



SUPERIOR
Hays,
Kansas

DUAL
INDUCTION
LOG

Company	RITCHIE EXPLORATION, INC.		
Well	WISSMAN 30AB #1		
Field	OTIS-ALBERT		
County	BARTON	State	KANSAS
Location:	AP1 # : 15-009-25562-0000 1265' FNL & 675' FWL 55'N & 15'E OF W/2 - NW SEC 30 TWP 18S RGE 15W		Other Services CDL/CNL
Permanent Datum	GROUND LEVEL	Elevation	1919
Log Measured From	KELLY BUSHING 9' A.G.L.		
Drilling Measured From	KELLY BUSHING		
Date	6/17/11		
Run Number	ONE		
Depth Driller	3609		
Depth Logger	3610		
Bottom Logged Interval	3608	2000	
Top Log Interval	2900	1700	
Casing Driller	8 5/8"@929'		
Casing Logger	942'		
Bit Size	7 7/8"		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 6,000 PPM	
Density / Viscosity	9.3/54		
pH / Fluid Loss	8.0/9.6		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	0.50@92F		
Rmt @ Meas. Temp	.525@80F		
Rmc @ Meas. Temp	.840@80F		
Source of Rmt / Rmc	MEASUREMENT		
Rm @ BHT	.509@110F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom			
Maximum Recorded Temperature	110F		
Equipment Number	4010		
Location	HAYS, KANSAS		
Recorded By	JEFF GRONEWEG		
Witnessed By	DAVE WILLIAMS		

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All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.

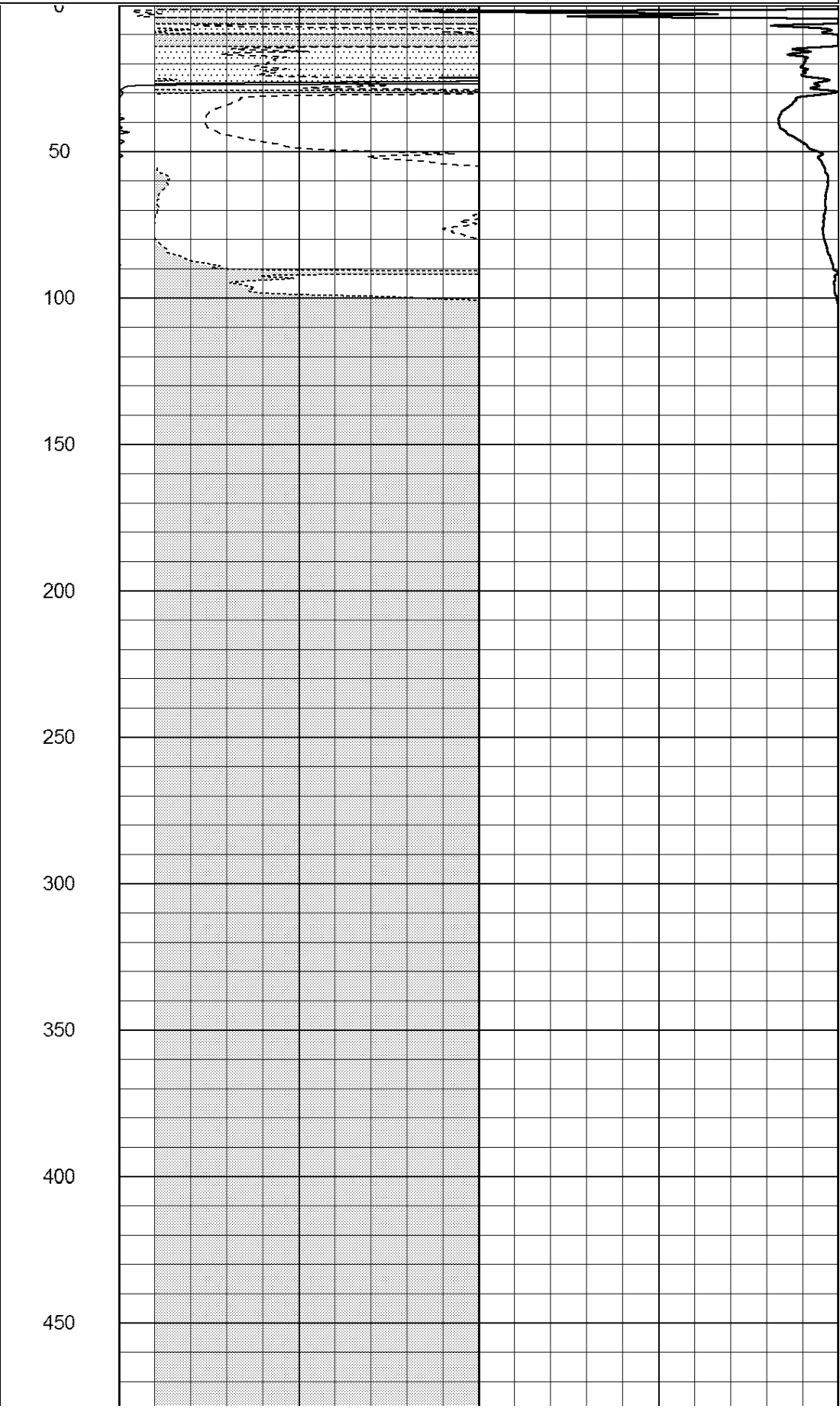
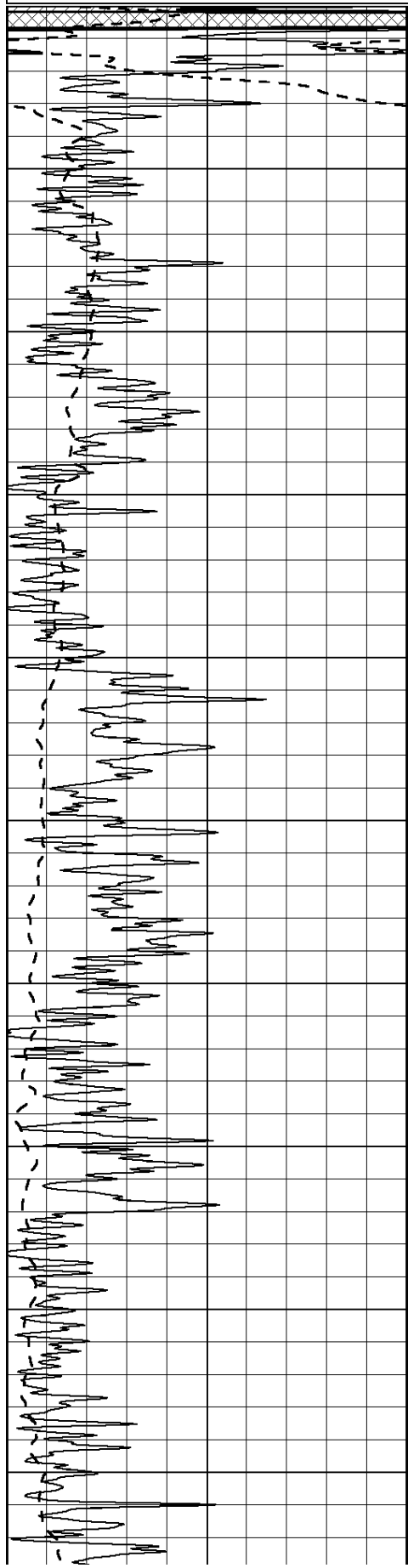
Comments

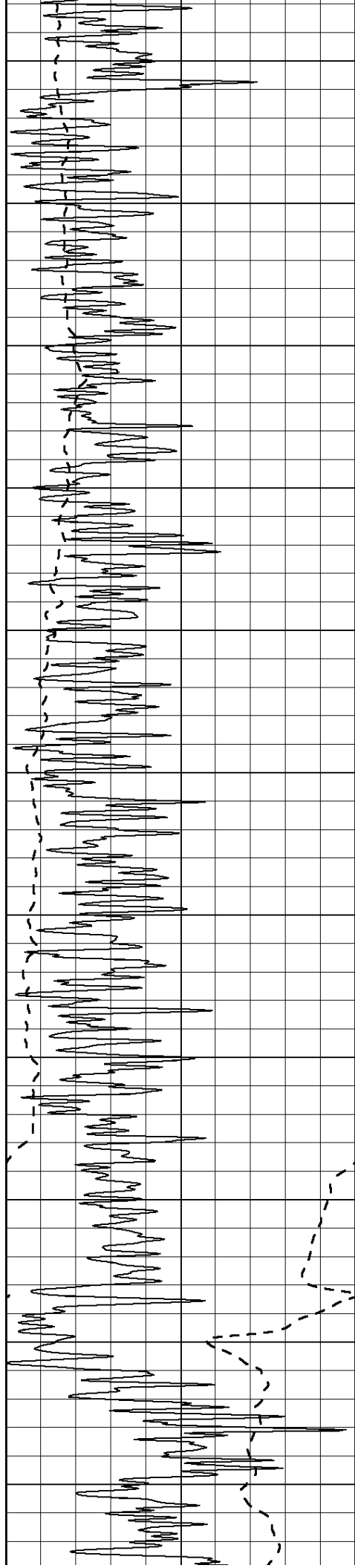
THANK YOU FOR USING SUPERIOR WELL SERVICE HAYS, KANSAS (785) 628-6395
DIRECTIONS
ALBERT, KS - 1 MILE WEST TO BARTON/RUSH COUNTY LINE - NORTH ACROSS RR TRACKS
EAST INTO

Database File: 006974ddn.db
Dataset Pathname: pass3.2
Presentation Format: dil2
Dataset Creation: Fri Jun 17 22:45:50 2011 by Calc Open-Cased 110302
Charted by: Depth in Feet scaled 1:600

