



SUPERIOR
Black Lick, Pa.
Mercer, Pa.
Wooster, Oh.
Cleveland, Ok.
Trinidad, Co.

COMPENSATED DENSITY NEUTRON LOG

Company XTO Energy Inc.
Well Apache Canyon 29-04
Field Purgatoire River
County Las Animas State Colorado

Location: API # : 05 071 09281 00

1308' FNL & 564' FWL

SEC 29 TWP 34S RGE 67W

Permanent Datum Ground Level Elevation 8130'
Log Measured From Ground Level
Drilling Measured From Ground Level

Other Services
DIL
Elevation
K.B. -----
D.F. -----
G.L. 8130'

Date 8-16-07

Run Number One

Depth Driller 2725'

Depth Logger 2711'

Bottom Logged Interval 2694'

Top Log Interval Surface Casing

Casing Driller 8 5/8" @ 497'

Casing Logger 494'

Bit Size 7 7/8"

Type Fluid in Hole Water

Density / Viscosity ///

pH / Fluid Loss ///

Source of Sample ///

Rm @ Meas. Temp ///

Rmf @ Meas. Temp ///

Rmc @ Meas. Temp ///

Source of Rmf / Rmc ///

Rm @ BHT ///

Time Circulation Stopped 4:15 P.M.

Time Logger on Bottom 6:45 P.M.

Maximum Recorded Temperature 102 DEG F

Equipment Number T697

Location Trinidad

Recorded By M. Norton

Witnessed By Mr. Don Johnson

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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

Density Neutron Porosity Presented On Sandstone Matrix.

ABHV Calculated For 5 1/2" Casing

Well Directions:

First Bosque entrance, left on Little Bingham, at top just before entering Hill Ranch take right,
first right, drive thru one location, first left to location.



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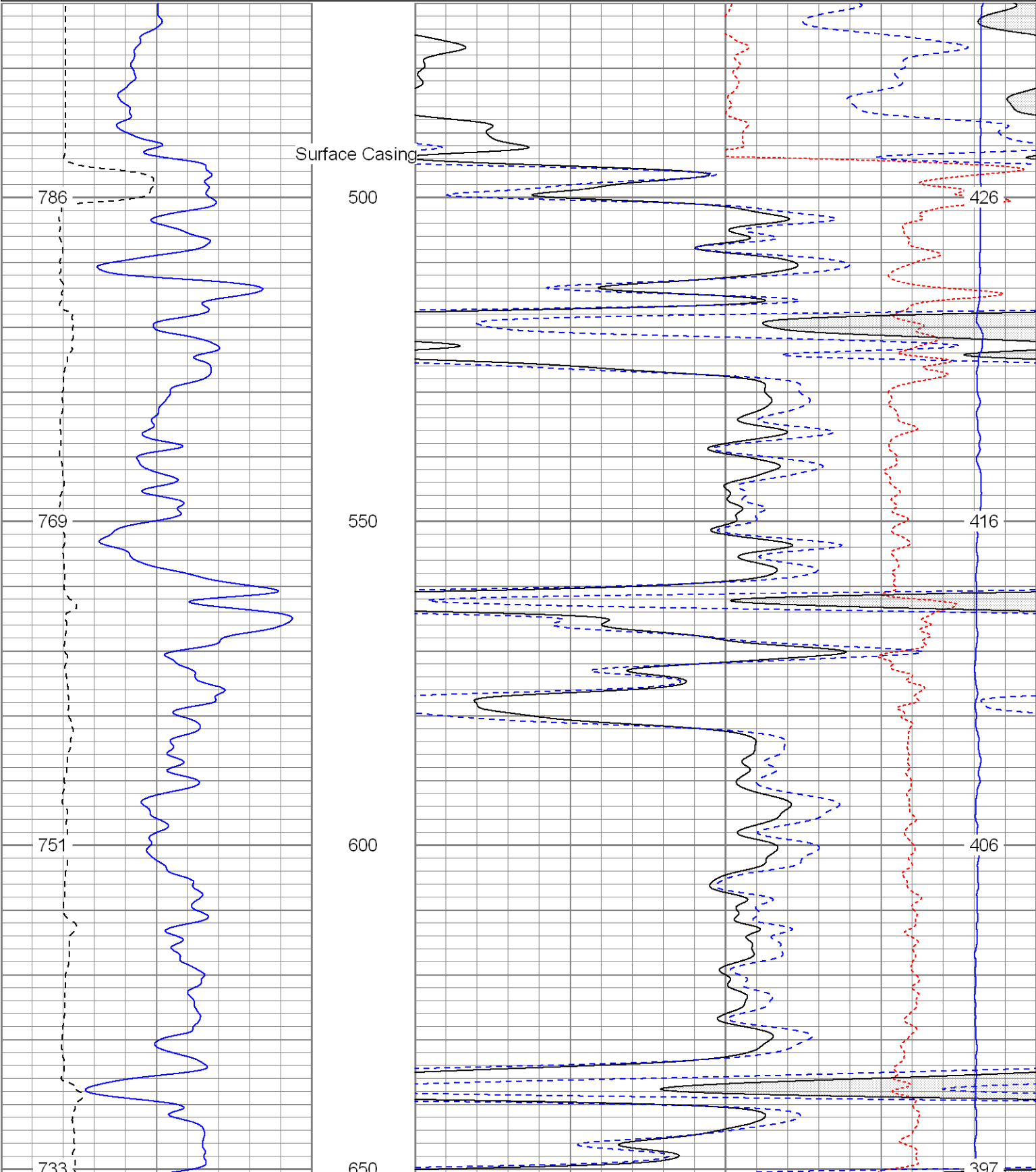
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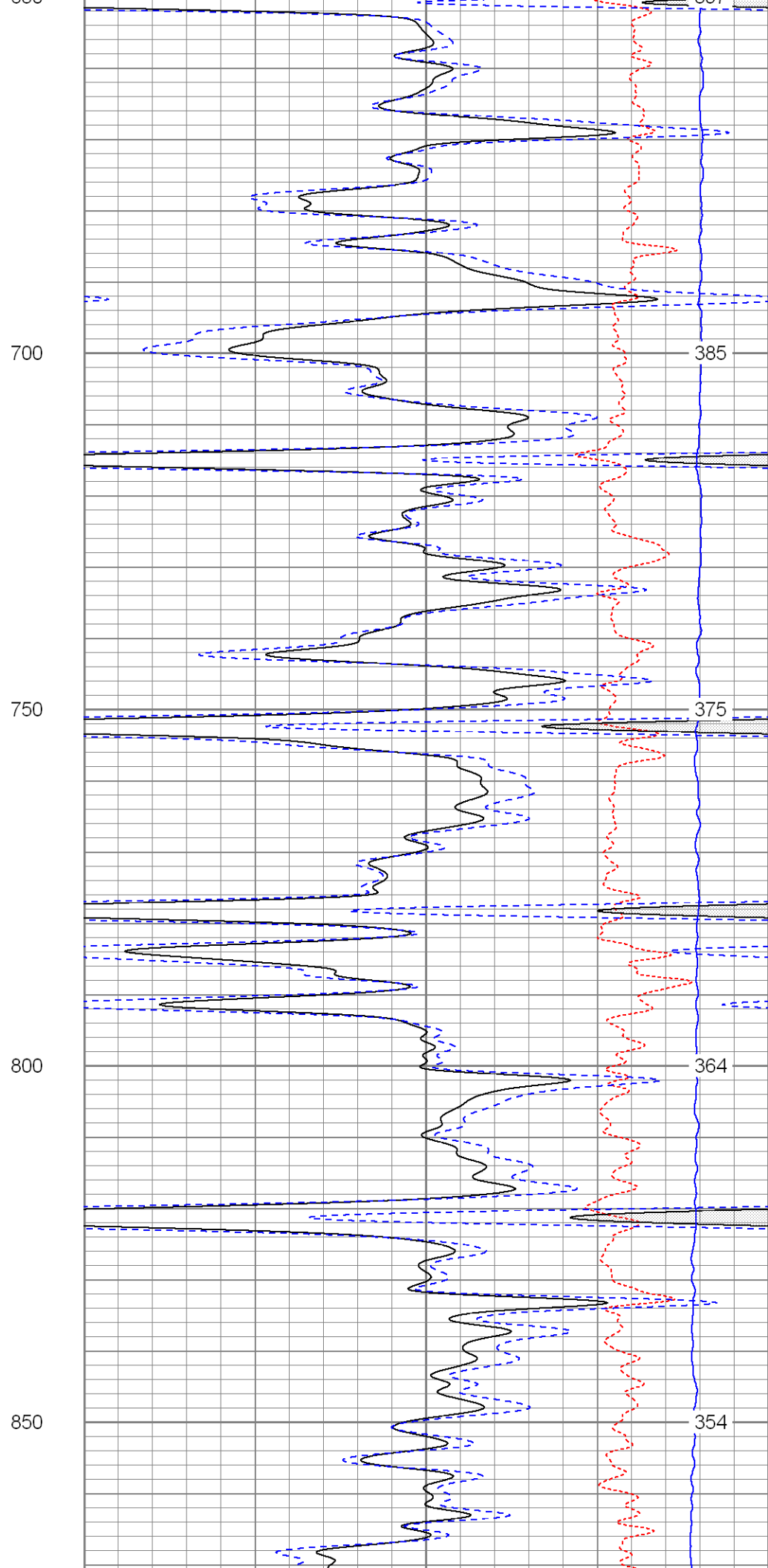
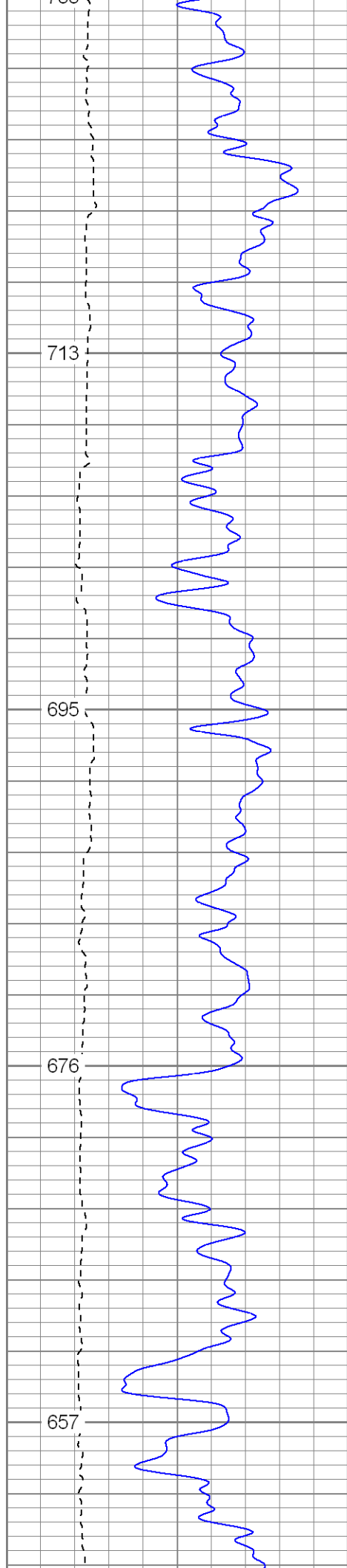
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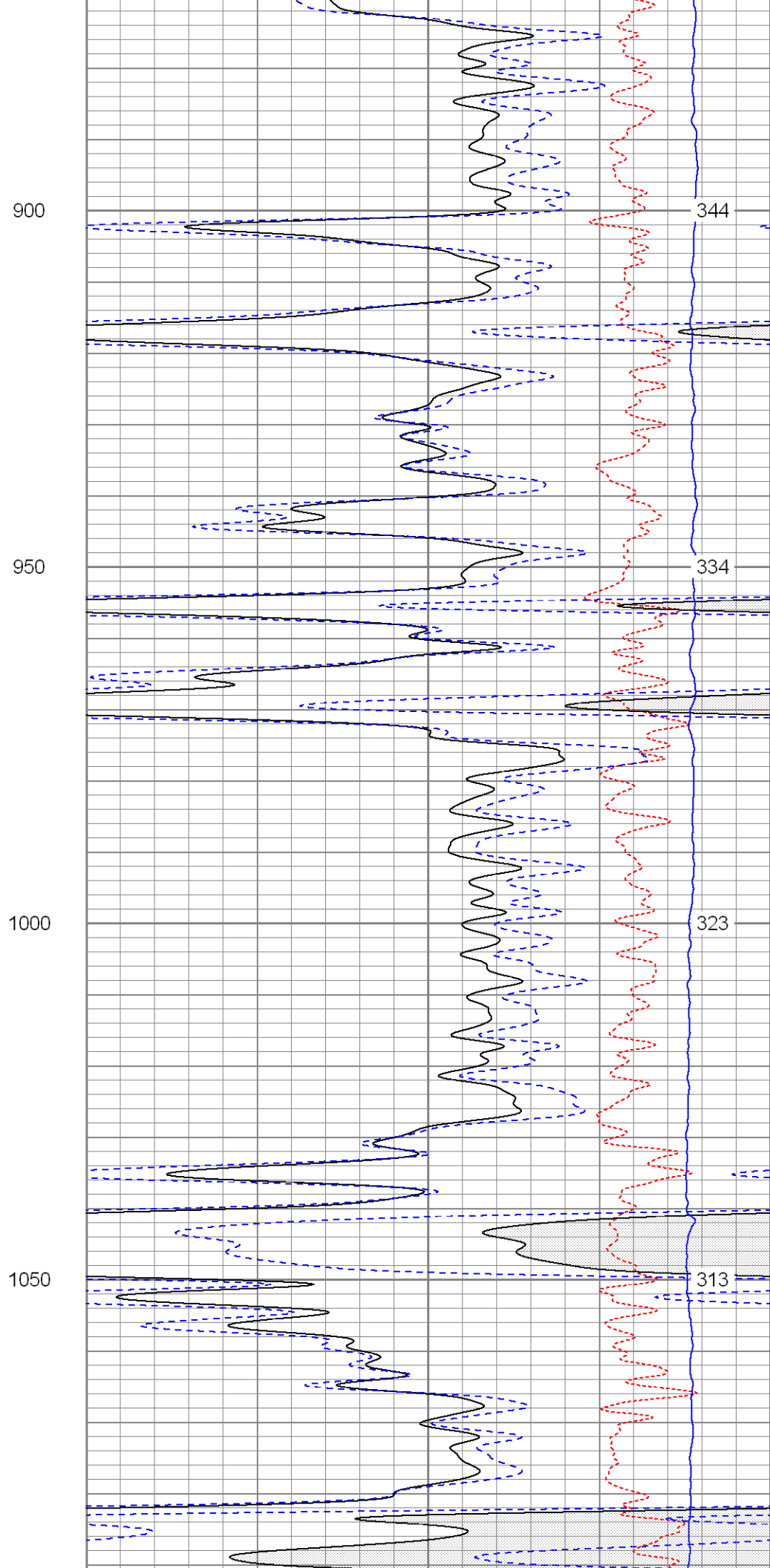
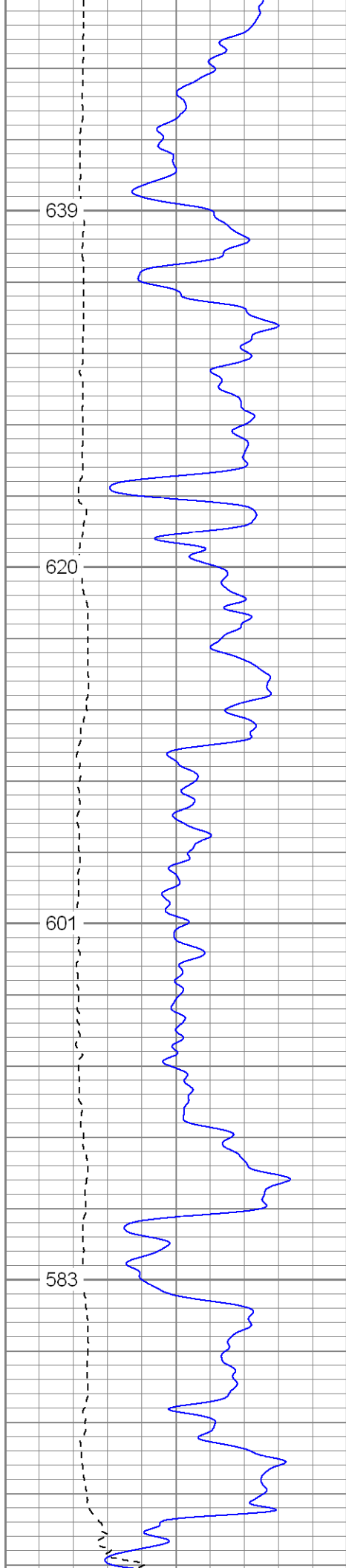
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Charted by: Depth in Feet scaled 1:240

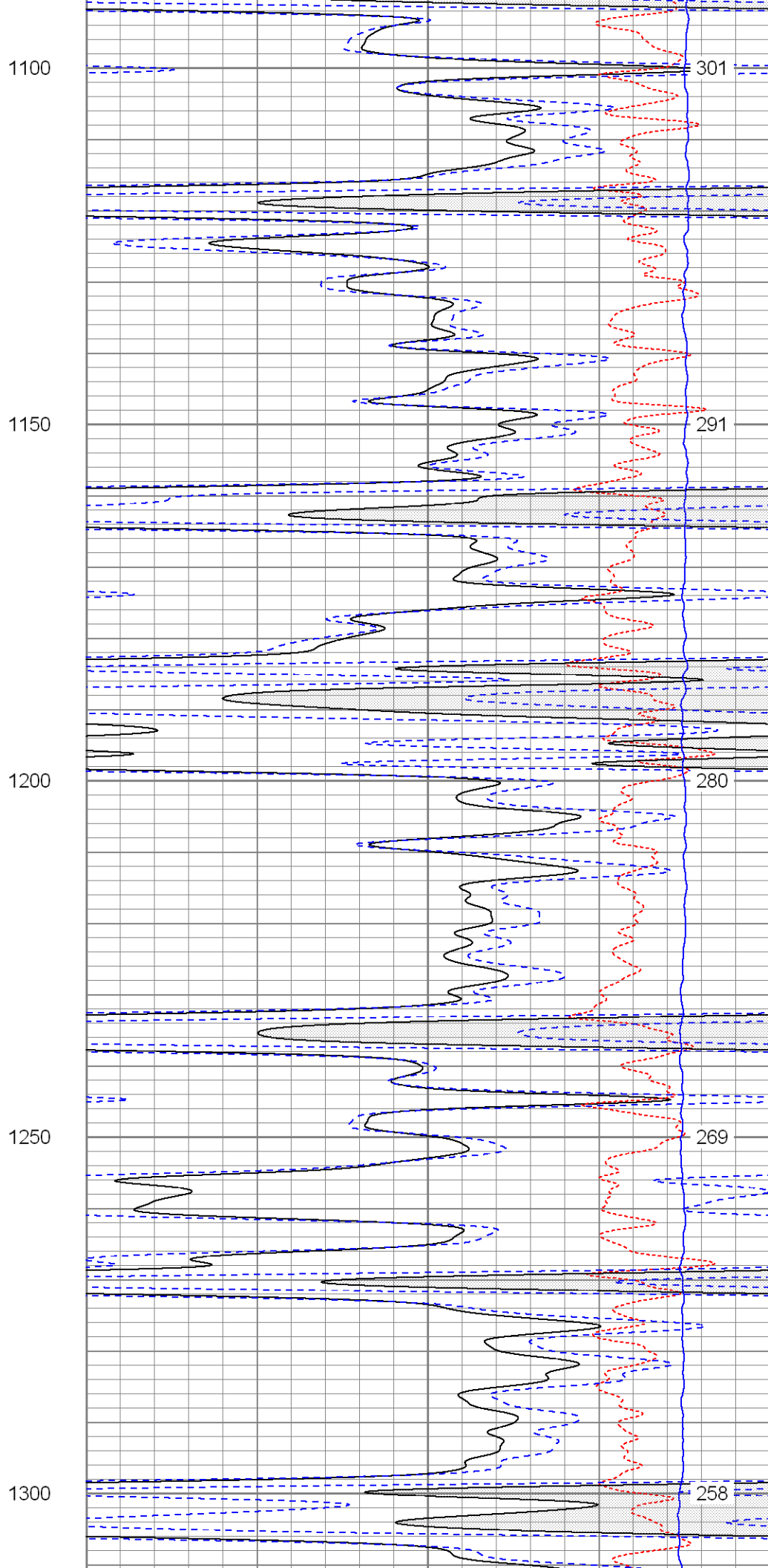
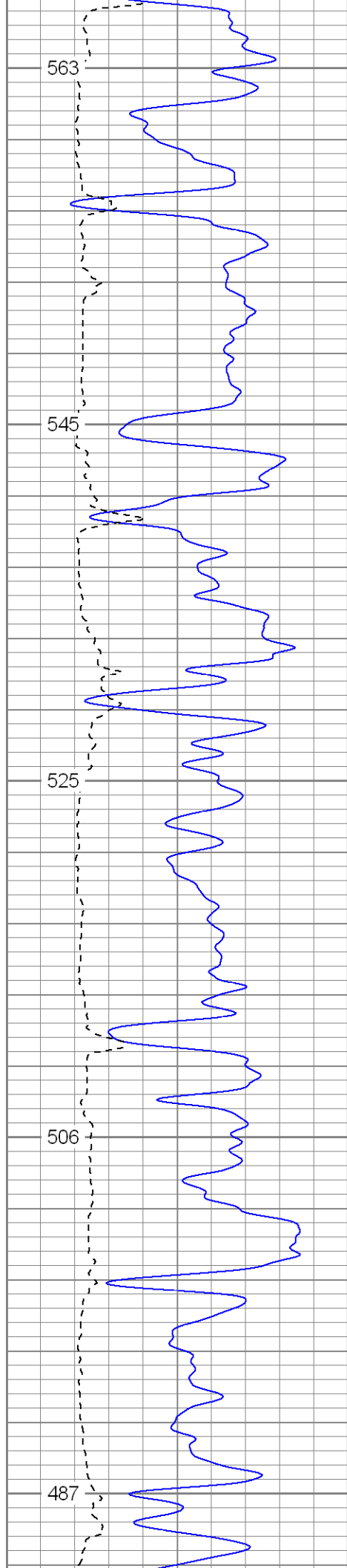
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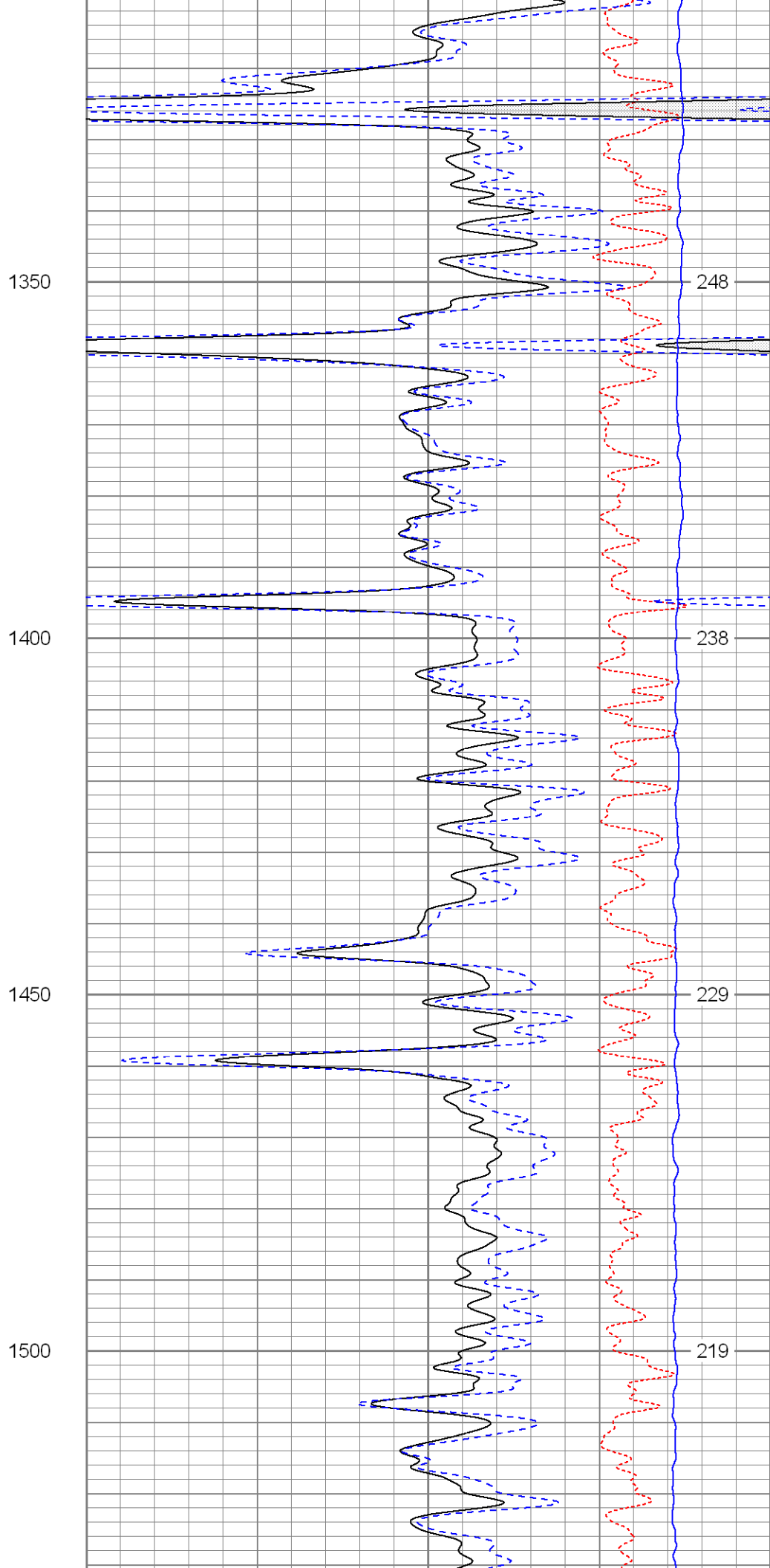
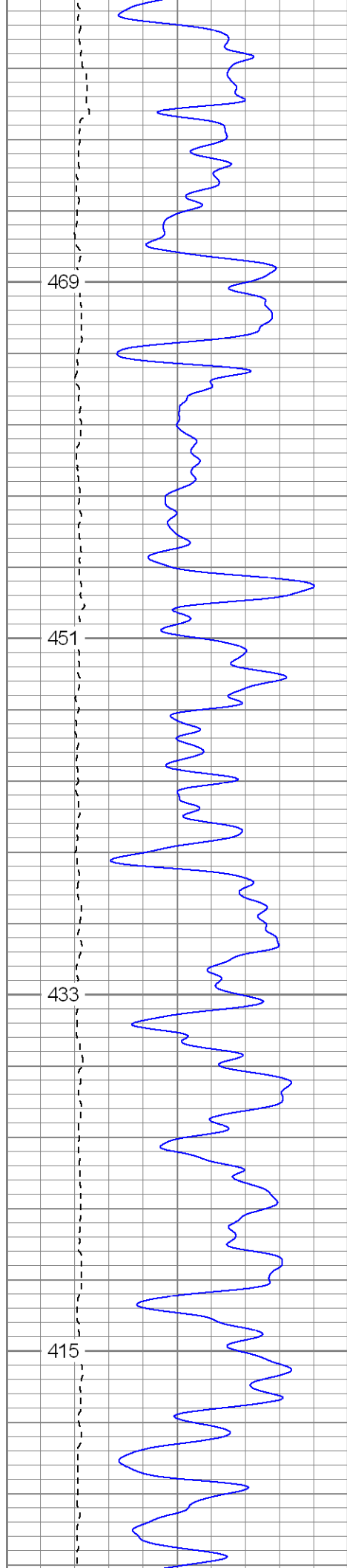
1	RHOB (g/cc)	2
30	DPOR (pu)	-10
-0.5	RHOC (g/cc)	0.5
4000	LTEN (lb)	0

