NABORS
COMPLETION & PRODUCTION SERVICES CO.

DUAL INDUCTION LOG

Company DOWNING - NELSON OIL CO., INC.
Well MWE #1-7
Field
County ELLIS State KANSAS

Location: API # : 15-051-26422-00-00
1890' FSL & 1920' FEL
NW - SE - NW - SE
SEC 7 TWP 13S RGE 18W

Other Services
CDL/CNL
MICRO

Elevation
K.B. 2171.5
D.F. 2169.5
G.L. 2163.5

Permanent Datum GROUND LEVEL Elevation 2163.5
Log Measured From KELLY BUSHING 8' A.G.L.
Drilling Measured From KELLY BUSHING

Date	11/26/12		
Run Number	ONE		
Depth Driller	3889		
Depth Logger	3890		
Bottom Logged Interval	3888		
Top Log Interval	00		
Casing Driller	220		
Casing Logger	222		
Bit Size	7.875		
Type Fluid in Hole	CHEMICAL MUD		
Density / Viscosity	8.9/55	CHLORIDES 6,000	
pH / Fluid Loss	10.0/8.0		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	0.90 @ 54F		
Rmf @ Meas. Temp	0.68 @ 54F		
Rmc @ Meas. Temp	1.08 @ 54F		
Source of Rmf / Rmc	MEASURED		
Rm @ BHT	0.42 @ 115F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom			
Maximum Recorded Temperature	115F		
Equipment Number	860		
Location	HAYS, KS.		
Recorded By	IAN MABB	JEFF GRONEWEG	
Witnessed By	AL DOWNING		

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<<< Fold Here >>>

Comments

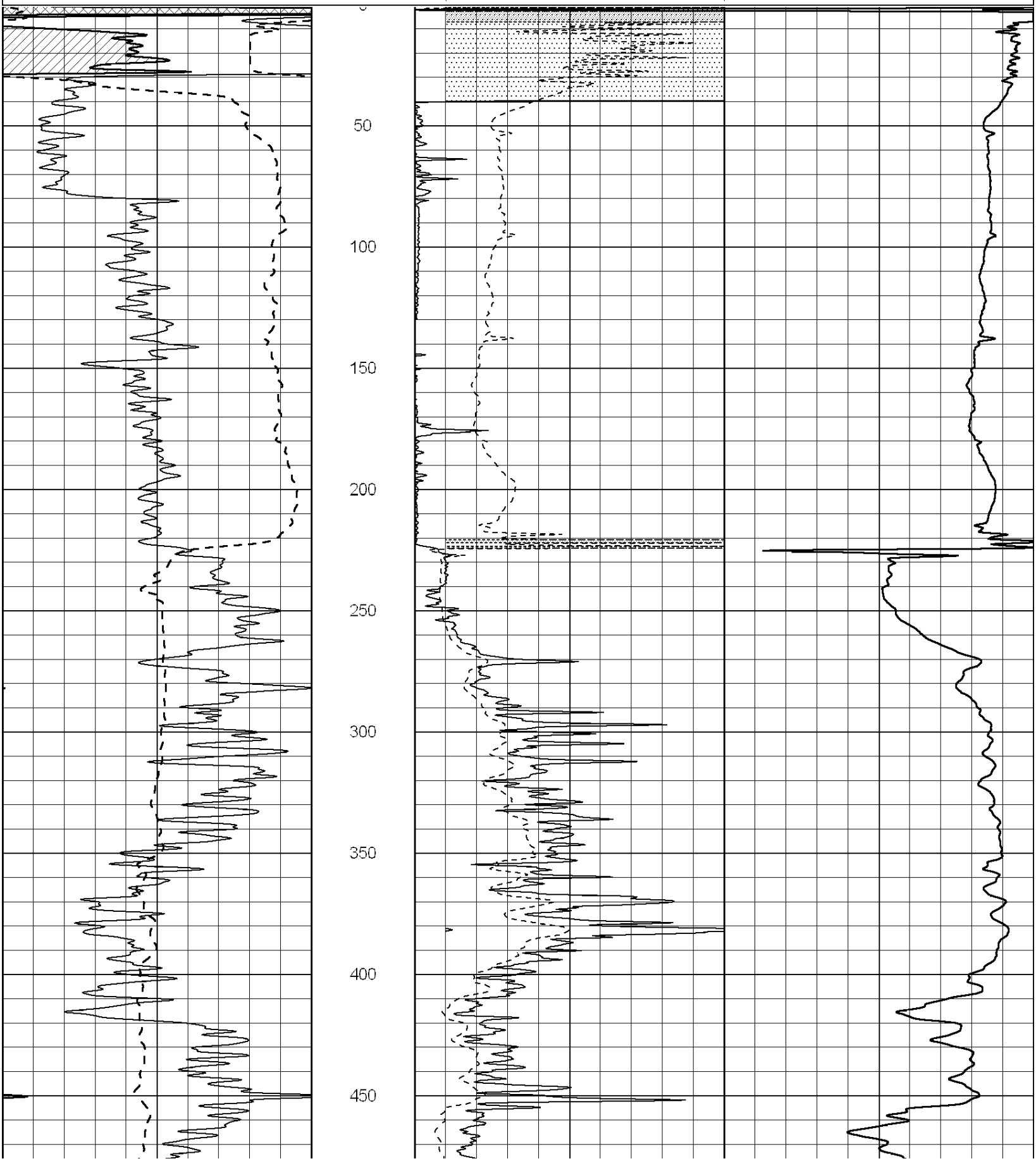
NABORS COMPLETION & PRODUCTION CO.
THANK YOU FOR YOUR BUSINESS
DIRECTIONS: HAYS, KS. BYPASS & 1-70 - NORTH 2 MILES WEST INTO

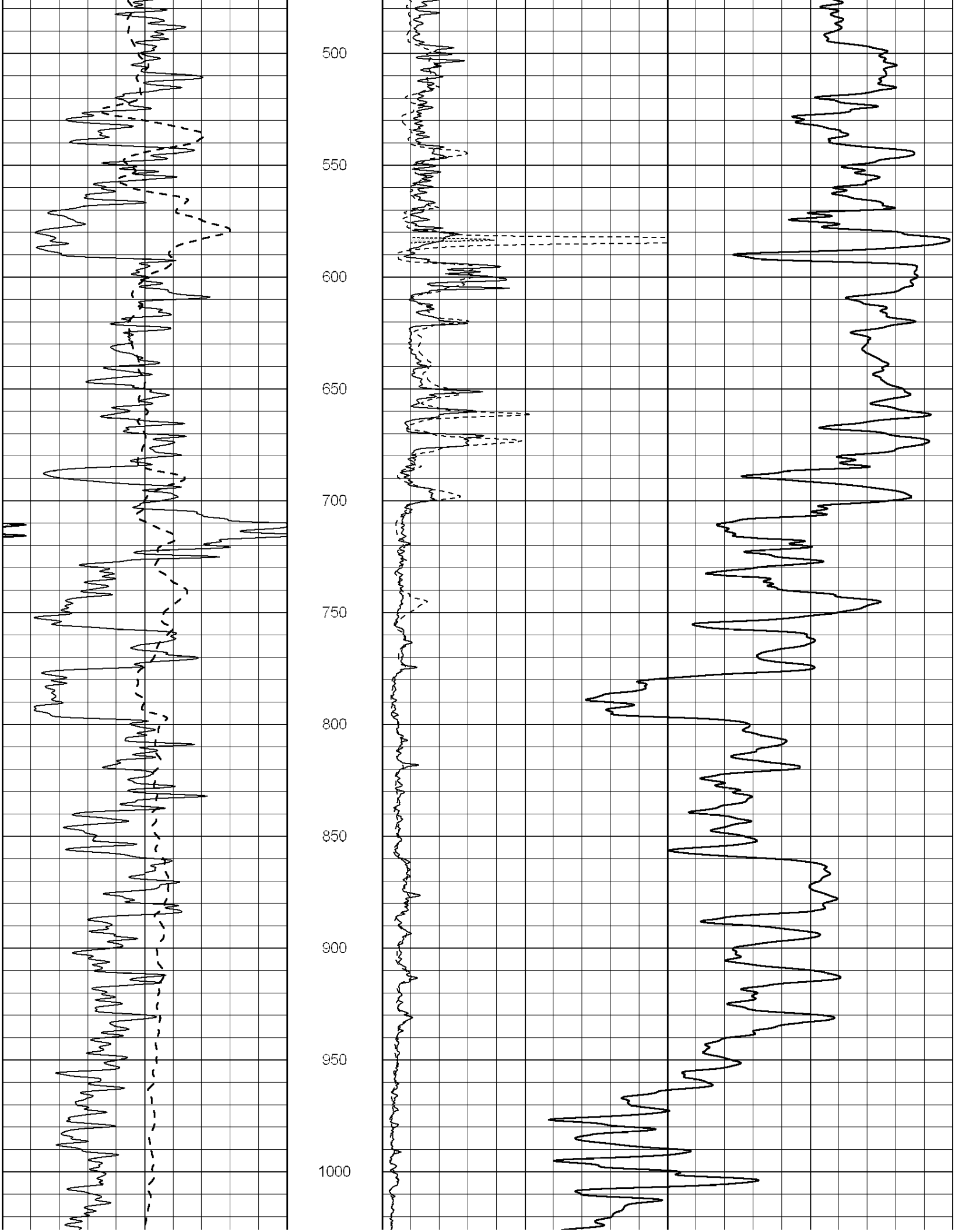
Database File: 010152ddn.db
Dataset Pathname: pass3.4
Presentation Format: dil2
Dataset Creation: Mon Nov 26 13:22:14 2012 by Calc Open-Cased 090629

