DUAL INDUCTION LOG

Company LYNN PACKARD
Well PACKARD #3-22
Field NURSE
County BARBER State KANSAS

Location: API # : 15-007-24355-0000
2970' FSL & 1650' FEL
SE - SW - NE/4
SEC 22 TWP 31S RGE 13W

Other Services
CDL/CNL
MEL

Permanent Datum GROUND LEVEL Elevation 1609
Log Measured From KELLY BUSHING 12' A.G.L
Drilling Measured From KELLY BUSHING

Elevation
K.B. 1621
D.F. 1619
G.L. 1609

Date	9/8/19		
Run Number	ONE		
Depth Driller	4645		
Depth Logger	4626		
Bottom Logged Interval	4624		
Top Log Interval	00		
Casing Driller	8 5/8" @ 230'		
Casing Logger	228'		
Bit Size	7 7/8		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 5000 PPM	
Density / Viscosity	9.3/55		
pH / Fluid Loss	10.5/9.6		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	.80 @ 90F		
Rmf @ Meas. Temp	.60 @ 90F		
Rmc @ Meas. Temp	.96 @ 90F		
Source of Rmf / Rmc	MEASUREMENT		
Rm @ BHT	.59 @ 122F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom	////		
Maximum Recorded Temperature	122F		
Equipment Number	3802		
Location	HAYS, KANSAS		
Recorded By	JASON CAPPELLUCCI		
Witnessed By	ROGER MARTIN	LYNN PACKARD	

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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 ELI WIRELINE SERVICES, HAYS, KS. (785) 628-6395

DIRECTIONS

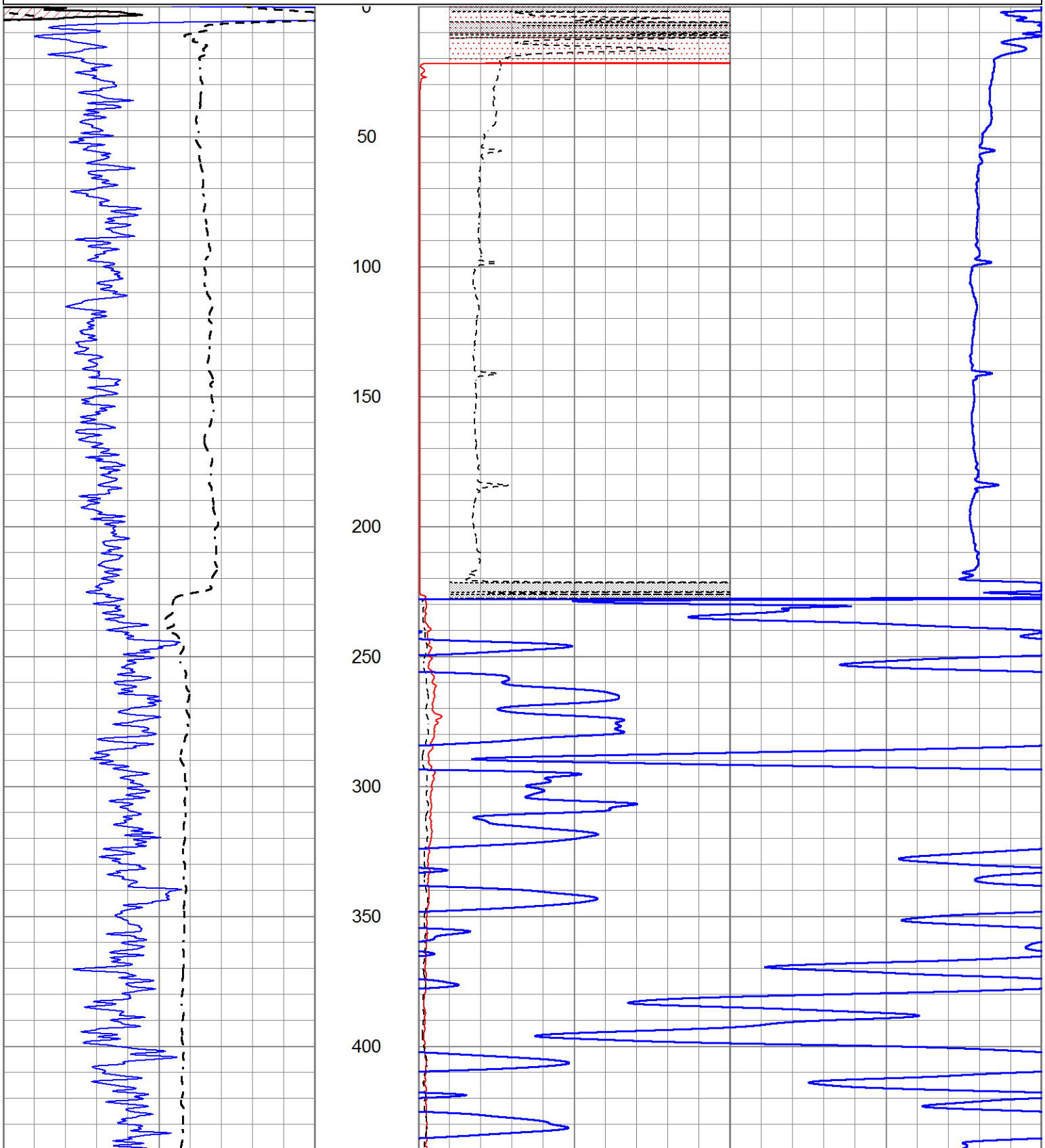
MEDICINE LODGE, KS. - 9 MILES WEST ON SUN CITY BLACKTOP
1/2 MILE NORTH INTO

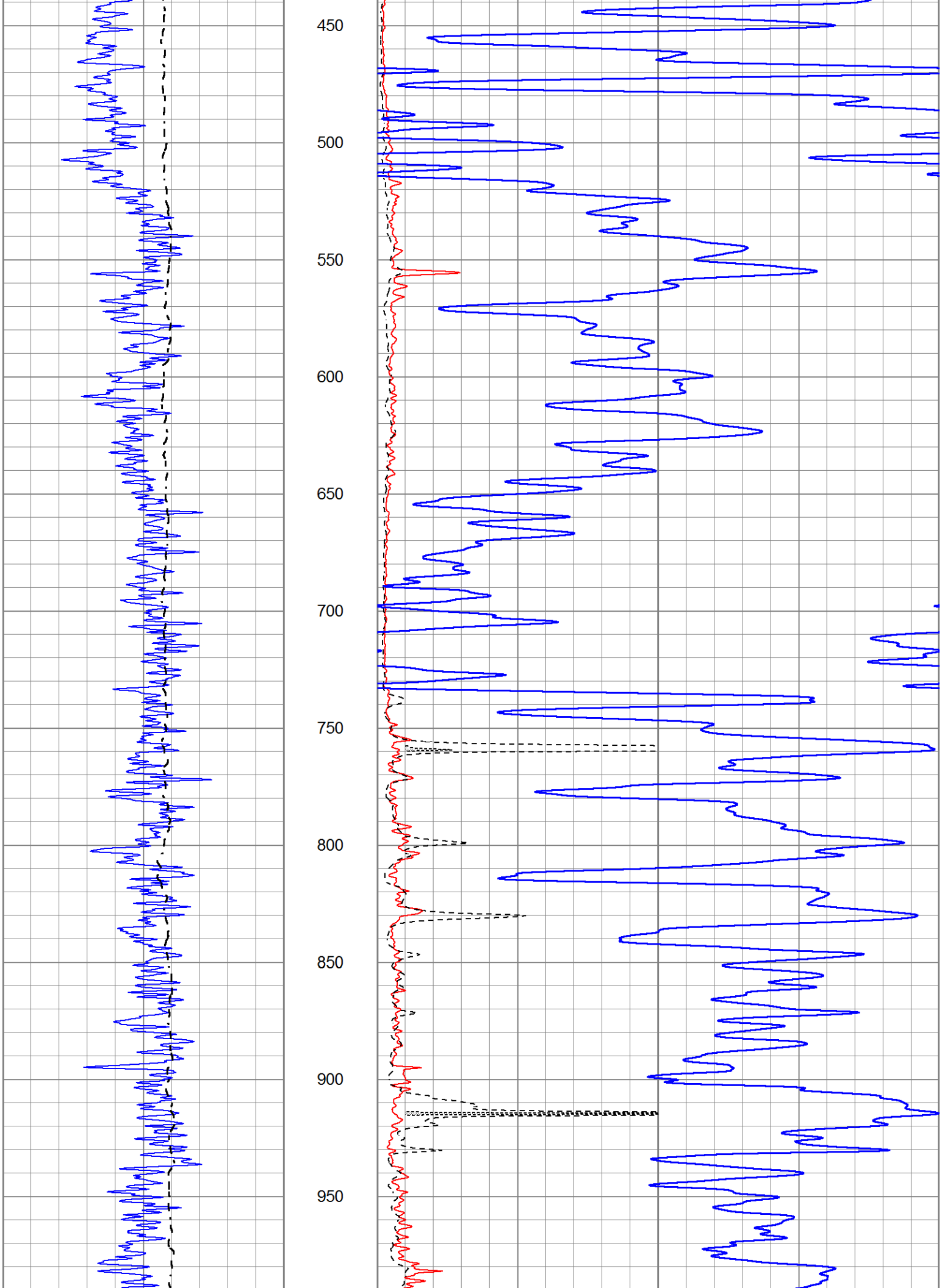
MAIN SECTION

Database File	3991ddn8.db
Dataset Pathname	pass4.2
Presentation Format	_dil2
Dataset Creation	Sun Sep 08 10:58:33 2019
Charted by	Depth in Feet scaled 1:600

