



DUAL INDUCTION LOG

Company BIRD DOG OIL, LLC.
 Well KELLER-GATES #3-17
 Field KENILWORTH WEST
 County STAFFORD State KANSAS

Location: API #: 15-185-24133-0000
 2305' FNL & 935' FEL
 NE - SW - SE - NE
 SEC 17 TWP 22S RGE 13W
 Permanent Datum GROUND LEVEL Elevation 1907
 Log Measured From KELLY BUSHING 8' A.G.L
 Drilling Measured From KELLY BUSHING
 Other Services
 CDL/CNL
 PE/ME/L
 Elevation
 K.B. 1915
 D.F. 1913
 G.L. 1907

Date	2/22/23
Run Number	ONE
Depth Driller	3920
Depth Logger	3919
Bottom Logged Interval	3917
Top Log Interval	00
Casing Driller	8 5/8 @ 482
Casing Logger	482
Bit Size	7 7/8
Type Fluid in Hole	CHEMICAL MUD
Density / Viscosity	9.0/59
pH / Fluid Loss	11.0/6.8
Source of Sample	FLOWLINE
Rm @ Meas. Temp	1.10 @ 75F
Rmf @ Meas. Temp	.825 @ 75F
Rmc @ Meas. Temp	1.32 @ 75F
Source of Rmf / Rmc	MEASUREMENT
Rm @ BHT	.717 @ 115F
Time Circulation Stopped	2 HOURS
Time Logger on Bottom	1:00 A.M.
Maximum Recorded Temperature	115F
Equipment Number	3802
Location	HAYS, KANSAS
Recorded By	COLE ROBBEN
Witnessed By	JEFF LAWLER

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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:
 FROM 281/K-19 JUNCTION GO WEST ONE MILE, 1 1/2 MILES SOUTH, WEST INTO

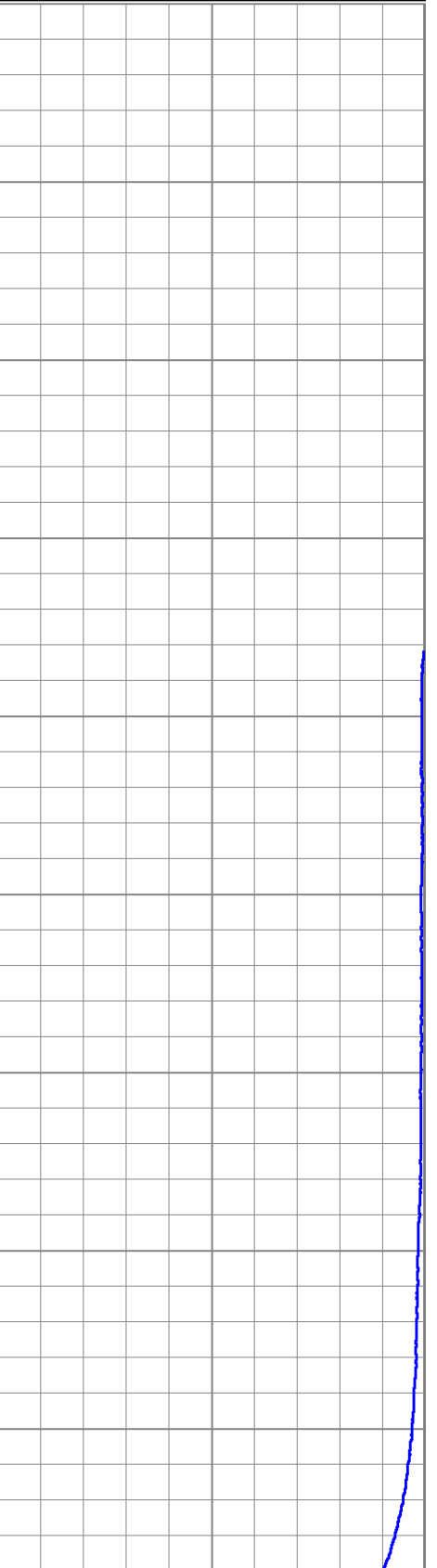
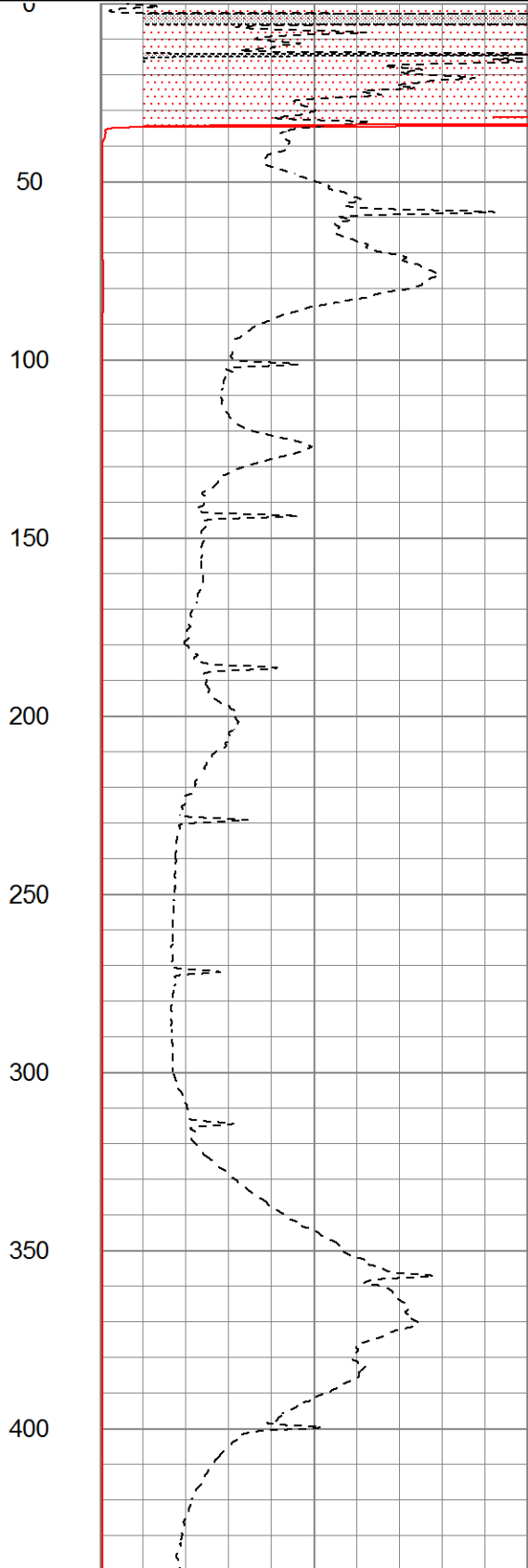
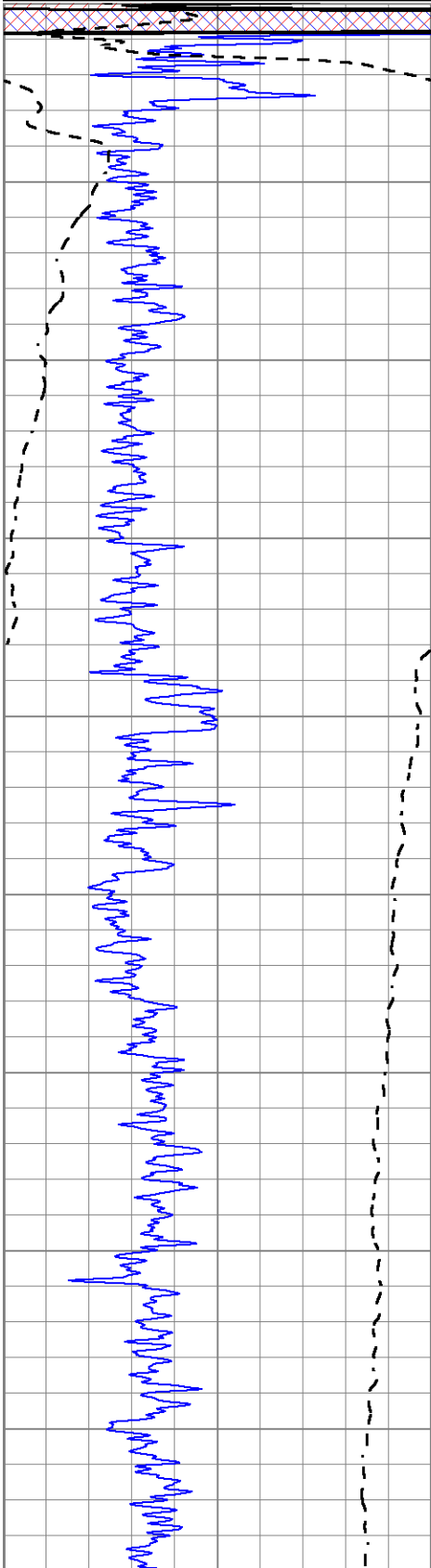


MAIN SECTION

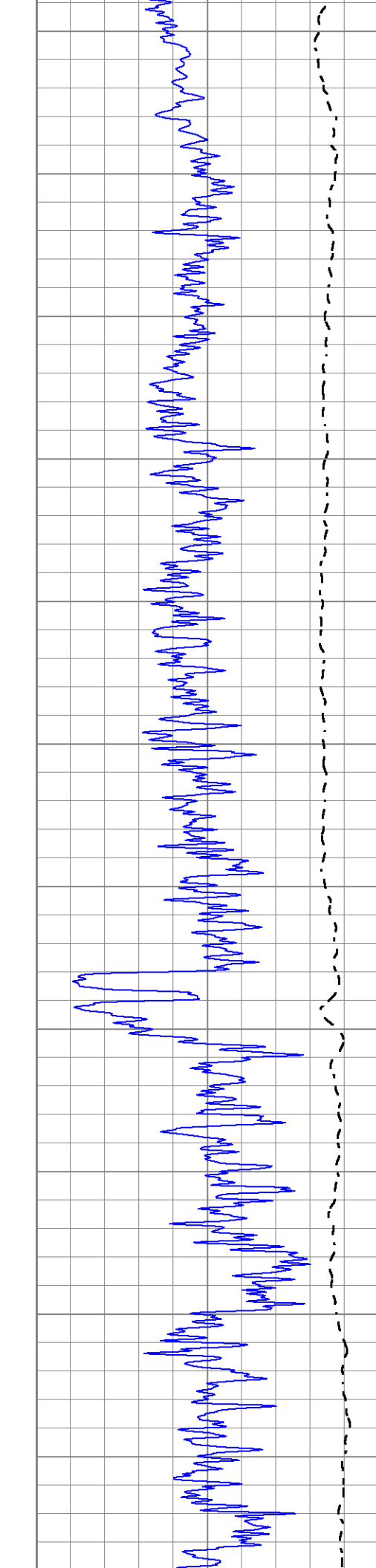
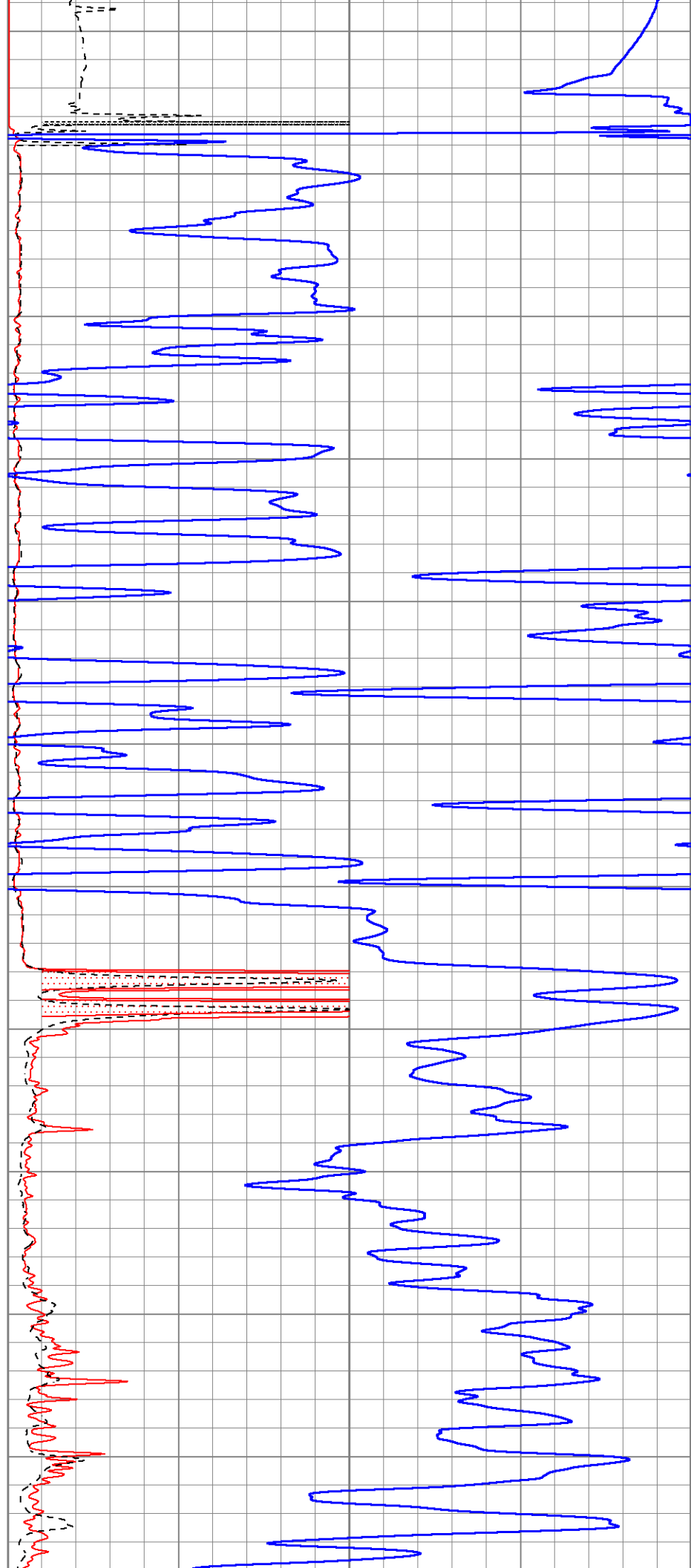
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 Presentation Format _dil2
 Dataset Creation Wed Feb 22 05:36:57 2023
 Charted by Depth in Feet scaled 1:600

