



Pioneer Energy Services

# Dual Induction Log

15-051-26,535-00-00

API No.

Company **Cla-Mar Oil Company**

Well **Schumacher #2**

Field **Pleasant Northwest**

County **Ellis** State **Kansas**

Location

SW SE NW NW/4  
1310' FNL & 705' FWL

Sec: 21 Twp: 13S Rge: 20W

Other Services  
CNL/CDL  
MEL

Permanent Datum Ground Level Elevation 2214  
Log Measured From Kelly Bushing 7 Ft. Above Perm. Datum  
Drilling Measured From Kelly Bushing

Date 6/2/2013

Run Number One

Depth Driller 3930

Depth Logger 3929

Bottom Logged Interval 3928

Top Log Interval 200

Casing Driller 8.625 @ 222

Casing Logger 217

Bit Size 7.875

Type Fluid in Hole Chemical

Salinity, ppm CL 6000

Density / Viscosity 9.2 53

pH / Fluid Loss 9.5 9.6

Source of Sample Flowline

Rm @ Meas. Temp 0.56 @ 81

Rmf @ Meas. Temp 0.42 @ 81

Rmc @ Meas. Temp 0.76 @ 81

Source of Rmf / Rmc Charts

Rm @ BHT 0.39 @ 115

Operating Rig Time 4 Hours

Max Rec. Temp. F 115

Equipment Number 10

Location Hays

Recorded By D Kerr

Witnessed By Roger Fisher

Elevation  
K.B. 2221  
D.F.  
G.L. 2214

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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

Ellis KS, 1 1/4 South, East Into

Database File: c:\warrior\data\cla-mar\_schumacher #2\clamar\_schumacher\_2hd.db  
Dataset Pathname: DIL/clastk  
Presentation Format: dil2in  
Dataset Creation: Mon Jun 03 01:18:15 2013  
Charted by: Depth in Feet scaled 1:600

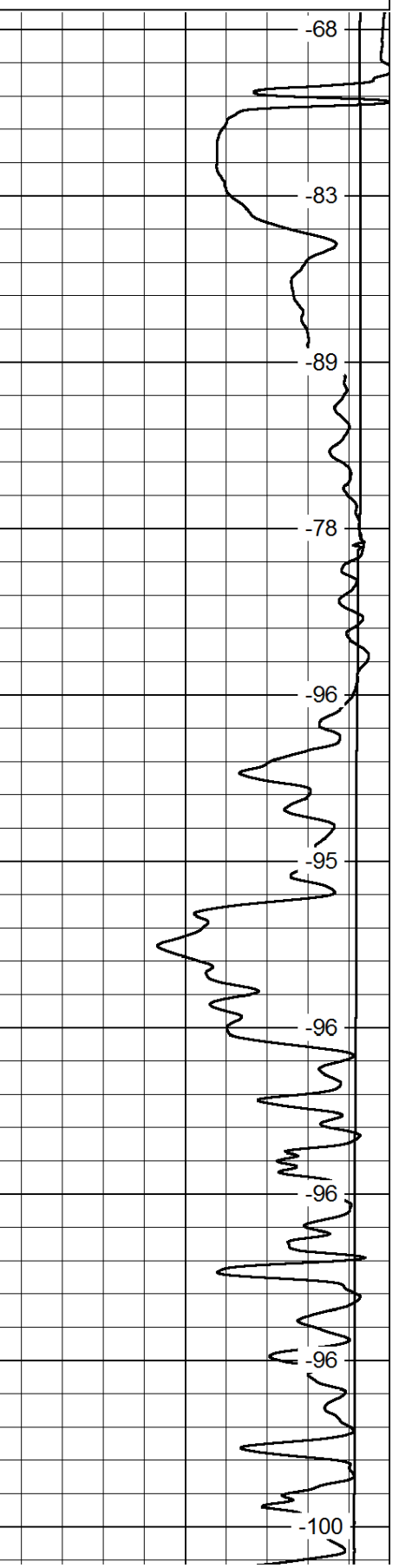
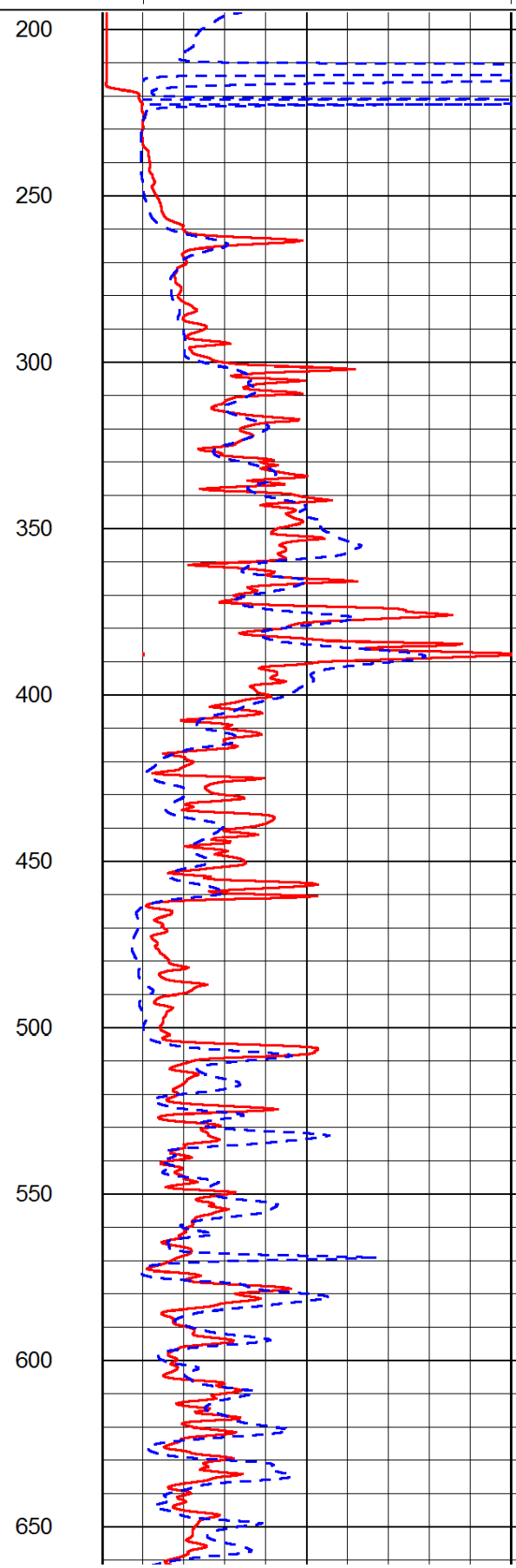
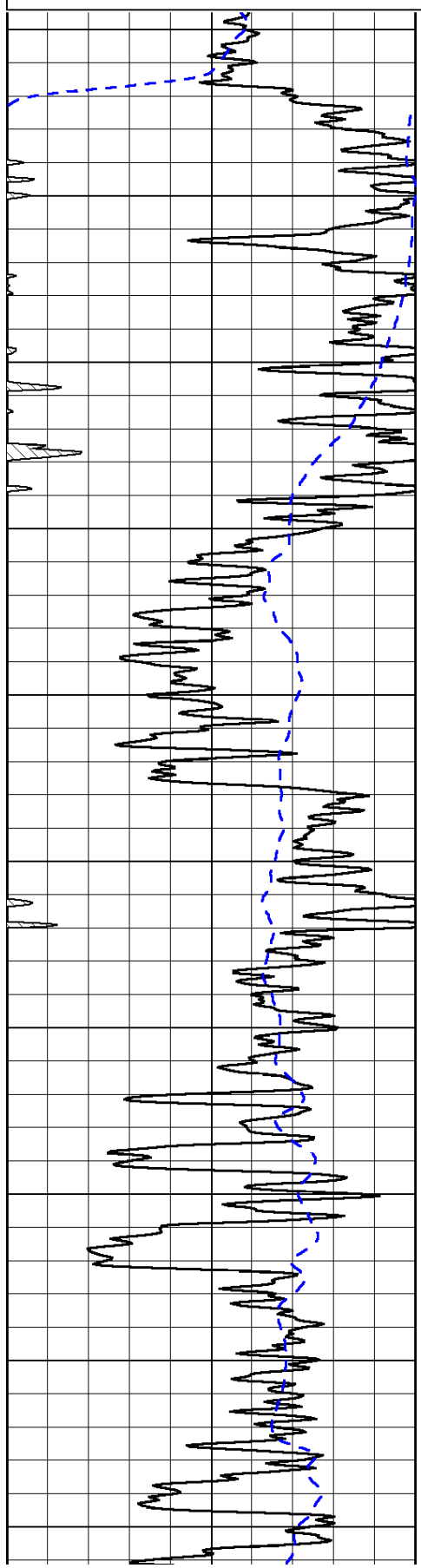
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-200	SP (mV)	0

