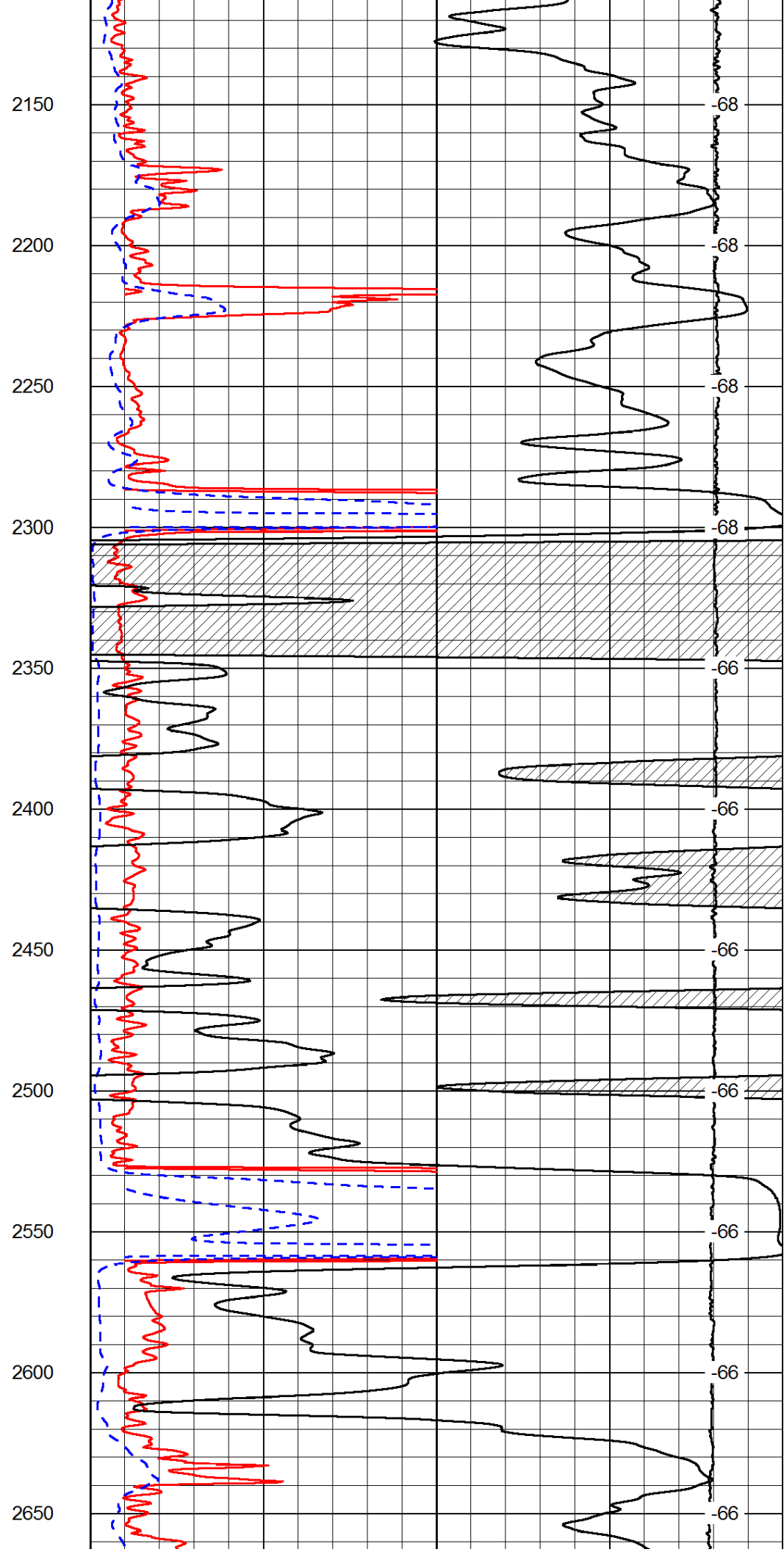
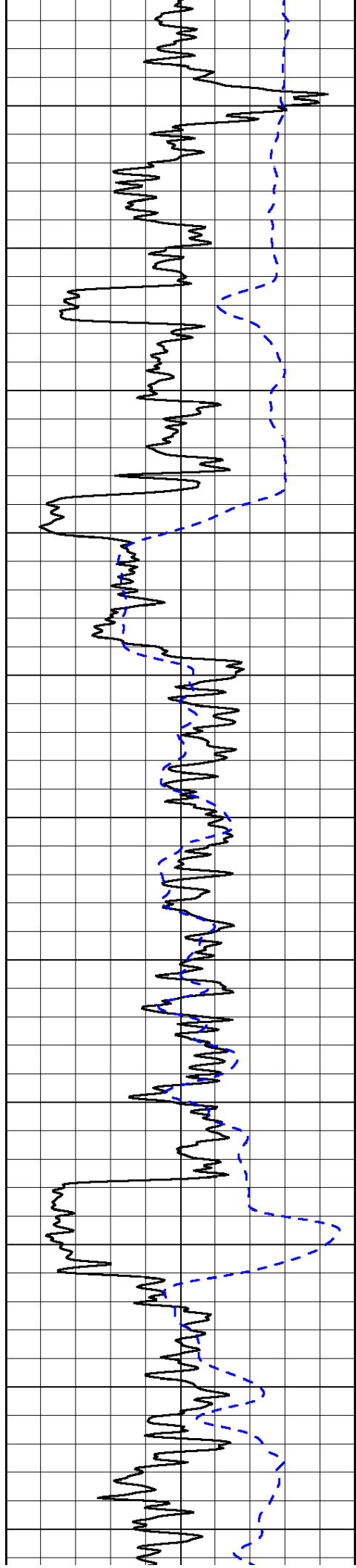


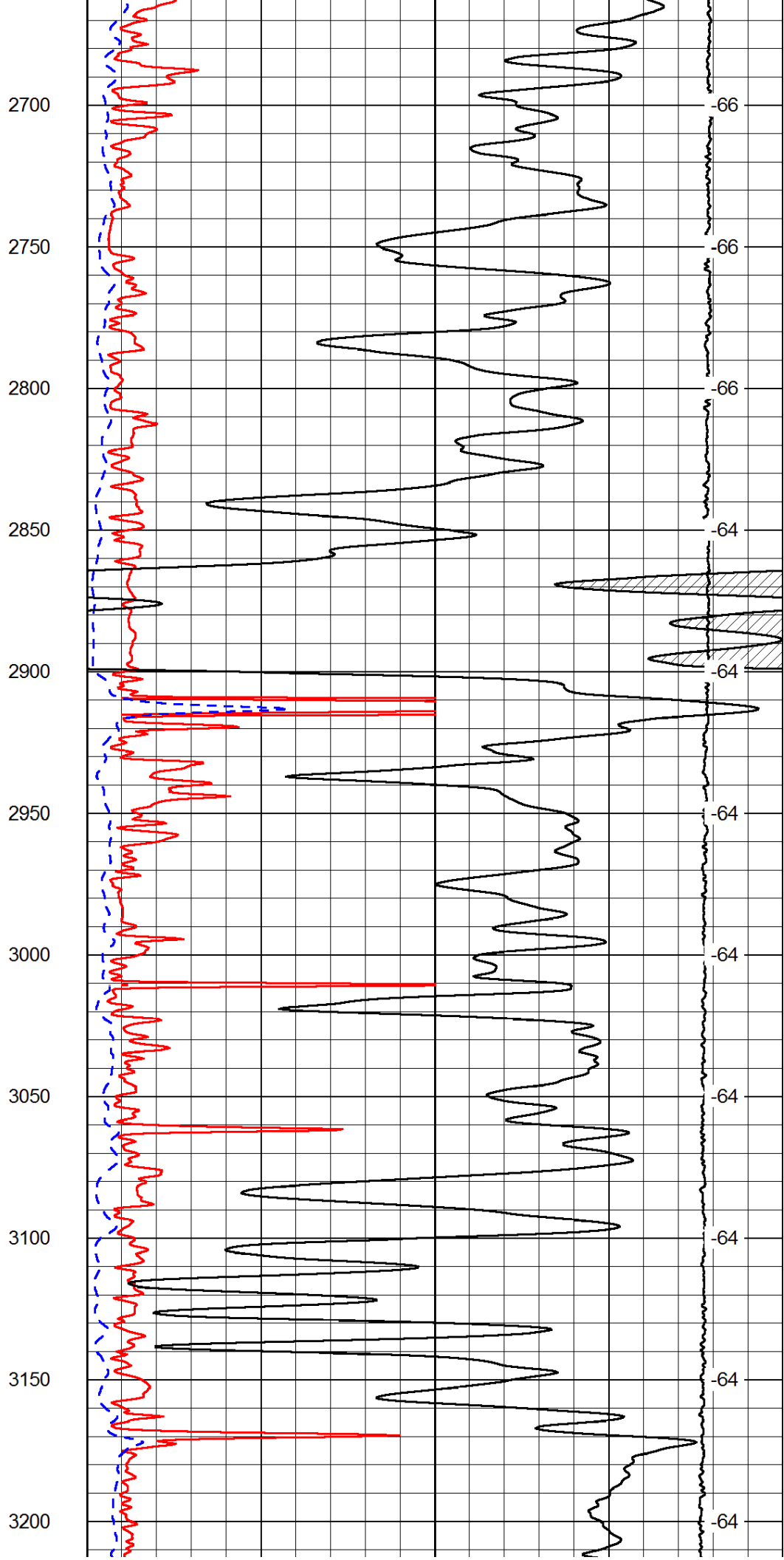
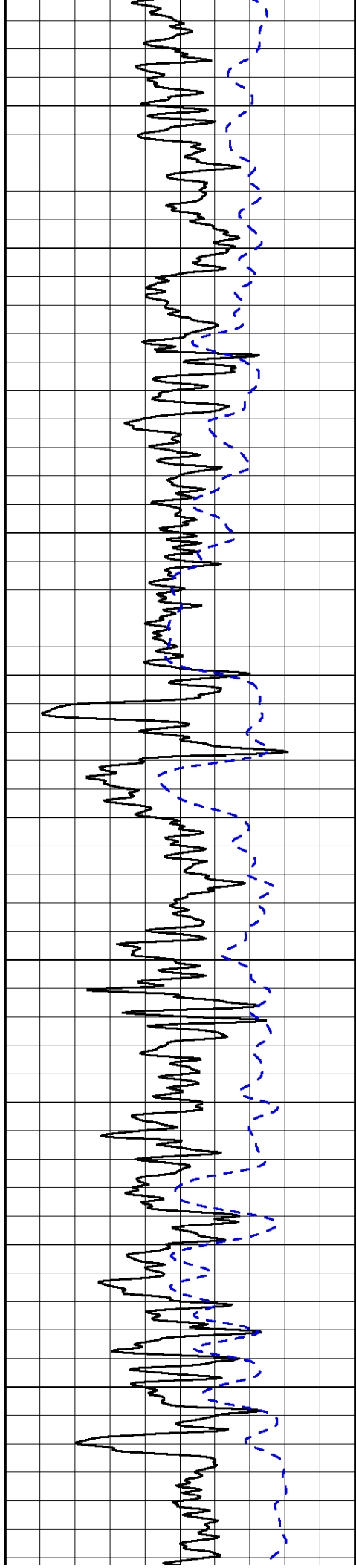
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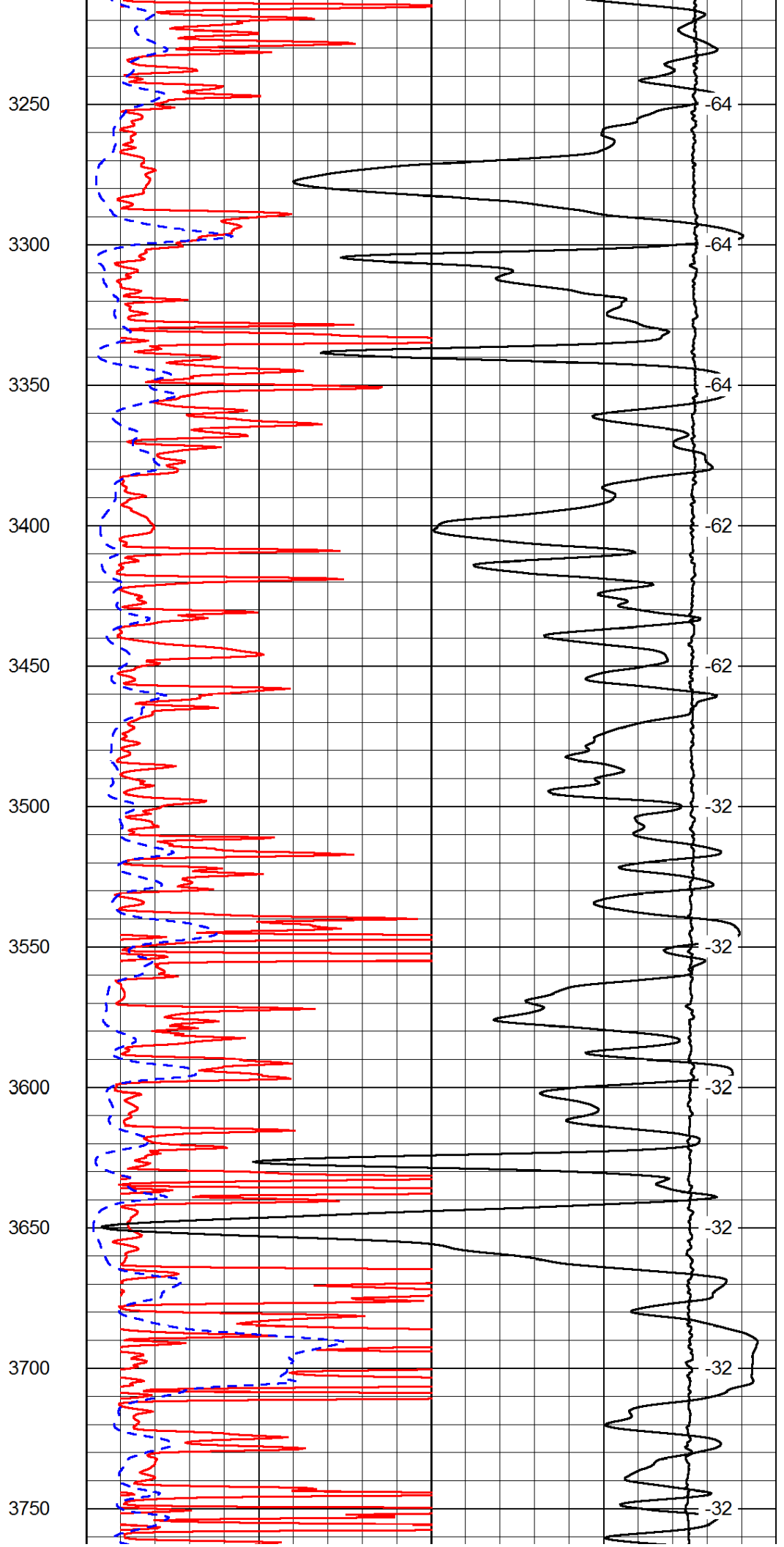
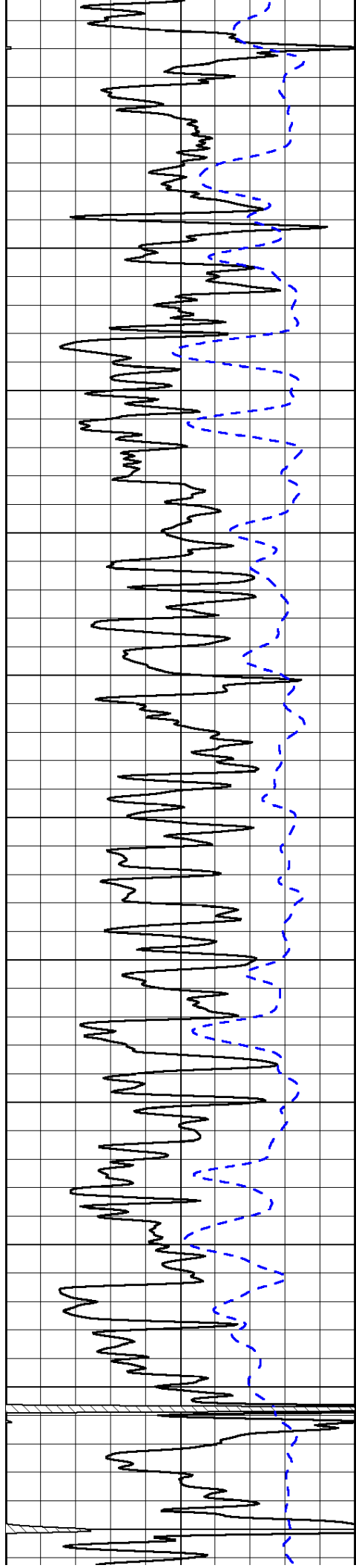


