



DUAL
INDUCTION
LOG

Company GRIFFIN MANAGEMENT, LLC.

Well CROMER #1-1-4

Field

County BARBER

State KANSAS

Location: API #: 15-007-24378-0000

330' FNL & 400' FWL

SEC 4 TWP 30S RGE 15W

Permanent Datum GROUND LEVEL Elevation 2011

Log Measured From KELLY BUSHING 11' A.G.L

Drilling Measured From KELLY BUSHING

Other Services
CDL/CNL/PE
MEL/SON

Elevation

K.B. 2022
D.F. 2020
G.L. 2011

Date 4/15/21

Run Number ONE

Depth Driller 4883

Depth Logger 4882

Bottom Logged Interval 4880

Top Log Interval 00

Casing Driller 8 5/8" @ 266'

Casing Logger 266'

Bit Size 7 7/8

Type Fluid in Hole CHEMICAL MUD

Density / Viscosity 9.3/51

pH / Fluid Loss 11.0/8.8

Source of Sample FLOWLINE

Rm @ Meas. Temp .90 @ 60F

Rmf @ Meas. Temp .67 @ 60F

Rmc @ Meas. Temp 1.08 @ 60F

Source of Rmf / Rmc MEASUREMENT

Rm @ BHT .43 @ 124F

Time Circulation Stopped 2 HOURS

Time Logger on Bottom ////

Maximum Recorded Temperature 124F

Equipment Number 3802

Location HAYS, KANSAS

Recorded By JASON CAPPELLUCCI

Witnessed By ELI FELTS

<<< Fold Here >>>

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
CROFT, KS. - 2 1/2 SOUTH TO THE SPLIT IN THE ROAD - EAST & NORTH INTO

