



DUAL INDUCTION LOG

Company	CARMEN SCHMITT, INC.		
Well	WERTH #3		
Field	OVERLAND NORTHEAST		
County	TREGO	State	KANSAS
Location:	SEC 7 TWP 14S RGE 25W		Other Services CDL/CNL/PE MEL
Permanent Datum	GROUND LEVEL	Elevation	2414
Log Measured From	KELLY BUSHING 5' A.G.L.		
Drilling Measured From	KELLY BUSHING		
Date	6/14/18		
Run Number	ONE		
Depth Driller	4350		
Depth Logger	4350		
Bottom Logged Interval	4348		
Top Log Interval	00		
Casing Driller	8 5/8"@217'		
Casing Logger	217		
Bit Size	7 7/8"		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 5,600 PPM	
Density / Viscosity	9.2/52		
pH / Fluid Loss	10.5/7.2		
Source of Sample	FLOWLINE		
Rim @ Meas. Temp	.650@90F		
Rmf @ Meas. Temp	.488@90F		
Rmc @ Meas. Temp	.780@90F		
Source of Rmf / Rmc	MEASUREMENT		
Rim @ BHT	.492@119F		
Time Circulation Stopped	2.5 HOURS		
Time Logger on Bottom	3:45 A.M.		
Maximum Recorded Temperature	119F		
Equipment Number	922339		
Location	HAYS, KANSAS		
Recorded By	JEFF LUEBBERS		
Witnessed By	BRAD RINE		

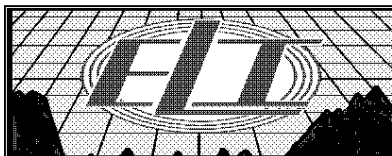
<<< Fold Here >>>

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 ELI WIRELINE HAYS, KANSAS (785) 628-6395
DIRECTIONS

(I-70 & COLLYER EXIT), 12S. ON "BANNER RD." TO "RD. U", 1W., N. INTO AT FIRST TANK BATTERY



MAIN SECTION

Database File: 2652ddn.db
Dataset Pathname: pass3.6
Presentation Format: dil2
Dataset Creation: Thu Jun 14 05:50:14 2018
Charted by: Depth in Feet scaled 1:600

0	Gamma Ray (GAPI)	150
-100	SP (mV)	100
0	RWA (Ohm-m)	1

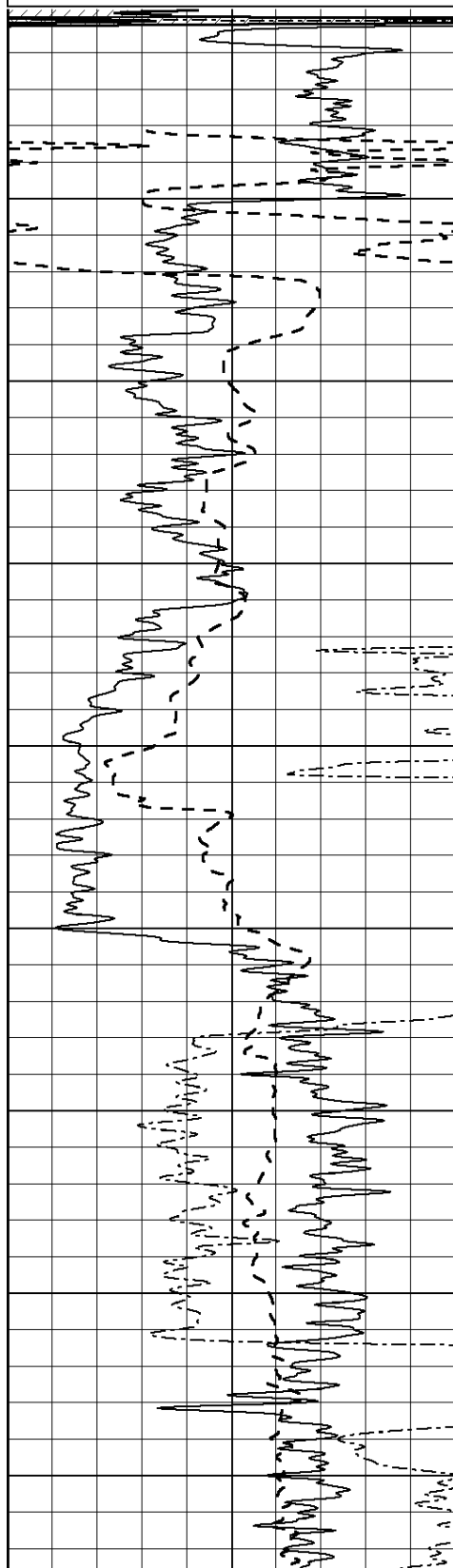
0	RLL3 (Ohm-m)	50
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0	RILD (Ohm-m)	50
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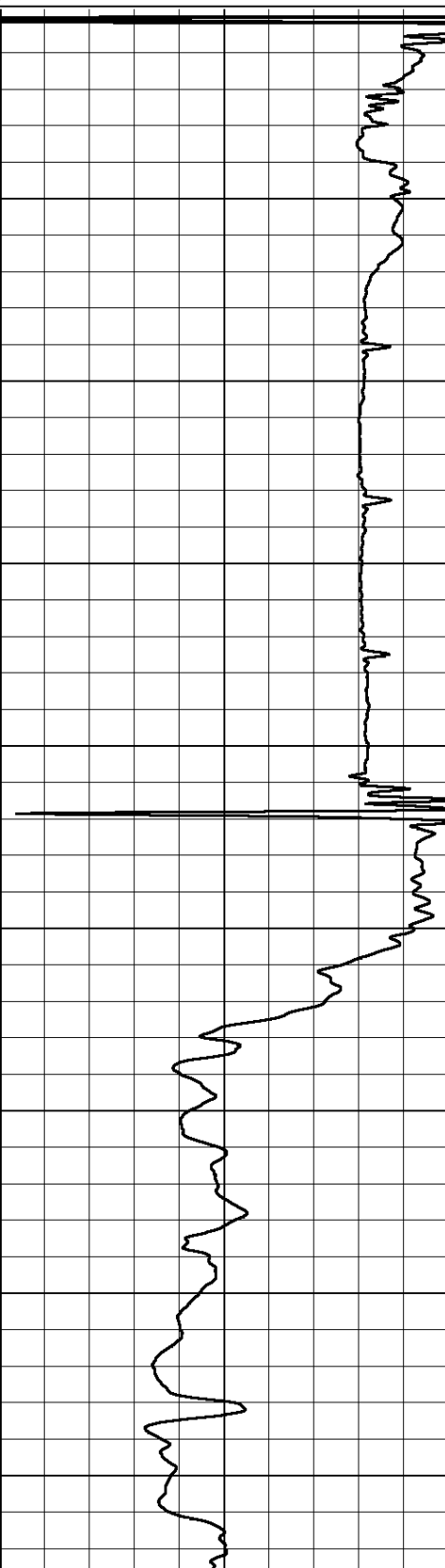
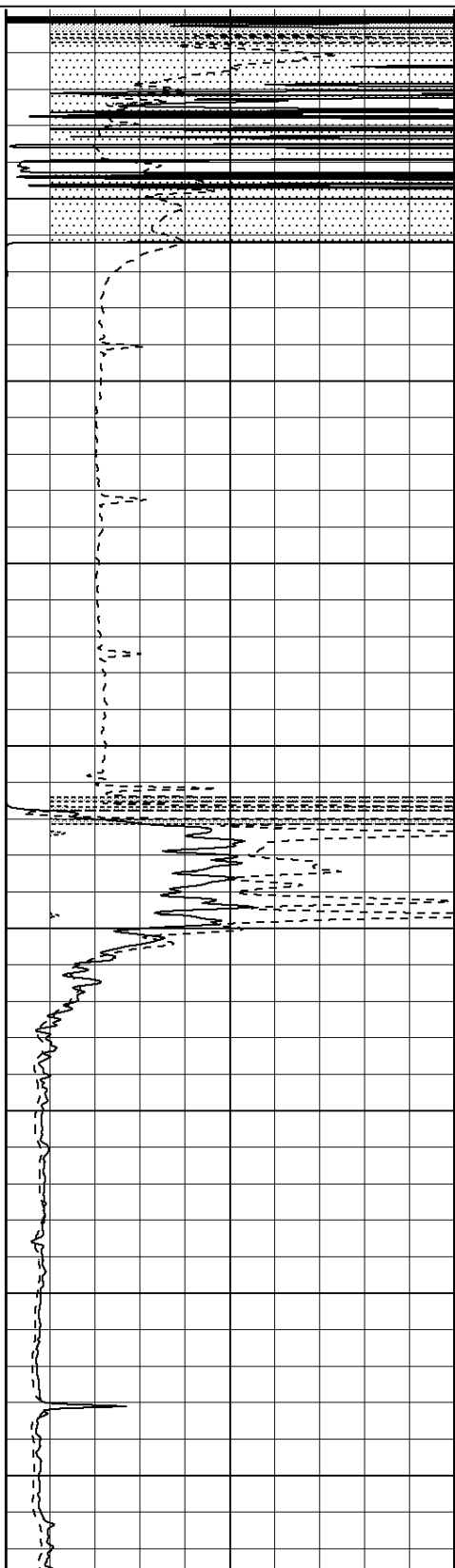
1000	CILD (mmho/m)	0
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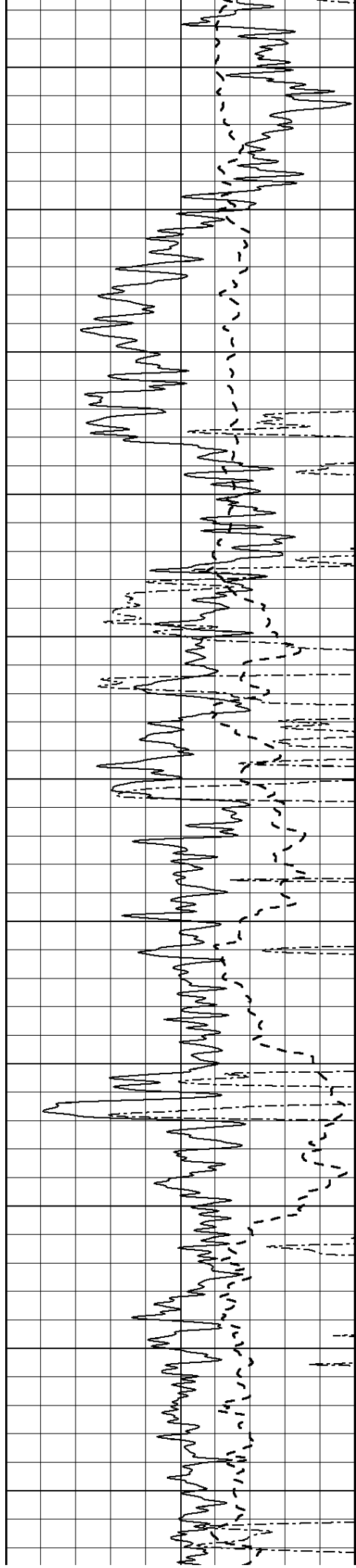
50	RILD X10 (Ohm-m)	500
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50	RLL3 X10 (Ohm-m)	500
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0
50
100
150
200
250
300
350
400





