



Pioneer Energy Services

# Dual Induction Log

15-101-22,489-00-00

API No.

Company **Larson Engineering, Inc**

Well **Trost #1-31**

Field **Wildcat**

County **Lane** State **Kansas**

Location **NW SE NW SE  
1898' FSL & 1783' FEL**

Sec: **31** Twp: **18 S** Rge: **27 W**

Permanent Datum **Ground Level** Elevation **2720**

Log Measured From **Kelly Bushing** 7 Ft. Above Perm. Datum

Drilling Measured From **Kelly Bushing**

Other Services  
CNL/CDL  
MEL

Elevation

K.B. 2727  
D.F.  
G.L. 2720

Date **2/5/2014**

Run Number **One**

Depth Driller **4692**

Depth Logger **4695**

Bottom Logged Interval **4694**

Top Log Interval **250**

Casing Driller **8.625 @ 277**

Casing Logger **276**

Bit Size **7.875**

Type Fluid in Hole **Chemical**

Salinity,ppm CL **2700**

Density / Viscosity **9.3 55**

pH / Fluid Loss **10.5 7.6**

Source of Sample **Flowline**

Rm @ Meas. Temp **0.4 @ 40**

Rmf @ Meas. Temp **0.3 @ 40**

Rmc @ Meas. Temp **.54 @ 40**

Source of Rmf / Rmc **Charts**

Rm @ BHT **.13 @ 123**

Operating Rig Time **3 1/2 Hours**

Max Rec. Temp. F **123**

Equipment Number **17**

Location **Hays**

Recorded By **T. Martin**

Witnessed By **Vern Schrag**

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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

Dighton, approx. 6 E to Quantum Rd,  
3 S, 1 E, N into

Database File: c:\warrior\data\larson\_trost #1-31\lrsnhd.db  
Dataset Pathname: DIL/lrsndt  
Presentation Format: dil2in  
Dataset Creation: Wed Feb 05 19:55:11 2014  
Charted by: Depth in Feet scaled 1:600

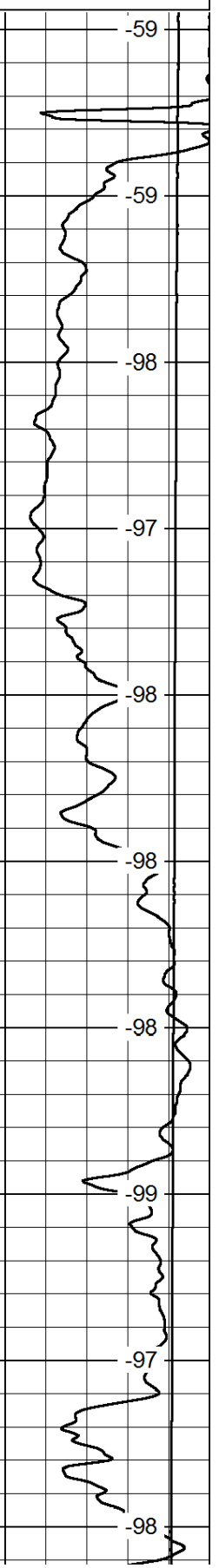
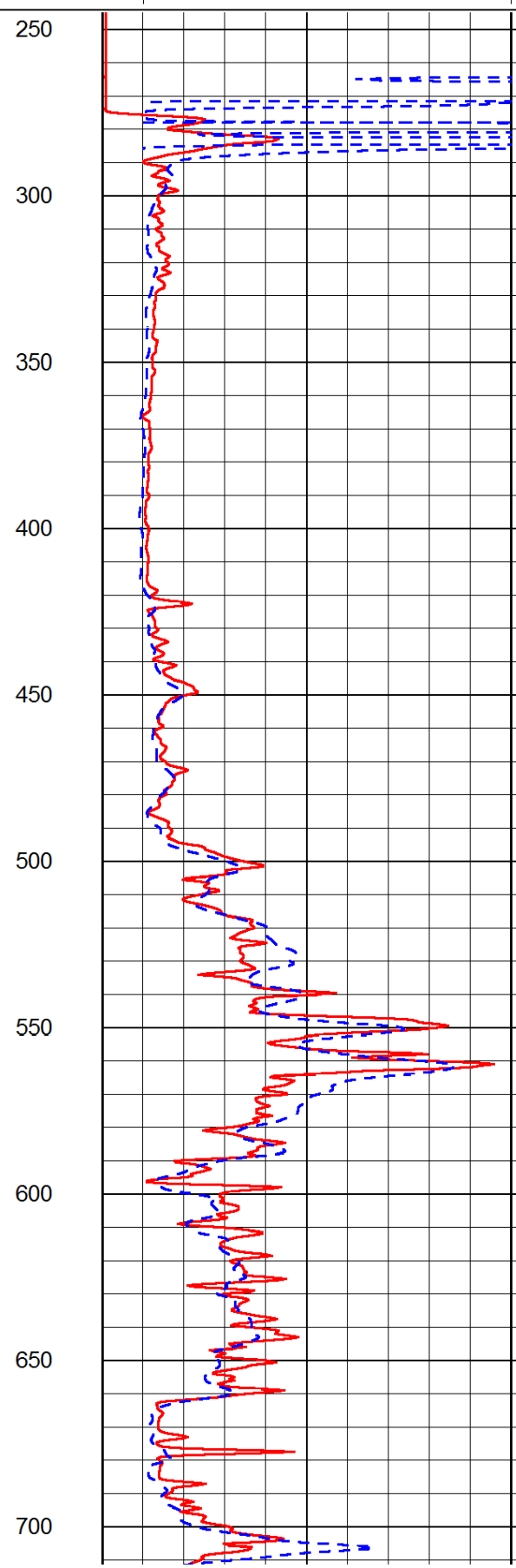
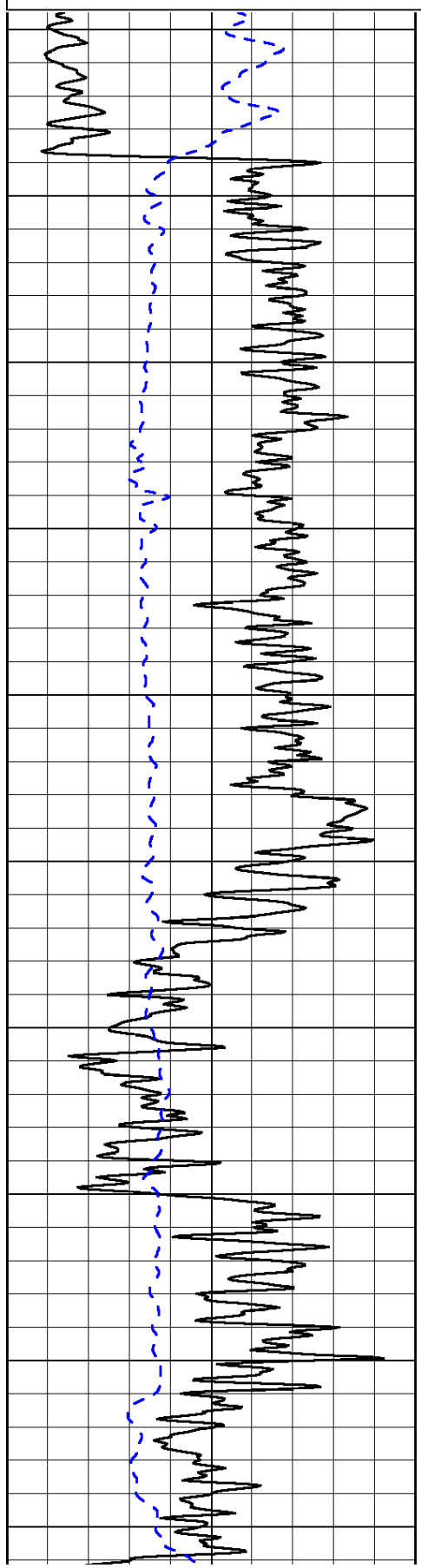
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-200	SP (mV)	0

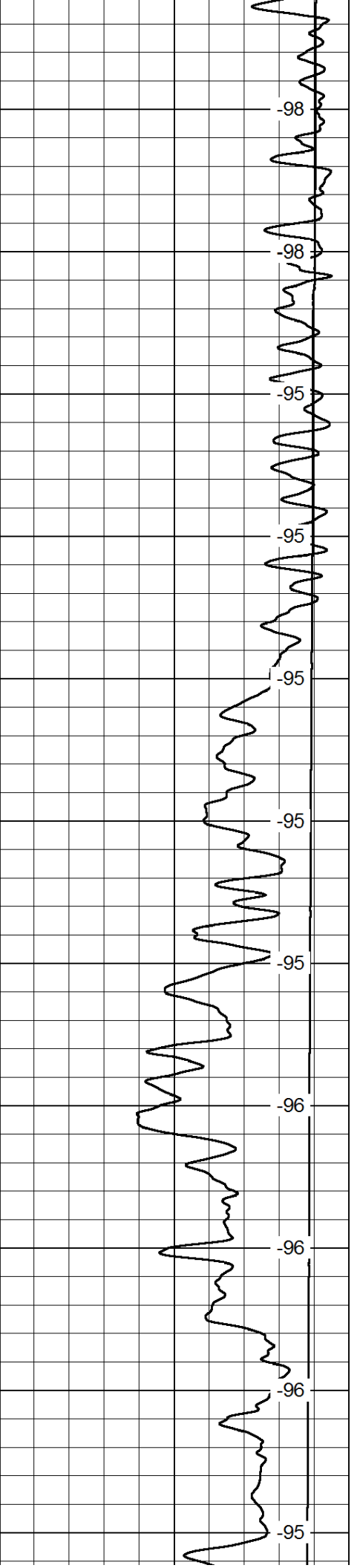
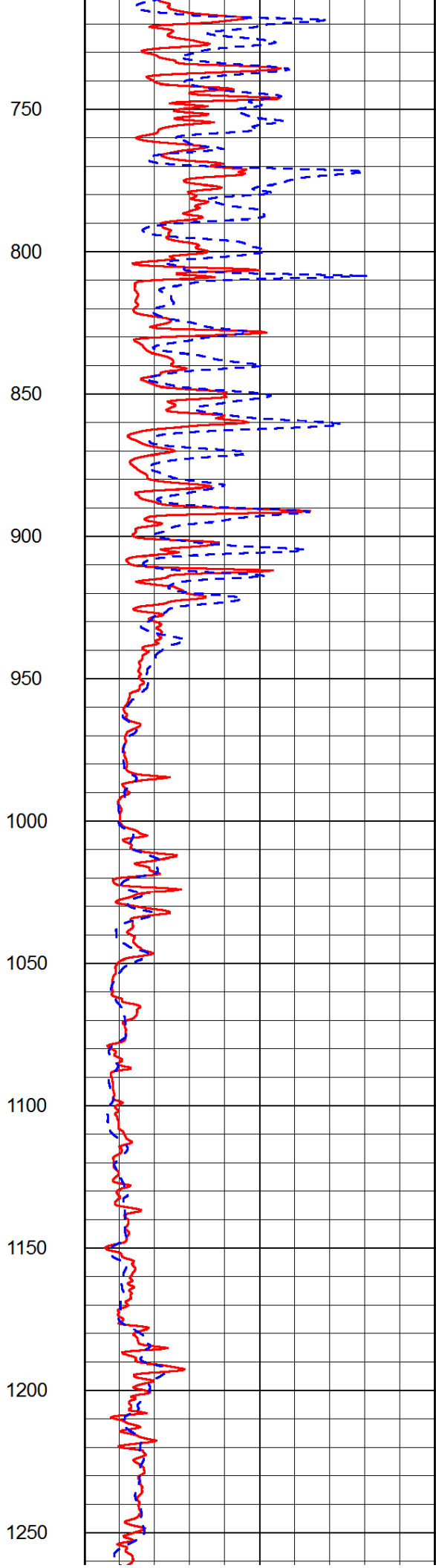
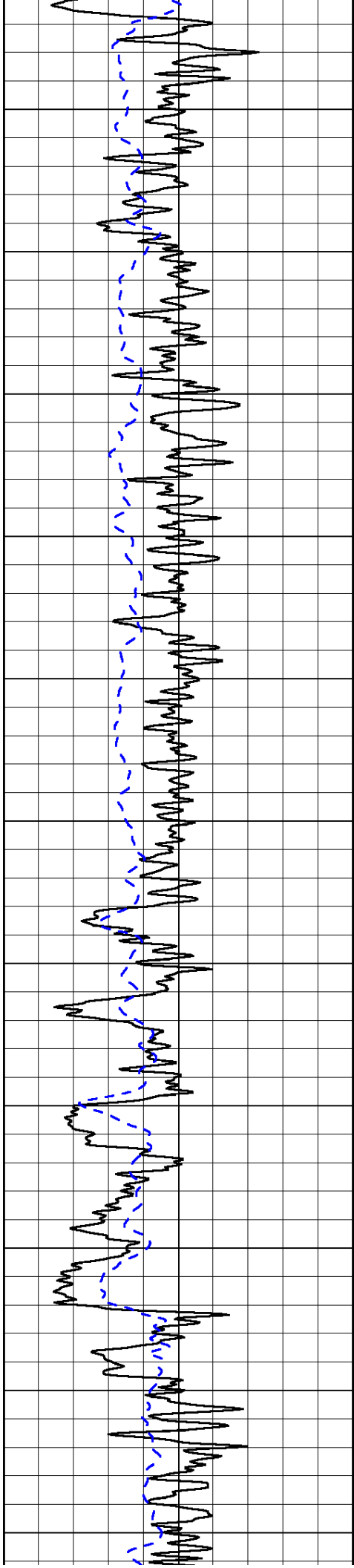
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0	Deep Resistivity	50