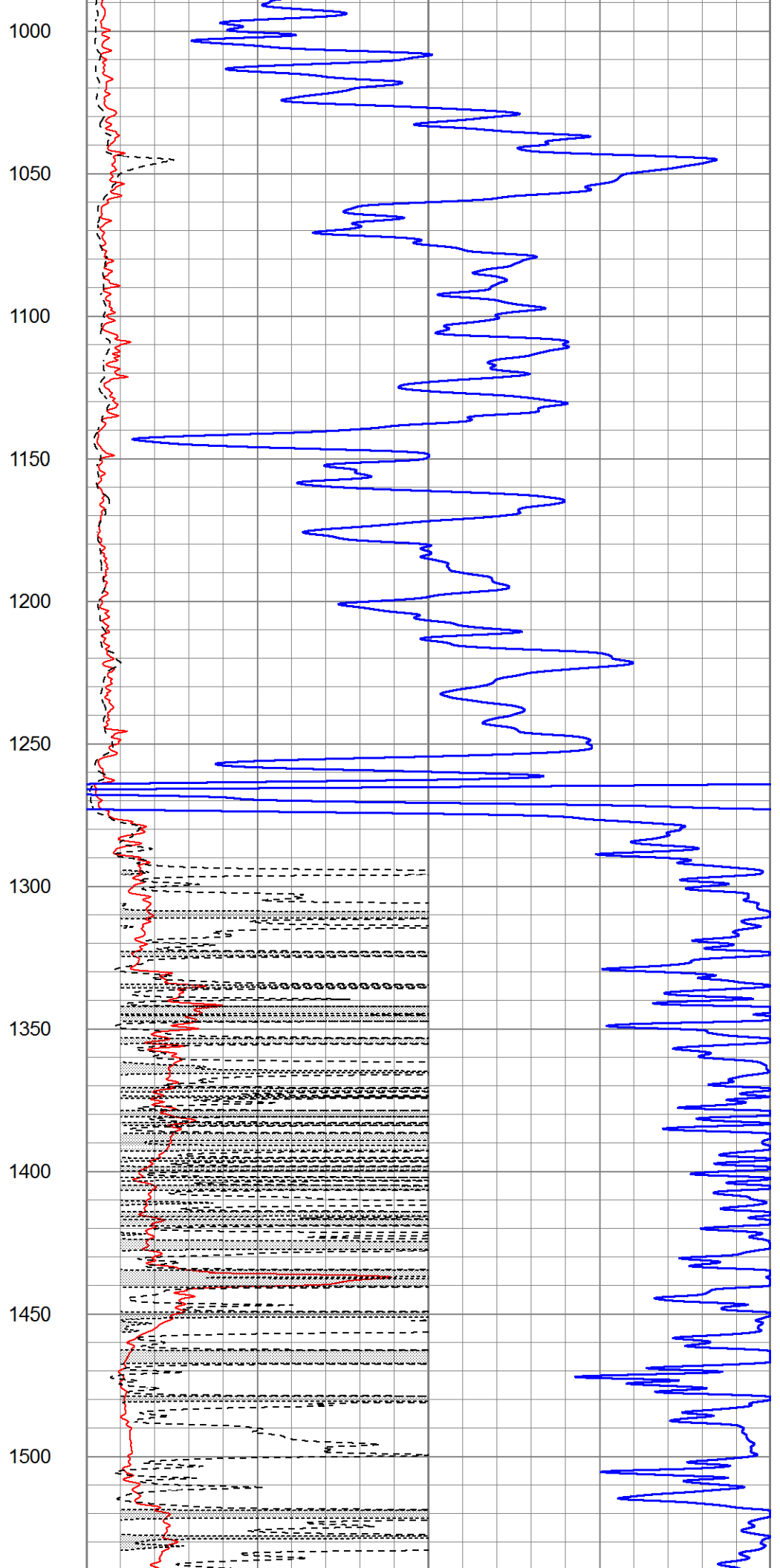
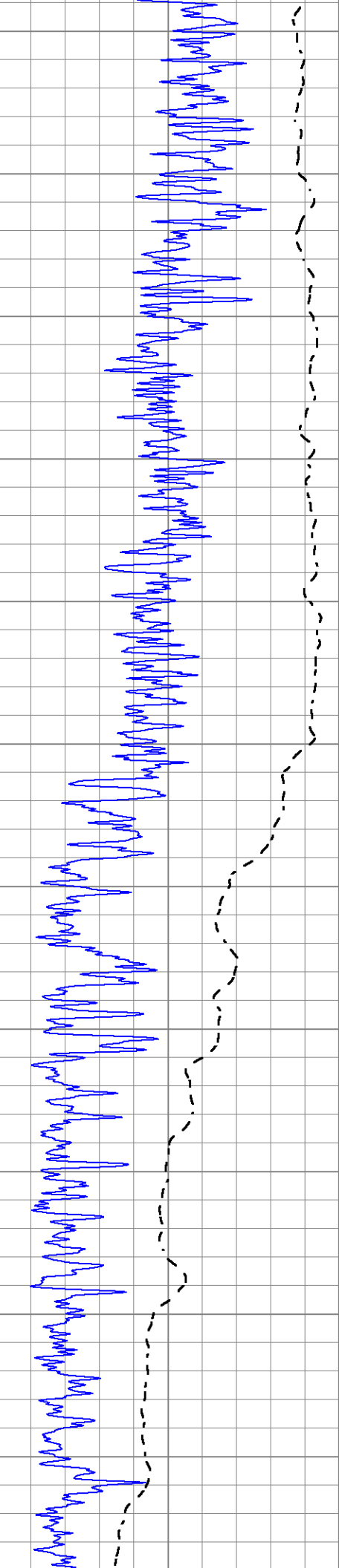
0	Gamma Ray (GAPI)	150
-100	SP (mV)	100

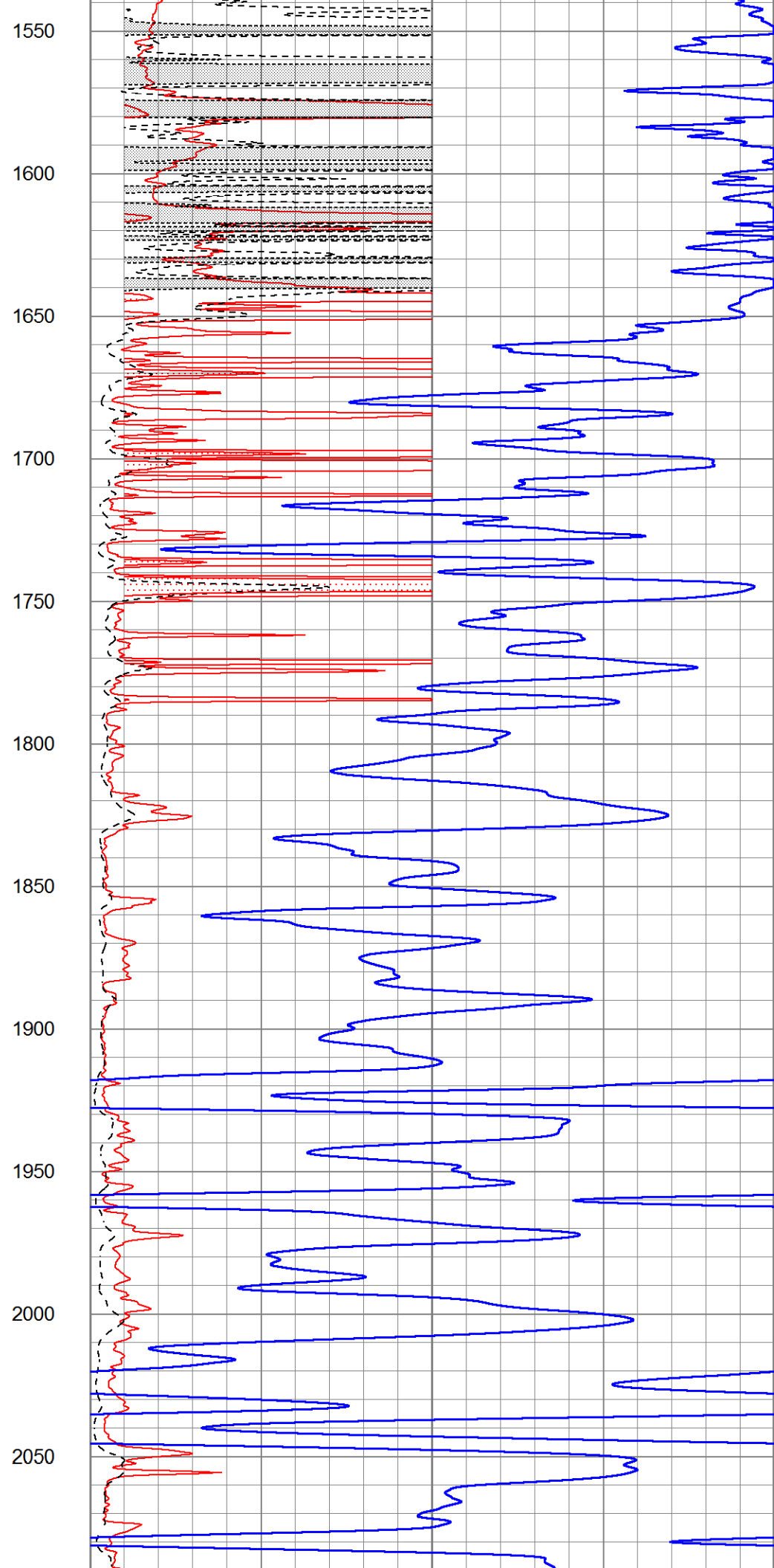
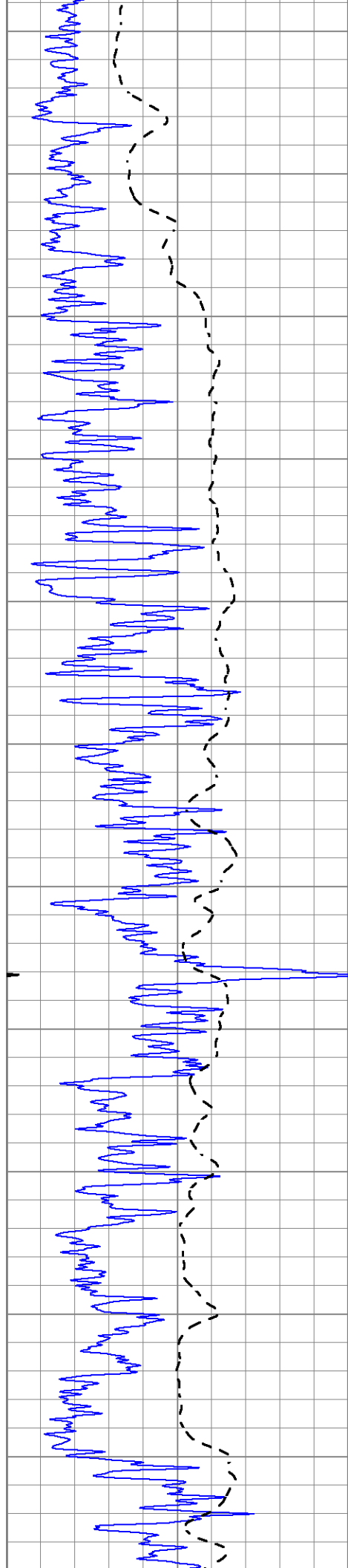
1000	CILD (mmho/m)	0
0	RLL3 (Ohm-m)	50
0	Deep Induction (Ohm-m)	50
50	RILD X10 (Ohm-m)	500
50	RLL3 X10 (Ohm-m)	500

