



# DUAL INDUCTION LOG

Company JASPAR COMPANY  
 Well BJW #1  
 Field UNNAMED  
 County ROOKS  
 State KANSAS

Company JASPAR COMPANY  
 Well BJW #1  
 Field UNNAMED  
 County ROOKS State KANSAS

Location: API #: 15-163-24464-0000  
 436' FNL & 2646' FEL  
 SE - NE - NE - NW  
 SEC 10 TWP 6S RGE 20W  
 Permanent Datum GROUND LEVEL Elevation 2191  
 Log Measured From KELLY BUSHING 7' A.G.L.  
 Drilling Measured From KELLY BUSHING  
 Other Services CDL/CNL MEL  
 Elevation K.B. 2198  
 D.F. 2196  
 G.L. 2191

Date	9/21/22
Run Number	ONE
Depth Driller	3671
Depth Logger	3672
Bottom Logged Interval	3670
Top Log Interval	00
Casing Driller	8 5/8"@220'
Casing Logger	220
Bit Size	7 7/8"
Type Fluid in Hole	CHEMICAL MUD
Density / Viscosity	9.4/56
pH / Fluid Loss	10.0/8.8
Source of Sample	FLOWLINE
Rm @ Meas. Temp	1.80@73F
Rmf @ Meas. Temp	1.35@73F
Rmc @ Meas. Temp	2.16@73F
Source of Rmf / Rmc	MEASUREMENT
Rm @ BHT	1.16@113F
Time Circulation Stopped	2 HOURS
Time Logger on Bottom	10:45 A.M.
Maximum Recorded Temperature	113F
Equipment Number	922339
Location	HAYS, KANSAS
Recorded By	JEFF LUEBBERS
Witnessed By	CAMERON BRIN

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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.

15-163-24464-0000 Comments

THANK YOU FOR USING ELI WIRELINE HAYS, KANSAS (785) 628-6395  
 DIRECTIONS  
 STOCKTON, KS., 9N. ON HWY 183 TO PHILLIPS COUNTY LINE, 13W. ON "RD. A" TO "RD. 5", 3/4S.,  
 1/2 W. INTO

