



**COMPLETION
& PRODUCTION
SERVICES CO.**

**DUAL
INDUCTION
LOG**

Company	HERMAN L. LOEB, LLC
Well	CLARK #7
Field	MOYER NORTHWEST
County	SUMNER
State	KANSAS
Location:	API # : 15-191-22747-00-00 2970' FSL & 1650' FEL SE - SW - NE
Permanent Datum	GROUND LEVEL
Log Measured From	ELEVATION 1289 KELLY BUSHING 9' A.G.L.
Drilling Measured From	KELLY BUSHING
Other Services	CNL/CDL/PE MEL
Elevation	K.B. 1288 D.F. 1286 G.L. 1289
SEC 2	TWP 31S
RGE	3W
Date	5-26-14
Run Number	ONE
Depth Driller	3400
Depth Logger	3399
Bottom Logged Interval	3397
Top Log Interval	00
Casing Driller	8 5/8" @ 260'
Casing Logger	260'
Bit Size	7 7/8"
Type Fluid in Hole	CHEMICAL MUD
Density / Viscosity	9.2/50
pH / Fluid Loss	10.5/8.8
Source of Sample	FLOWLINE
Rim @ Meas. Temp	0.90 @ 88F
Rmf @ Meas. Temp	0.68 @ 88F
Rmc @ Meas. Temp	1.08 @ 88F
Source of Rmf / Rmc	MEASUREMENT
Rim @ BHT	0.74 @ 108F
Time Circulation Stopped	2 HOURS
Time Logger on Bottom	
Maximum Recorded Temperature	108F
Equipment Number	860
Location	HAYS, KANSAS
Recorded By	IAN MABB
Witnessed By	DOUG 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

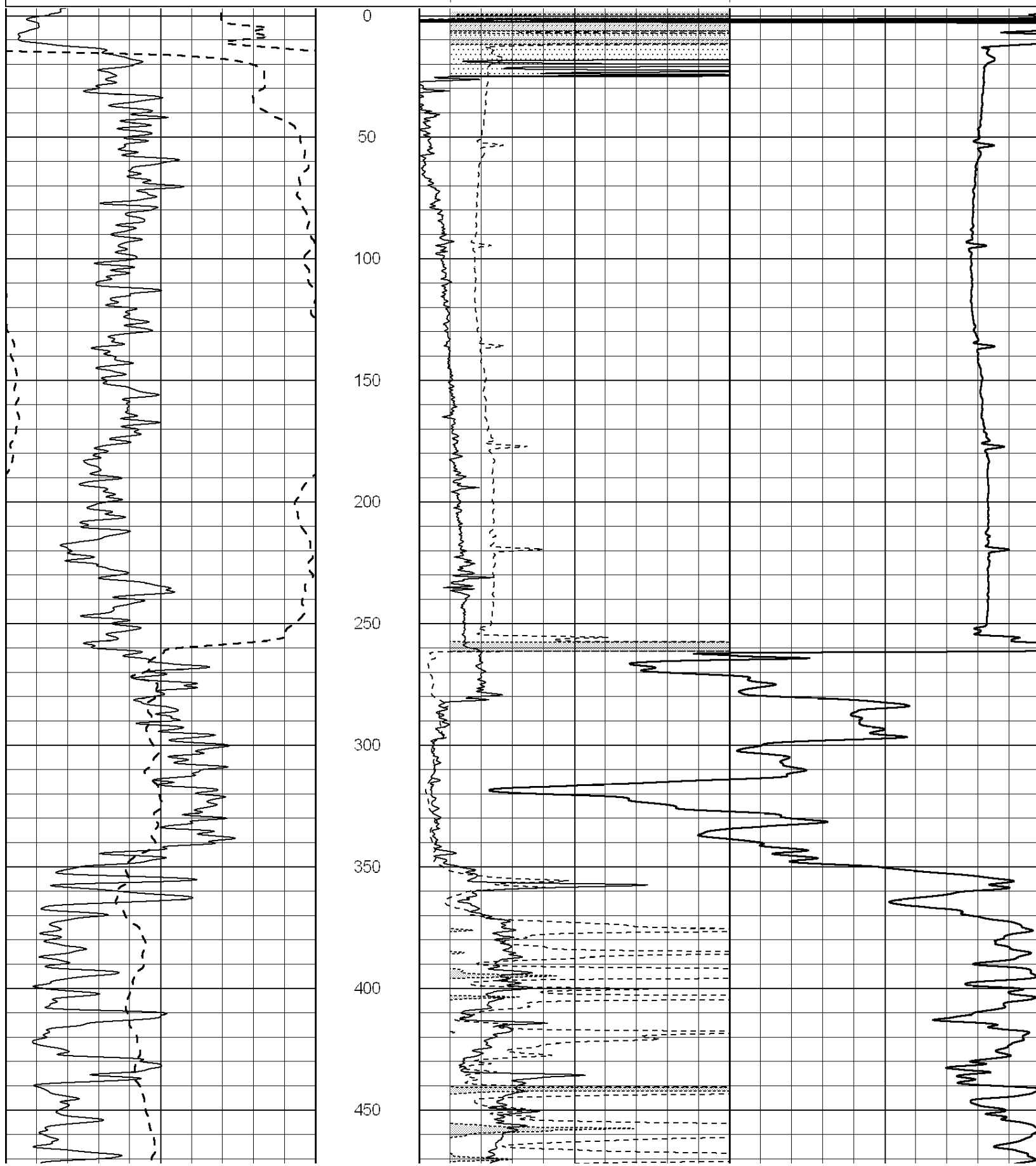
THANK YOU FOR USING "NABORS" HAYS, KANSAS (785) 628-6395

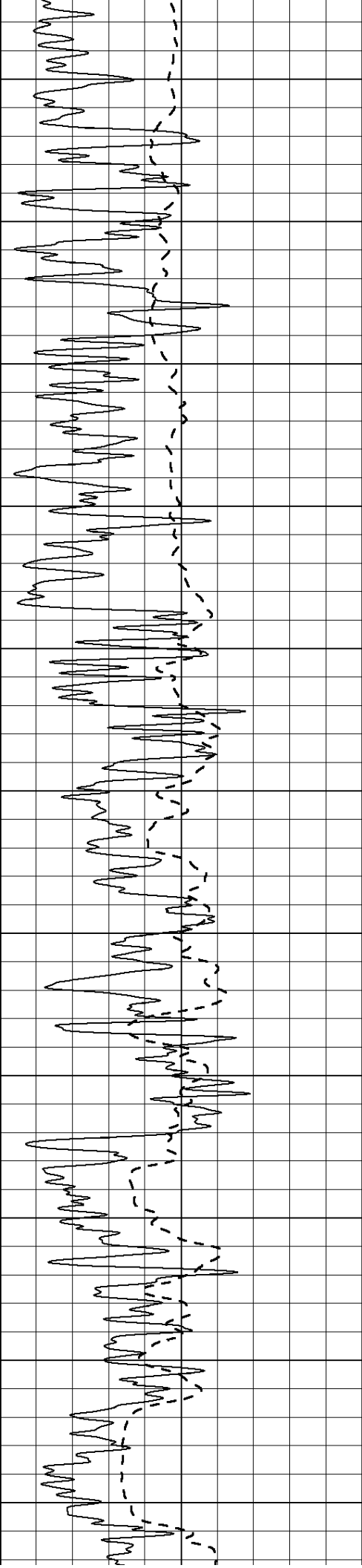
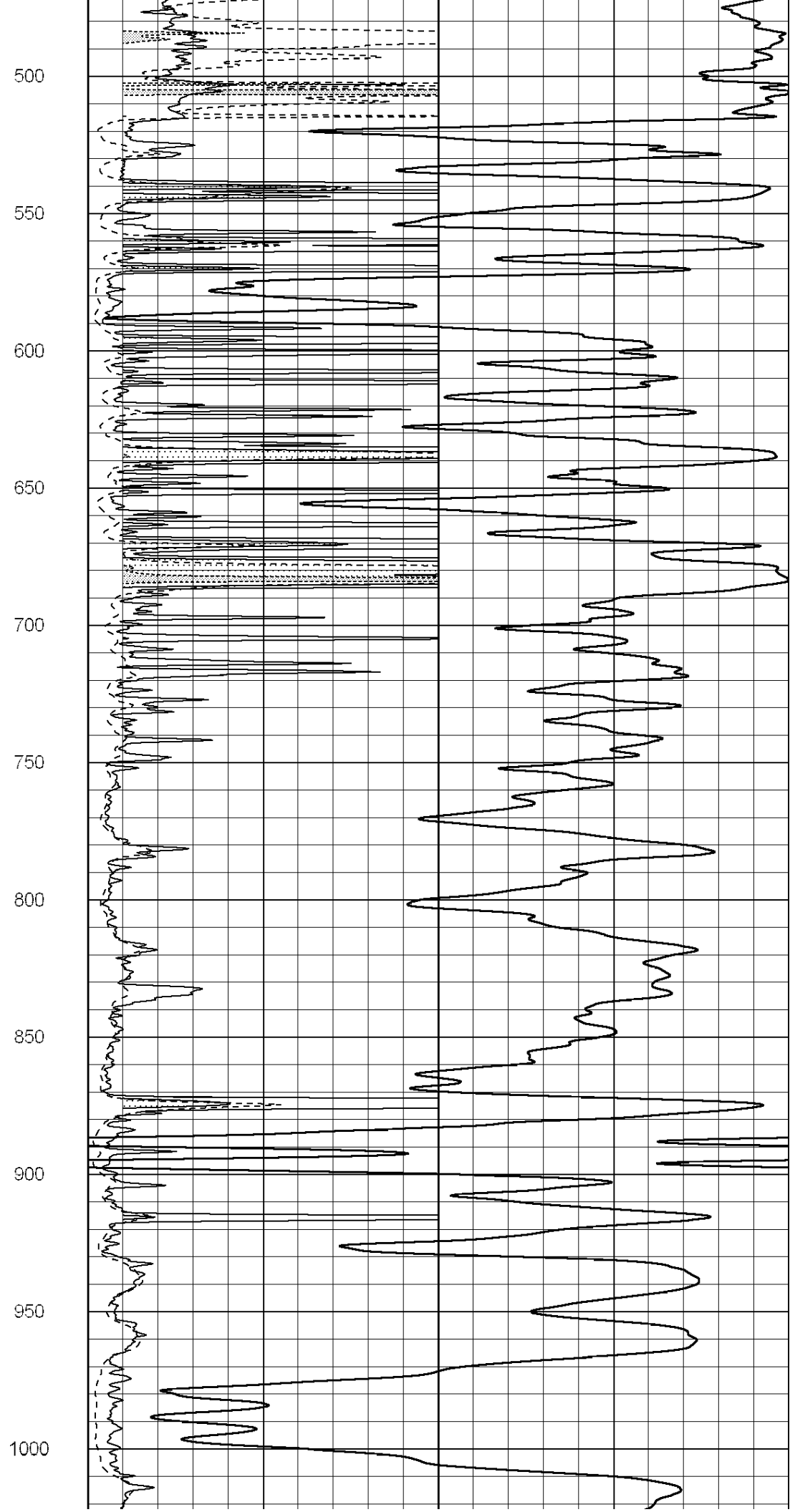
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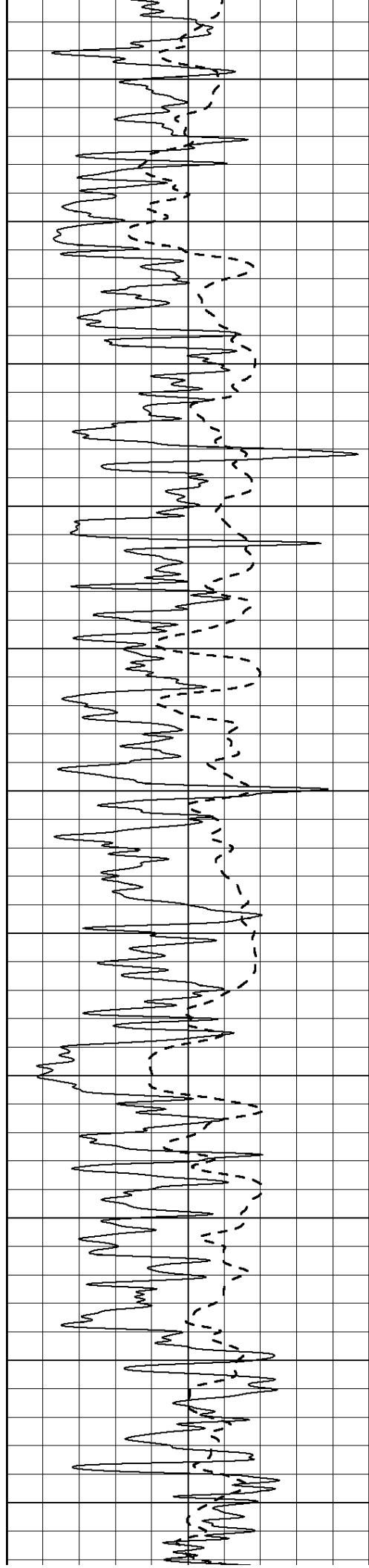
PLAINVILLE, KS - 2 MILES SOUTH TO BB RD

