DUAL INDUCTION LOG

Company BEAR PETROLEUM, LLC.
Well NIEDEREE #1
Field BURDETT
County PAWNEE State KANSAS

Location: API # : 15-145-21871-0000
330' FNL & 330' FEL
NE - NE - NE
SEC 16 TWP 22S RGE 20W

Other Services
CDL/CNL
MEL

Permanent Datum GROUND LEVEL Elevation 3182
Log Measured From KELLY BUSHING 8' A.G.L
Drilling Measured From KELLY BUSHING

Elevation
K.B. 3190
D.F. 3189
G.L. 3182

Date	6/30/22			
Run Number	ONE			
Depth Driller	4600			
Depth Logger	4602			
Bottom Logged Interval	4600			
Top Log Interval	00			
Casing Driller	8 5/8"@1120'			
Casing Logger	1120			
Bit Size	7 7/8			
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 3,000 PPM		
Density / Viscosity	9.4/56			
pH / Fluid Loss	9.5/8.4			
Source of Sample	FLOWLINE			
Rm @ Meas. Temp	1.70@75F			
Rmf @ Meas. Temp	1.27@75F			
Rmc @ Meas. Temp	2.04@75F			
Source of Rmf / Rmc	MEASUREMENT			
Rm @ BHT	1.05@121F			
Time Circulation Stopped	2.5 HOURS			
Time Logger on Bottom	12:00 A.M.			
Maximum Recorded Temperature	119F			
Equipment Number	3802			
Location	HAYS, KANSAS			
Recorded By	COLE ROBBEN			
Witnessed By	ROD ANDERSON			

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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:

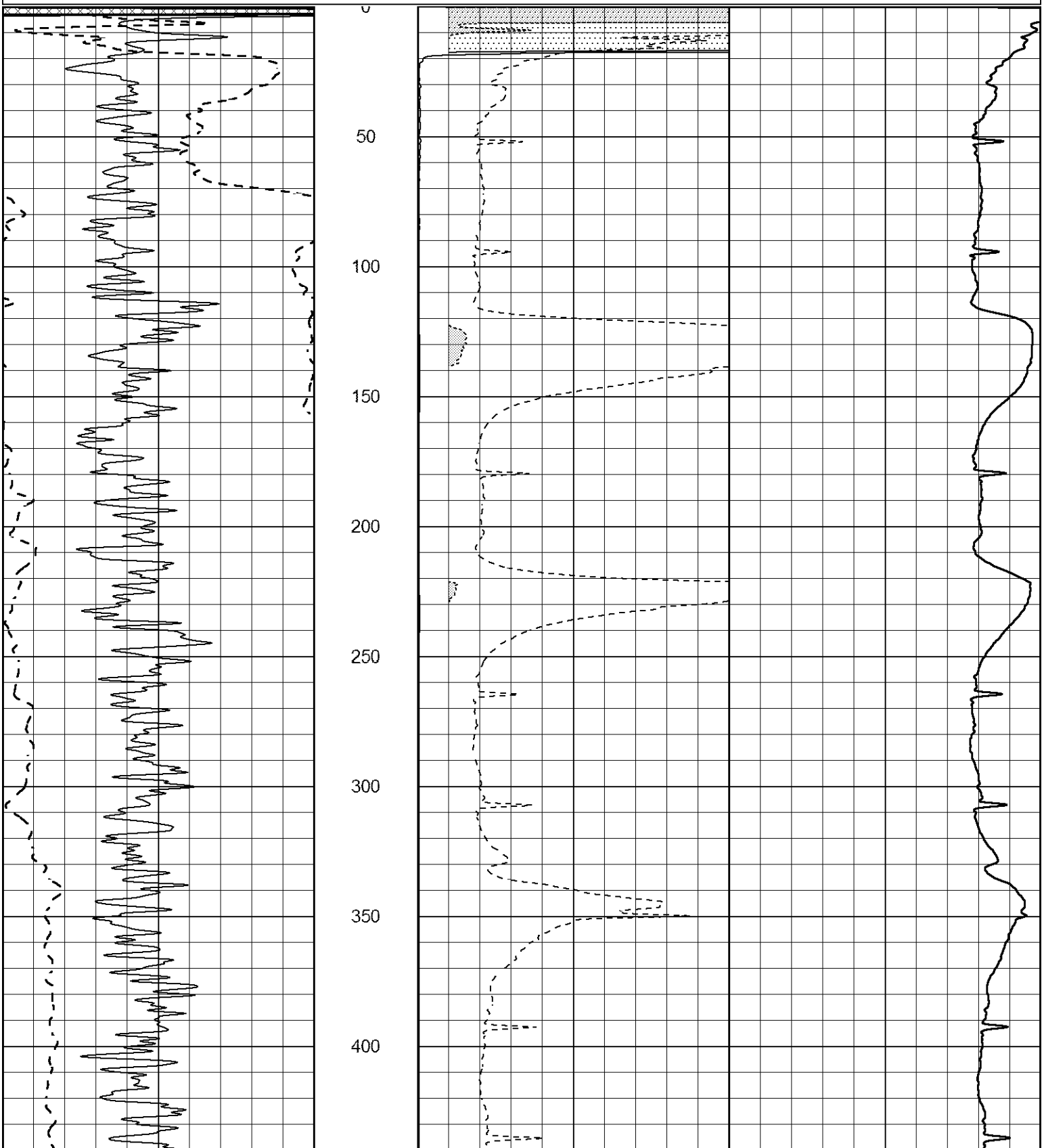
FROM BURDETT, KANSAS GO ONE MILE EAST TO 340TH AVE, THEN THREE MILES SOUTH AND WEST INTO

