



**COMPLETION  
& PRODUCTION  
SERVICES CO.**

**DUAL  
INDUCTION  
LOG**

Company	ETERNITY EXPLORATION, LLC.	
Well	WERTH FARMS #1-12	
Field	CUSTER	
County	SHERIDAN	State KANSAS
Location:	API # : 15-179-21367-0000	Other Services CDL/CNL MEL
	SEC 12 TWP 10S RGE 26W	Elevation
Permanent Datum	GROUND LEVEL	Elevation 2589
Log Measured From	330' FSL & 1650' FWL	K.B. 2594
Drilling Measured From	SW - SE - SW	D.F. 2592
	KELLY BUSHING	G.L. 2589

Date	7/28/14
Run Number	ONE
Depth Driller	4120
Depth Logger	4120
Bottom Logged Interval	4118
Top Log Interval	00
Casing Driller	8 5/8" @ 219
Casing Logger	216
Bit Size	7 7/8"
Type Fluid in Hole	CHEMICAL MUD
Density / Viscosity	9.368
pH / Fluid Loss	9.5/8.8
Source of Sample	FLOWLINE
Rm @ Meas. Temp	.70 @ 90F
Rmt @ Meas. Temp	.52 @ 90F
Rmc @ Meas. Temp	.84 @ 90F
Source of Rmf / Rmc	MEASUREMENT
Rm @ BHT	.53 @ 117F
Time Circulation Stopped	2 HOURS
Time Logger on Bottom	
Maximum Recorded Temperature	117F
Equipment Number	4010
Location	HAYS, KANSAS
Recorded By	JASON CAPPELLUCCI
Witnessed By	SCOTT ALBERG

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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**

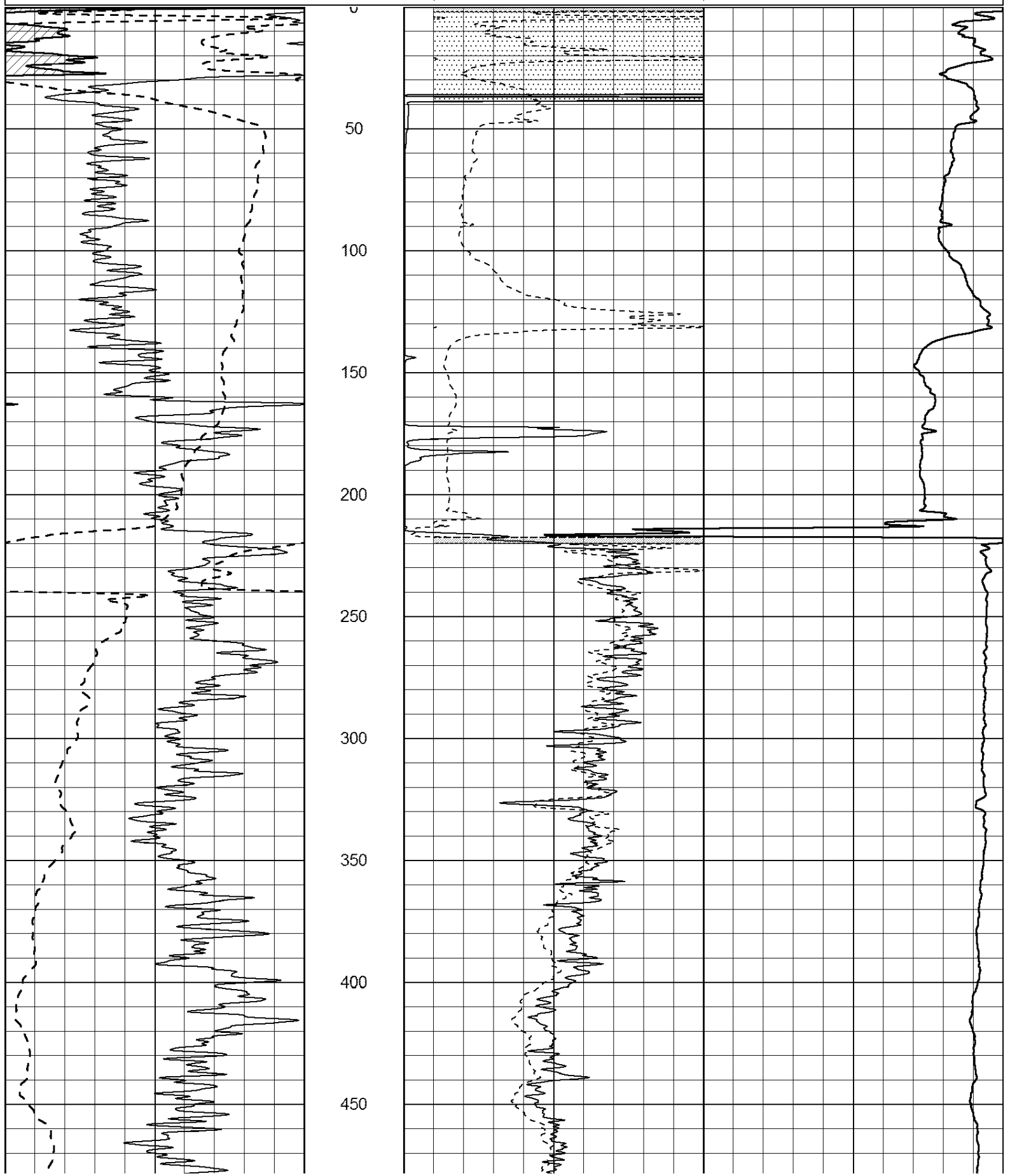
THANK YOU FOR USING NABORS, HAYS, KS. (785) 628-6395  
 DIRECTIONS:  
 ST. PETER, KS. - ON RD. E GO 6 1/2 WEST - NORTH INTO

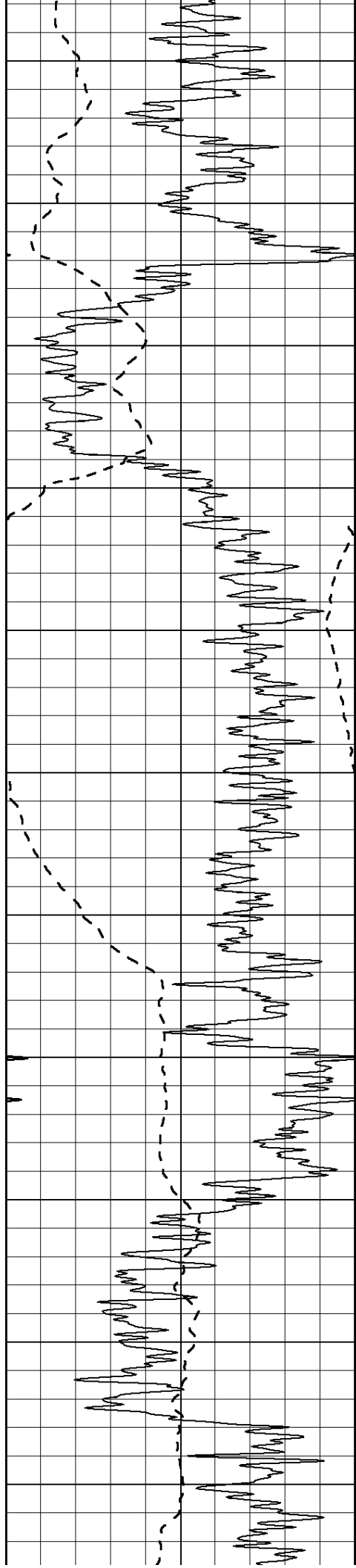
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-100	SP (mV)	100