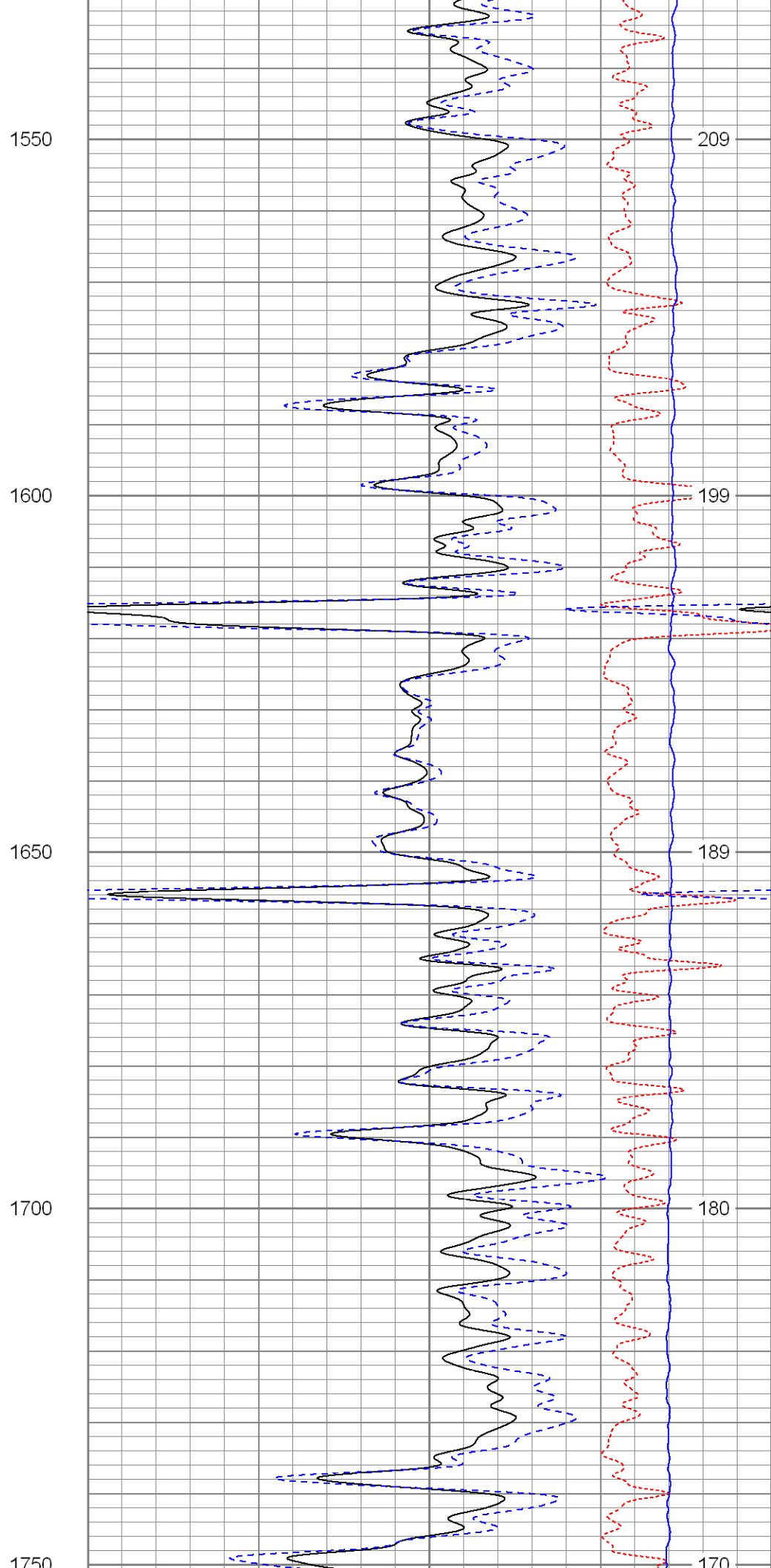
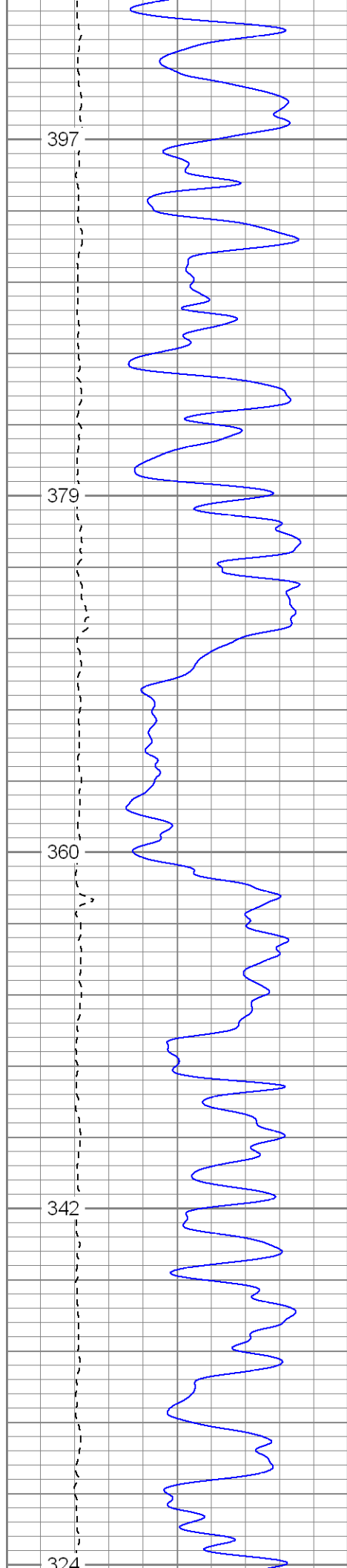


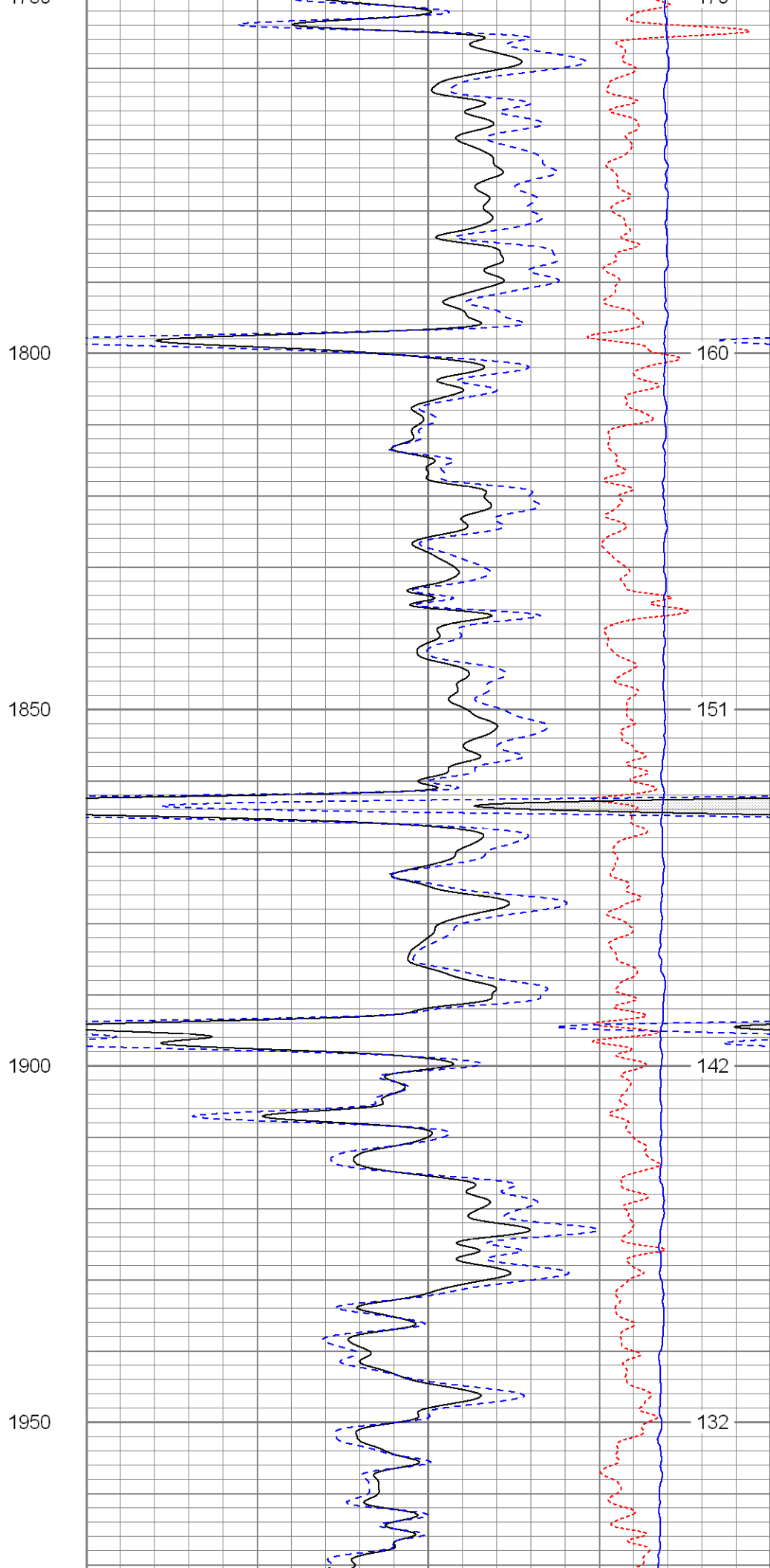
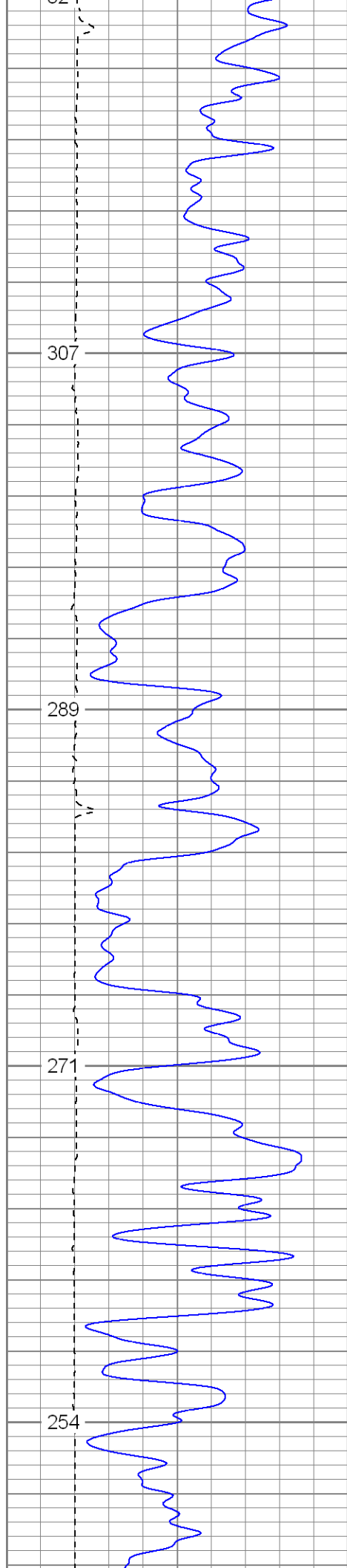


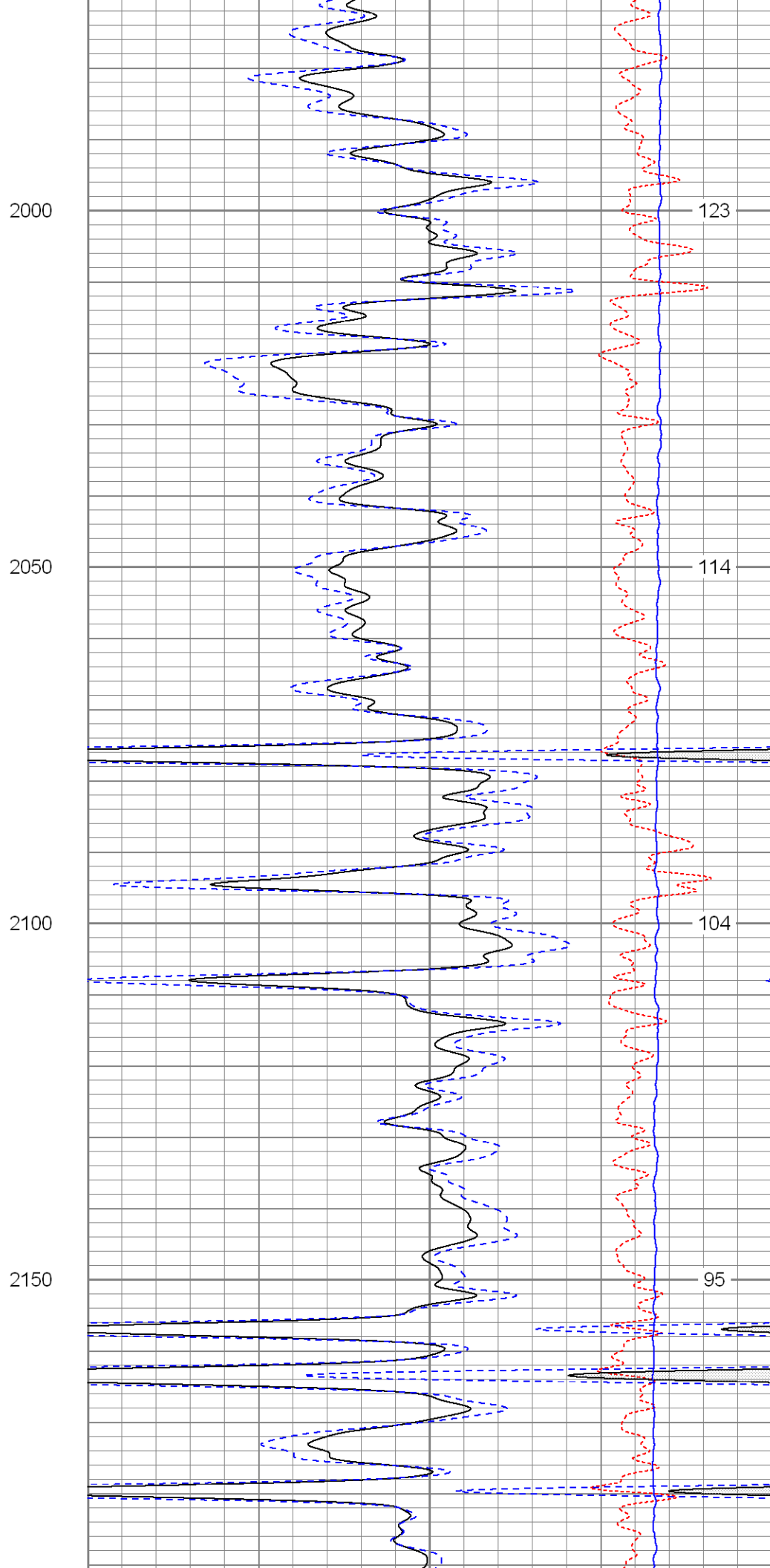
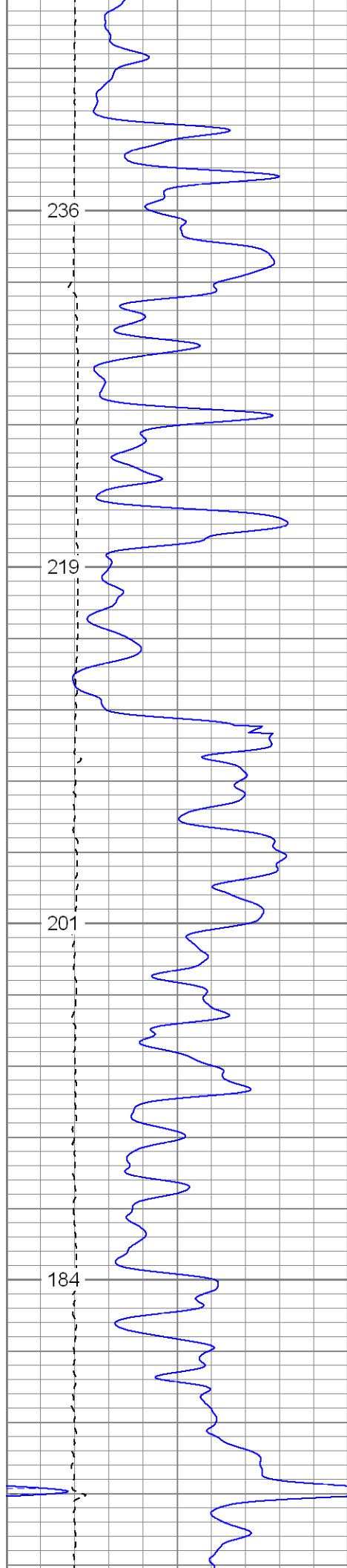


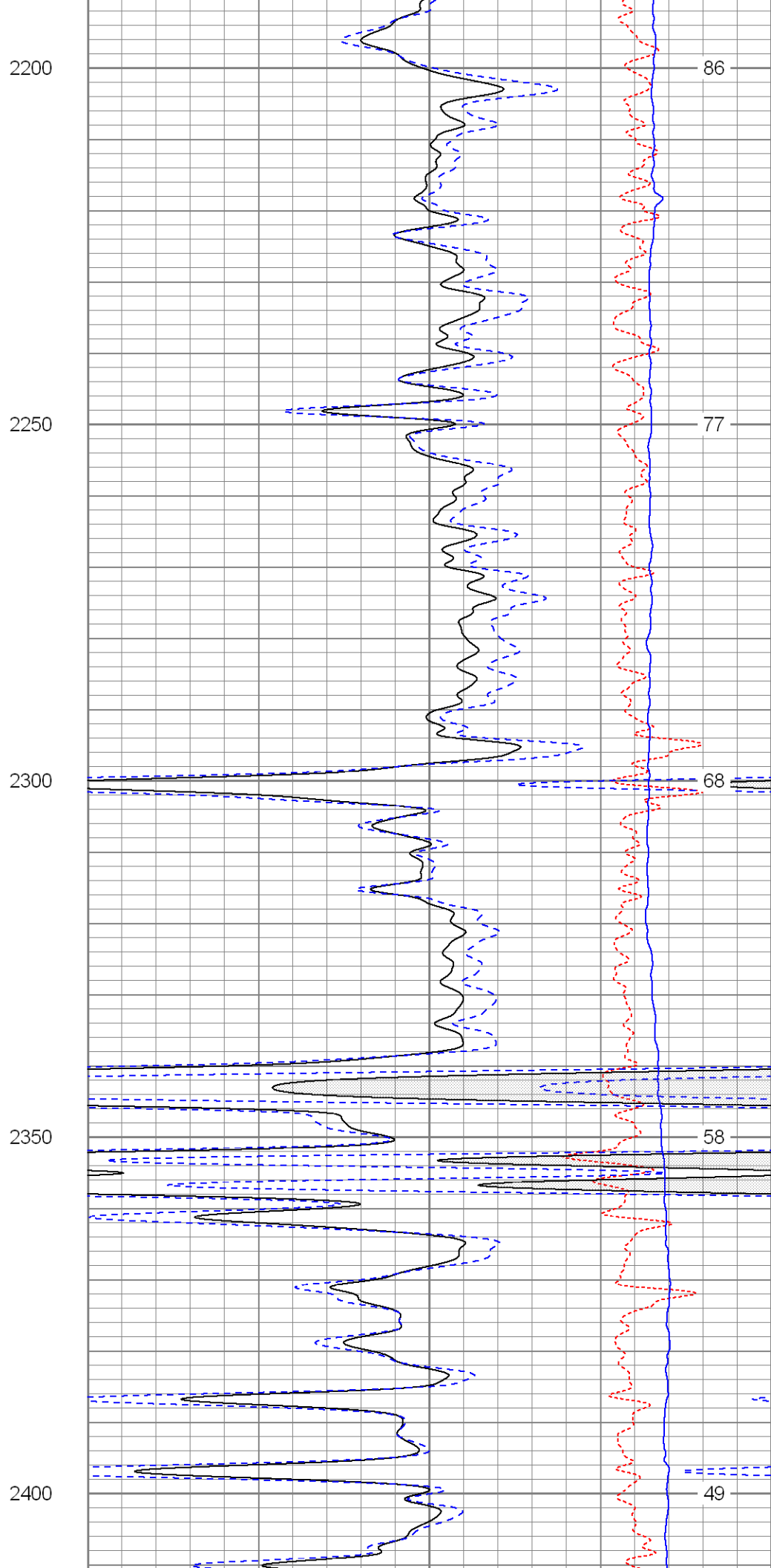
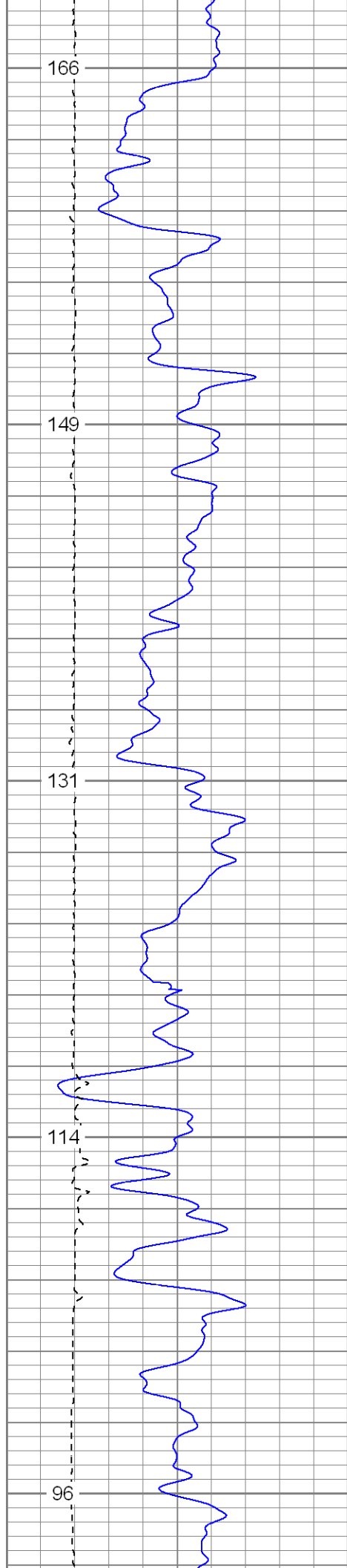


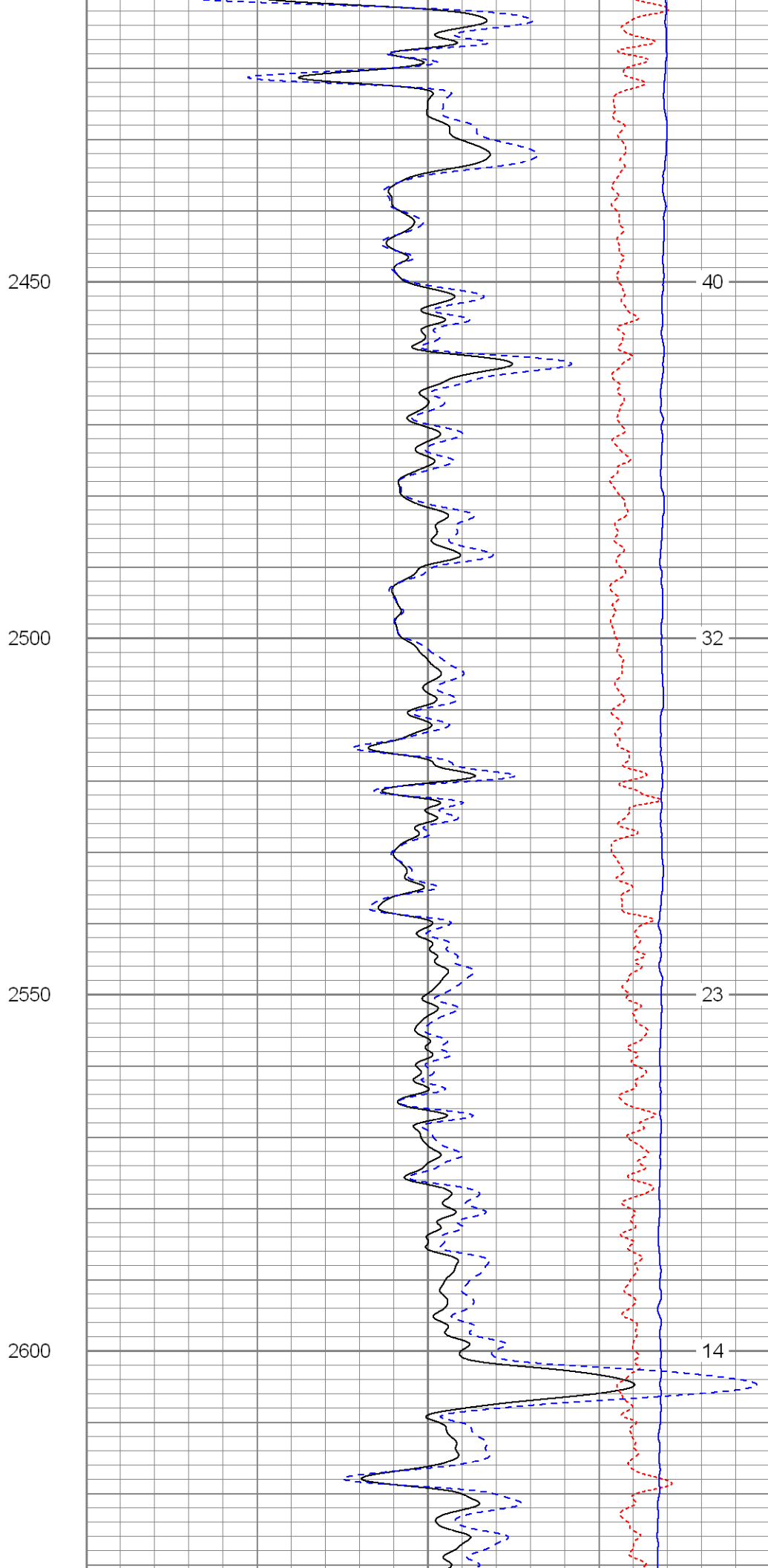
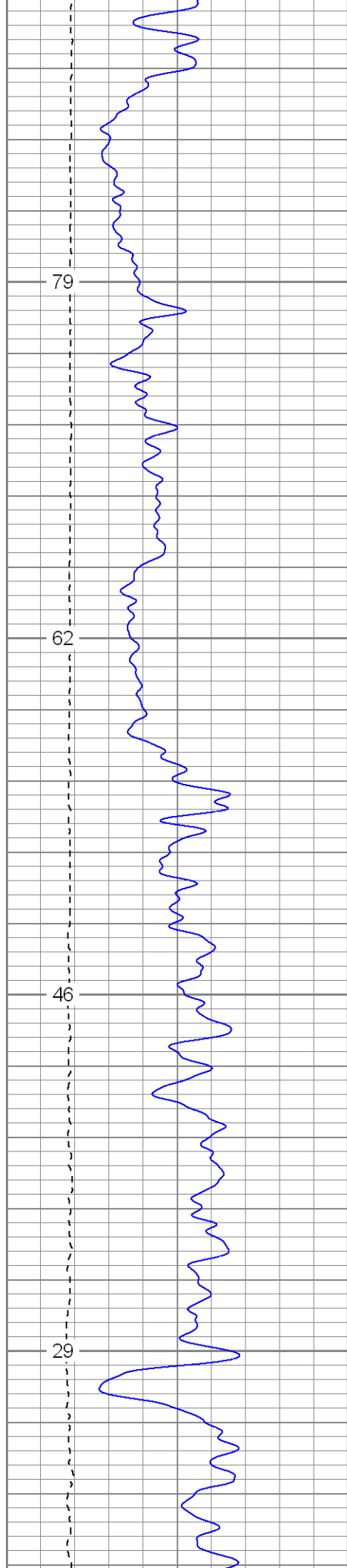