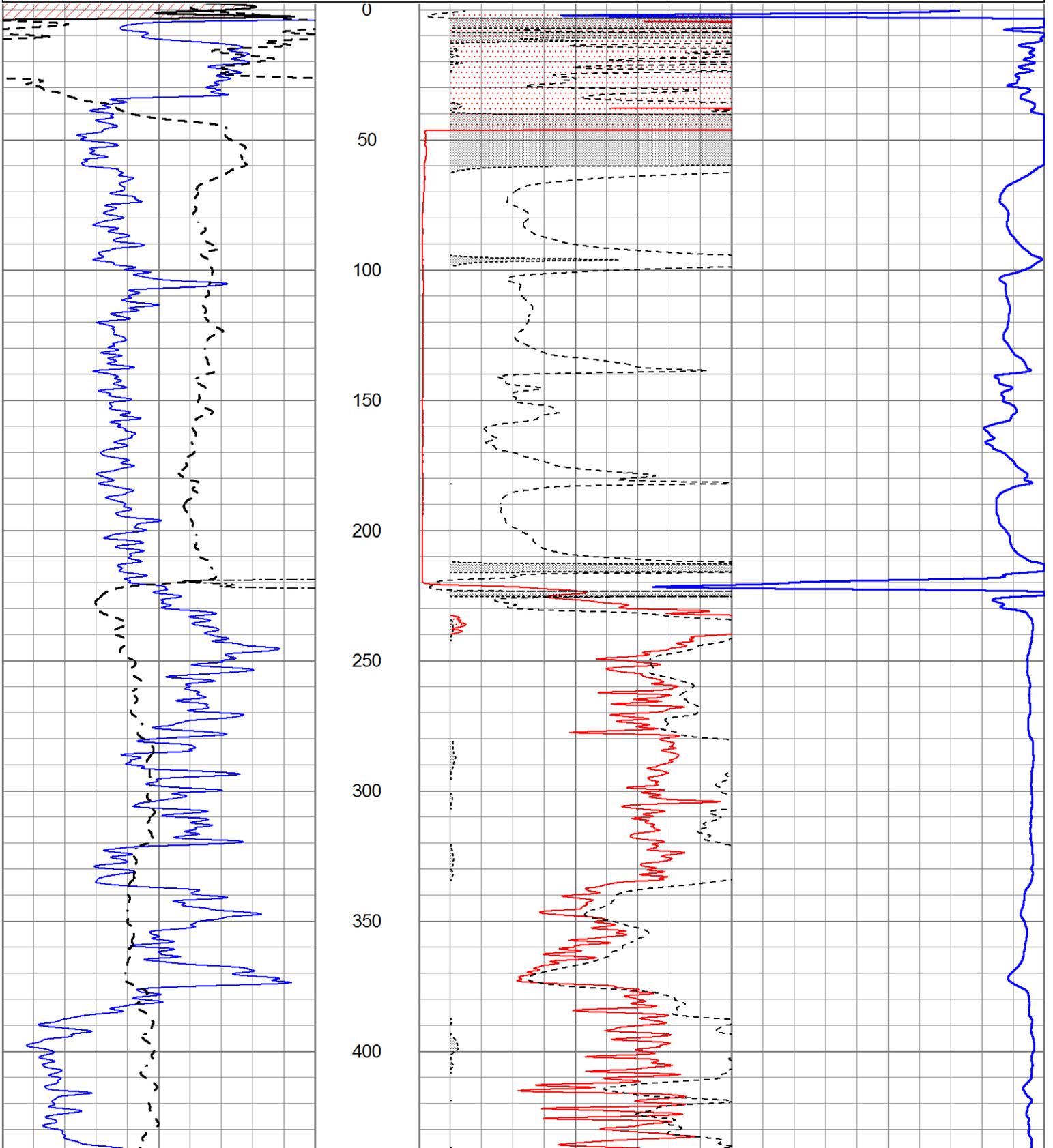


# MAIN SECTION

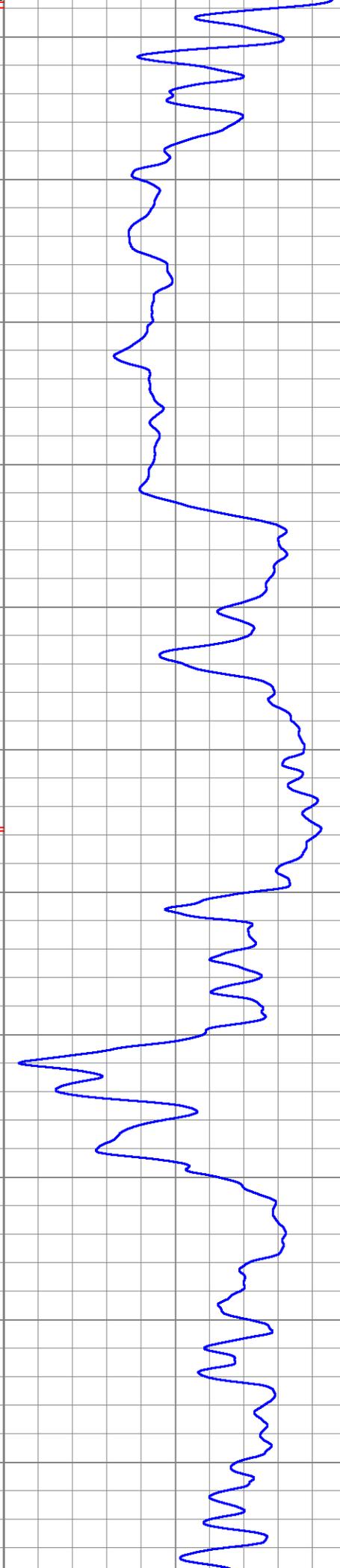
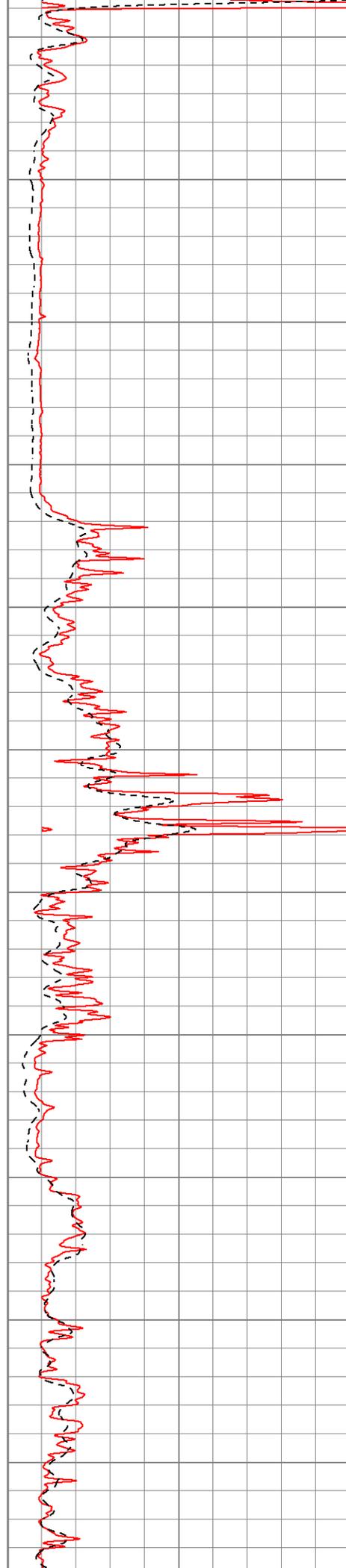
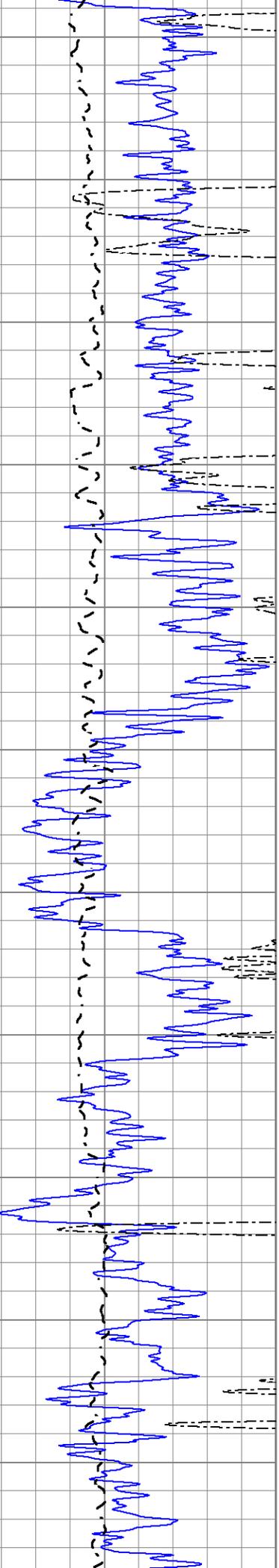
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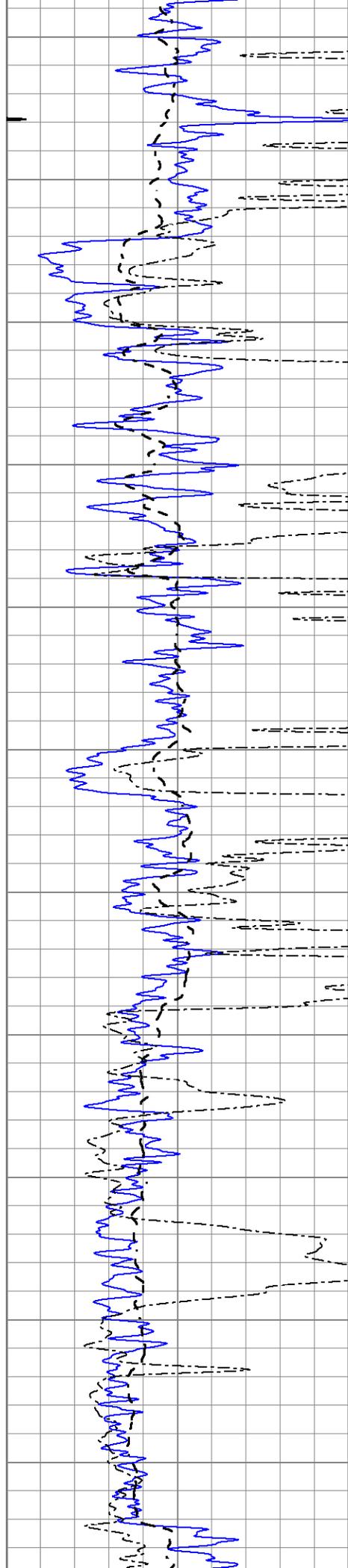
0	Gamma Ray (GAPI)	150
-100	SP (mV)	100
0	RWA (Ohm-m)	1

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

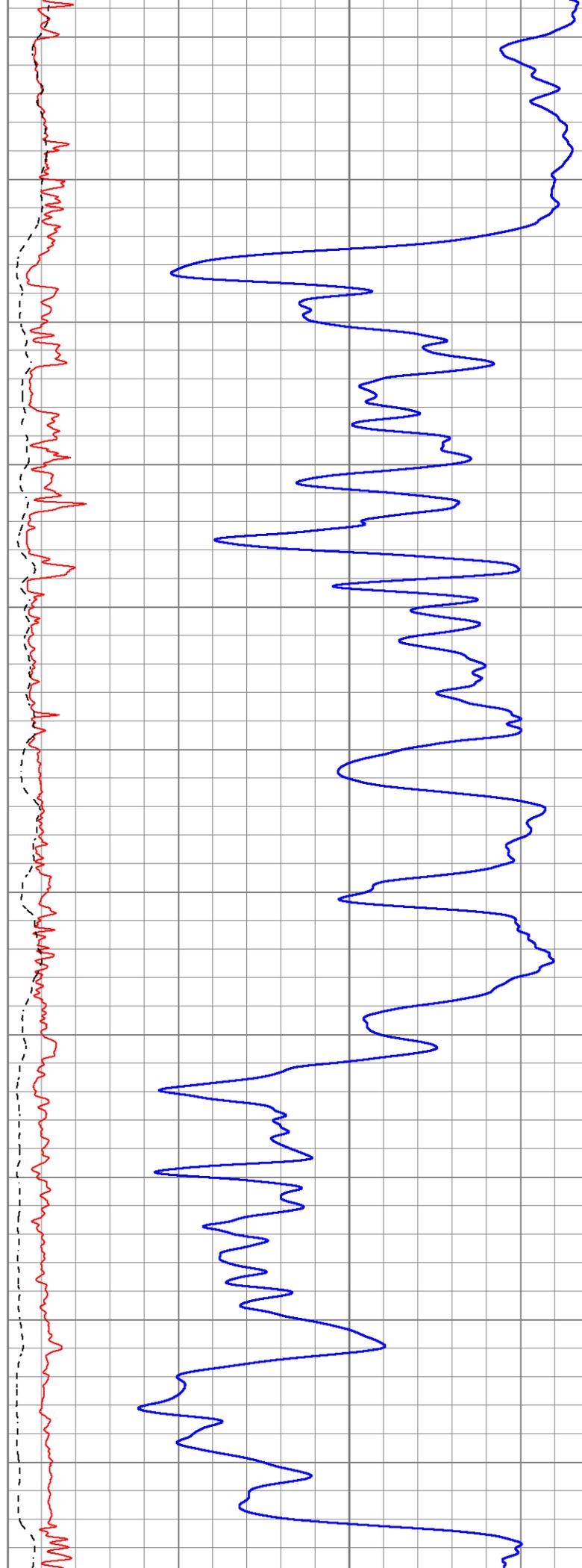


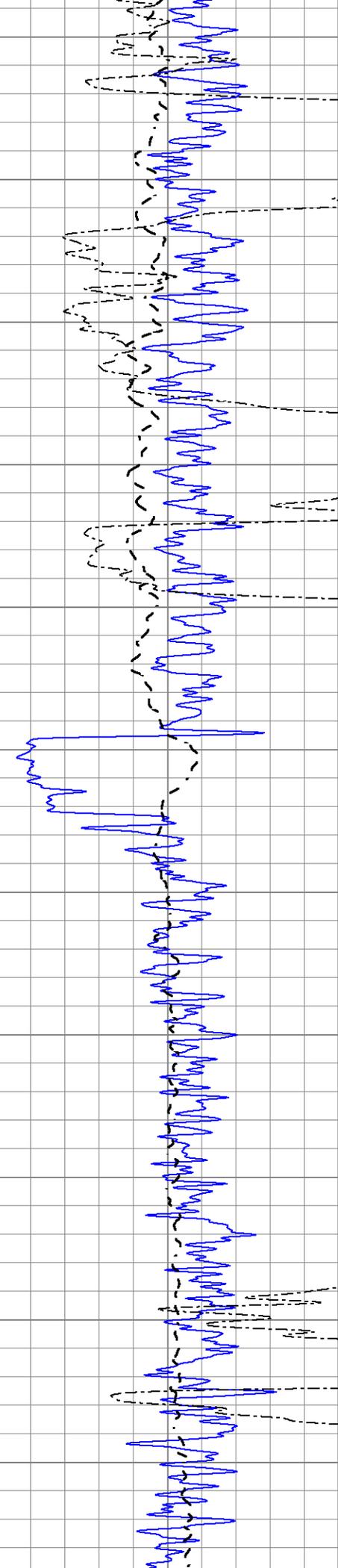
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500  
550  
600  
650  
700  
750  
800  
850  
900  
950





