



SUPERIOR
Hays,
Kansas

**DUAL INDUCTION
LOG
(TIGHT HOLE)**

Company NEW GULF OPERATING, LLC.
Well LAURA #1
Field WILDCAT
County LOGAN
State KANSAS

Company NEW GULF OPERATING, LLC.
Well LAURA #1
Field WILDCAT
County LOGAN State KANSAS

Location: API # : 15-109-20982-0000
883' FNL & 1716' FEL
SEC 31 TWP 11S RGE 32W
Permanent Datum GROUND LEVEL Elevation 3087
Log Measured From KELLY BUSHING 8' A.G.L.
Drilling Measured From KELLY BUSHING
Other Services
CDL/CNL/PE
MEL/SONIC
Elevation
K.B. 3095
D.F. 3093
G.L. 3087

Date	2/25/11
Run Number	ONE
Depth Driller	4780
Depth Logger	4781
Bottom Logged Interval	4779
Top Log Interval	00
Casing Driller	8 5/8"@265'
Casing Logger	264
Bit Size	7 7/8"
Type Fluid in Hole	CHEMICAL MUD
Density / Viscosity	9.3/55
pH / Fluid Loss	10.5/7.2
Source of Sample	FLOWLINE
Rim @ Meas. Temp	1.10@78F
Rmf @ Meas. Temp	.825@78F
Rmc @ Meas. Temp	1.32@78F
Source of Rmf / Rmc	MEASUREMENT
Rim @ BHT	.698@123F
Time Circulation Stopped	3 HOURS
Time Logger on Bottom	1:15 A.M.
Maximum Recorded Temperature	123F
Equipment Number	0836
Location	HAYS, KANSAS
Recorded By	JEFF LUEBBERS
Witnessed By	CURTIS COVERY

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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 SUPERIOR WELL SERVICE HAYS, KANSAS (785) 628-6395
DIRECTIONS
OAKLEY, KS. (JUNCTION OF OLD 40 & HWY 83) 4S.ON HWY 83 TO "APACHE ACRE RD.", 3 1/4W., S. INTO



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MAIN SECTION

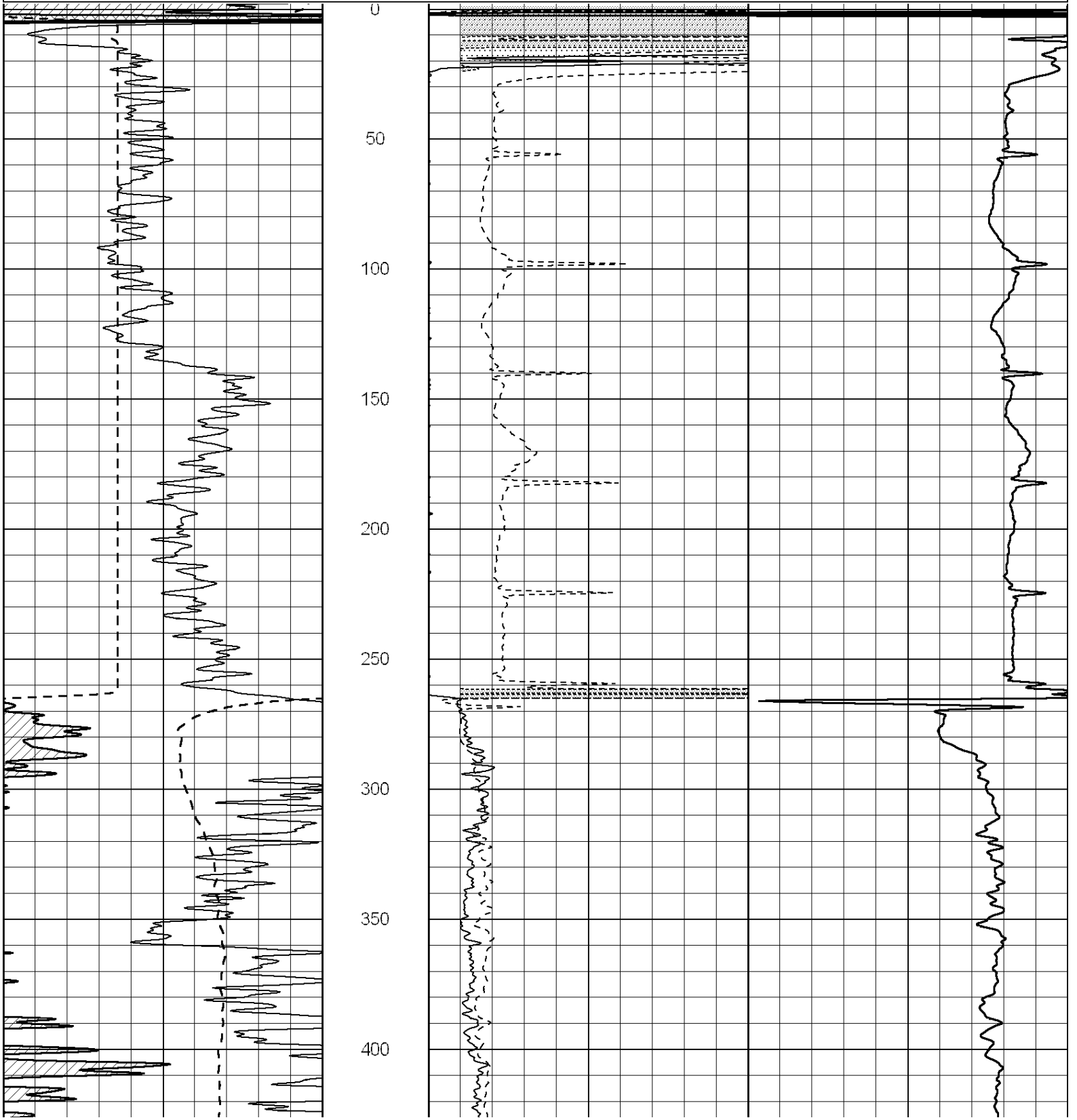
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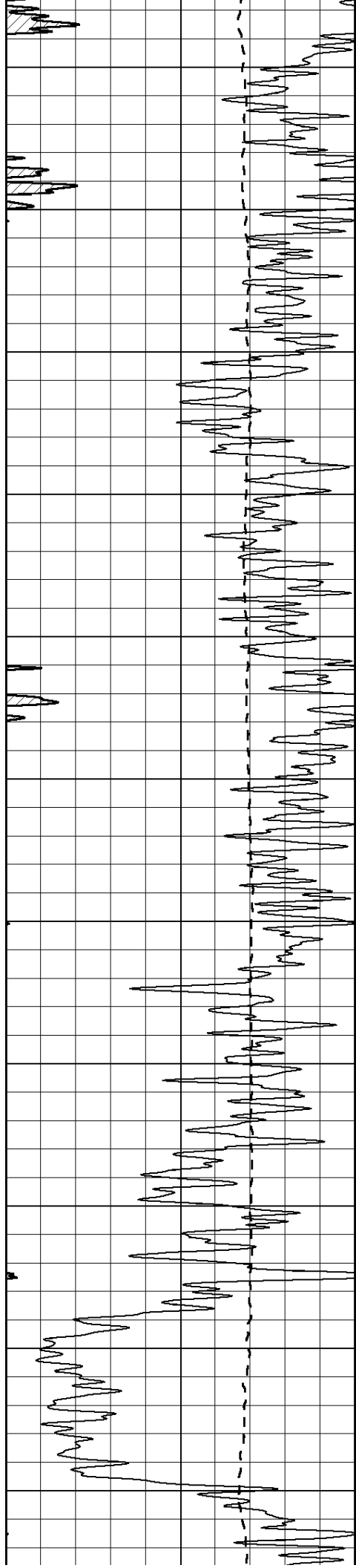
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-100	SP (mV)	100

0	RLL3 (Ohm-m)	50
0	RILD (Ohm-m)	50

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





450

500

550

600

650

700

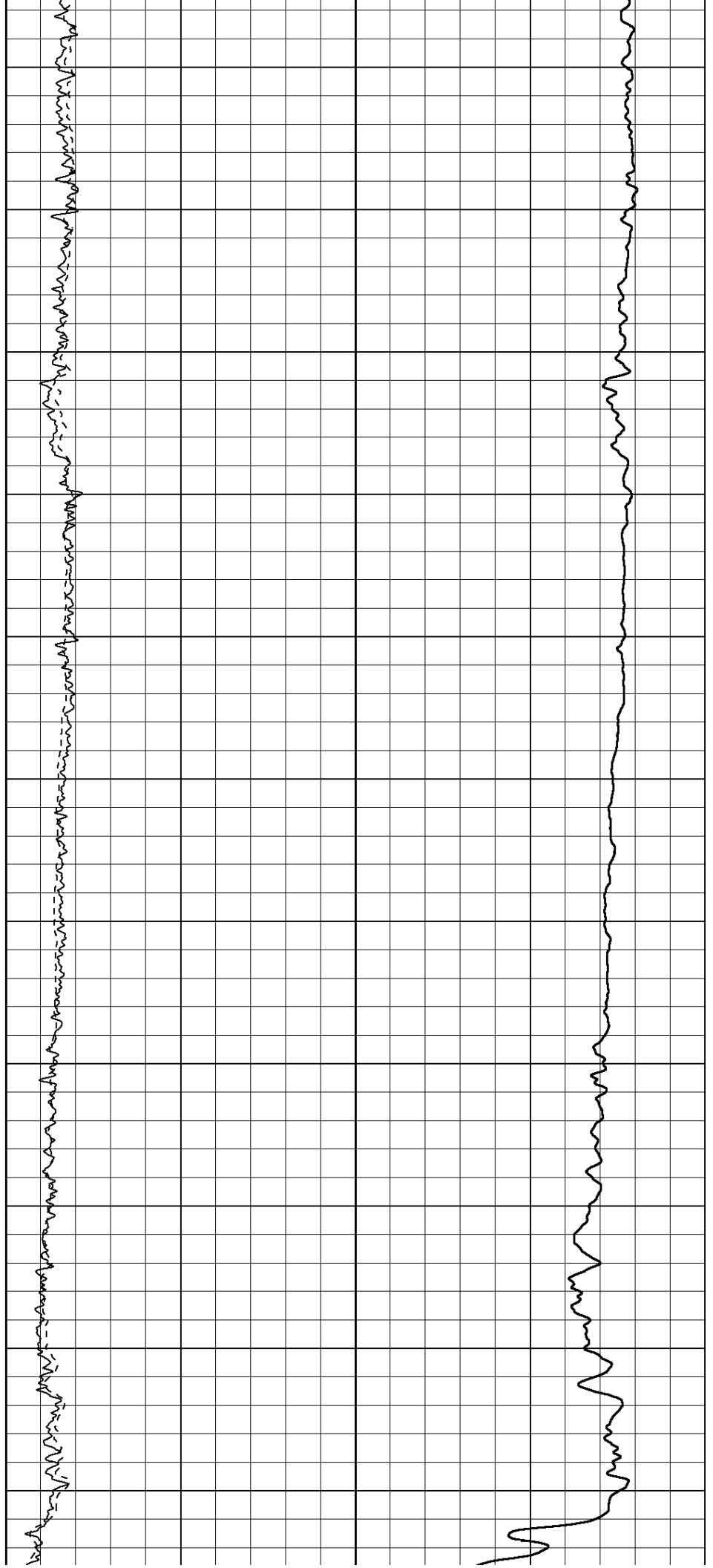
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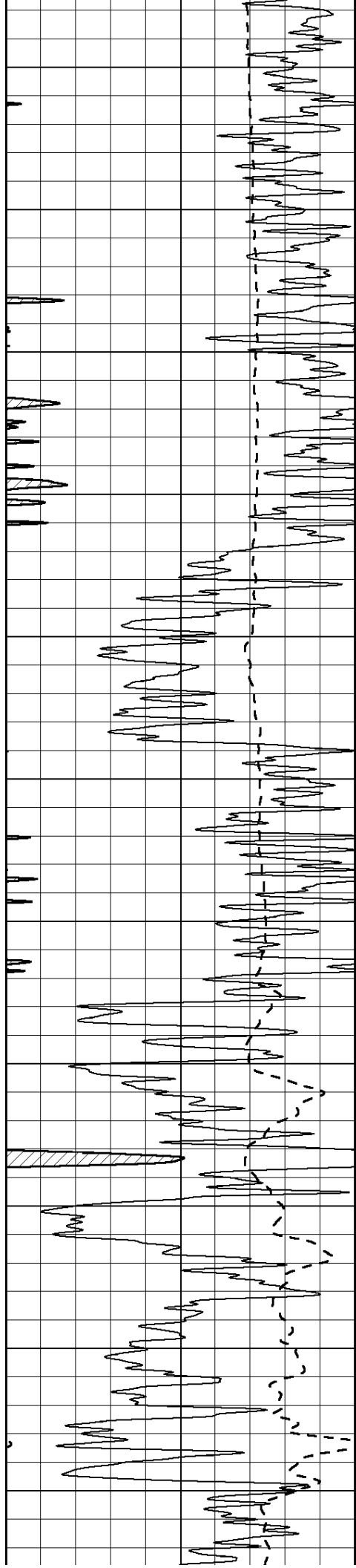
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850

