



NABORS

**COMPLETION
& PRODUCTION
SERVICES CO.**

**DUAL INDUCTION
LOG**

Company	RITCHIE EXPLORATION, INC.		
Well	#1 FRANCE		
Field	WILDCAT		
County	WICHITA	State	KANSAS
Location:	API # : 15-203-20280-0000		Other Services
	1720' FSL & 1335' FEL		CDL/CNL
	70' N. & 15' W. OF S/2 - N/2 - SE		
	SEC 10 TWP 17S RGE 35W		
Permanent Datum	GROUND LEVEL	Elevation	3109
Log Measured From	KELLY BUSHING 5' A.G.L.		
Drilling Measured From	KELLY BUSHING	Elevation	K.B. 3114 D.F. 3112 G.L. 3109
Date	8/25/14		
Run Number	ONE		
Depth Driller	4935		
Depth Logger	4935		
Bottom Logged Interval	4933		
Top Log Interval	00		
Casing Driller	8 5/8"@253'		
Casing Logger	253		
Bit Size	7 7/8"		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 7,000 PPM	
Density / Viscosity	9.4/59		
pH / Fluid Loss	10.0/8.8		
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	.472@124F		
Time Circulation Stopped	2.5 HOURS		
Time Logger on Bottom	5:30 P.M.		
Maximum Recorded Temperature	124F		
Equipment Number	4854		
Location	HAYS, KANSAS		
Recorded By	JEFF LUEBBERS		
Witnessed By	TED JOCHEMS		

<<< 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 "NABORS" HAYS, KANSAS (785) 628-6395
DIRECTIONS

MARIENTHAL, KS., W. SIDE ON HWY 96 TO "RD. 20", 6N. TO "RD. J", 2E., 1 1/4 N. INTO PASTURE, 3/4E. I



NABORS

**COMPLETION
& PRODUCTION**

MAIN SECTION

Database File:

24570ddn.db

Dataset Pathname:

pass3.9

Presentation Format:

dil2

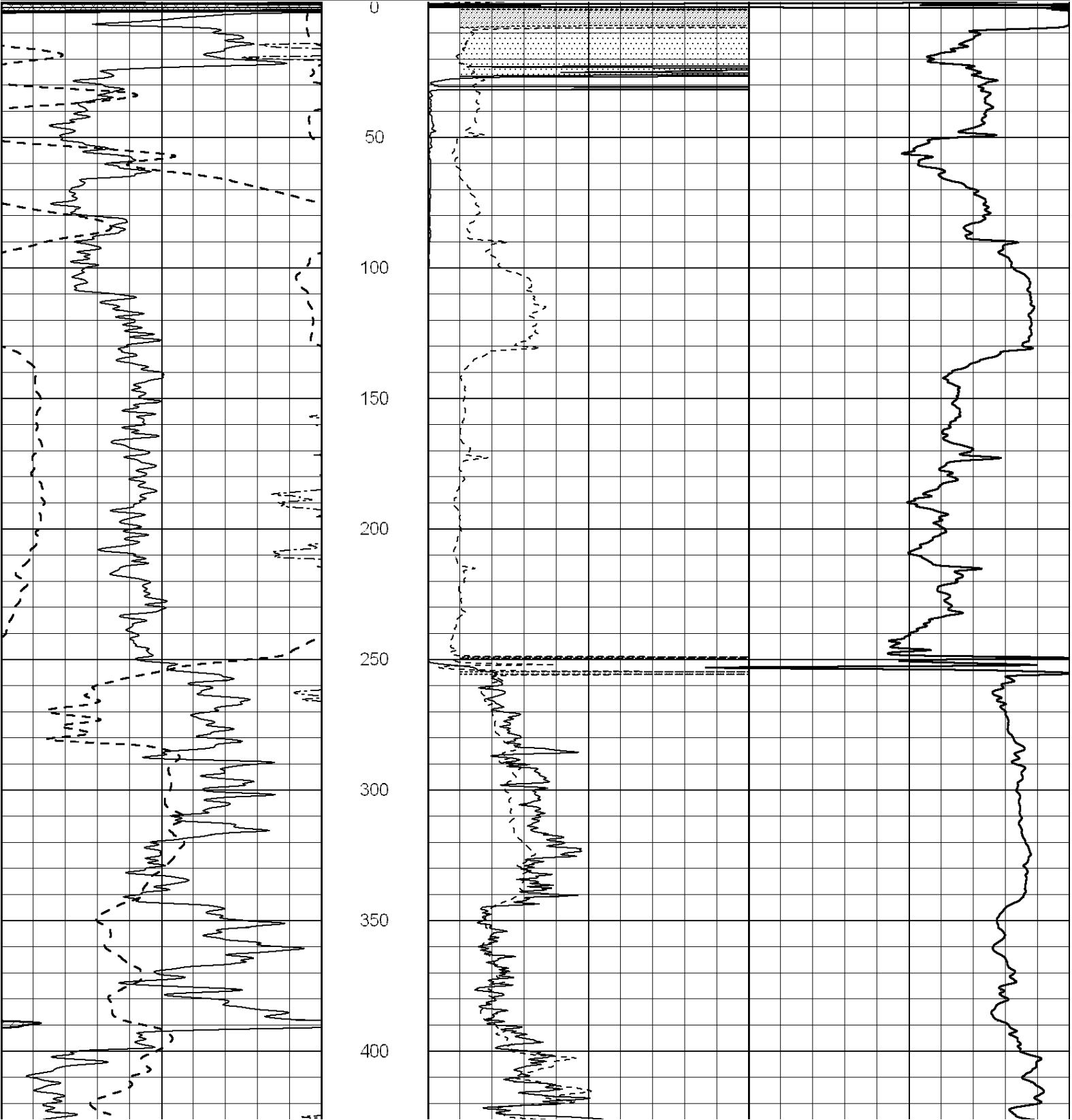
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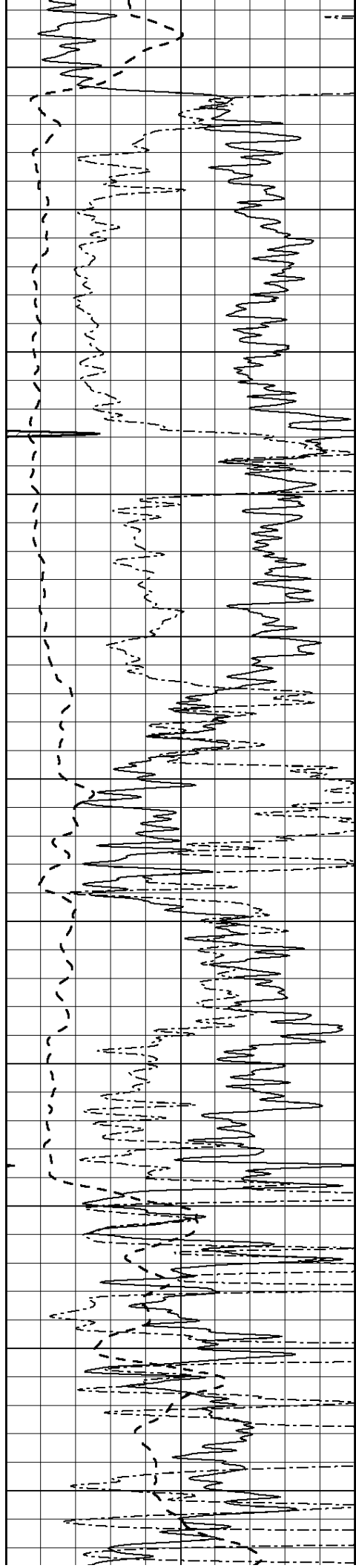
Mon Aug 25 19:27:01 2014

Charted by:

Depth in Feet scaled 1:600

0	Gamma Ray (GAPI)	150	0	RLL3 (Ohm-m)	50	
-100	SP (mV)	100	0	RILD (Ohm-m)	50	
0	RWA (Ohm-m)	1	1000		CILD (mmho/m)	0
			50	RILD X10 (Ohm-m)	500	
			50	RLL3 X10 (Ohm-m)	500	





450

500

550

600

650

700

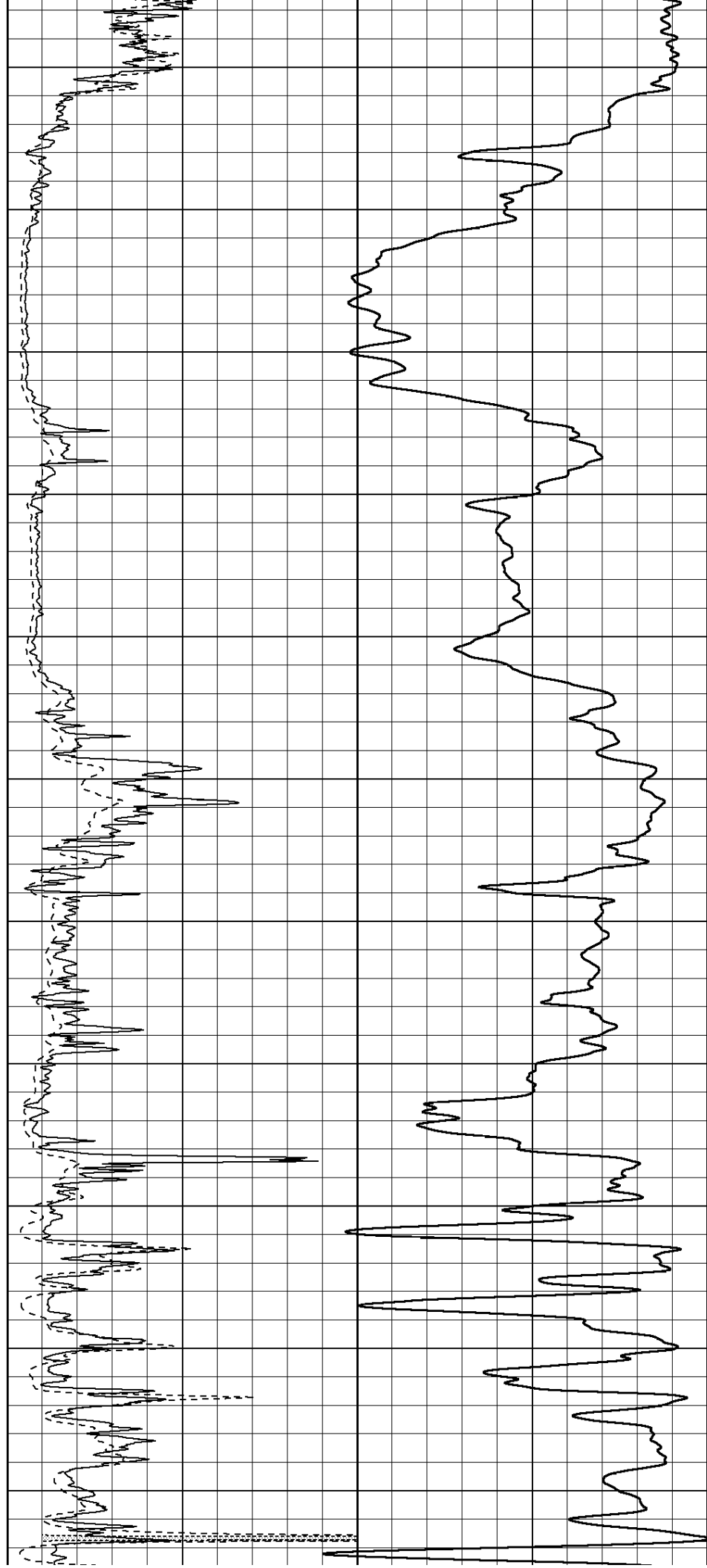
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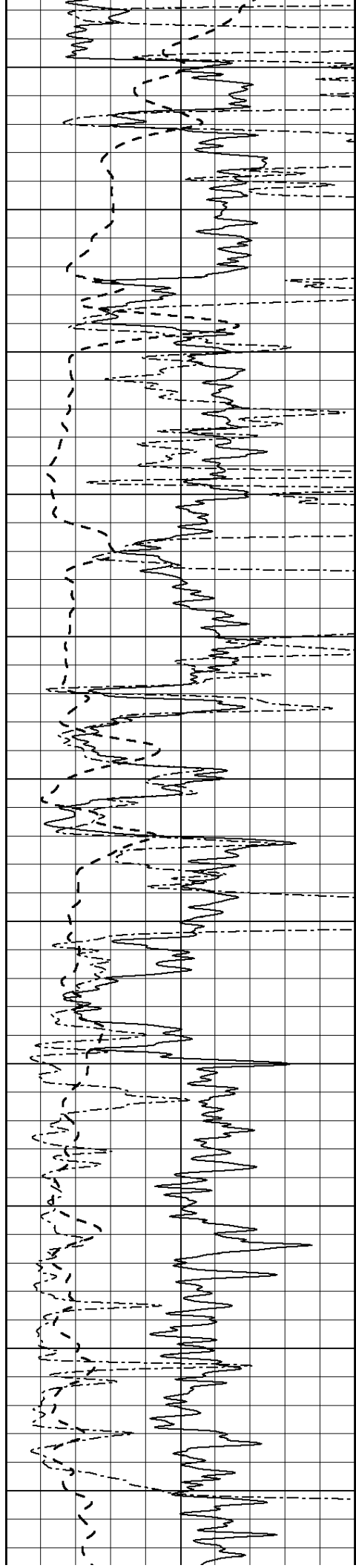
800

