



DUAL
INDUCTION
LOG

Company RANEY OIL COMPANY, LLC.

Well HOUSE #1 C

Field CABIN VALLEY

County COWLEY State KANSAS

Location: API #: 15-035-24740-0000

1410' FNL & 725' FEL

SEC 31 TWP 33S RGE 6E

Permanent Datum GROUND LEVEL Elevation 1172
Log Measured From KELLY BUSHING 9' A.G.L
Drilling Measured From KELLY BUSHING

Other Services
CDL/CNL/PE
MEL/SON
Elevation
K.B. 1181
D.F. 1179
G.L. 1172

Date 7/18/21

Run Number TWO

Depth Driller 3248

Depth Logger 3246

Bottom Logged Interval 3244

Top Log Interval 00

Casing Driller 8 5/8" @ 342'

Casing Logger 342

Bit Size 7 7/8

Type Fluid in Hole CHEMICAL MUD

Density / Viscosity 9.3/58

pH / Fluid Loss 9.5/8.0

Source of Sample FLOWLINE

Rm @ Meas. Temp .90 @ 80F

Rmf @ Meas. Temp .67 @ 80F

Rmc @ Meas. Temp 1.08 @ 80F

Source of Rmf / Rmc MEASUREMENT

Rm @ BHT .65 @ 110F

Time Circulation Stopped 2 HOURS

Time Logger on Bottom ////

Maximum Recorded Temperature 110F

Equipment Number 3802

Location HAYS, KANSAS

Recorded By JASON CAPPELLUCCI

Witnessed By ROGER MARTIN

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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 ELI WIRELINE SERVICES, HAYS, KS. (785) 628-6395
DIRECTIONS
ARKANSAS CITY, - EAST TO GROUSE CREEK RD. - NORTH & EAST TO 236TH RD
WEST 3/4 MILES - NORTH INTO AT DOUBLE GATES