1000  
1050  
1100  
1150  
1200  
1250  
1300  
1350  
1400  
1450  
1500





1550

1600

1650

1700

1750

1800

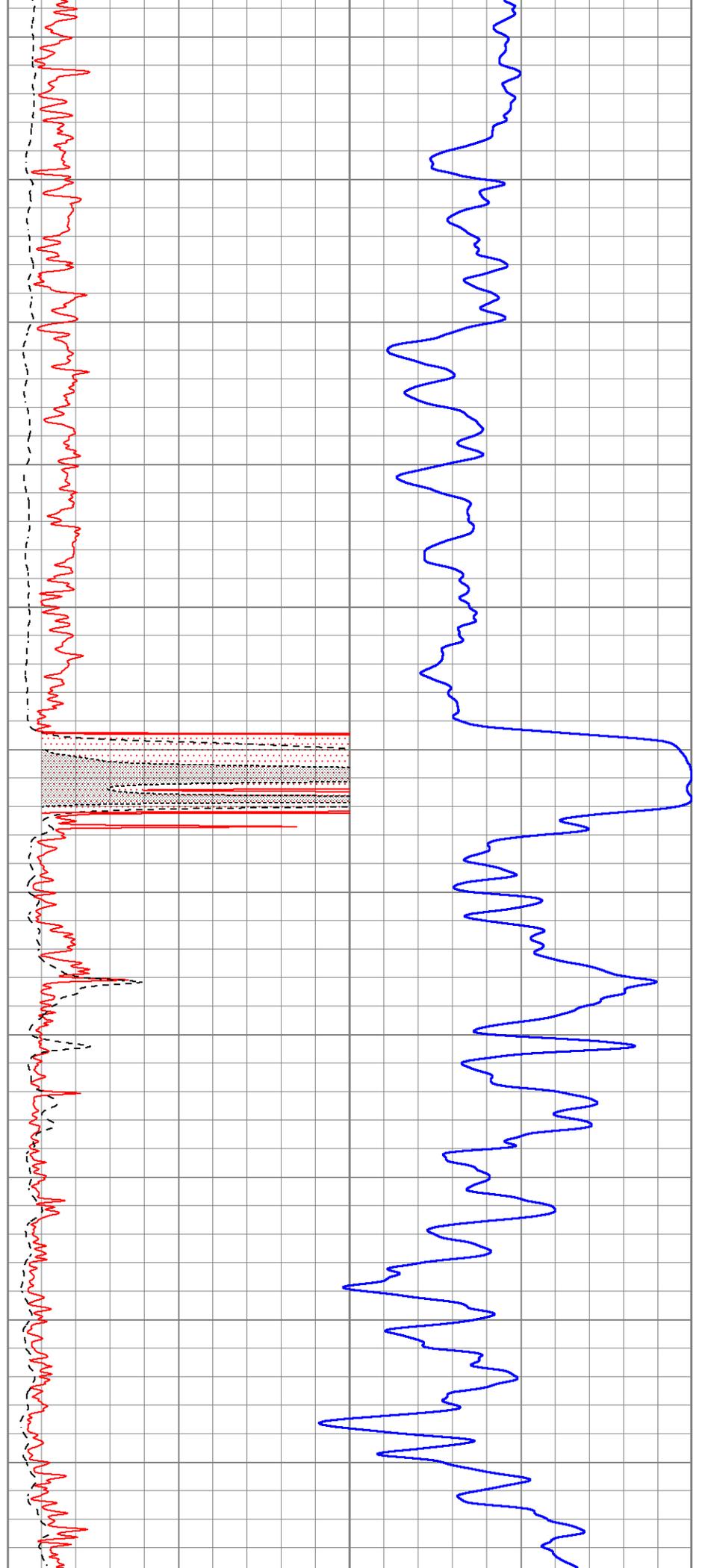
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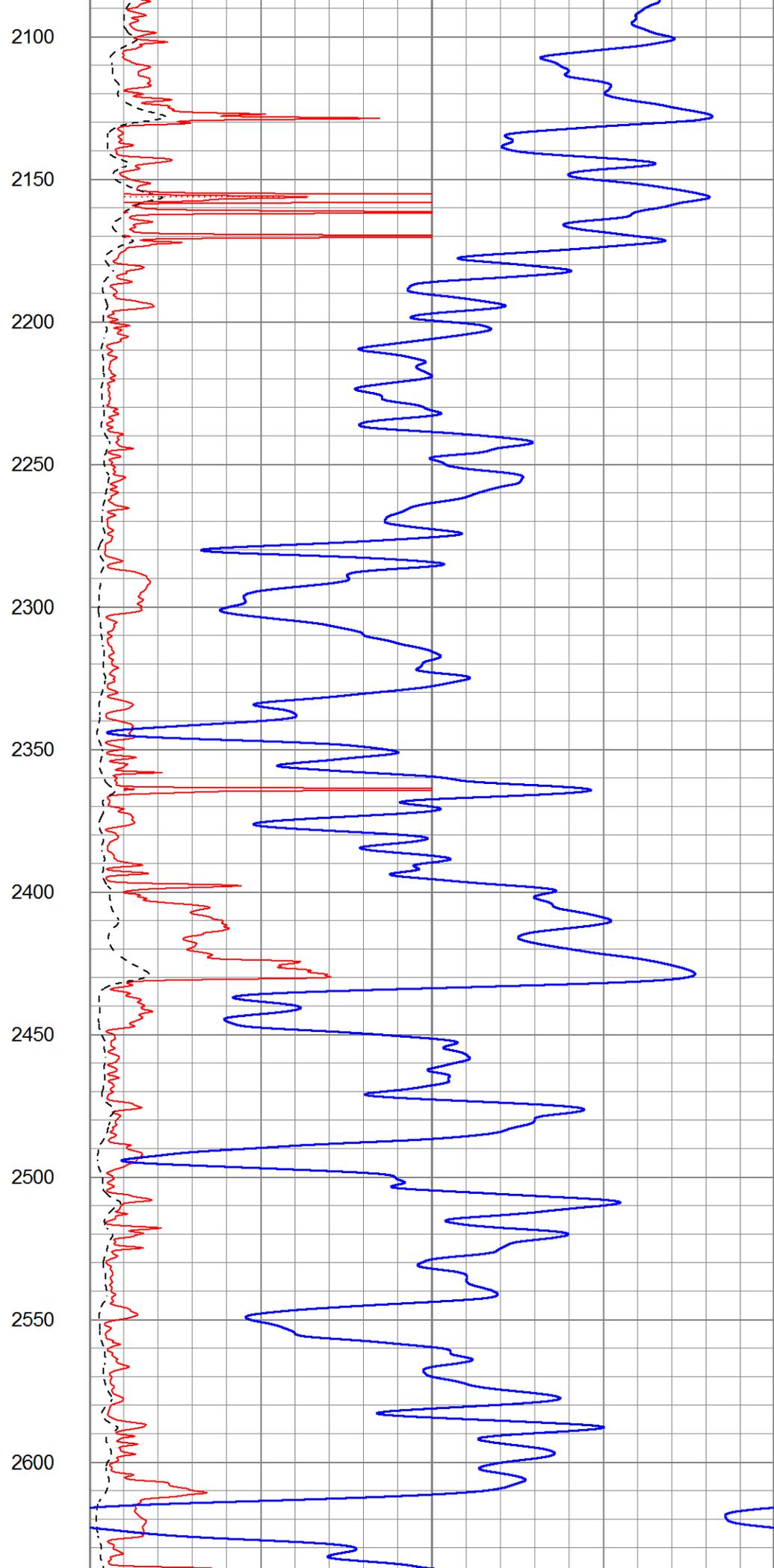
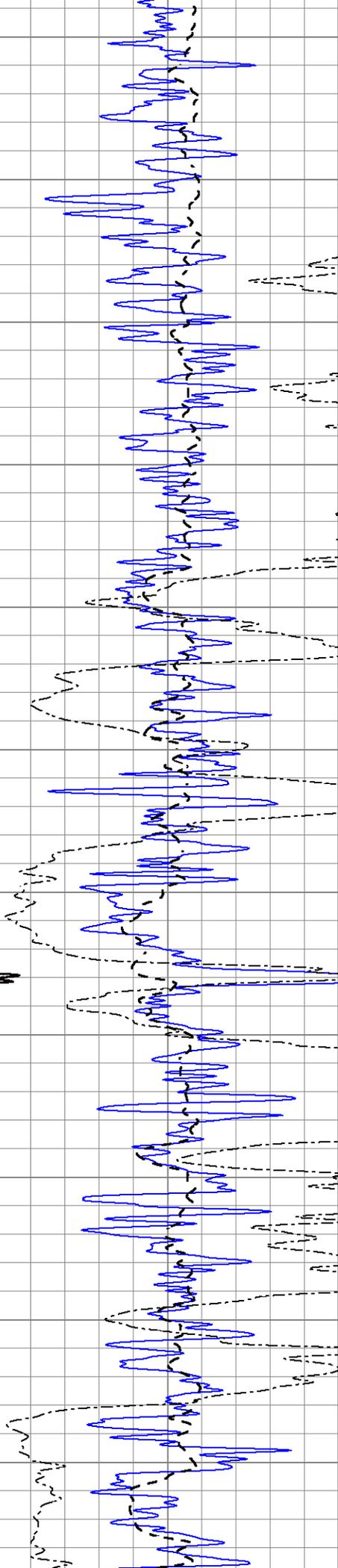
