

DUAL INDUCTION LOG

Company DOWNING - NELSON OIL CO., INC.
 Well CHARLENE #1-17
 Field UNNAMED
 County RAWLINS
 State KANSAS

Company DOWNING - NELSON OIL COMPANY, INC.
 Well CHARLENE #1-17
 Field UNNAMED
 County RAWLINS State KANSAS

Location: 2310' FSL & 835' FWL
 W/2 - NE - NW - SW
 API #: 15-153-21272-0000
 Permanent Datum GROUND LEVEL Elevation 3345
 Log Measured From KELLY BUSHING 8' A.G.L.
 Drilling Measured From KELLY BUSHING
 SEC 17 TWP 5S RGE 36W
 Other Services
 CDL/CNL
 MEL/SON
 Elevation
 K.B. 3353
 D.F. 3351
 G.L. 3345

Date	12/4/21
Run Number	ONE
Depth Driller	4946
Depth Logger	4948
Bottom Logged Interval	4946
Top Log Interval	00
Casing Driller	8 5/8"@446'
Casing Logger	446
Bit Size	7 7/8"
Type Fluid in Hole	CHEMICAL MUD
Density / Viscosity	9.3/60
pH / Fluid Loss	9.5/8.4
Source of Sample	FLOWLINE
Rm @ Meas. Temp	1.75@92F
Rmf @ Meas. Temp	1.31@92F
Rmc @ Meas. Temp	2.10@92F
Source of Rmf / Rmc	MEASUREMENT
Rm @ BHT	1.29@125F
Time Circulation Stopped	2.5 HOURS
Time Logger on Bottom	7:30 P.M.
Maximum Recorded Temperature	125F
Equipment Number	922339
Location	HAYS, KANSAS
Recorded By	JEFF LUEBBERS
Witnessed By	MARC DOWNING

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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.

15-153-21272-0000 Comments

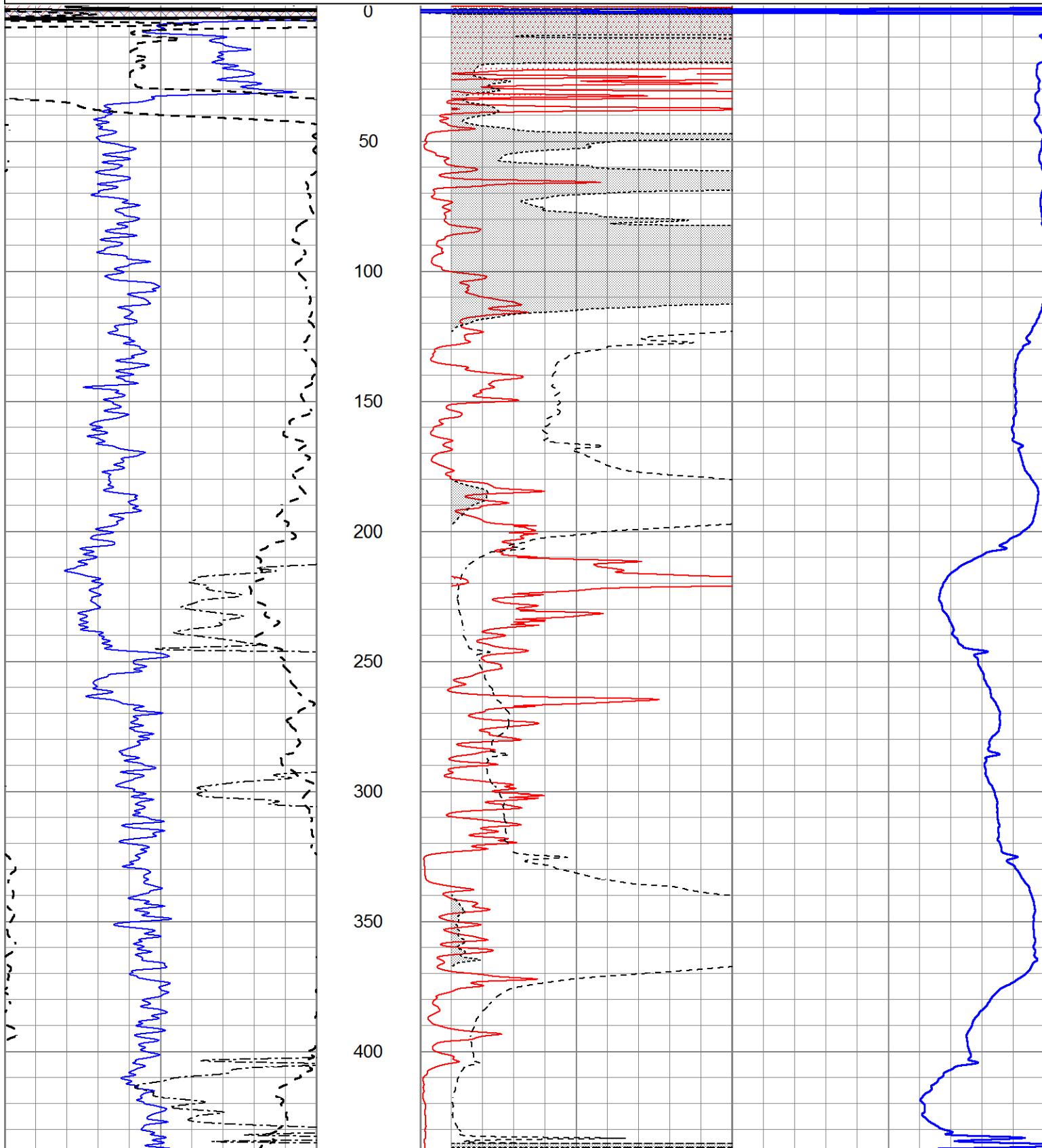
THANK YOU FOR USING ELI WIRELINE HAYS, KANSAS (785) 628-6395
 DIRECTIONS
 BREWSTER, KS., N. ON BLKTOP TO CURVE WEST, THEN 3N., 1/2W., N. INTO

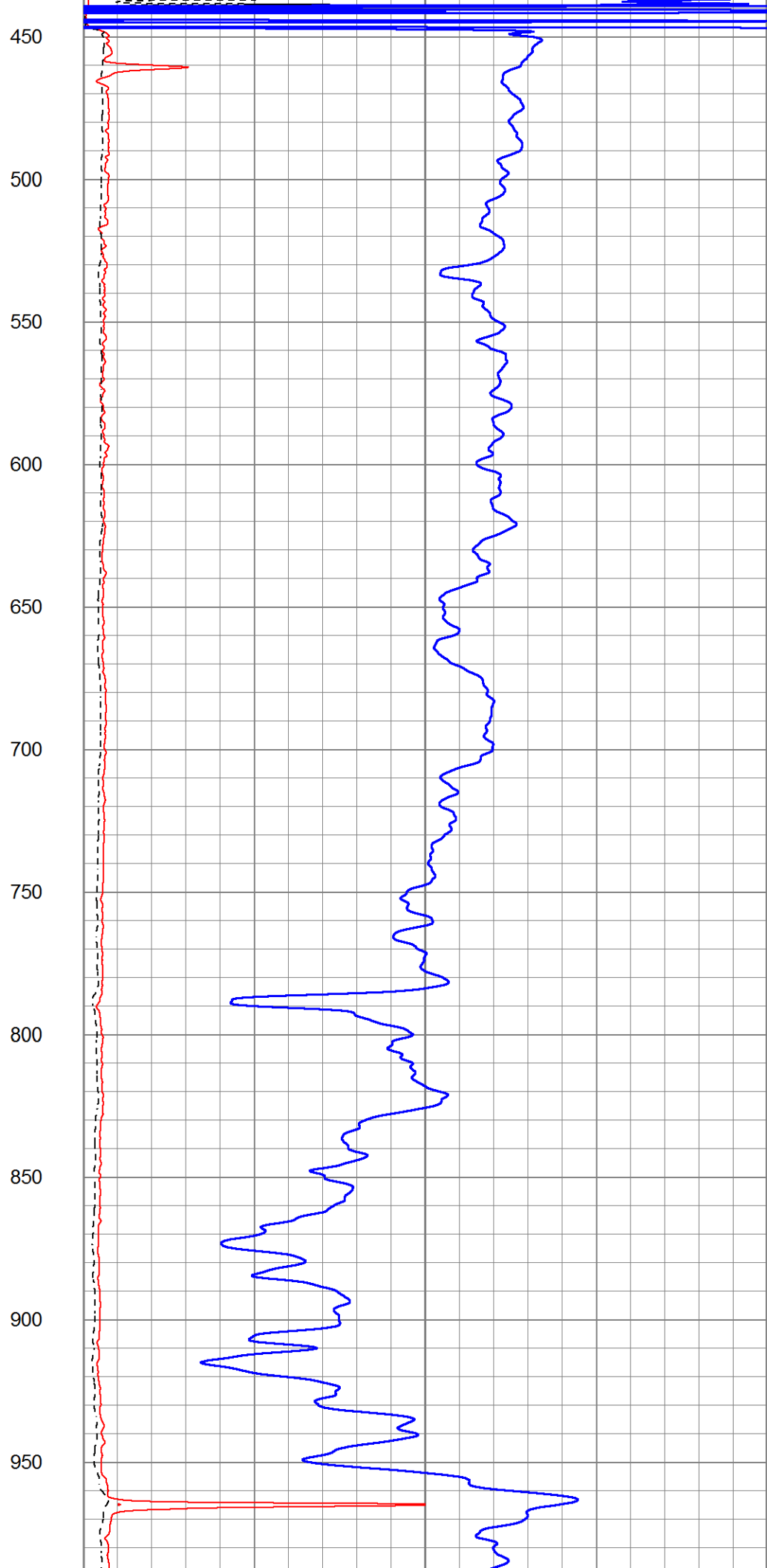
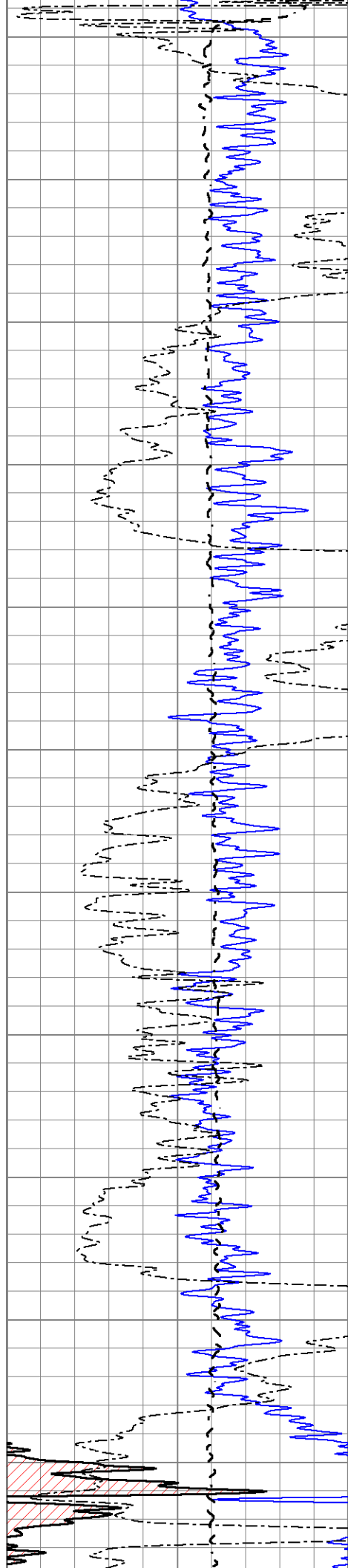


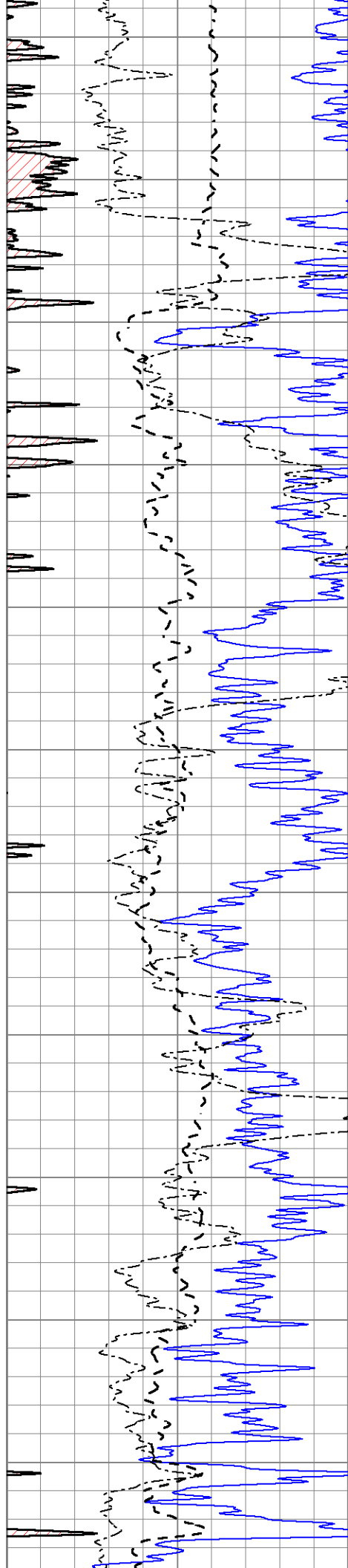
MAIN SECTION

Database File 5840ddn.db
 Dataset Pathname pass3.1M
 Presentation Format dil2
 Dataset Creation Sat Dec 04 21:10:26 2021
 Charted by Depth in Feet scaled 1:600

