

# LOG-TECH



DIGITAL LOG (785) 625-3858

## Microresistivity Log

API No. 15-047-21,607-00-00

Company **Murfin Drilling Company, Inc.**  
 Well **Hattrup #1-3**  
 Field **N/A**  
 County **Edwards** State **Kansas**

Location **2310' FSL & 1000' FWL**

Sec: **3** Twp: **24 S** Rge: **20 W**

Other Services  
 CNL/CDL  
 DIL/BHCS

Elevation  
 K.B. 2285  
 D.F. 2274  
 G.L. 2274

Permanent Datum	Ground Level	Elevation 2274
Log Measured From	Kelly Bushing	11 Ft. Above Perm. Datum
Drilling Measured From	Kelly Bushing	
Date		7/01/2012
Run Number		Two
Depth Driller		4930
Depth Logger		4930
Bottom Logged Interval		4929
Top Log Interval		3200
Casing Driller		8.625 @ 380
Casing Logger		377
Bit Size		7.875
Type Fluid in Hole		Chemical
Salinity, ppm CL		8,000
Density / Viscosity		9.4 51
pH / Fluid Loss		9.5 10.0
Source of Sample		Flowline
Rm @ Meas. Temp		.80 @ 70
Rmf @ Meas. Temp		.60 @ 70
Rmc @ Meas. Temp		1.08 @ 70
Source of Rmf / Rmc		Charts
Rm @ BHT		.44 @ 127
Operating Rig Time		5 1/2 Hours
Max Rec. Temp. F		127
Equipment Number		91
Location		Havs
Recorded By		K. Bange
Witnessed By		Robert Hendrix

<<< Fold Here >>>

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

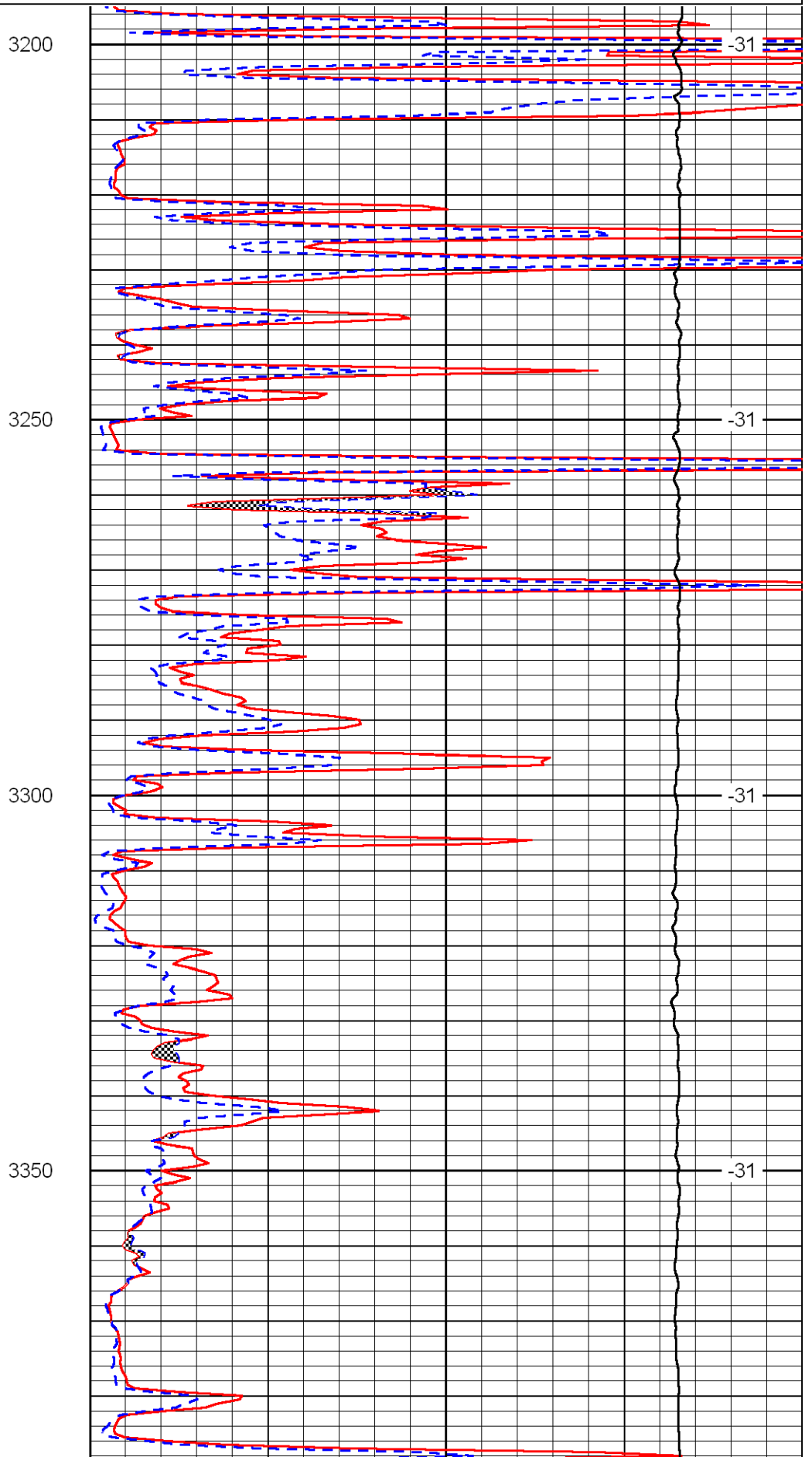
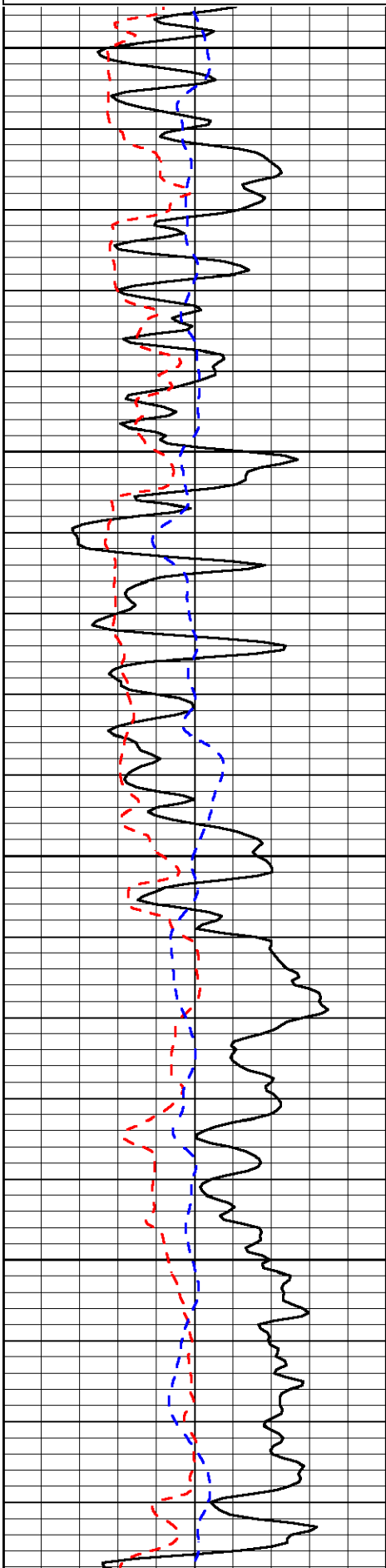
Thank you for using Log-Tech, Inc.  
 (785) 625-3858

