SUPERIOR WELL SERVICES

SUPERIOR
Hays,
Kansas

DUAL INDUCTION LOG

Company PIONEER EXPLORATION, LLC.
Well DIRKS #4
Field SHARON NORTH
County HARPER State KANSAS

Location: API # : 15-077-21670

990' FSL & 580' FEL

SEC 29 TWP 31S RGE 9W

Other Services
CDL/CNL
MICRO

Elevation
K.B. 1631
D.F.
G.L. 1624

Permanent Datum GROUND LEVEL Elevation 1624
Log Measured From KELLY BUSHING 7' A.G.L.
Drilling Measured From KELLY BUSHING

Date	3-27-10		
Run Number	ONE		
Depth Driller	4605		
Depth Logger	4603		
Bottom Logged Interval	4601		
Top Log Interval	00		
Casing Driller	265		
Casing Logger	265		
Bit Size	7.875		
Type Fluid in Hole	CHEMICAL MUD		
Density / Viscosity	9.2 / 50		
pH / Fluid Loss	10.0 / 8.8		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	0.75 @ 77F		
Rmf @ Meas. Temp	0.56 @ 77F		
Rmc @ Meas. Temp	0.90 @ 77F		
Source of Rmf / Rmc	MEASURED		
Rm @ BHT	.480 @ 121F		
Time Circulation Stopped	3 HOURS		
Time Logger on Bottom	9:30 P.M.		
Maximum Recorded Temperature	121F		
Equipment Number	860		
Location	HAYS, KS.		
Recorded By	RUPP		
Witnessed By	SEAN DEENIHAN		

Company PIONEER EXPLORATION, LLC.
Well DIRKS #4
Field SHARON NORTH
County HARPER
State KANSAS

<<< Fold Here >>>

Comments

SUPERIOR WELL SERVICES
785-628-6395
THANK YOU FOR YOUR BUSINESS
DIRECTIONS: SHARON, E TO RD. #150, 4N, W INTO.

MAIN SECTION

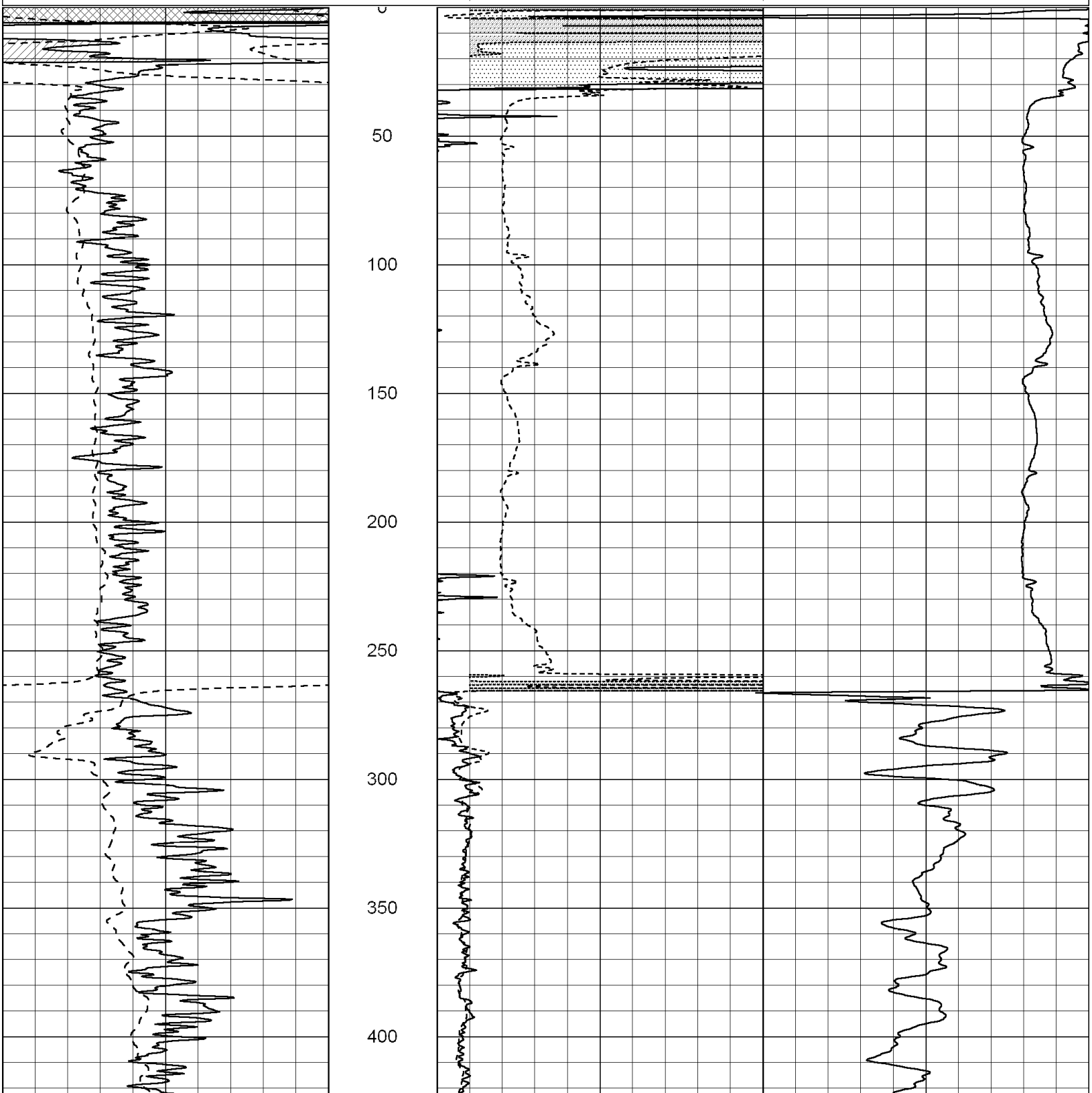
SUPERIOR
Hays,
Kansas
SUPERIOR WELL SERVICES

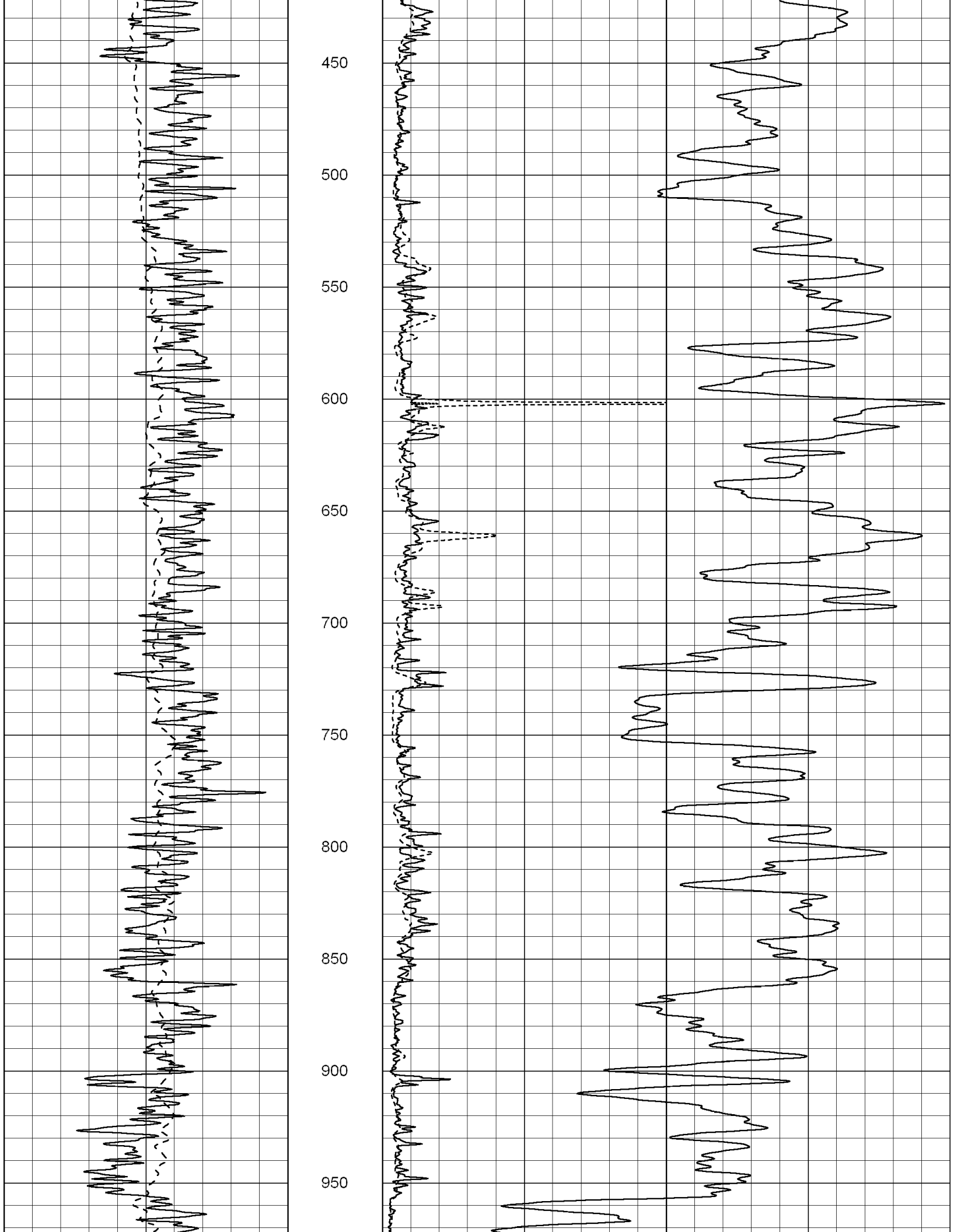
Kansas

Database File:	004621ddn.db
Dataset Pathname:	pass3A
Presentation Format:	dil2
Dataset Creation:	Sat Mar 27 12:12:06 2010 by Calc Open-Cased 090629
Charted by:	Depth in Feet scaled 1:600