450

500

550

600

650

700

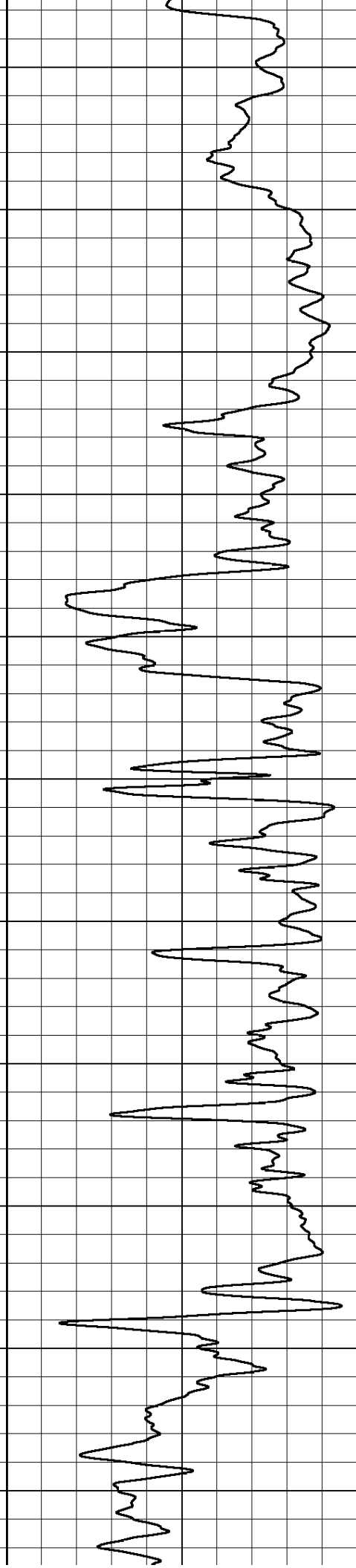
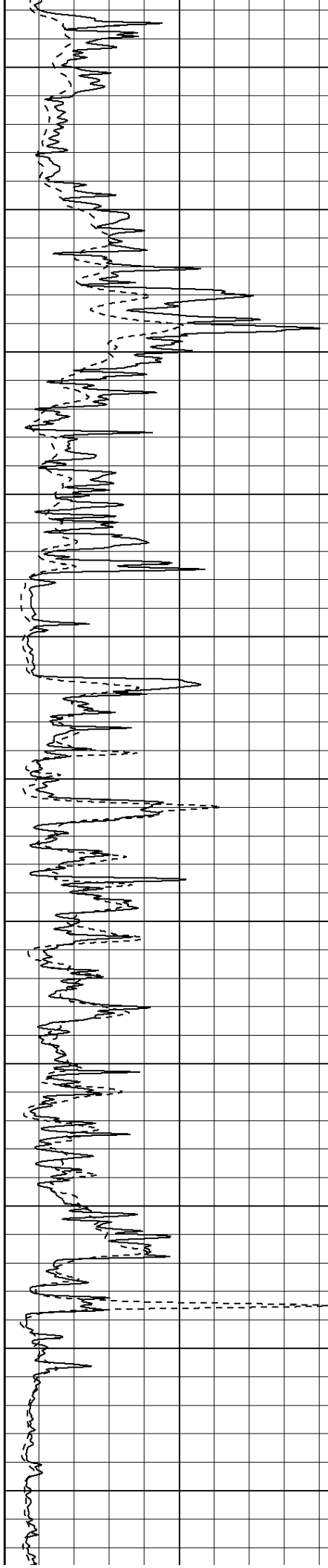
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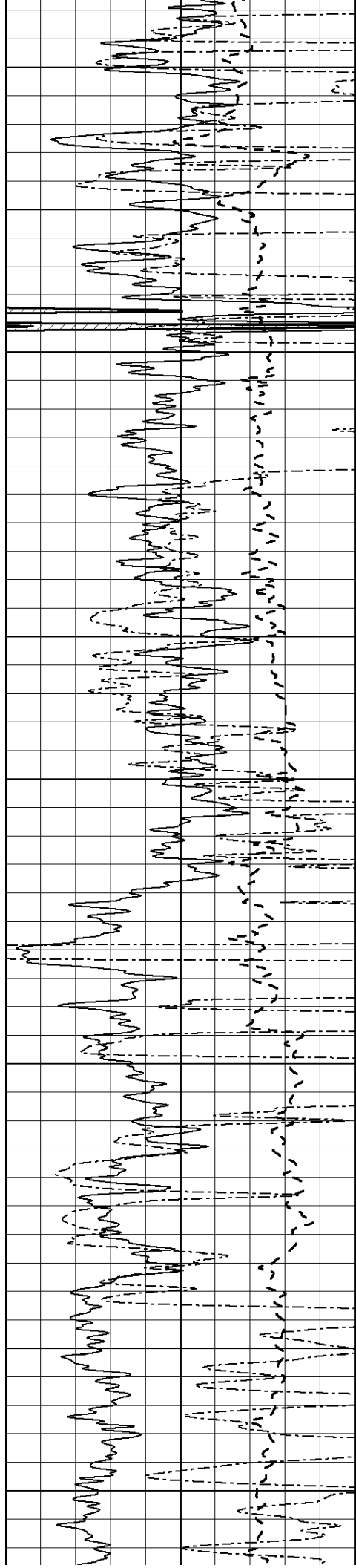
800

850

900

950





1000

1050

1100

1150

1200

1250

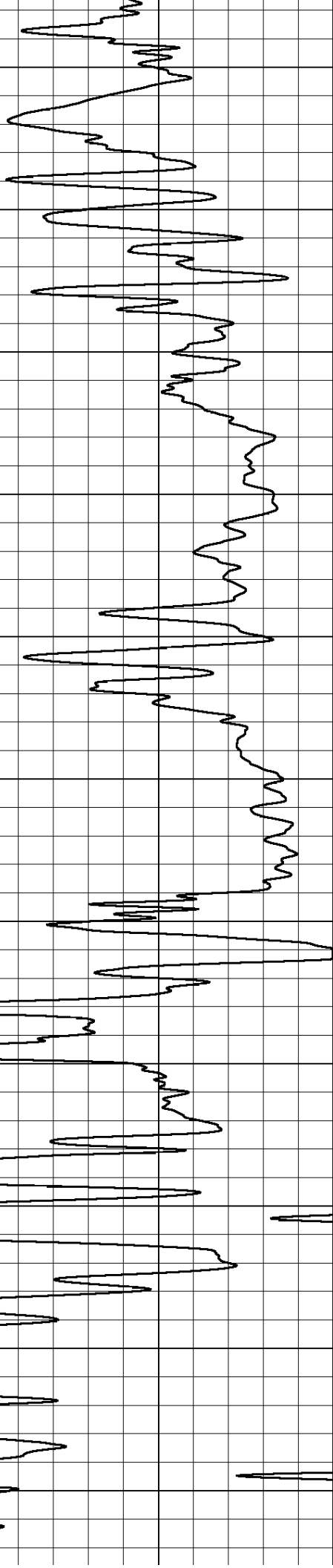
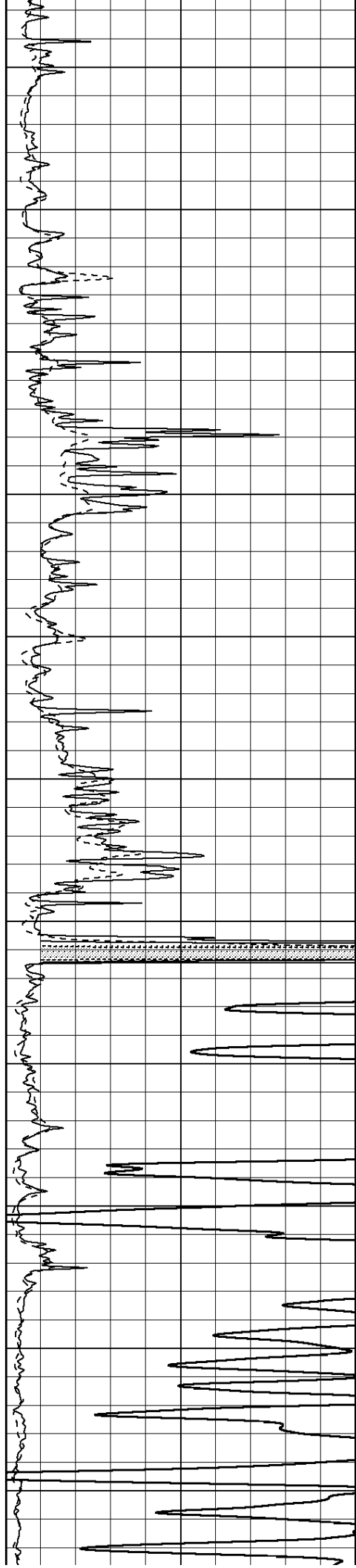
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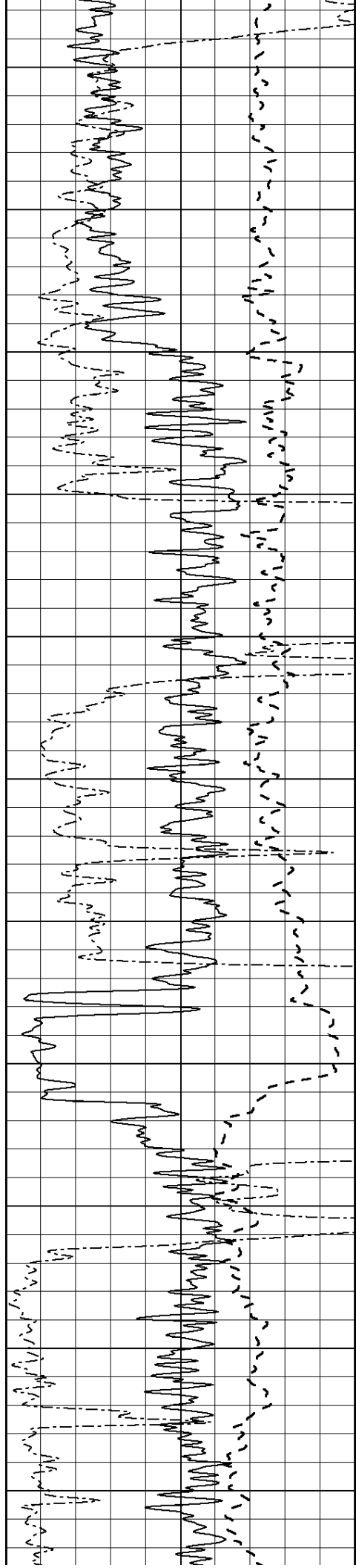
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1400