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





500

550

600

650

700

750

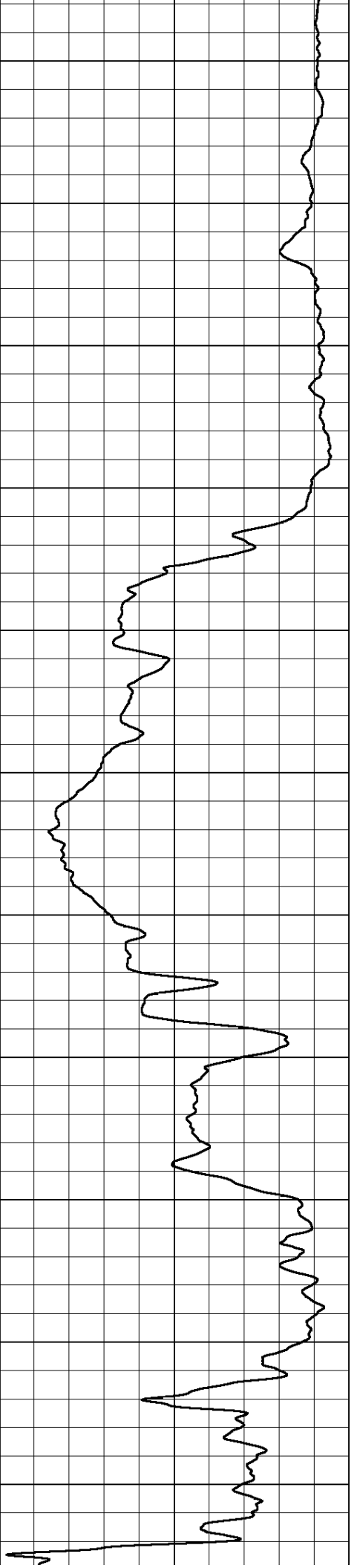
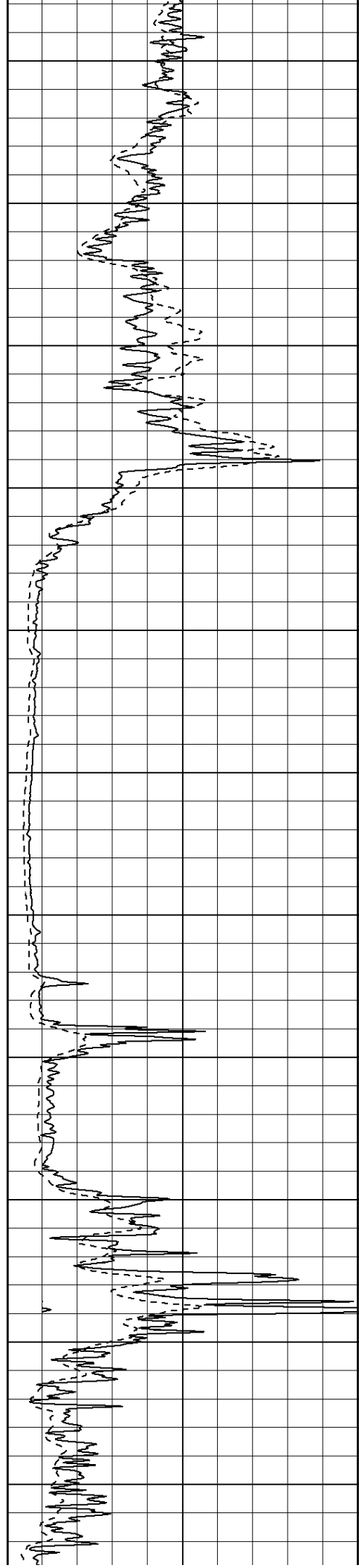
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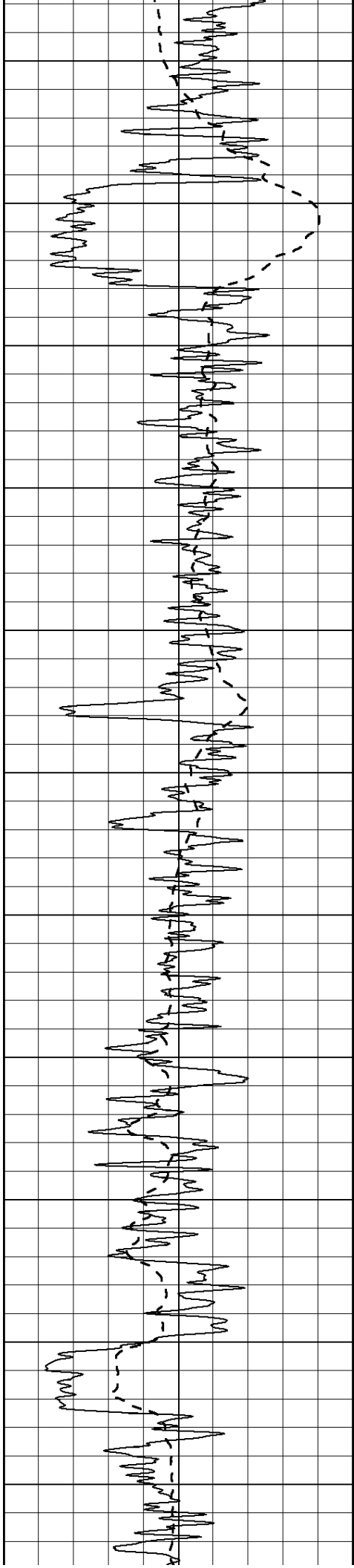
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900

