

DUAL INDUCTION LOG

Company	DOWNING - NELSON OIL COMPANY			Company DOWNING - NELSON OIL COMPANY, INC. Well VELMA UNIT #1-14 Field COTTON EAST County TREGO State KANSAS
Well	VELMA UNIT #1-14			
Field	COTTON EAST			
County	TREGO			
State	KANSAS			
Location:	SEC 14 TWP 12S RGE 21W Permanent Datum GROUND LEVEL Log Measured From KELLY BUSHING Drilling Measured From KELLY BUSHING			API # : 15-195-23122-0000 140' FNL & 2195' FEL NE - NW - NW - NE Elevation 2344 Other Services CDL/CNL MEL/SON
Date	6/12/21			
Run Number	ONE			
Depth Driller	4118			
Depth Logger	4119			
Bottom Logged Interval	4117			
Top Log Interval	00			
Casing Driller	8 5/8"@224'			
Casing Logger	224			
Bit Size	7 7/8"			
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 4,000 PPM		
Density / Viscosity	9.3/56			
pH / Fluid Loss	10.5/9.4			
Source of Sample	FLOWLINE			
Rm @ Meas. Temp	.650@90F			
Rmf @ Meas. Temp	.488@90F			
Rmc @ Meas. Temp	.780@90F			
Source of Rmf / Rmc	MEASUREMENT			
Rm @ BHT	.500@117F			
Time Circulation Stopped	2.5 HOURS			
Time Logger on Bottom	8:15 P.M.			
Maximum Recorded Temperature	117F			
Equipment Number	922339			
Location	HAYS, KANSAS			
Recorded By	JEFF LUEBBERS			
Witnessed By	RON NELSON			

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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.

15-195-23122-0000

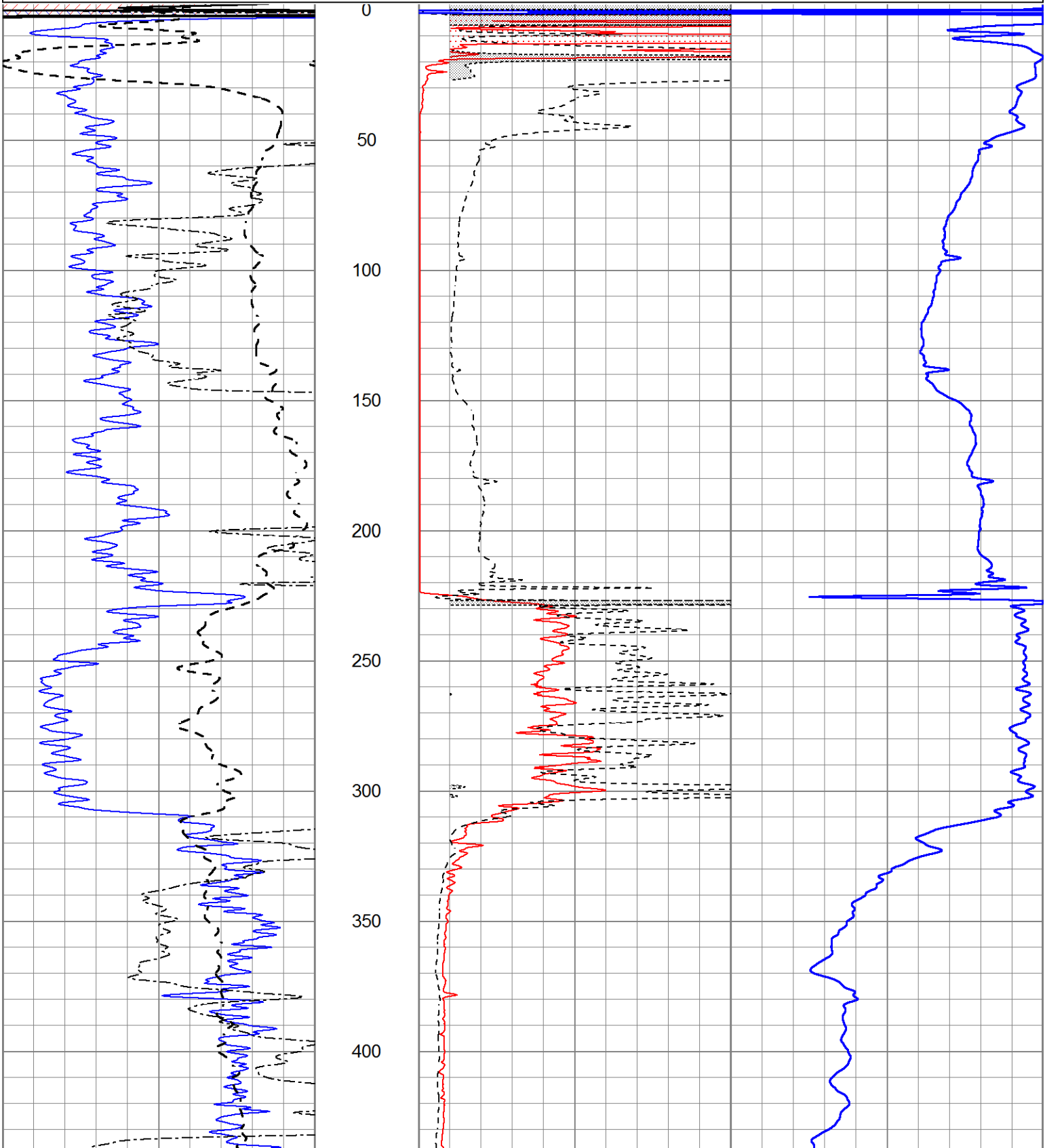
Comments

THANK YOU FOR USING ELI WIRELINE HAYS, KANSAS (785) 628-6395
DIRECTIONS
ELLIS, KS. & I-70, N. TO CURVE, "LOCUST GROVE RD.", W. TO "400 AVE.", 2N., W. INTO ON TRAIL

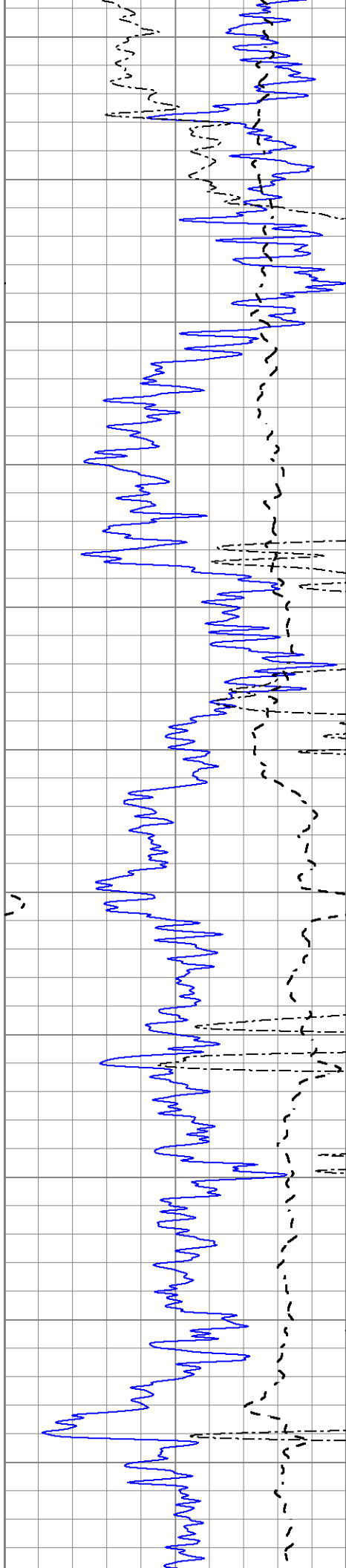
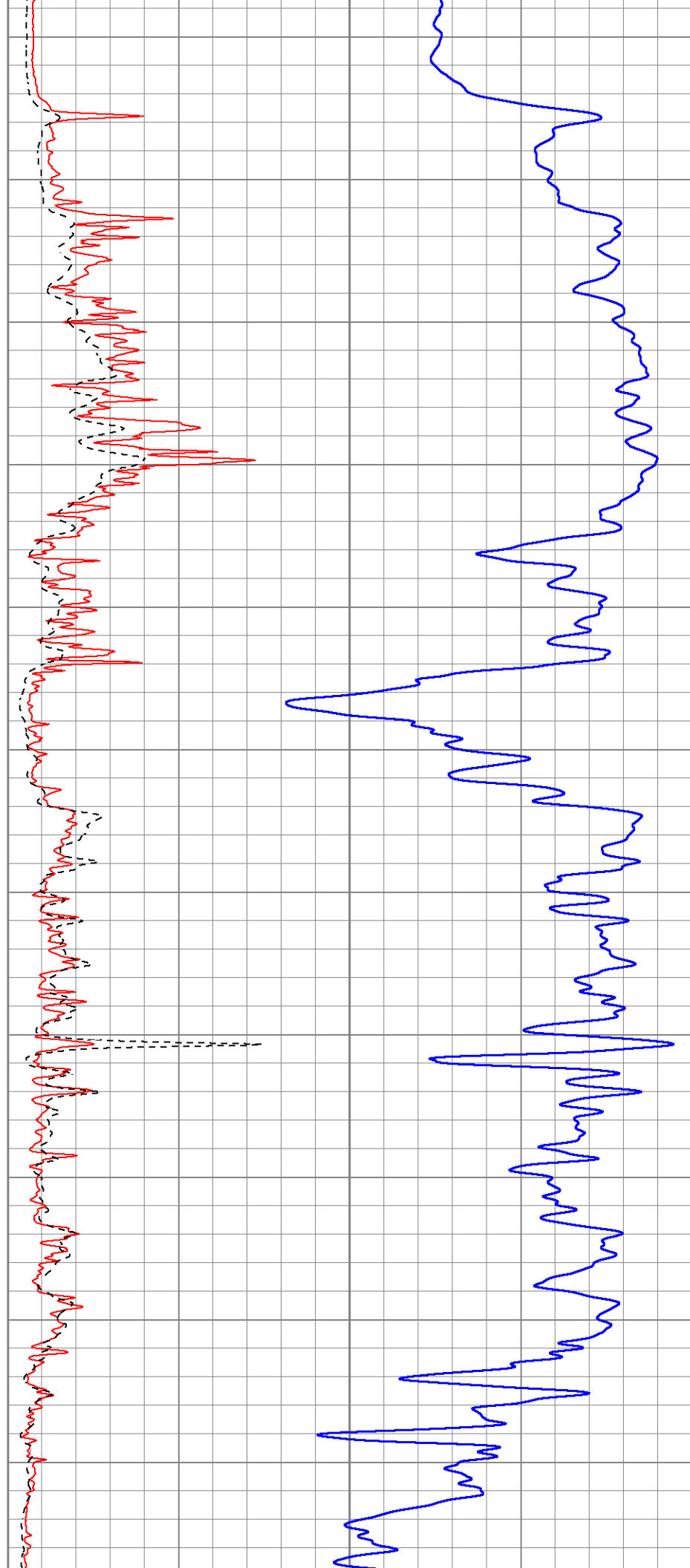