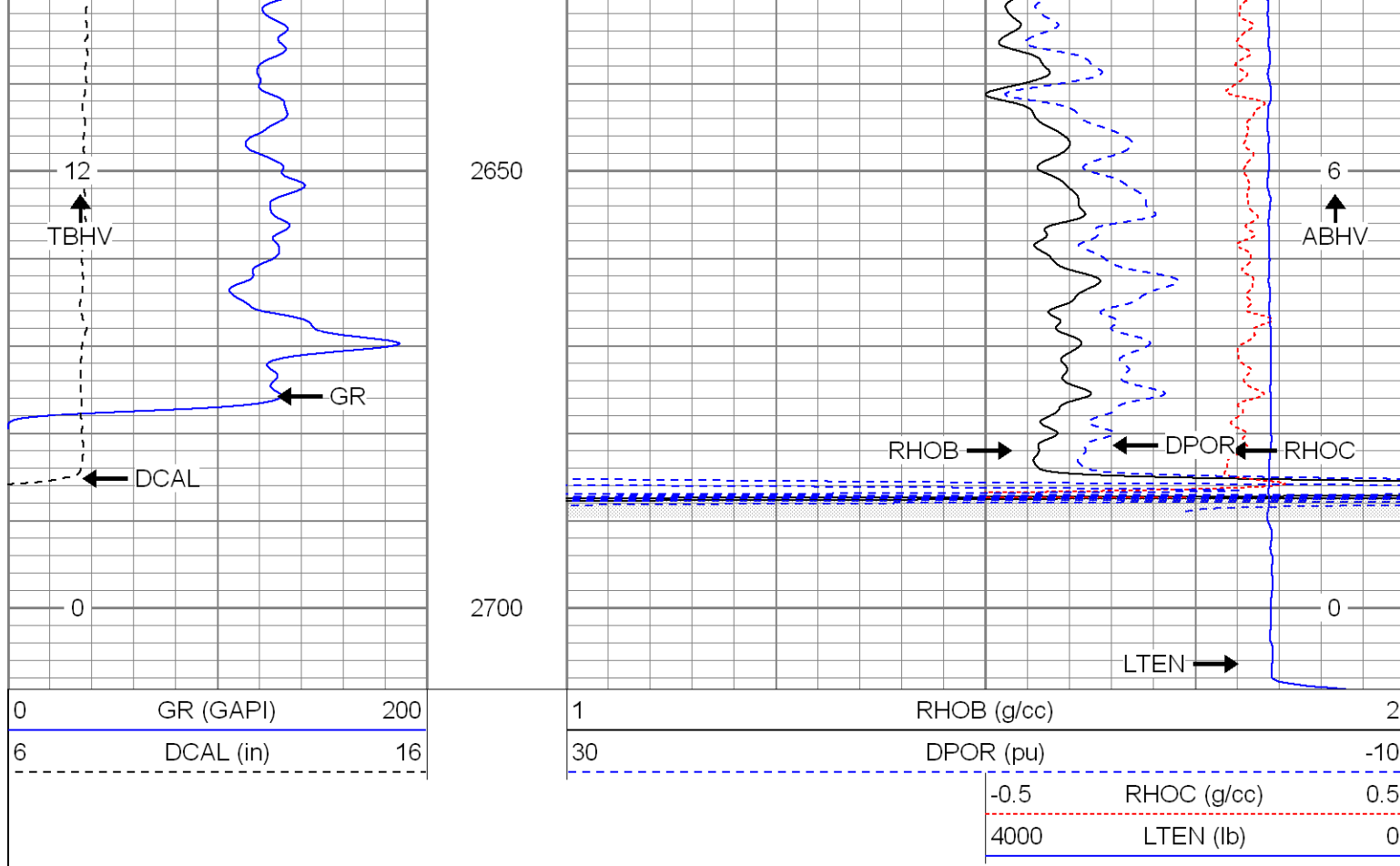












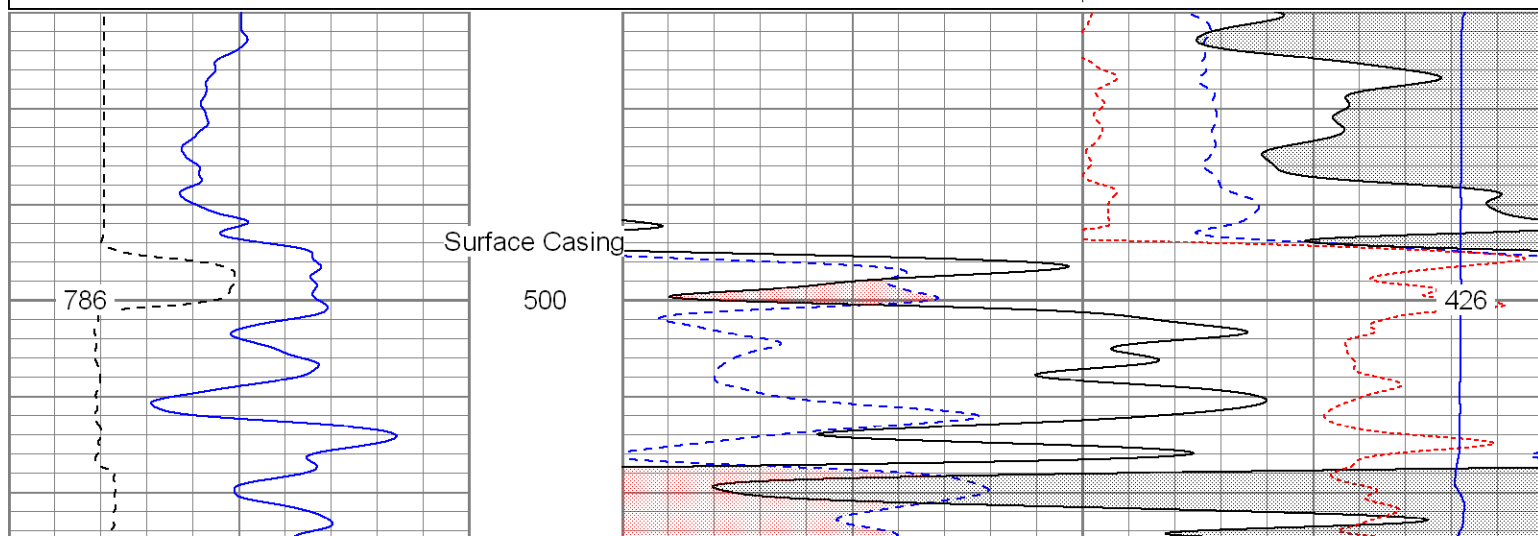
SUPERIOR

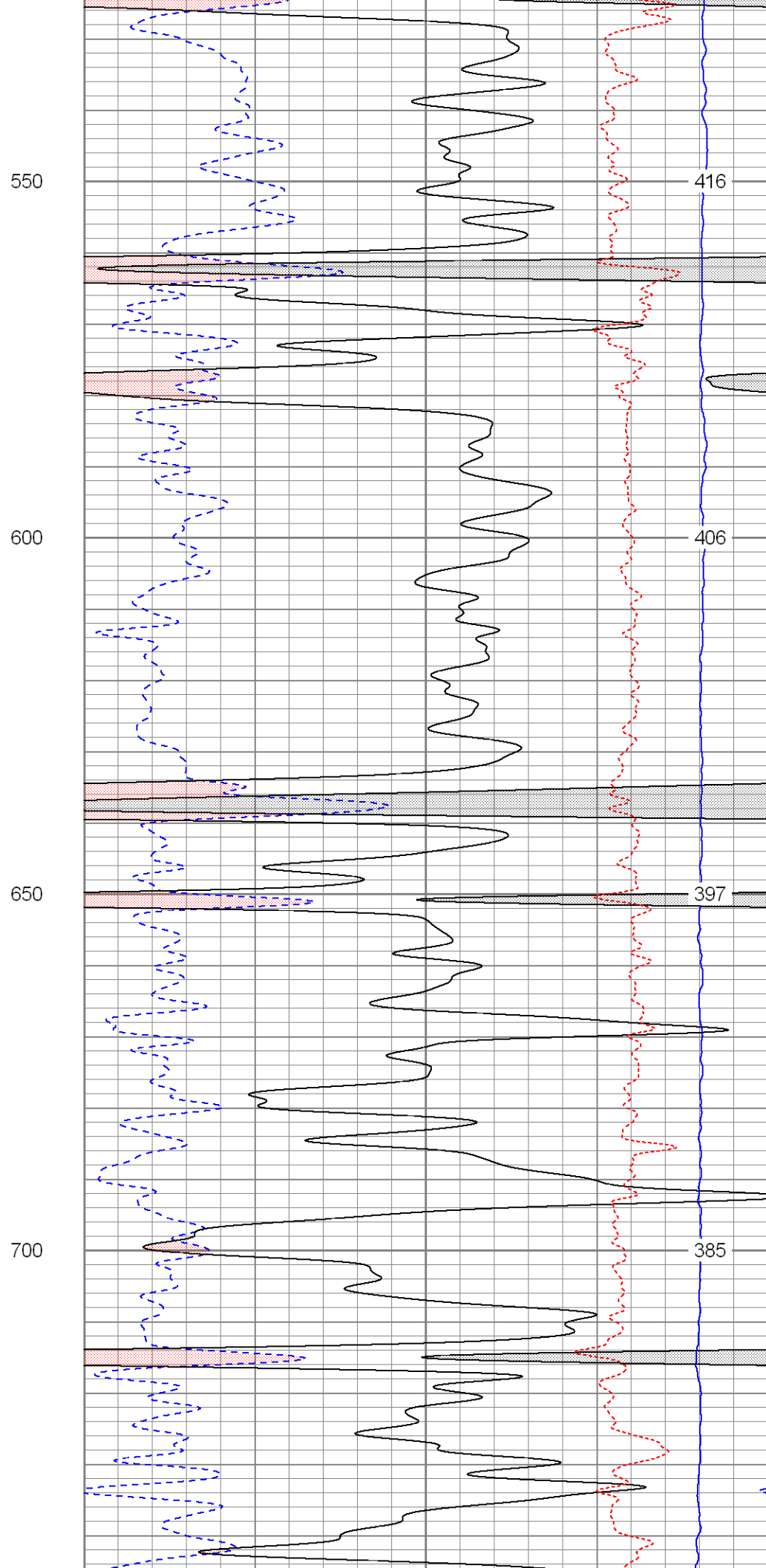
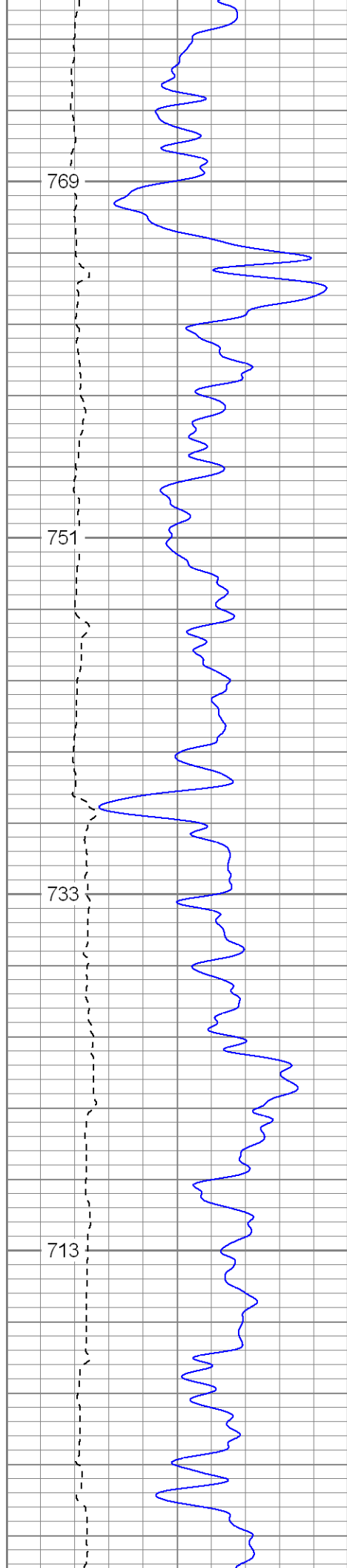
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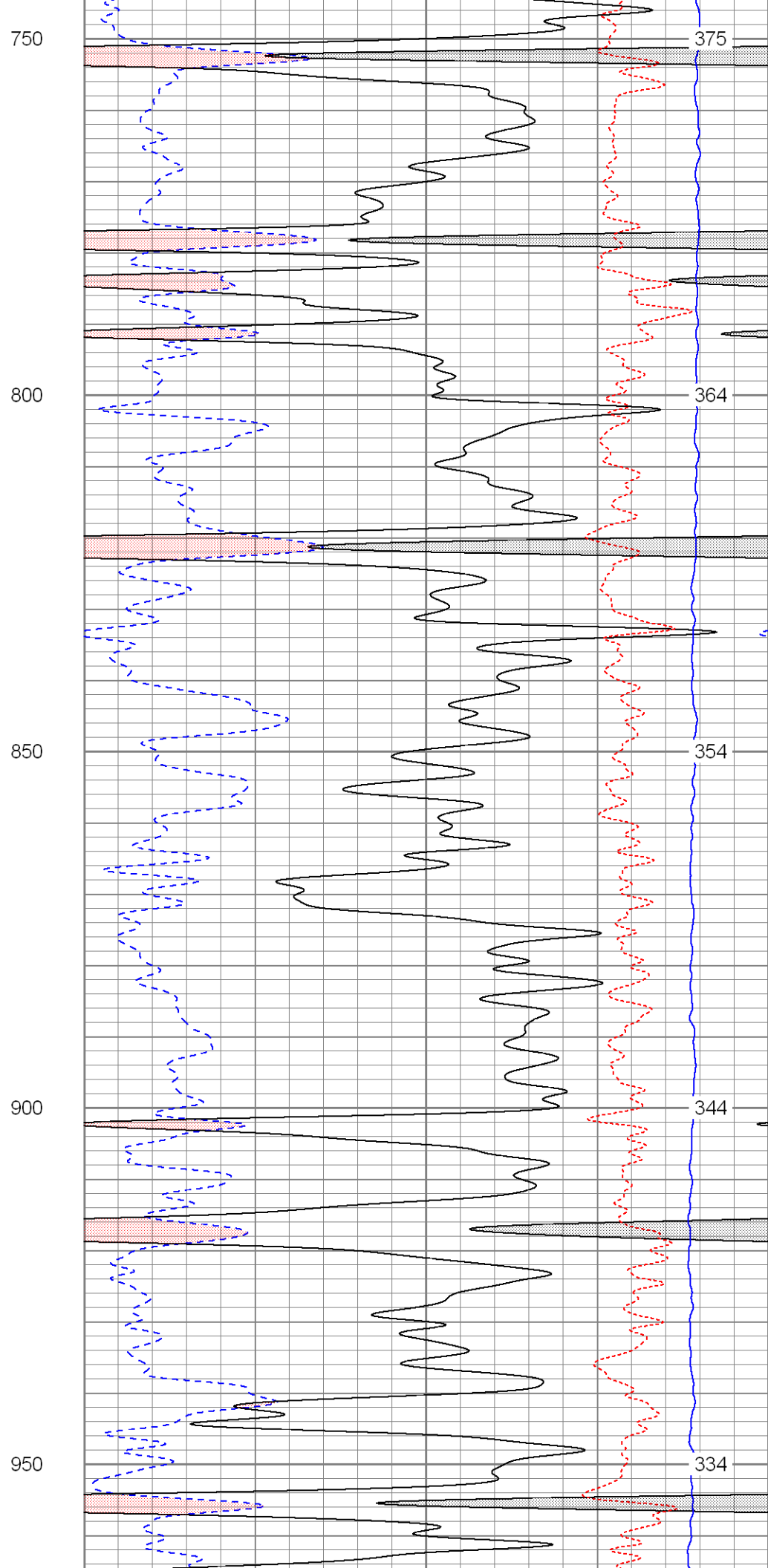
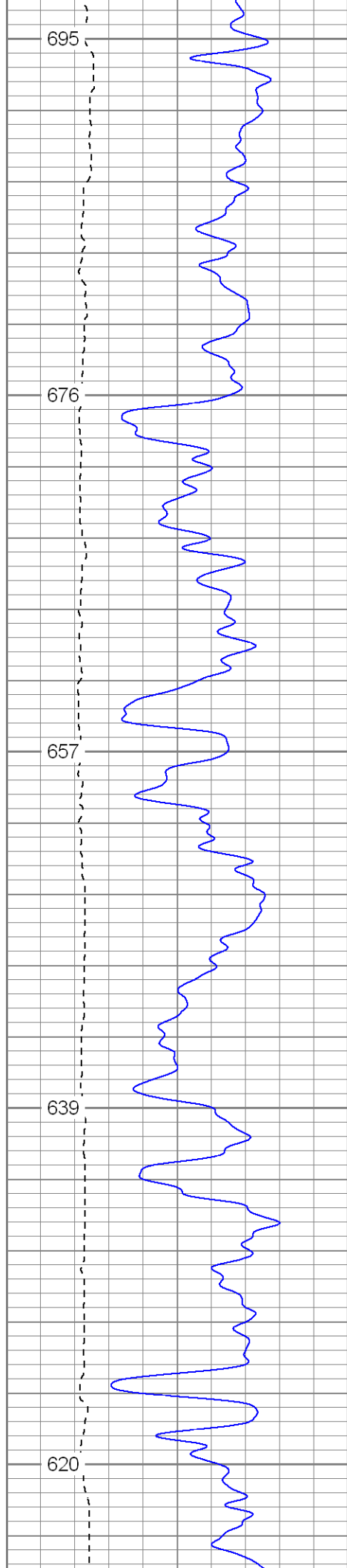
Main Pass

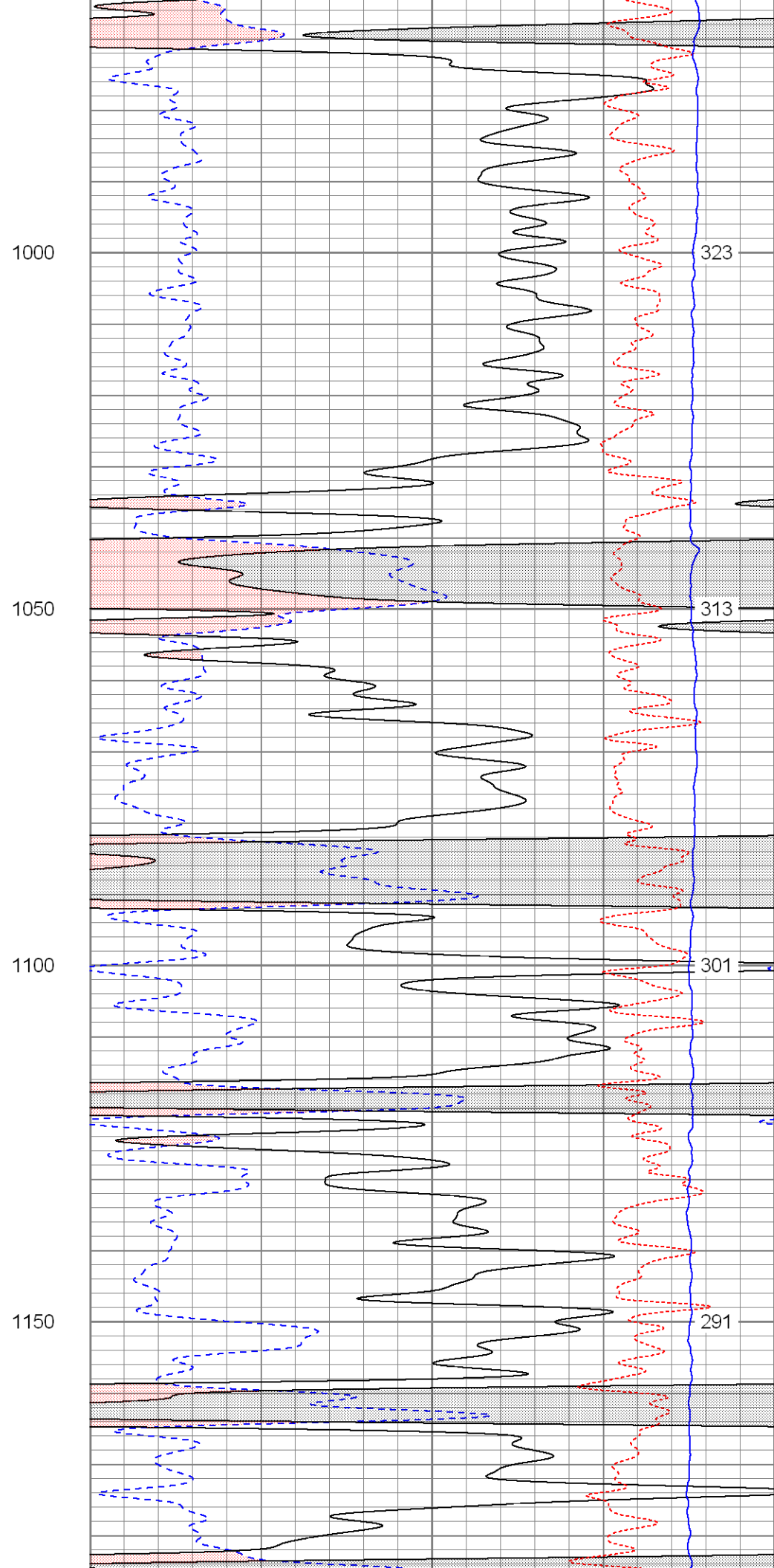
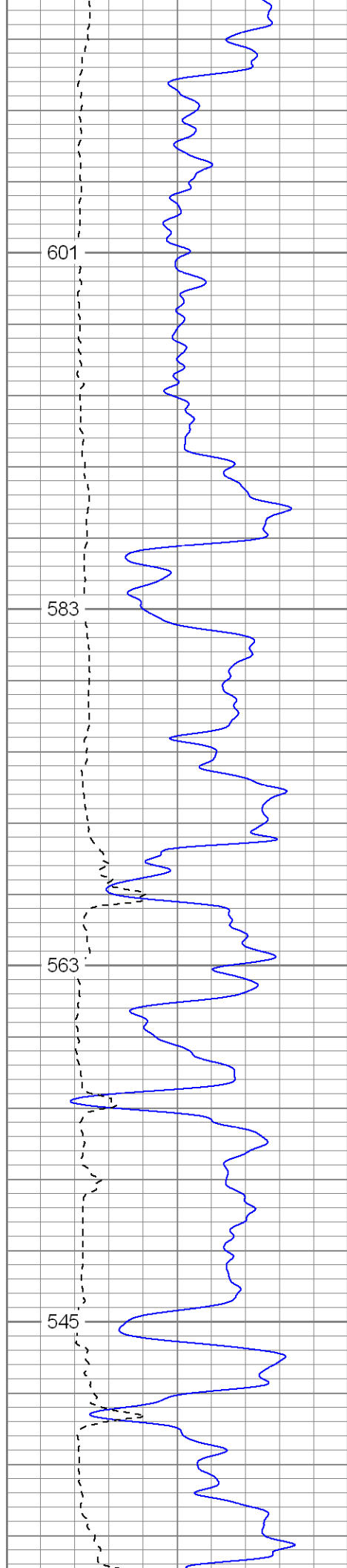
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Dataset Pathname: pass2.1
Presentation Format: cdnl
Dataset Creation: Thu Aug 16 20:29:54 2007 by Calc Open-Cased 061129
Charted by: Depth in Feet scaled 1:240

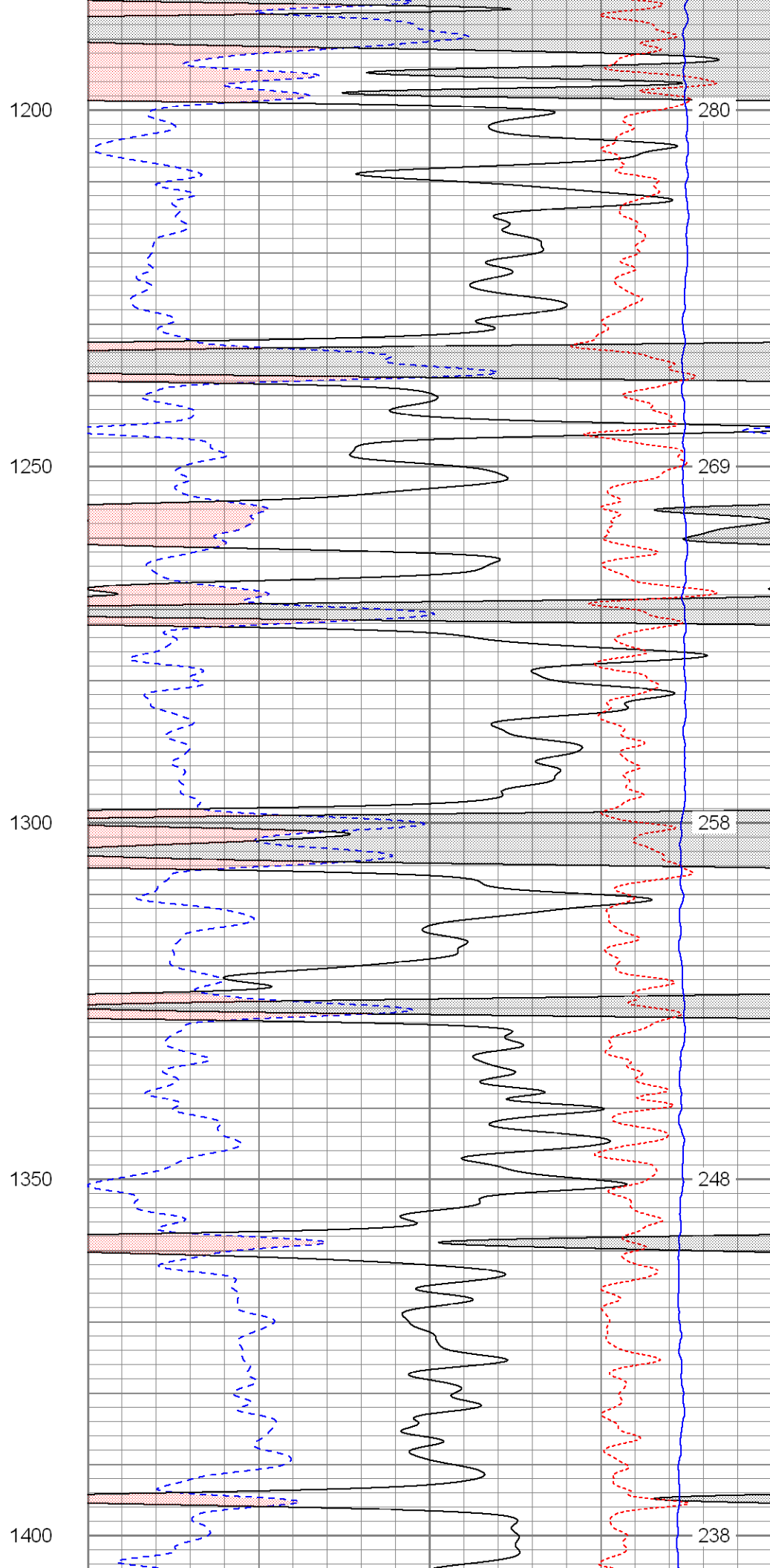
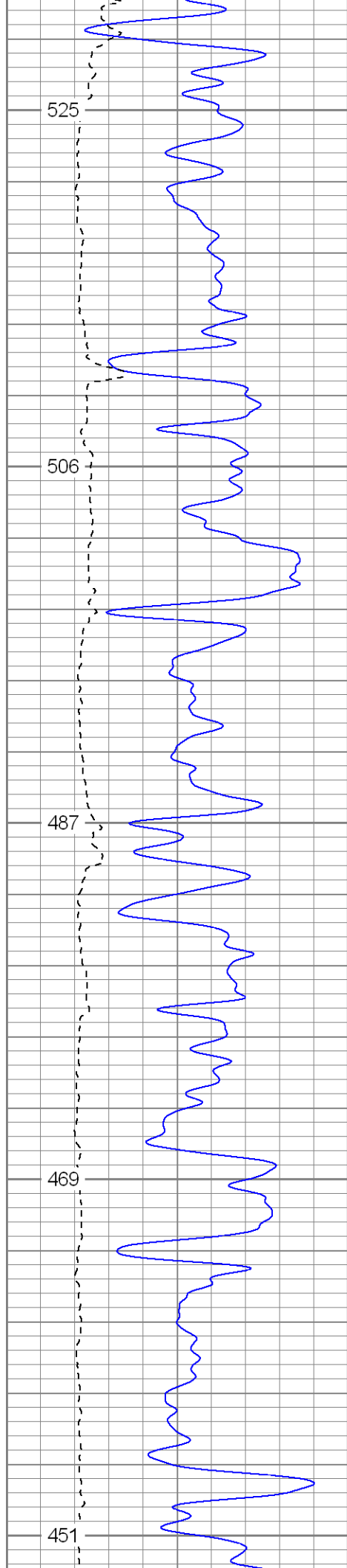
0	GR (GAPI)	200	30	NPOR (pu)	-10
6	DCAL (in)	16	30	DPOR (pu)	-10
			-0.5	RHOC (g/cc)	0.5
			4000	LTEN (lb)	0