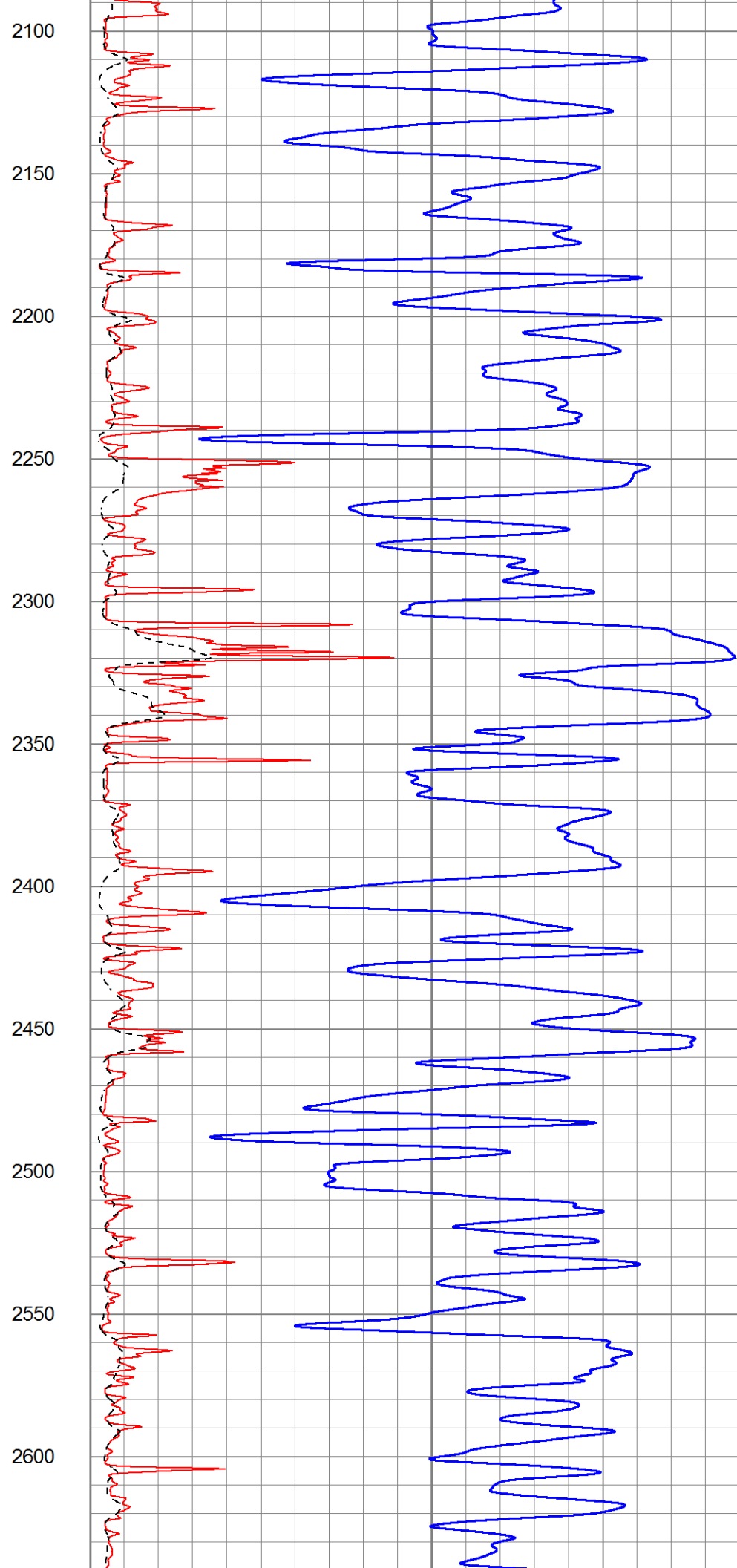
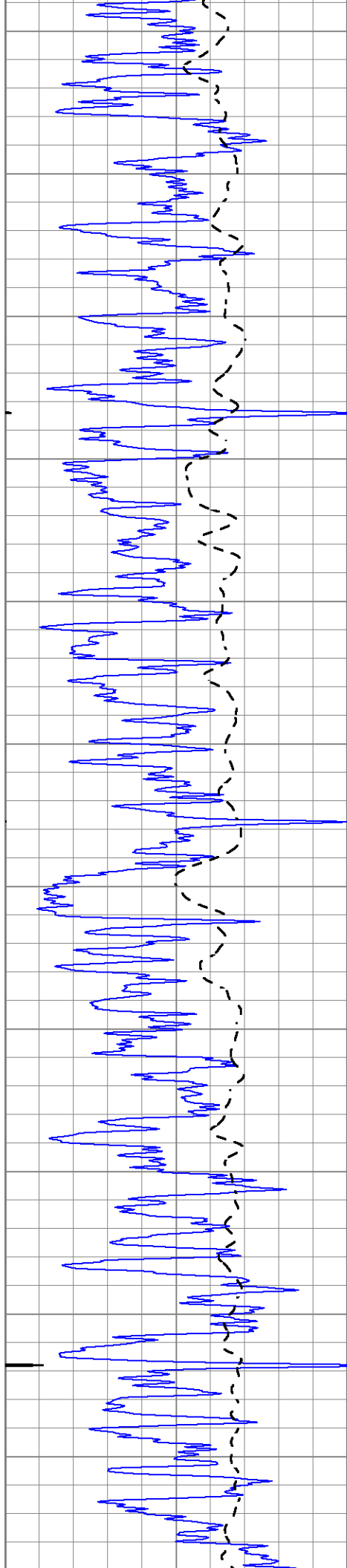


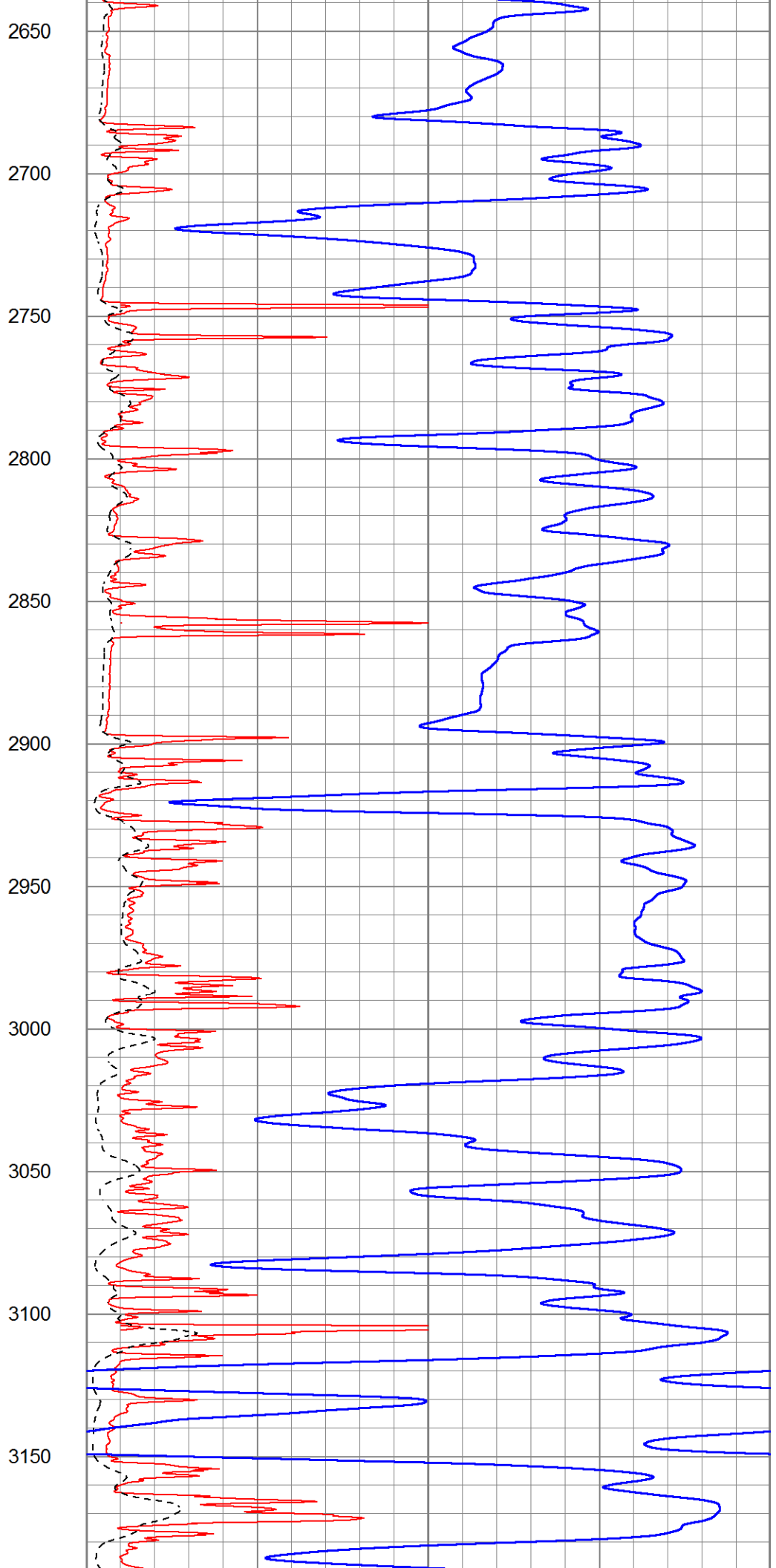
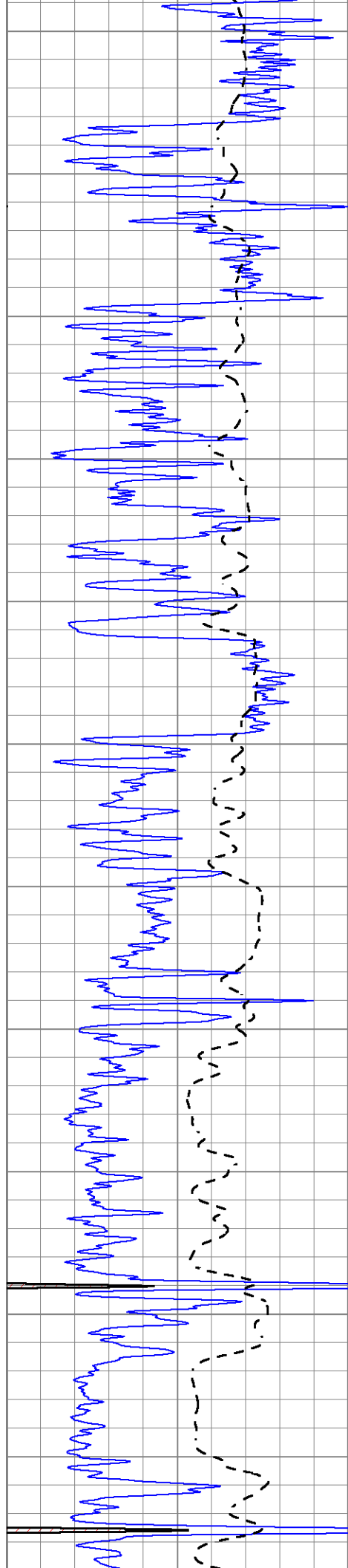
450
500
550
600
650
700
750
800
850
900
950

