



PIONEER

Pioneer Energy Services

Microresistivity Log

API No.

15-175-22221-00-00

Company **American Warrior, Inc.**

Well **Handy #10**

Field **Blue Bell**

County **Seward** State

Kansas

Location

**NW SW SE SW
335' FSL & 1349' FWL**

Sec: **29**

Twp: **34S**

Rge: **31W**

Elevation

Permanent Datum **Ground Level** Elevation **2731**
Log Measured From **Kelly Bushing** 13 Ft. Above Perm. Datum
Drilling Measured From **Kelly Bushing**

K.B. **2744**
D.F.
G.L. **2731**

Date **8/3/2014**

Run Number **One**

Depth Driller **6500**

Depth Logger **6500**

Bottom Logged Interval **6499**

Top Log Interval **4300**

Casing Driller **8.625 @ 1705**

Casing Logger **1699**

Bit Size **7.875**

Type Fluid in Hole **Chemical**

Salinity, ppm CL **2200**

Density / Viscosity **9.2 51**

pH / Fluid Loss **9.5 8.8**

Source of Sample **Flowline**

Rm @ Meas. Temp **1.00 @ 86**

Rmf @ Meas. Temp **0.75 @ 86**

Rmc @ Meas. Temp **1.35 @ 86**

Source of Rmf / Rmc **Charts**

Rm @ BHT **0.60 @ 143**

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

Max Rec. Temp. F **143**

Equipment Number **91**

Location **Hays**

Recorded By **D. Schmidt**

Witnessed By **Wyatt Urban**

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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.

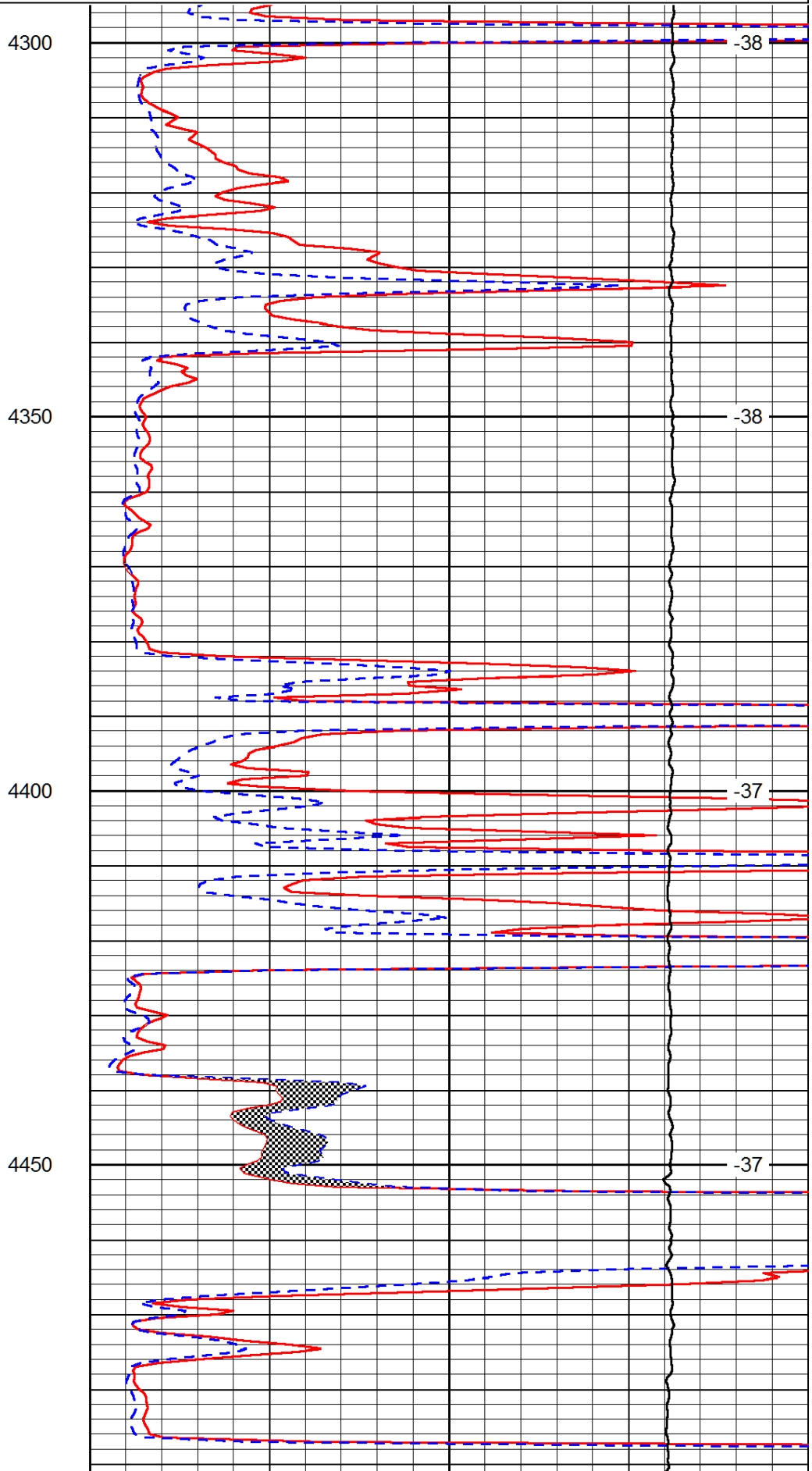
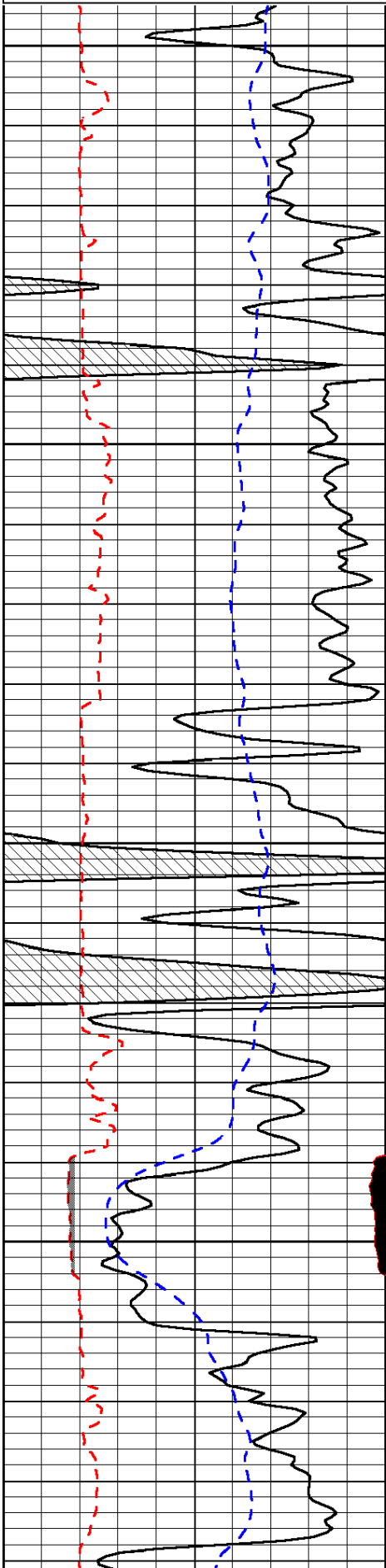
Comments

