



MIDWEST WIRELINE

DUAL COMPENSATED
POROSITY /
MICRO LOG

Company Black Oak Exploration, LLC

Well Argabright #1-4

Field

County Rawlins

State Kansas

Location: API #: 15-153-21271-00-00

Other Services

SEC 4 TWP 3S RGE 34W

DIL/BHCS

Permanent Datum Ground Level Elevation 2898

Log Measured From Kelly Bushing

K.B. 2903

Drilling Measured From Kelly Bushing

D.F. 2898

Date 10/28/2021

Run Number One

Type Log CNL / CDL / ML

Depth Driller 4540

Depth Logger 4542

Bottom Logged Interval 4541

Top Logged Interval 0

Type Fluid In Hole Chemical

Salinity, PPM CL 4400

Density 9.4

Level Full

Max. Rec. Temp. F 121

Operating Rig Time 6 Hours

Equipment -- Location P-24 HAYS

Recorded By D. Schmidt

Witnessed By Tim Hedrick

Borehole Record

Casing Record

Run No.

Bit

From

To

Size

Wgt.

From

To

One 12.25 0 248 8.625 23 0 248

Two 7.875 248 TD 248

<<< Fold Here >>>

All interpretations are opinions based on inferences from electrical or other measurements and Midwest Wireline LLC cannot and does not guarantee the accuracy or correctness of any interpretation, and Midwest Wireline LLC will not 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.

Comments

N/A DENOTES NOT AVAILABLE OR NON-APPLICABLE.

Atwood,
West to Rd 16, 2 North, 1/2 West,
North into

Log Measured From: Kelly Bushing 5 Ft. Above Permanent Datum

THANK YOU FOR USING Midwest Wireline LLC
785-625-3858

Your Midwest Wireline Crew

Engineer: D. Schmidt
Operator:
Operator:
Operator:

This Log Record Was Witnessed By

Primary Witness: Tim Hedrick
Secondary Witness:
Secondary Witness:
Secondary Witness:

Log Variables

DatabaseC:\ProgramData\Warrior\Data\black oak_argabright 1-4.db
Dataset field/well/stkml/pass4.1/_vars_

Top - Bottom

A	BOREID in	BOTTEMP degF	CASEOD in	CASETHCK in	FLUIDDEN g/cc	M	MATRXDEN g/cc
1	7.875	121	5.5	0	1	2	2.71
NPORSEL	PERFS	SNDERR mmho/m	SNDERRM mmho/m	SPSHIFT mV	SRFTEMP degF	SZCOR	TDEPTH ft
Limestone	0	0	0	580	60	Off	4542

Variable Description

A : Cement Factor (a)
BOREID : Borehole I.D.
BOTTEMP : Bottom Hole Temperature
CASEOD : Casing O.D.
CASETHCK : Casing Thickness
FLUIDDEN : Fluid Density
M : Cement Exp (m)
MATRXDEN : Matrix Density

NPORSEL : Neutron Porosity Curve Select
PERFS : Perforation Flag
SNDERR : Deep Sonde Error Correction
SNDERRM : Medium Sonde Error Correction
SPSHIFT : S.P. Baseline Offset
SRFTEMP : Surface Temperature
SZCOR : CN Size Cor. ?
TDEPTH : Total Depth



2" SCALE DETAIL SECTION

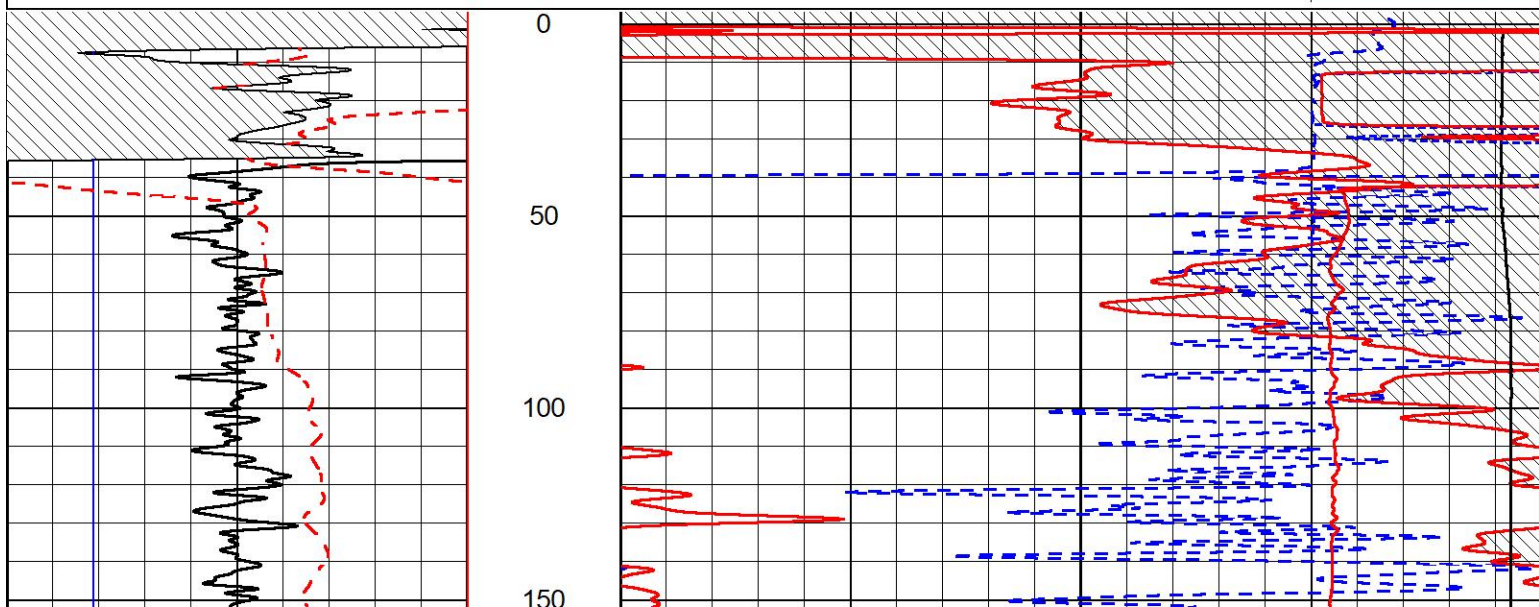
MAIN PASS

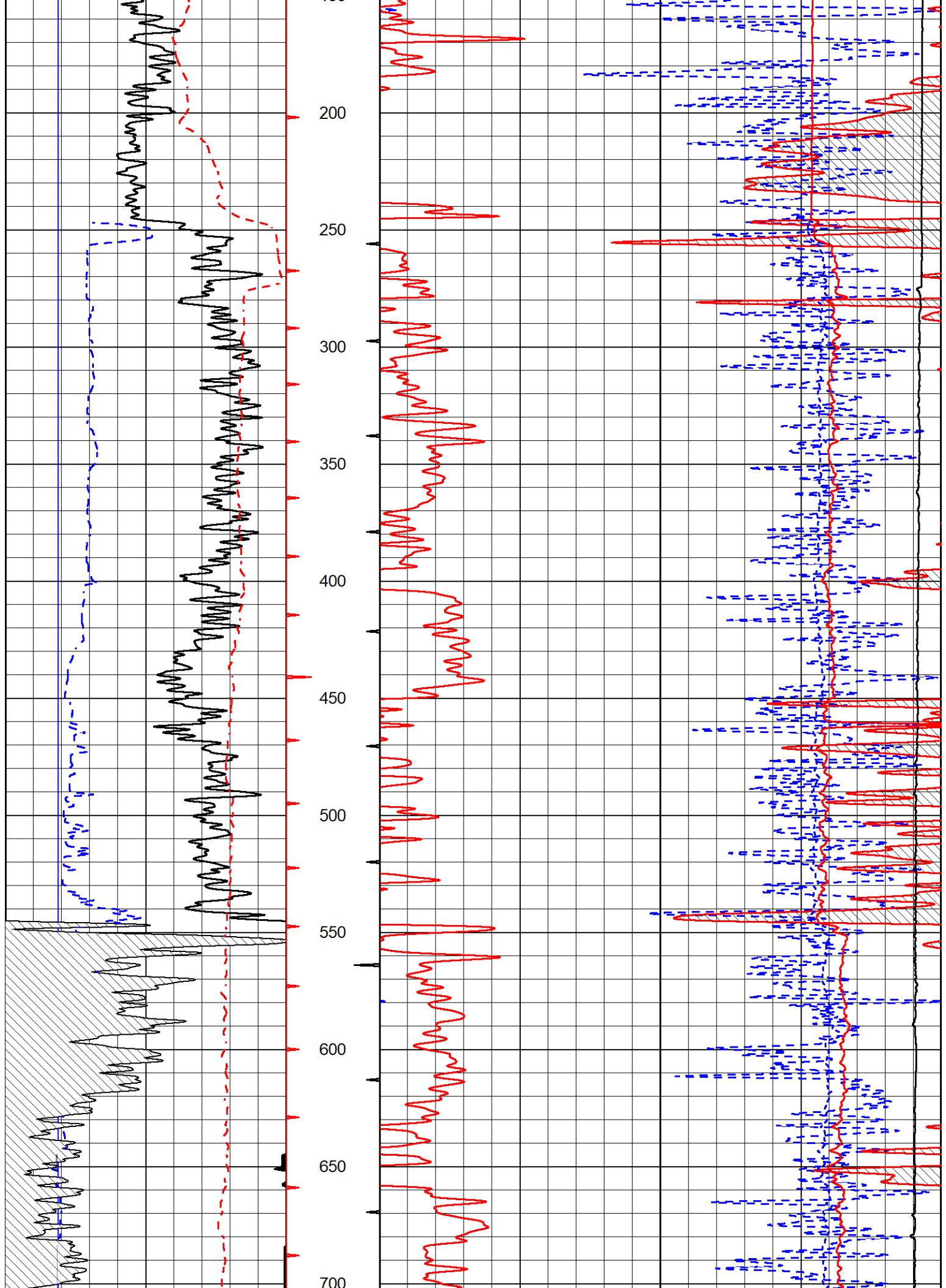
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Presentation Format _CNDLS~2
Dataset Creation Thu Oct 28 03:56:55 2021
Charted by Depth in Feet scaled 1:600

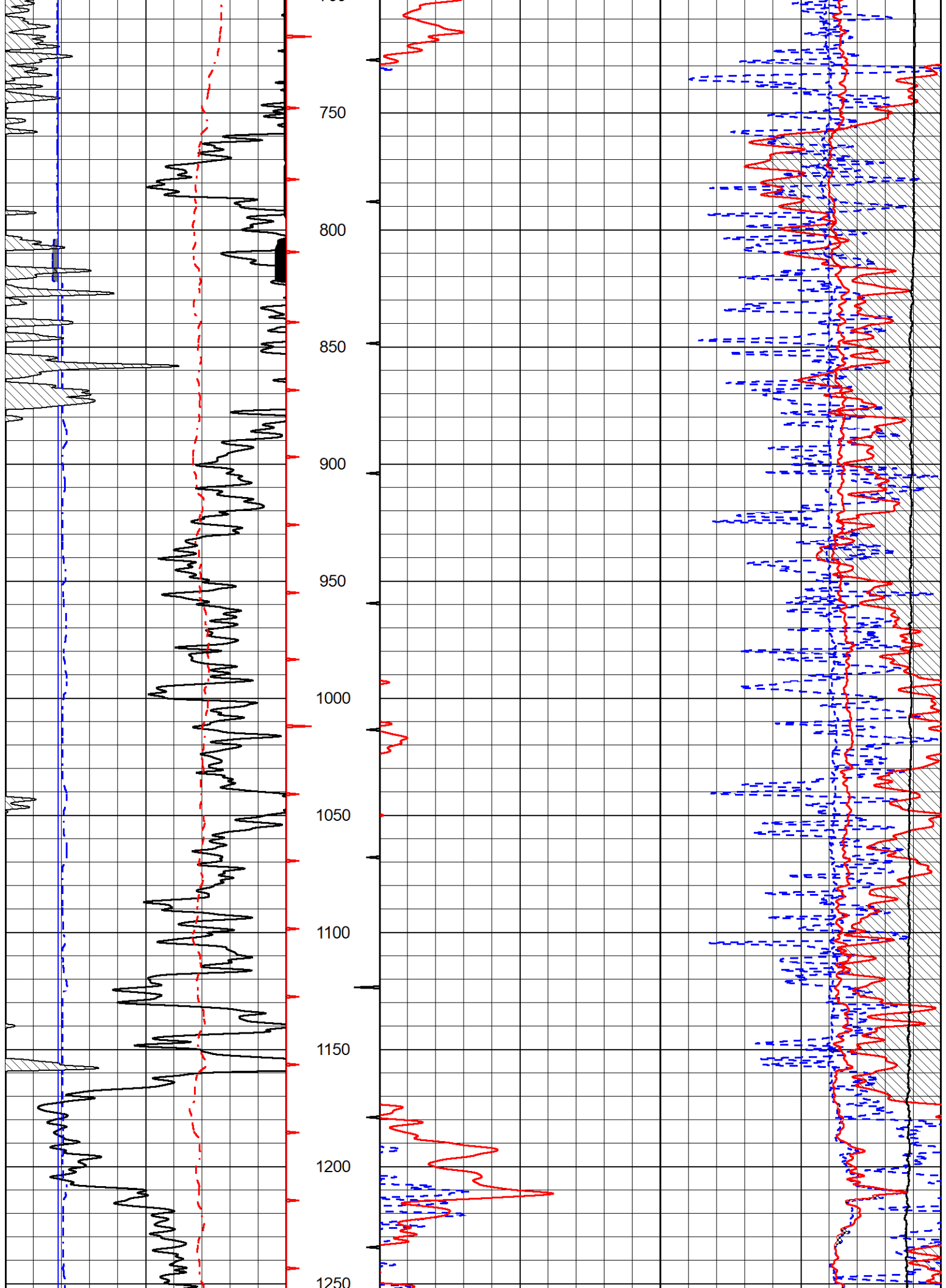
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6	Caliper (in)	16
-200	SP (mV)	0

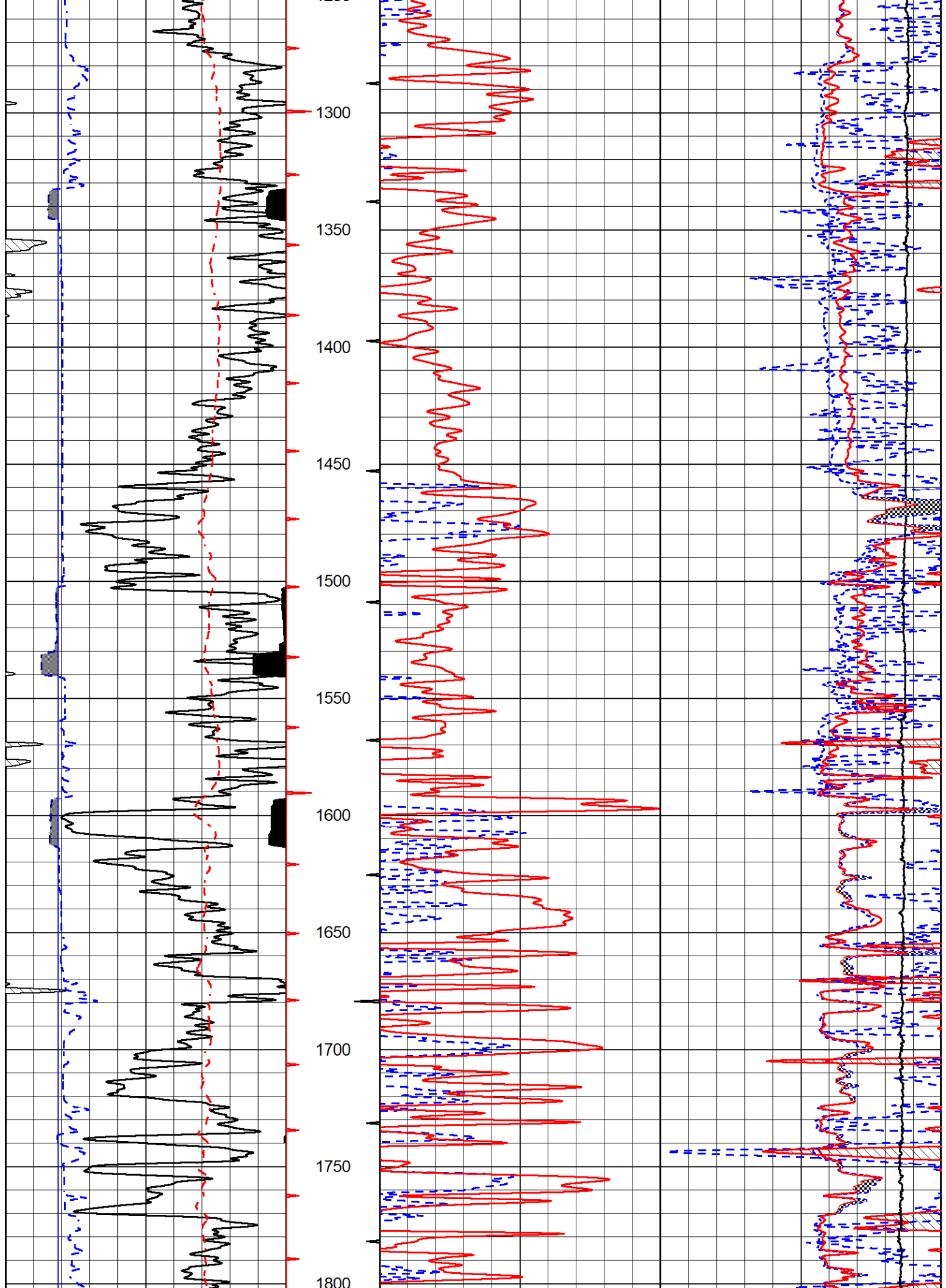
30	Compensated Neutron (pu)	-10
30	Compensated Density (pu)	-10
15000	Line Tension (lb)	0

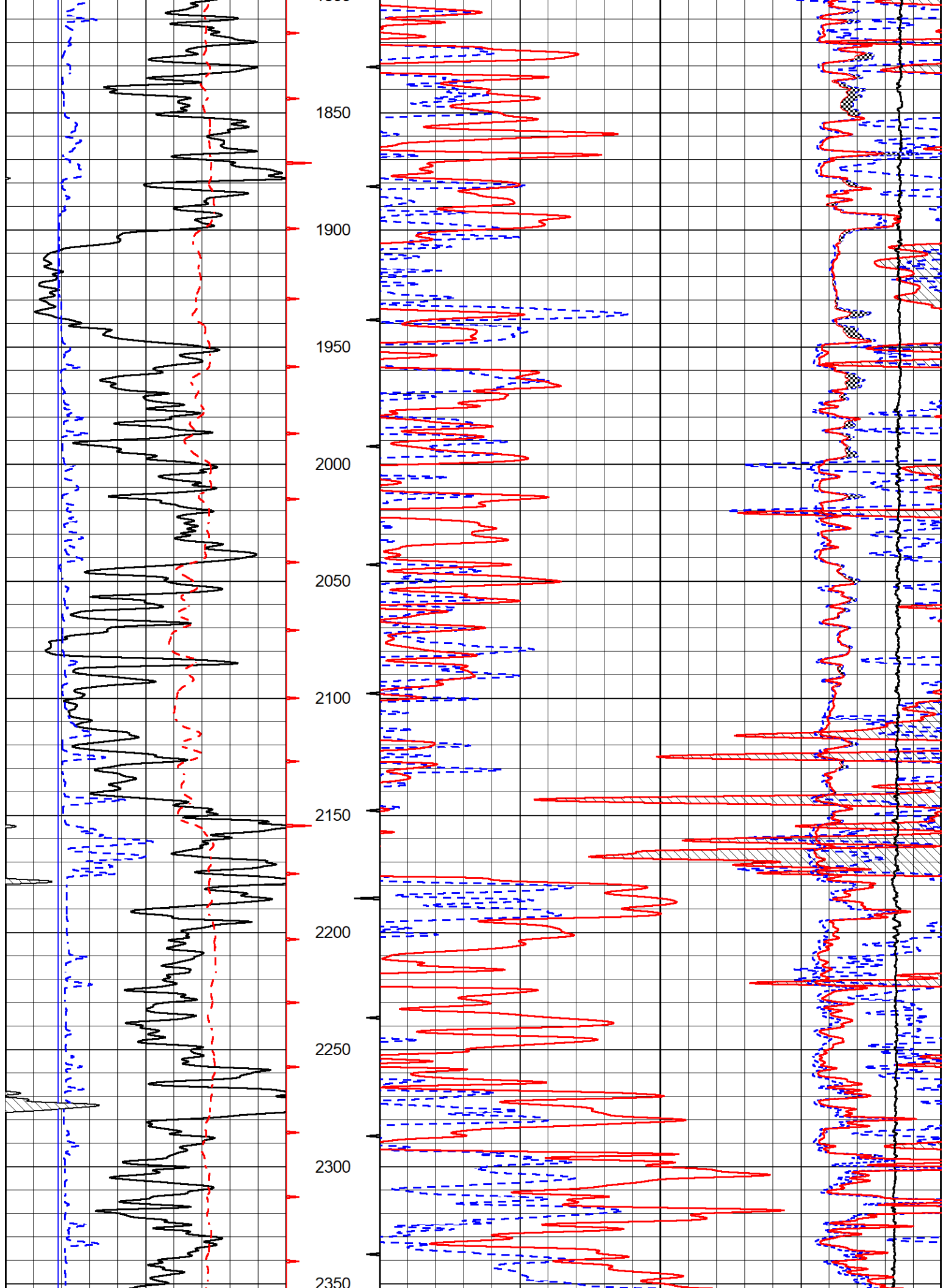
	Micro Normal	
0	(Ohm-m)	20
	Micro Inverse	
0	(Ohm-m)	20

