



Pioneer Energy Services

Microresistivity Log

API No.

15-189-22811-00-00

Company Palmer Oil, Inc.

Well Laura #21-2

Field Gentzler North

County Stevens State

Kansas

Location E2 E2 SW SE
660' FSL / 1600' FEL

Sec: 21 Twp: 32S Rge: 37W

Other Services
CNL/CDL
DIL
Elevation
K.B. 3148
D.F.
G.L. 3136

Permanent Datum Ground Level Elevation 3136
Log Measured From Kelly Bushing 12 Ft. Above Perm. Datum
Drilling Measured From Kelly Bushing

Date 9/15/2013

Run Number Two

Depth Driller 6550

Depth Logger 6538

Bottom Logged Interval 6537

Top Log Interval 4700

Casing Driller 8.625 @ 1768

Casing Logger 1760

Bit Size 7.875

Type Fluid in Hole Chemical

Salinity, ppm CL 4600

Density / Viscosity 9.3 49

pH / Fluid Loss 9.0 11.6

Source of Sample Flowline

Rm @ Meas. Temp 0.40 @ 65

Rmf @ Meas. Temp 0.30 @ 65

Rmc @ Meas. Temp 0.54 @ 65

Source of Rmf / Rmc Charts

Rm @ BHT 0.18 @ 142

Operating Rig Time 6 Hours

Max Rec. Temp. F 142

Equipment Number 17

Location Hays

Recorded By R. Barnhart

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.

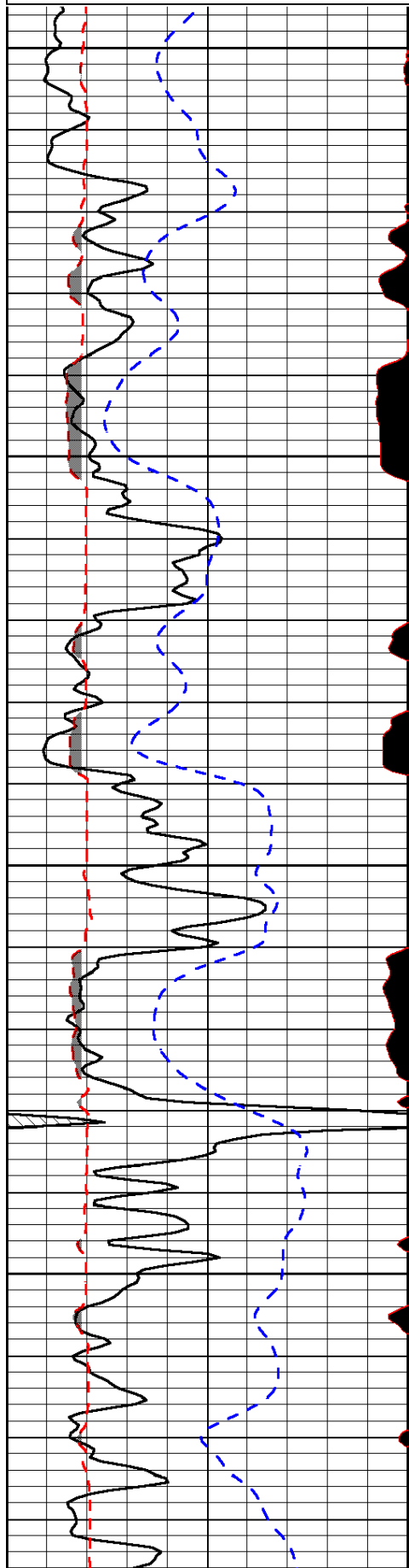
Comments

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

Hugoton, KS:
3N, 1/2W, N into

Database File: palmer_hd.db
Dataset Pathname: dil/palmain
Presentation Format: micro
Dataset Creation: Sun Sep 15 10:43:18 2013
Charted by: Depth in Feet scaled 1:240

Charted by: Depth in Feet scaled 1:210		
0	Gamma Ray (GAPI)	150
6	MCAL (in)	16
2.875	Mud Cake (in)	7.875
-200	SP (mV)	0



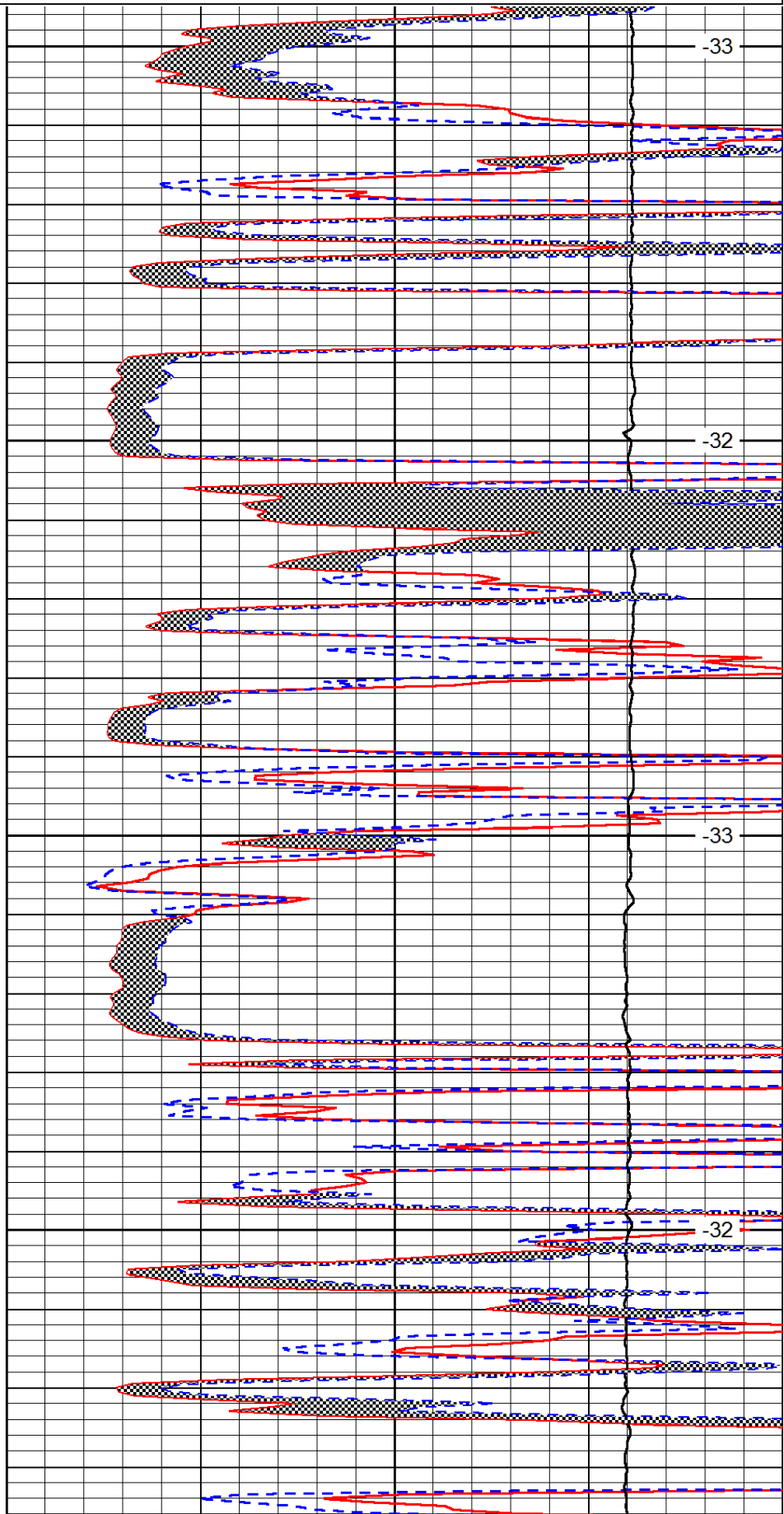
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4750

