SUPERIOR WELL SERVICES

SUPERIOR
Hays,
Kansas

DUAL INDUCTION LOG

Company MAI OIL OPERATIONS, INC.
Well FLEGLER A#3
Field
County RUSSELL State KANSAS

Location: API # : 15-167-23797-0000
875' FSL & 725' FWL
SW - NE - SW - SW
SEC 3 TWP 15S RGE 14W

Other Services
CDL/CNL
MICRO

Permanent Datum GROUND LEVEL Elevation 1760
Log Measured From KELLY BUSHING 8' A.G.L.
Drilling Measured From KELLY BUSHING

Elevation
K.B. 1768
D.F.
G.L. 1760

Date	5-22-12		
Run Number	ONE		
Depth Driller	3310		
Depth Logger	3310		
Bottom Logged Interval	3308		
Top Log Interval	00		
Casing Driller	375		
Casing Logger	375		
Bit Size	7.875		
Type Fluid in Hole	CHEMICAL MUD		
Density / Viscosity	9.3 / 53		
pH / Fluid Loss	11.5 / 10.0		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	0.54 @ 82F		
Rmf @ Meas. Temp	0.41 @ 82F		
Rmc @ Meas. Temp	0.65 @ 82F		
Source of Rmf / Rmc	MEASURED		
Rm @ BHT	0.40 @ 110F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom	1:20 P.M.		
Maximum Recorded Temperature	110F		
Equipment Number	860		
Location	HAYS, KS.		
Recorded By	DAN GOTTSCHALK		
Witnessed By	JIM MUSGROVE	ALLEN BANGERT	

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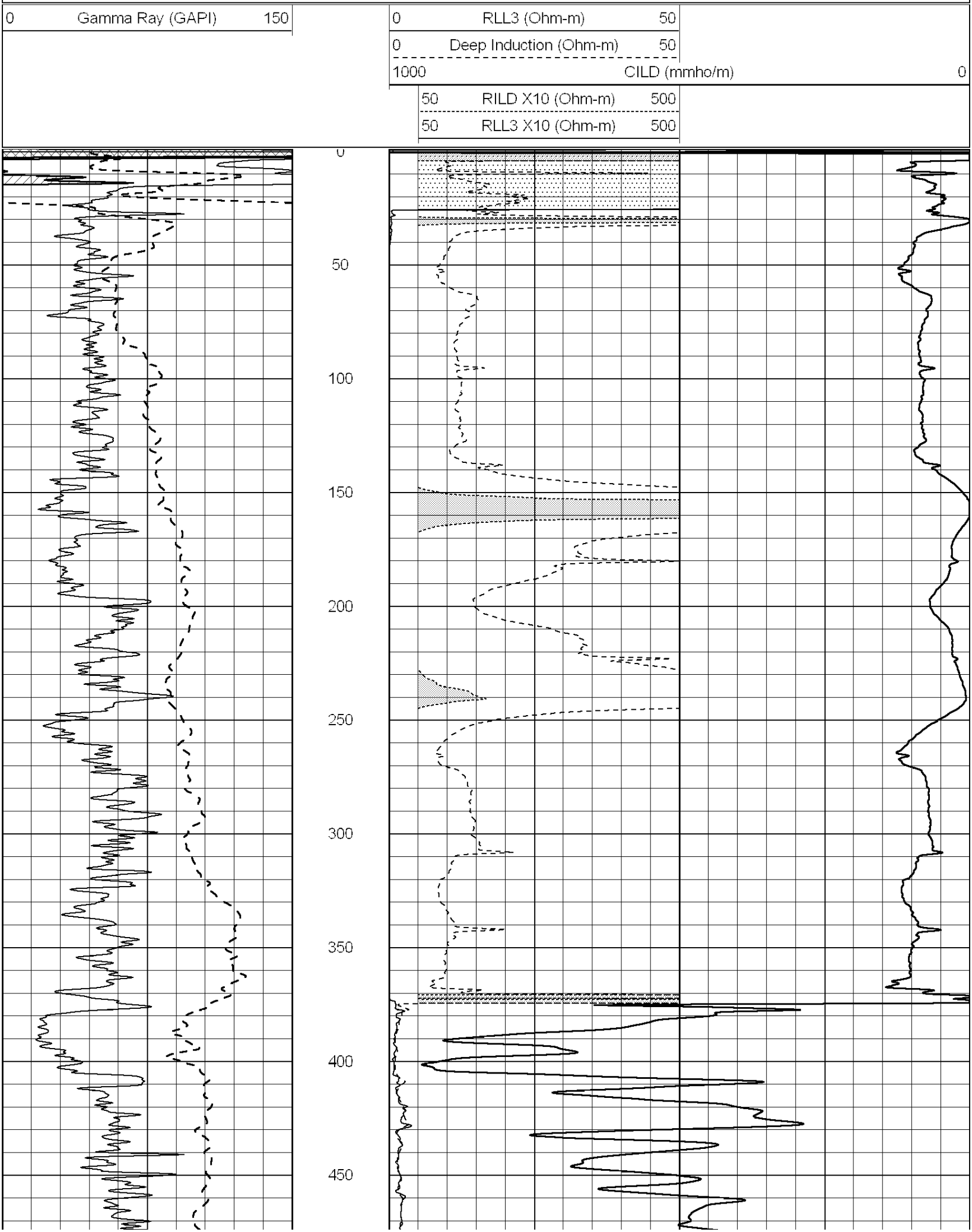
Comments