1450

1500





1550

1600

1650

1700

1750

1800

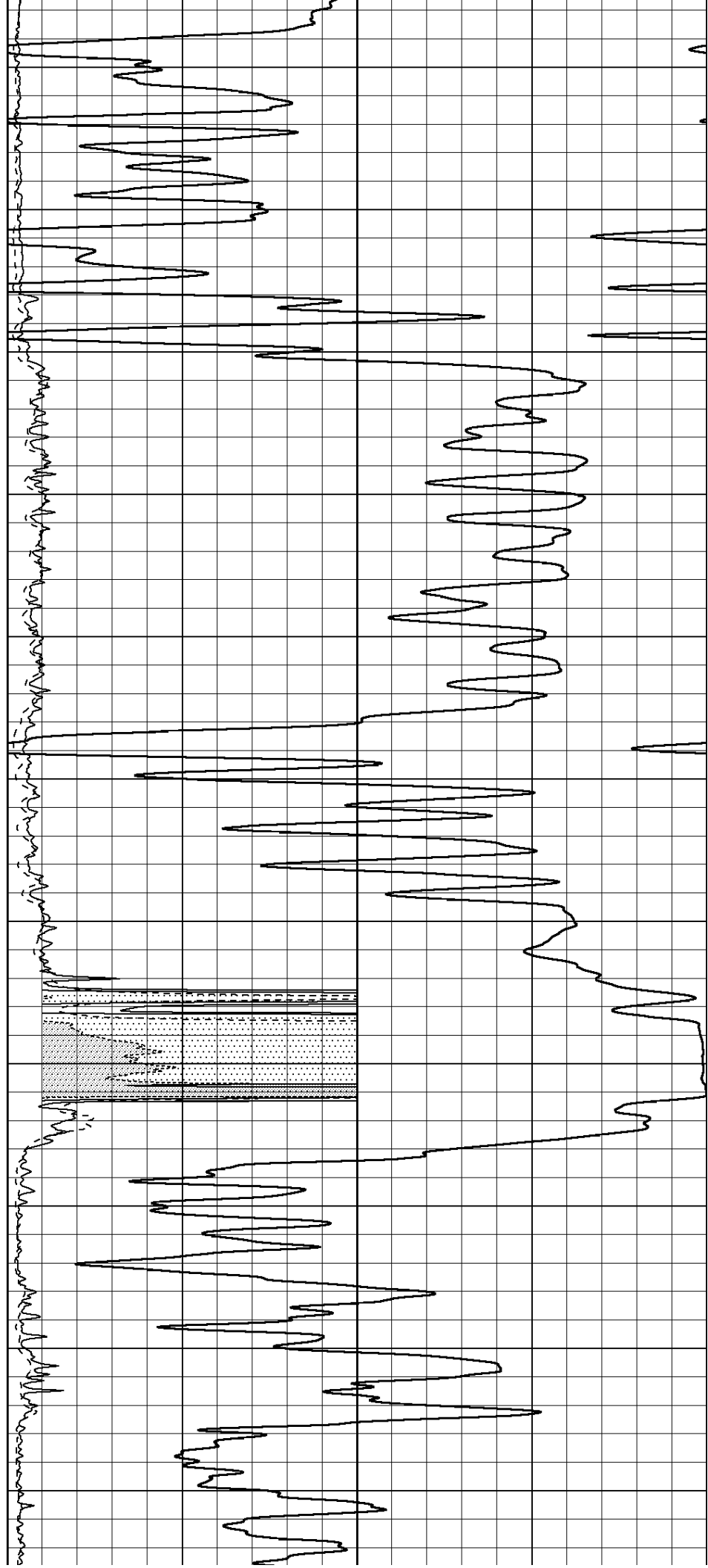
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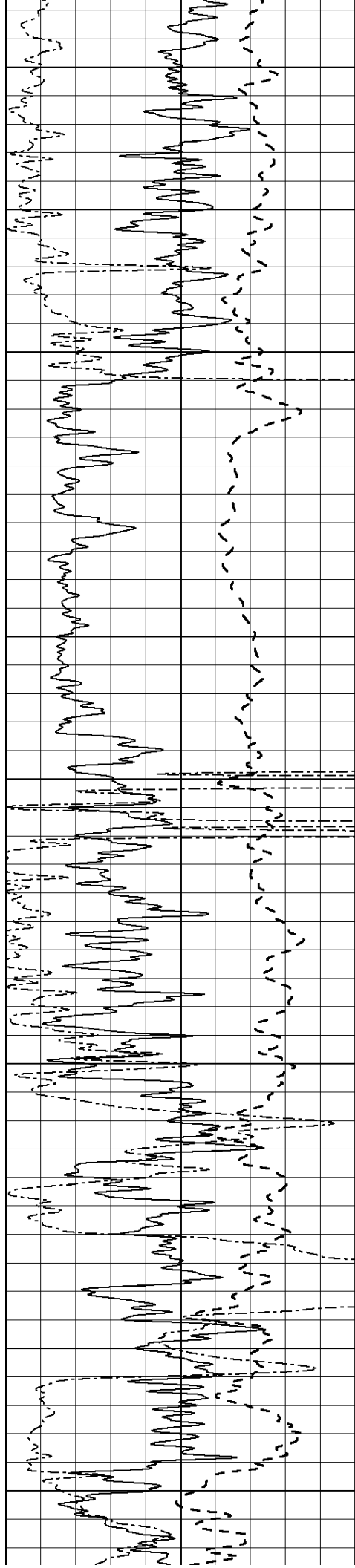
1900

1950

2000

2050





2100

2150

2200

2250

2300

2350

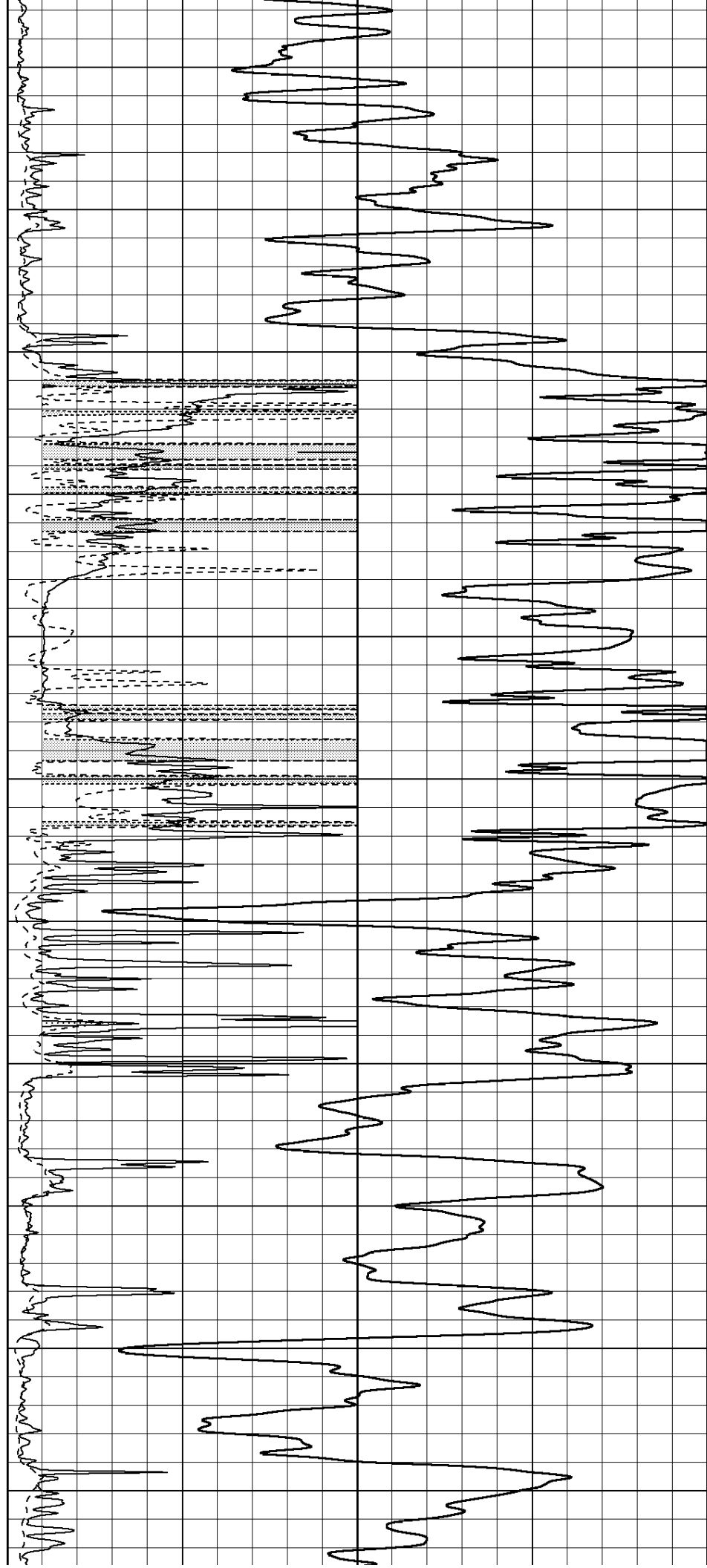
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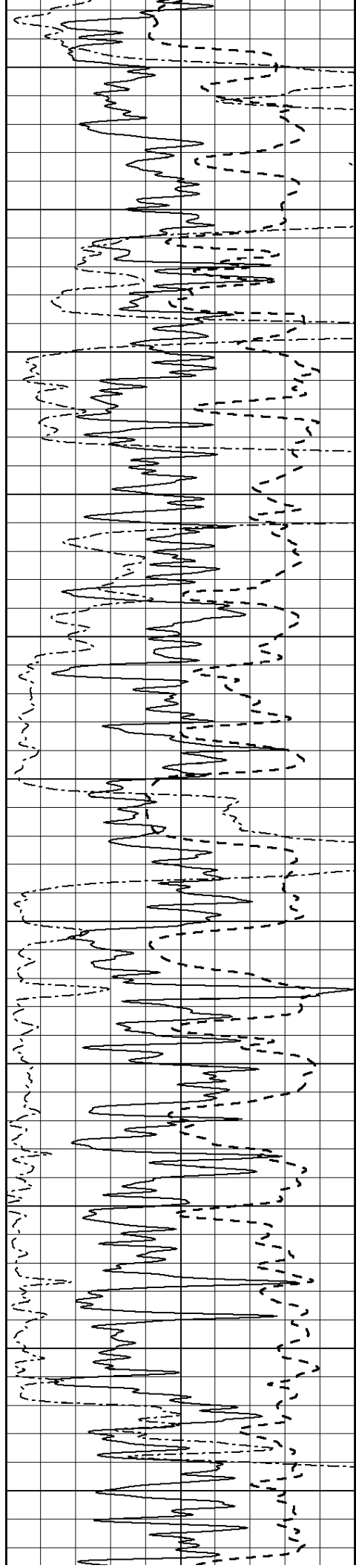
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2500

2550

2600





2650

2700

2750

2800

2850

2900

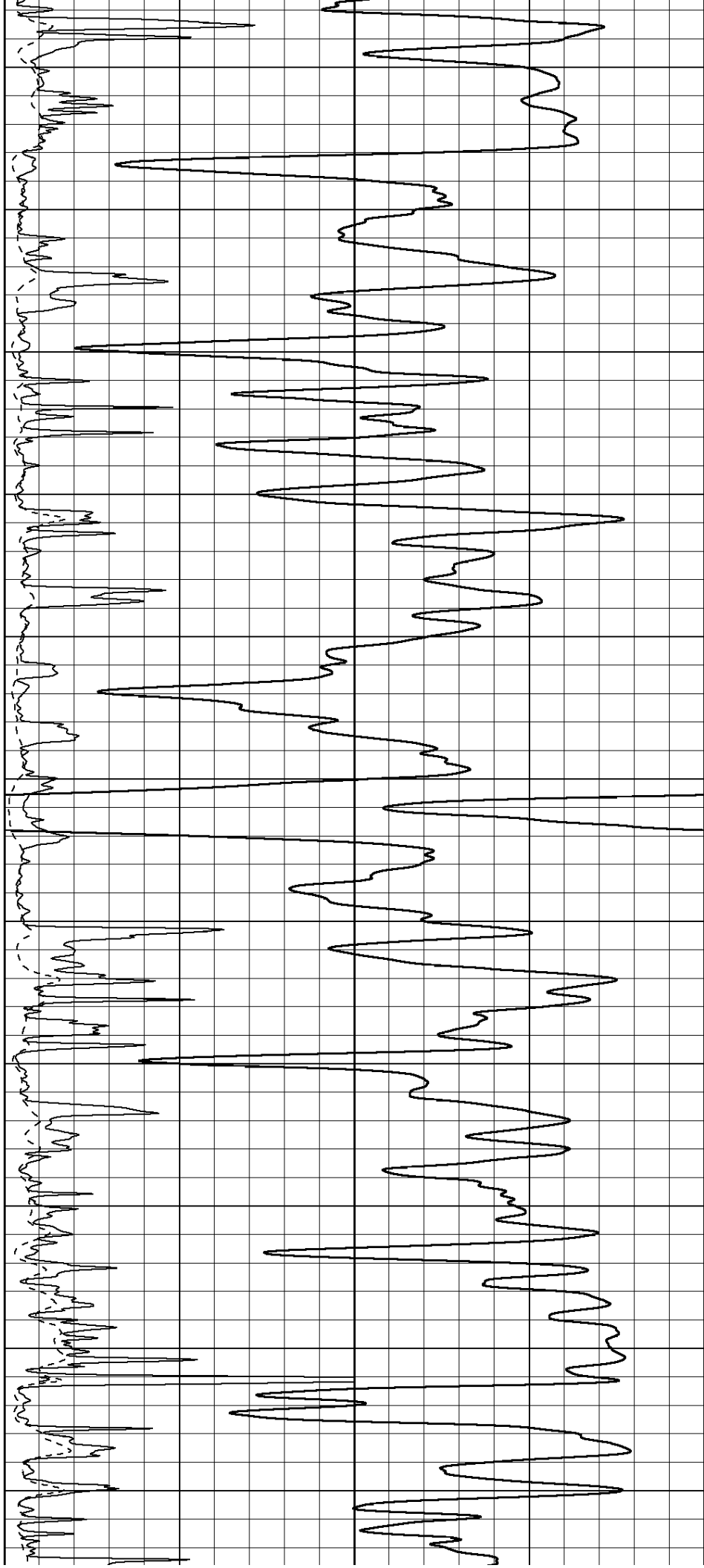
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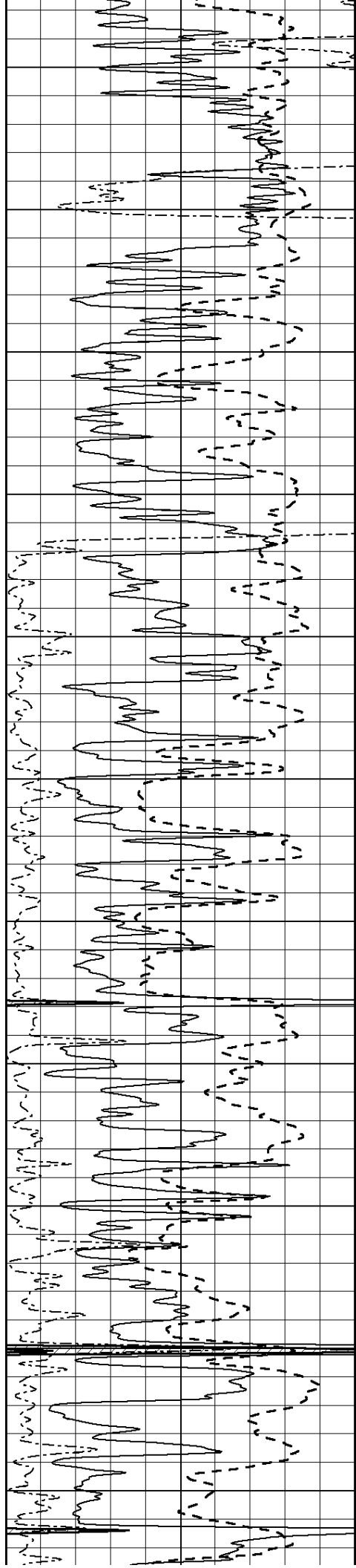
3000