Charted by: Depth in Feet scaled 1:600

0	Gamma Ray (GAPI)	150

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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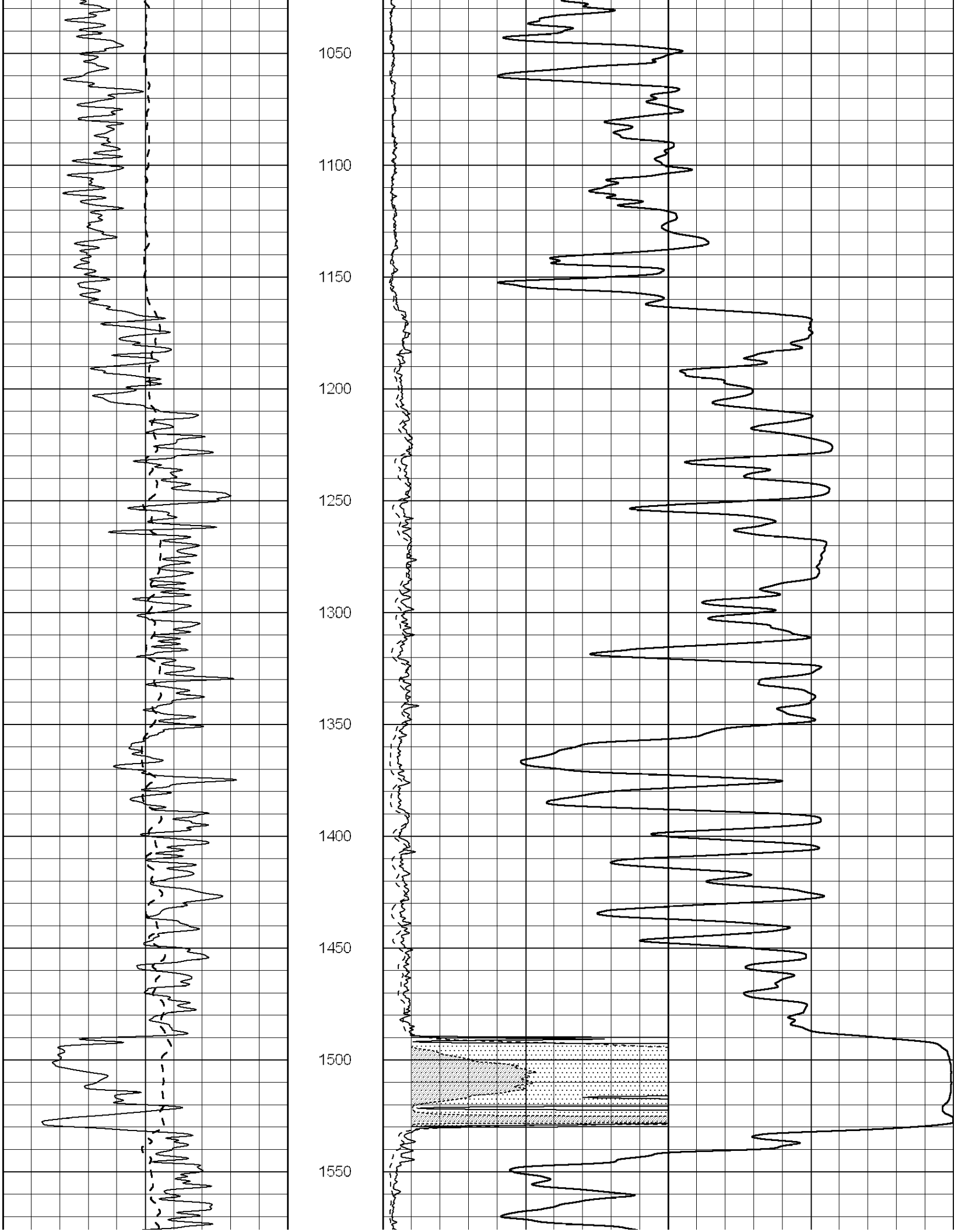