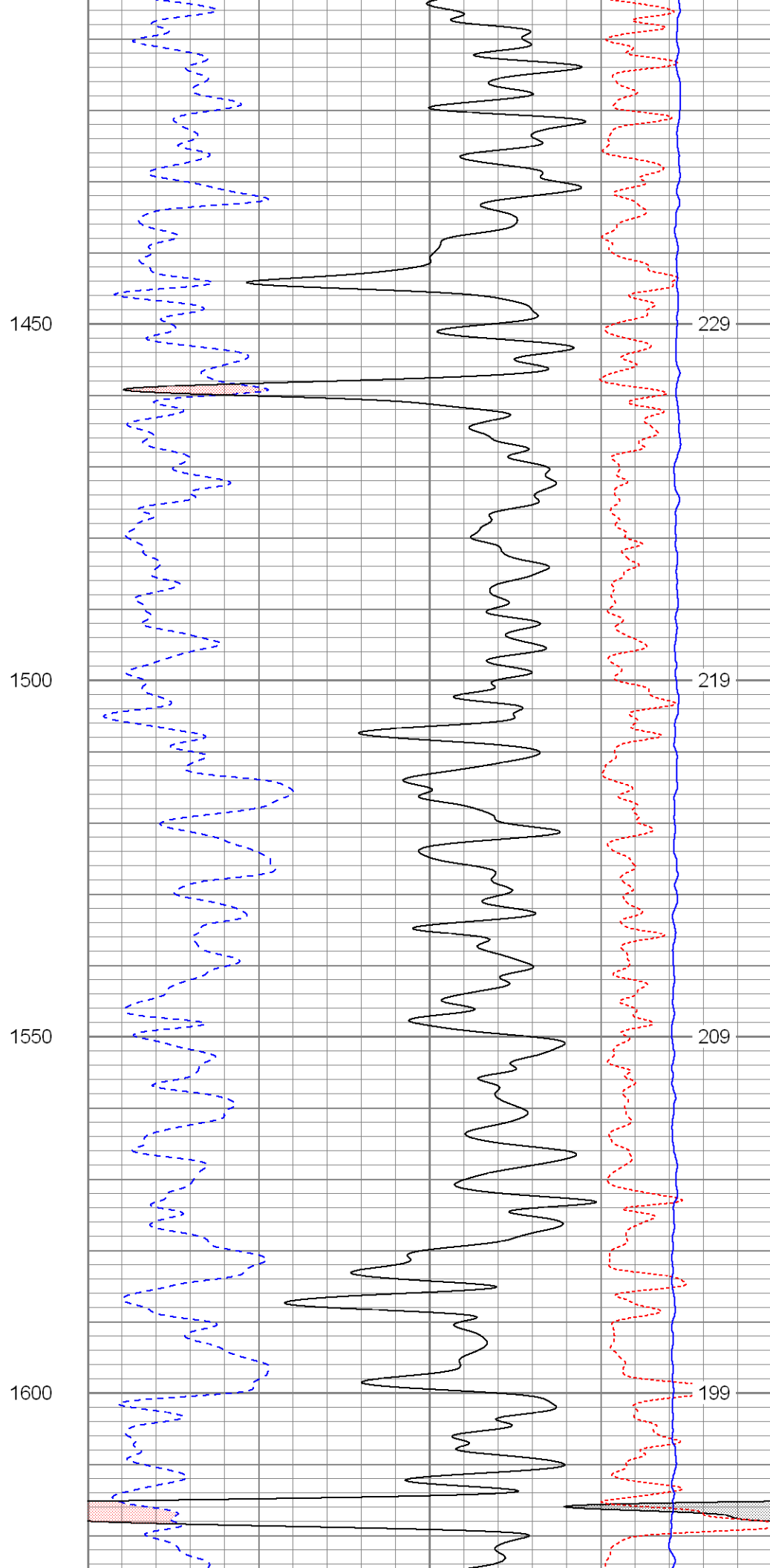
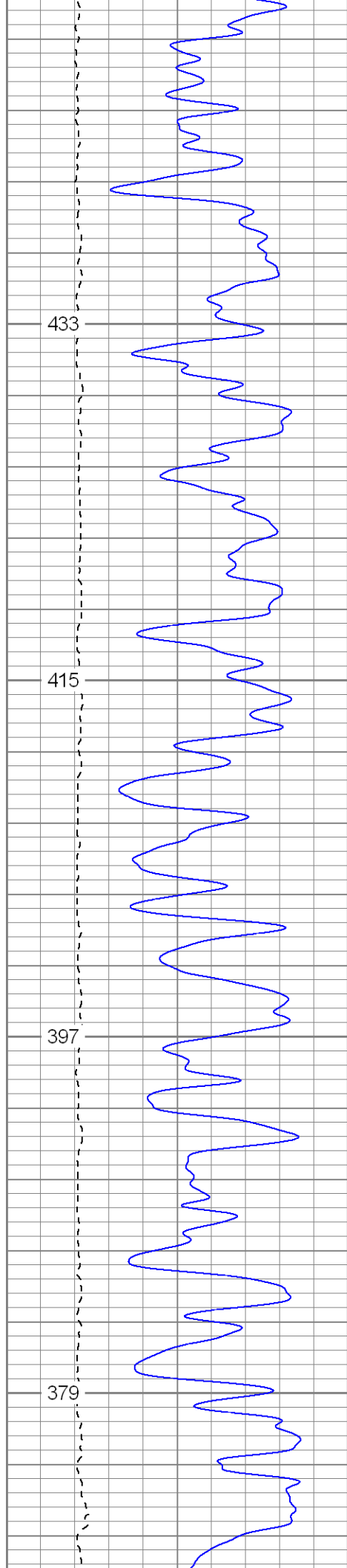


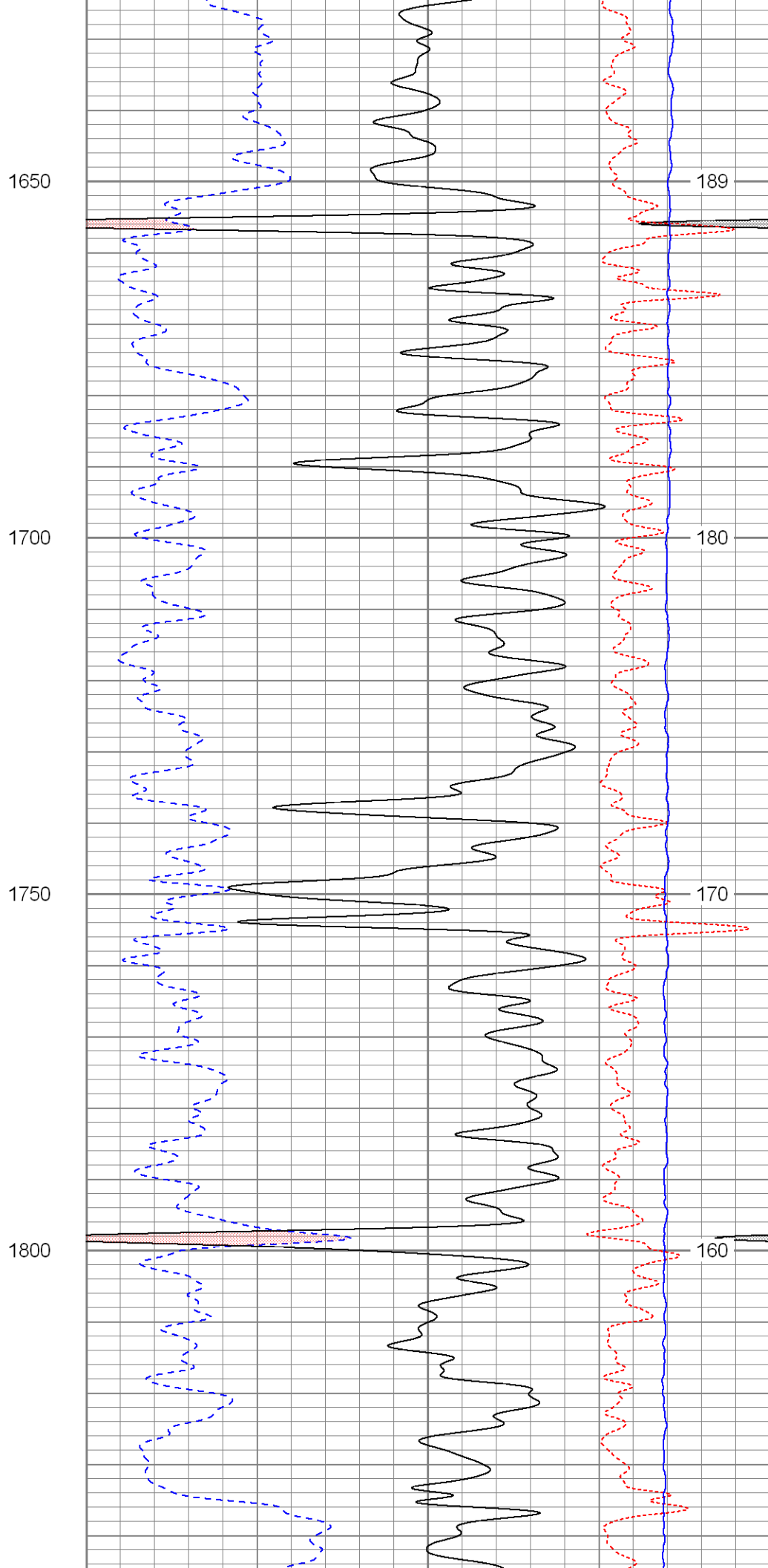
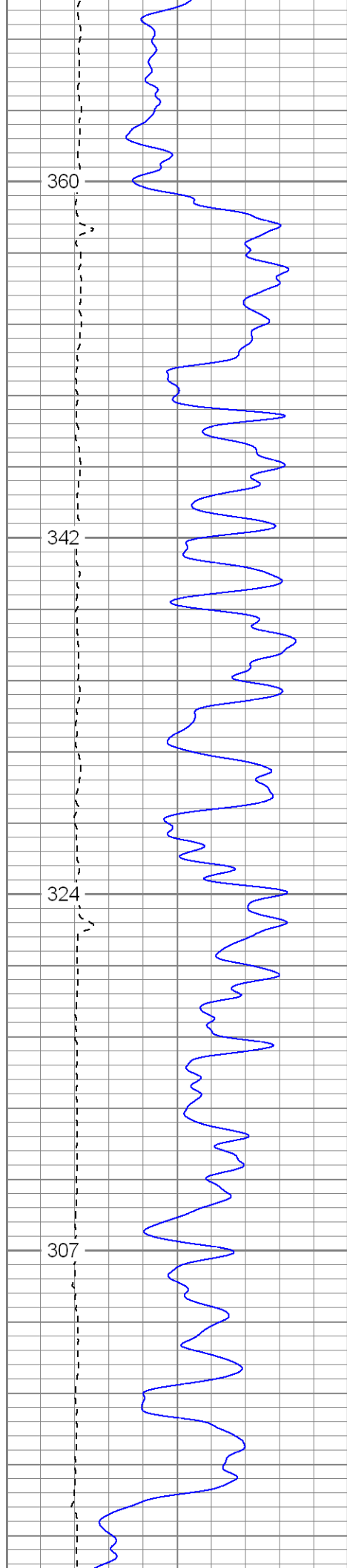


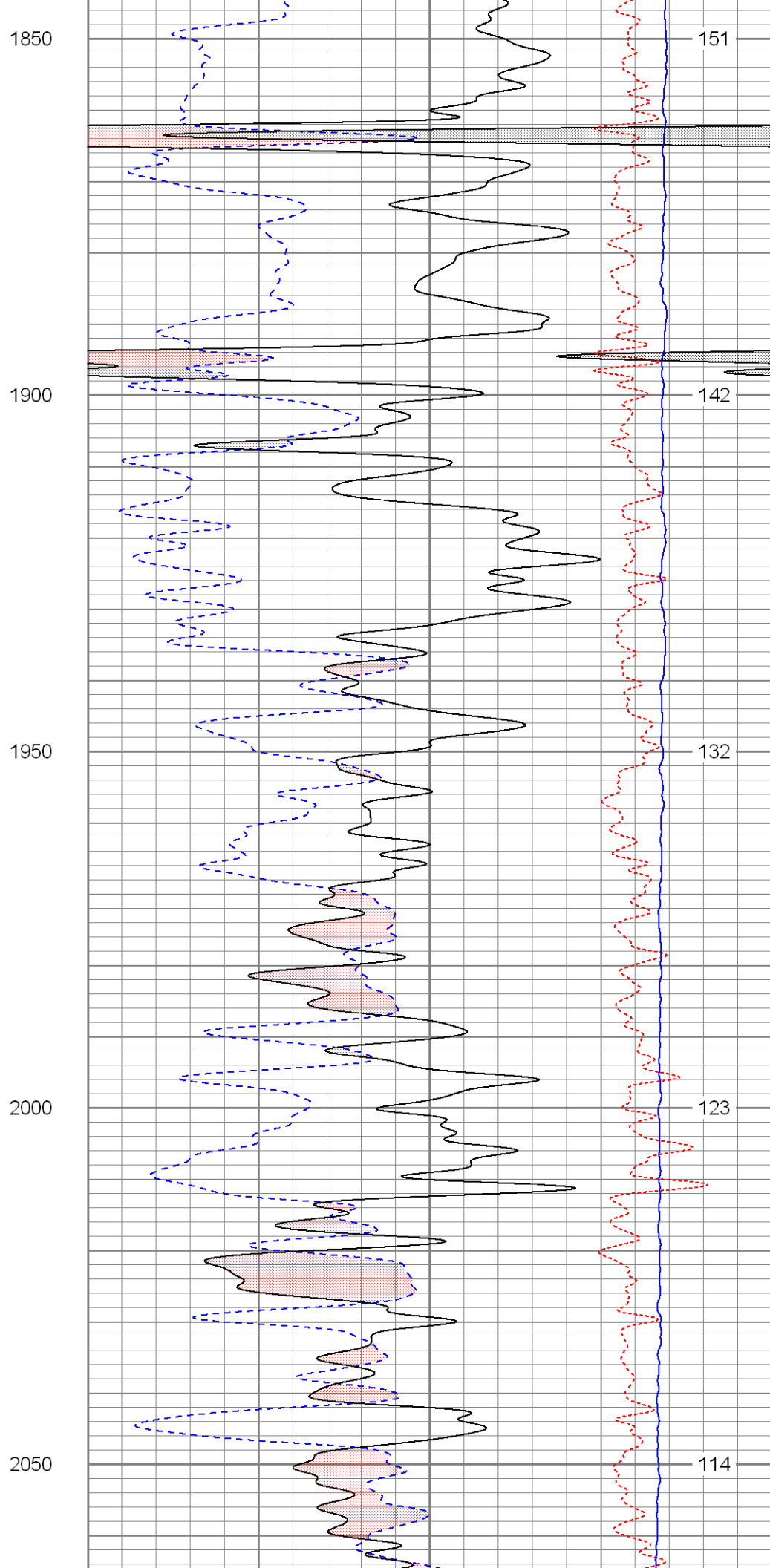
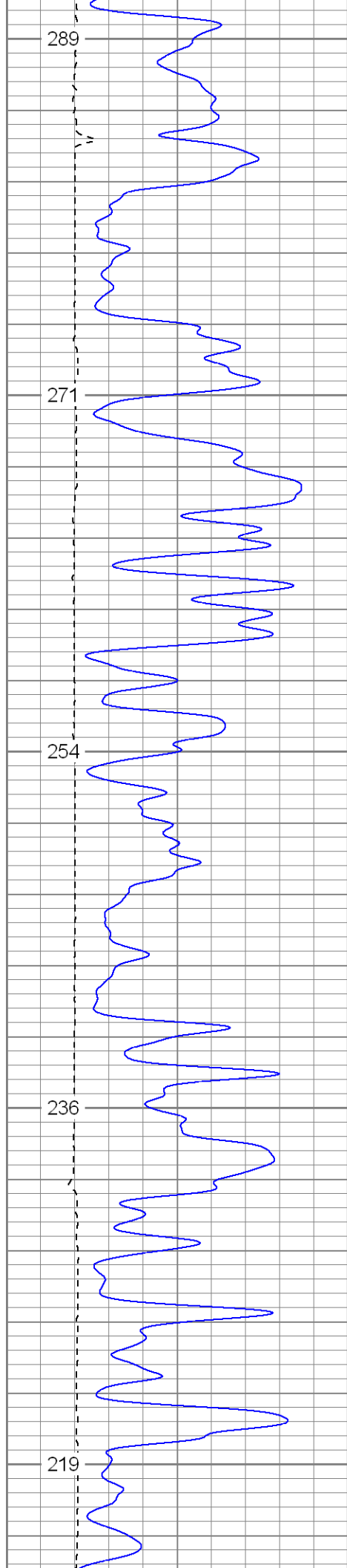


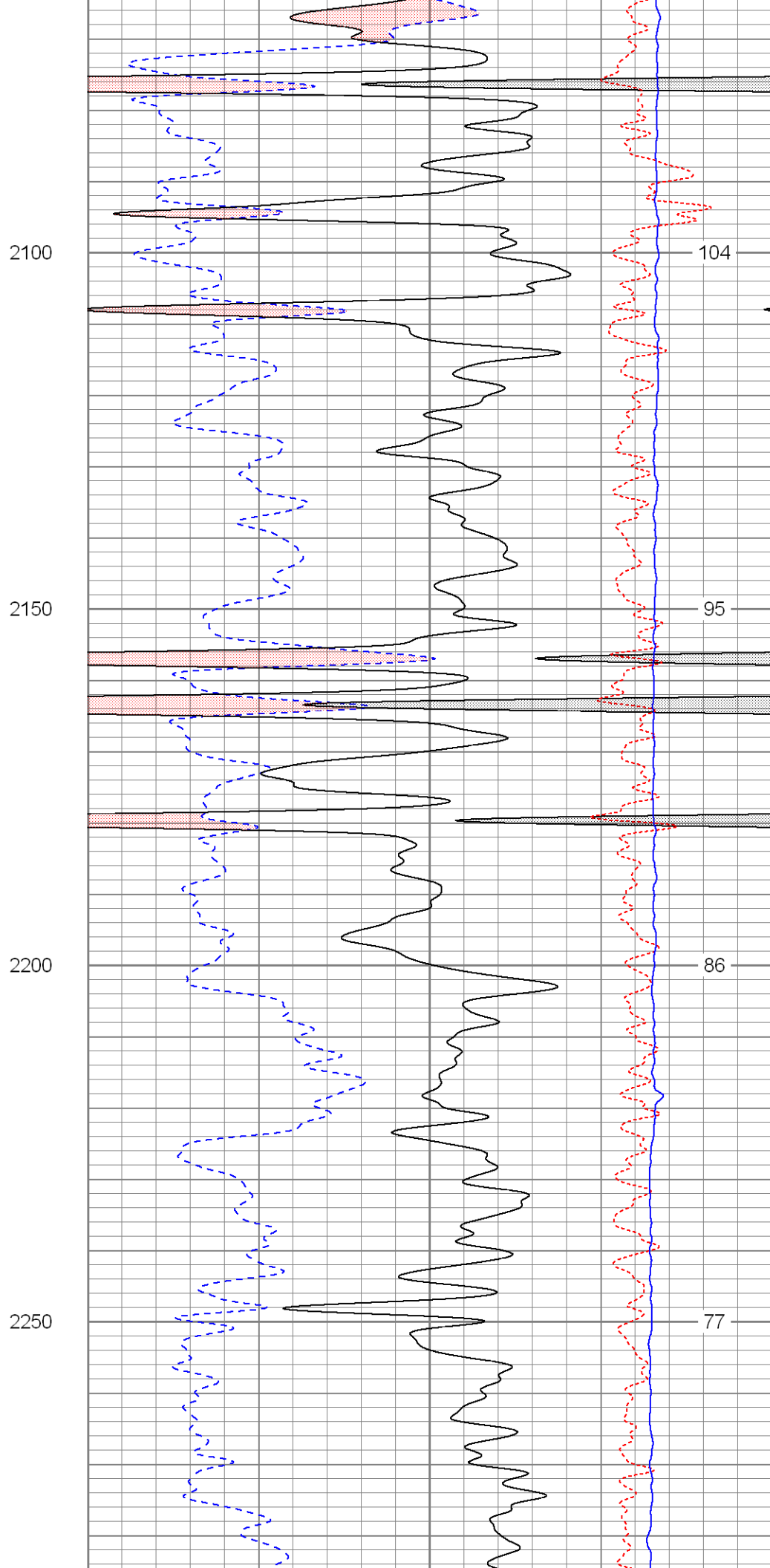
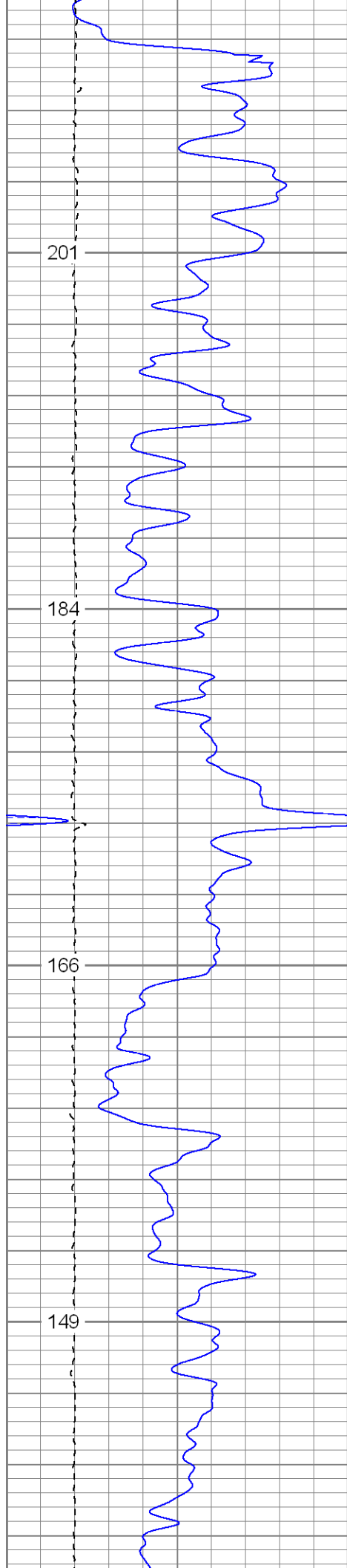


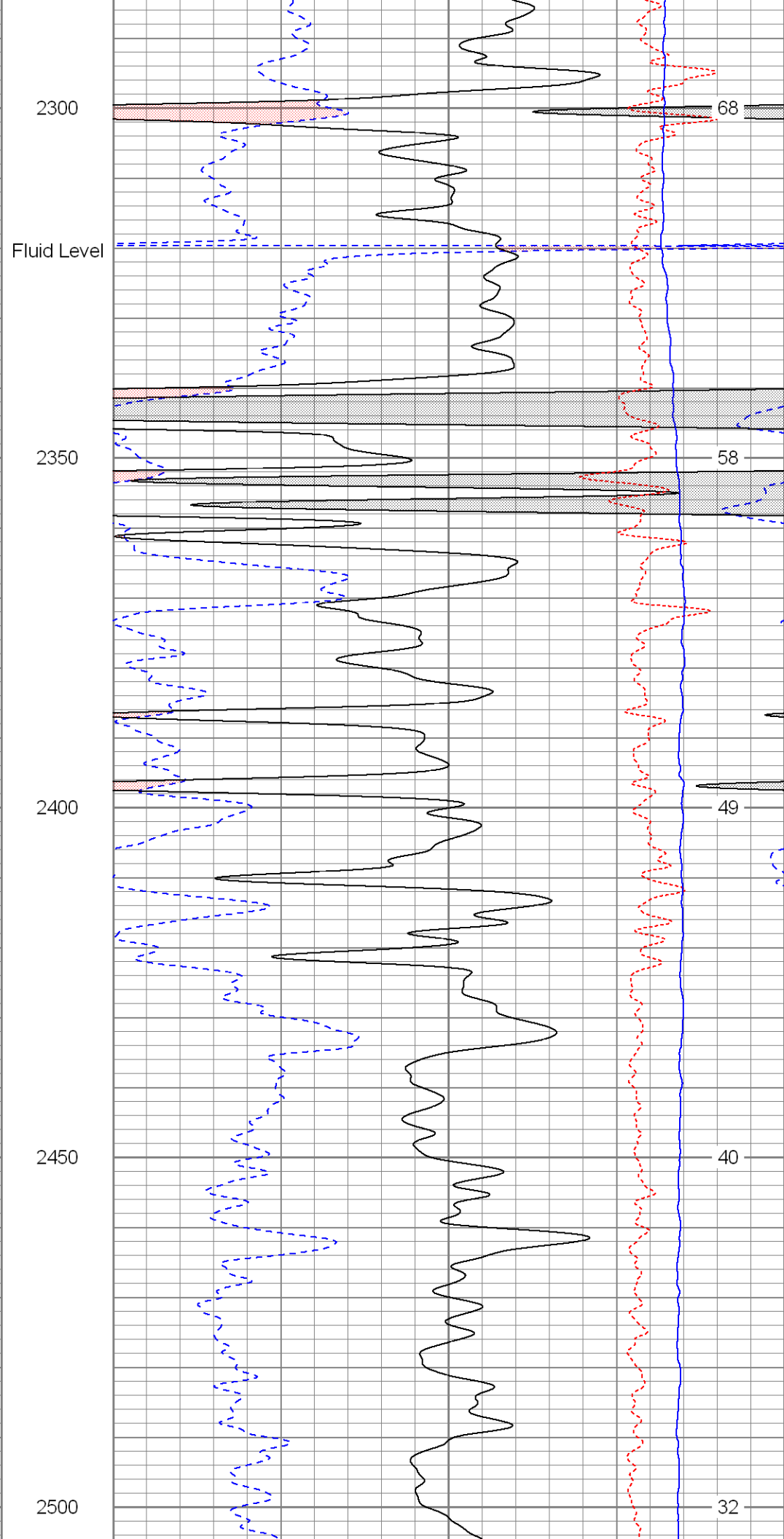
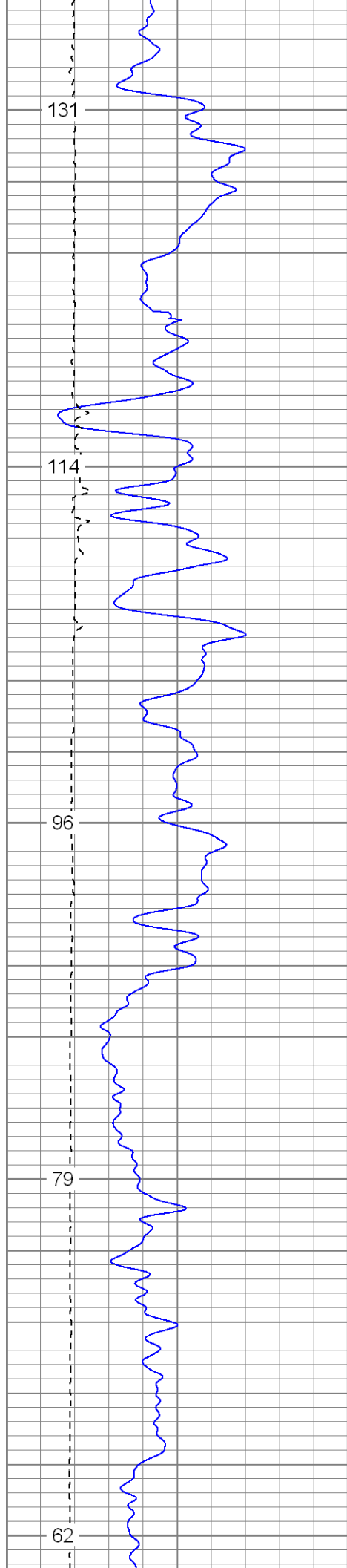


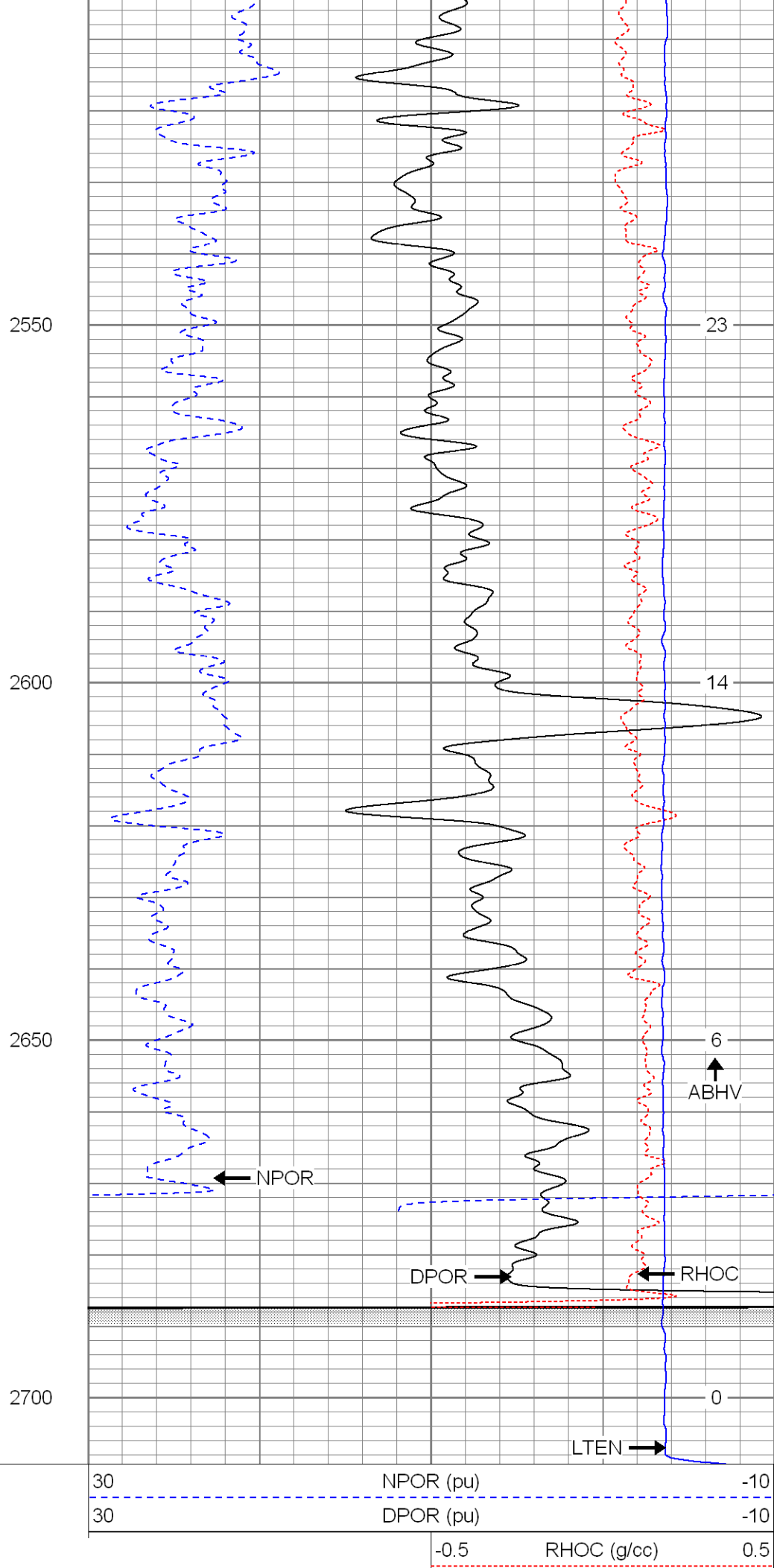
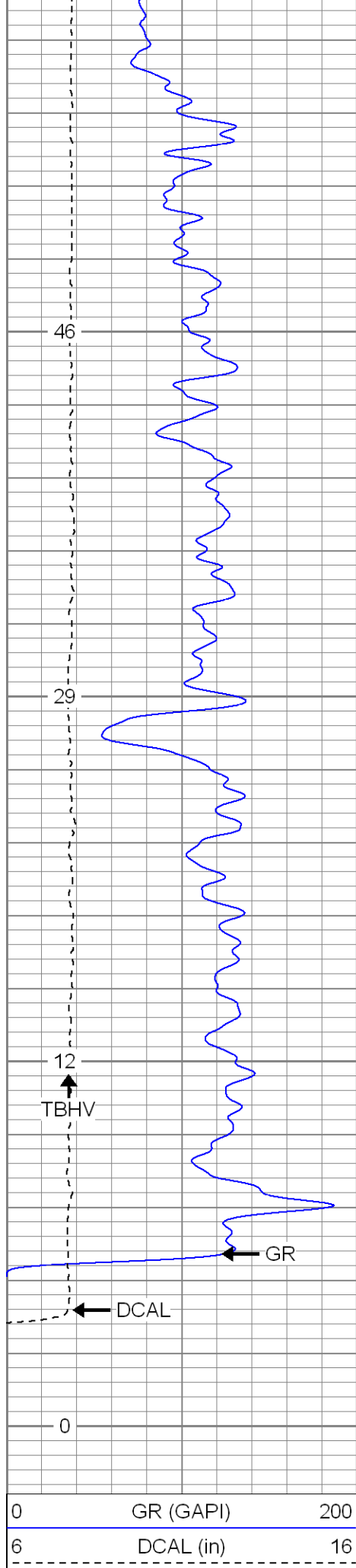














