



Pioneer Energy Services

Dual Induction Log

15-115-21,435-00-00

API No.

Company Range Oil Company, Inc.

Well Savage 'A' #1

Field Wildcat

County Marion State

Kansas

Location

NW/4
1,080' FNL & 2,150' FWL

Other Services
CNL/CDL
BHCS

Sec: 22 Twp: 21 S Rge: 4 E

Elevation

K.B. 1304
D.F. 1294
G.L. 1294

Permanent Datum Ground Level Elevation 1294
Log Measured From Kelly Bushing 10 Ft. Above Perm. Datum
Drilling Measured From Kelly Bushing

Date 11/29/2012

Run Number One

Depth Driller 2410

Depth Logger 2410

Bottom Logged Interval 2409

Top Log Interval 00

Casing Driller 8.625 @ 212

Casing Logger 222

Bit Size 7.875

Type Fluid in Hole Chemical

Salinity,ppm CL 800

Density / Viscosity 9.4 53

pH / Fluid Loss 9.5 9.2

Source of Sample Flowline

Rm @ Meas. Temp .90 @ 65

Rmf @ Meas. Temp .68 @ 65

Rmc @ Meas. Temp 1.22 @ 65

Source of Rmf / Rmc Charts

Rm @ BHT .58 @ 100

Operating Rig Time 4 1/2 Hours

Max Rec. Temp. F 100

Equipment Number 15

Location Hays

Recorded By D. Martin

Witnessed By Ken Wallace

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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
 Peabody,KS
 6 1/2 E on Hwy 50 to Mile Marker 298,
 S Into(Cross RR Tracks, E)

Database File: c:\warrior\data\range_savage a #1\ranghd.db
 Dataset Pathname: dil/rangdil
 Presentation Format: dil2in
 Dataset Creation: Thu Nov 29 10:52:45 2012
 Charted by: Depth in Feet scaled 1:600

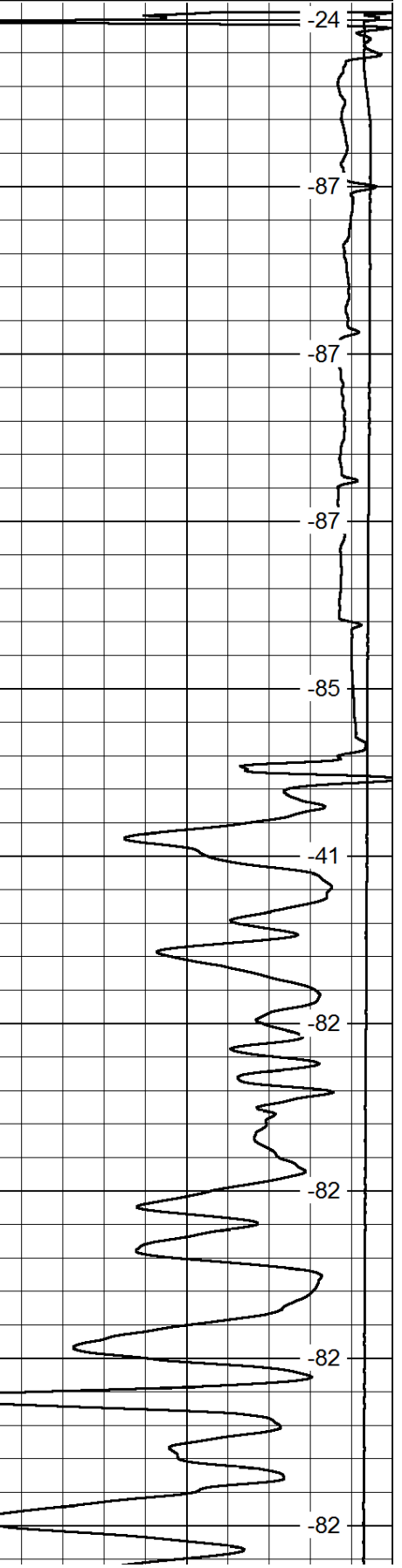
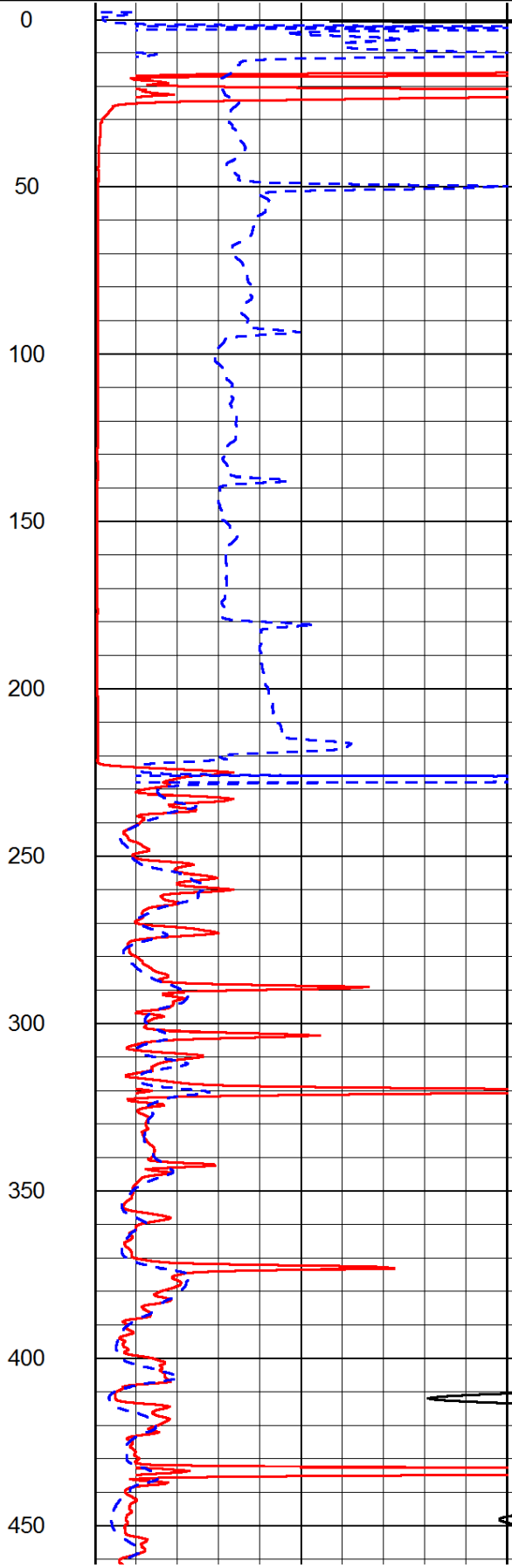
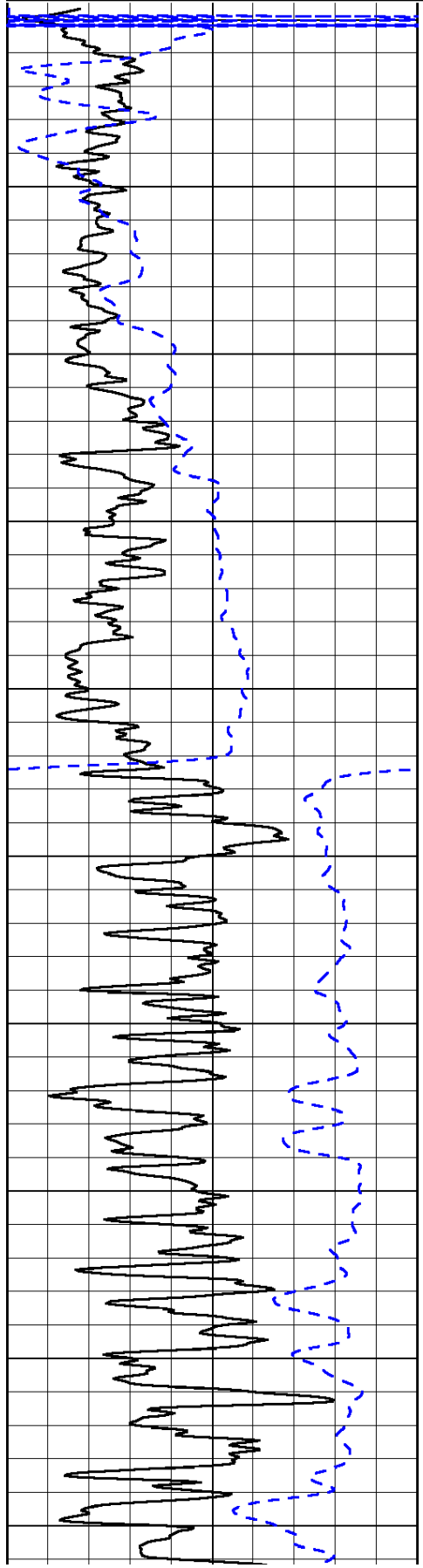
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-200	SP (mV)	0