850

900

950





1000

1050

1100

1150

1200

1250

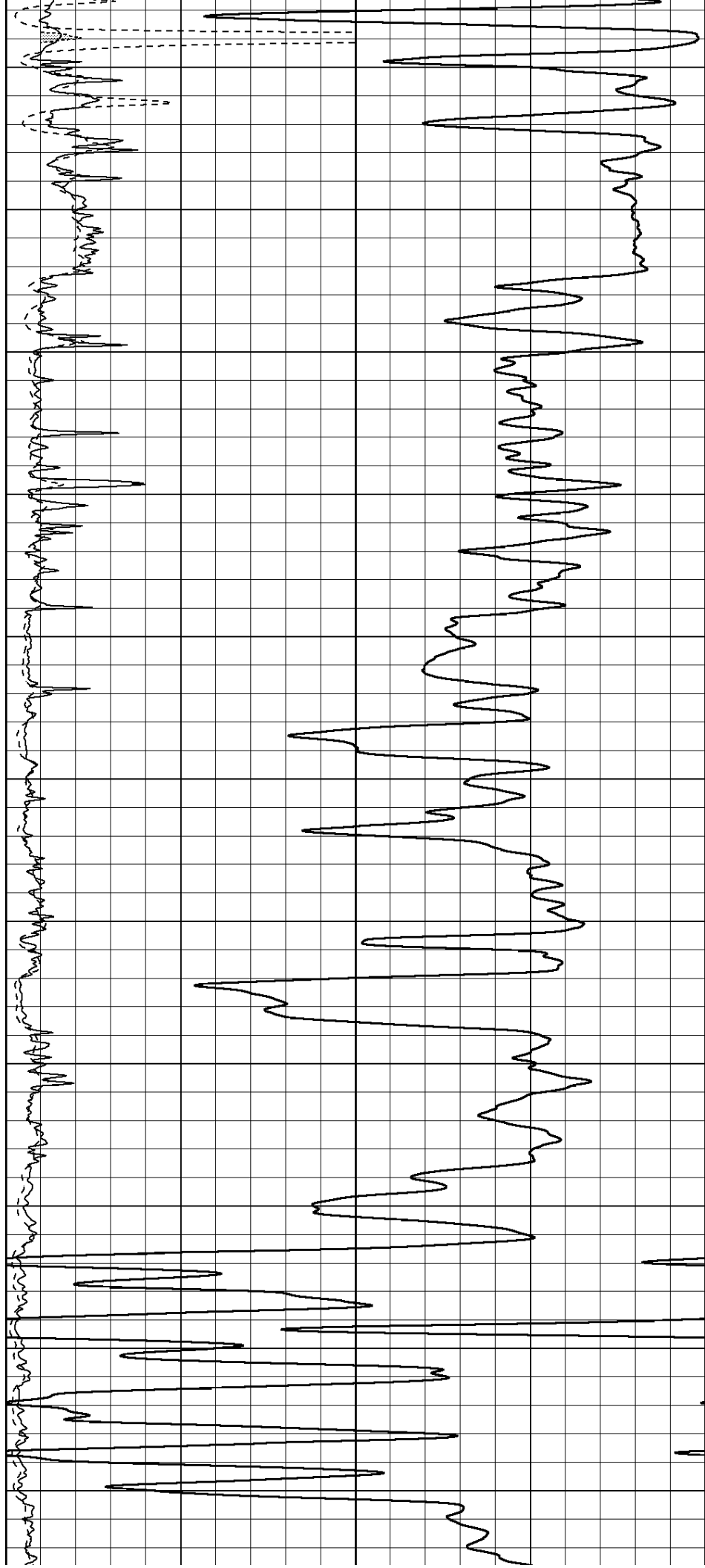
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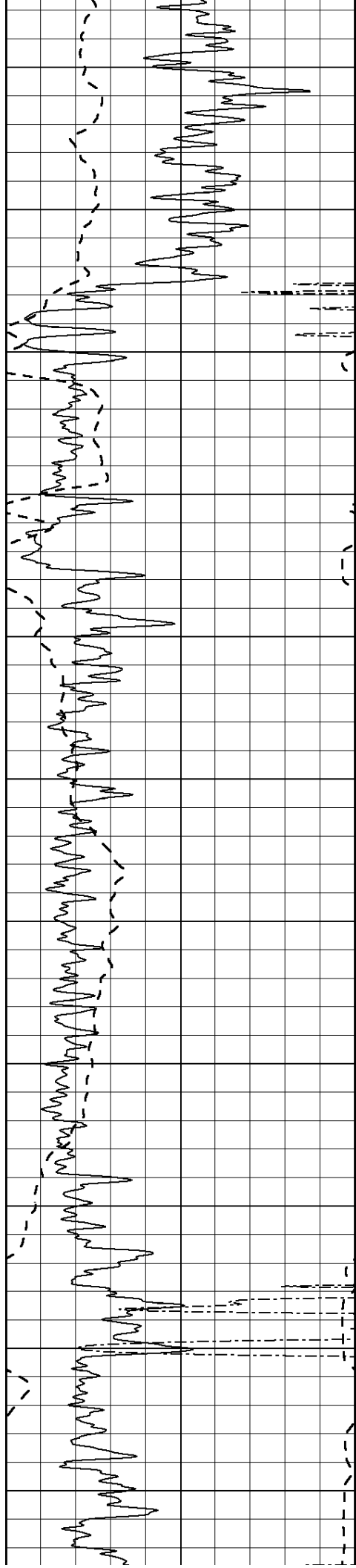
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1400

1450

1500





1550

1600

1650

1700

1750

1800

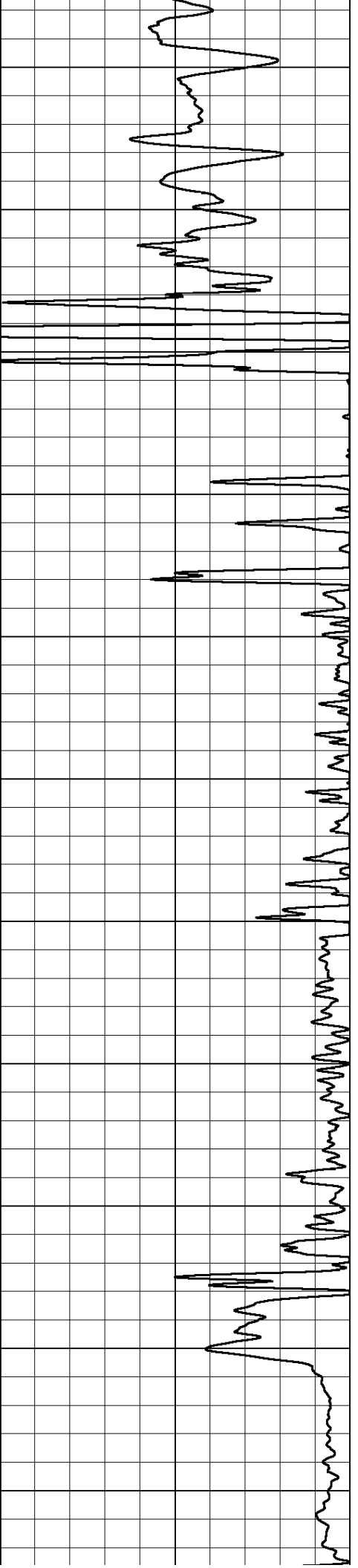
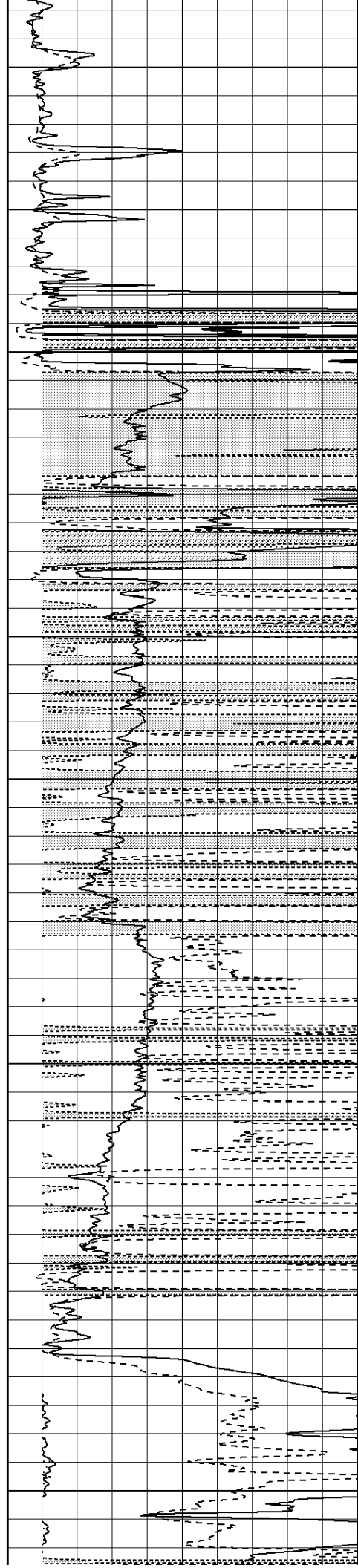
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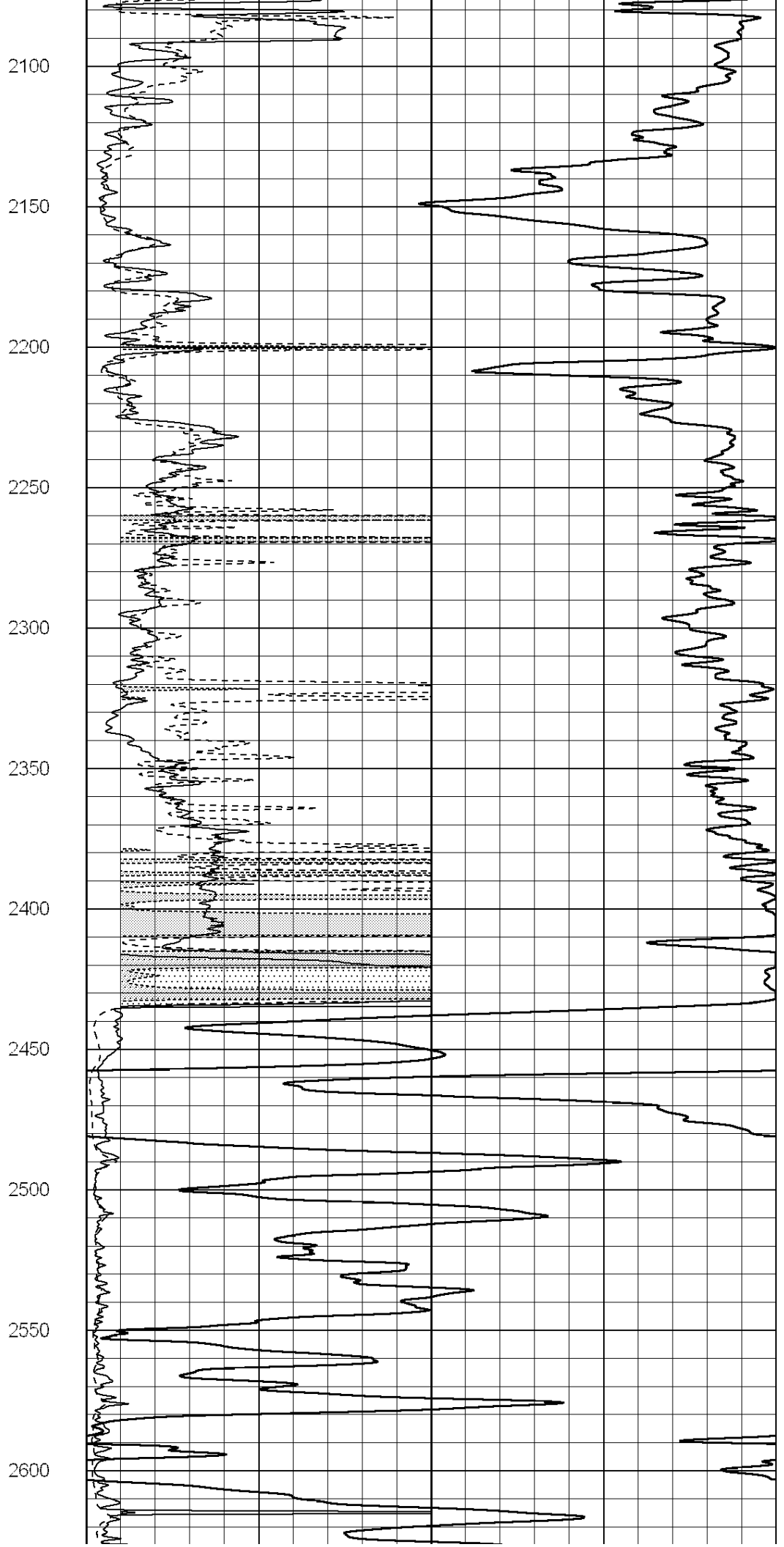
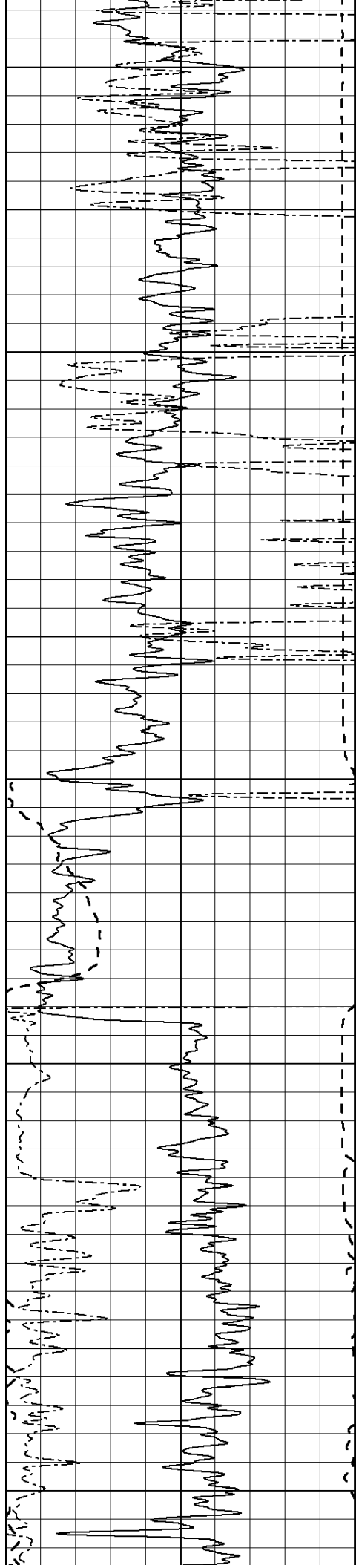
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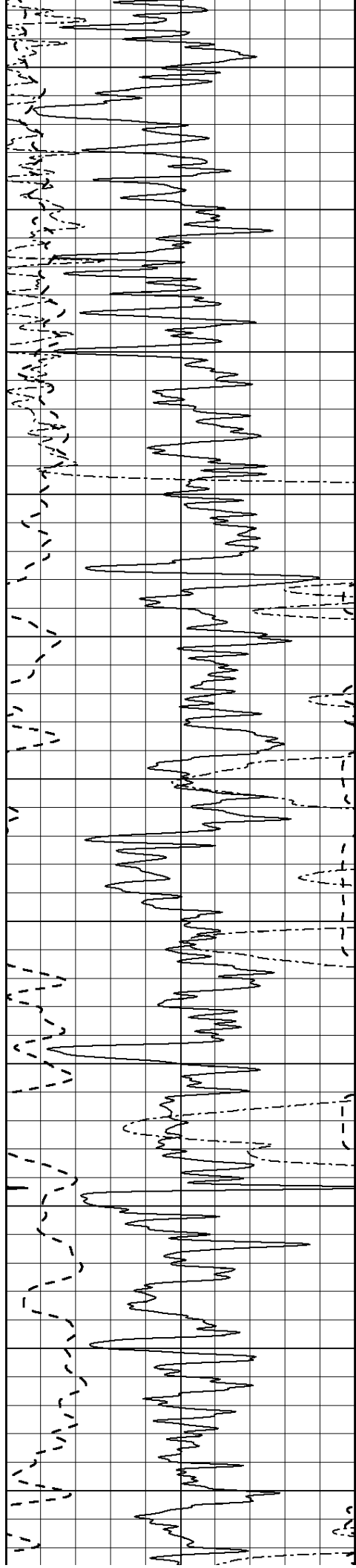
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2000

