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BOREHOLE COMPENSATED SONIC LOG

Company MURFIN DRILLING COMPANY, INC.
Well MEARS B #1-11
Field WILDCAT
County CHEYENNE State KANSAS
Location: API #: 15-023-21468-00-00
N2 SE NE SE
1800' FSL & 330' FEL
SEC 11 TWP 2S RGE 37W

Other Services
CNL/CDL
MEL/DIL

Elevation
K.B. 3396'
D.F. N/A
G.L. 3391'

Permanent Datum GROUND LEVEL Elevation 3391'
Log Measured From KELLY BUSHING
Drilling Measured From KELLY BUSHING

Date	7/29/2017							
Run Number	TWO							
Type Log	BHCS							
Depth Driller	4900'							
Depth Logger	4900'							
Bottom Logged Interval	4889'							
Top Logged Interval	300'							
Type Fluid In Hole	CHEMICAL							
Salinity, PPM CL	800							
Density	9.1							
Level	FULL							
Max. Rec. Temp. F	125 DEG F							
Operating Rig Time	4 1/2 HOURS							
Equipment -- Location	108 HAYS							
Recorded By	T. MARTIN							
Witnessed By	STEVE MILLER							

Borehole Record

Run No.	Bit	From	To
ONE	12.25"	00'	346'
TWO	7.875"	346'	TD

Casing Record

Size	Wgt.	From	To
8.625"	23#	00'	346'

<<< Fold Here >>>

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

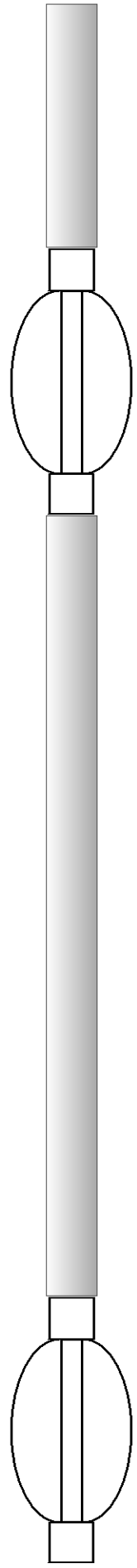
MCDONALD, 2 W TO CO LINE,
7.6 N TO RD W, 1 W, 1/4 N, W INTO

Log Measured From: KELLY BUSHING 5 Ft. Above Permanent Datum

THANK YOU FOR USING PIONEER ENERGY SERVICES
www.pioneeres.com 785-625-3858

Your Pioneer Energy Services Crew	This Log Record Was Witnessed By
Engineer: T. MARTIN	Primary Witness: STEVE MILLER
Operator:	Secondary Witness:
Operator:	Secondary Witness:
Operator:	Secondary Witness:

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb
			ML-Armadillo (Armadillo-4) Pengo micro log tool mandrel with Armadillo Electronics	5.00	3.50	100.00
MCAL	28.00					
MI	28.00					
MN	28.00					
			CENT-PENGO	5.50	3.00	70.00
WVF4	13.50		SLT-PENGO (0001)	16.00	3.50	300.00
WVF1	13.50					
WVF3	11.50					
WVF2	11.50					
			CENT-PENGO	5.50	3.00	70.00

Dataset: murfin_mears b_#1-11.db: field/well/sonmel/pass3.3
Total length: 32.00 ft
Total weight: 540.00 lb
O.D.: 3.50 in

Log Variables

DatabaseC:\ProgramData\Warrior\Data\murfin_mears b_#1-11.db
Dataset field/well/stack/pass3.1/_vars_

Top - Bottom

A	BOREID in	BOTTEMP degF	CASEOD in	CASETHCK in	FLUIDDEN g/cc	M	MATRXDEN g/cc
1	7.875	125	5.5	0	1	2	2.71

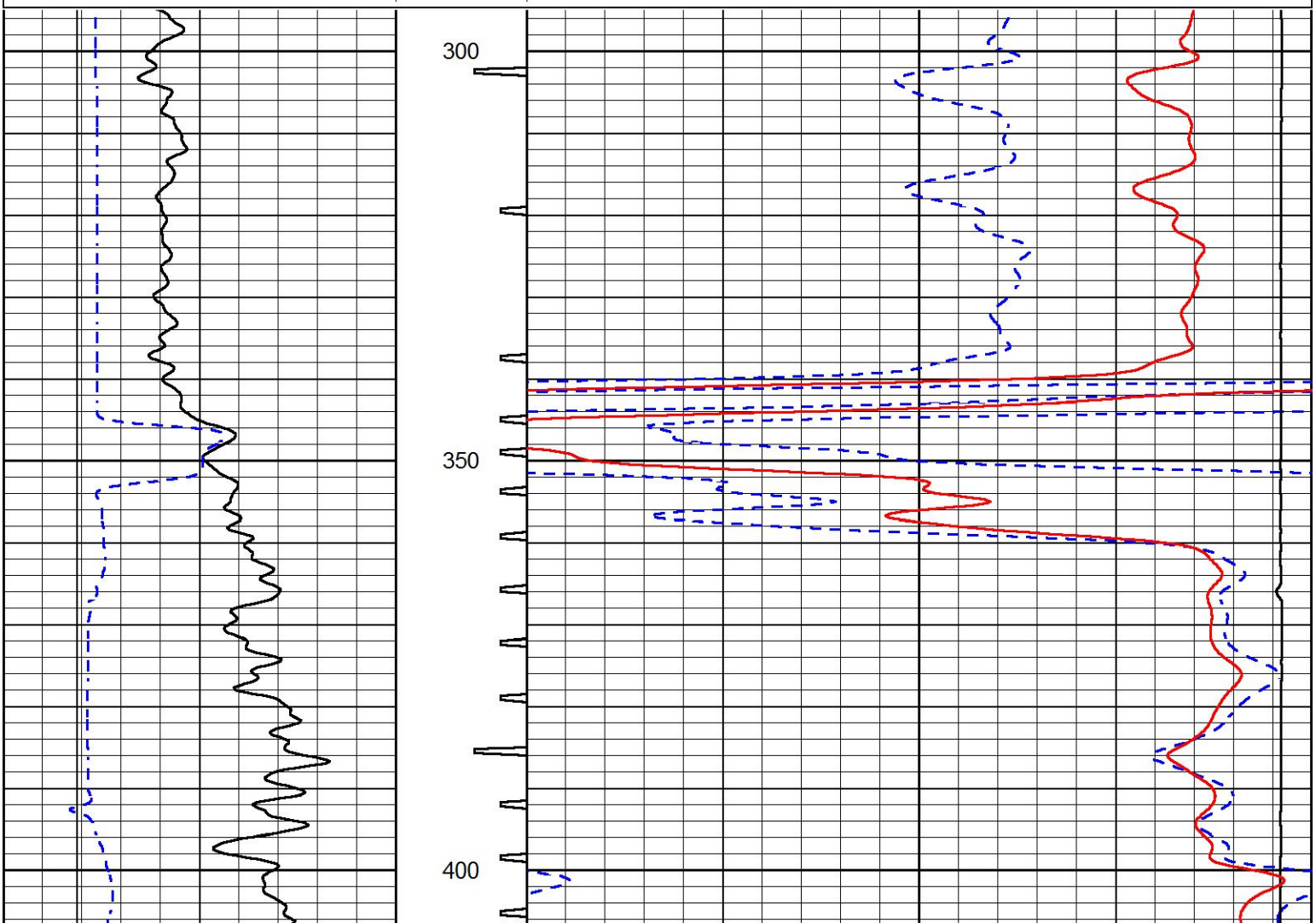
NPORSEL	PERFS	SNDERR mmho/m	SNDERRM mmho/m	SPSHIFT mV	SRFTEMP degF	SZCOR	TDEPTH ft
Limestone	0	0	0	-520	80	Off	4900

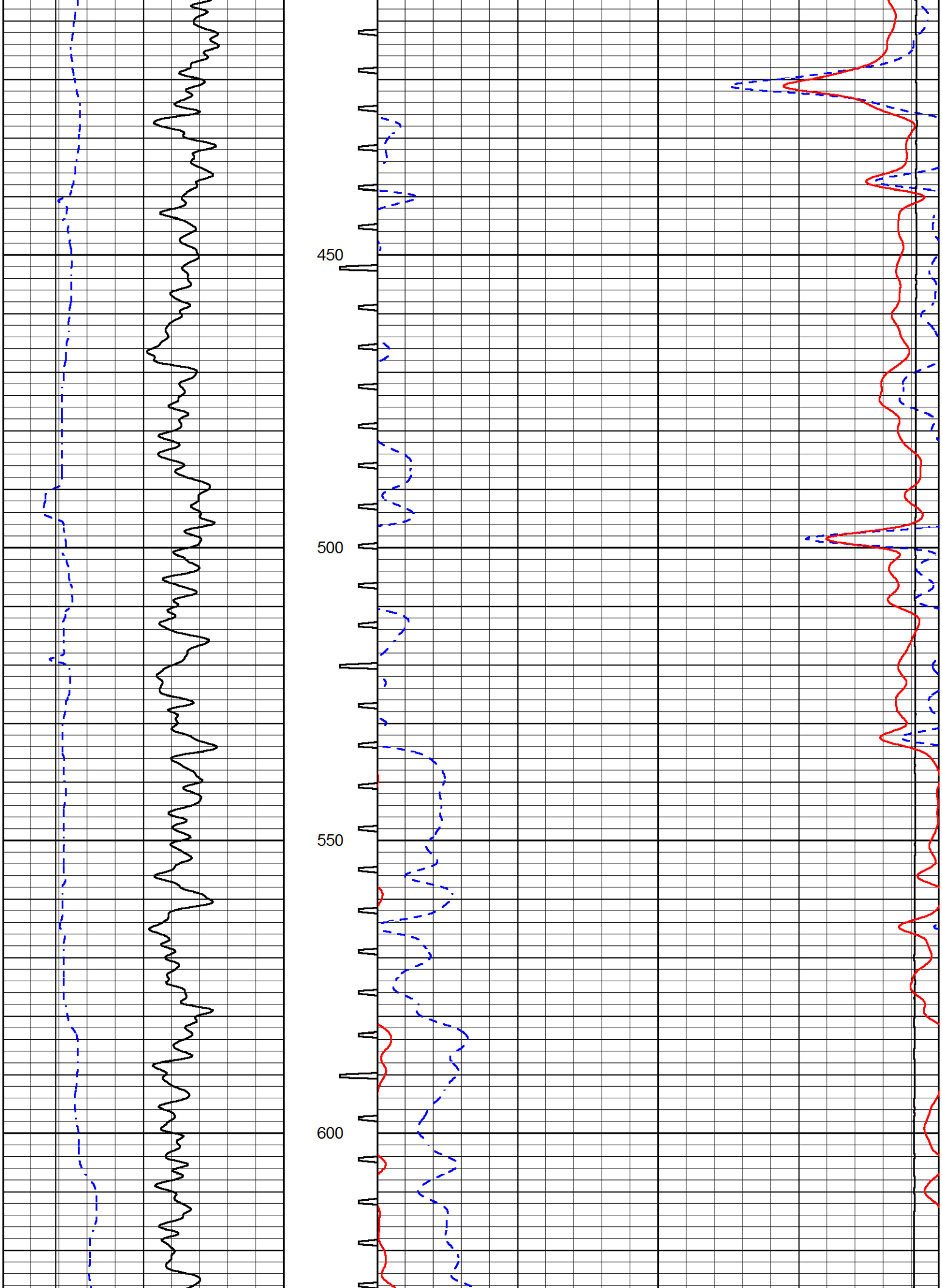
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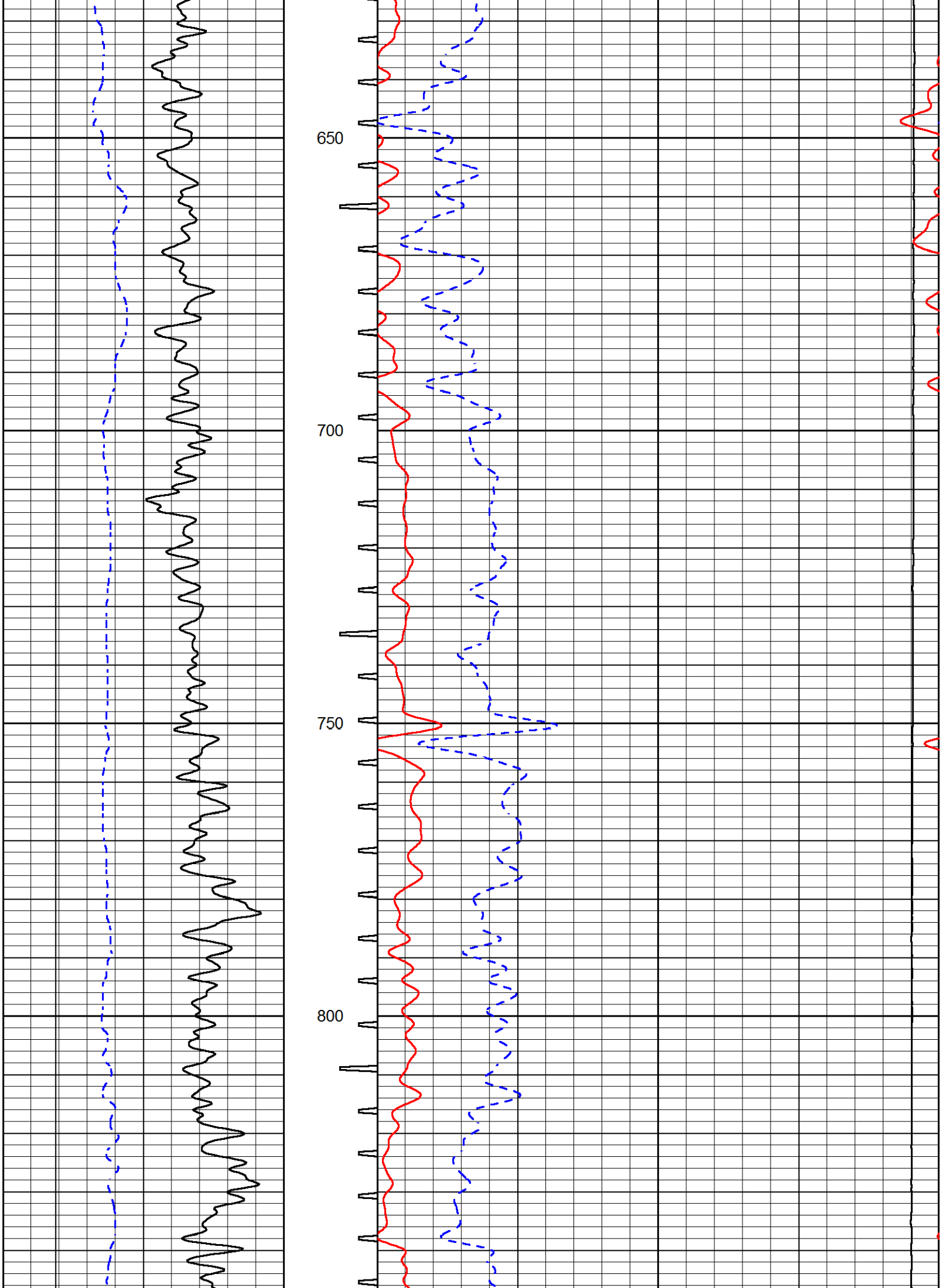
MAIN PASS