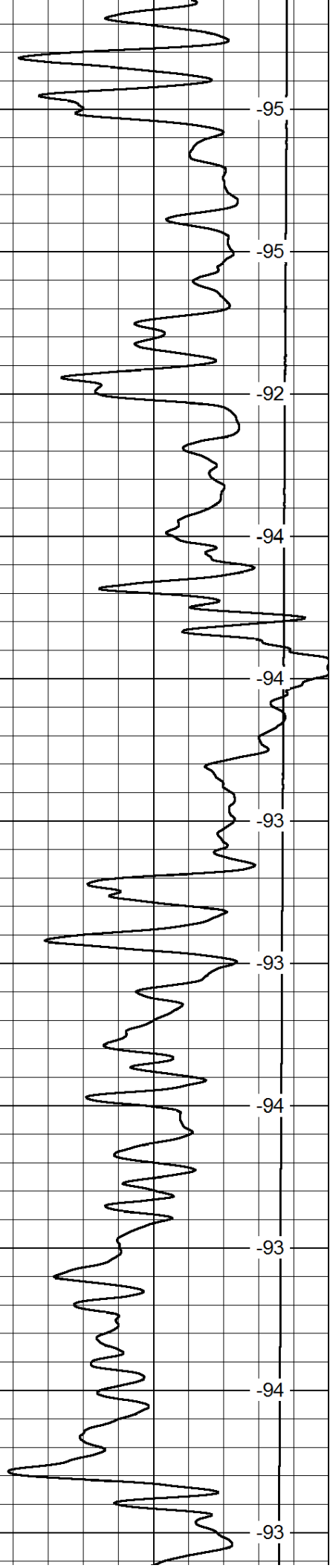
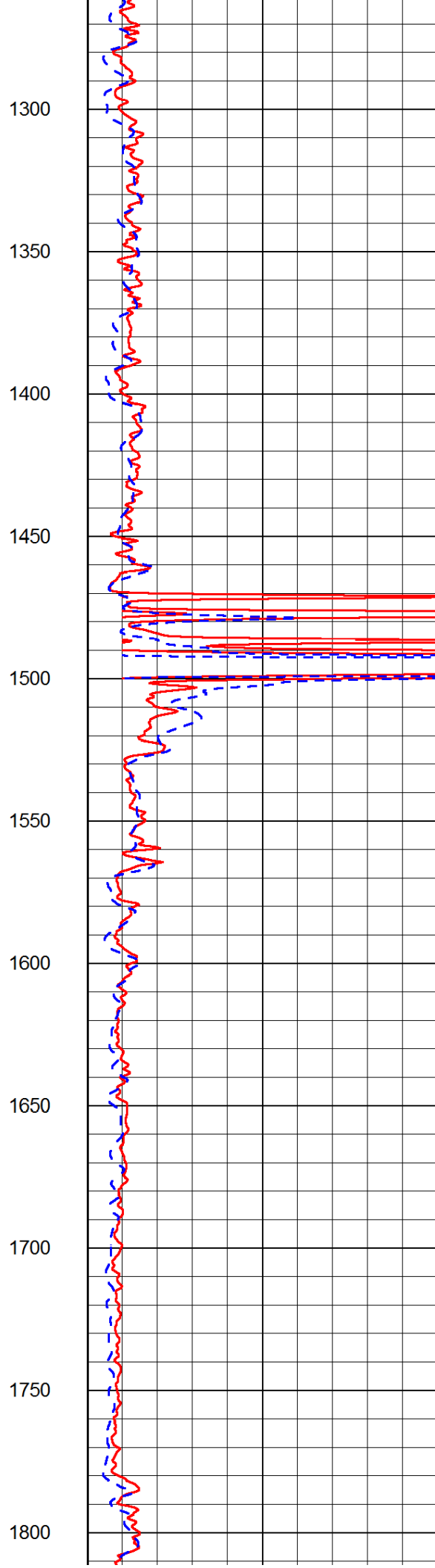
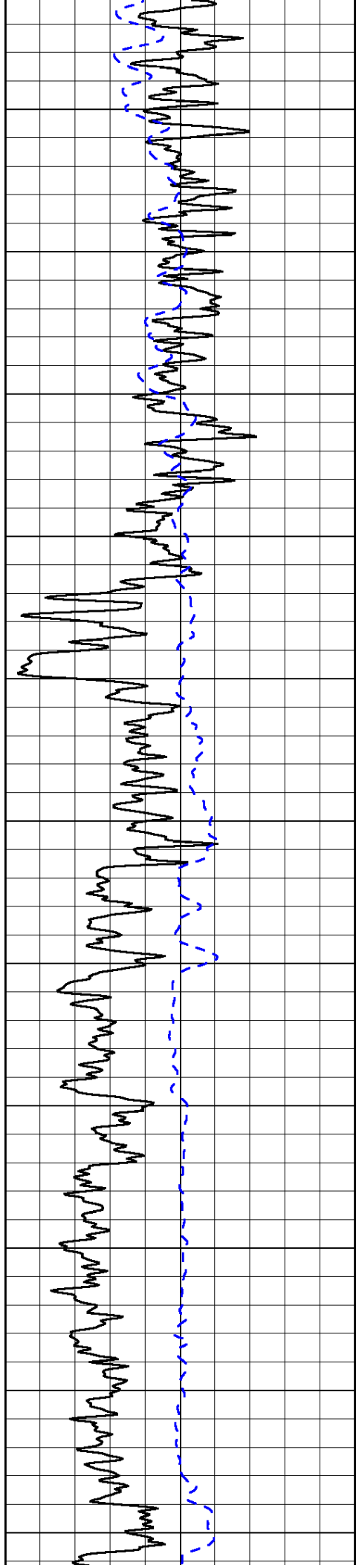
LSPD

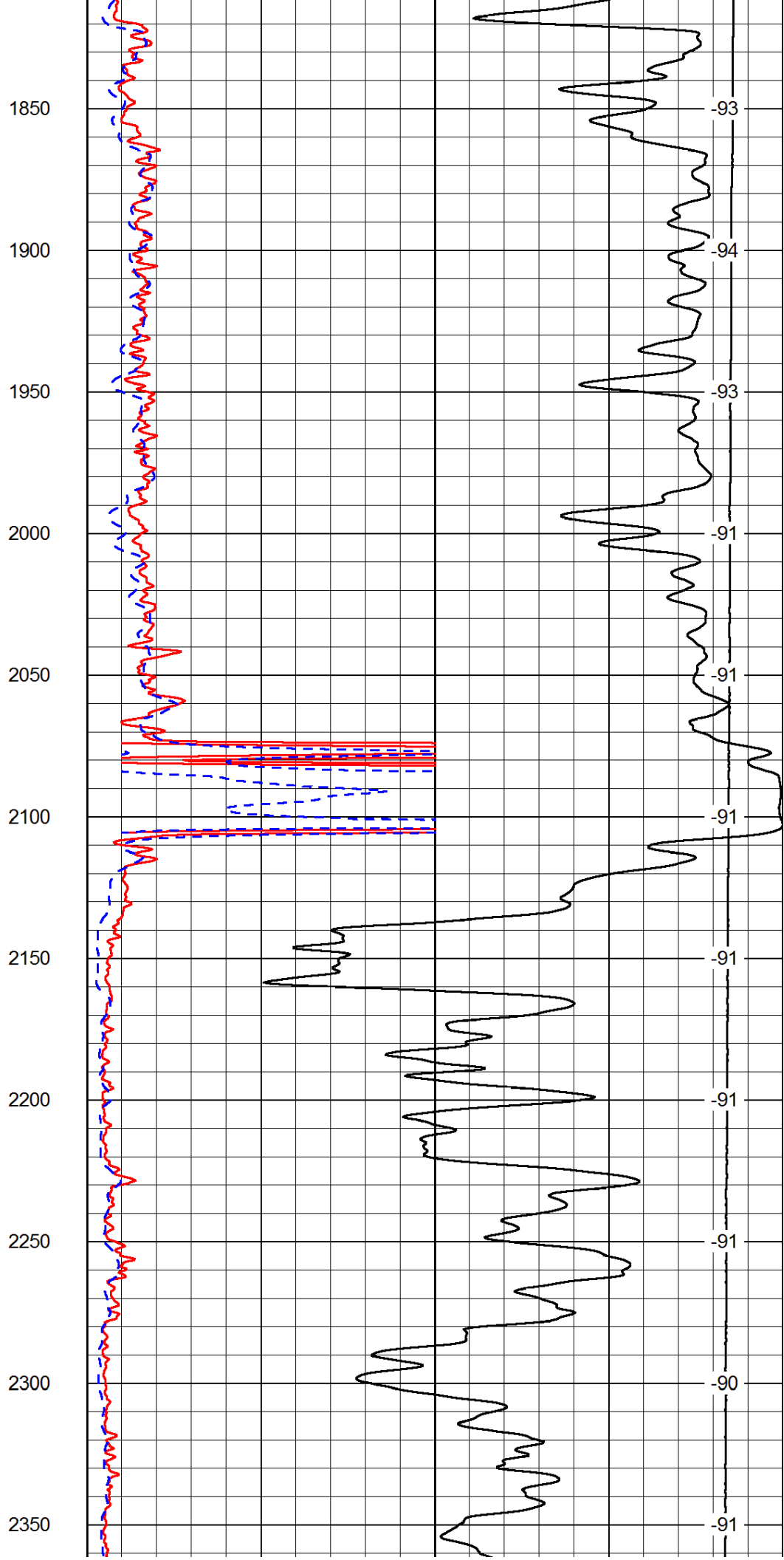
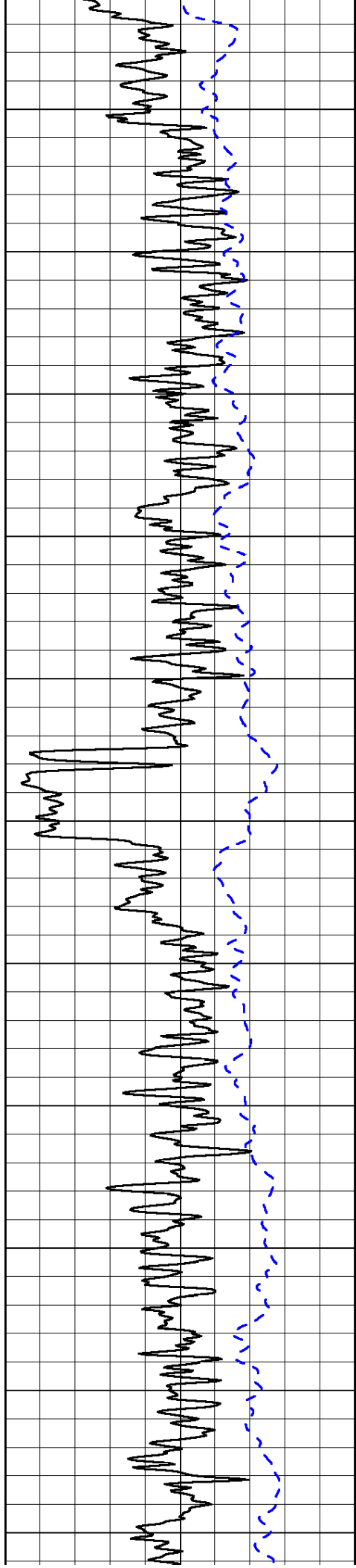
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15000	Line Tension	0