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

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





500

550

600

650

700

750

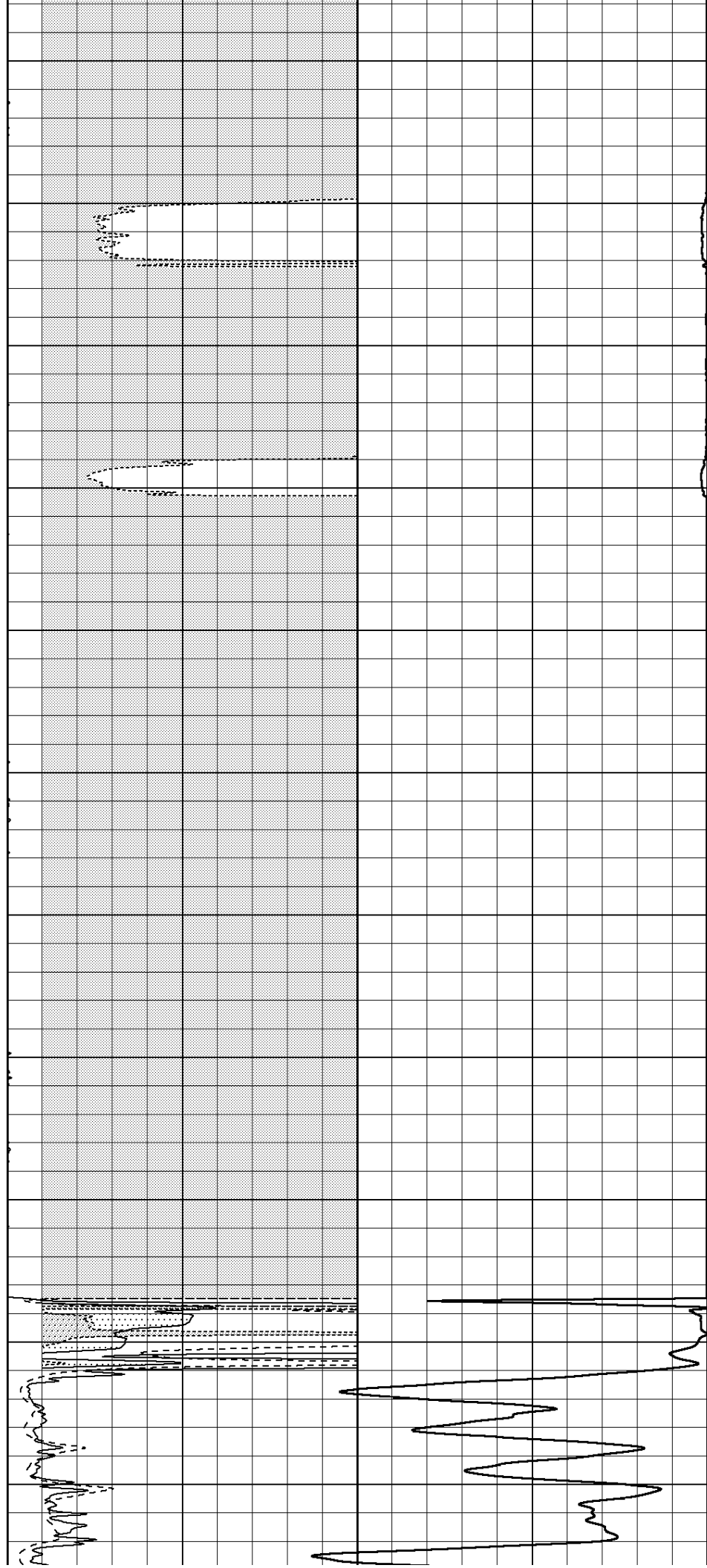
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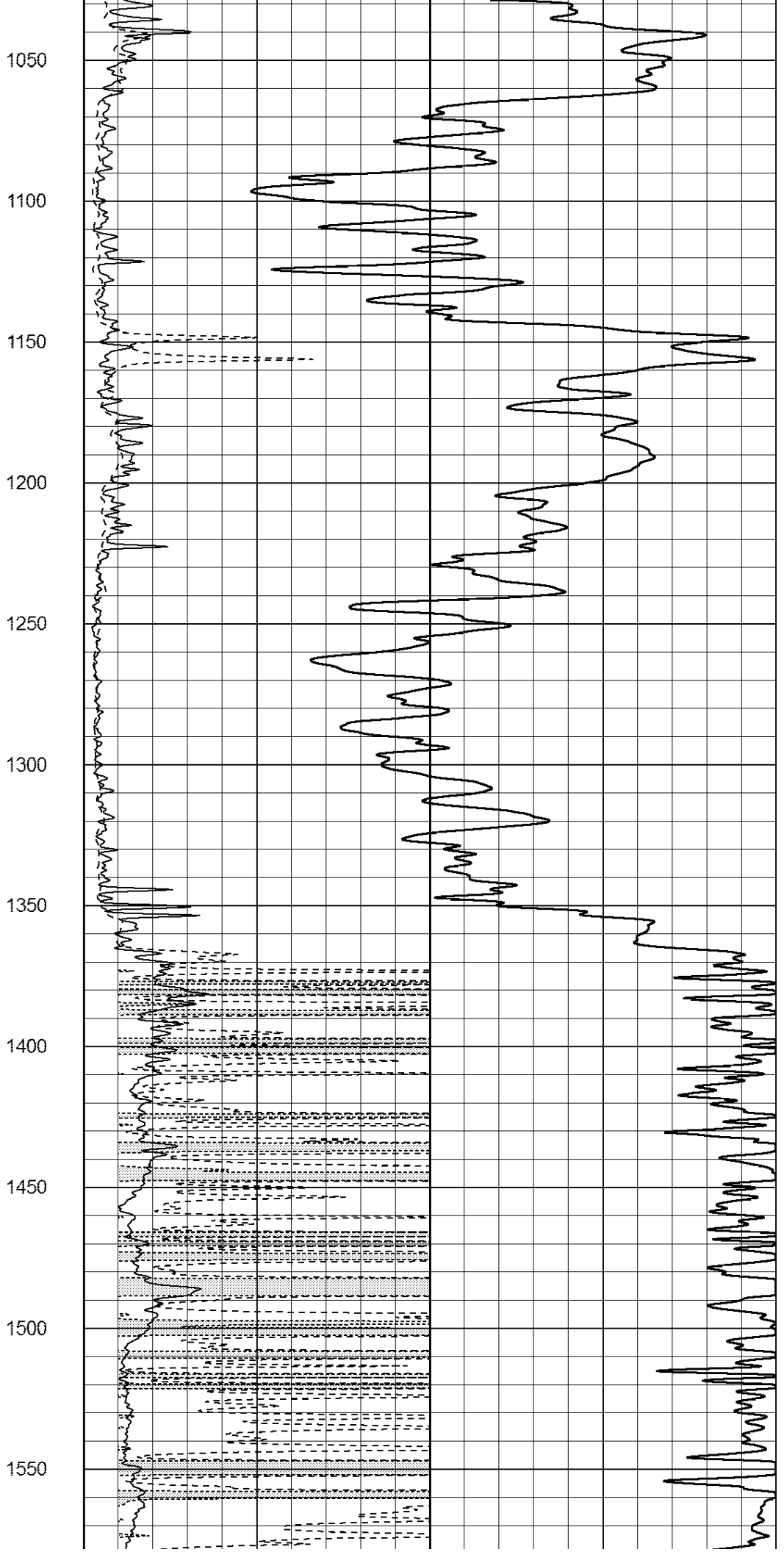
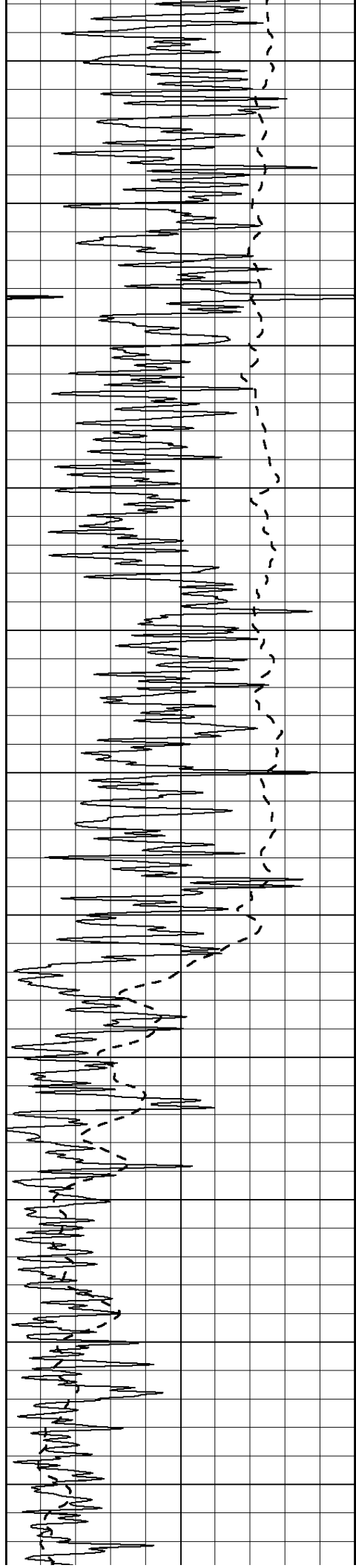
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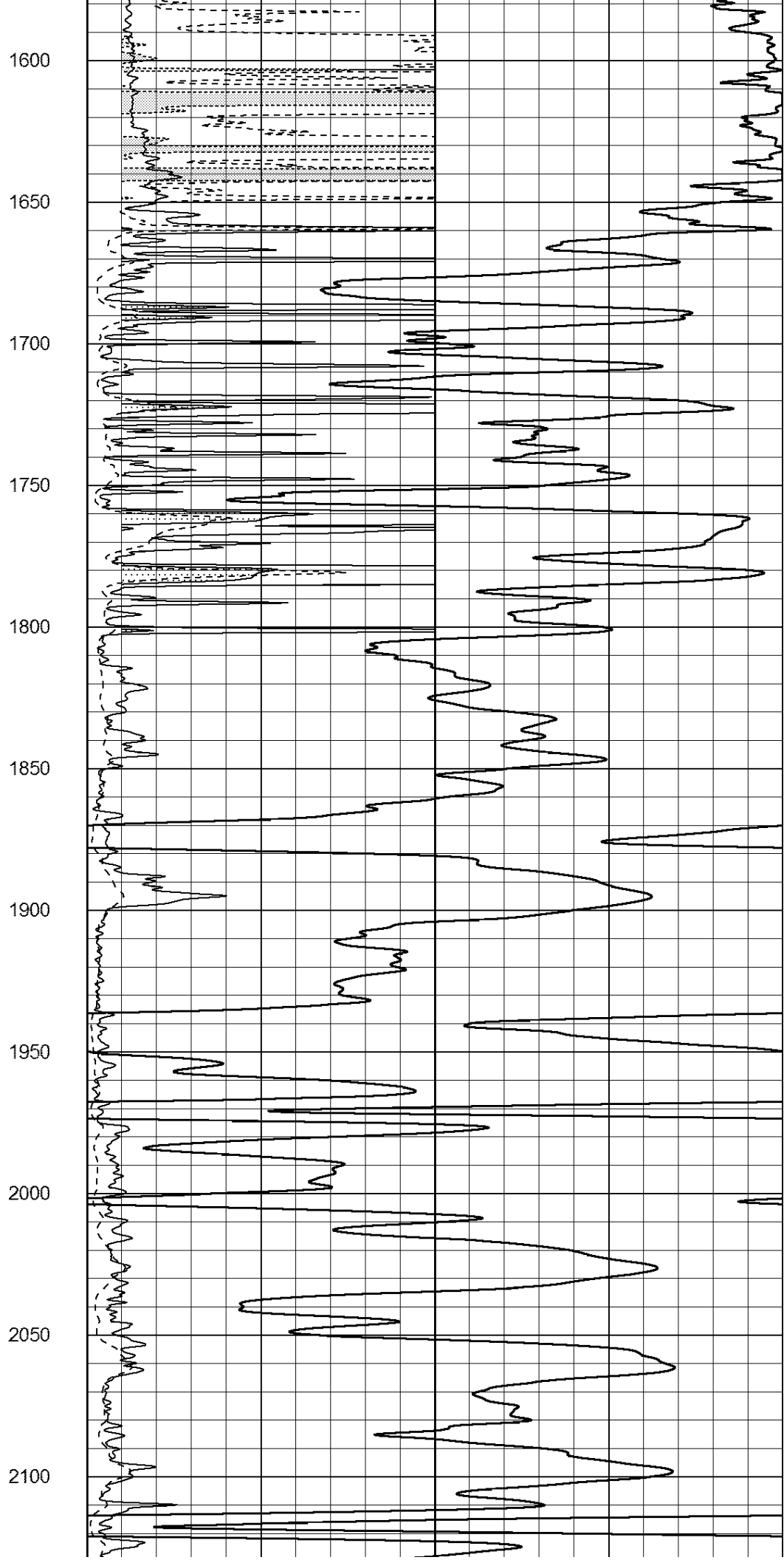
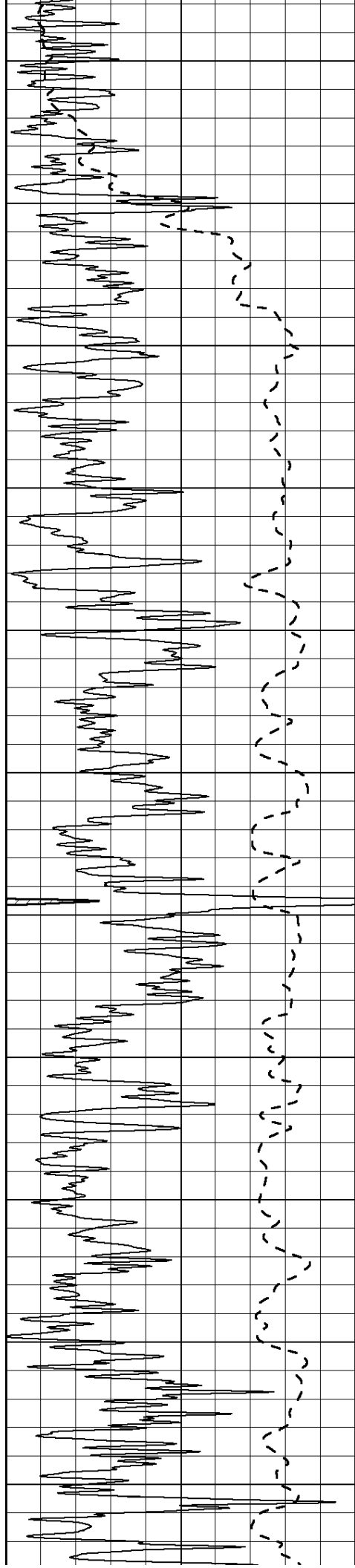
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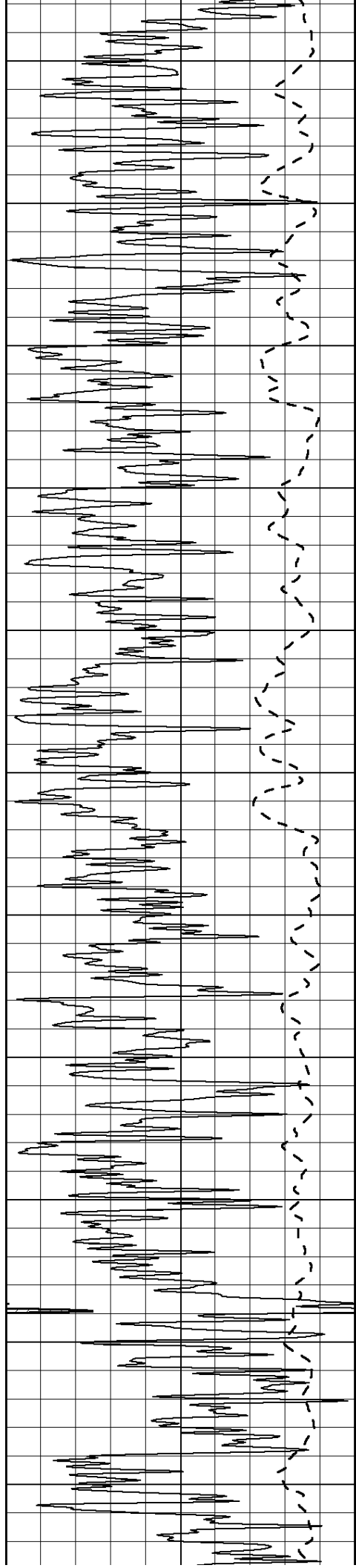
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1000