0	Gamma Ray (GAPI)	150
-100	SP (mV)	100

1000	CILD (mmho/m)	0
0	RLL3 (Ohm-m)	50
0	Deep Induction (Ohm-m)	50
50	RILD X10 (Ohm-m)	500
50	RLL3 X10 (Ohm-m)	500

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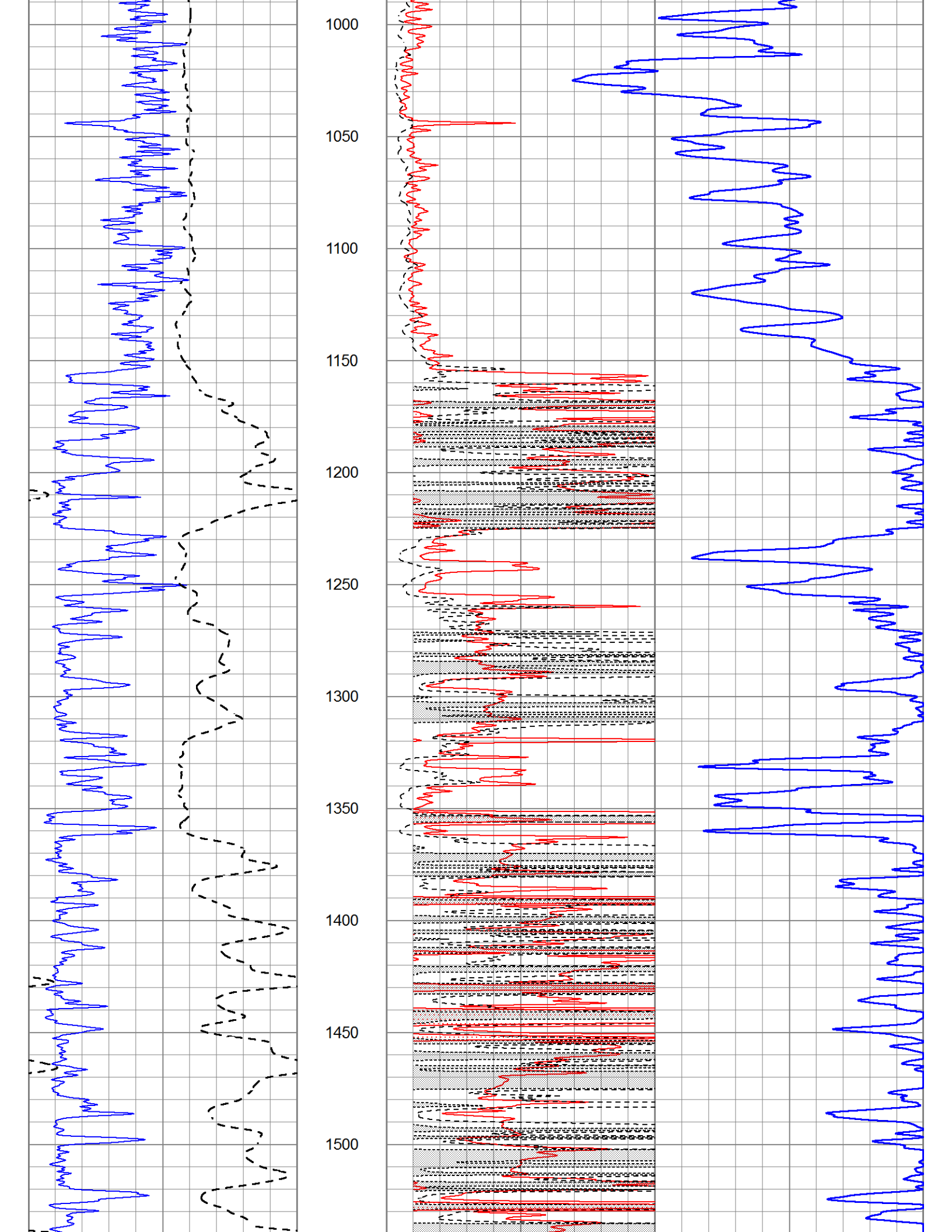
950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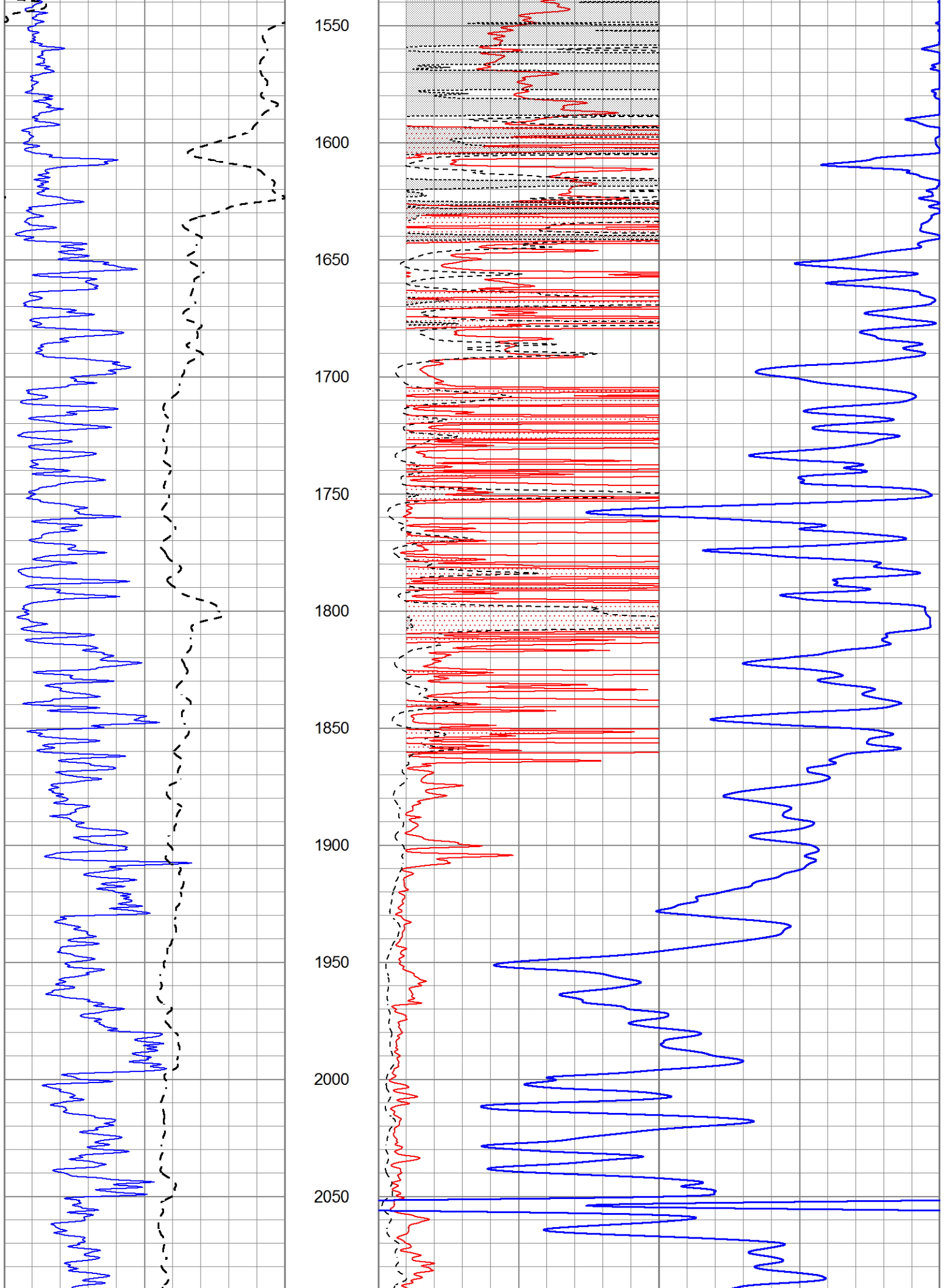
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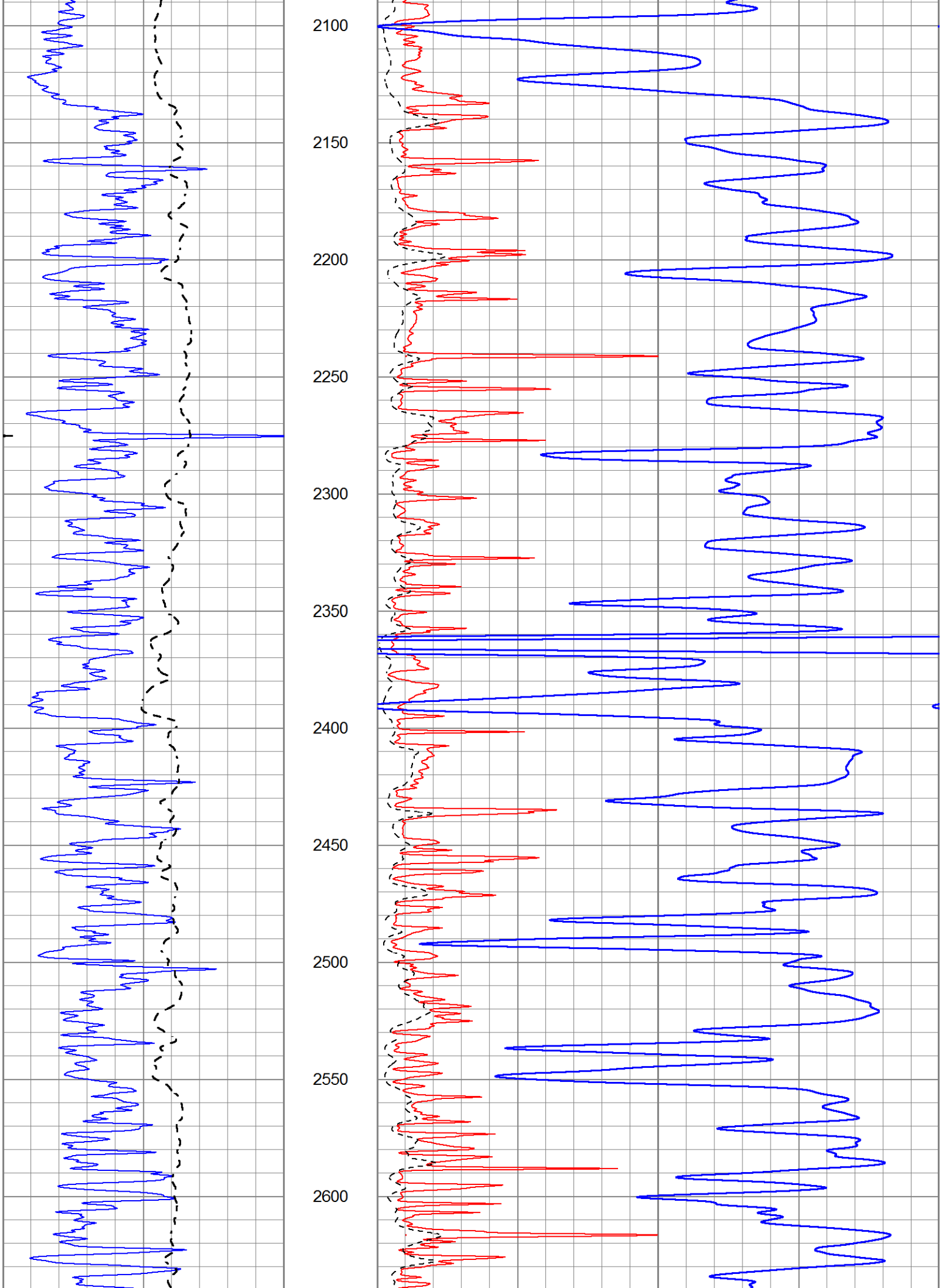