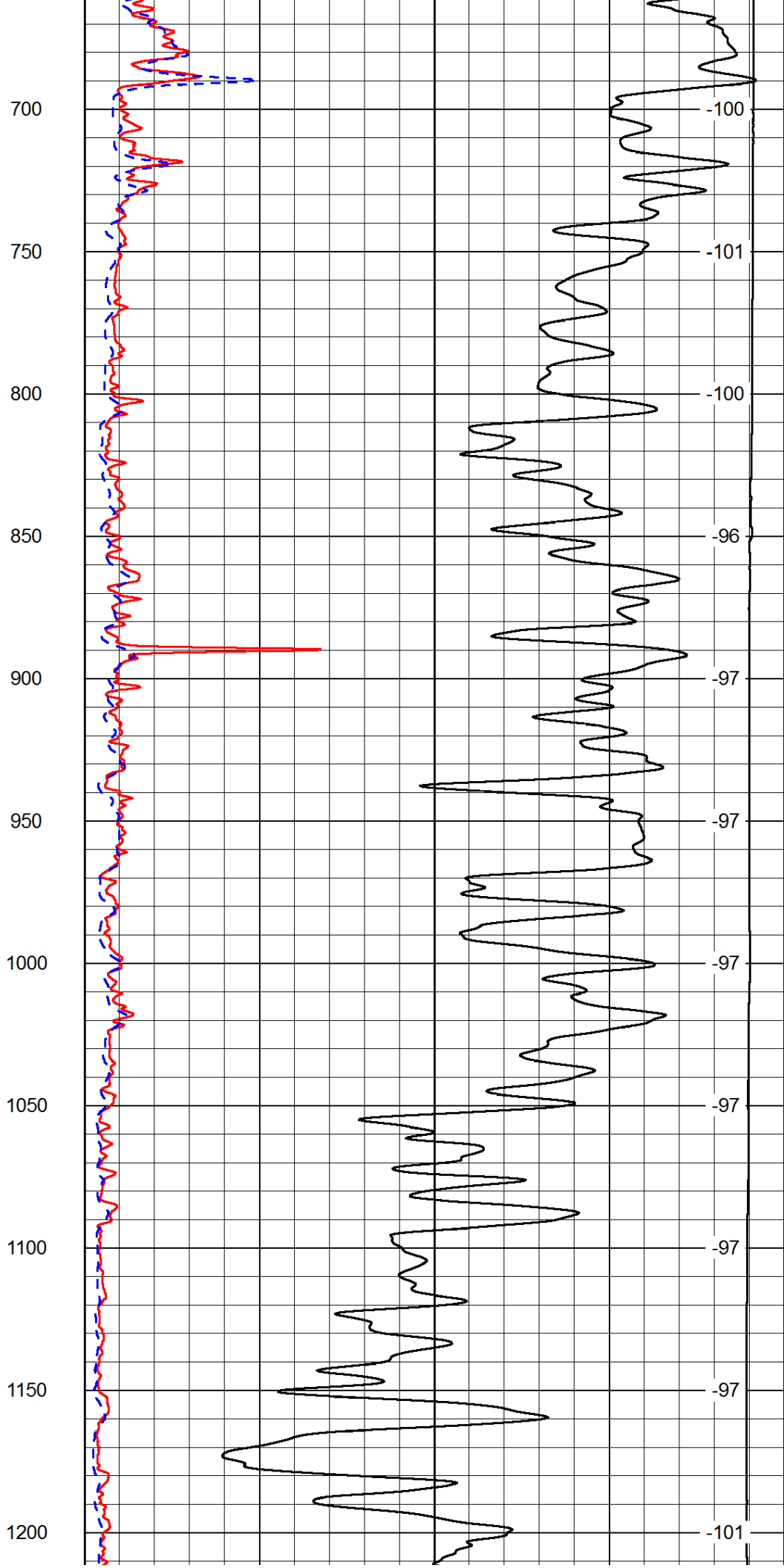
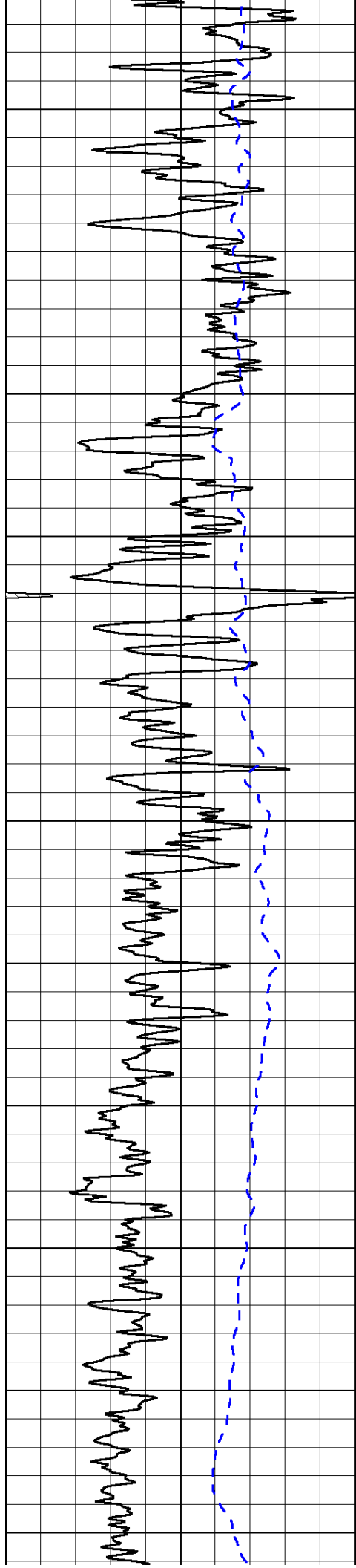
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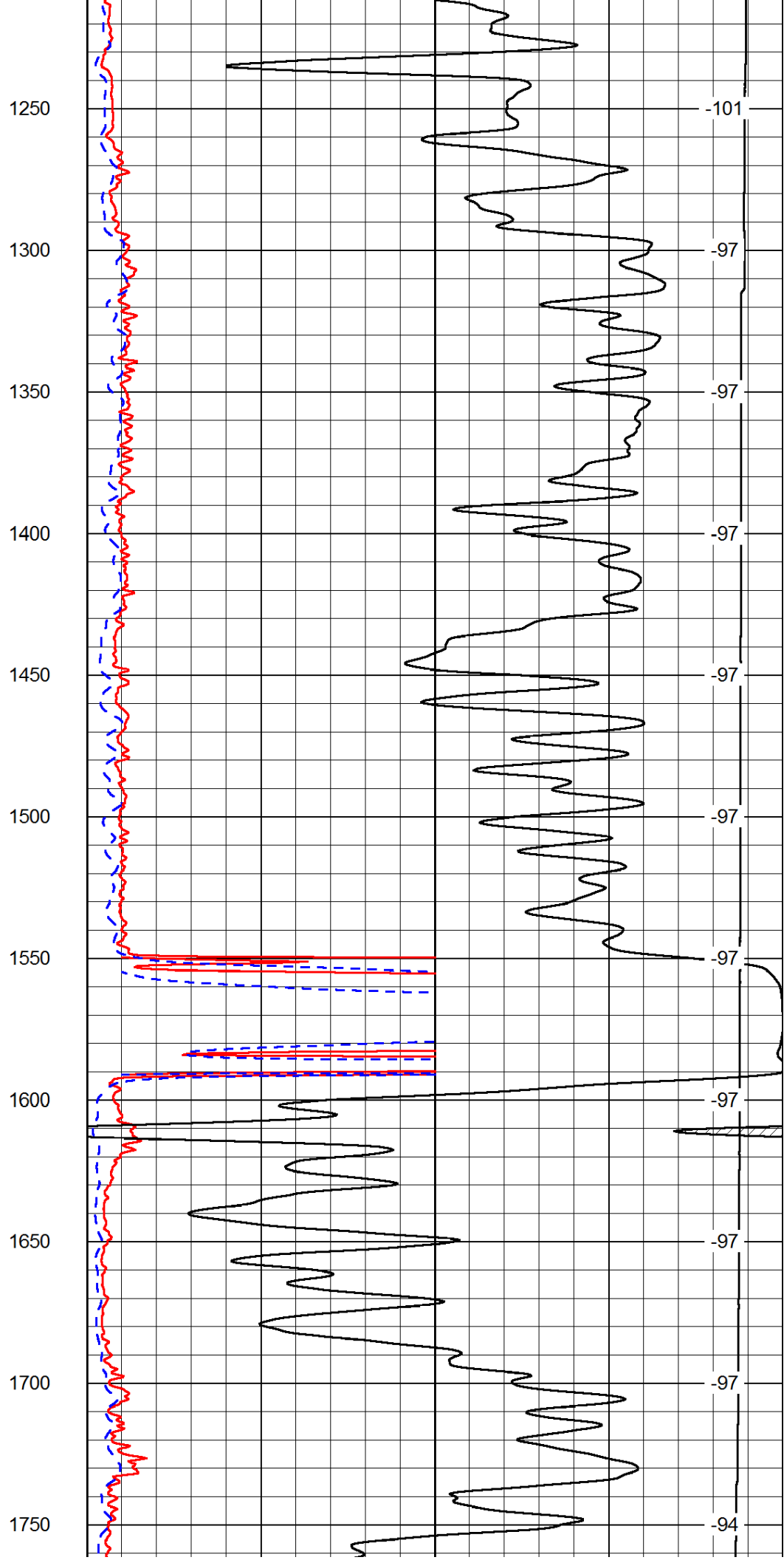
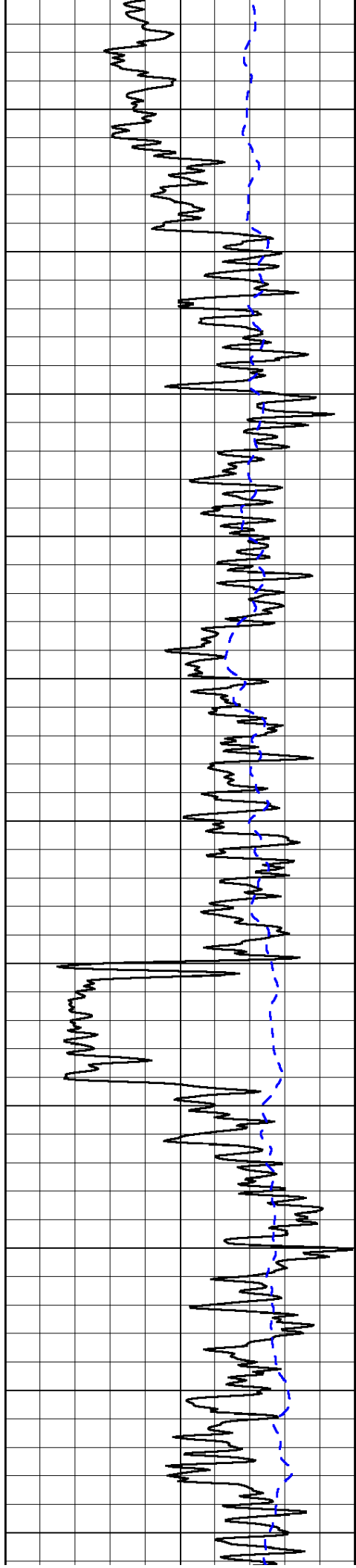
LSPD