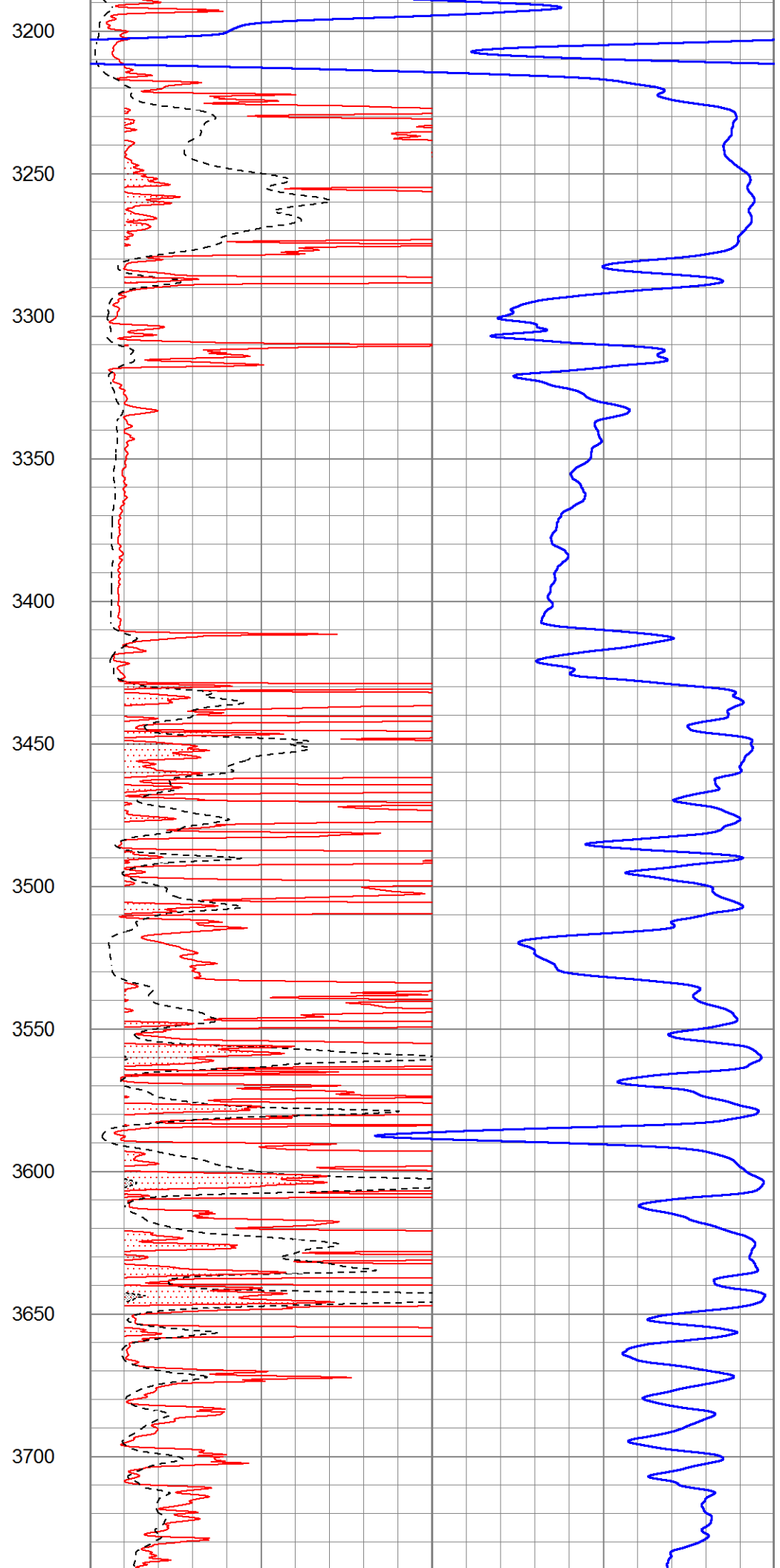
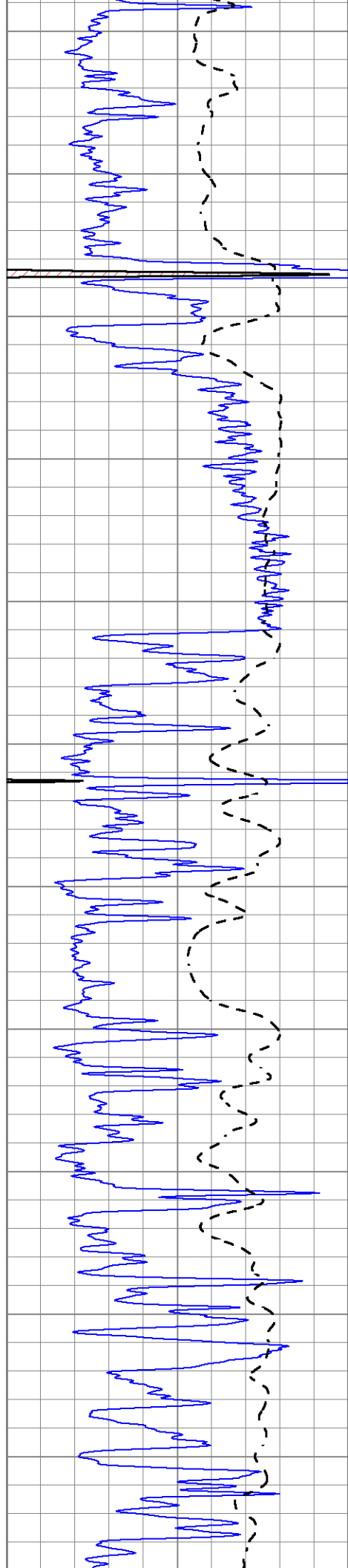


