



Pioneer Energy Services

# Microresistivity Log

API No.	15-101-22414-00-00		
Company	Flatirons Resources, LLC		
Well	Munsell #11-23		
Field	Demand Northwest		
County	Lane	State	Kansas
Location	330' FNL & 1295' FWL		
Sec: 23	Twp: 16S	Rge: 28W	Other Services CNL/CDL DIL

Permanent Datum	Ground Level	Elevation 2645	K.B. 2655
Log Measured From	Kelly Bushing	10 Ft. Above Perm. Datum	D.F. 2645
Drilling Measured From	Kelly Bushing		G.L. 2645
Date	12/22/2012		
Run Number	Two		
Depth Driller	4560		
Depth Logger	4560		
Bottom Logged Interval	4559		
Top Log Interval	3550		
Casing Driller	8.625 @ 223		
Casing Logger	222		
Bit Size	7.875		
Type Fluid in Hole	Chemical		
Salinity, ppm CL	2000		
Density / Viscosity	9.2	46	
pH / Fluid Loss	10.0	6.8	
Source of Sample	Flowline		
Rm @ Meas. Temp	1.35	@ 42	
Rmf @ Meas. Temp	1.01	@ 42	
Rmc @ Meas. Temp	1.82	@ 42	
Source of Rmf / Rmc	Charts		
Rm @ BHT	0.46	@ 124	
Operating Rig Time	4 Hours		
Max Rec. Temp. F	124		
Equipment Number	91		
Location	Hays		
Recorded By	D. Schmidt		
Witnessed By	Ken Wallace		

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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

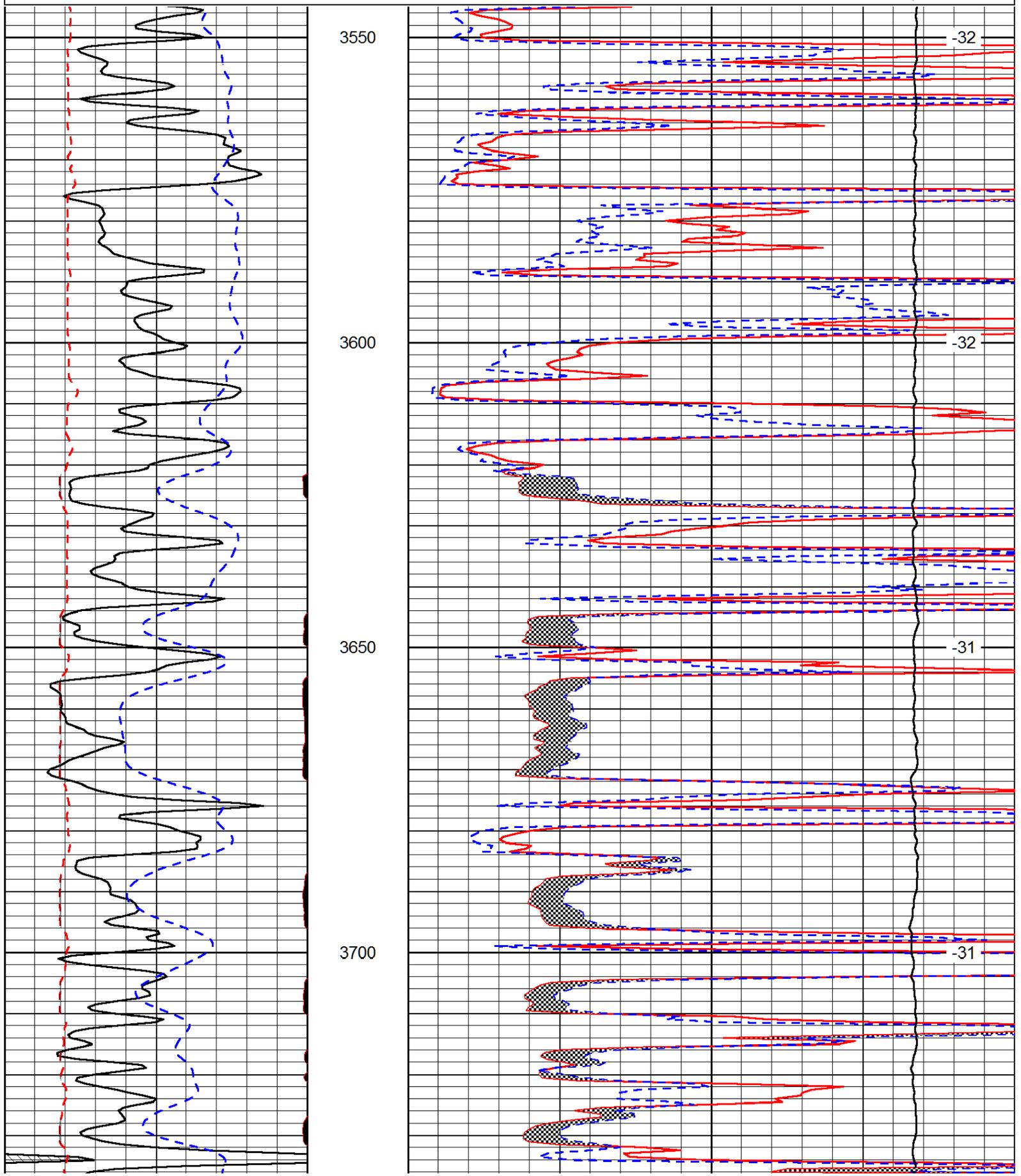
Thank you for using Log-Tech, Inc.  
 (785) 625-3858  
 Pendennis,  
 2 1/2 West to Pawnee Rd, 1 1/8 North,  
 West into

