



**SUPERIOR
Hays,
Kansas**

DUAL INDUCTION LOG

Company RED OAK ENERGY, INC.
Well FRAHM #1-19
Field WILDCAT
County THOMAS
State KANSAS

Company RED OAK ENERGY, INC.
Well FRAHM #1-19
Field WILDCAT
County THOMAS State KANSAS

Location: API # : 15-193-20776
220' FSL & 400' FWL
SEC 19 TWP 8S RGE 34W
Permanent Datum GROUND LEVEL Elevation 3255
Log Measured From KELLY BUSHING 6' A.G.L.
Drilling Measured From KELLY BUSHING
Other Services
CDL/CNL
SONIC/MEL
Elevation
K.B. 3261
D.F.
G.L. 3255

Date	6-29-10		
Run Number	ONE		
Depth Driller	4810		
Depth Logger	4810		
Bottom Logged Interval	4808		
Top Log Interval	00		
Casing Driller	361		
Casing Logger	361		
Bit Size	7.875		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES: 5000 ppm	
Density / Viscosity	9.3 / 55		
pH / Fluid Loss	11.0 / 6.8		
Source of Sample	FLOWLINE		
Rim @ Meas. Temp	0.65 @ 102F		
Rmf @ Meas. Temp	0.49 @ 102F		
Rmc @ Meas. Temp	0.78 @ 102F		
Source of Rmf / Rmc	MEASURED		
Rim @ BHT	.540 @ 123F		
Time Circulation Stopped	3 HOURS		
Time Logger on Bottom	4:00 P.M.		
Maximum Recorded Temperature	123F		
Equipment Number	860		
Location	HAYS, KS.		
Recorded By	RUPP		
Witnessed By	SEAN DEENIHAN	KEVIN DAVIS	

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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

SUPERIOR WELL SERVICES
785-628-6395
THANK YOU FOR YOUR BUSINESS
DIRECTIONS: COLBY, 2S TO RD. "O", 6W, N INTO.



**SUPERIOR
Hays,
Kansas**

MAIN SECTION

Database File: 005215ddn.db
 Dataset Pathname: pass3
 Presentation Format: dil2
 Dataset Creation: Tue Jun 29 16:24:37 2010 by Log Open-Cased 090629
 Charted by: Depth in Feet scaled 1:600

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

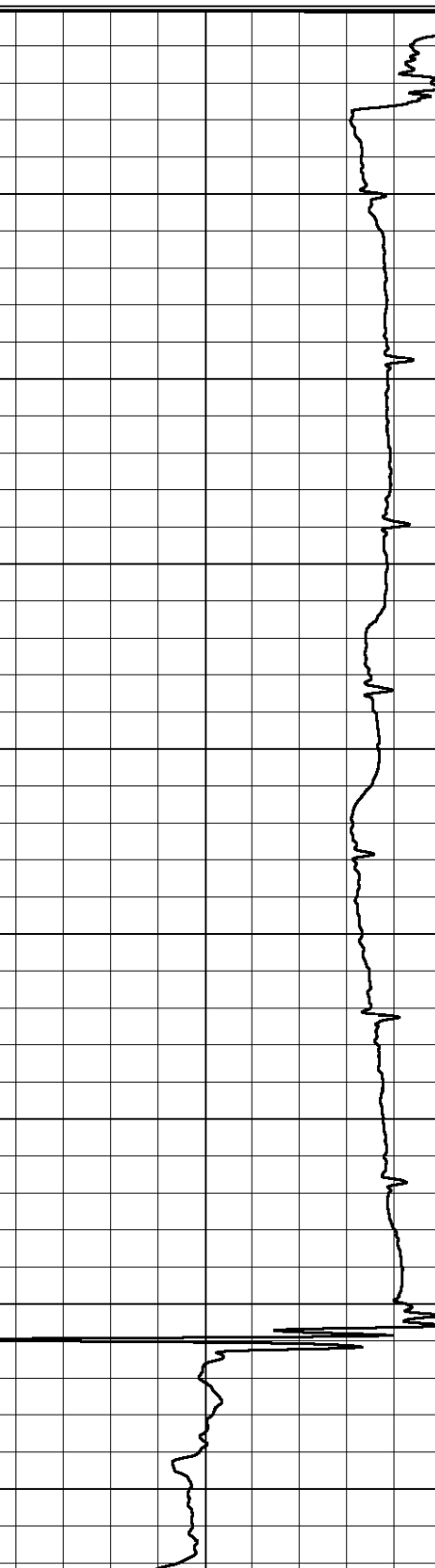
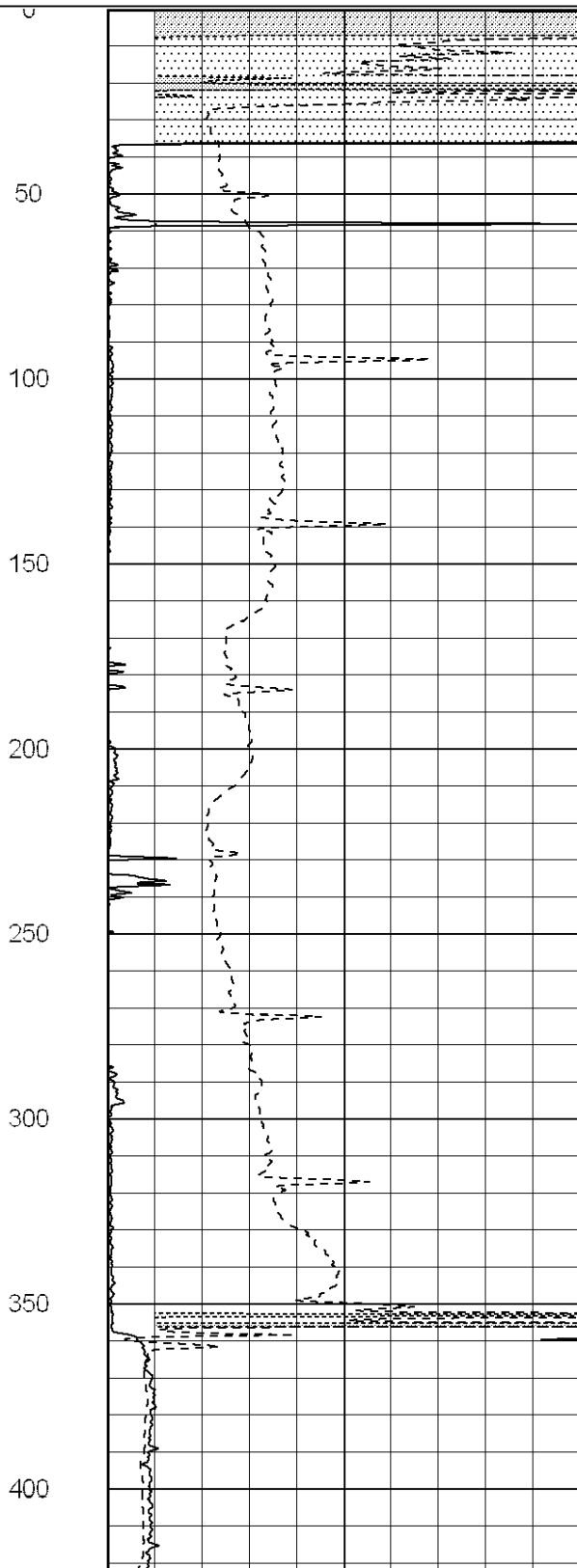
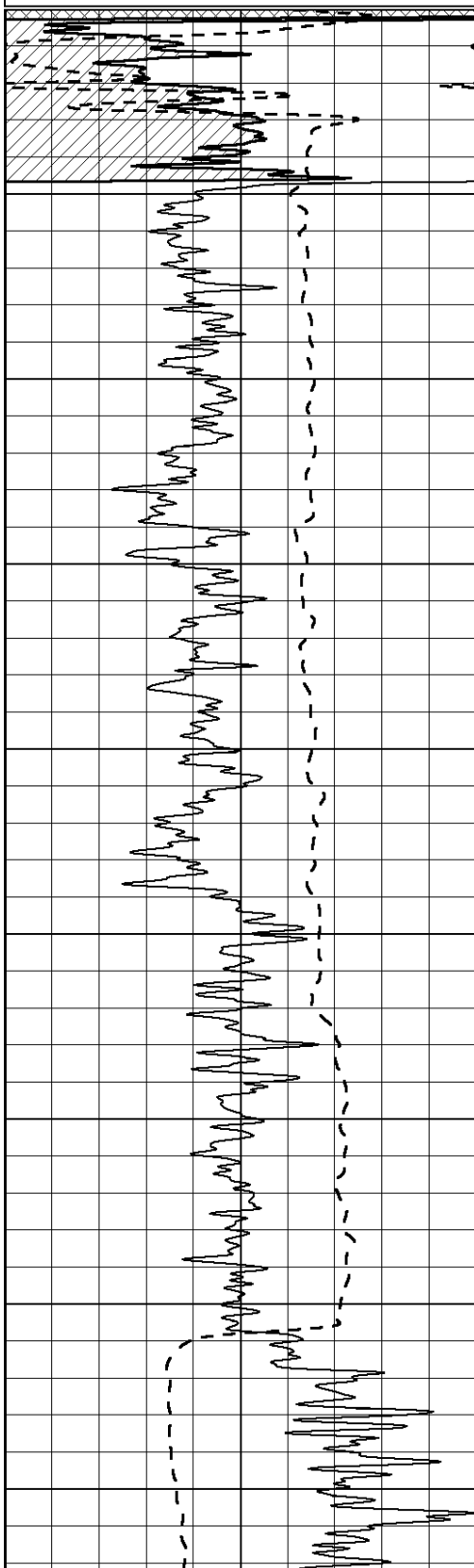
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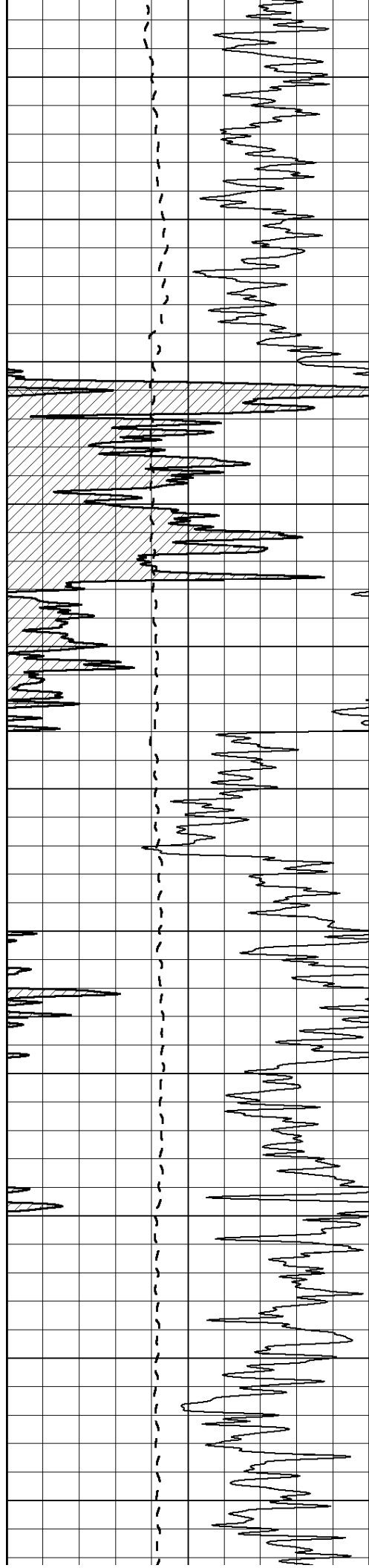
0	Deep Induction (Ohm-m)	50
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1000	CILD (mmho/m)	0
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50	RILD X10 (Ohm-m)	500
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50	RLL3 X10 (Ohm-m)	500
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450