4800

4850

0	Micro Inverse 1 X 1 (Ohm-m)	40
0	Micro Normal 2" (Ohm-m)	40
10000	Line Weight (lb)	0
		LSPD (ft/min)

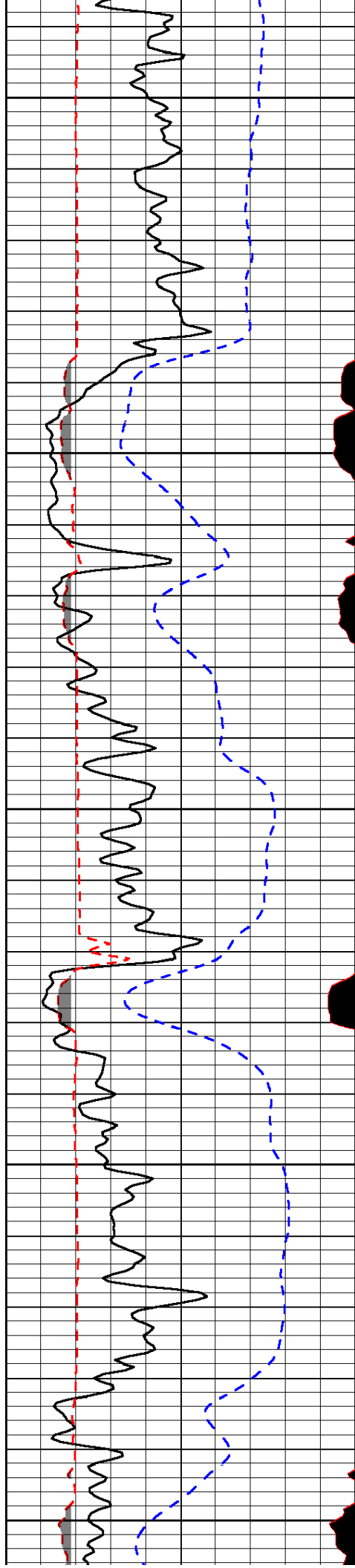


-33

-32

-33

-32



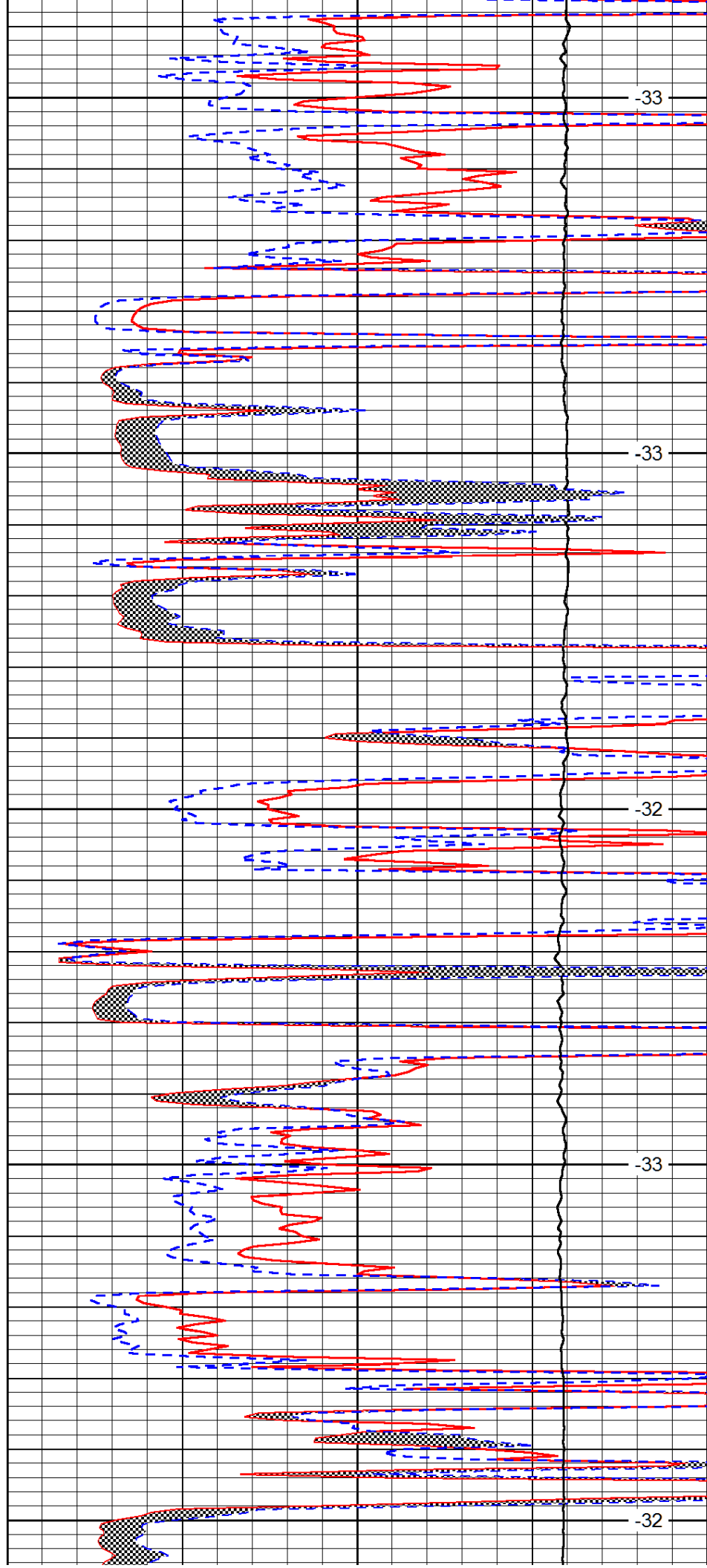
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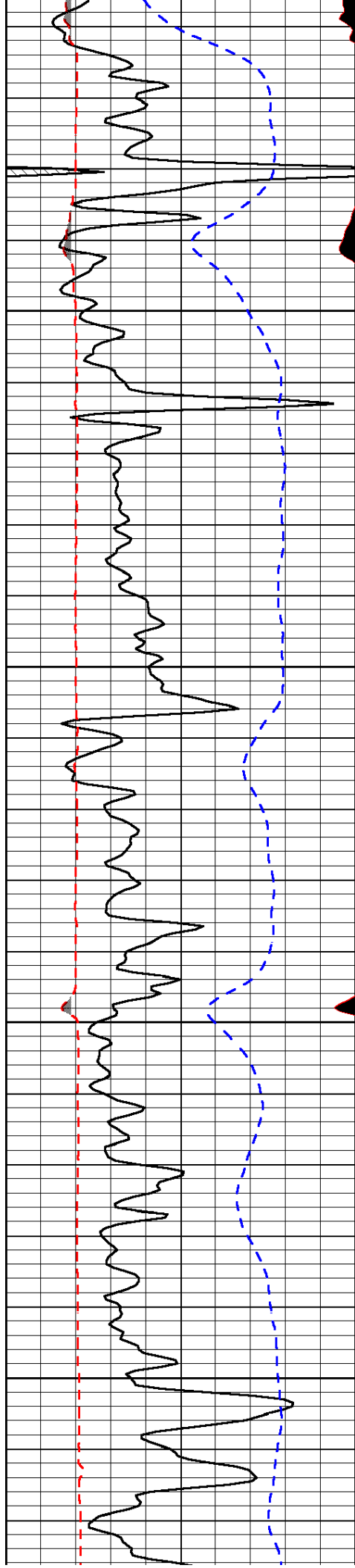
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5050