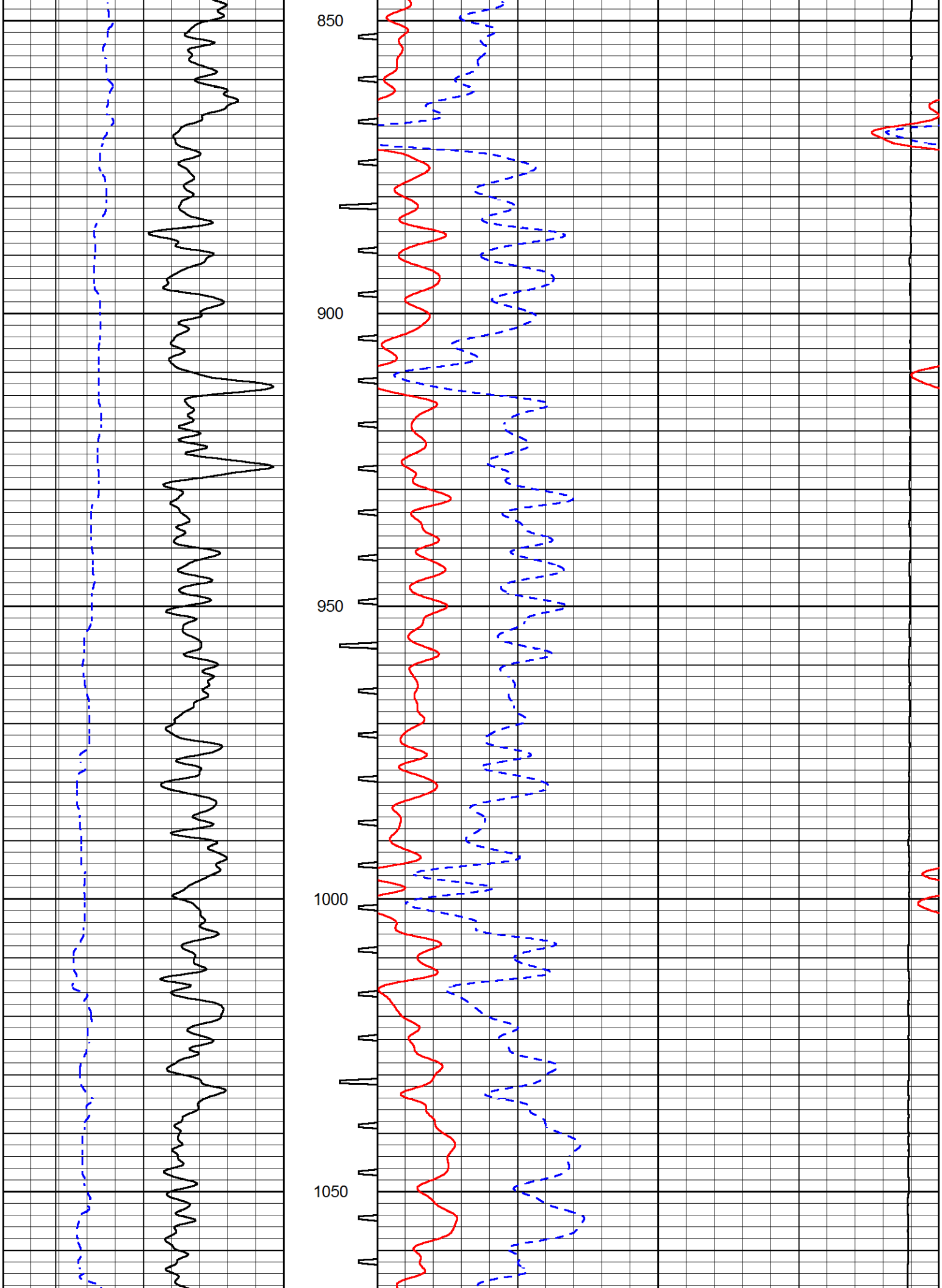
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Dataset Pathname	stack/pass3.1
Presentation Format	sonic
Dataset Creation	Sat Jul 29 04:12:39 2017
Charted by	Depth in Feet scaled 1:240

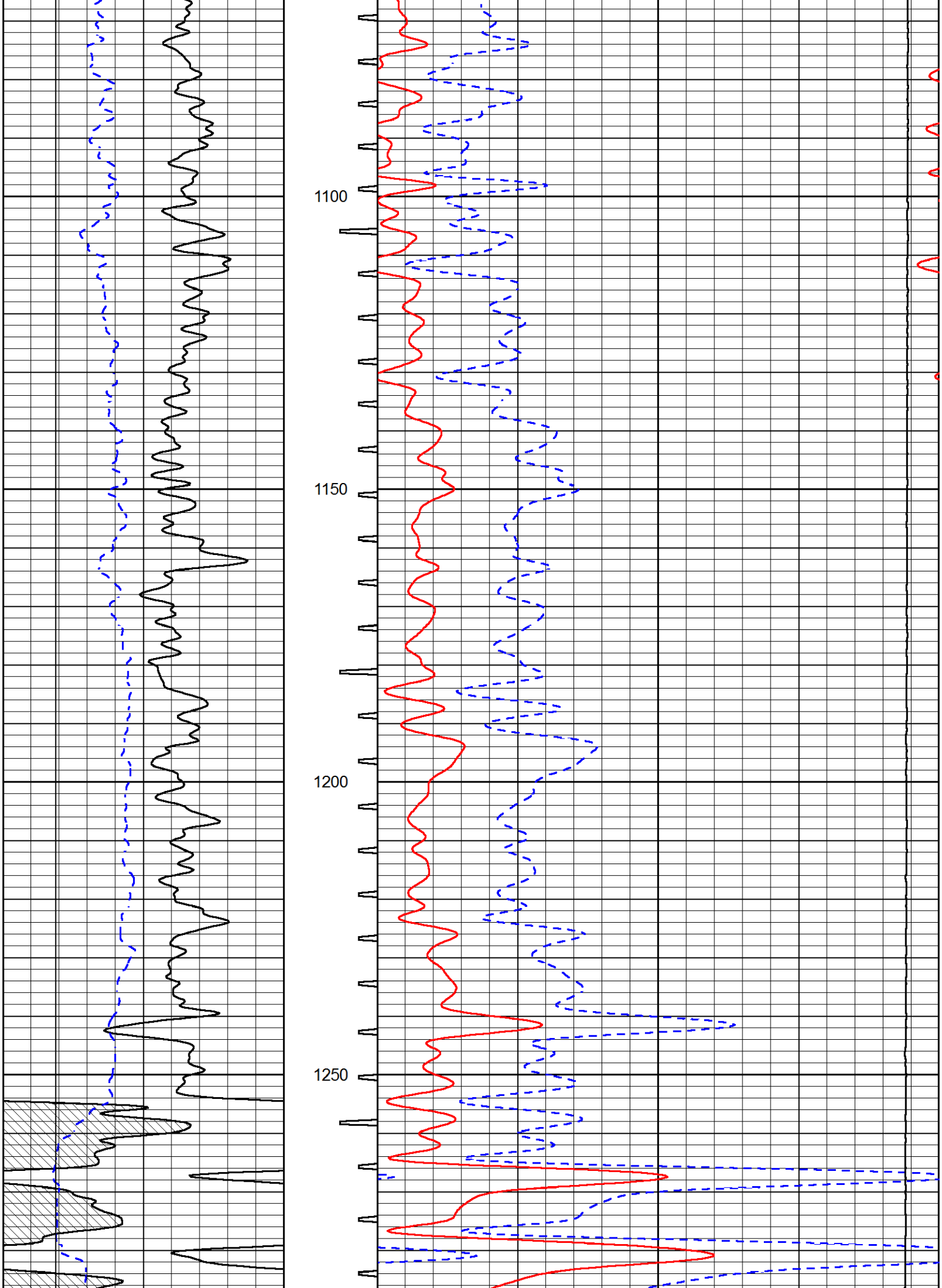
0	GAMMA RAY (GAPI)	150	SONIC INT TRAVEL TIME (msec)	140	DELTA TIME (usec/ft) (usec/ft) 40
6	CALIPER (in)	16		30	SONIC POROSITY (pu) -10
6	BIT SIZE	16		15000	LINE TENSION (lb) 0

