



DIGITAL LOG

(785) 625-3858

Dual Induction Log

API No.

15-051-26271-00-00

Company TDI, Inc.

Well Bittel #1

Field Ellis Southeast

County Ellis State

Kansas

Location

NW NE SW SE
1150' FSL & 1920' FELOther Services
CNL/CDL
MEL

Sec: 6

Twp: 13S

Rge: 20W

Elevation

K.B. 2164
D.F. 2164
G.L. 2155Permanent Datum
Log Measured From Kelly BushingGround Level
Elevation 2155
9 Ft. Above Perm. Datum

Drilling Measured From Kelly Bushing

Date

4/18/2012

Run Number

One

Depth Driller

3910

Depth Logger

3912

Bottom Logged Interval

3911

Top Log Interval

200

Casing Driller

8.625 @ 212

Casing Logger

210

Bit Size

7.875

Type Fluid in Hole

Chemical

Salinity, ppm CL

1500

Density / Viscosity

9.2 52

pH / Fluid Loss

10.5 6.8

Source of Sample

Flowline

Rm @ Meas. Temp

0.98 @ 66

Rmf @ Meas. Temp

0.51 @ 66

Rmc @ Meas. Temp

0.92 @ 66

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. Schmidt

Witnessed By

Herb Deines

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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 Log-Tech, Inc.
(785) 625-3858

Ellis,
1 1/4 W on 6th St,
N into

Database File: c:\warrior\data\tdi_bittel #1\tdi_bittel#1hd.db
Dataset Pathname: dil/tdistack
Presentation Format: dil2in
Dataset Creation: Thu Apr 19 03:08:49 2012
Charted by: Depth in Feet scaled 1:600

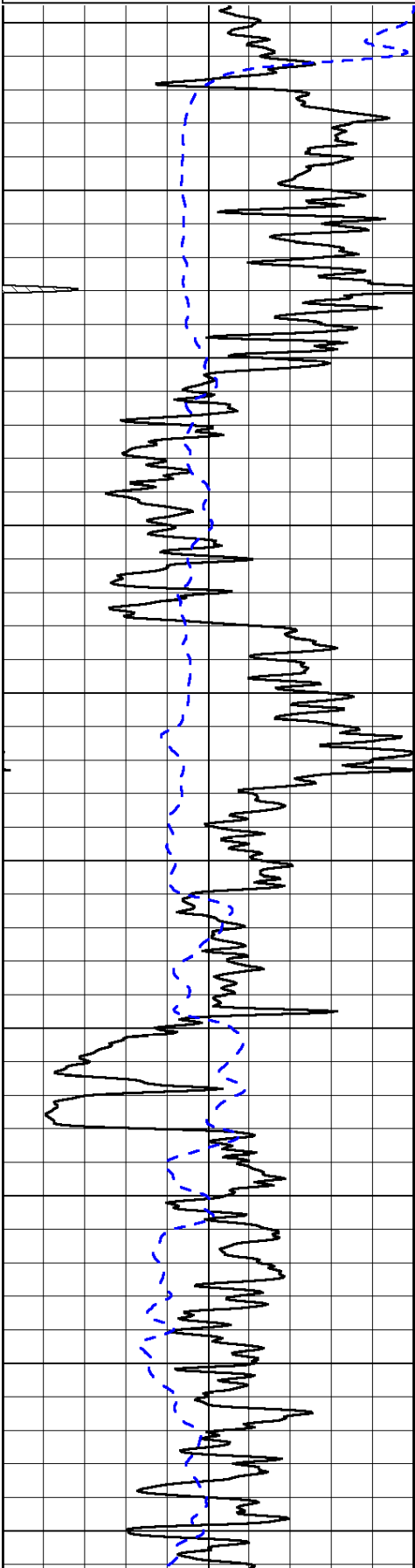
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-200	SP (mV)	0

