



Pioneer Energy Services

Dual Induction Log

API No.

15-135-25,647-00-00

Company American Warrior, Inc.

Well Joseph No. 2 - 21

Field Chrif

County Ness

State

Kansas

Location

1753' FNL & 133' FEL

Sec: 21

Twp: 19 S

Rge: 25 W

Permanent Datum Ground Level
Log Measured From Kelly Bushing
Drilling Measured From Kelly Bushing

Elevation
K.B. 2482
D.F.
G.L. 2471

Date

8/17/2013

Run Number

One

Depth Driller

4600

Depth Logger

4596

Bottom Logged Interval

4595

Top Log Interval

200

Casing Driller

8.625 @ 240

Casing Logger

237

Bit Size

7.875

Type Fluid in Hole

Chemical

Salinity, ppm CL

3600

Density / Viscosity

9.4 55

pH / Fluid Loss

10.5 8.8

Source of Sample

Flowline

Rm @ Meas. Temp

.48 @ 84

Rmf @ Meas. Temp

.36 @ 84

Rmc @ Meas. Temp

.65 @ 84

Source of Rmf / Rmc

Charts

Rm @ BHT

.33 @ 122

Operating Rig Time

5 Hours

Max Rec. Temp. F

122

Equipment Number

108

Location

Hays

Recorded By

D. Martin

Witnessed By

Kevin Timson

<<< Fold Here >>>

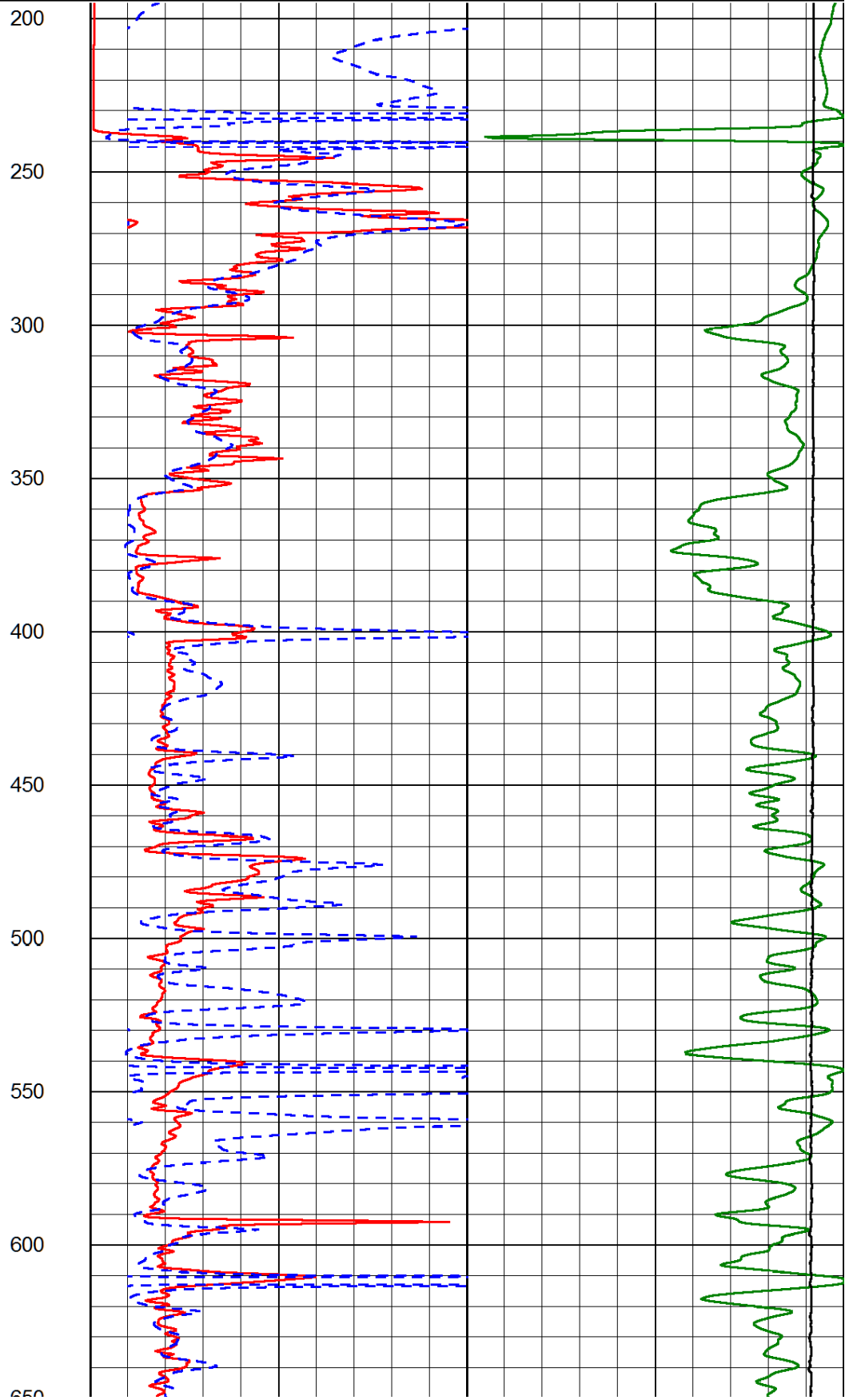
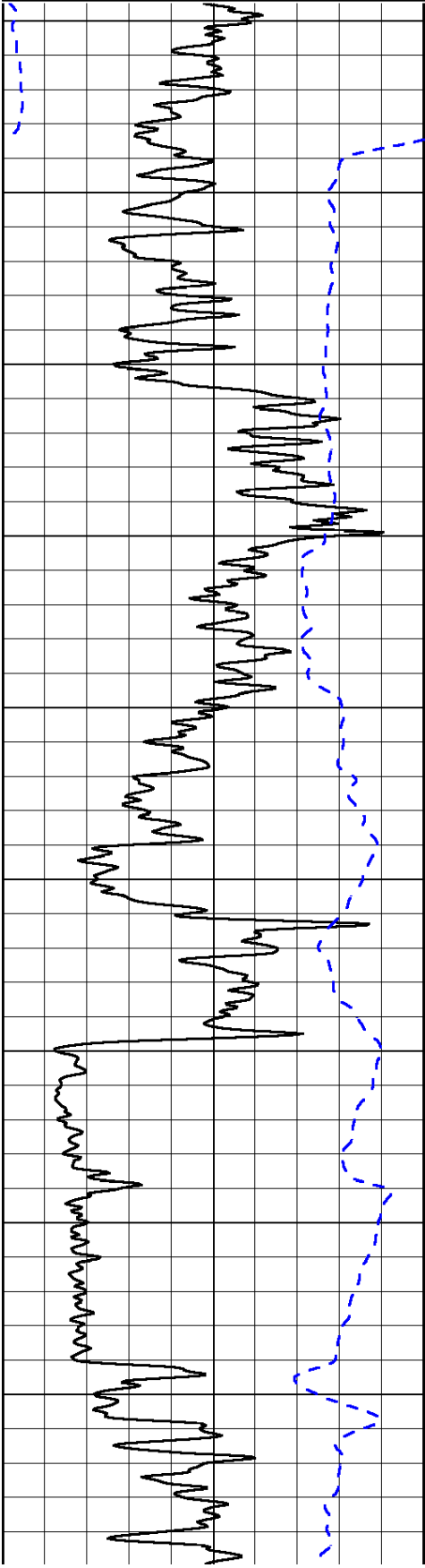
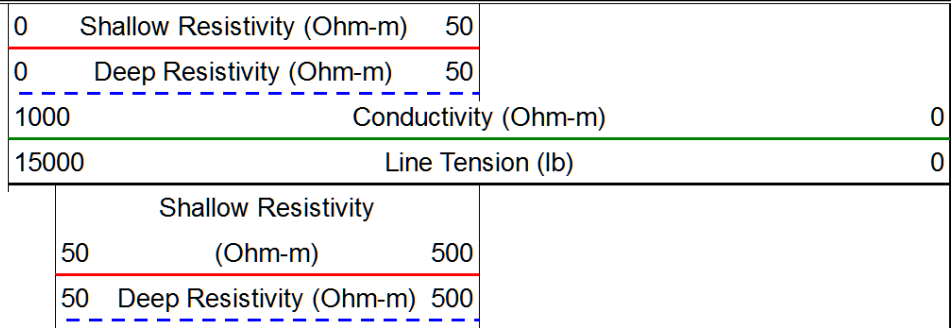
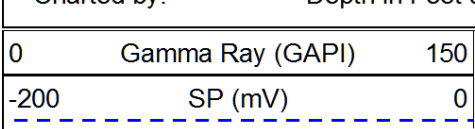
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, 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.

