



Pioneer Energy Services

Microresistivity Log

15-135-25566-00-00

API No.

Company **American Warrior, Inc.**

Well **Rothe #3-30**

Field **Unknown**

County **Ness** State **Kansas**

Location **1150' FNL & 2000' FWL**

Sec: **30** Twp: **19 S** Rge: **24 W**

Permanent Datum **Ground Level** Elevation **2334**

Log Measured From **Kelly Bushing** 11 Ft. Above Perm. Datum

Drilling Measured From **Kelly Bushing**

Other Services
CNL/CDL
DIL

Elevation
K.B. 2345
D.F. 2334
G.L. 2334

Date	5/1/2013
Run Number	Two
Depth Driller	4500
Depth Logger	4501
Bottom Logged Interval	4500
Top Log Interval	3700
Casing Driller	8.625 @ 220
Casing Logger	222
Bit Size	7.875
Type Fluid in Hole	Chemical
Salinity, ppm CL	6300
Density / Viscosity	9.4 51
pH / Fluid Loss	9.0 8.4
Source of Sample	Flowline
Rm @ Meas. Temp	0.30 @ 60
Rmf @ Meas. Temp	0.22 @ 60
Rmc @ Meas. Temp	0.40 @ 60
Source of Rmf / Rmc	Charts
Rm @ BHT	0.15 @ 123
Operating Rig Time	123
Max Rec. Temp. F	4 Hours
Equipment Number	91
Location	Hays
Recorded By	Y. Ruiz
Witnessed By	Kevin Timson
	D. Schmidt

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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

