



Pioneer Energy Services

Microresistivity Log

15-095-22,292-00-00

API No.

Company **Messenger Petroleum, Inc.**

Well **Merven #1**

Field **Willowdale**

County **Kingman** State **Kansas**

Location **660' FNL & 1320' FWL**

Sec: **15** Twp: **29S** Rge: **9W**

Other Services
CNL/CDL
DIL

Permanent Datum **Ground Level** Elevation **1691**

Log Measured From **Kelly Bushing** **9** Ft. Above Perm. Datum

Drilling Measured From **Kelly Bushing**

Date **1/7/2015**

Run Number **Two**

Depth Driller **4568**

Depth Logger **4571**

Bottom Logged Interval **4570**

Top Log Interval **2300**

Casing Driller **8.625 @ 223**

Casing Logger **223**

Bit Size **7.875**

Type Fluid in Hole **Chemical**

Salinity, ppm CL **4000**

Density / Viscosity **9.3 56**

pH / Fluid Loss **11.0 9.0**

Source of Sample **Flowline**

Rm @ Meas. Temp **.40 @ 62**

Rmf @ Meas. Temp **.30 @ 62**

Rmc @ Meas. Temp **.54 @ 62**

Source of Rmf / Rmc **Charts**

Rm @ BHT **.20 @ 122**

Operating Rig Time **4 Hours**

Max Rec. Temp. F **122**

Equipment Number **108**

Location **Hays**

Recorded By **D. Fischer**

Witnessed By **Jon F. Messenger**

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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.pioneeres.com
 785 625 3858

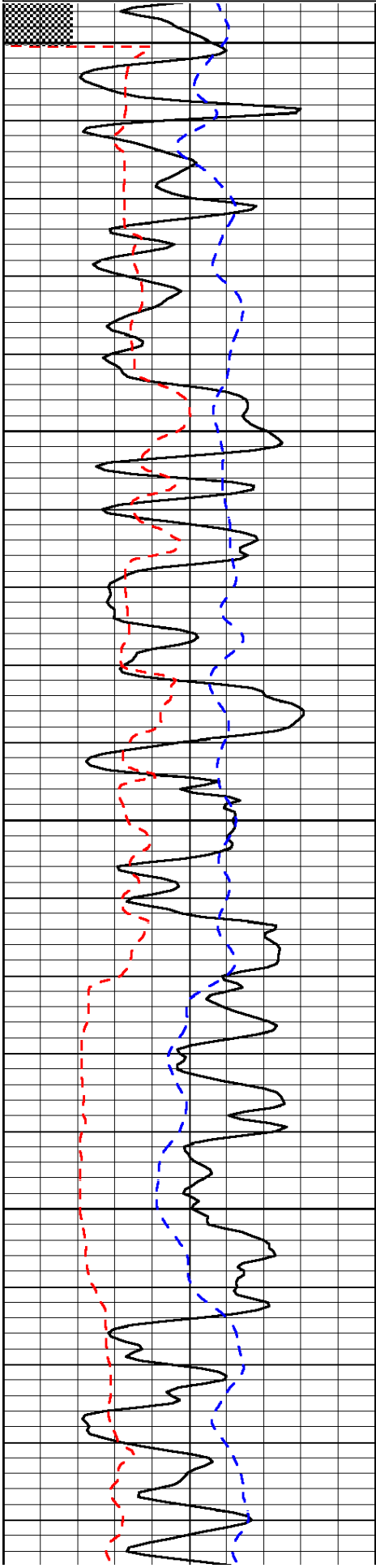
Hwy. 400 & Zenda Black Top, 8 South, 3/4 West, South Into.

Database File: c:\warrior\data\messenger_merven #1\messenger_petroleum_merven_1hd.db
 Dataset Pathname: DIL/messtck
 Presentation Format: micro
 Dataset Creation: Wed Jan 07 07:12:25 2015
 Charted by: Depth in Feet scaled 1:240