3050

3100

3150





3200

3250

3300

3350

3400

3450

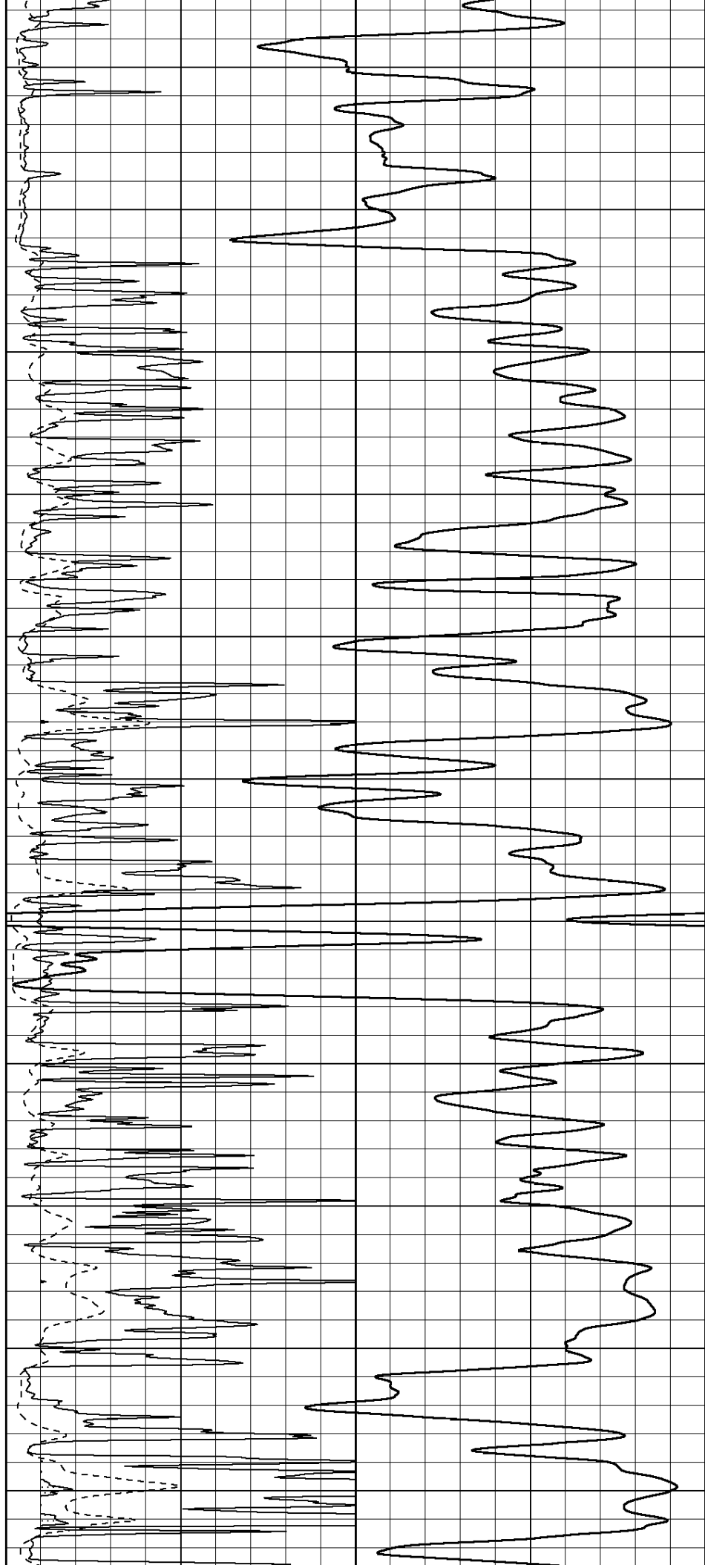
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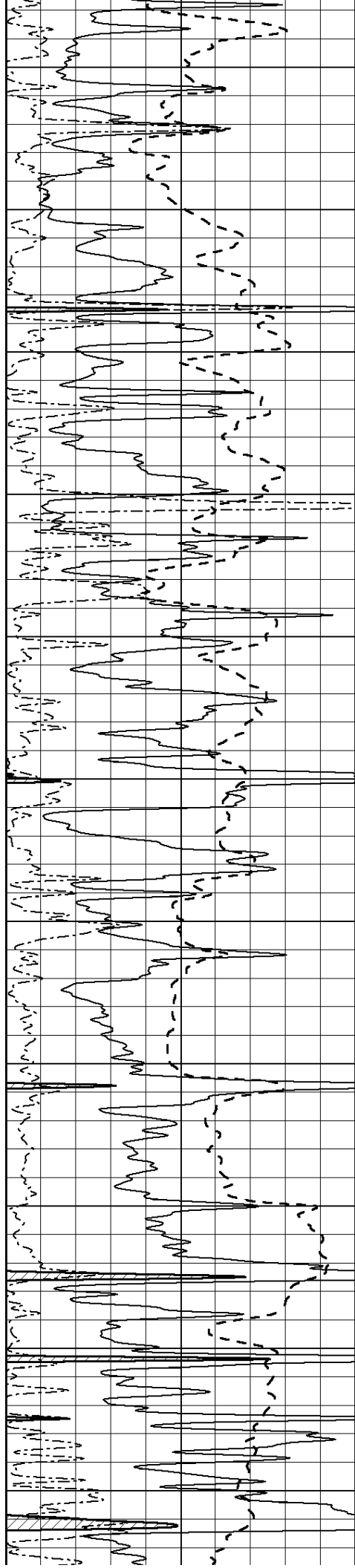
3550

3600

3650

3700





3750

3800

3850

3900

3950

4000

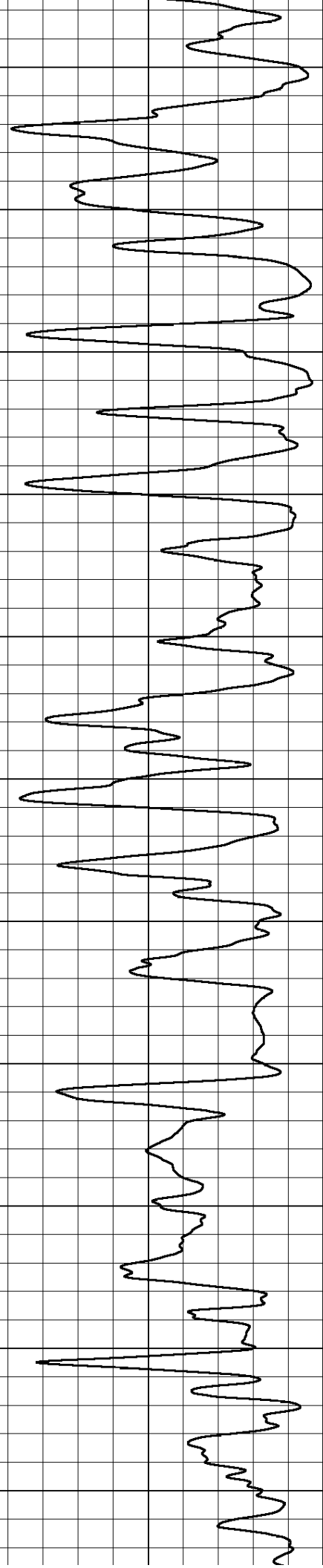
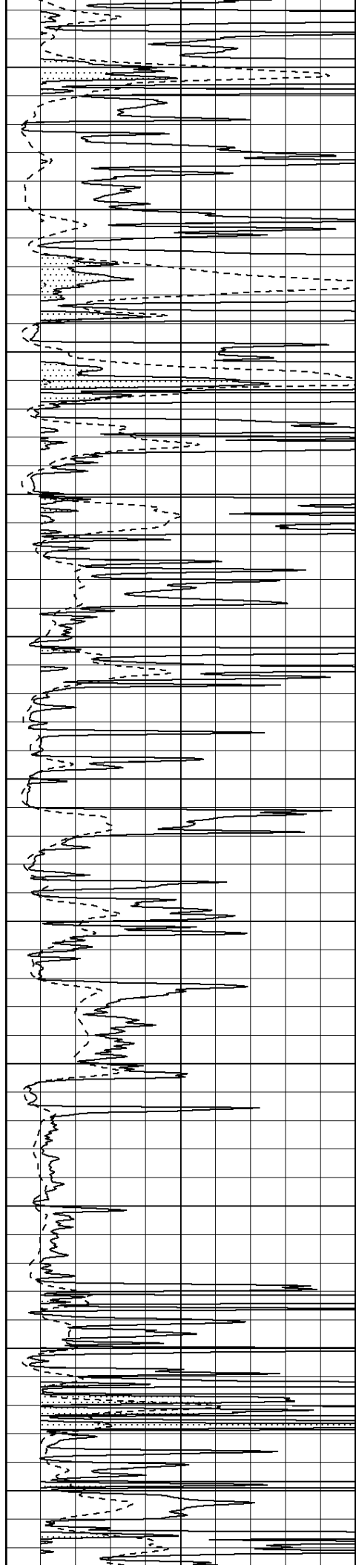
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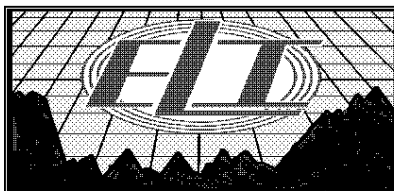
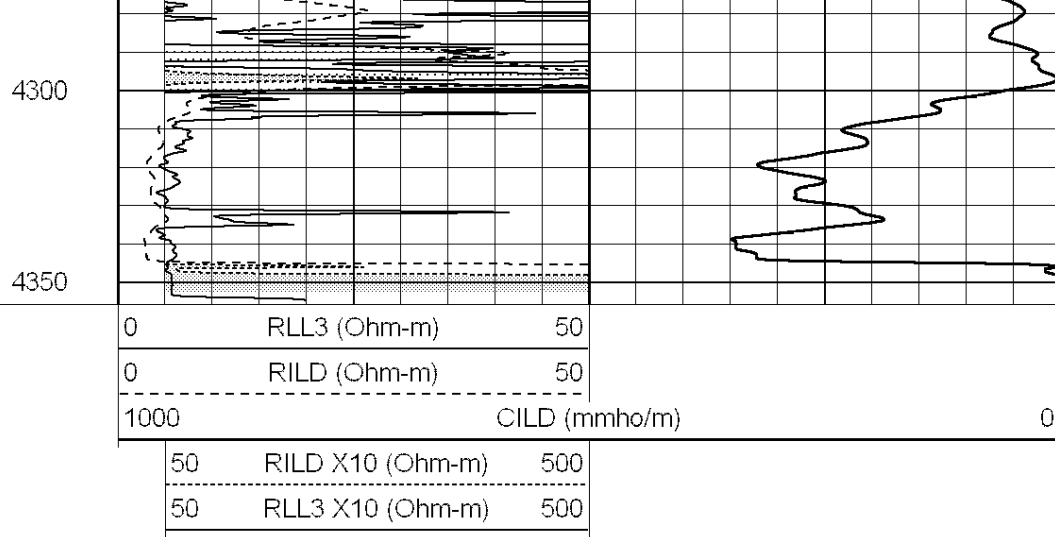
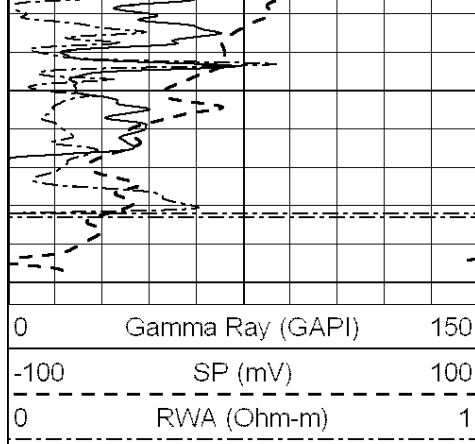
4100