2 3/4 MILES EAST - SOUTH & EAST INTO

0	Gamma Ray (GAPI)	150	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	







1050

1100

1150

1200

1250

1300

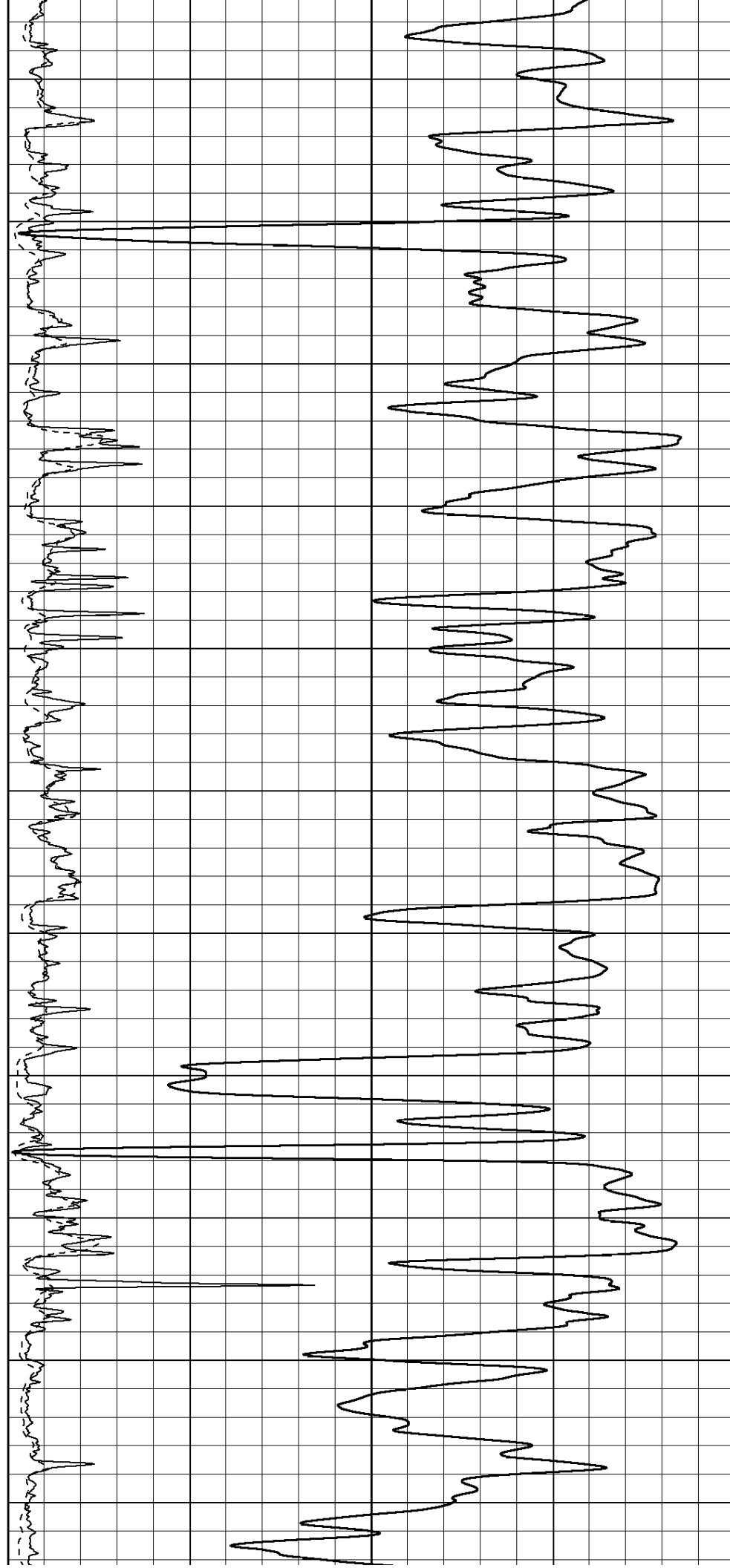
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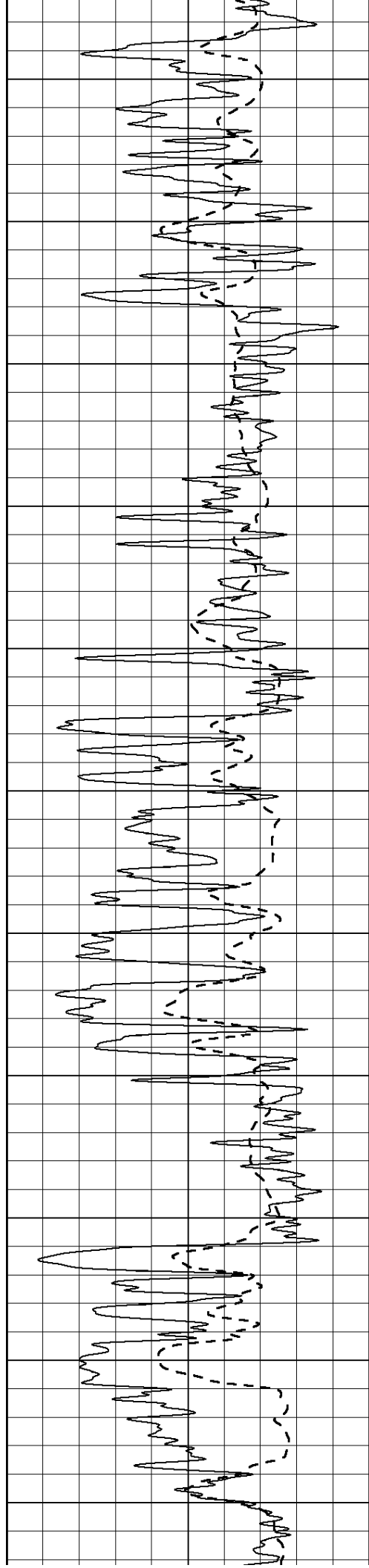
1400