1000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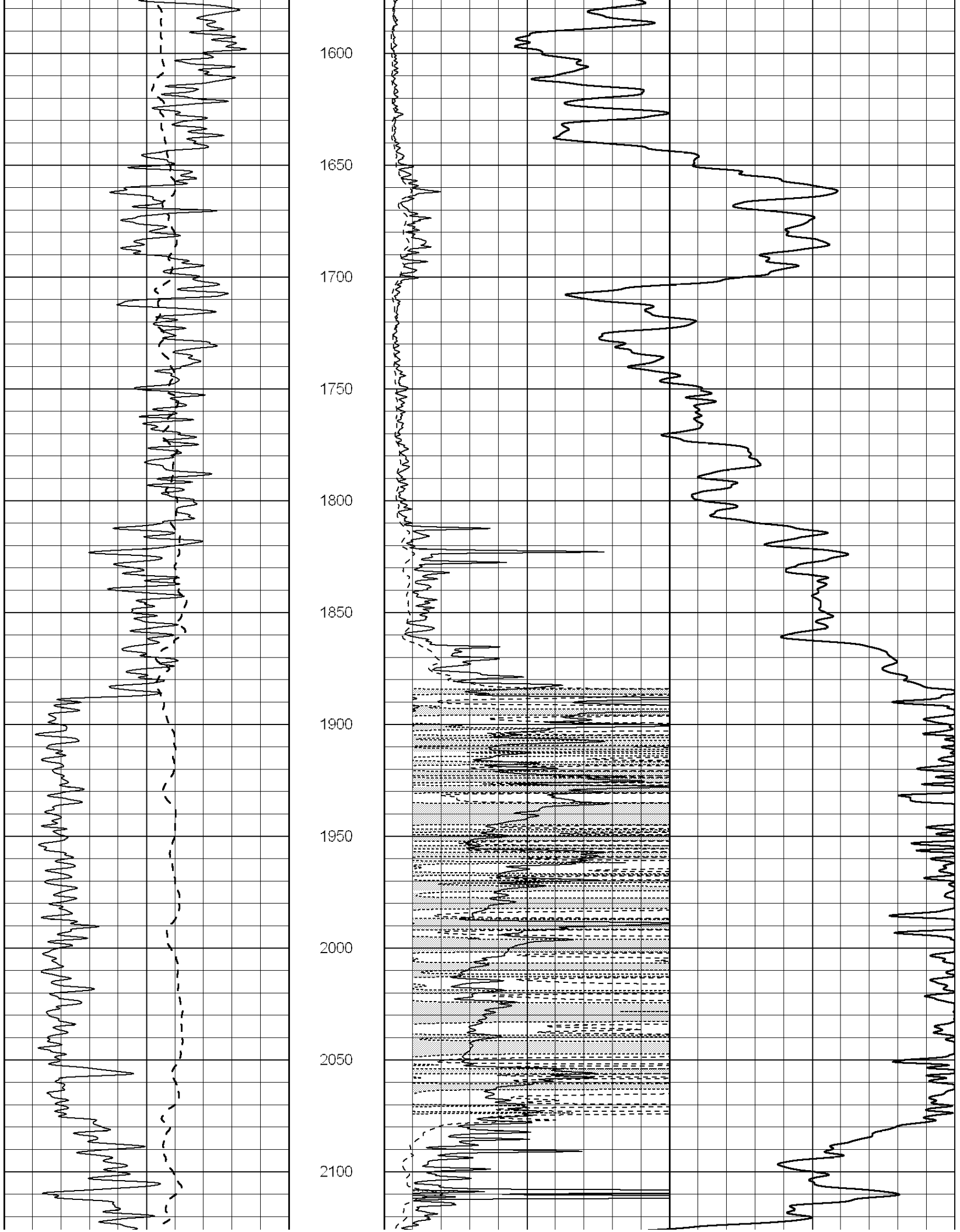
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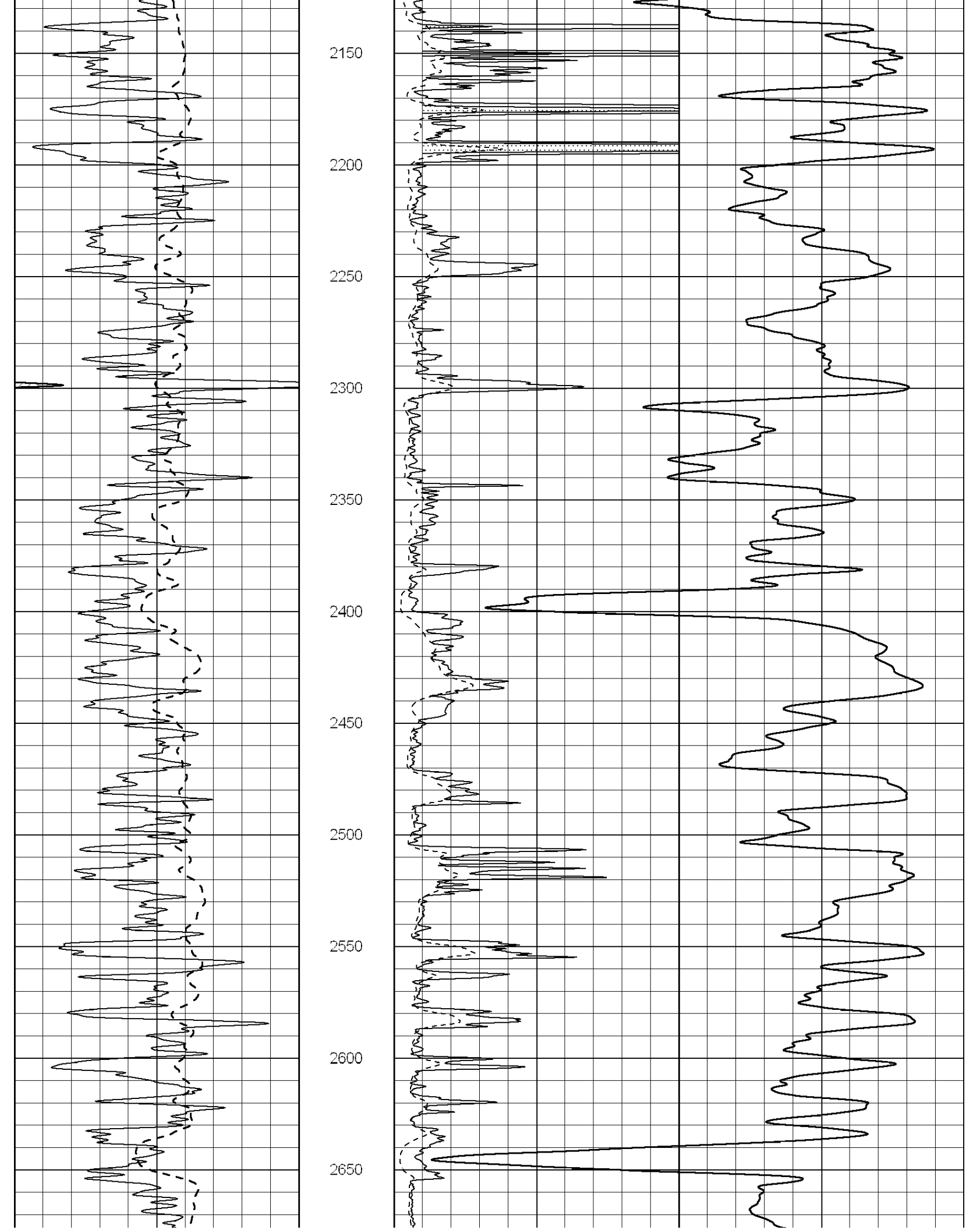
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2600
