



Dual Induction Log

Pioneer Energy Services

API No.

15-101-22,409-00-00

Company Flatirons Resources LLC.

Well Copenhaver #13-22

Field Wildcat

County Lane State

Kansas

Location 2310' FSL & 330' FWL

Sec: 22 Twp: 16 S Rge: 28 W

Other Services
CNL/CDL
MEL

Elevation

K.B. 2693
D.F.
G.L. 2683

Permanent Datum Ground Level Elevation 2683
Log Measured From Kelly Bushing 10 Ft. Above Perm. Datum
Drilling Measured From Kelly Bushing

Date 11/28/2012

Run Number

One

Depth Driller

4600

Depth Logger

4605

Bottom Logged Interval

4604

Top Log Interval

200

Casing Driller

8.625 @ 225

Casing Logger

223

Bit Size

7.875

Type Fluid in Hole

Chemical

Salinity, ppm CL

1500

Density / Viscosity

9.0 52

pH / Fluid Loss

10.0 6.6

Source of Sample

Flowline

Rm @ Meas. Temp

1.30 @ 70

Rmf @ Meas. Temp

.98 @ 70

Rmc @ Meas. Temp

1.76 @ 70

Source of Rmf / Rmc

Charts

Rm @ BHT

.75 @ 122

Operating Rig Time

4 Hours

Max Rec. Temp. F

122

Equipment Number

15

Location

Hays

Recorded By

D. Kerr

Witnessed By

Clayton Erickson

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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
Shields KS, East to Loreda RD,
2 North, 3/4 East, Left at Y through Cattle Gate,
1 East North Into

Database File: c:\warrior\data\flatirons_copenhaver #13-22\flatirons_copenhaver_1_32hd.db
Dataset Pathname: DIL\ftistk
Presentation Format: dil2in
Dataset Creation: Wed Nov 28 16:32:15 2012
Charted by: Depth in Feet scaled 1:600

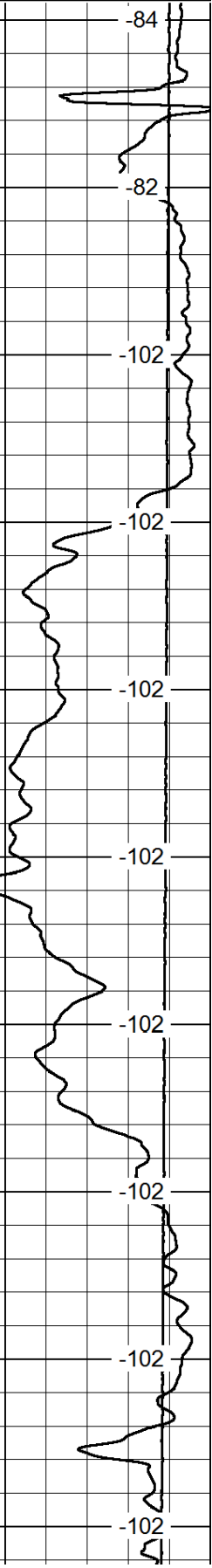
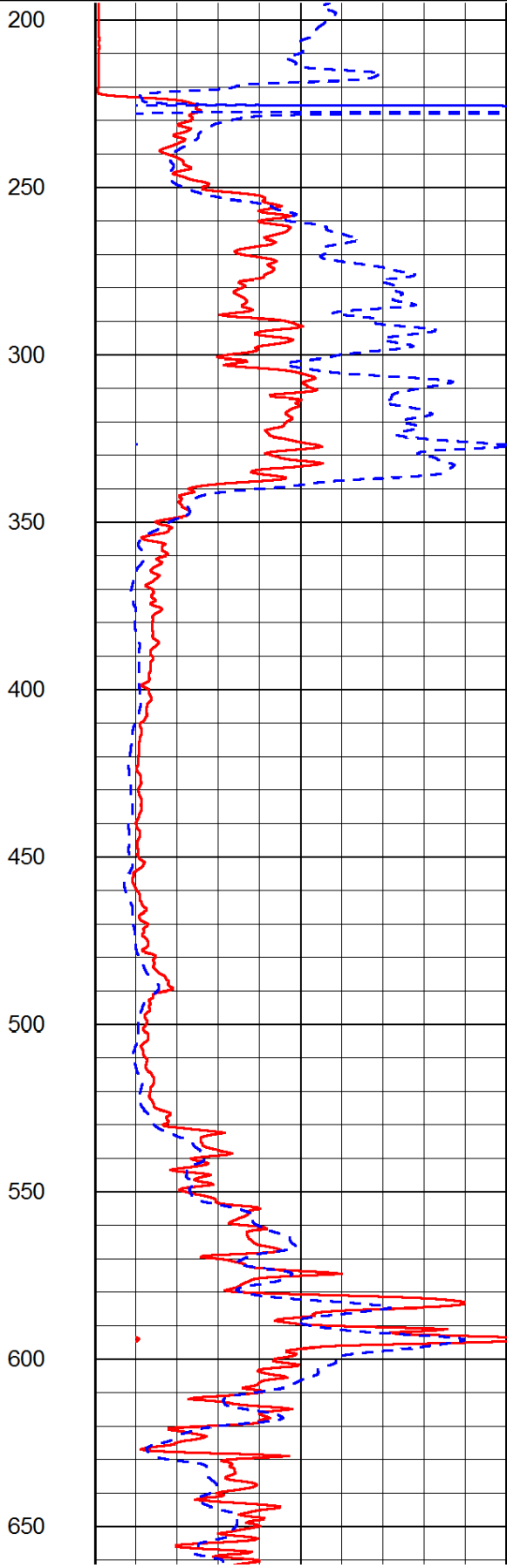
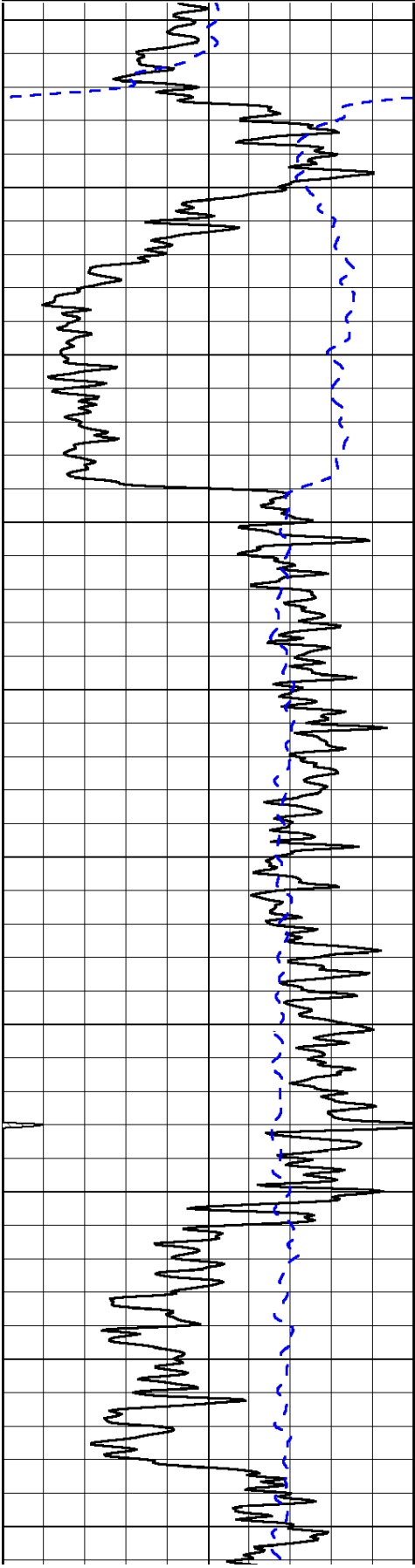
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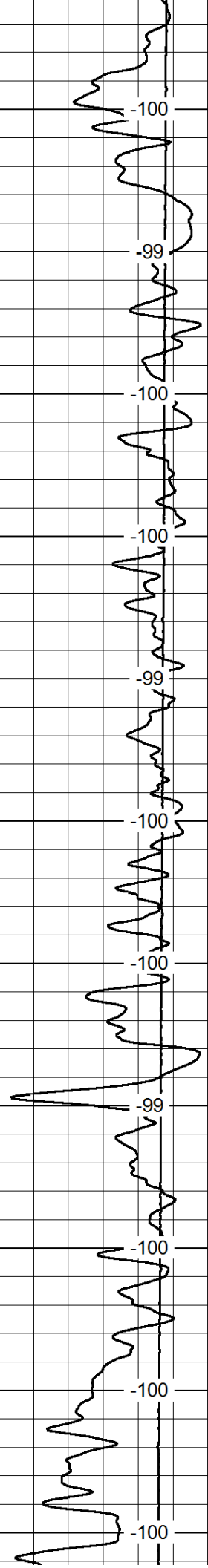
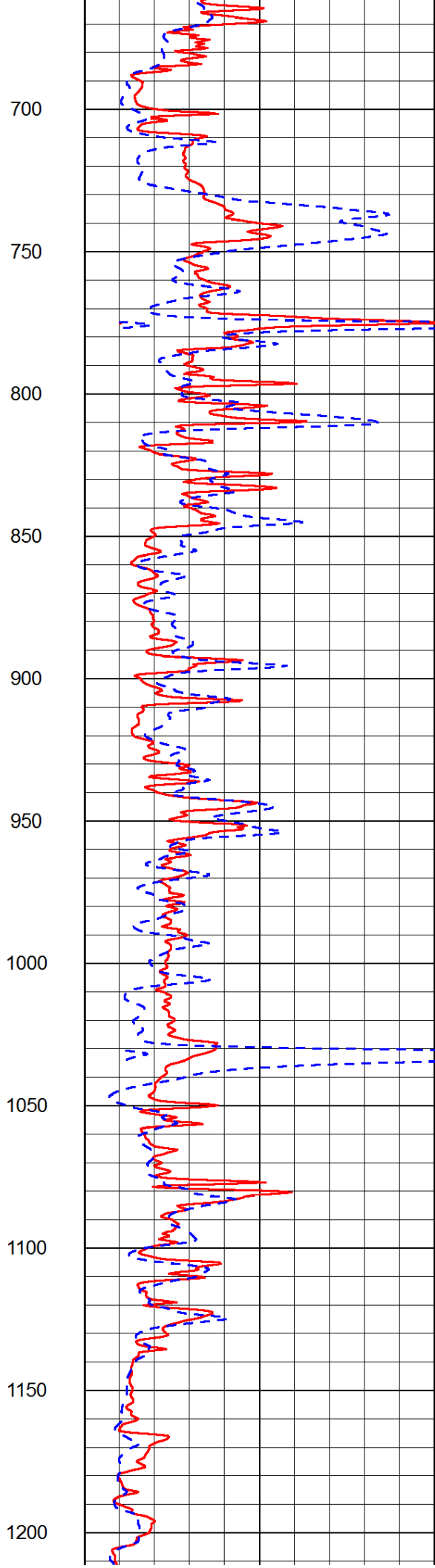
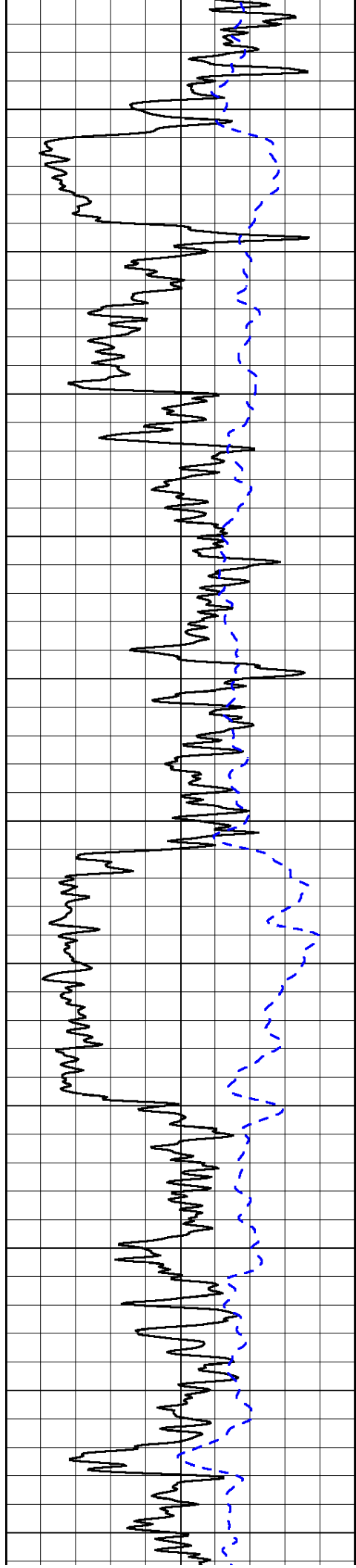
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-200	SP (mV)	0