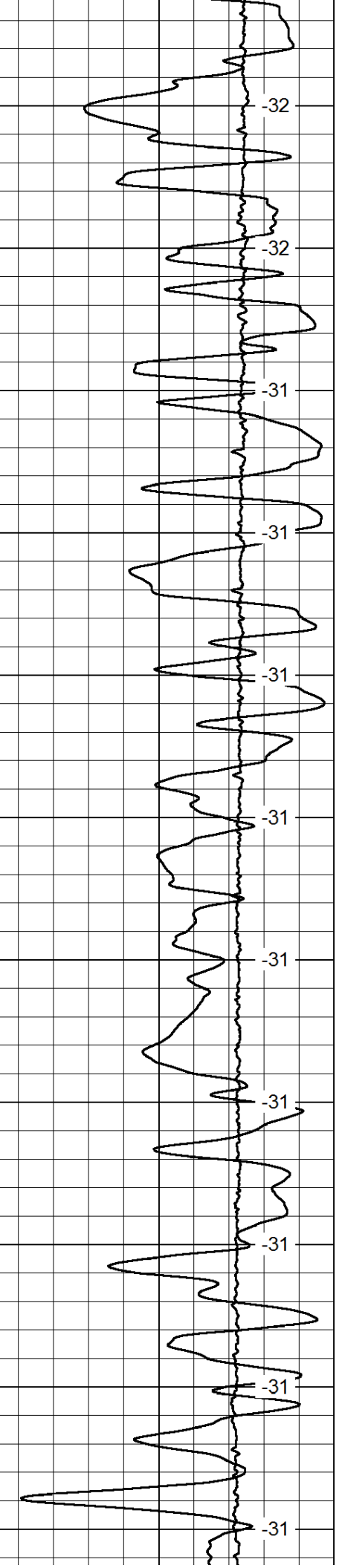
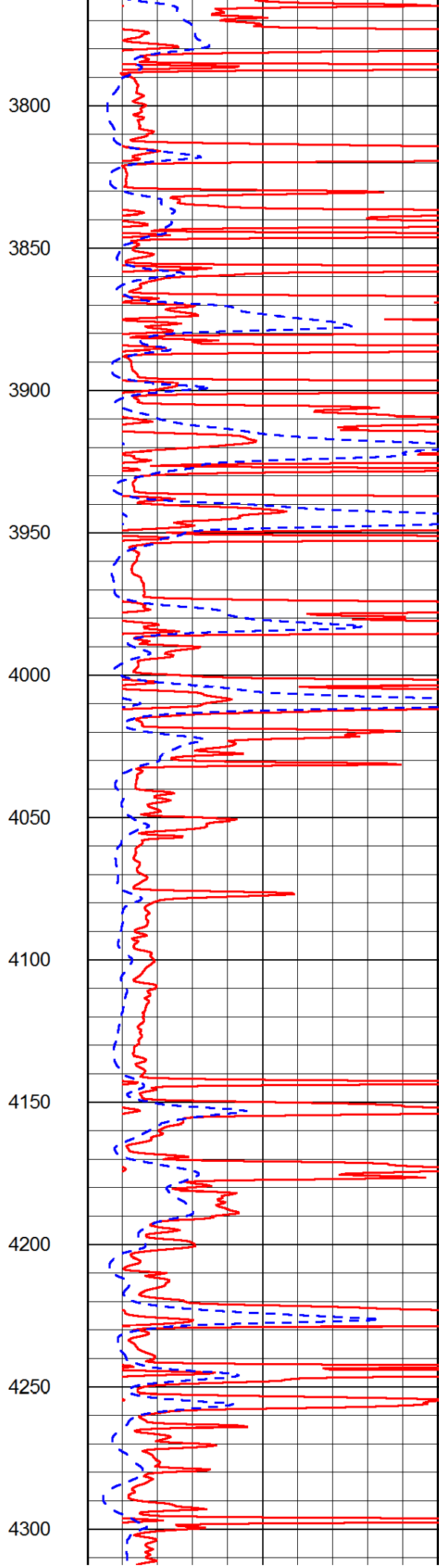
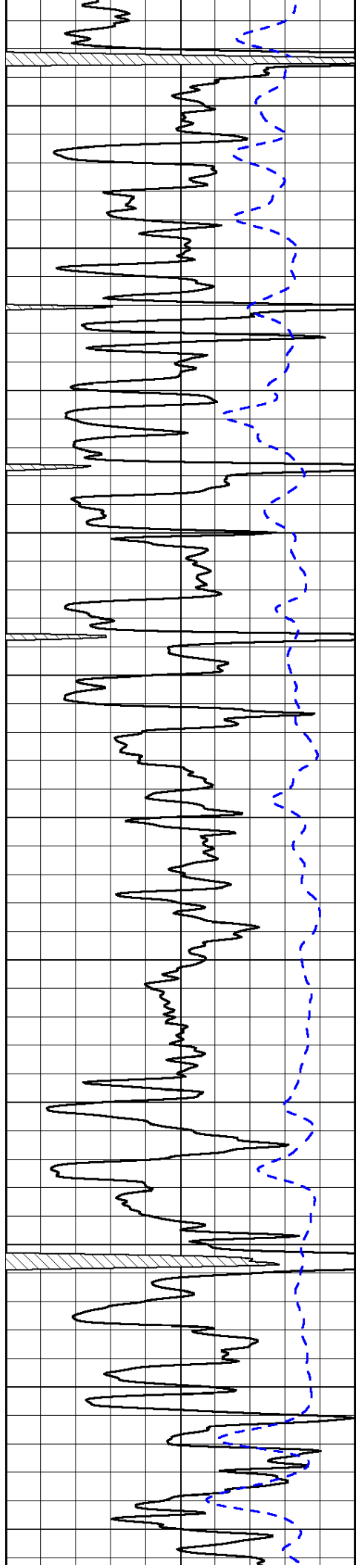
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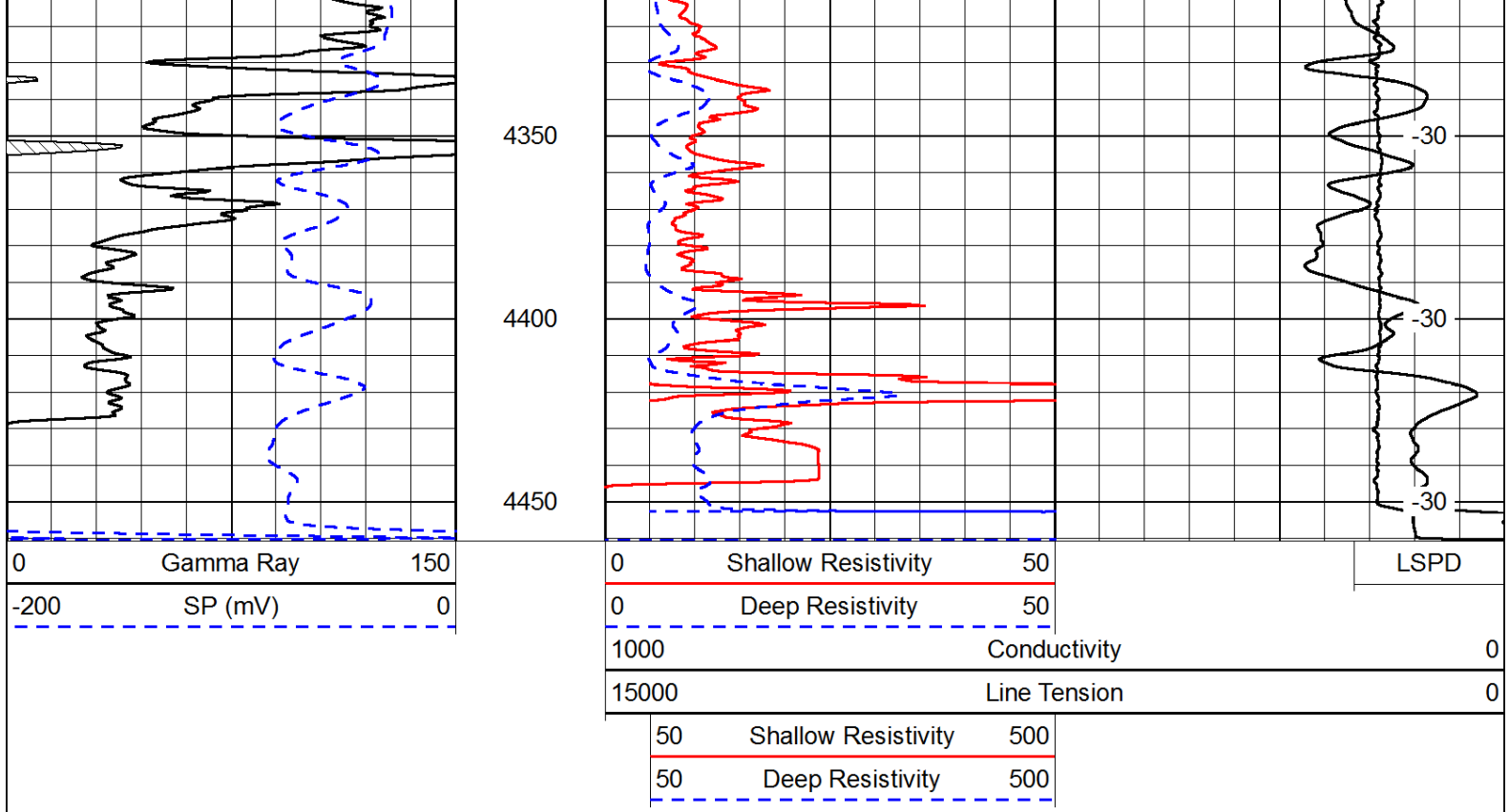




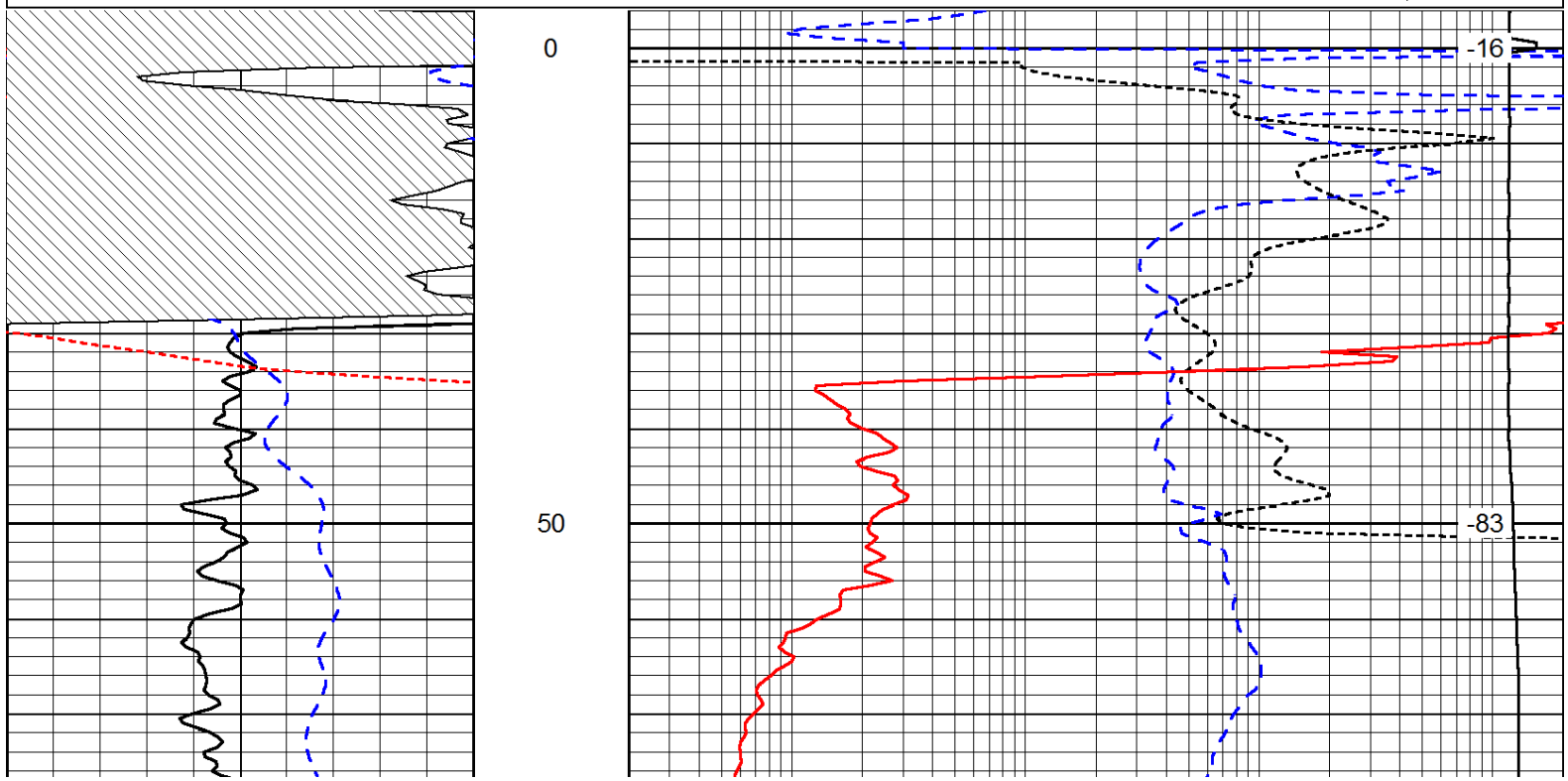
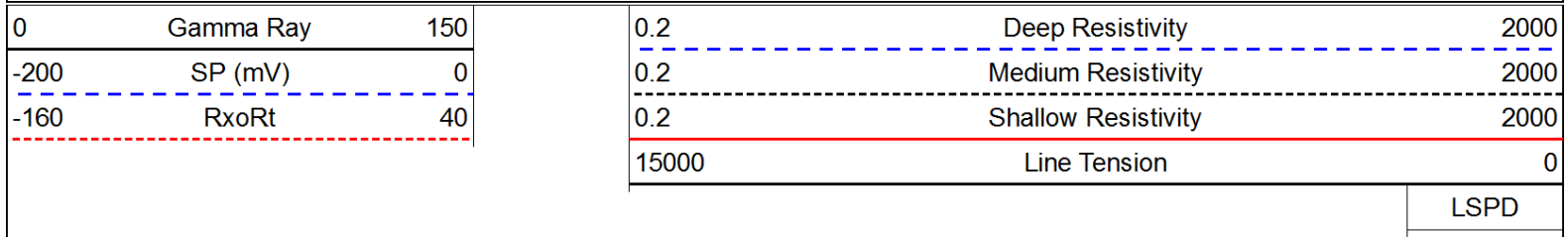


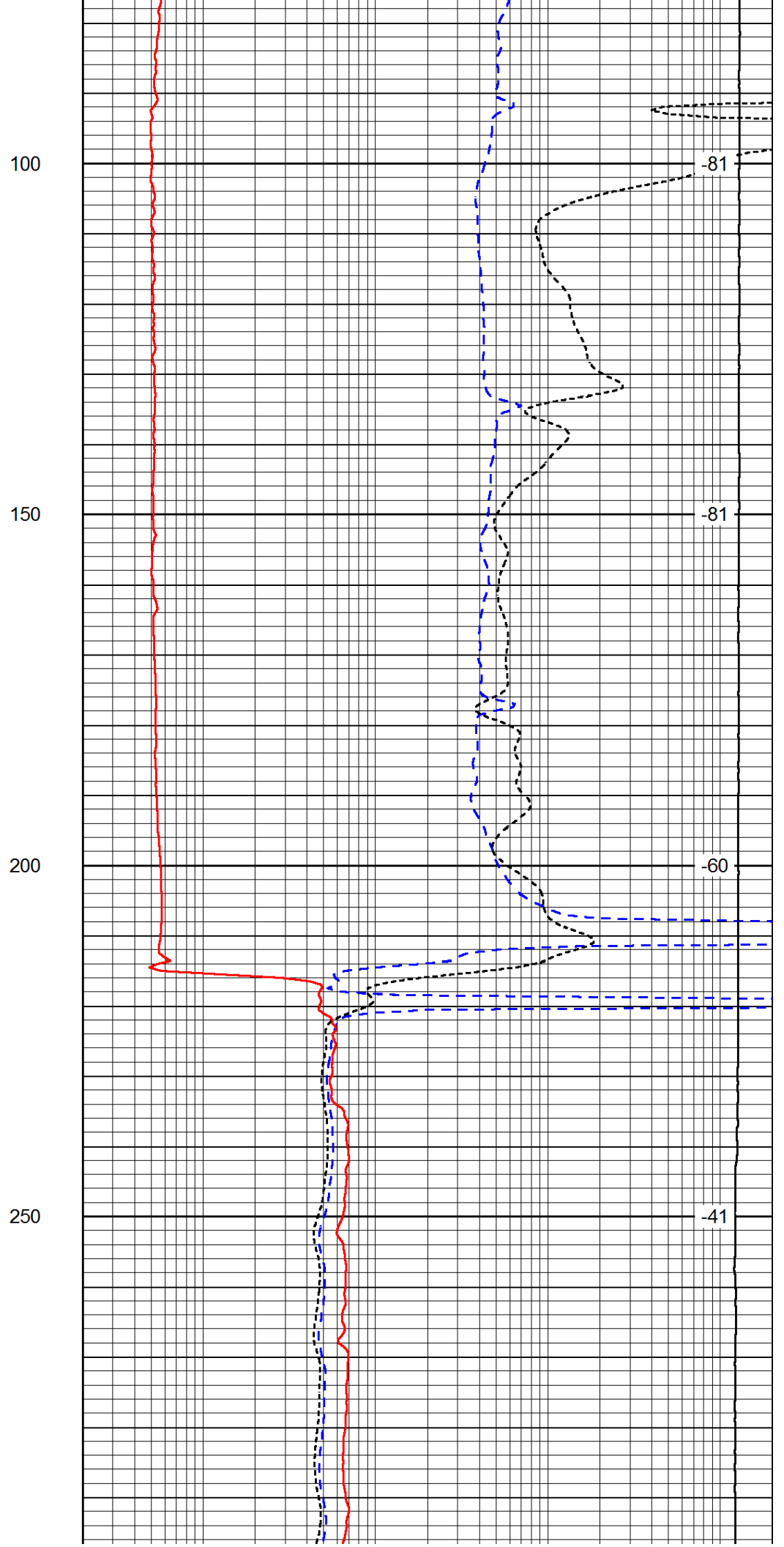
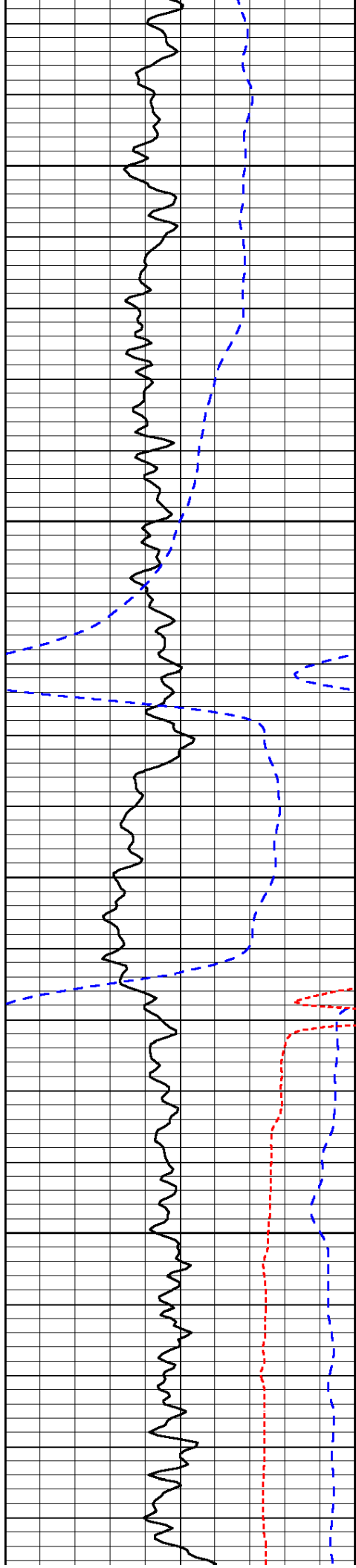