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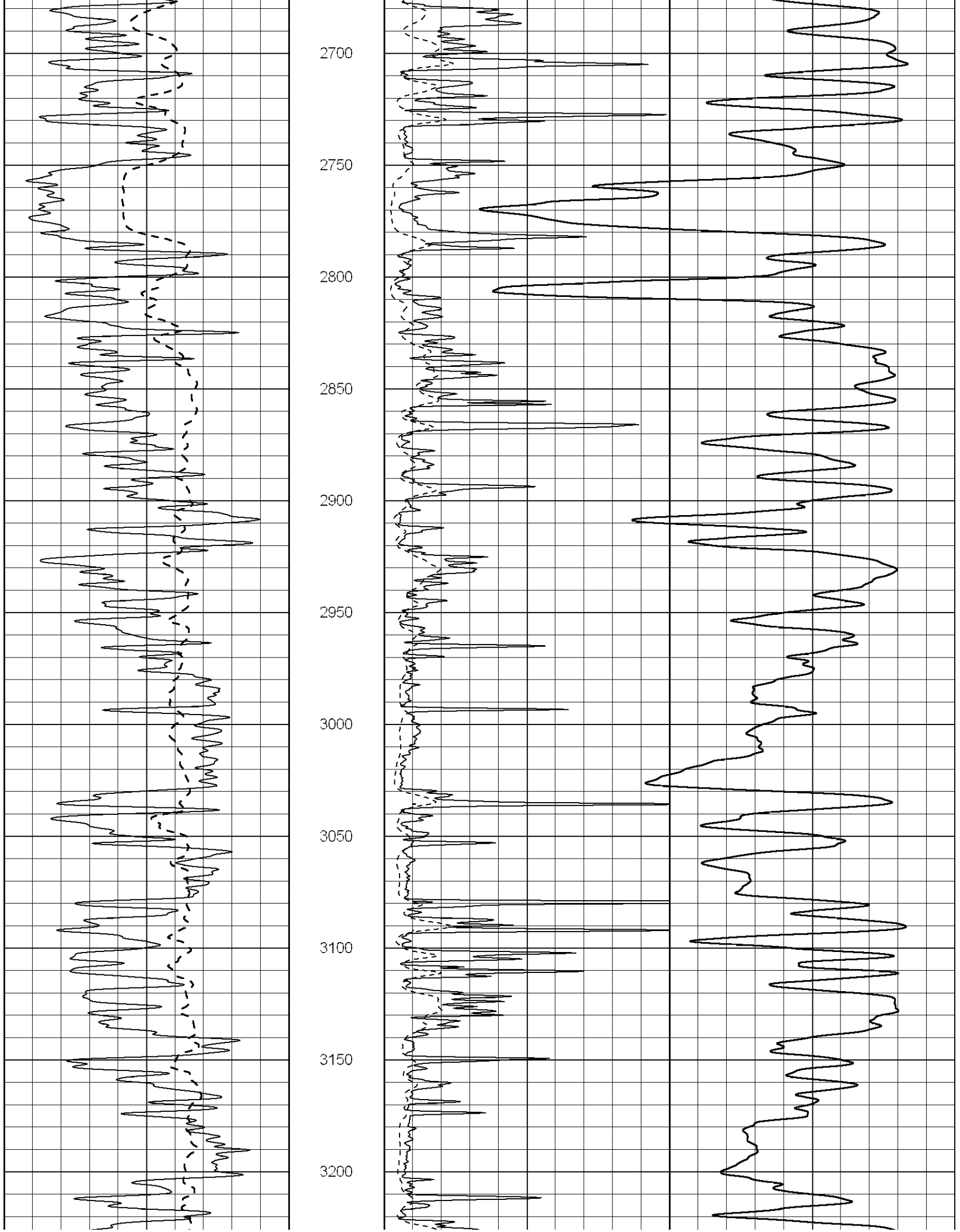
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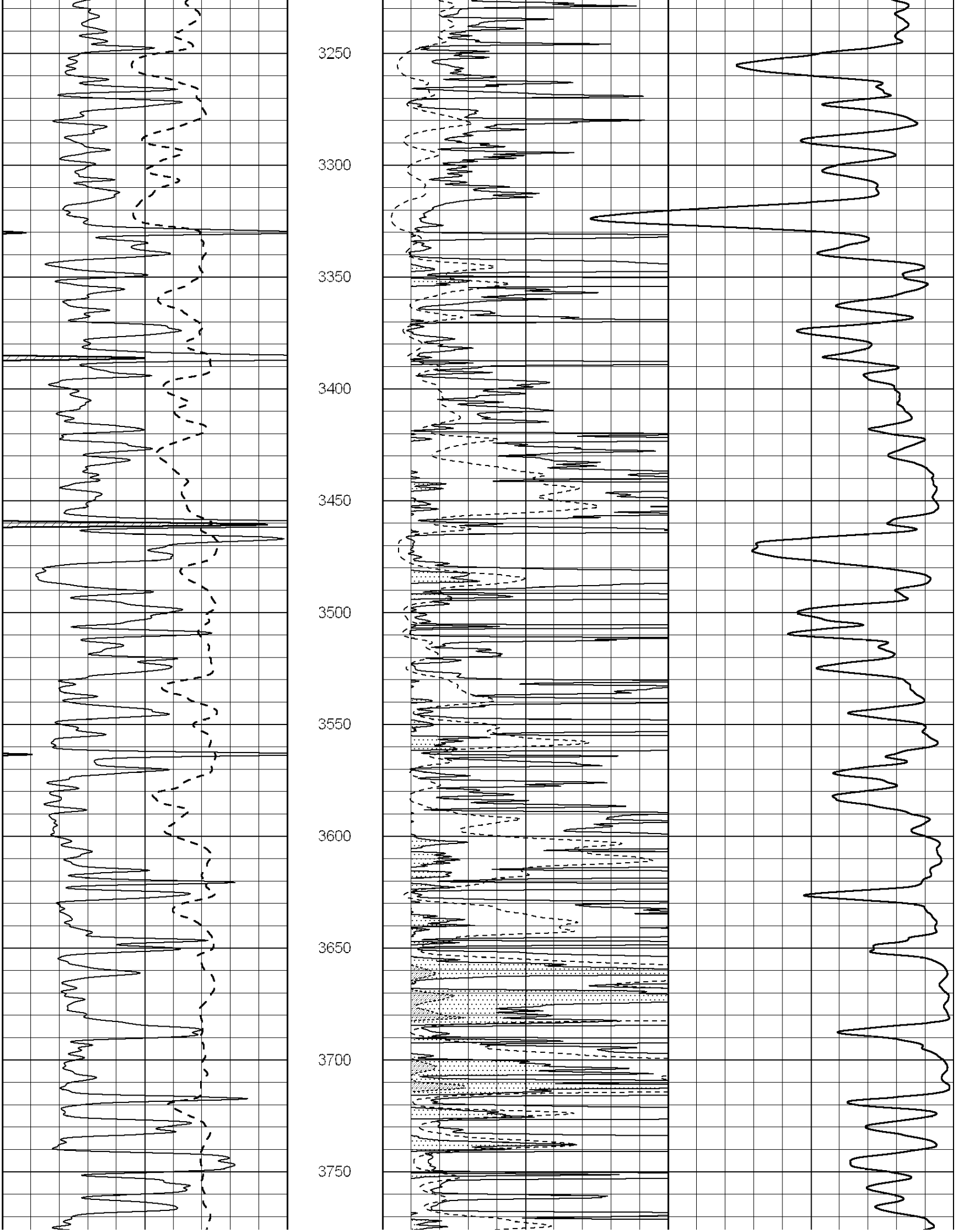
