



**COMPLETION
& PRODUCTION
SERVICES CO.**

**DUAL
INDUCTION
LOG**

Company L.D. DRILLING, INC.
Well LARRY LUNDGREN "B" # 1-30
Field WILDCAT
County GOVE State KANSAS

Company L.D. DRILLING, INC.
Well LARRY LUNDGREN "B" # 1-30
Field WILDCAT
County GOVE
State KANSAS

Location: API #: 15-063-22109
2032' FNL & 804' FEL
SEC 30 TWP 14S RGE 29W
Permanent Datum GROUND LEVEL Elevation 2596
Log Measured From KELLY BUSHING 5' A.G.L.
Drilling Measured From KELLY BUSHING
Other Services
CNL/CDL
MEL/SONIC
Elevation
K.B. 2601
D.F. 2599
G.L. 2596

Date	6/21/13
Run Number	ONE
Depth Driller	4404
Depth Logger	4402
Bottom Logged Interval	4376
Top Log Interval	00
Casing Driller	345
Casing Logger	340
Bit Size	7.875
Type Fluid in Hole	CHEMICAL MUD
Density / Viscosity	9.3 / 50
pH / Fluid Loss	8.5 / 8.8
Source of Sample	FLOWLINE
Rim @ Meas. Temp	0.95 @ 89F
Rmf @ Meas. Temp	0.71 @ 89F
Rmc @ Meas. Temp	1.14 @ 89F
Source of Rmf / Rmc	MEASURED
Rim @ BHT	0.70 @ 120F
Time Circulation Stopped	2 HOURS
Time Logger on Bottom	
Maximum Recorded Temperature	120F
Equipment Number	860
Location	HAYS, KS.
Recorded By	IAN MABB
Witnessed By	KIM SHOEMAKER

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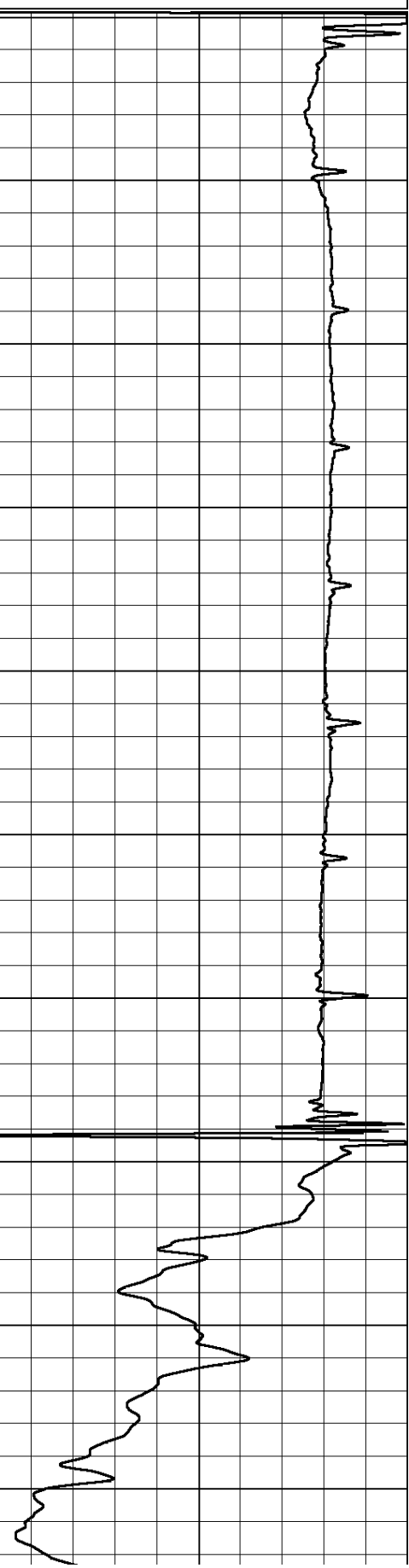
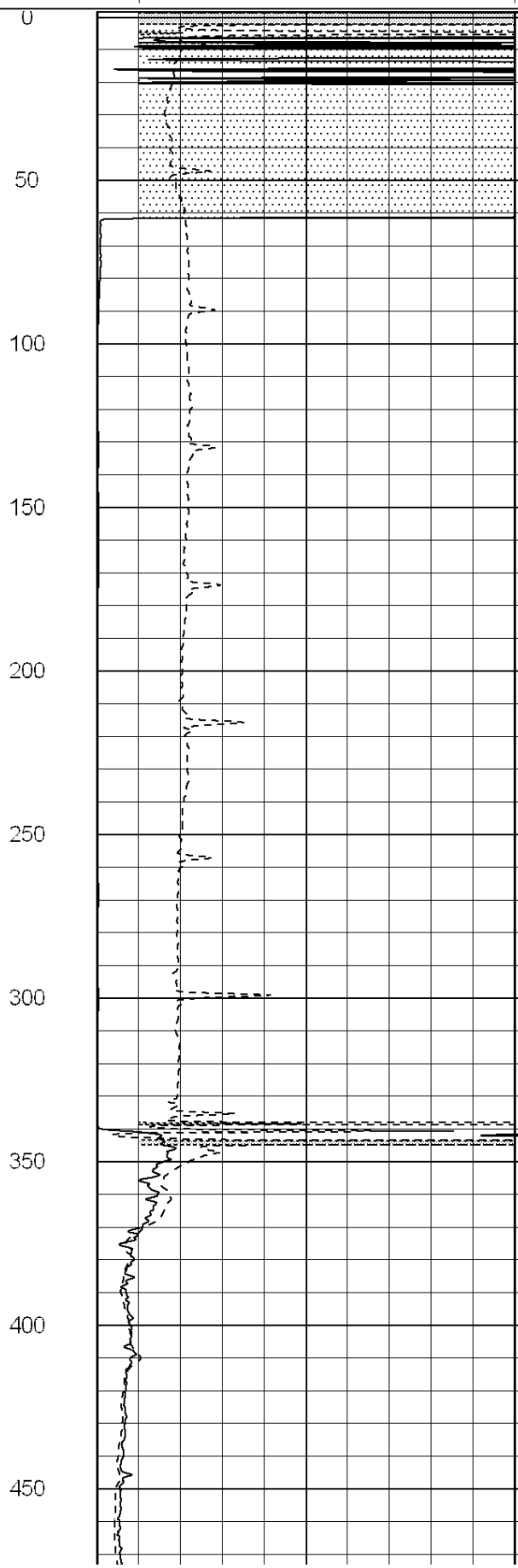
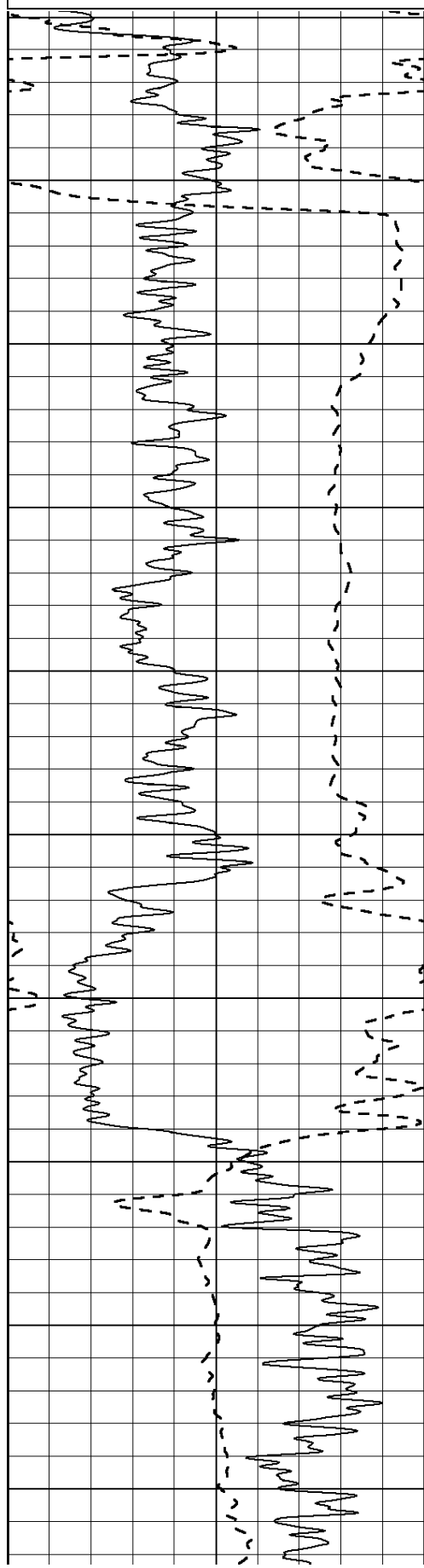
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, 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.