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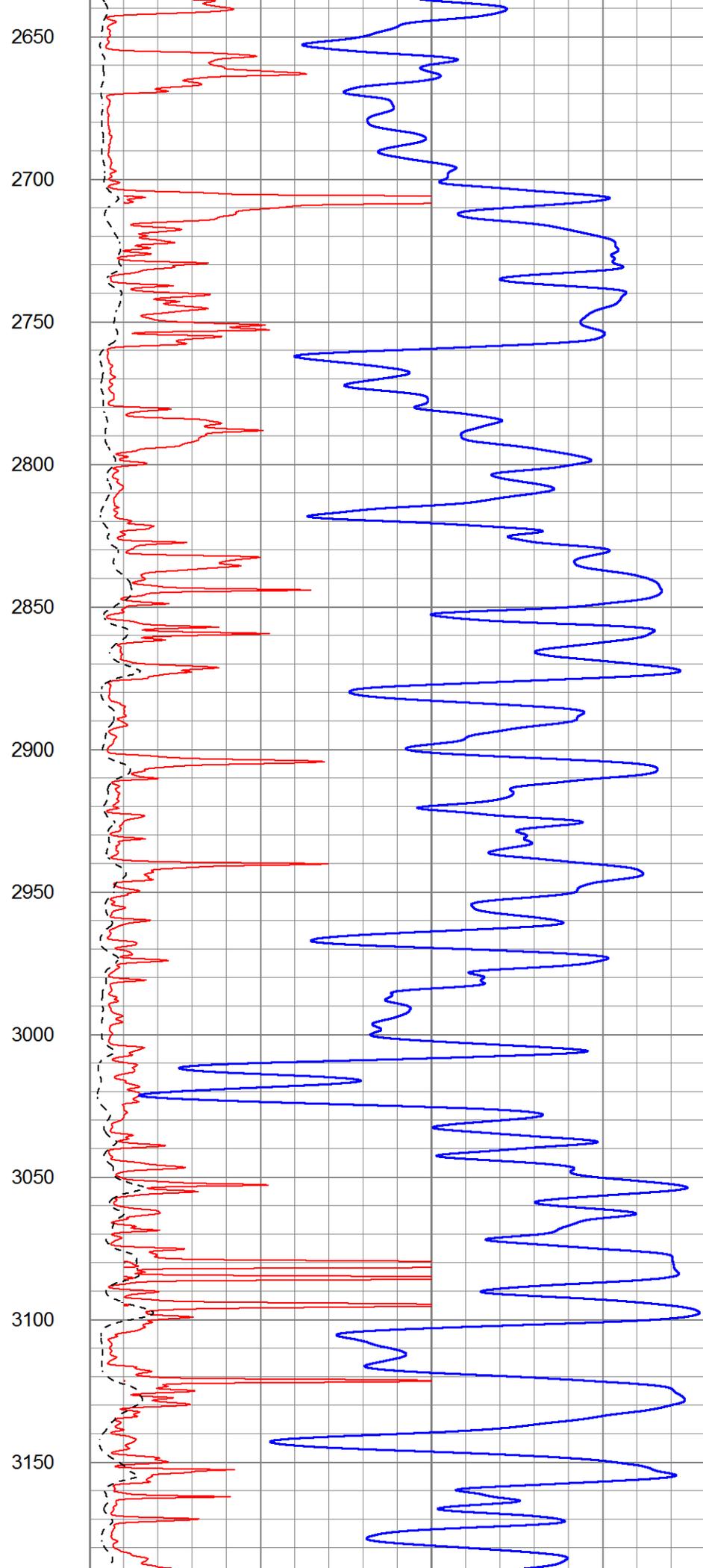
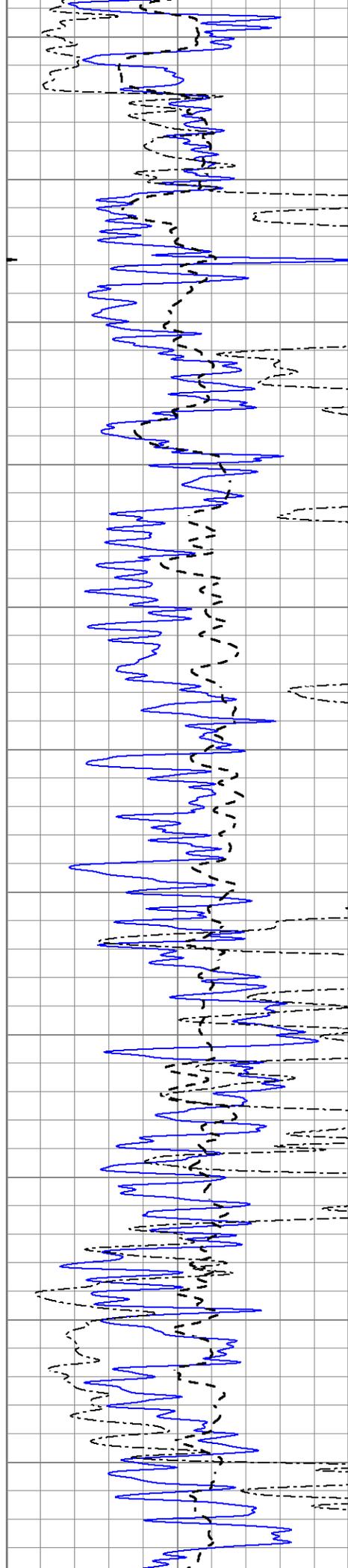
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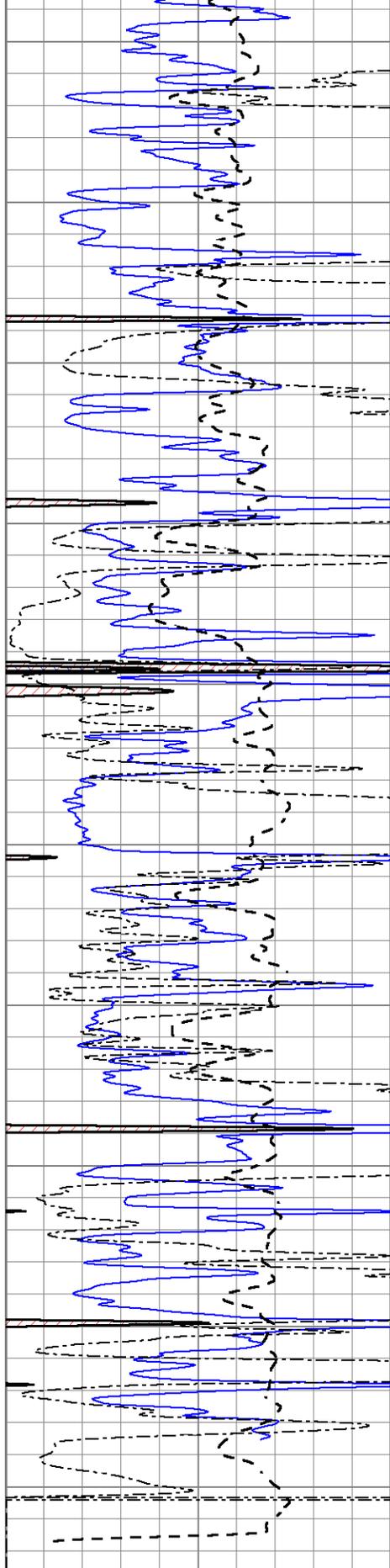
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2050