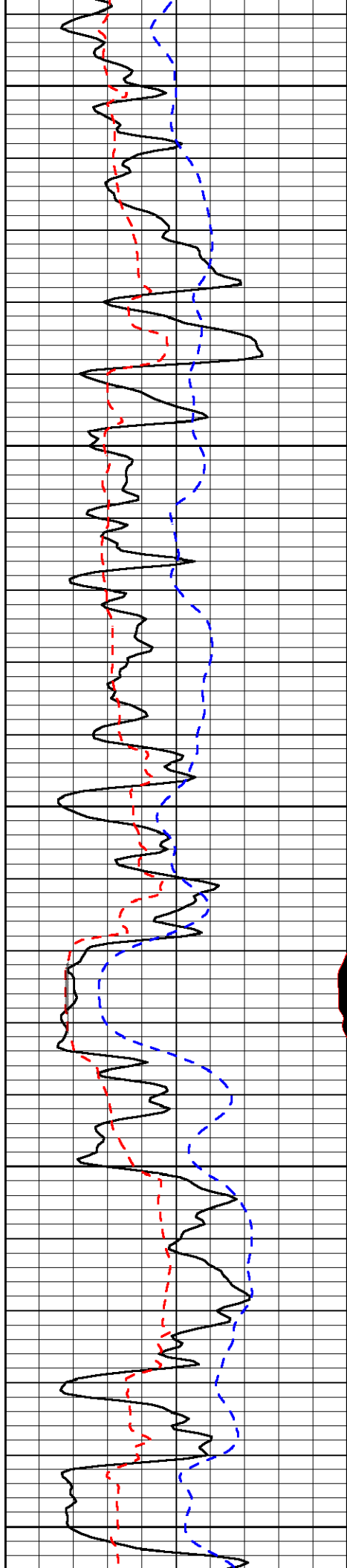
Offerle, 1/2 E to 40th rd,  
 6 N to H rd, 1/2 N,  
 E into

Database File: murfin070112hd.db  
 Dataset Pathname: dil/murfnstack  
 Presentation Format: micro  
 Dataset Creation: Sun Jul 01 11:41:53 2012  
 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	0

