



**COMPLETION
& PRODUCTION
SERVICES CO.**

**DUAL
INDUCTION
LOG**

Company LD DRILLING, INC.
Well MCCUNE #3-18
Field BUNYAN NORTHEAST
County STAFFORD State KANSAS

Company LD DRILLING, INC.
Well MCCUNE #3-18
Field BUNYAN NORTHEAST
County STAFFORD
State KANSAS

Location: API #: 15-185-23876-0000
1031' FNL & 1150' FEL
SW - SW - NE - NE
SEC 18 TWP 25S RGE 12W
Permanent Datum GROUND LEVEL Elevation 1901
Log Measured From KELLY BUSHING 5' A.G.L.
Drilling Measured From KELLY BUSHING

Other Services
CDL/CNL

Elevation
K.B. 1906
D.F. 1904
G.L. 1901

Date	6-4-14		
Run Number	ONE		
Depth Driller	4290		
Depth Logger	4289		
Bottom Logged Interval	4287		
Top Log Interval	0		
Casing Driller	323		
Casing Logger	325		
Bit Size	7.875		
Type Fluid in Hole	CHEMICAL MUD		
Density / Viscosity	9.1 / 45	CHLORIDES 8,300	
pH / Fluid Loss	8.0 / 15.2		
Source of Sample	FLOWLINE		
Rim @ Meas. Temp	0.50 @ 83F		
Rmf @ Meas. Temp	0.38 @ 83F		
Rmc @ Meas. Temp	0.60 @ 83F		
Source of Rmf / Rmc	FLOWLINE		
Rim @ BHT	0.35 @ 119F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom			
Maximum Recorded Temperature	119F		
Equipment Number	860		
Location	HAYS, KS.		
Recorded By	JEFF GRONEWEG		
Witnessed By	KURT TALBOTT		

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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

NABORS COMPLETION & PRODUCTION SERVICES
785-628-6395
THANK YOU FOR YOUR BUSINESS
DIRECTIONS: ST JOHN, KS - 3 MILES SOUTH TO INTERSECTION OF HWYS 281 & 50
6 MILES SOUTH TO RD 60 - 4 MILES EAST TO RD 40
3/4 MILE NORTH - WEST INTO
NOTE: TOOLS STUCK AT 4211' ON MAIN PASS - PULLED LOOSE - CAME UPHOLE
AND LOGGED FROM 3900'-3100'

Database File: 24446ddn.db
Dataset Pathname: pass3.6
Presentation Format: _dil2
Dataset Creation: Wed Jun 04 07:20:11 2014

0 Gamma Ray (GAPI) 150

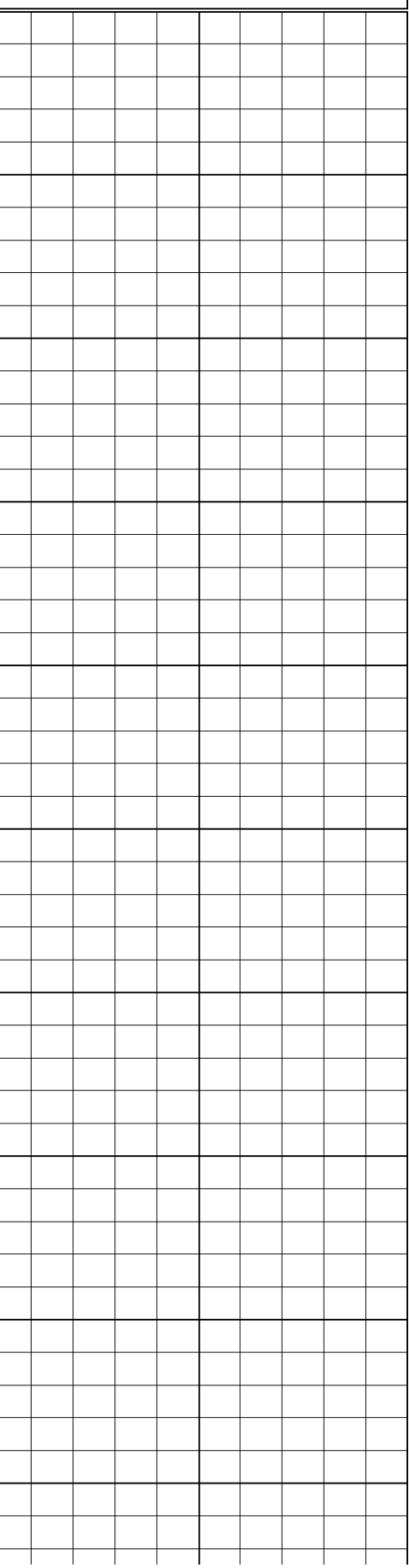
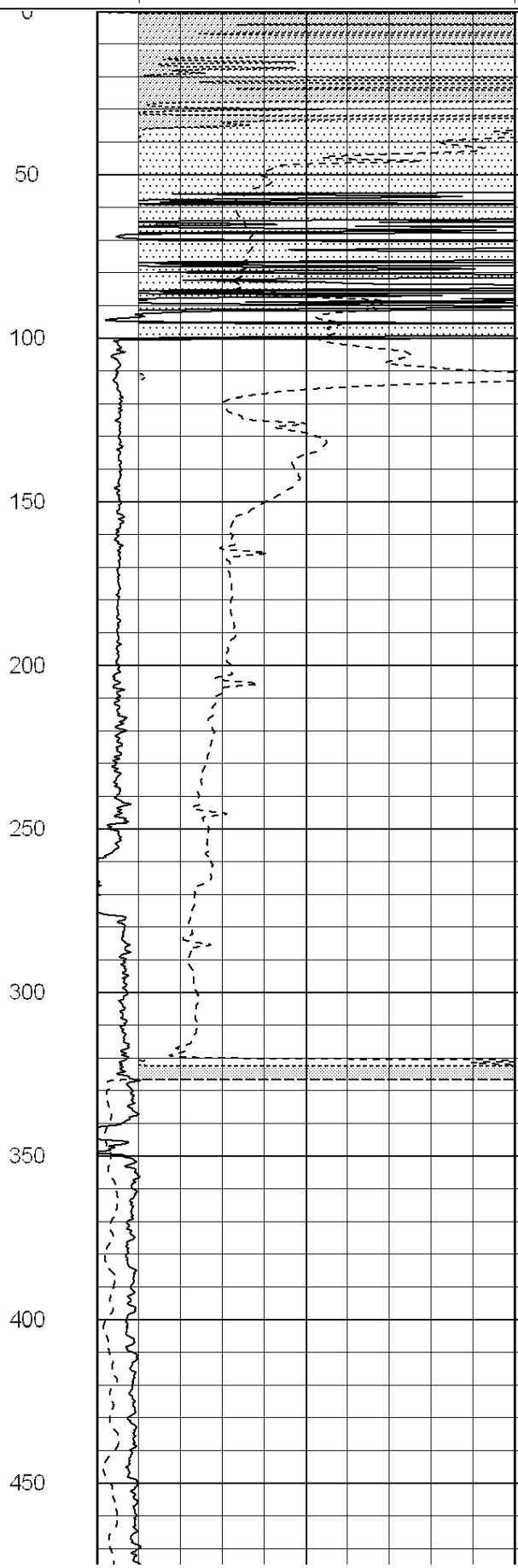
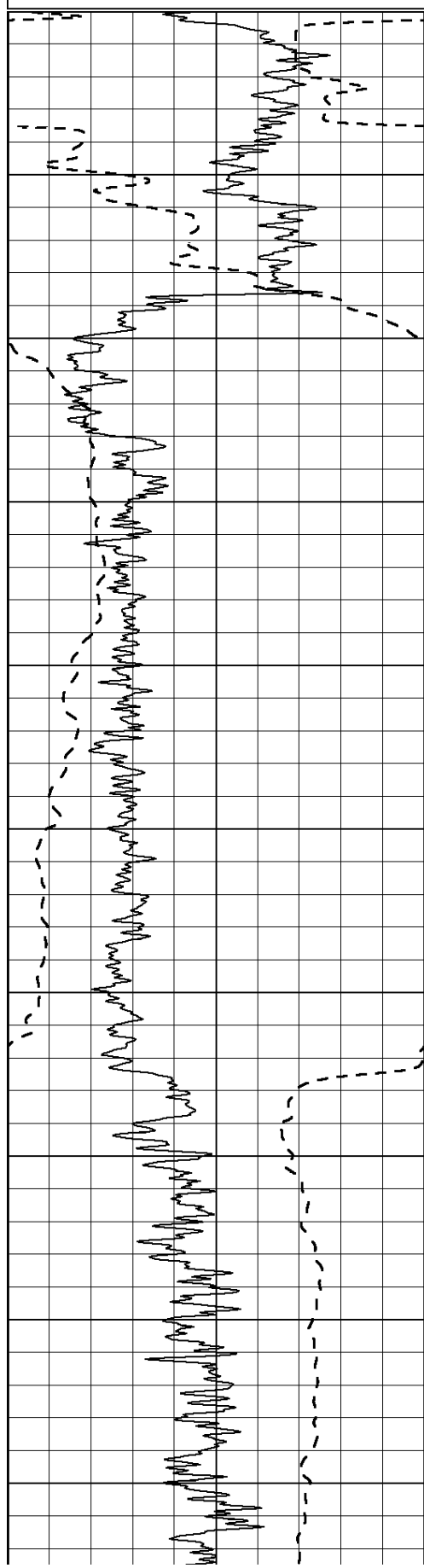
0 RLL3 (Ohm-m) 50