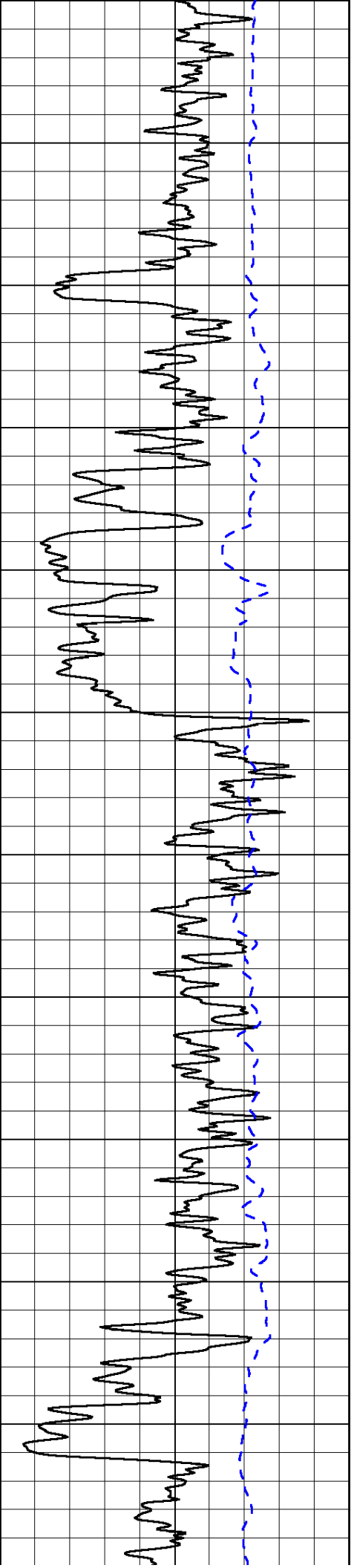
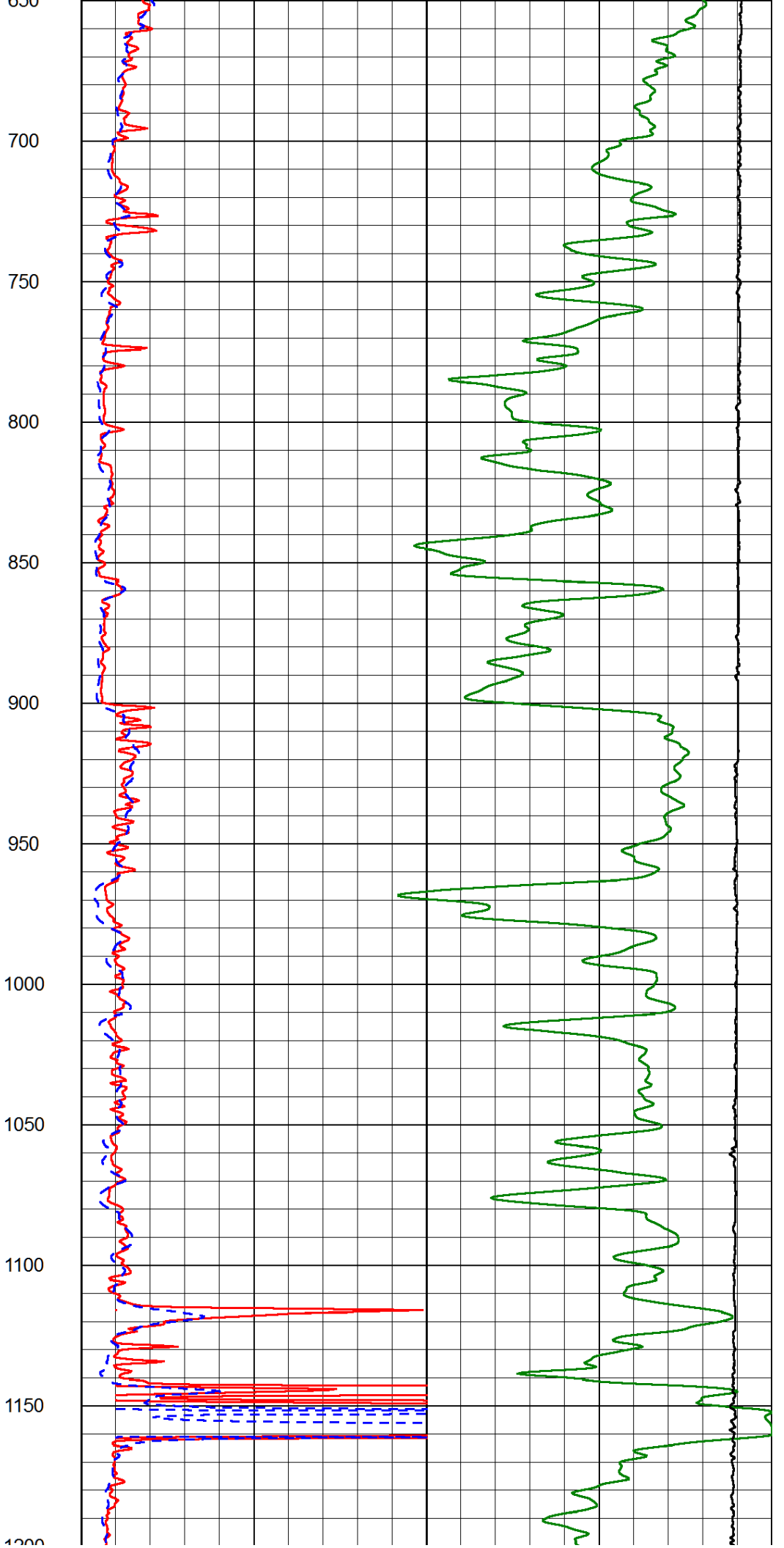
Comments

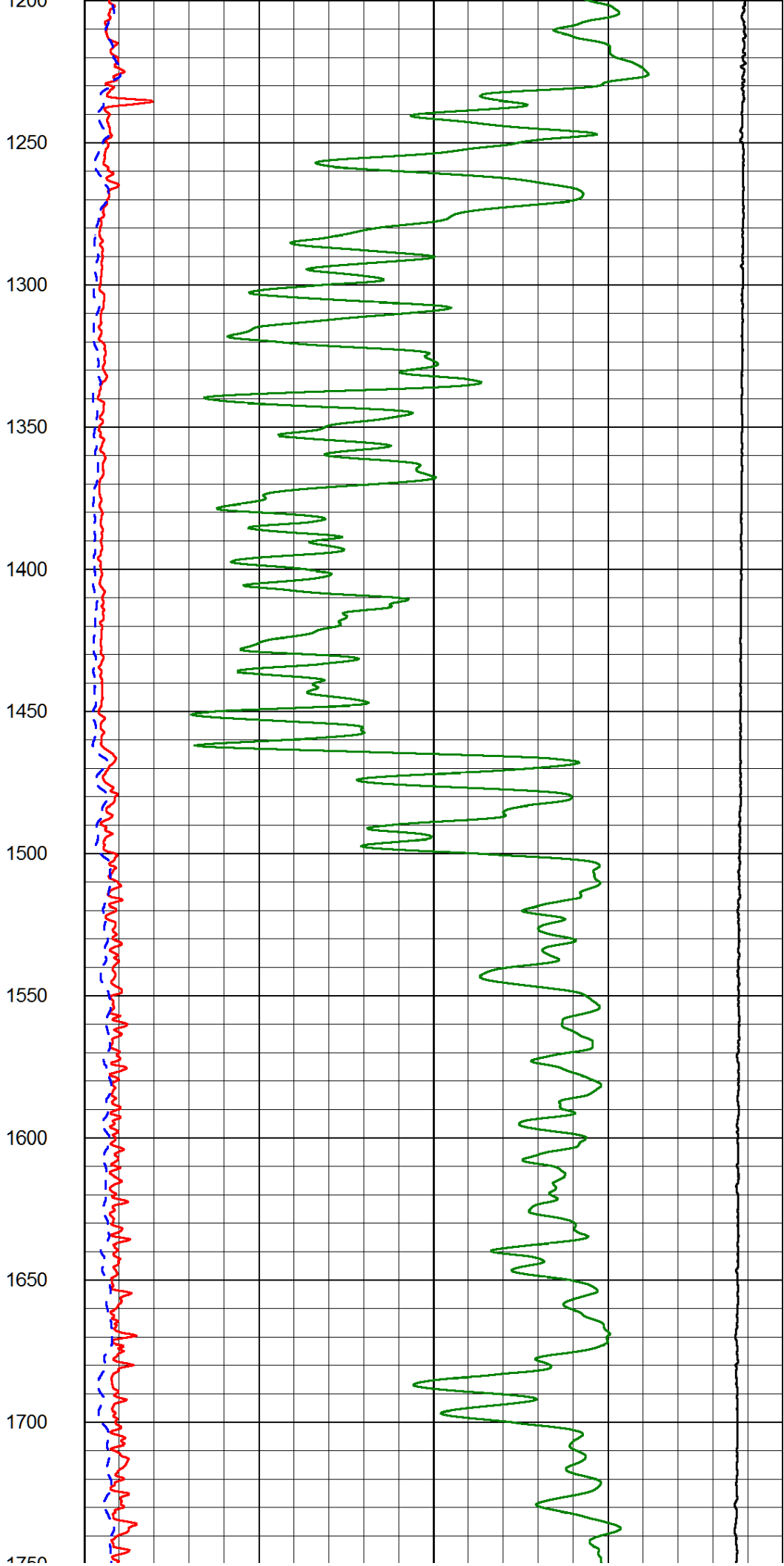
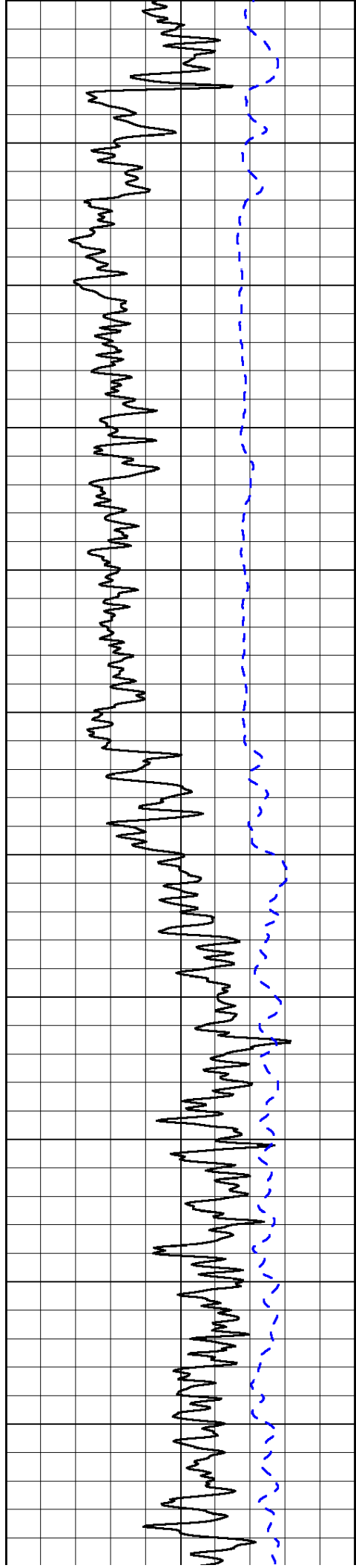
Thank you for using Log-Tech, Inc.
(785) 625-3858