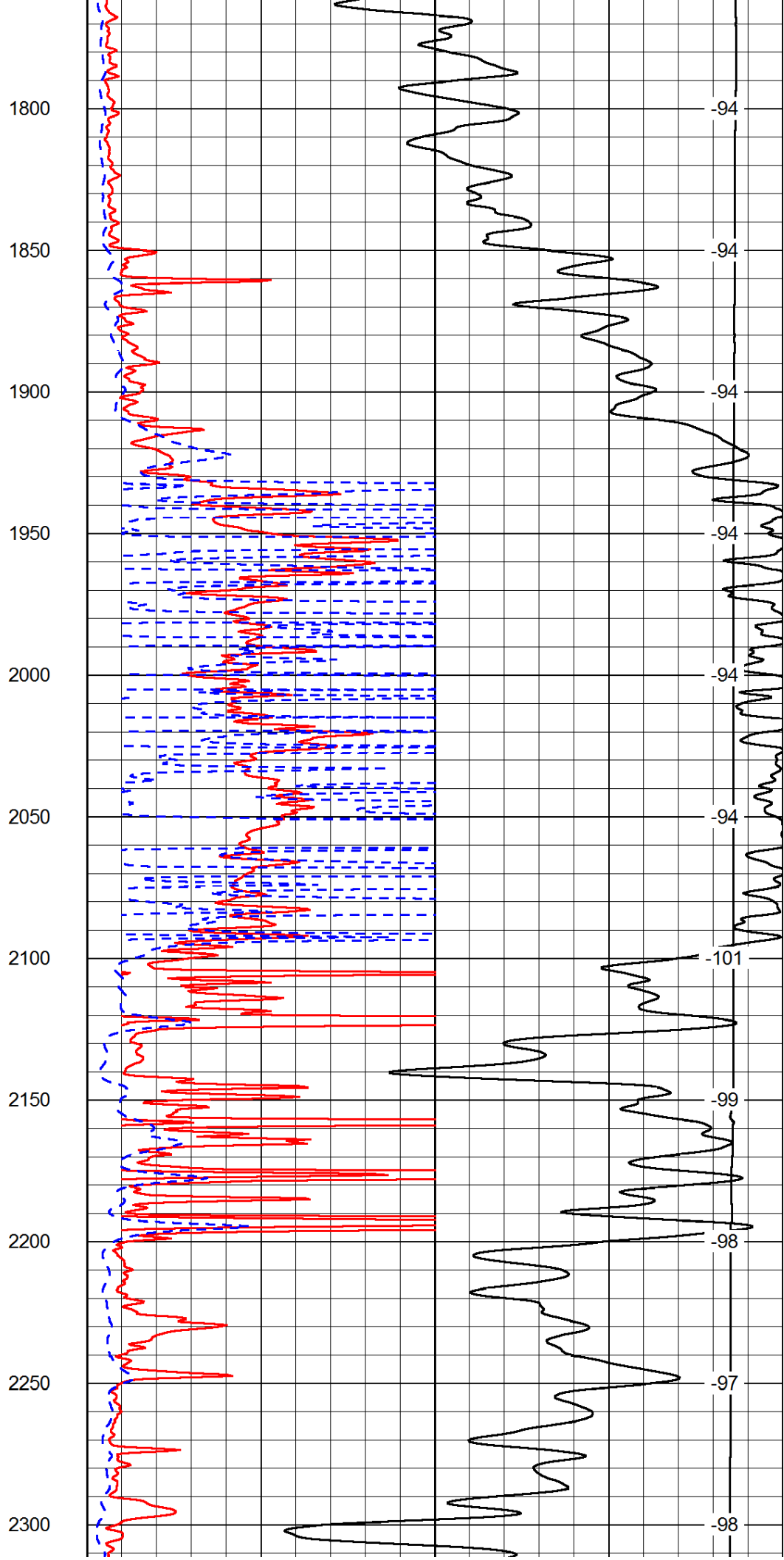
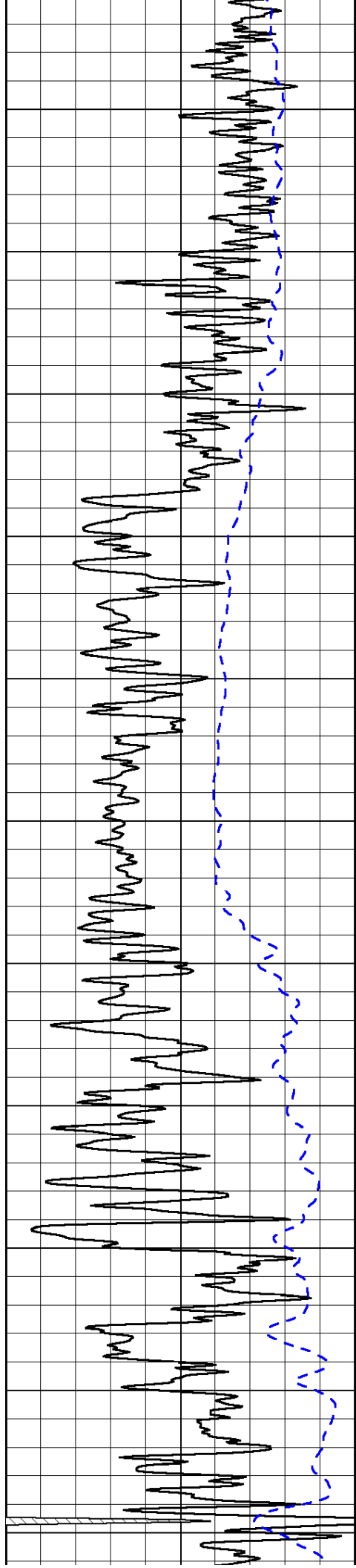
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15000	Line Tension	0