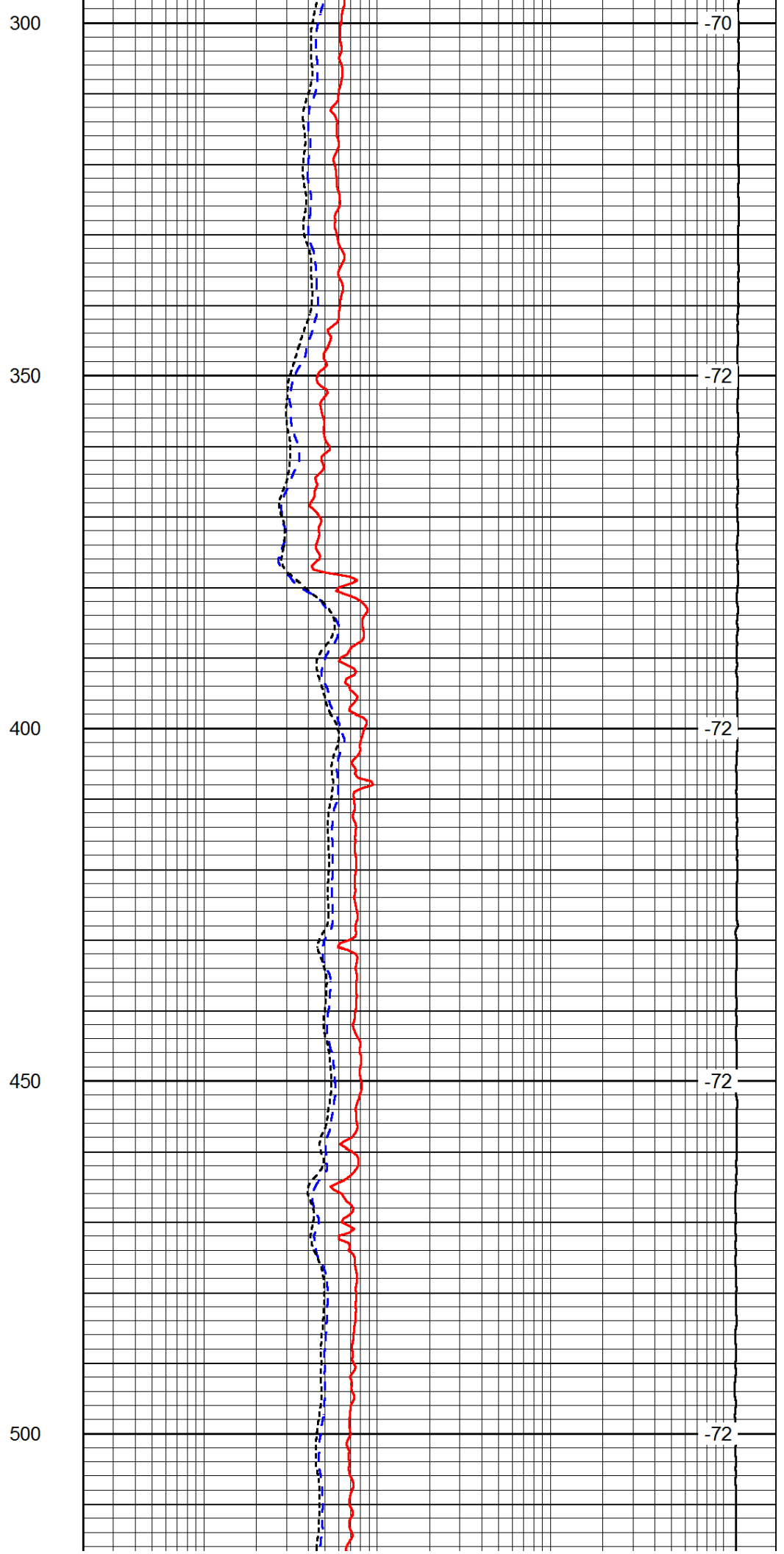
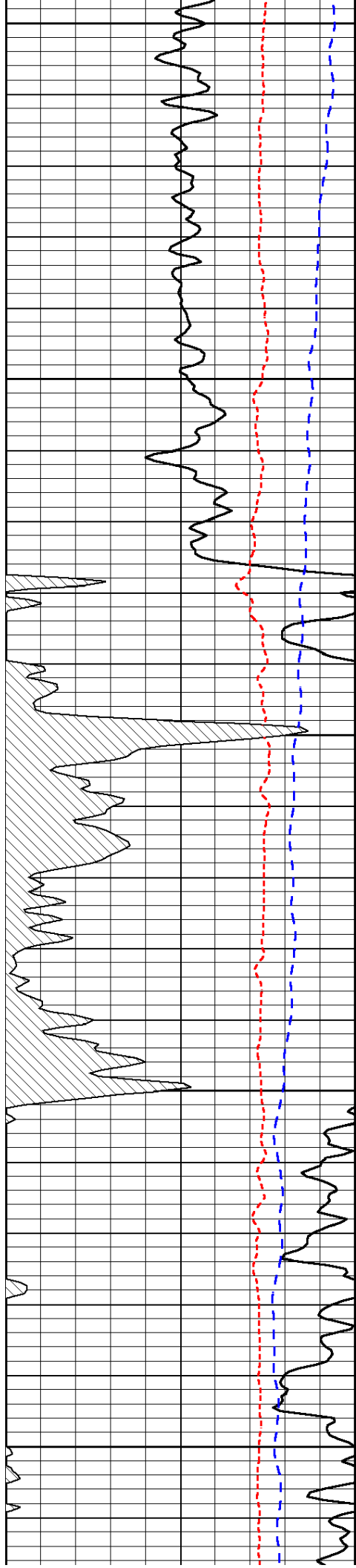


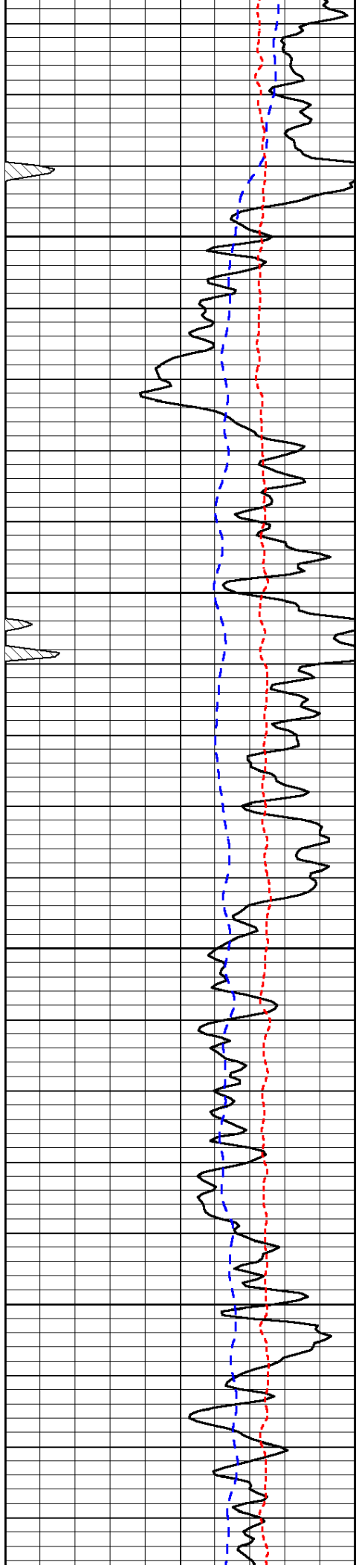


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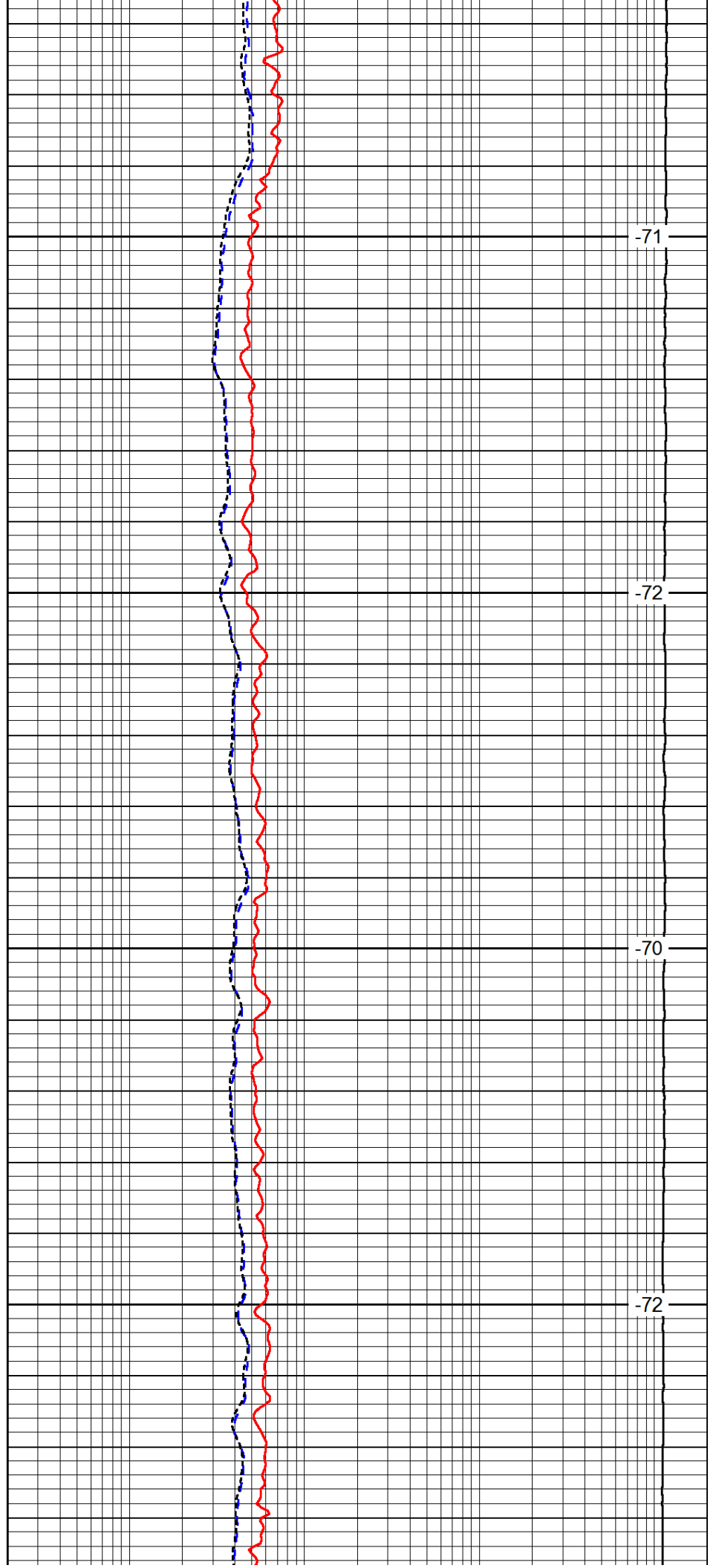


550

600

650

700

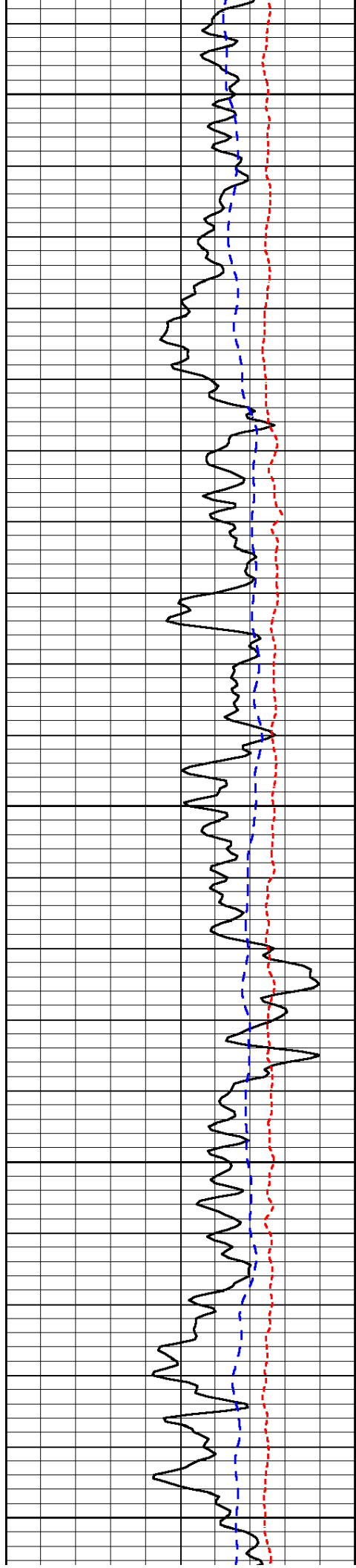


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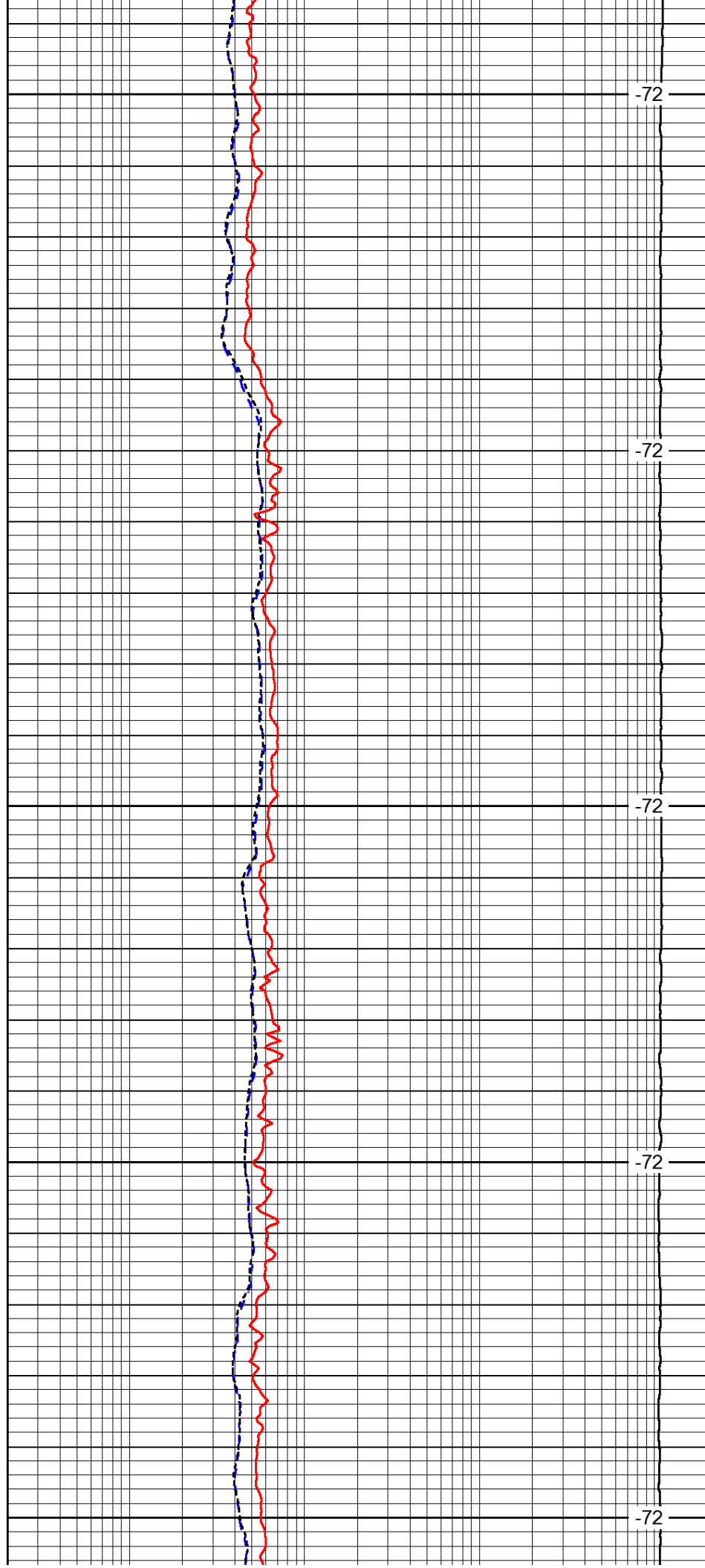
750

