



Dual Induction Log

Pioneer Energy Services

API No.

15-185-23,885-00-00

Company H&D Exploration, LLC

Well Kirkpatrick No. 1

Field Halley East

County Stafford State Kansas

Location

N2-SE-NE-SE
1722' FSL & 330' FEL

Sec: 34 Twp: 24S Rge: 13W

Other Services
CNL/CDL
MEL/BHCS

Permanent Datum Ground Level Elevation 1923
Log Measured From Kelly Bushing 9 Ft. Above Perm. Datum
Drilling Measured From Kelly Bushing

K.B. 1932
D.F.
G.L. 1923

Date 8/27/14

Run Number One

Depth Driller 4258

Depth Logger 4258

Bottom Logged Interval 4257

Top Log Interval 750

Casing Driller 8.625 @ 768

Casing Logger 766

Bit Size 7.875

Type Fluid in Hole Chemical

Salinity, ppm CL 7.500

Density / Viscosity 9.7 51

pH / Fluid Loss 8.5 13.2

Source of Sample Flowline

Rm @ Meas. Temp .37 @ 72

Rmf @ Meas. Temp .28 @ 72

Rmc @ Meas. Temp .50 @ 72

Source of Rmf / Rmc Charts

Rm @ BHT .22 @ 119

Operating Rig Time 4 Hours

Max Rec. Temp. F 119

Equipment Number 91

Location Hays

Recorded By J. Henrickson

Witnessed By Josh Austin

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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

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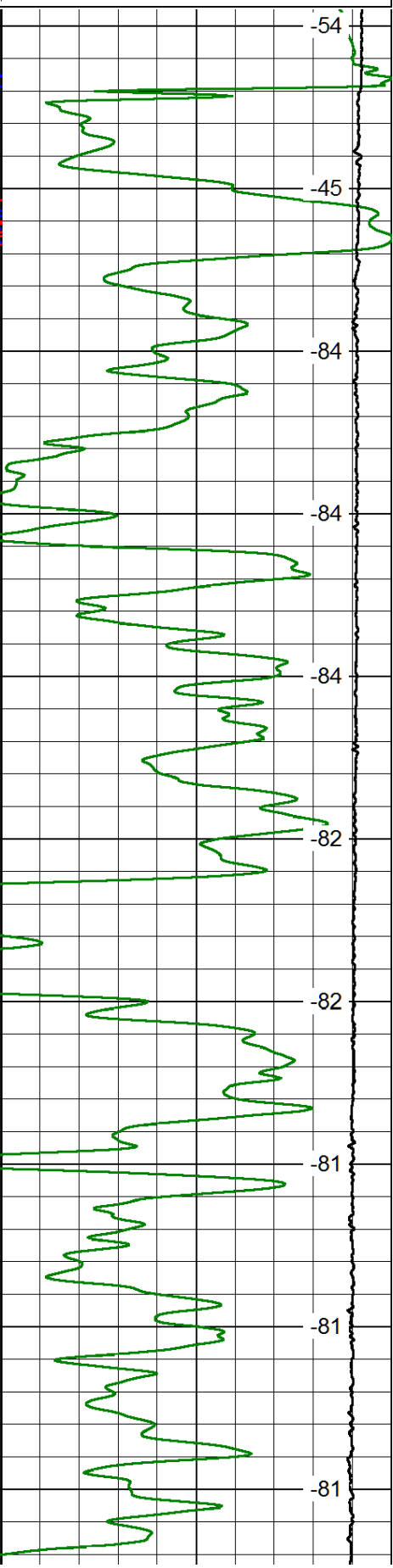
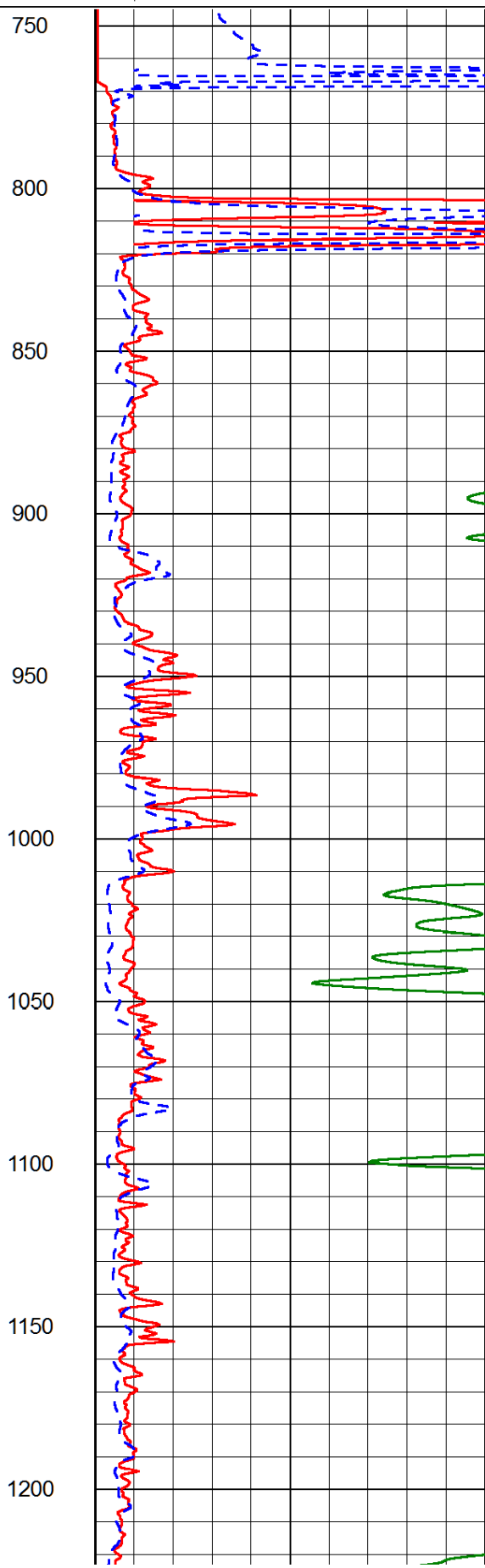
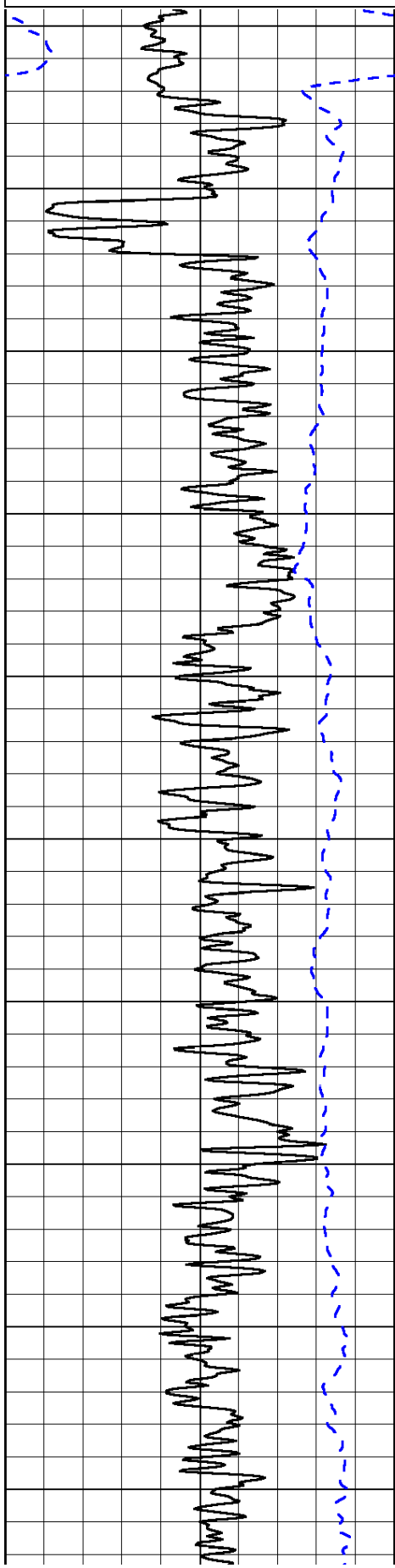
St. John Kansas
South to 30 Rd, 1 East, 1/4 North, West Into

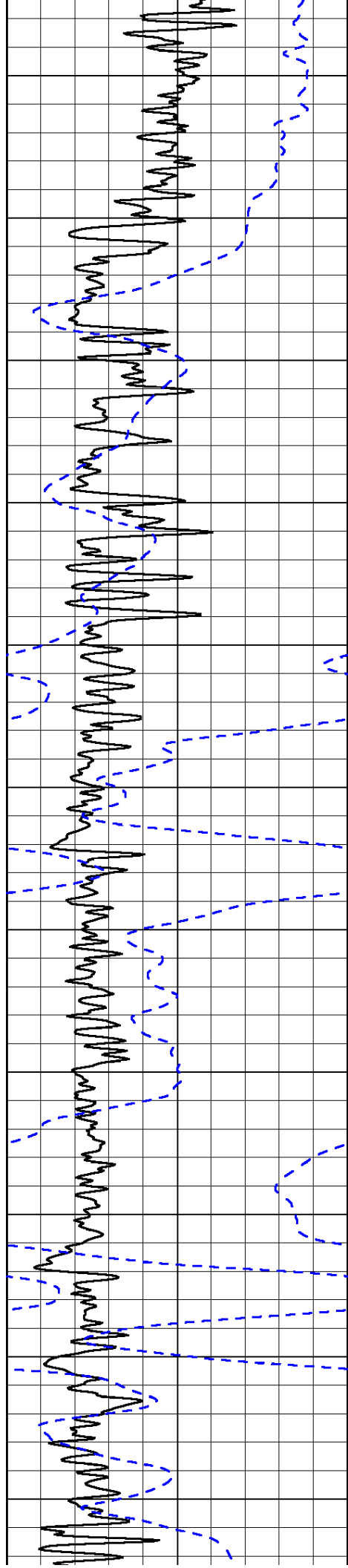
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Dataset Pathname: DIL/hdstk
Presentation Format: dil2in
Dataset Creation: Wed Aug 27 12:35:56 2014
Charted by: Depth in Feet scaled 1:600