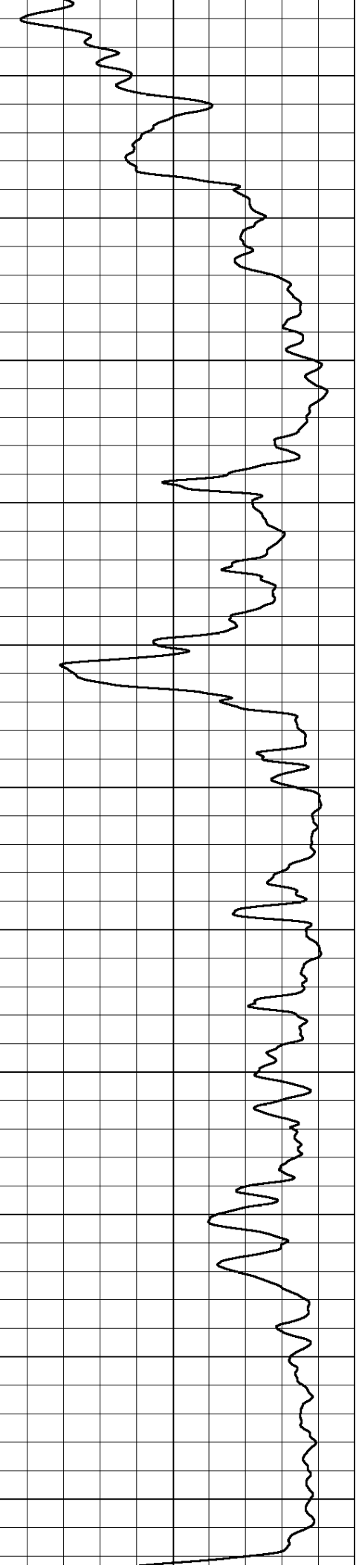
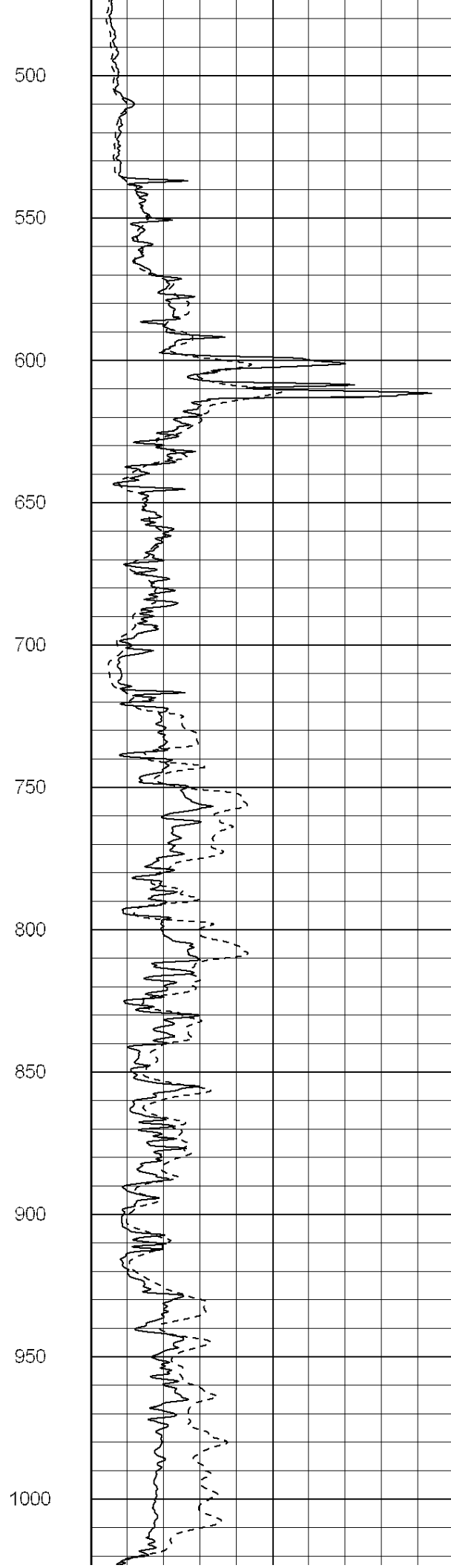
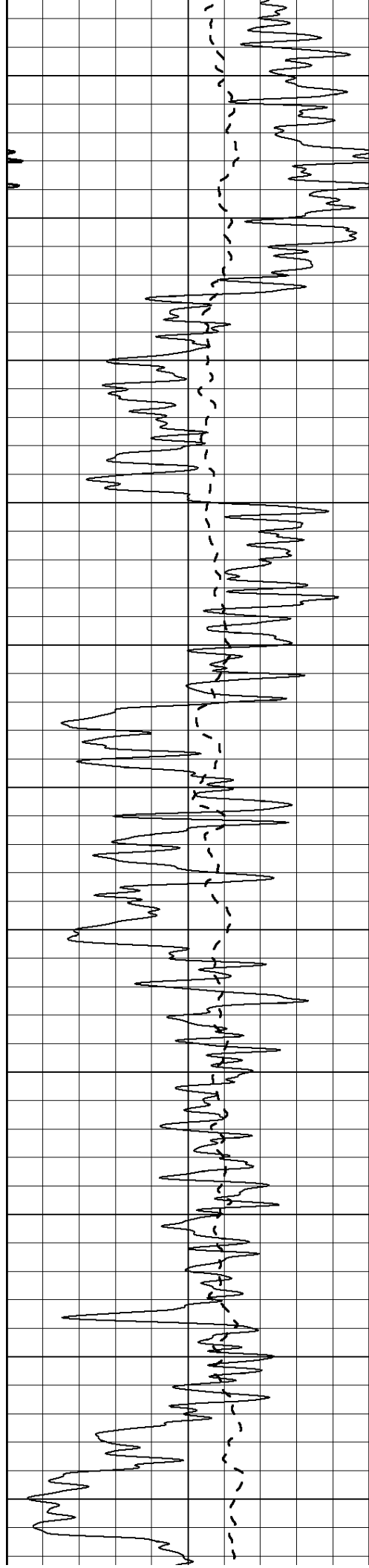
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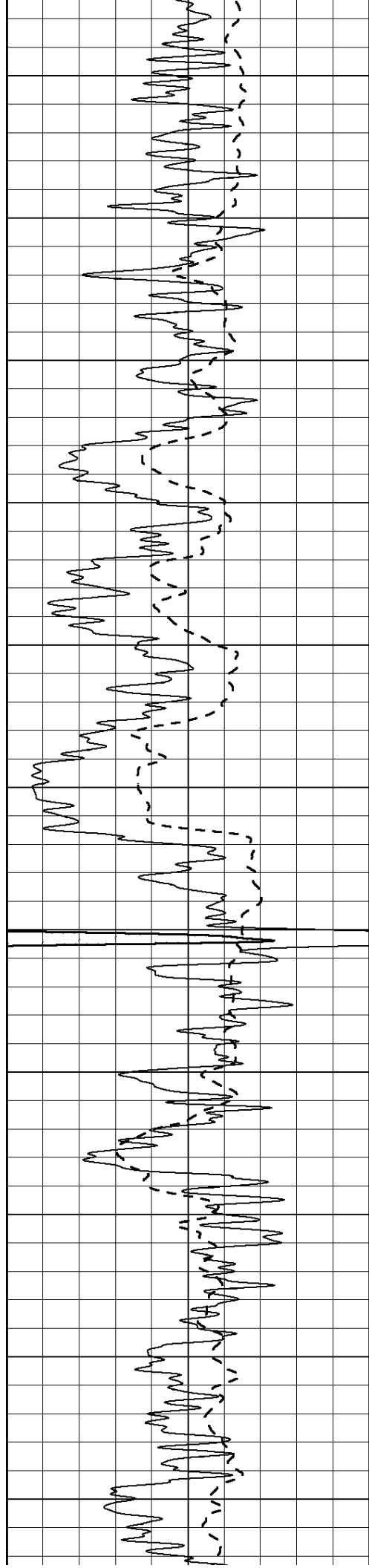
NABORS COMPLETION & PRODUCTION SERVICES
785-628-6395
THANK YOU FOR YOUR BUSINESS
DIRECTIONS: GRAINFIELD, KS. 20 MILES SOUTH TO RD. I - 4 WEST SOUTH INTO

0	Gamma Ray (GAPI)	150
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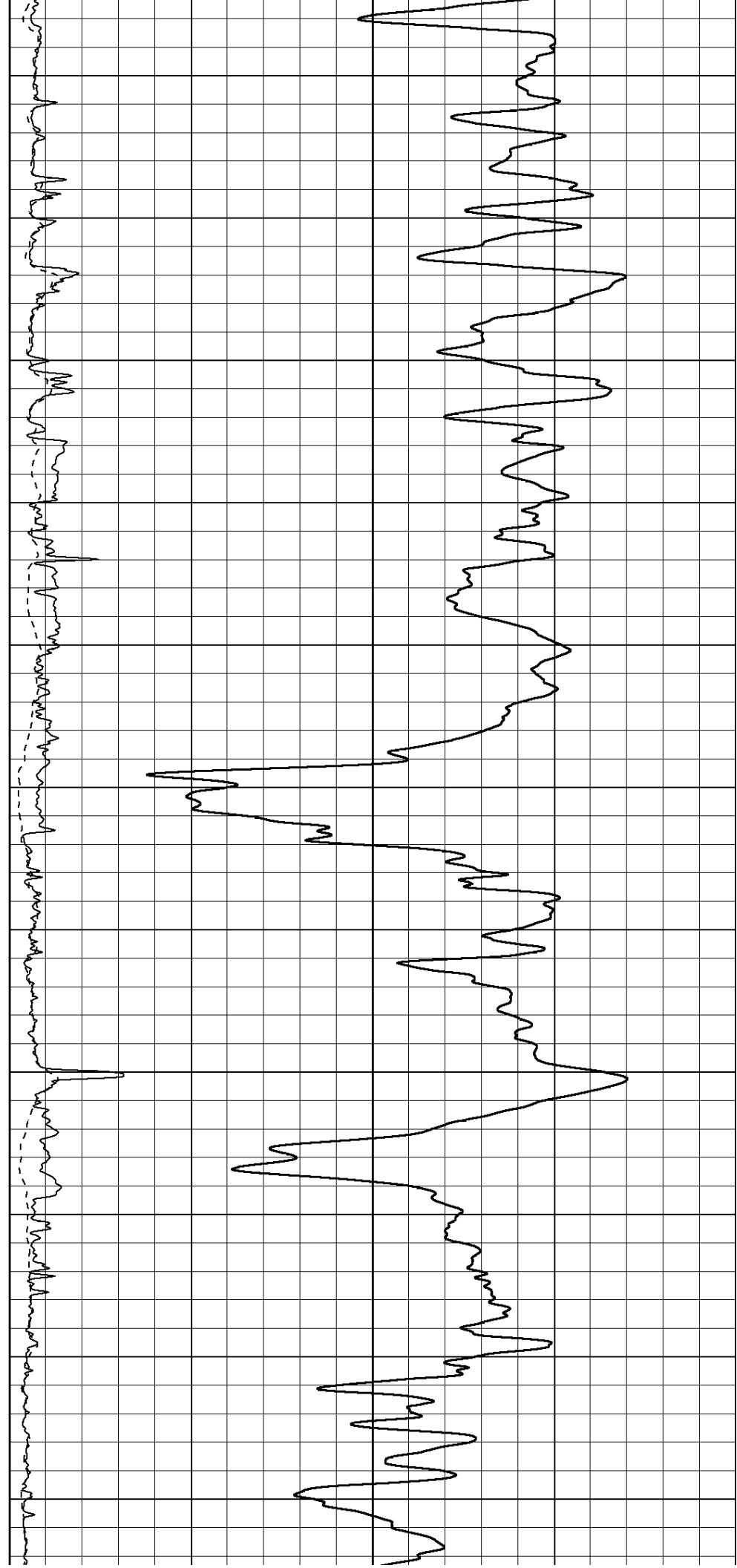
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0	Deep Induction (Ohm-m)	50
1000	CILD (mmho/m)	0
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50	RLL3 X10 (Ohm-m)	500