1450

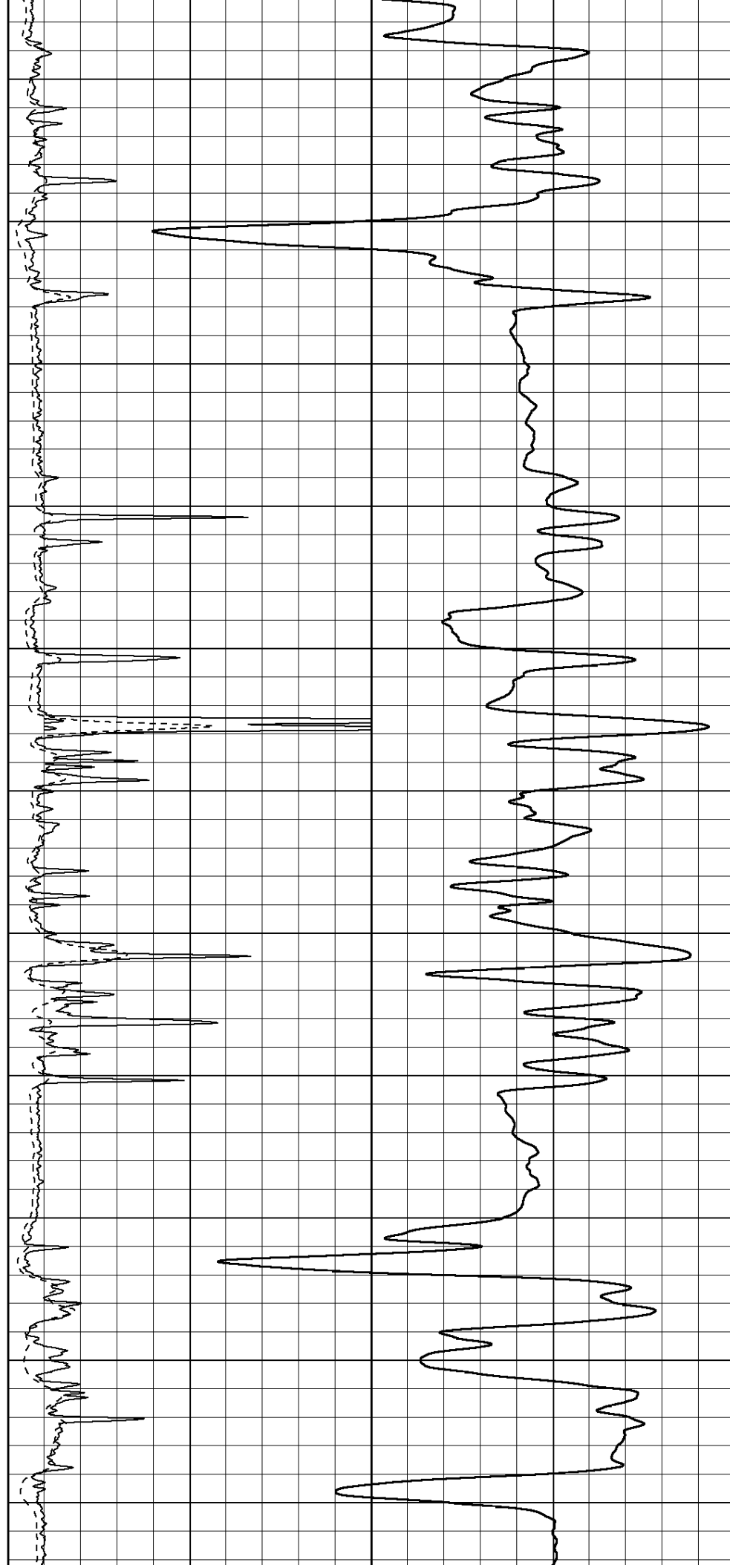
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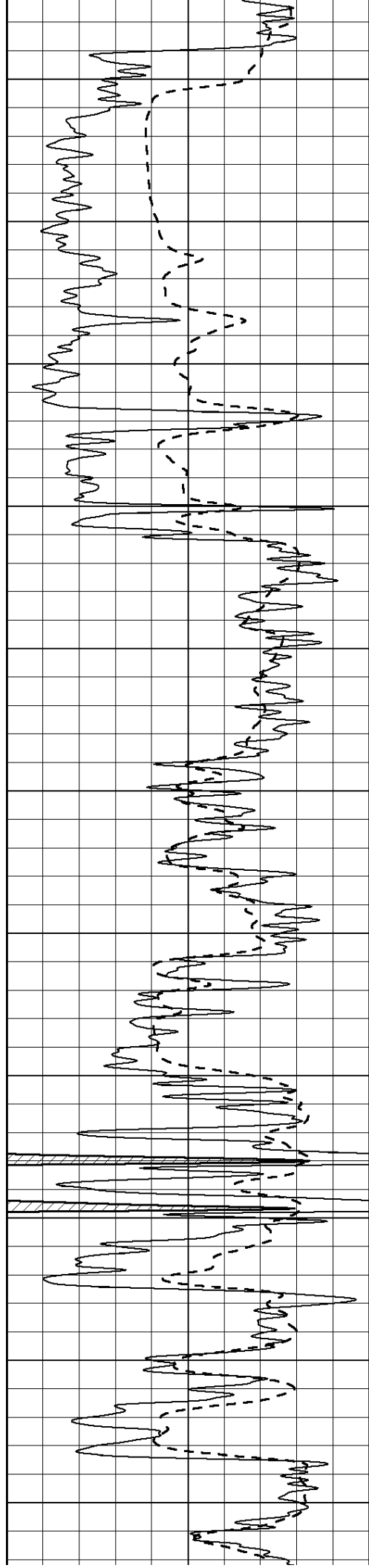
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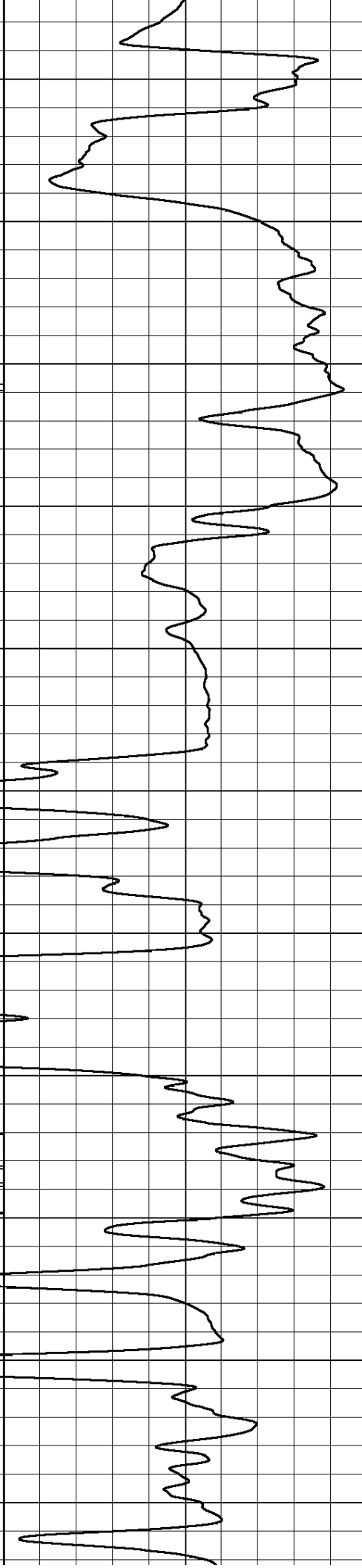
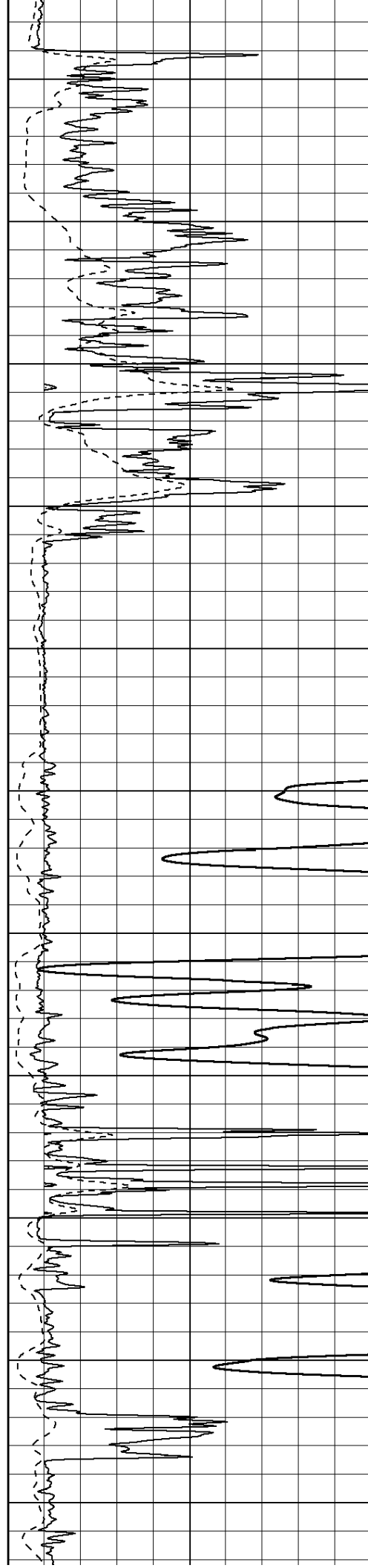


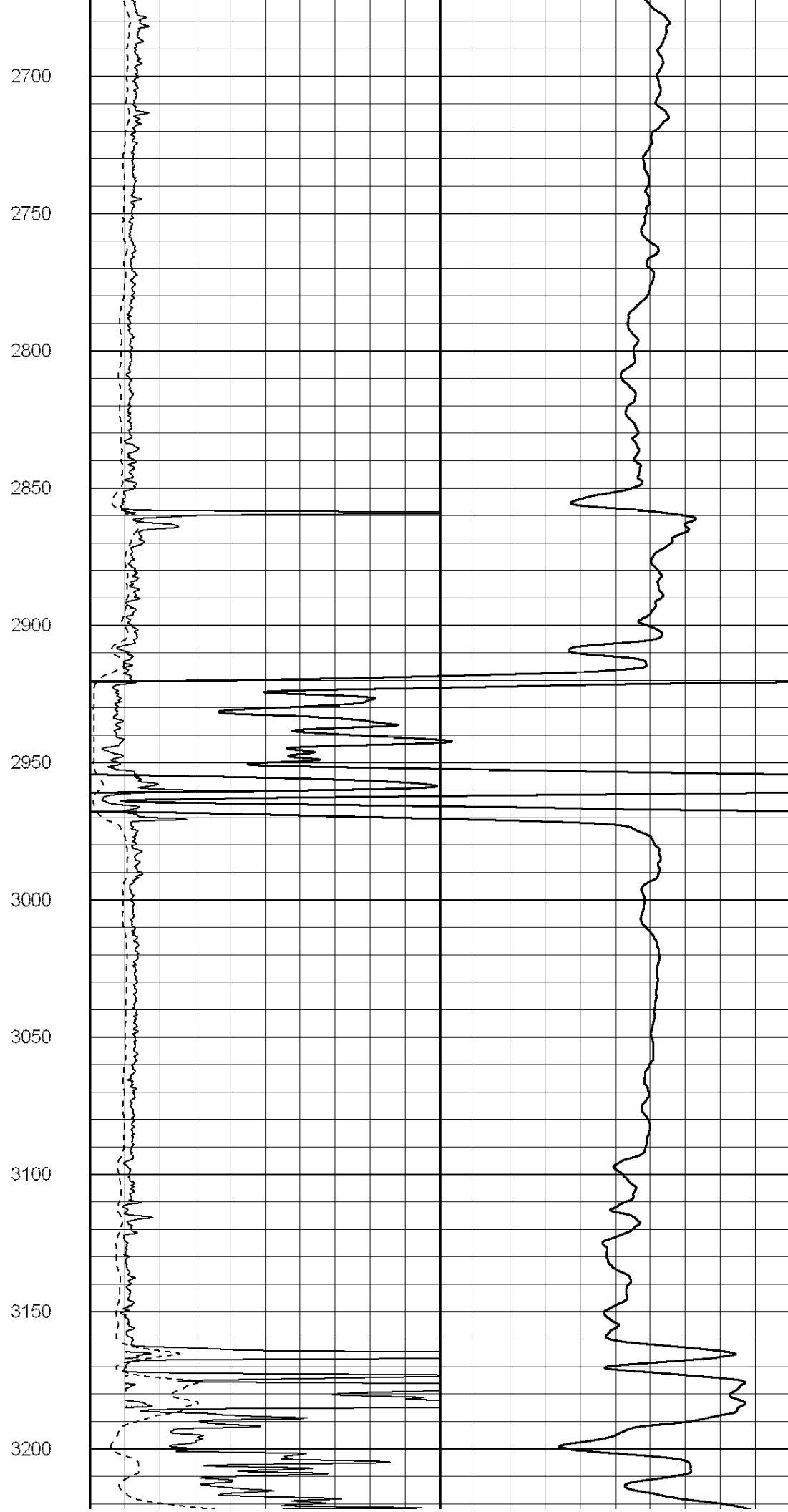
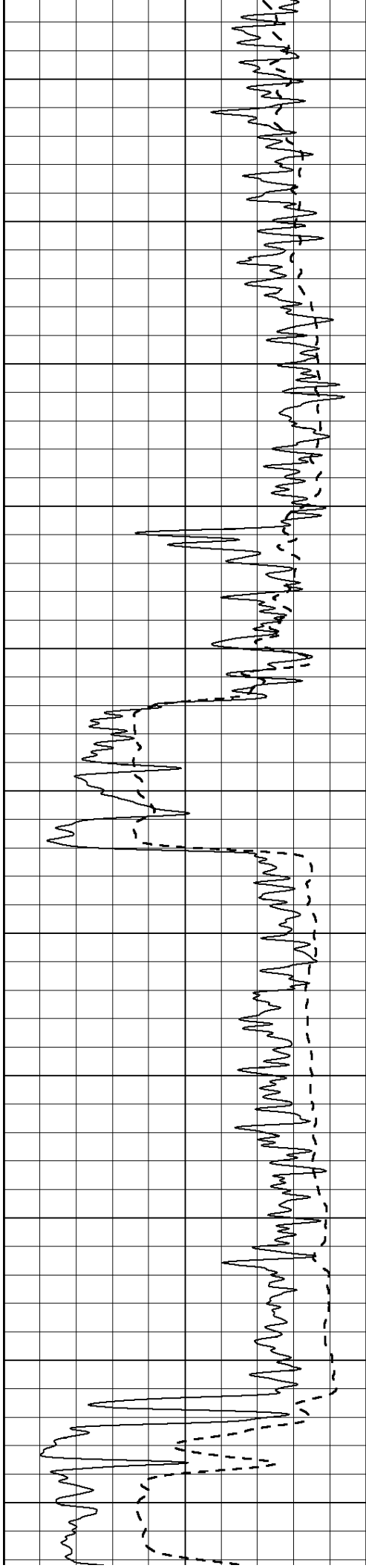
1600 1650 1700 1750 1800 1850 1900 1950 2000 2050 2100