0	Gamma Ray	150
6	MCAL (GAPI)	16
-200	SP (mV)	0

0	Micro Inverse 1 X 1	40
0	Micro Normal 2"	40
15000	Line Weight	0

LSPD

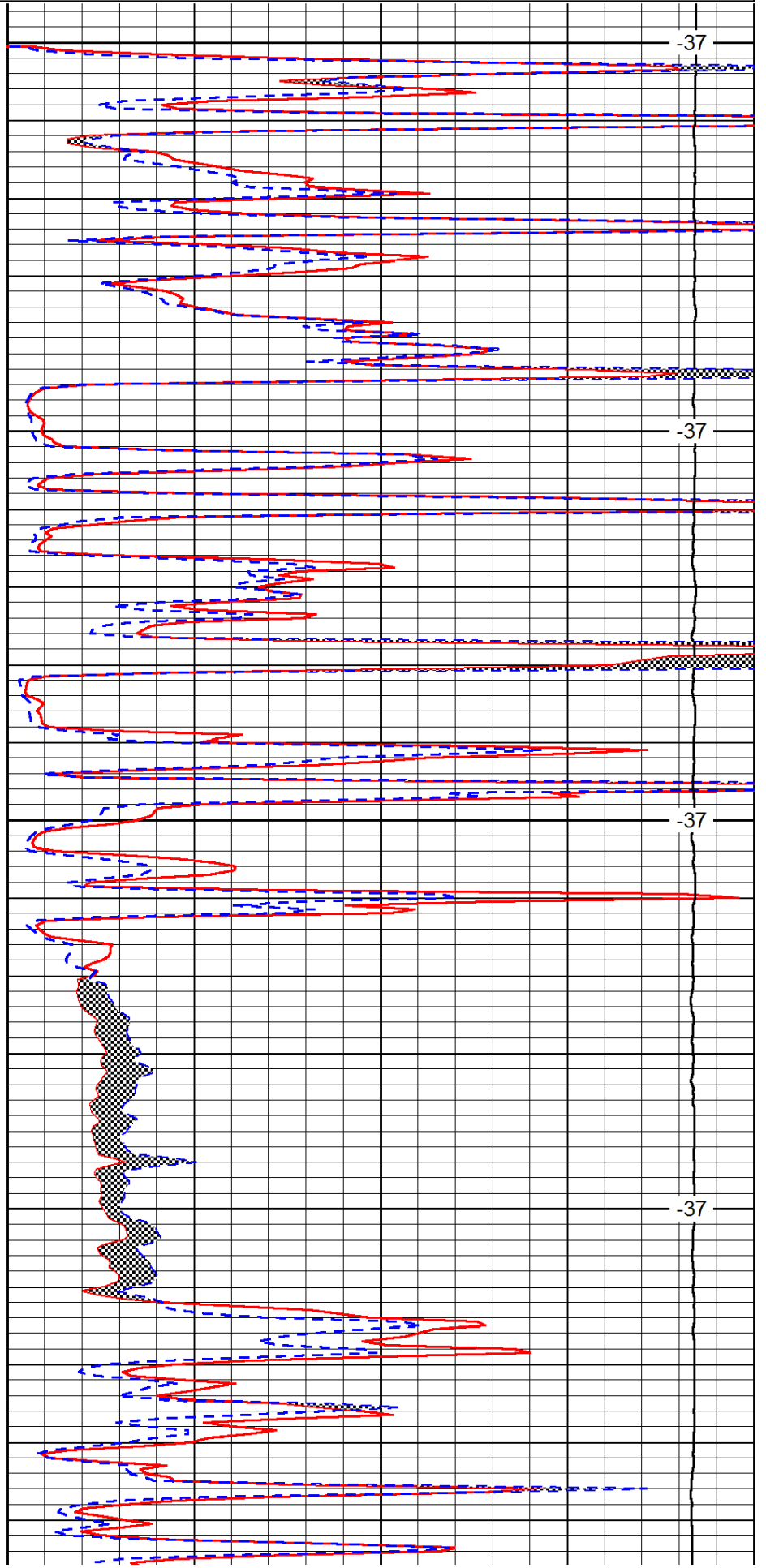


2300

2350

2400

2450

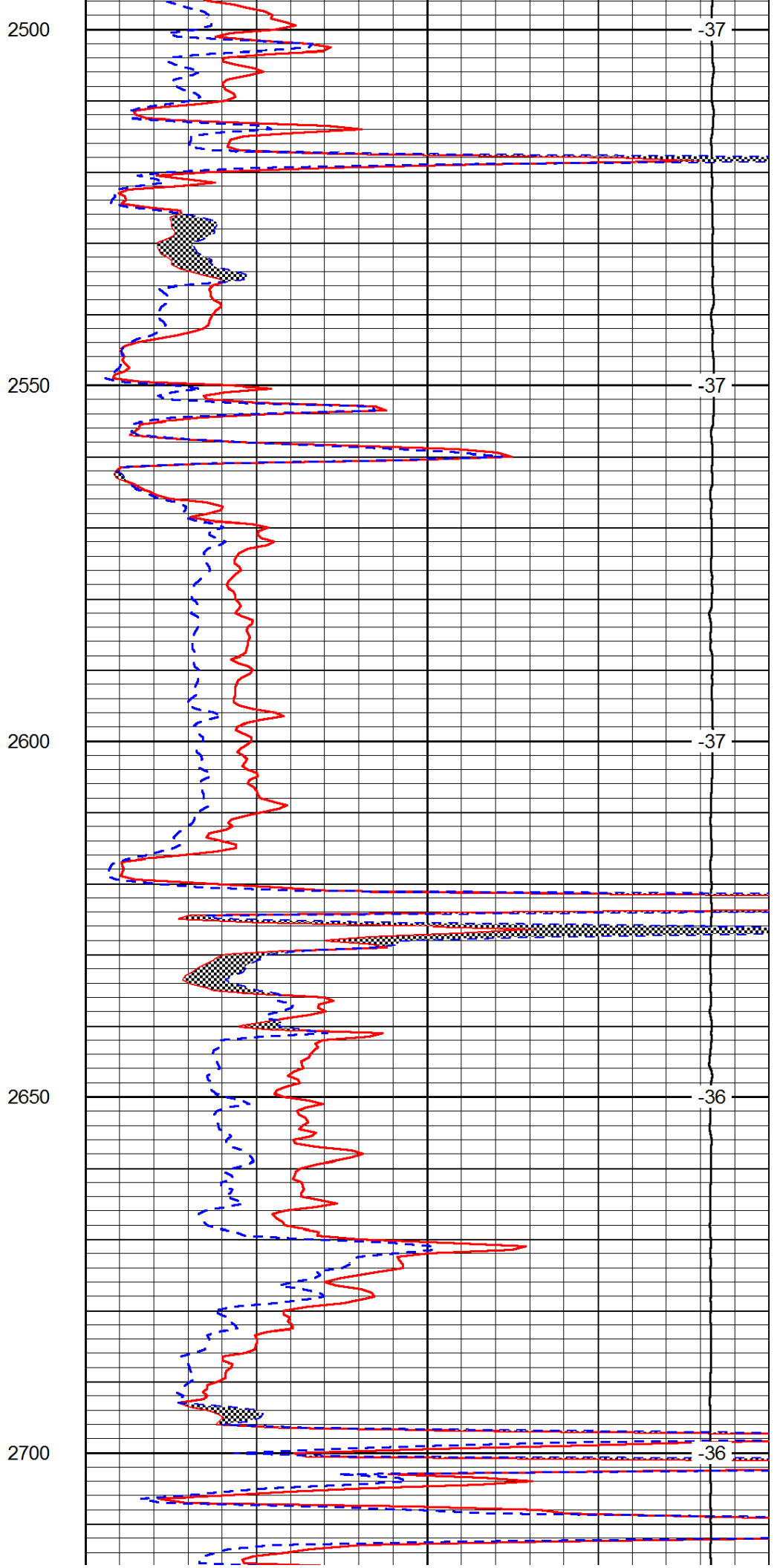
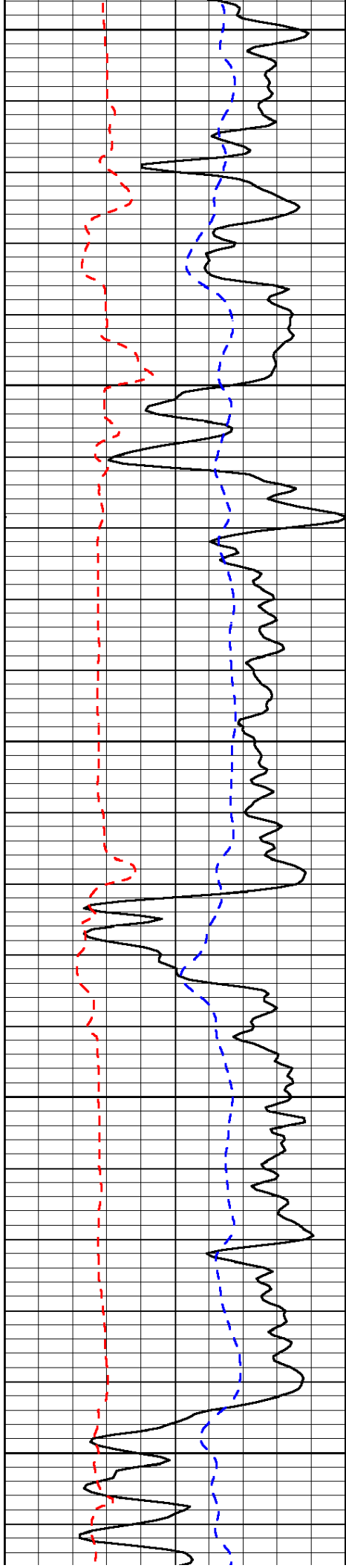