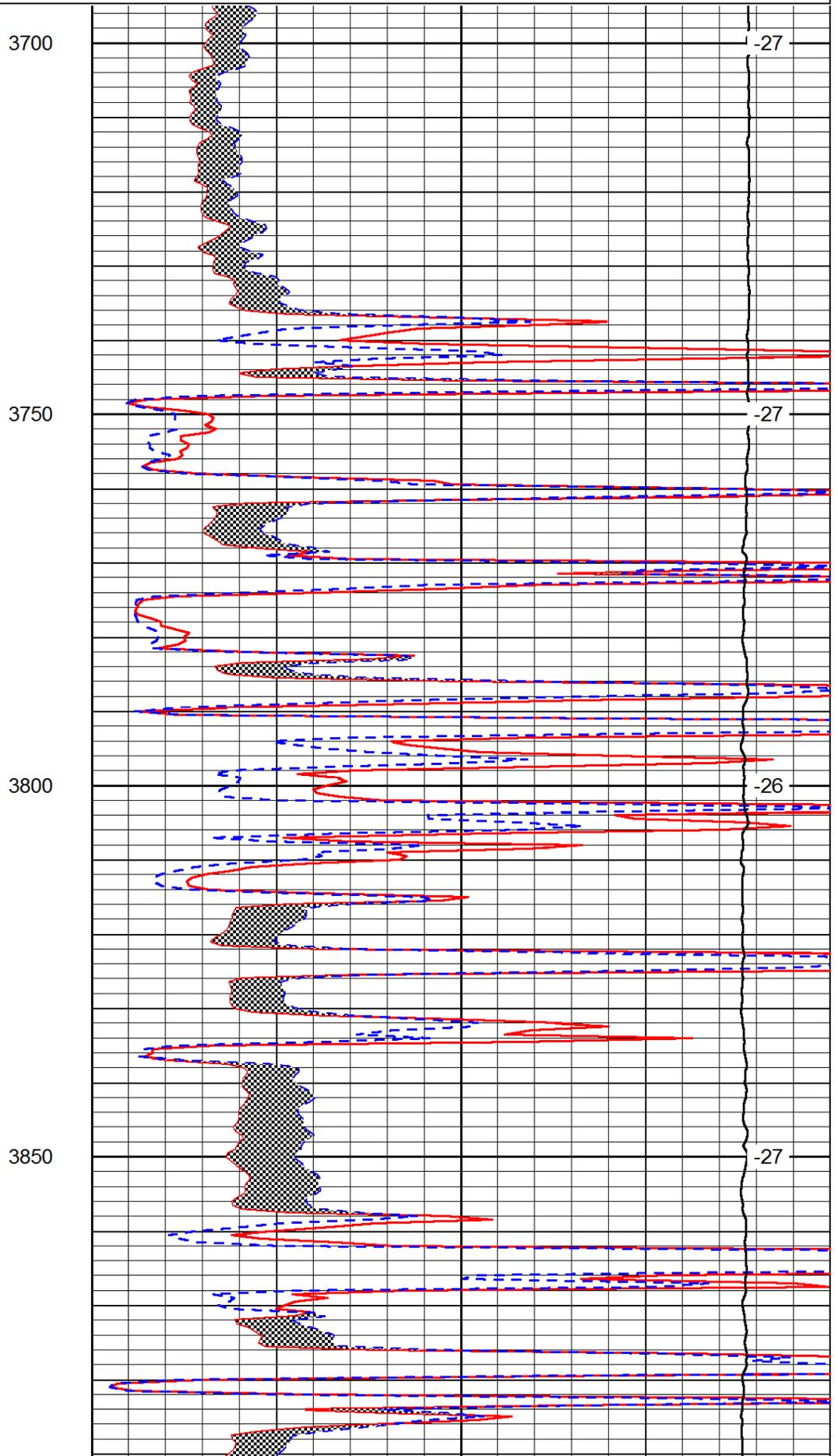
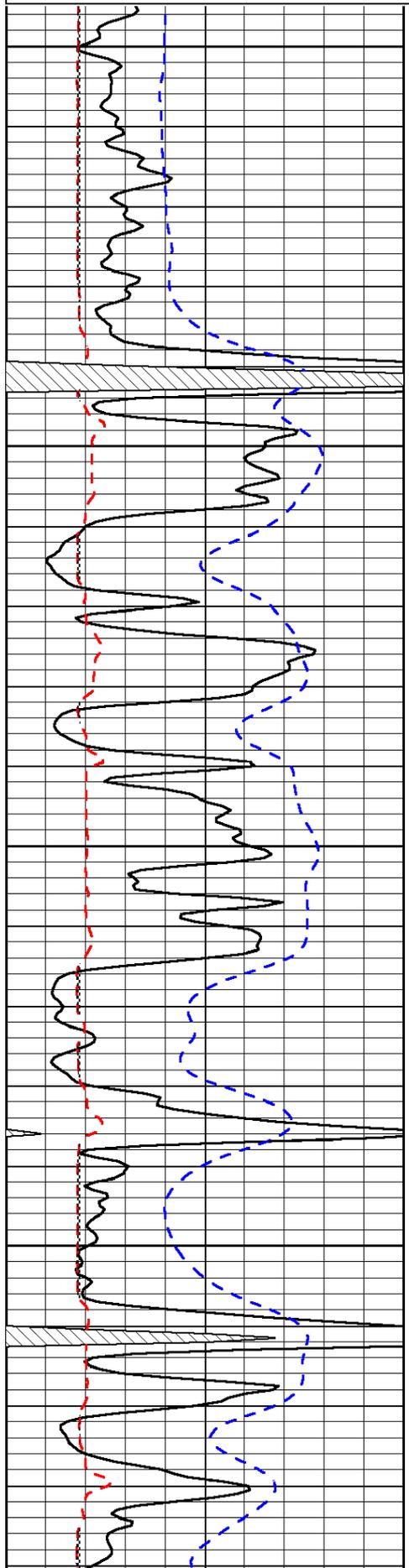
Thank you for using Pioneer Energy Services
www.pioneerenergy.com
 785 625 3858
 Ness City,
 7 South to 60 Rd, 7 West to L Rd,
 1 1/2 North, 1/4 East,
 North into

Database File: c:\warrior\data\amwar_rothe #3-30\american warrior_050113hd.db
 Dataset Pathname: DIL\awstk
 Presentation Format: micro
 Dataset Creation: Wed May 01 03:48:40 2013
 Charted by: Depth in Feet scaled 1:240