0	Gamma Ray	150
-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

LSPD





1250

1300

1350

1400

1450

1500

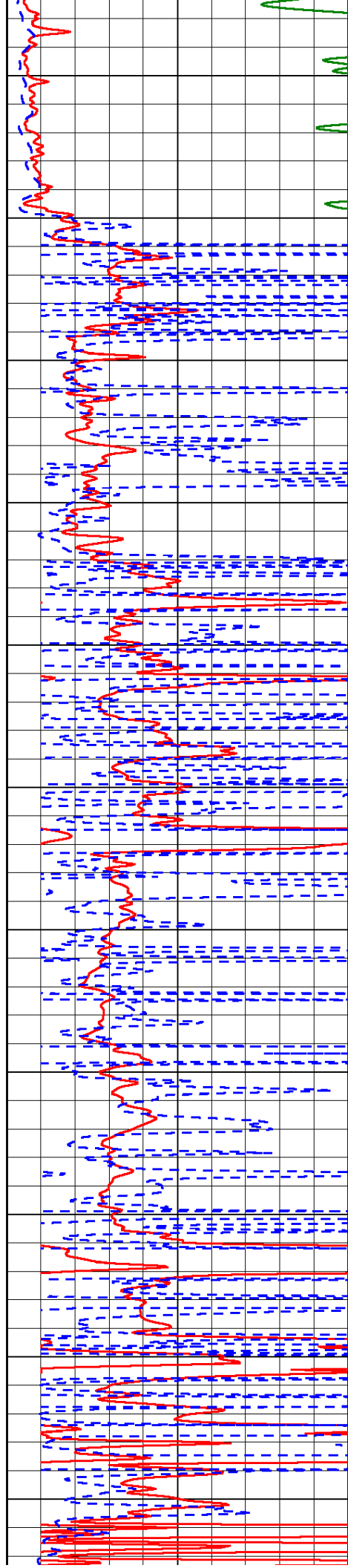
1550

1600

1650

1700

1750



-81

-81

-82

-81

-81

-81

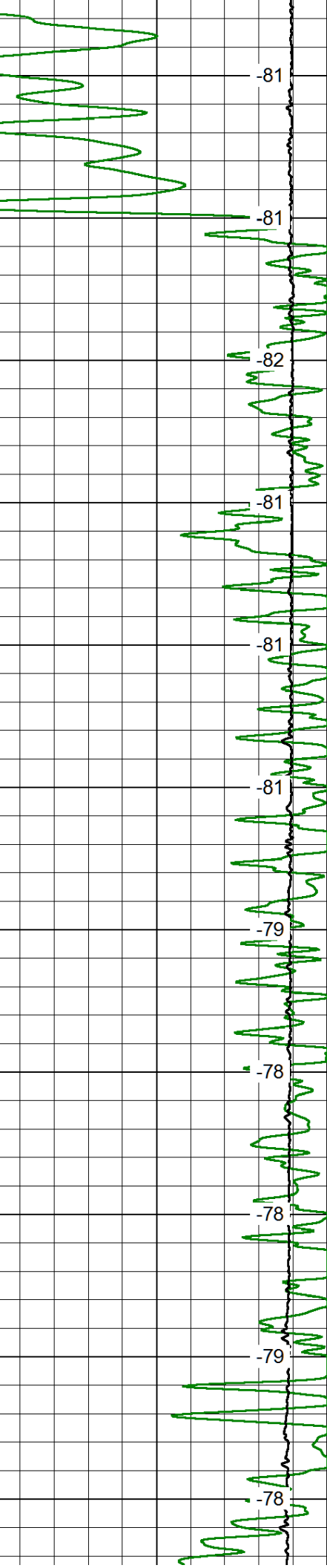
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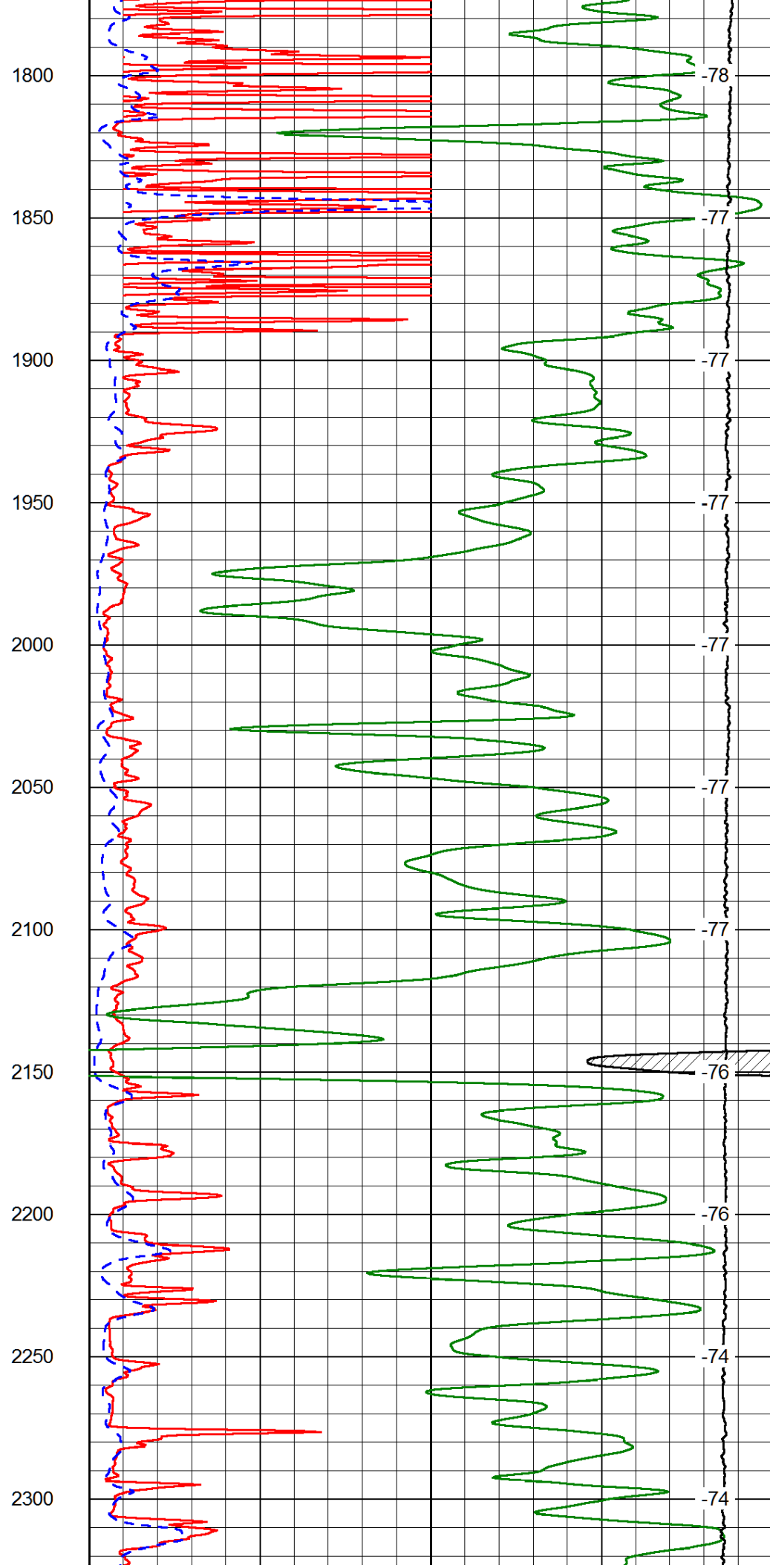