500

550

600

650

700

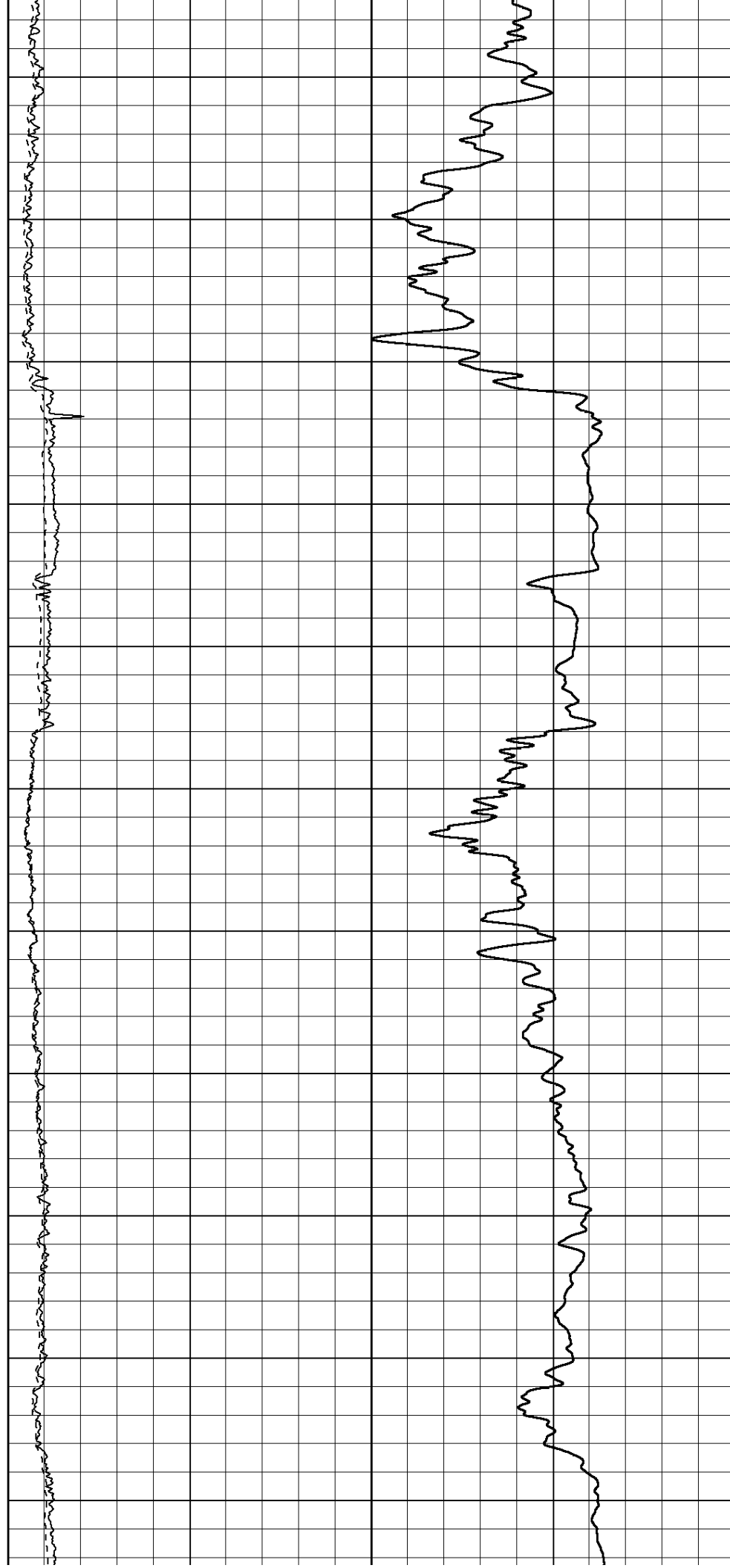
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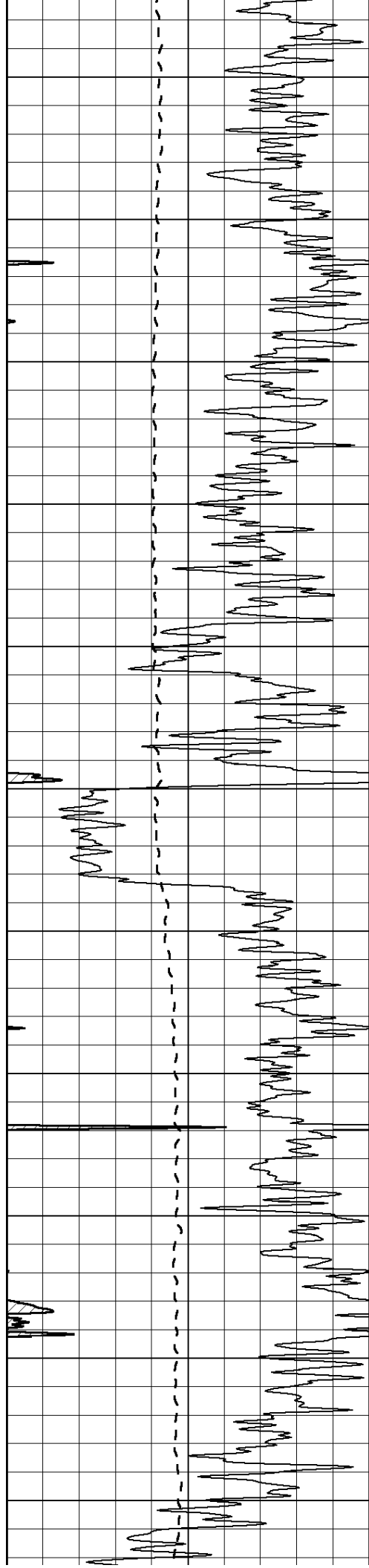
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850

900

950





1000

1050

1100

1150

1200

1250

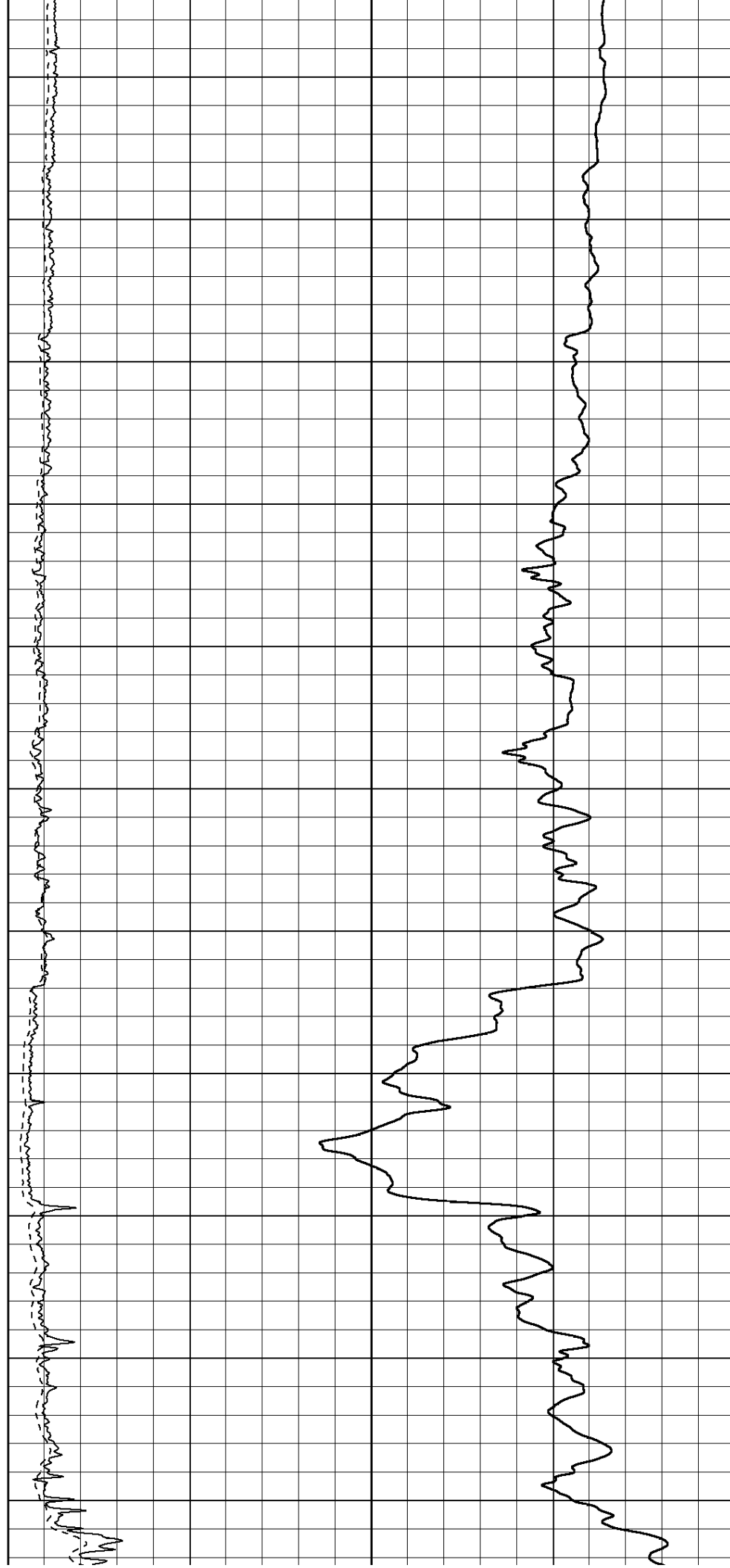
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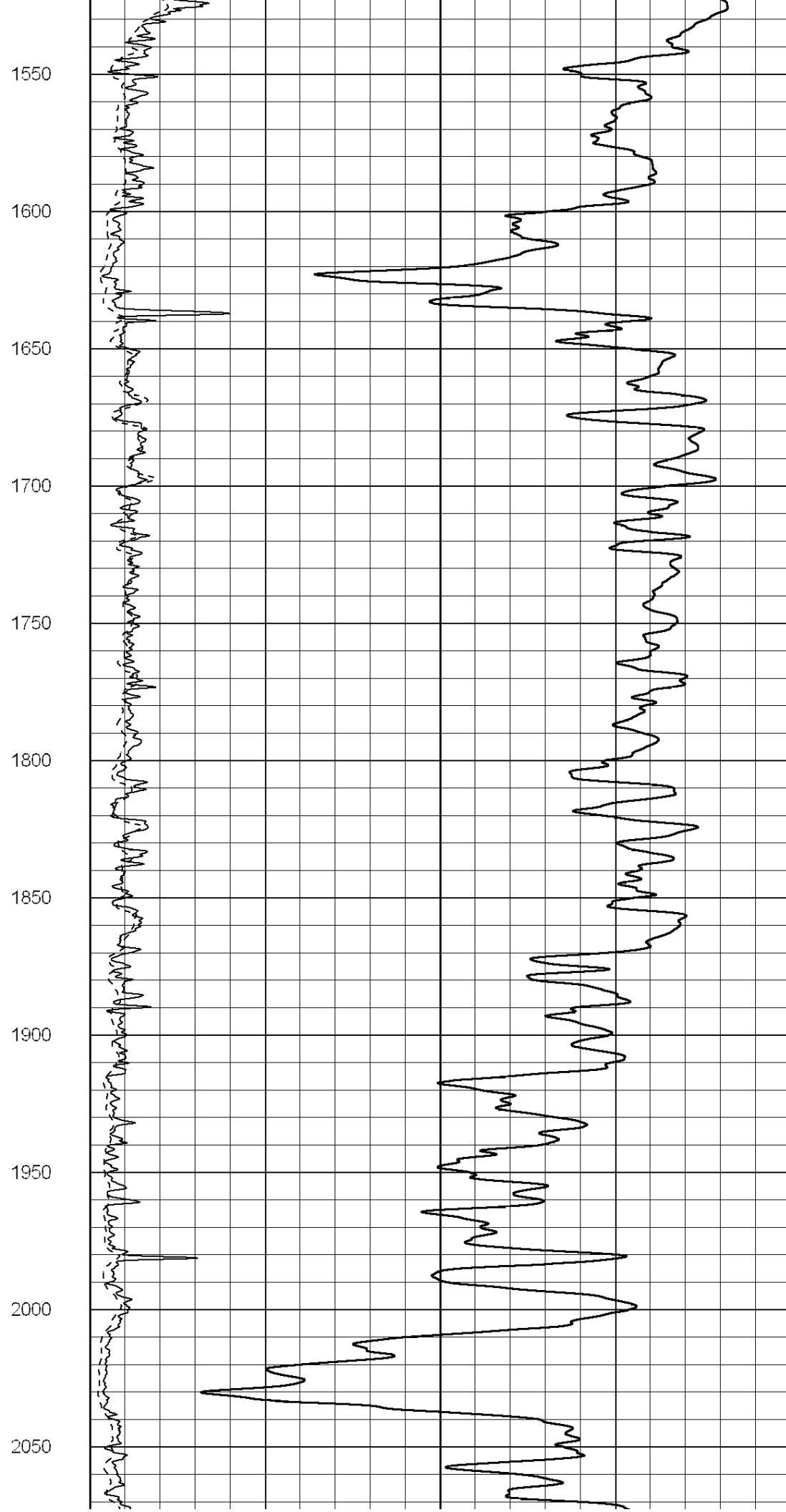
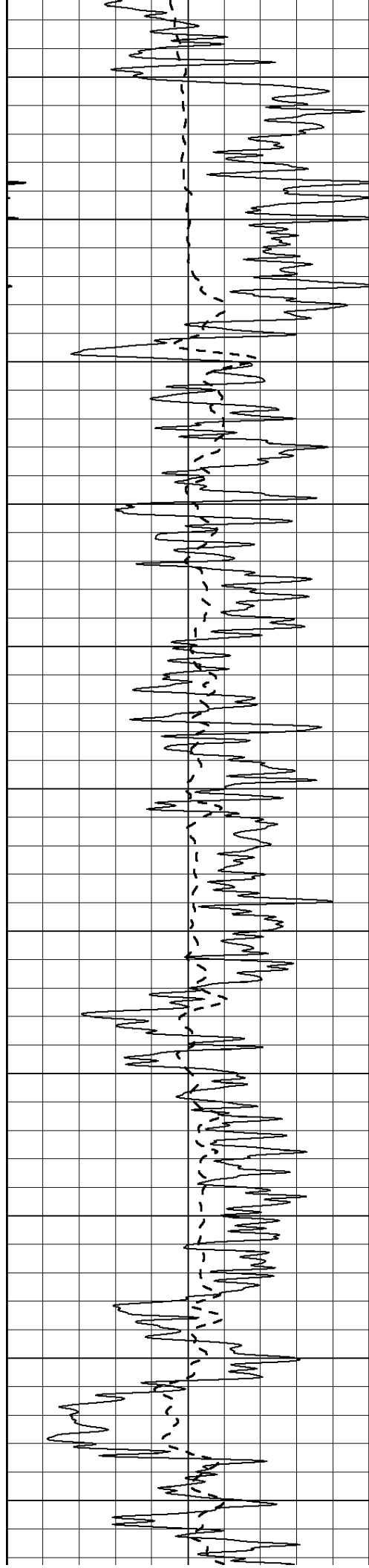
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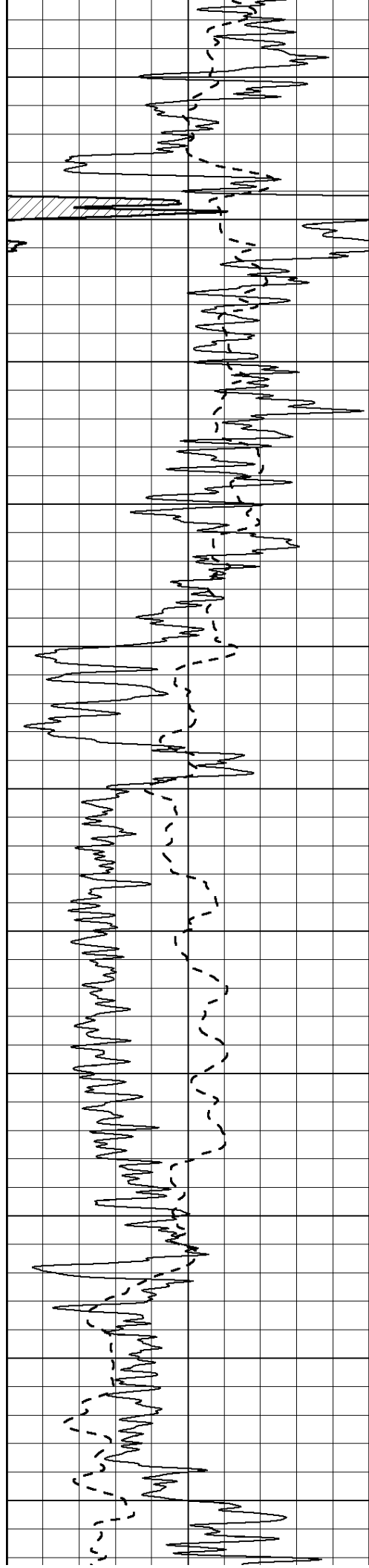
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1450