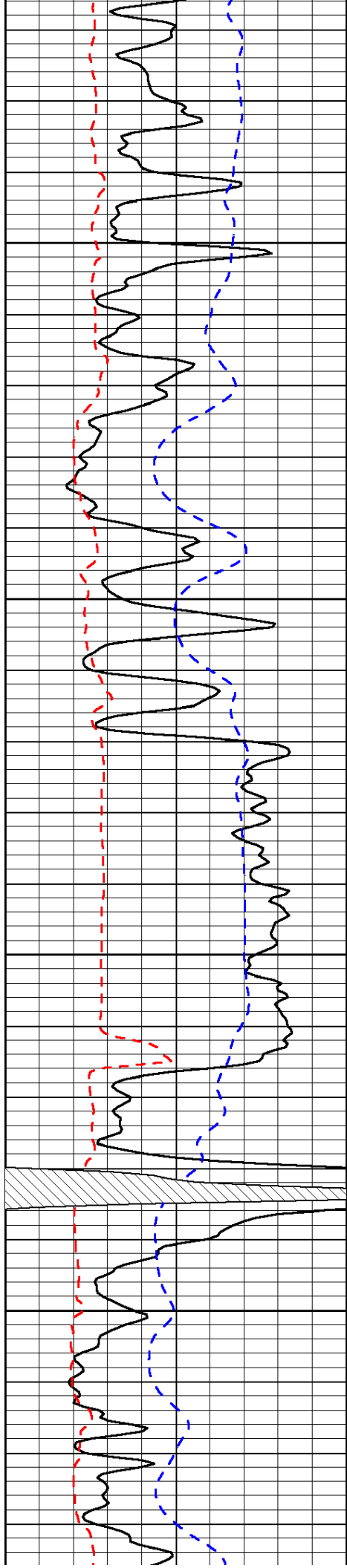
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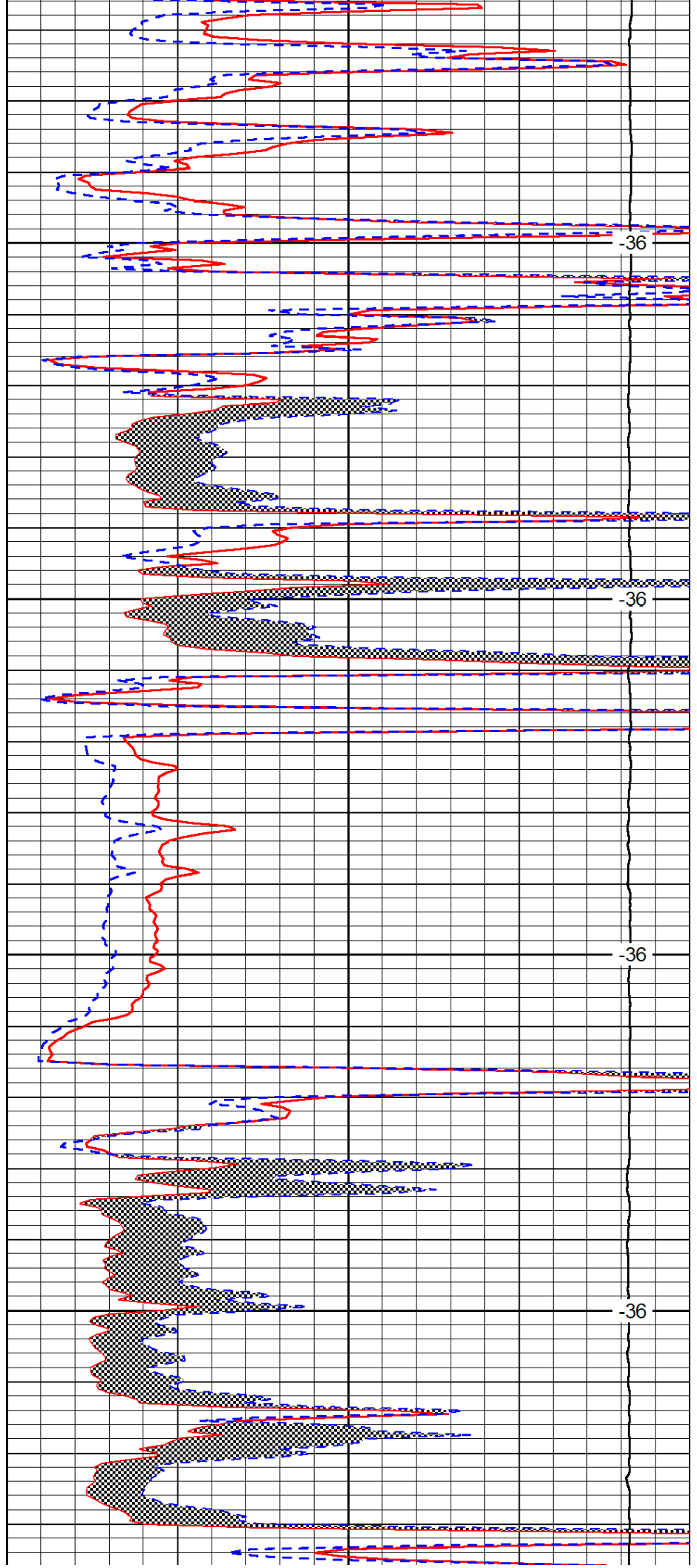


2750

2800

2850

2900

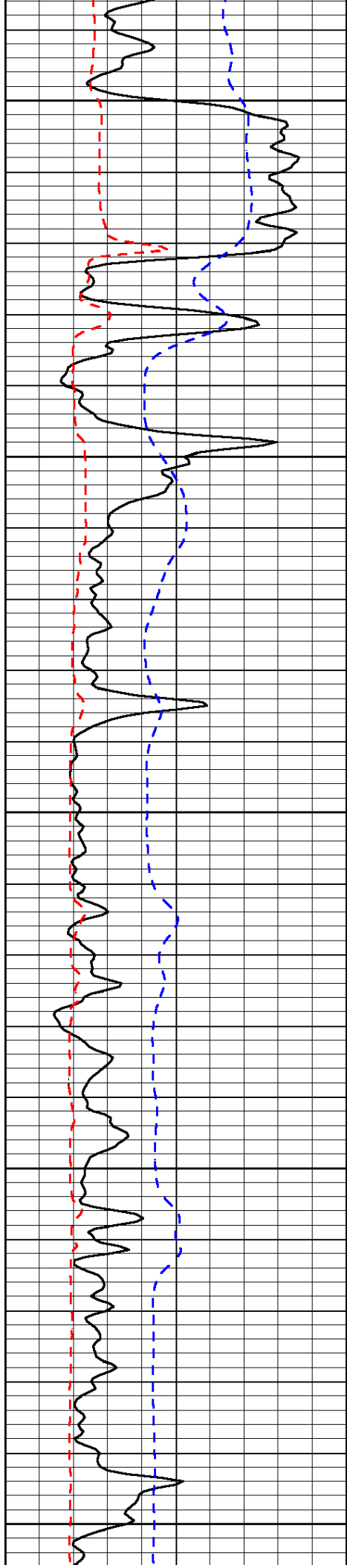


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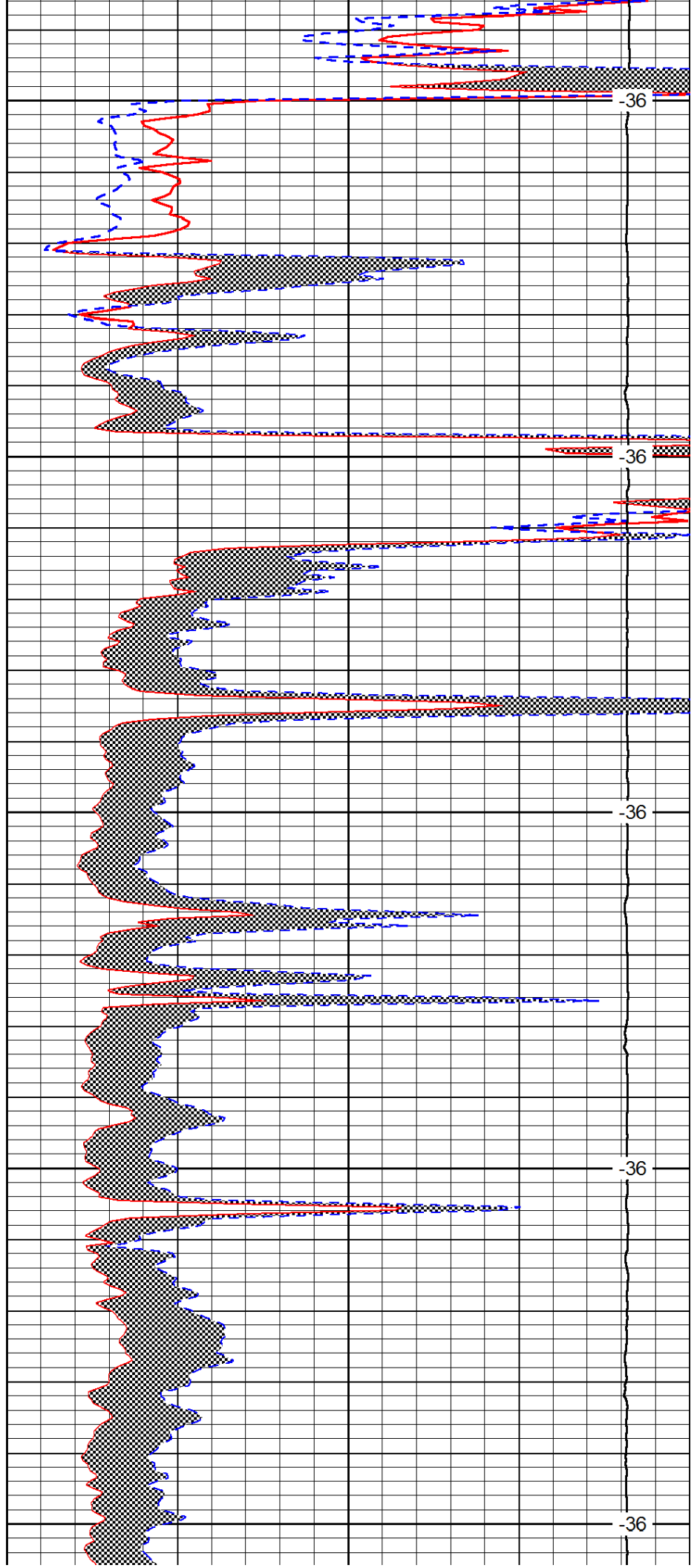
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3000