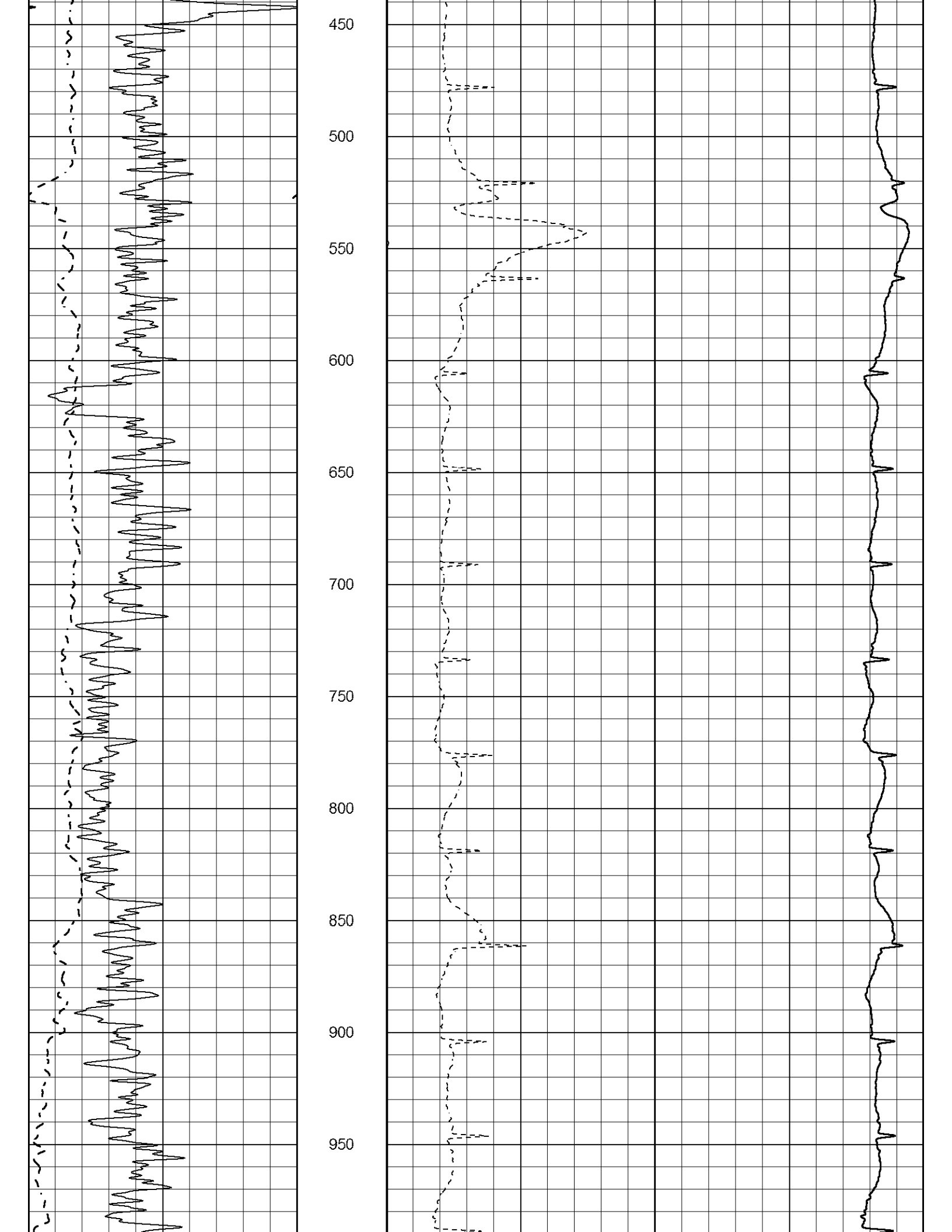
MAIN SECTION

Database File	6549ddn.db
Dataset Pathname	pass4.1M
Presentation Format	_dil2
Dataset Creation	Thu Jun 30 01:46:26 2022
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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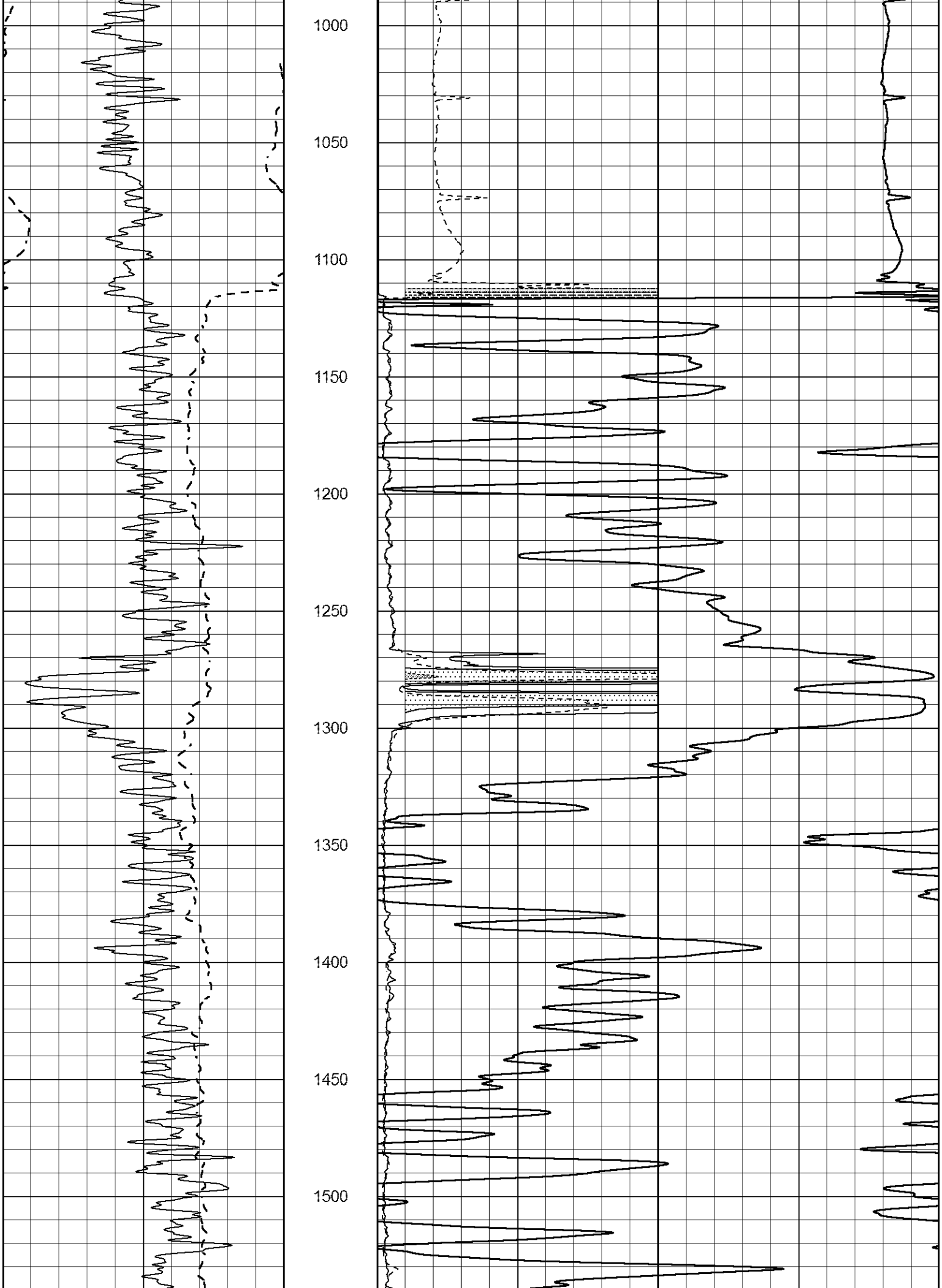
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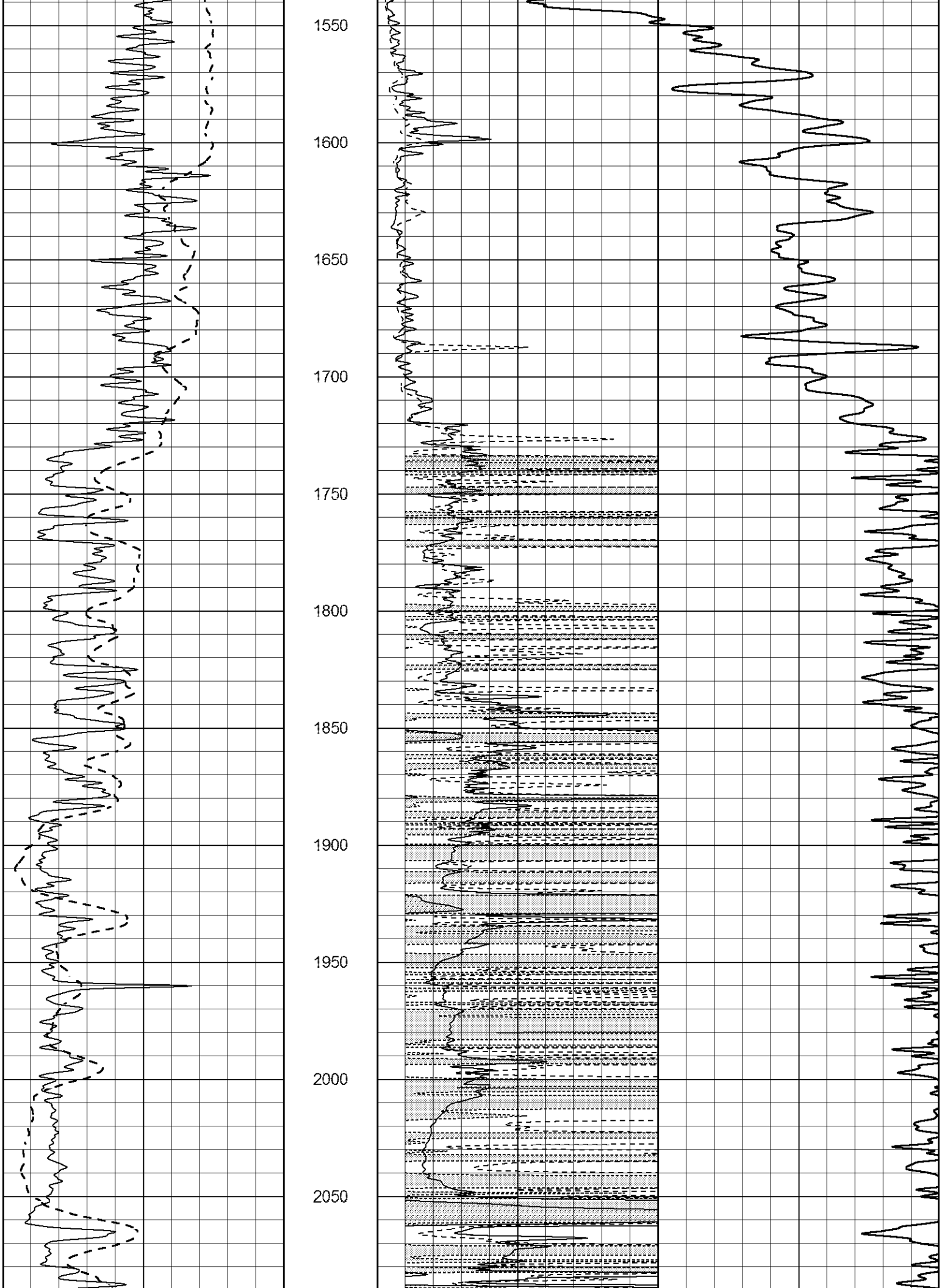
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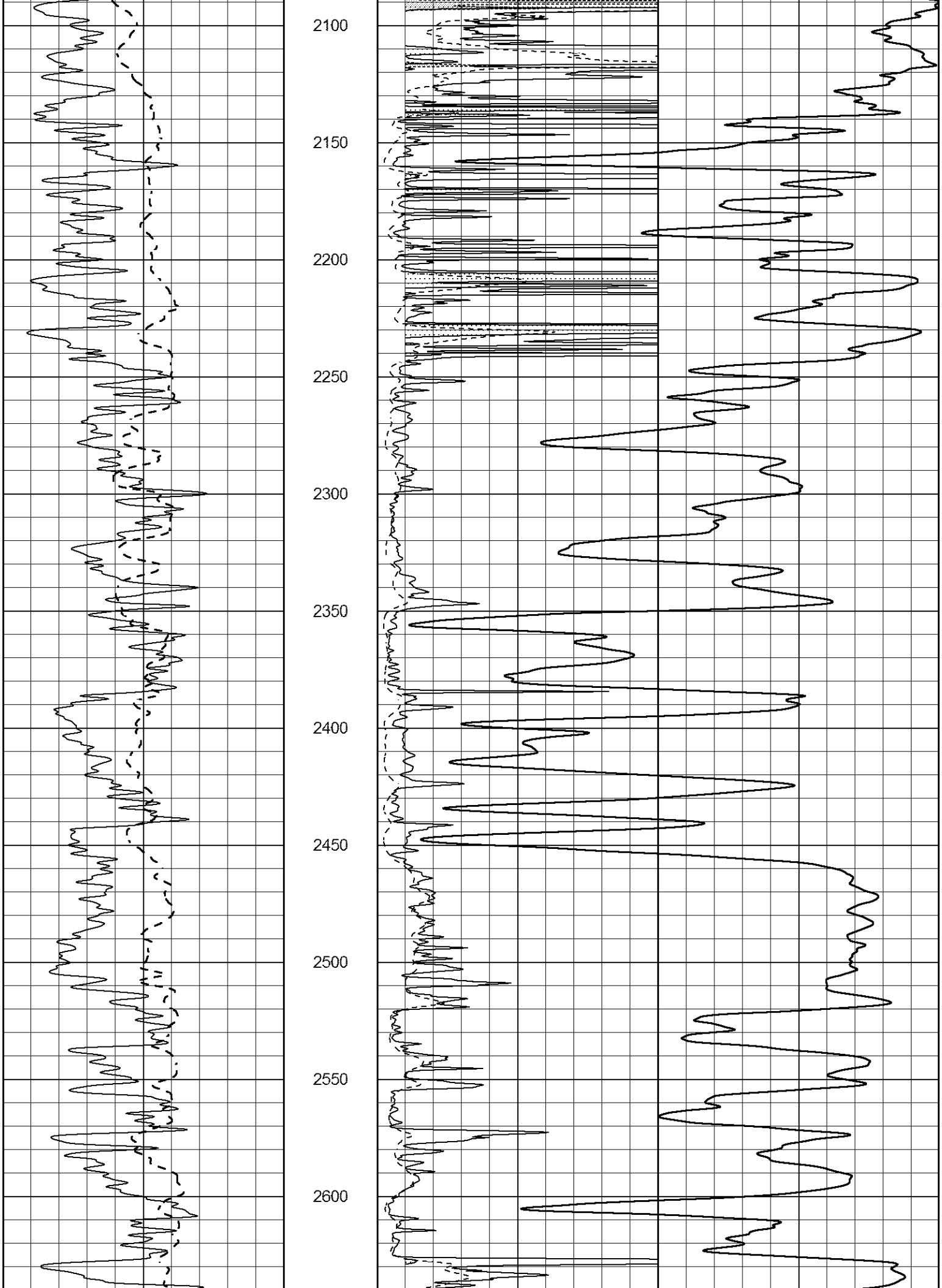