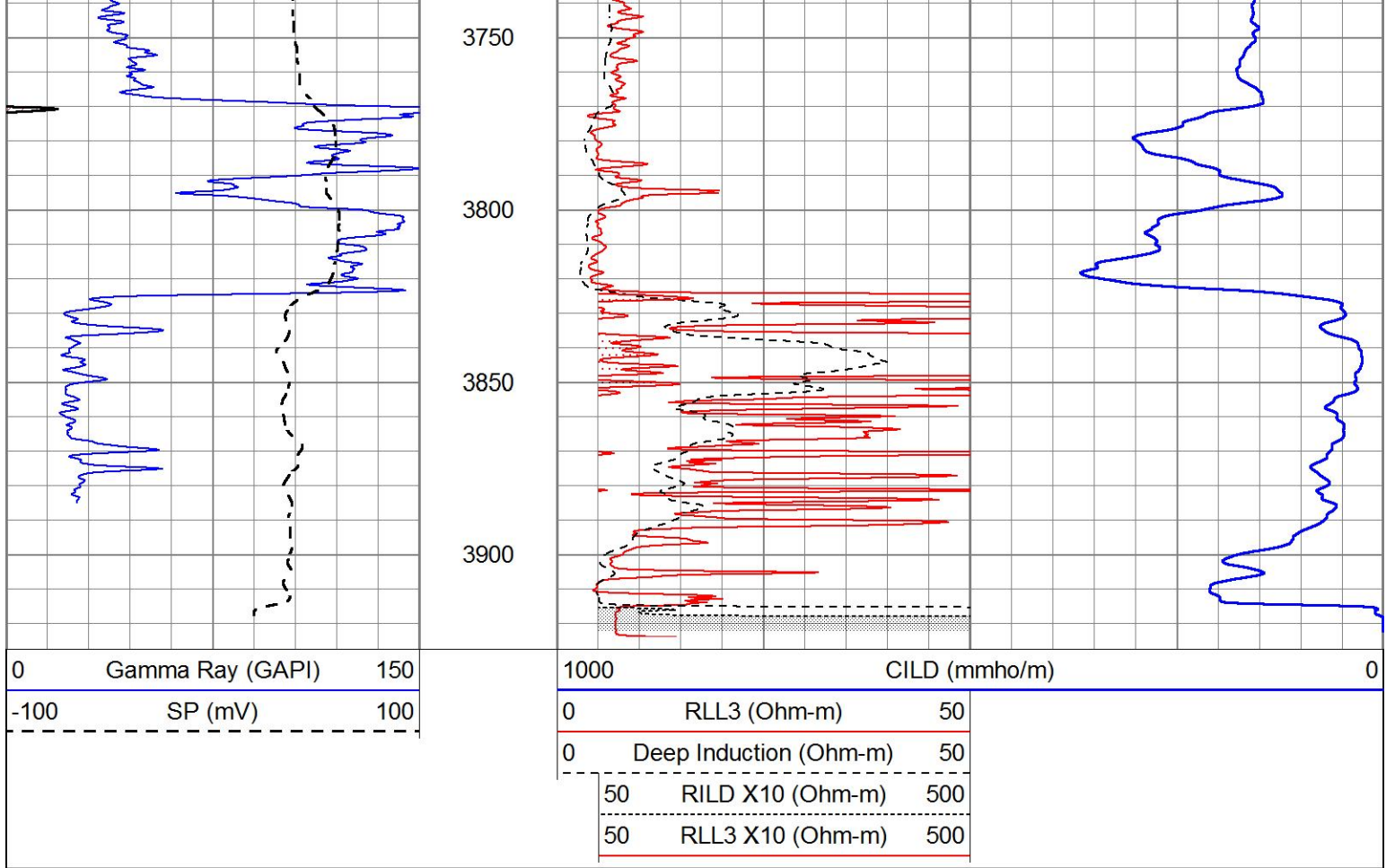








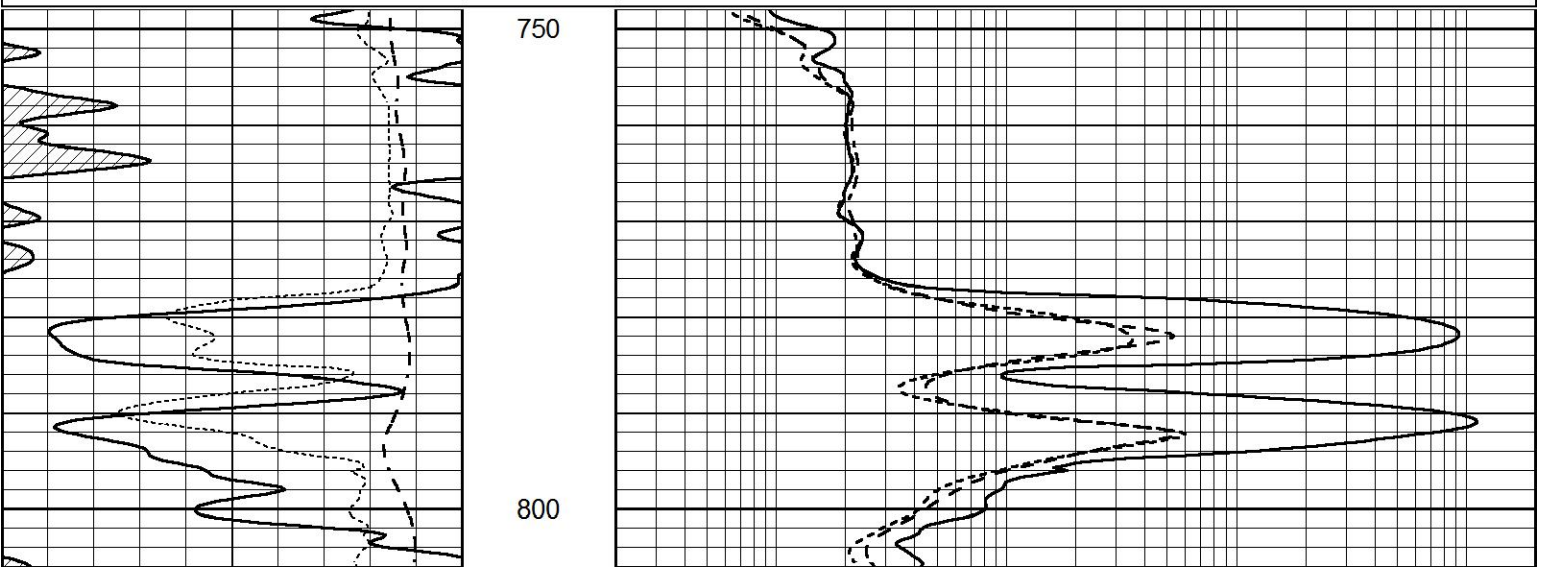


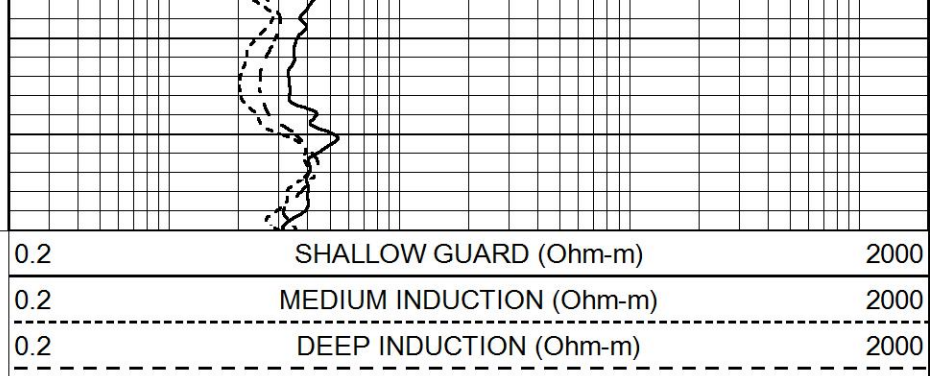
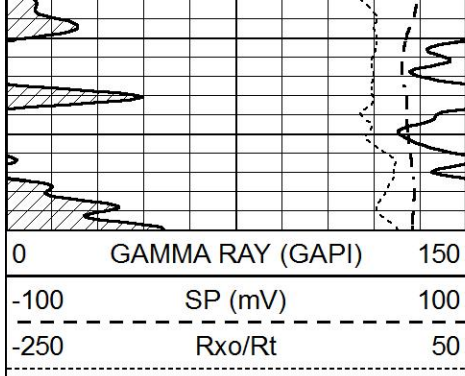


ANHYDRITE

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 Charted by Depth in Feet scaled 1:240

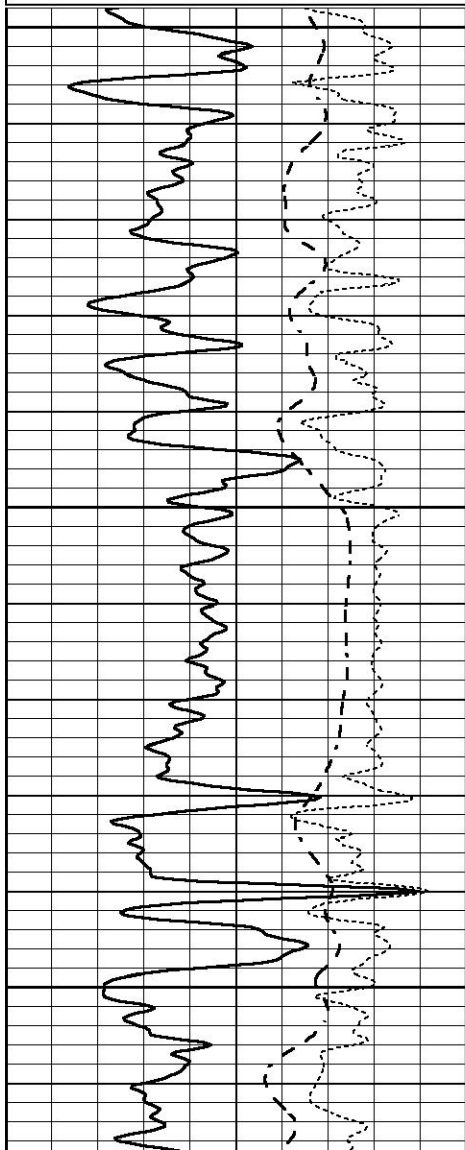
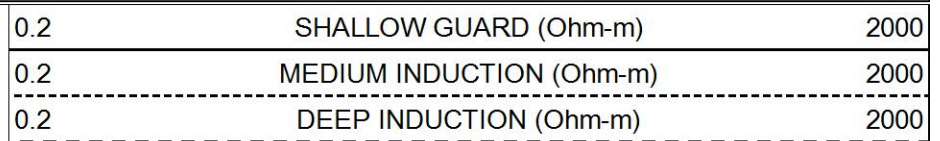
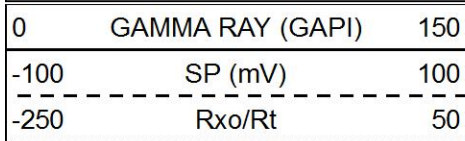
0	GAMMA RAY (GAPI)	150	0.2	SHALLOW GUARD (Ohm-m)	2000
-100	SP (mV)	100	0.2	MEDIUM INDUCTION (Ohm-m)	2000
-250	Rxo/Rt	50	0.2	DEEP INDUCTION (Ohm-m)	2000





MAIN SECTION

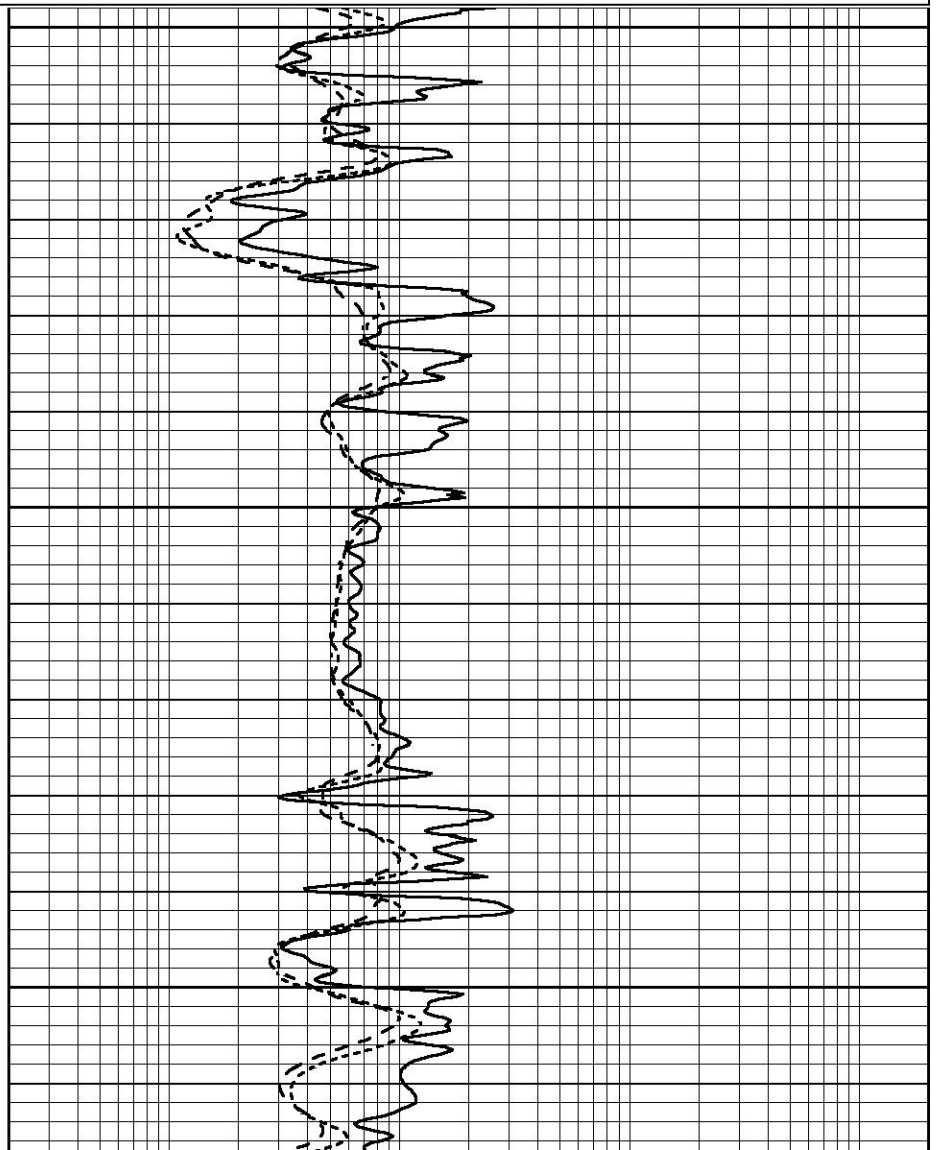
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 Dataset Creation Wed Feb 22 05:36:57 2023
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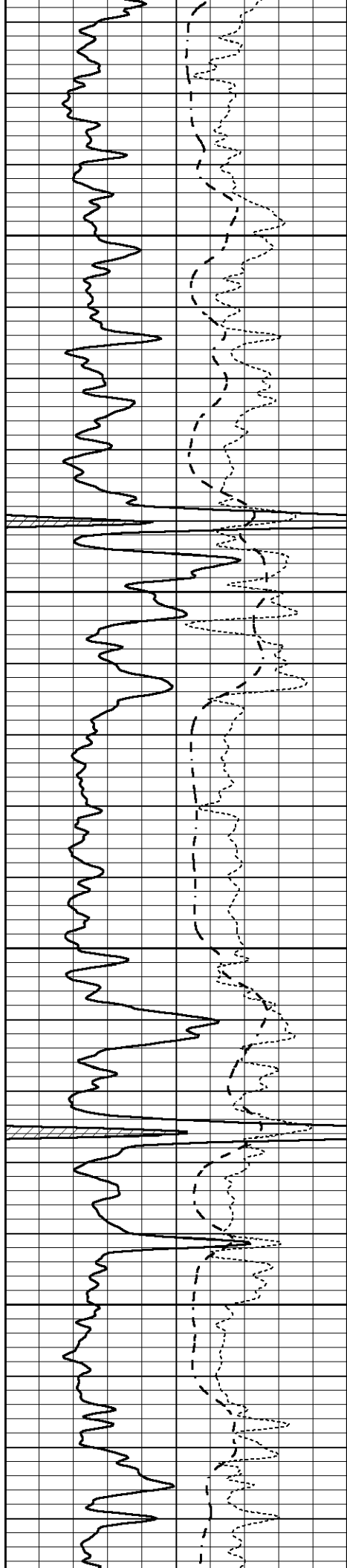