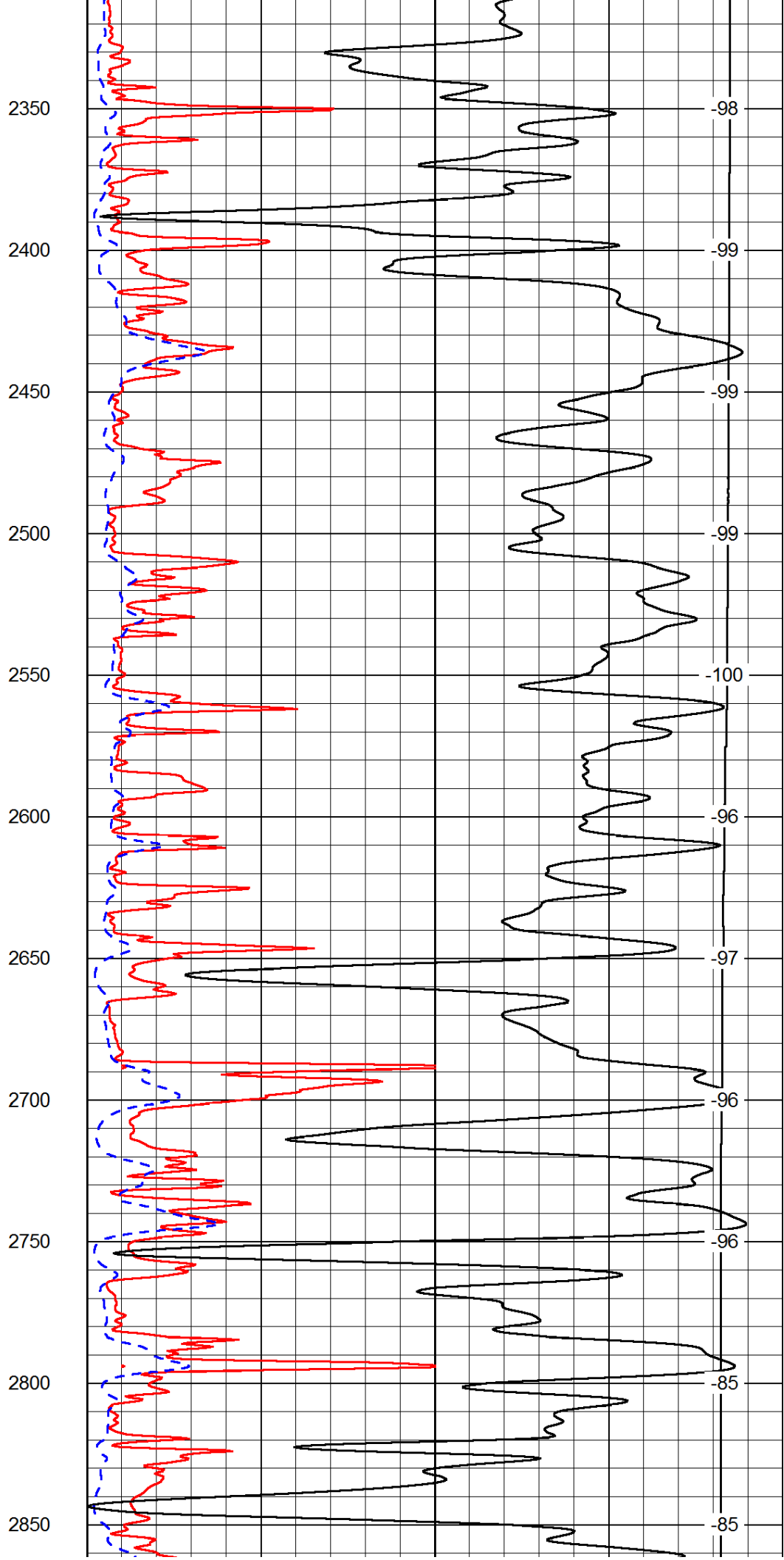
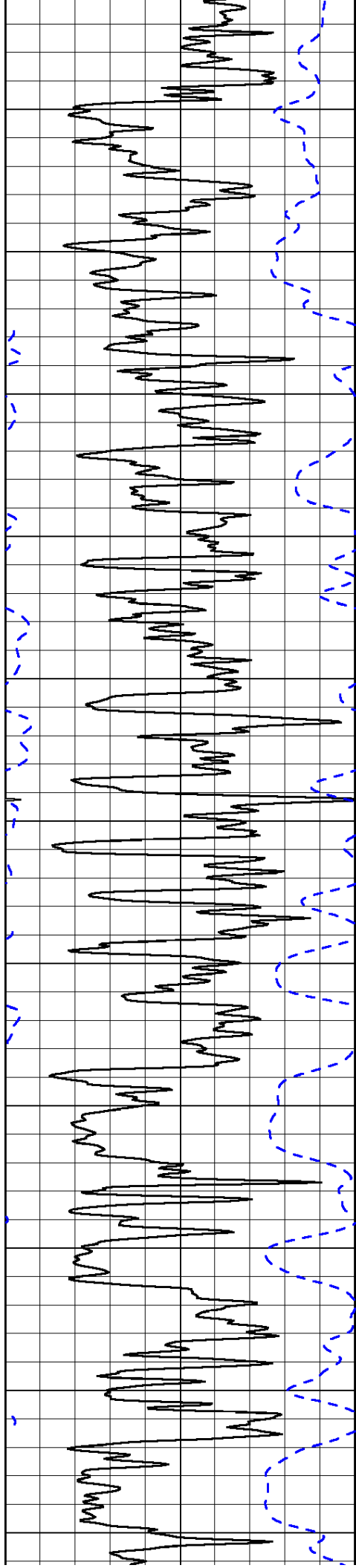
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50	Deep Resistivity	500

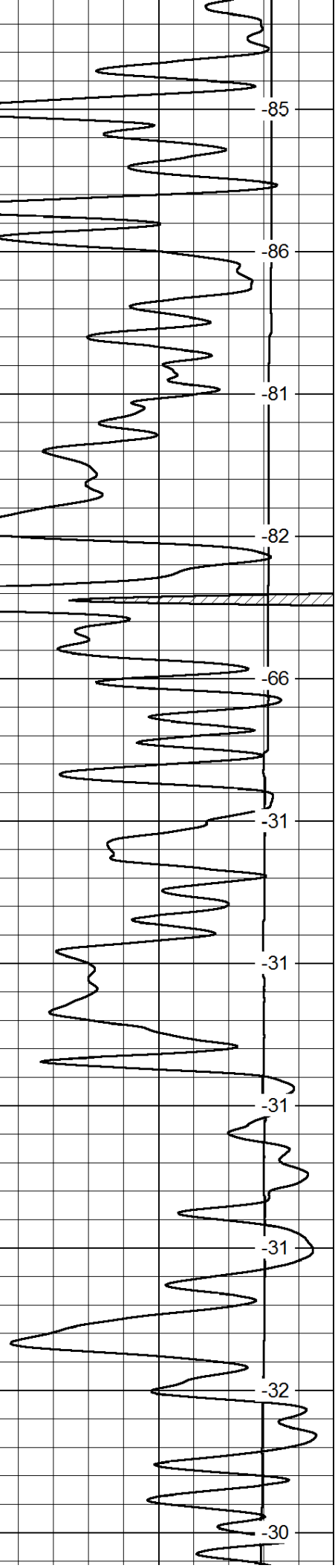
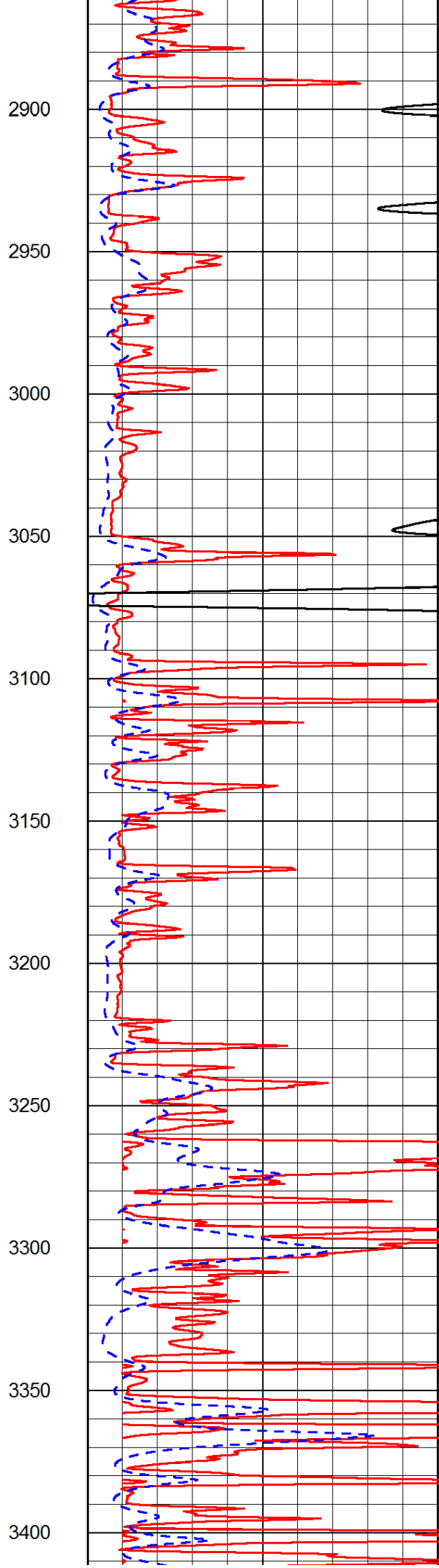
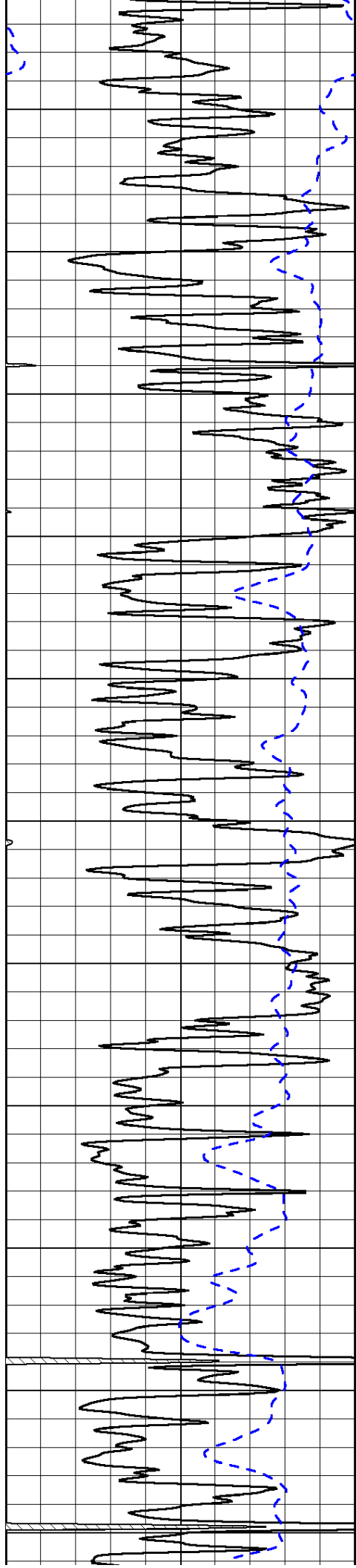