1500







2100

2150

2200

2250

2300

2350

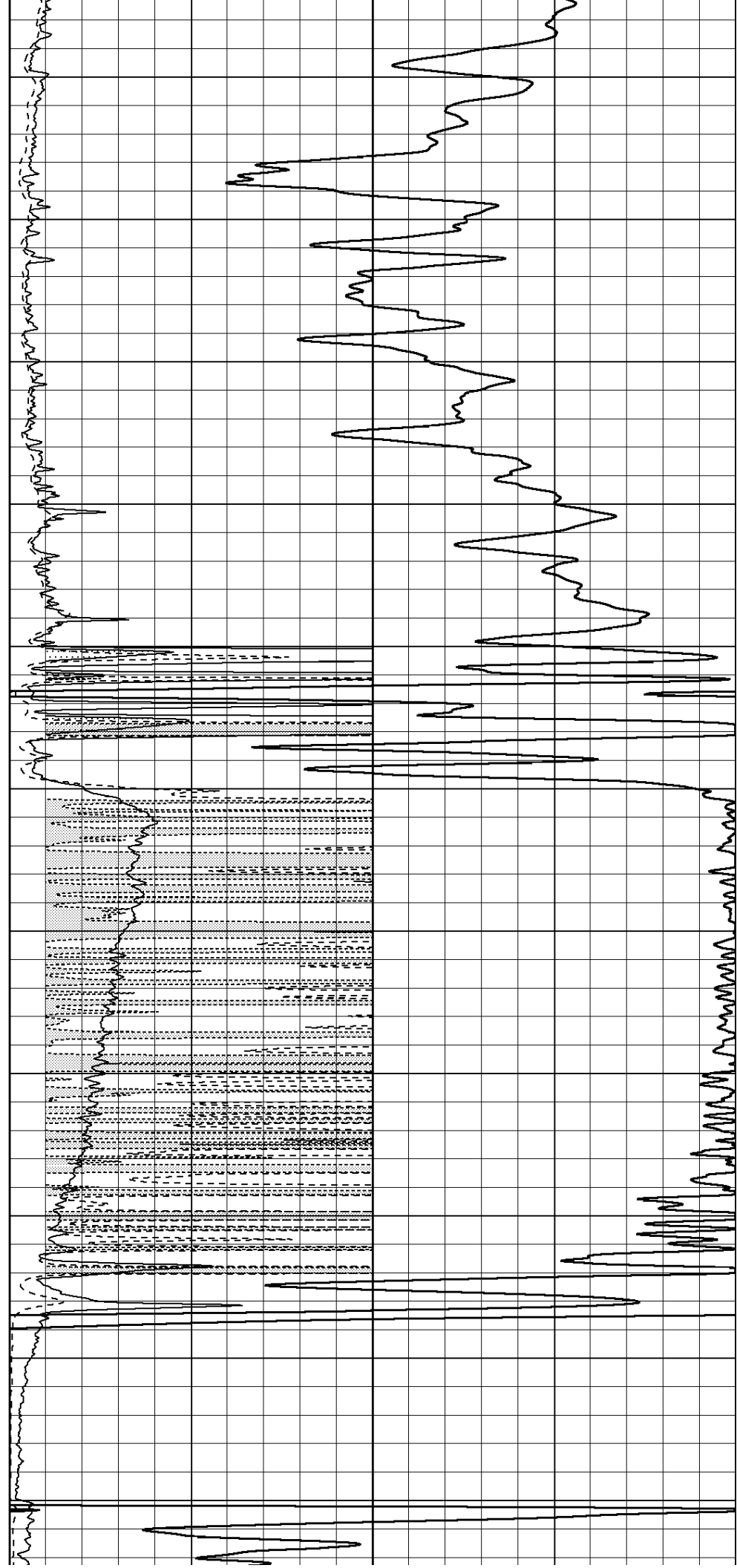
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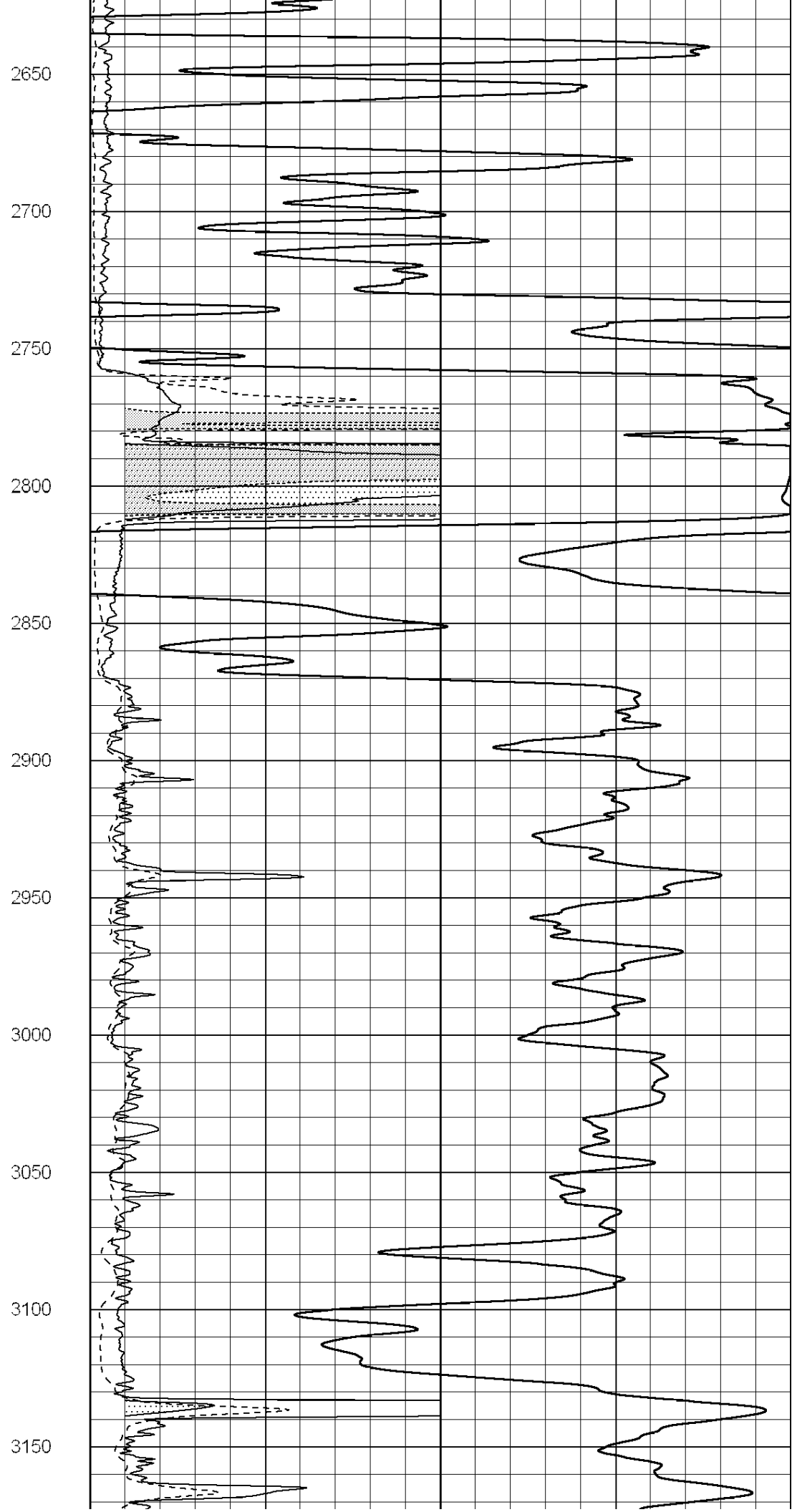
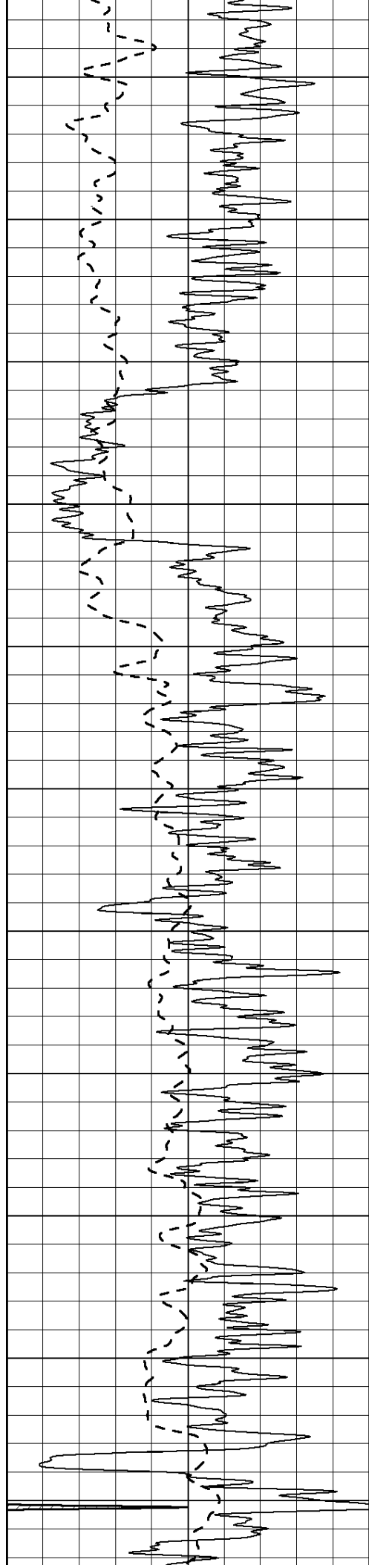
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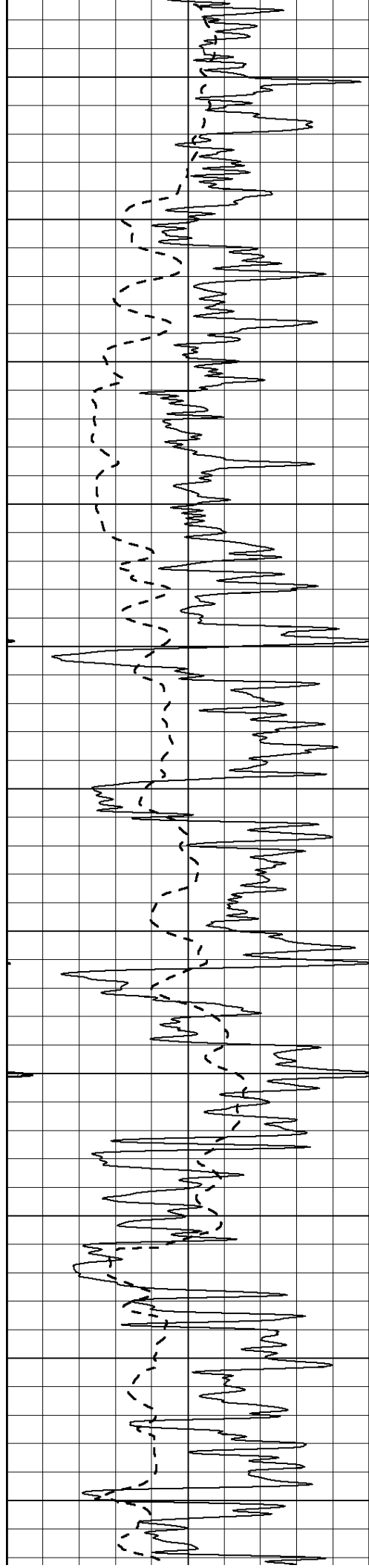
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2550