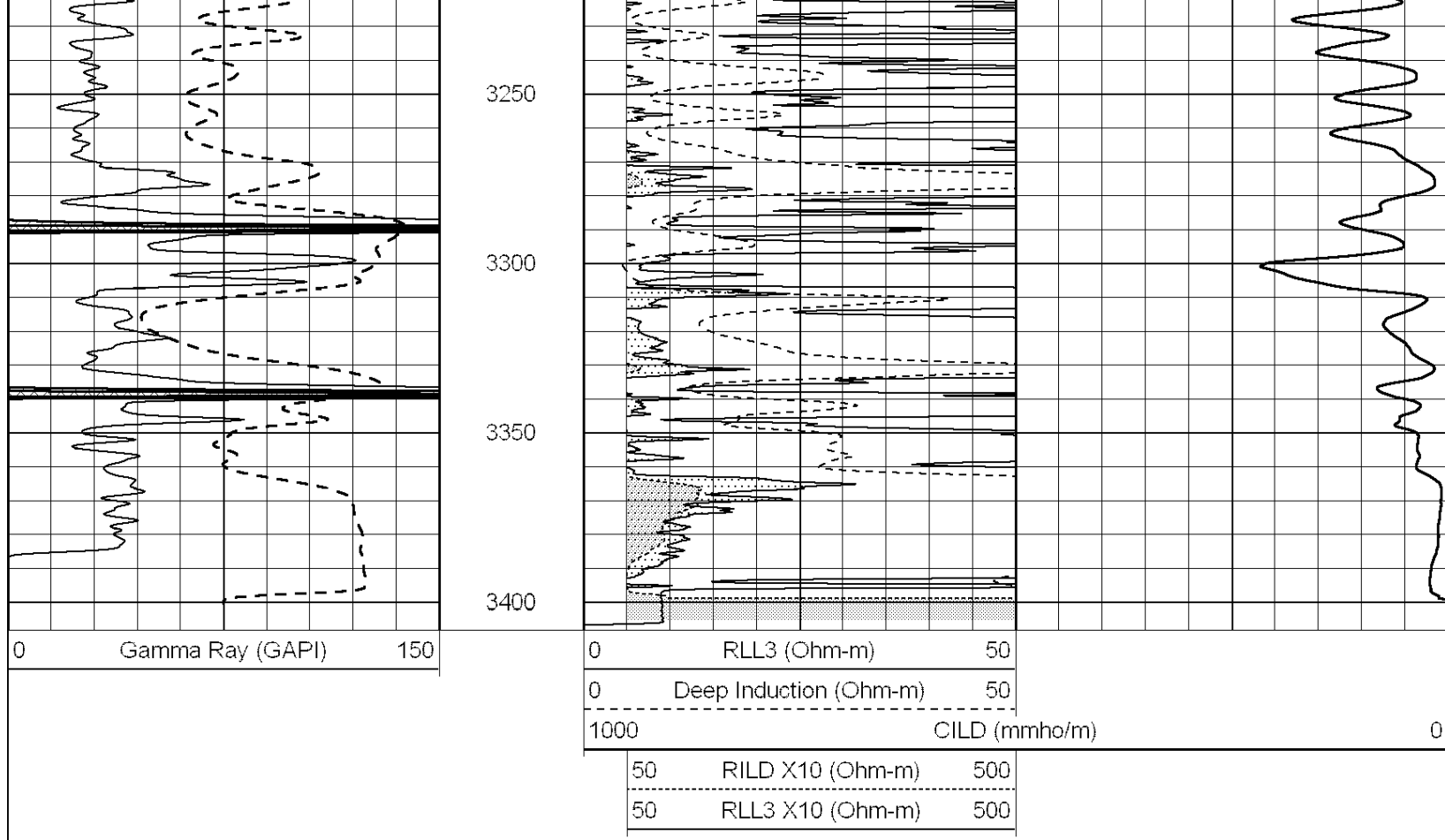




2150
2200
2250
2300
2350
2400
2450
2500
2550
2600
2650

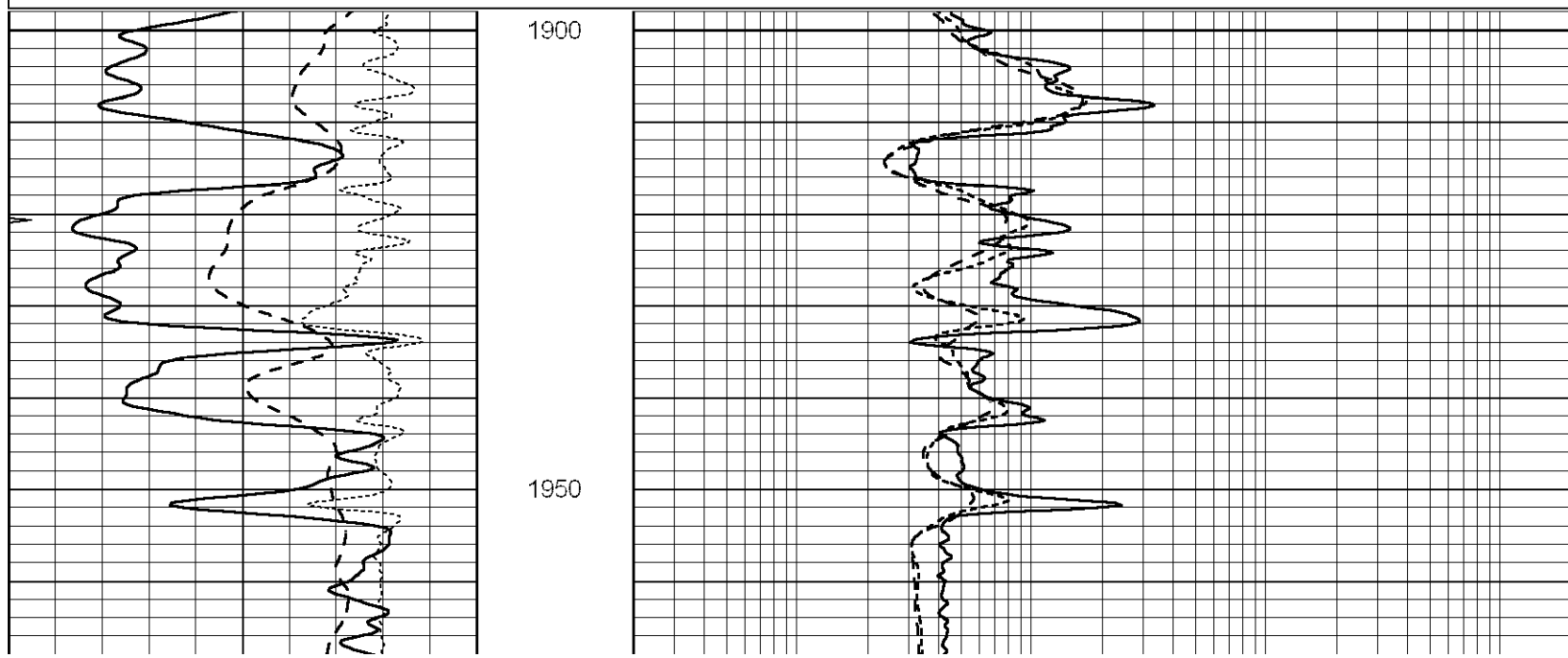


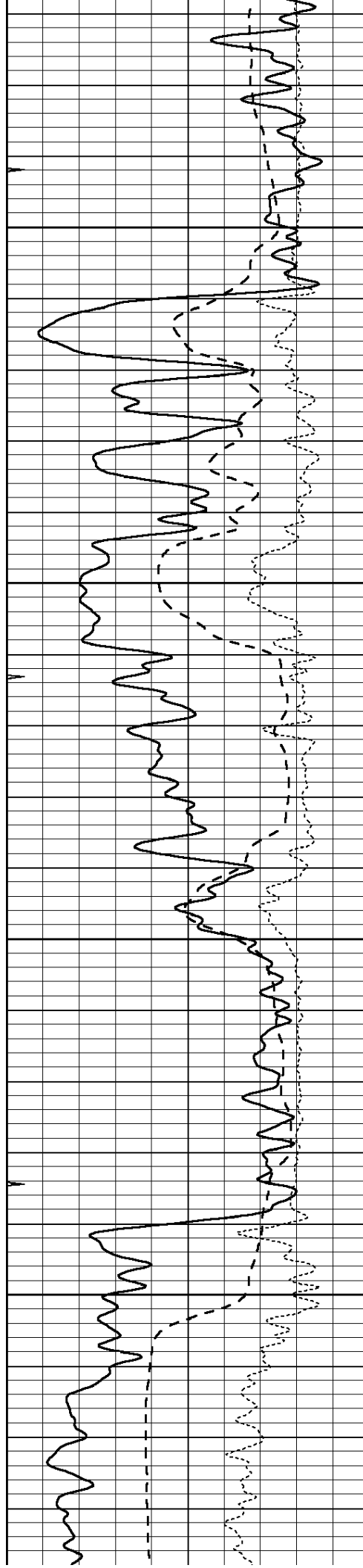




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Dataset Pathname: pass8.1
Presentation Format: _dil
Dataset Creation: Mon May 26 16:09:32 2014 by Calc Open-Cased 090629
Charted by: Depth in Feet scaled 1:240

