SUPERIOR WELL SERVICES

SUPERIOR
Hays, Kansas

DUAL INDUCTION LOG

Company MAI OIL OPERATIONS, INC.
Well DRISCOLL #4
Field HALL GURNEY
County RUSSELL State KANSAS

Location: API # : 15-167-23779-0000
675' FNL & 1375' FWL
NW - SW - NE - NW
SEC 4 TWP 15S RGE 14W

Other Services
CDL/CNL
MEL

Permanent Datum GROUND LEVEL Elevation 1762
Log Measured From KELLY BUSHING 8' A.G.L.
Drilling Measured From KELLY BUSHING

Elevation
K.B. 1770
D.F. 1768
G.L. 1762

Date	3-18-12		
Run Number	ONE		
Depth Driller	3295		
Depth Logger	3294		
Bottom Logged Interval	3292		
Top Log Interval	0		
Casing Driller	392		
Casing Logger	391		
Bit Size	7.875		
Type Fluid in Hole	CHEMICAL MUD		
Density / Viscosity	9.1 / 54	CHLORIDES 3,600	
pH / Fluid Loss	10.5 / 8.2		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	0.51 @ 84F		
Rmf @ Meas. Temp	0.38 @ 84F		
Rmc @ Meas. Temp	0.61 @ 84F		
Source of Rmf / Rmc	MEASURED		
Rm @ BHT	0.39 @ 110F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom			
Maximum Recorded Temperature	110F		
Equipment Number	860		
Location	HAYS, KS.		
Recorded By	JEFF GRONEWEG		
Witnessed By	KURT TALBOTT		

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Well DRISCOLL #4
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State KANSAS

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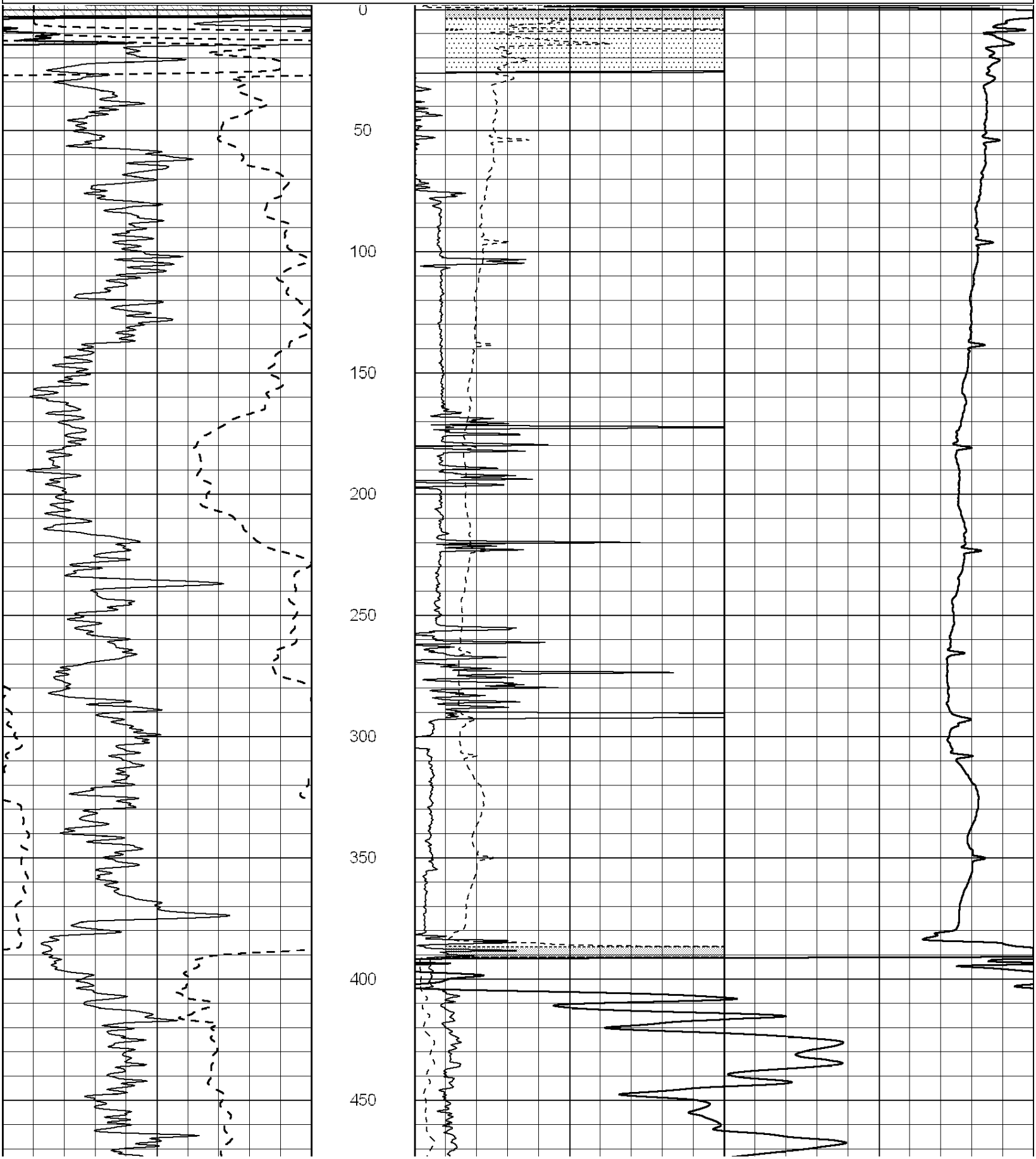
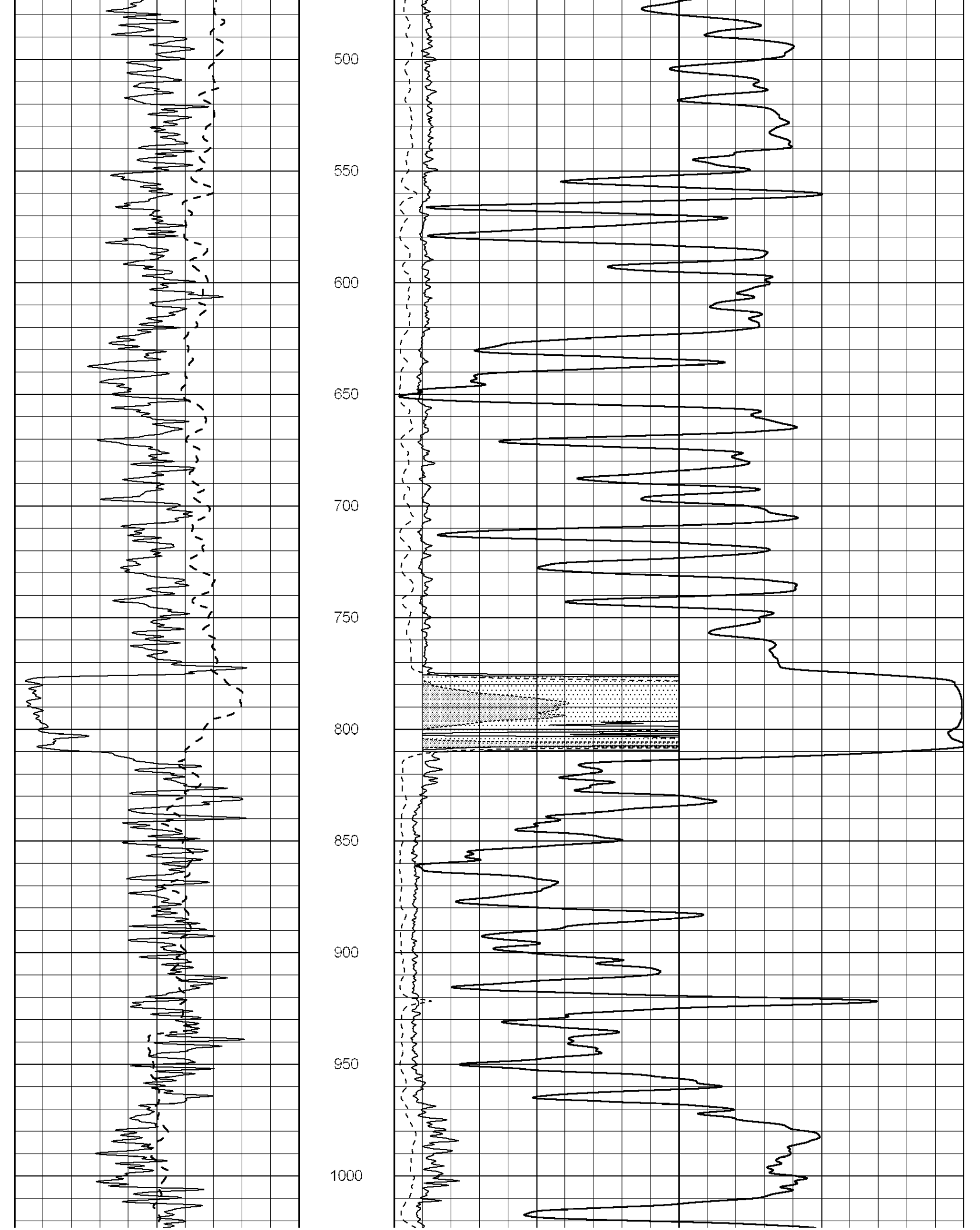
Comments