2050







2650

2700

2750

2800

2850

2900

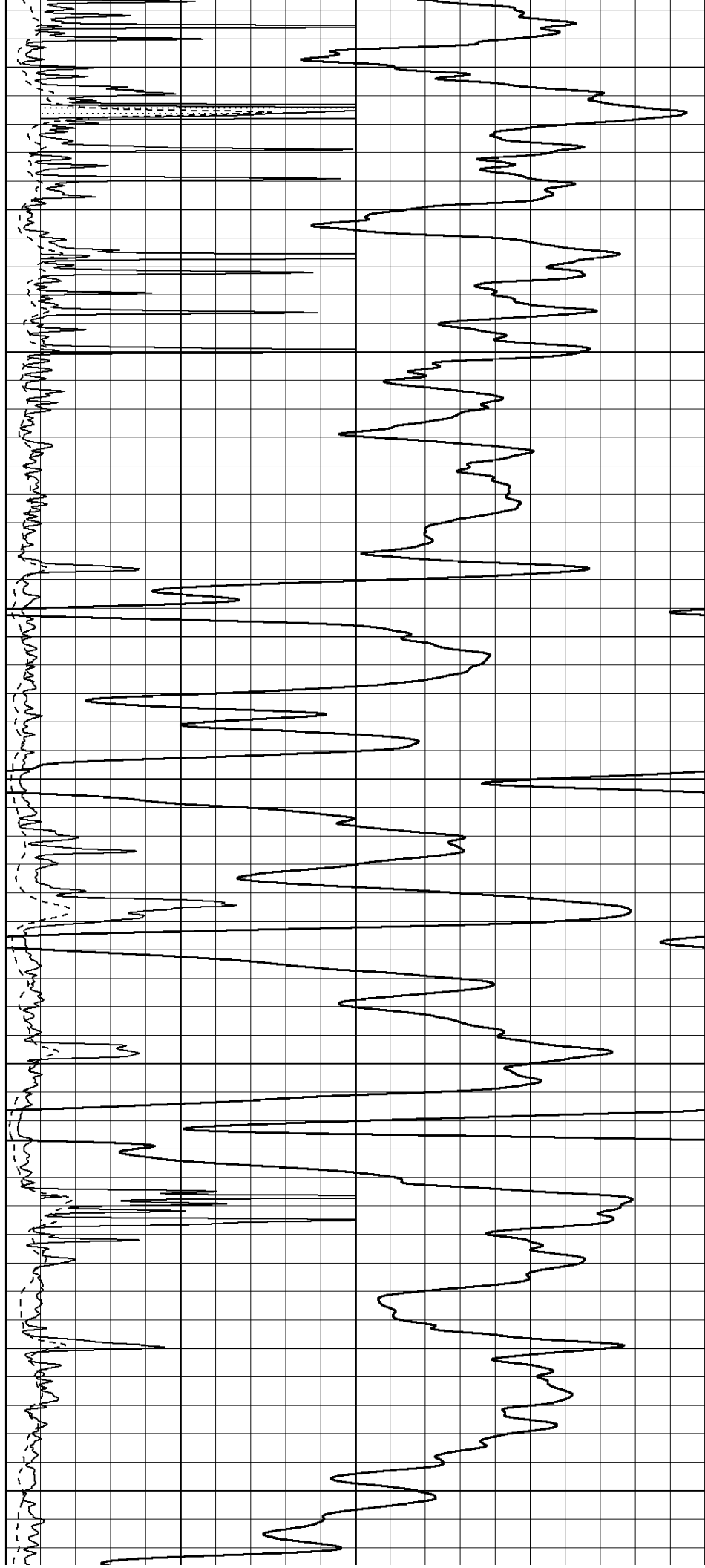
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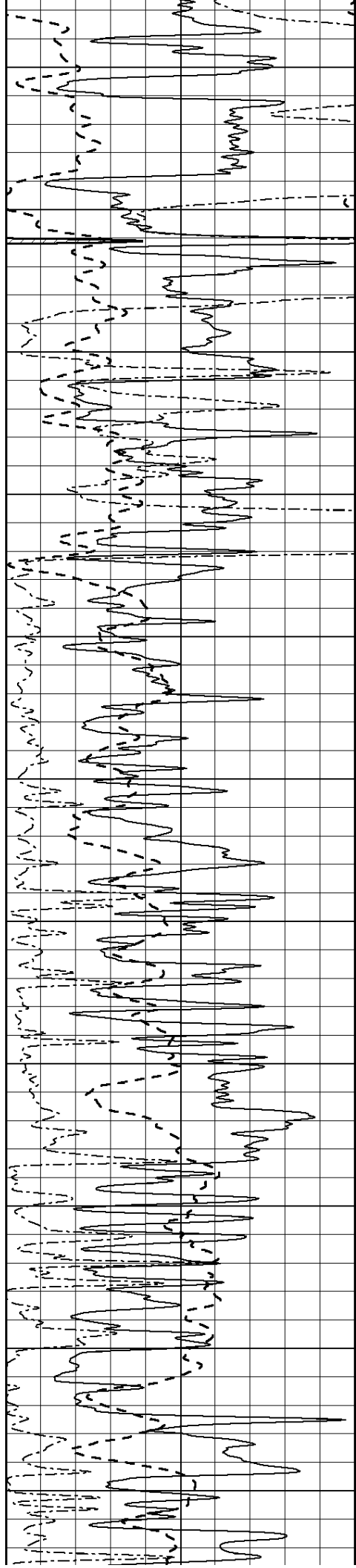
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3050

3100

3150





3200

3250

3300

3350

3400

3450

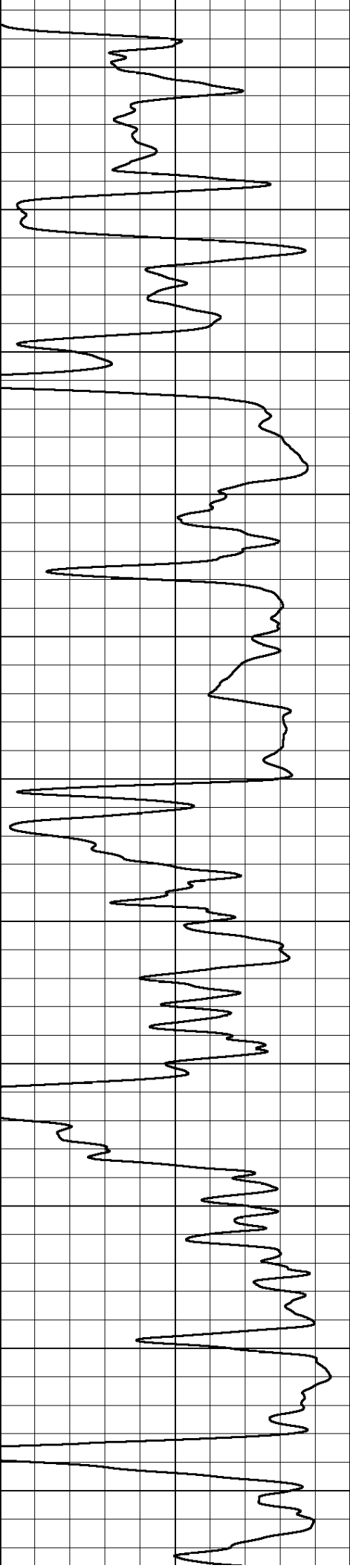
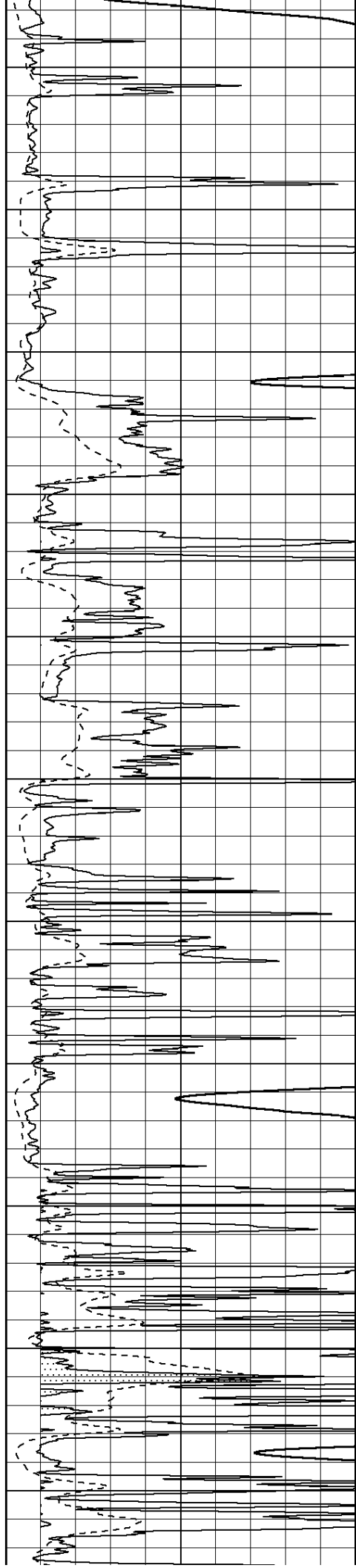
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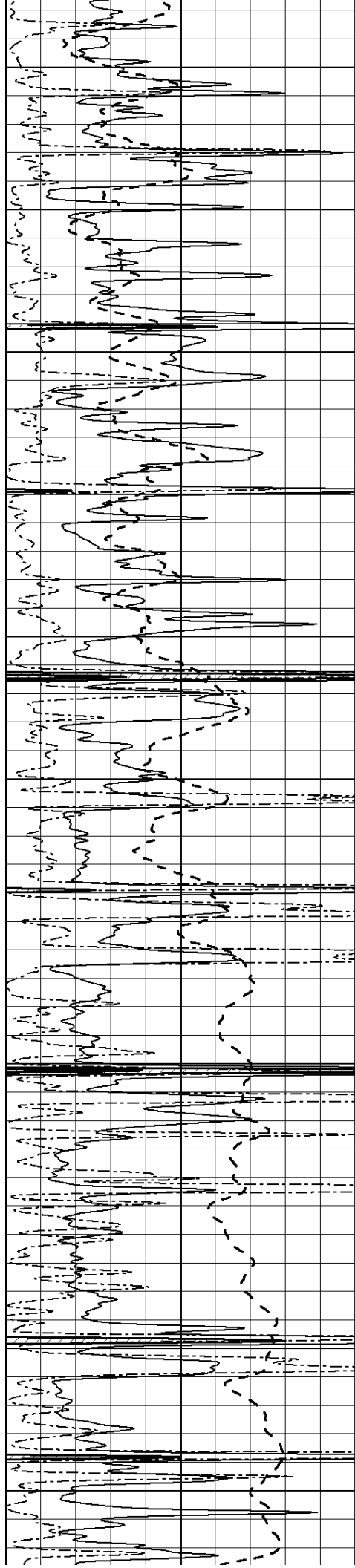
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3600