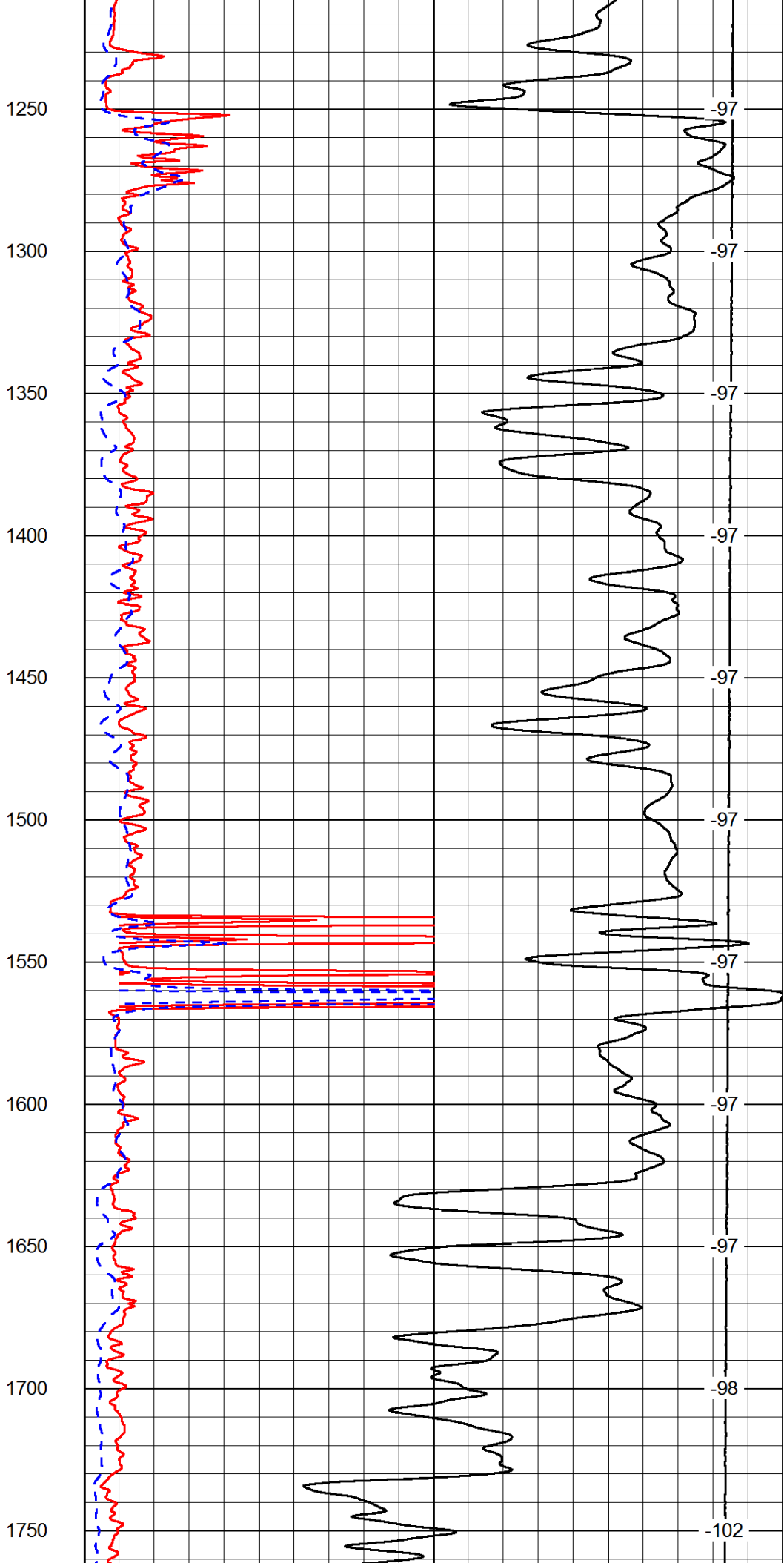
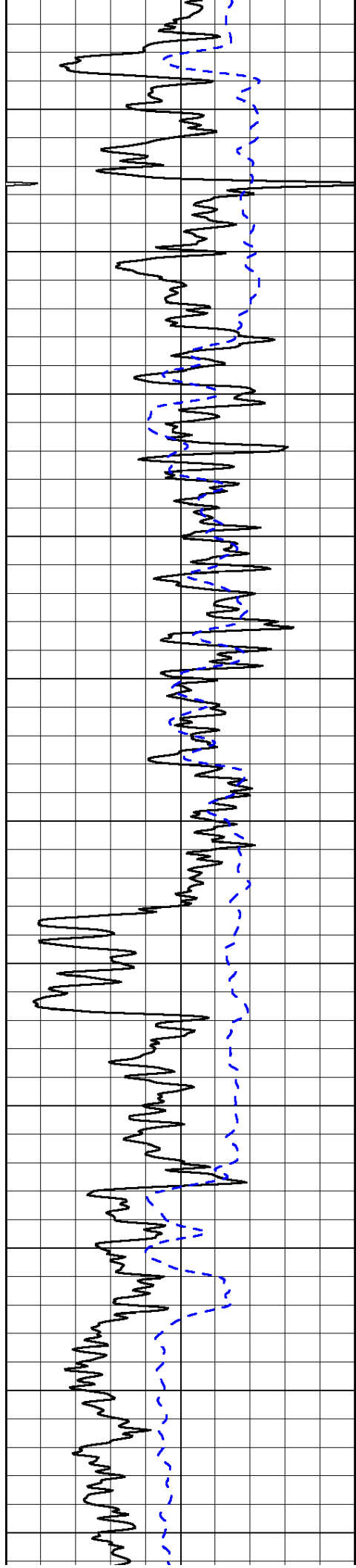
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0	Deep Resistivity	50
1000	Conductivity	0
15000	Line Tension	0

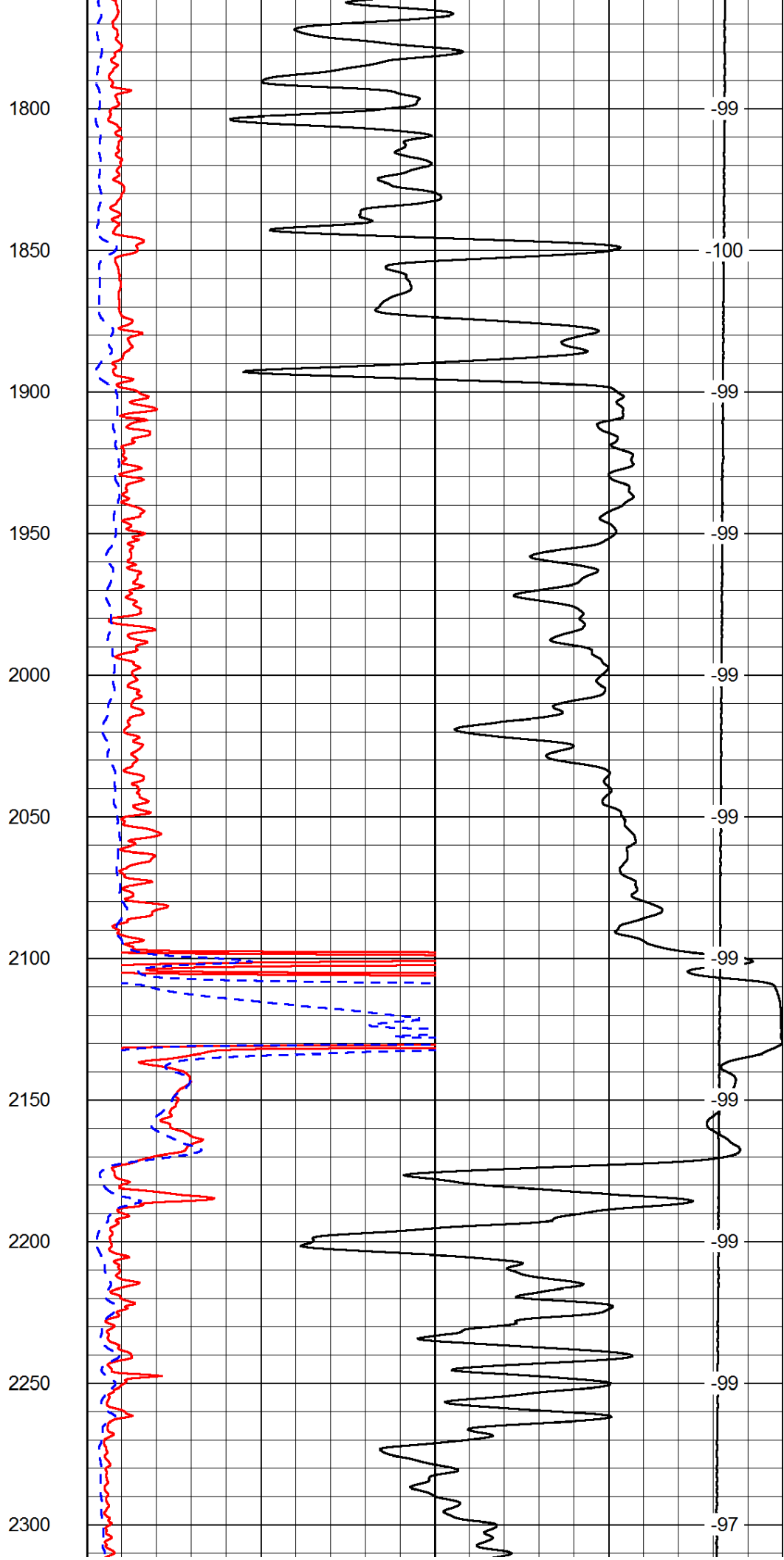
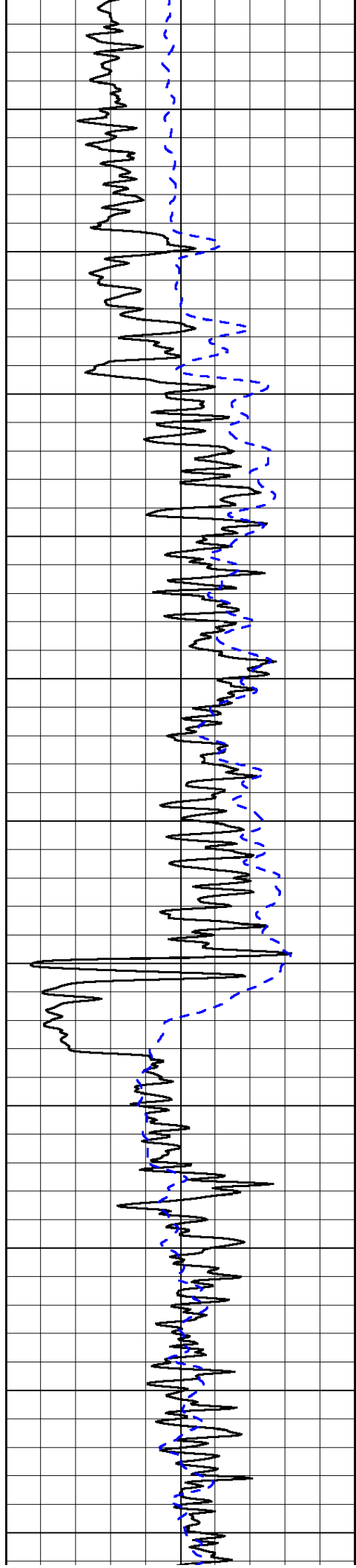
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50	Deep Resistivity	500