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Repeat Section

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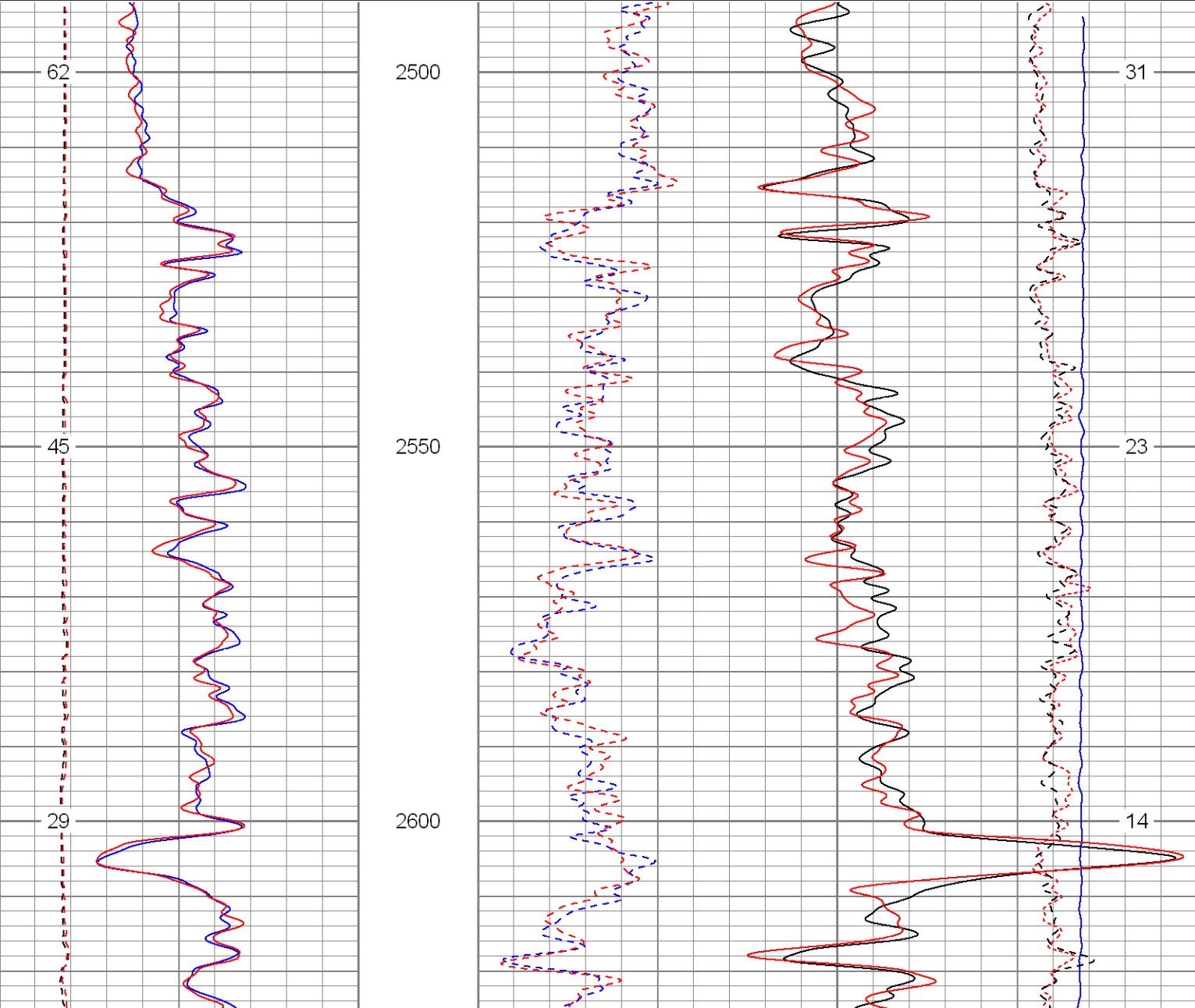
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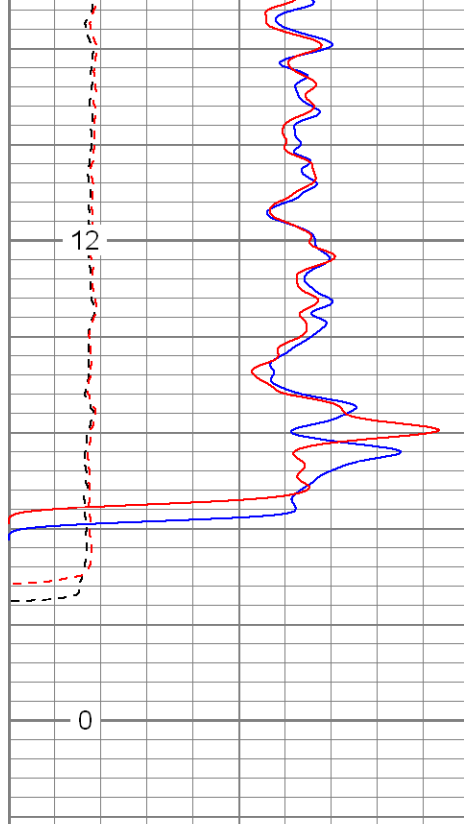
Presentation Format: cdnl

Dataset Creation: Thu Aug 16 20:29:01 2007 by Calc Open-Cased 061129

Charted by: Depth in Feet scaled 1:240

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6	DCAL (in)	16	30	DPOR (pu)	-10
0	GR-repeat (GAPI)	200	30	NPOR-repeat (pu)	-10
6	DCAL-repeat (in)	16	30	DPOR-repeat (pu)	-10
			-0.5	RHOC (g/cc)	0.5
			4000	LTEN (lb)	0
			-0.5	RHOC-repeat (g/cc)	0.5

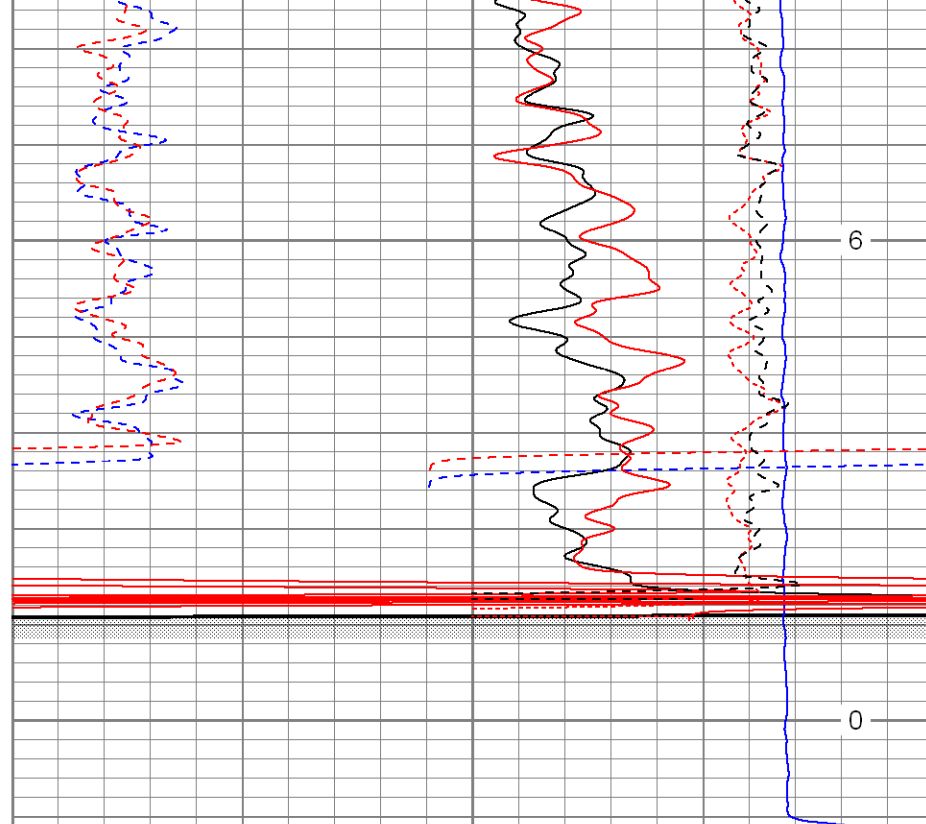




0	GR (GAPI)	200
6	DCAL (in)	16
0	GR-repeat (GAPI)	200
6	DCAL-repeat (in)	16

2650

2700



30	NPOR (pu)	-10
30	DPOR (pu)	-10
30	NPOR-repeat (pu)	-10
30	DPOR-repeat (pu)	-10

-0.5	RHOC (g/cc)	0.5
4000	LTEN (lb)	0
-0.5	RHOC-repeat (g/cc)	0.5



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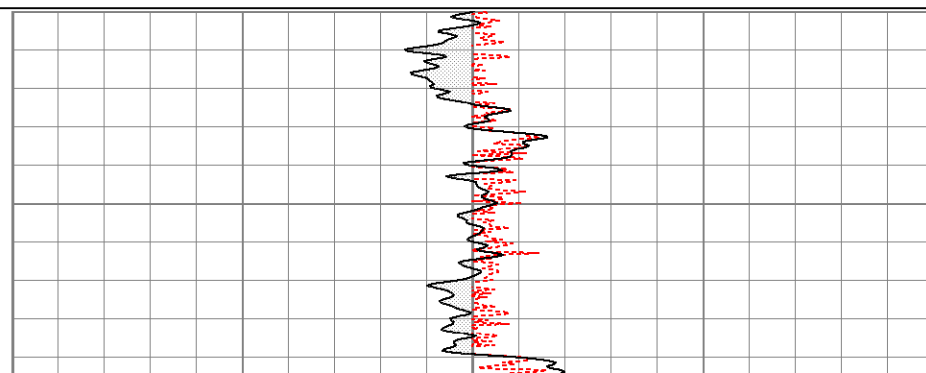
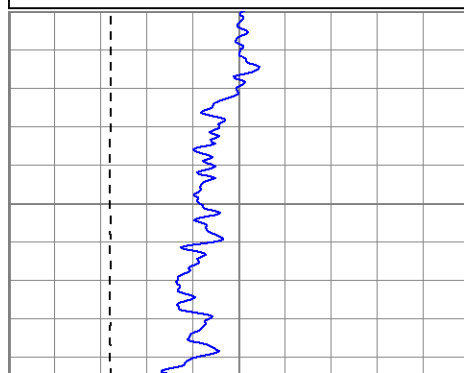
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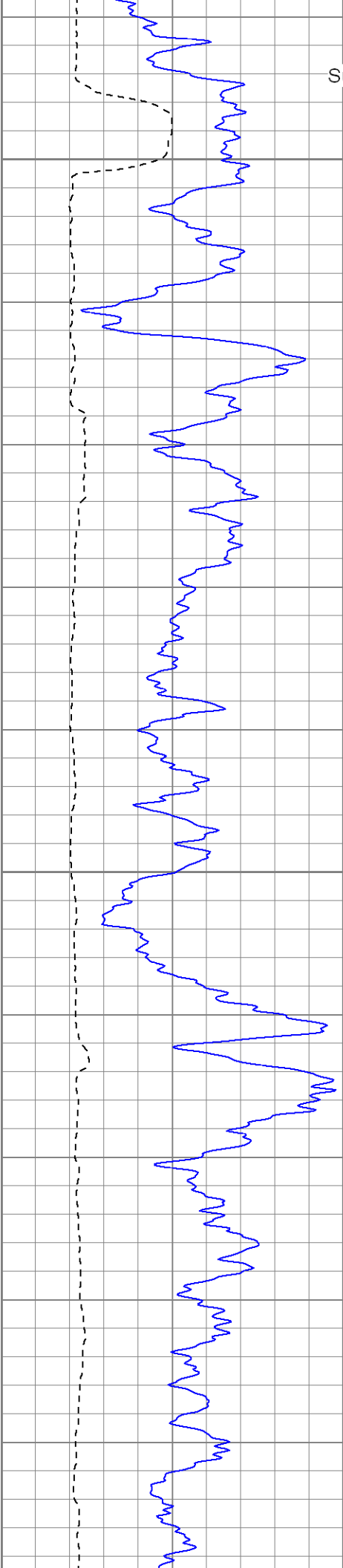
High Resolution Pass

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Presentation Format: cdlhr
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Charted by: Depth in Feet scaled 1:120

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6	DCAL (in)	16

1	RHOB (g/cc)	3
-0.5	RHOC (g/cc)	0.5

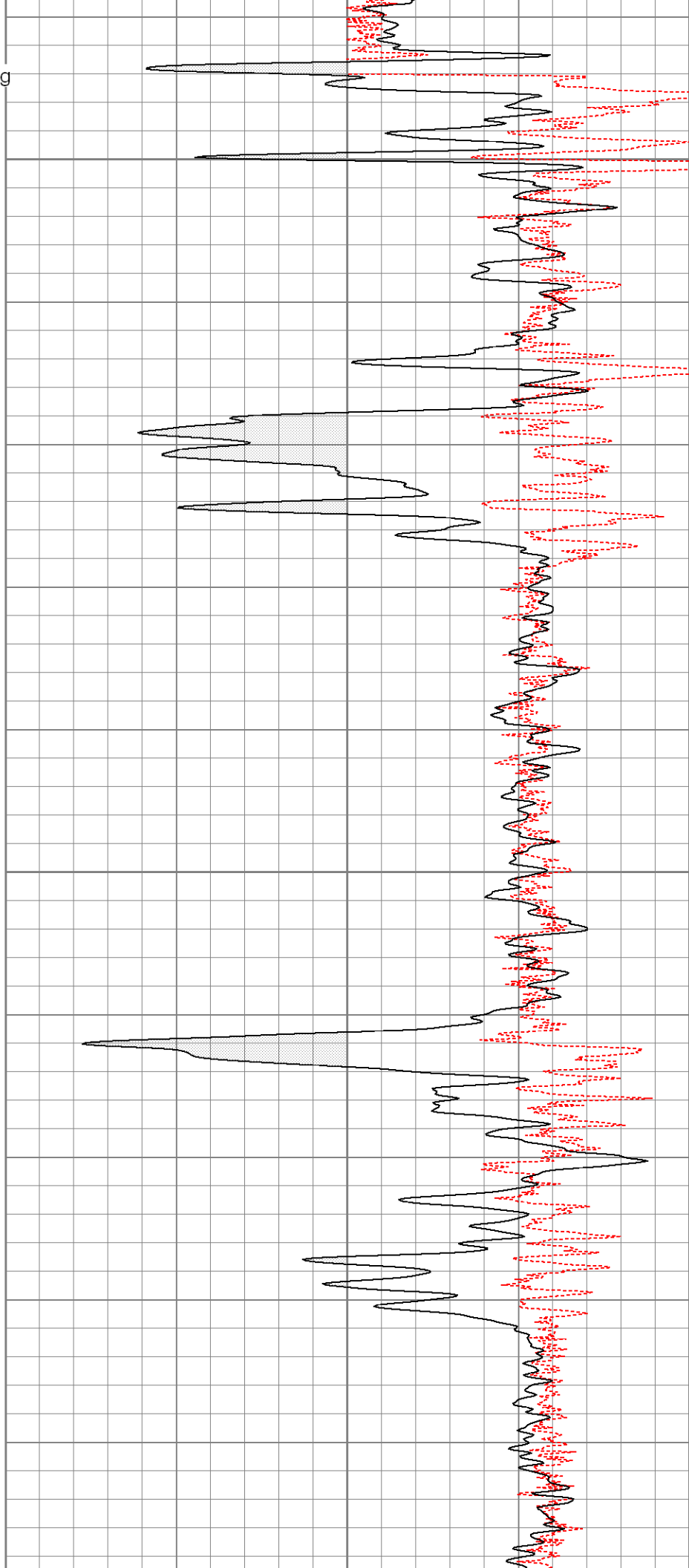




Surface Casing

500

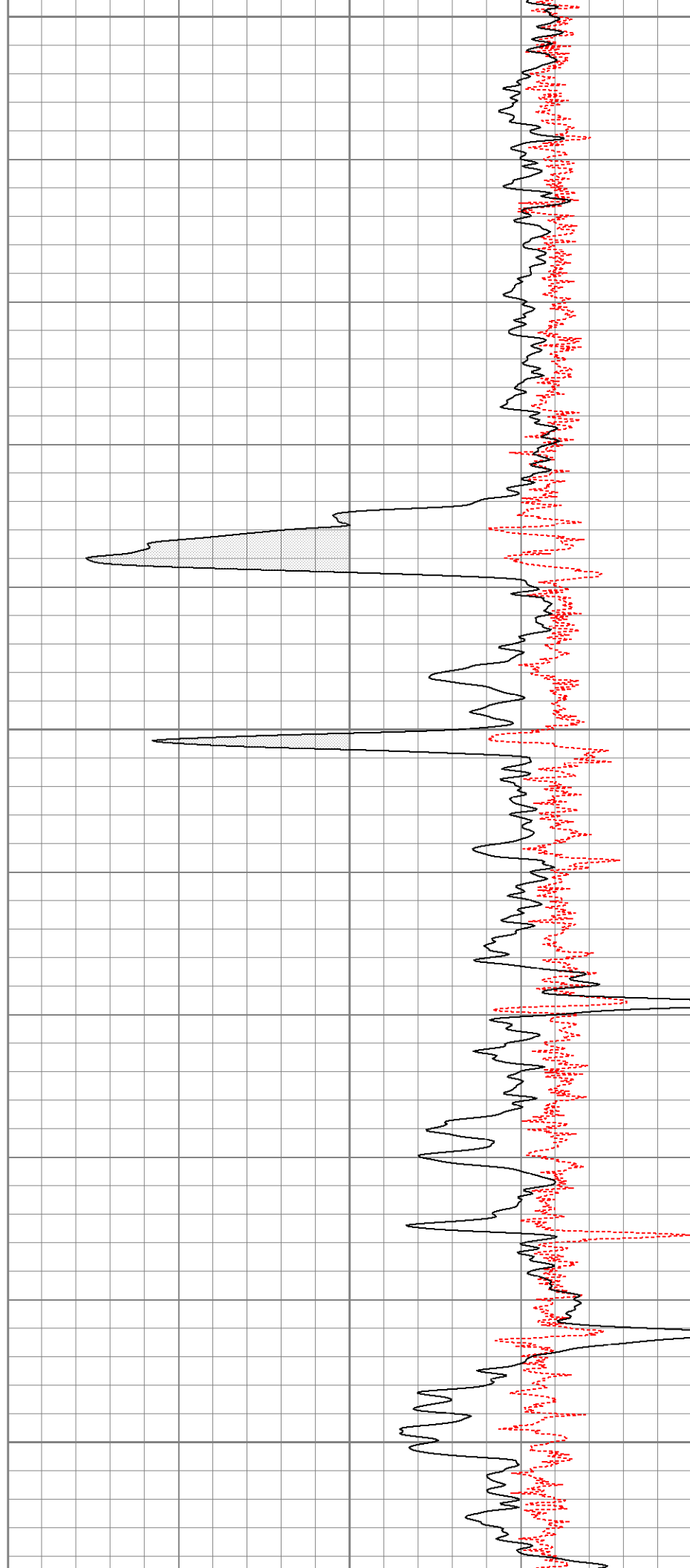
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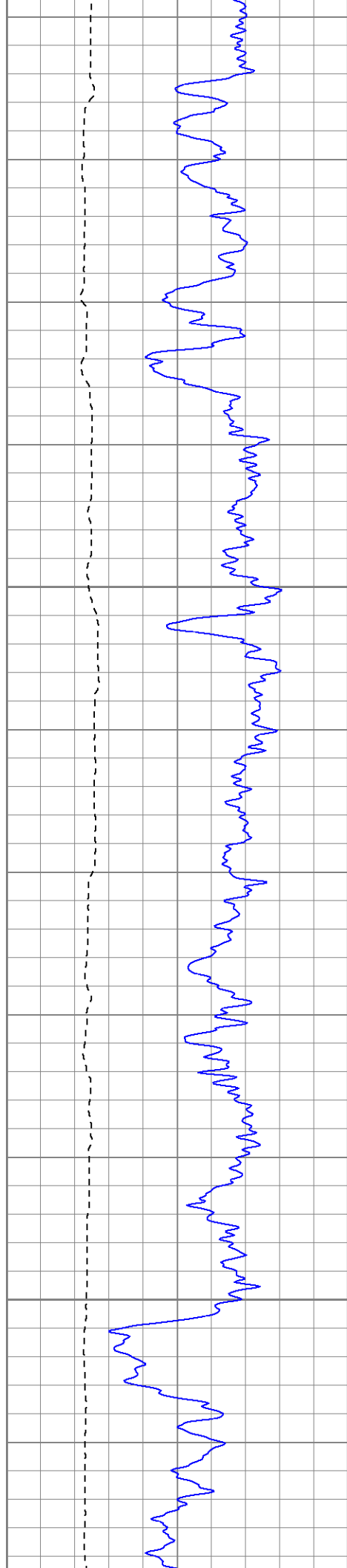