3650

3700





3750

3800

3850

3900

3950

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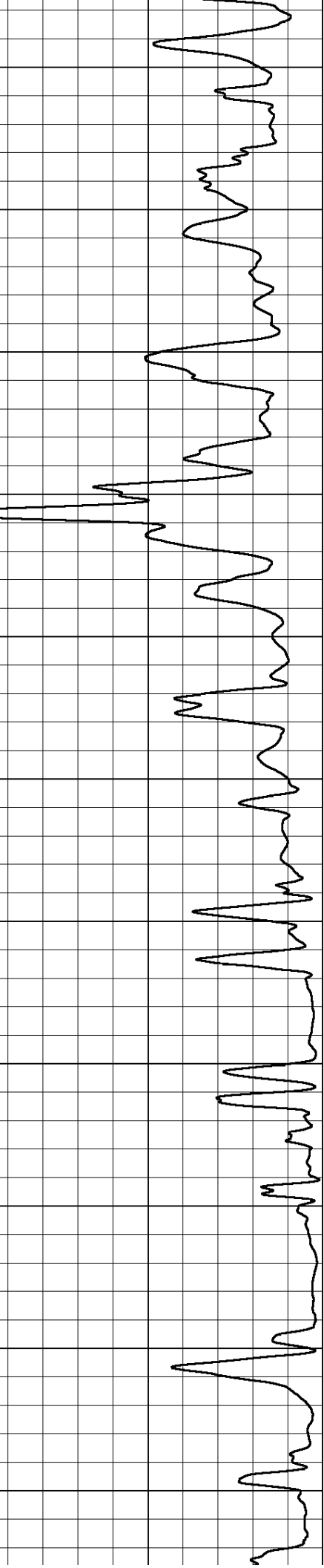
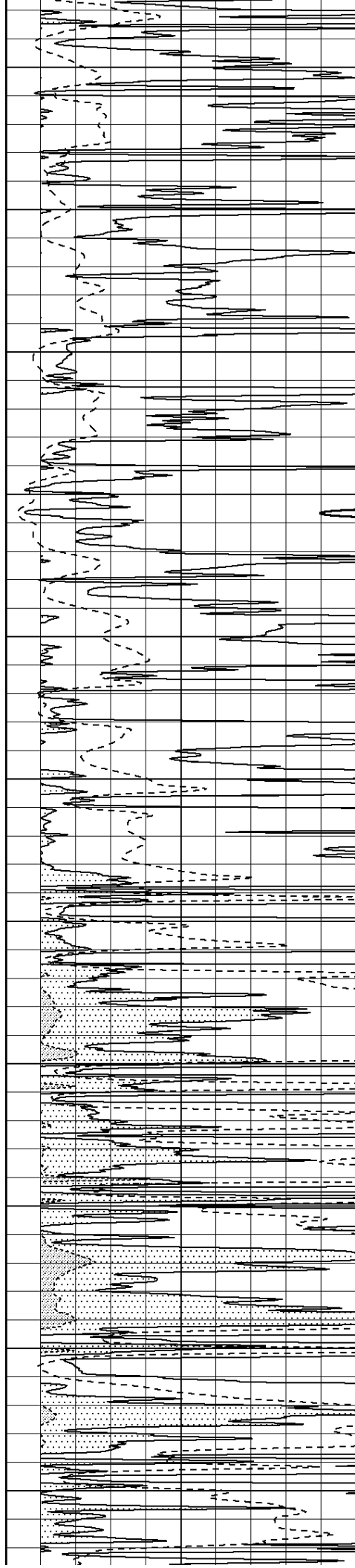
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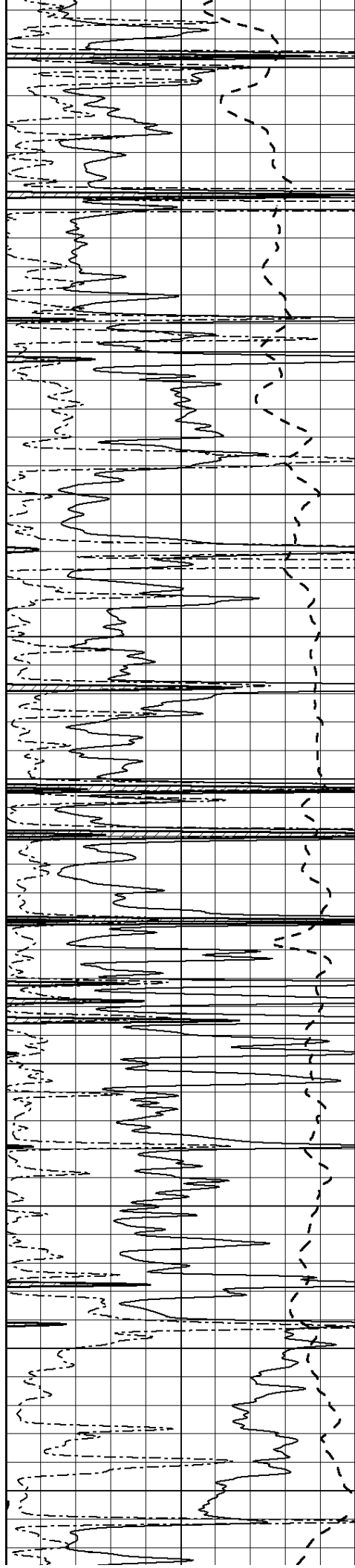
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4150

4200

4250





4300

4350

4400

4450

4500

4550

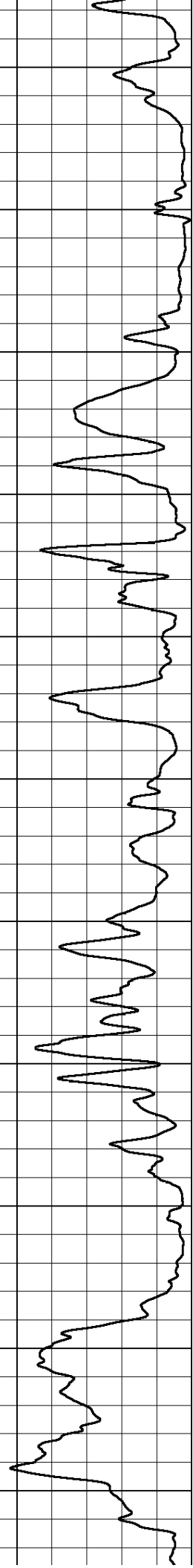
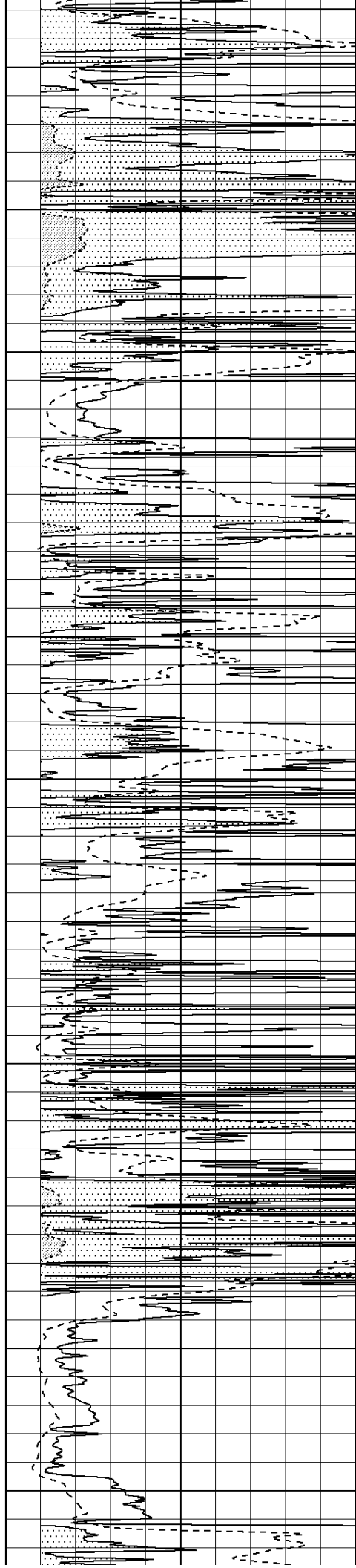
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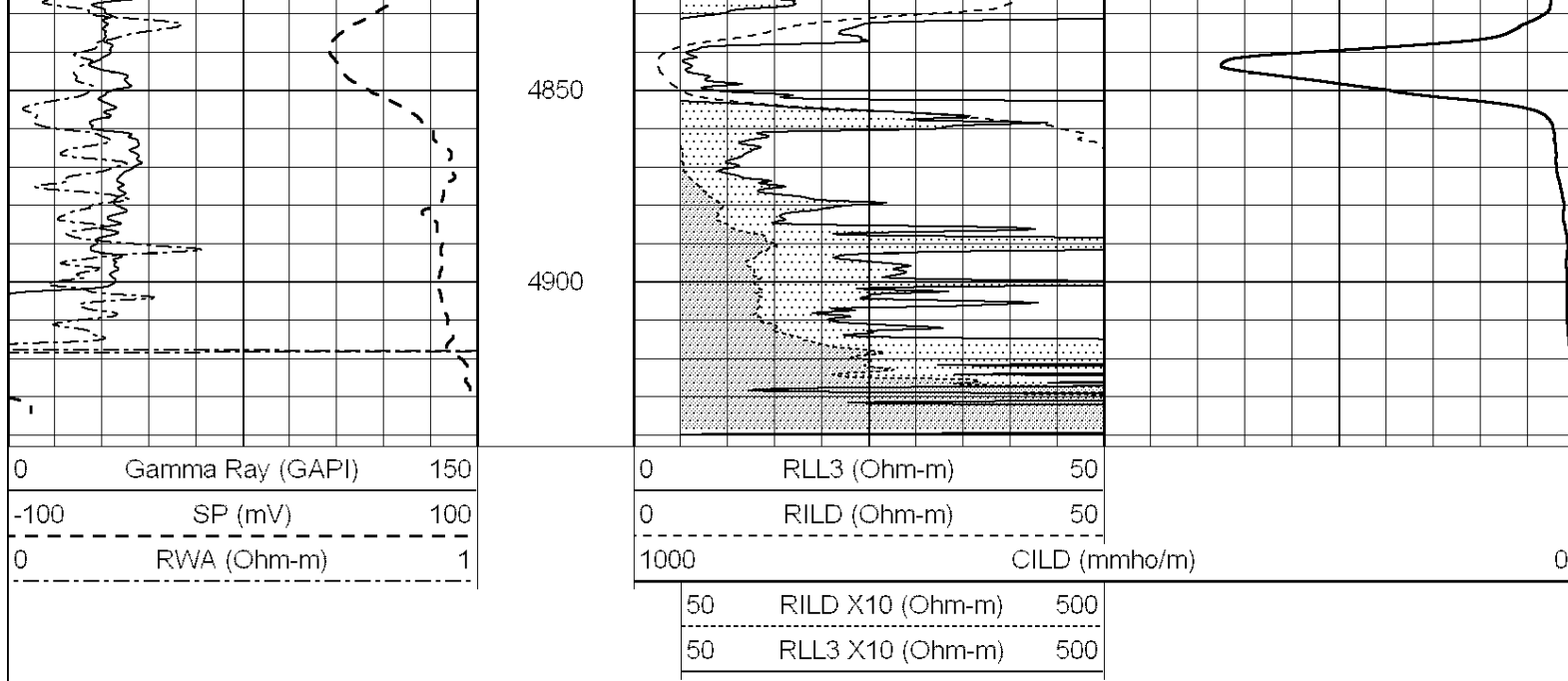
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4700

4750

4800





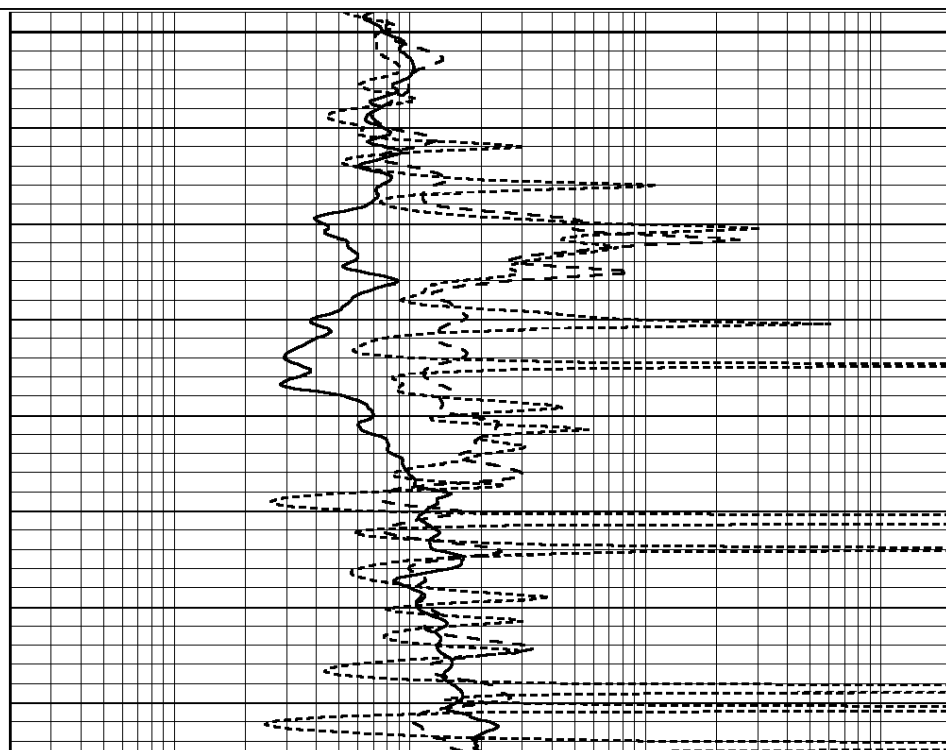
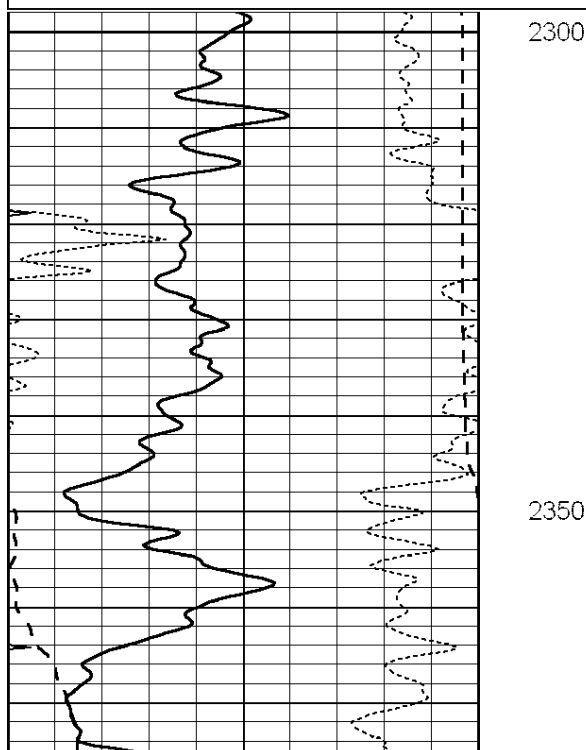
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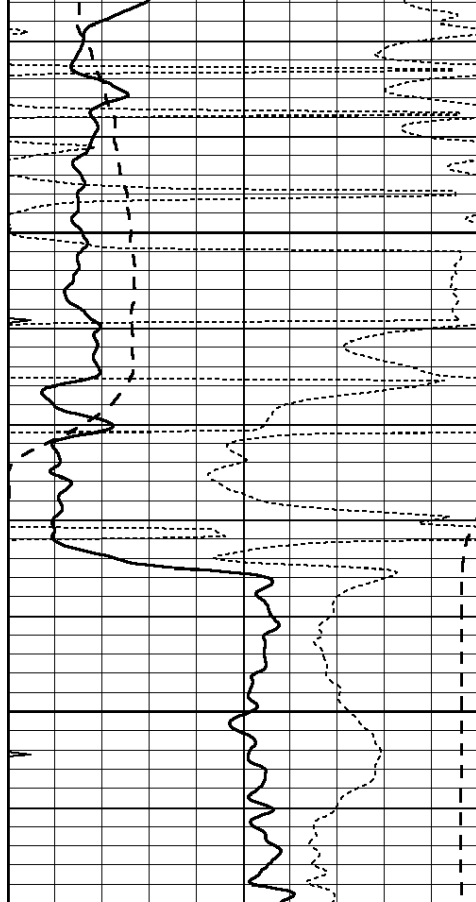
ANHYDRITE