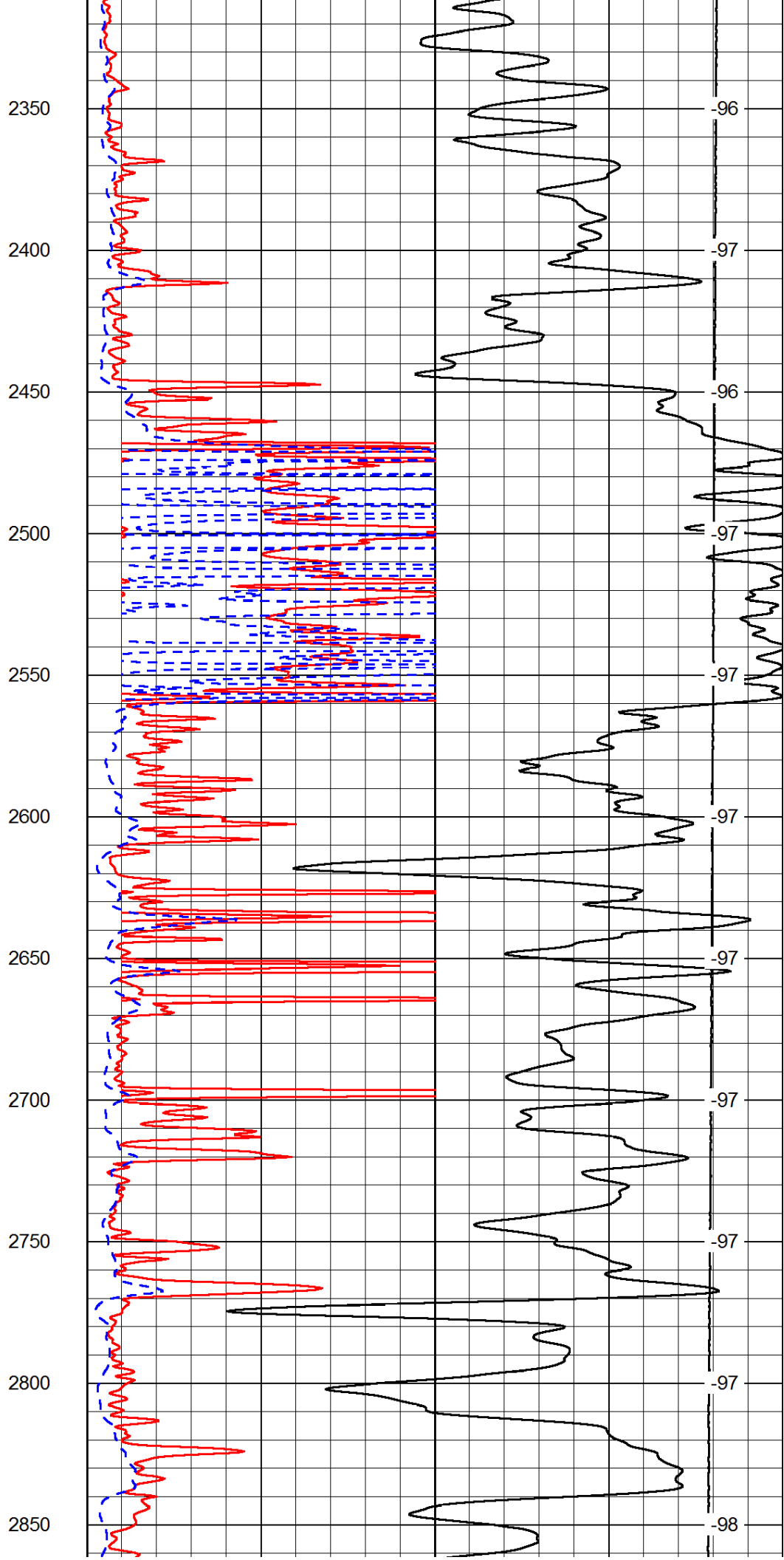
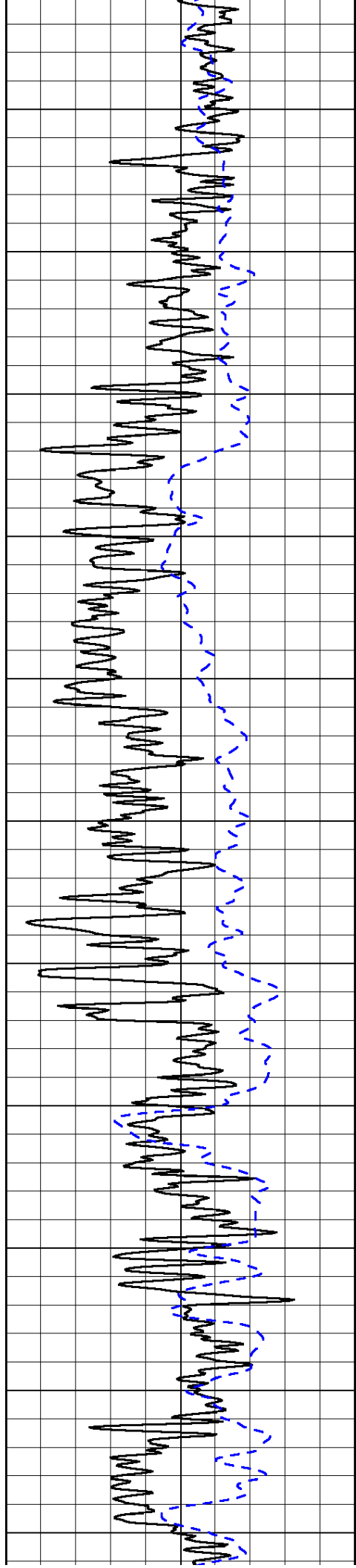
LSPD
0
0

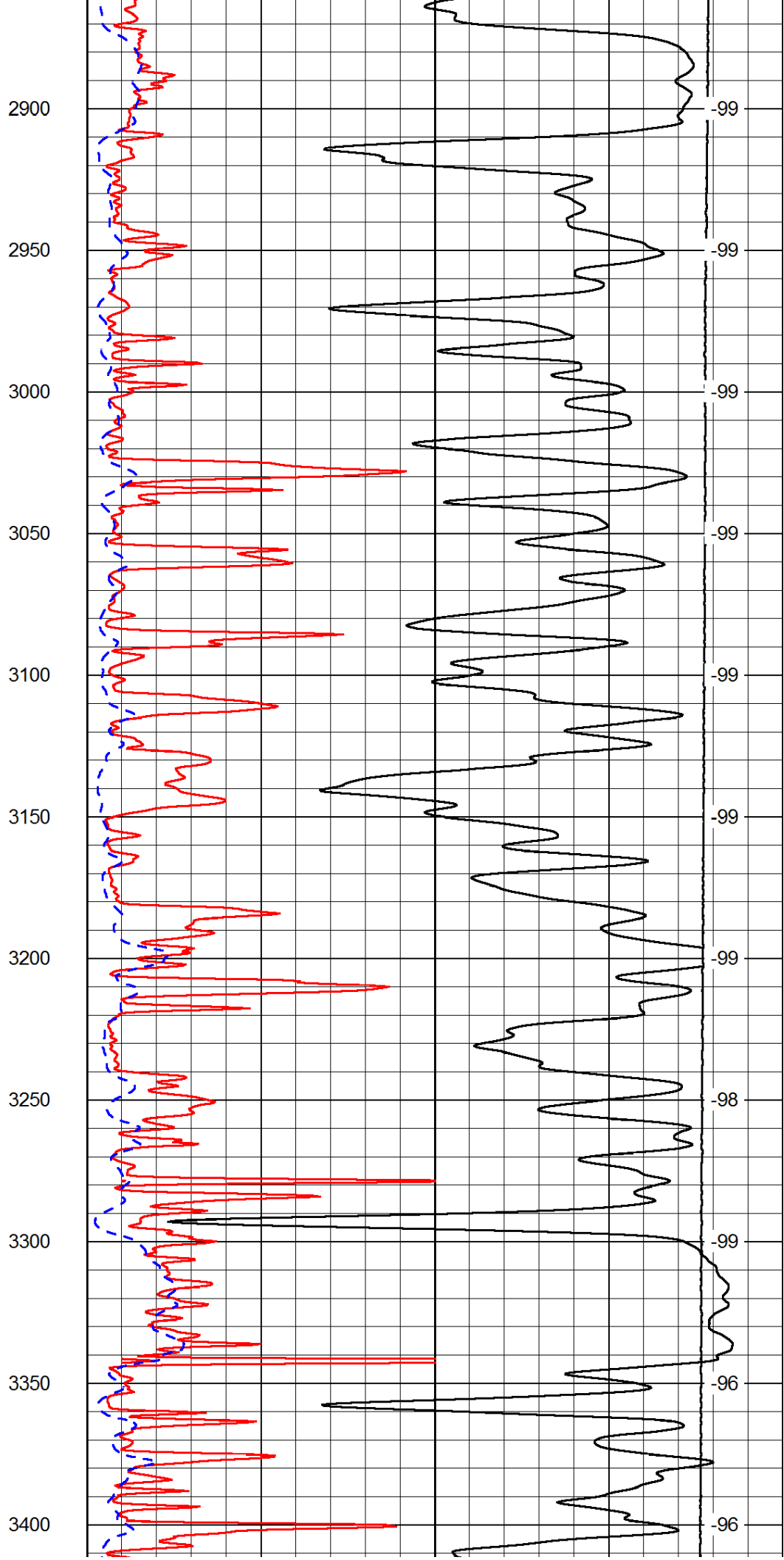
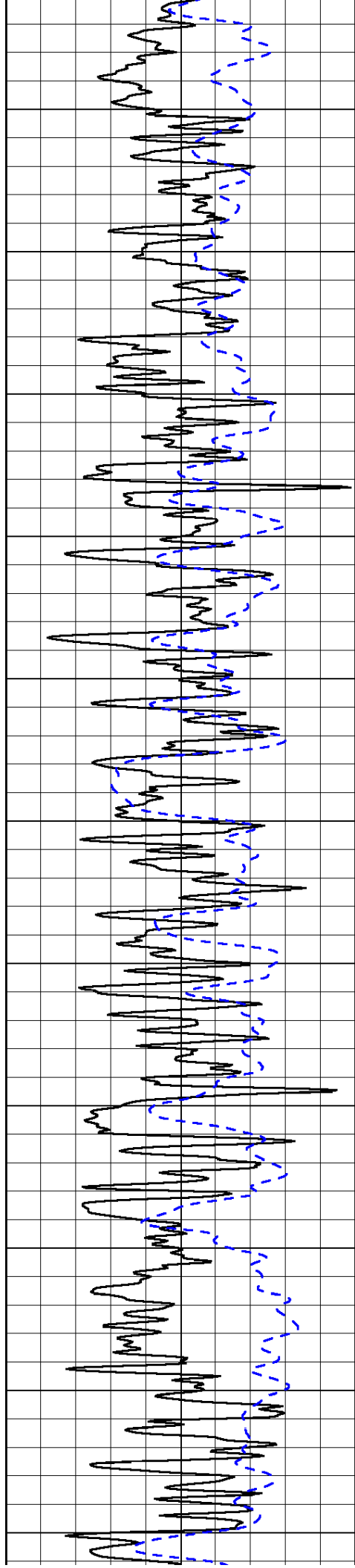