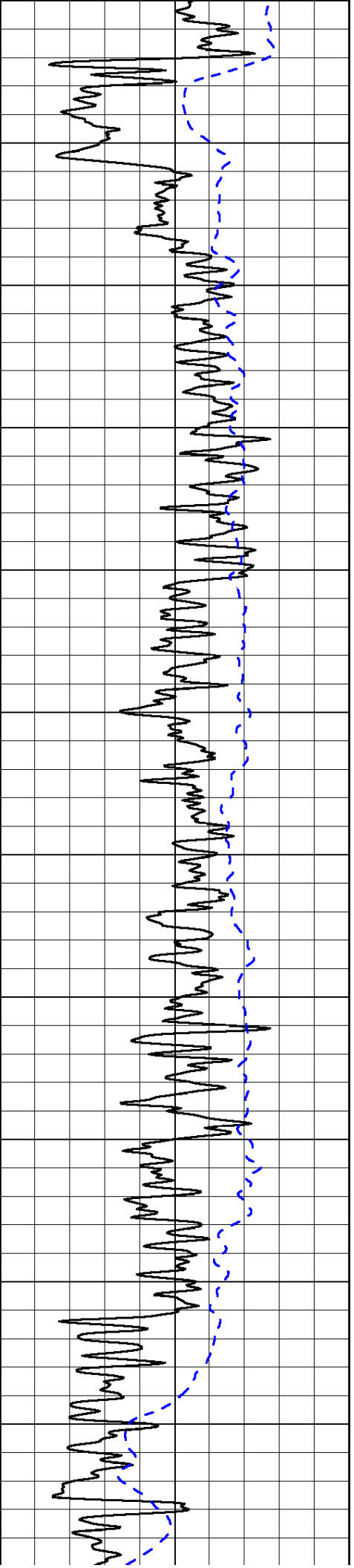
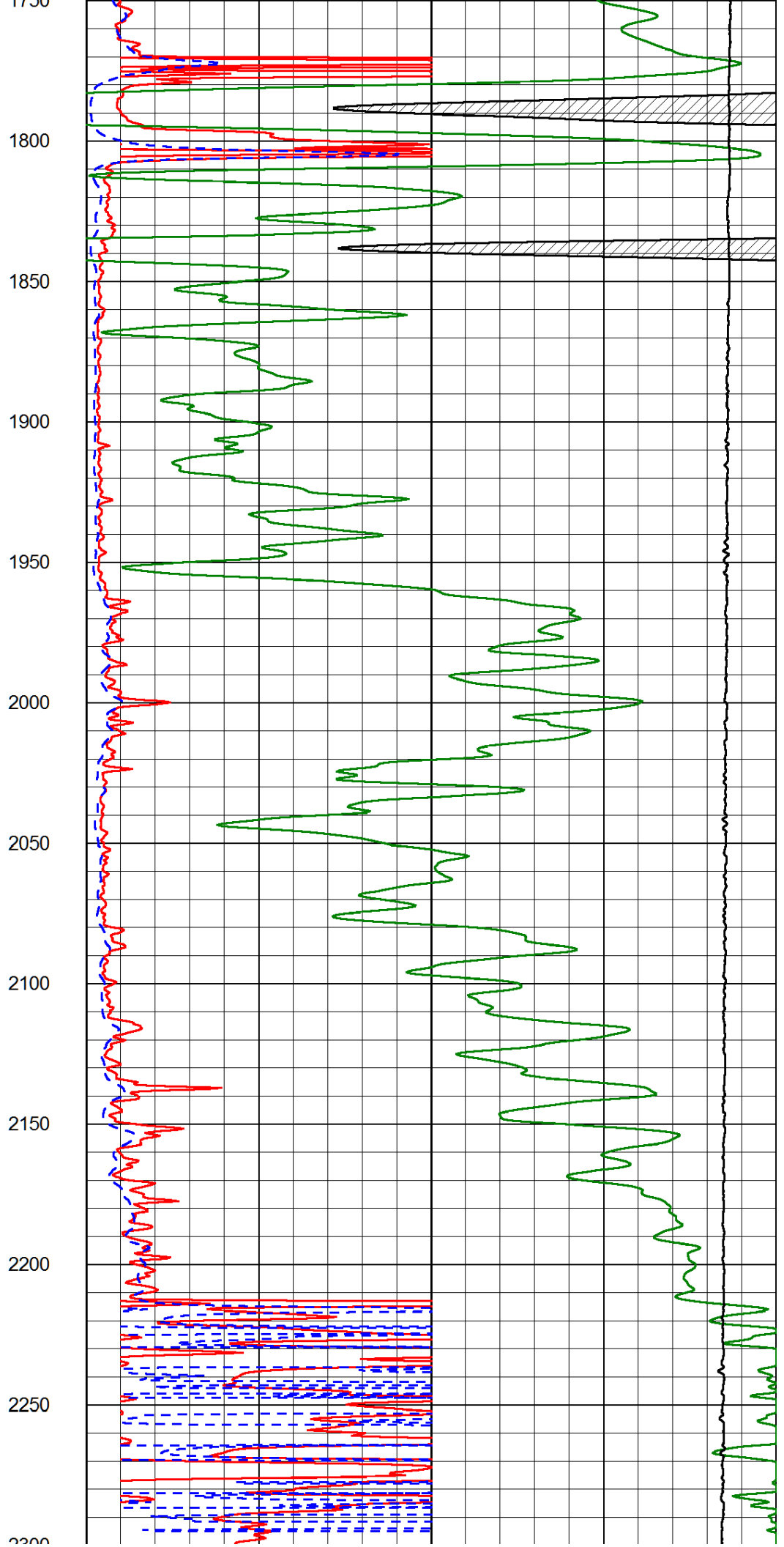
Ness City, KS
W to Laird Elevator, 1/2 W to J Rd.,
4 S, W Into

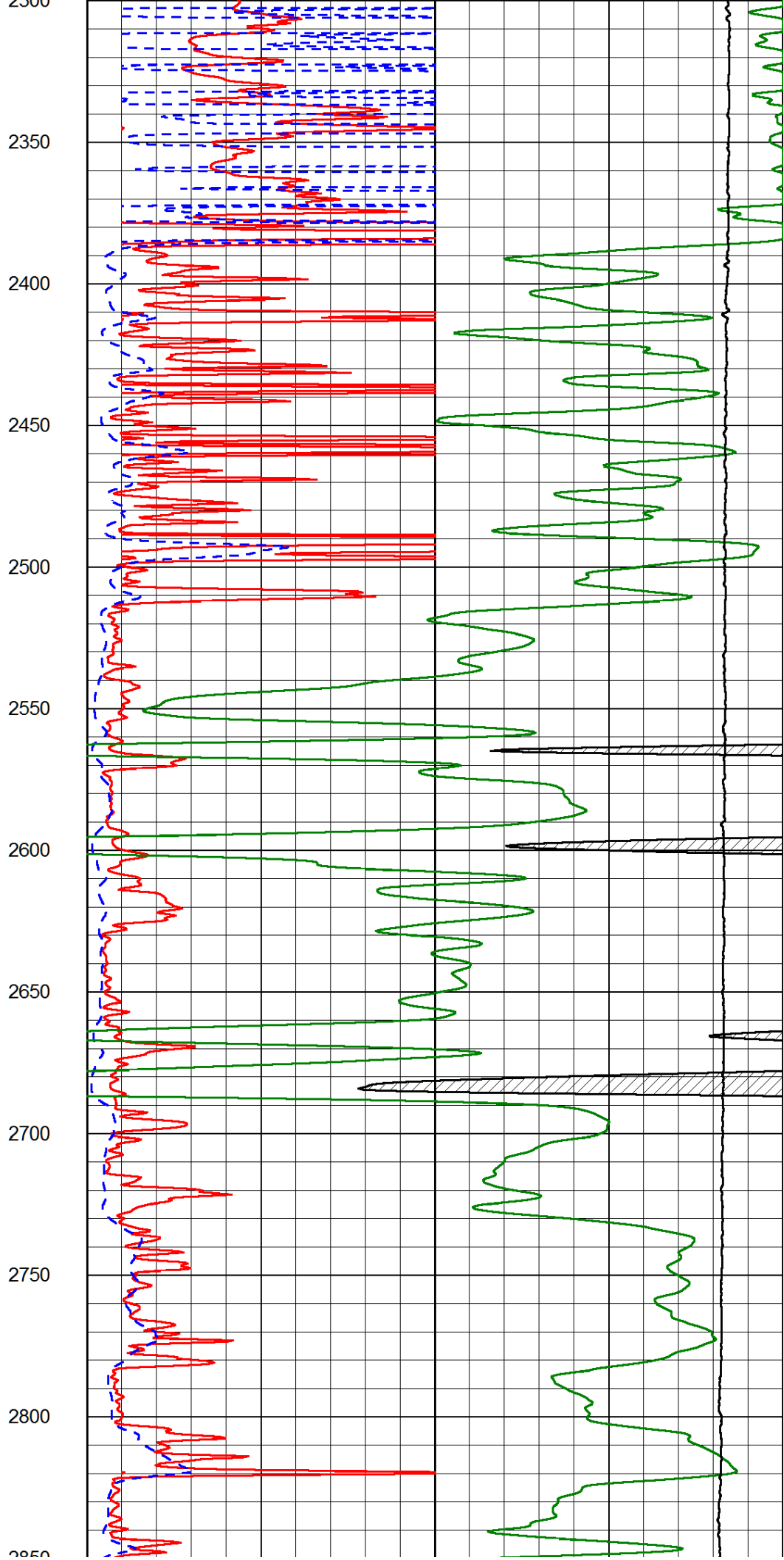
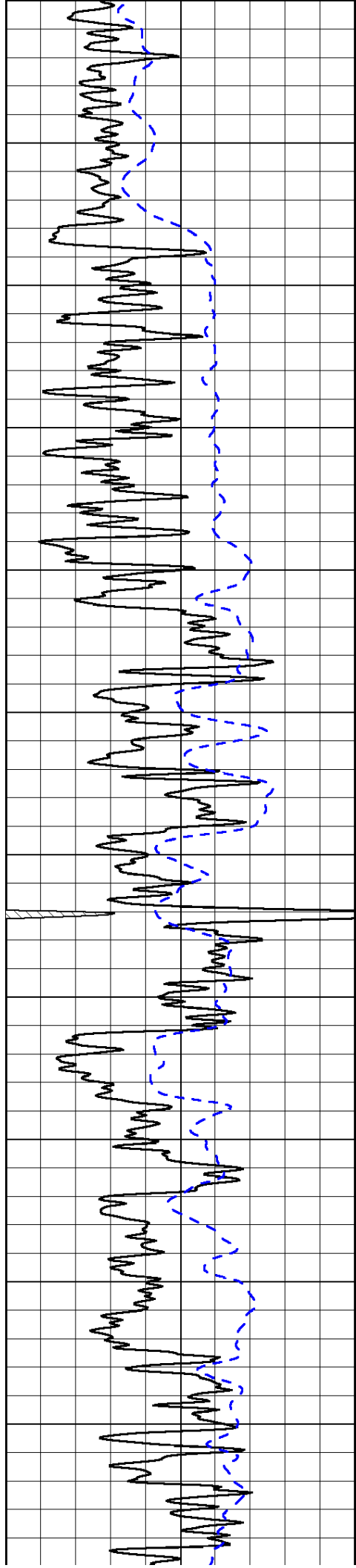
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Presentation Format: dil2in
Dataset Creation: Sat Aug 17 17:54:19 2013
Charted by: Depth in Feet scaled 1:600