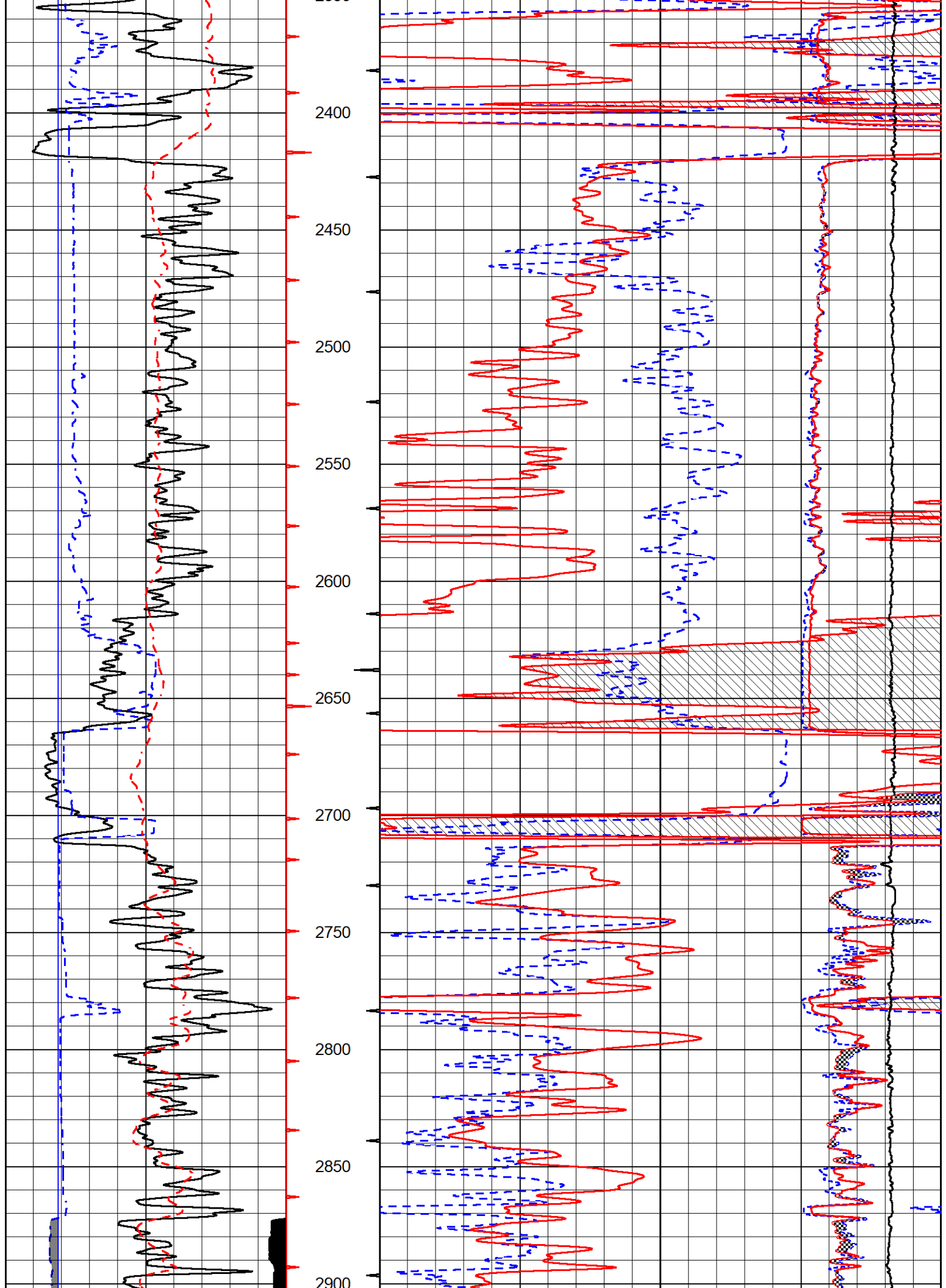


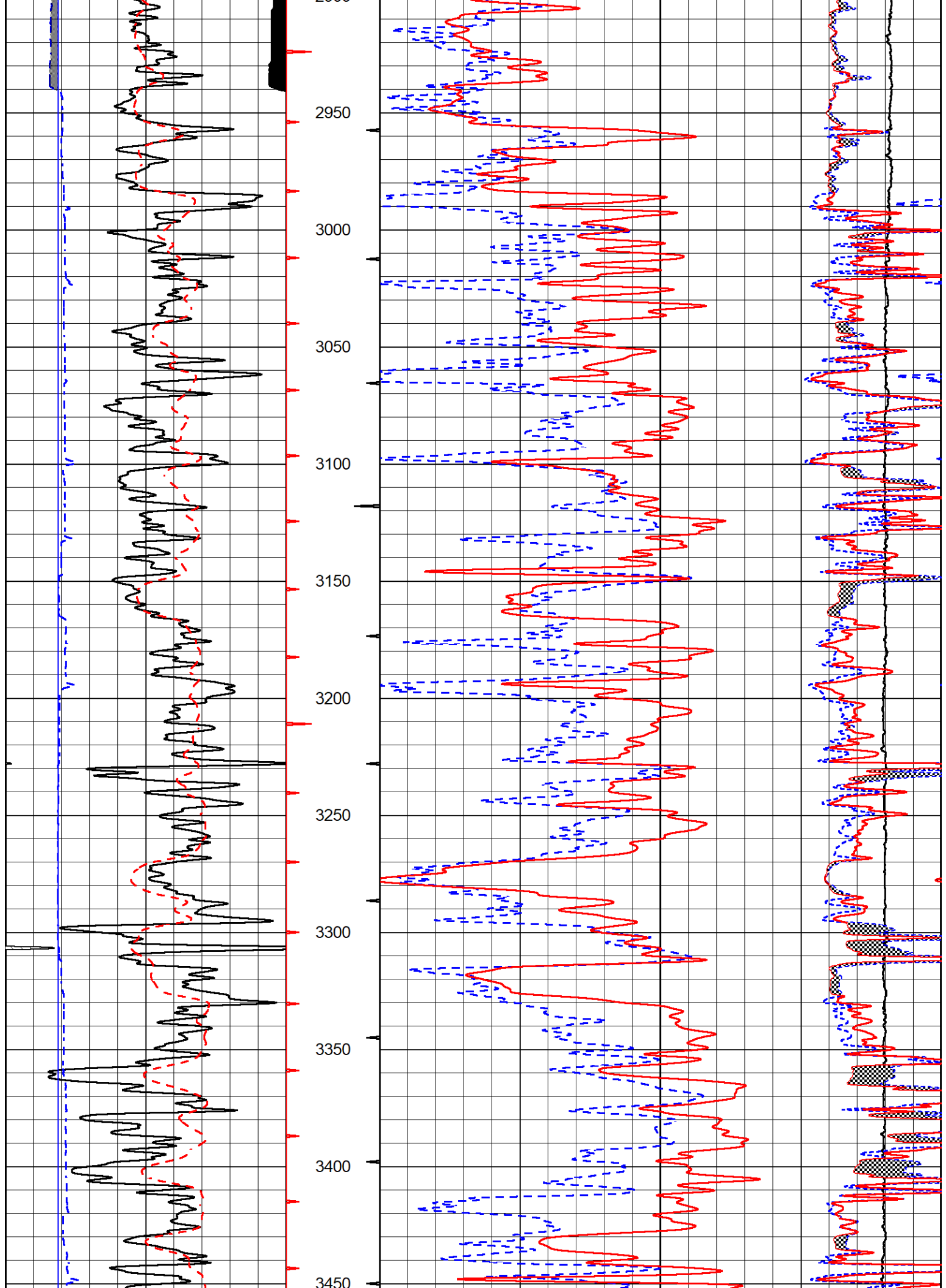


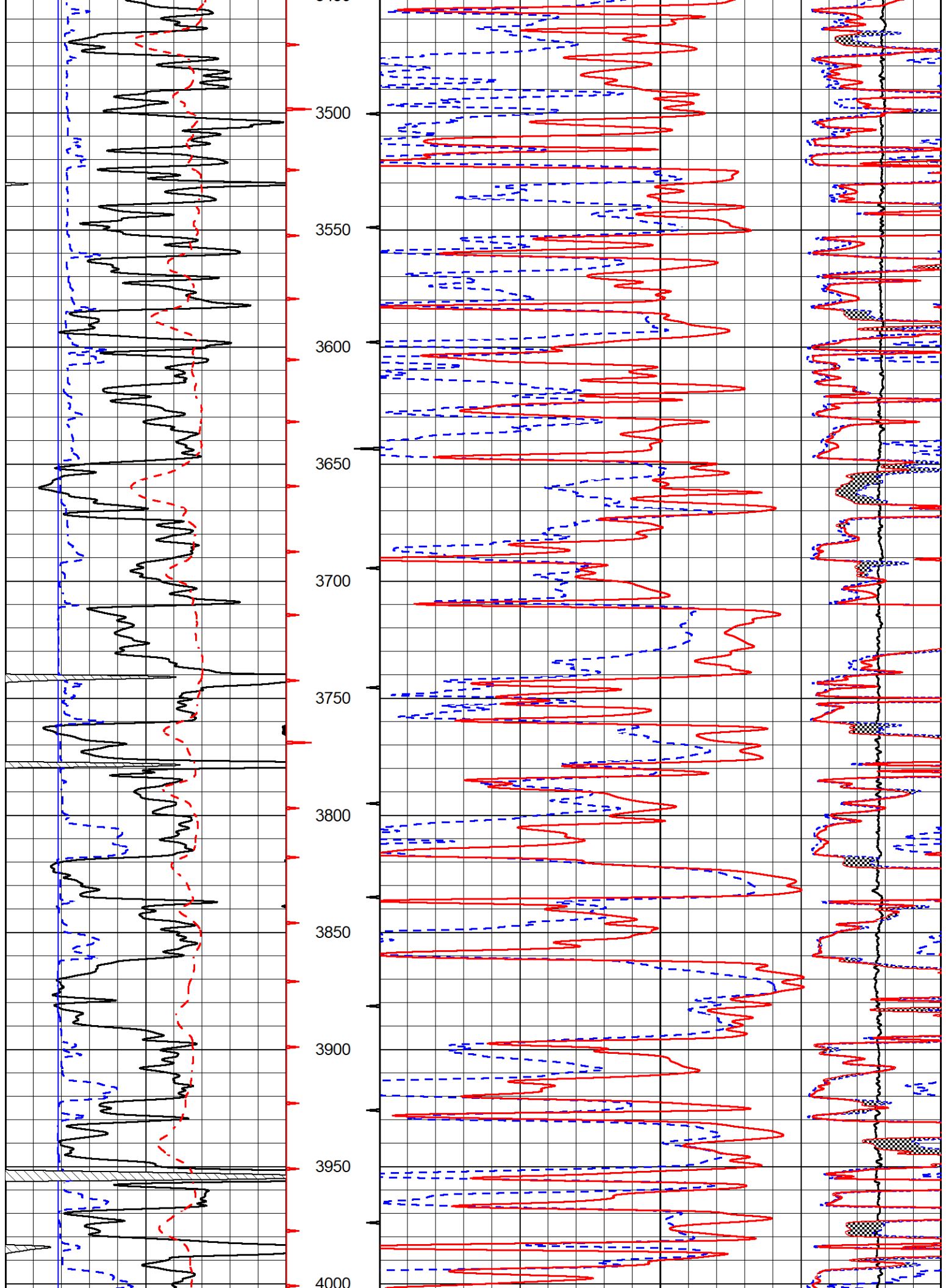


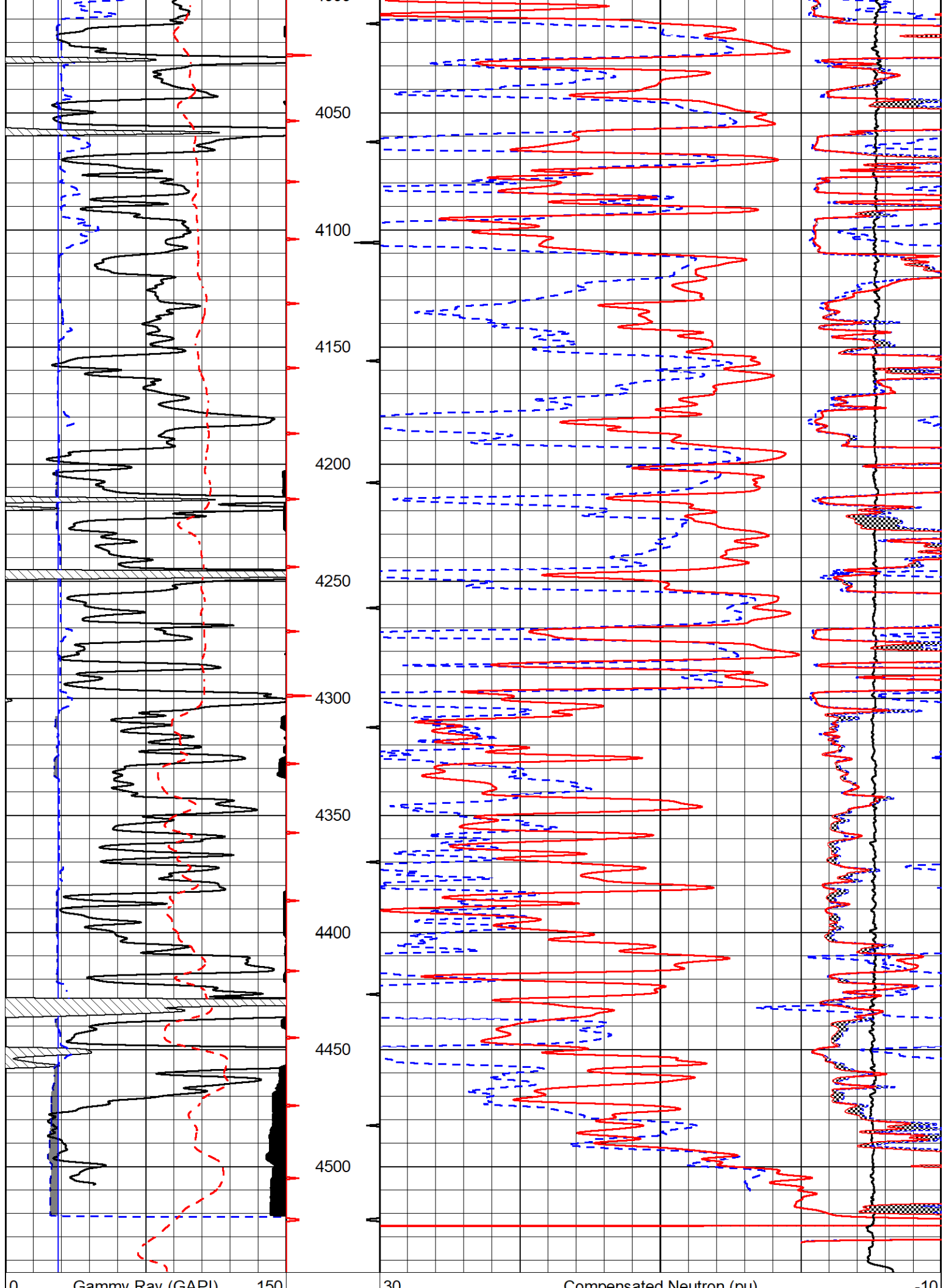












6	Gammy Ray (GAPI)	150
6	Caliper (in)	16
-200	SP (mV)	0

30	Compensated Neutron (pu)	-10
30	Compensated Density (pu)	-10
15000	Line Tension (lb)	0

	Micro Normal	
0	(Ohm-m)	20
	Micro Inverse	
0	(Ohm-m)	20



DETAIL SECTION

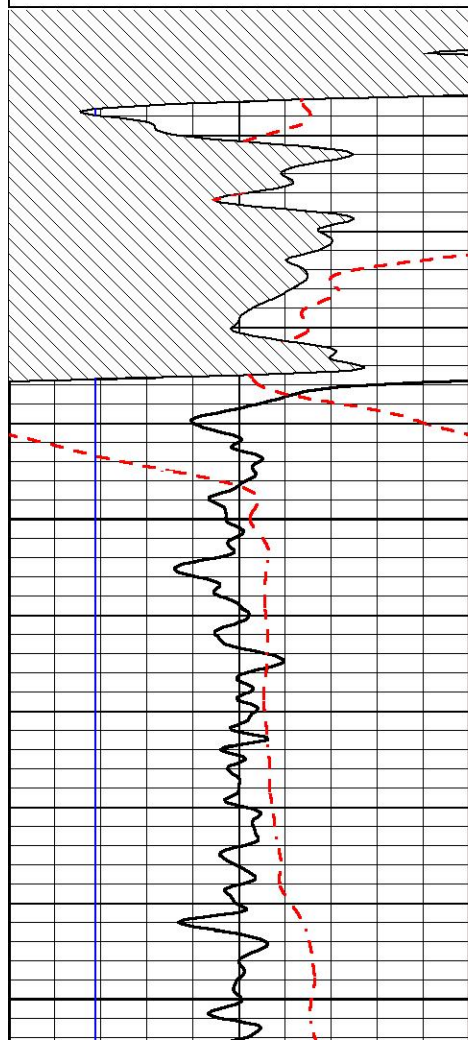
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 Dataset Pathname stkml/pass4.1
 Presentation Format _CNDLS~2
 Dataset Creation Thu Oct 28 03:51:44 2021
 Charted by Depth in Feet scaled 1:240

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-200	SP (mV)	0

30	Compensated Neutron (pu)	-10
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15000	Line Tension (lb)	0

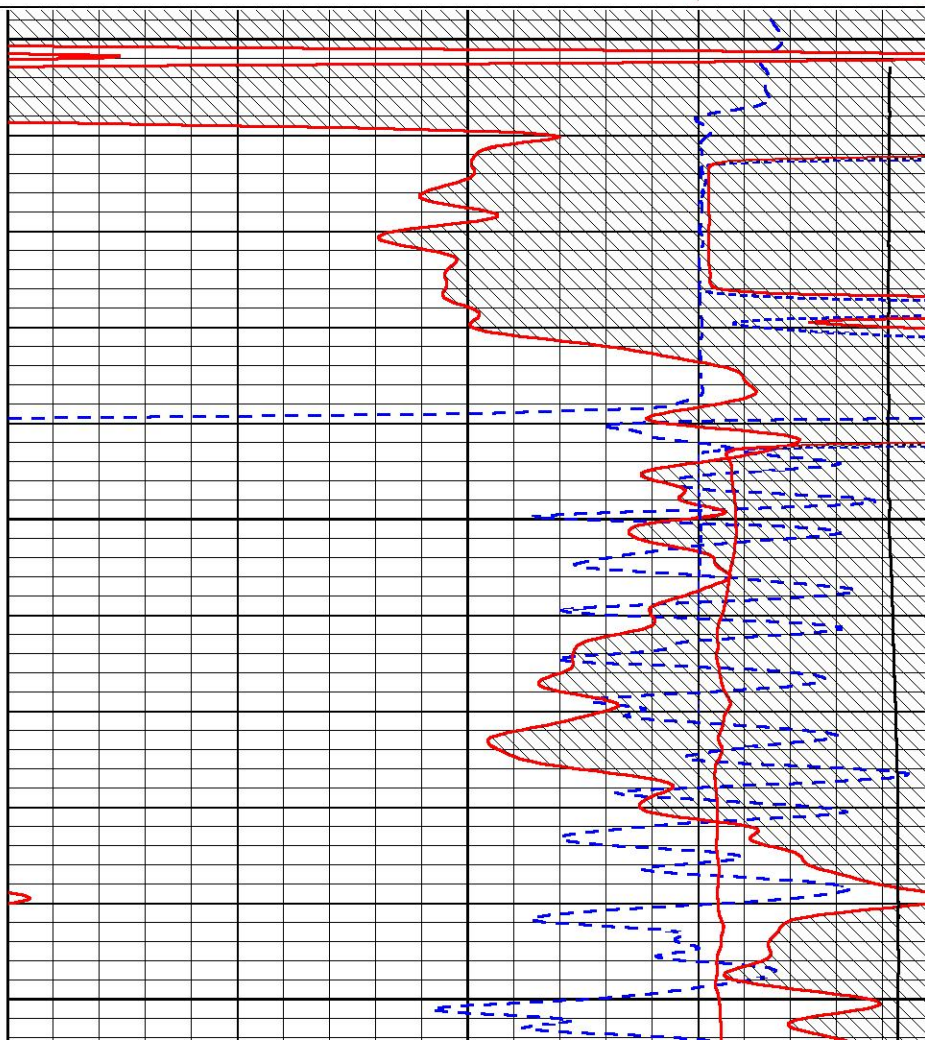
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0	(Ohm-m)	20
	Micro Inverse	
0	(Ohm-m)	20

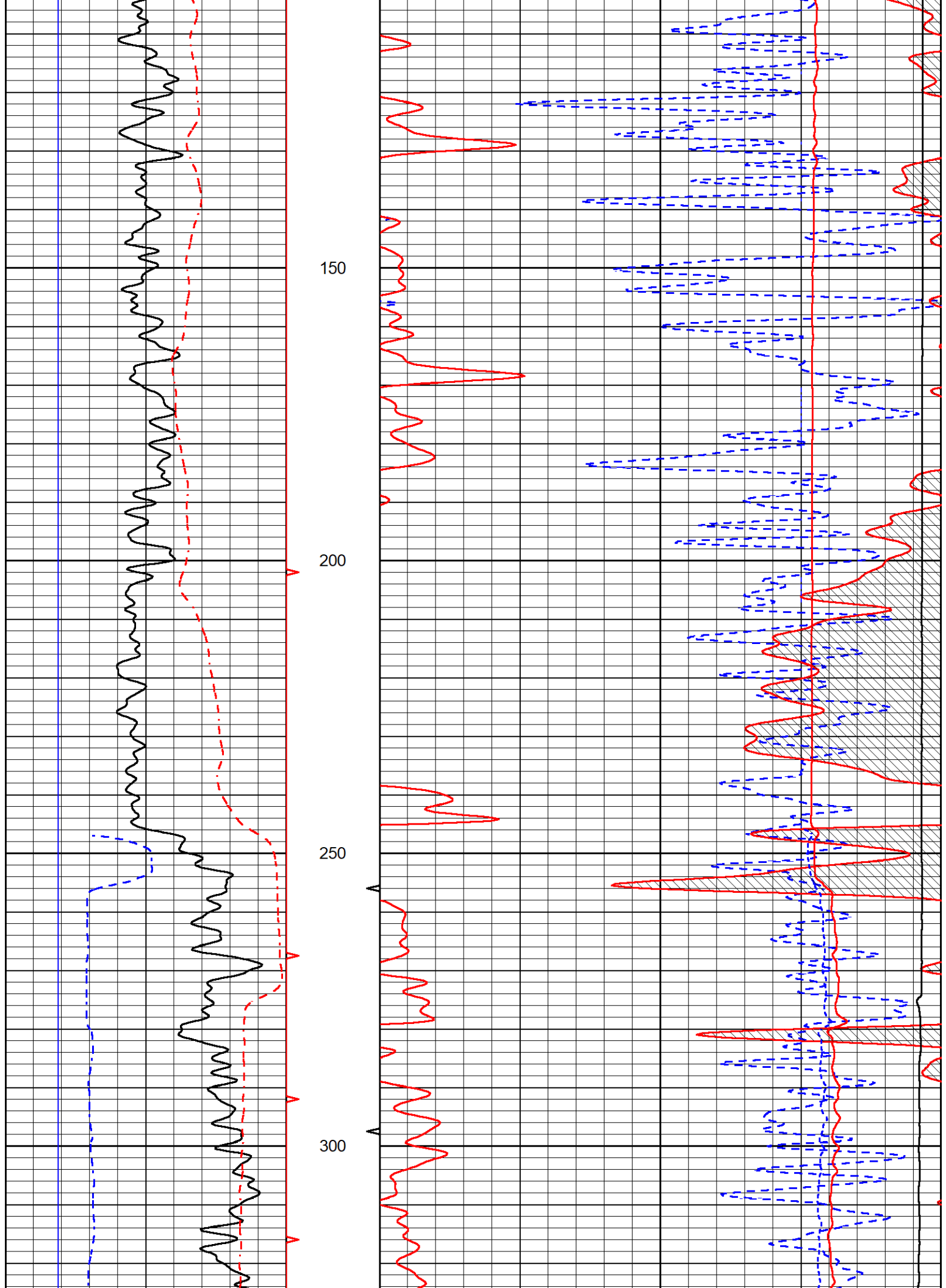


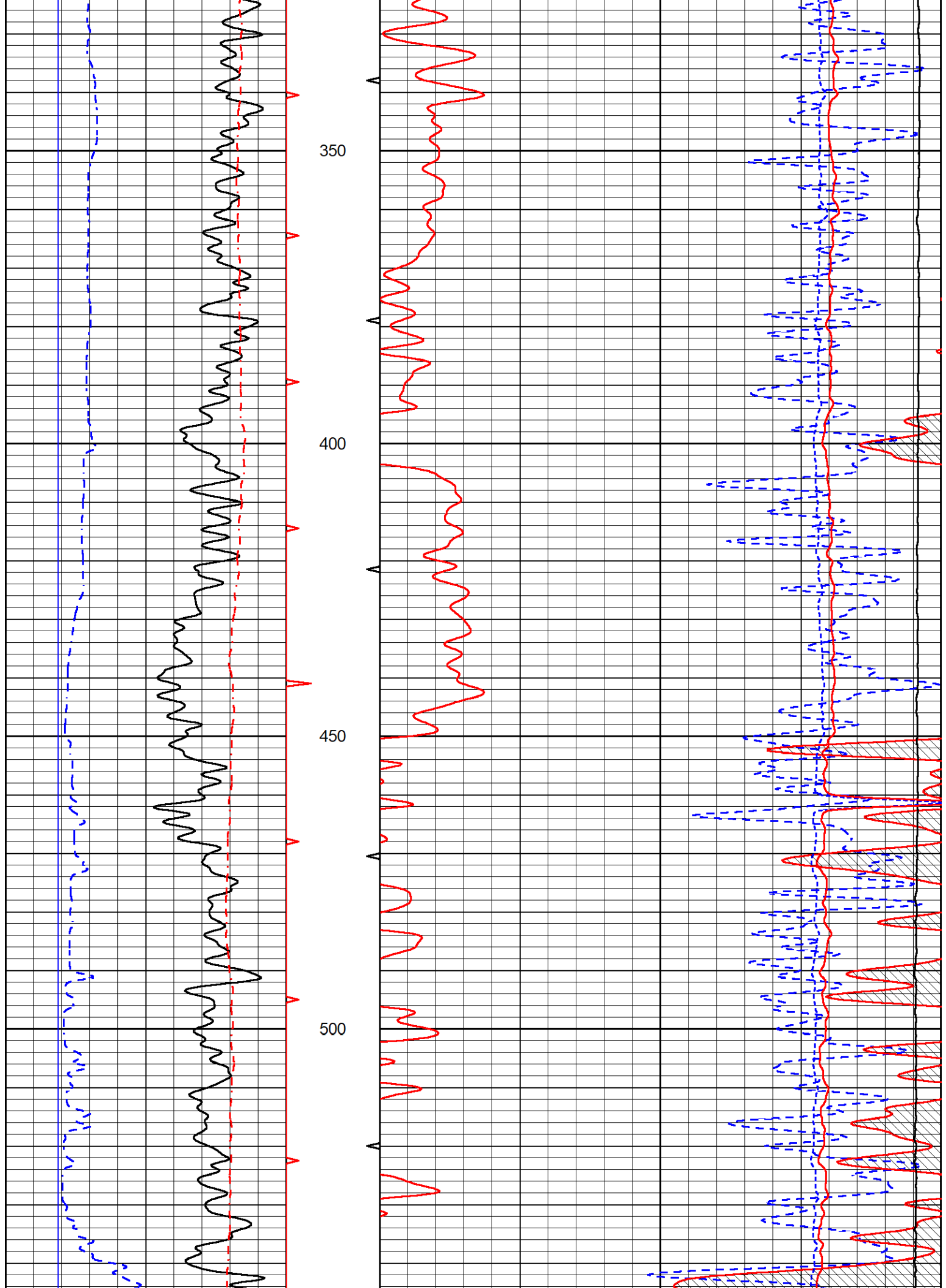
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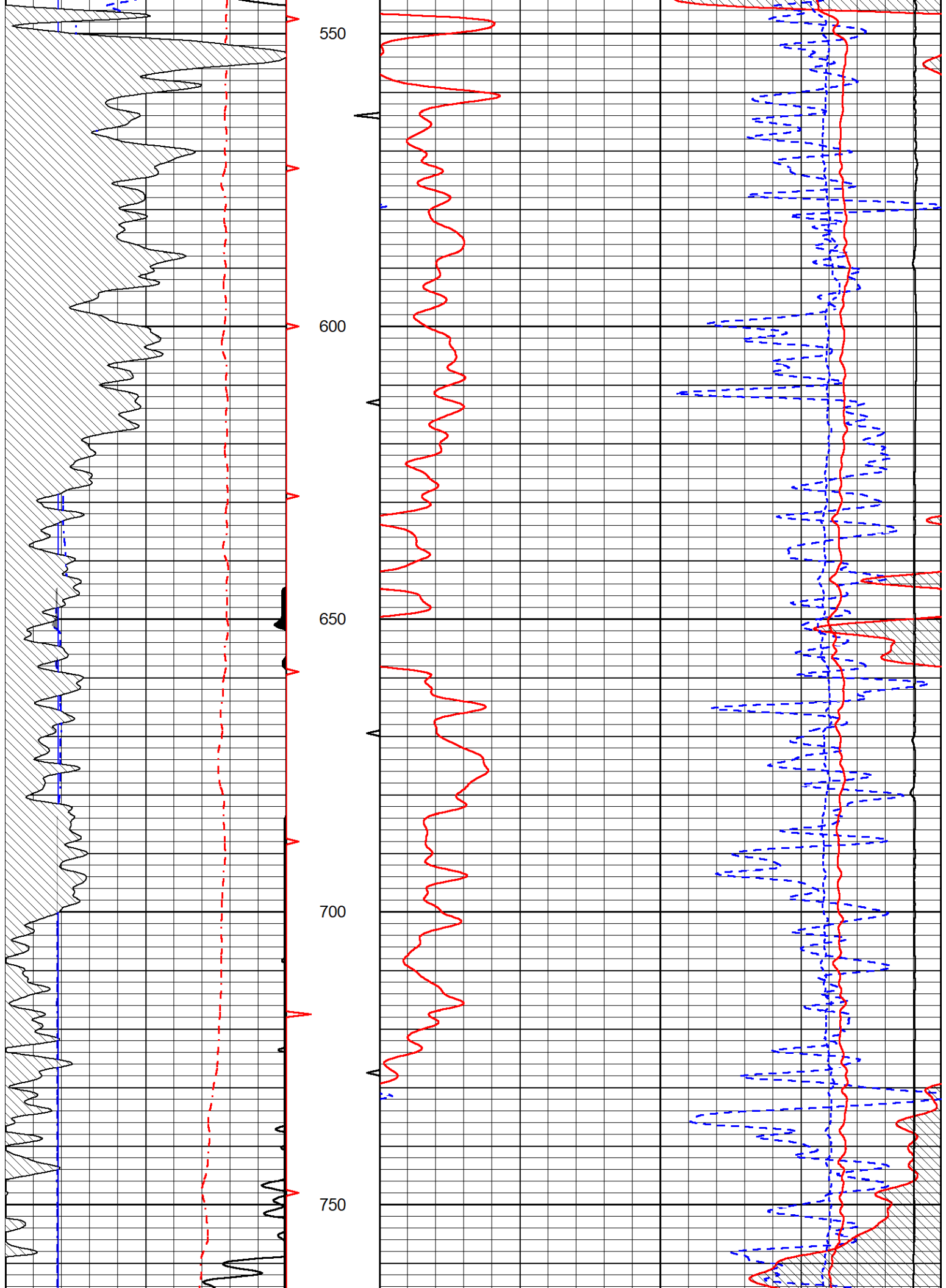
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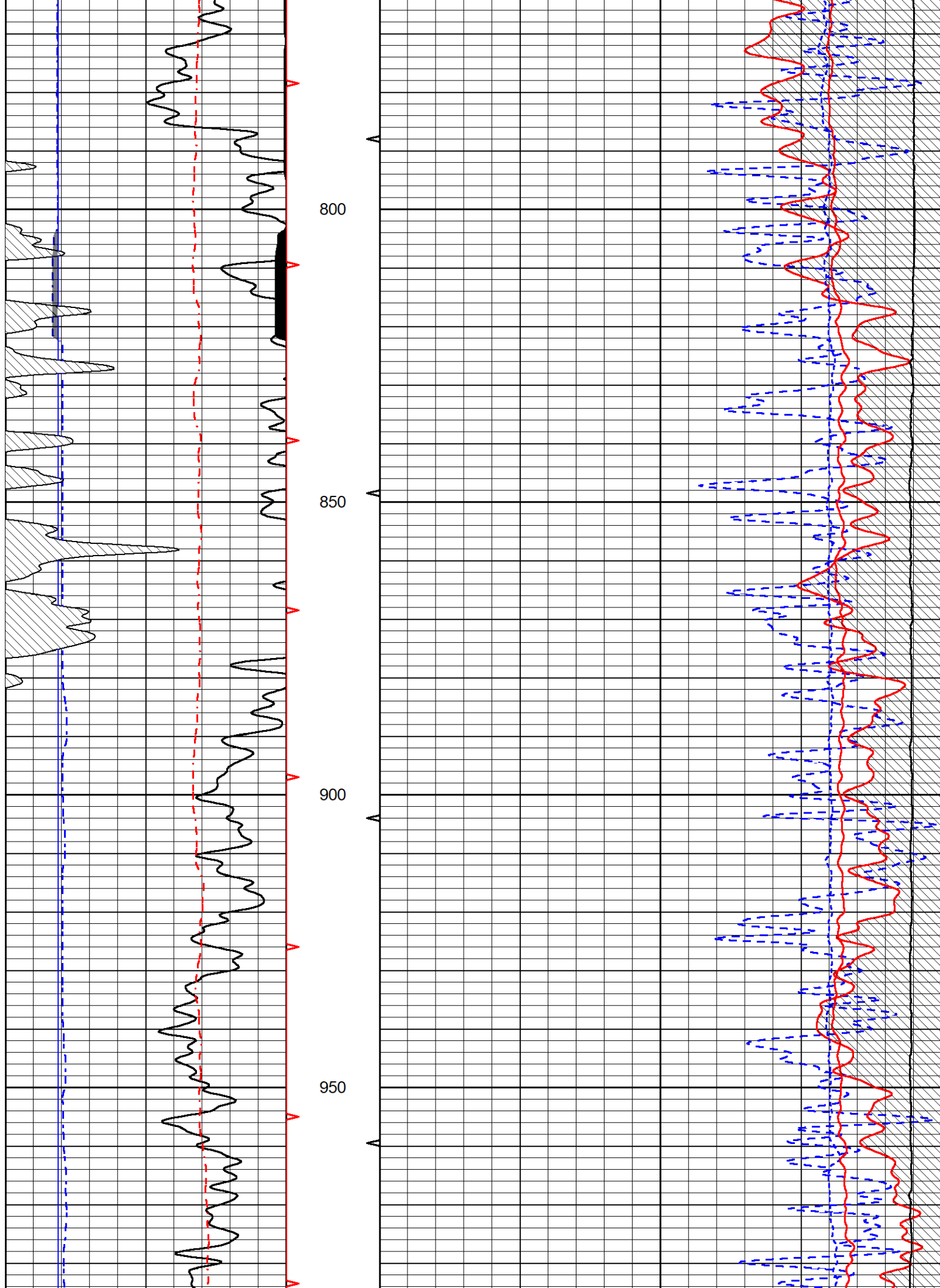
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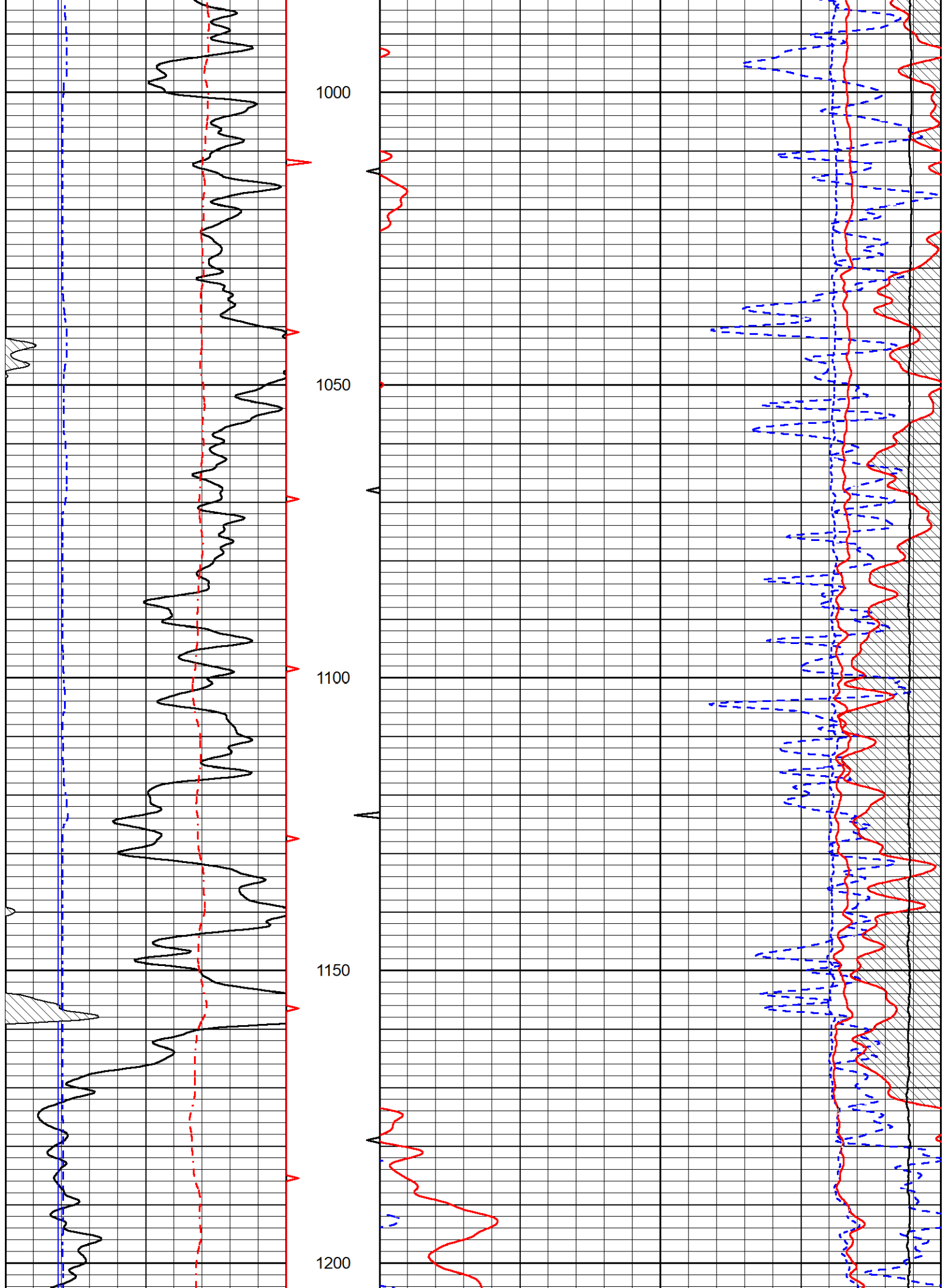