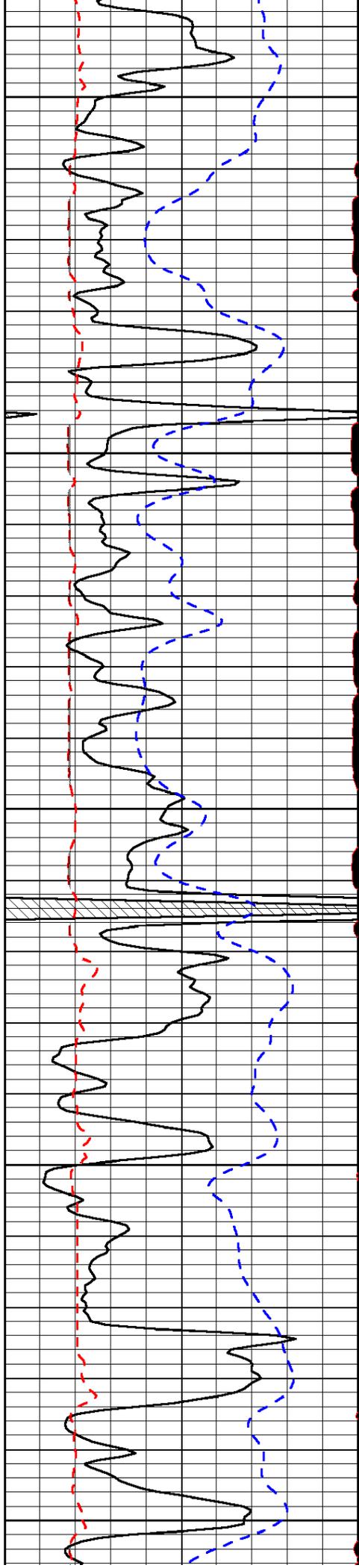
Database File: flatirons\_122212hd.db  
 Dataset Pathname: dil/fltstack  
 Presentation Format: micro  
 Dataset Creation: Sat Dec 22 05:11:03 2012  
 Charted by: Depth in Feet scaled 1:240

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

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

LSPD  
(ft/min)