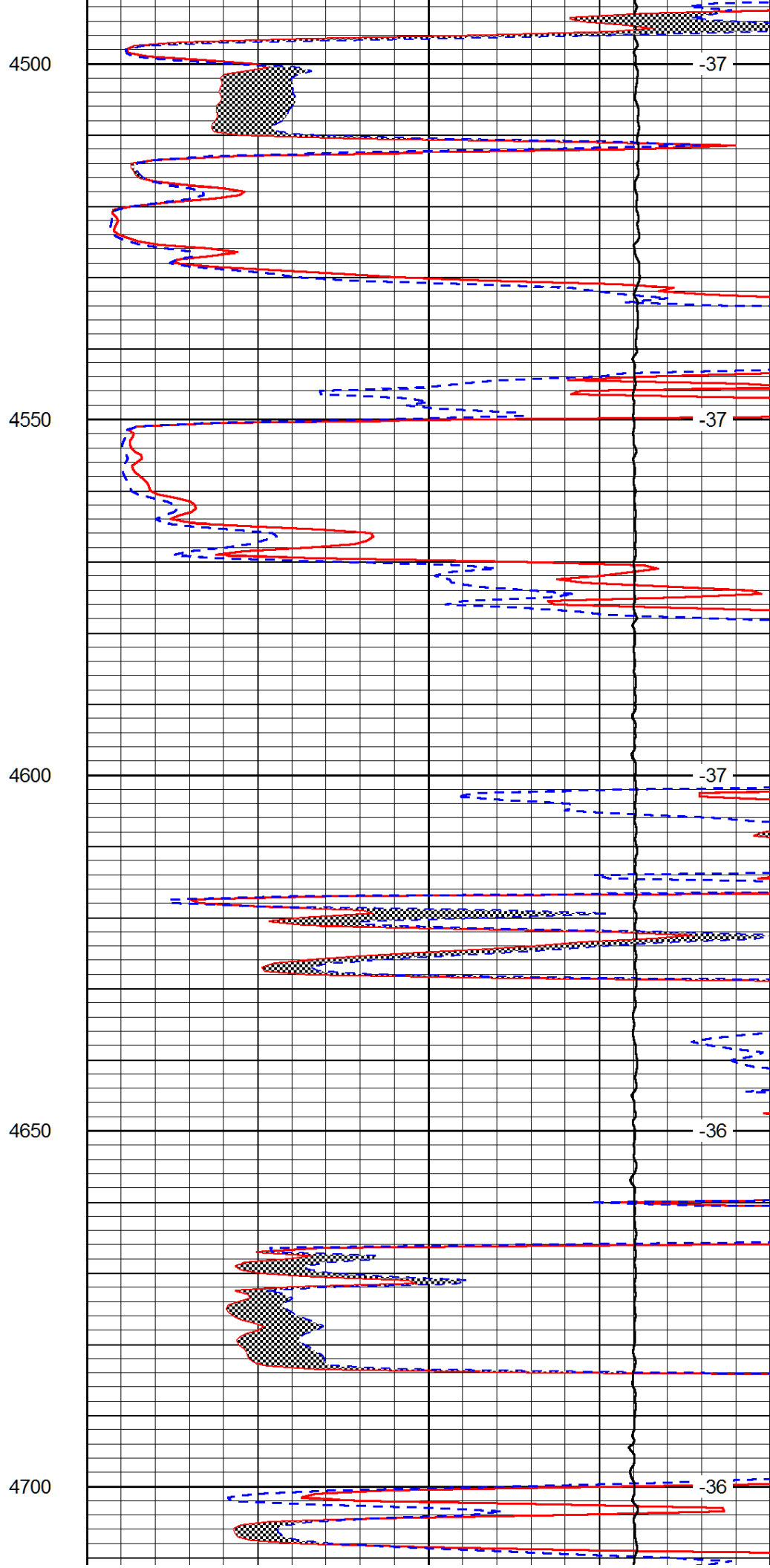
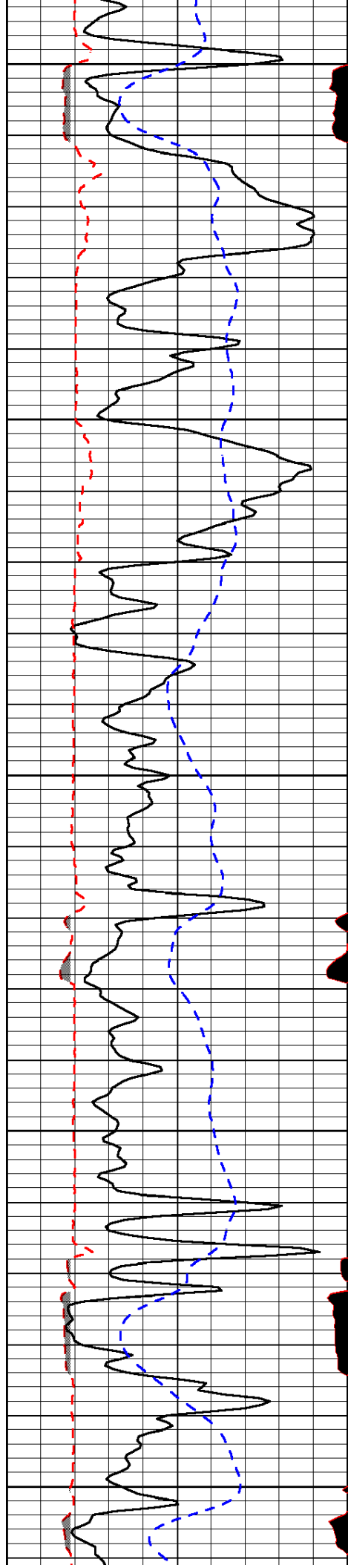
Thank you for using Log-Tech, Inc.
(785) 625-3858
Liberal,
from the 5 Points Intersection,
11 East on Blue Bell Rd to U Rd, 1 North, 1/2 West,
North into

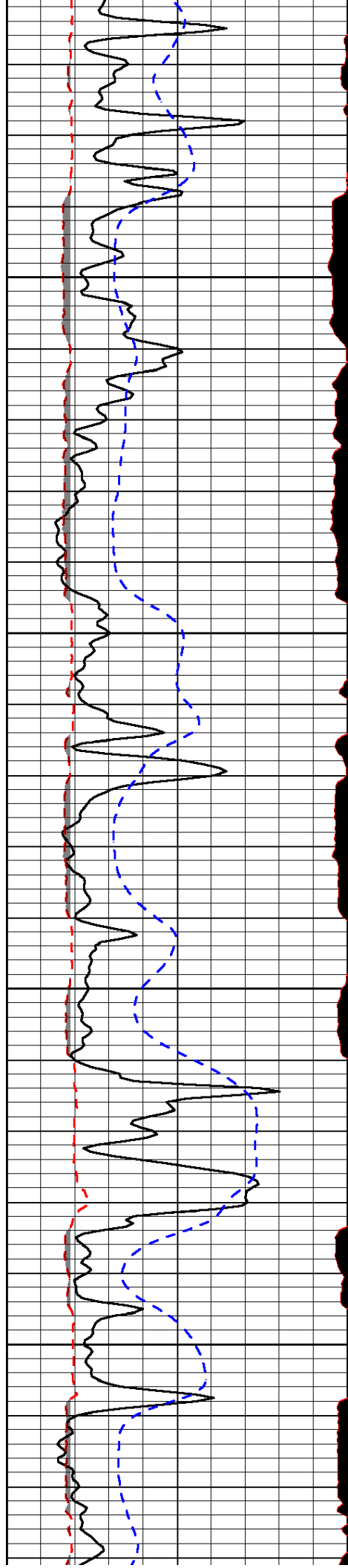
Database File: american_warrior_handy_10hd.db
Dataset Pathname: dil/awstkml
Presentation Format: micro
Dataset Creation: Sun Aug 03 20:06:03 2014
Charted by: Depth in Feet scaled 1:240