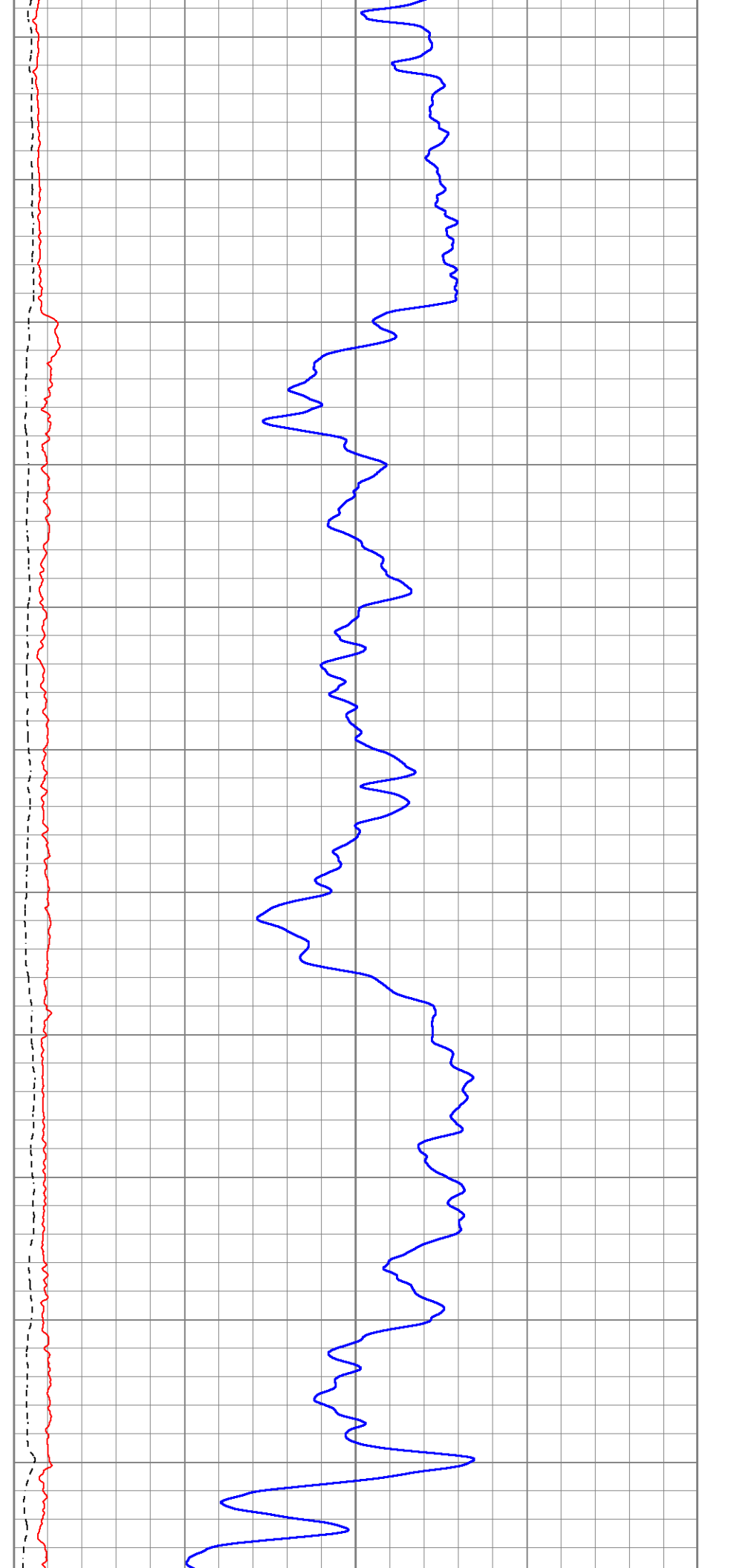
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-100	SP (mV)	100	0	RLL3 (Ohm-m)	50
0	RWA (Ohm-m)	1	0	RILD (Ohm-m)	50
			50	RILD X10 (Ohm-m)	500
			50	RLL3 X10 (Ohm-m)	500