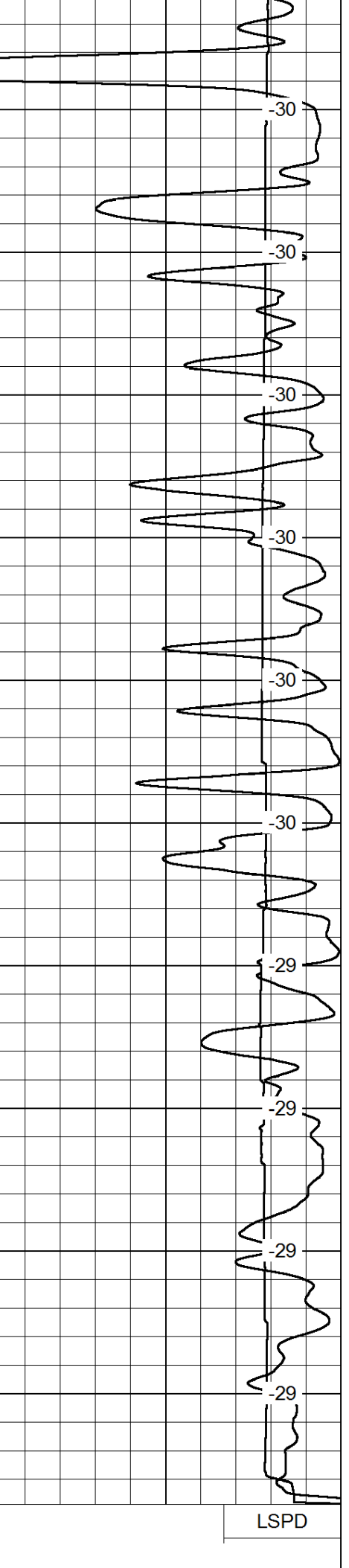
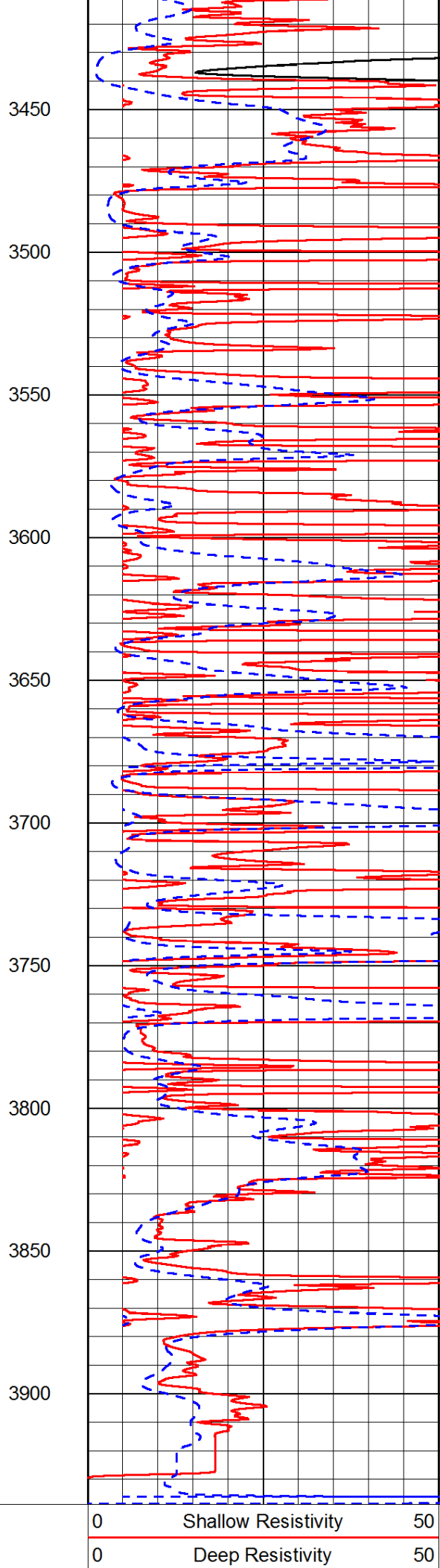
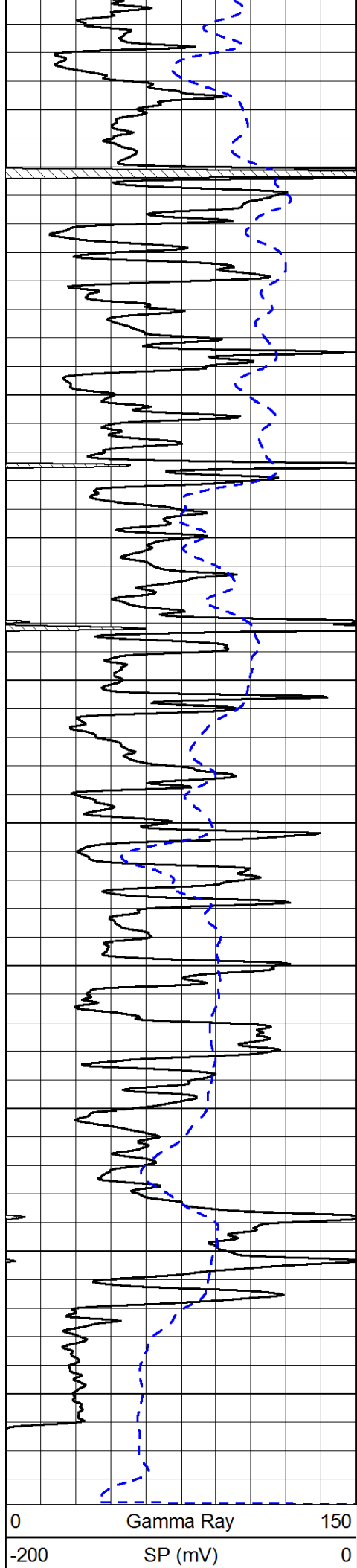












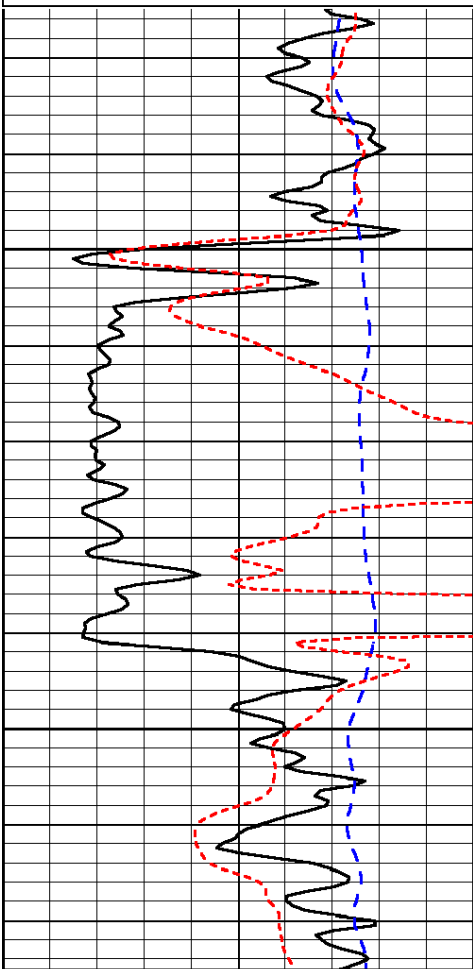
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15000	Line Tension	0
50	Shallow Resistivity	500
50	Deep Resistivity	500

