NABORS COMPLETION & PRODUCTION SERVICES CO.

DUAL INDUCTION LOG

Company	ANDERSON ENERGY, INC.
Well	WERTH #3
Field	RUDER NORTH
County	ELLIS
State	KANSAS

Company ANDERSON ENERGY, INC.
Well WERTH #3
Field RUDER NORTH
County ELLIS State KANSAS
Location: API # : 15-051-26697-0000
2520' FNL & 720' FWL
SEC 5 TWP 15S RGE 18W

Permanent Datum GROUND LEVEL Elevation 2010
Log Measured From KELLY BUSHING 10' A.G.L.
Drilling Measured From KELLY BUSHING

Other Services
CDL/CNL
MEL

Elevation
K.B. 2020
D.F. 2018
G.L. 2010

Date	5/29/14		
Run Number	ONE		
Depth Driller	3635		
Depth Logger	3635		
Bottom Logged Interval	3633		
Top Log Interval	00		
Casing Driller	8 5/8" @ 305		
Casing Logger	305		
Bit Size	7 7/8		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 9000 PPM	
Density / Viscosity	9.3/68		
pH / Fluid Loss	10.5/9.4		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	0.50 @ 84F		
Rmf @ Meas. Temp	0.38 @ 84F		
Rmc @ Meas. Temp	0.60 @ 84F		
Source of Rmf / Rmc	MEASURED		
Rm @ BHT	0.37 @ 113F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom			
Maximum Recorded Temperature	113F		
Equipment Number	680		
Location	HAYS, KS.		
Recorded By	JASON CAPPELLUCCI		
Witnessed By	ROGER MARTIN		

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Comments

THANK YOU FOR USING NABORS COMPLETION & PRODUCTION SVCS. (785) 628-6395

DIRECTIONS:
HAYS, KS. - SOUTH ON EXPERIMENT STATION RD. TO ANTONINO RD.
1 WEST - 1/2 SOUTH - EAST & NORTH INTO

NABORS COMPLETION & PRODUCTION SERVICES CO.