4150

4200

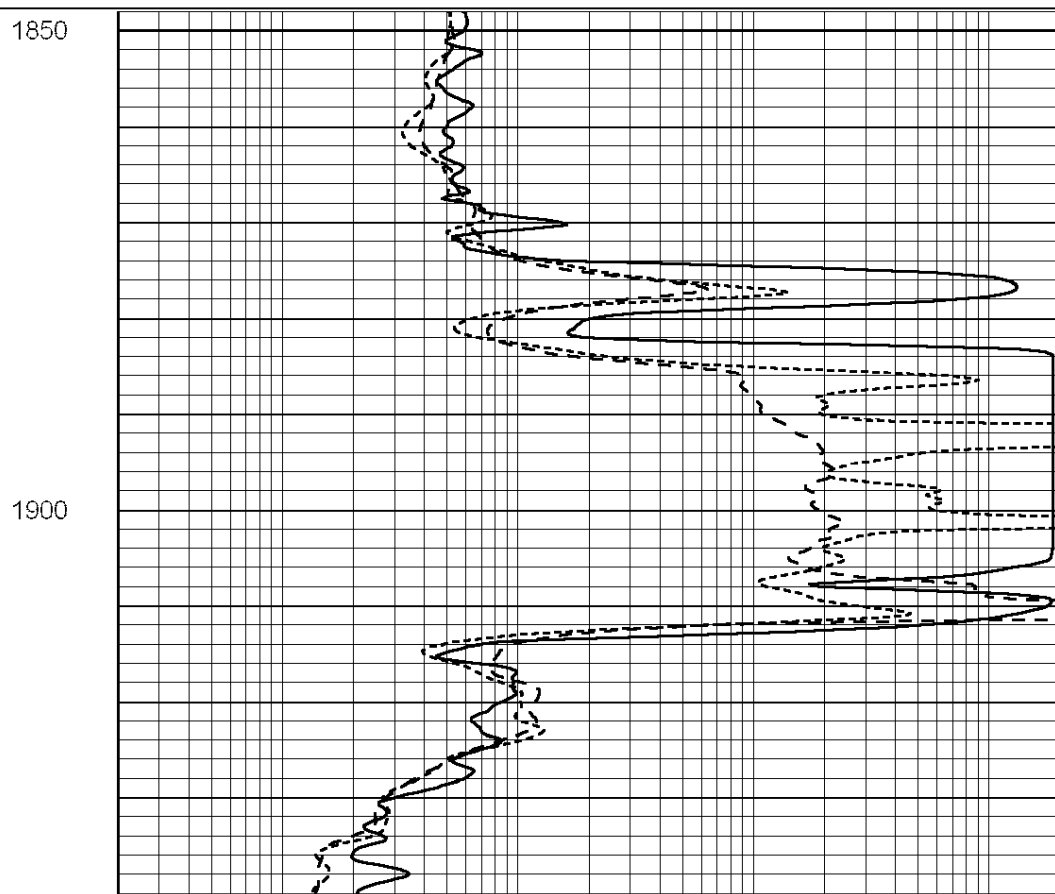
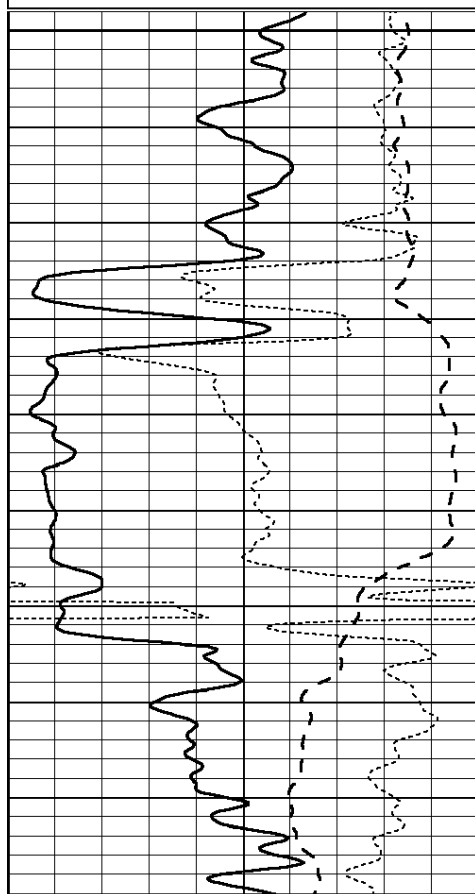
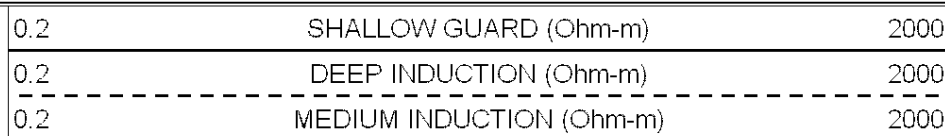
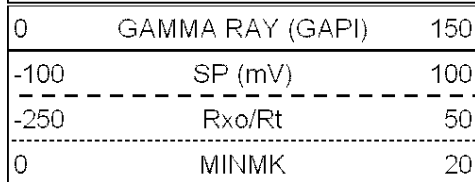
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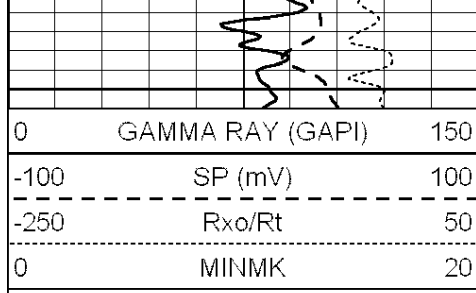




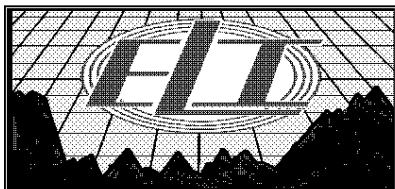
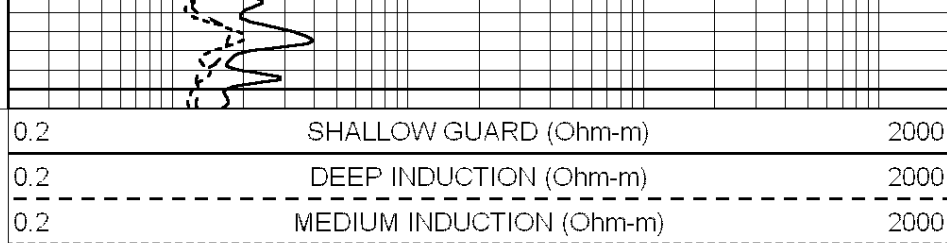
ANHYDRITE

Database File: 2652ddn.db
 Dataset Pathname: pass3.6A
 Presentation Format: _dil
 Dataset Creation: Thu Jun 14 05:50:30 2018
 Charted by: Depth in Feet scaled 1:240



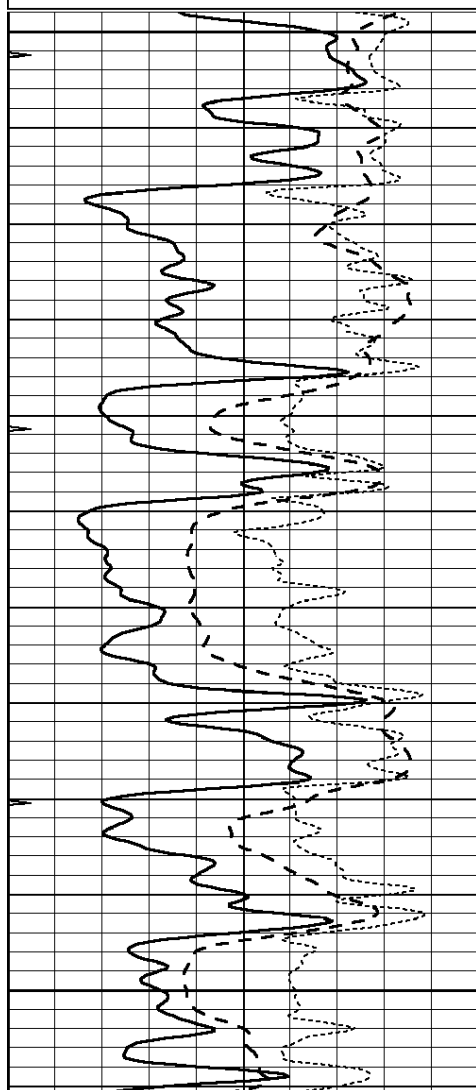
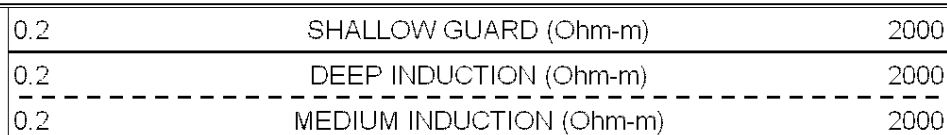
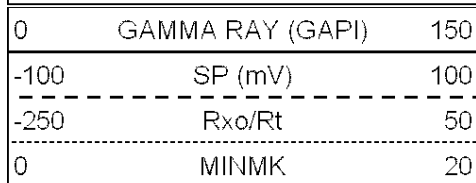