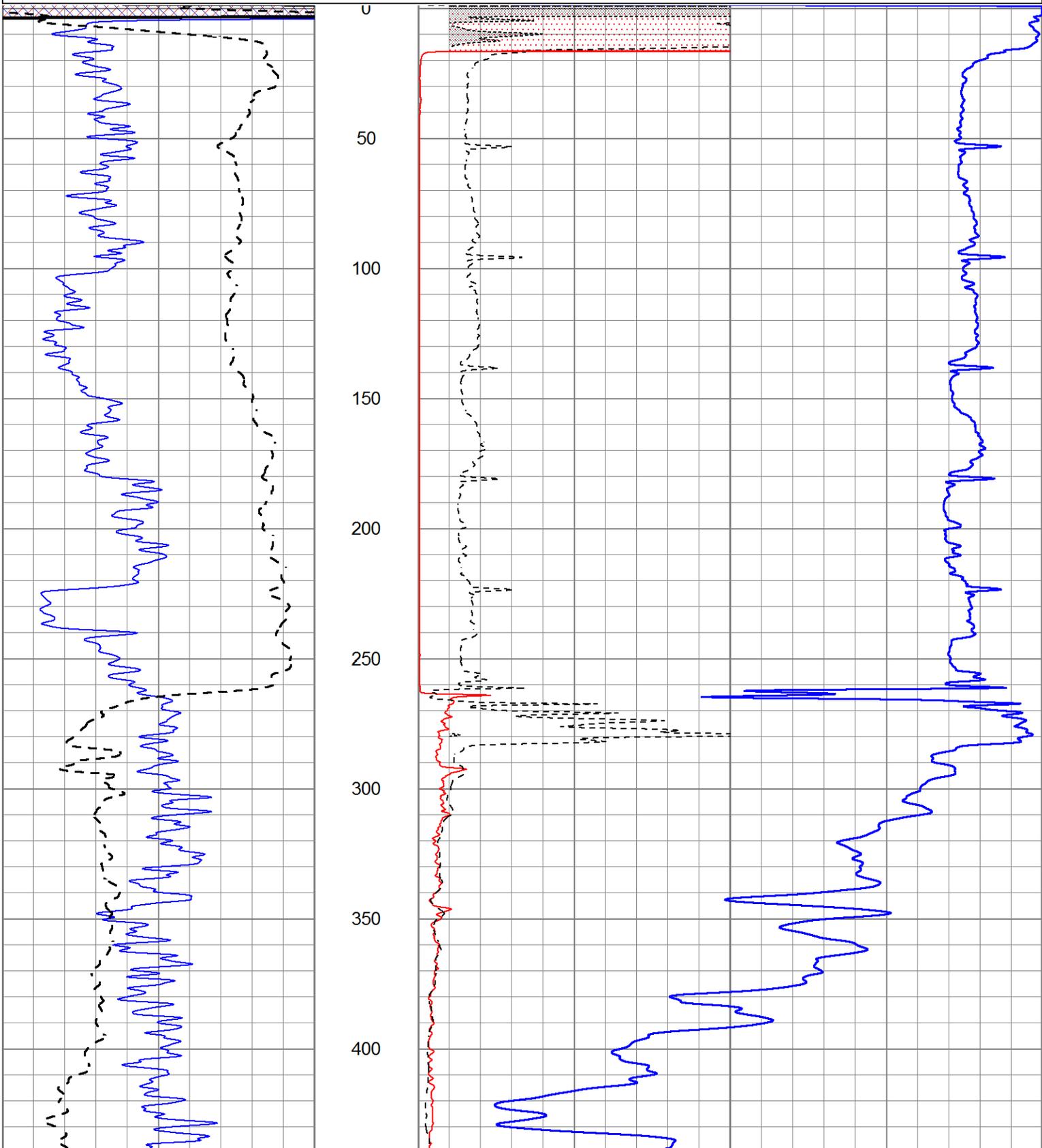


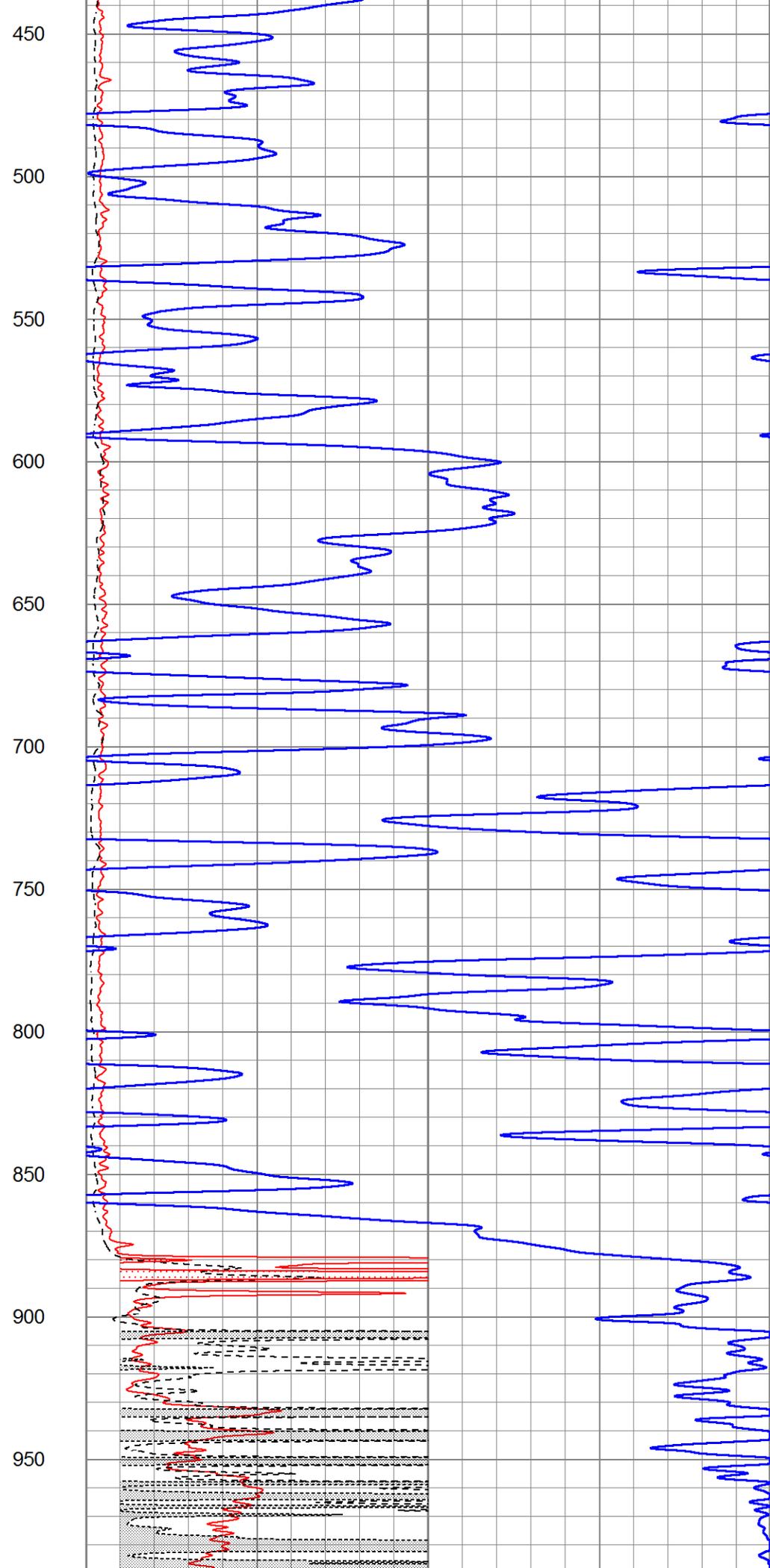
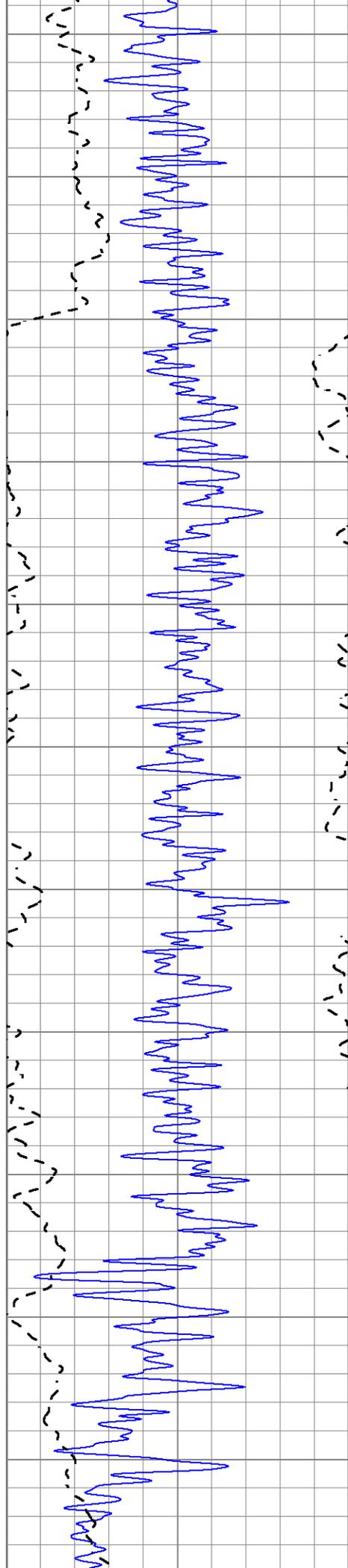
MAIN SECTION