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

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

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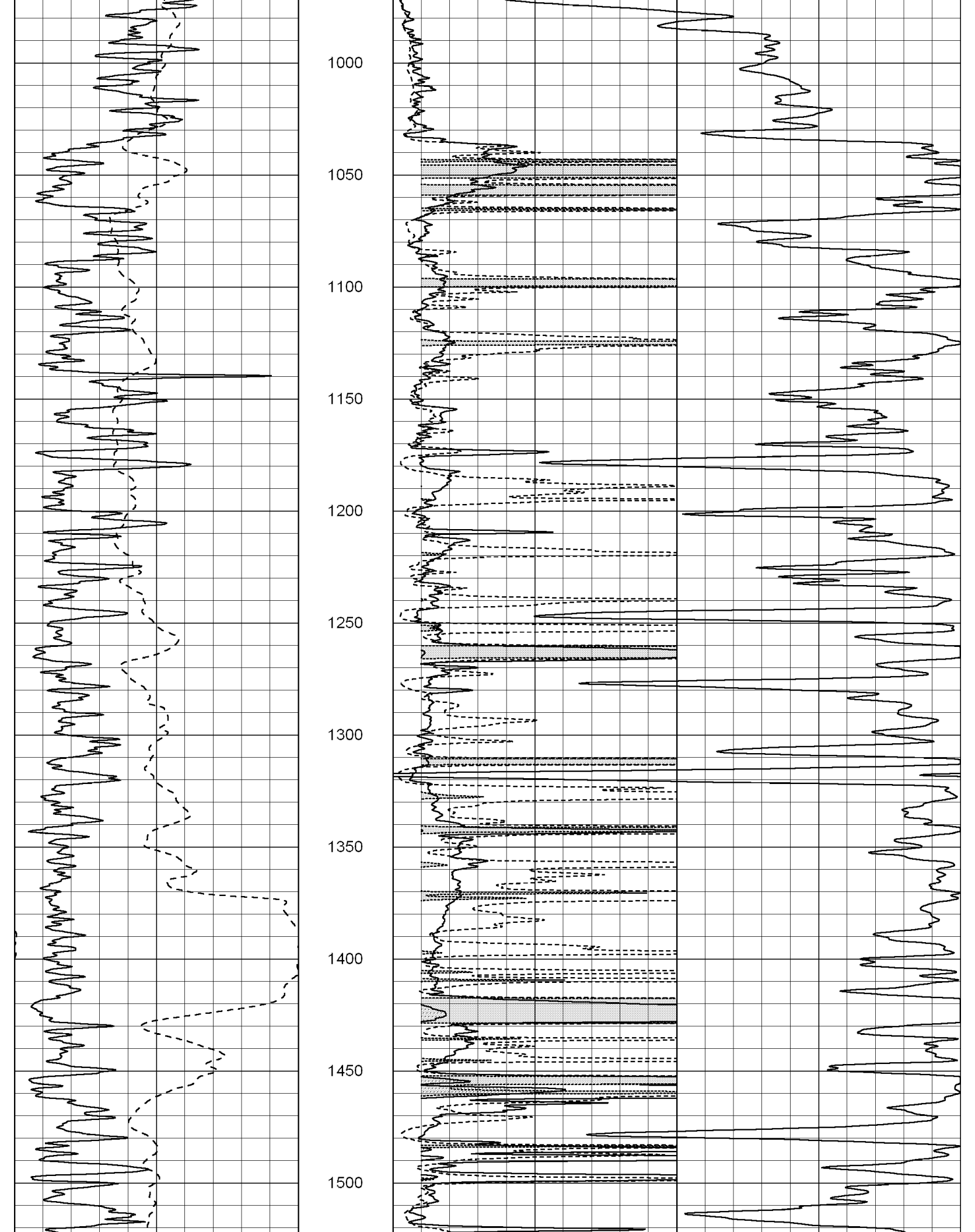
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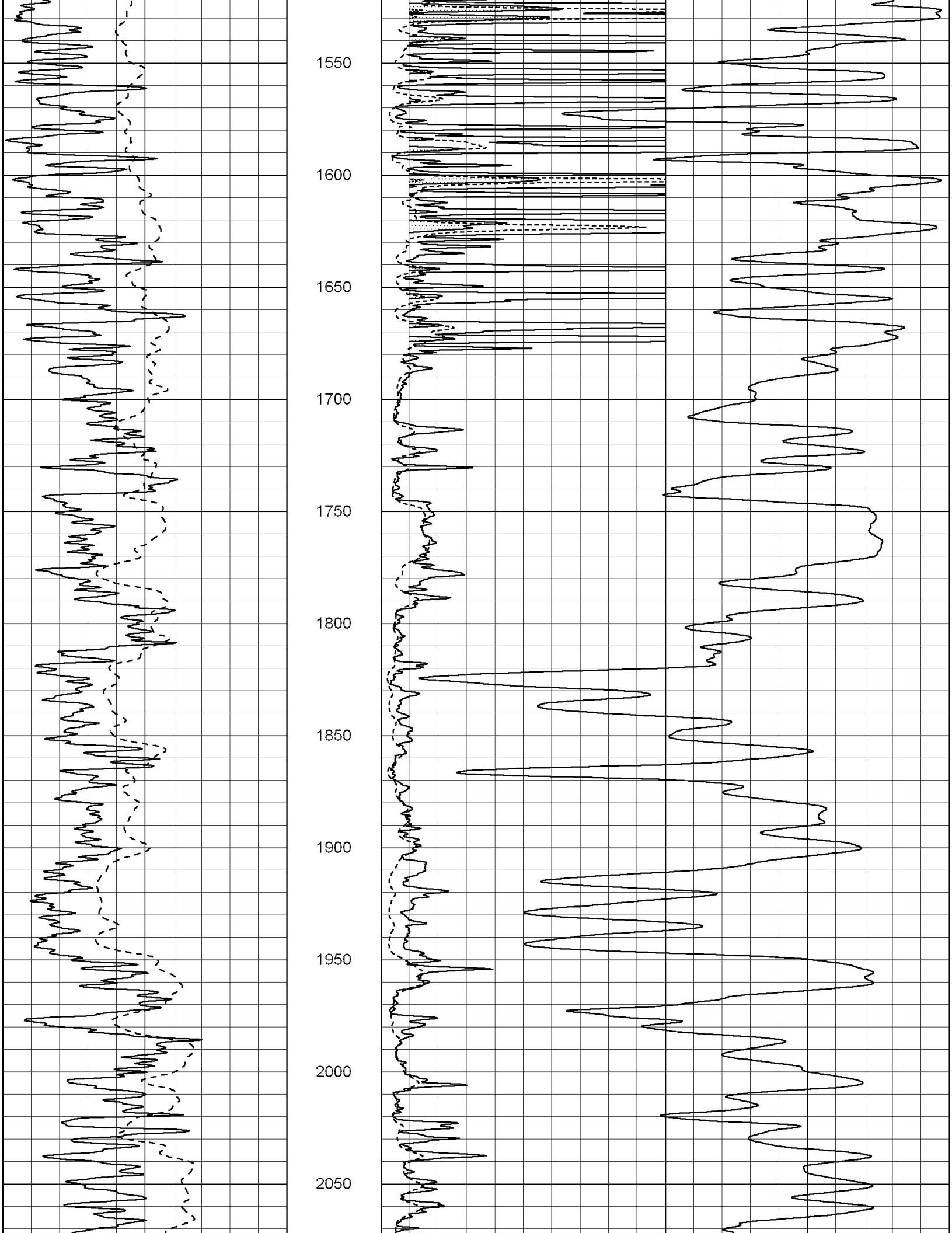
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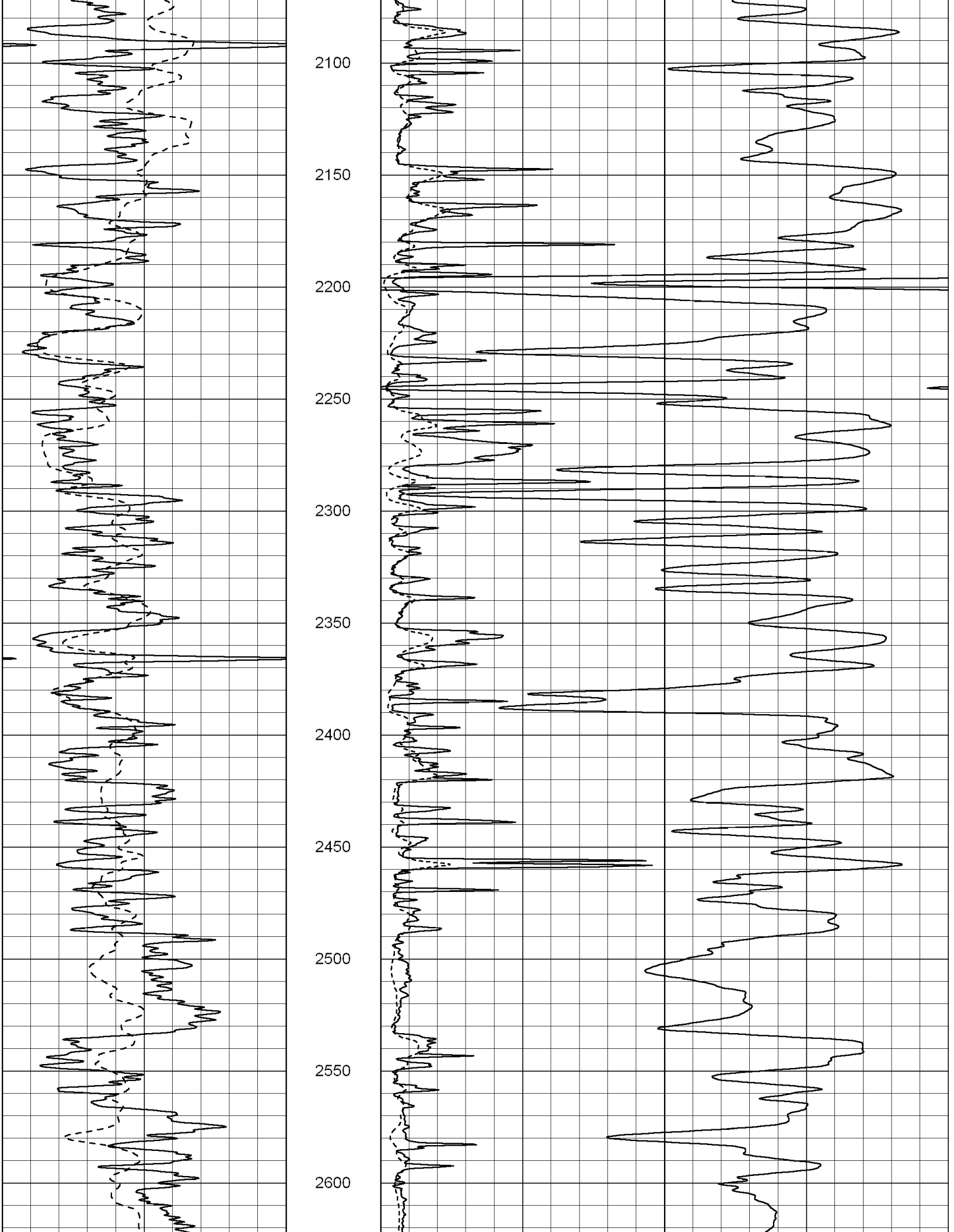