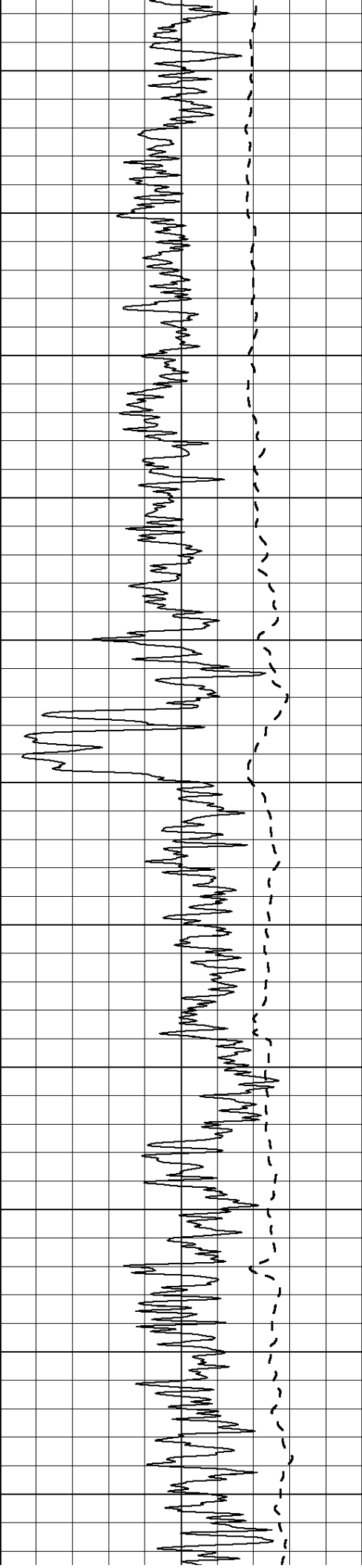
0 Deep Induction (Ohm-m) 50

1000 CILD (mmho/m) 0

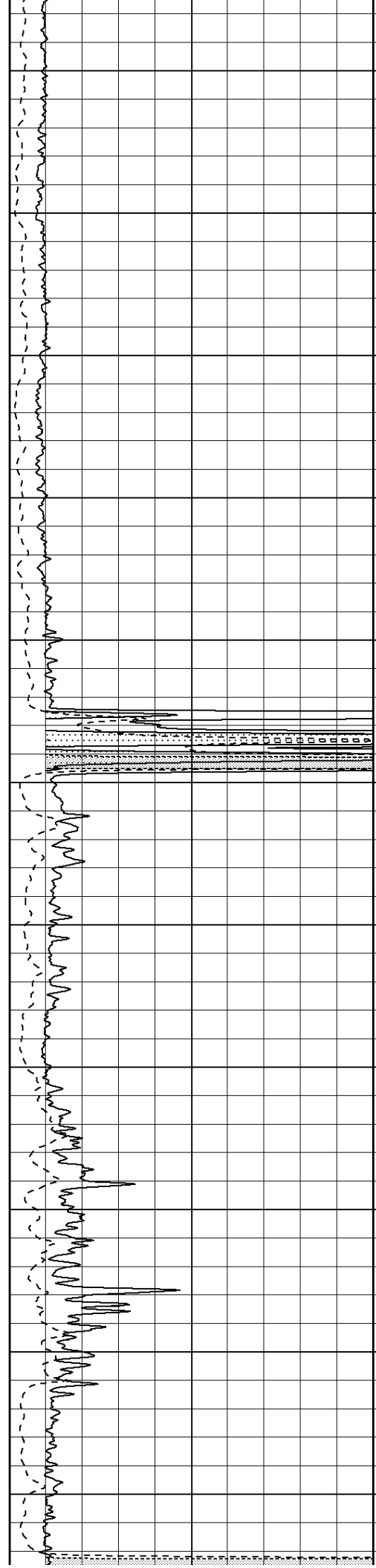
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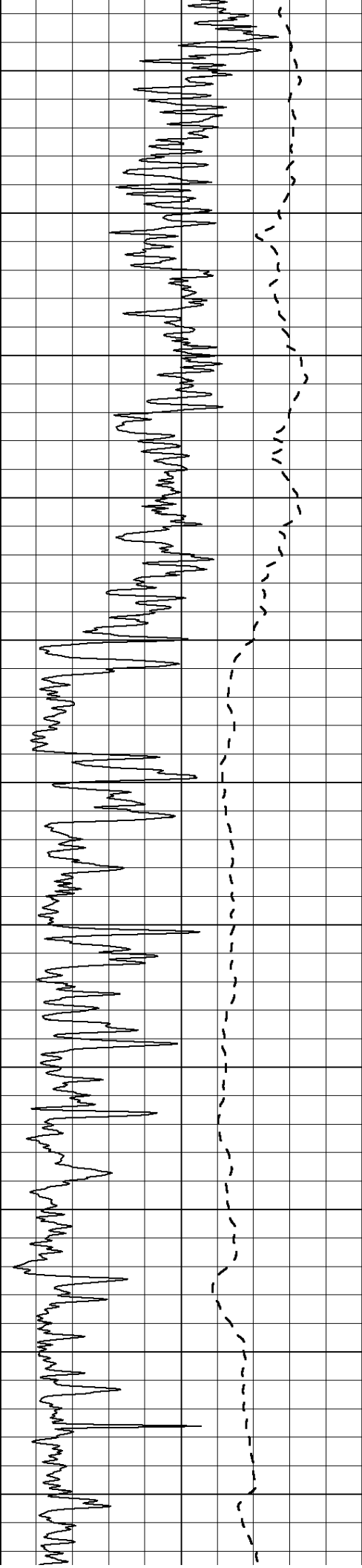
50 RLL3 X10 (Ohm-m) 500





500
550
600
650
700
750
800
850
900
950
1000





1050

1100

1150

1200

1250

1300

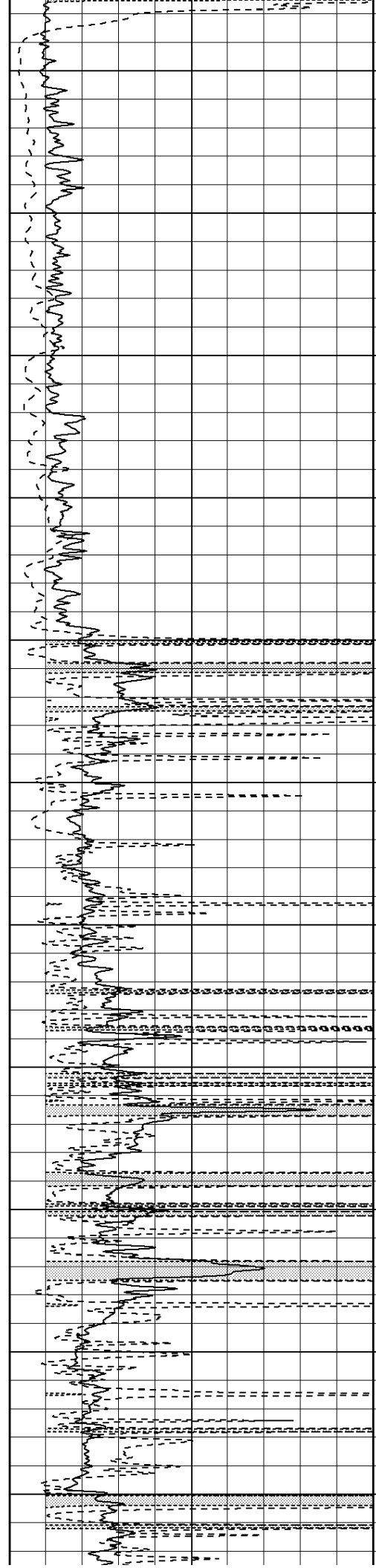
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1400

1450

1500

1550



1050

1100

1150

1200

1250

1300

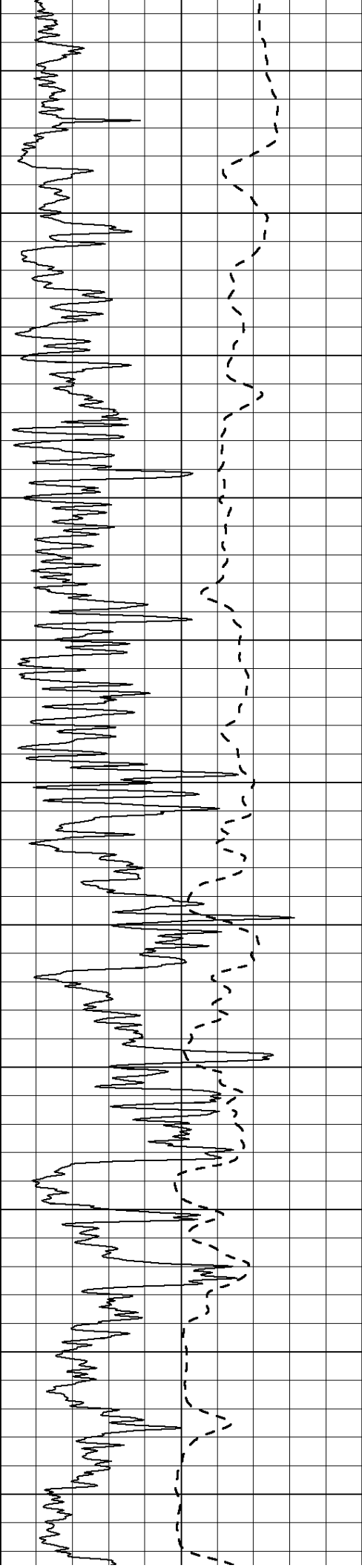
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1400