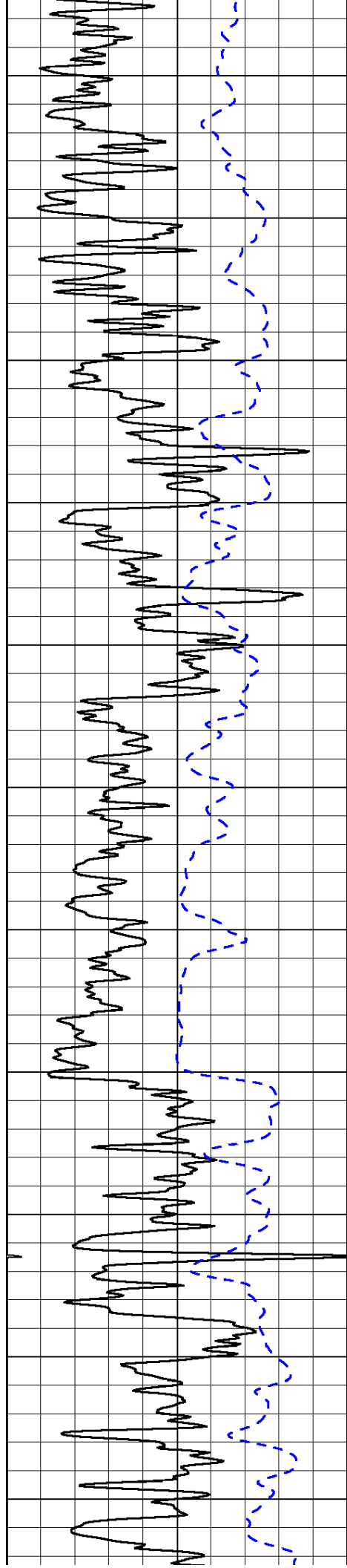
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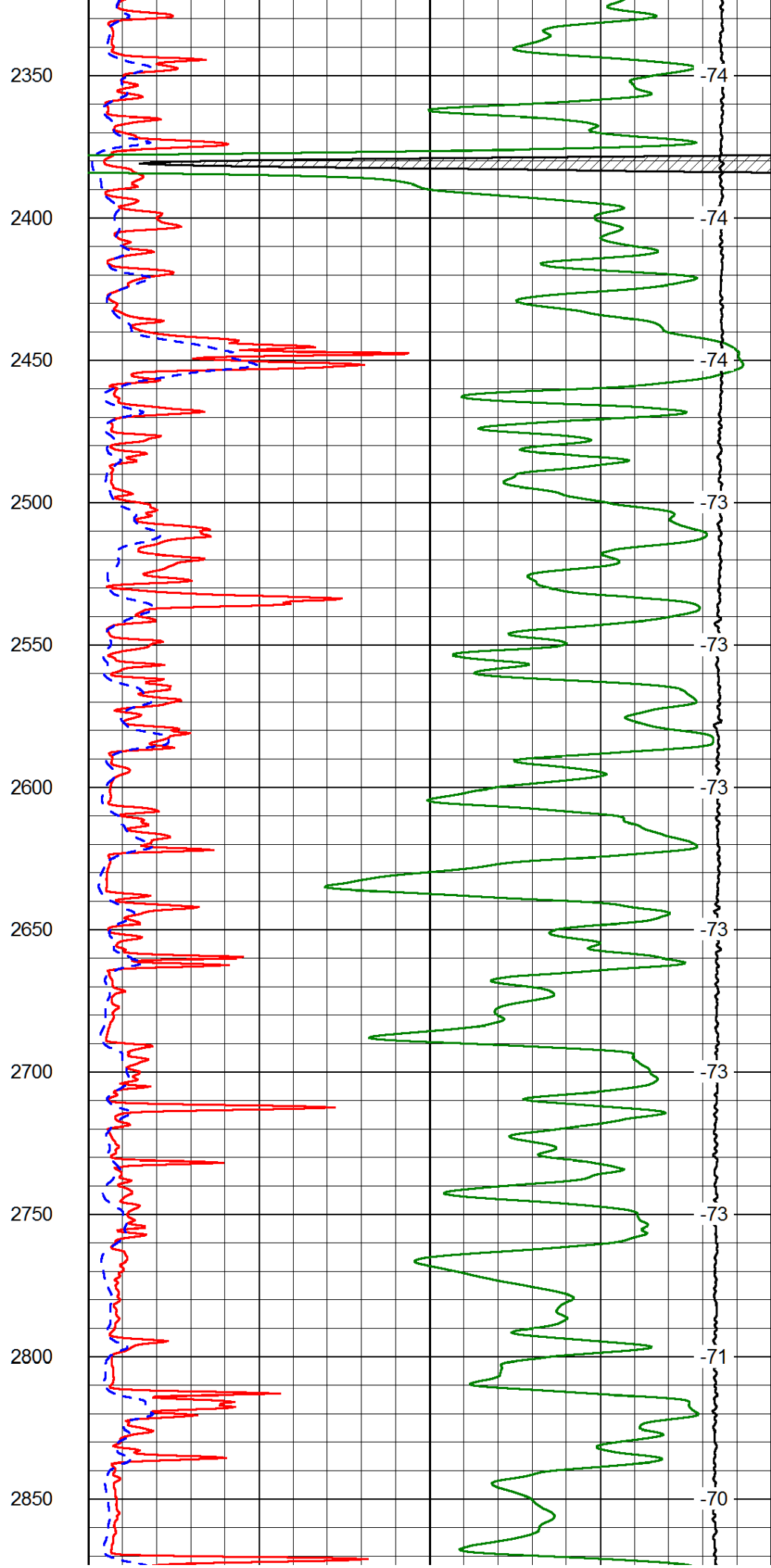
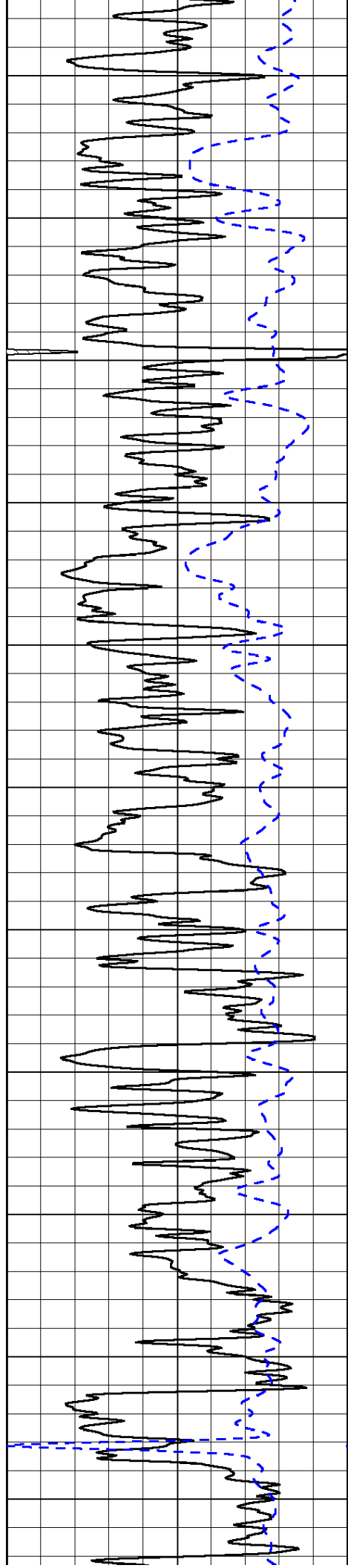
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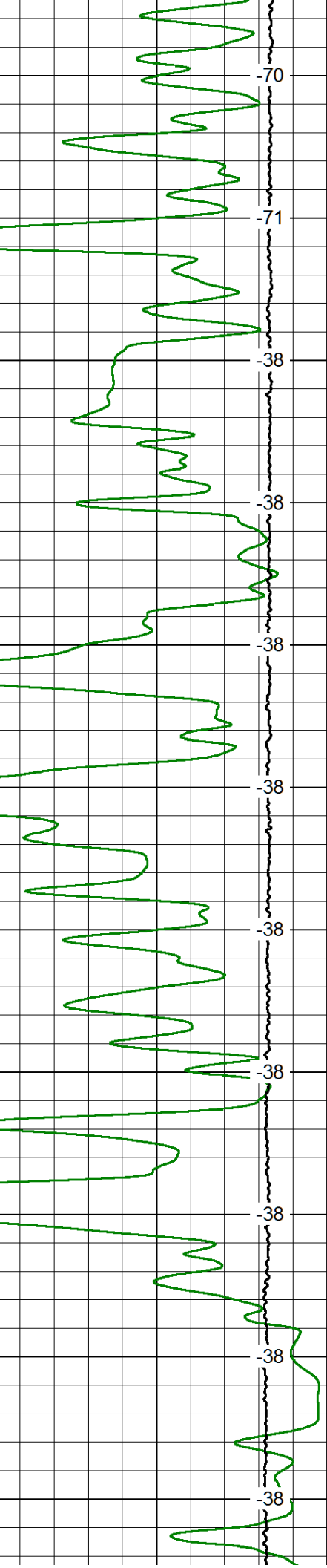
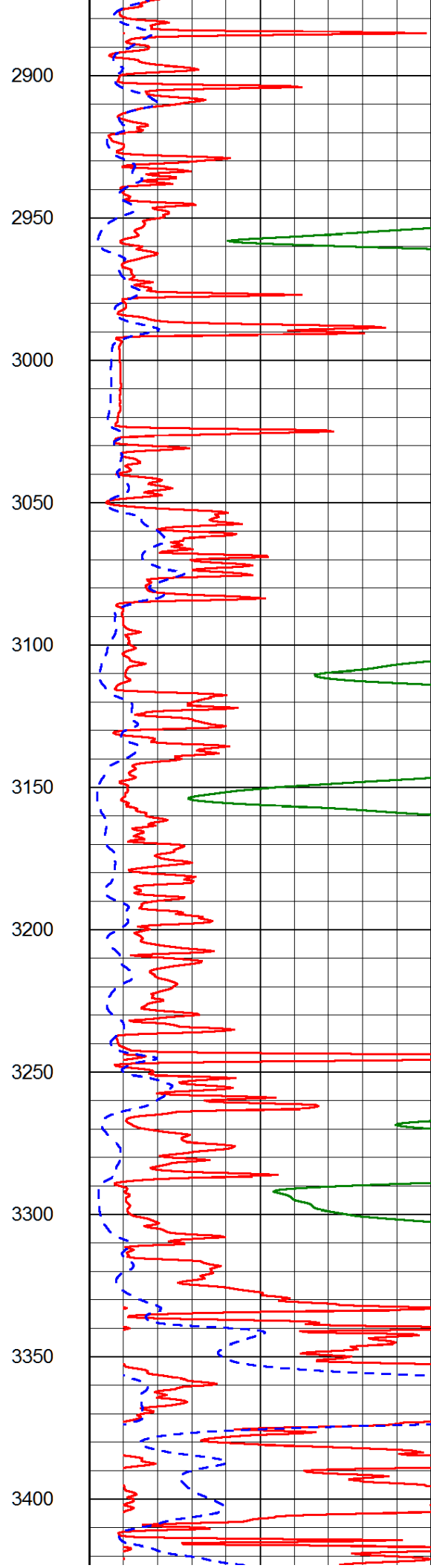