2600







3200

3250

3300

3350

3400

3450

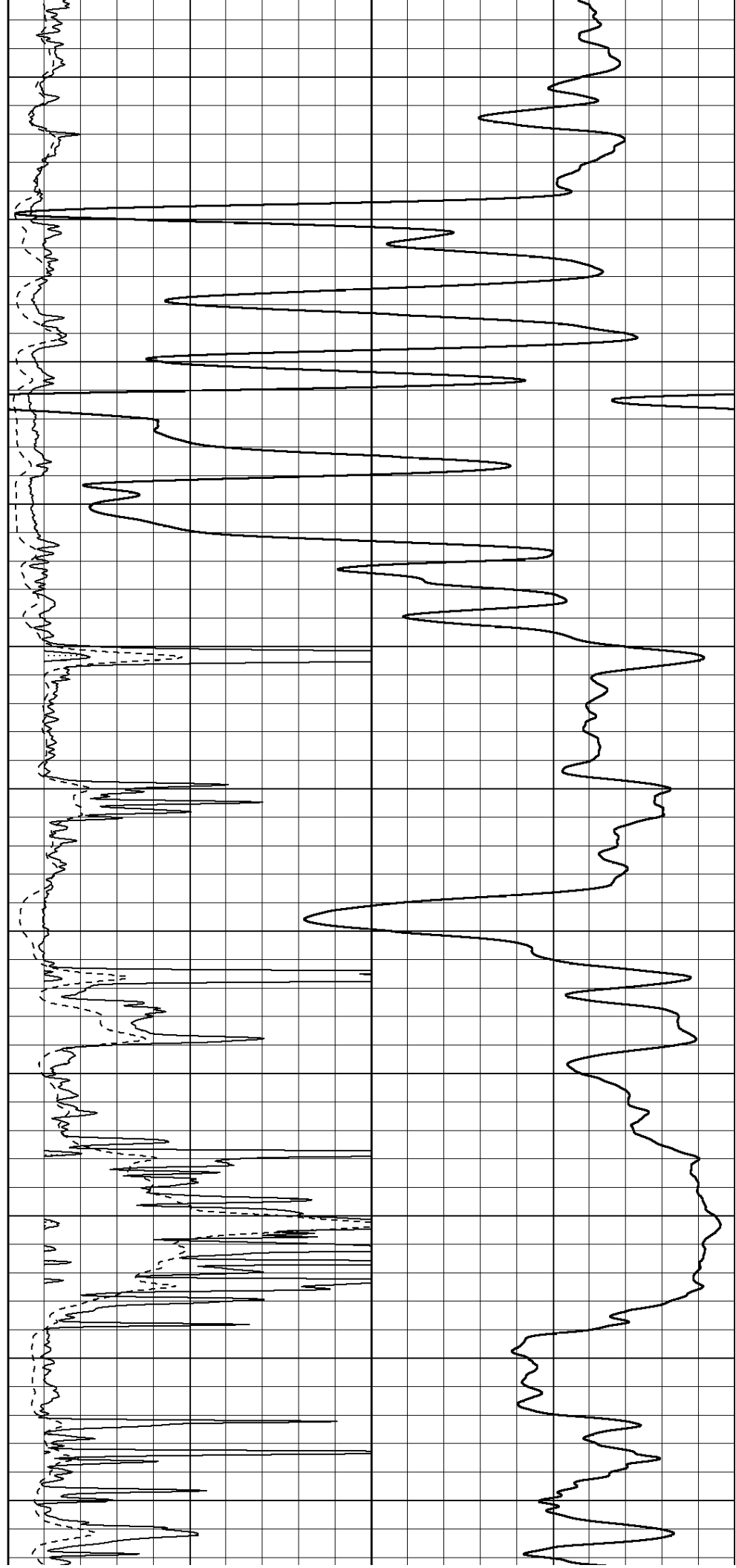
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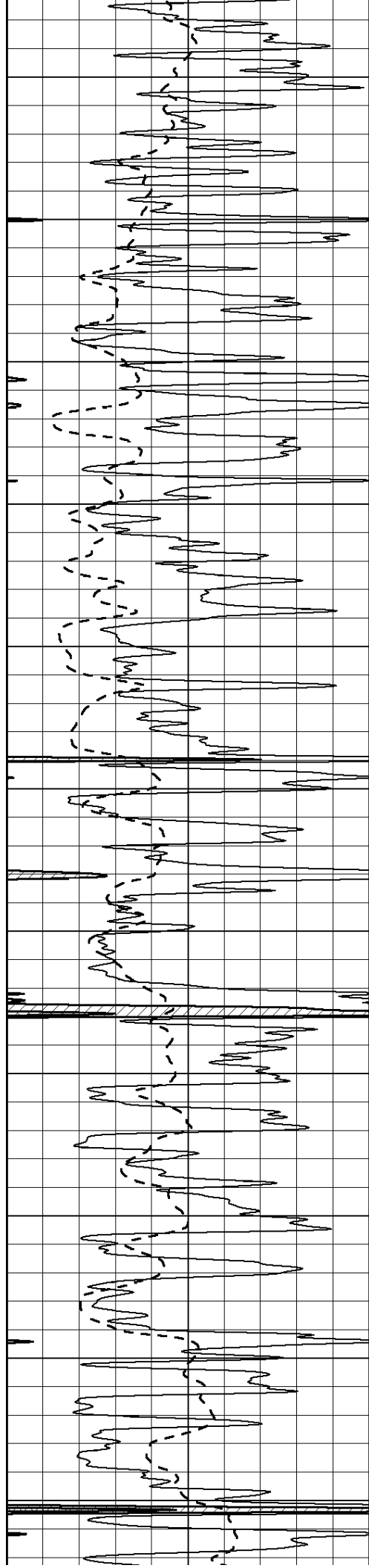
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3700





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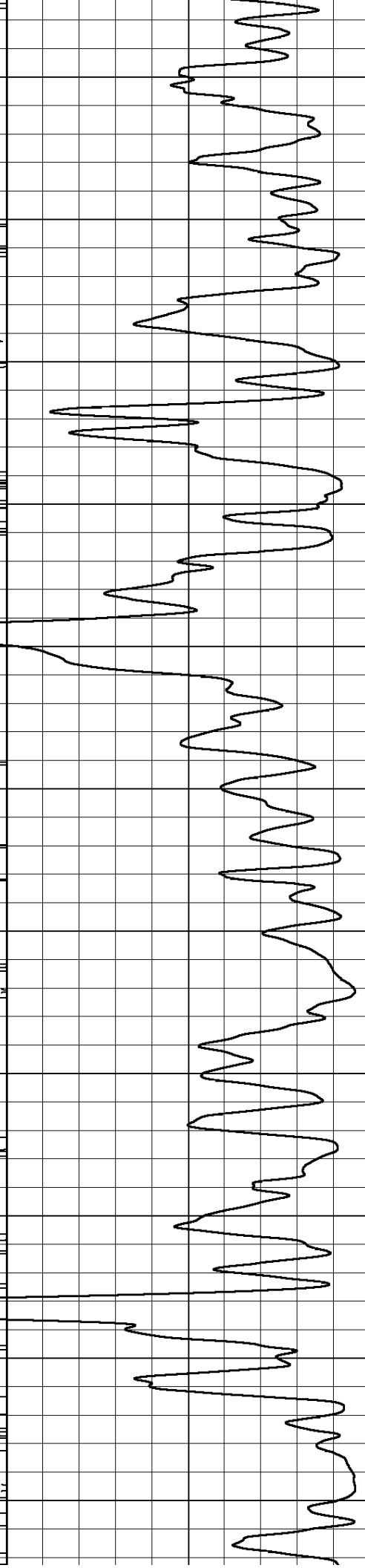
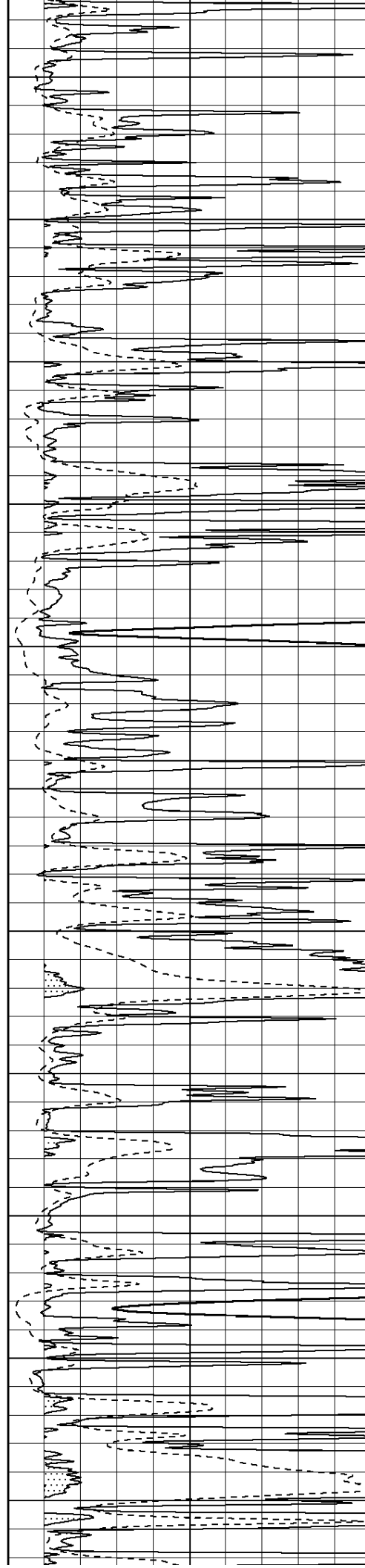
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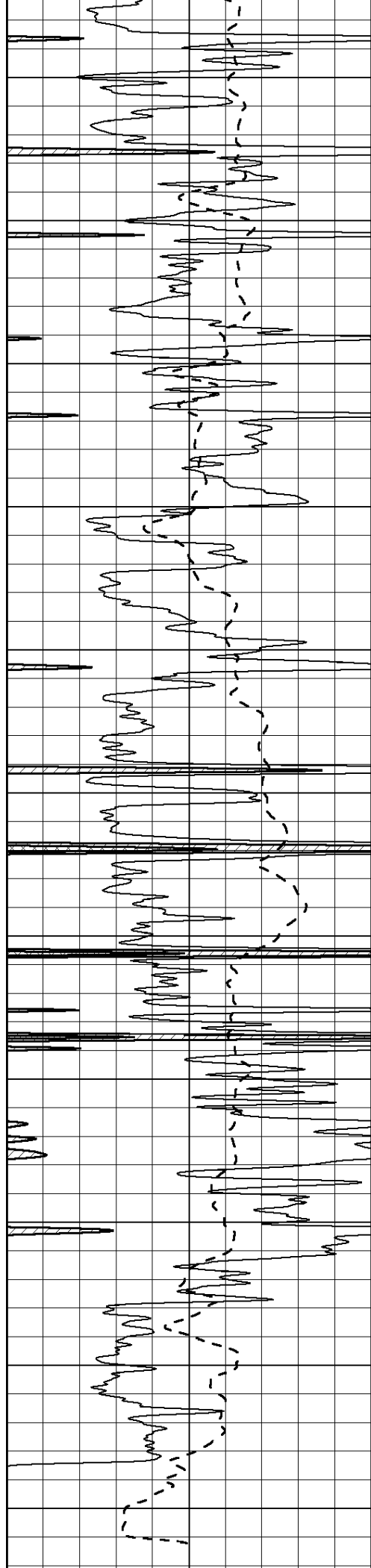
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4200