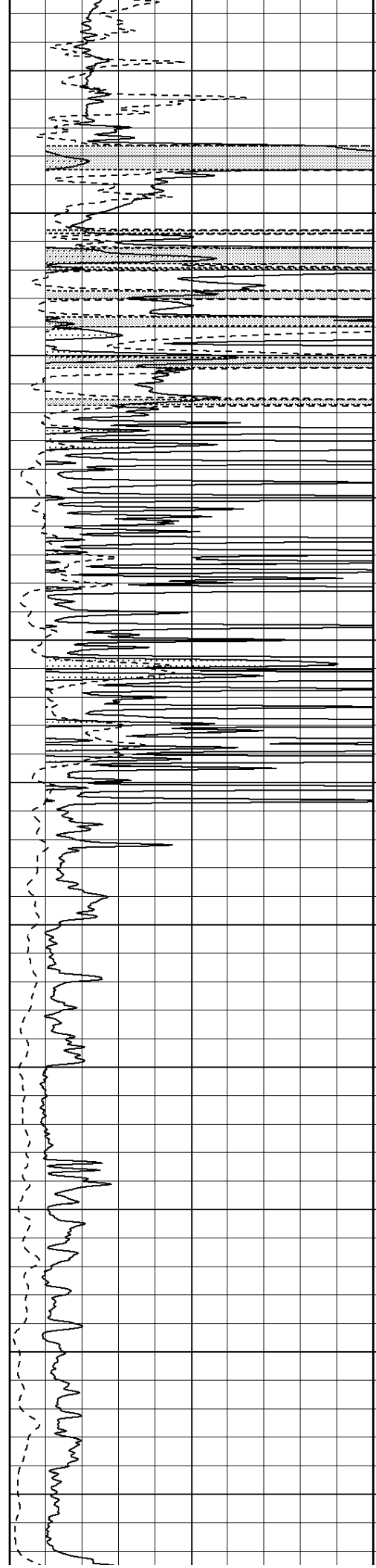
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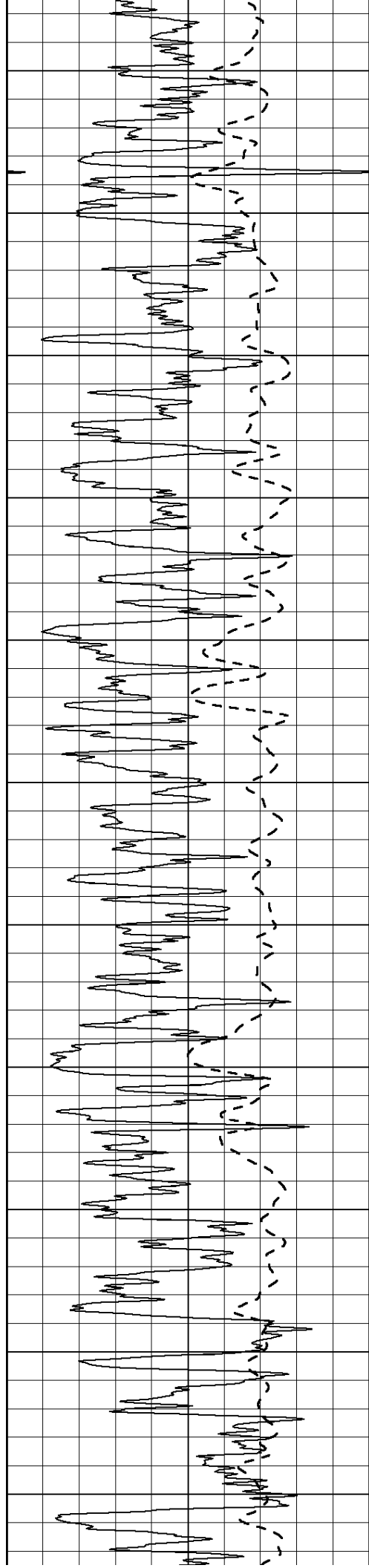
1500

1550



1600
1650
1700
1750
1800
1850
1900
1950
2000
2050
2100





2150

2200

2250

2300

2350

2400

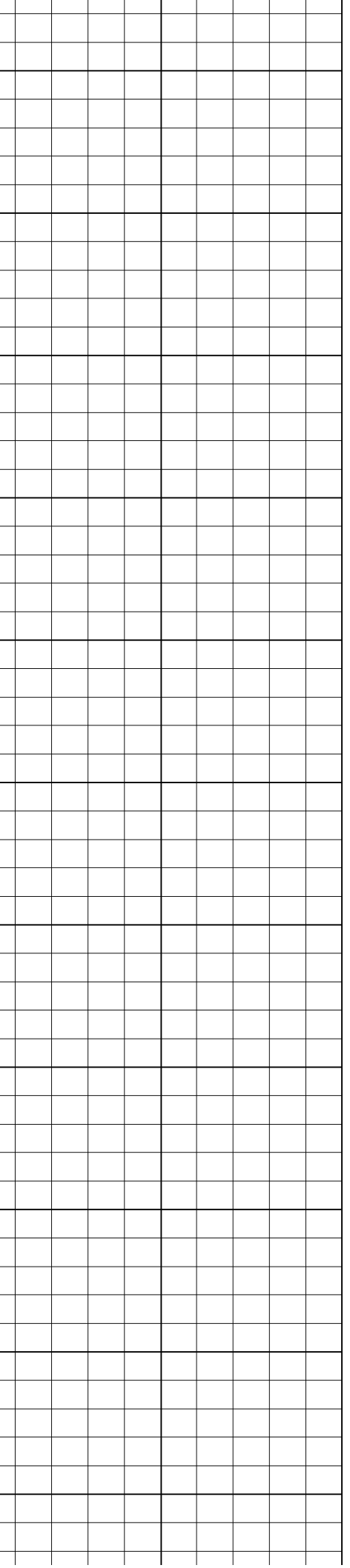
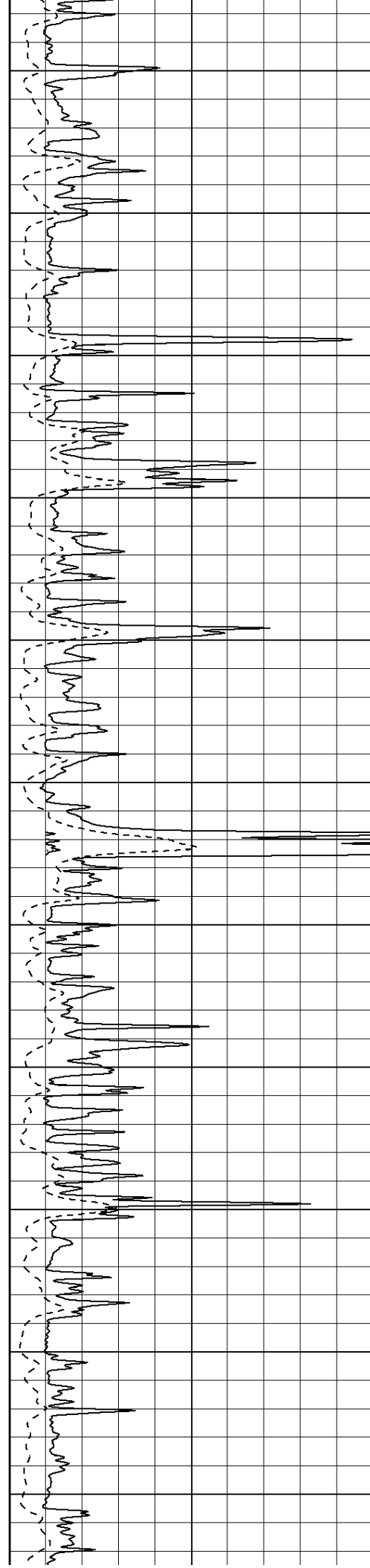
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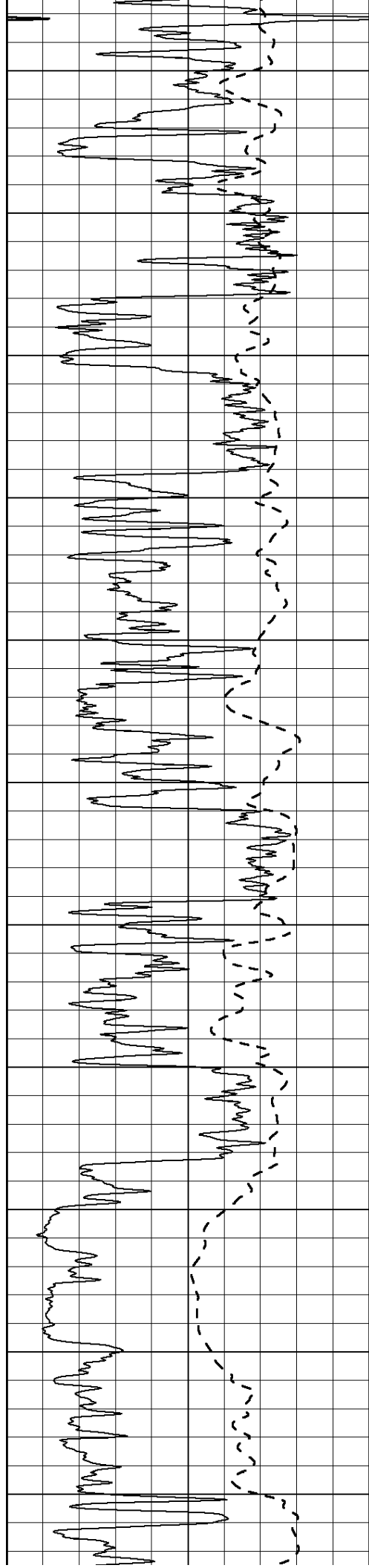
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2550