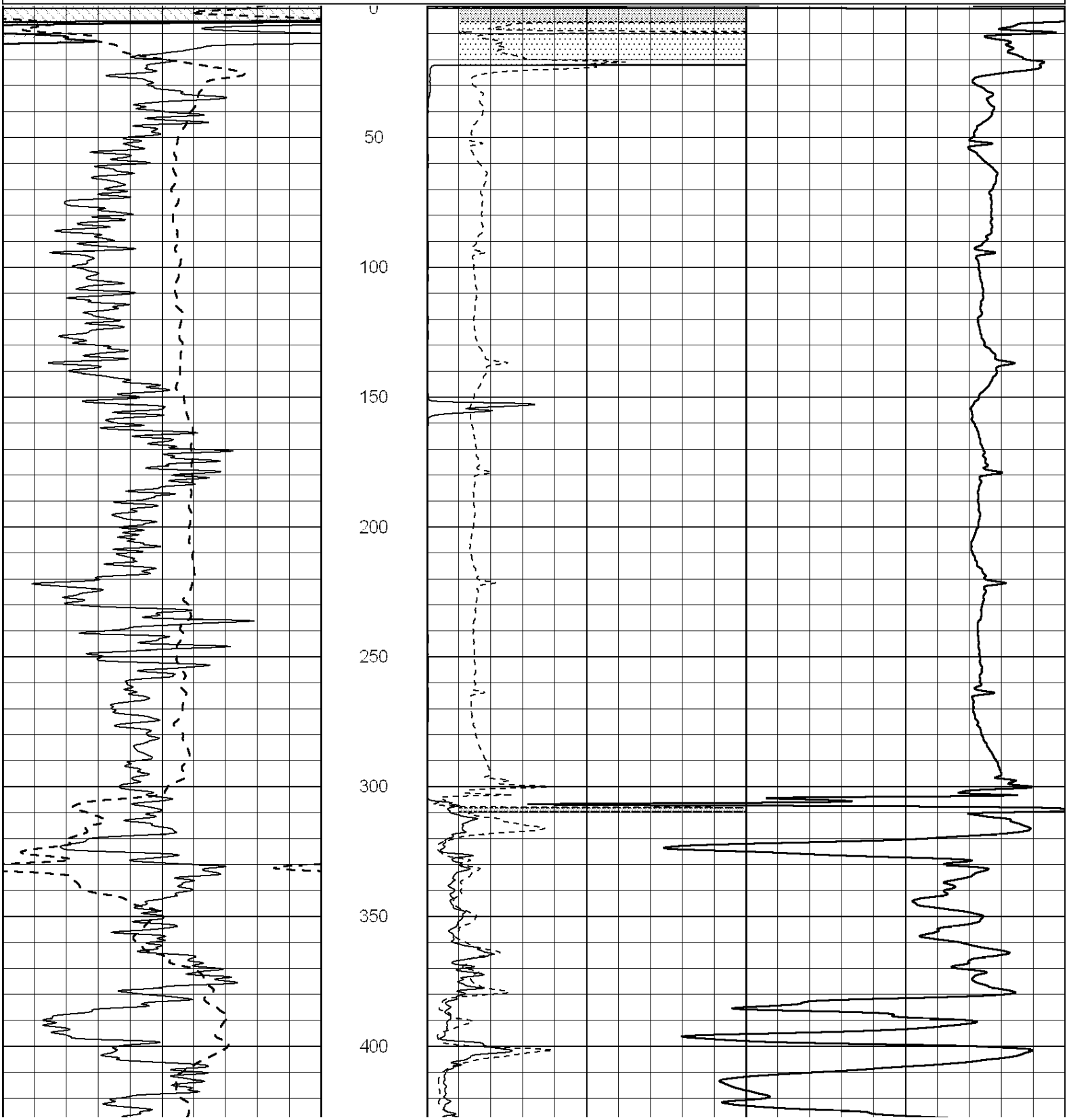
MAIN SECTION

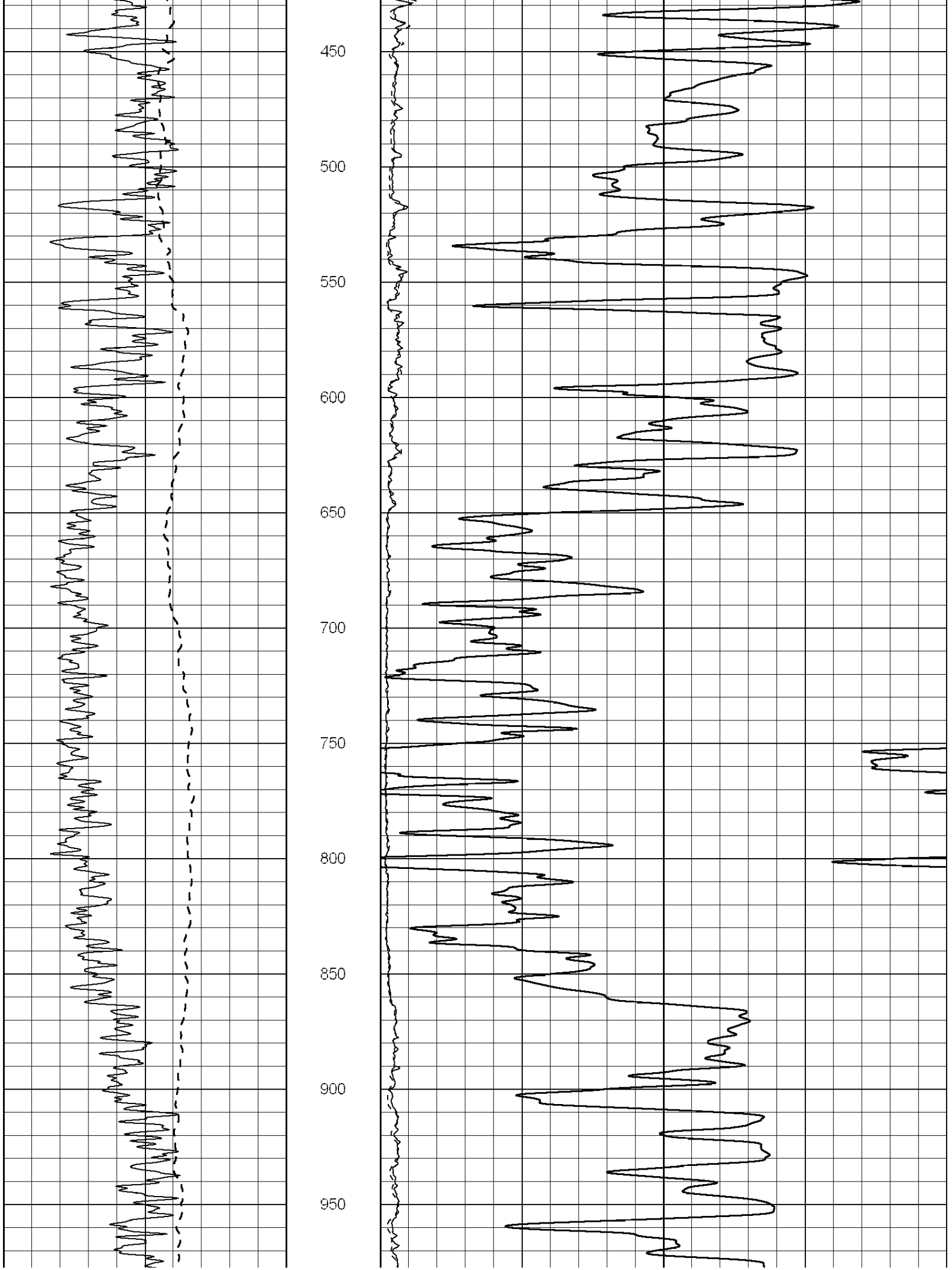
SERVICES CO.