Database File: 24570ddn.db
Dataset Pathname: pass3.10
Presentation Format: _dil
Dataset Creation: Mon Aug 25 19:27:16 2014
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

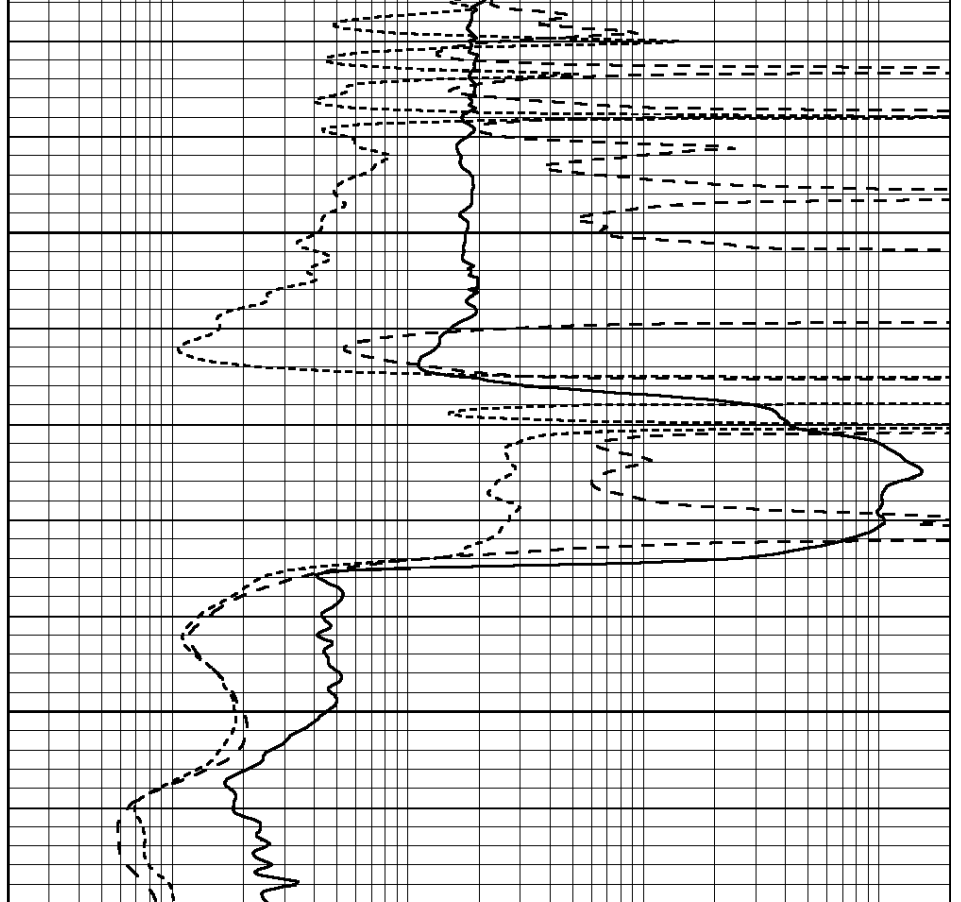




2400

2450

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



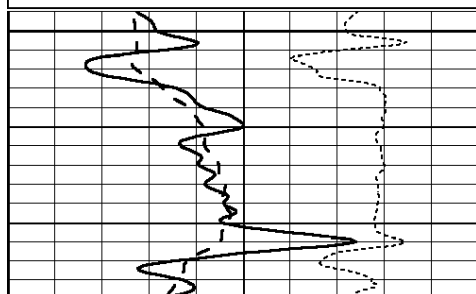
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MAIN SECTION

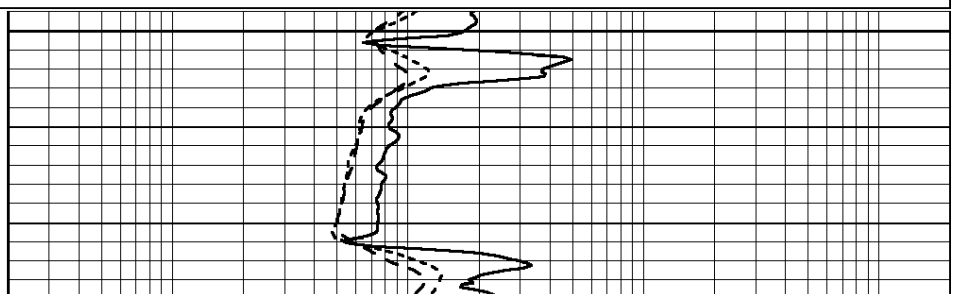
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Dataset Pathname: pass3.9
Presentation Format: _dil
Dataset Creation: Mon Aug 25 19:27:01 2014
Charted by: Depth in Feet scaled 1:240

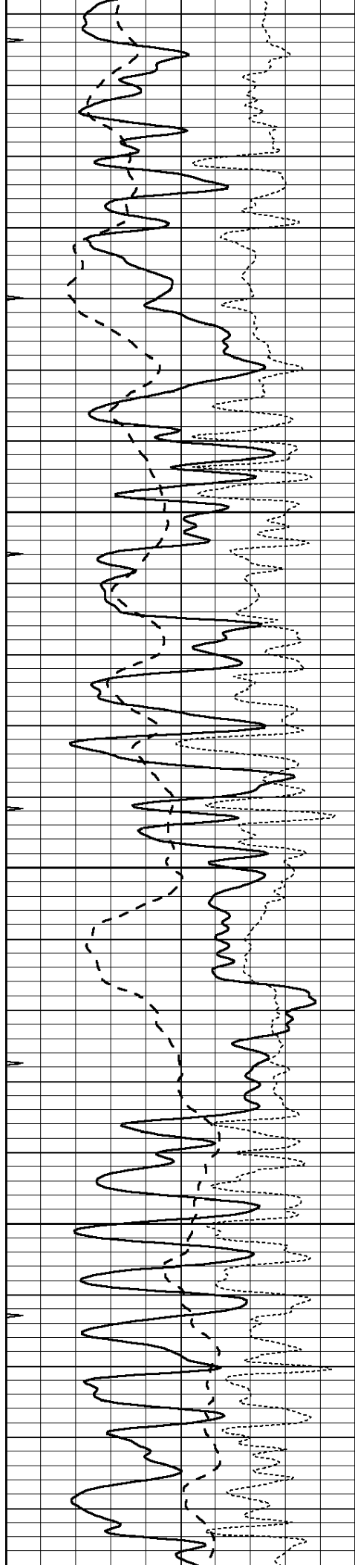
0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	20

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



3400



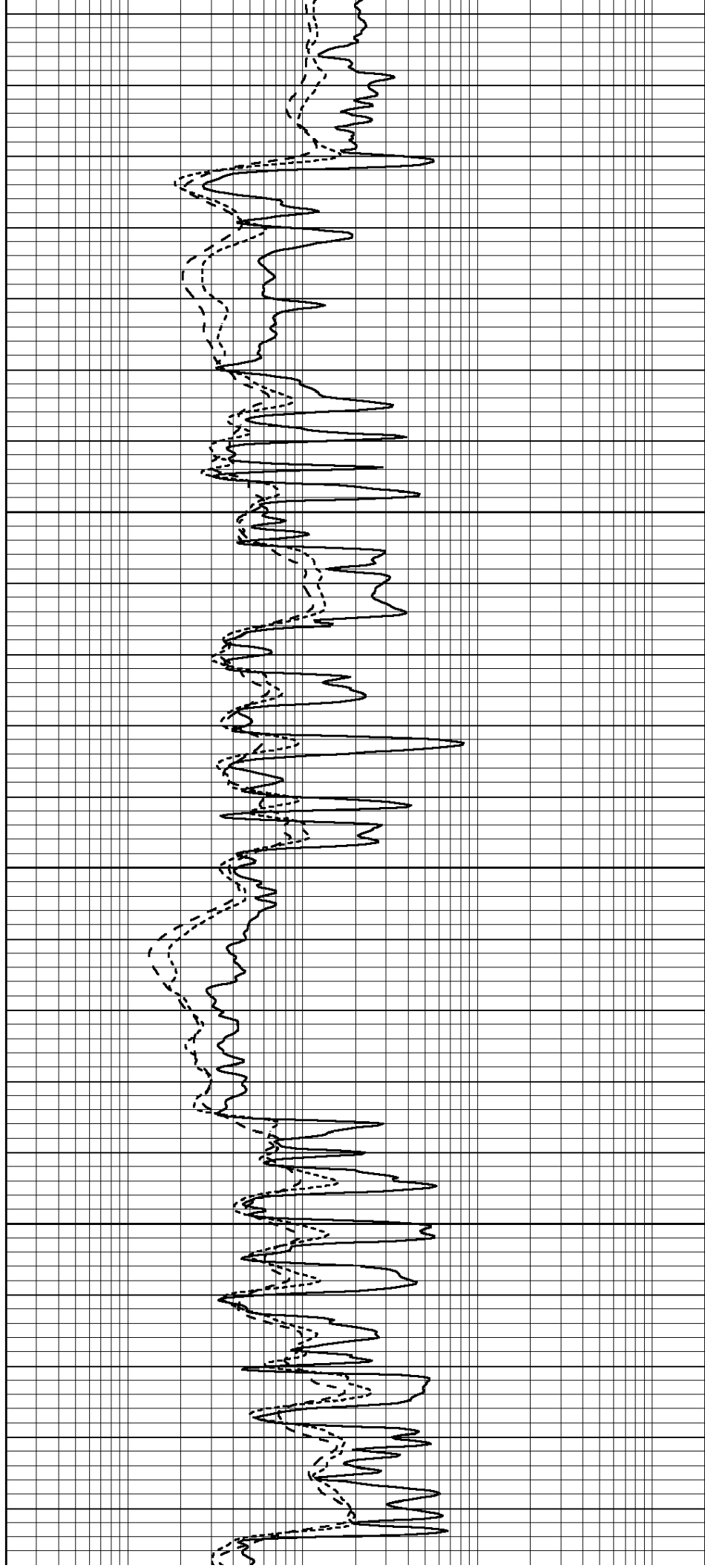


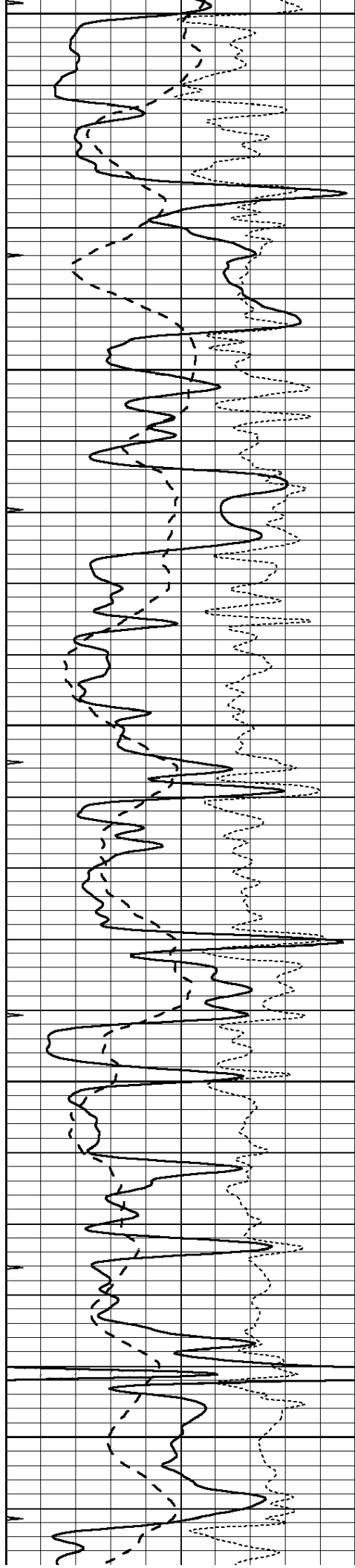
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3500