2600

2650





2700

2750

2800

2850

2900

2950

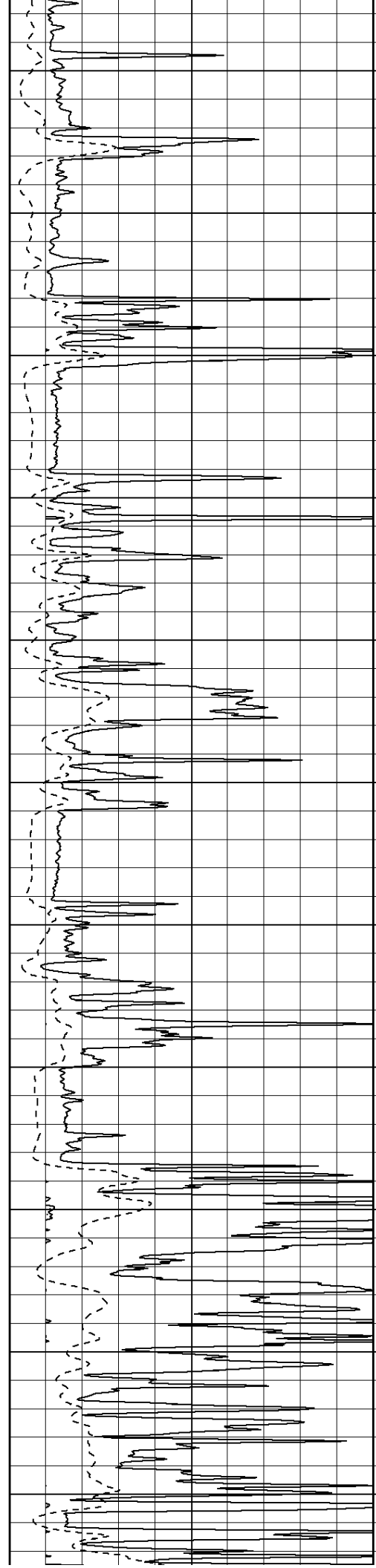
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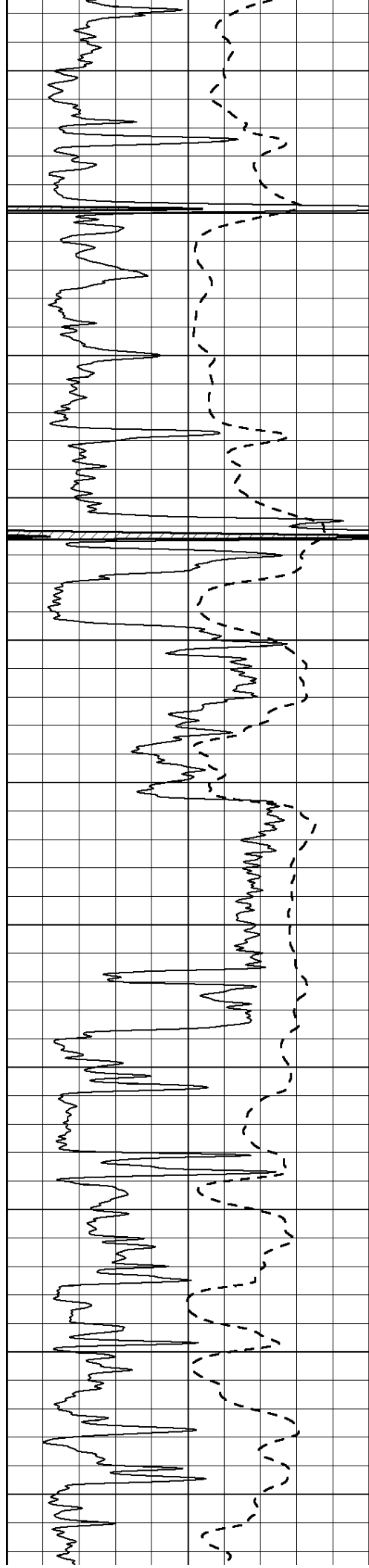
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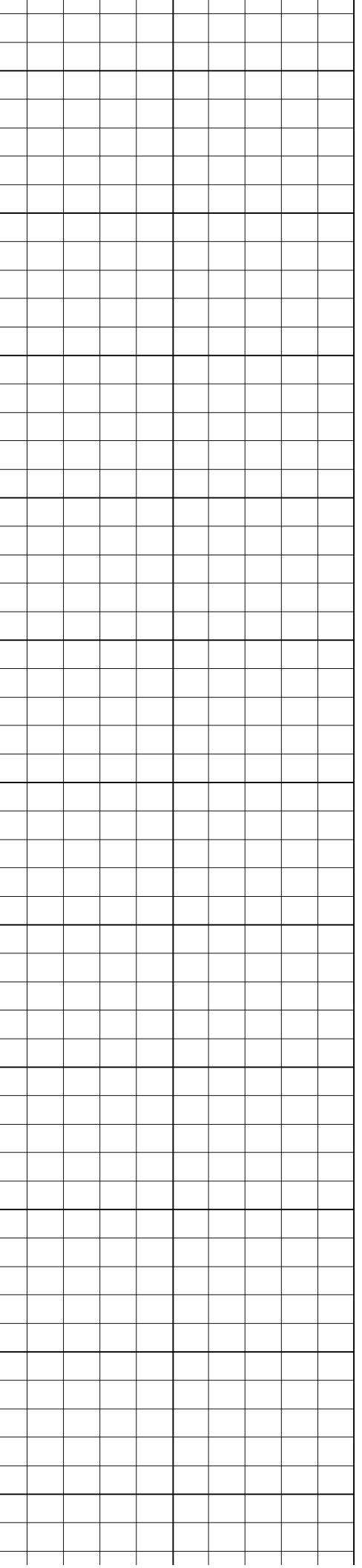
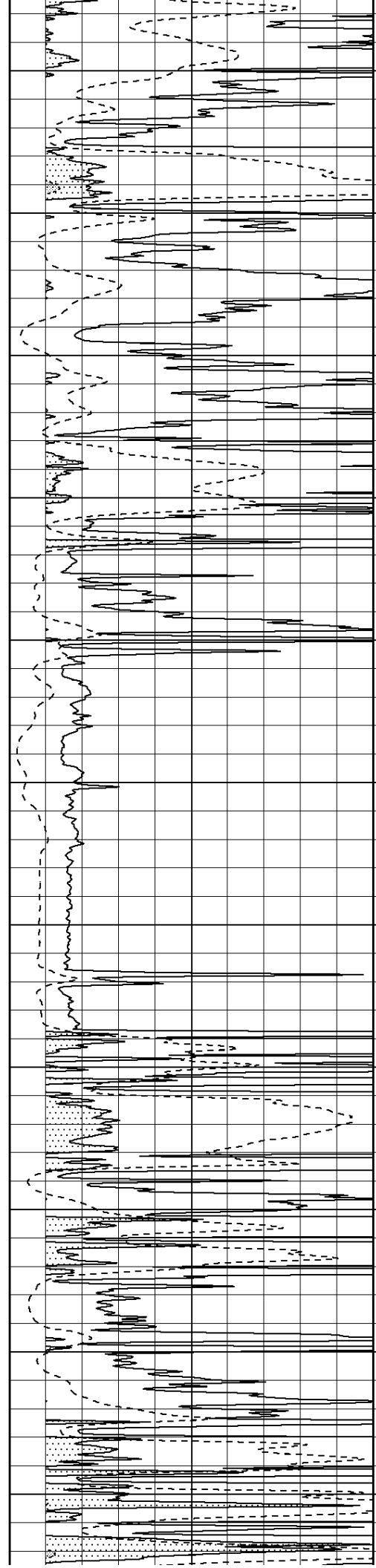
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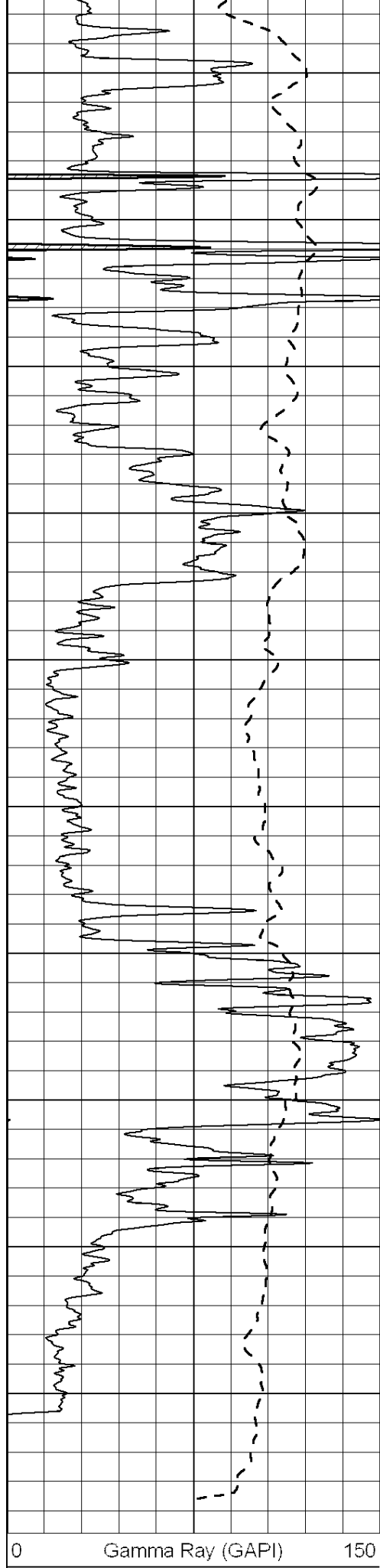
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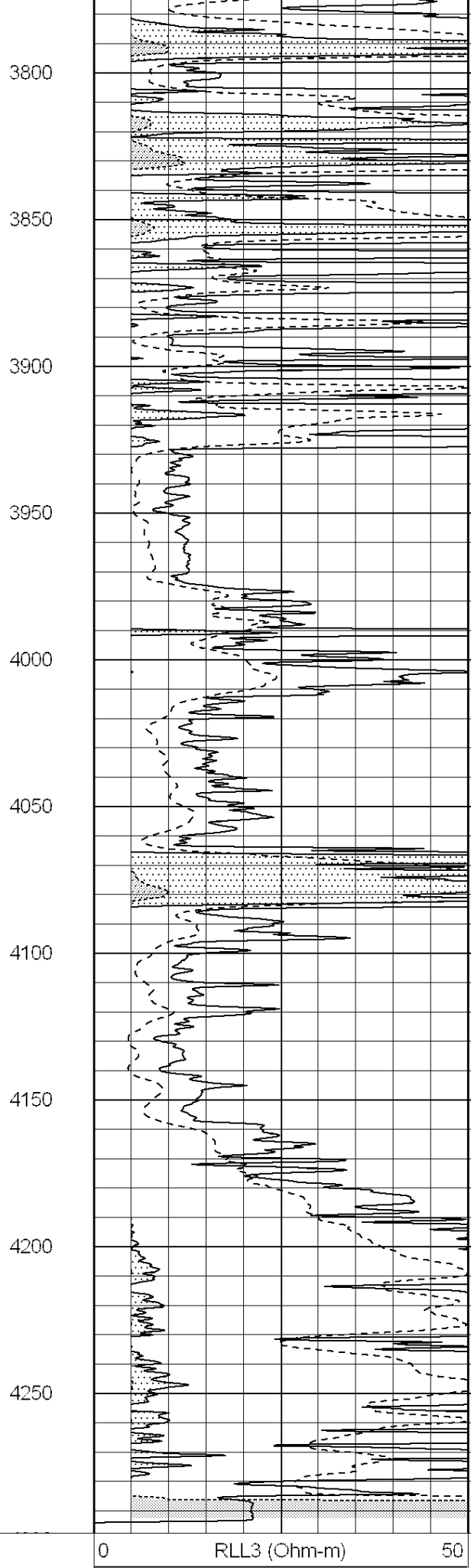