0	Gamma Ray	150
6	MCAL (GAPI)	16
2.875	Mud Cake (GAPI)	7.875
-200	SP (mV)	0

0	Micro Inverse 1 X 1	40
0	Micro Normal 2"	40
10000	Line Weight	0
		LSPD





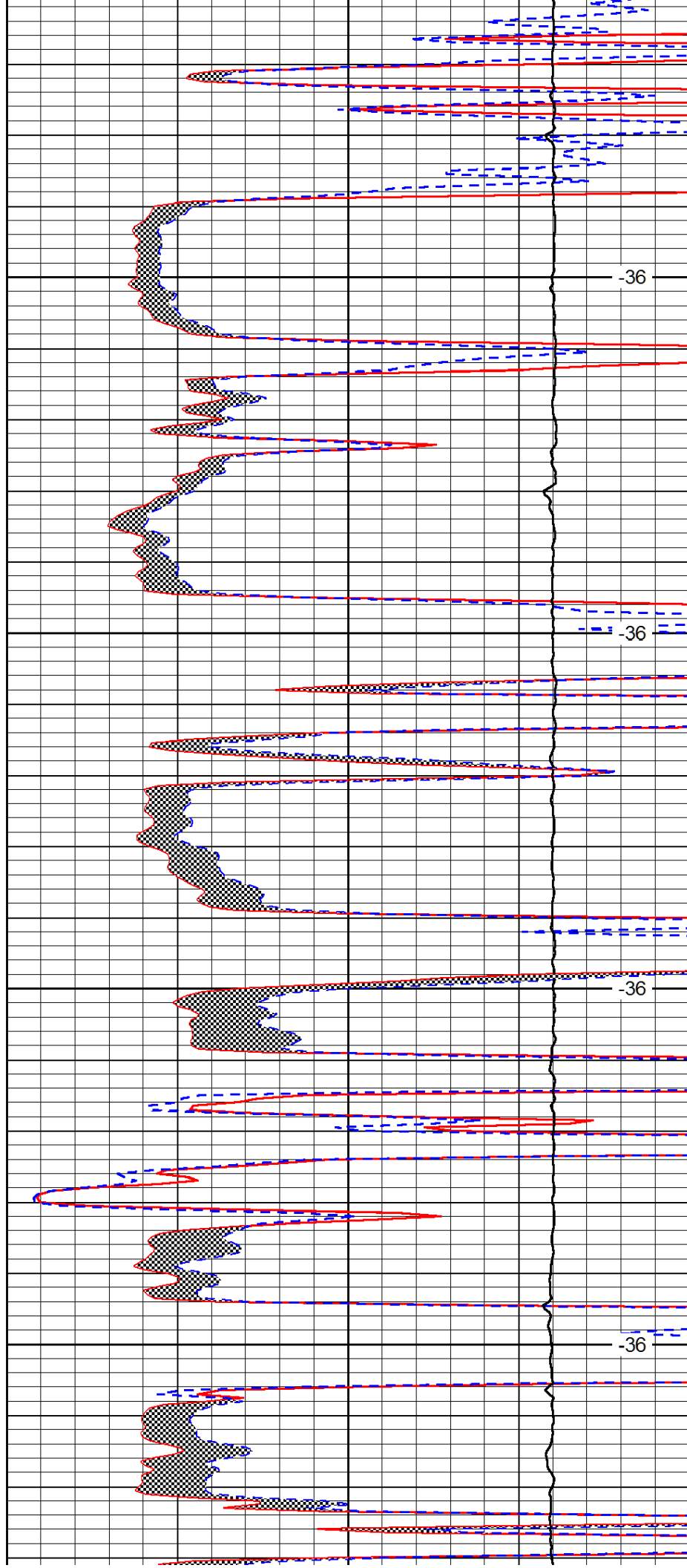


4750

4800

4850

4900

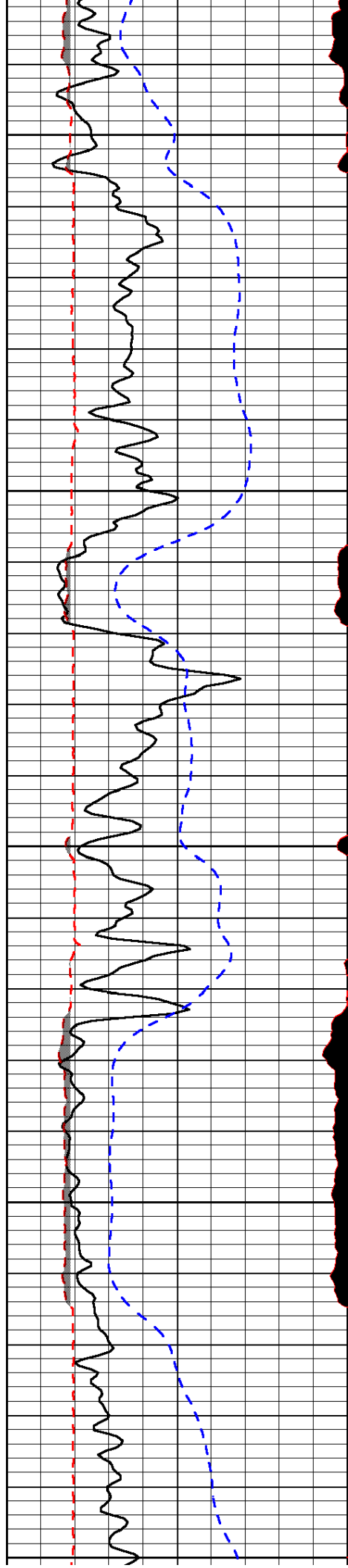


-36

-36