3050

3100

3150



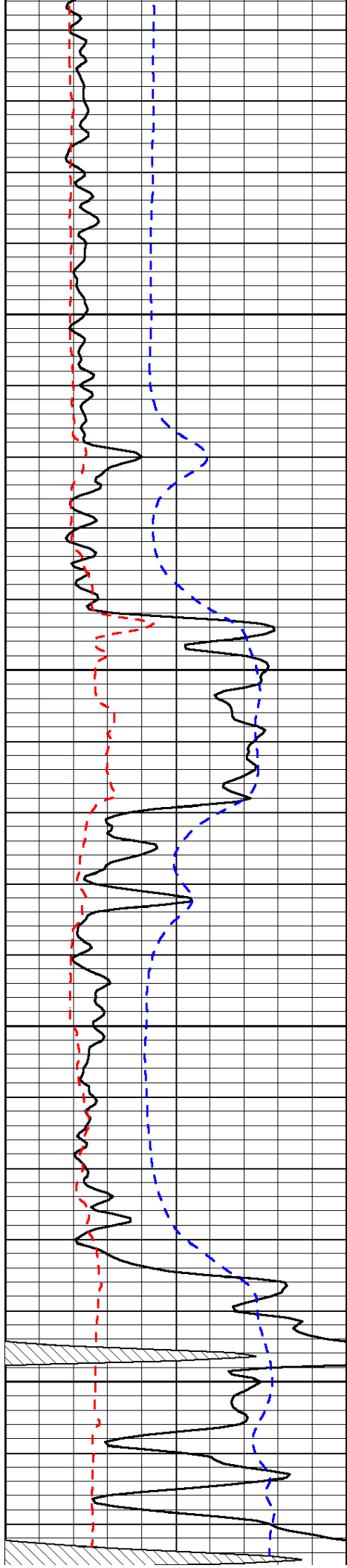
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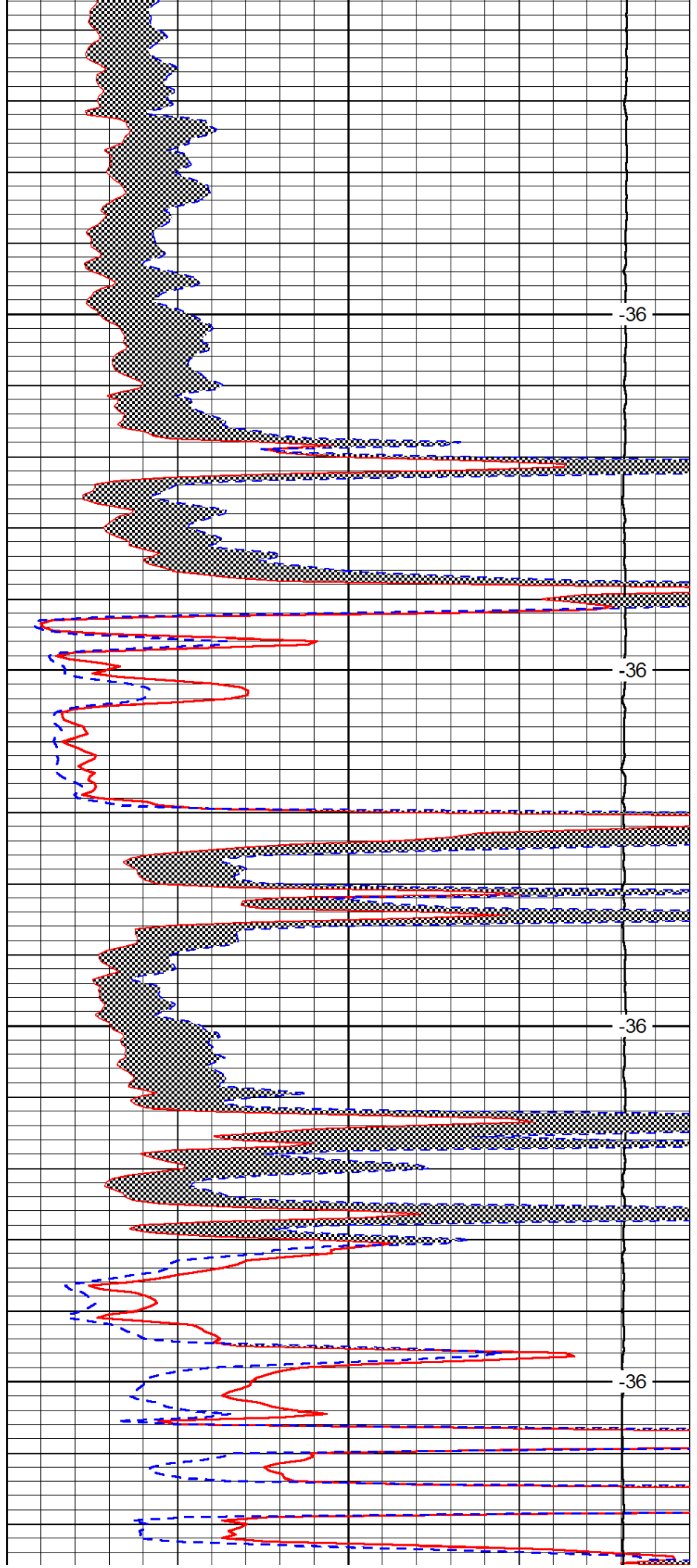