SUPERIOR WELL SERVICES
785-628-6395
THANK YOU FOR YOUR BUSINESS
DIRECTIONS: RUSSELL, KS - 6 MILES SOUTH TO WALTERS LANE RD
2 MILES WEST - 1/2 MILE NORTH - EAST INTO

Database File: 008500ddn.db
Dataset Pathname: pass3.2
Presentation Format: dil2
Dataset Creation: Sun Mar 18 14:54:38 2012 by Calc Open-Cased 090629

Charted by: Depth in Feet scaled 1:600

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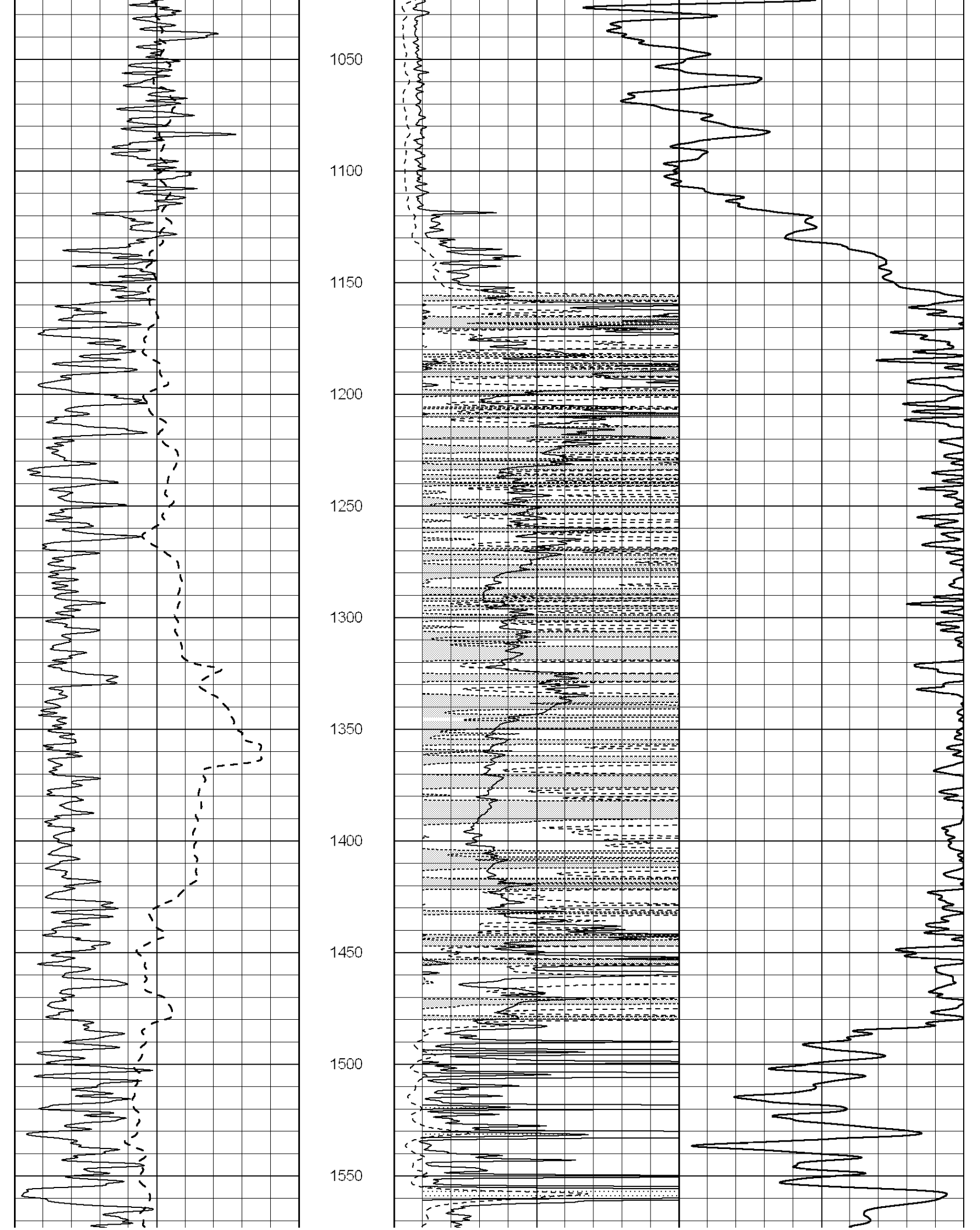
600
650
700
750
800
850
900
950
1000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1300
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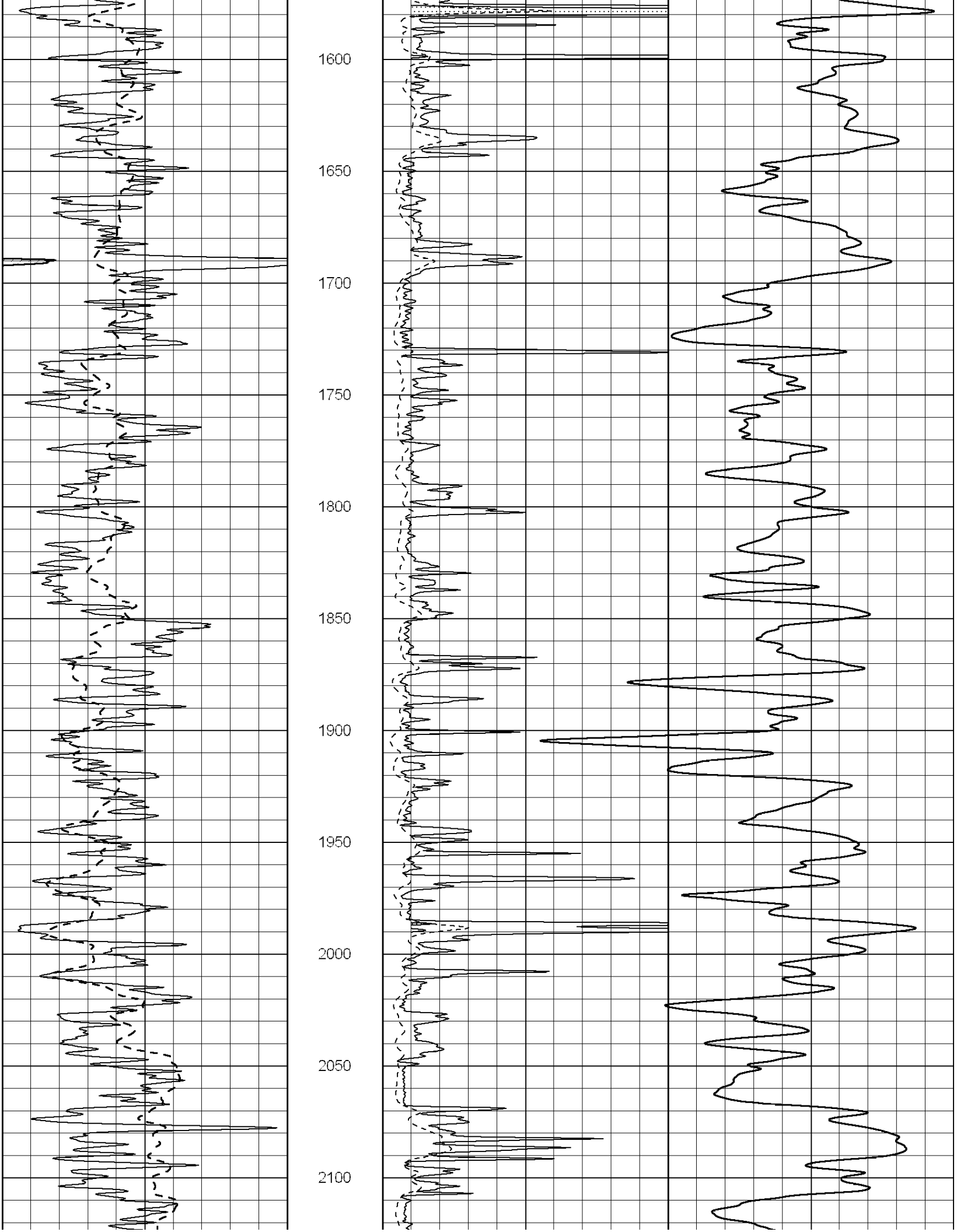
1450
1500
1550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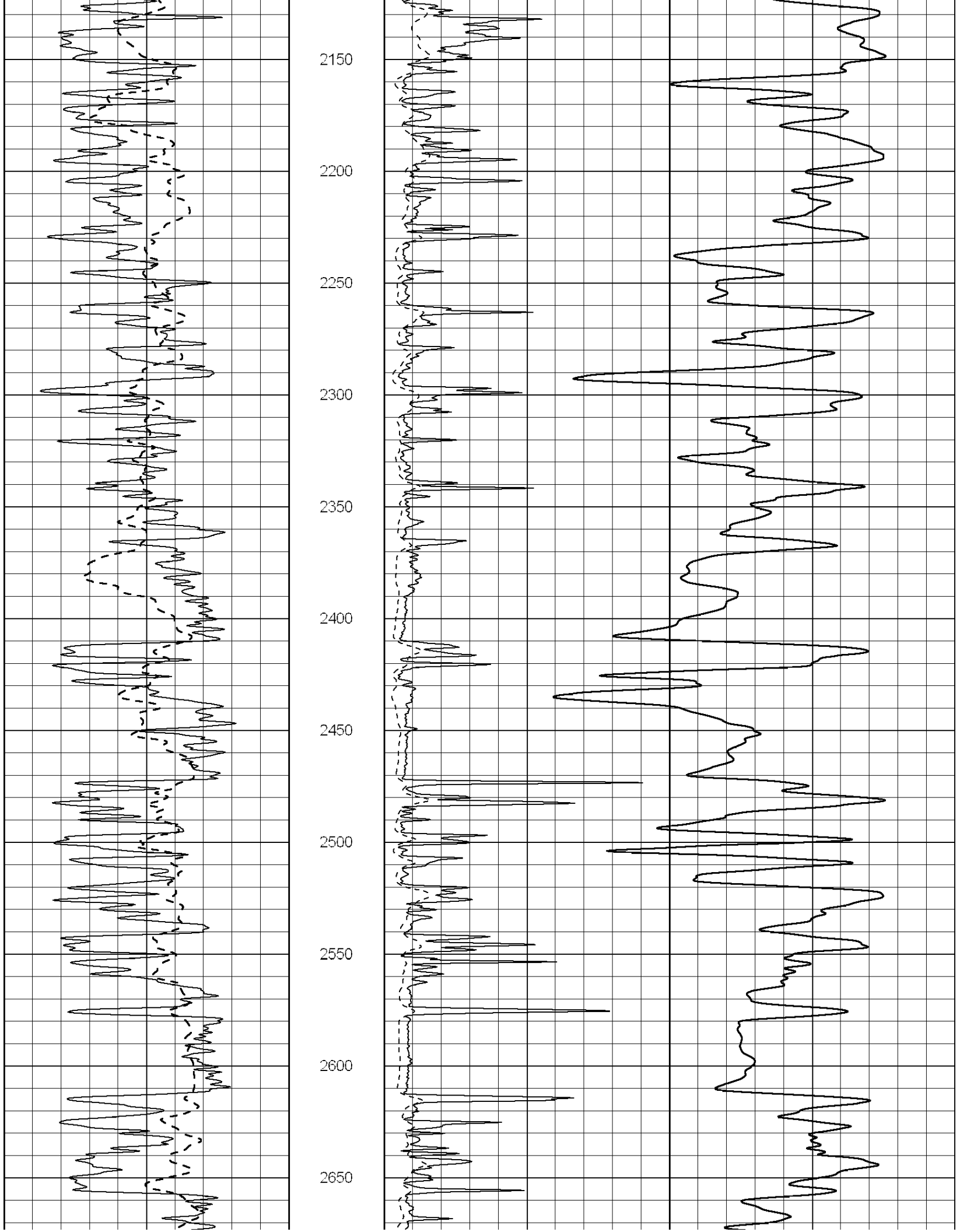