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





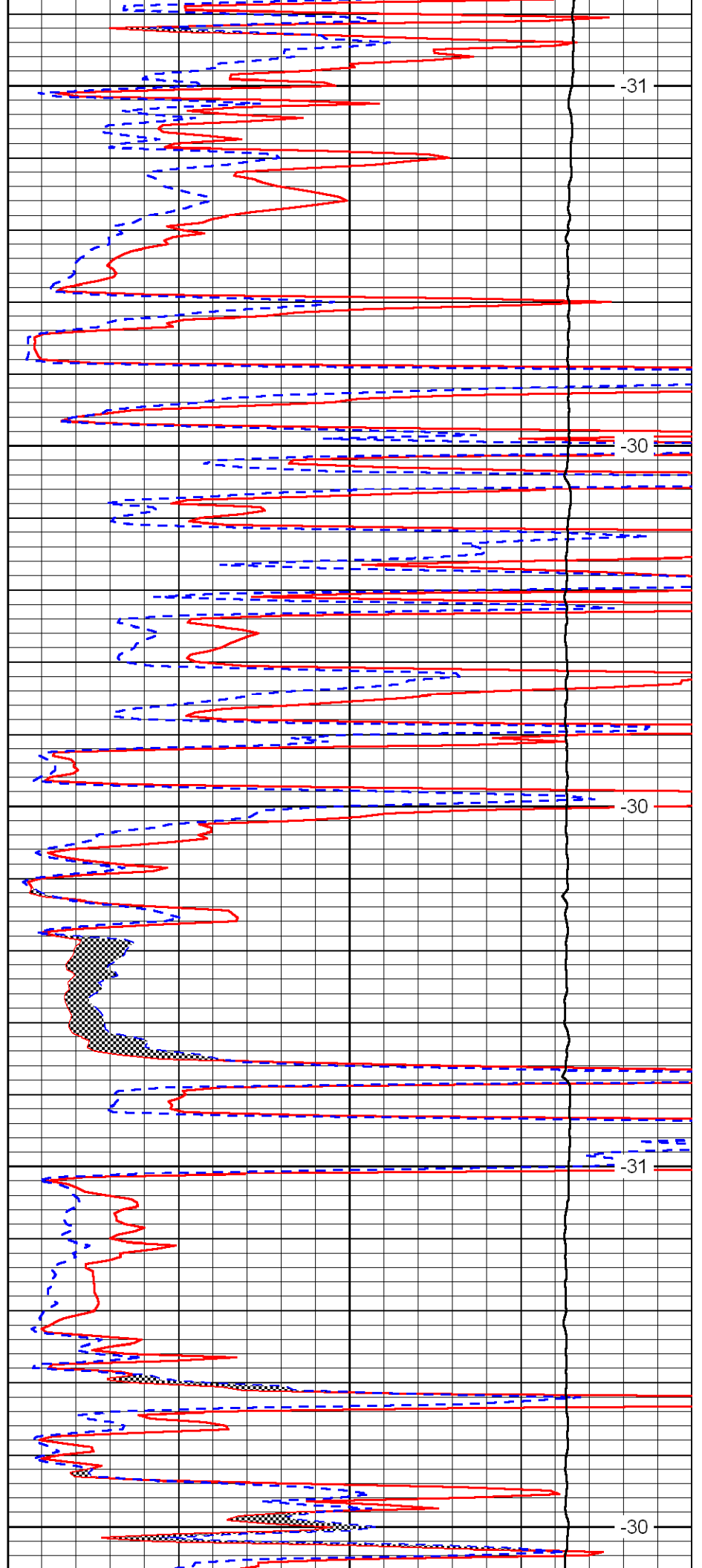
3400

3450

3500

3550

3600



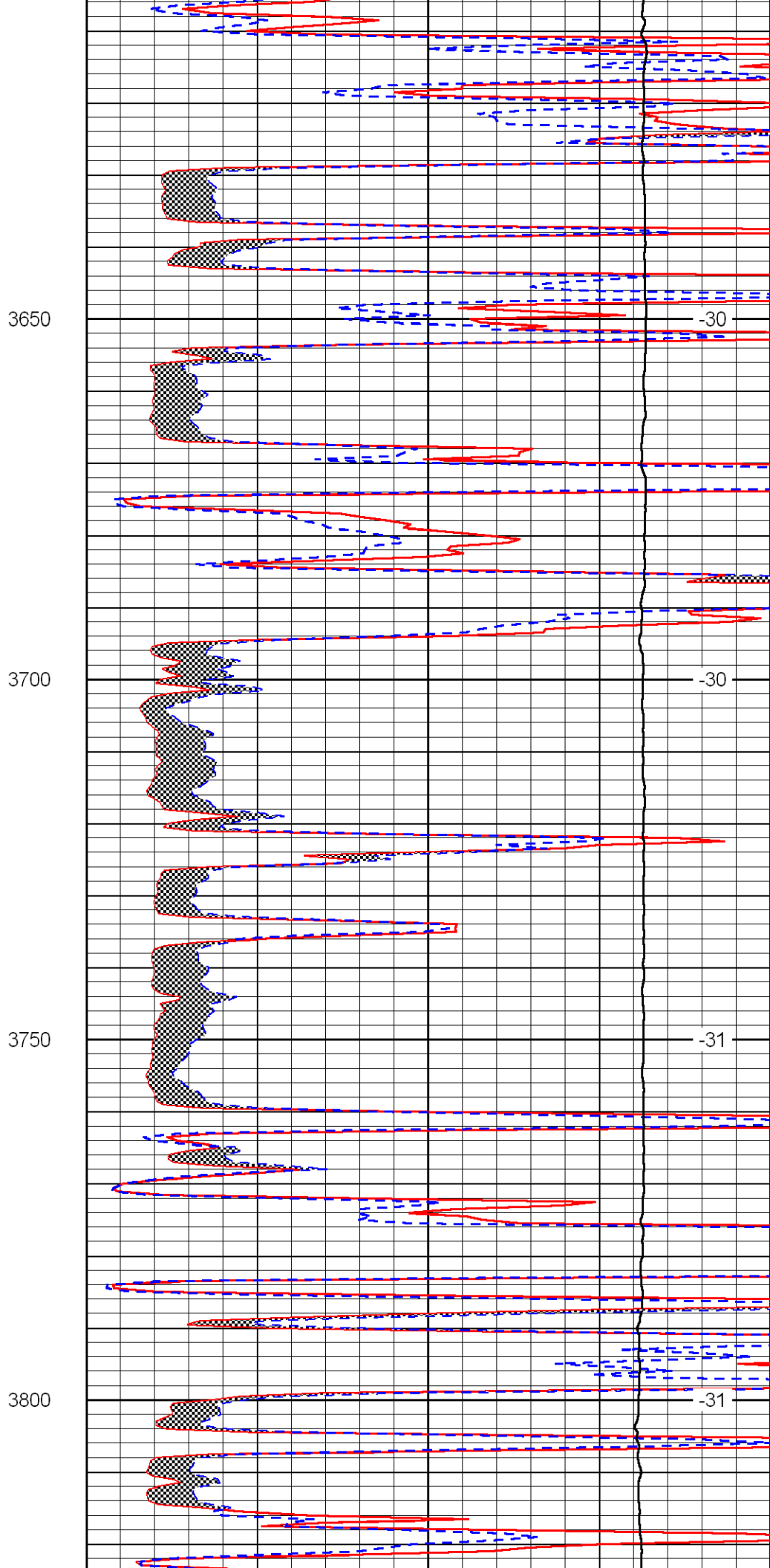
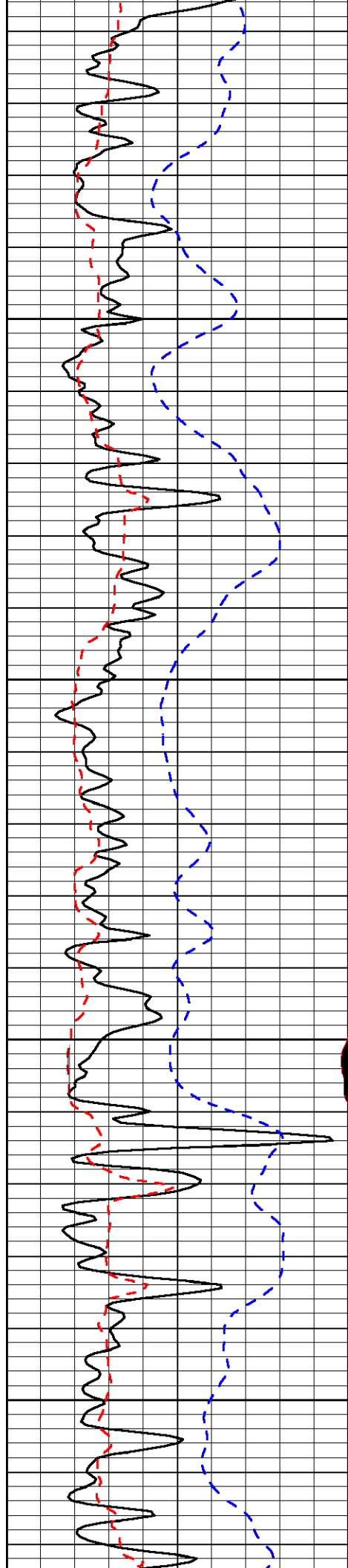
-31