MAIN SECTION

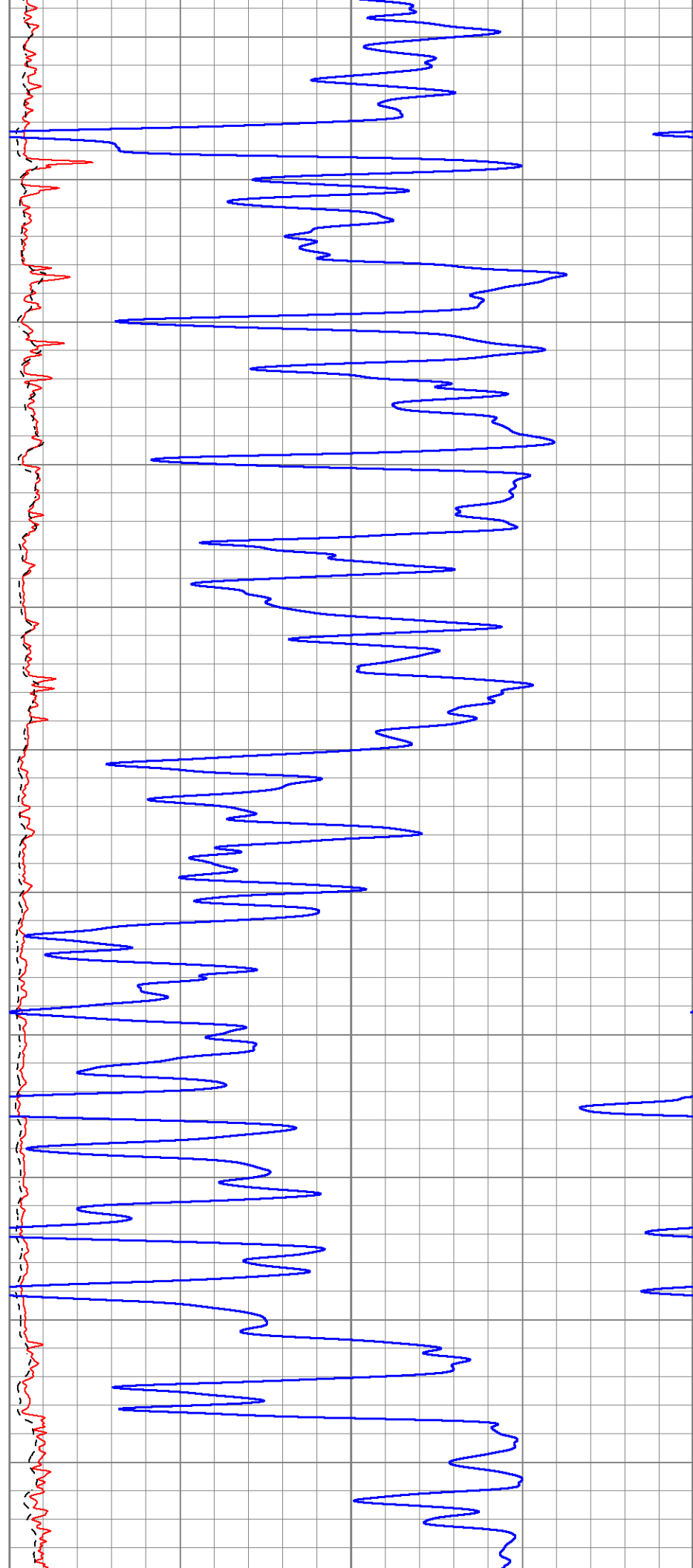
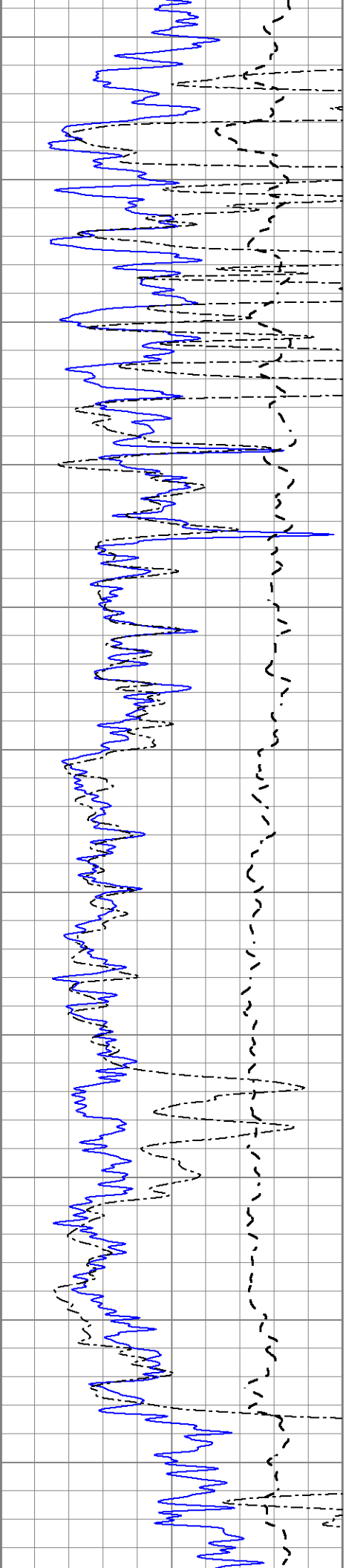
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-100	SP (mV)	100	0	RLL3 (Ohm-m)	50
0	RWA (Ohm-m)	1	0	RILD (Ohm-m)	50
			50	RILD X10 (Ohm-m)	500
			50	RLL3 X10 (Ohm-m)	500

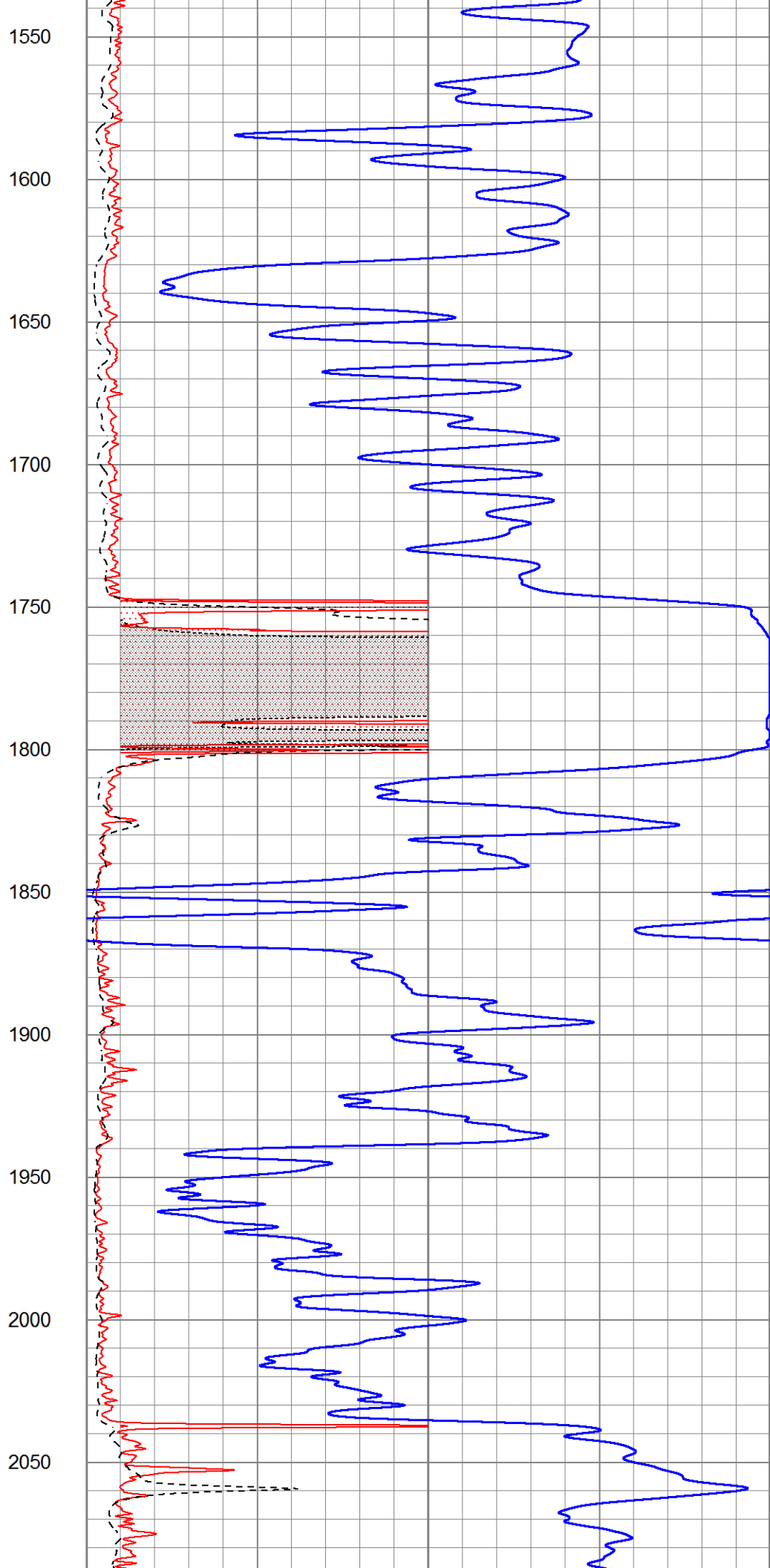
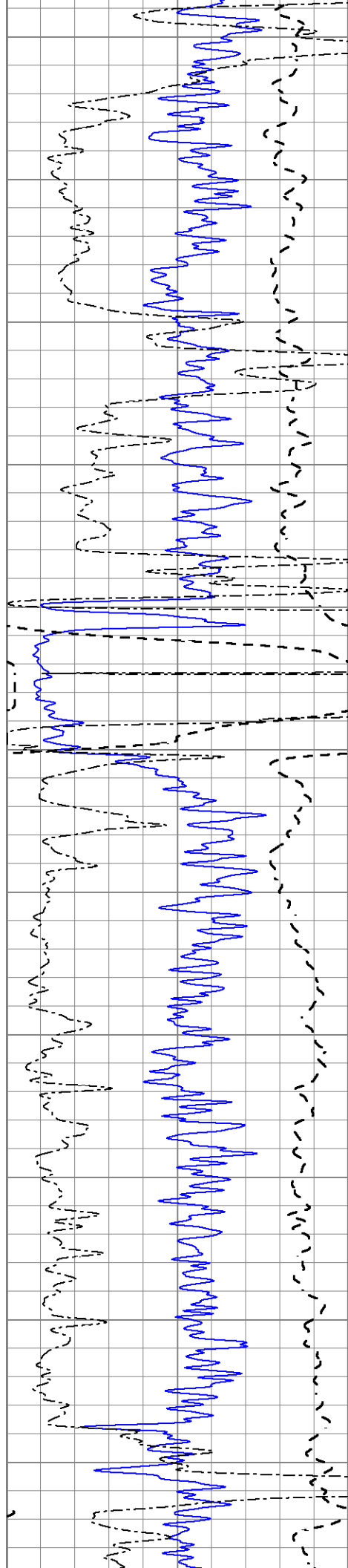