2050
2100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2450
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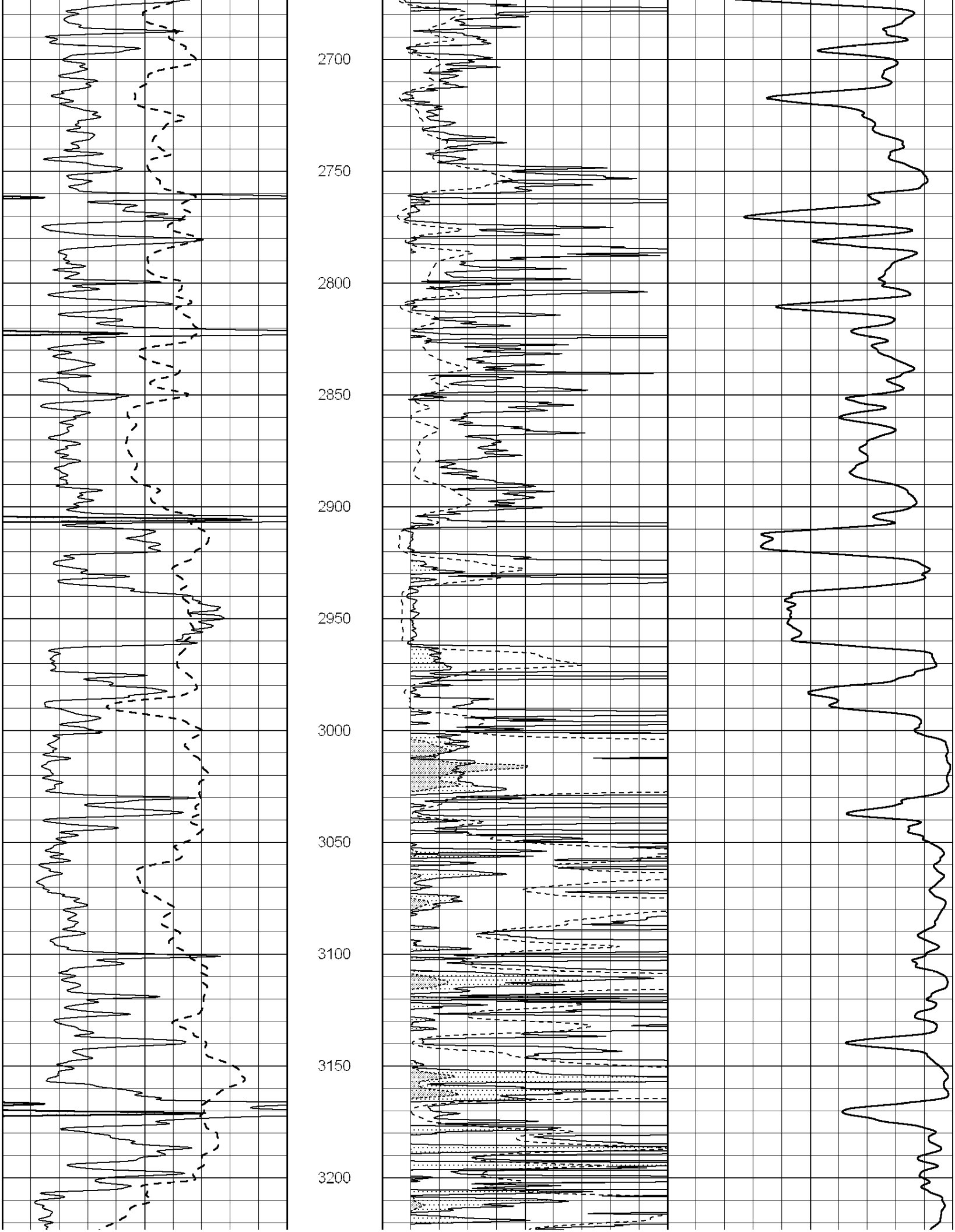
2550
2600
2650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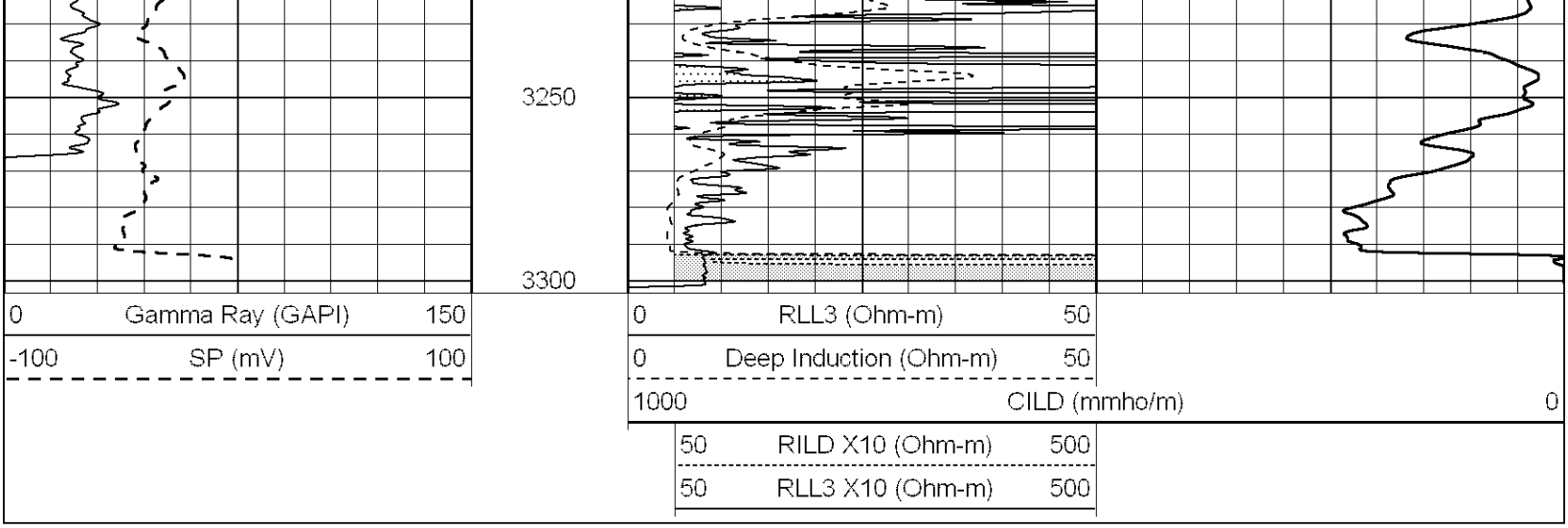
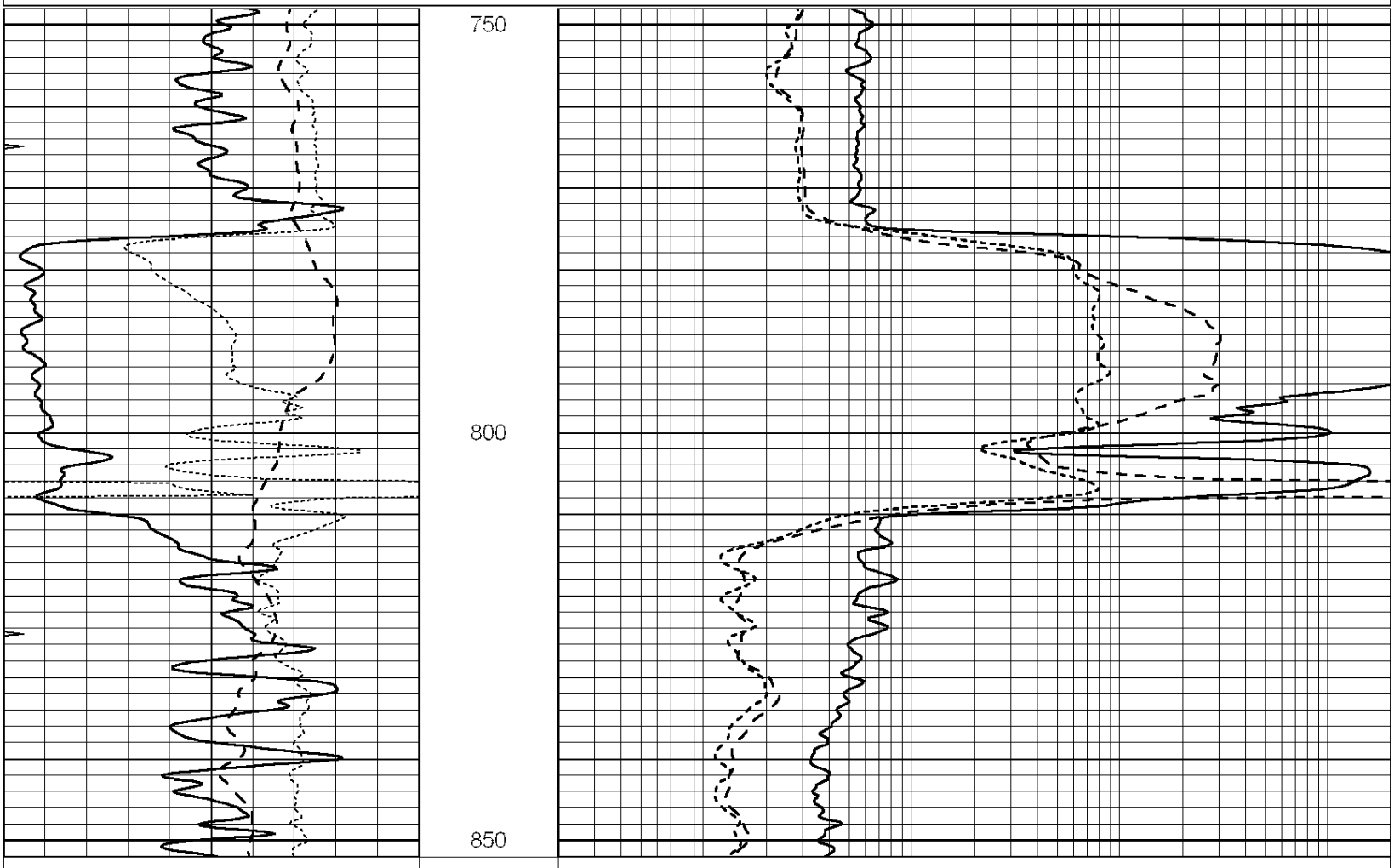