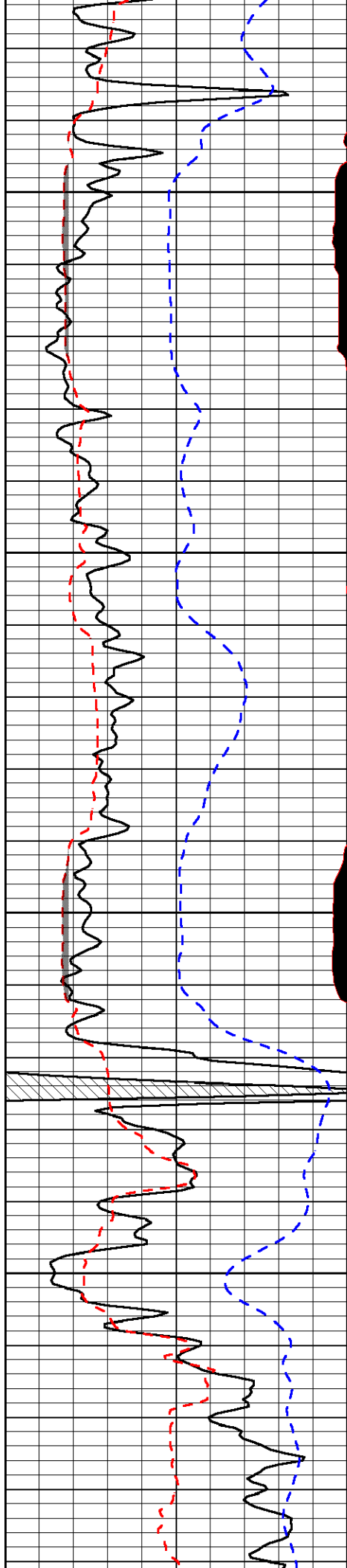
-30

-30

-31

-30



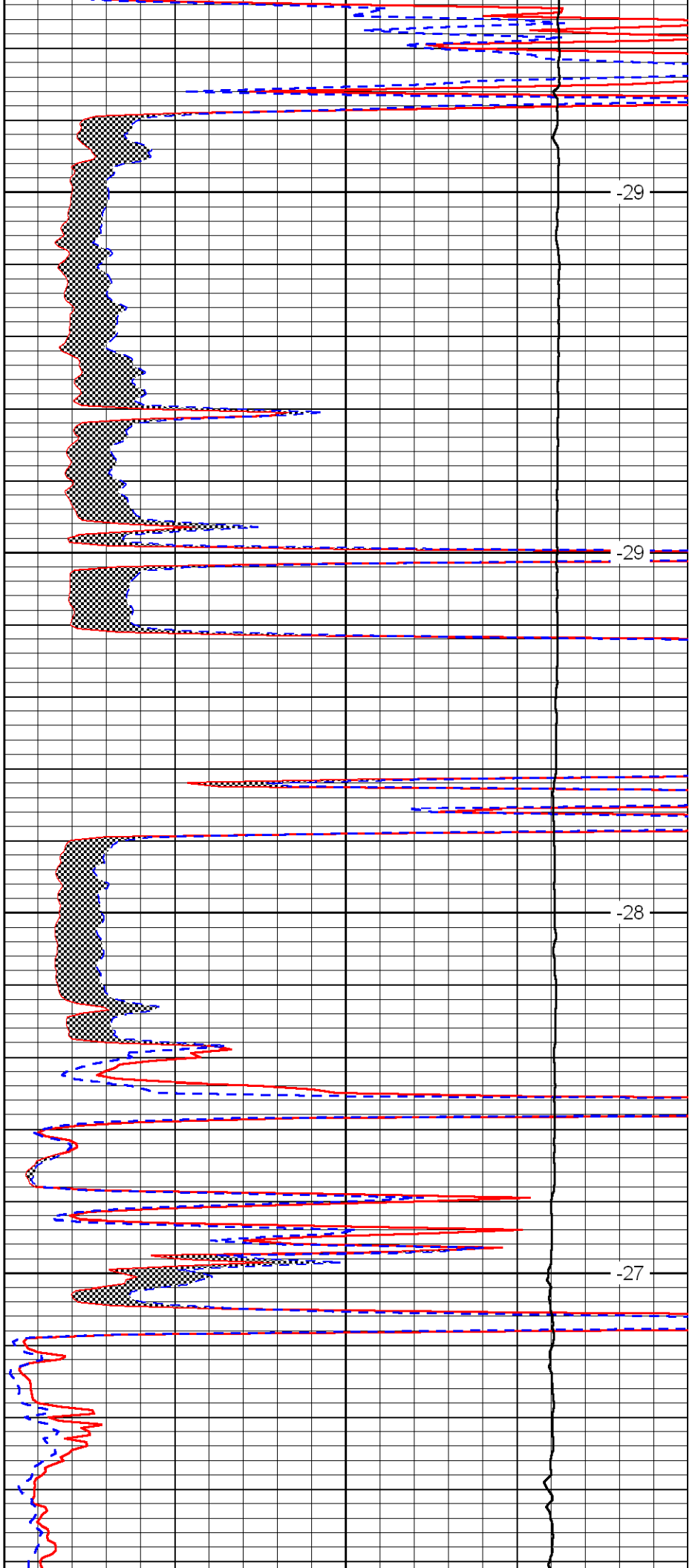


3850

3900

3950

4000

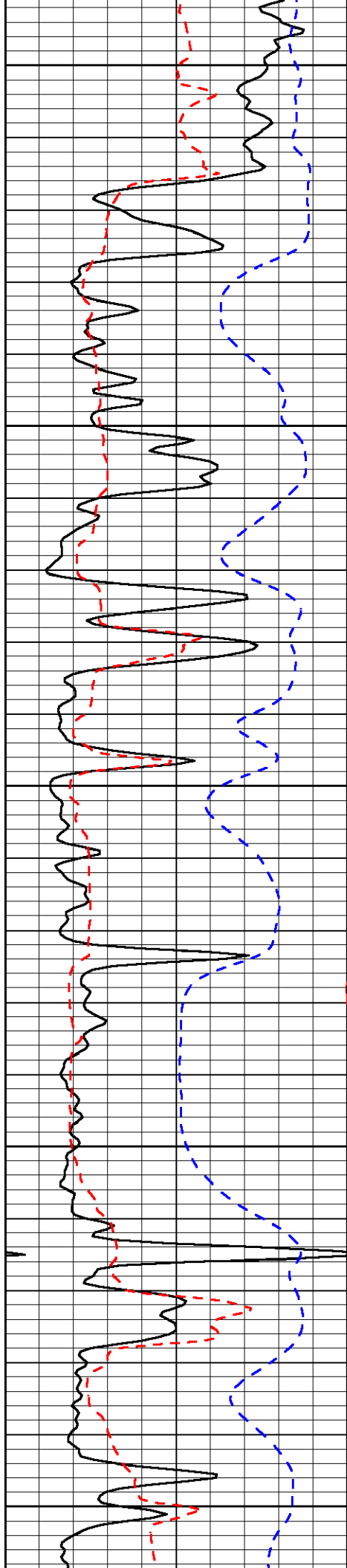