5100



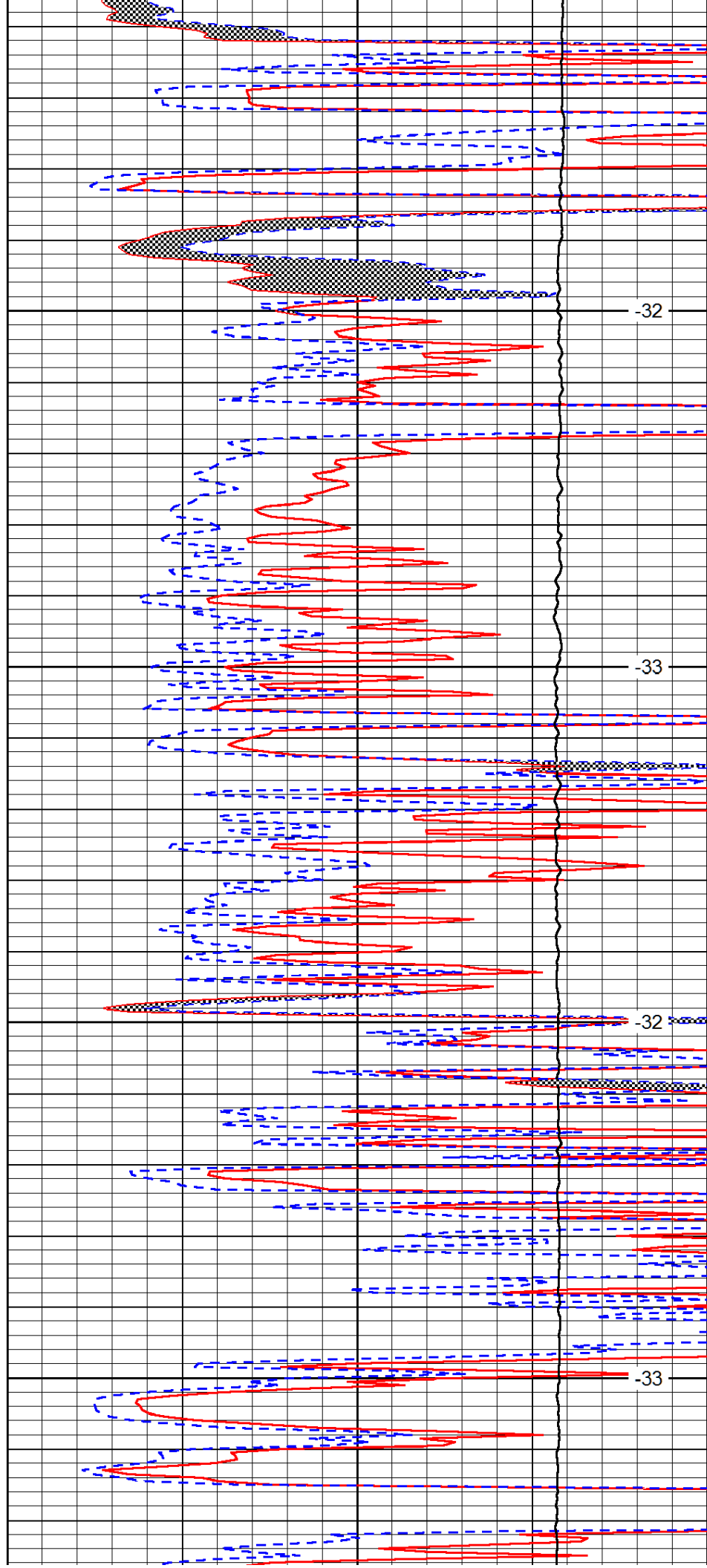


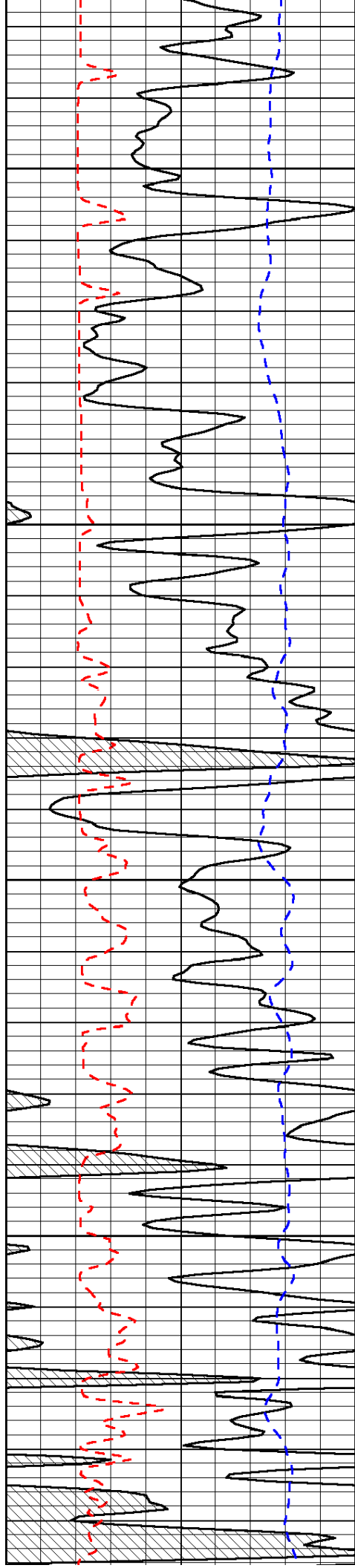
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5200