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			



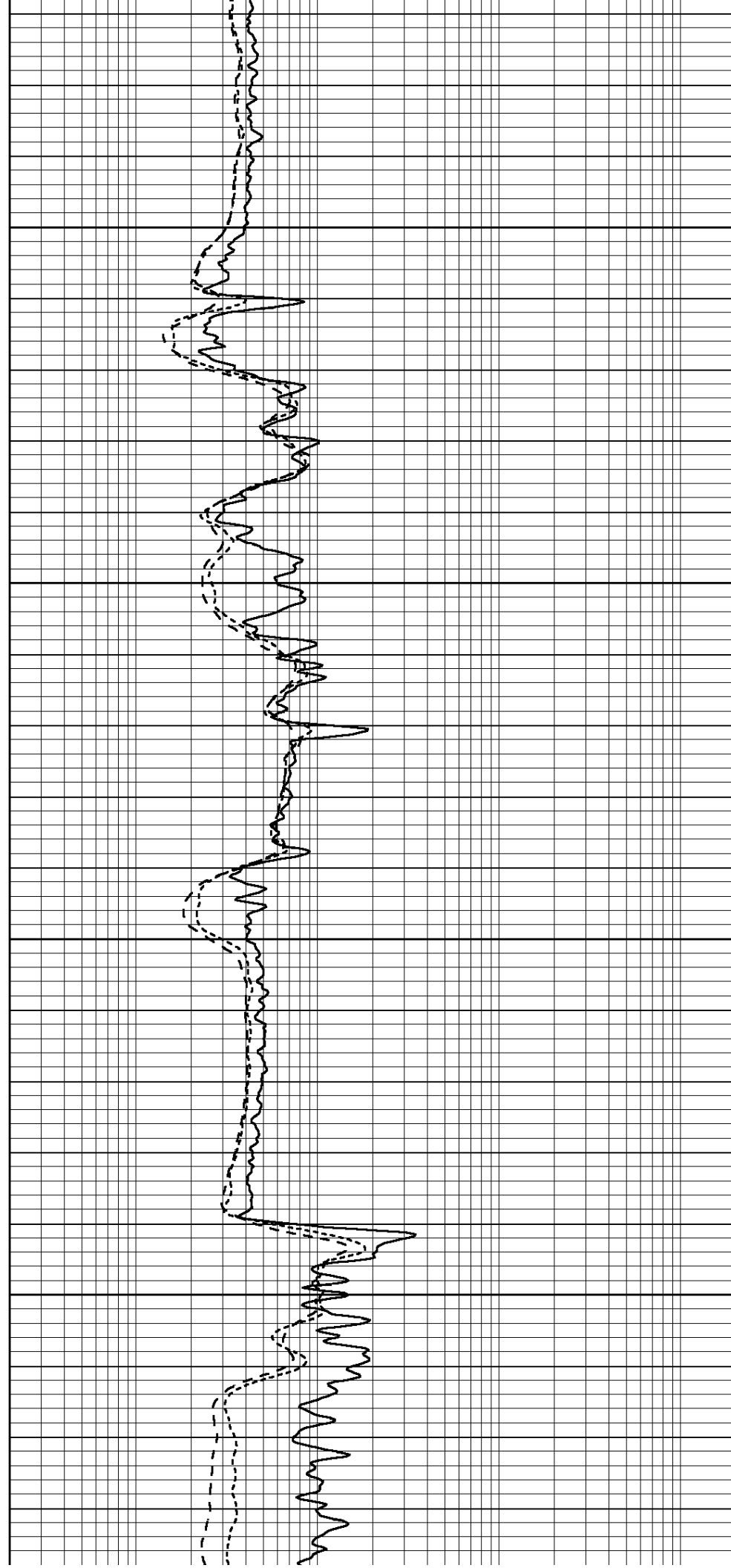


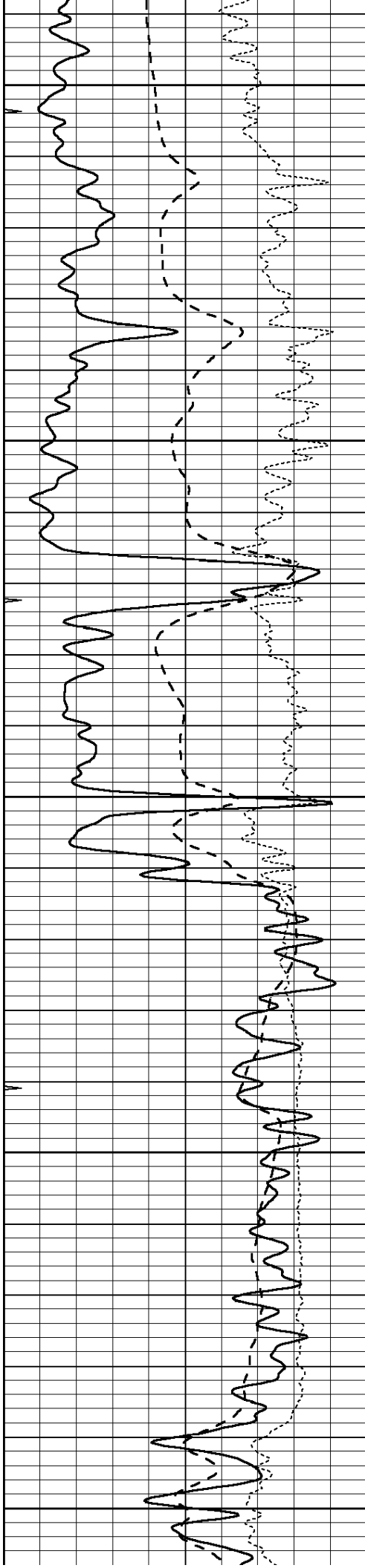
2000

2050

2100

2150





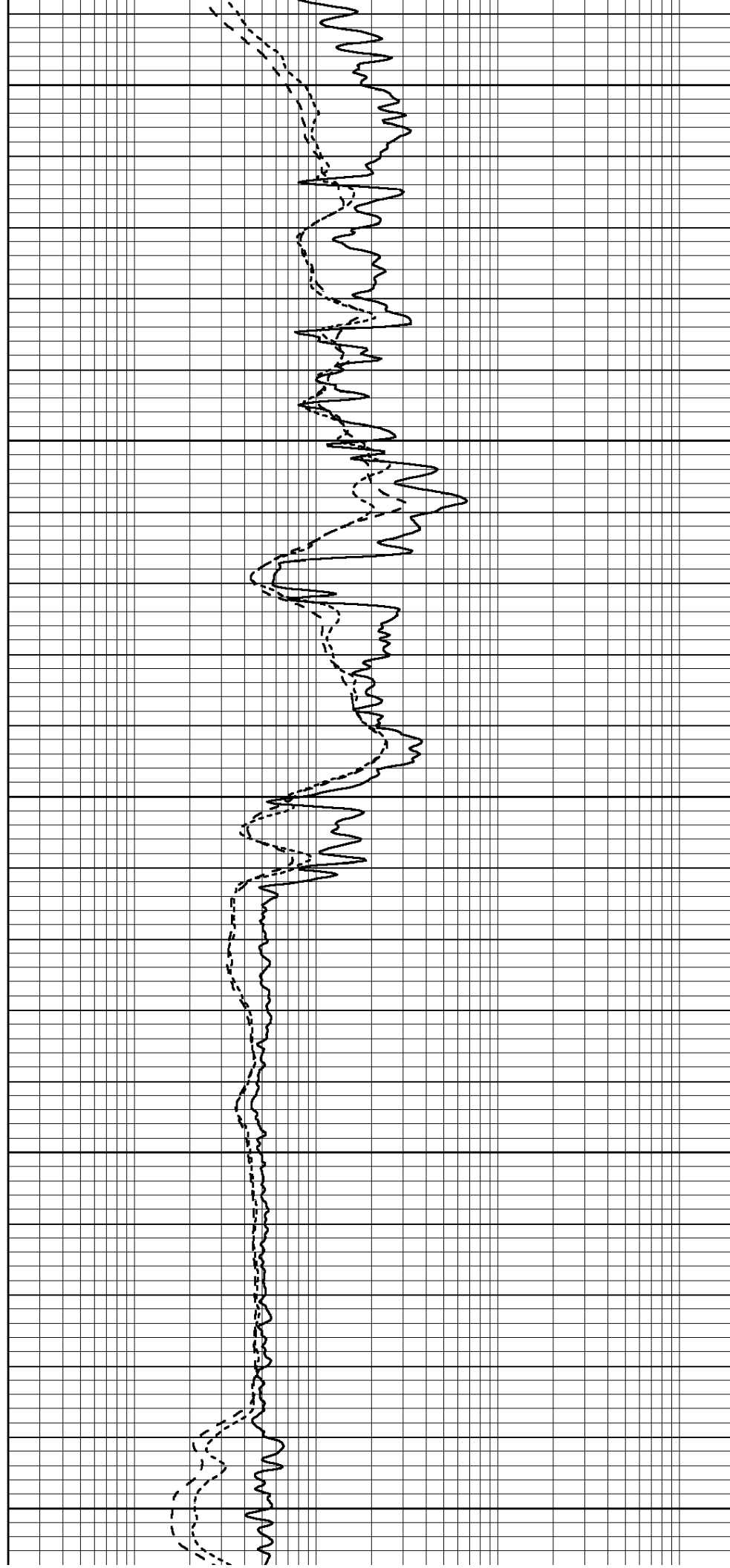
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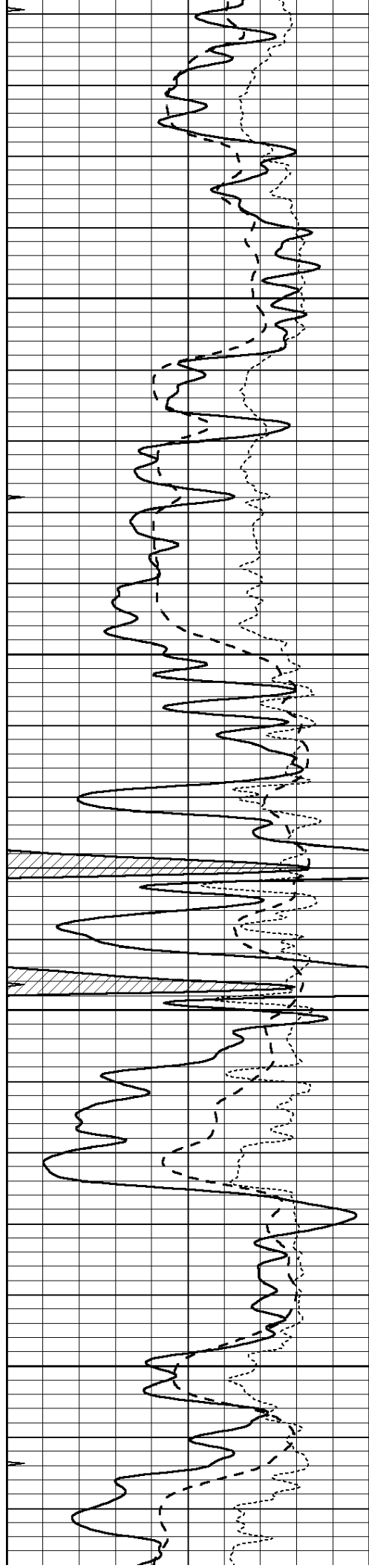
2250