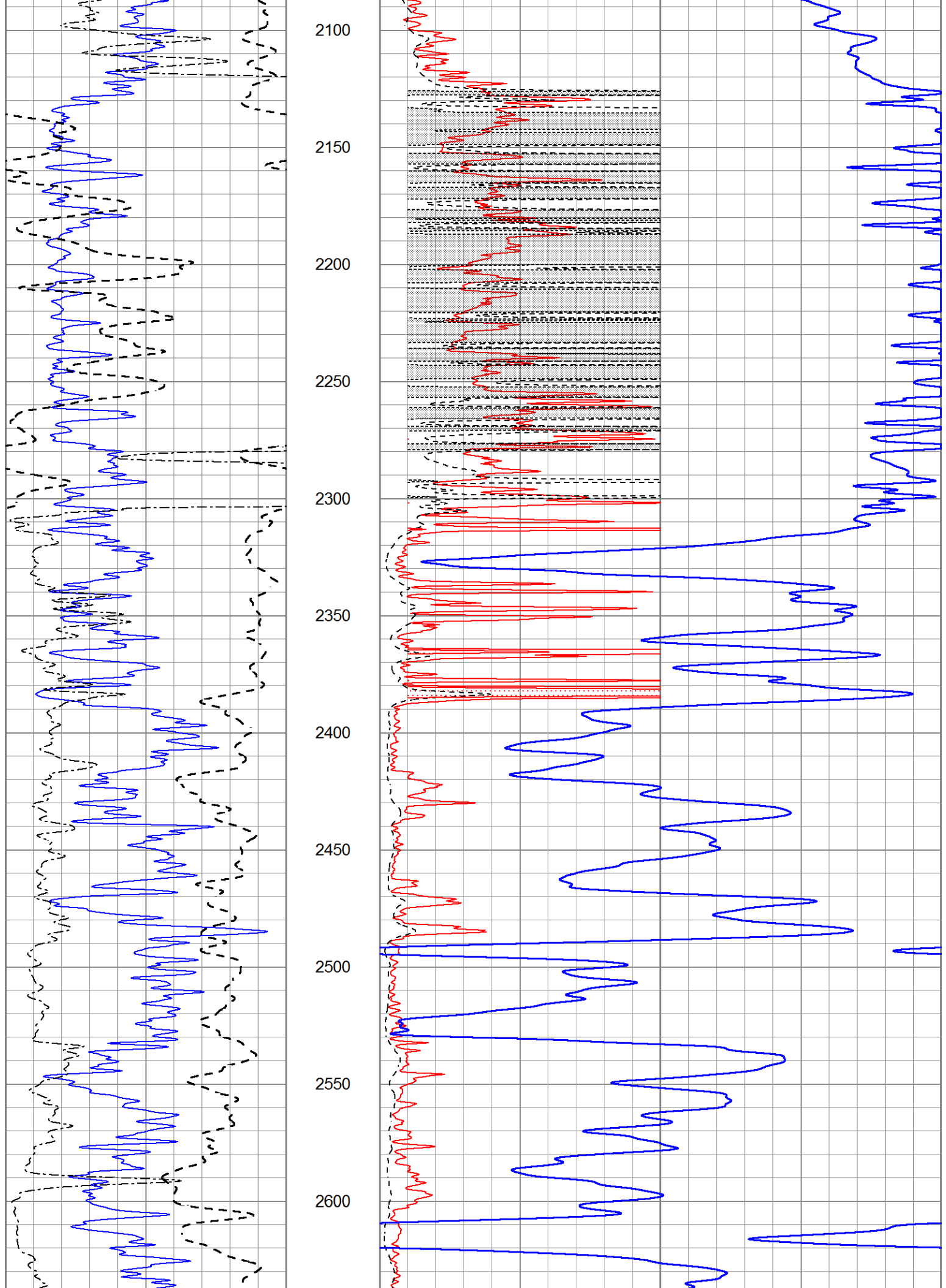
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650
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750
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850
900
950

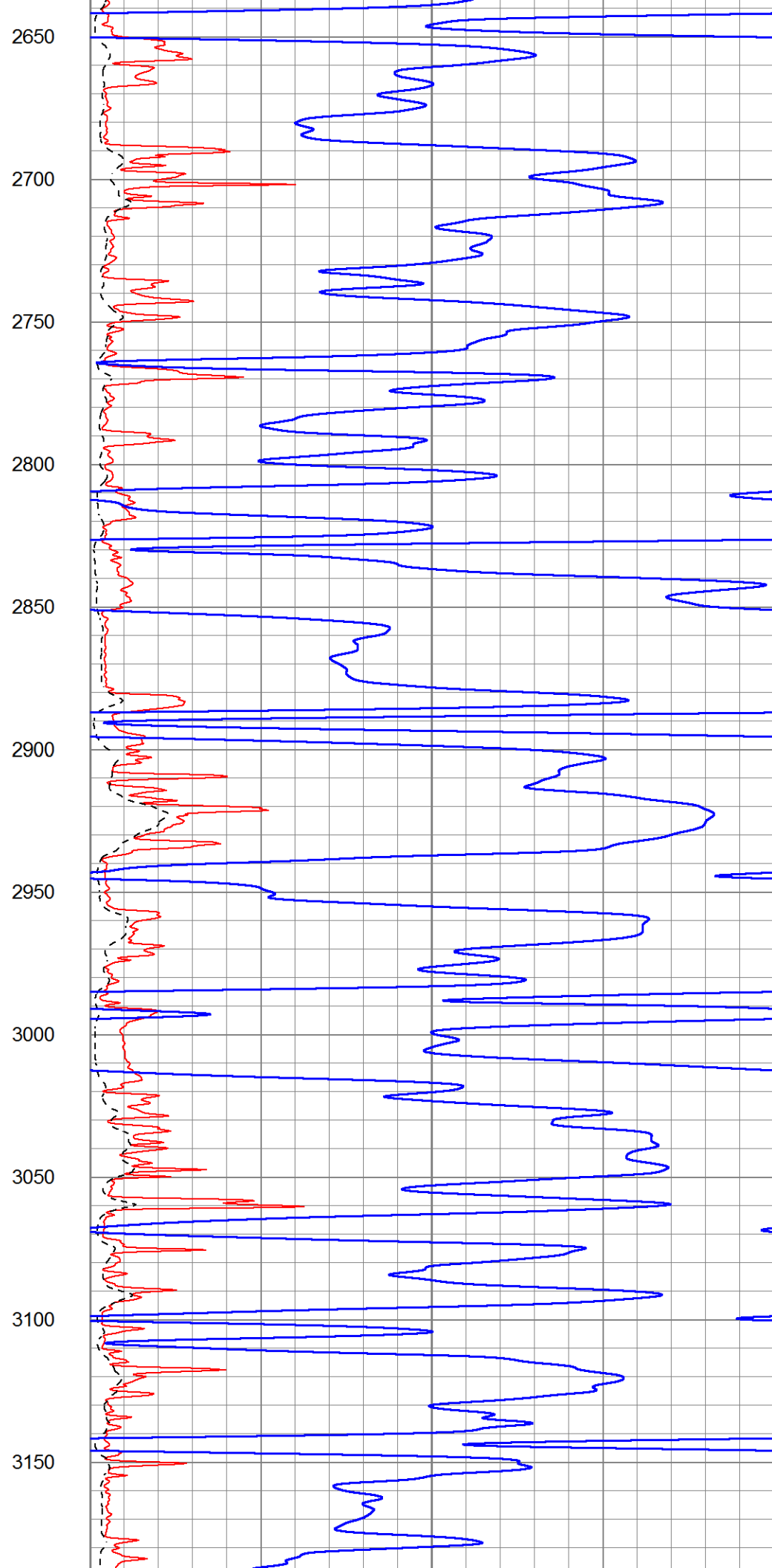
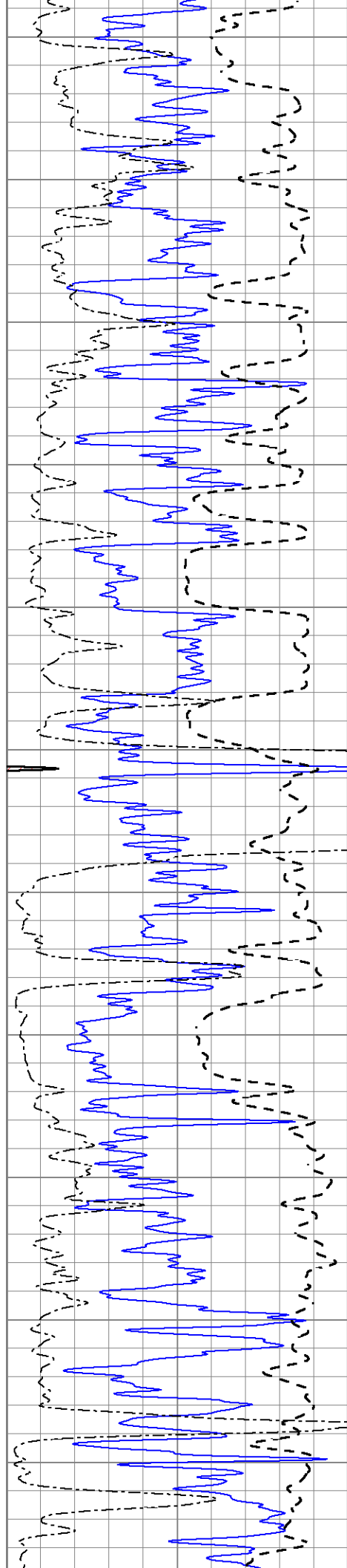