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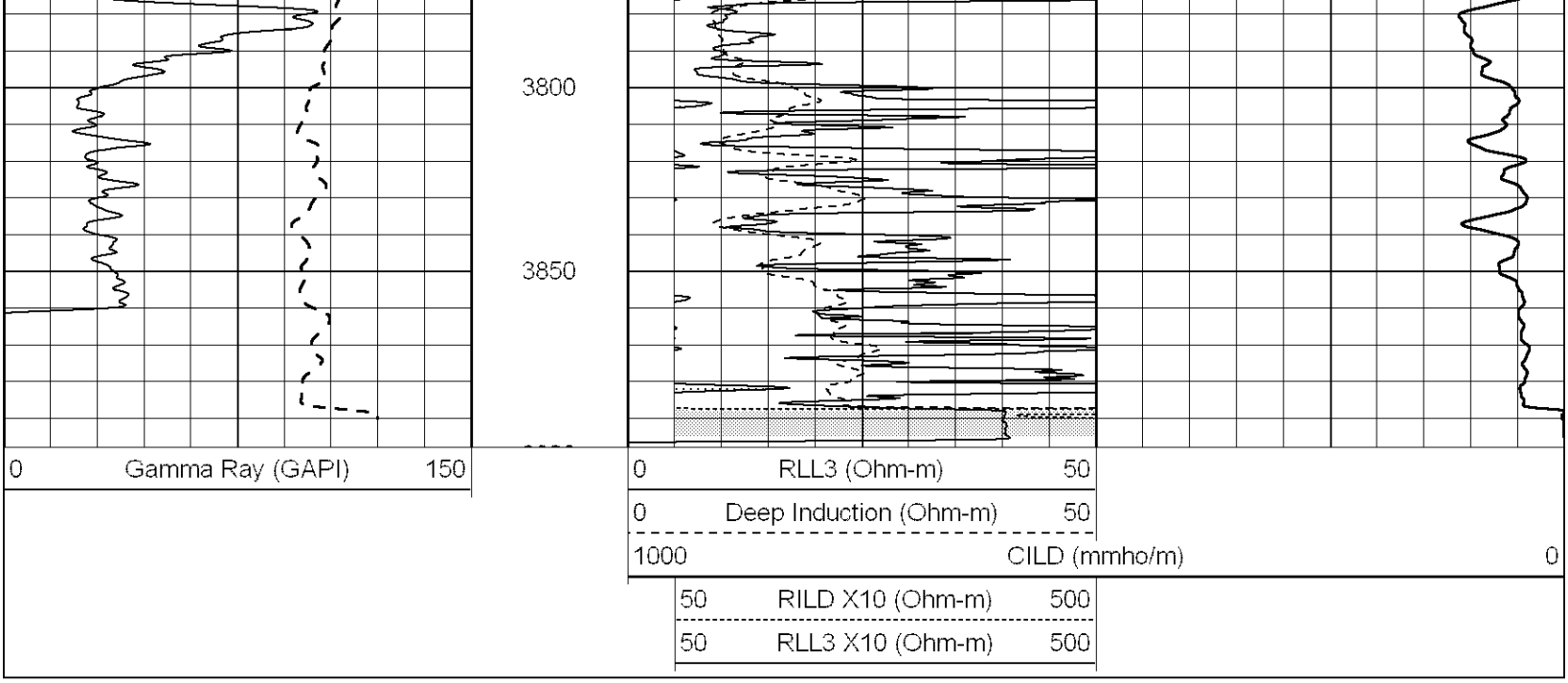
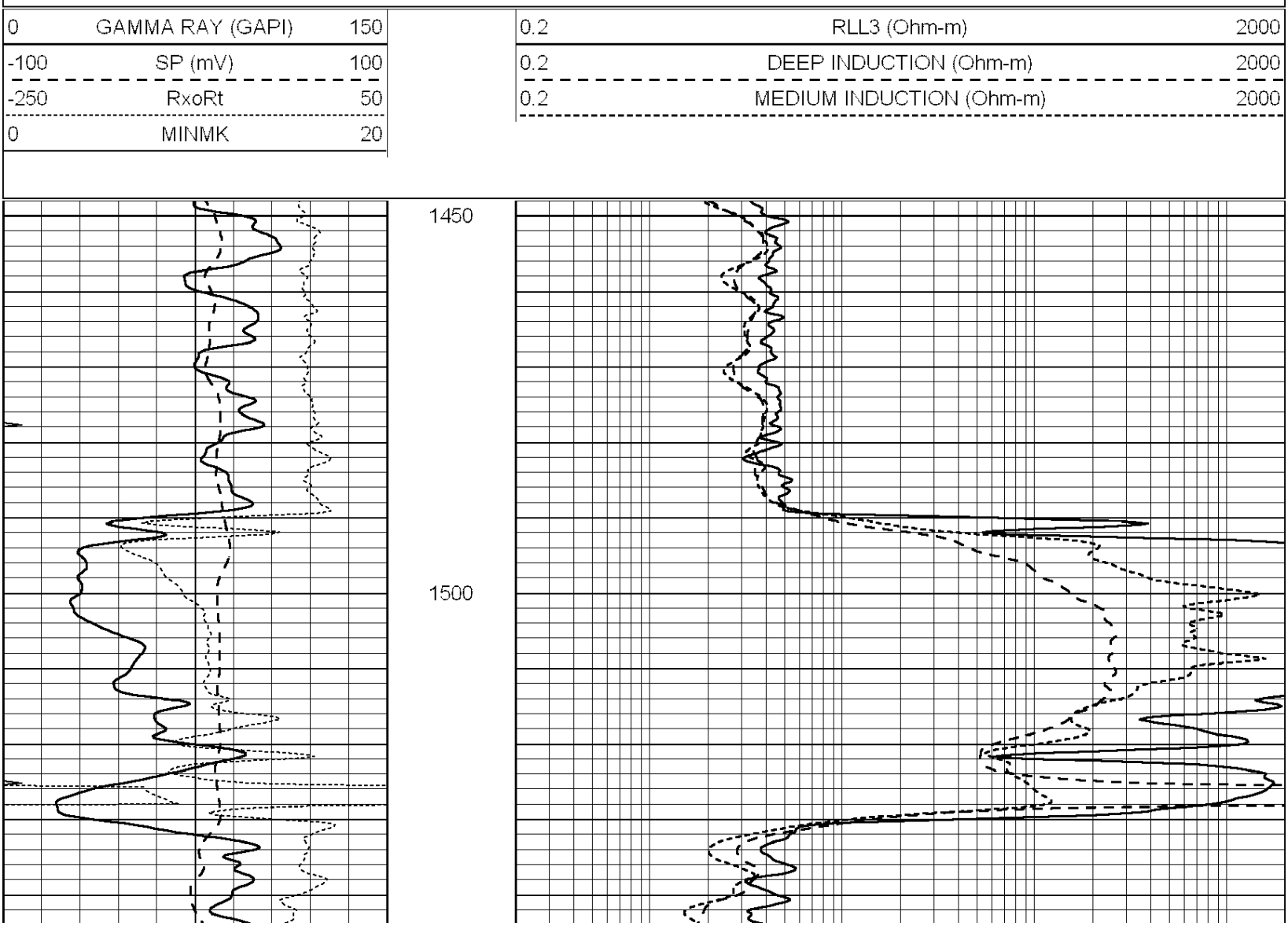
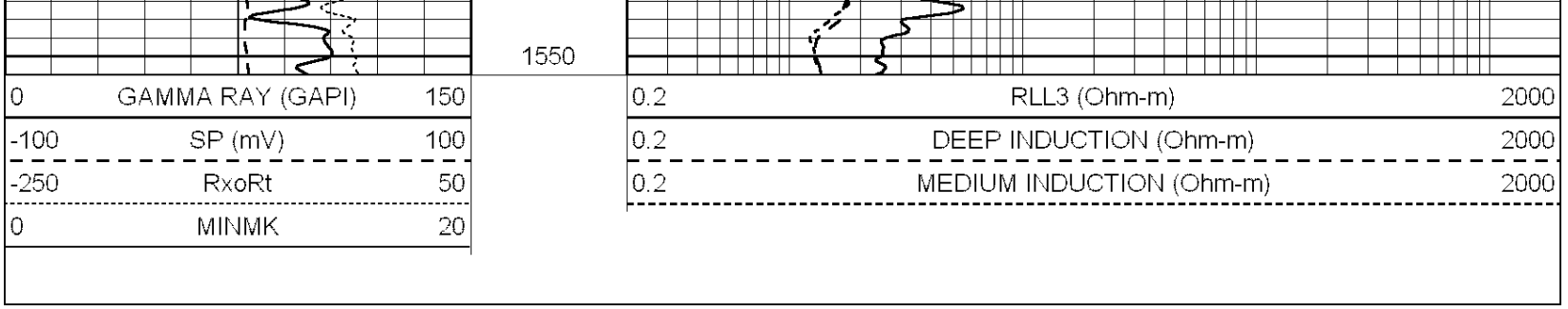
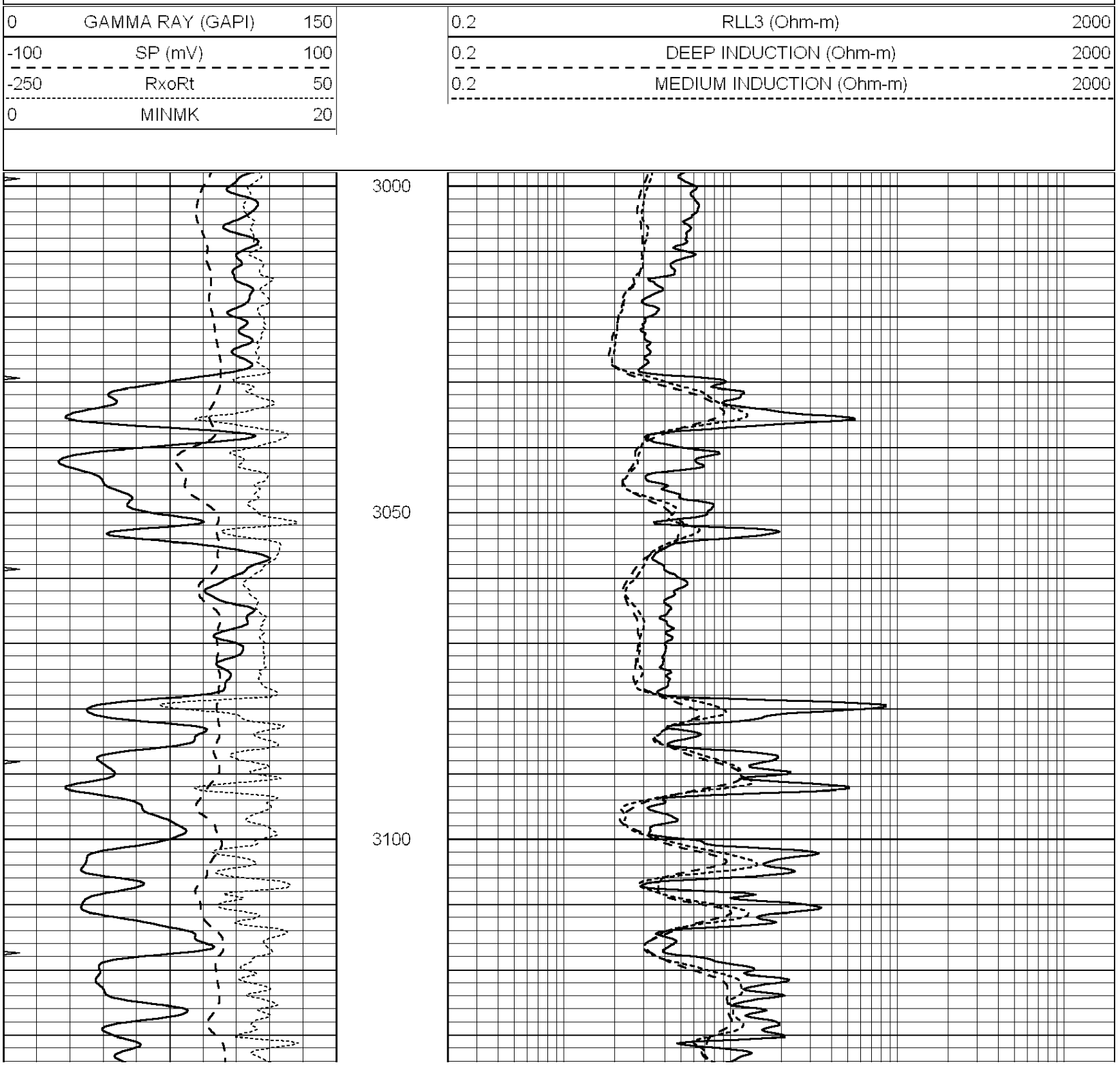