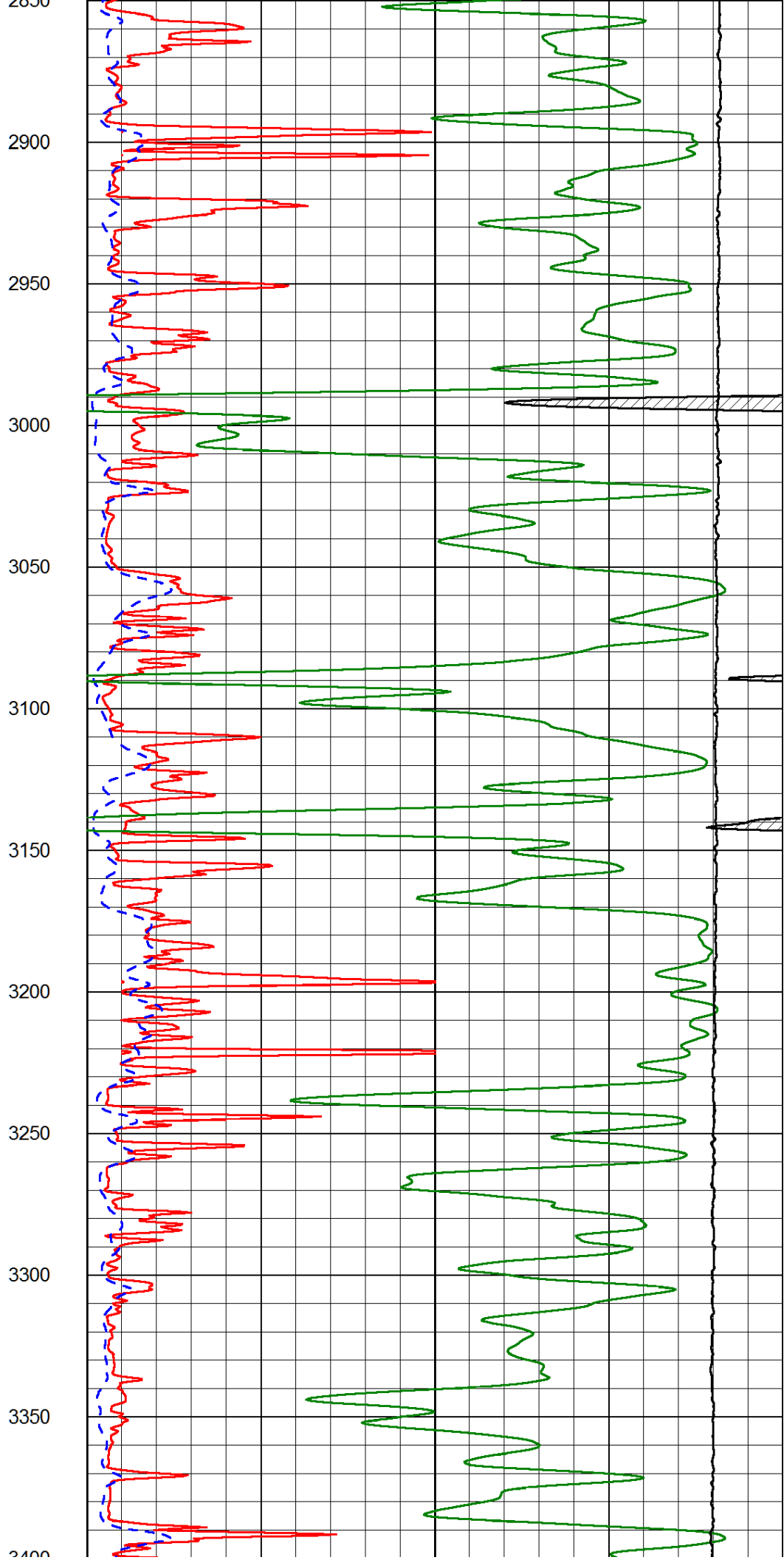
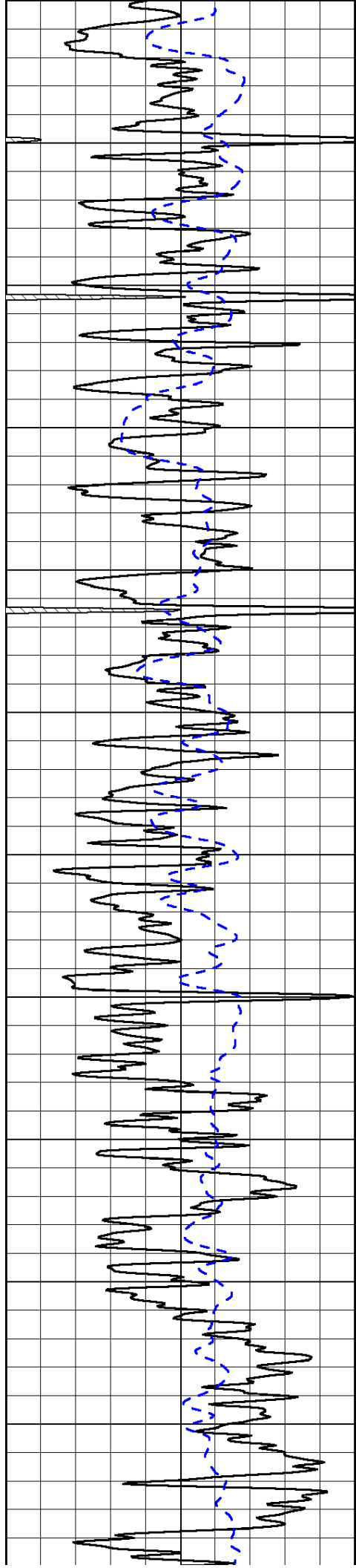


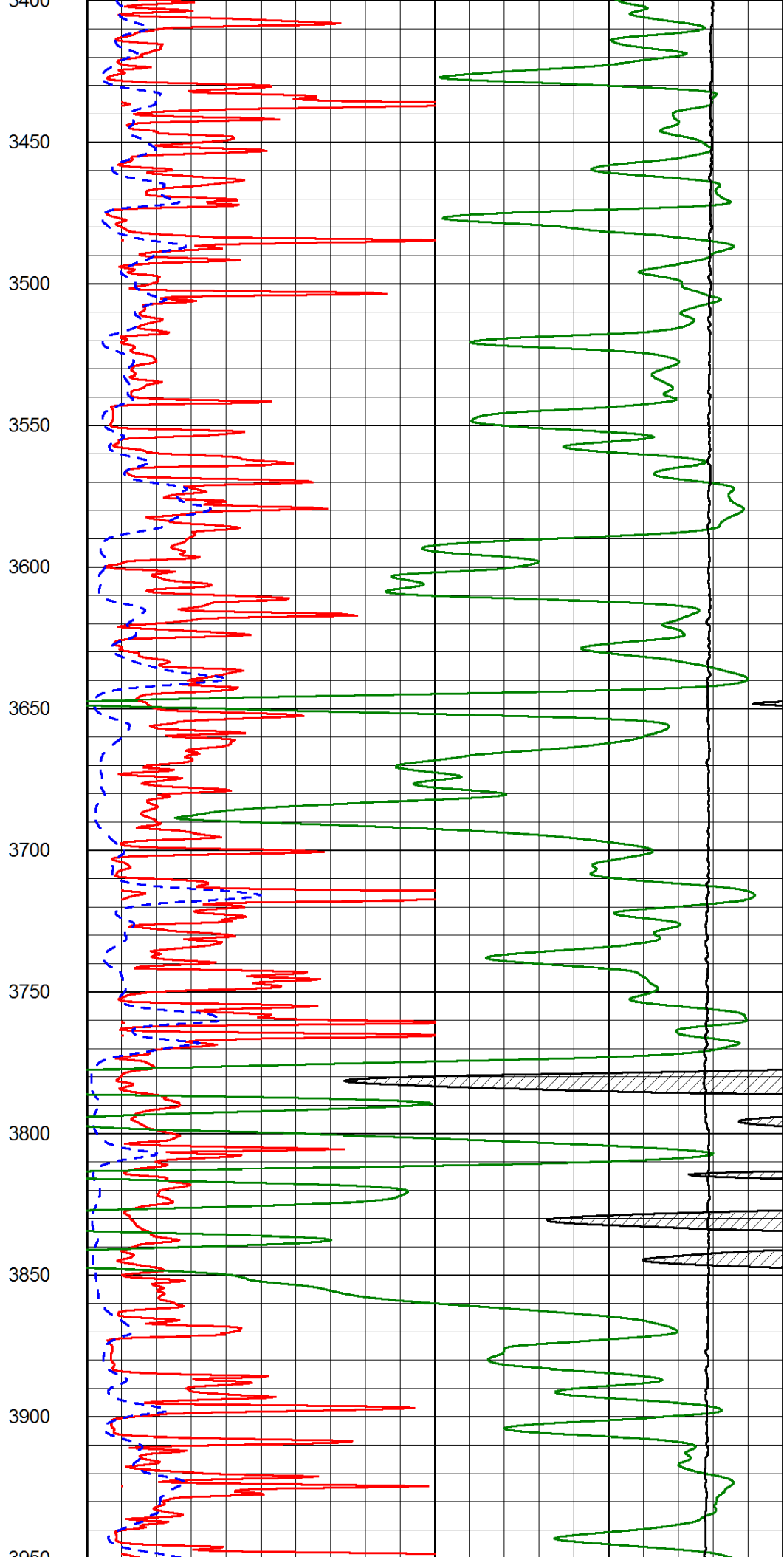
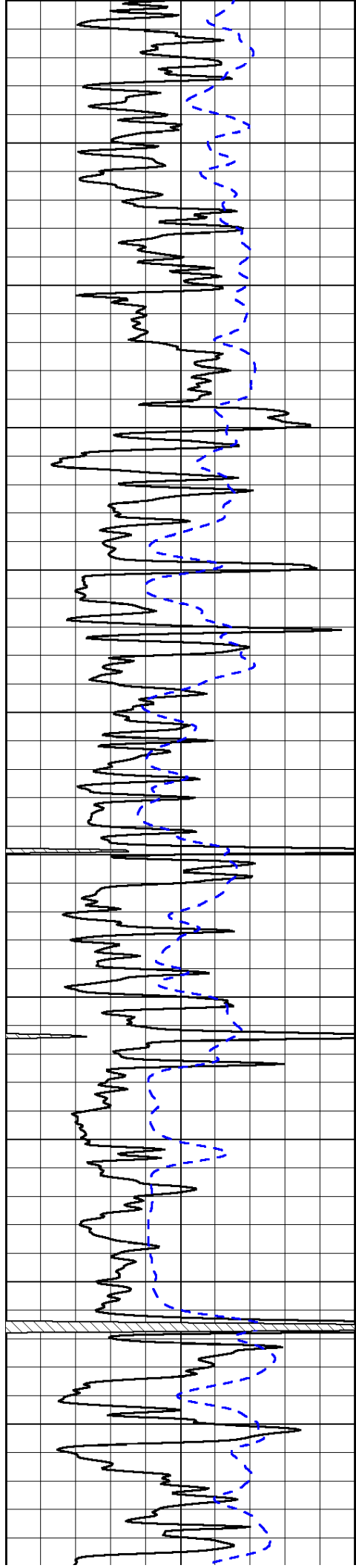