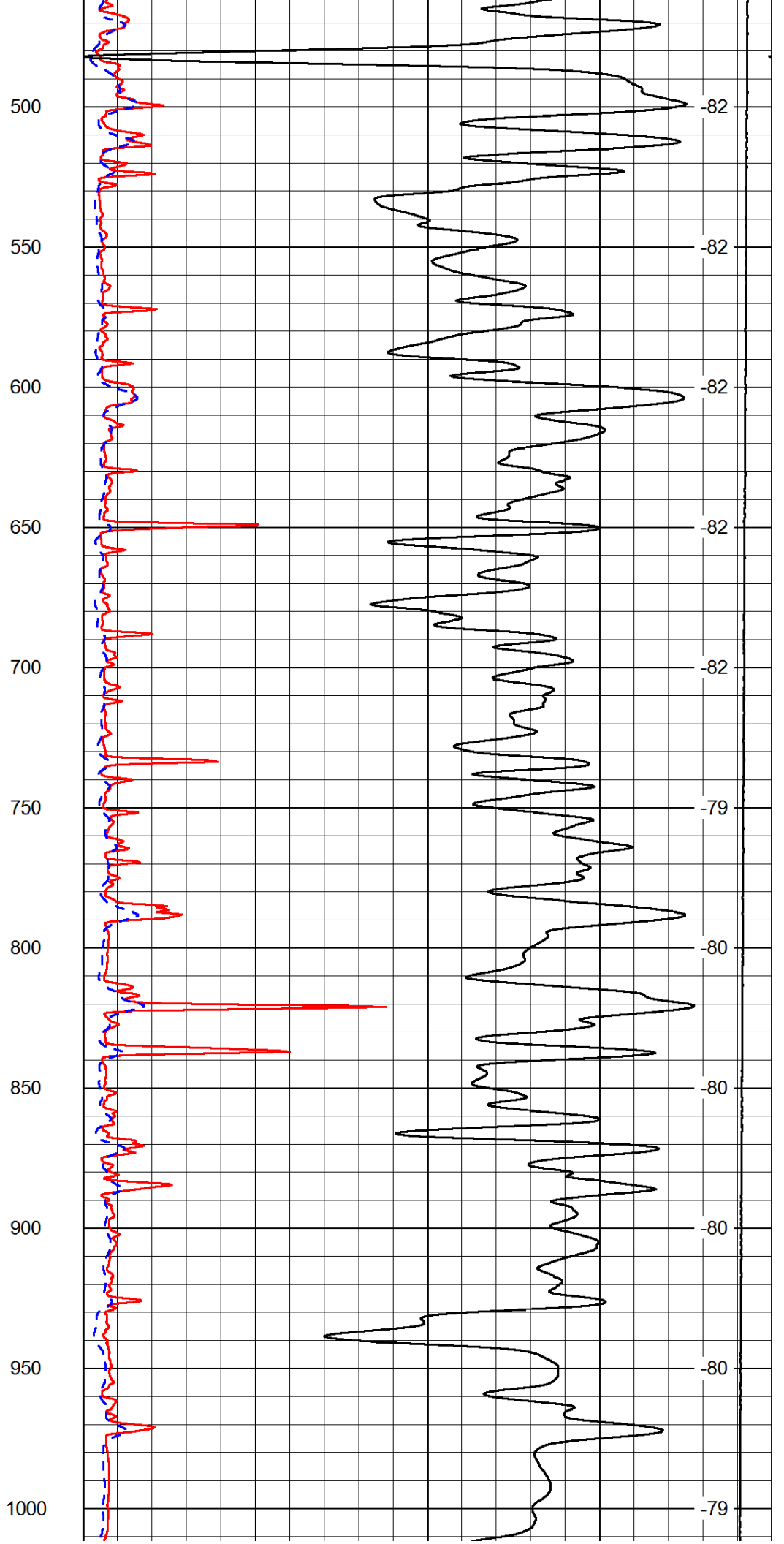
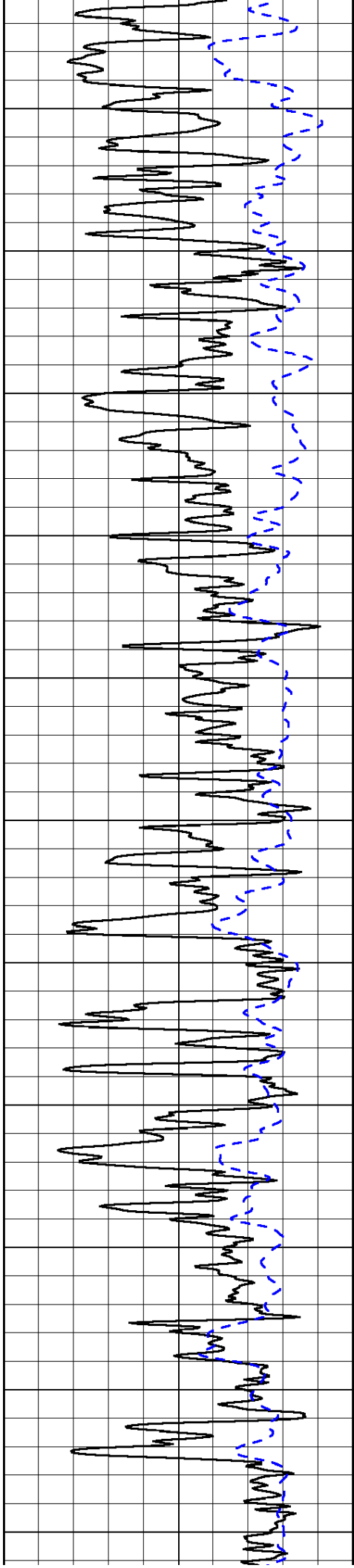
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0	Deep Resistivity	50

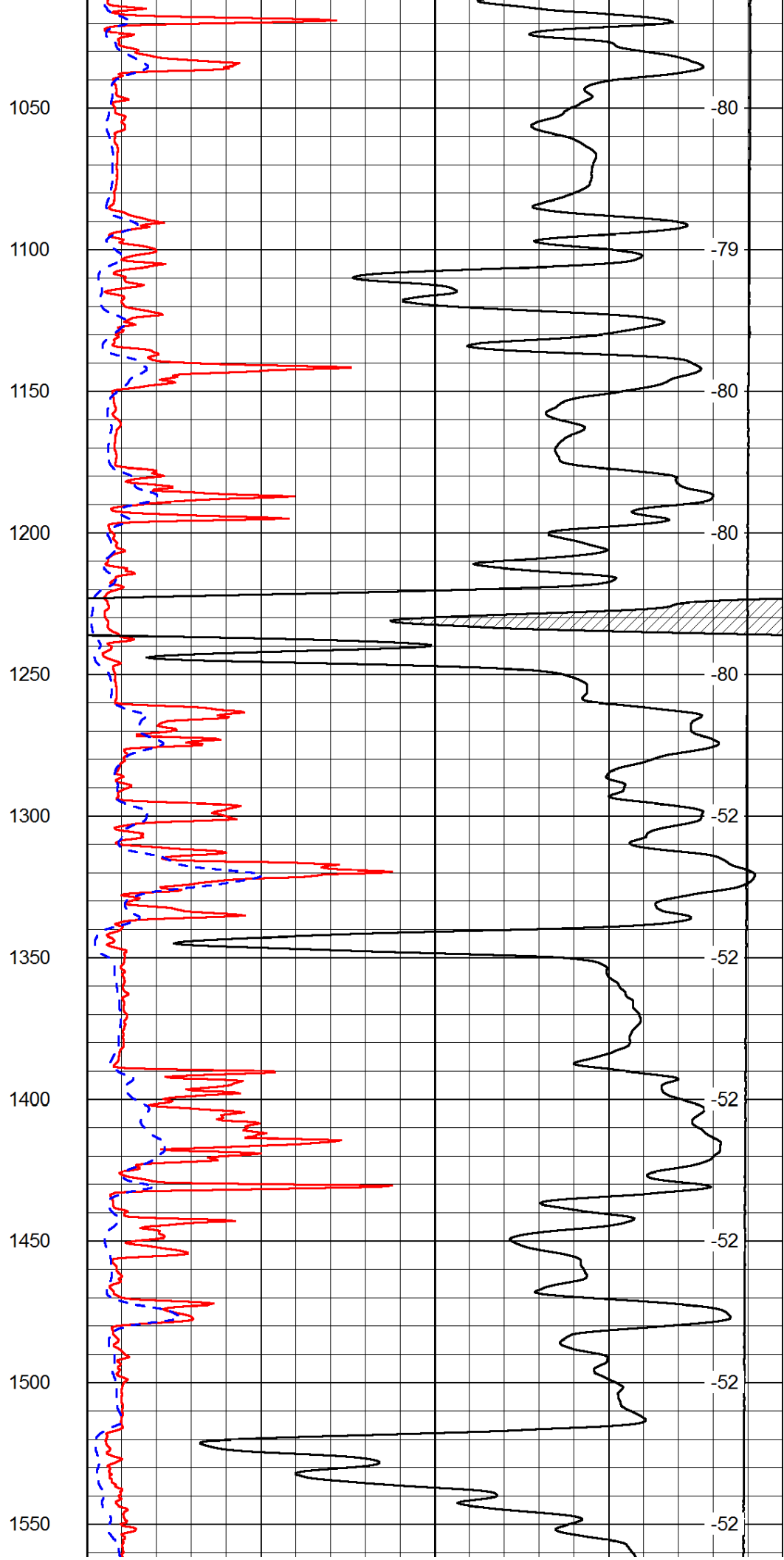
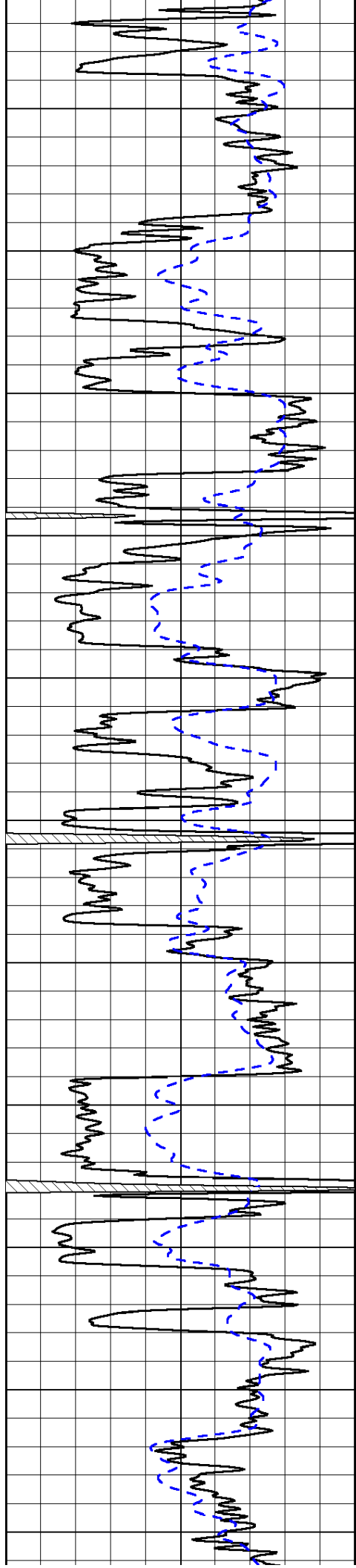
LSPD

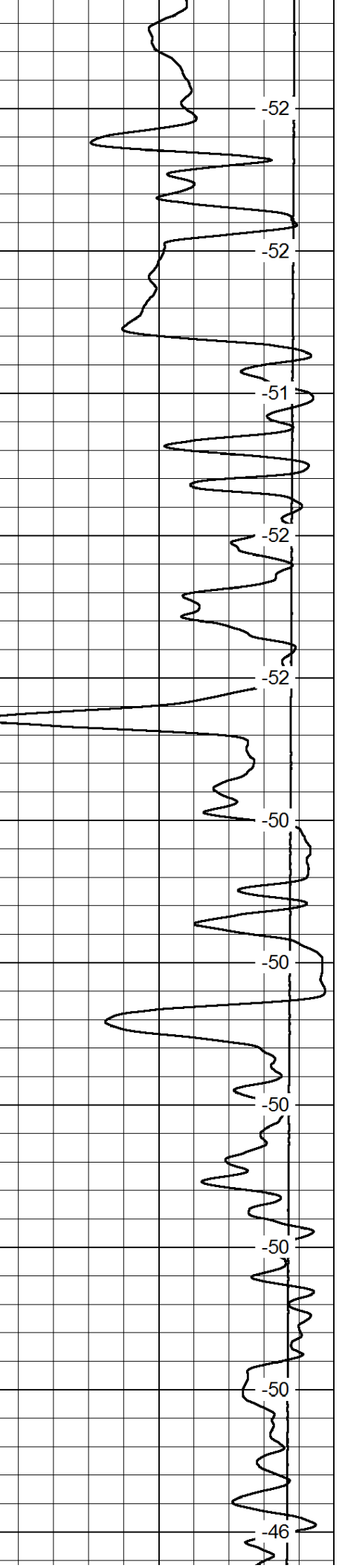
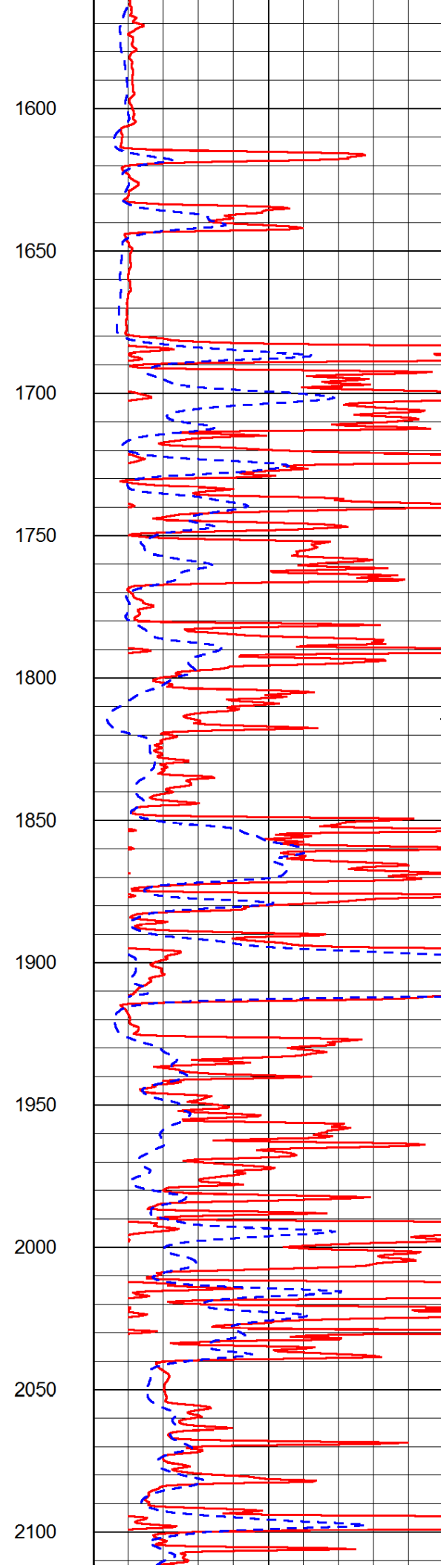
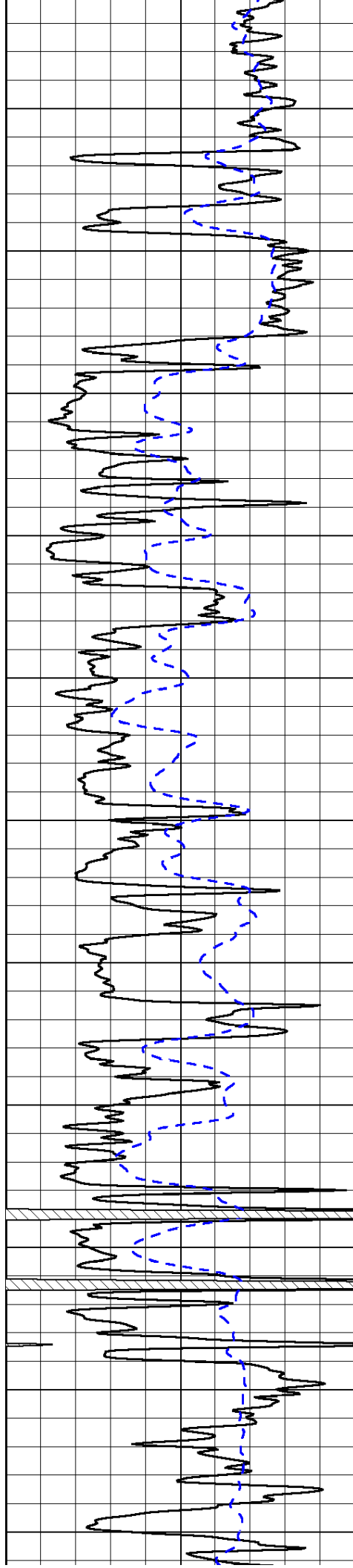
1000	Conductivity	0
15000	Line Tension	0