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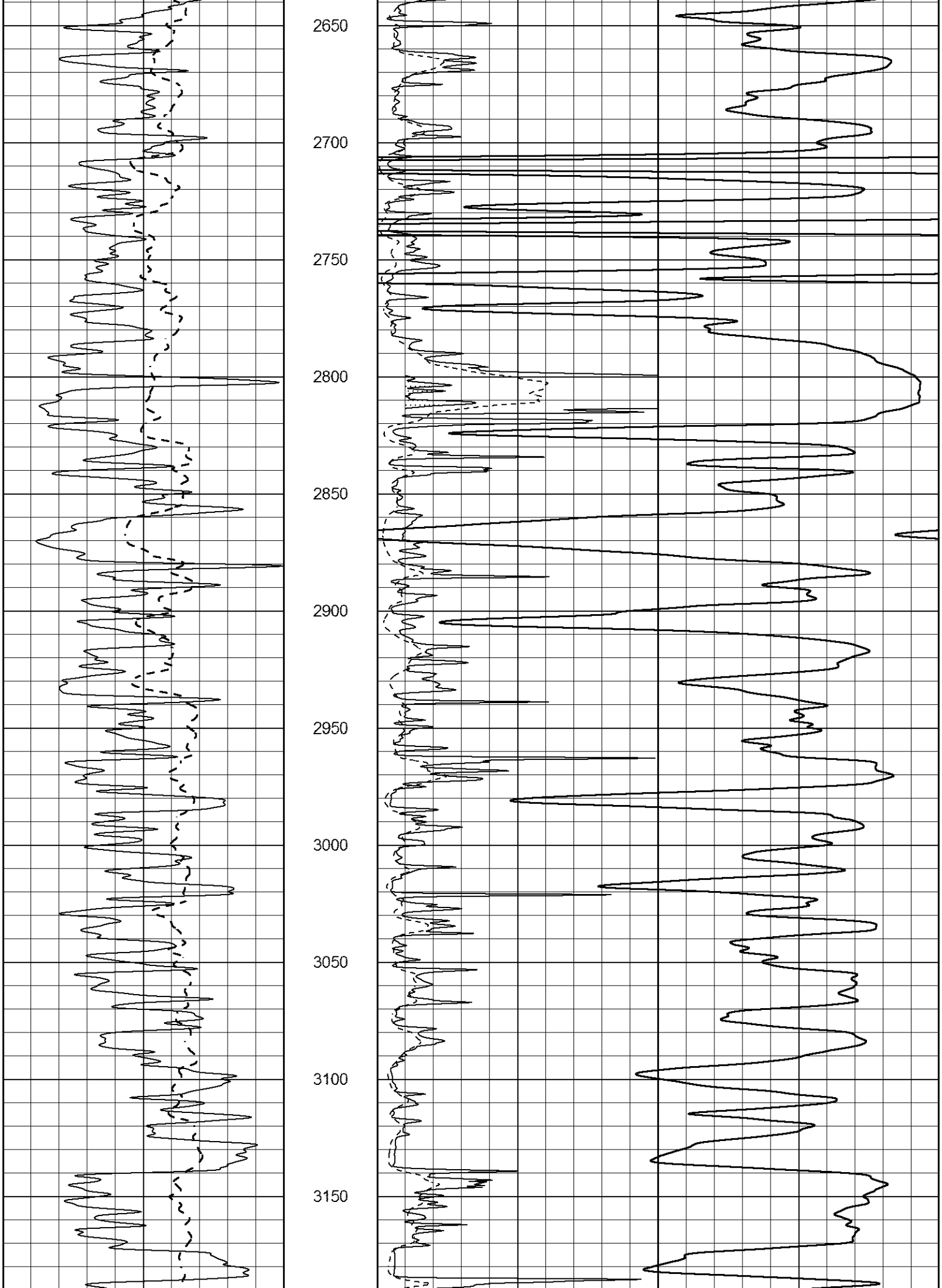
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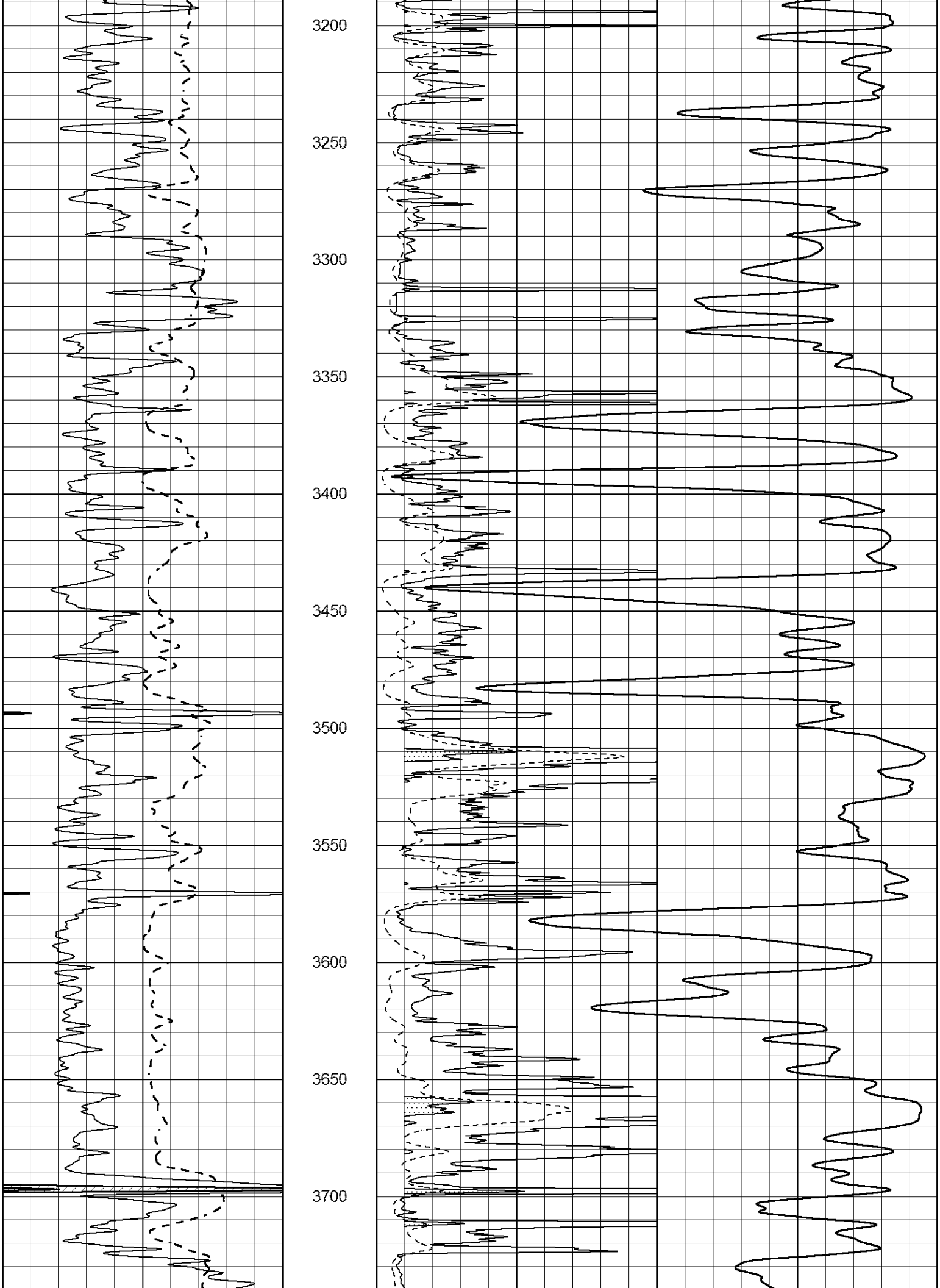
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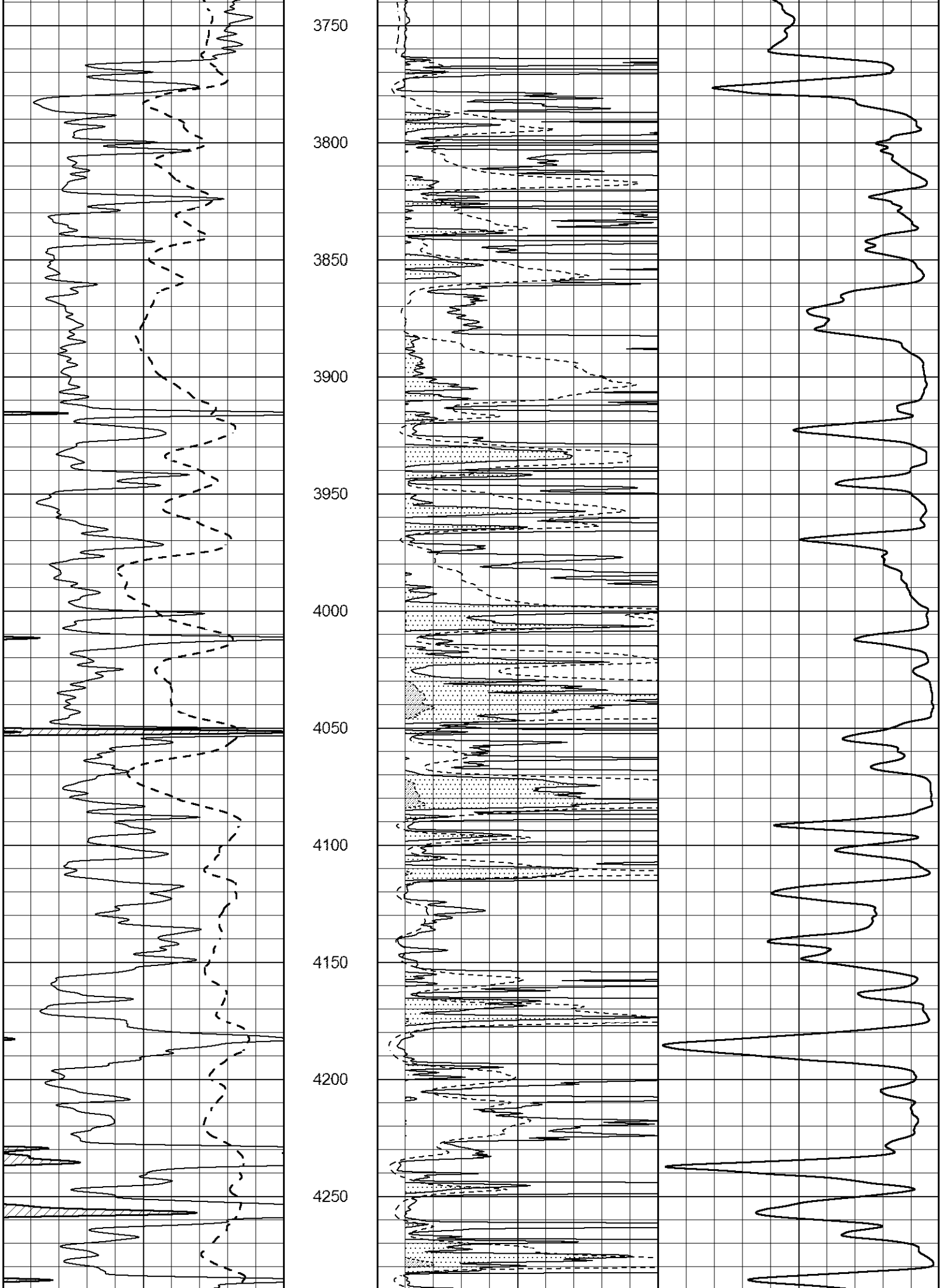
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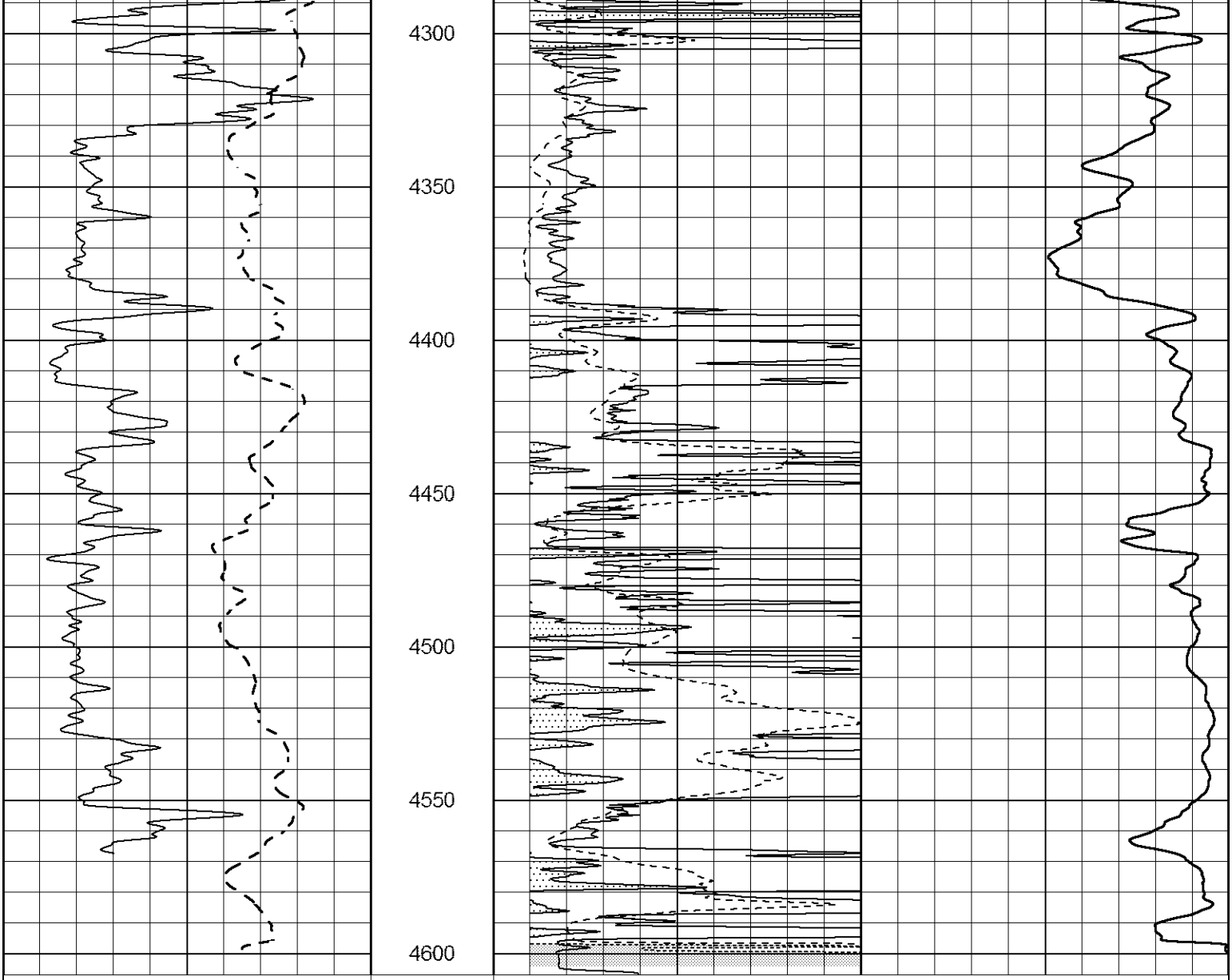
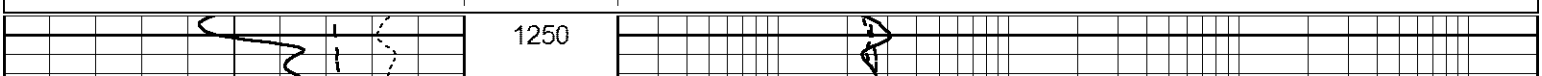