2150

2200

2250

2300

2350

2400

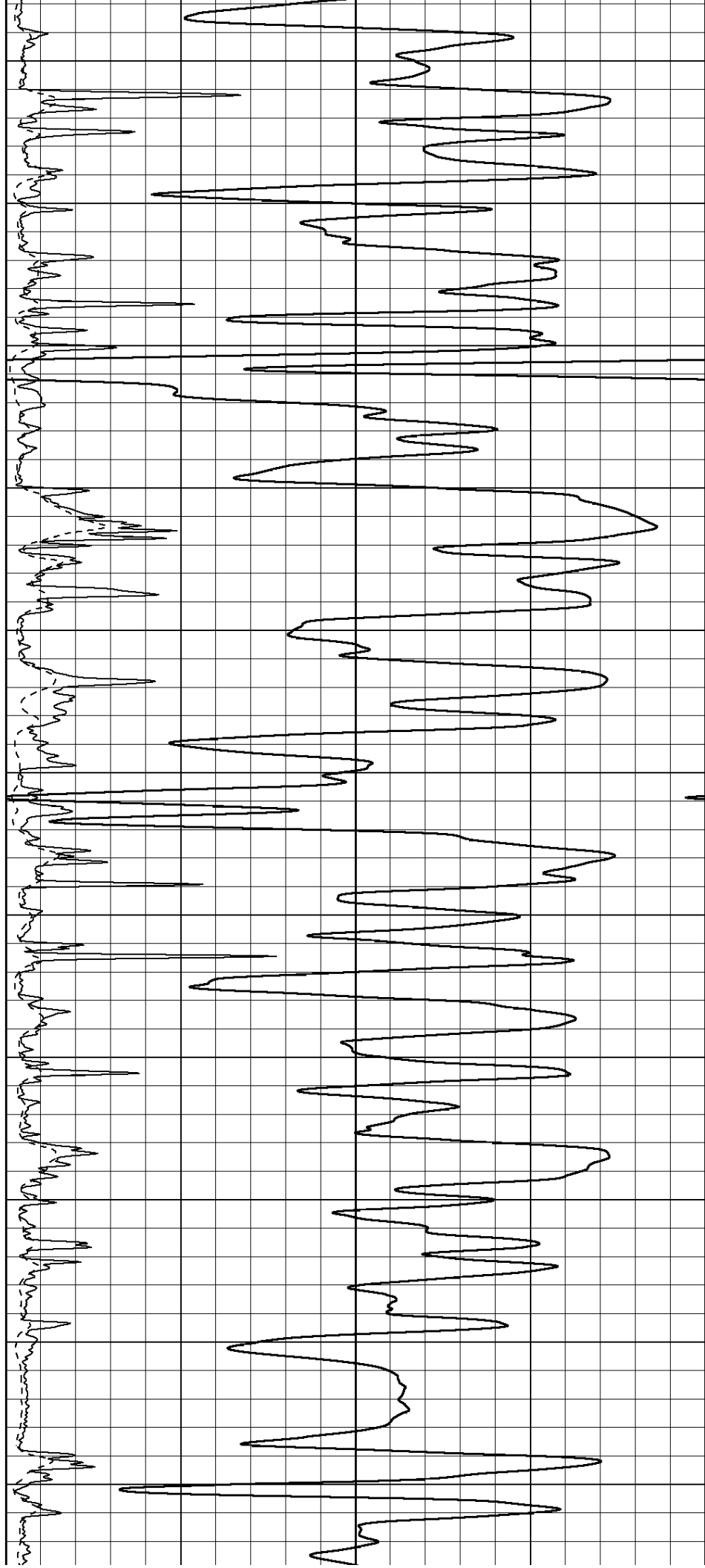
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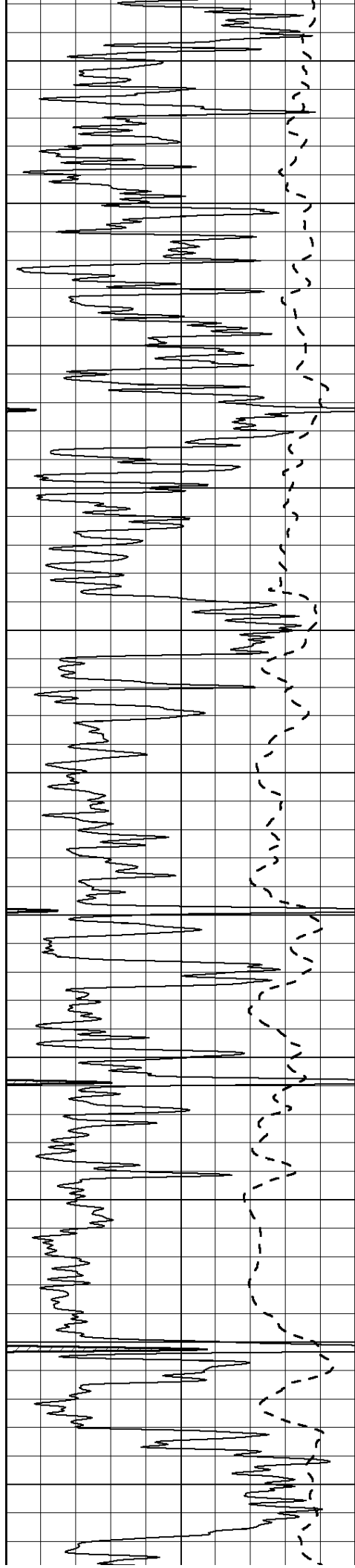
2500