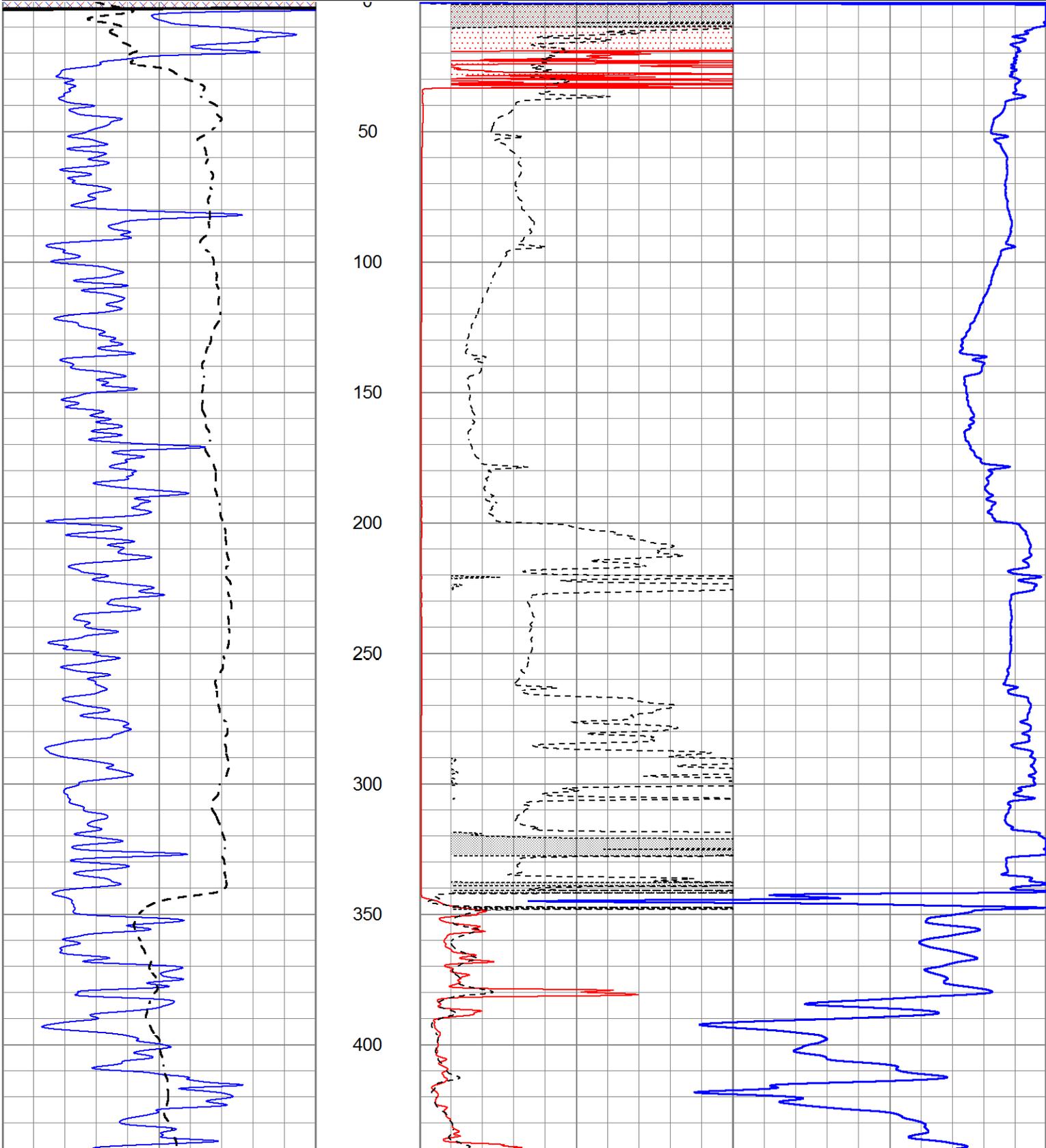


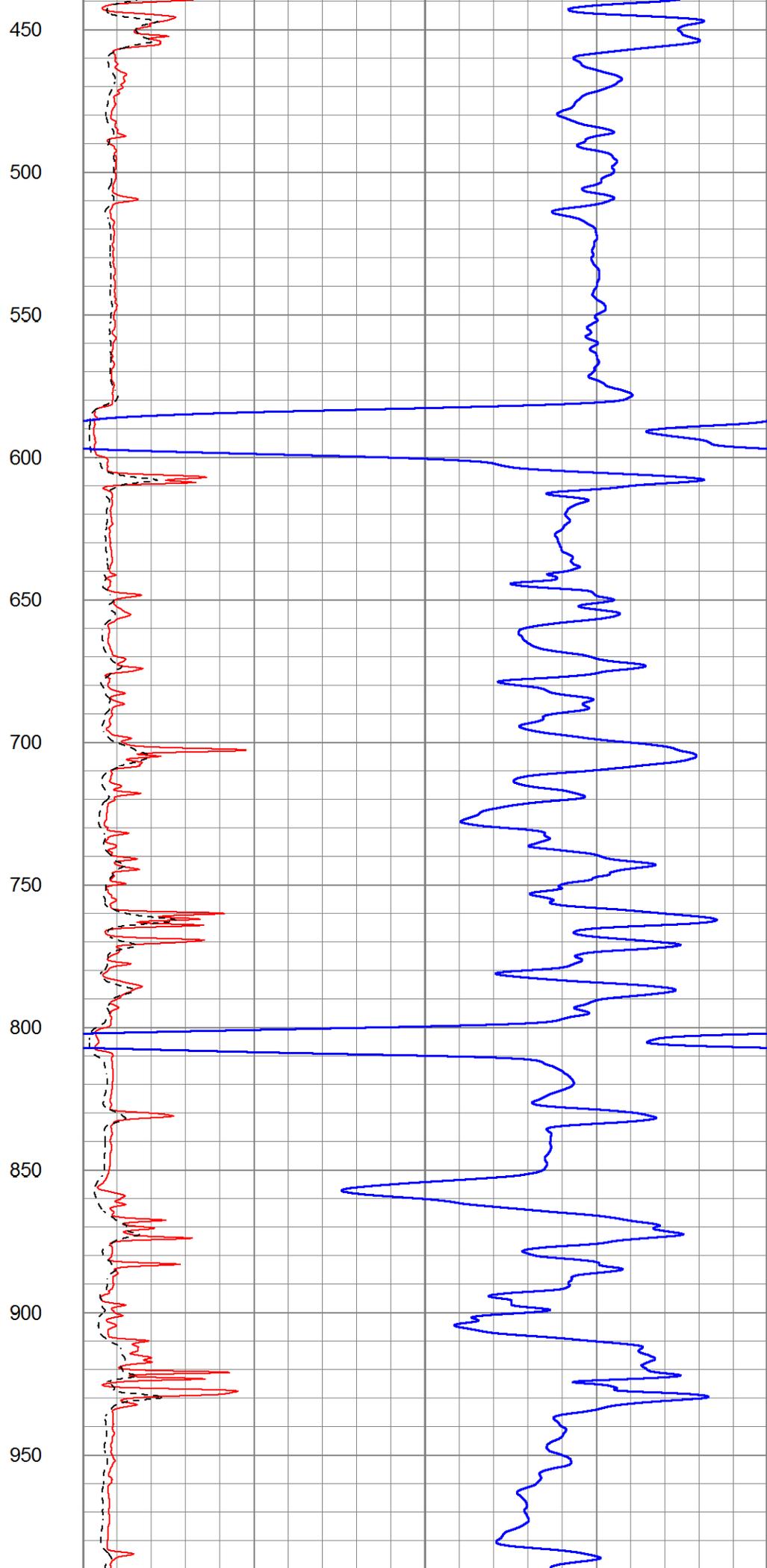
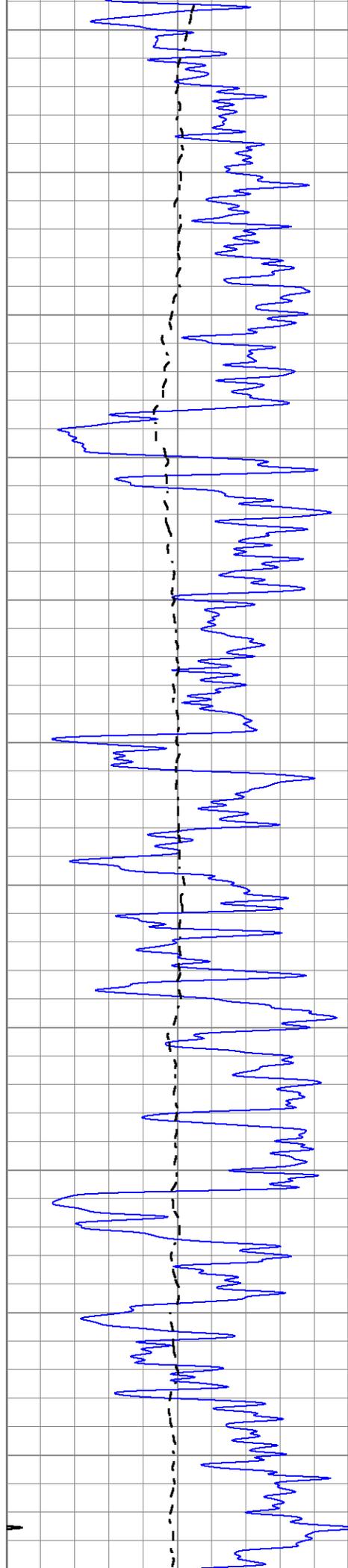
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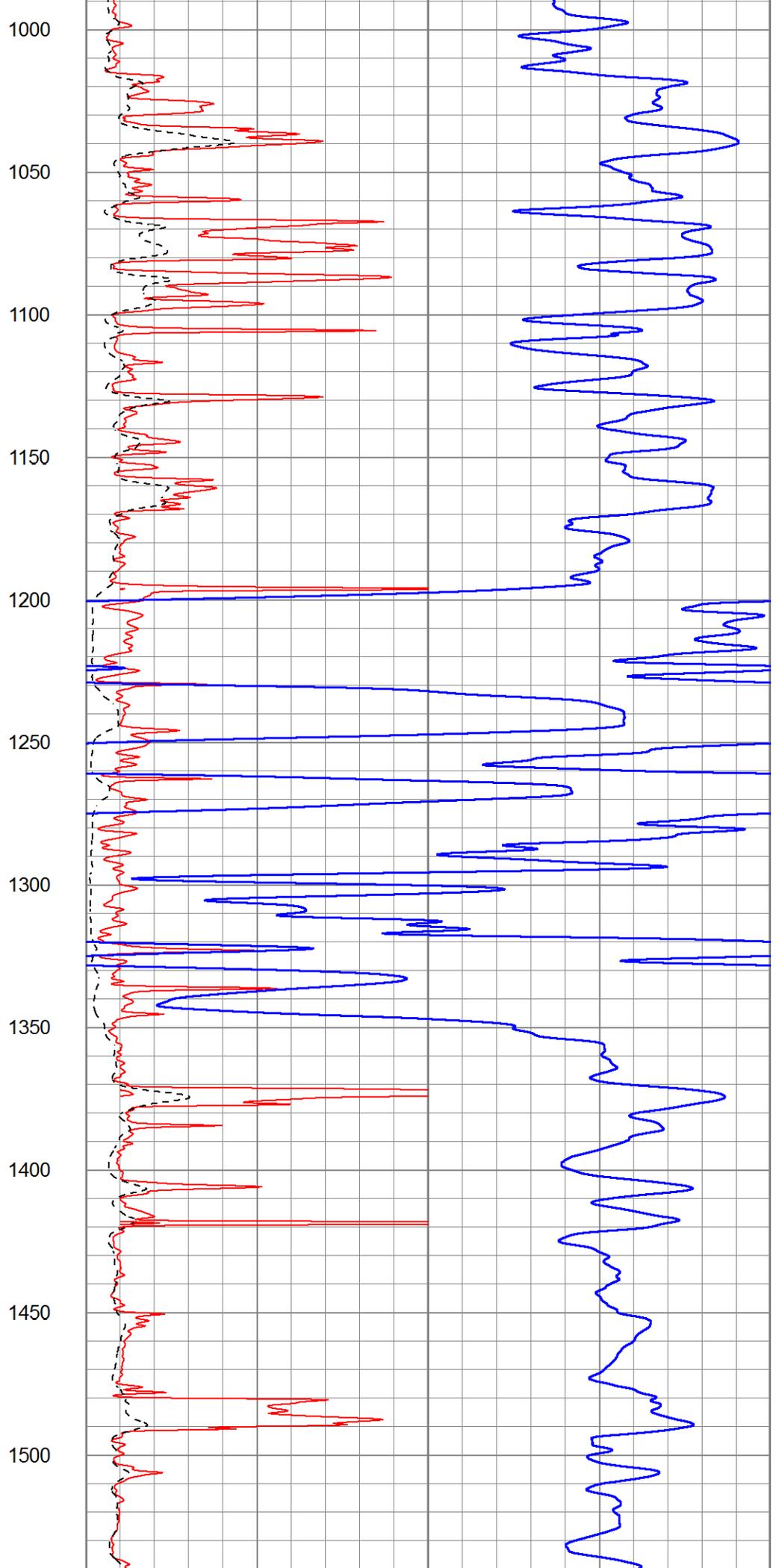
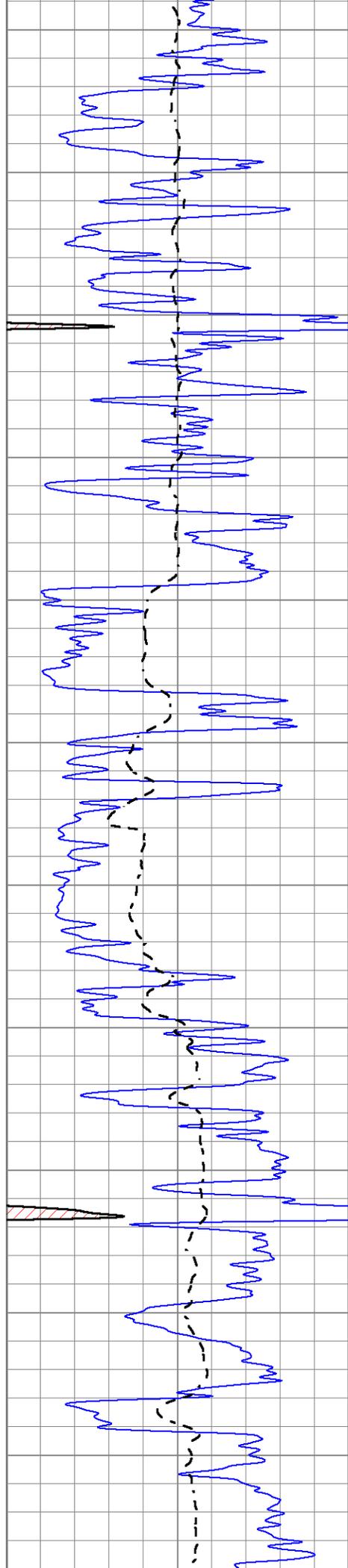
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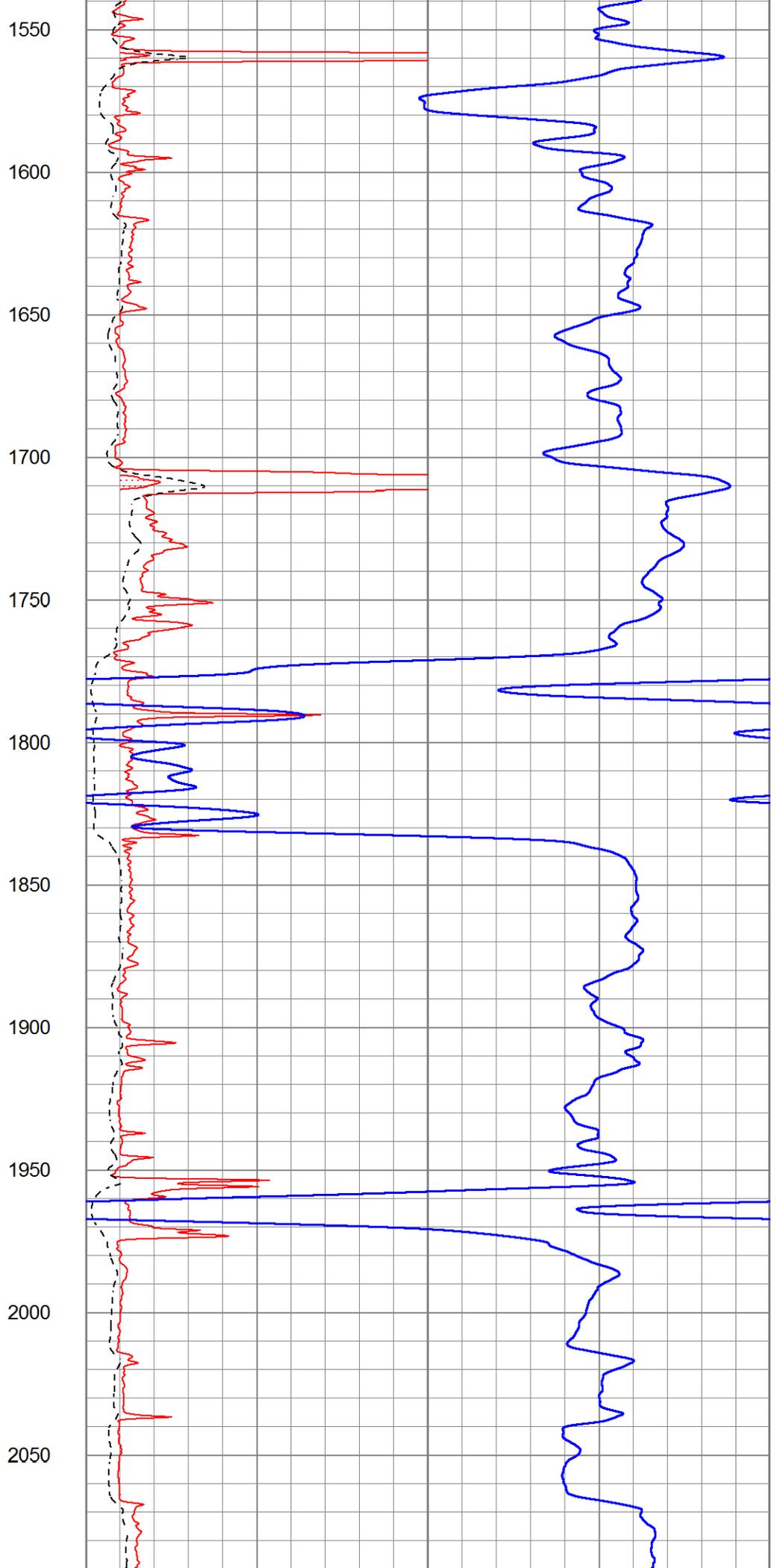
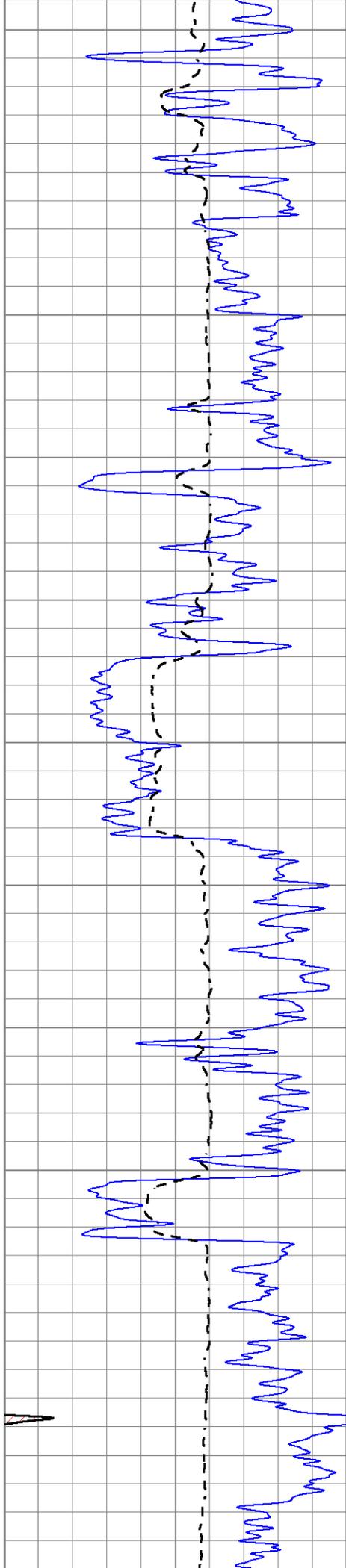
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 -100 SP (mV) 100