Database File: c:\warrior\data\cla-mar\_schumacher #2\clamar\_schumacher\_2hd.db  
 Dataset Pathname: DIL/clastk  
 Presentation Format: dil  
 Dataset Creation: Mon Jun 03 01:18:15 2013  
 Charted by: Depth in Feet scaled 1:240

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

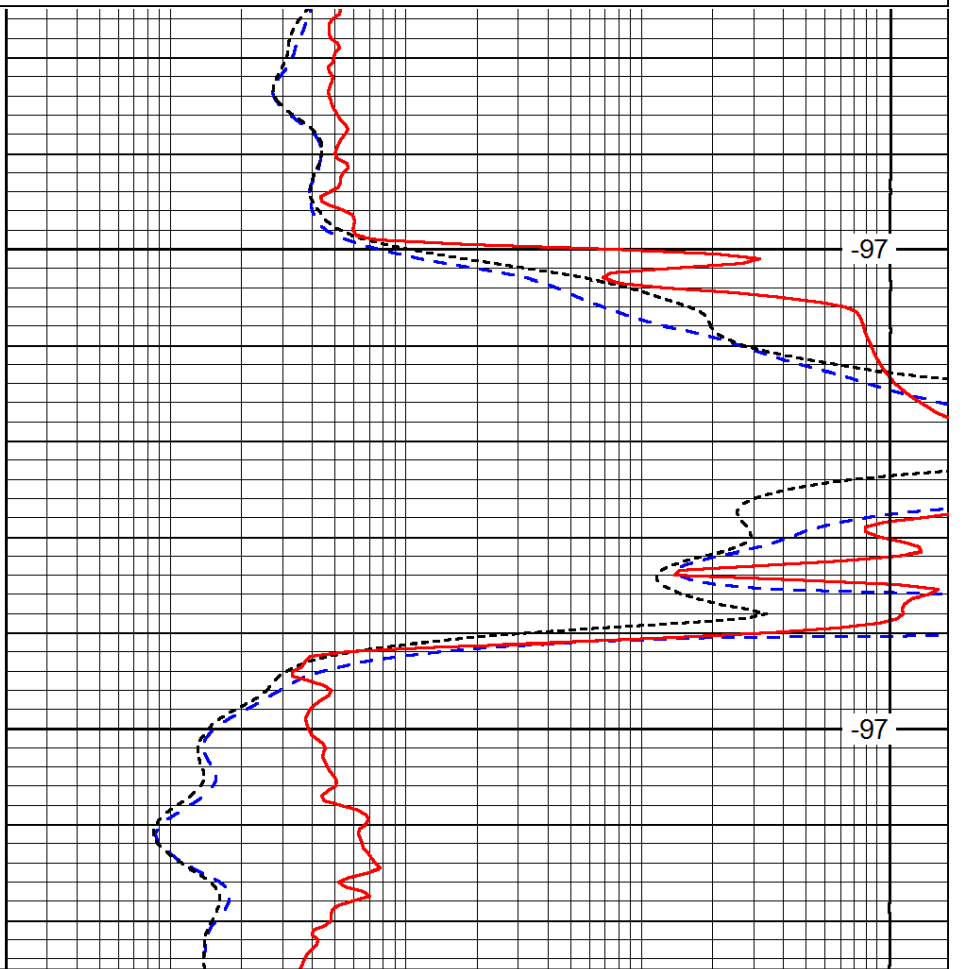
0.2	Deep Resistivity	2000
0.2	Medium Resistivity	2000
0.2	Shallow Resistivity	2000
15000	Line Tension	0

LSPD



1550

1600



-97

-97

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

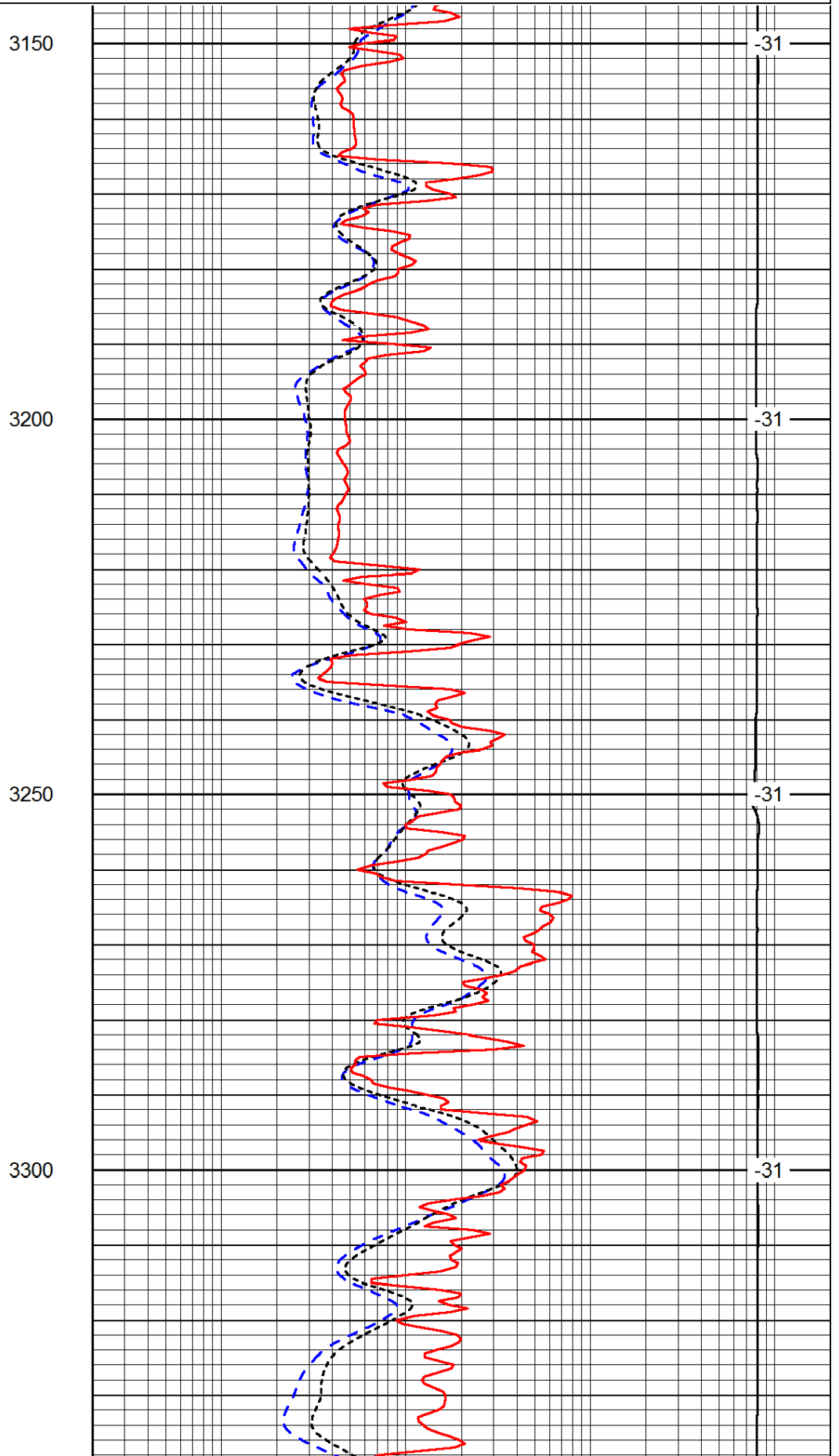
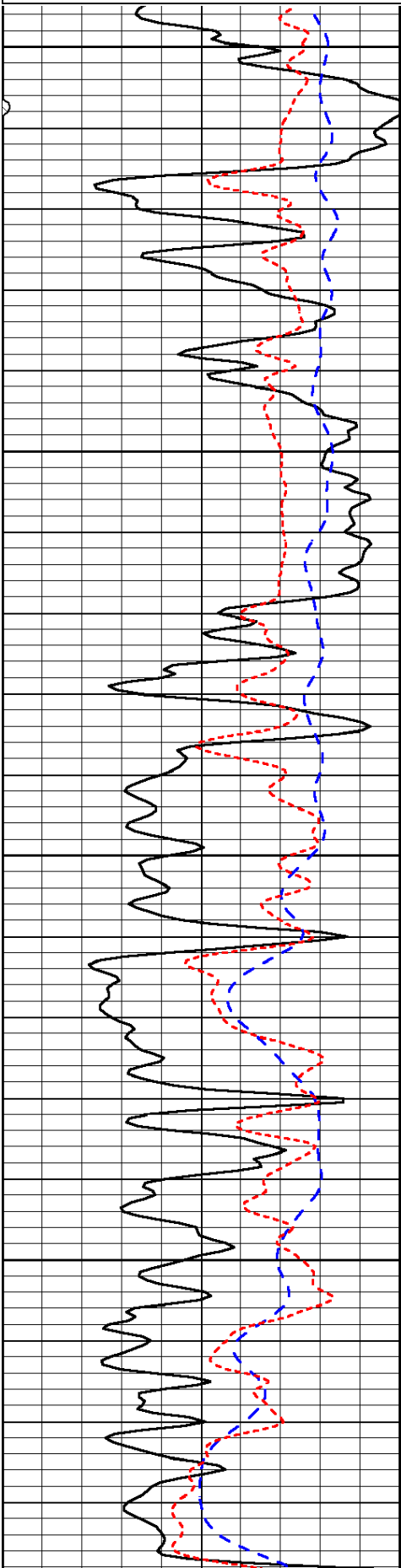
LSPD