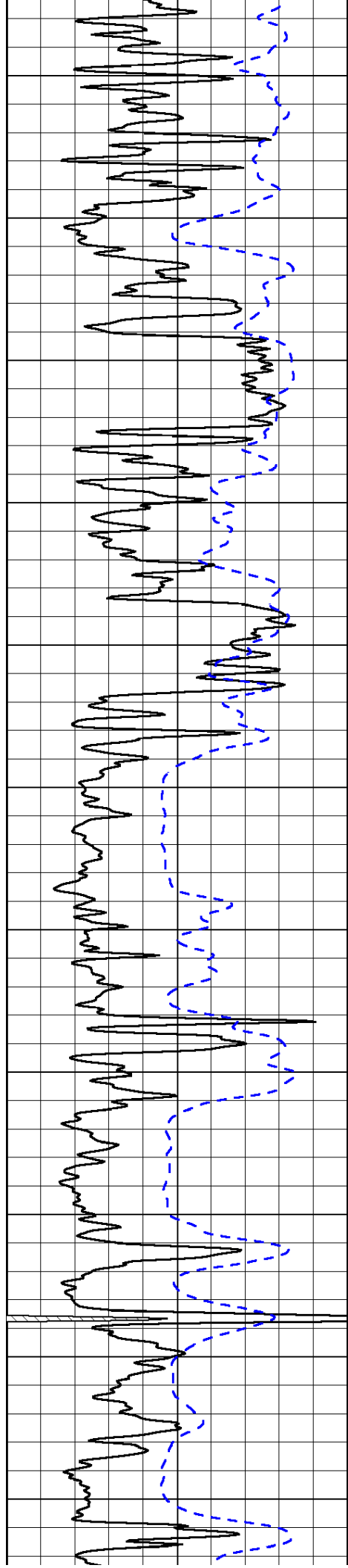
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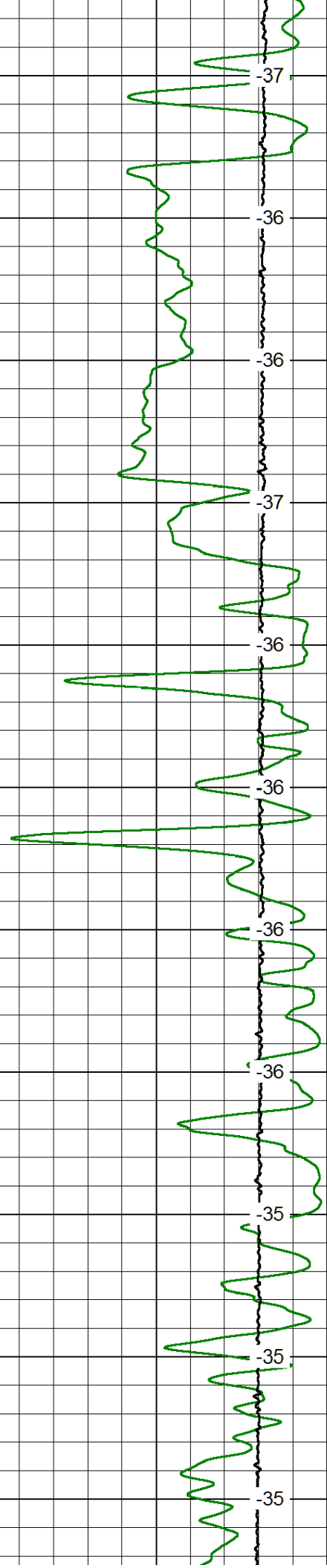
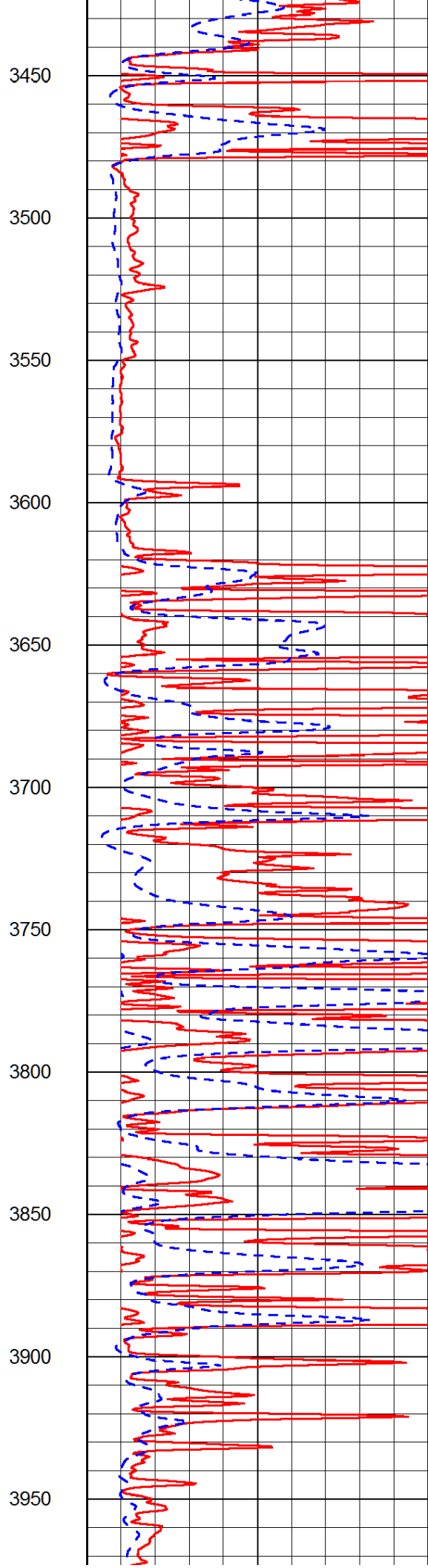
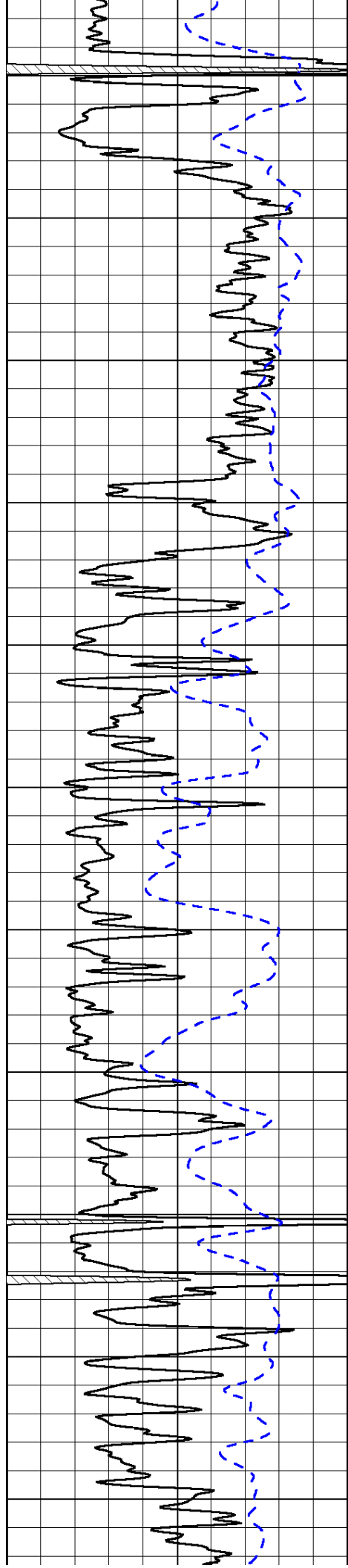
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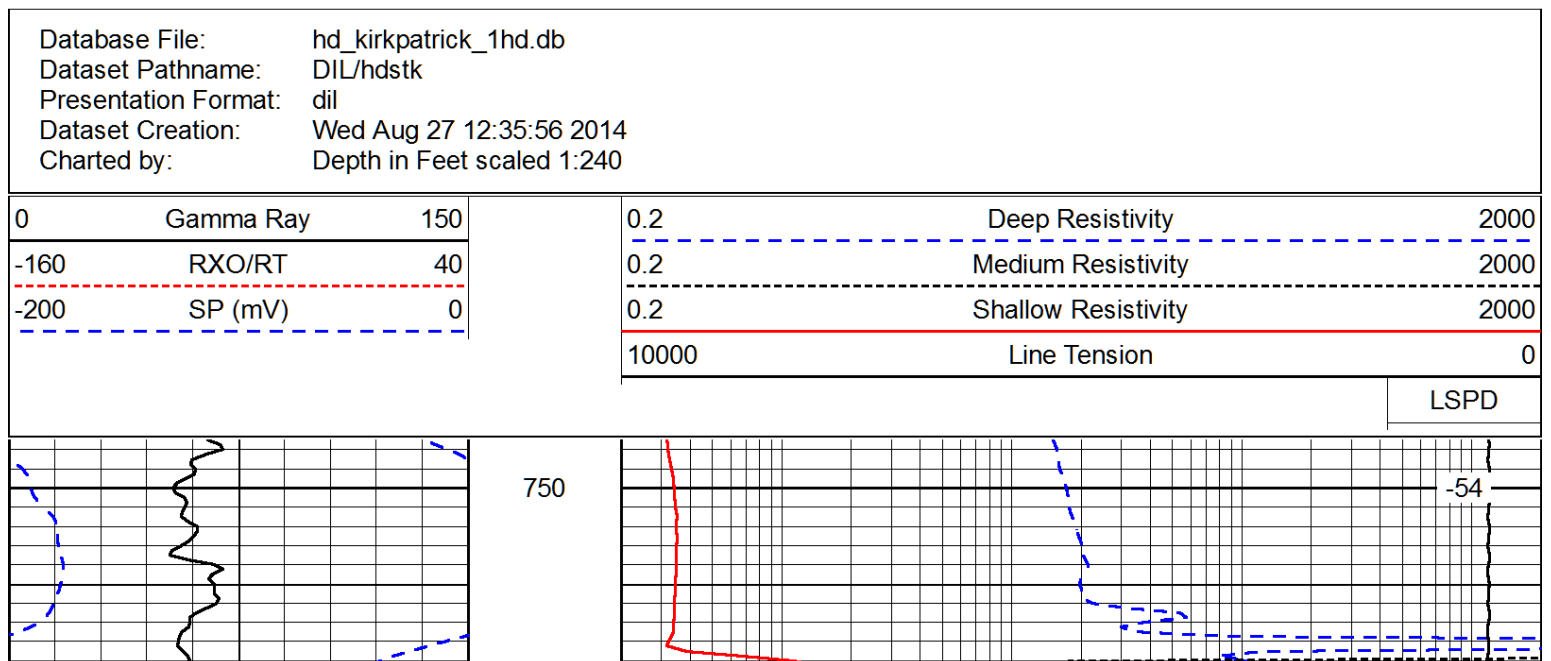
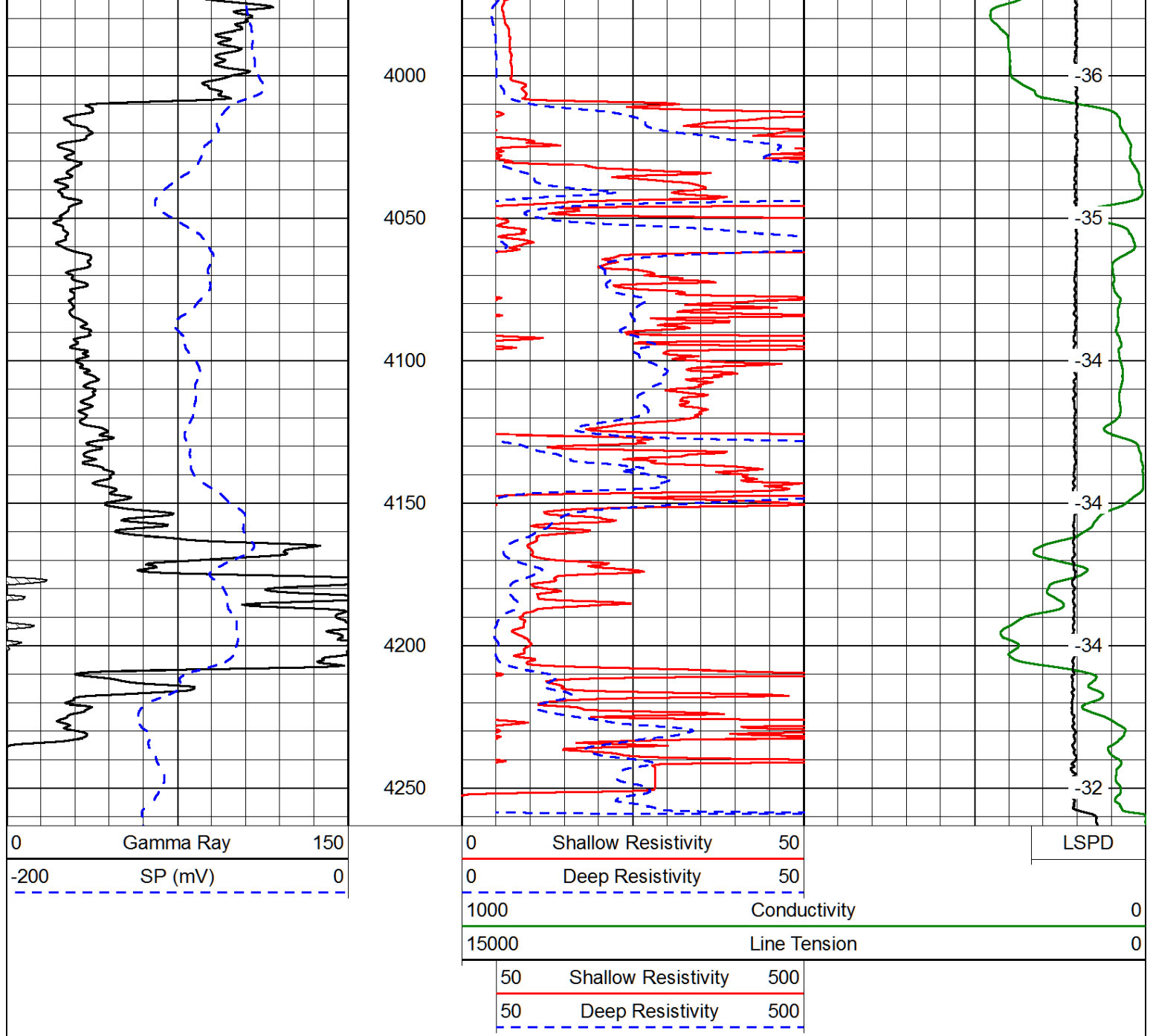


