DUAL INDUCTION LOG

Company L.D. DRILLING. INC.
Well KAUK #3-17
Field MORGAN
County THOMAS State KANSAS

Company L.D. DRILLING. INC.
Well KAUK #3-17
Field MORGAN
County THOMAS
State KANSAS

Location: API # : 15-193-21081-0000

1915' FNL & 1650' FWL

SEC 17 TWP 8S RGE 34W

Other Services
CDL/CNL
ML

Elevation
K.B. 3221
D.F. 3219
G.L. 3216

Permanent Datum	GROUND LEVEL Elevation	3216
Log Measured From	KELLY BUSHING 5' A.G.L.	
Drilling Measured From	KELLY BUSHING	

Date	1/27/21		
Run Number	ONE		
Depth Driller	5324		
Depth Logger	5325		
Bottom Logged Interval	5324		
Top Log Interval	00		
Casing Driller	8 5/8" @ 326		
Casing Logger	326		
Bit Size	7 7/8"		
Type Fluid in Hole	CHEMICAL MUD		
Density / Viscosity	8.9/63		
pH / Fluid Loss	10.5/6.4		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	1.4@ 60F		
Rmf @ Meas. Temp	1.05@ 60F		
Rmc @ Meas. Temp	1.68 @ 60F		
Source of Rmf / Rmc	MEASURED		
Rm @ BHT	.65@ 128F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom	////		
Maximum Recorded Temperature	128F		
Equipment Number	1523		
Location	HAYS, KANSAS		
Recorded By	GUS PFANENSTIEL		
Witnessed By	KIM SHOEMAKER		

<<< Fold Here >>>

Comments

THANK YOU FOR USING ELI WIRELINE, HAYS, KS. (785) 628-6395

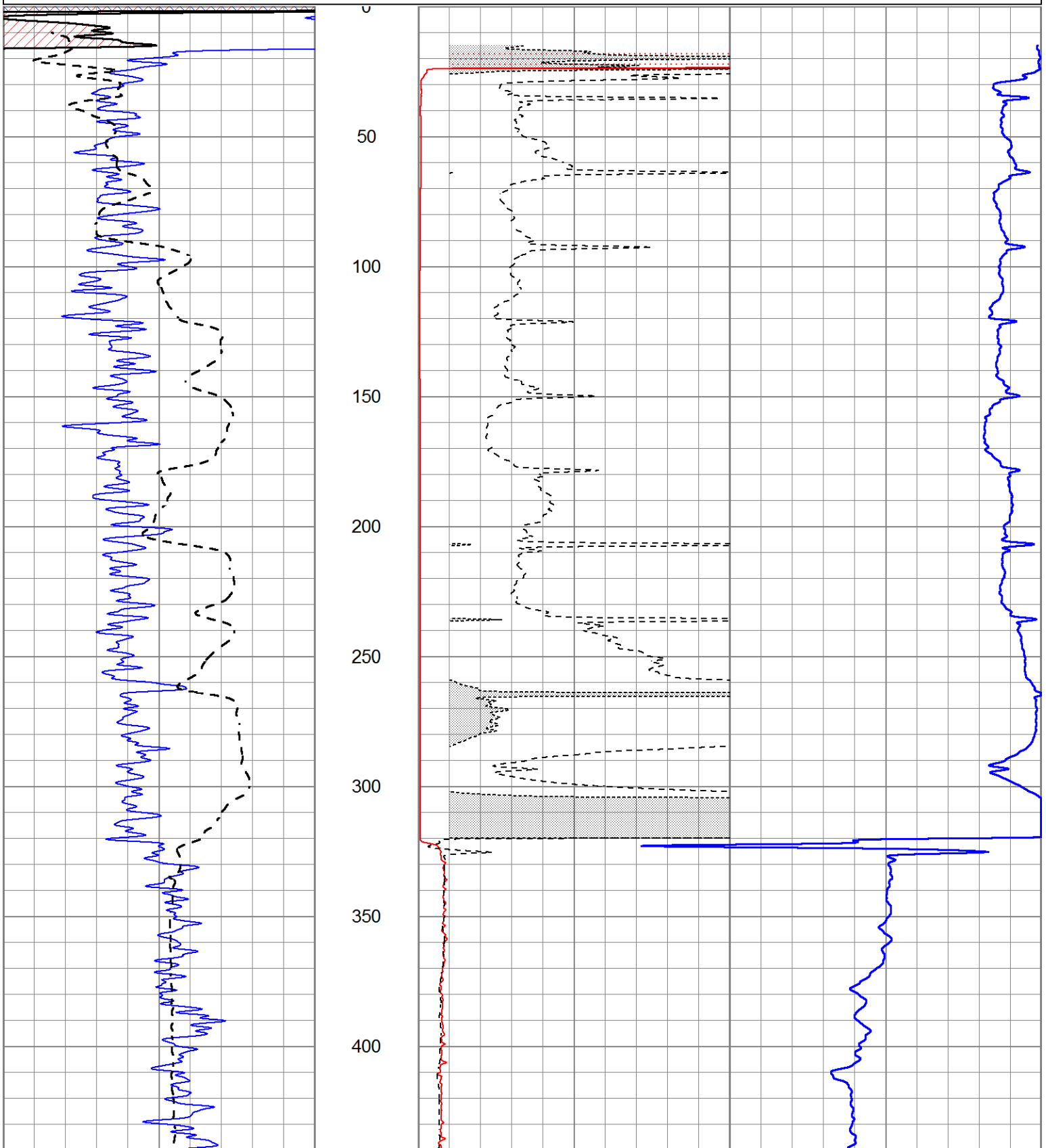
DIRECTIONS: LEVANT 3 EAST TO ROAD 15, SOUTH OVER INTERSTATE, WEST INTO.

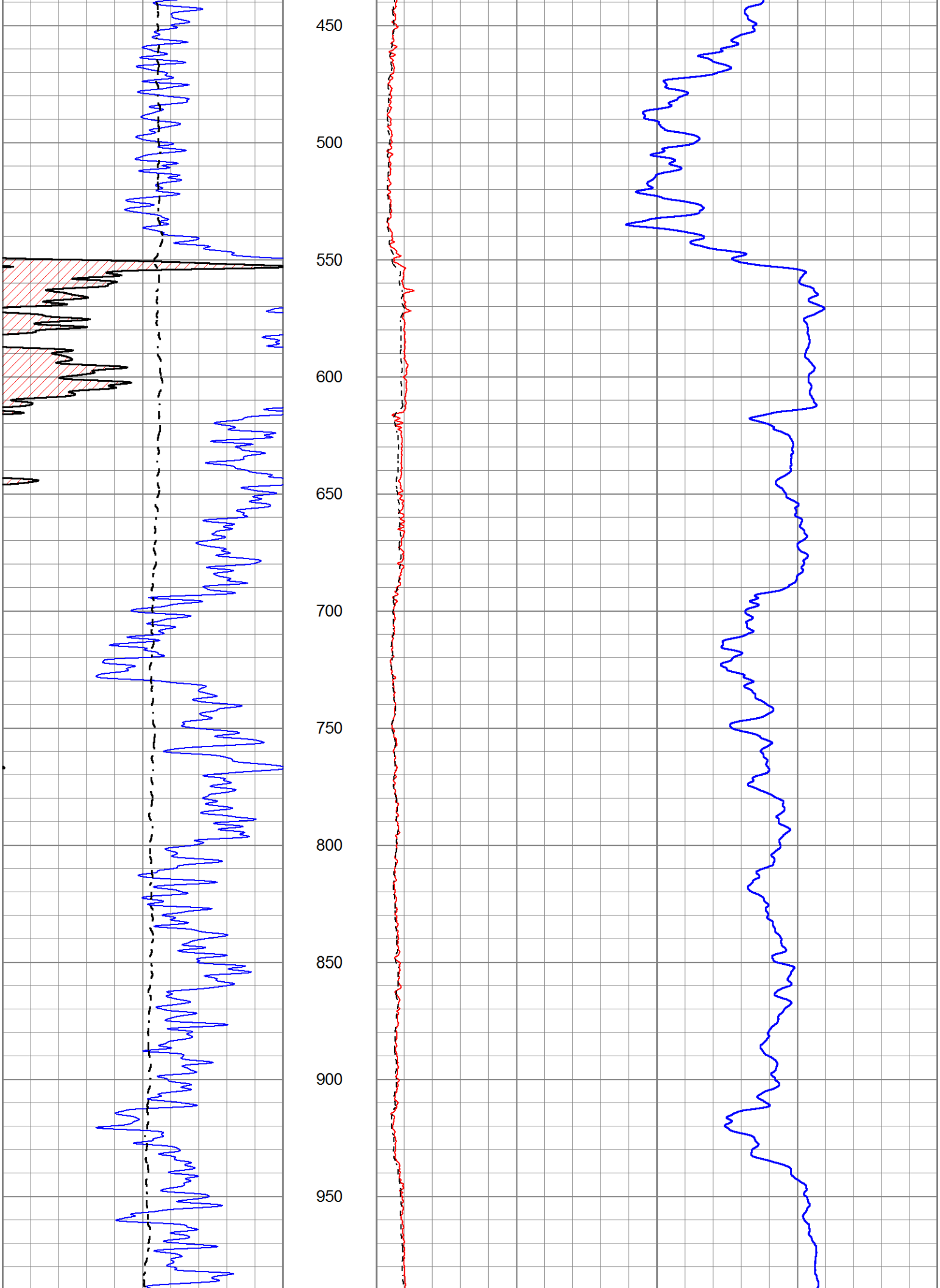
MAIN PASS

Database File	5043ddn.db
Dataset Pathname	pass3.1
Presentation Format	_dil2
Dataset Creation	Wed Jan 27 17:11:41 2021
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	RILD (Ohm-m)	50
50	RILD X10 (Ohm-m)	500
50	RLL3 X10 (Ohm-m)	500