900

950





1000

1050

1100

1150

1200

1250

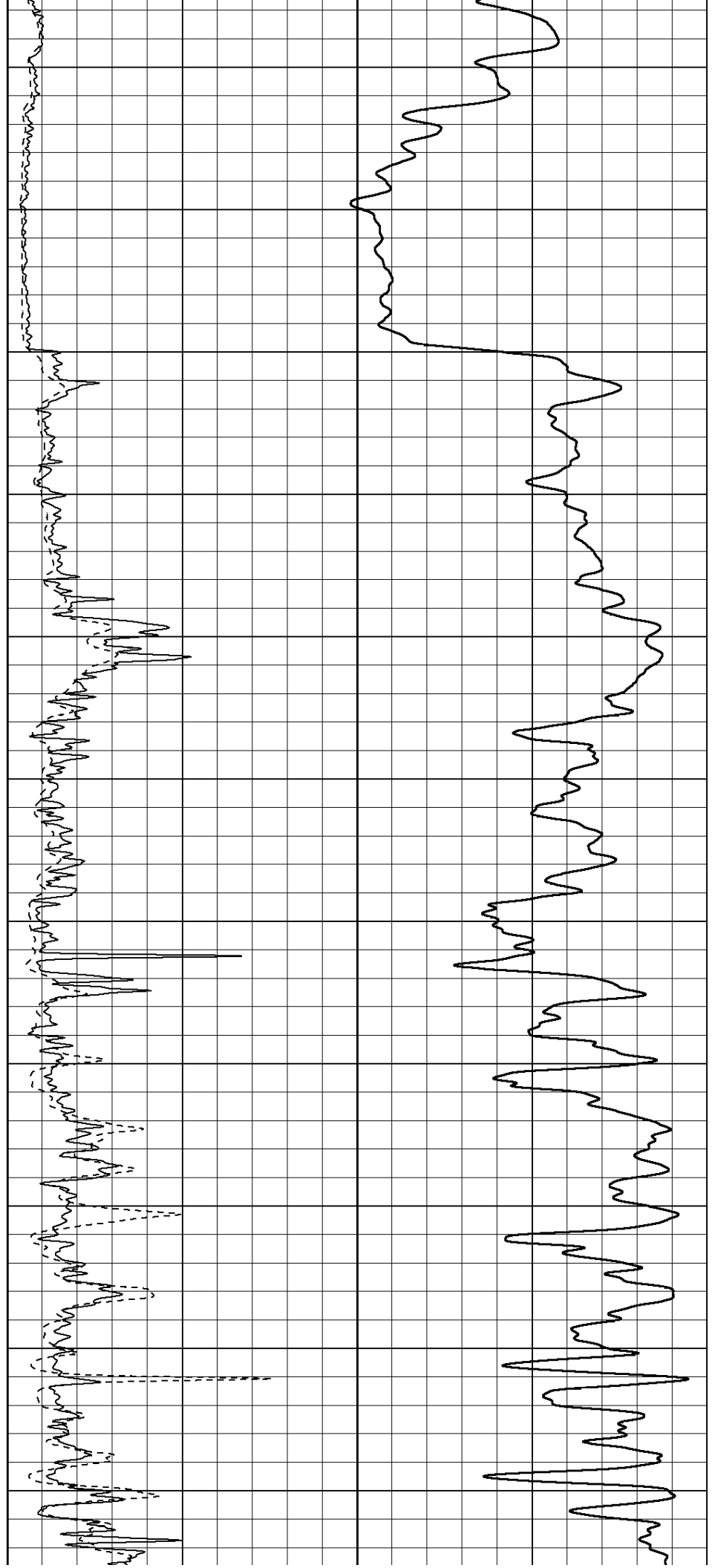
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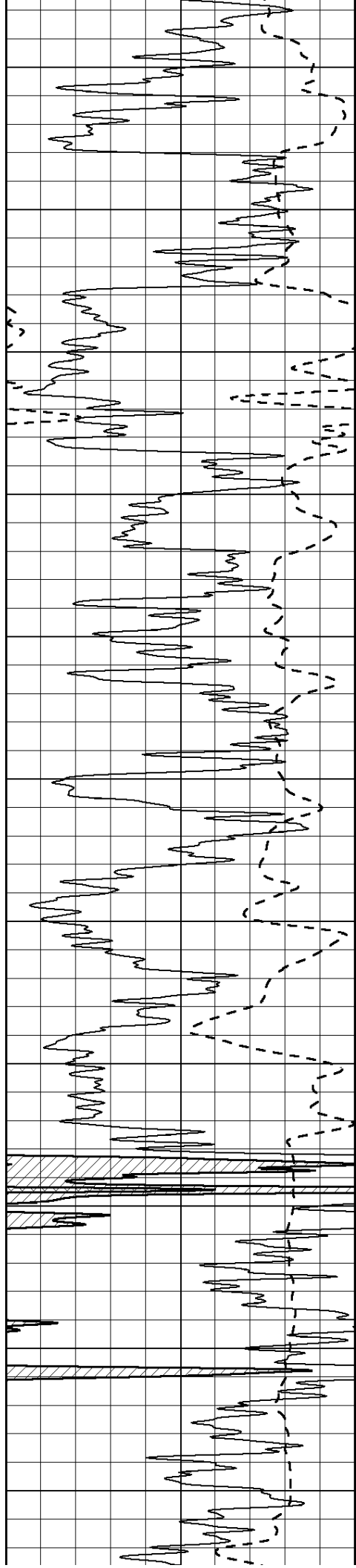
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1400