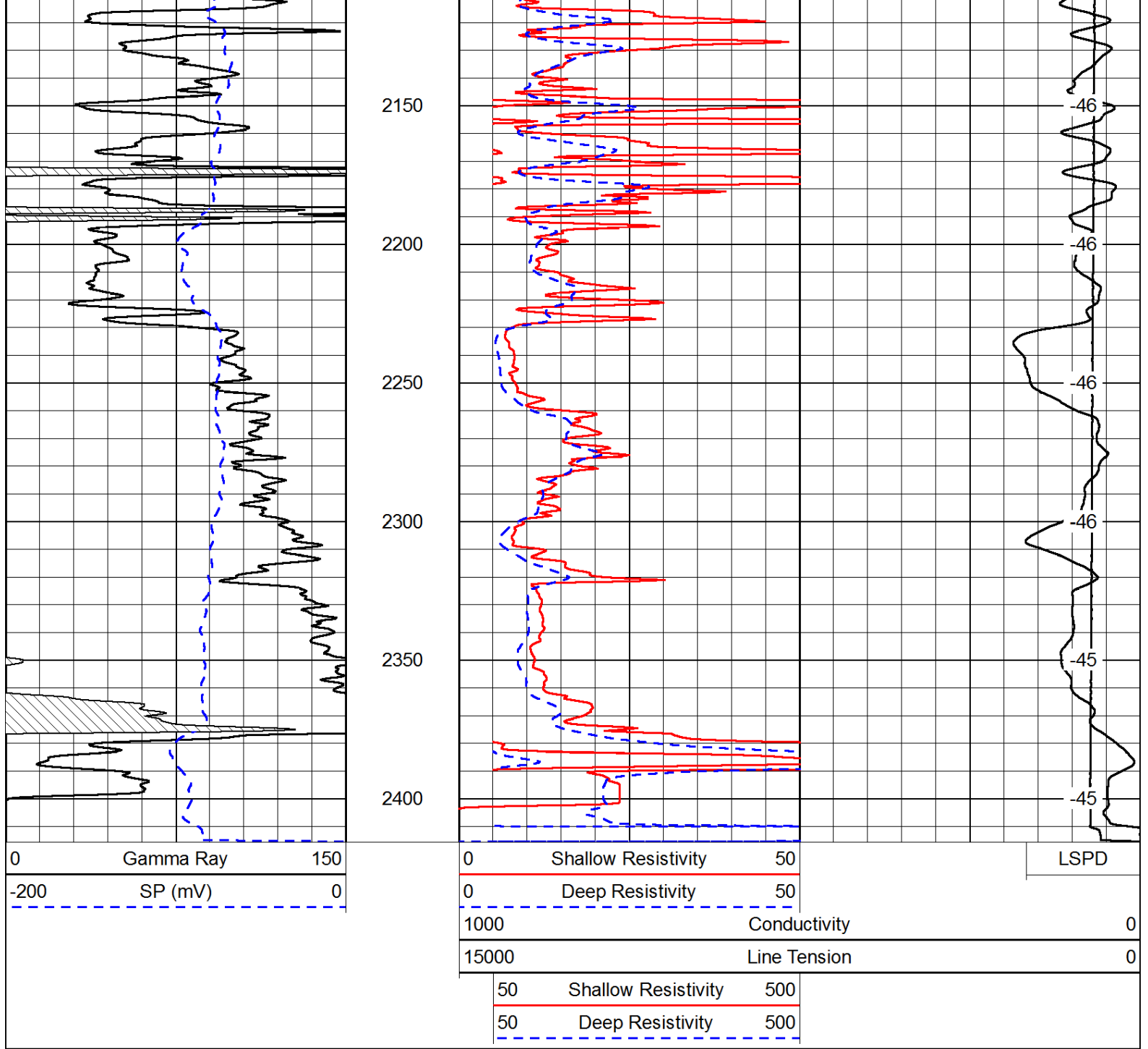
50	Shallow Resistivity	500
50	Deep Resistivity	500



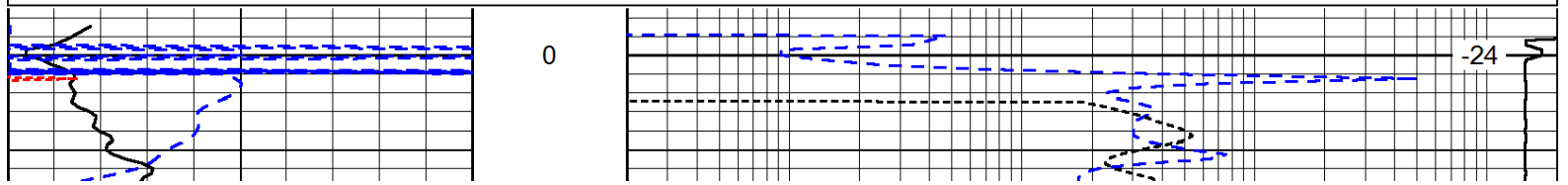
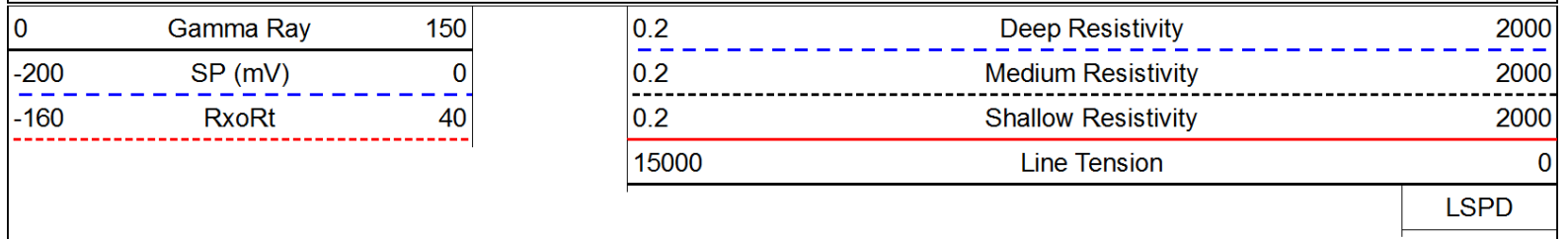