2550

2600

2650





2700

2750

2800

2850

2900

2950

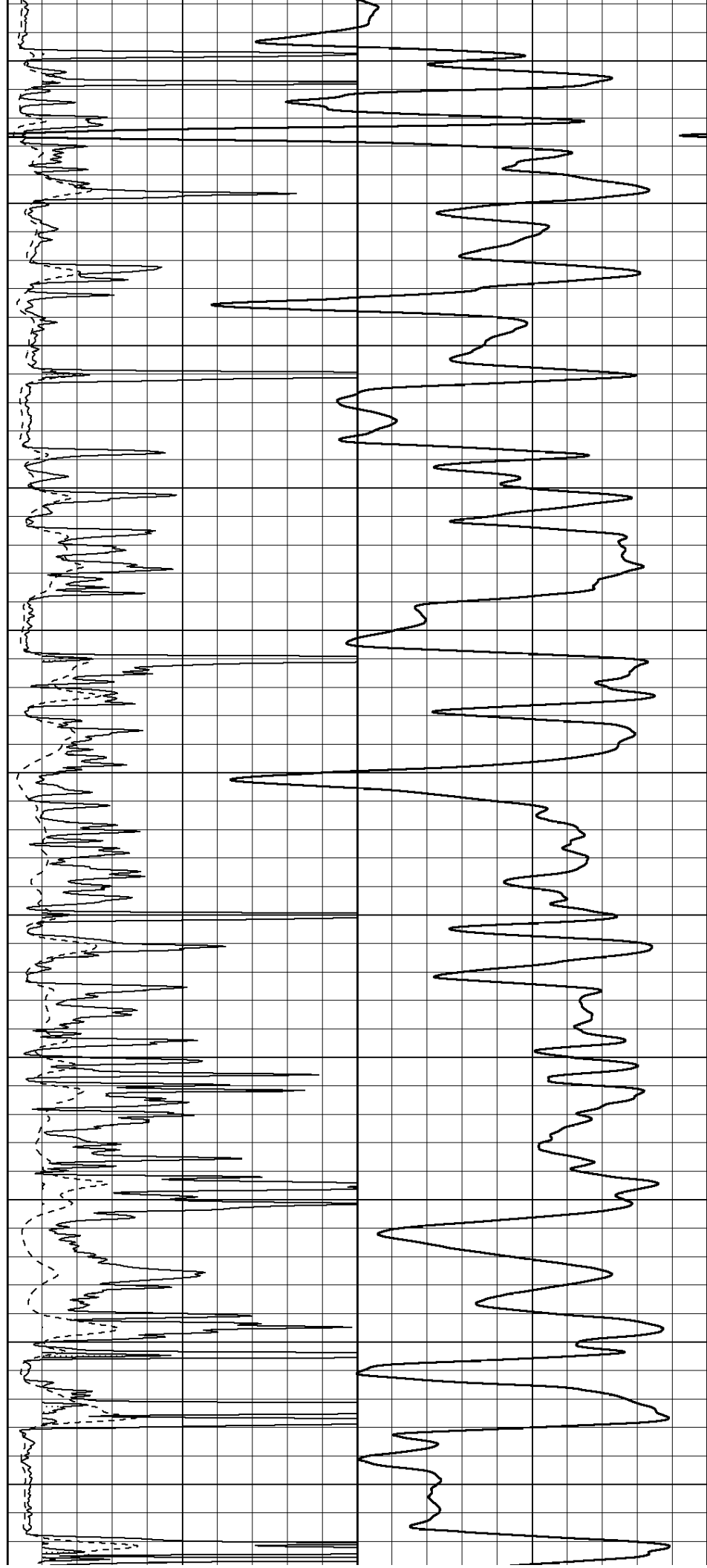
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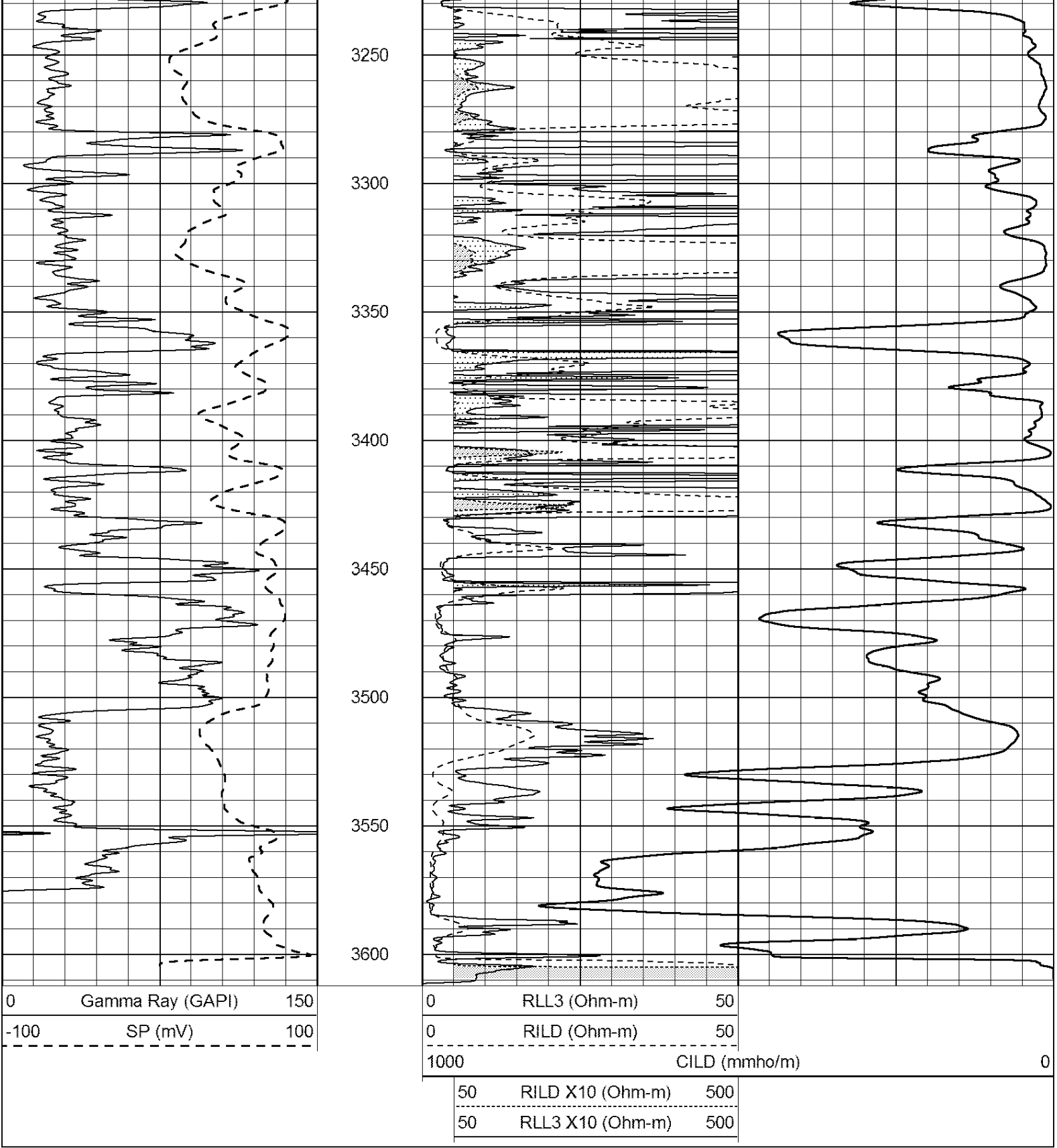
3050

3100

3150

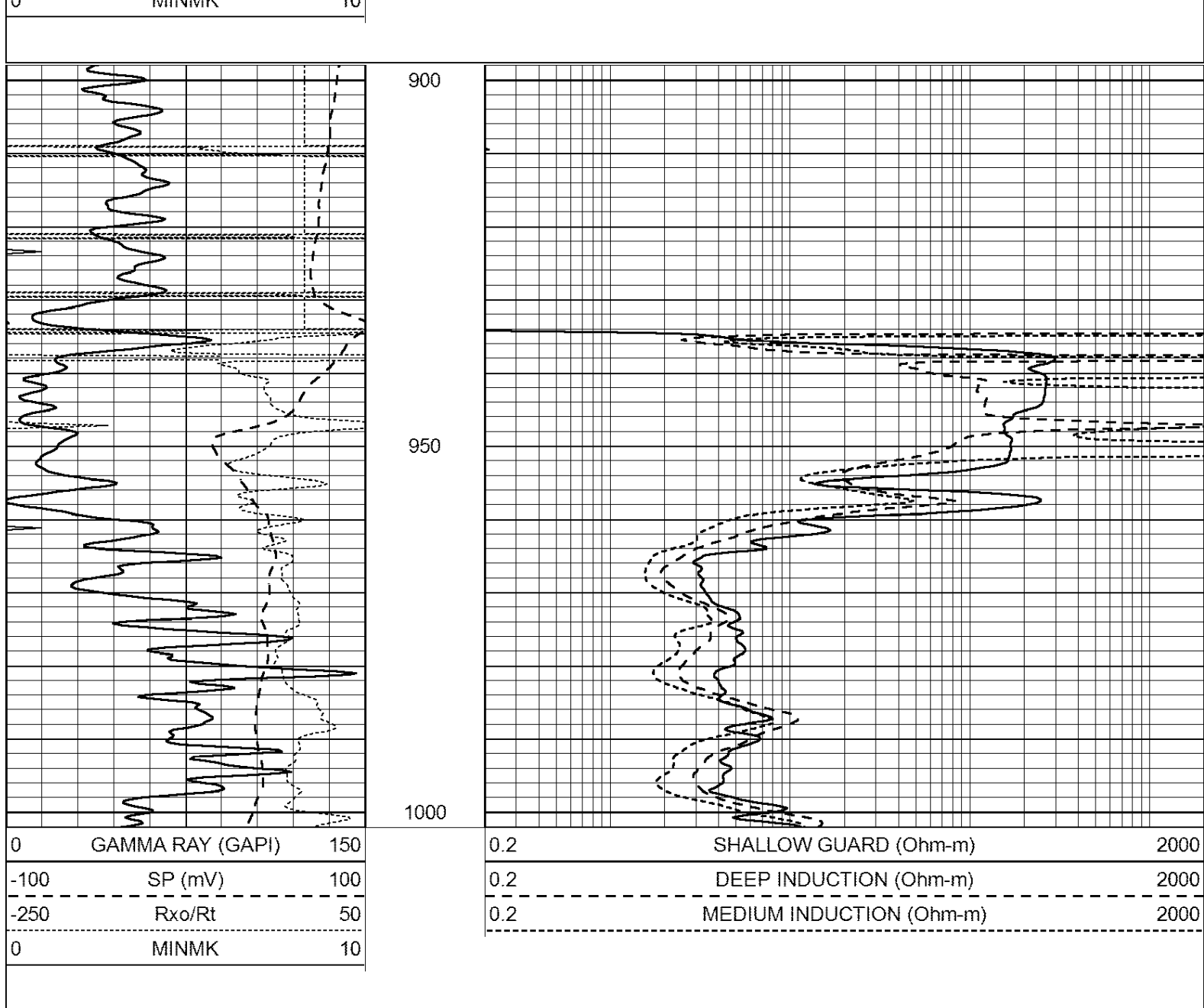
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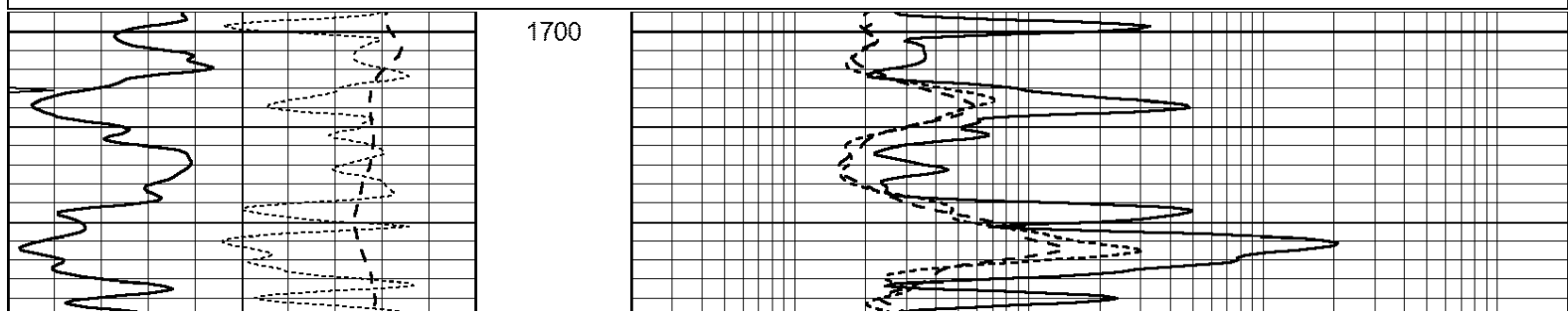
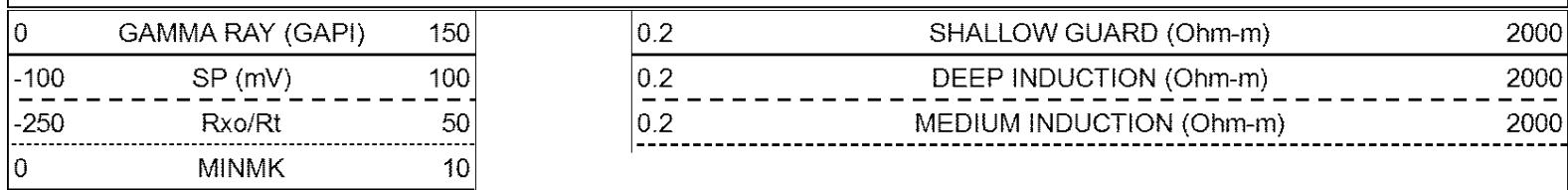