0	Gamma Ray	150
6	Micro Log Caliper (GAPI)	16
-200	SP (mV)	0

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

LSPD



3700

-27

3750

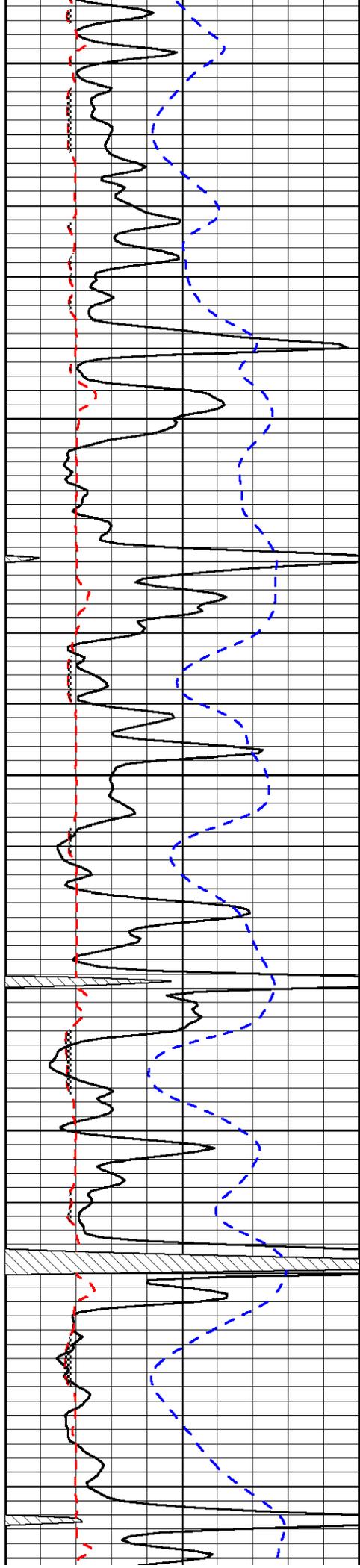
-27

3800

-26

3850

-27



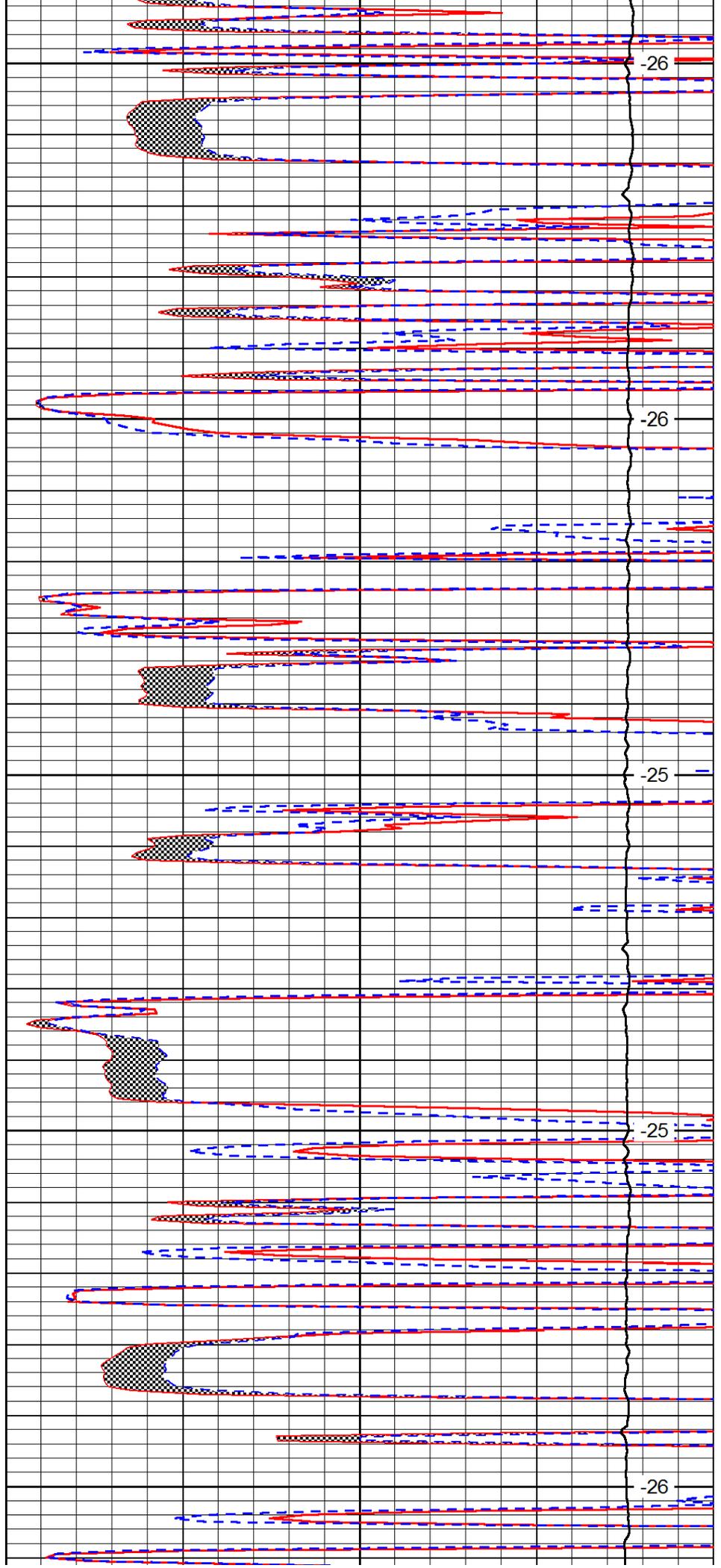
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3950