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-36



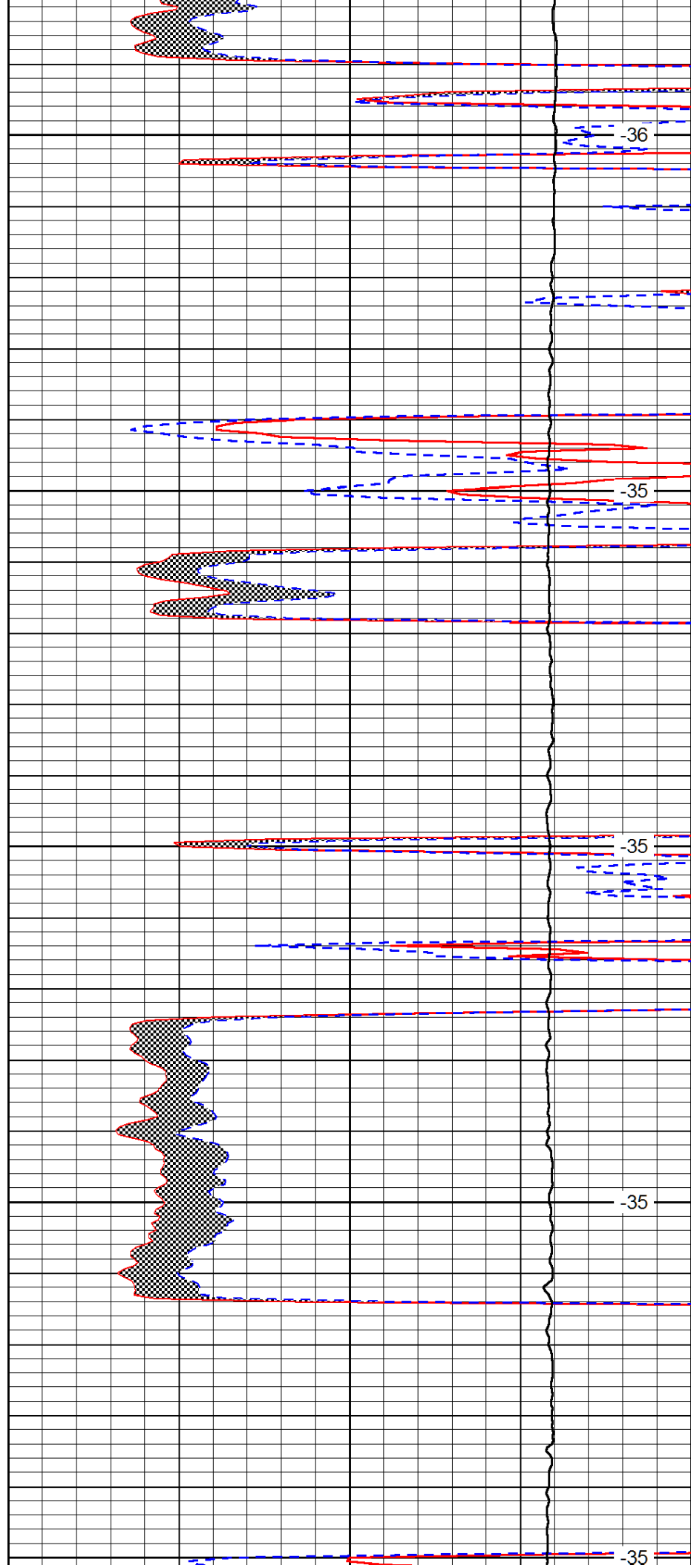
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5000

5050

5100

5150



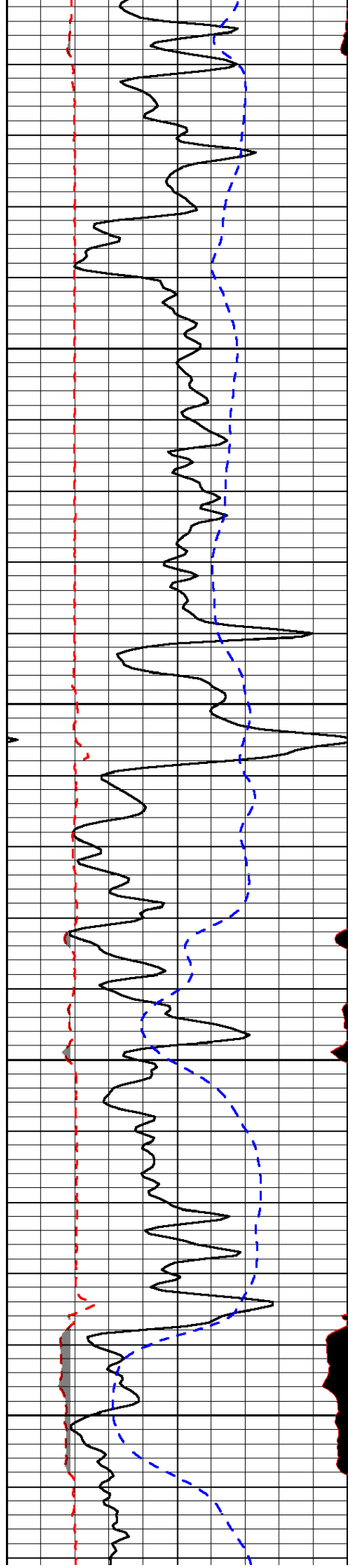
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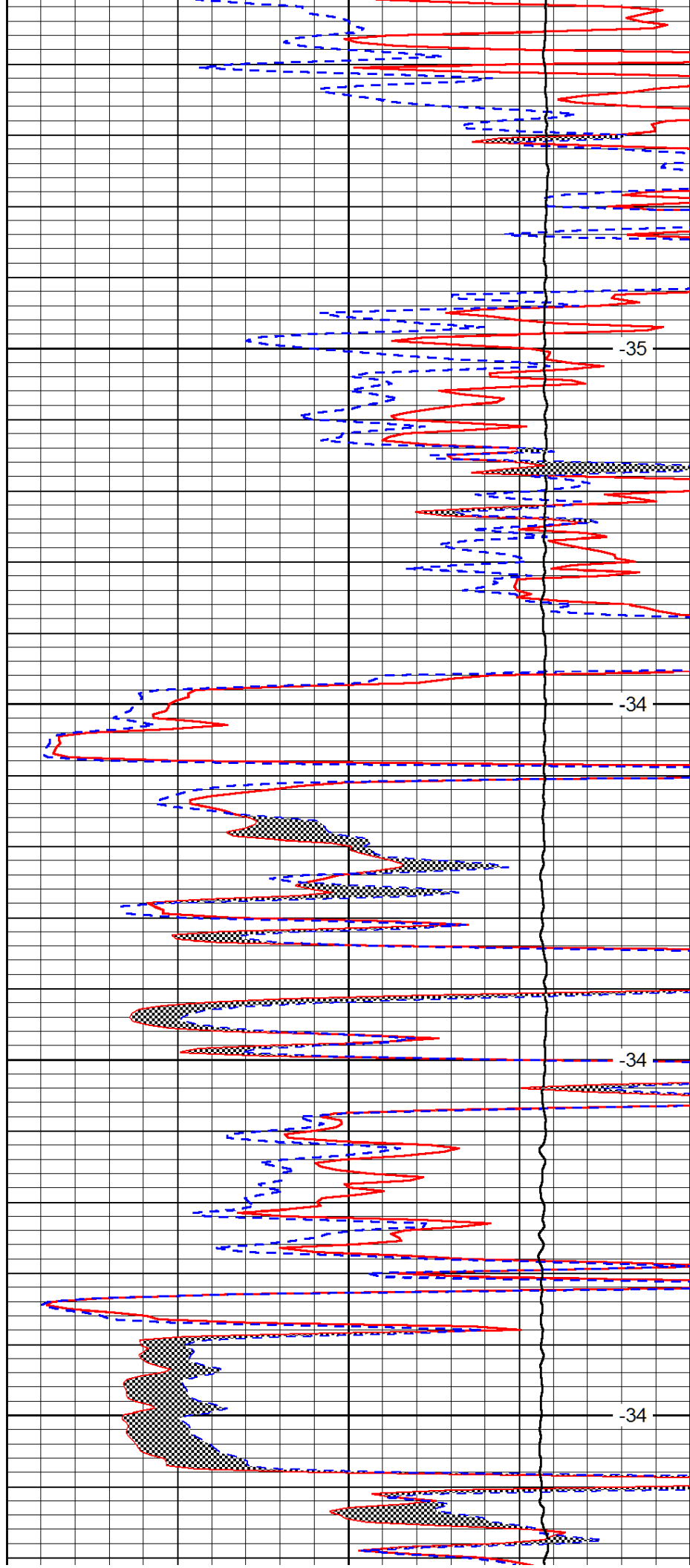