Database File: 24627ddn.db
Dataset Pathname: pass3.3
Presentation Format: _dil2
Dataset Creation: Thu May 29 08:02:54 2014 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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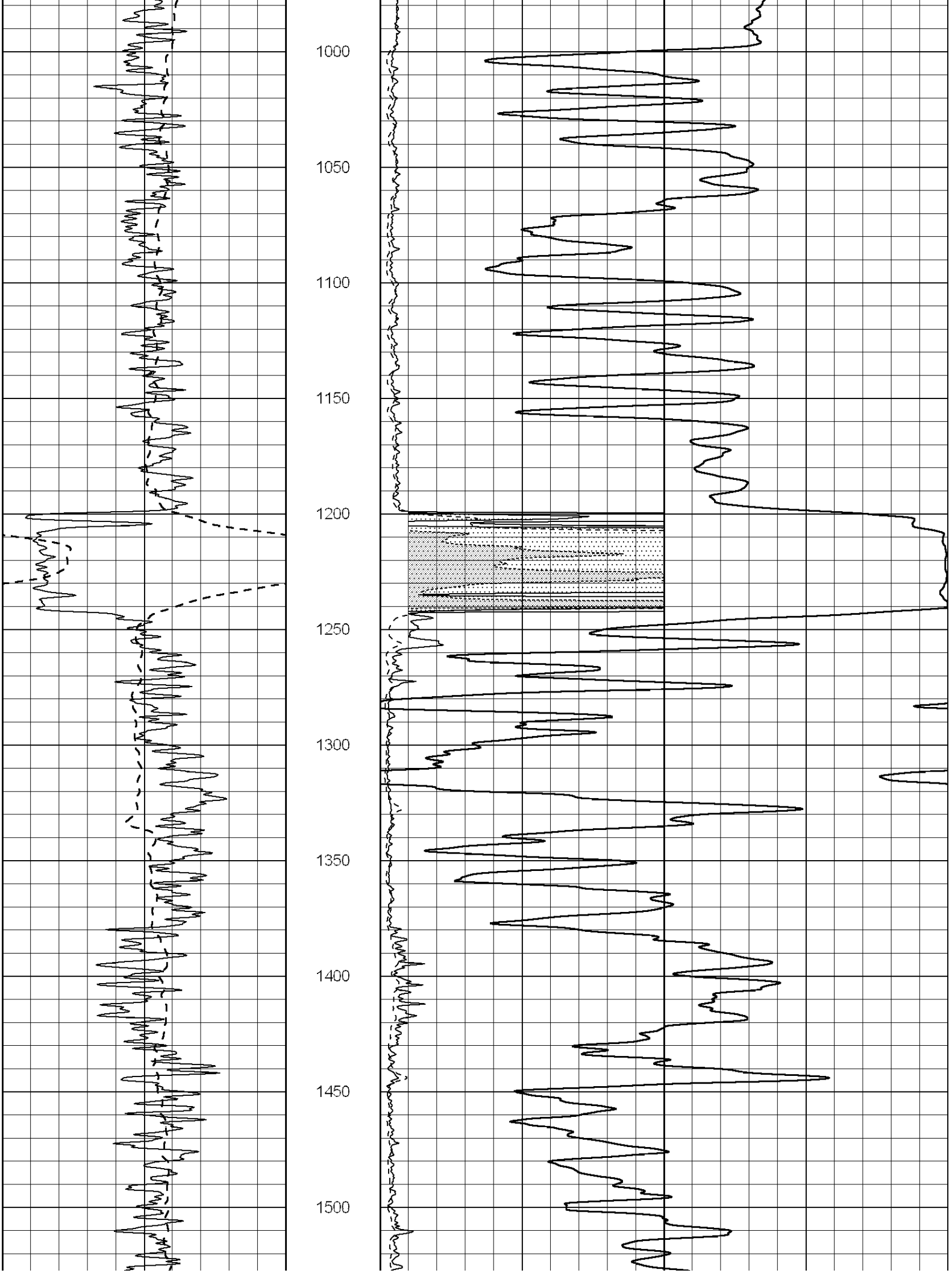
900
950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1100