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3300
3350
3400
3450
3500
3550
3600
3650
3700
3750





0 Gamma Ray (GAPI) 150

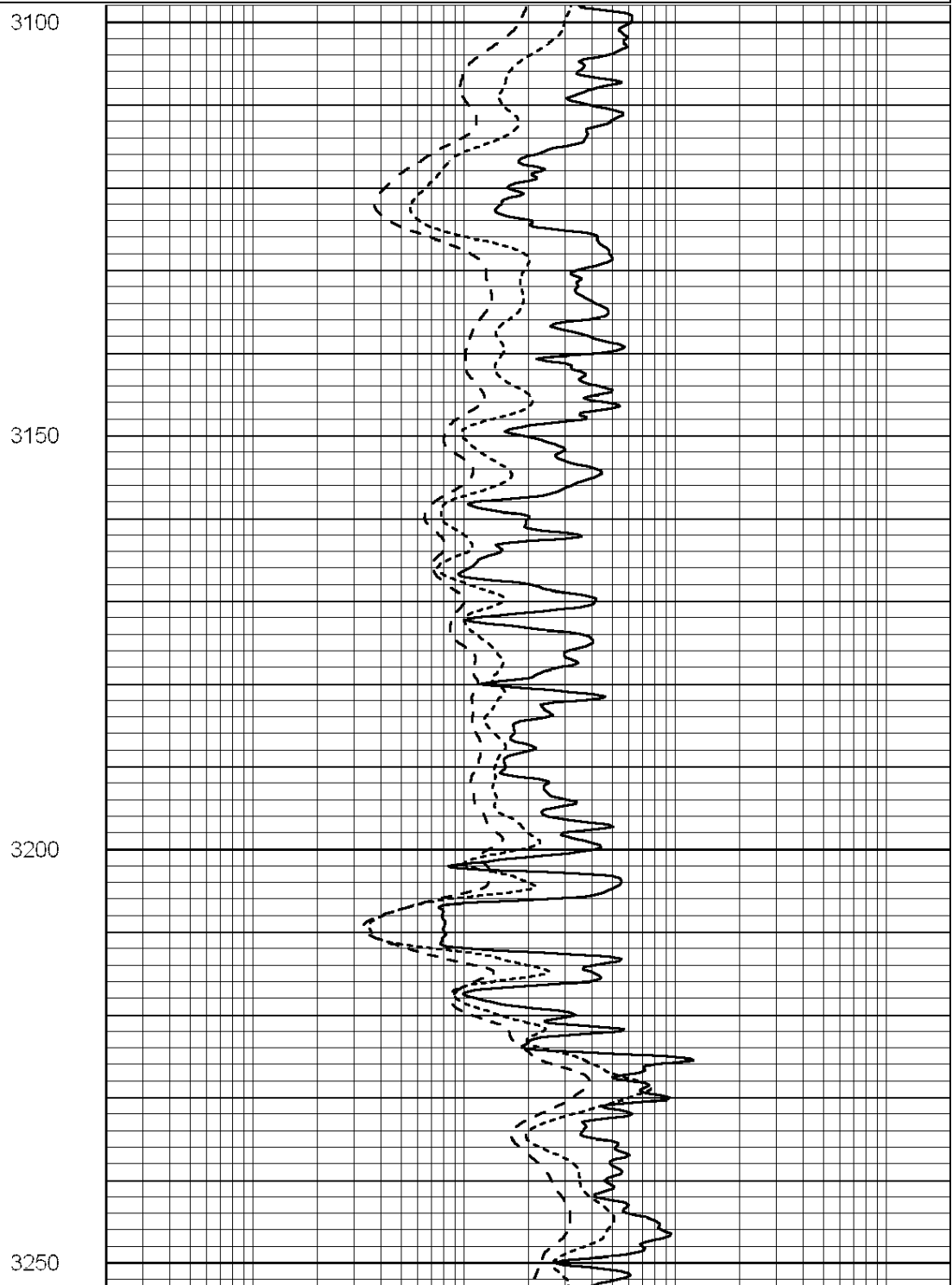
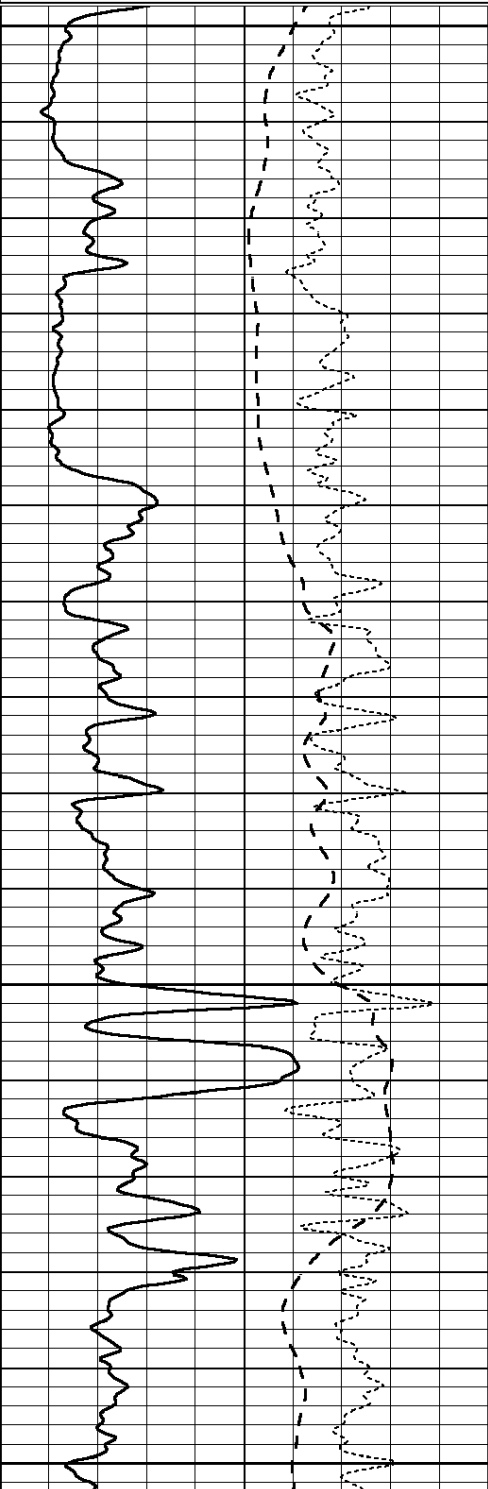


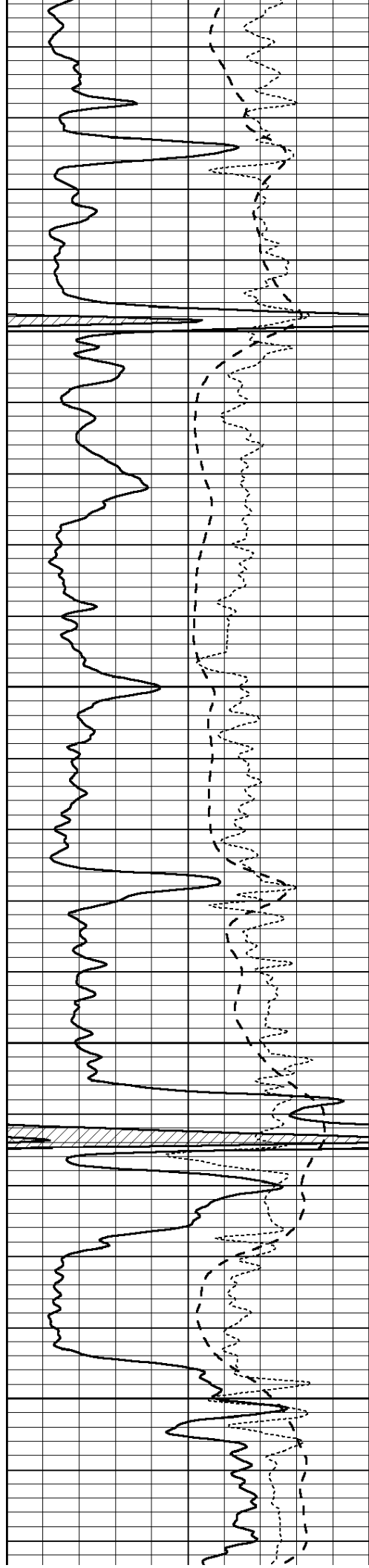
0 RLL3 (Ohm-m) 50
0 Deep Induction (Ohm-m) 50

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

Database File: 24446ddn.db
 Dataset Pathname: pass3.6
 Presentation Format: _dil
 Dataset Creation: Wed Jun 04 07:20:11 2014
 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			