1450

1500





1550

1600

1650

1700

1750

1800

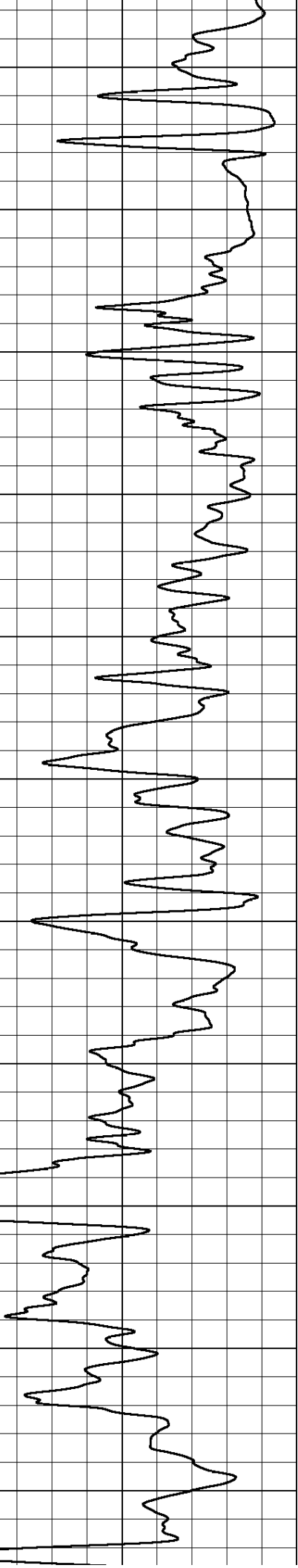
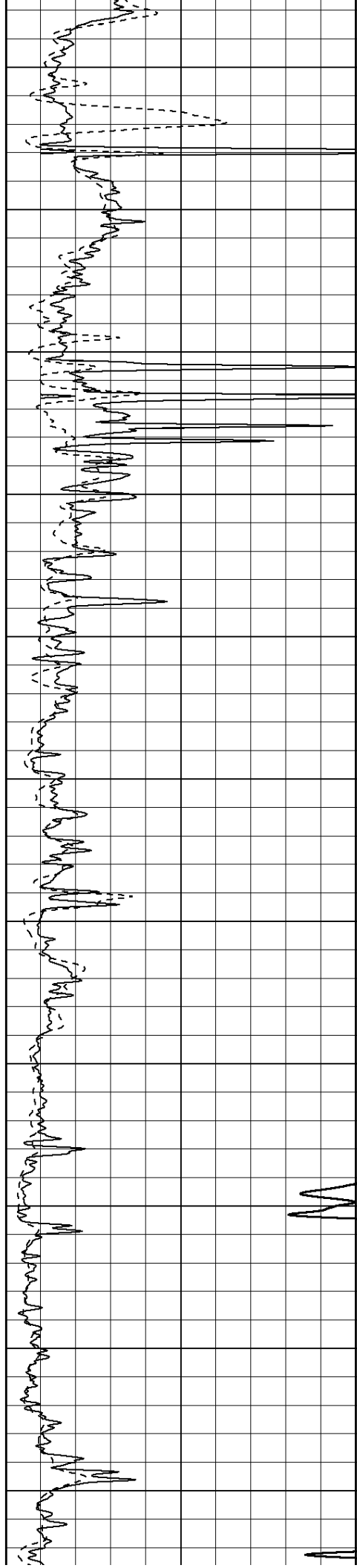
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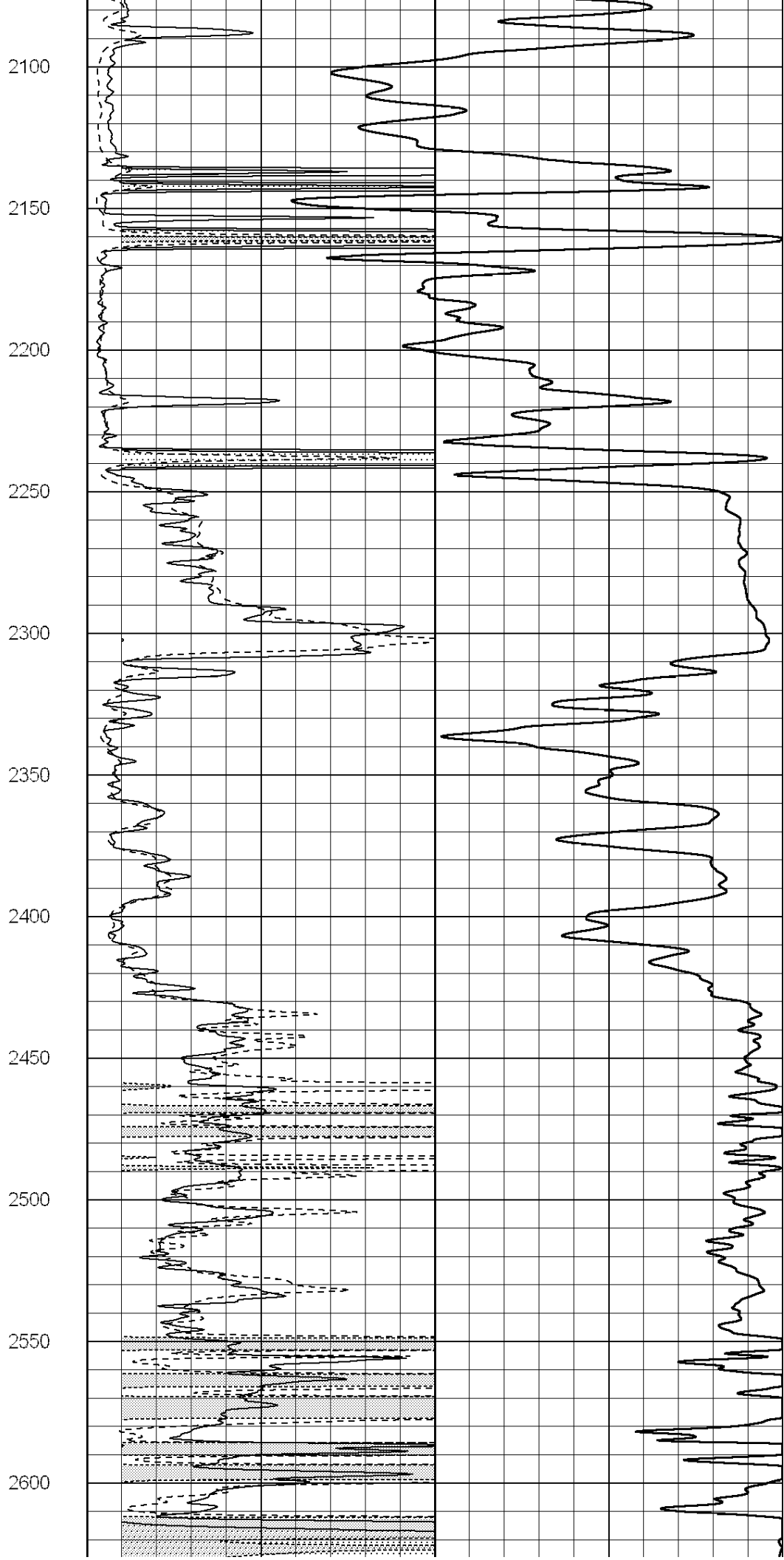
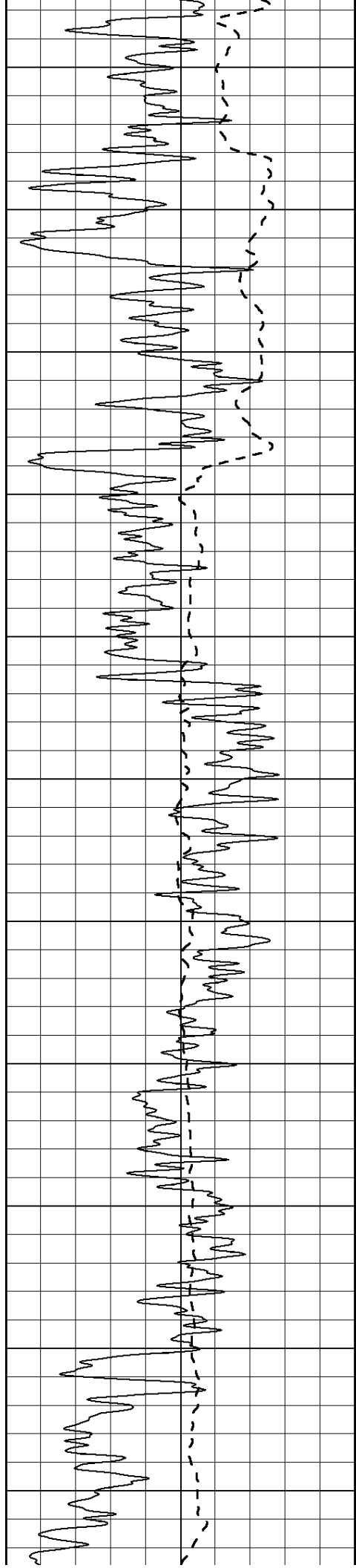
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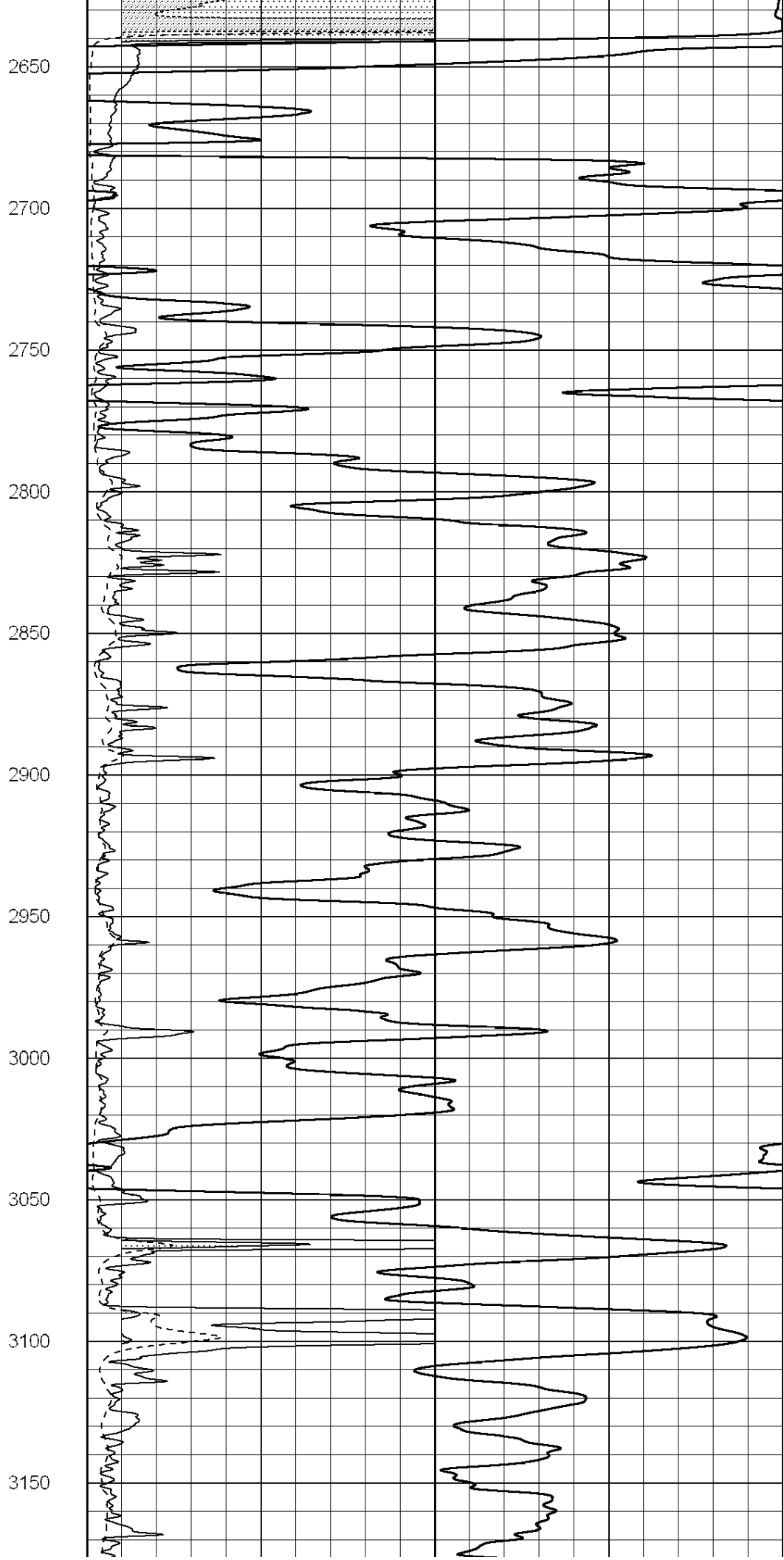
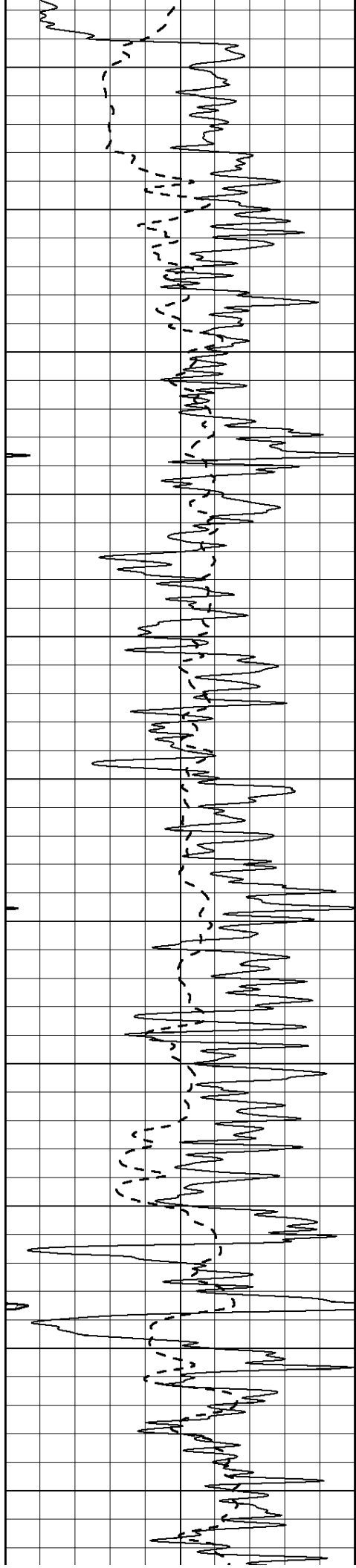
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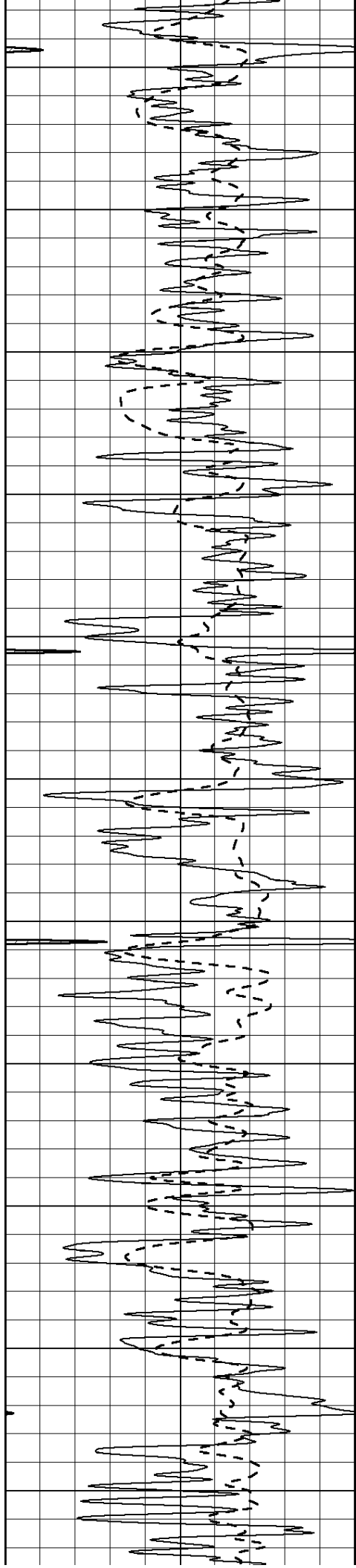
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2050









3200

3250

3300

3350

3400

3450

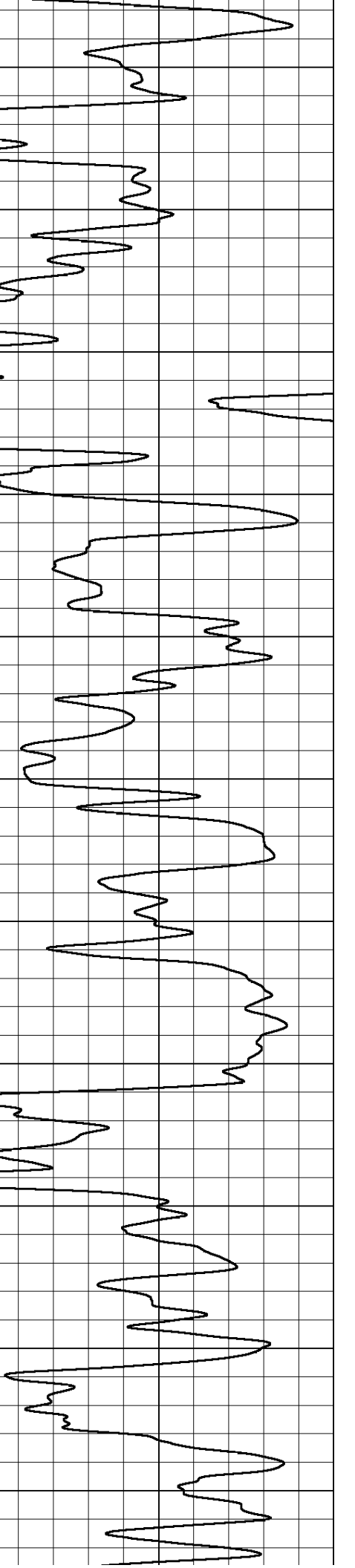
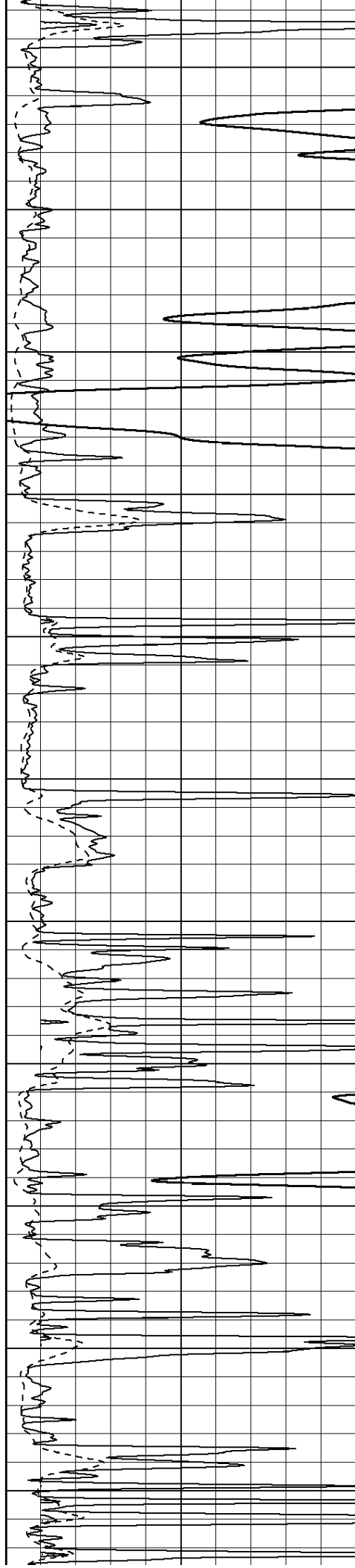
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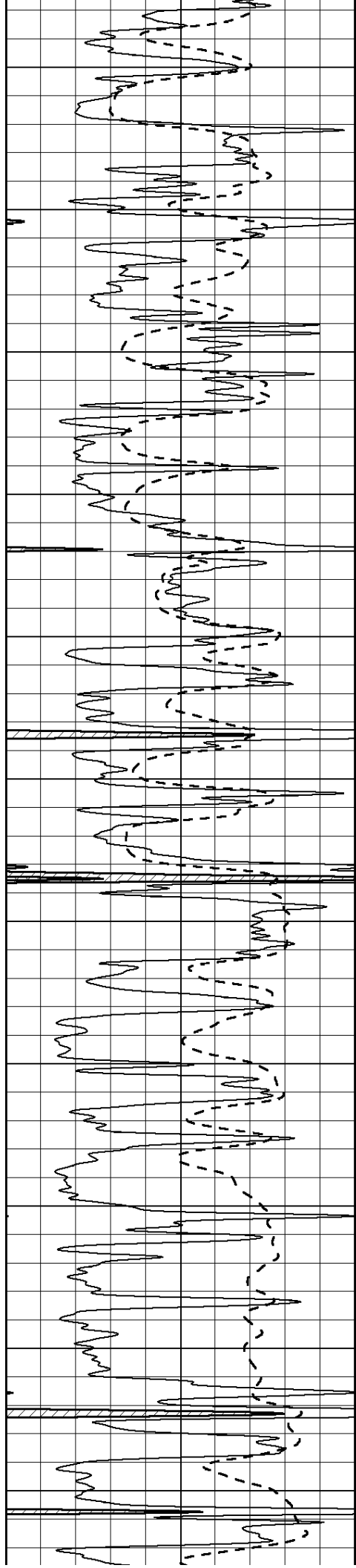
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3600