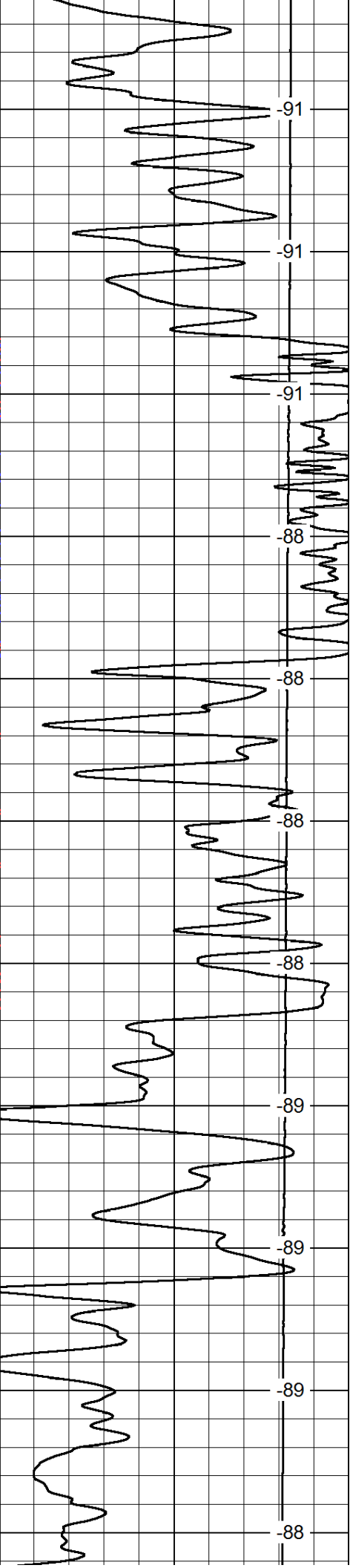
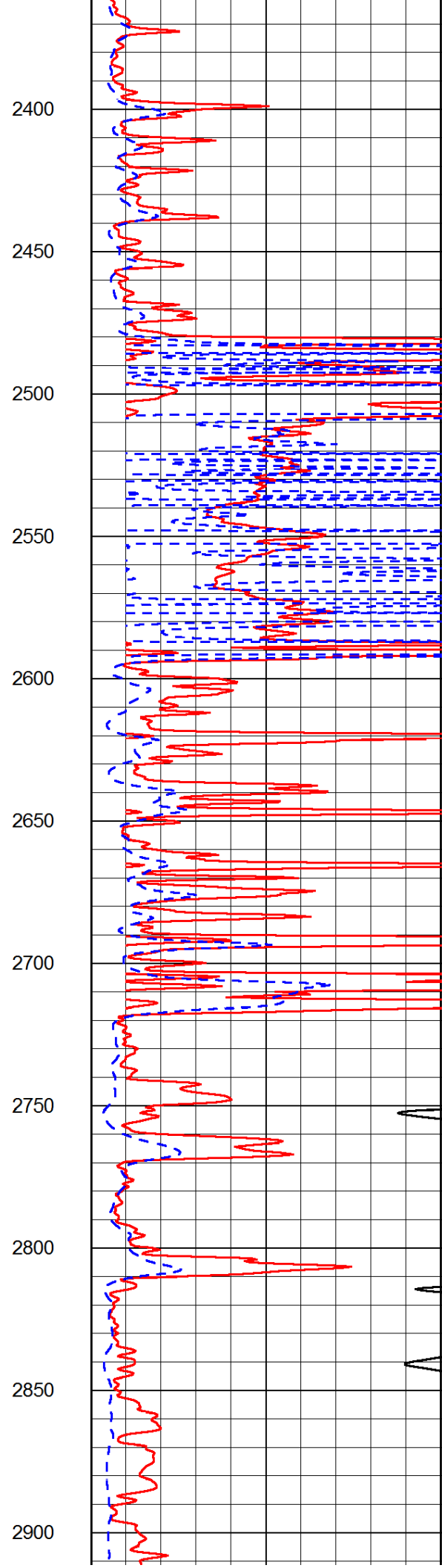
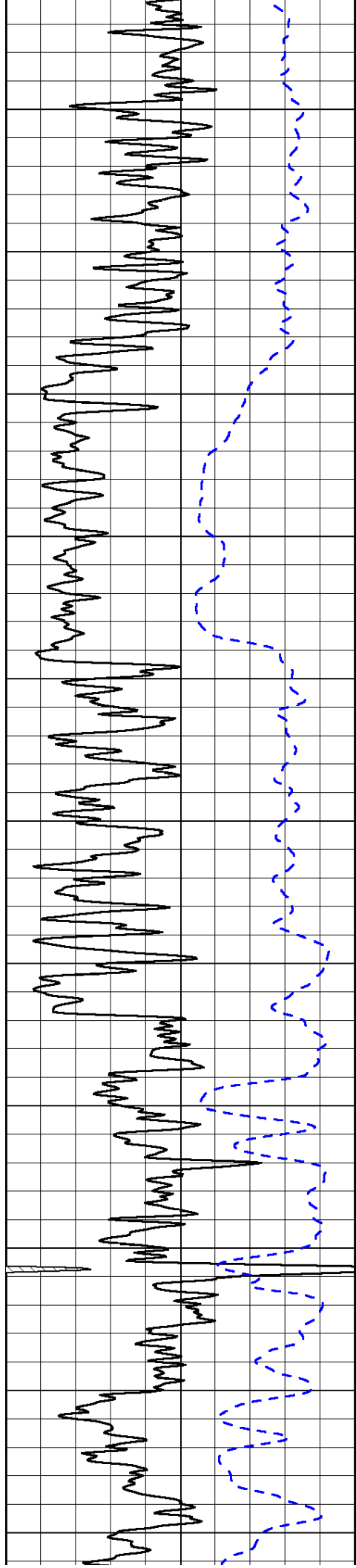
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50	Deep Resistivity	500

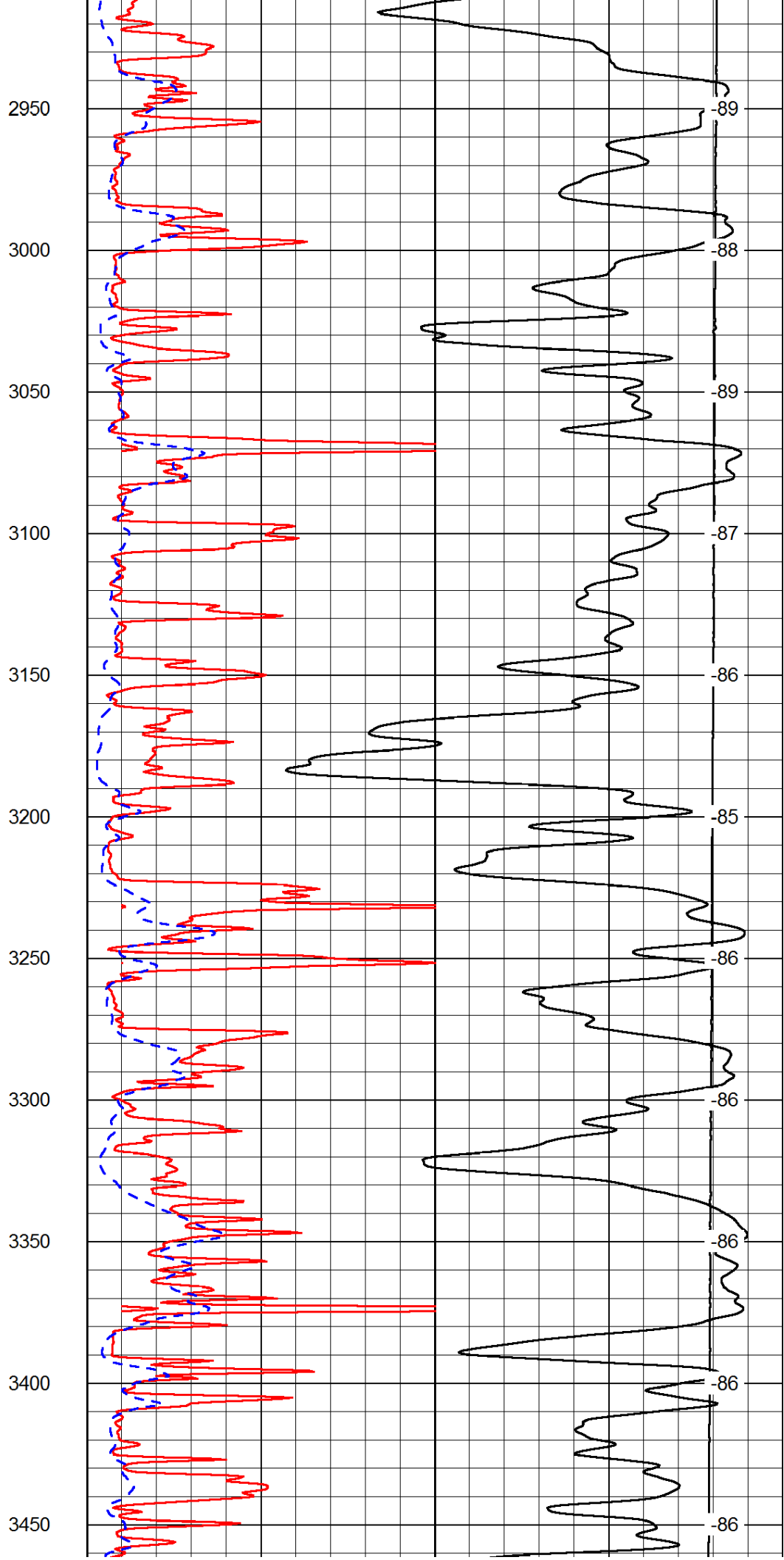
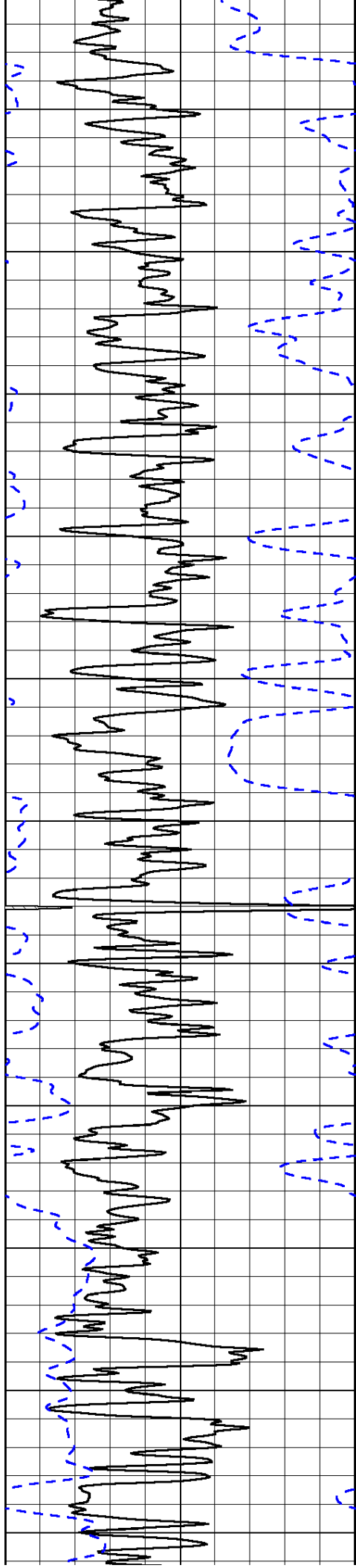