Database File: 008500ddn.db
Dataset Pathname: pass3.2
Presentation Format: dil
Dataset Creation: Sun Mar 18 14:54:38 2012 by Calc Open-Cased 090629
Charted by: Depth in Feet scaled 1:240

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



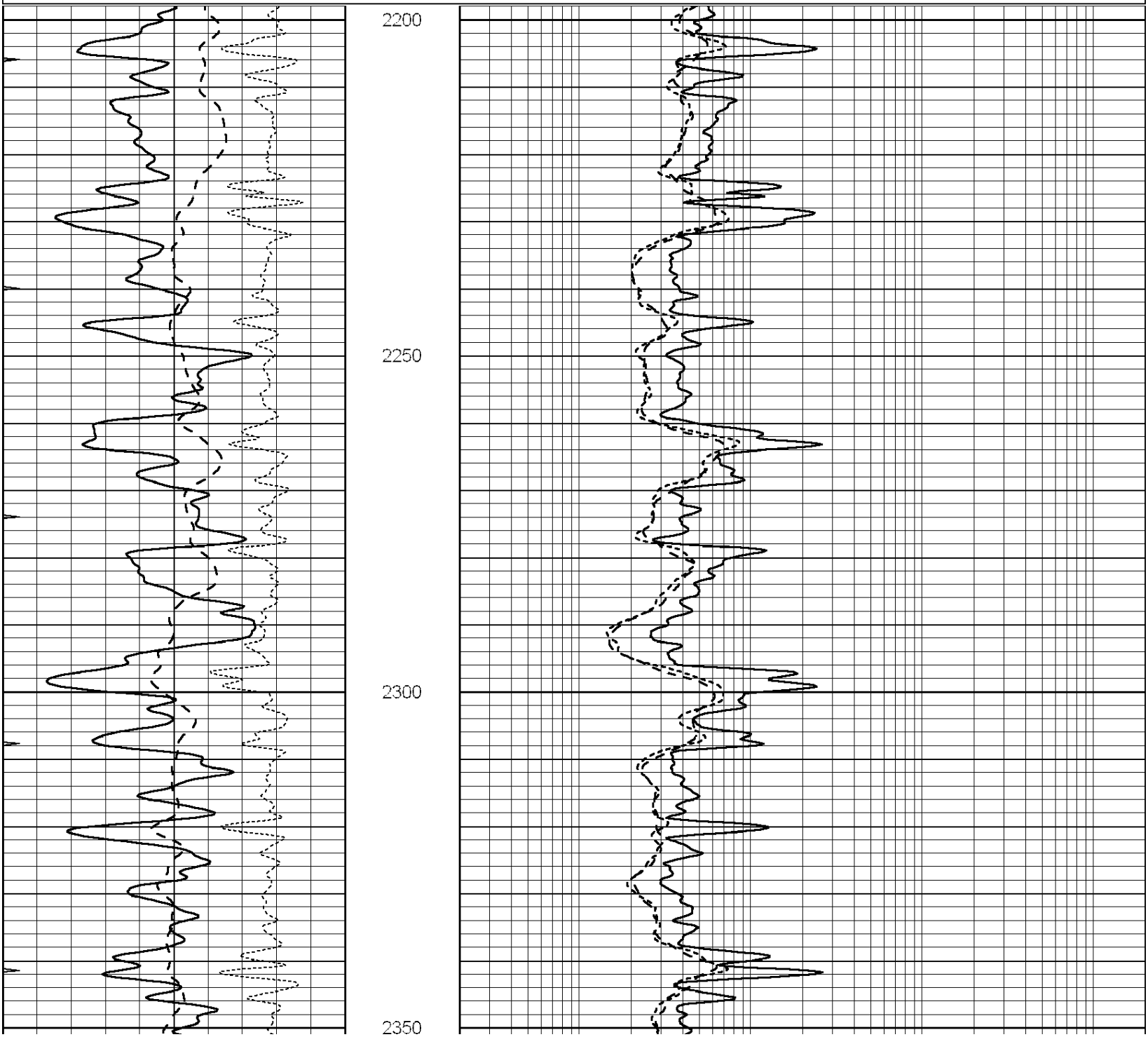
-250	RxoRt	50
0	MINMK	20

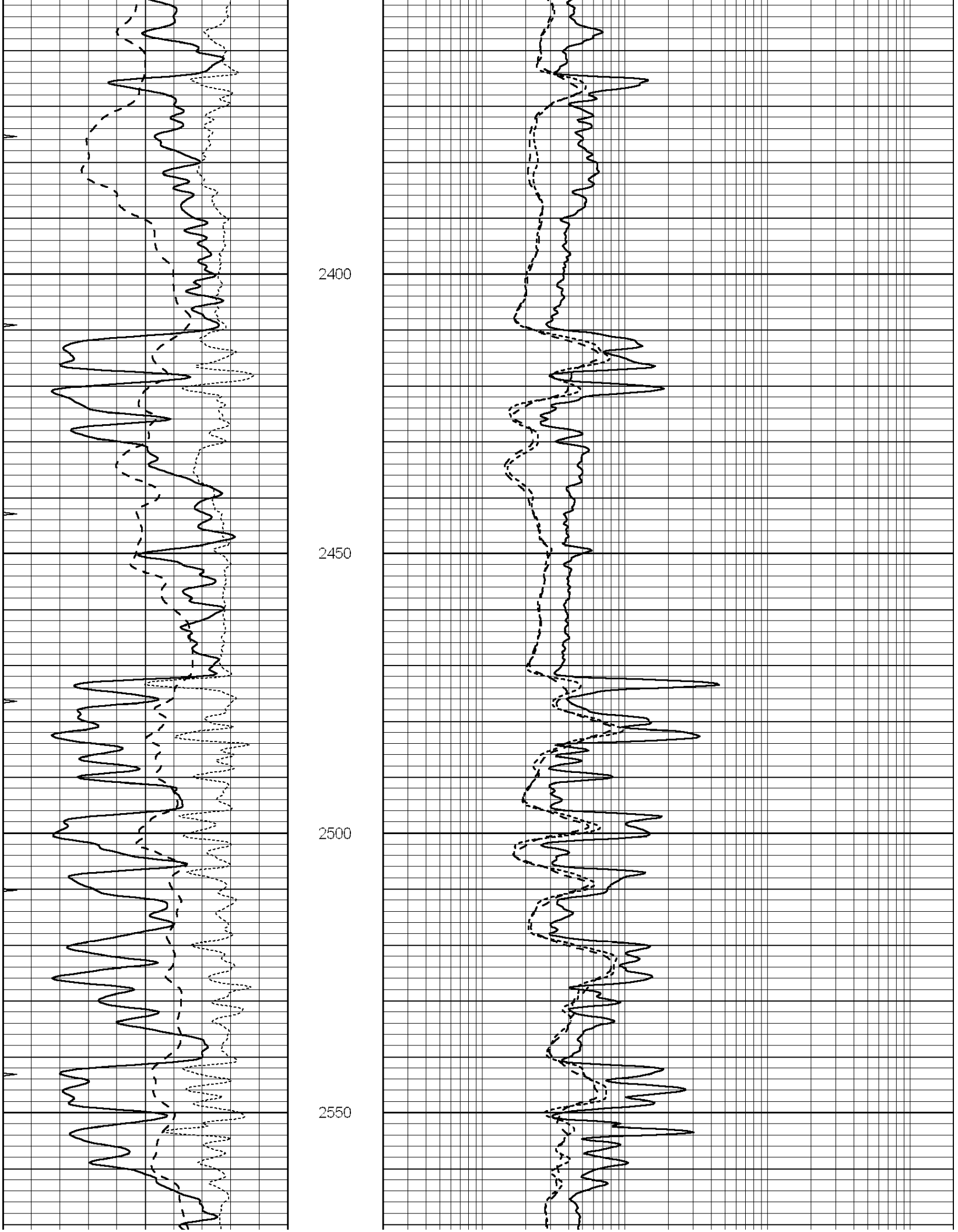
0.2	MEDIUM INDUCTION (Ohm-m)	2000

Database File: 008500ddn.db
Dataset Pathname: pass3.1
Presentation Format: dil
Dataset Creation: Sun Mar 18 13:36:43 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