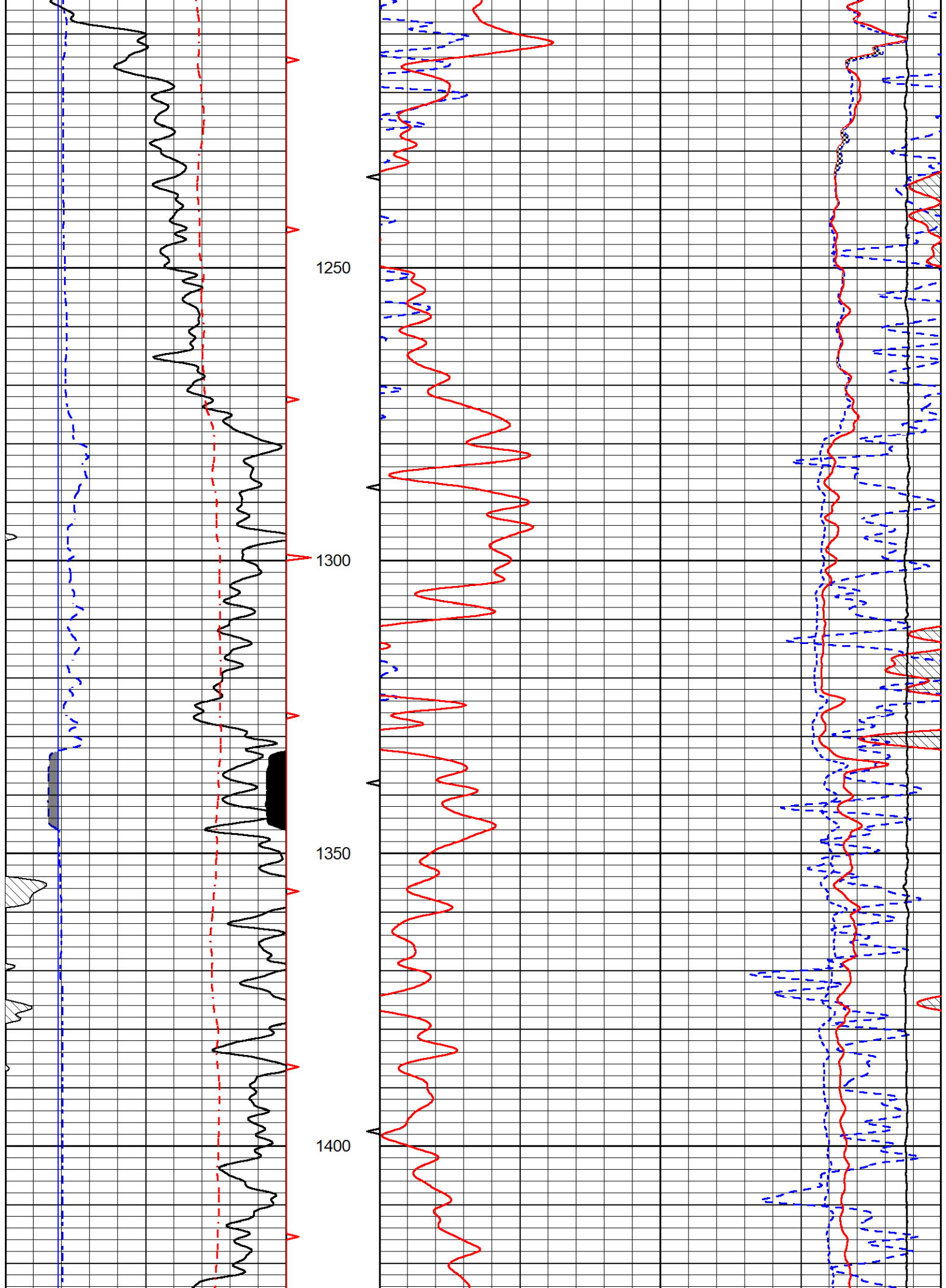


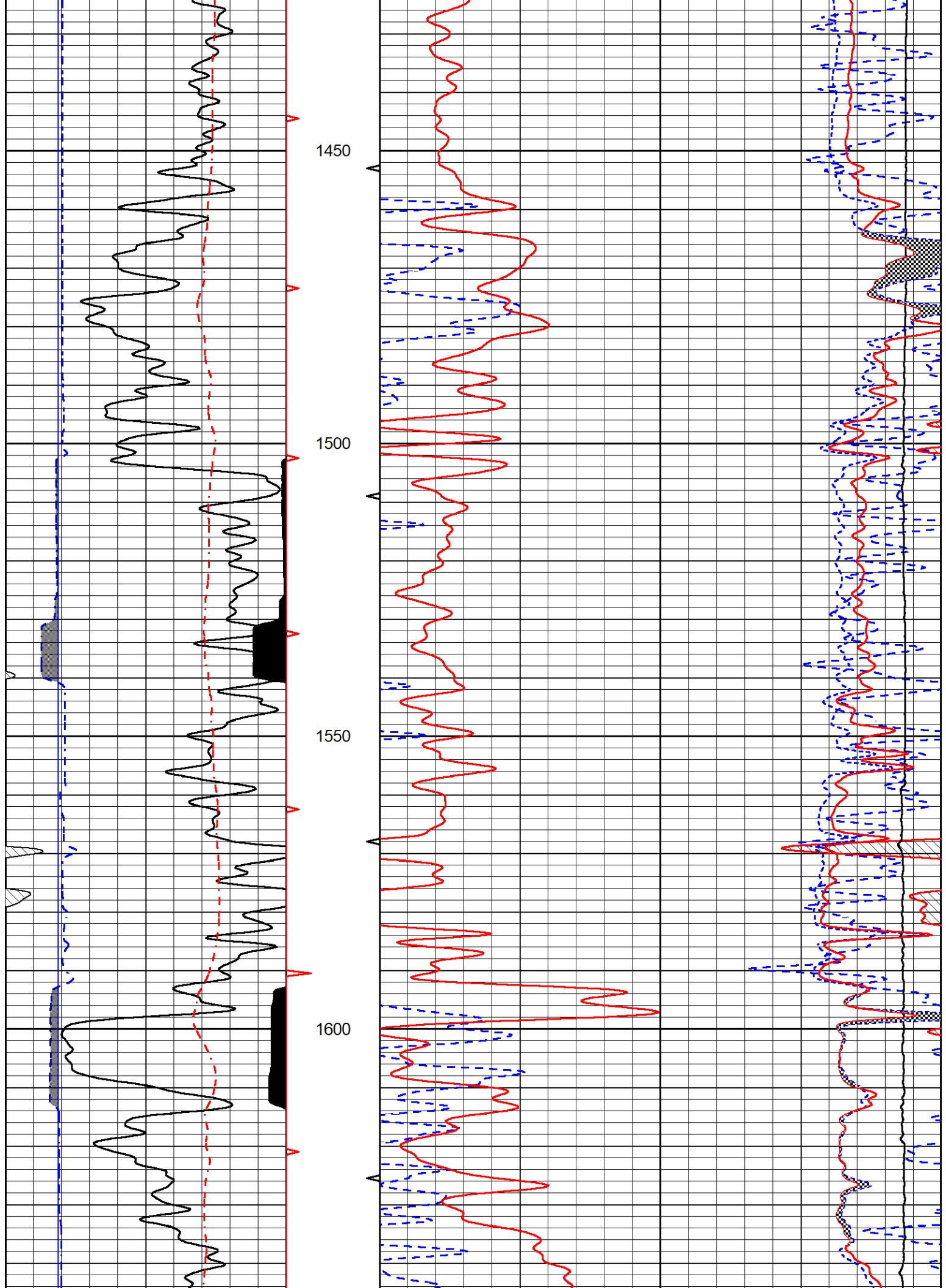


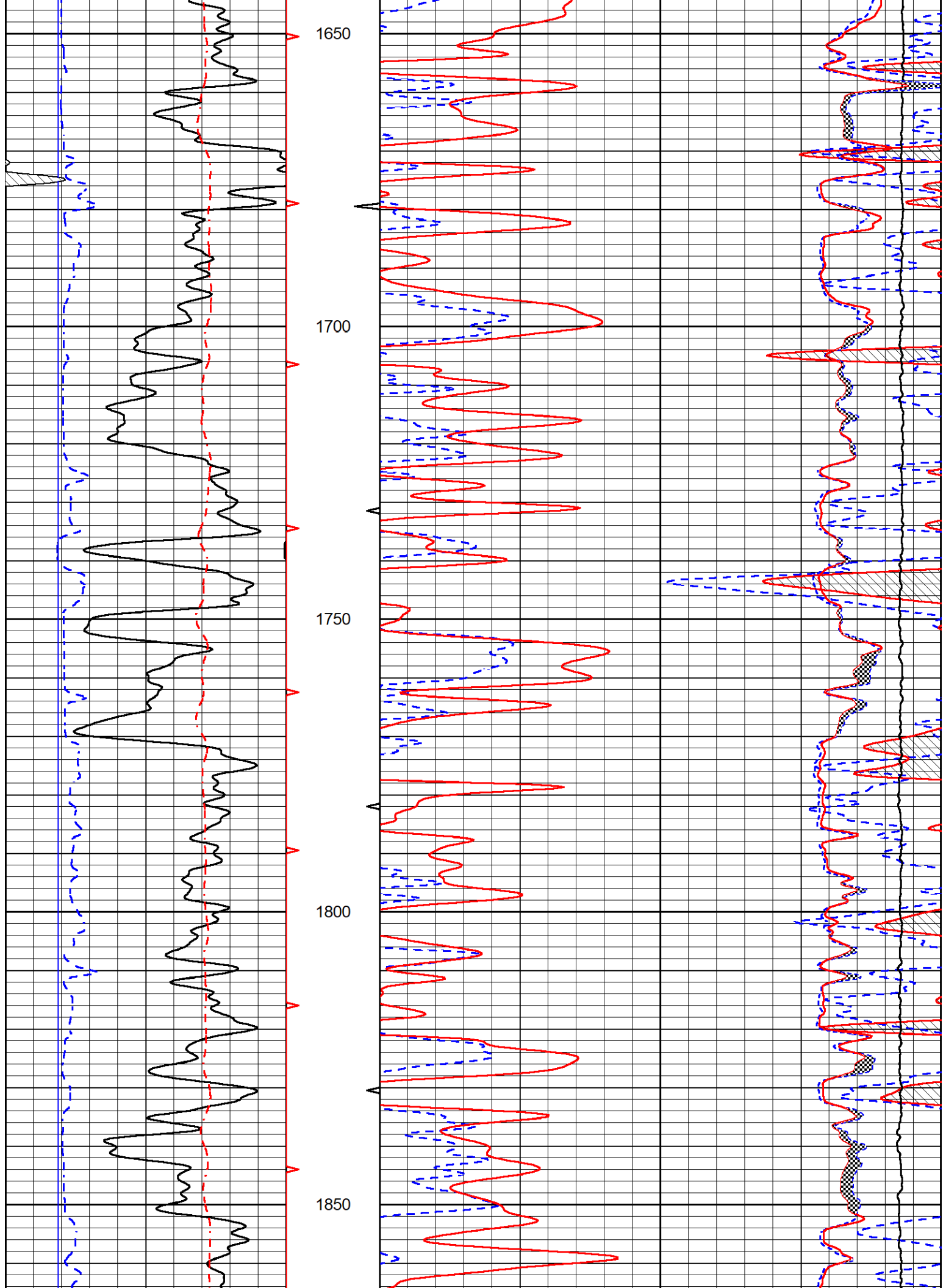


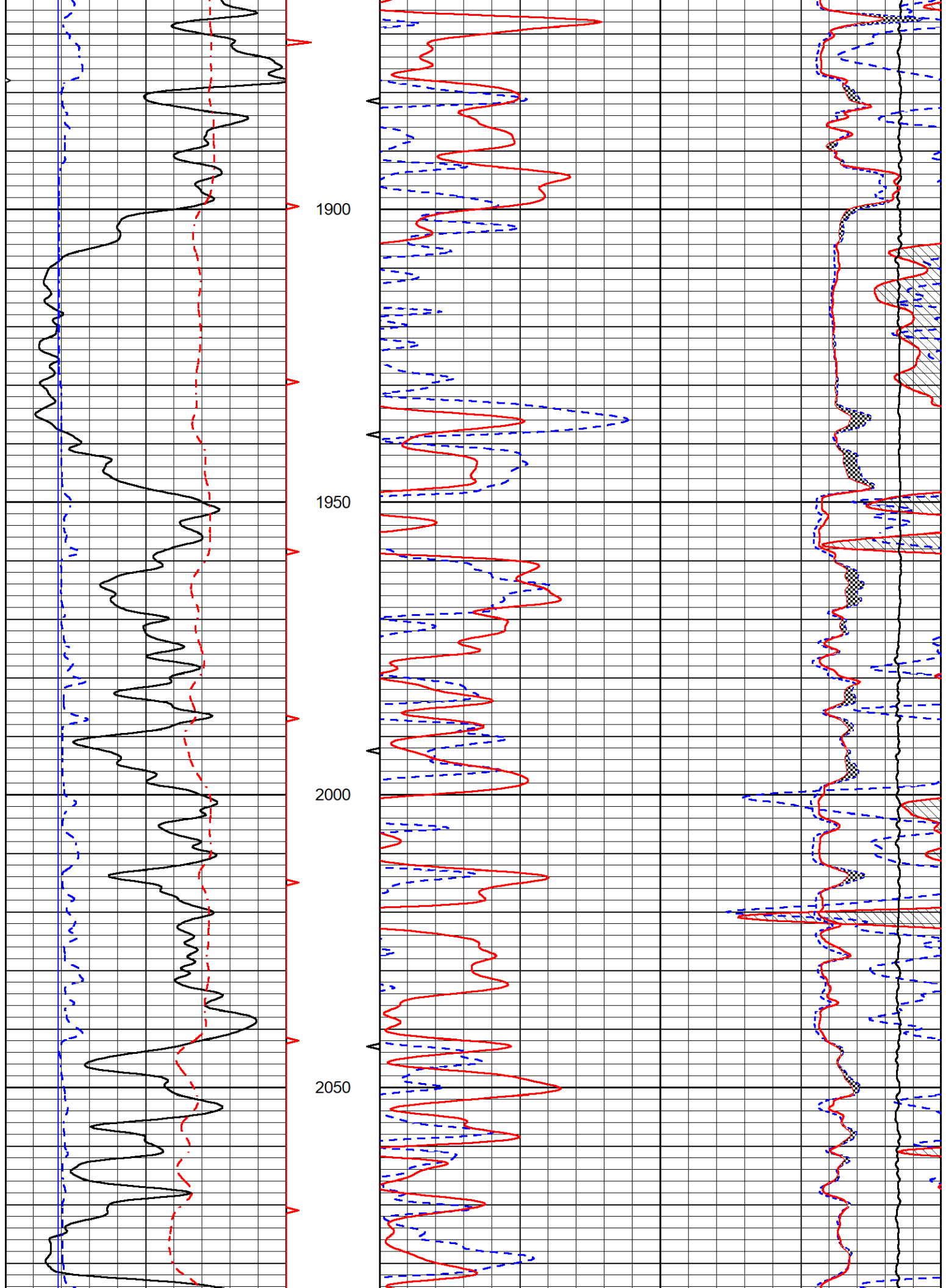


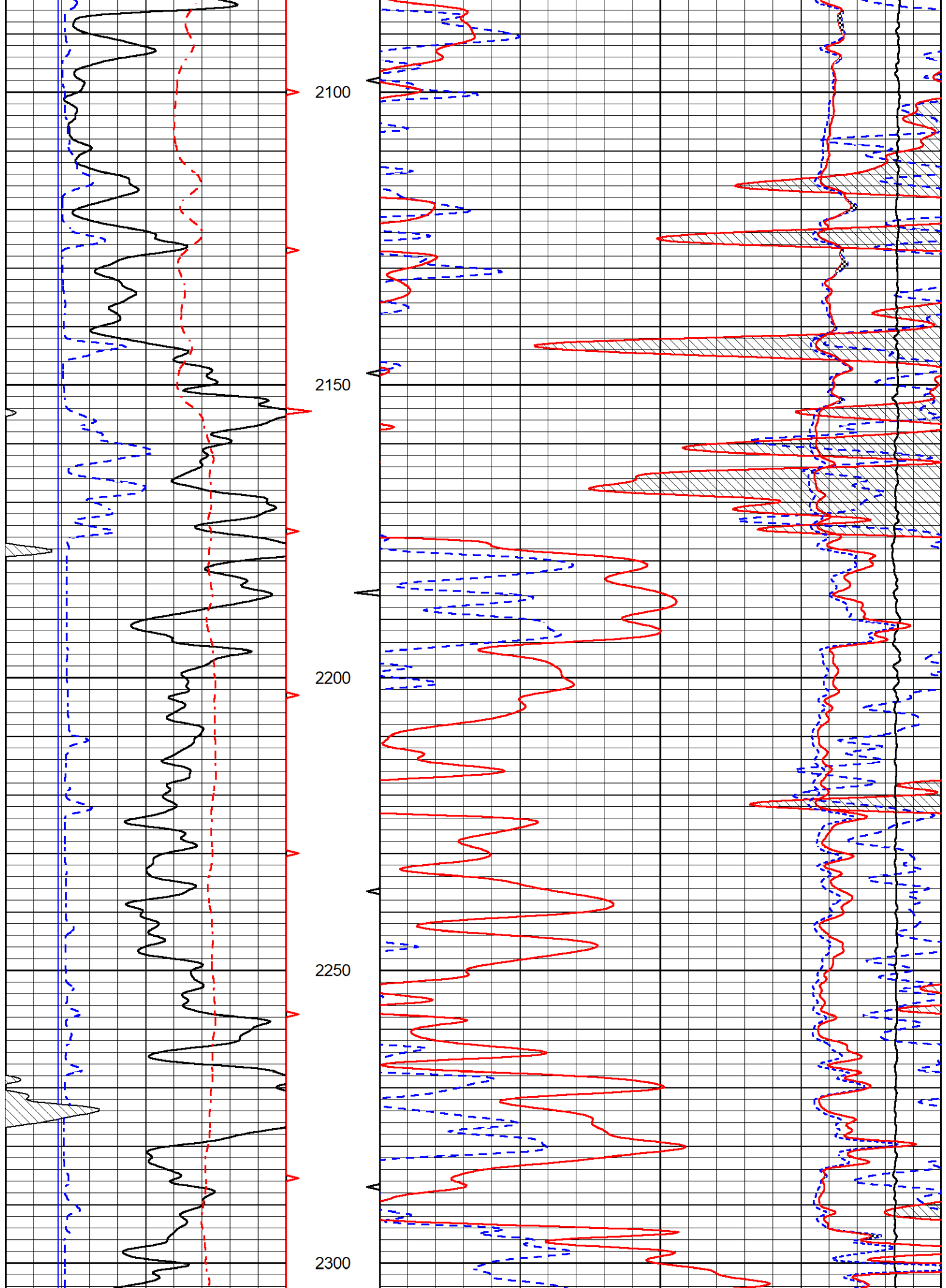


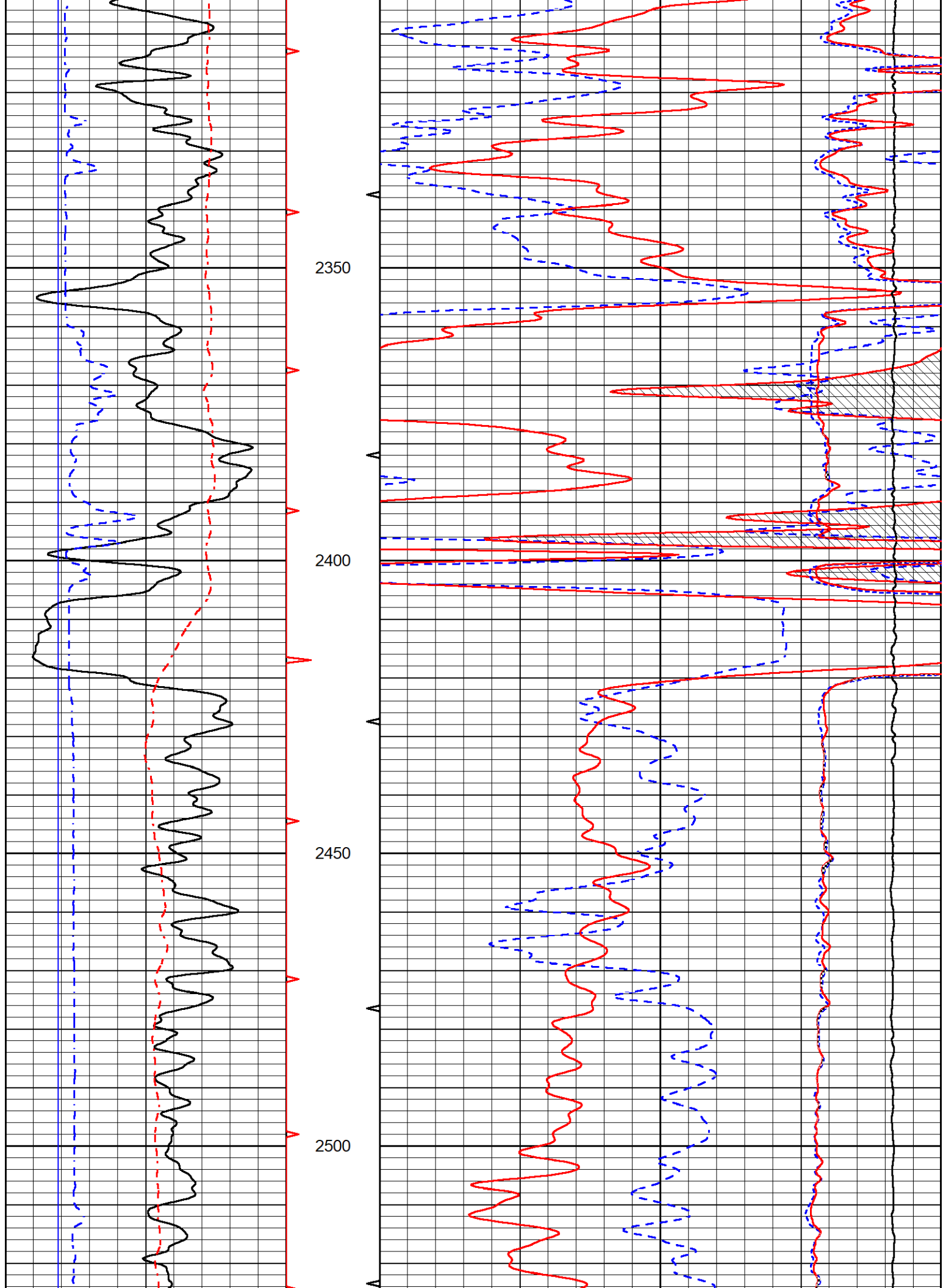


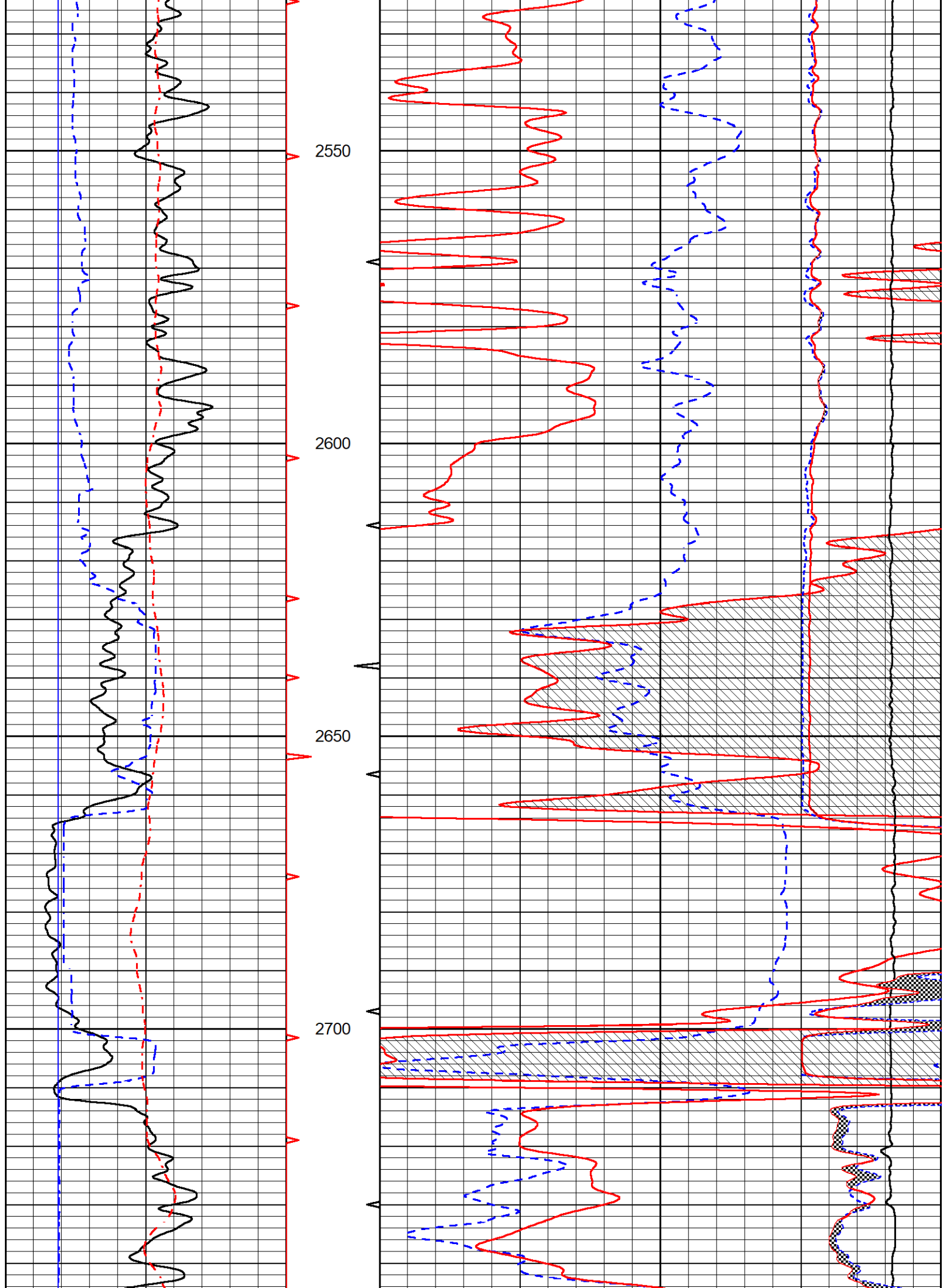


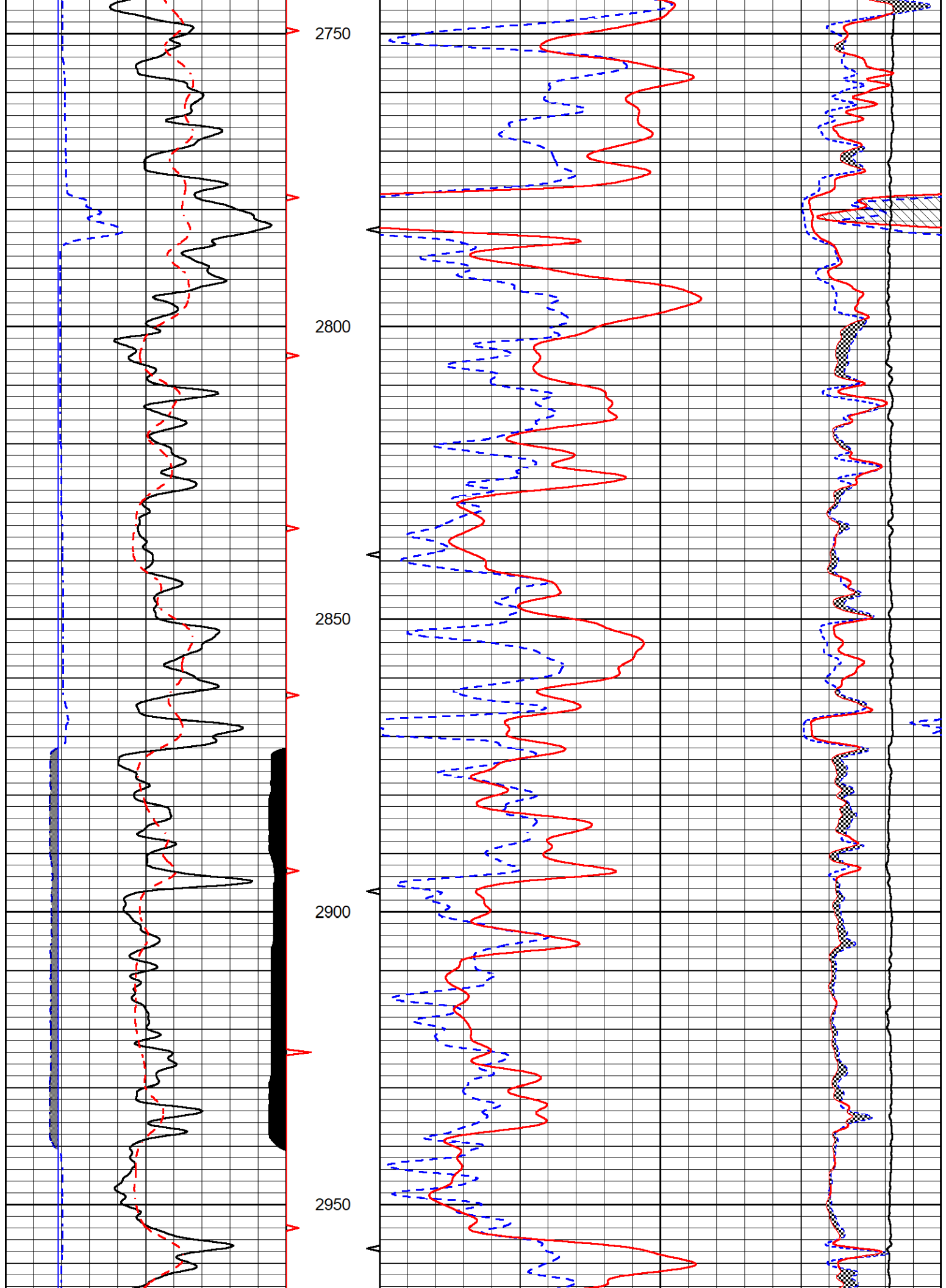


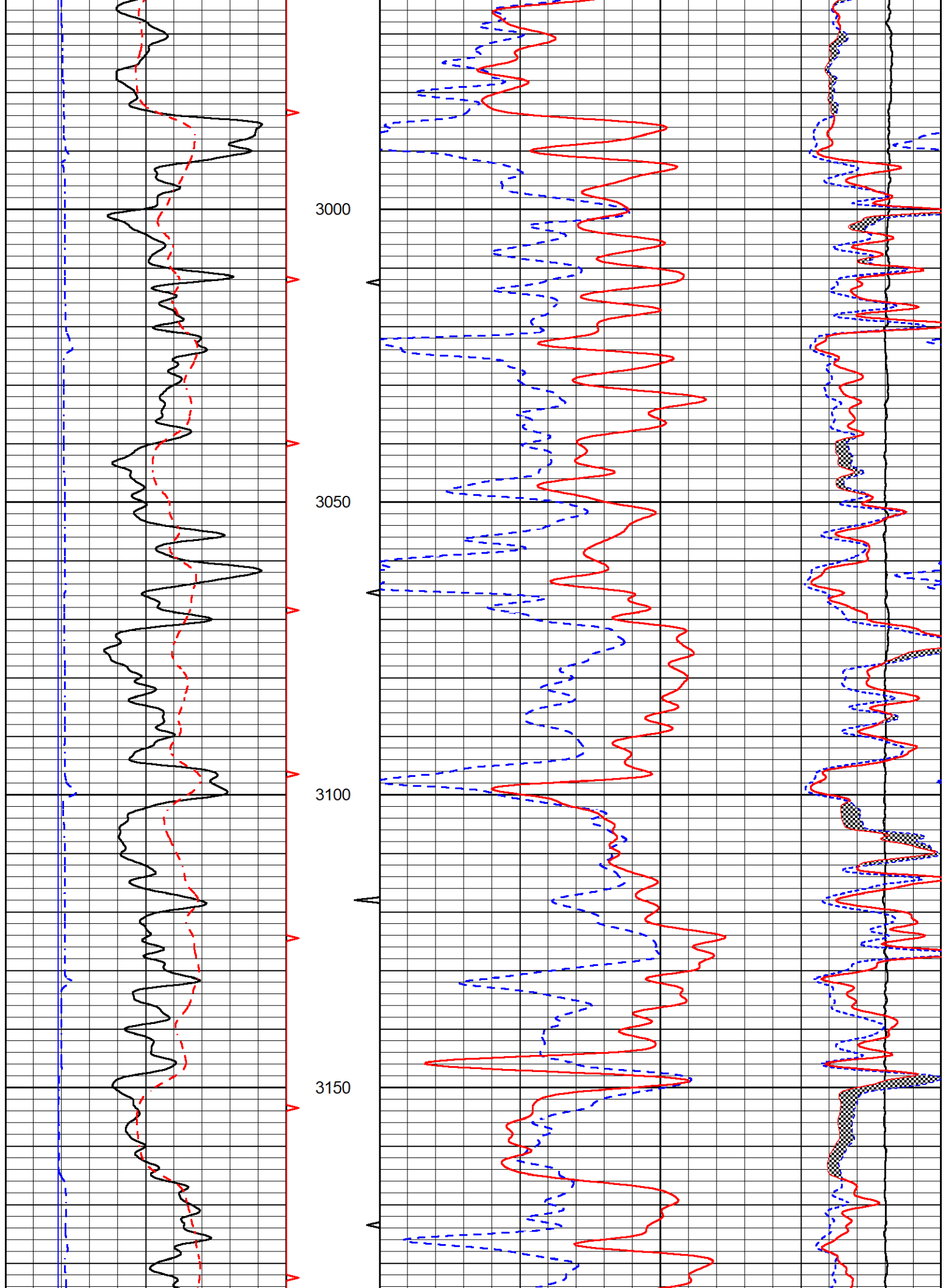


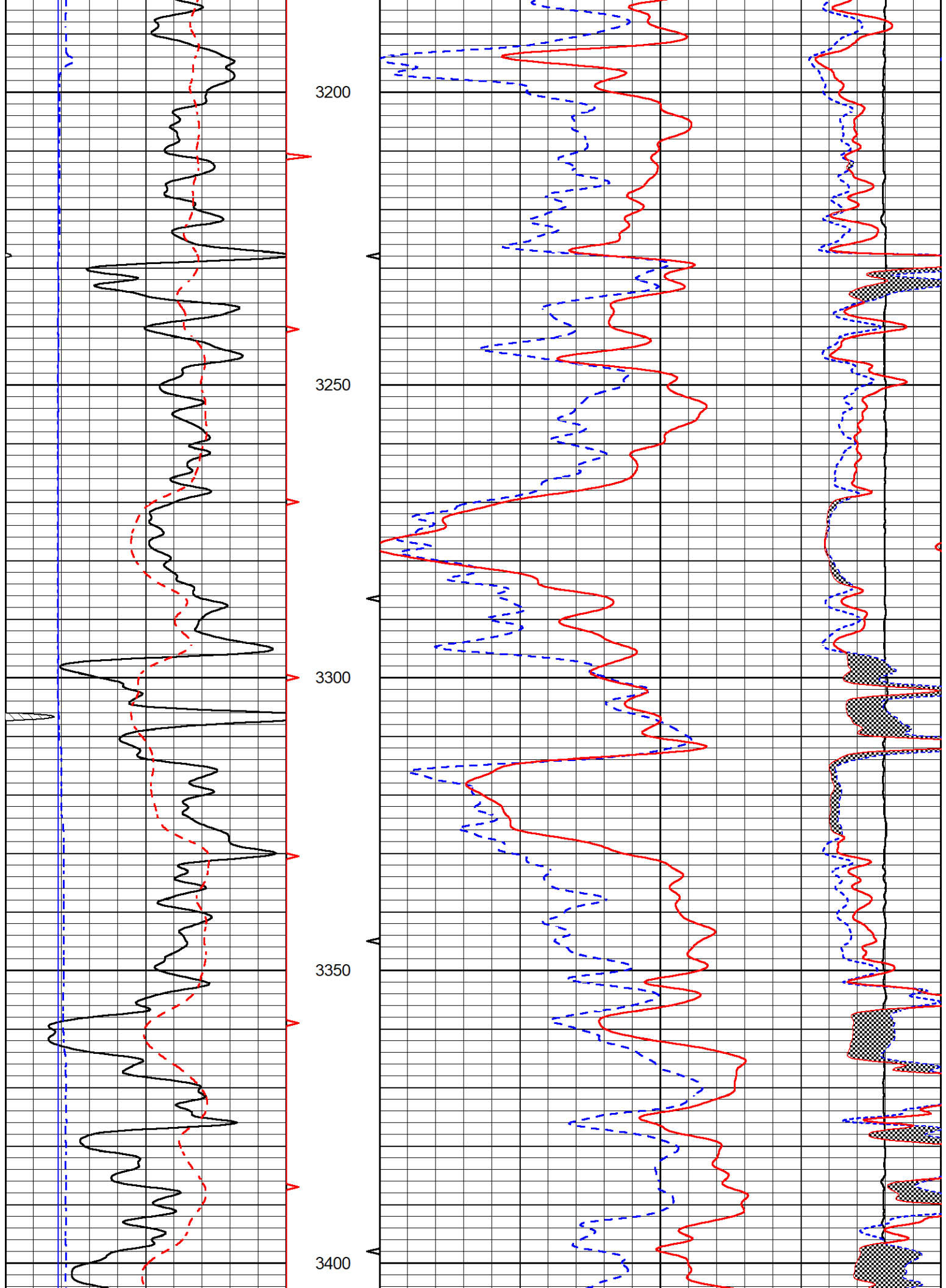


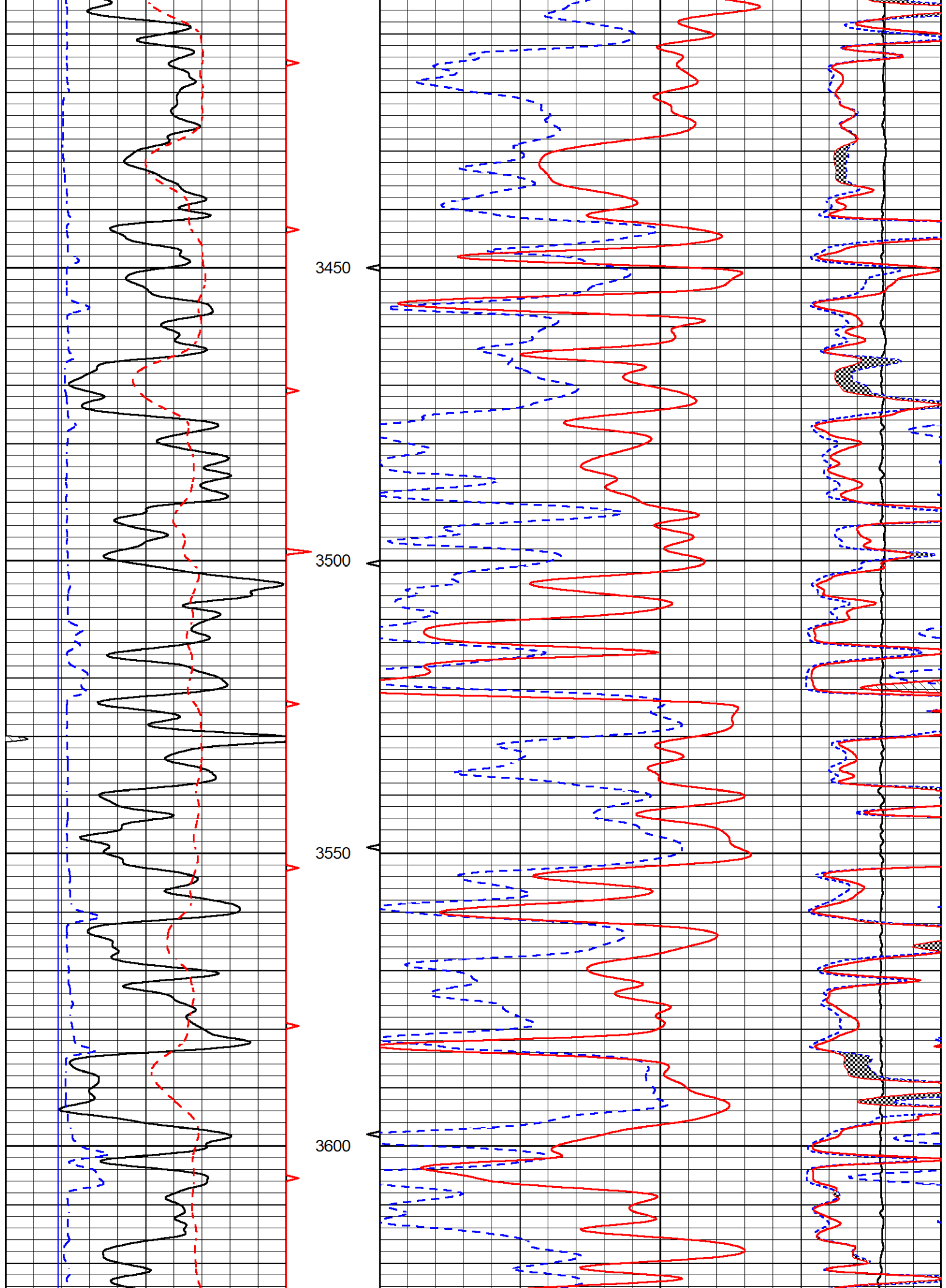


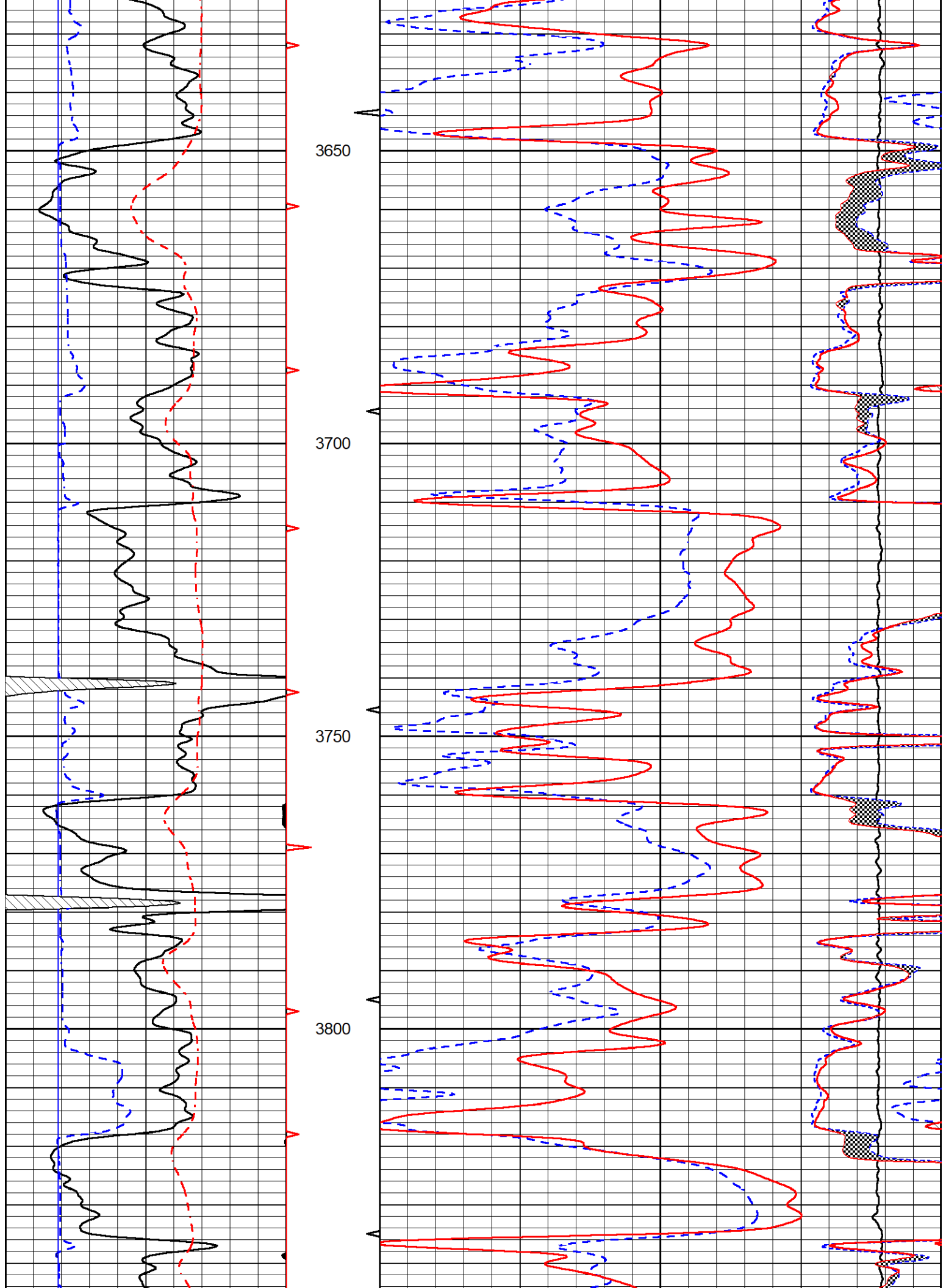


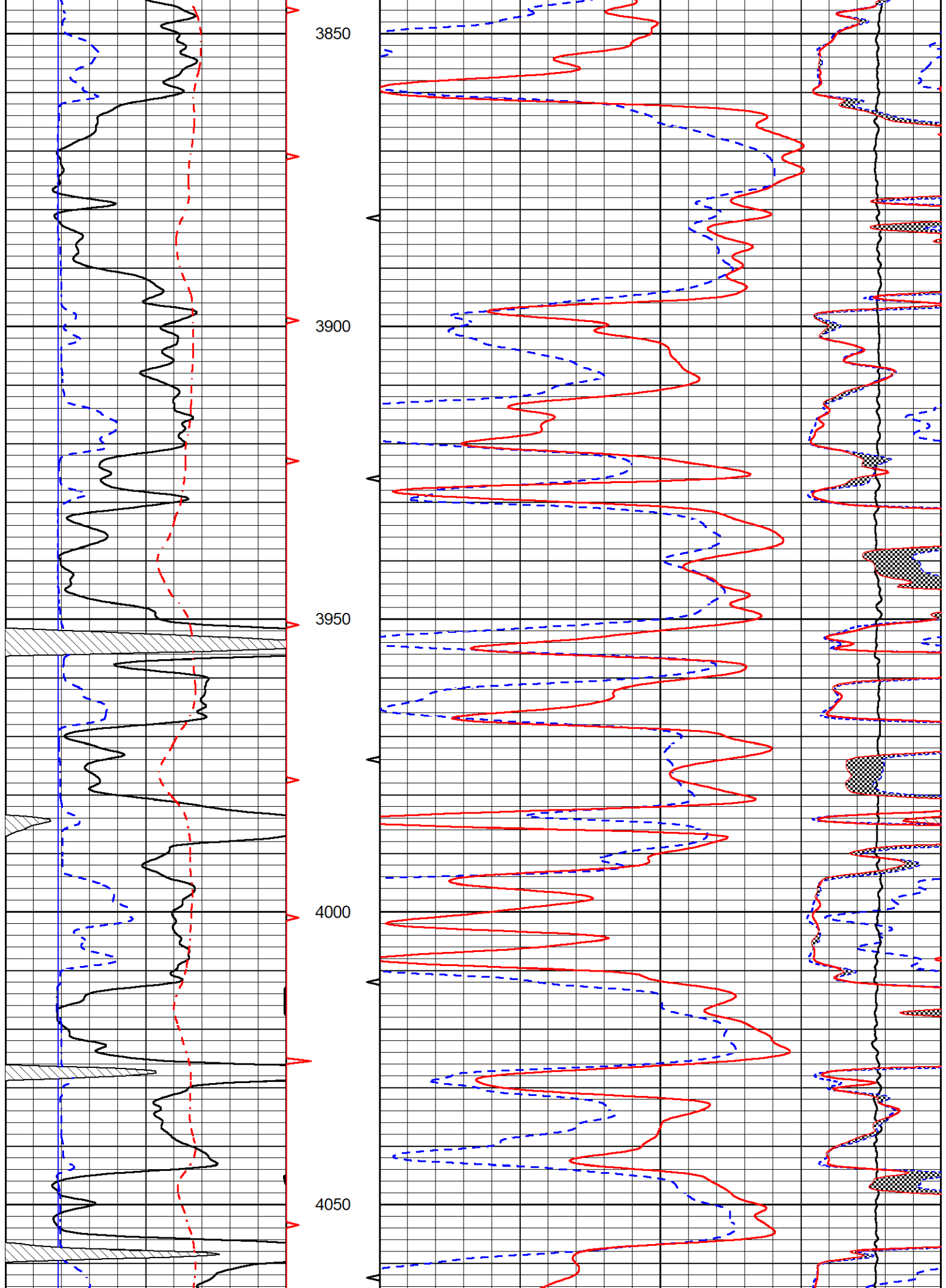


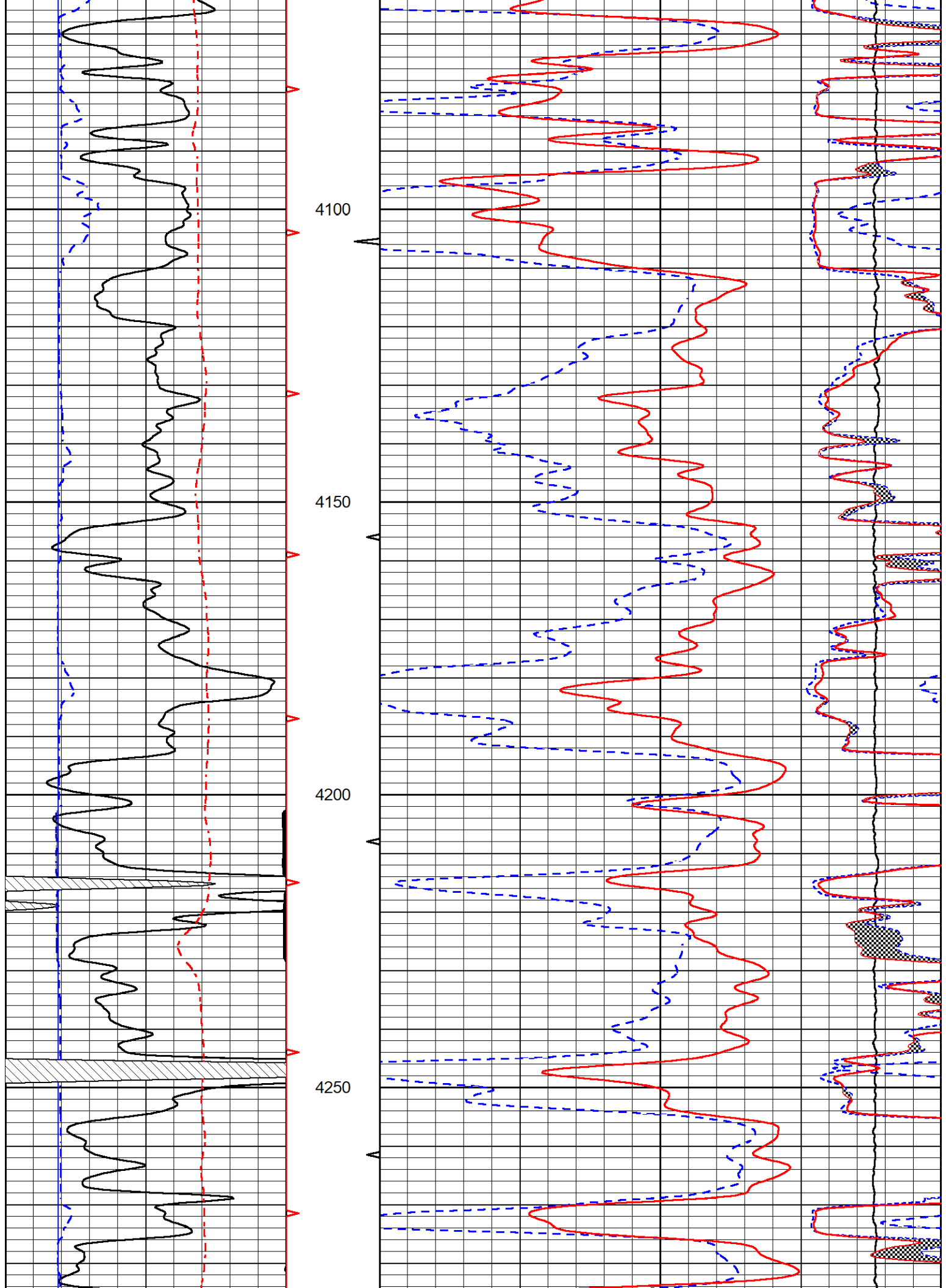


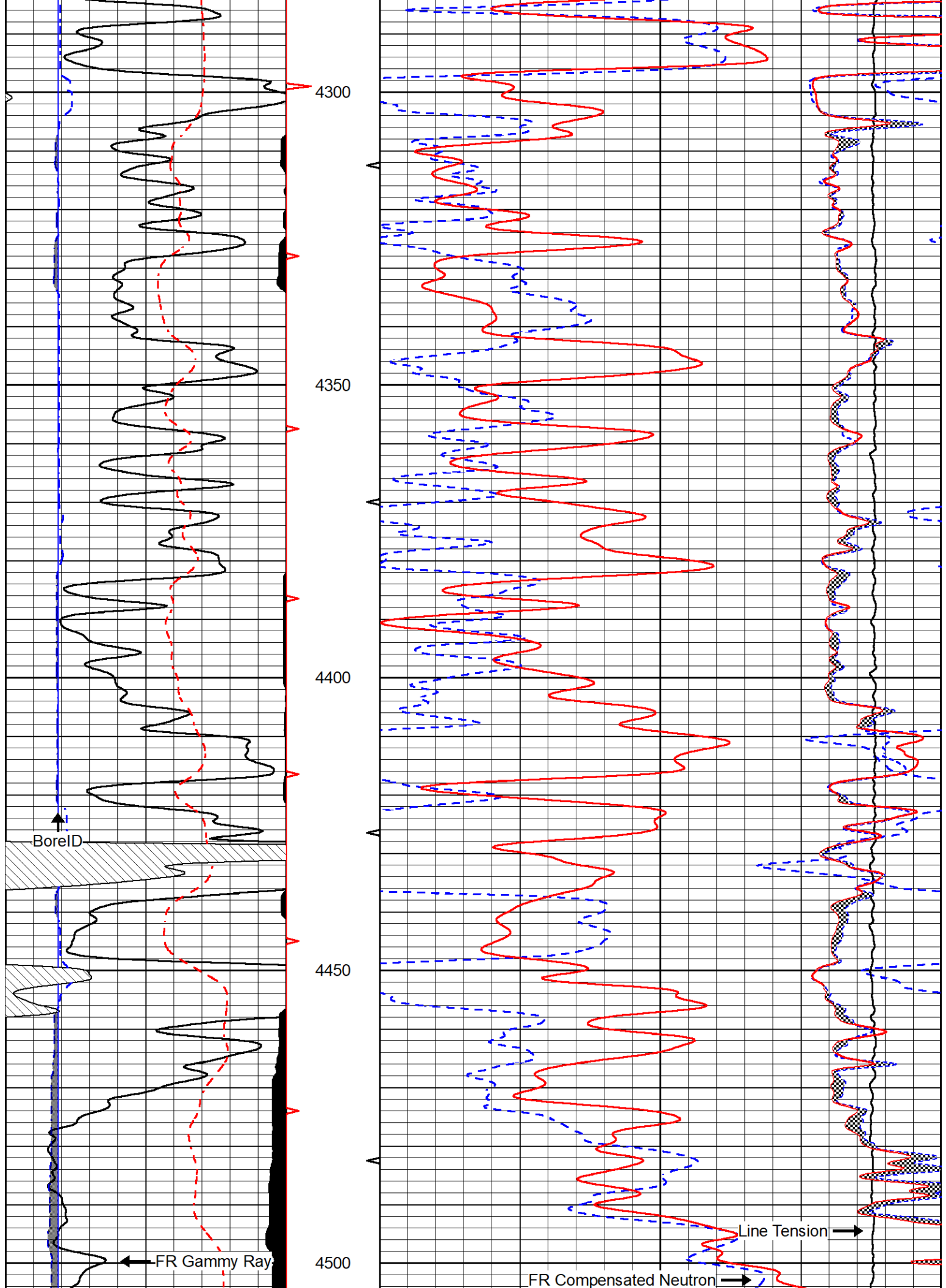