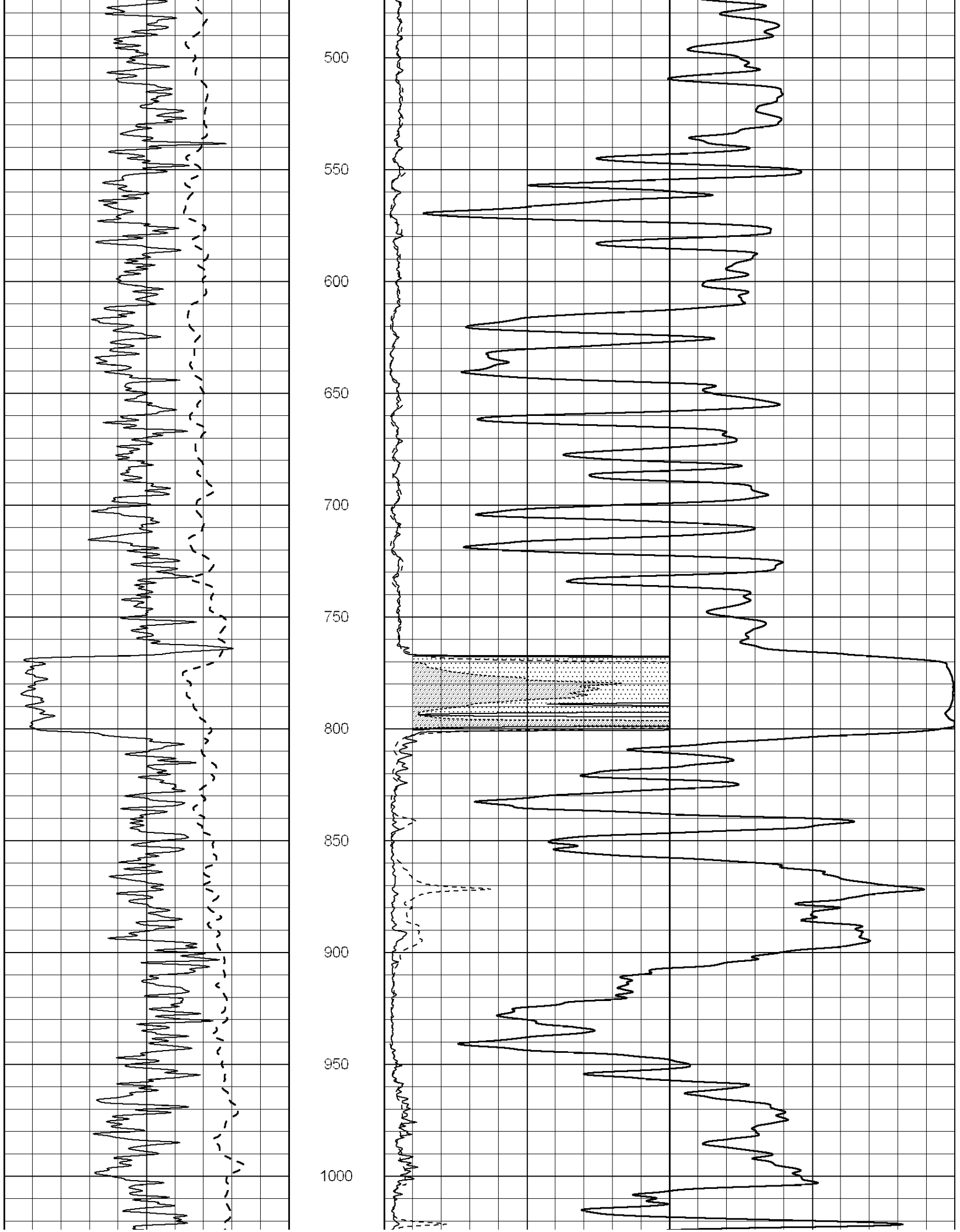
THANK YOU FOR USING SUPERIOR WELL SERVICES
HAYS, KS. 785-628-6395

DIRECTIONS: RUSSELL - SOUTH TO WALTERS RD. - 3/4 WEST - NORTH INTO

Database File: 9124ddn.db
Dataset Pathname: pass6.3
Presentation Format: dil2
Dataset Creation: Tue May 22 15:00:49 2012 by Calc Open-Cased 090629