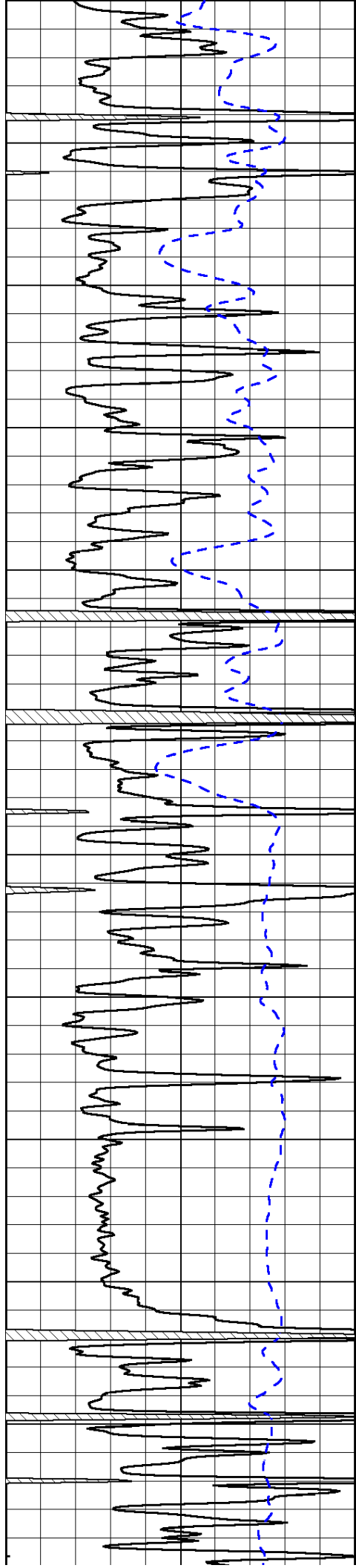




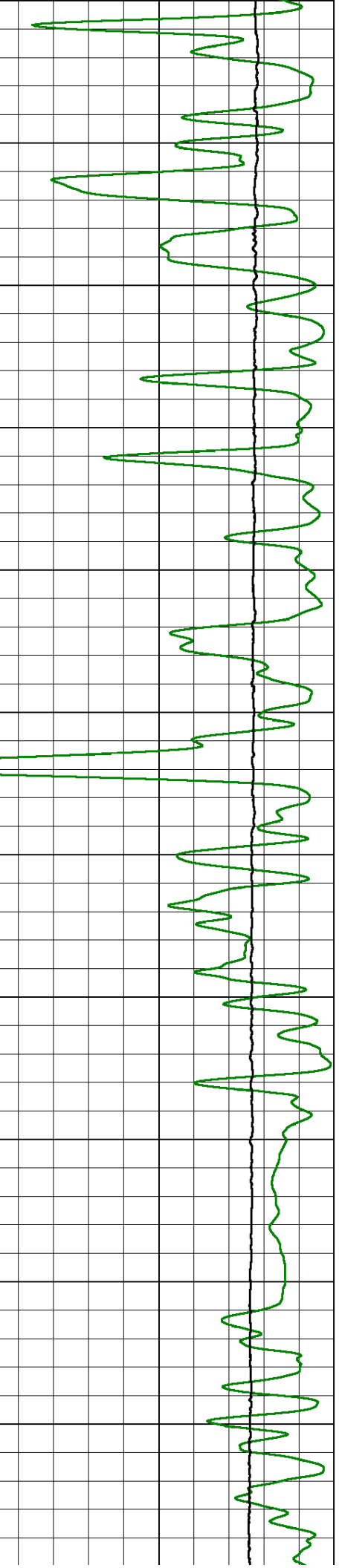
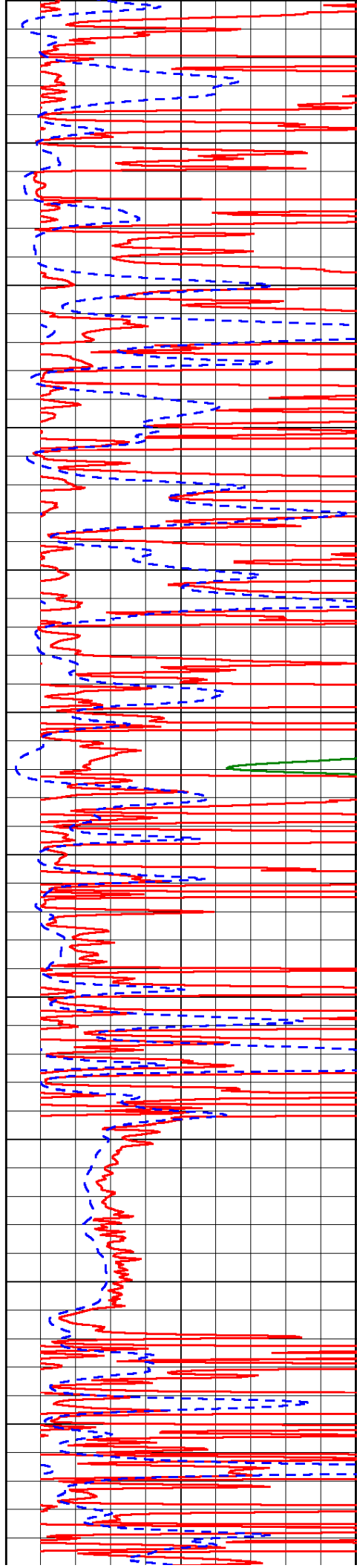