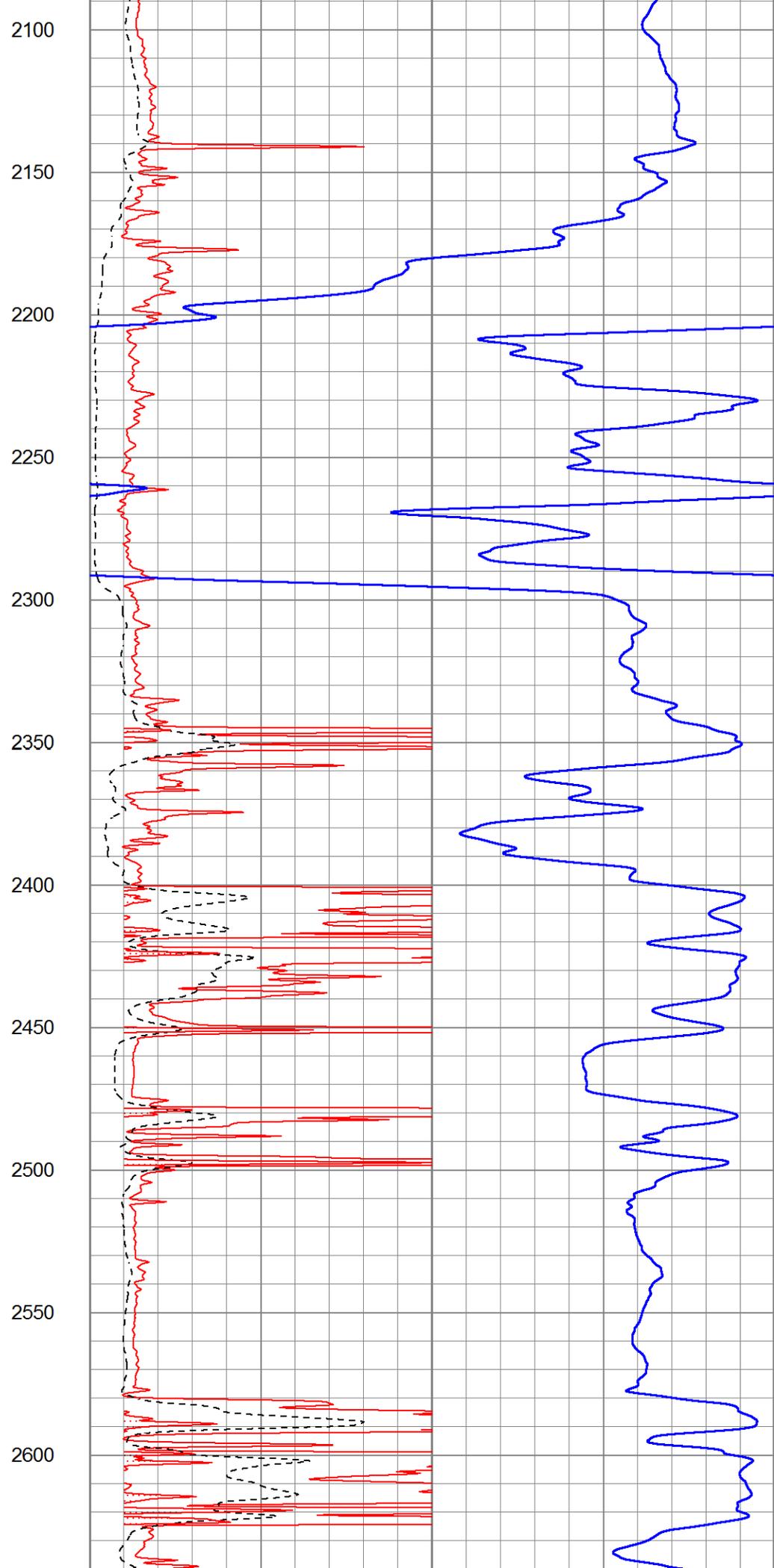
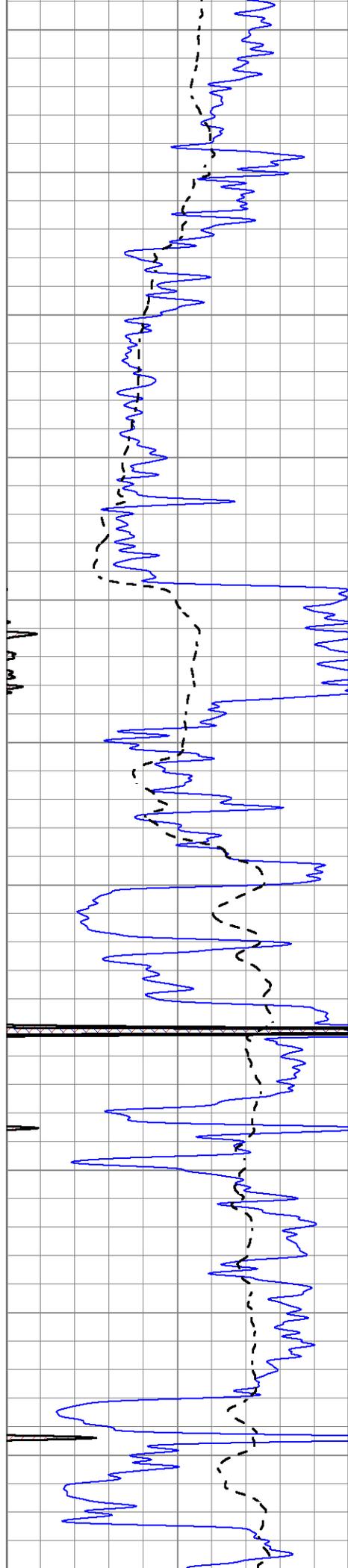
1000 CILD (mmho/m) 0
 0 RLL3 (Ohm-m) 50
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 50 RILD X10 (Ohm-m) 500
 50 RLL3 X10 (Ohm-m) 500

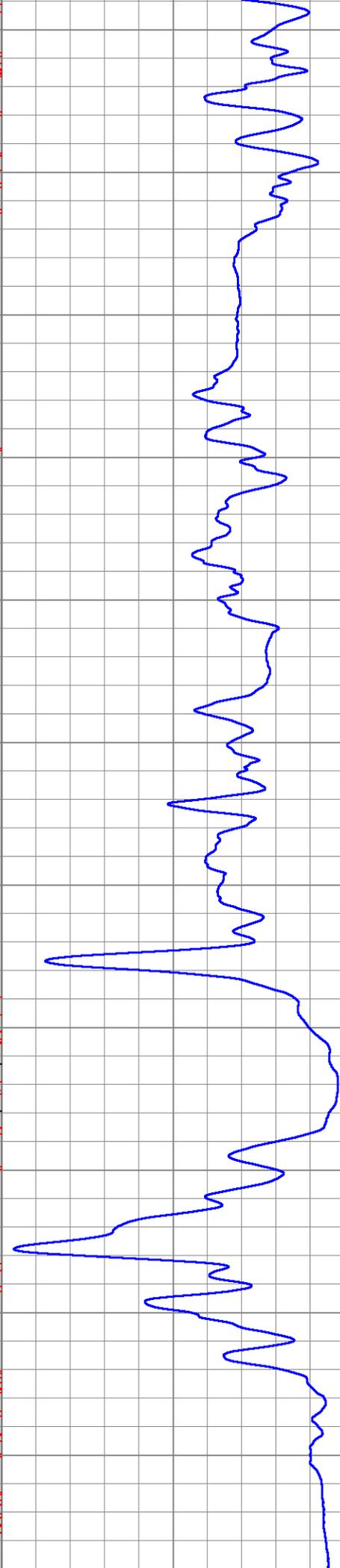
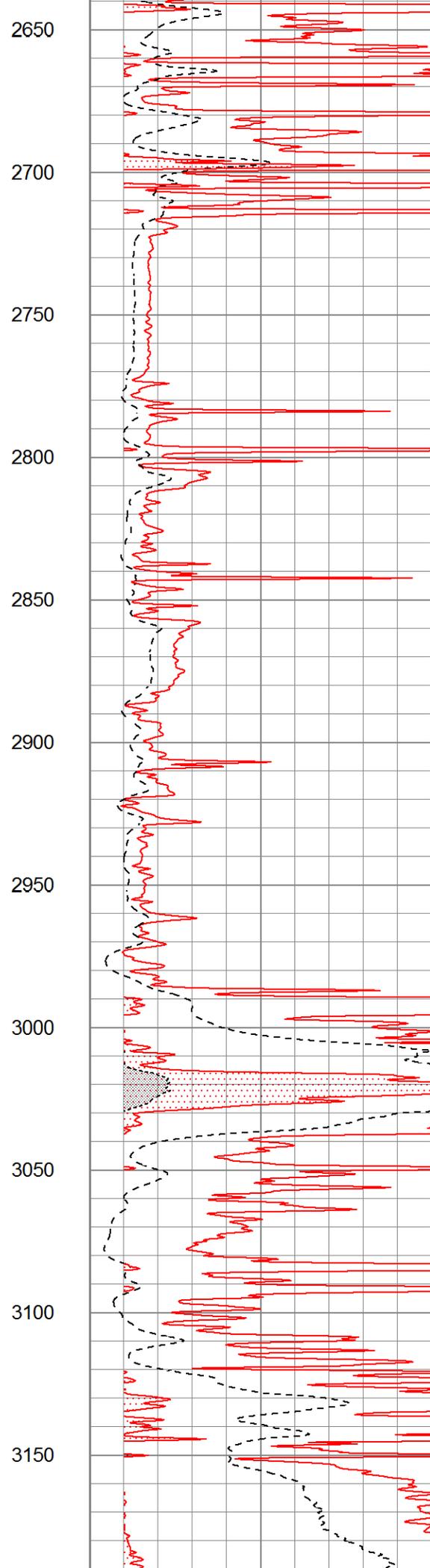
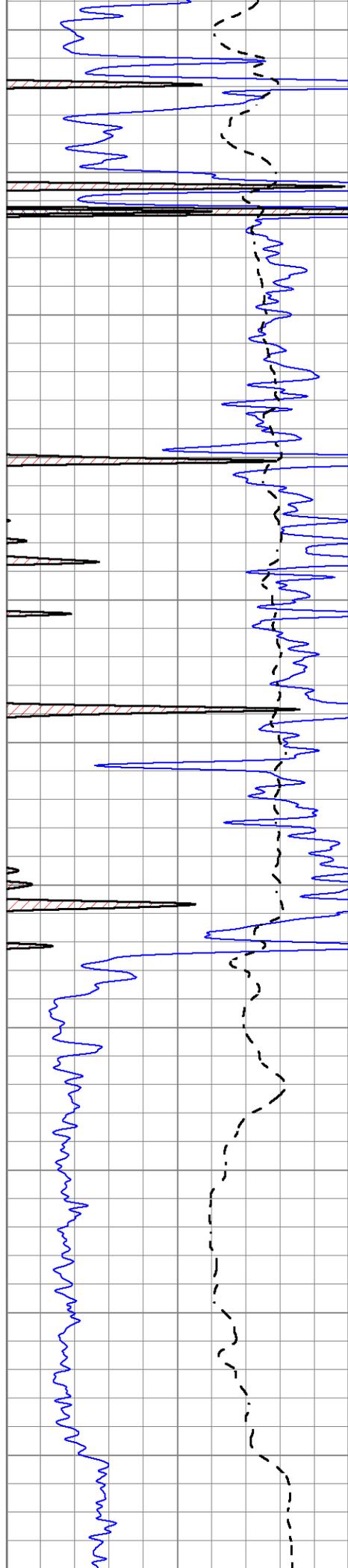


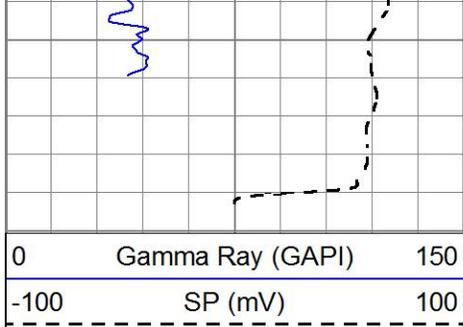






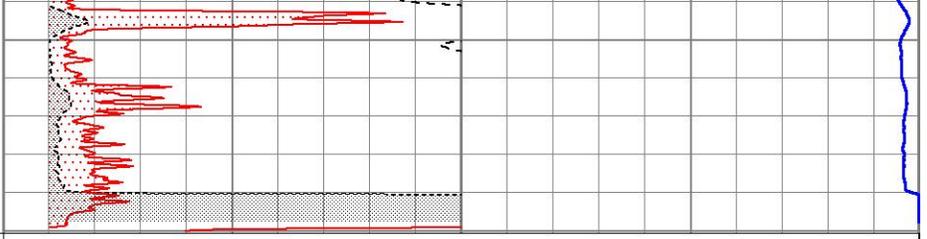






3200

3250



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

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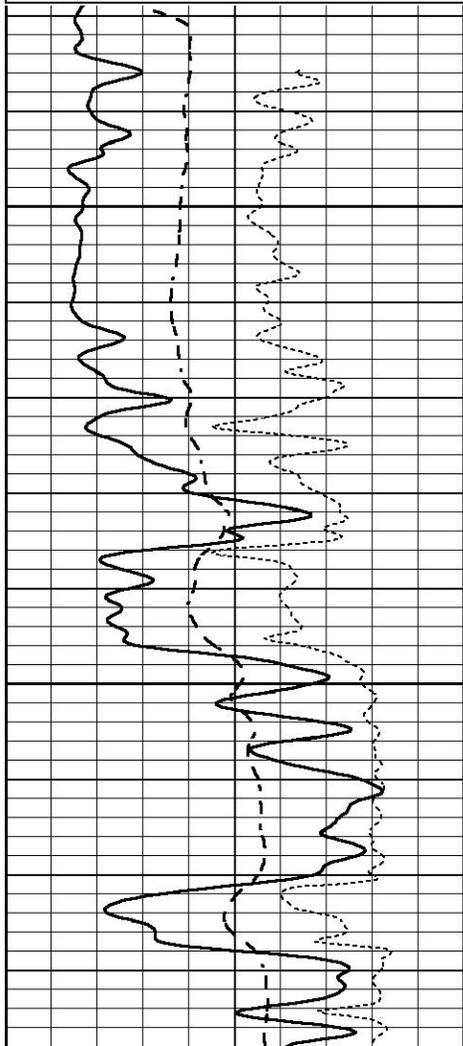