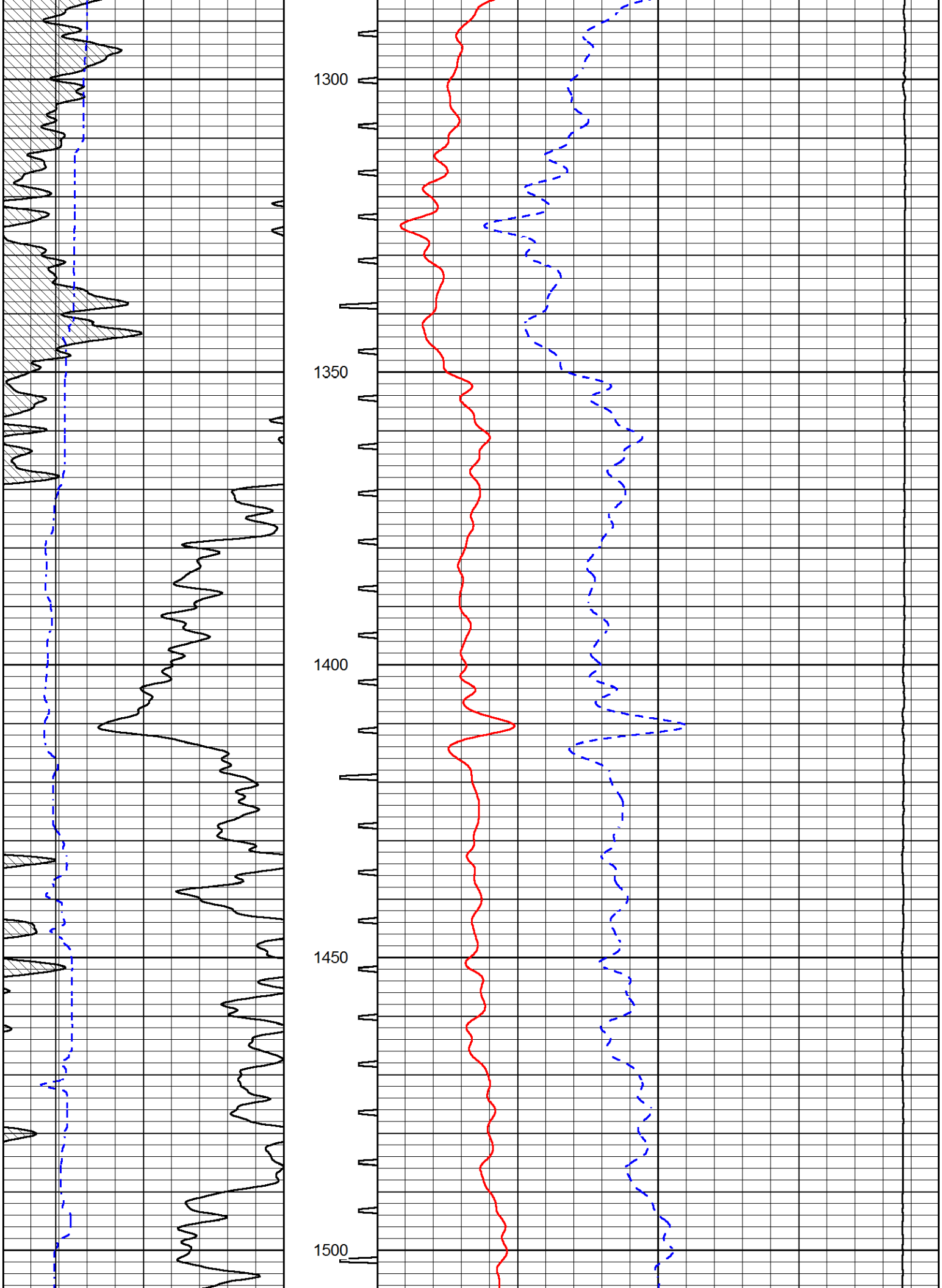


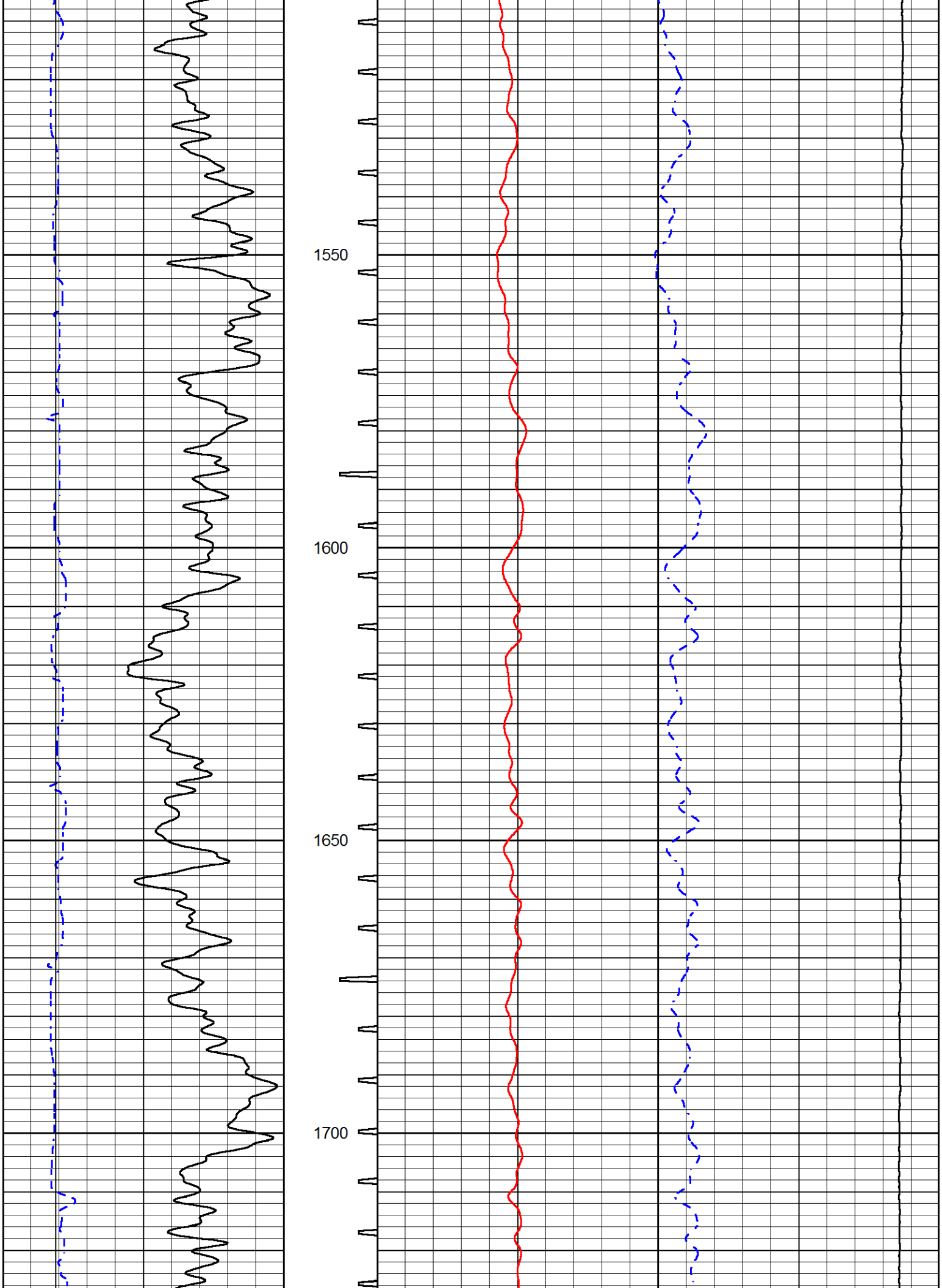

450
500
550
600

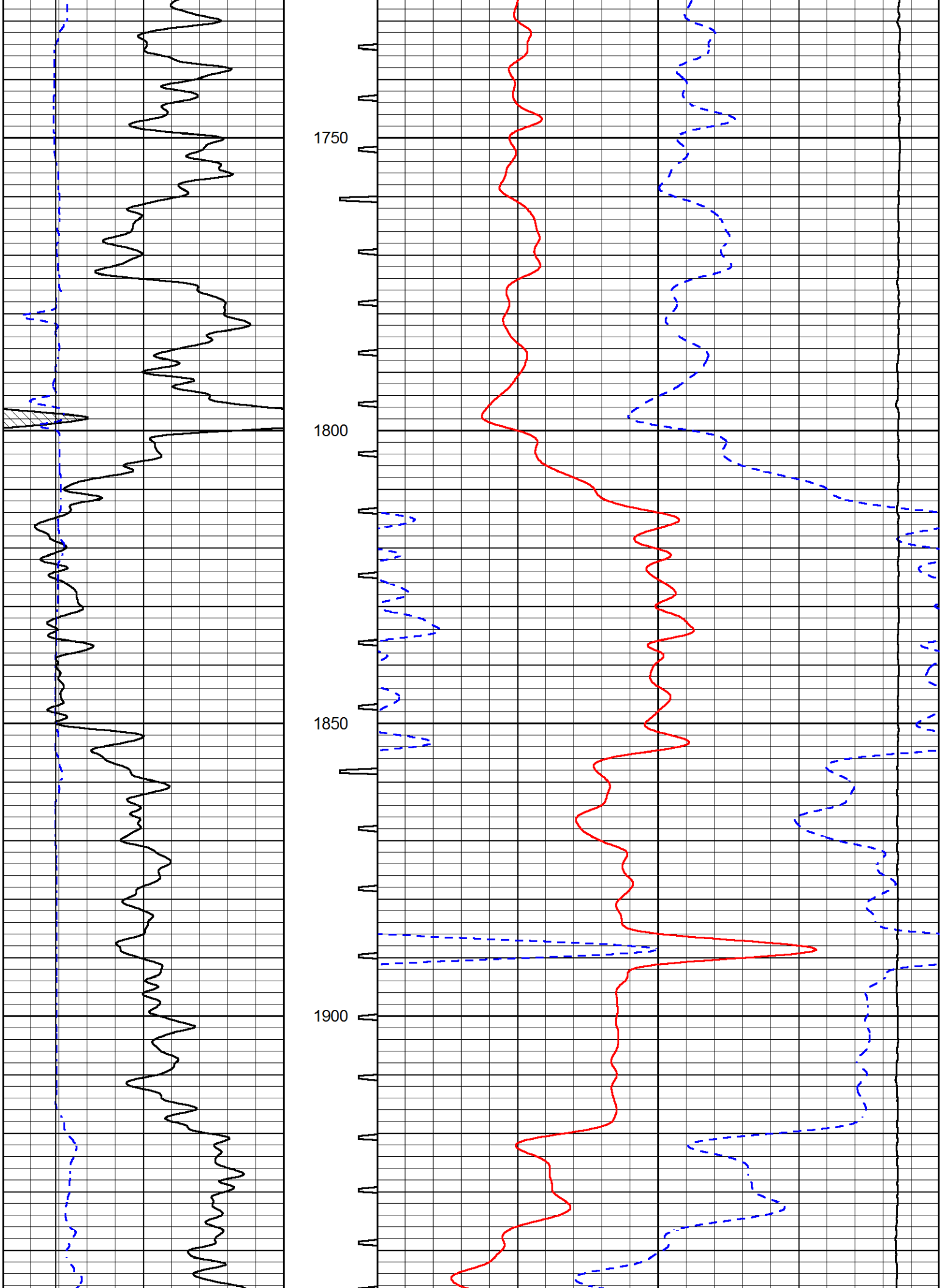

650
700
750
800

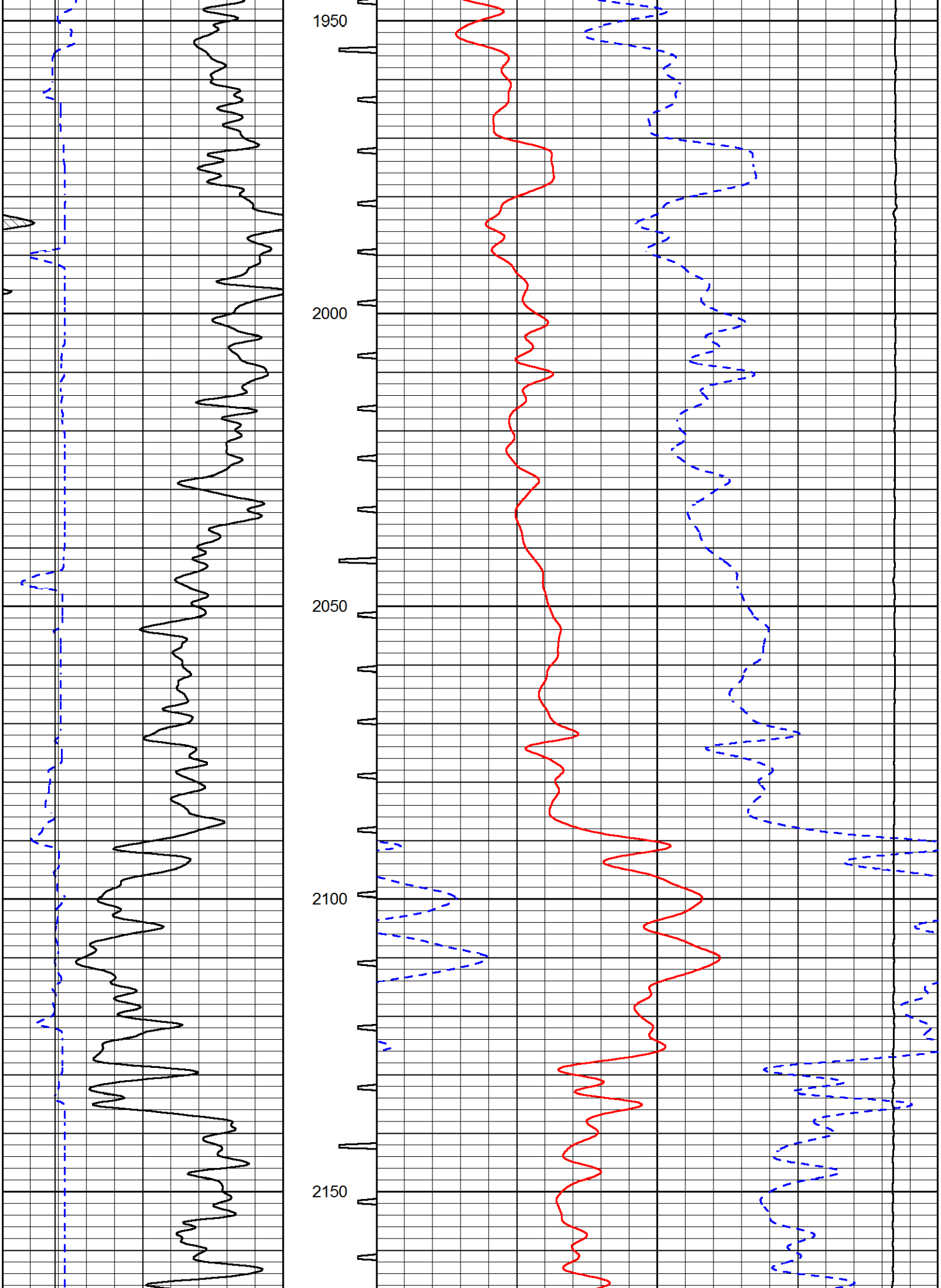

850
900
950
1000
1050

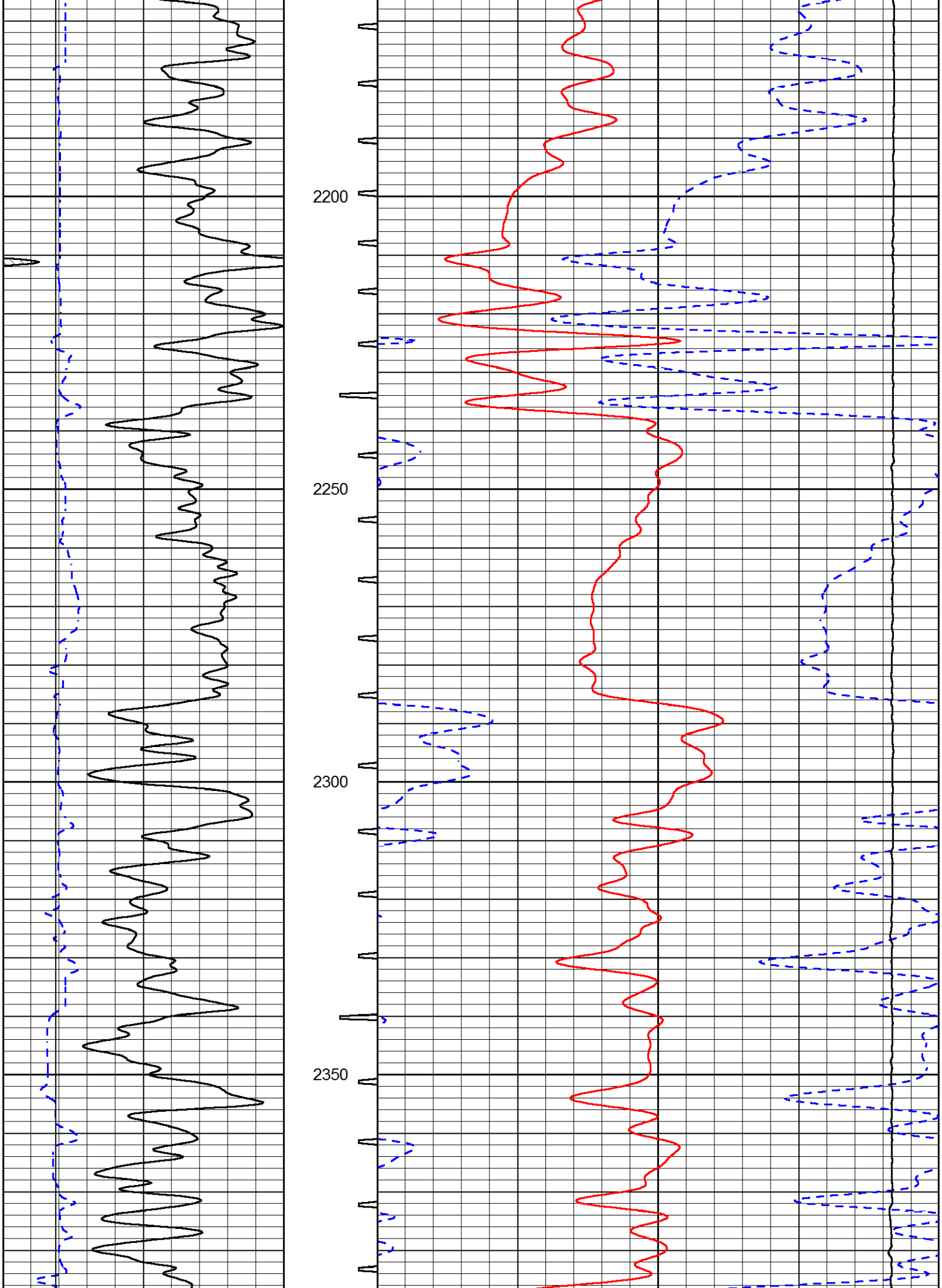