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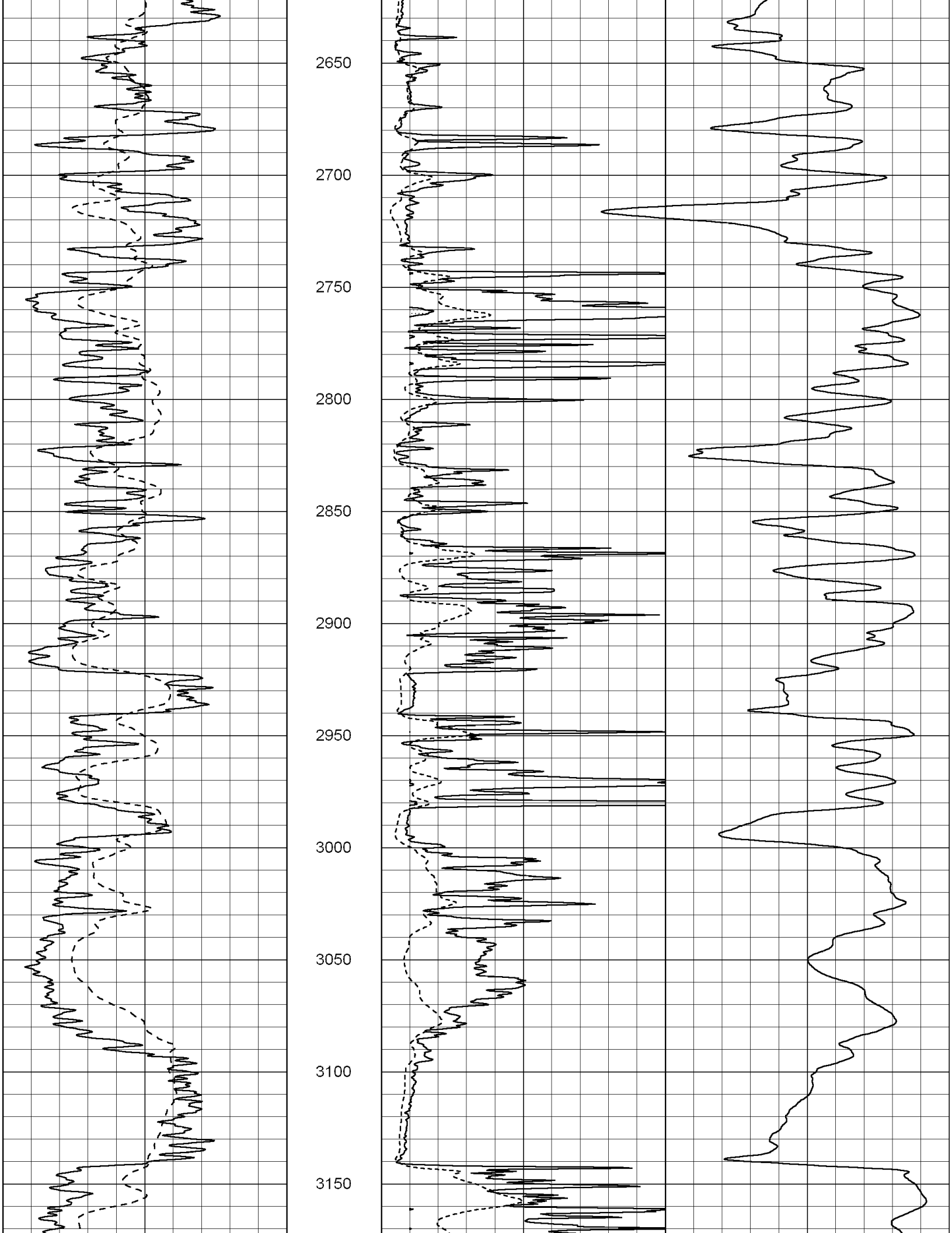
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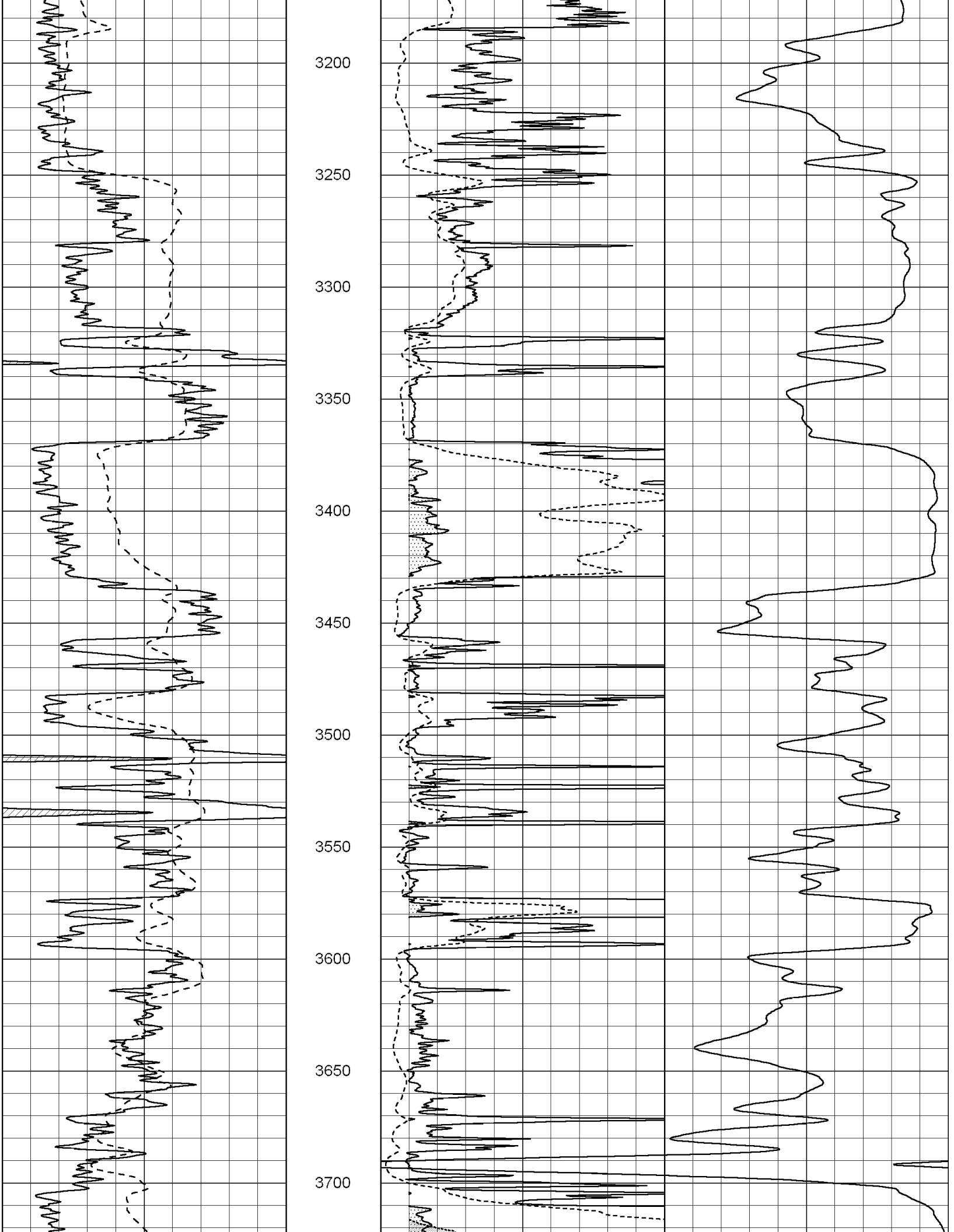
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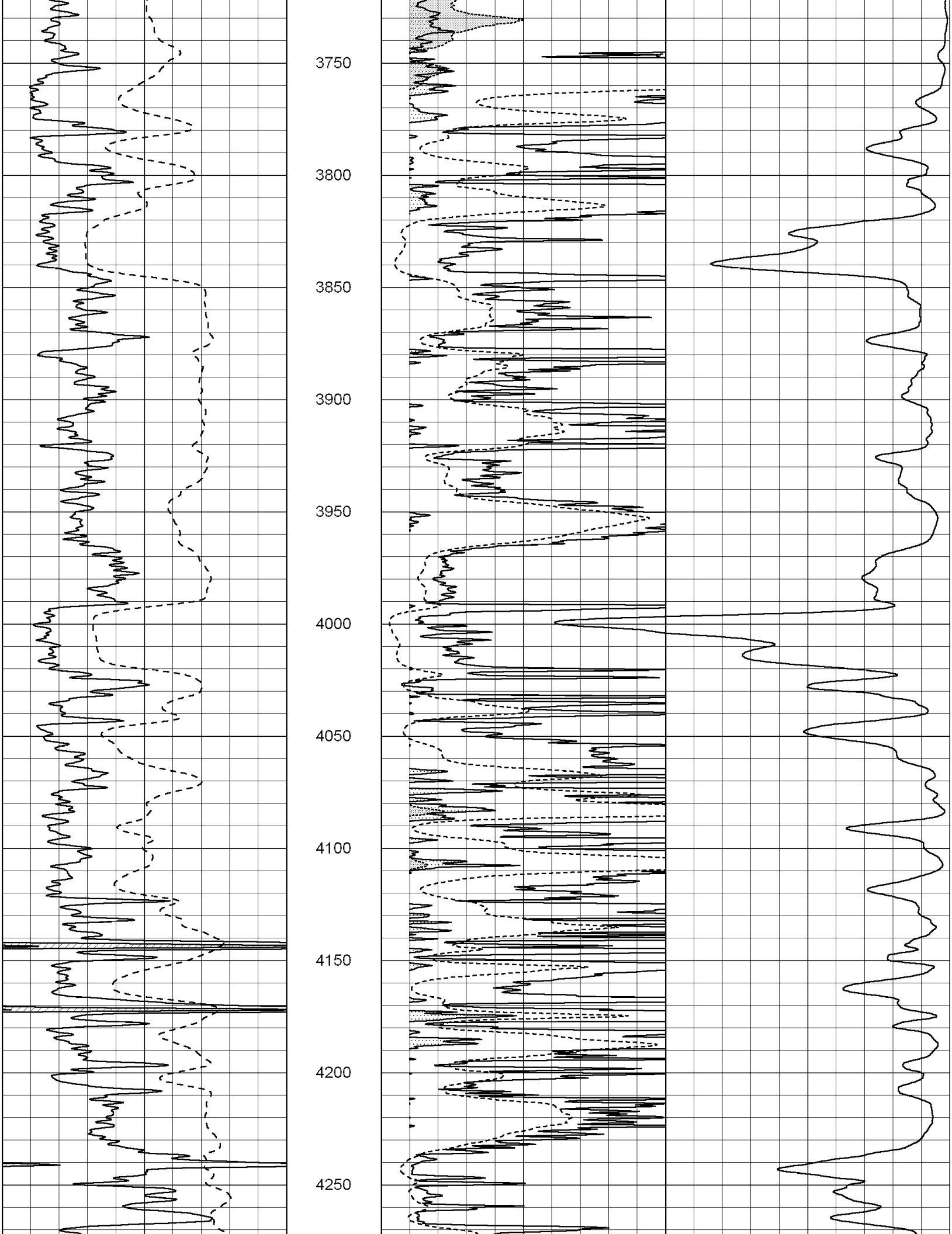
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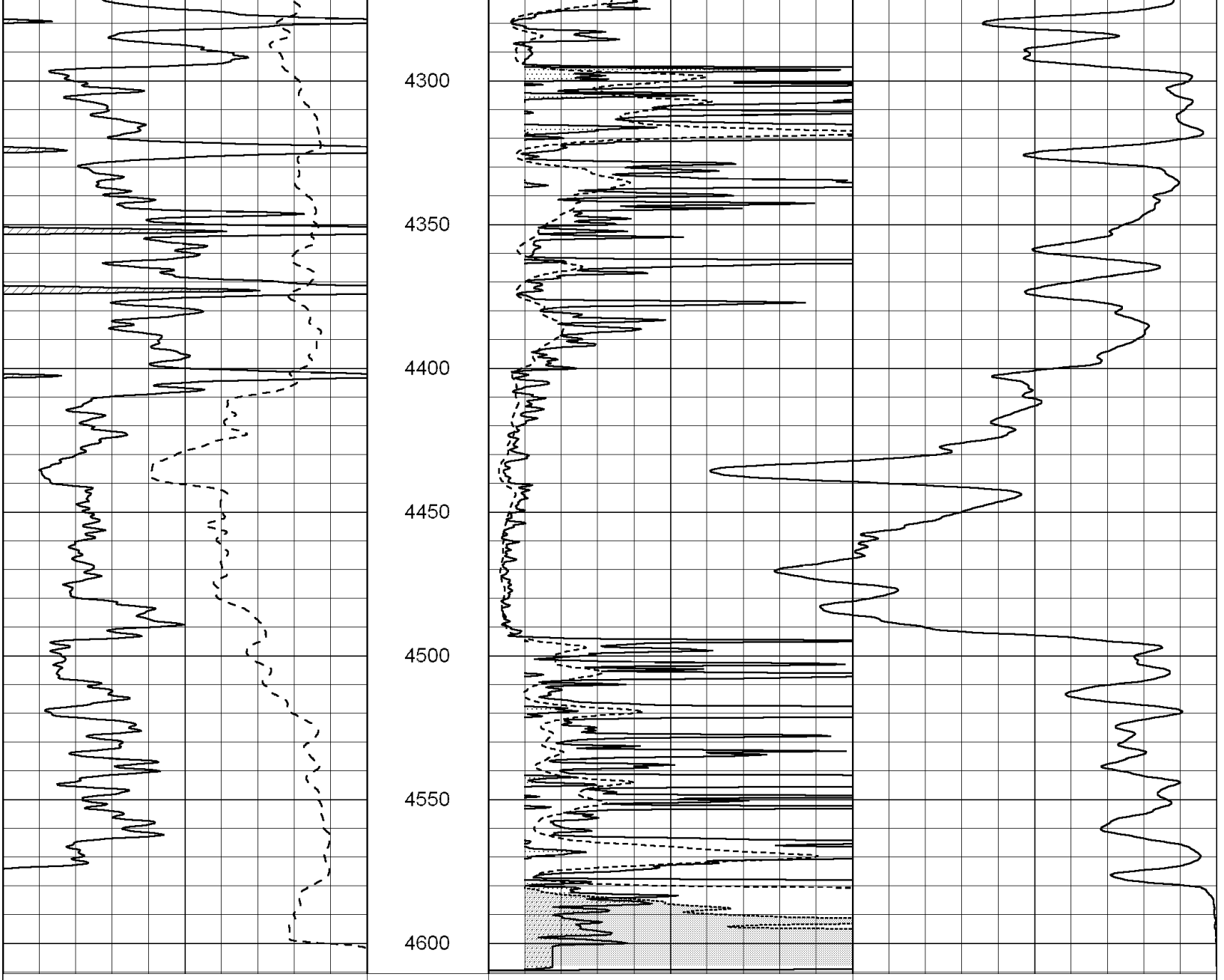