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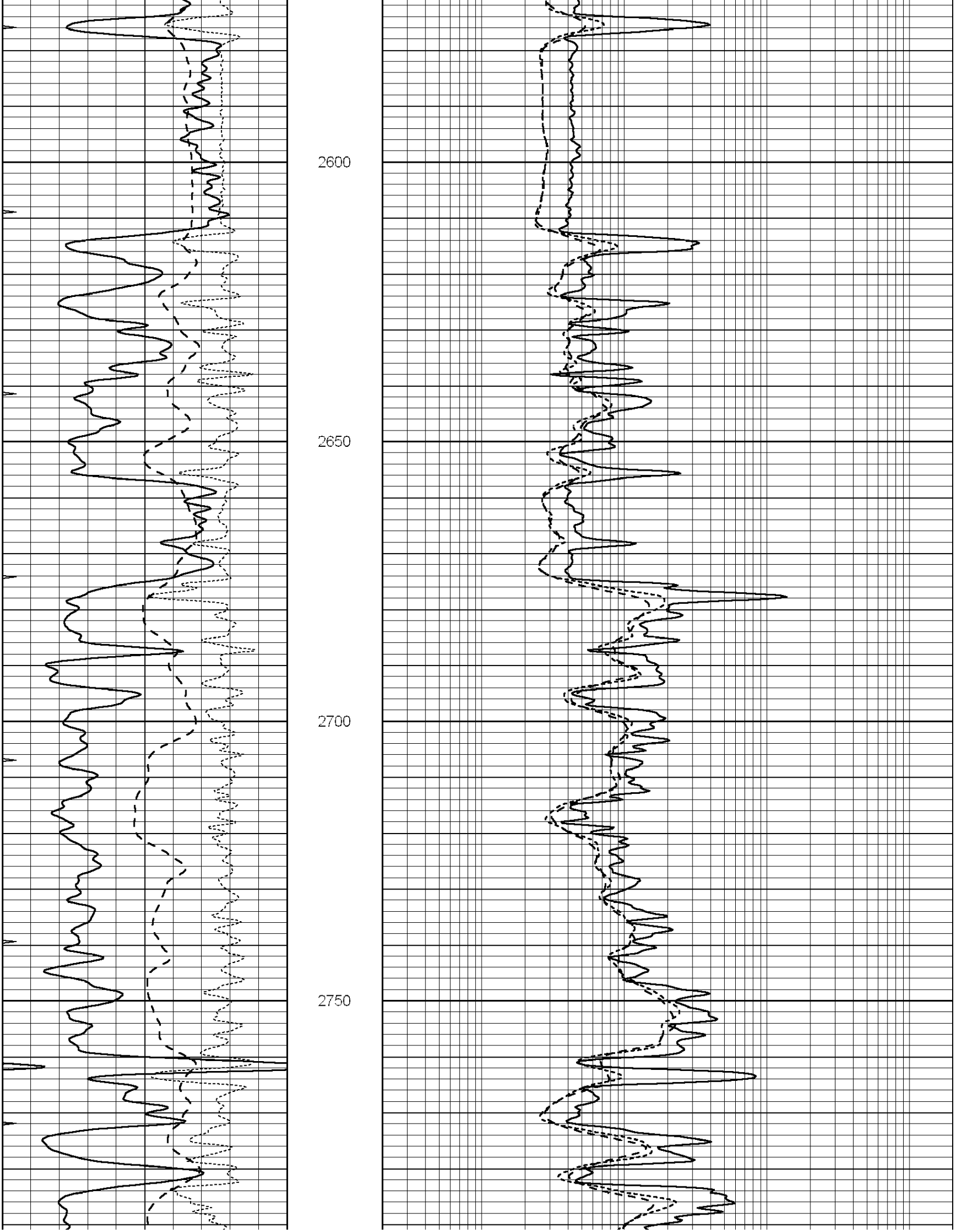
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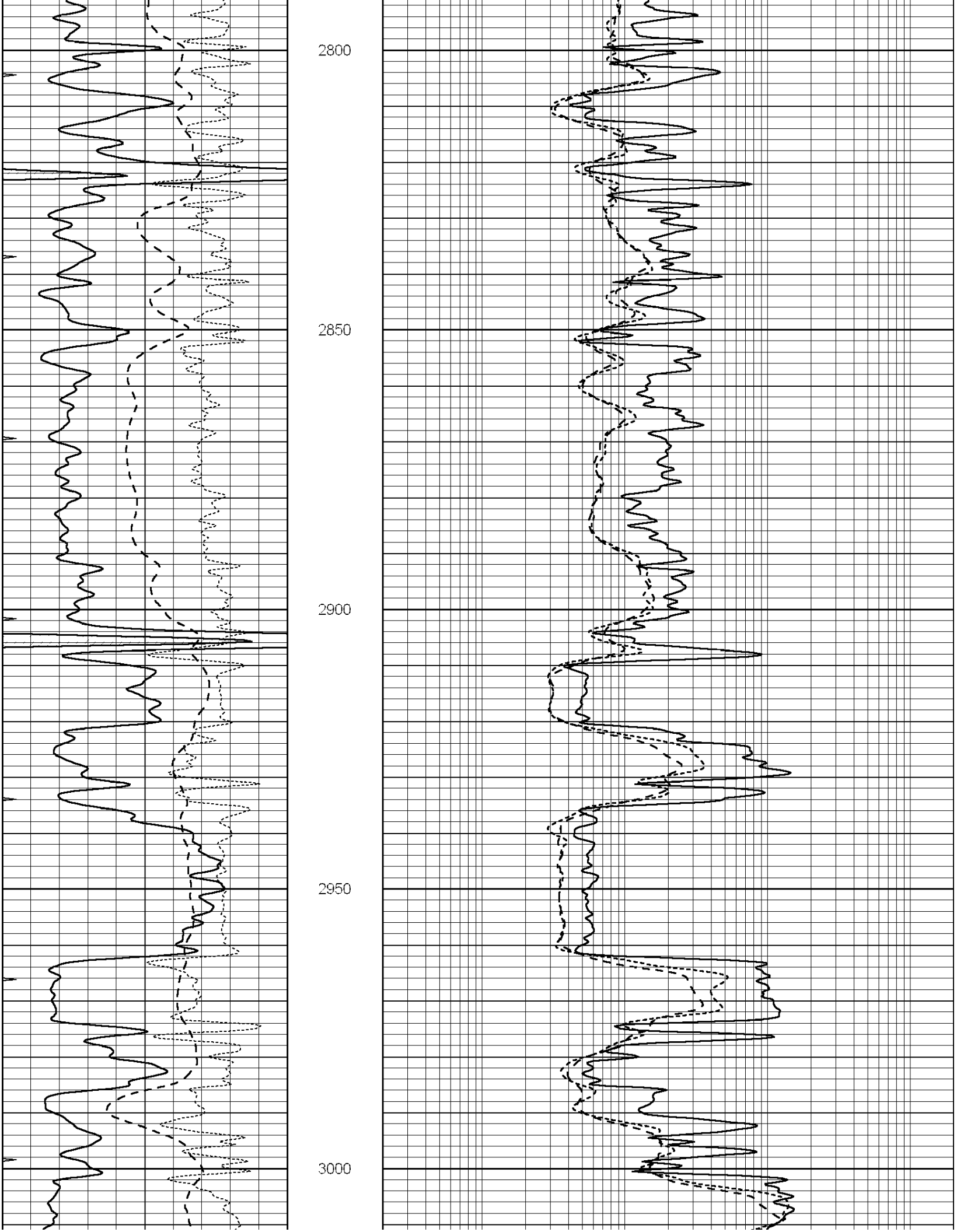
2650
2700
2750