1100
1150
1200
1250

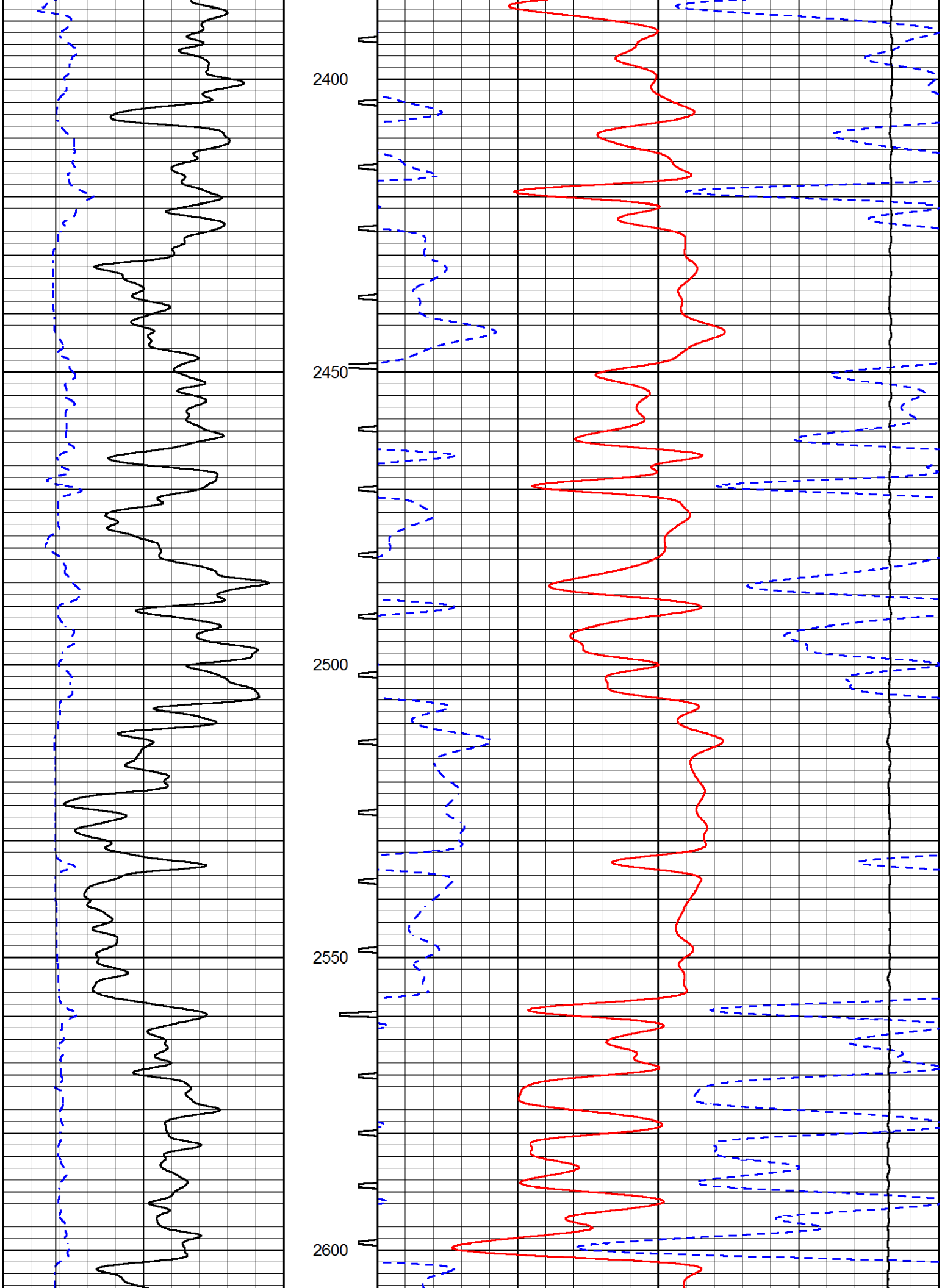

1300
1350
1400
1450
1500

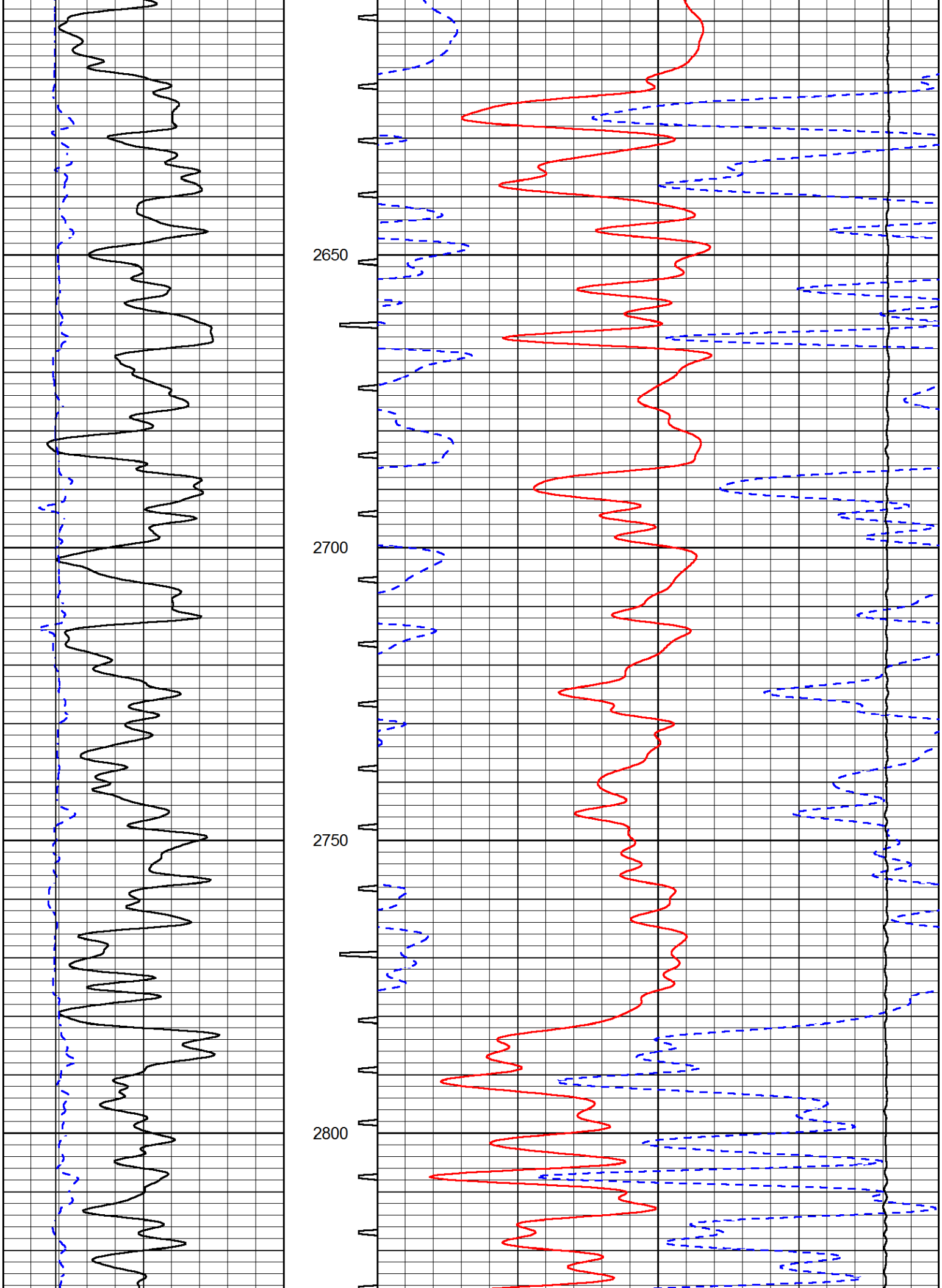

1550
1600
1650
1700

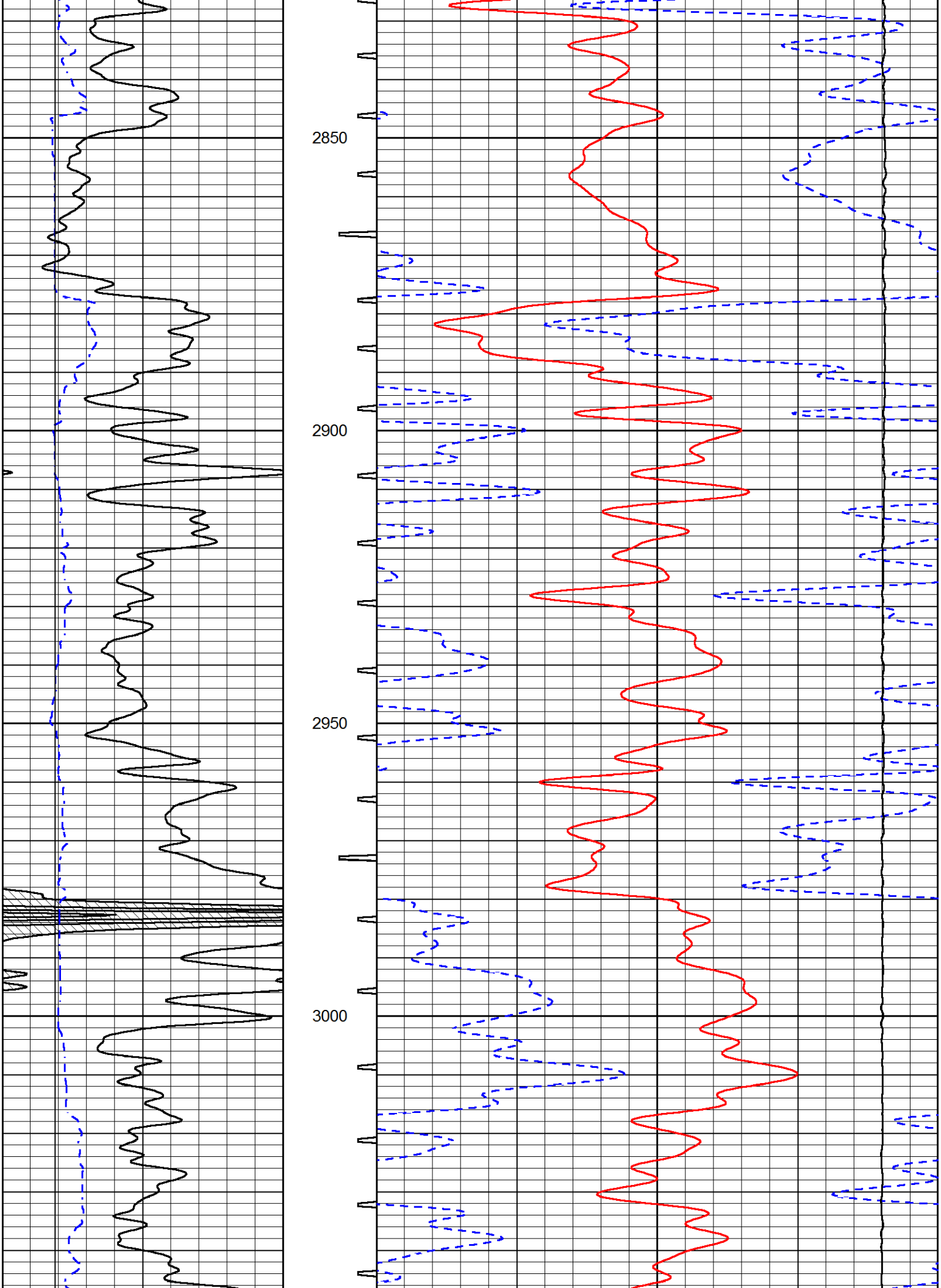

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1800