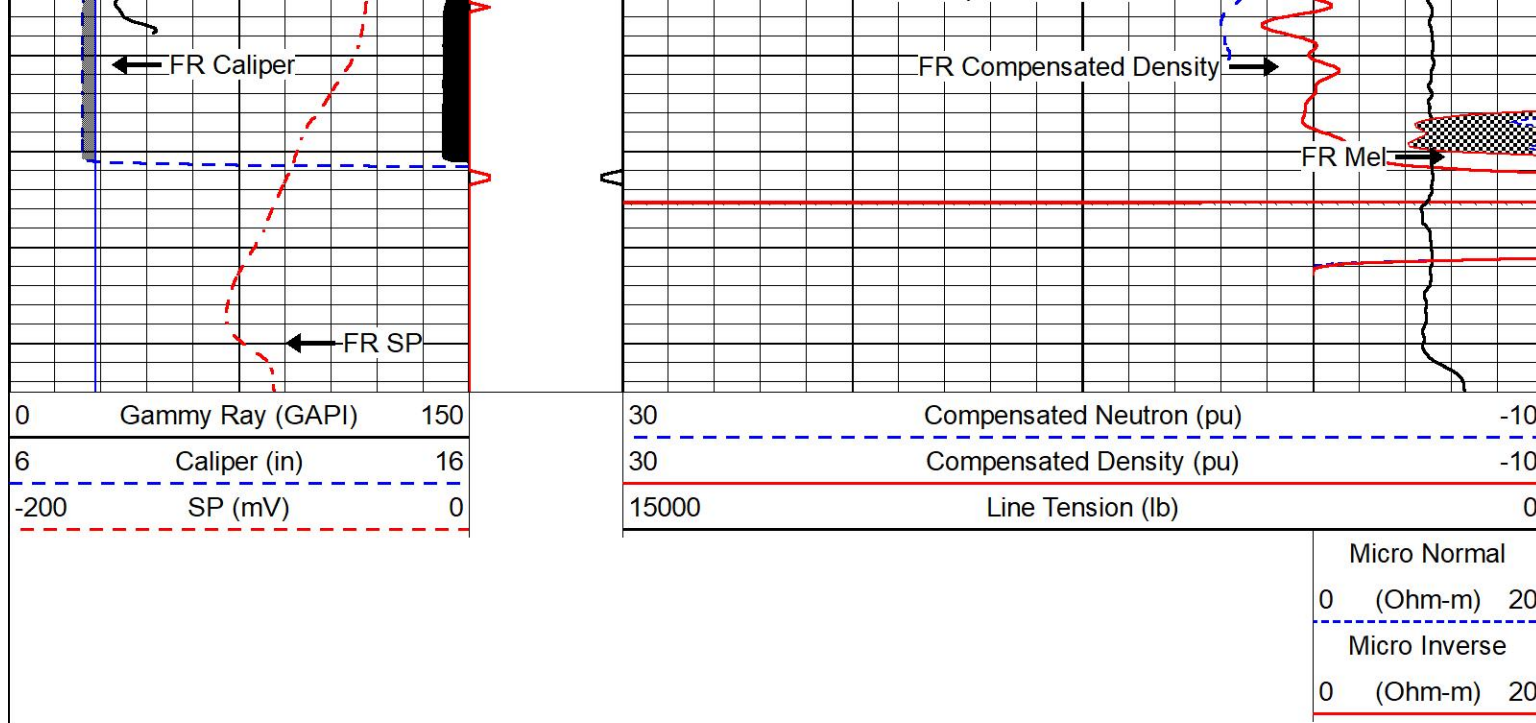










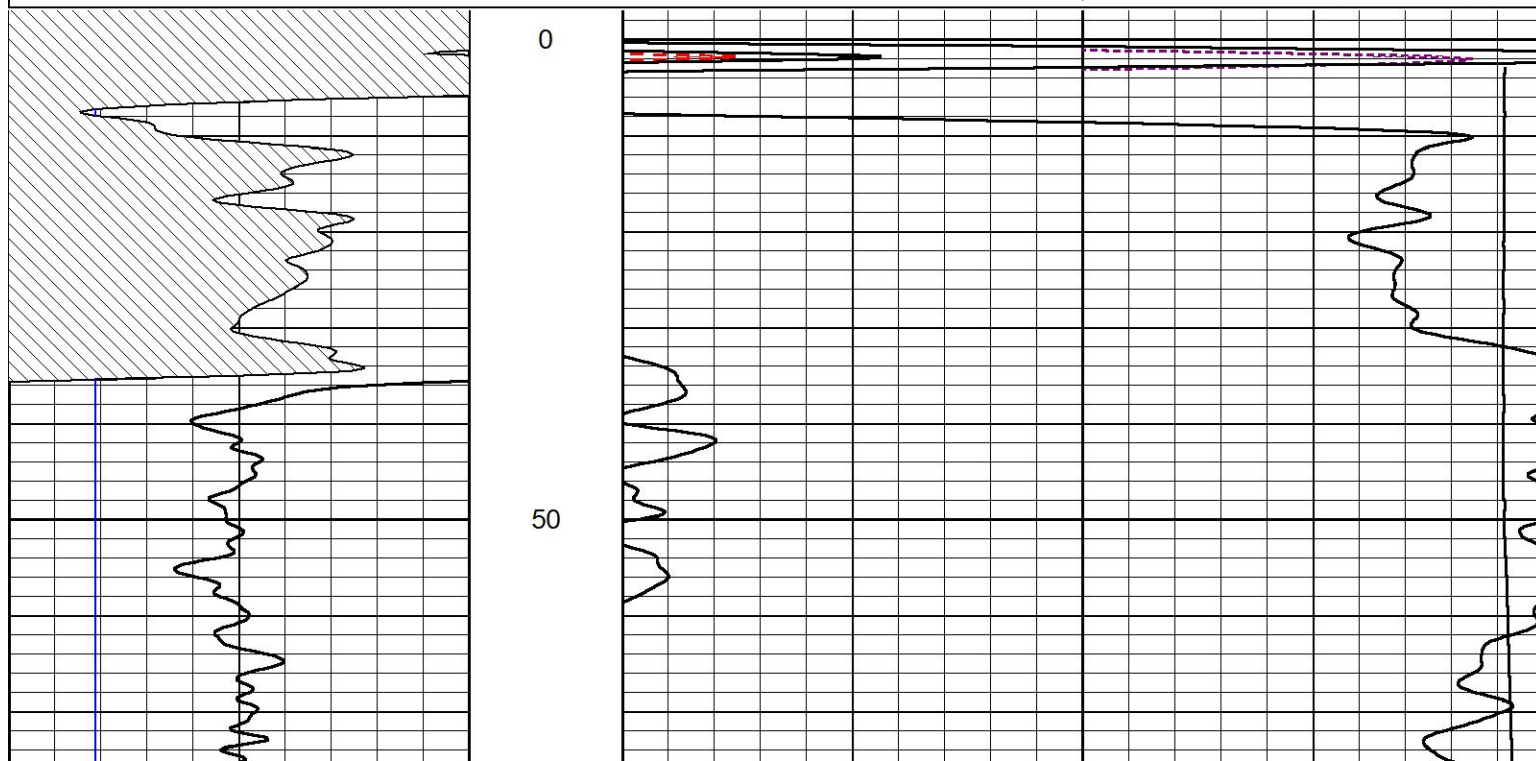


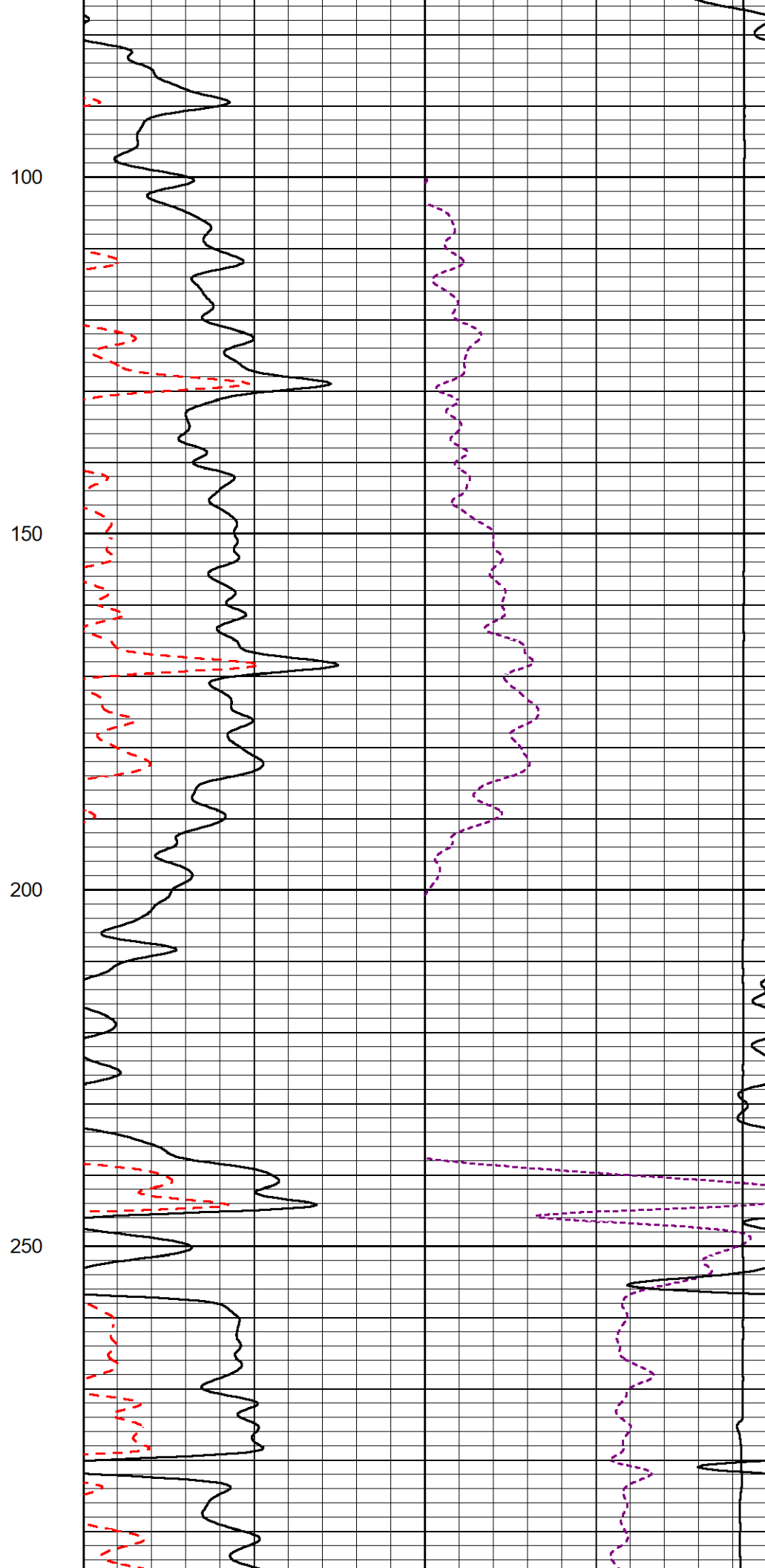
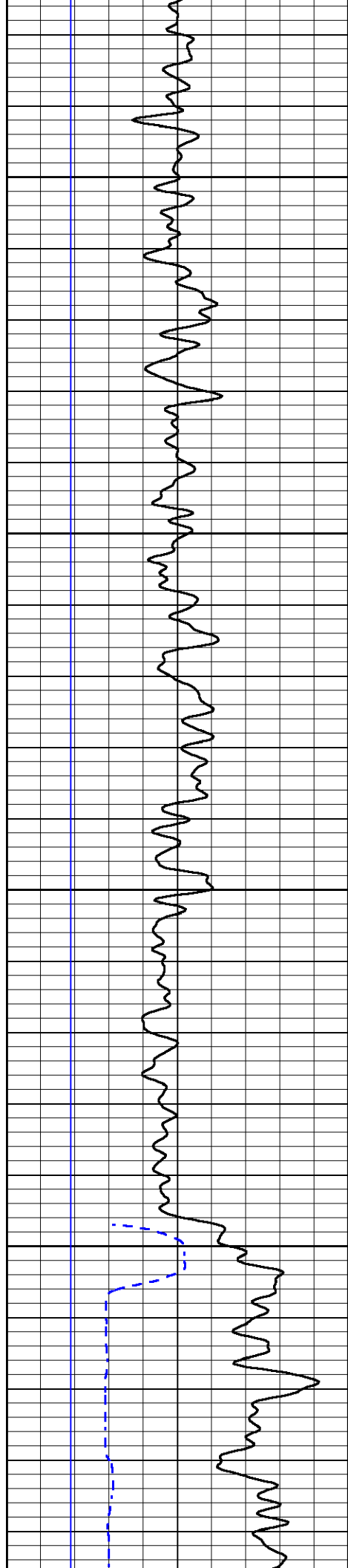
5" SCALE BULK DENSITY

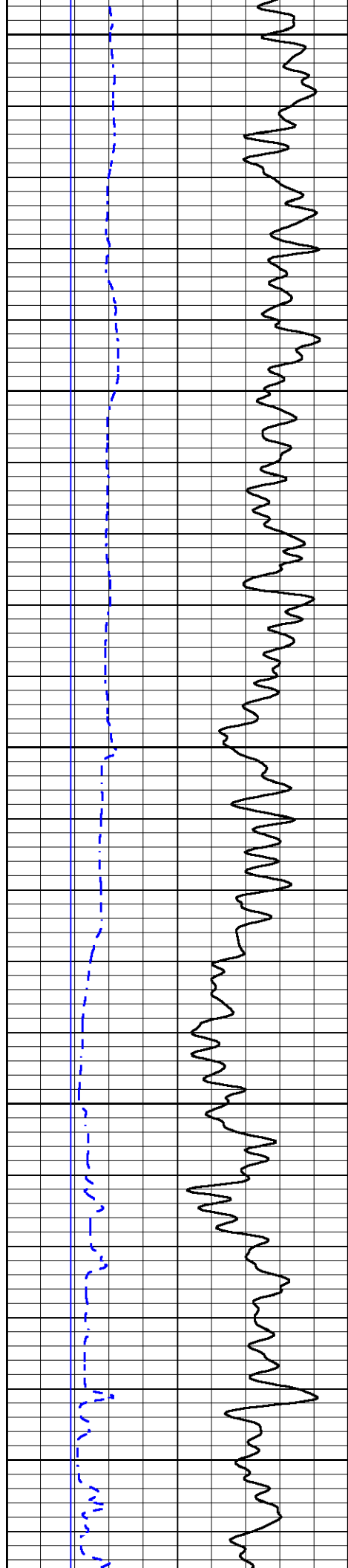
MAIN PASS

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 Presentation Format _cdl
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 Charted by Depth in Feet scaled 1:240

0	Gamma Ray (GAPI)	150	30	Compensated Density (pu)	-10
6	Caliper (in)	16	2	Bulk Density (g/cc)	3
			15000	Line Tension (lb)	0
			-0.25	Correction (g/cc)	0.25







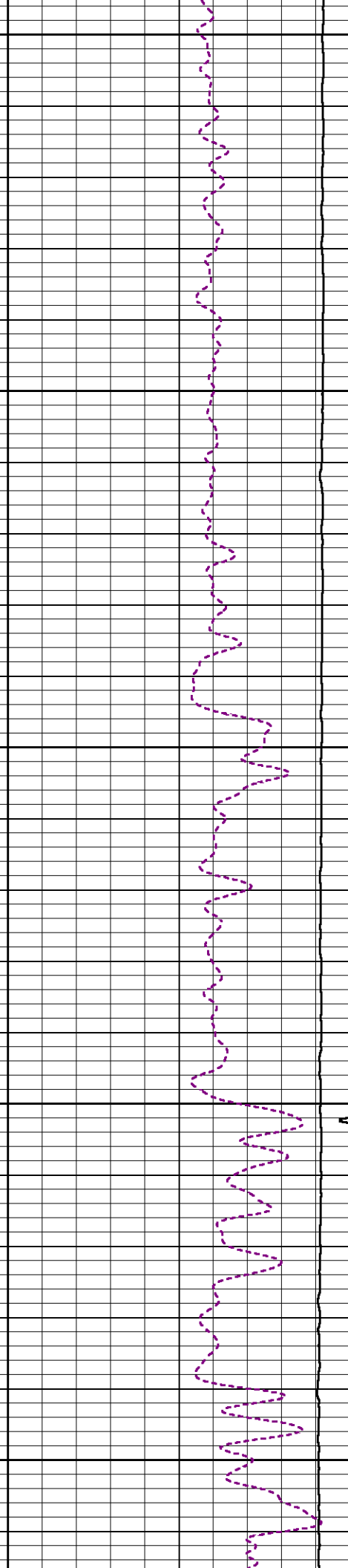
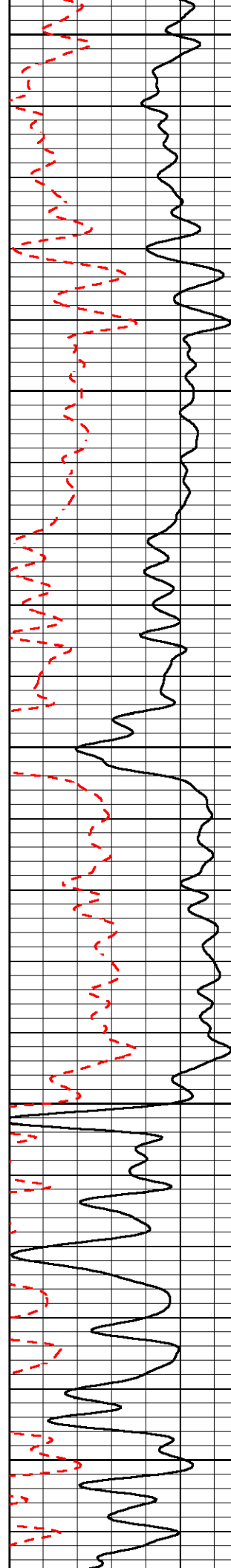