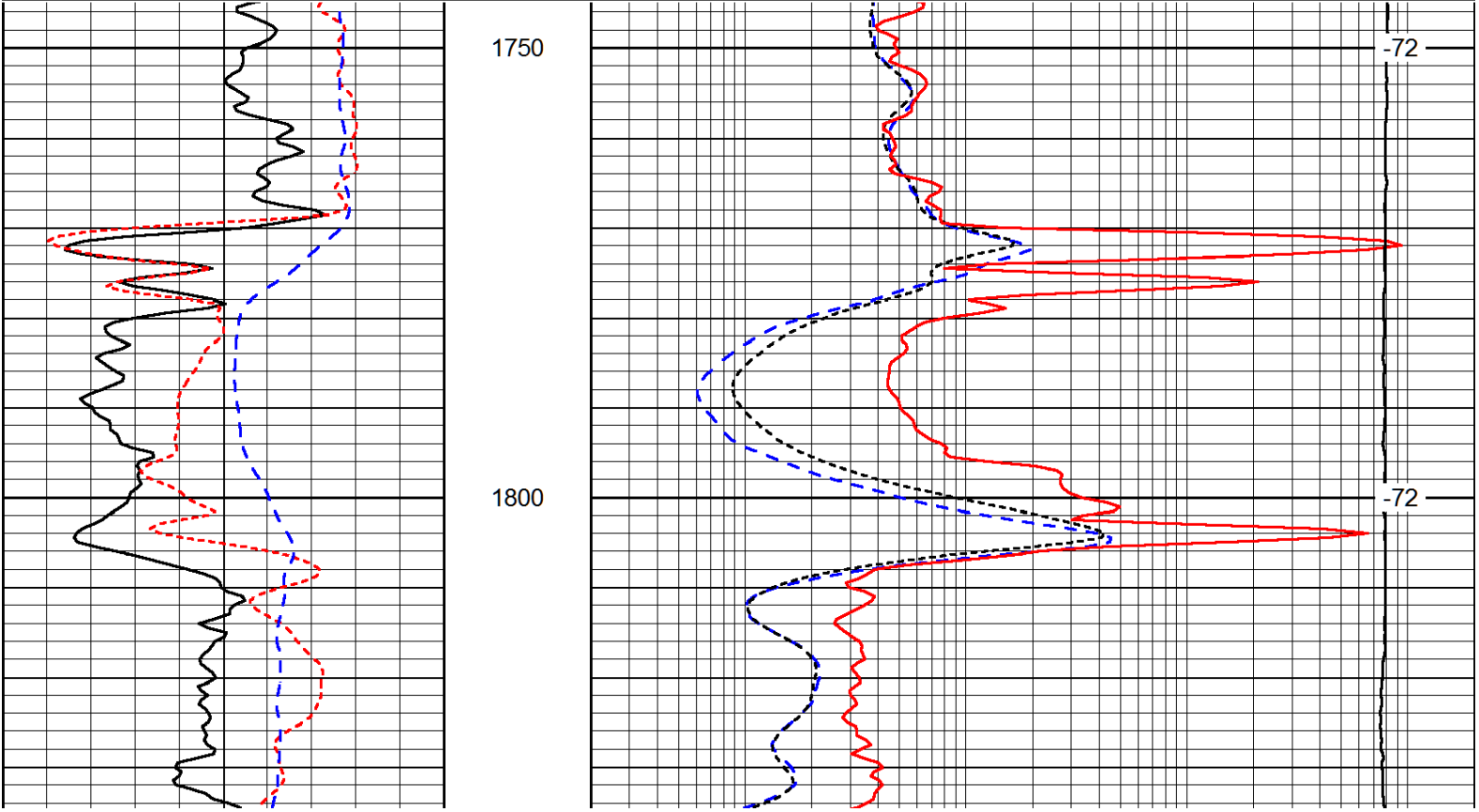
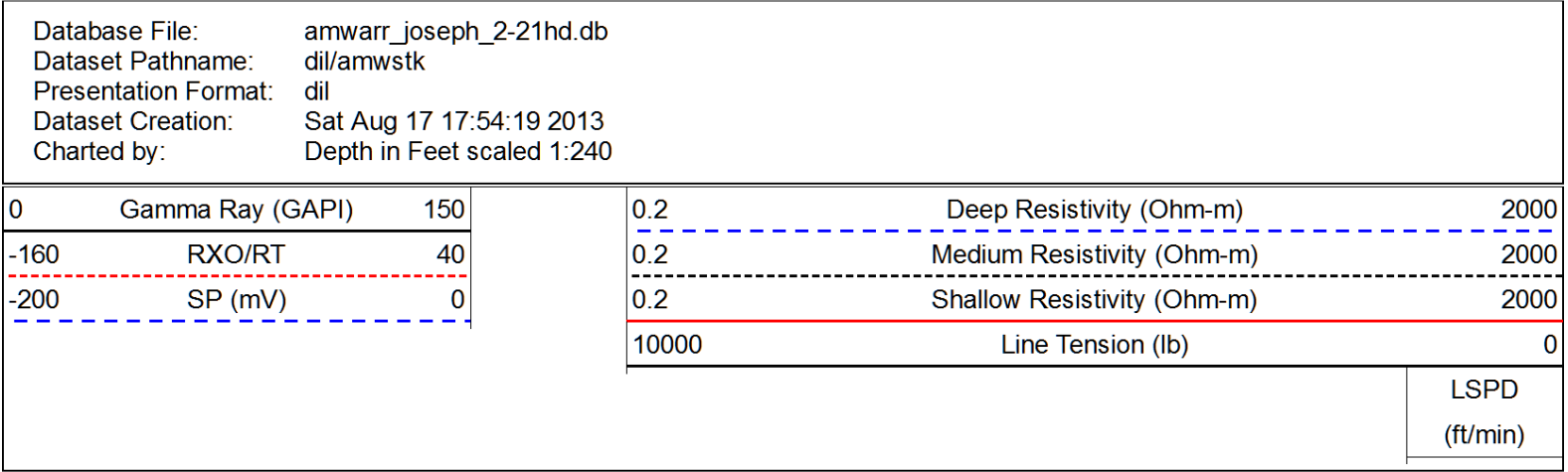
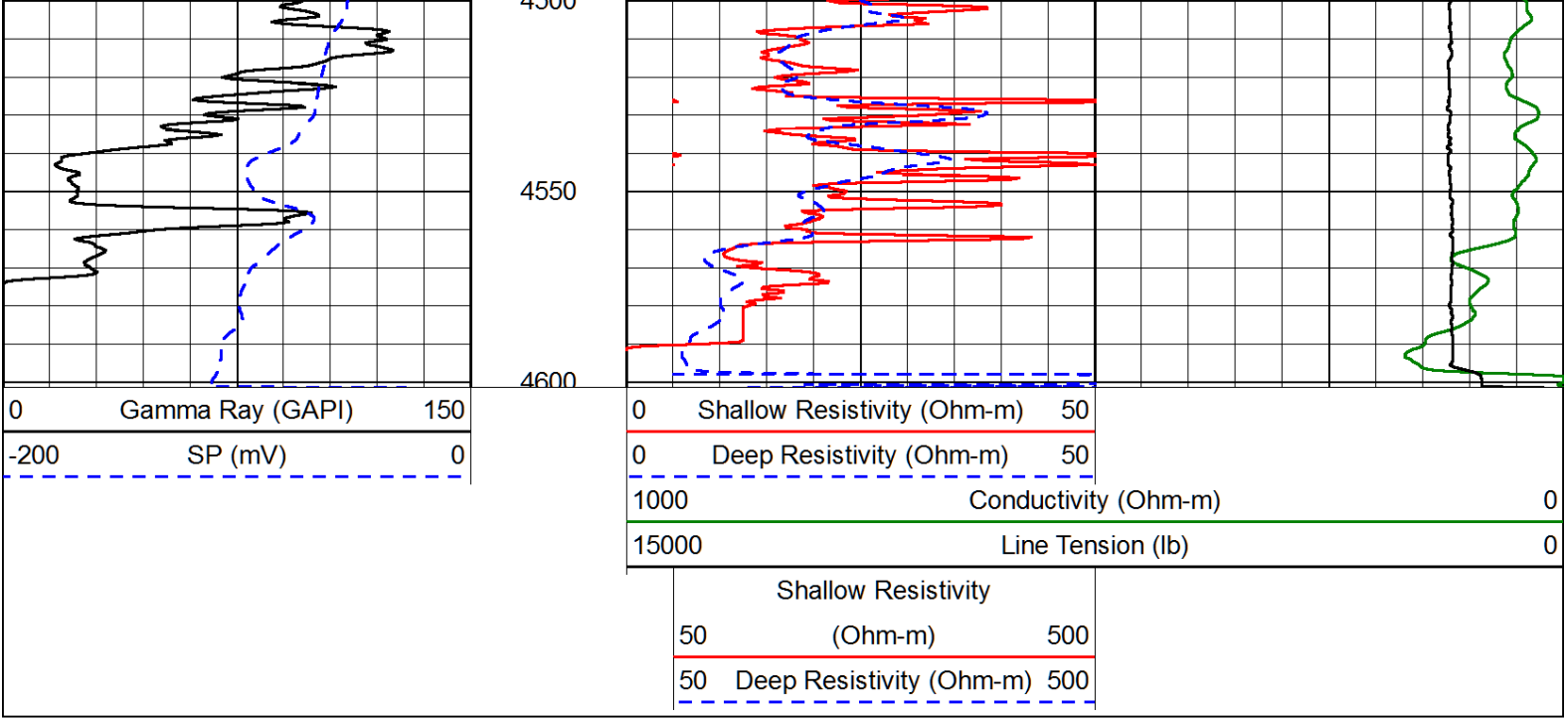