2800
2850
2900
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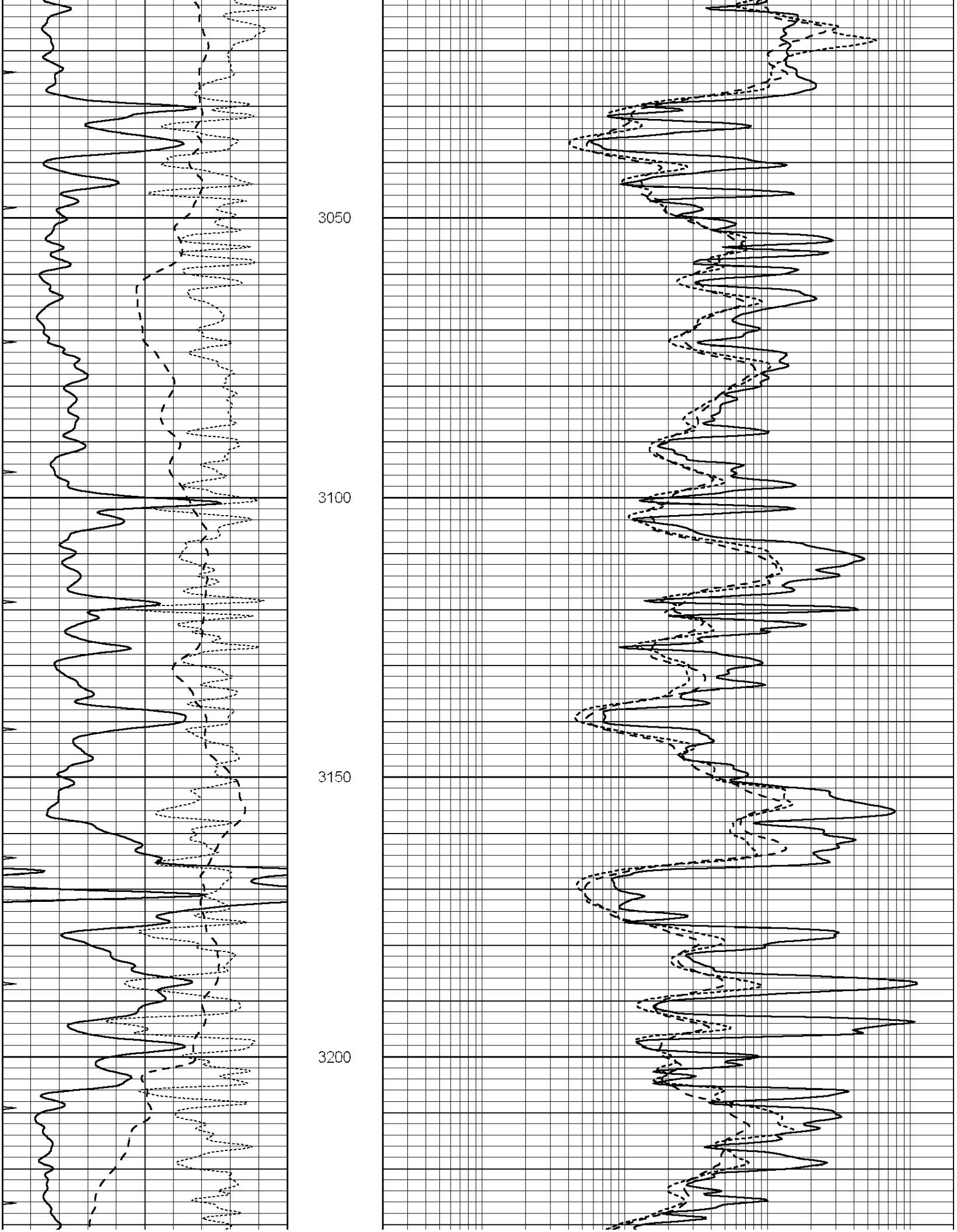
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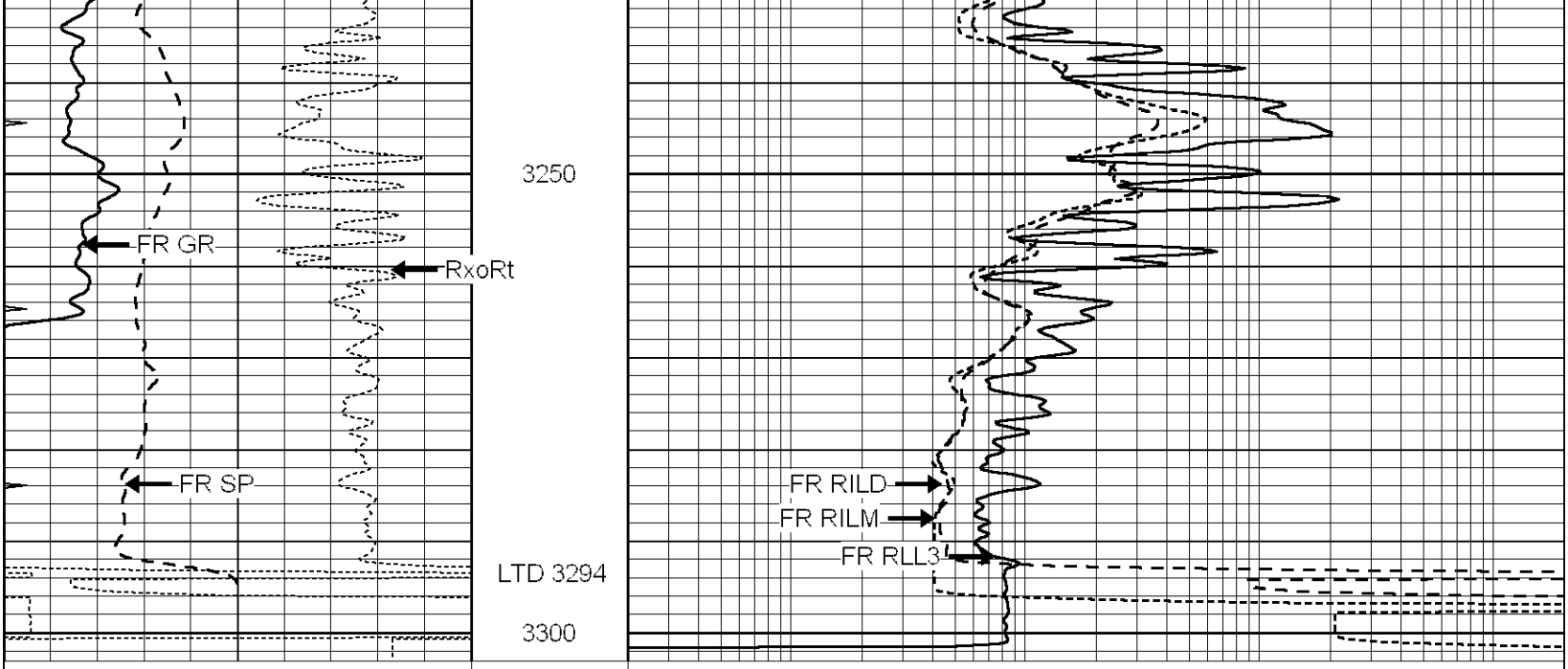