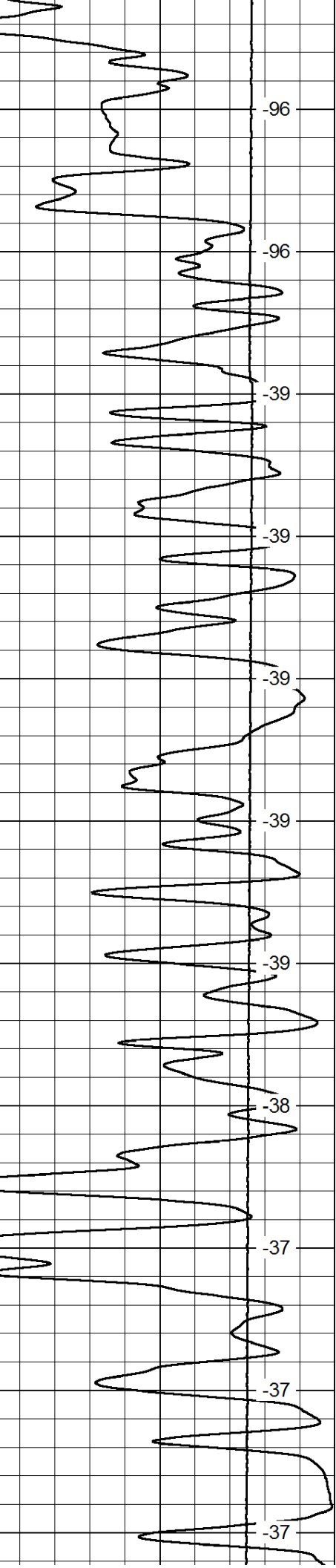
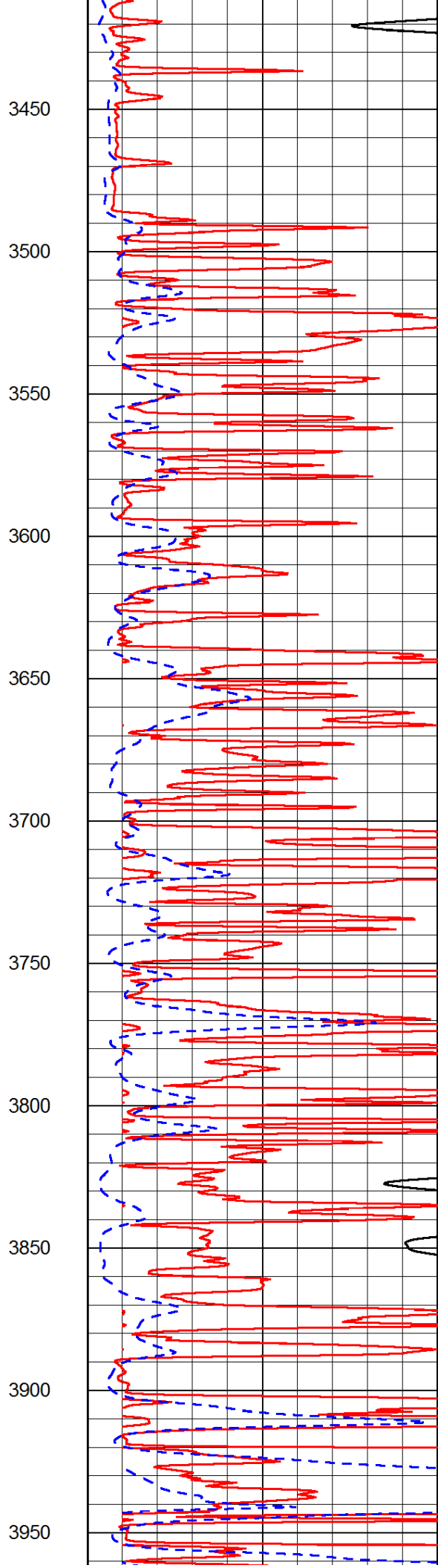
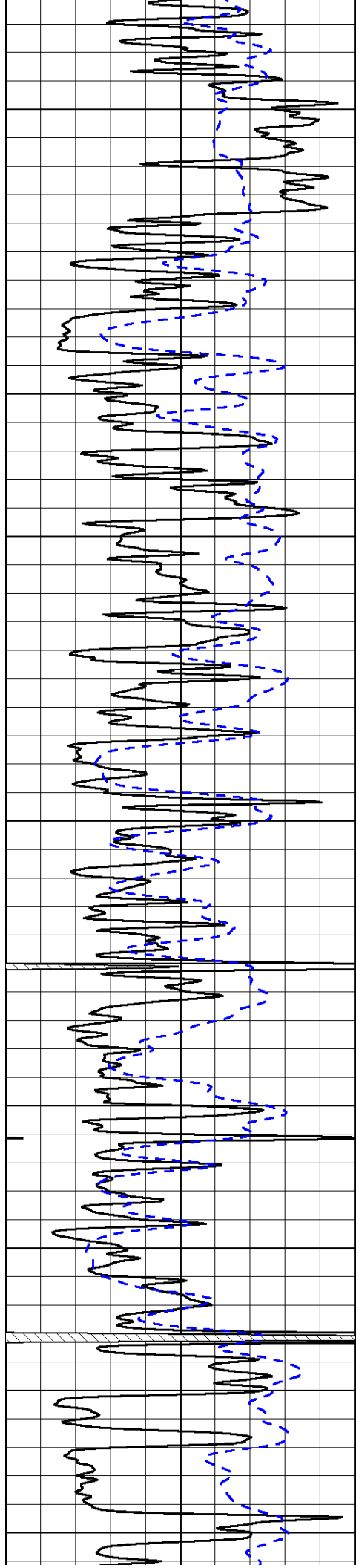


