



Dual Induction Log

Pioneer Energy Services

API No.

15-109-21,377-00-00

Company **Black Tea Oil, LLC**

Well **DFK 5 #1**

Field **Elkader Townsite Southeast**

County **Logan** State **Kansas**

Location

**SE SE SW SW
300' FSL & 1260' FWL**

Sec: **35**

Twp: **14S**

Rge: **32W**

Other Services
CNL/CDL
MEL/BHCS

Elevation

K.B. 2641
D.F.
G.L. 2632

Permanent Datum Ground Level Elevation 2632
Log Measured From Kelly Bushing 9 Ft. Above Perm. Datum
Drilling Measured From Kelly Bushing

Date 12/14/2014

Run Number One

Depth Driller 4410

Depth Logger 4407

Bottom Logged Interval 4406

Top Log Interval 250

Casing Driller 8.625 @ 264

Casing Logger 260

Bit Size 7.875

Type Fluid in Hole Chemical

Salinity, ppm CL 5000

Density / Viscosity 9.2 42

pH / Fluid Loss 9.5 8.8

Source of Sample Flowline

Rm @ Meas. Temp 0.70 @ 67

Rmf @ Meas. Temp 0.53 @ 67

Rmc @ Meas. Temp 0.95 @ 67

Source of Rmf / Rmc Charts

Rm @ BHT 0.39 @ 120

Operating Rig Time 5 Hours

Max Rec. Temp. F 120

Equipment Number 15

Location Hays

Recorded By D.Kerr

Witnessed By Richard Thomasson

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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

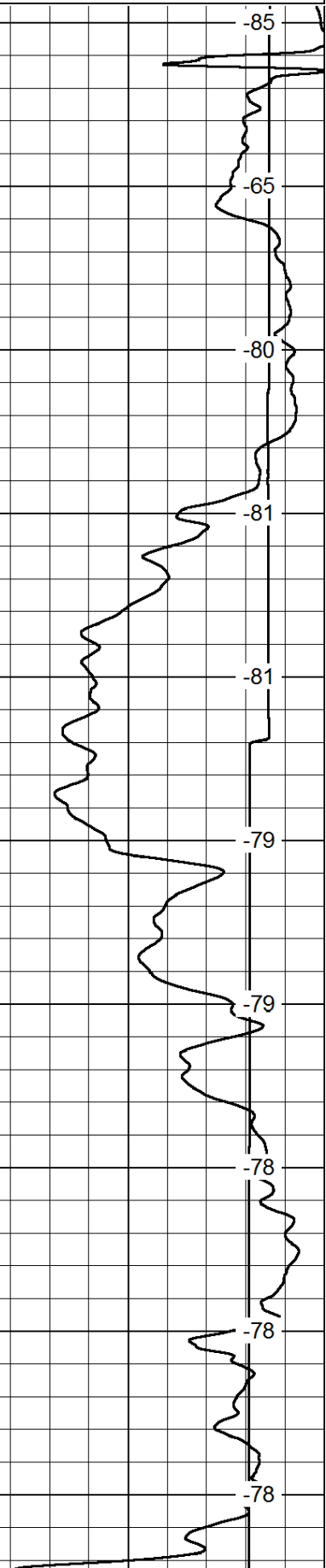
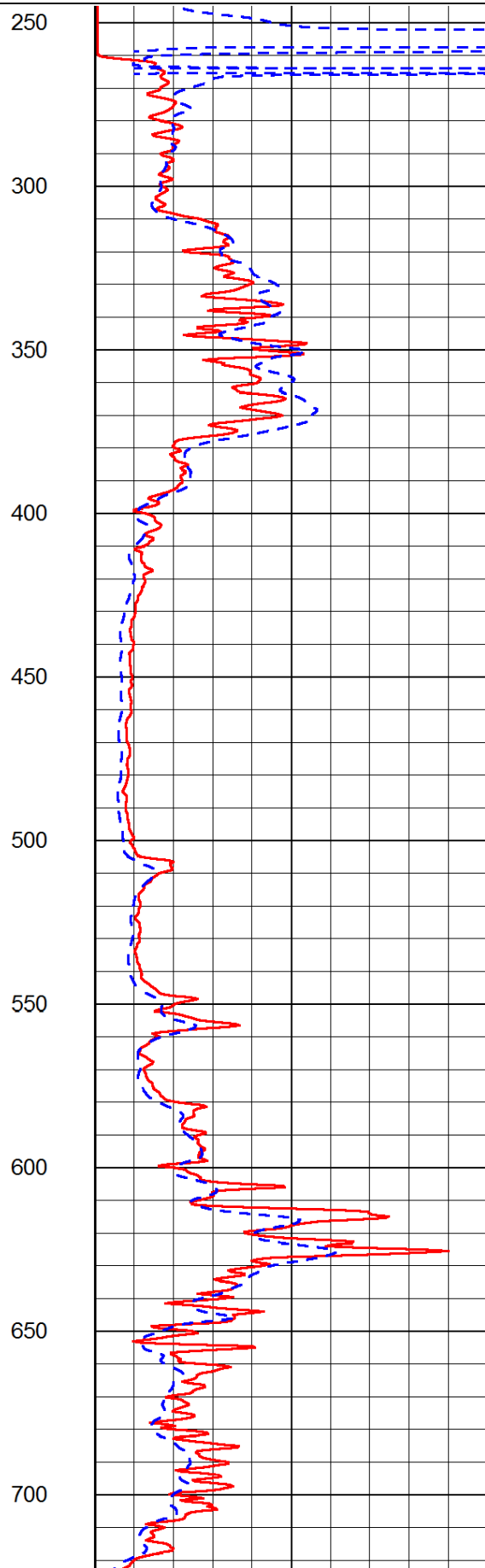
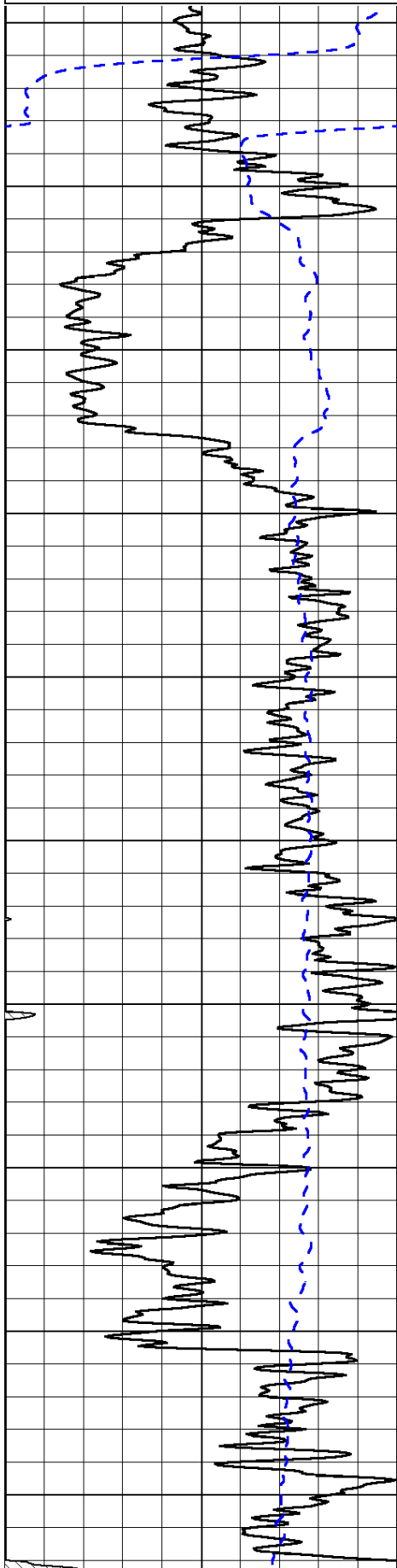
Oakley KS, 23 South to Gold RD, 1/4 East,
North through fence, East and North Into

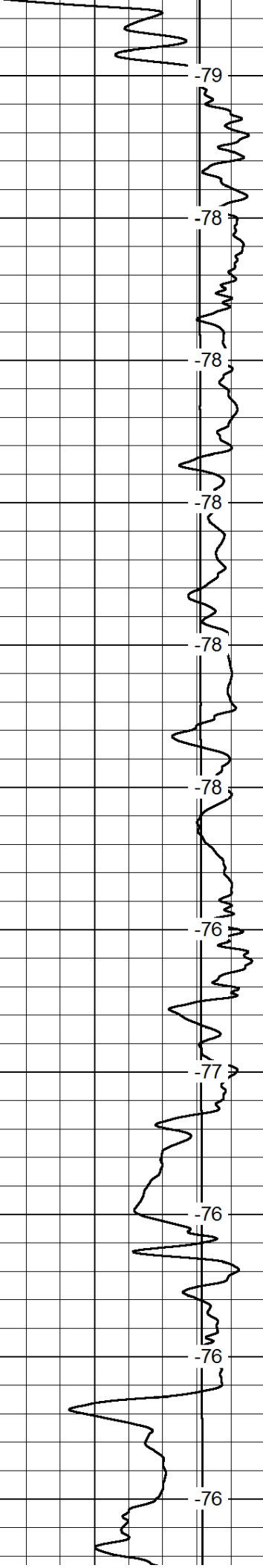
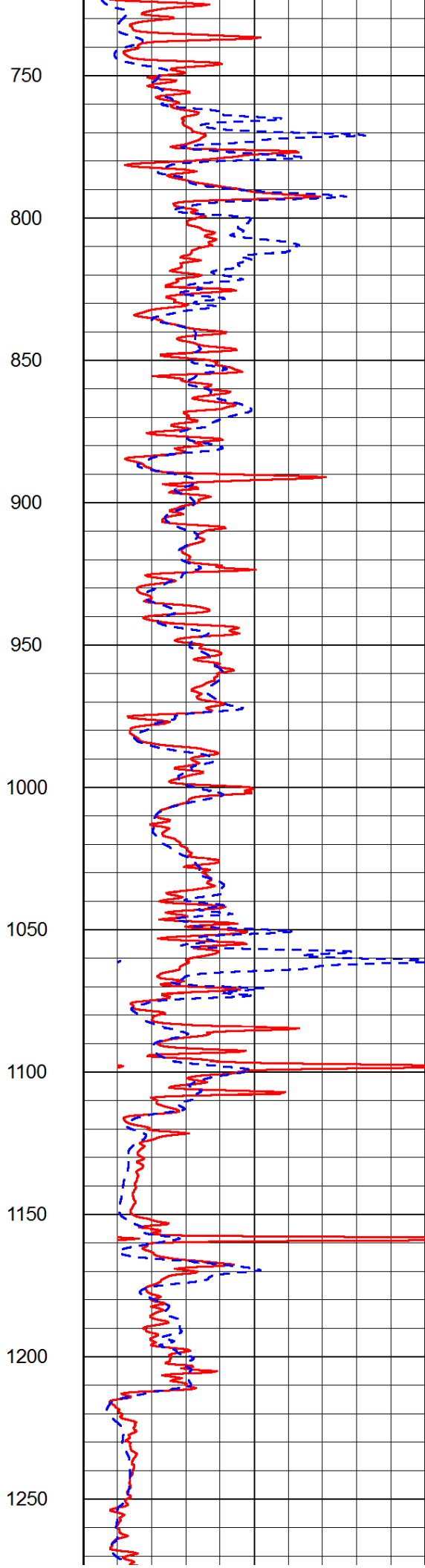
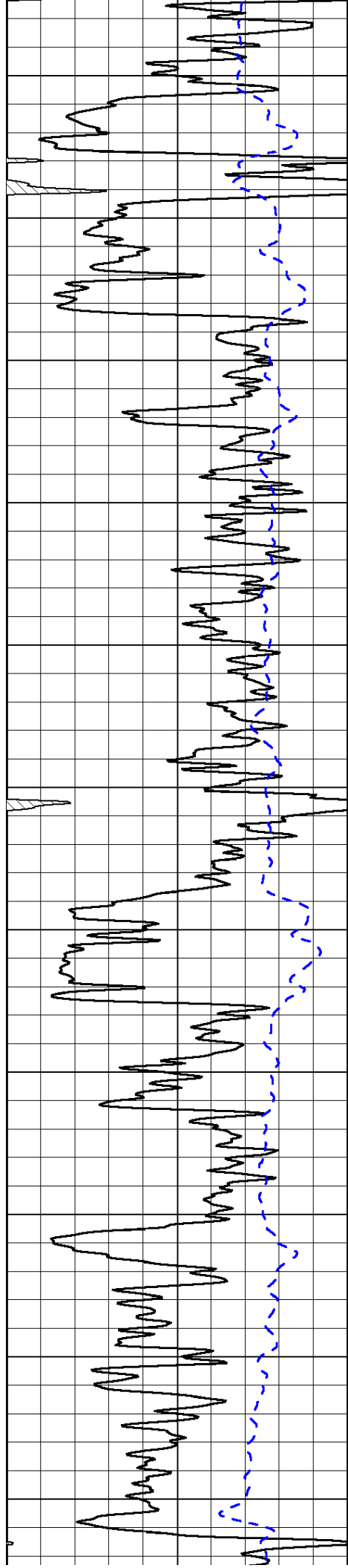
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Dataset Creation: Sun Dec 14 11:52:37 2014
Charted by: Depth in Feet scaled 1:600