3650

3700





3750

3800

3850

3900

3950

4000

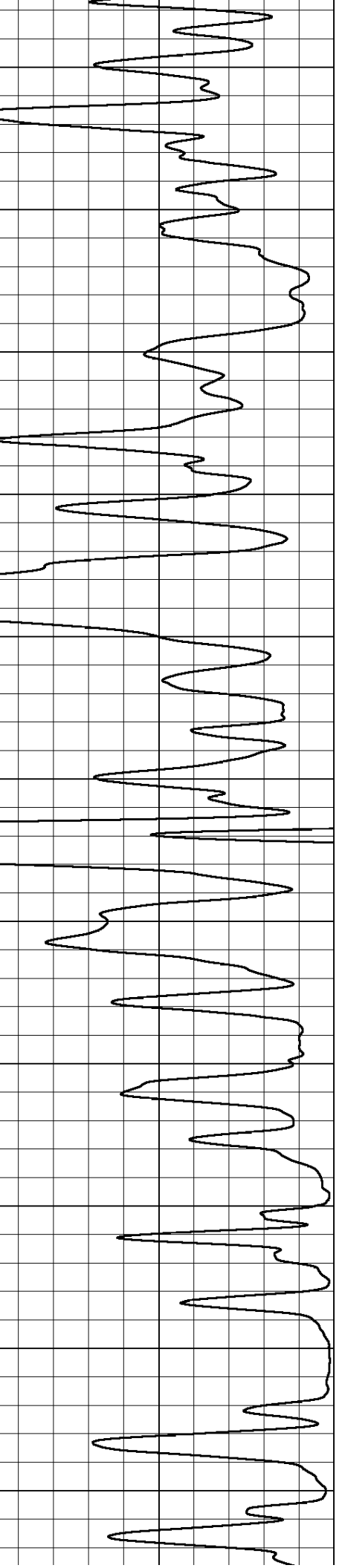
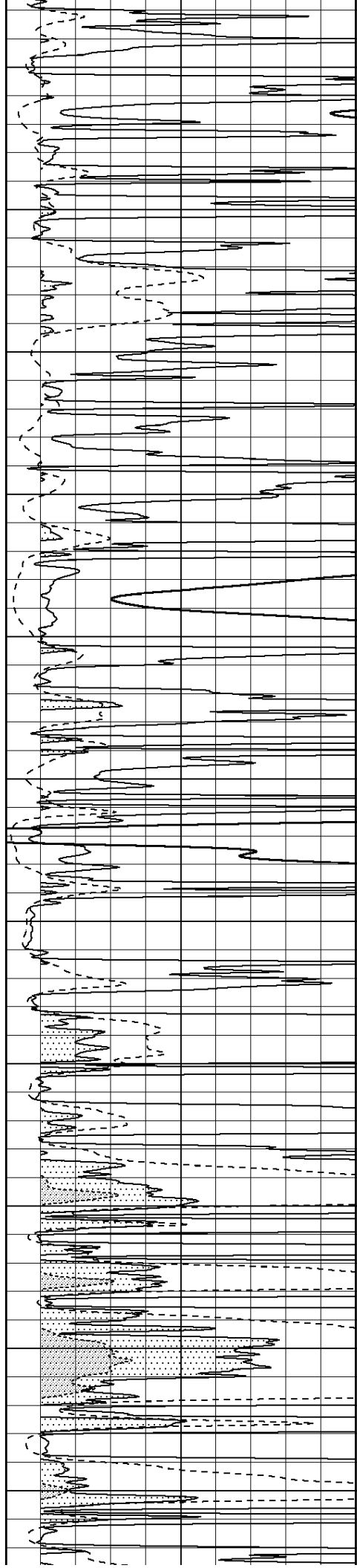
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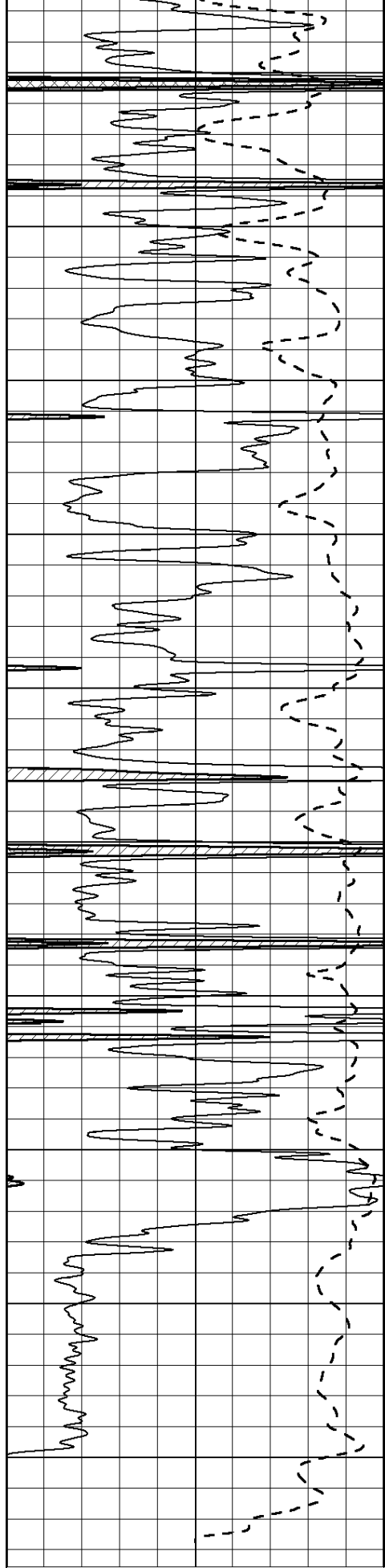
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4150

4200

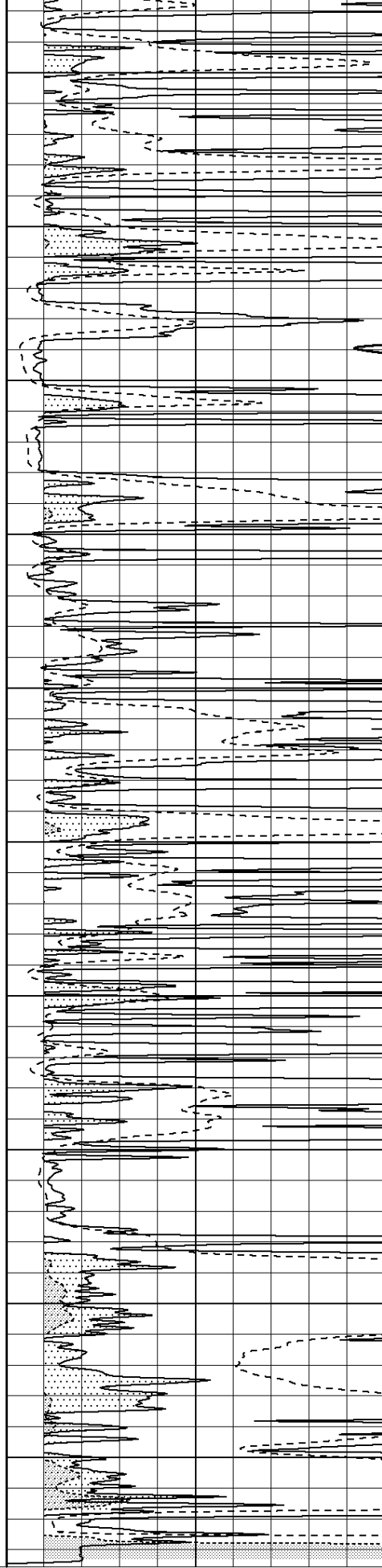
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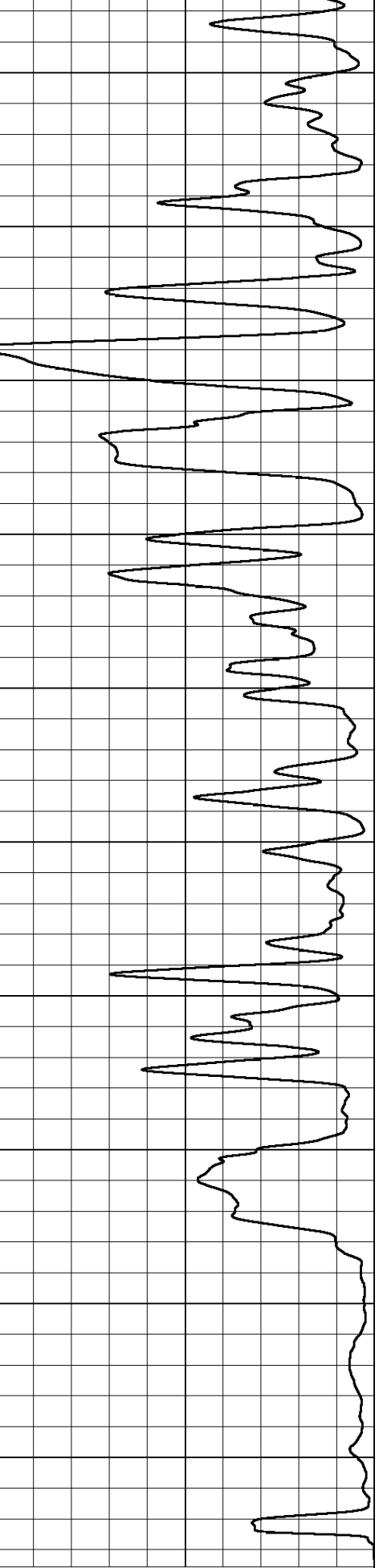
0 Gamma Ray (GAPI) 150
 -100 SP (mV) 100

4300
 4350
 4400
 4450
 4500
 4550
 4600
 4650
 4700
 4750



0 RLL3 (Ohm-m) 50
 0 RILD (Ohm-m) 50

1000 CILD (mmho/m) 0



0

50	RILD X10 (Ohm-ft)	500
50	RLL3 X10 (Ohm-m)	500



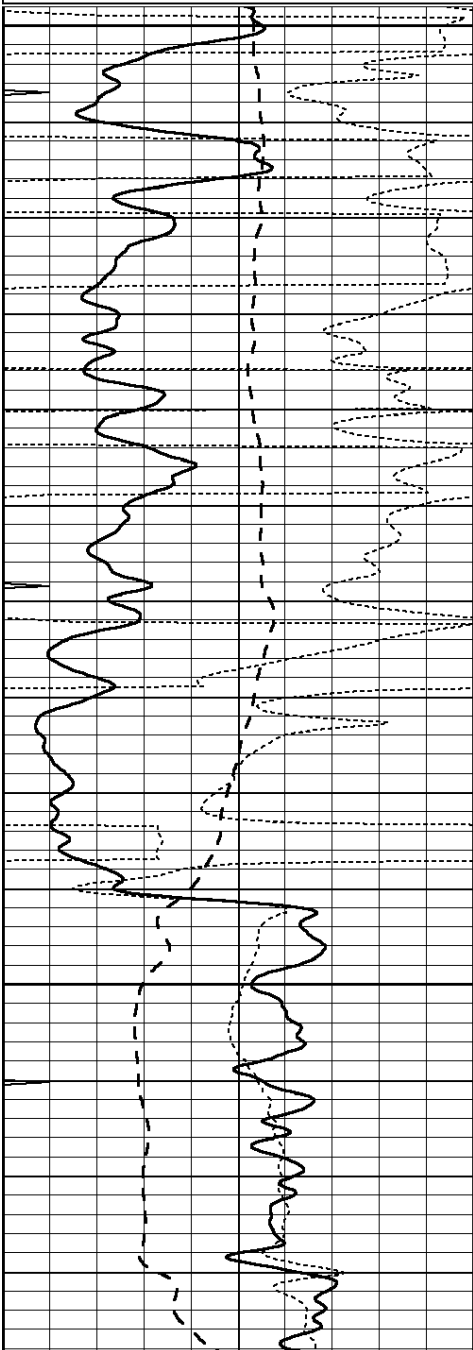
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ANHYDRITE