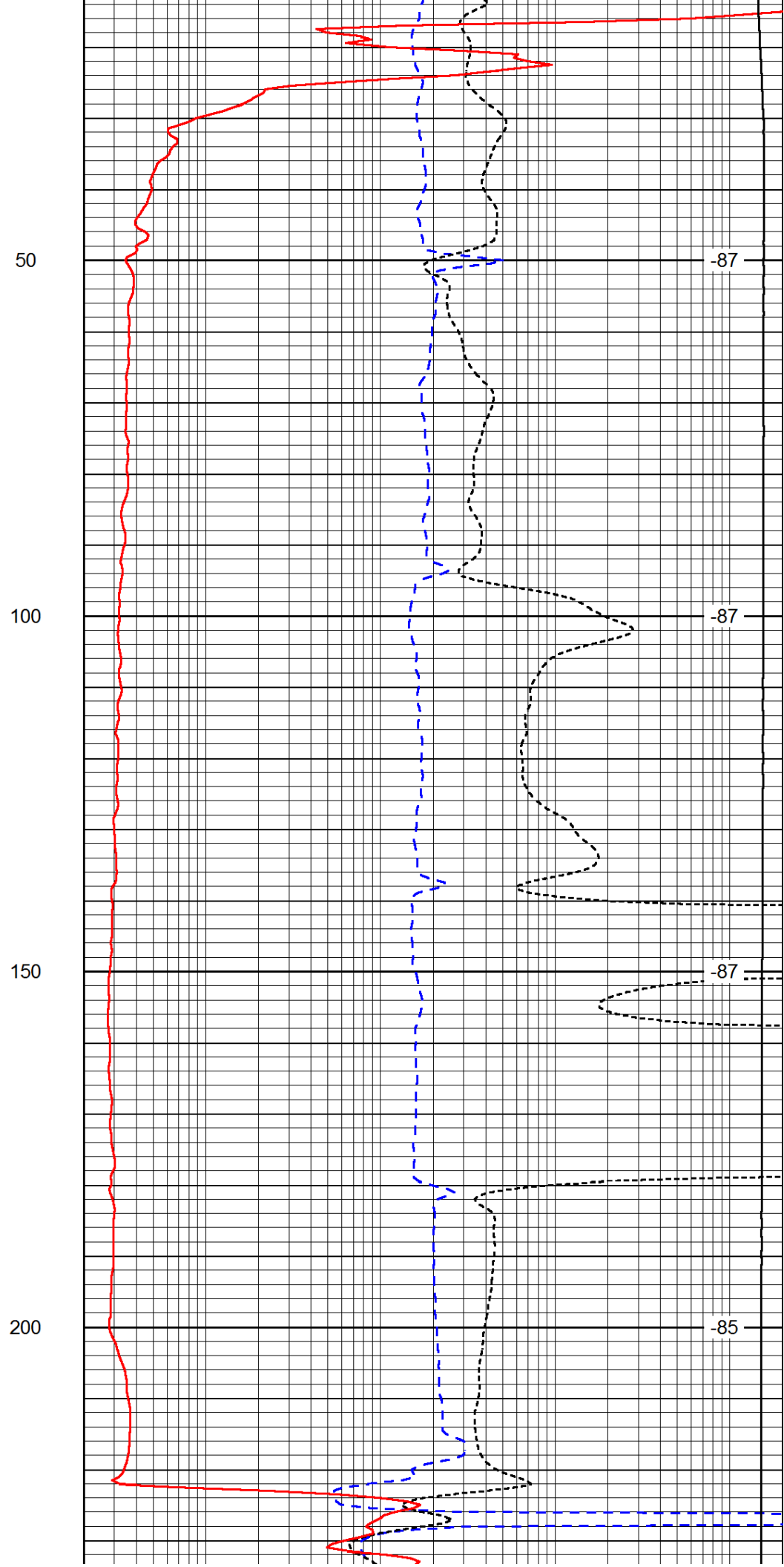
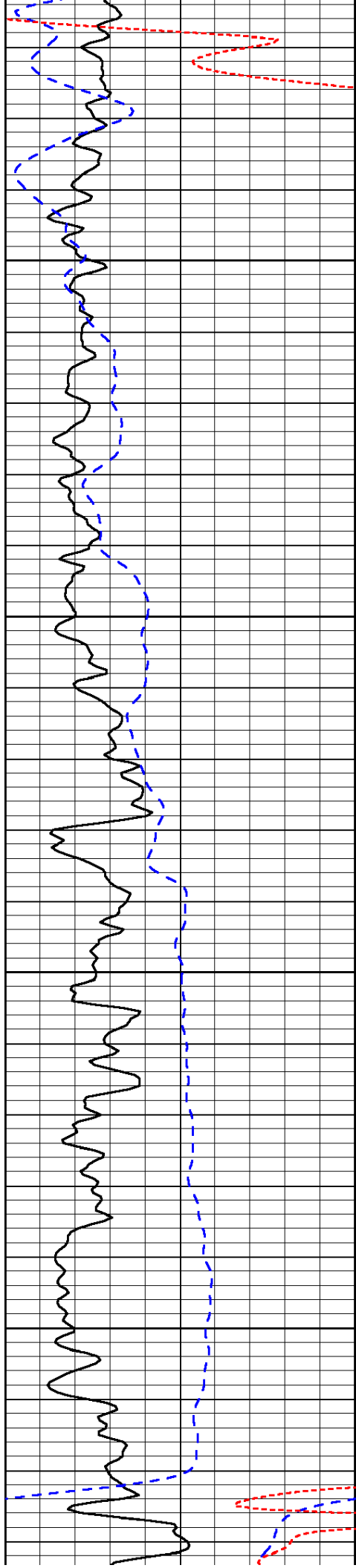


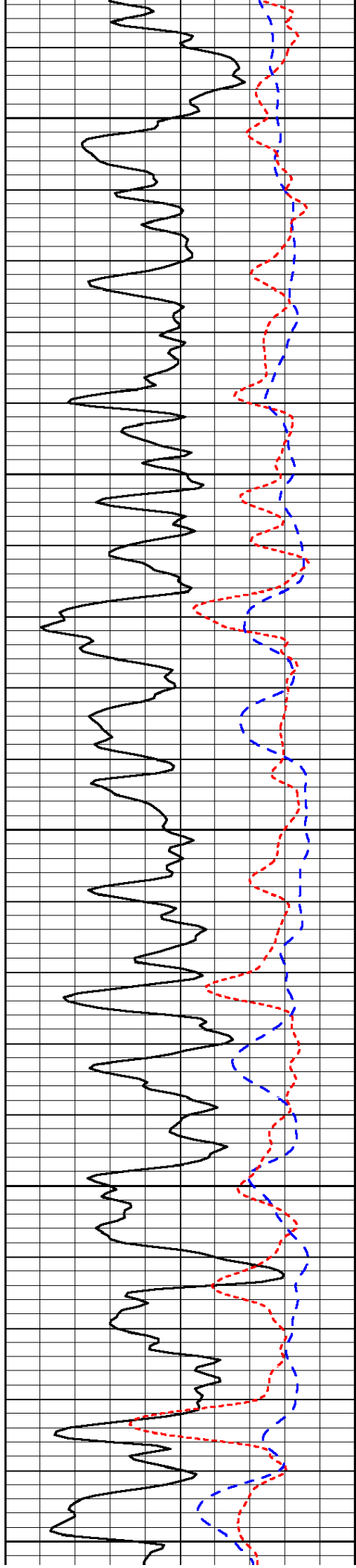




Database File: c:\warrior\data\range_savage a #1\ranghd.db
 Dataset Pathname: dil/rangdil
 Presentation Format: dil
 Dataset Creation: Thu Nov 29 10:52:45 2012
 Charted by: Depth in Feet scaled 1:240