950

1000





1050

1100

1150

1200

1250

1300

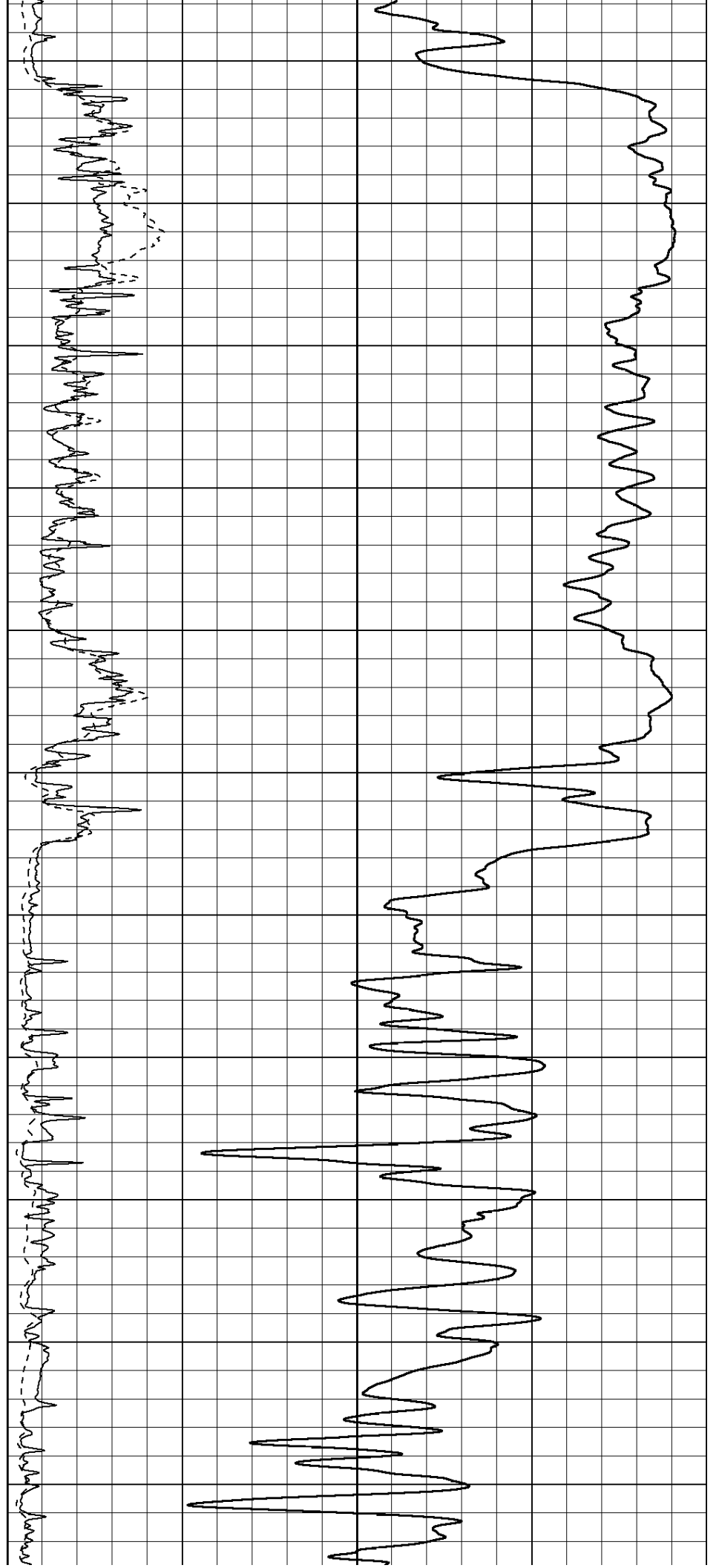
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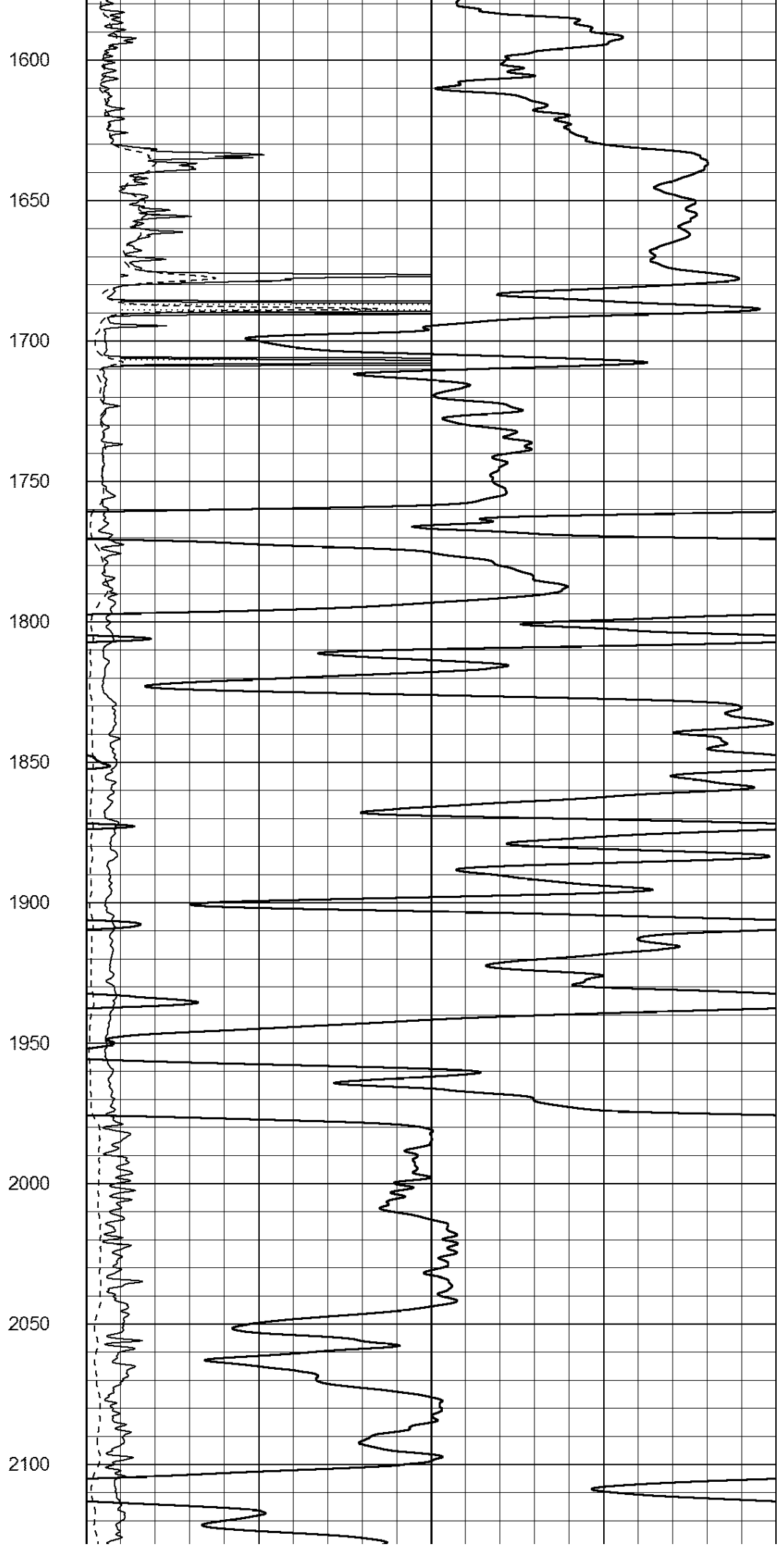
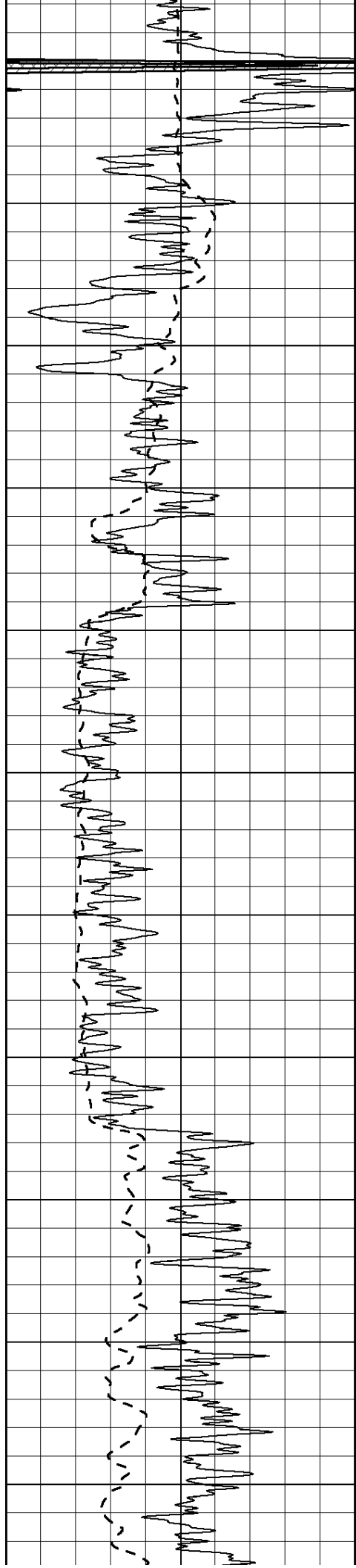
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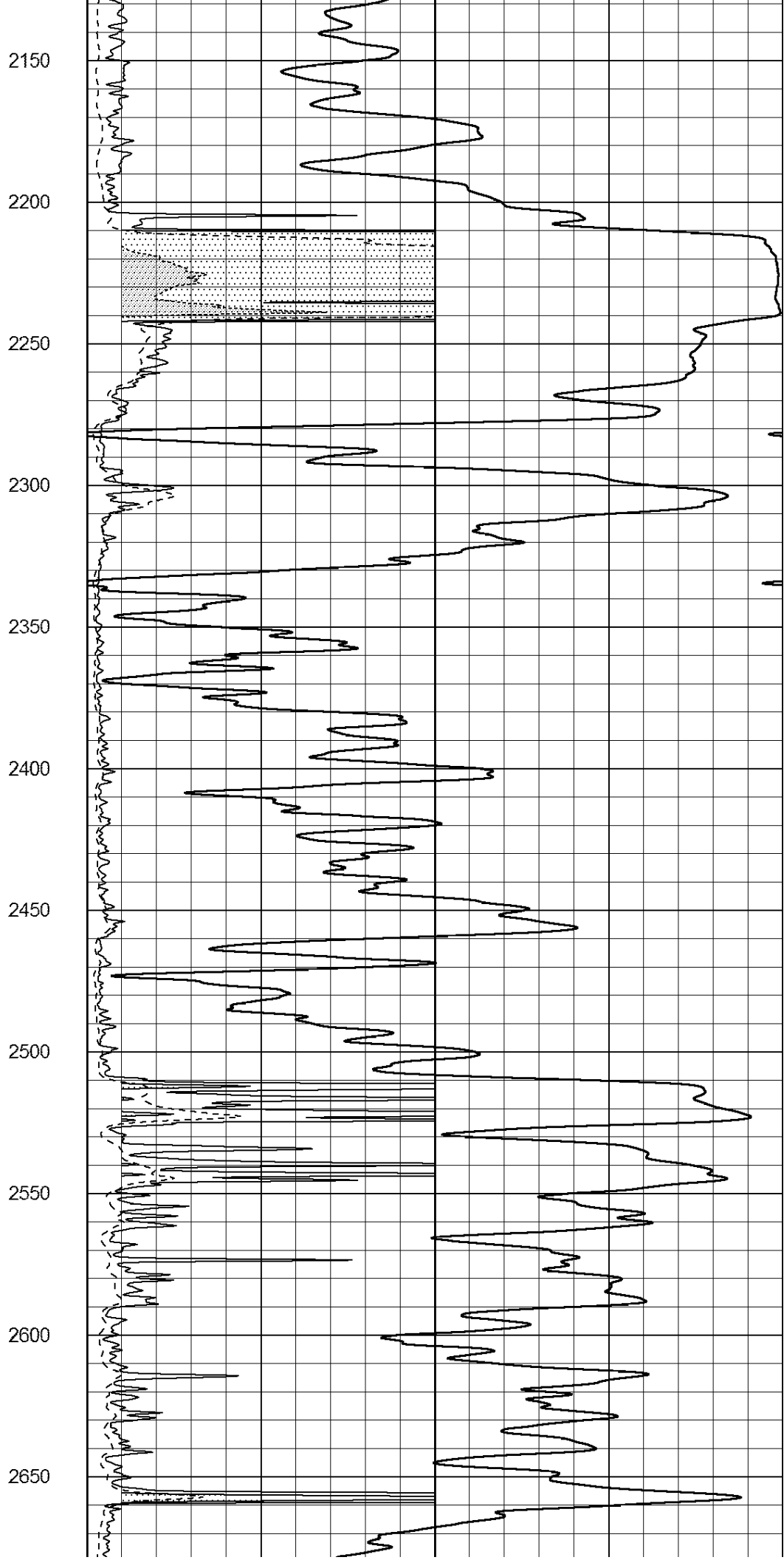
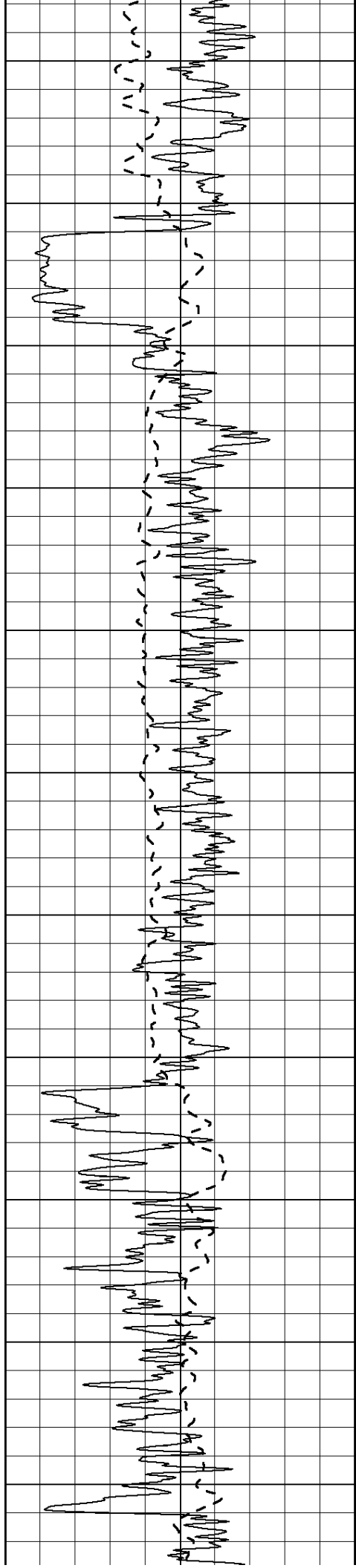
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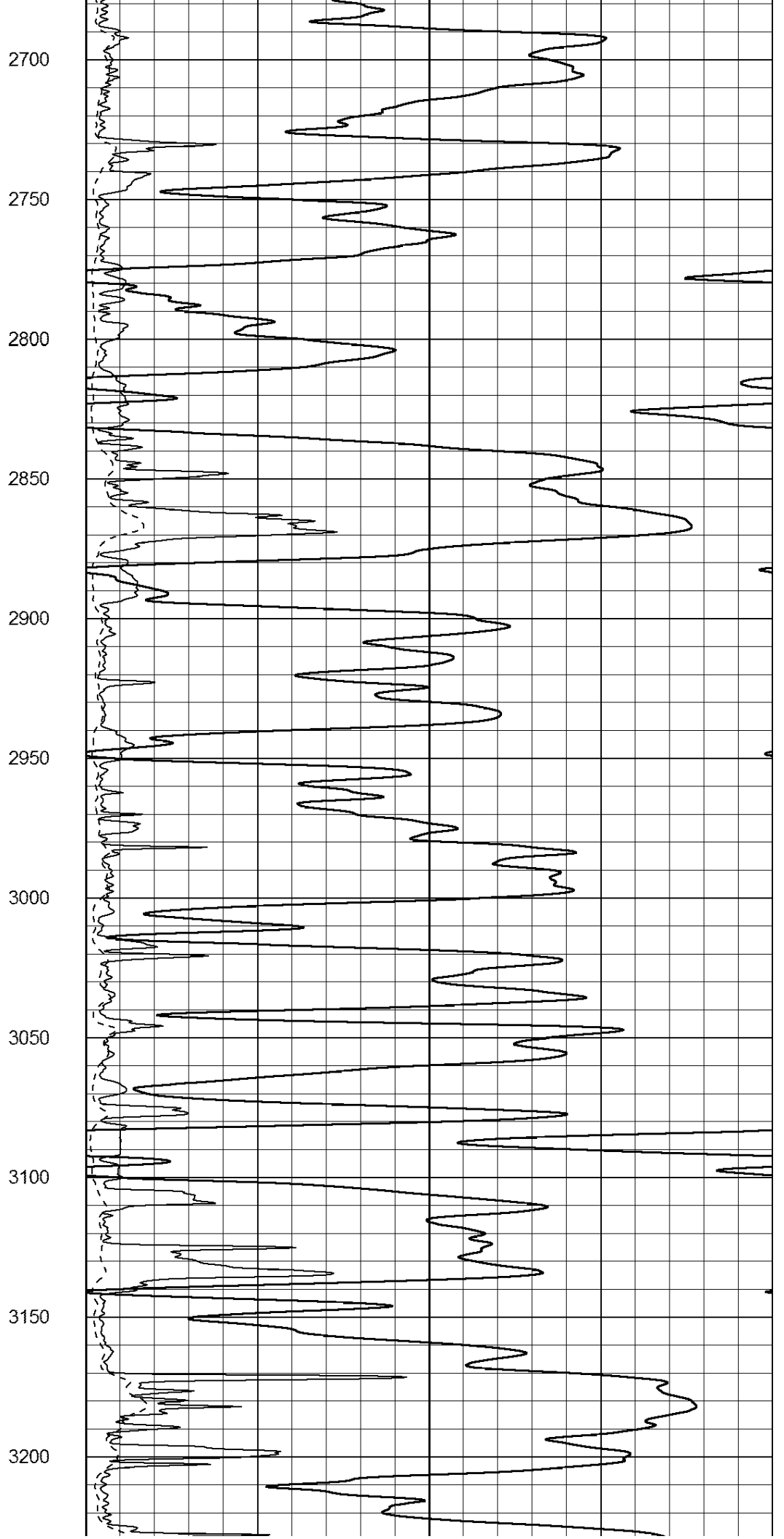
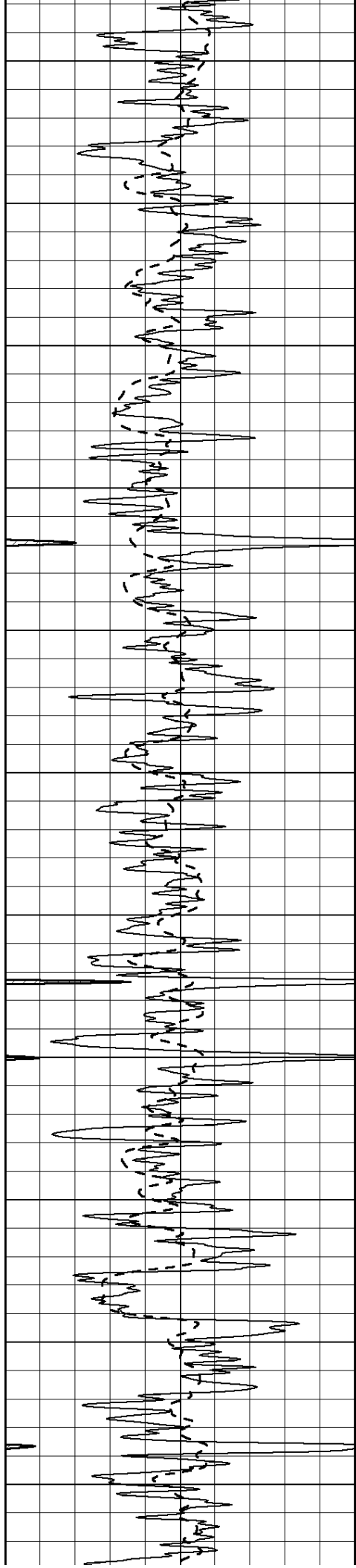
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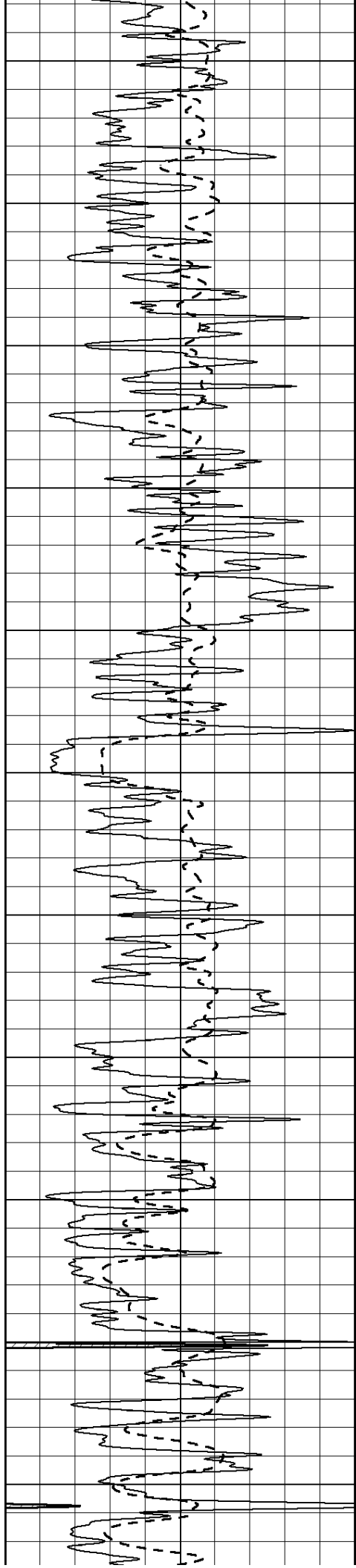
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3250