Charted by: Depth in Feet scaled 1:600

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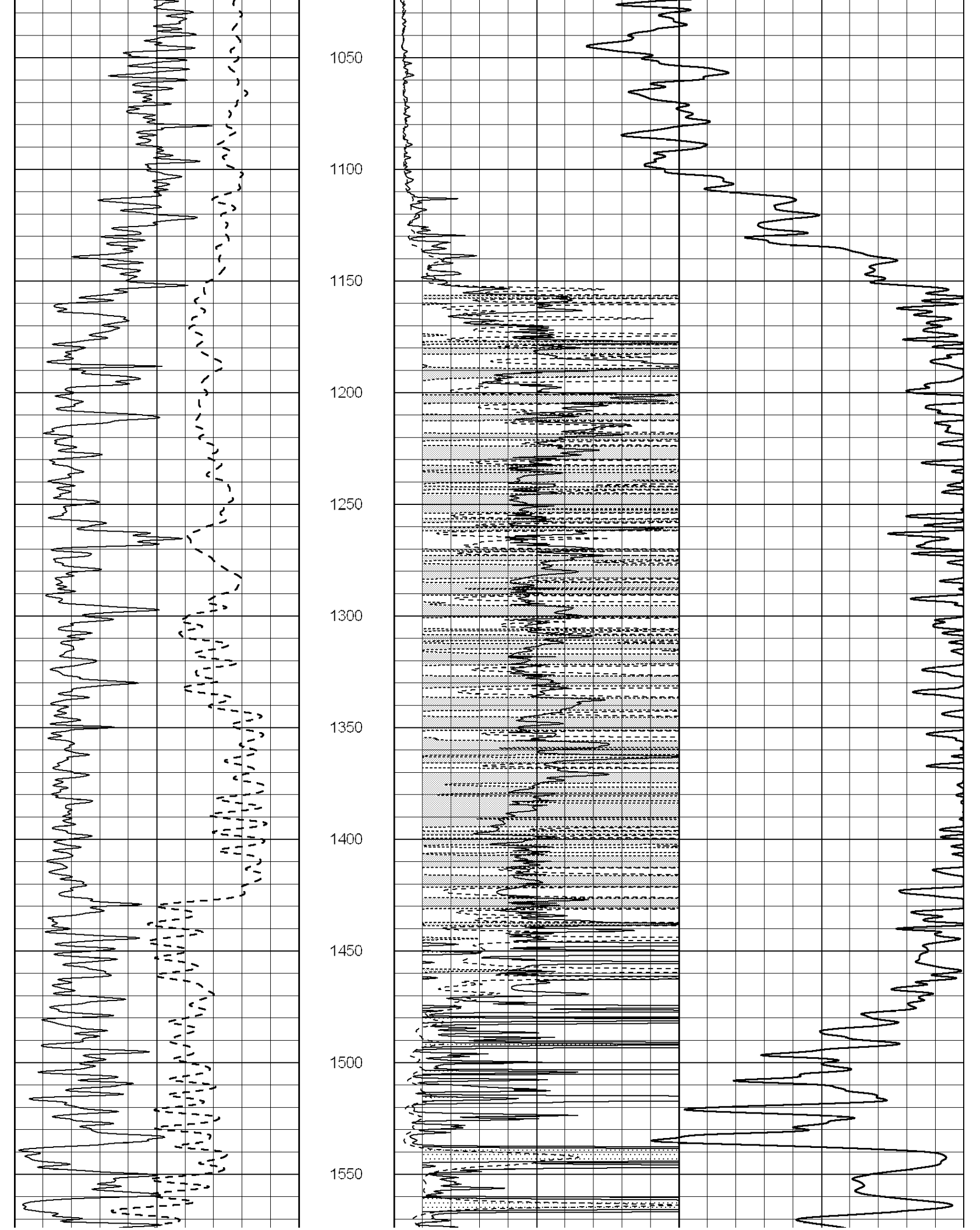
550
600
650
700
750
800
850
900
950
1000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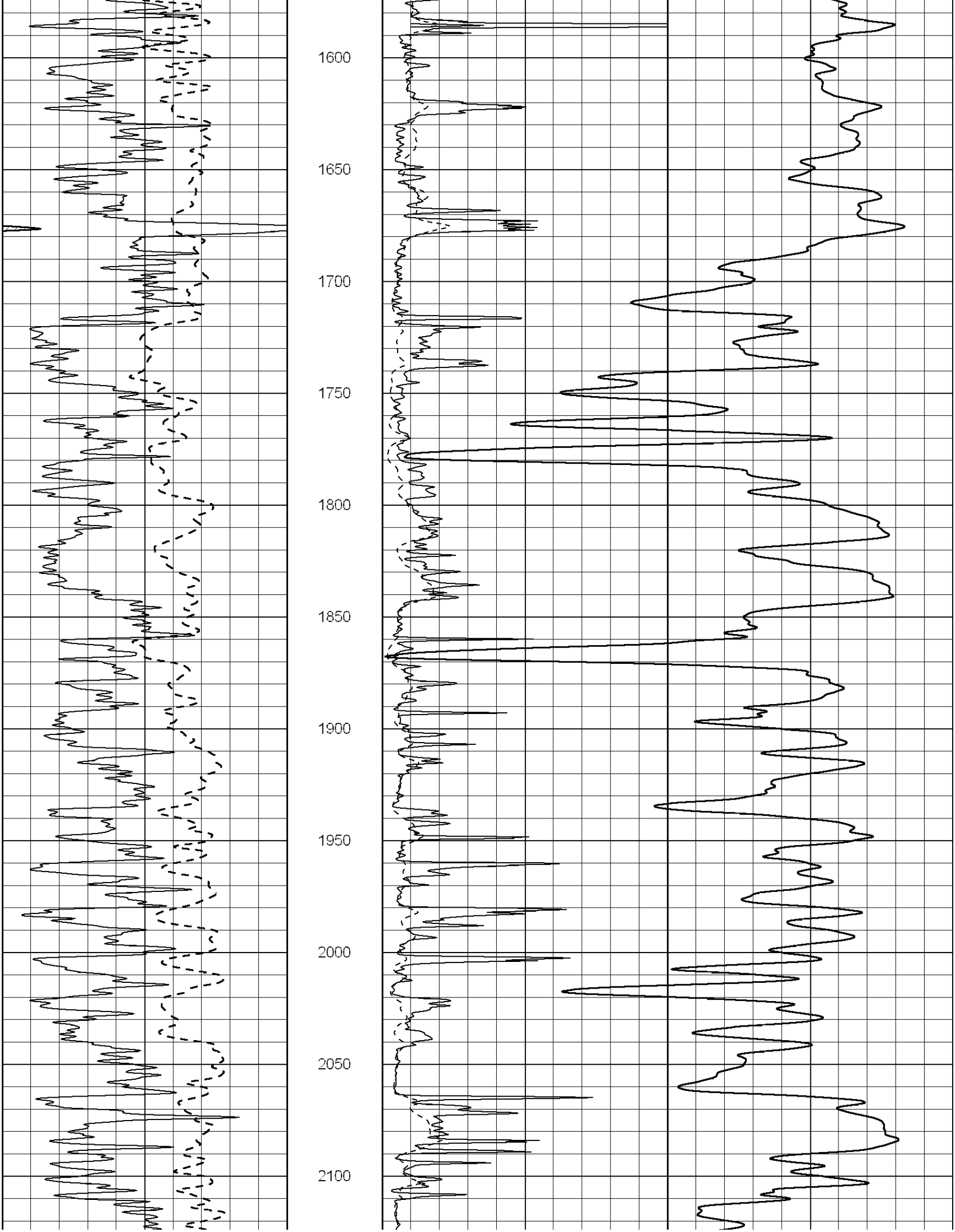