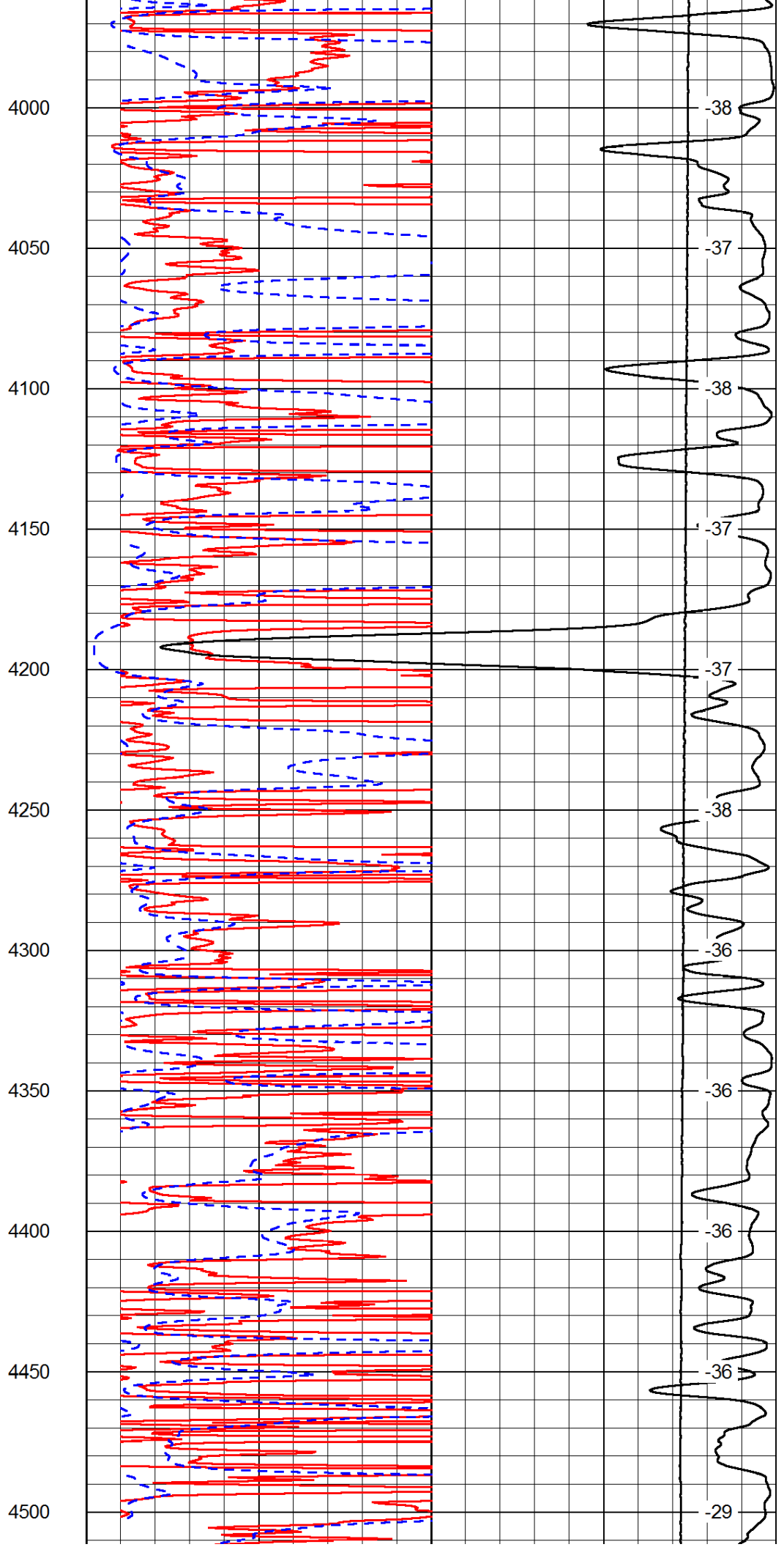
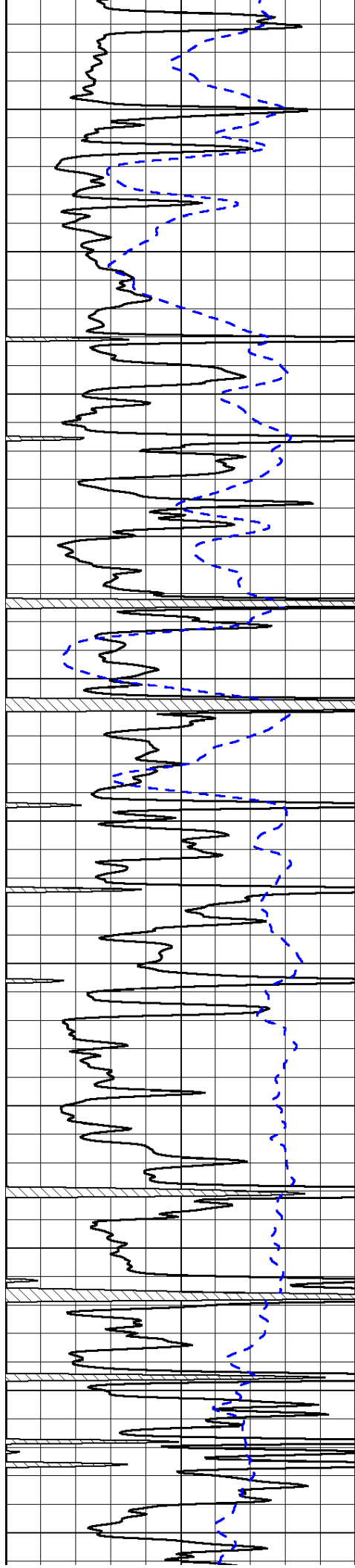


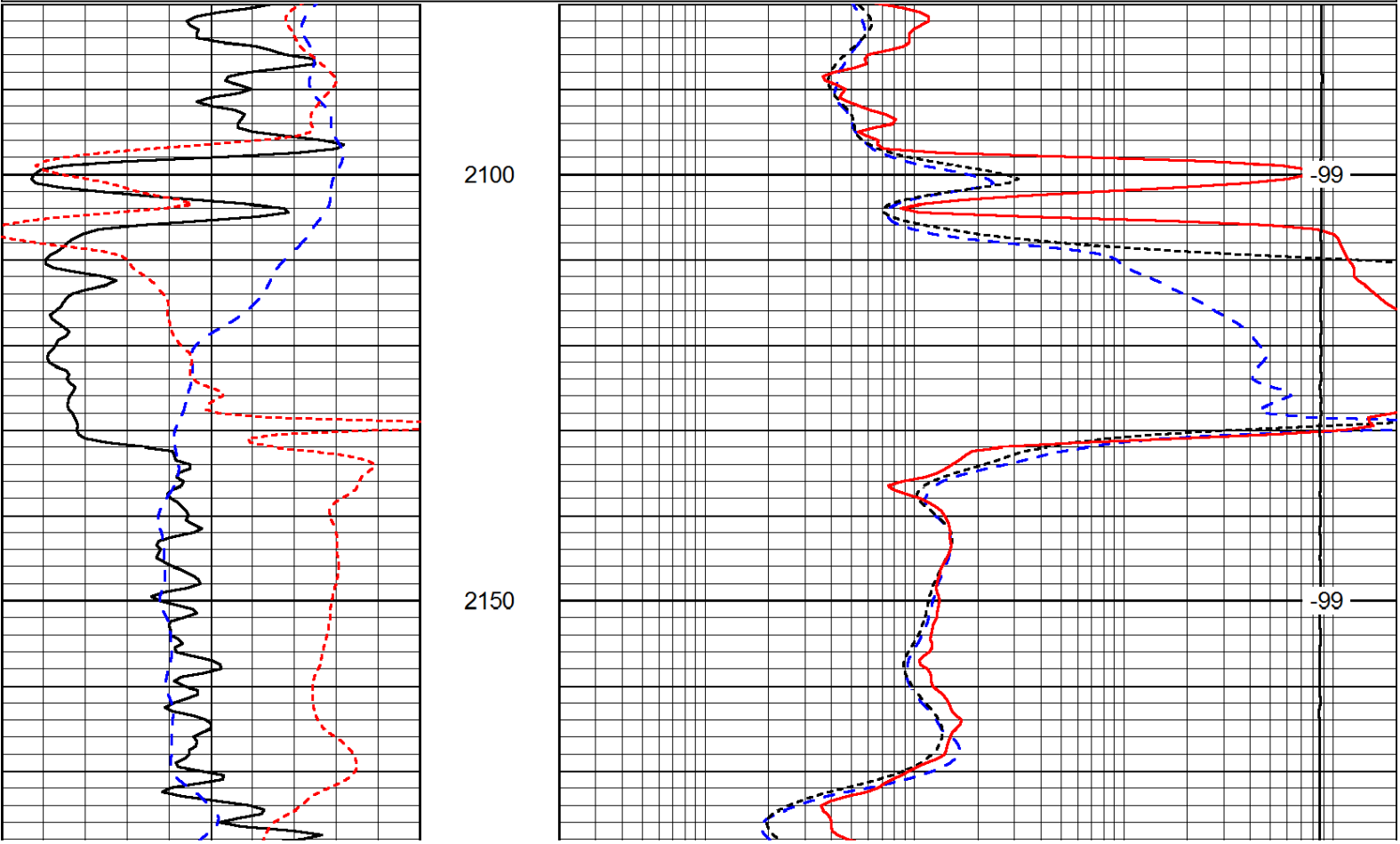
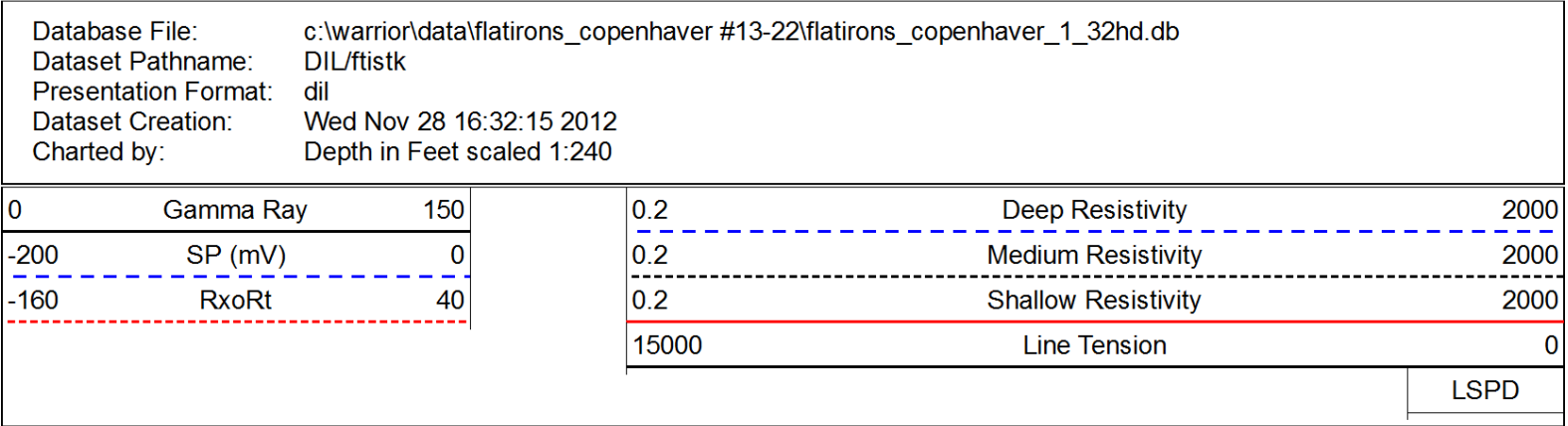
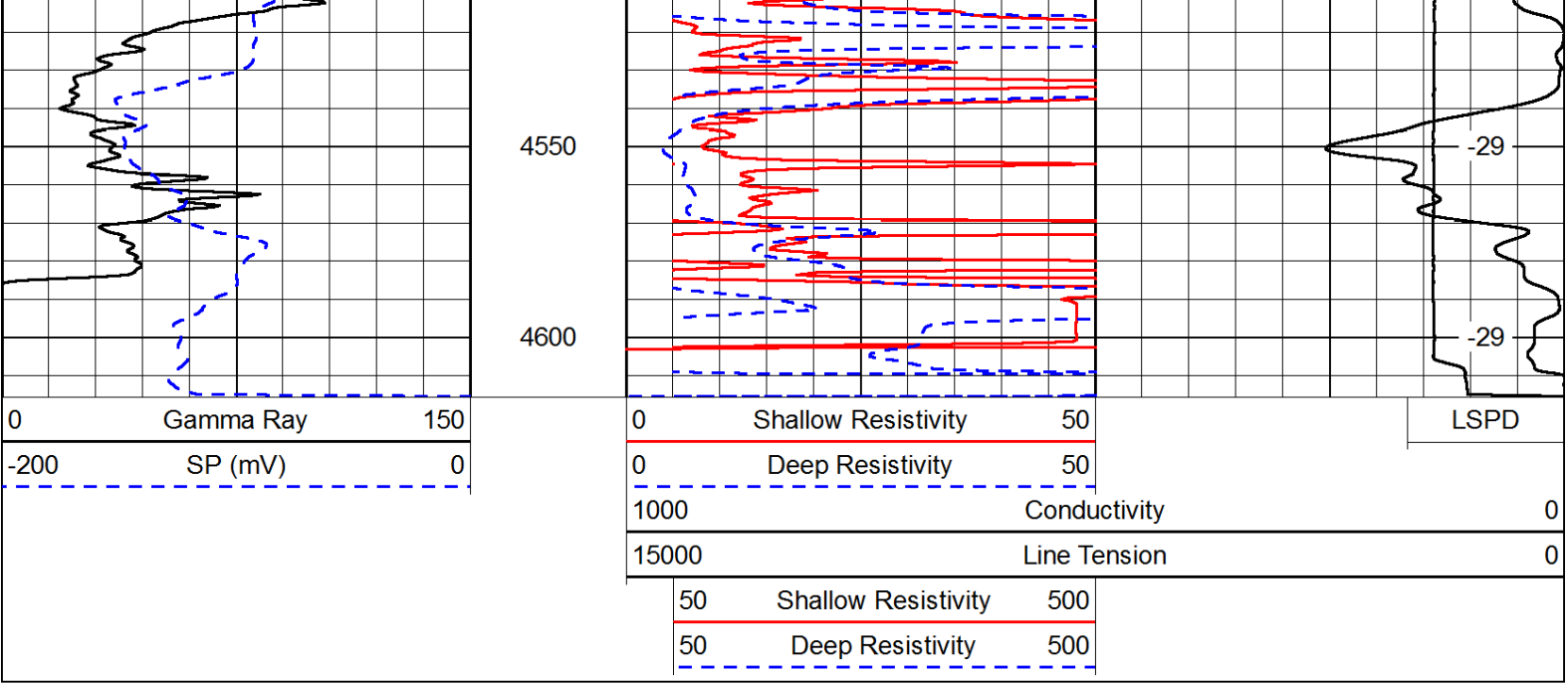