Database File: 006298pe.db
 Dataset Pathname: pass3.3
 Presentation Format: dil
 Dataset Creation: Fri Feb 25 02:59:17 2011 by Calc Open-Cased 090629
 Charted by: Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	10

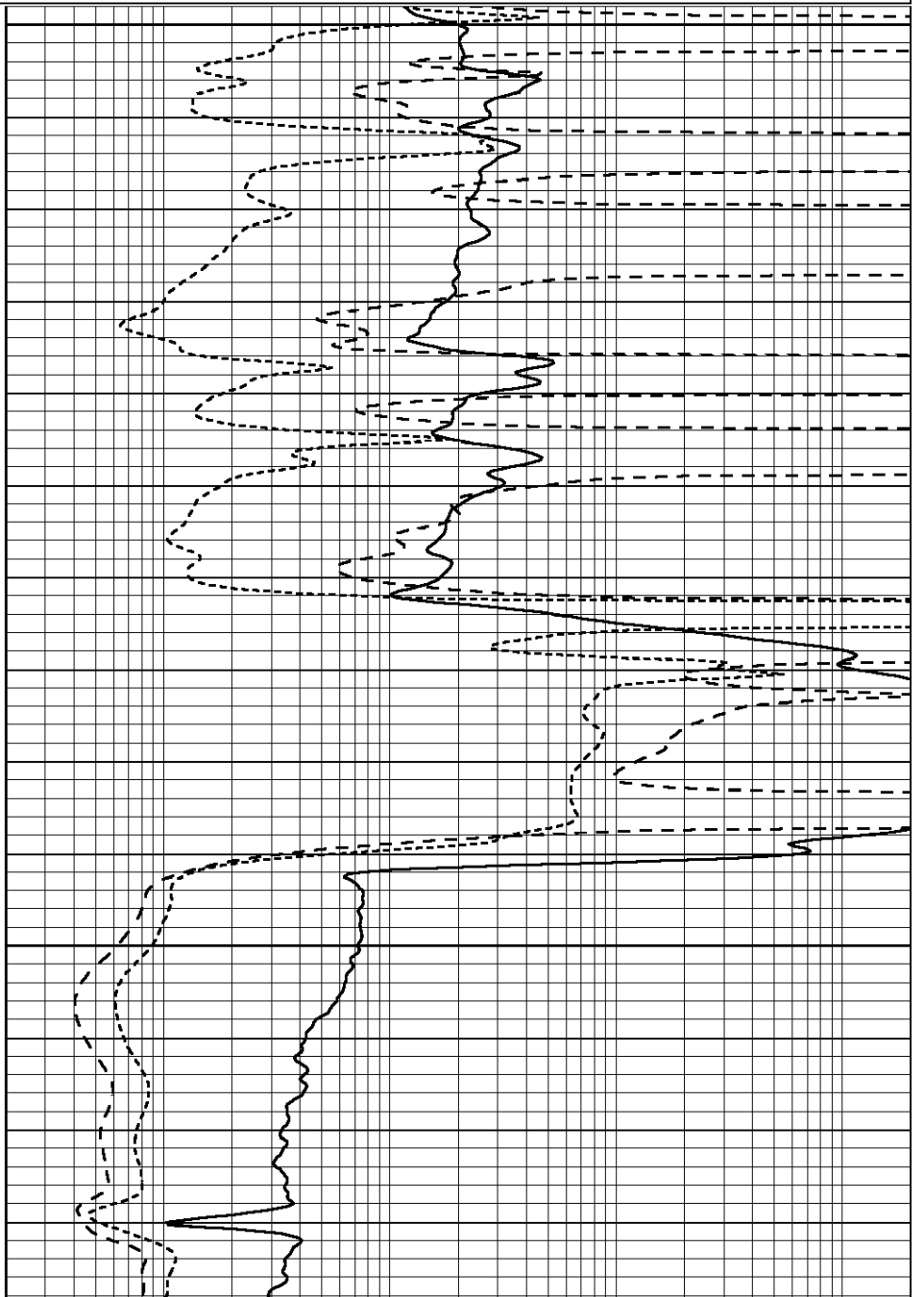
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0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000

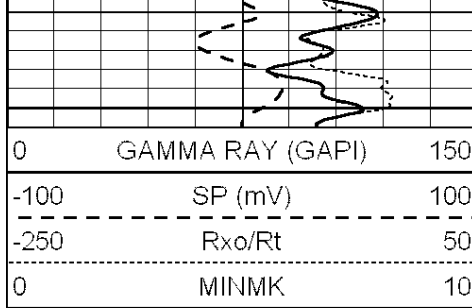


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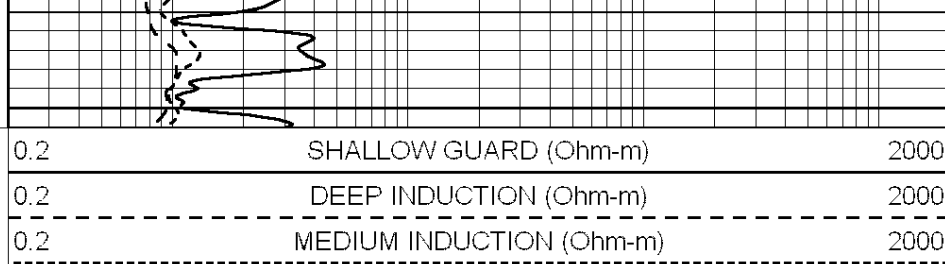
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2650





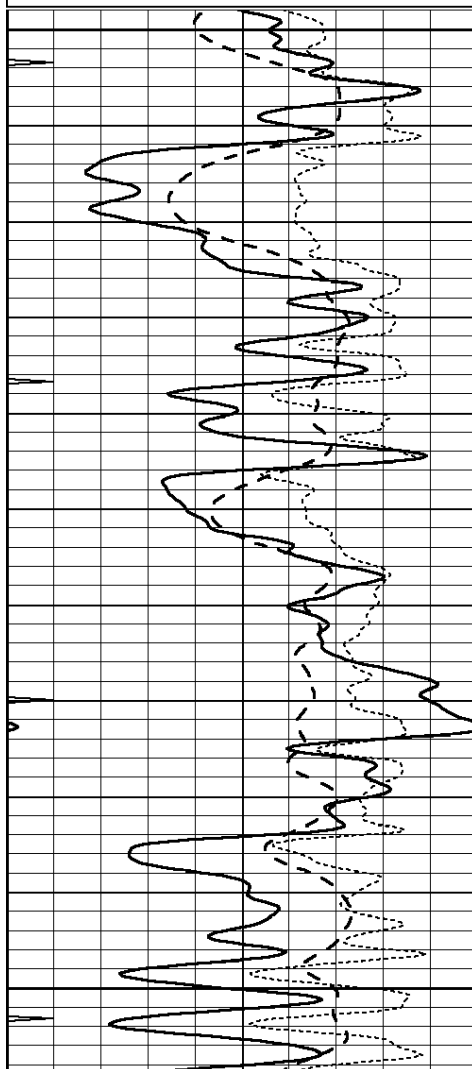
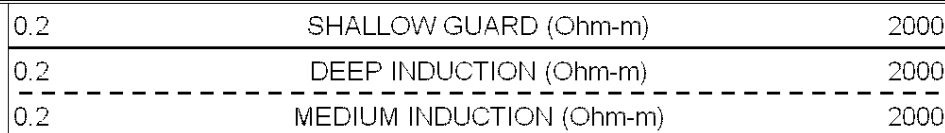
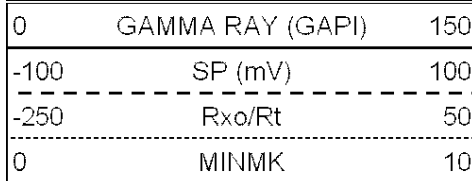
2700



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MAIN SECTION

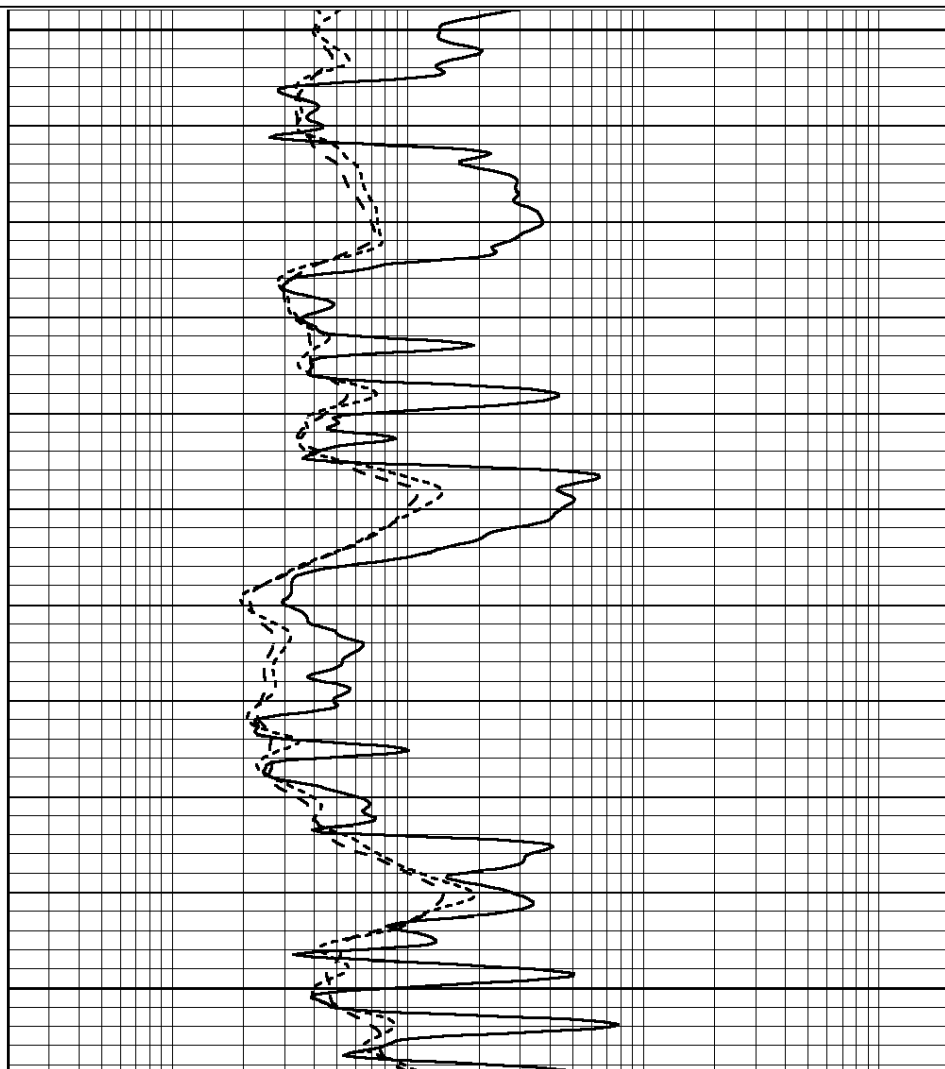
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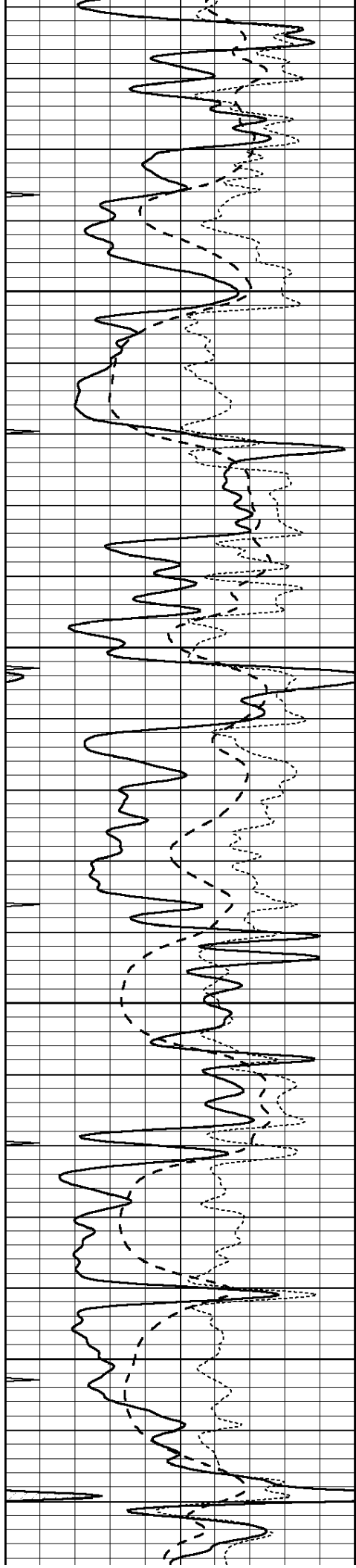