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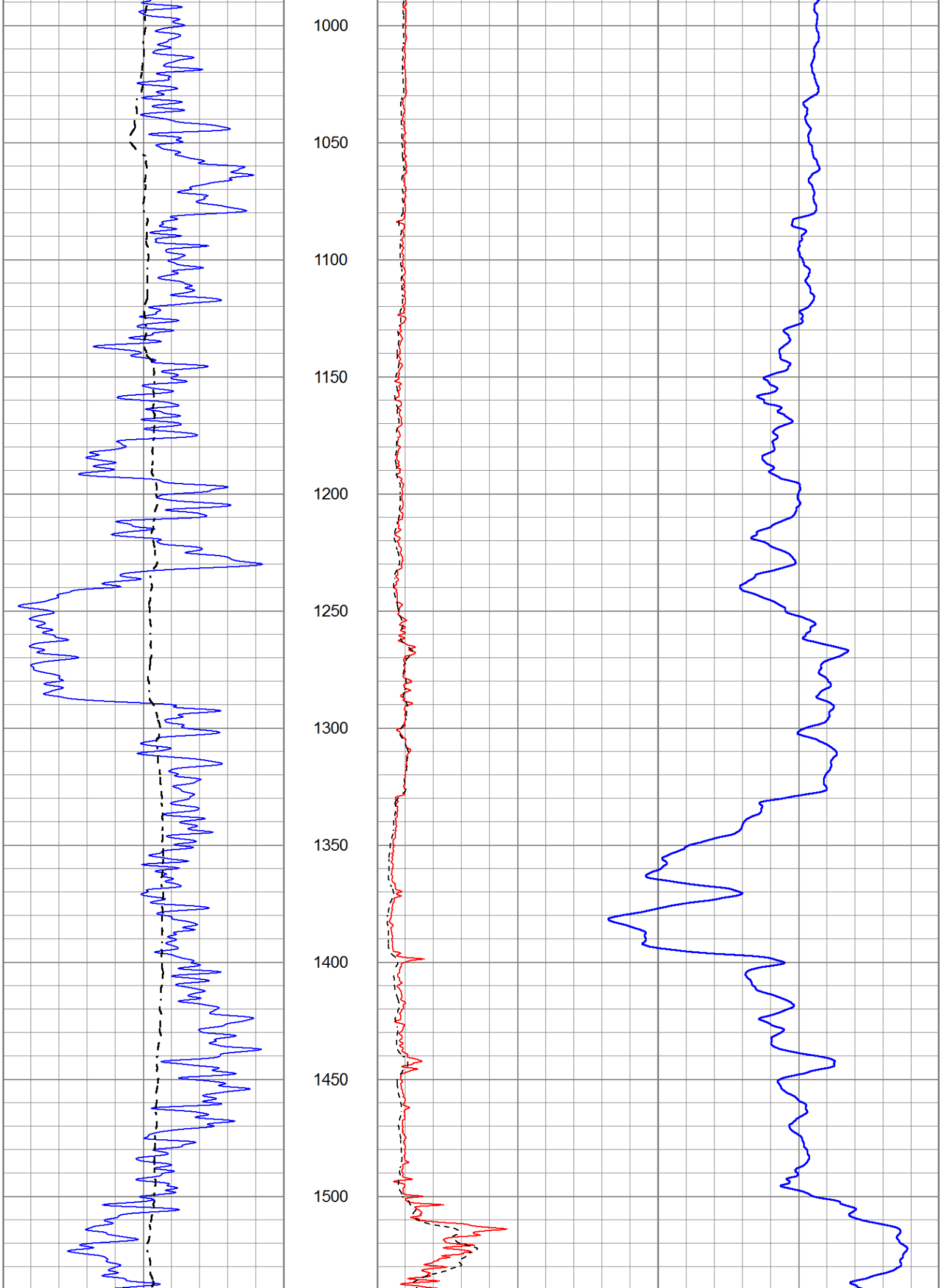
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1400
1450
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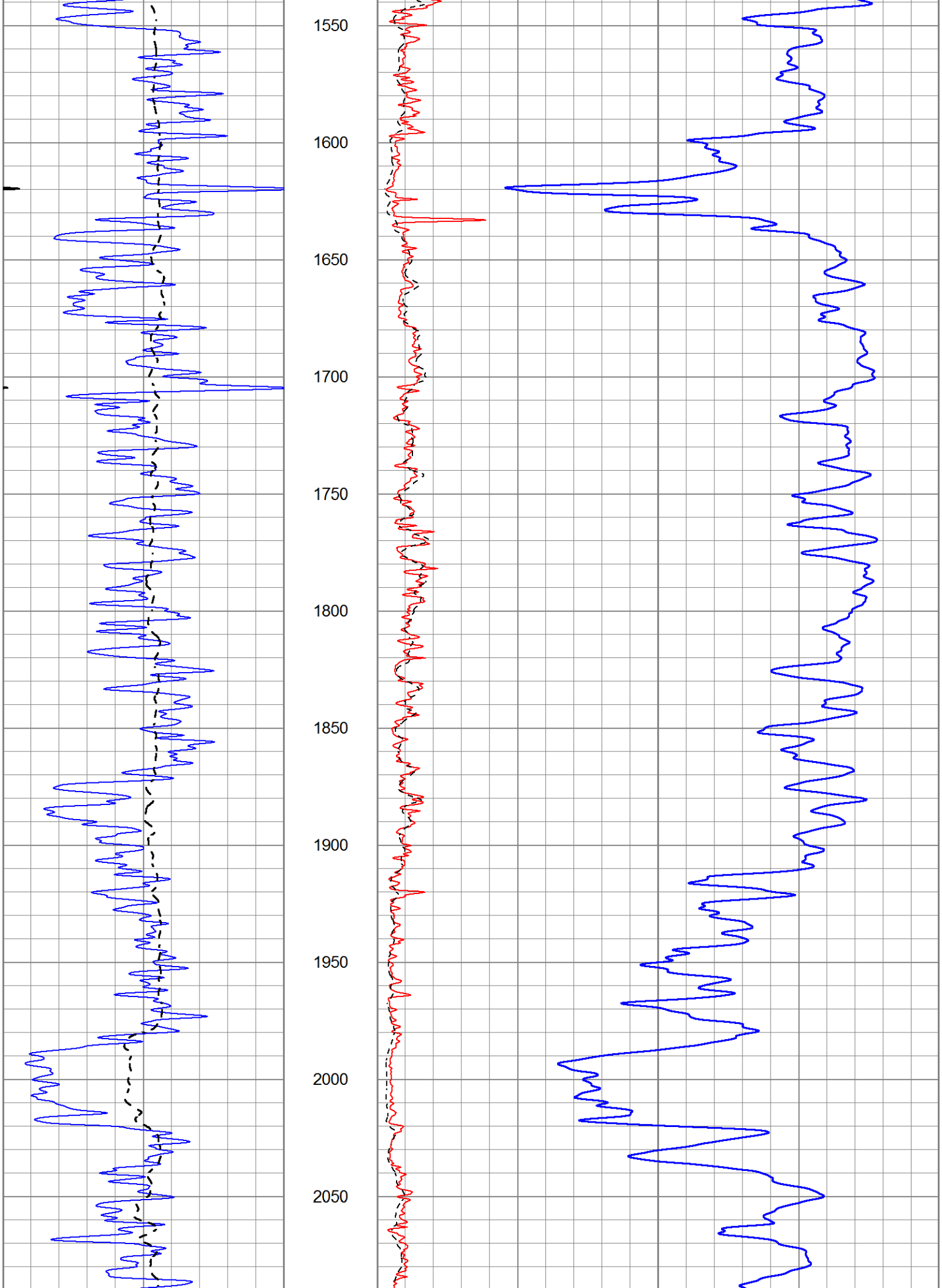
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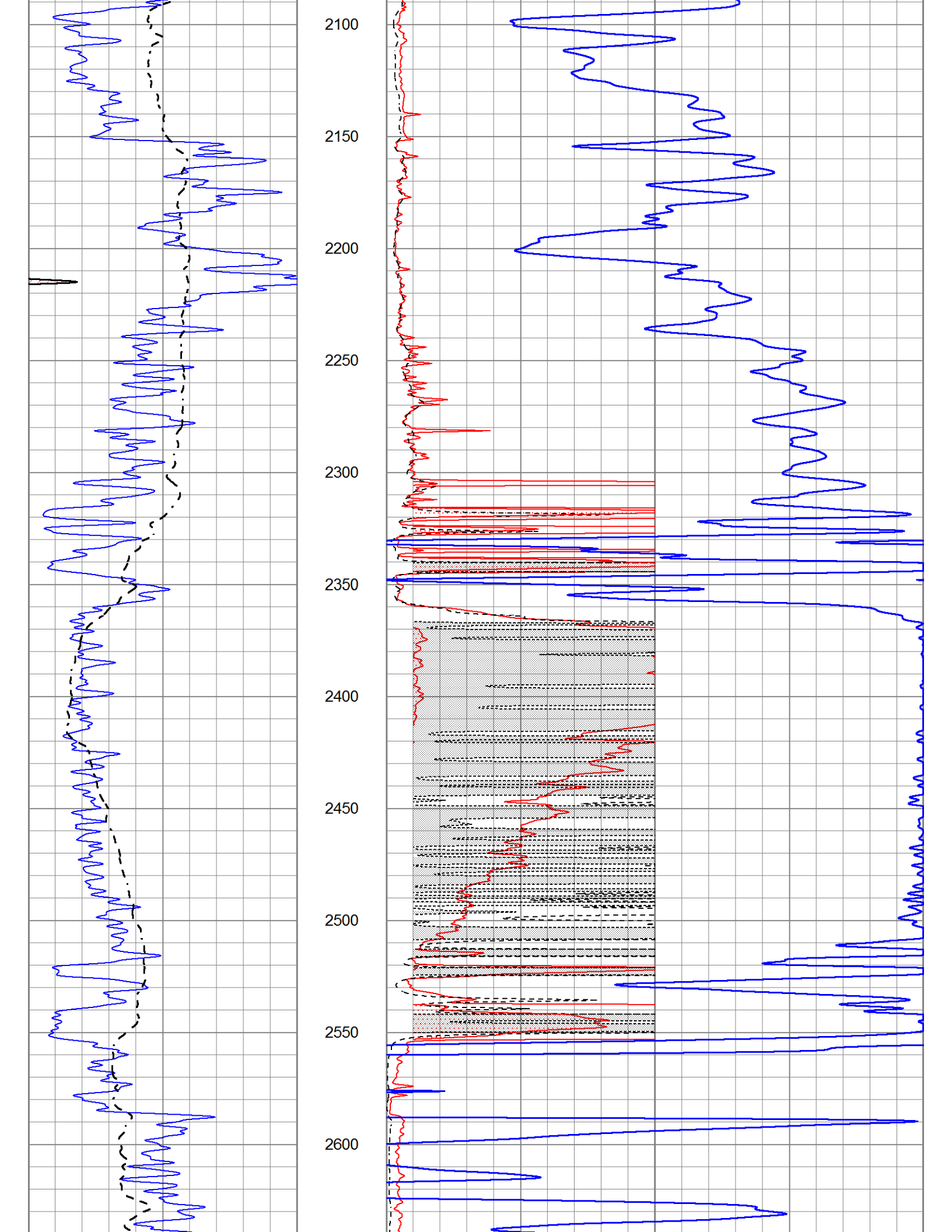
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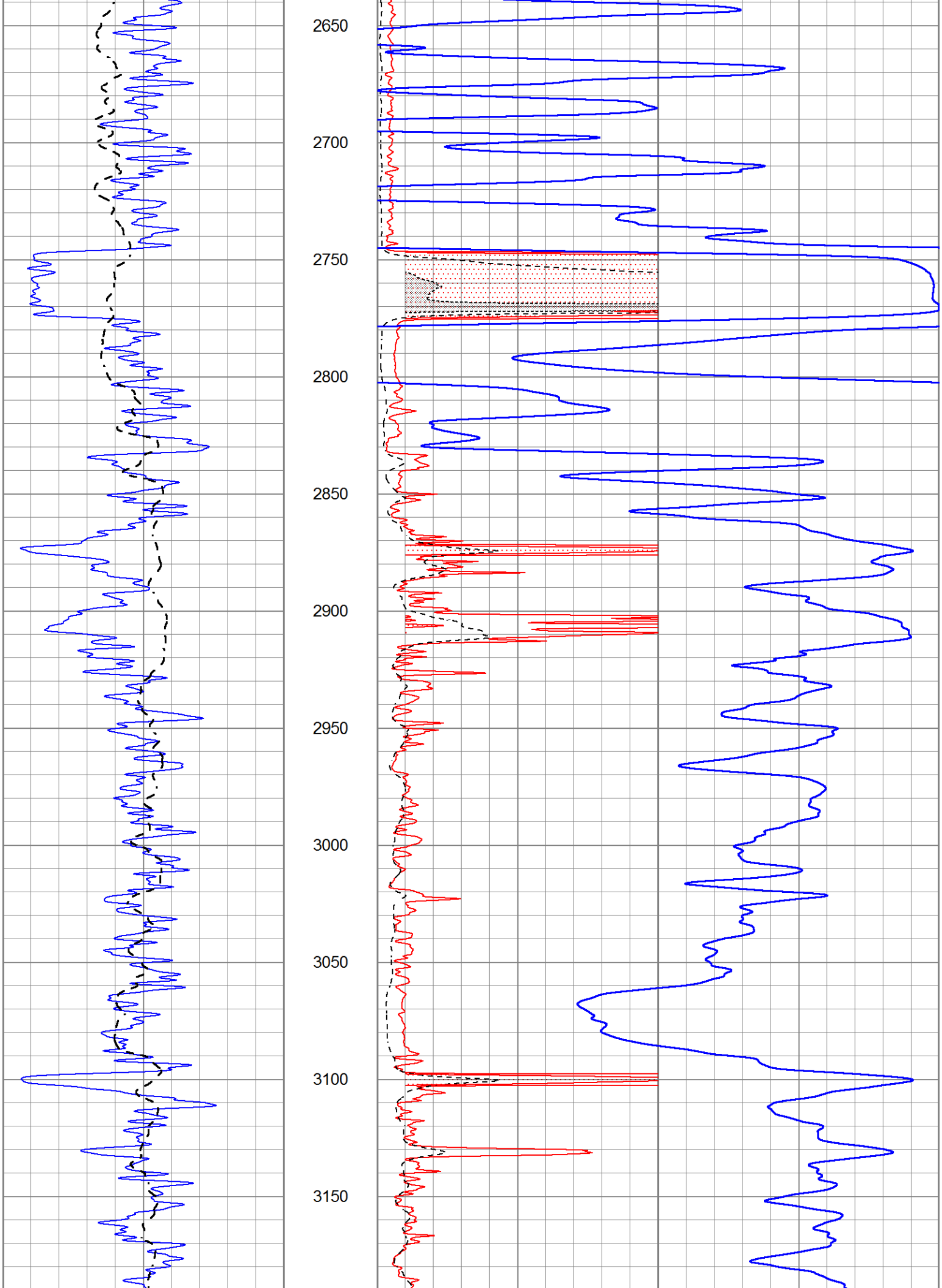
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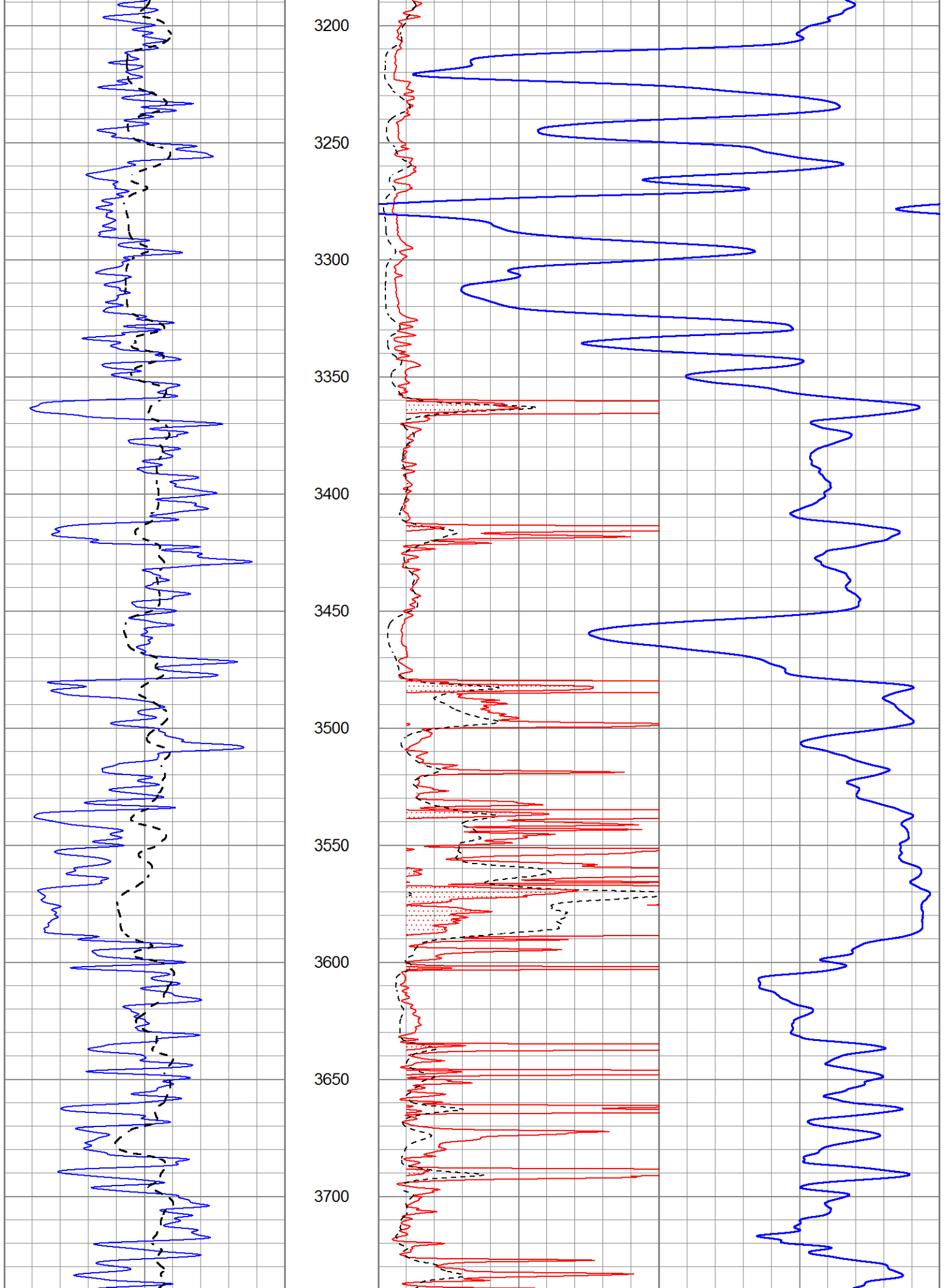