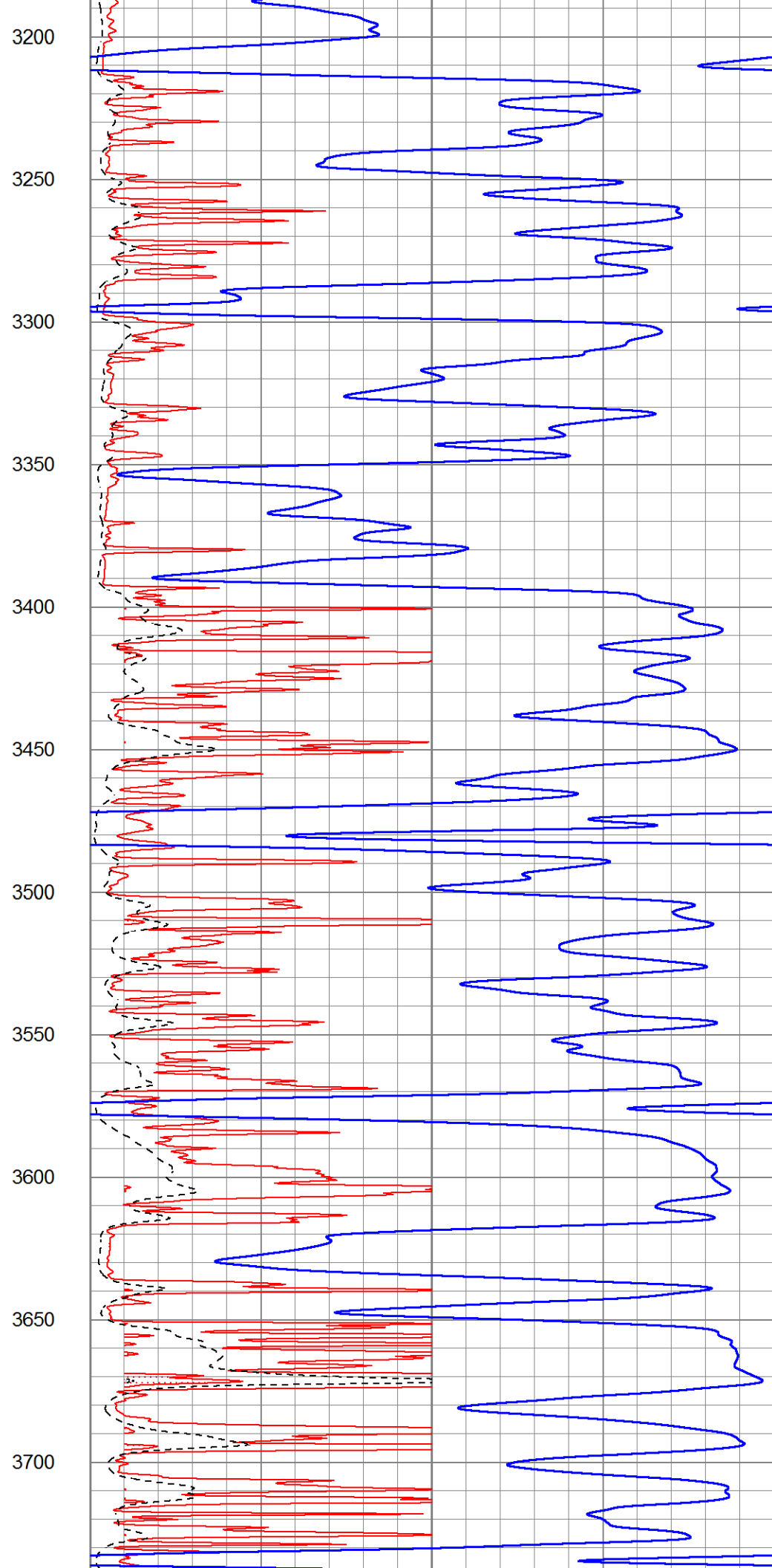
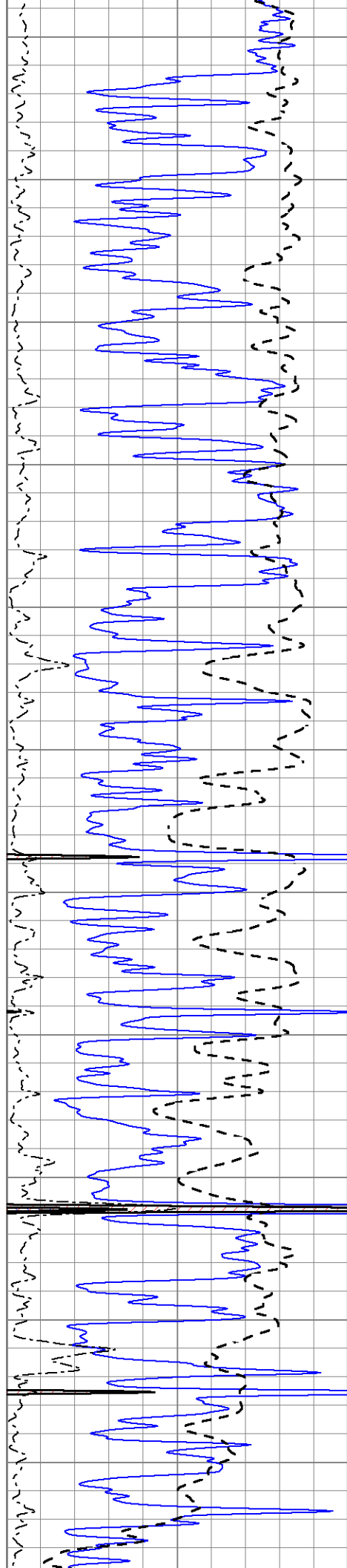
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1200
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1300
1350
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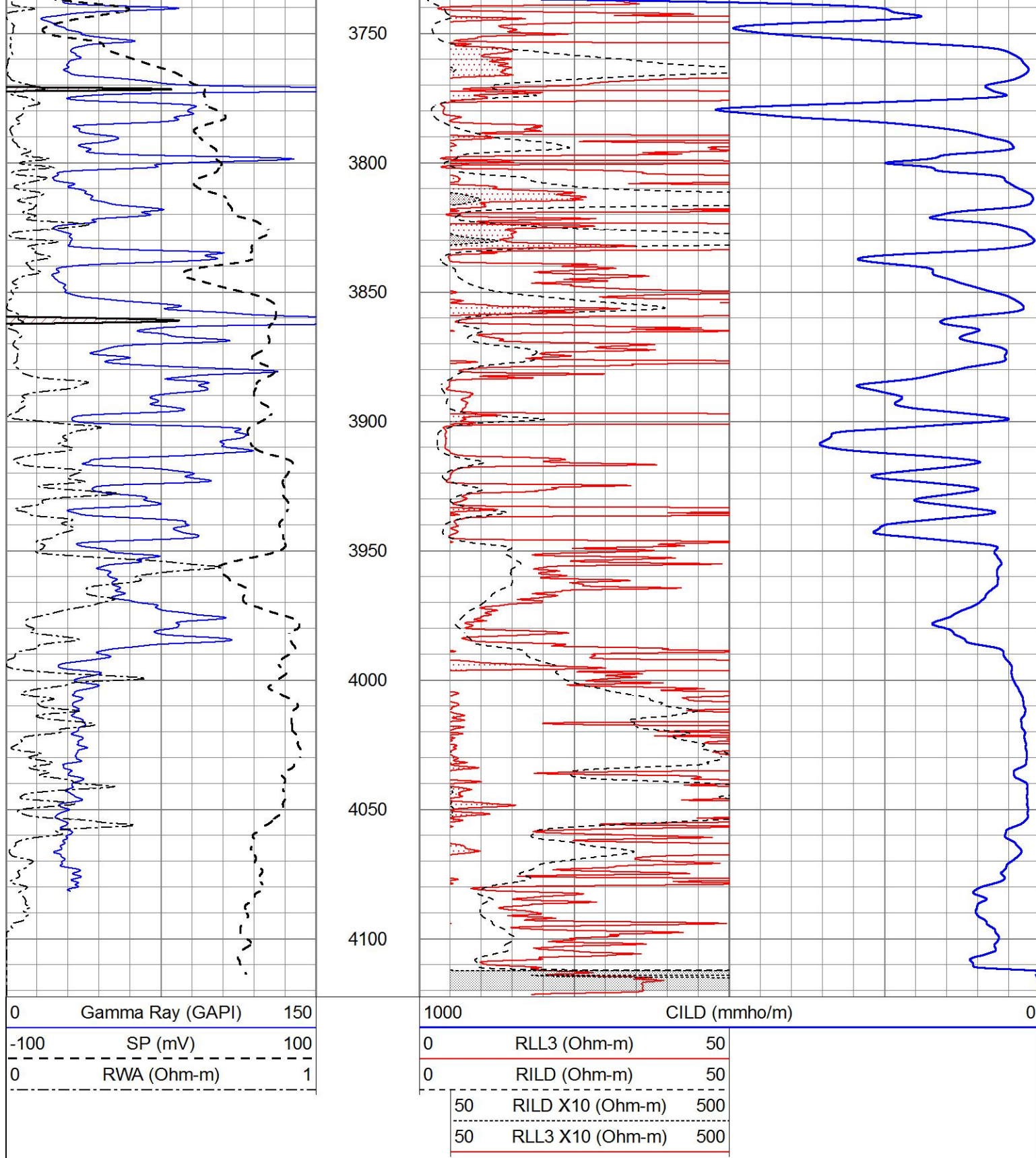