2300

2350

2400



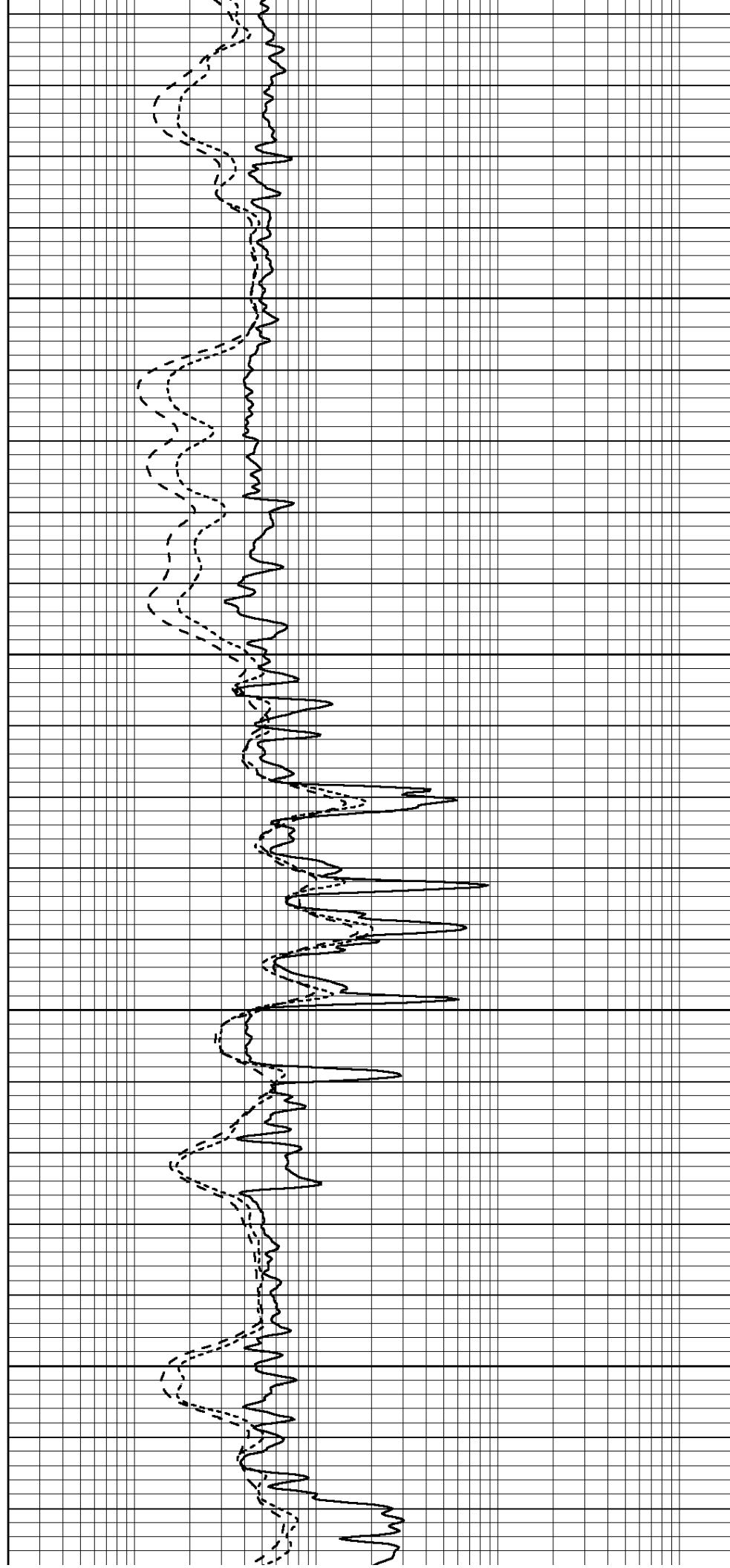


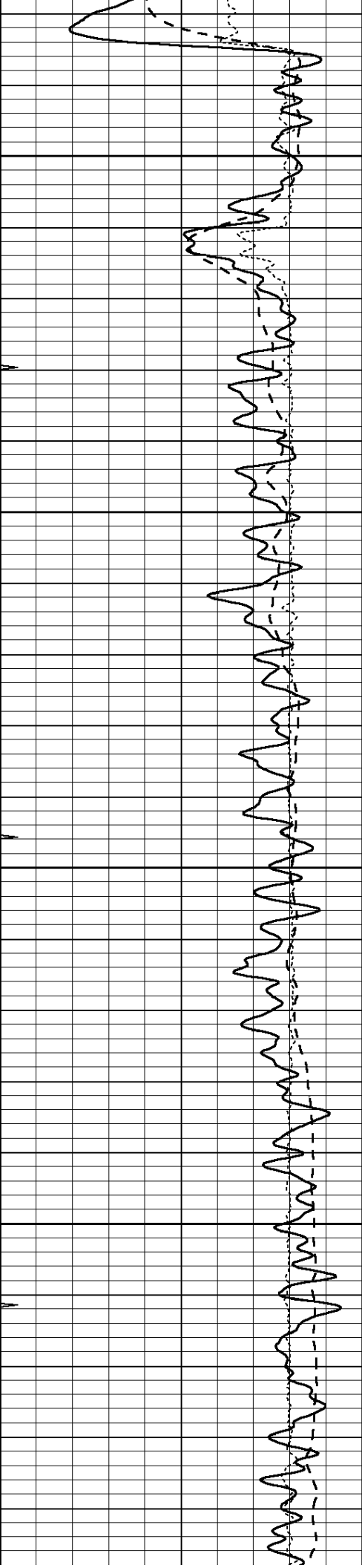
2450

2500

2550

2600



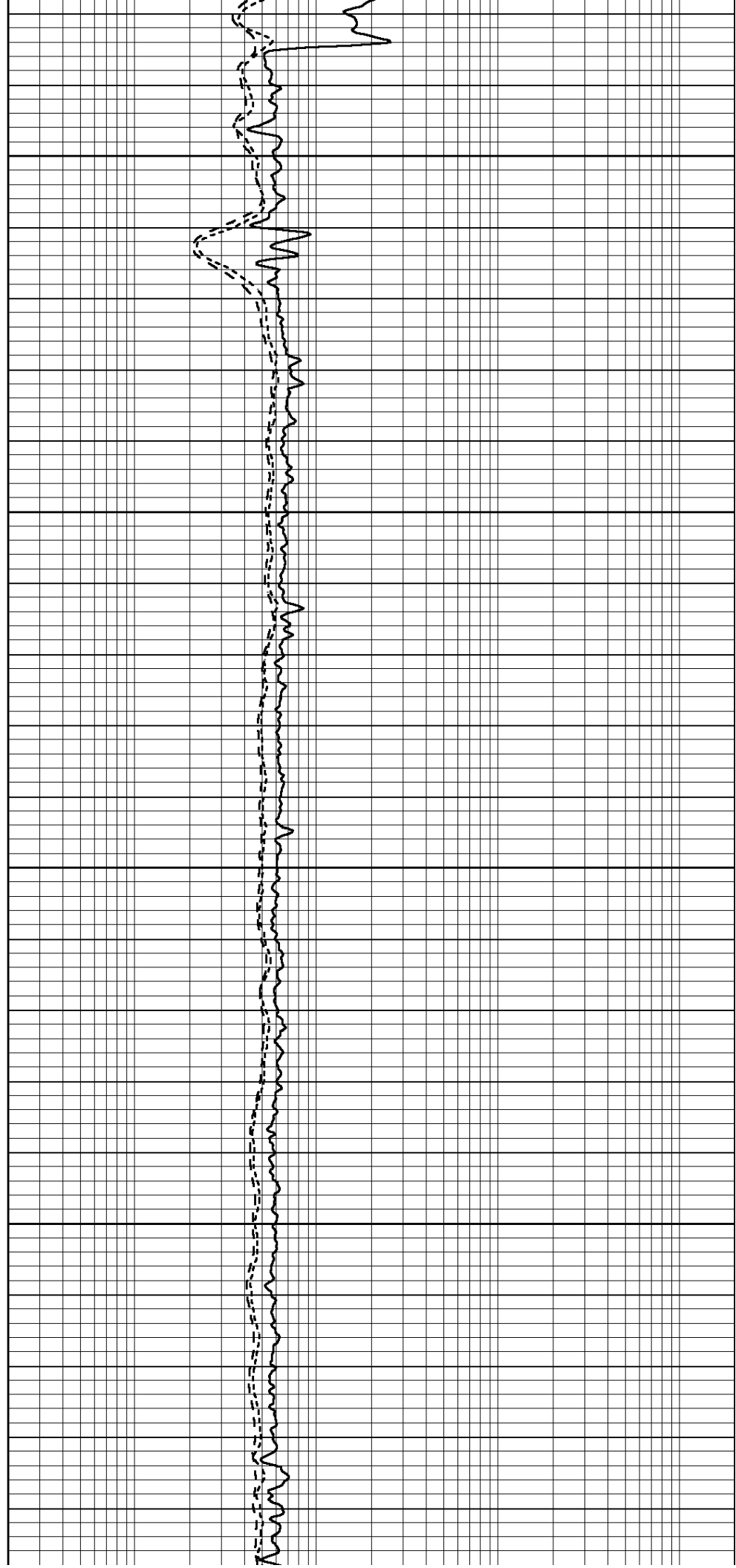