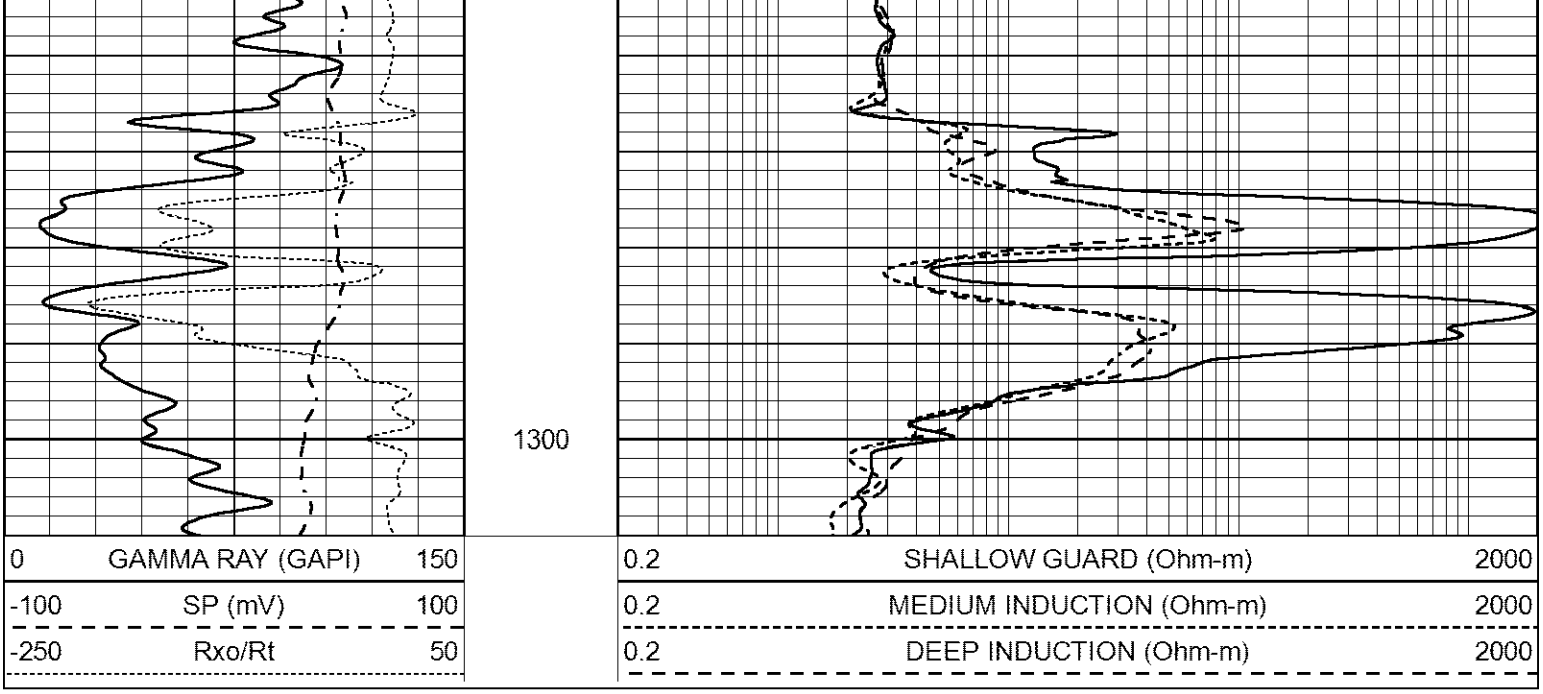
ANHYDRITE

Database File	6549ddn.db
Dataset Pathname	pass4.1A
Presentation Format	_dil
Dataset Creation	Thu Jun 30 01:54:37 2022
Charted by	Depth in Feet scaled 1:240

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

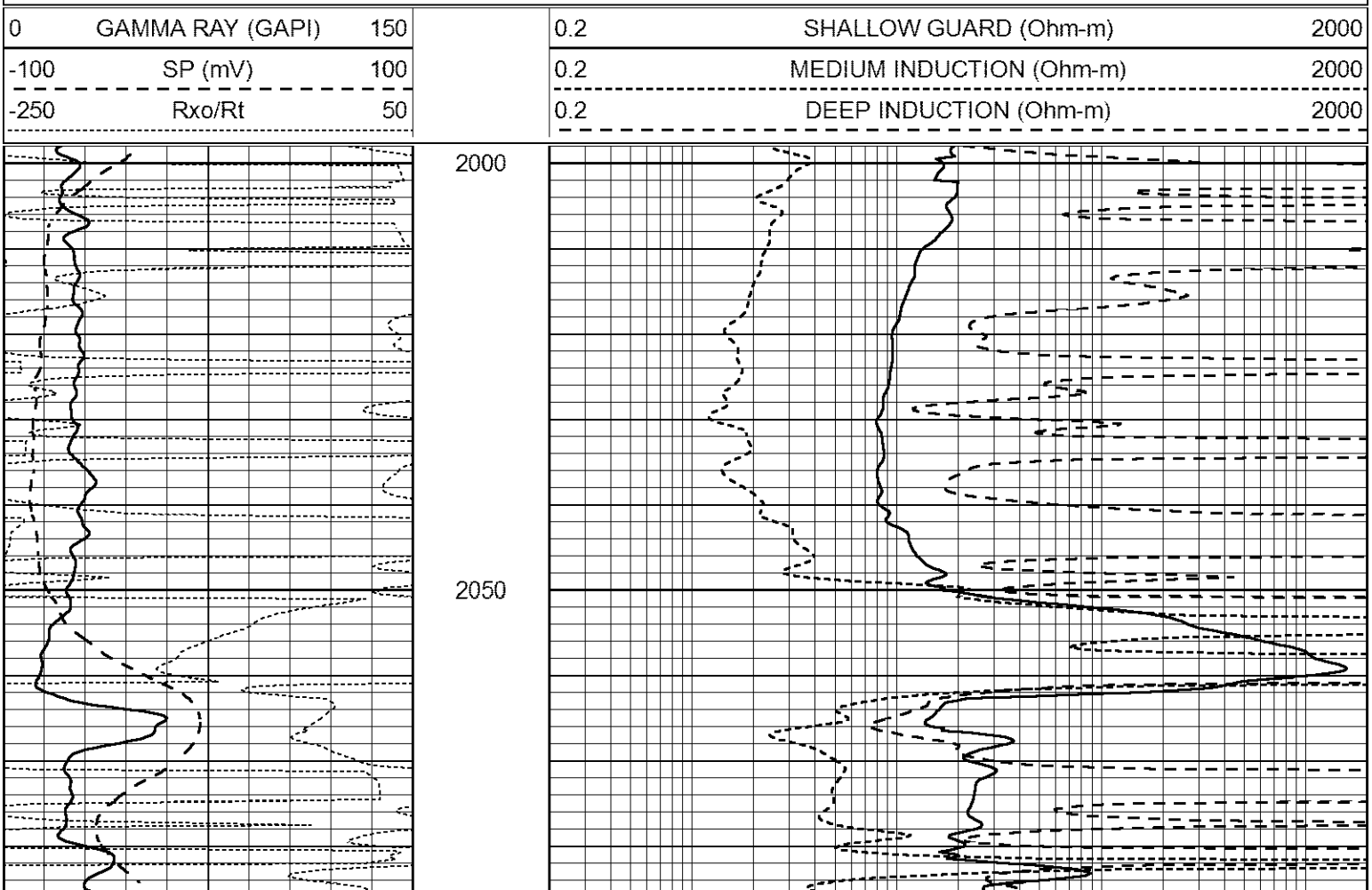
0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000

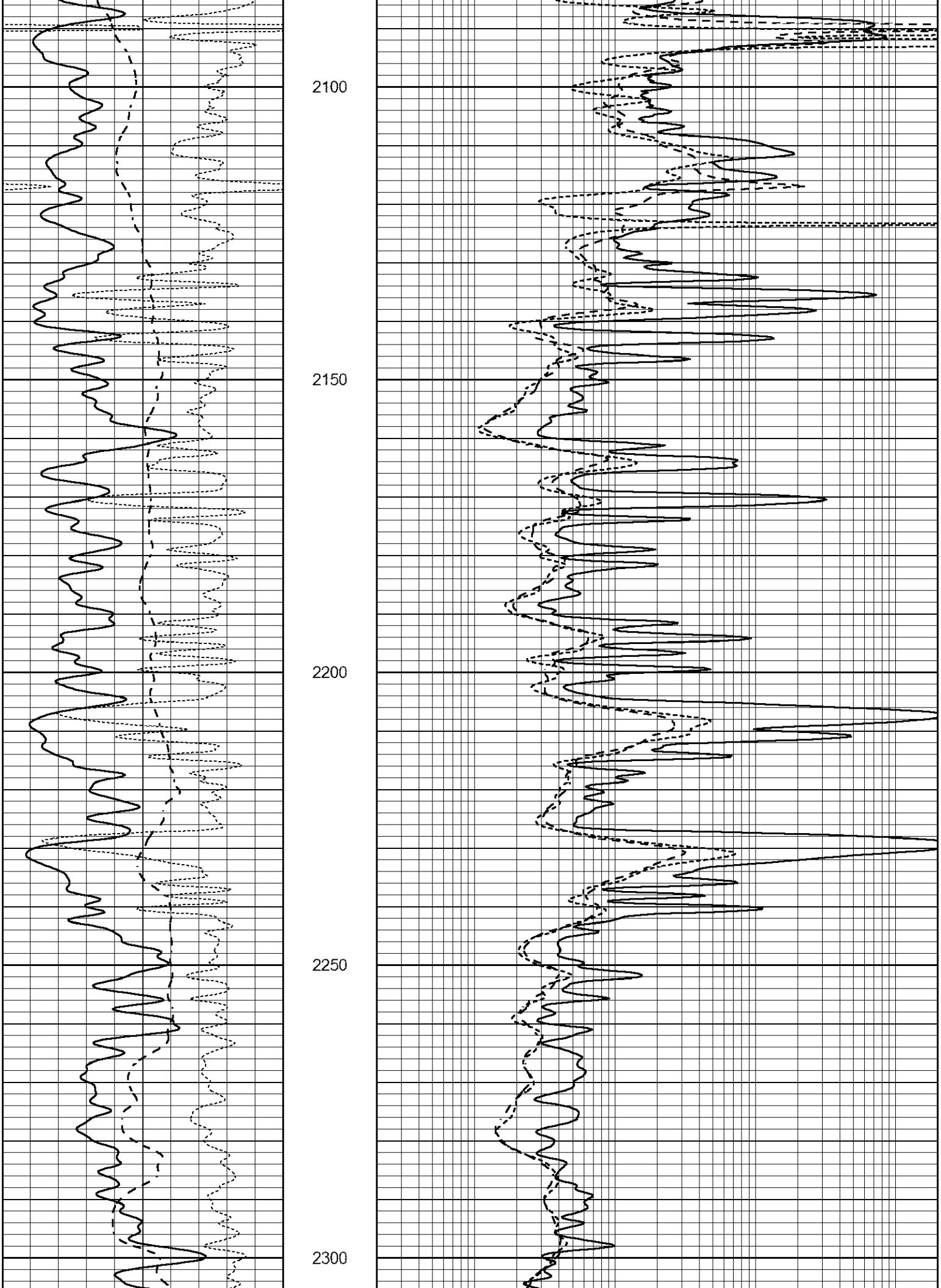




MAIN SECTION

Database File	6549ddn.db
Dataset Pathname	pass4.1M
Presentation Format	_dil
Dataset Creation	Thu Jun 30 01:46:26 2022
Charted by	Depth in Feet scaled 1:240