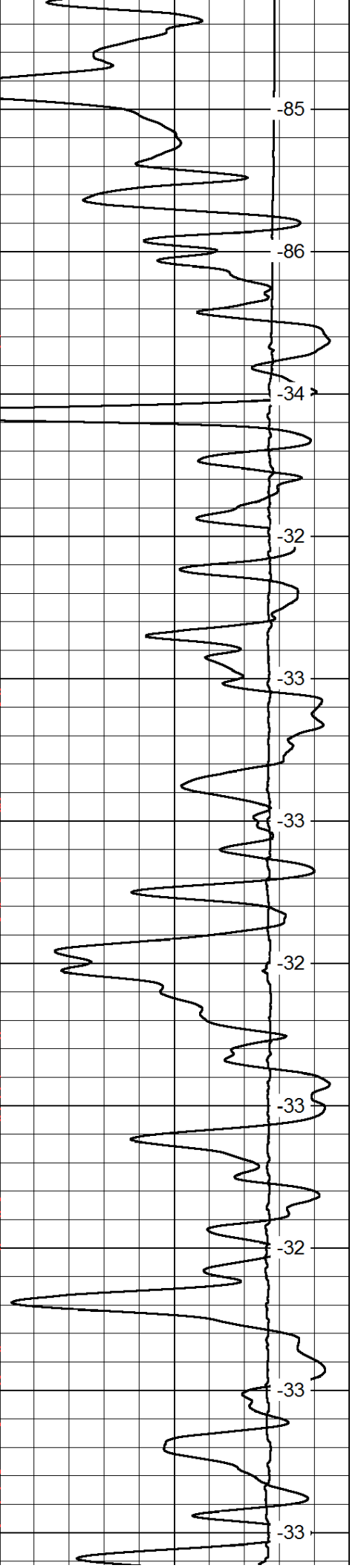
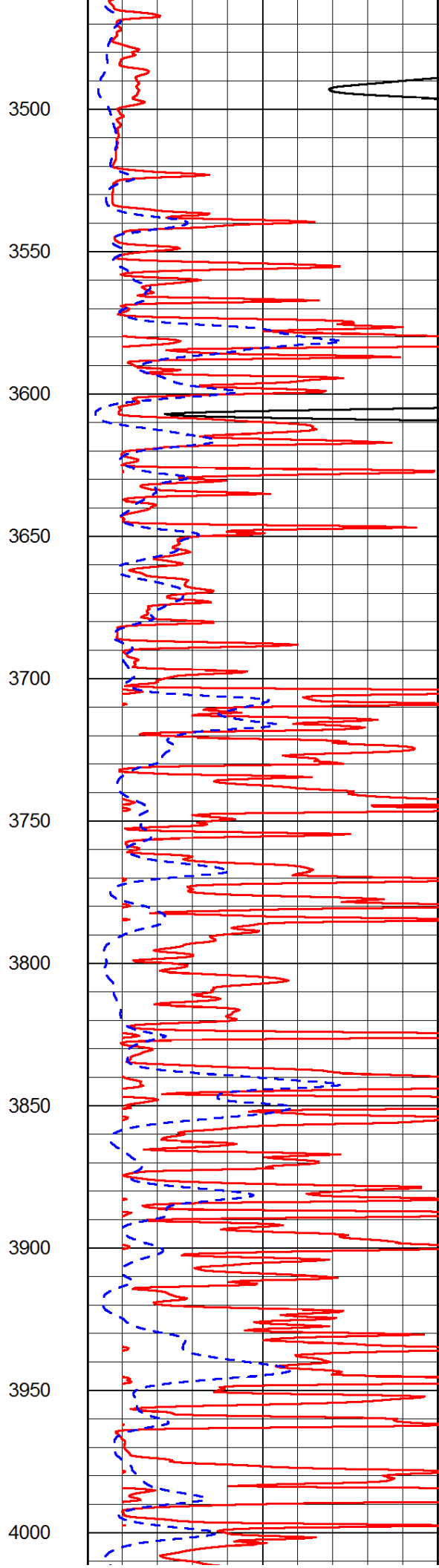
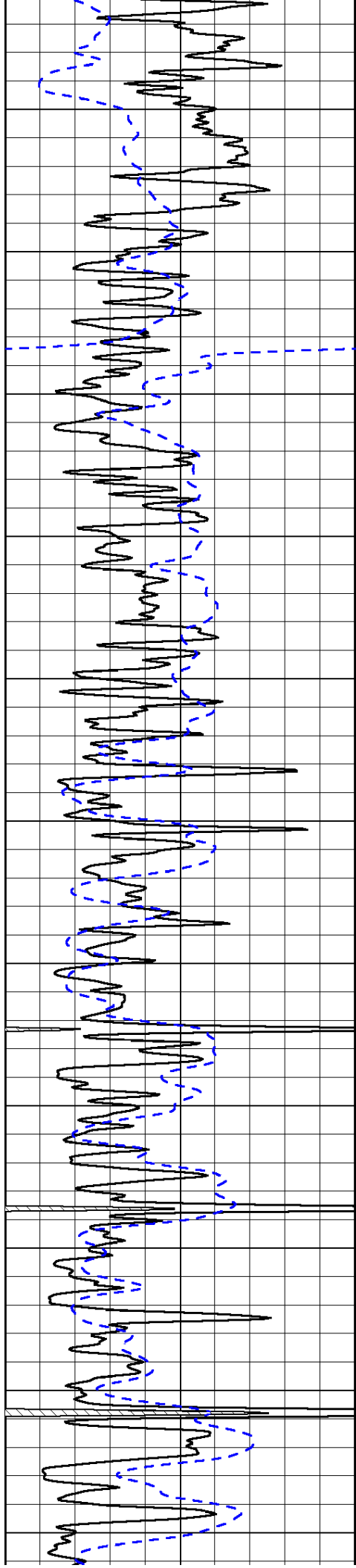


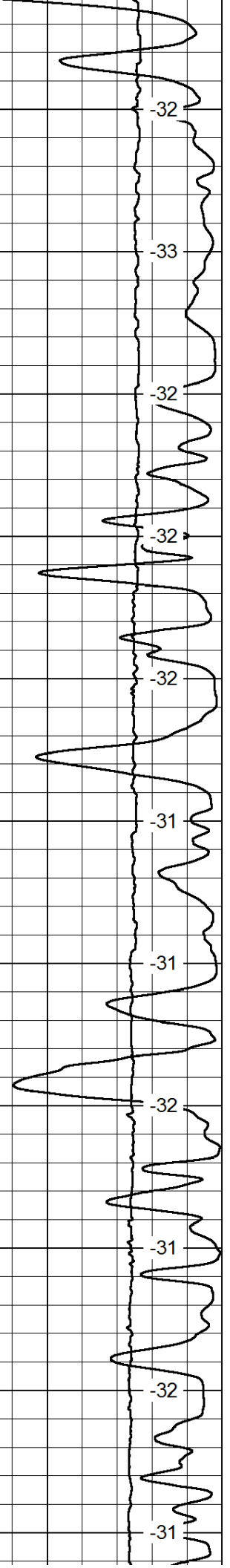
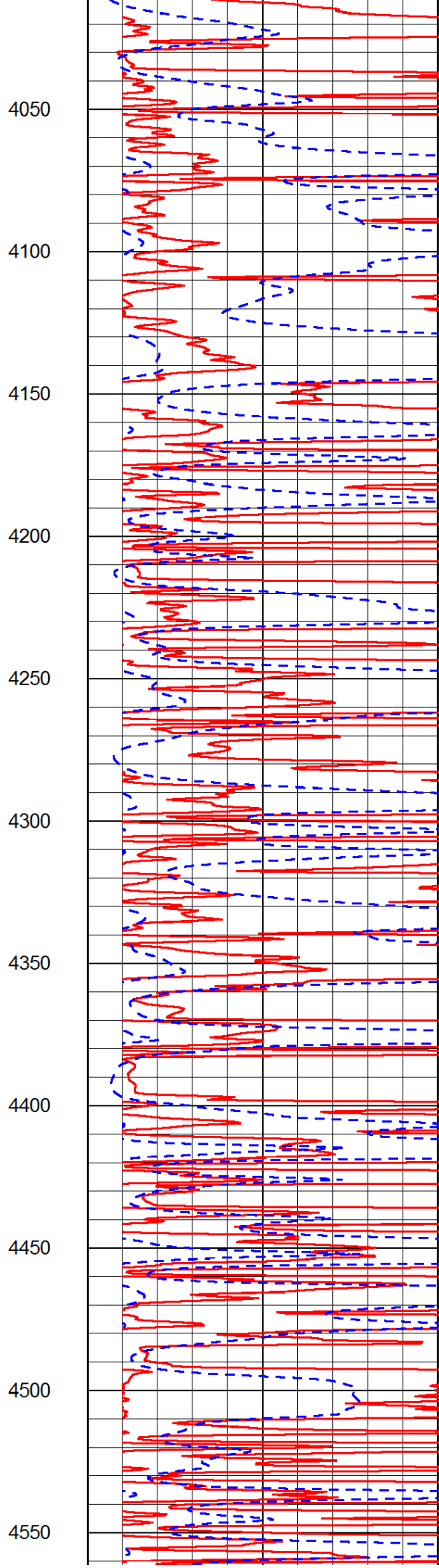
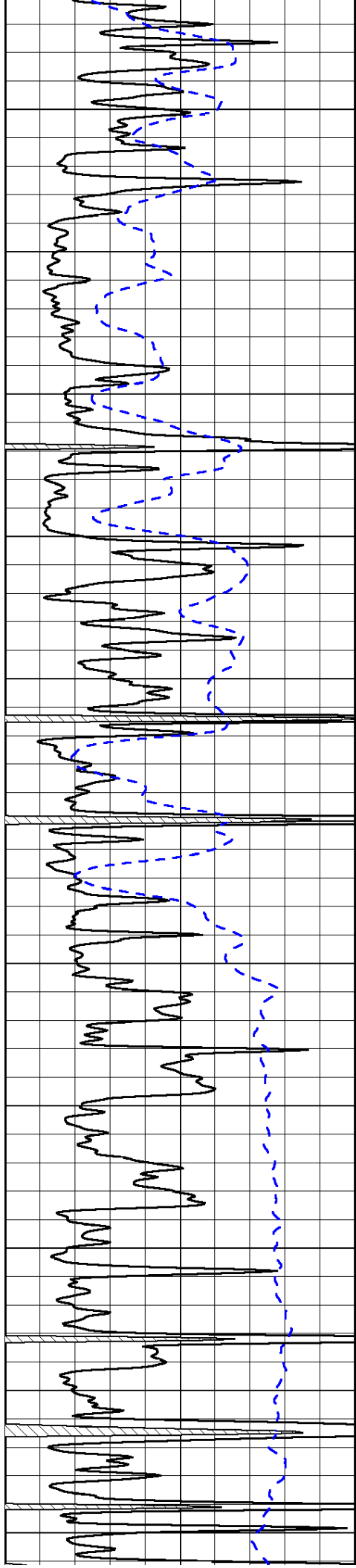