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850

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950



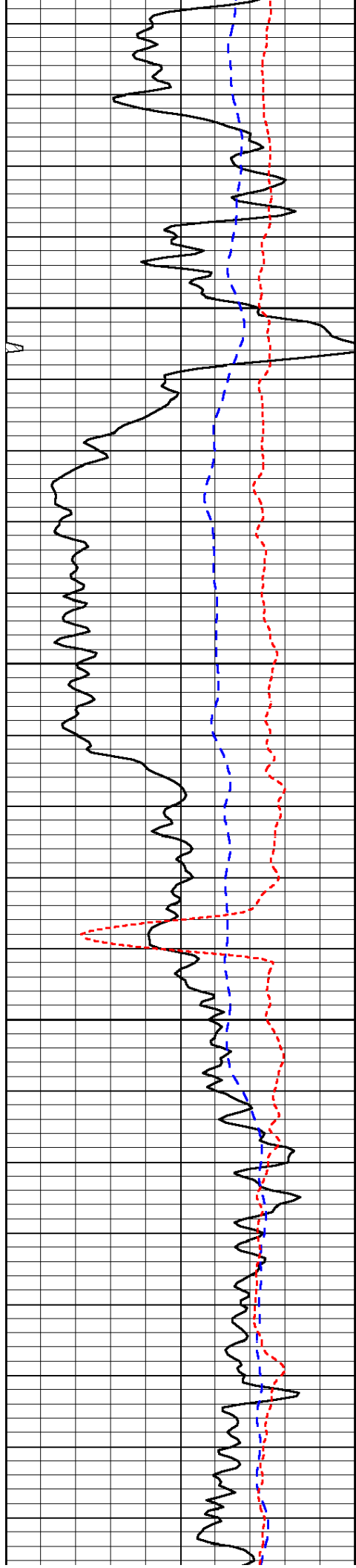
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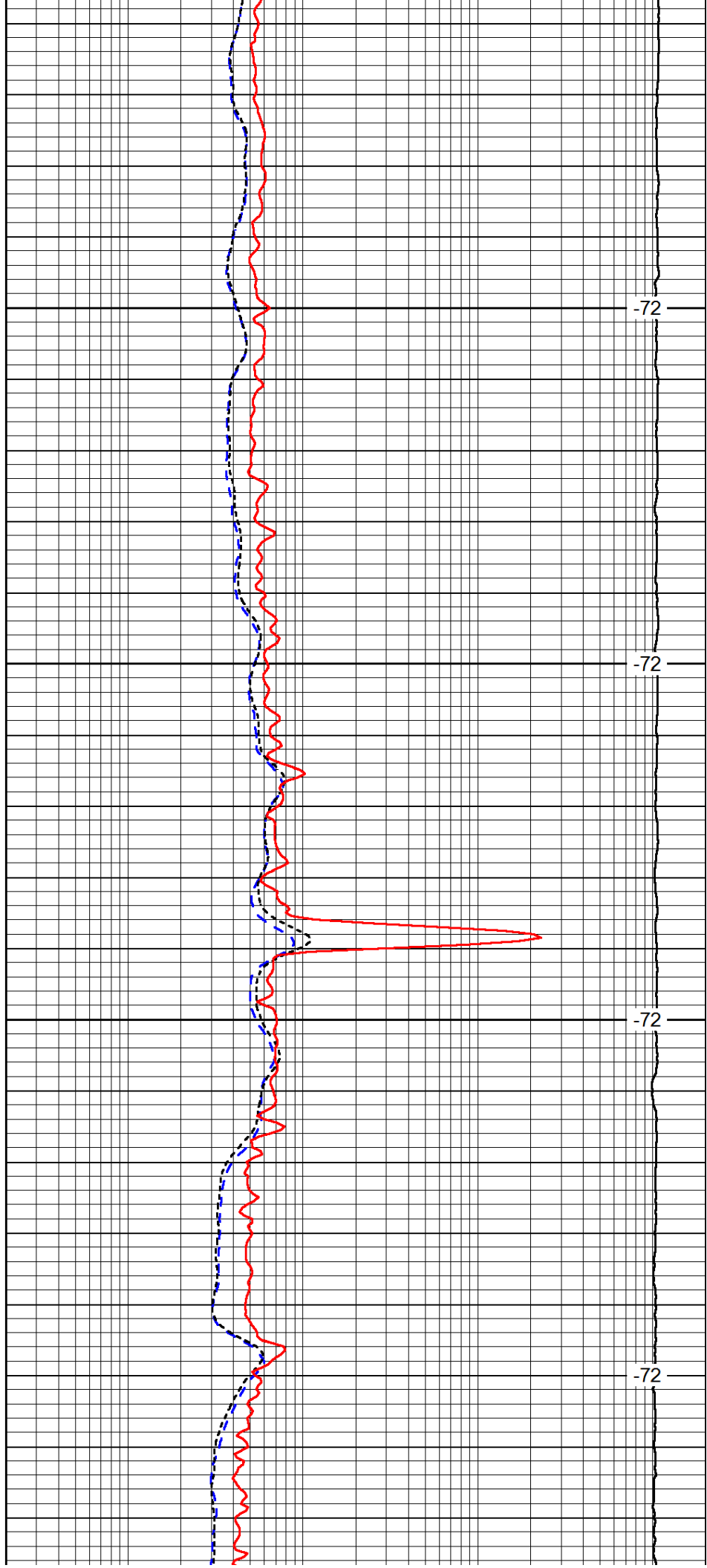


1000

1050

1100

1150

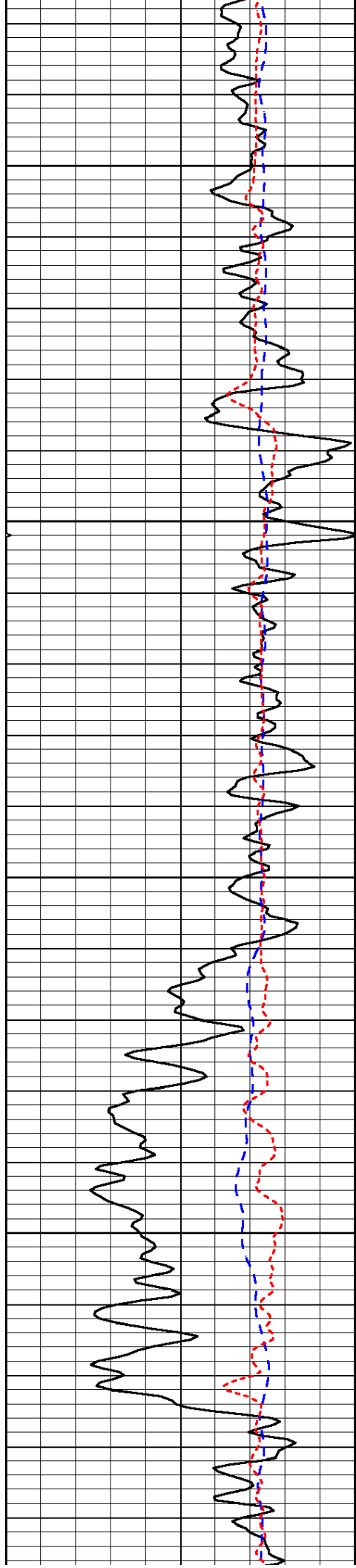


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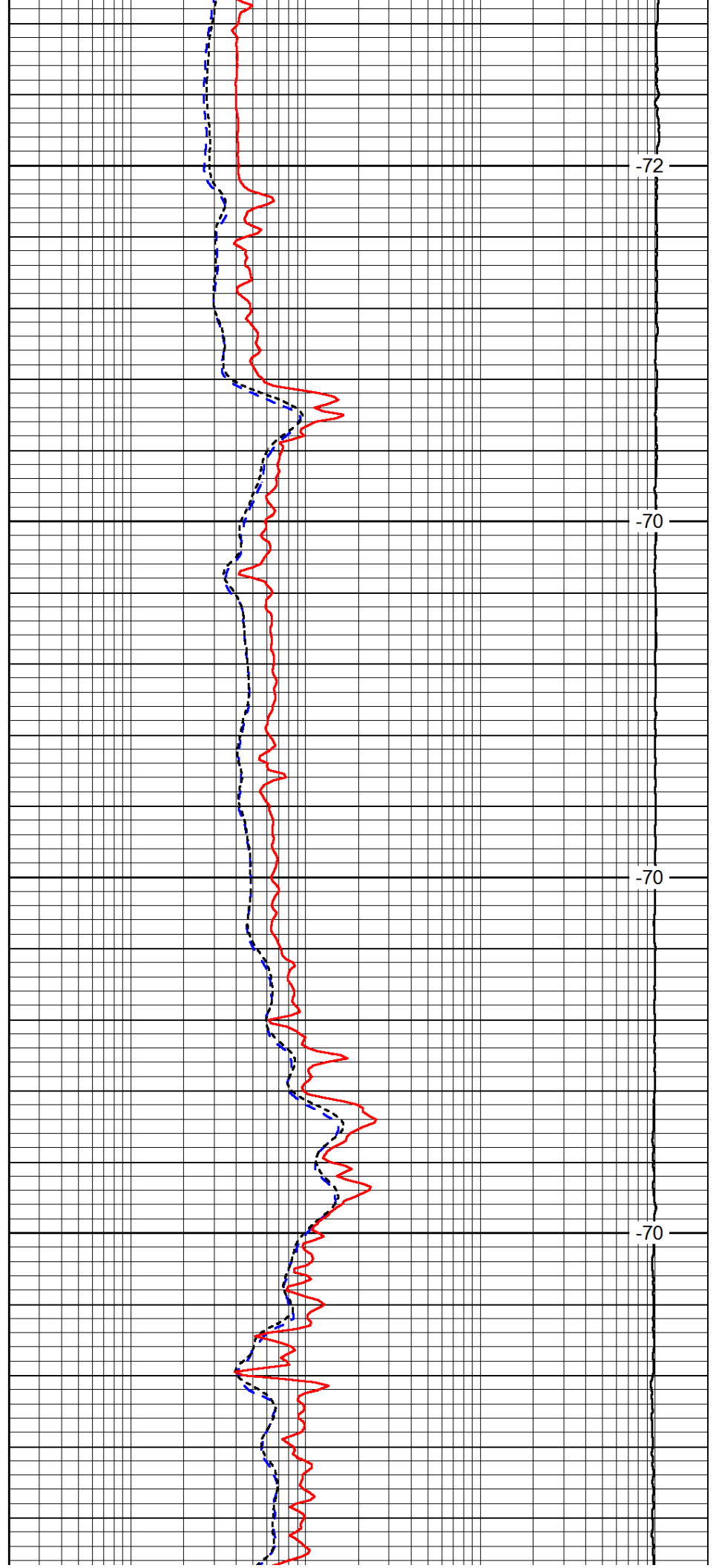


1200

1250

1300

1350

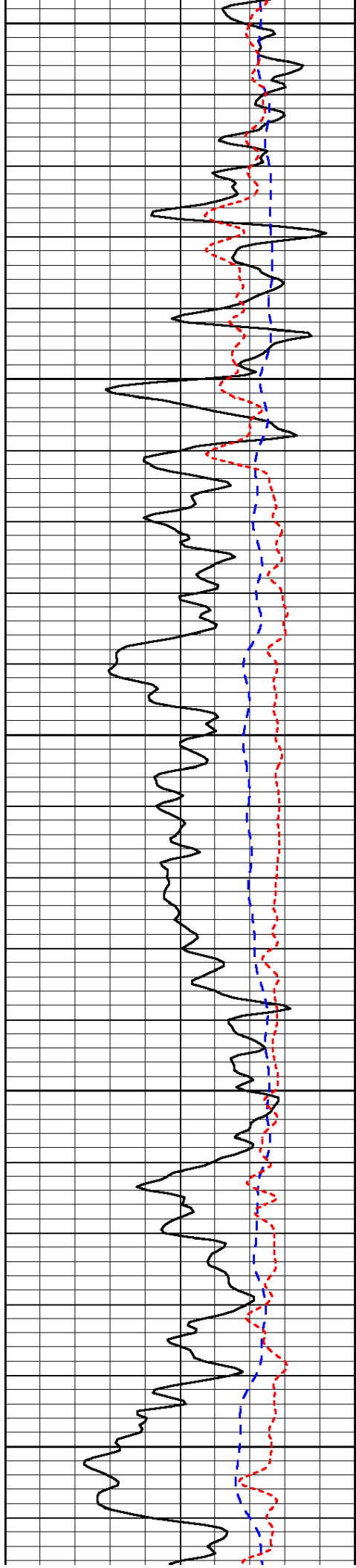


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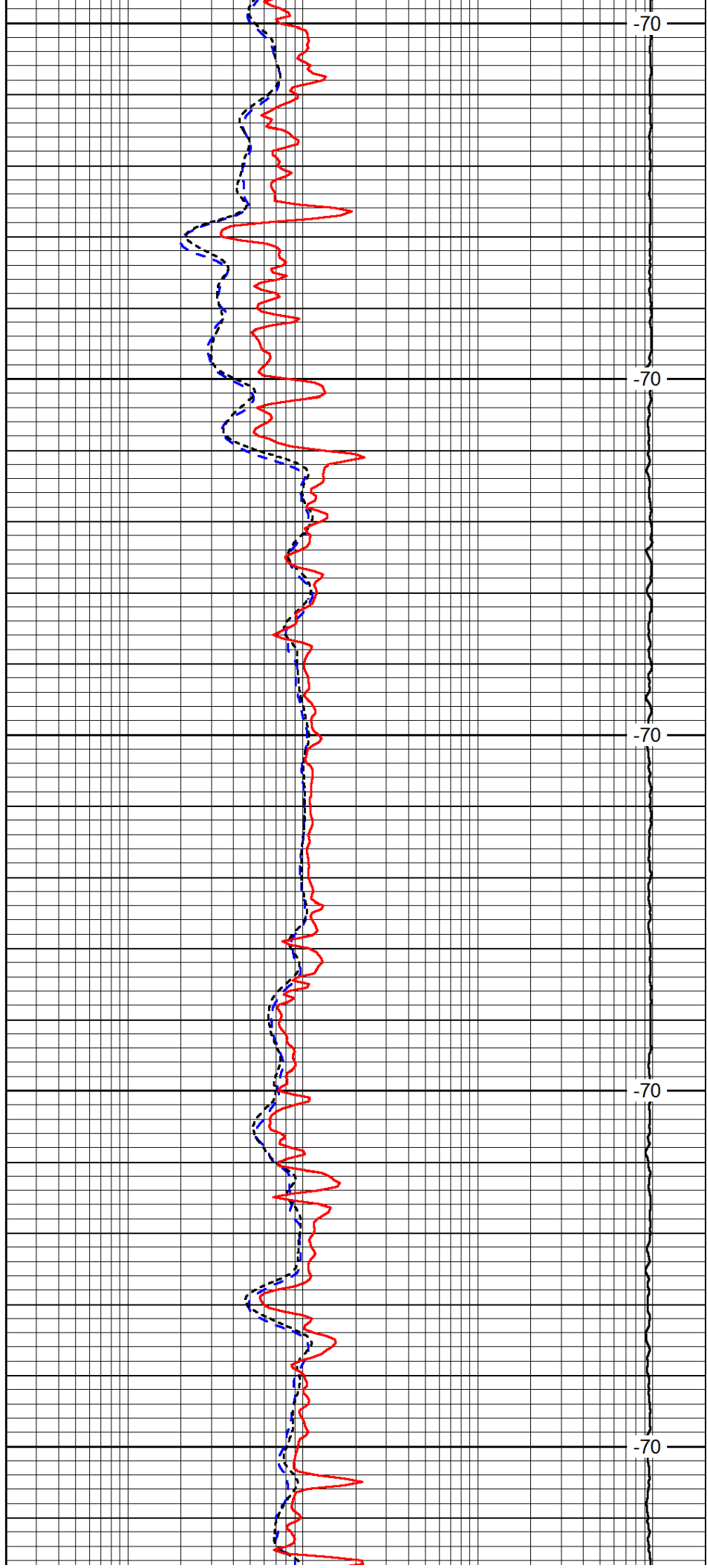
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1450