1150
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1250
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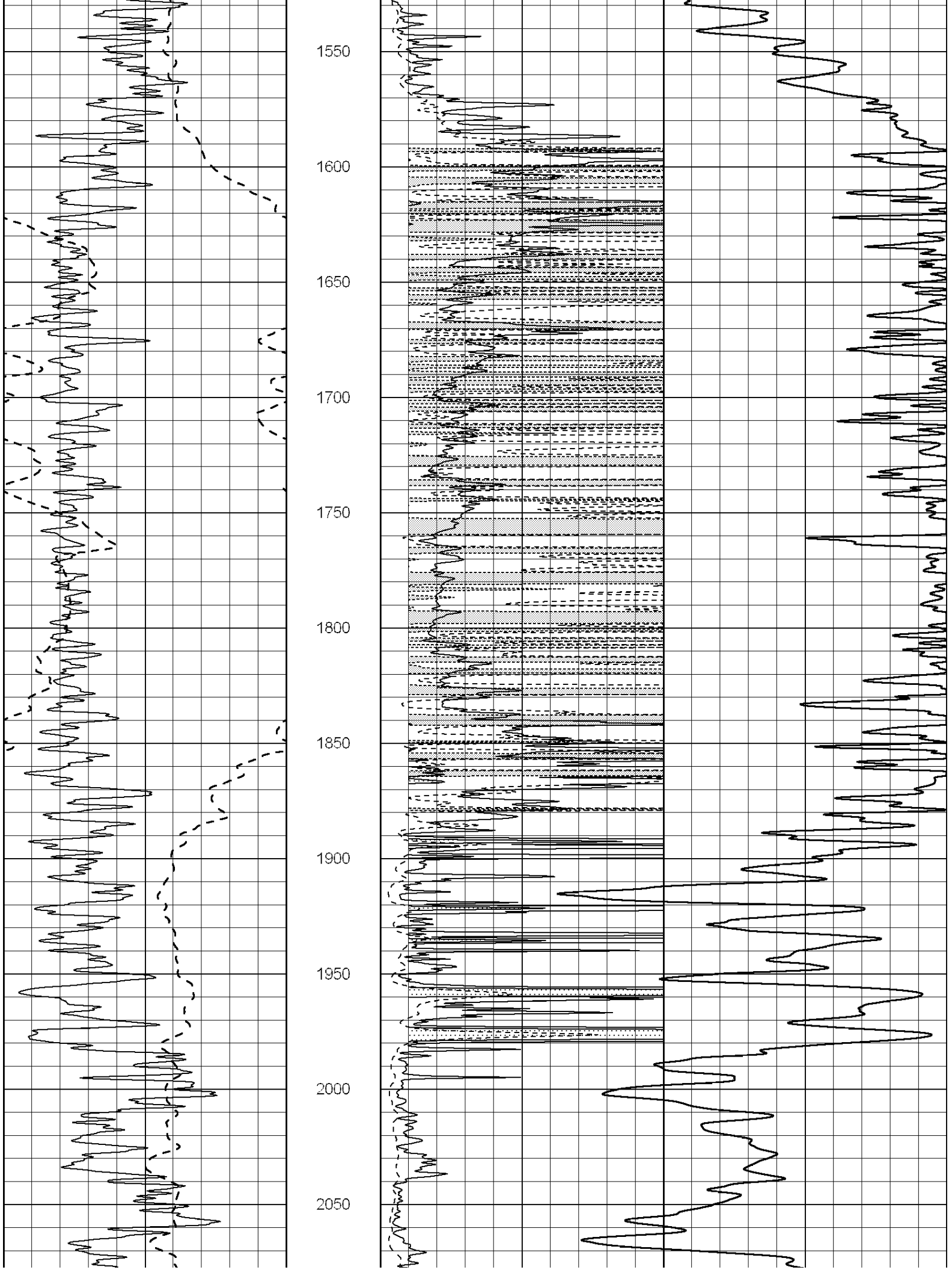
1400
1450
1500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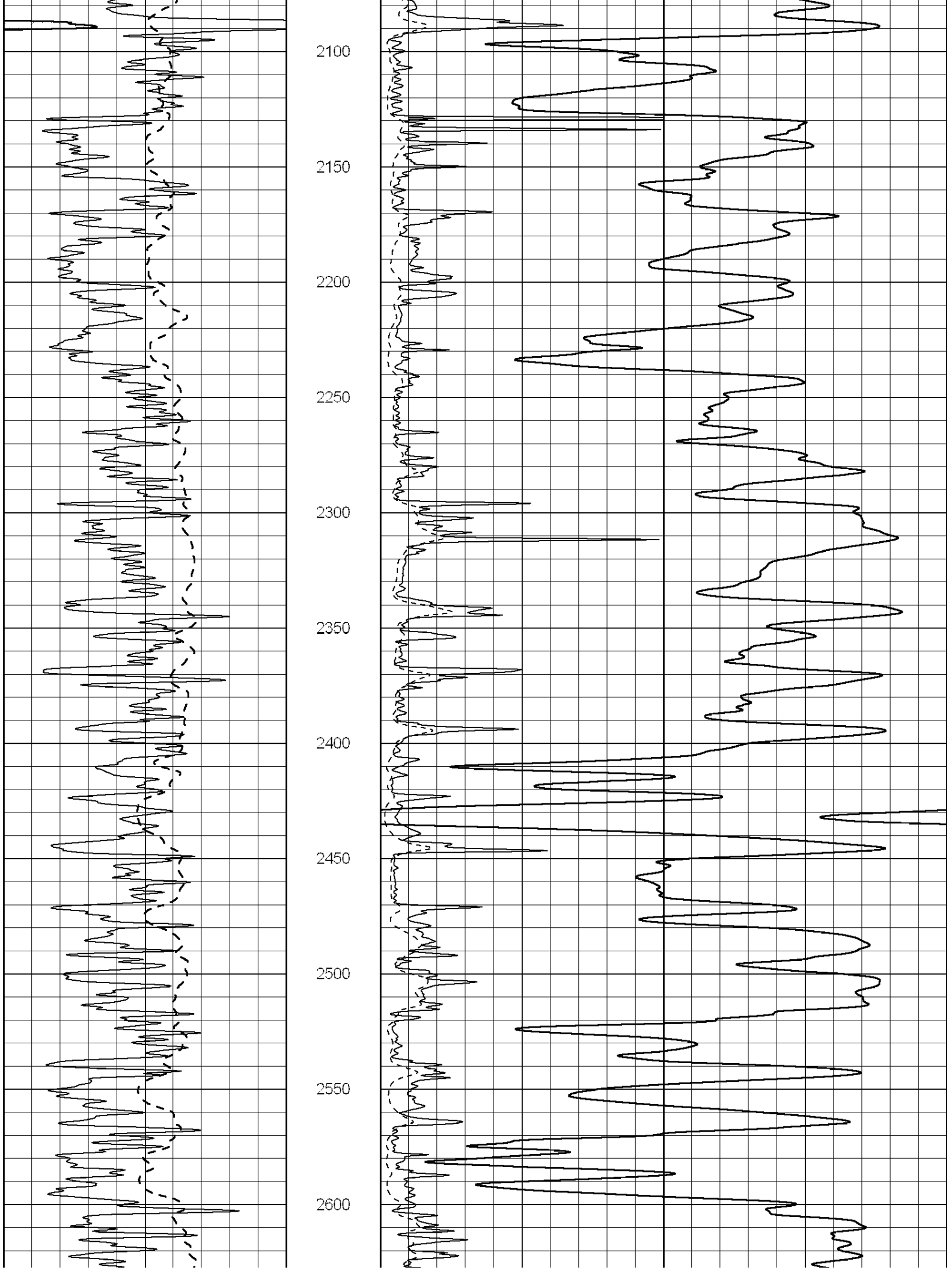
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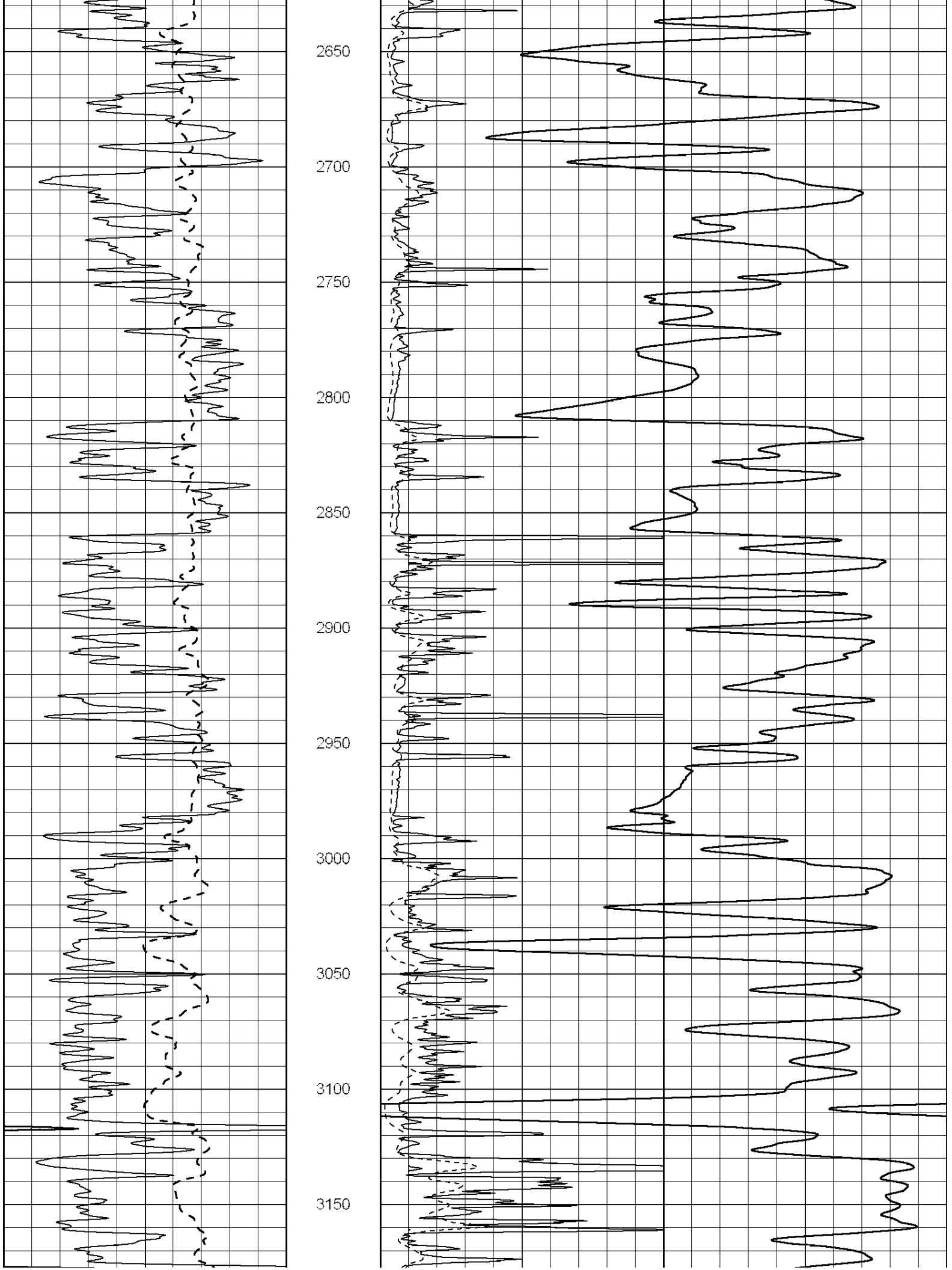