0	Gamma Ray	150
-200	SP (mV)	0
-160	RxoRt	40

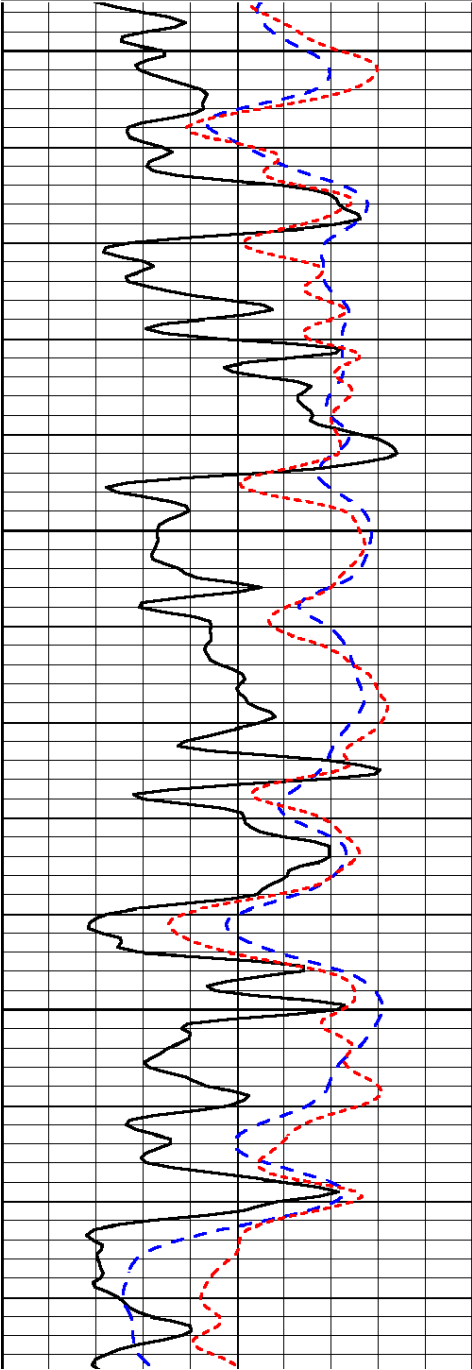
0.2	Deep Resistivity	2000
0.2	Medium Resistivity	2000
0.2	Shallow Resistivity	2000
15000	Line Tension	0
		LSPD

Database File:
Dataset Pathname:
Presentation Format:
Dataset Creation:
Charted by:

c:\warrior\data\flatirons_copenhaver #13-22\flatirons_copenhaver_1_32hd.db
DIL/ftistk
dil
Wed Nov 28 16:32:15 2012
Depth in Feet scaled 1:240

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

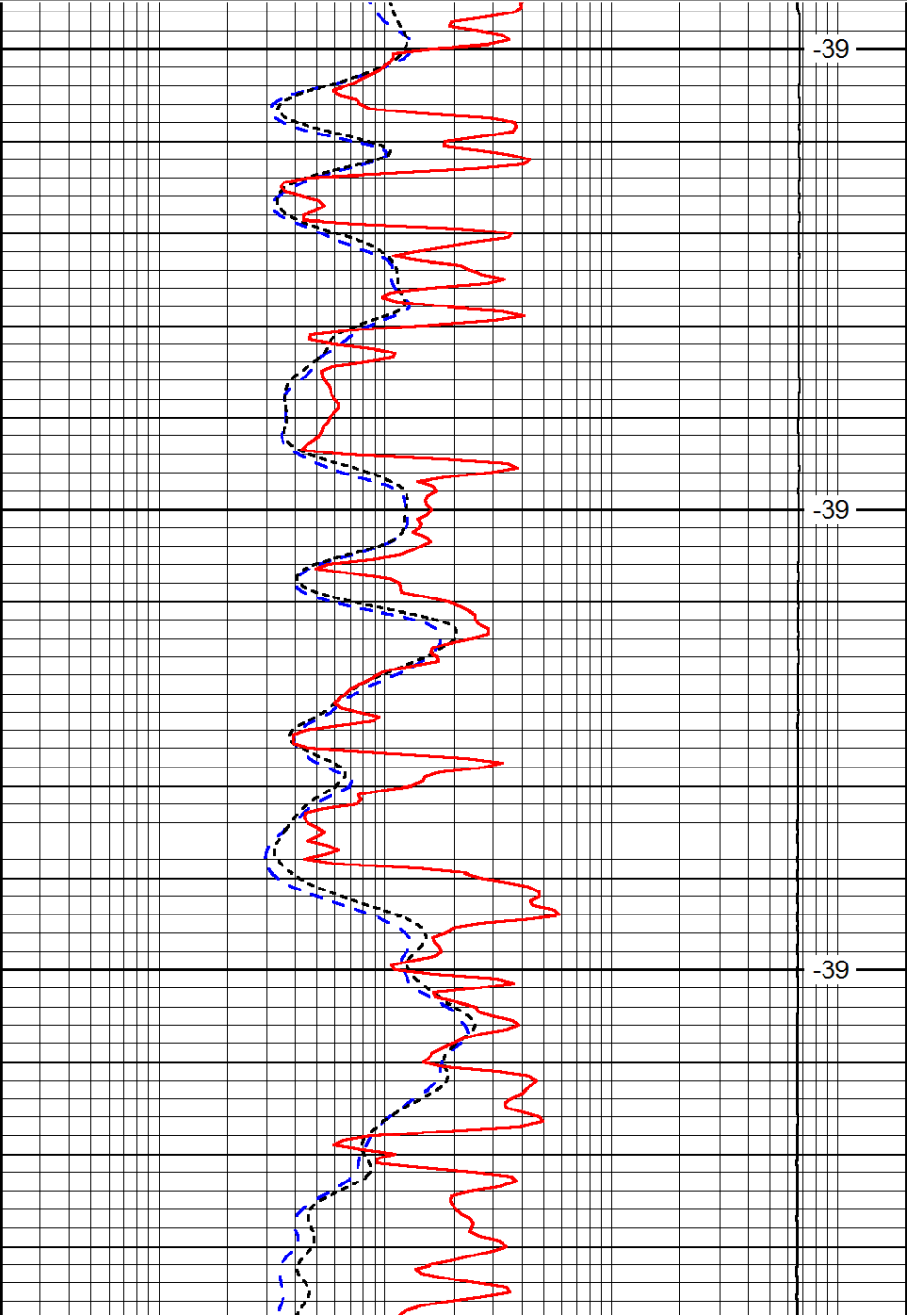
0.2	Deep Resistivity	2000
0.2	Medium Resistivity	2000
0.2	Shallow Resistivity	2000
15000	Line Tension	0
		LSPD