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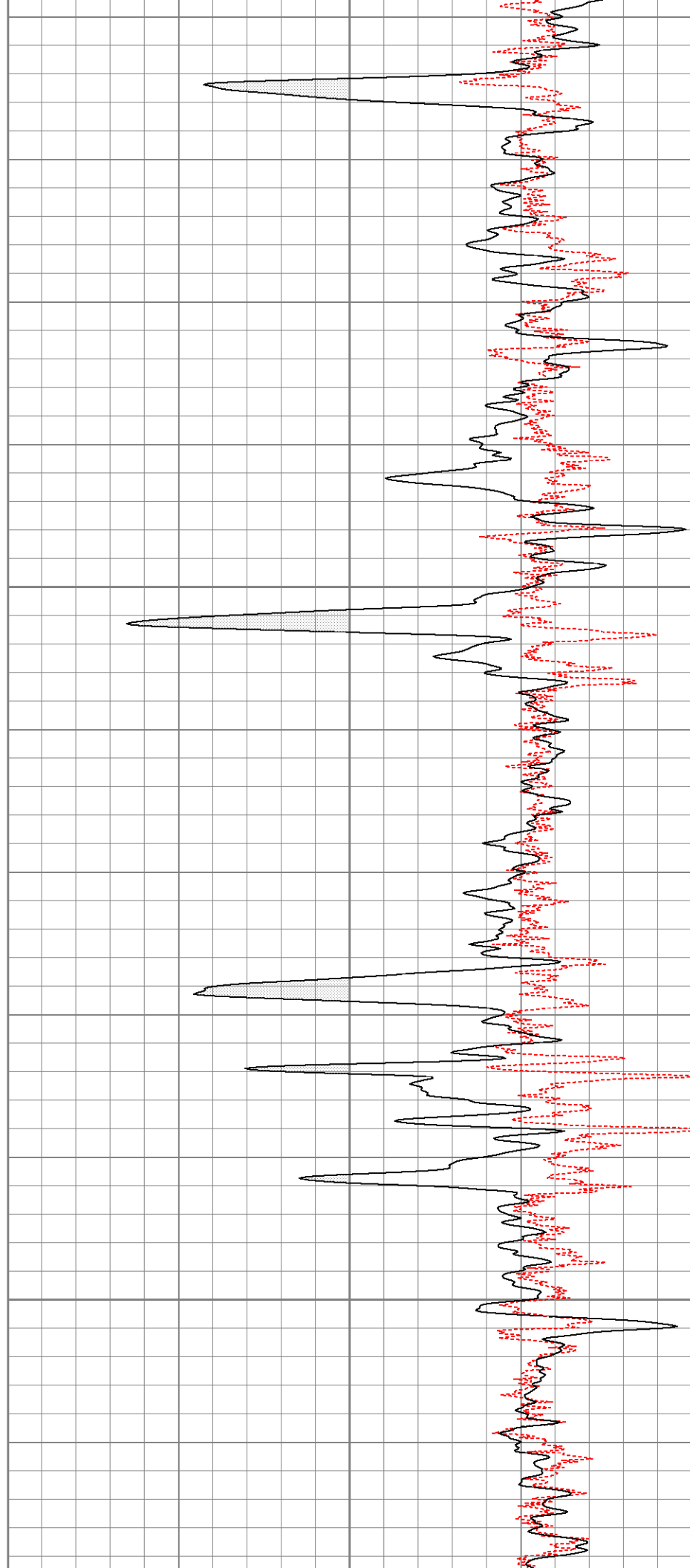
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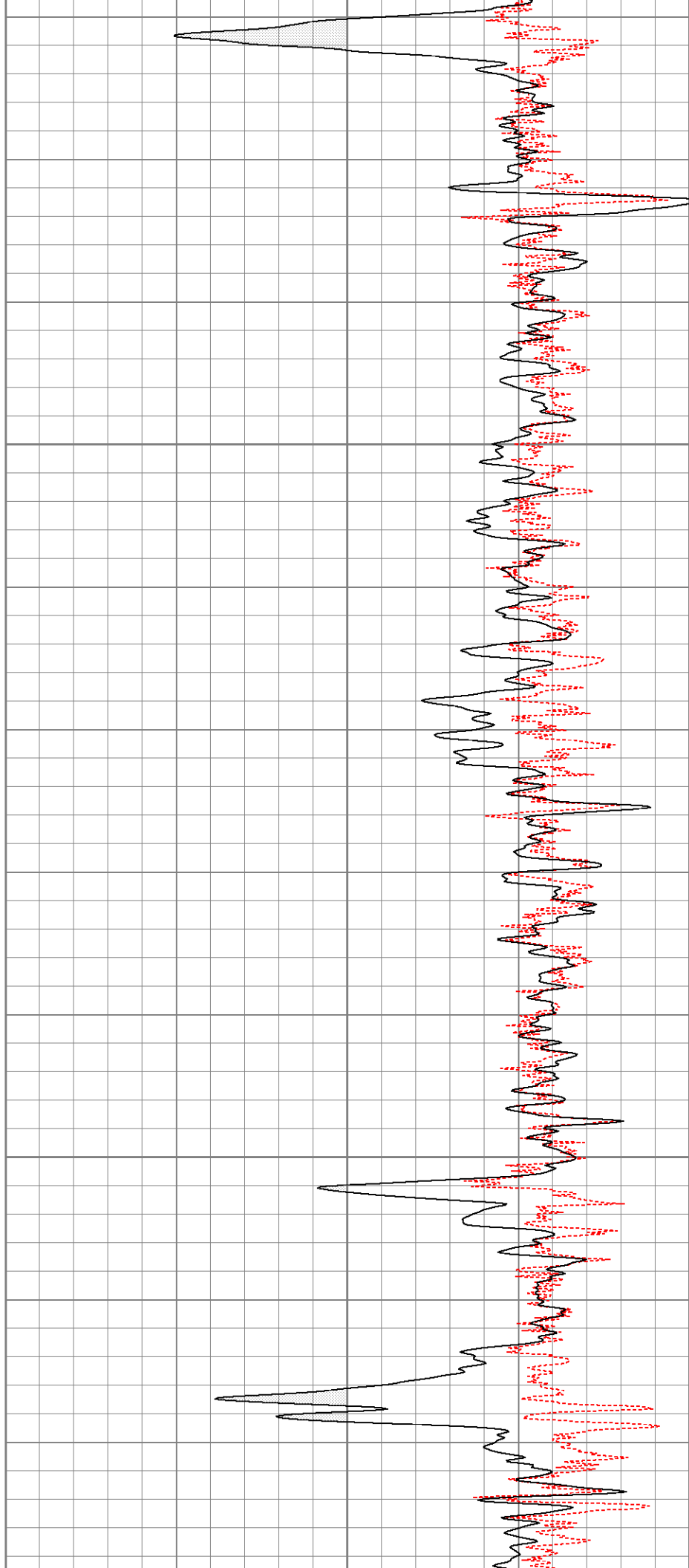
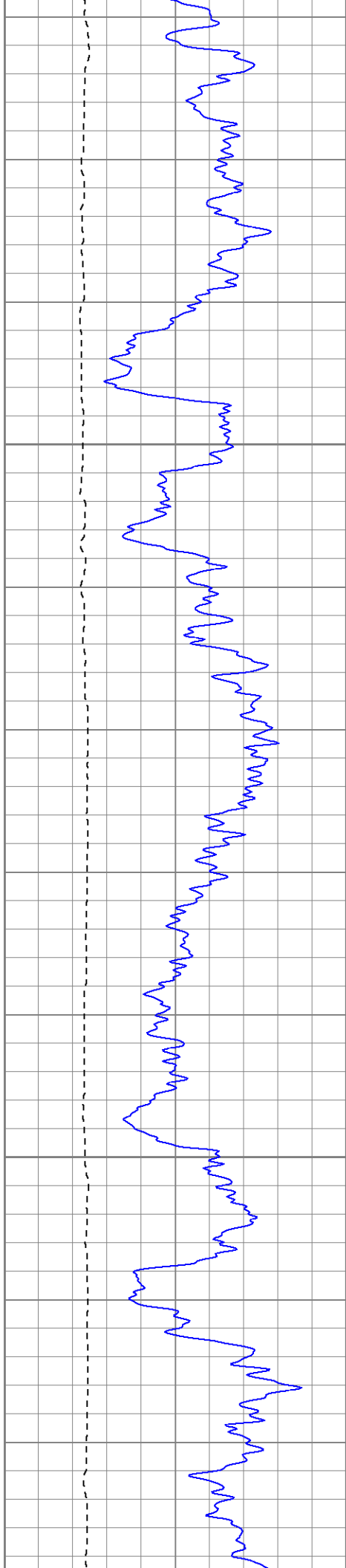
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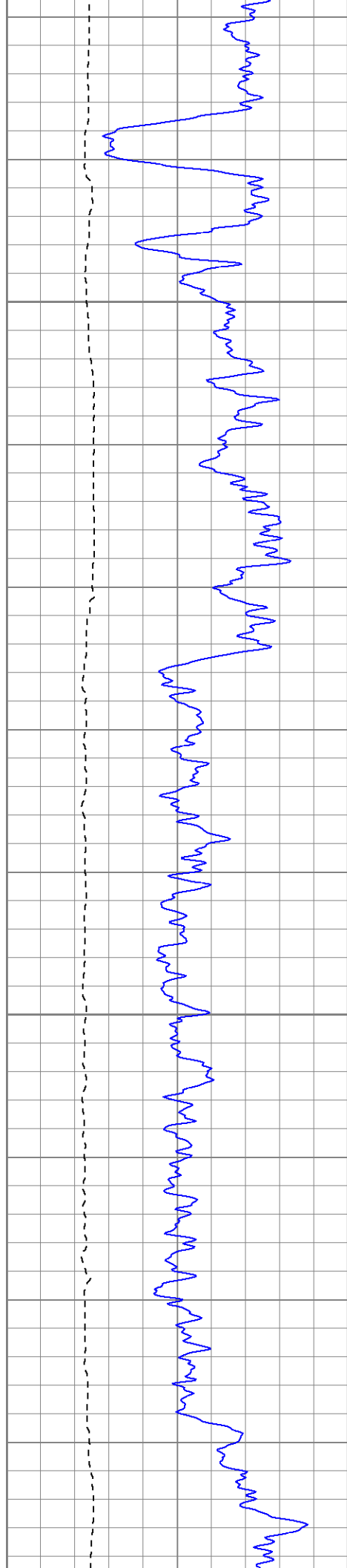
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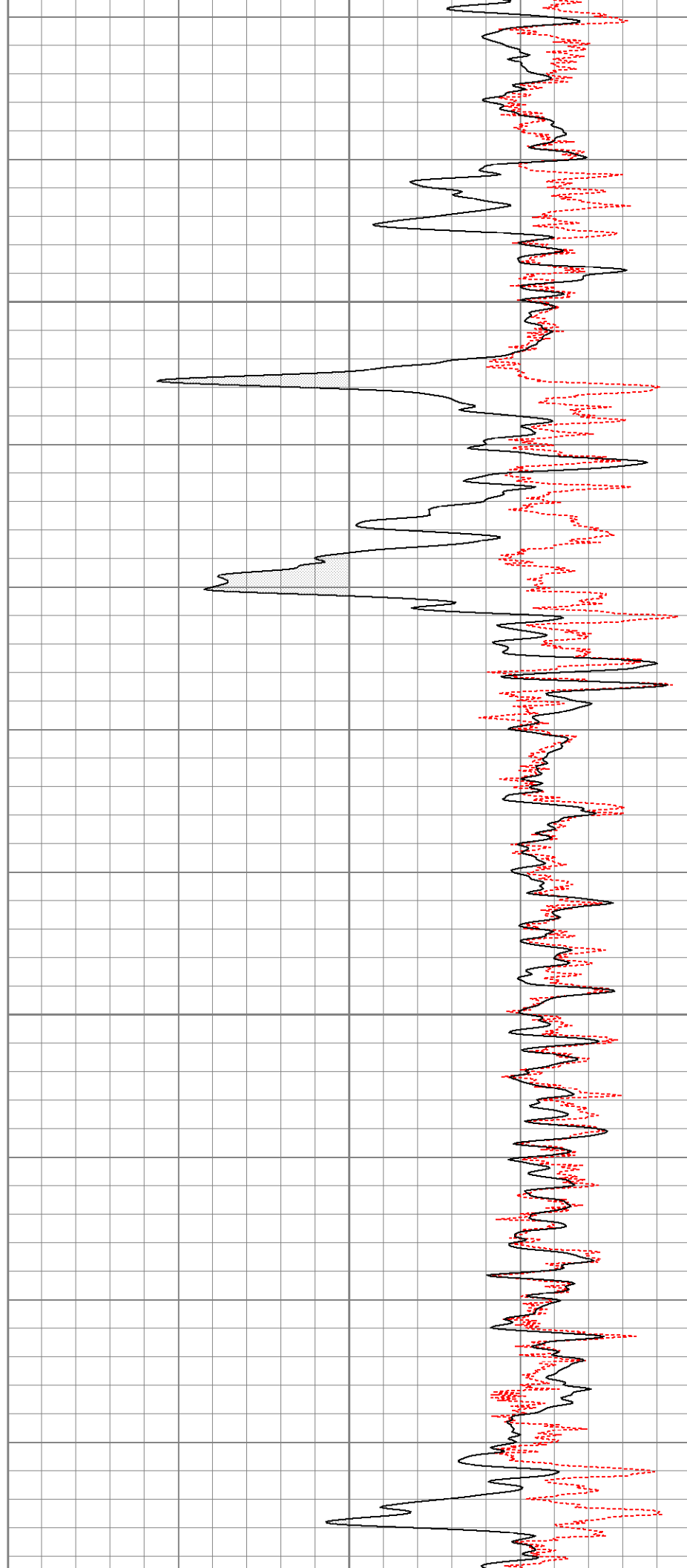
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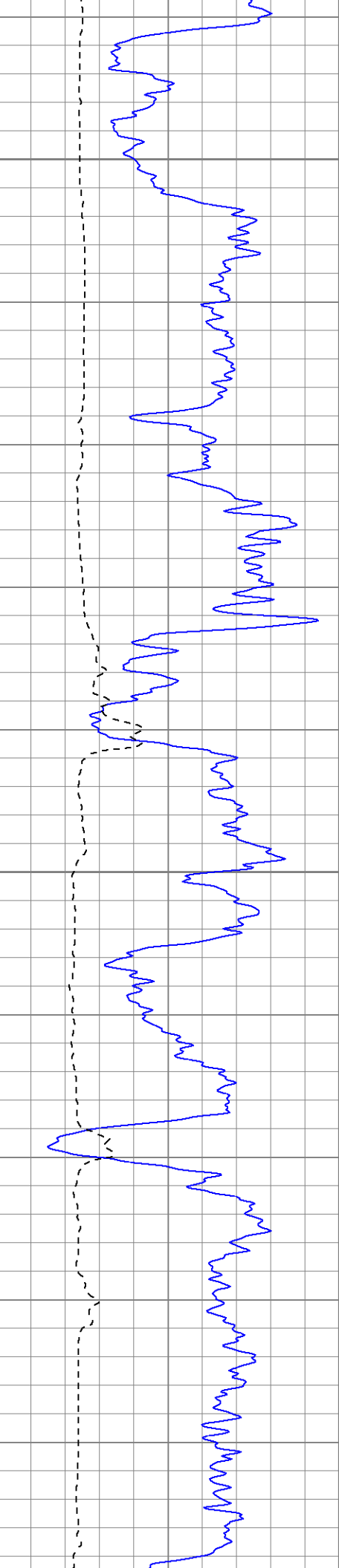




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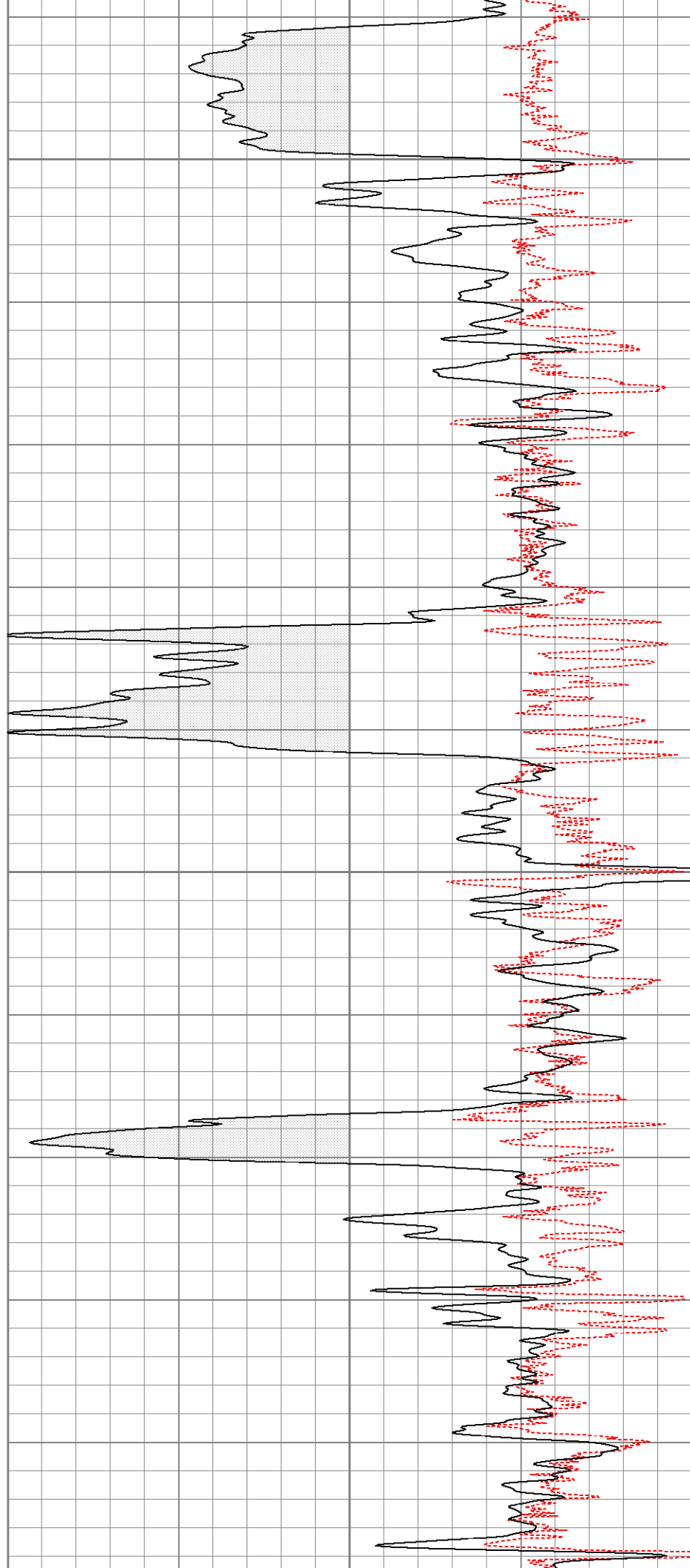
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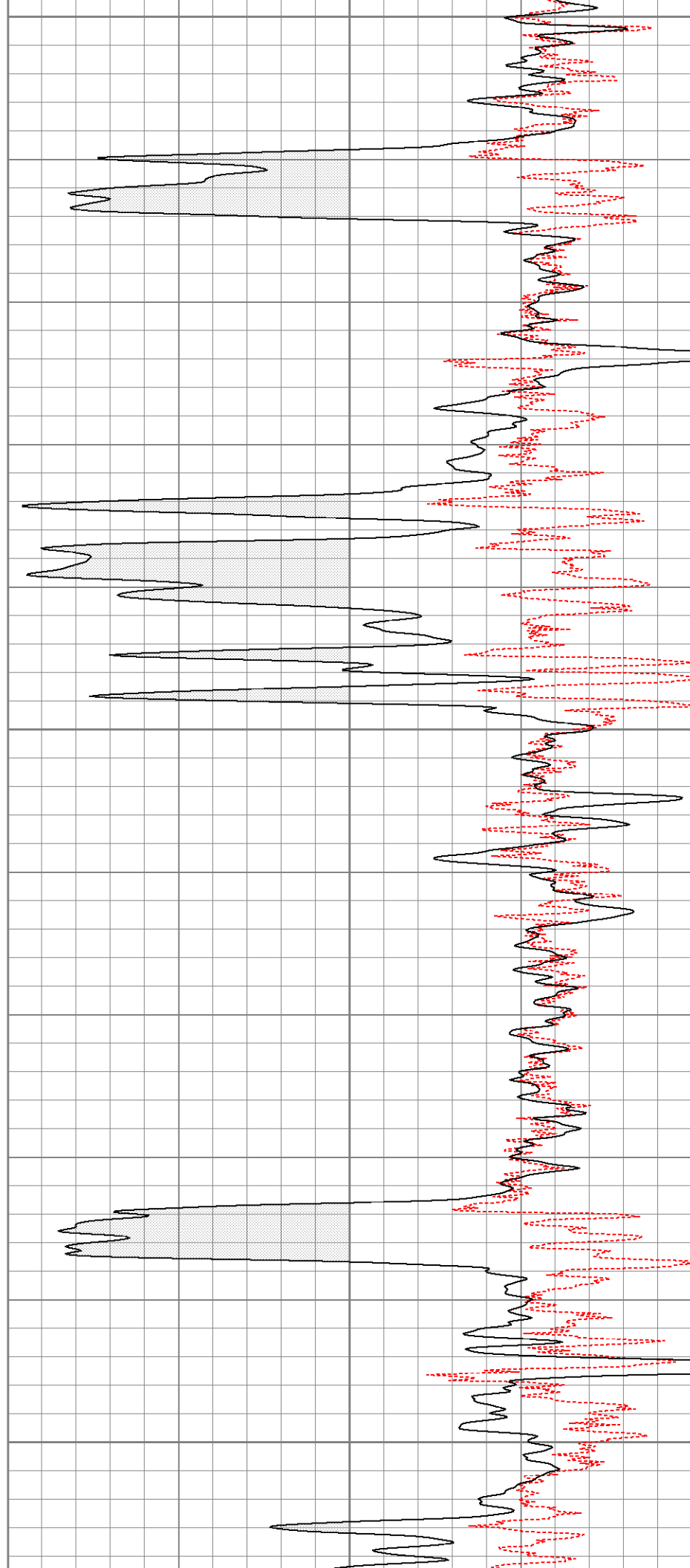
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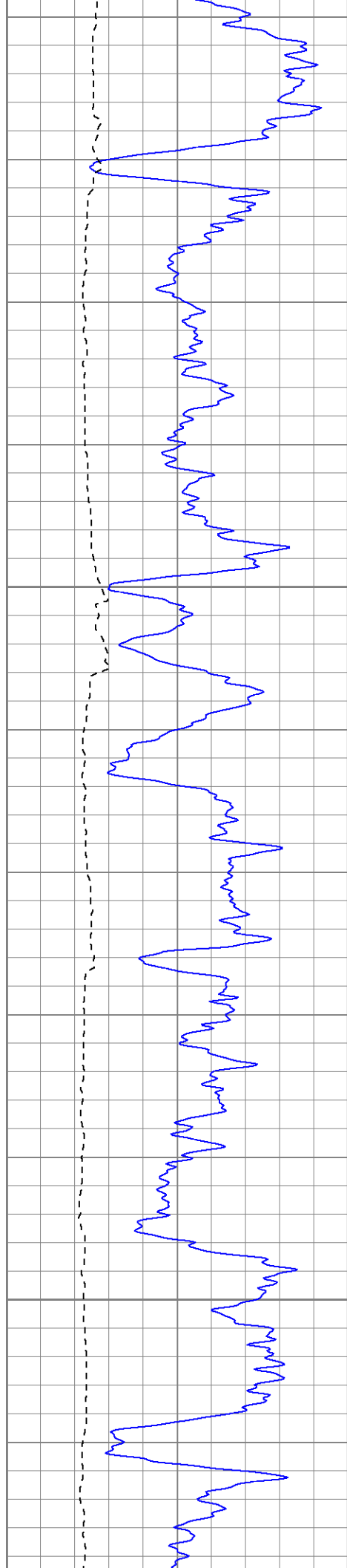


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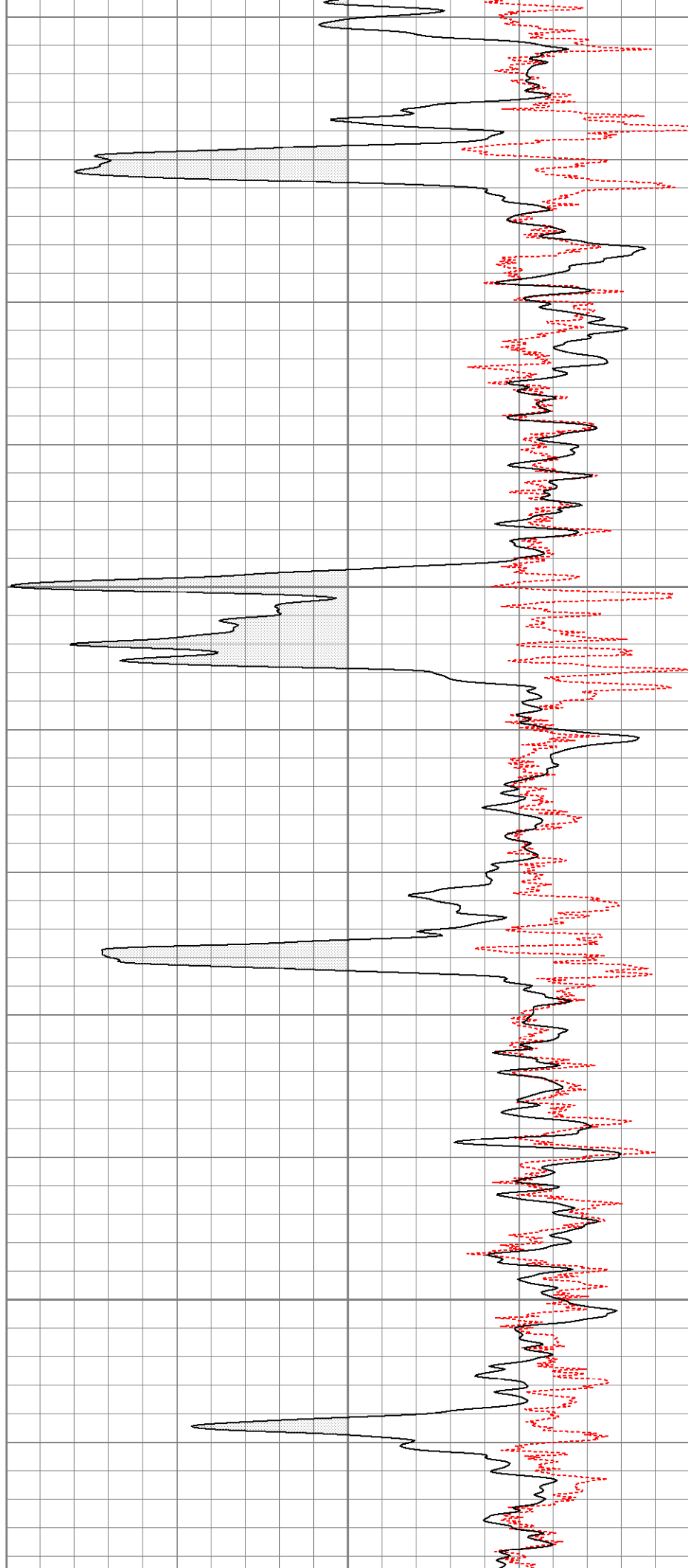
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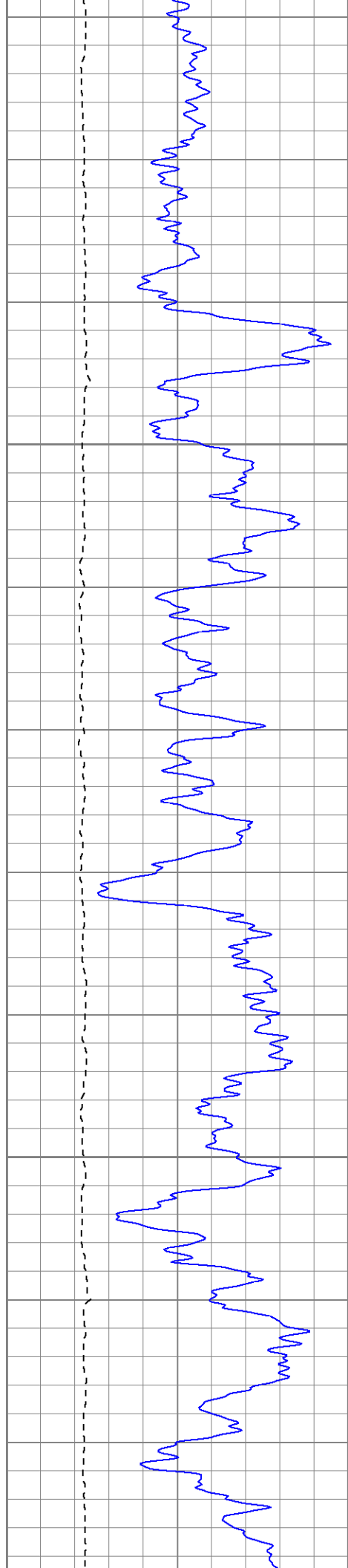




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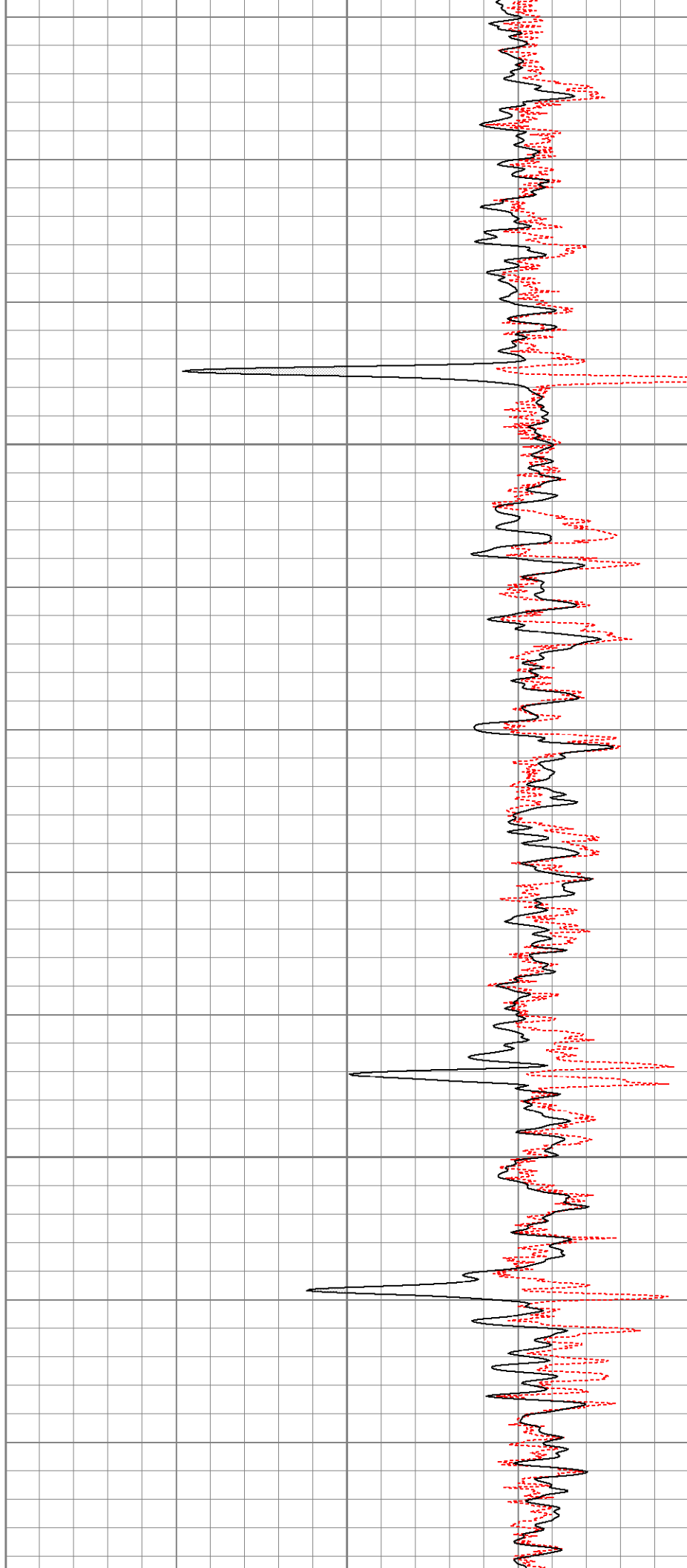
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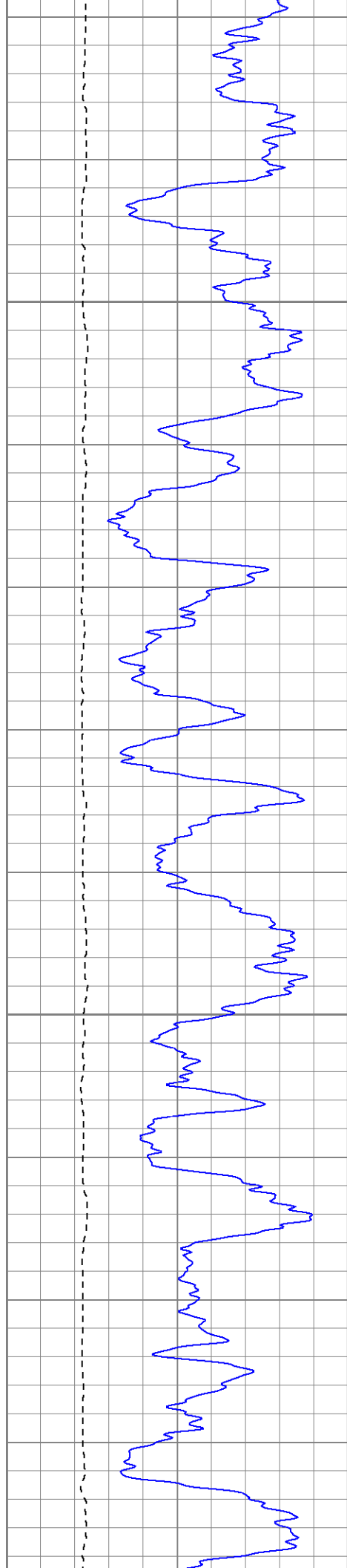