4250





4300

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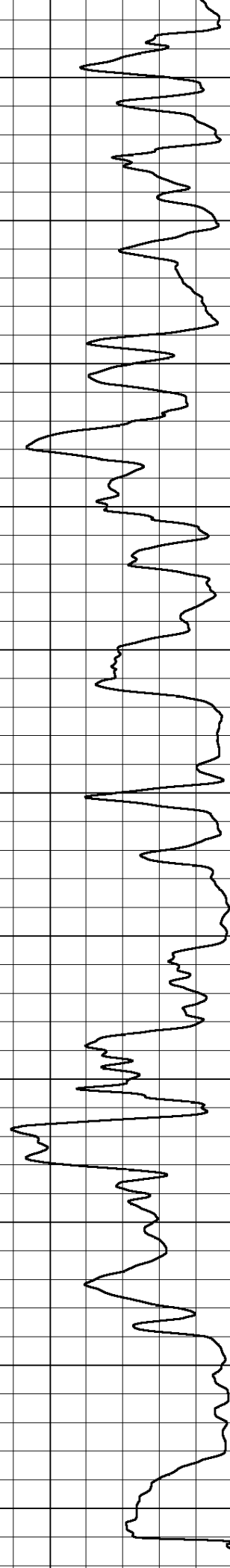
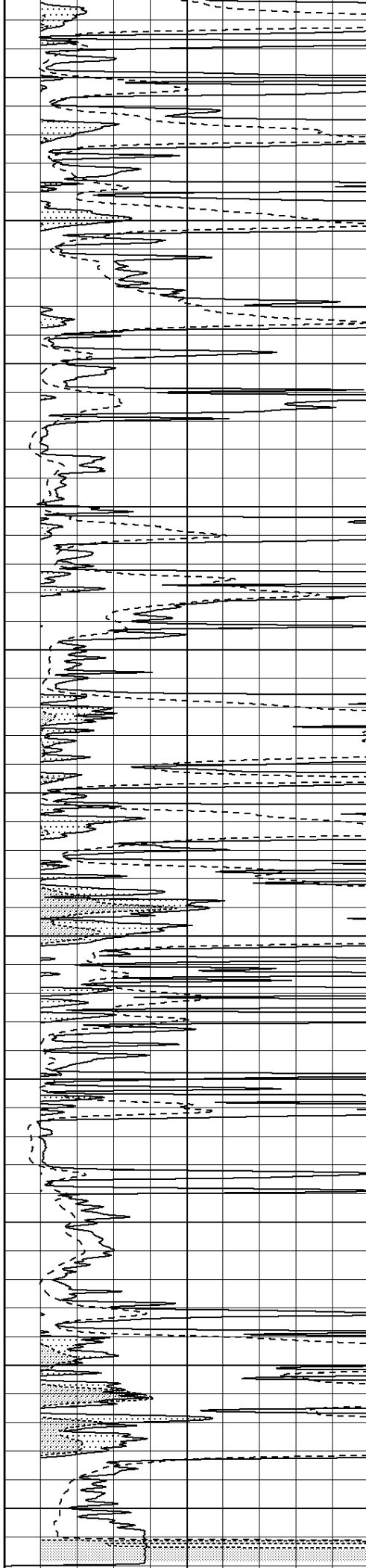
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4650

4700

4750

4800



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



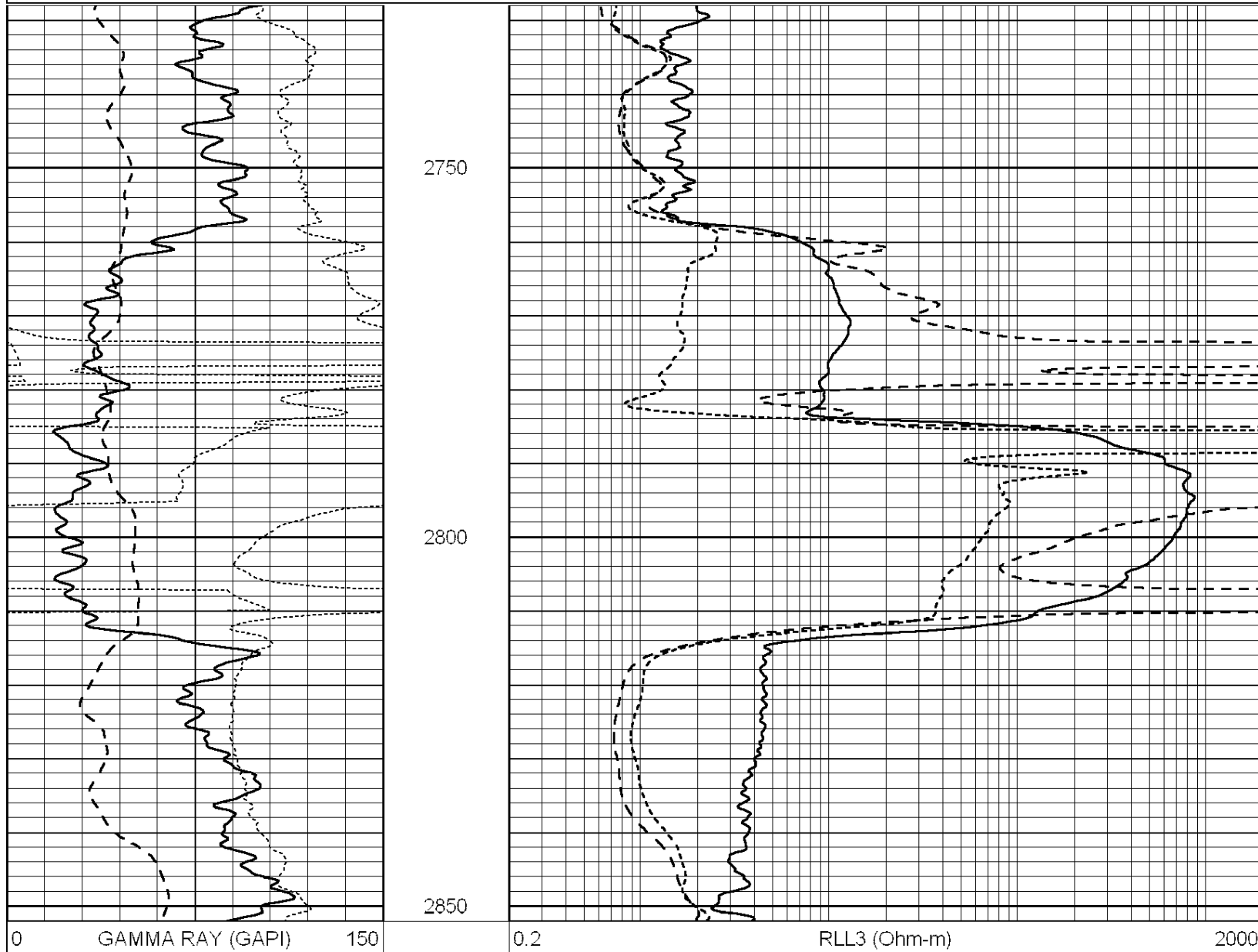
SUPERIOR

Hays,
Kansas

MAIN SECTION

Database File: 005215ddn.db
Dataset Pathname: pass3
Presentation Format: dil
Dataset Creation: Tue Jun 29 16:24:37 2010 by Log Open-Cased 090629
Charted by: Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150	0.2	RLL3 (Ohm-m)	2000
-100	SP (mV)	100	0.2	DEEP INDUCTION (Ohm-m)	2000
-250	RxoRt	50	0.2	MEDIUM INDUCTION (Ohm-m)	2000



-100	SP (mV)	100
-250	RxoRt	50

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



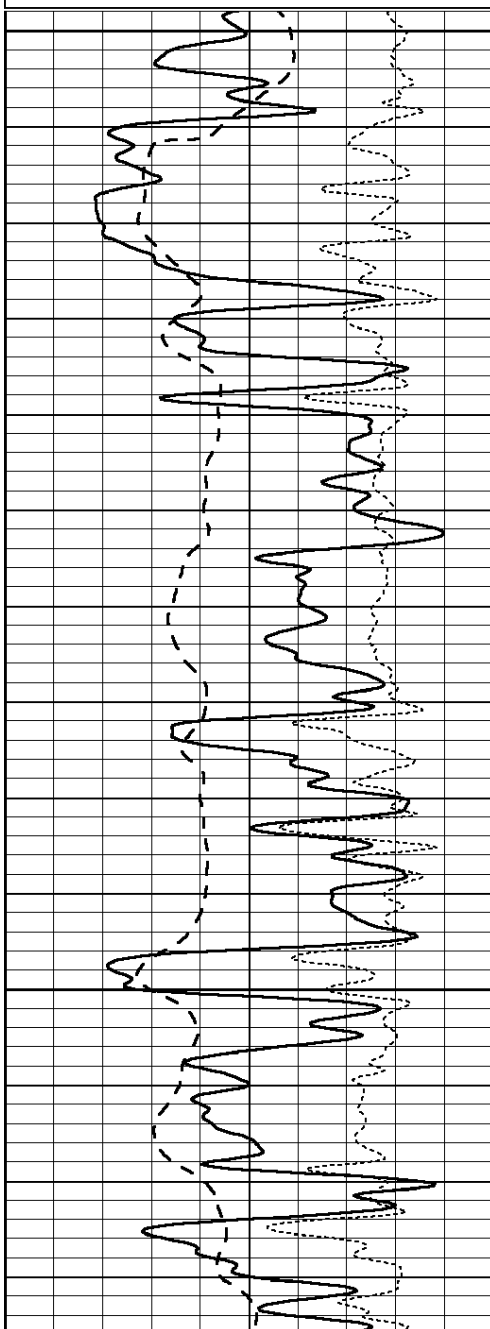
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MAIN SECTION

Database File: 005215ddn.db
Dataset Pathname: pass3
Presentation Format: dil
Dataset Creation: Tue Jun 29 16:24:37 2010 by Log Open-Cased 090629
Charted by: Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	RxoRt	50

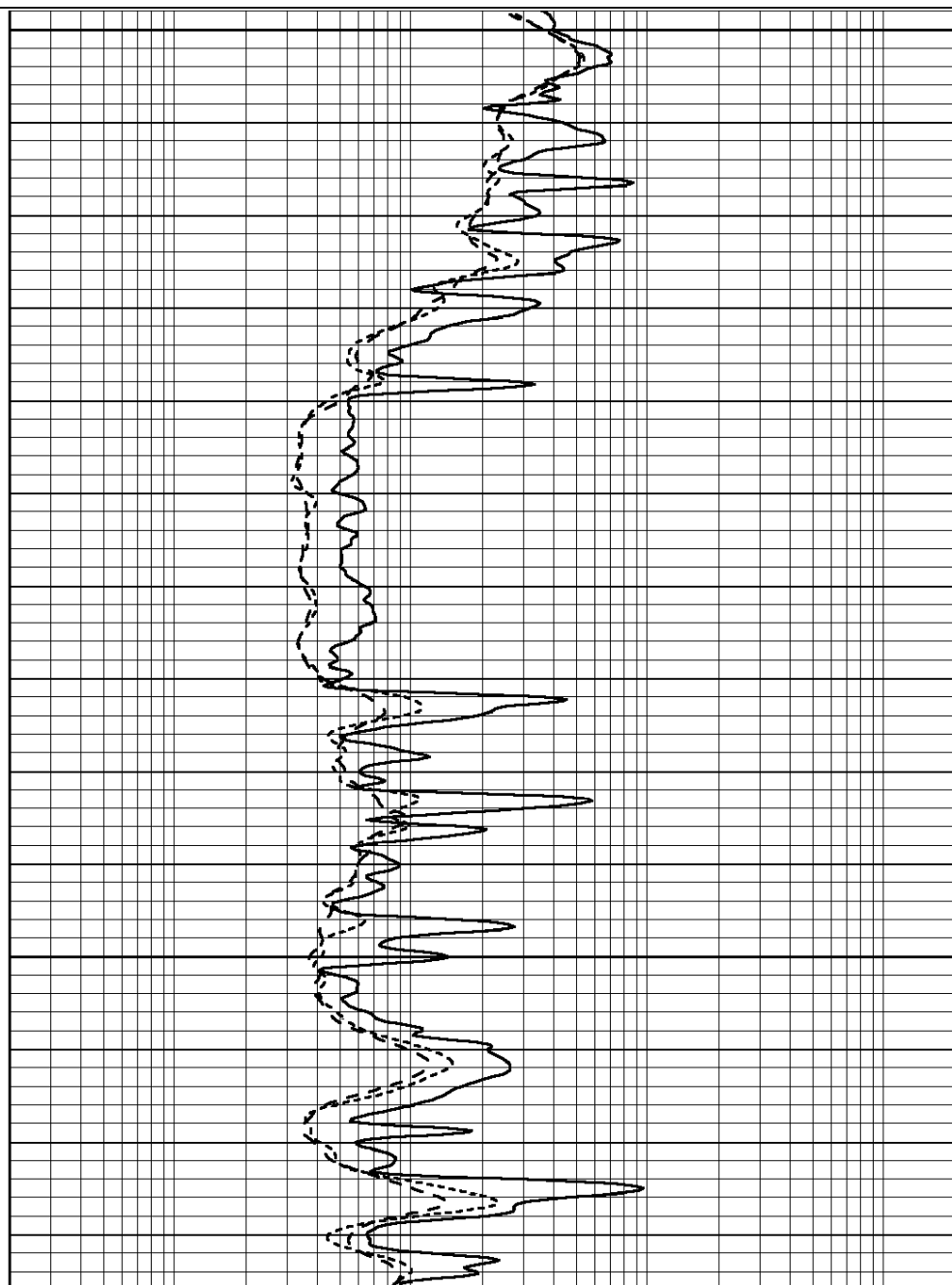
0.2	RLL3 (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000