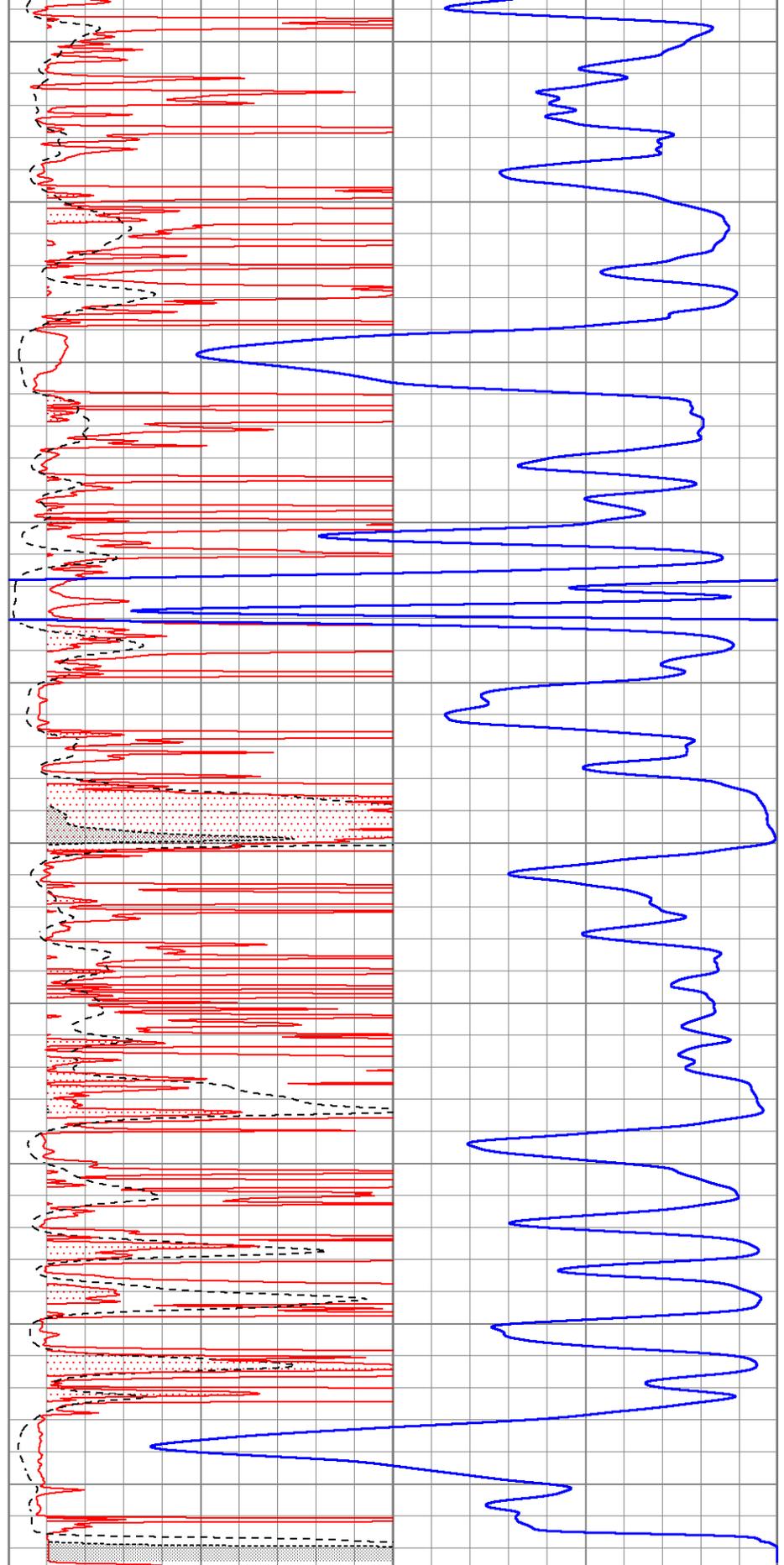








3200  
3250  
3300  
3350  
3400  
3450  
3500  
3550  
3600  
3650



1000 CILD (mmho/m) 0

0 RLL3 (Ohm-m) 50

0 RILD (Ohm-m) 50

50 RILD X10 (Ohm-m) 500

50 RLL3 X10 (Ohm-m) 500

0 Gamma Ray (GAPI) 150

-100 SP (mV) 100

0 RWA (Ohm-m) 1

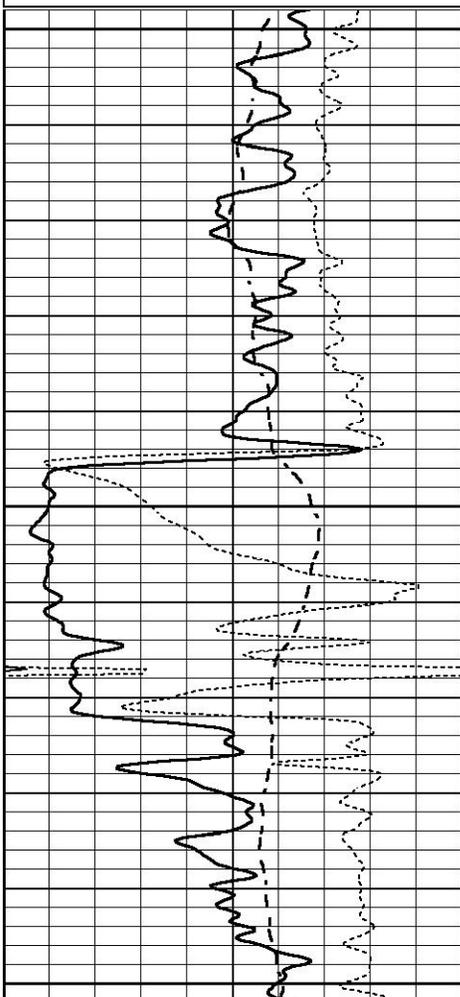


# ANHYDRITE

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 Charted by Depth in Feet scaled 1:240

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

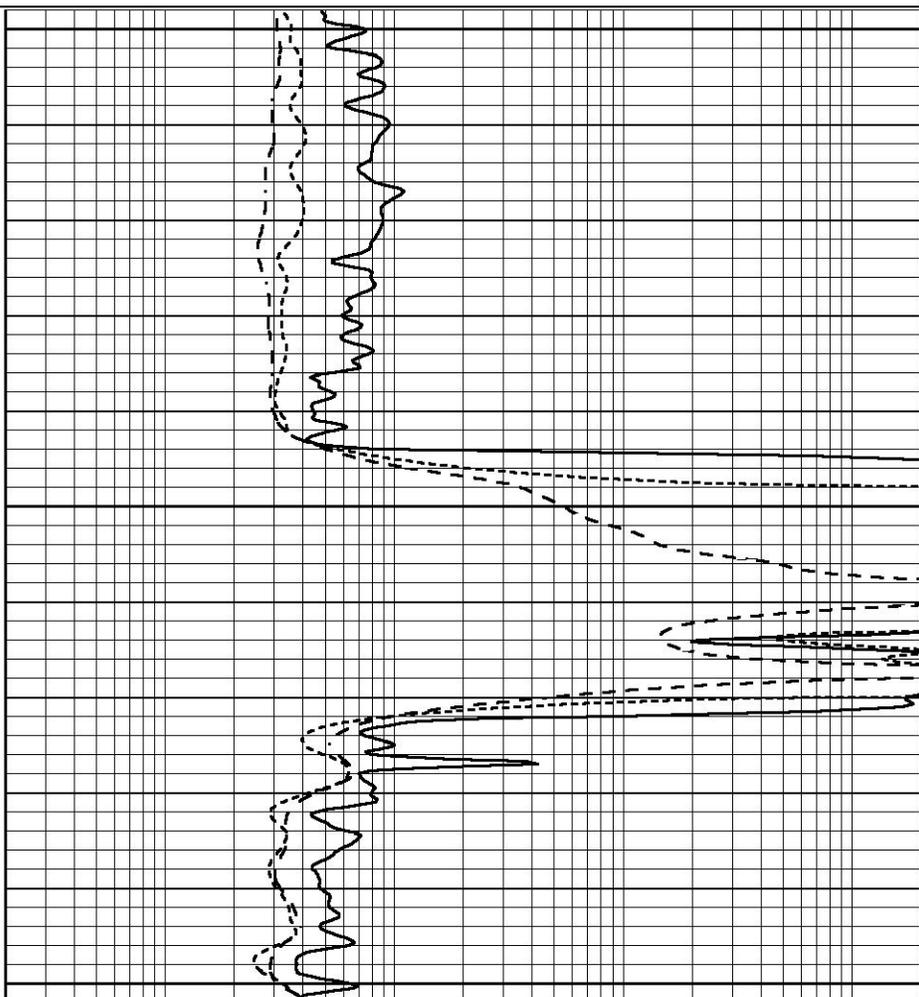
0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000



1750

1800

1850



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



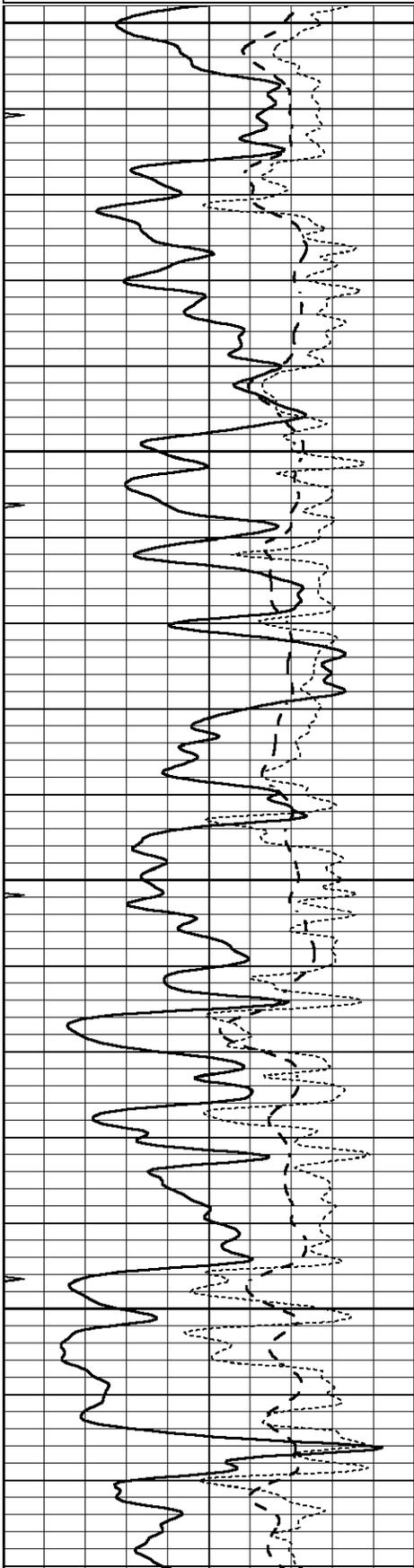
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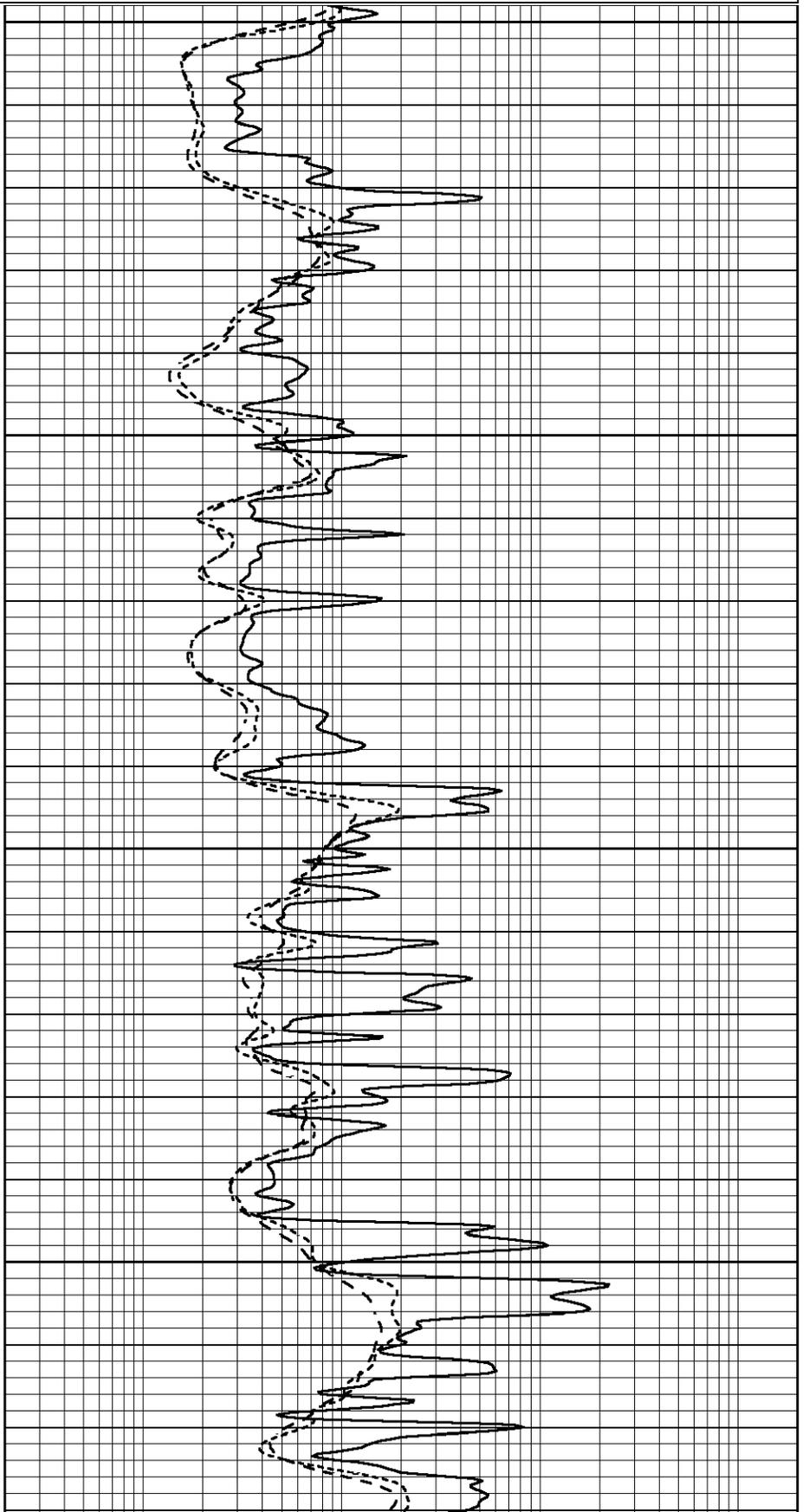
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 Charted by Depth in Feet scaled 1:240