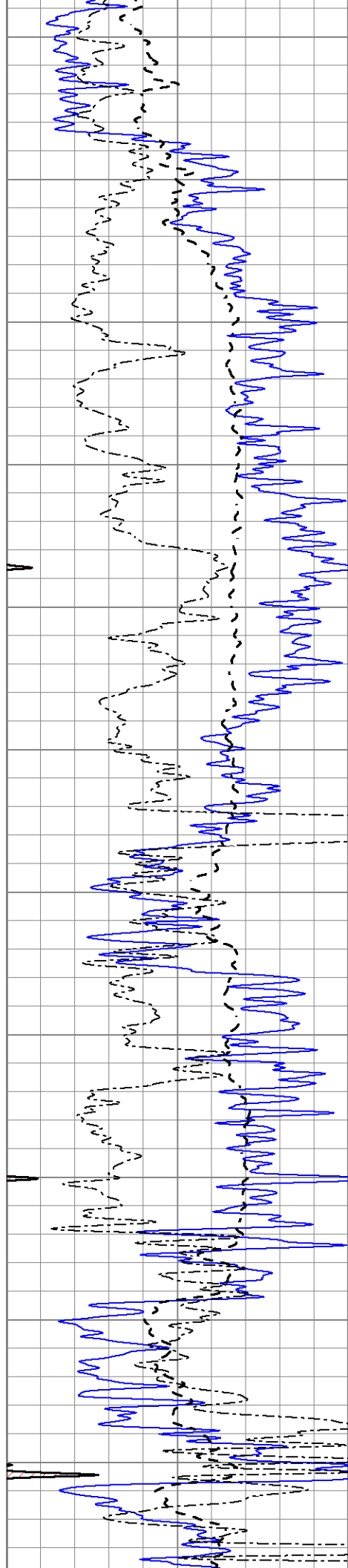




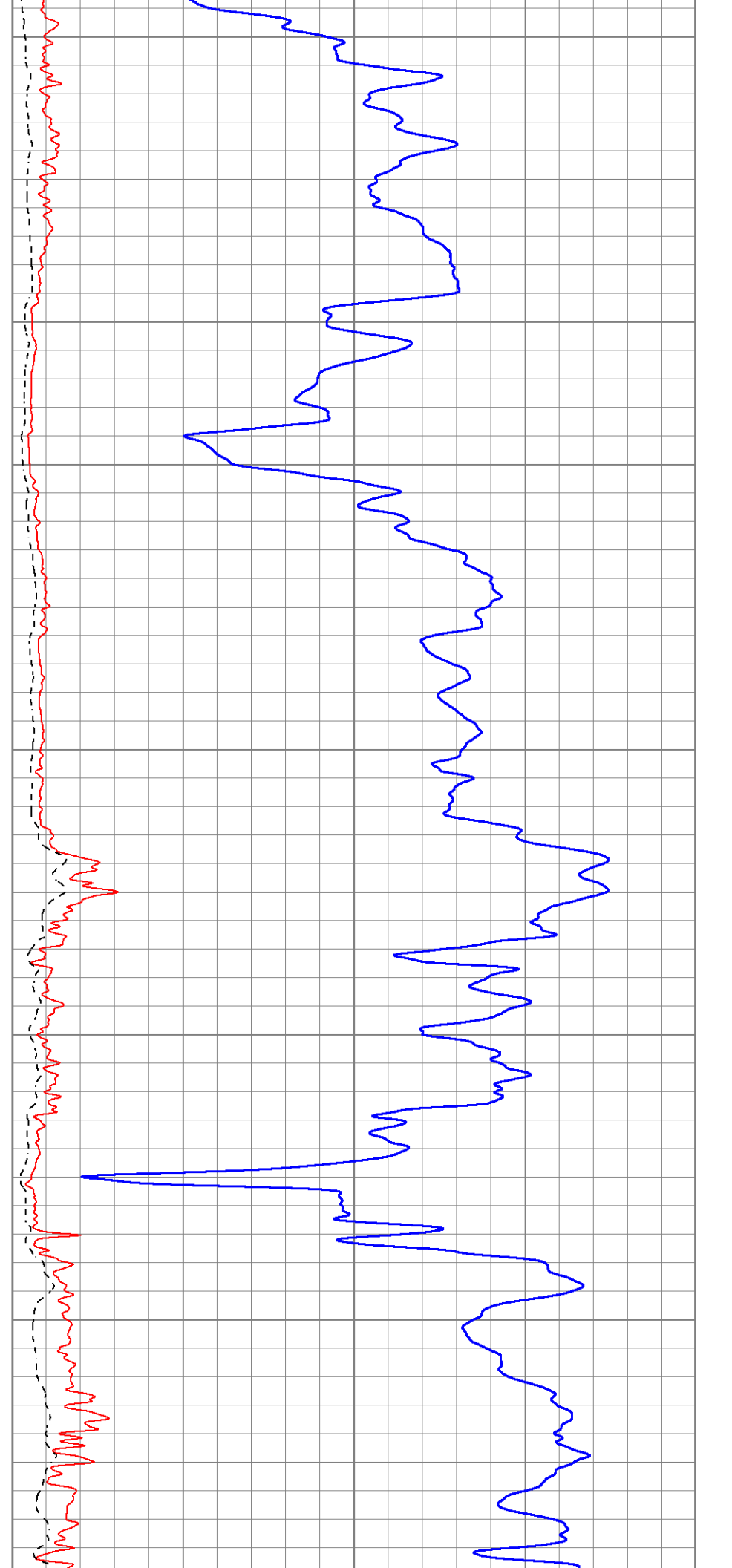


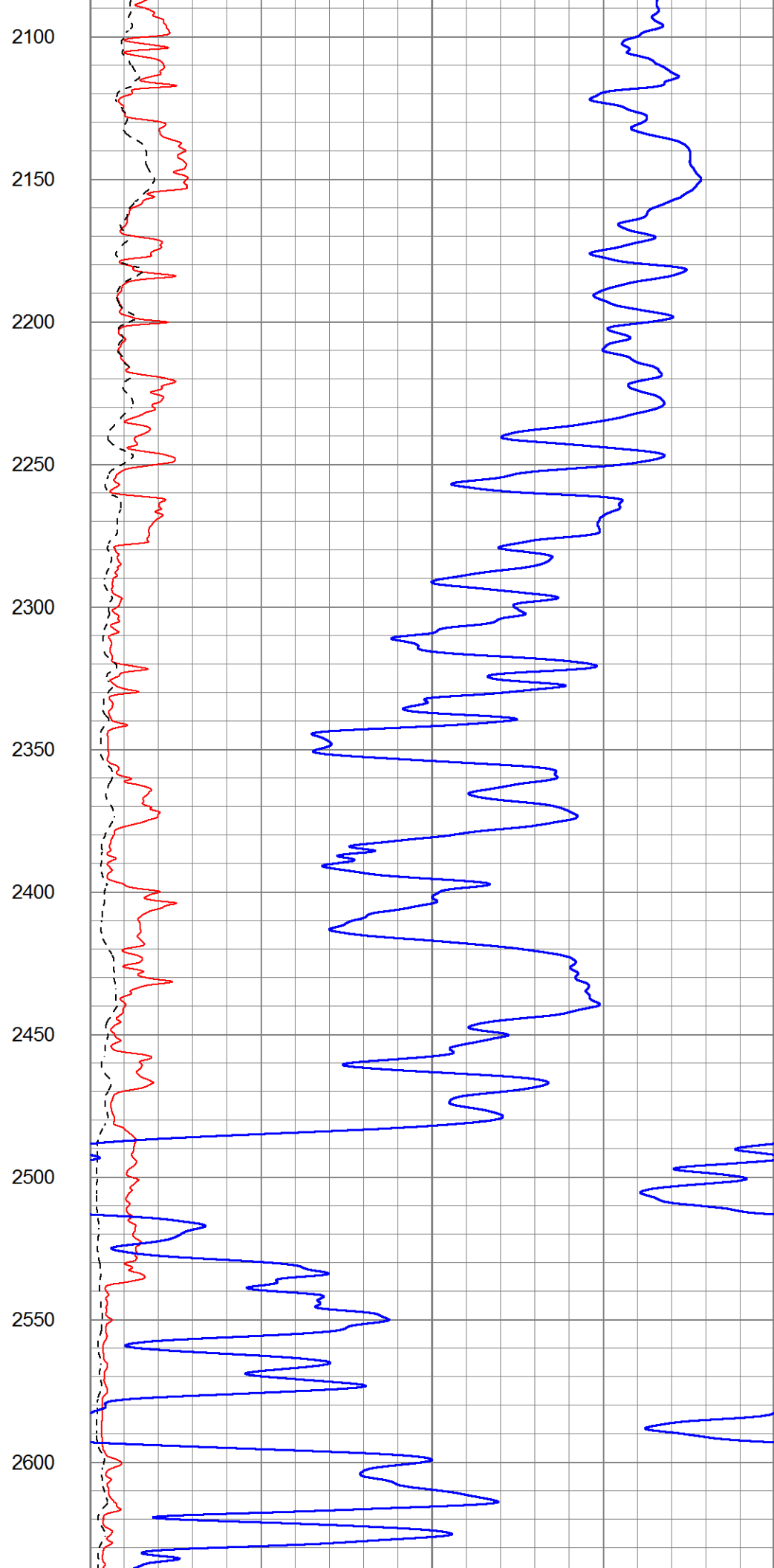
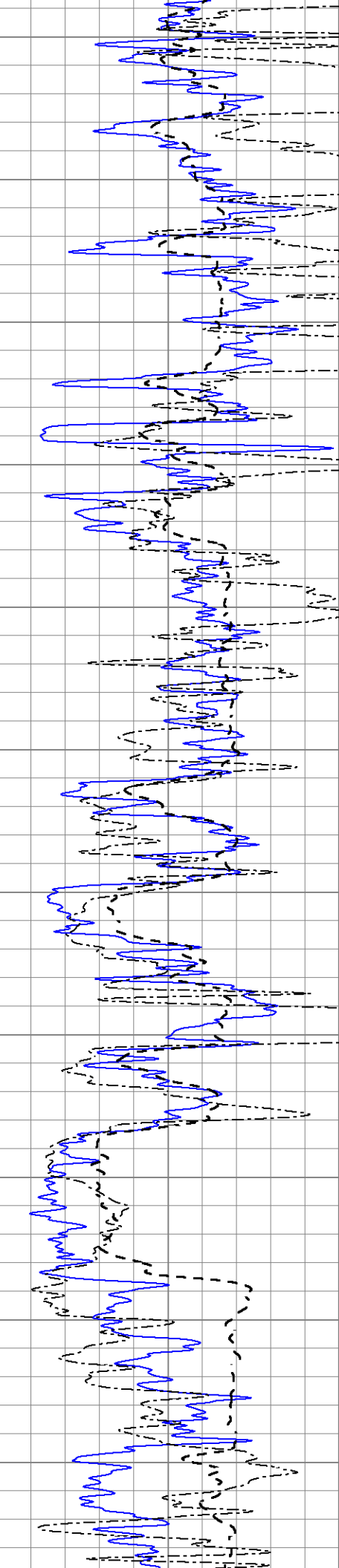
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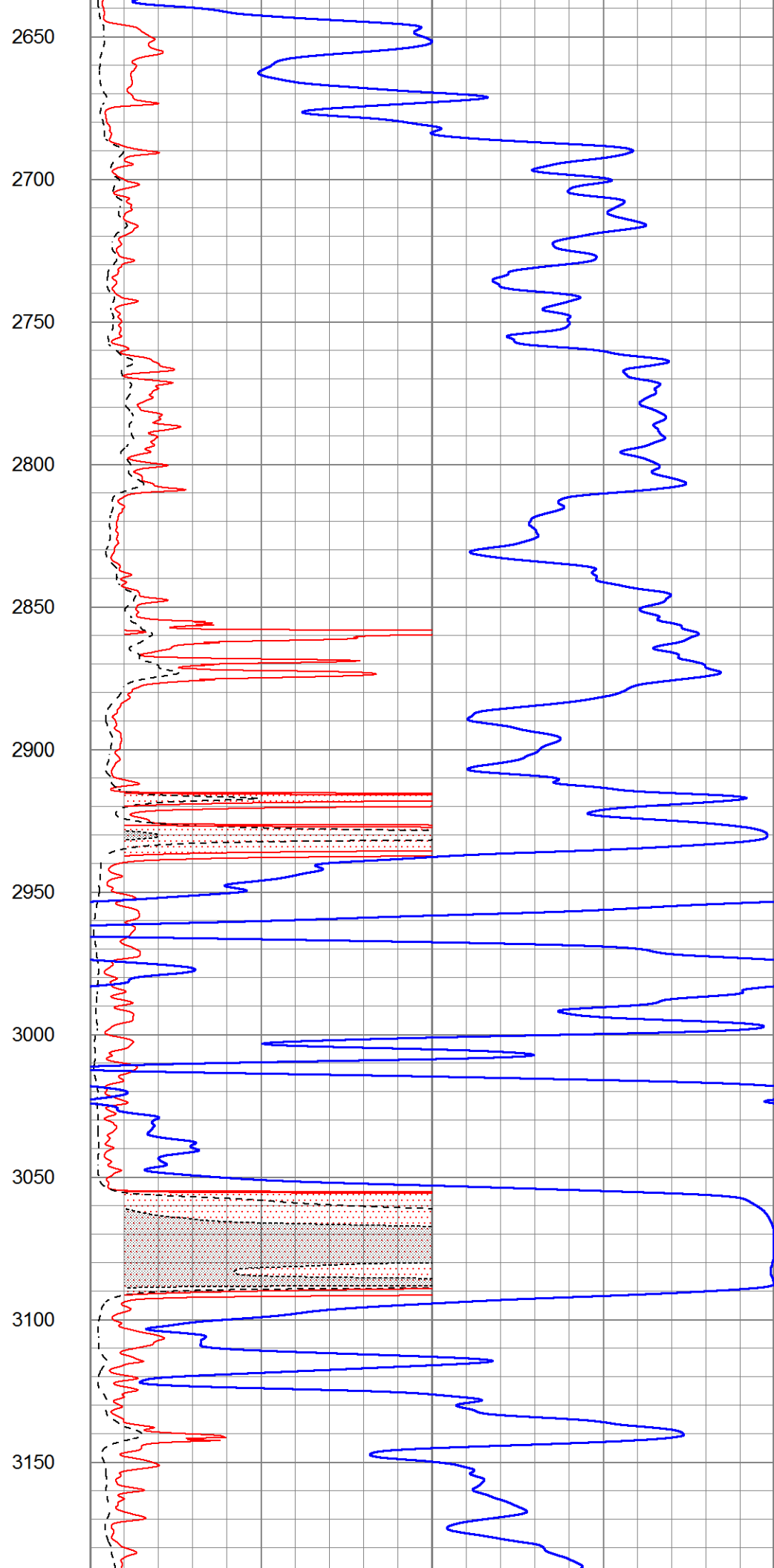
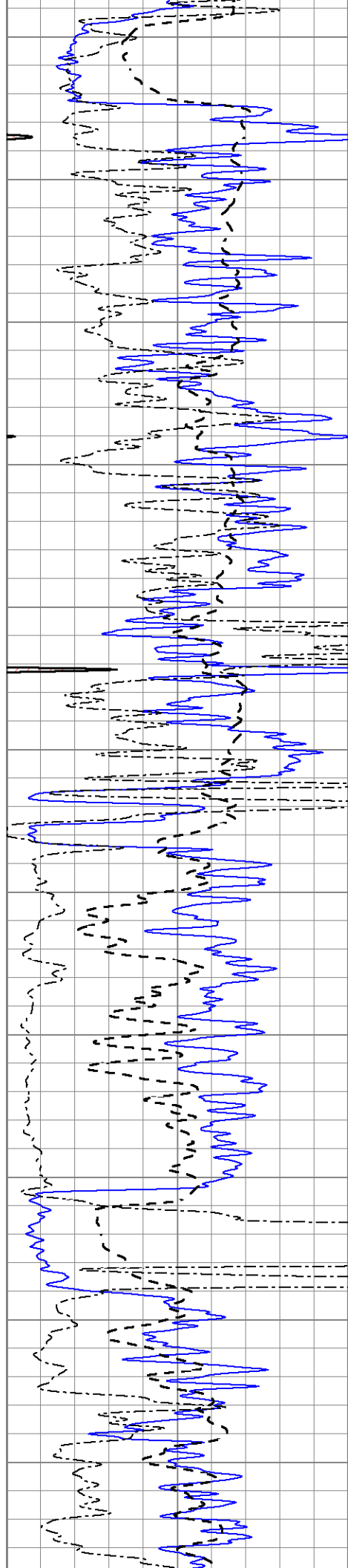


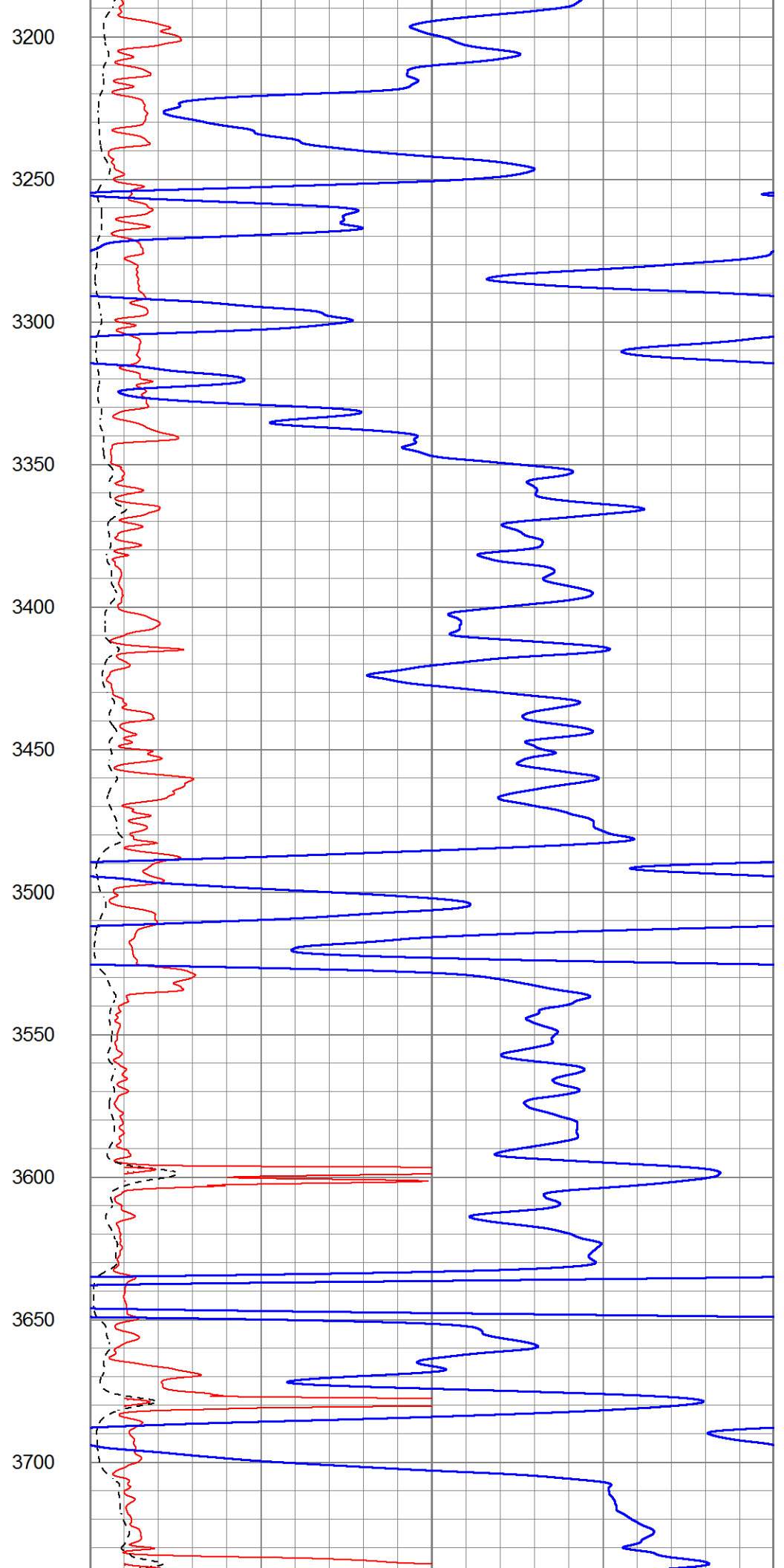
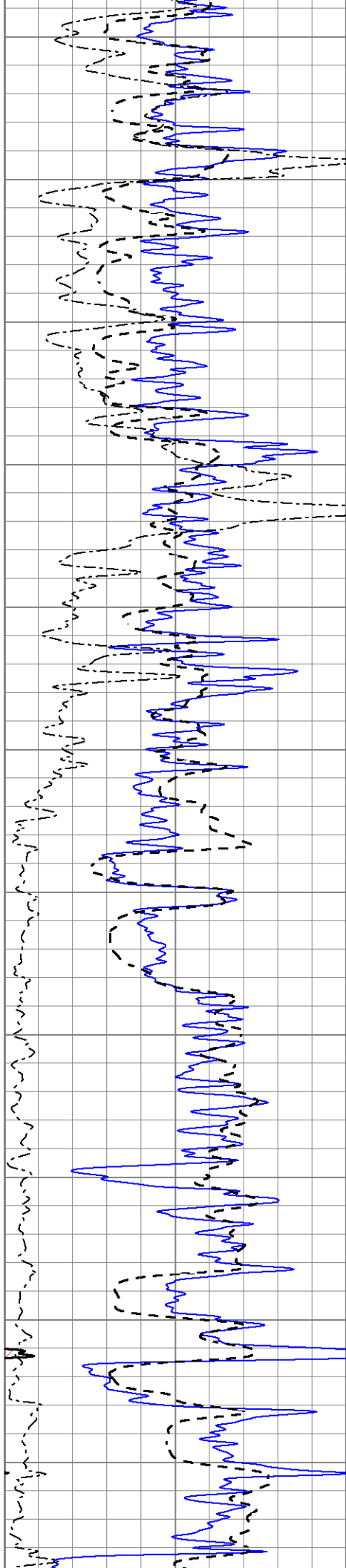