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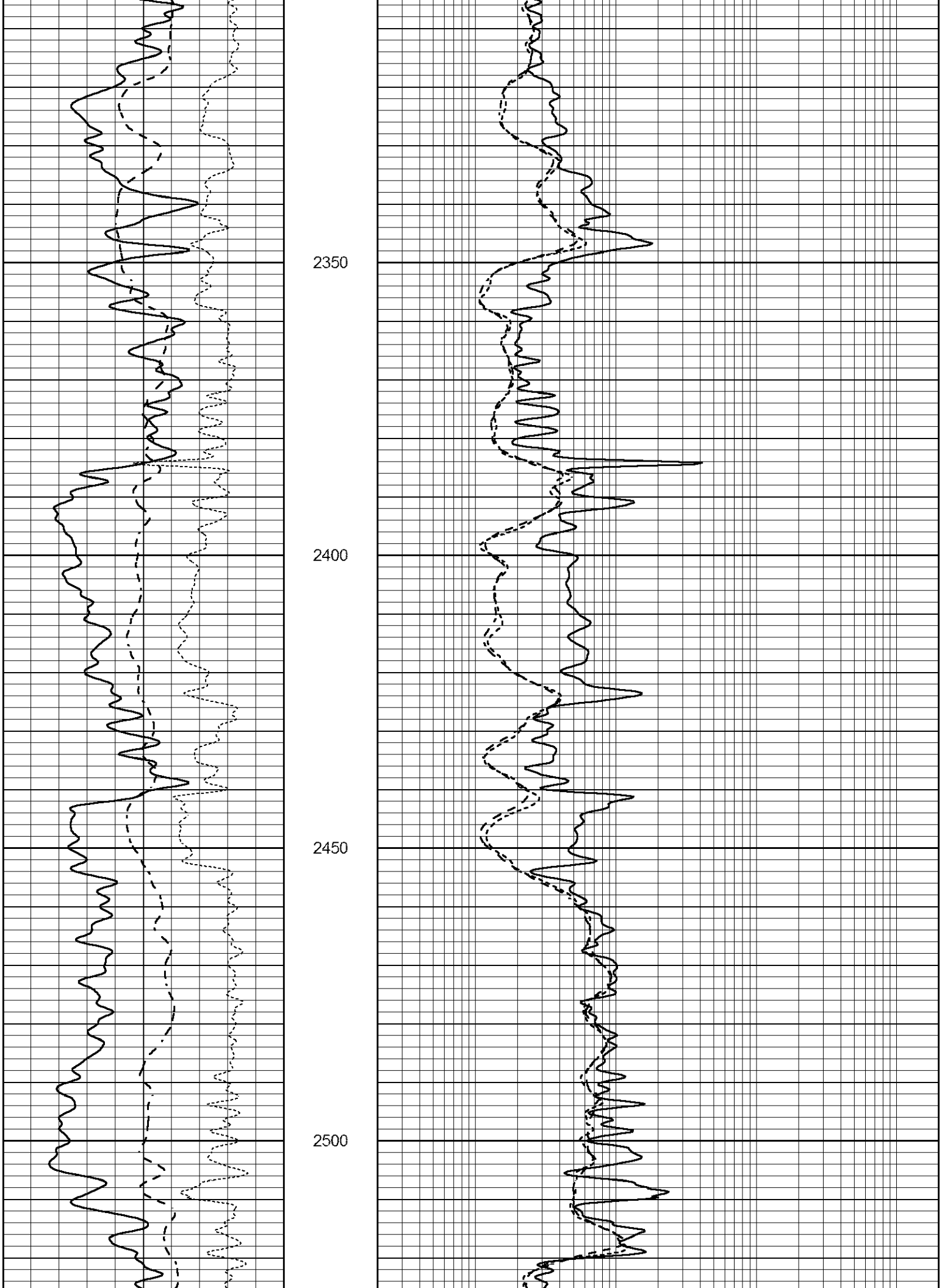
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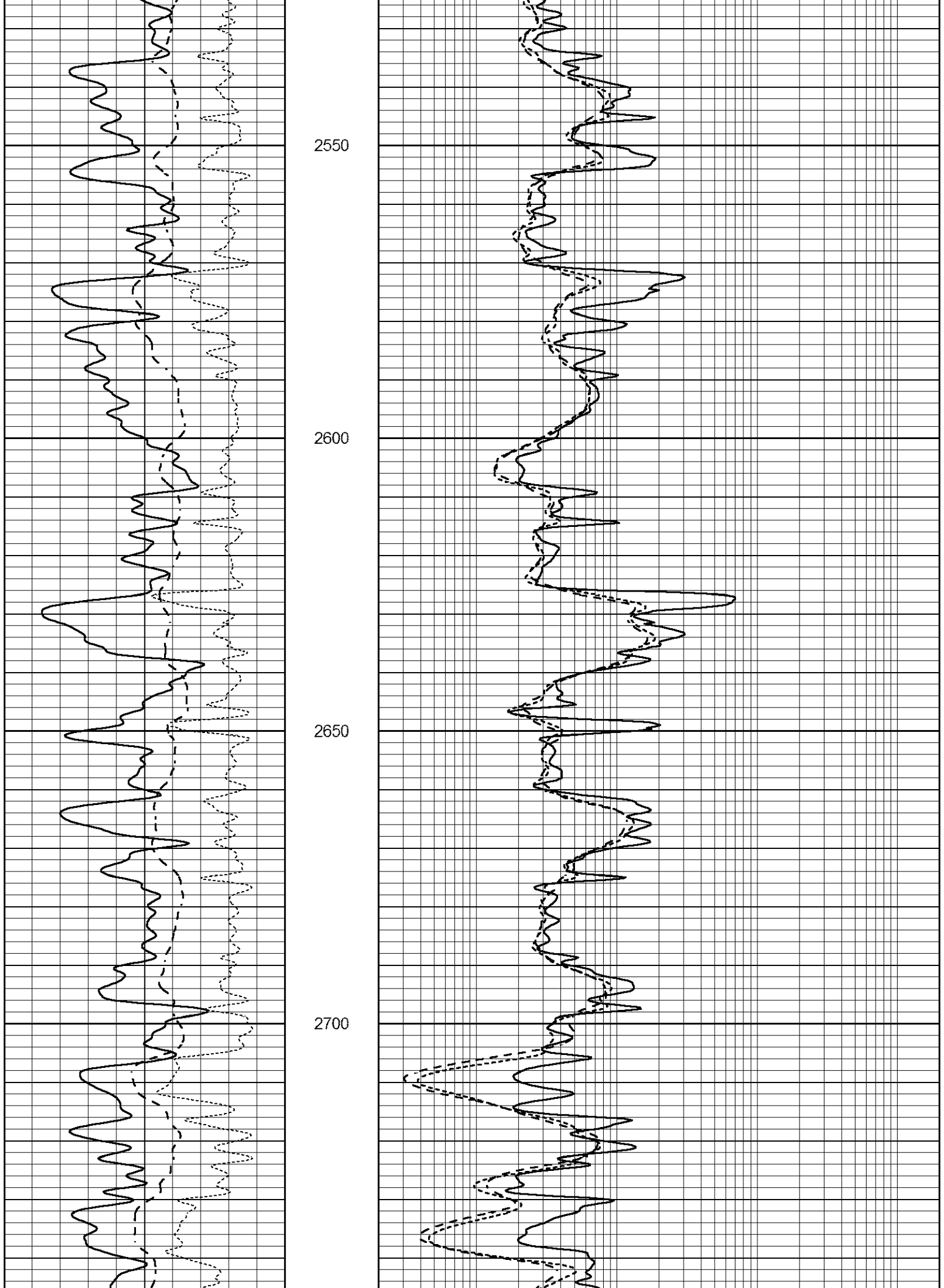
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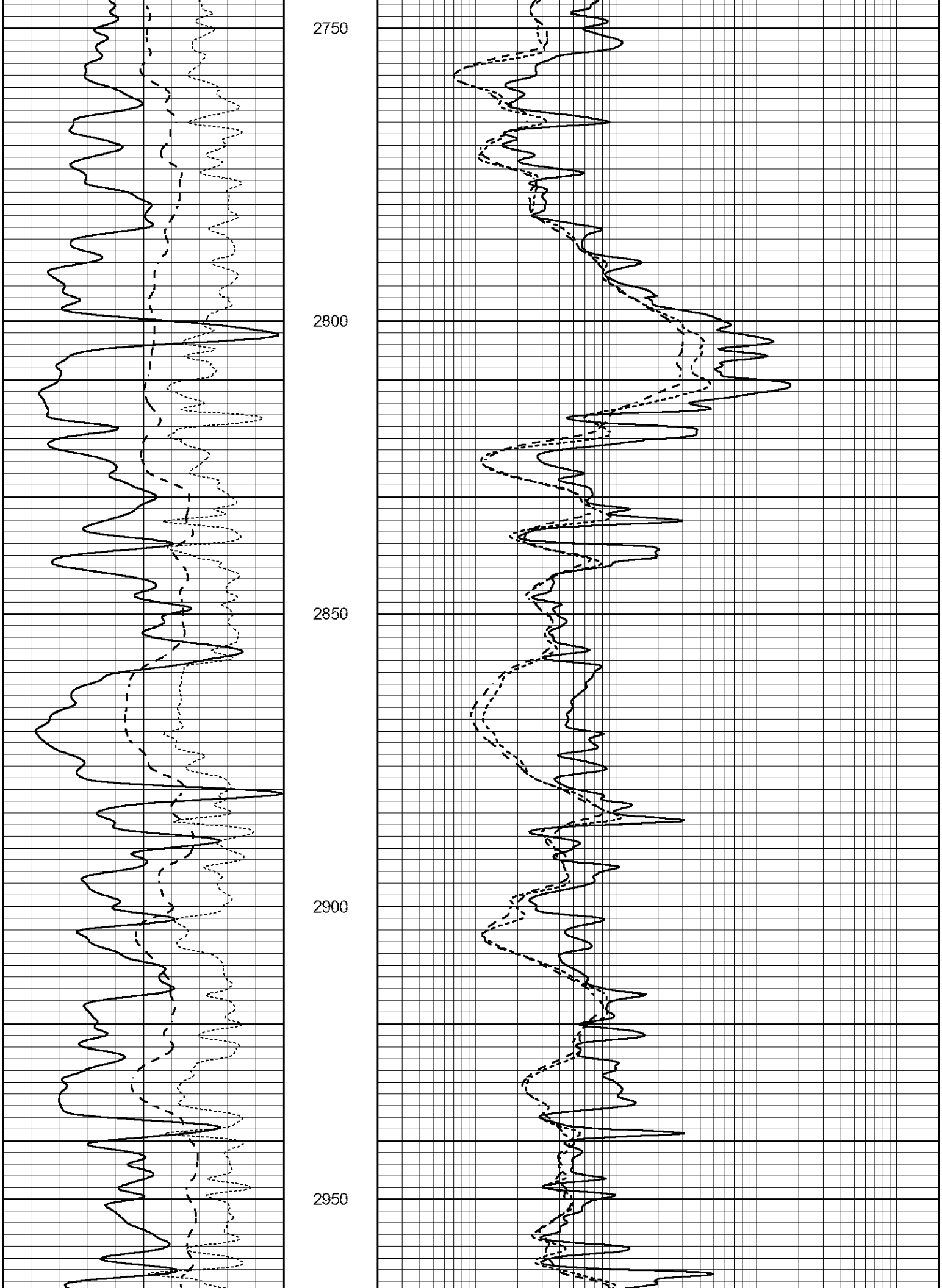
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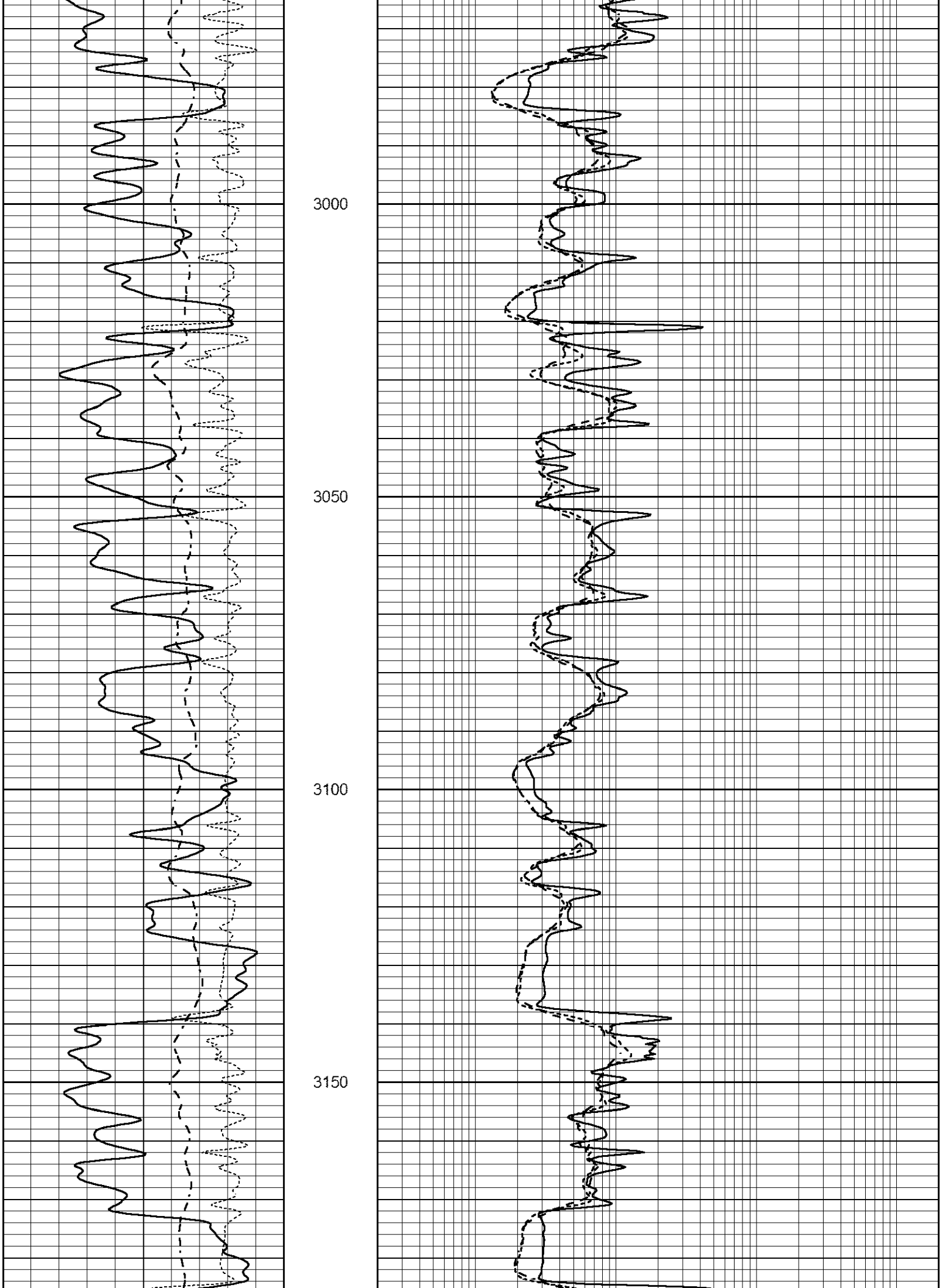