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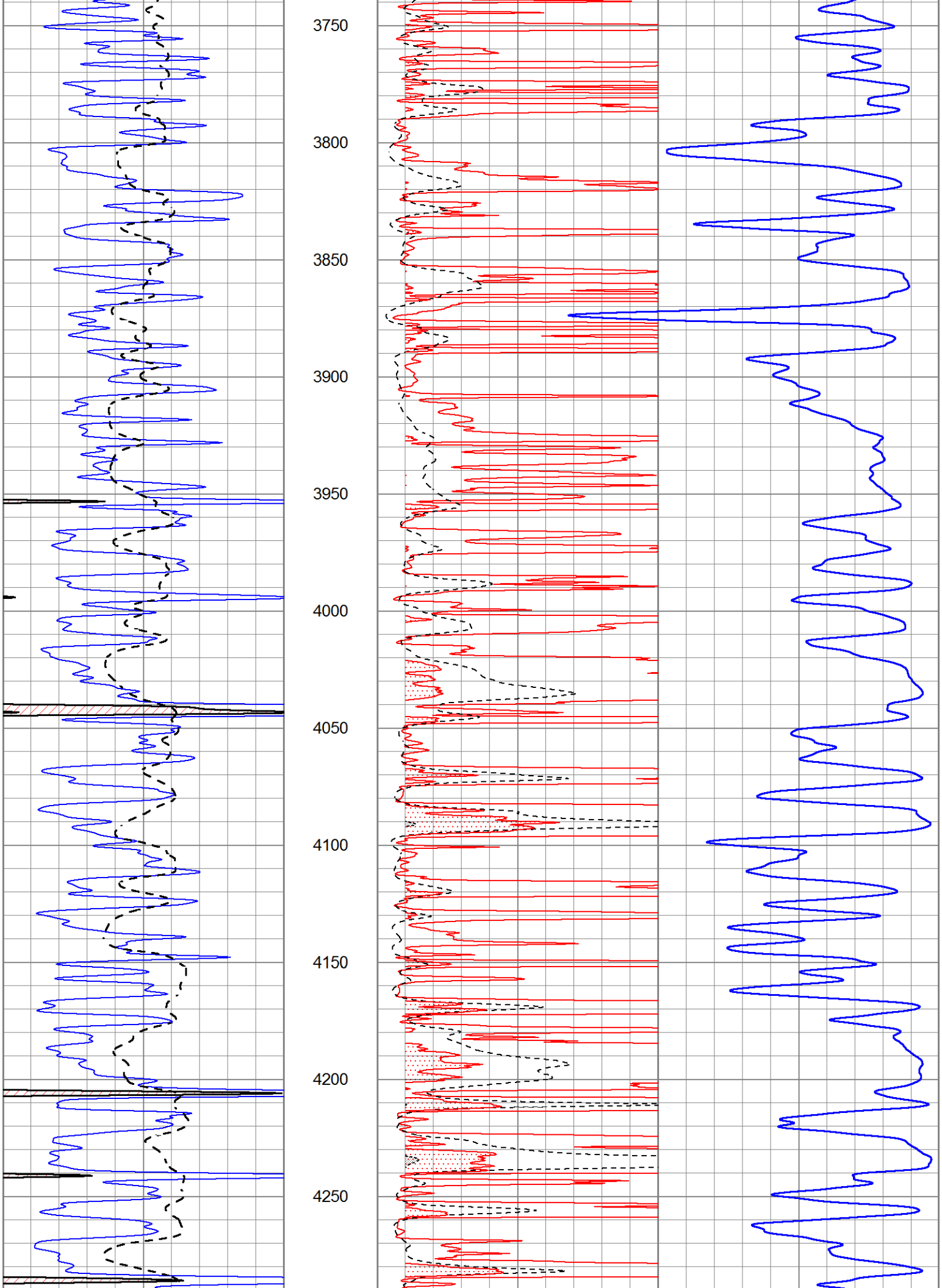
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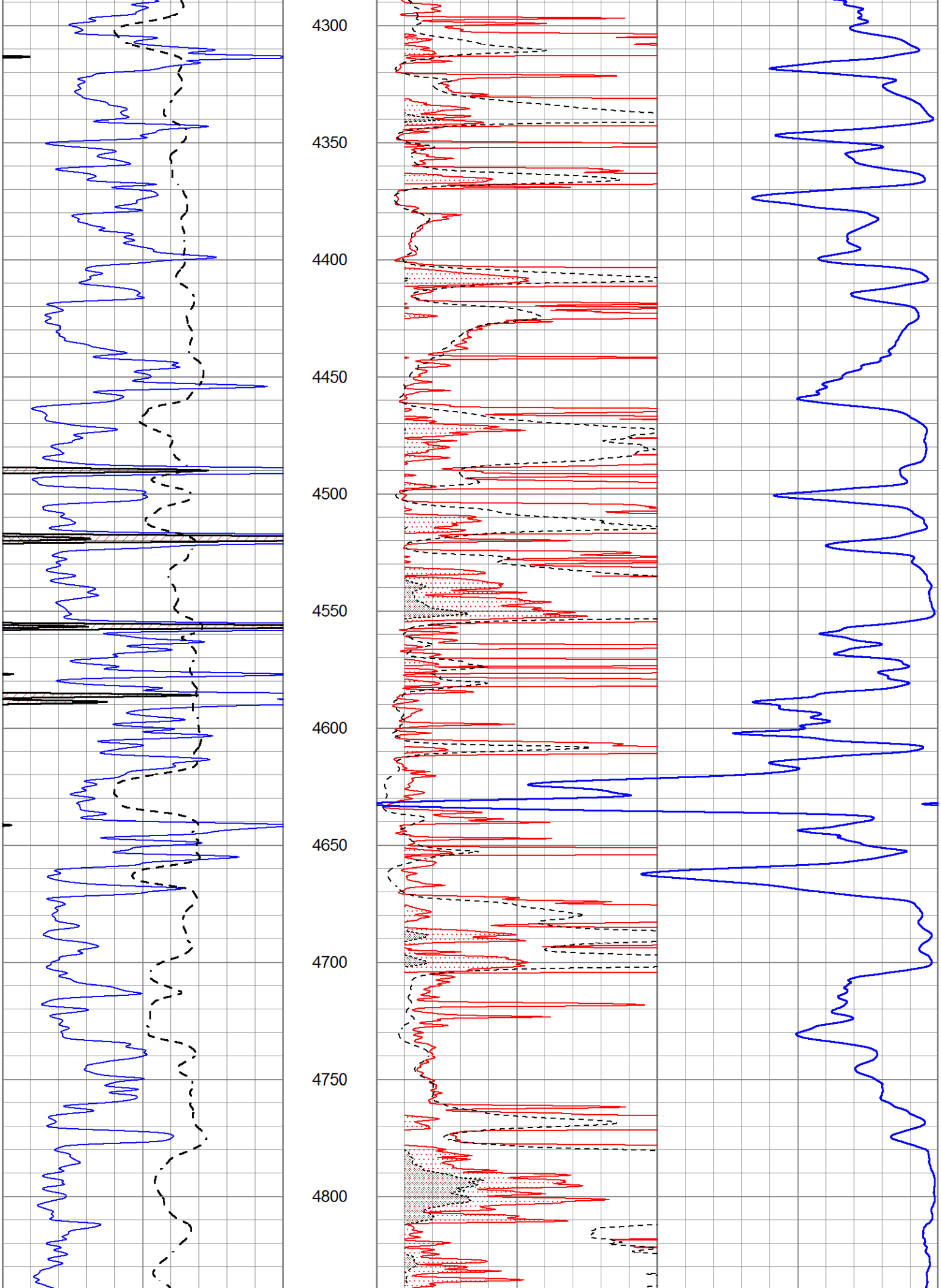
4250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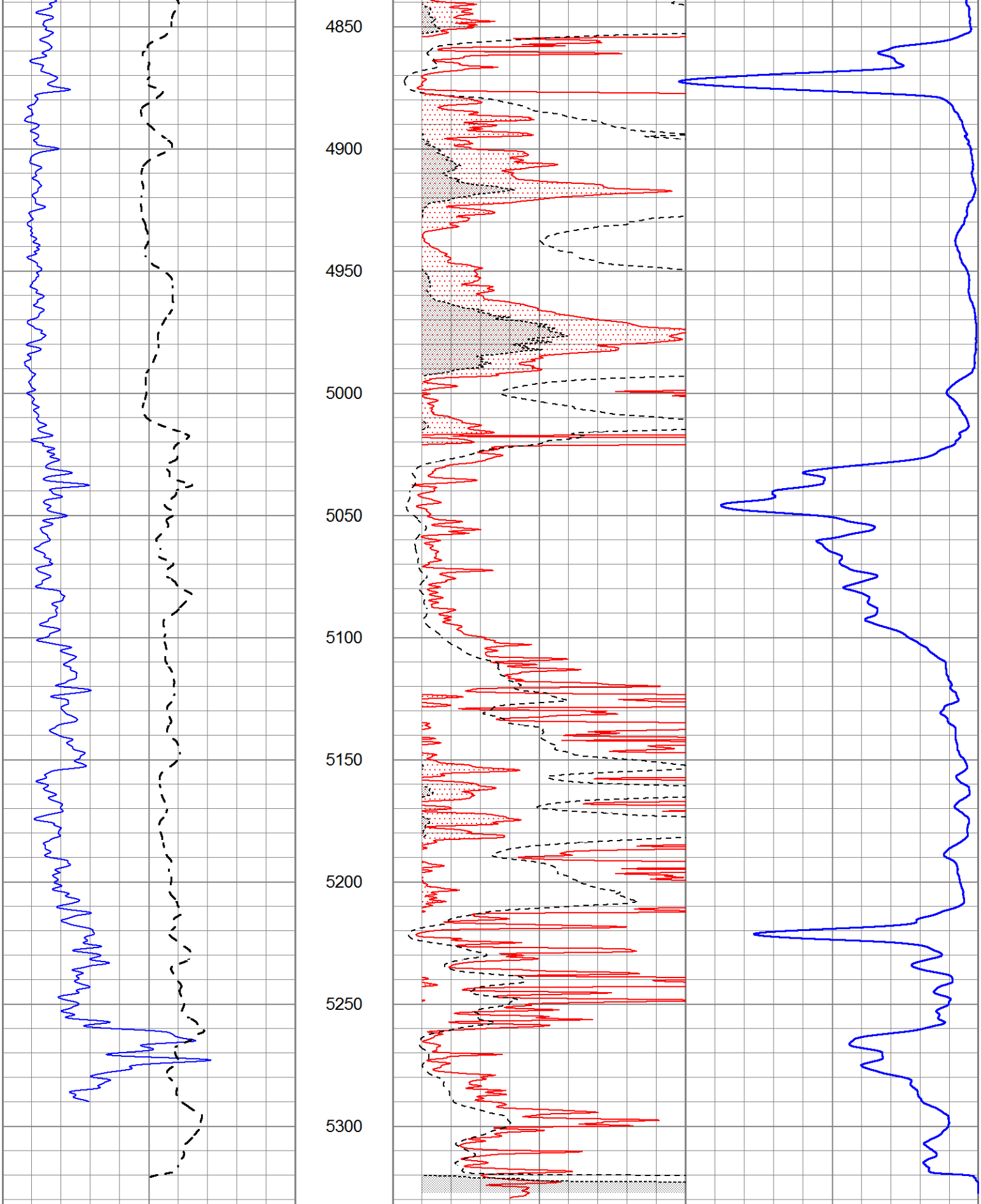
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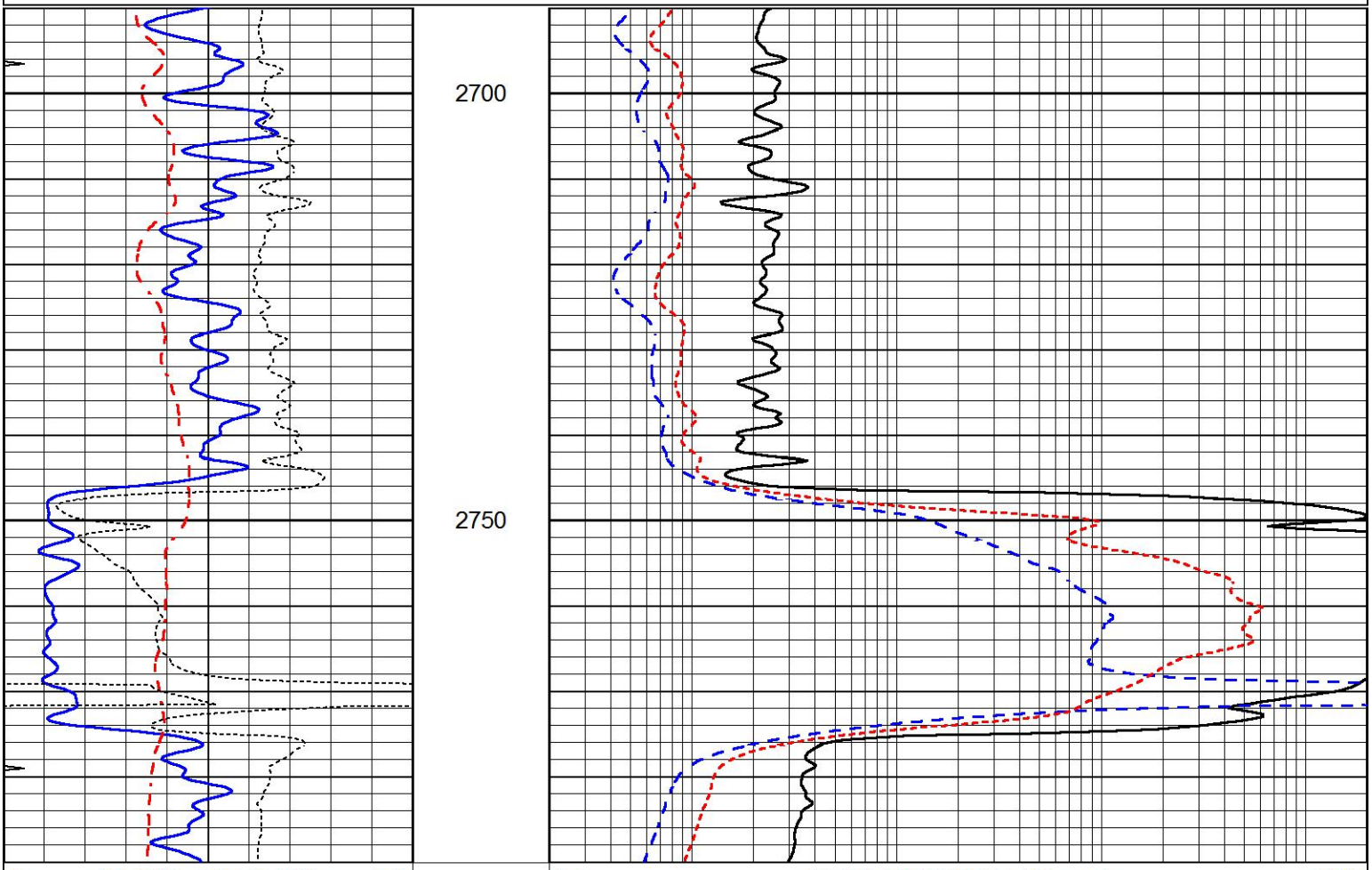
5000
5050
5100
5150
5200
5250
5300
0
Gamma Ray (GAPI)
150
-100
SP (mV)
100
1000
CILD (mmho/m)
0
0
RLL3 (Ohm-m)
50
0
RILD (Ohm-m)
50
50
RILD X10 (Ohm-m)
500
50
RLL3 X10 (Ohm-m)
500