3300

3350

3400

3450

3500

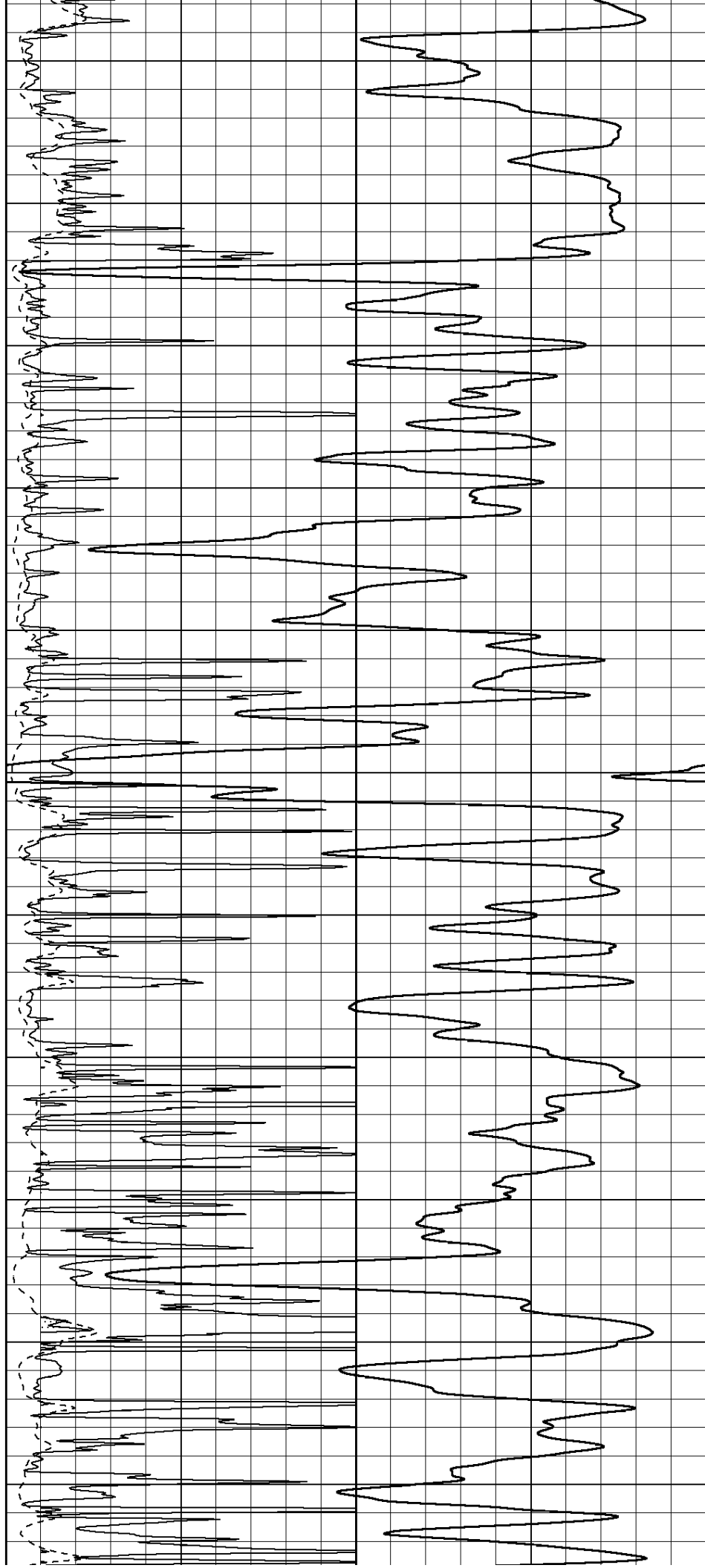
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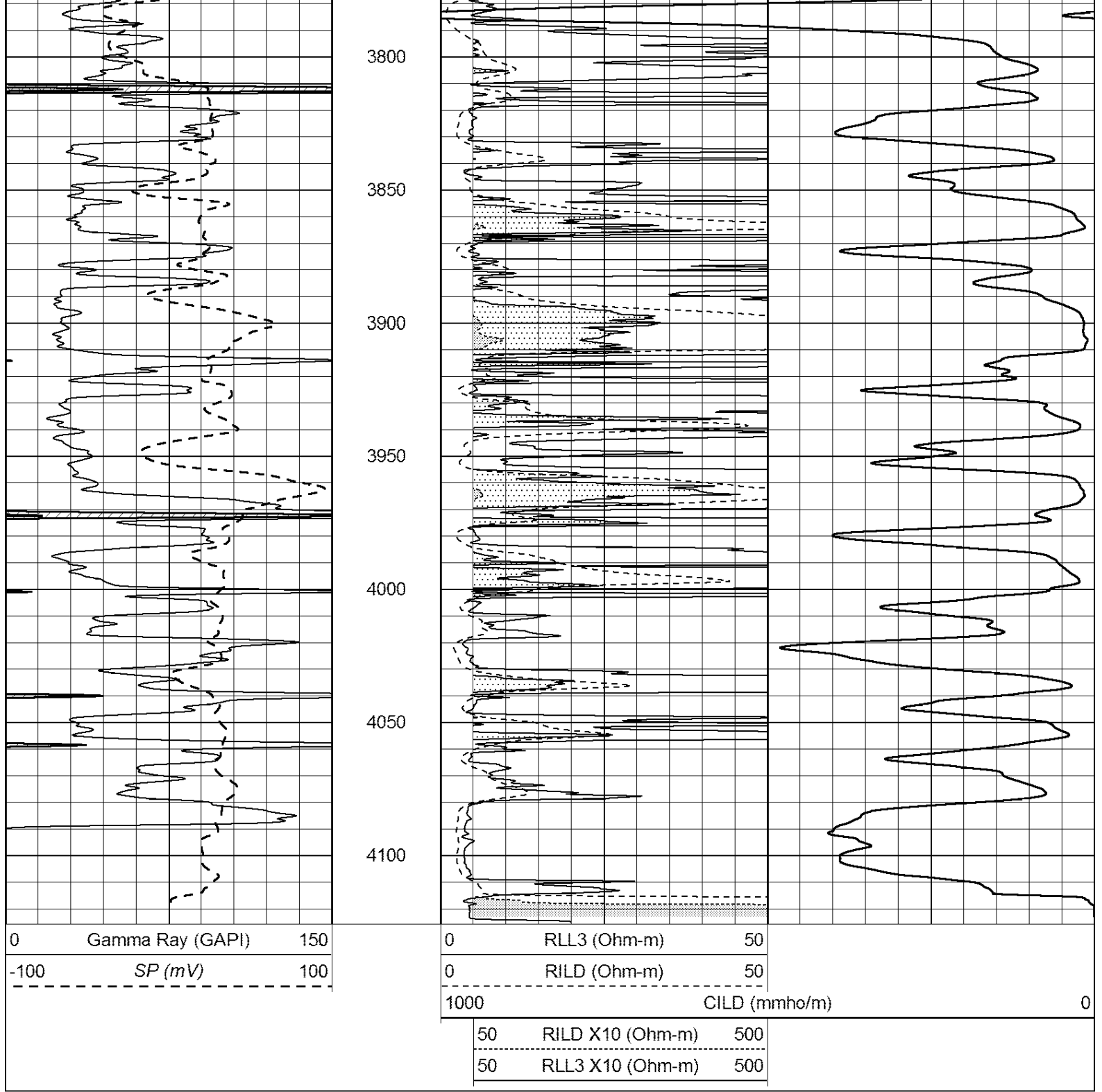
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3650