0	Shallow Resistivity	50
0	Deep Resistivity	50

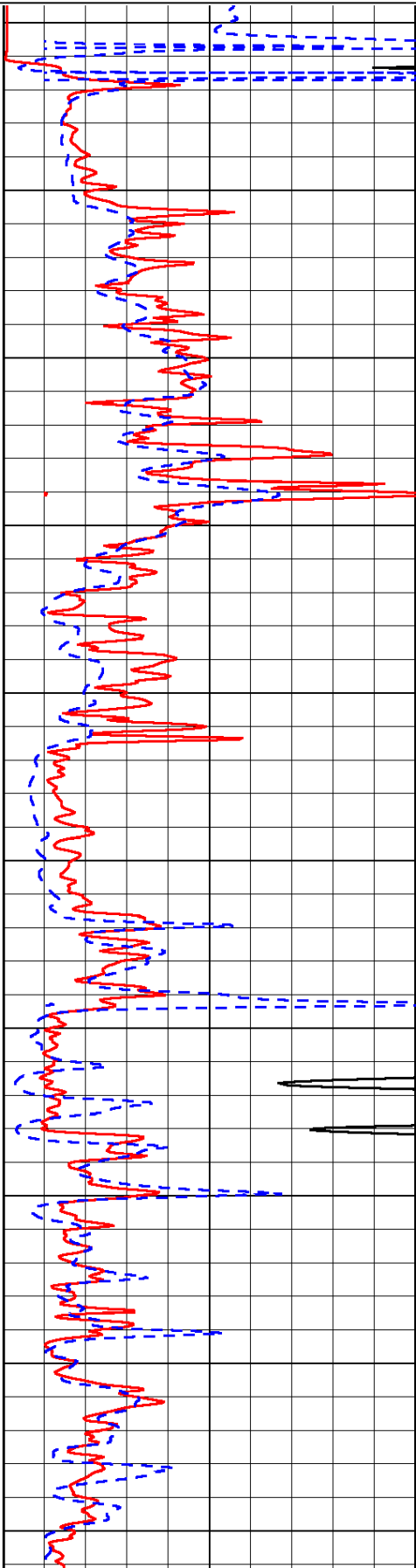
LSPD

1000	Conductivity	0
15000	Line Tension	0

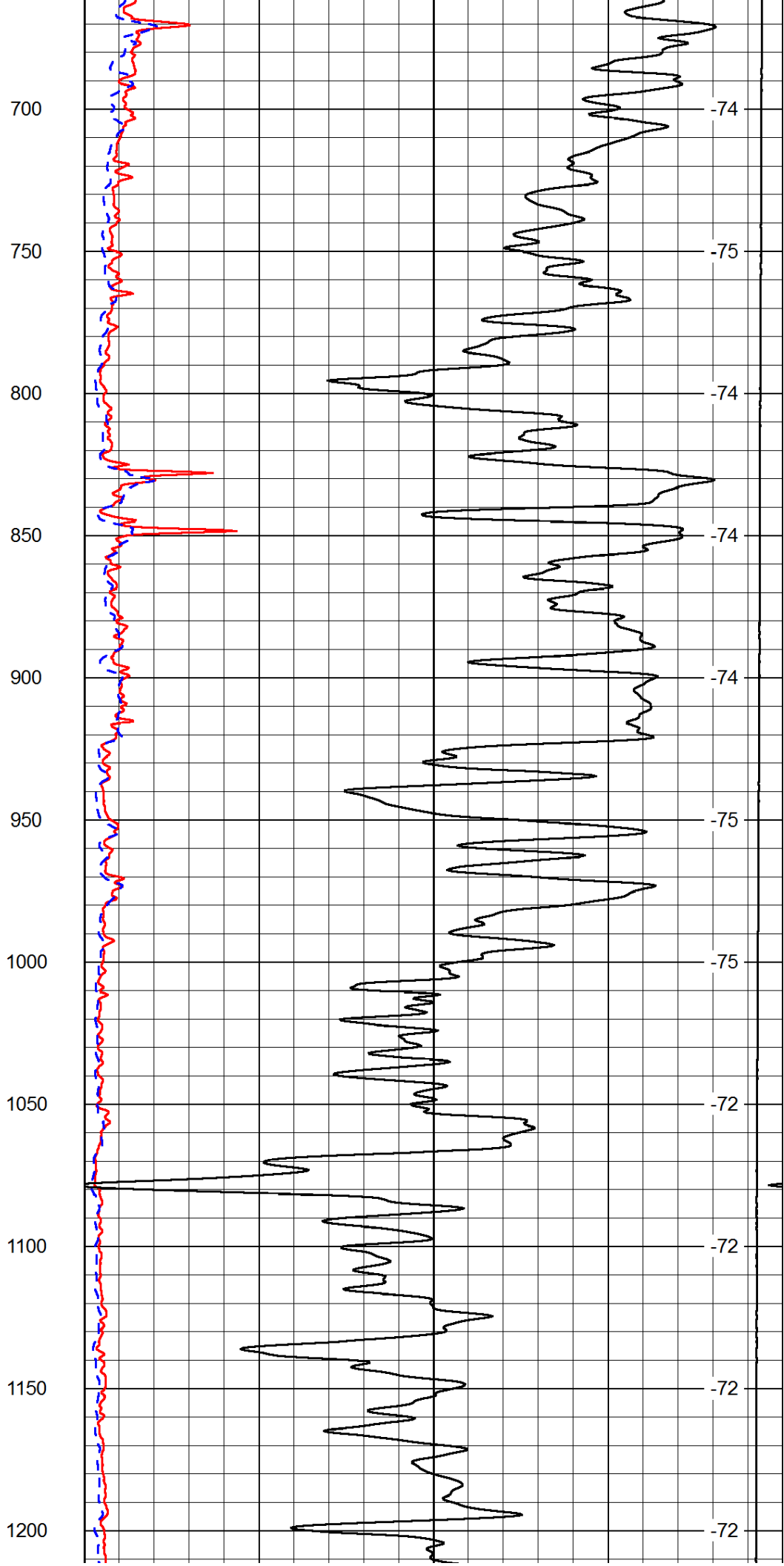
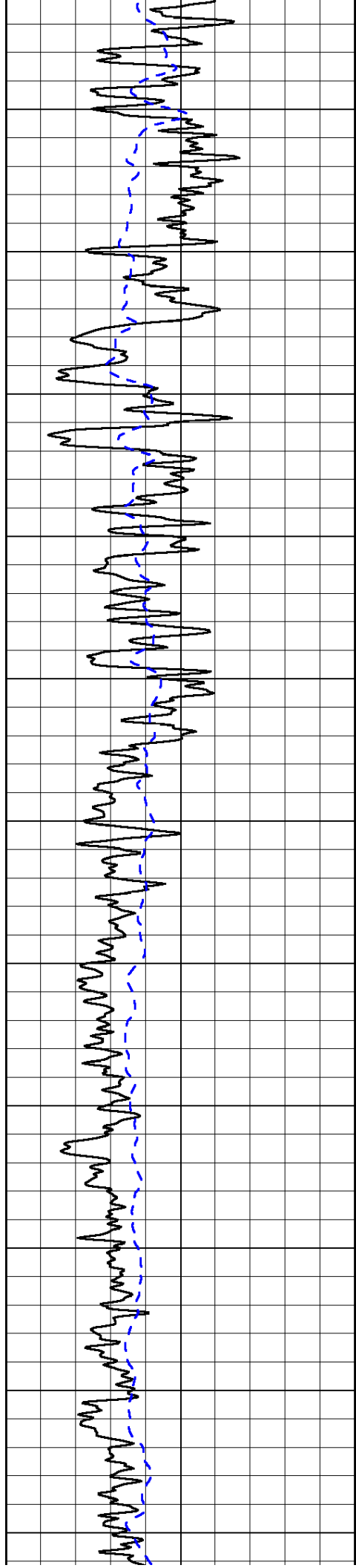
50	Shallow Resistivity	500
50	Deep Resistivity	500

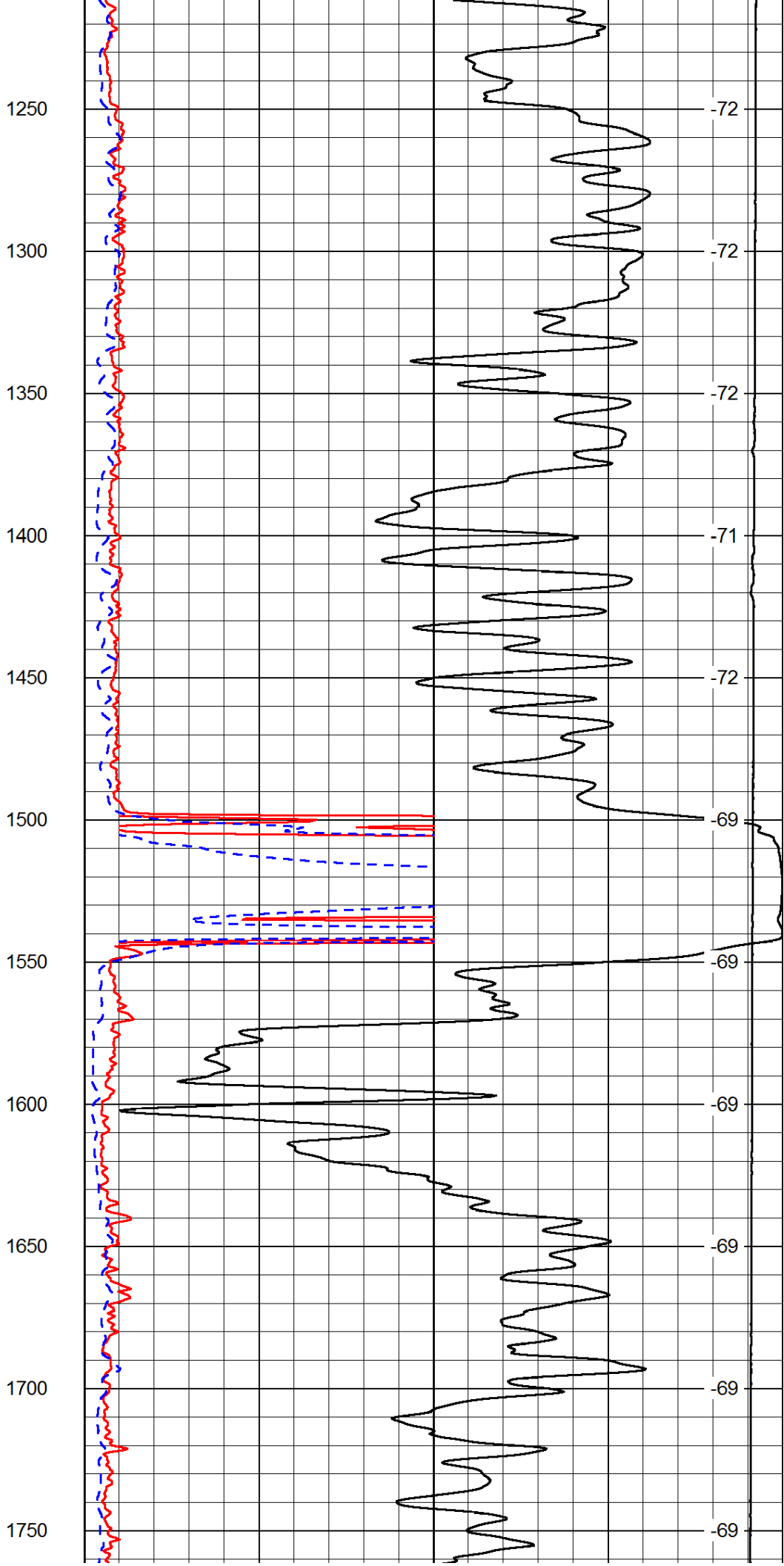
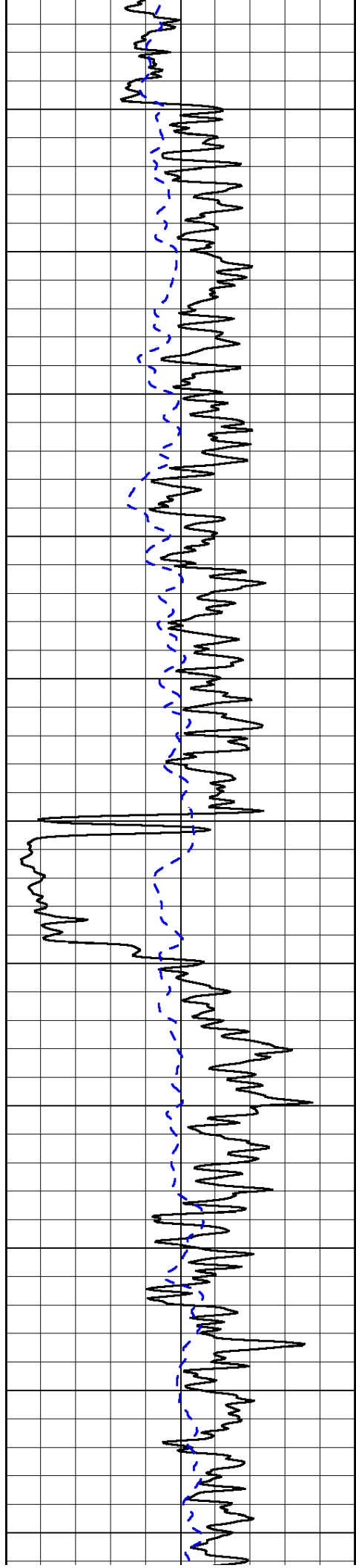