5250

5300



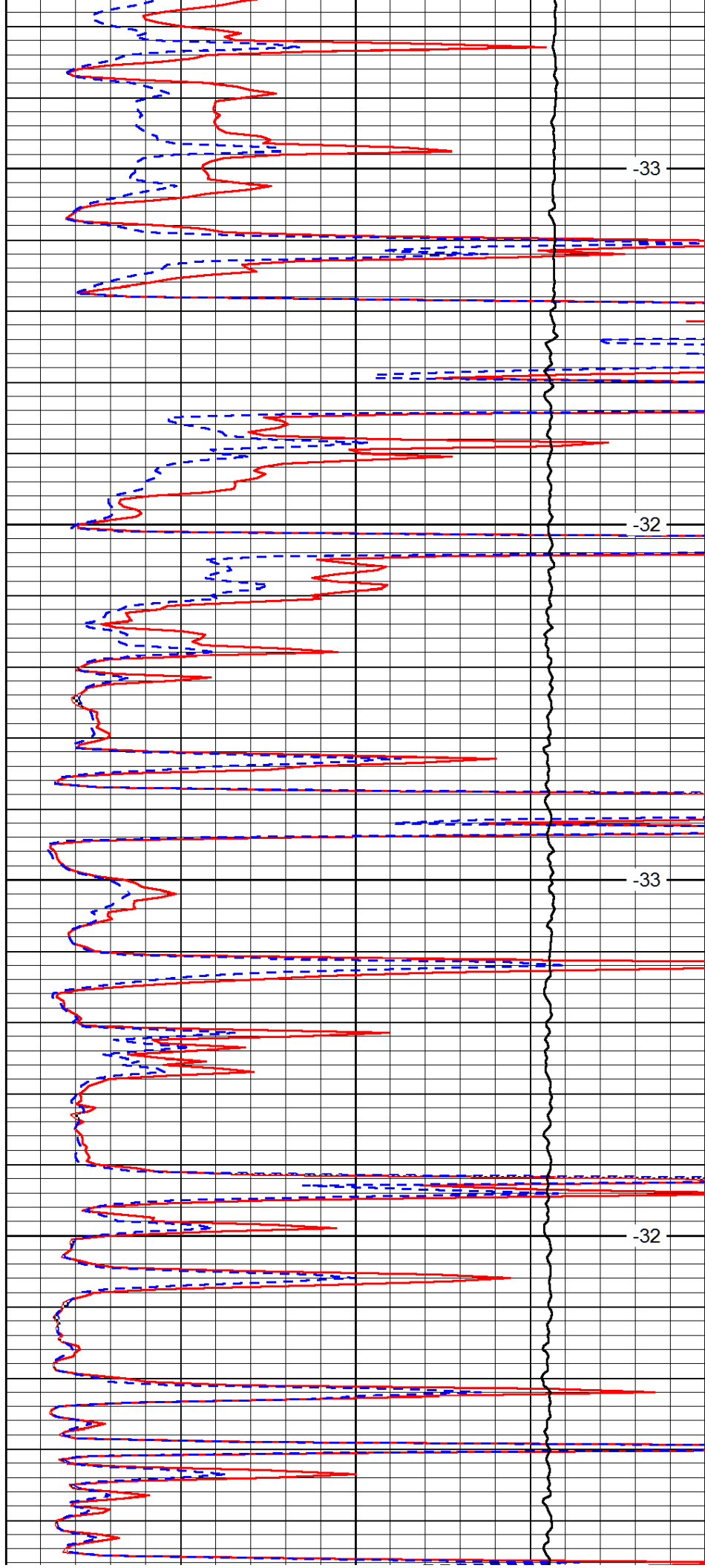


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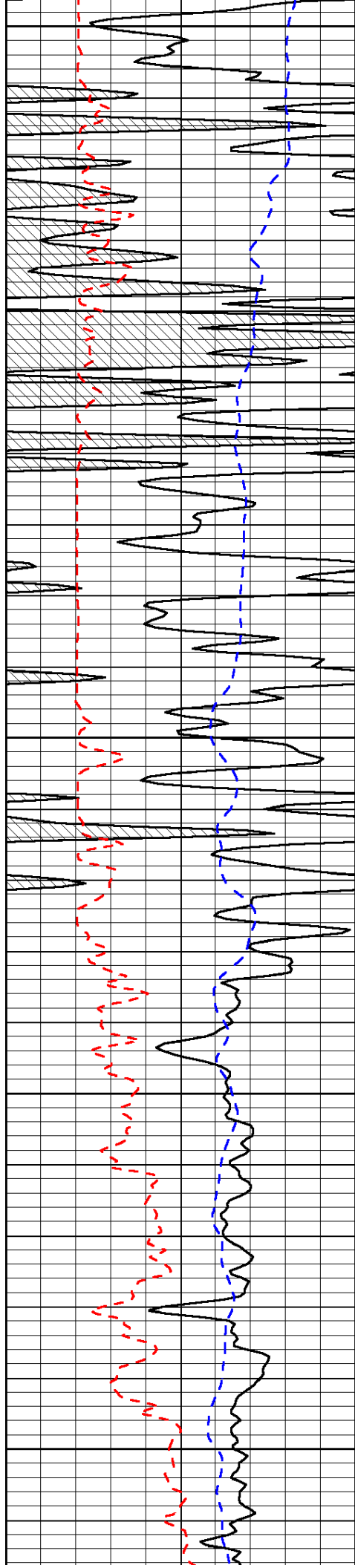