2900

2950

3000



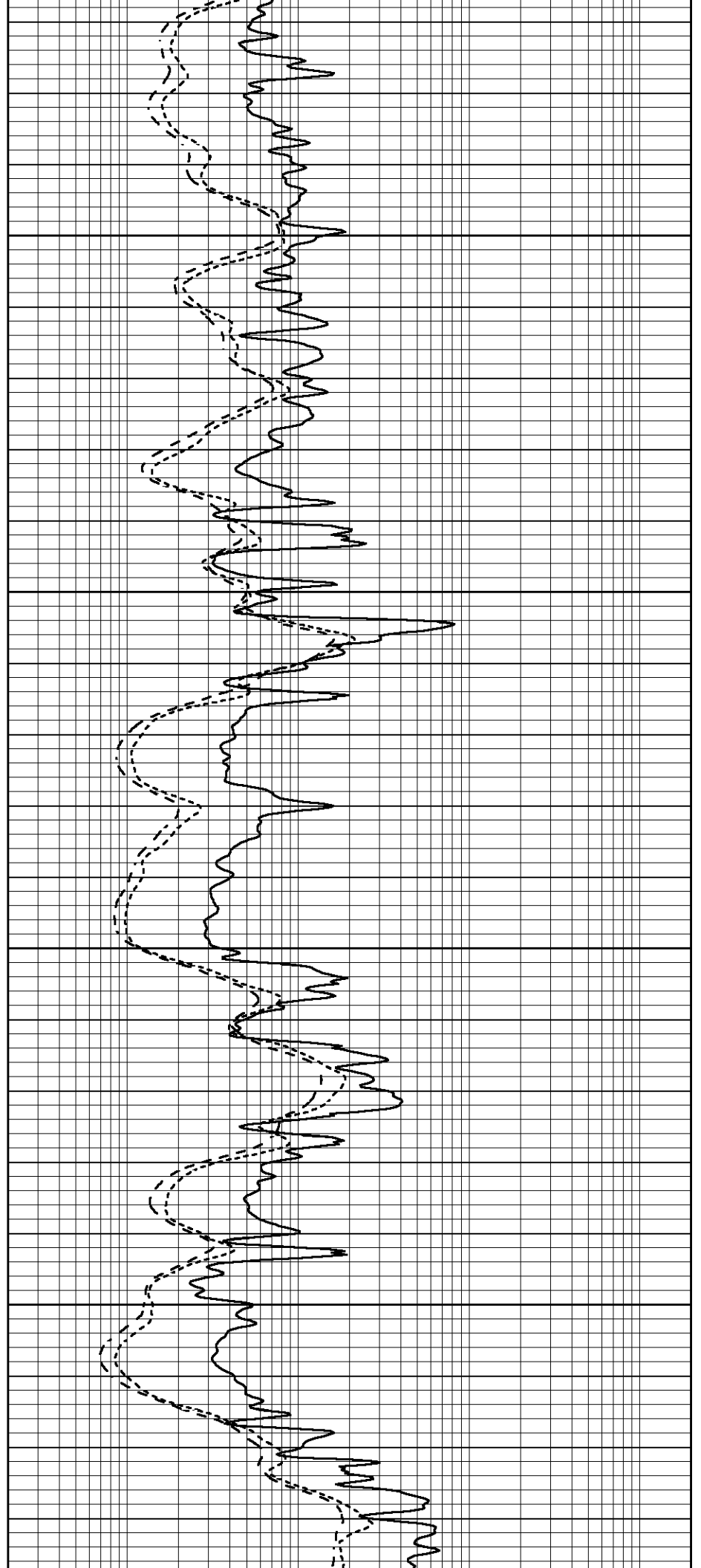


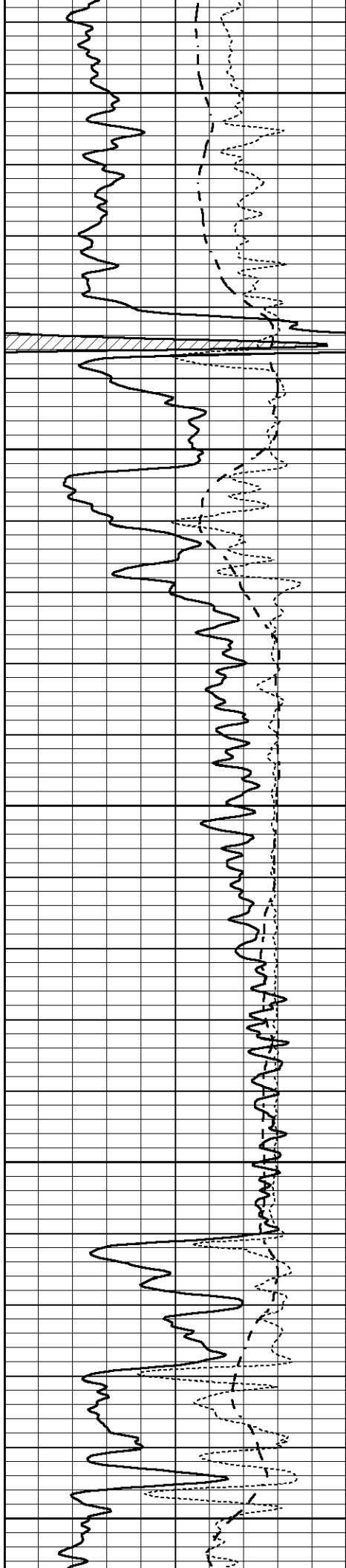
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3100

3150

3200





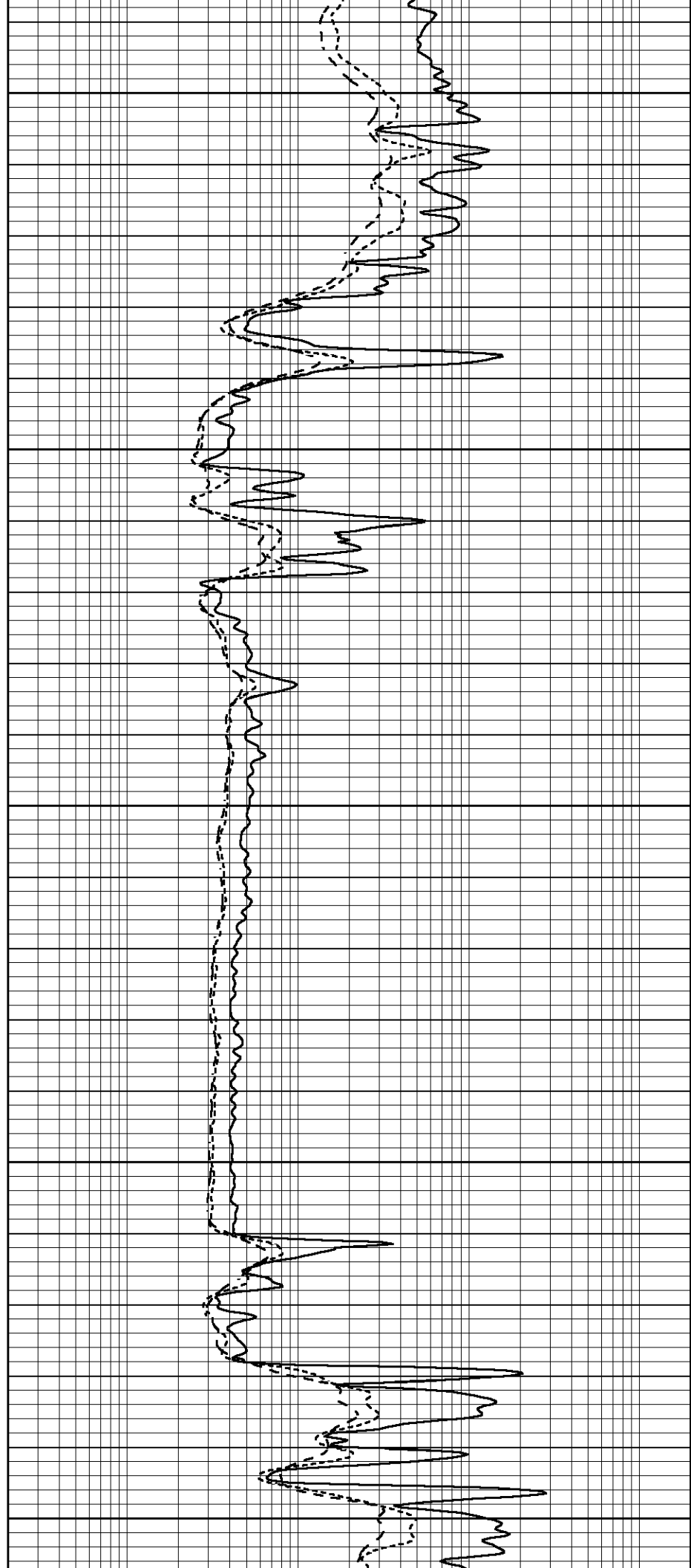
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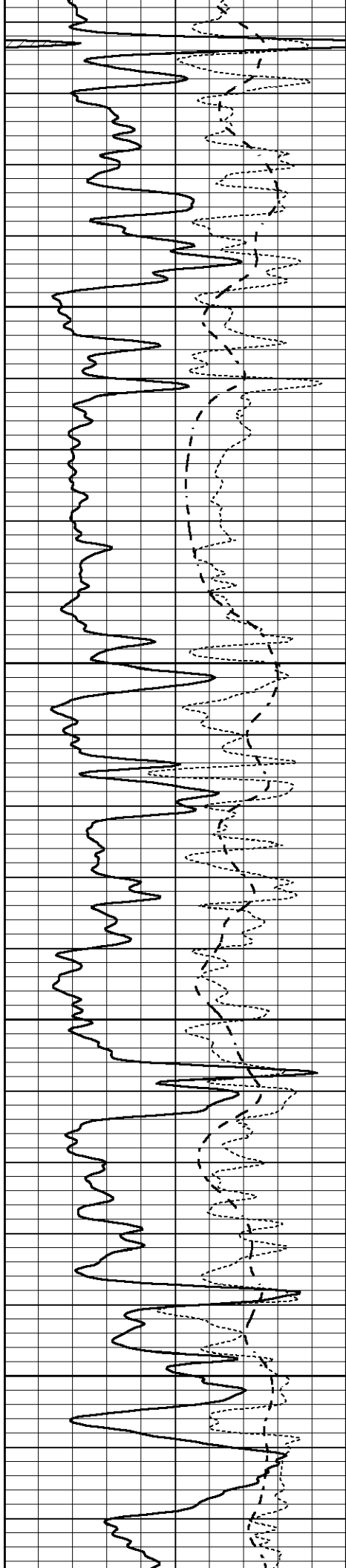
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3350