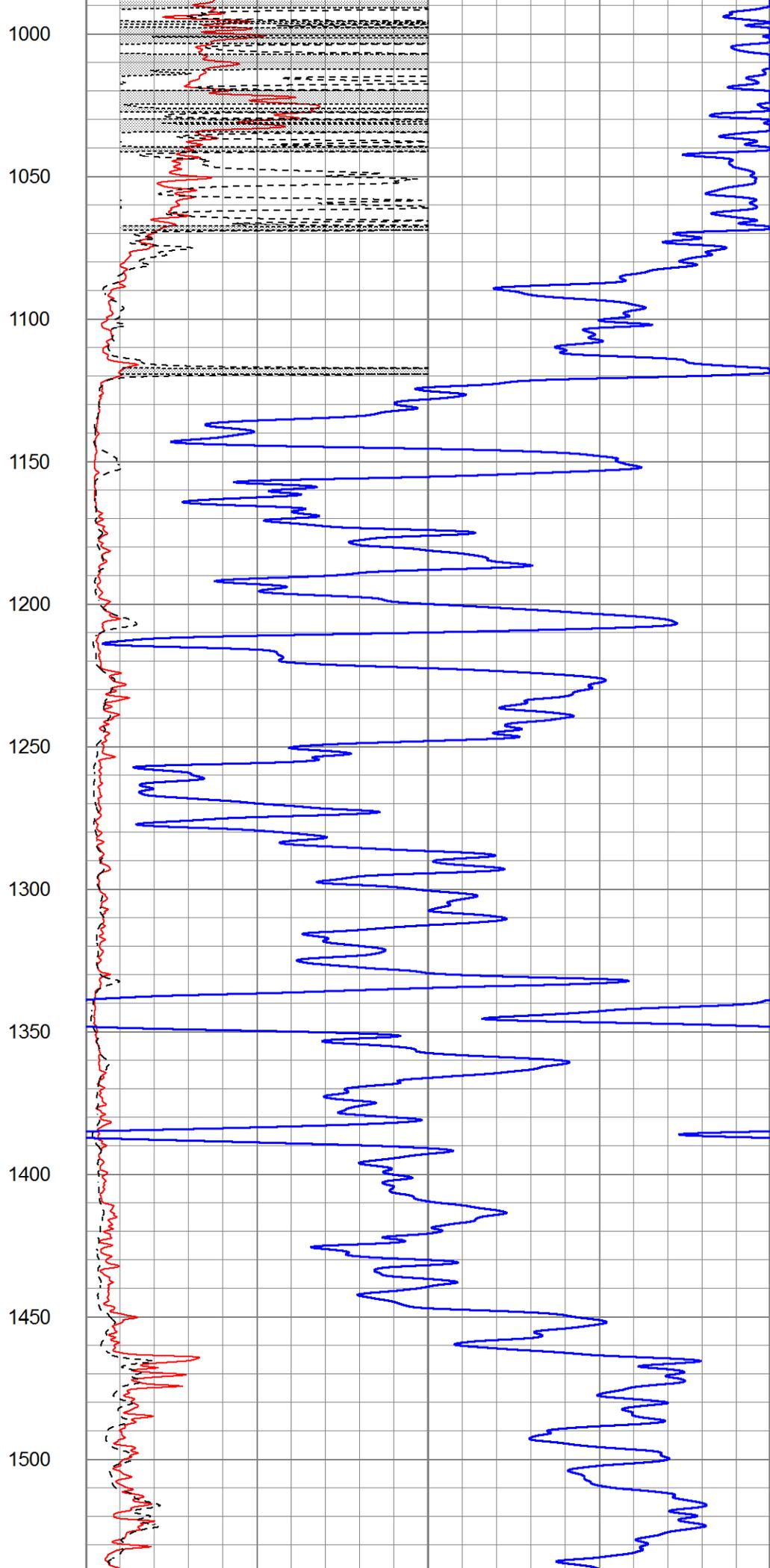
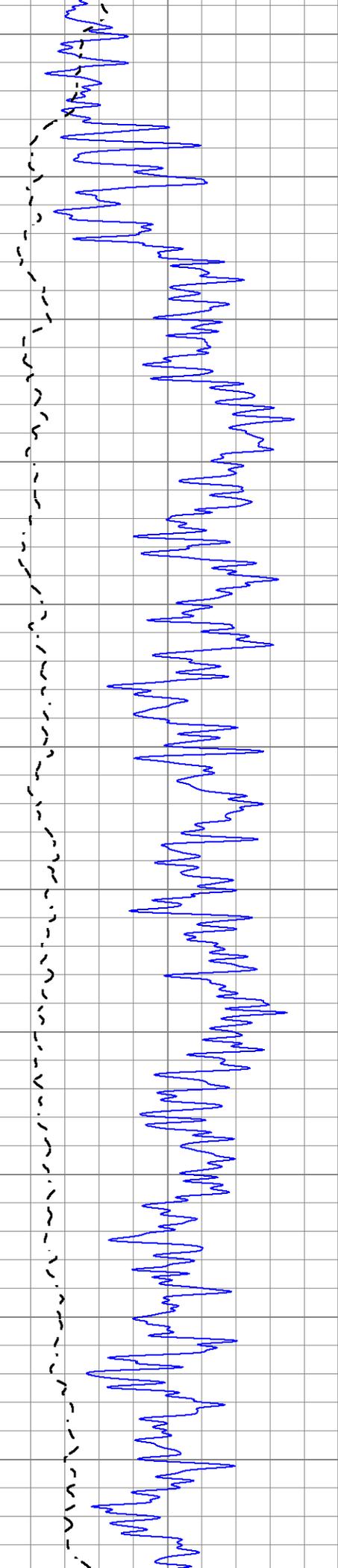
Database File 5213pe.db
 Dataset Pathname pass3.2
 Presentation Format _dil2
 Dataset Creation Thu Apr 15 11:13:32 2021
 Charted by Depth in Feet scaled 1:600