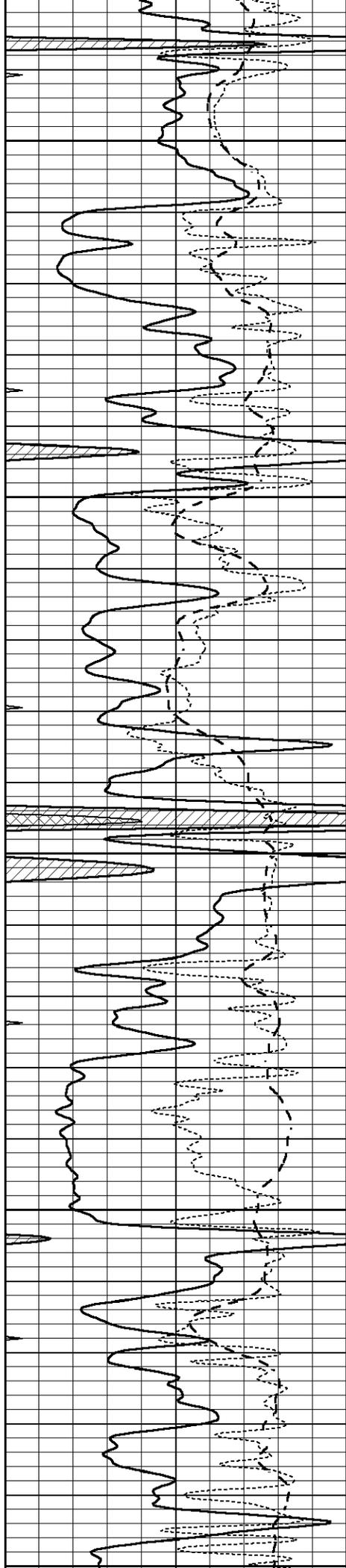
0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	20