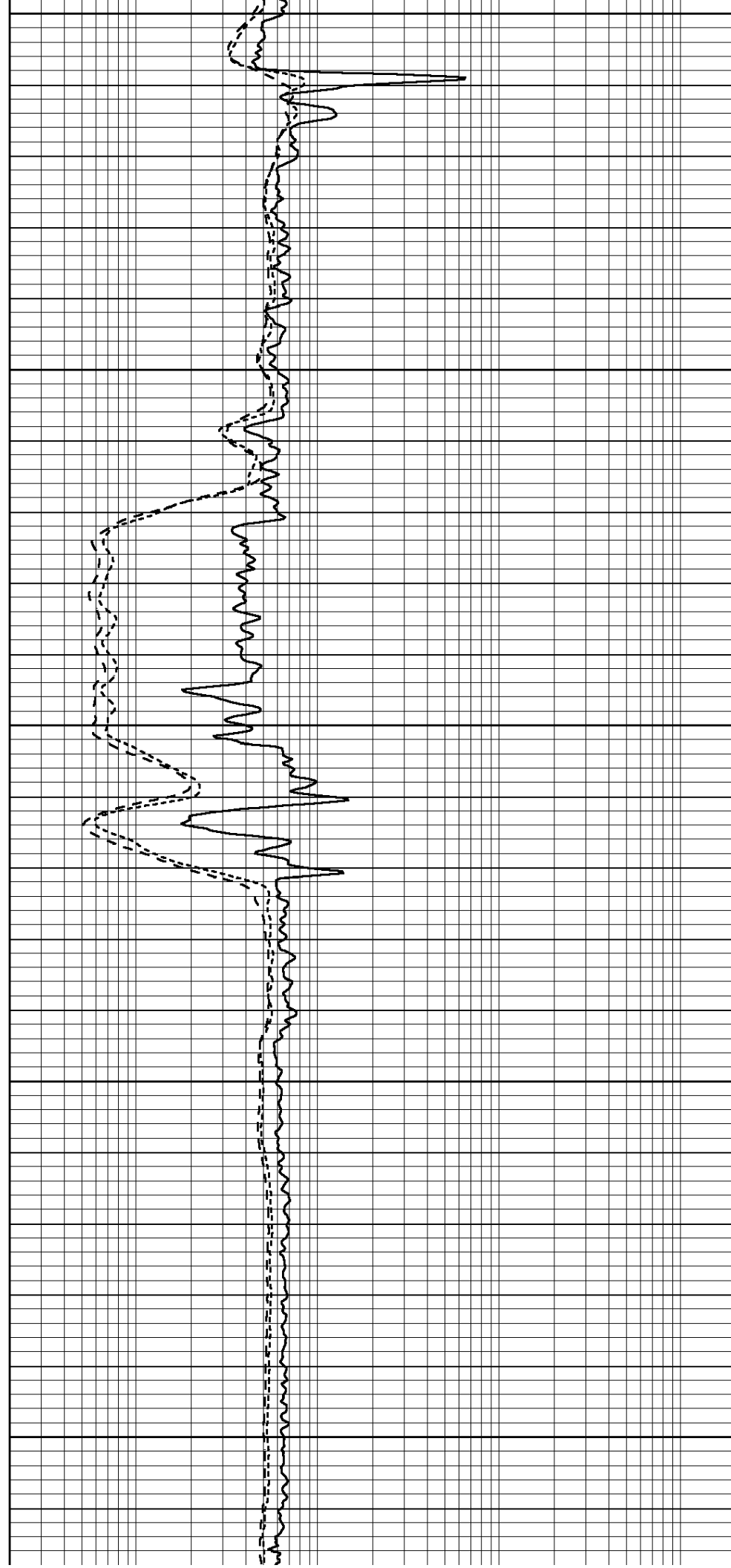
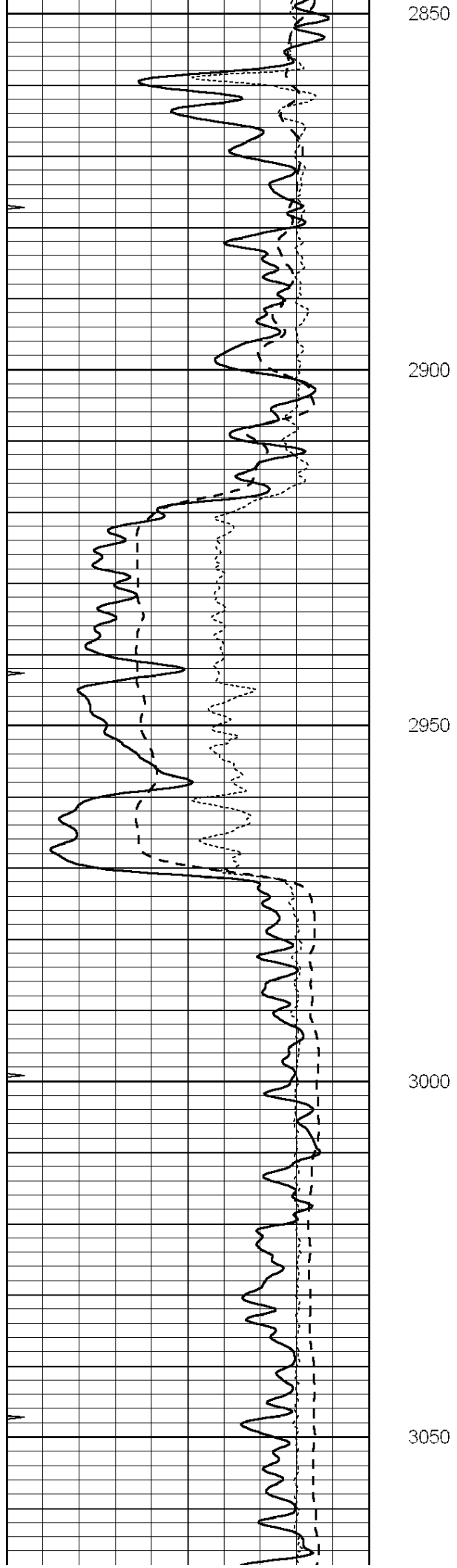
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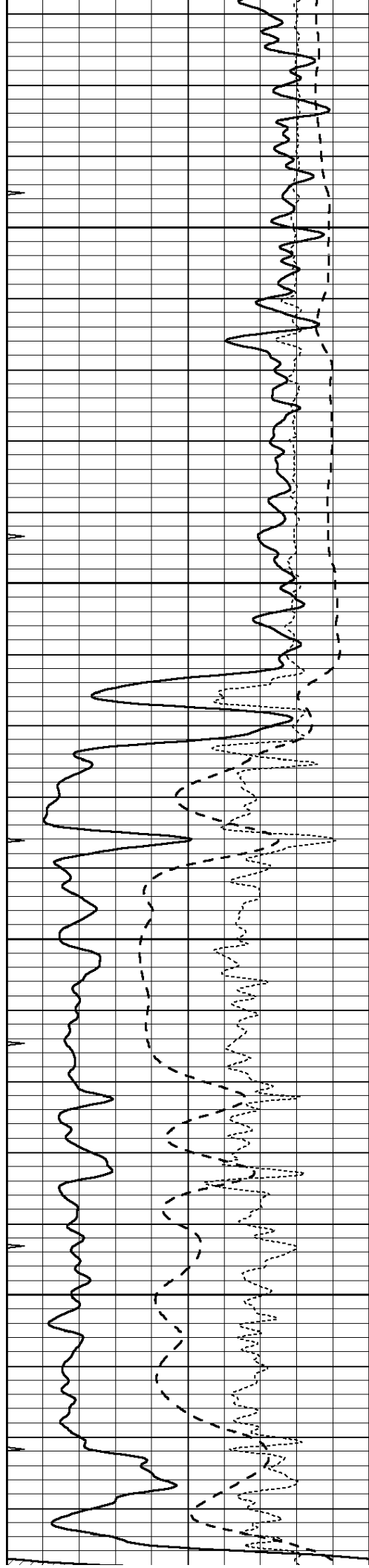
2700