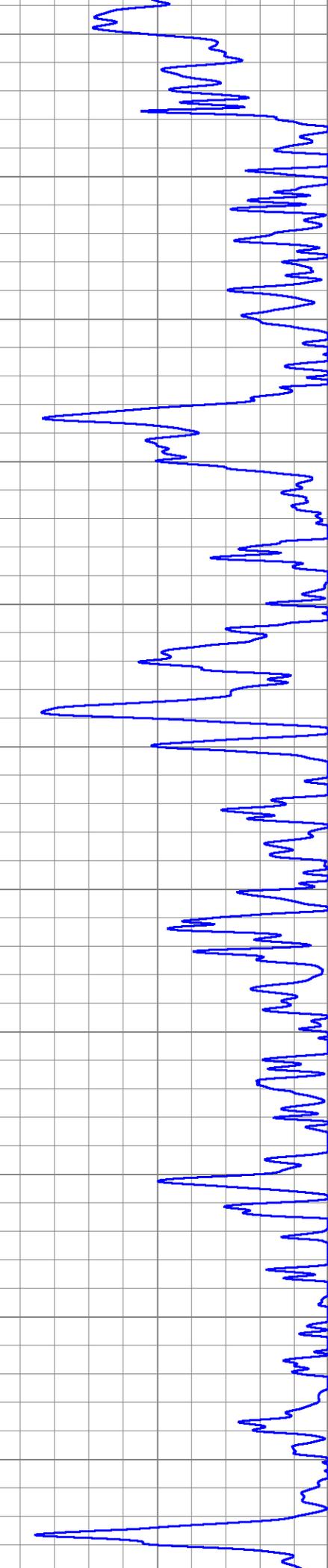
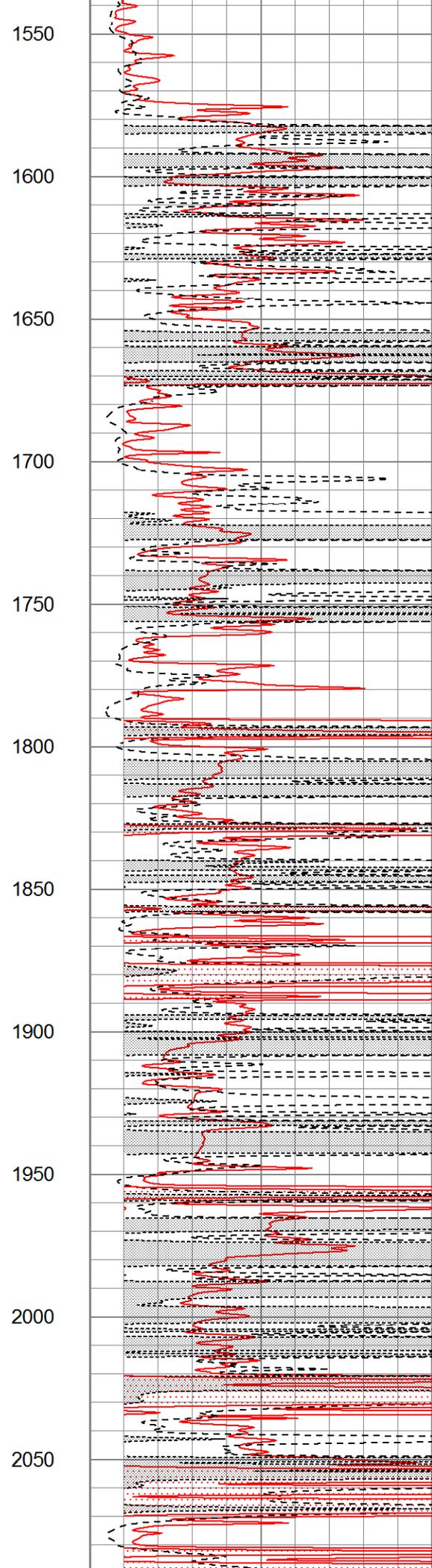
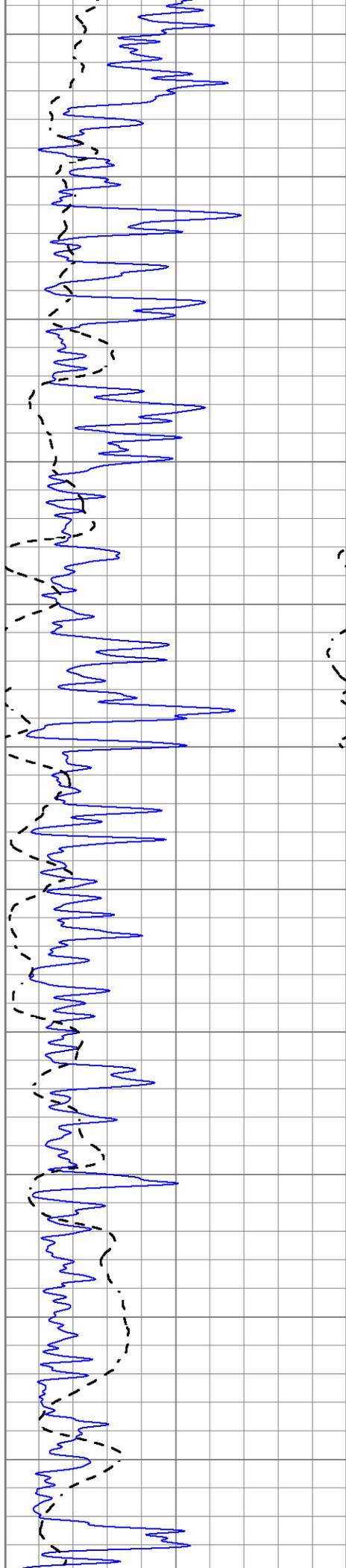
0	Gamma Ray (GAPI)	150
-100	SP (mV)	100