MAIN PASS

Database File	5043ddn.db
Dataset Pathname	pass3.1
Presentation Format	_dil
Dataset Creation	Wed Jan 27 17:11:41 2021
Charted by	Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	20

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



0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	20

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

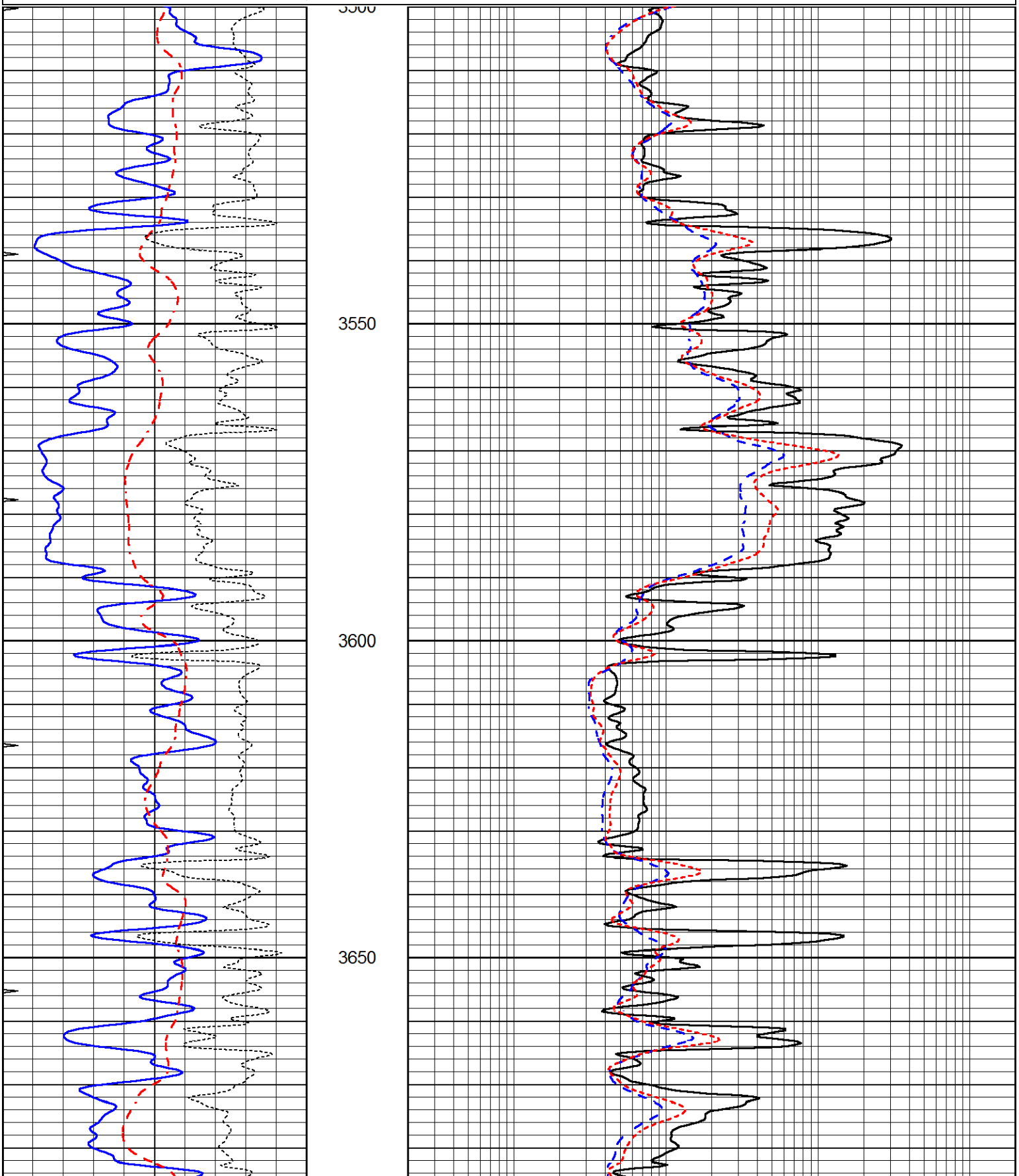
MAIN PASS

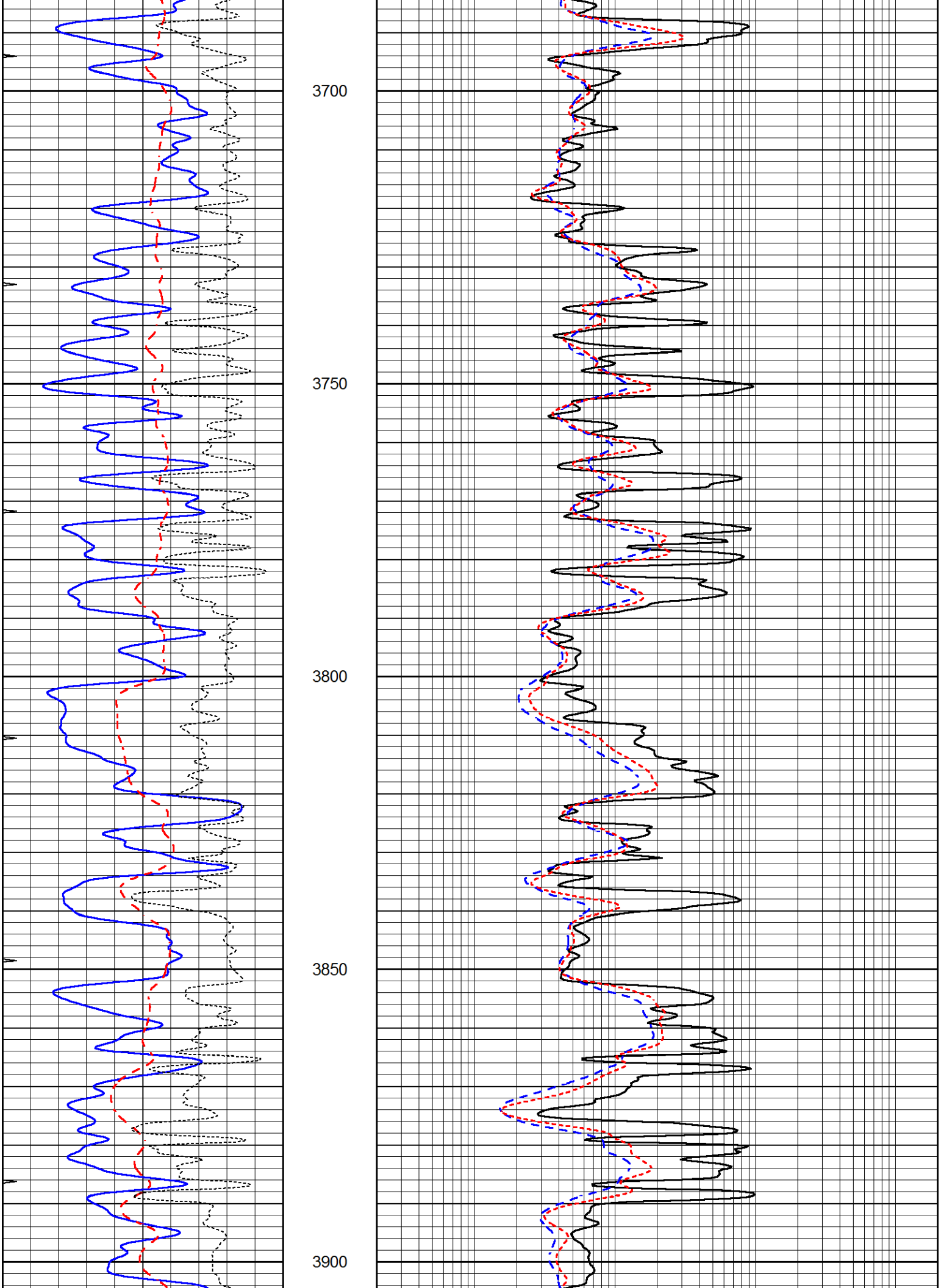
Database File	5043ddn.db

Dataset Pathname	pass3.1
Presentation Format	_dil
Dataset Creation	Wed Jan 27 17:11:41 2021
Charted by	Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	20