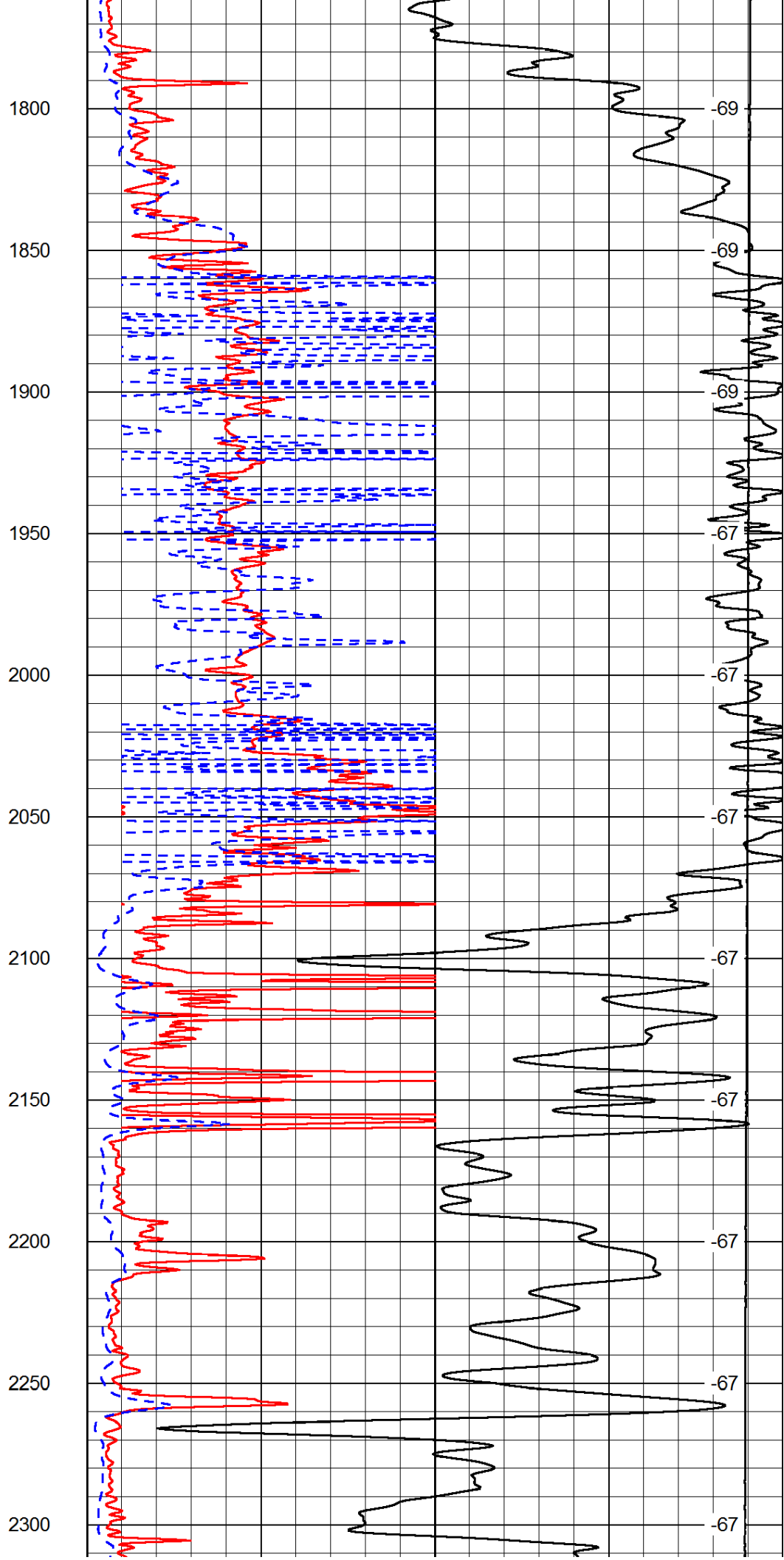
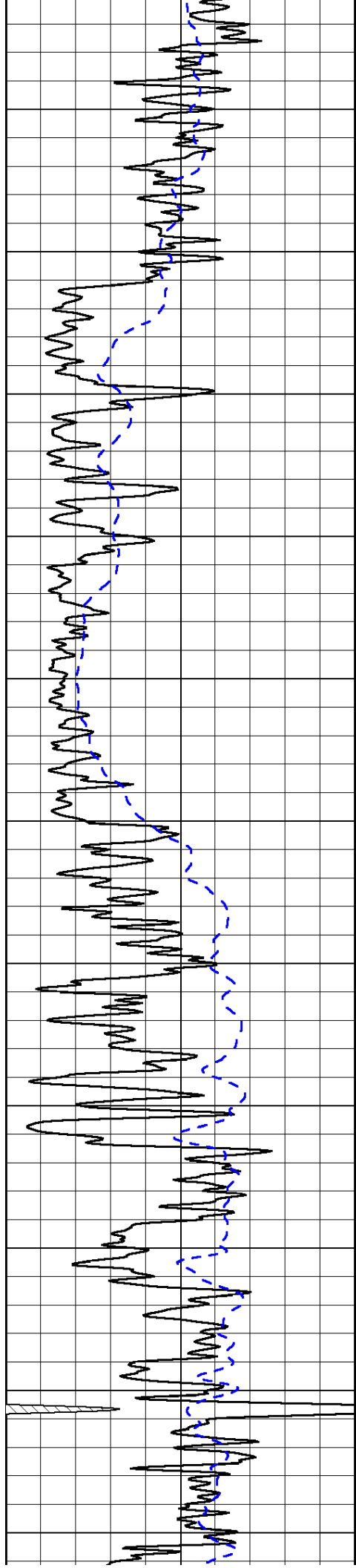
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500
550
600
650