2600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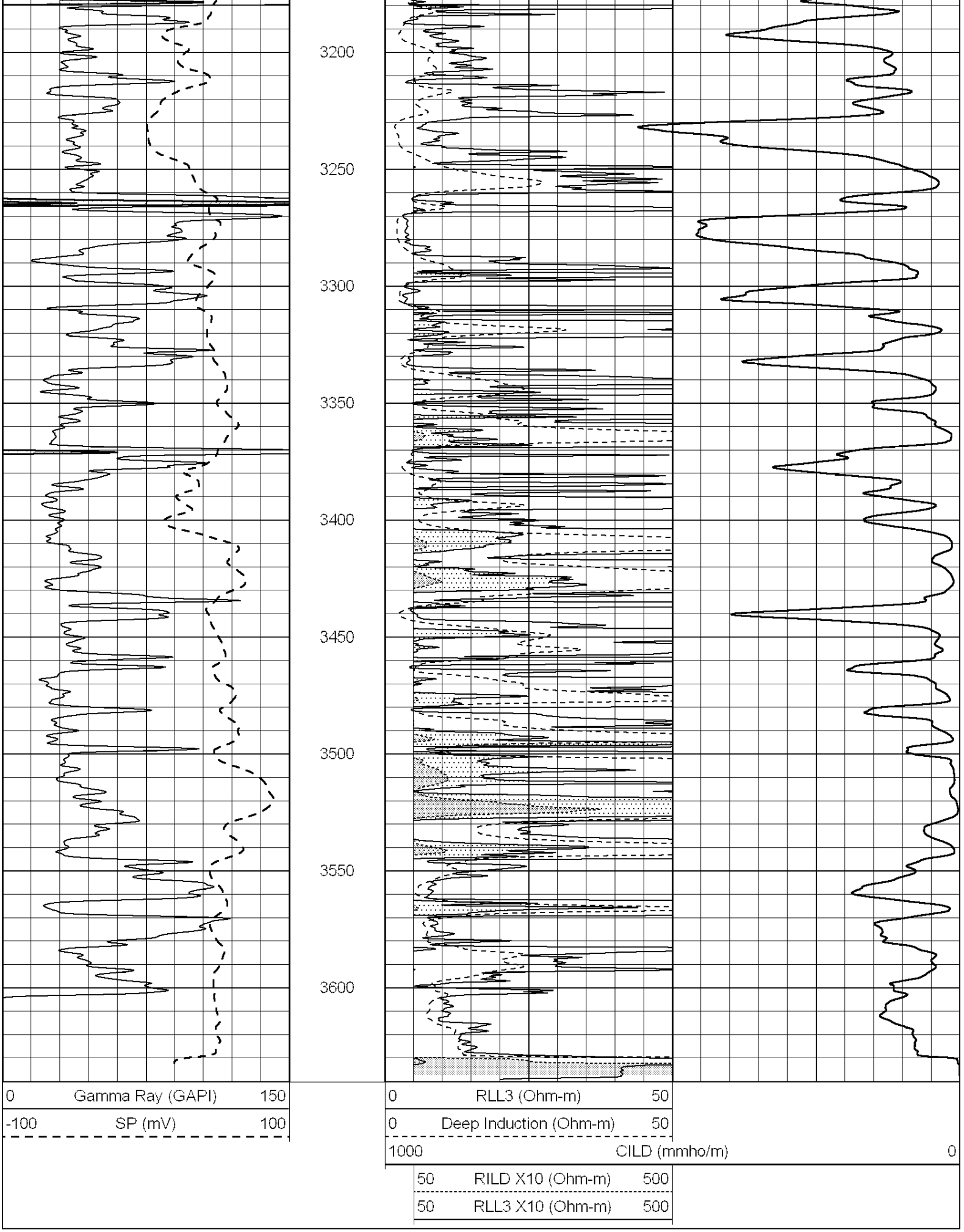
3200
3250
3300
3350
3400
3450
3500
3550
3600
0 Gamma Ray (GAPI) 150
-100 SP (mV) 100
0 RLL3 (Ohm-m) 50
0 Deep Induction (Ohm-m) 50
1000 CILD (mmho/m) 0
50 RILD X10 (Ohm-m) 500
50 RLL3 X10 (Ohm-m) 500