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

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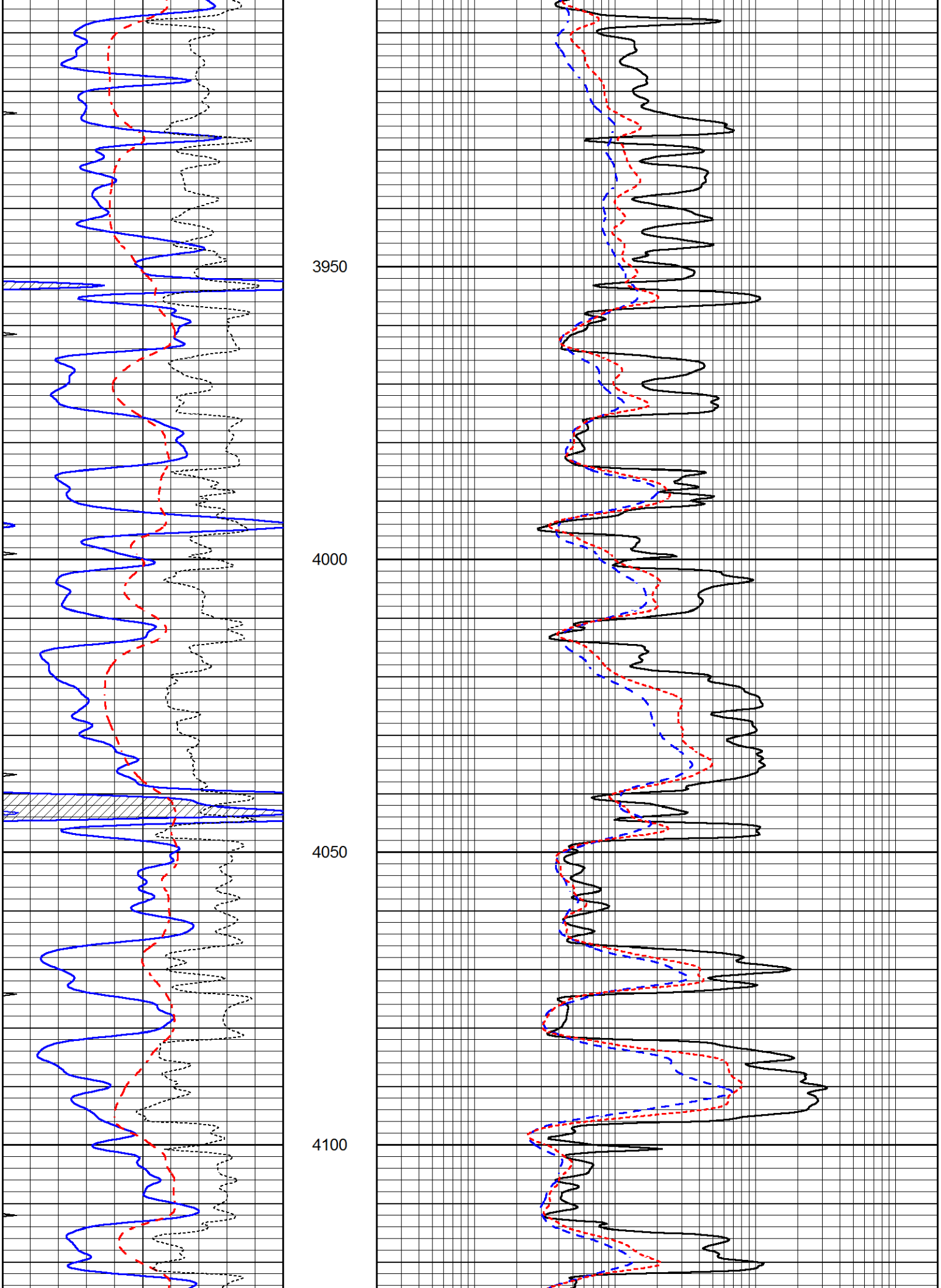
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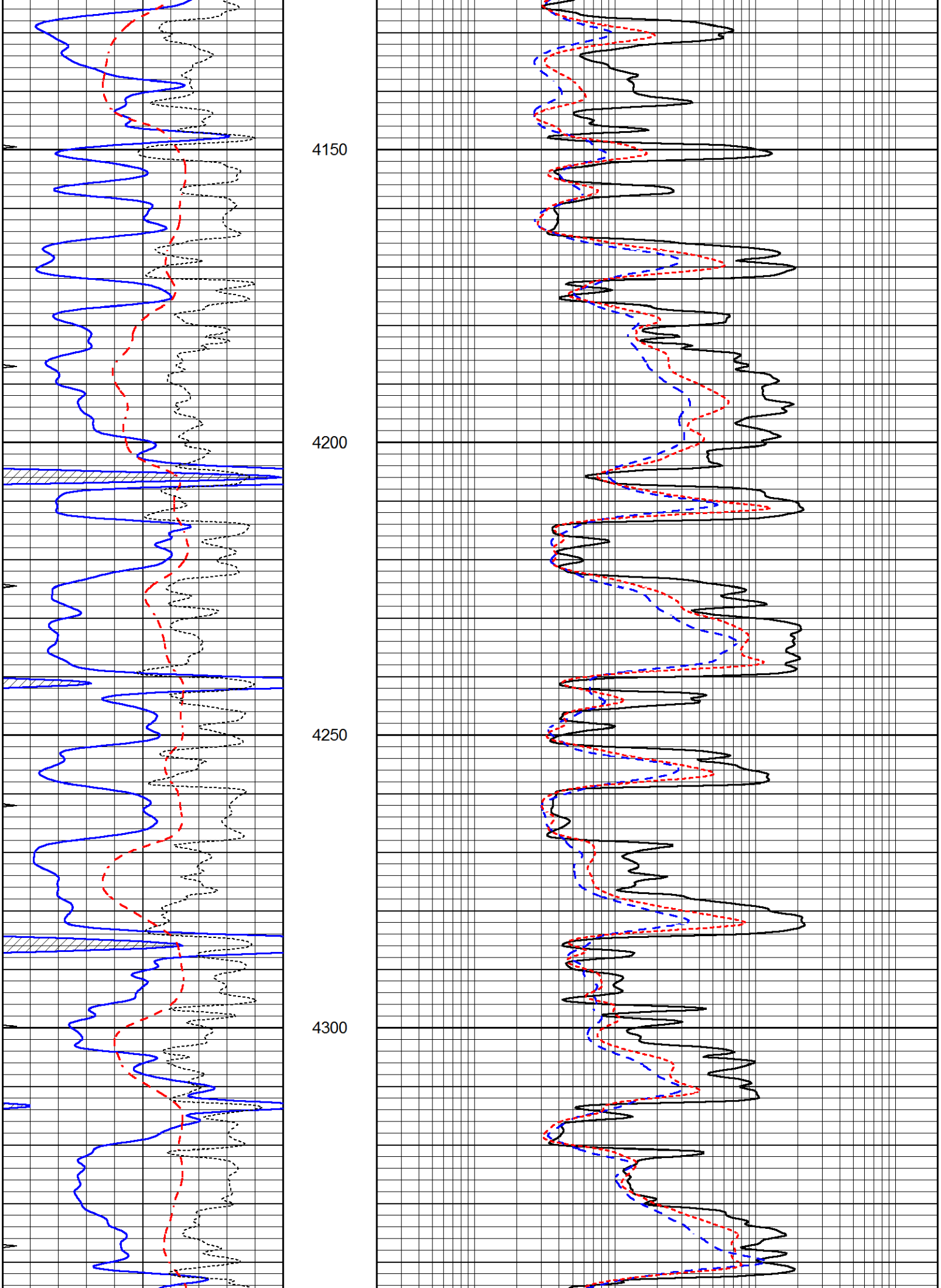
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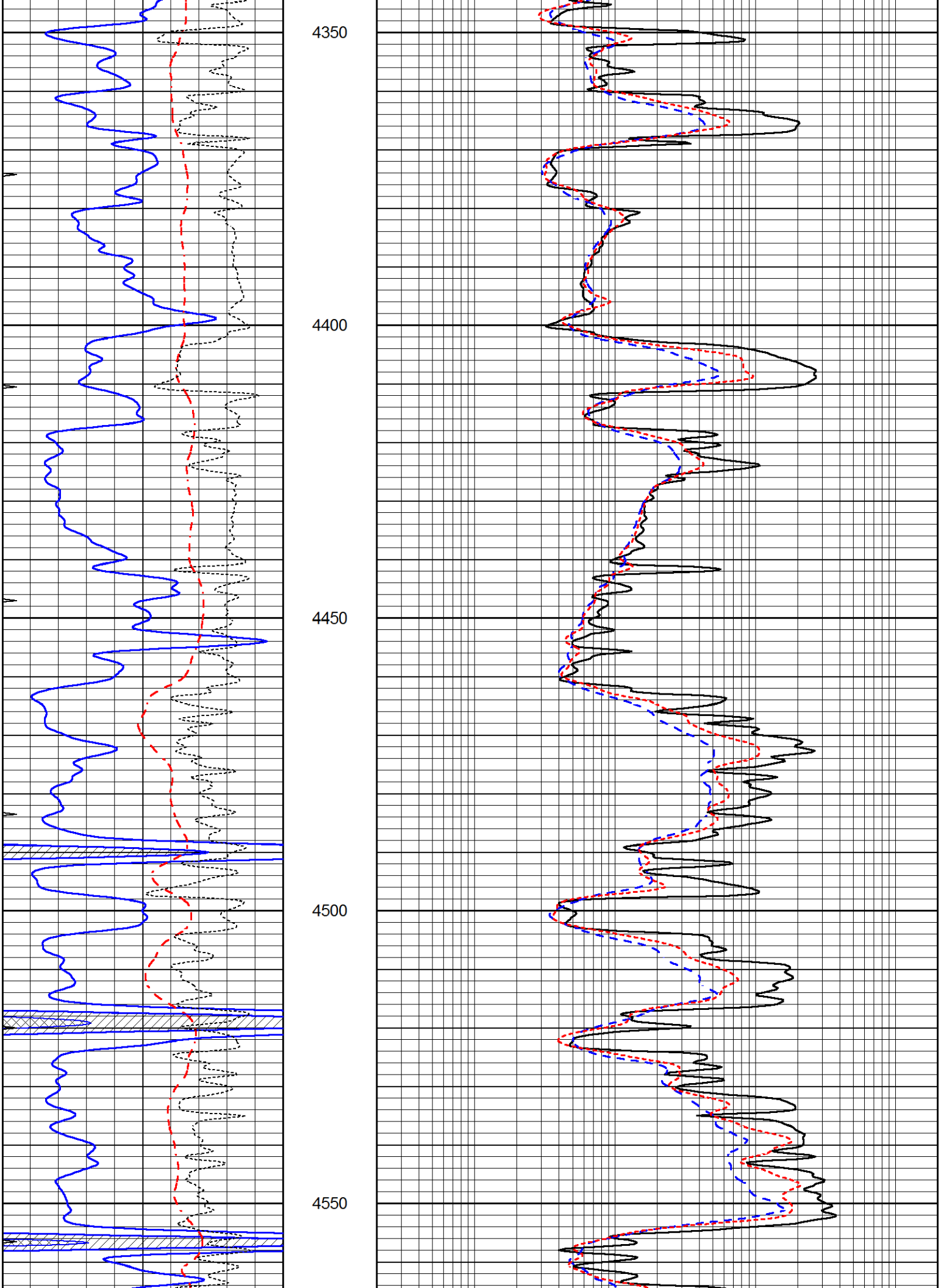