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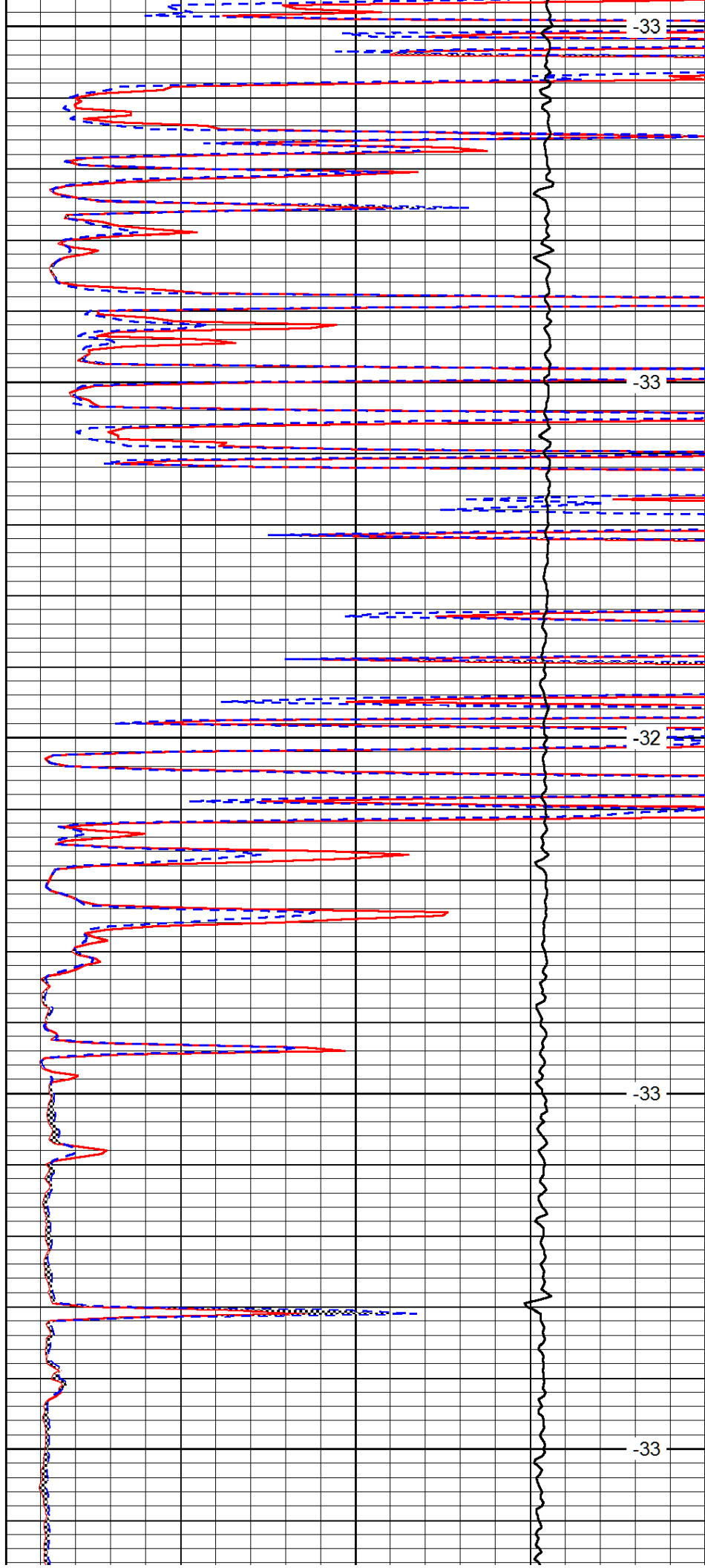
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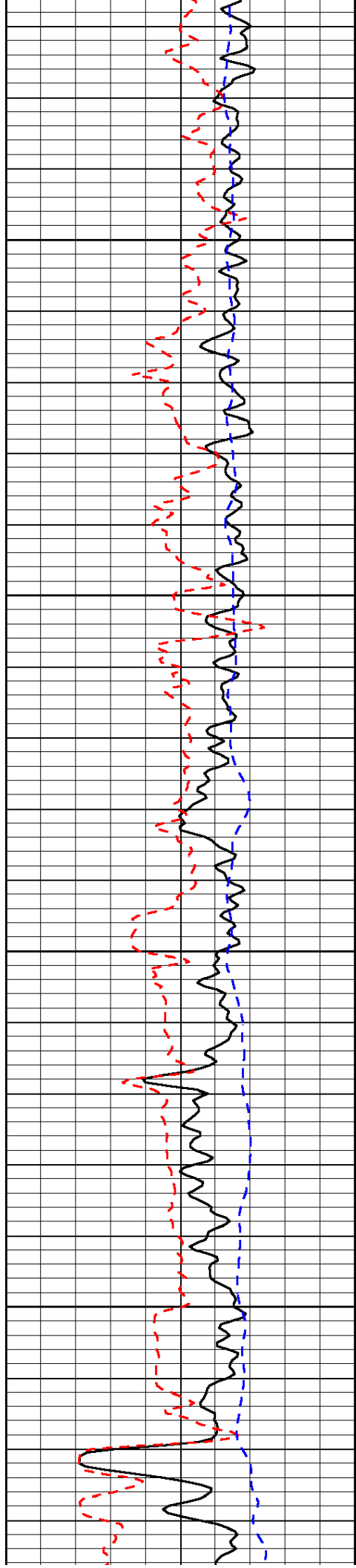
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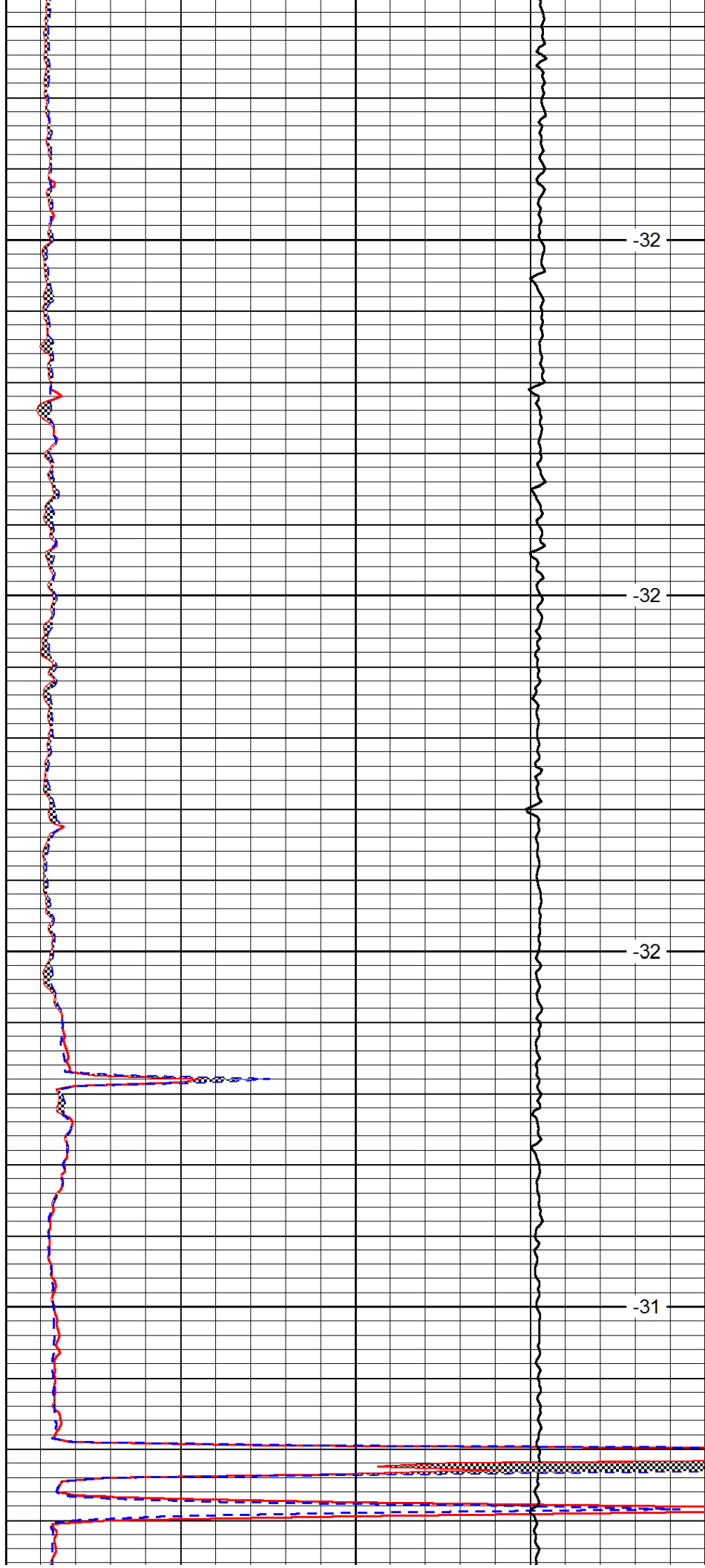