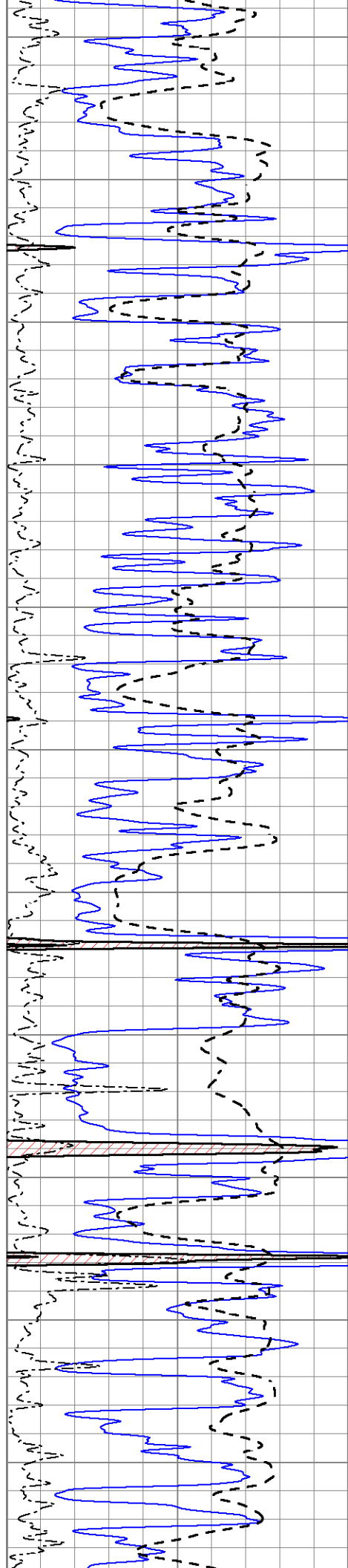
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1950
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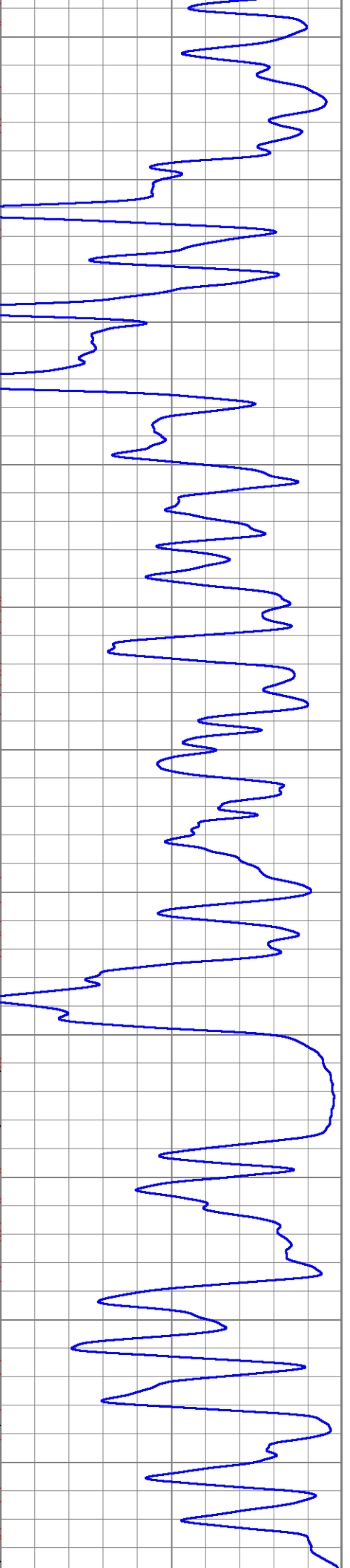
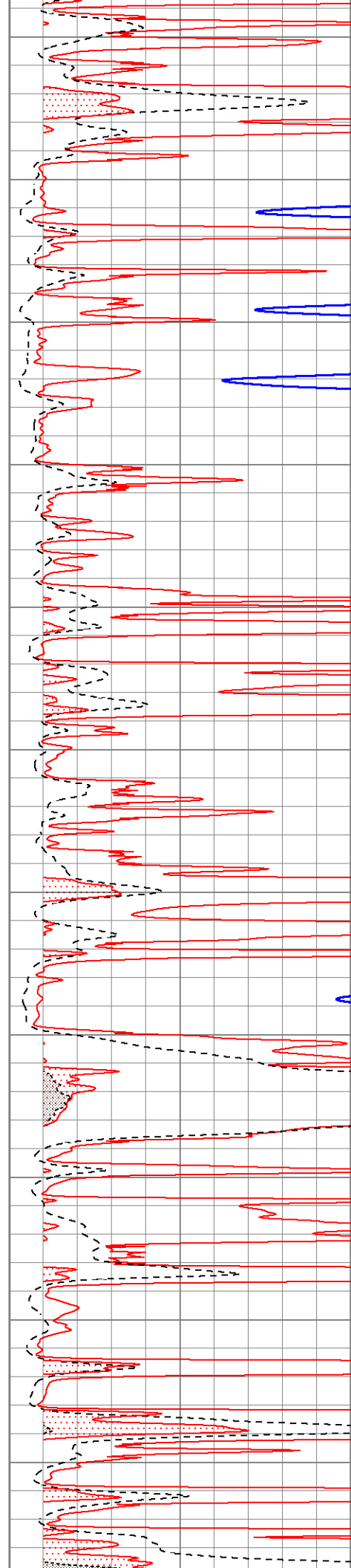
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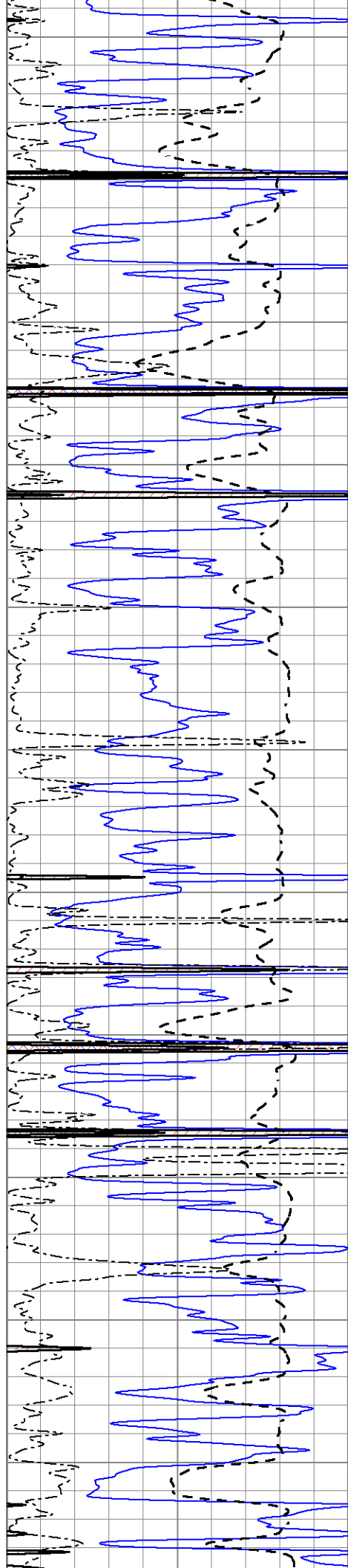
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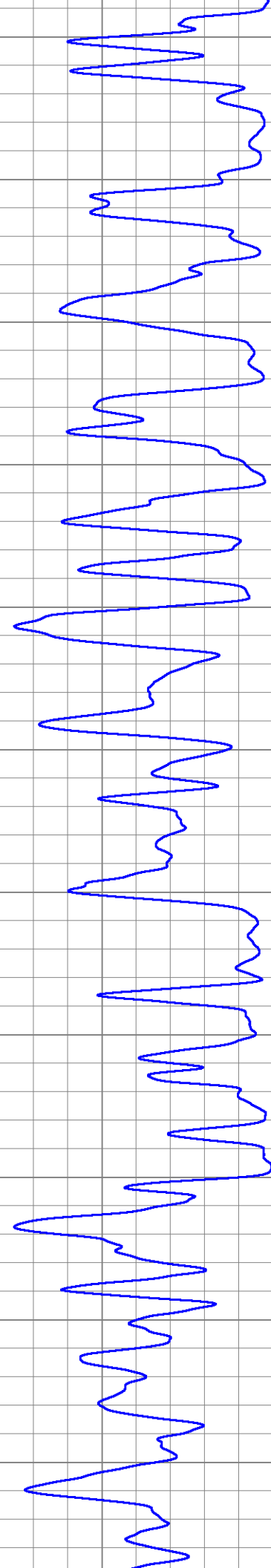
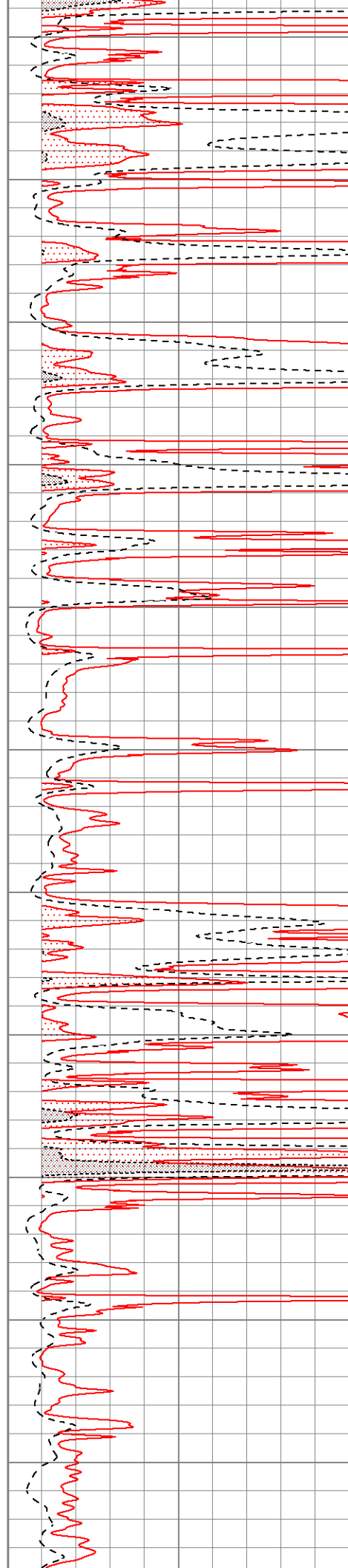
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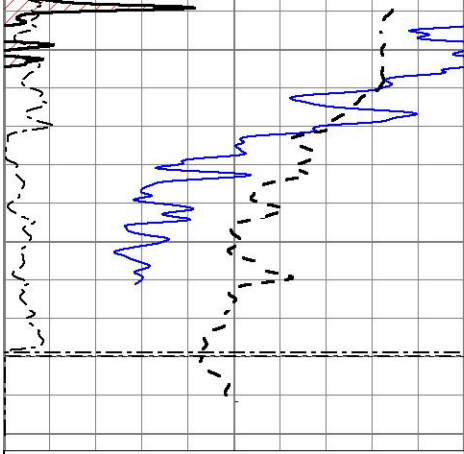
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0	Gamma Ray (GAPI)	150
-100	SP (mV)	100
0	RWA (Ohm-m)	1