1500

1550

1600



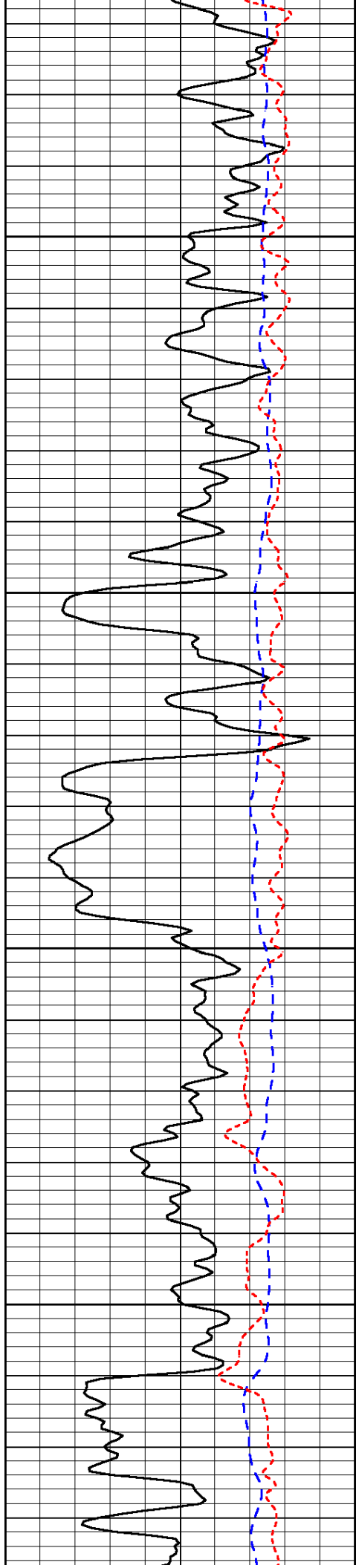
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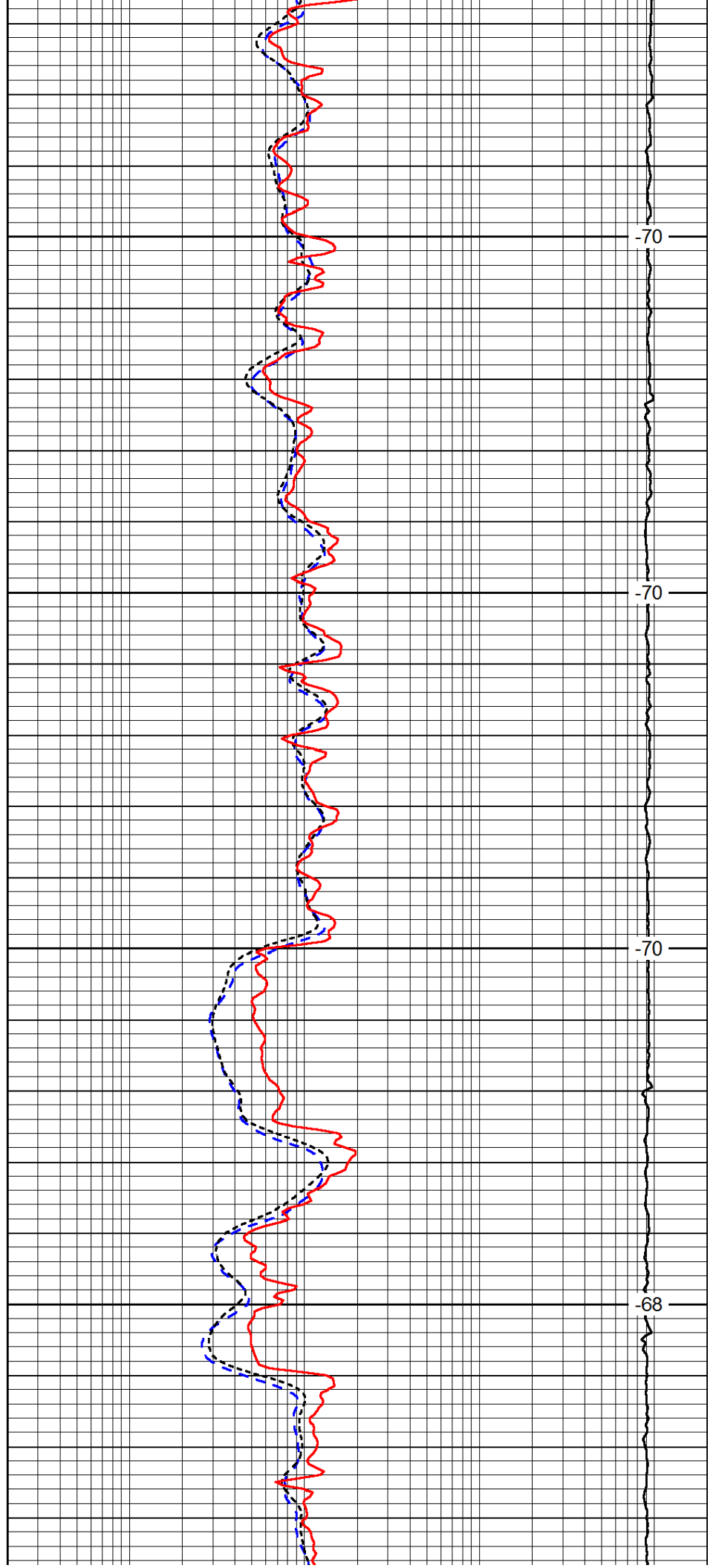


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1700

1750

1800

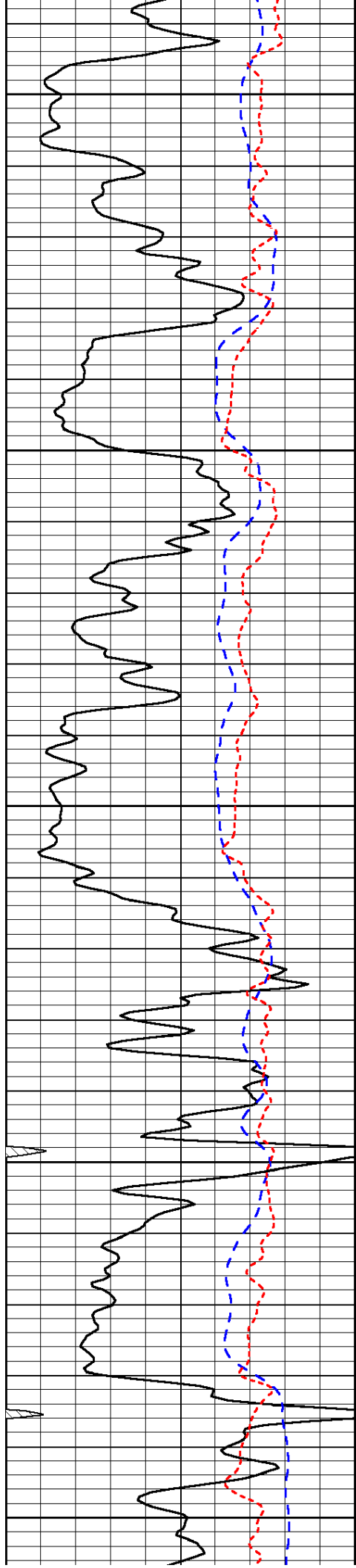


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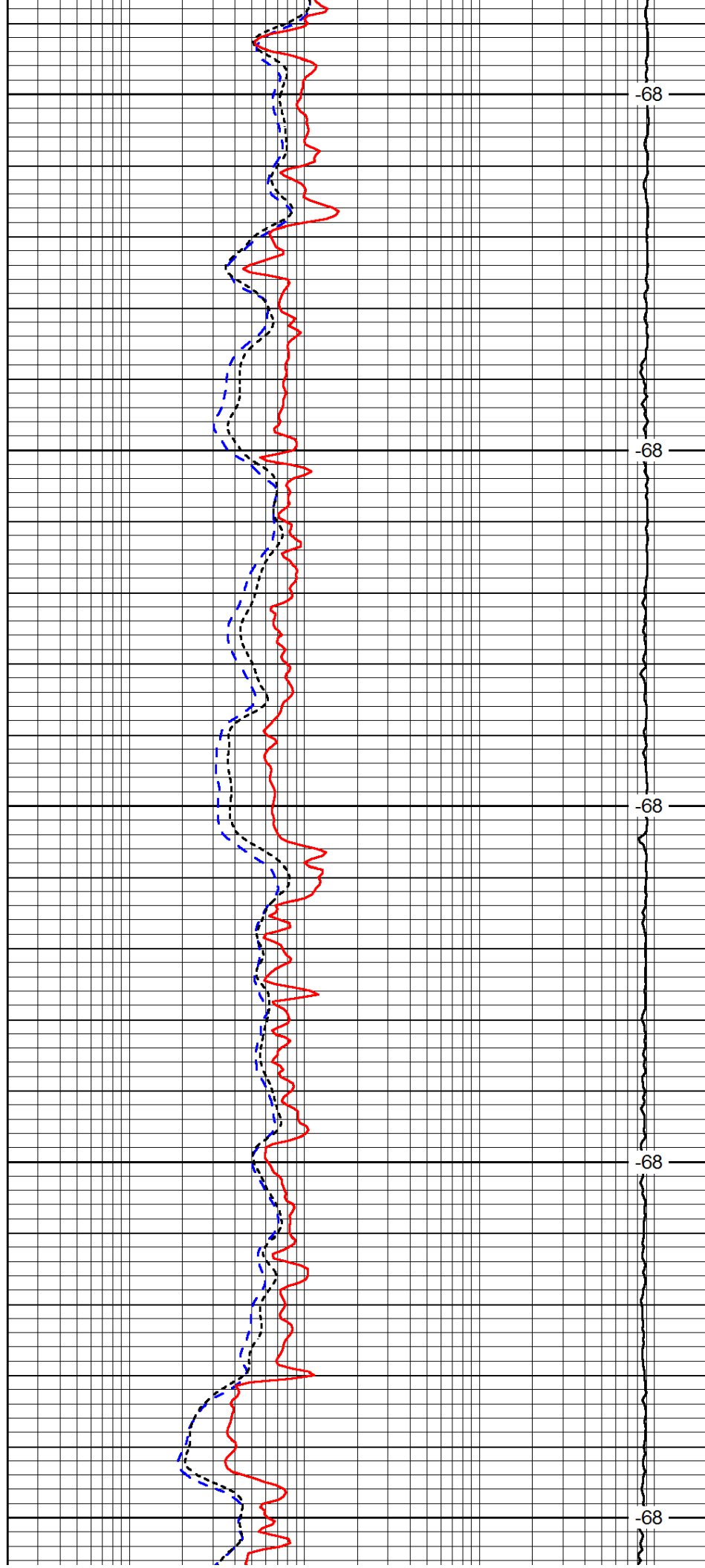
1850

1900

1950

2000

2050



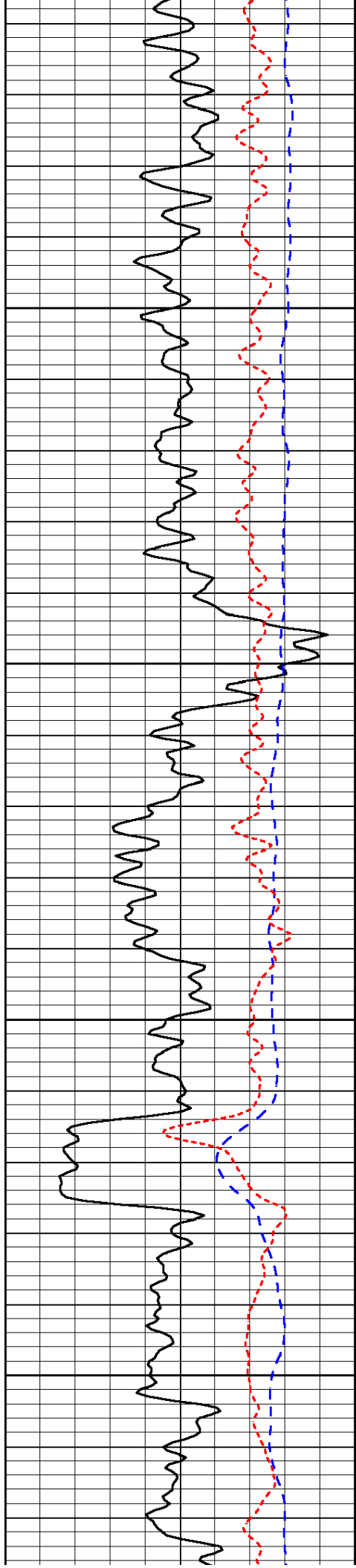
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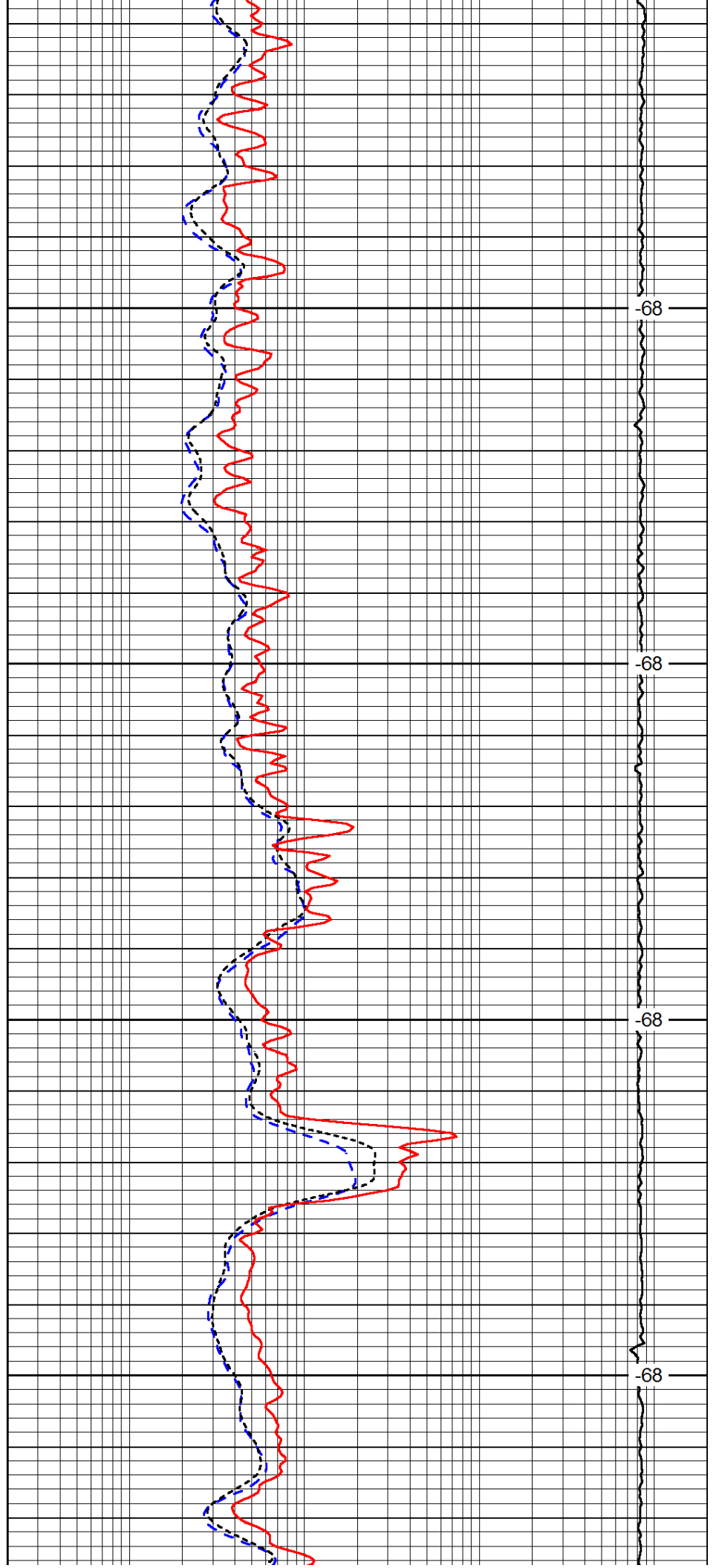