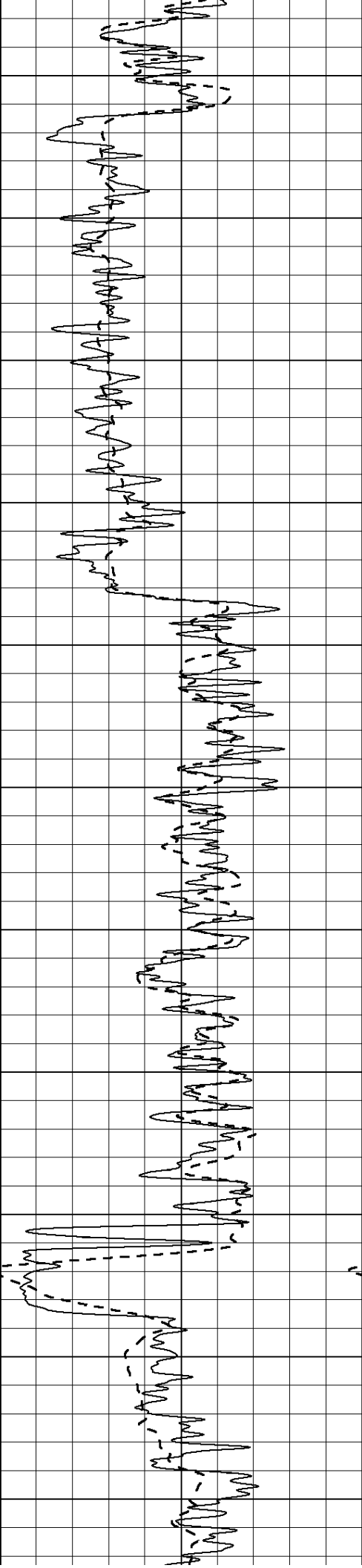




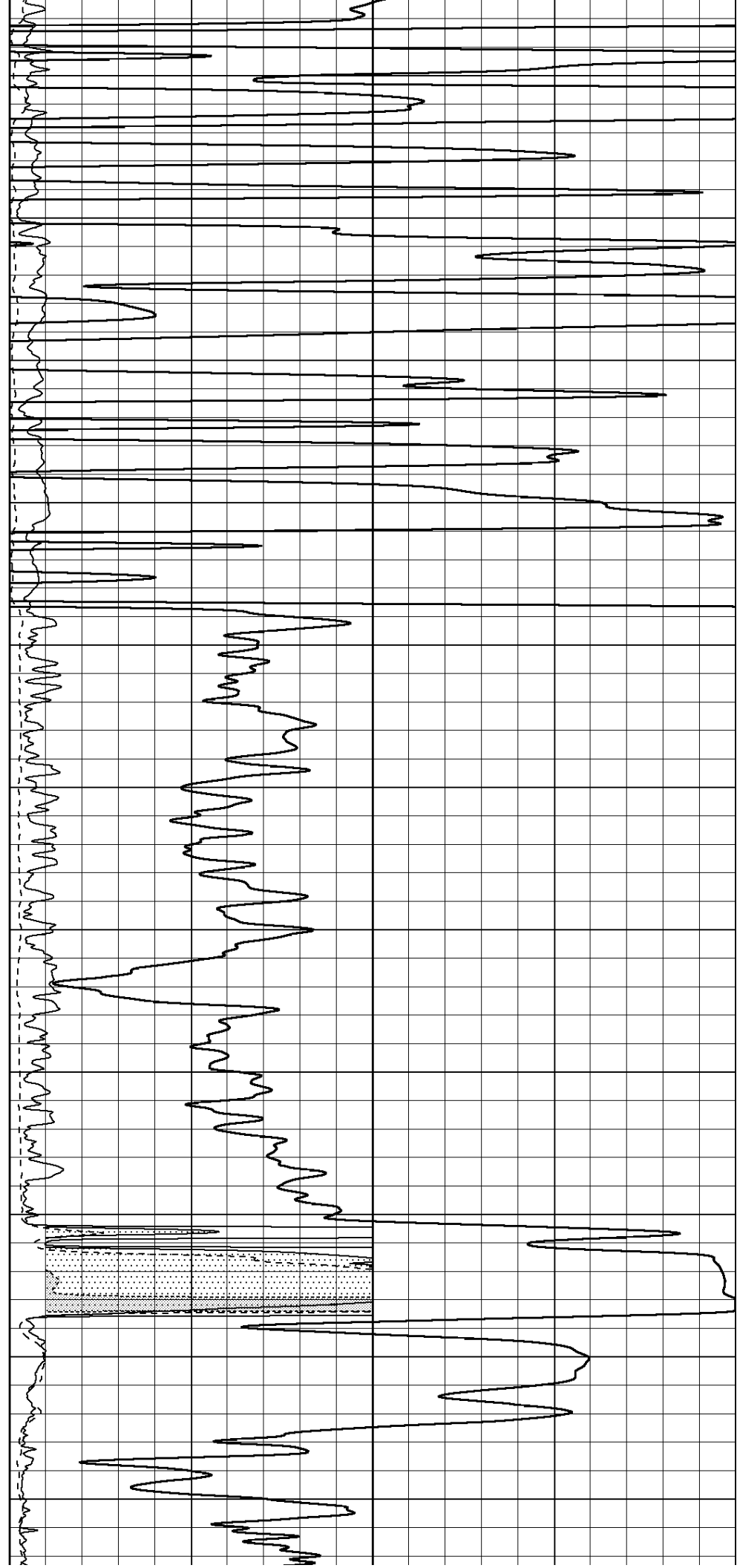


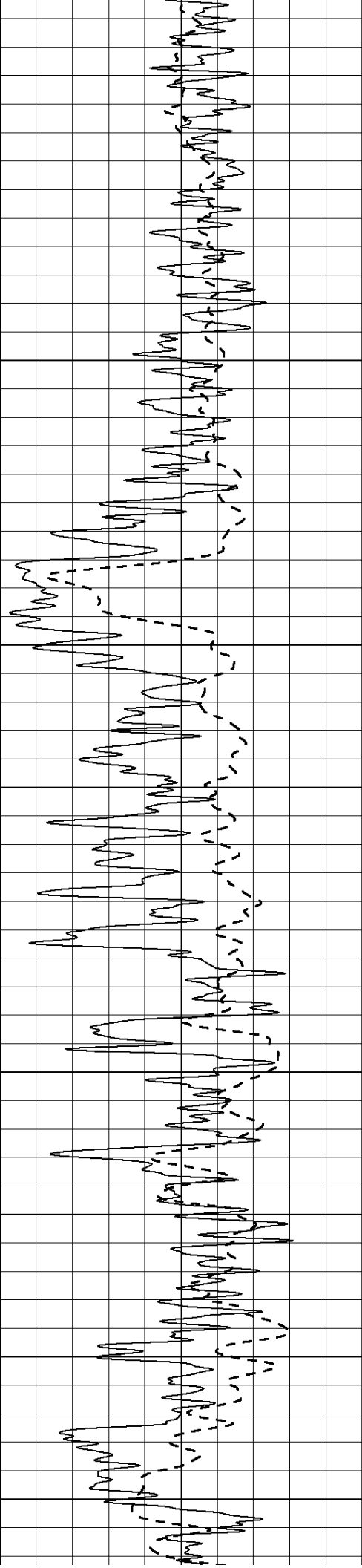
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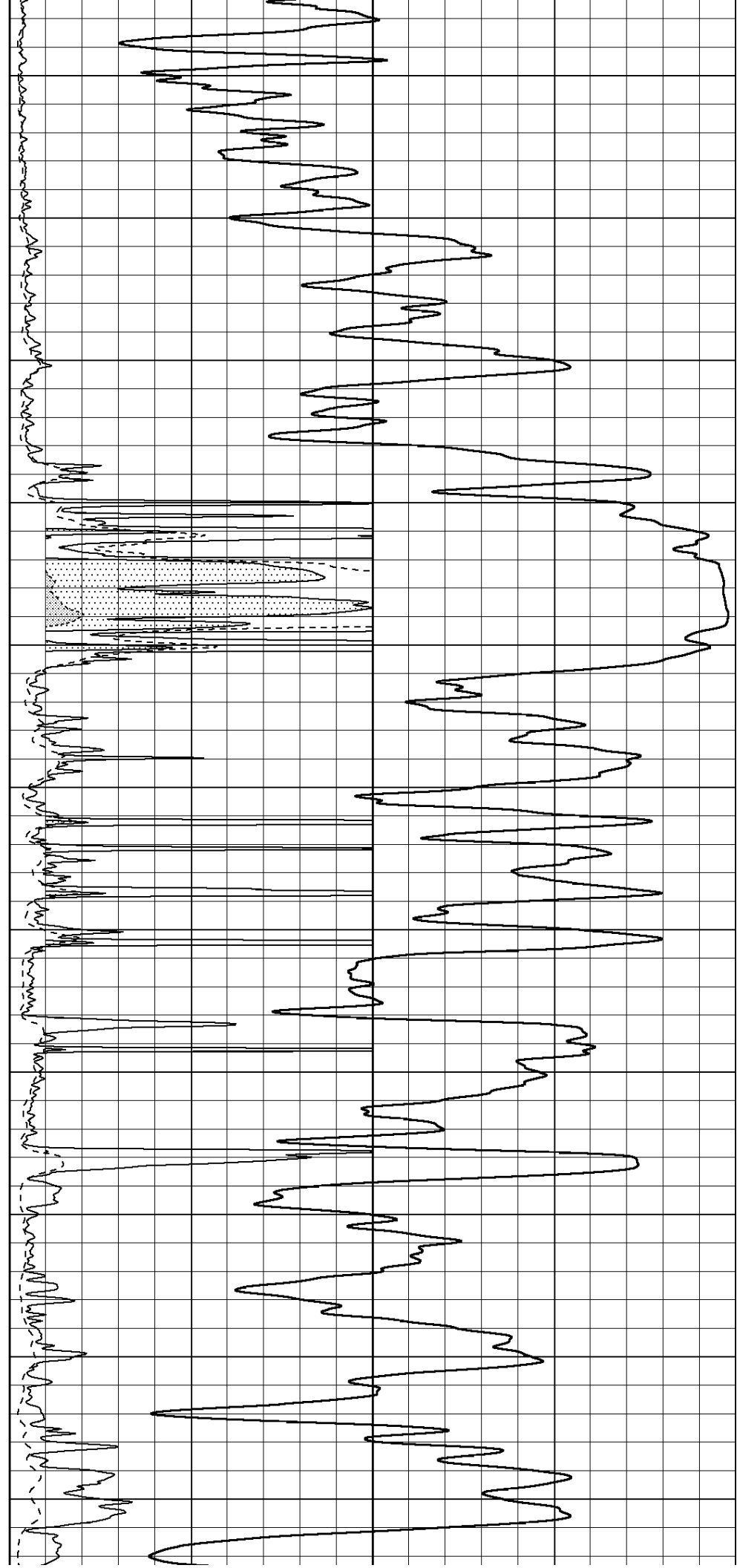
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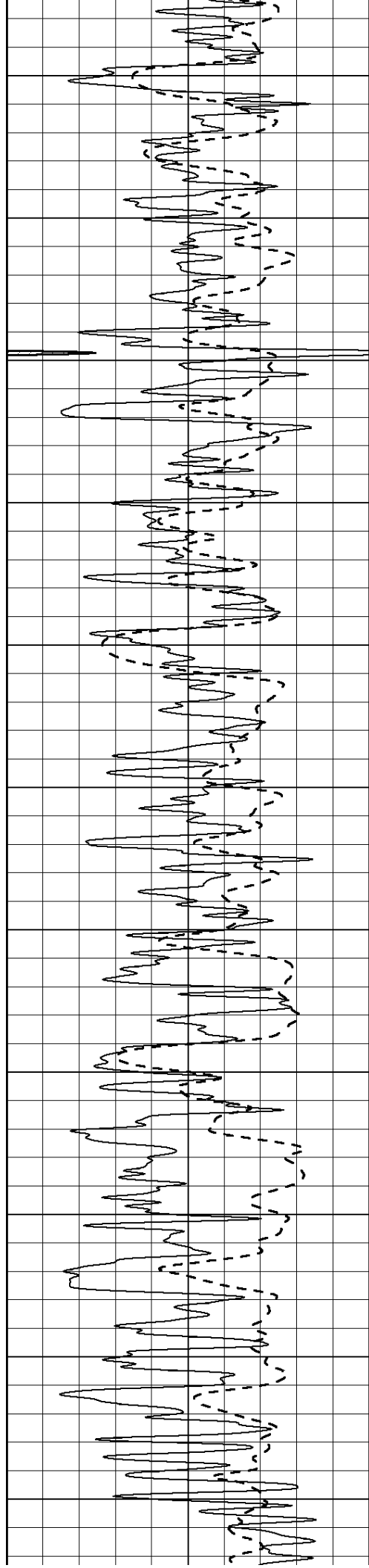
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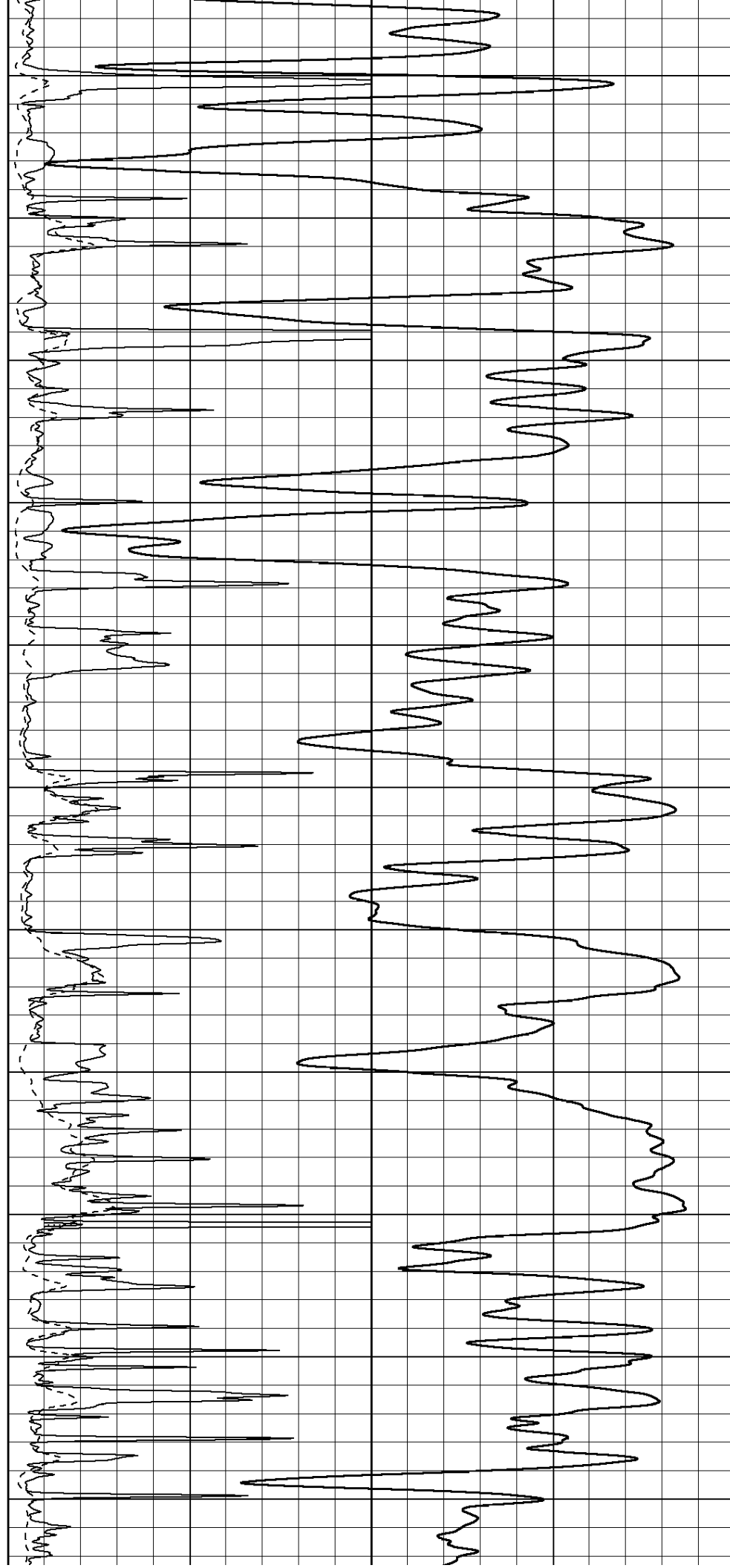
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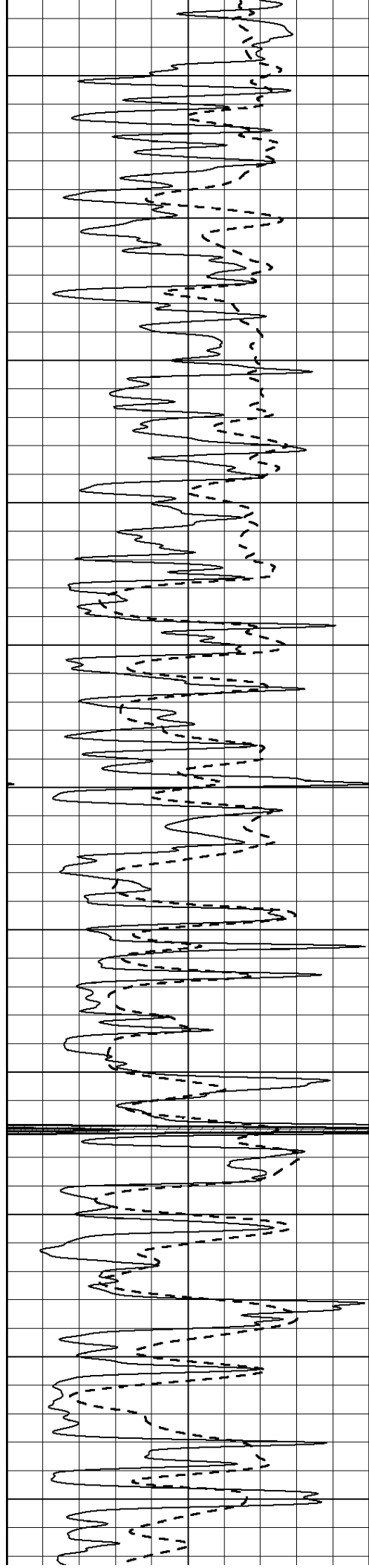
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3150