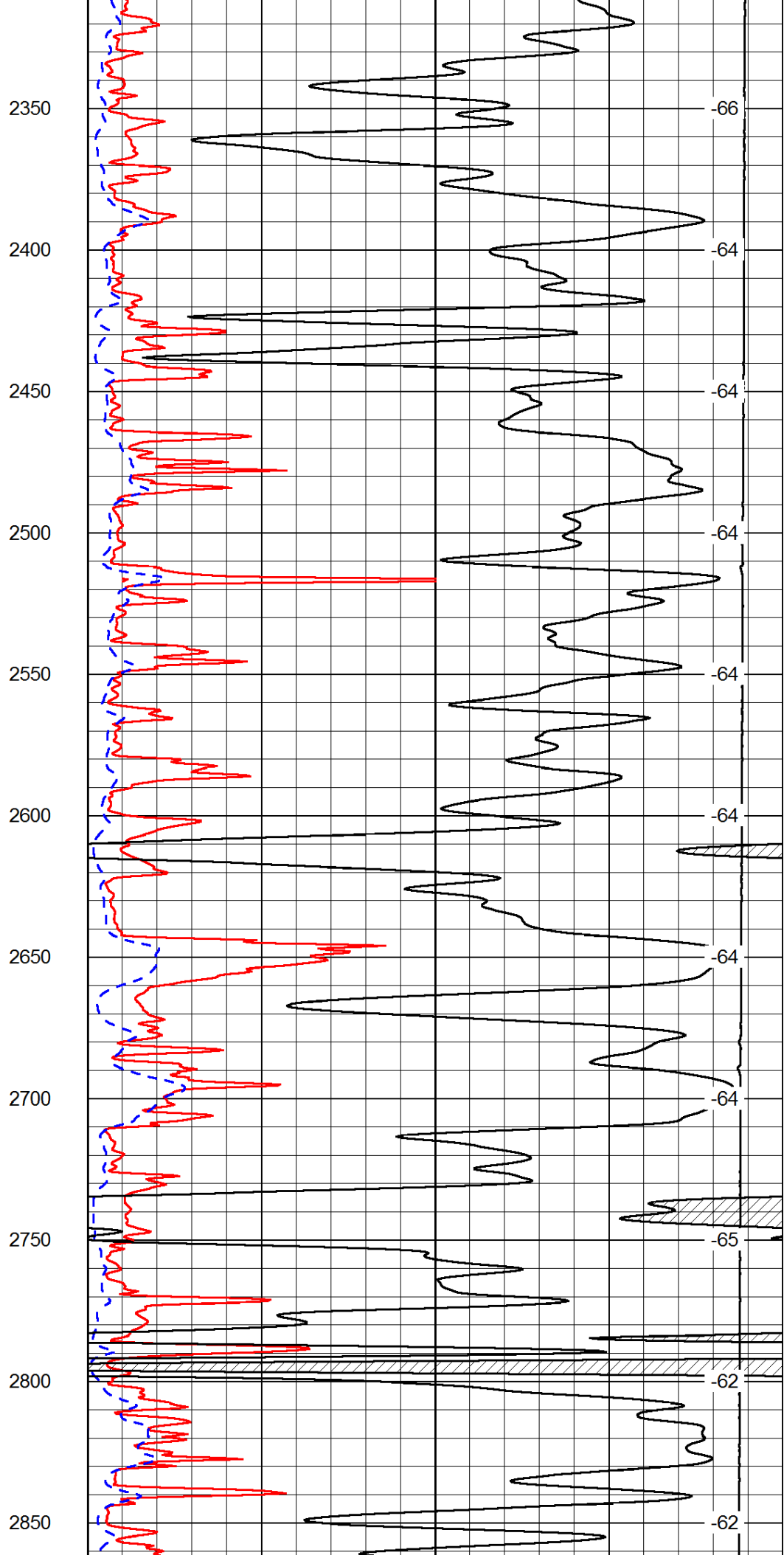
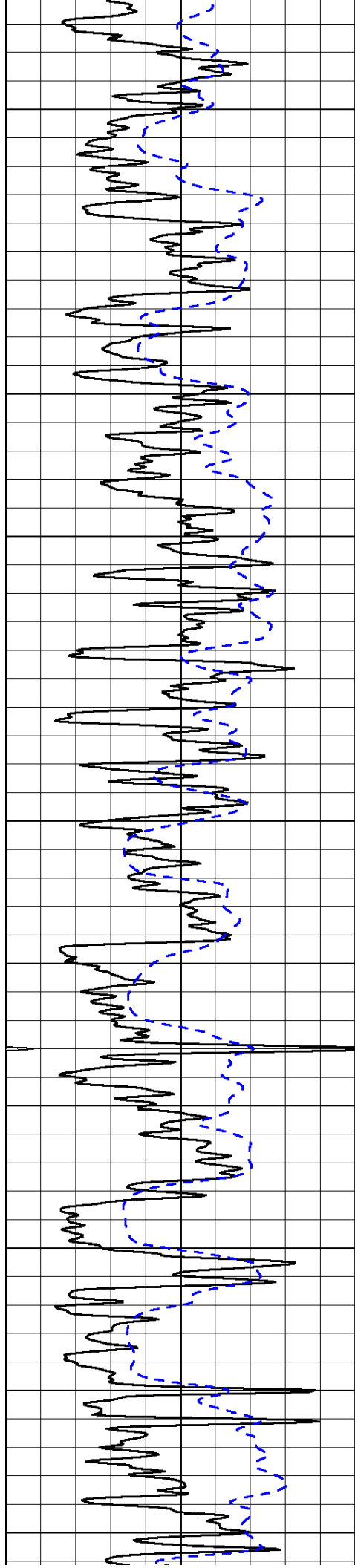