5200

5250

5300

5350

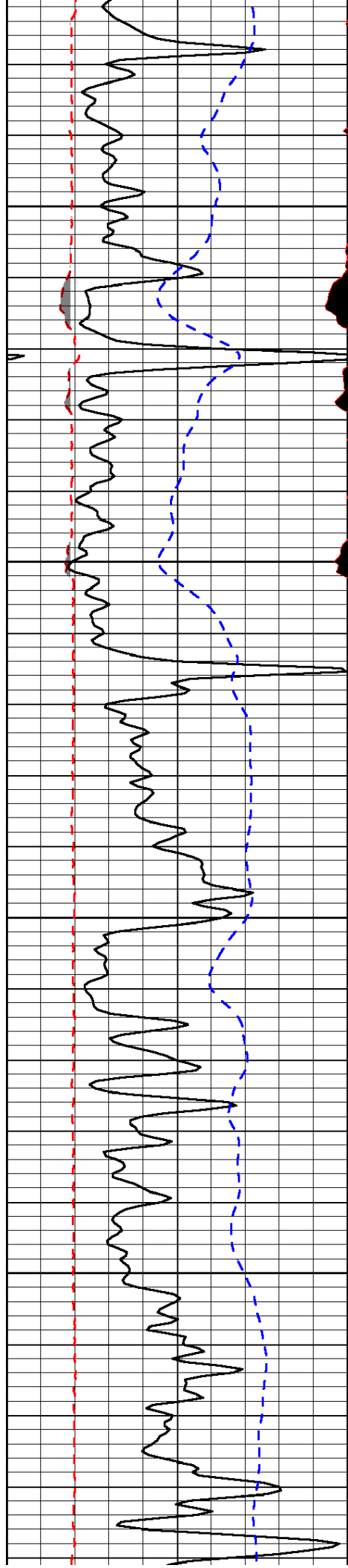


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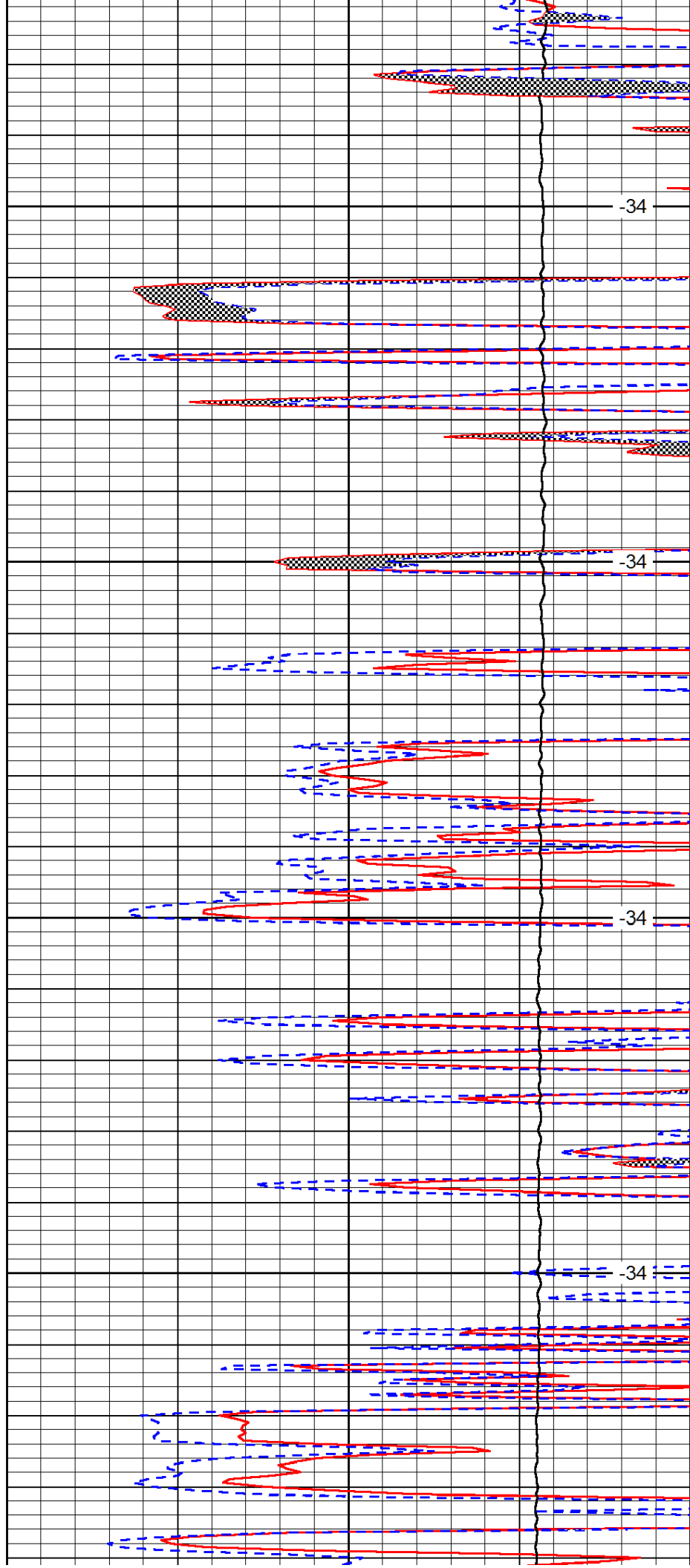