MAIN SECTION

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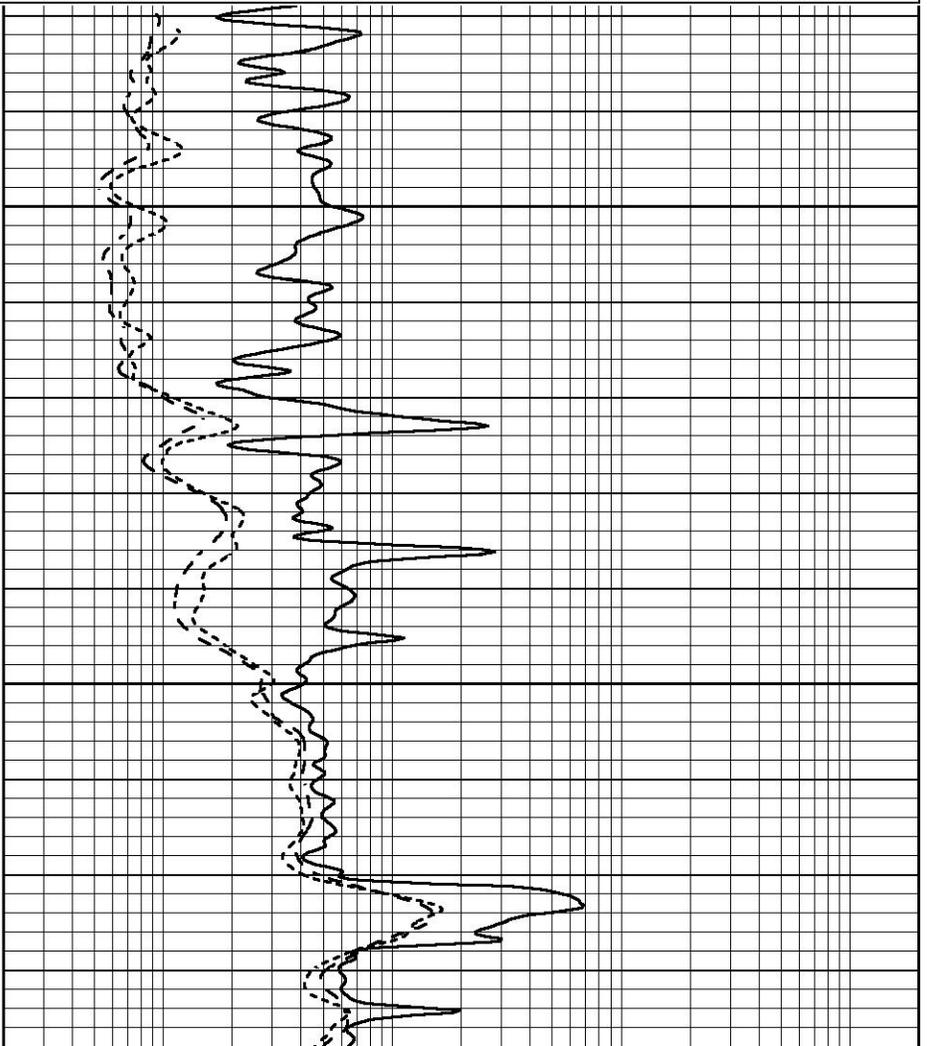
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-100	SP (mV)	100
-250	Rxo/Rt	50

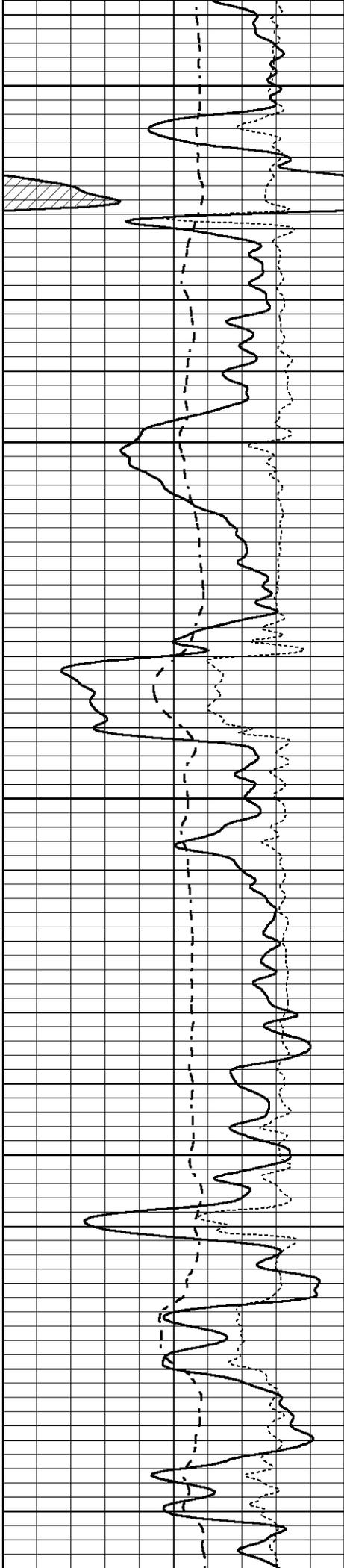
0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000



1300

1350





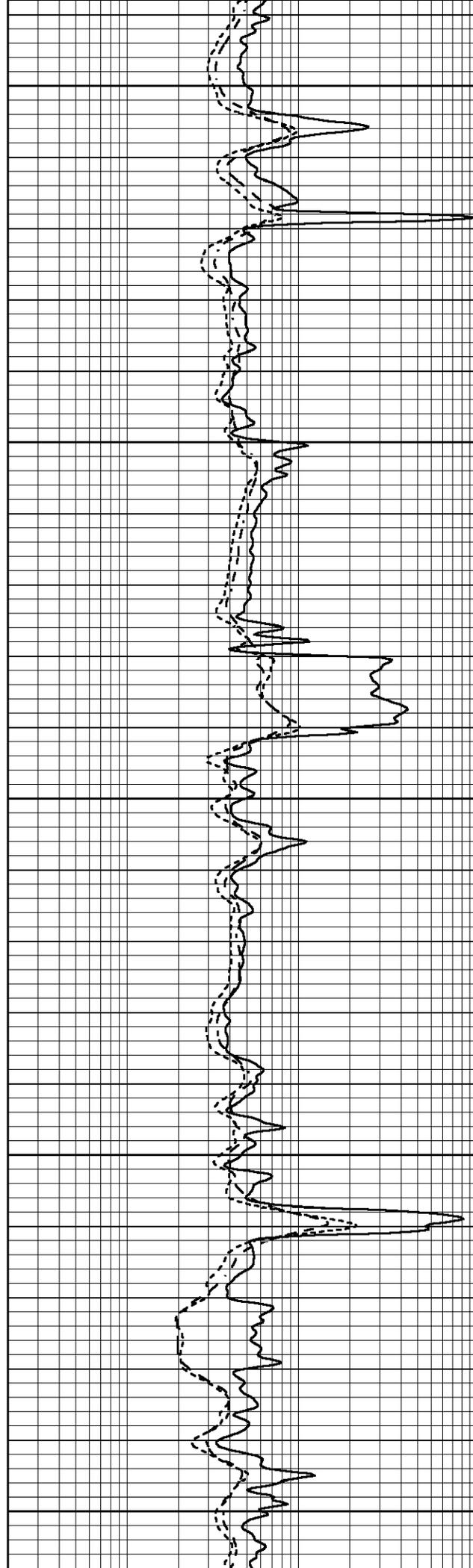
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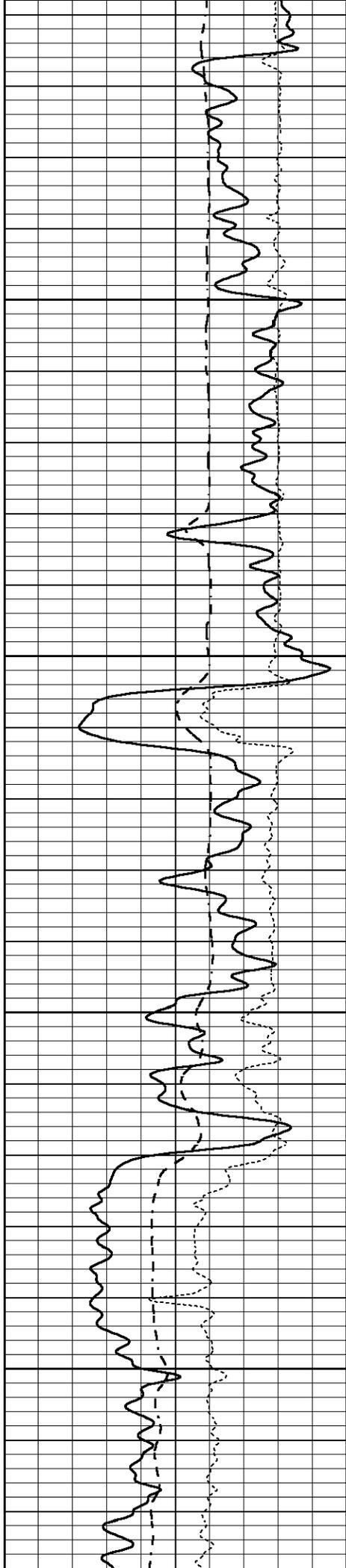
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1500