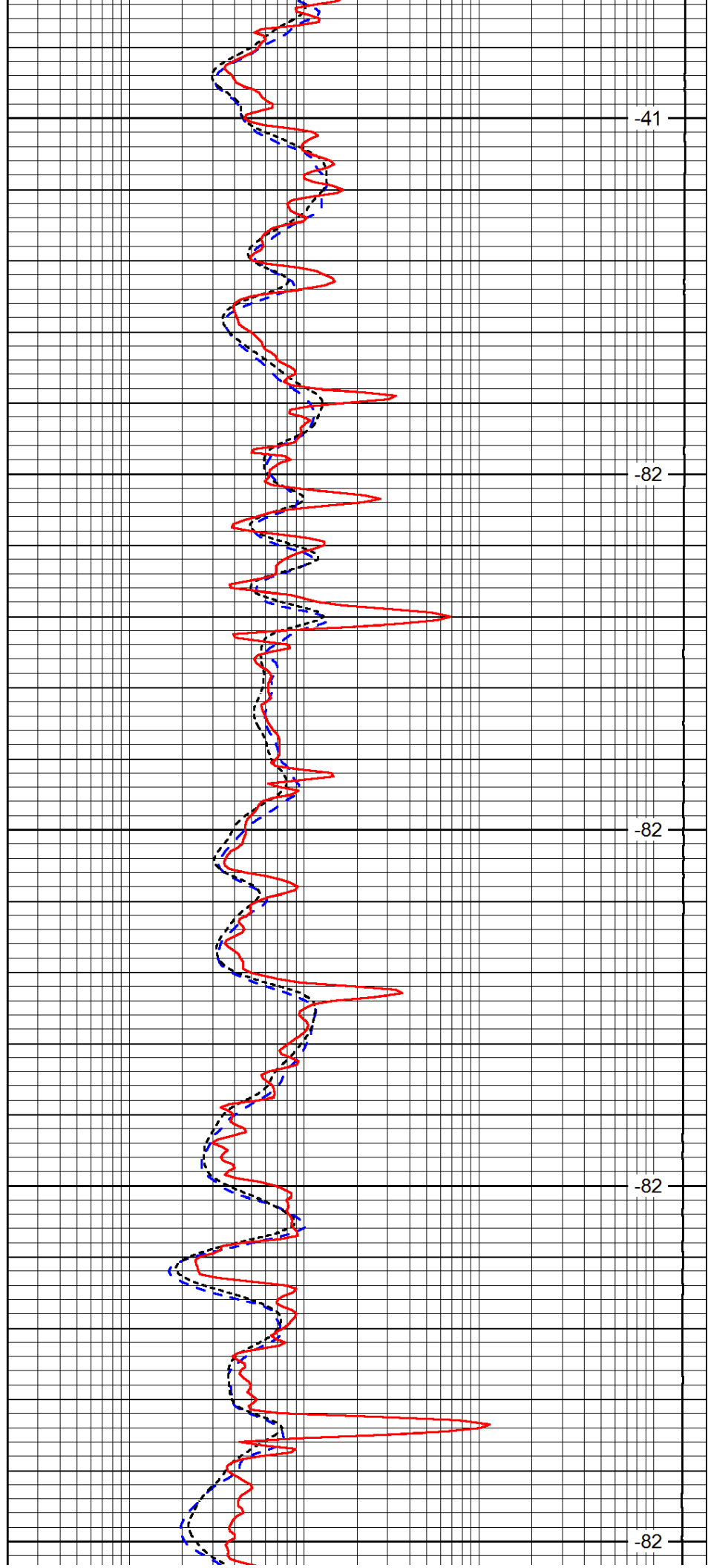
250

300

350

400

450



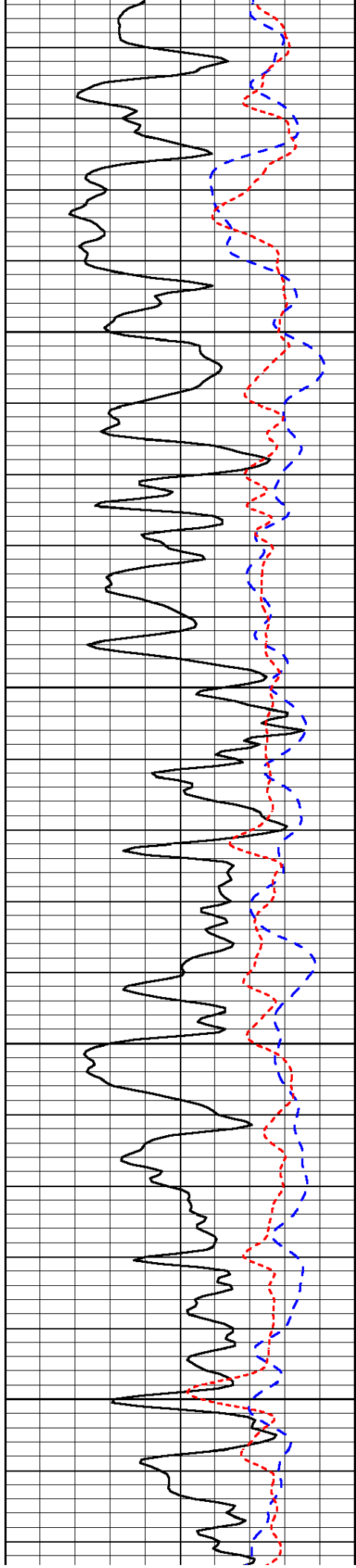
-41

-82

-82

-82

-82

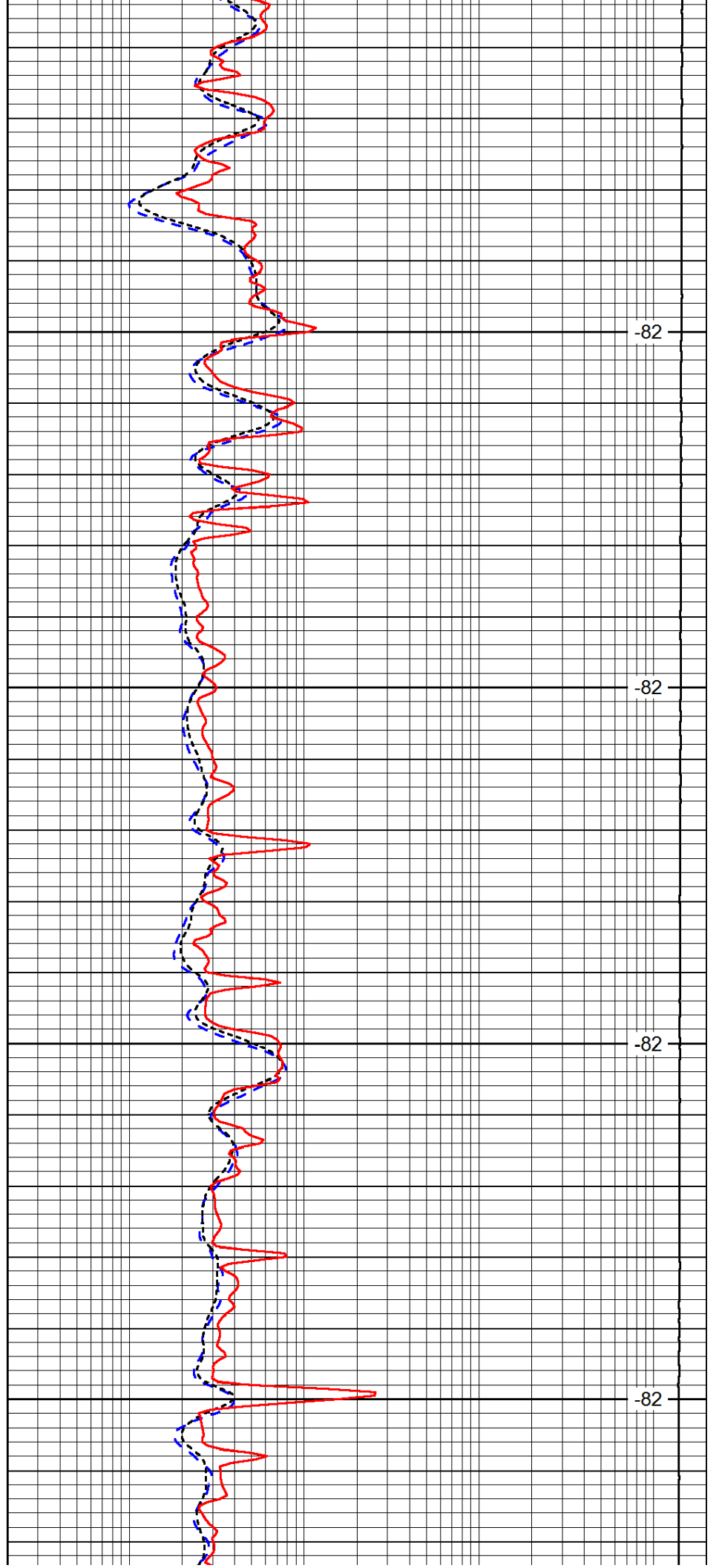


500

550

600

650

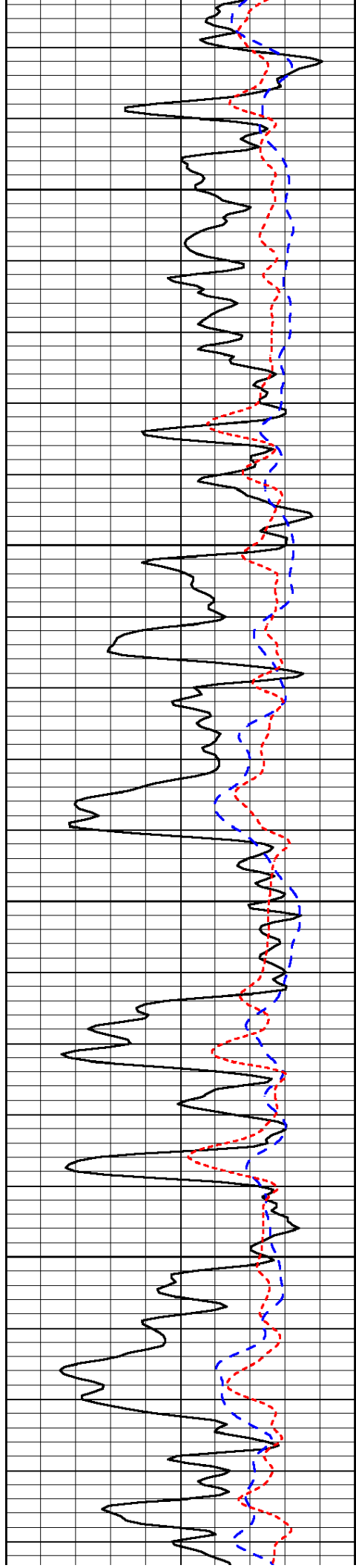


-82

-82

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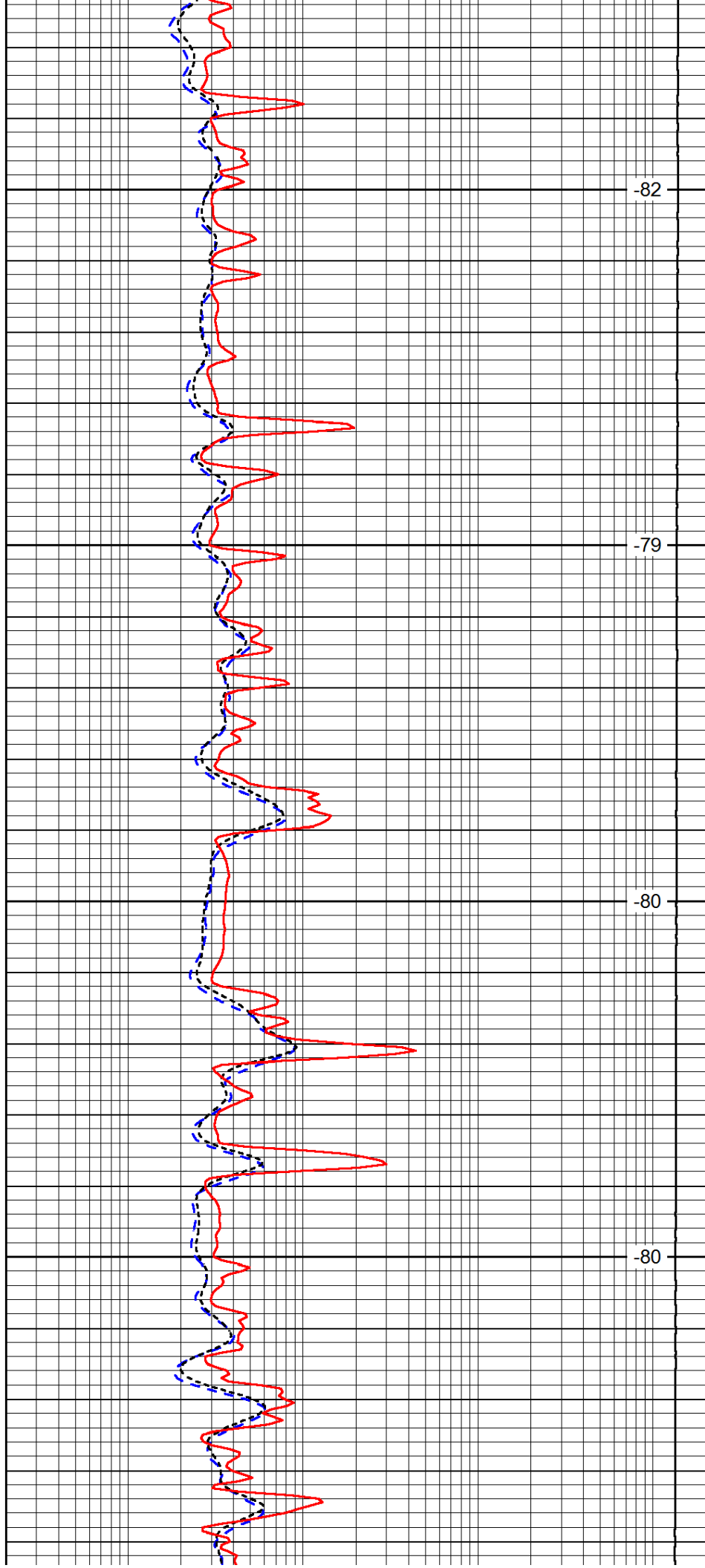