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



3100  
 3150  
 3200  
 3250





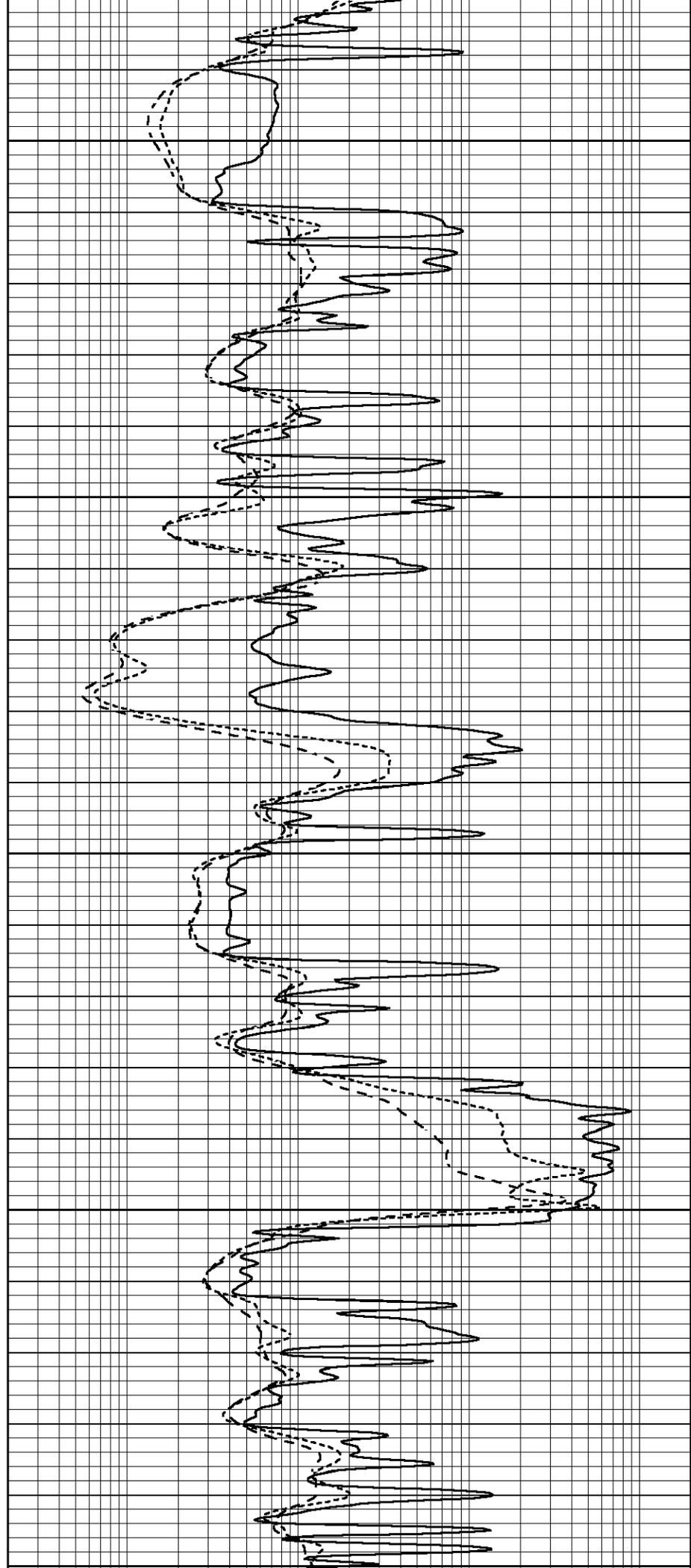
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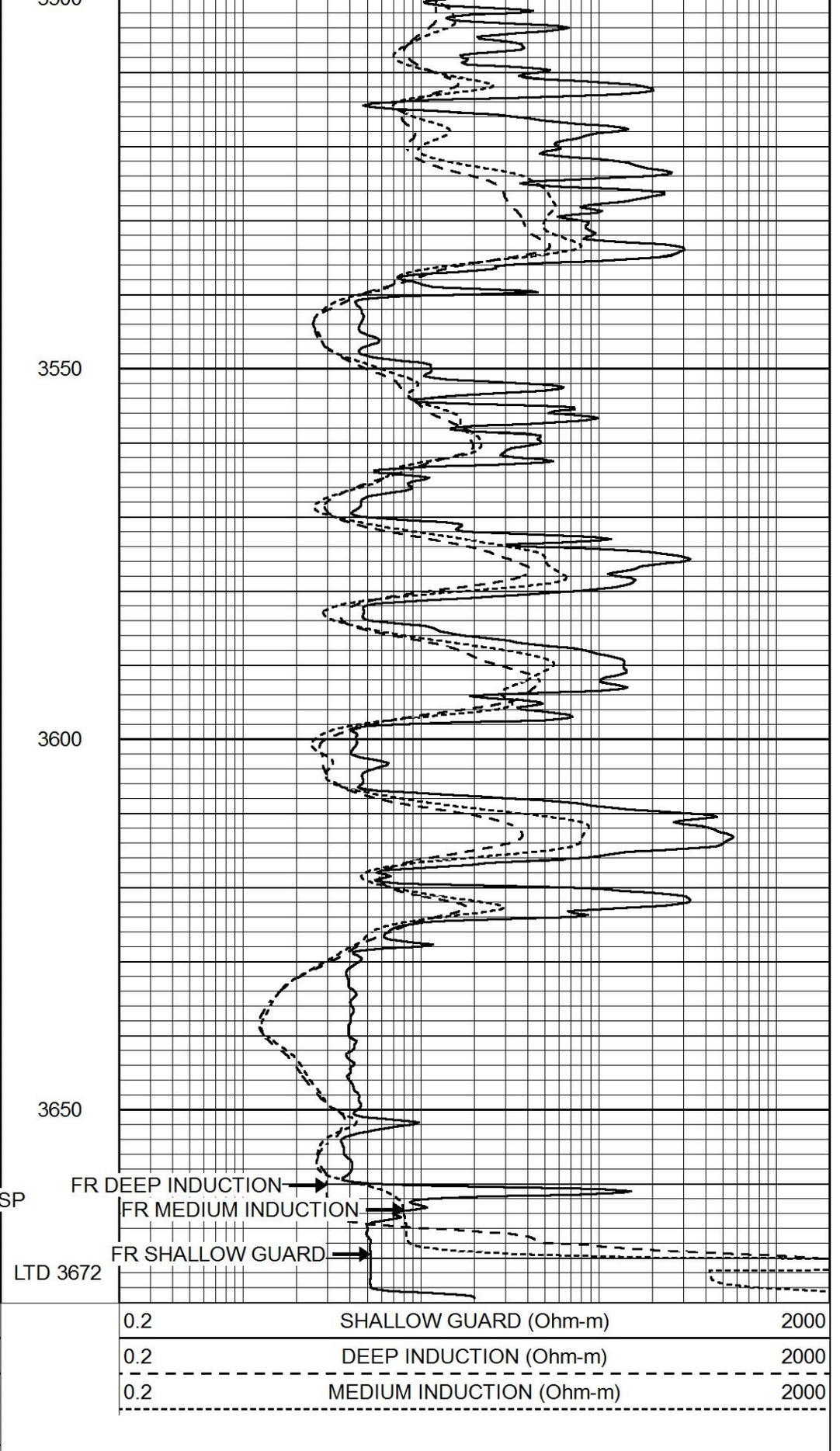
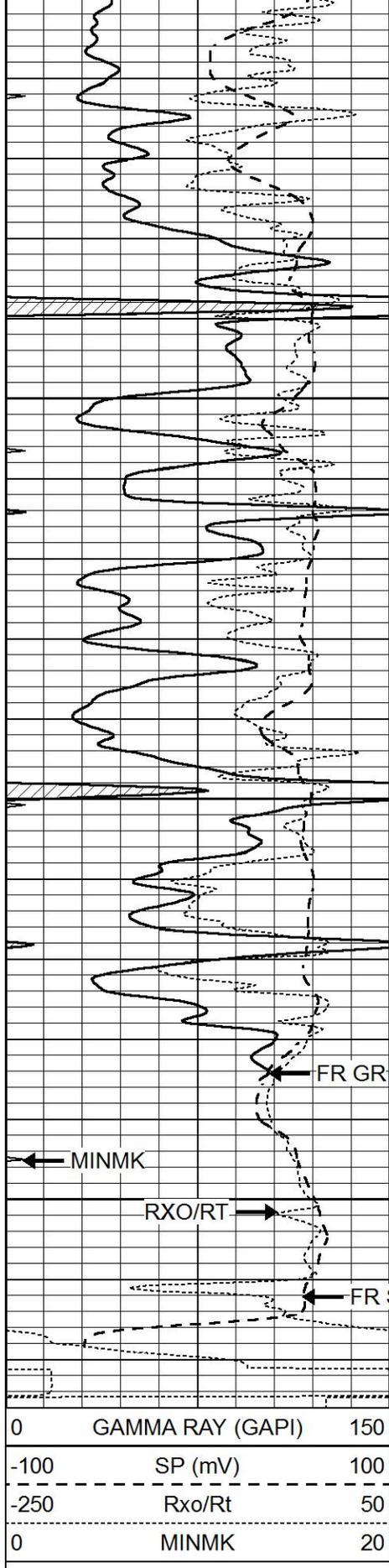
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3400

3450

3500



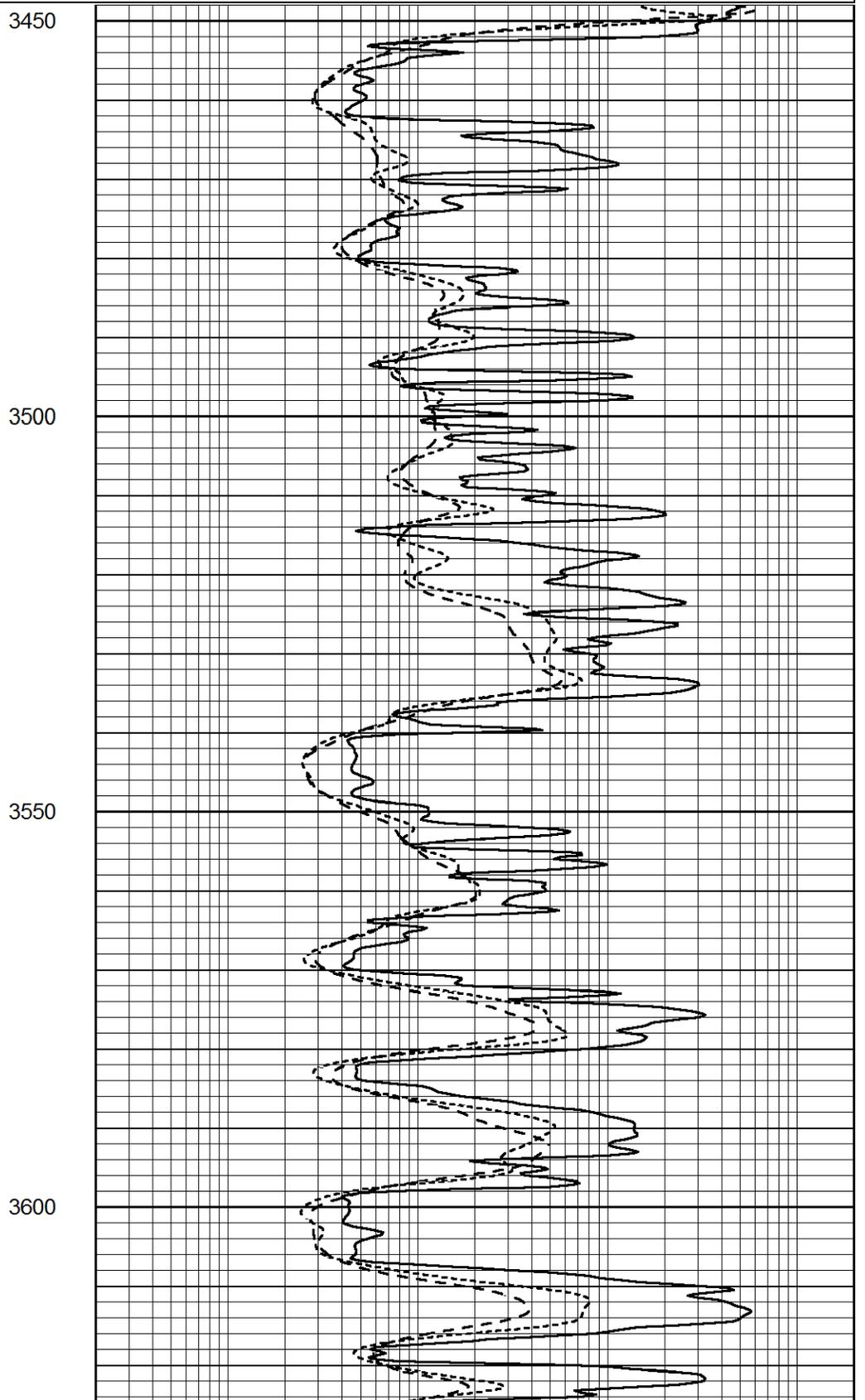
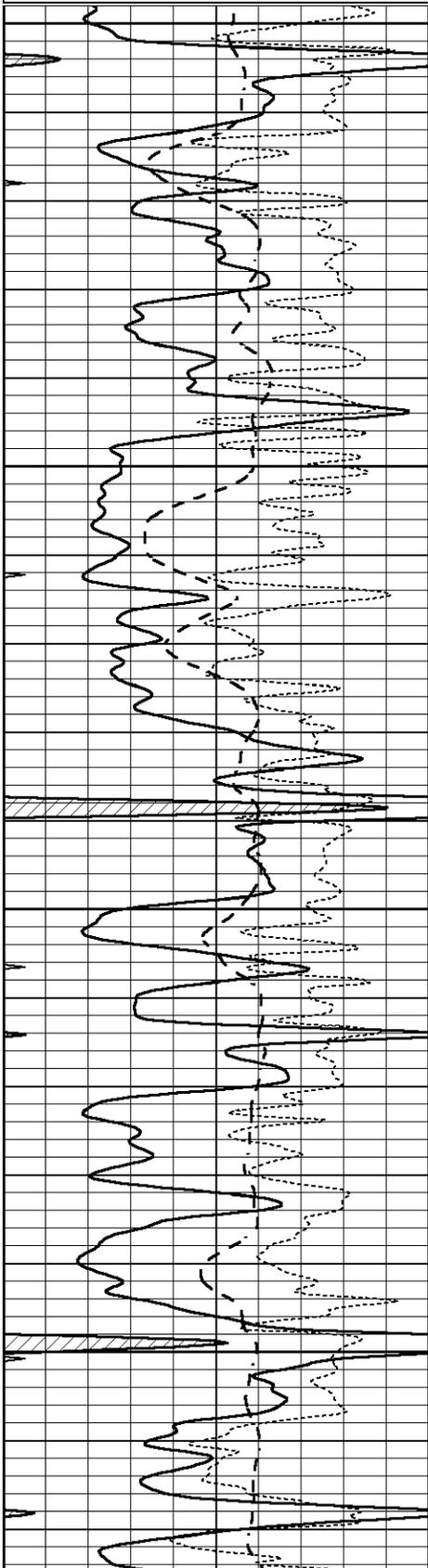