2750

2800





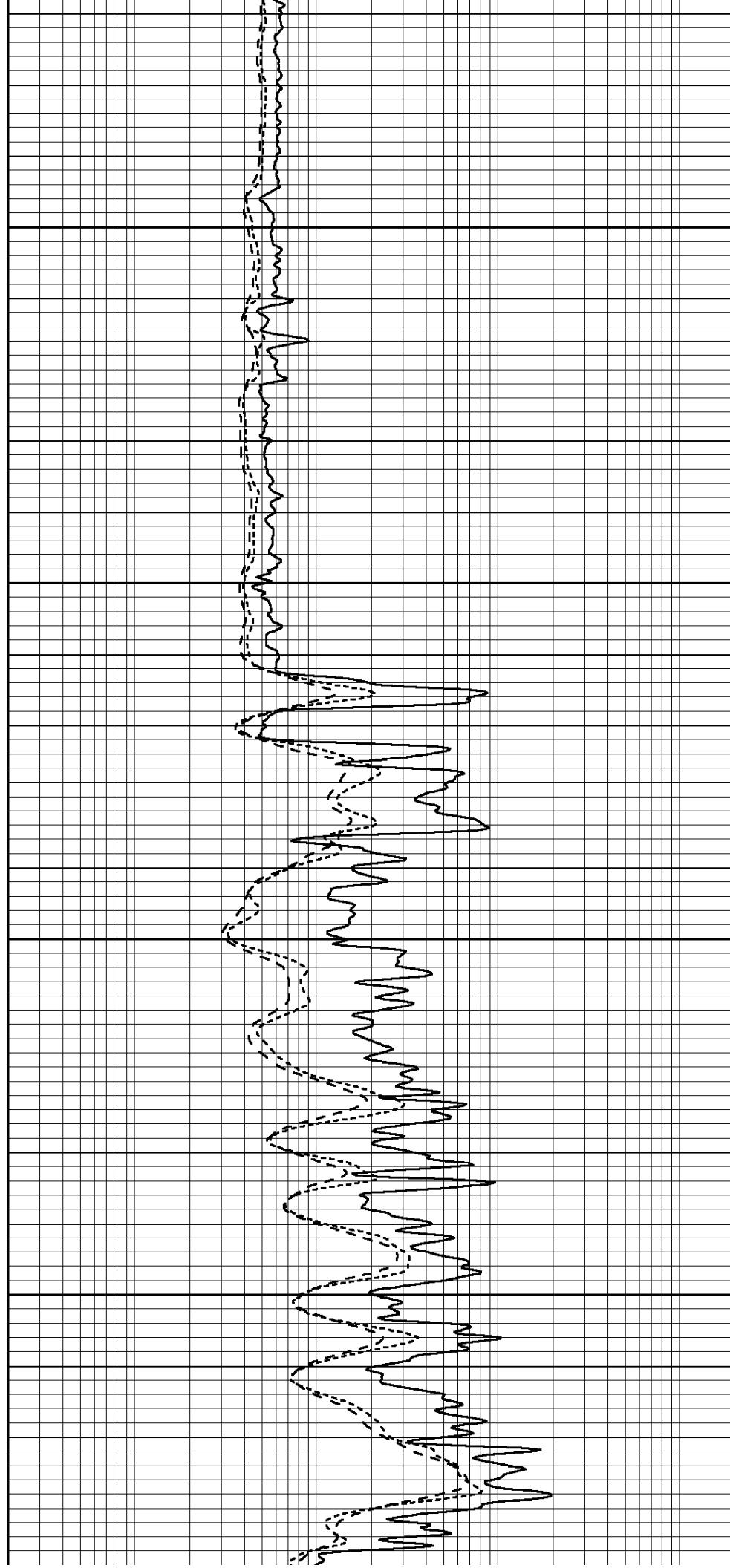


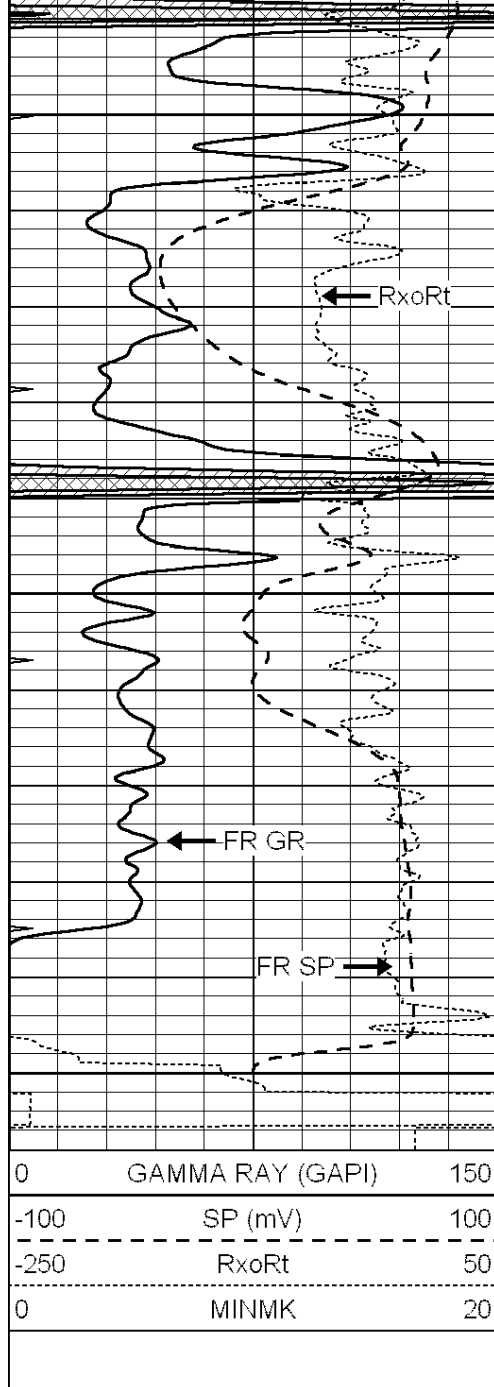
3100

3150

3200

3250

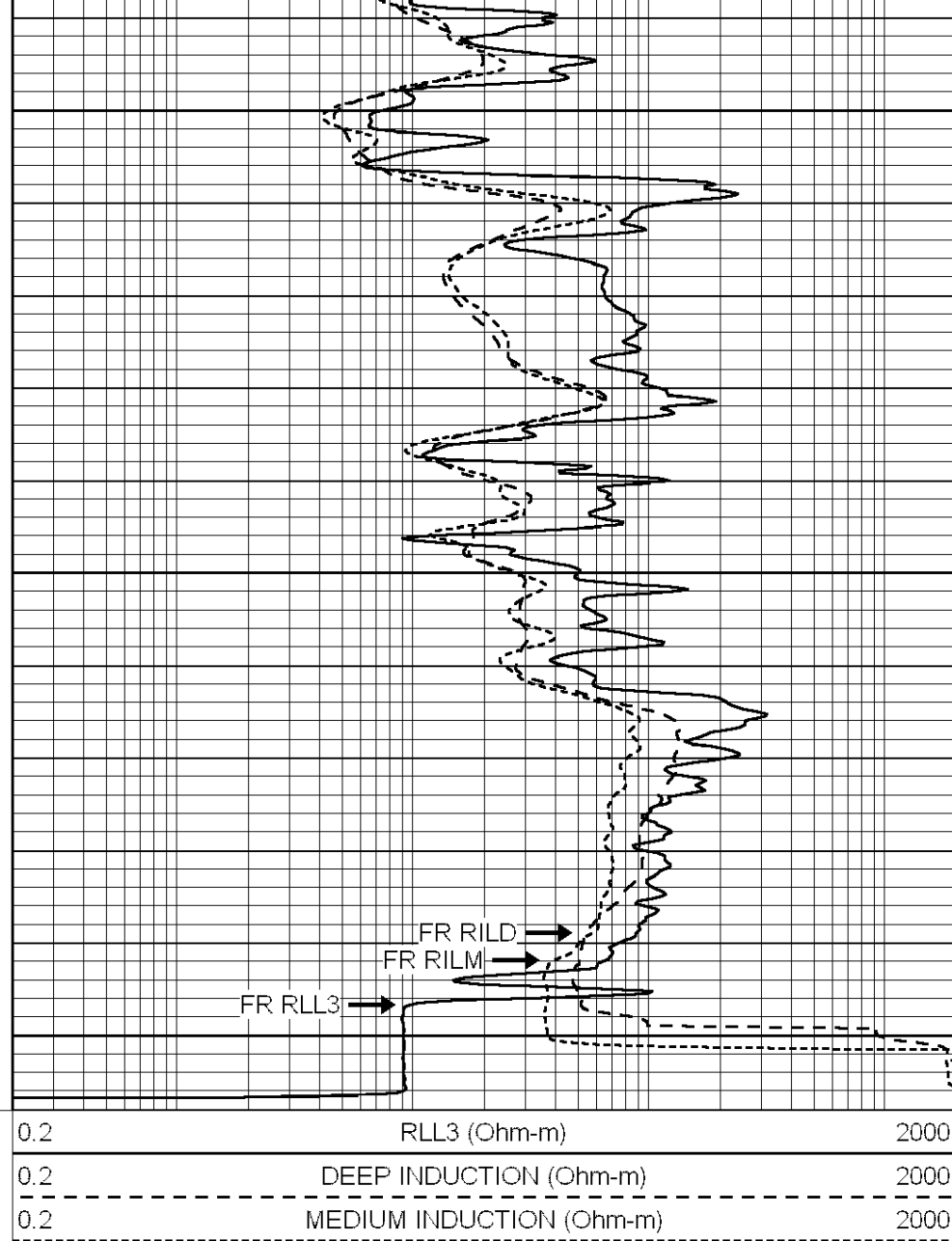




3300

3350

LTD 3399
3400



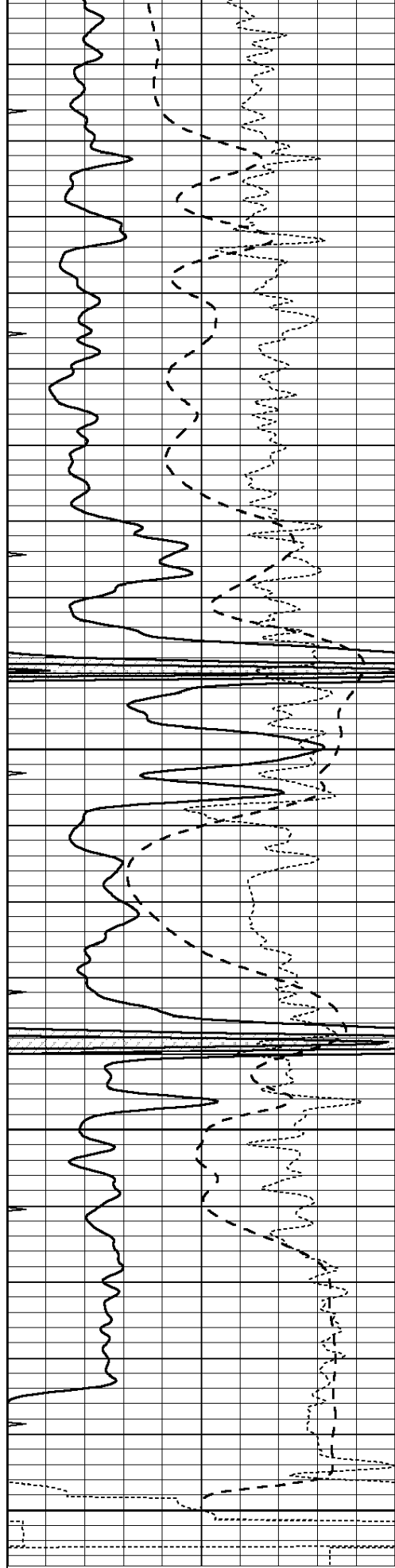
REPEAT SECTION

Database File: 24440pe.db
 Dataset Pathname: pass7.1
 Presentation Format: _dil
 Dataset Creation: Mon May 26 15:22:14 2014 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

3200



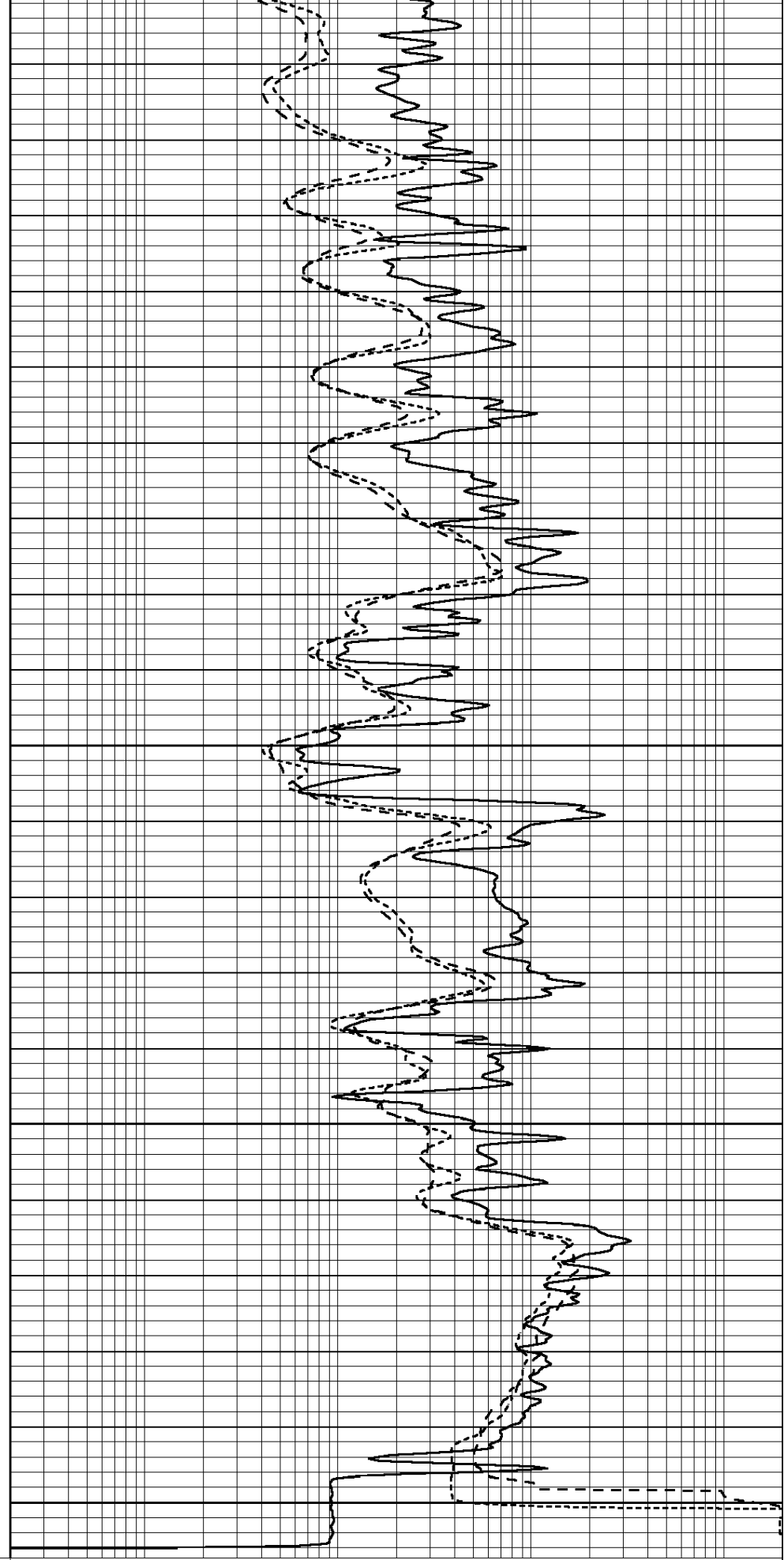
3250

3300

3350

3400

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

0	MINMK	20

Calibration Report									
Database File:		24440pe.db							
Dataset Pathname:		pass8.1							
Dataset Creation:		Mon May 26 16:09:32 2014 by Calc Open-Cased 090629							
Dual Induction Calibration Report									
Serial-Model: Performed:				DIL3-GEAR Mon May 26 15:31:39 2014					
Readings				References			Results		
Loop:	Air	Loop		Air	Loop		m	b	
Deep	0.011	0.656	V	0.000	400.000	mmho/m	520.000	8.000	
Medium	0.013	0.740	V	0.000	462.500	mmho/m	540.000	-5.000	
Internal:	Zero	Cal		Zero	Cal		m	b	
Deep	0.002	0.645	V	0.000	400.000	mmho/m	560.000	-1.071	
Medium	0.007	0.740	V	0.000	462.500	mmho/m	540.000	-4.000	
Gamma Ray Calibration Report									
Serial Number:		GR5							
Tool Model:		OPEN							
Performed:		Mon May 26 15:01:55 2014							
Calibrator Value:		1.0		GAPI					
Background Reading:		0.0		cps					
Calibrator Reading:		1.0		cps					
Sensitivity:		0.9000		GAPI/cps					