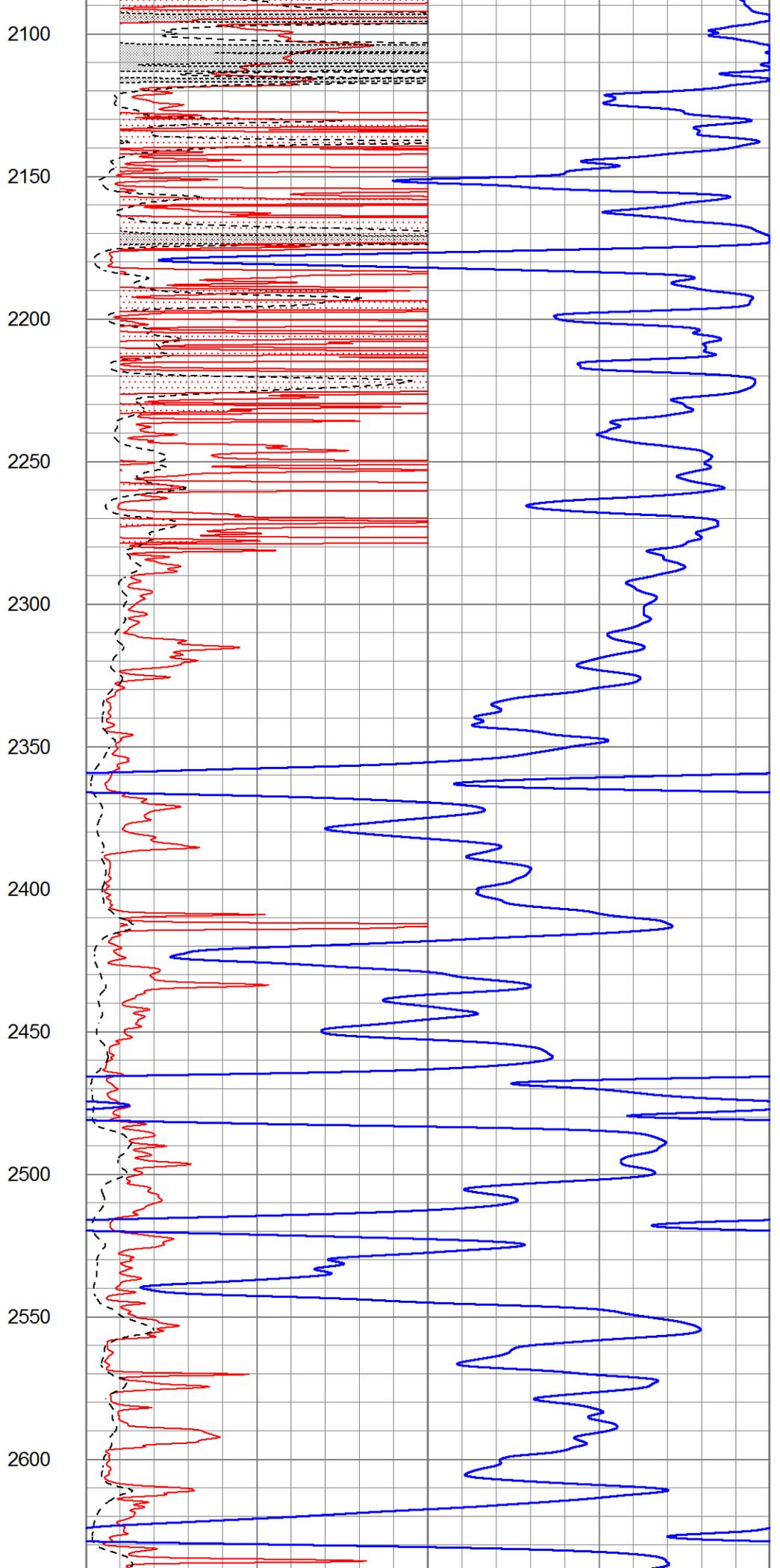
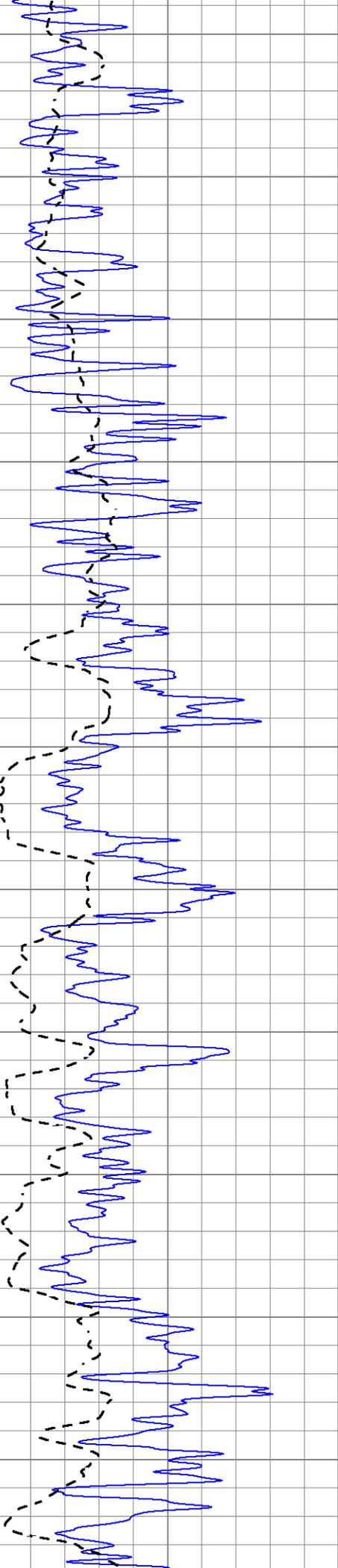
1000	CILD (mmho/m)	0
0	RLL3 (Ohm-m)	50
0	Deep Induction (Ohm-m)	50
50	RILD X10 (Ohm-m)	500
50	RLL3 X10 (Ohm-m)	500