1550

1600



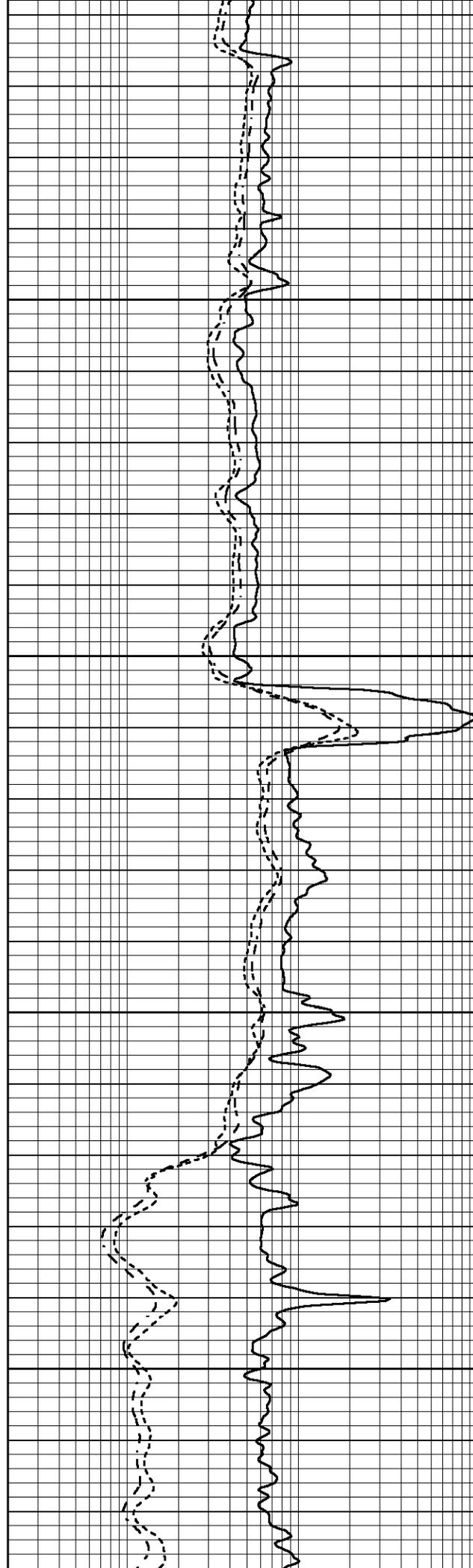


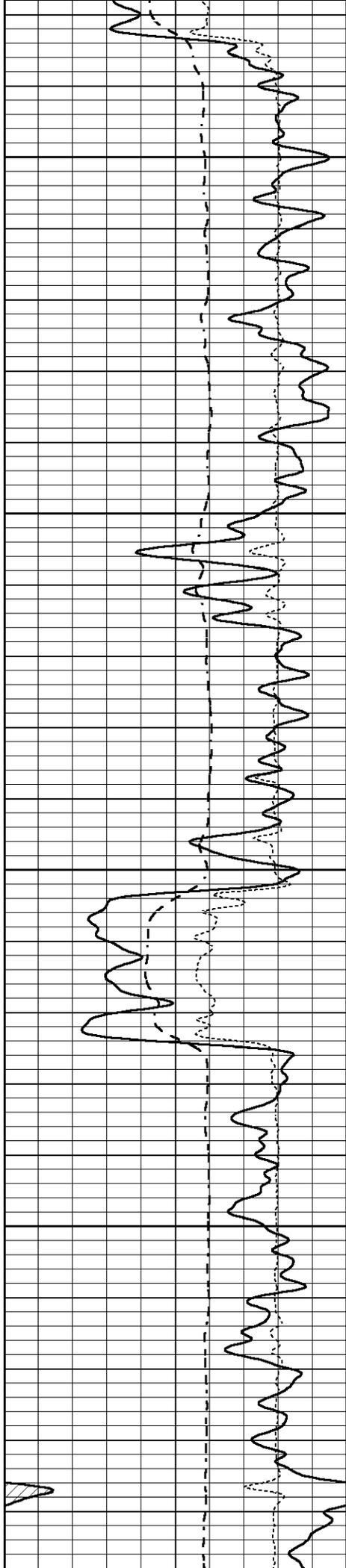
1650

1700

1750

1800



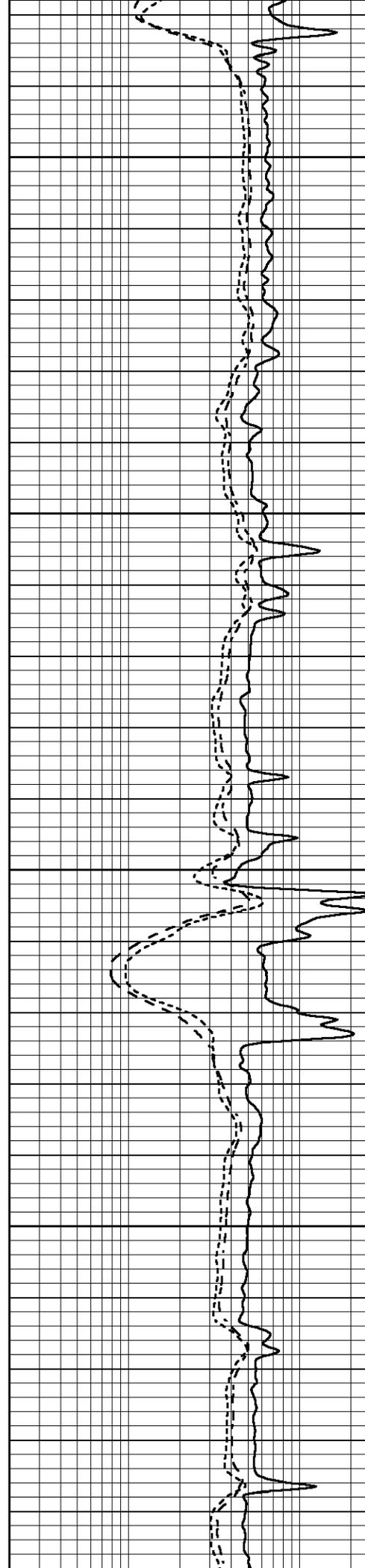


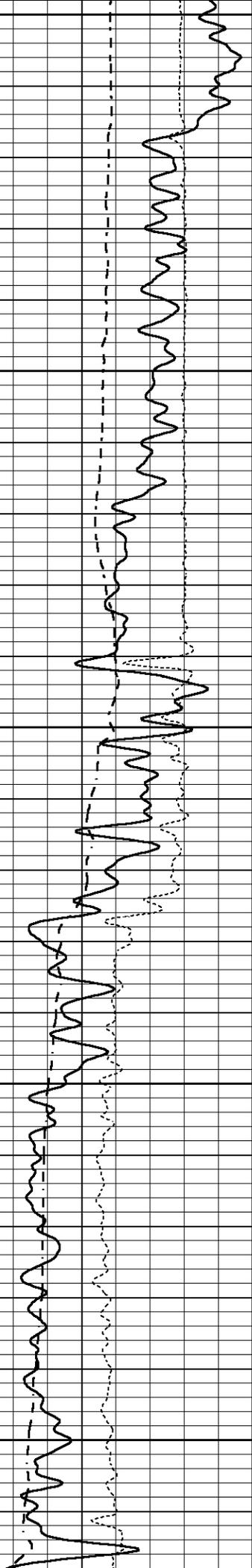
1850

1900

1950

2000





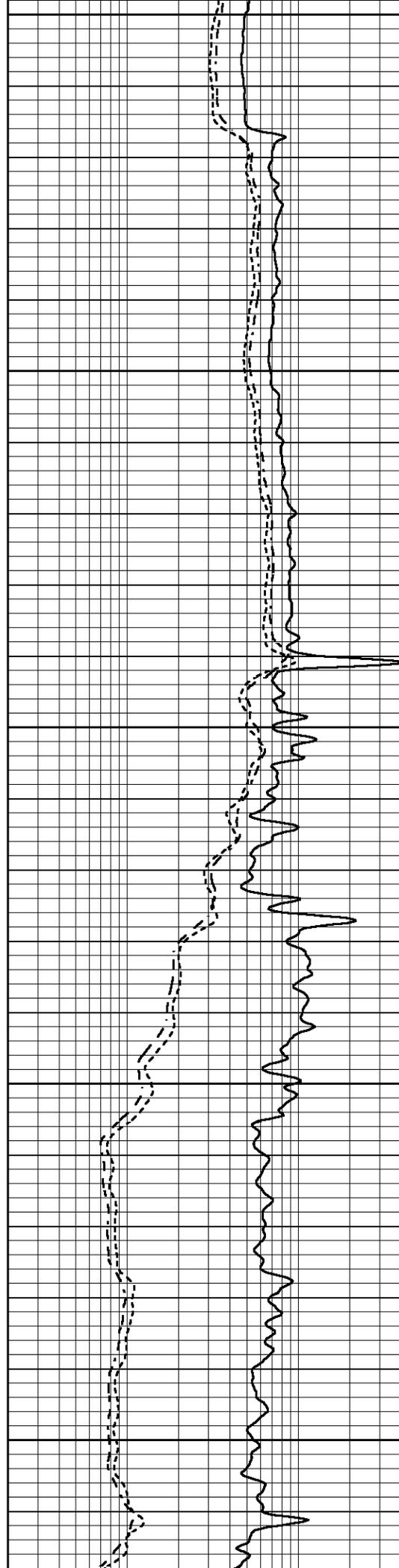
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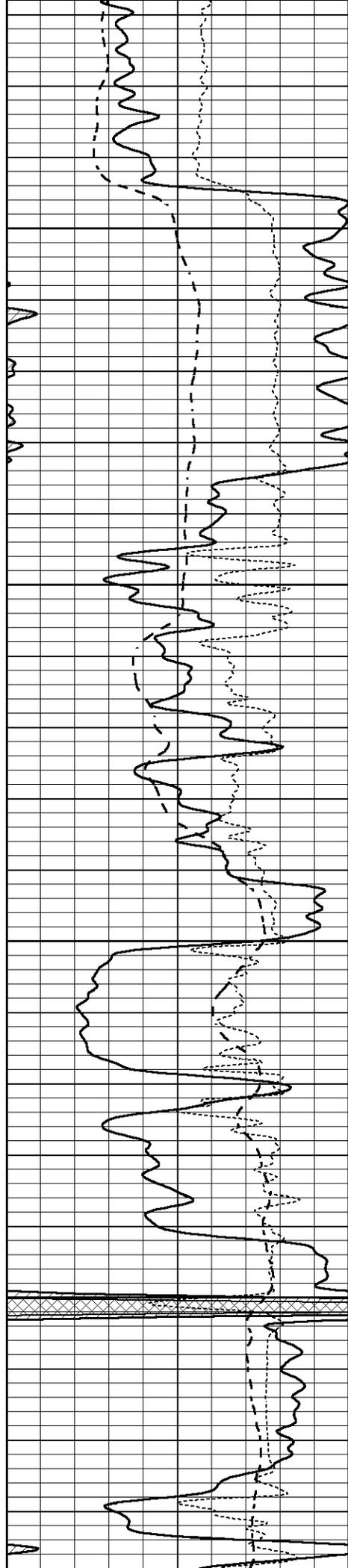
2100