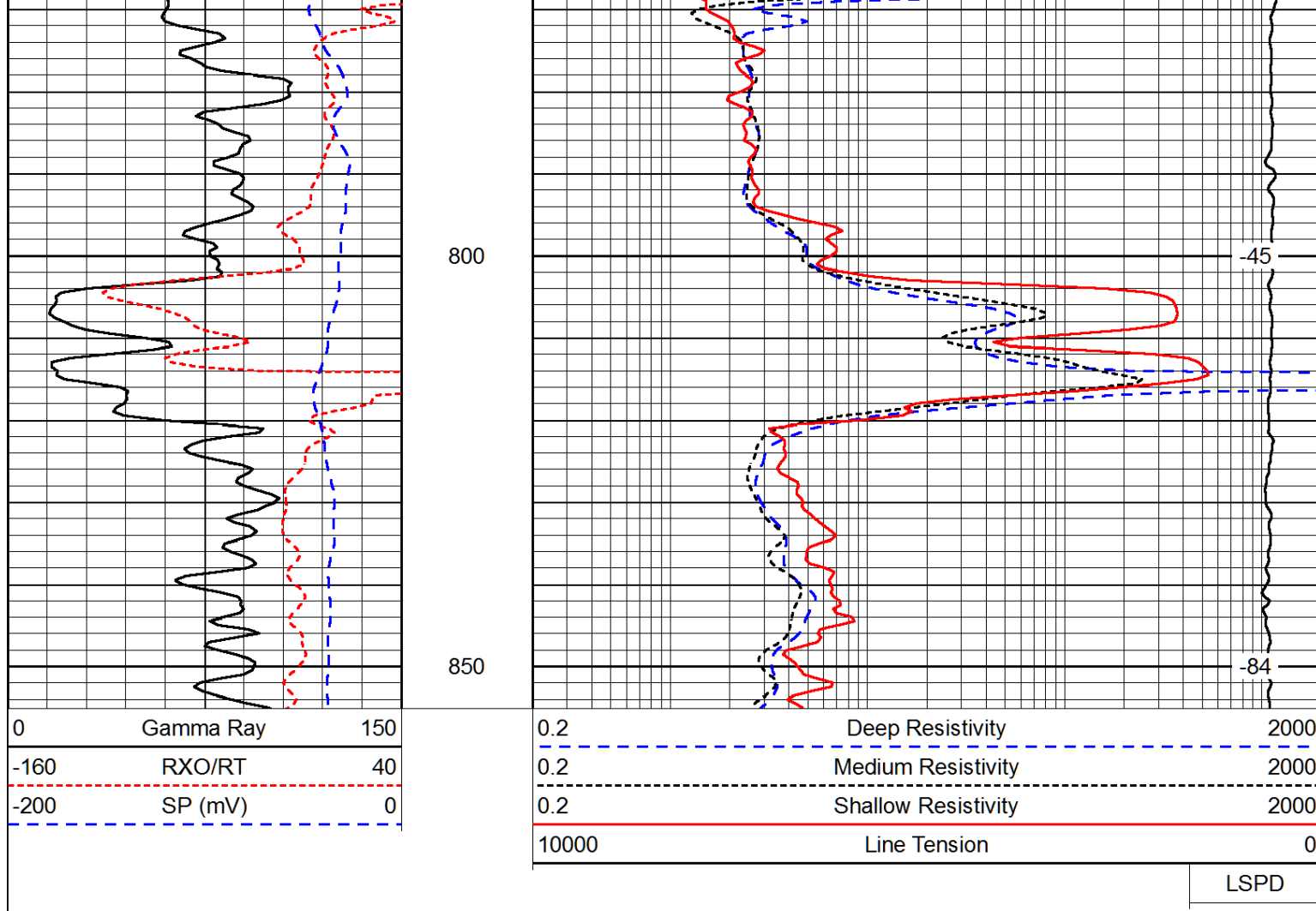




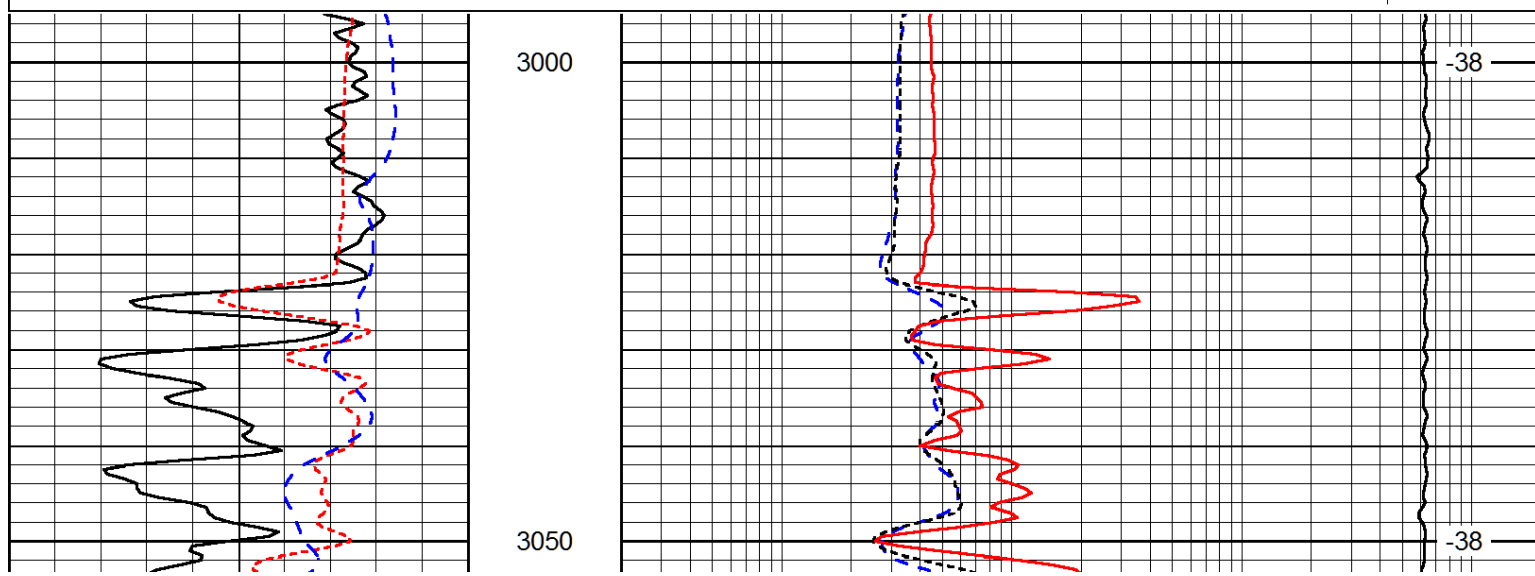
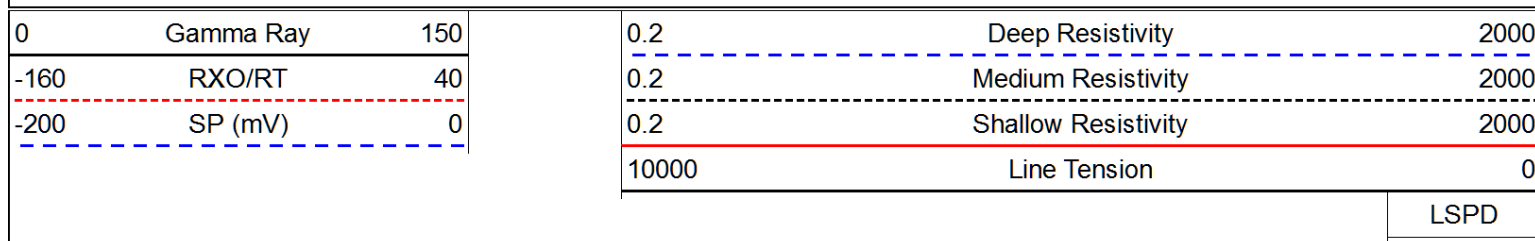