3550

3600





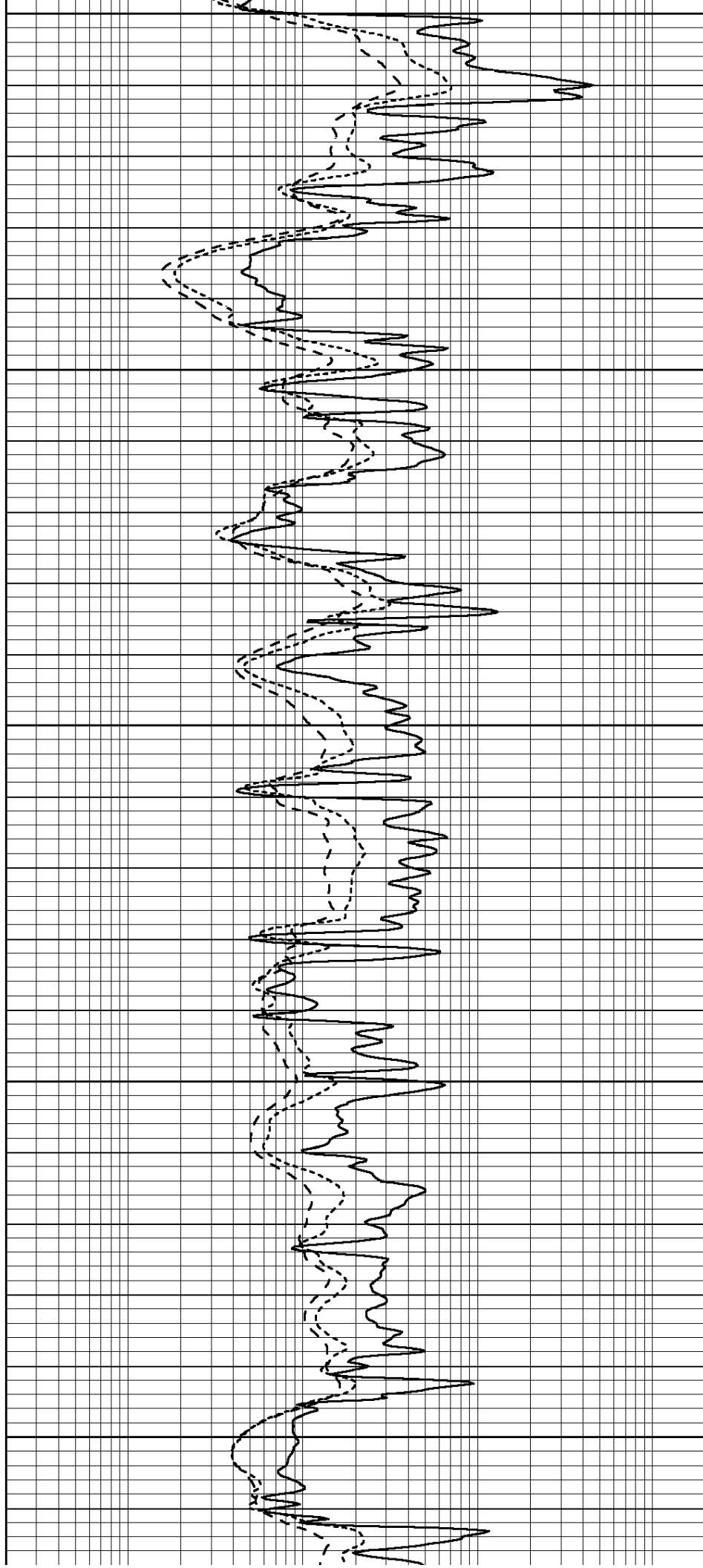
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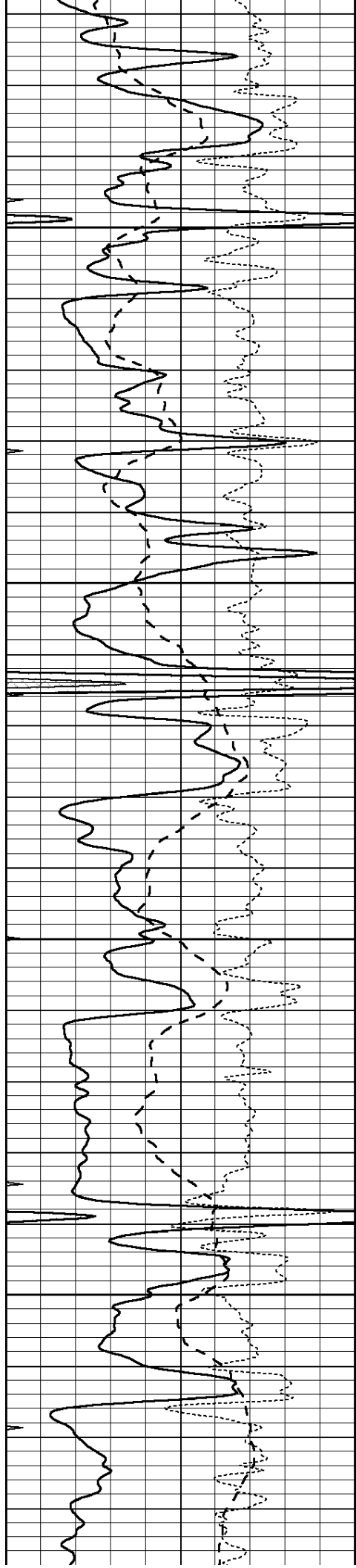
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3750

3800

3850



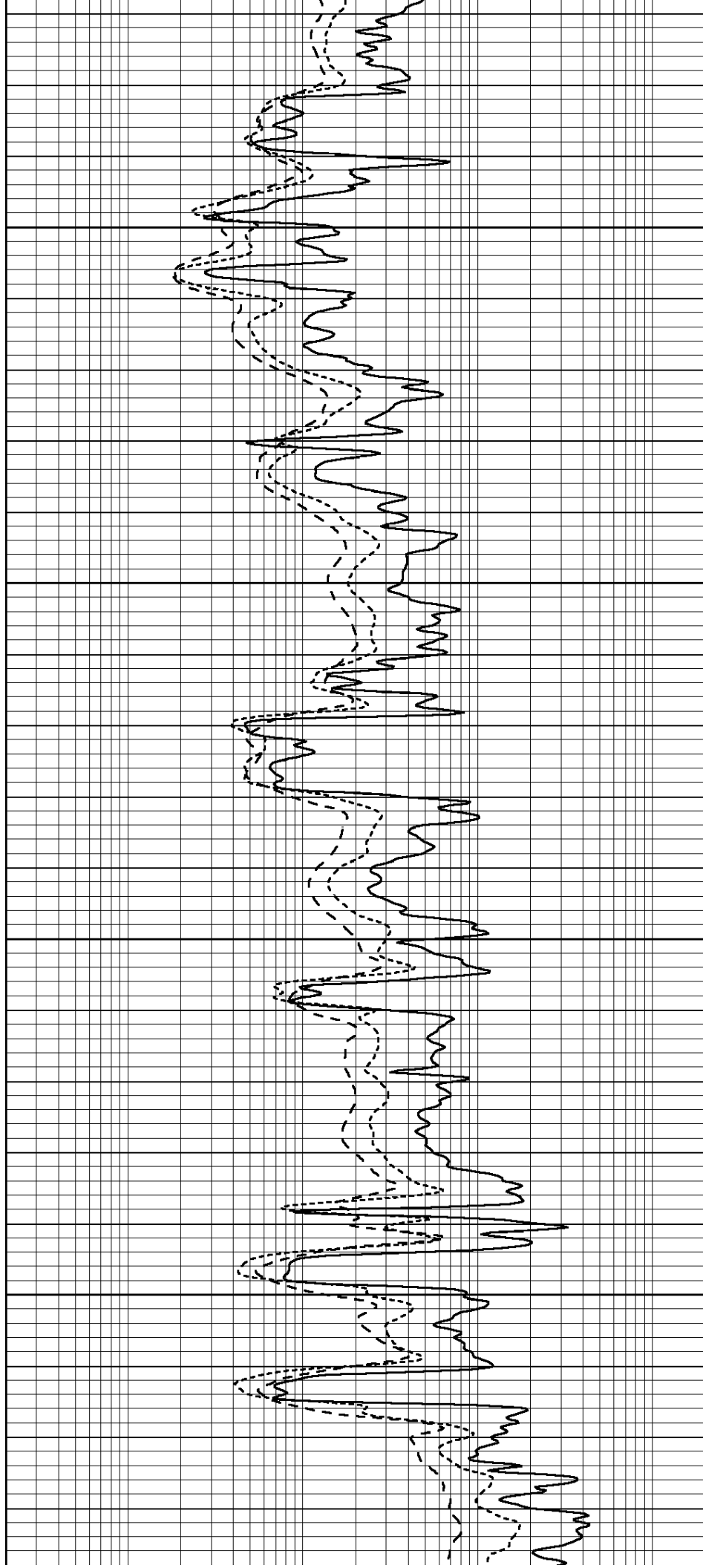


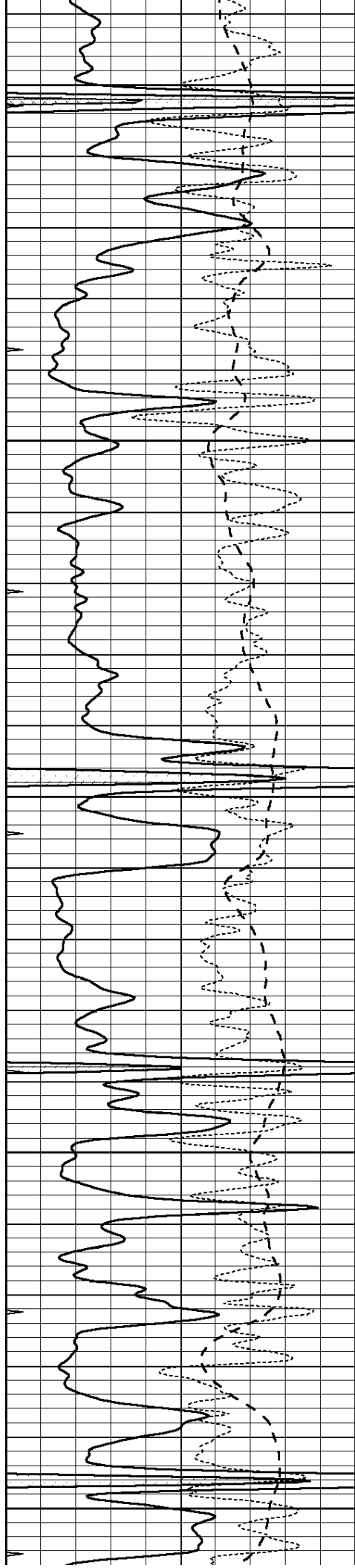
3900

3950

4000

4050





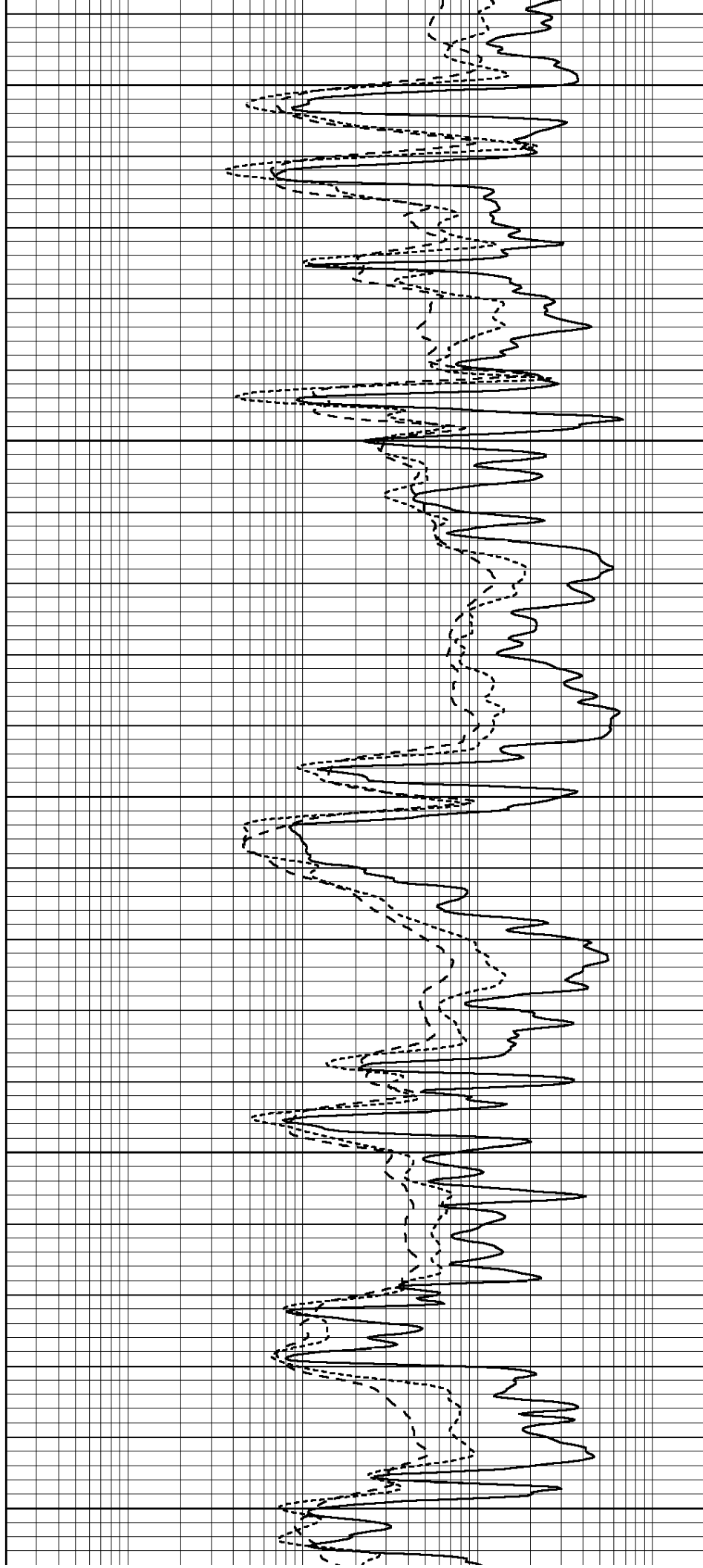
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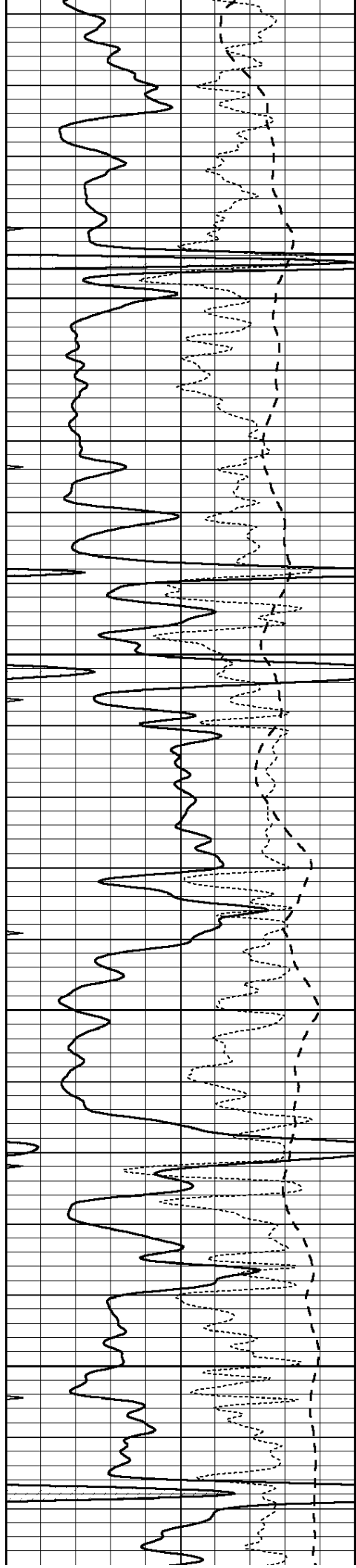
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4200