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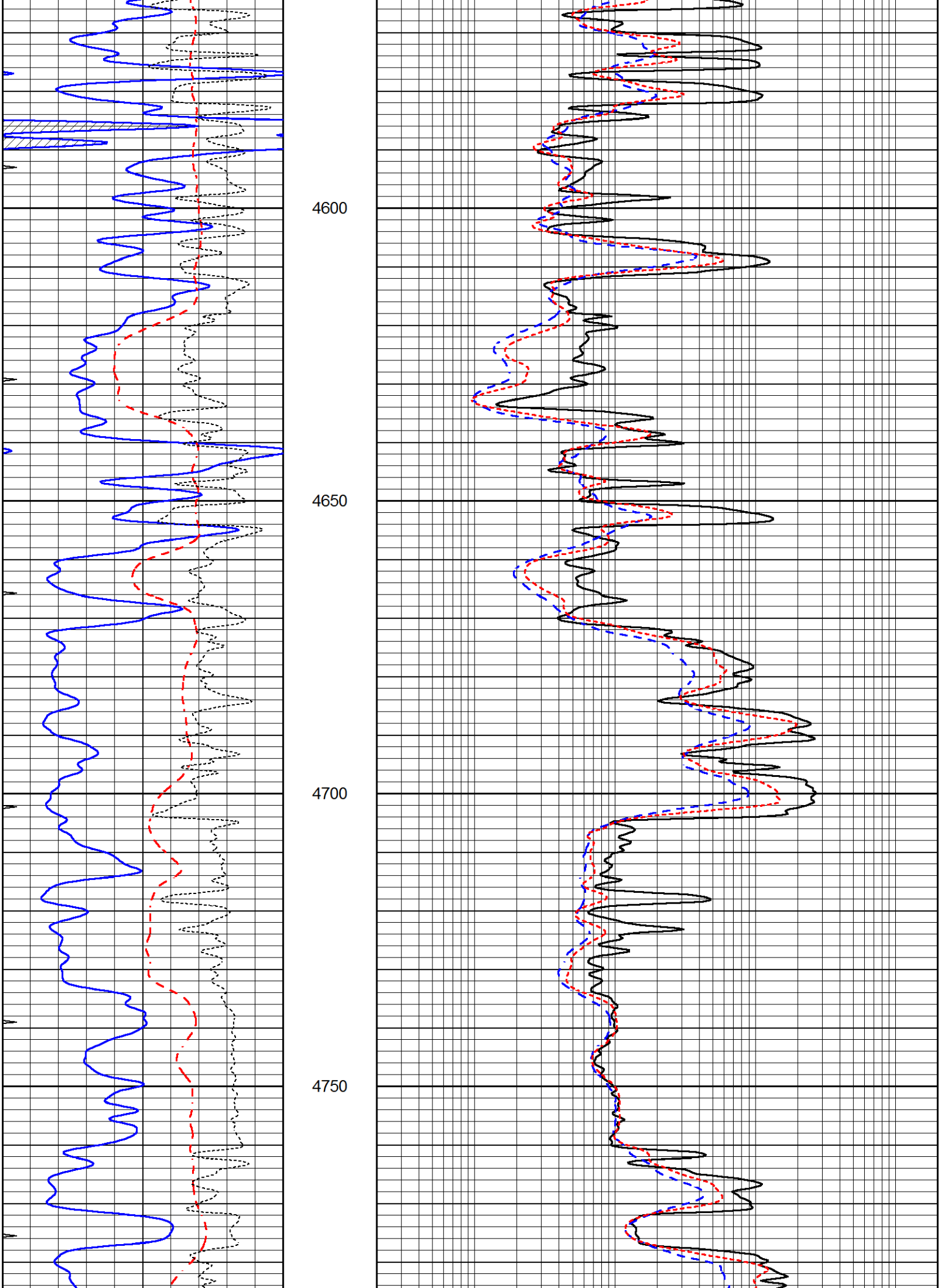
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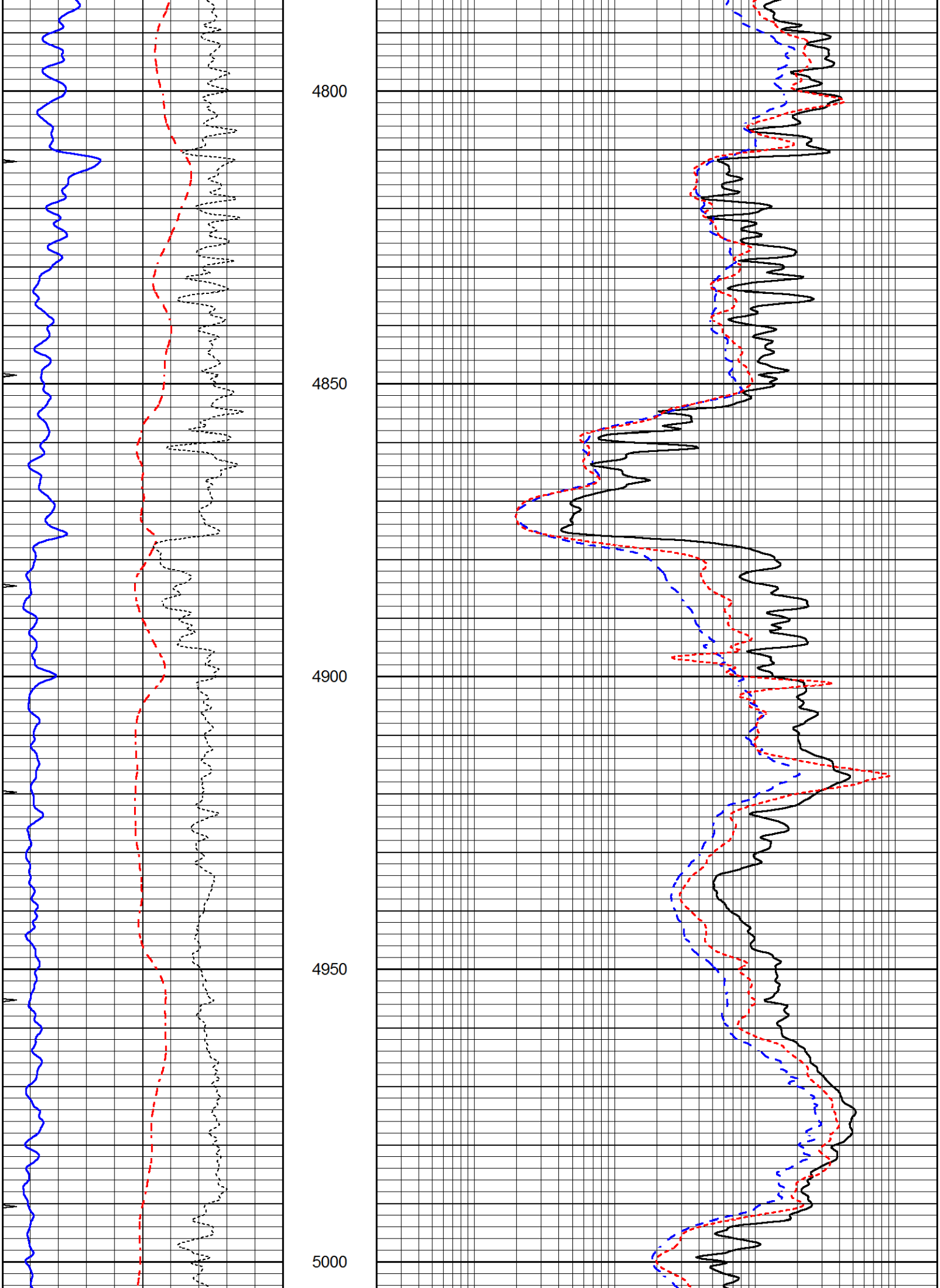
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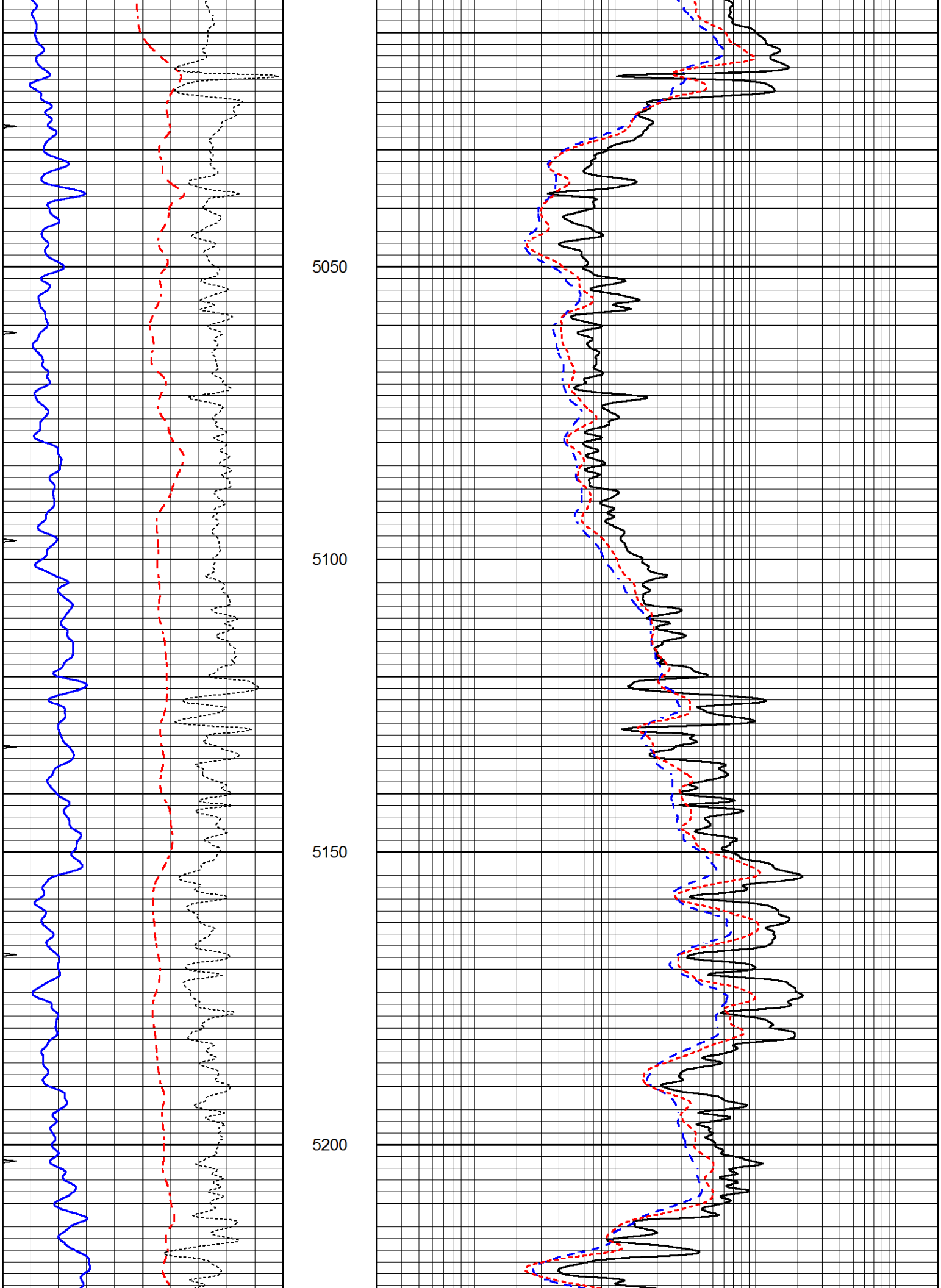
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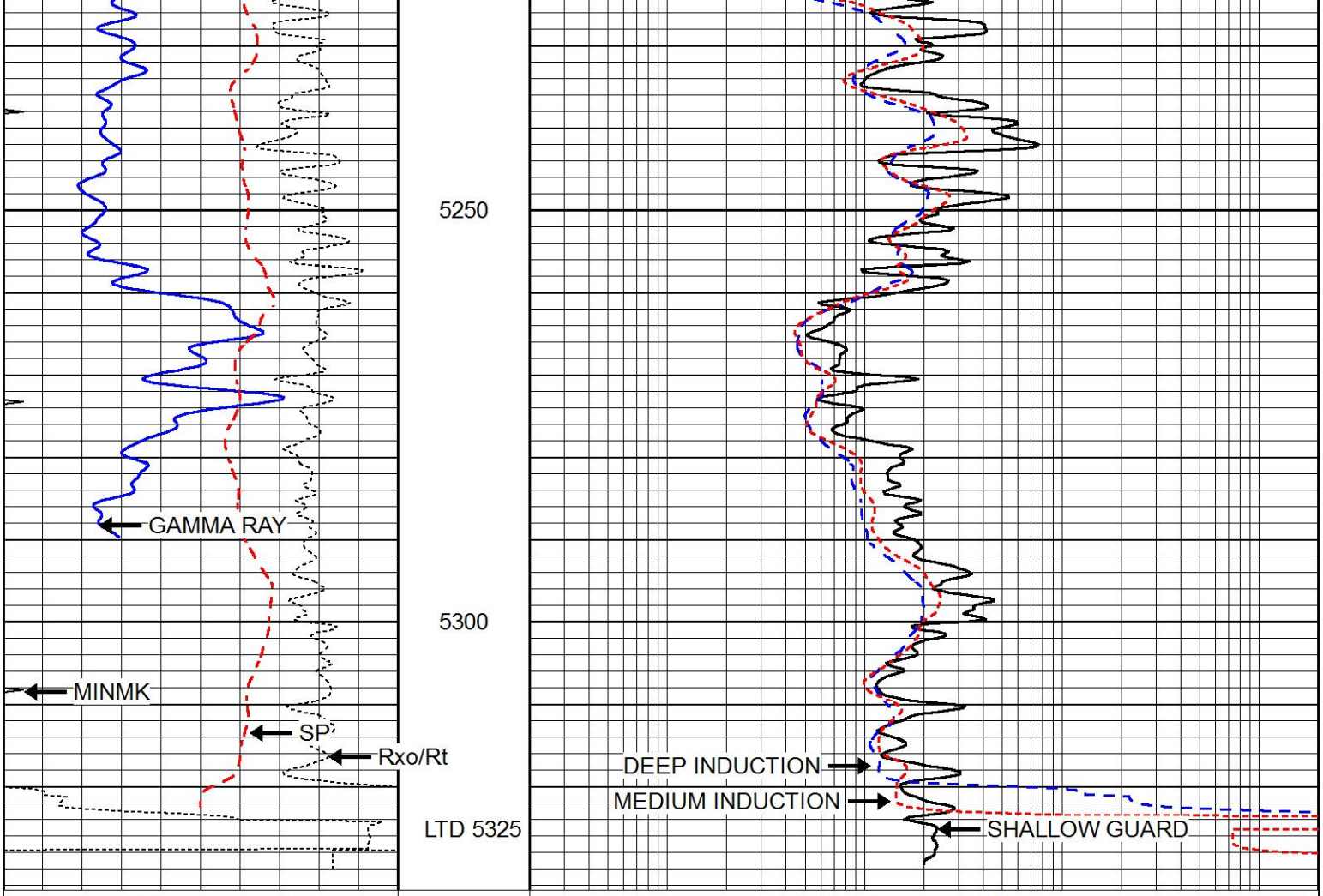