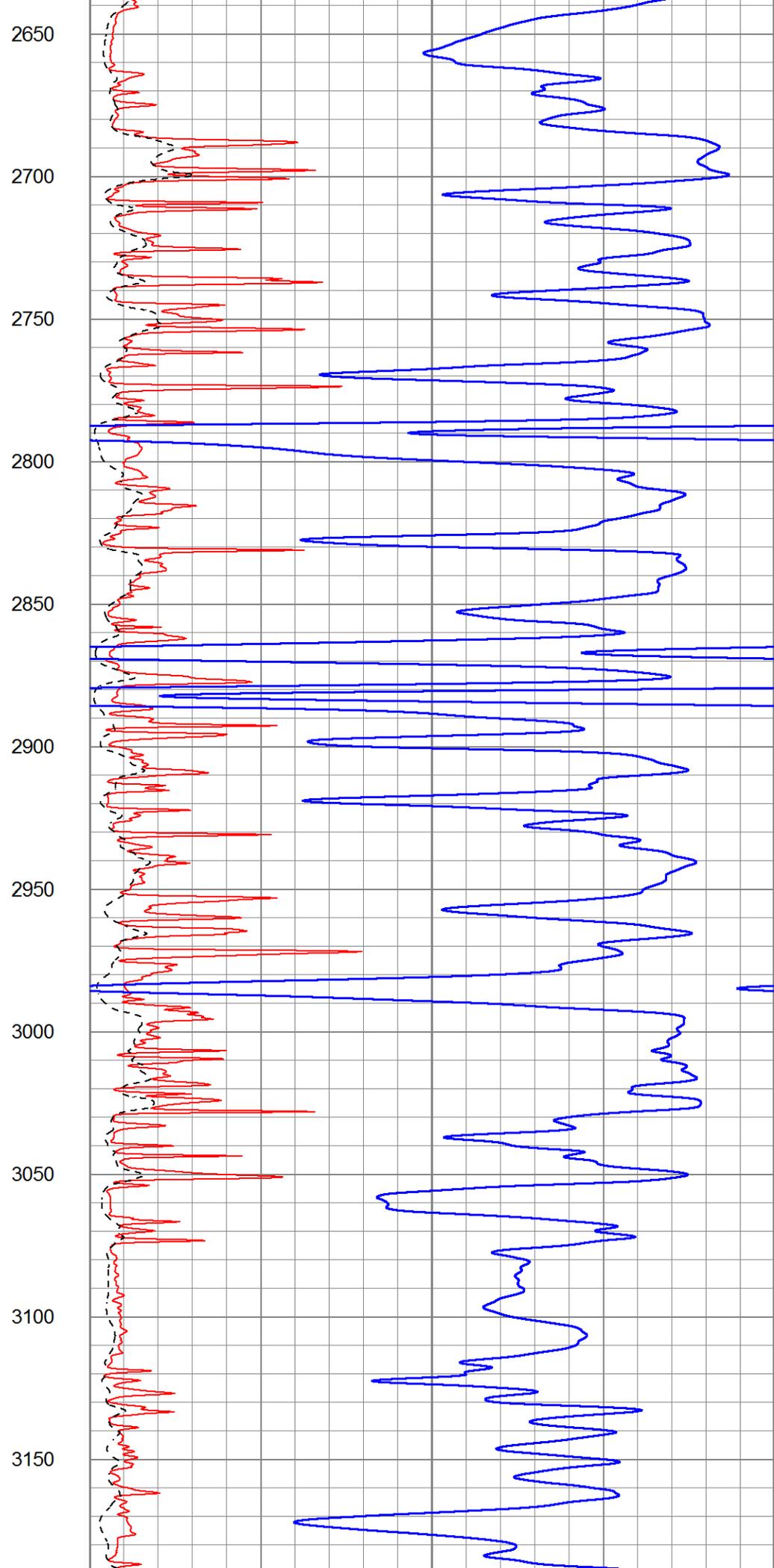
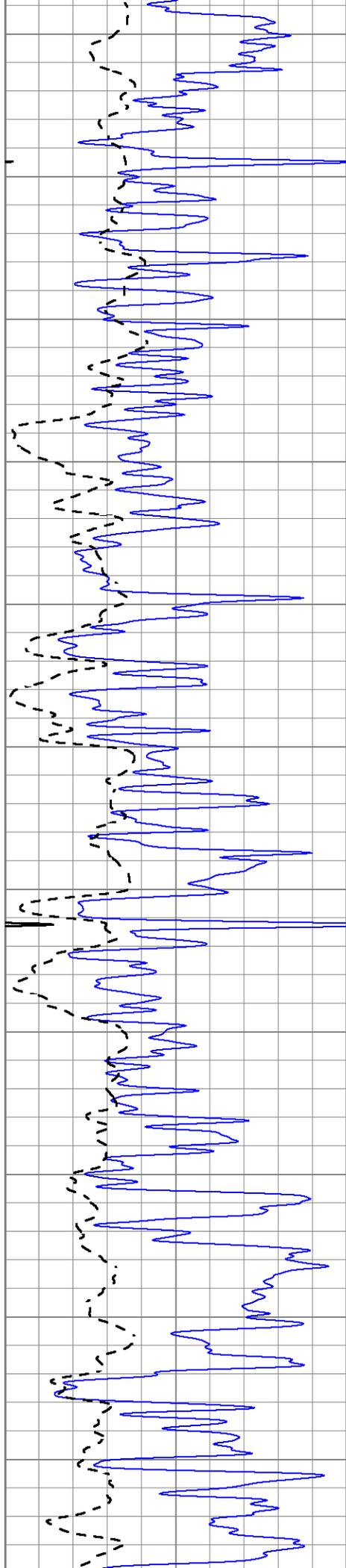