-29

-29

-28

-27



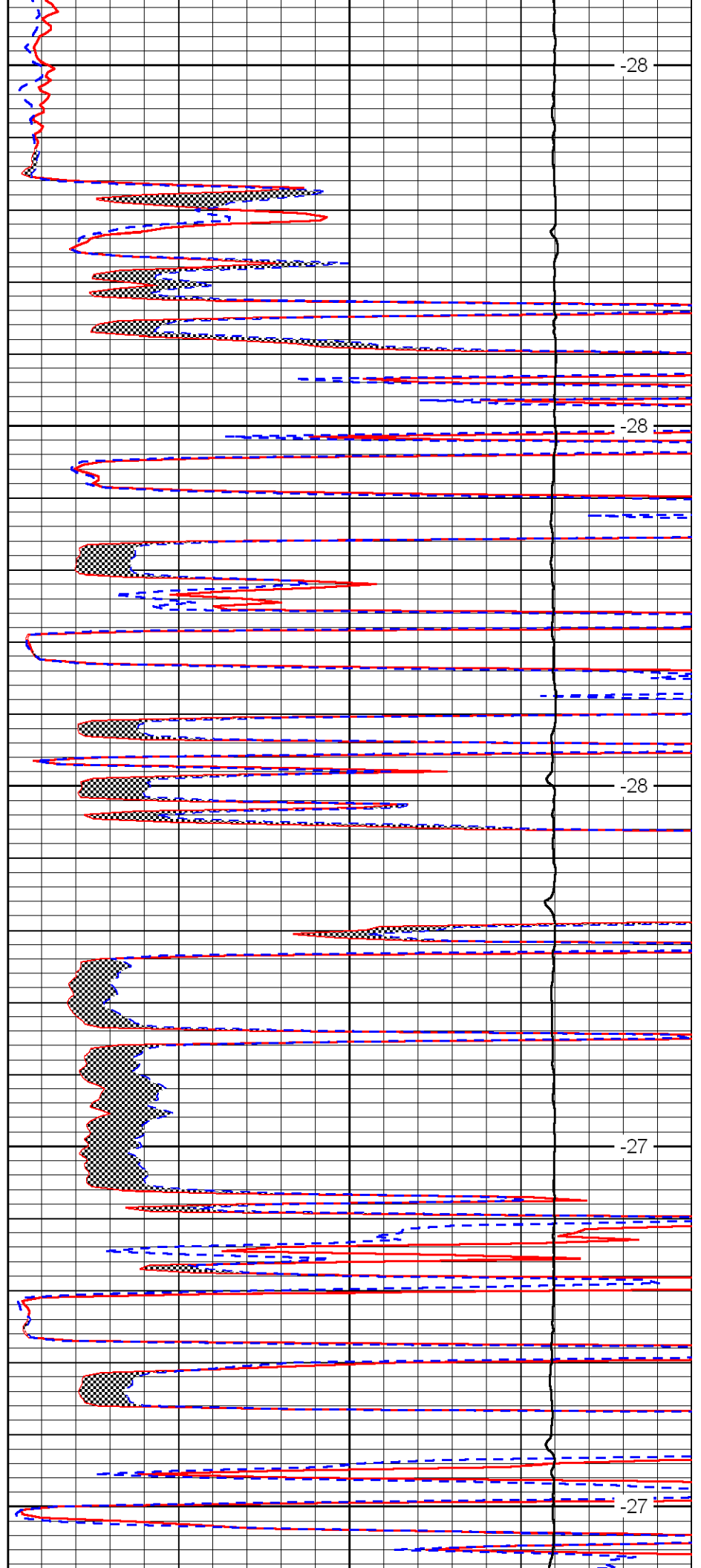
4050

4100

4150

4200

4250



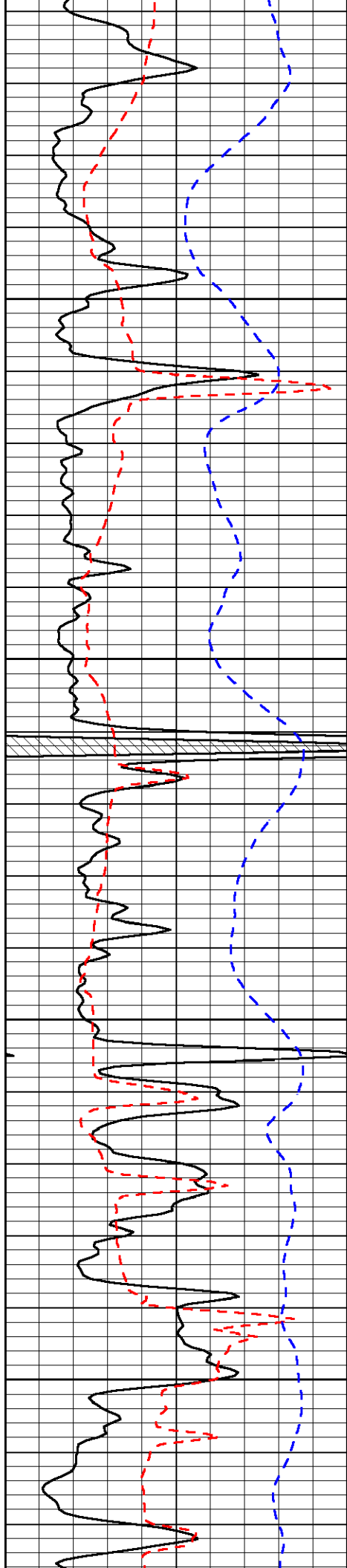
-28

-28

-28

-27