3200





3250

3300

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3400

3450

3500

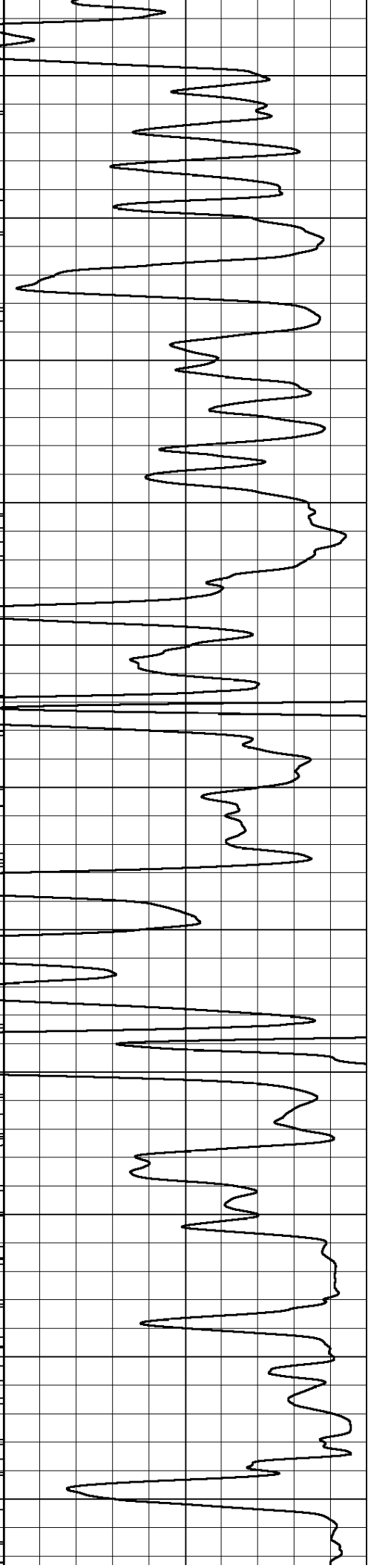
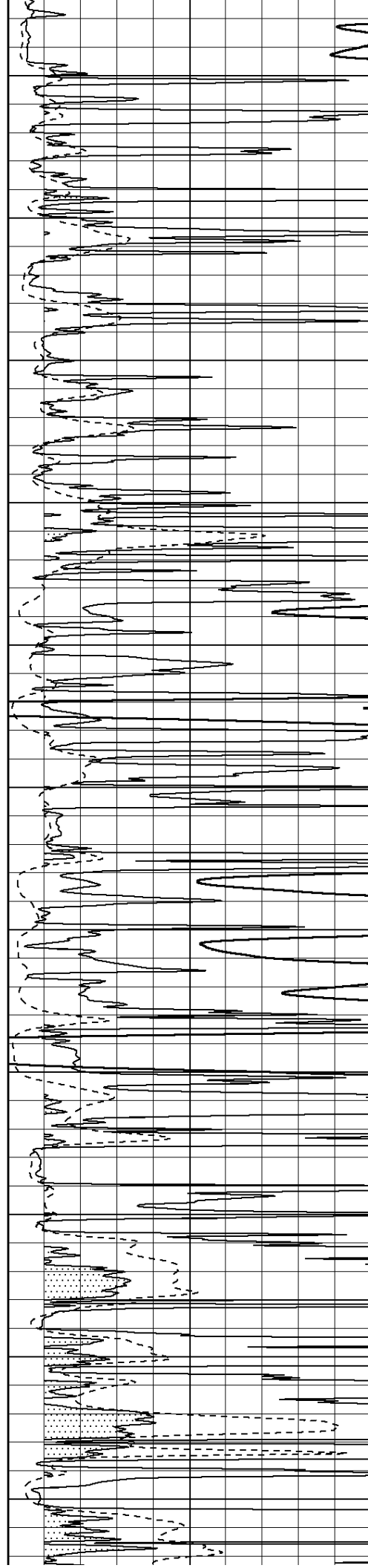
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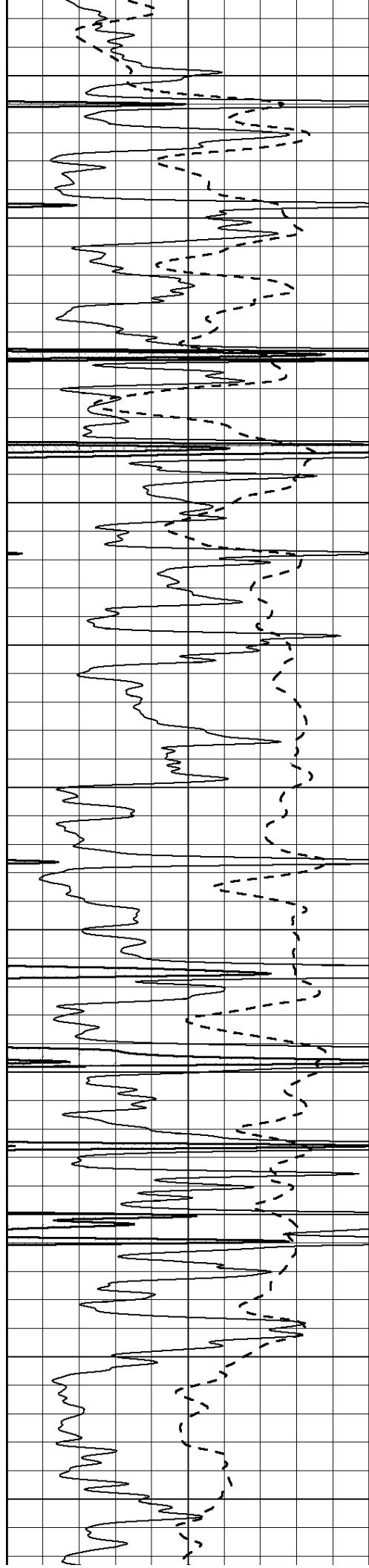
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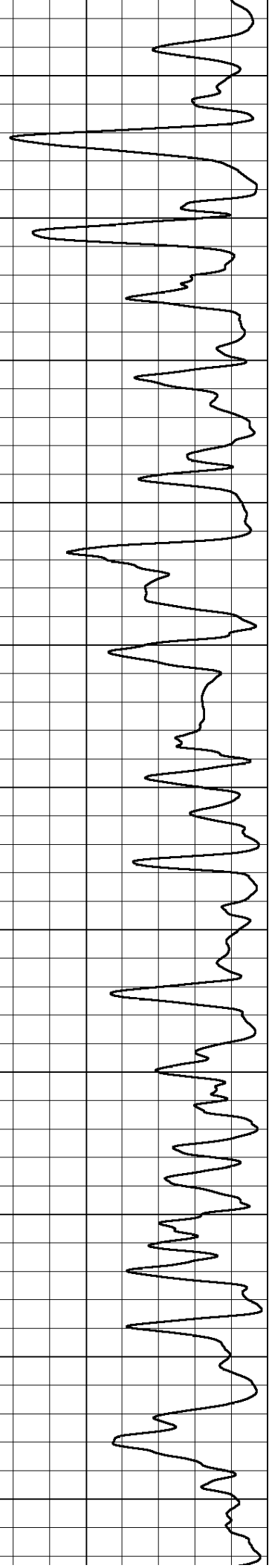
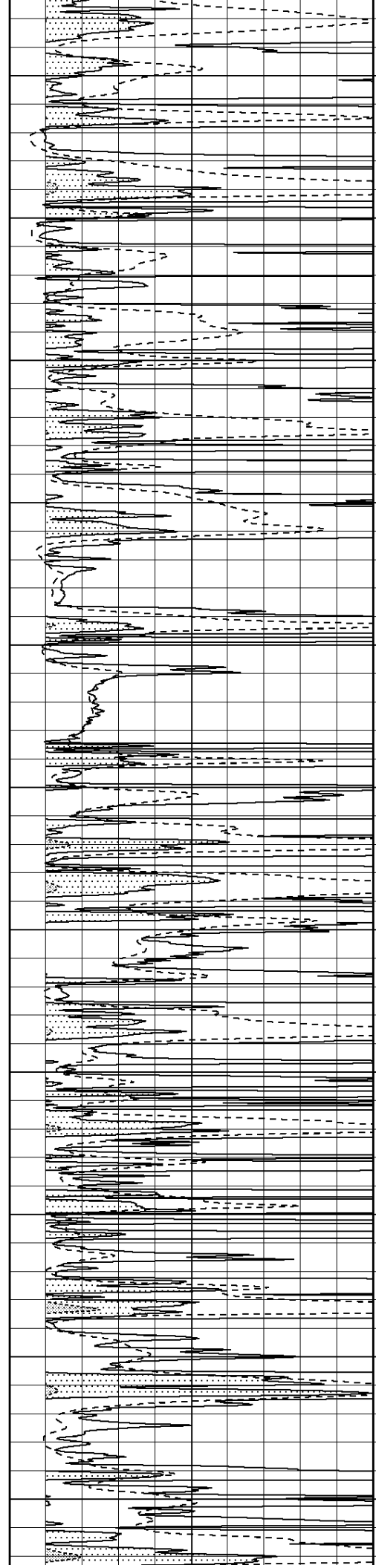
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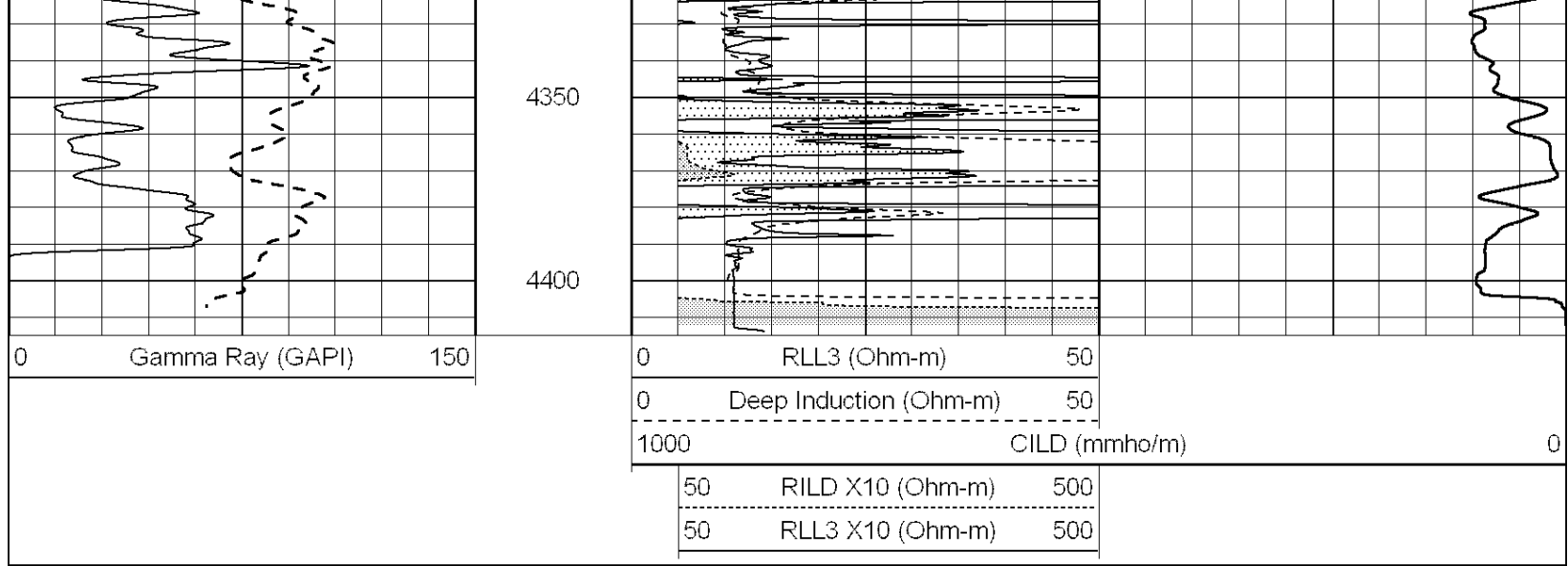
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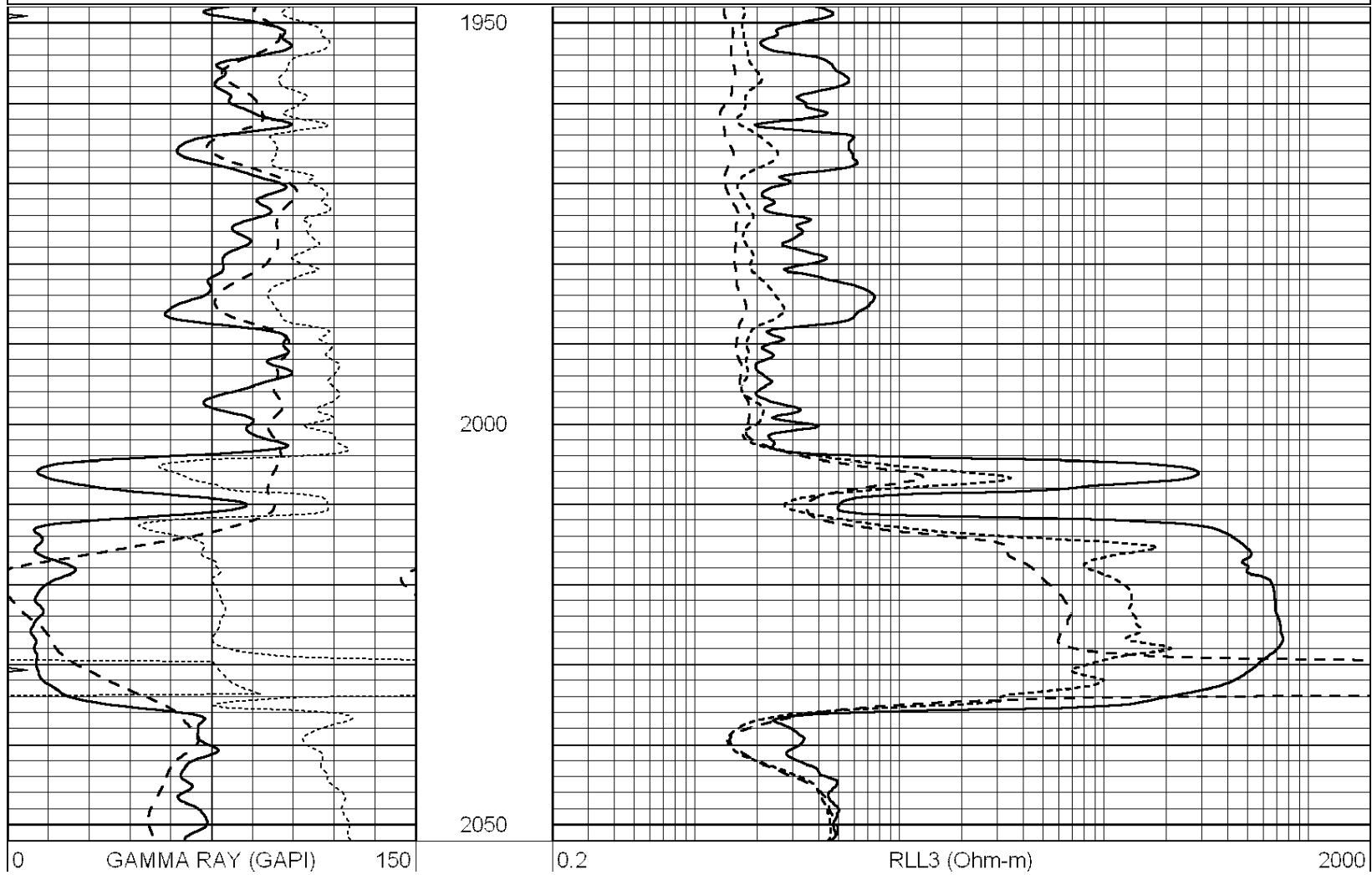
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3950
4000
4050
4100
4150
4200
4250
4300