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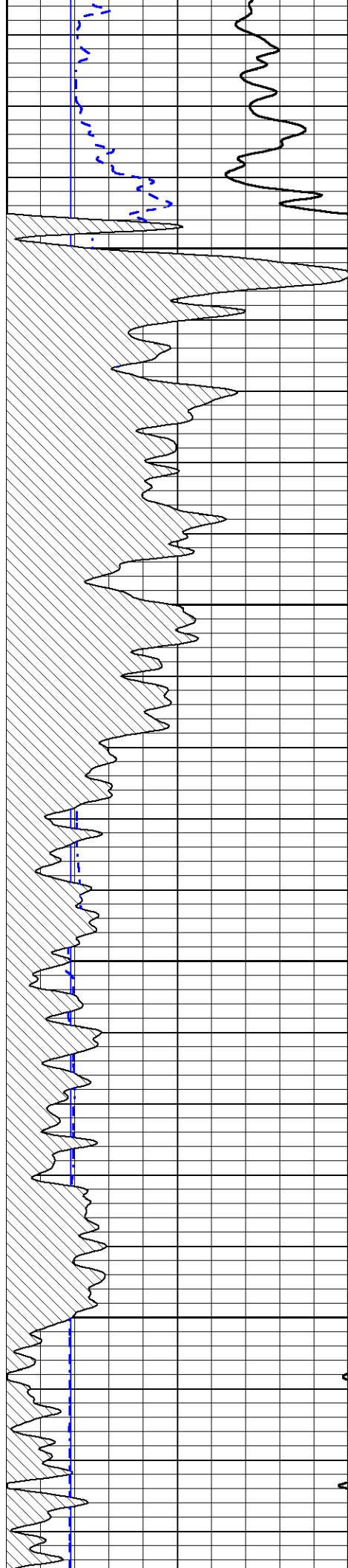
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400

450

500



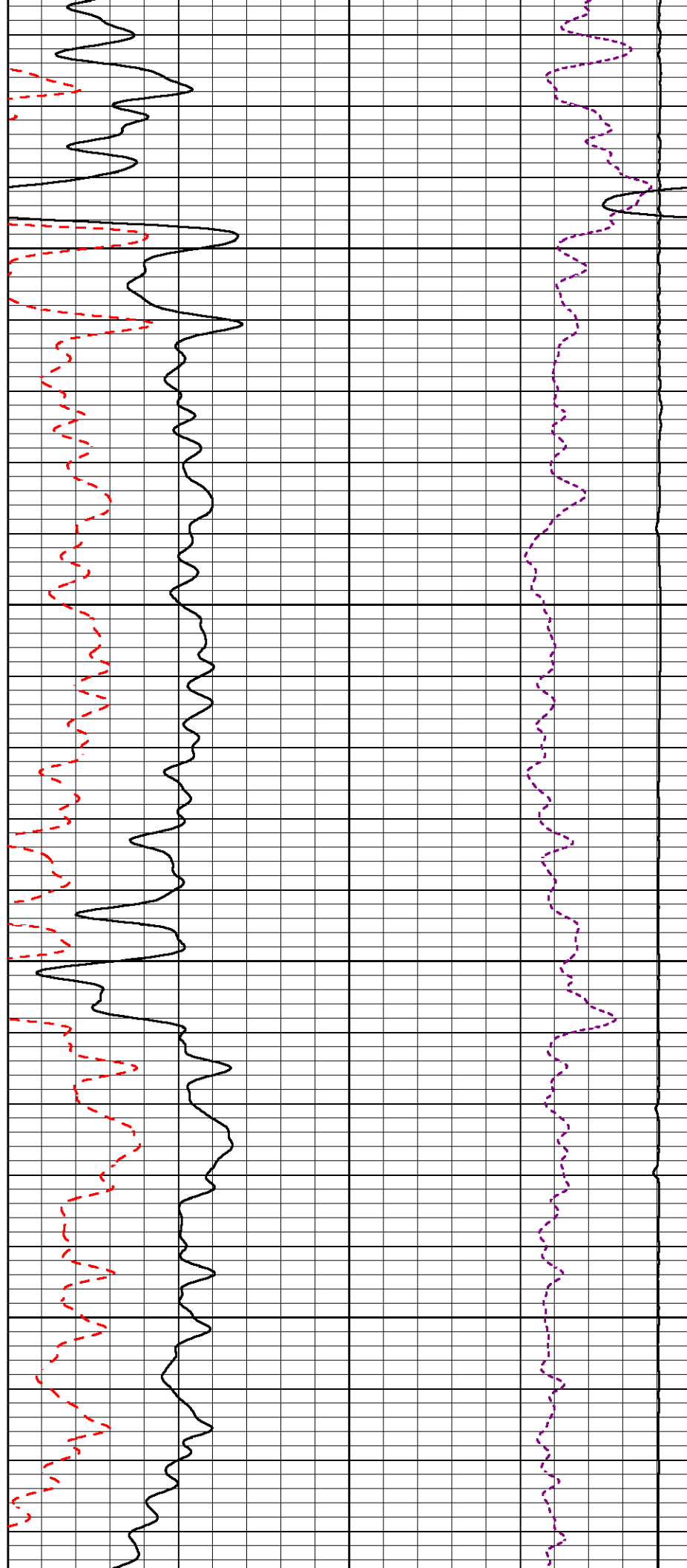


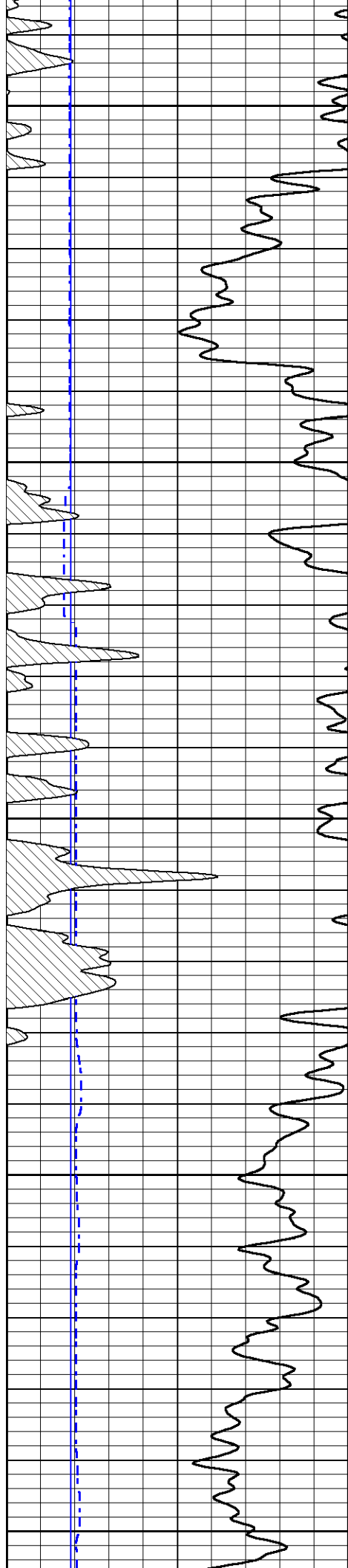
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600

650

700





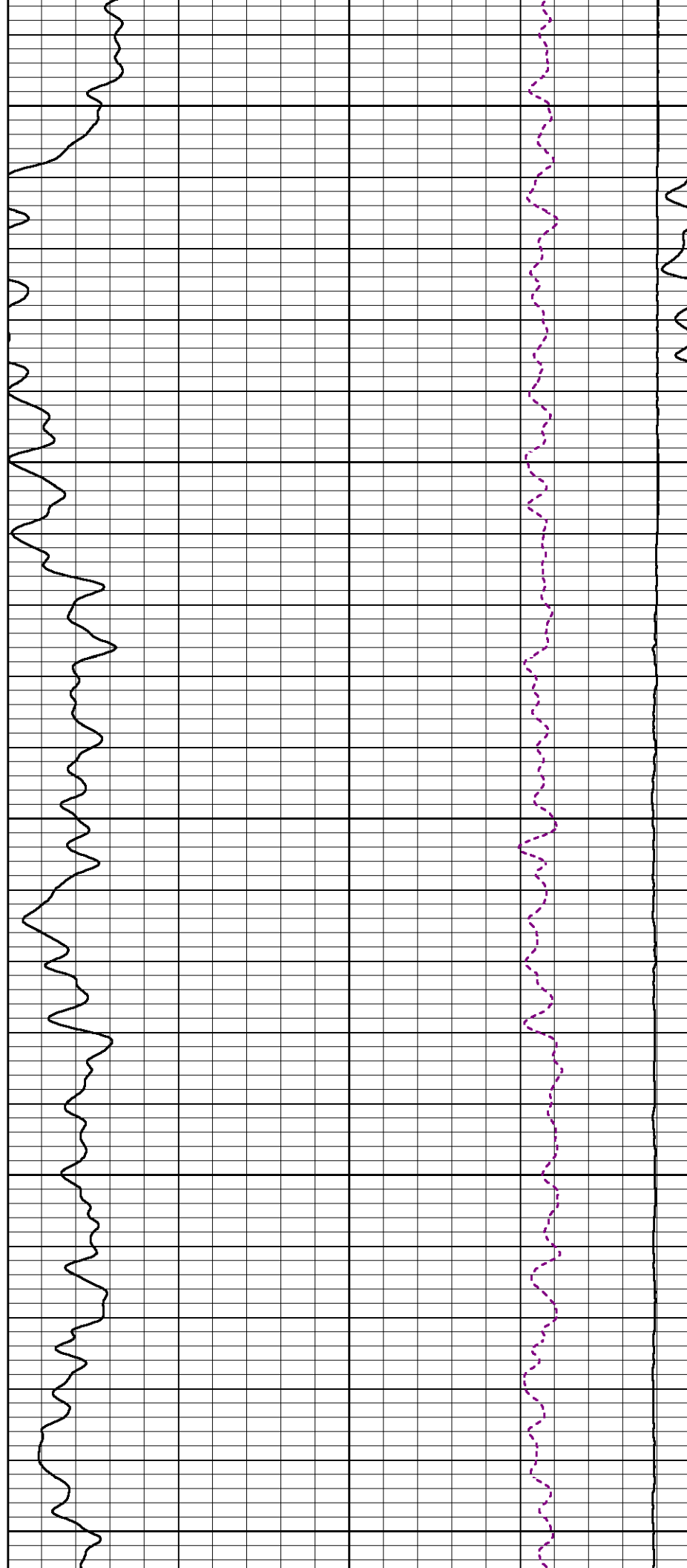
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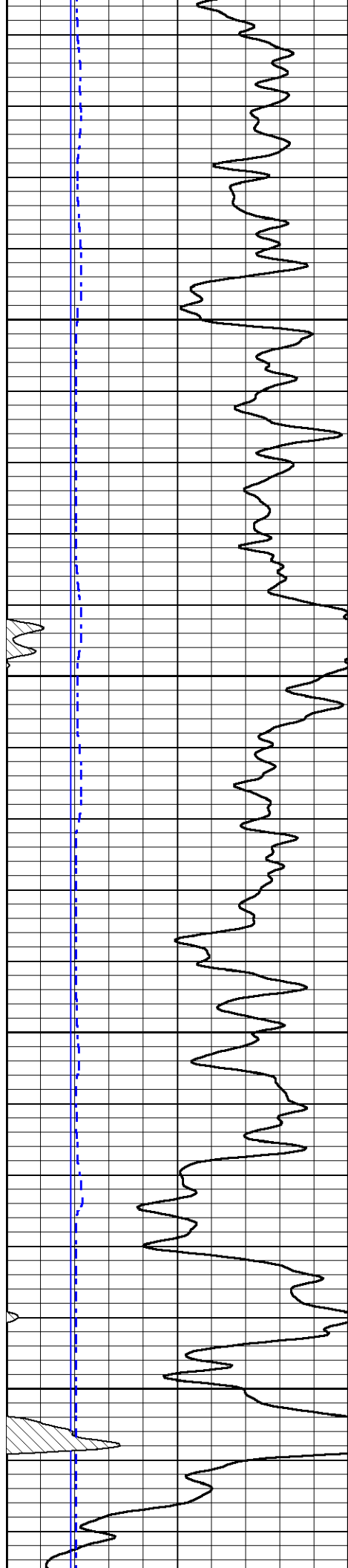
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950



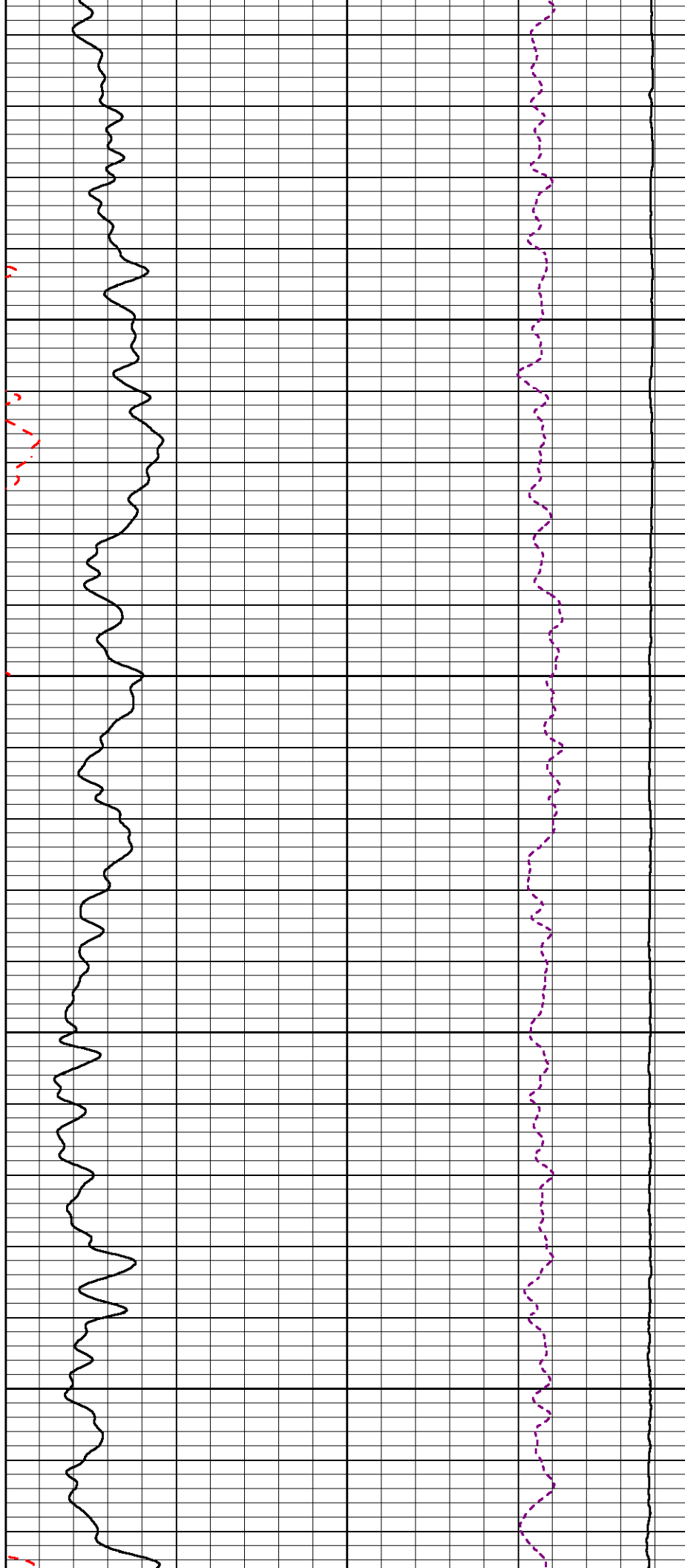


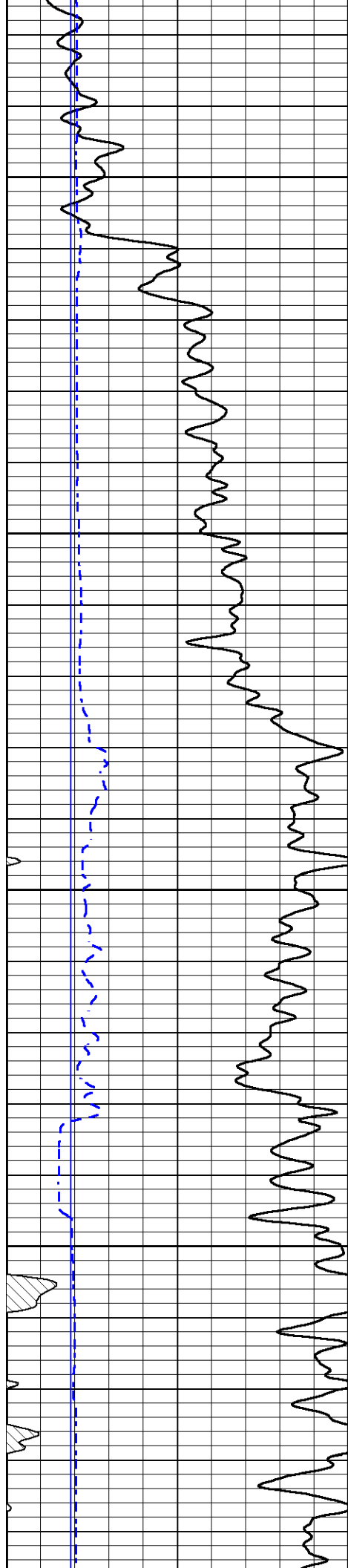
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1050