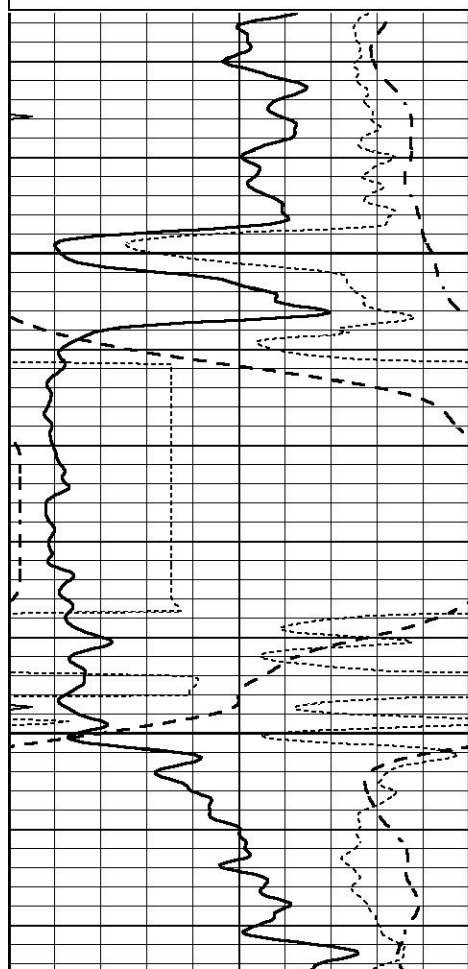




ANHYDRITE

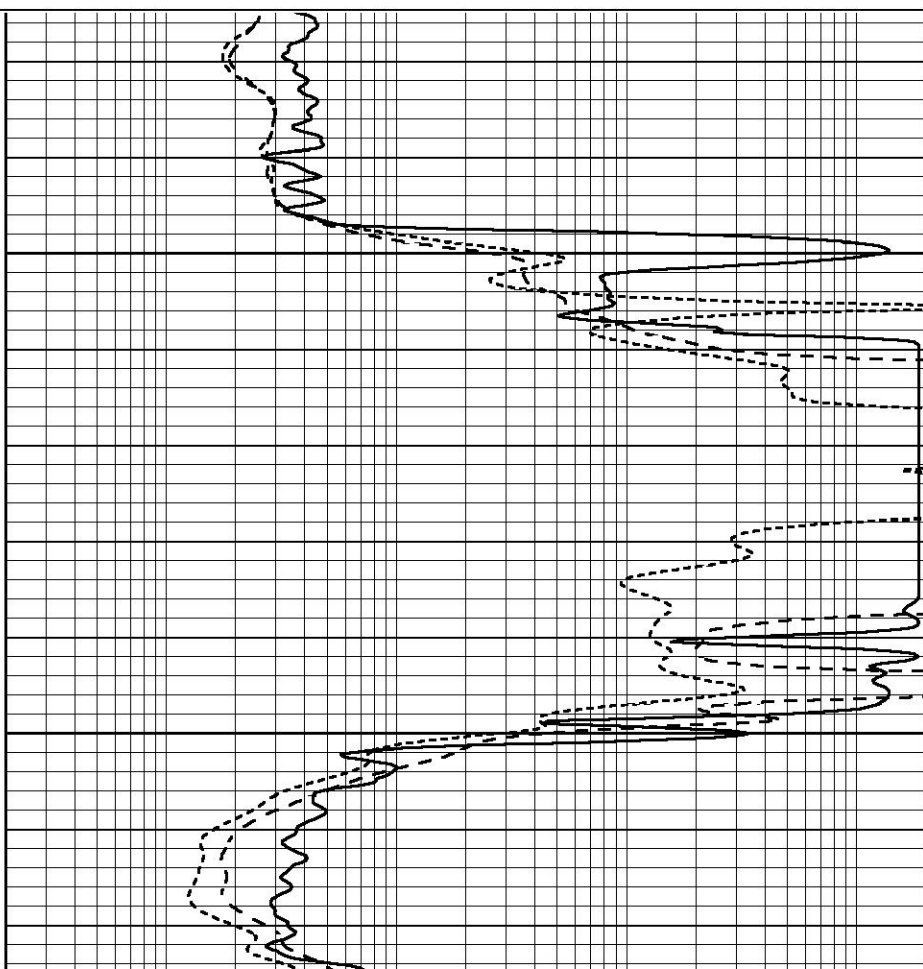
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 Presentation Format _dil
 Dataset Creation Sat Jun 12 21:35:16 2021
 Dataset Pathname pass3.4A

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-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	20



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



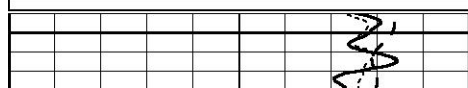
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0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000



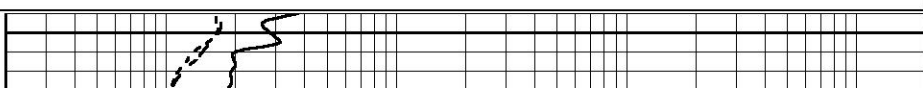
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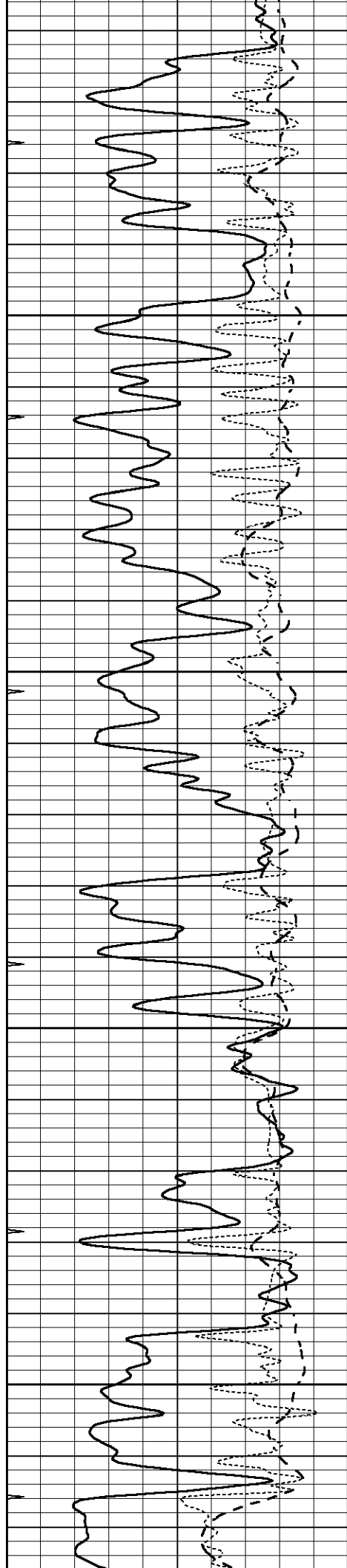
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 Dataset Creation Sat Jun 12 21:34:39 2021
 Charted by Depth in Feet scaled 1:240