3700

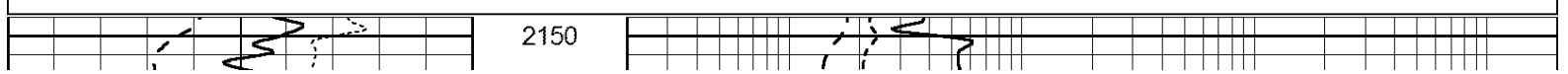
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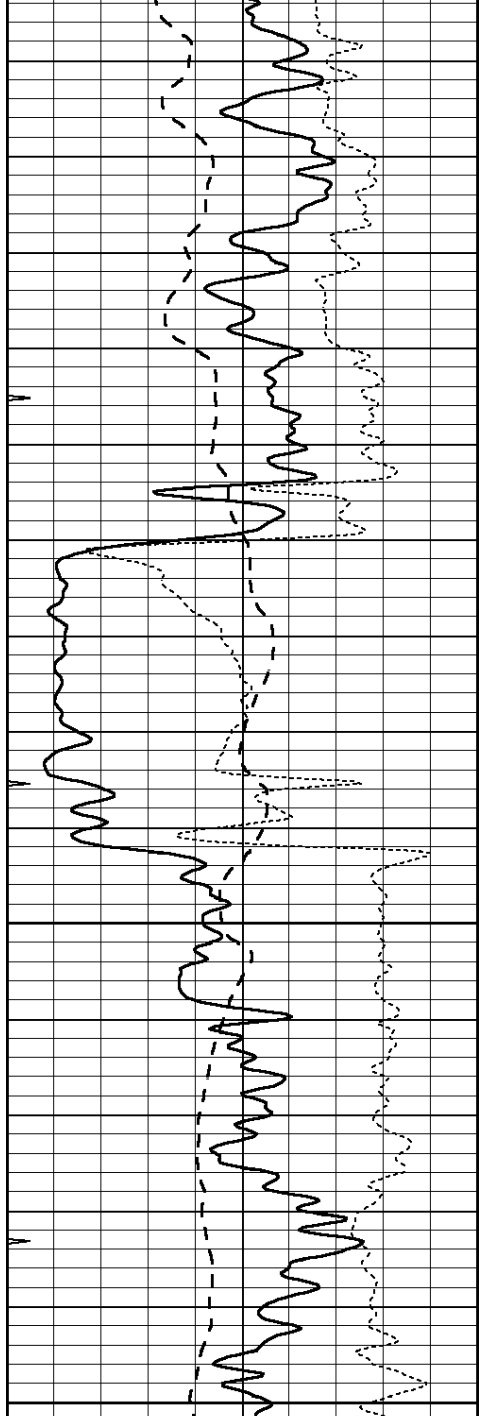




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 Charted by: Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150	0.2	SHALLOW GUARD (Ohm-m)	2000
-100	SP (mV)	100	0.2	DEEP INDUCTION (Ohm-m)	2000
-250	Rxo/Rt	50	0.2	MEDIUM INDUCTION (Ohm-m)	2000
0	MINMK	20			