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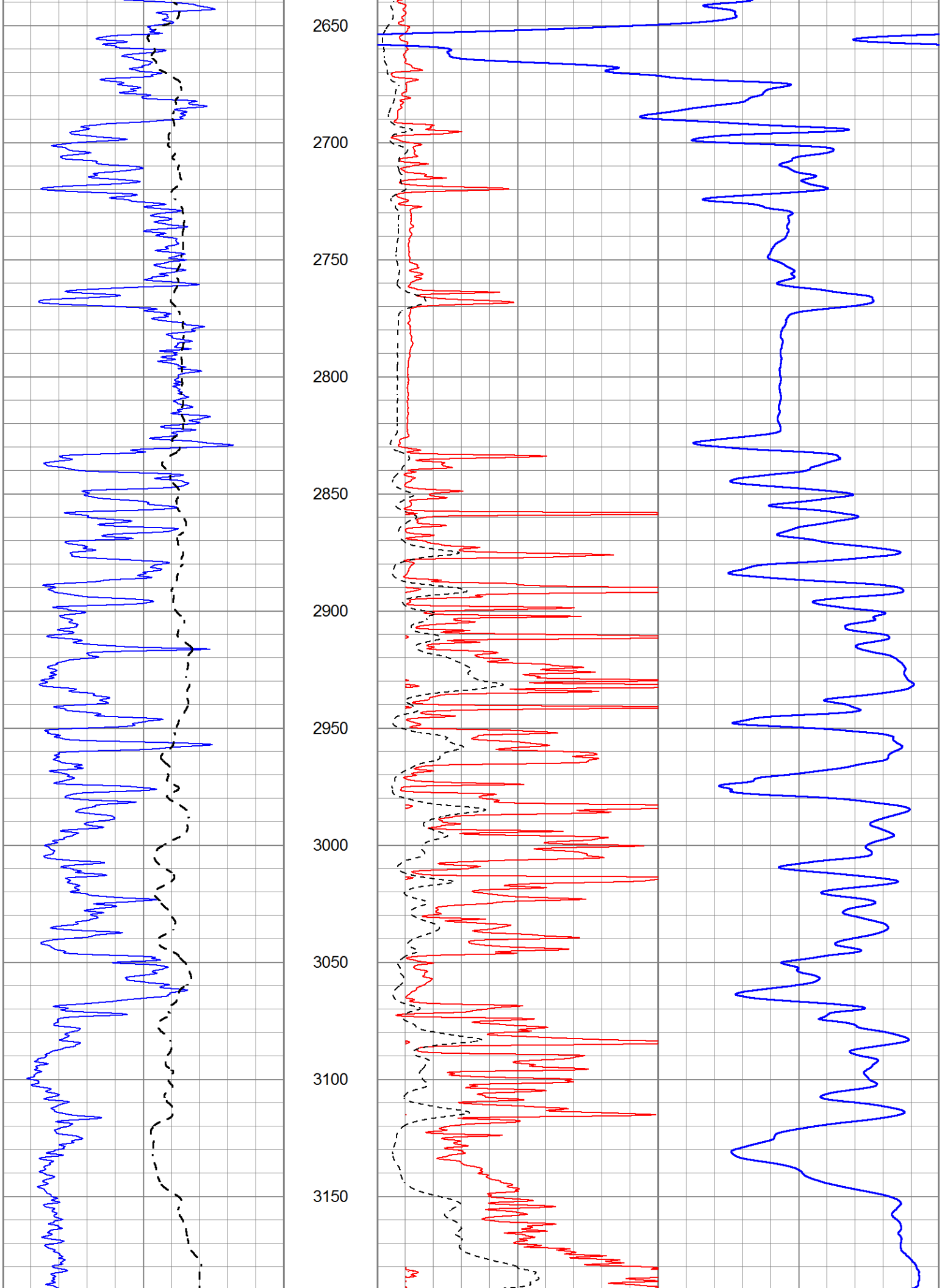
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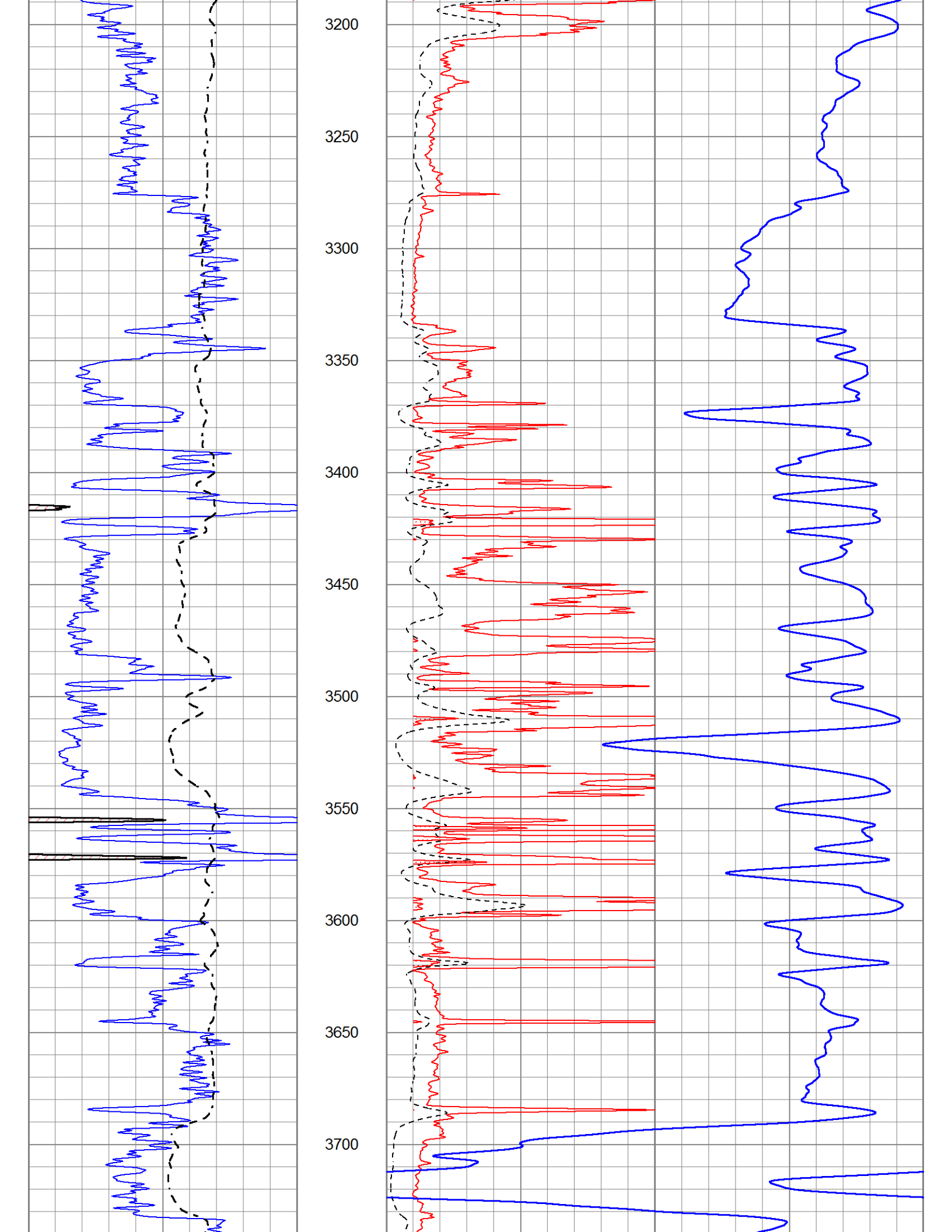
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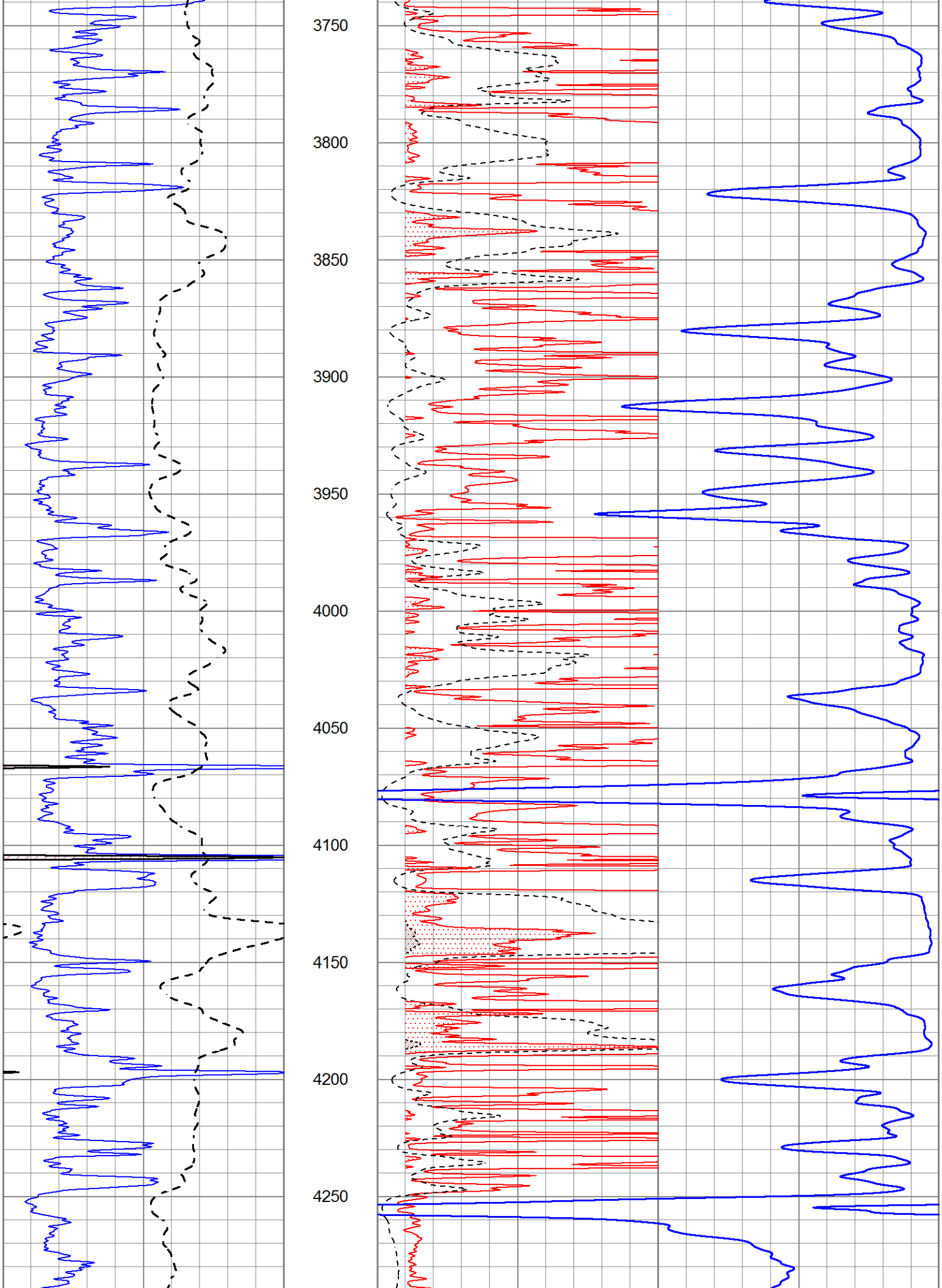
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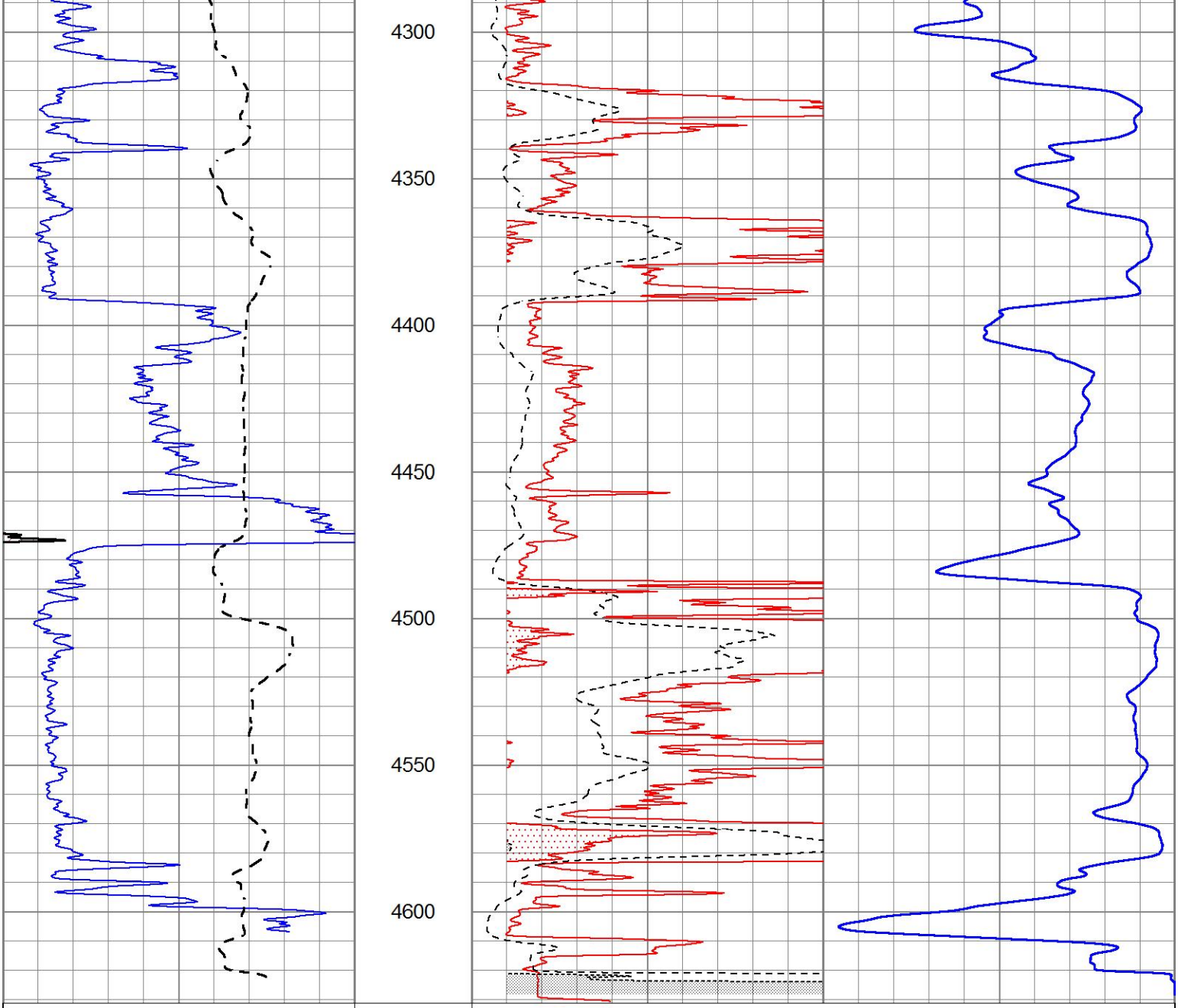
4250