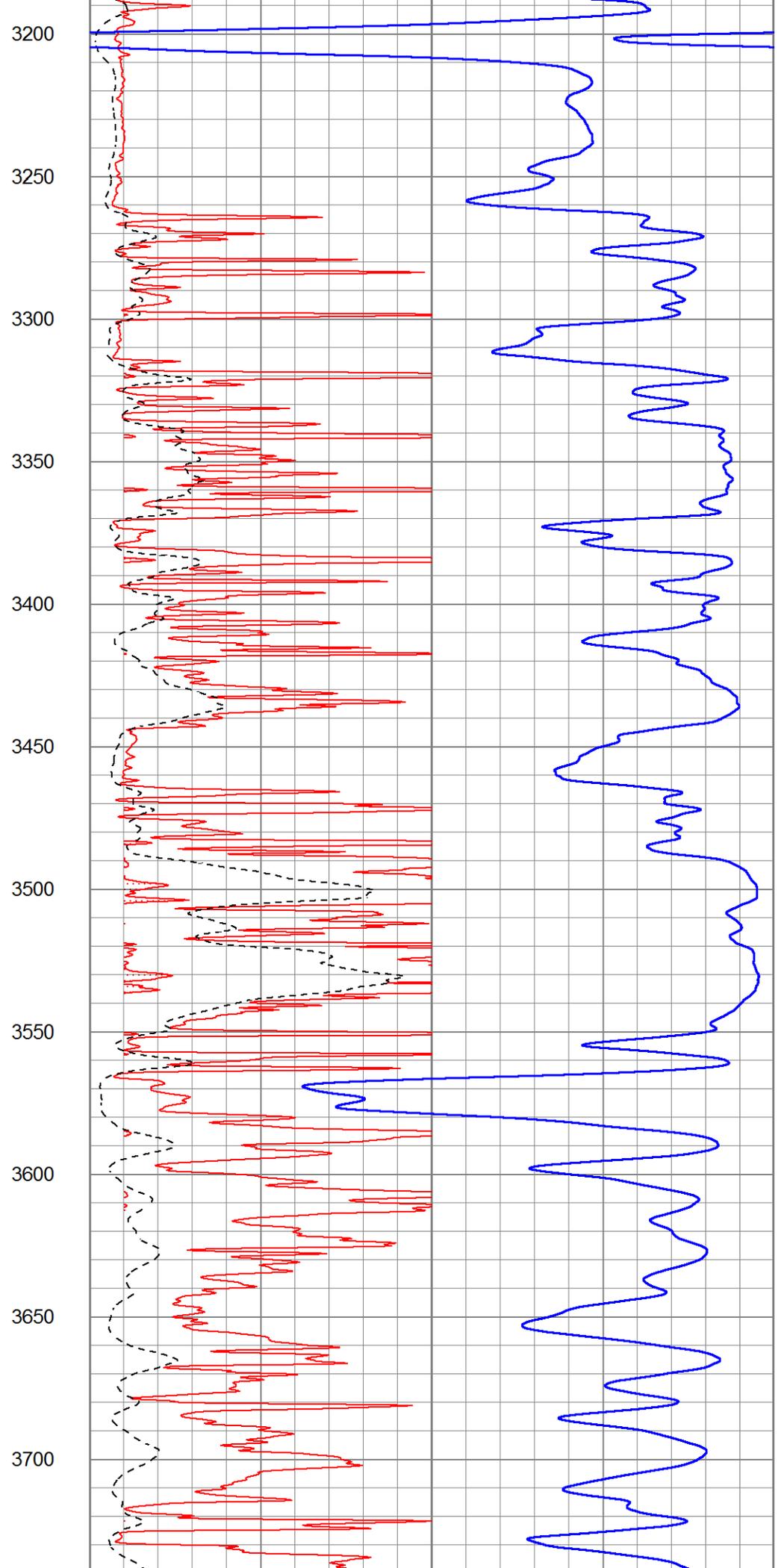
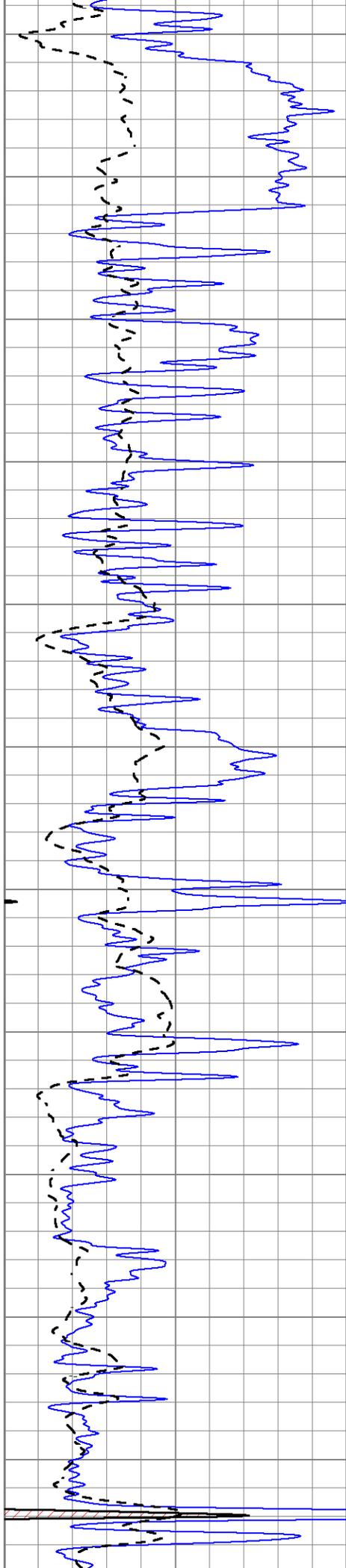