1950



MAIN SECTION

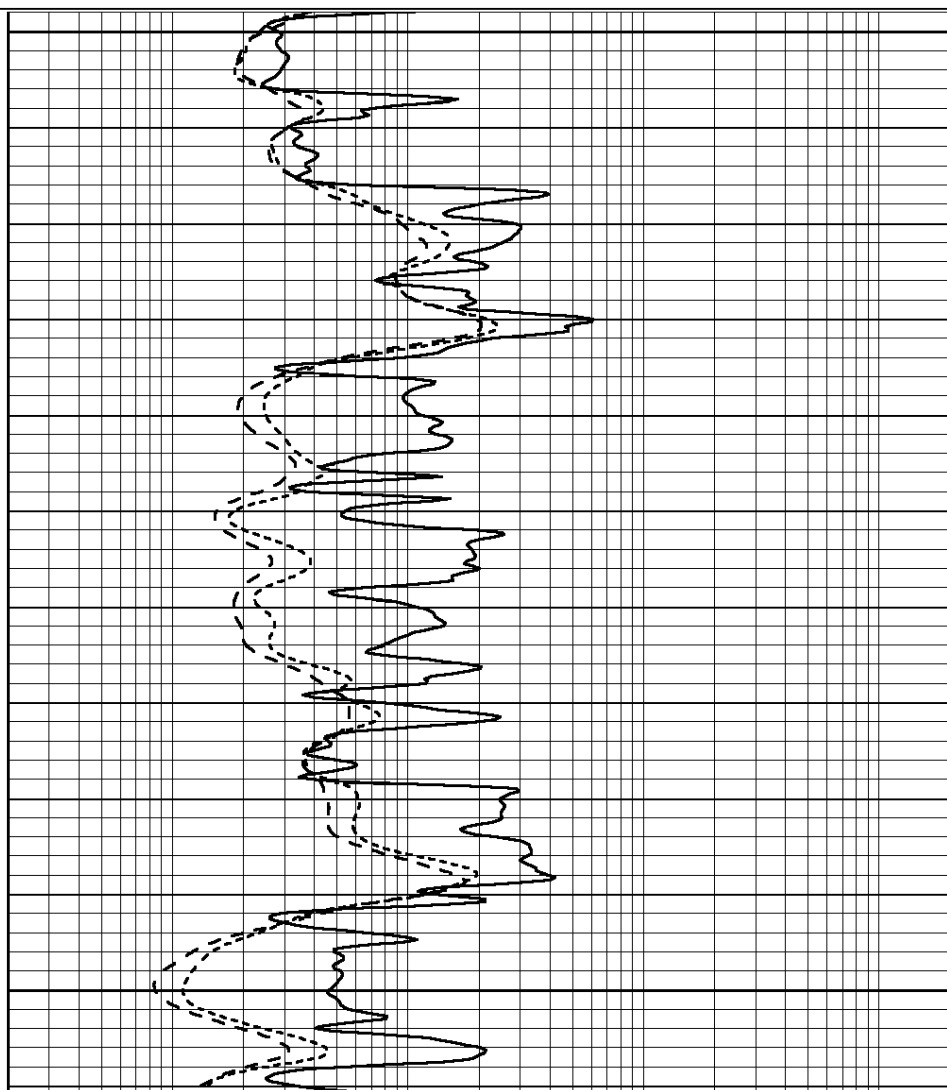
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 Presentation Format: _dil
 Dataset Creation: Thu Jun 14 05:50:14 2018
 Charted by: Depth in Feet scaled 1:240