Database File: 010197ddn.db
 Dataset Pathname: pass6.1
 Presentation Format: _dil
 Dataset Creation: Fri Jun 21 12:05:12 2013 by Calc 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
0	MINMK	20			



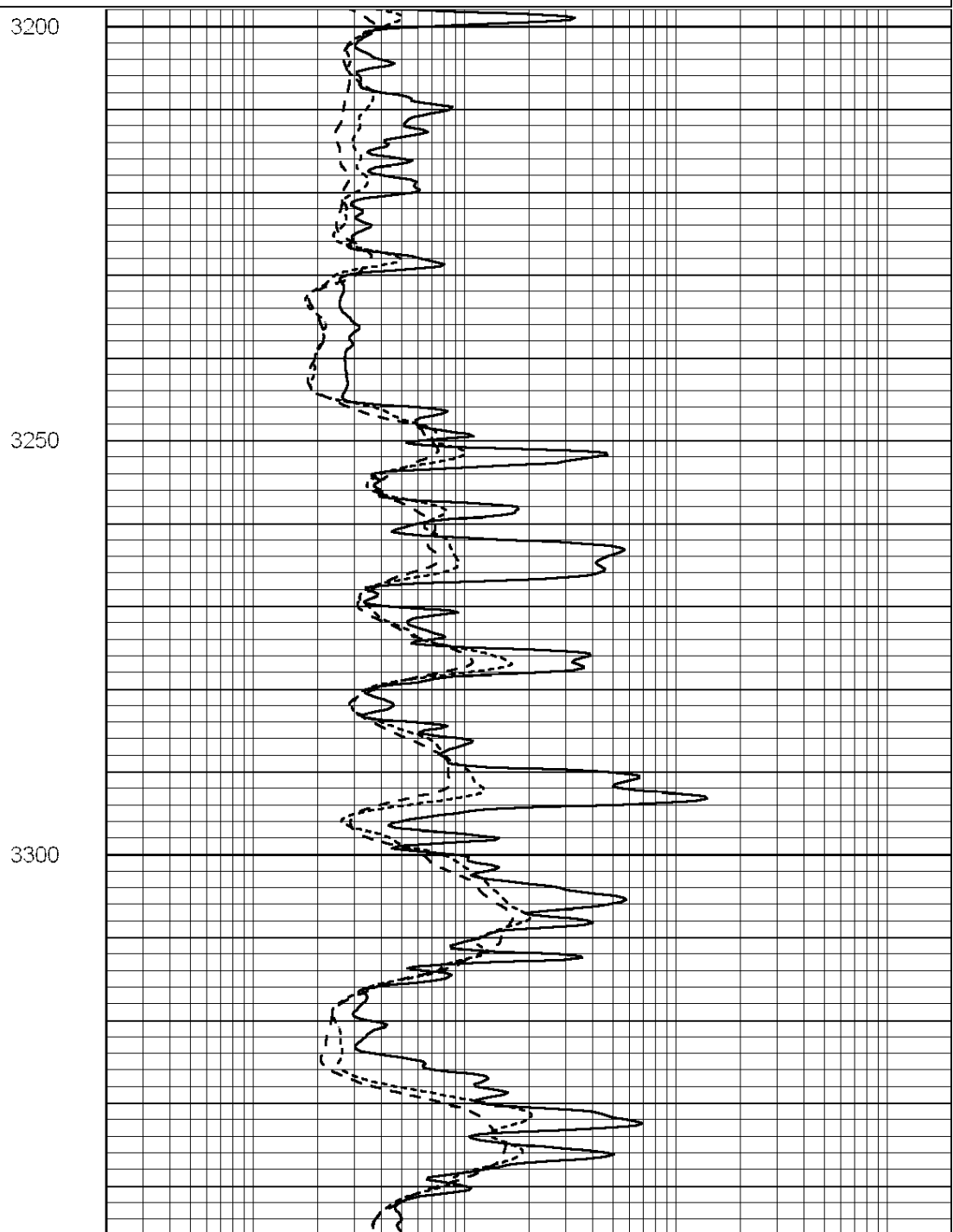
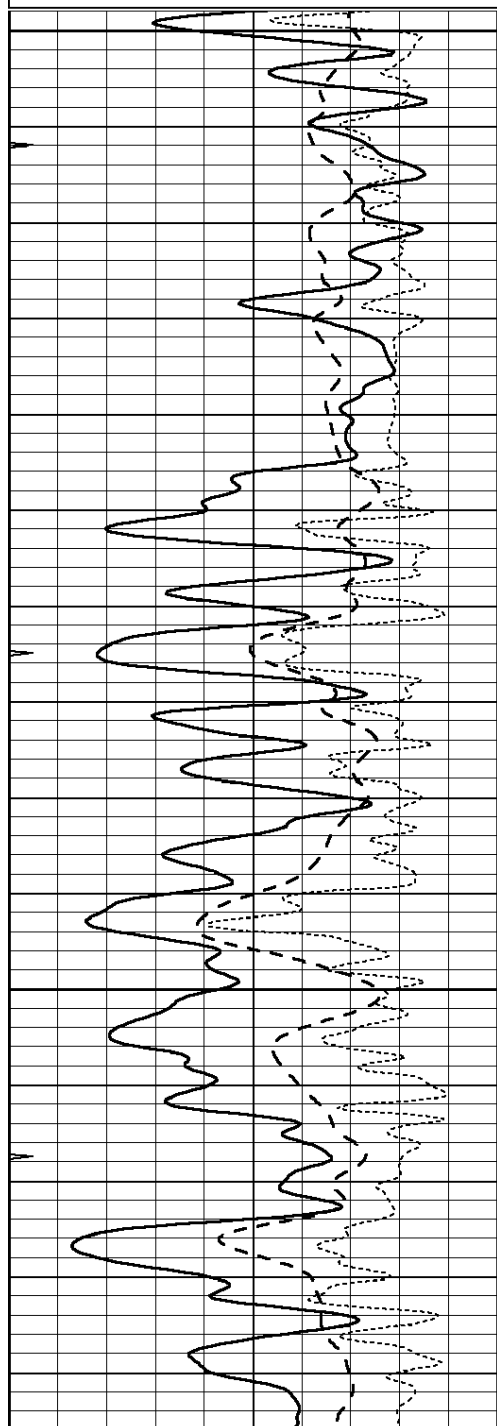
-100	SP (mV)	100
-250	RxoRt	50
0	MINMK	20

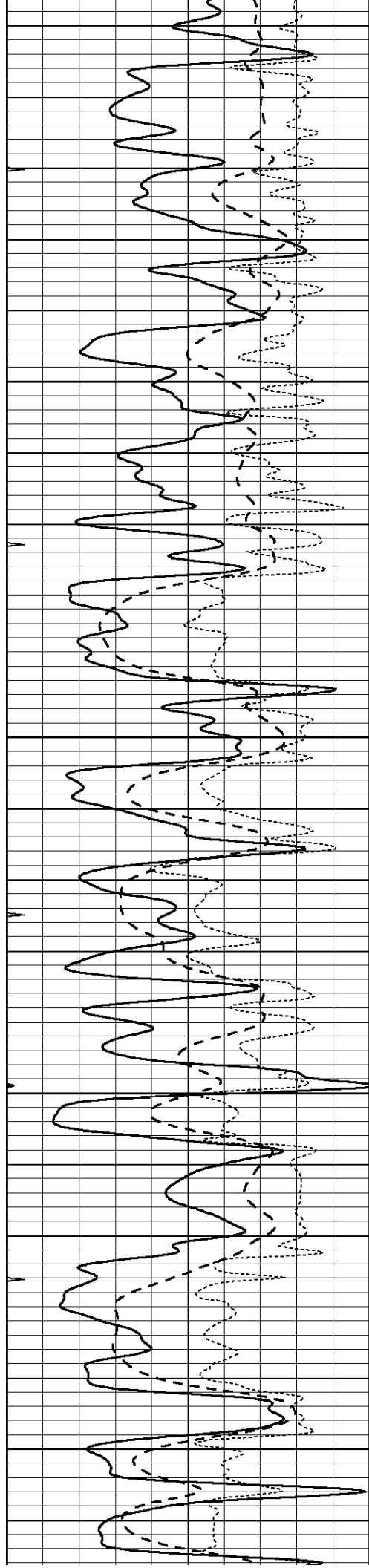
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0.2	MEDIUM INDUCTION (Ohm-m)	2000