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5950

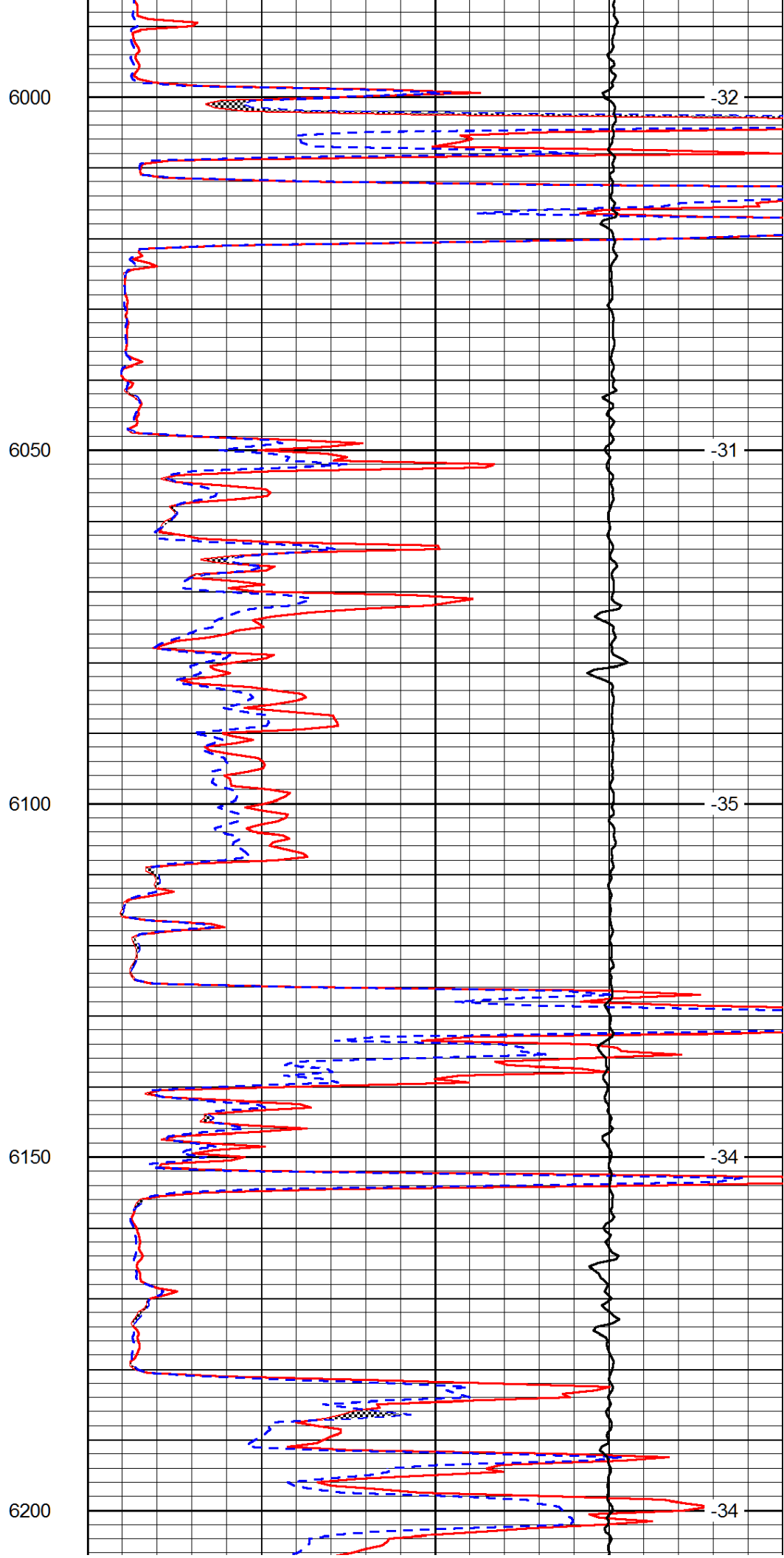
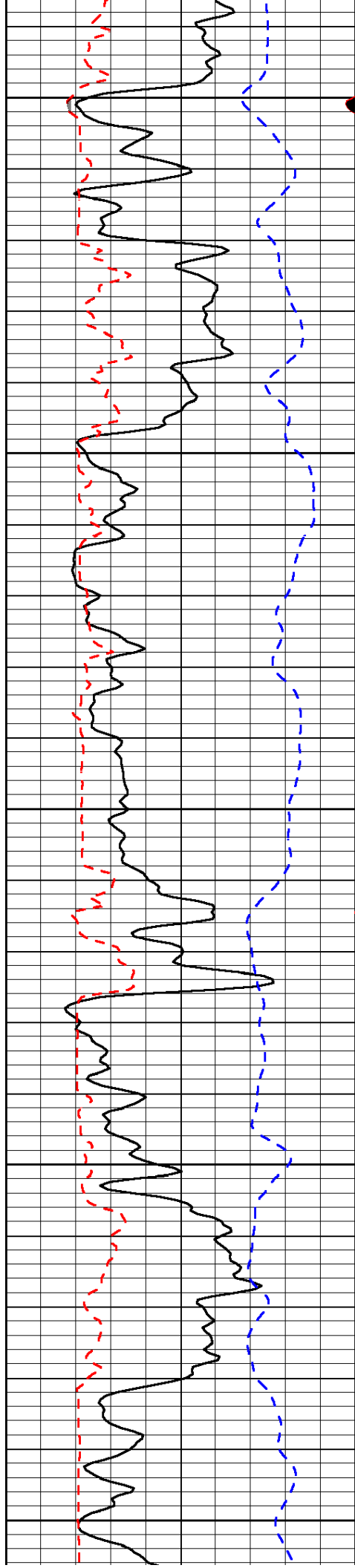