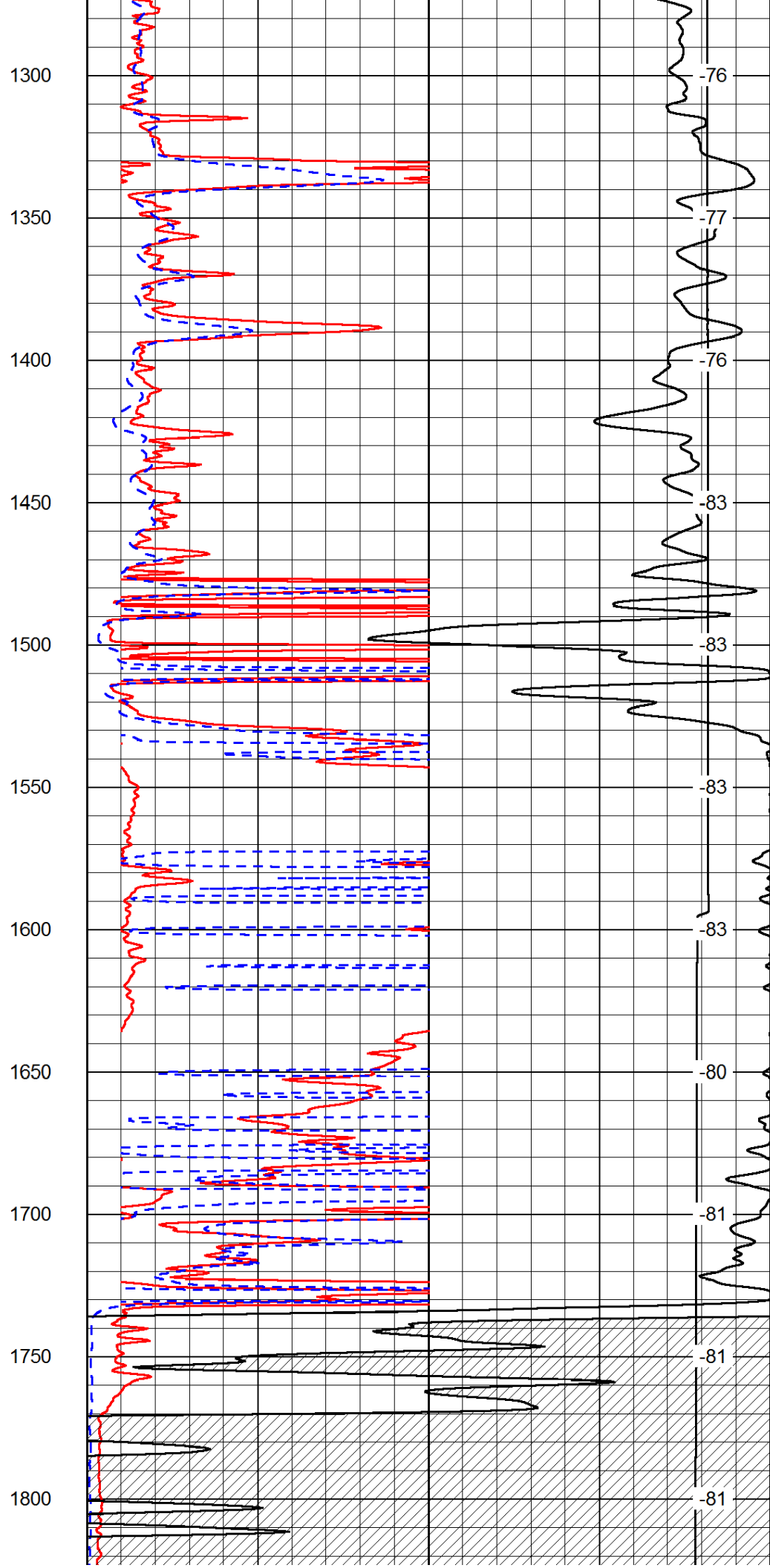
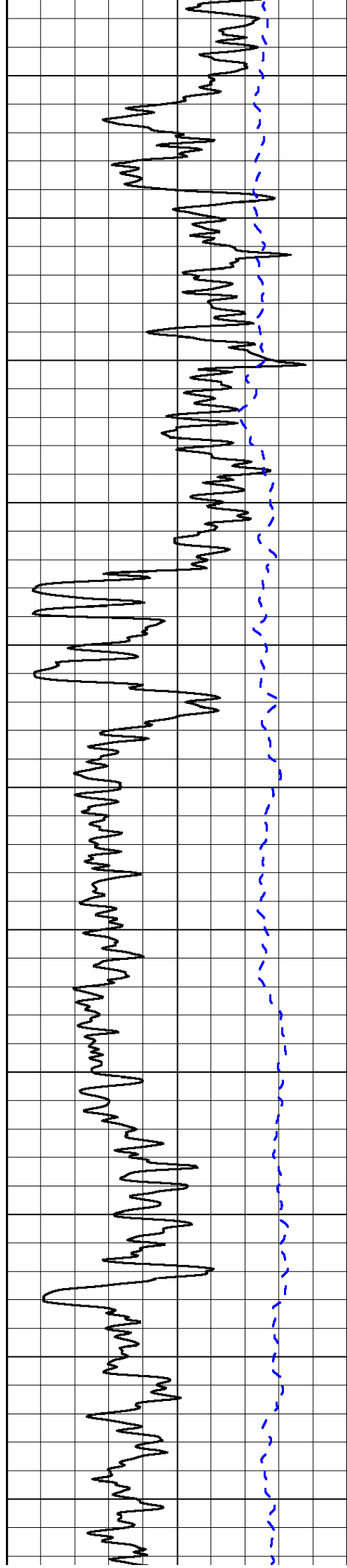
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-200	SP (mV)	0

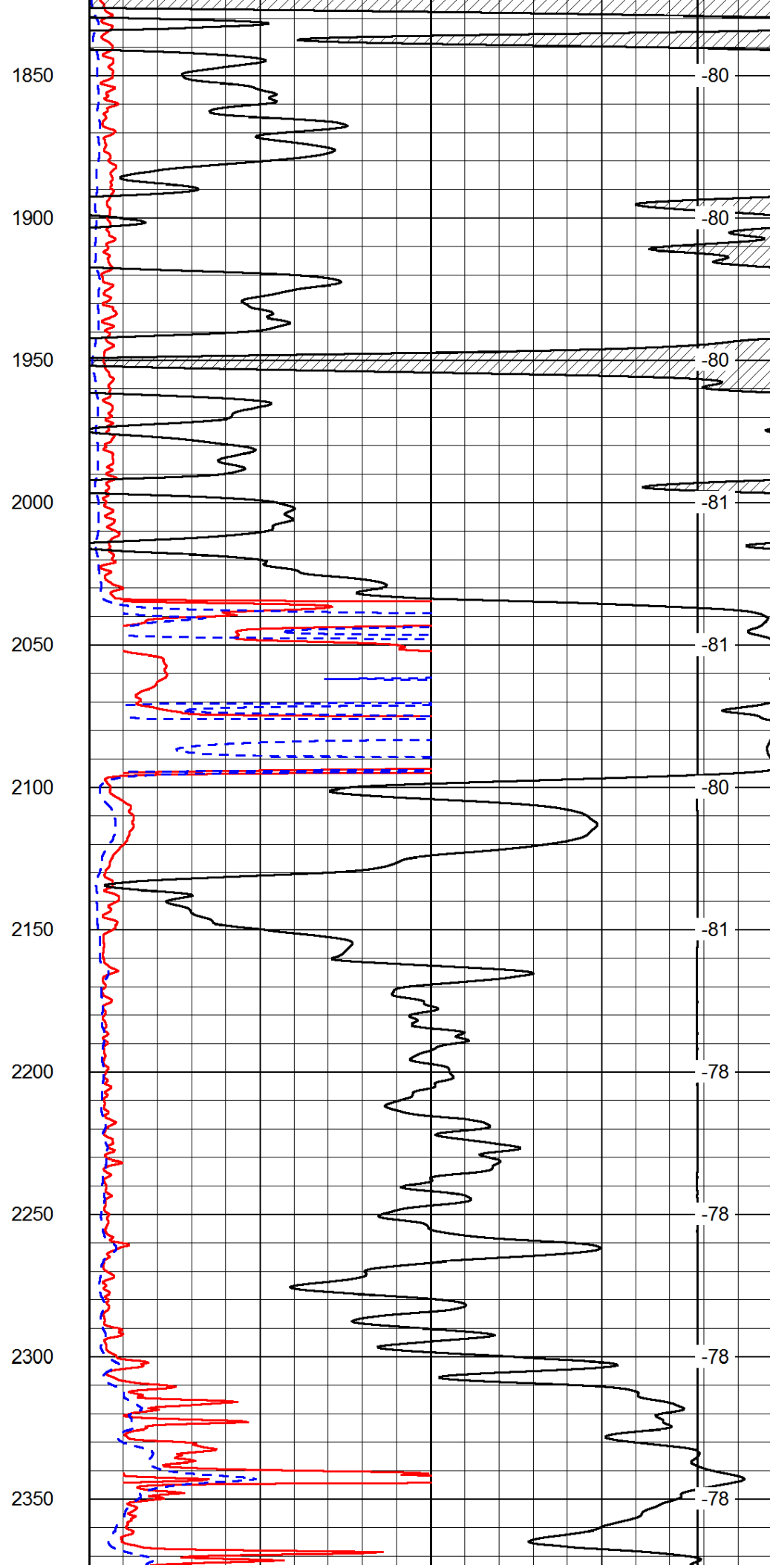
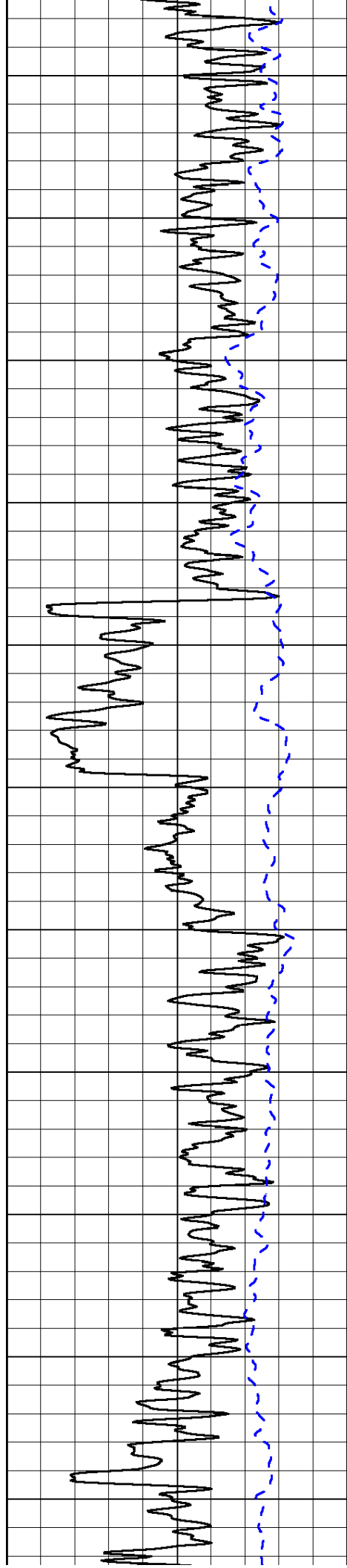
0	Shallow Resistivity	50
0	Deep Resistivity	50
1000	Conductivity	0
15000	Line Tension	0
50	Shallow Resistivity	500
50	Deep Resistivity	500