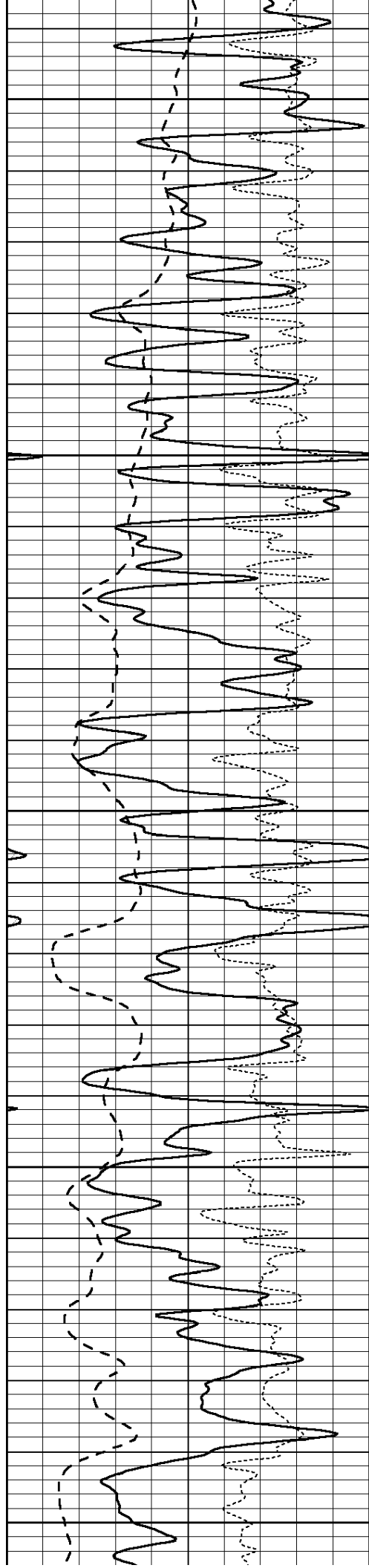


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3700





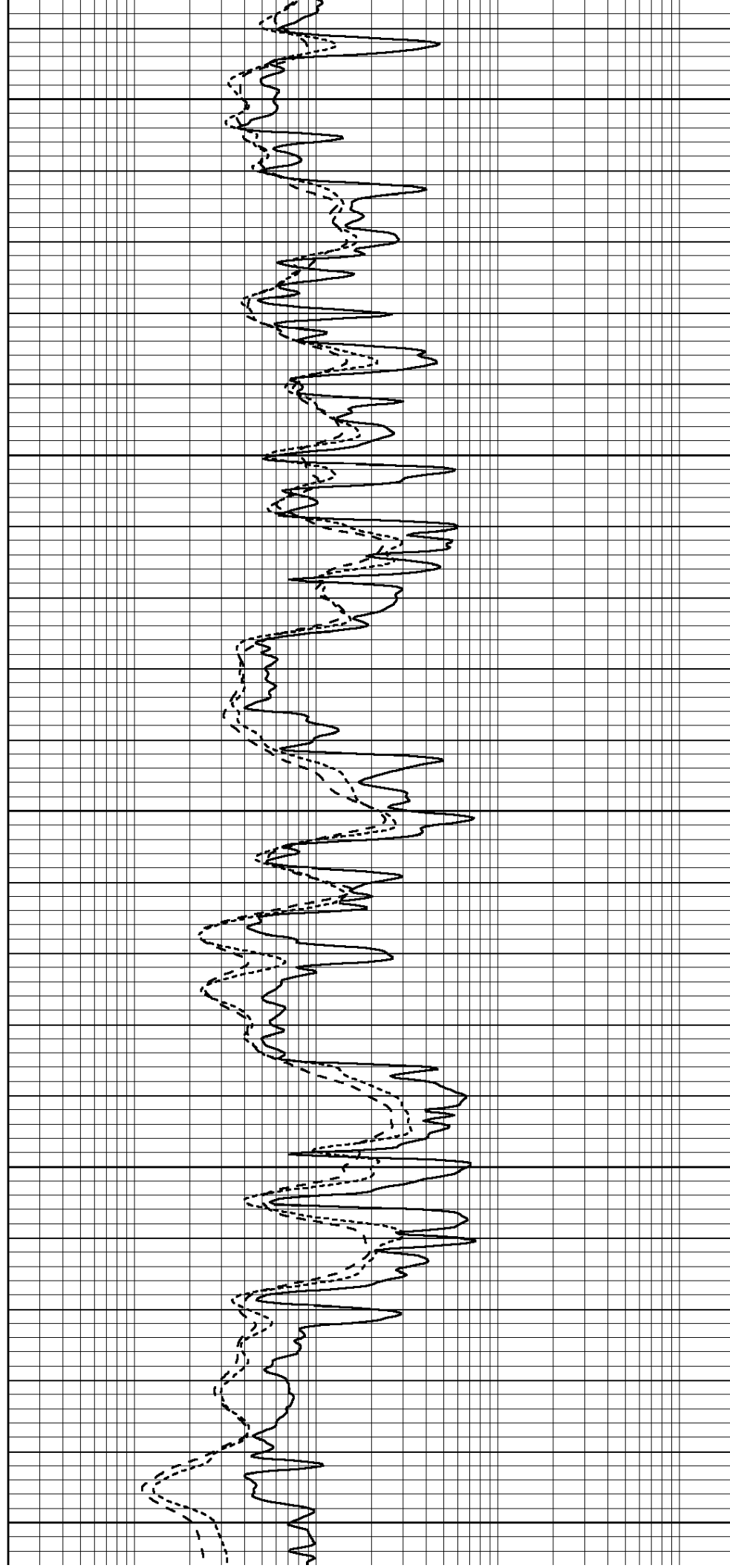
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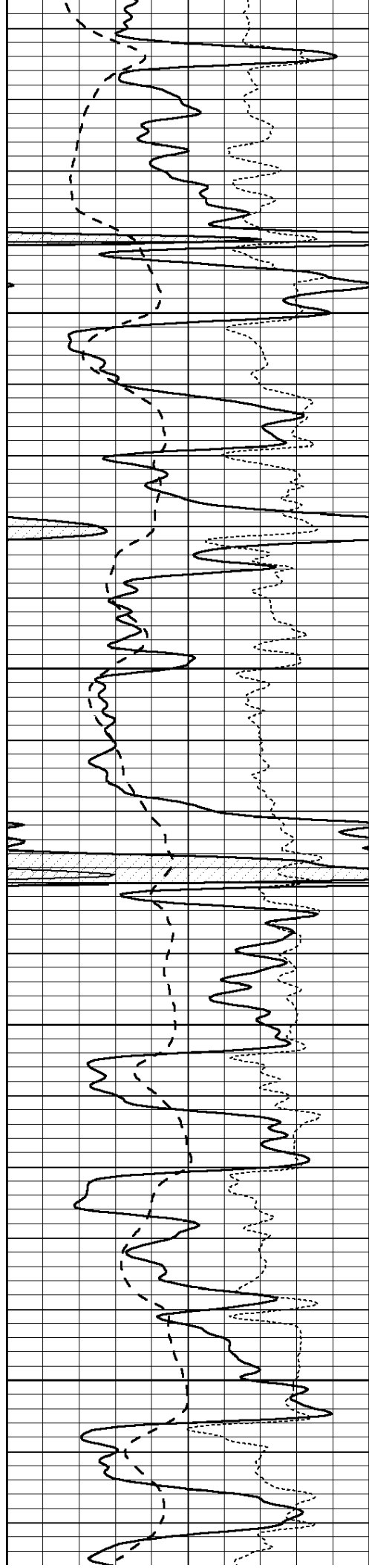
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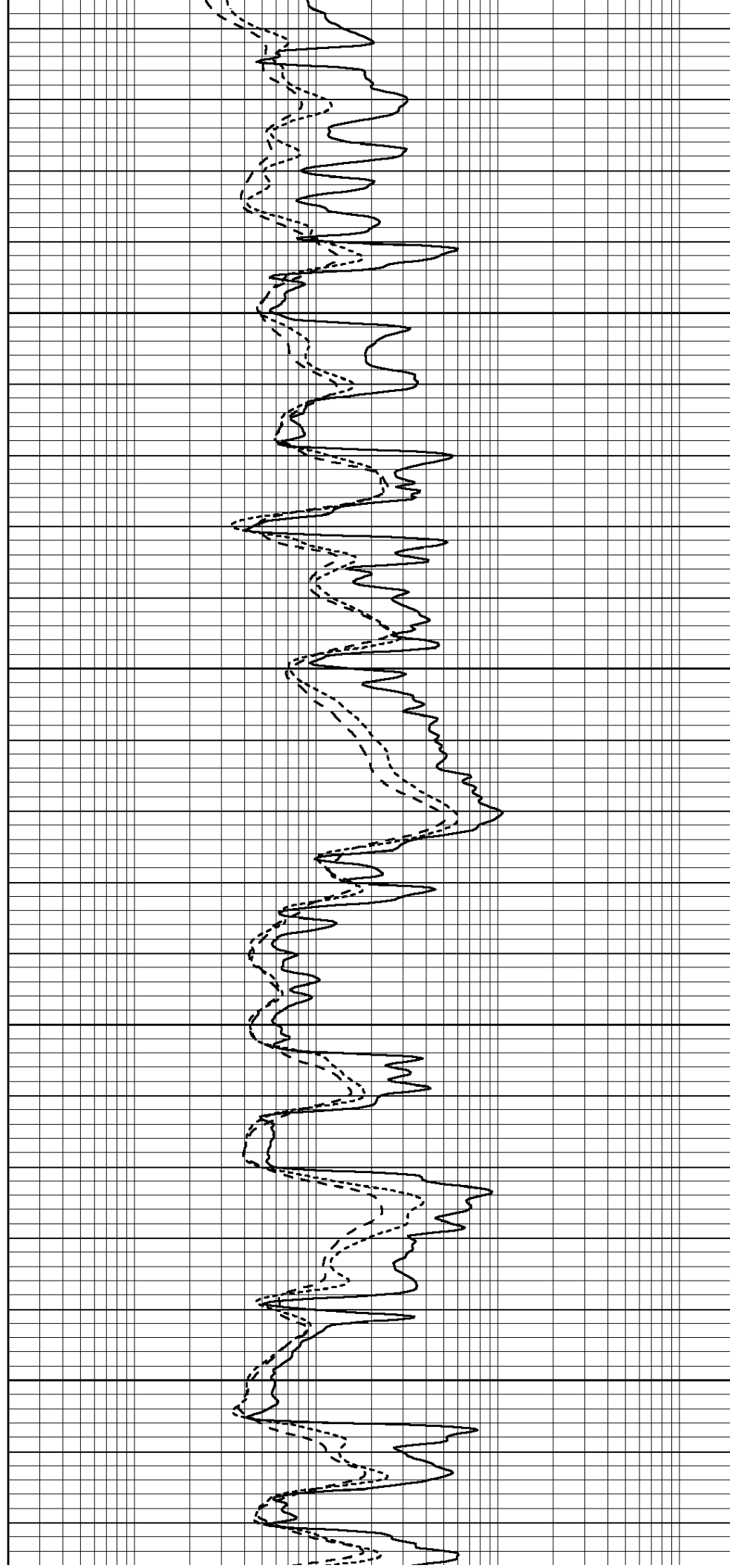


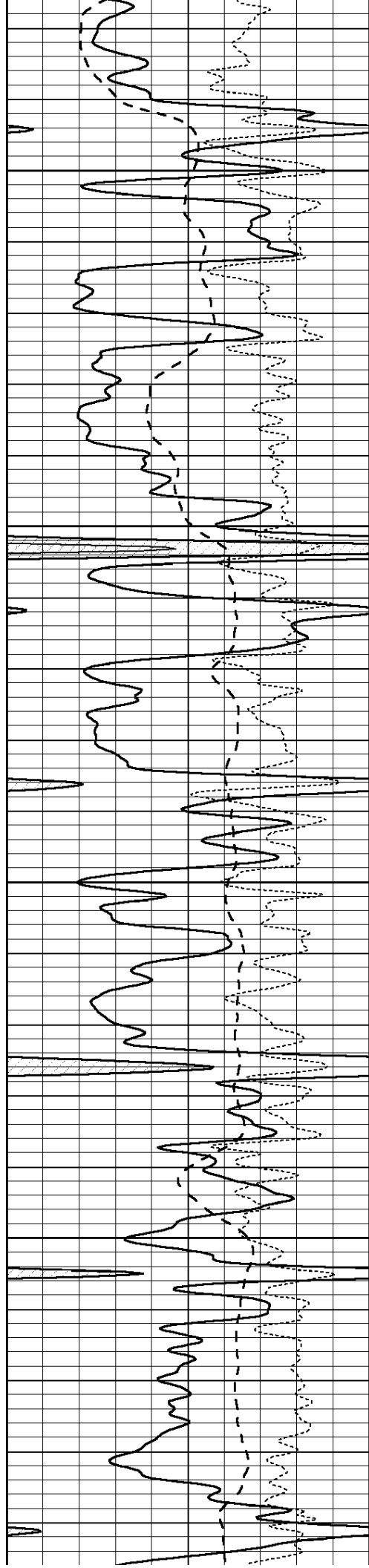
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4050