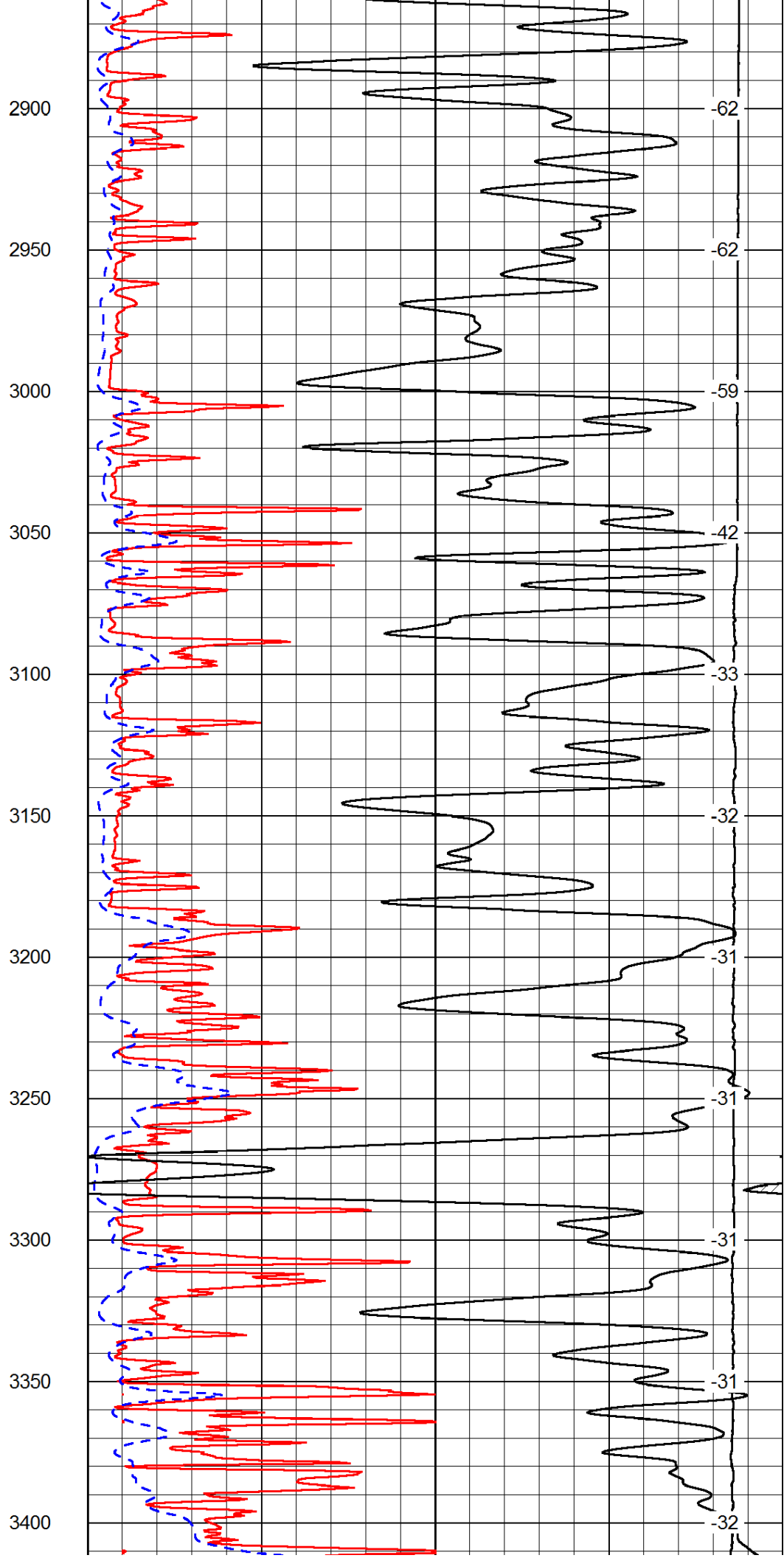
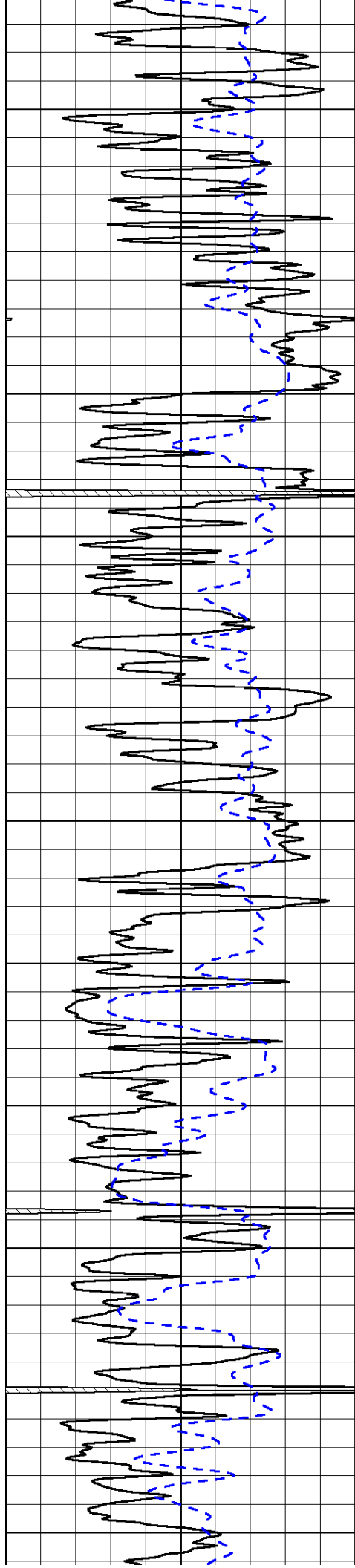
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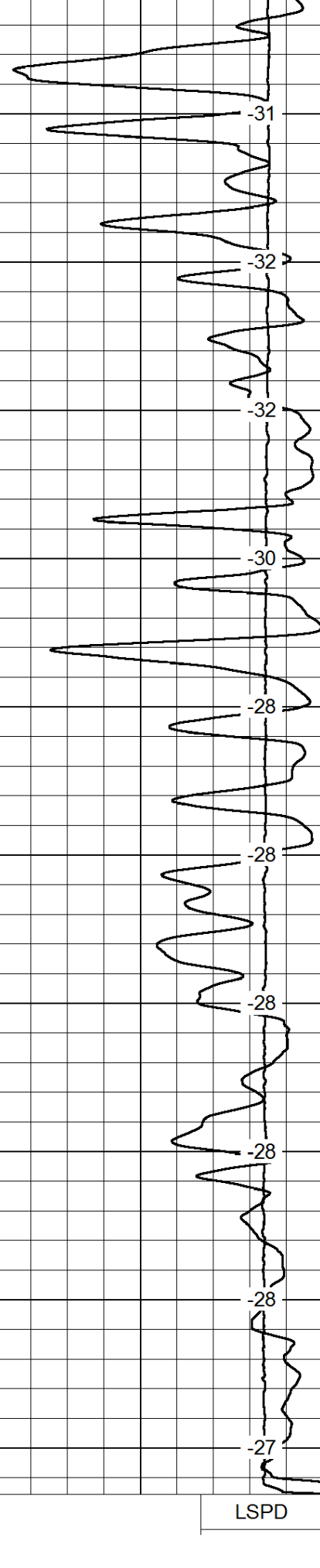
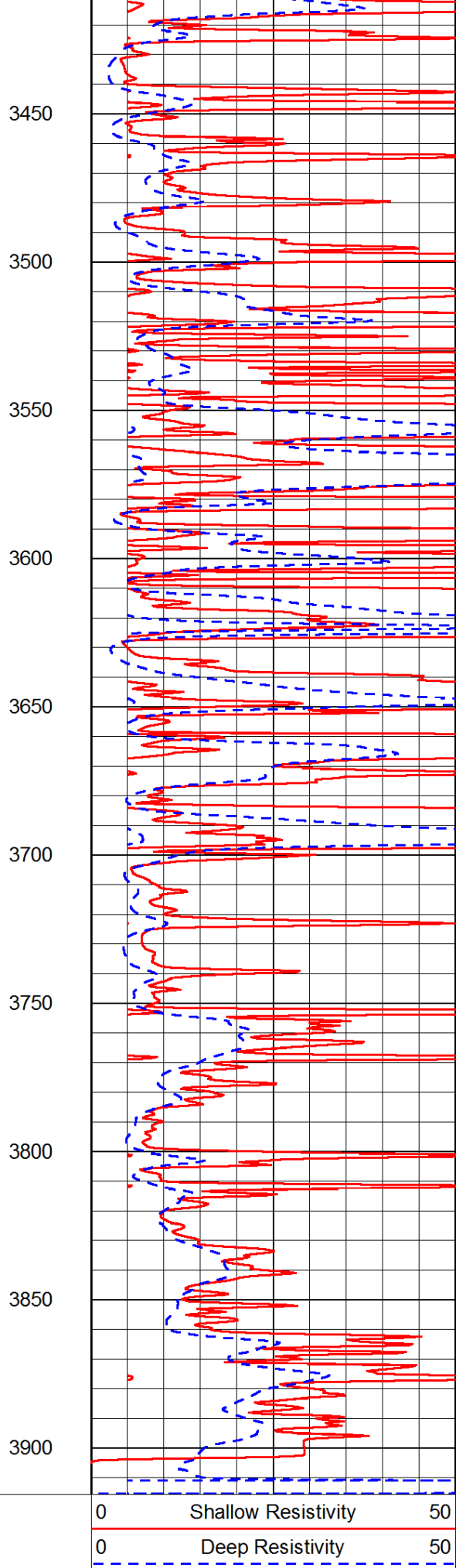
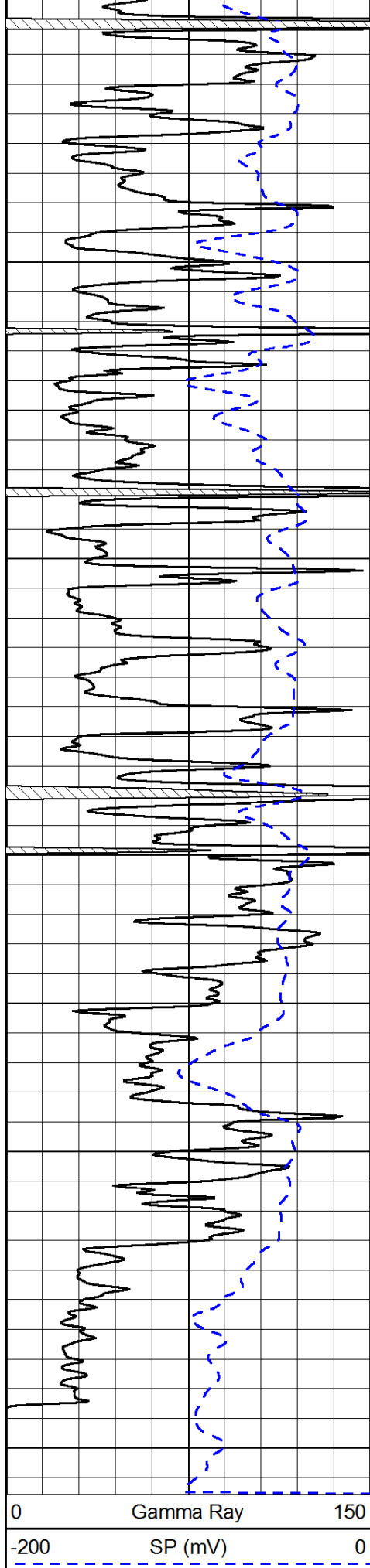












0 Gamma Ray 150
-200 SP (mV) 0

0 Shallow Resistivity 50
0 Deep Resistivity 50

1000 Conductivity 0
15000 Line Tension 0

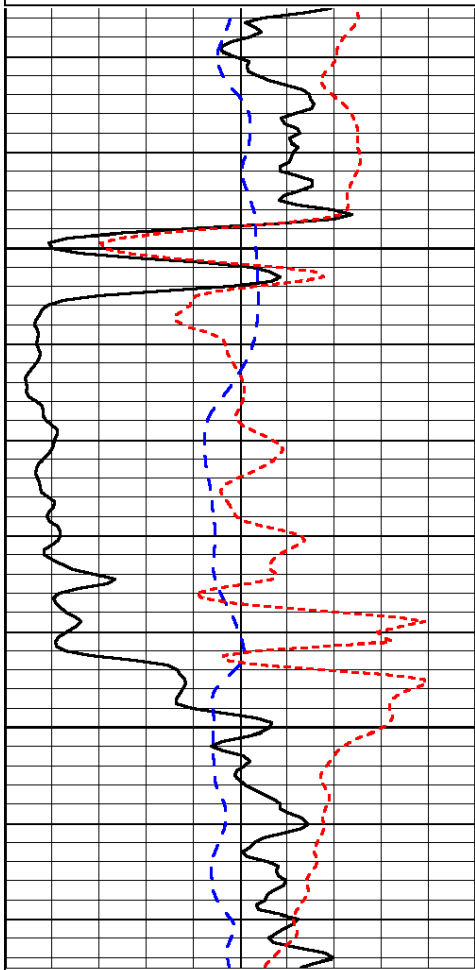
50	Shallow Resistivity	500
50	Deep Resistivity	500

Database File: c:\warrior\data\tdi_bittel #1\tdi_bittel#1hd.db
Dataset Pathname: dil/tdistack
Presentation Format: dil
Dataset Creation: Thu Apr 19 03:08:49 2012
Charted by: Depth in Feet scaled 1:240