0	Gamma Ray (GAPI)	150
-100	SP (mV)	100

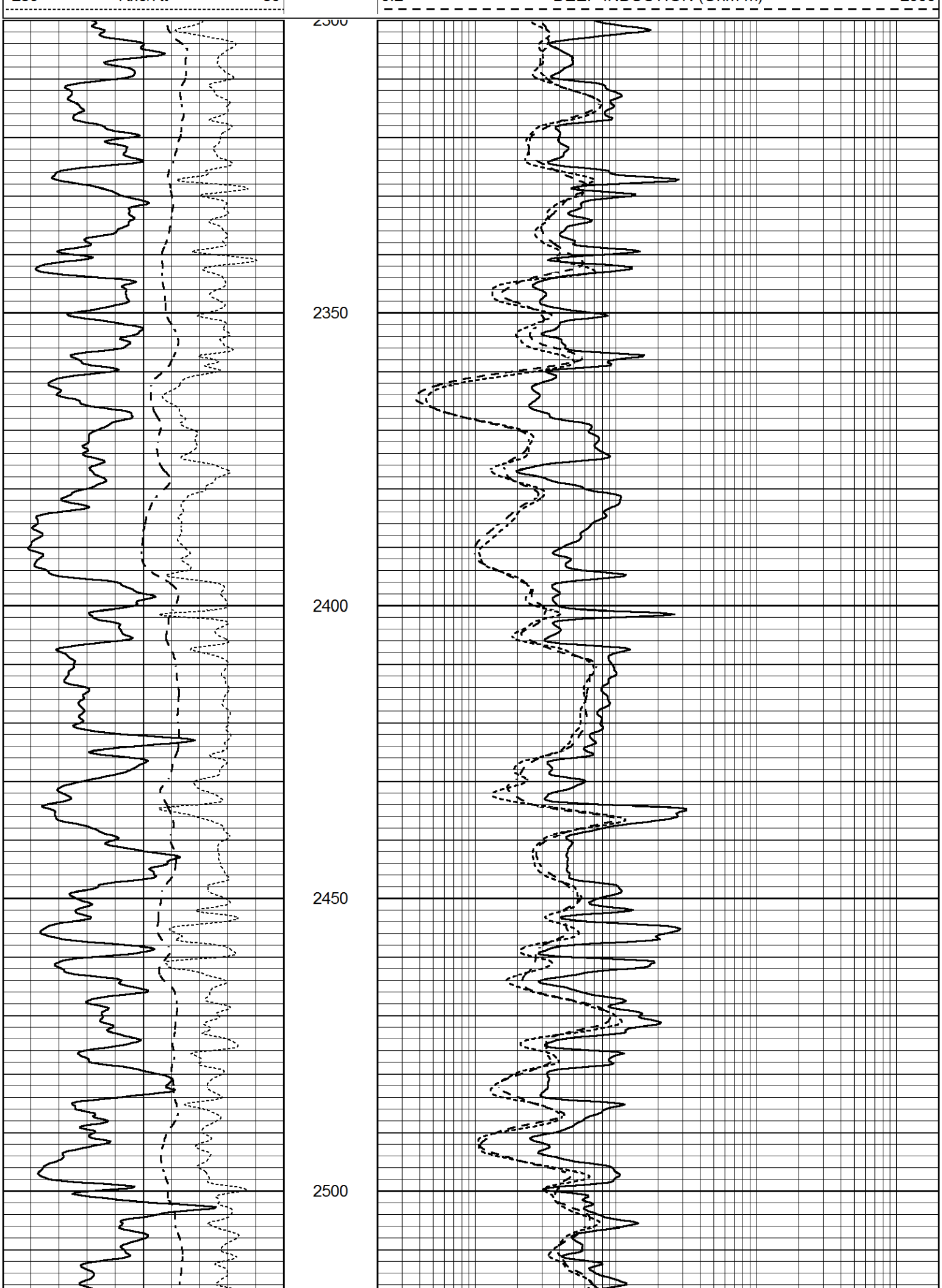
1000	CILD (mmho/m)	0
0	RLL3 (Ohm-m)	50
0	Deep Induction (Ohm-m)	50
50	RILD X10 (Ohm-m)	500
50	RLL3 X10 (Ohm-m)	500

MAIN SECTION

Database File	3991ddn8.db
Dataset Pathname	pass4.1
Presentation Format	_dil
Dataset Creation	Sun Sep 08 10:55:07 2019
Charted by	Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50