Database File: 010197ddn.db
 Dataset Pathname: pass6.1
 Presentation Format: _dil
 Dataset Creation: Fri Jun 21 12:05:12 2013 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





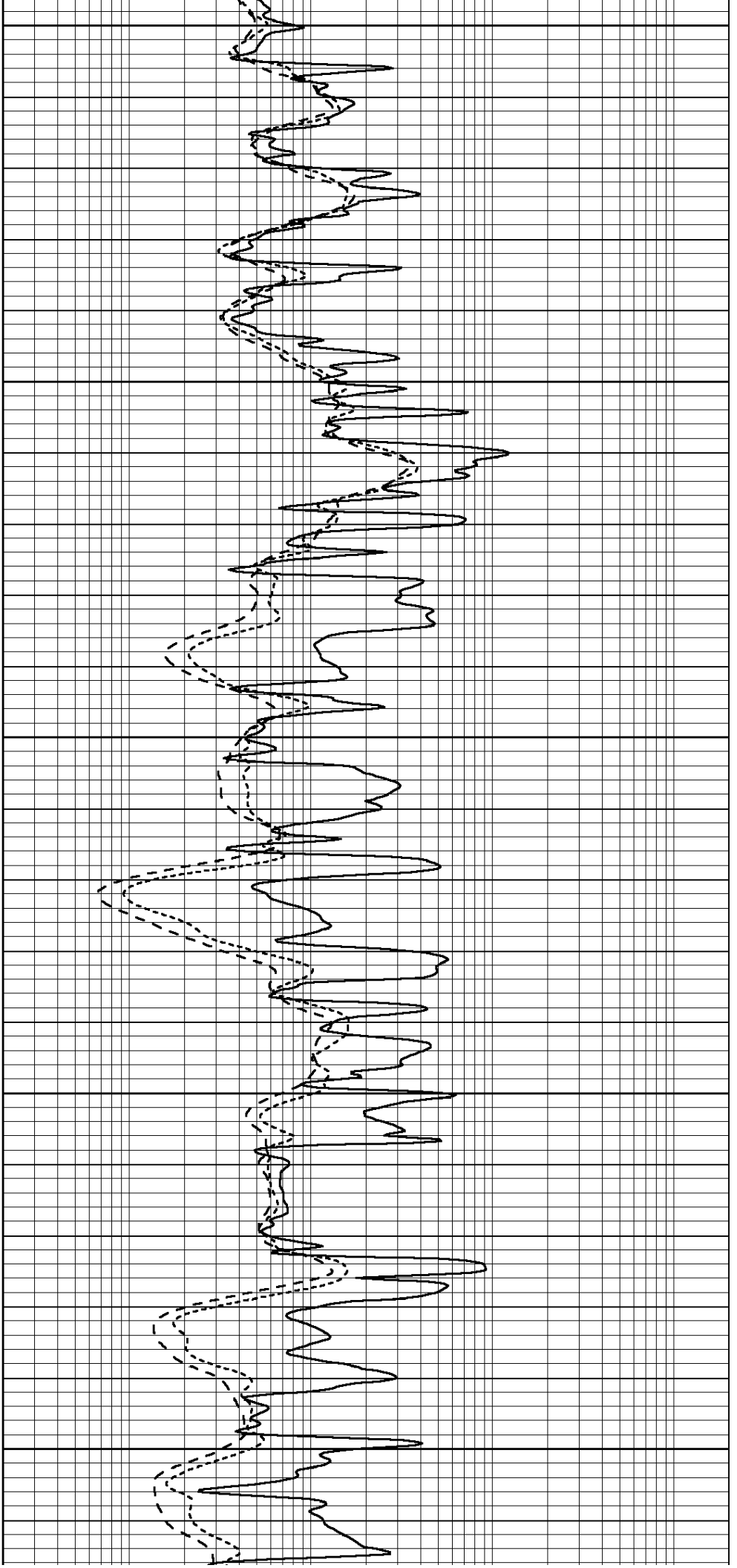
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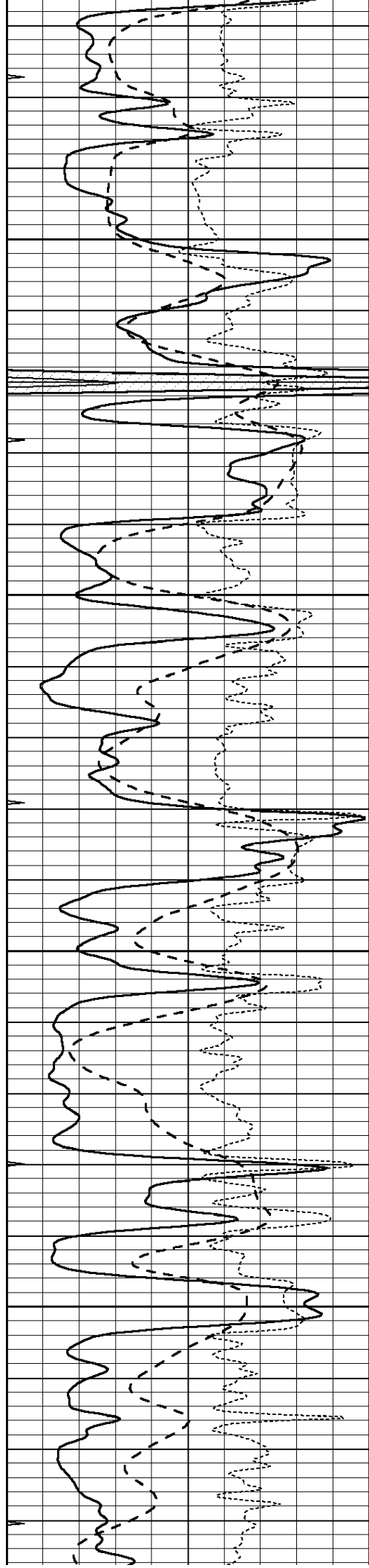
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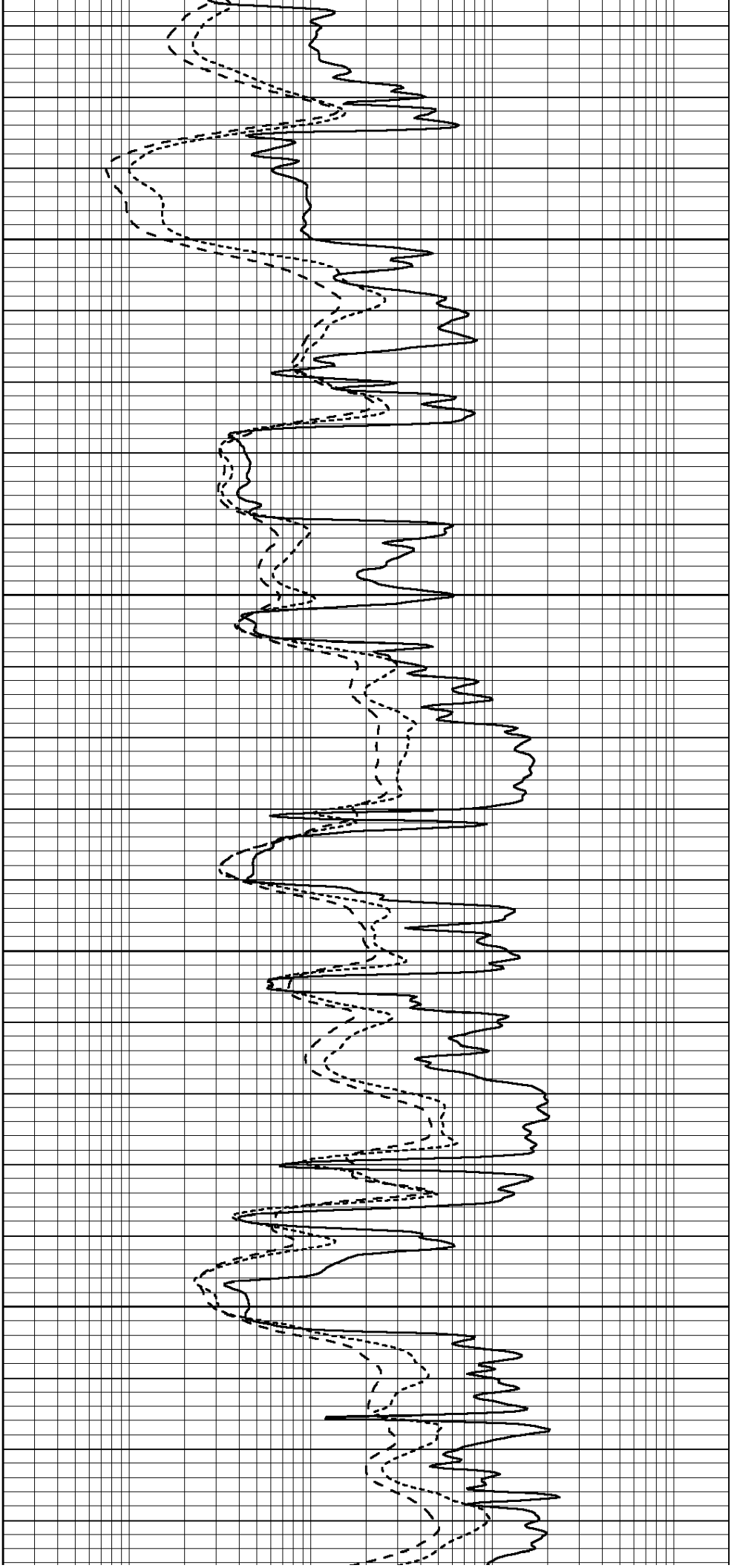