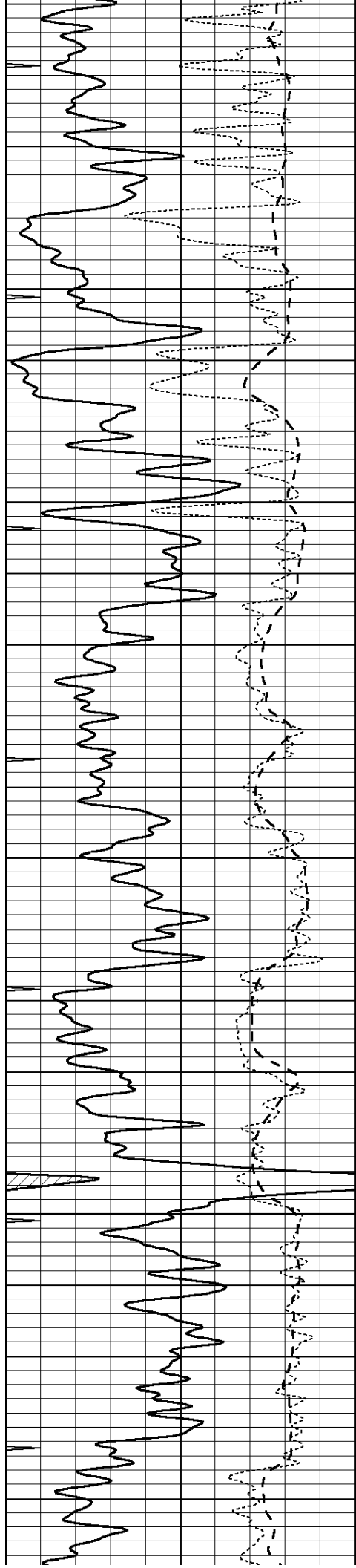
Database File: 006974ddn.db
Dataset Pathname: pass3.2
Presentation Format: dil
Dataset Creation: Fri Jun 17 22:45:50 2011 by Calc Open-Cased 110302
Charted by: Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150	0.2	SHALLOW GUARD (Ohm-m)	2000
-100	SP (mV)	100	0.2	DEEP INDUCTION (Ohm-m)	2000
-250	Rxo/Rt	50	0.2	MEDIUM INDUCTION (Ohm-m)	2000
0	MINIMUM	10			



Database File: 006974ddn.db
Dataset Pathname: pass3.1
Presentation Format: dil
Dataset Creation: Fri Jun 17 22:00:18 2011 by Calc Open-Cased 110302
Charted by: Depth in Feet scaled 1:240



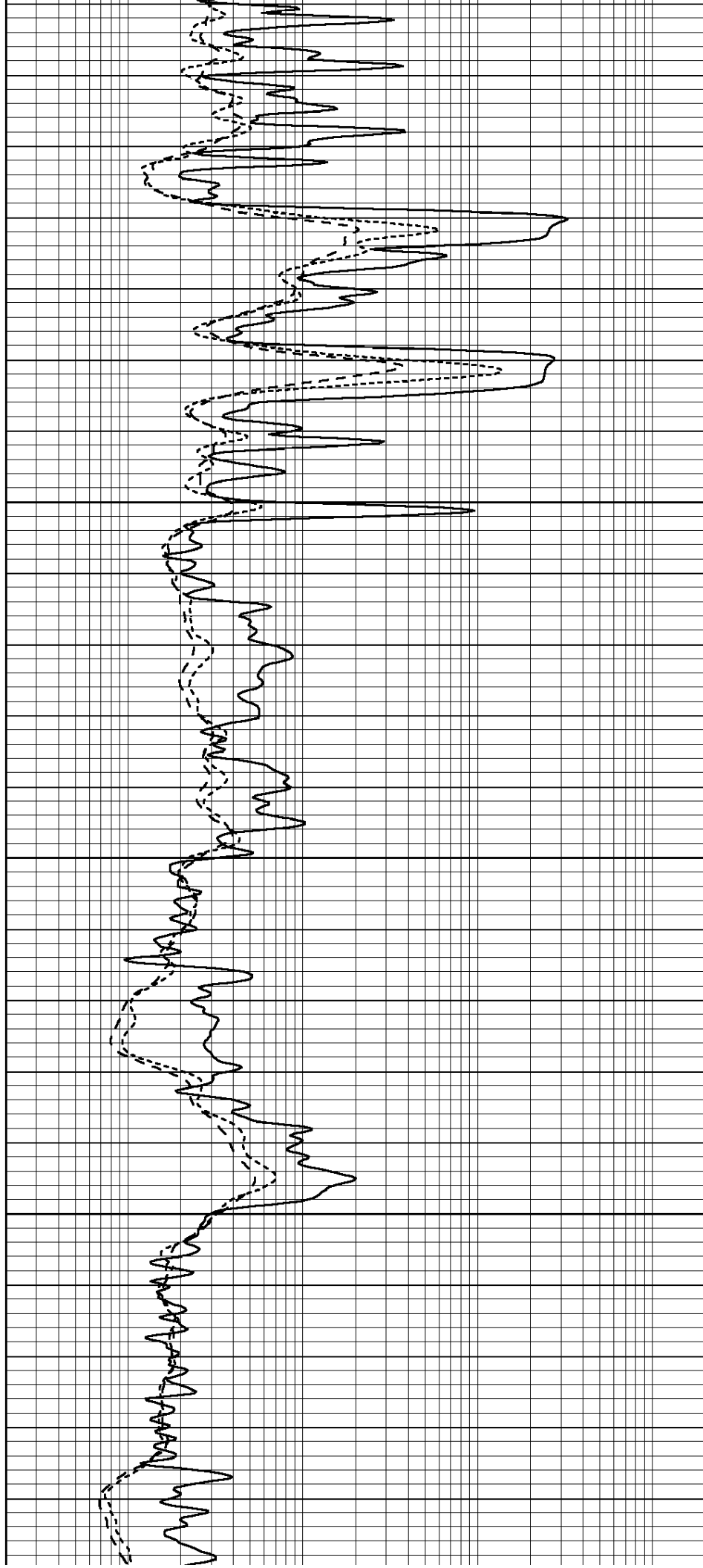


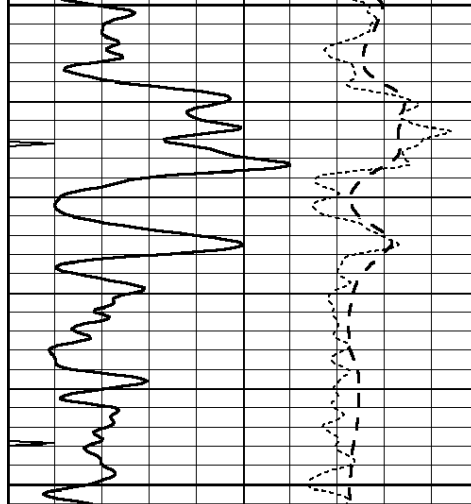
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1800