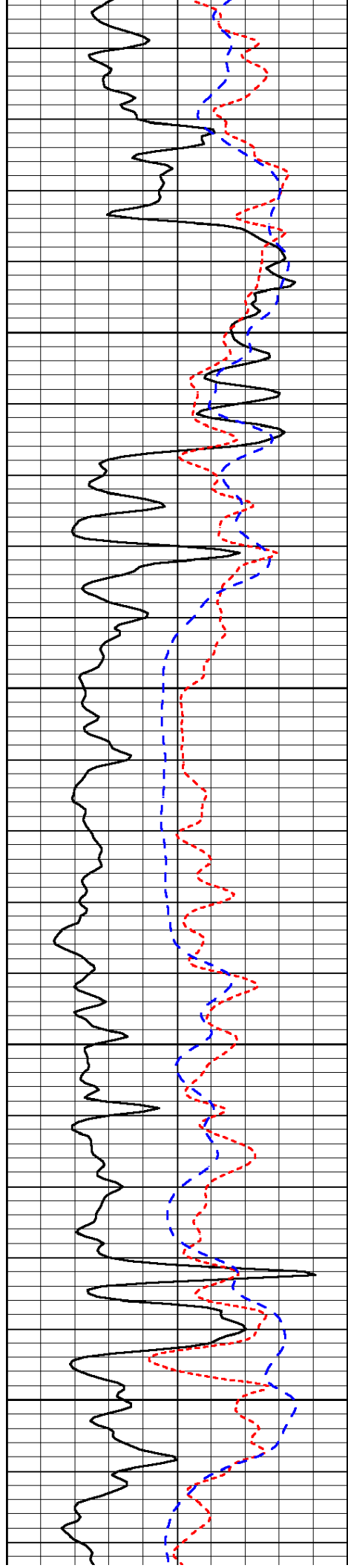






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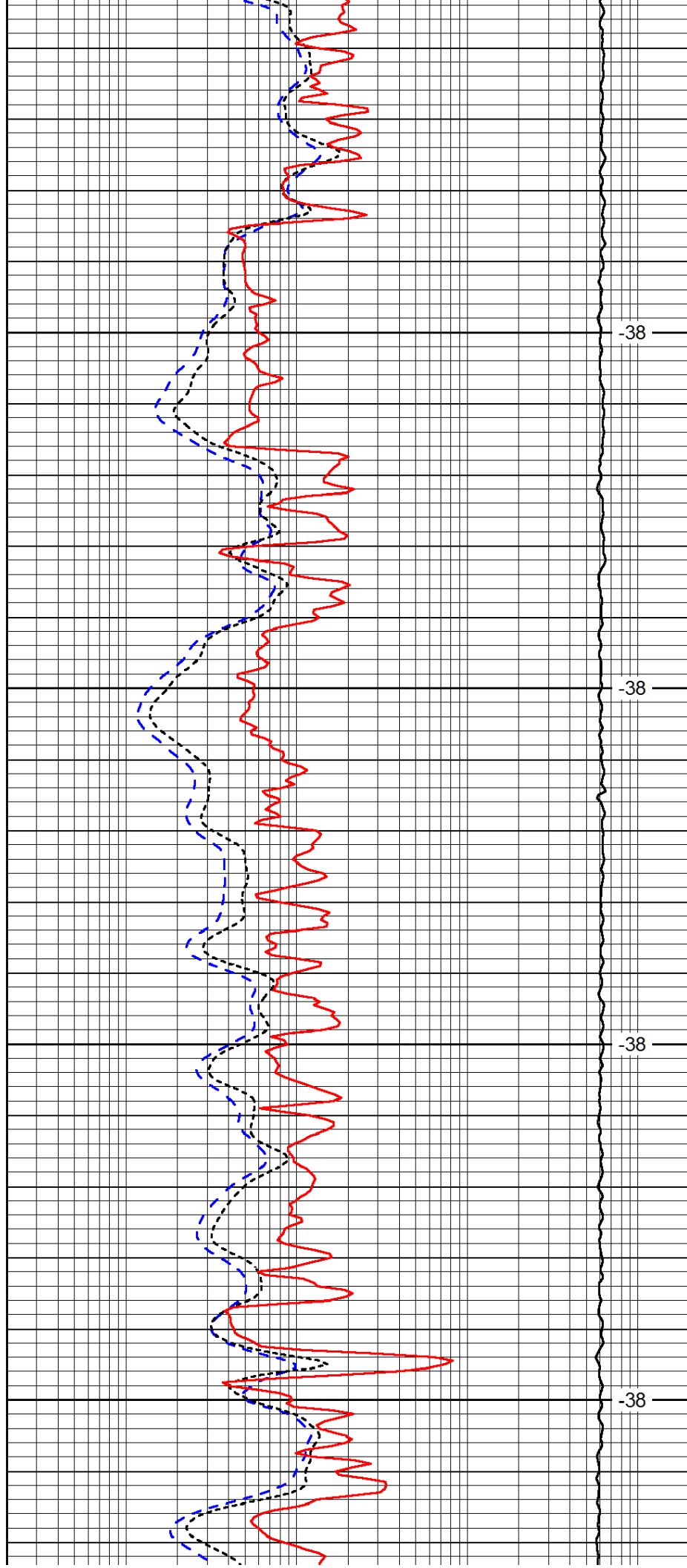


3100

3150

3200

3250

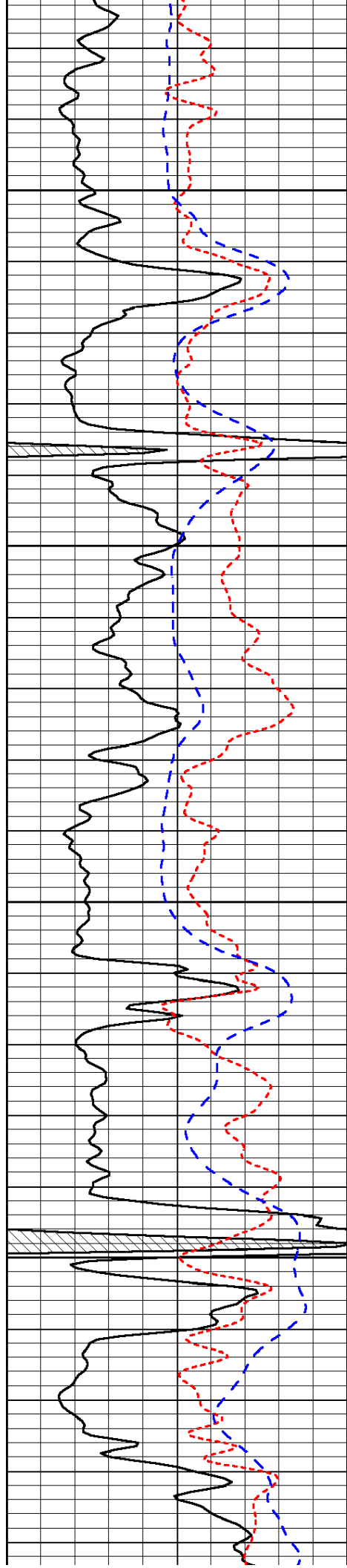


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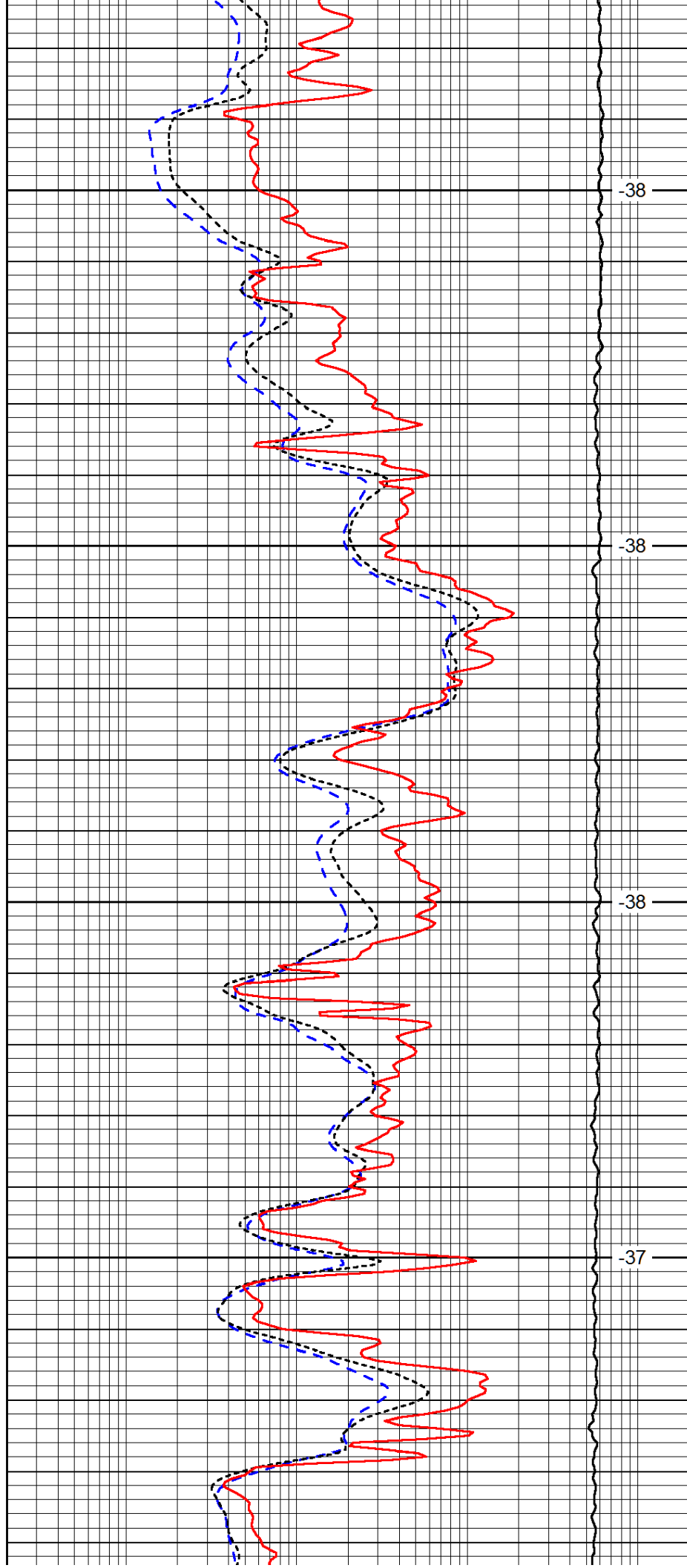