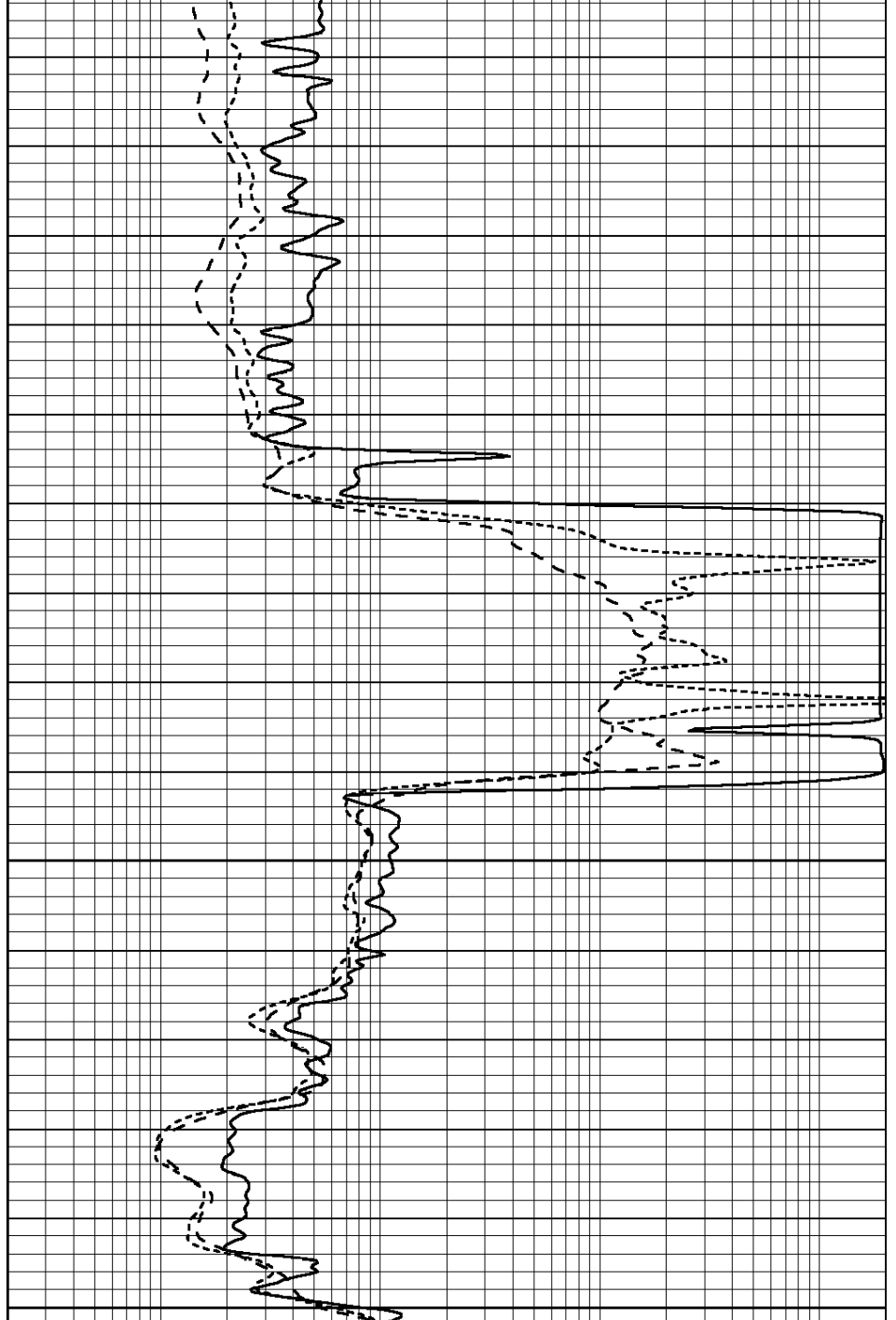


2200

2250

2300

0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	20



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

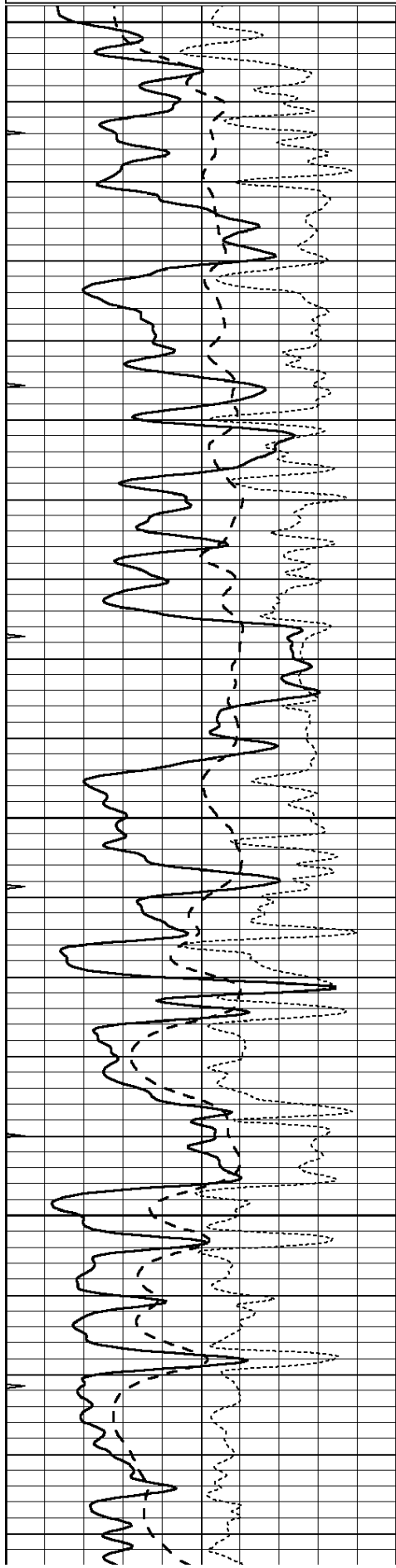


# MAIN SECTION

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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	20

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

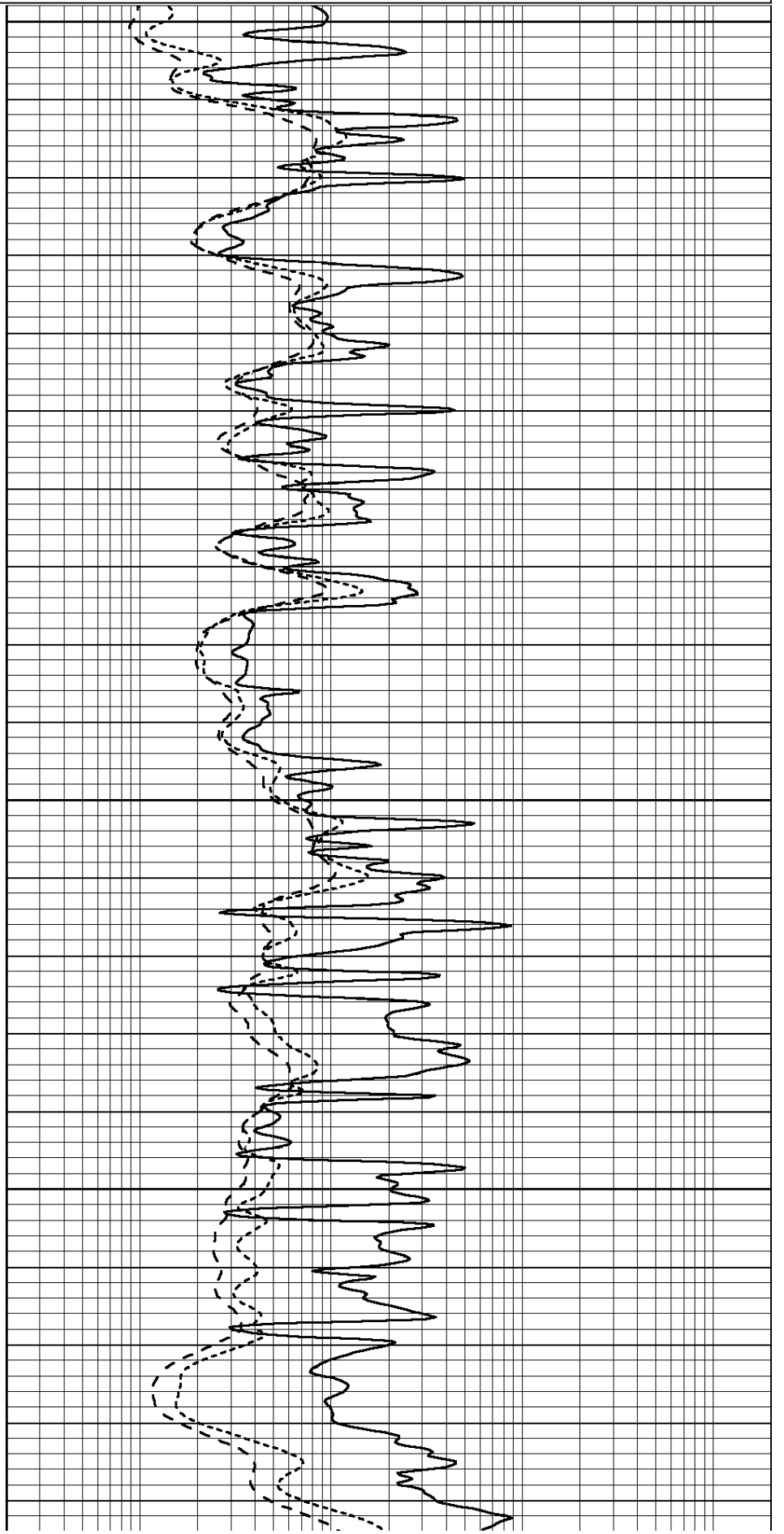


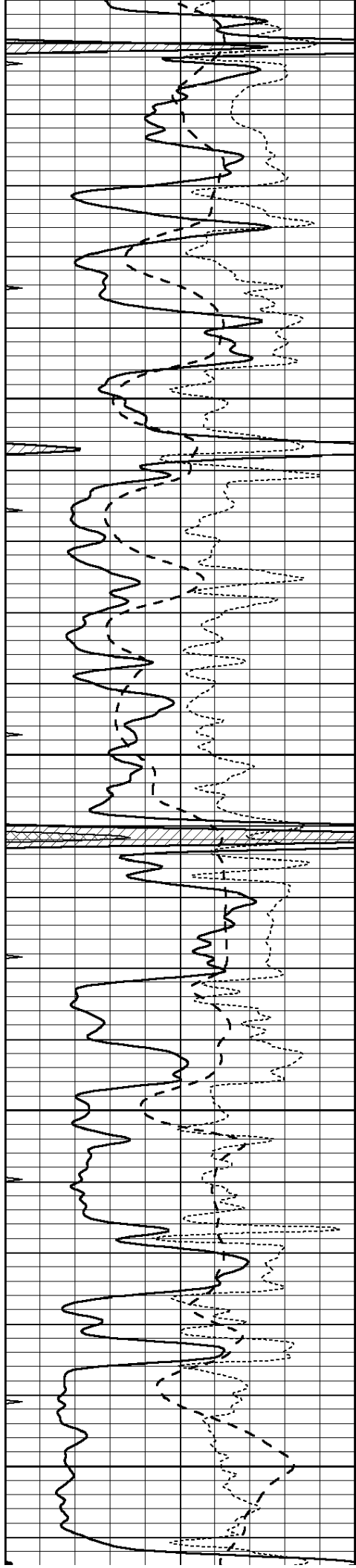
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3550

3600

3650





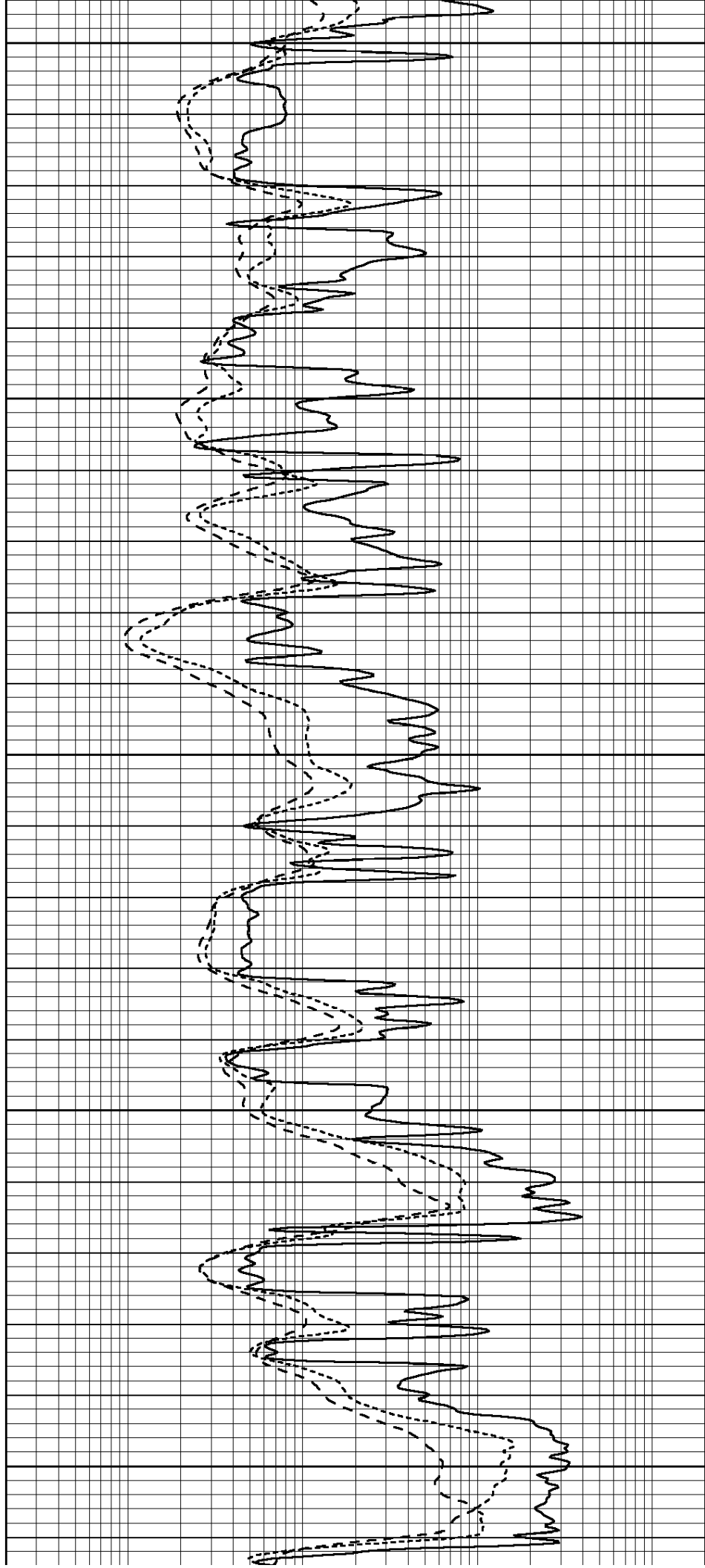
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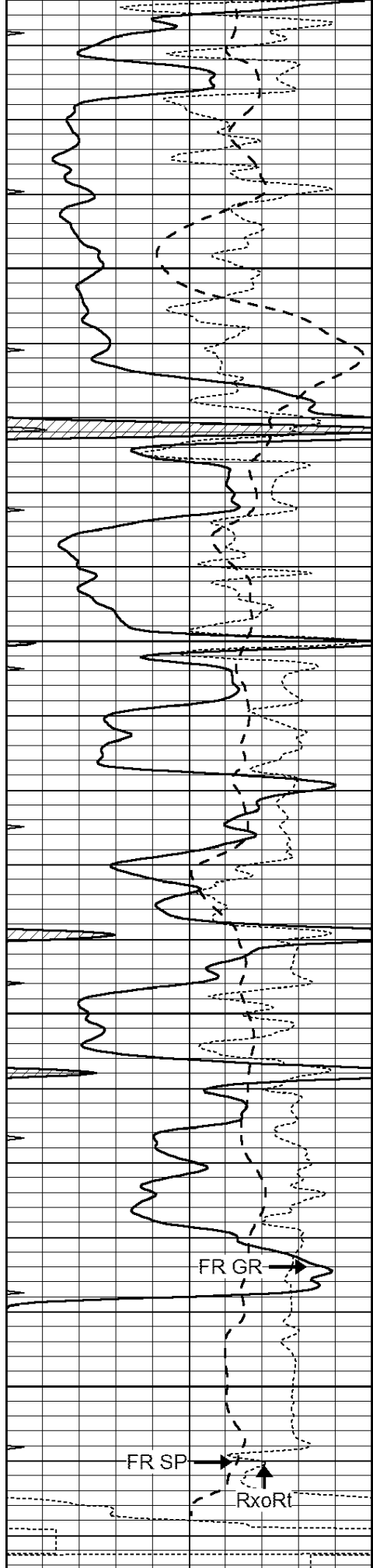
3750