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

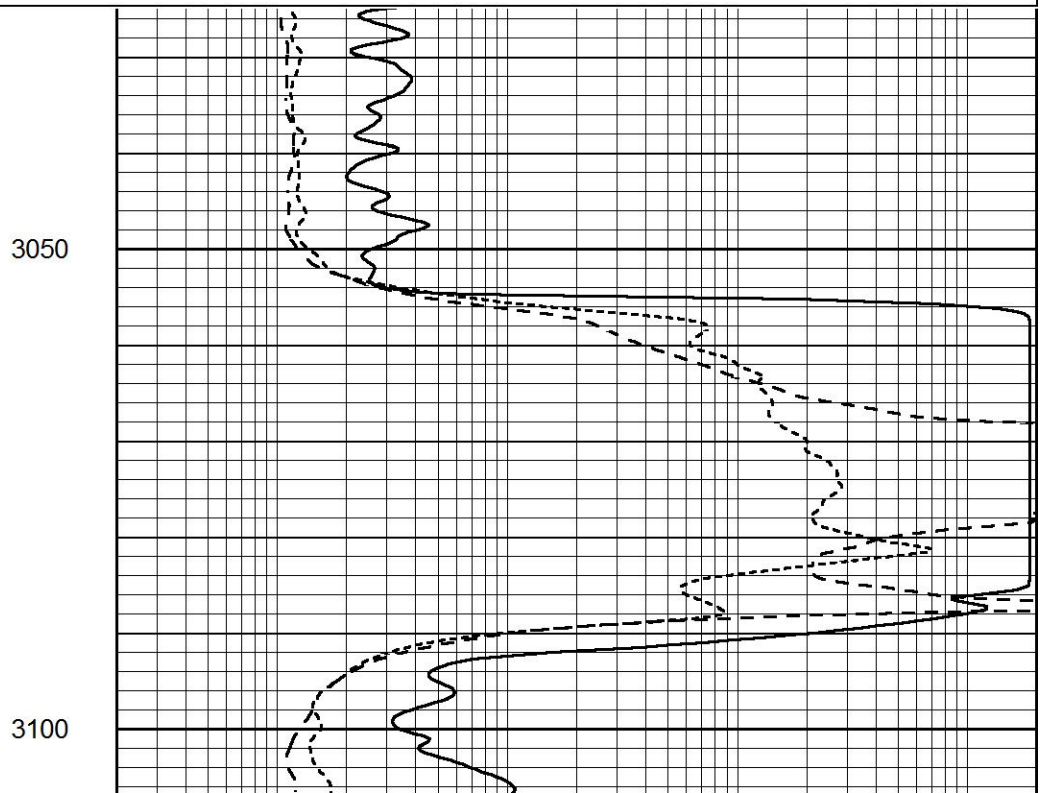
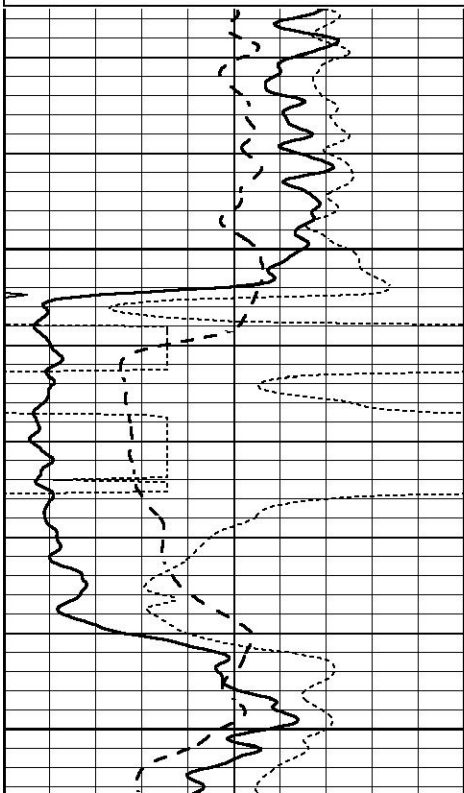


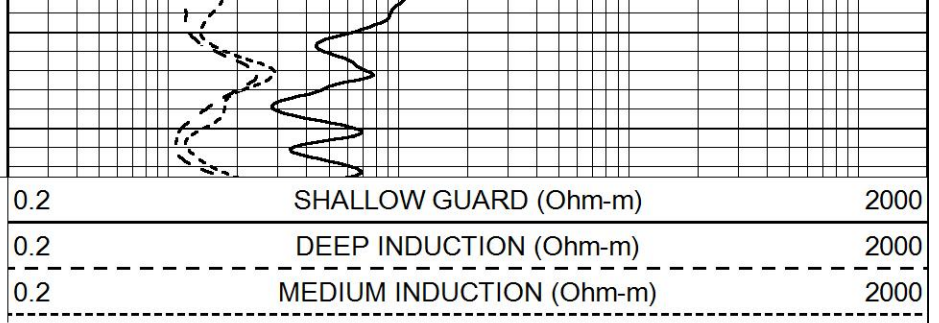
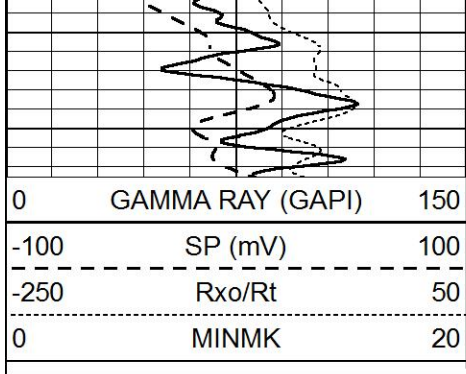
ANHYDRITE

Database File 5840ddn.db
 Dataset Pathname pass3.1A
 Presentation Format _dil
 Dataset Creation Sat Dec 04 21:19:34 2021
 Charted by Depth in Feet scaled 1:240

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

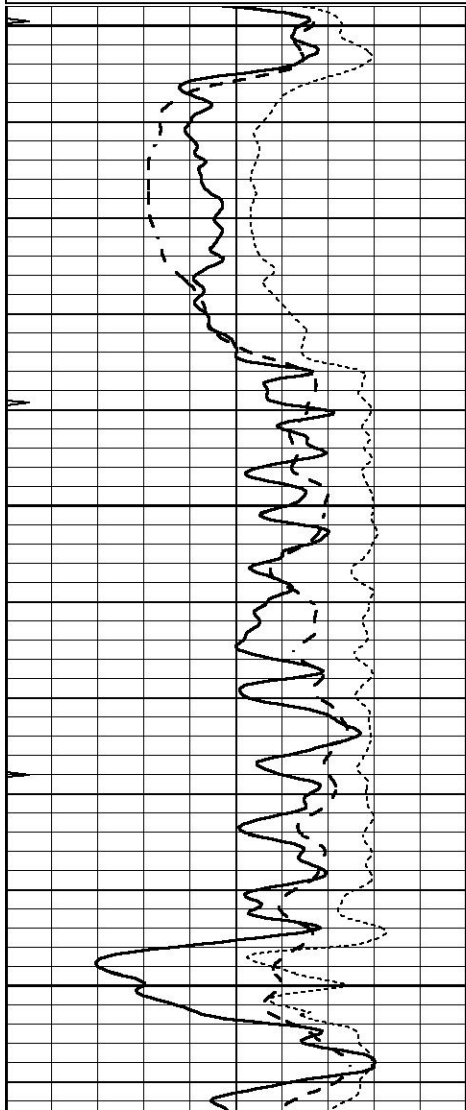
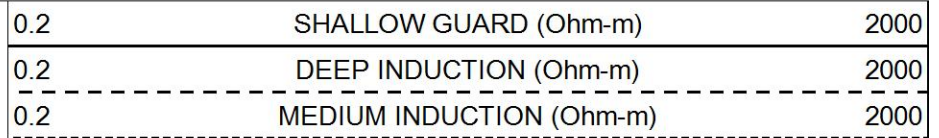
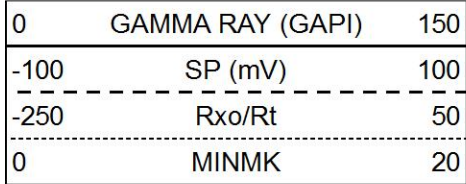
0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000





MAIN SECTION

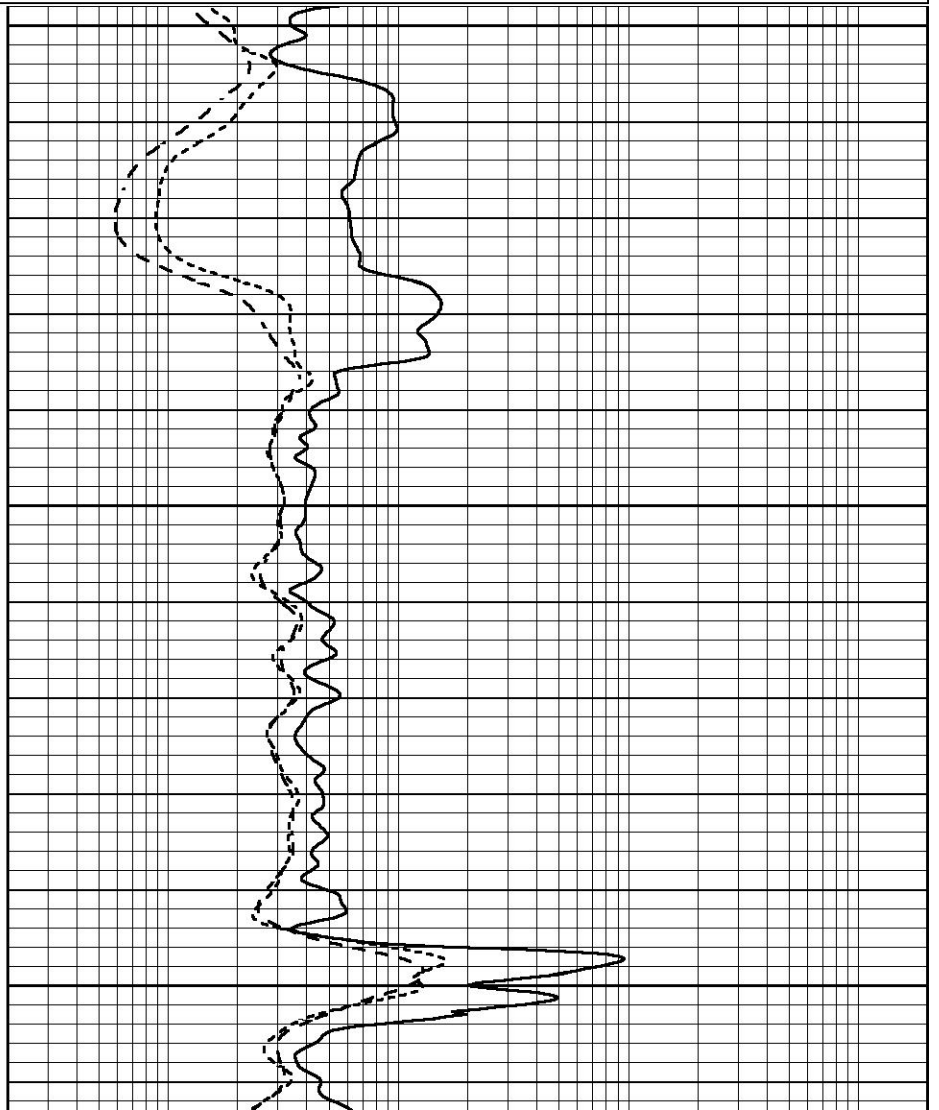
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 Dataset Pathname pass3.1M
 Presentation Format _dil
 Dataset Creation Sat Dec 04 21:10:26 2021
 Charted by Depth in Feet scaled 1:240