3300

3350

3400

3450

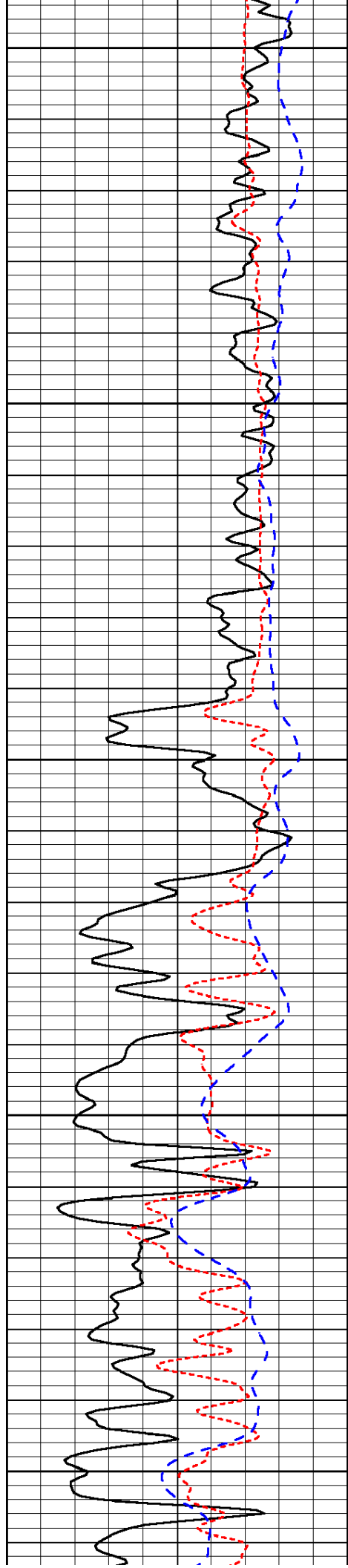


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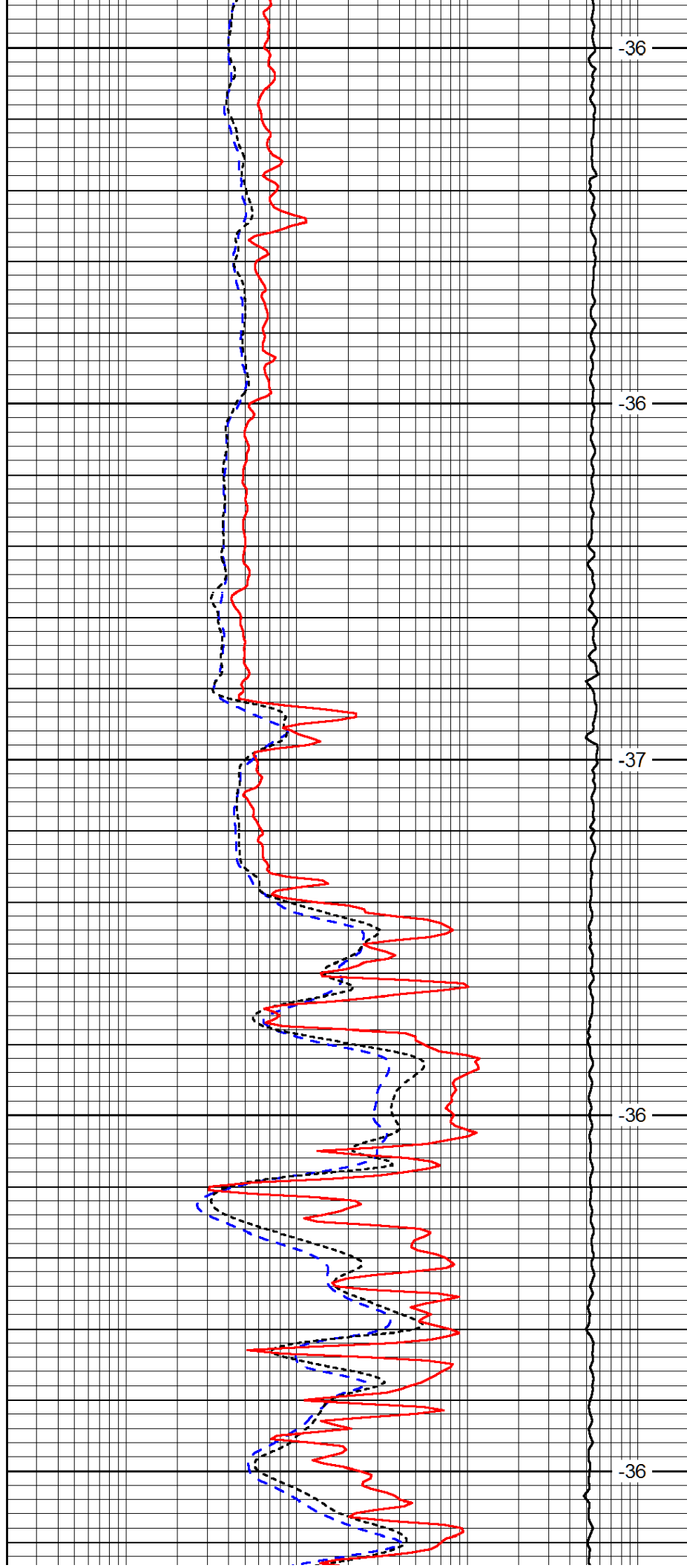
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3550

3600

3650

3700



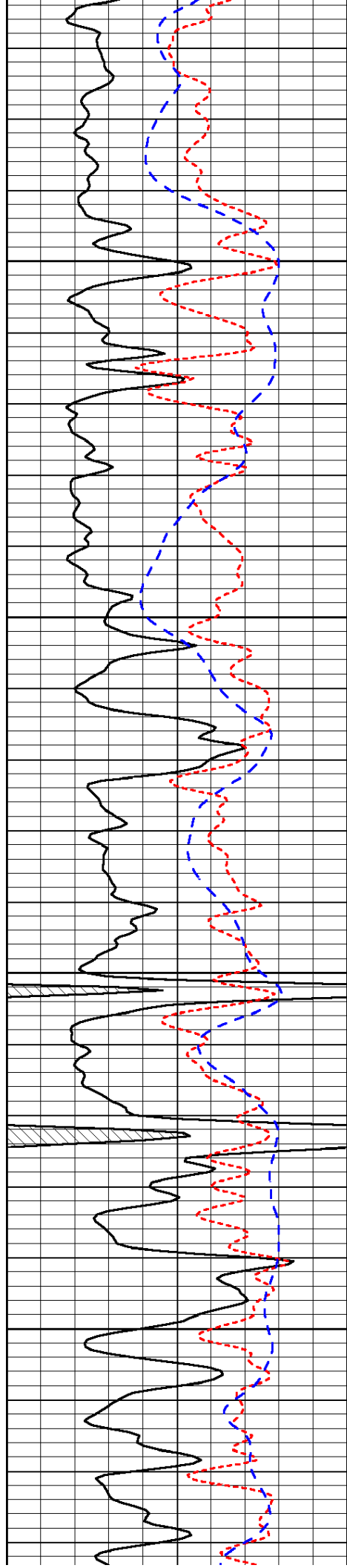
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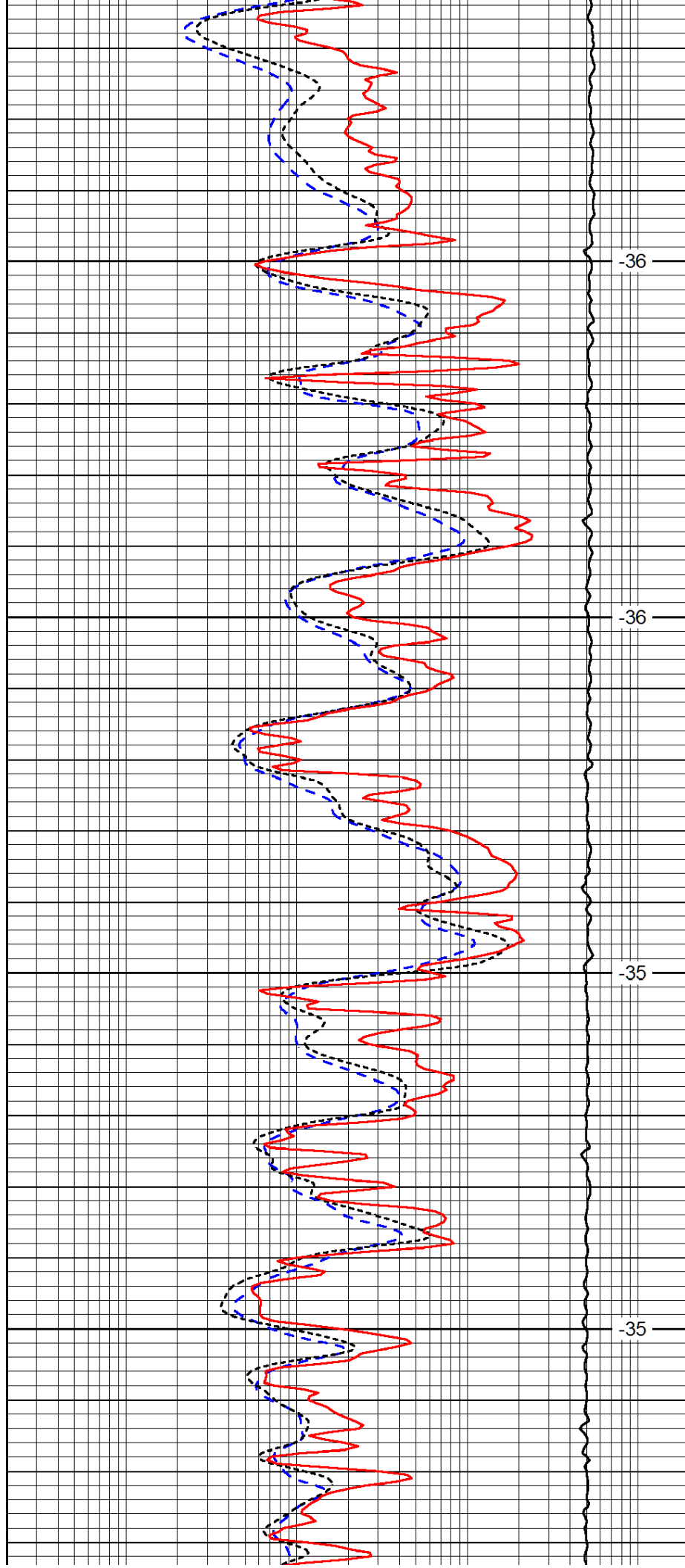