3800

3850

3900





0 GAMMA RAY (GAPI) 150  
 -100 SP (mV) 100

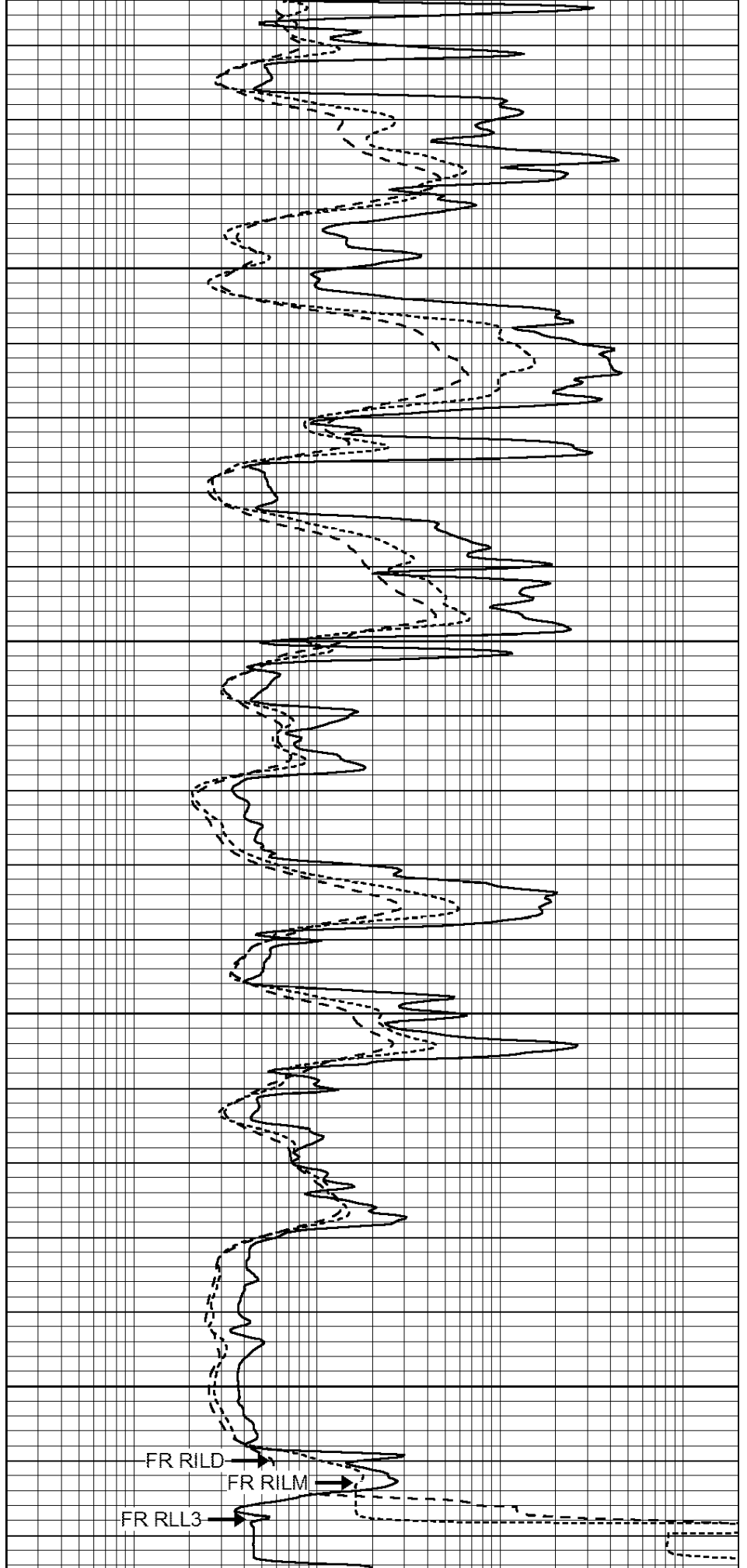
3950

4000

4050

4100

LTD 4120



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

-250	Rxo/Rt	50
0	MINMK	20

0.2 MEDIUM INDUCTION (Ohm-m) 2000



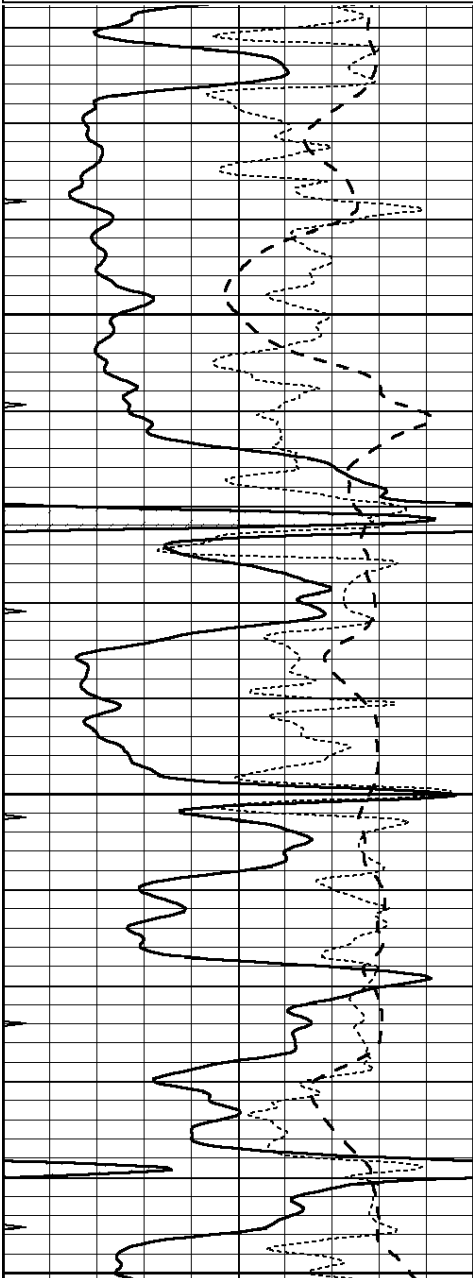
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# REPEAT SECTION

Database File: 24068ddn.db  
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-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	20