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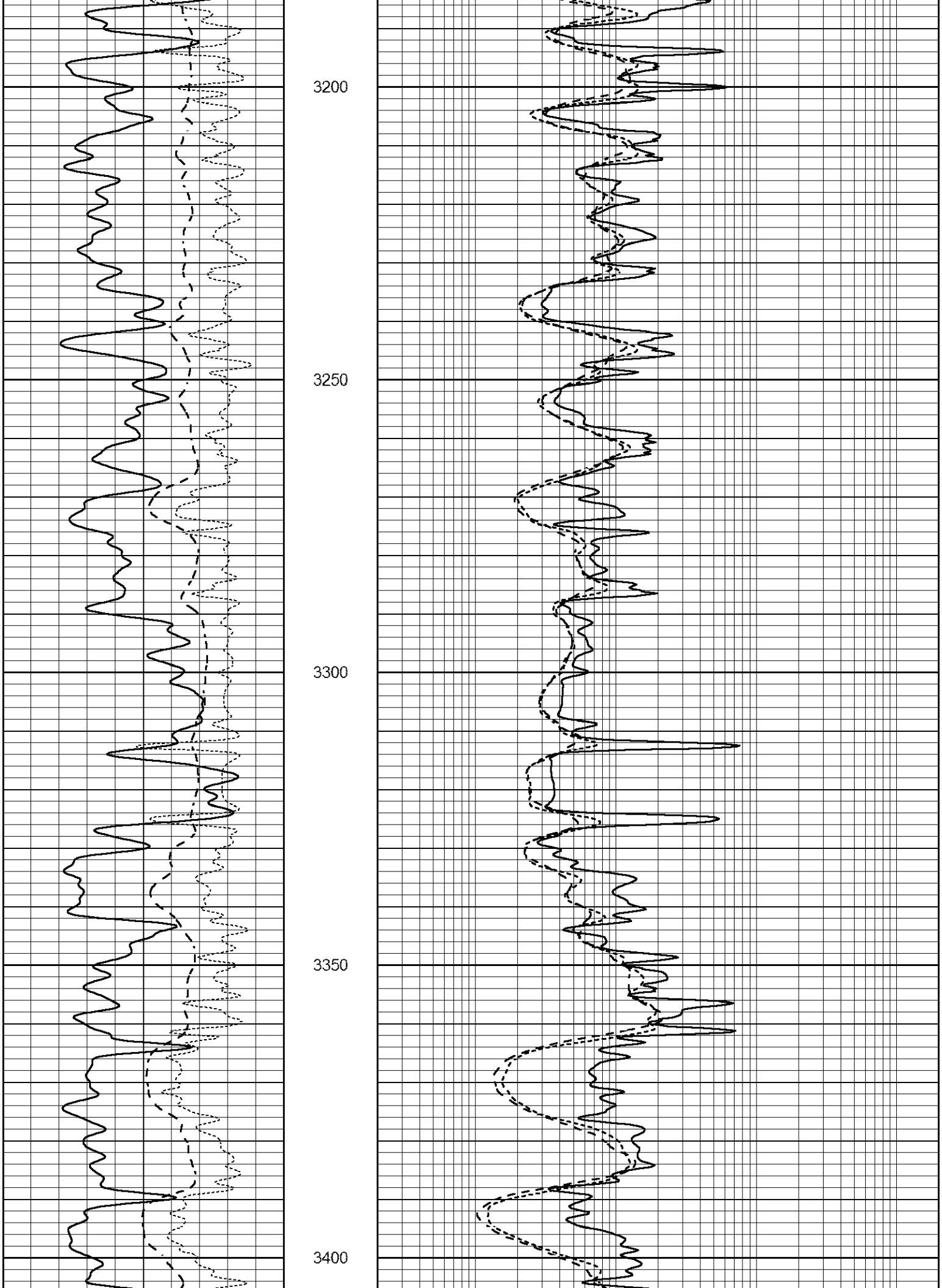
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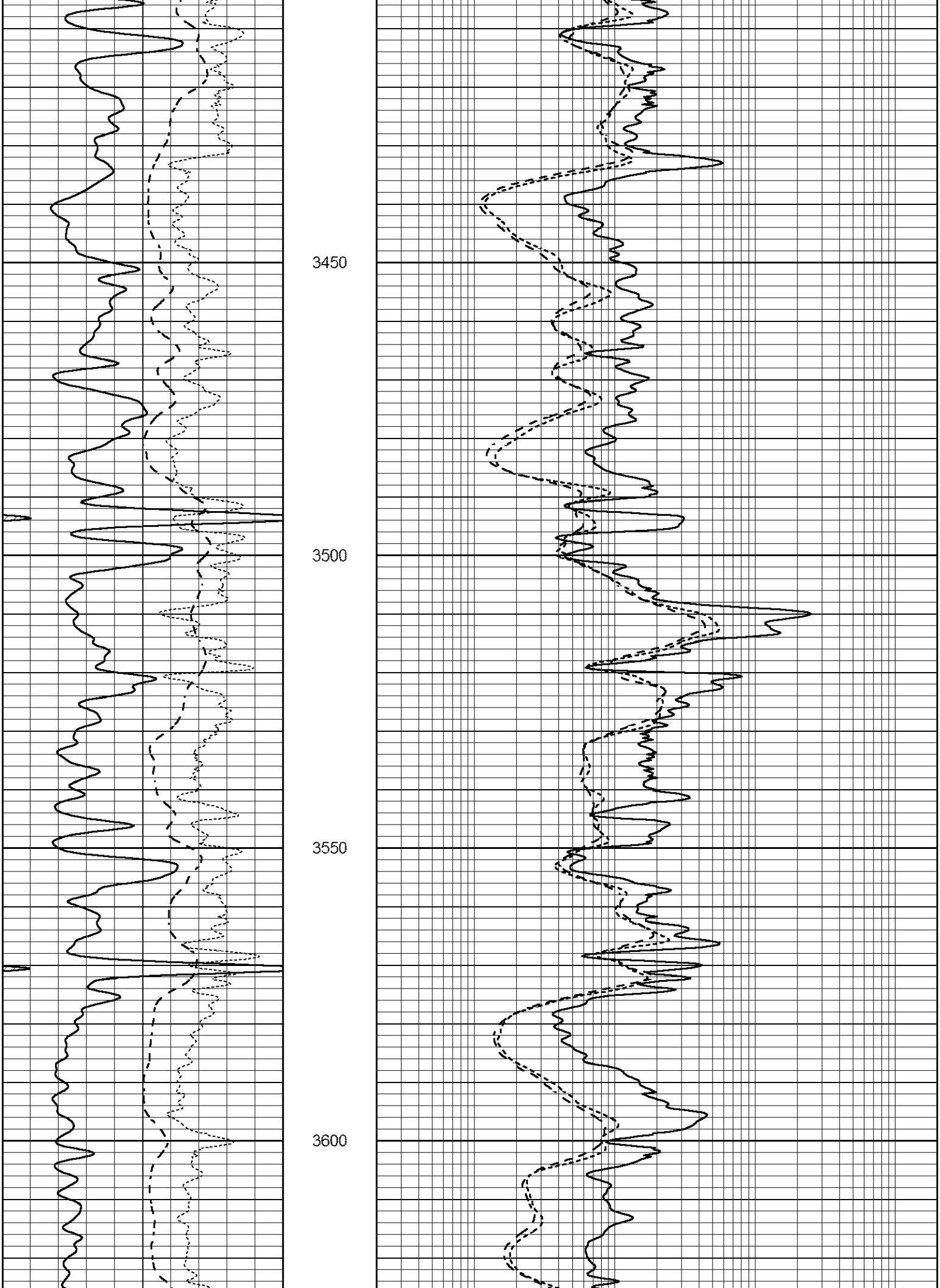
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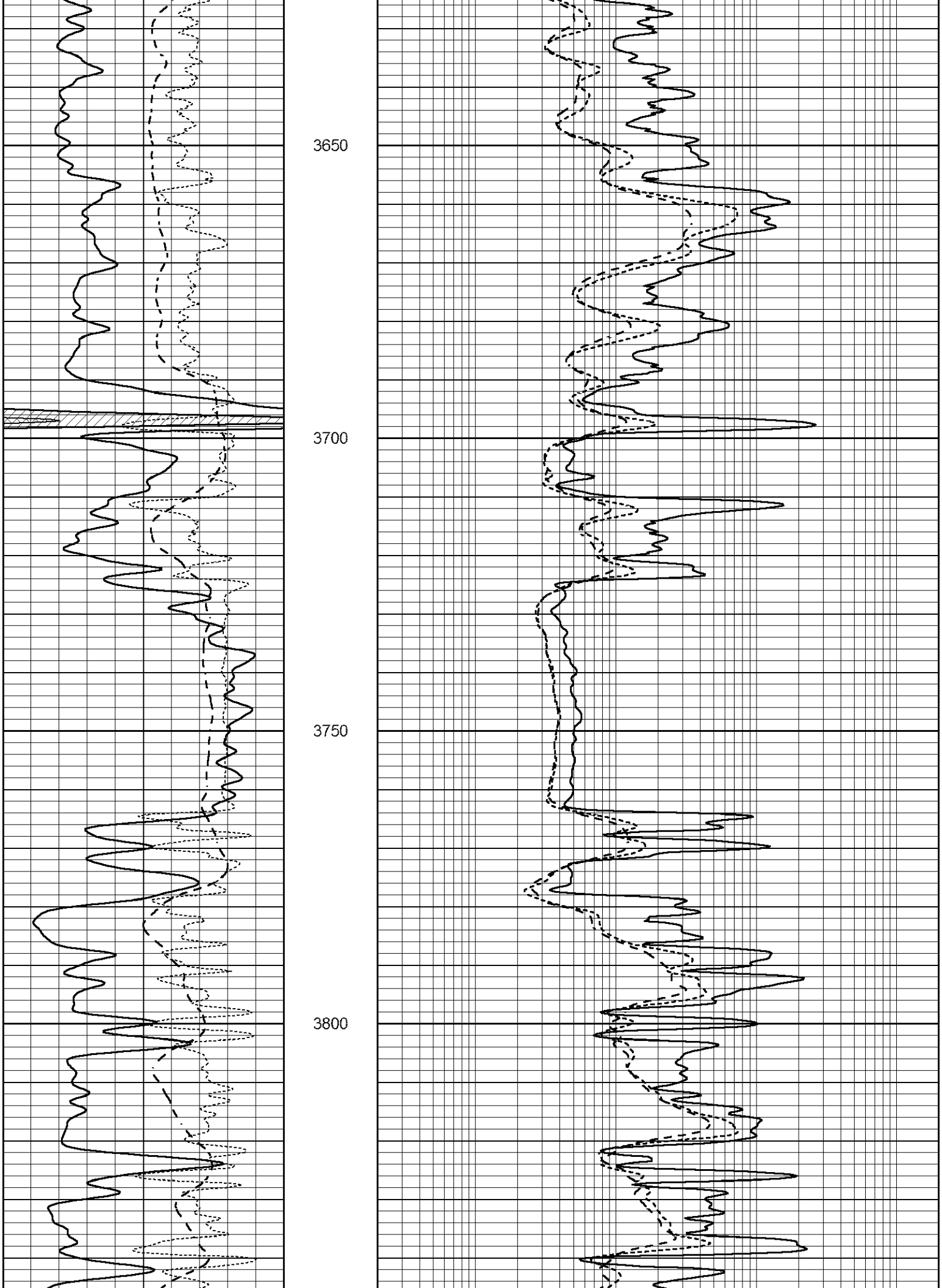