0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	20

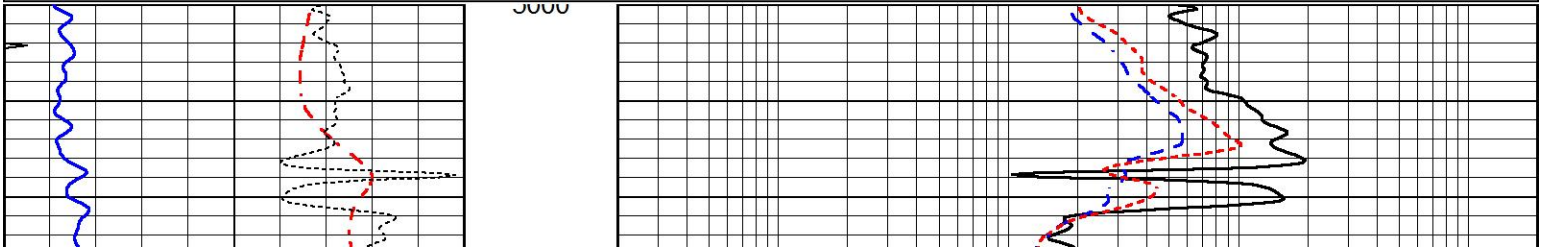
0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000