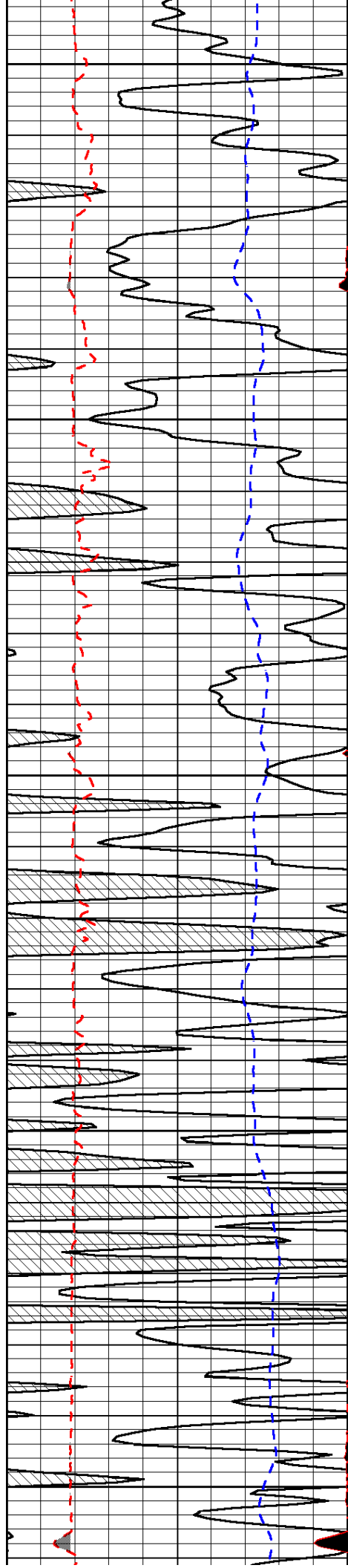
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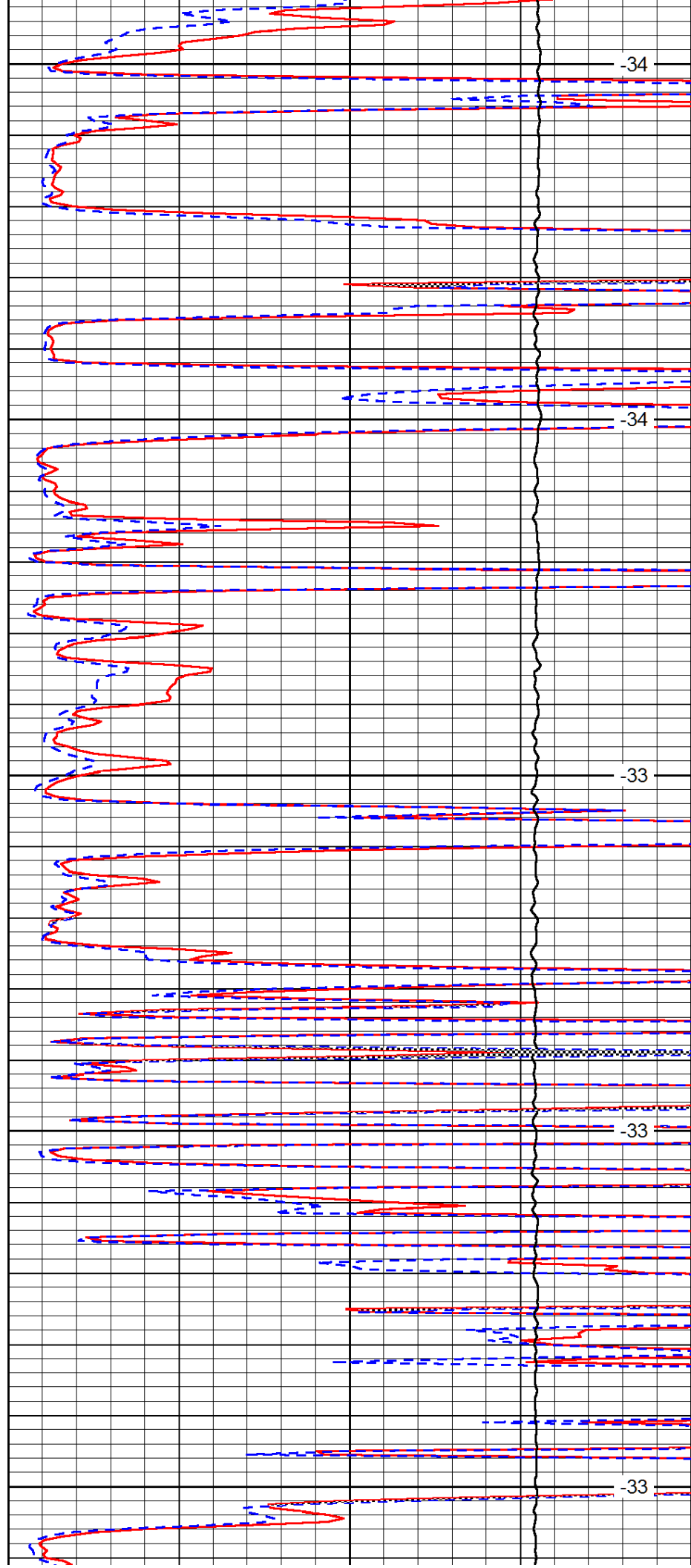
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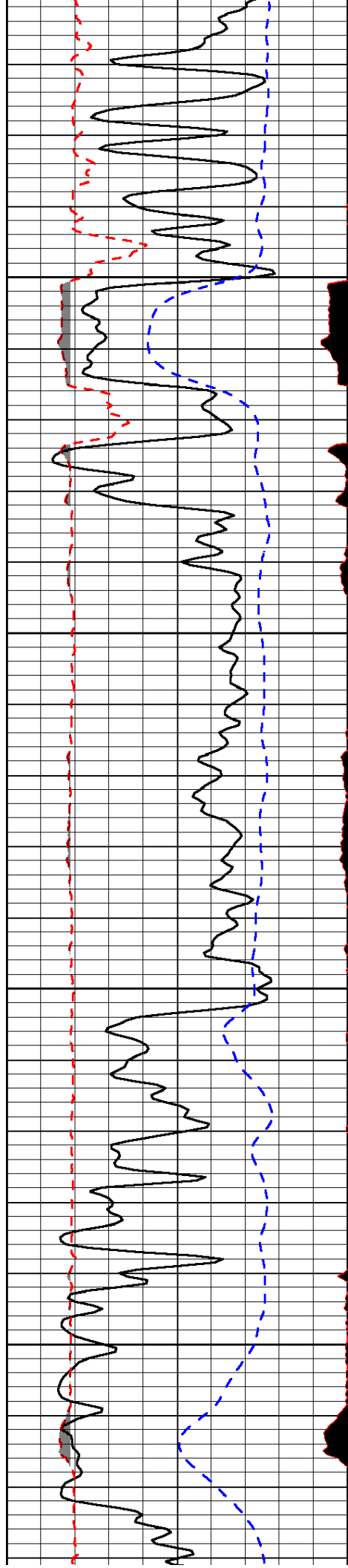
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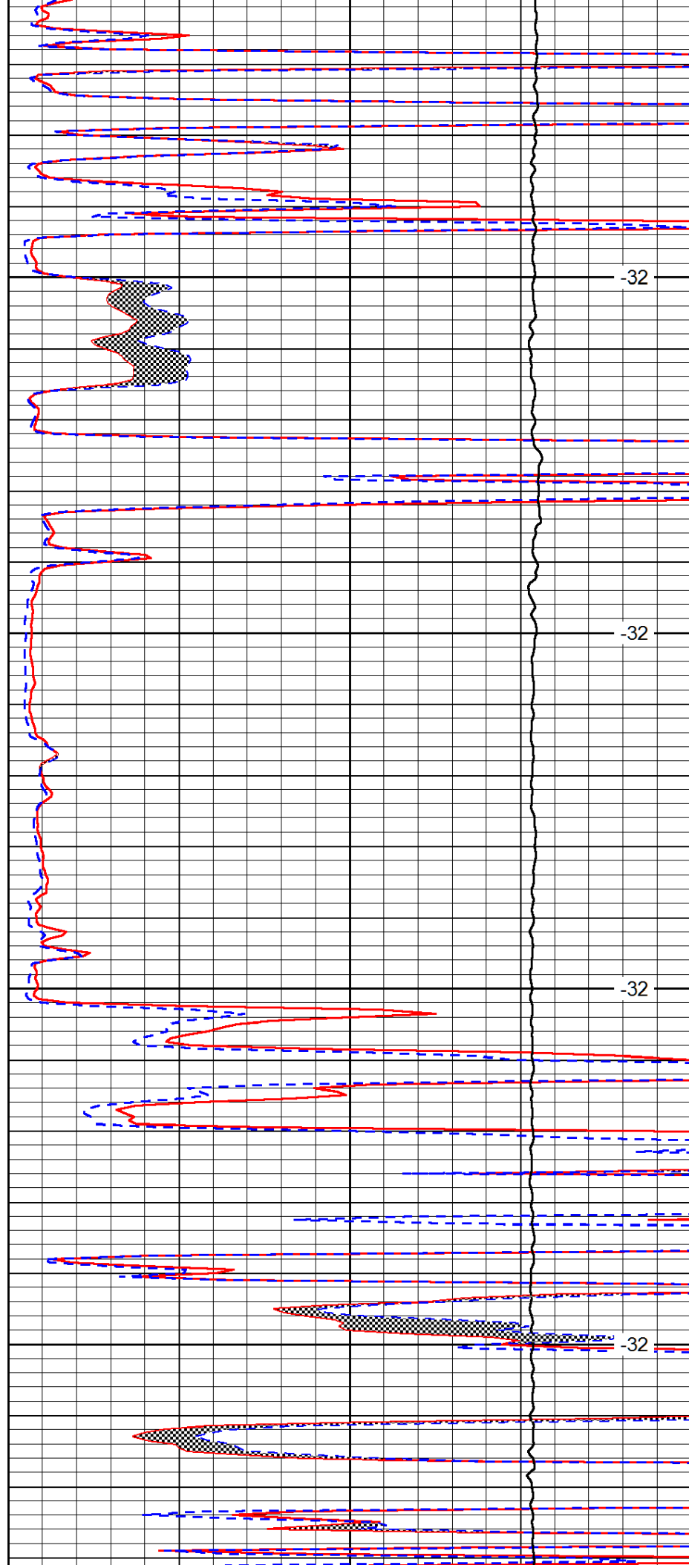