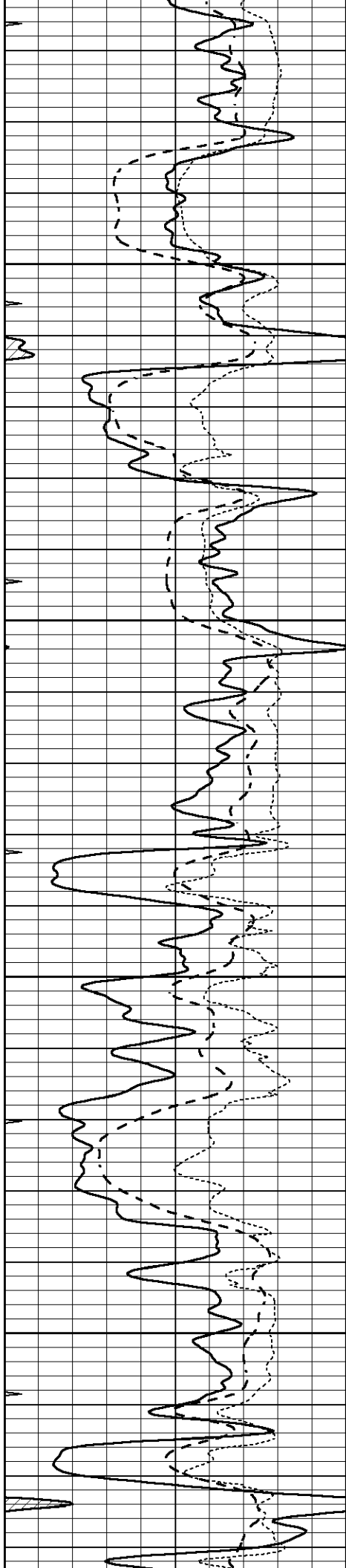


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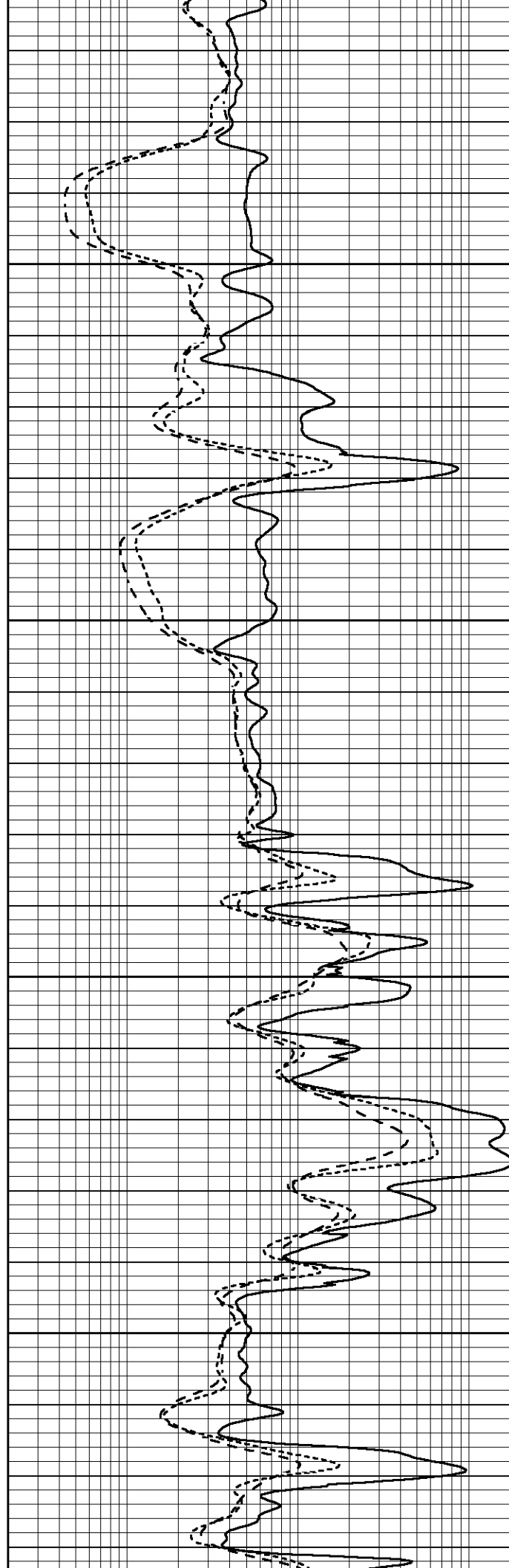


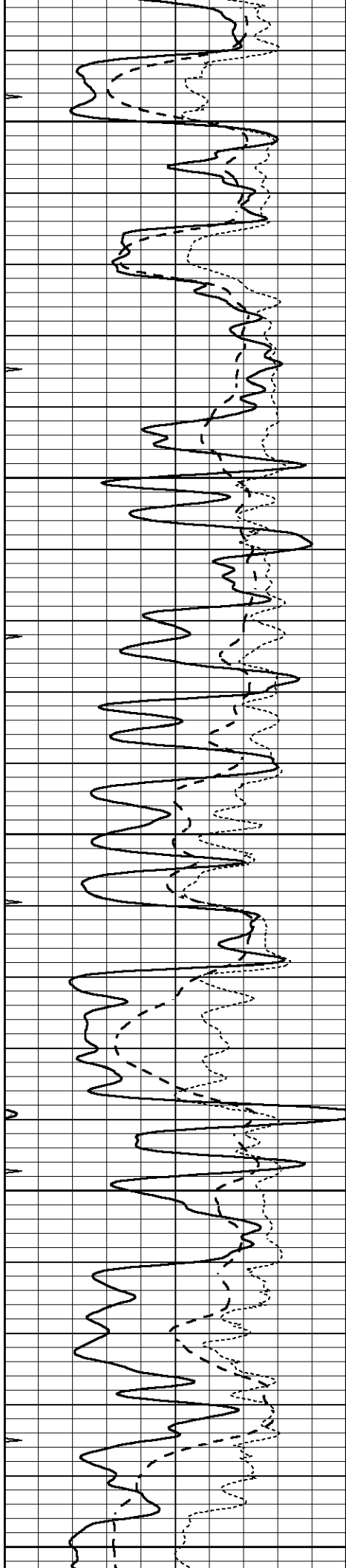
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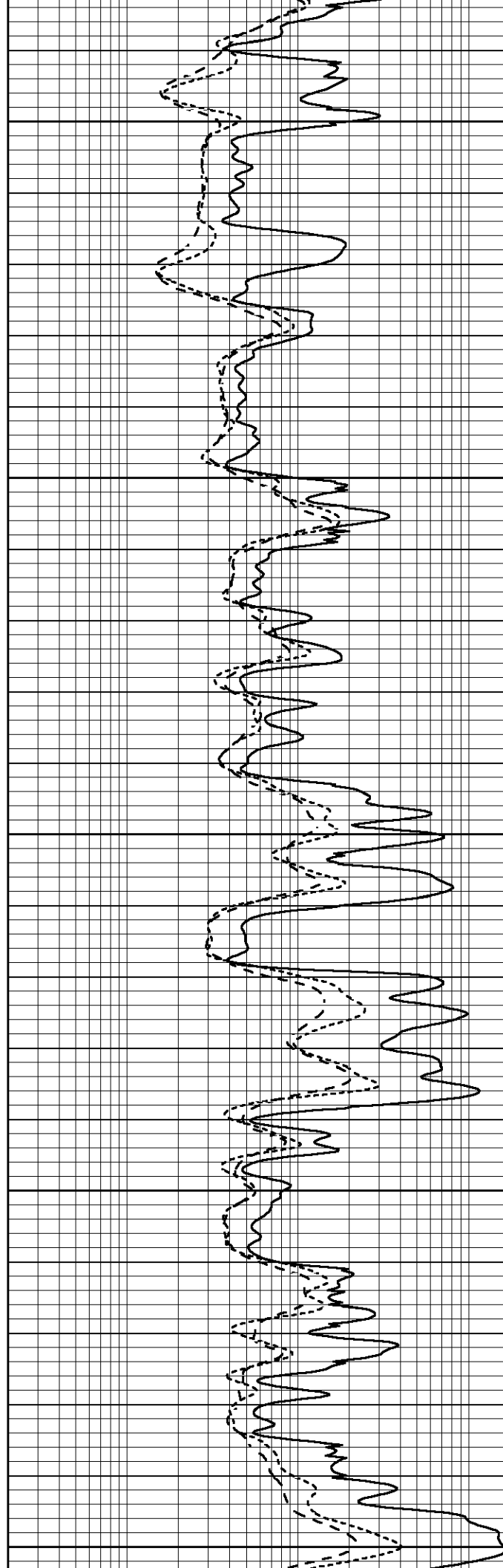
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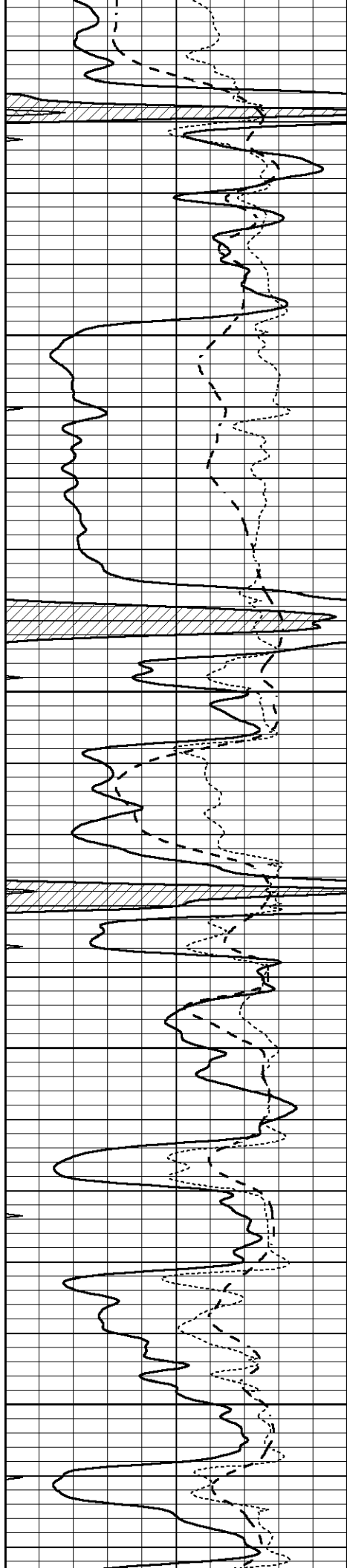
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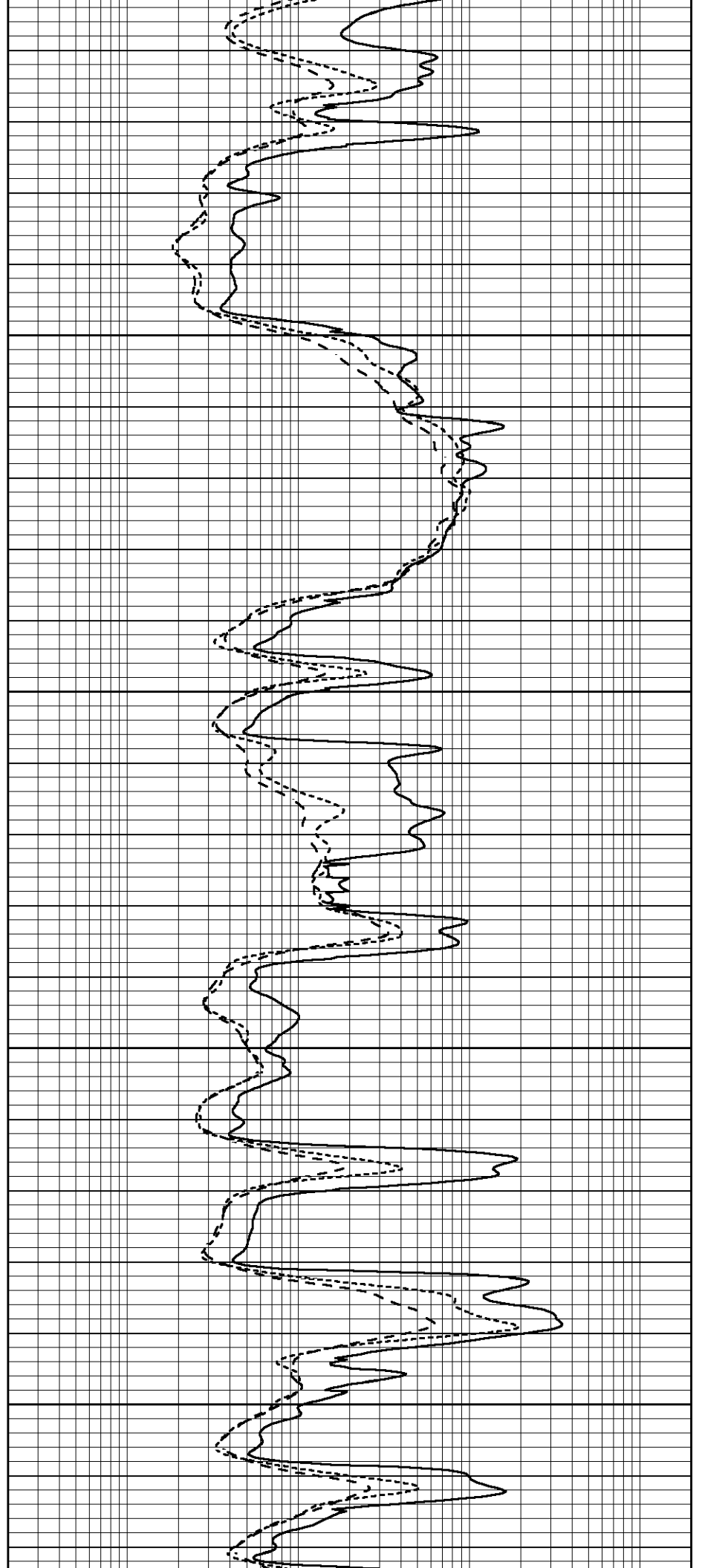