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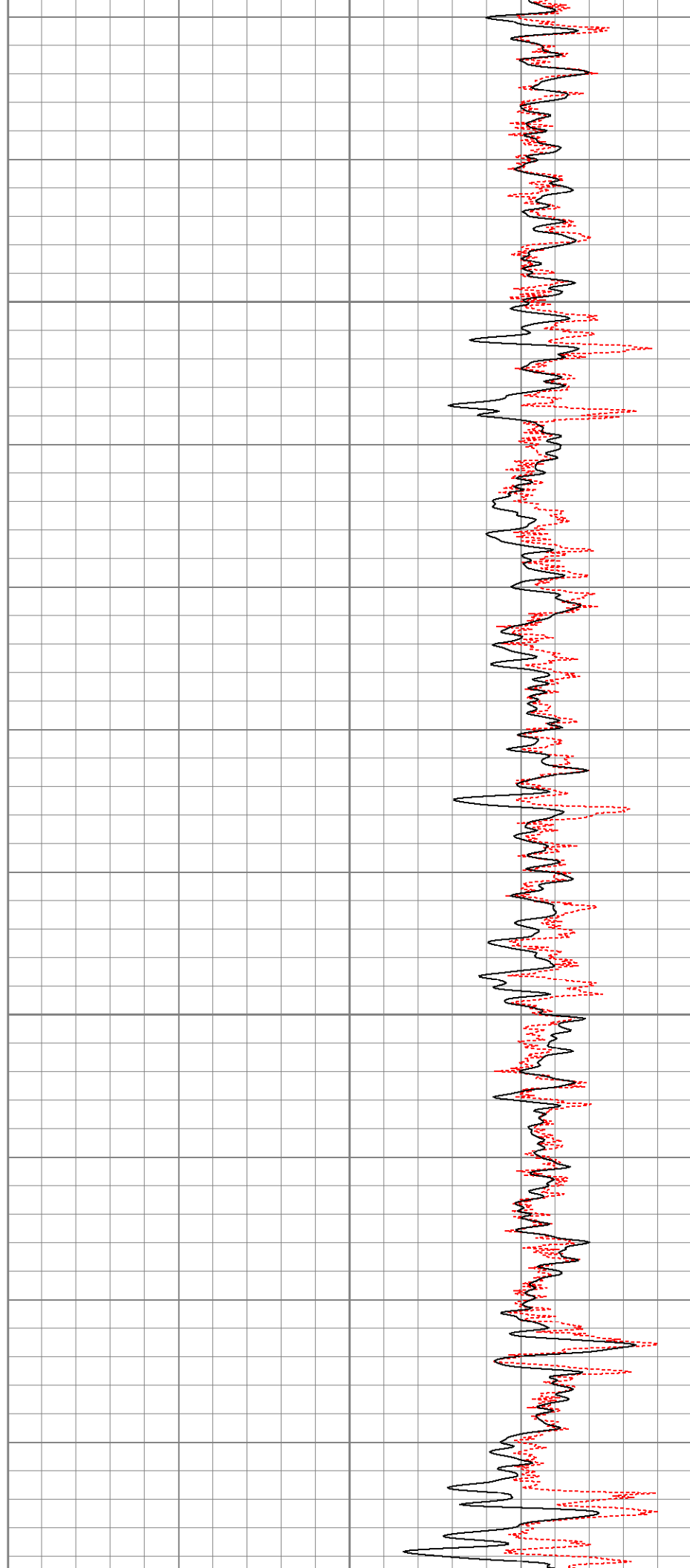
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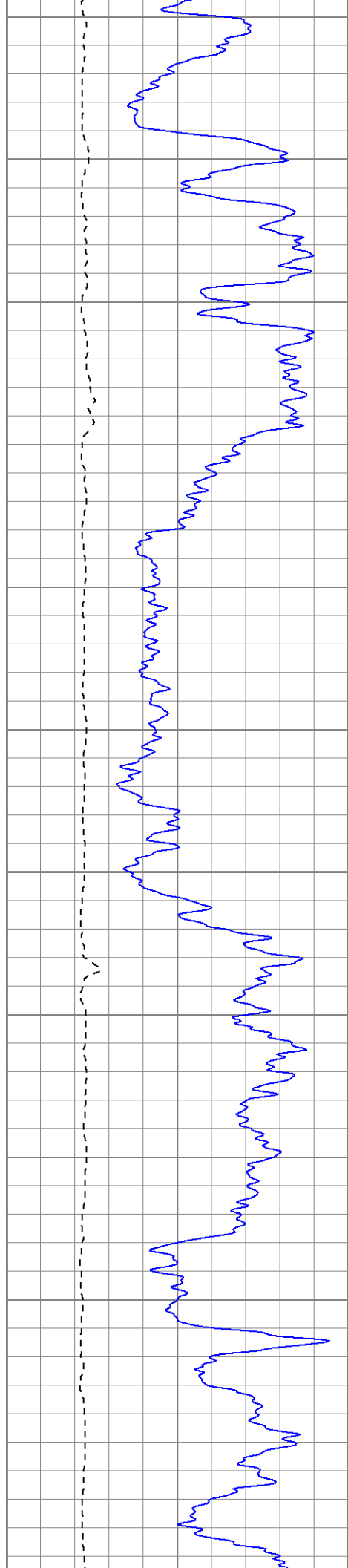




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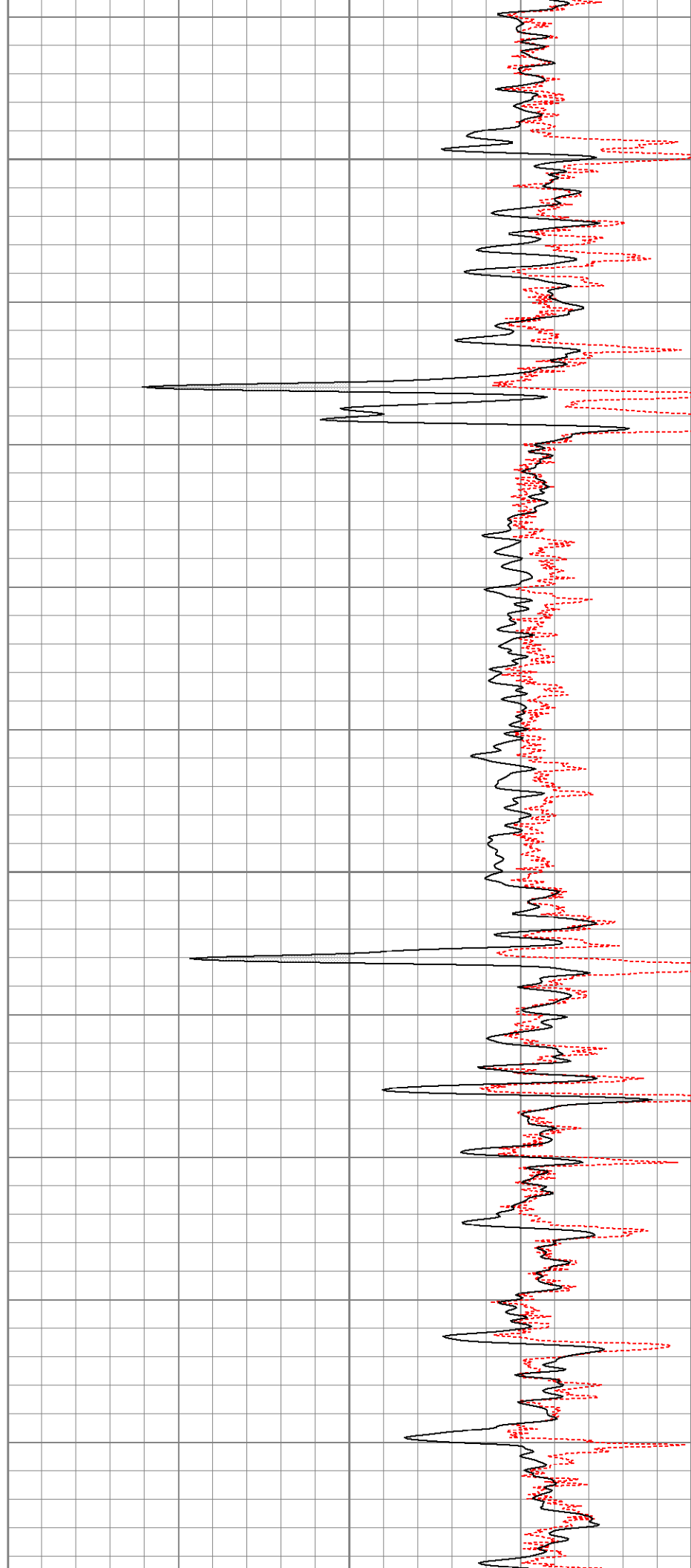
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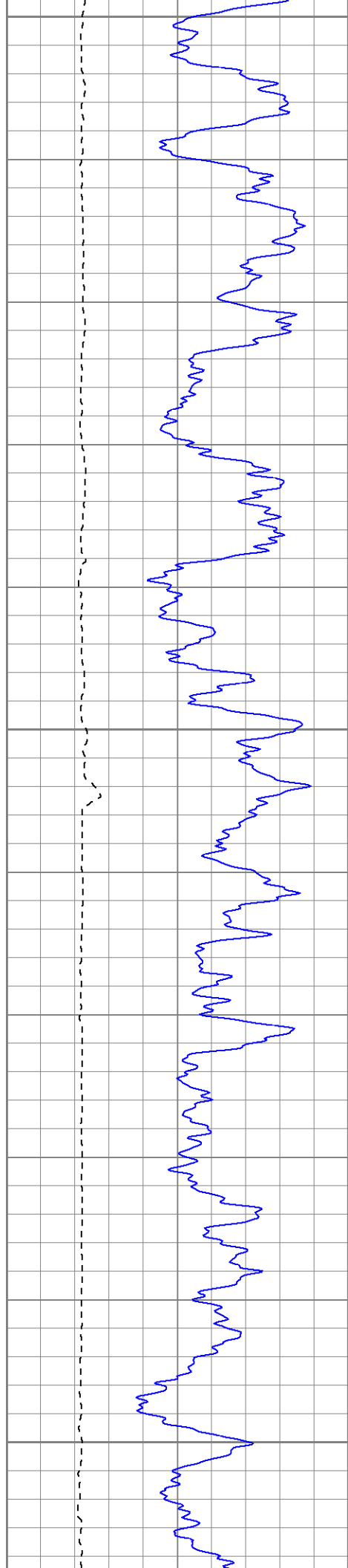




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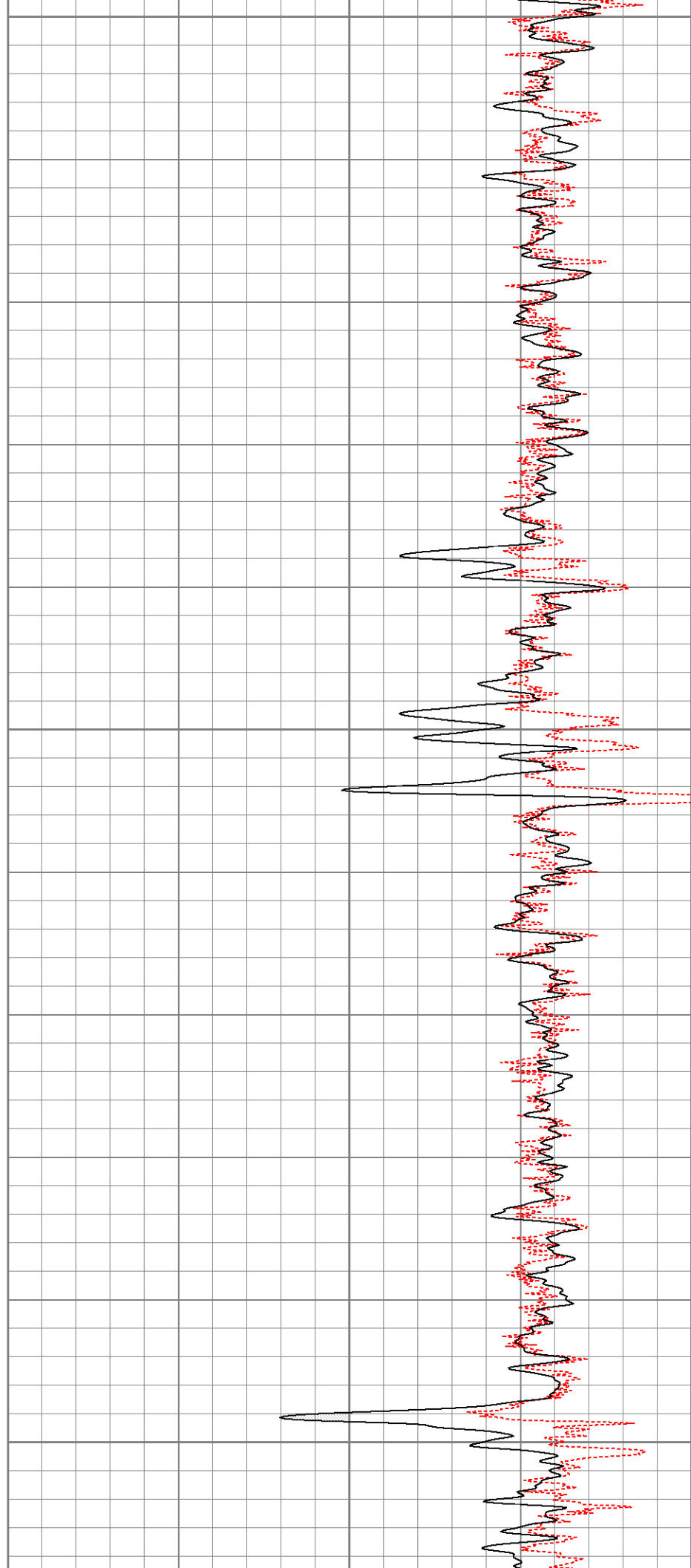


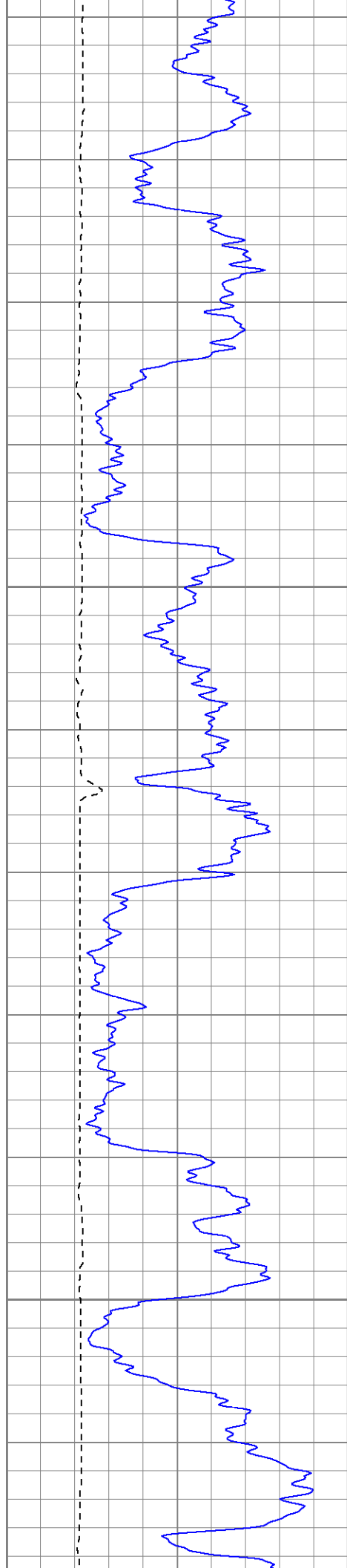


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1750

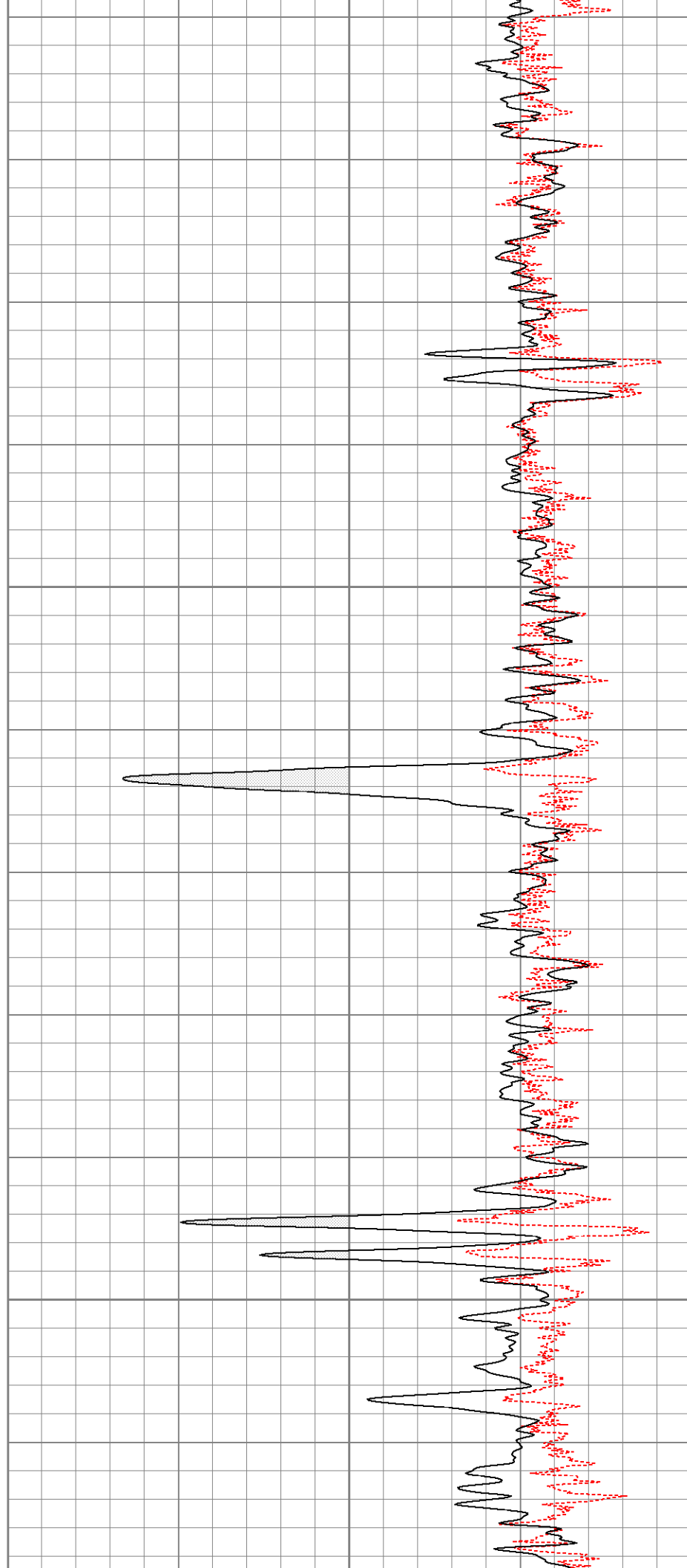
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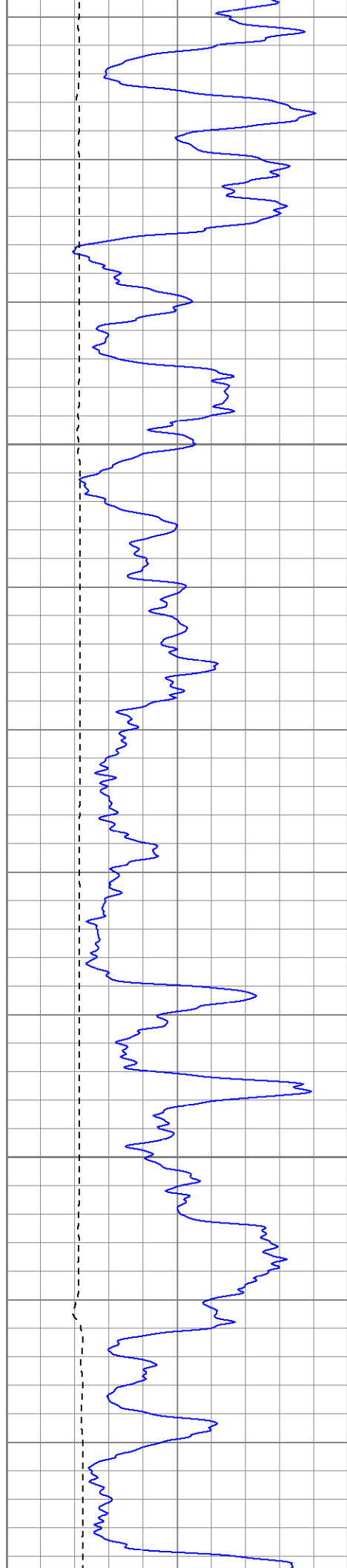




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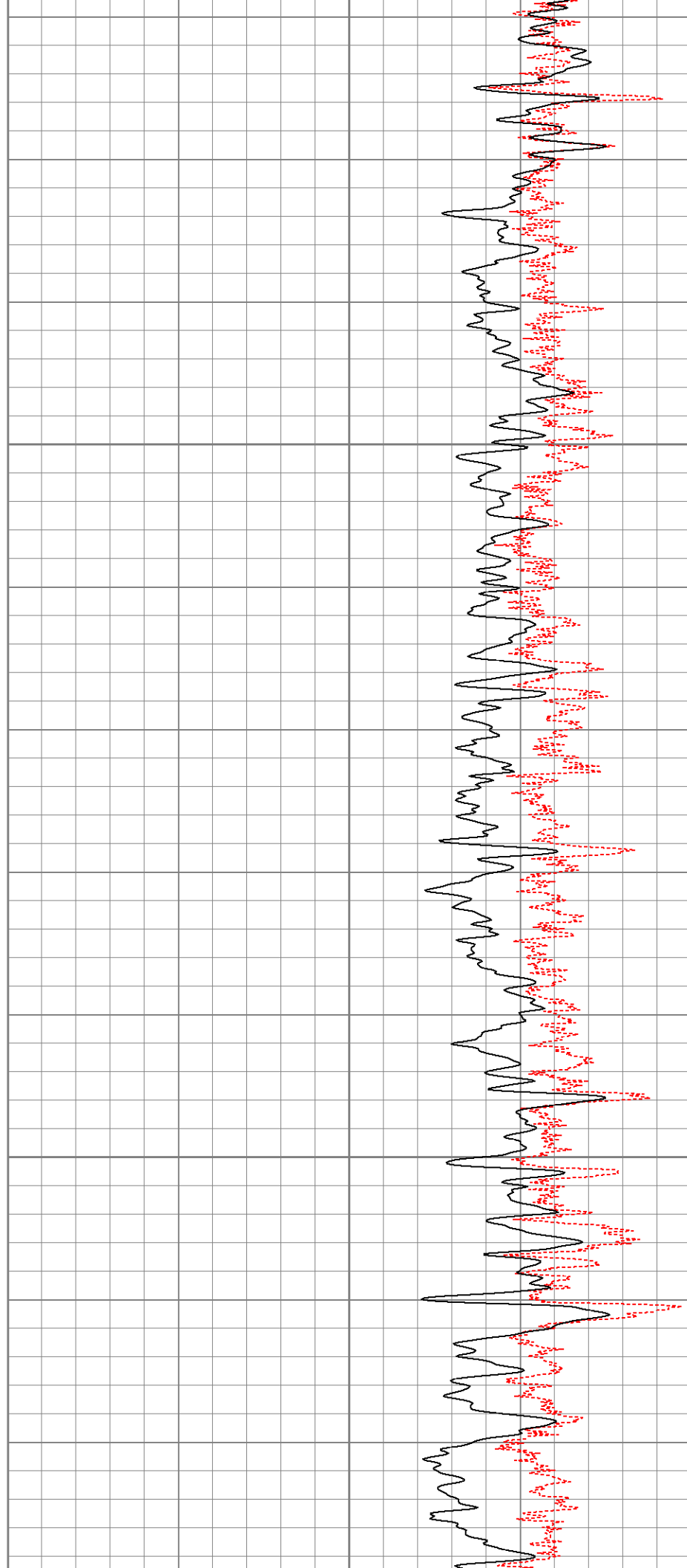
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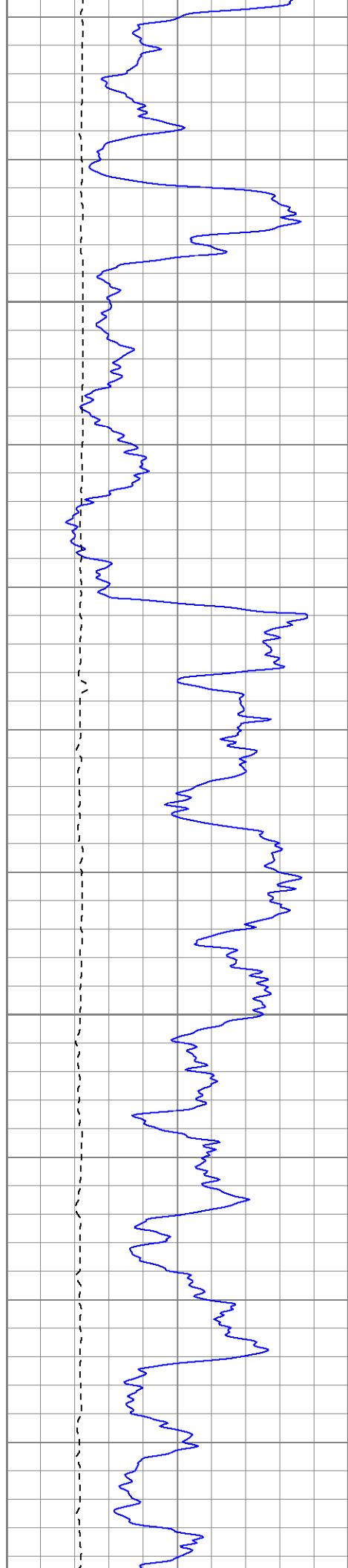




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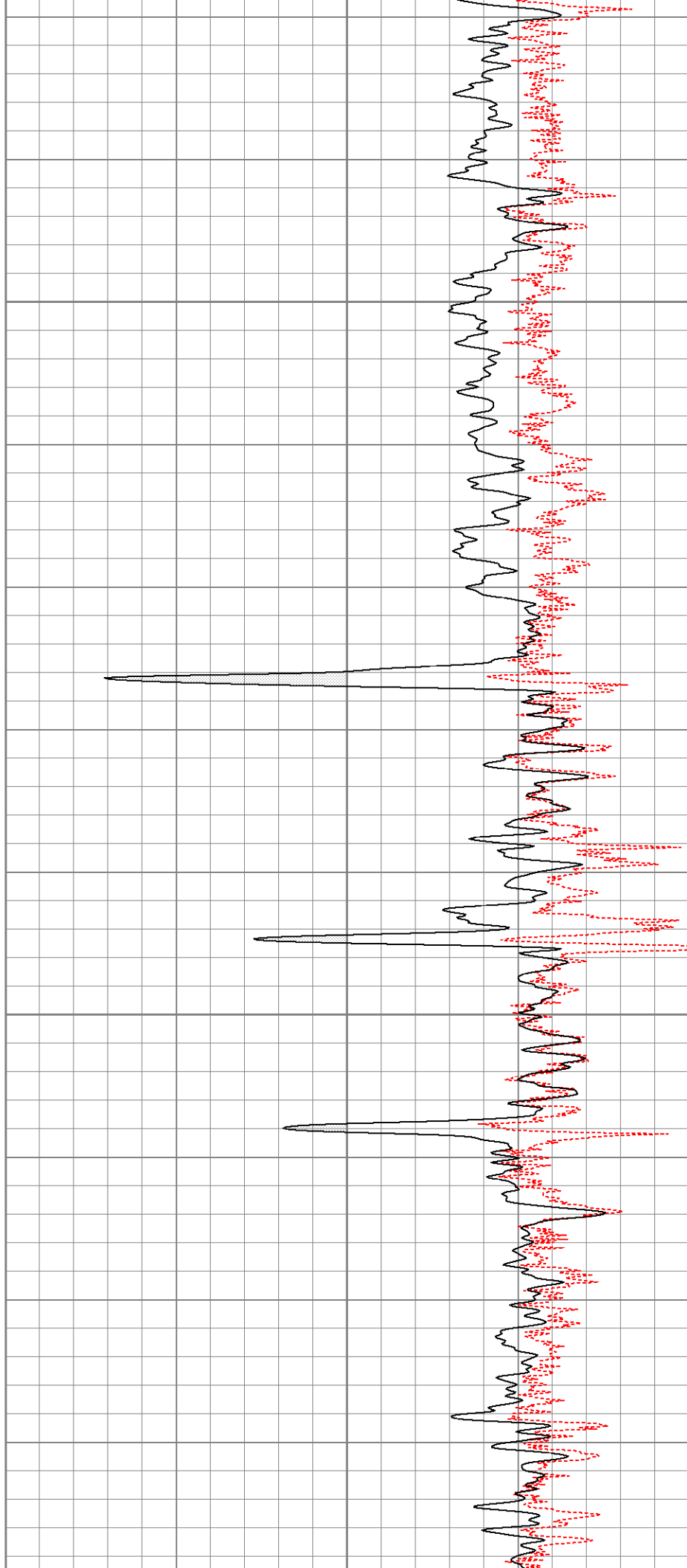
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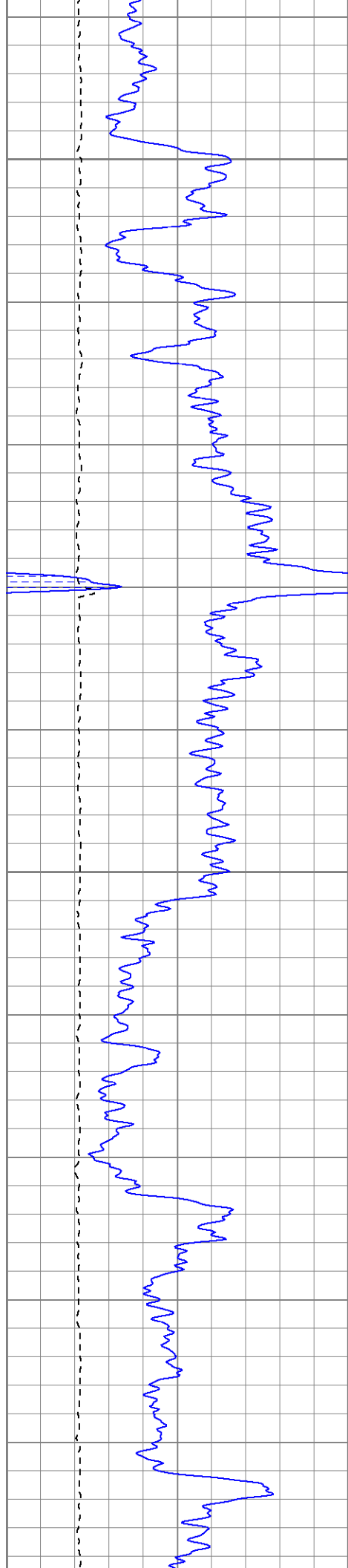