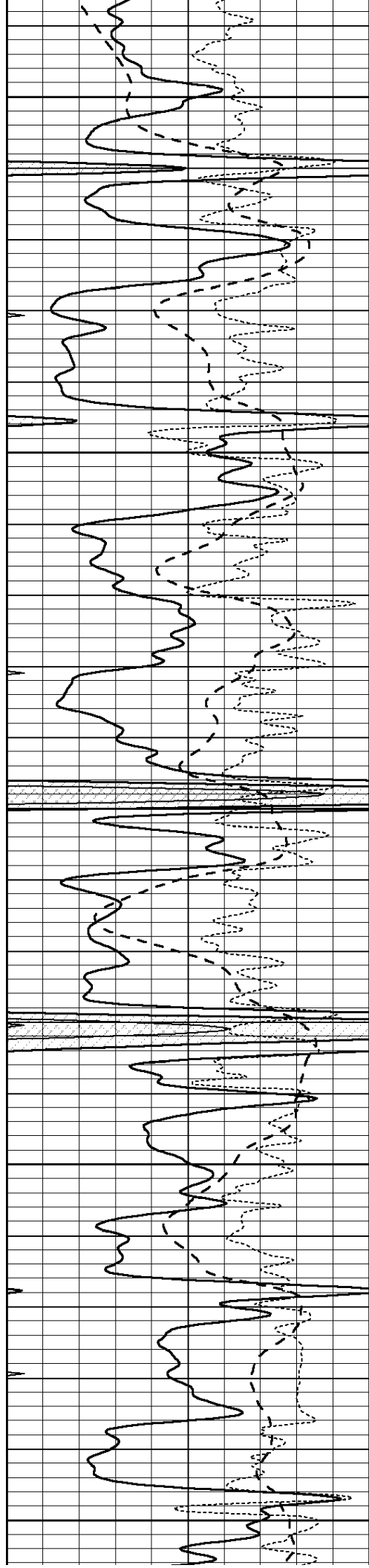
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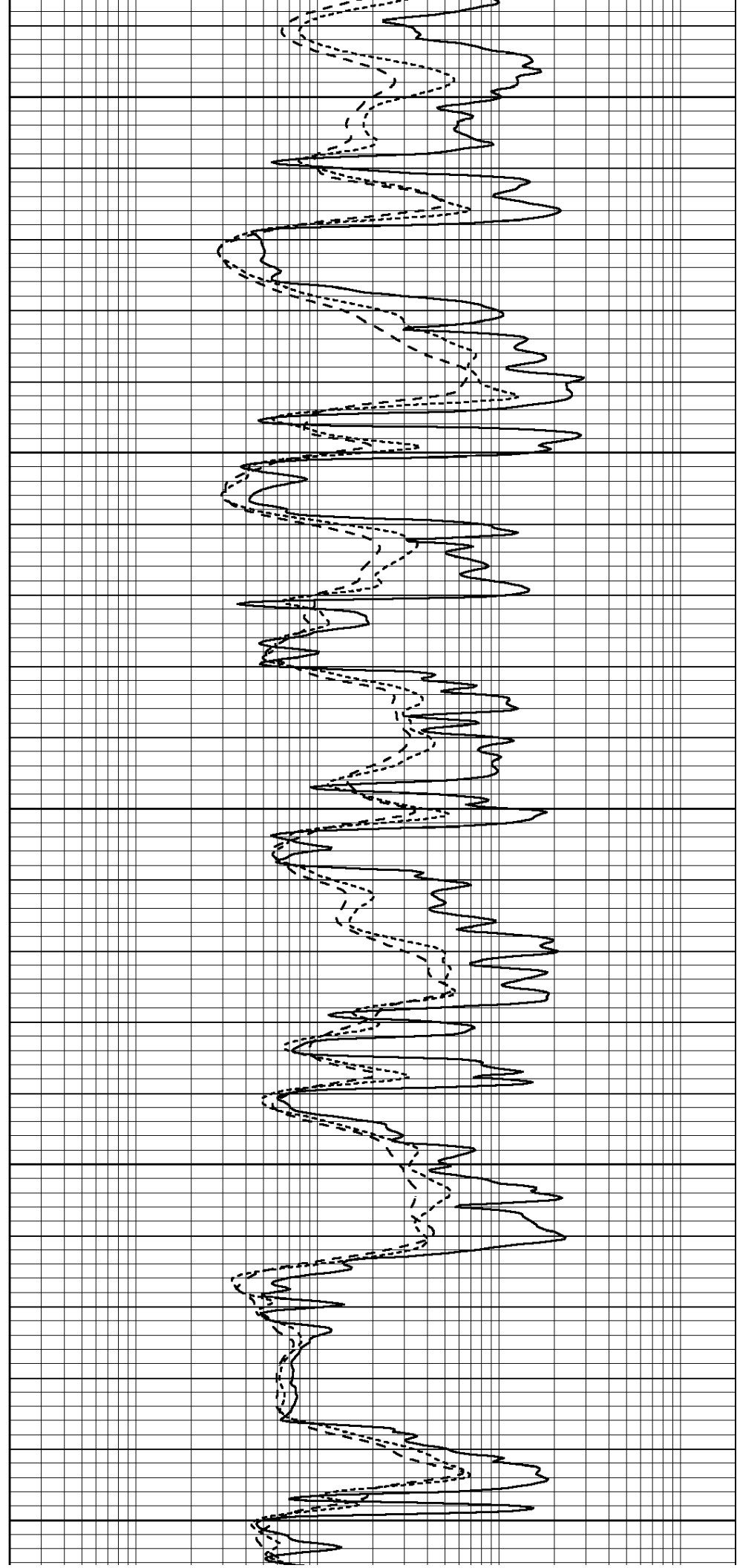
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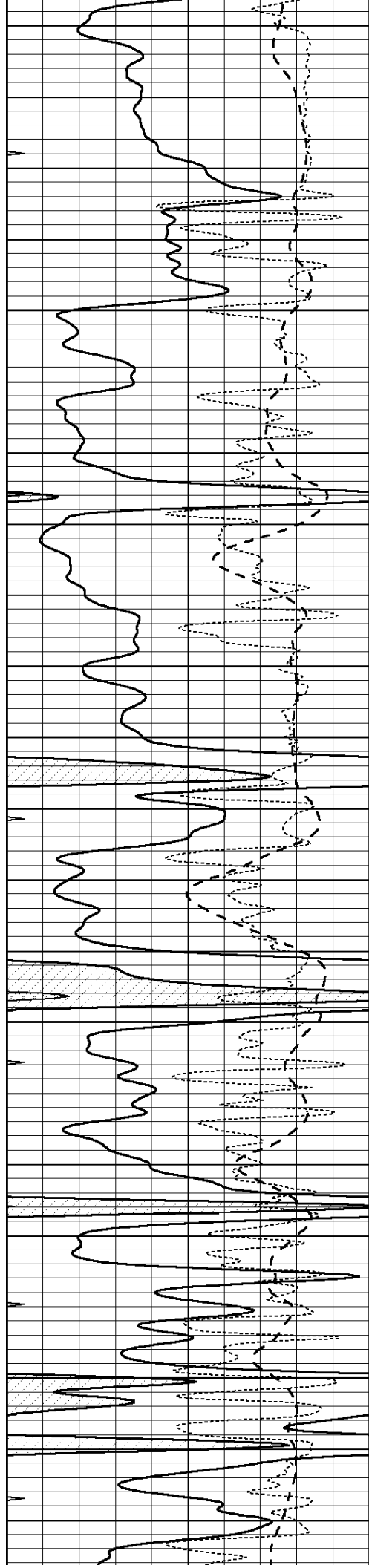
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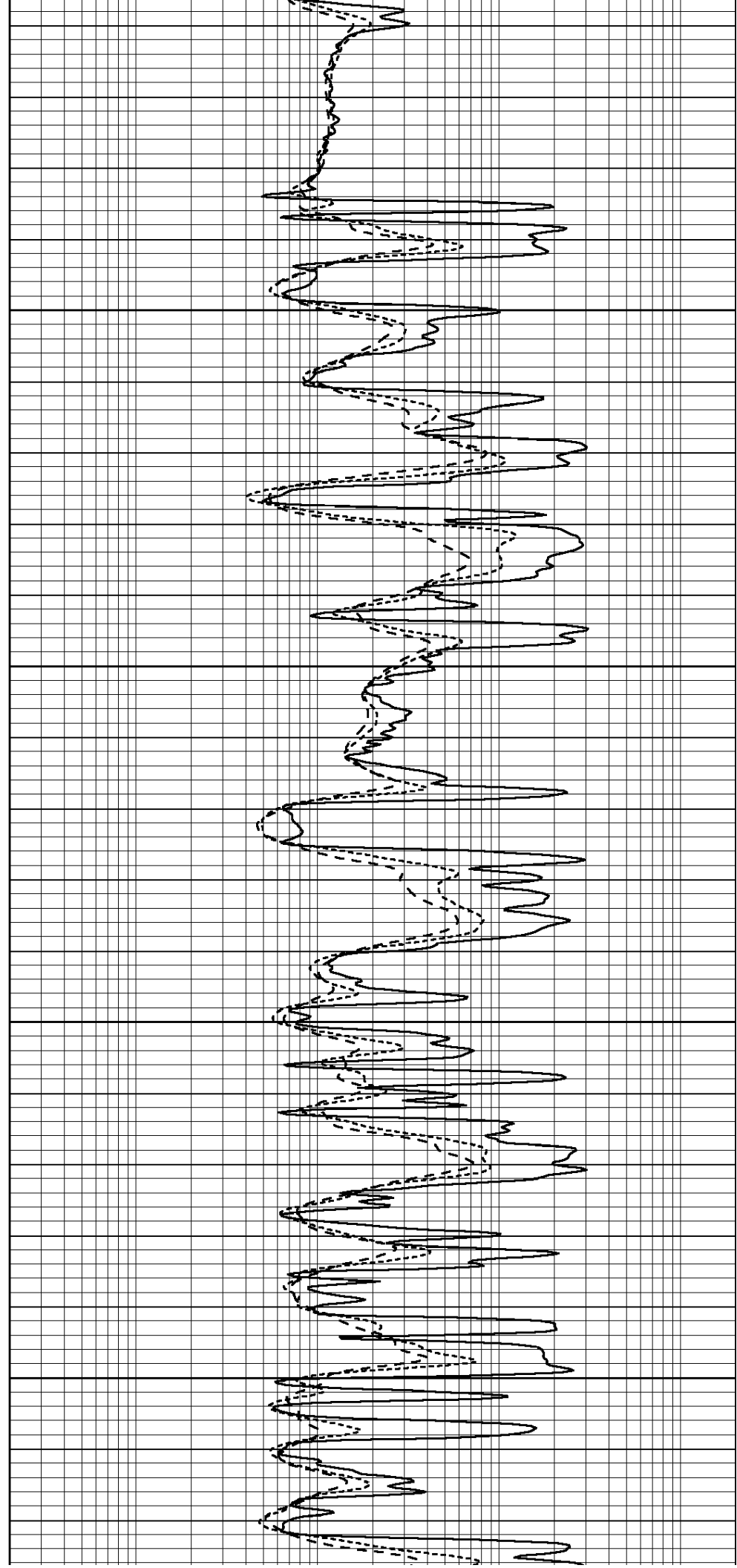


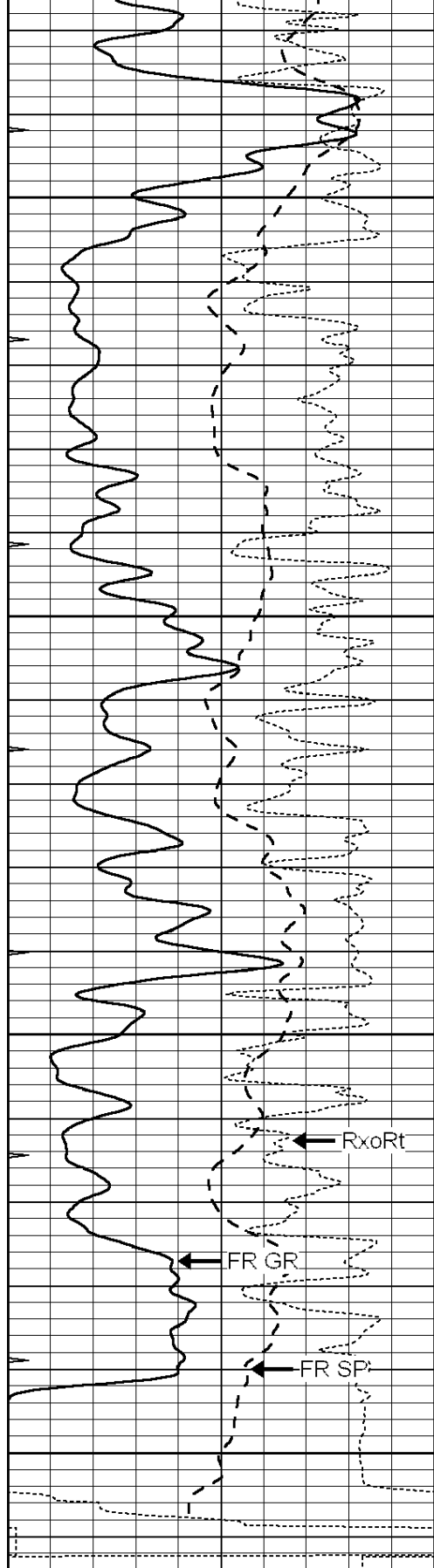
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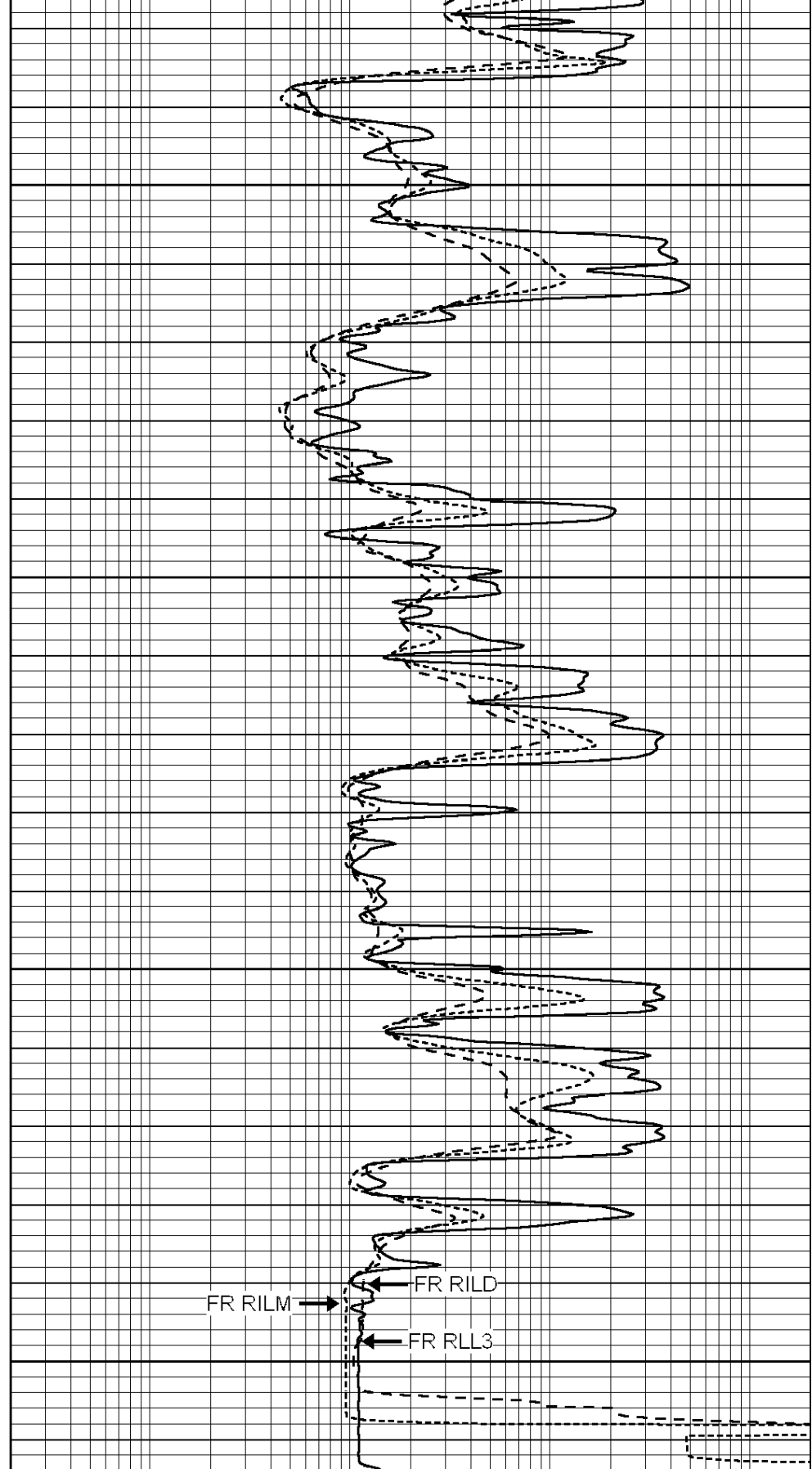
4200