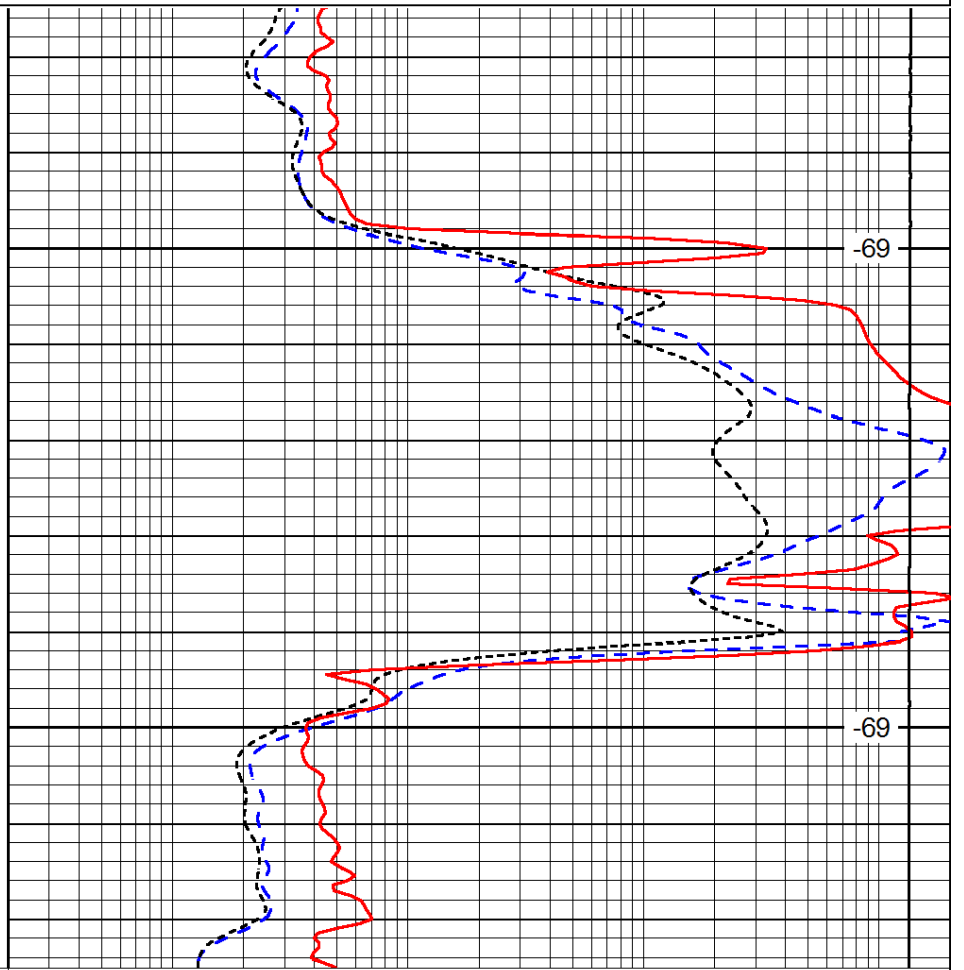
0	Gamma Ray	150
-200	SP (mV)	0
-160	Rxo / Rt	40

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

LSPD



0	Gamma Ray	150
-200	SP (mV)	0
-160	Rxo / Rt	40



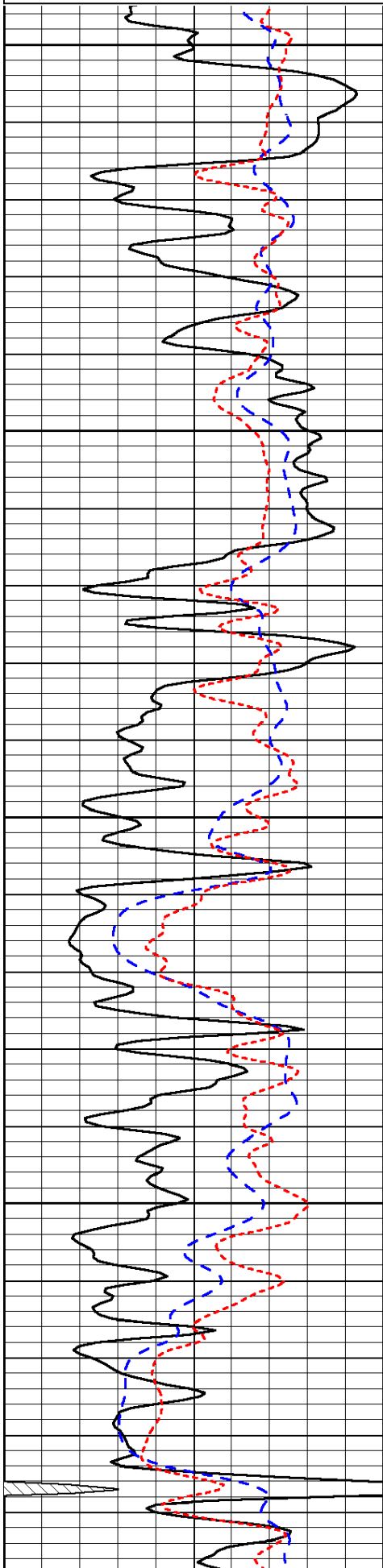
0.2	Deep Resistivity	2000
0.2	Medium Resistivity	2000
0.2	Shallow Resistivity	2000
15000	Line Tension	0

LSPD

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0	Gamma Ray	150
-200	SP (mV)	0