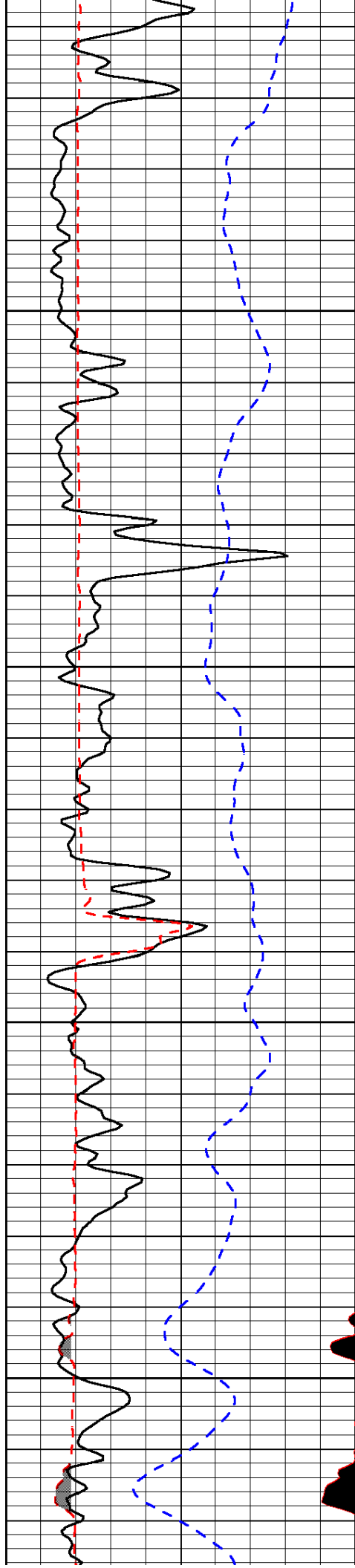
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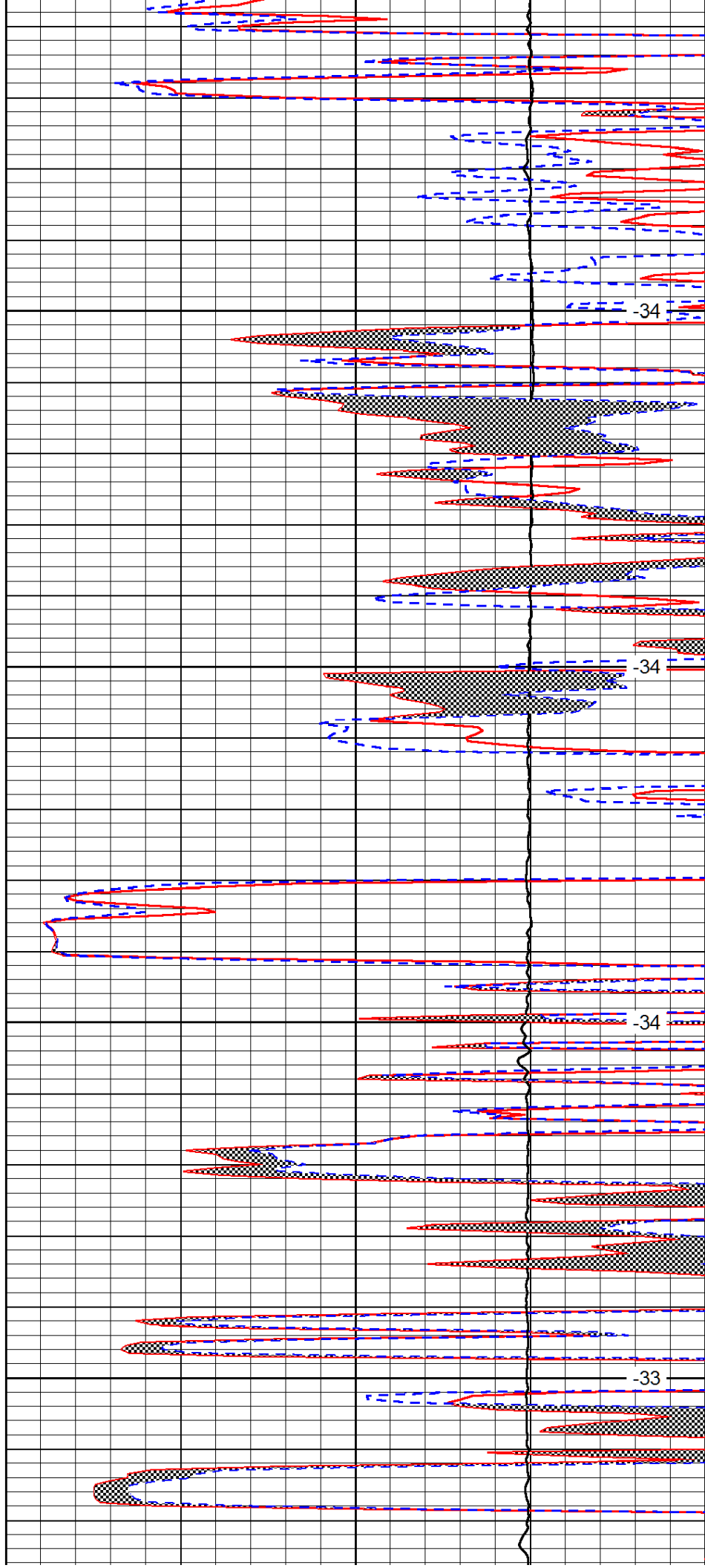