0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000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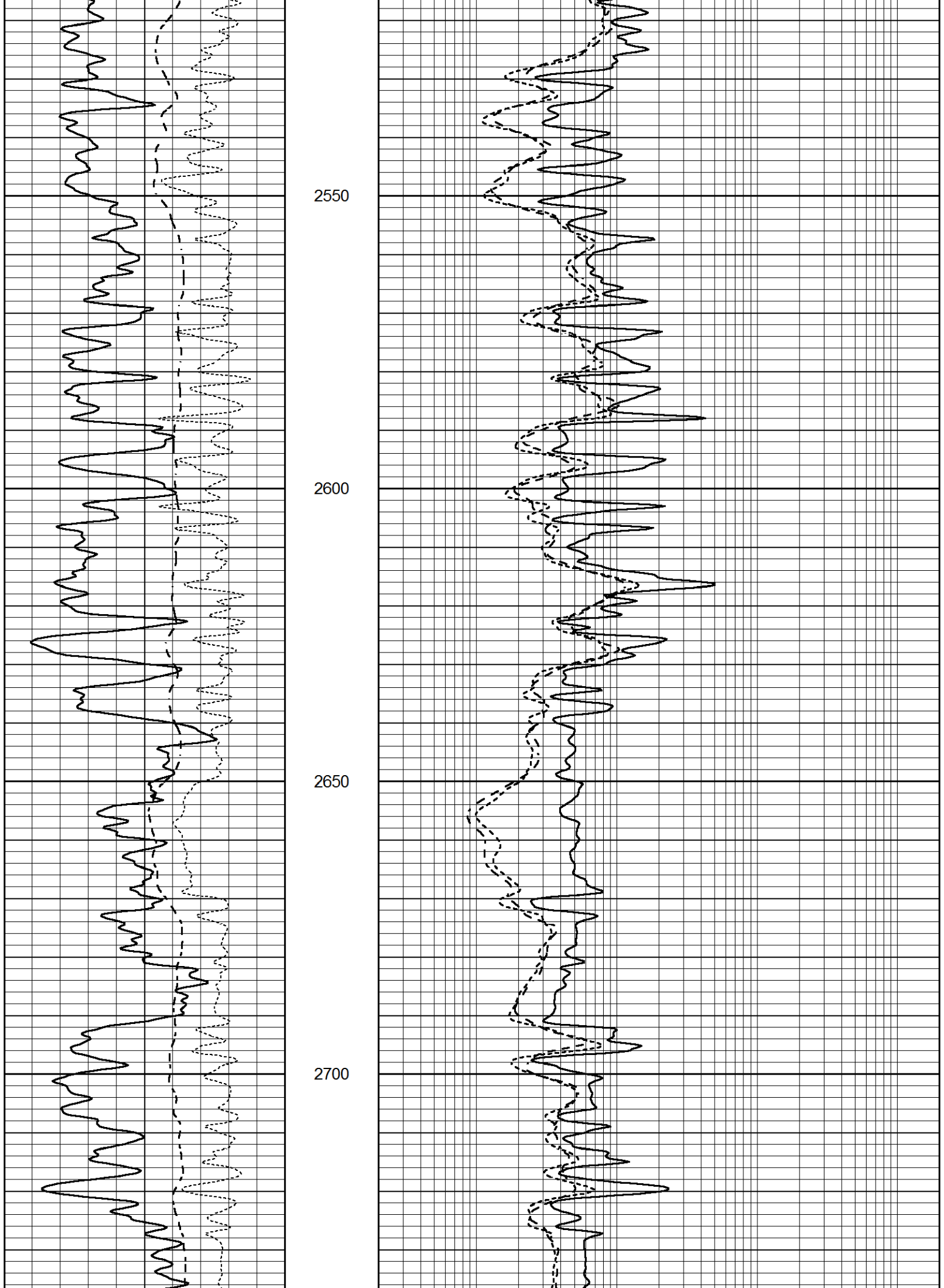
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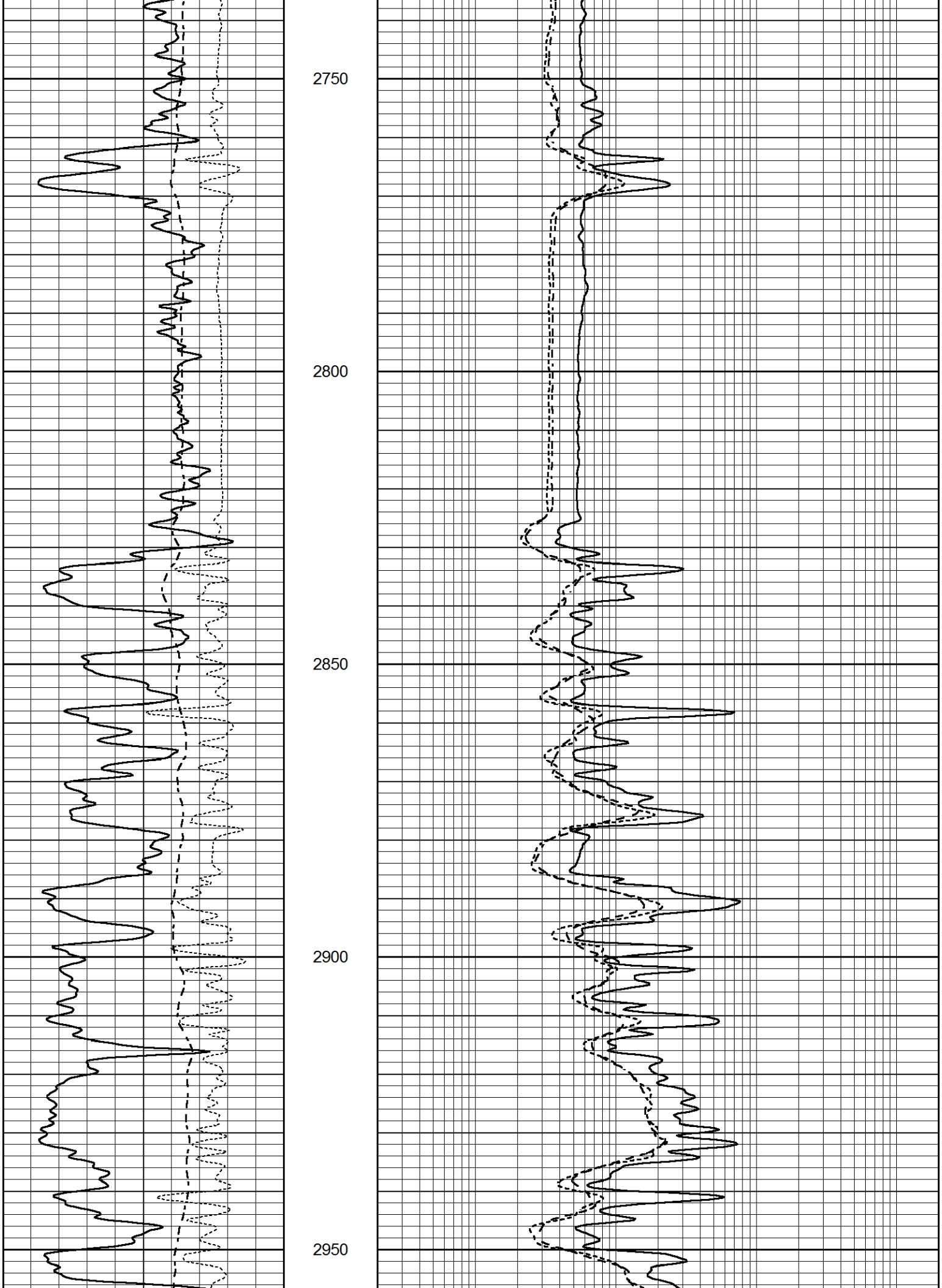
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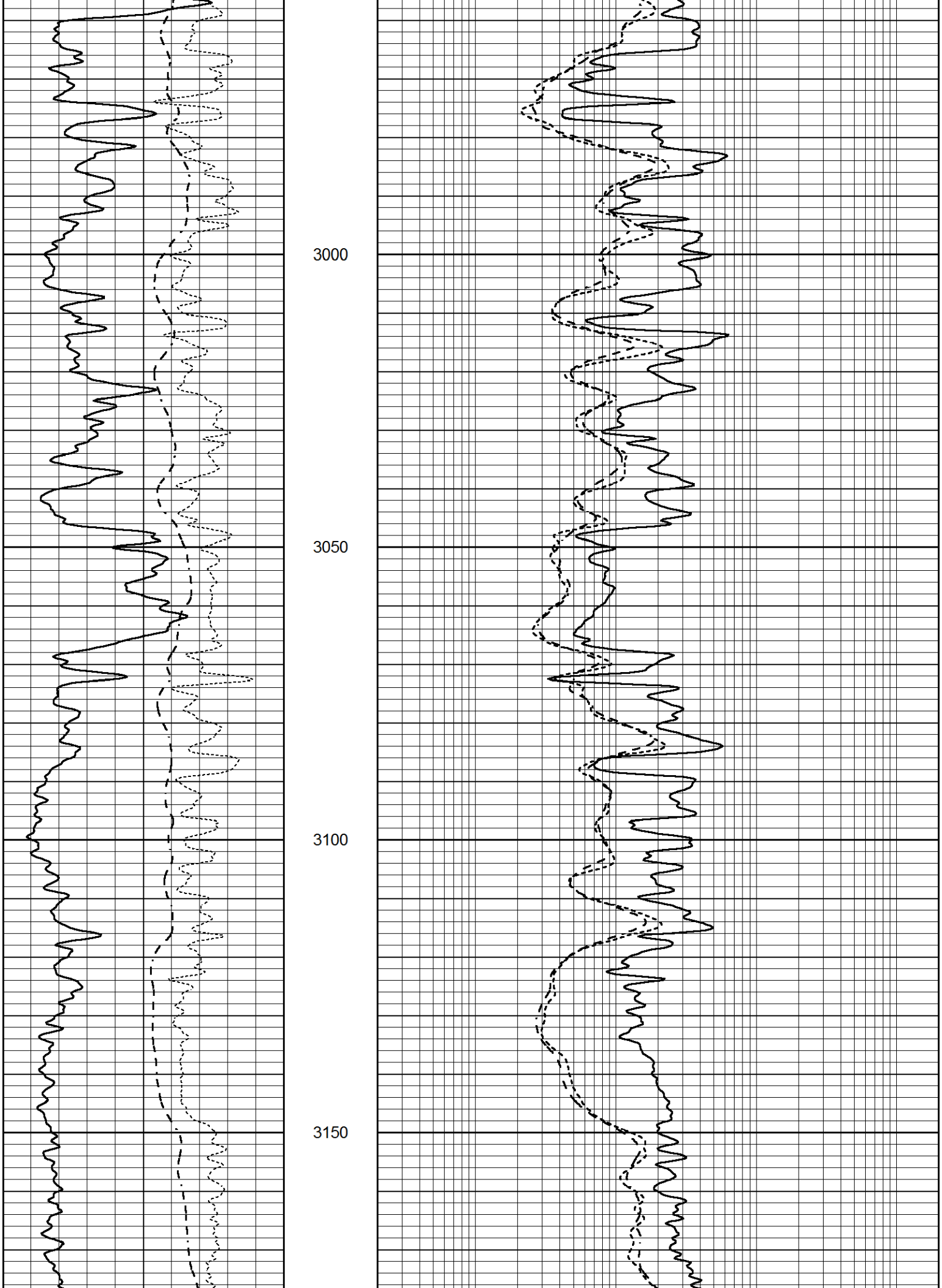