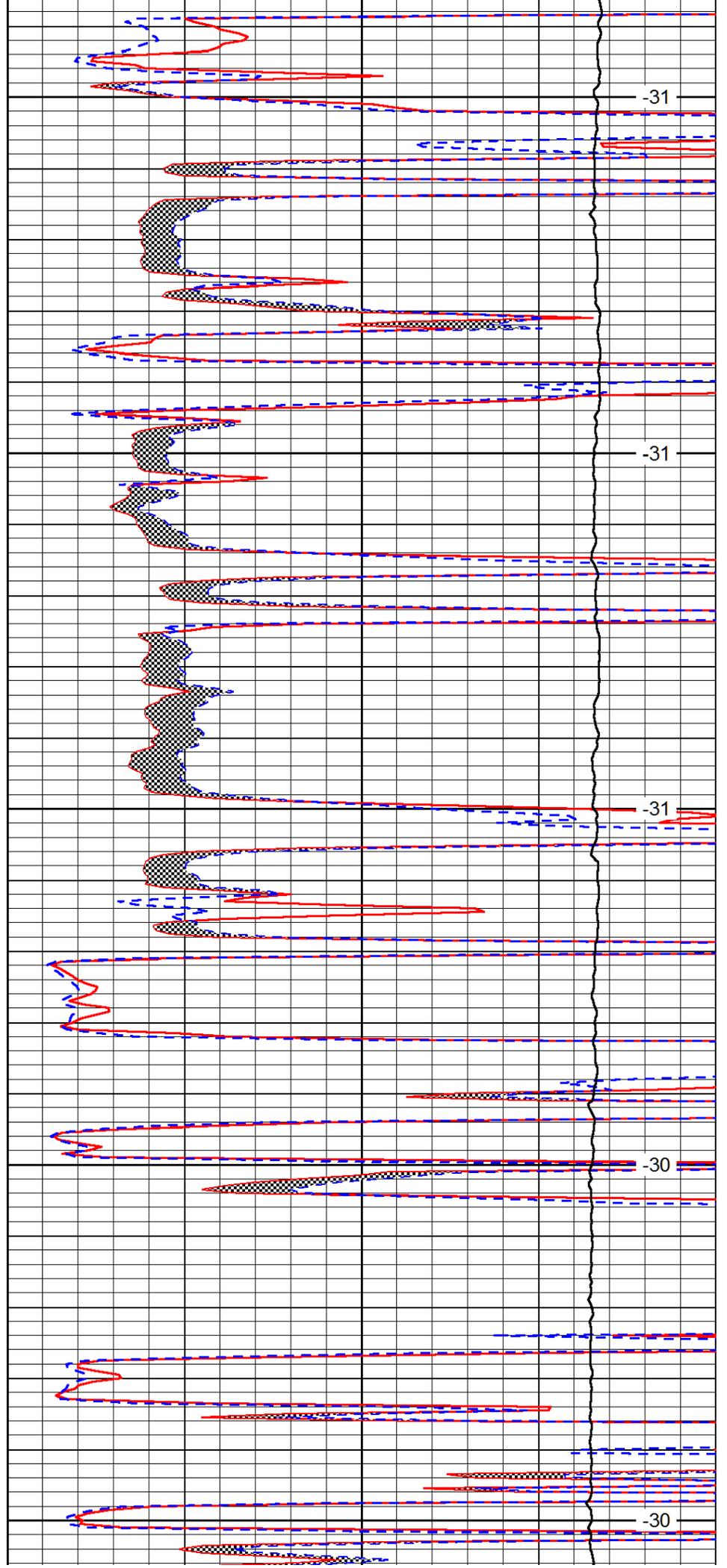
3750

3800

3850

3900

3950



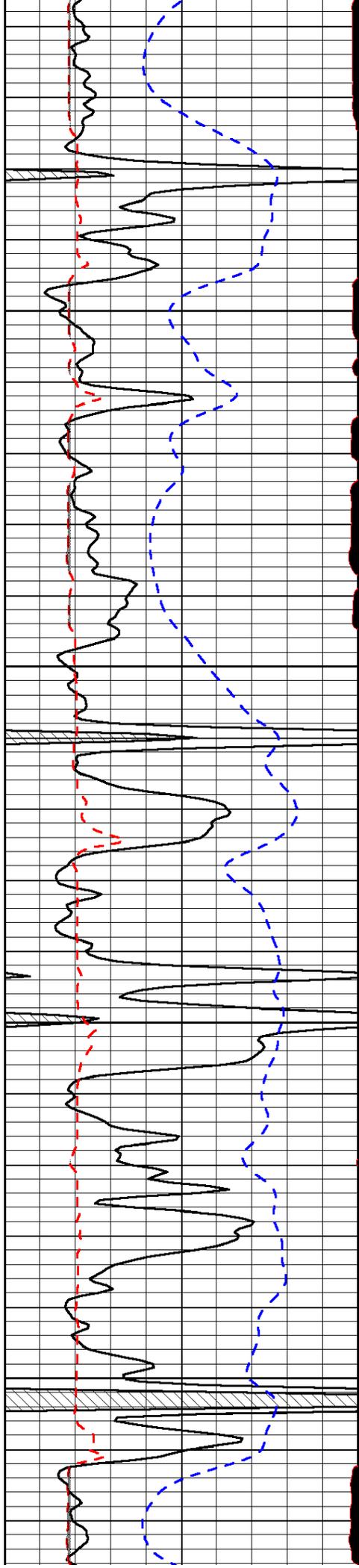
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-30