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



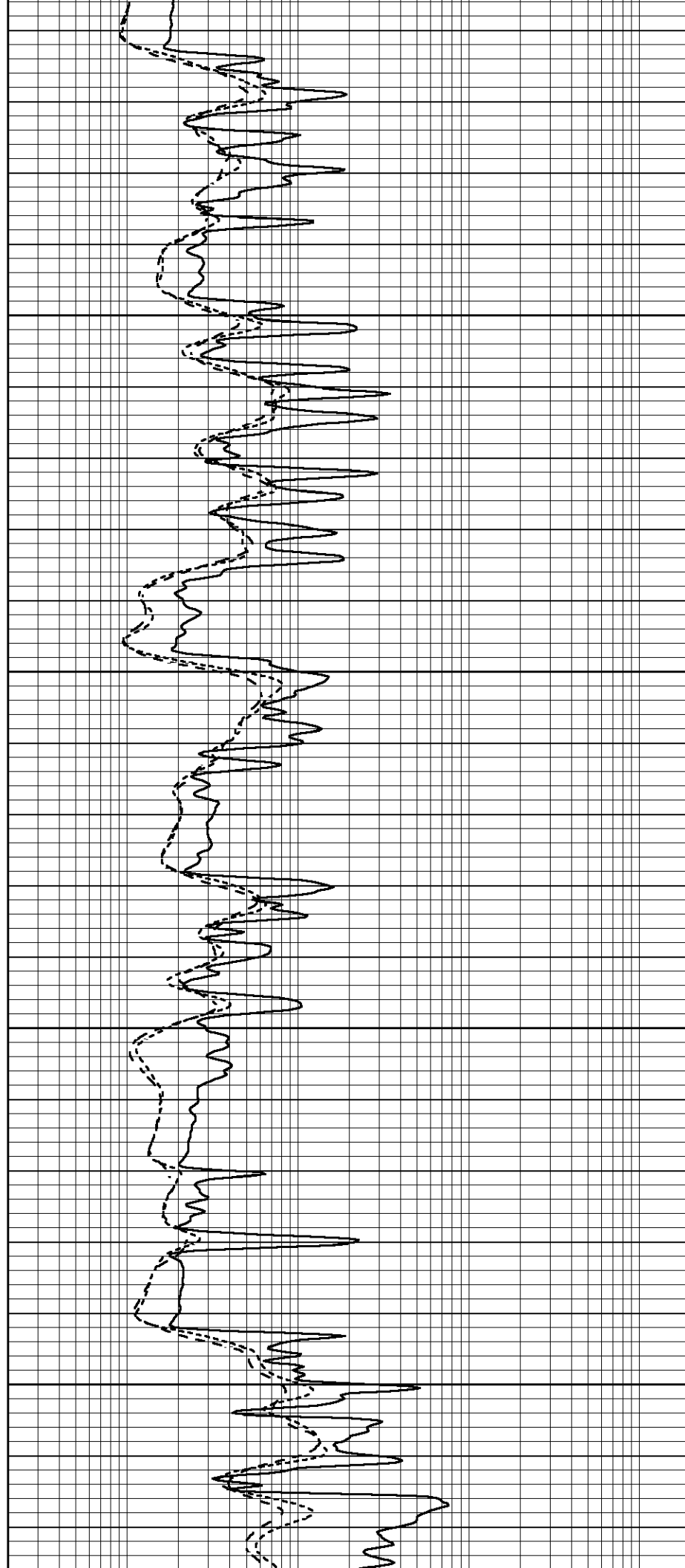


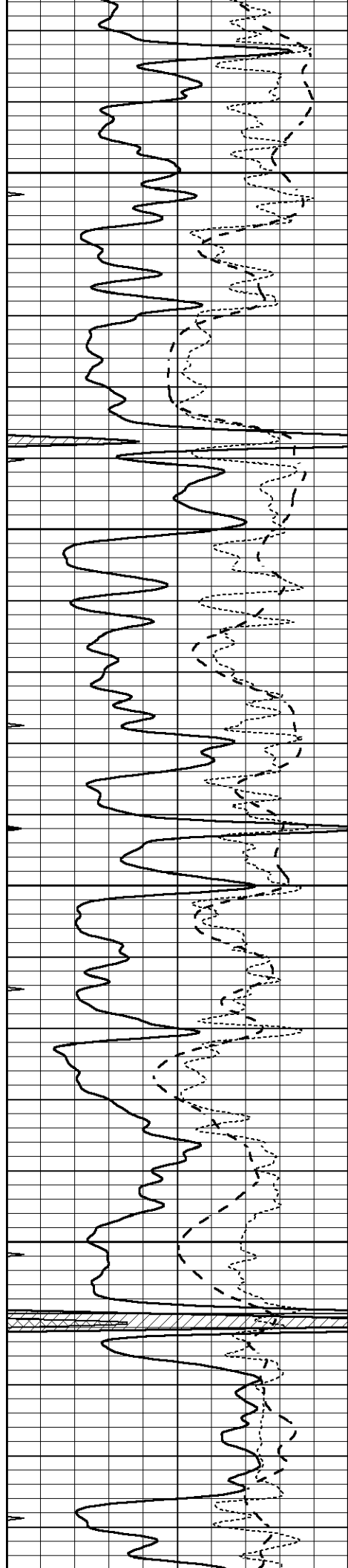
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3300

3350

3400



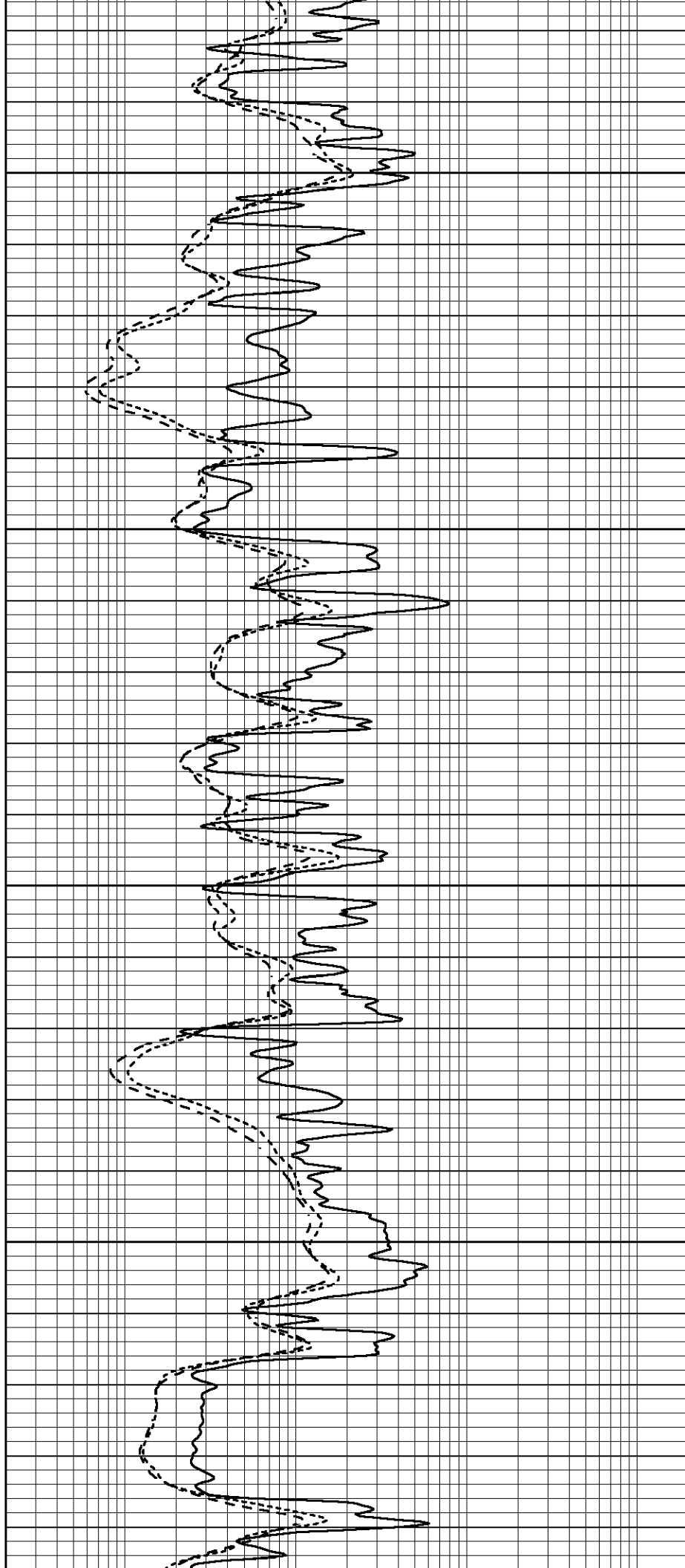


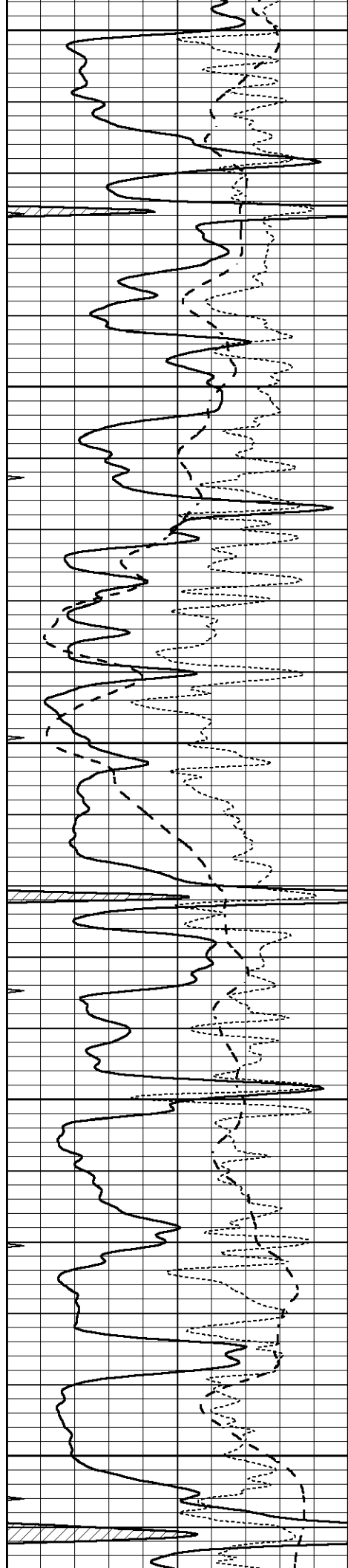
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3500