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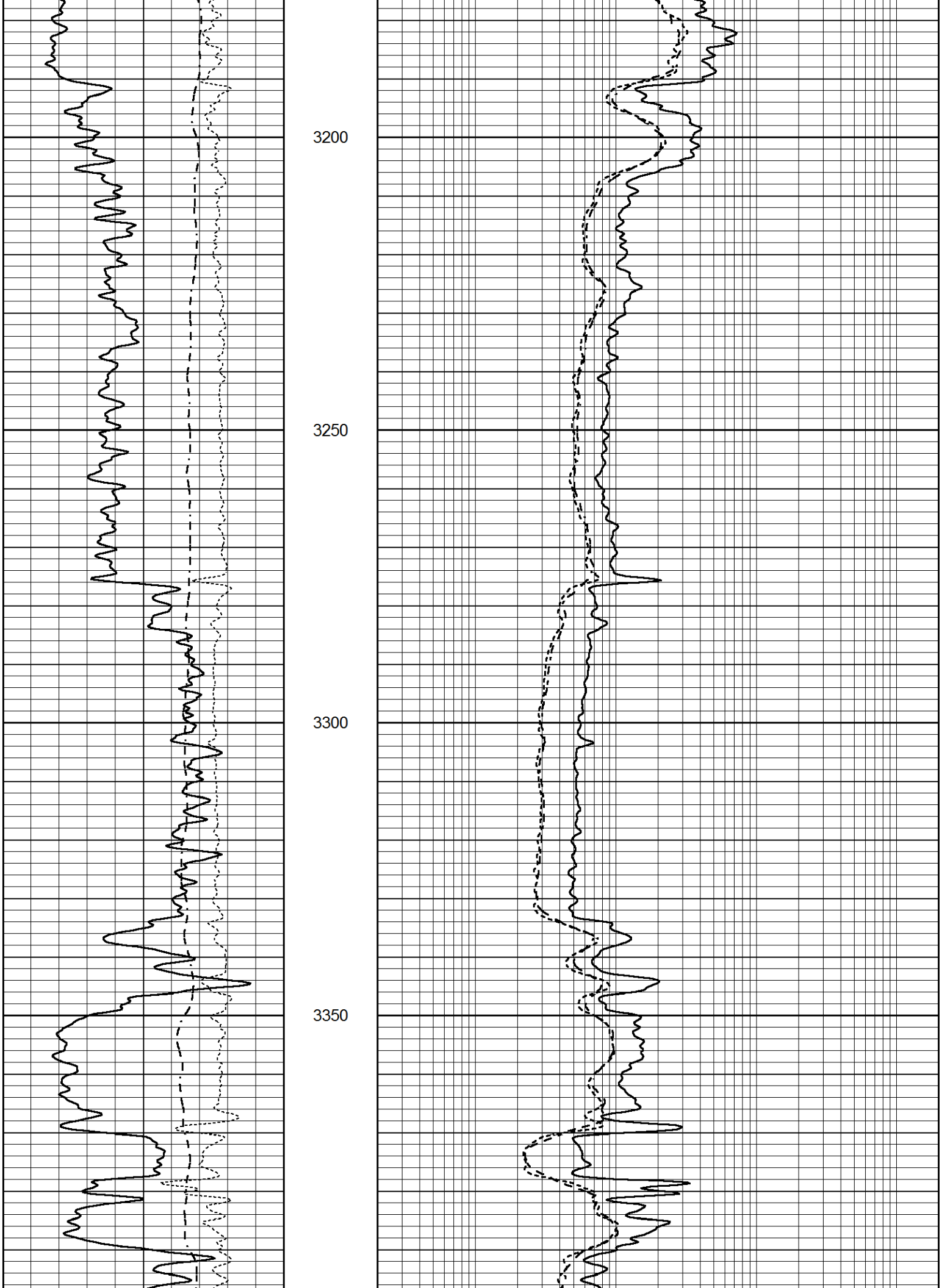
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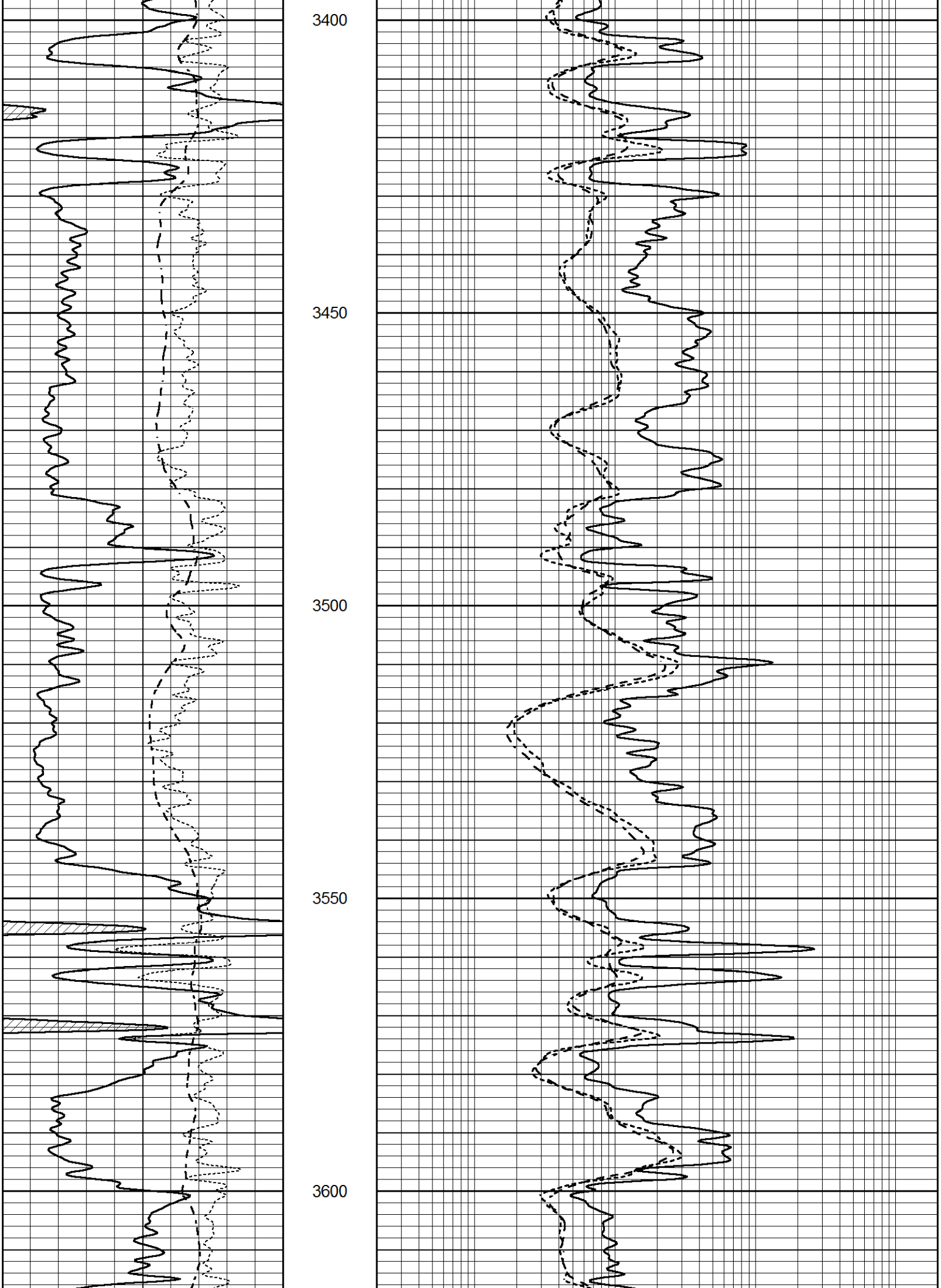
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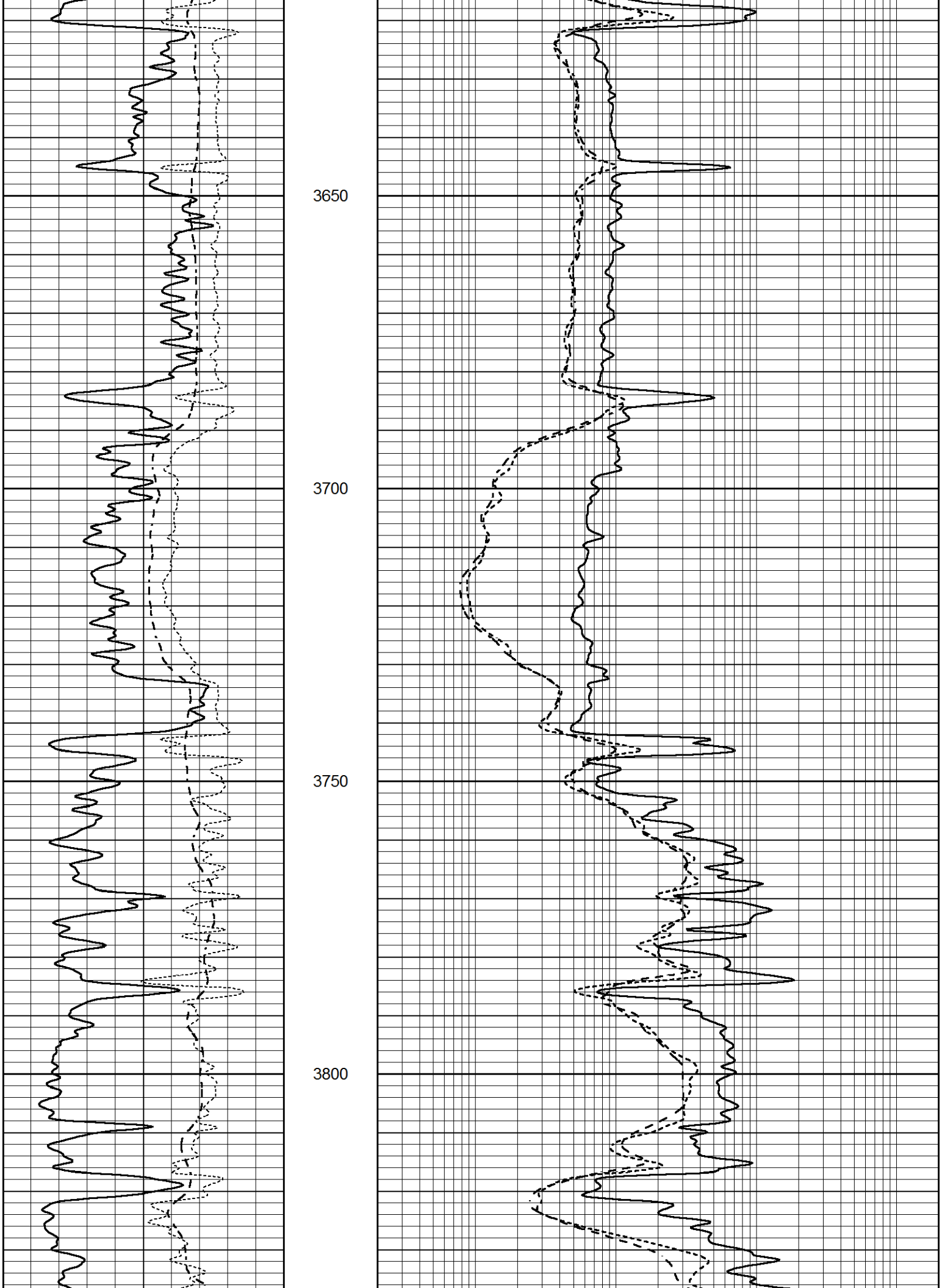
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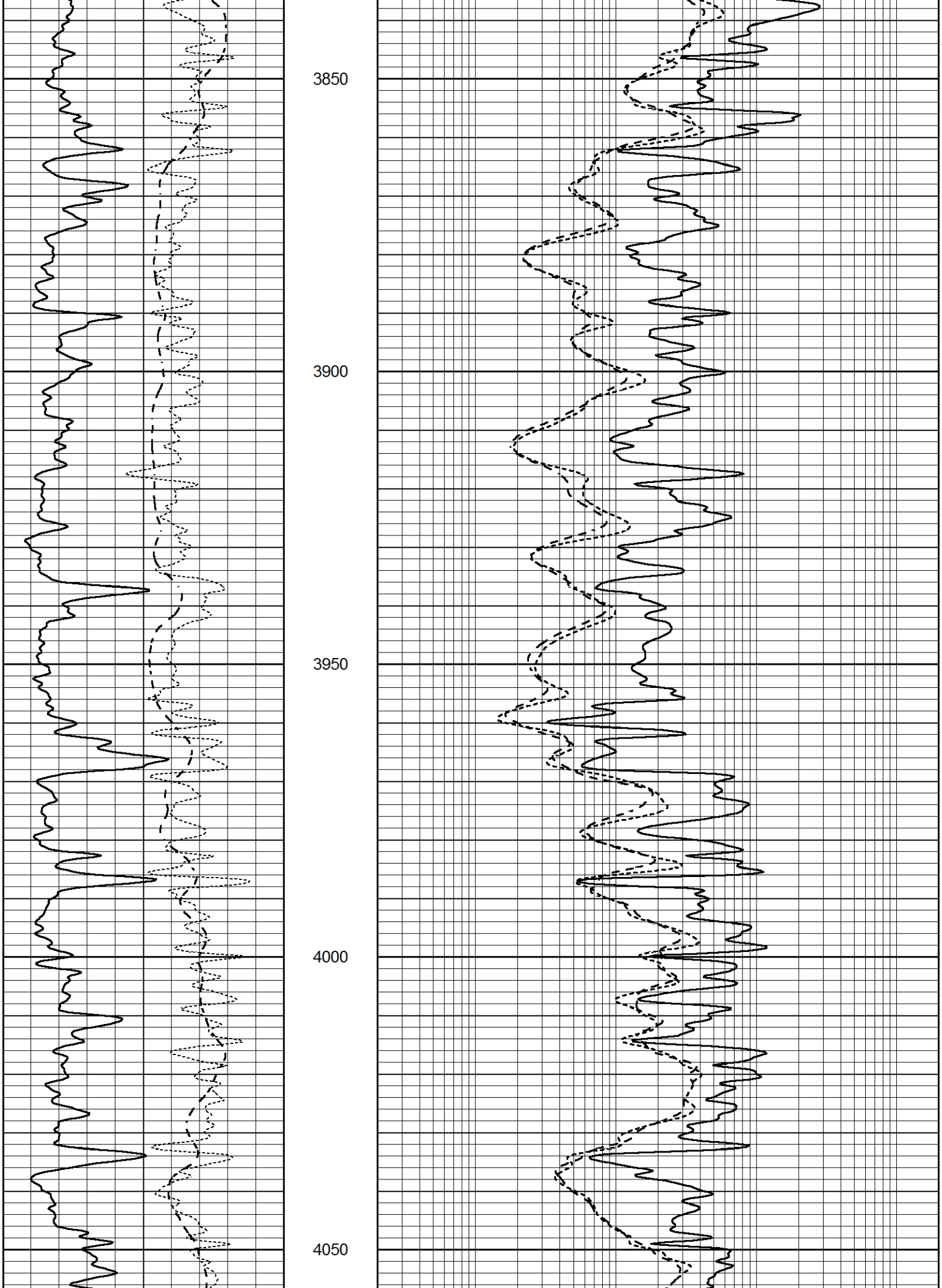