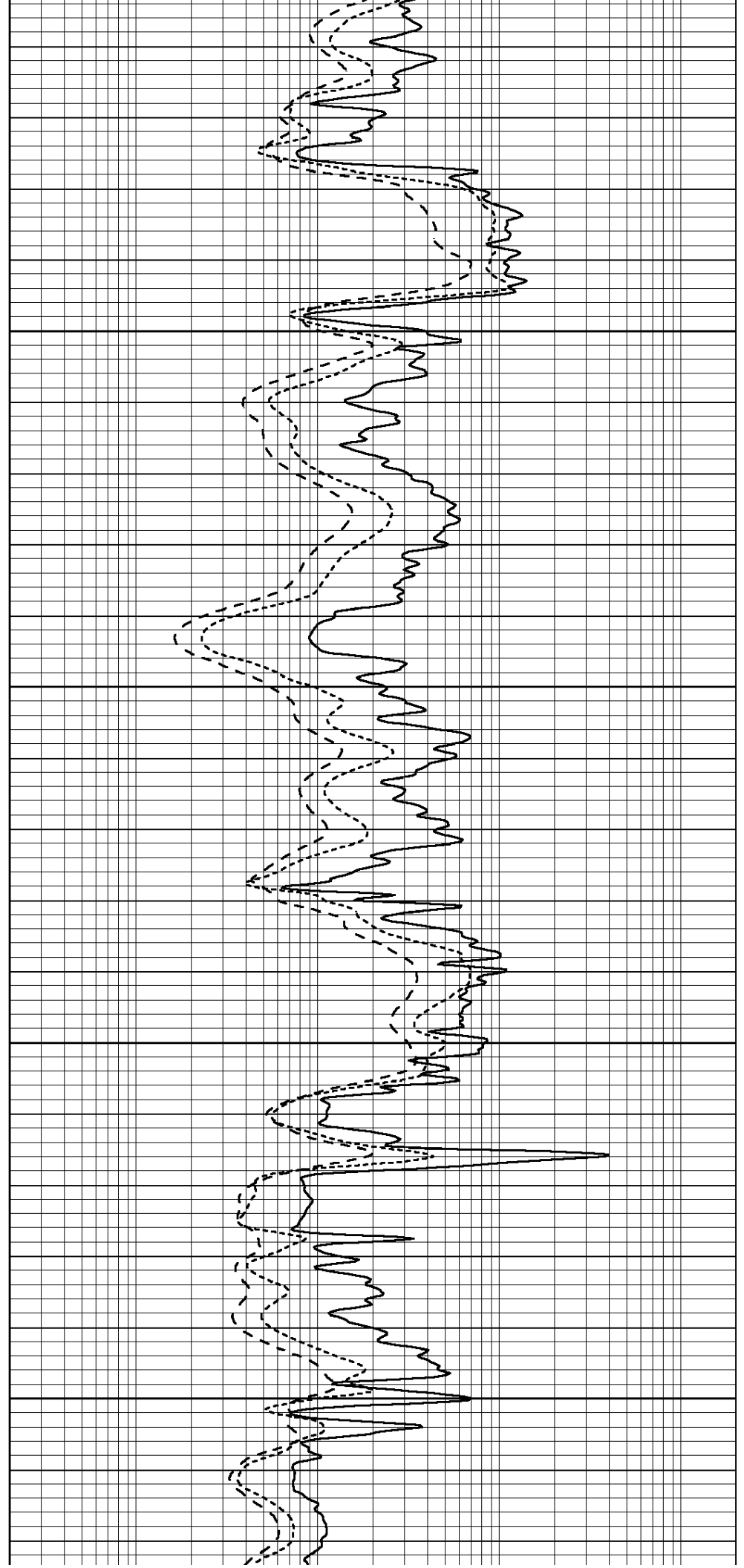


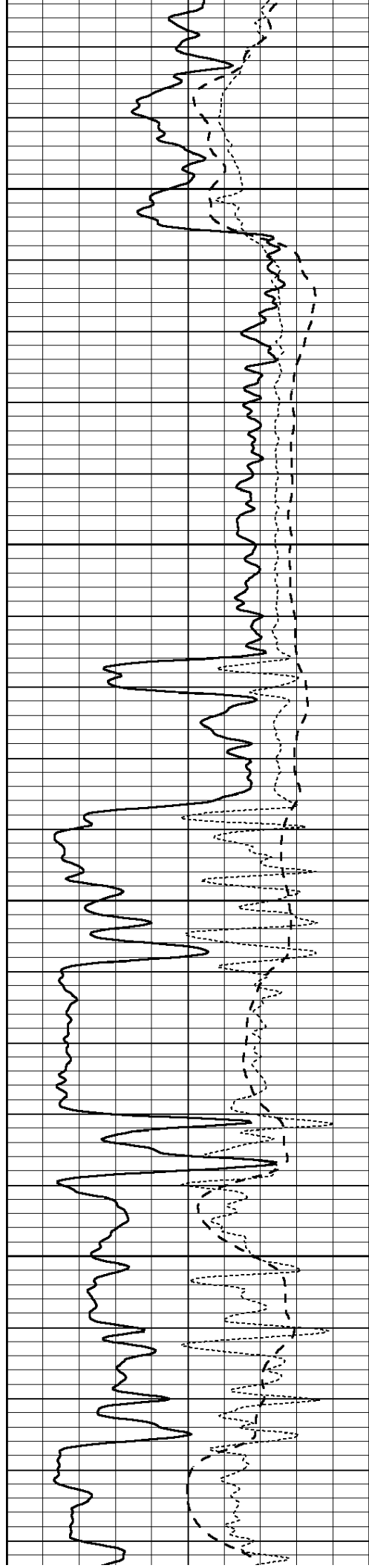
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3350

3400

3450



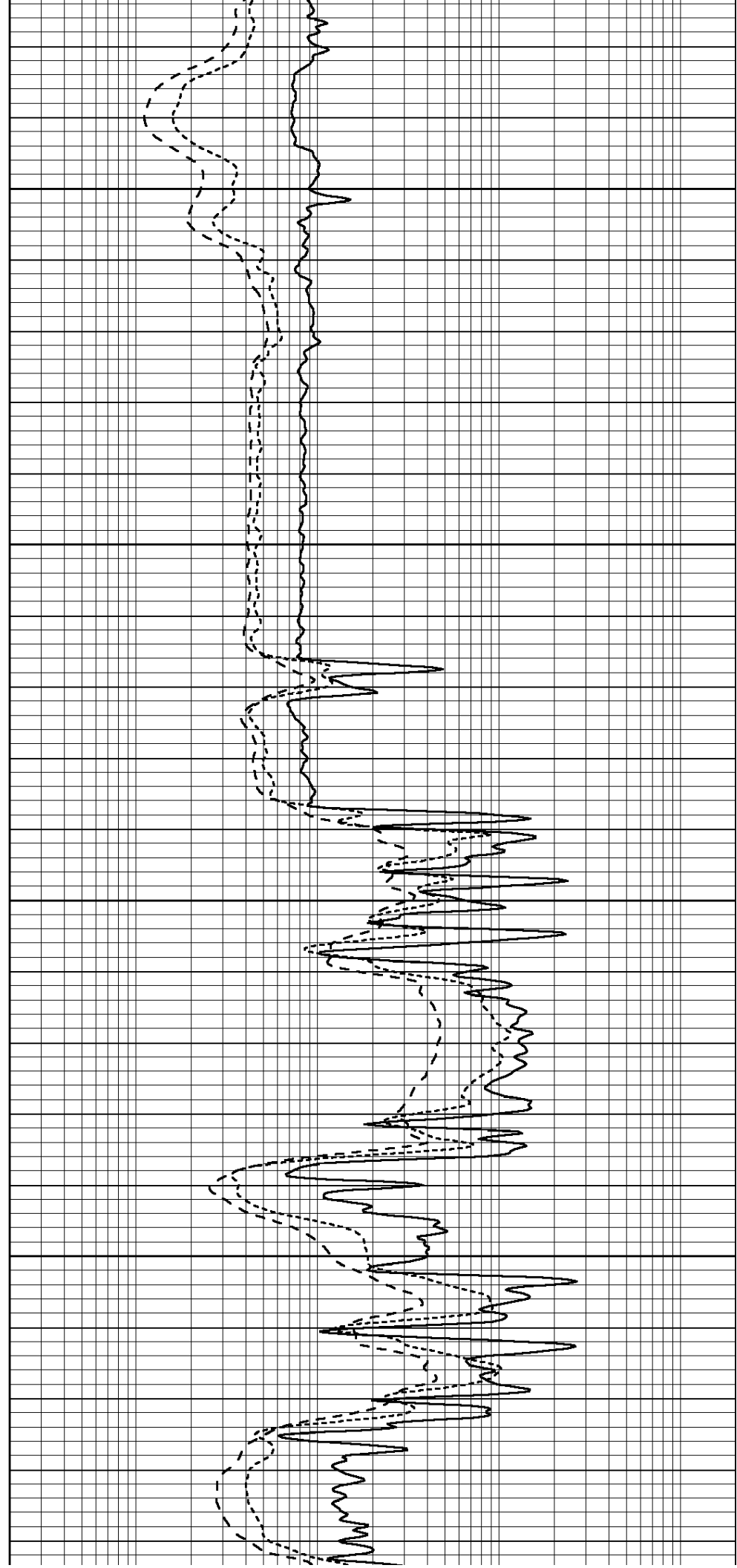


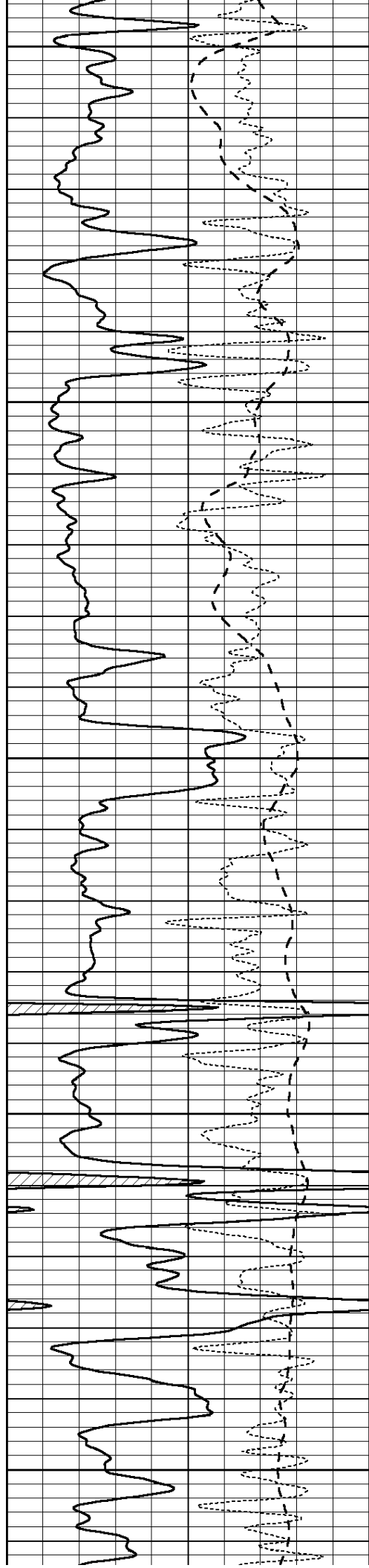
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3550