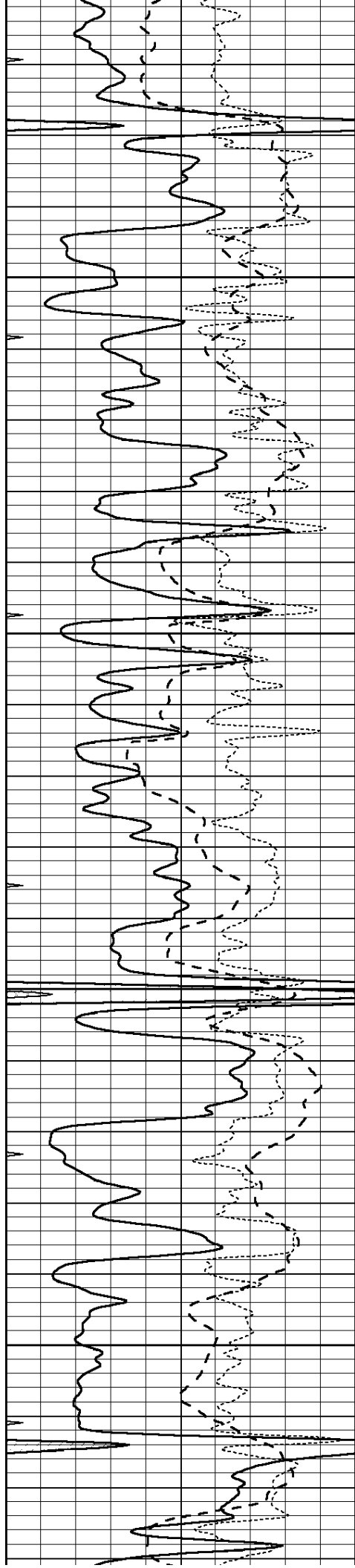


3400

3450

3500



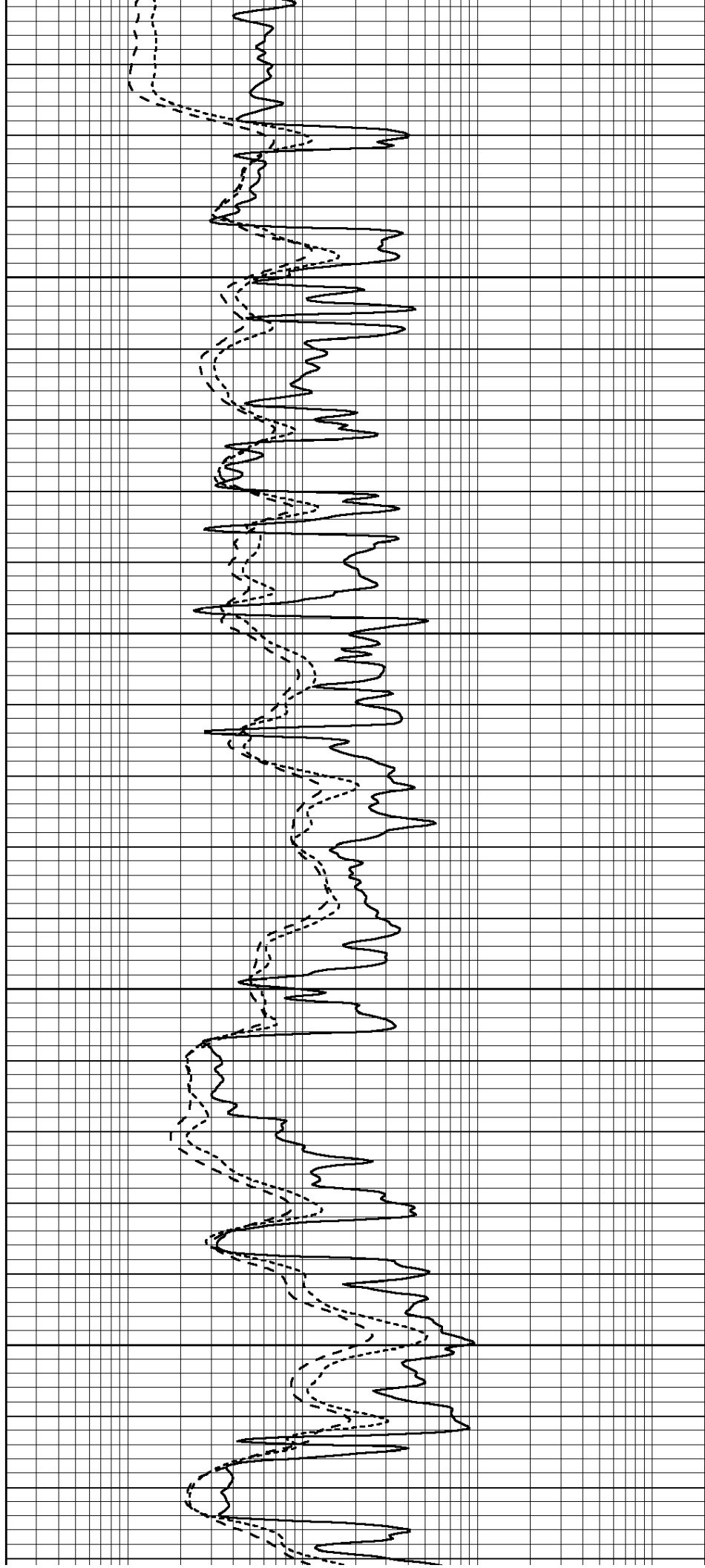


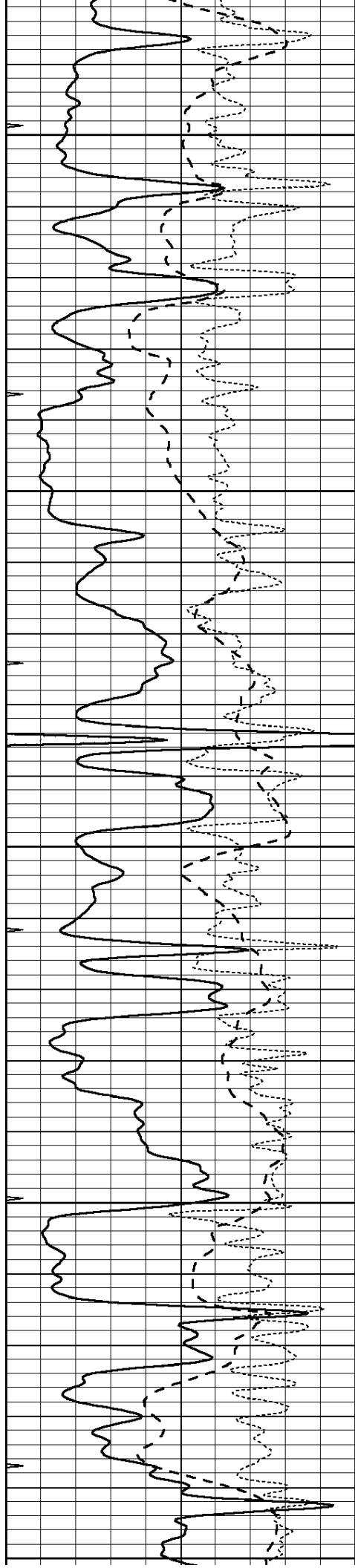
3550

3600

3650

3700





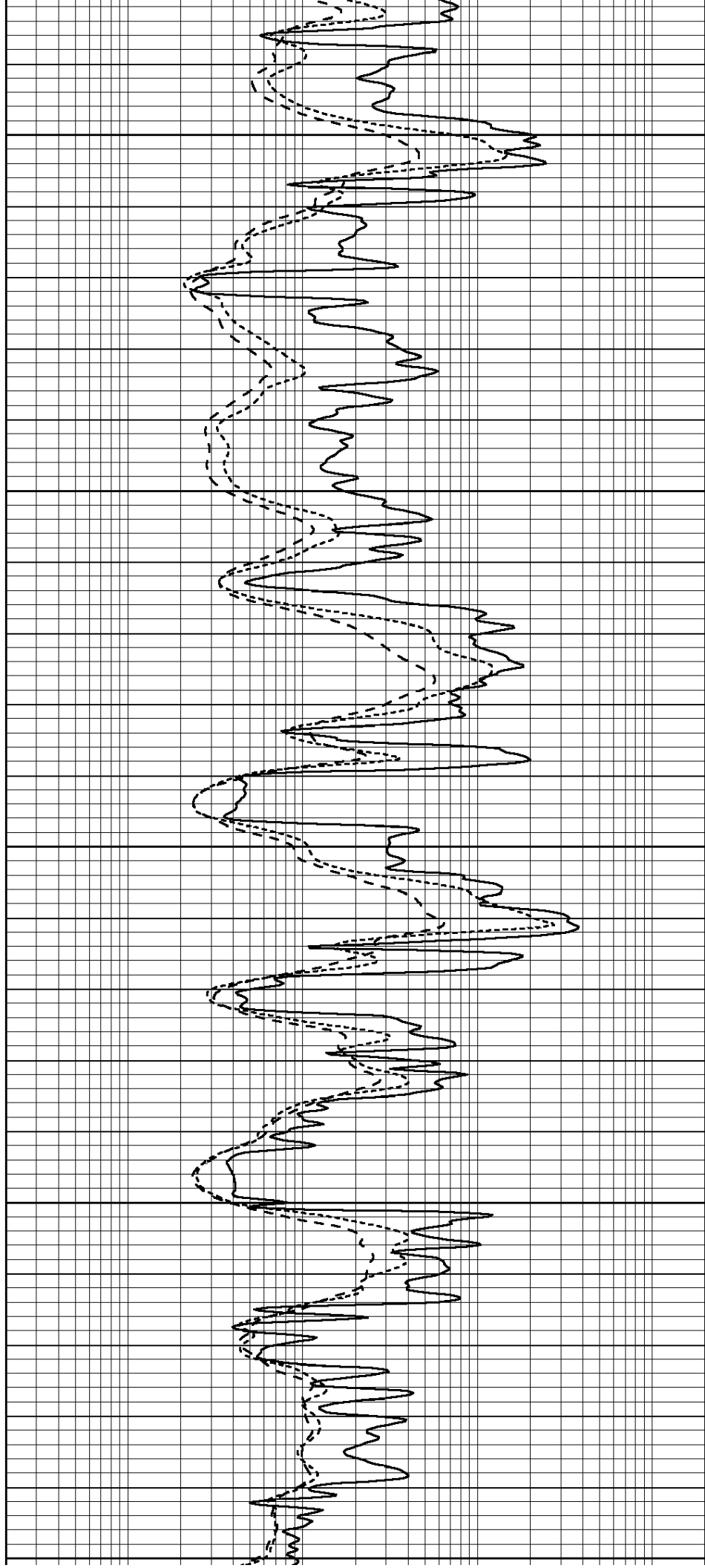
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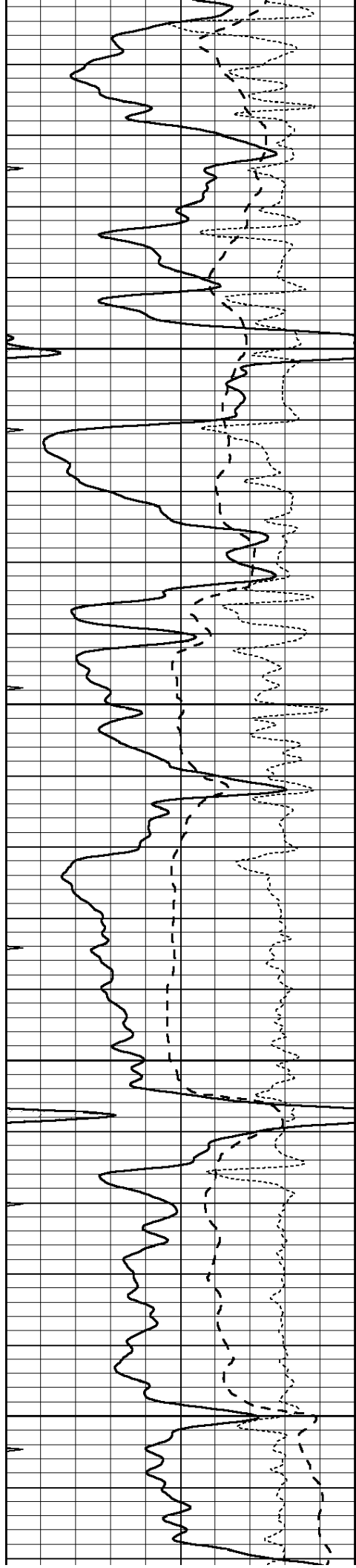
3800