4100

4150



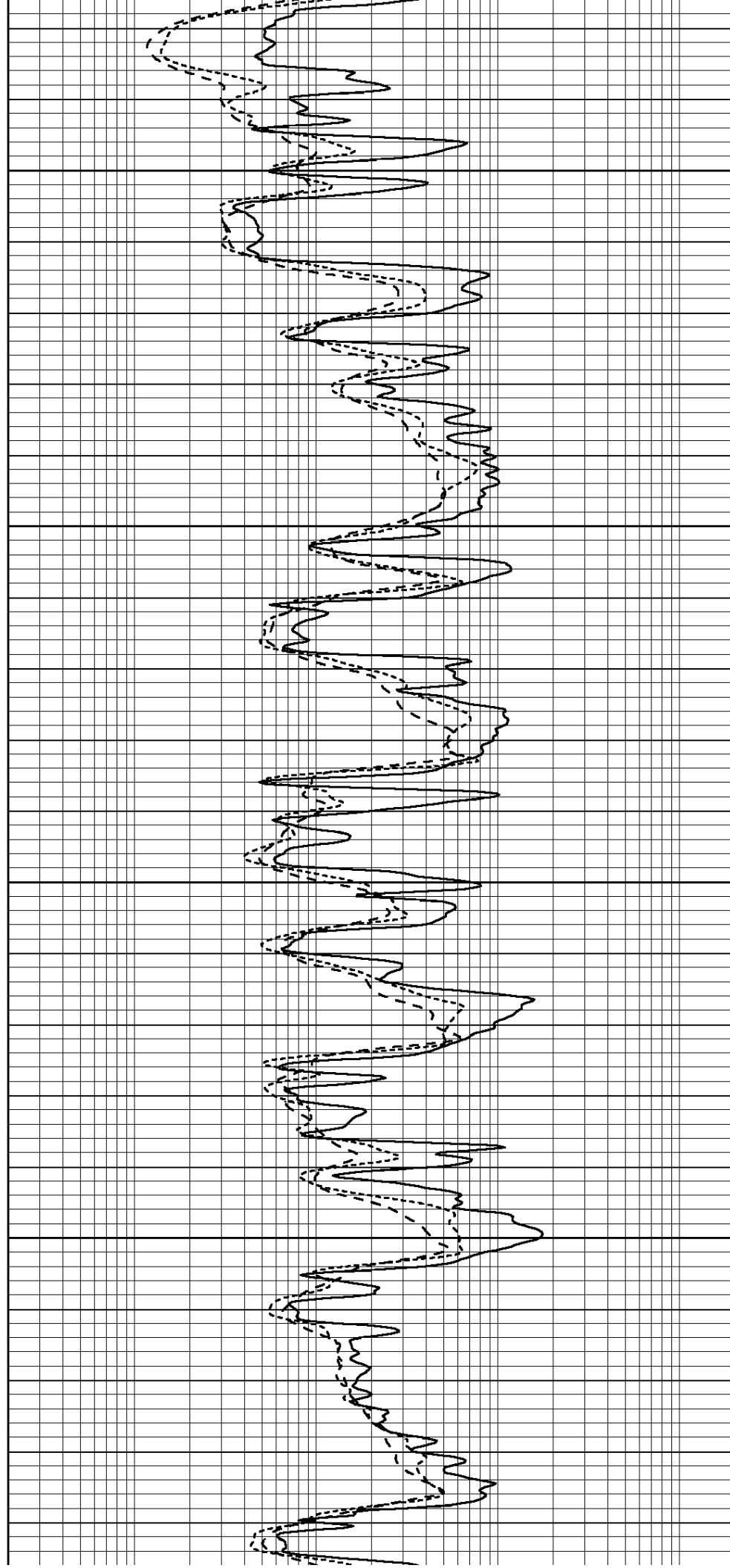


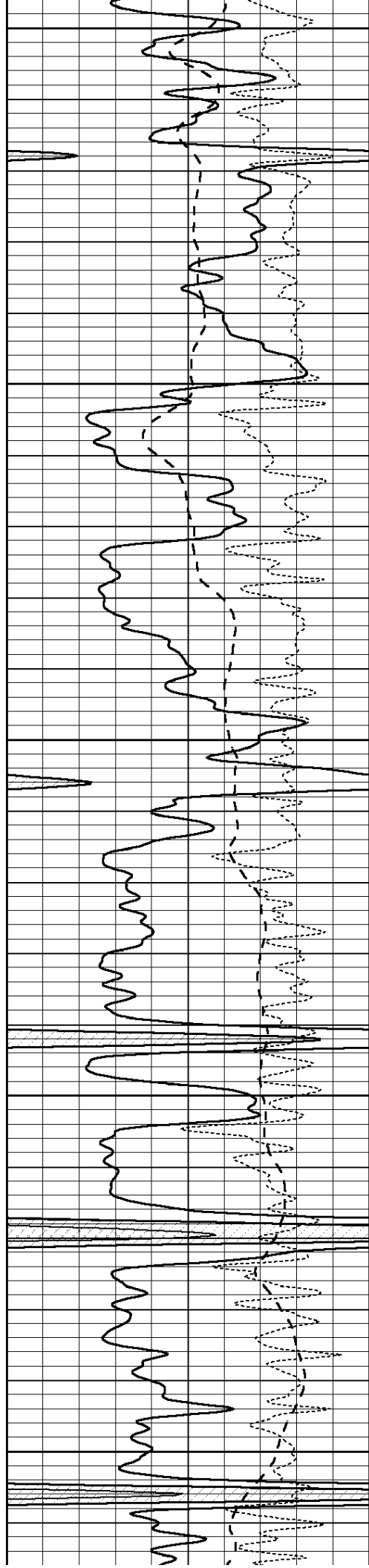
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4250

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4350





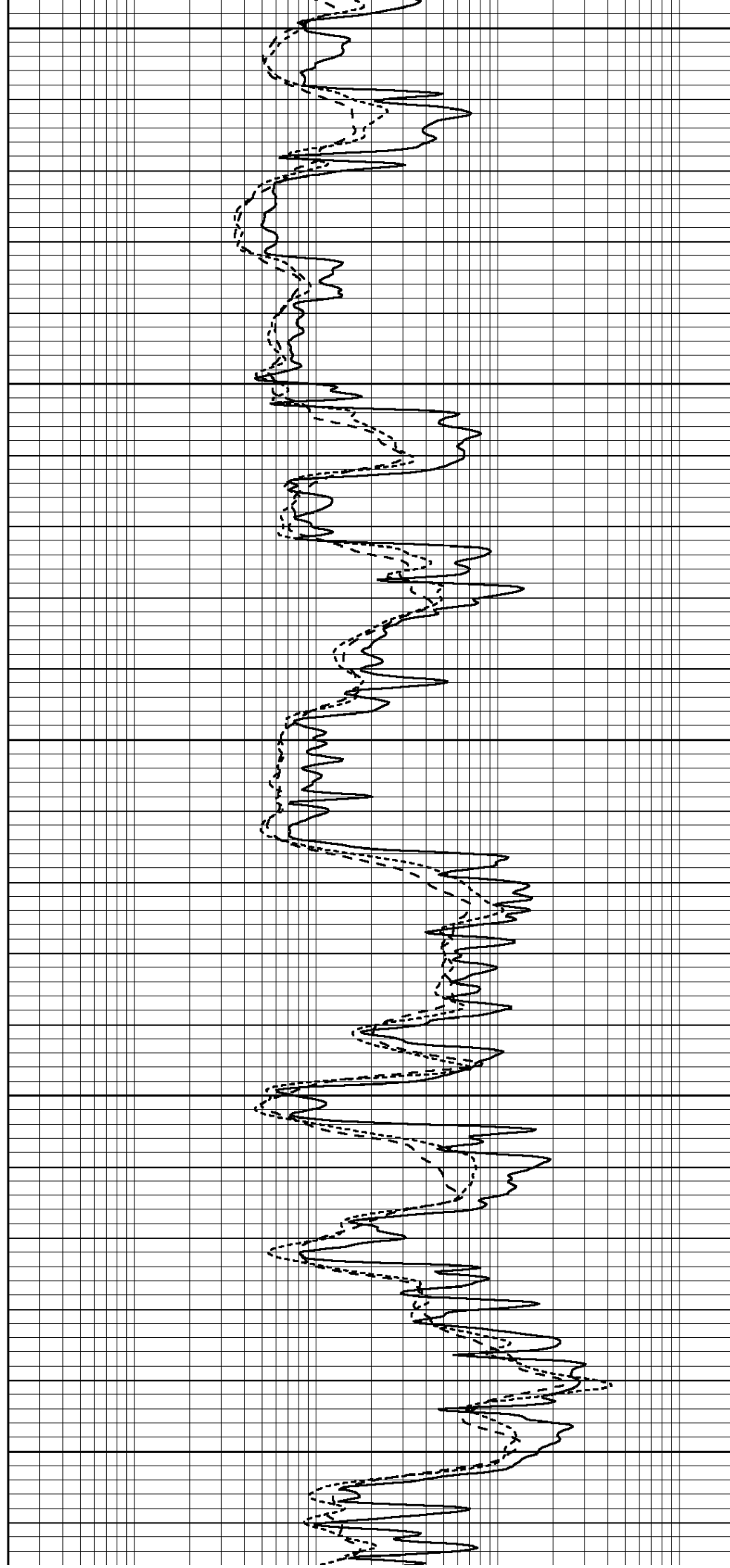
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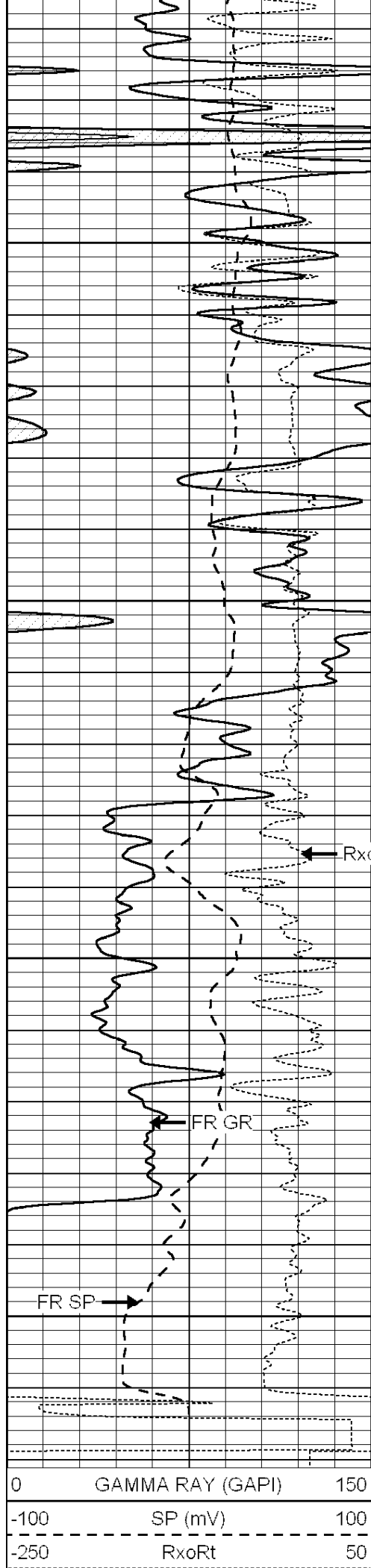
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4500