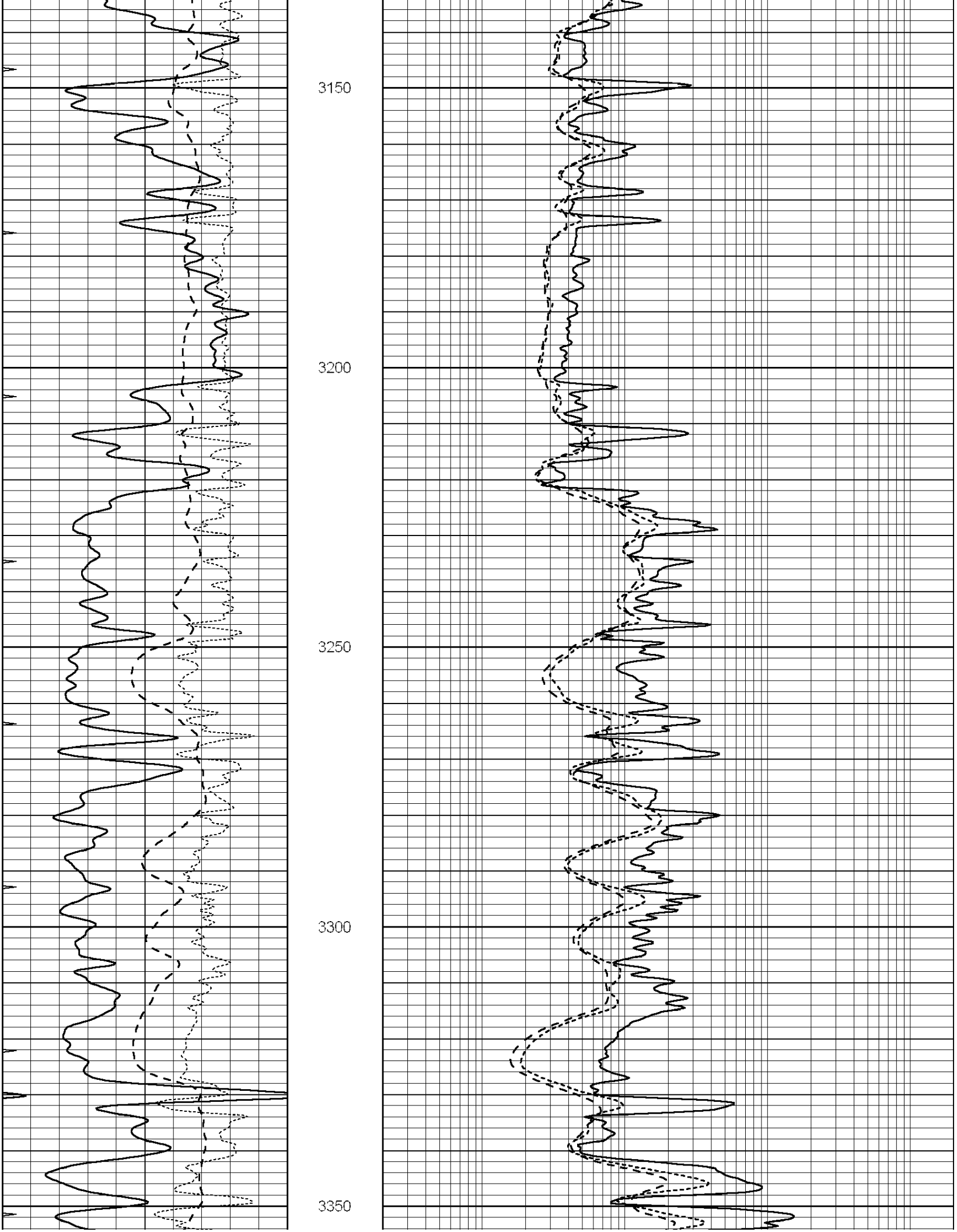
Database File: 010152ddn.db
Dataset Pathname: pass3.2
Presentation Format: dil
Dataset Creation: Mon Nov 26 13:12:41 2012 by Calc Open-Cased 090629
Charted by: Depth in Feet scaled 1:240