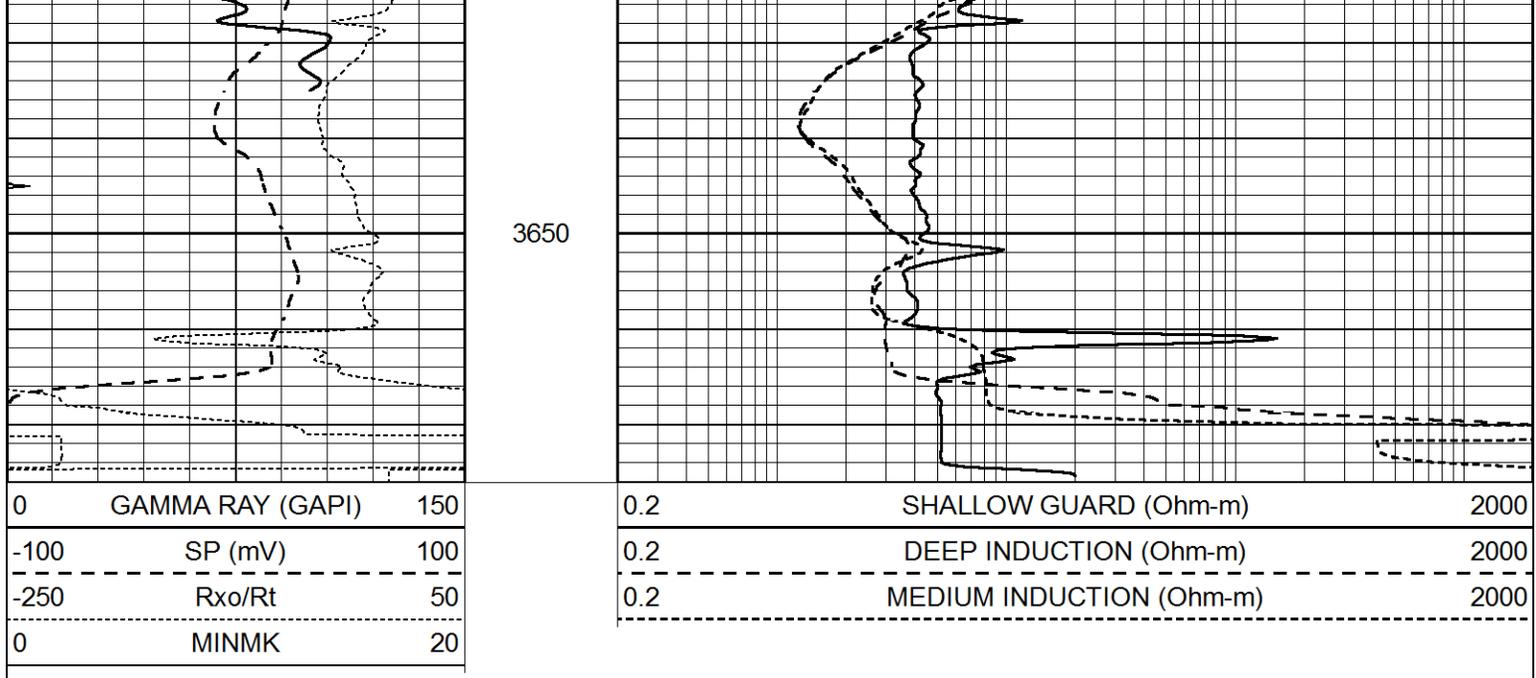
REPEAT SECTION

Database File 7079ddn.db  
 Dataset Pathname pass2.2R  
 Presentation Format \_dil  
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 Charted by Depth in Feet scaled 1:240

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





### Calibration Report

Database File      7079ddn.db  
 Dataset Pathname    pass3.1M  
 Dataset Creation    Wed Sep 21 12:01:20 2022

### Dual Induction Calibration Report

Serial-Model:                    PROBE7-DILG  
 Surface Cal Performed:        Wed Sep 21 11:29:38 2022  
 Downhole Cal Performed:      Thu Mar 12 11:45:10 2020  
 After Survey Verification Performed: Thu Mar 12 11:45:00 2020

#### Surface Calibration

Loop:	Readings			References			Results	
	Air	Loop		Air	Loop		m	b
Deep	-0.014	0.629	V	0.000	400.000	mmho/m	650.000	20.000
Medium	0.039	0.728	V	0.000	464.000	mmho/m	680.000	-20.000
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.011	0.610	V	0.000	400.000	mmho/m	667.135	-7.256
Medium	0.005	0.712	V	0.000	464.000	mmho/m	655.677	-3.102

#### Downhole Calibration

	Readings			References			Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	0.000	0.000	mmho/m	14.508	388.384	mmho/m	1.000	0.000
Medium	0.000	0.000	mmho/m	166.367	504.400	mmho/m	1.000	0.000
LL3		7.500	V		1400.000	Ohm-m		
		0.000	V		20.000	Ohm-m		
		-7.200	V		4000.000	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 mmho-m  
0.000 Ohm-m  
4000.000 mmho-m

Litho Density Calibration Report  
Serial: 004 Model: PRB

Master Calibration

Performed Tue Aug 02 11:29:35 2022

	Background	Magnesium	Aluminum	Aluminum+Fe	
Window 1	1154.2	10019.5	3137.9	2795.6	cps
Window 2	1054.4	8597.6	2733.4	2469.5	cps
Window 3	902.3	5241.4	1832.1	1719.3	cps
Window 4	251.9	261.1	255.8	252.9	cps
Long Space	0.0	7543.2	1679.0	1415.0	cps
Short Space	4.4	2049.3	1321.7	1116.8	cps
Rho		1.7100	2.5900	0.0000	g/cc
Pe		2.0000	2.7500	5.7900	
Rib Angle	: 43.7	Rib Slope	: 0.957	Density/Spine Ratio	: 0.562
Spine Angle	: 73.7	Spine Slope	: 3.426	Spine Intercept	: -17.2

Before Survey Verification

Performed Wed Dec 31 18:00:00 1969

Window 1	0.0	0.0	0.0	0.0	cps
Window 2	0.0	0.0	0.0	0.0	cps
Window 3	0.0	0.0	0.0	0.0	cps
Window 4	0.0	0.0	0.0	0.0	cps
Long Space	0.0	0.0	0.0	0.0	cps
Short Space	0.0	0.0	0.0	0.0	cps
Measured Rho		0.0000	0.0000	0.0000	g/cc
Measured Correction		0.0000	0.0000	0.0000	g/cc
Measured Pe			0.0000	0.0000	

After Survey Verification

Performed Wed Dec 31 18:00:00 1969

Window 1	0.0	0.0	0.0	0.0	cps
Window 2	0.0	0.0	0.0	0.0	cps
Window 3	0.0	0.0	0.0	0.0	cps
Window 4	0.0	0.0	0.0	0.0	cps
Long Space	0.0	0.0	0.0	0.0	cps
Short Space	0.0	0.0	0.0	0.0	cps
Measured Rho		0.0000	0.0000	0.0000	g/cc
Measured Correction		0.0000	0.0000	0.0000	g/cc
Measured Pe			0.0000	0.0000	

Compensated Neutron Calibration Report

Serial Number: 070808PMC  
Tool Model: NABORS

PRE-SURVEY VERIFICATION

Detector	Readings	Measured	Target
Short Space	cps		
Long Space	cps	pu	pu

POST-SURVEY VERIFICATION

Detector	Readings	Measured	Target
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Short Space  
Long Space

cps  
cps

pu

pu

Gamma Ray Calibration Report

Serial Number:	070558	
Tool Model:	OPEN_GR	
Performed:	Wed Sep 21 11:15:47 2022	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	0.3000	GAPI/cps