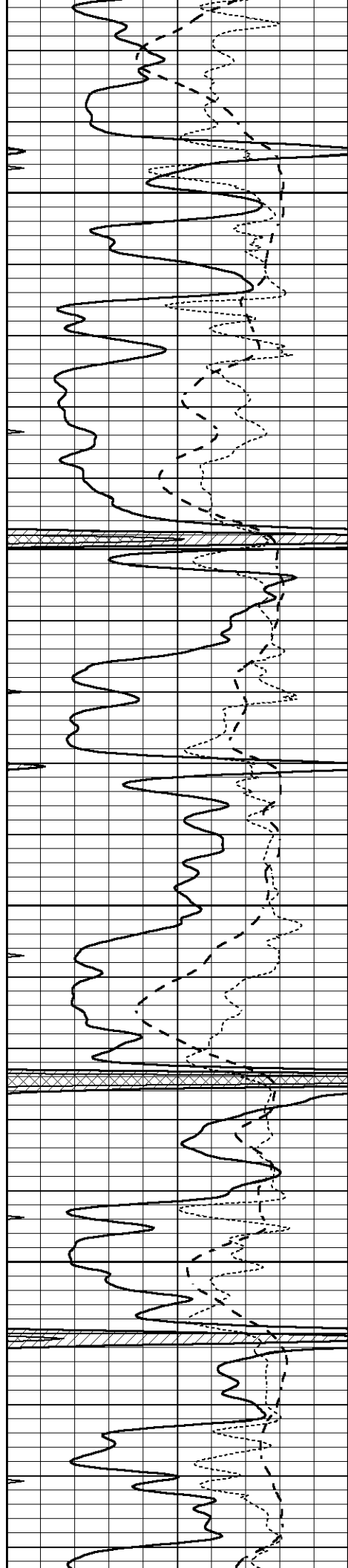
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4150

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4250



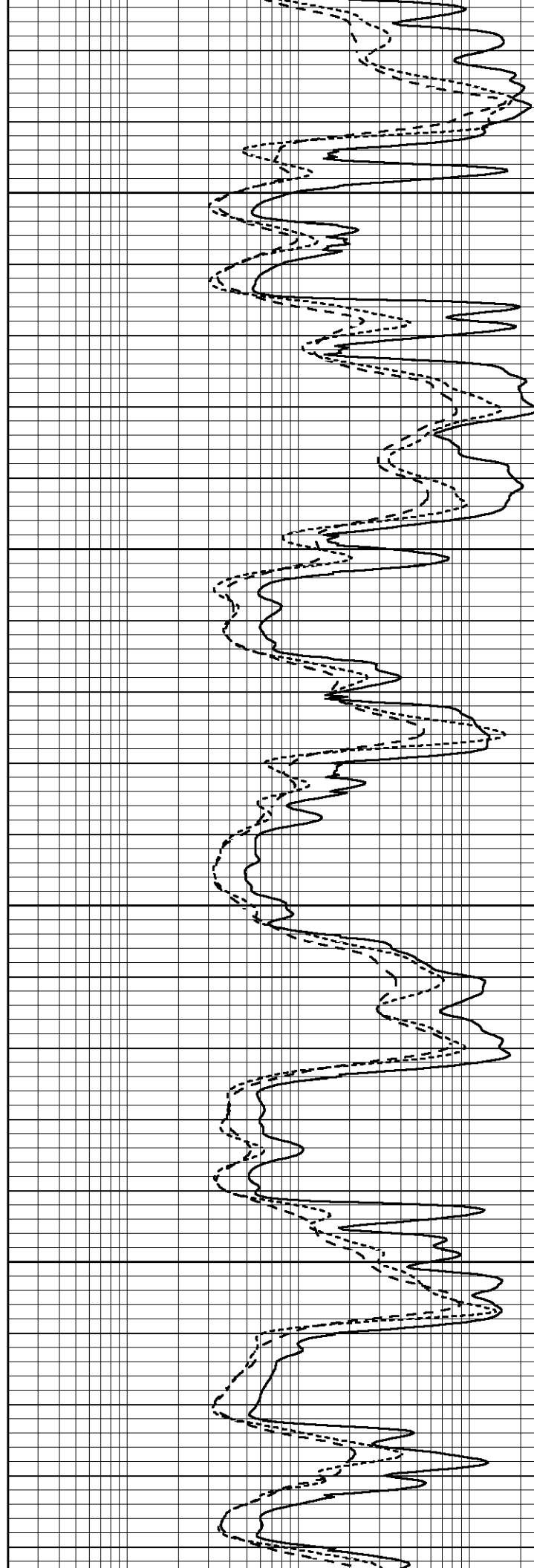


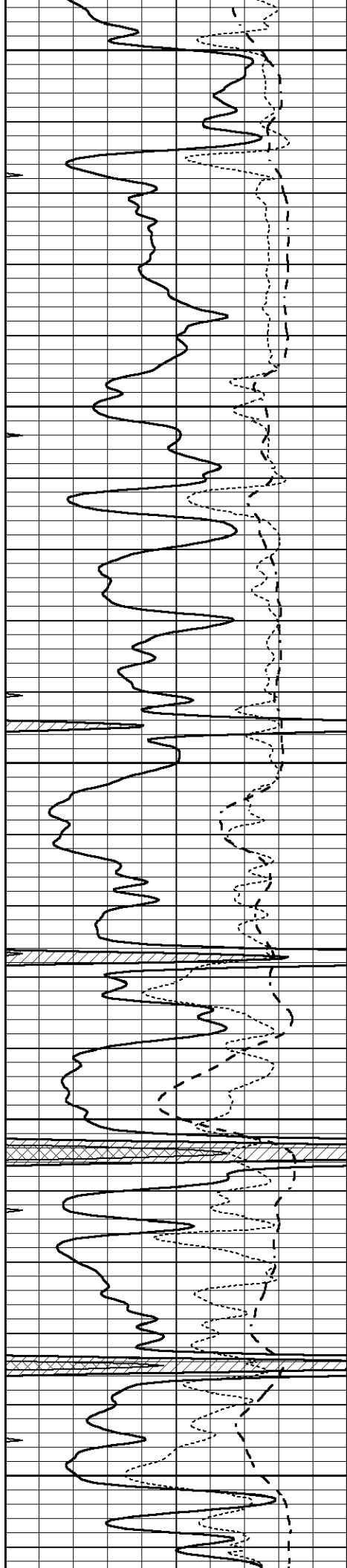
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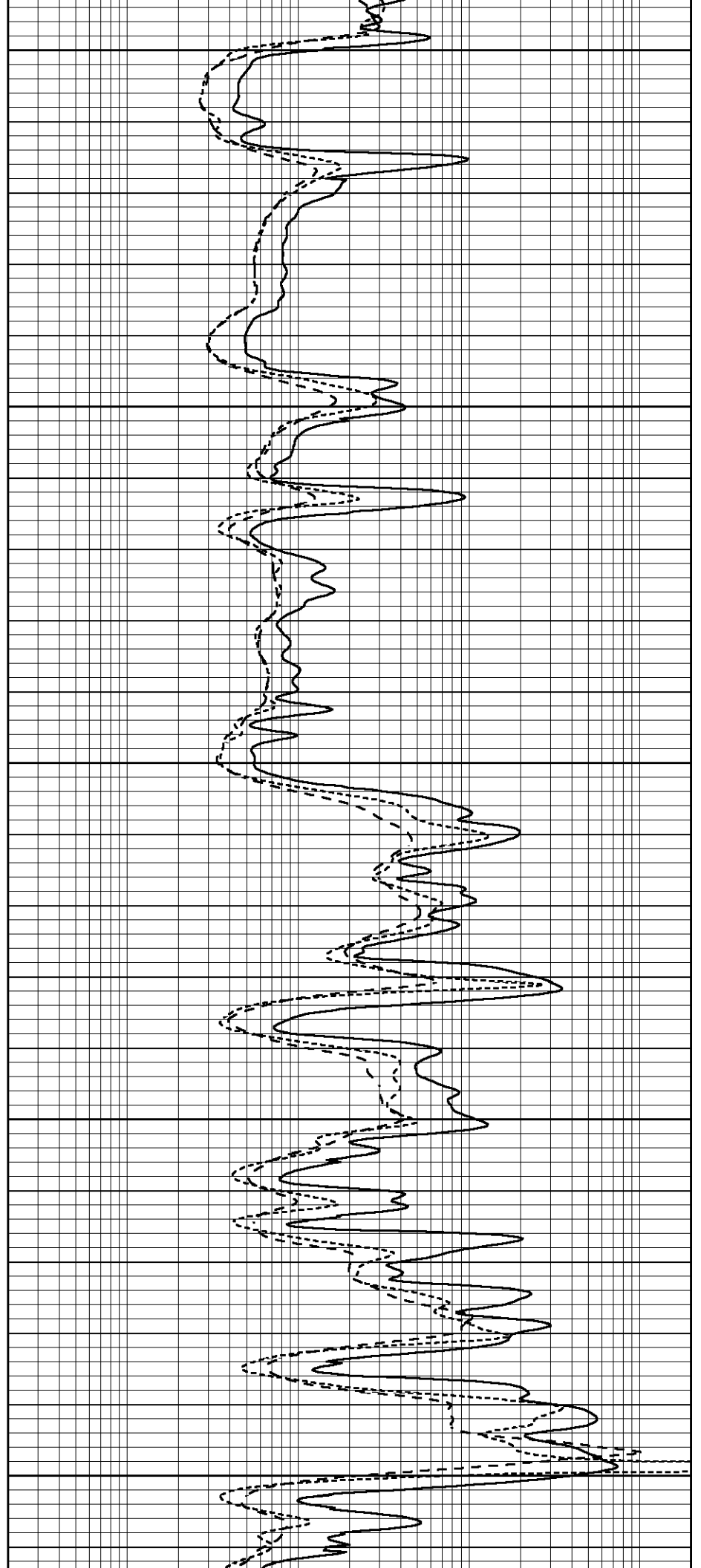
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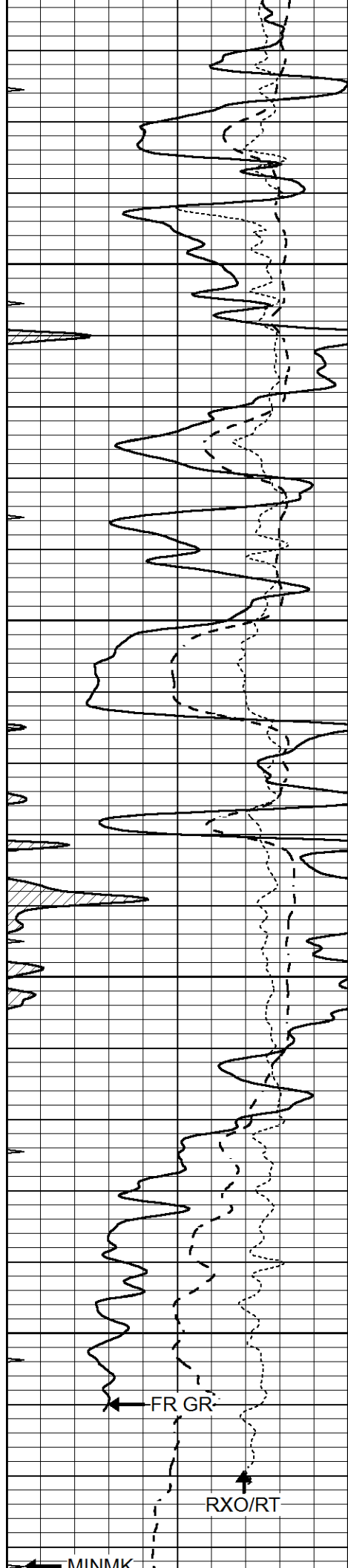
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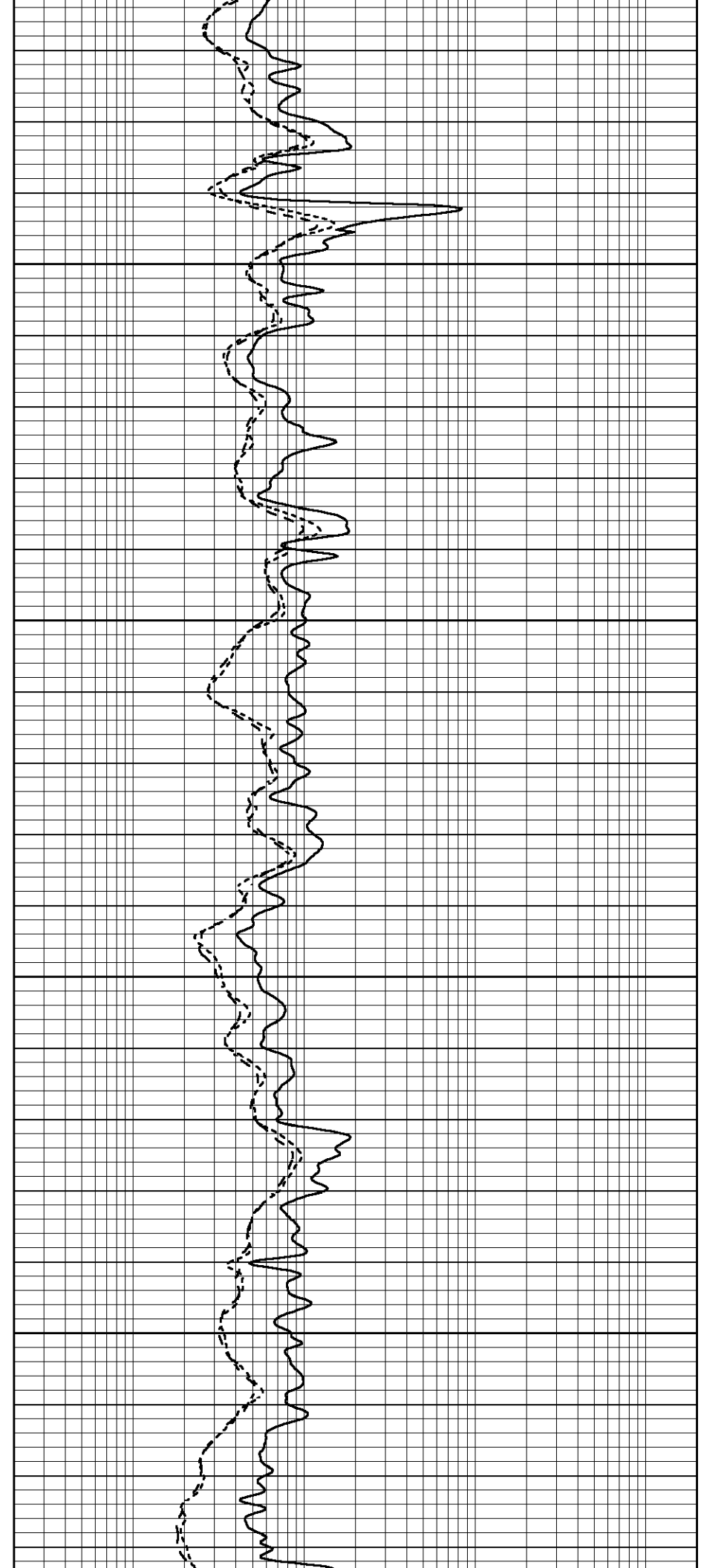