4250

4300



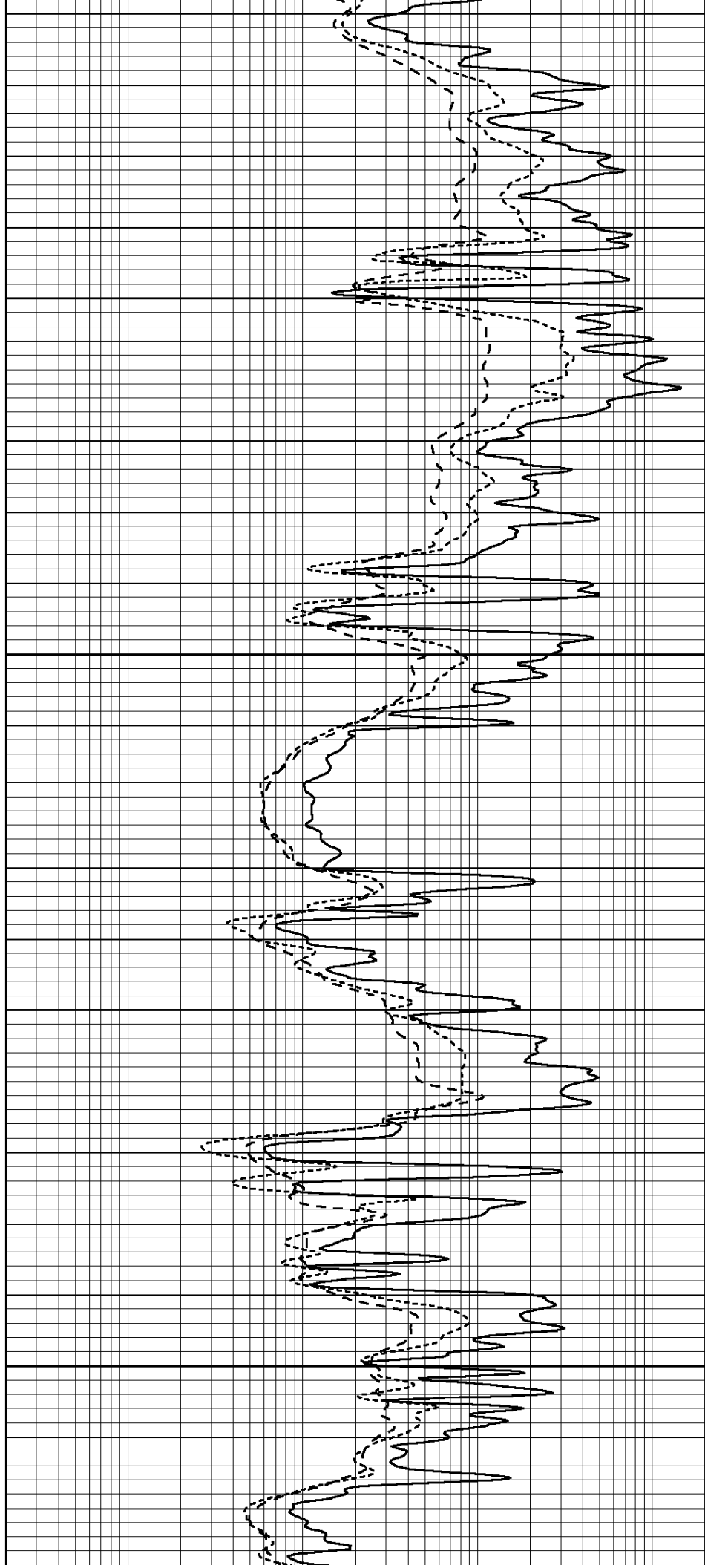


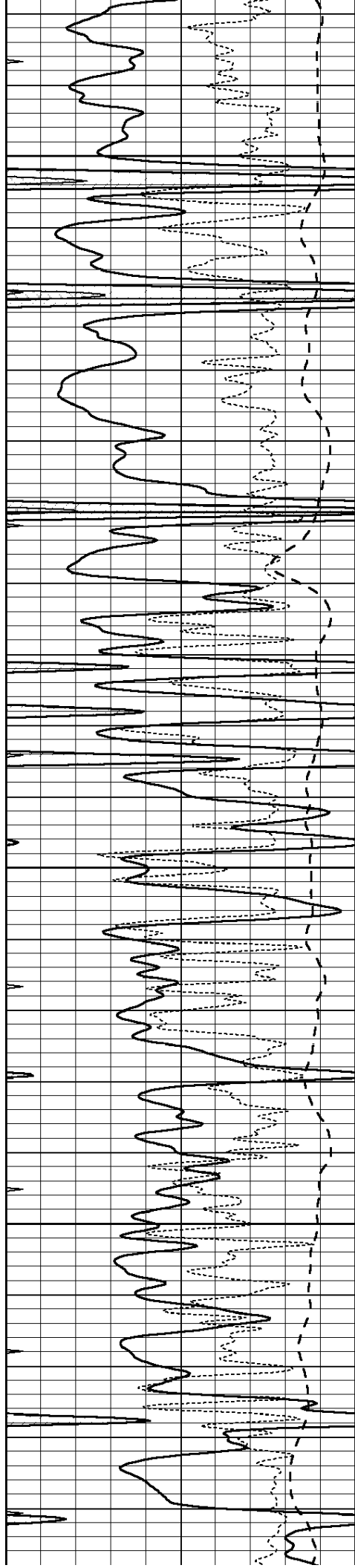
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4400

4450

4500



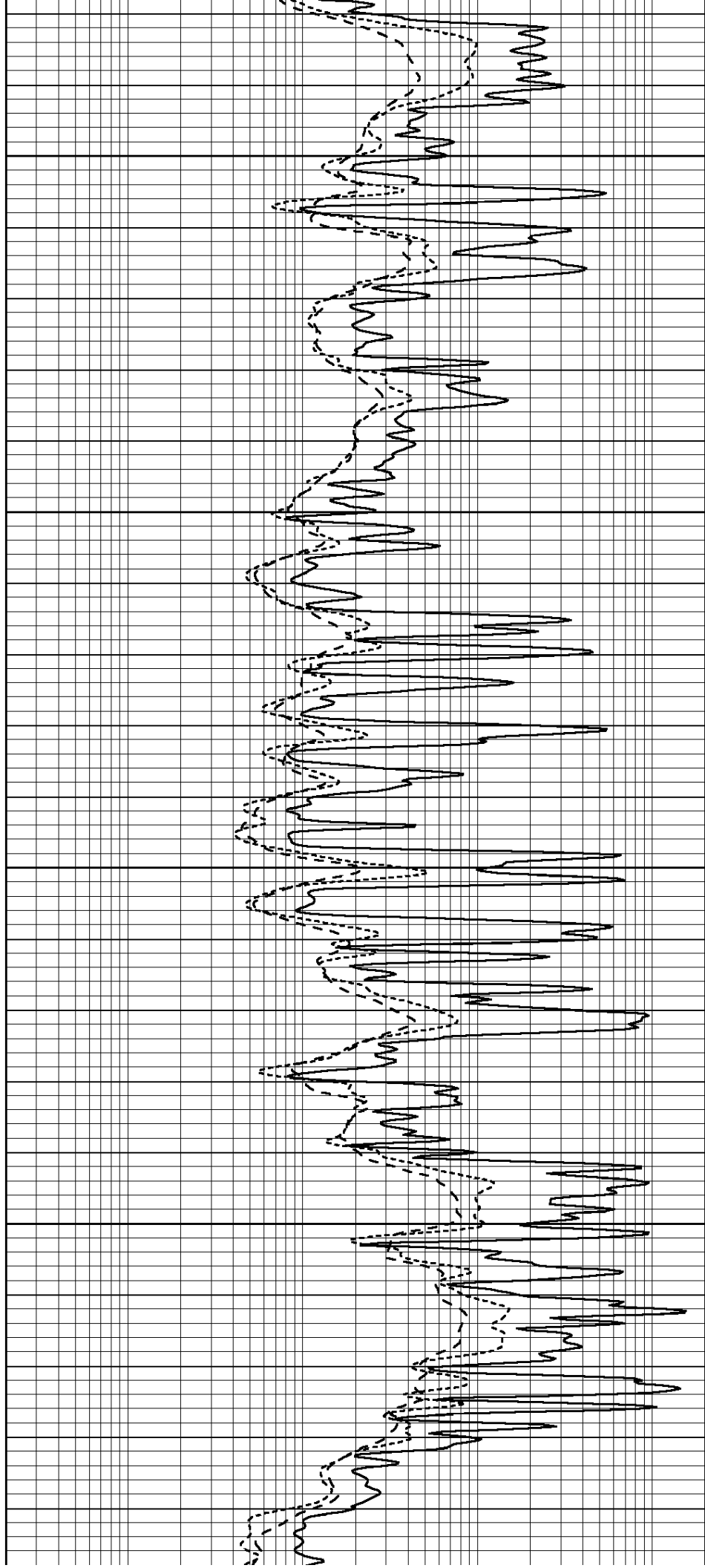


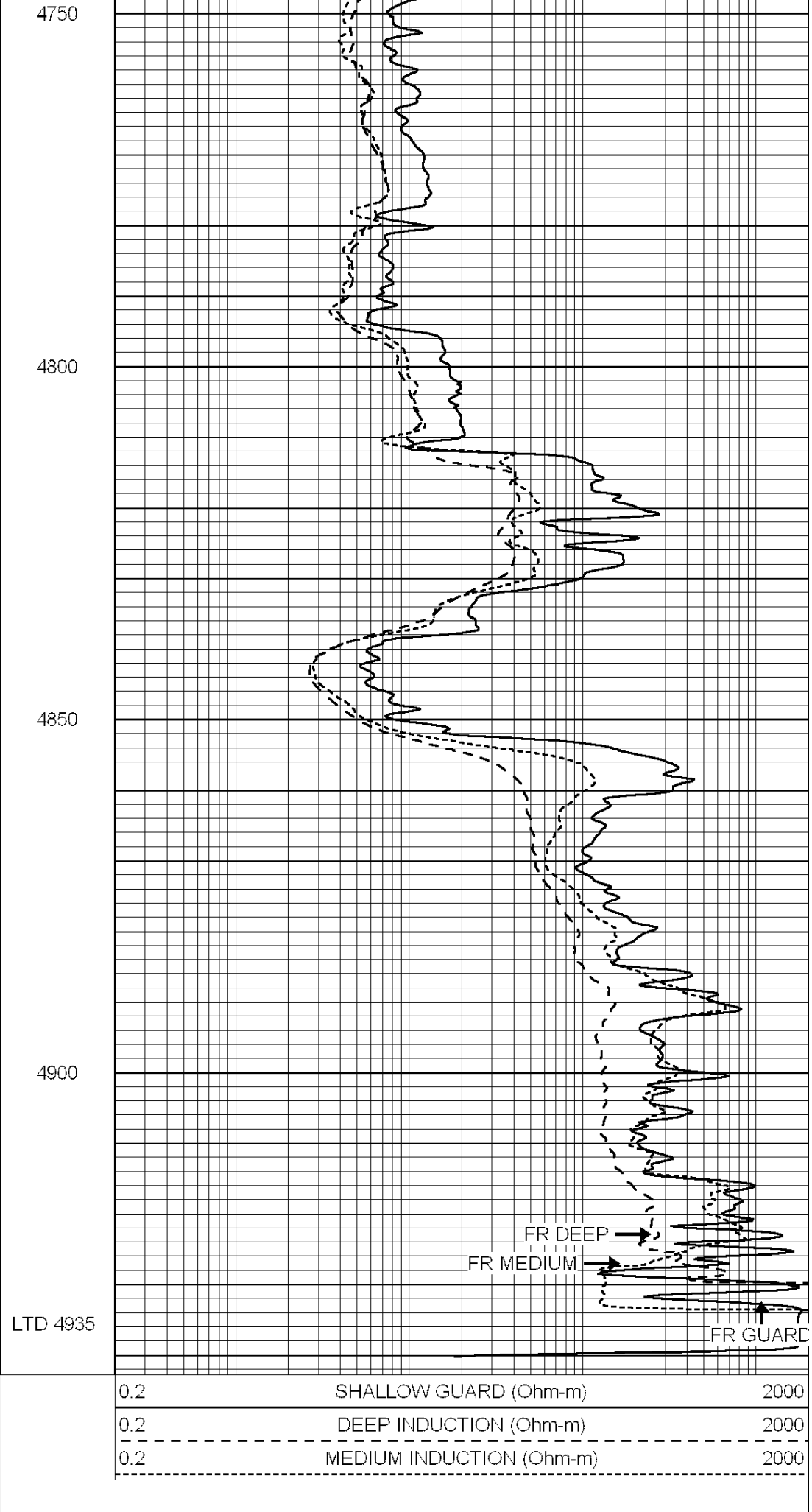
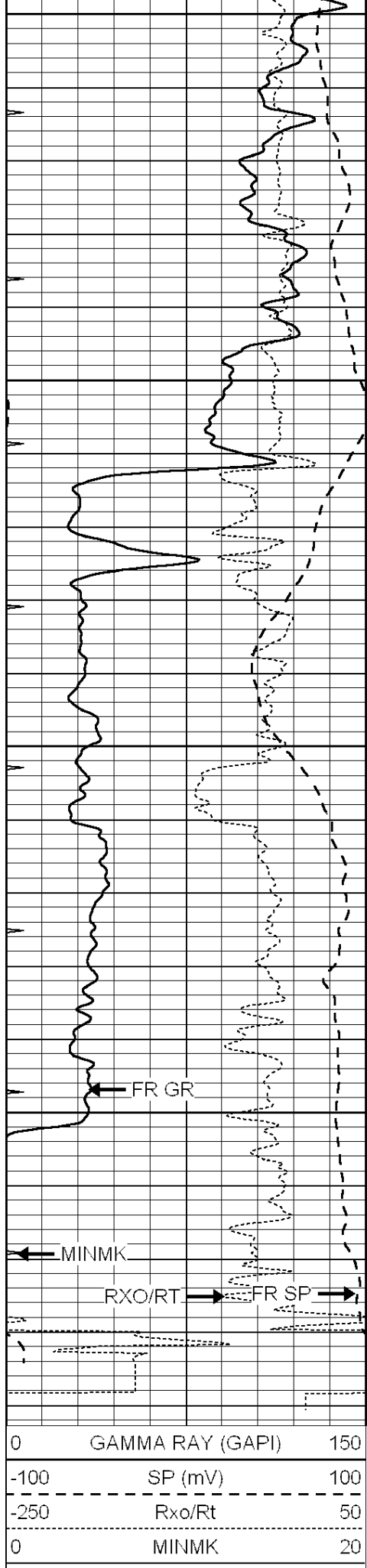
4550