3550

3600





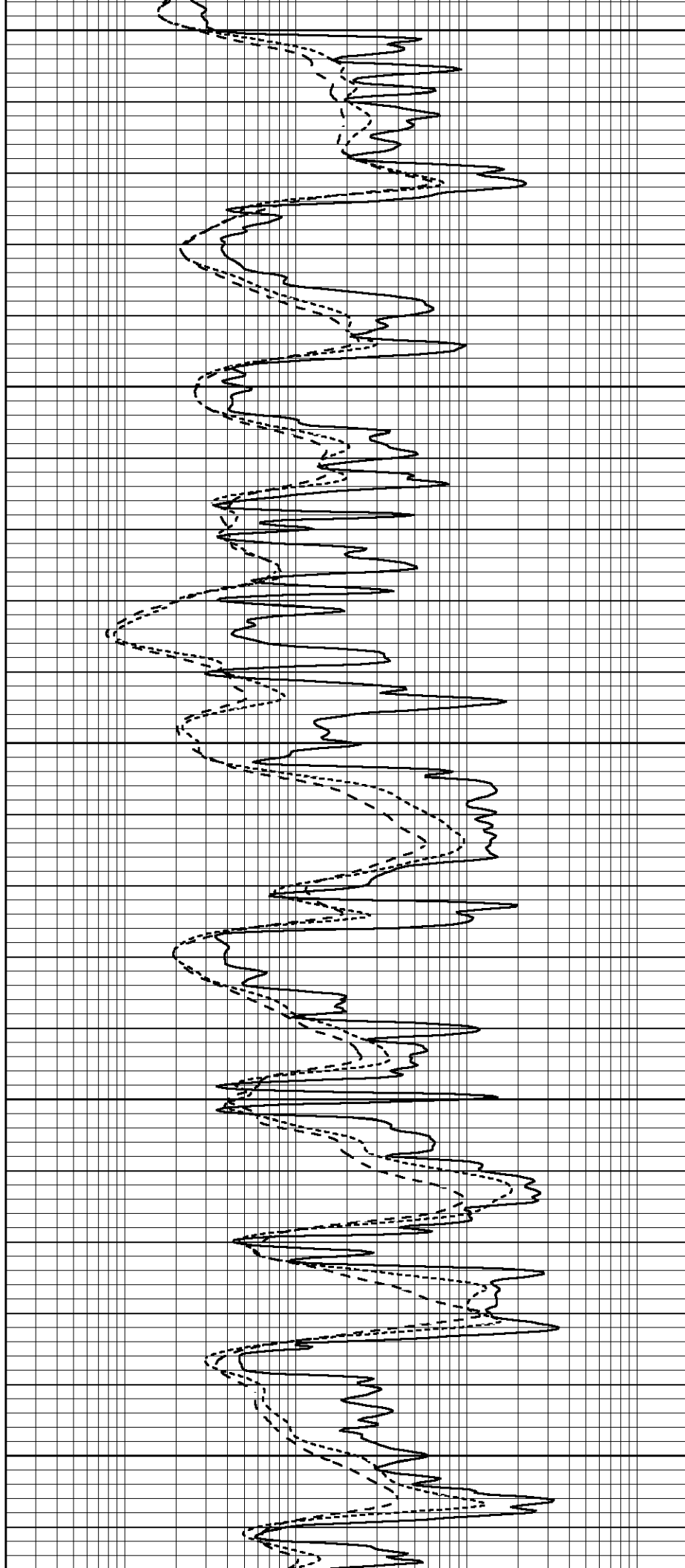
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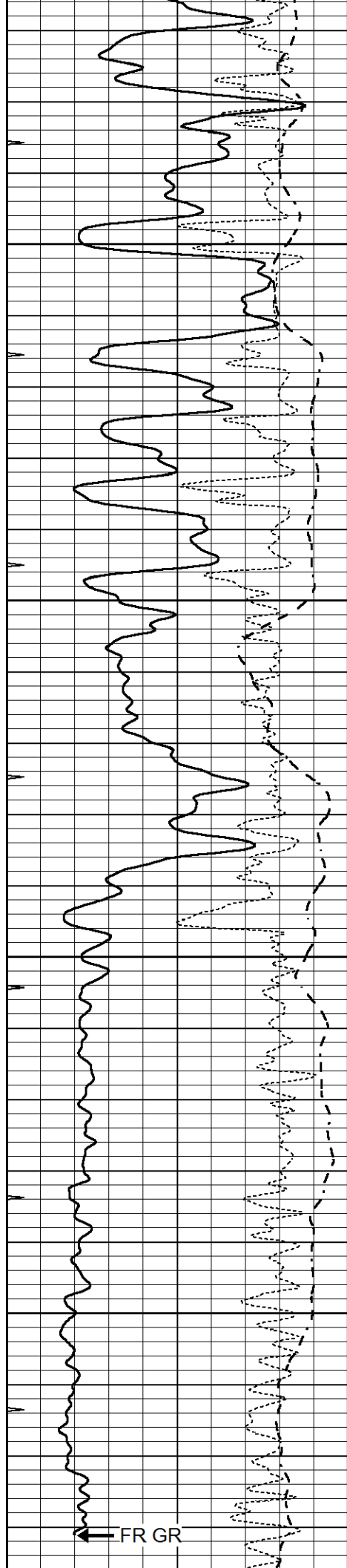
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3750

3800

3850





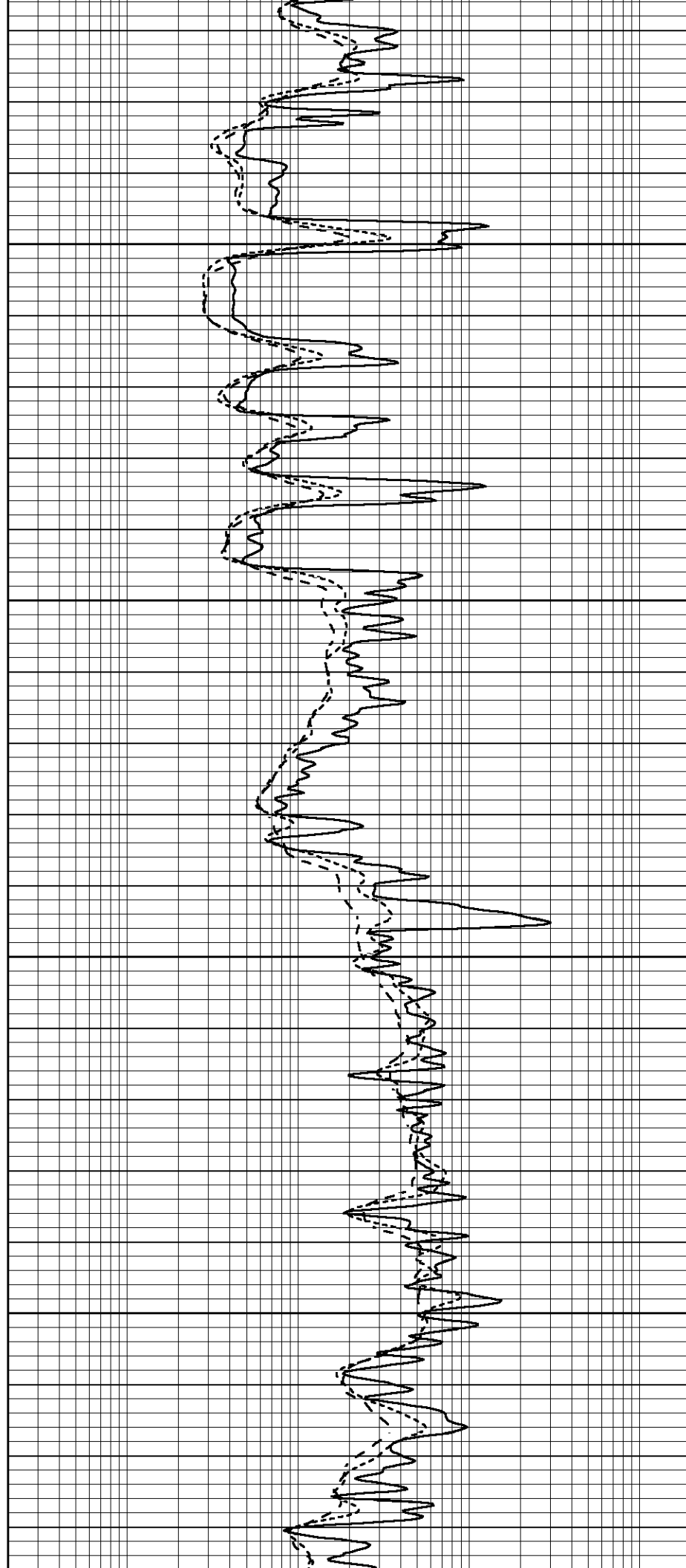
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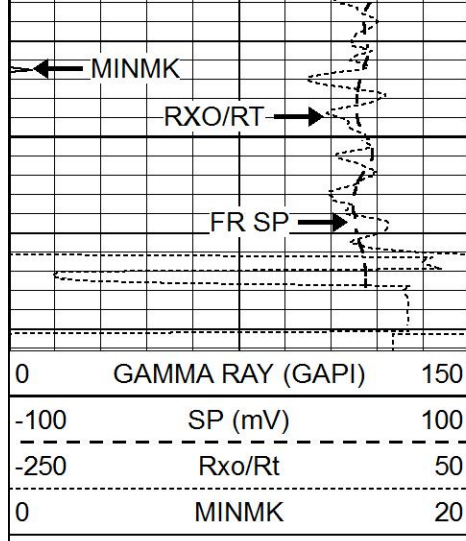
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4000

4050

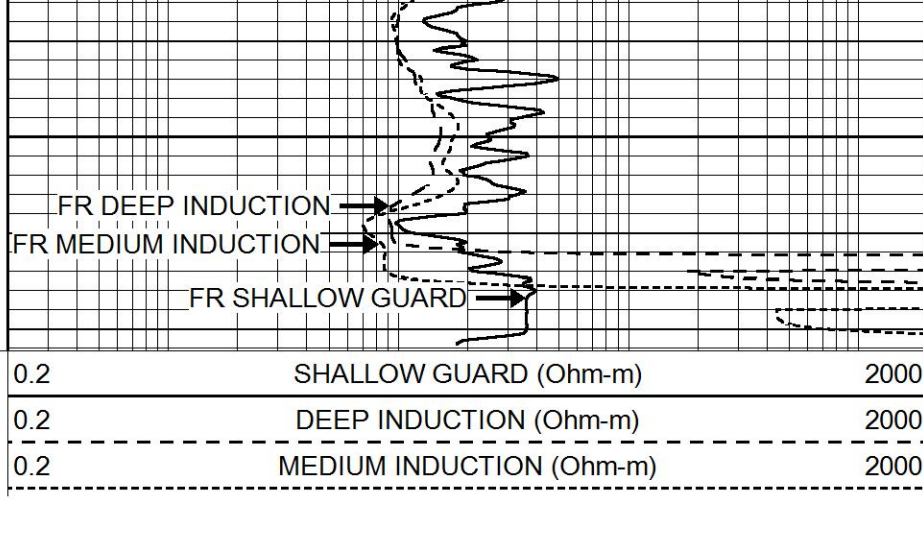
FR GR





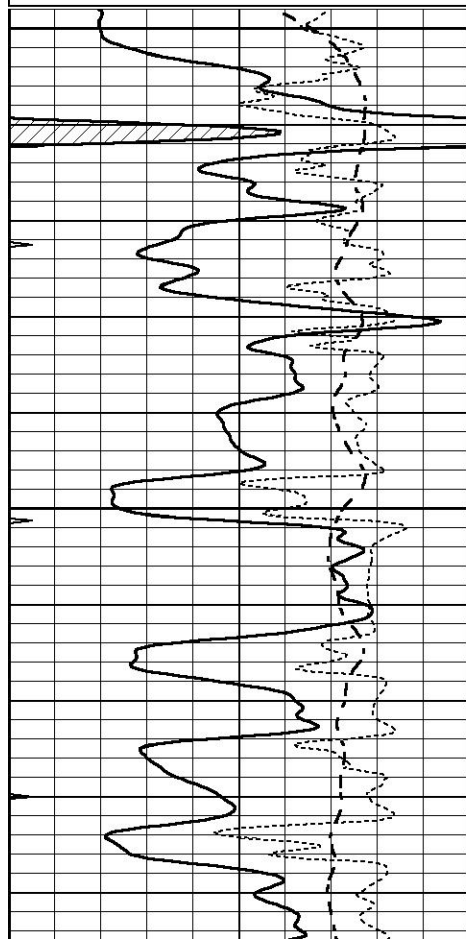
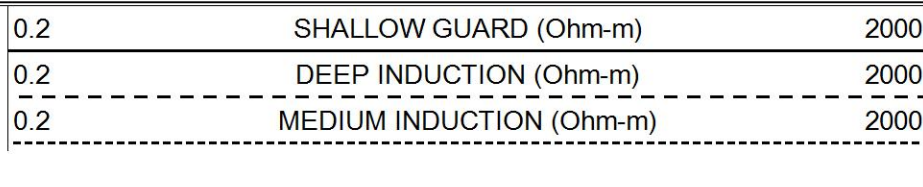
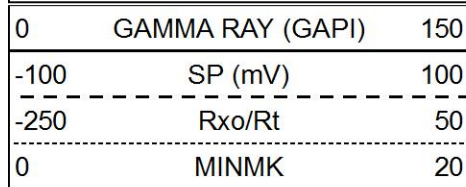
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LTD 4119