Database File: 010152ddn.db
Dataset Pathname: pass3.4
Presentation Format: dil
Dataset Creation: Mon Nov 26 13:22:14 2012 by Calc Open-Cased 090629
Charted by: Depth in Feet scaled 1:240

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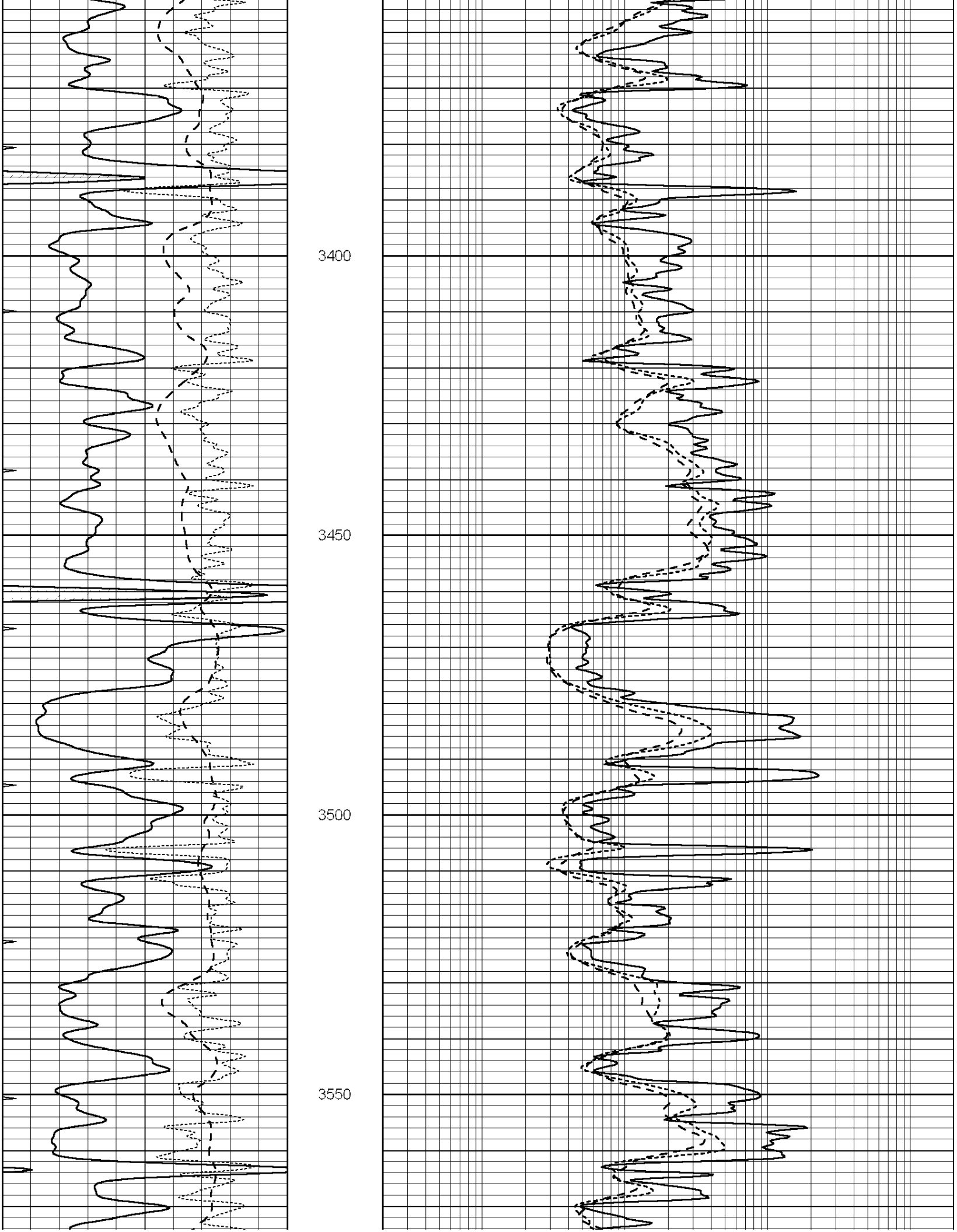
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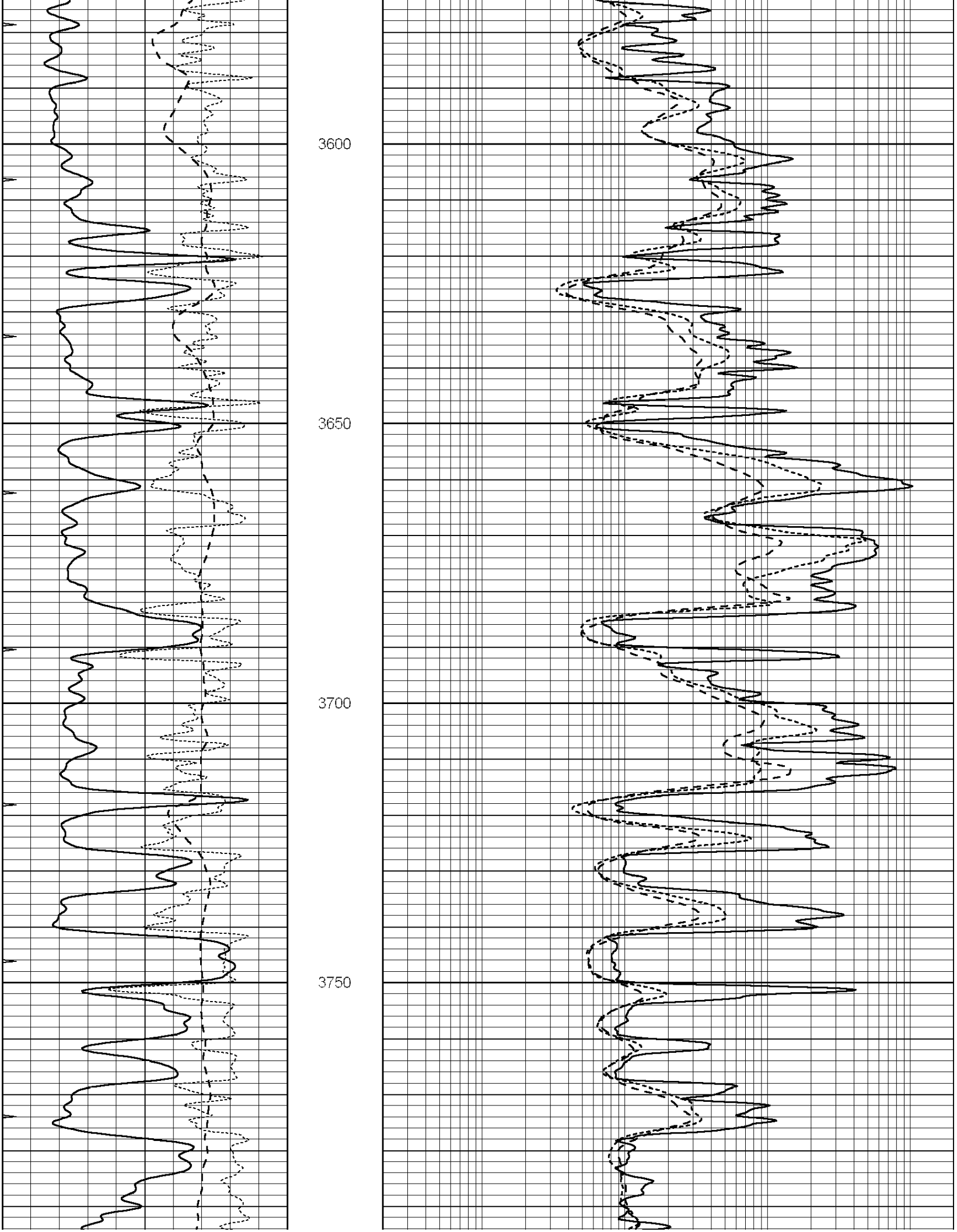
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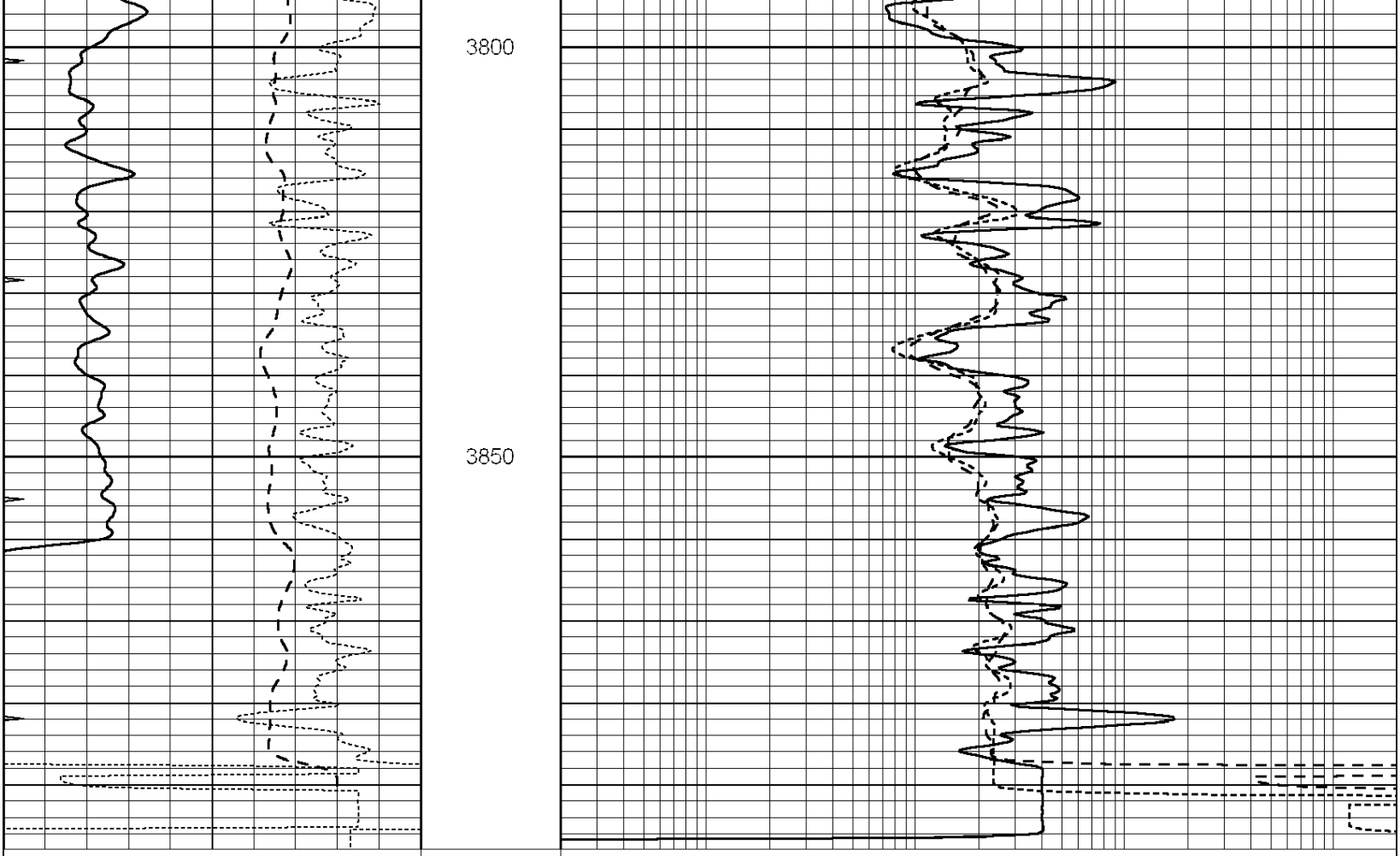