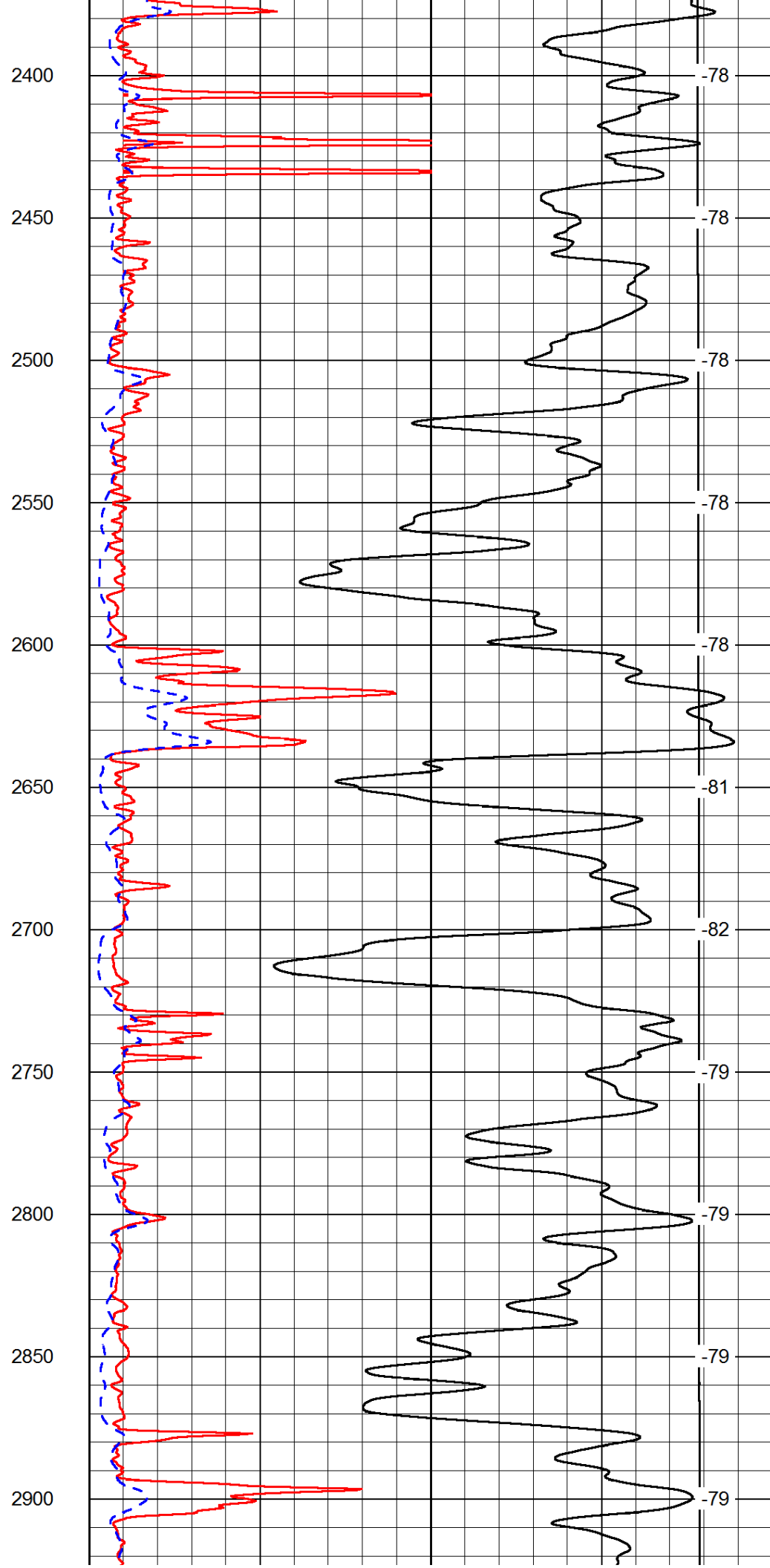
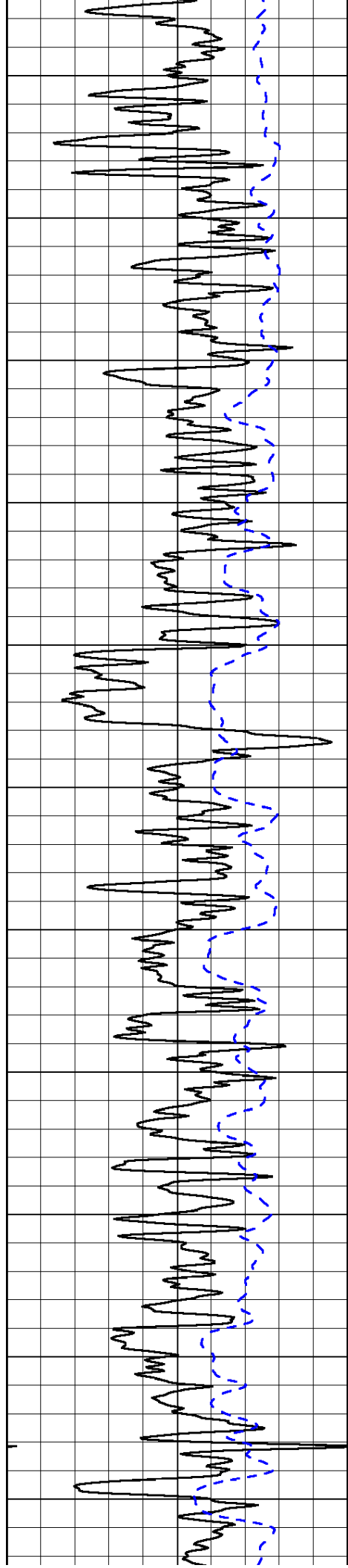
LSPD