4600

4650

4700







NABORS

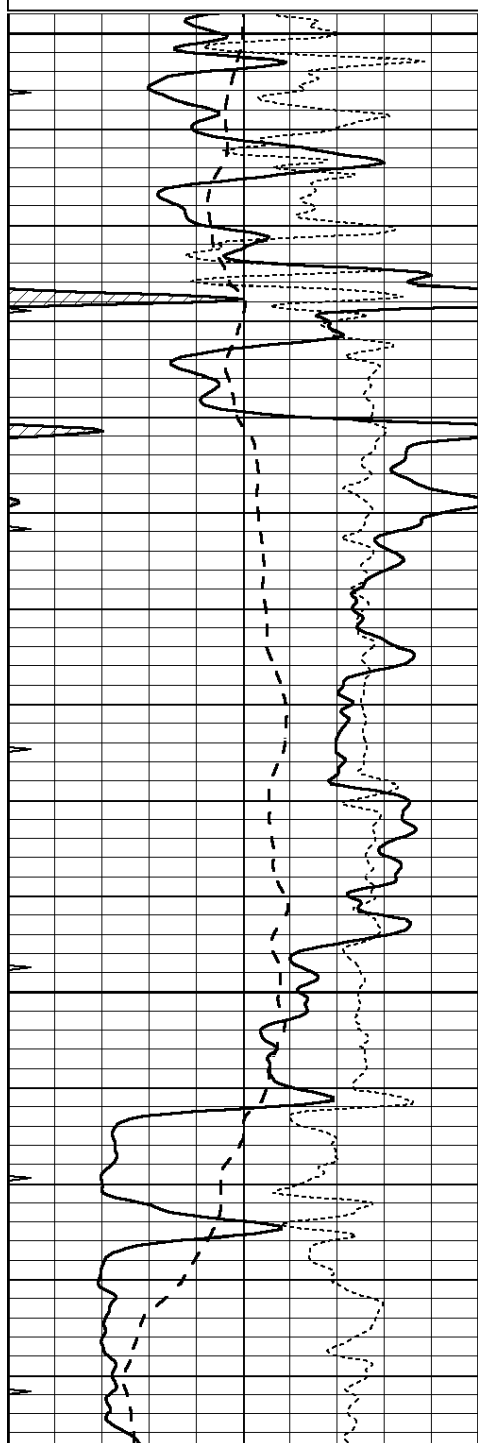
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REPEAT SECTION

Database File: 24570ddn.db
Dataset Pathname: pass2.4
Presentation Format: _dil
Dataset Creation: Mon Aug 25 19:11:39 2014
Charted by: Depth in Feet scaled 1:240

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-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	20

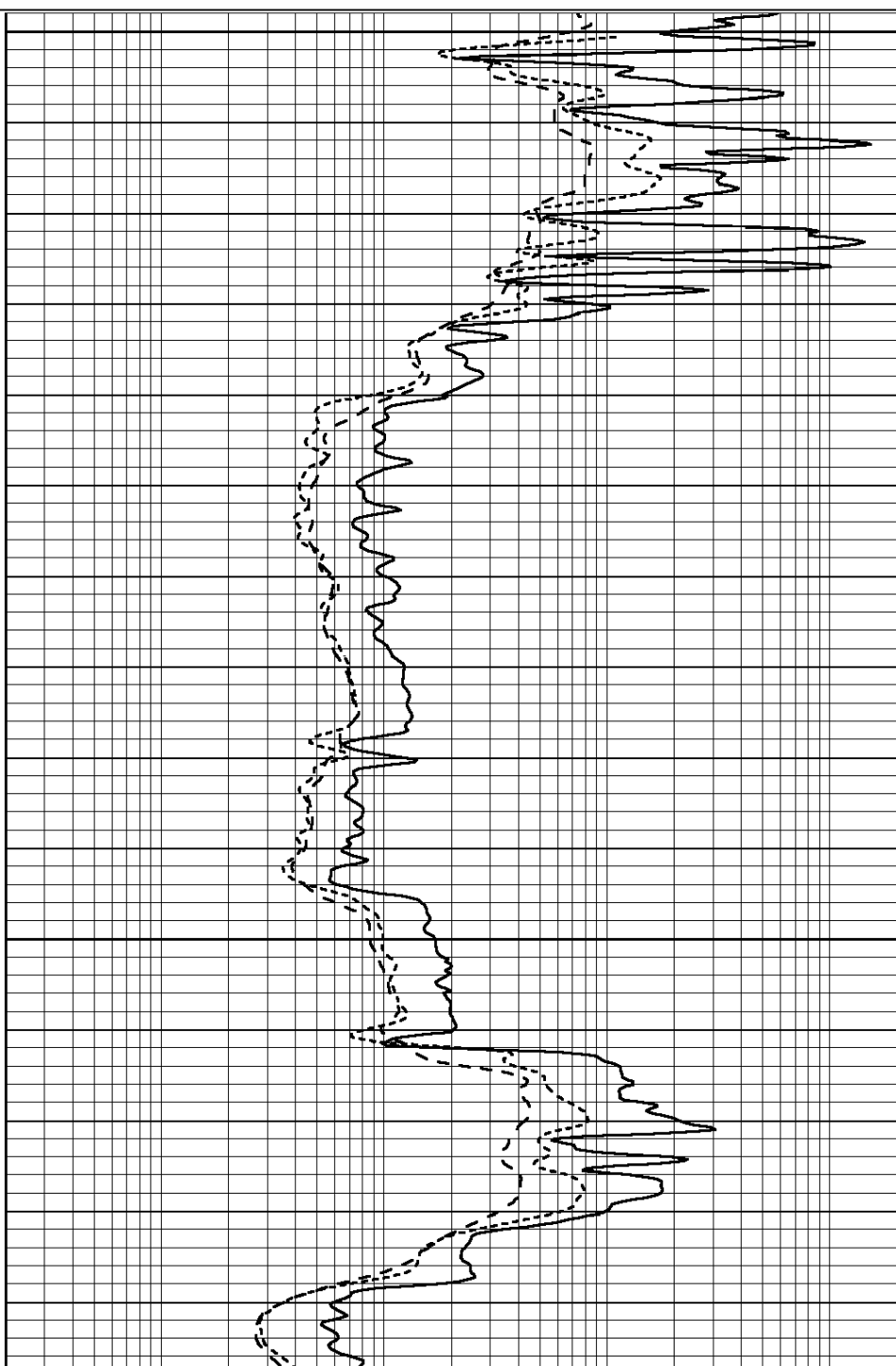
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0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000

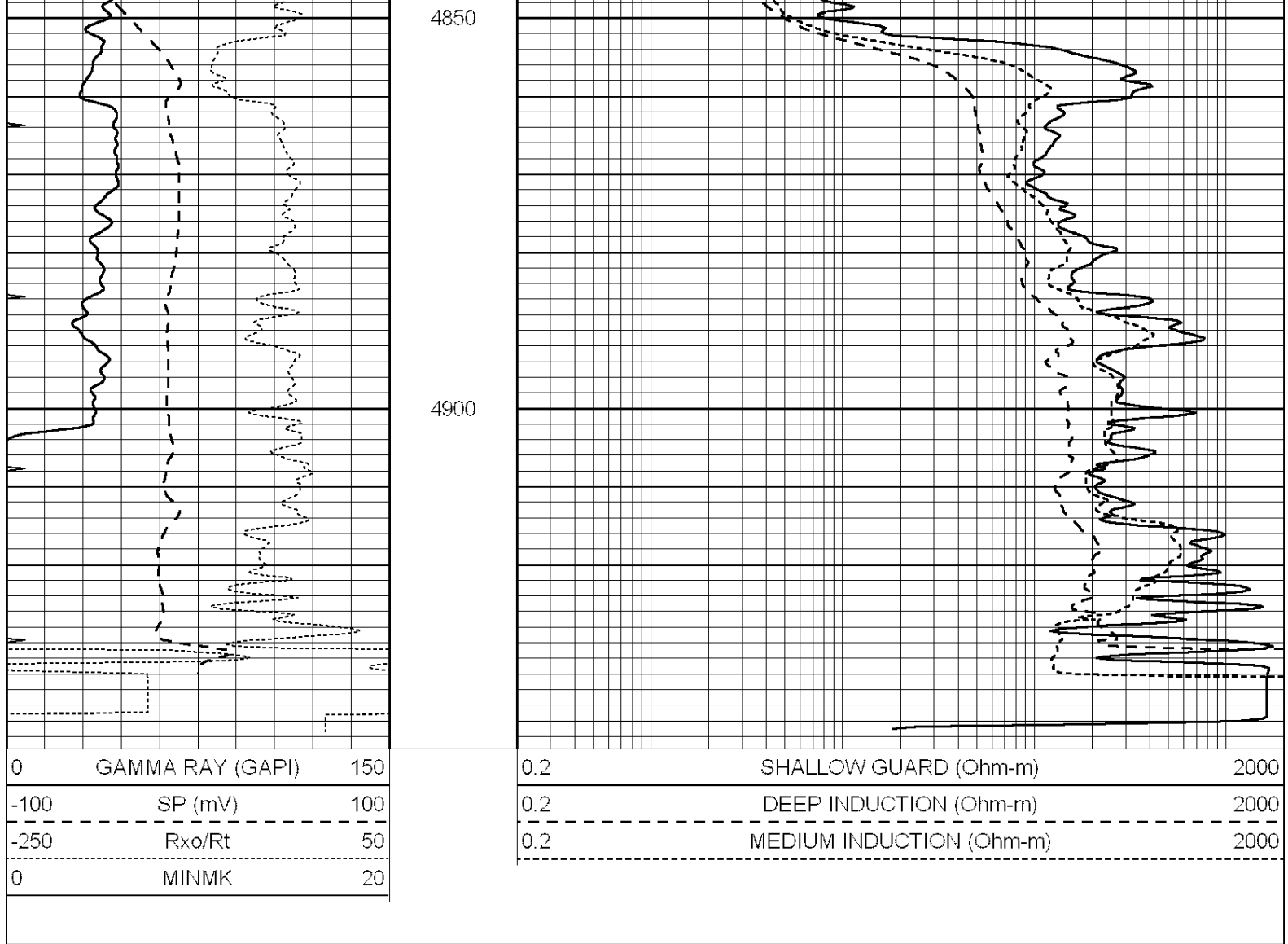


4700

4750

4800





Calibration Report									
Database File:		24570ddn.db							
Dataset Pathname:		pass3.9							
Dataset Creation:		Mon Aug 25 19:27:01 2014							
Dual Induction Calibration Report									
Serial-Model:		PROBE9-DILG							
Surface Cal Performed:		Sat Aug 23 23:34:02 2014							
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	670.000	-15.000	
Medium	0.039	0.728	V	0.000	464.000	mmho/m	670.000	-30.000	
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		
		1.000	mmho-m		1.000	mmho-m		
Litho Density Calibration Report Serial: 004N Model: PRB								
Master Calibration			Performed Fri May 30 11:01:00 2014					
	Background		Magnesium		Aluminum		Sandstone	
Window 1	1378.8		10804.6		3492.0		12453.4	cps
Window 2	1262.4		9313.5		3076.7		10594.7	cps
Window 3	1077.6		5668.7		2076.0		6314.8	cps
Window 4	306.4		313.0		306.4		315.6	cps
Long Space	0.0		8051.0		1814.3		9332.3	cps
Short Space	1.9		1706.1		1146.0		1707.6	cps
Rho			1.7100		2.5900		1.3800	g/cc
Pe			0.0000		2.5700		1.5500	
Rib Angle	: 45.0		Rib Slope	: 1.002	Density/Spine Ratio		: 0.571	
Spine Angle	: 75.0		Spine Slope	: 3.745	Spine Intercept		: -18.9	
Before Survey Verification								
			Performed Wed Dec 31 18:00:00 1969					
Window 1	0.0		0.0		0.0		0.0	cps
Window 2	0.0		0.0		0.0		0.0	cps
Window 3	0.0		0.0		0.0		0.0	cps
Window 4	0.0		0.0		0.0		0.0	cps
Long Space	0.0		0.0		0.0		0.0	cps
Short Space	0.0		0.0		0.0		0.0	cps
Measured Rho			0.0000		0.0000		0.0000	g/cc
Measured Correction			0.0000		0.0000		0.0000	g/cc
Measured Pe					0.0000		0.0000	
After Survey Verification								
			Performed Wed Dec 31 18:00:00 1969					
Window 1	0.0		0.0		0.0		0.0	cps
Window 2	0.0		0.0		0.0		0.0	cps
Window 3	0.0		0.0		0.0		0.0	cps
Window 4	0.0		0.0		0.0		0.0	cps
Long Space	0.0		0.0		0.0		0.0	cps
Short Space	0.0		0.0		0.0		0.0	cps
Measured Rho			0.0000		0.0000		0.0000	g/cc
Measured Correction			0.0000		0.0000		0.0000	g/cc
Measured Pe					0.0000		0.0000	
Compenacted Neutron Calibration Report								

Serial Number: Tool Model:		070808 Probe	
PRE-SURVEY VERIFICATION			
Detector	Readings	Measured	Target
Short Space	cps		
Long Space	cps	pu	pu
POST-SURVEY VERIFICATION			
Detector	Readings	Measured	Target
Short Space	cps		
Long Space	cps	pu	pu
Gamma Ray Calibration Report			
Serial Number: Tool Model: Performed:	070558 OPEN_GR Mon Jun 30 21:53:39 2014		
Calibrator Value:	1.0	GAPI	
Background Reading: Calibrator Reading:	0.0 1.0	cps cps	
Sensitivity:	0.2800	GAPI/cps	