2150

2200

2250



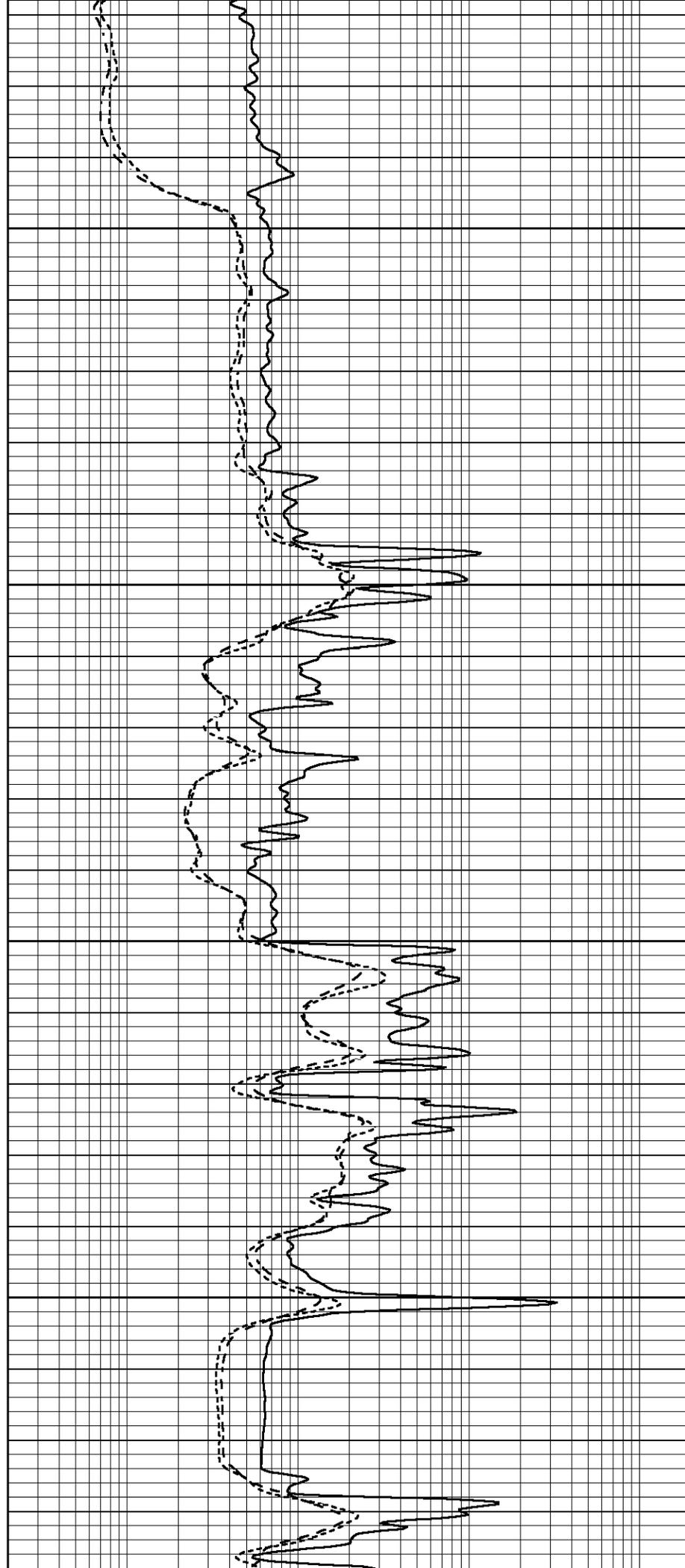


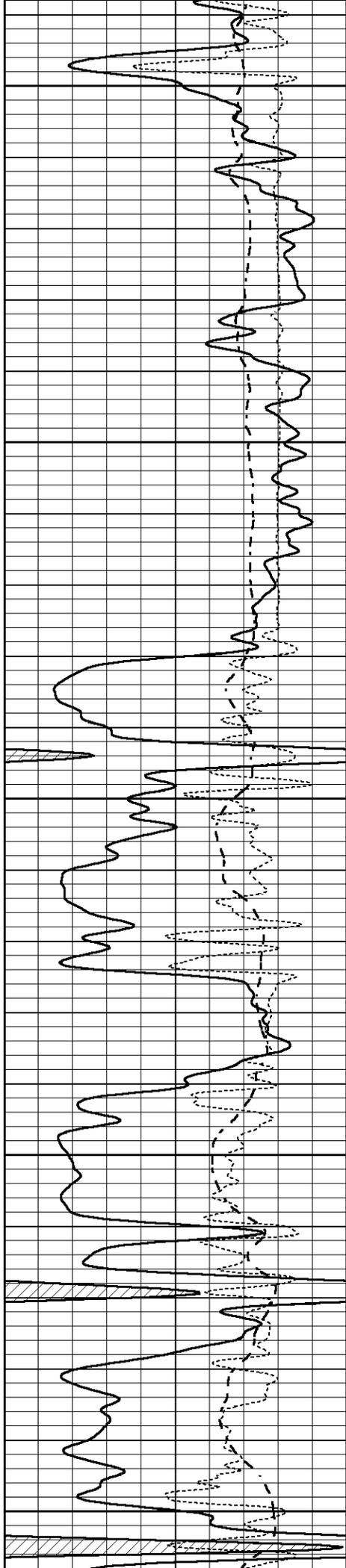
2300

2350

2400

2450





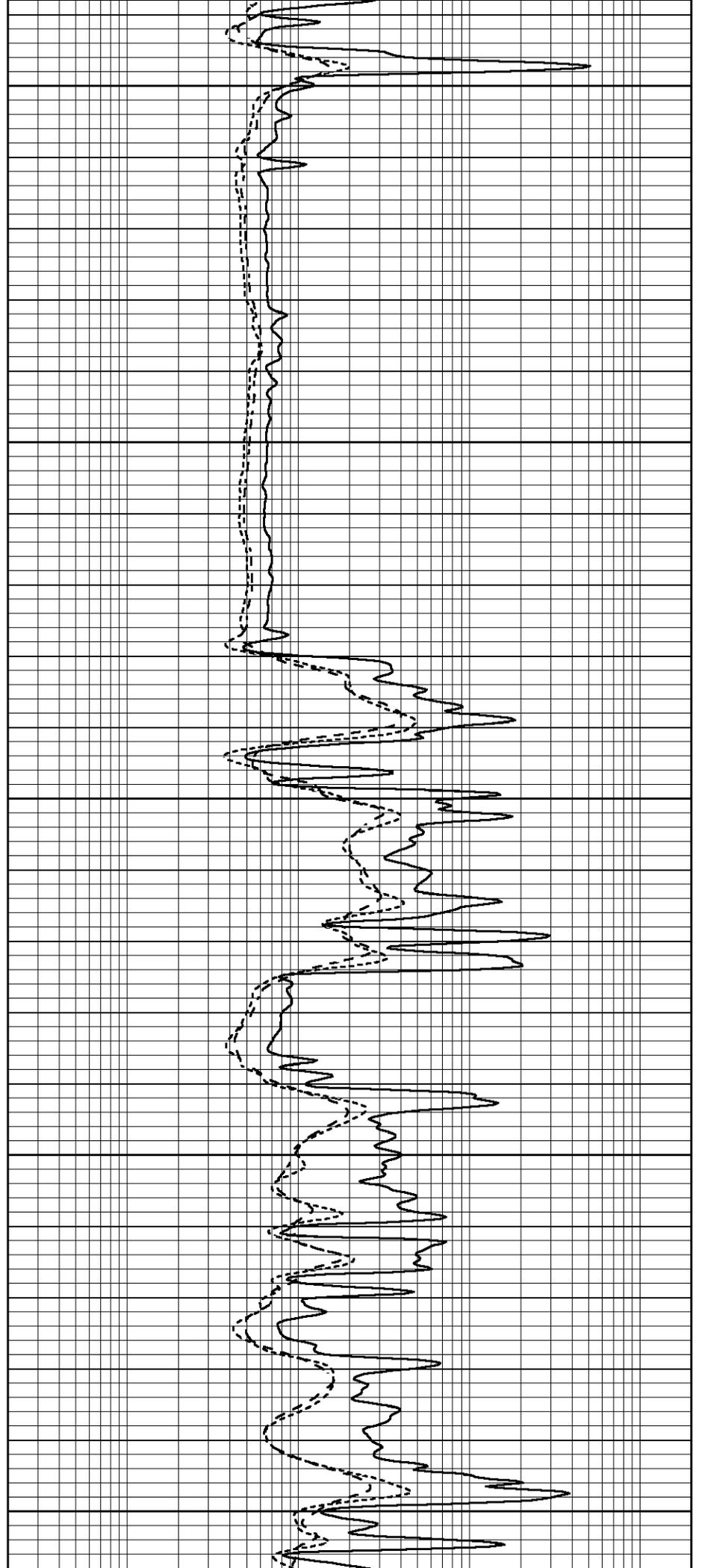
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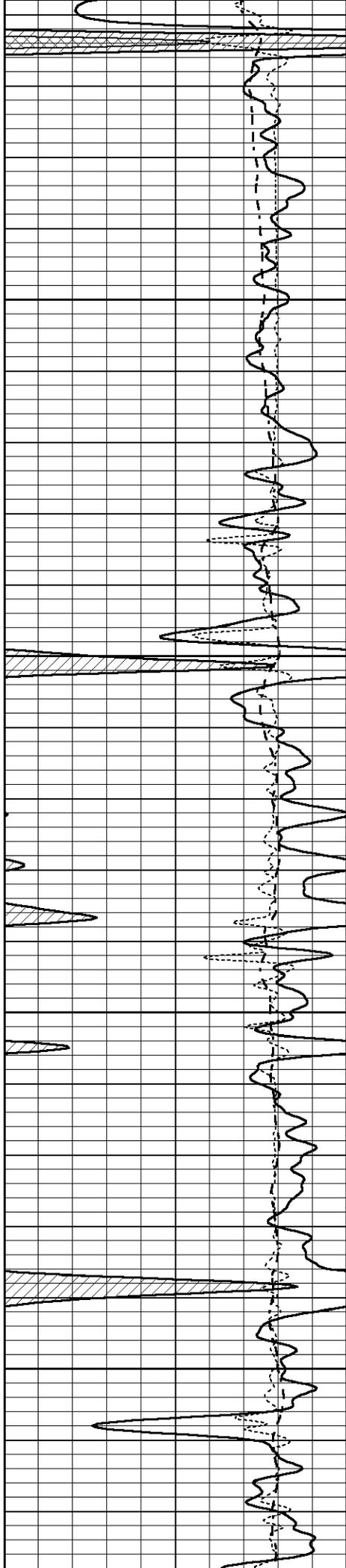
2550

2600

2650

2700



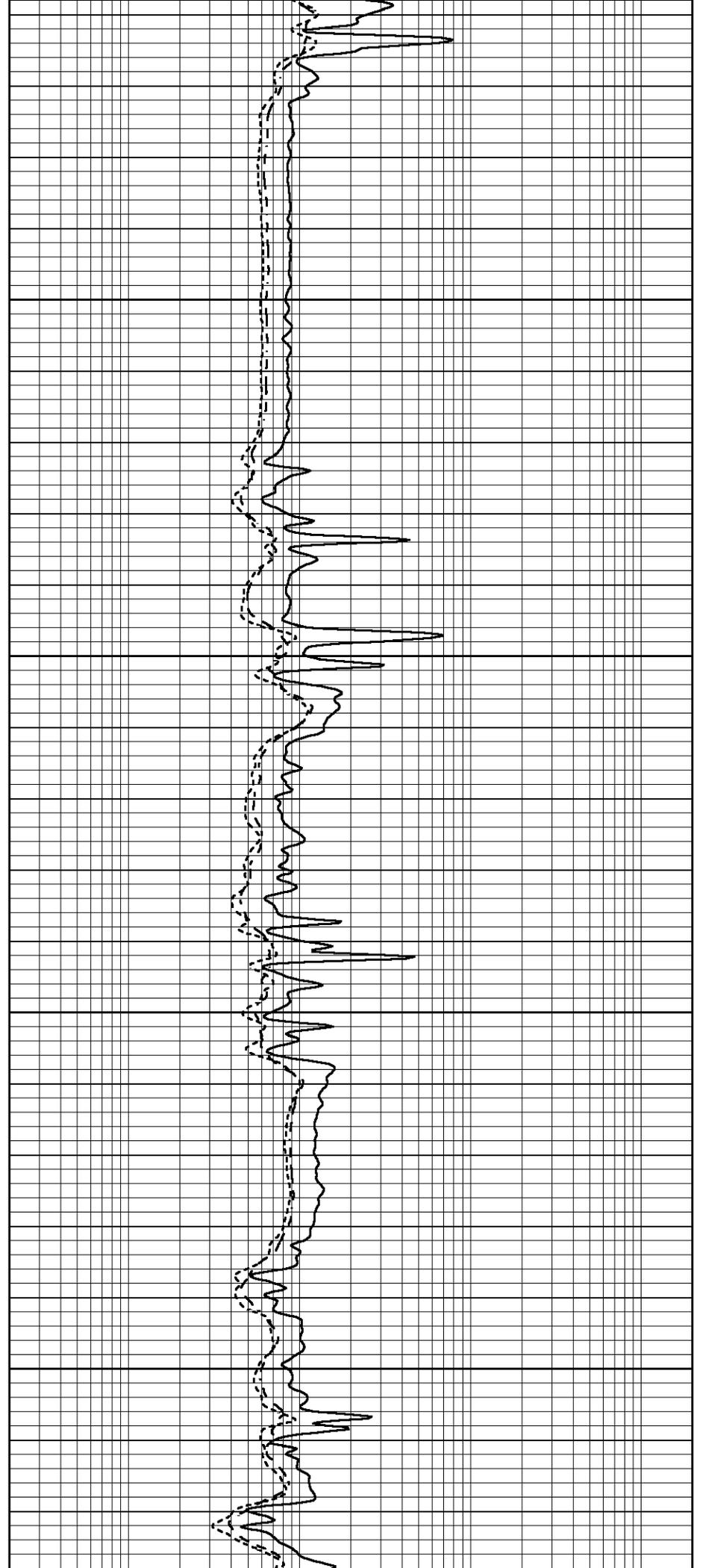


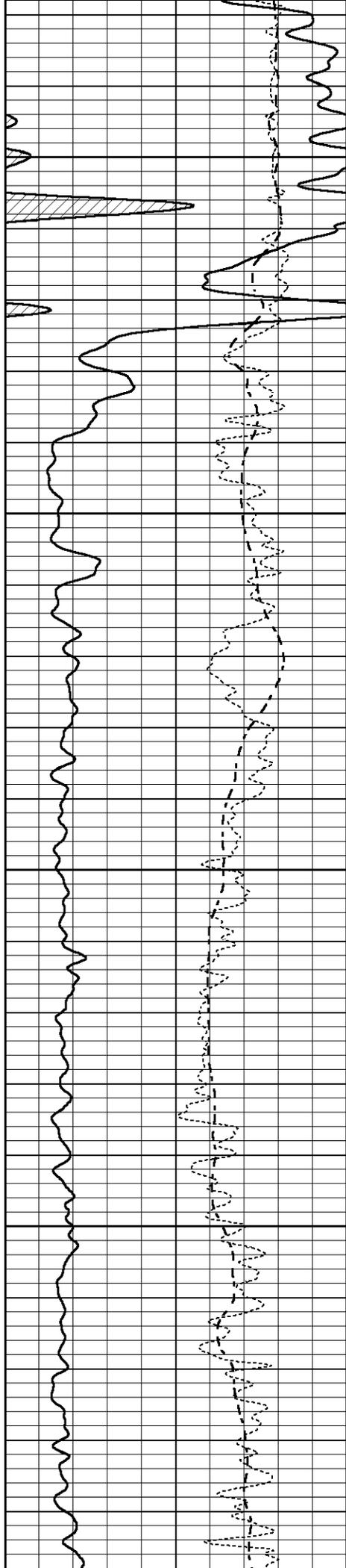
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2800