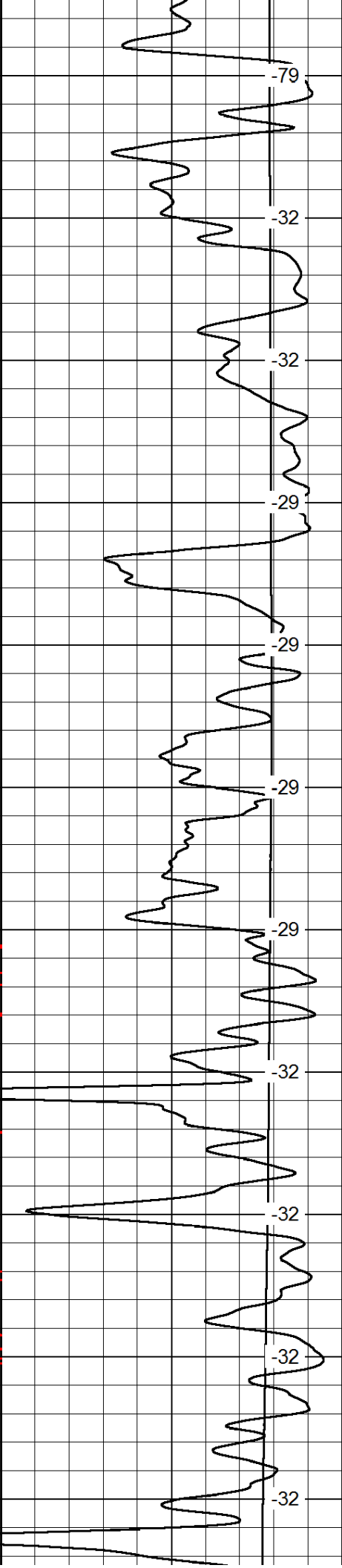
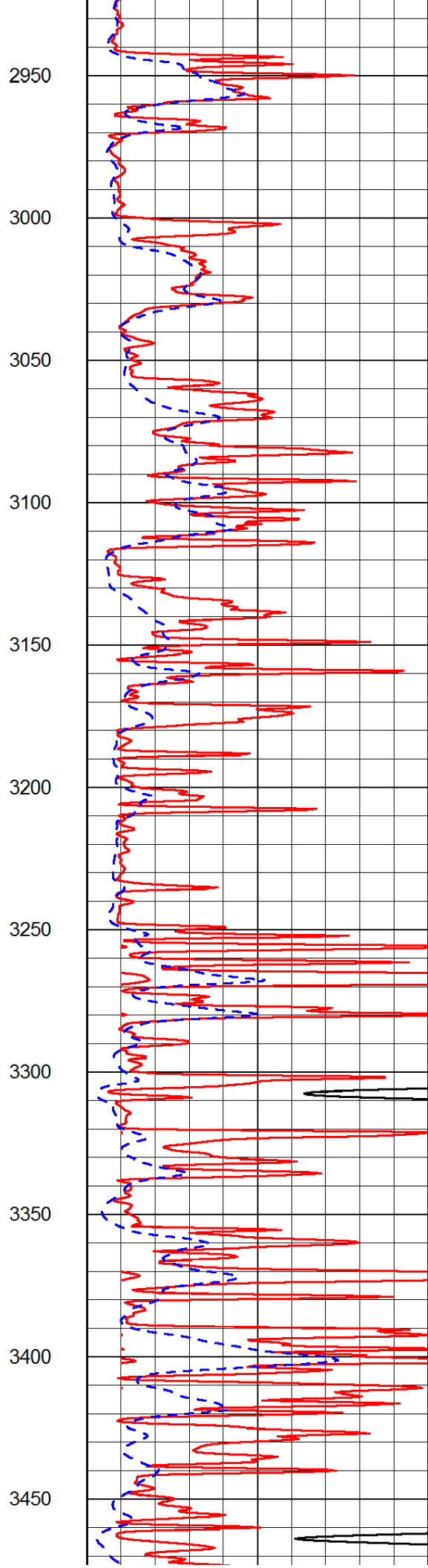
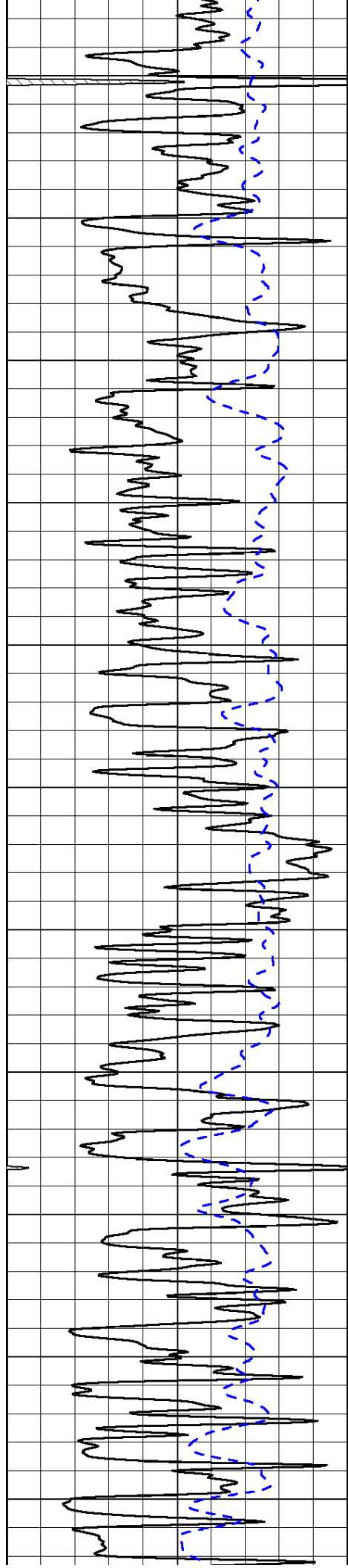


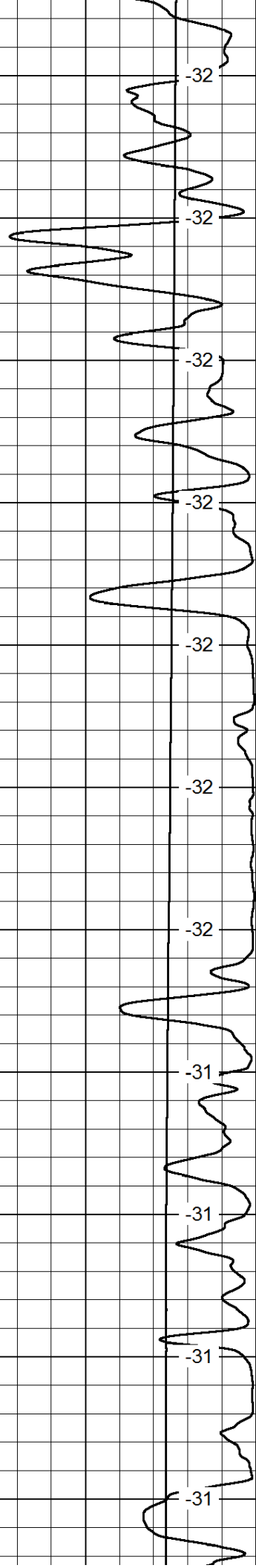
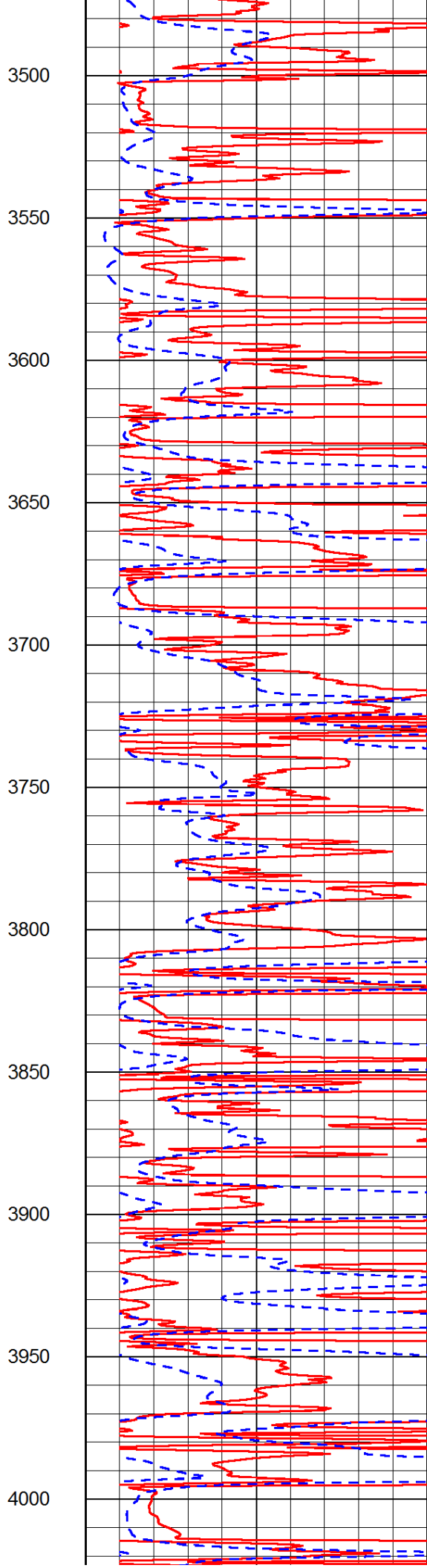
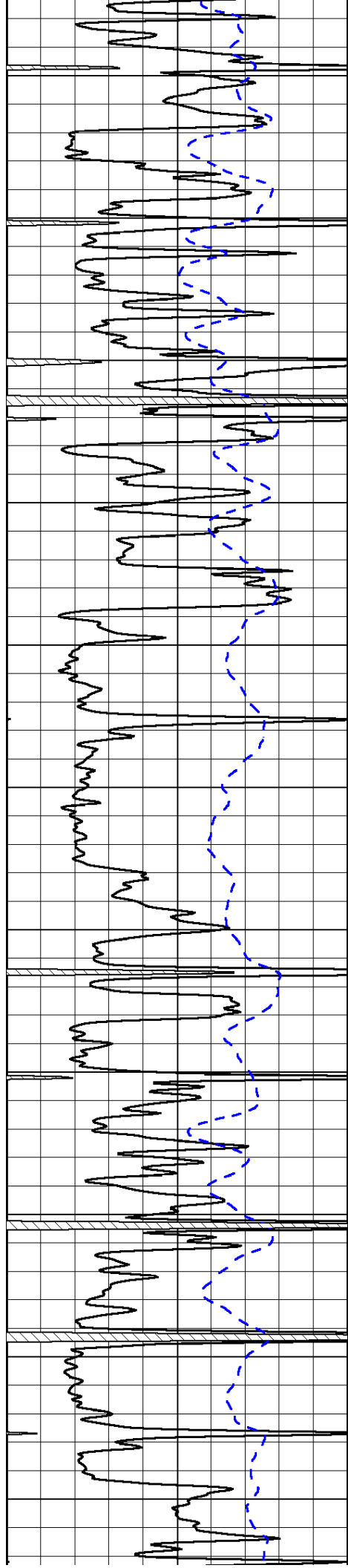