5850

5900

5950

6000

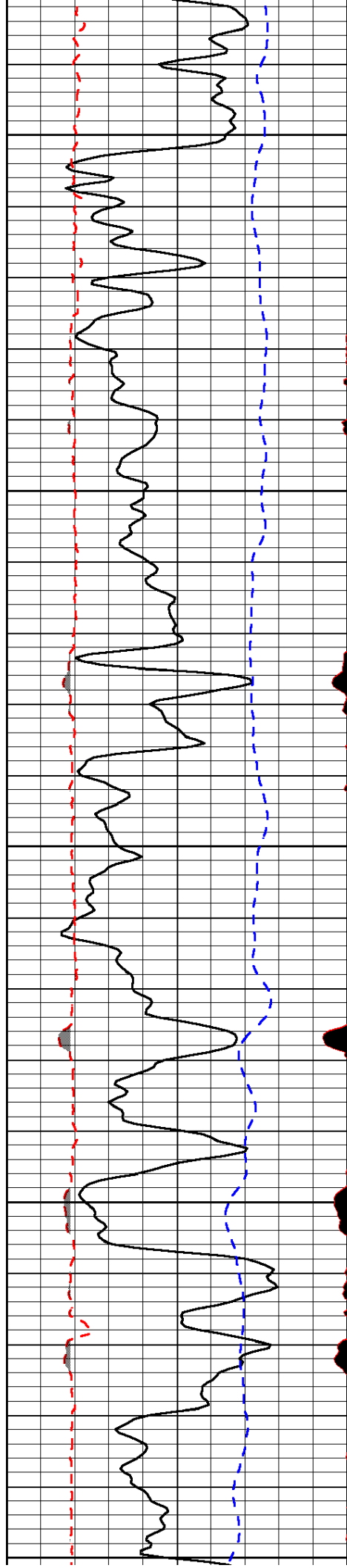


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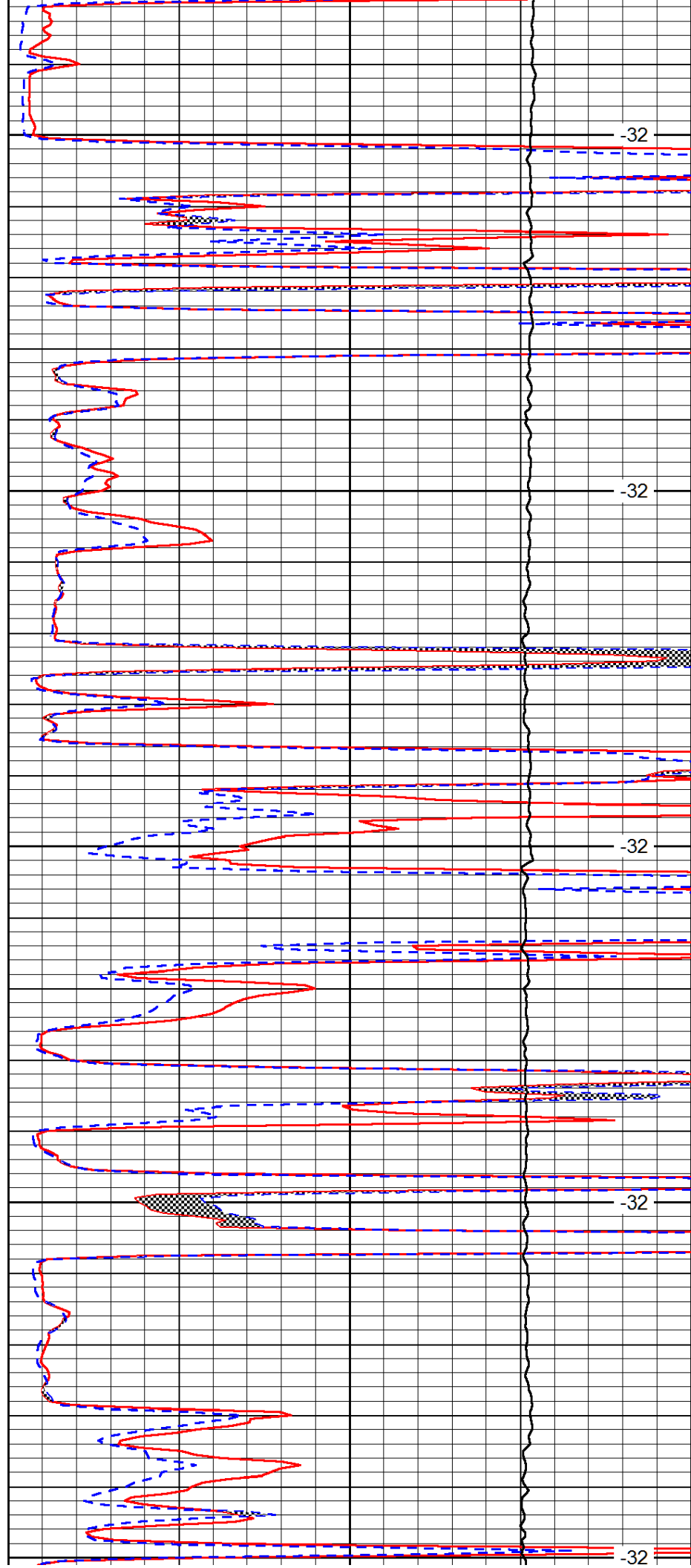
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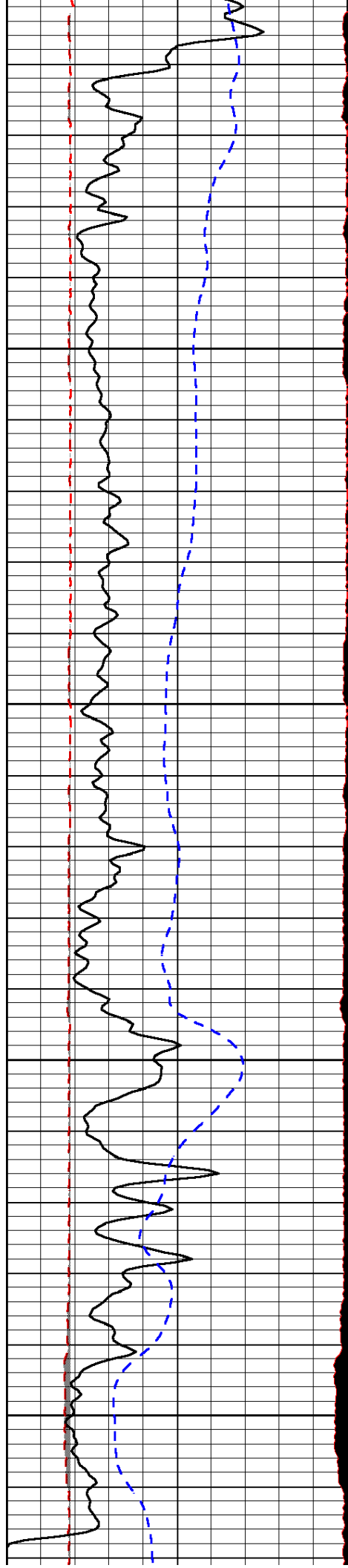
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6150