3600

3650

3700



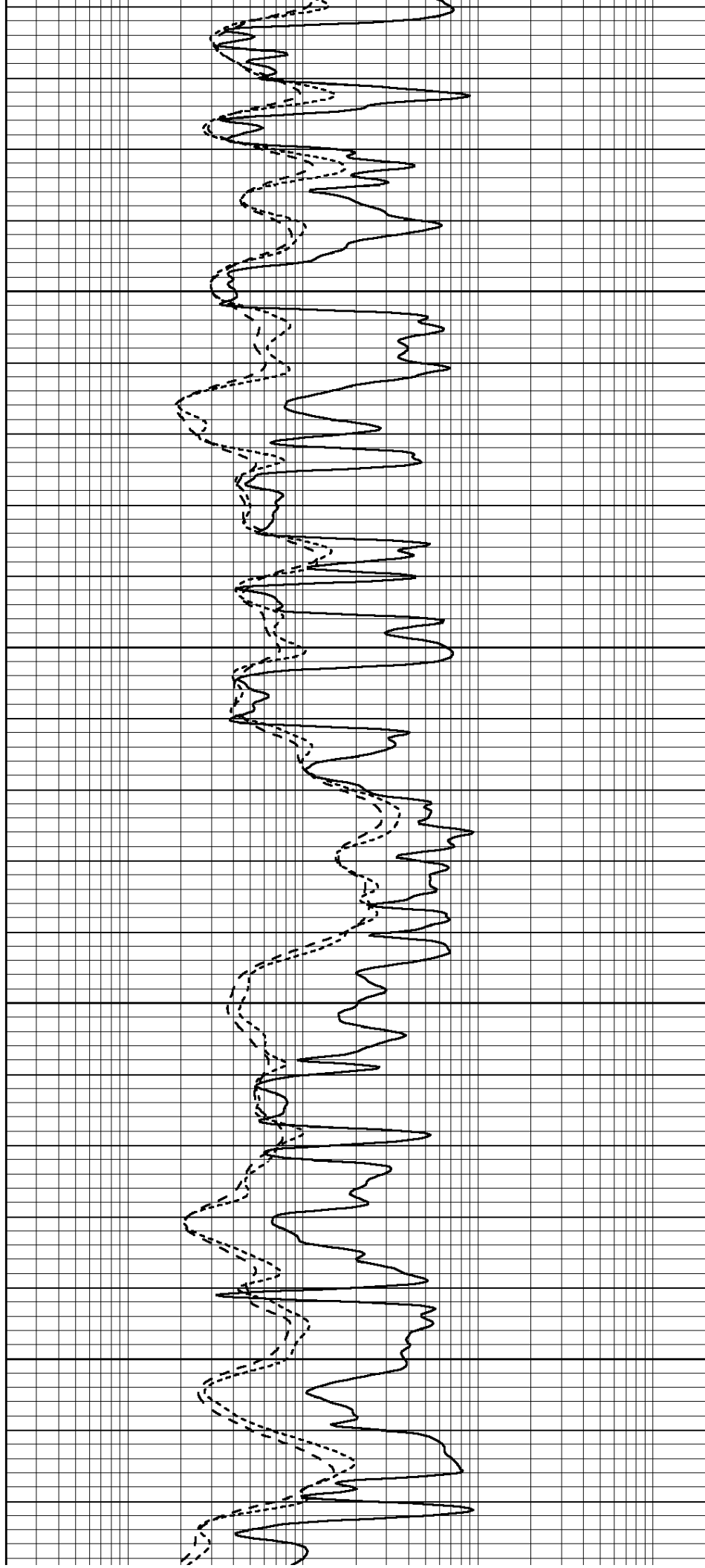


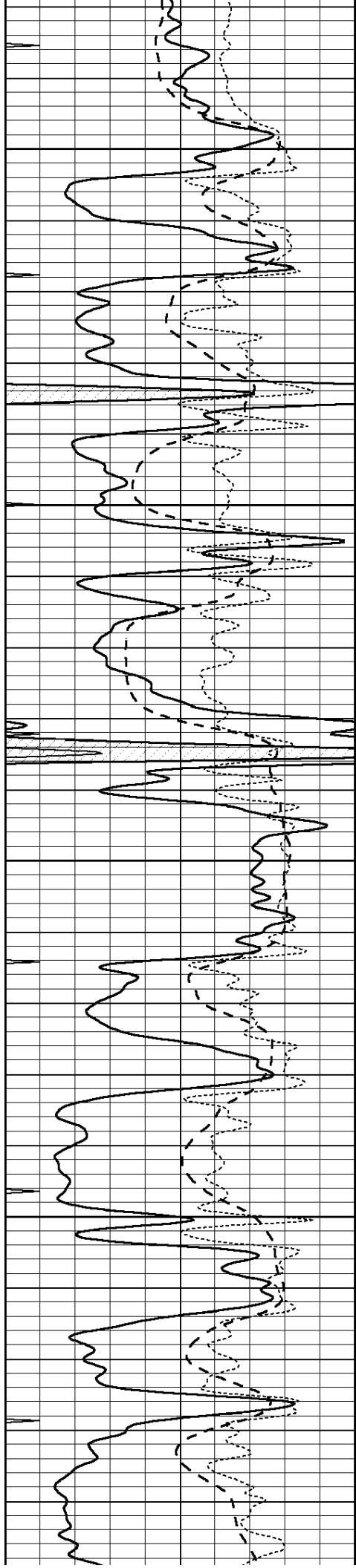
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3800

3850

3900



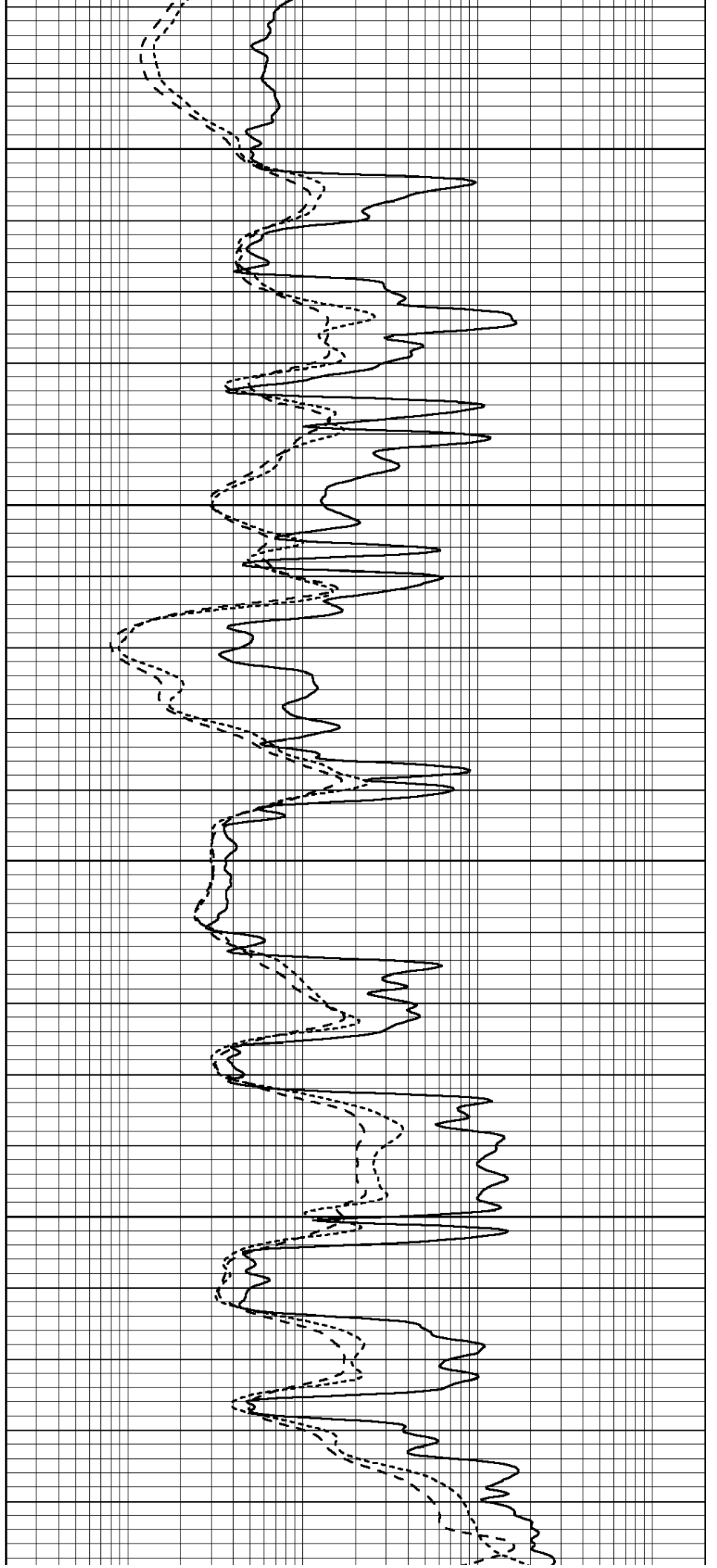


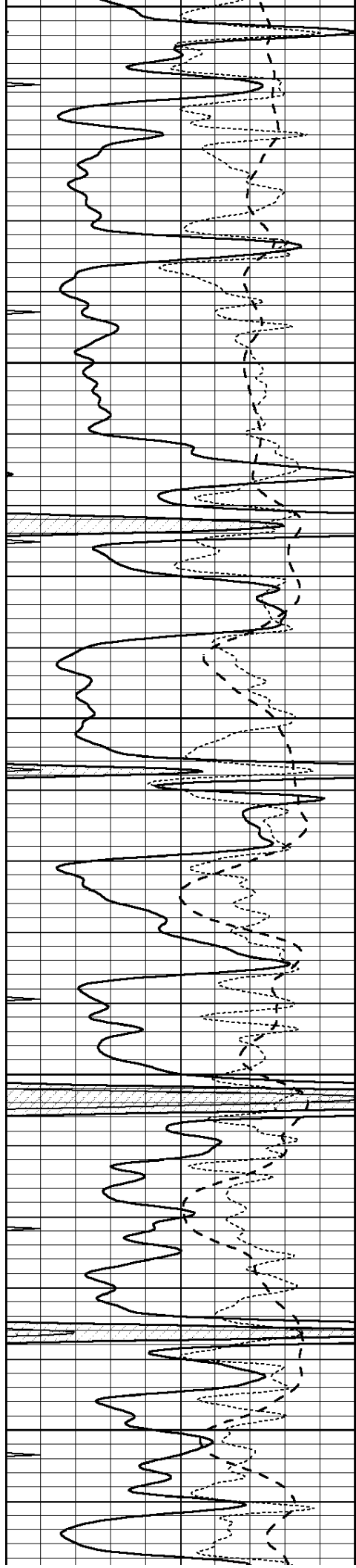
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4000