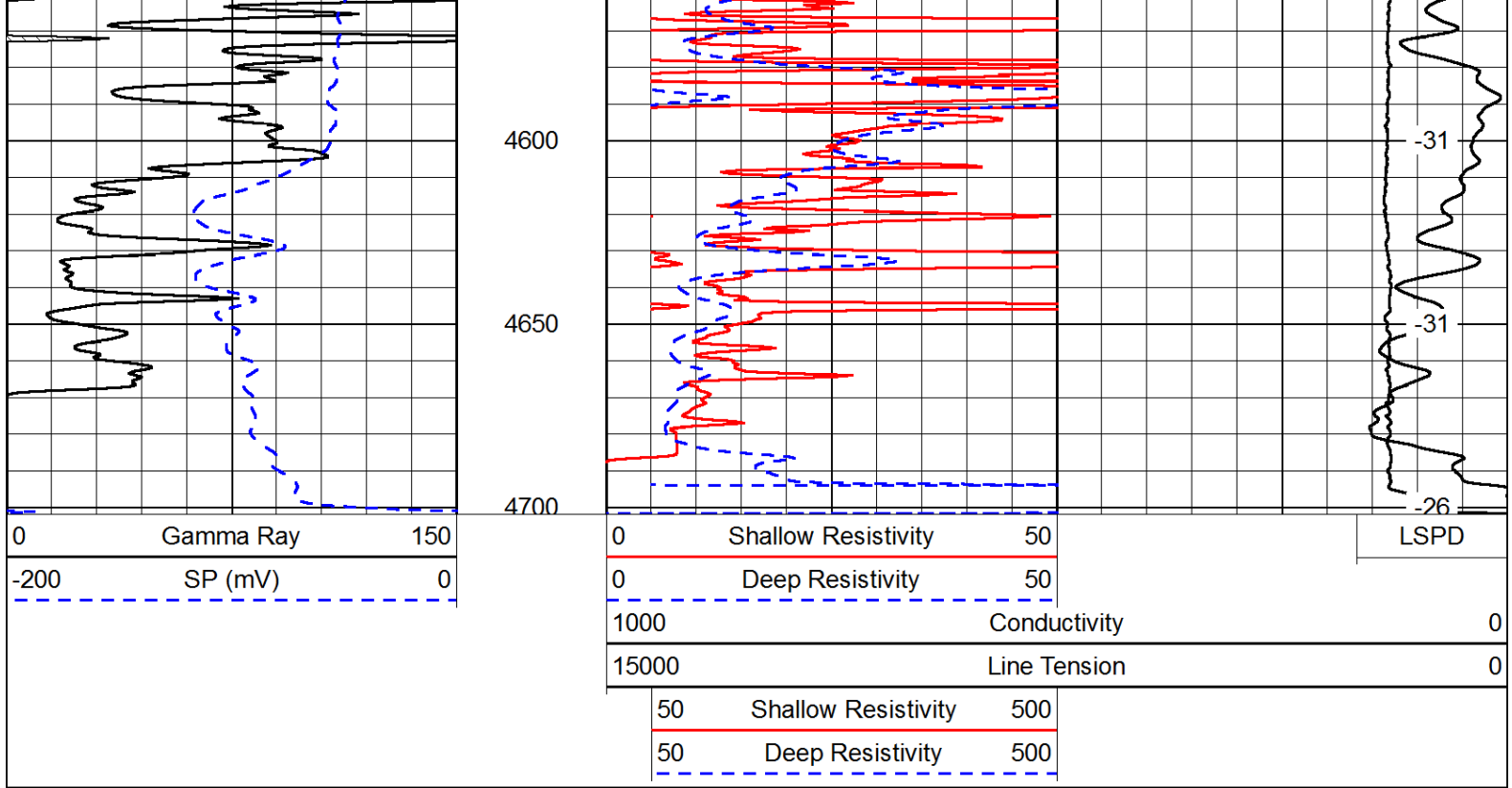




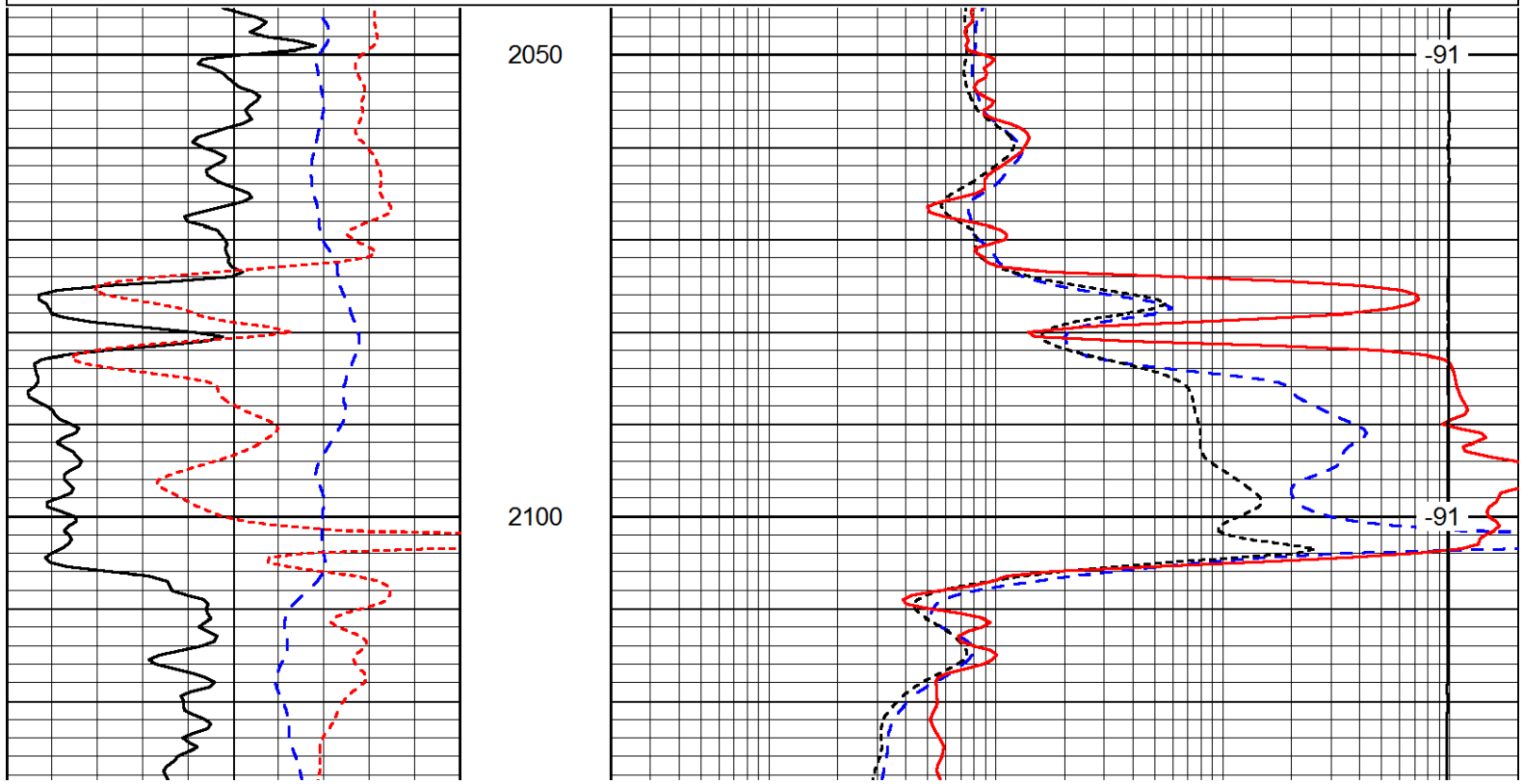
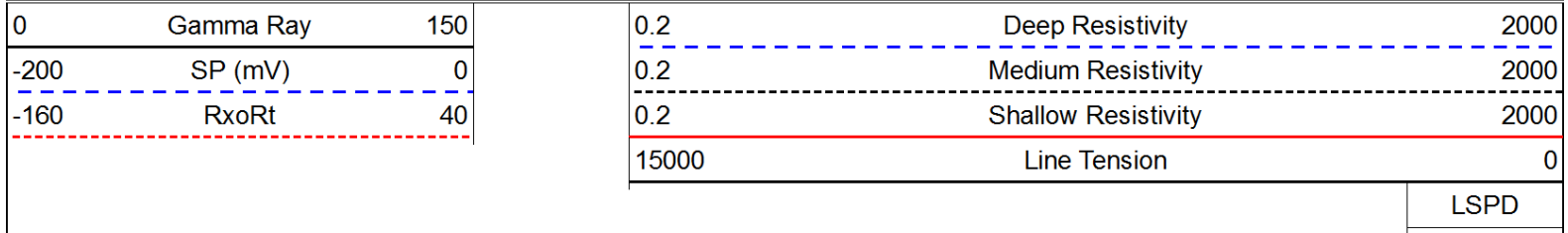