1100

1150



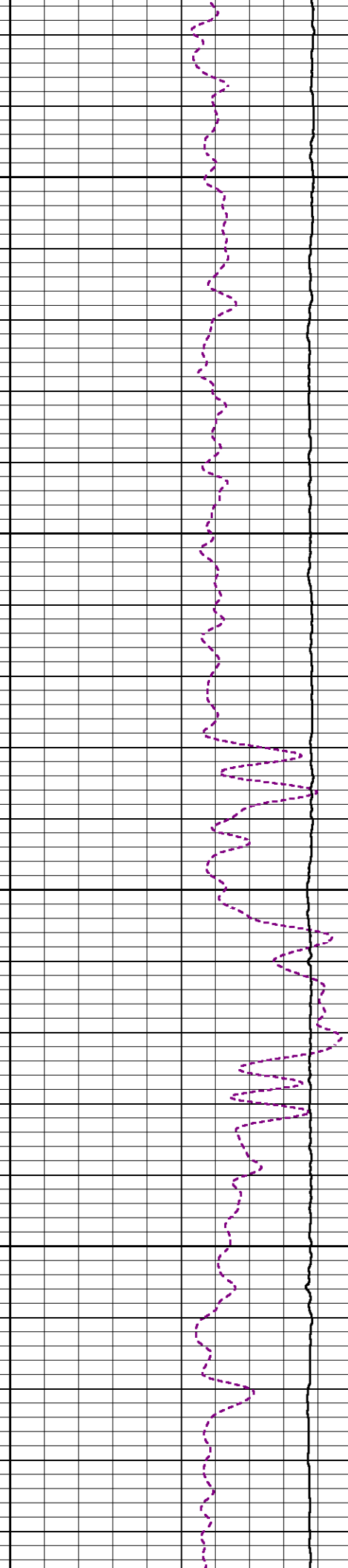
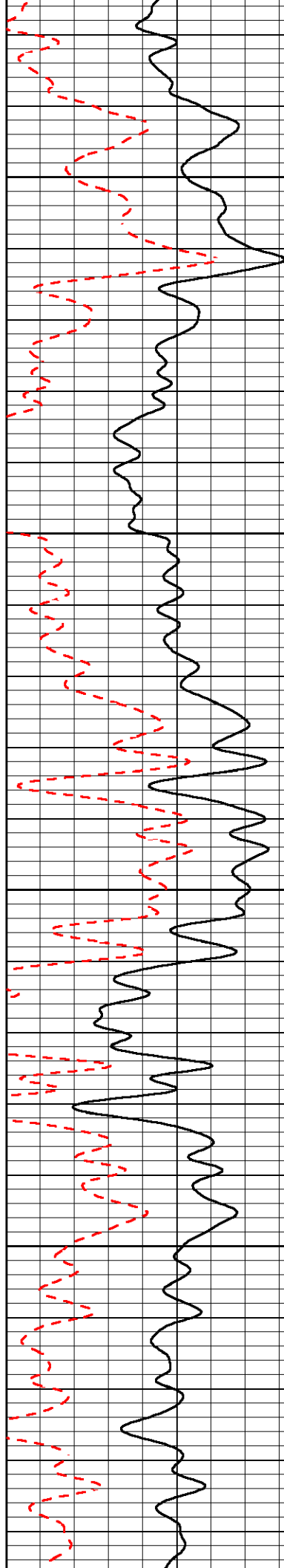


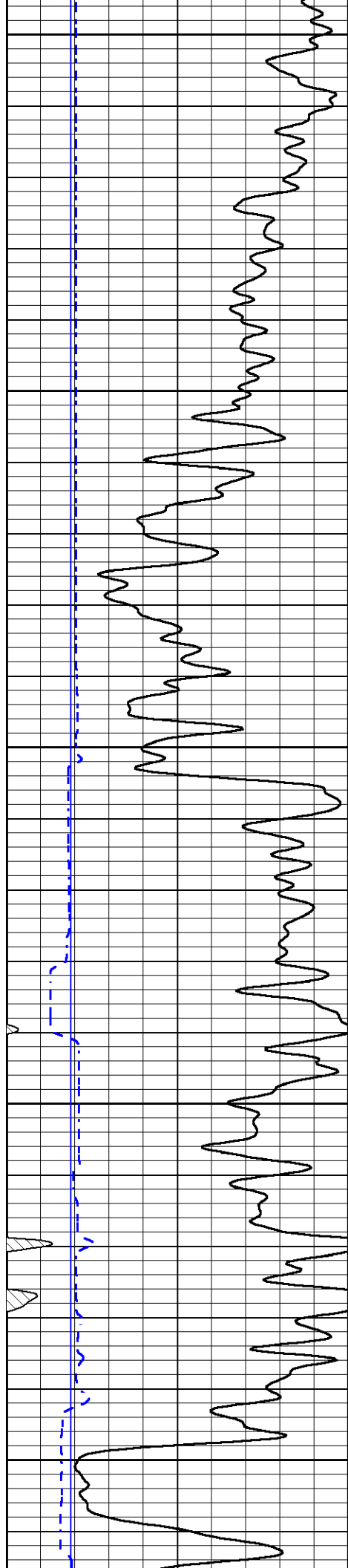
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1250

1300

1350





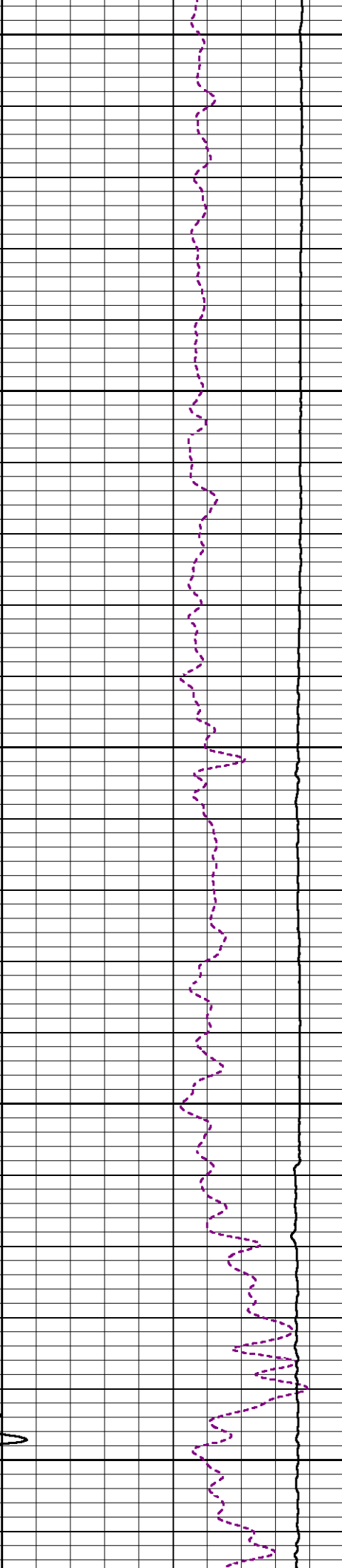
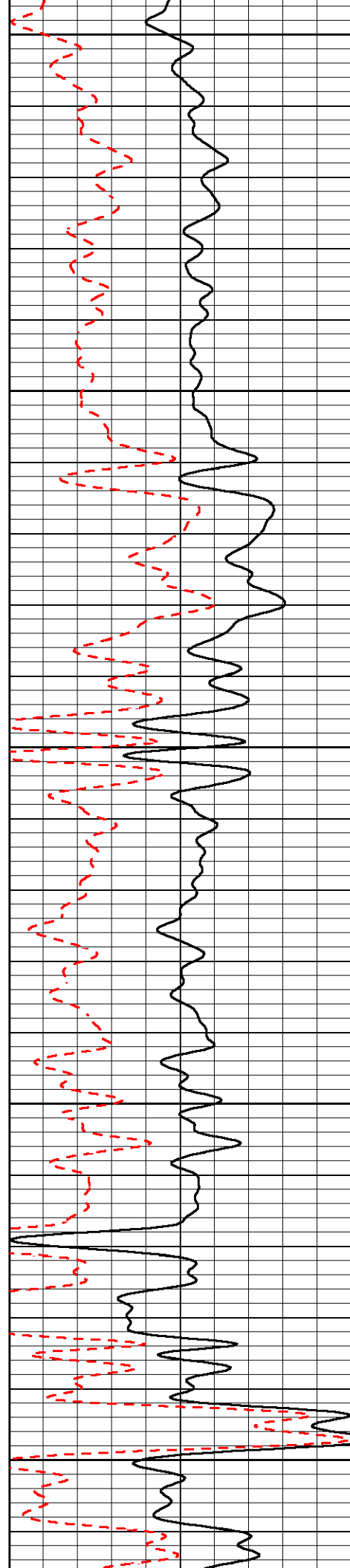
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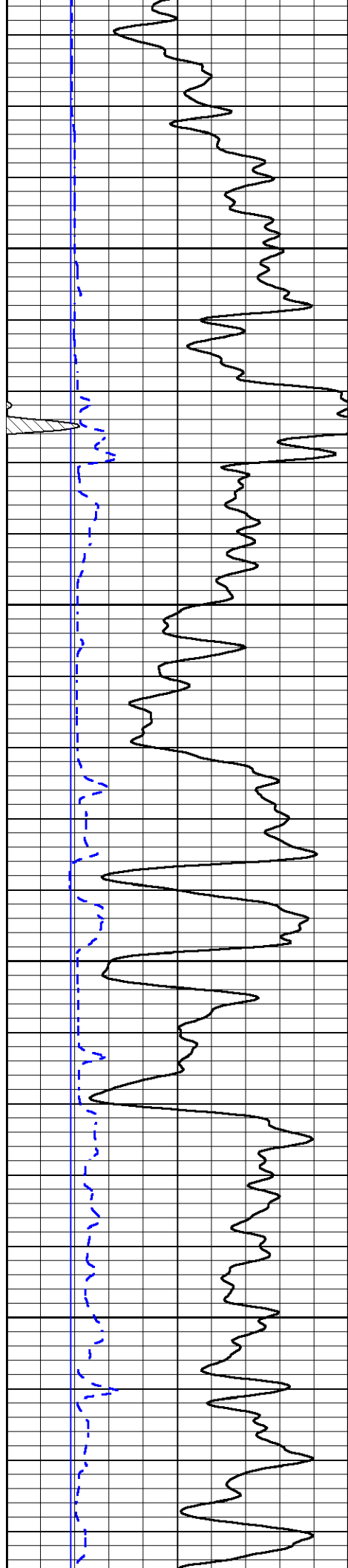
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1550

1600



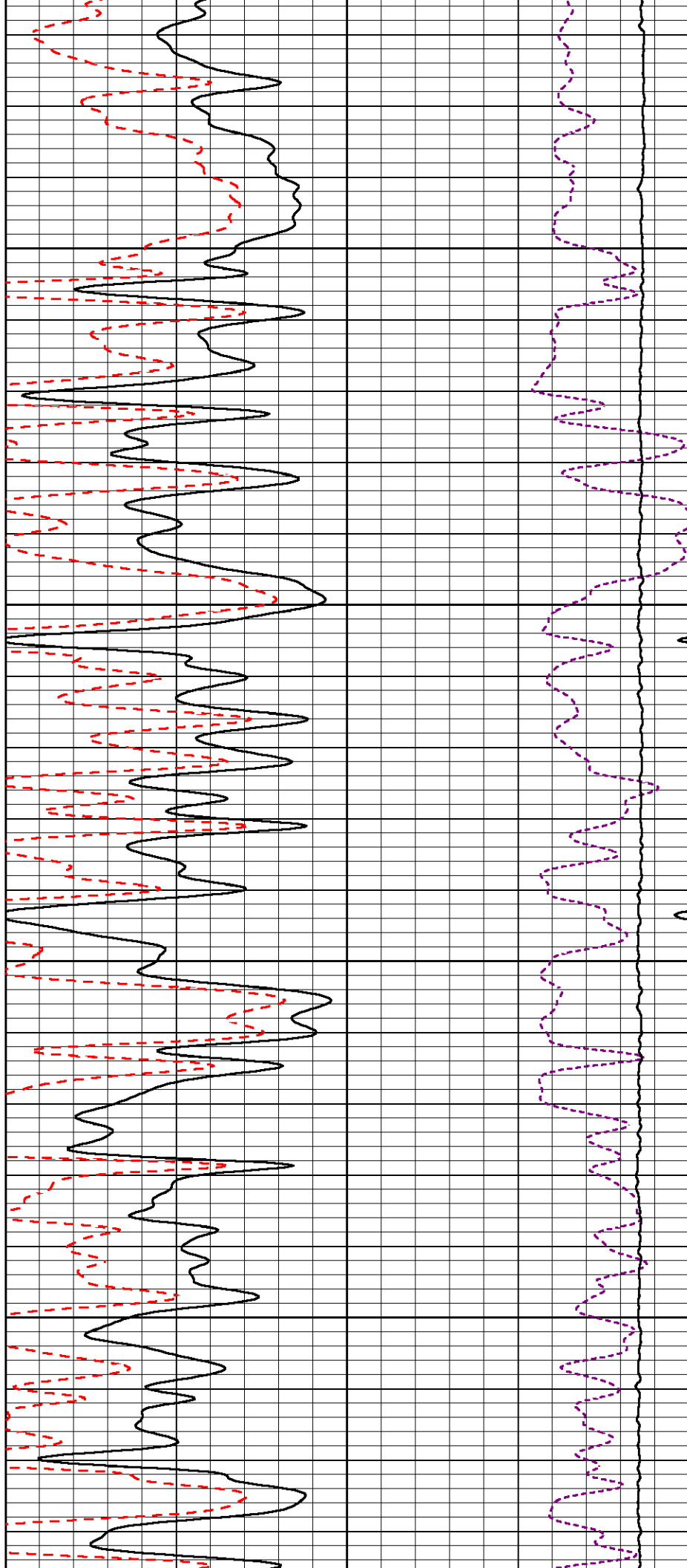


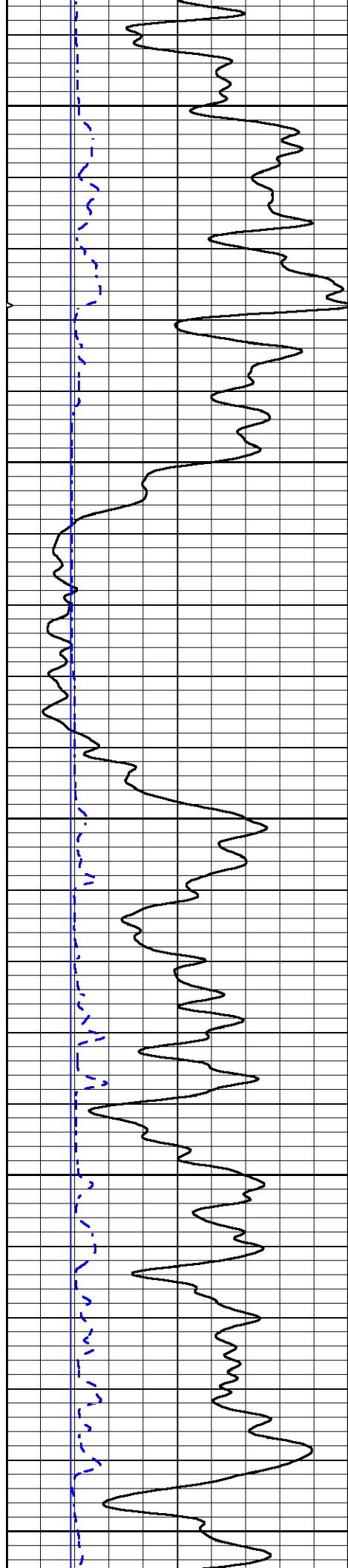
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1750

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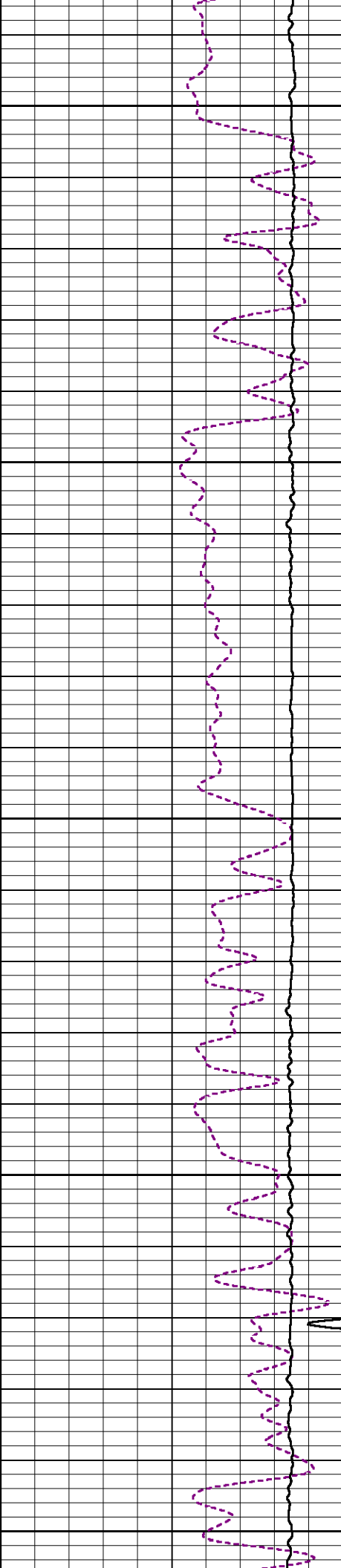
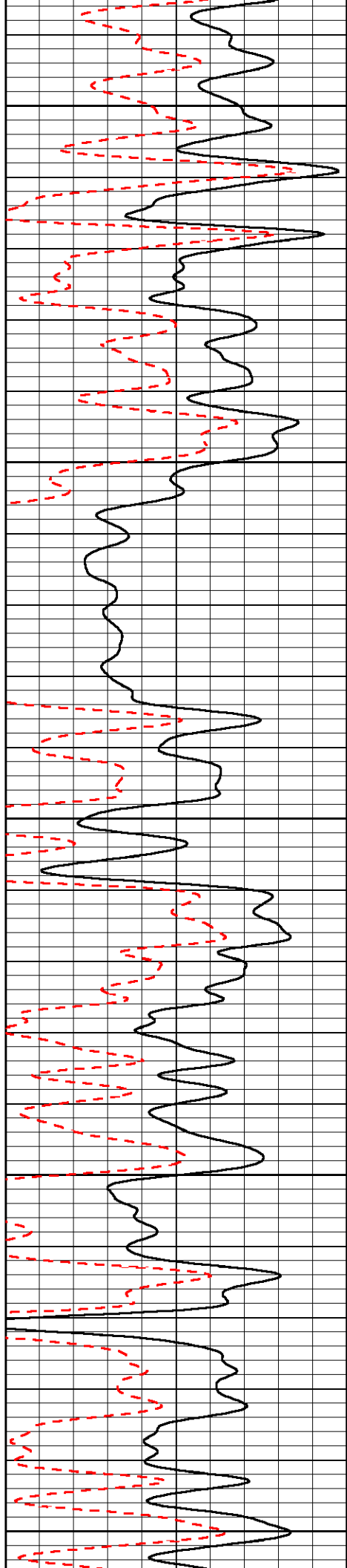
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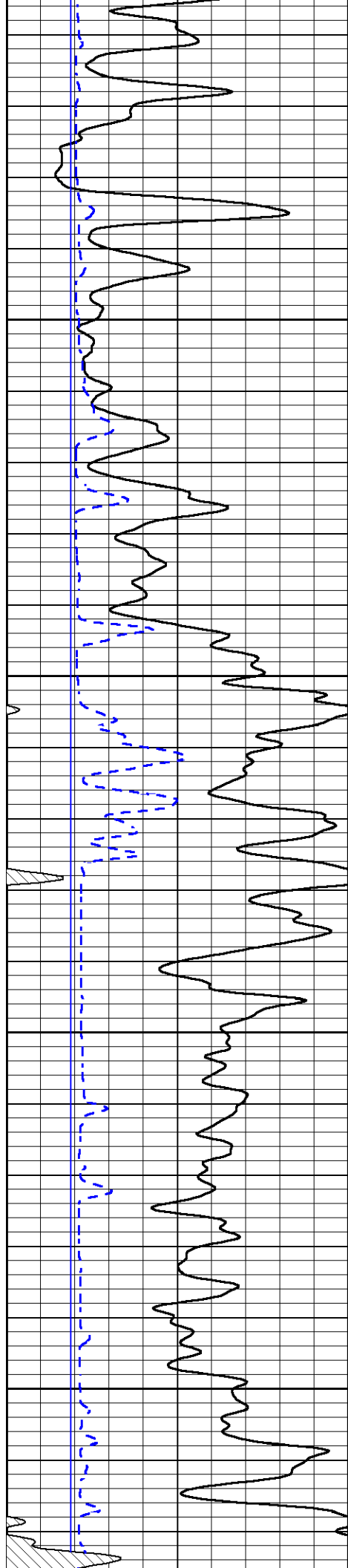
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2000

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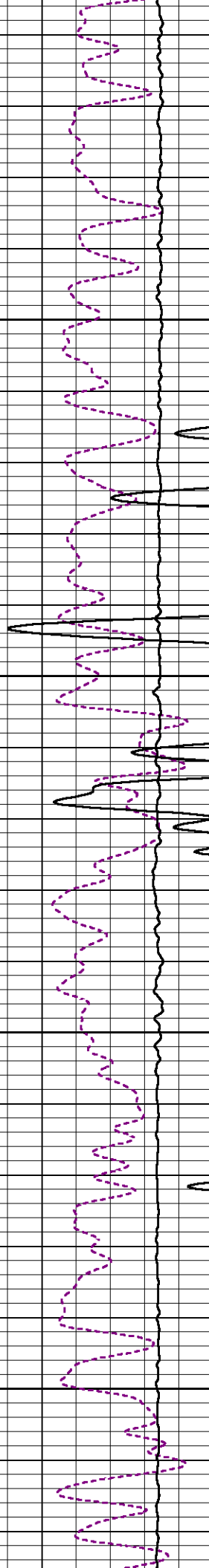
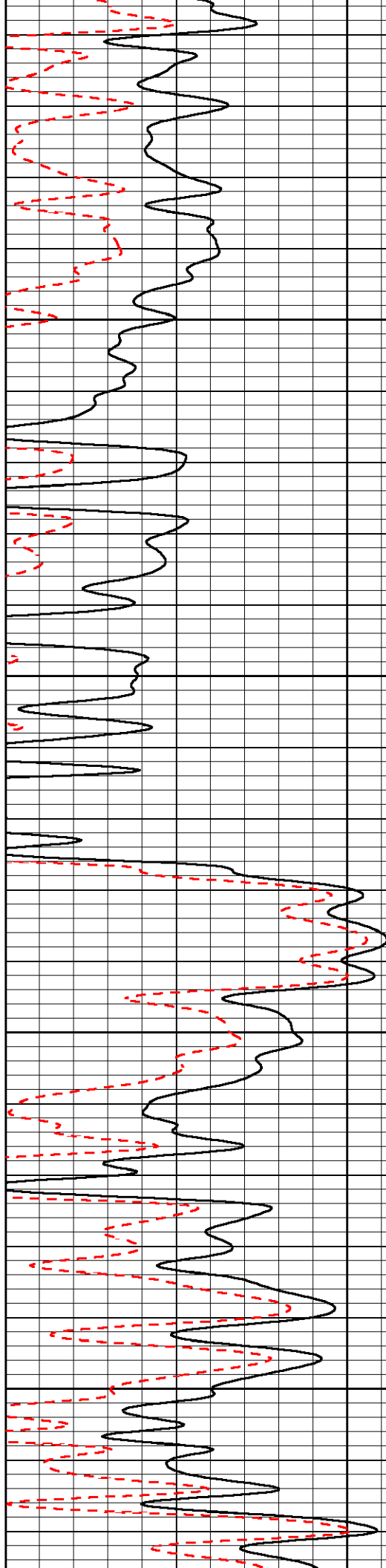


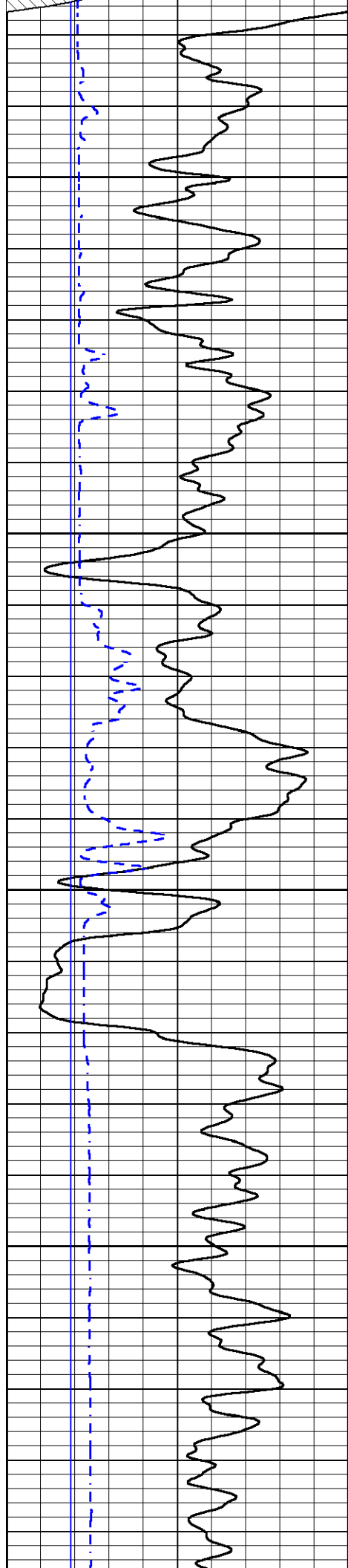
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2150