3600

3650





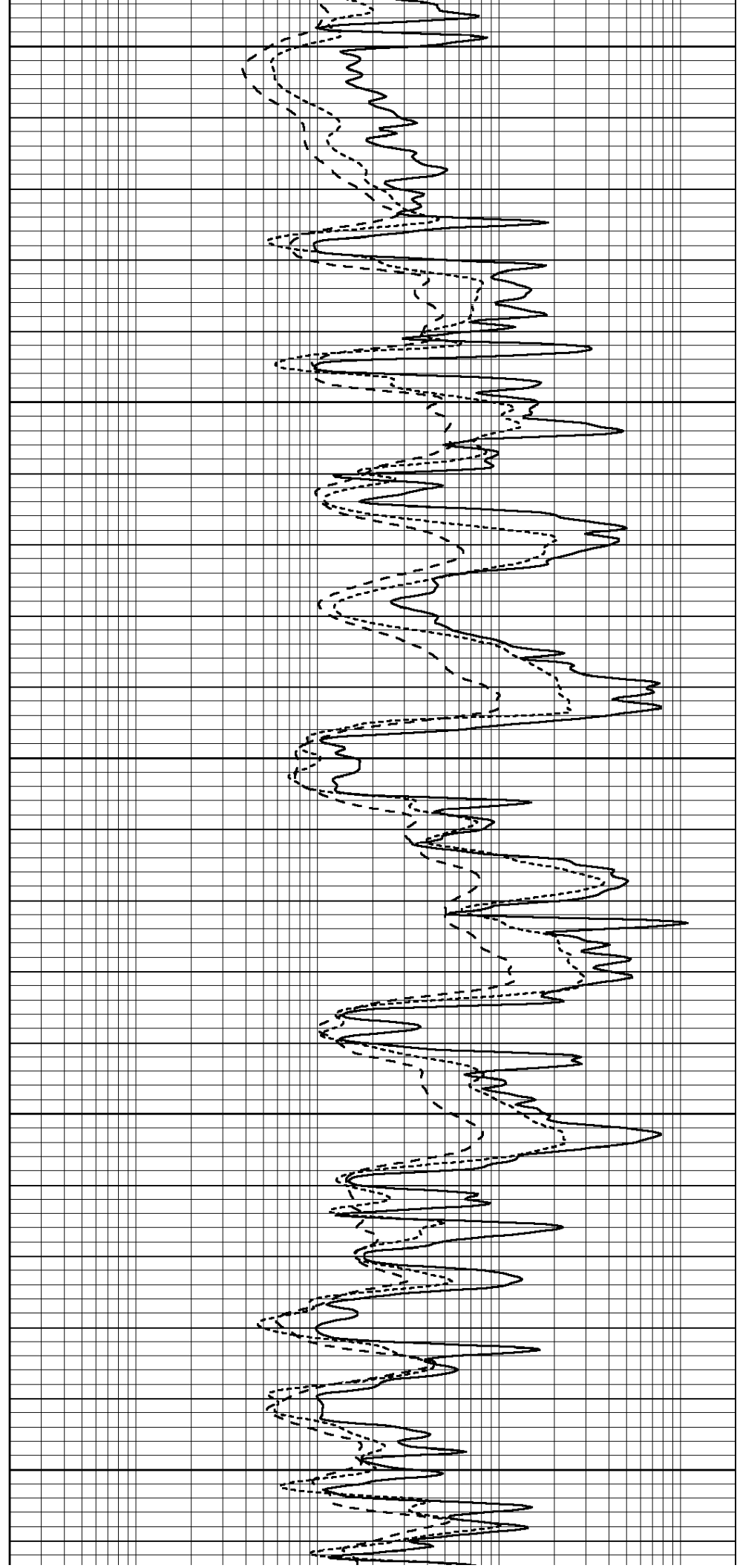
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3750