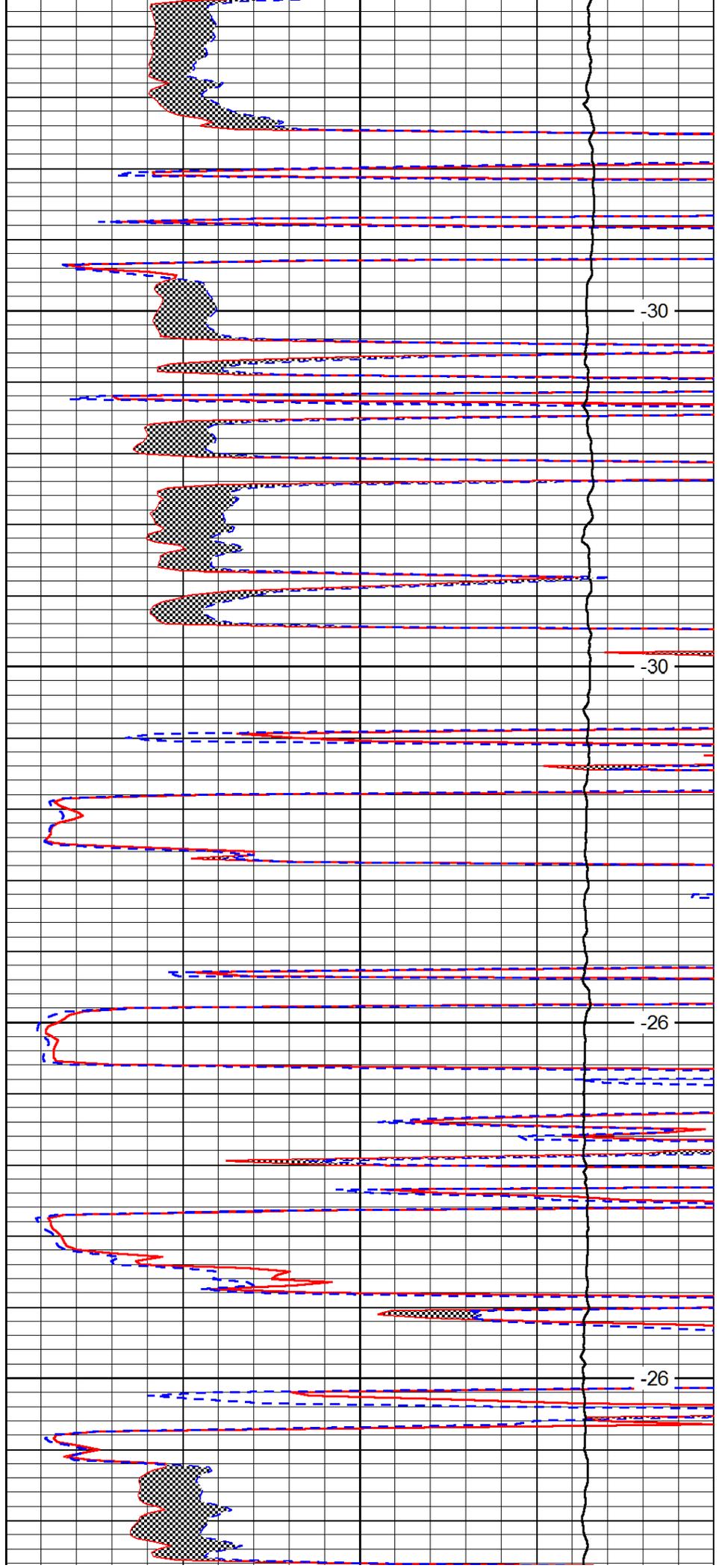


4000

4050

4100

4150

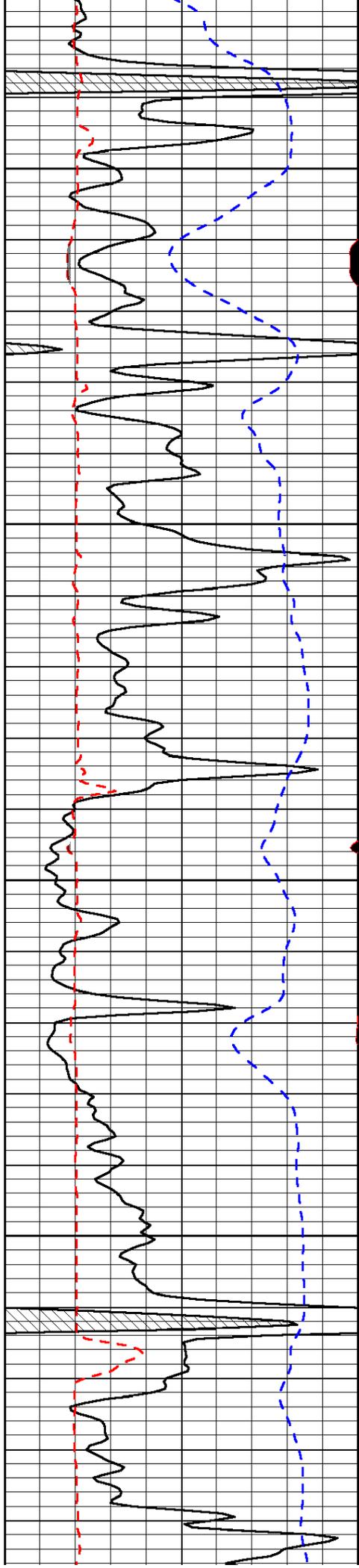