SUPERIOR WELL SERVICES

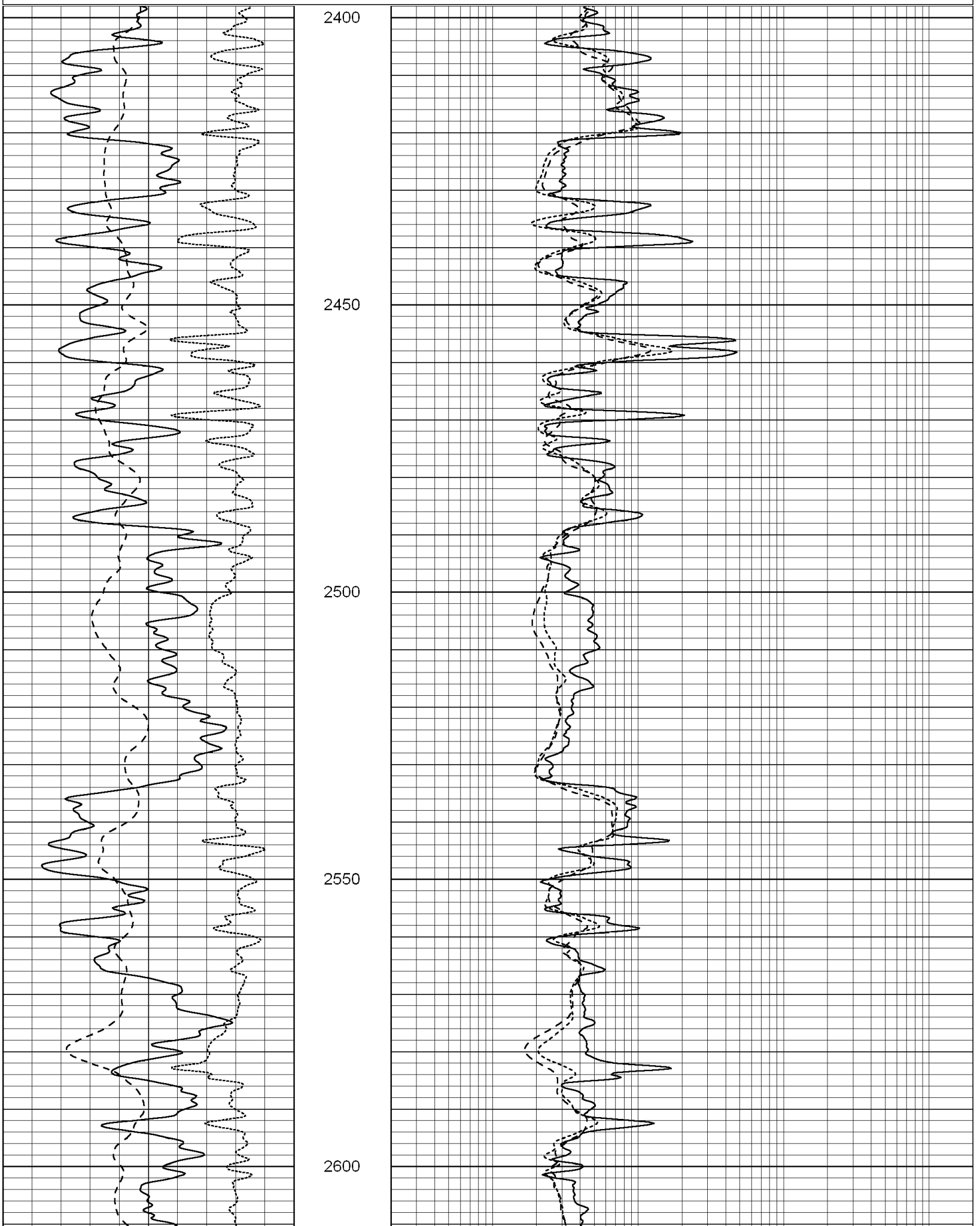
SUPERIOR
Hays,
Kansas

MAIN SECTION

Database File:	004621ddn.db
Dataset Pathname:	pass3A
Presentation Format:	dil
Dataset Creation:	Sat Mar 27 12:12:06 2010 by Calc Open-Cased 090629
Charted by:	Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	RxoRt	50