700

750

800

850

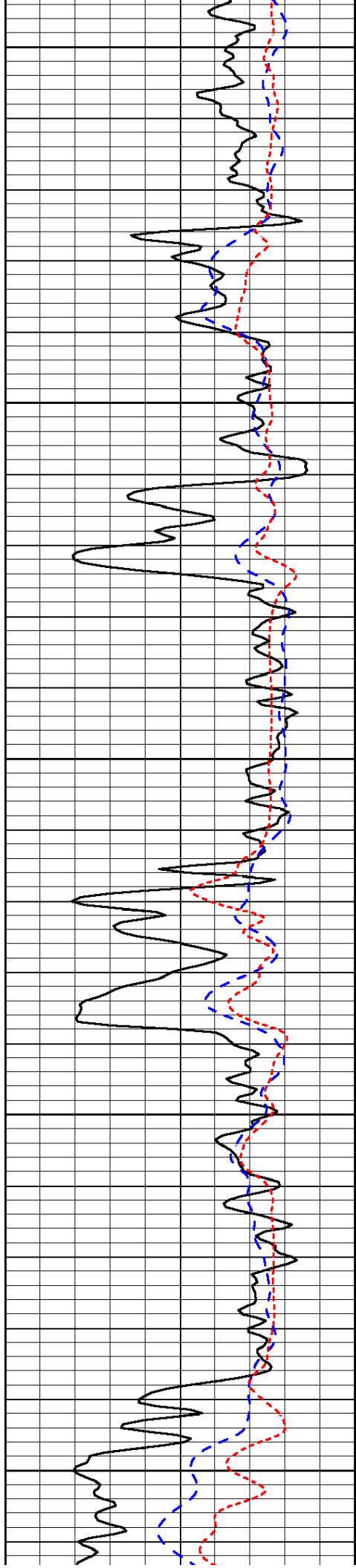


-82

-79

-80

-80



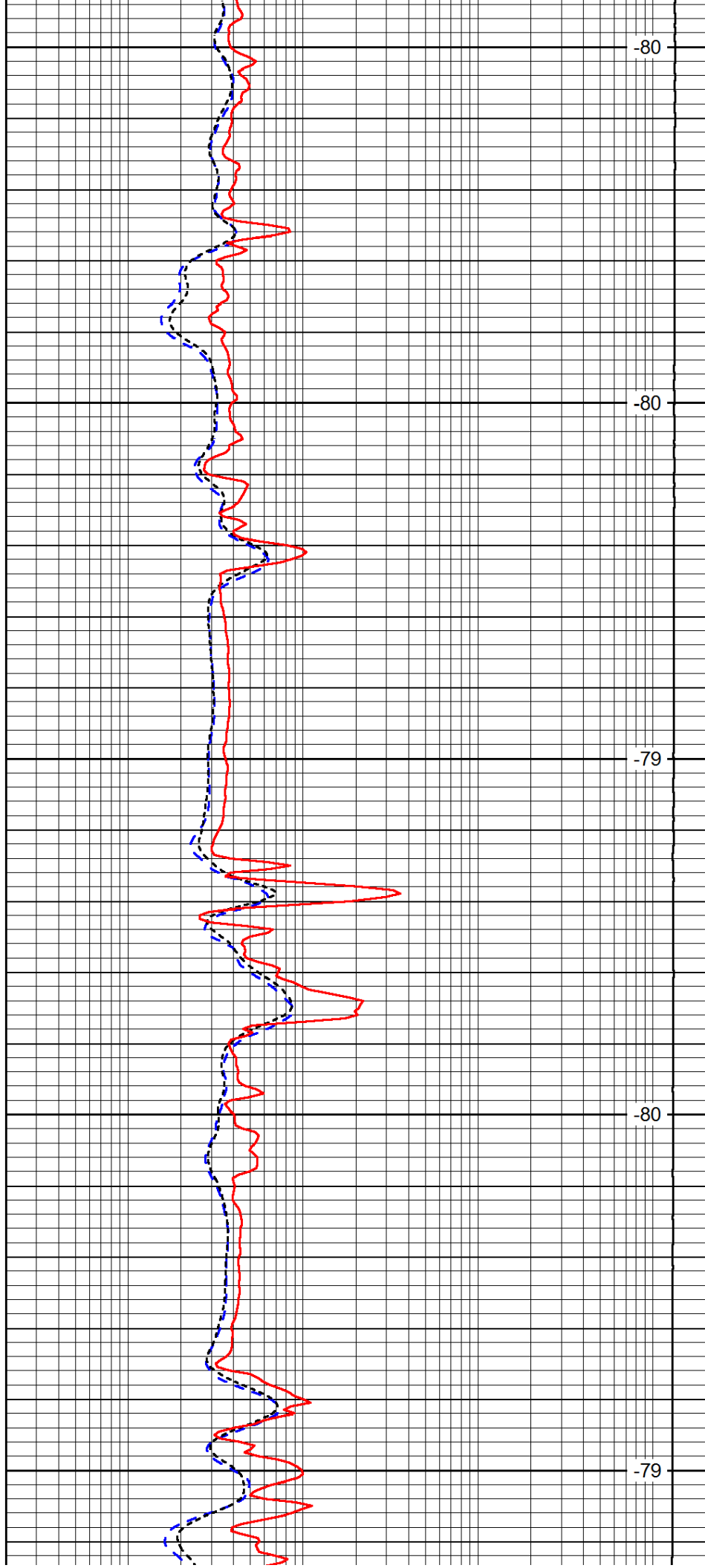
900

950

1000

1050

1100



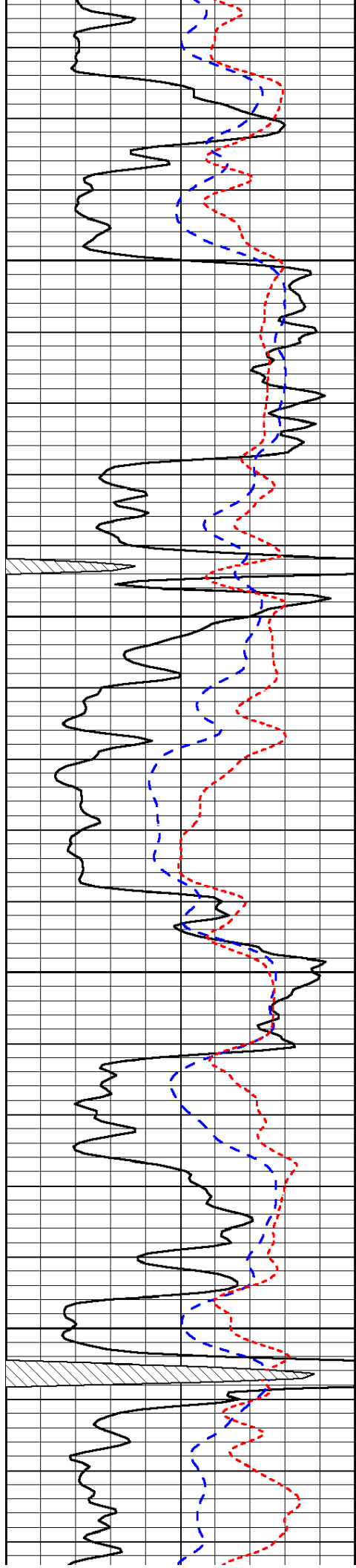
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-79