2200

2250



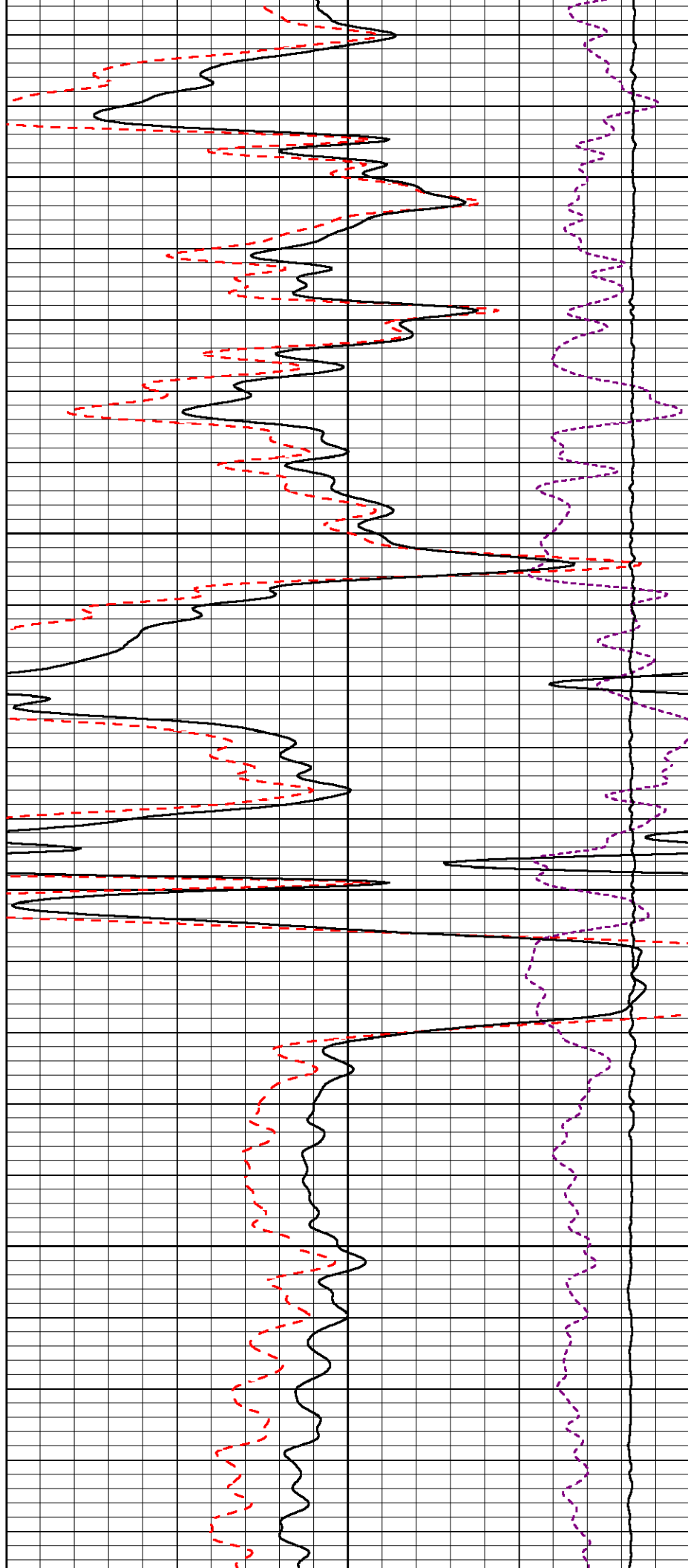


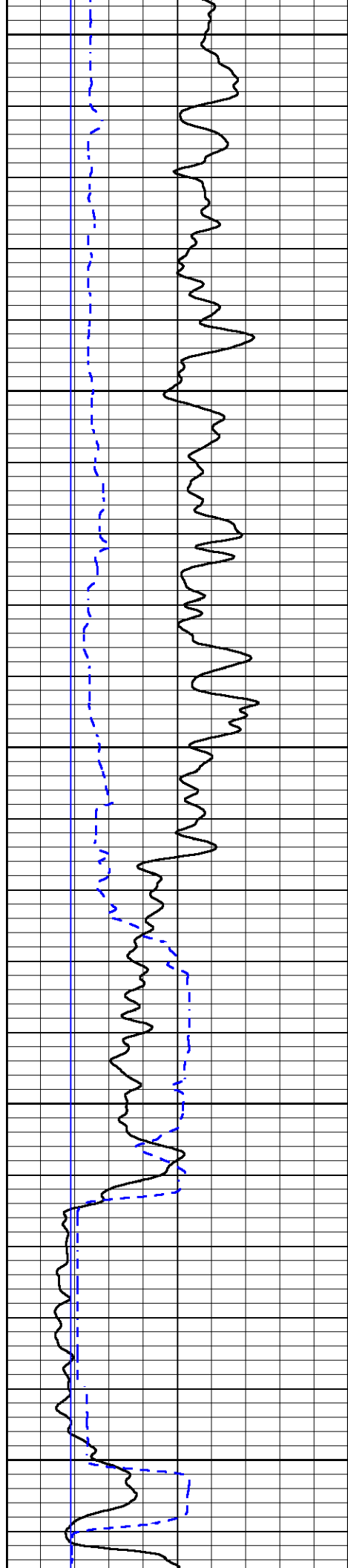
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2350

2400

2450





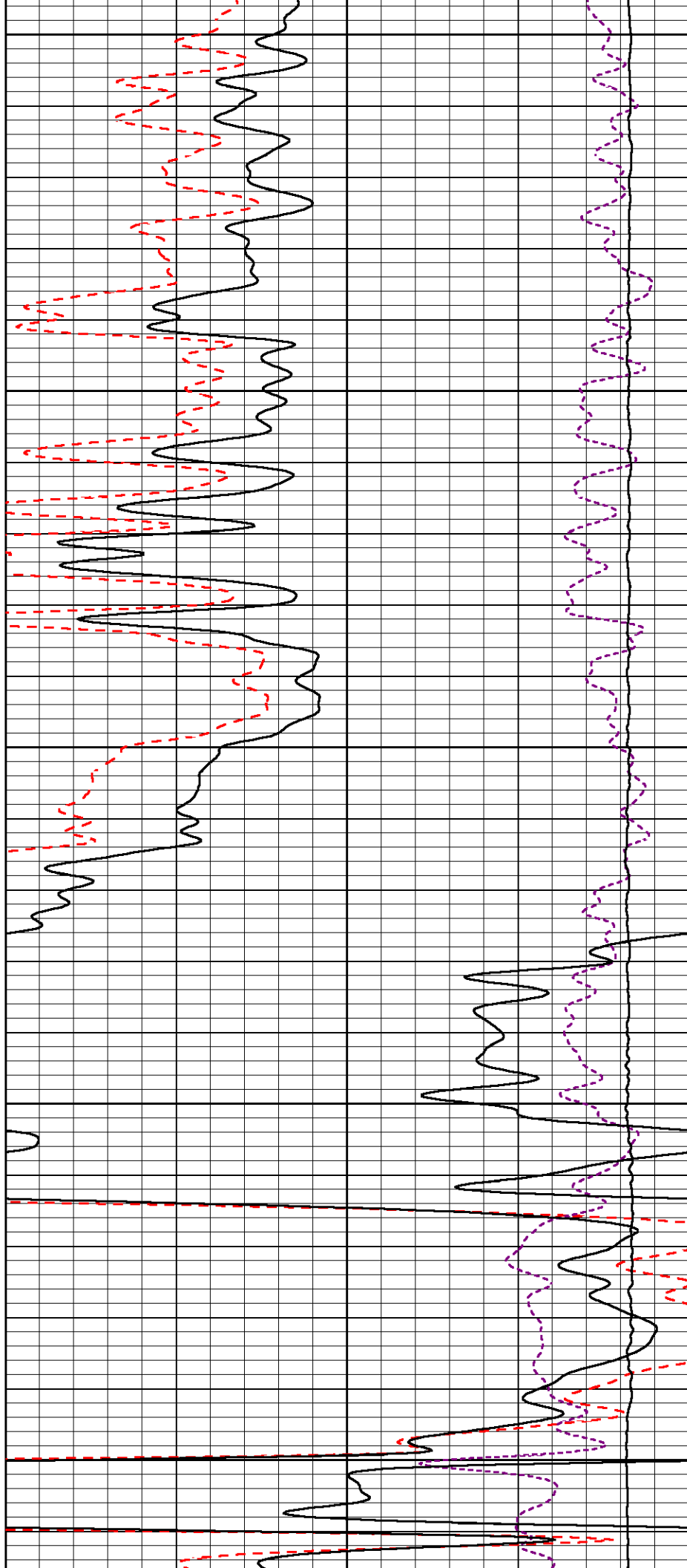
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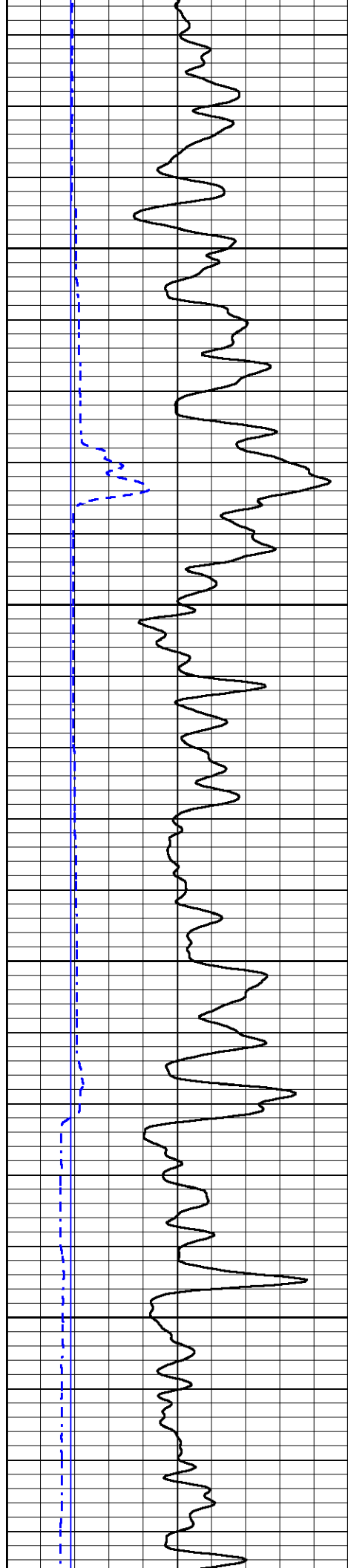
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2650

2700



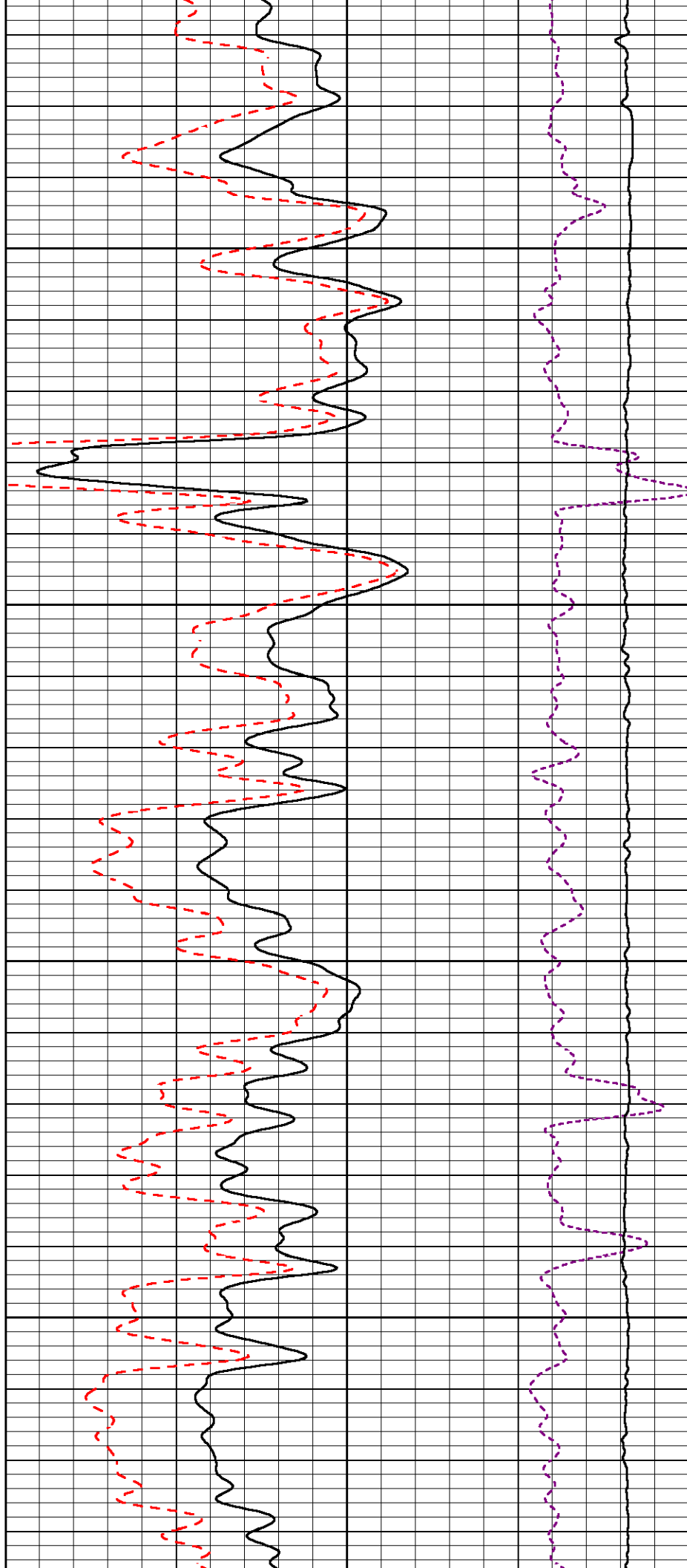


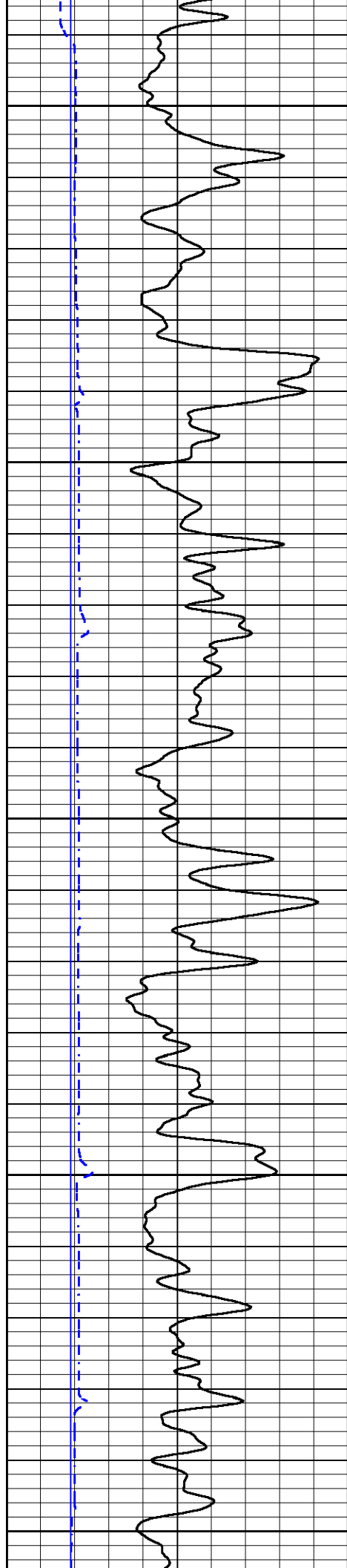
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2850

2900





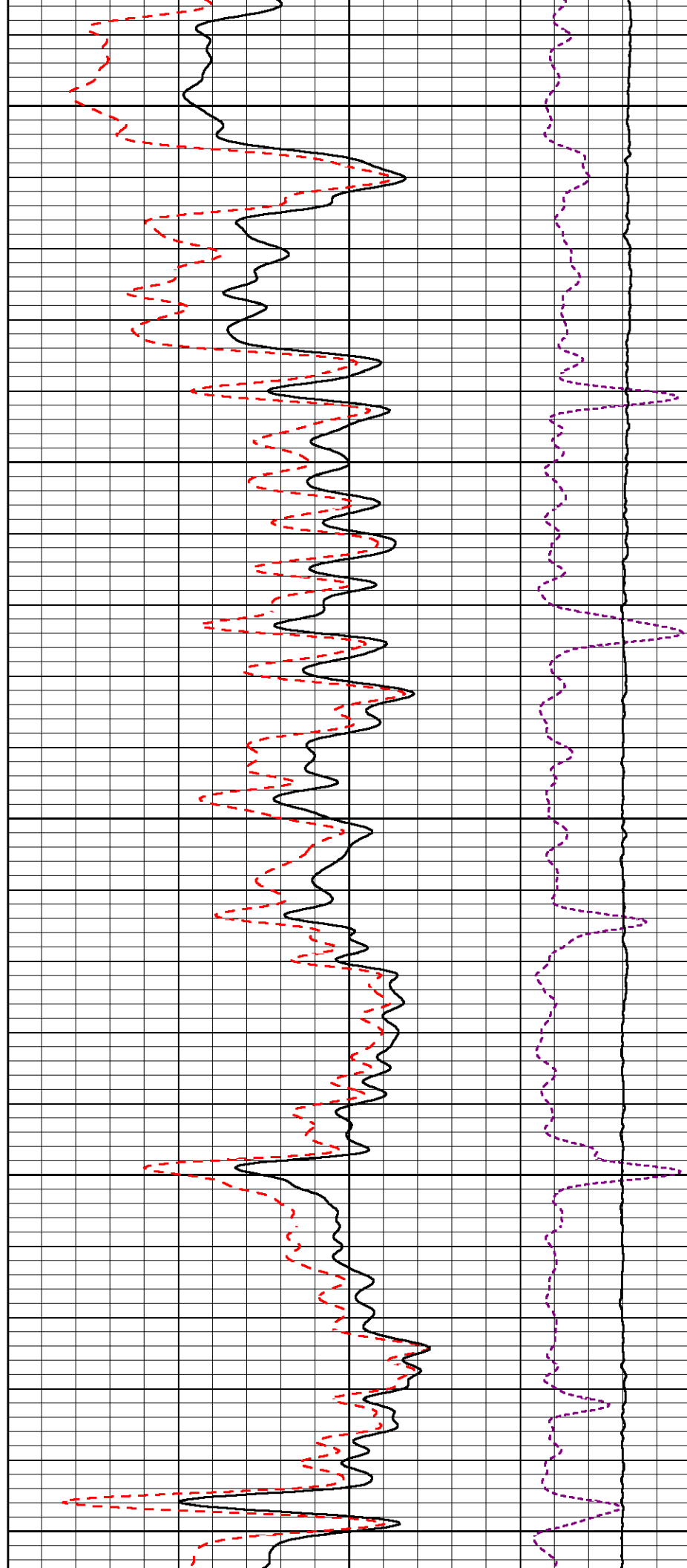
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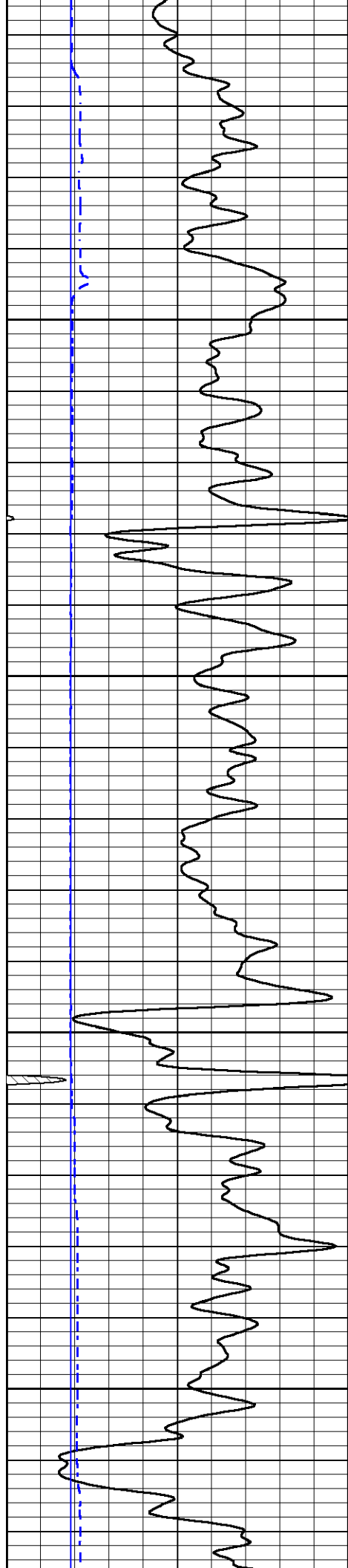
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3050

3100

3150



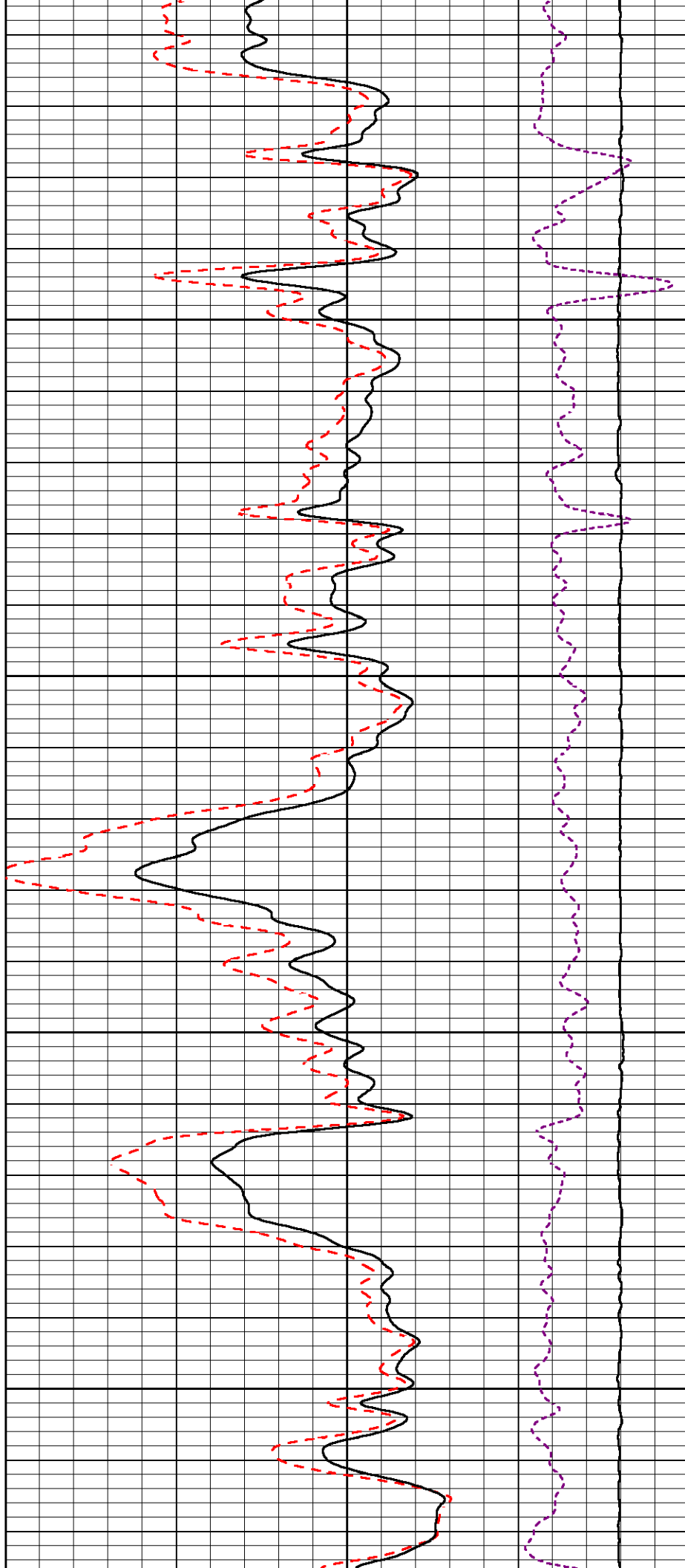


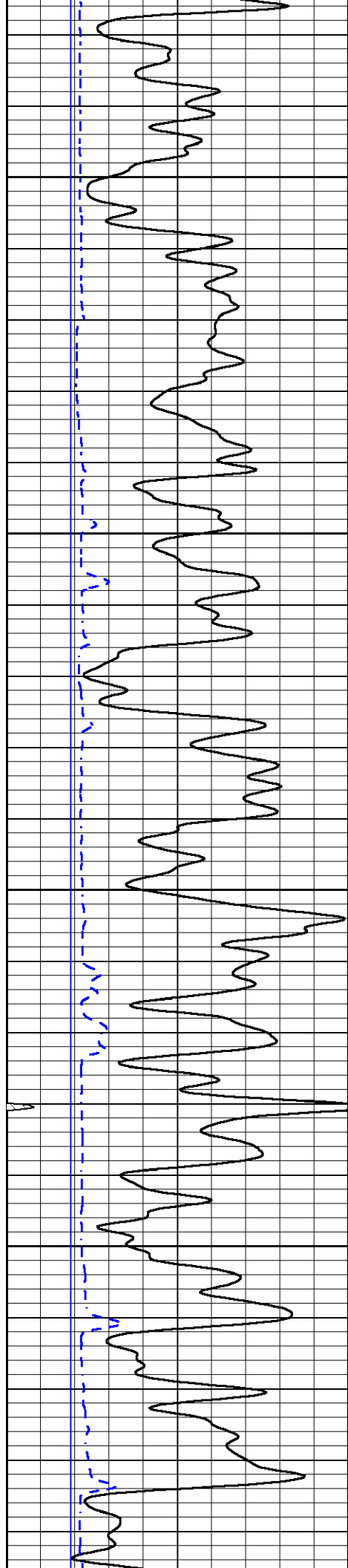
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3250

3300

3350



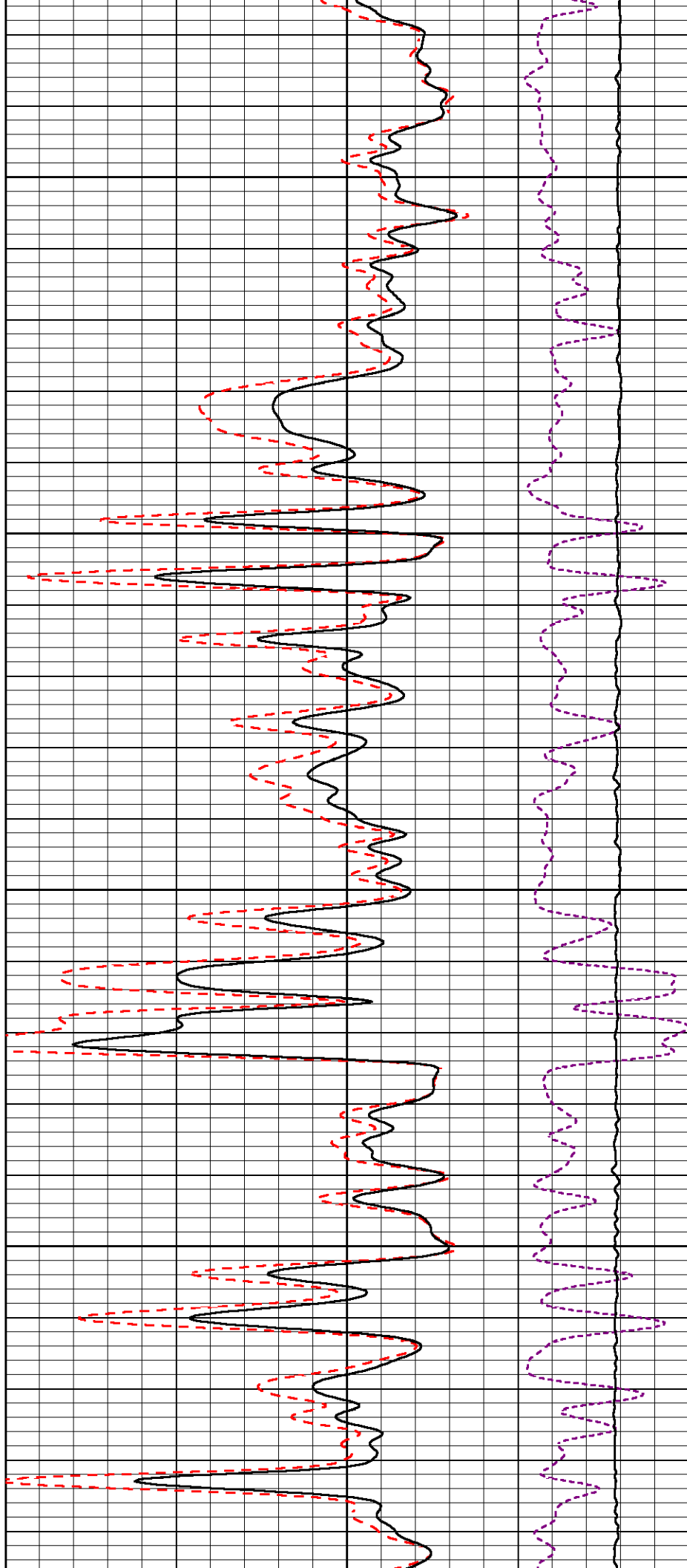


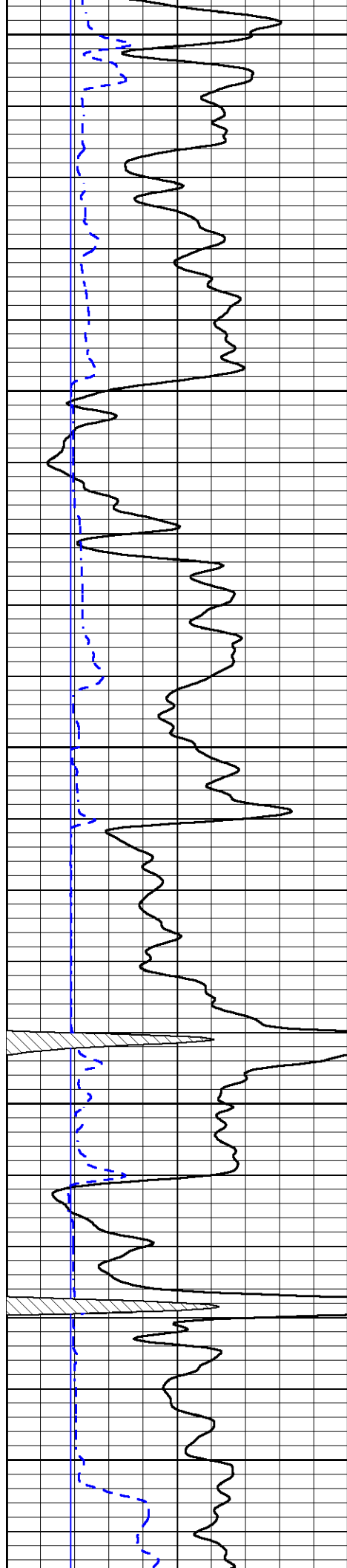
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3450