0.2	RLL3 (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000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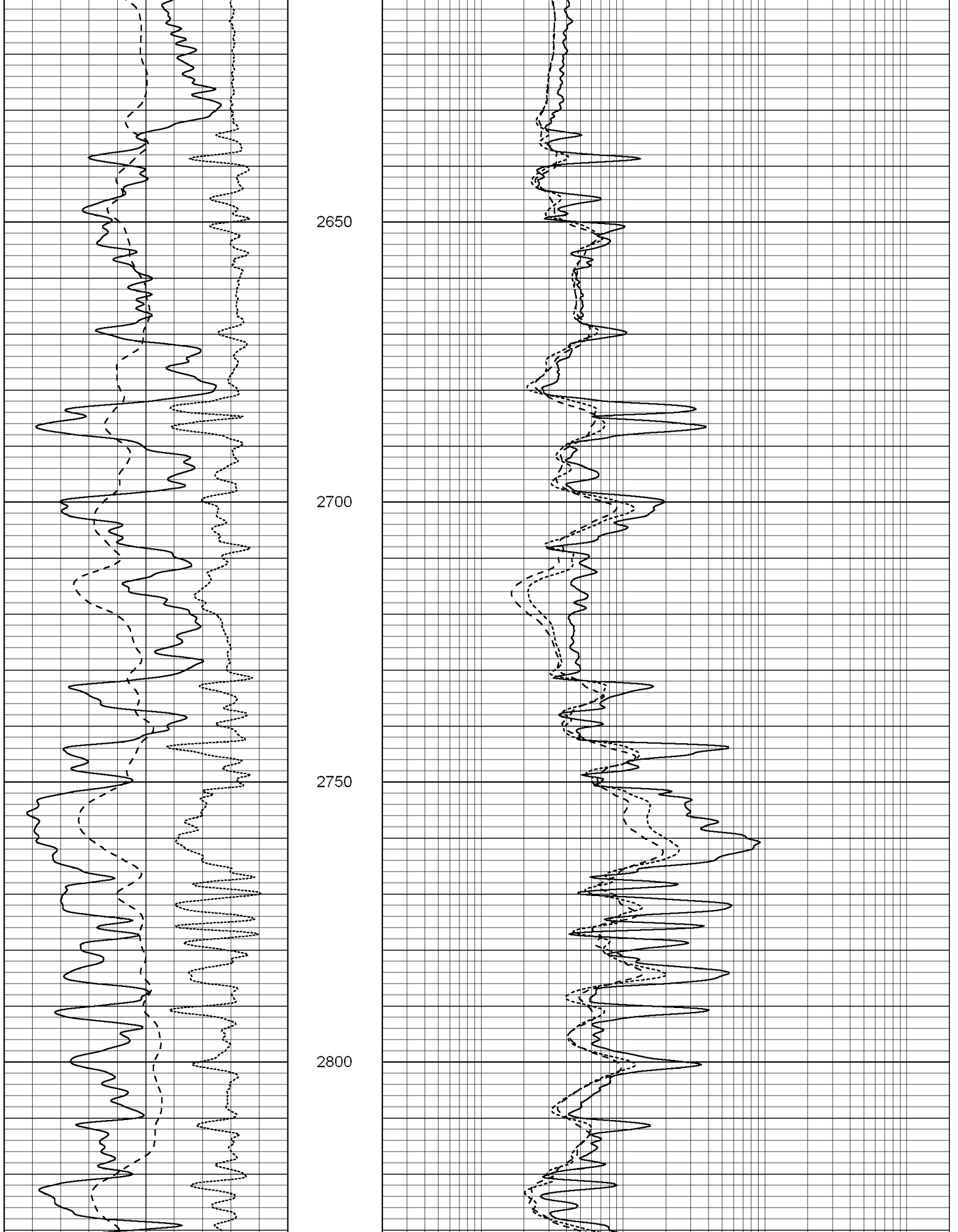
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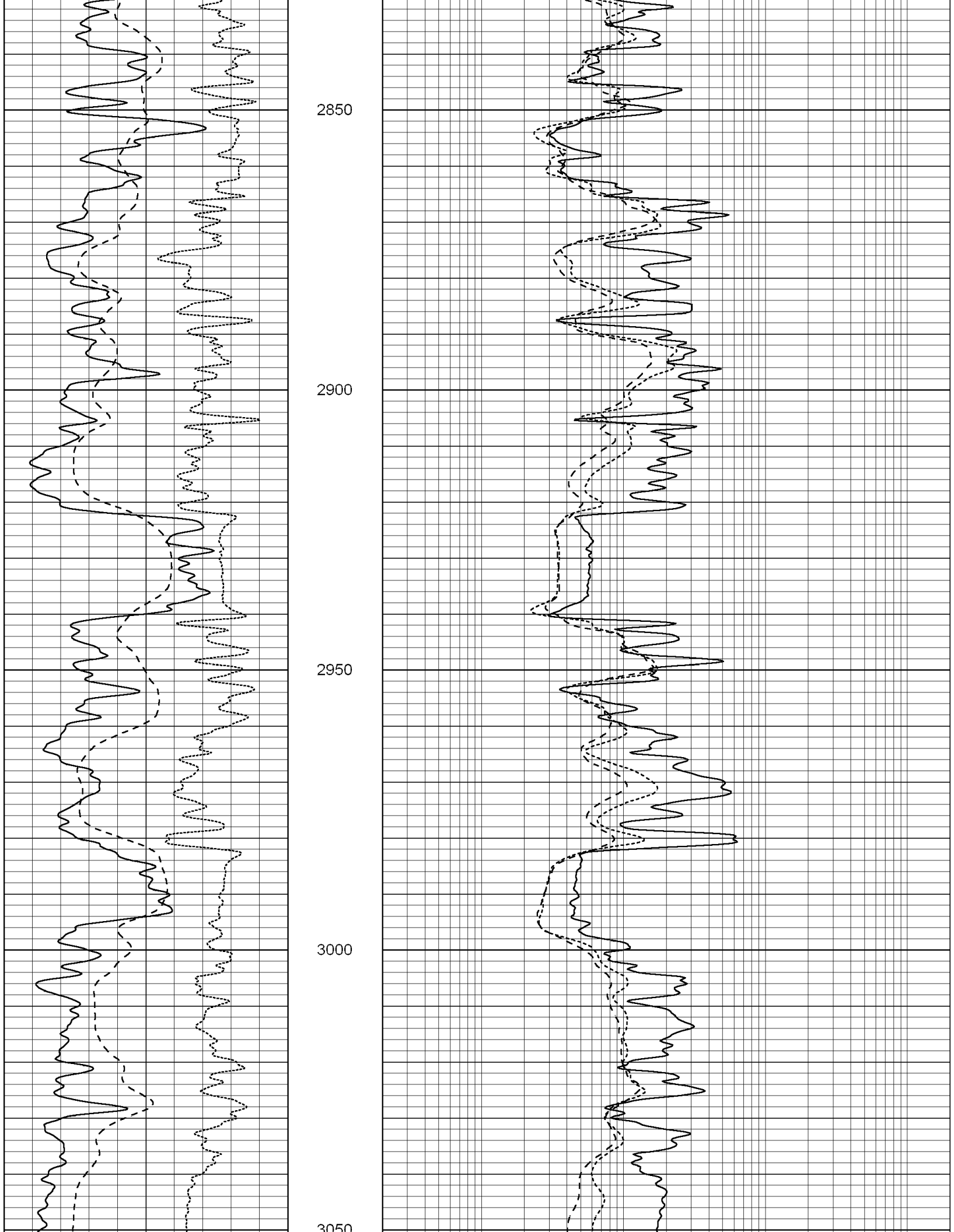
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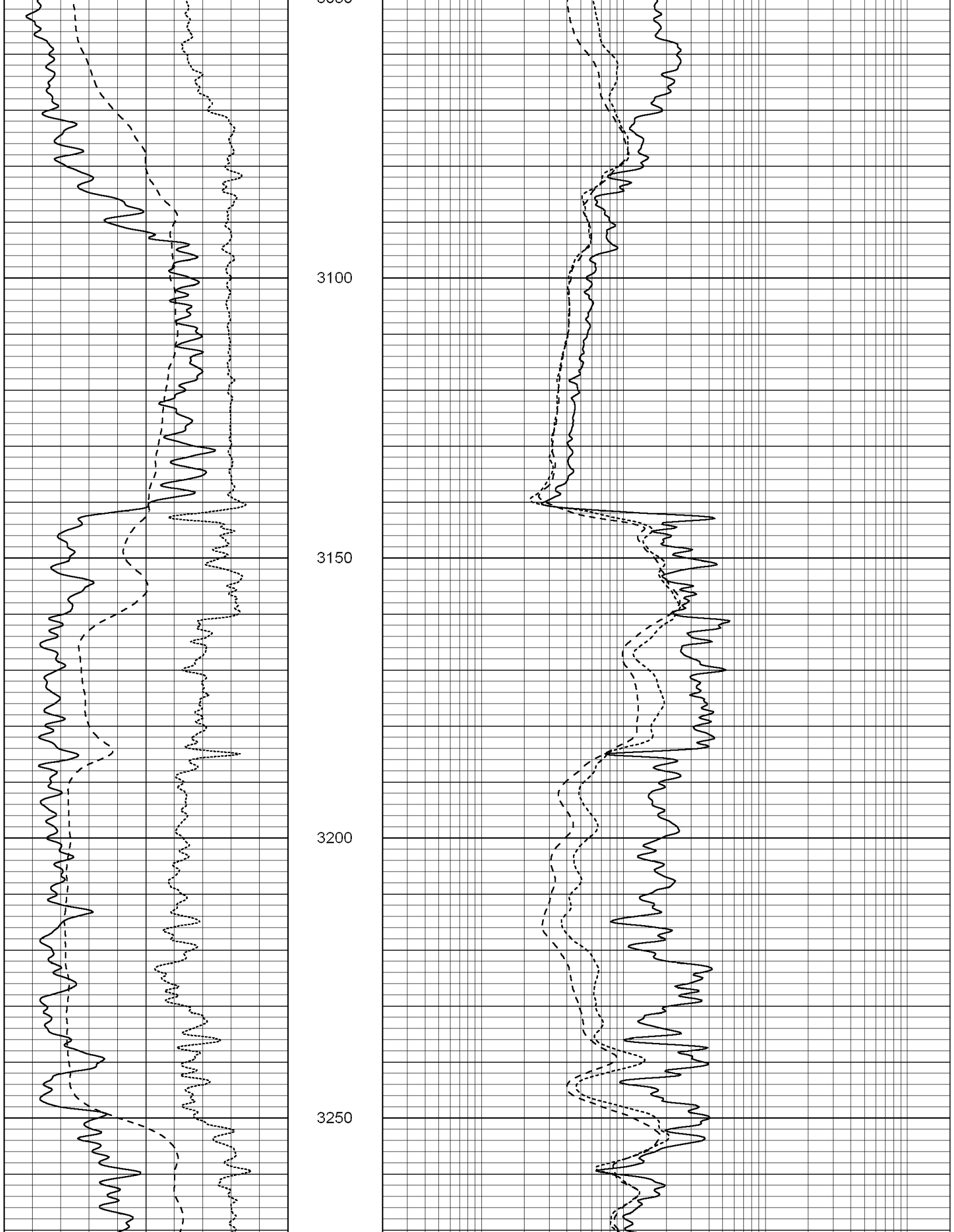