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3250

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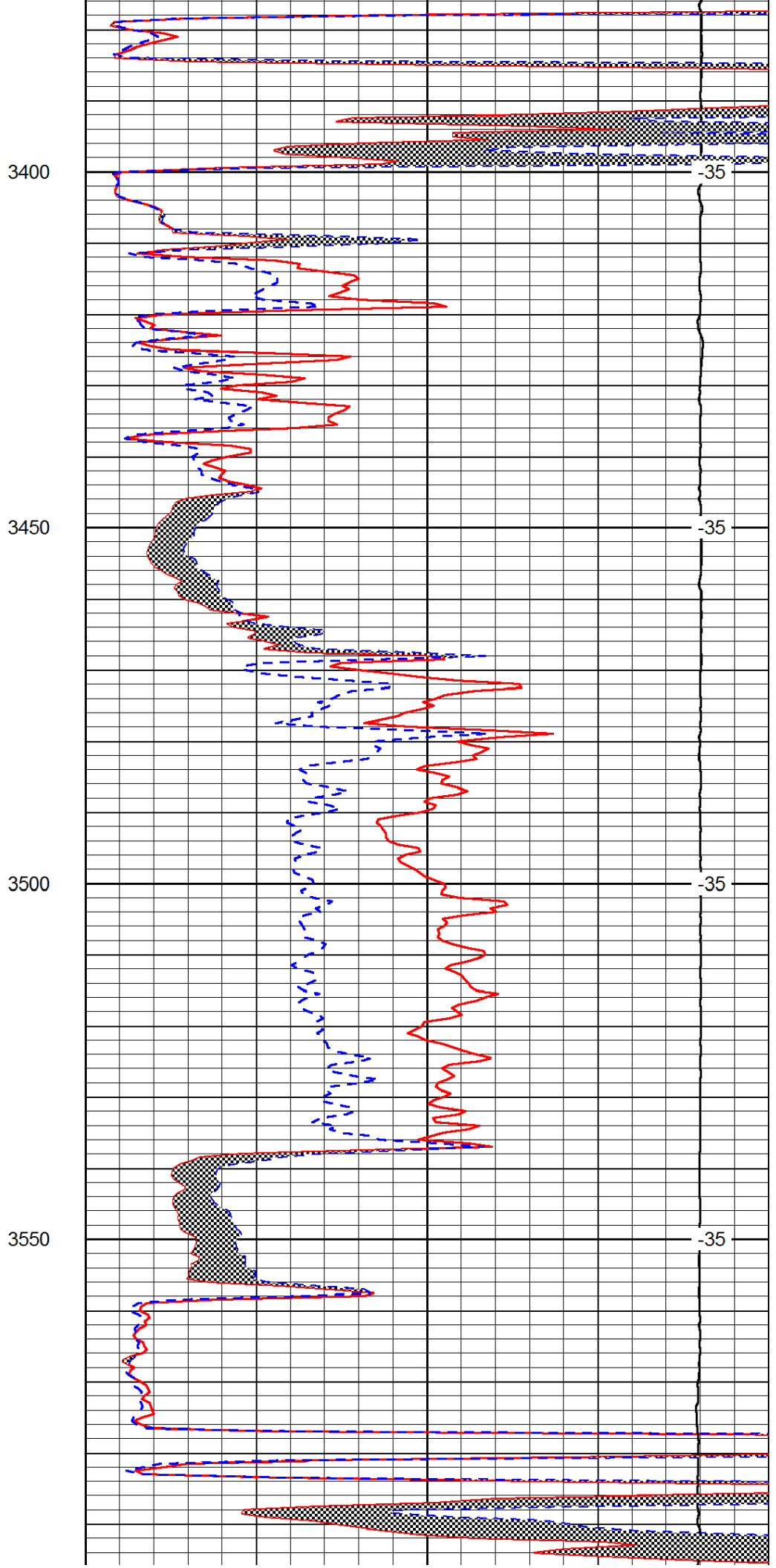
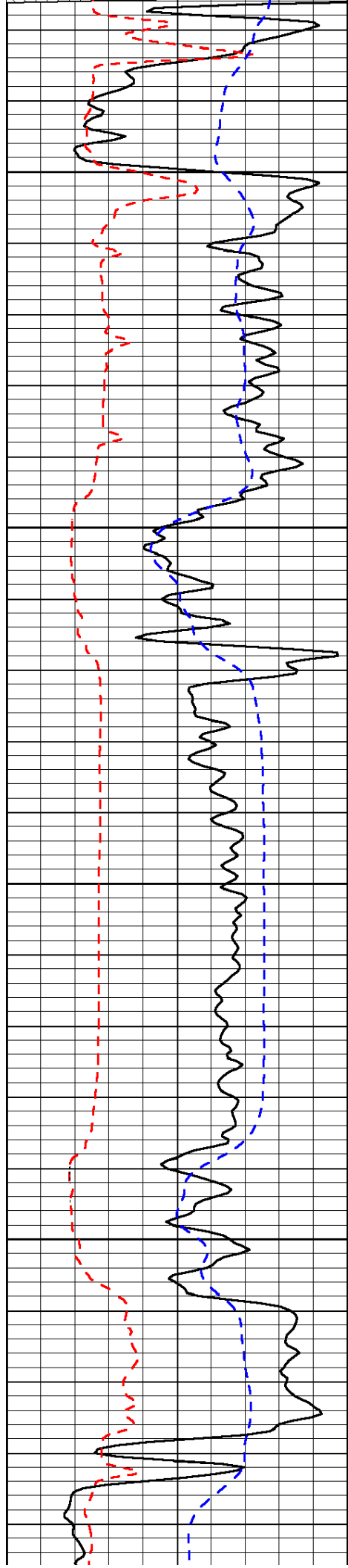


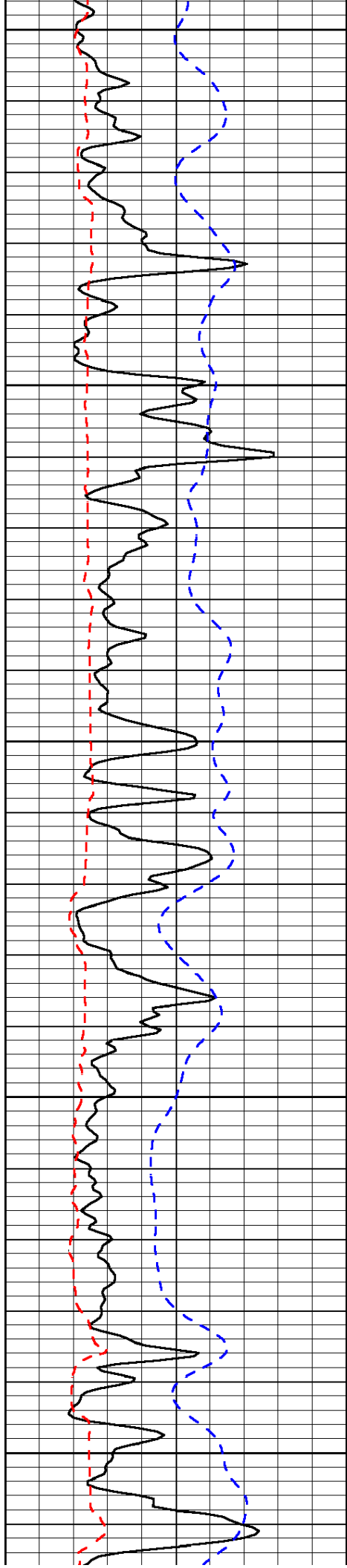
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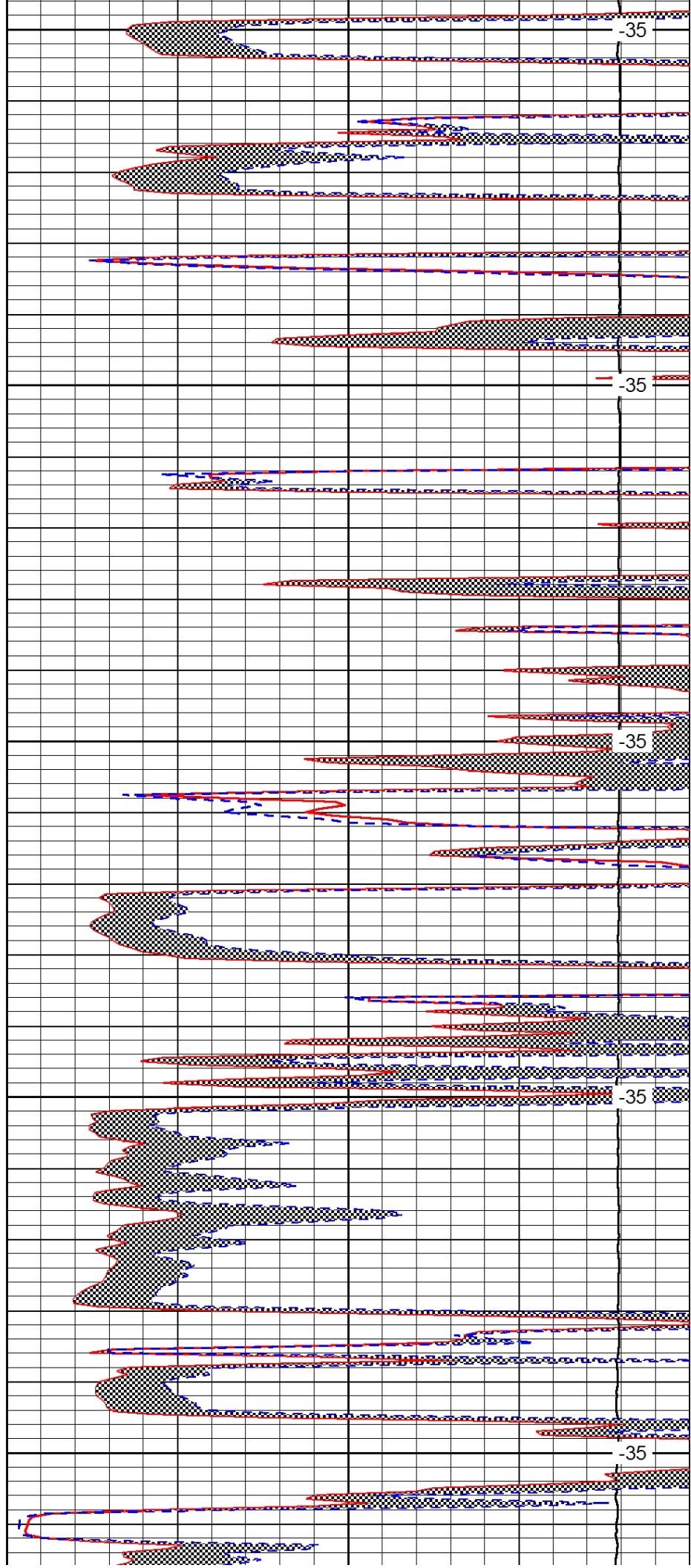
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3800