-27

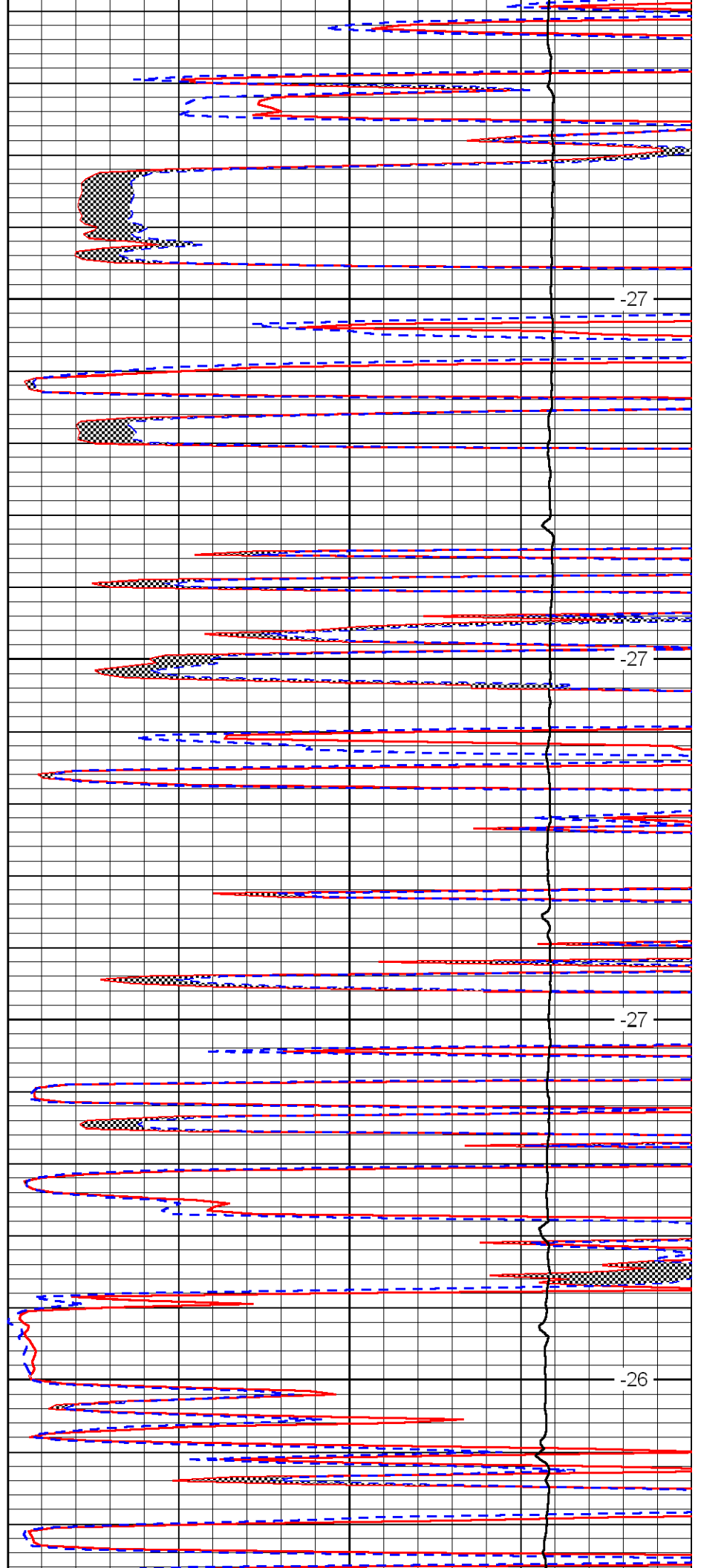


4300

4350

4400

4450

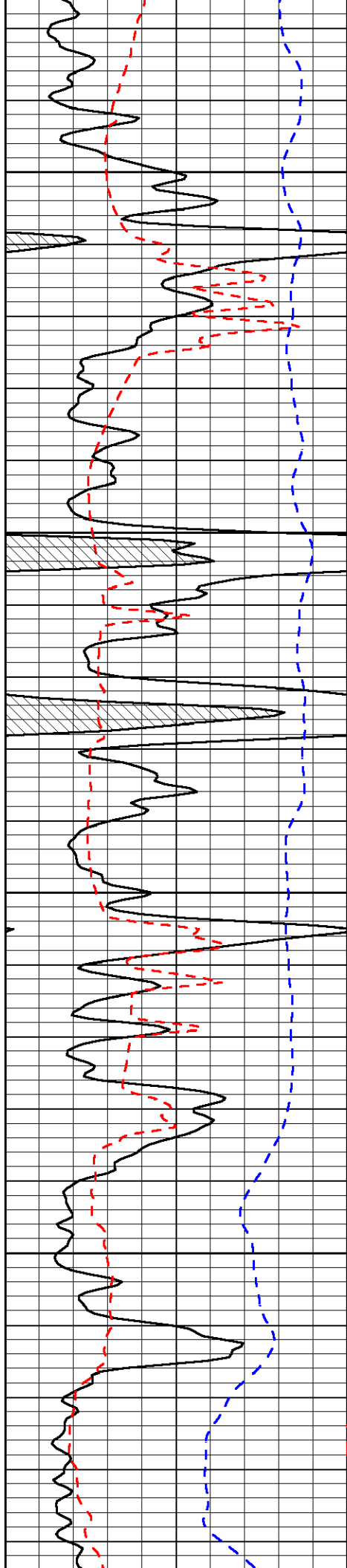


-27

-27

-27

-26

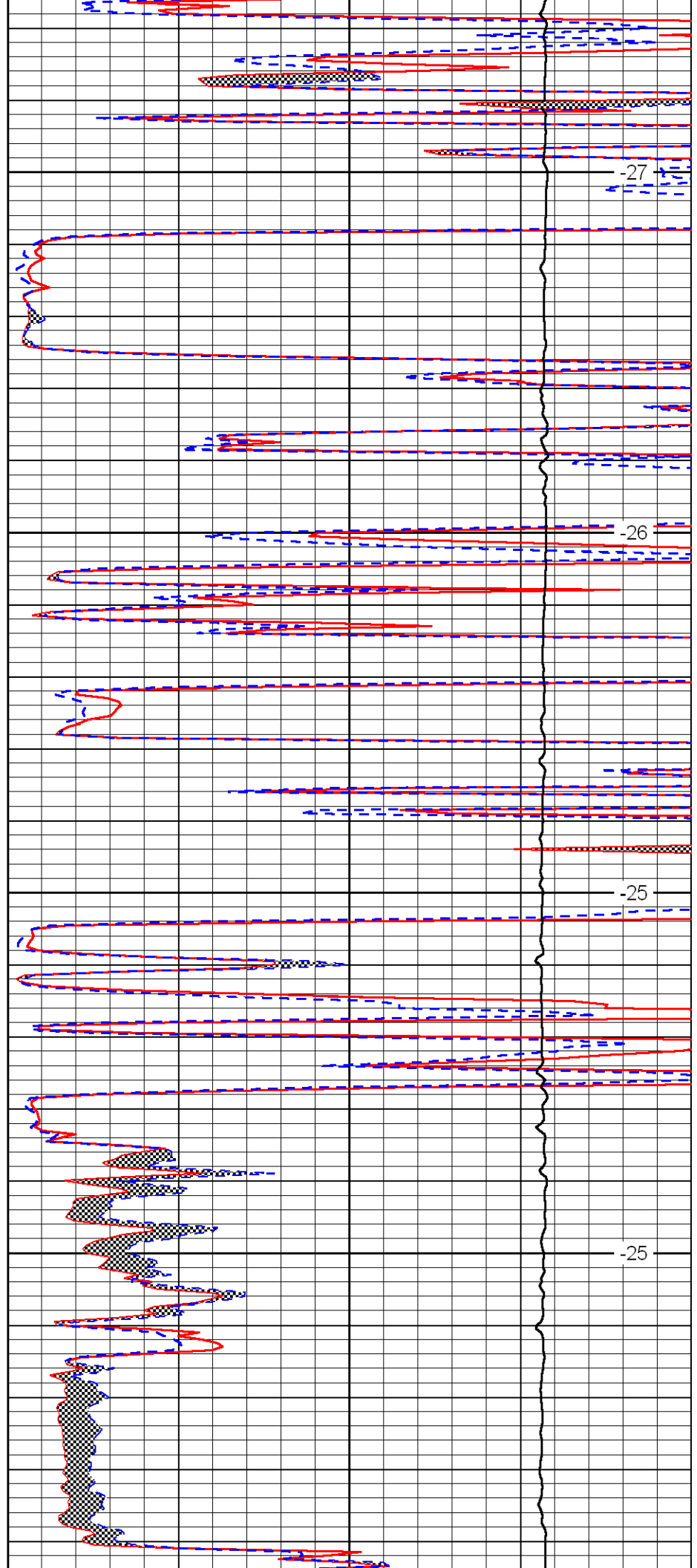