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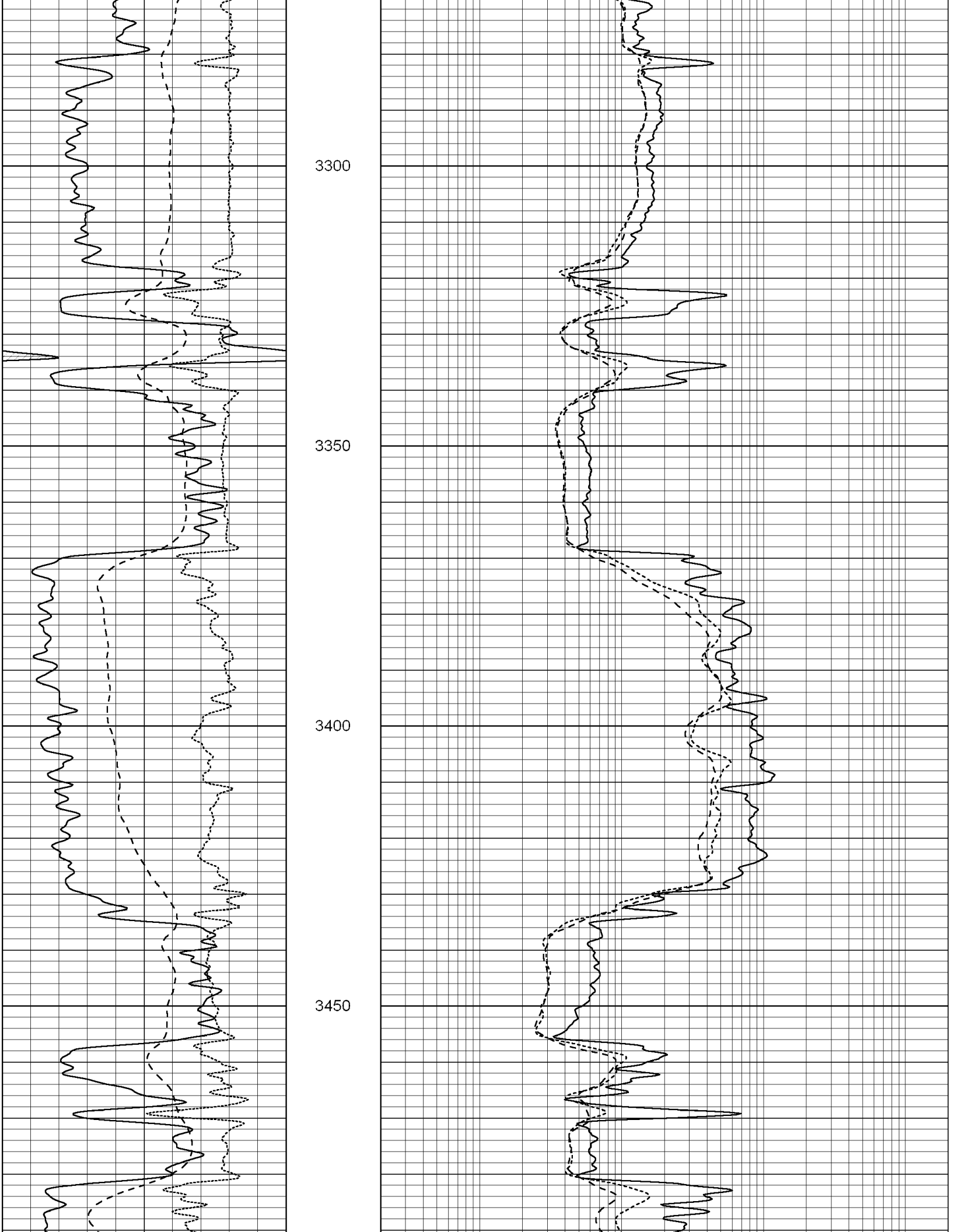
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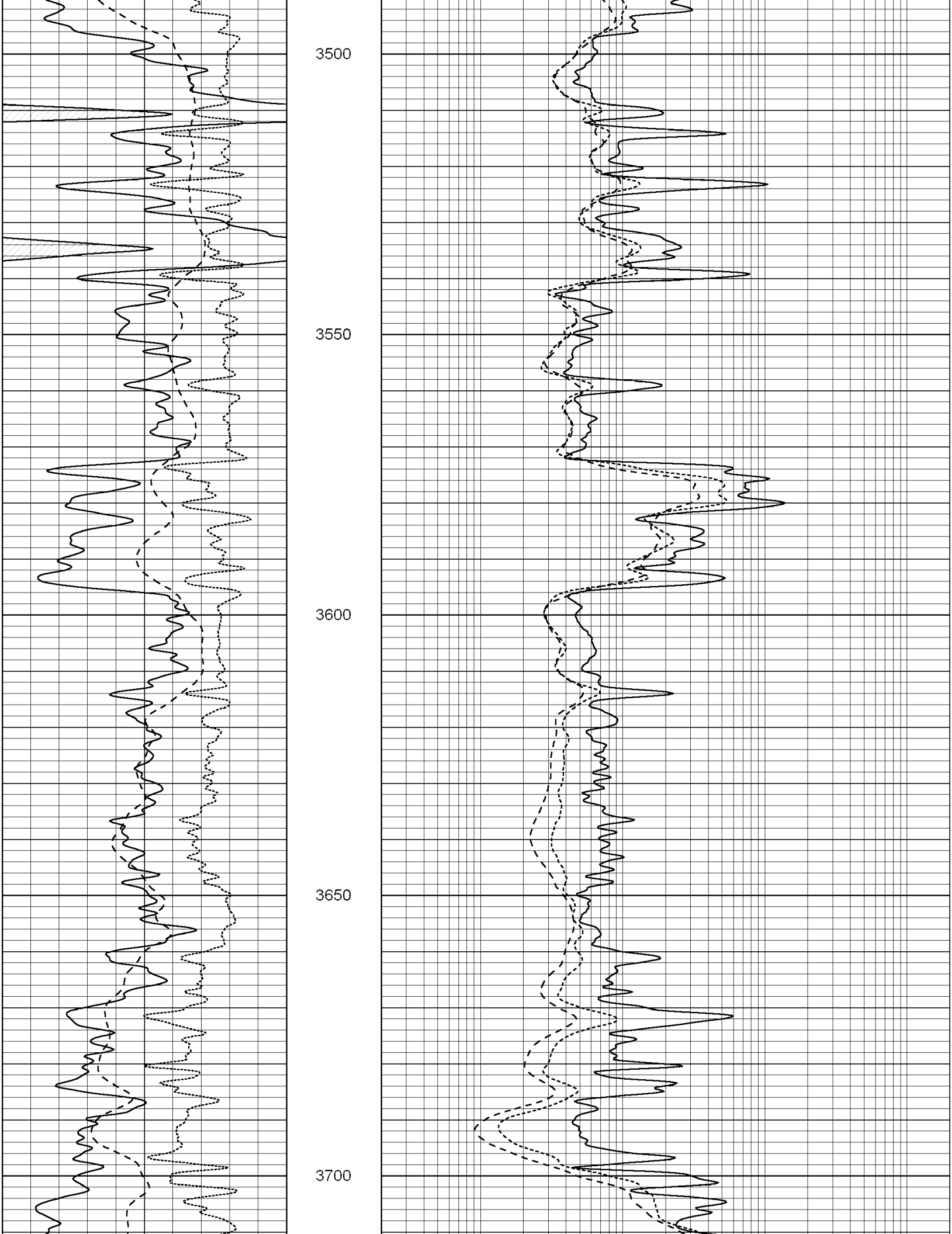
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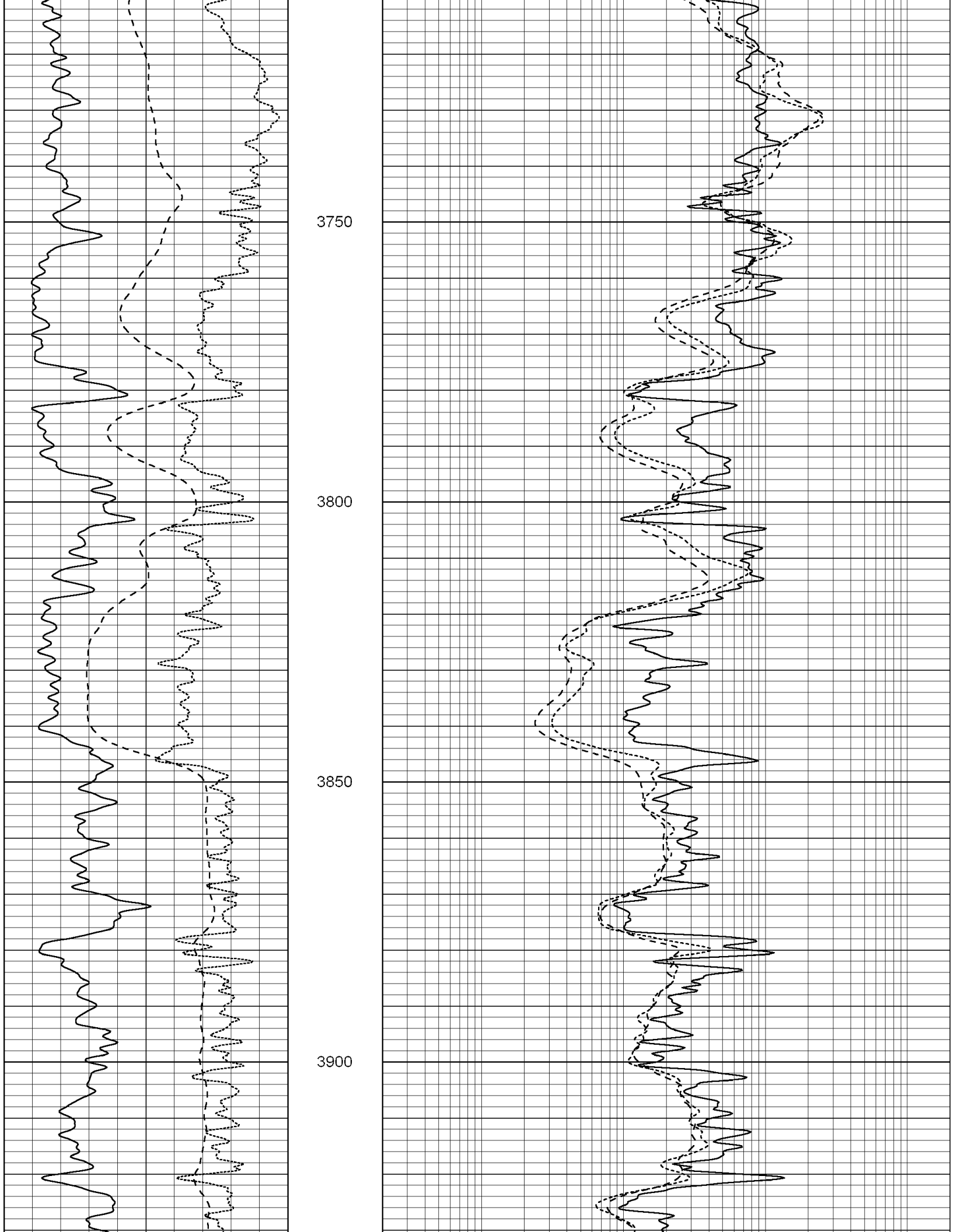