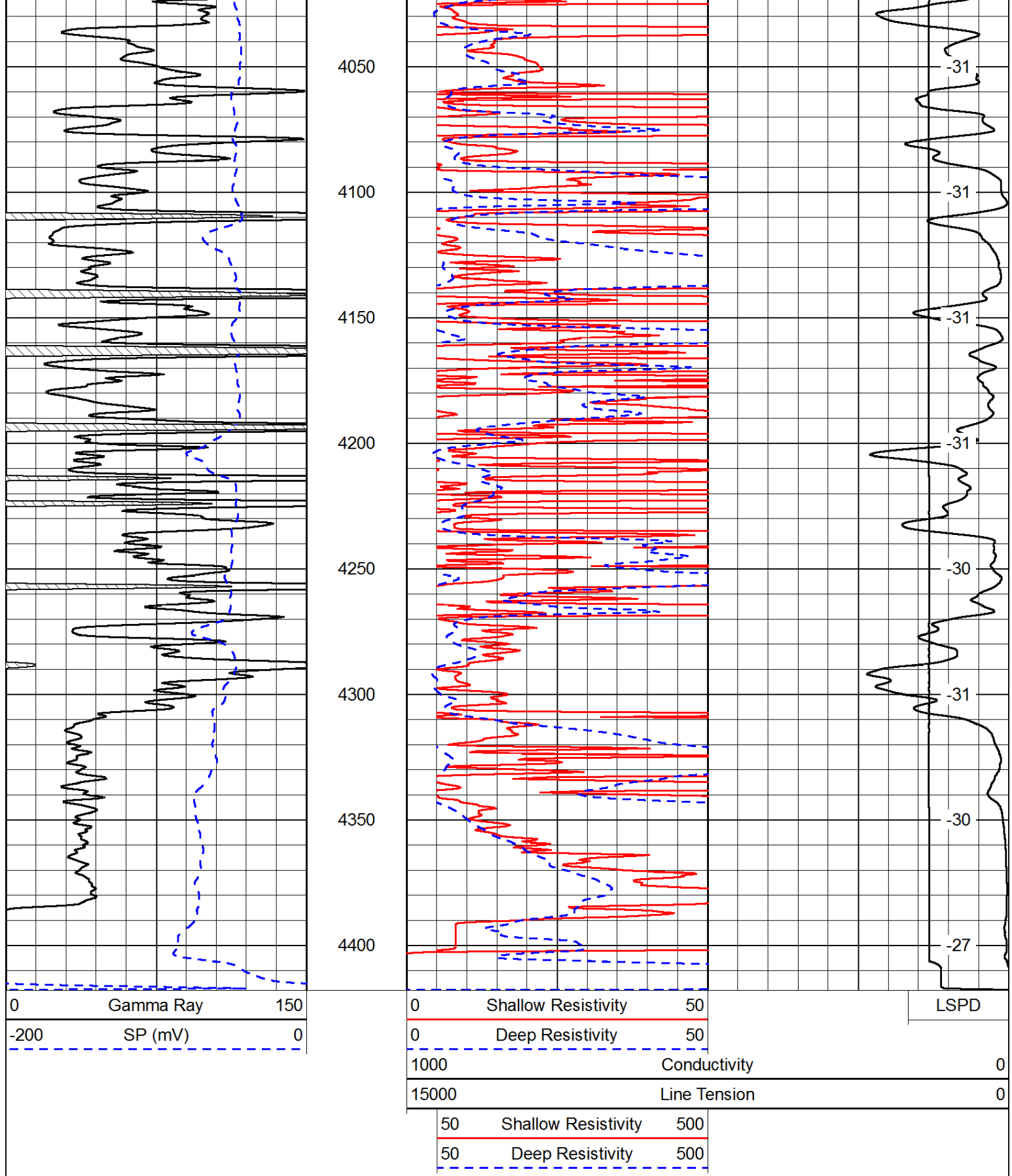




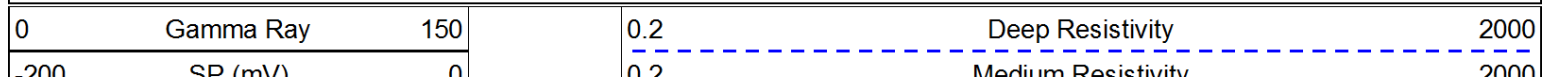








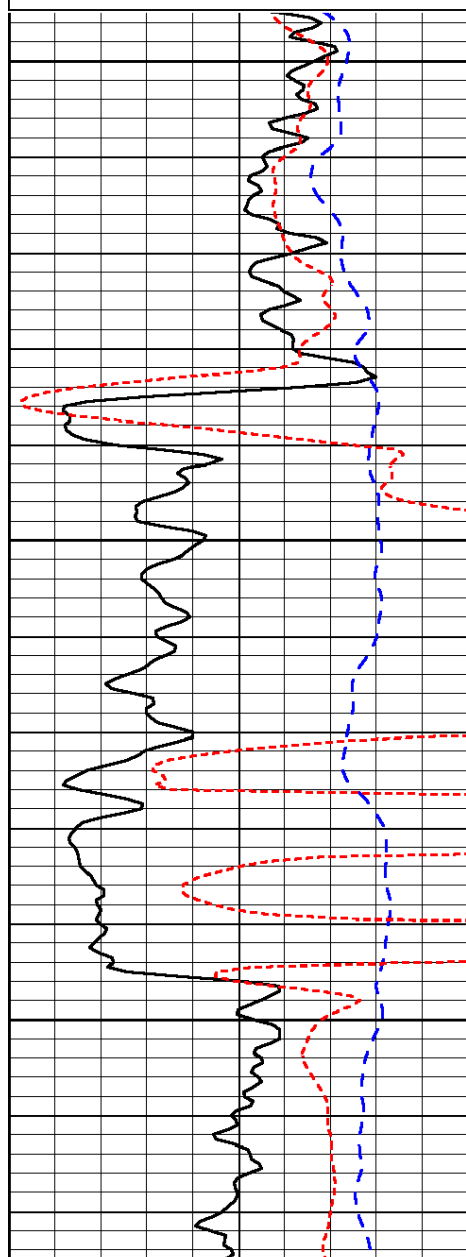
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 Presentation Format: dil
 Dataset Creation: Sun Dec 14 11:52:37 2014
 Charted by: Depth in Feet scaled 1:240



200	SP (mV)	0
-160	RxoRt	40

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

LSPD

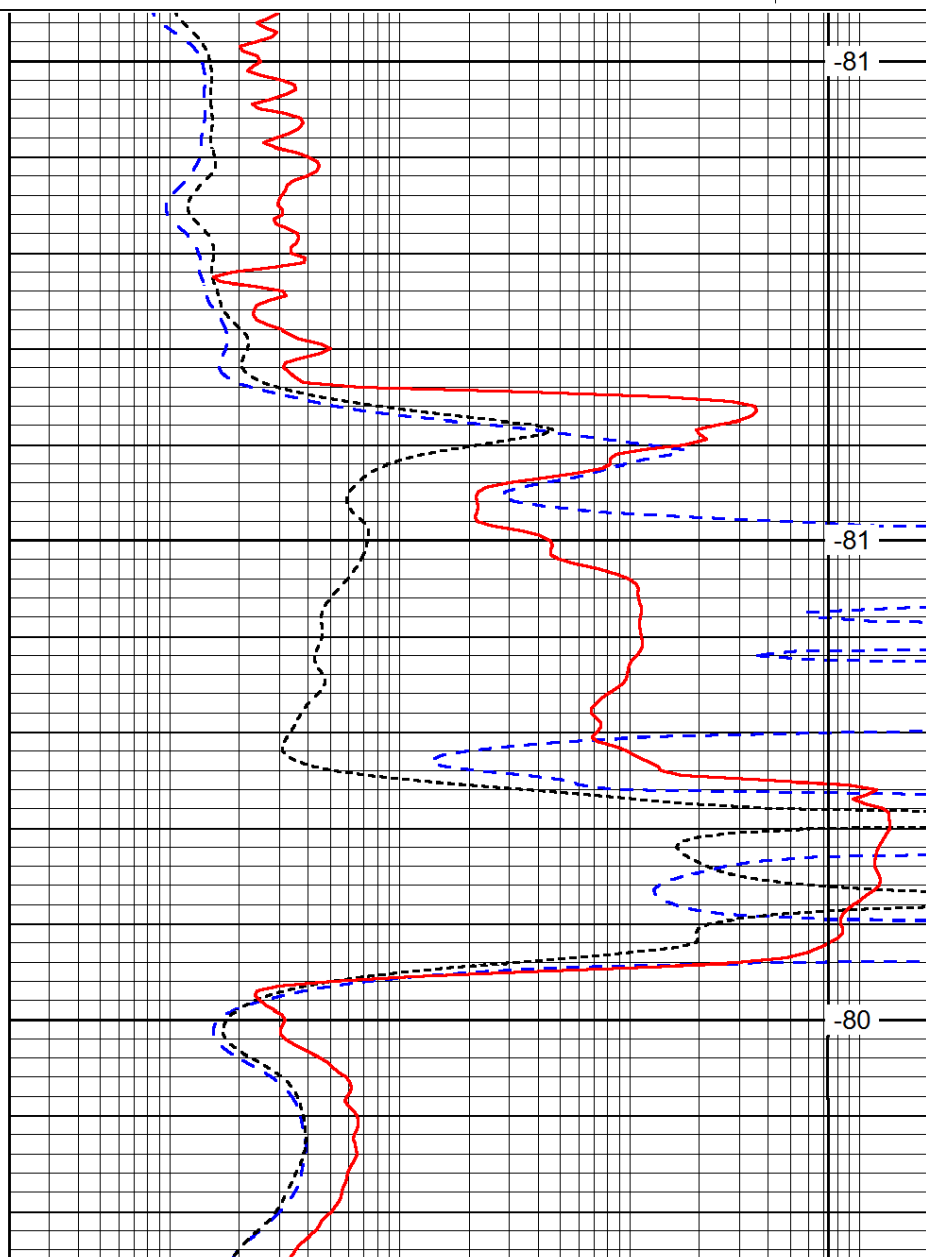


2000

2050

2100

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



-81

-81

-80

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

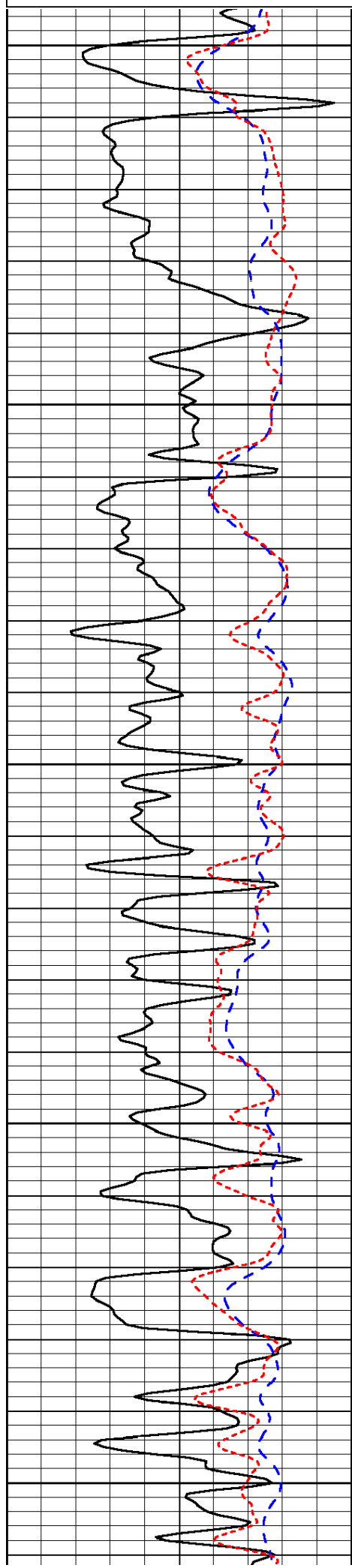
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LSPD