0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	RxoRt	50
0	MINMK	20

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

SUPERIOR
WELL SERVICES

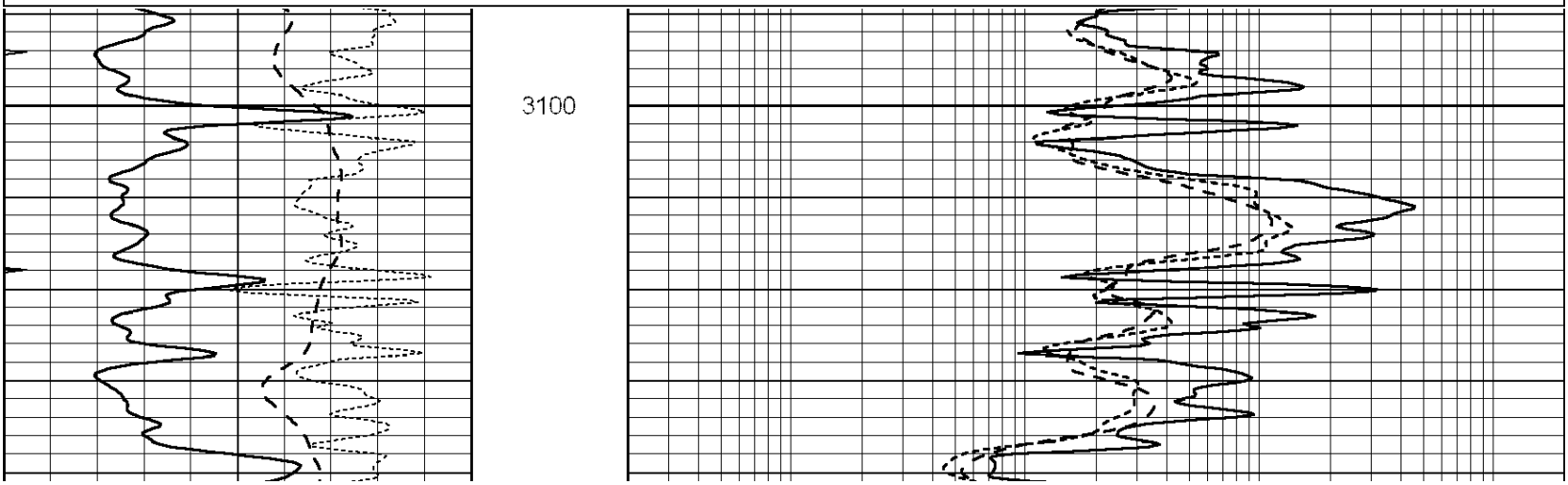
SUPERIOR
Hays,
Kansas

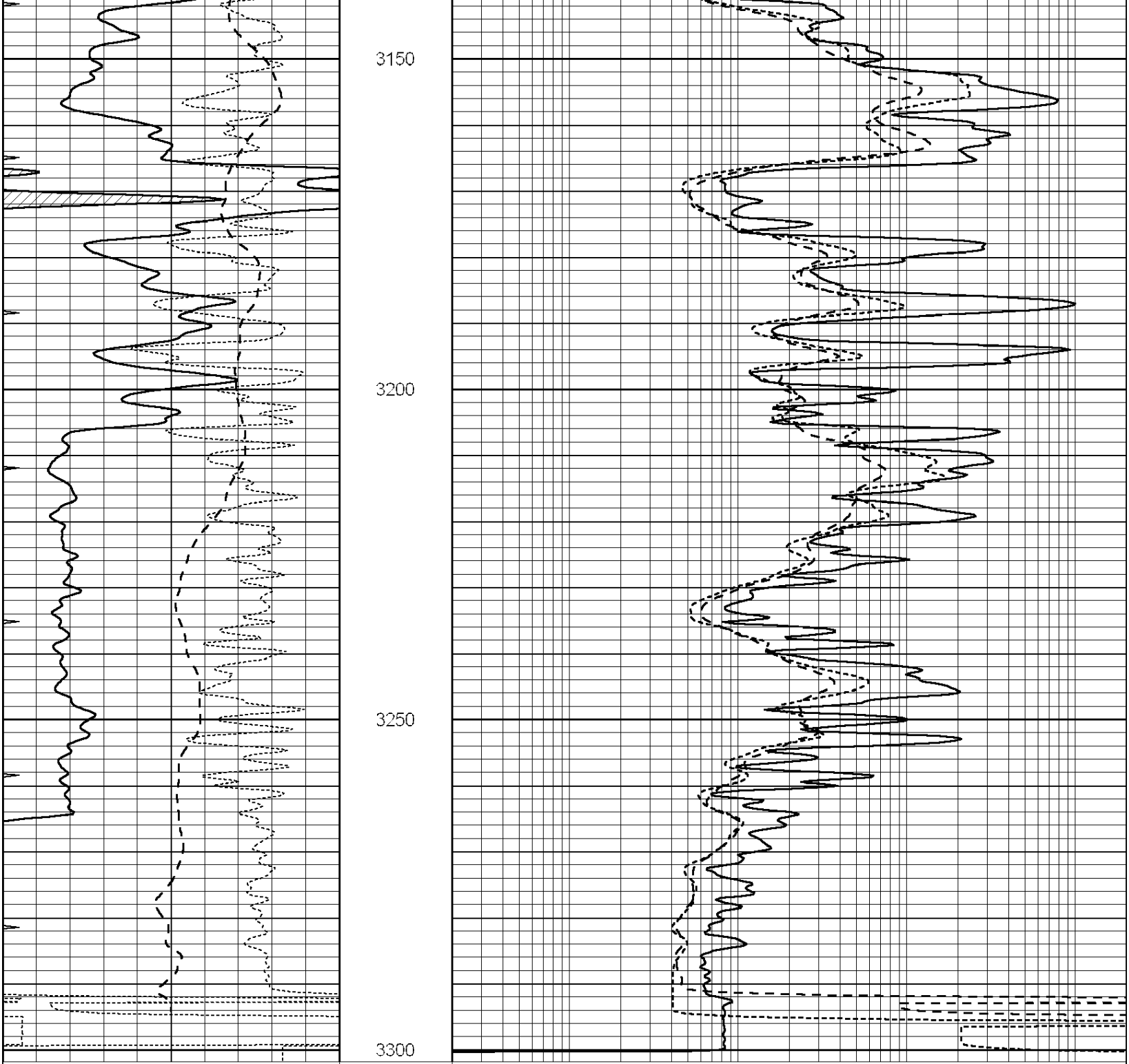
REPEAT SECTION

Database File:	008500ddn.db
Dataset Pathname:	pass2.1
Presentation Format:	dil
Dataset Creation:	Sun Mar 18 13:43:46 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: 008500ddn.db
Dataset Pathname: pass3.2
Dataset Creation: Sun Mar 18 14:54:38 2012 by Calc Open-Cased 090629

Dual Induction Calibration Report

Serial-Model:	DIL5-GEAR
Performed:	Mon Feb 27 10:22:53 2012

Performed: Mon Feb 27 16:22:53 2012

	Readings			References			Results	
Loop:	Air	Loop		Air	Loop		m	b
Deep	0.004	0.654	V	0.000	400.000	mmho/m	500.000	-17.000
Medium	-0.005	0.737	V	0.000	462.500	mmho/m	530.000	-10.000
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: Wed Mar 14 02:43:29 2012

Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.710	g/cc	1243.76	629.14	cps
Aluminum	2.590	g/cc	282.16	435.01	cps

Spine Angle = 76.03 Density/Spine Ratio = 0.576

	Size		Reading	
Small Ring	9.10	in	3.50	V
Large Ring	14.00	in	5.30	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: Wed Mar 14 02:10:41 2012

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps
Calibrator Reading: 1.0 cps

Sensitivity: 0.7000 GAPI/cps