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4600





4650

4700

4750

4800

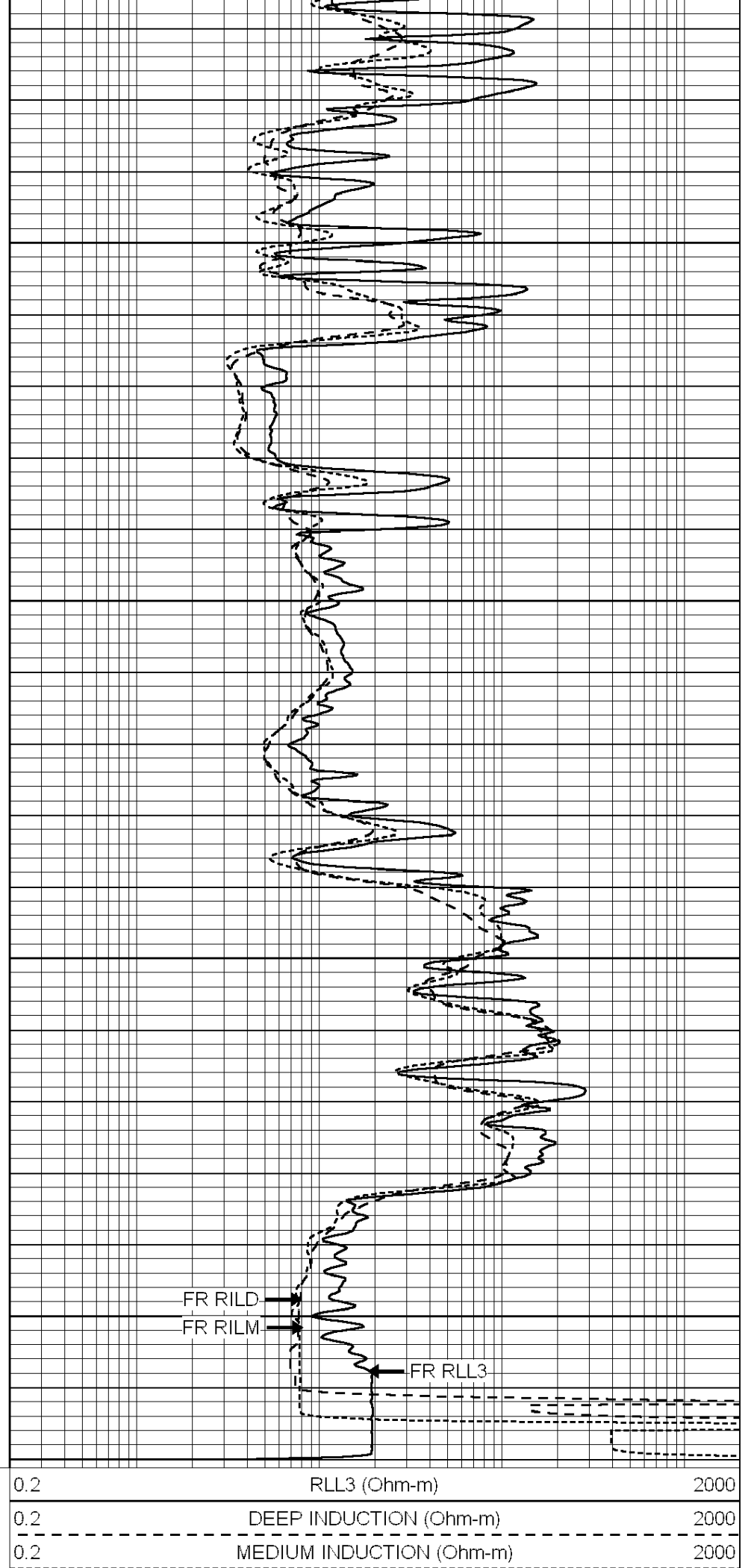
--- TD ---

RxoRt

FR GR

FR SP

0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	RxoRt	50



FR RILD

FR RILM

FR RLL3

0.2	RLL3 (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000



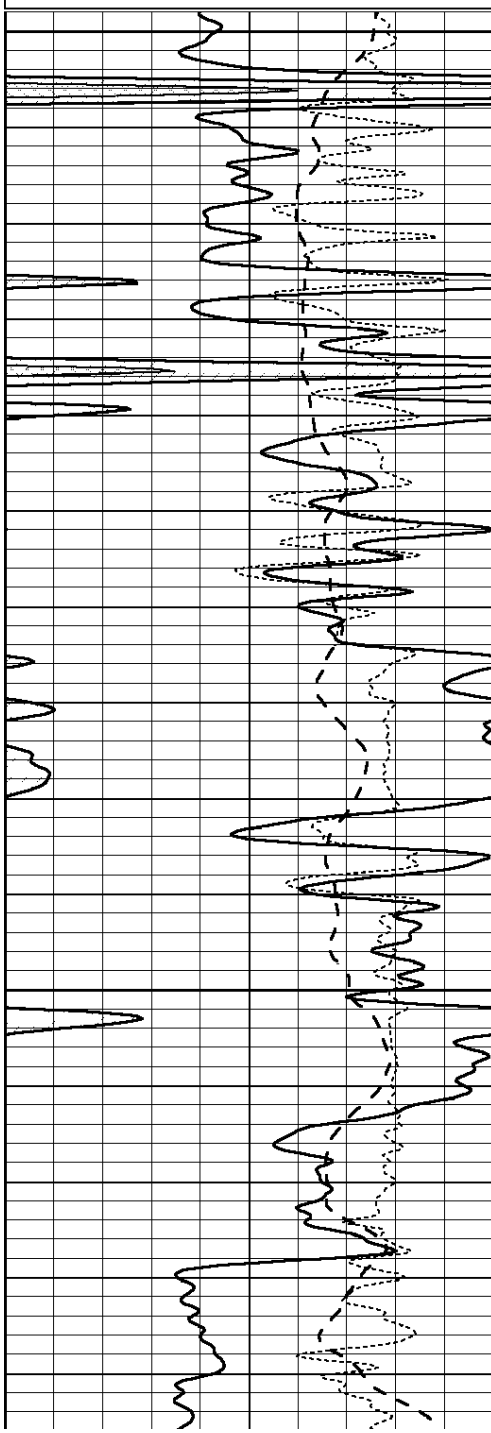
SUPERIOR
Hays,
Kansas

REPEAT SECTION

Database File: 005215ddn.db
Dataset Pathname: pass2.A
Presentation Format: dil
Dataset Creation: Tue Jun 29 17:53:02 2010 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

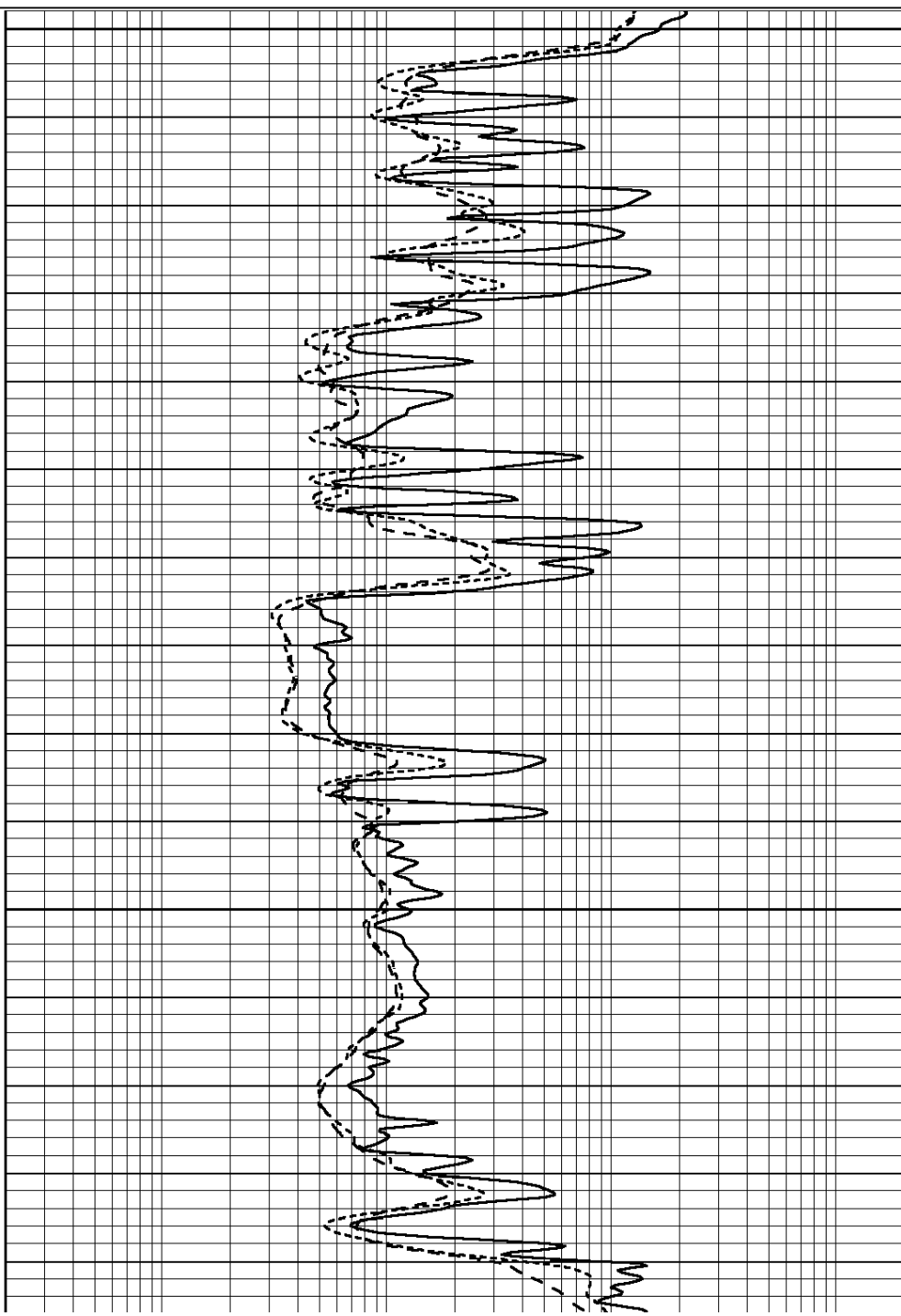
0.2	RLL3 (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000

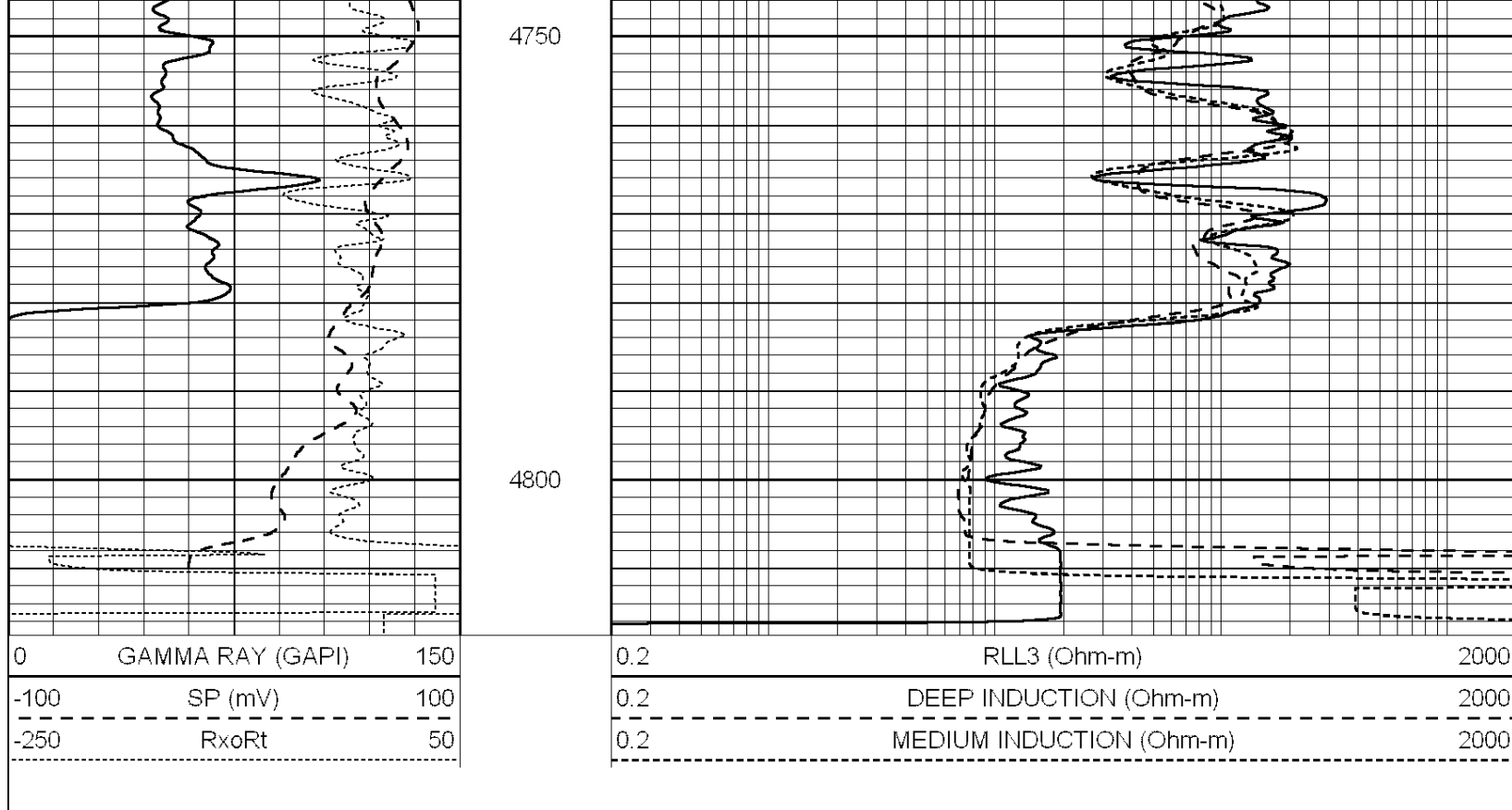


4600

4650

4700





Calibration Report

Database File: 005215ddn.db
 Dataset Pathname: pass3
 Dataset Creation: Tue Jun 29 16:24:37 2010 by Log Open-Cased 090629

Dual Induction Calibration Report

Serial-Model: DIL5-GEAR
 Performed: Tue Jun 29 16:24:21 2010

Loop:	Readings			References			Results	
	Air	Loop		Air	Loop		m	b
Deep	0.004	0.654	V	0.000	400.000	mmho/m	540.000	-7.000
Medium	-0.005	0.737	V	0.000	462.500	mmho/m	520.000	-8.000
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.006	0.655	V	0.000	400.000	mmho/m	615.668	-3.483
Medium	0.010	0.747	V	0.000	462.500	mmho/m	627.607	-6.064

Compensated Density Calibration Report

Serial-Model: GEAR1-GEARHART
 Source / Verifier: 147 / 147
 Master Calibration Performed: Tue Jun 29 16:24:11 2010

Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.710	g/cc	1243.76	629.14	cps
Aluminum	2.580	g/cc	282.16	435.01	cps

Spine Angle = 76.03

Density/Spine Ratio = 0.569

Size

Reading

Small Ring	7.60	in	3.82	V	
Large Ring	14.00	in	6.37	V	
Compensated Neutron Calibration Report					
Serial Number:		NEU_1I			
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 Jun 29 15:55:15 2010			
Calibrator Value:		1.0	GAPI		
Background Reading:		0.0	cps		
Calibrator Reading:		1.0	cps		
Sensitivity:		0.6200	GAPI/cps		