3800

3850

3900



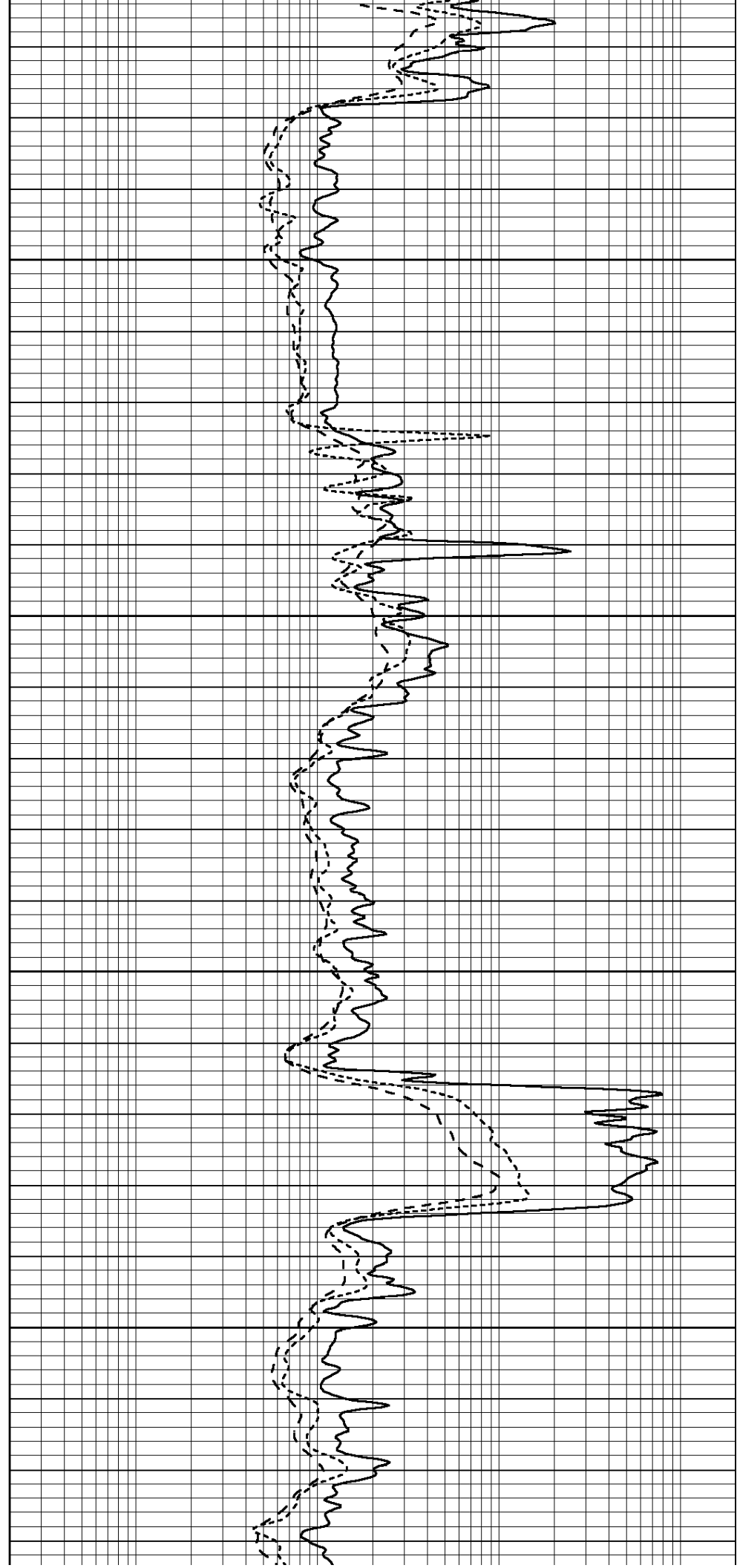


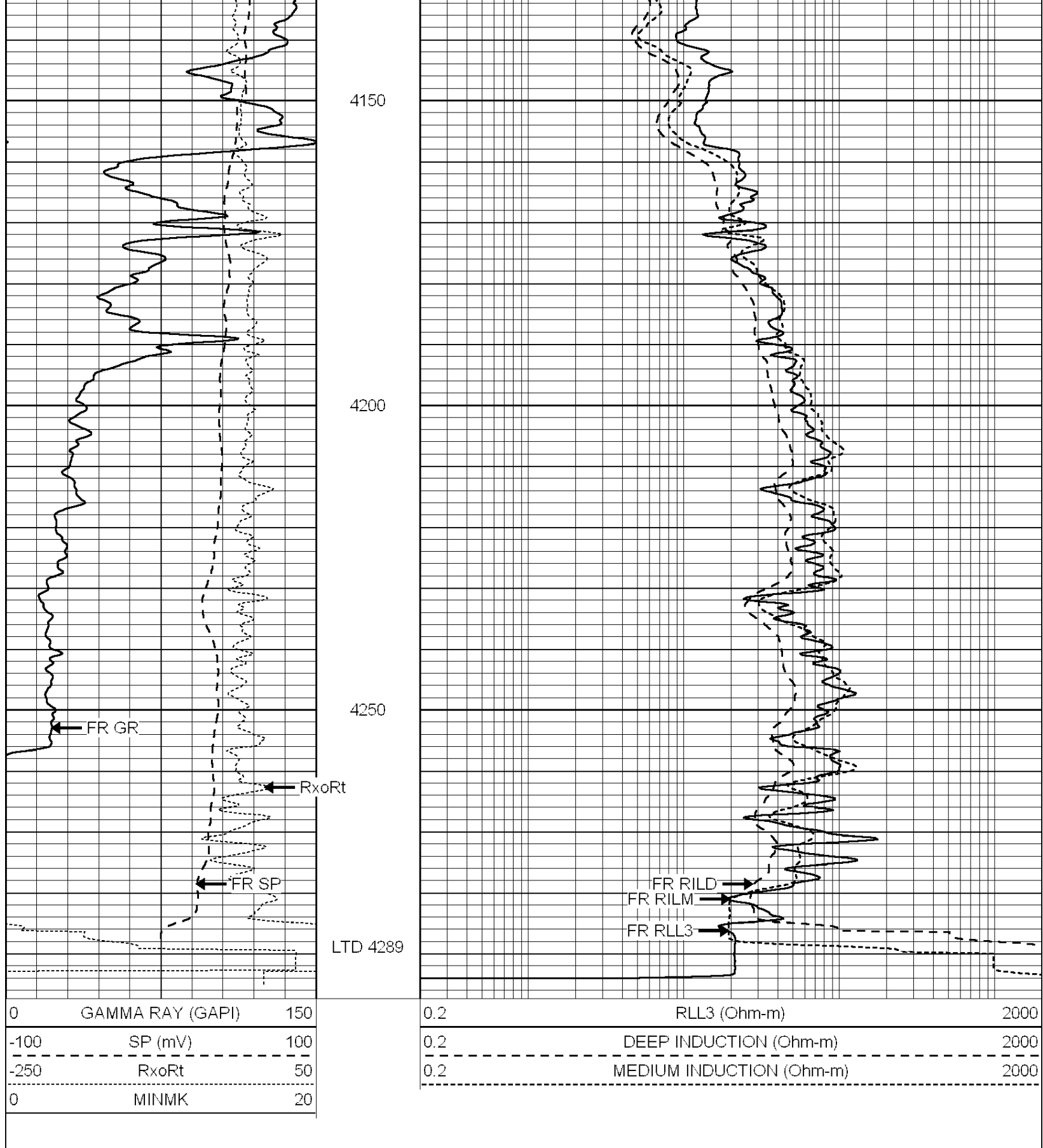
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4000

4050

4100

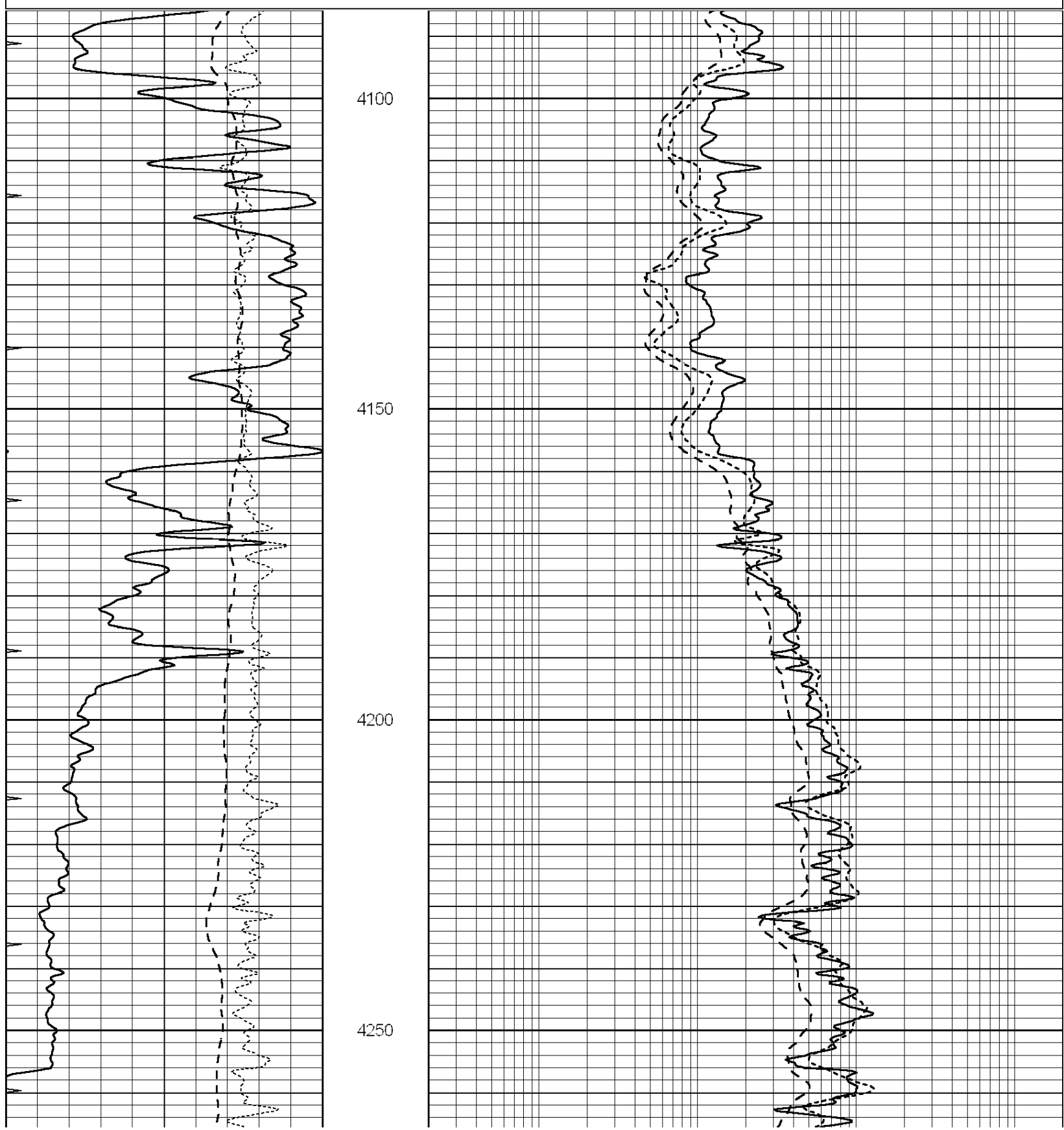


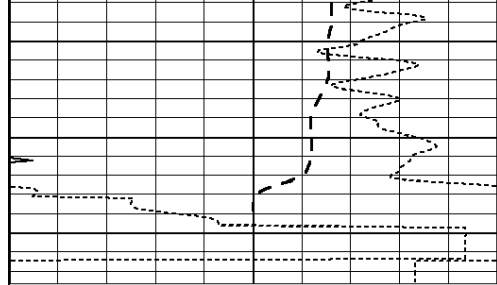


REPEAT SECTION

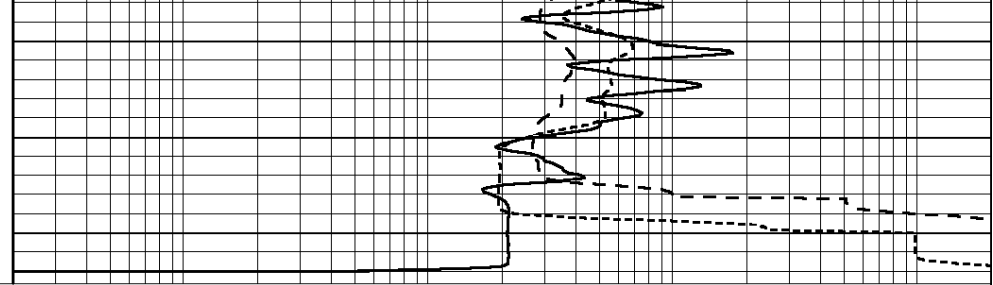
Dataset Pathname: pass2.2
 Presentation Format: _dil
 Dataset Creation: Wed Jun 04 04:44:32 2014 by Calc Open-Cased 090629
 Charted by: Depth in Feet scaled 1:240

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			





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: 24446ddn.db
 Dataset Pathname: pass3.2
 Dataset Creation: Wed Jun 04 06:58:02 2014 by Calc Open-Cased 090629

Dual Induction Calibration Report

Serial-Model: DIL3-GEAR
 Performed: Mon May 26 15:31:39 2014

Loop:	Readings				References		Results	
	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

Compensated Density Calibration Report

Serial-Model: GEAR1-GEARHART
 Source / Verifier: 147 / 147
 Master Calibration Performed: Fri May 30 01:35:07 2014

Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.710	g/cc	1211.27	625.92	cps
Aluminum	2.590	g/cc	267.11	413.26	cps
Spine Angle = 74.64			Density/Spine Ratio = 0.561		
	Size		Reading		
Small Ring	8.20	in	5.38	V	
Large Ring	14.00	in	8.71	V	

Compensated Neutron Calibration Report

Serial Number: 080621
 Tool Model: Probe

PRE-SURVEY VERIFICATION

Detector	Readings	Measured	Target
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Short Space
Long Space

cps
cps

pu

pu

POST-SURVEY VERIFICATION

Detector

Readings

Measured

Target

Short Space
Long Space

cps
cps

pu

pu

Gamma Ray Calibration Report

Serial Number:

080328

Tool Model:

Probe1

Performed:

Fri May 30 02:18:53 2014

Calibrator Value:

1.0

GAPI

Background Reading:

0.0

cps

Calibrator Reading:

1.0

cps

Sensitivity:

0.2600

GAPI/cps