1850
1900

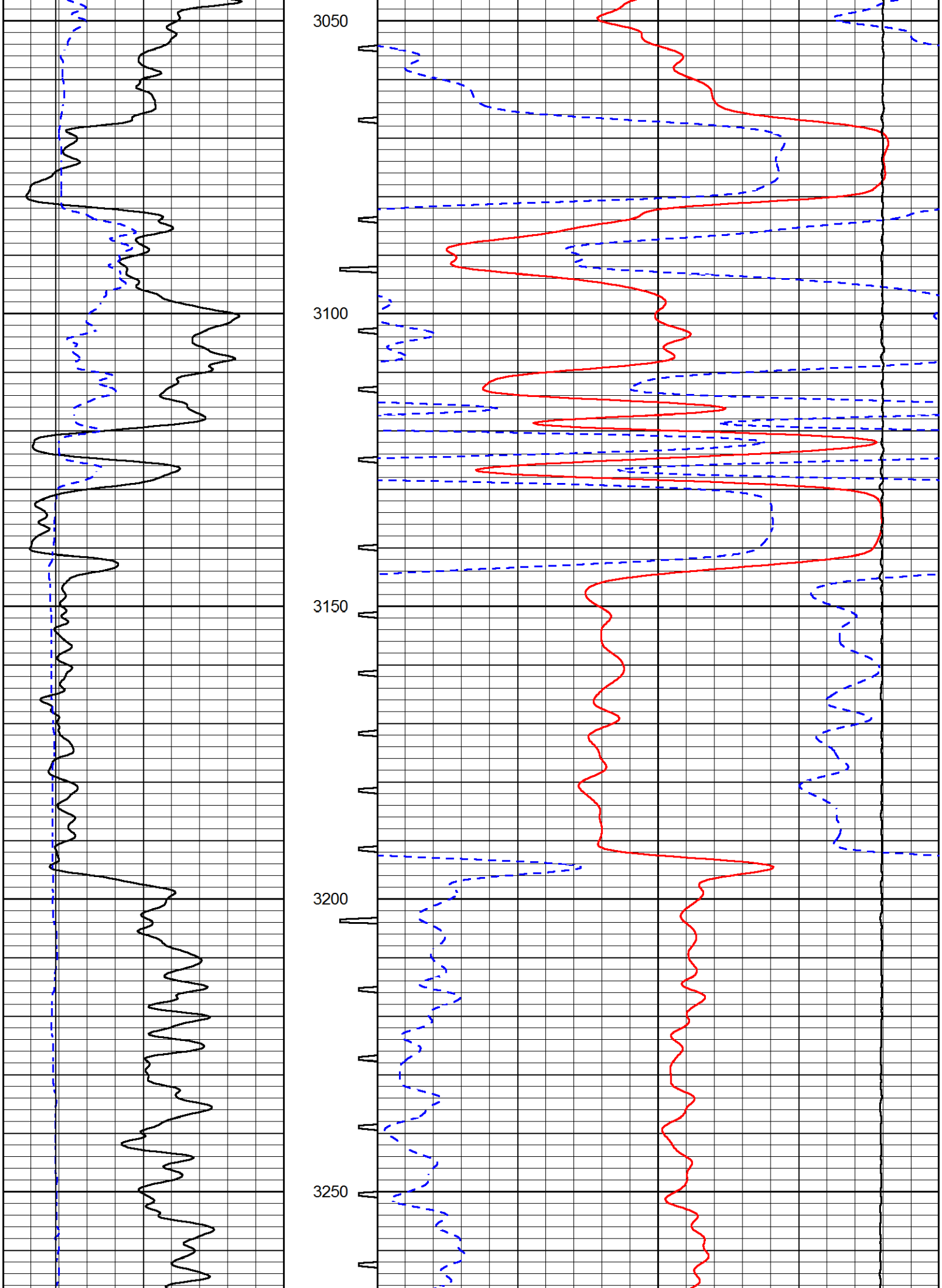

1950
2000
2050
2100
2150

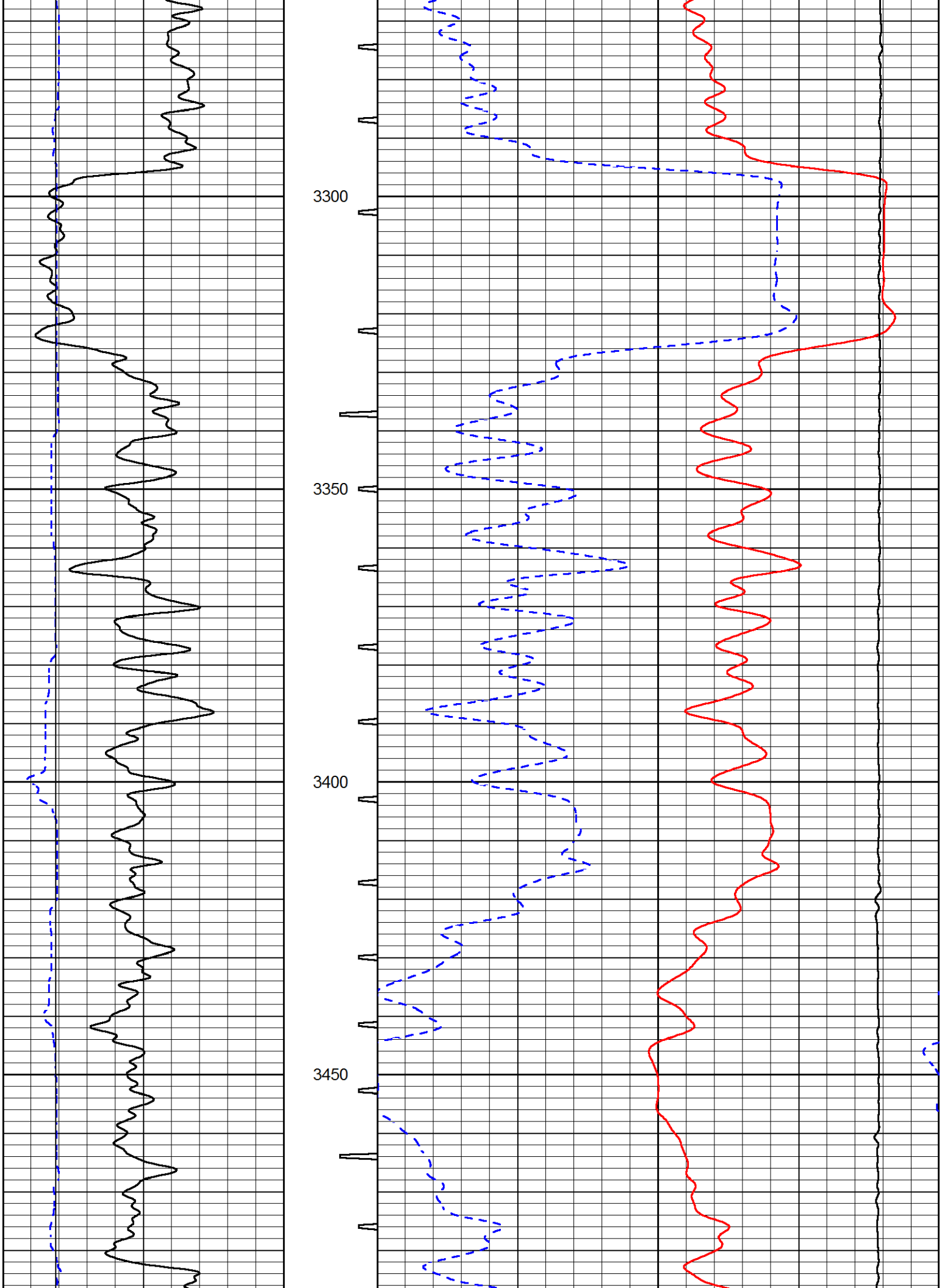

2200
2250
2300
2350

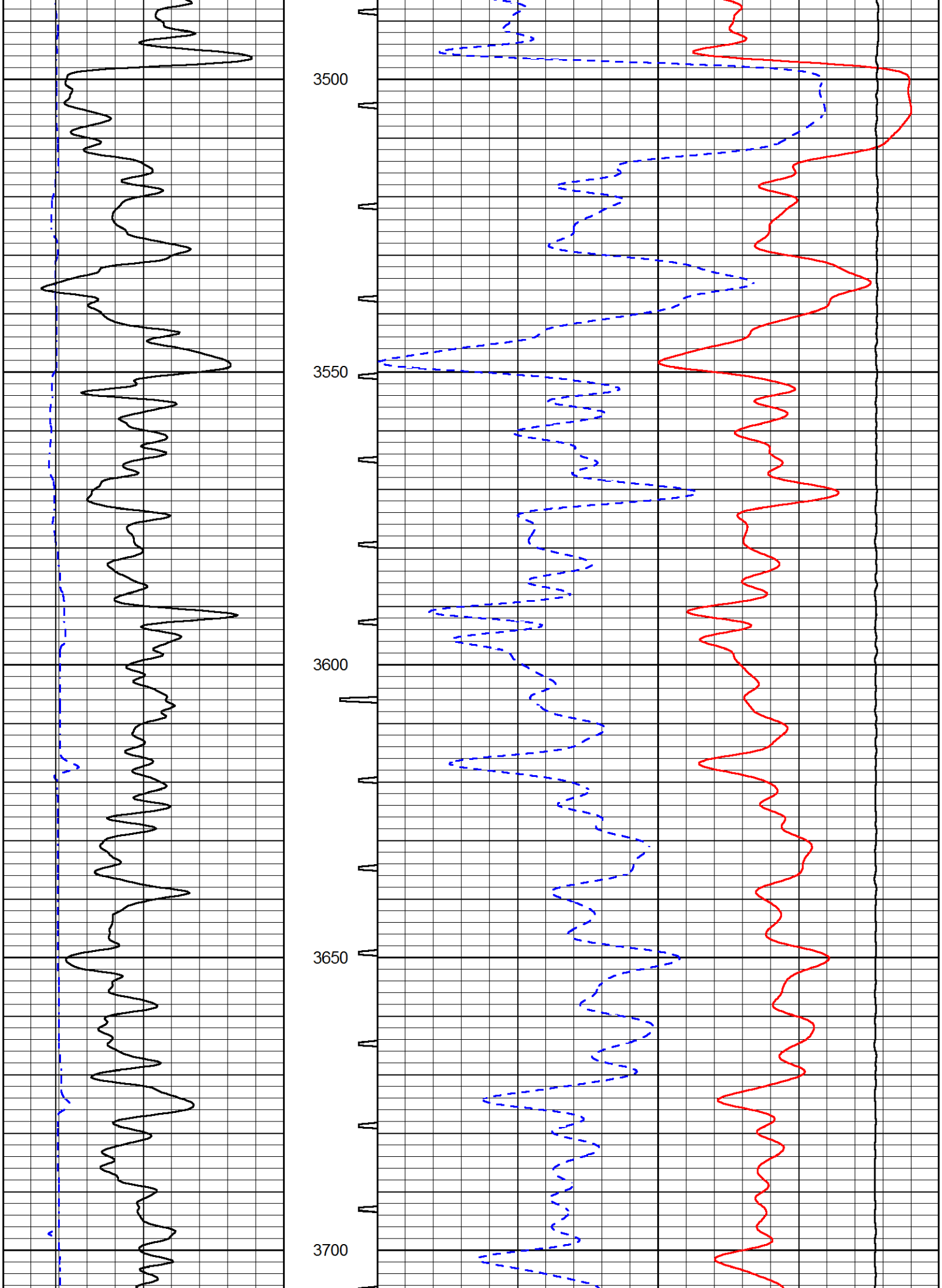

2400
2450
2500
2550
2600

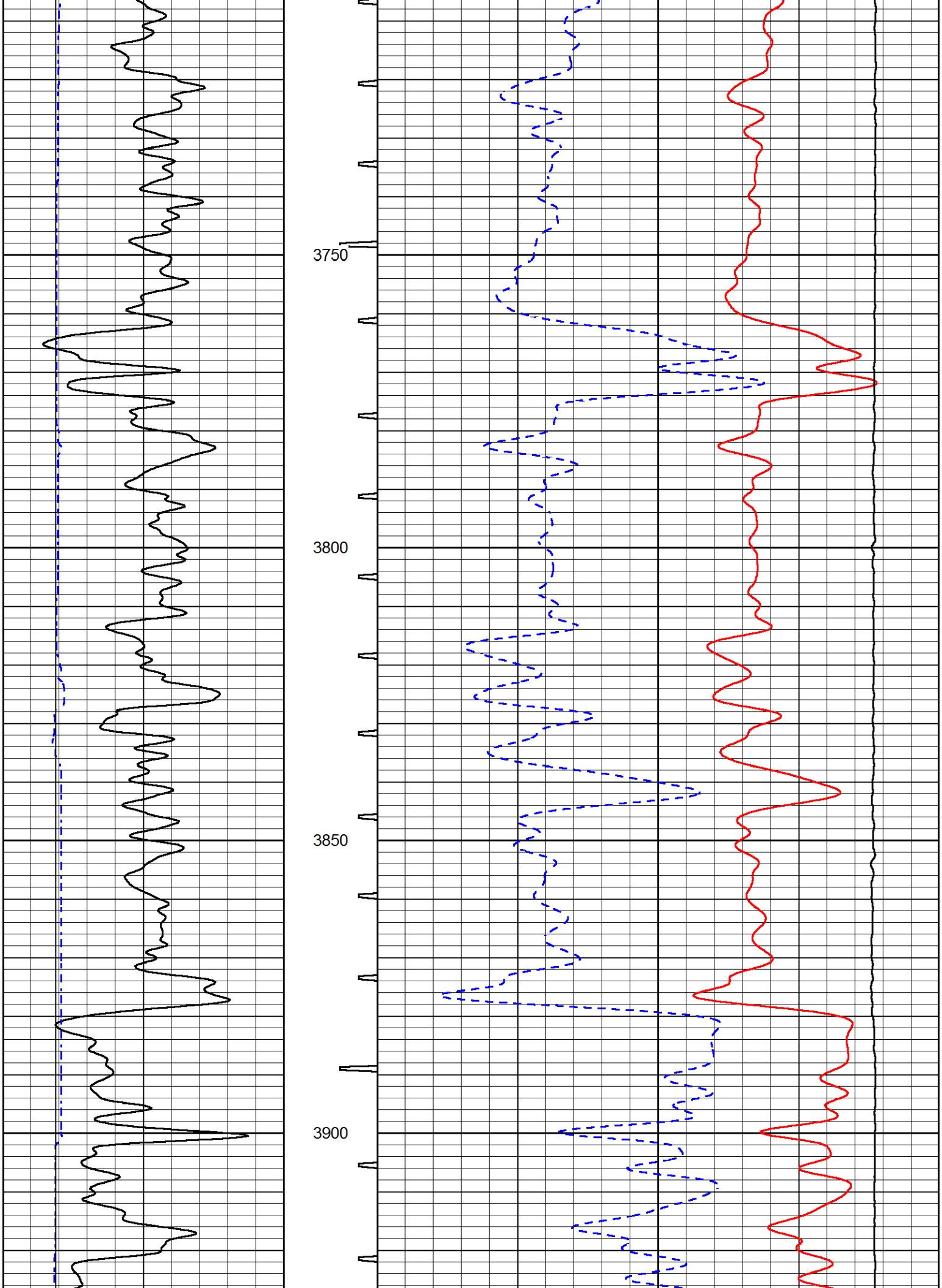