3550

3600

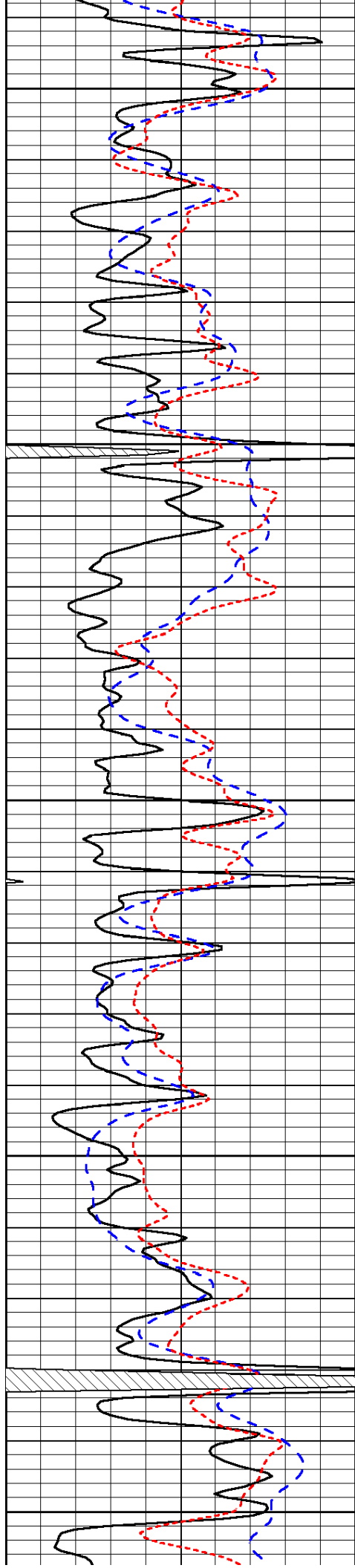
3650



-39

-39

-39



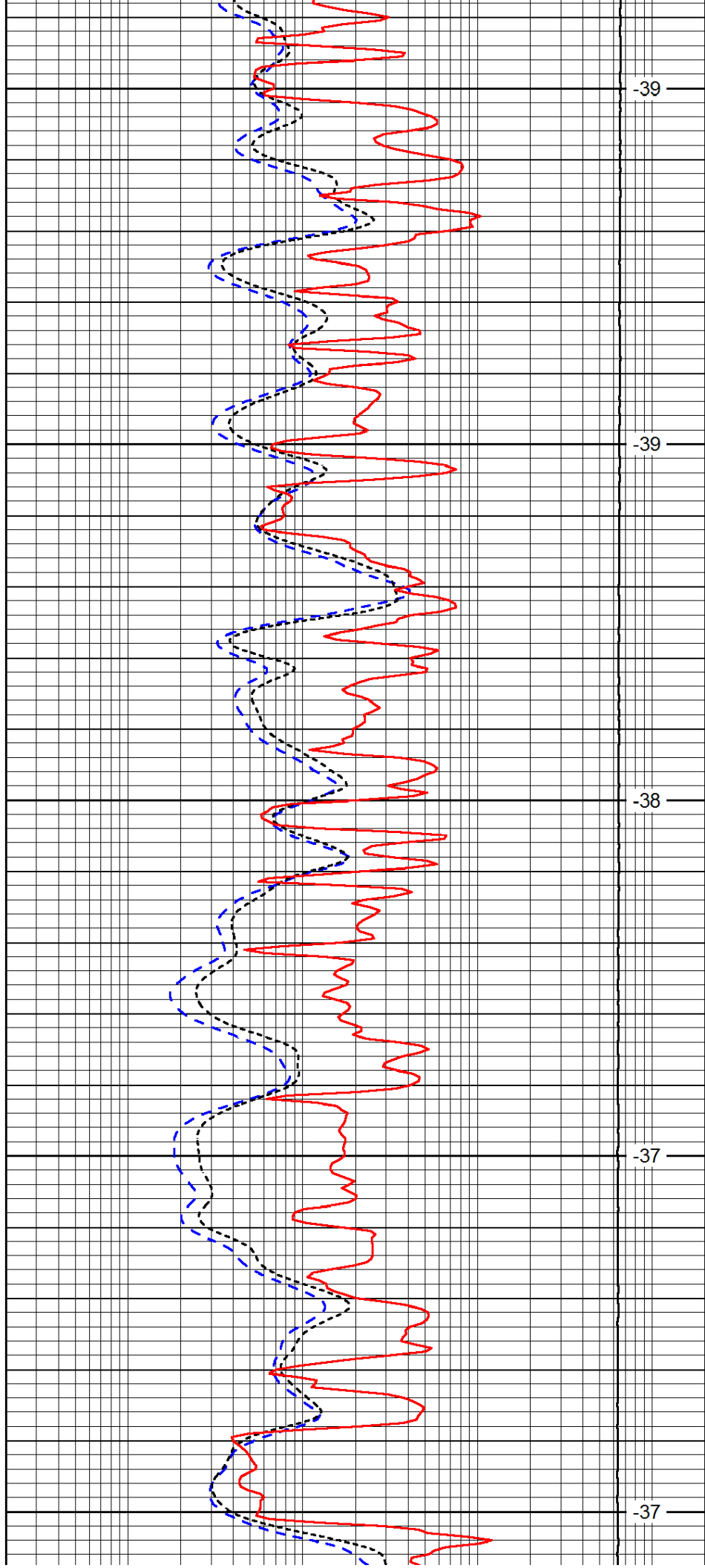
3700

3750

3800

3850

3900



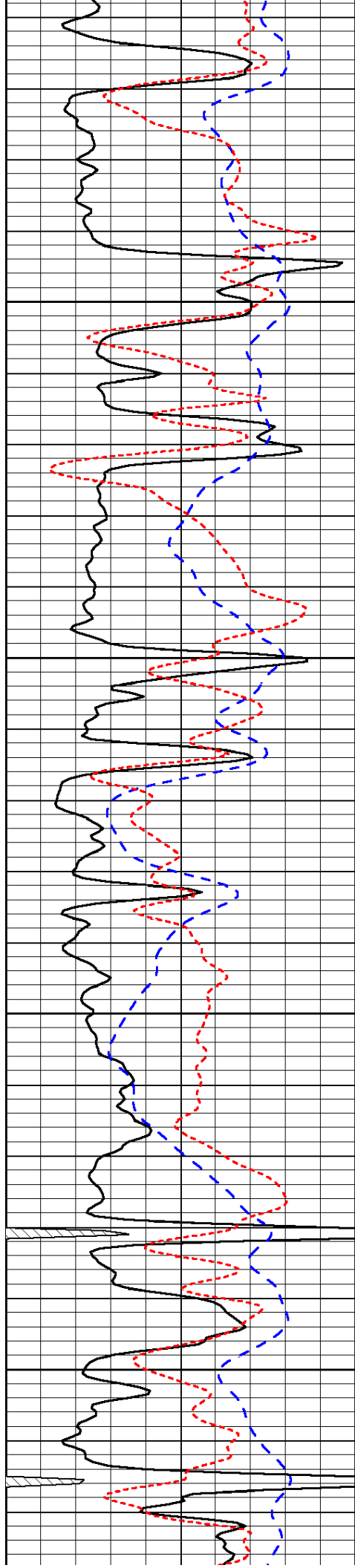
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-39