2850

2900



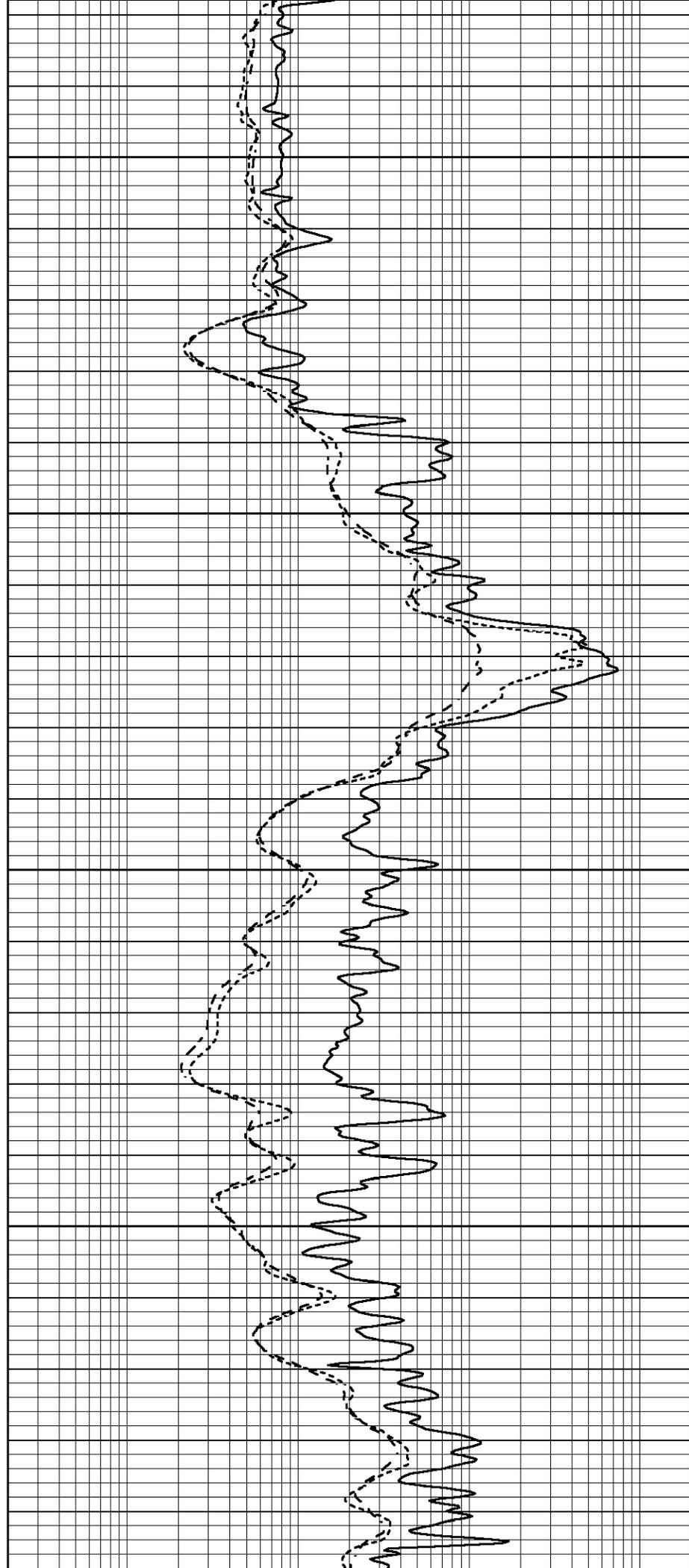


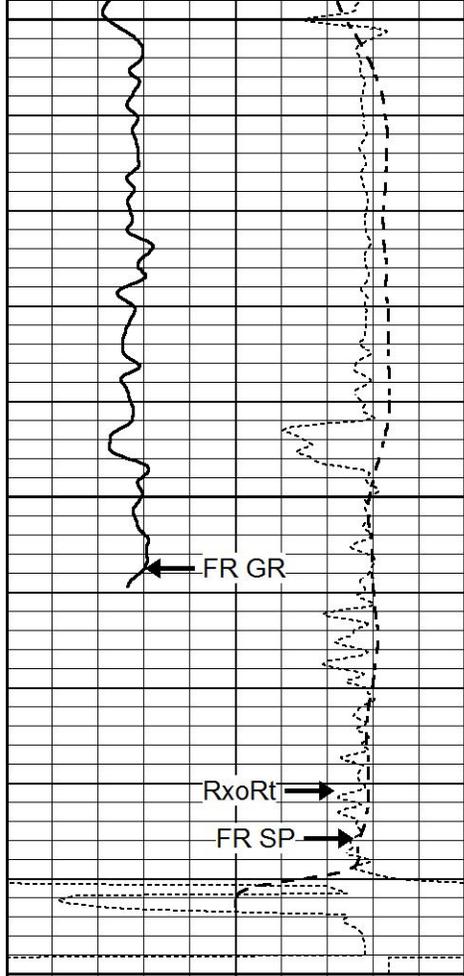
2950

3000

3050

3100





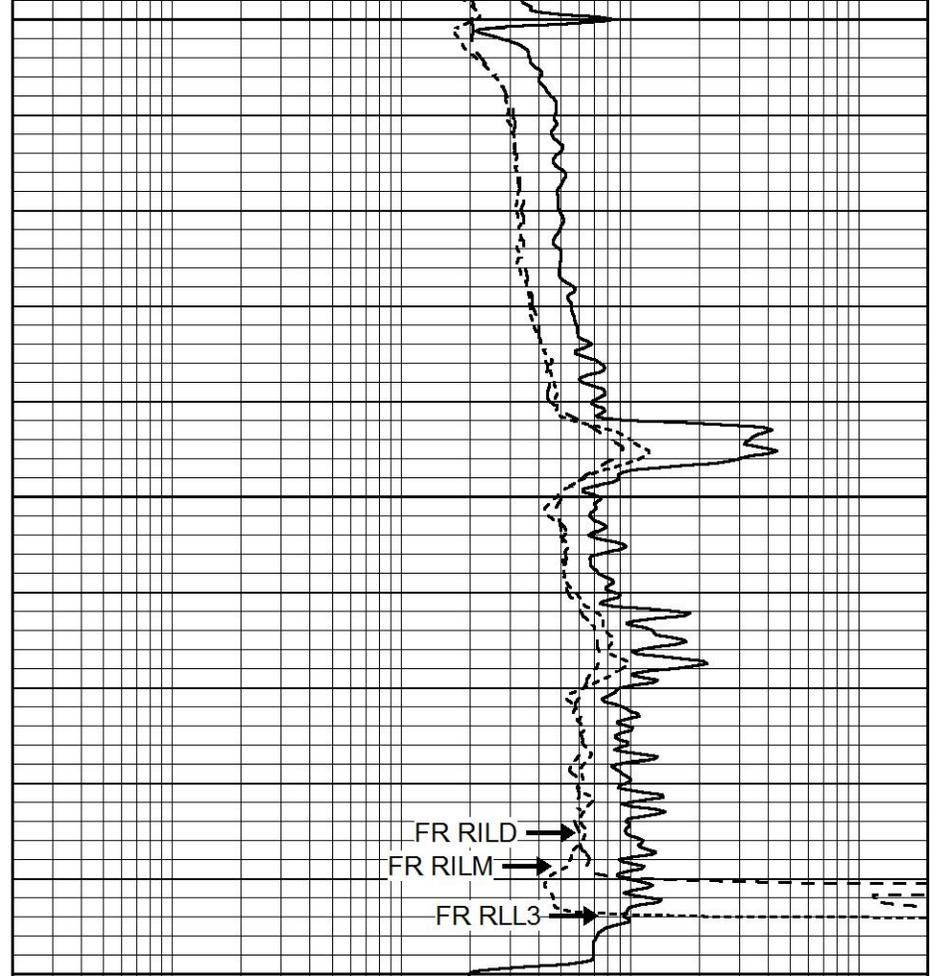
3150

3200

LTD 3246

3250

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



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

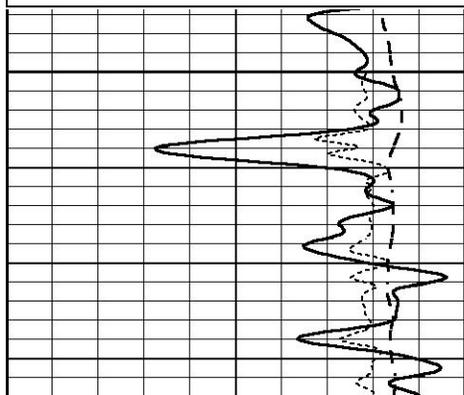


REPEAT SECTION

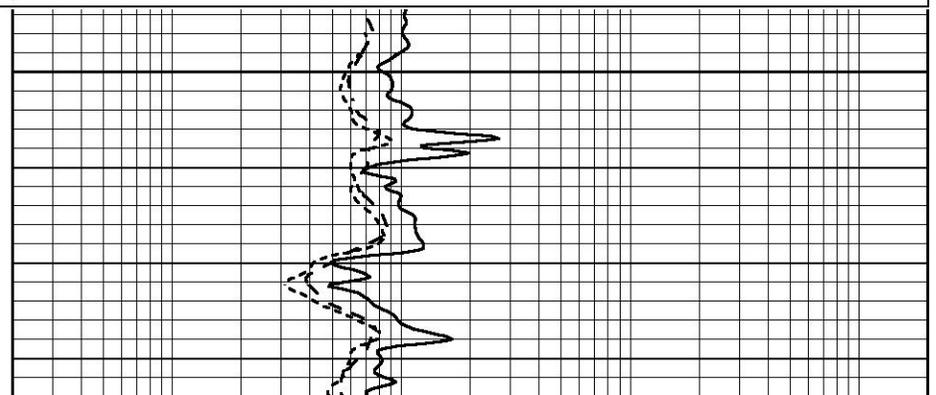
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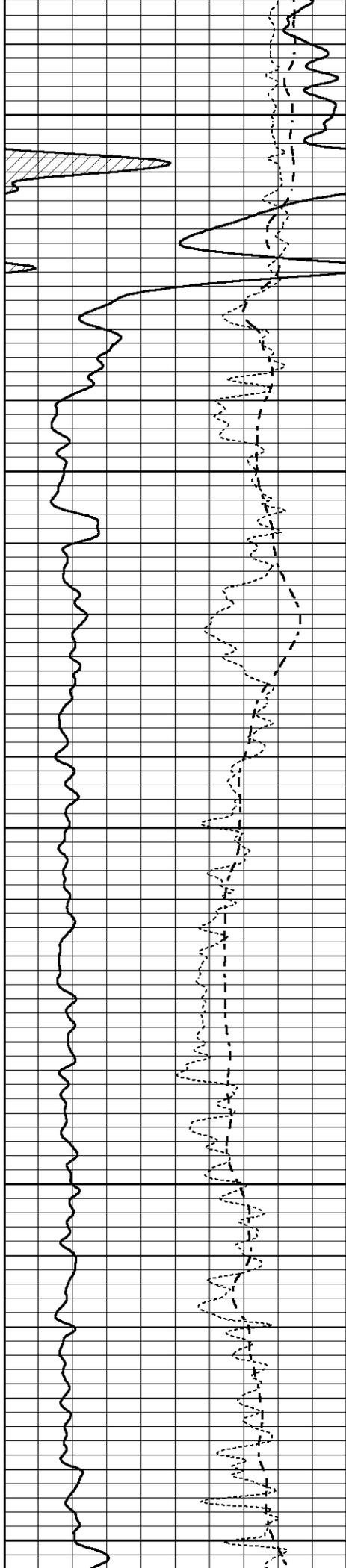
0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50