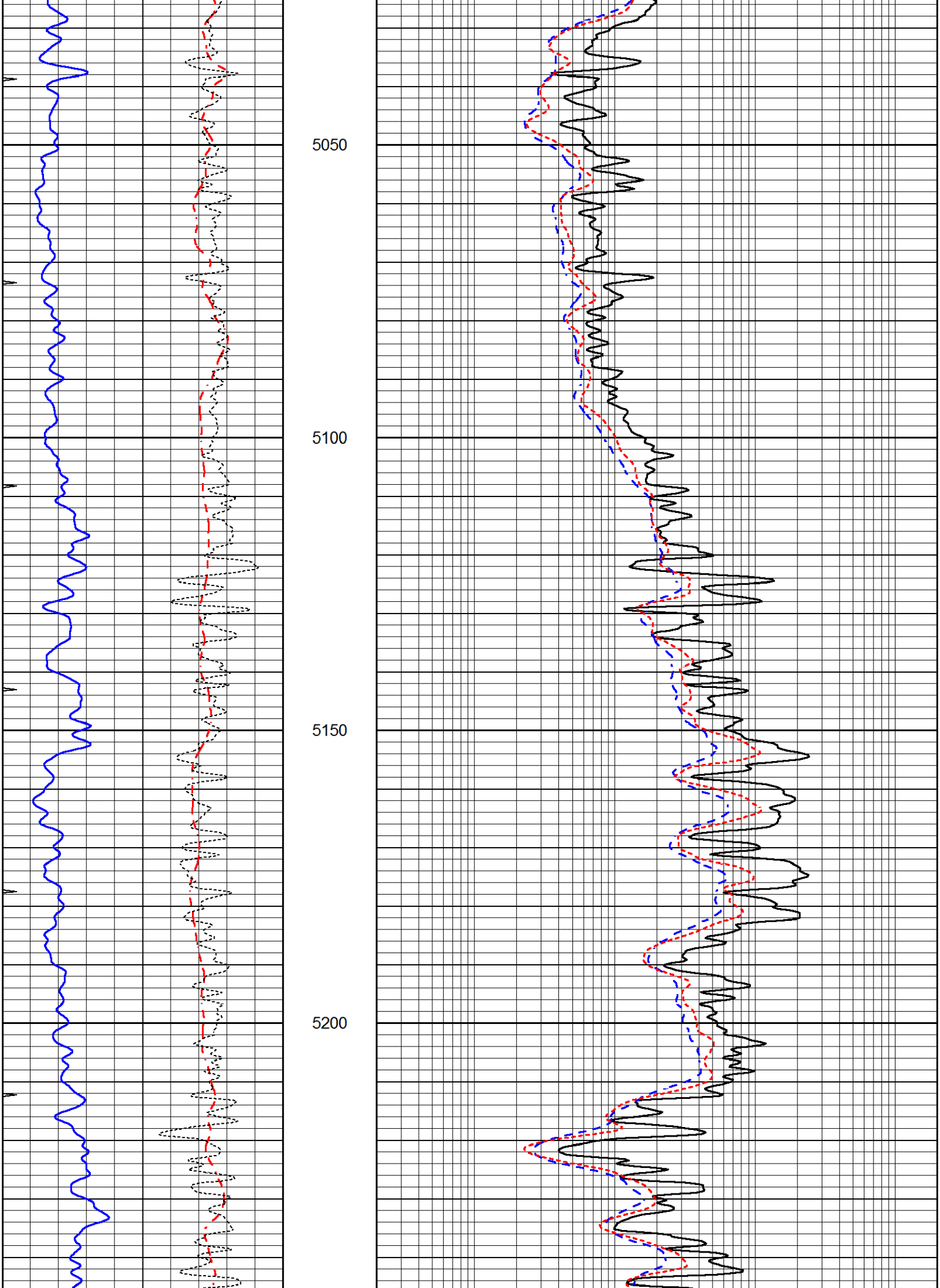
REPEAT SECTION

Database File	5043ddn.db
Dataset Pathname	pass2.1
Presentation Format	_dil
Dataset Creation	Wed Jan 27 17:32:08 2021
Charted by	Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	20

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

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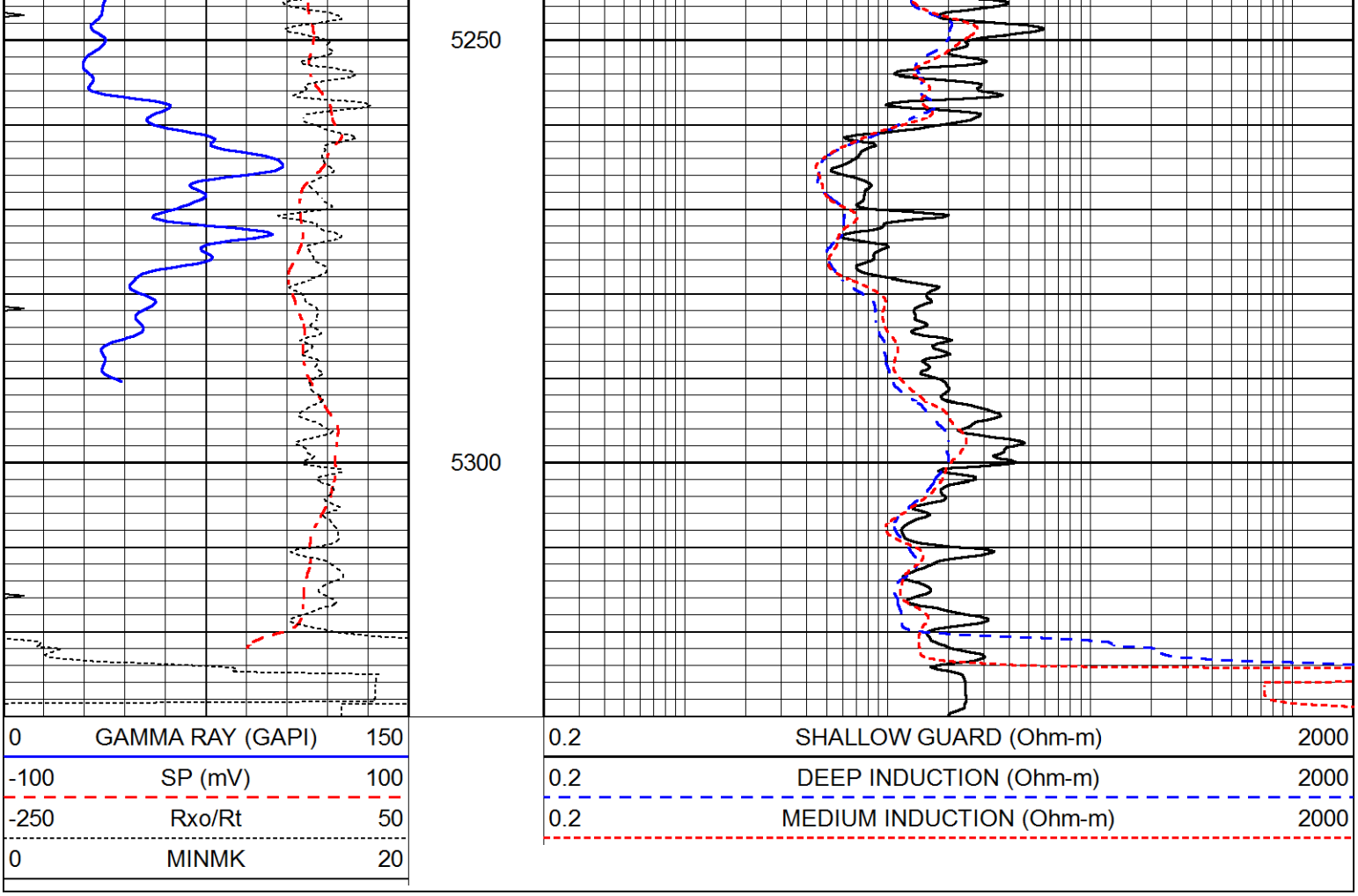
5100
5150
5200



Calibration Report

Database File	5043ddn.db
Dataset Pathname	pass2.1
Dataset Creation	Wed Jan 27 17:32:08 2021

Dual Induction Calibration Report

Serial-Model:	PROBE8-DILG
Surface Cal Performed:	Mon Sep 10 14:28:35 2018
Downhole Cal Performed:	Mon Sep 10 14:28:38 2018
After Survey Verification Performed:	Mon Sep 10 14:28:40 2018

Surface Calibration

	Readings			References			Results	
Loop:	Air	Loop		Air	Loop		m	b
Deep	0.015	0.648	V	0.000	400.000	mmho/m	620.000	0.000
Medium	0.029	0.796	V	0.000	464.000	mmho/m	590.000	-12.000
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.017	0.657	V	0.000	400.000	mmho/m	625.153	-10.619
Medium	0.016	0.757	V	0.000	464.000	mmho/m	625.992	-9.739

Downhole Calibration

	Readings			References			Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	0.000	0.000	mmho/m	2.011	405.777	mmho/m	1.000	0.000
Medium	0.000	0.000	mmho/m	7.590	503.393	mmho/m	1.000	0.000
LL3		7.500	V		1500.000	Ohm-m		

	0.000	V		20.000	Ohm-m
	-7.200	V		3800.000	mmho-m

After Survey Verification

	Readings			Targets			Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	0.000	0.000	mmho/m	0.000	0.000	mmho/m	0.000	0.000
Medium	0.000	0.000	mmho/m	0.000	0.000	mmho/m	0.000	0.000
LL3		1.000	Ohm-m		1.000	Ohm-m		
		0.000	Ohm-m		0.000	Ohm-m		
		1.000	mmho-m		1.000	mmho-m		

Litho Density Calibration Report

Serial: 001N Model: PRB

Master Calibration — Performed Thu Mar 19 11:30:16 2020

	Background	Magnesium	Aluminum	Aluminum+Fe	
Window 1	1572.2	7510.8	2837.3	2643.1	cps
Window 2	1446.2	6523.9	2552.8	2409.9	cps
Window 3	1060.9	3611.4	1731.5	1684.8	cps
Window 4	145.5	363.4	363.2	368.1	cps
Long Space	0.0	5077.7	1106.6	963.7	cps
Short Space	3.1	1709.3	1103.4	916.9	cps
Rho		1.7100	2.5900	0.0000	g/cc
Pe		2.0000	2.7500	5.7900	

Rib Angle	: 44.0	Rib Slope	: 0.965	Density/Spine Ratio	: 0.555
Spine Angle	: 74.0	Spine Slope	: 3.481	Spine Intercept	: -17.4

Before Survey Verification — Performed Wed Dec 31 18:00:00 1969

Window 1	0.0	0.0	0.0	0.0	cps
Window 2	0.0	0.0	0.0	0.0	cps
Window 3	0.0	0.0	0.0	0.0	cps
Window 4	0.0	0.0	0.0	0.0	cps
Long Space	0.0	0.0	0.0	0.0	cps
Short Space	0.0	0.0	0.0	0.0	cps
Measured Rho		0.0000	0.0000	0.0000	g/cc
Measured Correction		0.0000	0.0000	0.0000	g/cc
Measured Pe			0.0000	0.0000	

After Survey Verification — Performed Wed Dec 31 18:00:00 1969

Window 1	0.0	0.0	0.0	0.0	cps
Window 2	0.0	0.0	0.0	0.0	cps
Window 3	0.0	0.0	0.0	0.0	cps
Window 4	0.0	0.0	0.0	0.0	cps
Long Space	0.0	0.0	0.0	0.0	cps
Short Space	0.0	0.0	0.0	0.0	cps
Measured Rho		0.0000	0.0000	0.0000	g/cc
Measured Correction		0.0000	0.0000	0.0000	g/cc
Measured Pe			0.0000	0.0000	

Compensated Neutron Calibration Report

Serial Number:	6I
Tool Model:	G

CALIBRATION

Detector	Readings		Target		Normalization
Short Space	1.00	cps	1.00	cps	1.0000
Long Space	1.00	cps	1.00	cps	1.0000

PRE-SURVEY VERIFICATION

	Detector	Readings		Measured		Target	
1)	Short Space		cps				
	Long Space		cps		pu		pu
2)	Short Space		cps				
	Long Space		cps		pu		
3)	Short Space		cps				
	Long Space		cps		pu		

POST-SURVEY VERIFICATION

	Detector	Readings		Measured		Target	
1)	Short Space		cps				
	Long Space		cps		pu		pu
2)	Short Space		cps				
	Long Space		cps		pu		pu
3)	Short Space		cps				
	Long Space		cps		pu		pu

Gamma Ray Calibration Report

Serial Number:	GR6	
Tool Model:	OPEN	
Performed:	Thu Jul 30 20:04:35 2020	
Calibrator Value:	150.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	276.0	cps
Sensitivity:	0.7500	GAPI/cps