3750

3800

3850

3900

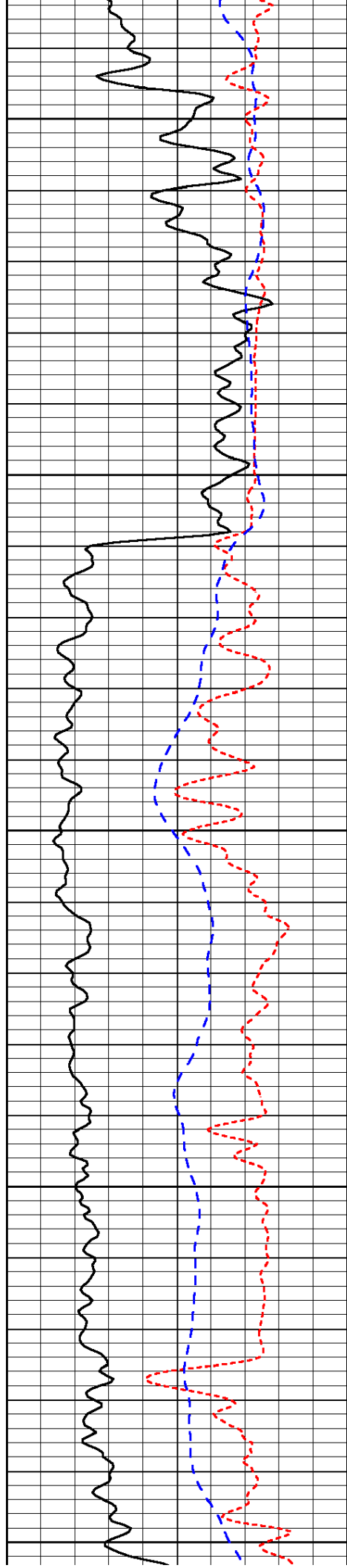


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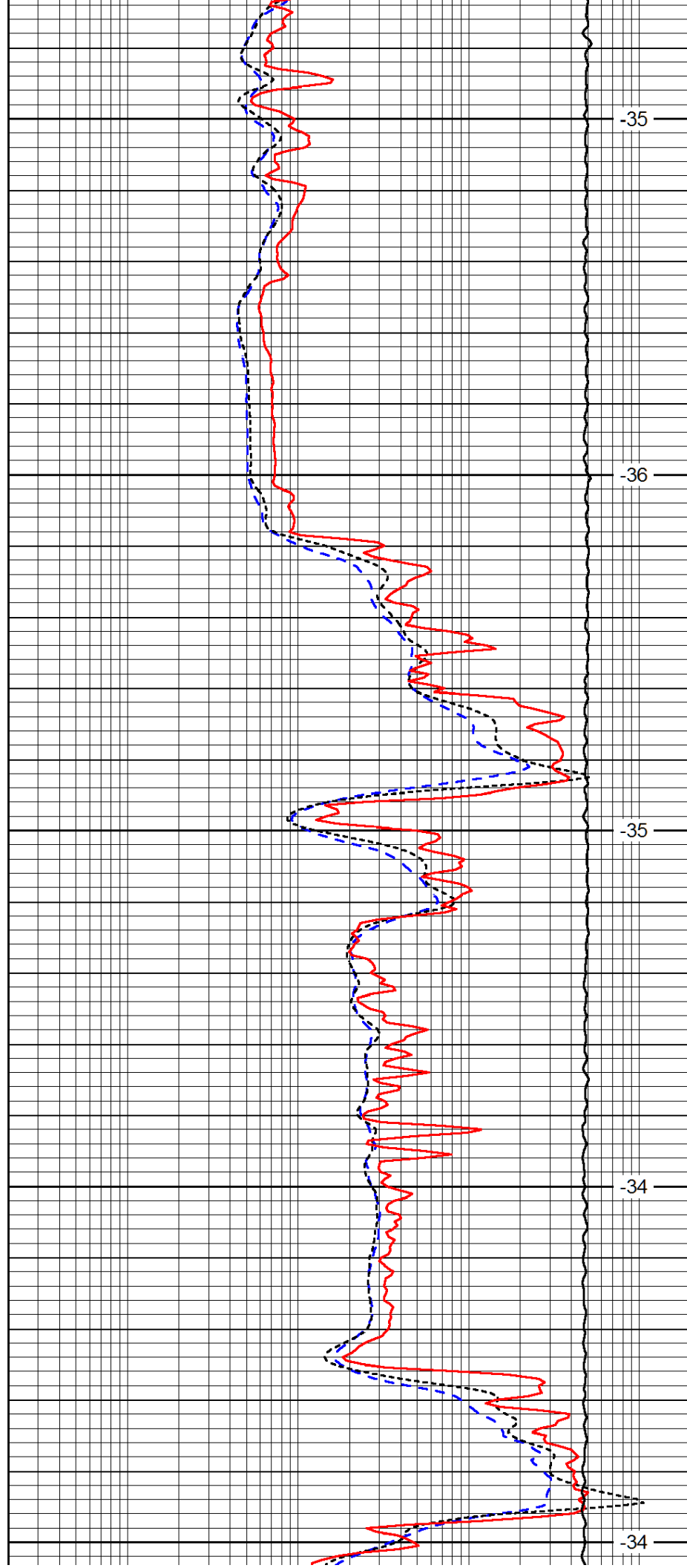
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4000

4050

4100

4150



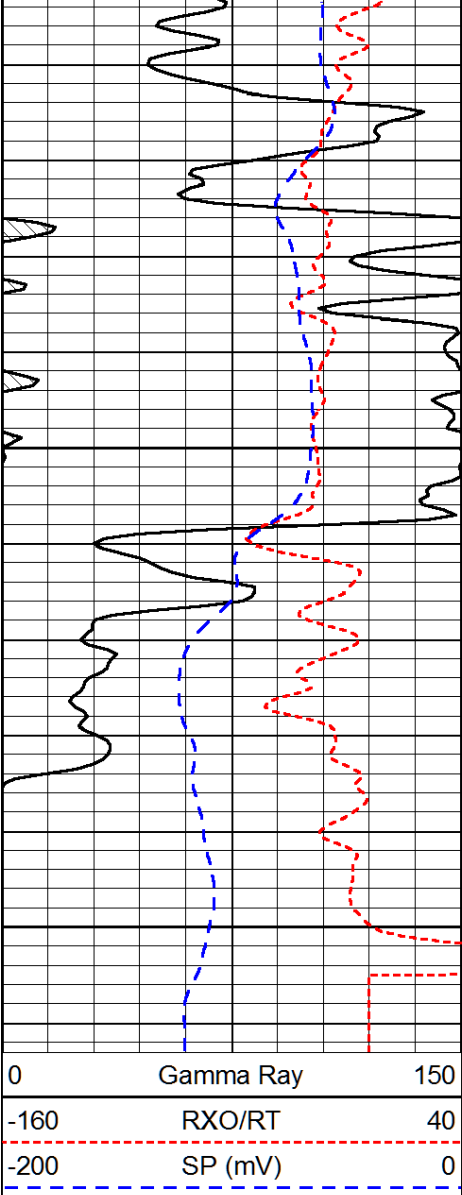
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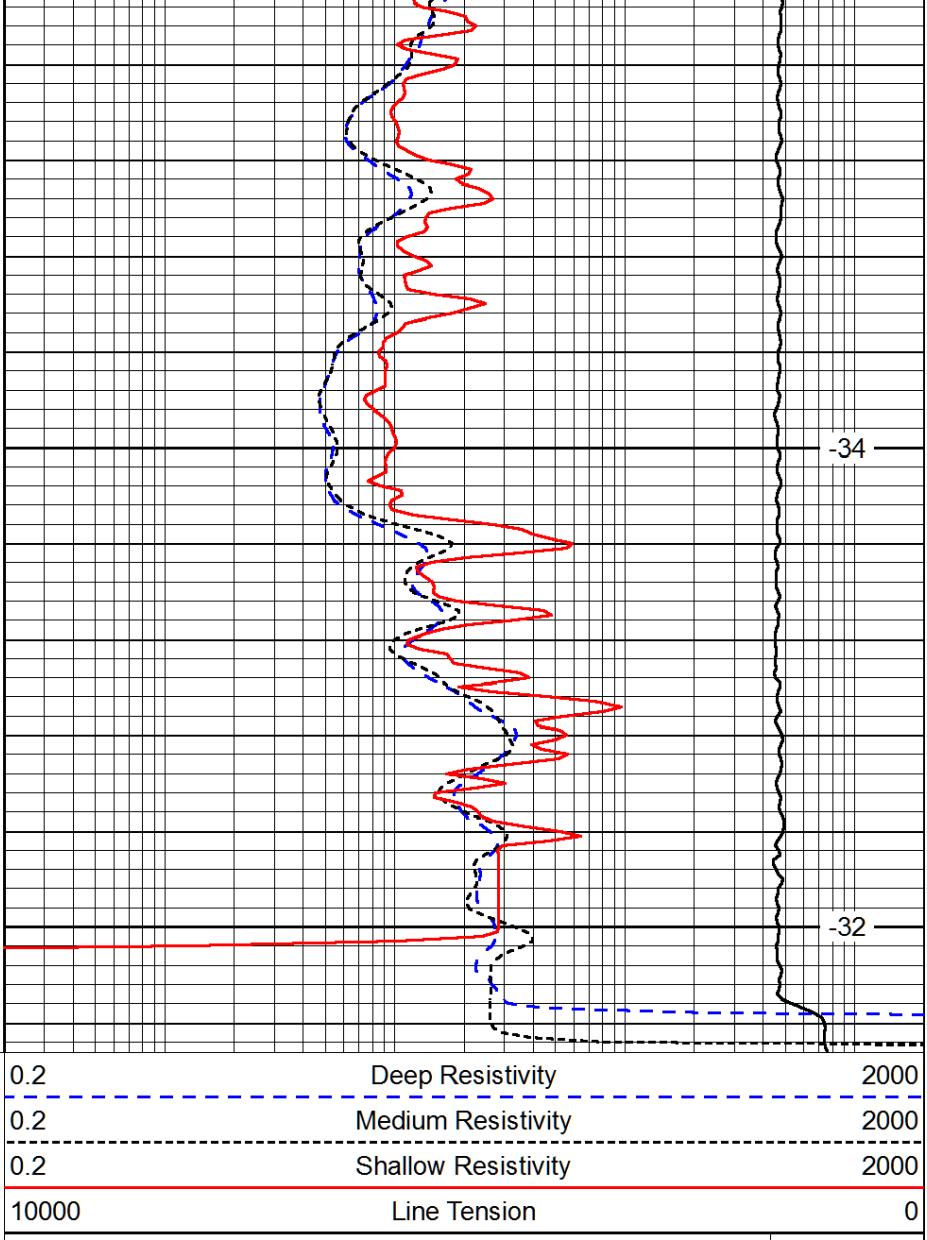
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4200

4250



-34

-32

LSPD