NABORS

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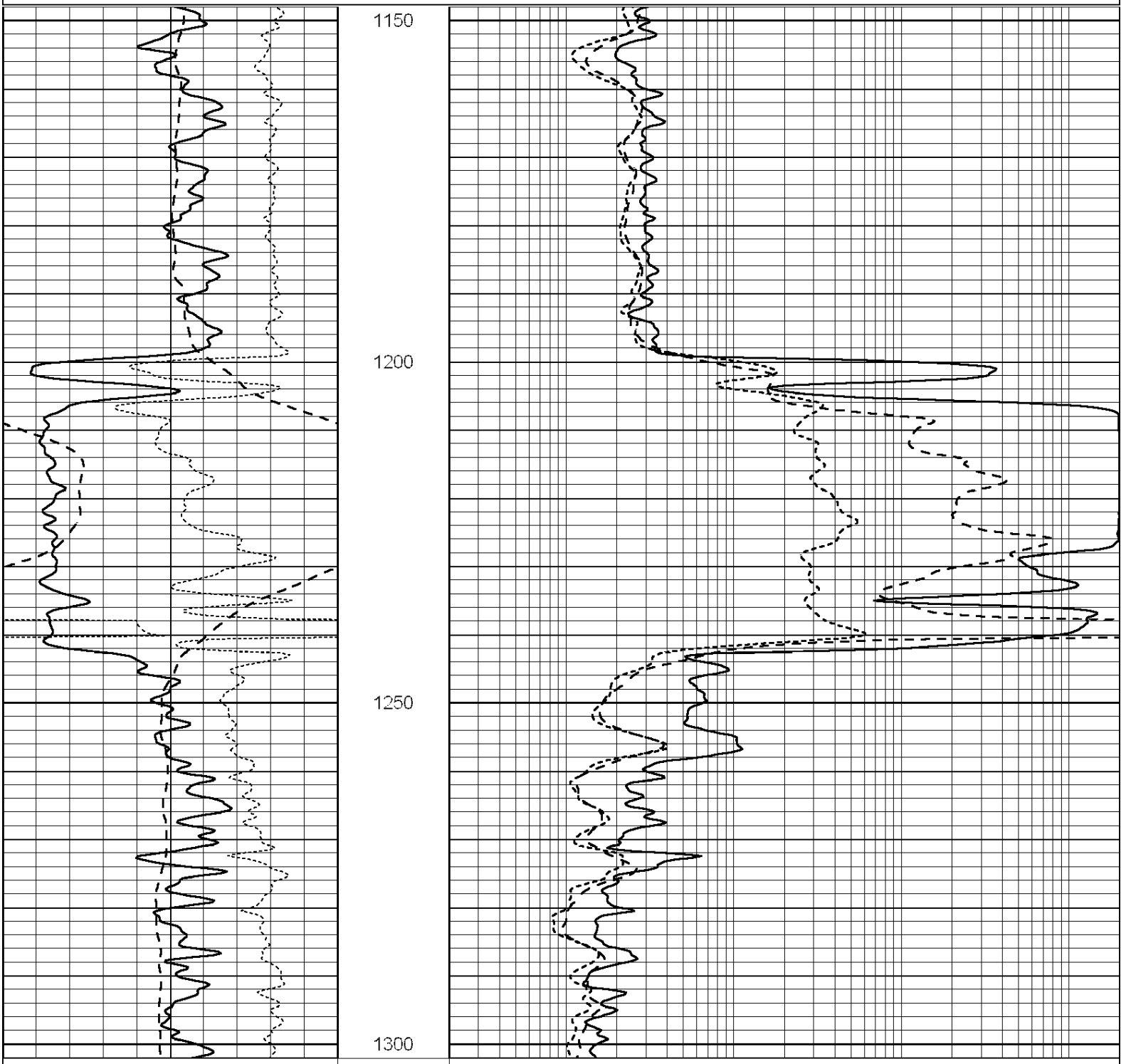
& PRODUCTION
SERVICES CO.

ANHYDRITE

Database File:	24627ddn.db
Dataset Pathname:	pass3.2
Presentation Format:	_dil
Dataset Creation:	Thu May 29 06:10:09 2014 by Calc Open-Cased 090629
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



0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100

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

-250	Rxo/Rt	50	0.2	DEEP INDUCTION (Ohm-m)	2000

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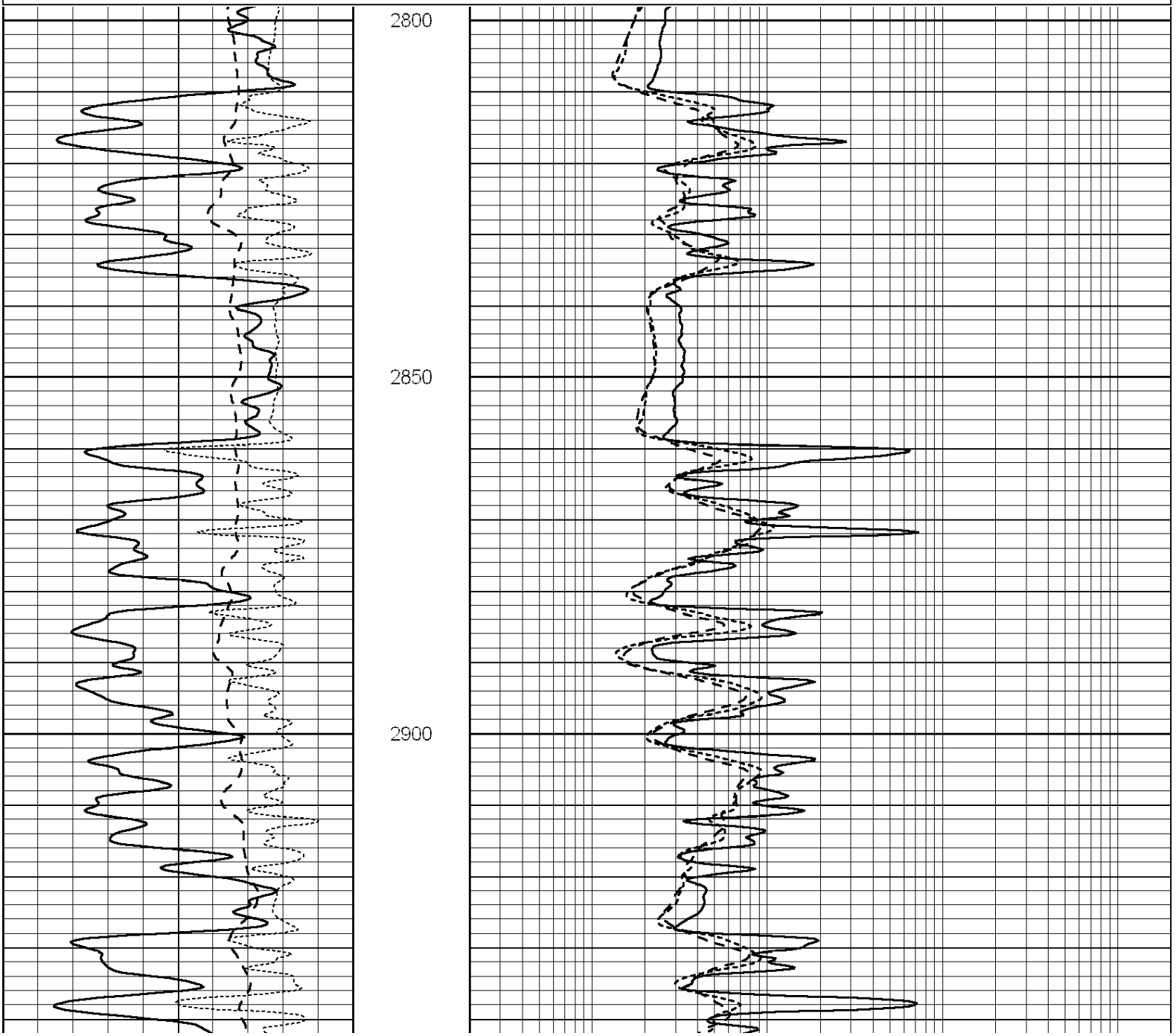
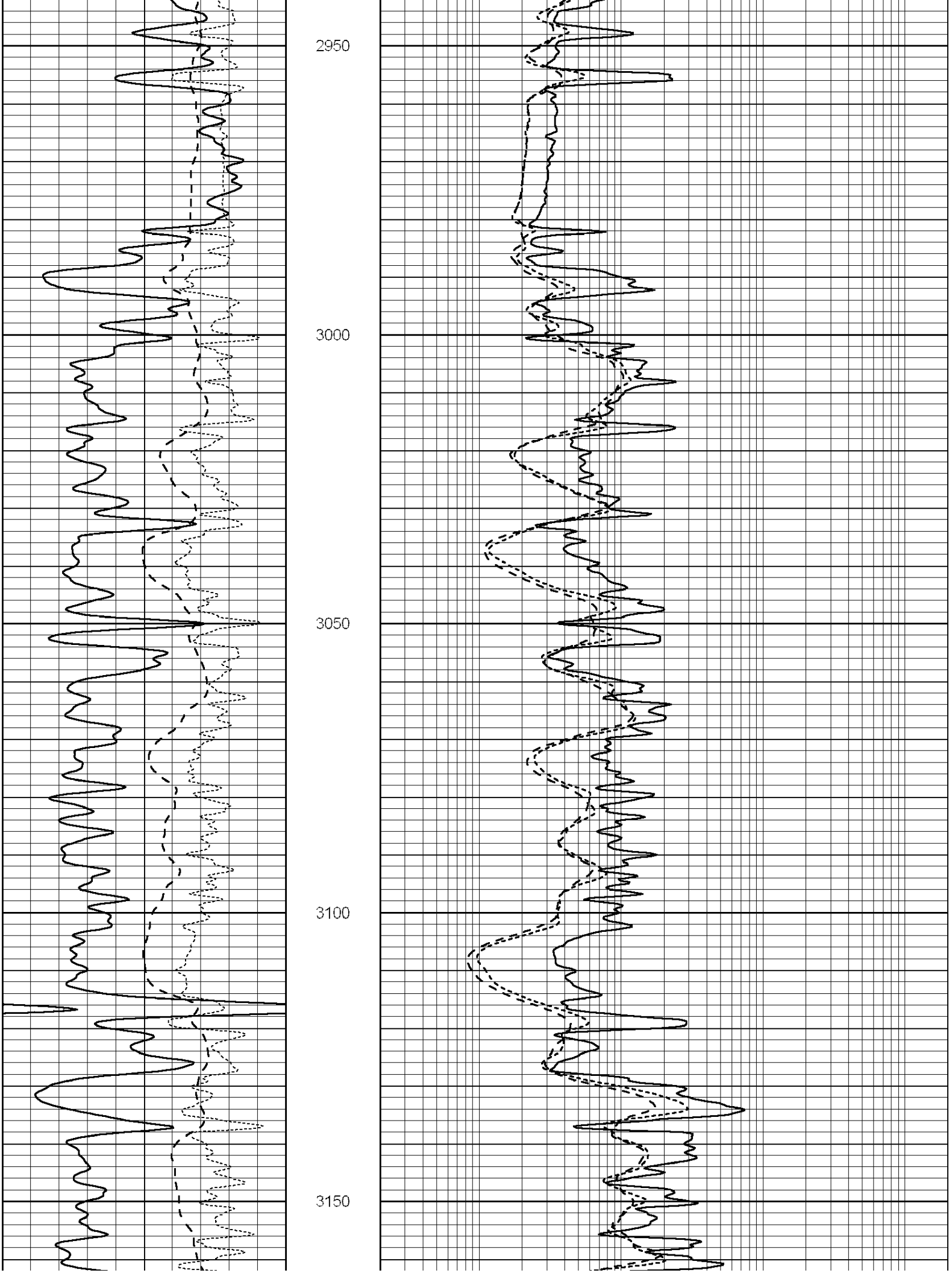
MAIN SECTION