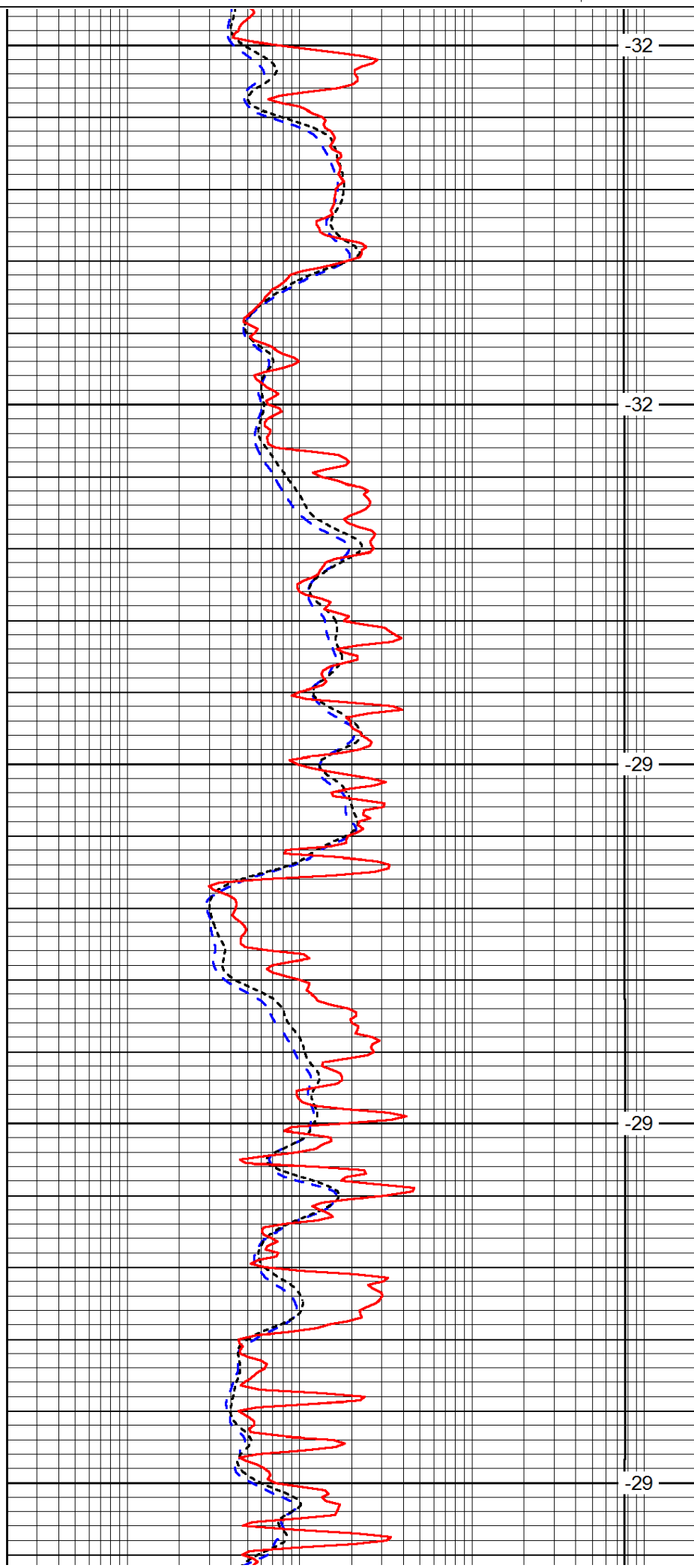
3000

3050

3100

3150

3200



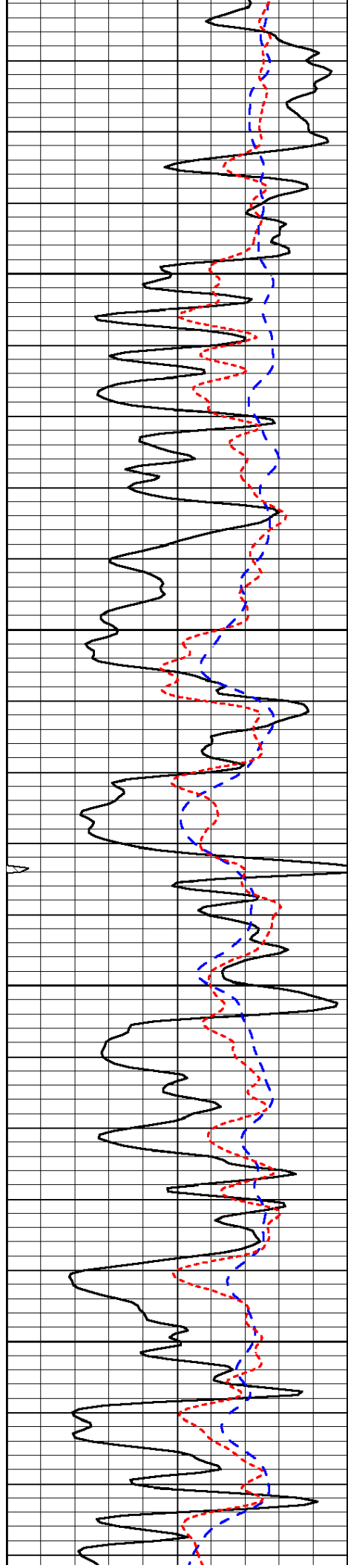
-32

-32

-29

-29

-29

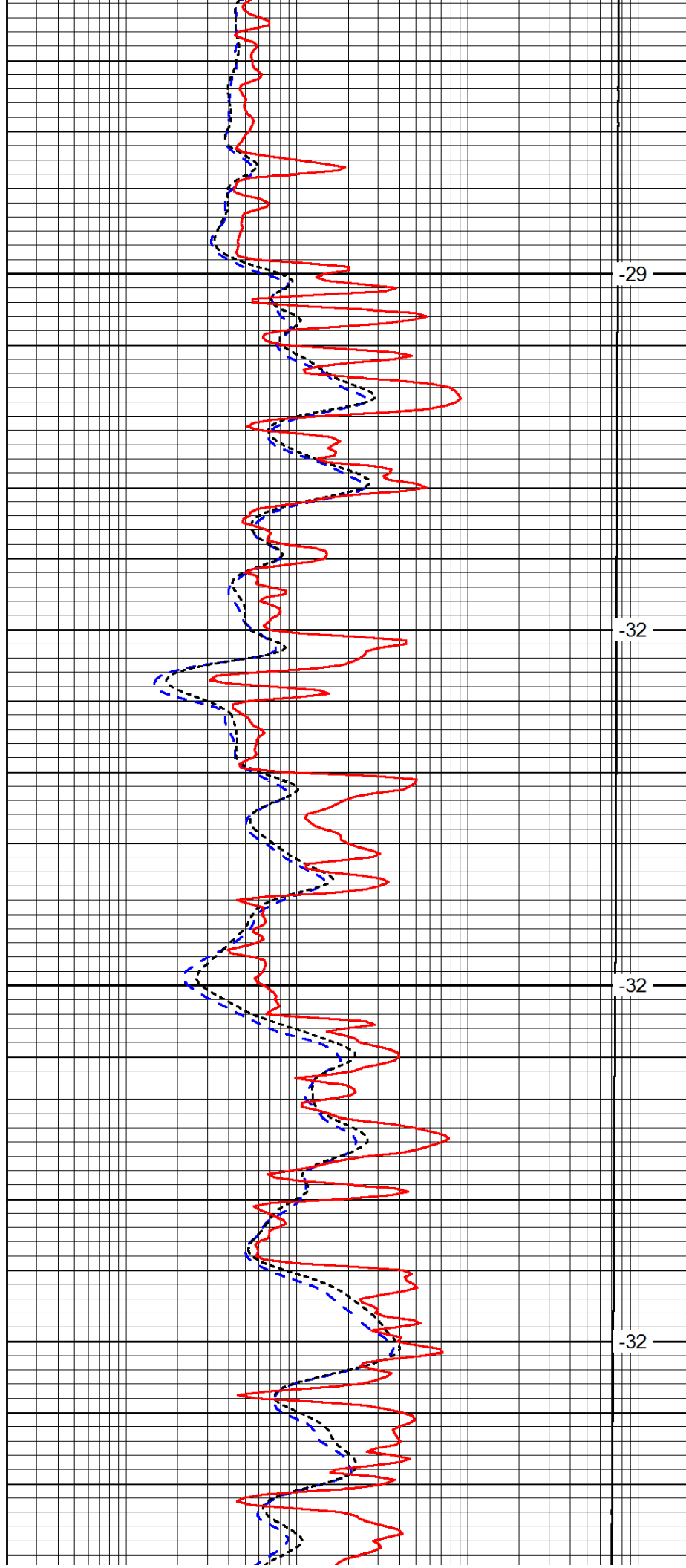


3250

3300

3350

3400

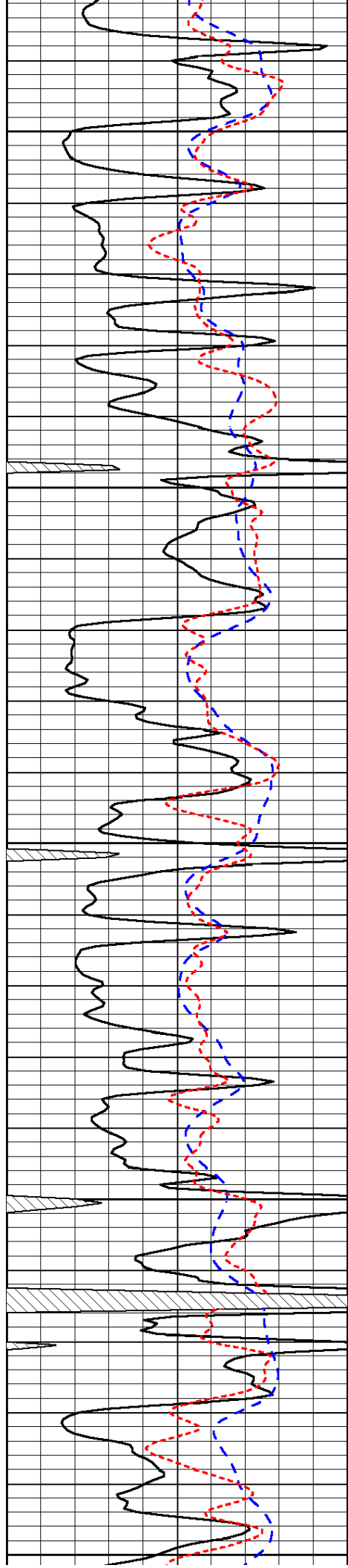


-29

-32

-32

-32



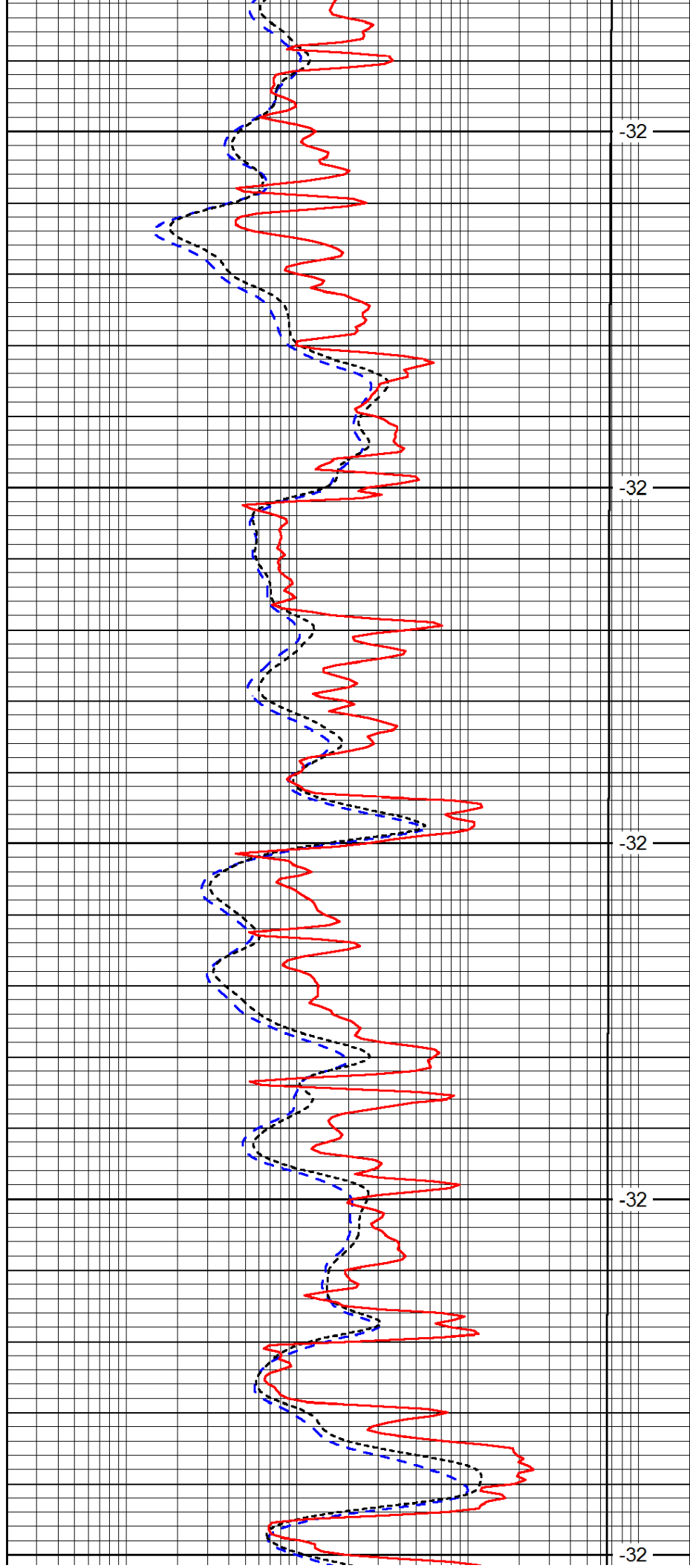
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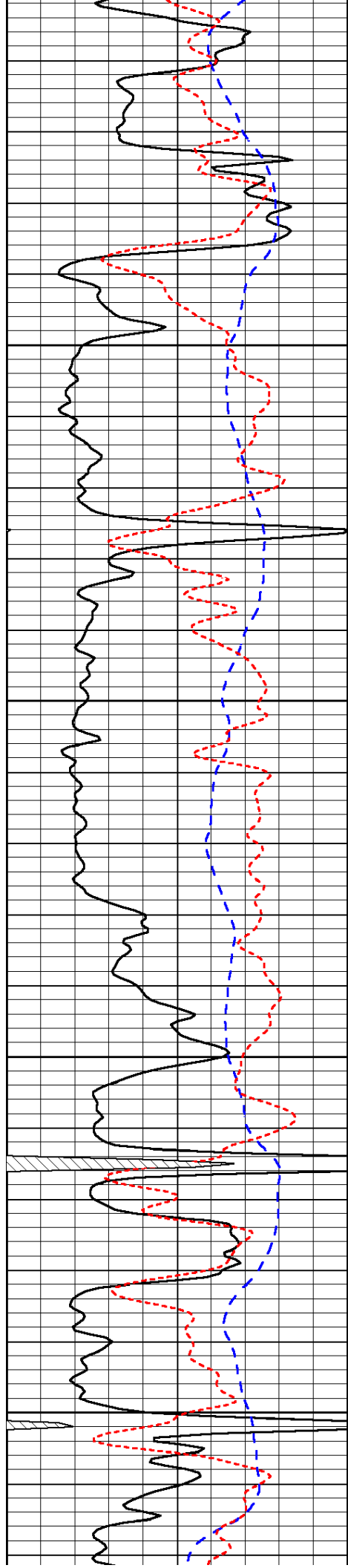
3500