2100

2150

2200

2250

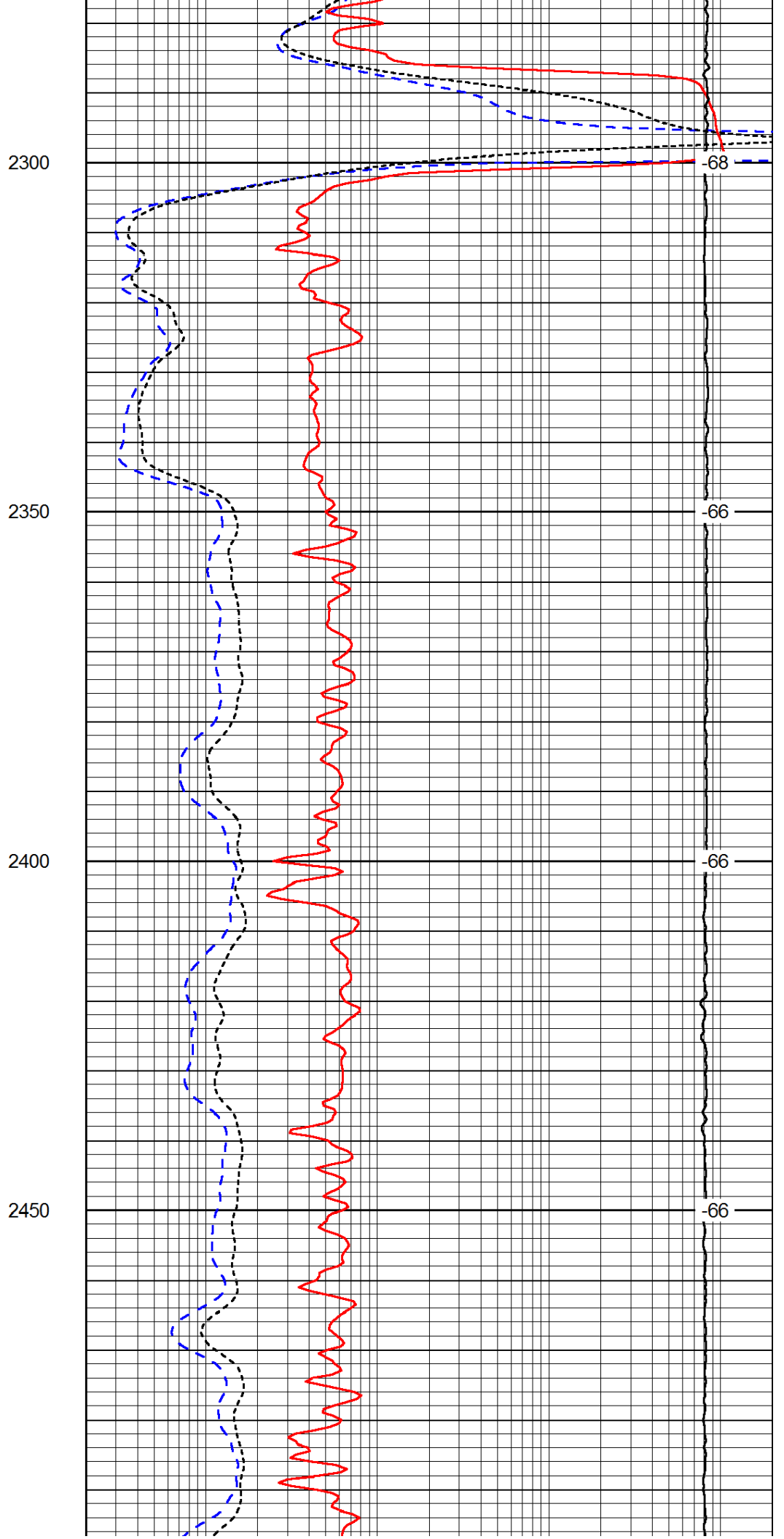
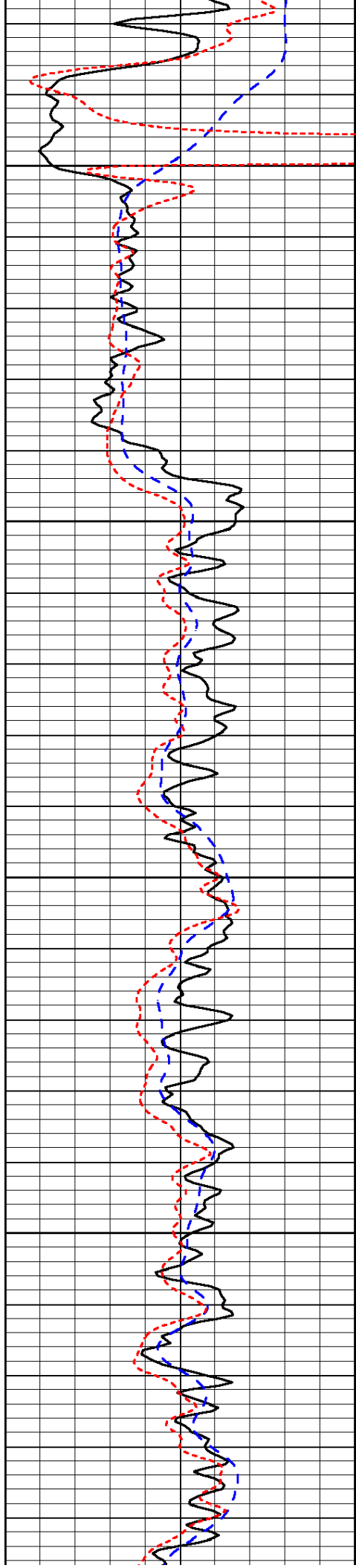


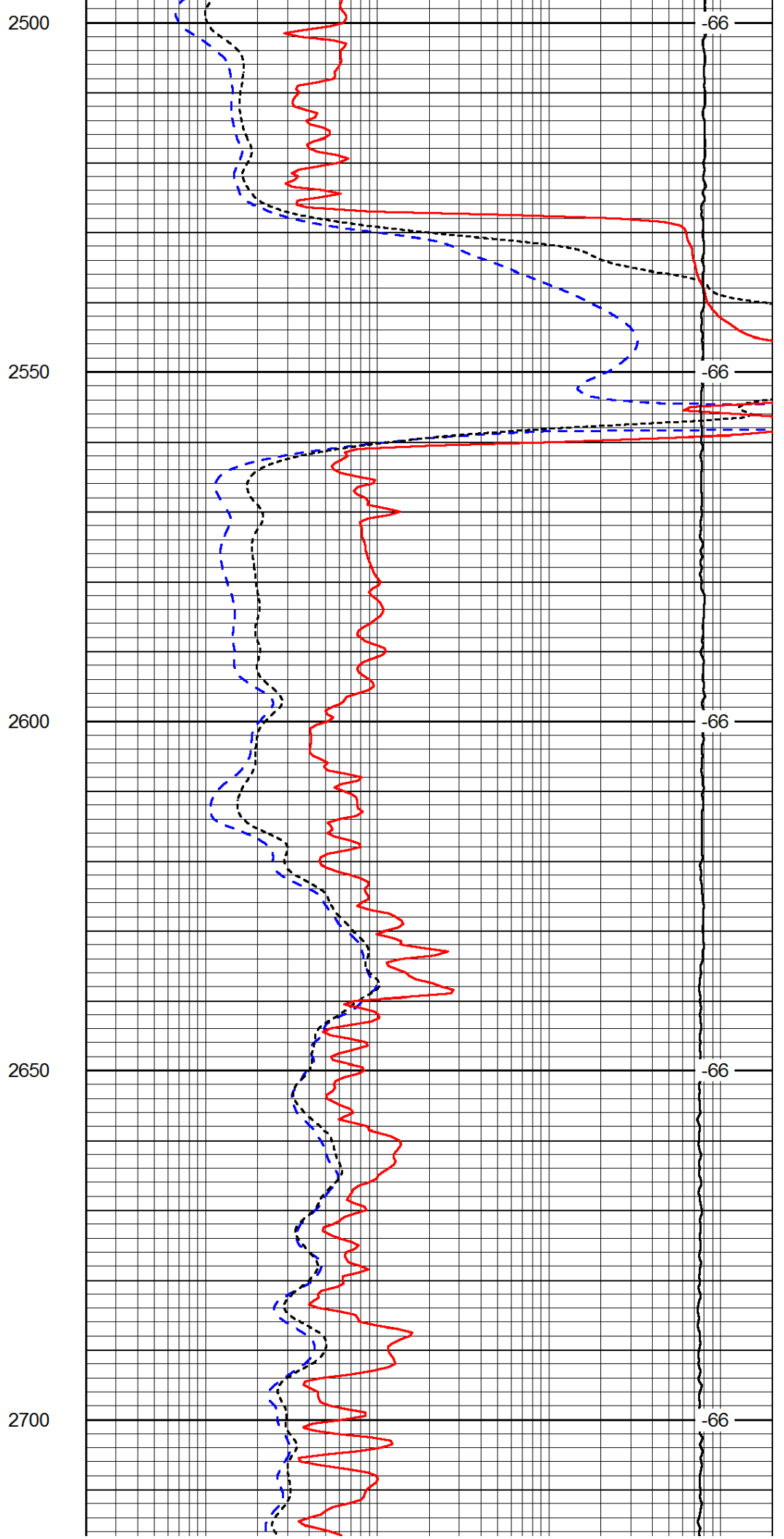
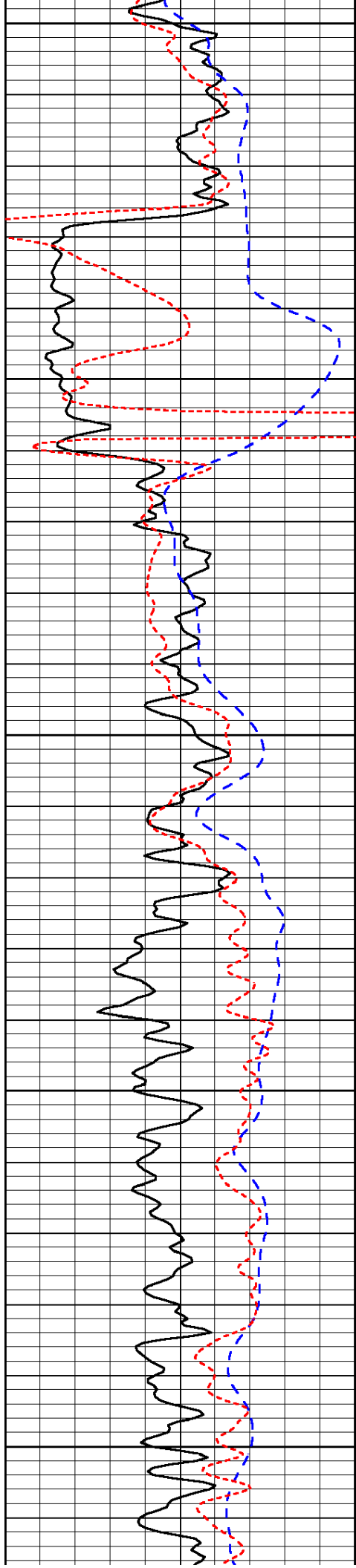
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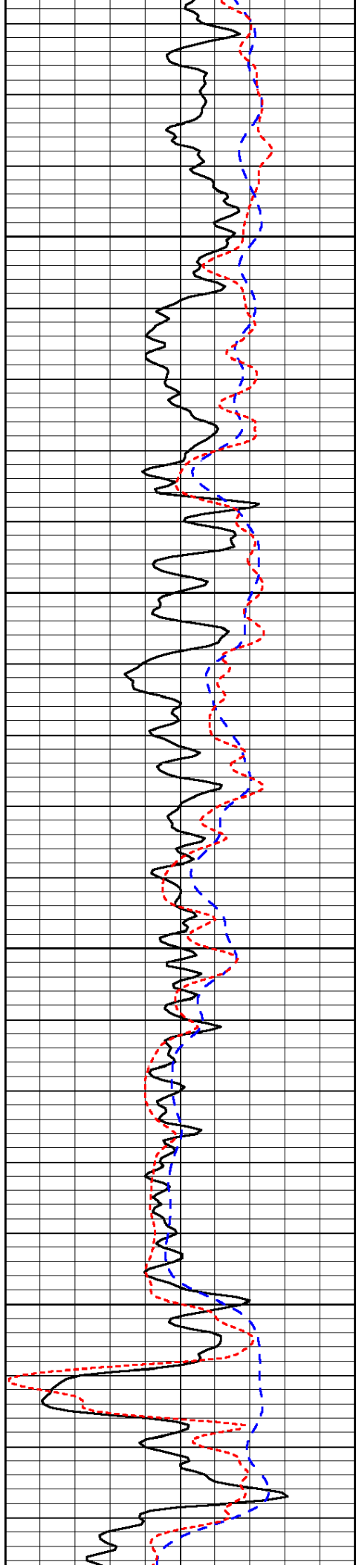
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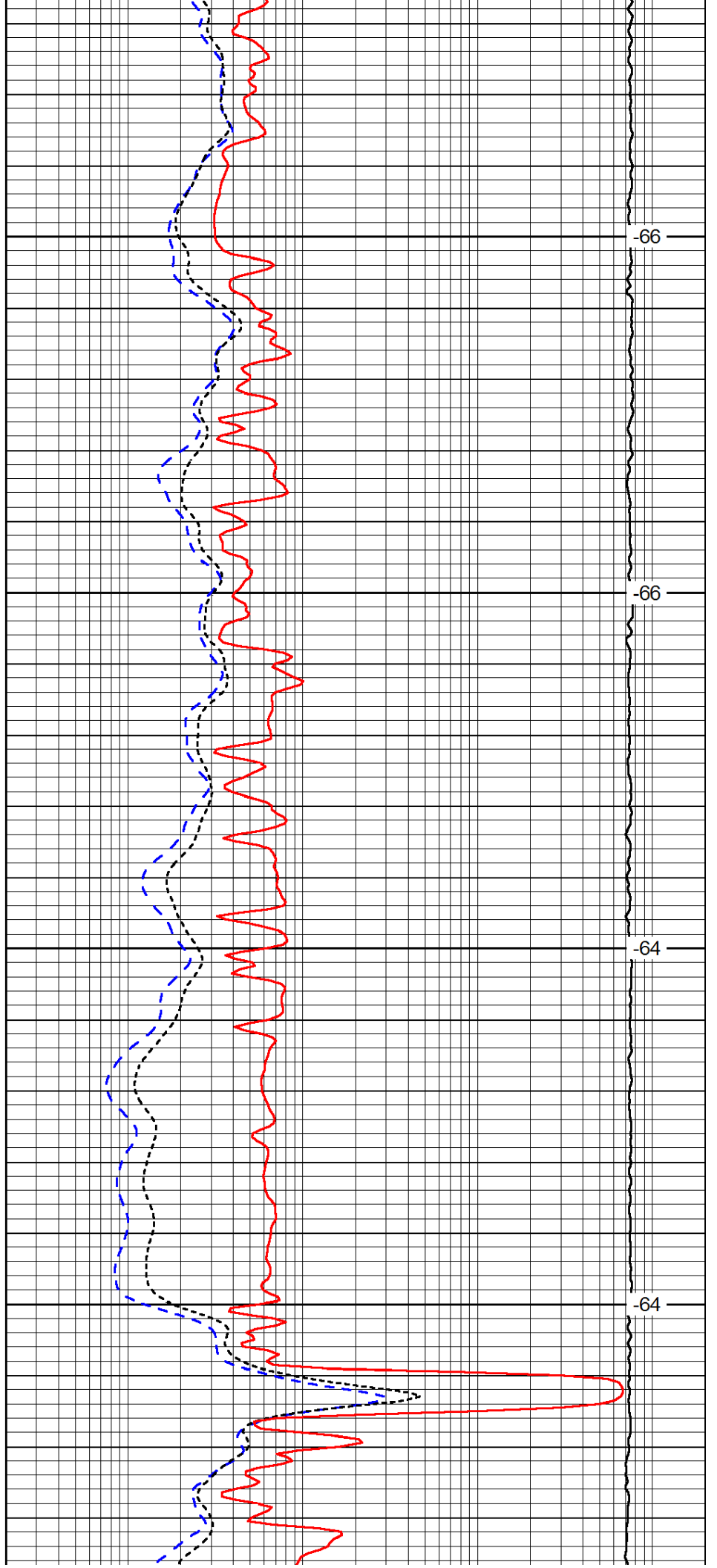


2750

2800

2850

2900

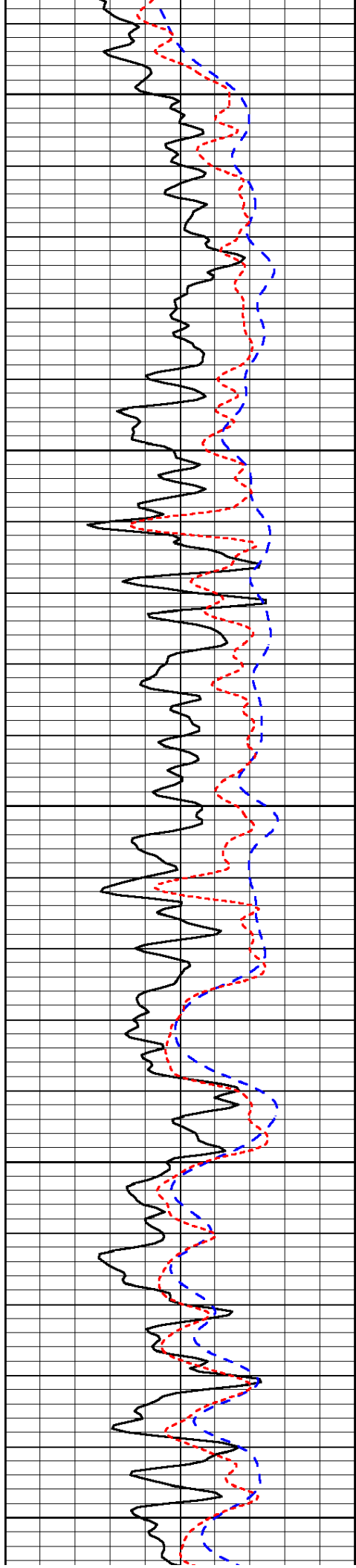


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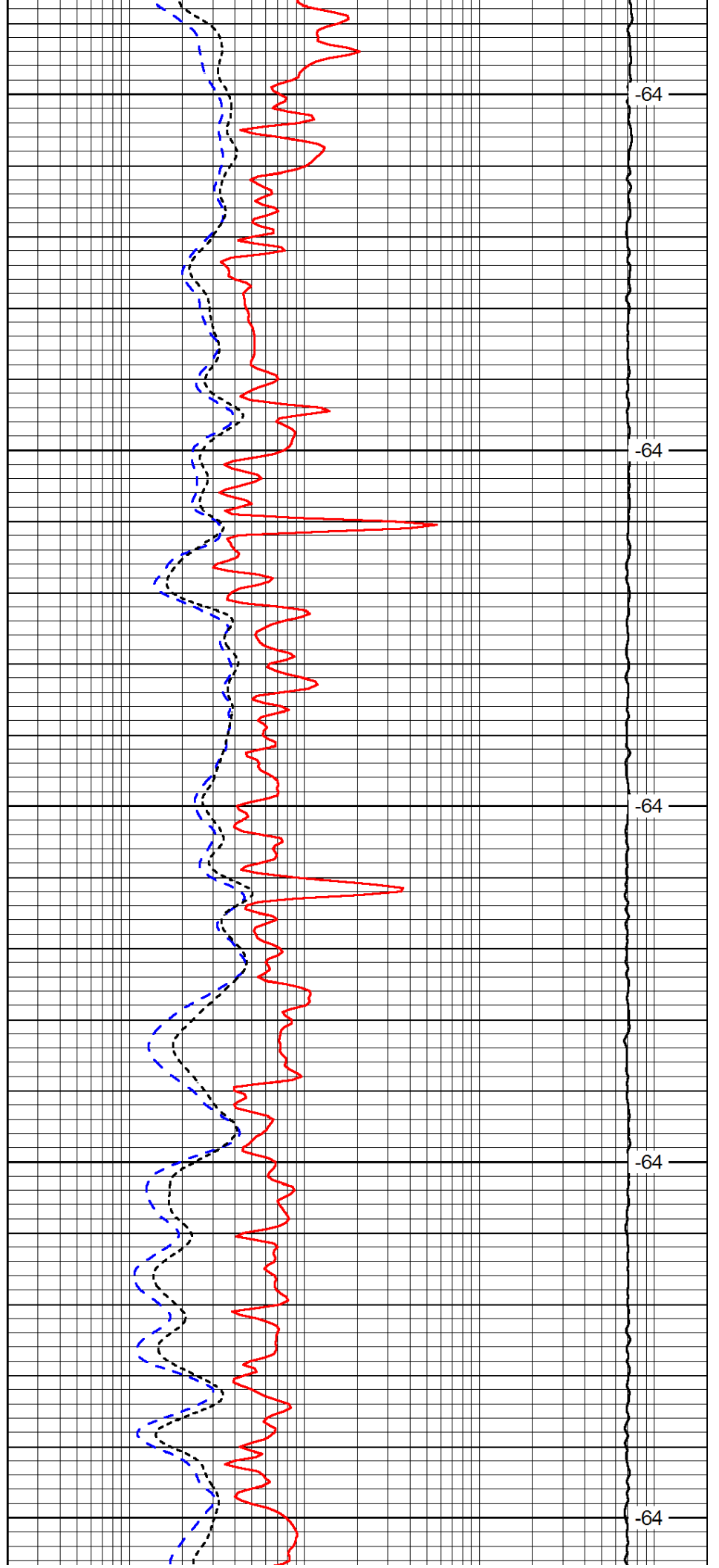
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3000