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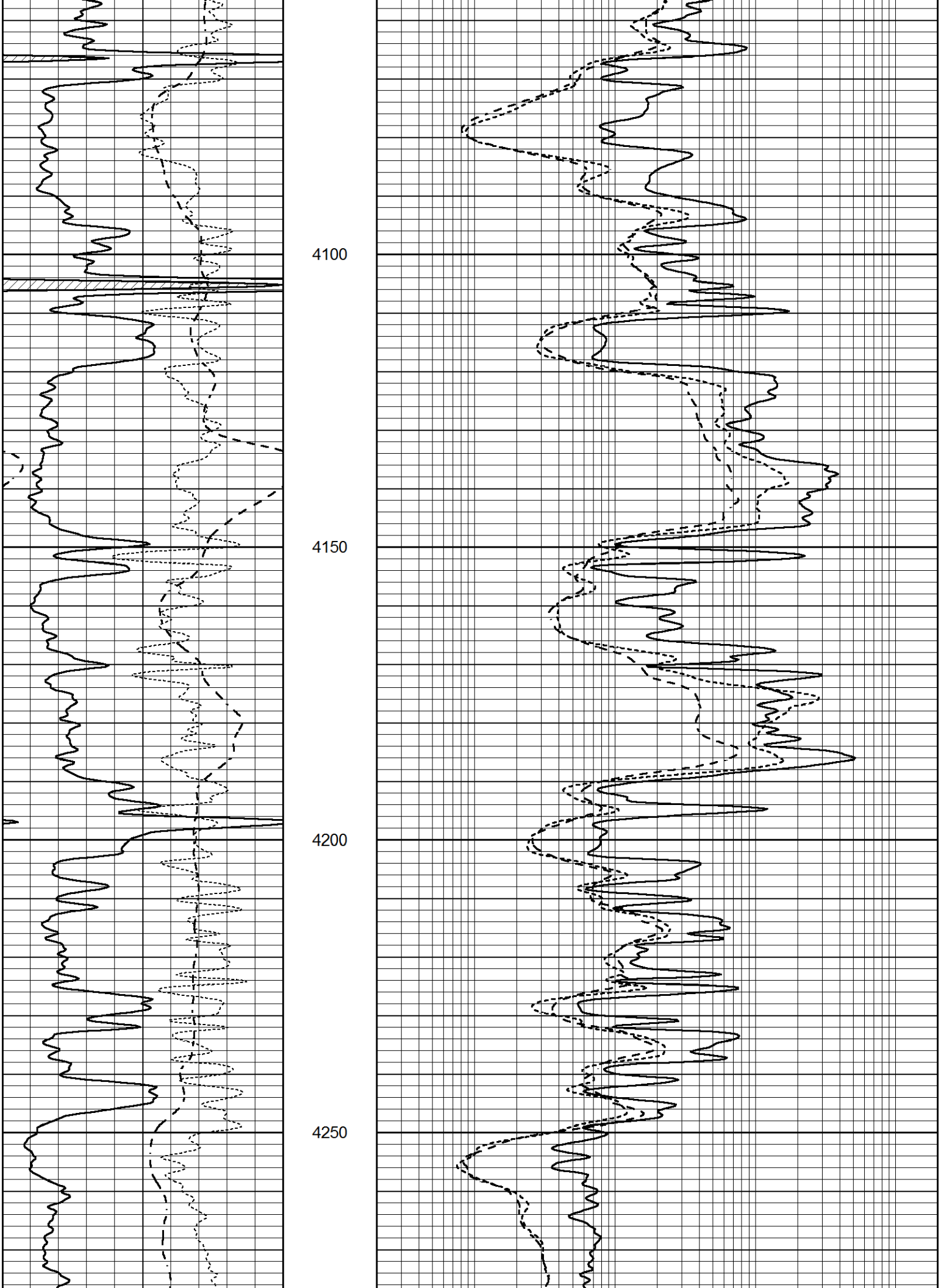
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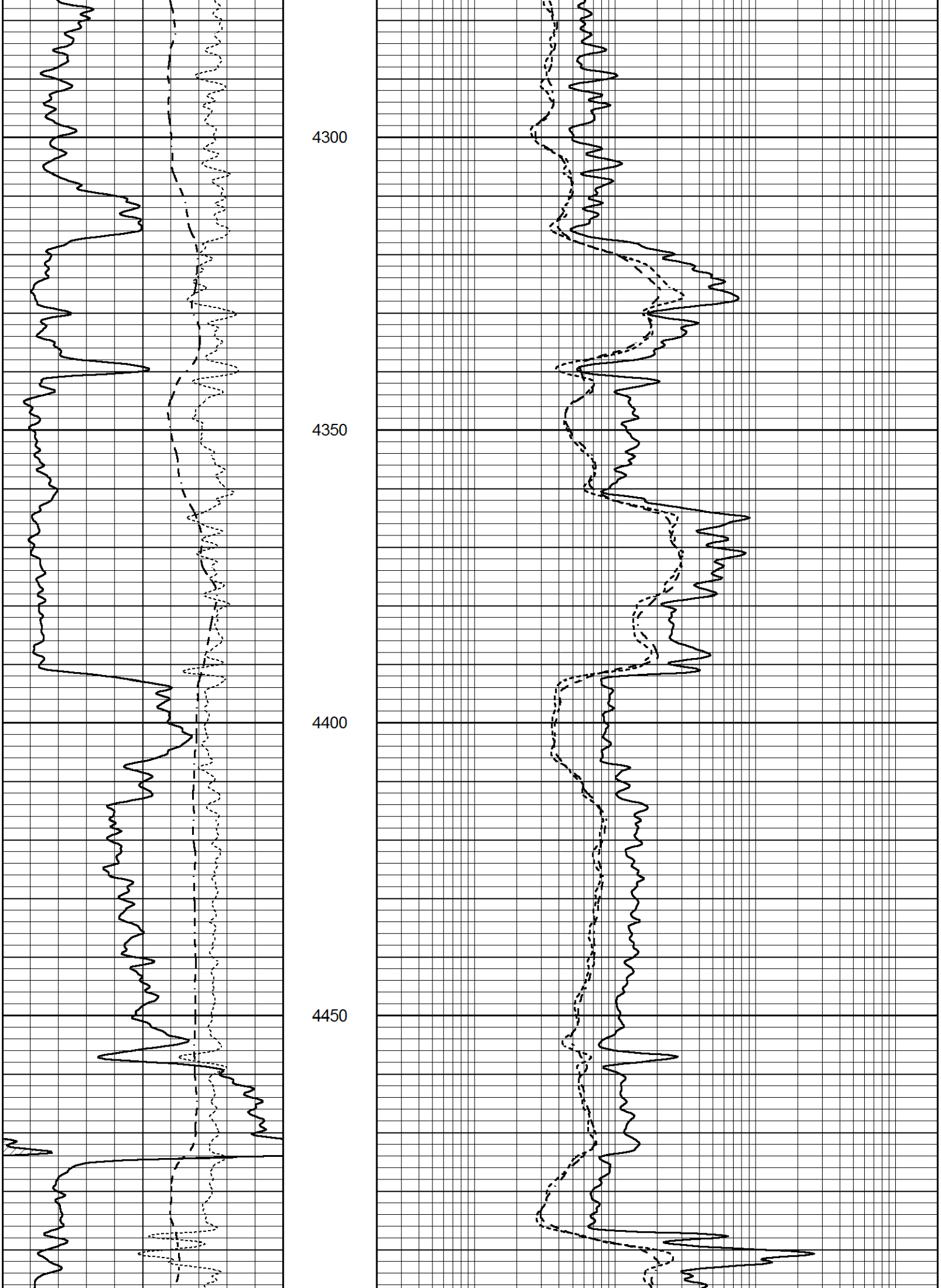
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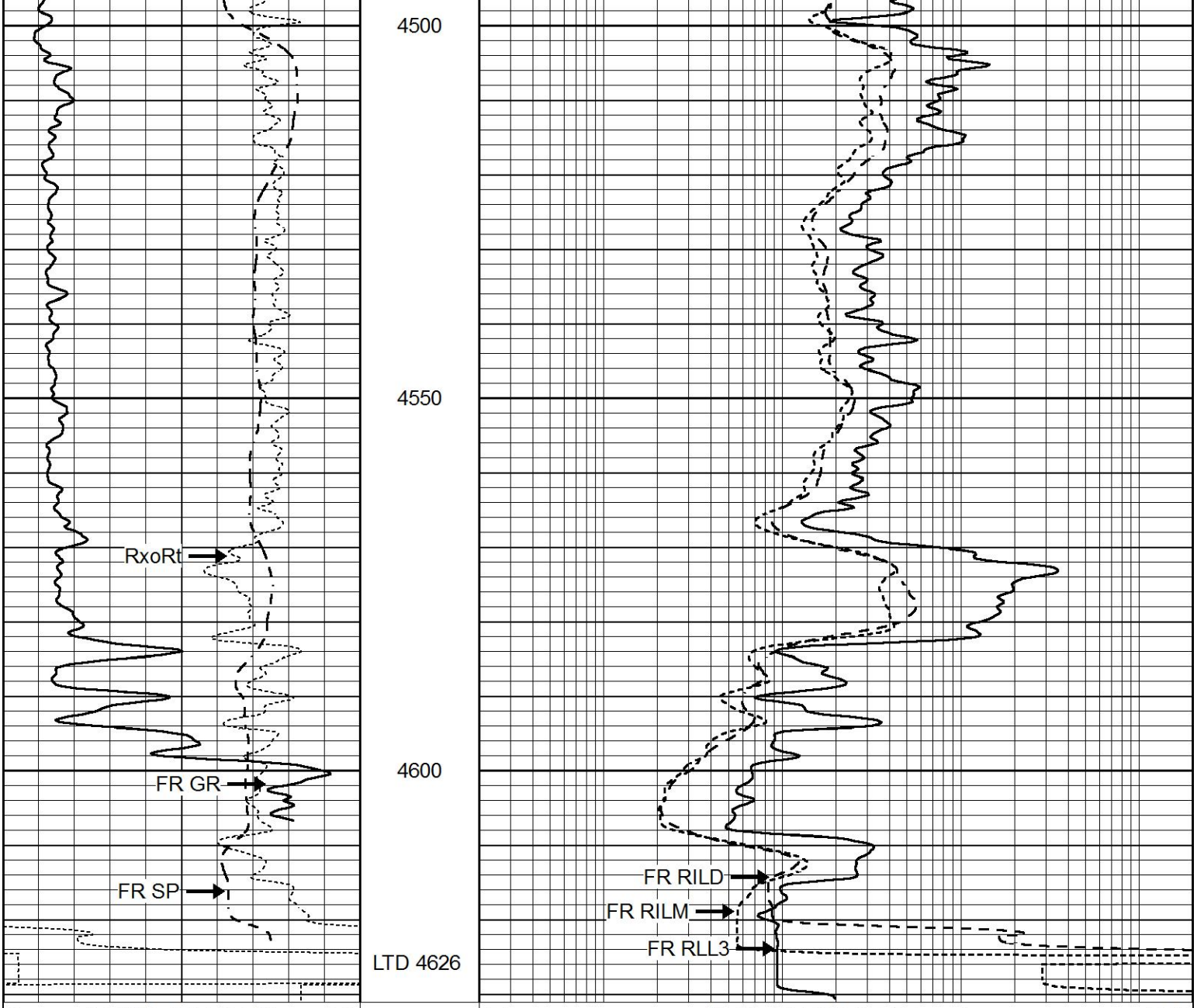
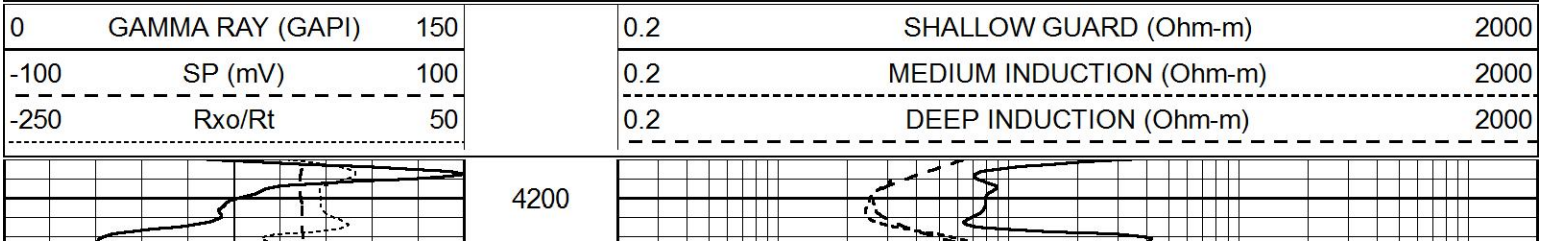
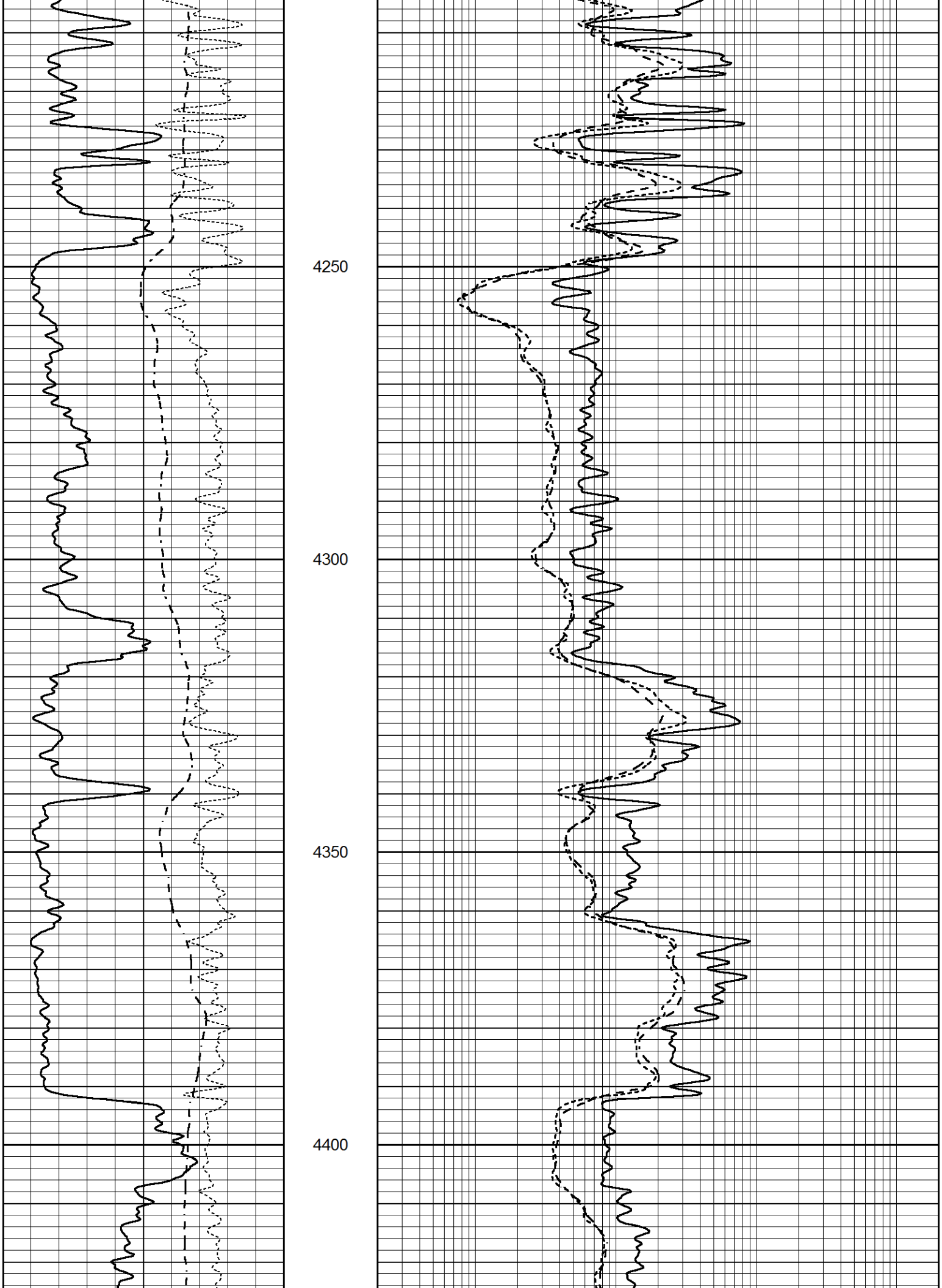