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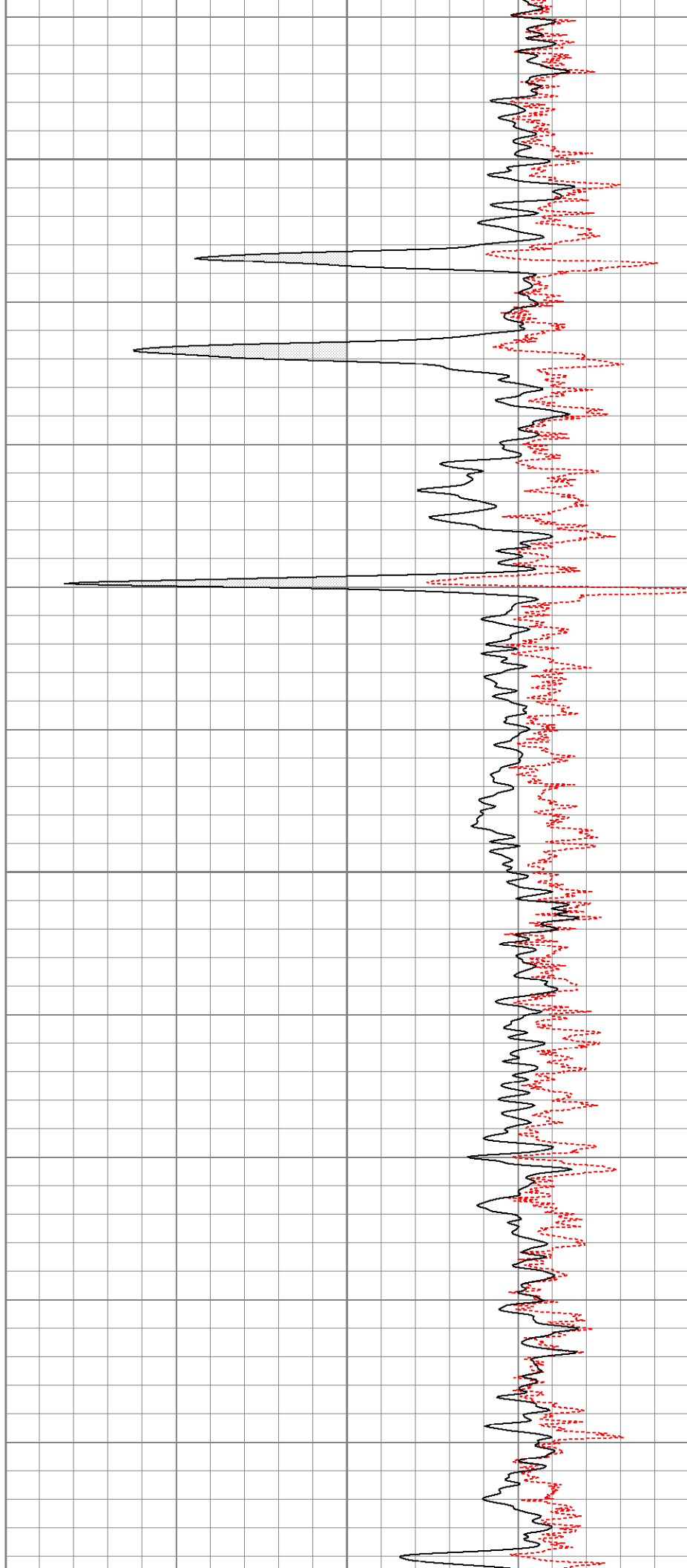
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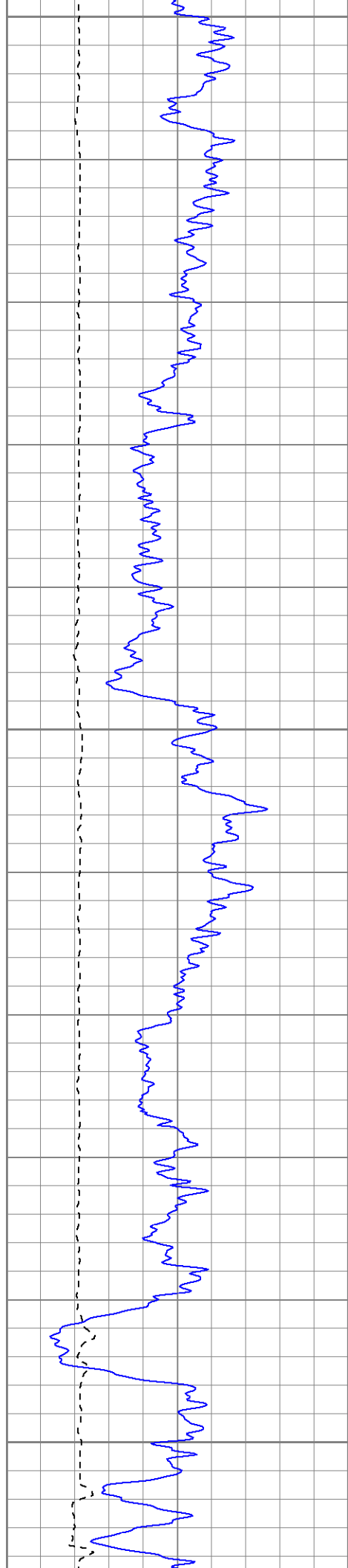




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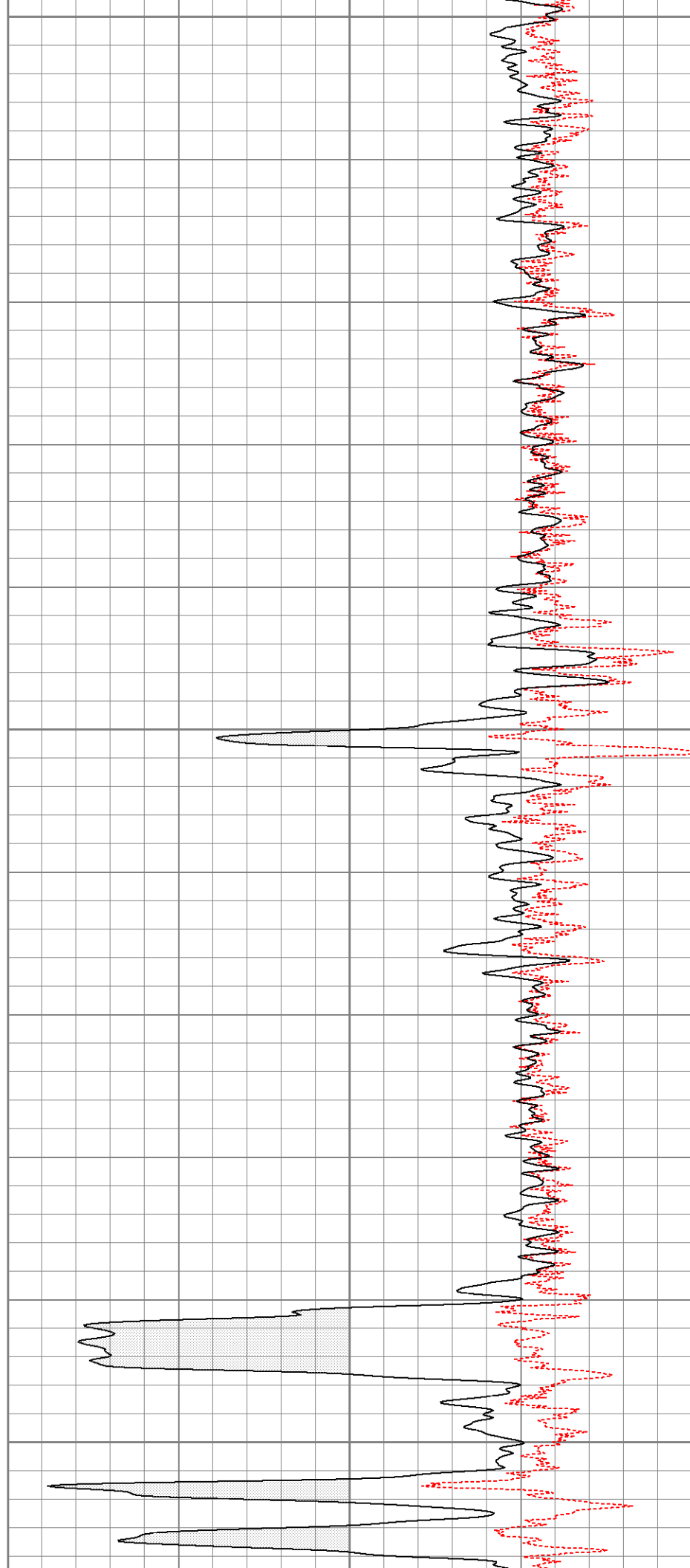


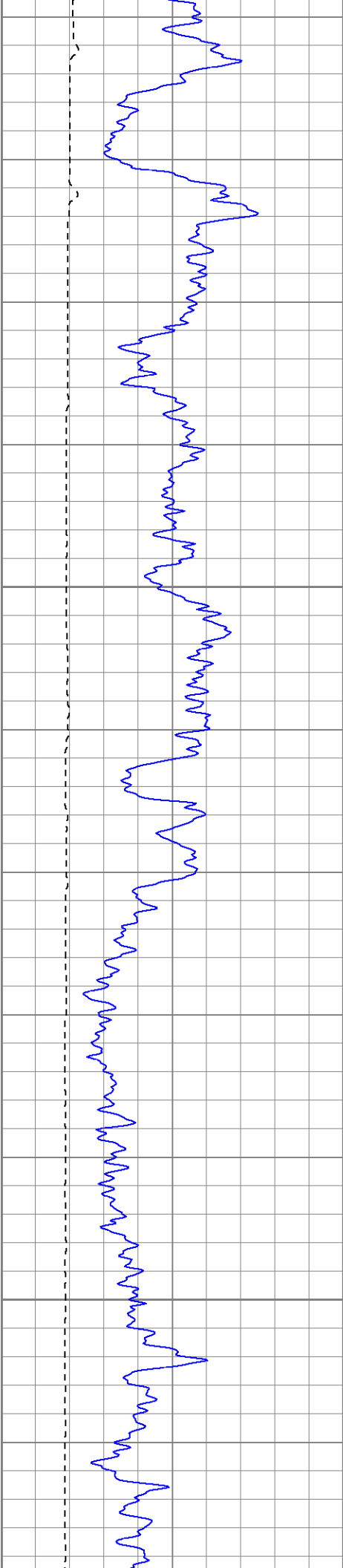


2250

2300

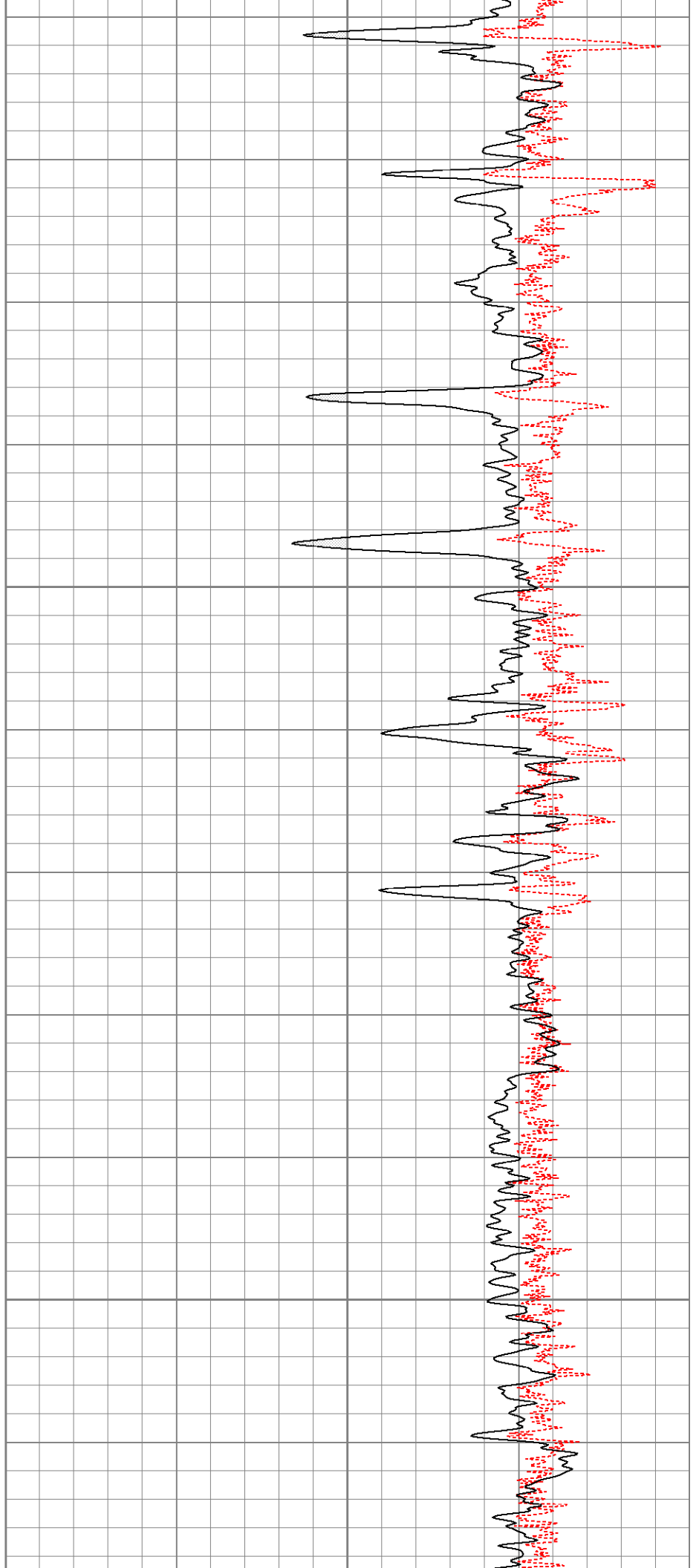
2350

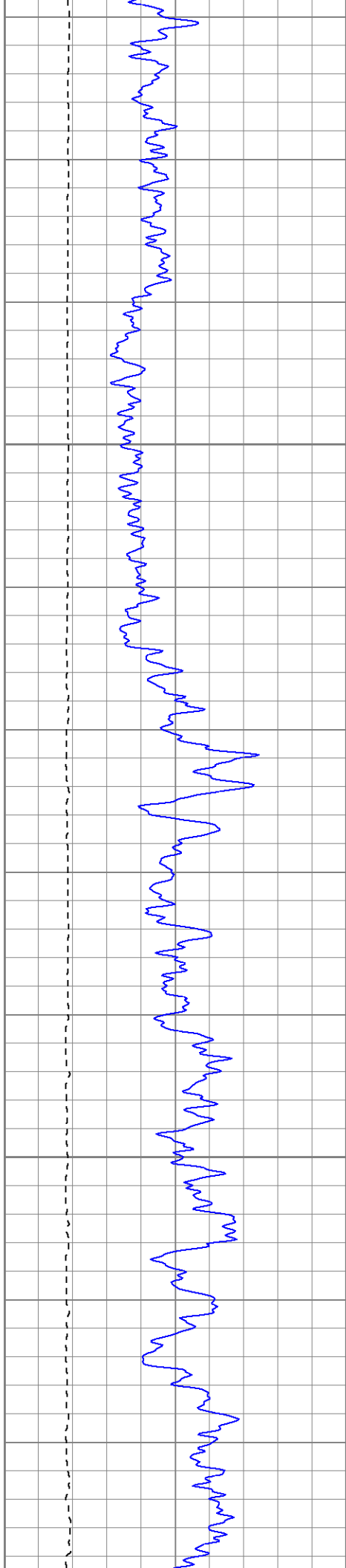




2400

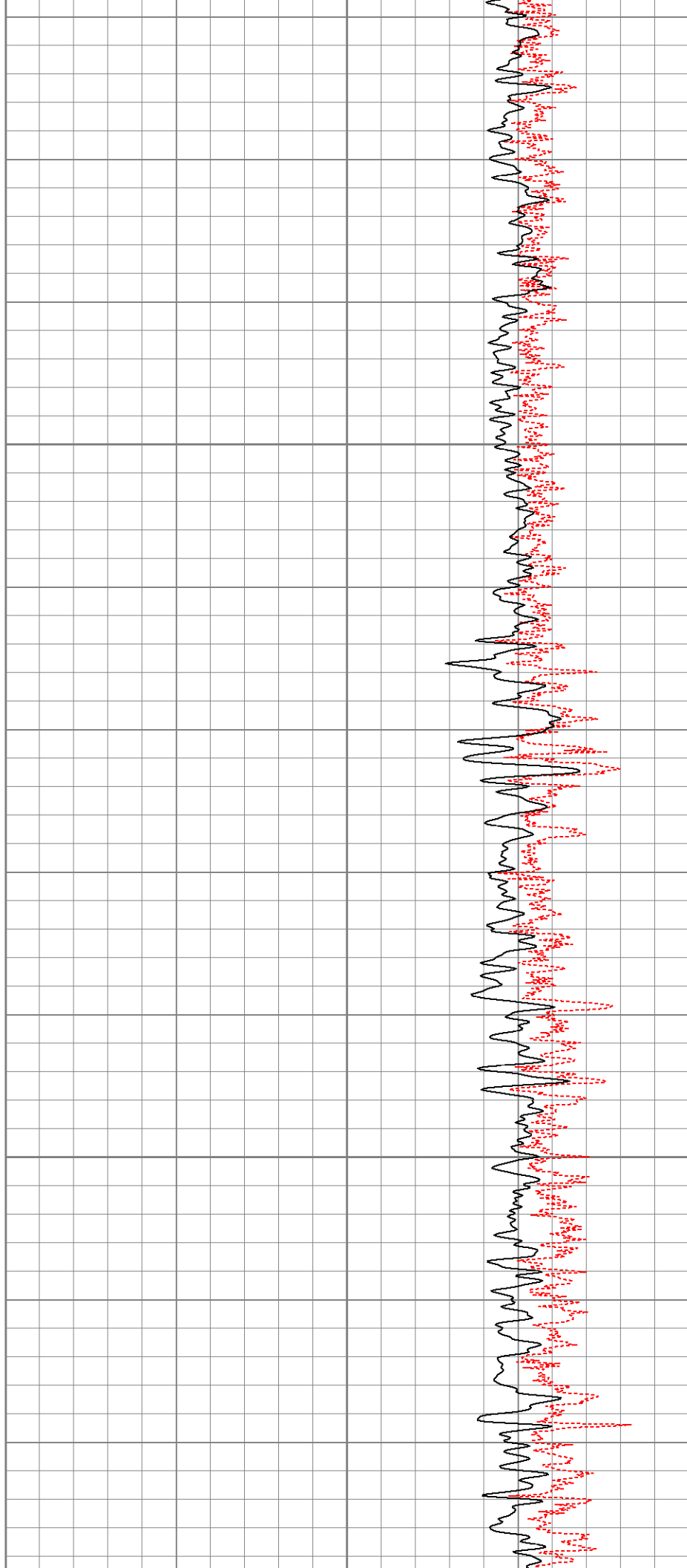
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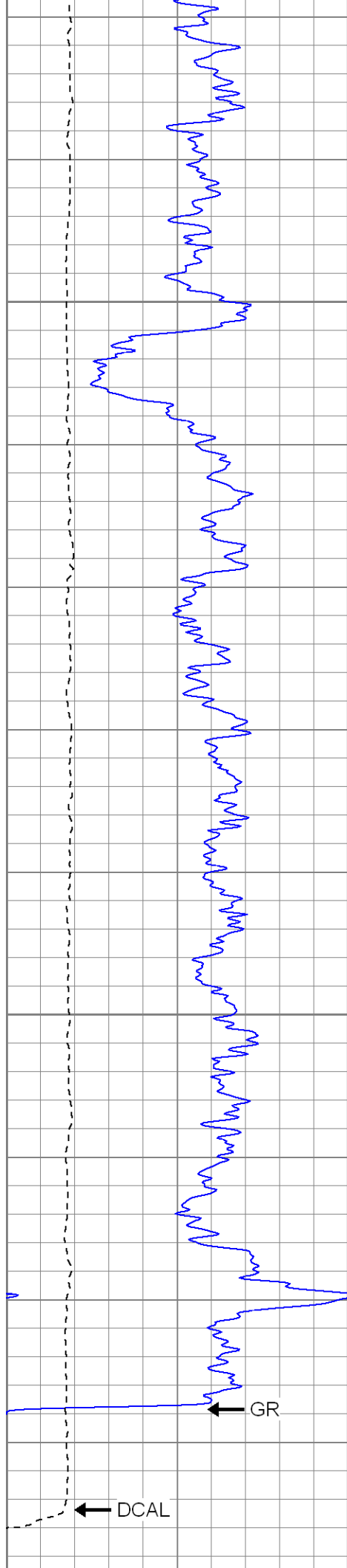




2500

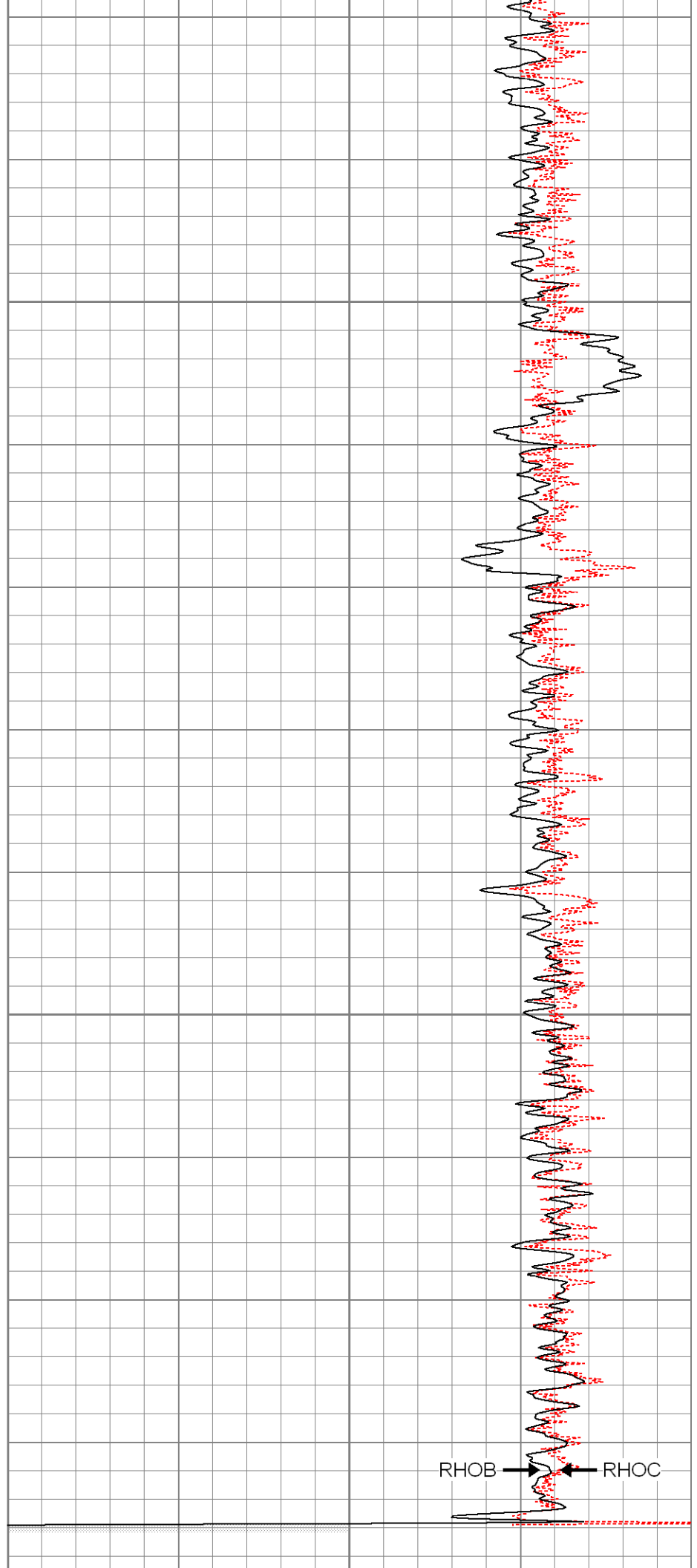
2550





2600

2650



RHOB RHOC

<div> <div>Database File:</div> <div>xtoac2904.db</div> </div> <div> <div>Dataset Pathname:</div> <div>pass2</div> </div> <div> <div>Dataset Creation:</div> <div>Thu Aug 16 19:00:18 2007 by Log Open-Cased 061129</div> </div>		<div>Calibration Report</div>
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Dual Induction Calibration Report

Serial-Model:	5375-G
Surface Cal Performed:	Wed Aug 08 13:10:57 2007
Downhole Cal Performed:	Thu Aug 09 09:45:00 2007

Surface Calibration								
Readings				References			Results	
Loop:	Air	Loop		Air	Loop		m	b
Deep	0.002	0.622	V	0.000	500.000	mmho-m	807.380	-1.996
Medium	0.004	0.745	V	0.000	550.000	mmho-m	742.488	-3.313
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.002	0.621	V	0.000	500.000	mmho-m	807.436	-1.769
Medium	0.004	0.745	V	0.000	550.000	mmho-m	742.818	-3.183

Downhole Calibration								
Readings				References			Results	
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.000	0.000	mmho-m	-0.227	499.739	mmho-m	1.000	0.000
Medium	0.000	0.000	mmho-m	-0.131	549.624	mmho-m	1.000	0.000
Shallow	2.506	0.009	V	500.000	2.000	Ohm-m	105.000	0.000

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Compensated Density Calibration Report

Serial-Model:	2118-poilex
Source / Verifier:	/
Master Calibration Performed:	Thu Aug 02 13:55:23 2007

Master Calibration					
	Density		Far Detector	Near Detector	
Magnesium	1.710	g/cc	665.94	685.05	cps
Aluminum	2.590	g/cc	149.68	463.33	cps

Spine Angle = 75.32

Density/Spine Ratio = 0.570

	Size		Reading	
Small Ring	7.85	in	4.25	V
Large Ring	14.00	in	9.25	V

Gamma Ray Calibration Report

Serial Number: 2001
 Tool Model: OH
 Performed: Wed Aug 08 12:47:02 2007

 Calibrator Value: 1.0 GAPI

 Background Reading: 0.0 cps
 Calibrator Reading: 1.0 cps

 Sensitivity: 0.1700 GAPI/cps

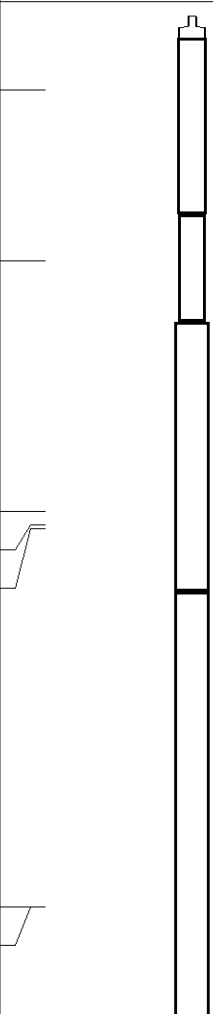
Neutron Calibration Report

Serial Number: 5145
 Tool Model: G
 Performed: Wed Aug 08 10:32:23 2007

 Calibrator Value: 1200 NAPI

 Calibrator Reading: 1700 cps

 Sensitivity: 1 NAPI/cps

Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
NEU	37.19		None	0.75	1.50	5.00
			NEU-G (5145) Gearhart Epithermal	5.75	3.50	85.00
GR	31.62		GR-OH (2001) SIE	3.50	3.25	40.00
LSD DCAL SSD	23.45 23.04 22.91		CDL-poilex (2118)	8.79	4.00	275.00
CILD SP	10.60 10.60		DIL-G (5375) Gearhart	20.83	4.00	345.00
CILM	0.00					

CILM	6.89					
RLL3	1.70					

Dataset:	xtoac2904.db: field/well/run1/pass2
Total Length:	39.62 ft
Total Weight:	750.00 lb
O.D.	4.00 in