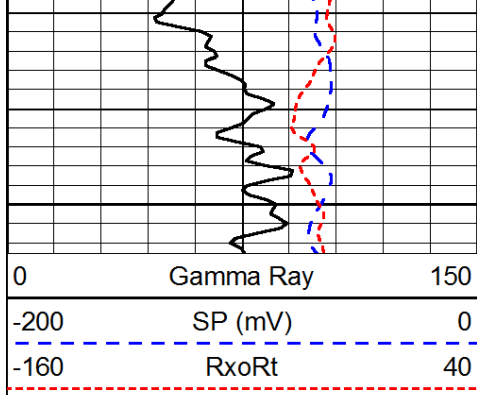




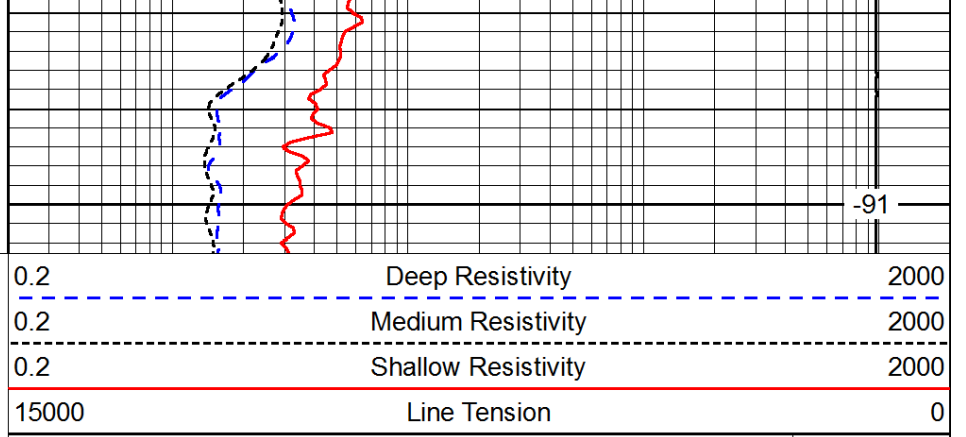


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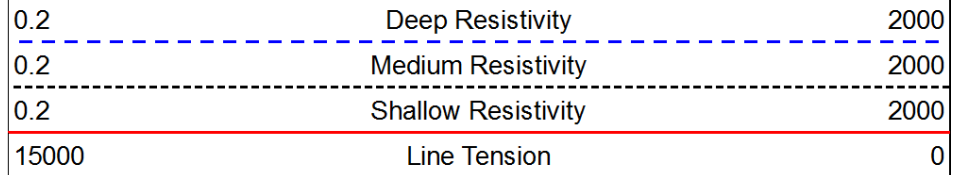
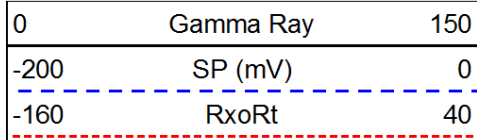
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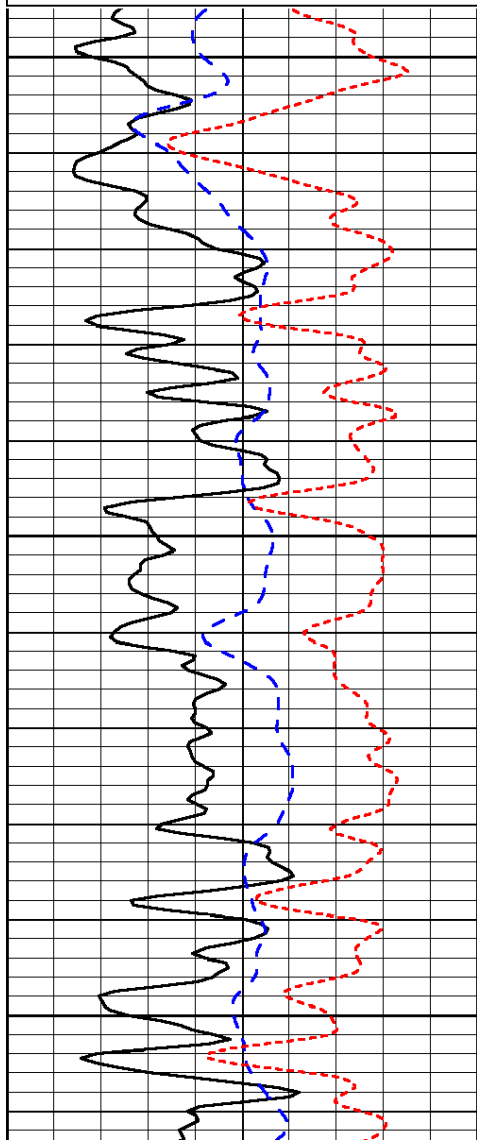
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LSPD

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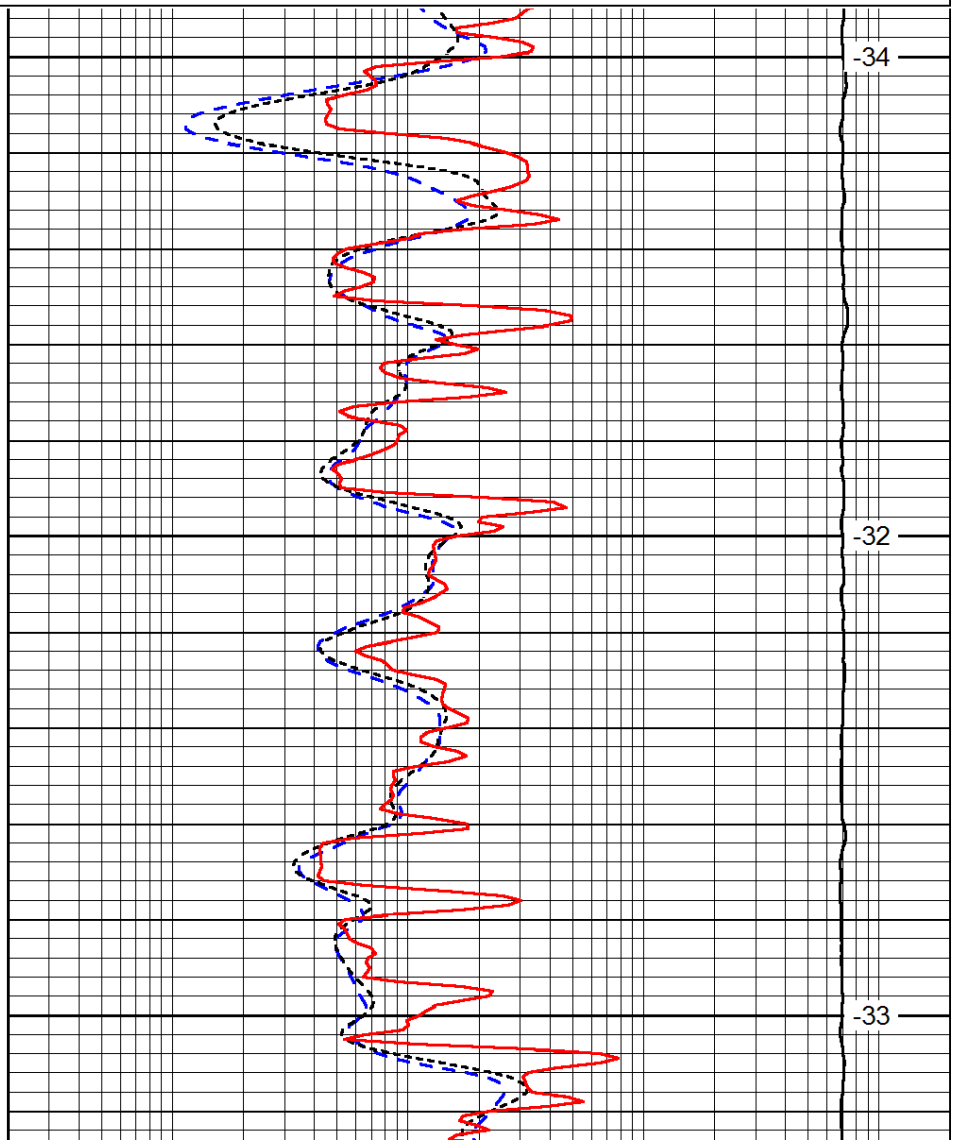
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3600

3650

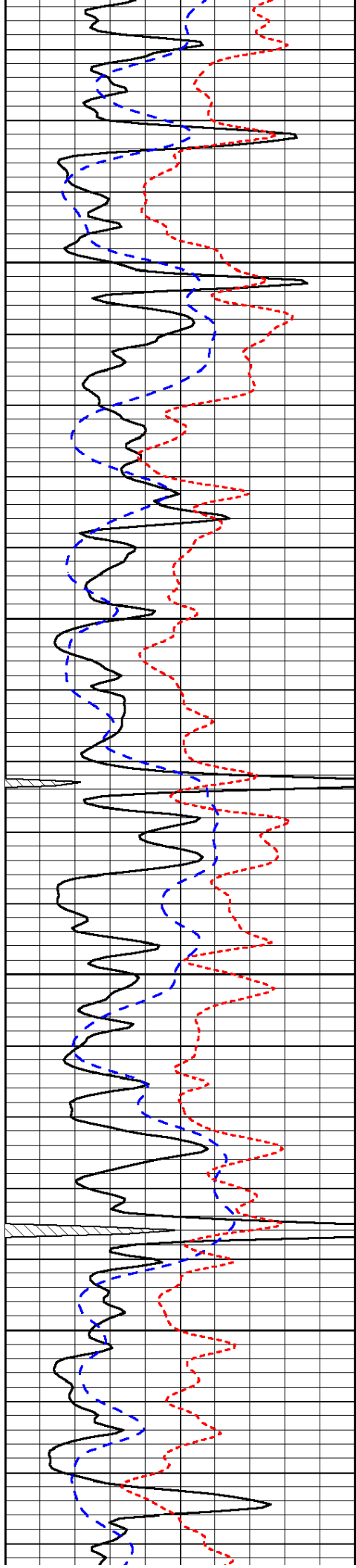
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-33