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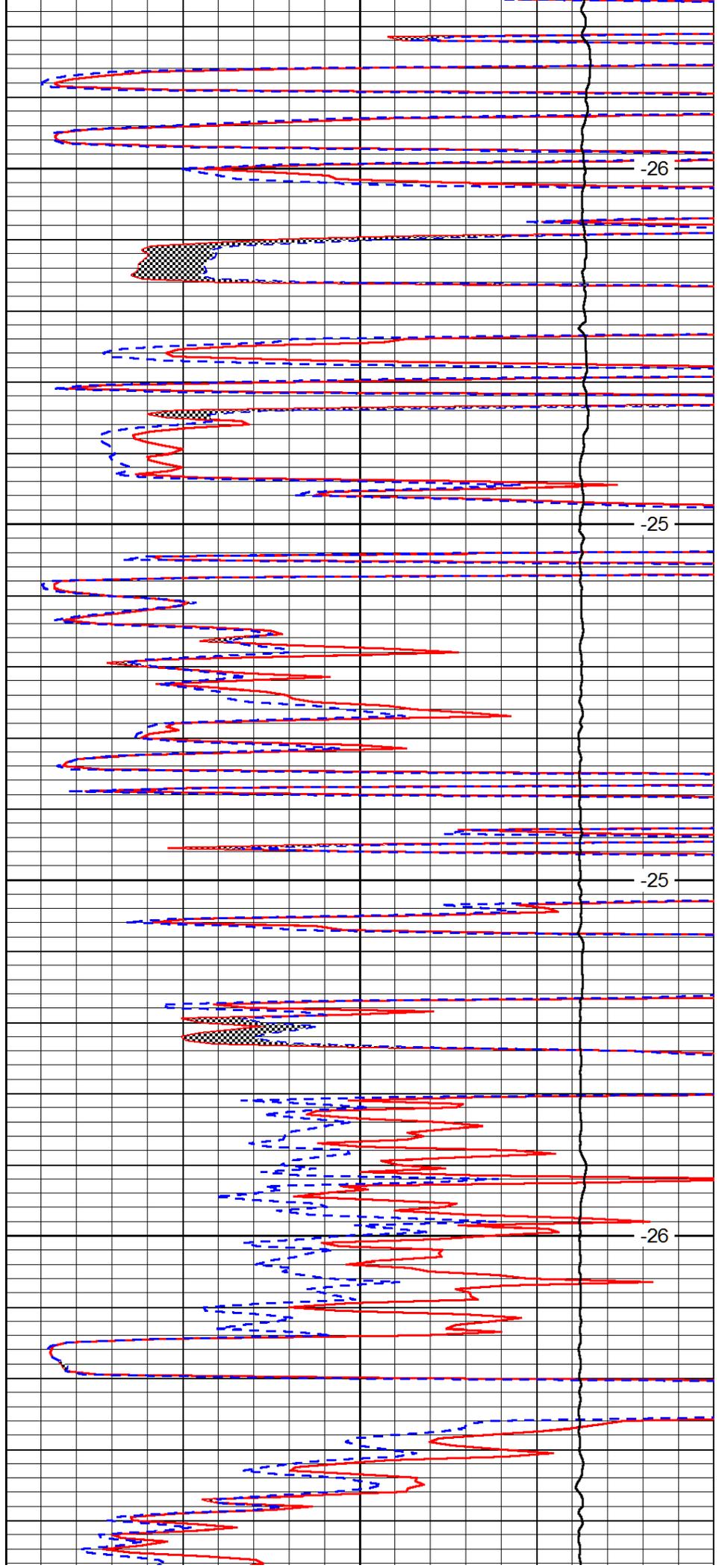