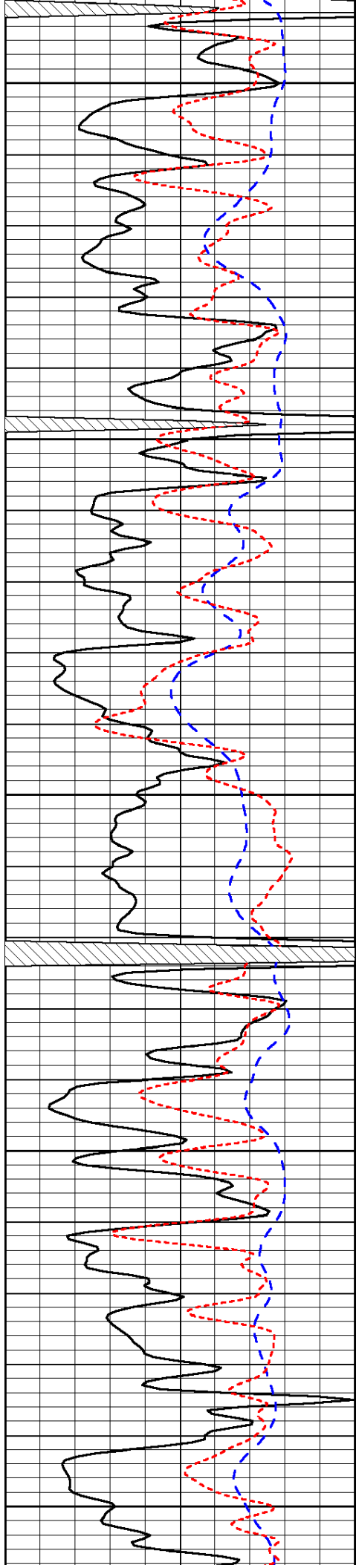
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-200	SP (mV)	0
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0.2	Deep Resistivity	2000
0.2	Medium Resistivity	2000
0.2	Shallow Resistivity	2000
15000	Line Tension	0

LSPD





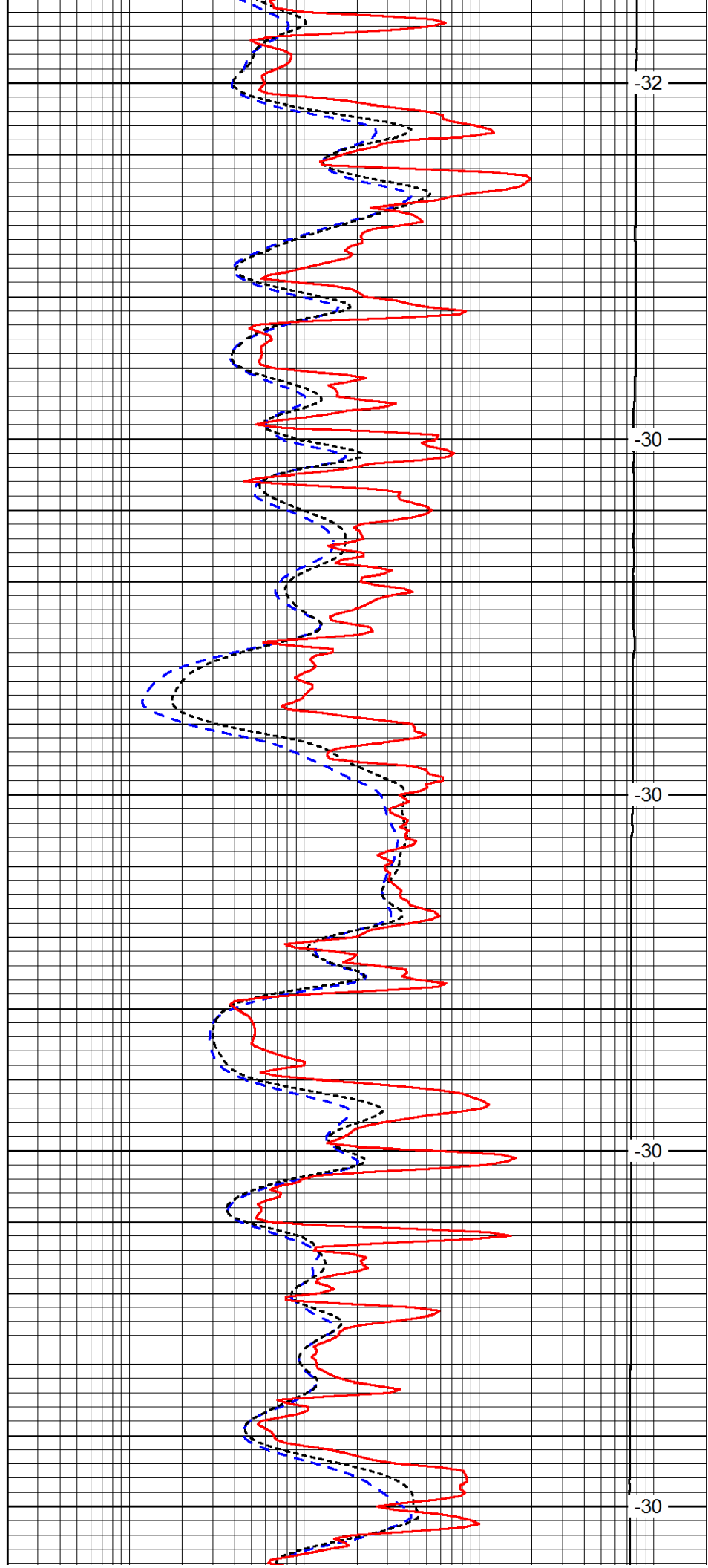
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3400

3450

3500

3550



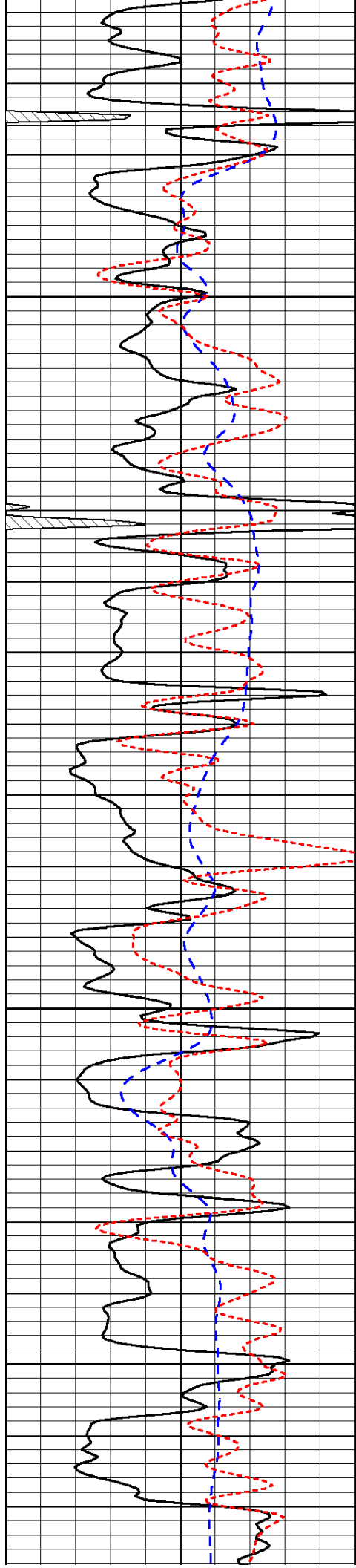
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-30