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0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	20

LTD 4948
4950

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

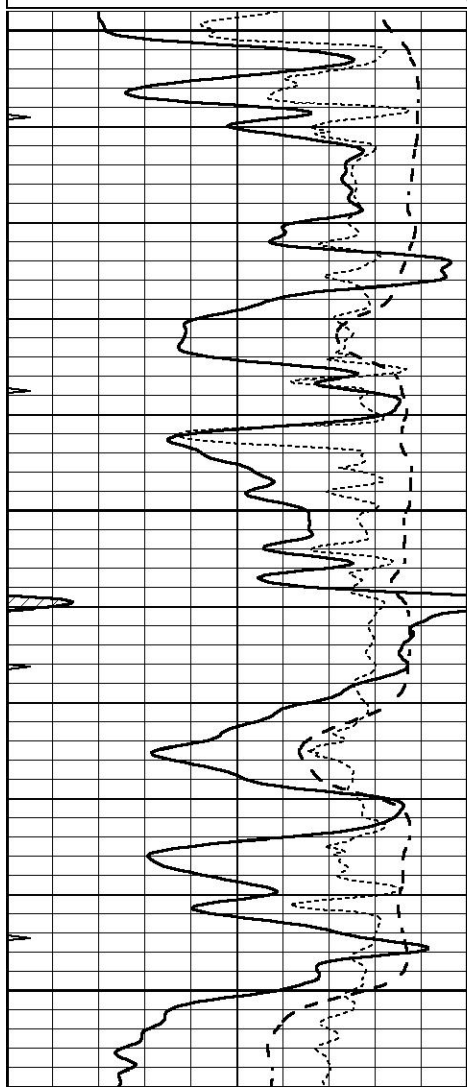


REPEAT SECTION

Database File 5840ddn.db
 Dataset Pathname pass2.1R
 Presentation Format _dil
 Dataset Creation Sat Dec 04 21:17:28 2021
 Charted by Depth in Feet scaled 1:240

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

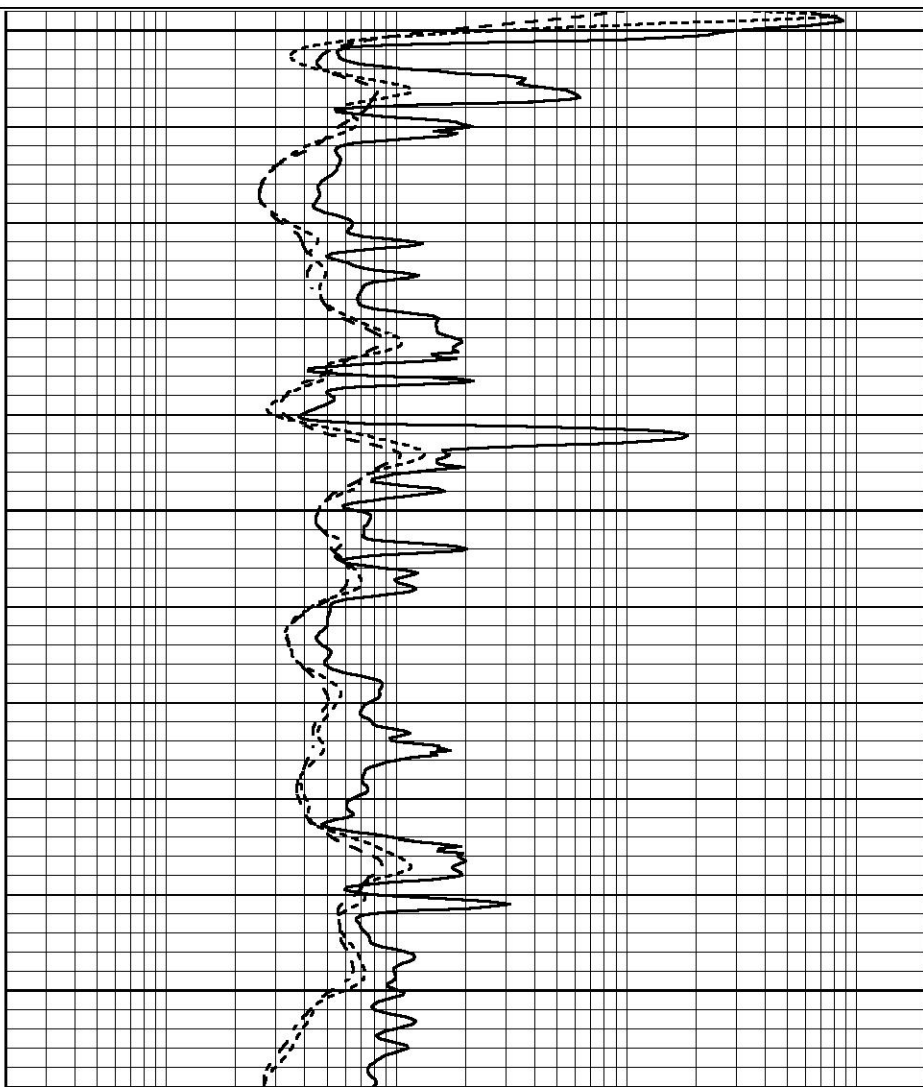
0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000

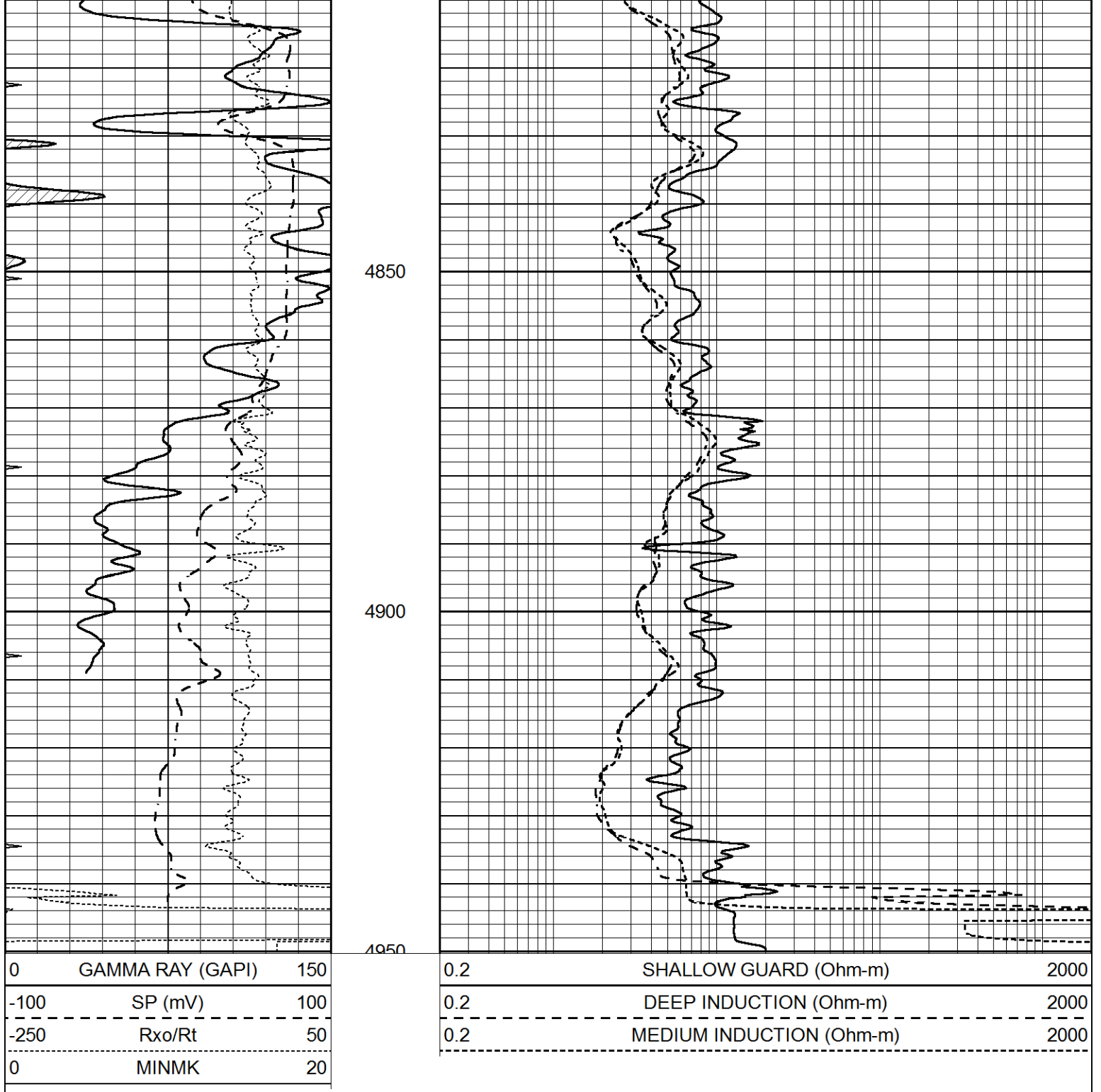


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Calibration Report

Database File 5840ddn.db
 Dataset Pathname pass3.1M
 Dataset Creation Sat Dec 04 21:10:26 2021

Dual Induction Calibration Report

Serial-Model:	PROBE9-DILG
Surface Cal Performed:	Fri Dec 03 10:55:19 2021
Downhole Cal Performed:	Wed Mar 11 11:31:19 2020
After Survey Verification Performed:	Wed Mar 11 11:31:22 2020

Surface Calibration

	Readings		References		Results
Loop:	Air	Loop	Air	Loop	m b

Deep	-0.014	0.629	V	0.000	400.000	mmho/m	720.000	-8.000
Medium	0.039	0.728	V	0.000	464.000	mmho/m	720.000	-18.000
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	Ohm-m		
		1.000	mmho-m		1.000	mmho-m		

Litho Density Calibration Report
Serial: 004 Model: PRB

Master Calibration		Performed Tue May 18 11:02:48 2021						
	Background	Magnesium	Aluminum	Aluminum+Fe				
Window 1	1187.1	10004.0	3142.5	2810.8				cps
Window 2	1084.9	8556.6	2749.3	2502.4				cps
Window 3	923.1	5129.8	1819.8	1719.3				cps
Window 4	263.5	263.6	259.7	262.8				cps
Long Space	0.0	7471.7	1664.4	1417.5				cps
Short Space	1.5	984.9	645.6	561.2				cps
Rho		1.7100	2.5900	0.0000				g/cc
Pe		2.0000	2.7500	5.7900				
Rib Angle	: 44.3	Rib Slope	: 0.976	Density/Spine Ratio			: 0.564	
Spine Angle	: 74.3	Spine Slope	: 3.555	Spine Intercept			: -15.6	

Before Survey Verification		Performed Wed Dec 31 18:00:00 1969						
	Background	Magnesium	Aluminum	Aluminum+Fe				
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						
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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
Short Space	cps		
Long Space	cps	pu	pu

Gamma Ray Calibration Report

Serial Number: 070558
Tool Model: OPEN_GR
Performed: Fri Sep 03 05:25:49 2021

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps
Calibrator Reading: 1.0 cps

Sensitivity: 0.2800 GAPI/cps