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-79

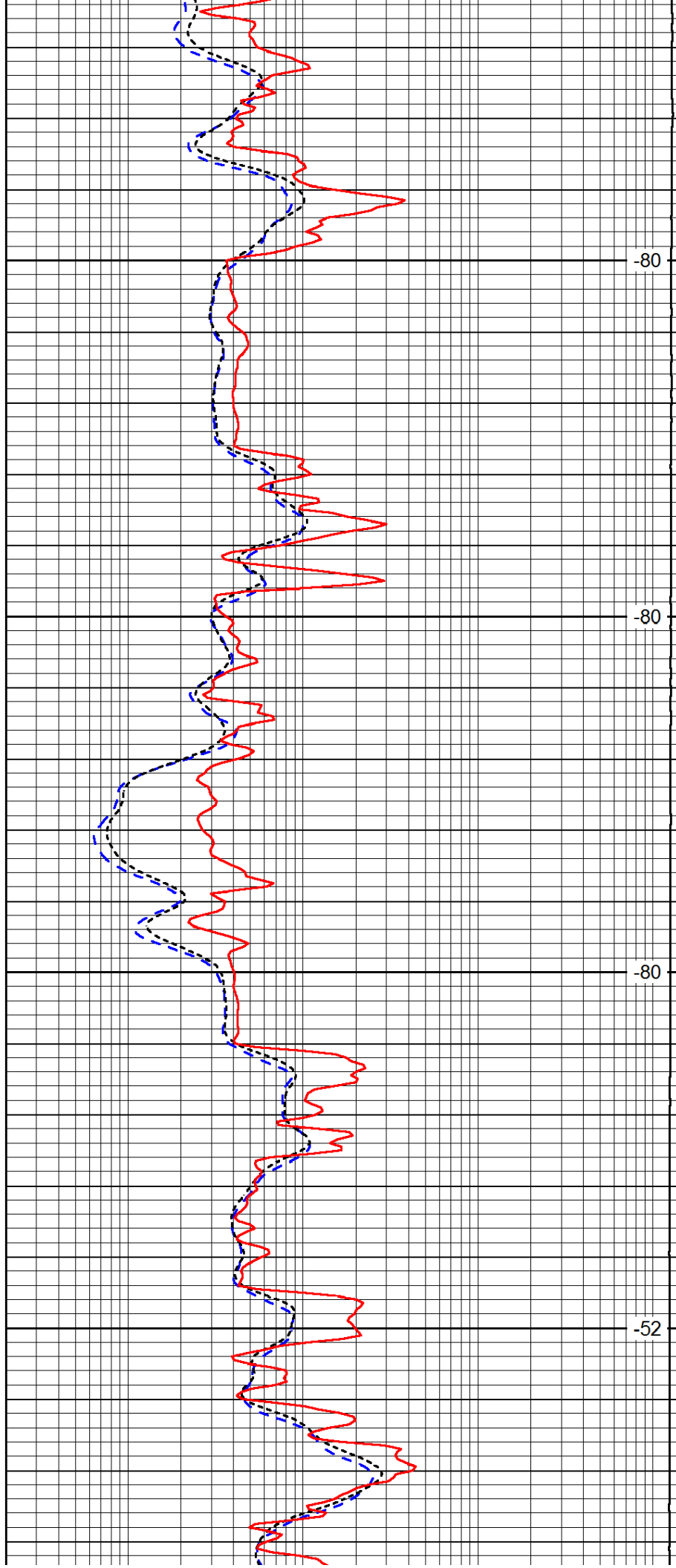


1150

1200

1250

1300

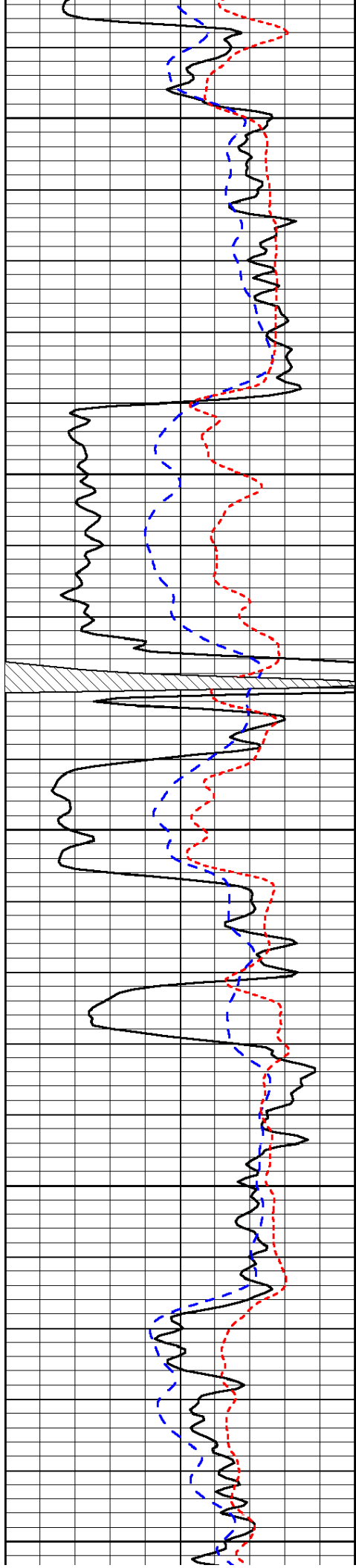


-80

-80

-80

-52



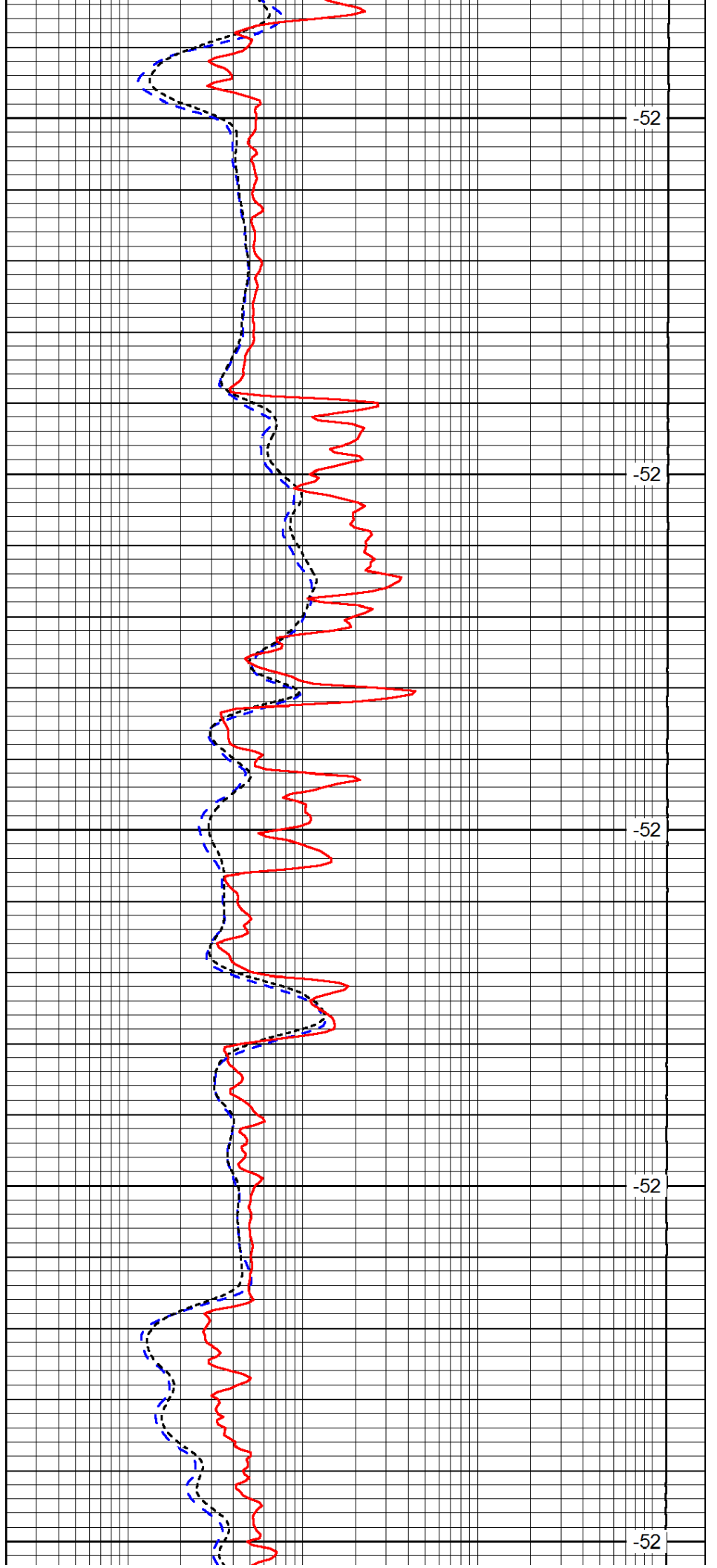
1350

1400

1450

1500

1550



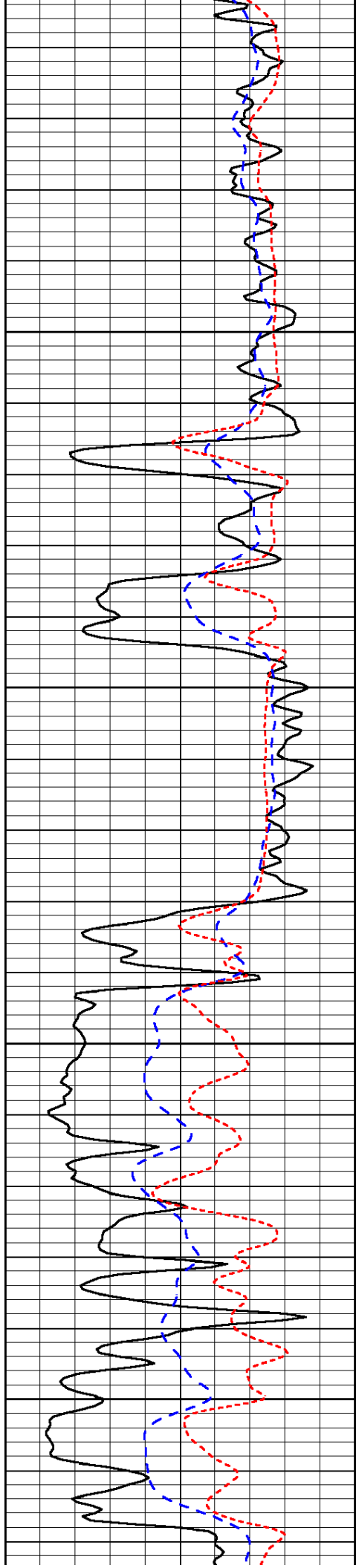
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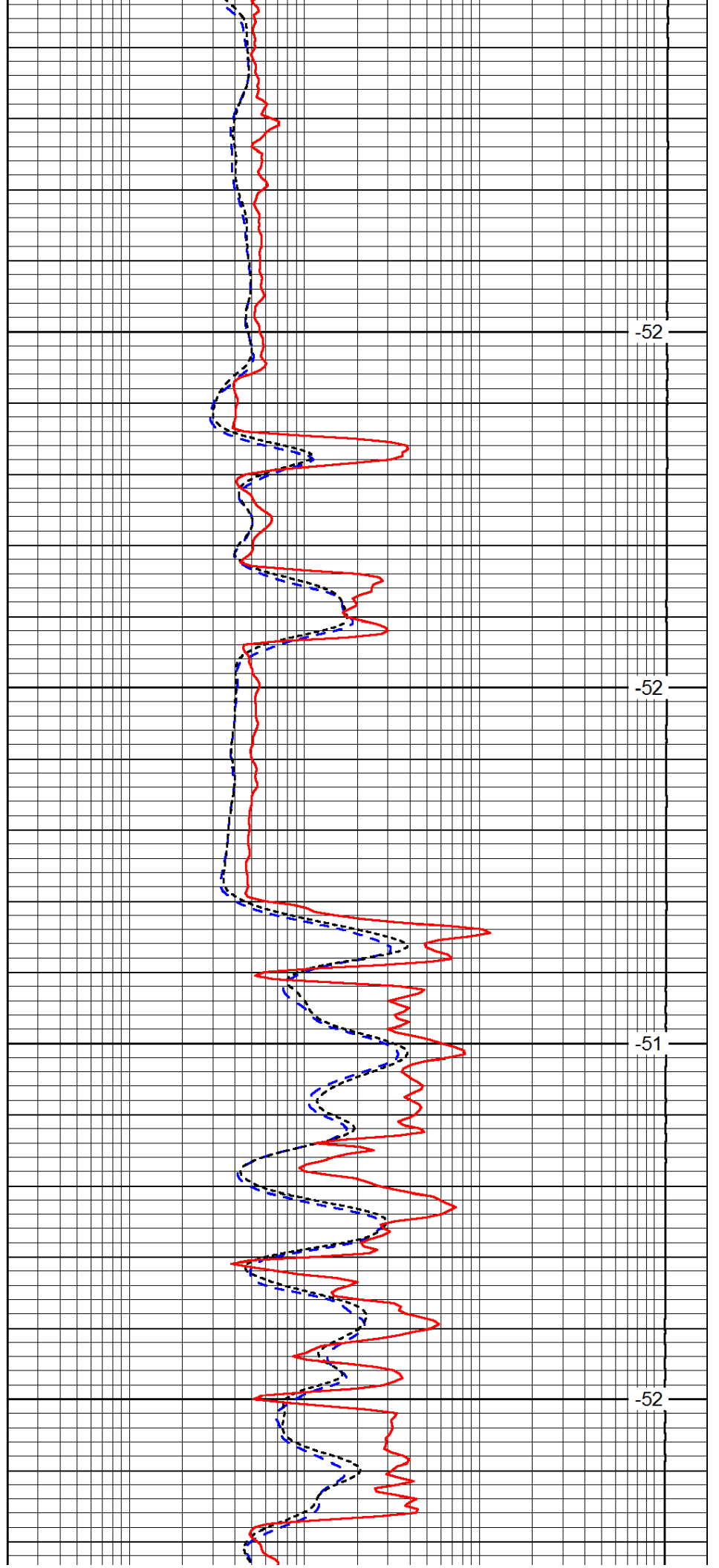


1600

1650

1700

1750

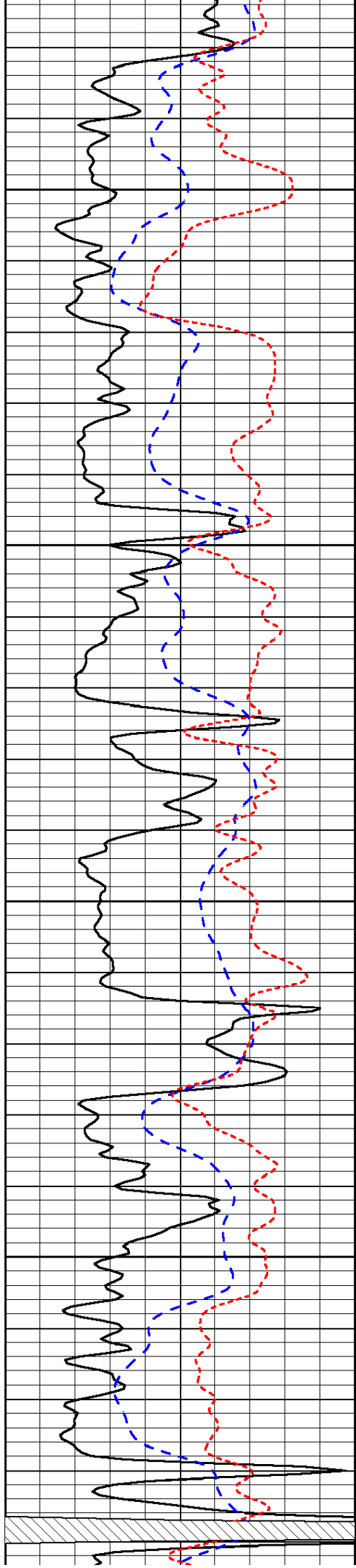


-52

-52

-51

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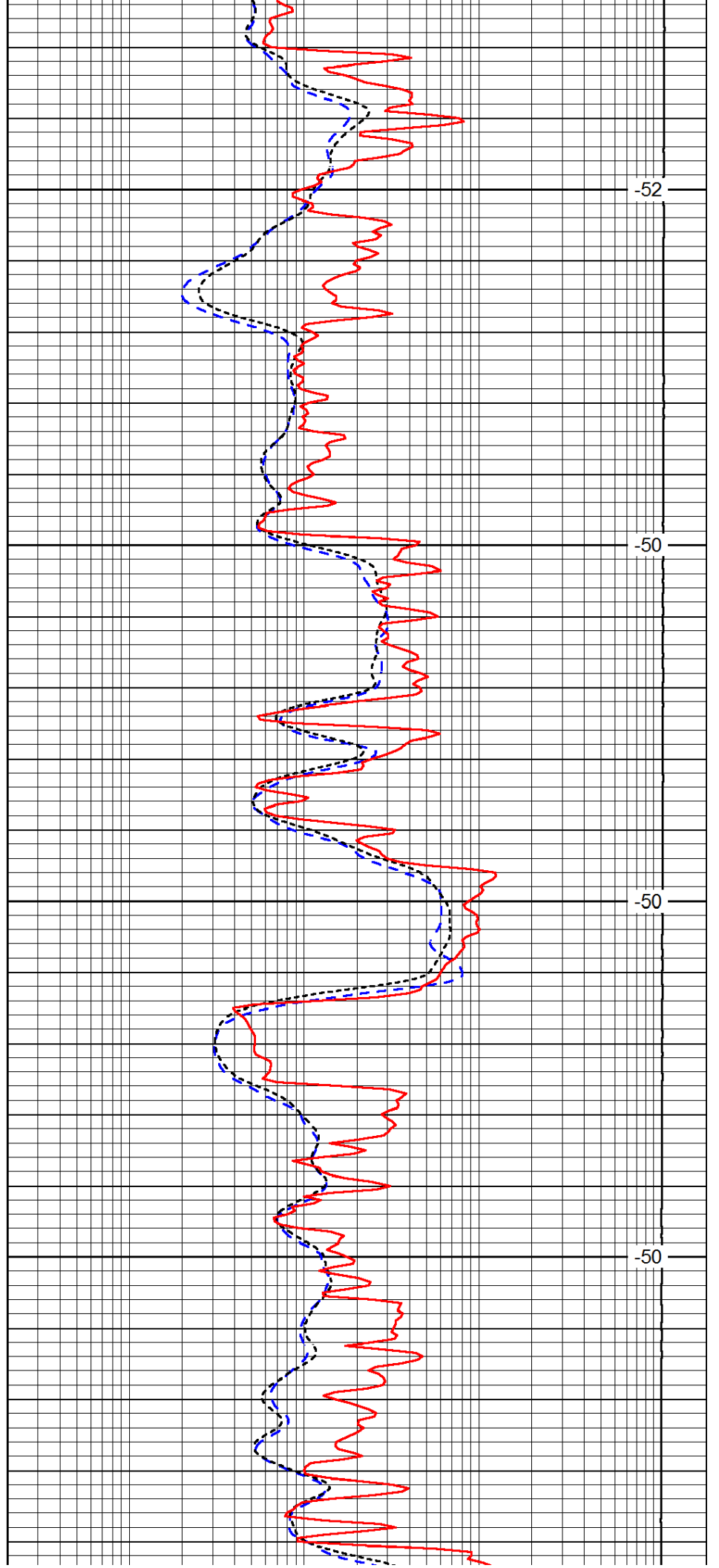