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2700
2750
2800

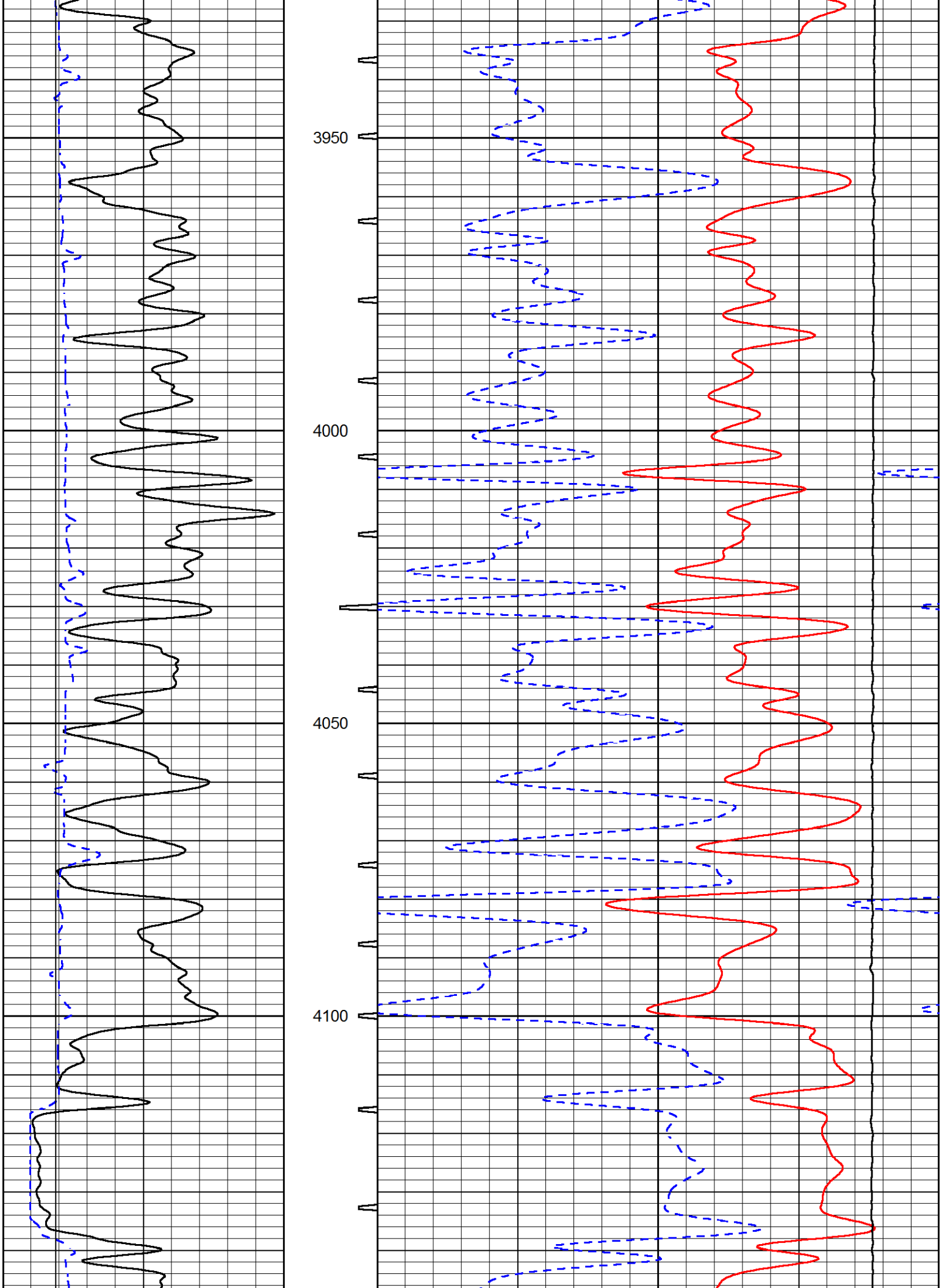

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2900
2950
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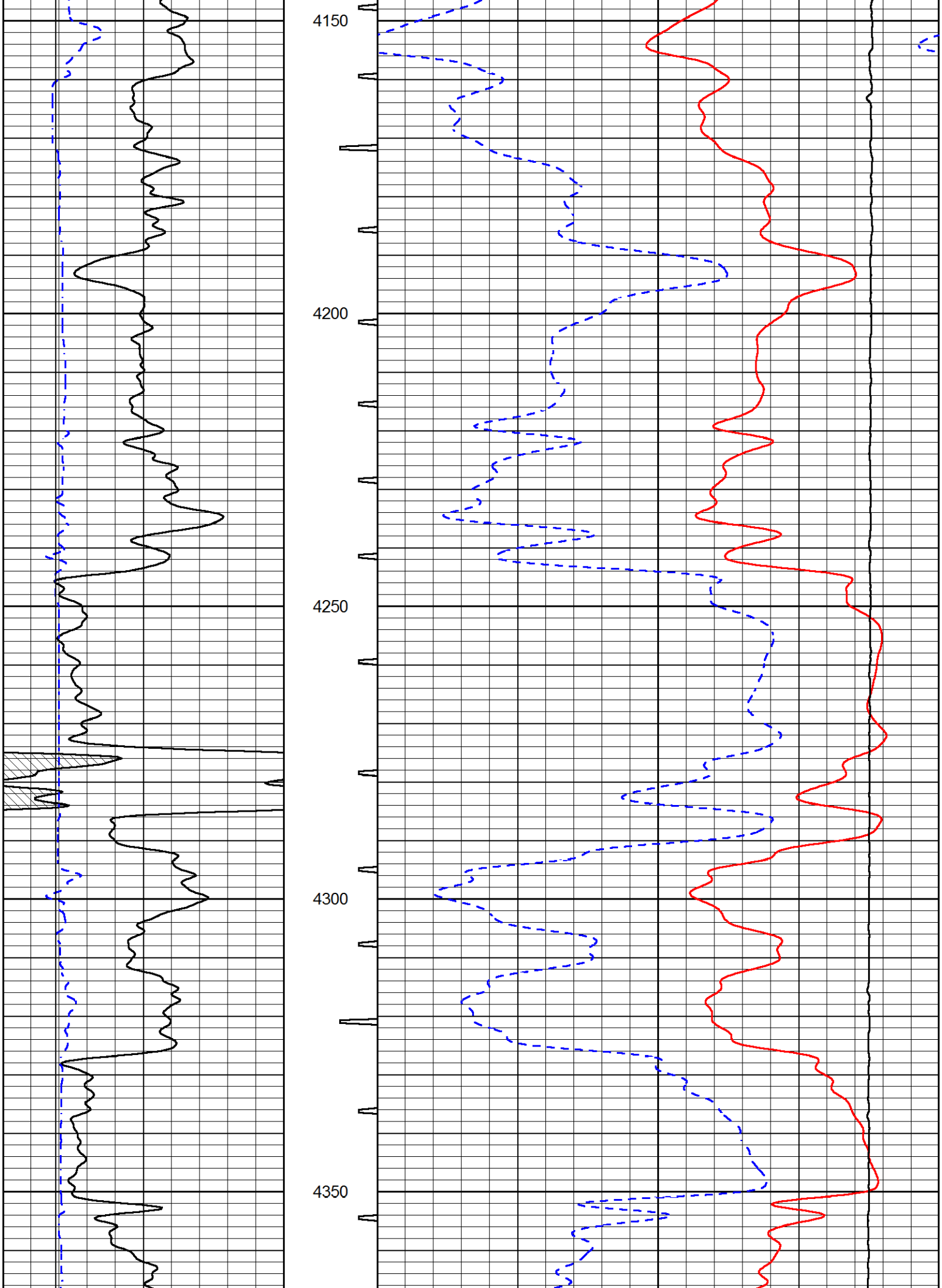