0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	RxoRt	50
0	MINMK	20

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

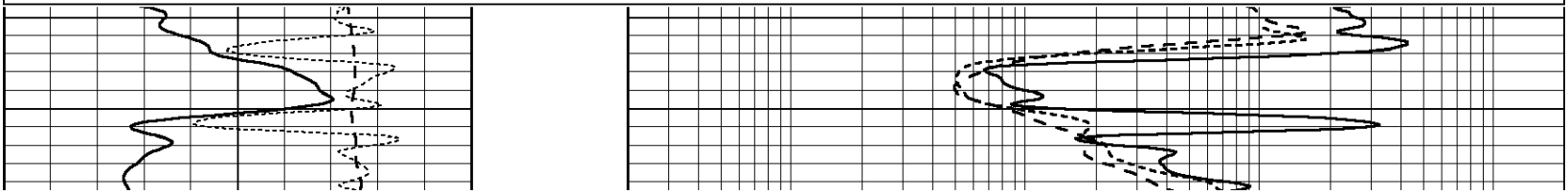
NABORS
COMPLETION & PRODUCTION SERVICES CO.

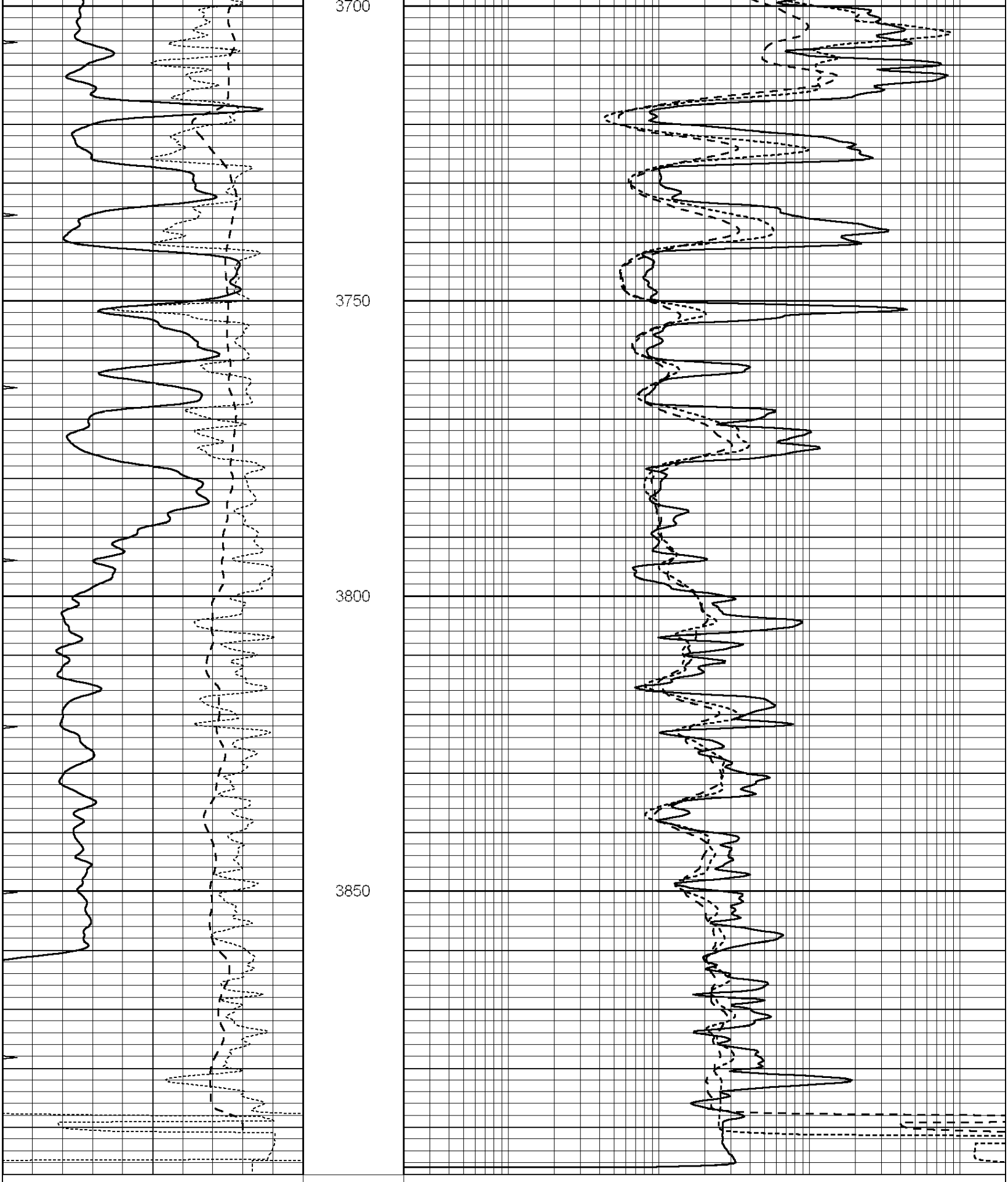
REPEAT SECTION

Database File: 010152ddn.db
Dataset Pathname: pass2.1.4
Presentation Format: dil
Dataset Creation: Mon Nov 26 12:14:55 2012 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	MINMK	20

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	MINMK	20

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

Calibration Report

Database File: 010152ddn.db
Dataset Pathname: pass3.2
Dataset Creation: Mon Nov 26 13:12:41 2012 by Calc Open-Cased 090629

Dual Induction Calibration Report

Serial-Model: DIL5-GEAR
Performed: Sun Nov 18 01:24:45 2012

	Readings			References			Results	
Loop:	Air	Loop		Air	Loop		m	b
Deep	0.004	0.654	V	0.000	400.000	mmho/m	470.000	-10.000
Medium	-0.005	0.737	V	0.000	462.500	mmho/m	490.000	-7.500
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: Sun Nov 18 01:24:34 2012

Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.710	g/cc	1205.67	613.10	cps
Aluminum	2.590	g/cc	277.64	430.46	cps

Spine Angle = 76.46 Density/Spine Ratio = 0.583

	Size		Reading	
Small Ring	8.75	in	4.69	V
Large Ring	14.00	in	6.52	V

Compensated Neutron Calibration Report

Serial Number: NUE_2I
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: Sun Nov 18 01:33:42 2012

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps
Calibrator Reading: 1.0 cps

Sensitivity: 0.7500 GAPI/cps