1200
1250
1300
1350
1400
1450
1500
1550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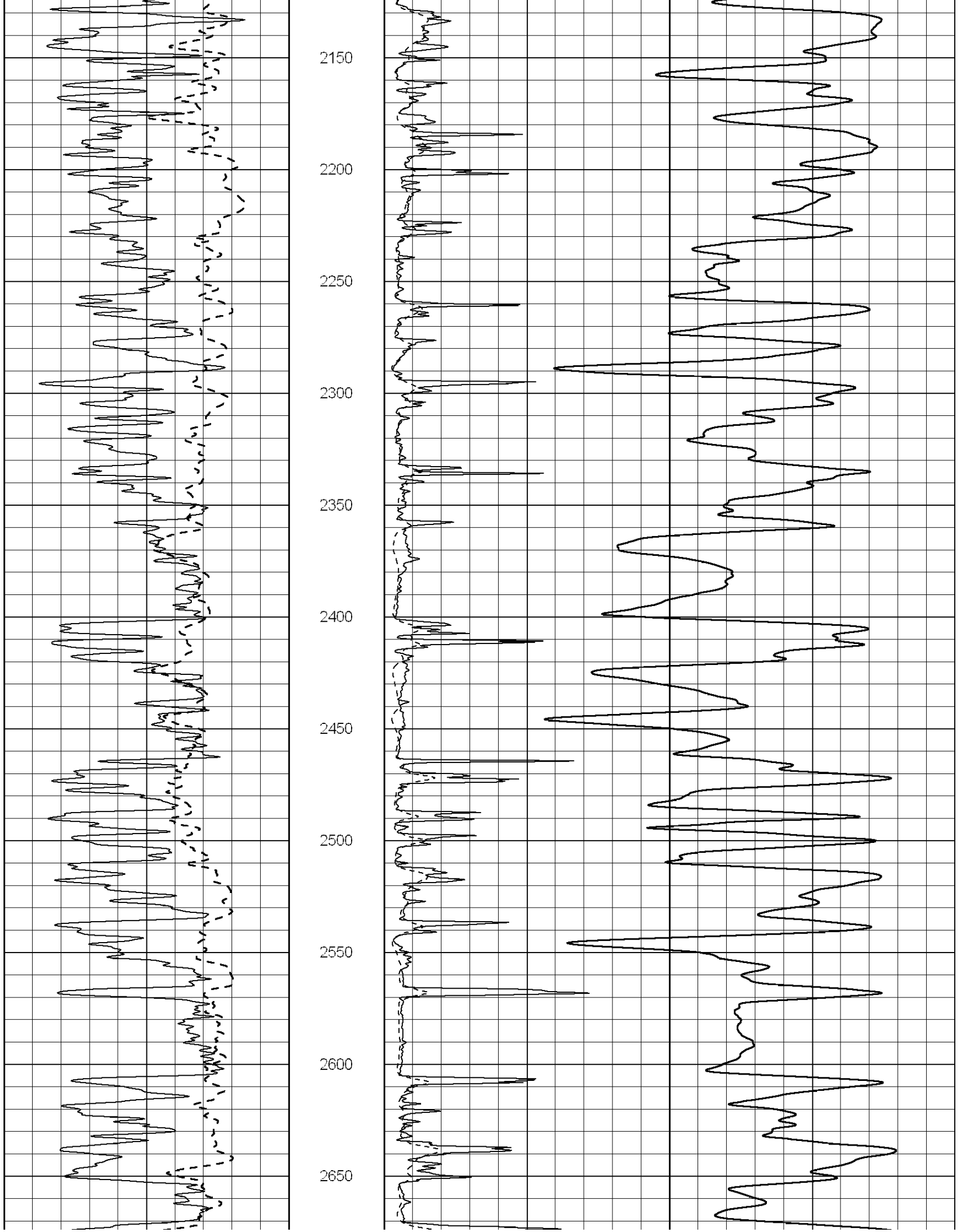
1700
1750
1800
1850
1900
1950
2000
2050
2100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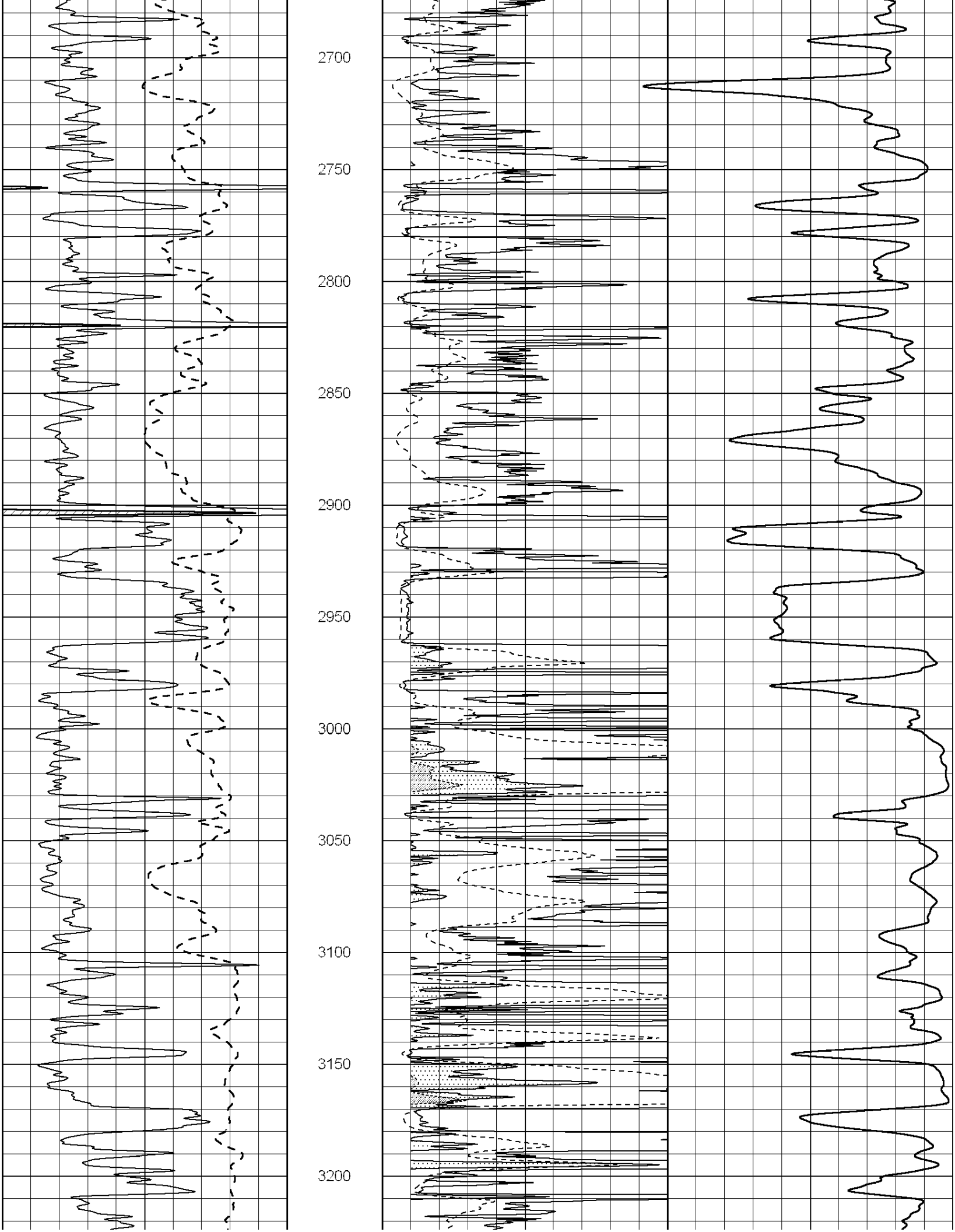