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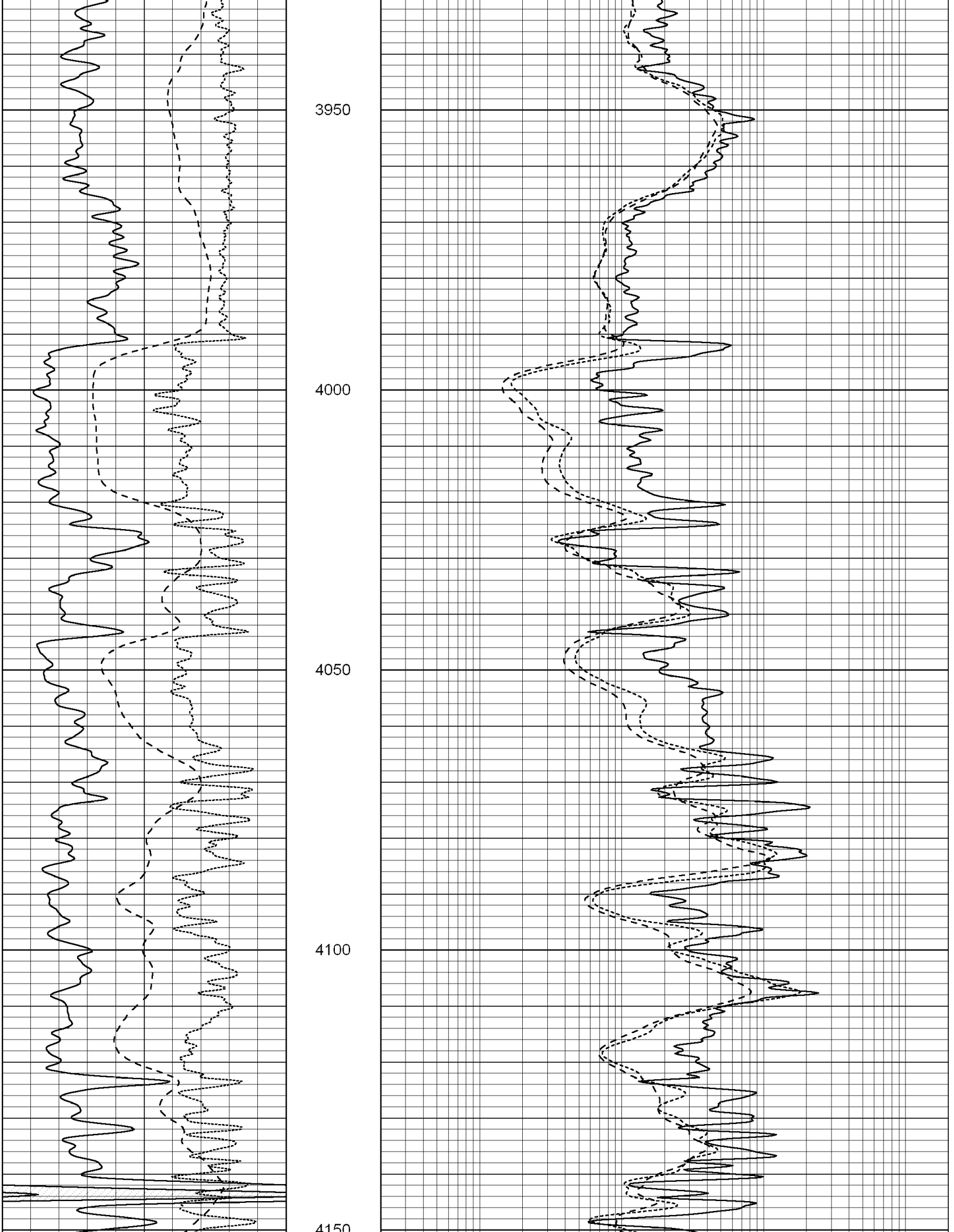
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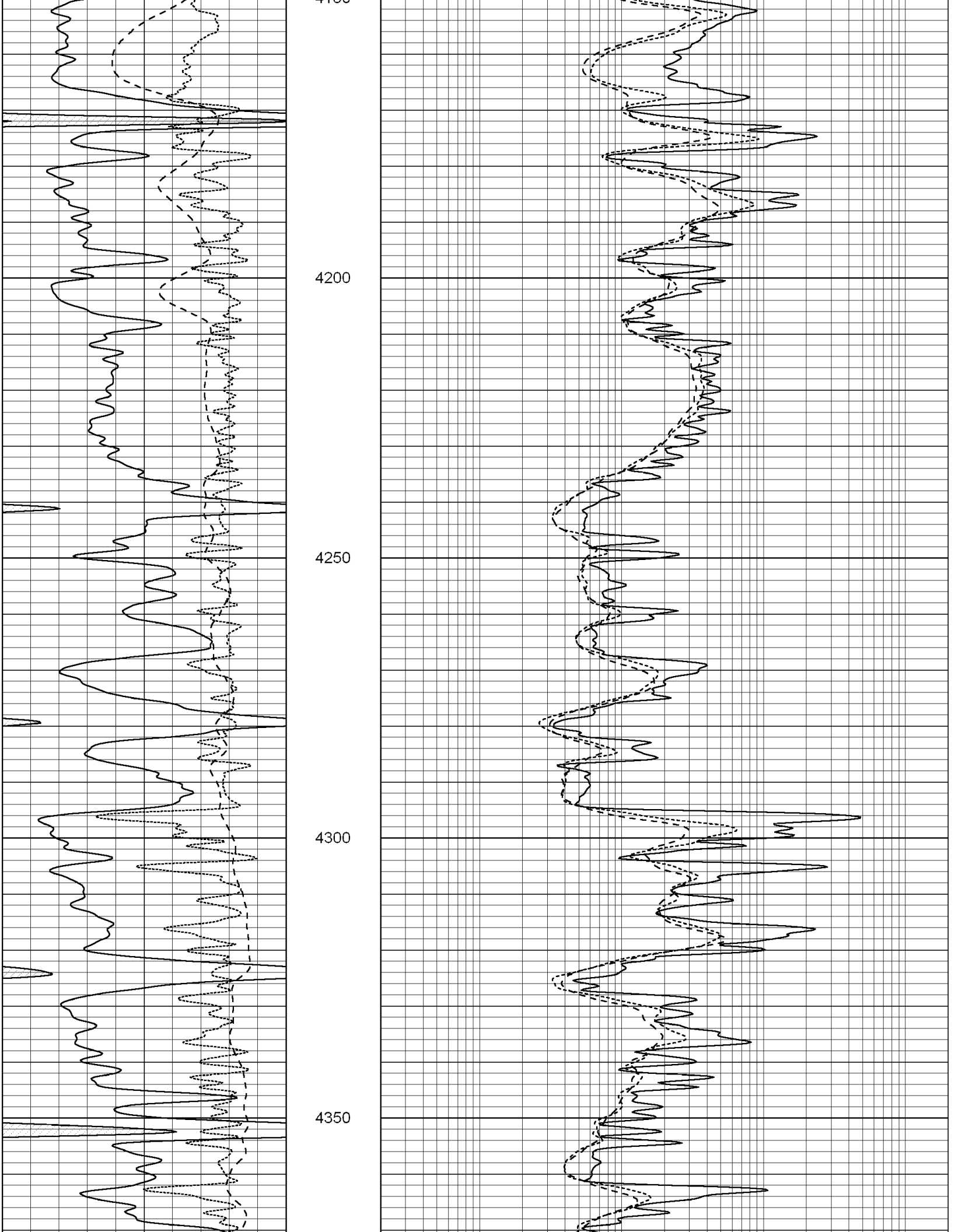
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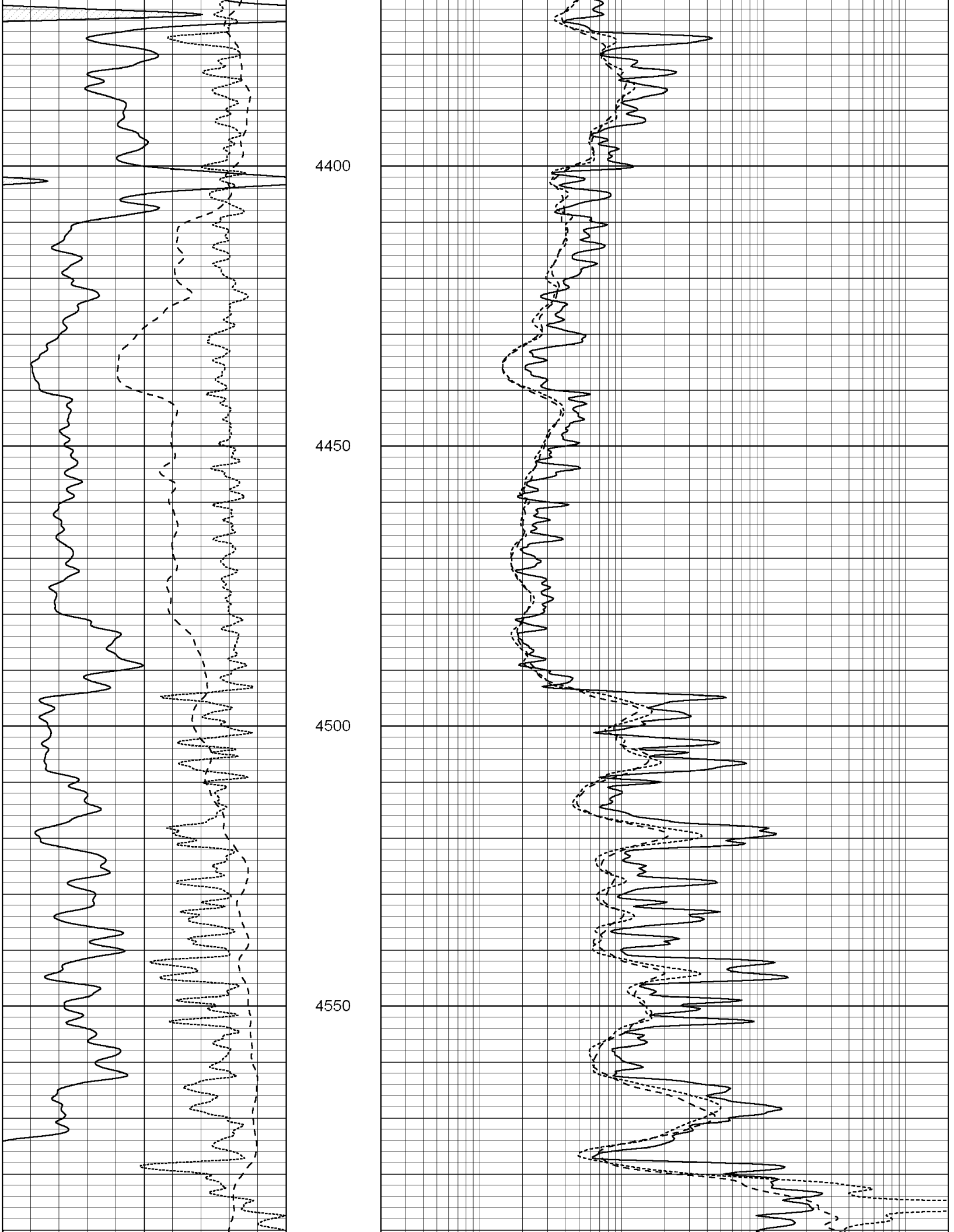
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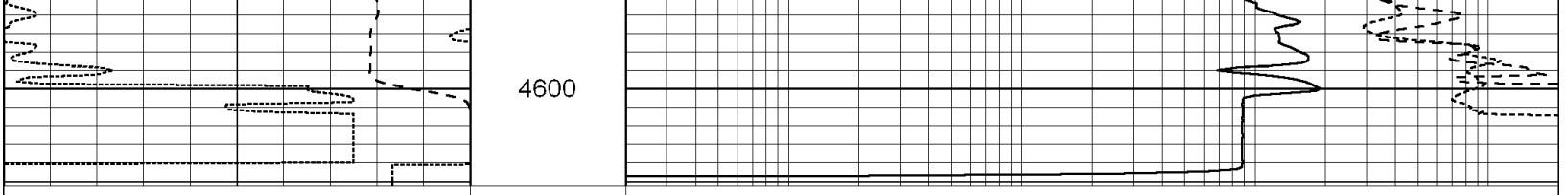