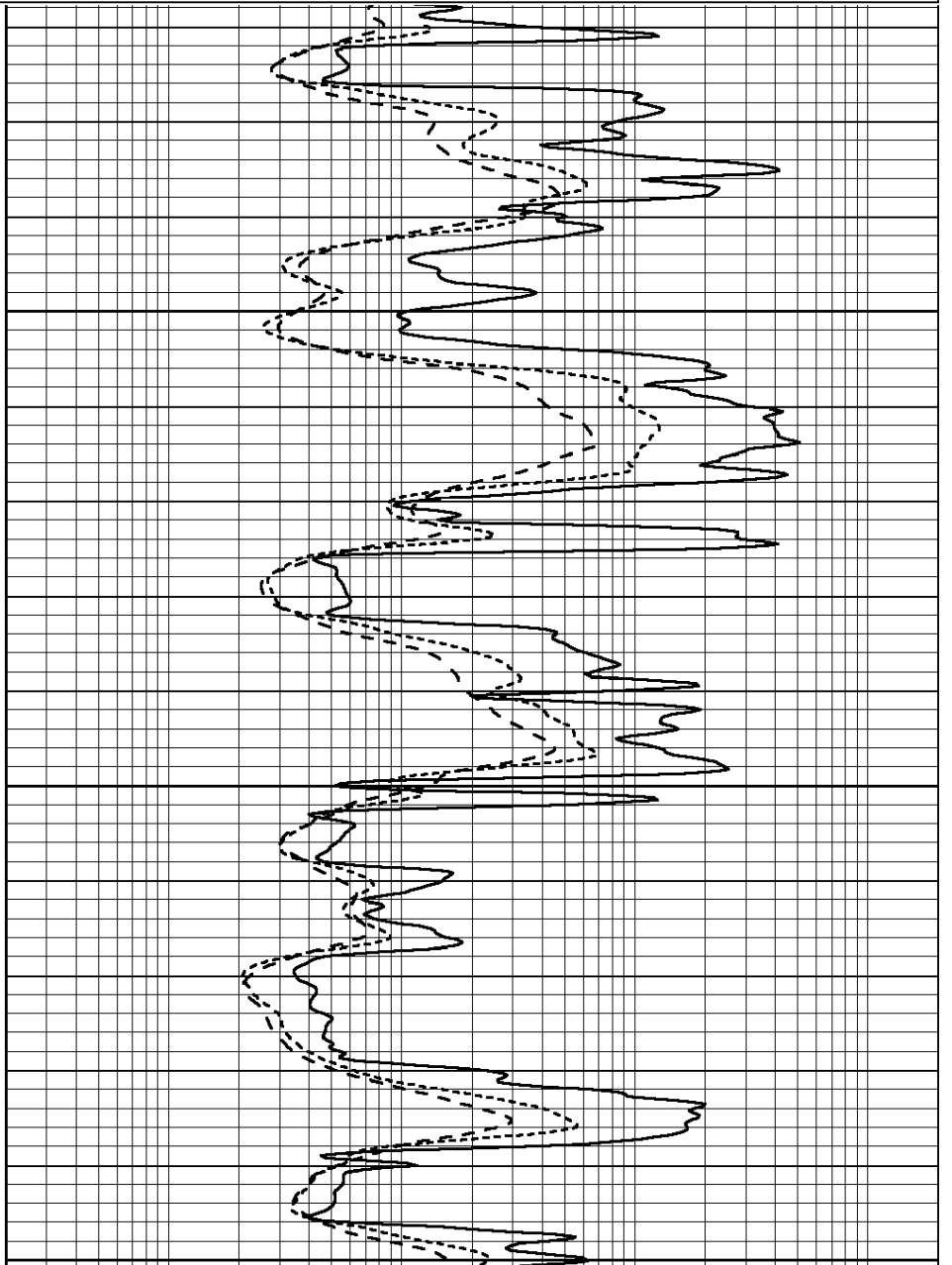
0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000

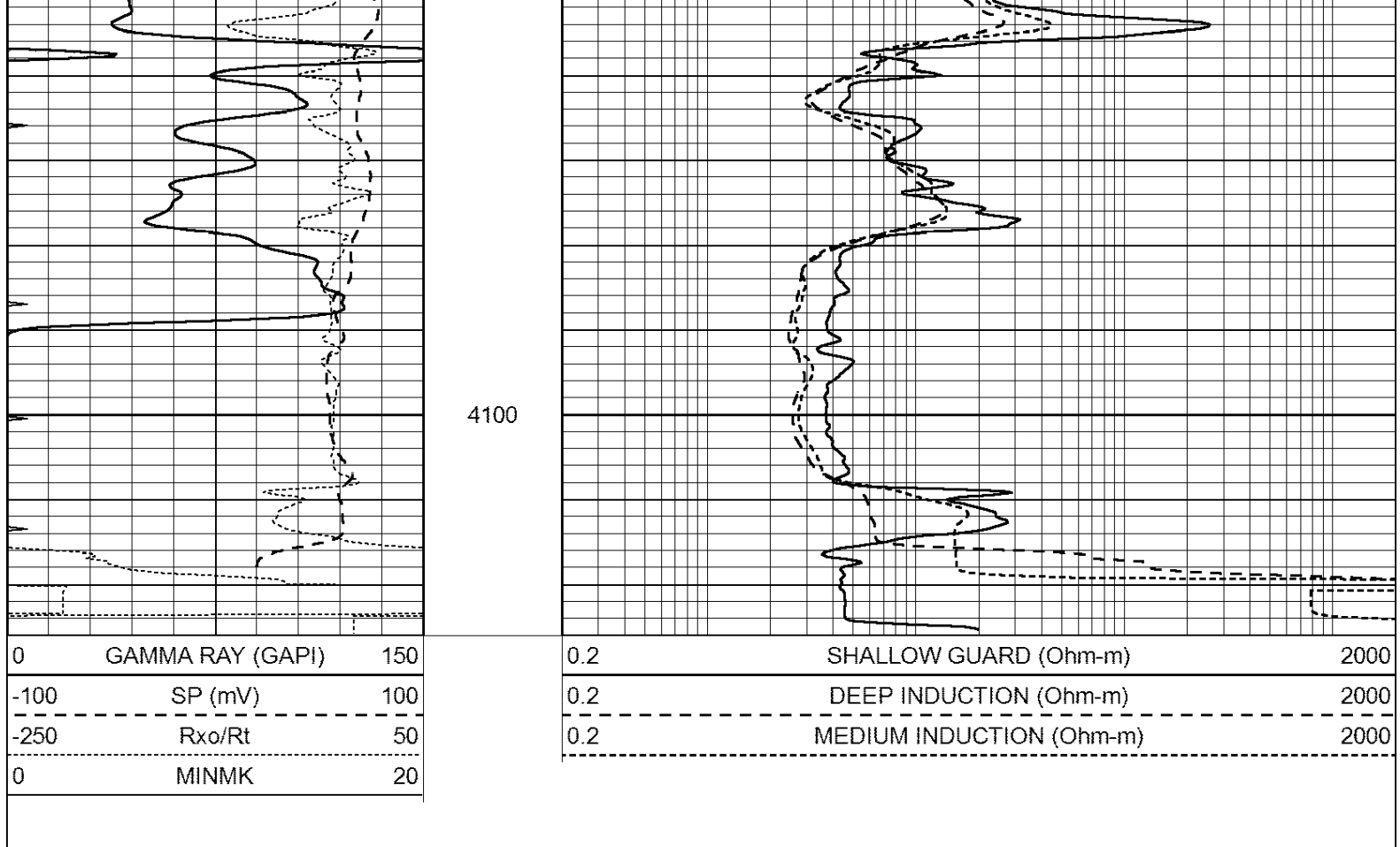


3950

4000

4050





### Calibration Report

Database File: 24068ddn.db  
 Dataset Pathname: pass2.1  
 Dataset Creation: Tue Jul 29 00:19:57 2014 by Calc Open-Cased 090629

### Dual Induction Calibration Report

Serial-Model: PROBE8-DILG  
 Surface Cal Performed: Sun Jul 27 18:19:21 2014  
 Downhole Cal Performed: Mon Jul 28 11:08:27 2008  
 After Survey Verification Performed: Mon Jul 28 11:08:27 2008

#### Surface Calibration

Loop:	Readings				References		Results	
	Air	Loop			Air	Loop	m	b
Deep	0.015	0.648	V	0.000	400.000	mmho/m	630.000	-6.000
Medium	0.029	0.796	V	0.000	464.000	mmho/m	590.000	-16.000
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.017	0.657	V	0.000	400.000	mmho/m	625.153	-10.619
Medium	0.016	0.757	V	0.000	464.000	mmho/m	625.992	-9.739

#### Downhole Calibration

	Readings				References		Results	
	Zero	Cal			Zero	Cal	m'	b'
Deep	0.000	0.000	mmho/m	2.011	405.777	mmho/m	1.000	0.000
Medium	0.000	0.000	mmho/m	7.590	503.393	mmho/m	1.000	0.000
LL3		7.500	V		1500.000	Ohm-m		
		0.000	V		20.000	Ohm-m		
		-7.200	V		3800.000	mmho-m		

	After Survey Verification			Readings		Targets		Results	
		Zero	Cal		Zero	Cal		m'	b'
Deep	0.000	0.000	mmho/m	0.000	0.000	mmho/m	0.000	0.000	
Medium	0.000	0.000	mmho/m	0.000	0.000	mmho/m	0.000	0.000	
LL3		1.000	Ohm-m		1.000	Ohm-m			
		0.000	Ohm-m		0.000	Ohm-m			
		1.000	mmho-m		1.000	mmho-m			

**Compensated Density Calibration Report**

Serial-Model:	GEAR3-GEARHART
Source / Verifier:	143 / 143
Master Calibration Performed:	Fri Jan 04 15:48:16 2013
Before Survey Verification Performed:	
After Survey Verification Performed:	

**Master Calibration**

	Density		Far Detector	Near Detector	
Magnesium	1.710	g/cc	935.36	501.55	cps
Aluminum	2.580	g/cc	209.32	357.01	cps
Spine Angle = 77.21			Density/Spine Ratio = 0.567		
	Size		Reading		
Small Ring	8.00	in	4.29	V	
Large Ring	14.00	in	6.24	V	

**Before Survey Verification**

Target	Measured
g/cc	g/cc
g/cc	g/cc
g/cc	g/cc

**After Survey Verification**

Target	Measured
g/cc	g/cc
g/cc	g/cc
g/cc	g/cc

**Compensated Neutron Calibration Report**

Serial Number:	6l
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

**PRE-SURVEY VERIFICATION**

	Detector	Readings	Measured	Target
1)	Short Space	cps		
	Long Space	cps	pu	pu
2)	Short Space	cps		

	Long Space	cps	pu
3)	Short Space Long Space	cps cps	pu

POST-SURVEY VERIFICATION				
	Detector	Readings	Measured	Target
1)	Short Space Long Space	cps cps	pu	pu
2)	Short Space Long Space	cps cps	pu	pu
3)	Short Space Long Space	cps cps	pu	pu

Gamma Ray Calibration Report

Serial Number:	GR6	
Tool Model:	OPEN	
Performed:	Sun Jul 27 22:13:15 2014	
Calibrator Value:	150.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	276.0	cps
Sensitivity:	0.7500	GAPI/cps