3550

3600

3650



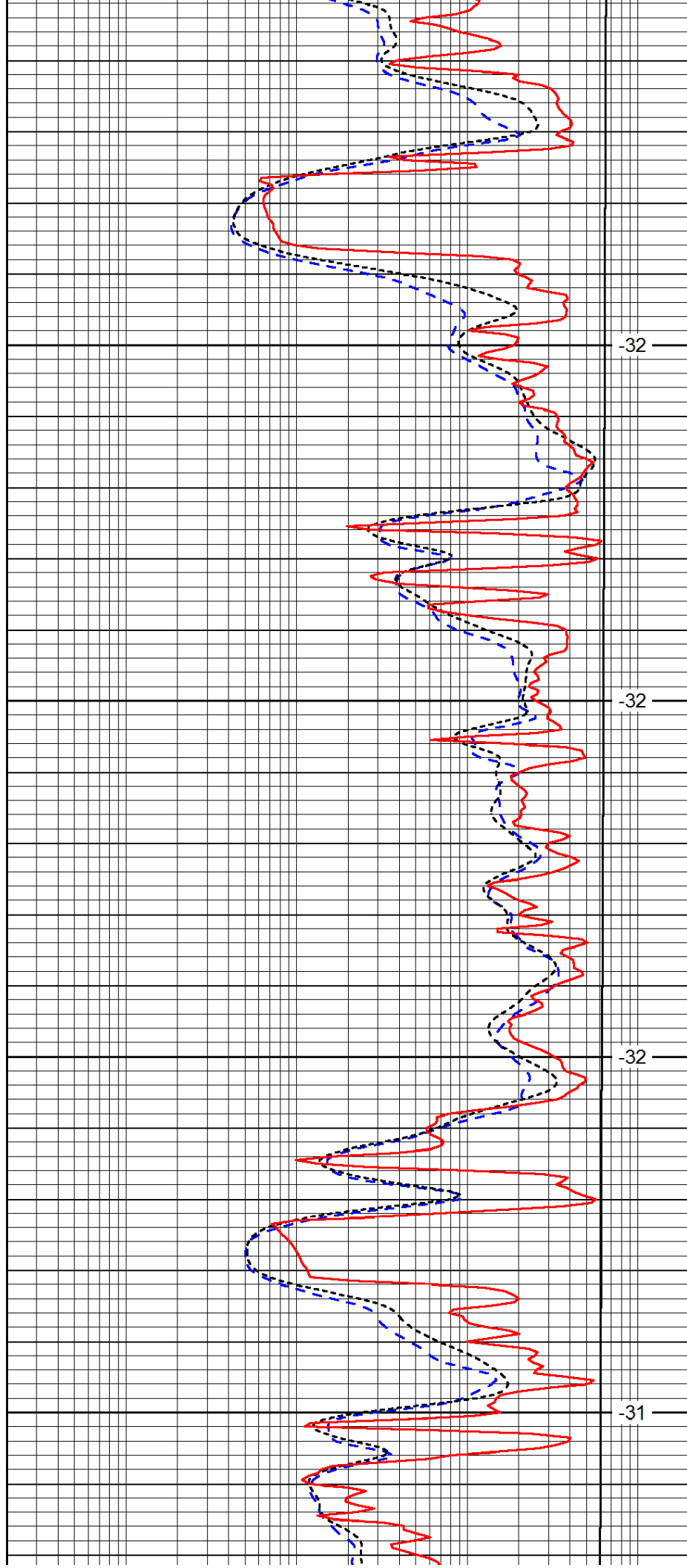


3700

3750

3800

3850

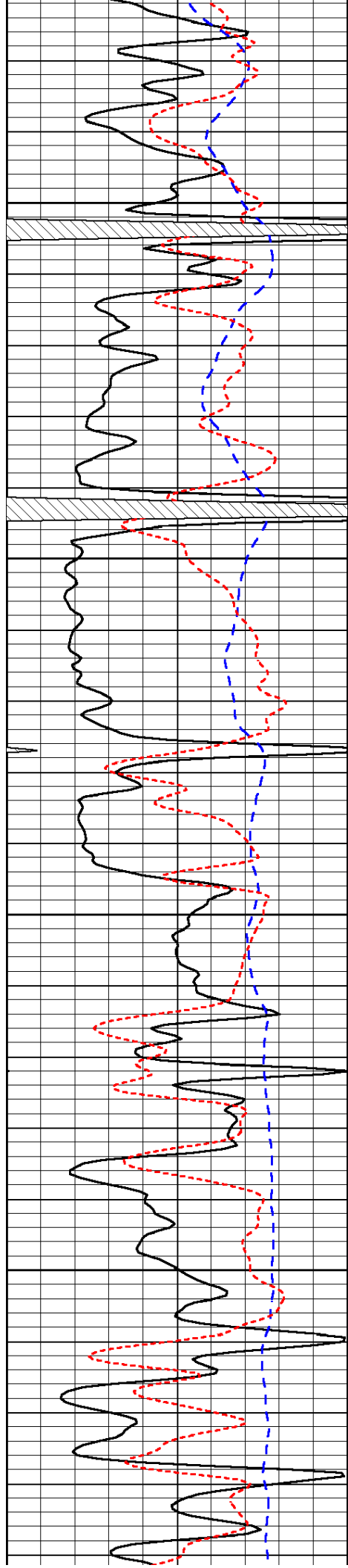


-32

-32

-32

-31

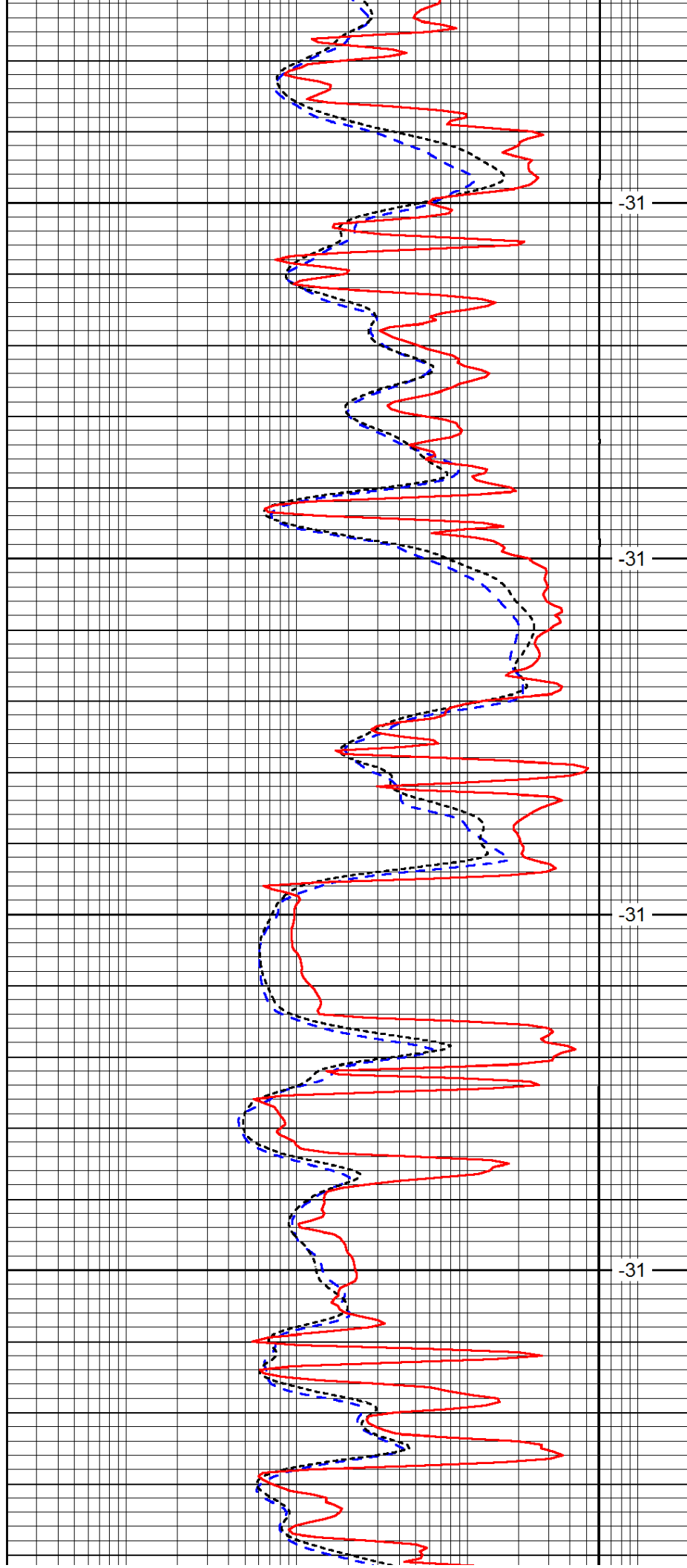


3900

3950

4000

4050

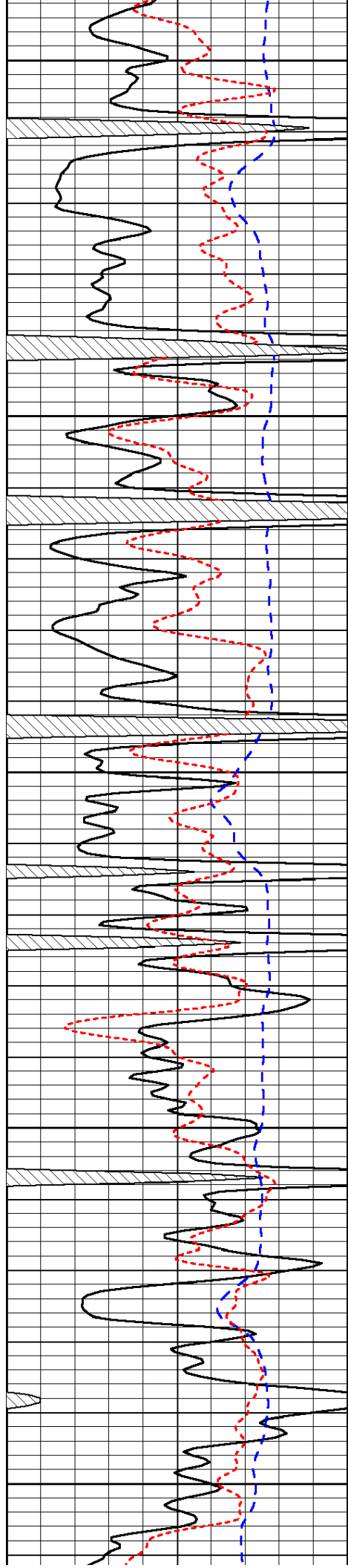