2200
2250
2300
2350
2400
2450
2500
2550
2600
2650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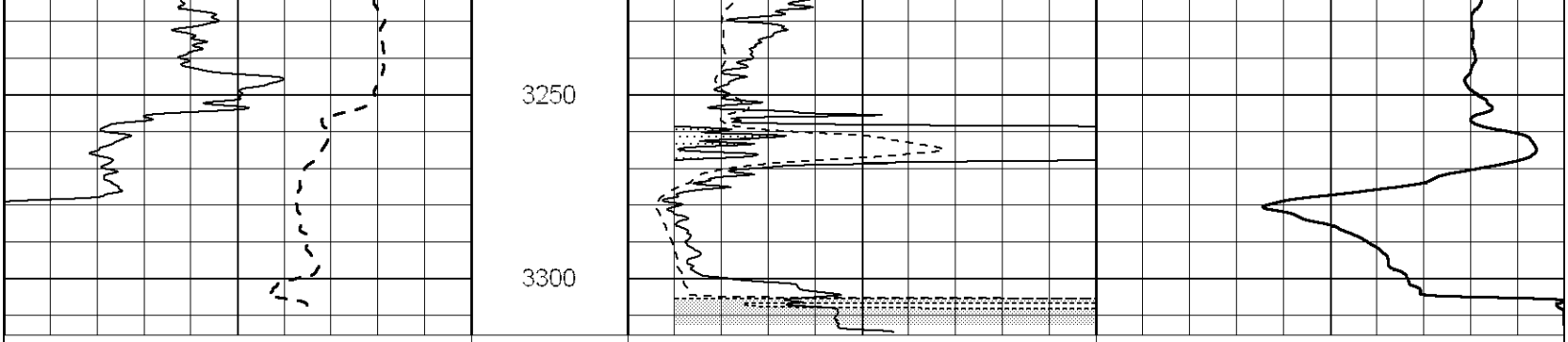
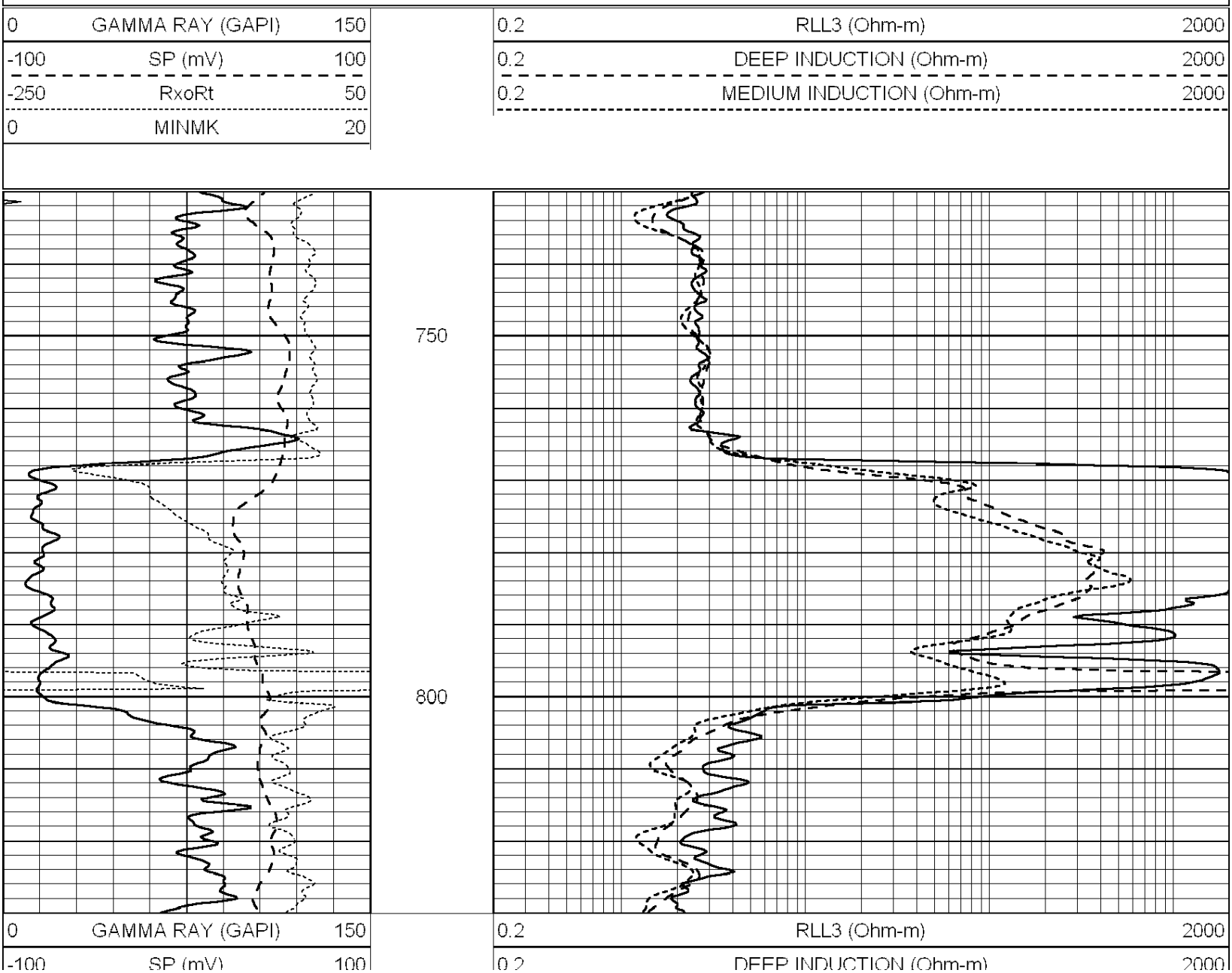
2750
2800
2850
2900
2950
3000
3050
3100
3150
3200