3400

3450



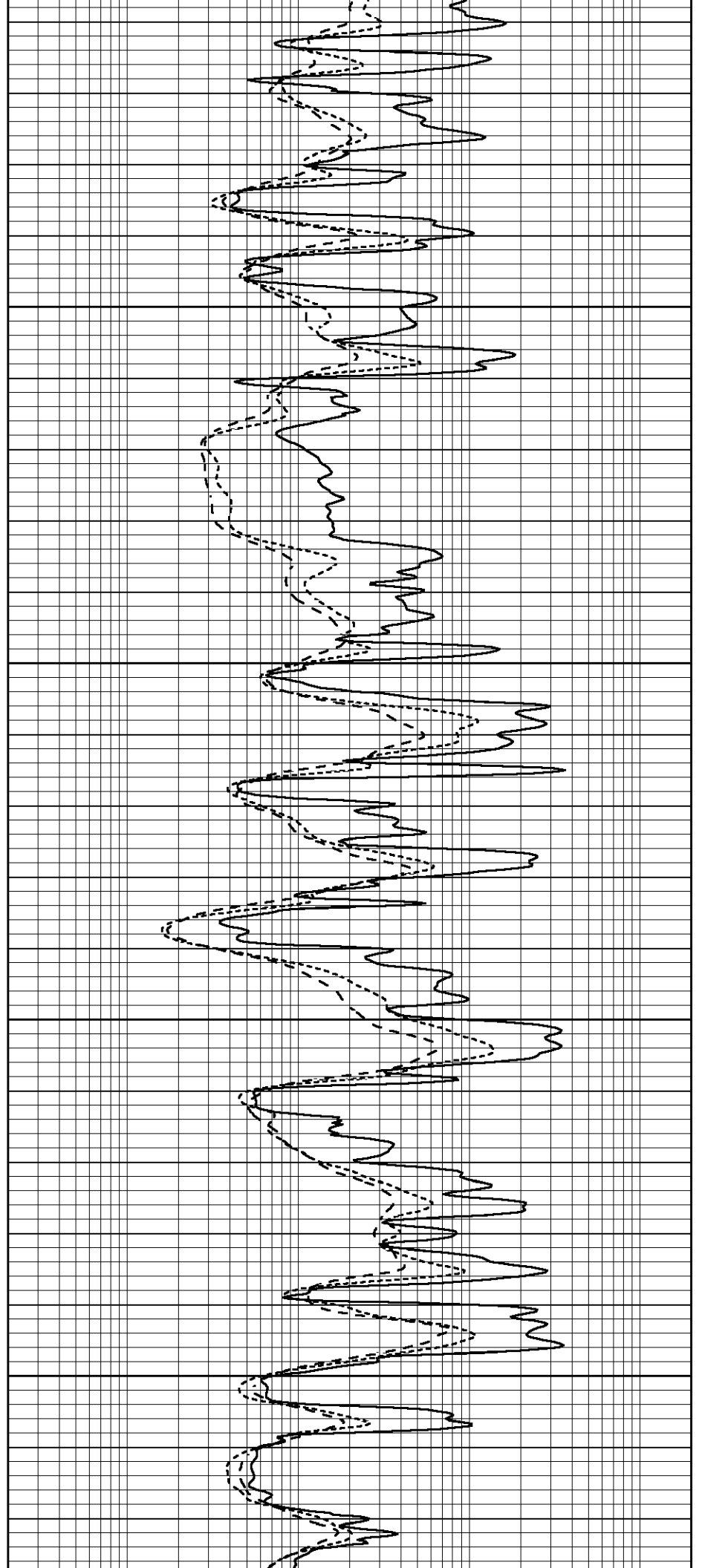


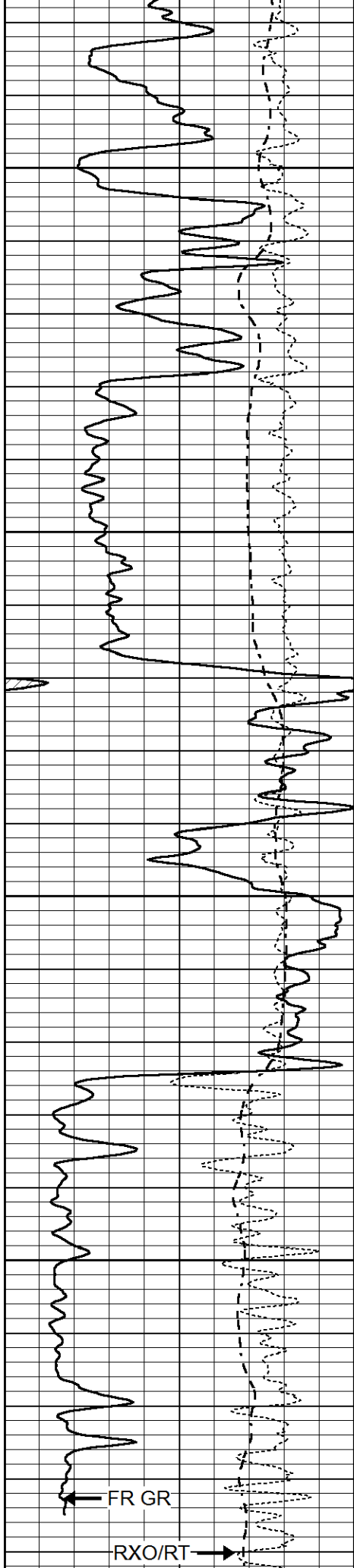
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3550

3600

3650



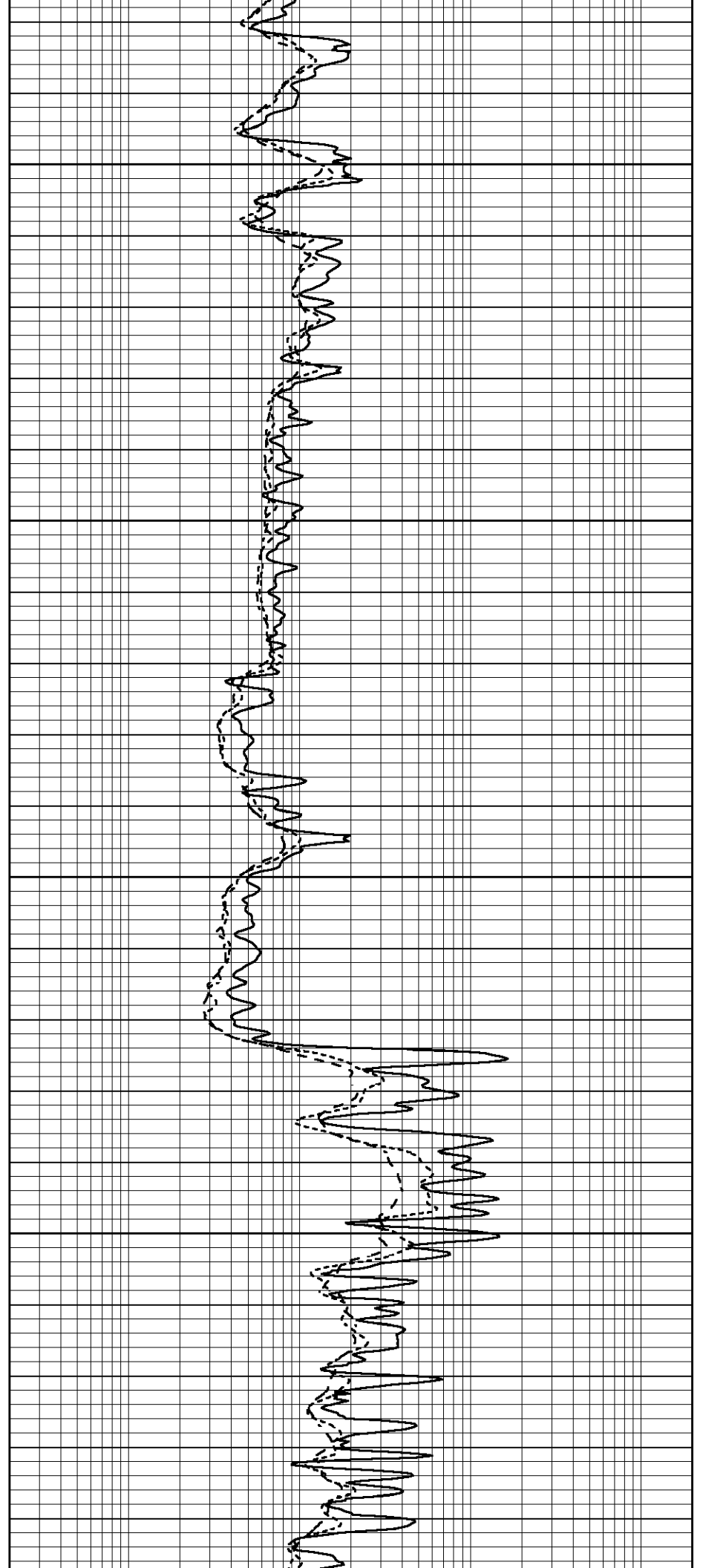


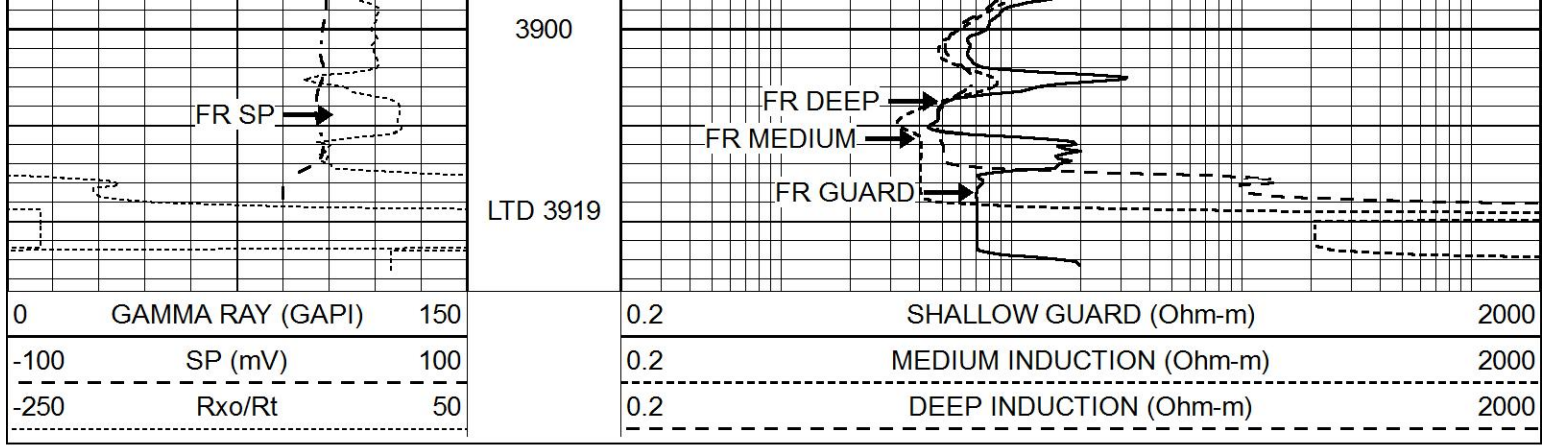
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3750