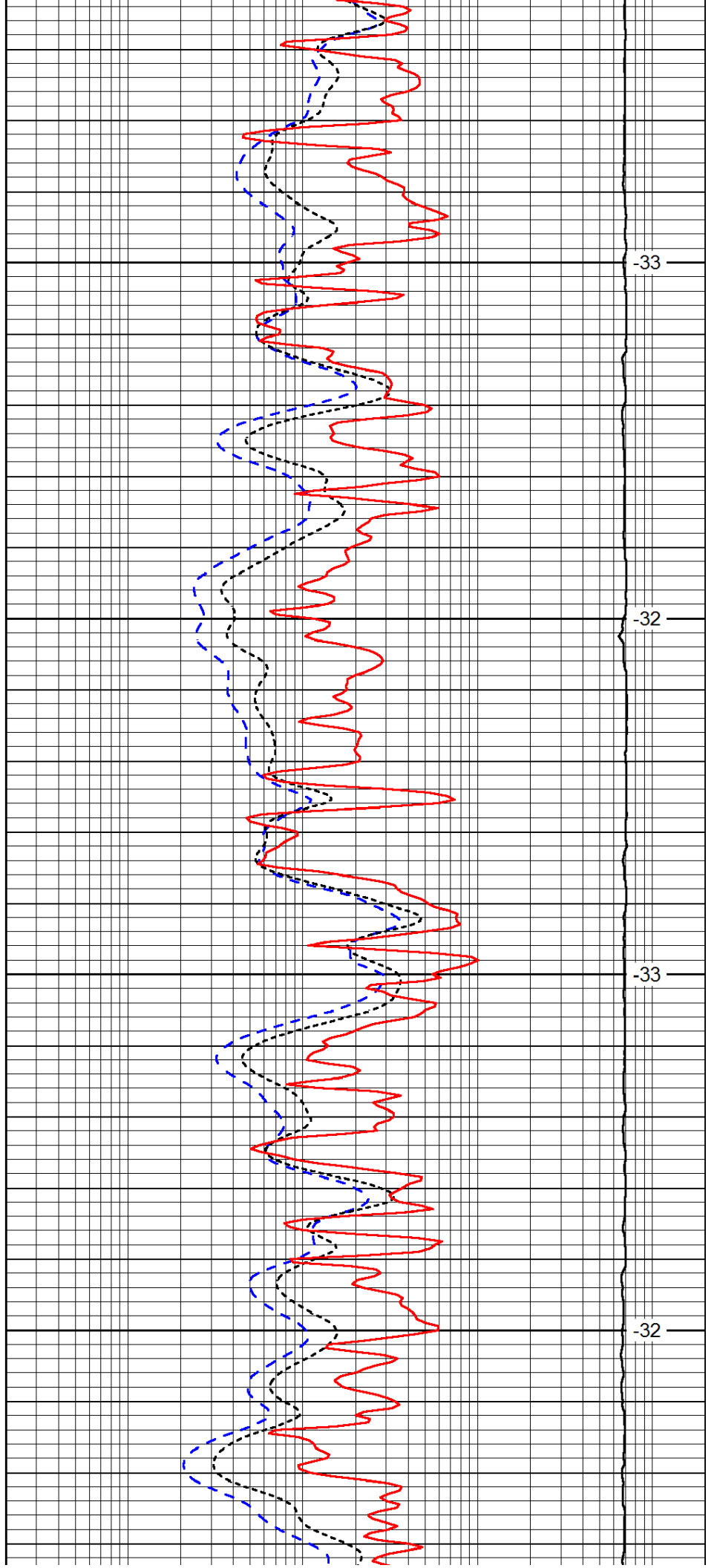


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3800

3850

3900

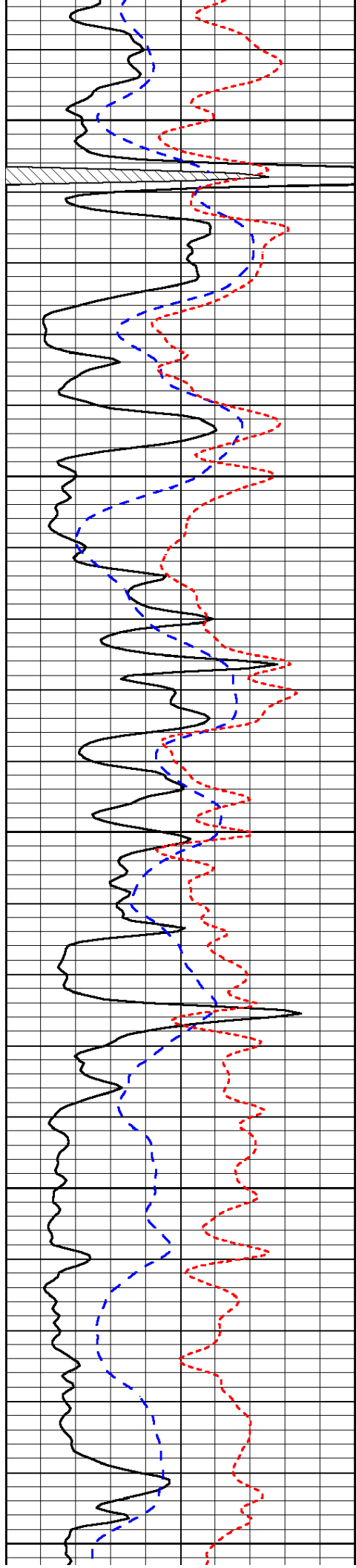


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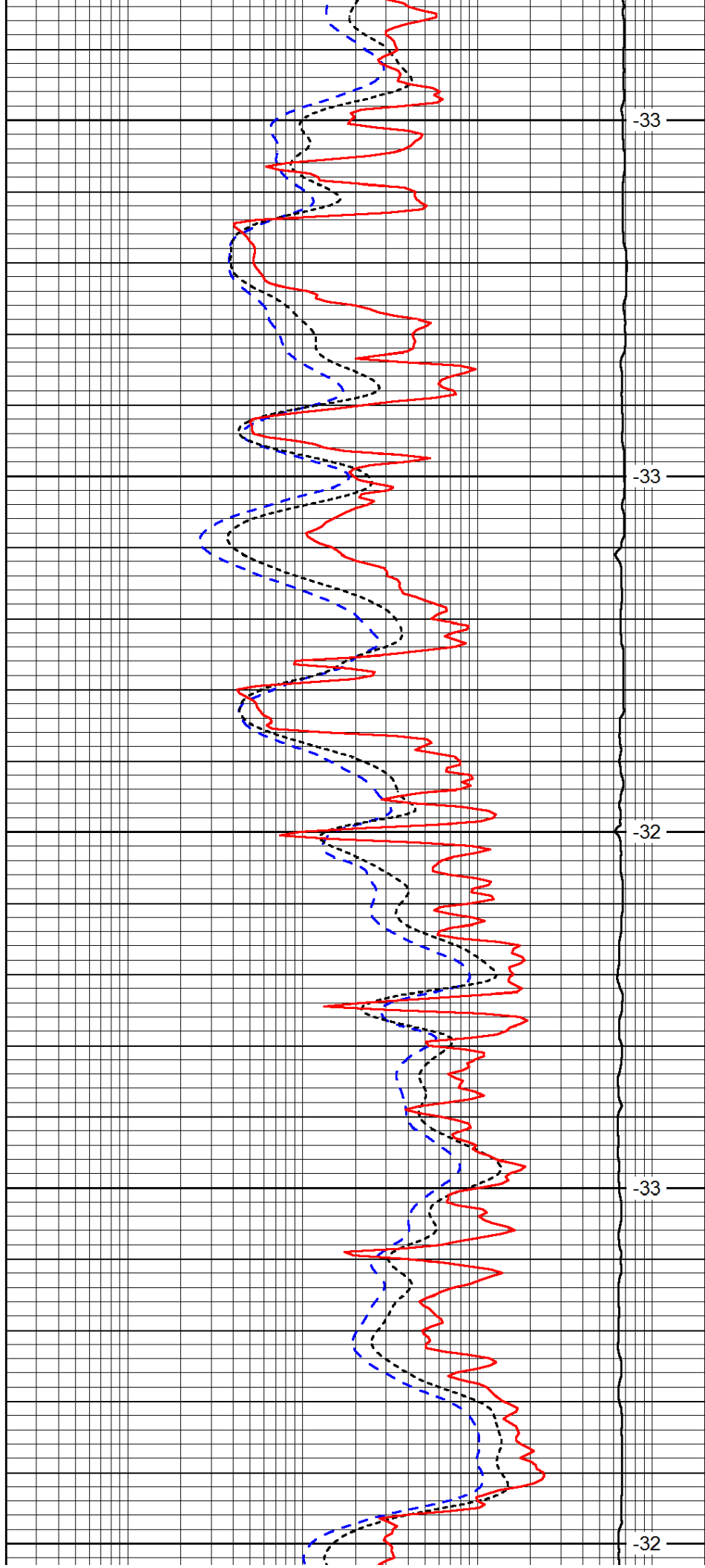
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4000

4050

4100

4150



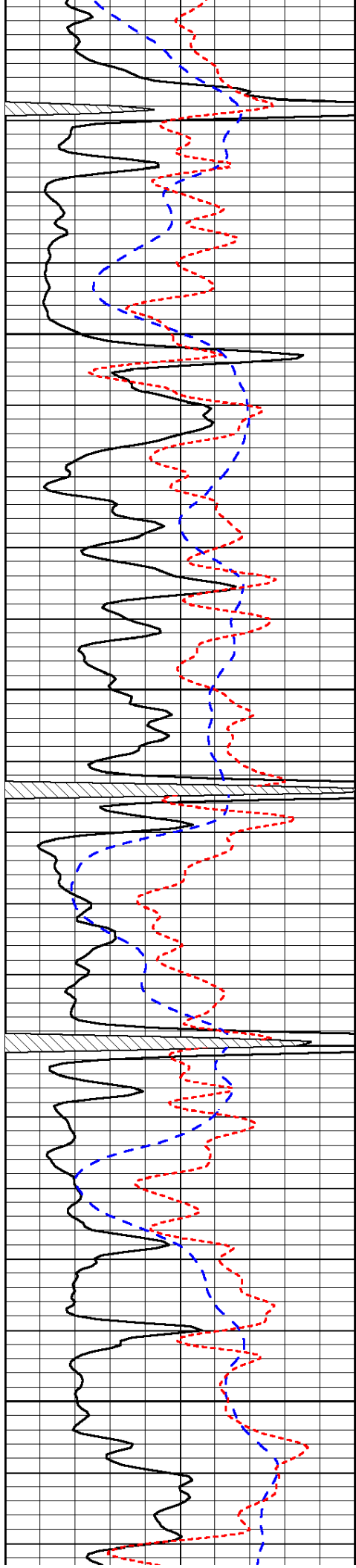
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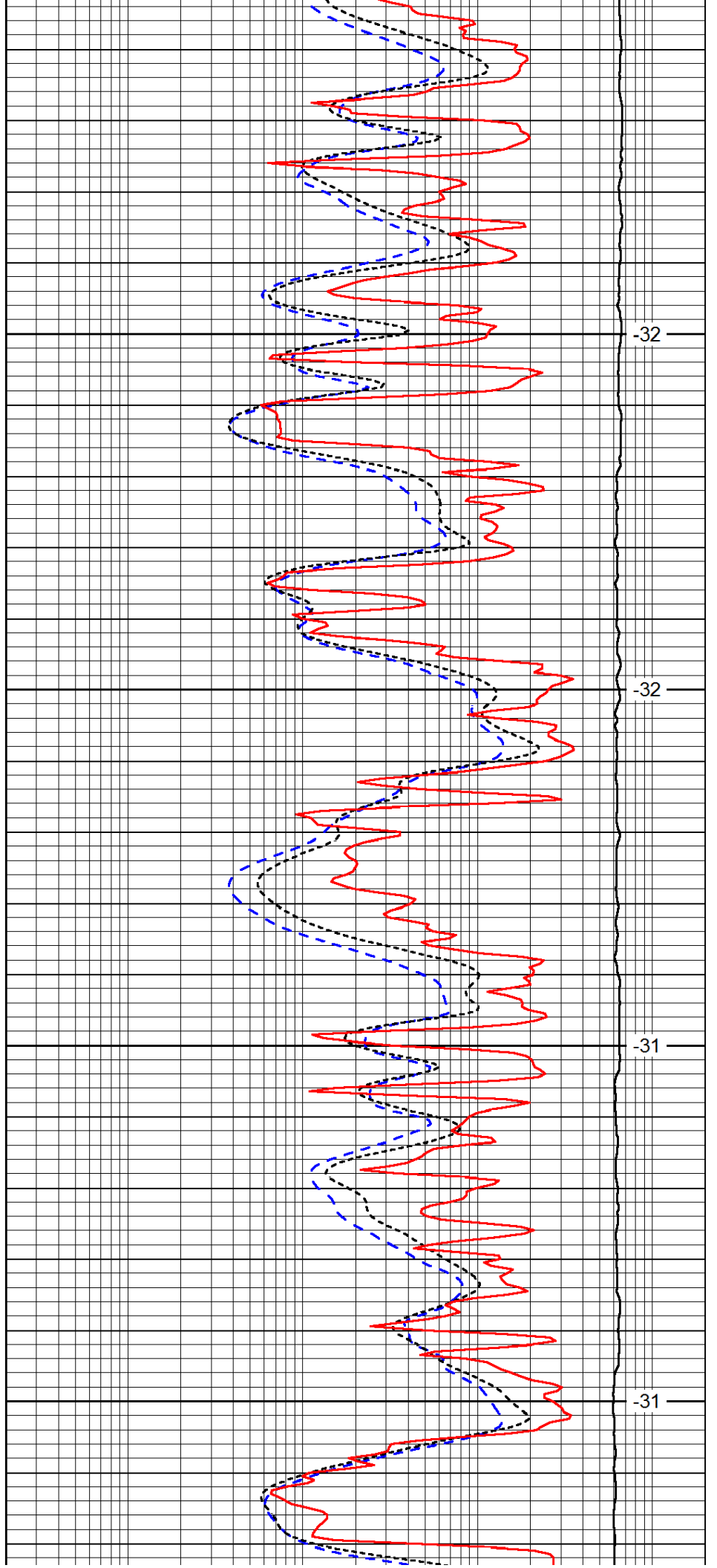