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



2900





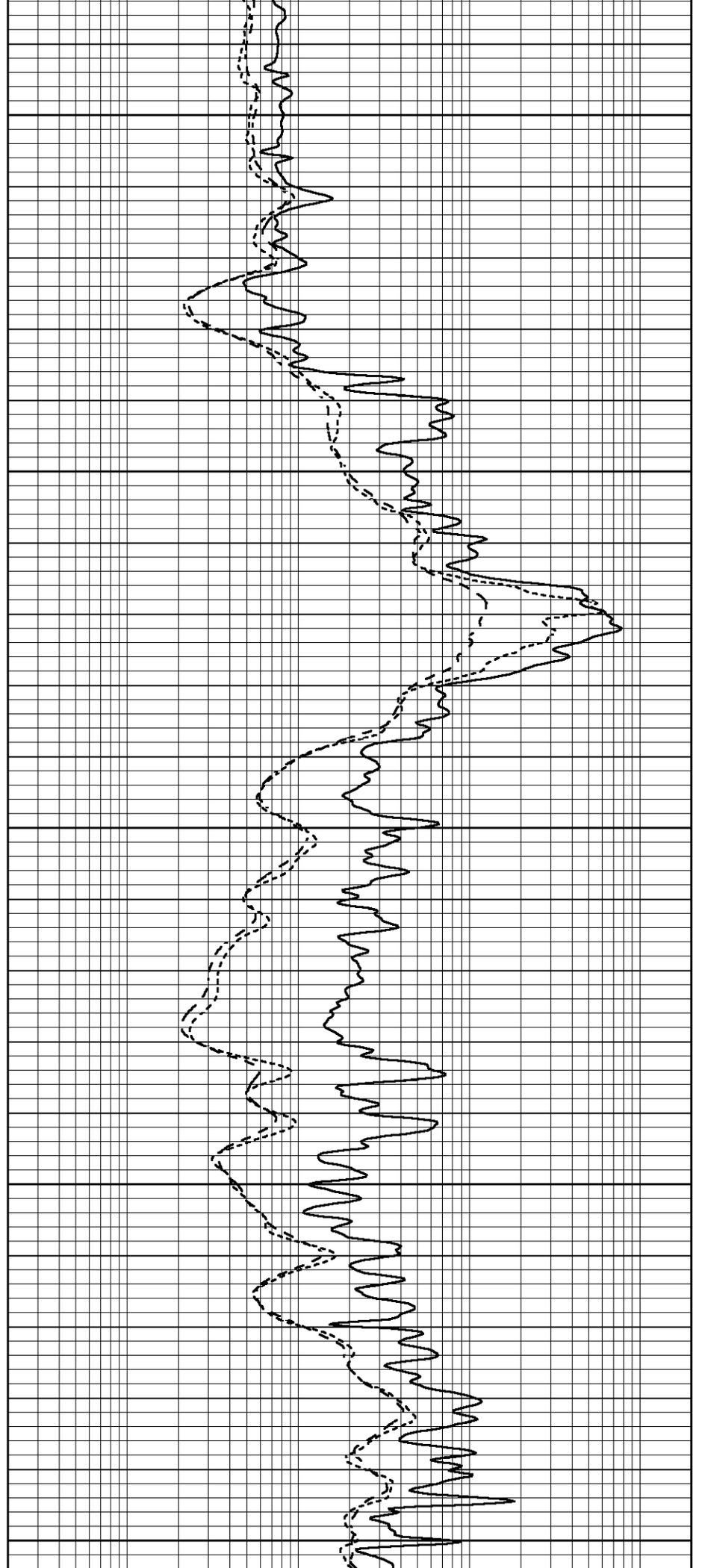
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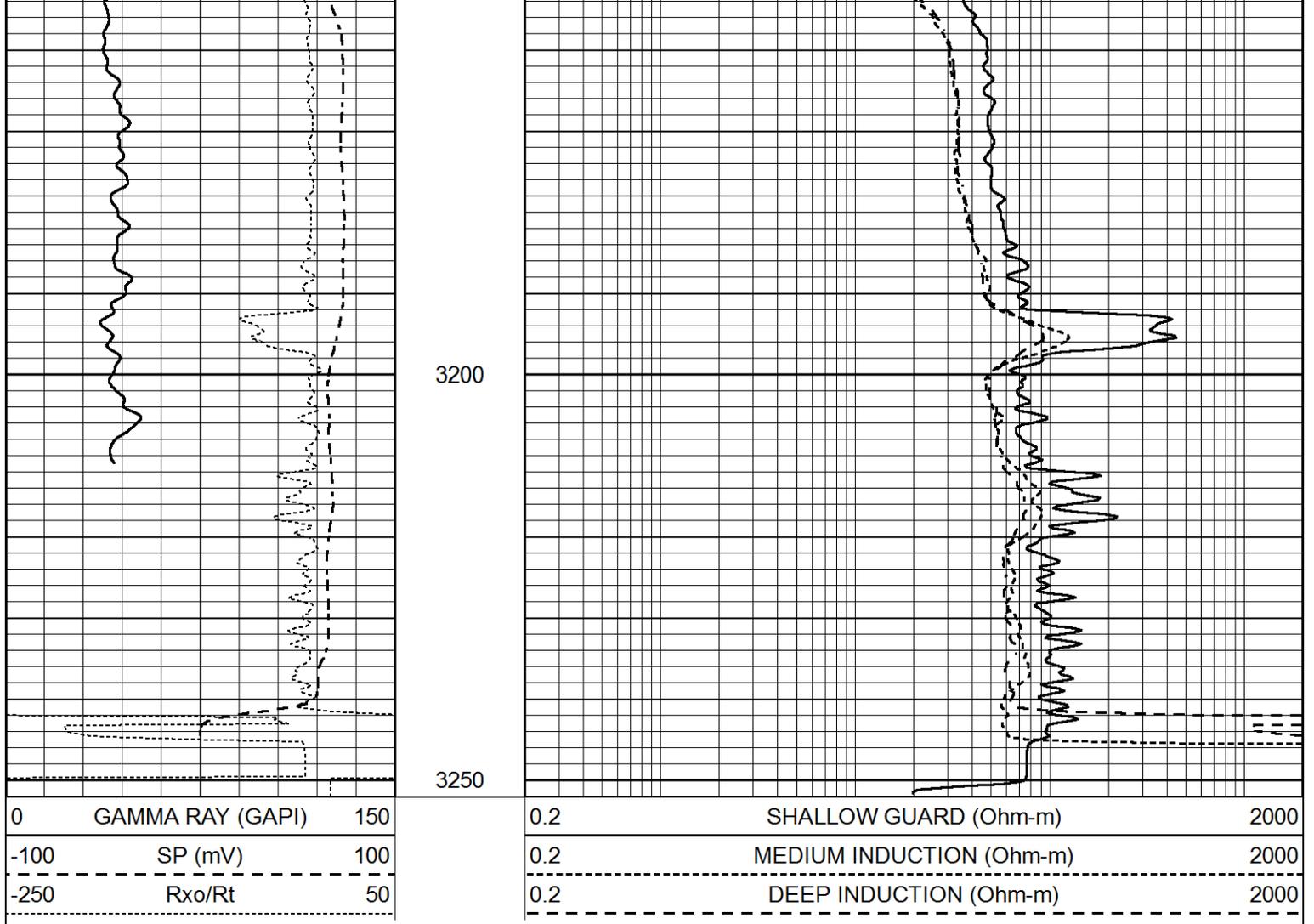
3000

3050

3100

3150





Calibration Report

Database File 5632pe.db
 Dataset Pathname pass5.1
 Dataset Creation Sun Jul 18 16:58:59 2021

Dual Induction Calibration Report

Serial-Model: FW1410-55-Probe
 Surface Cal Performed: Tue Feb 19 11:44:18 2019
 Downhole Cal Performed: Tue Feb 19 11:44:24 2019
 After Survey Verification Performed: Tue Feb 19 11:44:27 2019

Surface Calibration

Loop:	Readings			V	References			Results	
	Air	Loop			Air	Loop	mmho/m	m	b
Deep	0.011	0.656		1.000	400.000	mmho/m	618.595	-5.524	
Medium	-0.000	0.731		1.000	464.000	mmho/m	632.856	1.197	
Internal:	Zero	Cal		Zero	Cal		m	b	
Deep	0.007	0.649		0.000	400.000	mmho/m	623.784	-4.595	
Medium	0.004	0.743		0.000	464.000	mmho/m	627.284	-2.251	

Downhole Calibration

	Readings			mmho/m	References			Results	
	Zero	Cal			Zero	Cal	mmho/m	m'	b'
Deep	-0.824	395.917	mmho/m	-0.976	397.550	mmho/m	1.004	-0.149	

Medium	3.565	471.327	mmho/m	3.468	471.590	mmho/m	1.001	-0.099
LL3		7.503	V		1500.000	Ohm-m		
		0.001	V		20.000	Ohm-m		
		-7.481	V		3745.000	mmho-m		

After Survey Verification								
	Readings			Targets			Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	0.000	0.000	mmho/m	-0.824	395.917	mmho/m	1.000	0.000
Medium	0.000	0.000	mmho/m	3.565	471.327	mmho/m	1.000	0.000
LL3		0.000	Ohm-m		1500.000	Ohm-m		
		0.000	Ohm-m		20.000	Ohm-m		
		0.000	mmho-m		3745.000	mmho-m		

Litho Density Calibration Report
Serial: 140703
Model: V4_10P
Source Number: 74GBq-19

Master Calibration				Performed: Wed Dec 02 12:04:44 2020			
	Background	Aluminum		Magnesium			
Window 1	595.38	5386.50		23898.92	cps		
Window 2	52.78	1248.21		5993.75	cps		
Window 4	251.36	1200.30		5155.55	cps		
Window 5	545.15	9066.30		17240.12	cps		
Window 6	43.35	1491.73		2929.24	cps		
Window 8	258.76	2917.82		5450.26	cps		
Bulk Density	-	2.6020		1.6830	g/cc		
Pe	-	3.0000		2.5070	b/e		
LS Alpha:	: -1.8726	SS Alpha:	: -0.7656	LS CPE:		: 1.0742	
LS Beta:	: 127345.0723	SS Beta:	: 20293.3834	SS CPE:		: 1.5427	

Before Survey Background Counts Verification				Performed: Wed Dec 31 18:00:00 1969			
Window 1	0.00		cps				
Window 2	0.00		cps				
Window 4	0.00		cps				
Window 5	0.00		cps				
Window 6	0.00		cps				
Window 8	0.00		cps				

After Survey Background Counts Verification				Performed: Wed Dec 31 18:00:00 1969			
Window 1	0.00		cps				
Window 2	0.00		cps				
Window 4	0.00		cps				
Window 5	0.00		cps				
Window 6	0.00		cps				
Window 8	0.00		cps				

Lithodensity Caliper Calibration				Performed: Wed Dec 02 12:04:44 2020			
Results	Readings		References (in)		Gain	Offset	
	Low	High	Low	High			
	877.4	1277.9	8.0	14.0	0.0	-5.1	

Before Survey Caliper Verification

Performed:

Reference

Reading

Caliper (in)

After Survey Caliper Verification

Performed:

Reference

Reading

Caliper (in)

Compensated Neutron Calibration Report

Serial Number:
Tool Model:

080621PMC
NABORS

PRE-SURVEY VERIFICATION

Detector

Readings

Measured

Target

Short Space

cps

pu

pu

Long Space

cps

POST-SURVEY VERIFICATION

Detector

Readings

Measured

Target

Short Space

cps

pu

pu

Long Space

cps

Gamma Ray Calibration Report

Serial Number:

7

Tool Model:

Probe1

Performed:

Tue Jan 19 17:50:08 2021

Calibrator Value:

1.0

GAPI

Background Reading:

0.0

cps

Calibrator Reading:

1.0

cps

Sensitivity:

0.5300

GAPI/cps