-38

-37

-37

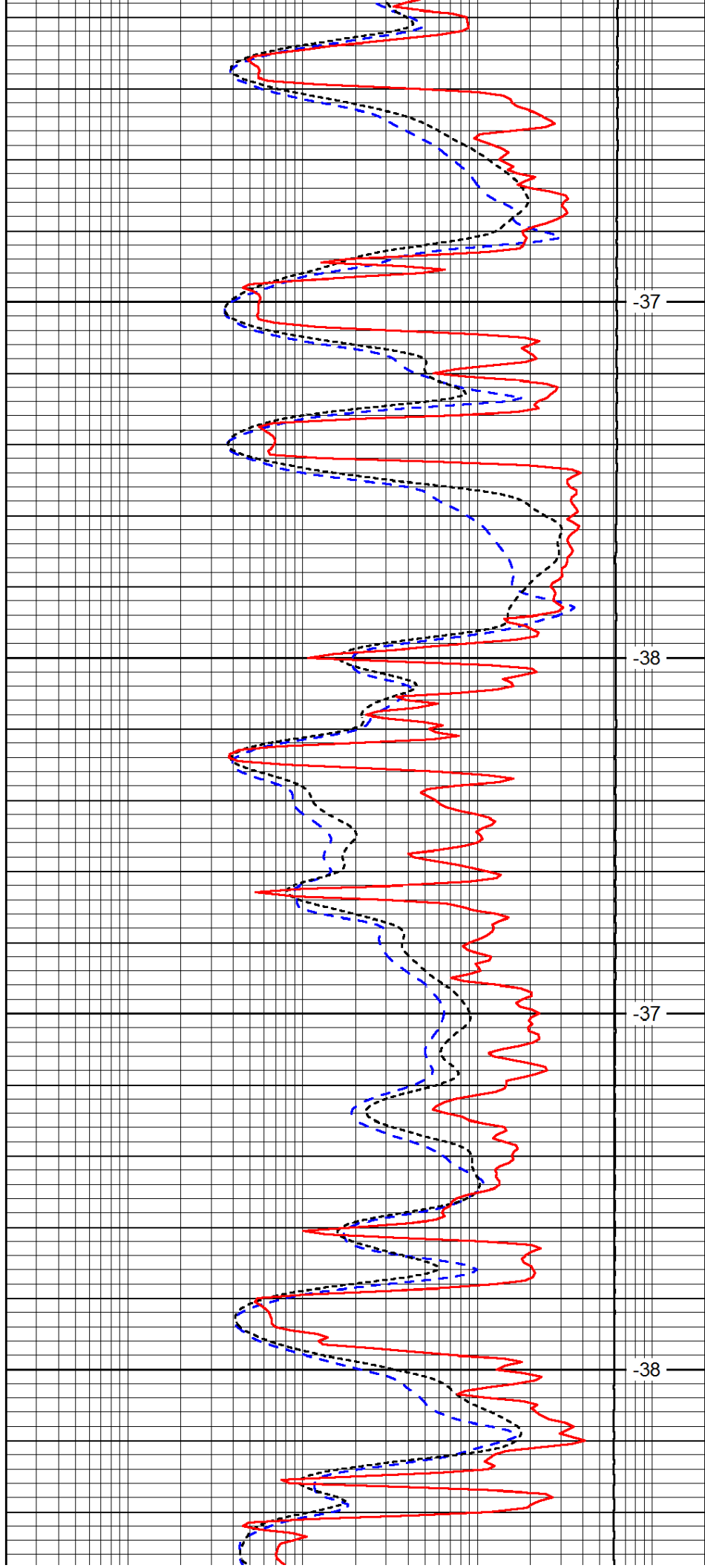


3950

4000

4050

4100

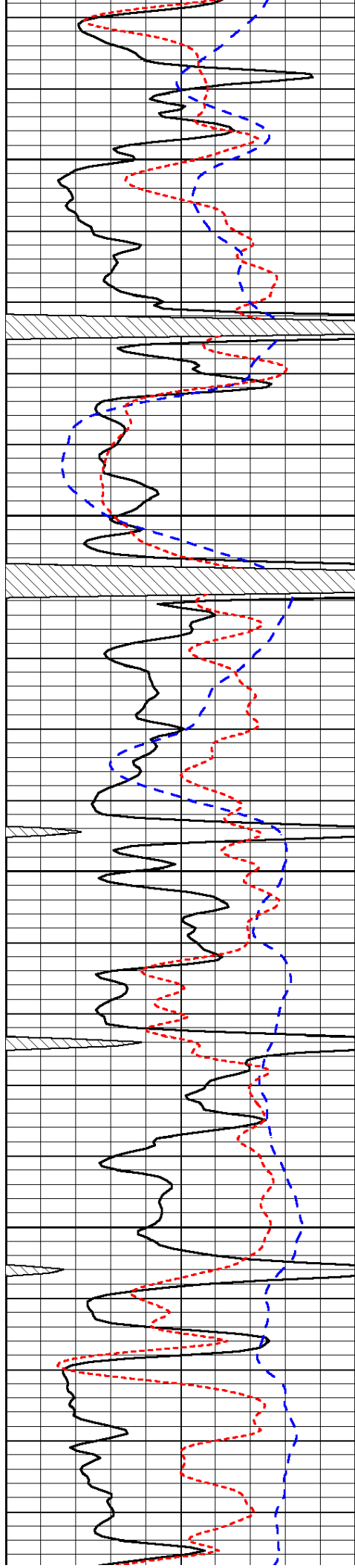


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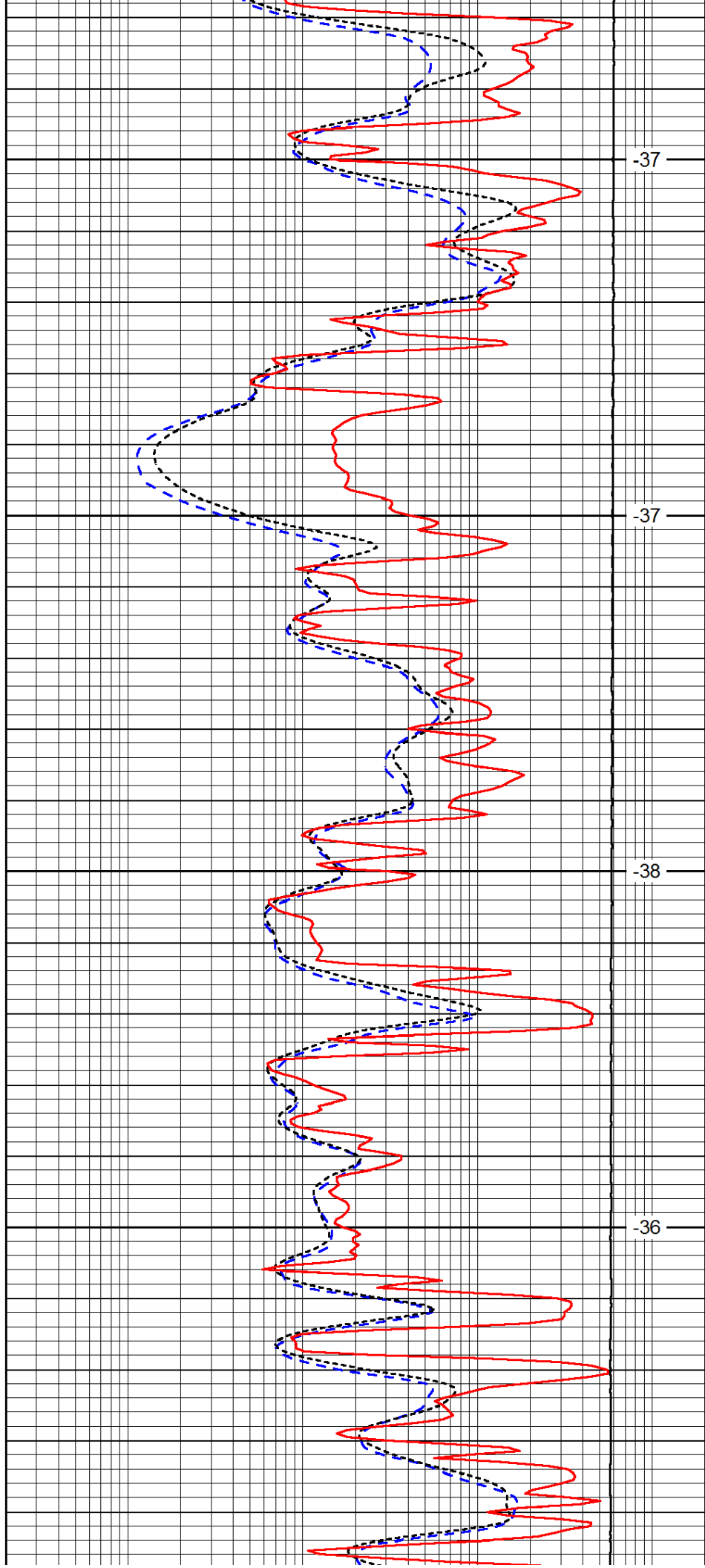


4150

4200

4250

4300

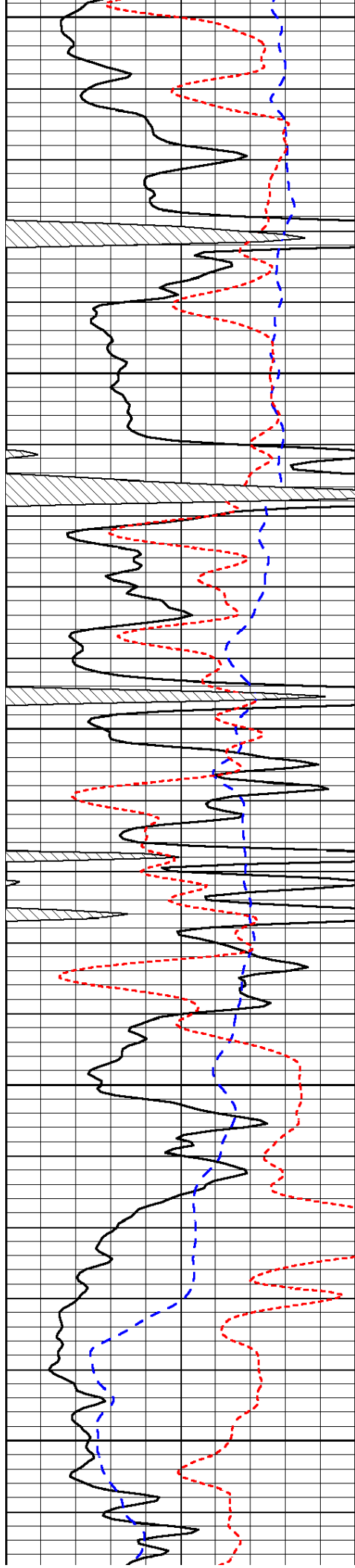


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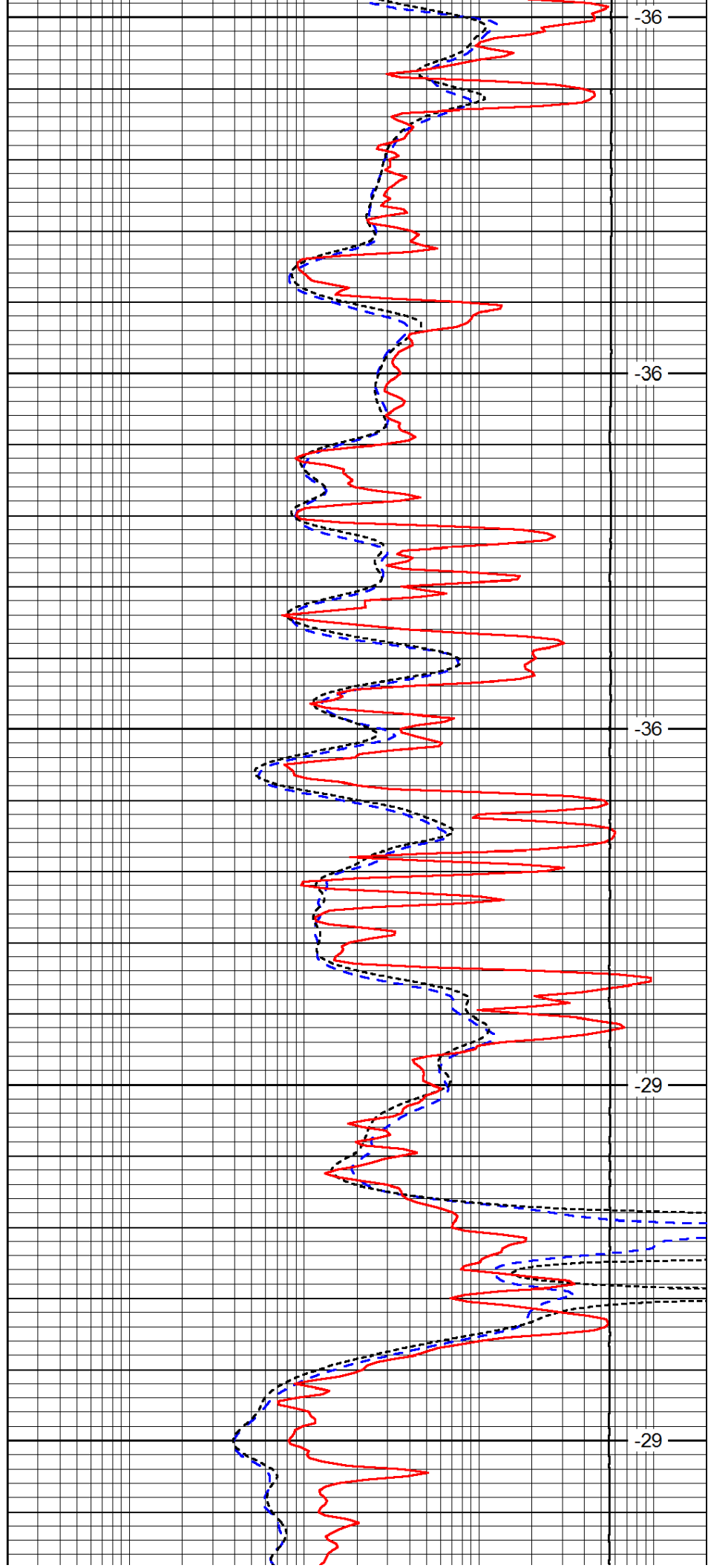
4350

4400

4450

4500

4550



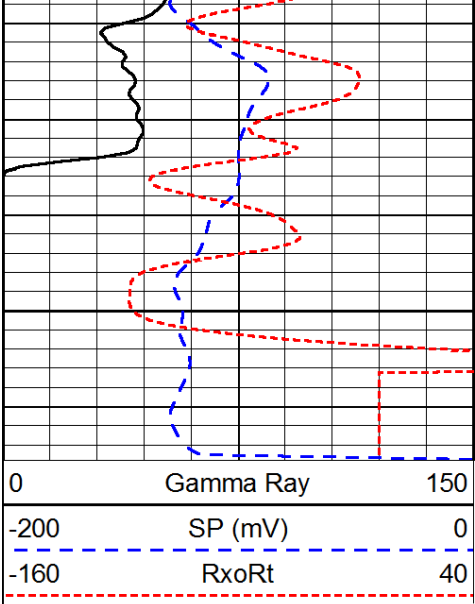
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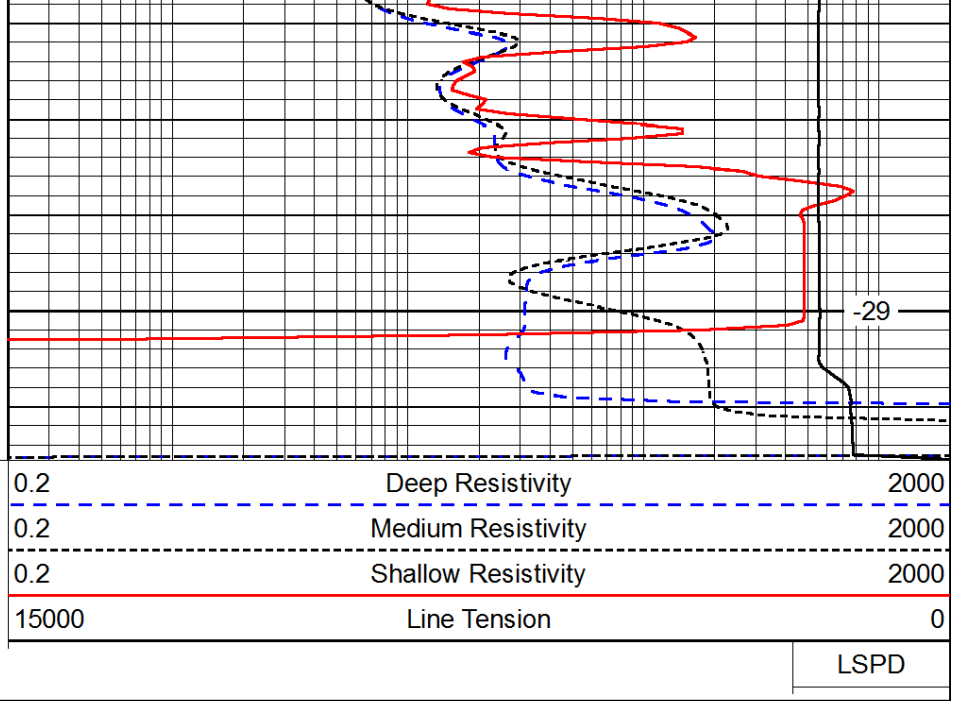
-36

-29

-29



4600



-29

LSPD