3050

3100

3150



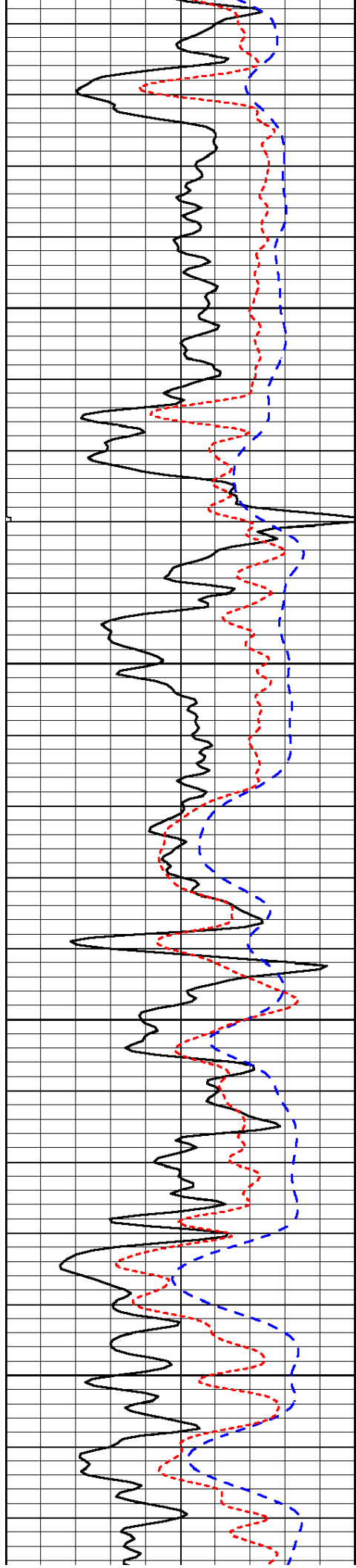
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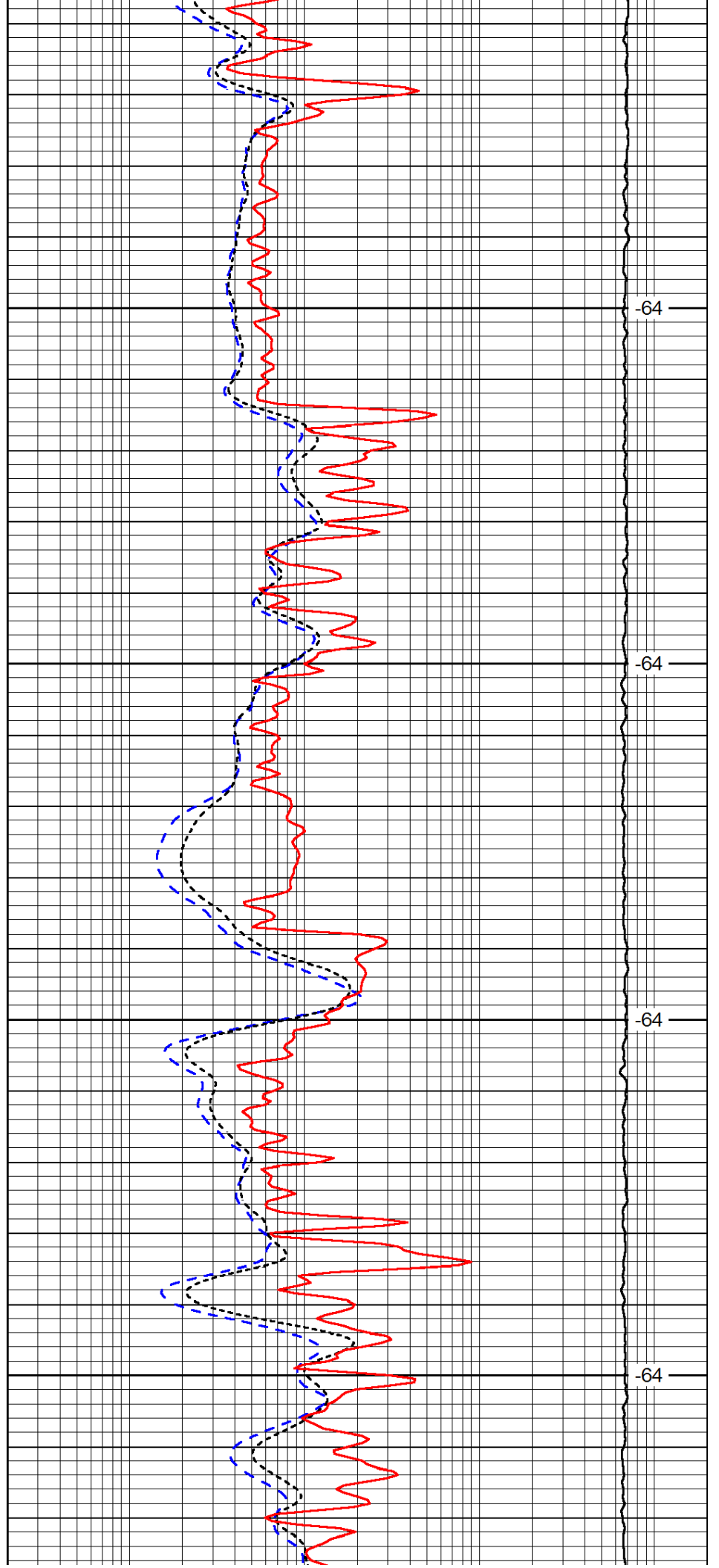


3200

3250

3300

3350

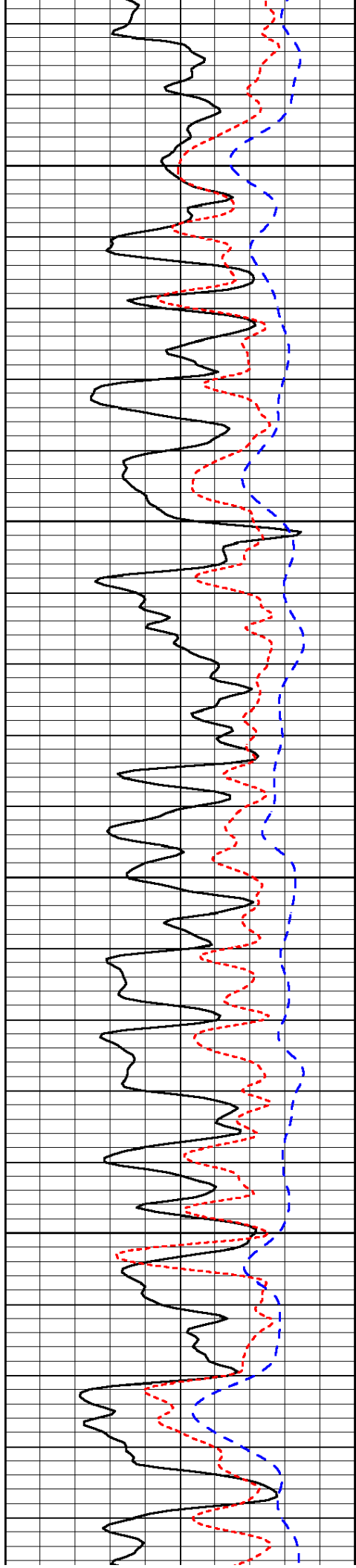


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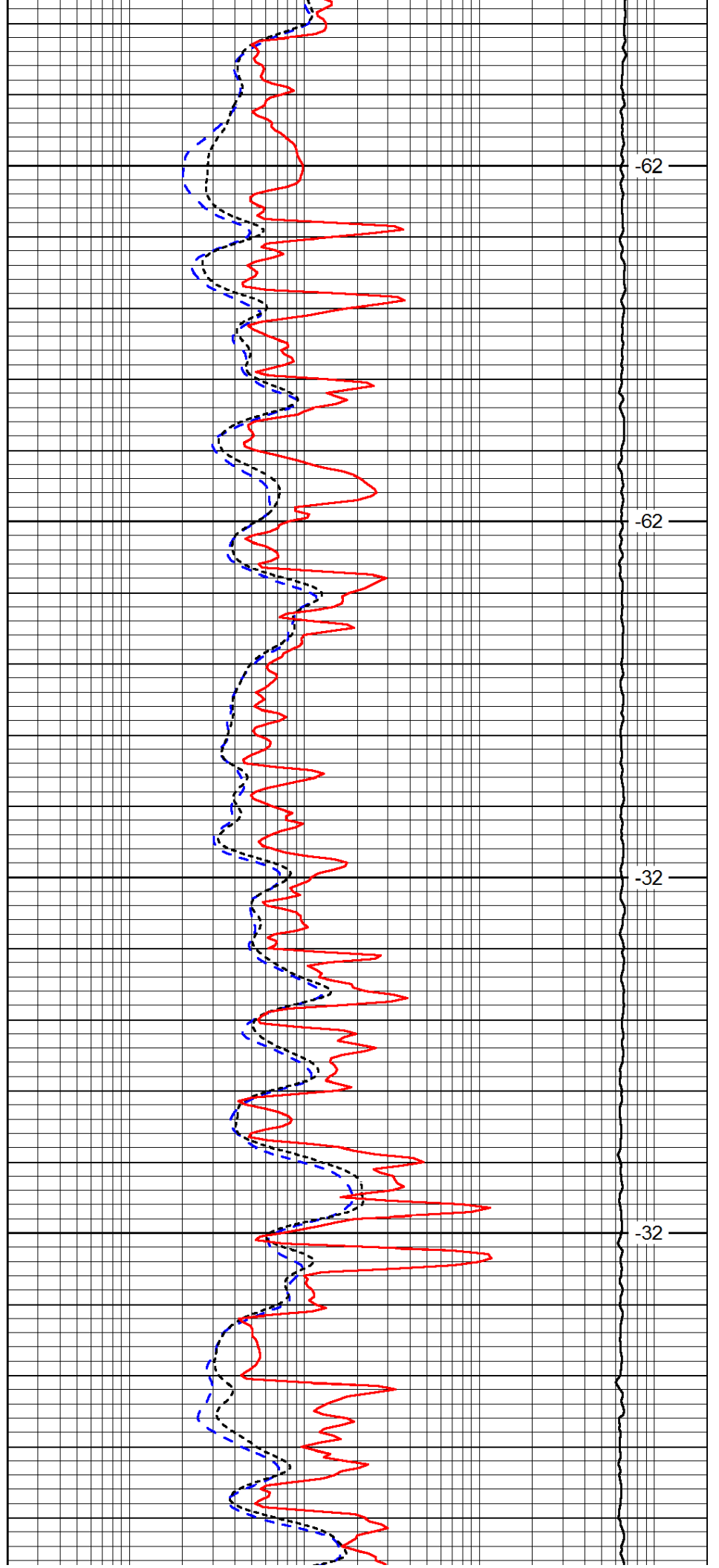


3400

3450

3500

3550

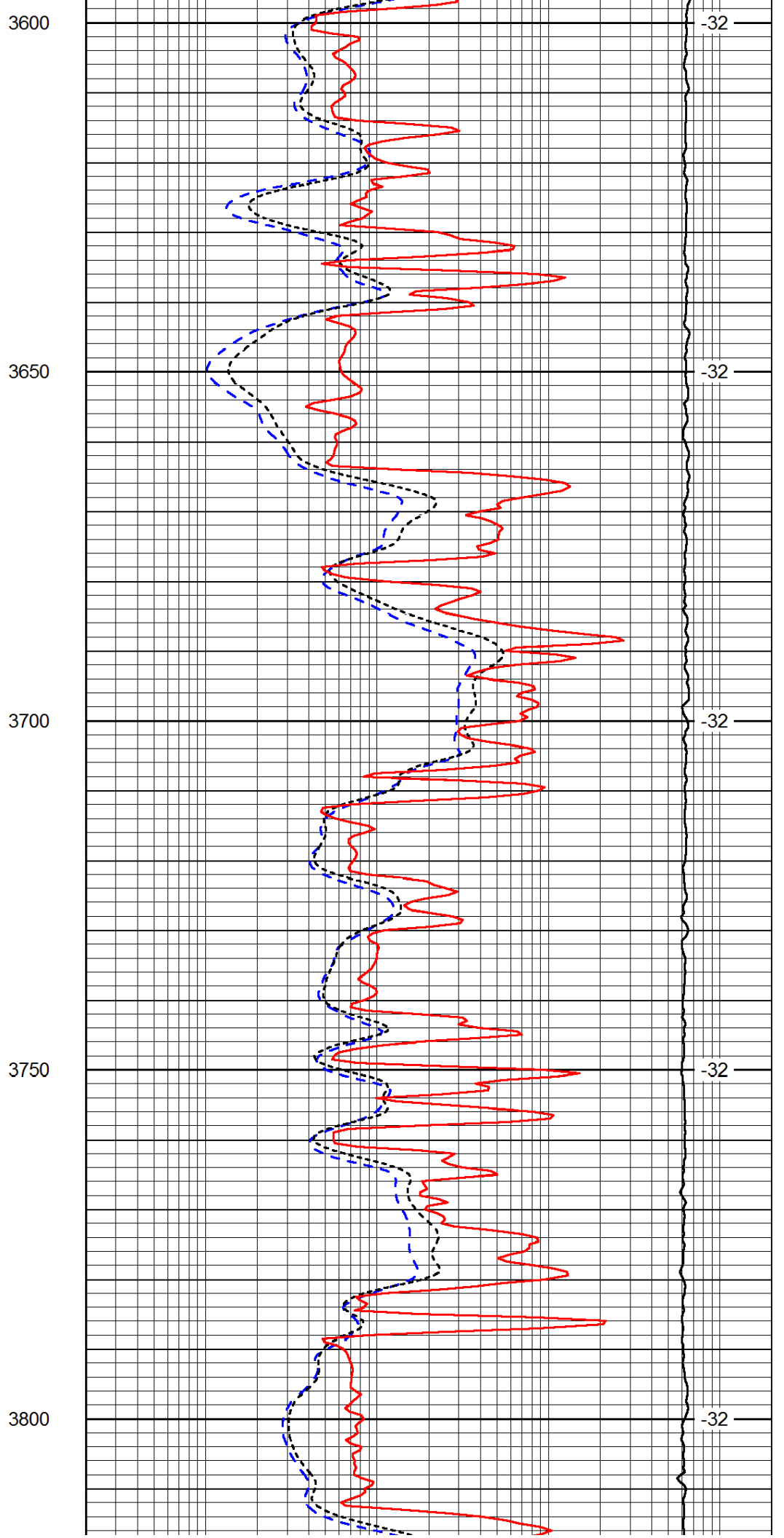
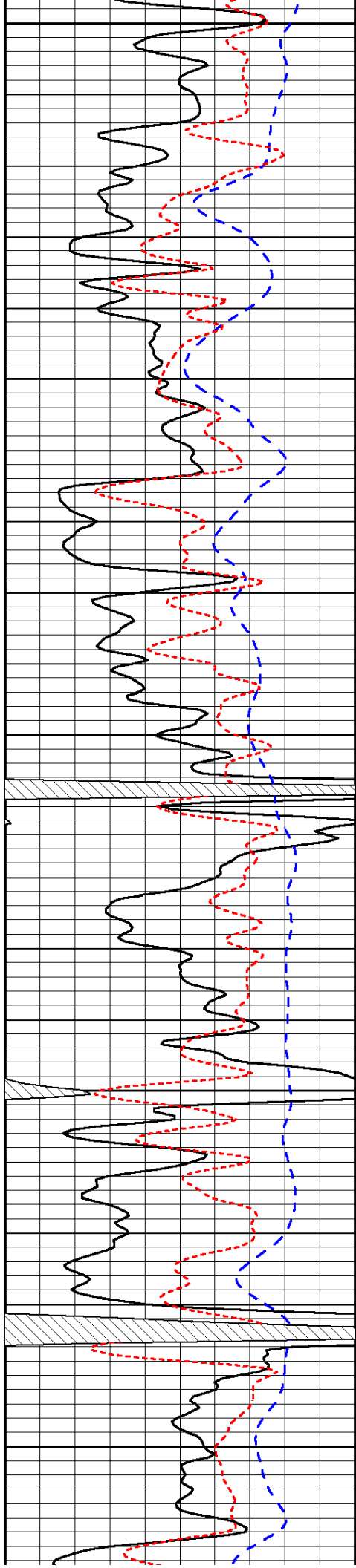