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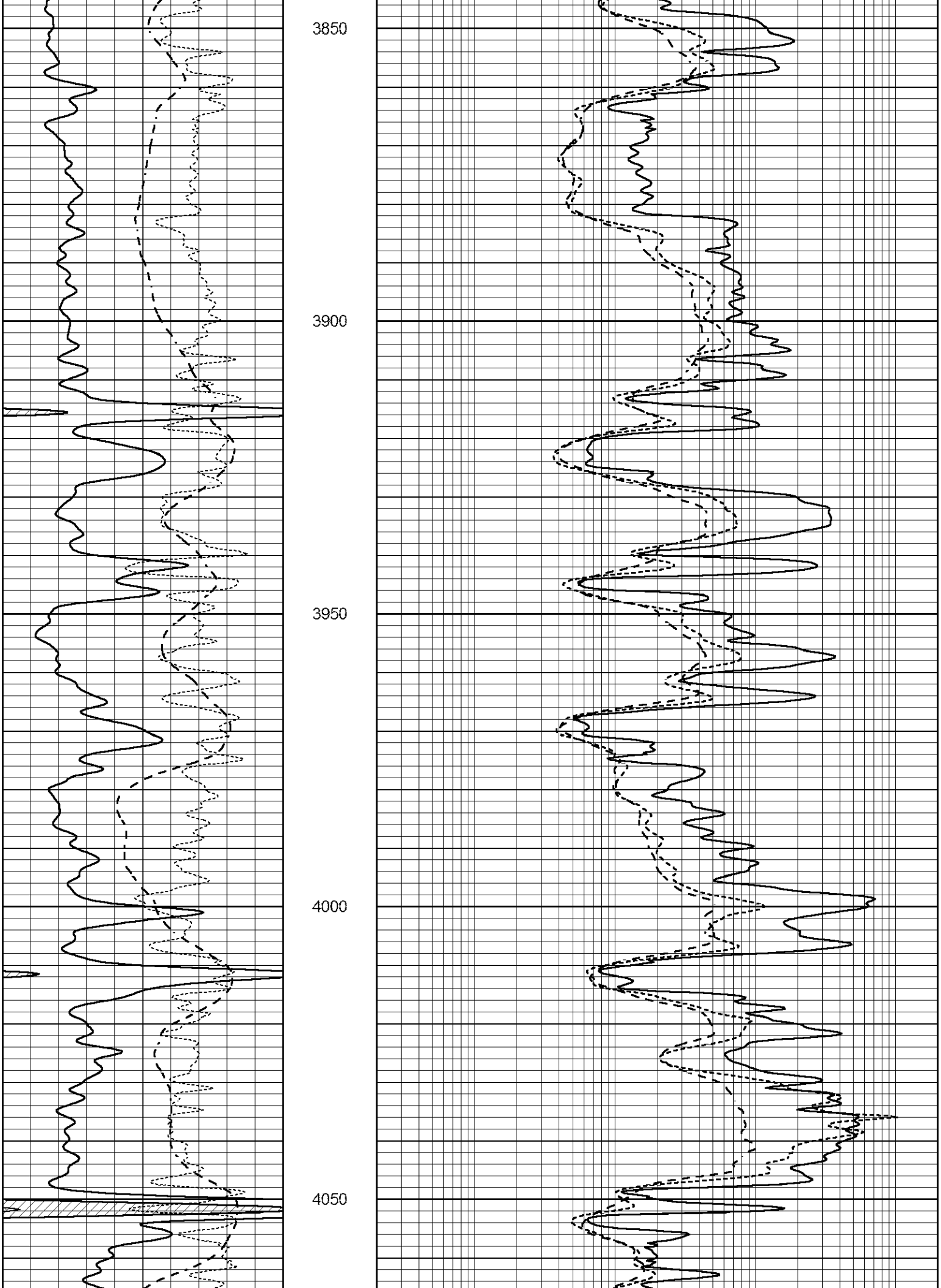
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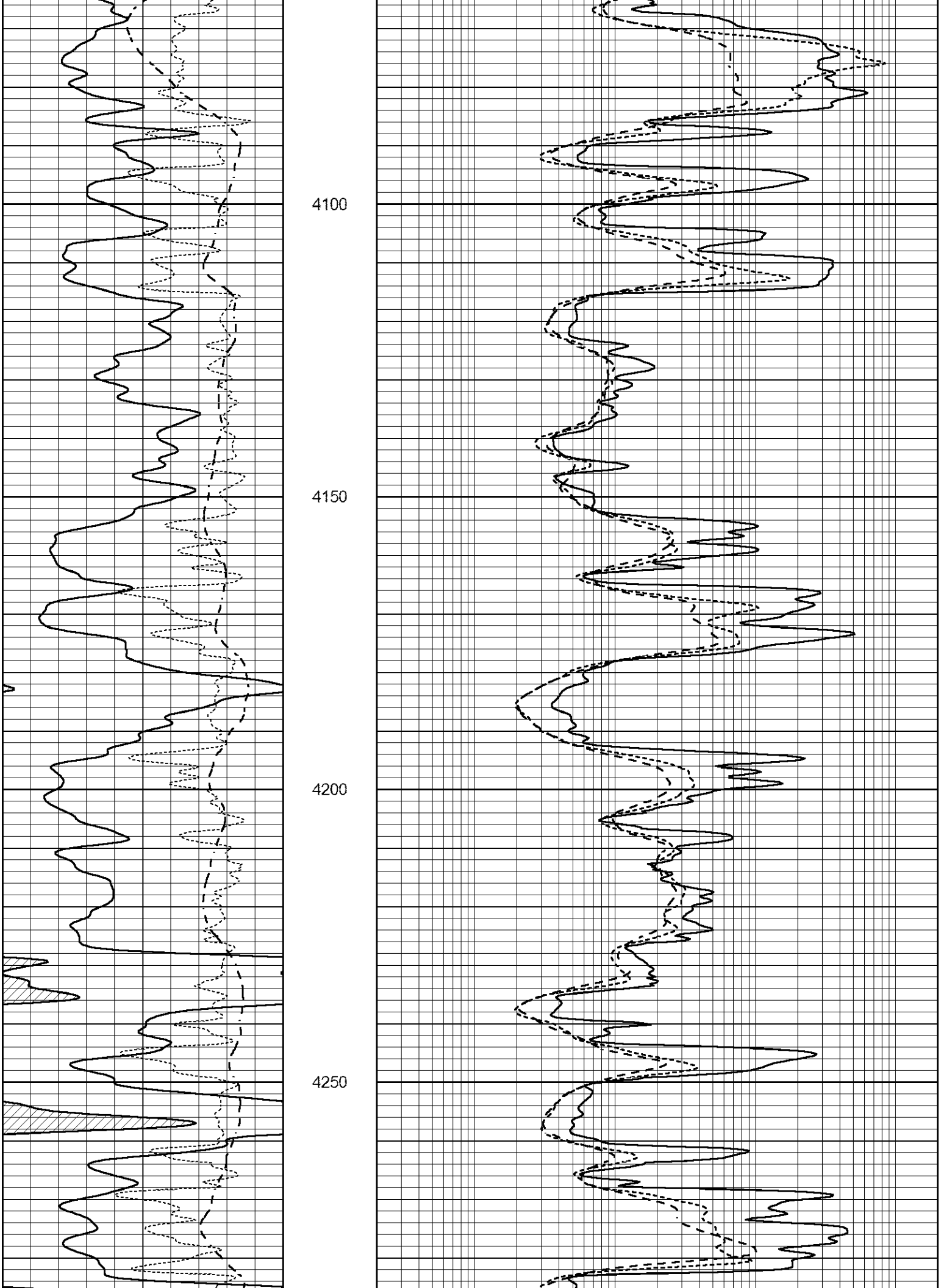
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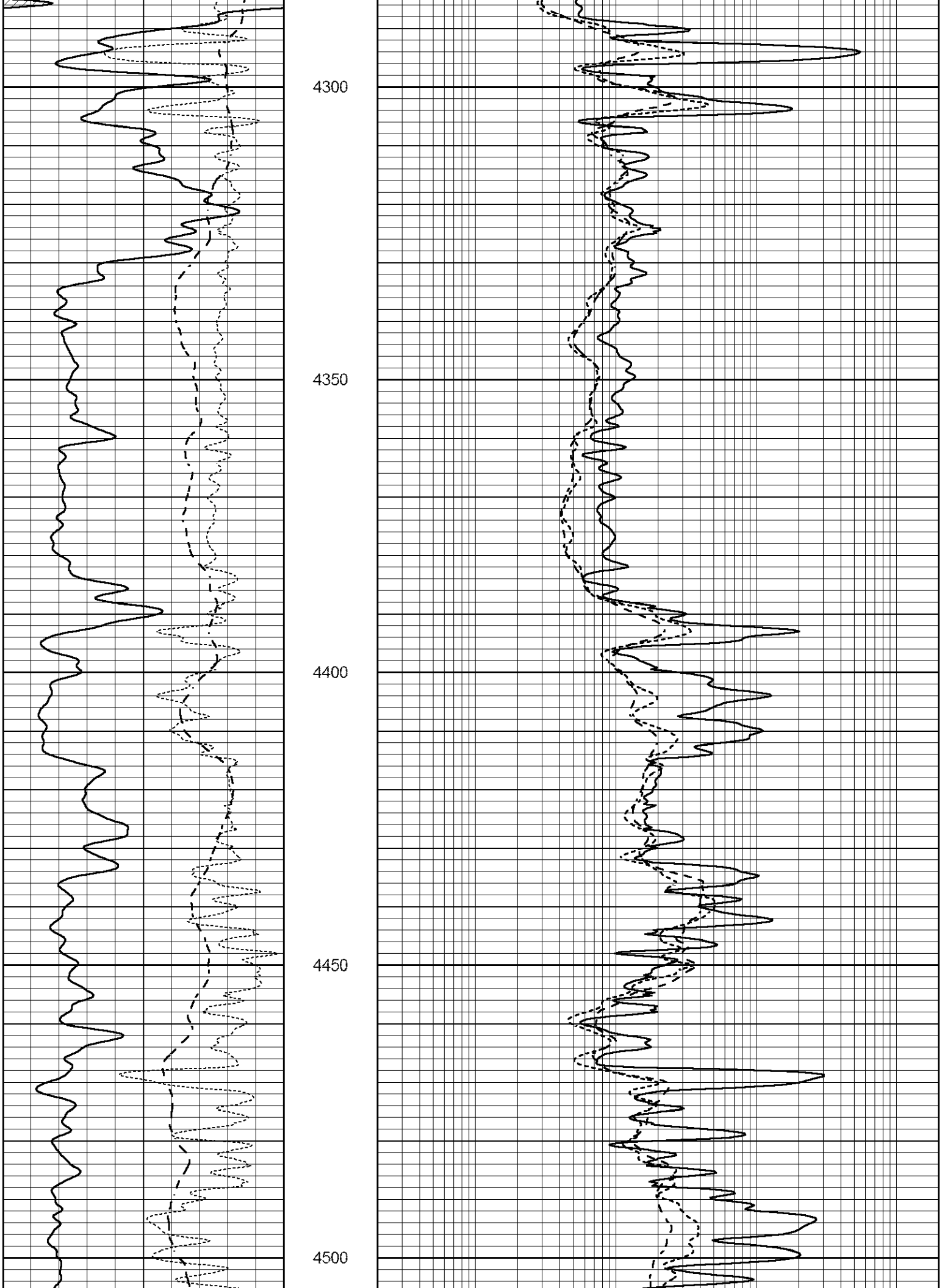
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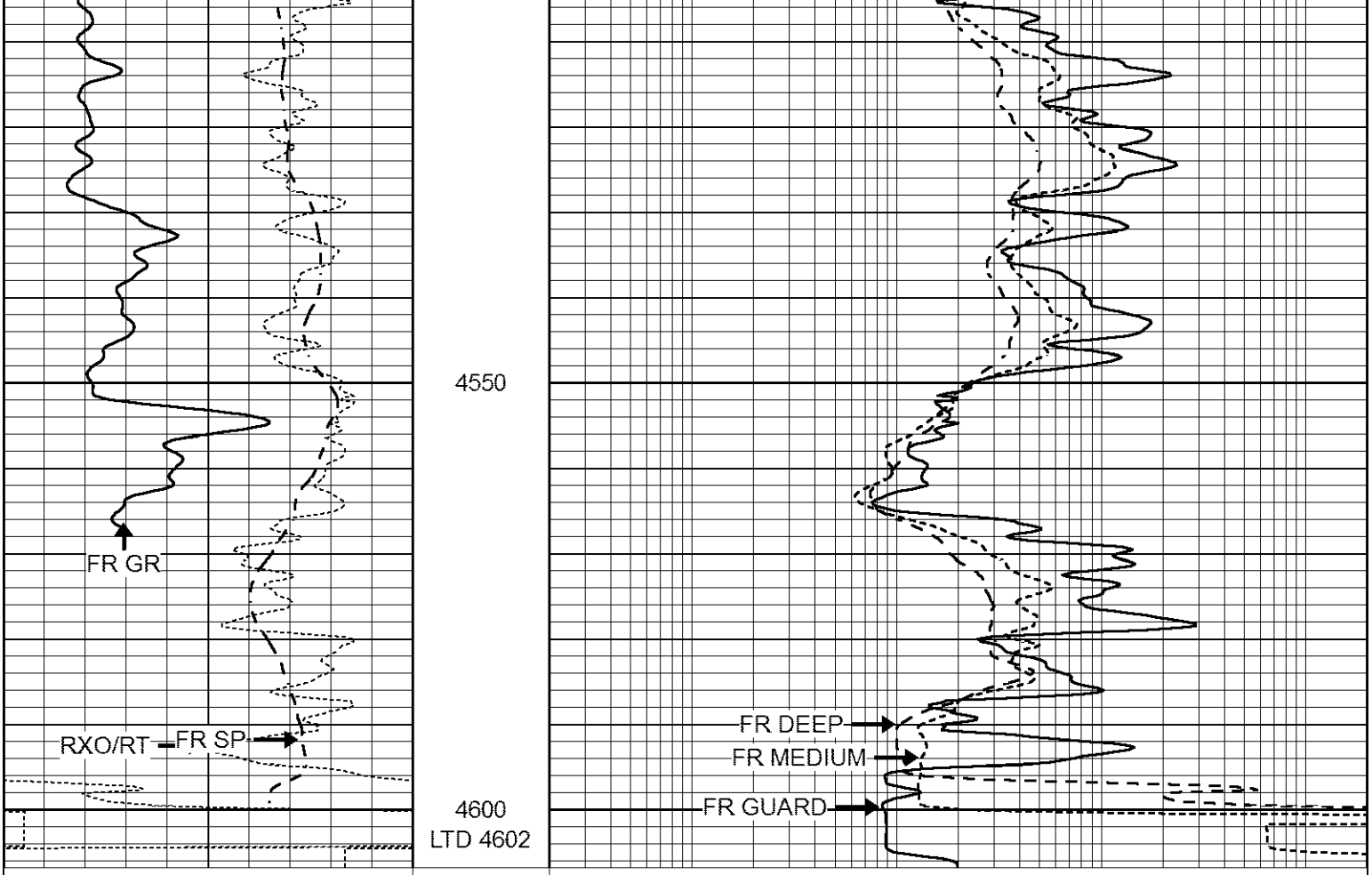