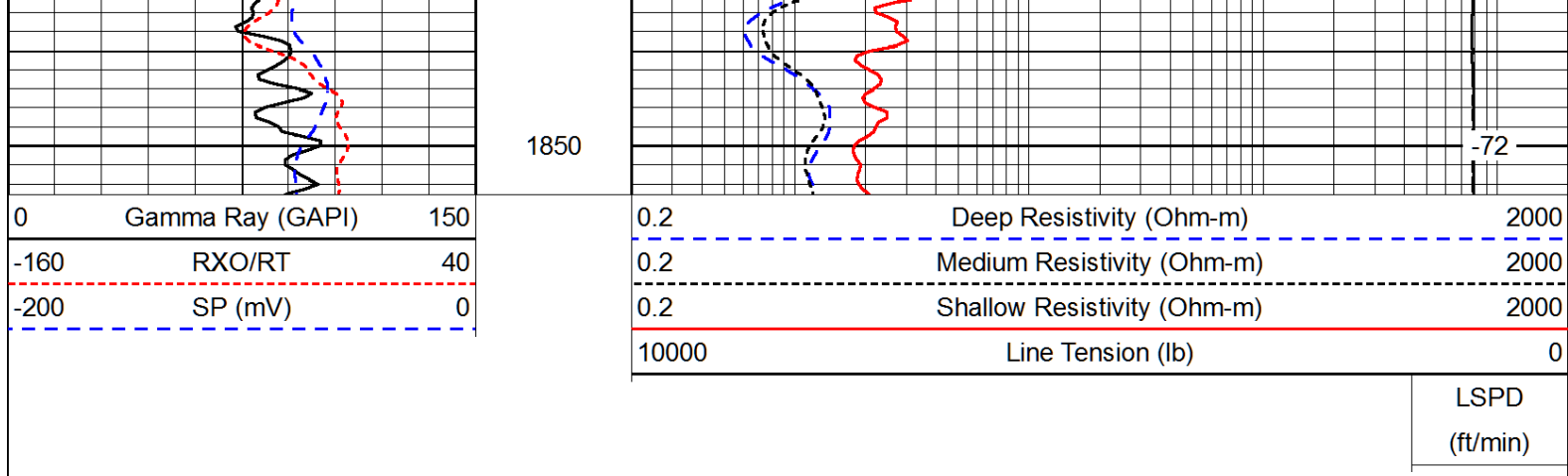




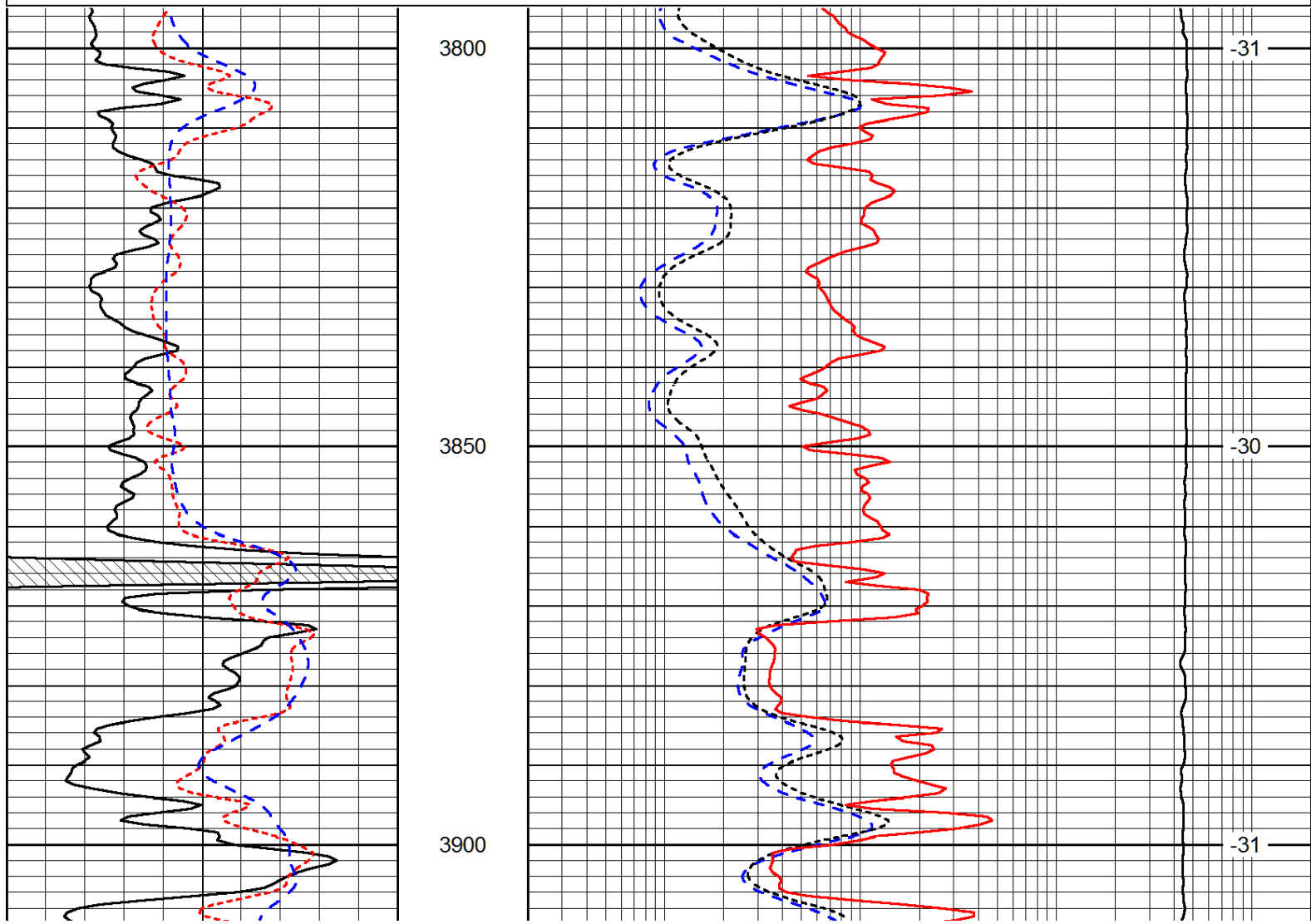
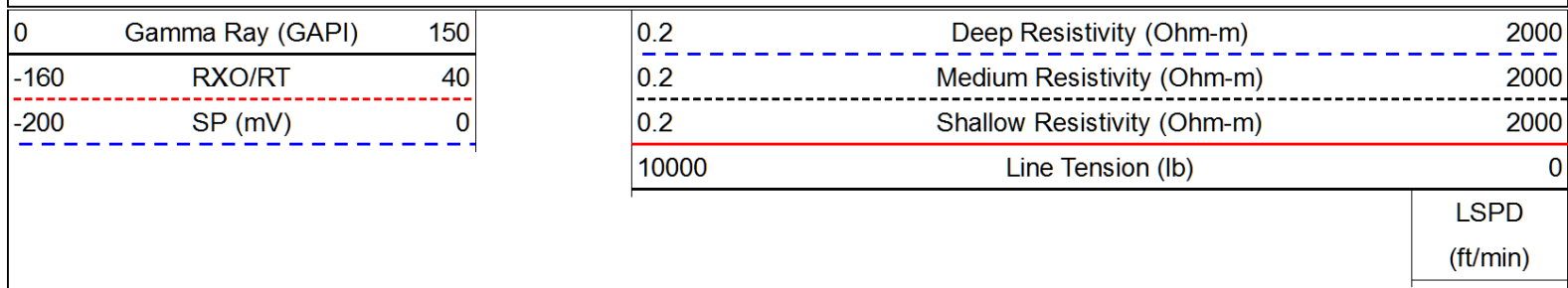
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4050
4100
4150
4200
4250
4300
4350
4400
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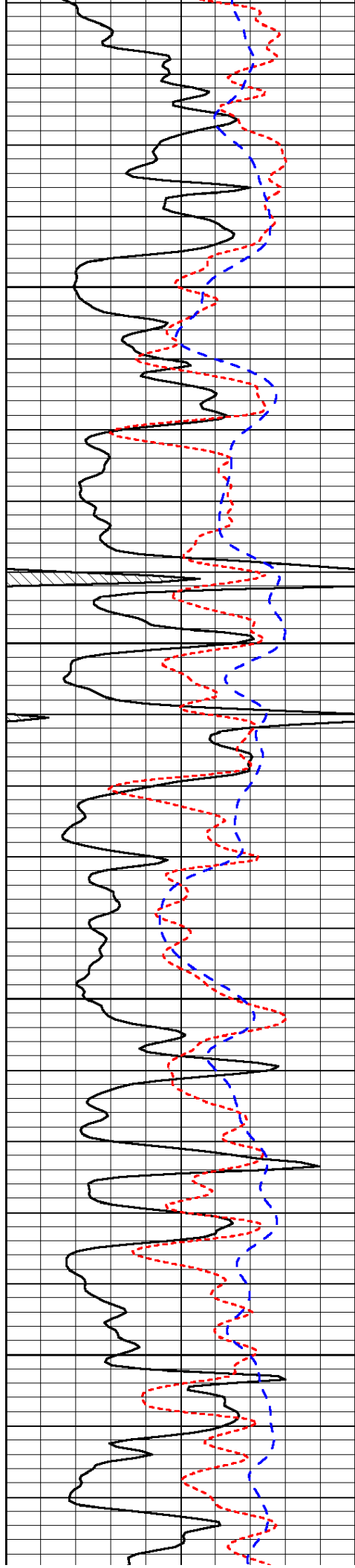






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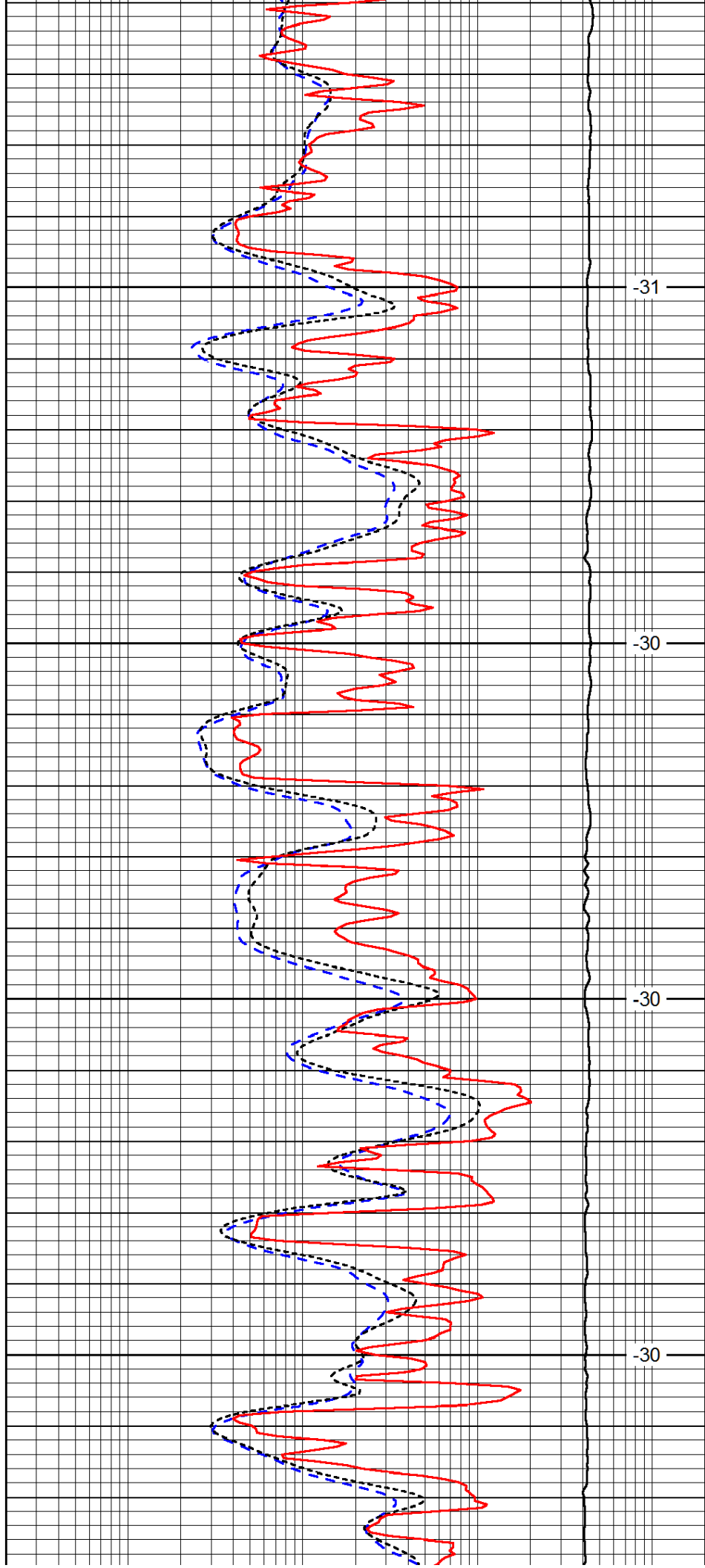