REPEAT SECTION

Database File	3991ddn8.db
Dataset Pathname	pass3.1
Presentation Format	_dil
Dataset Creation	Sun Sep 08 08:54:44 2019
Charted by	Depth in Feet scaled 1:240

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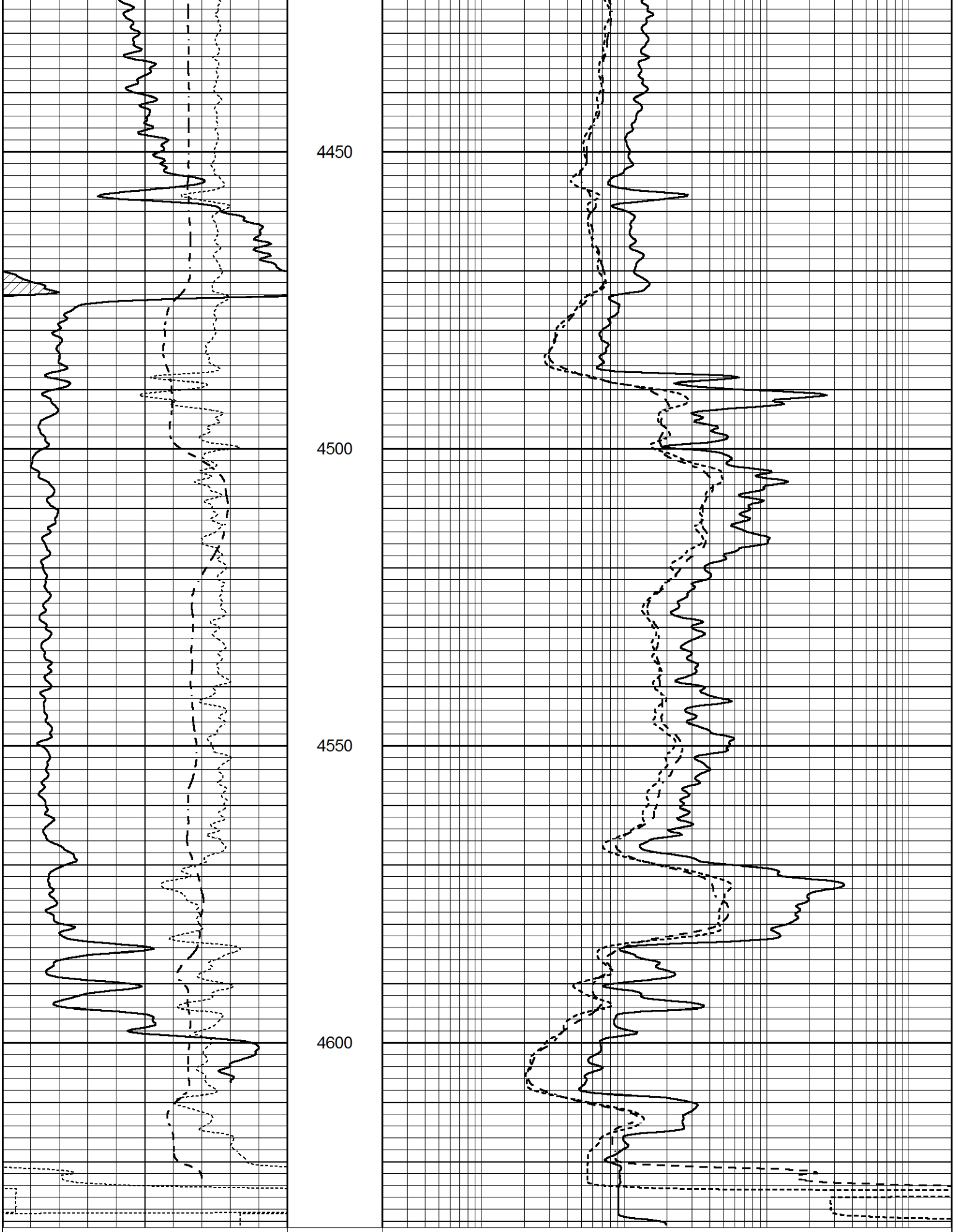
4450
4500
4550
4600
0 GAMMA RAY (GAPI) 150
-100 SP (mV) 100
-250 Rxo/Rt 50
0.2 SHALLOW GUARD (Ohm-m) 2000
0.2 MEDIUM INDUCTION (Ohm-m) 2000
0.2 DEEP INDUCTION (Ohm-m) 2000

Calibration Report

Database File 3991ddn8.db
Dataset Pathname pass4.1
Dataset Creation Sun Sep 08 10:55:07 2019

Dual Induction Calibration Report

Serial-Model: FW1410-55-Probe
Surface Cal Performed: Tue Feb 19 11:44:18 2019
Downhole Cal Performed: Tue Feb 19 11:44:24 2019
After Survey Verification Performed: Tue Feb 19 11:44:27 2019

Surface Calibration

	Readings			References			Results	
Loop:	Air	Loop		Air	Loop		m	b
Deep	0.011	0.656	V	1.000	400.000	mmho/m	618.595	-5.524
Medium	-0.000	0.731	V	1.000	464.000	mmho/m	632.856	1.197
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.007	0.649	V	0.000	400.000	mmho/m	623.784	-4.595
Medium	0.004	0.743	V	0.000	464.000	mmho/m	627.284	-2.251

Downhole Calibration

	Readings			References			Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	-0.824	395.917	mmho/m	-0.976	397.550	mmho/m	1.004	-0.149
Medium	3.565	471.327	mmho/m	3.468	471.590	mmho/m	1.001	-0.099
LL3		7.503	V		1500.000	Ohm-m		
		0.001	V		20.000	Ohm-m		
		-7.481	V		3745.000	mmho-m		

After Survey Verification

	Readings			Targets			Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	0.000	0.000	mmho/m	-0.824	395.917	mmho/m	1.000	0.000
Medium	0.000	0.000	mmho/m	3.565	471.327	mmho/m	1.000	0.000
LL3		0.000	Ohm-m		1500.000	Ohm-m		
		0.000	Ohm-m		20.000	Ohm-m		
		0.000	mmho-m		3745.000	mmho-m		

Gamma Ray Calibration Report

Serial Number: 7
Tool Model: Probe1
Performed: Tue Feb 19 11:45:10 2019

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps
Calibrator Reading: 1.0 cps

Sensitivity: 0.4300 GAPI/cps