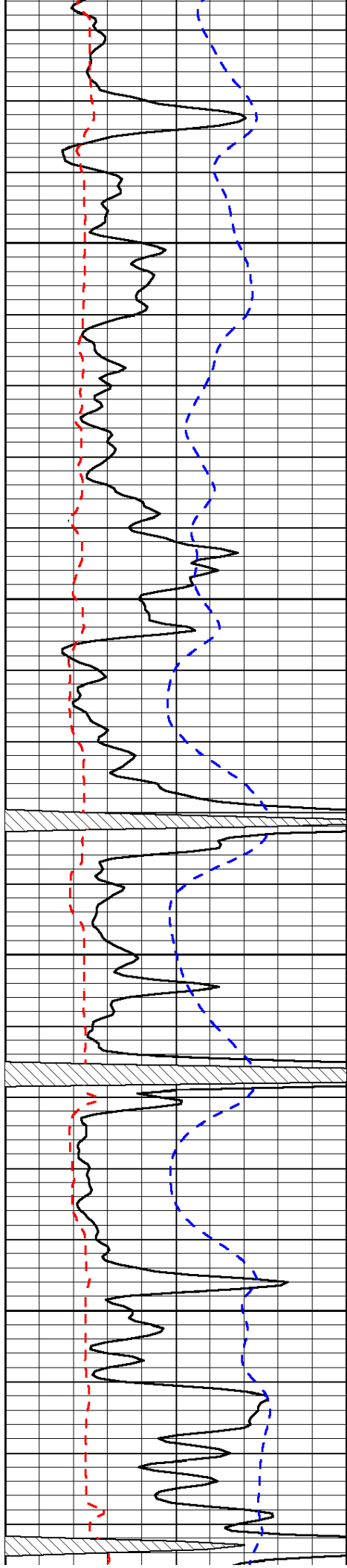
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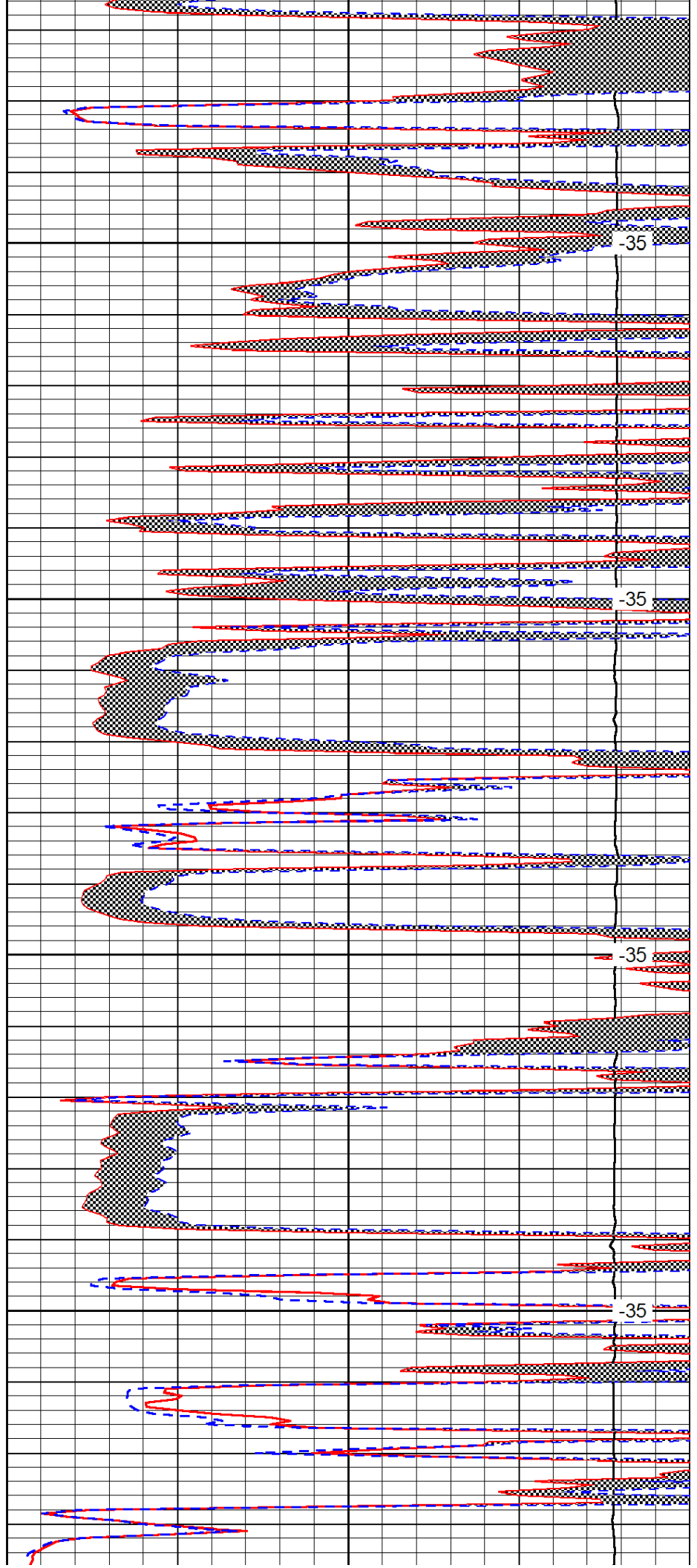