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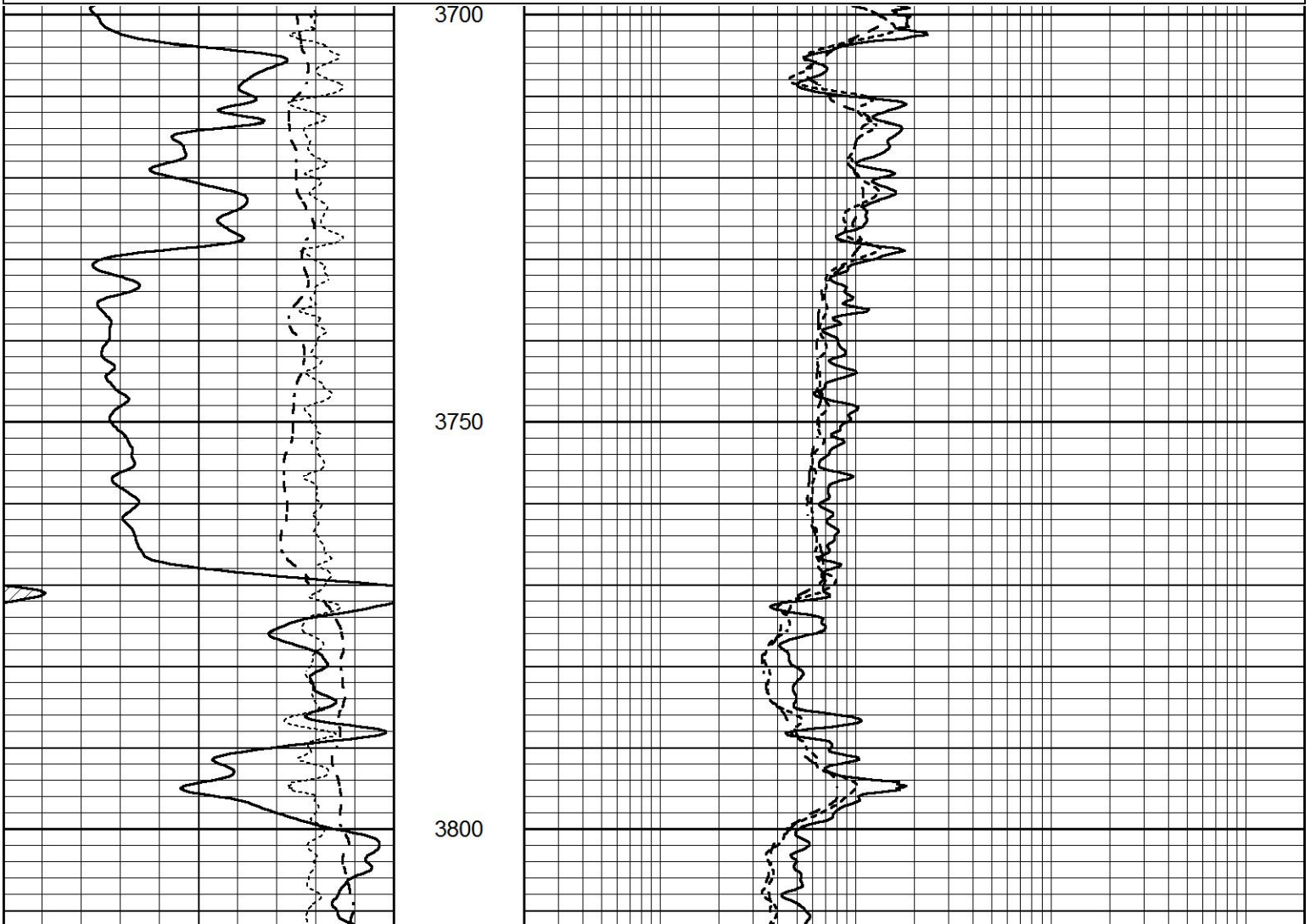
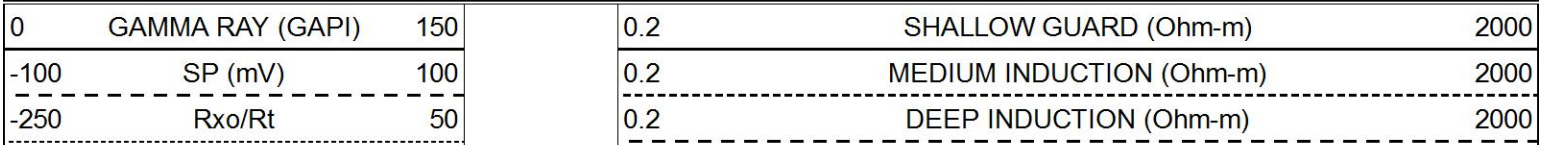
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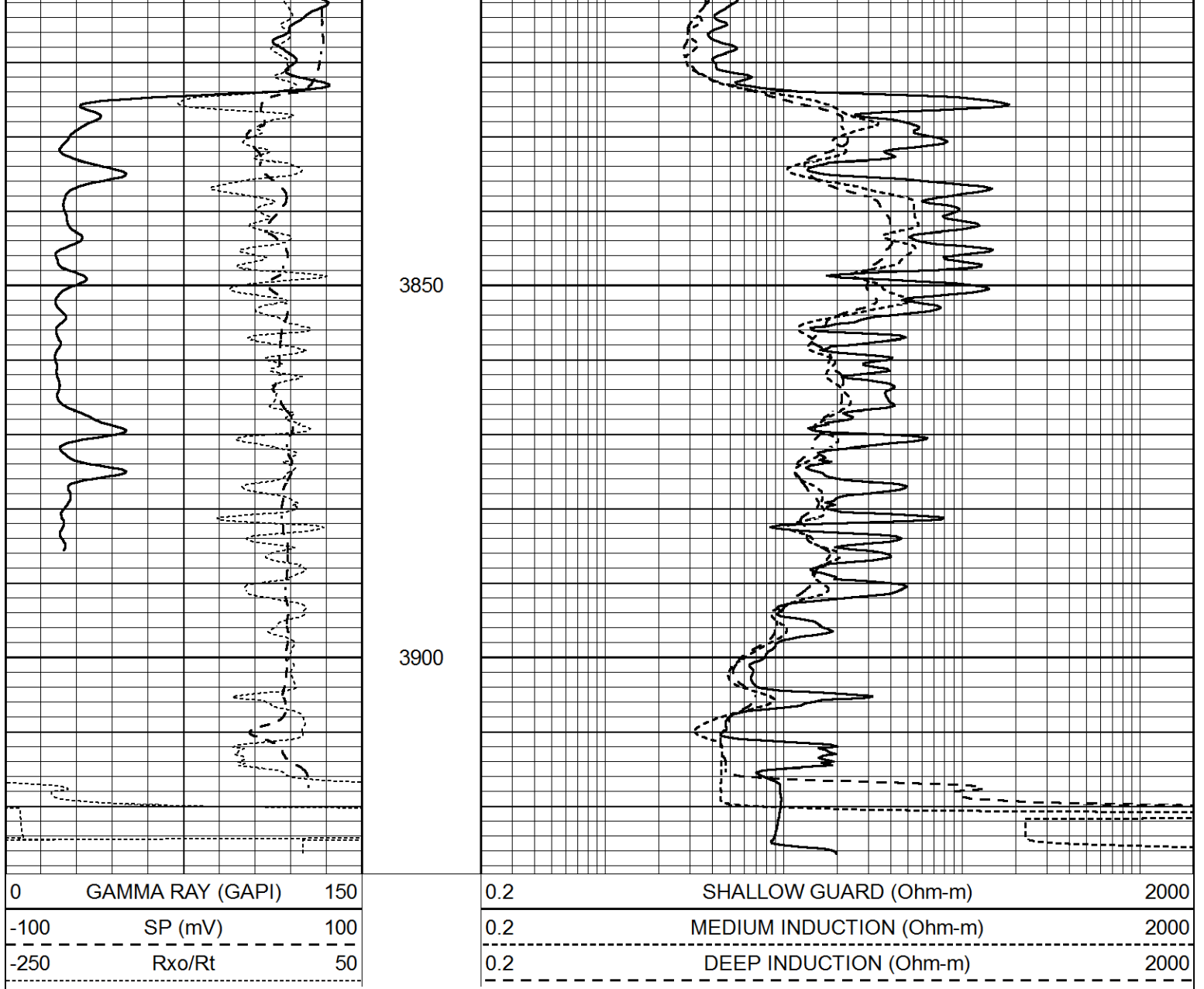




REPEAT SECTION

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 Dataset Pathname pass2DR
 Presentation Format _dil
 Dataset Creation Wed Feb 22 01:45:56 2023
 Charted by Depth in Feet scaled 1:240





Calibration Report

Database File 7548pe.db
 Dataset Pathname pass3DIL2
 Dataset Creation Wed Feb 22 05:36:57 2023

Dual Induction Calibration Report

Serial-Model: FW1410-55-Probe
 Surface Cal Performed: Thu Jun 30 01:48:00 2022
 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			References			Results	
	Air	Loop		Air	Loop		m	b
Deep	0.011	0.656	V	1.000	400.000	mmho/m	650.000	-3.000
Medium	-0.000	0.731	V	1.000	464.000	mmho/m	632.856	-10.500
Internal:	Zero		Cal	Zero		Cal	m	b
Deep	0.007	0.649	V	0.000	400.000	mmho/m	623.784	-4.595
Medium	0.004	0.743	V	0.000	464.000	mmho/m	627.284	-2.251

Downhole Calibration			Readings		References		Results	
	Zero	Cal		Zero	Cal		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: 140704
Model: V4_10P
Source Number: 74GBq-19

Master Calibration			Performed: Mon Jan 16 12:13:16 2023		
	Background	Aluminum	Magnesium		
Window 1	510.34	5430.90	23328.68	cps	
Window 2	43.13	1220.81	5782.94	cps	
Window 4	220.94	1221.84	5140.68	cps	
Window 5	541.58	7453.23	13730.42	cps	
Window 6	40.88	1109.92	2626.60	cps	
Window 8	256.72	2483.83	4003.08	cps	
Bulk Density	-	2.6020	1.6830	g/cc	
Pe	-	3.0000	2.5070	b/e	
LS Alpha:	: -1.8151	SS Alpha:	: -0.5949	LS CPE:	: 1.1494
LS Beta:	: 115604.5658	SS Beta:	: 10827.9221	SS CPE:	: 1.7503

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: Mon Jan 16 12:13:16 2023

Results	Readings		References (in)		Gain	Offset
	Low	High	Low	High		
	7710.6	11244.4	8.0	14.0	0.0	-6.5

Before Survey Caliper Verification			Performed:			
	Reference	Reading				
Caliper (in)	_____	_____				

After Survey Caliper Verification			Performed:			
	Reference	Reading				
Caliper (in)	_____	_____				

Compensated Neutron Calibration Report

Serial Number:	080621PMC
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:	7
Tool Model:	Probe1
Performed:	Wed Feb 15 09:34:11 2023
Calibrator Value:	1.0 GAPI
Background Reading:	0.0 cps
Calibrator Reading:	1.0 cps
Sensitivity:	0.5000 GAPI/cps