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4000

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4100

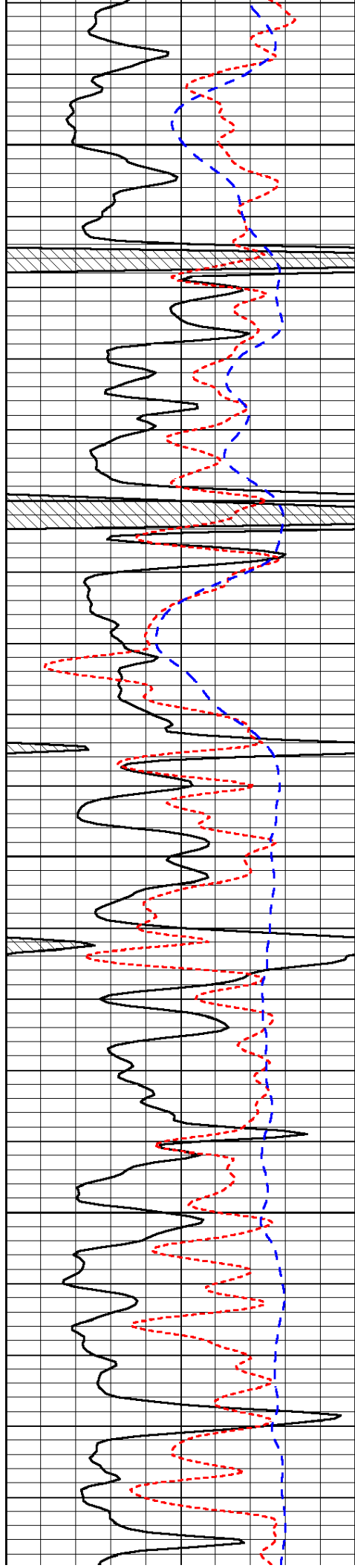


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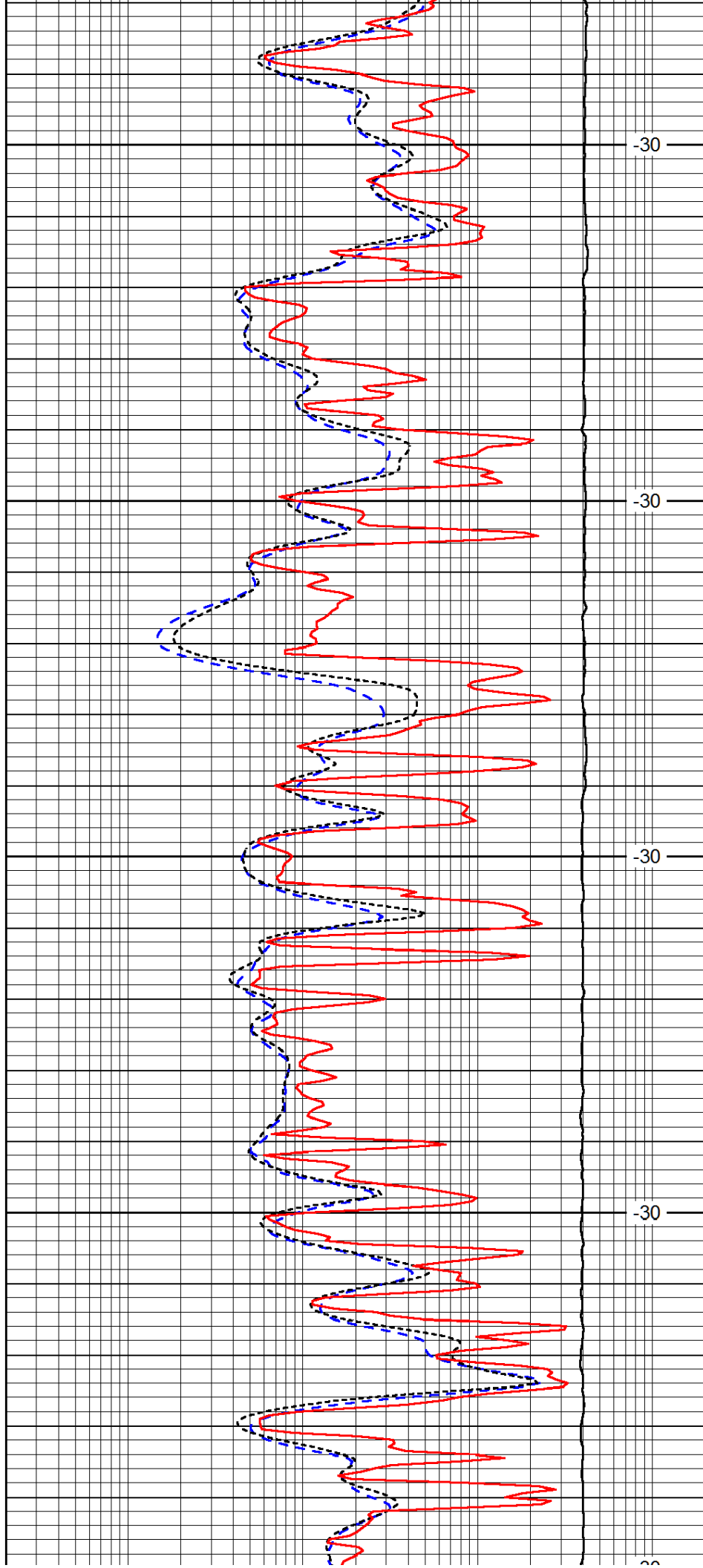
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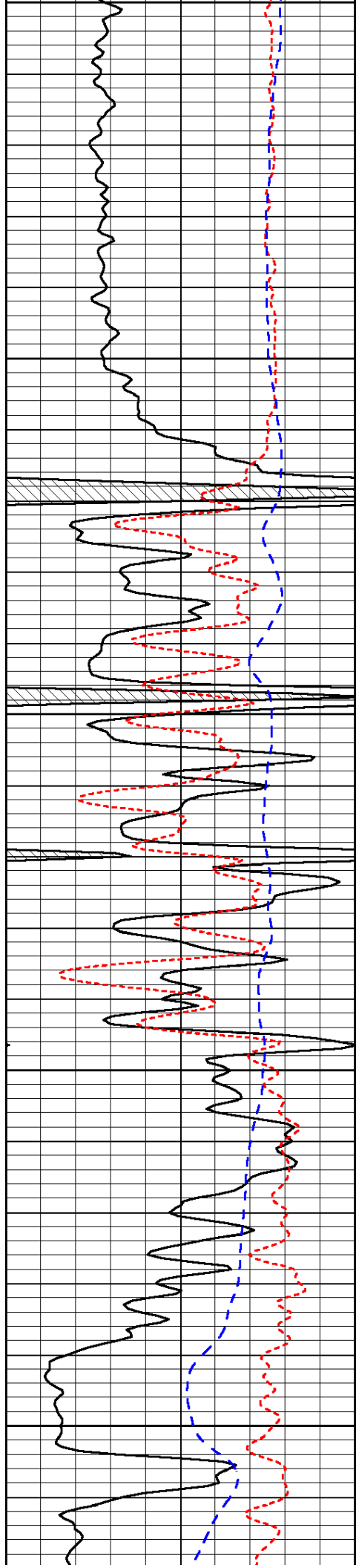
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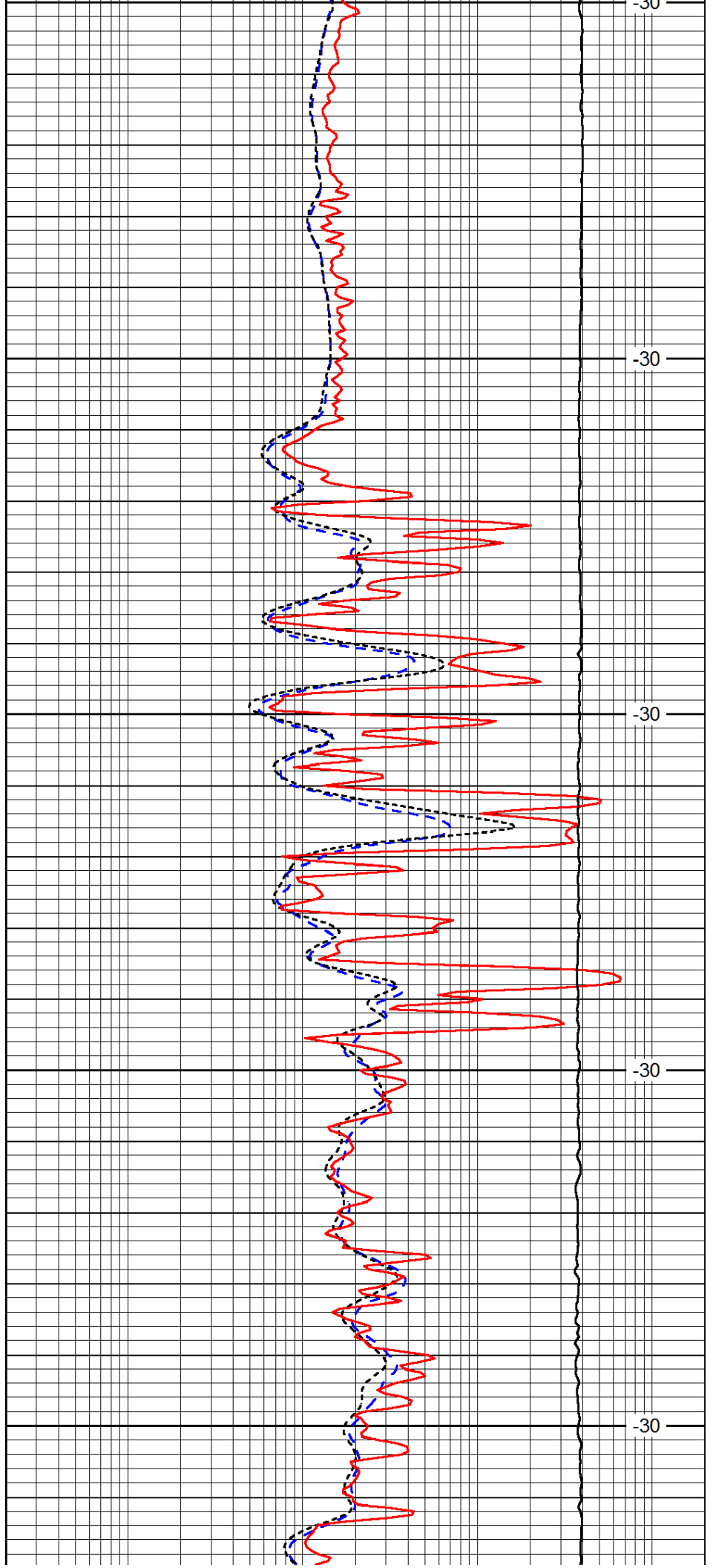
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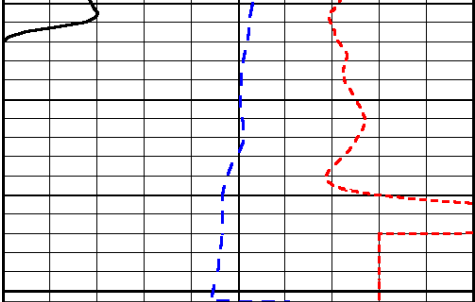
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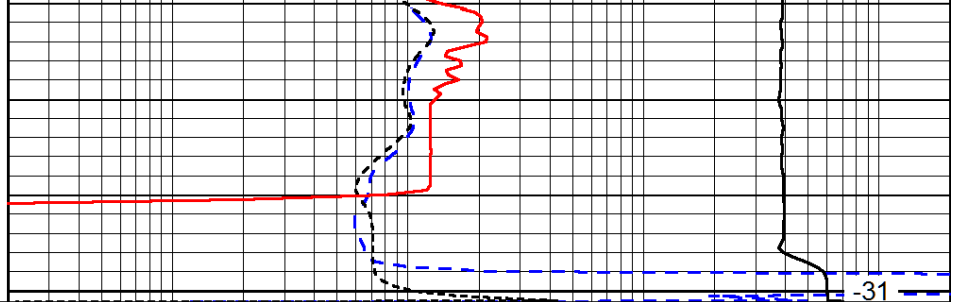


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-30
-30
-30



0	Gamma Ray (GAPI)	150
-160	RXO/RT	40
-200	SP (mV)	0

4600



0.2	Deep Resistivity (Ohm-m)	2000
0.2	Medium Resistivity (Ohm-m)	2000
0.2	Shallow Resistivity (Ohm-m)	2000
10000	Line Tension (lb)	0

LSPD
(ft/min)