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3900

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4000

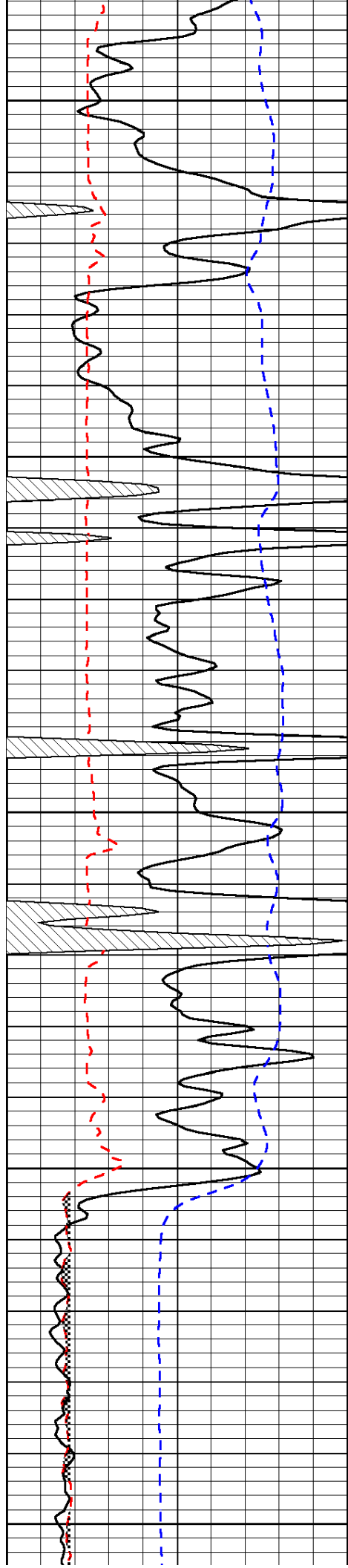


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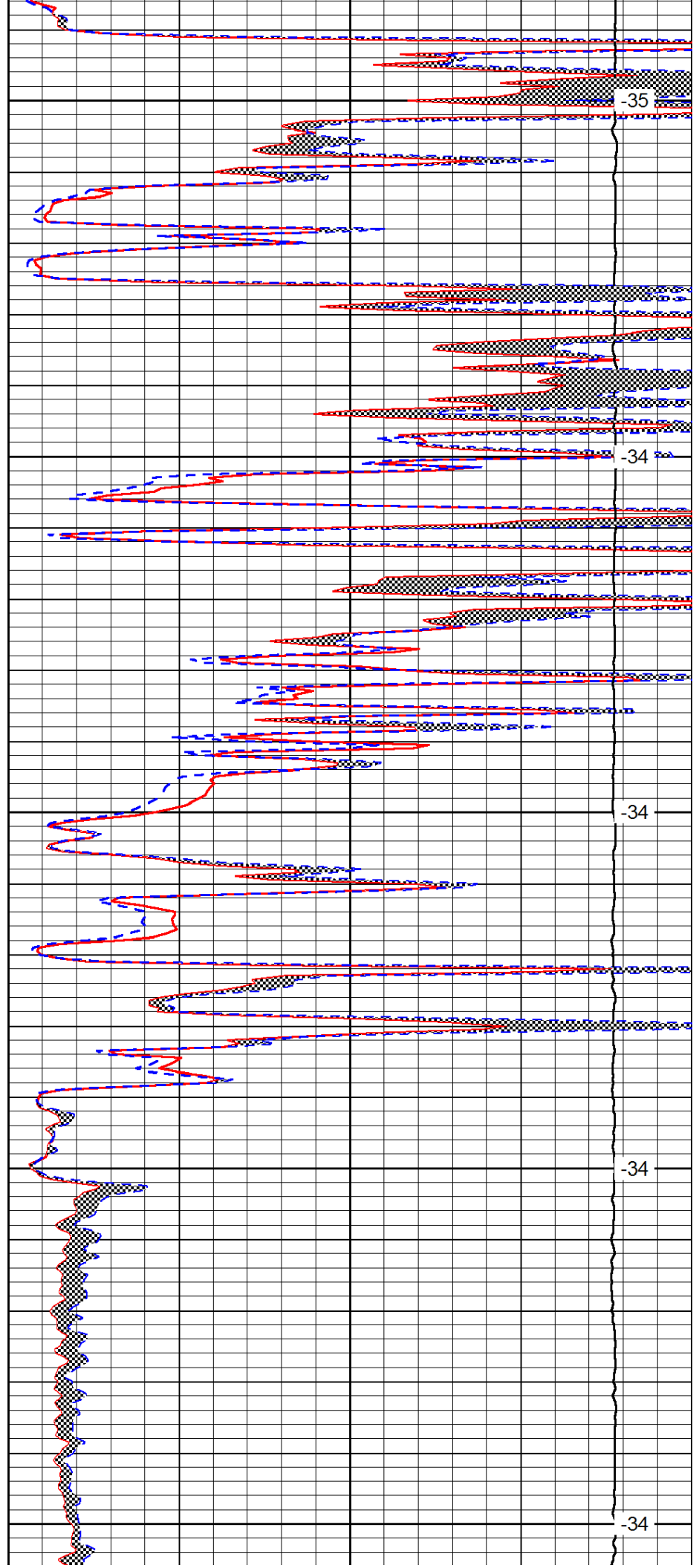
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4200

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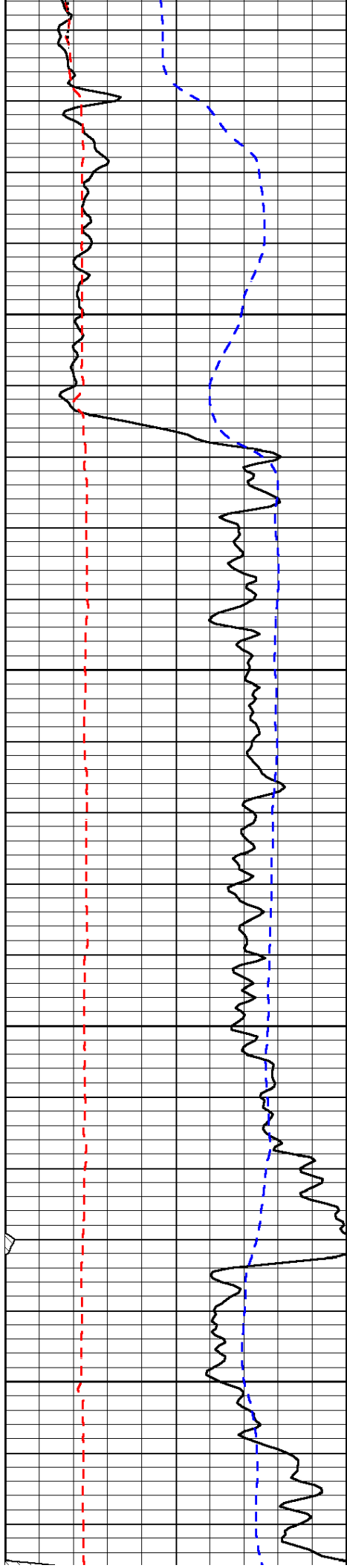
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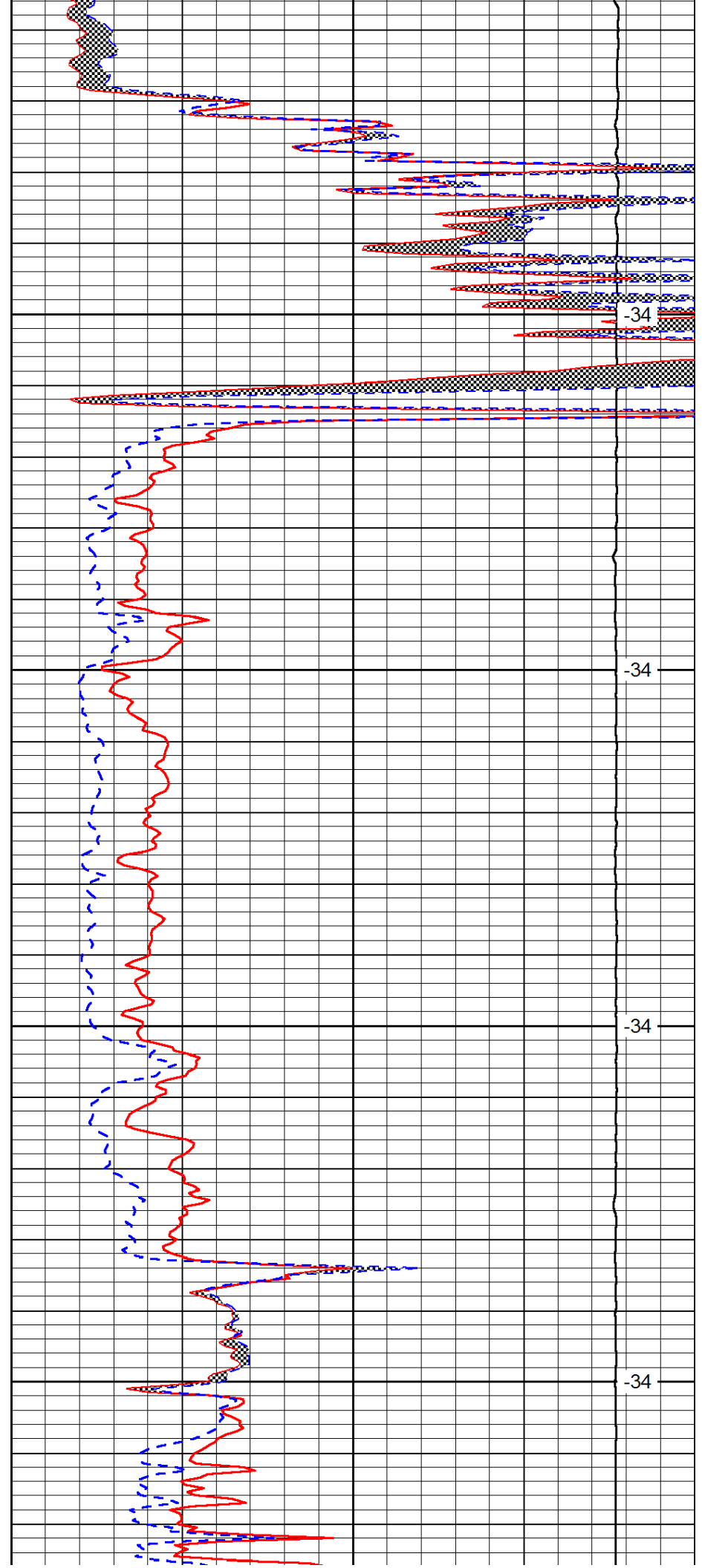