0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	RxoRt	50

0.2	RLL3 (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000

SUPERIOR WELL SERVICES

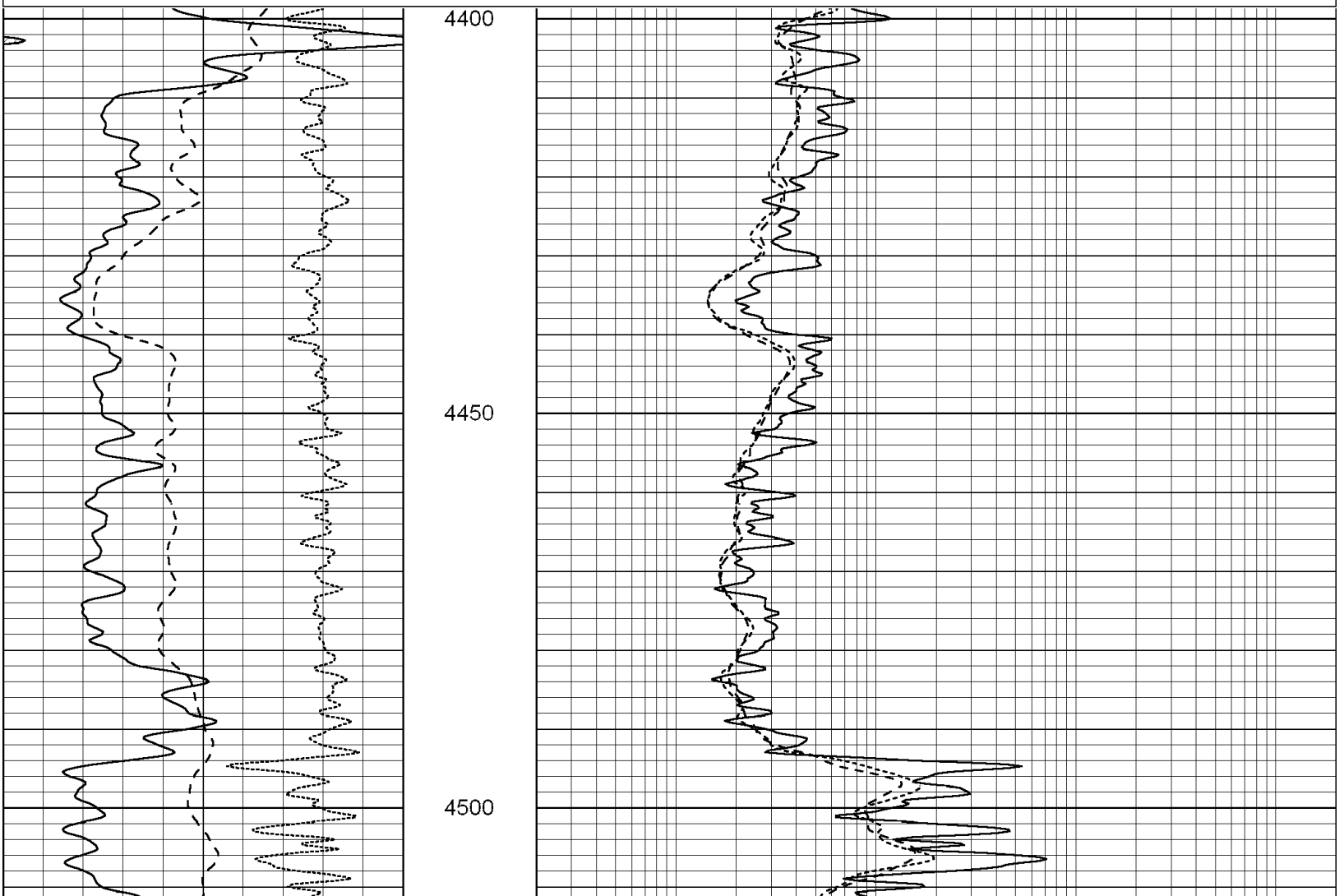
SUPERIOR
Hays,
Kansas

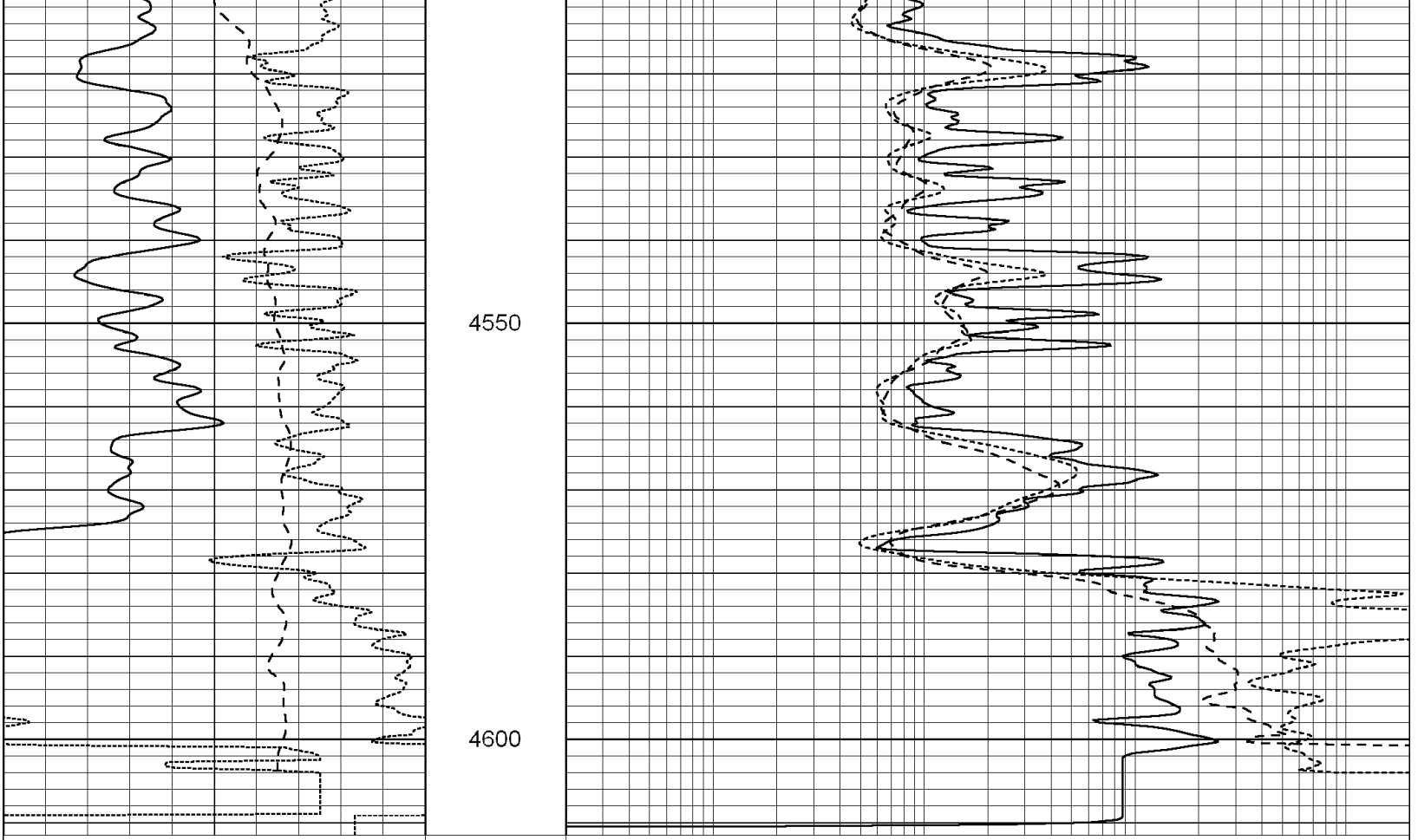
REPEAT SECTION

Database File:	004621ddn.db
Dataset Pathname:	pass2A
Presentation Format:	dil
Dataset Creation:	Sat Mar 27 11:39:00 2010 by Calc Open-Cased 090629
Charted by:	Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	RxoRt	50

0.2	RLL3 (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	RxoRt	50
0.2	RLL3 (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000

Calibration Report

Database File: 004621ddn.db
Dataset Pathname: pass3A
Dataset Creation: Sat Mar 27 12:12:06 2010 by Calc Open-Cased 090629

Dual Induction Calibration Report

Serial-Model: DIL5-GEAR
Performed: Sat Mar 27 10:26:36 2010

	Readings			References			Results	
Loop:	Air	Loop		Air	Loop		m	b
Deep	0.004	0.654	V	0.000	400.000	mmho/m	550.000	-14.000
Medium	-0.005	0.737	V	0.000	462.500	mmho/m	530.000	-16.000
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.006	0.655	V	0.000	400.000	mmho/m	615.668	-3.483
Medium	0.010	0.747	V	0.000	462.500	mmho/m	627.607	-6.064

Compensated Density Calibration Report

Serial-Model: GEAR1-GEARHART
Source / Verifier: 147 / 147
Master Calibration Performed: Sat Mar 27 10:26:17 2010

Master Calibration

Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.710	g/cc	1243.76	629.14	cps
Aluminum	2.580	g/cc	282.16	435.01	cps

Spine Angle = 76.03 Density/Spine Ratio = 0.569

	Size		Reading	
Small Ring	7.90	in	3.68	V
Large Ring	14.00	in	6.06	V

Compensated Neutron Calibration Report

Serial Number: NEU_1I
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

Gamma Ray Calibration Report

Serial Number: GR5
Tool Model: OPEN
Performed: Sat Mar 27 08:47:01 2010

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps
Calibrator Reading: 1.0 cps

Sensitivity: 0.6000 GAPI/cps