4000

4050

4100



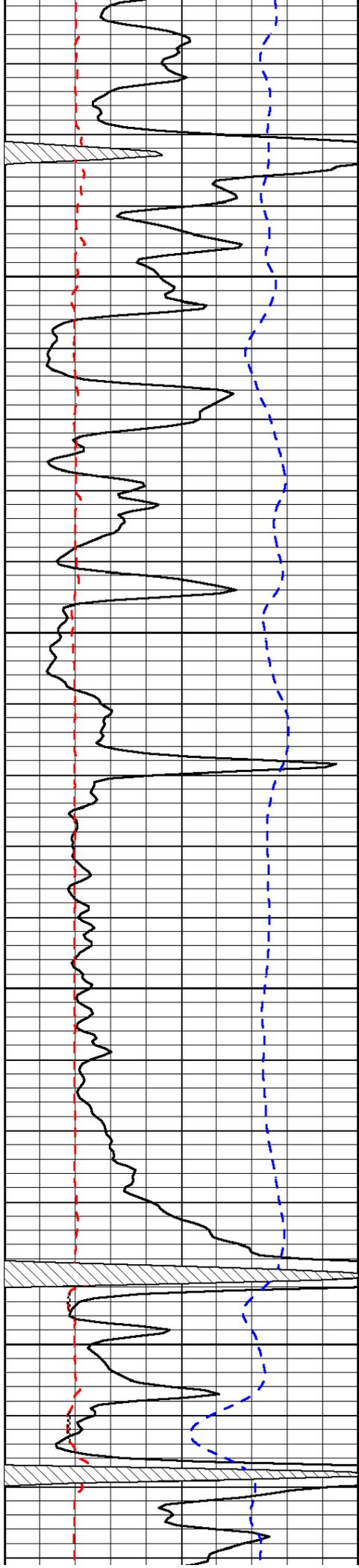
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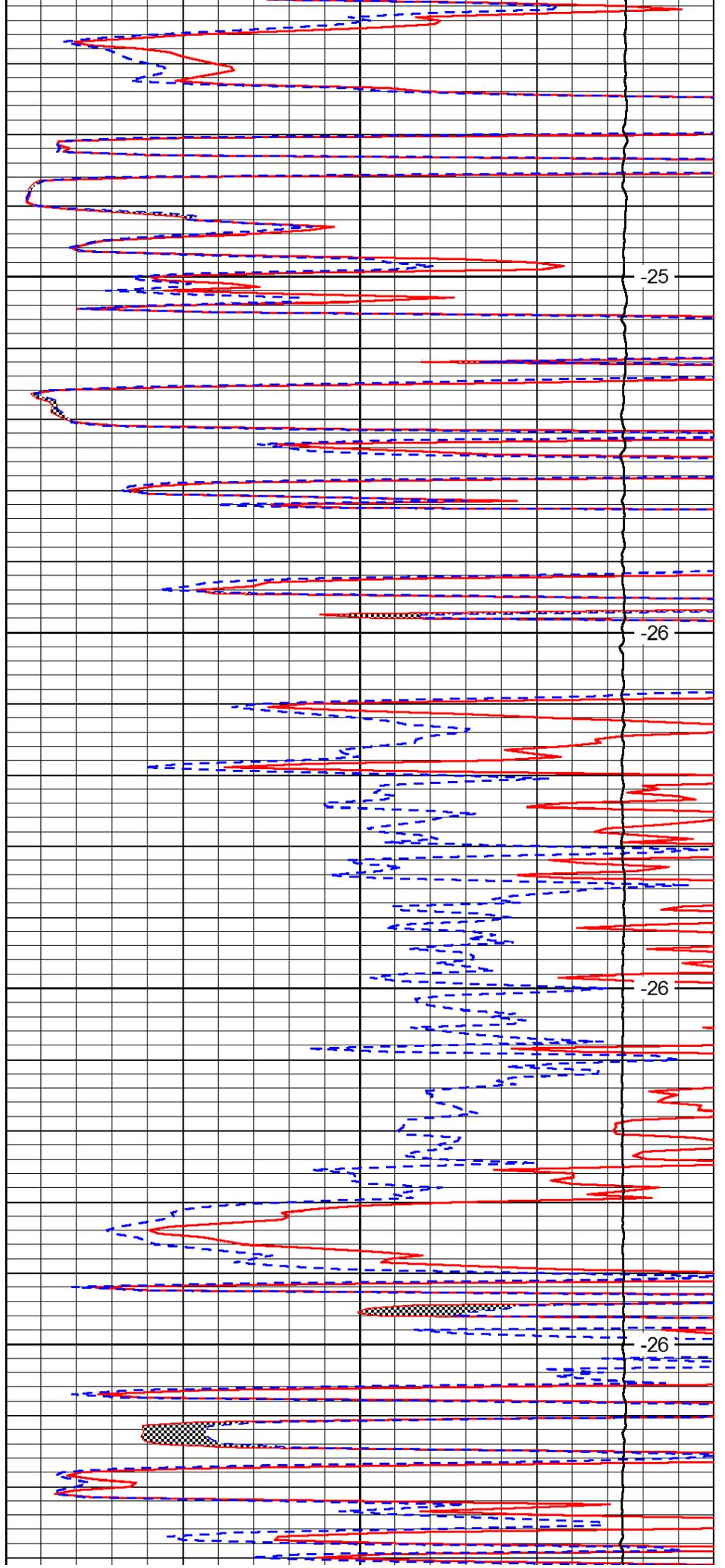