1800

1850

1900

1950

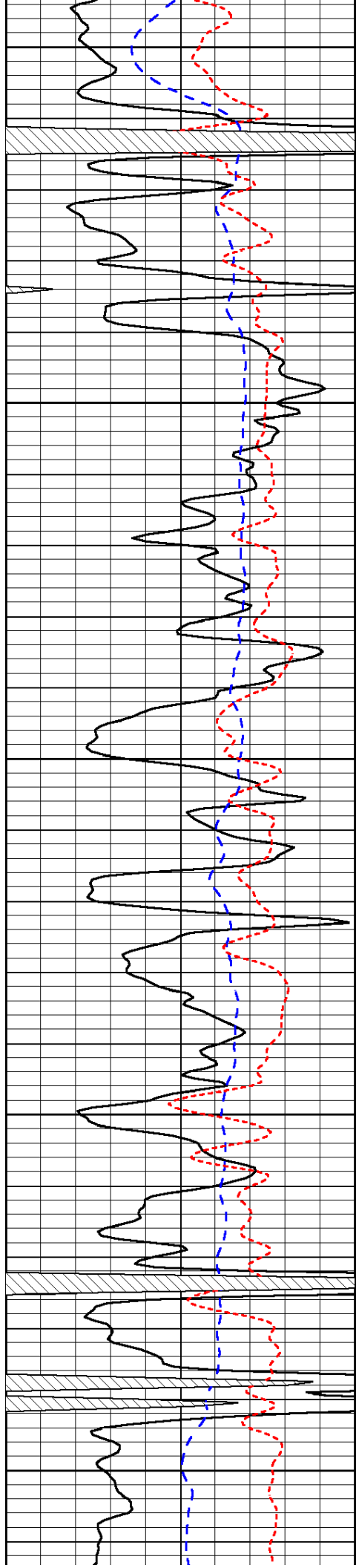


-52

-50

-50

-50



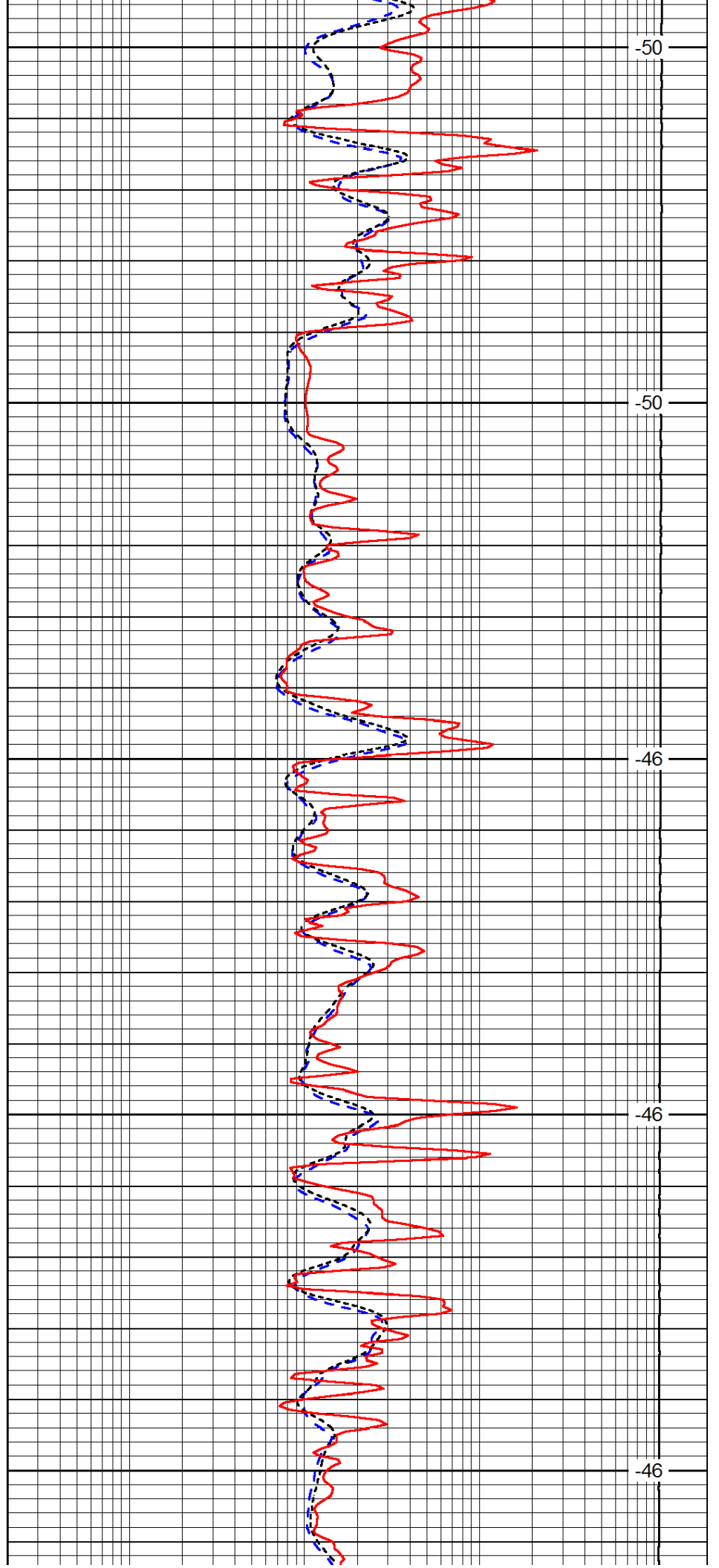
2000

2050

2100

2150

2200



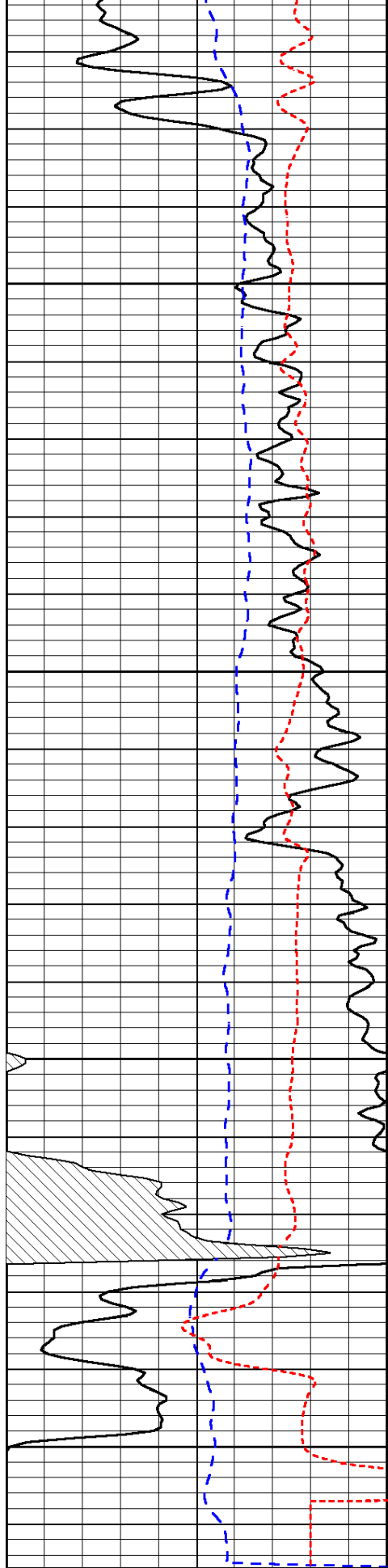
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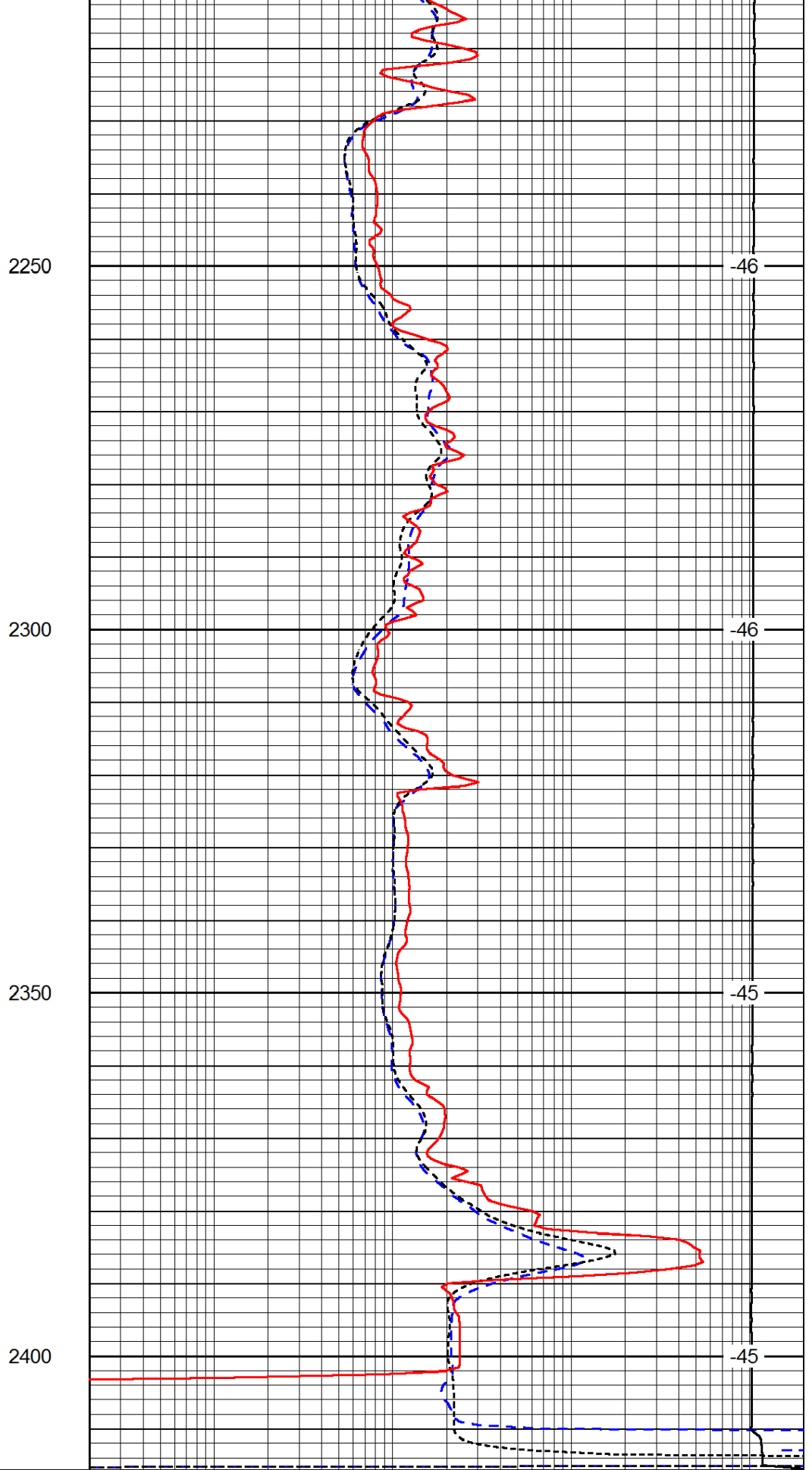
-46

-46

-46



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