Database File: 9124ddn.db
Dataset Pathname: pass6.3
Presentation Format: dil
Dataset Creation: Tue May 22 15:00:49 2012 by Calc Open-Cased 090629
Charted by: Depth in Feet scaled 1:240



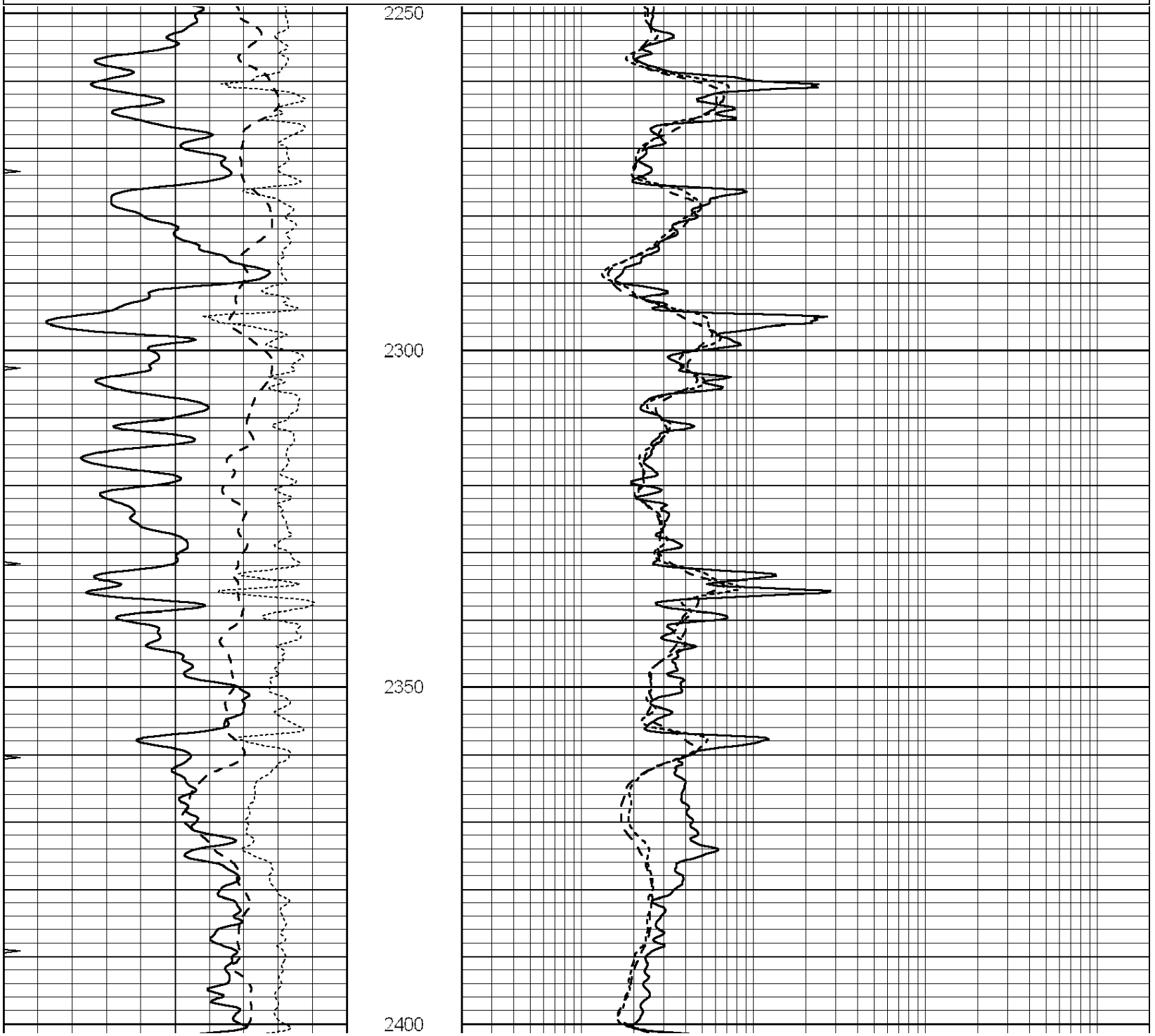
-250	RxoRt	50
0	MINMK	20

0.2	MEDIUM INDUCTION (Ohm-m)	2000

Database File:	9124ddn.db
Dataset Pathname:	pass6.3
Presentation Format:	dil