0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50

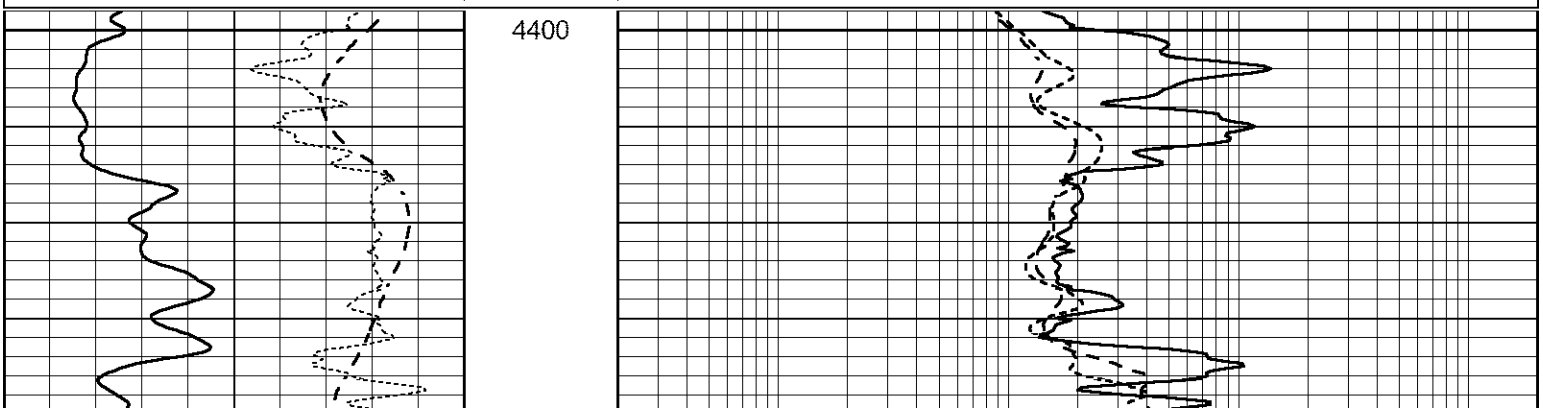
0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000

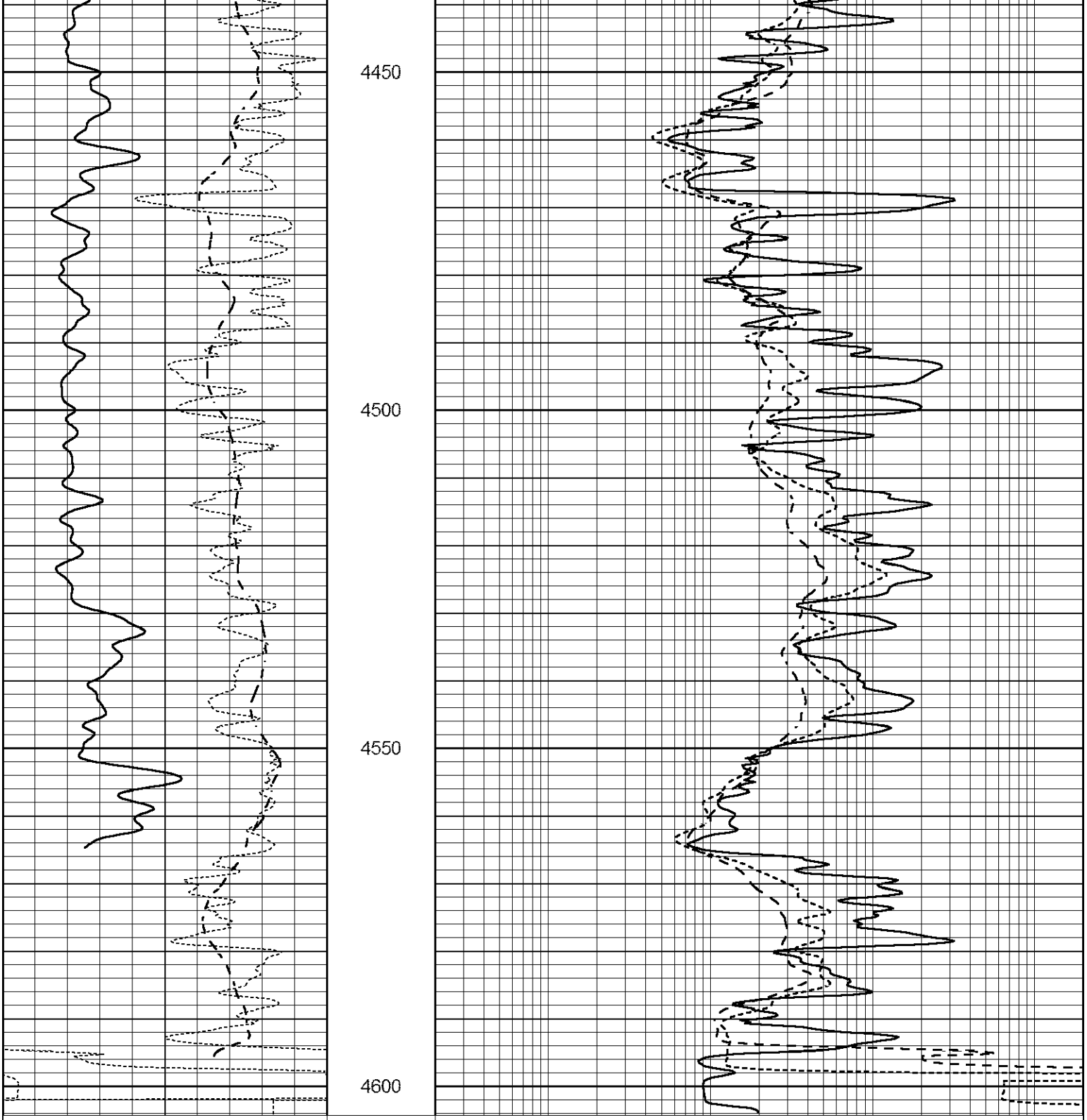
REPEAT SECTION

Database File	6549ddn.db
Dataset Pathname	pass3.1R
Presentation Format	_dil
Dataset Creation	Thu Jun 30 01:55:55 2022
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





Calibration Report

Database File	6549ddn.db
Dataset Pathname	pass4.1M
Dataset Creation	Thu Jun 30 01:46:26 2022

Dual Induction Calibration Report

Serial-Model:	FW1410-55-Probe
Surface Cal Performed:	Sun May 15 19:17:36 2022
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	650.000	-3.000
Medium	-0.000	0.731	V	1.000	464.000	mmho/m	632.856	-12.000
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		

Litho Density Calibration Report

Serial: 140704
Model: V4_10P
Source Number: 74GBq-19

Master Calibration

Performed: Mon May 23 14:22:47 2022

	Background	Aluminum	Magnesium	
Window 1	511.07	5437.36	23664.68	cps
Window 2	40.76	1220.39	5745.34	cps
Window 4	223.73	1233.64	5301.27	cps
Window 5	531.57	7878.13	15405.81	cps
Window 6	48.52	1245.17	2497.97	cps
Window 8	246.02	2578.14	4974.07	cps
Bulk Density	-	2.6020	1.6830	g/cc
Pe	-	3.0000	2.5070	b/e

LS Alpha:	: -1.8413	SS Alpha:	: -0.8034	LS CPE:	: 1.1579
LS Beta:	: 124864.8423	SS Beta:	: 19537.1506	SS CPE:	: 1.6371

Before Survey Backround Counts Verification

Performed: Wed Dec 31 18:00:00 1969

Window 1	0.00	cps
Window 2	0.00	cps
Window 4	0.00	cps
Window 5	0.00	cps
Window 6	0.00	cps

Window 8	0.00	cps

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

Window 1	0.00	cps
Window 2	0.00	cps
Window 4	0.00	cps
Window 5	0.00	cps
Window 6	0.00	cps
Window 8	0.00	cps

Lithodensity Caliper Calibration — Performed: Mon May 23 14:22:47 2022

Results Readings		References (in)			
Low	High	Low	High	Gain	Offset
8210.8	12139.3	7.0	14.0	0.0	-7.3

Before Survey Caliper Verification — Performed:

	Reference	Reading
Caliper (in)		

After Survey Caliper Verification — Performed:

	Reference	Reading
Caliper (in)		

Compensated Neutron Calibration Report

Serial Number: 080621PMC
Tool Model: NABORS

PRE-SURVEY VERIFICATION

Detector	Readings	Measured	Target
Short Space	cps		
Long Space	cps	pu	pu

POST-SURVEY VERIFICATION

Detector	Readings	Measured	Target
Short Space	cps		
Long Space	cps	pu	pu

Gamma Ray Calibration Report

Serial Number: 7
Tool Model: Probe1
Performed: Thu May 26 08:56:46 2022

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps
Calibrator Reading: 1.0 cps

Sensitivity: 0.5500 GAPI/cps