4500

4550

4600

4650



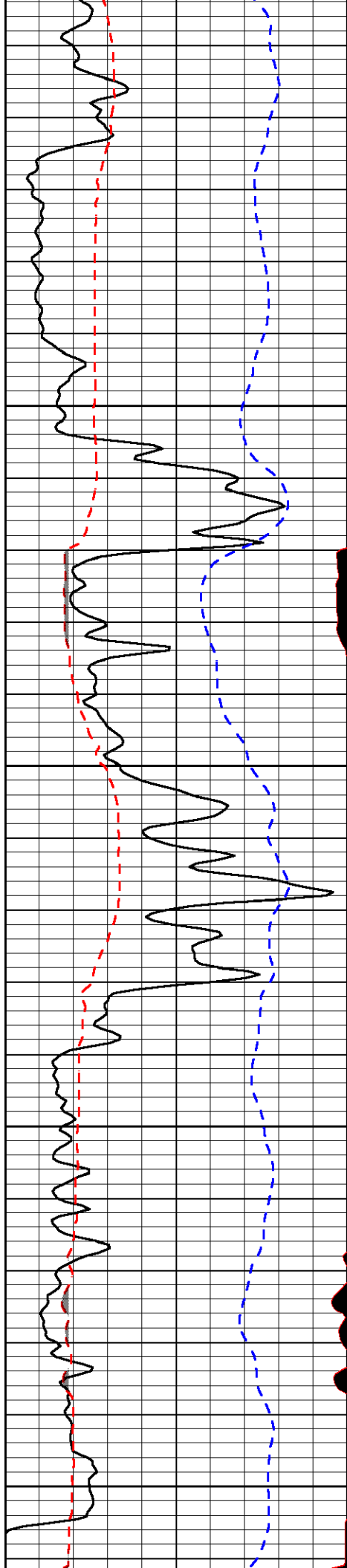
-27

-26

-25

-25





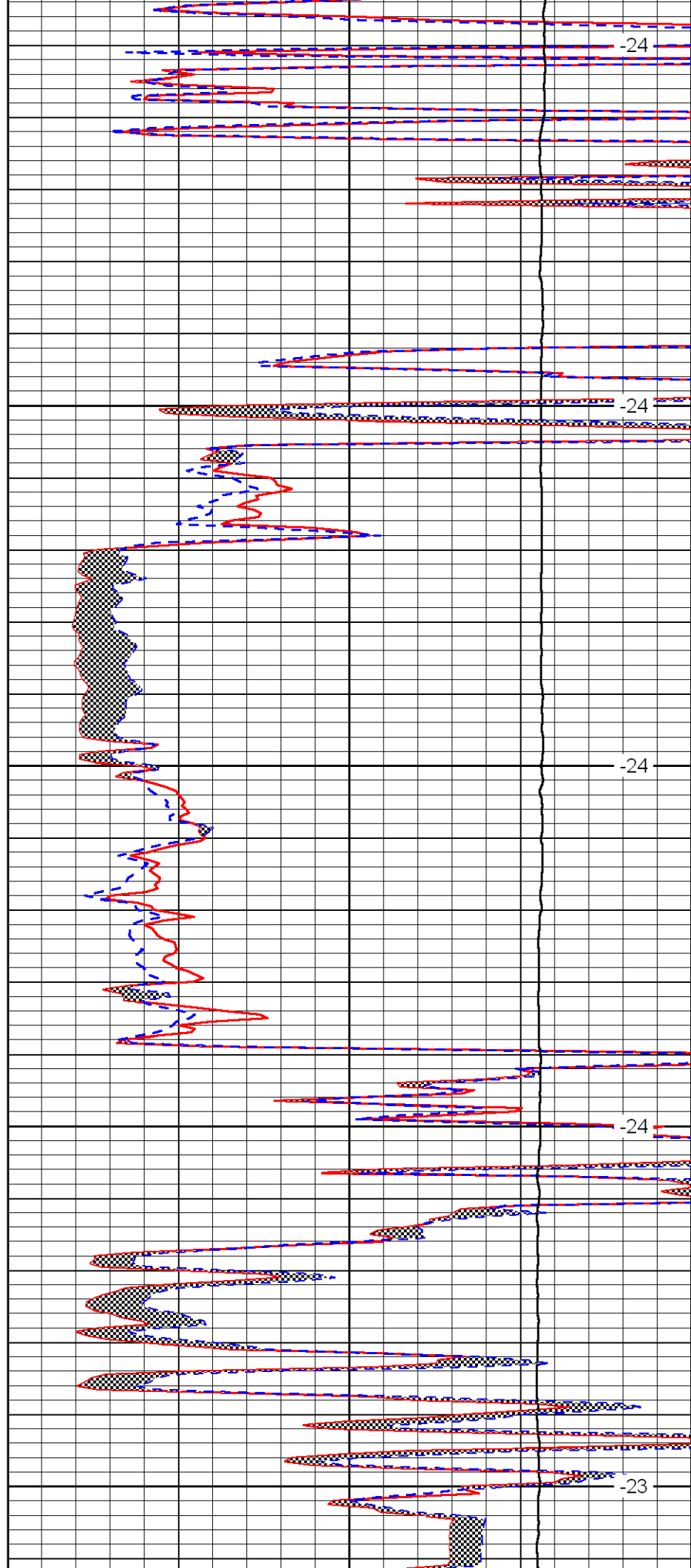
4700

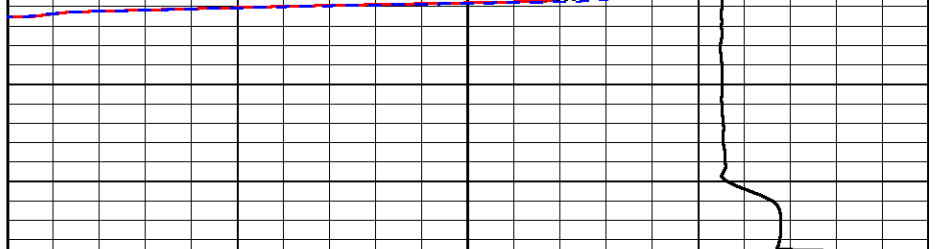
4750

4800

4850

4900





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

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

LSPD