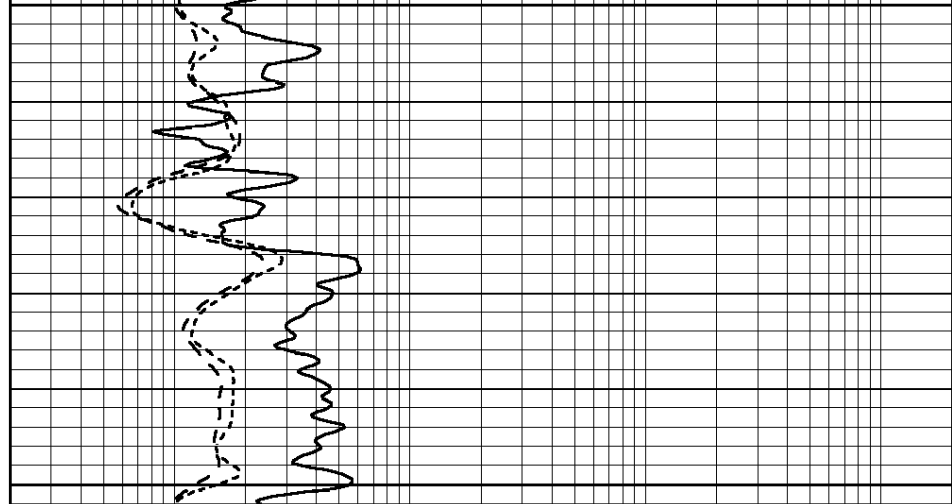
1850

1900





0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	10

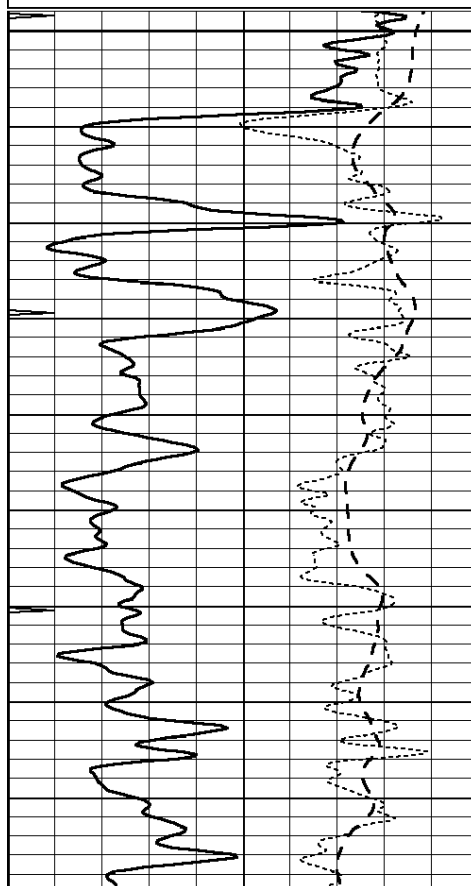
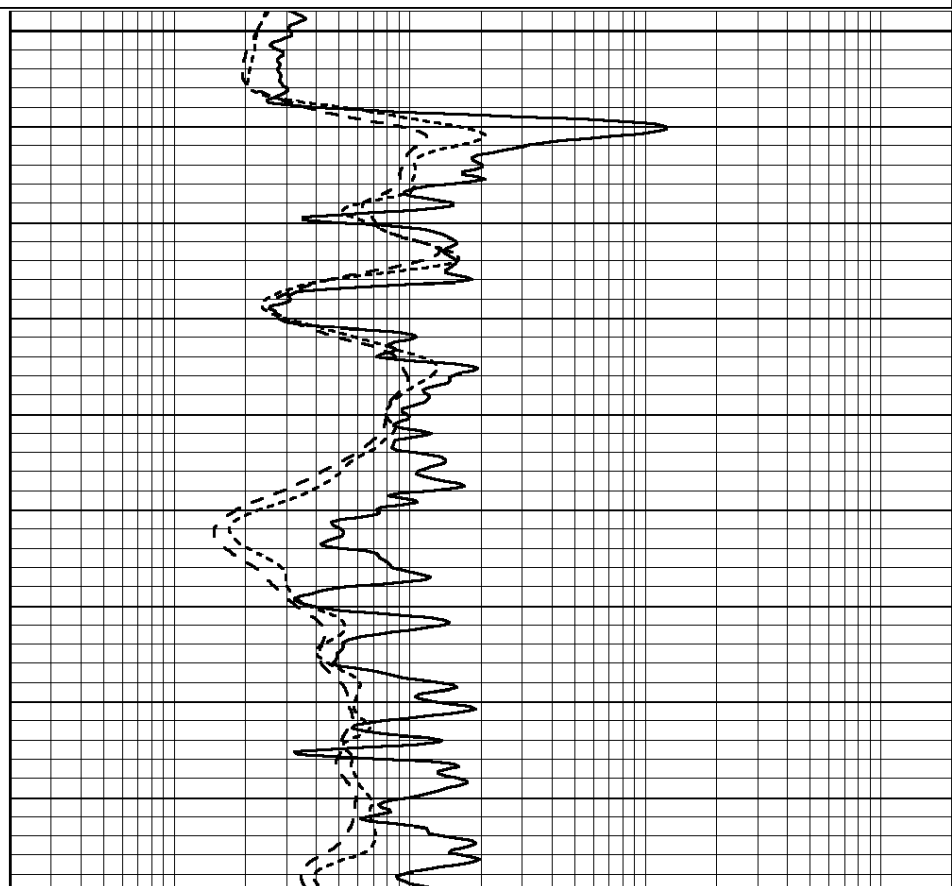


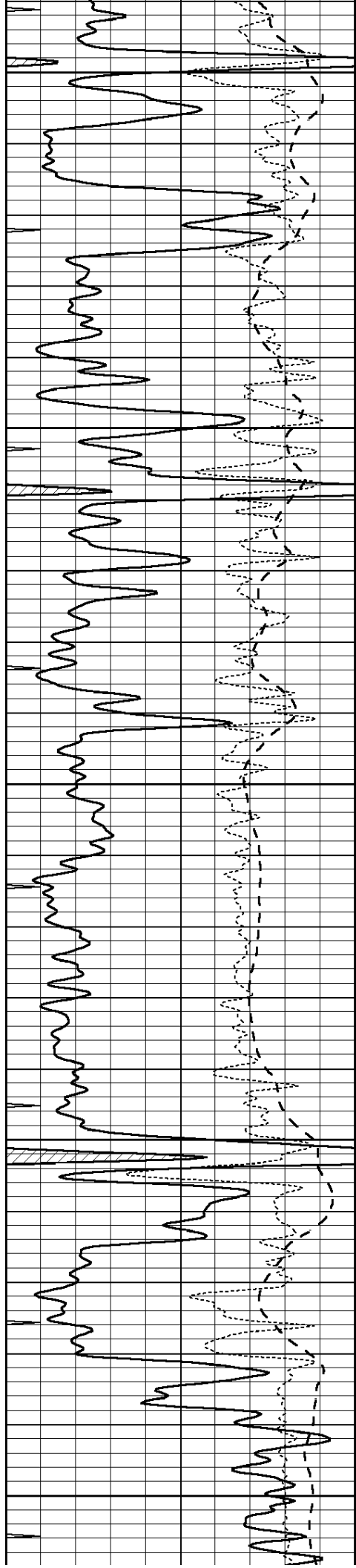
0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000

Database File: 006974ddn.db
Dataset Pathname: pass3.1
Presentation Format: dil
Dataset Creation: Fri Jun 17 22:00:18 2011 by Calc Open-Cased 110302
Charted by: Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	10

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

2950



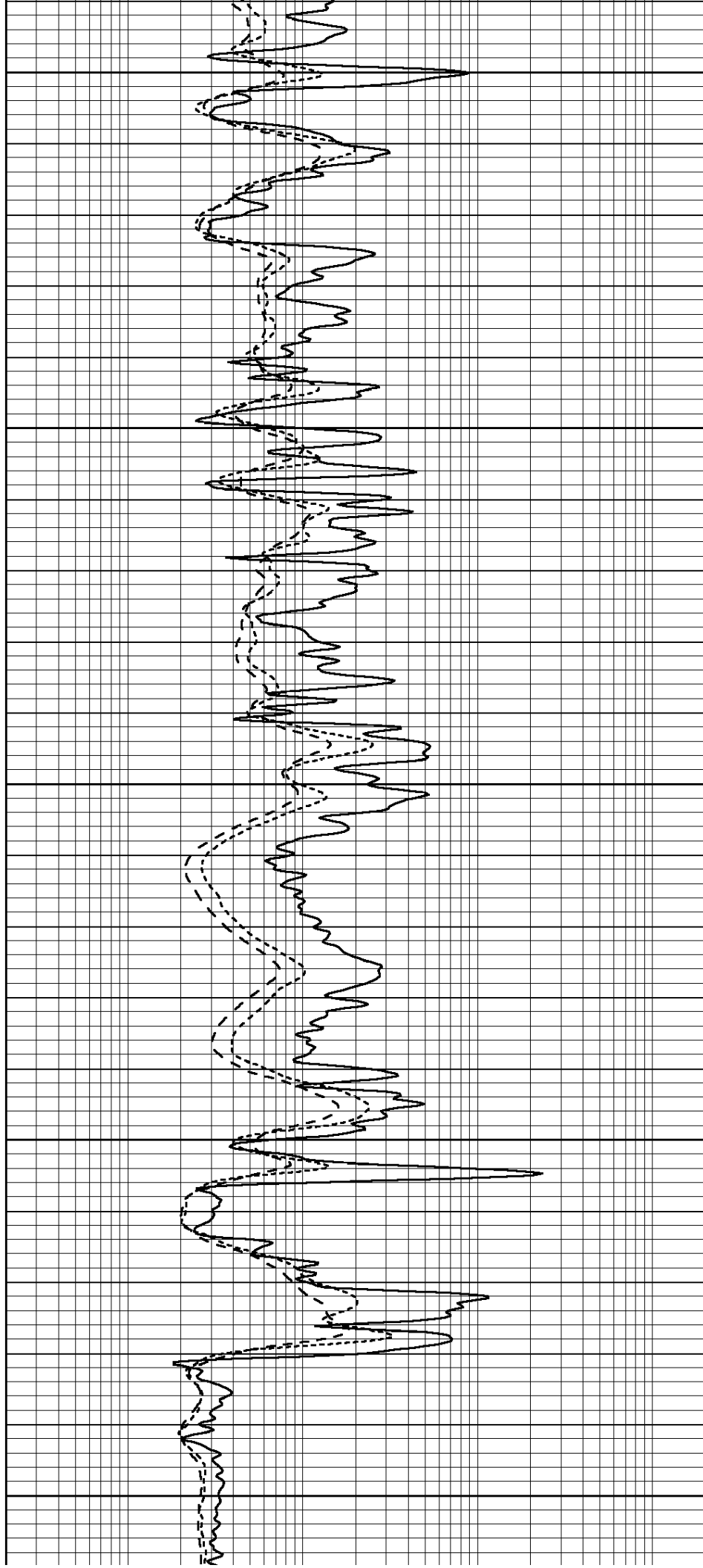
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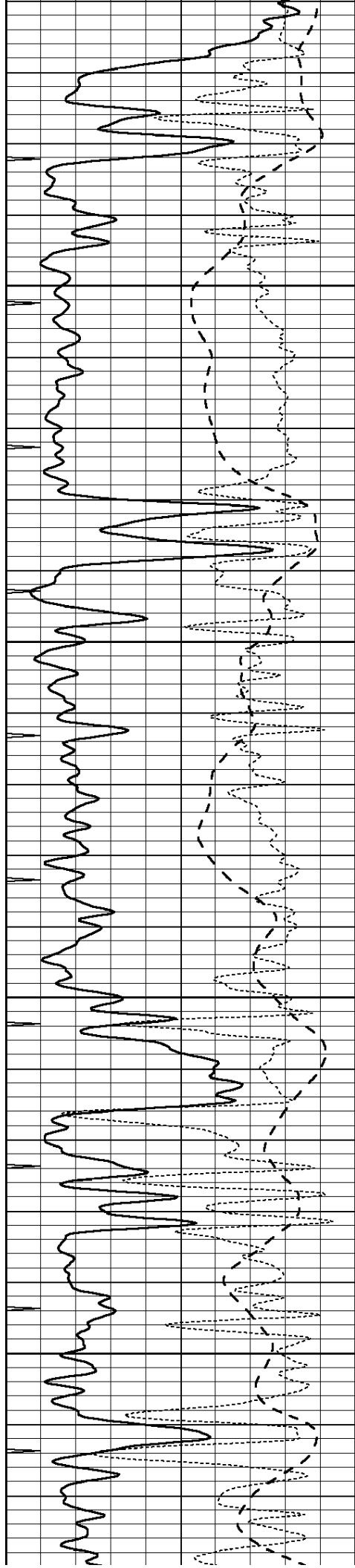
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3100