4250
4300
4350
LTD 4400

0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	RxoRt	50
0	MINMK	20



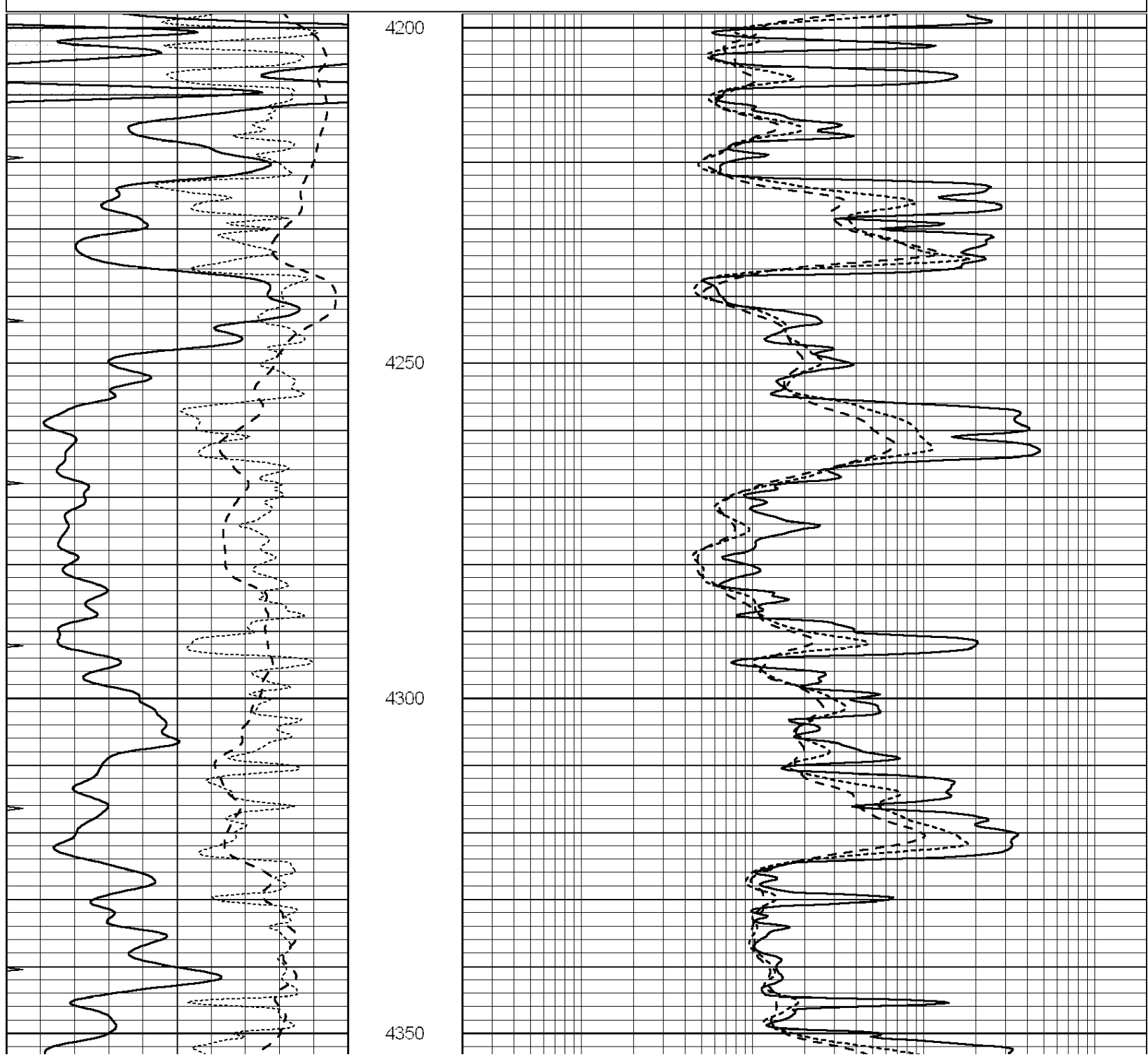
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0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000

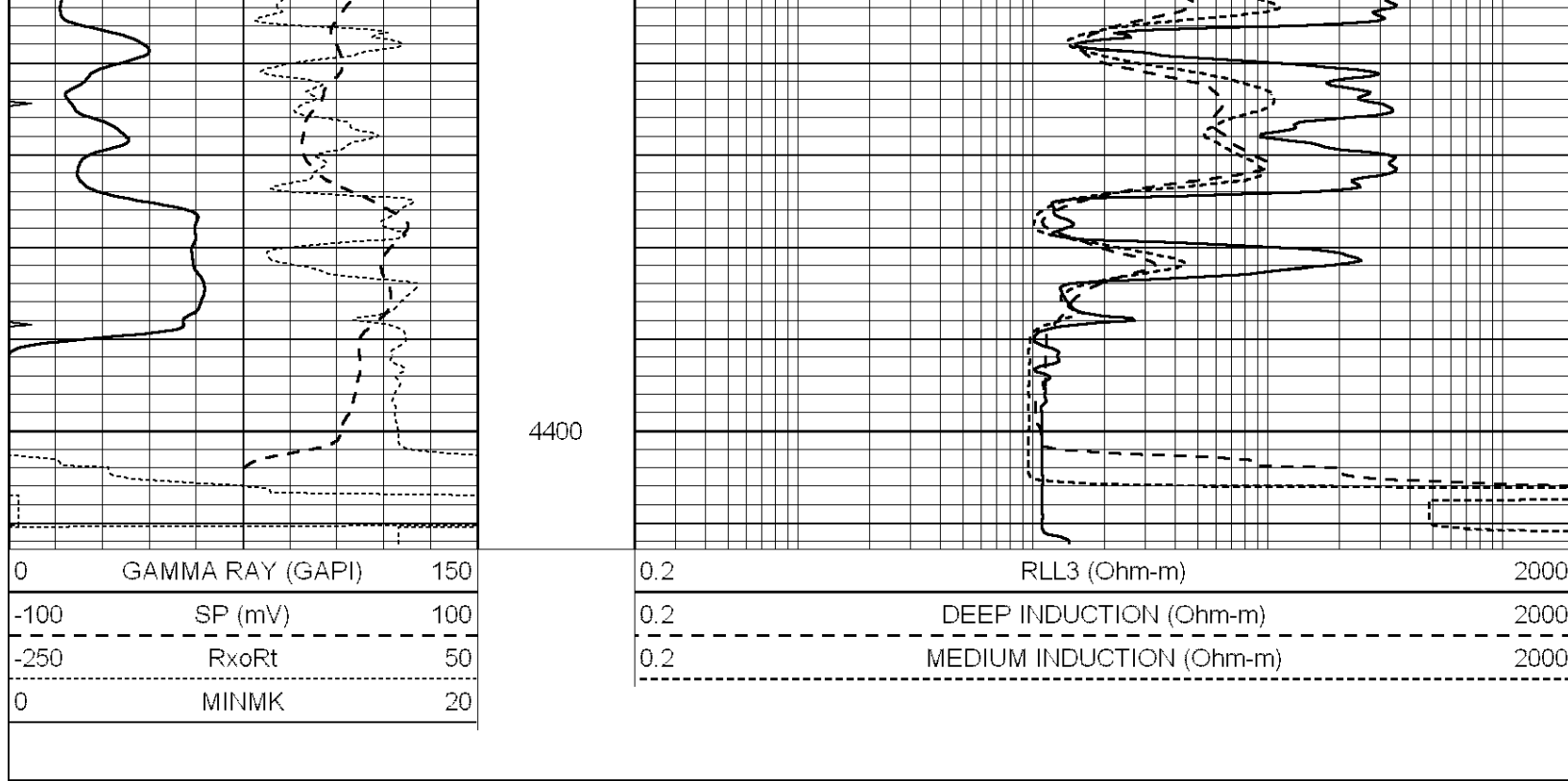
REPEAT SECTION

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 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: 010197ddn.db
 Dataset Pathname: pass6.1
 Dataset Creation: Fri Jun 21 12:05:12 2013 by Calc Open-Cased 090629

Dual Induction Calibration Report

Serial-Model:	PROBE7-DILG
Surface Cal Performed:	Fri May 10 07:15:47 2013
Downhole Cal Performed:	Sat Jan 19 19:51:38 2013
After Survey Verification Performed:	Sat Jan 19 19:51:38 2013

Surface Calibration

Loop:	Readings			References			Results	
	Air	Loop		Air	Loop		m	b
Deep	0.793	0.790	V	0.000	400.000	mmho/m	620.000	5.000
Medium	0.992	1.002	V	0.000	464.000	mmho/m	660.000	-42.000
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.041	0.642	V	0.000	400.000	mmho/m	664.874	-27.011
Medium	0.035	0.802	V	0.000	464.000	mmho/m	604.936	-21.367

Downhole Calibration

	Readings			References			Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	135384.000	27094.500	mmho/m	135400.000	27082.400	mmho/m	1.000	-19.259
Medium	-47330.100	-9381.740	mmho/m	-47327.100	-9389.280	mmho/m	1.000	-10.154
LL3		7.322	V		1400.000	Ohm-m		
		0.038	V		20.000	Ohm-m		
		-7.273	V		4000.000	mmho-m		

After Survey Verification

	Readings			Targets			Results	
	Zero	Cal		Zero	Cal		m'	b'

Deep	0.000	0.000	mmho/m	135384.000	27094.500	mmho/m	1.000	0.000
Medium	0.000	0.000	mmho/m	-47330.100	-9381.740	mmho/m	1.000	0.000
LL3		0.000	Ohm-m		1400.000	Ohm-m		
		0.000	Ohm-m		20.000	Ohm-m		
		0.000	mmho-m		4000.000	mmho-m		

Gamma Ray Calibration Report

Serial Number:	GR5	
Tool Model:	OPEN	
Performed:	Fri May 10 07:15:14 2013	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	0.9000	GAPI/cps