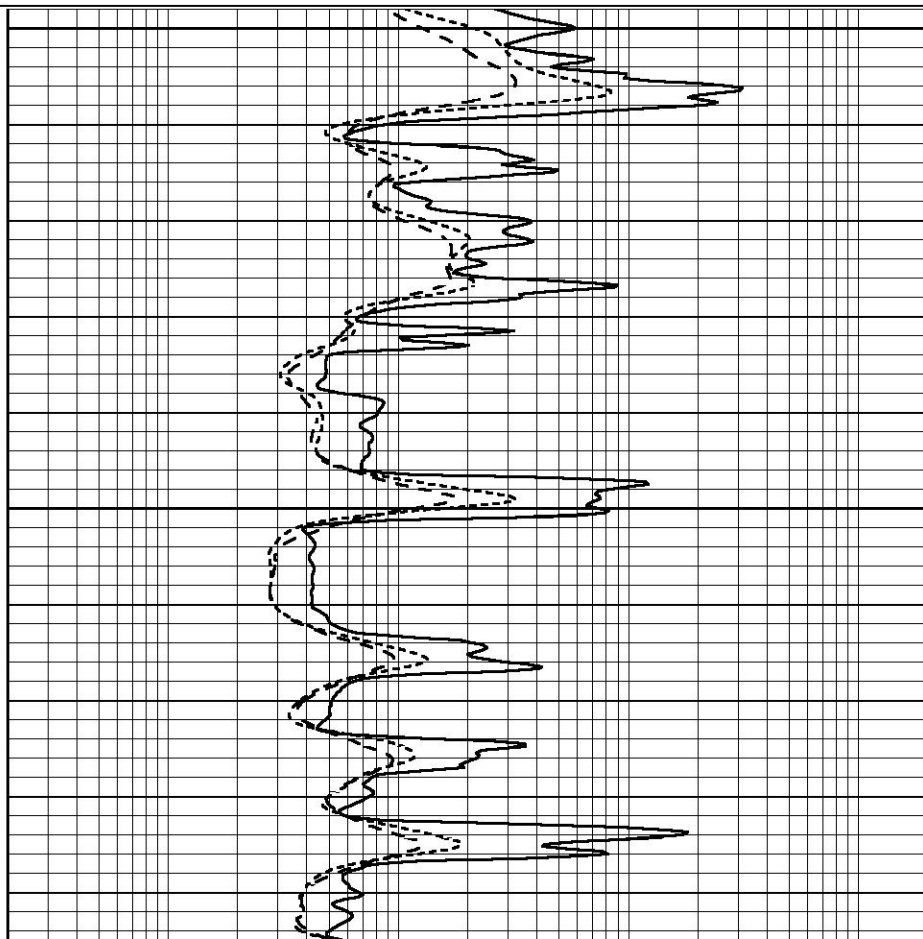
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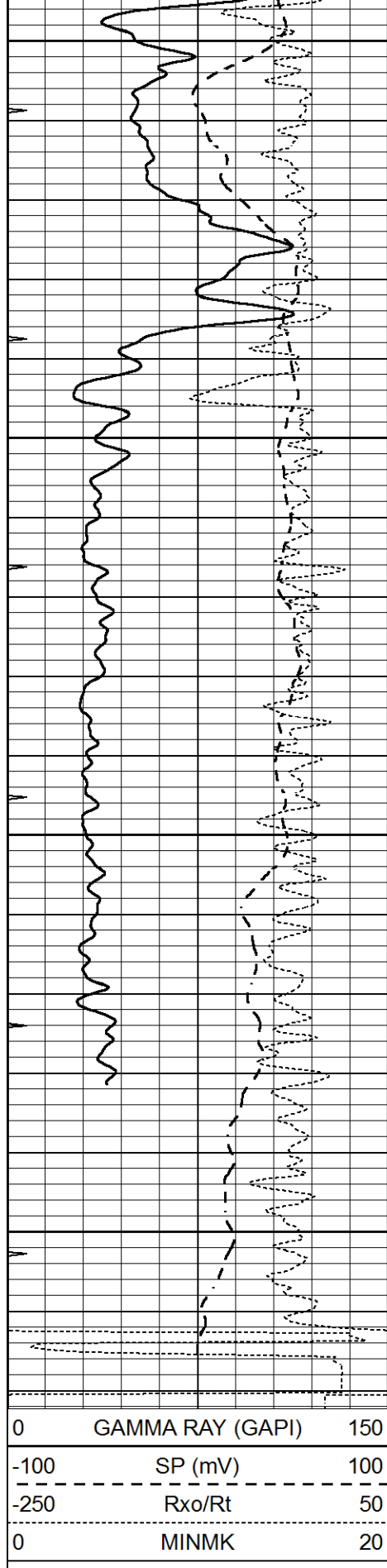
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 Charted by Depth in Feet scaled 1:240



3850

3900



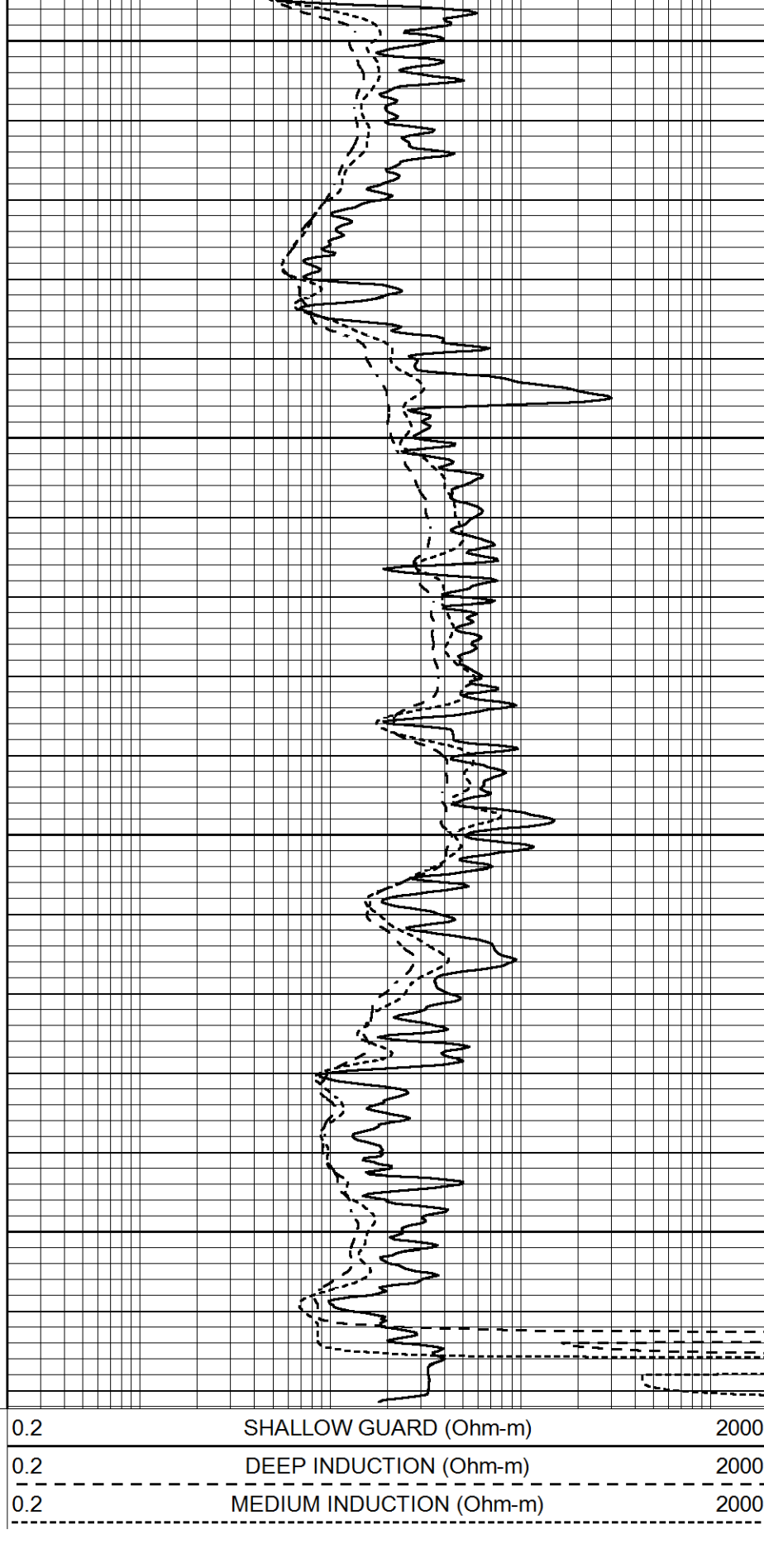


3950

4000

4050

4100



Calibration Report

Database File 5576ddn.db
 Dataset Pathname pass3.4M
 Dataset Creation Sat Jun 12 21:34:39 2021

Dual Induction Calibration Report

Serial-Model: PROBE9-DILG
 Surface Cal Performed: Sat Jun 12 20:31:11 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	-18.000
Medium	0.039	0.728	V	0.000	464.000	mmho/m	720.000	-32.000
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

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	
Short Space	cps			
Long Space	cps	pu	pu	

Gamma Ray Calibration Report			
Serial Number:	070558		
Tool Model:	OPEN_GR		
Performed:	Fri Apr 16 13:57:16 2021		
Calibrator Value:	1.0	GAPI	
Background Reading:	0.0	cps	
Calibrator Reading:	1.0	cps	
Sensitivity:	0.3000	GAPI/cps	