4200

4250

4300

4350

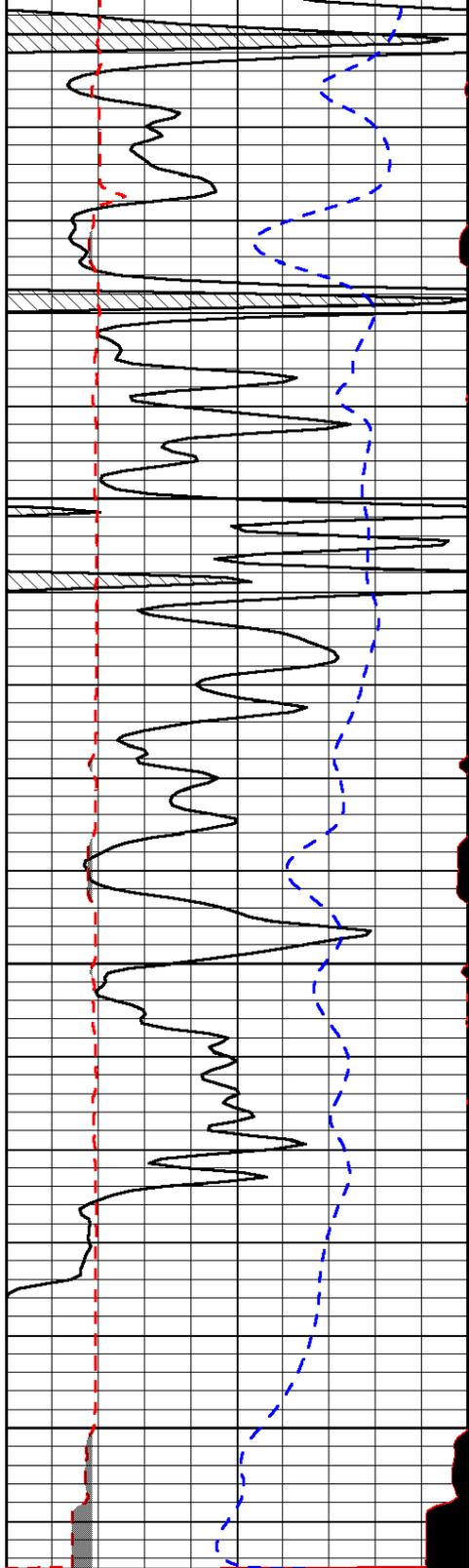


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