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6300

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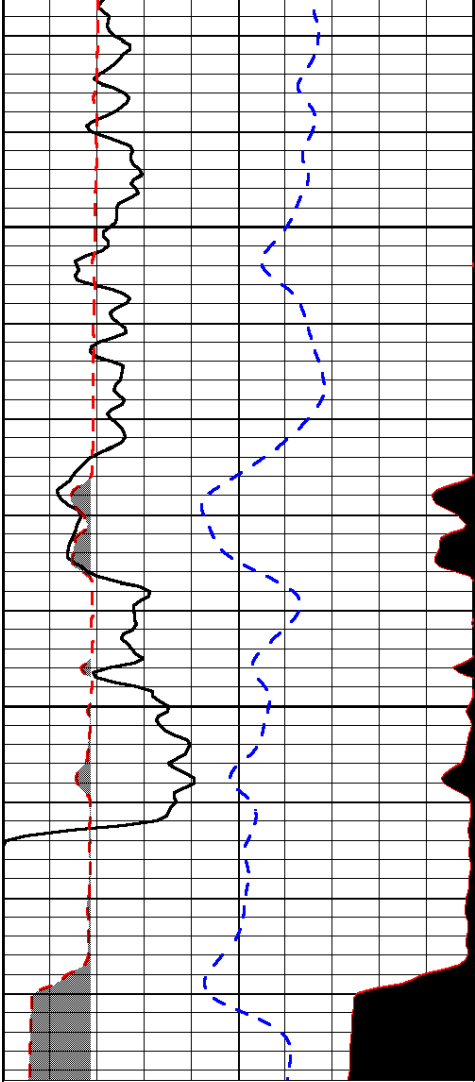


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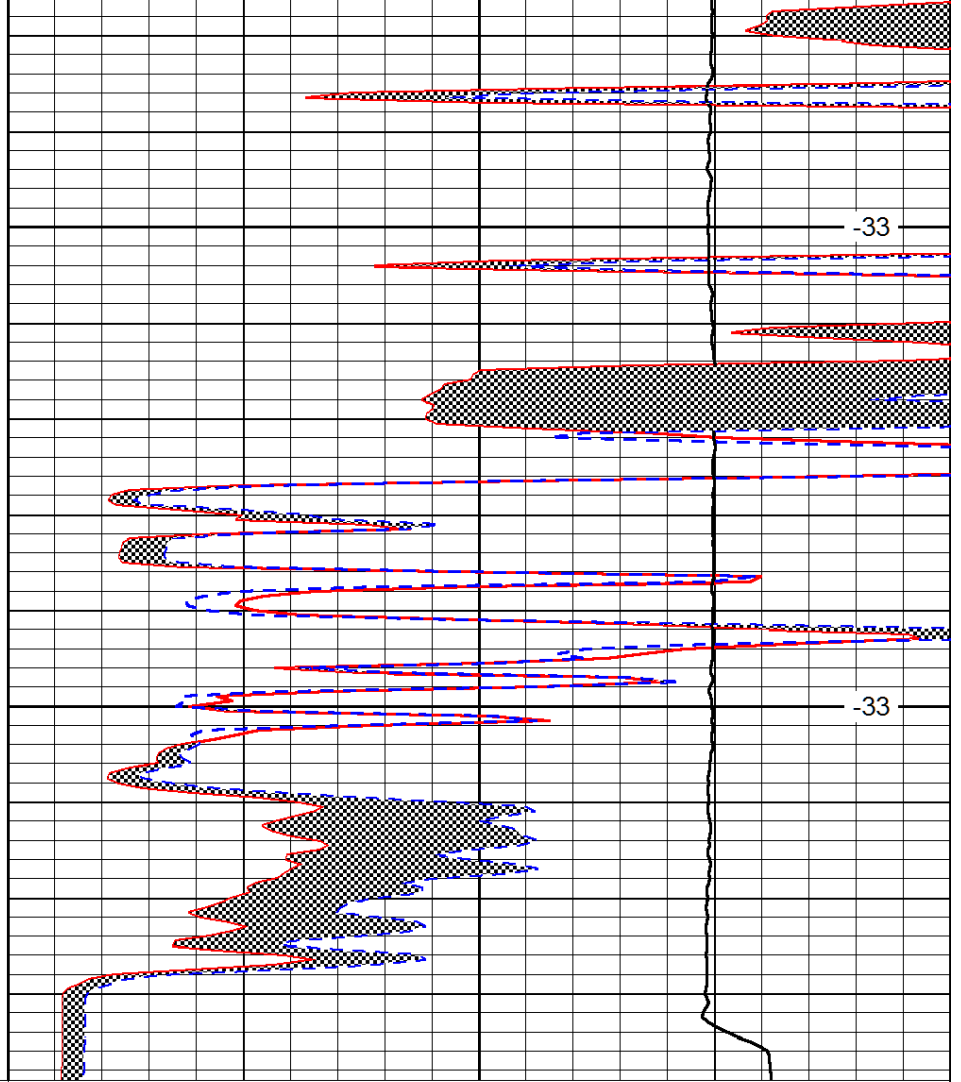
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