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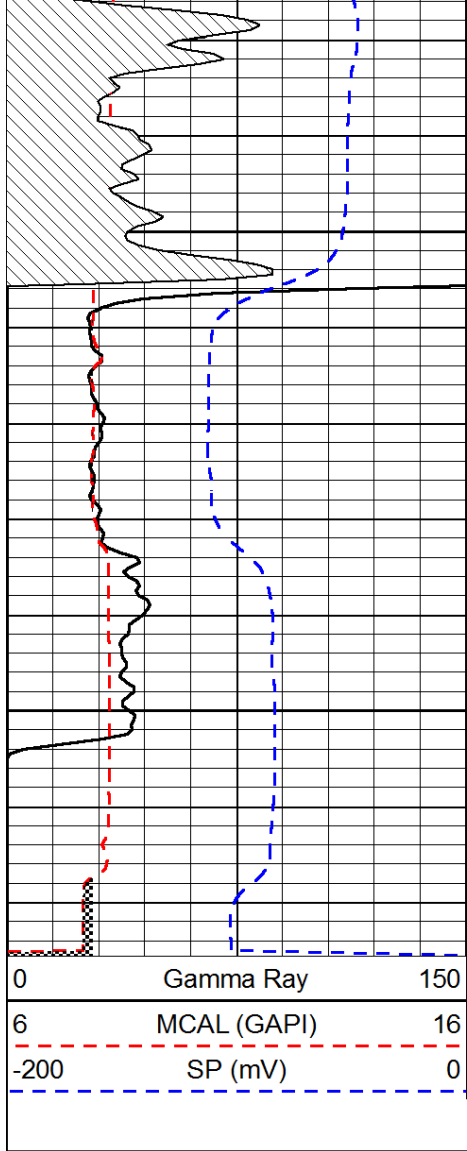


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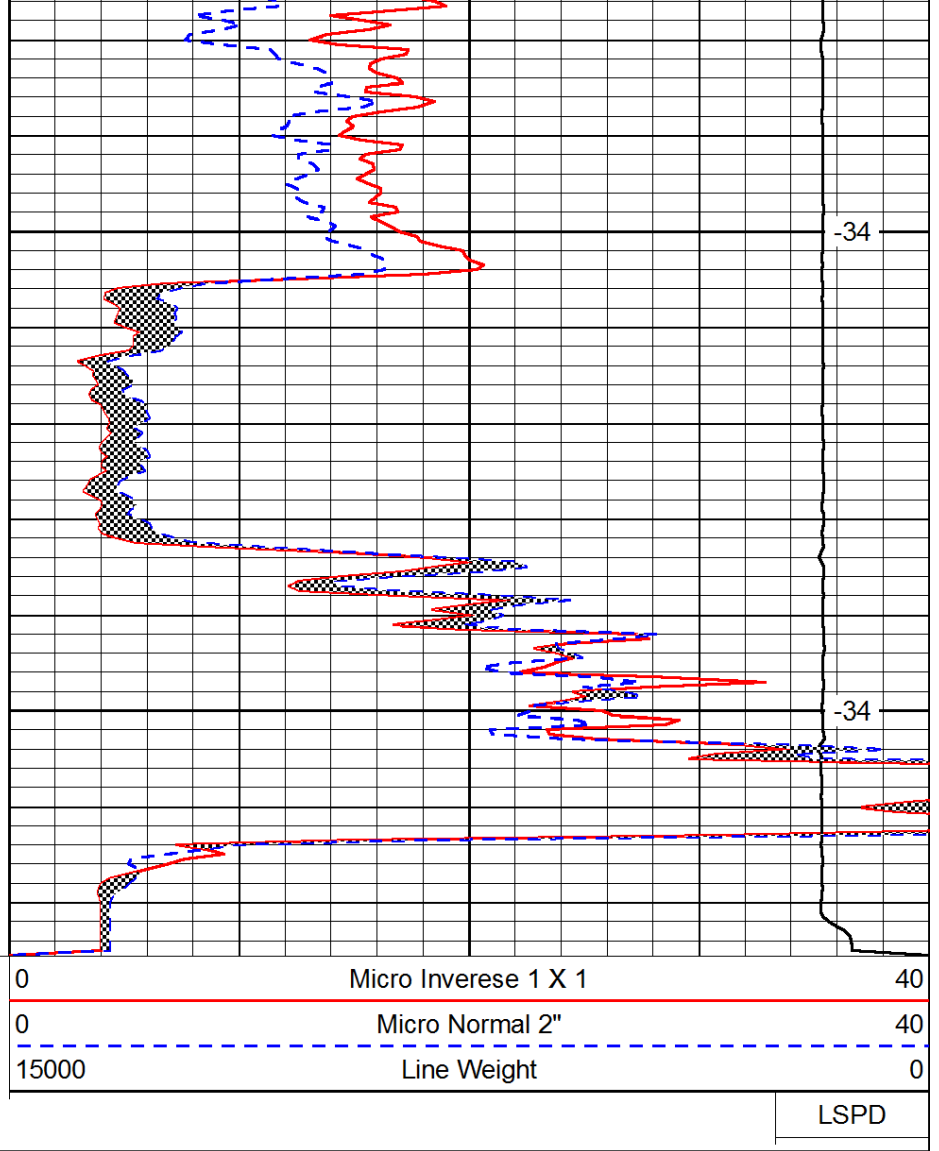
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4500

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LSPD