0.2	Deep Resistivity	2000
0.2	Medium Resistivity	2000

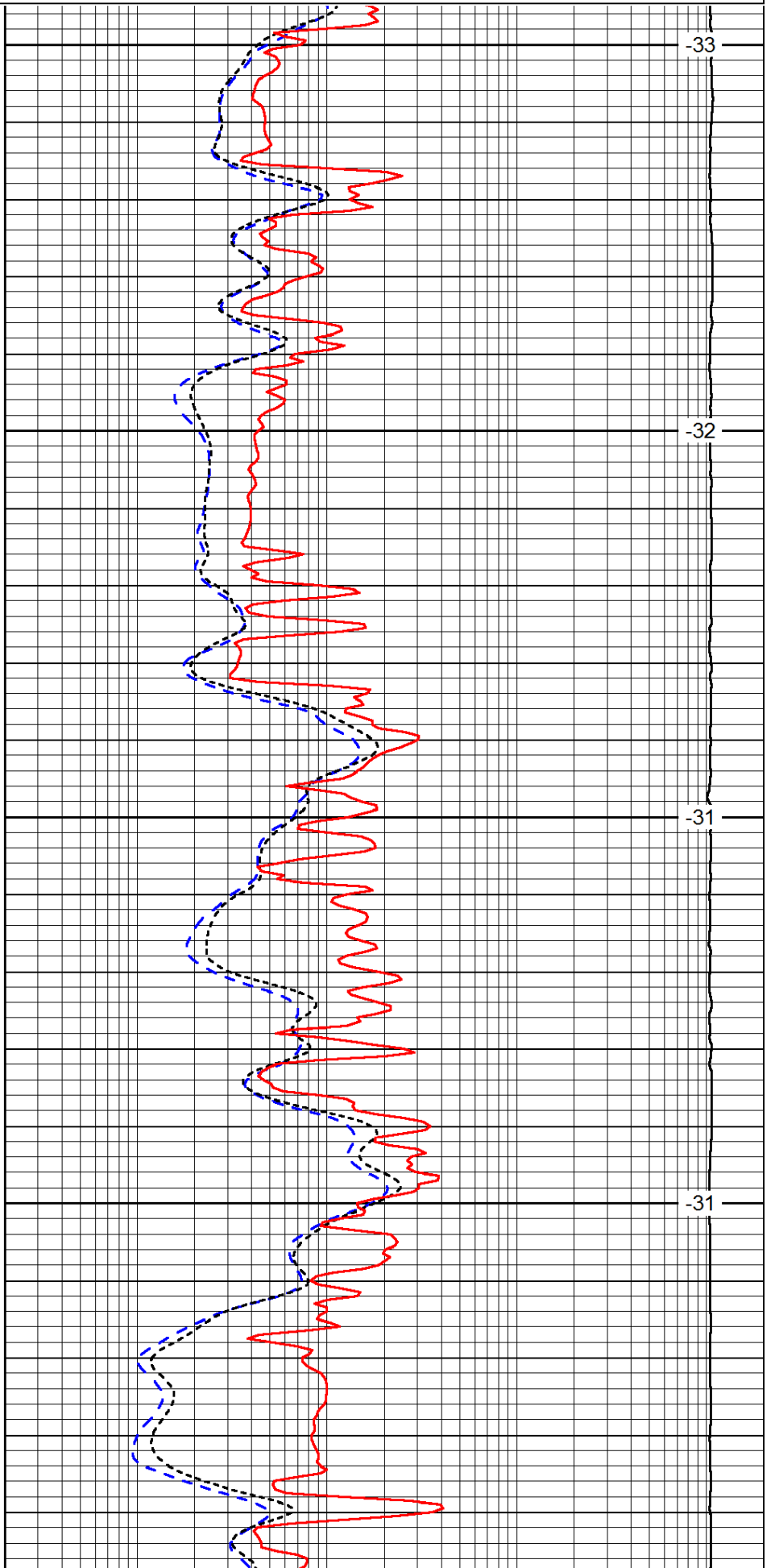


3100

3150

3200

3250

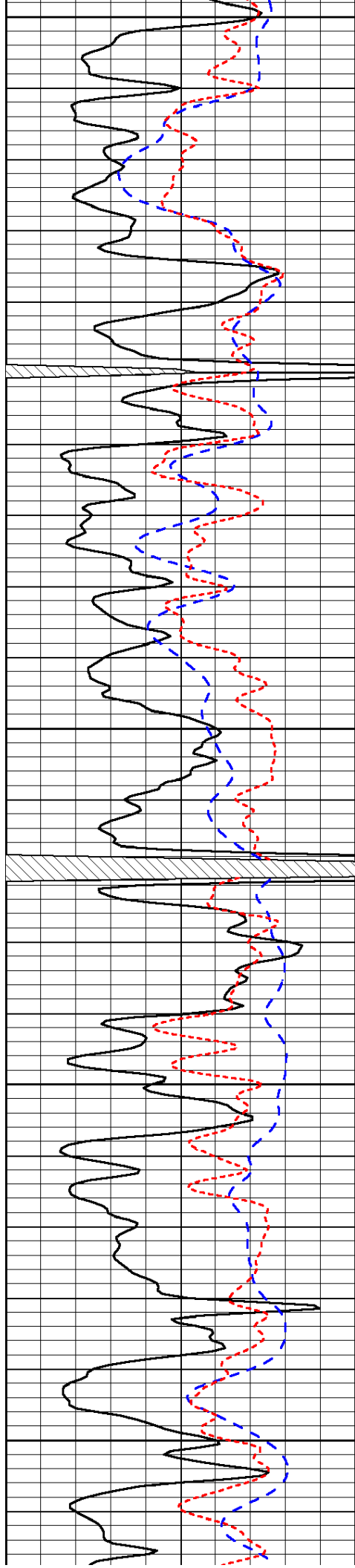


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-32

-31

-31



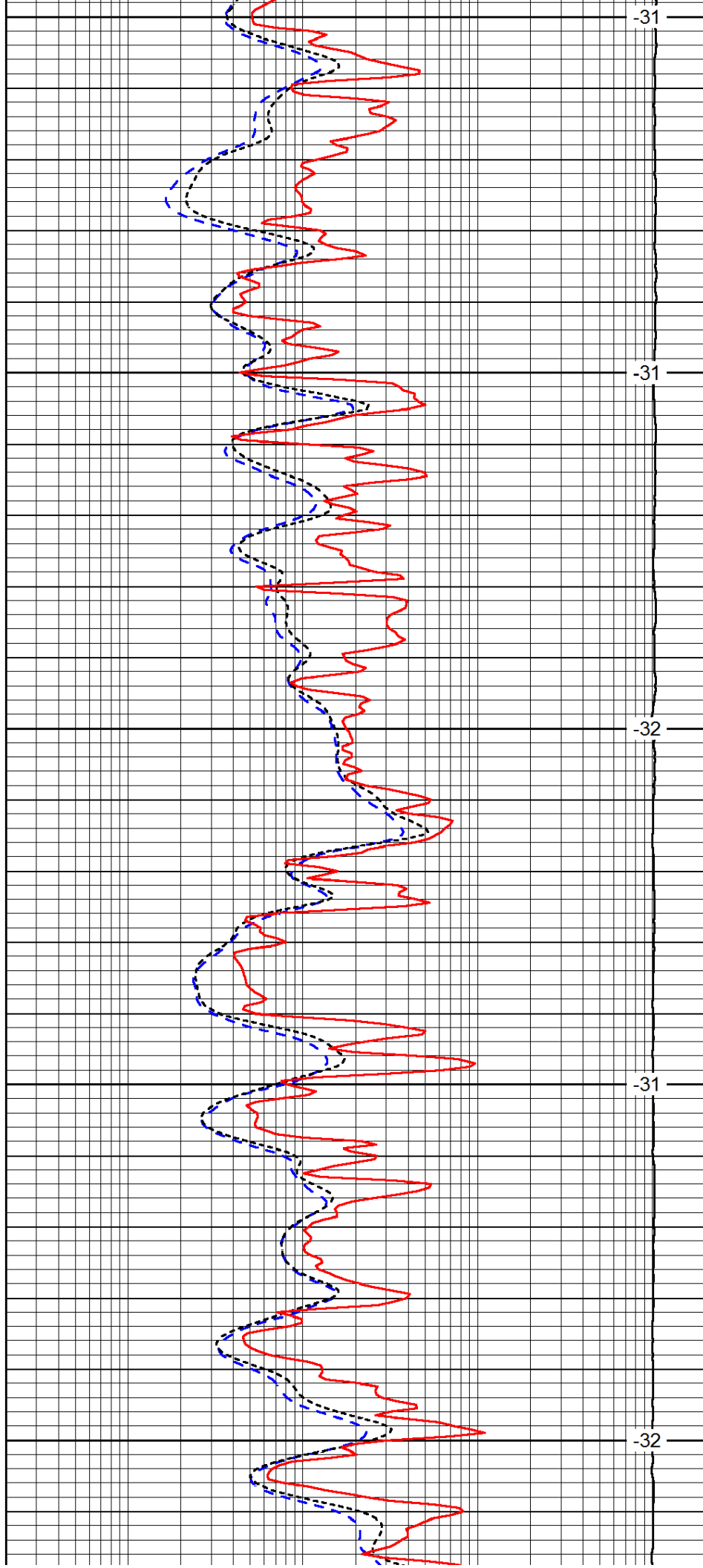
3300

3350

3400

3450

3500



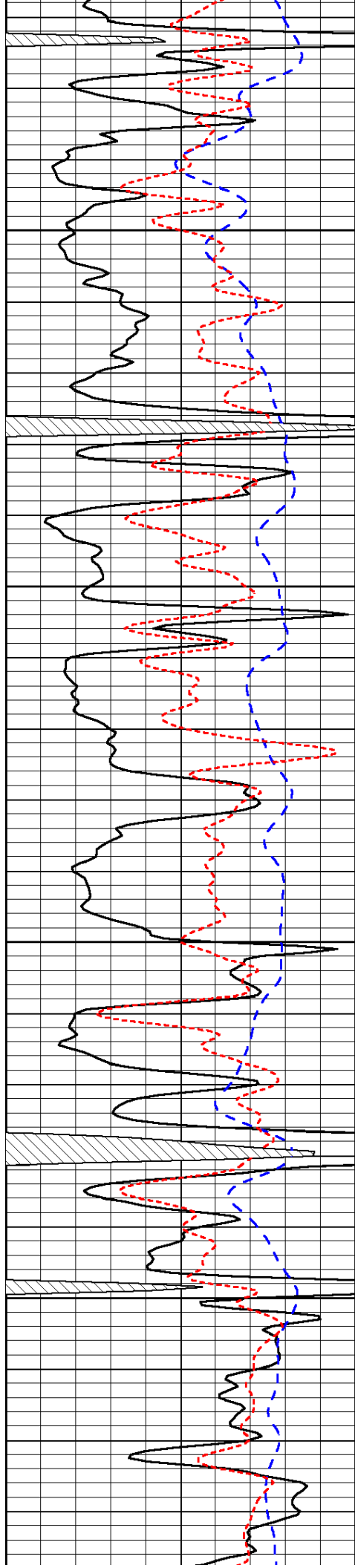
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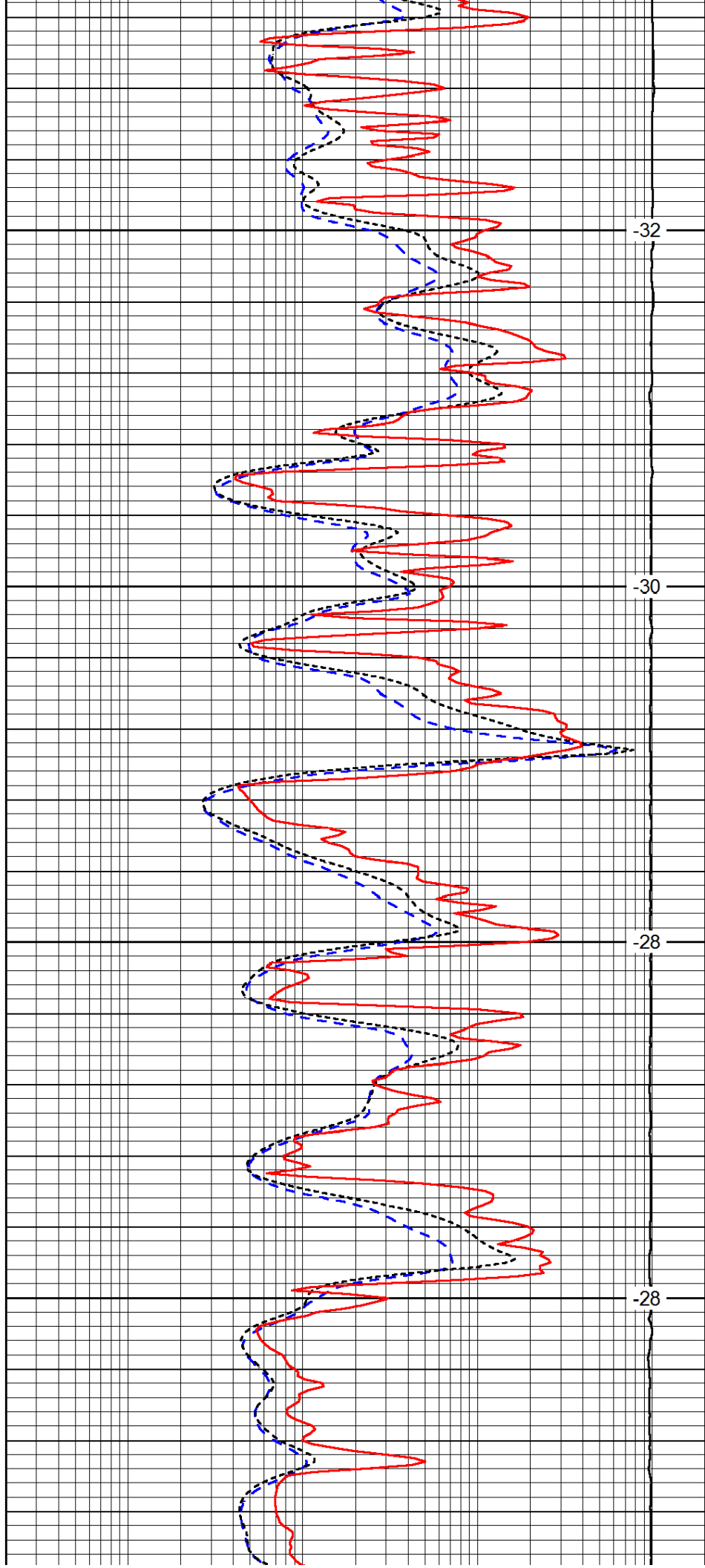