4050

4100





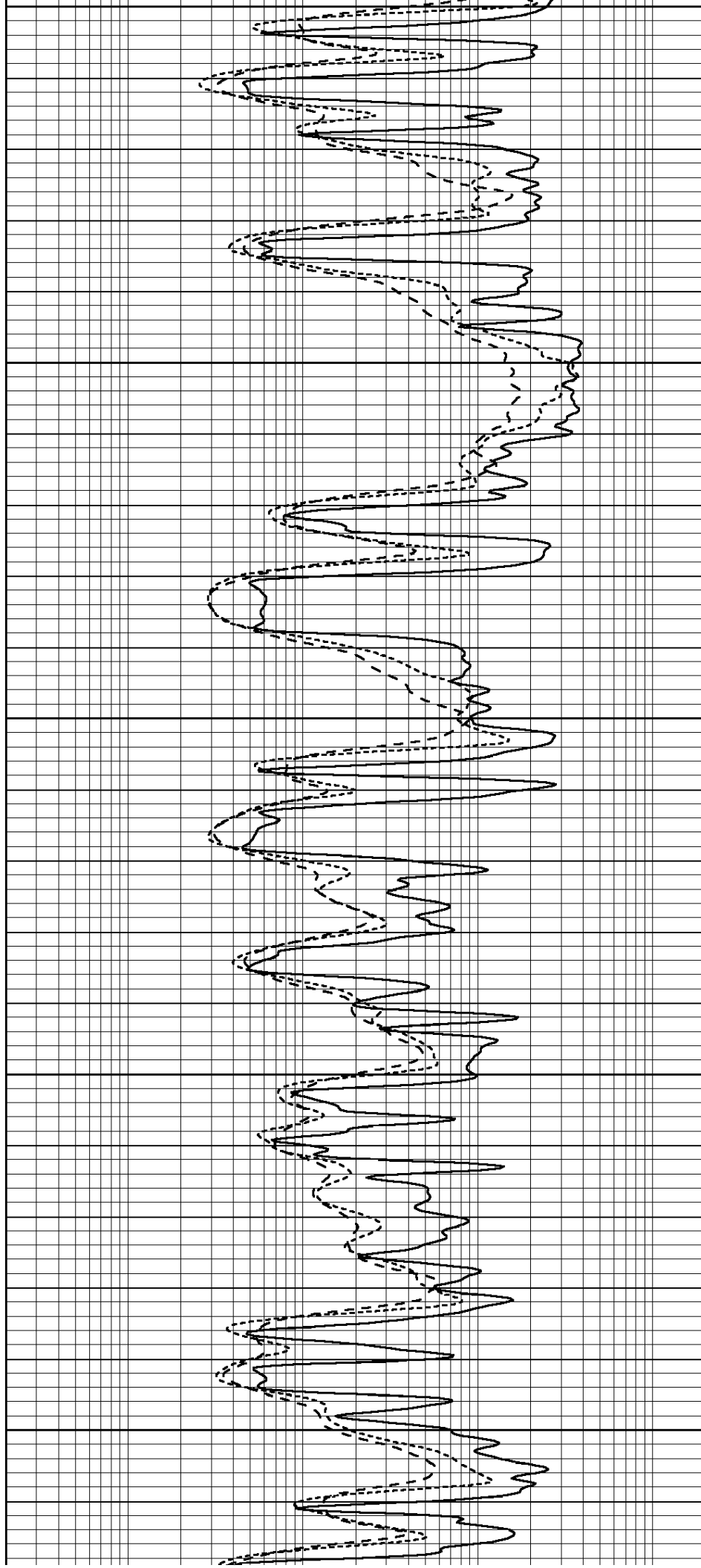
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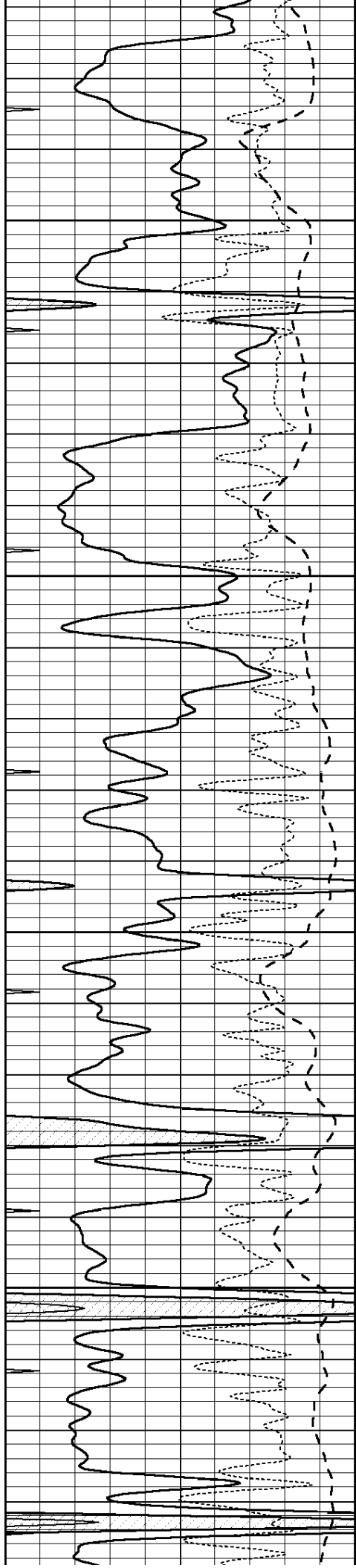
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4250

4300

4350



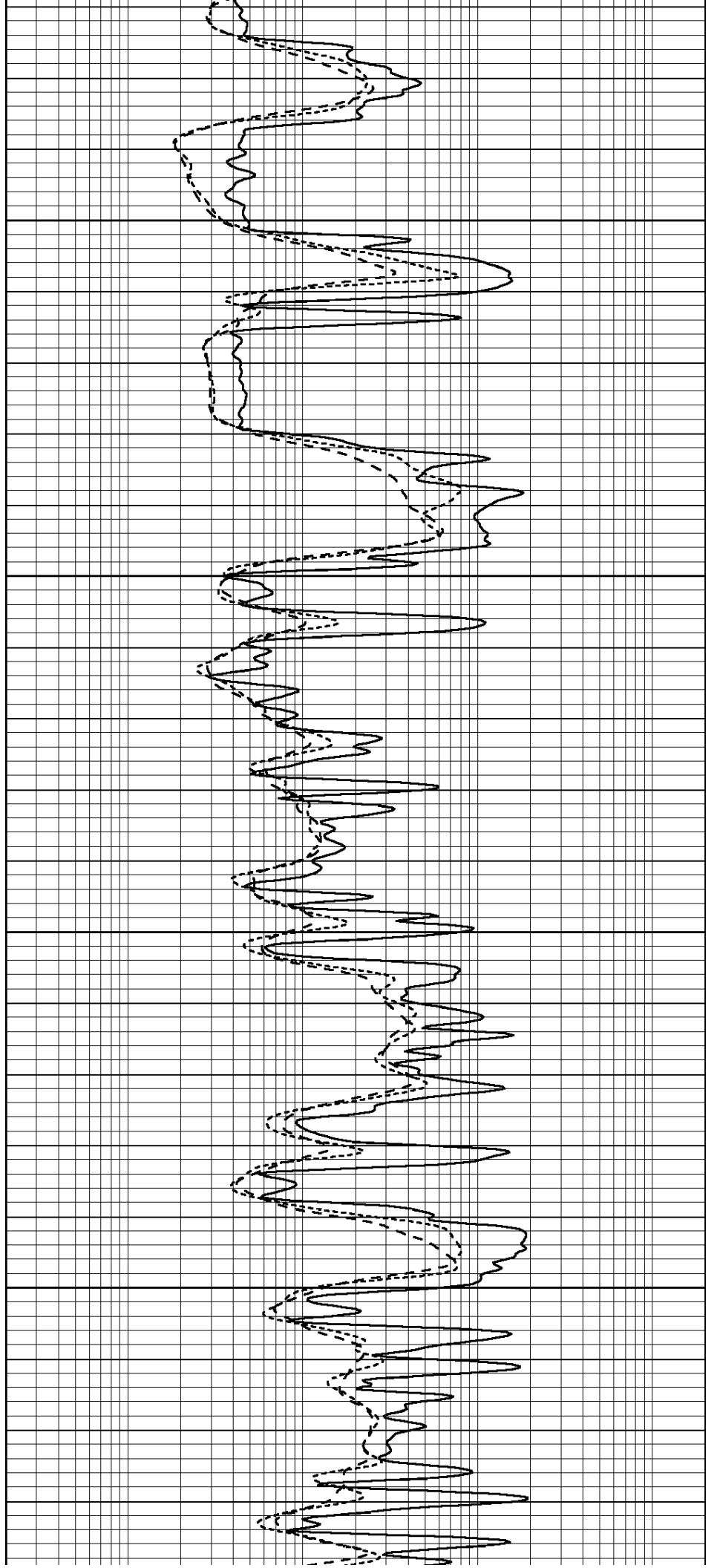


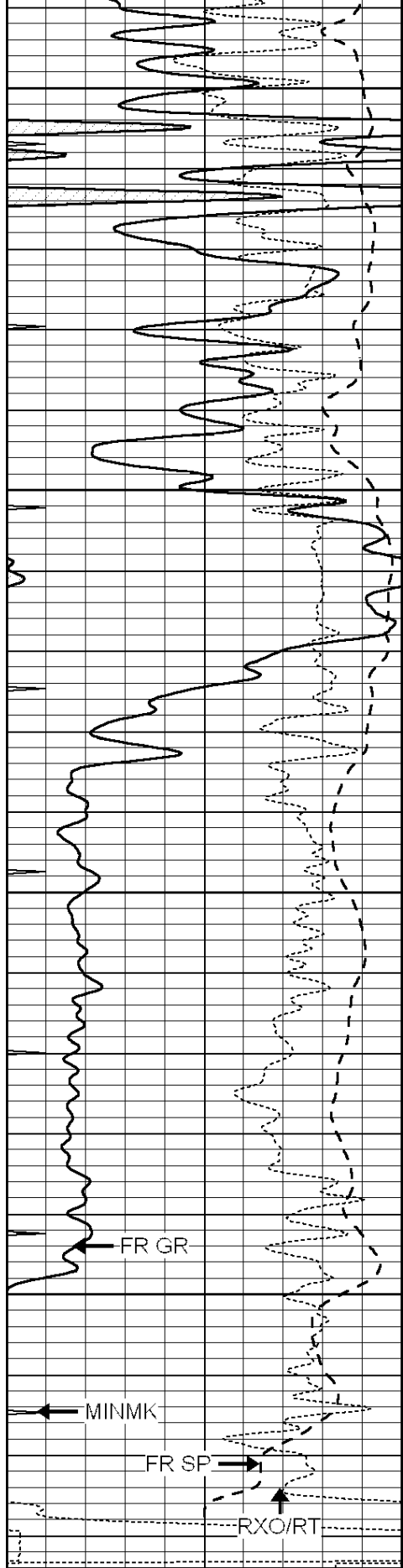
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4450