3150

3200



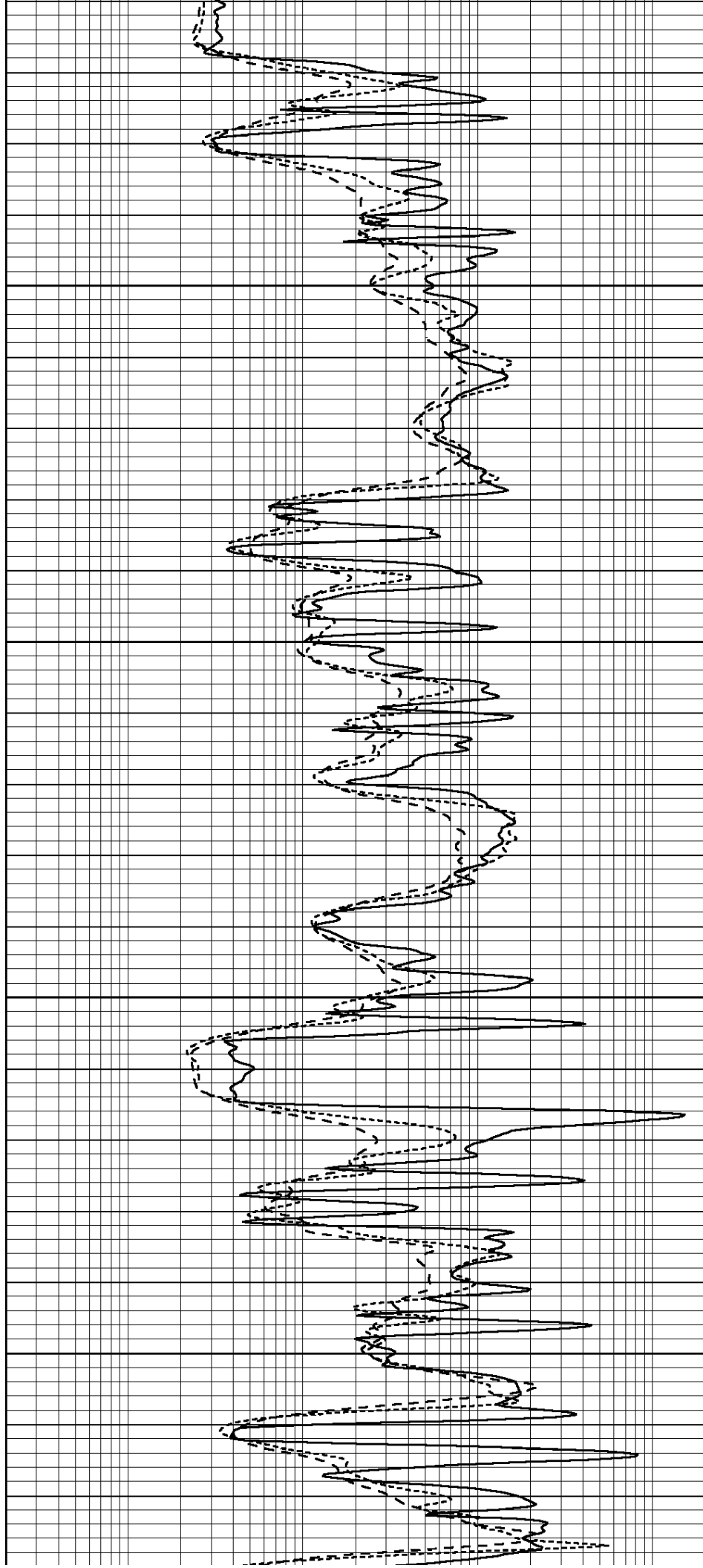


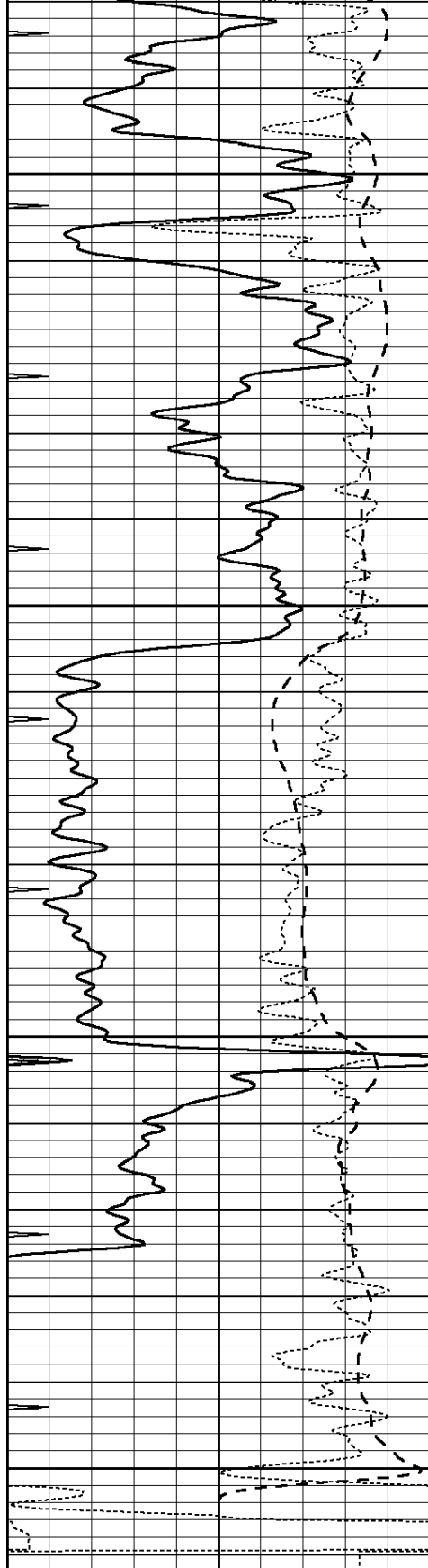
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3300

3350

3400





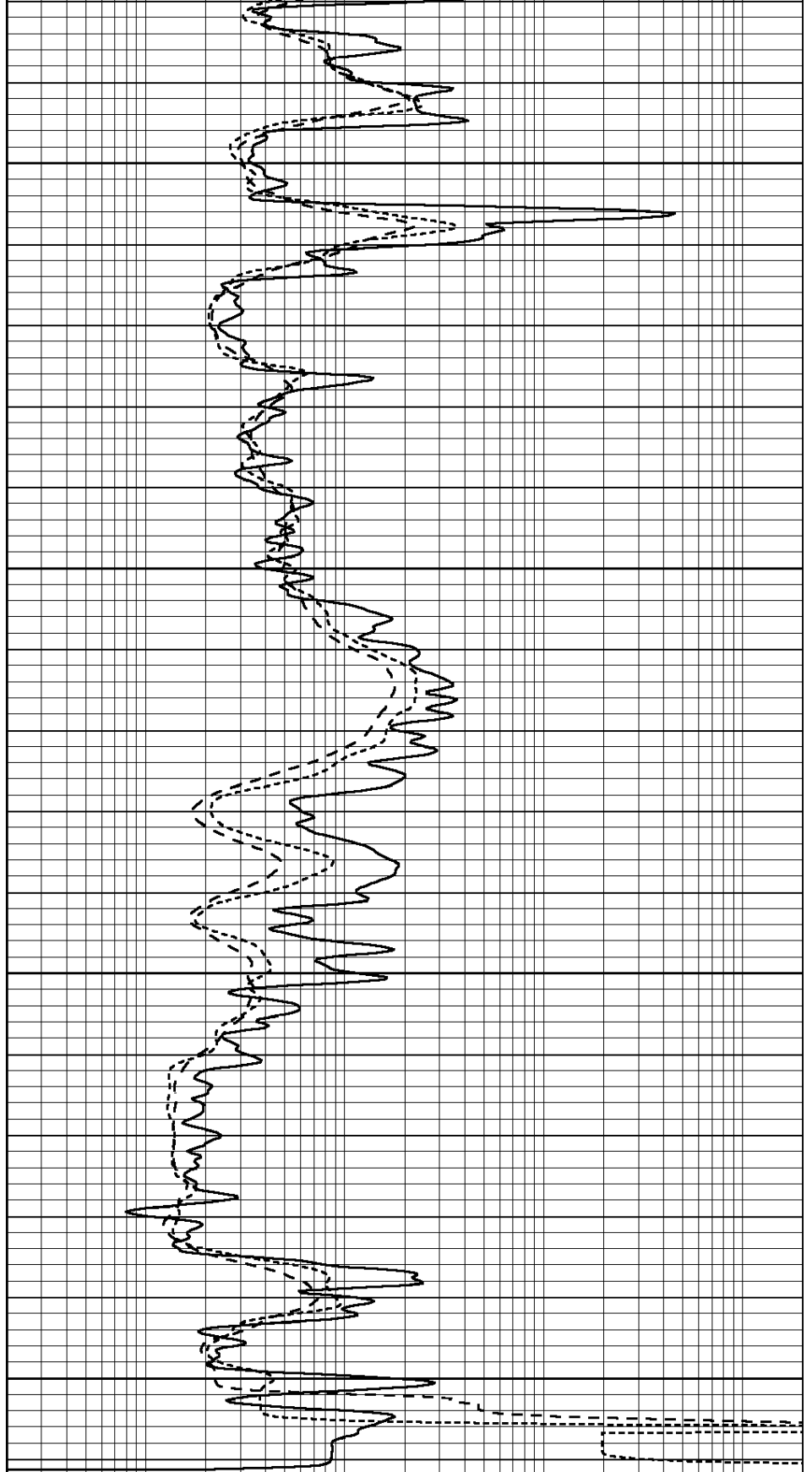
3450

3500

3550

3600

0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	10



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



SUPERIOR

DEEP SECTION



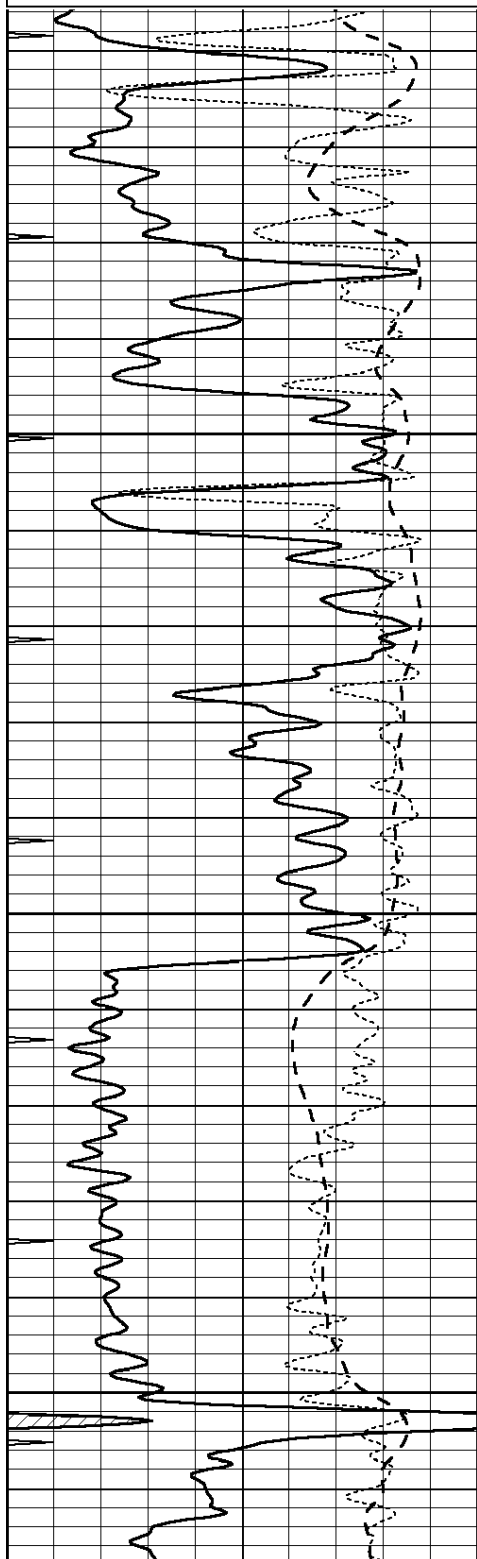
Hays,
Kansas

REPEAT SECTION

Database File: 006974ddn.db
Dataset Pathname: pass2.2
Presentation Format: dil
Dataset Creation: Fri Jun 17 22:10:01 2011 by Calc Open-Cased 110302
Charted by: Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	10