4150

4200

4250

4300

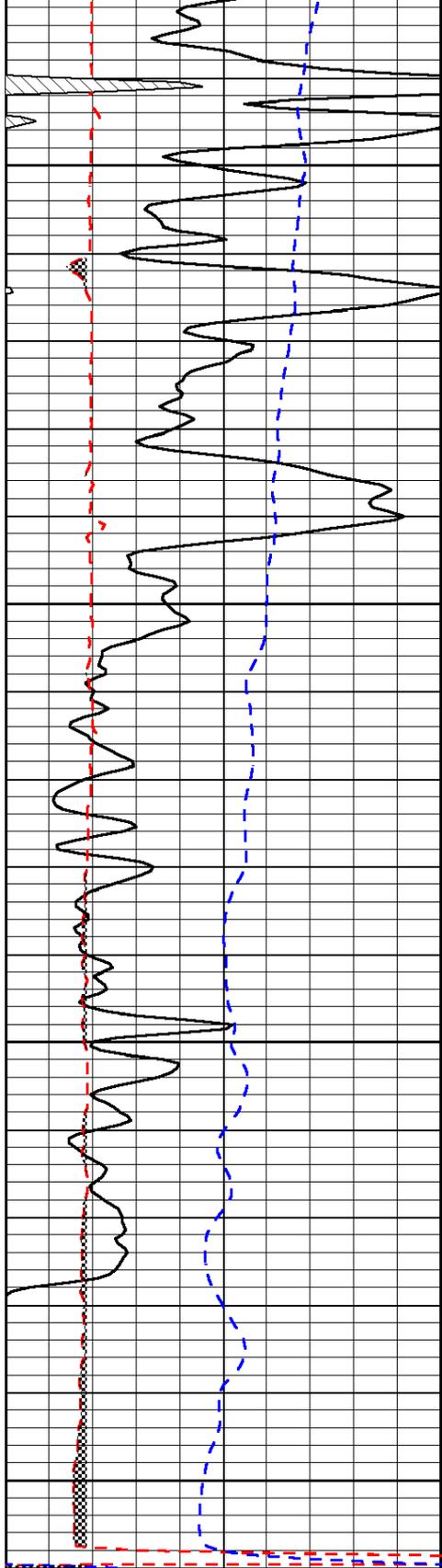


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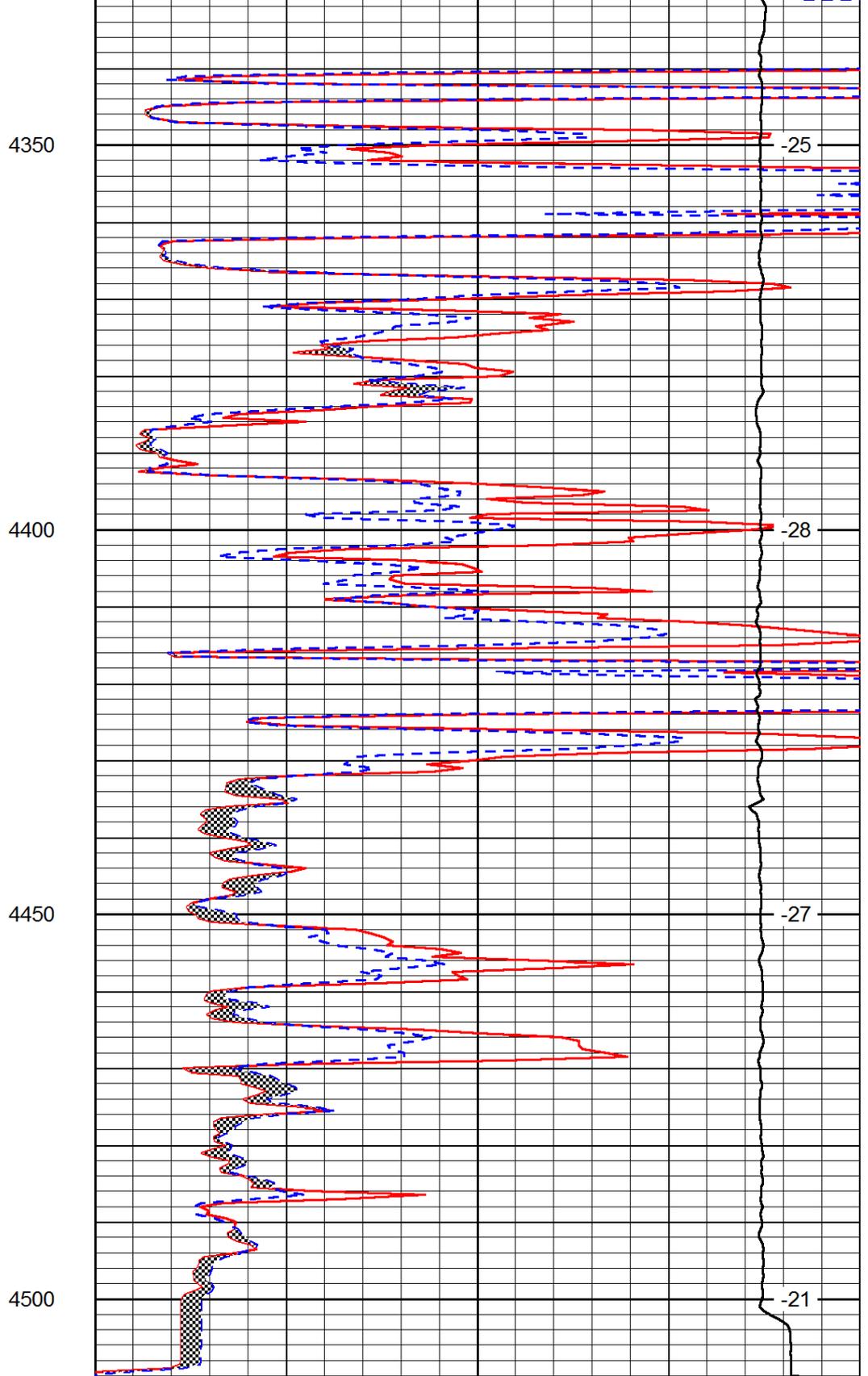
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