3500

3550





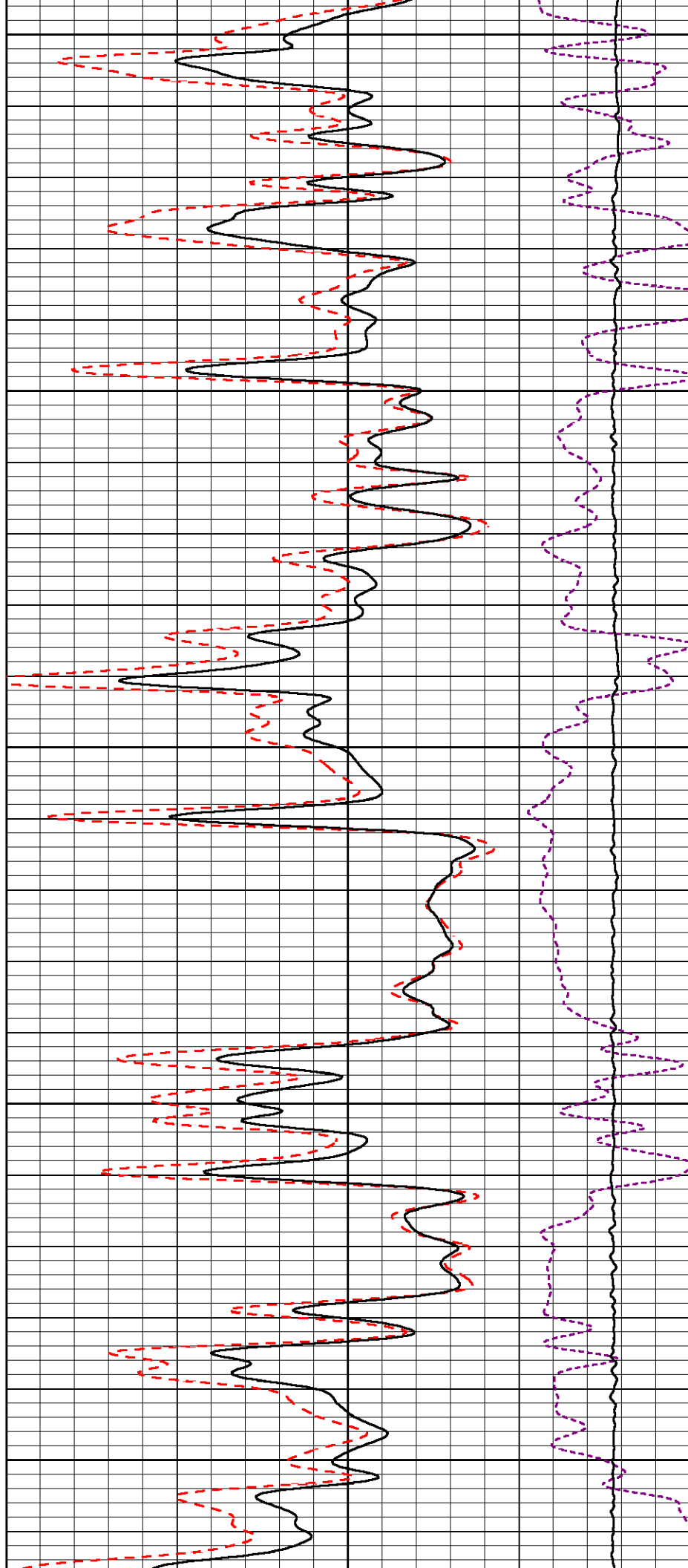
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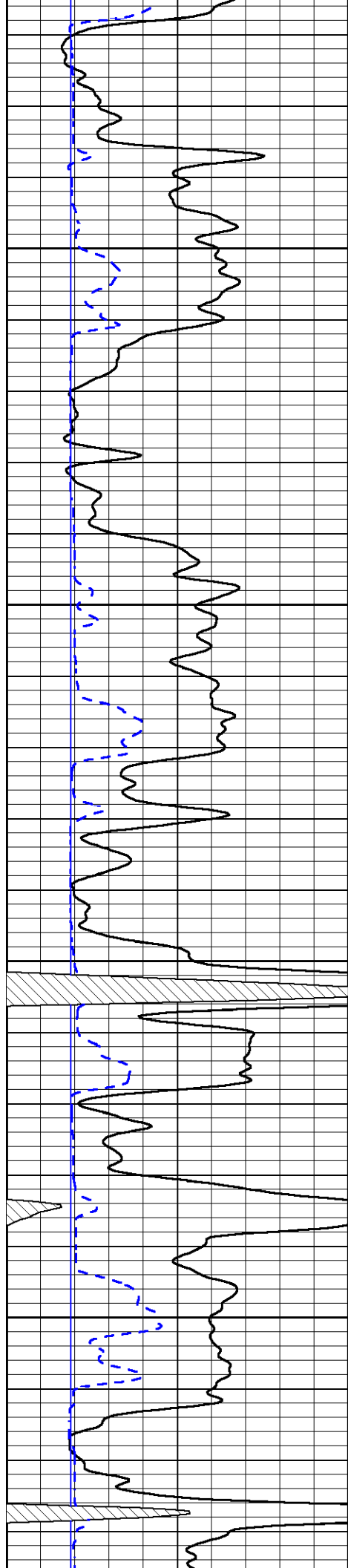
3650

3700

3750

3800



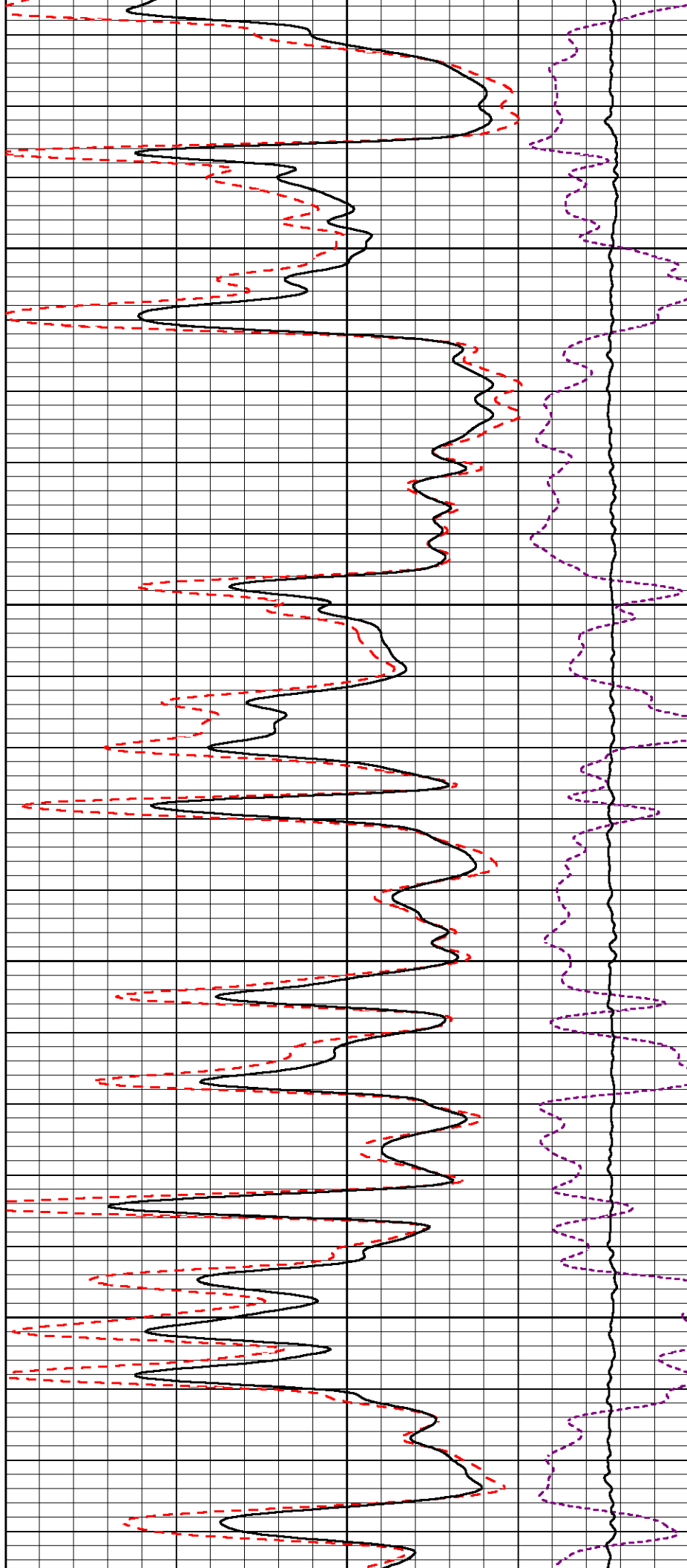


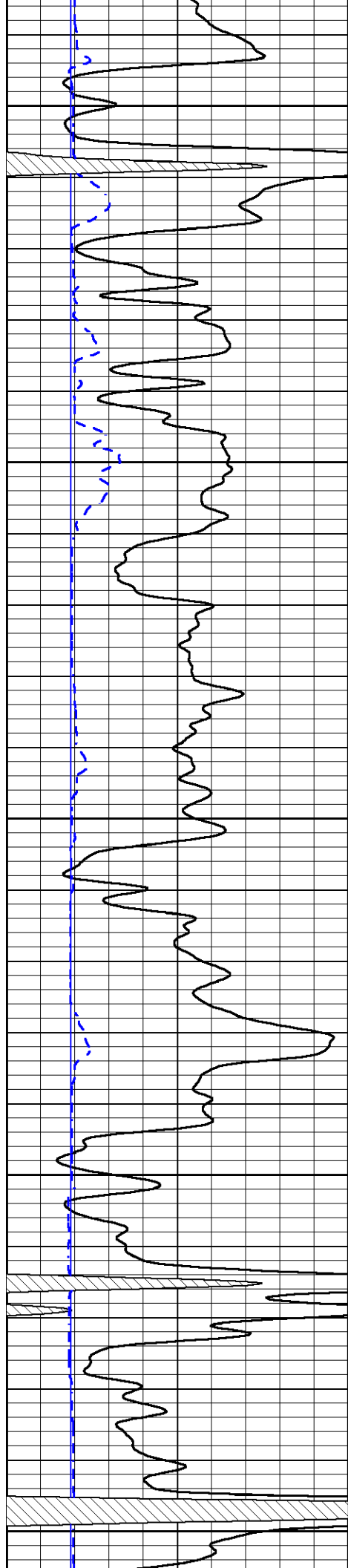
3850

3900

3950

4000





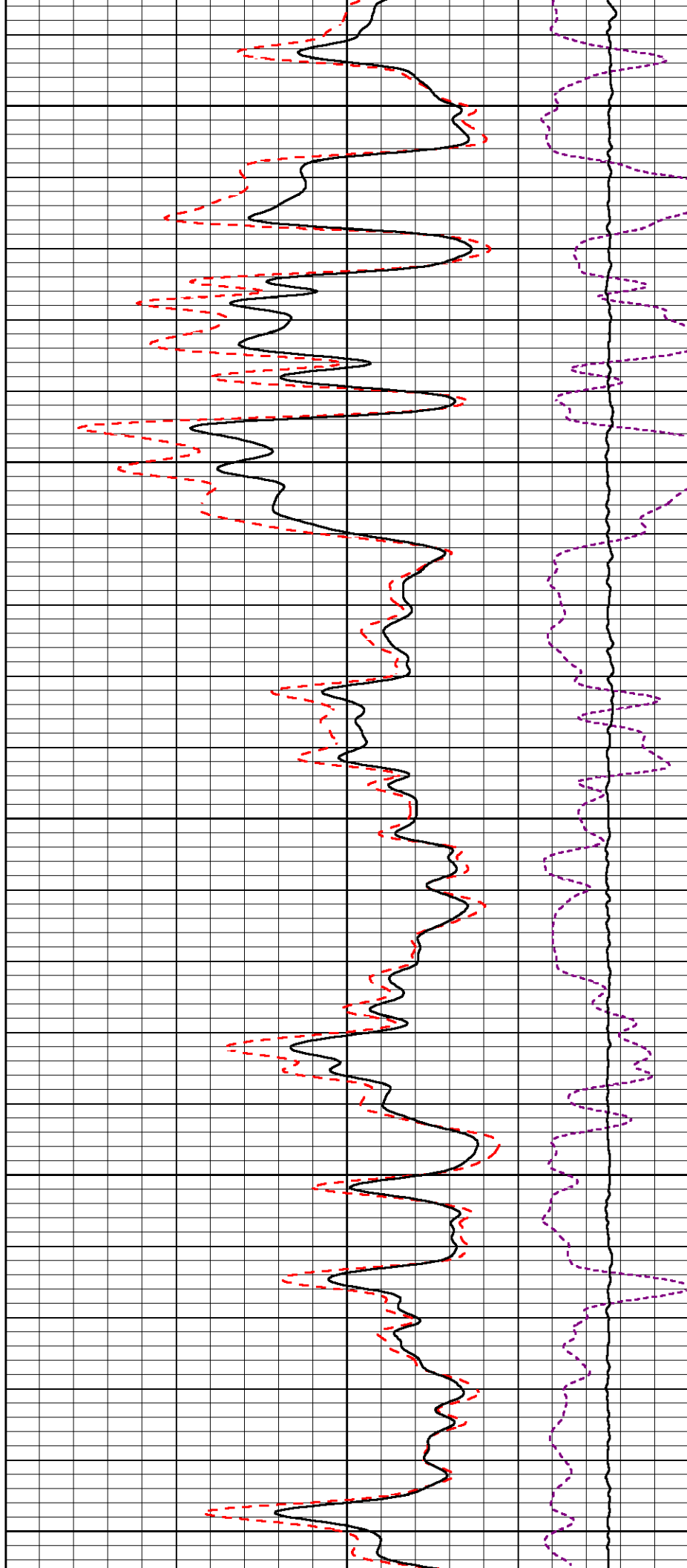
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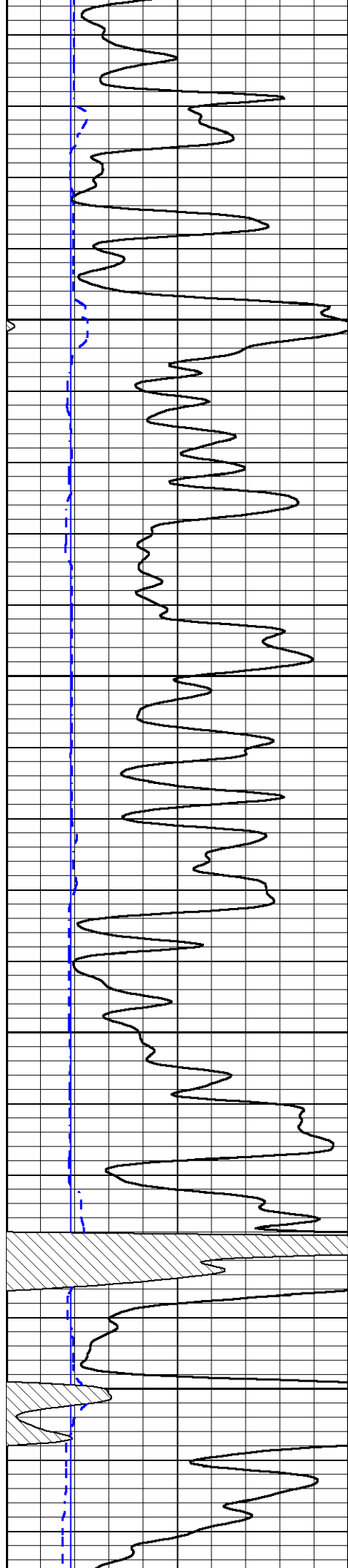
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4150

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4250



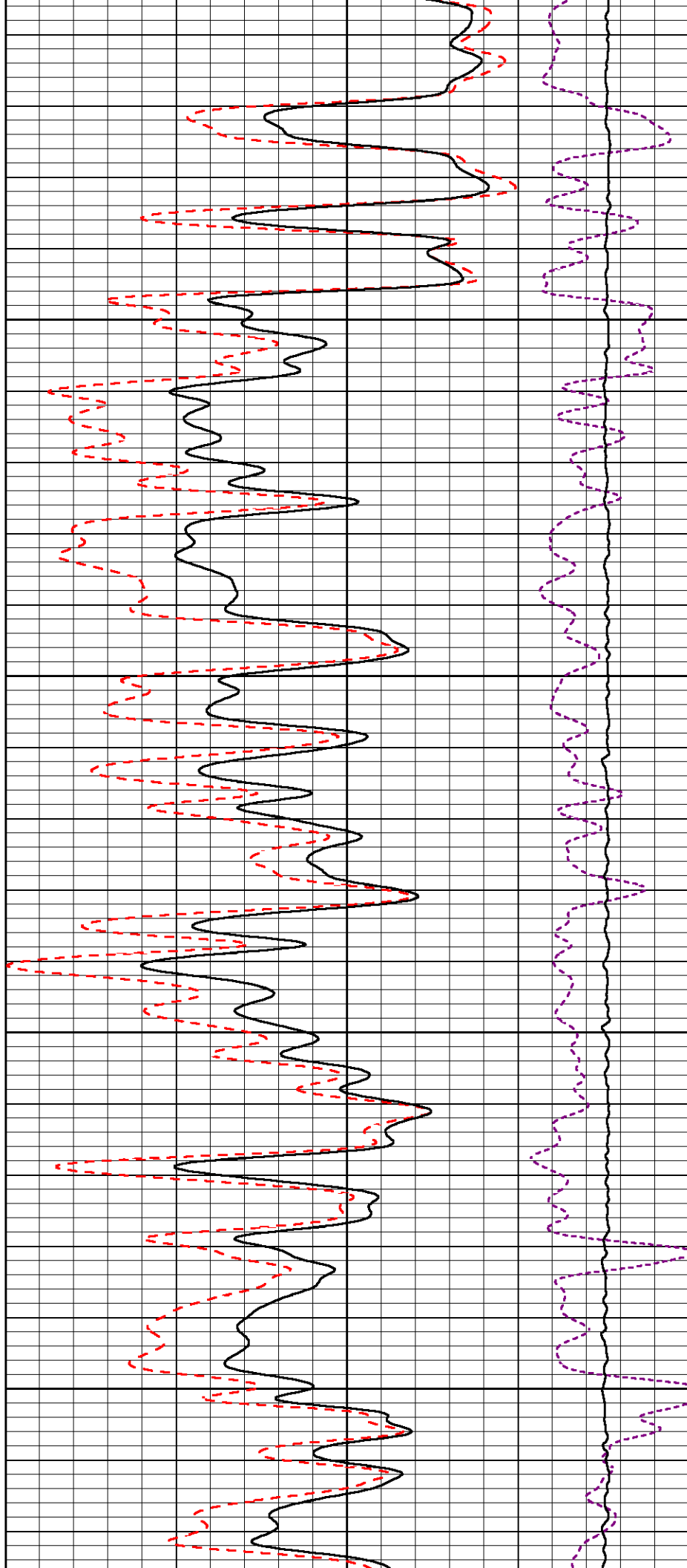


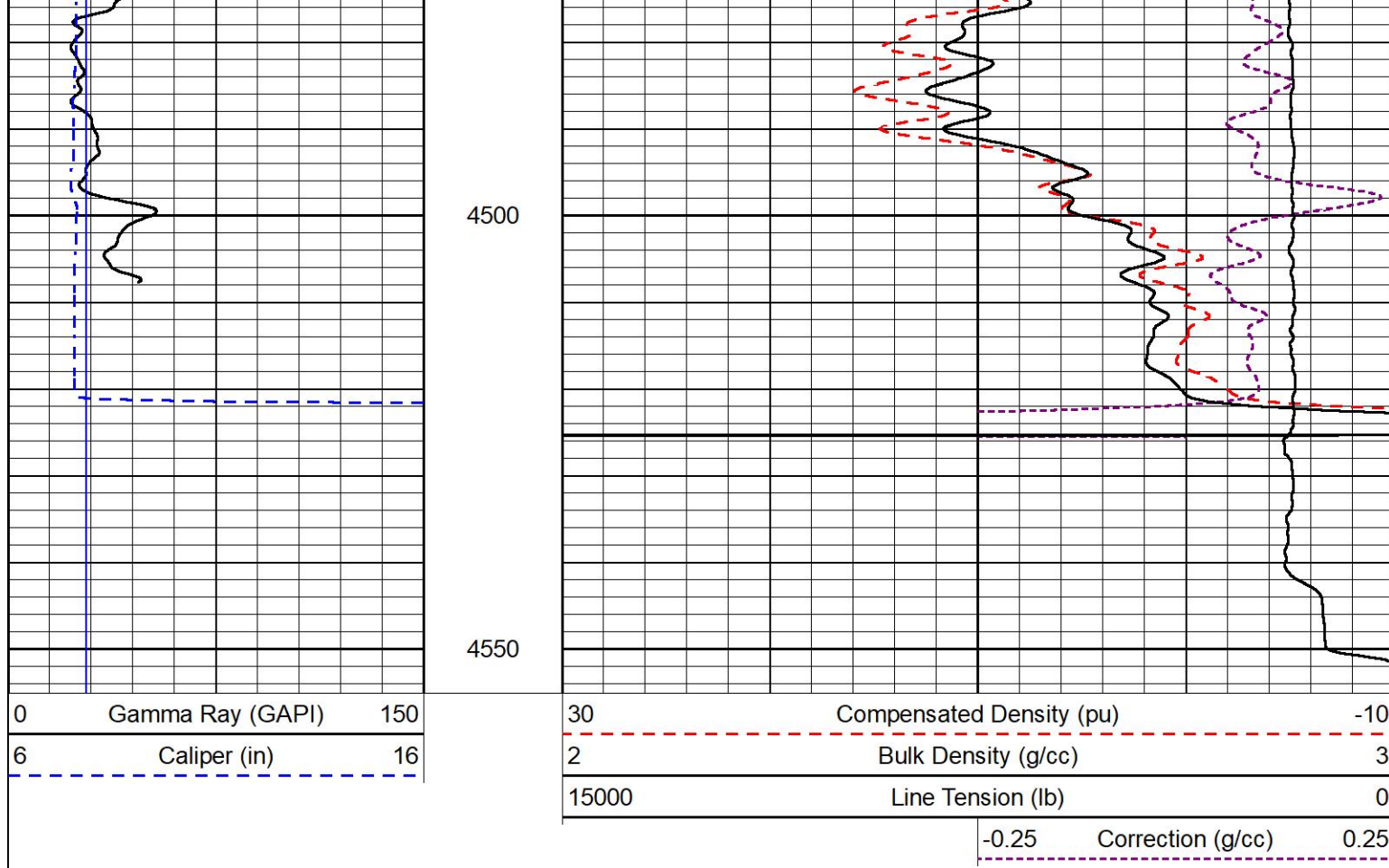
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4450



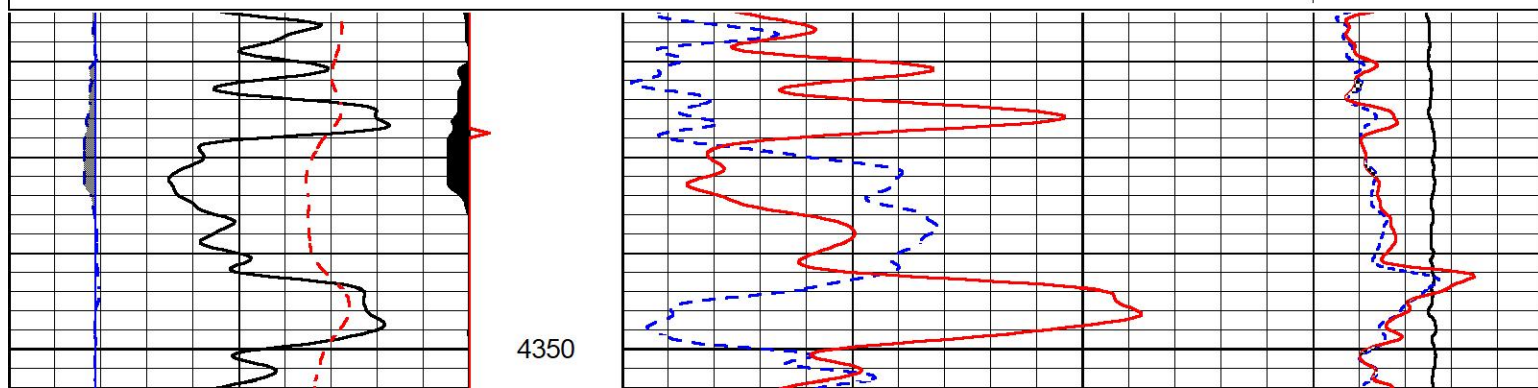
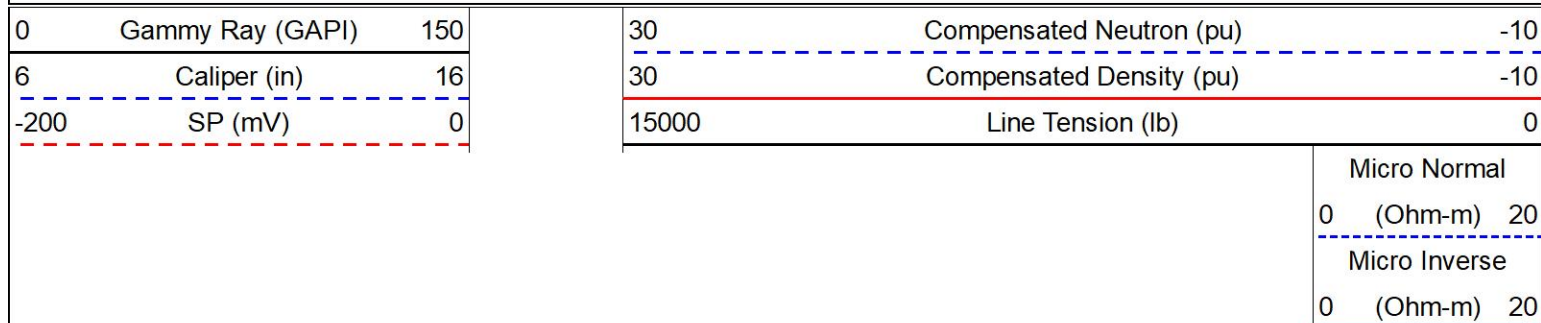


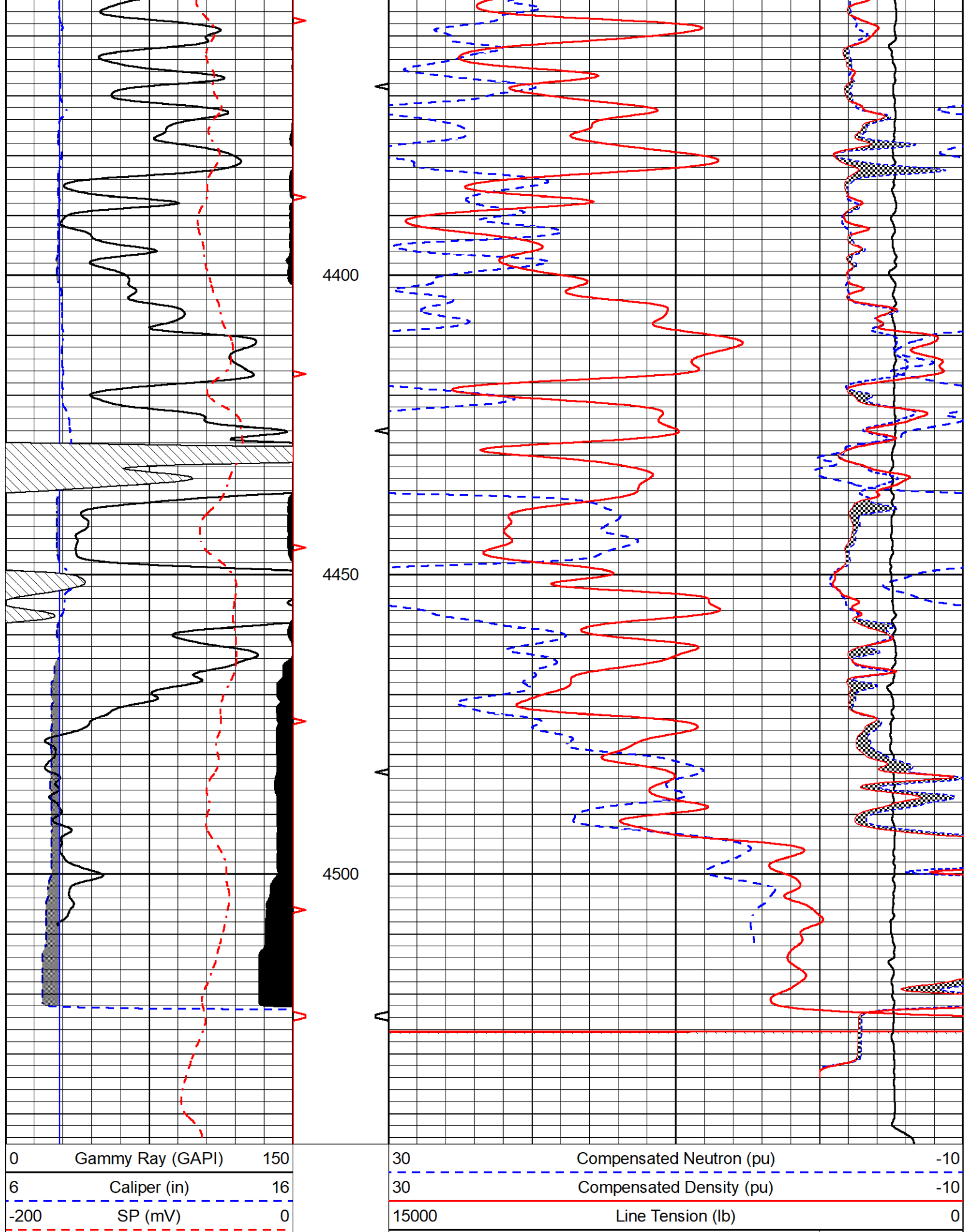
MIDWEST WIRELINE

REPEAT SECTION

REPEAT PASS

Database File black oak_argabright 1-4.db
 Dataset Pathname stkml/pass3.1
 Presentation Format CNDLS~2
 Dataset Creation Thu Oct 28 04:10:34 2021
 Charted by Depth in Feet scaled 1:240





0	Gammy Ray (GAPI)	150
6	Caliper (in)	16
-200	SP (mV)	0

30	Compensated Neutron (pu)	-10
30	Compensated Density (pu)	-10
15000	Line Tension (lb)	0

Micro Normal
0 (Ohm-m) 20
Micro Inverse

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
GR	40.58		GR-M&W (233-M&W)	3.00	3.50	50.00
CNLSC CNSSC	37.48 36.73		CNT-M&W (207-MW)	5.50	3.50	100.00
LSD DCAL SSD	28.43 28.42 27.93		CDL-M&W (934-226)	8.50	4.00	250.00
MCAL MI MN	19.83 19.83 19.83		ML-PSIML (PSI-01) GO Micro log tools converted to Simplec electronics	7.58	4.00	65.00
RLL3F RLL3	15.80 15.80		DIL-PSI HIGH TEMP (952-828)	18.50	3.50	220.00
CILD	8.00					
CILM	4.70					
SP	0.20					

Total length:	43.08 ft
Total weight:	685.00 lb
O.D.:	4.00 in



Company	Black Oak Exploration, LLC
Well	Argabright #1-4
Field	
County	Rawlins
State	Kansas