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4250

4300

4350

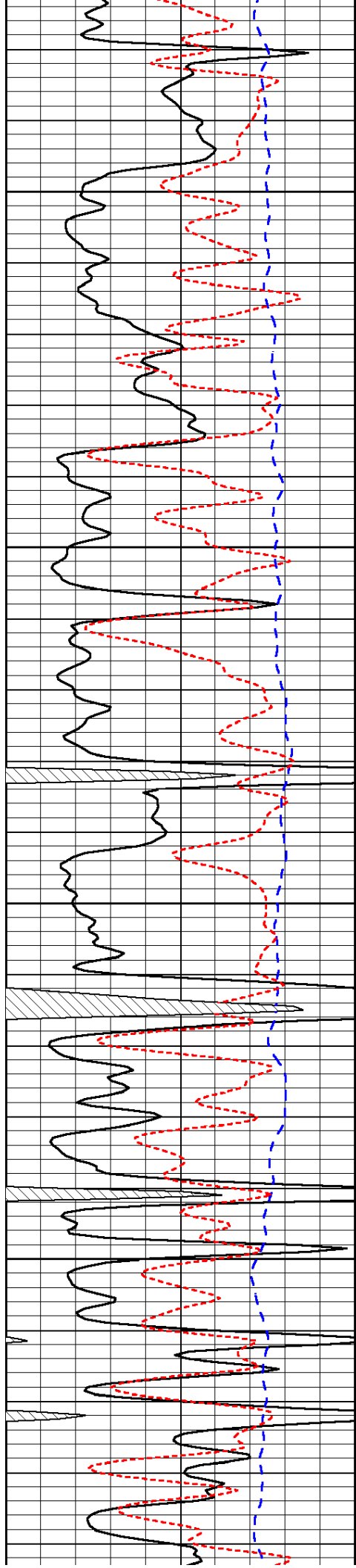


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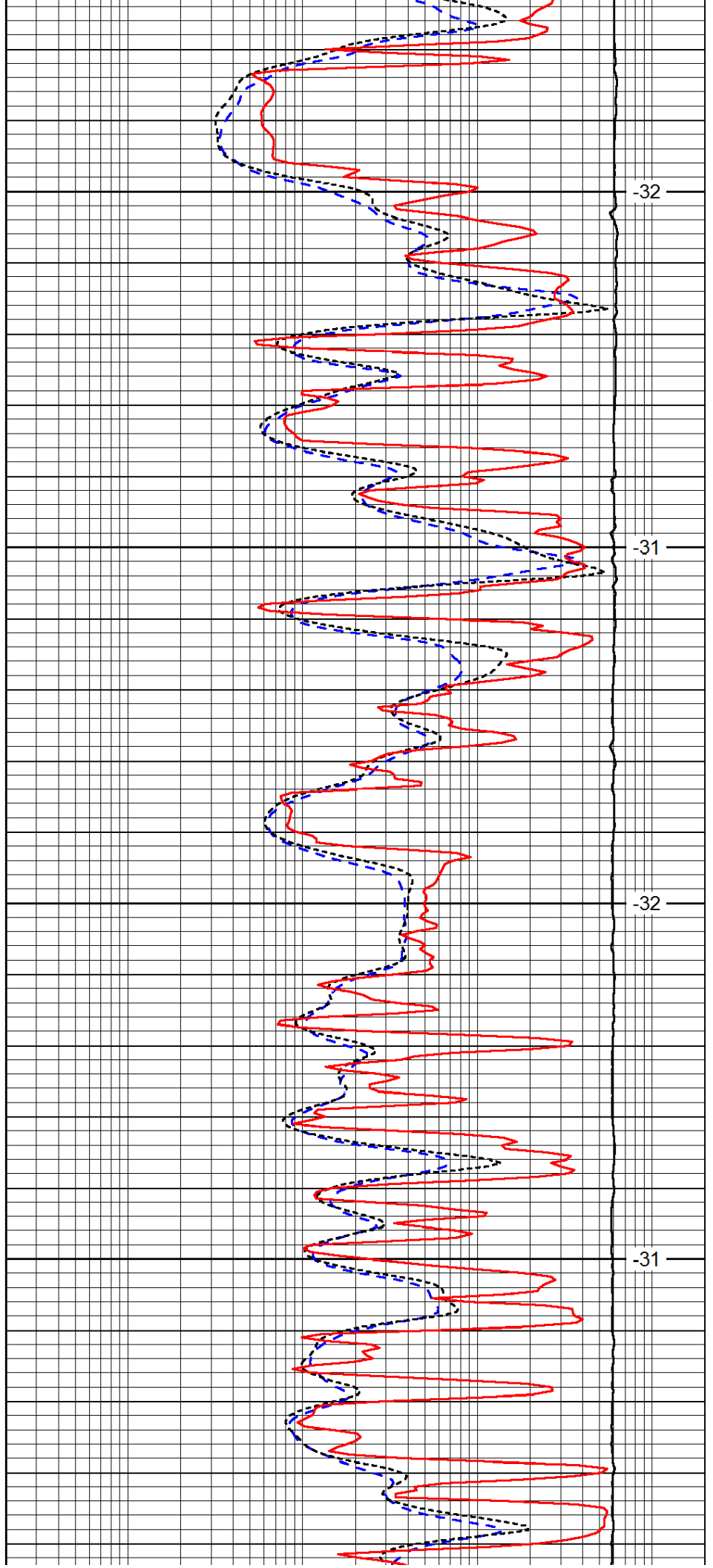


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4450

4500

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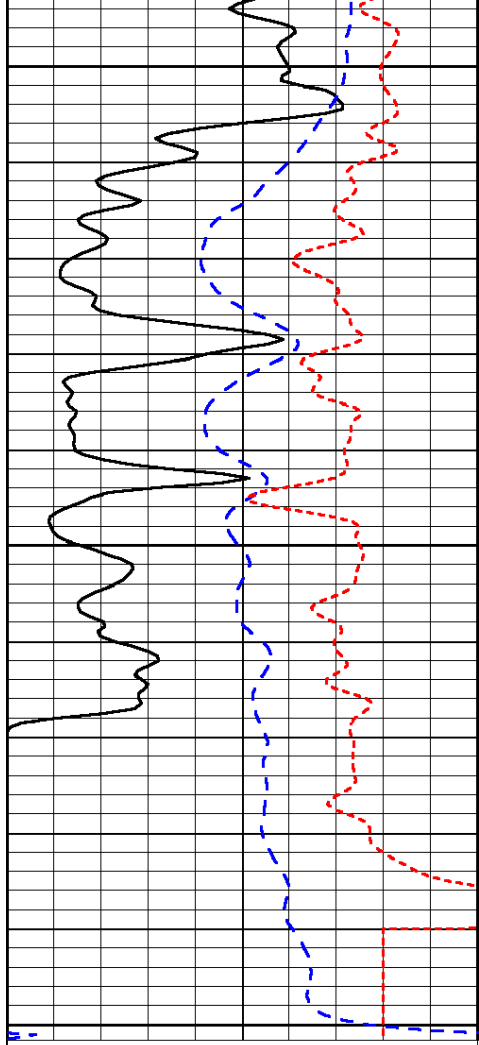


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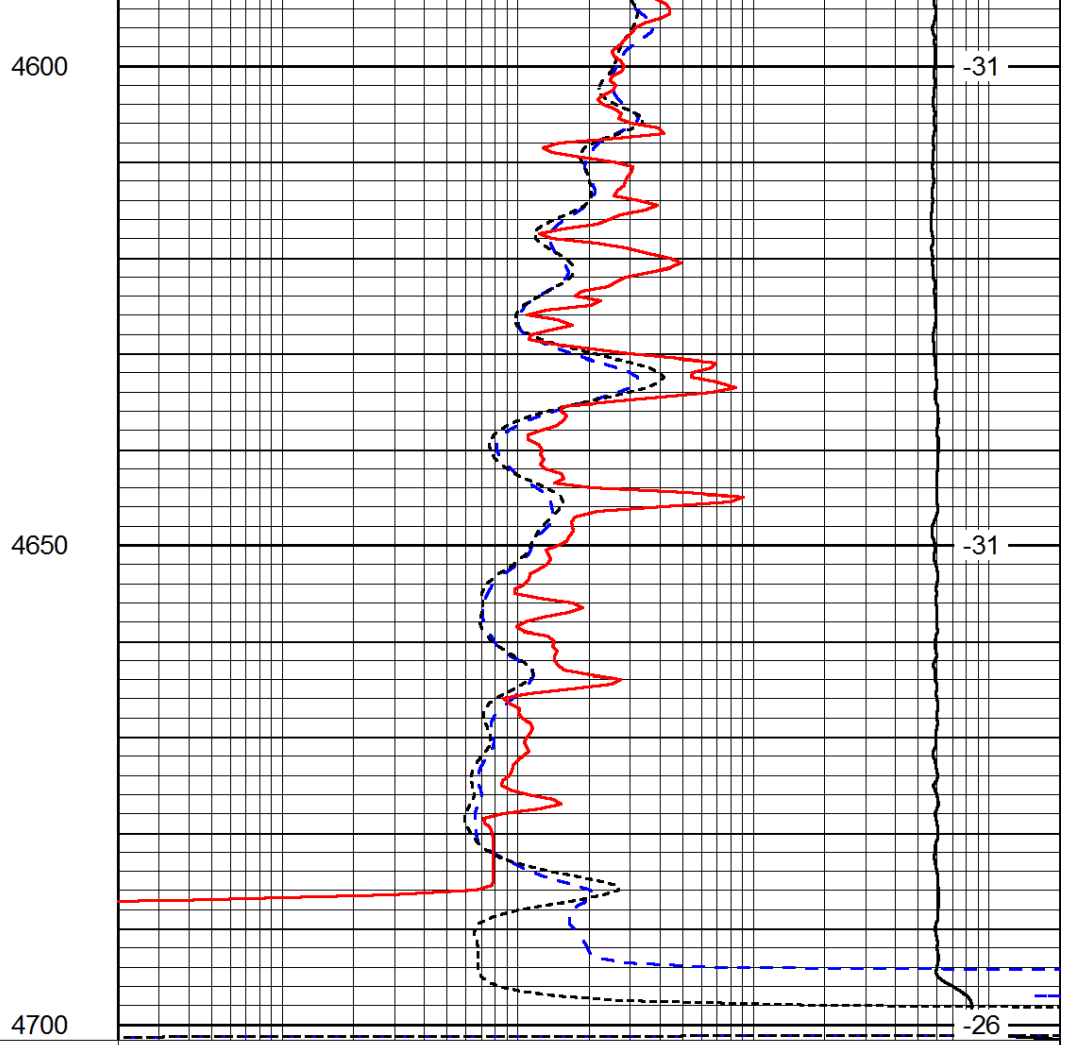
-31

-32

-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