Database File:	24627ddn.db
Dataset Pathname:	pass3.1
Presentation Format:	_dil
Dataset Creation:	Thu May 29 05:56:48 2014 by Calc Open-Cased 090629
Charted by:	Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150	0.2	SHALLOW GUARD (Ohm-m)	2000
-100	SP (mV)	100	0.2	MEDIUM INDUCTION (Ohm-m)	2000
-250	Rxo/Rt	50	0.2	DEEP INDUCTION (Ohm-m)	2000

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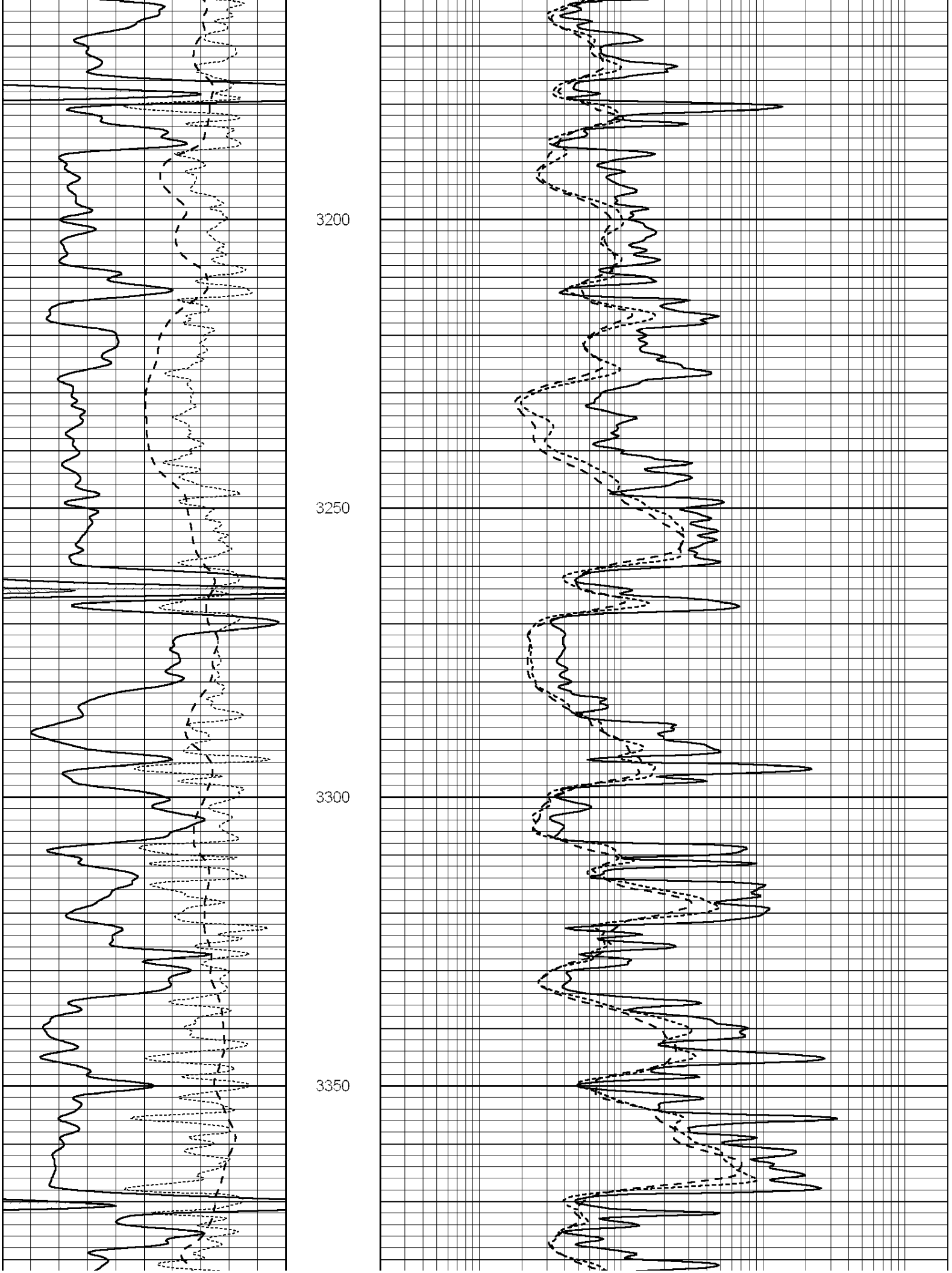
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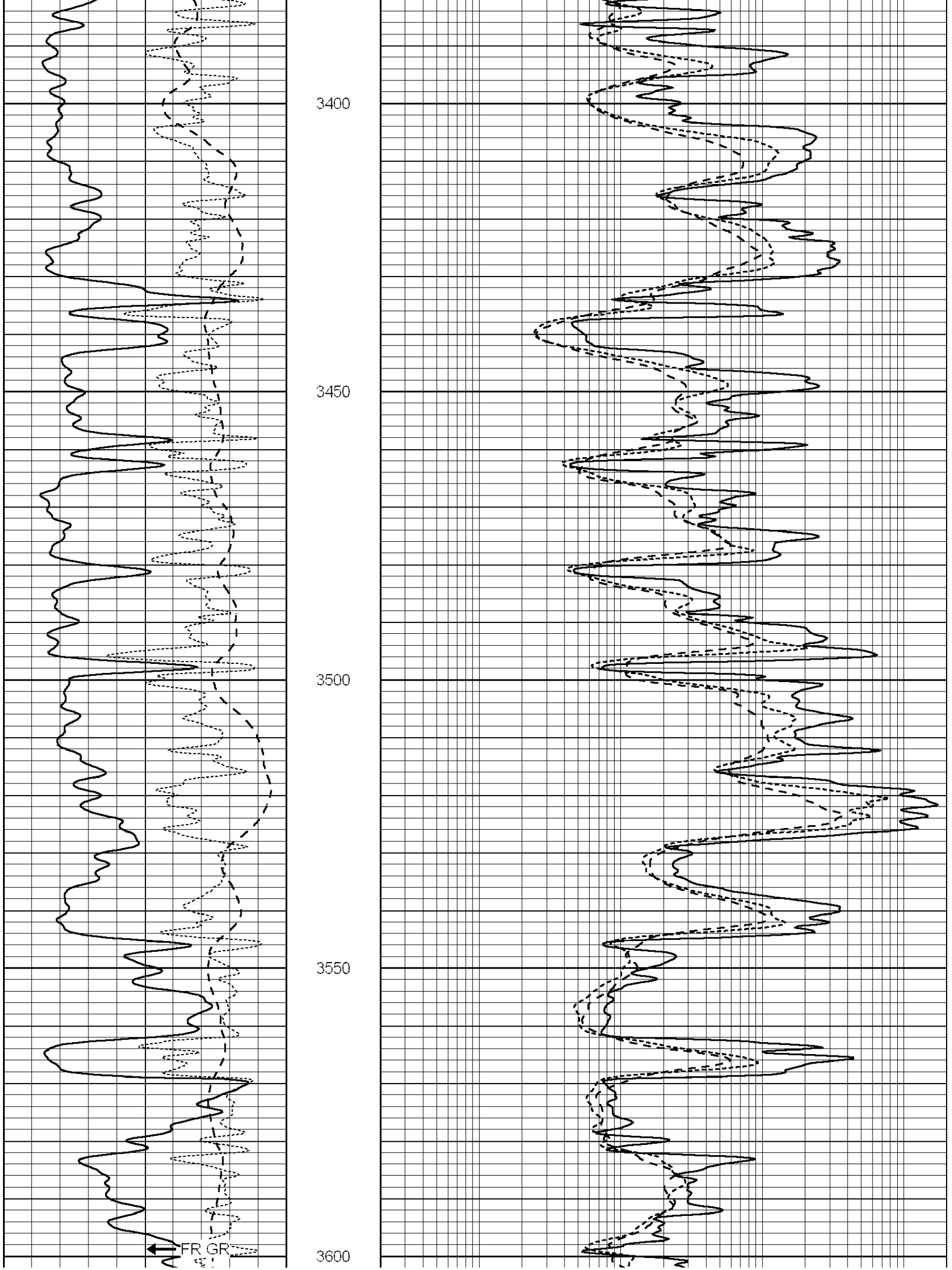
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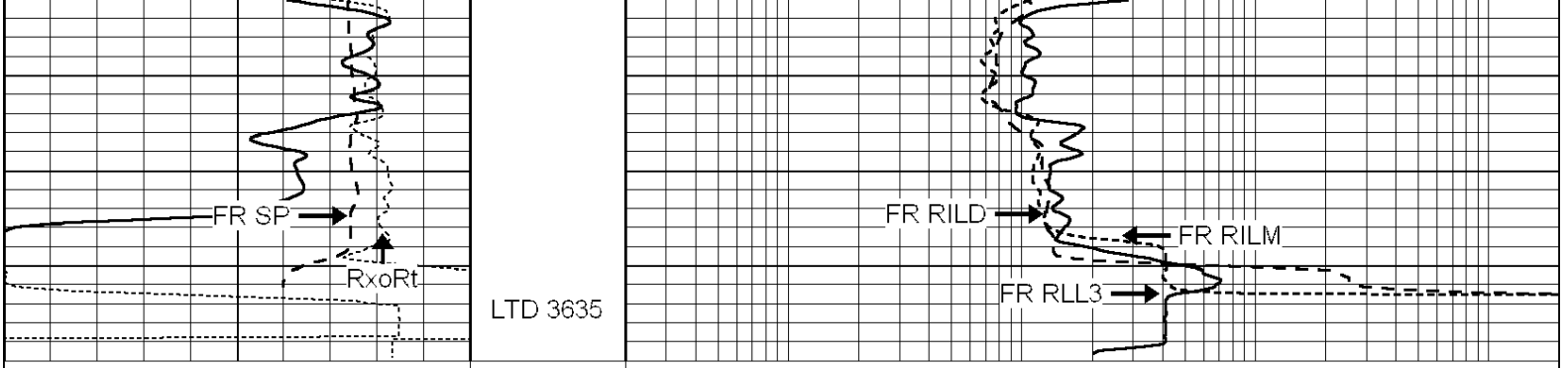
3550
3600
FR GR