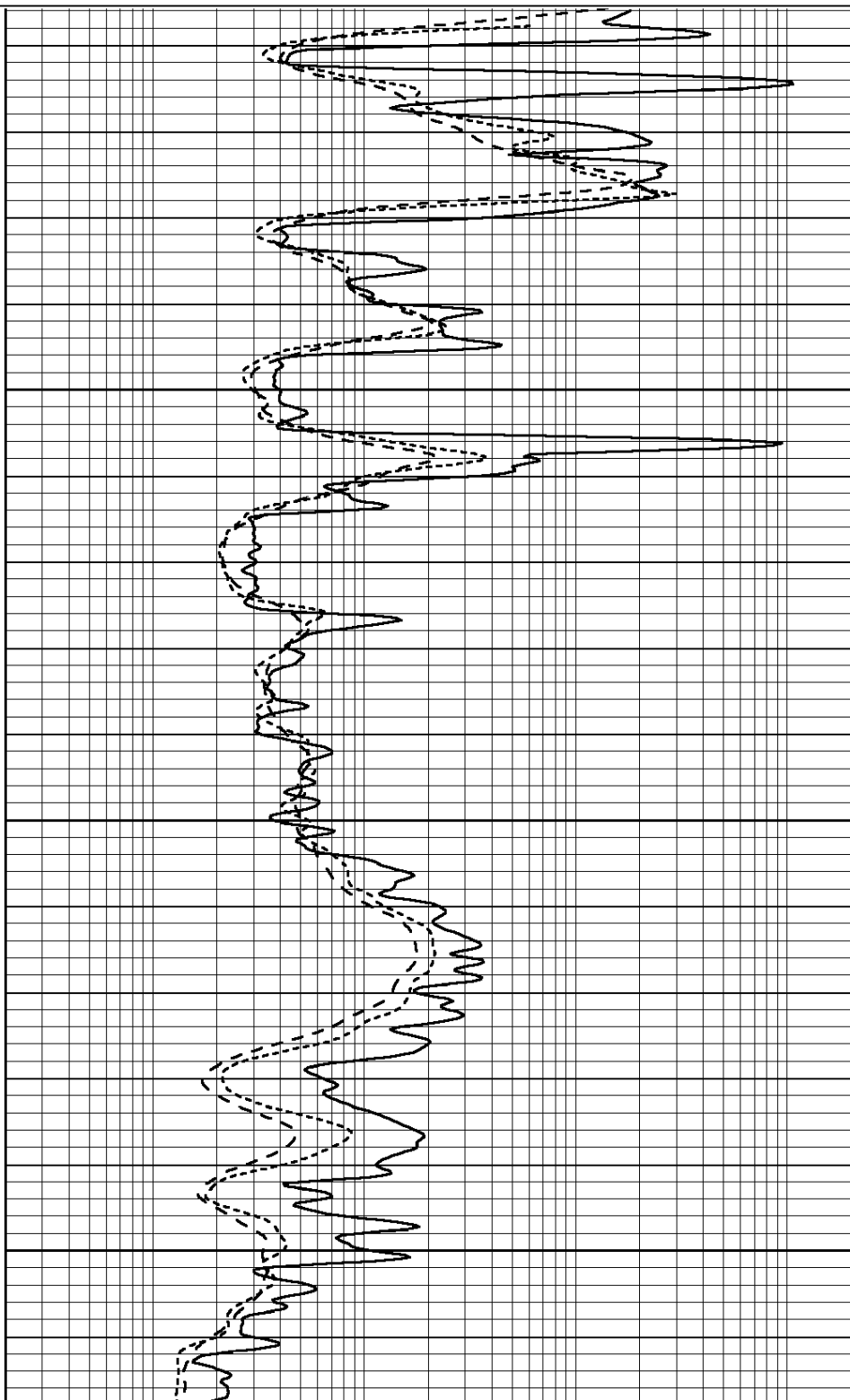
0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000

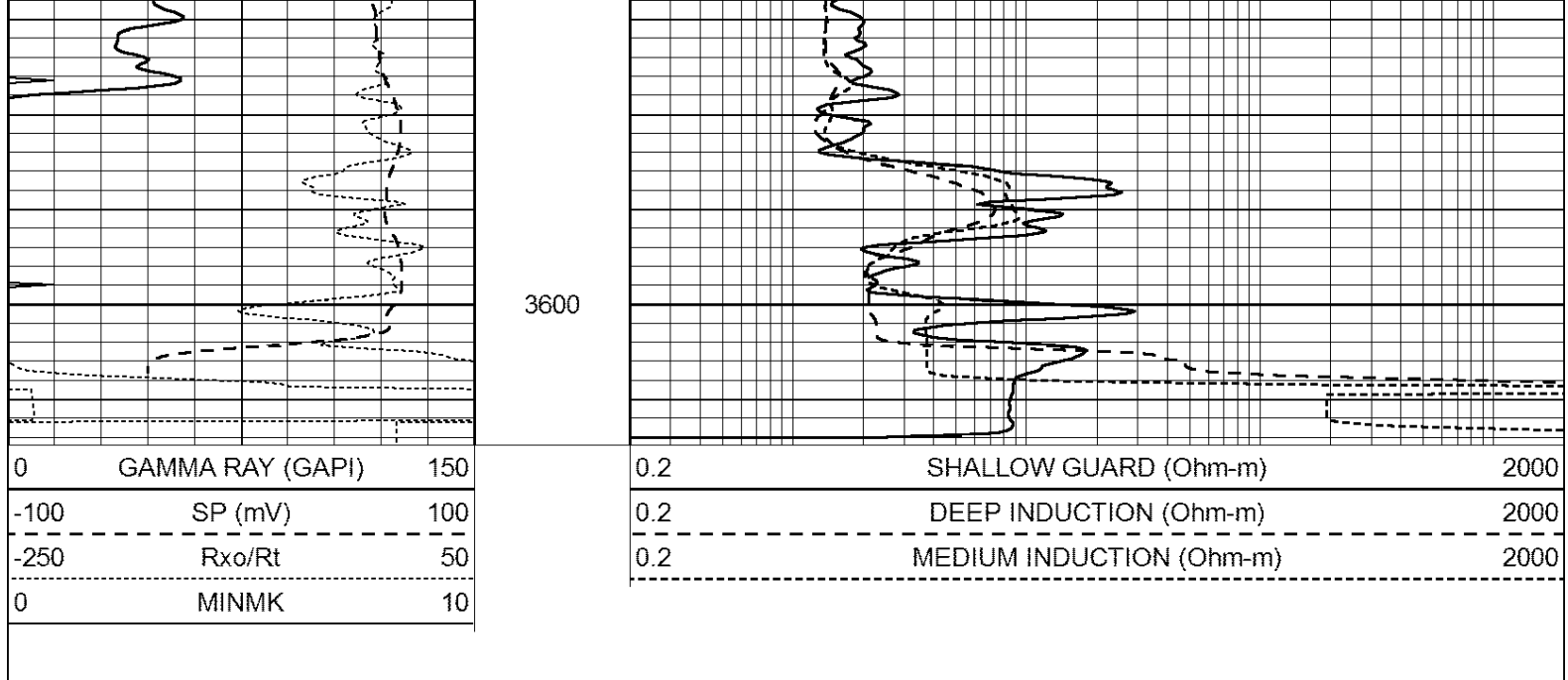


3450

3500

3550





Calibration Report

Database File: 006974ddn.db
 Dataset Pathname: pass3.2
 Dataset Creation: Fri Jun 17 22:45:50 2011 by Calc Open-Cased 110302

Dual Induction Calibration Report

Serial-Model: DIL6-GEAR
 Performed: Thu Jun 16 08:53:06 2011

Readings				References			Results	
Loop:	Air	Loop		Air	Loop		m	b
Deep	0.001	0.644	V	0.000	400.000	mmho/m	660.000	5.000
Medium	0.020	0.738	V	0.000	462.500	mmho/m	720.000	-13.000
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.000	1.000	V	0.000	1.000	mmho/m	1.000	0.000
Medium	0.000	1.000	V	0.000	1.000	mmho/m	1.000	0.000

Litho Density Calibration Report

Serial: 004N Model: PRB
 Performed Tue Sep 08 13:49:55 2009

Litho Density Calibration

	Background	Magnesium	Aluminum	Sandstone	
Window 1	1535.8	11161.3	3721.6	12498.8	cps
Window 2	1402.6	9435.7	3219.7	10417.7	cps
Window 3	1077.6	4422.0	1779.2	4753.4	cps
Window 4	337.3	342.8	337.4	343.7	cps
Long Space	0.0	8033.1	1817.0	9015.1	cps
Short Space	1.2	1671.8	1138.1	1813.0	cps
Rho		1.7100	2.5900	1.3800	g/cc
Pe			2.5700	1.5500	
Rib Angle	: 45.5	Rib Slope	: 1.017	Density/Spine Ratio	: 0.573
Spine Angle	: 75.5	Spine Slope	: 3.865	Spine Intercept	: -19.7

Caliper

Readings

Reference

Low Ref	Readings 2.8	Reference 7.8	
High Ref	4.6	15.0	
	Gain: 3.9		Offset: -3.2

Compensated Neutron Calibration Report
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Serial Number:	NEU_4I
Tool Model:	G

CALIBRATION						
Detector	Readings		Target		Normalization	
Short Space	996.00	cps	1000.00	cps	1.0000	
Long Space	977.00	cps	1000.00	cps	1.0000	

Gamma Ray Calibration Report

Serial Number:	GR4	
Tool Model:	OPEN	
Performed:	Thu Jun 16 10:21:02 2011	
Calibrator Value:	200.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	189.0	cps
Sensitivity:	3.3000	GAPI/cps