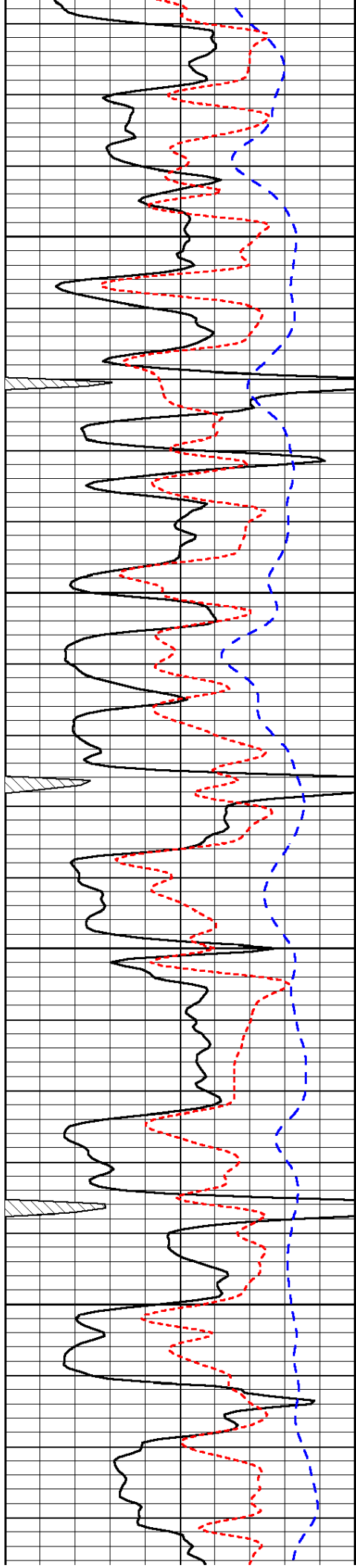
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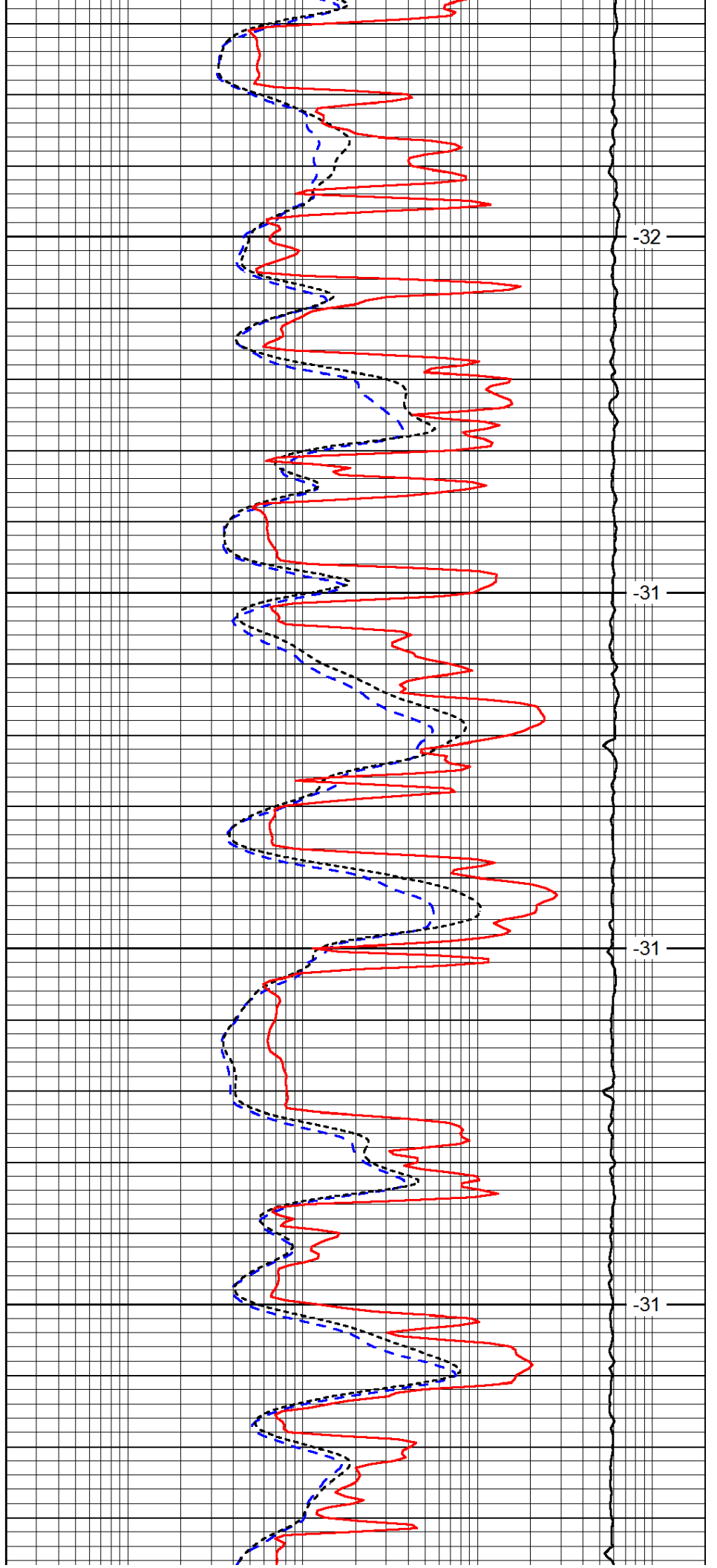


3850

3900

3950

4000

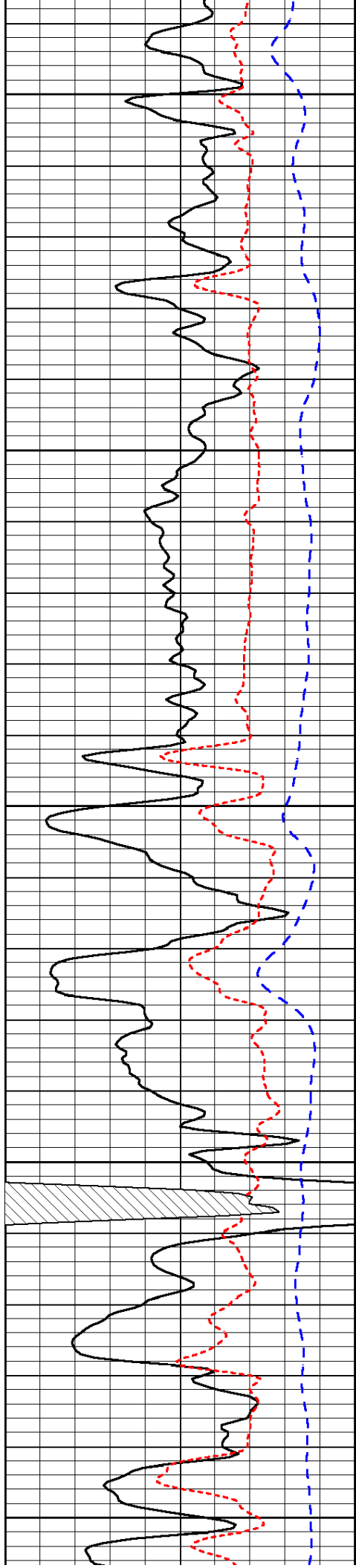


-32

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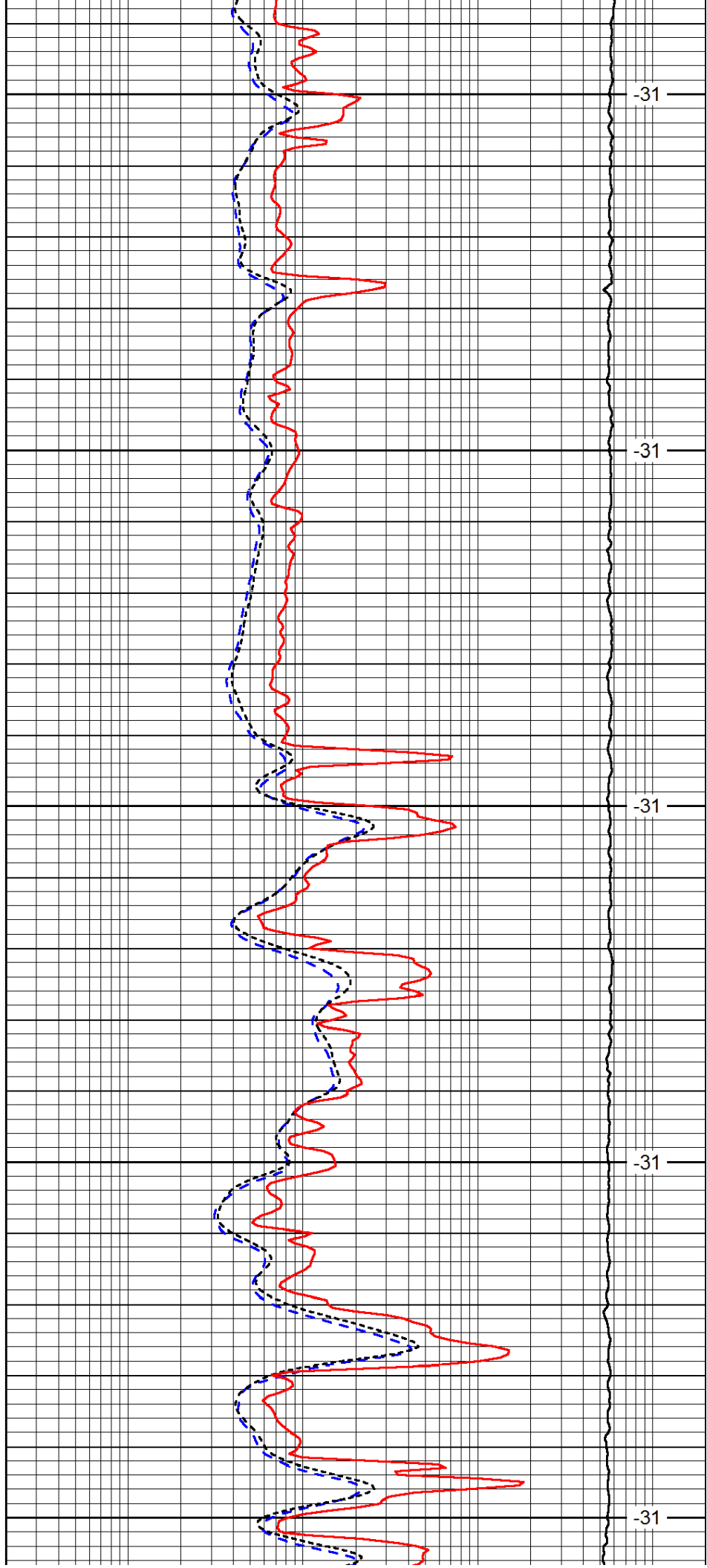
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4100

4150

4200

4250



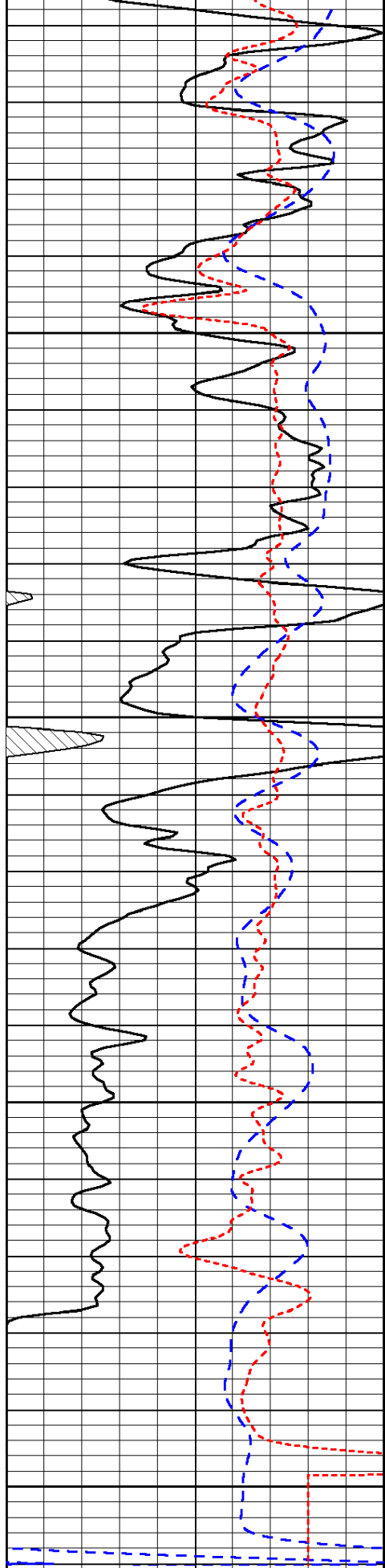
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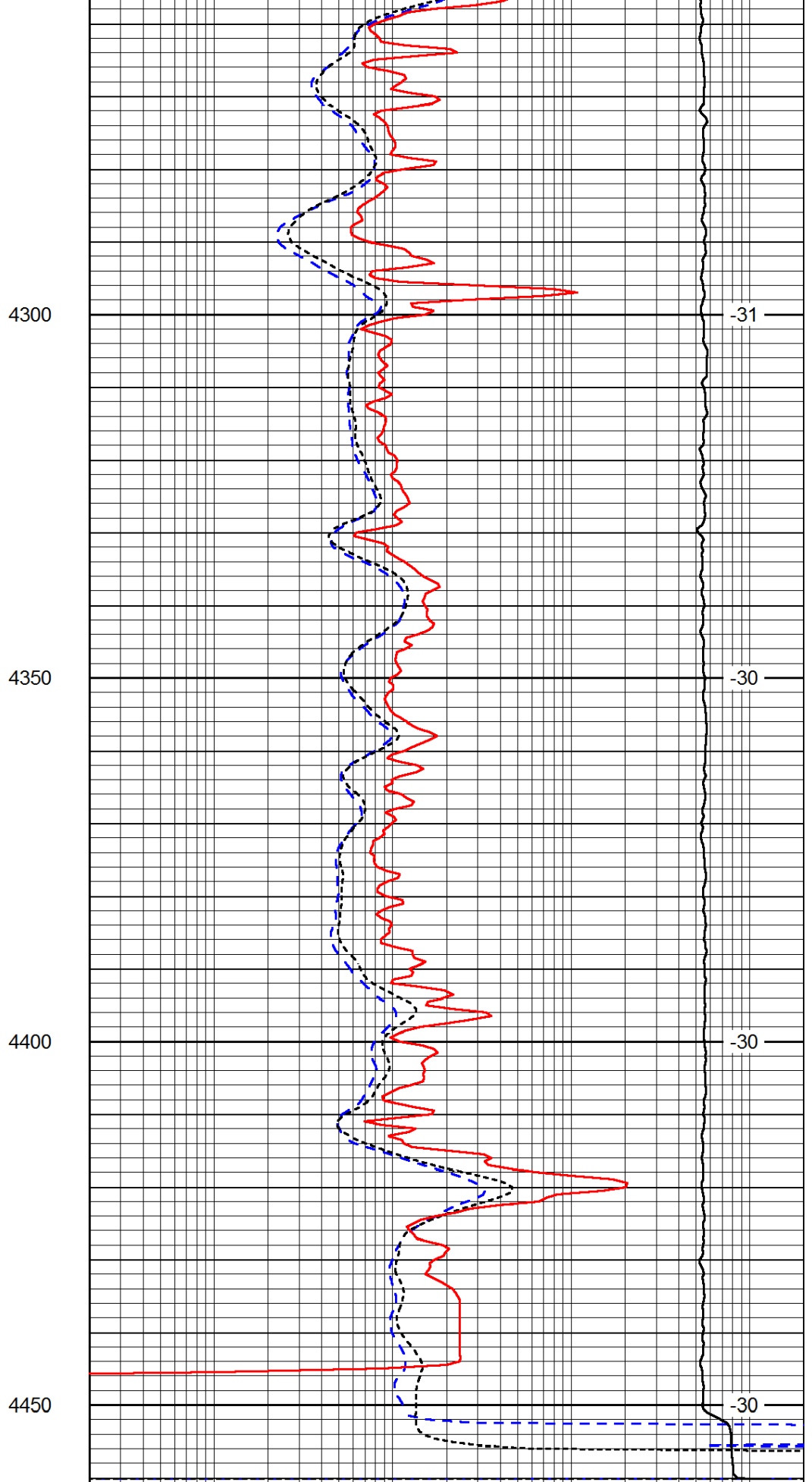
-31

-31

-31



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