4500

4550





4600

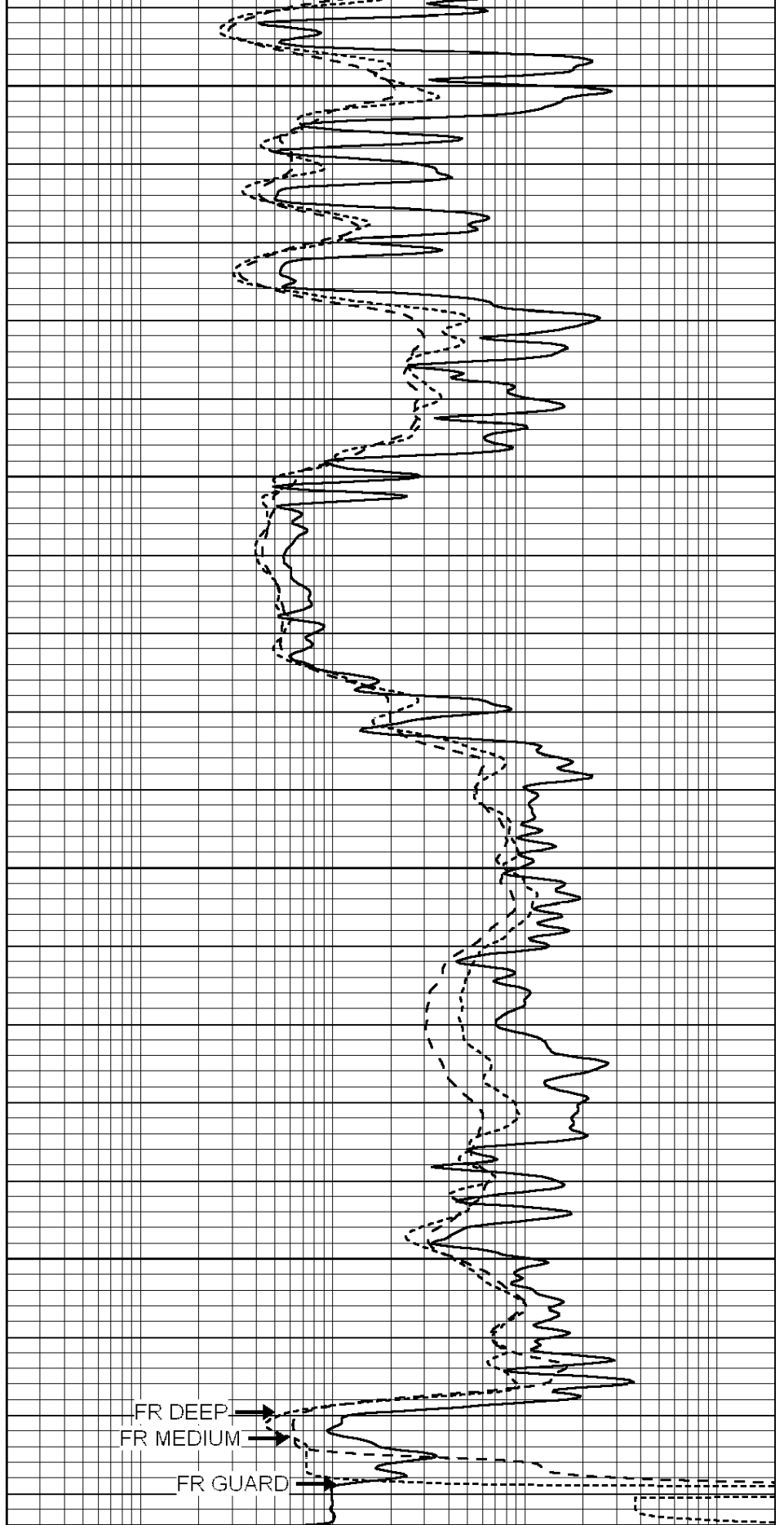
4650

4700

4750

LTD 4781

0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	10



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



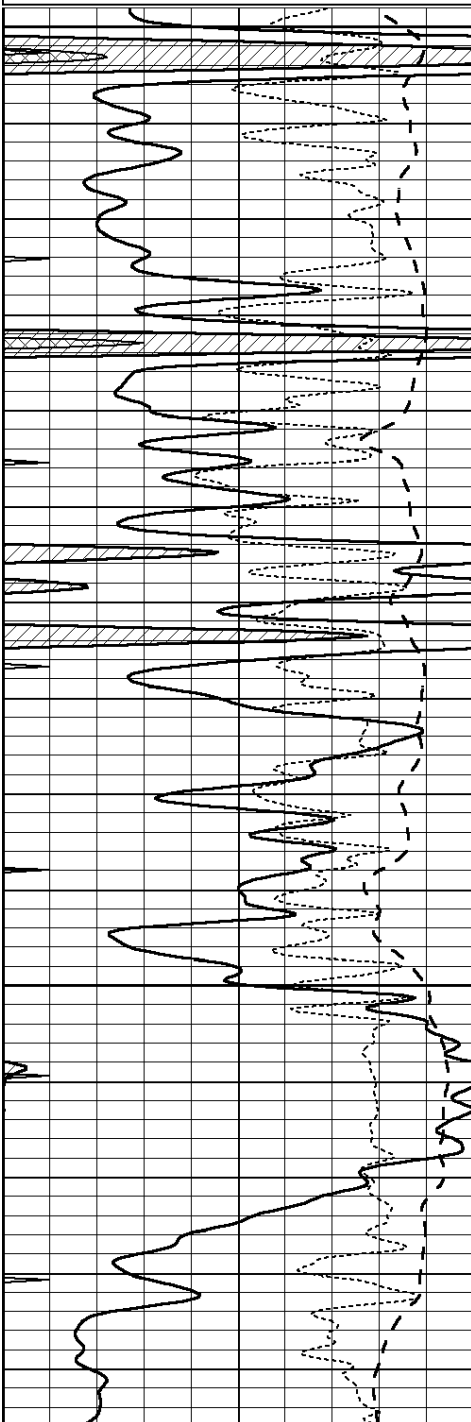
SUPERIOR
Hays,
Kansas

REPEAT SECTION

Database File: 006298pe.db
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 Presentation Format: dil
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 Charted by: Depth in Feet scaled 1:240

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-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	10

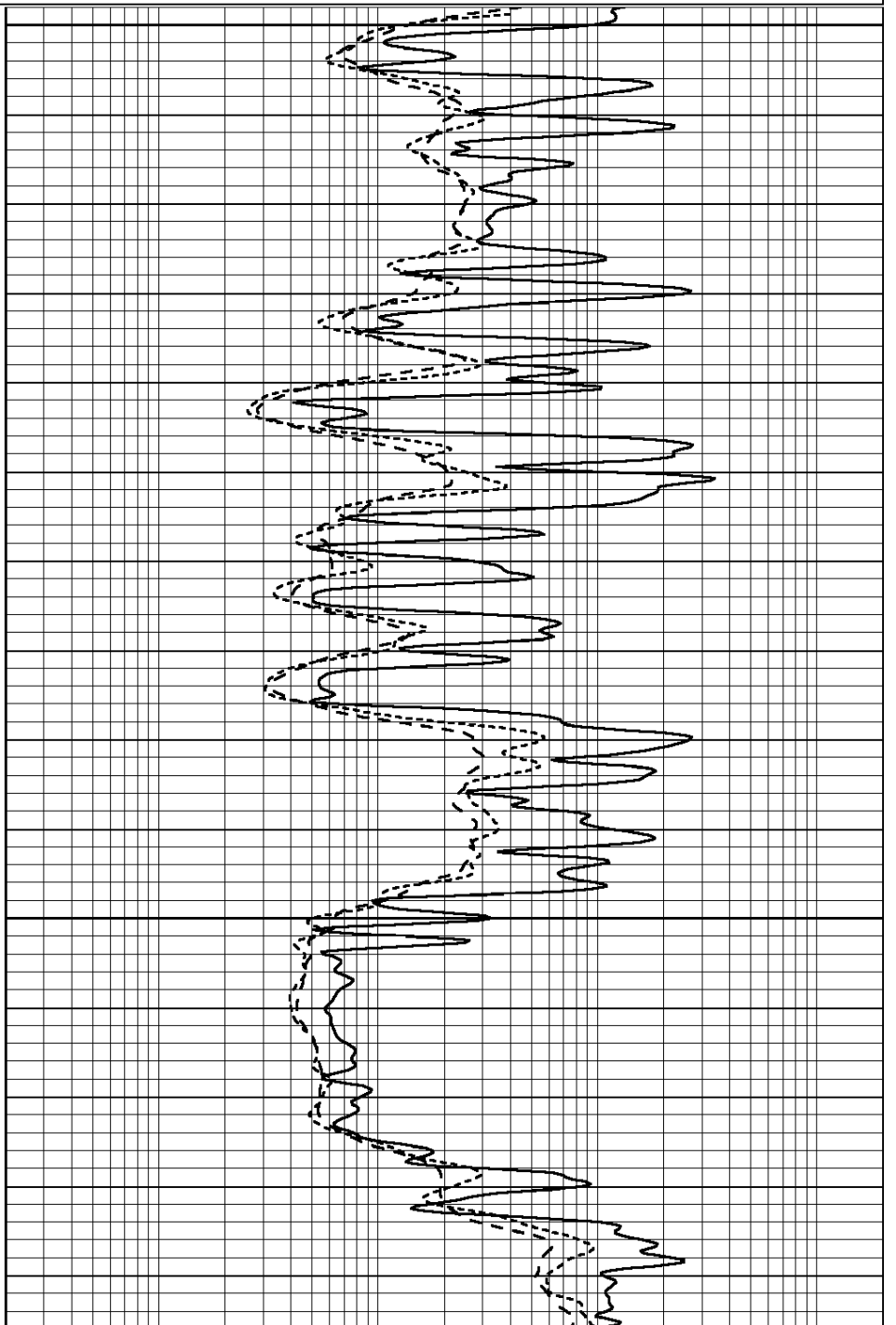
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0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000

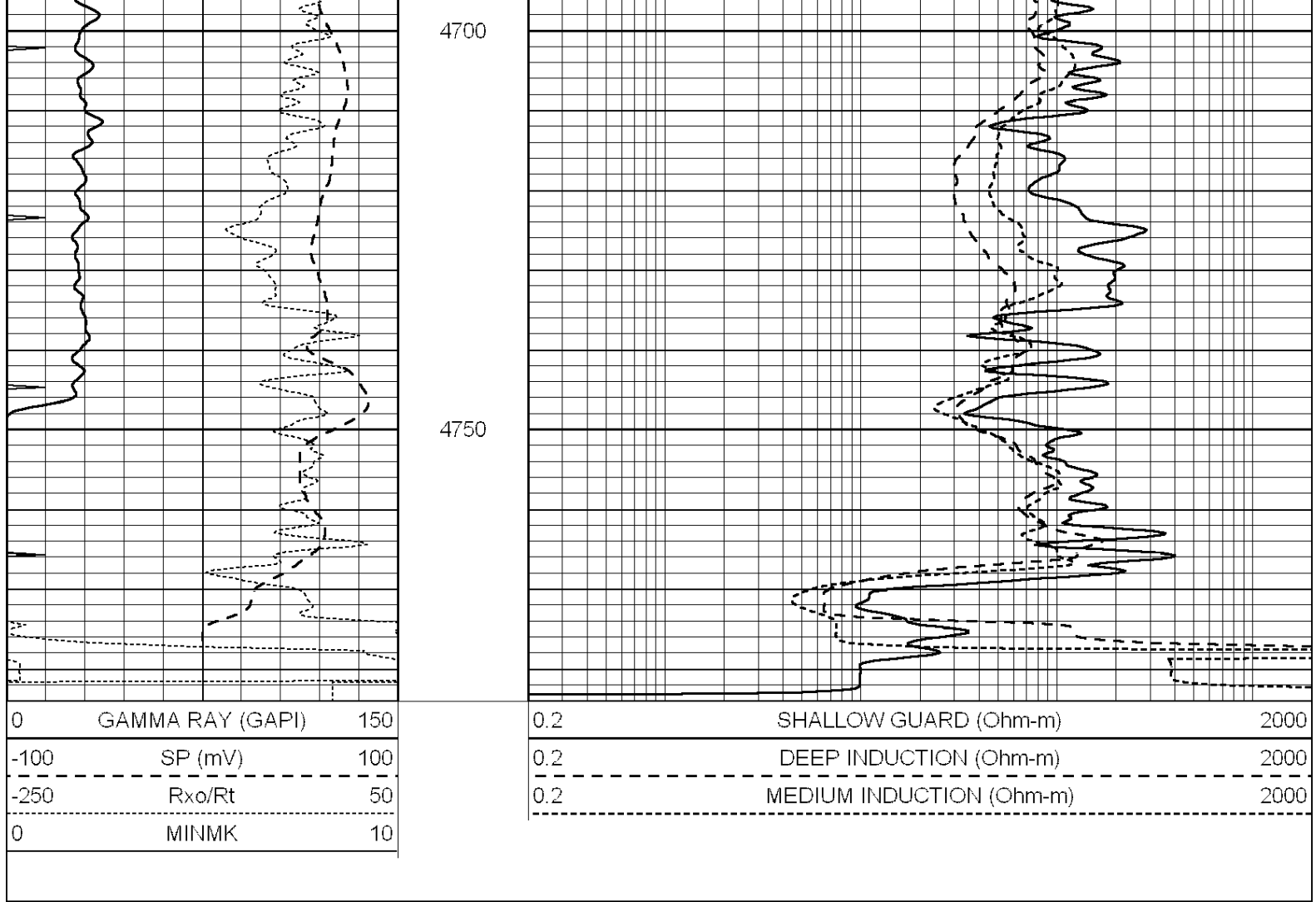


4550

4600

4650





Calibration Report

Database File: 006298pe.db
 Dataset Pathname: pass3.2
 Dataset Creation: Fri Feb 25 02:59:02 2011 by Calc Open-Cased 090629

Dual Induction Calibration Report

Serial-Model: DIL3-GEAR
 Performed: Fri Feb 25 01:15:56 2011

Loop:	Readings			References			Results	
	Air	Loop		Air	Loop		m	b
Deep	0.011	0.656	V	0.000	400.000	mmho/m	640.000	0.000
Medium	0.013	0.740	V	0.000	462.500	mmho/m	700.000	-11.000
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.002	0.645	V	0.000	400.000	mmho/m	622.059	-1.071
Medium	0.007	0.740	V	0.000	462.500	mmho/m	631.393	-4.555

Litho Density Calibration Report

Serial: 003N Model: PRB
 Performed Tue Sep 08 14:14:44 2009

Litho Density Calibration

	Background	Magnesium	Aluminum	Sandstone	
Window 1	2042.6	12312.8	4225.8	13758.4	cps
Window 2	1855.8	10134.7	3624.2	11113.1	cps

Window 2	1639.4	6760.2	2716.3	7260.3	cps
Window 3	466.4	469.2	466.1	476.5	cps
Window 4	0.0	8278.9	1768.4	9257.4	cps
Long Space	2.2	2377.3	1544.1	2574.2	cps
Short Space		1.7100	2.5900	1.3800	g/cc
Rho			2.5700	1.5500	
Pe					

Rib Angle	: 44.4	Rib Slope	: 0.979	Density/Spine Ratio	: 0.549
Spine Angle	: 74.4	Spine Slope	: 3.577	Spine Intercept	: -18.8

Caliper		
Low Ref	Readings	Reference
High Ref	1.8	5.7
	4.6	14.0
	Gain: 3.0	Offset: 0.5

Compensated Neutron Calibration Report

Serial Number: NEU_3I
Tool Model: G

CALIBRATION

Detector	Readings	Target	Normalization
Short Space	997.00 cps	1000.00 cps	1.0000
Long Space	986.00 cps	1000.00 cps	1.0000

Gamma Ray Calibration Report

Serial Number:	GR3
Tool Model:	OPEN
Performed:	Thu Feb 24 22:00:20 2011
Calibrator Value:	200.0 GAPI
Background Reading:	3.0 cps
Calibrator Reading:	186.0 cps
Sensitivity:	0.6000 GAPI/cps