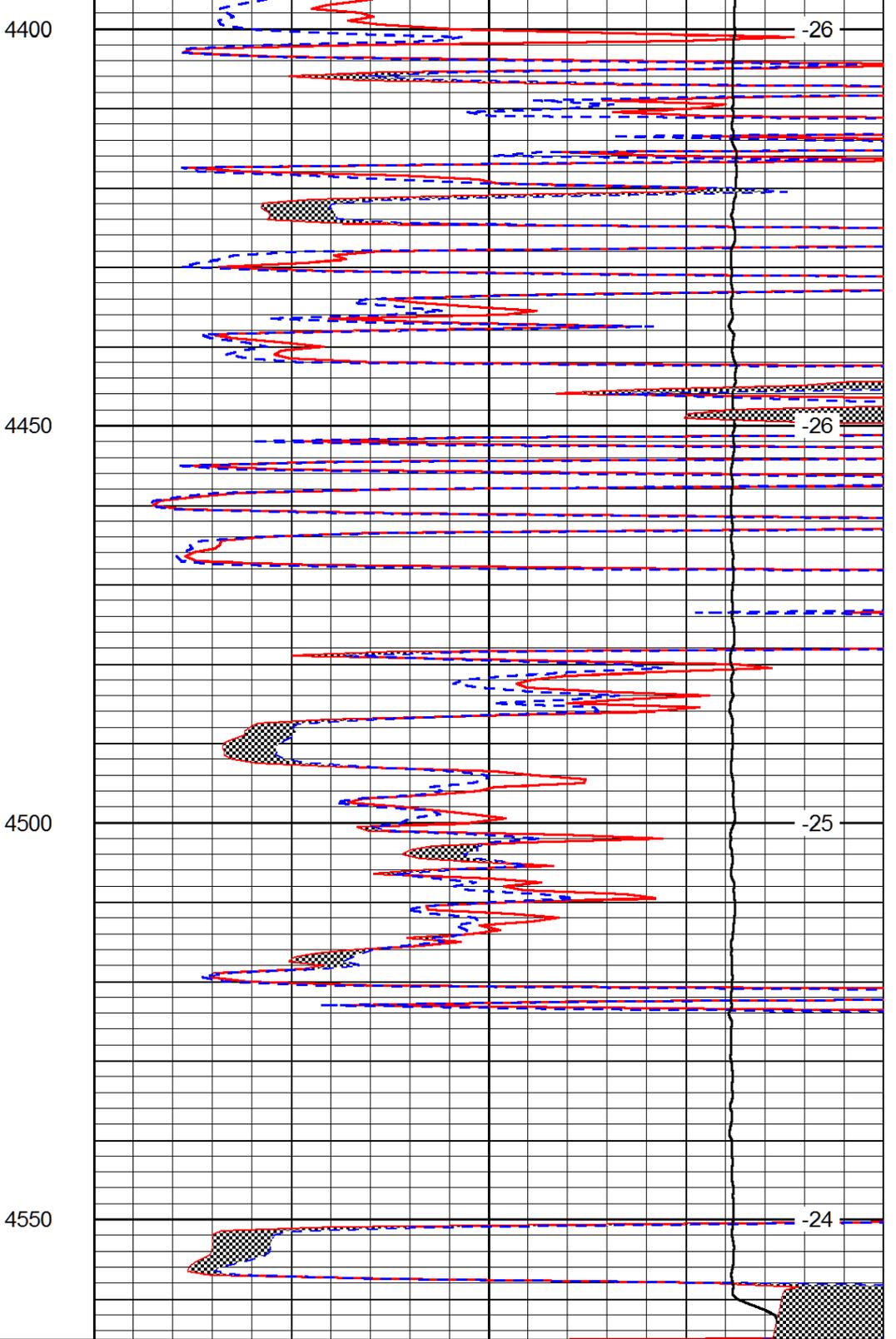
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