3050
3100
3150
3200
3250

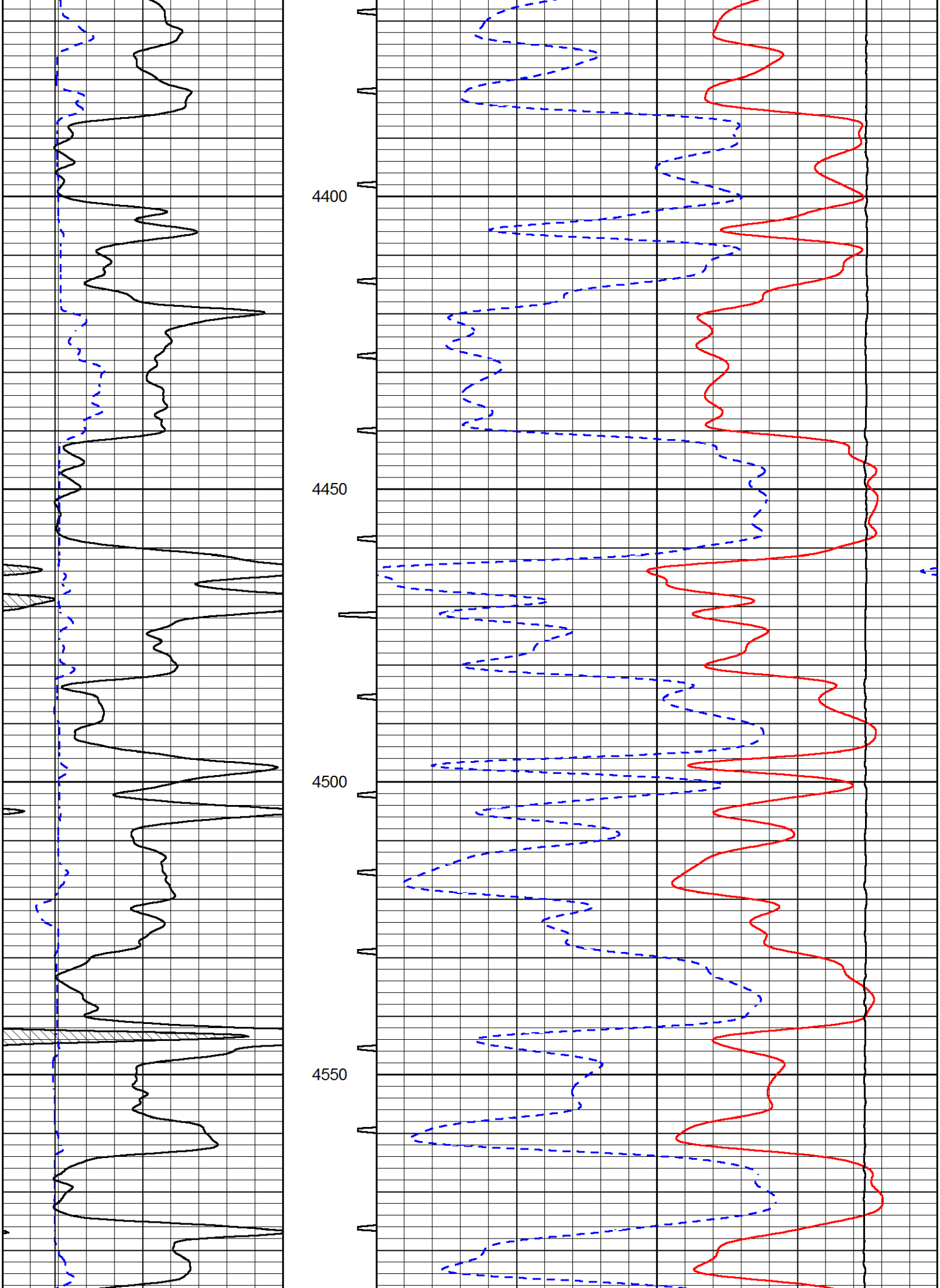

3300
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3450

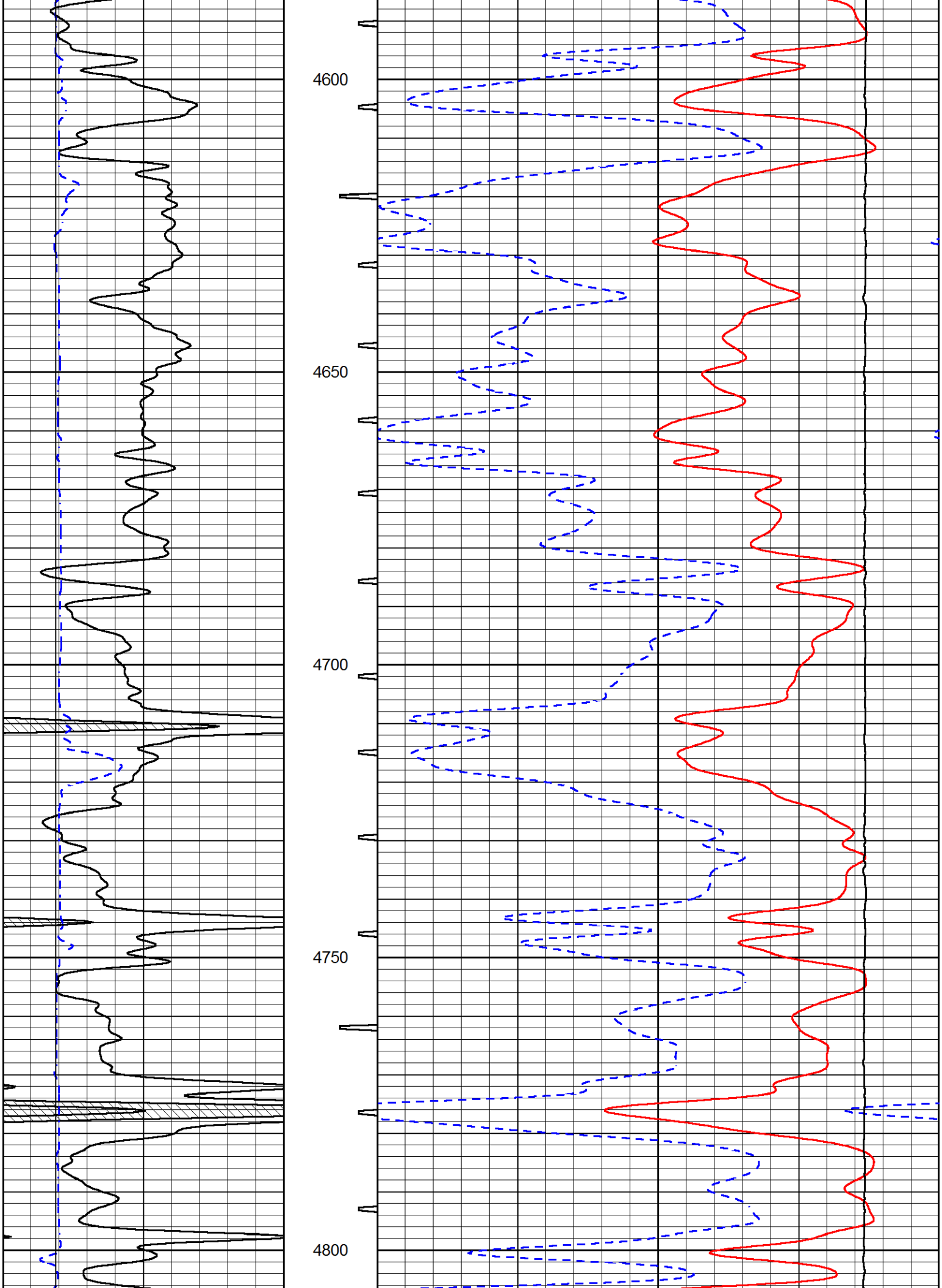

3500
3550
3600
3650
3700

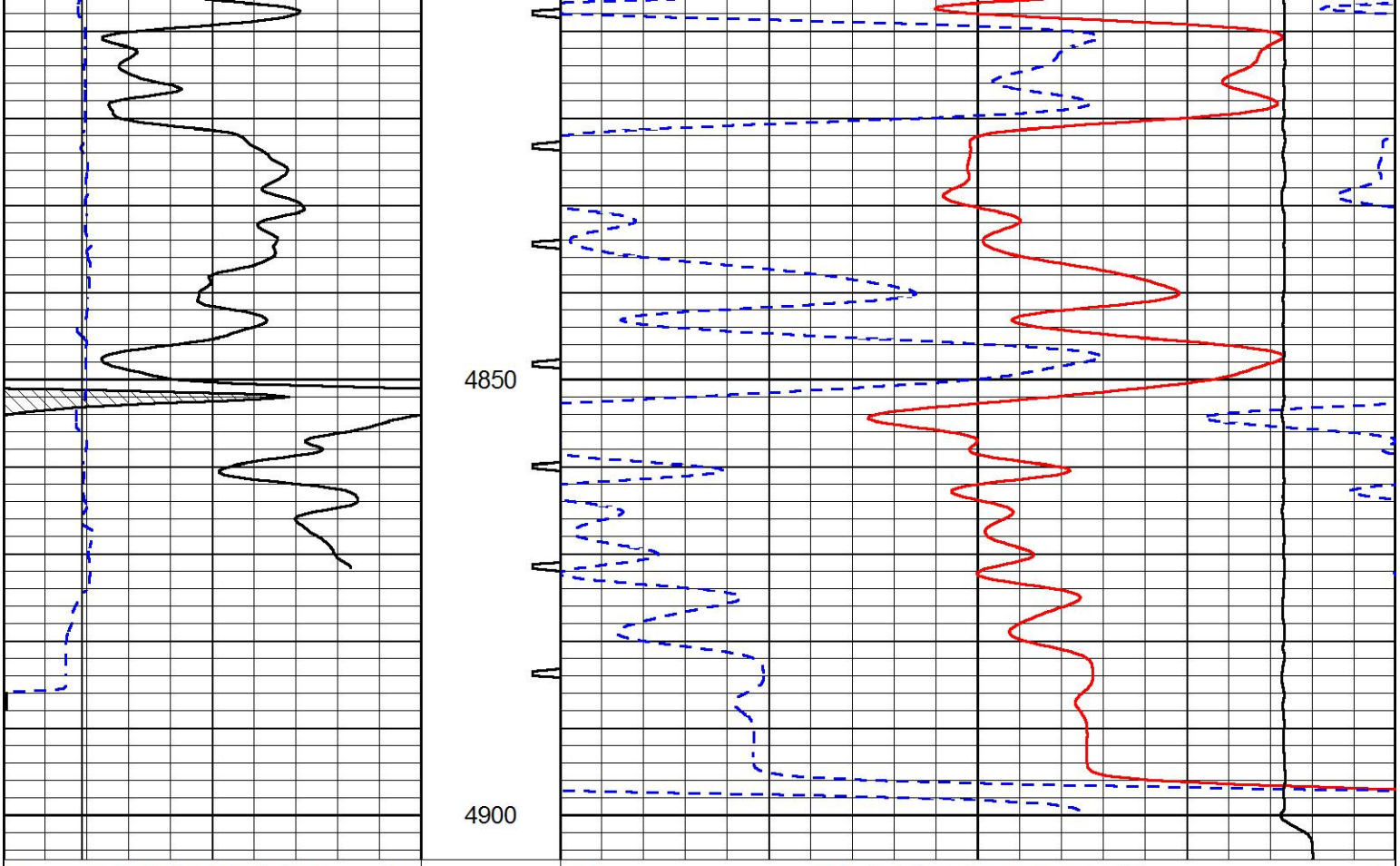

3750
3800
3850
3900


3950
4000
4050
4100


4150
4200
4250
4300
4350


4400
4450
4500
4550


4600
4650
4700
4750
4800



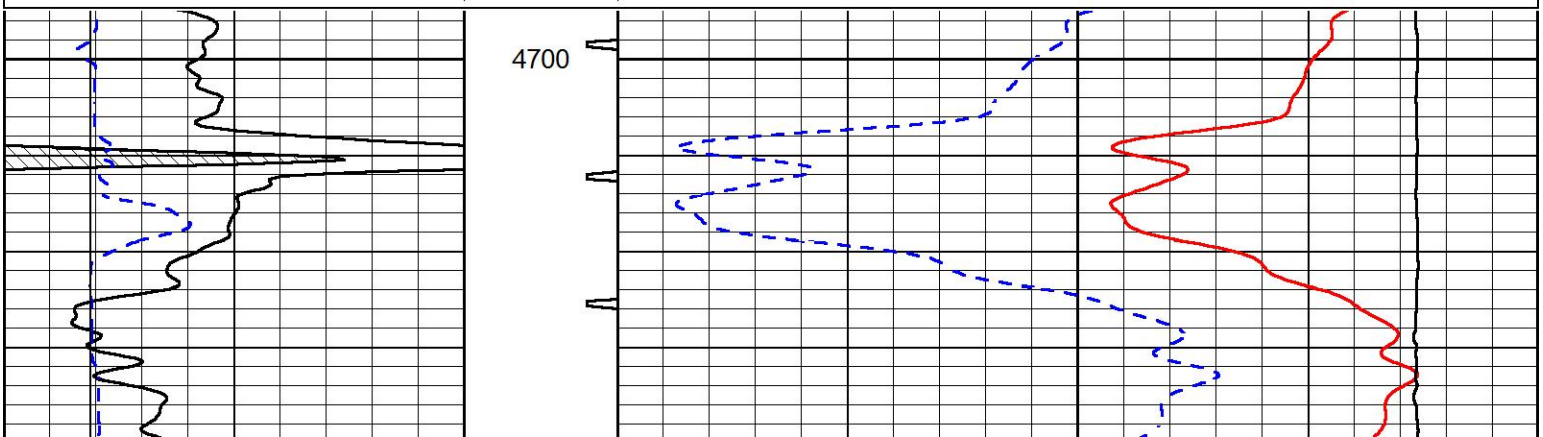
0	GAMMA RAY (GAPI)	150	SONIC INT	140	DELTA TIME (usec/ft) (usec/ft)	40
6	CALIPER (in)	16	TRAVEL TIME	30	SONIC POROSITY (pu)	-10
6	BIT SIZE	16	(msec)	15000	LINE TENSION (lb)	0

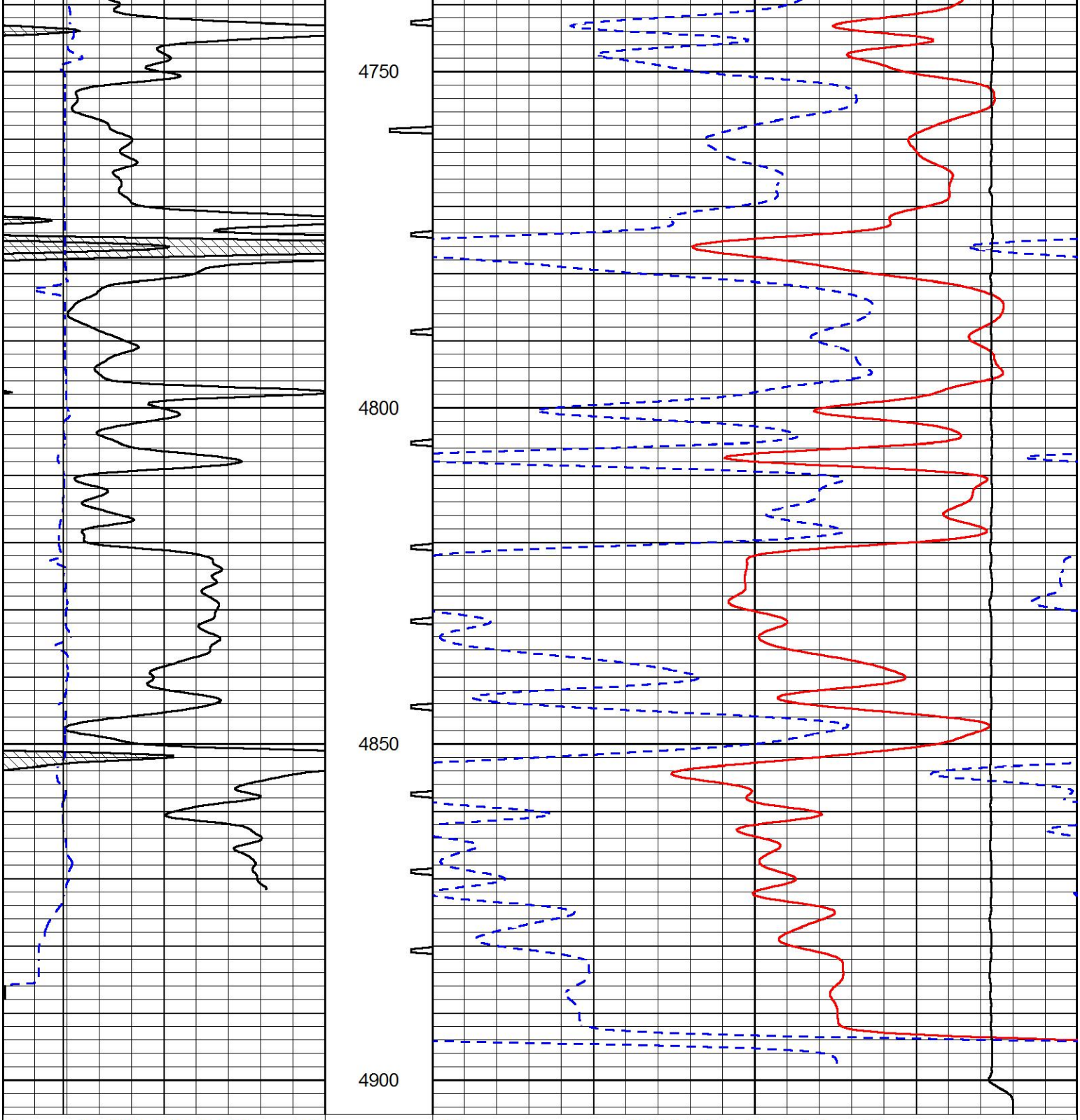
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REPEAT SECTION

Database File	murfin_mears b_#1-11.db
Dataset Pathname	stack/pass2.1
Presentation Format	sonic
Dataset Creation	Sat Jul 29 03:32:54 2017
Charted by	Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150	SONIC INT	140	DELTA TIME (usec/ft) (usec/ft)	40
6	CALIPER (in)	16	TRAVEL TIME	30	SONIC POROSITY (pu)	-10
6	BIT SIZE	16	(msec)	15000	LINE TENSION (lb)	0





0	GAMMA RAY (GAPI)	150	SONIC INT TRAVEL TIME (msec)	140 DELTA TIME (usec/ft) (usec/ft)	40
6	CALIPER (in)	16		30 SONIC POROSITY (pu)	-10
6	BIT SIZE	16		15000 LINE TENSION (lb)	0

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Well	MEARS B #1-11
Field	WILDCAT
County	CHEYENNE
State	KANSAS