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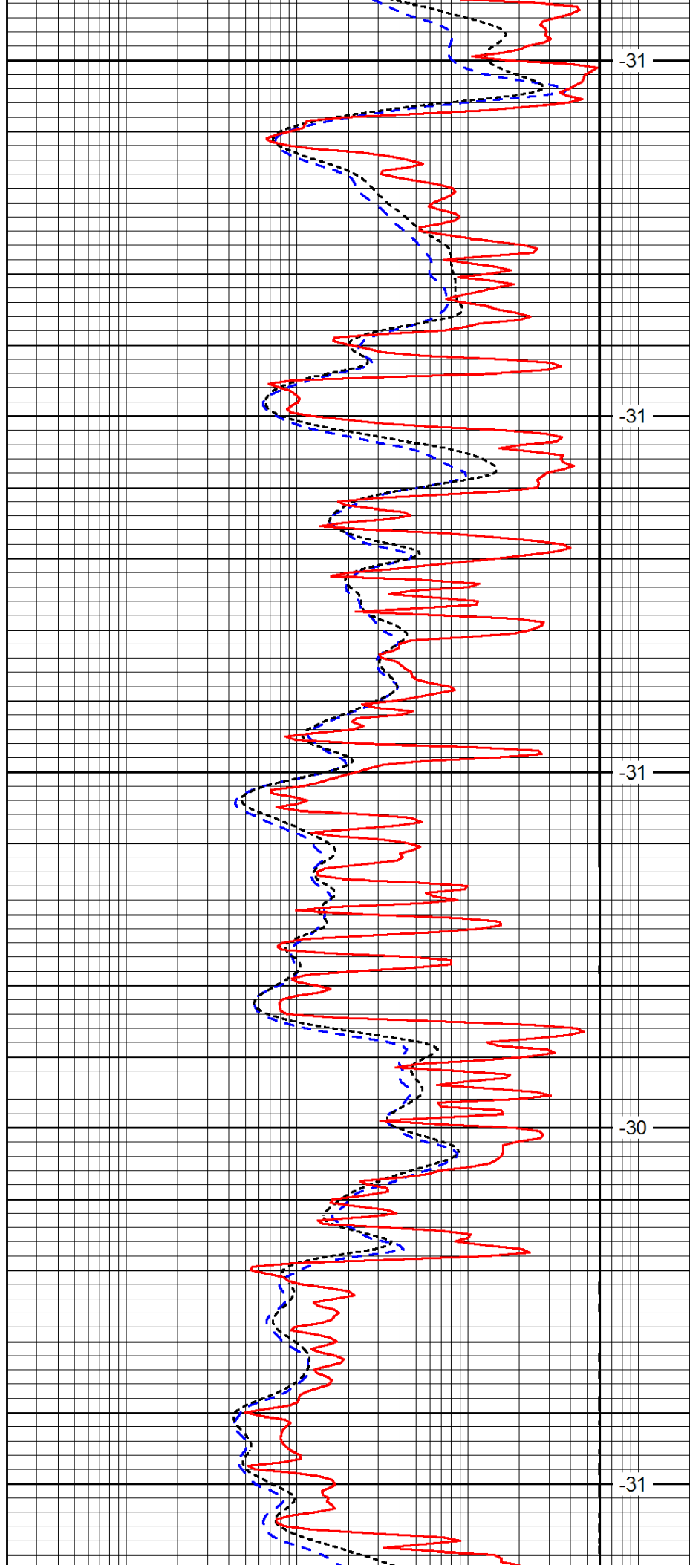
4100

4150

4200

4250

4300



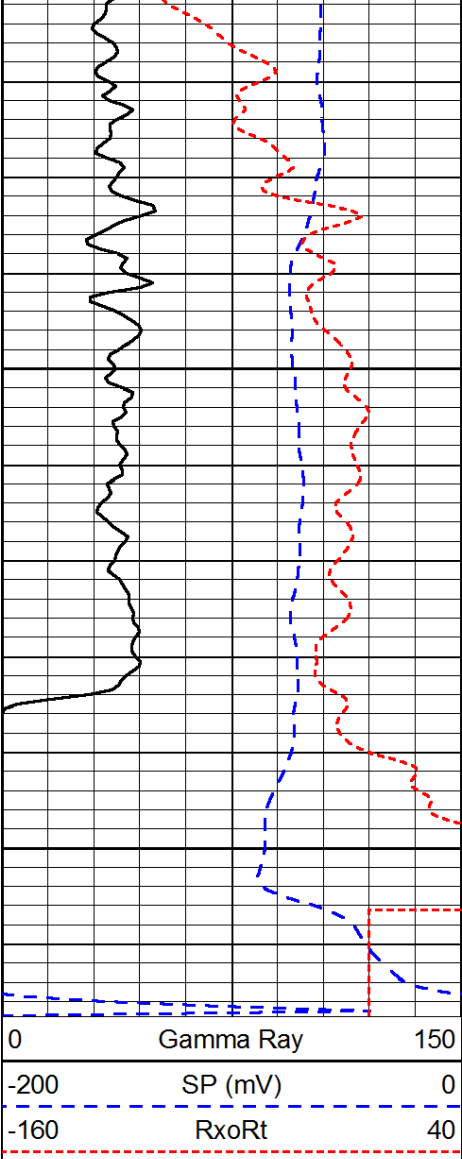
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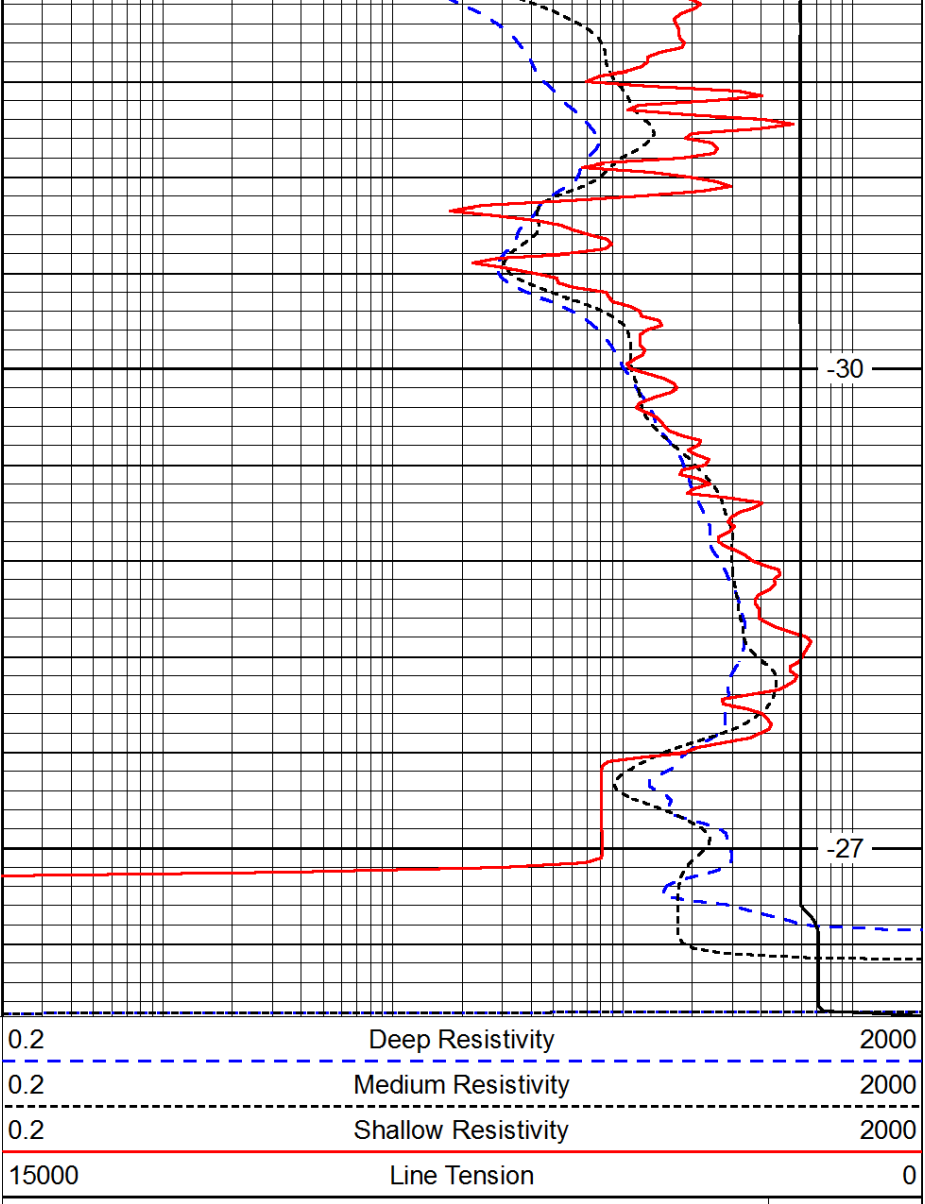
-30

-31



4350

4400



-30

-27

LSPD