3550

3600

3650

3700

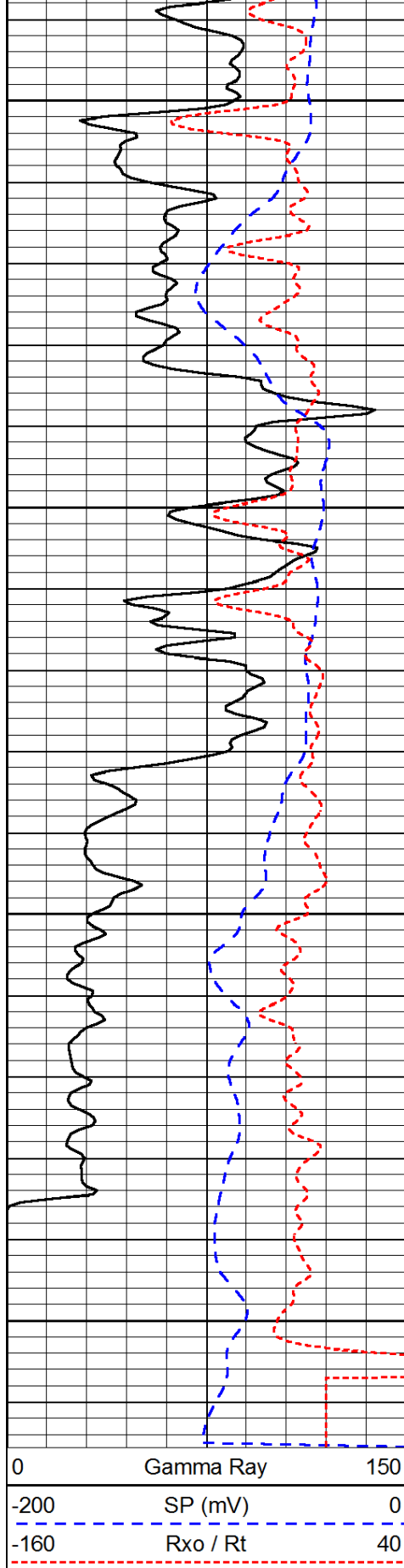


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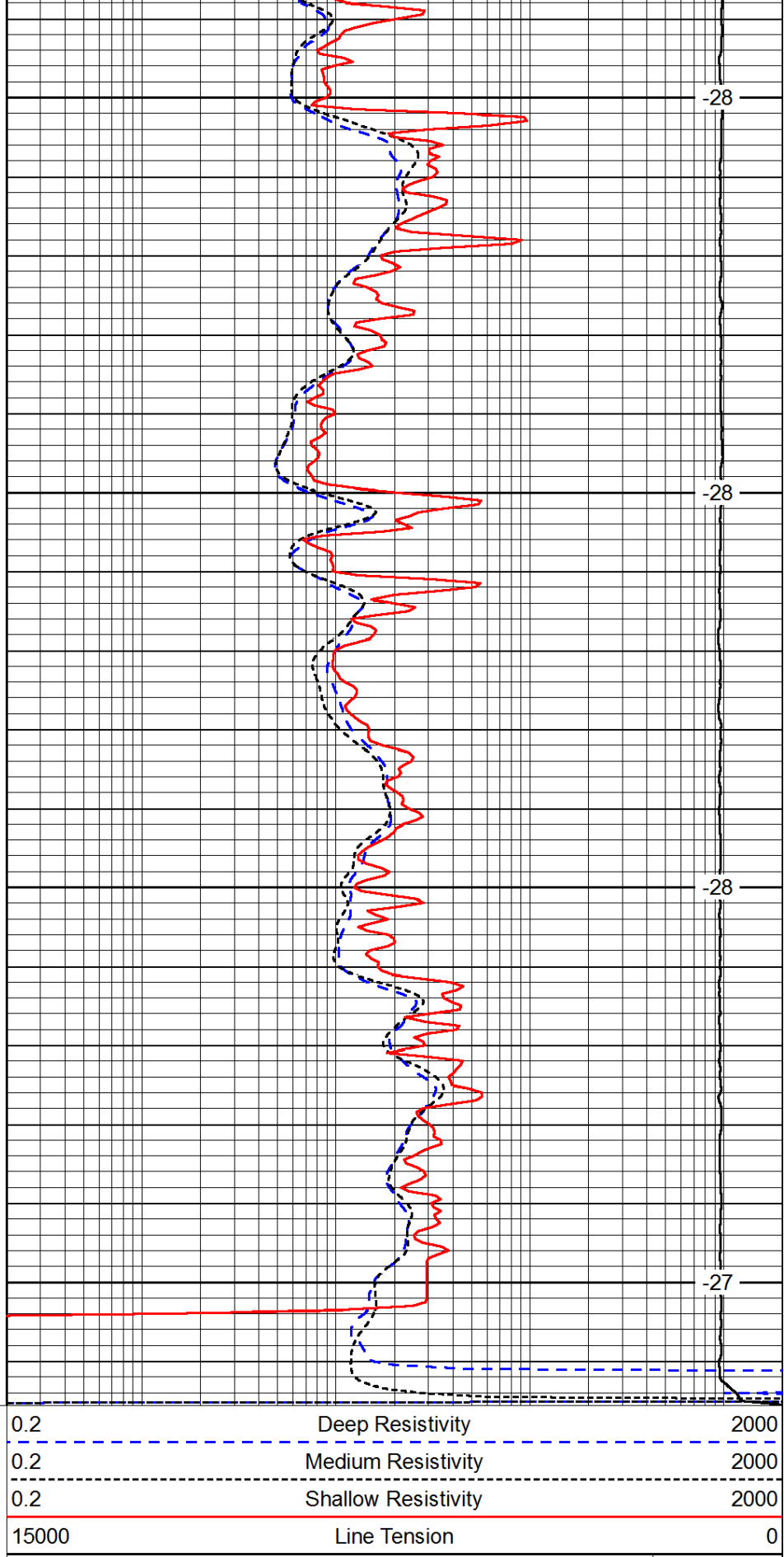
-30

-28

-28



3750
3800
3850
3900



-28
-28
-28
-27

LSPD