-30

-30

-30

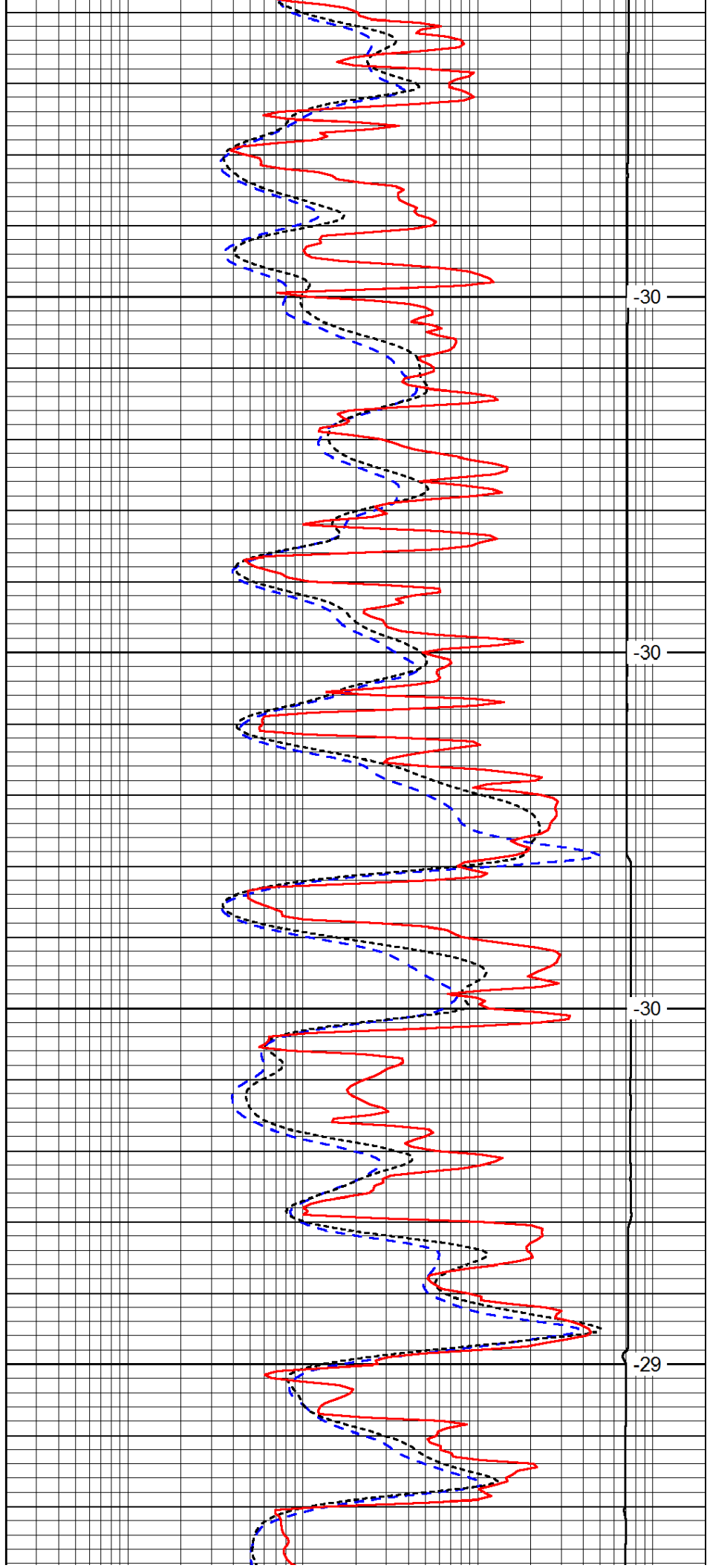


3600

3650

3700

3750

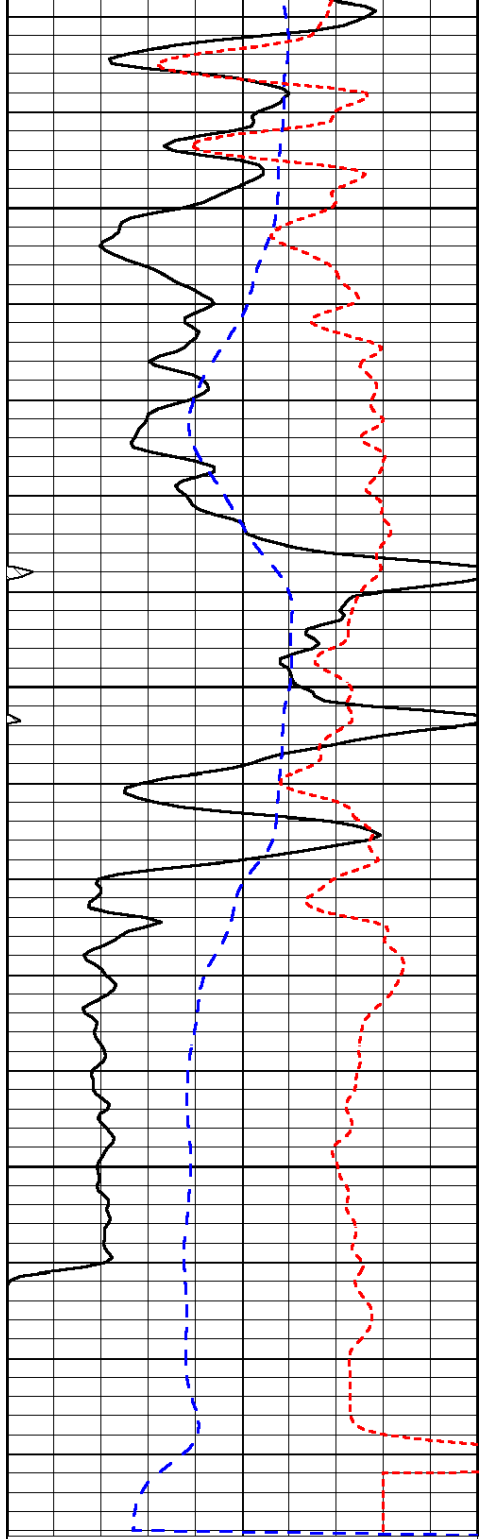


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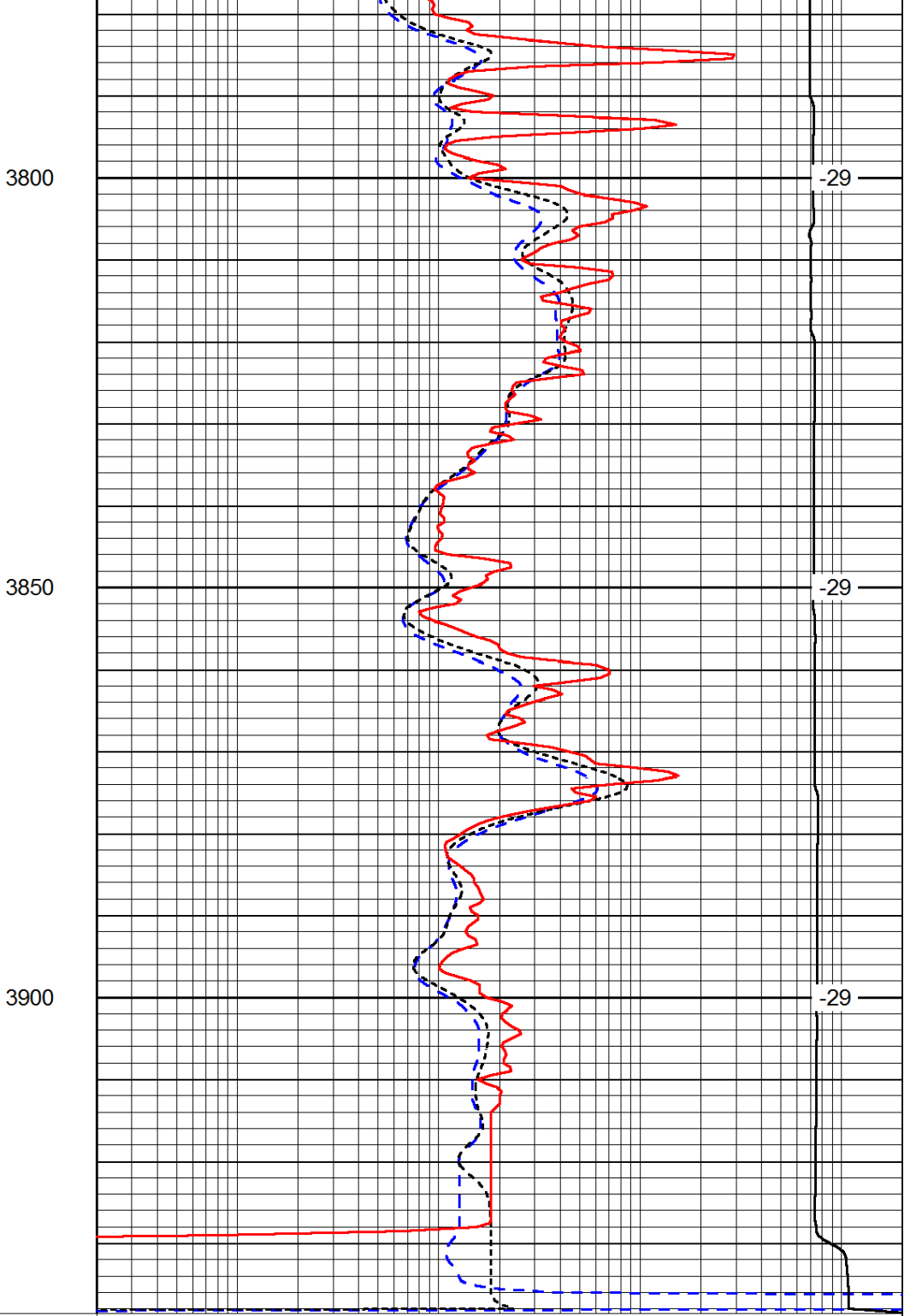
-30

-30

-29



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