3850

3900

3950



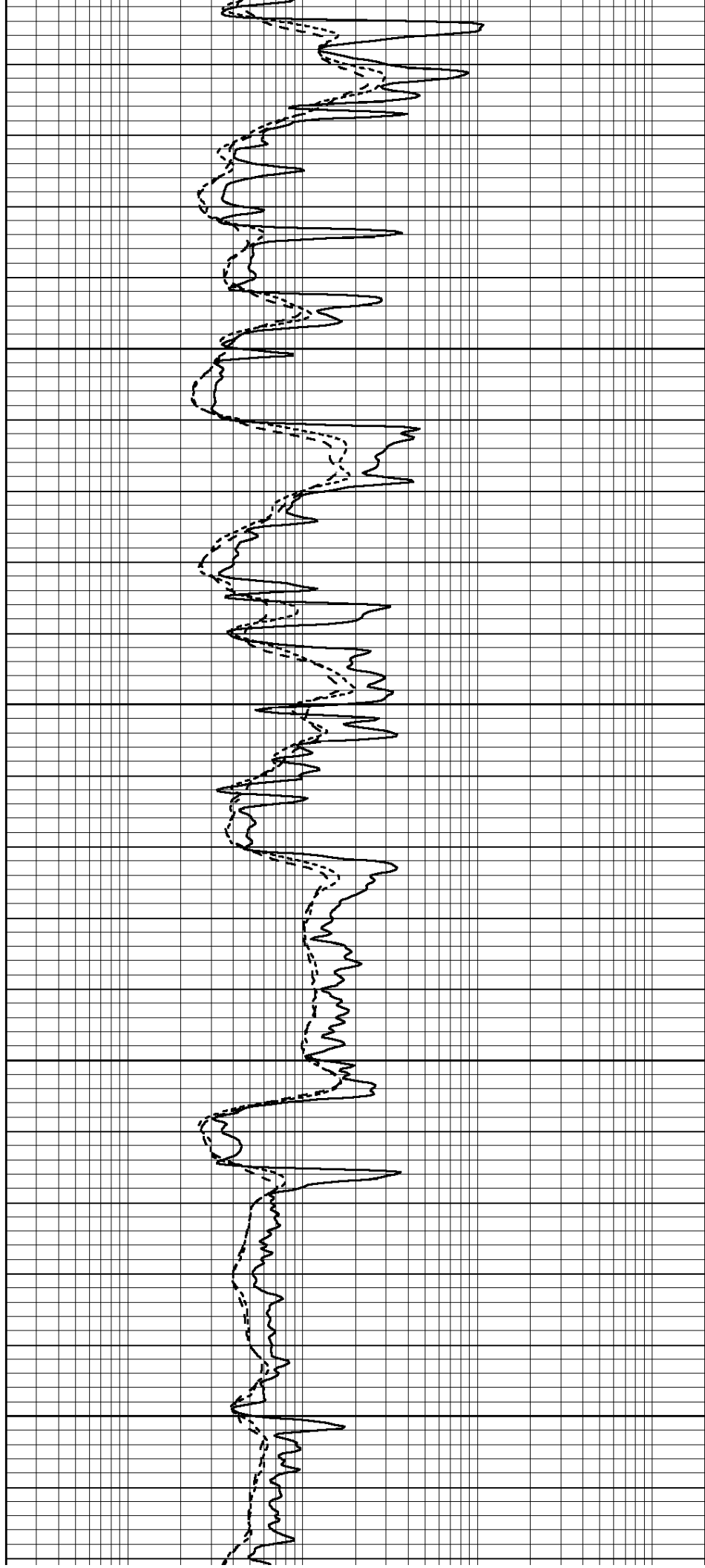


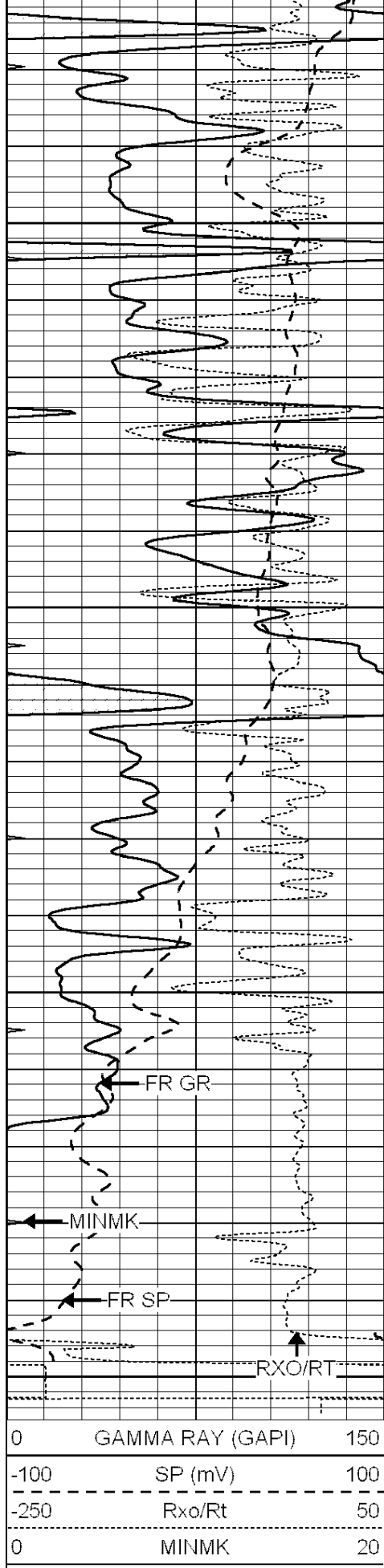
4000

4050

4100

4150





4200

4250

4300

4350

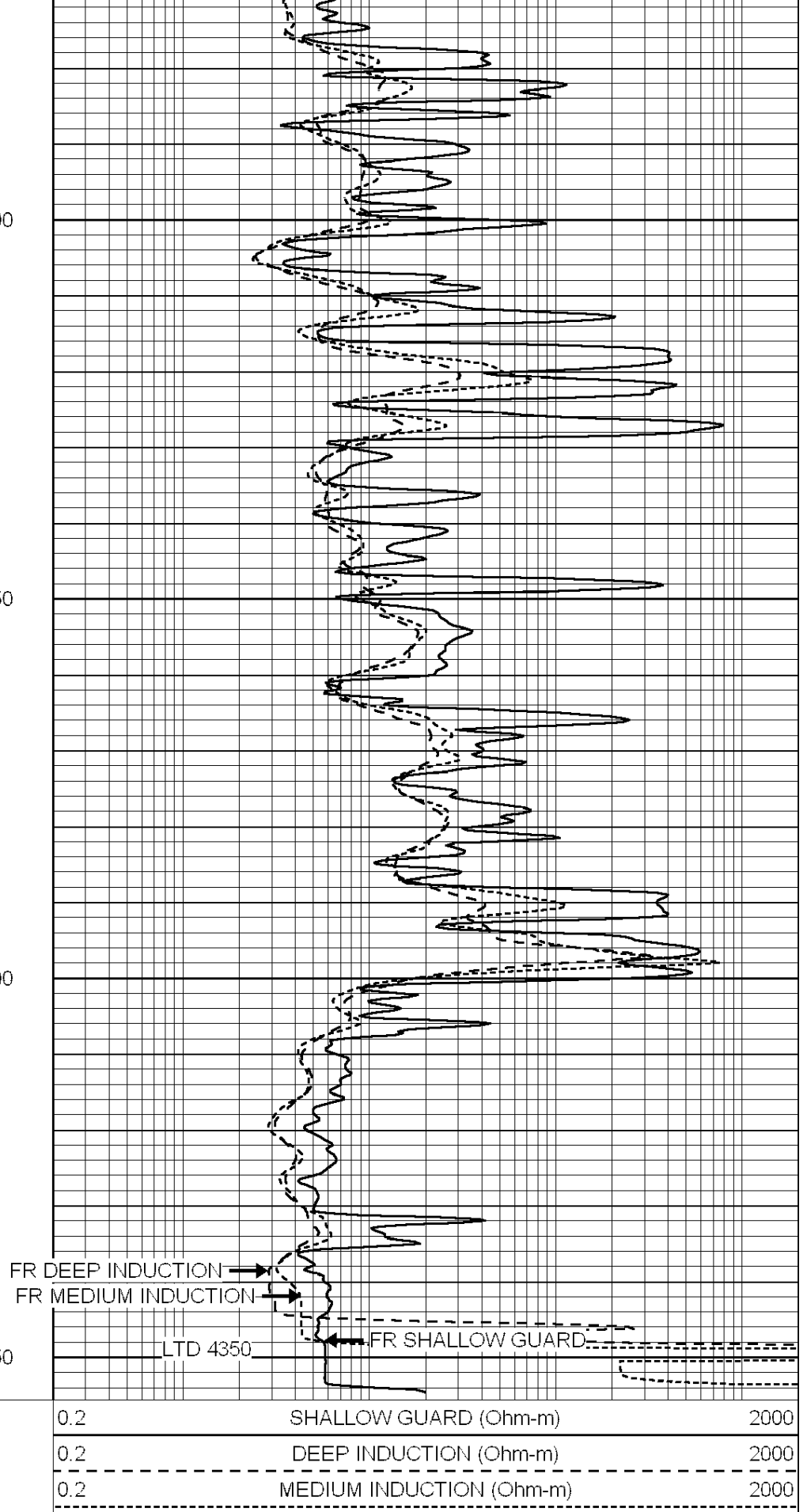
FR GR

MINMK

FR SP

Rxo/RT

0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	20



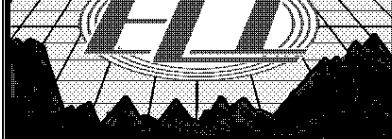
FR DEEP INDUCTION
FR MEDIUM INDUCTION

LTD 4350

FR SHALLOW GUARD

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



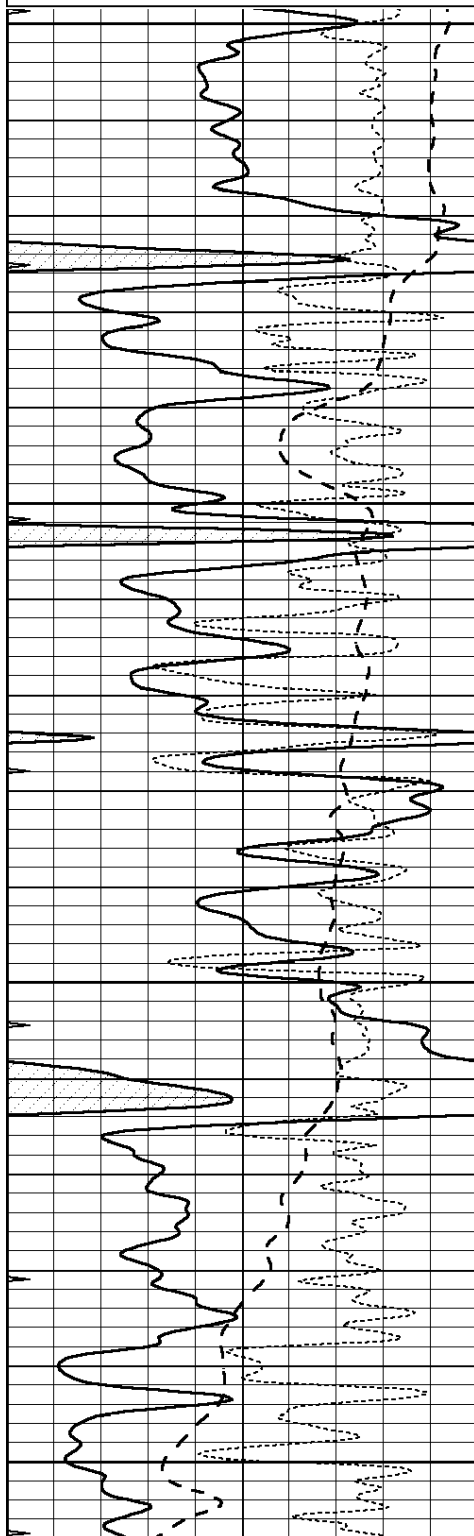


REPEAT SECTION

Database File: 2652ddn.db
Dataset Pathname: pass2.3
Presentation Format: _dil
Dataset Creation: Thu Jun 14 03:55:53 2018 by Calc SOC 120430
Charted by: Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	20

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

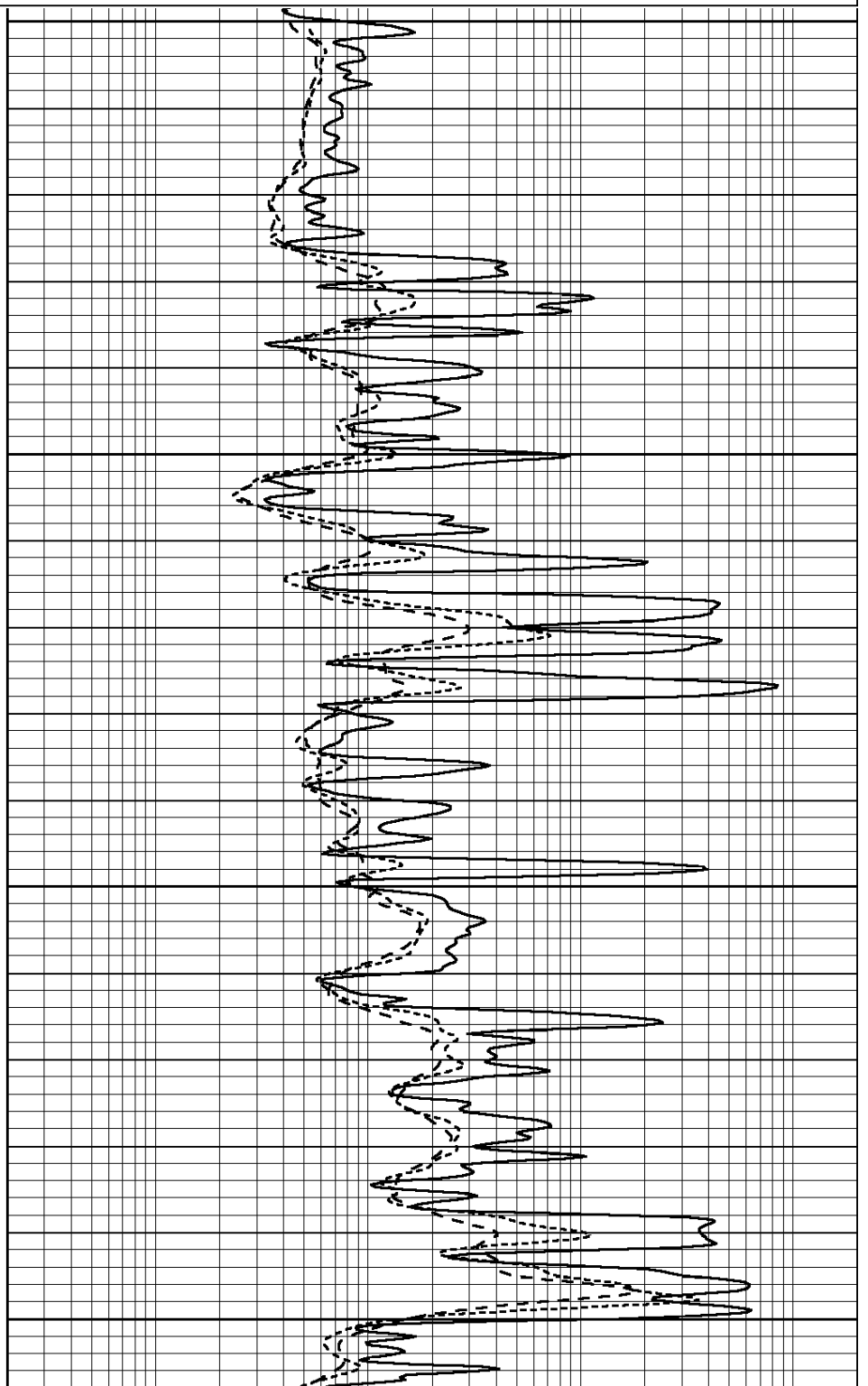


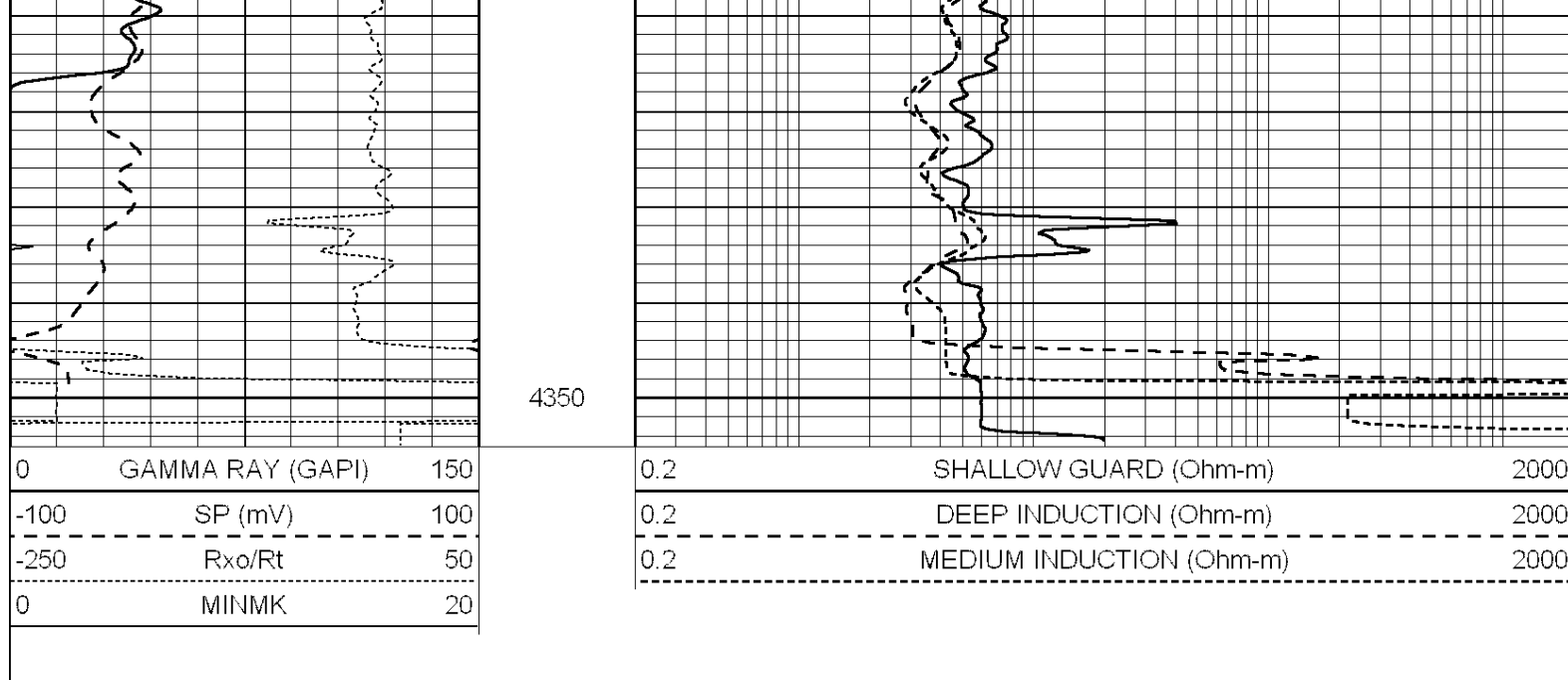
4150

4200

4250

4300





Calibration Report

Database File: 1598ddn.db
 Dataset Pathname: pass4
 Dataset Creation: Wed Aug 30 02:13:00 2017 by Log SOC 120430

Dual Induction Calibration Report

Serial-Model: PROBE7-DILG
 Surface Cal Performed: Wed Aug 30 00:06:33 2017
 Downhole Cal Performed: Mon Jul 28 12:02:56 2008
 After Survey Verification Performed: Mon Jul 28 12:02:56 2008

Surface Calibration

Loop:	Readings			References			Results	
	Air	Loop		Air	Loop		m	b
Deep	-0.014	0.629	V	0.000	400.000	mmho/m	620.000	0.000
Medium	0.039	0.728	V	0.000	464.000	mmho/m	675.000	-44.000
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		4000.000	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		

POST-SURVEY VERIFICATION			
Detector	Readings	Measured	Target
SL-100			

Short Space	cps		
Long Space	cps	pu	pu
Gamma Ray Calibration Report			
Serial Number:	070558		
Tool Model:	OPEN_GR		
Performed:	Wed May 31 00:09:32 2017		
Calibrator Value:	1.0	GAPI	
Background Reading:	0.0	cps	
Calibrator Reading:	1.0	cps	
Sensitivity:	0.2800	GAPI/cps	