Dataset Creation:	Tue May 22 15:00:49 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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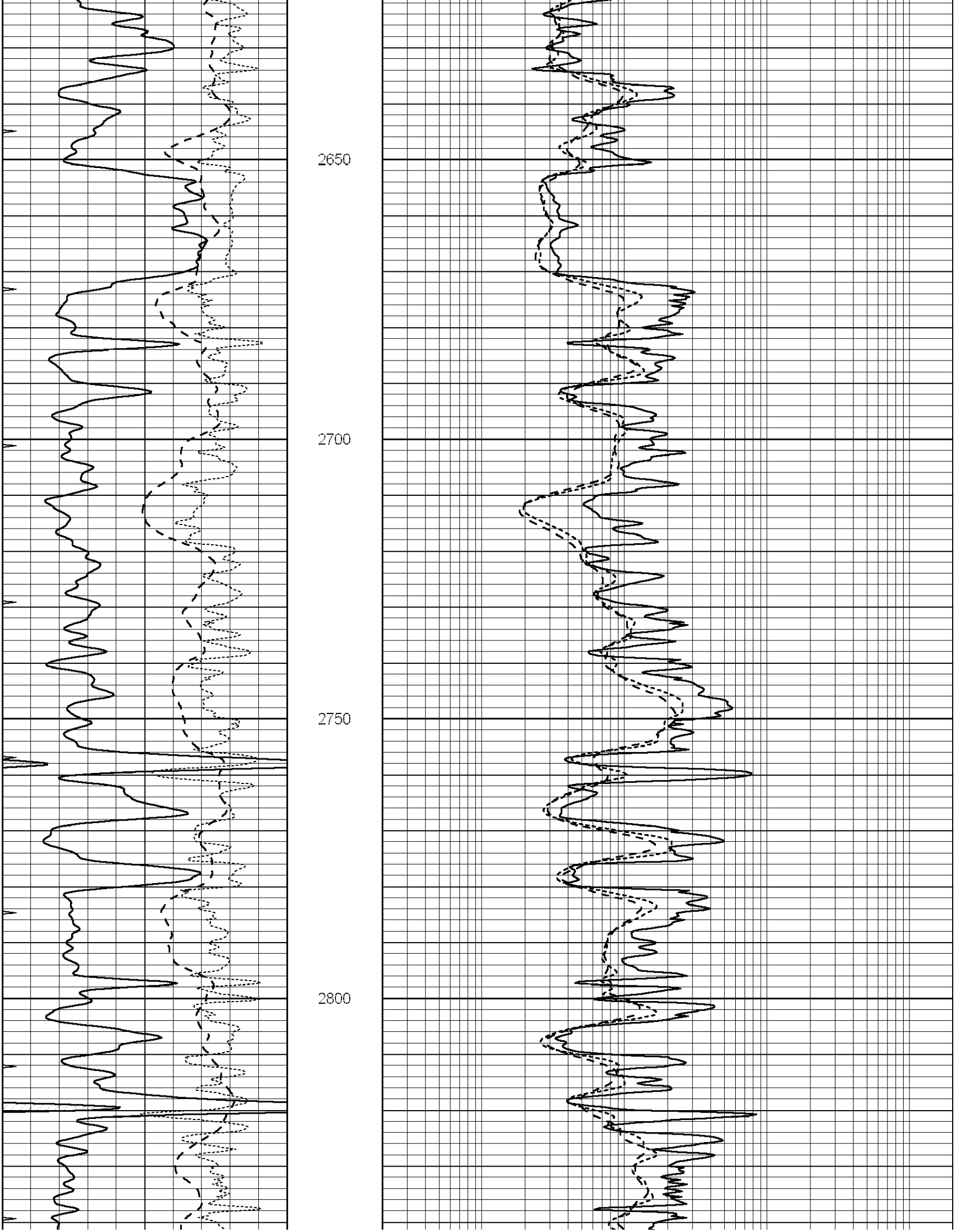
2500
2550
2600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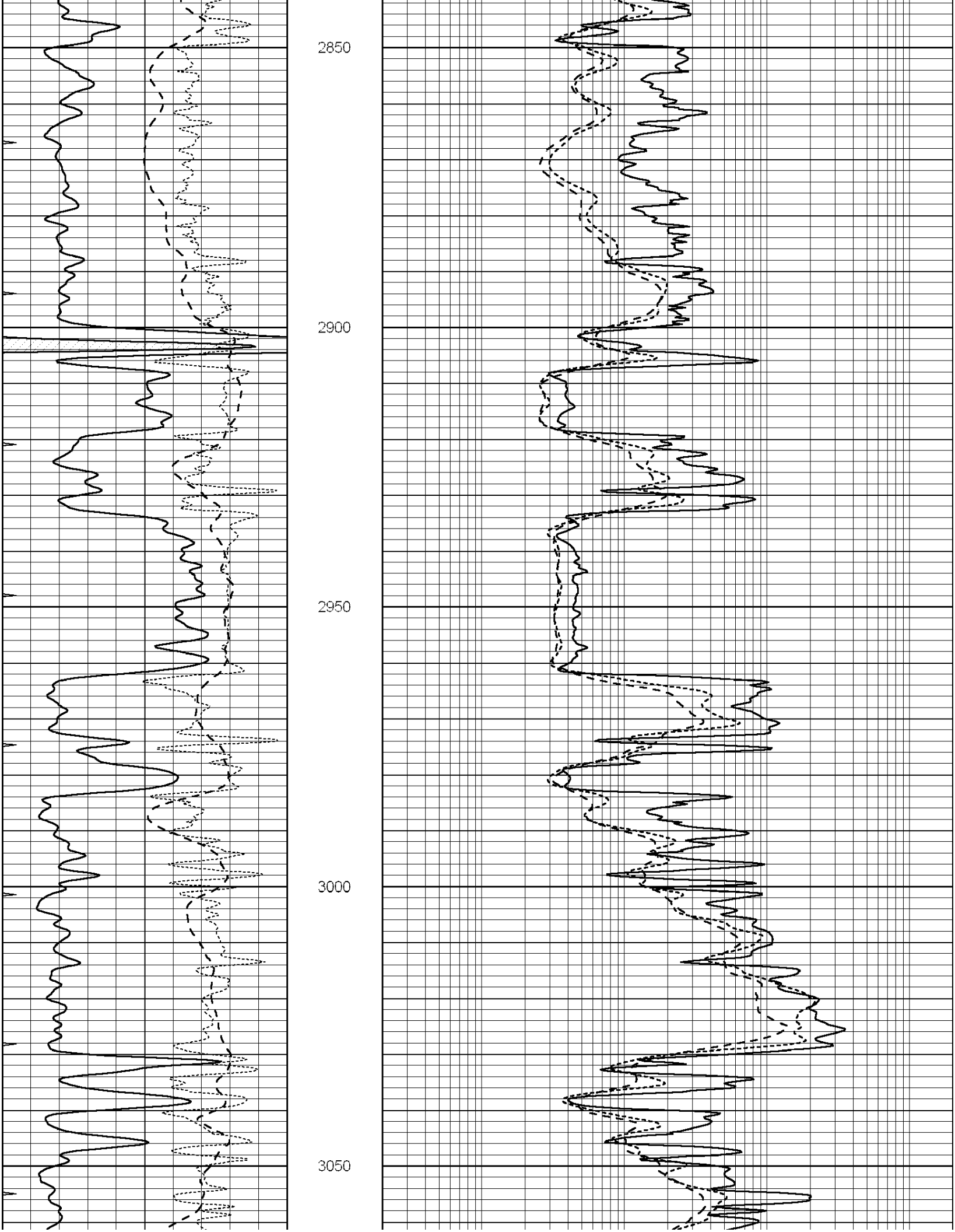
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2950
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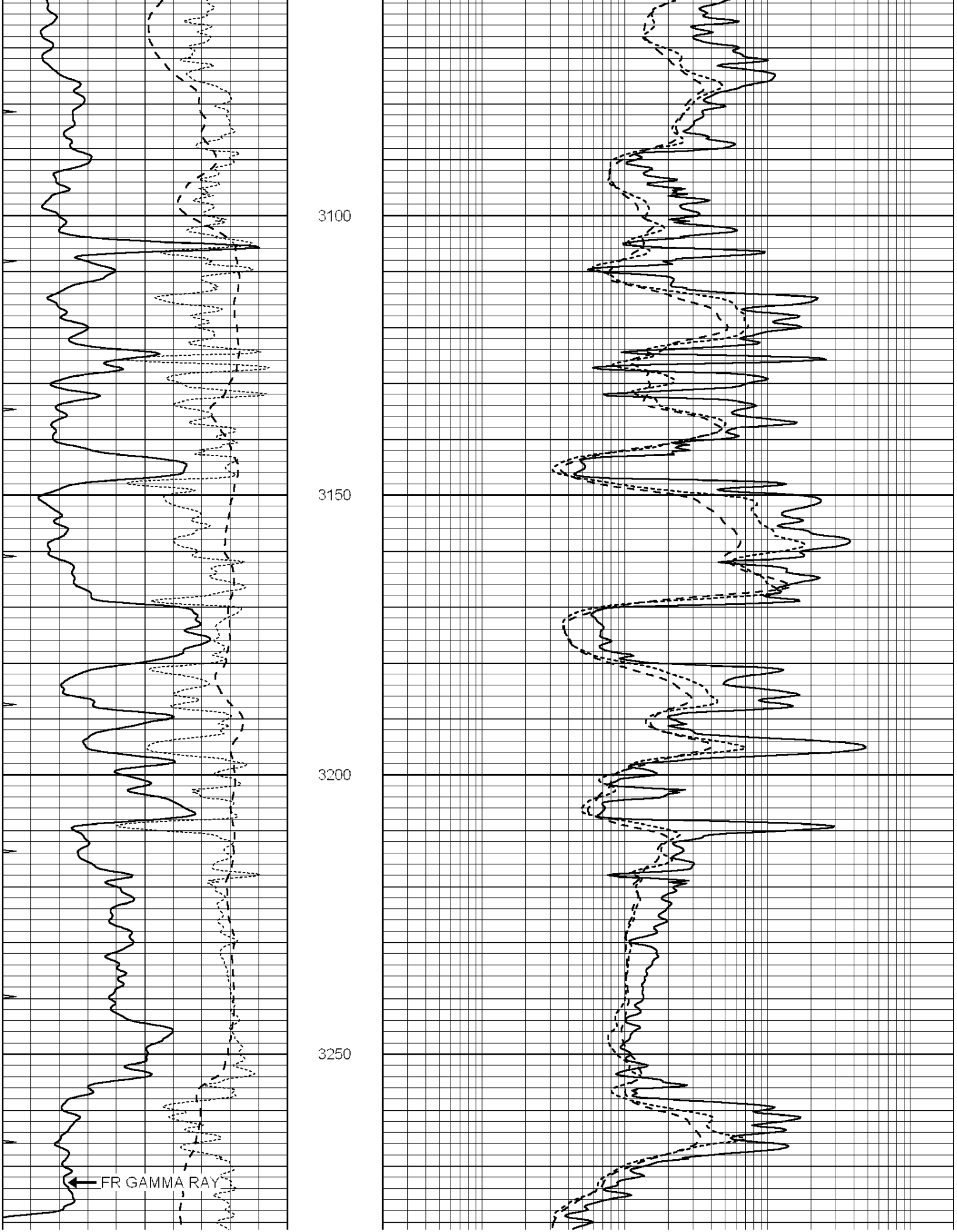
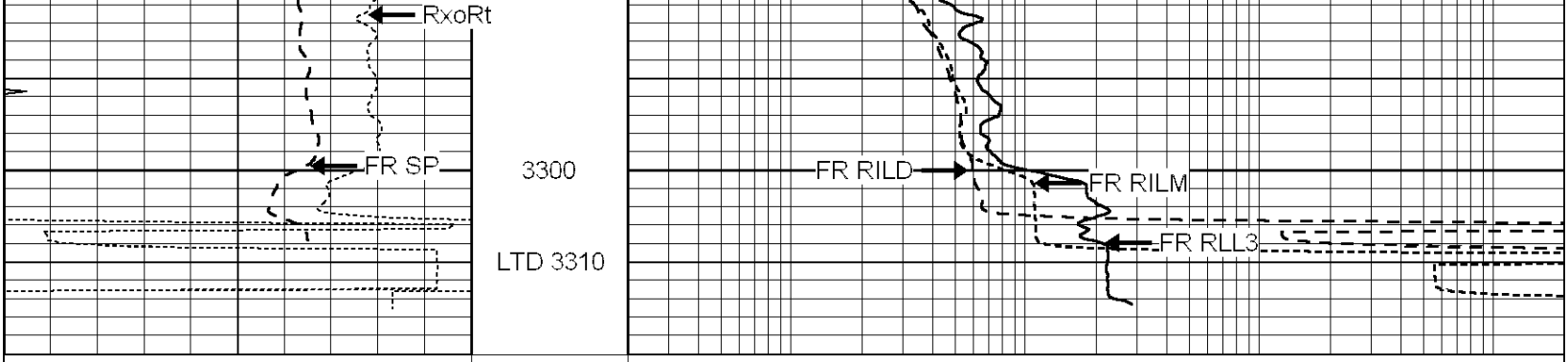
3050