6200

6250



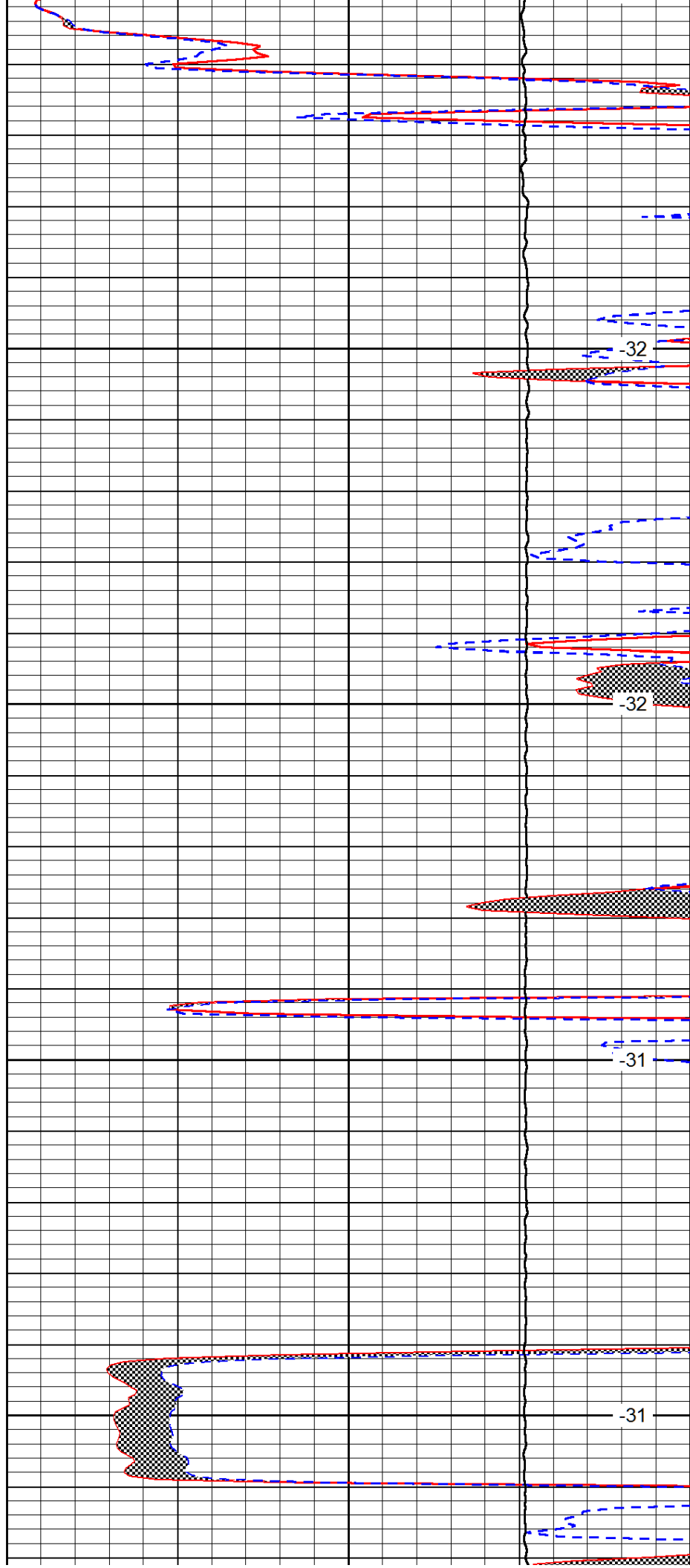


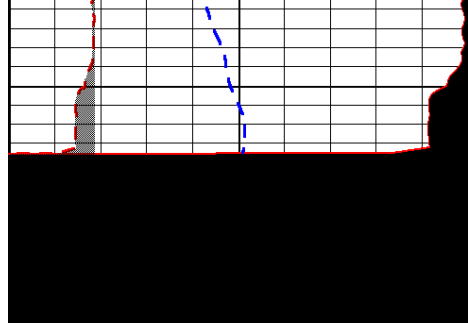
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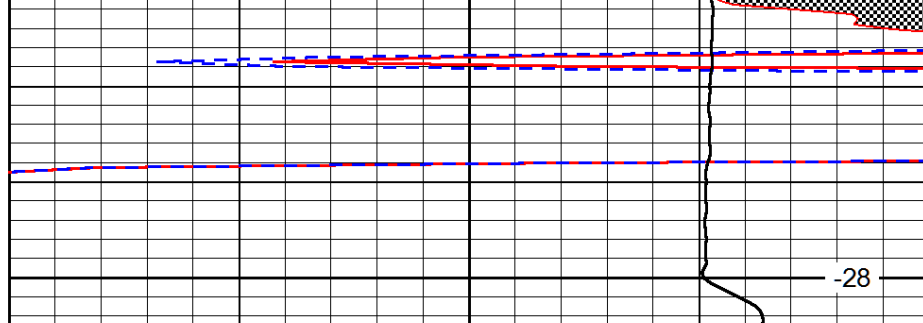
6400

6450





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