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

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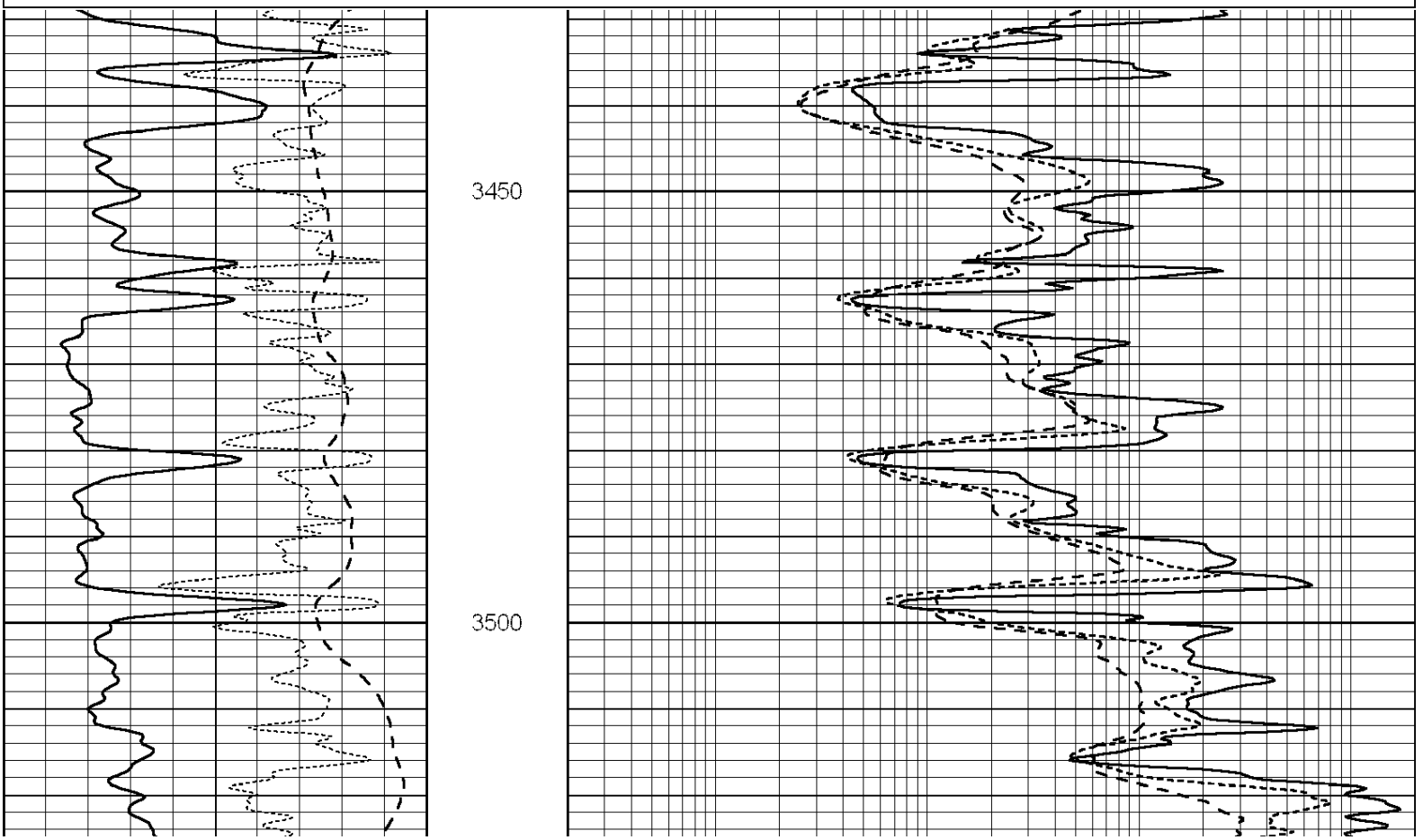
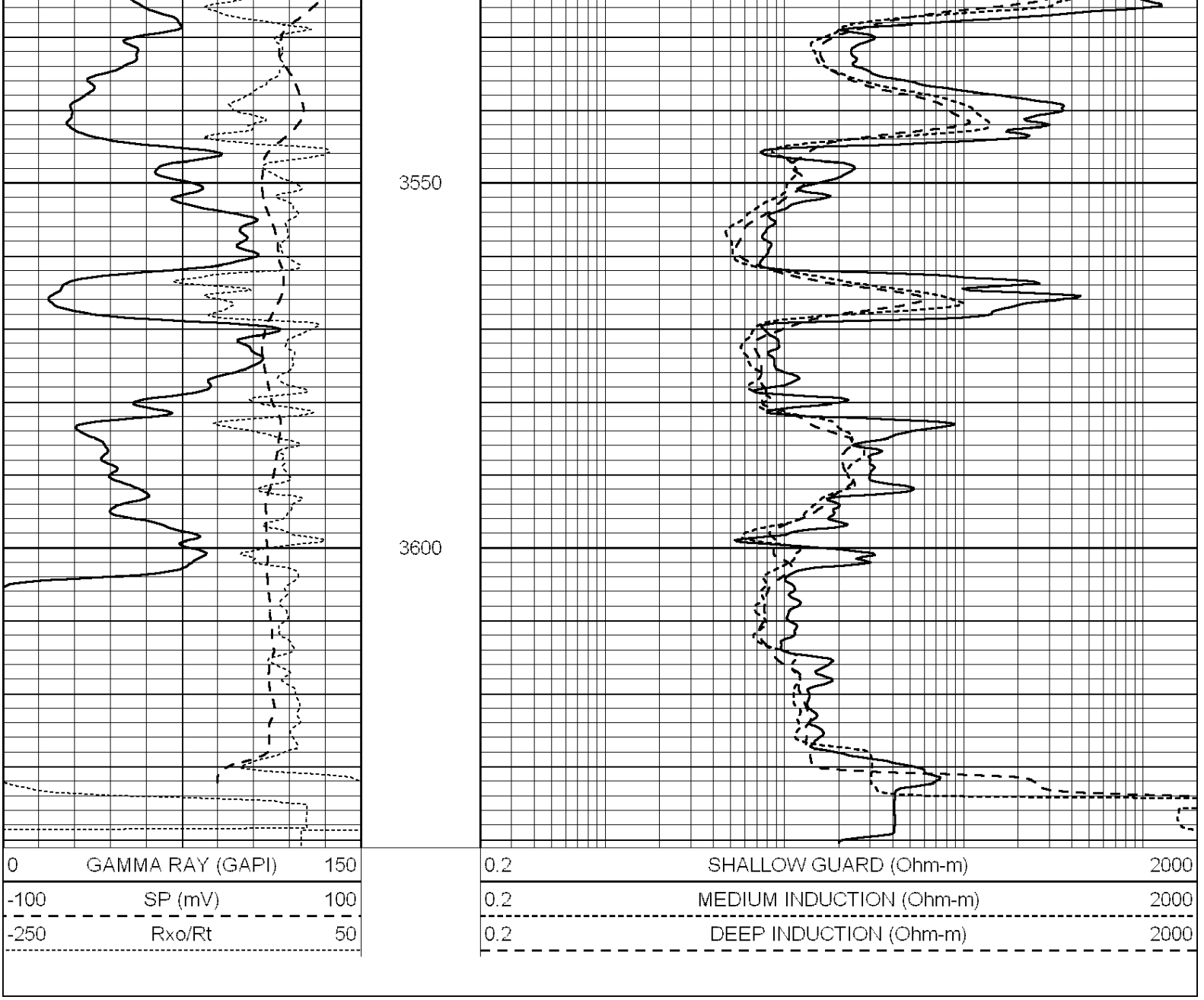
REPEAT SECTION

Database File: 24627ddn.db
Dataset Pathname: pass2.1
Presentation Format: _dil
Dataset Creation: Thu May 29 05:59:36 2014 by Calc Open-Cased 090629
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: 24627ddn.db
Dataset Pathname: pass2.1
Dataset Creation: Thu May 29 05:59:36 2014 by Calc Open-Cased 090629

Dual Induction Calibration Report

Serial-Model:	PROBE8-DILG
Surface Cal Performed:	Fri Aug 01 06:33:19 2008
Downhole Cal Performed:	Mon Jul 28 11:08:27 2008
After Survey Verification Performed:	Mon Jul 28 11:08:27 2008

Surface Calibration

	Readings			References			Results	
Loop:	Air	Loop		Air	Loop		m	b
Deep	0.015	0.648	V	0.000	400.000	mmho/m	632.616	-9.730
Medium	0.029	0.796	V	0.000	464.000	mmho/m	605.049	-17.680
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		

Compensated Density Calibration Report

Serial-Model: GEAR4-GEARHART
Source / Verifier: 143 / 143
Master Calibration Performed: Wed Sep 18 03:03:09 2013

Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.710	g/cc	1075.98	532.39	cps
Aluminum	2.590	g/cc	286.51	422.88	cps

Spine Angle = 80.13 Density/Spine Ratio = 0.655

	Size		Reading	
Small Ring	8.00	in	3.21	V
Large Ring	14.00	in	5.46	V

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

Gamma Ray Calibration Report

Serial Number: GR6
Tool Model: OPEN
Performed: Fri Nov 29 08:34:37 2013

Calibrator Value: 150.0 GAPI

Background Reading: 0.0 cps
Calibrator Reading: 276.0 cps

Sensitivity: 0.7535 GAPI/cps