3100
3150
3200
3250
FR GAMMA RAY



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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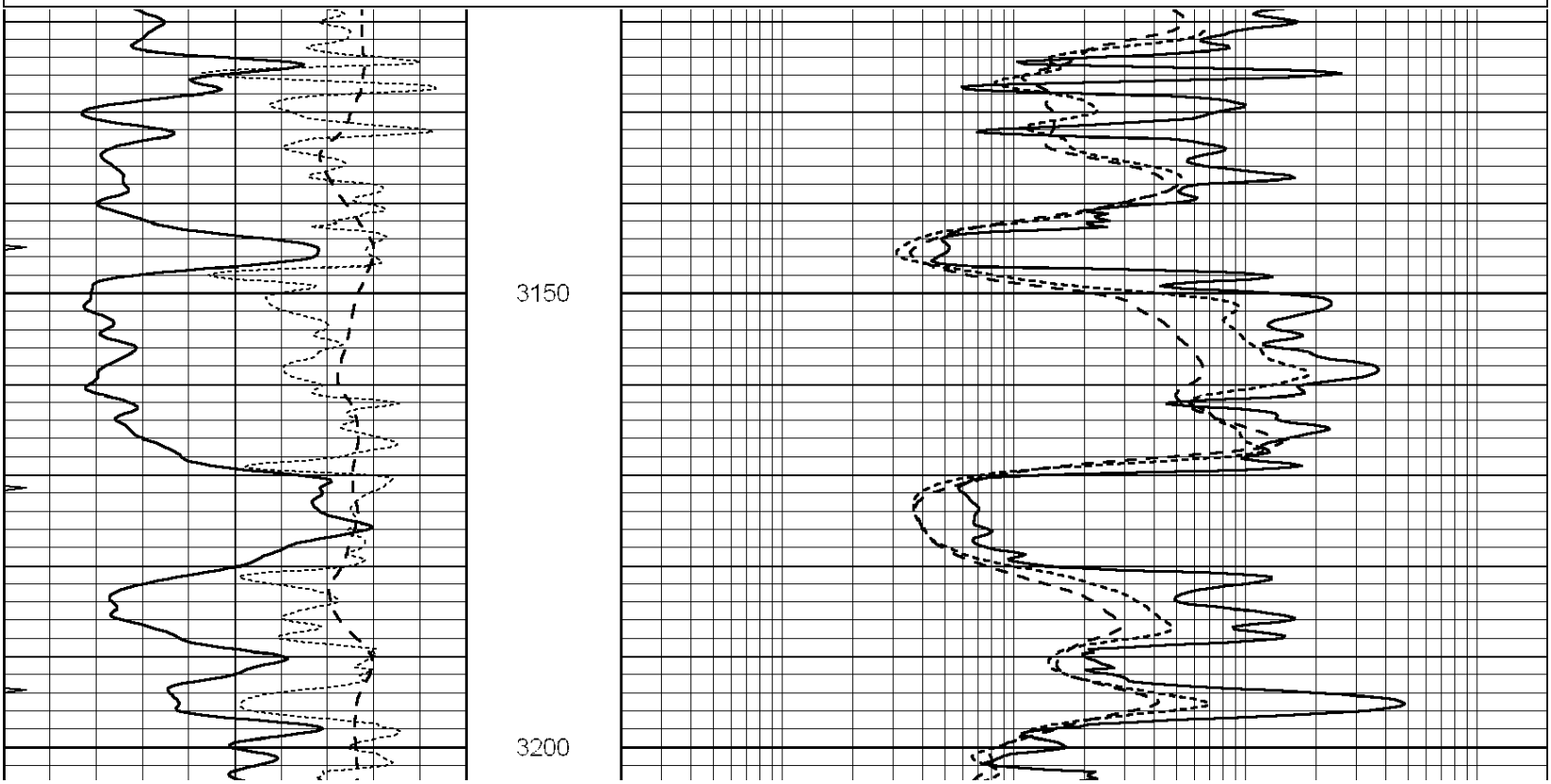
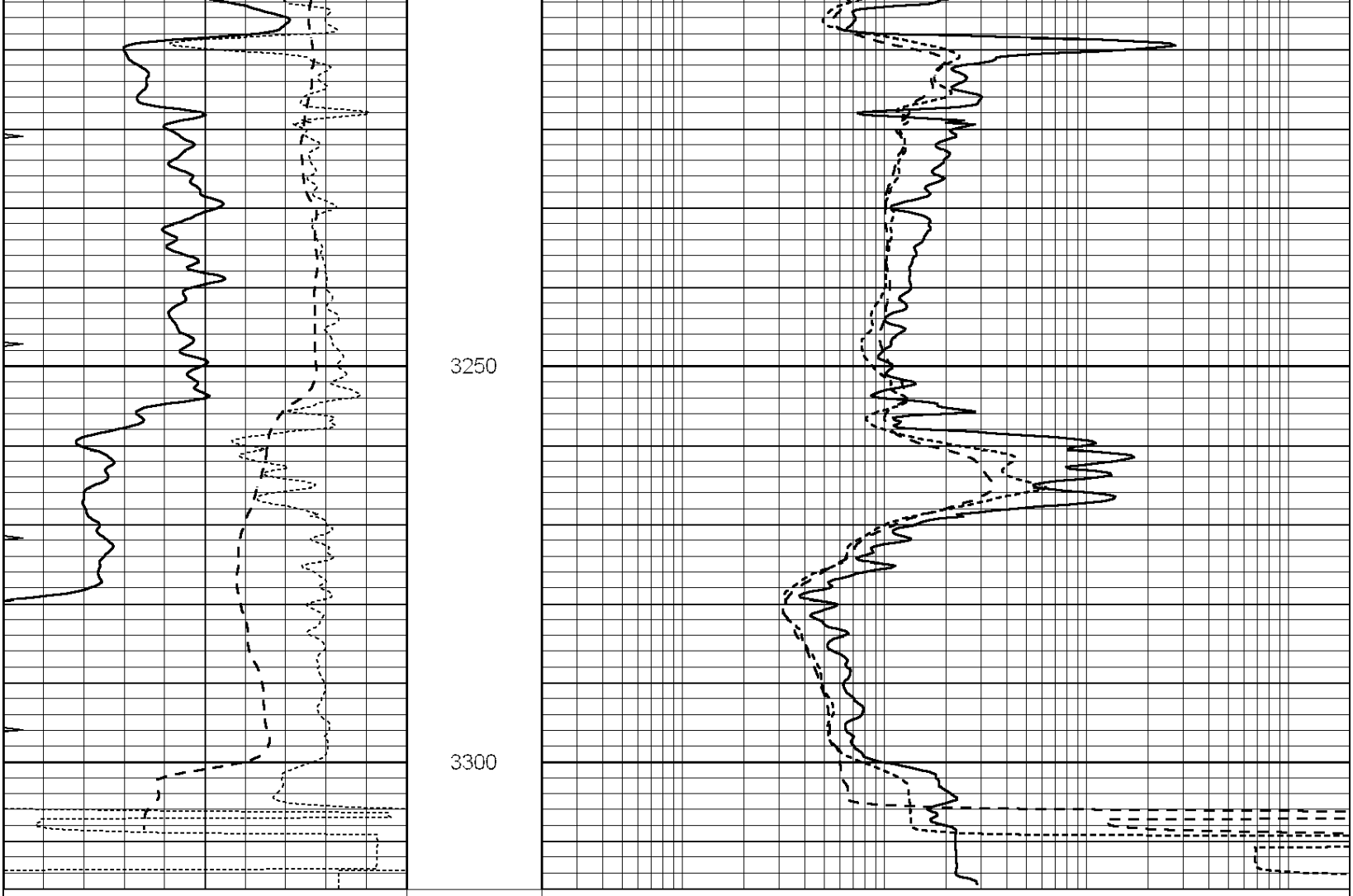
REPEAT SECTION

Database File:	9124ddn.db
Dataset Pathname:	pass4.3
Presentation Format:	dil
Dataset Creation:	Tue May 22 14:47:46 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





Calibration Report

Database File: 9124ddn.db
Dataset Pathname: pass1
Dataset Creation: Tue May 22 13:08:12 2012 by Log Open-Cased 090629

Dual Induction Calibration Report

Serial-Model:	PROBE9-DILG
Surface Cal Performed:	Mon May 21 22:21:01 2012
Downhole Cal Performed:	Mon Jul 28 12:02:56 2008
After Survey Verification Performed:	Mon Jul 28 12:02:56 2008

Surface Calibration

	Readings			References			Results	
Loop:	Air	Loop		Air	Loop		m	b
Deep	-0.014	0.629	V	0.000	400.000	mmho/m	550.000	-14.000
Medium	0.039	0.728	V	0.000	464.000	mmho/m	540.000	-18.000
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.011	0.610	V	0.000	400.000	mmho/m	667.135	-7.256
Medium	0.005	0.712	V	0.000	464.000	mmho/m	655.677	-3.102

Downhole Calibration

	Readings			References			Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	0.000	0.000	mmho/m	14.508	388.384	mmho/m	1.000	0.000
Medium	0.000	0.000	mmho/m	166.367	504.400	mmho/m	1.000	0.000
LL3		7.500	V		1400.000	Ohm-m		
		0.000	V		20.000	Ohm-m		
		-7.200	V		3970.000	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: GEAR1-GEARHART
Source / Verifier: 147 / 147
Master Calibration Performed: Mon May 21 22:04:25 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	8.40	in	4.01	V
Large Ring	14.00	in	5.67	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: Tue May 22 00:12:50 2012

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps
Calibrator Reading: 1.0 cps

Sensitivity: 0.7000 GAPI/cps