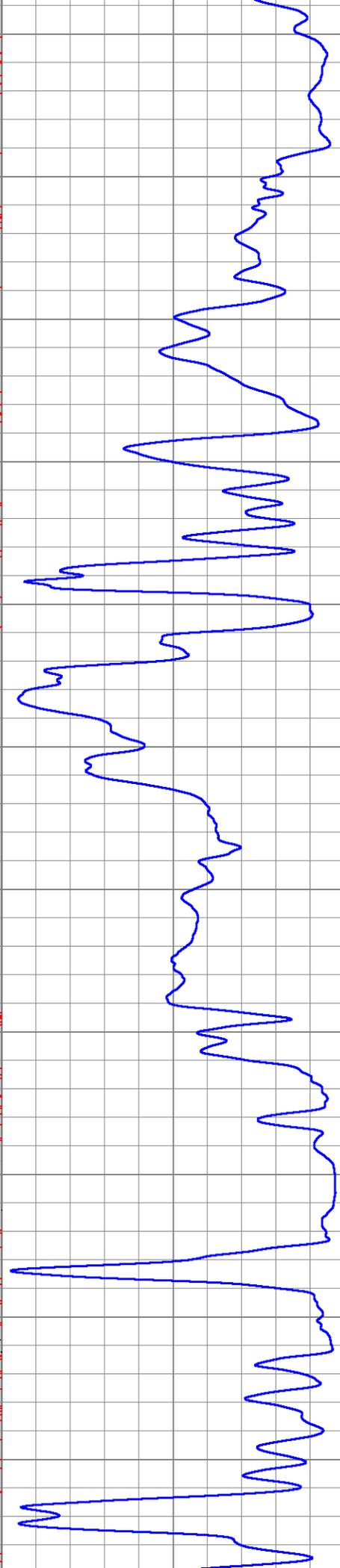
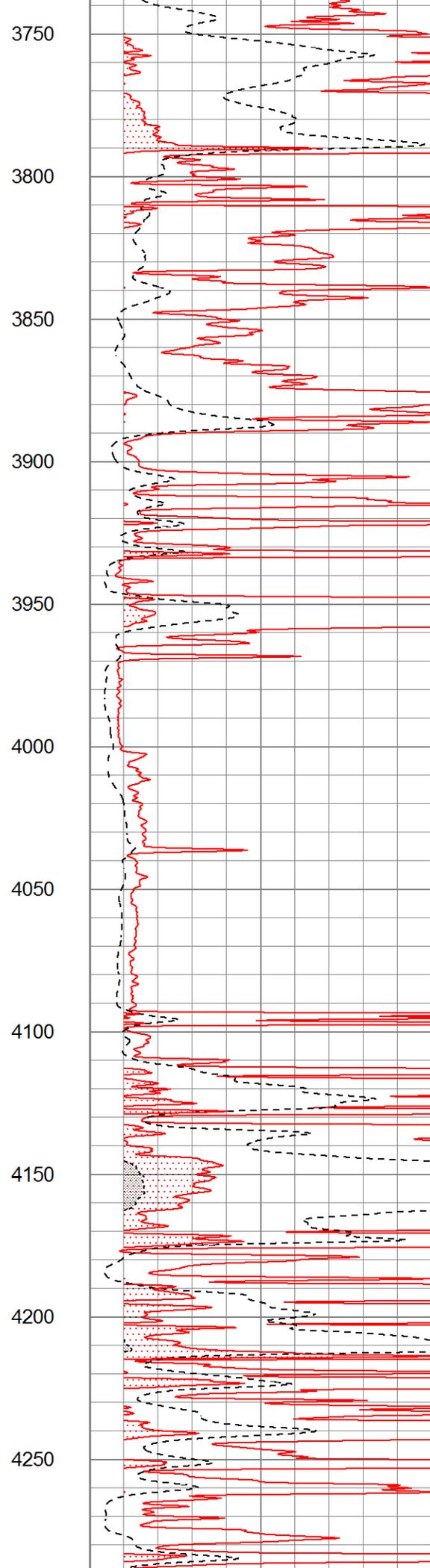
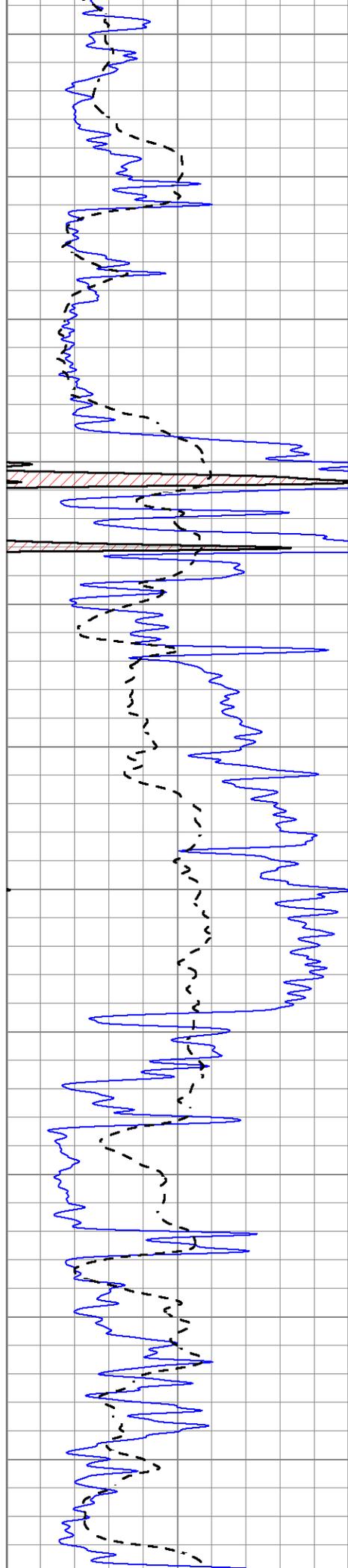


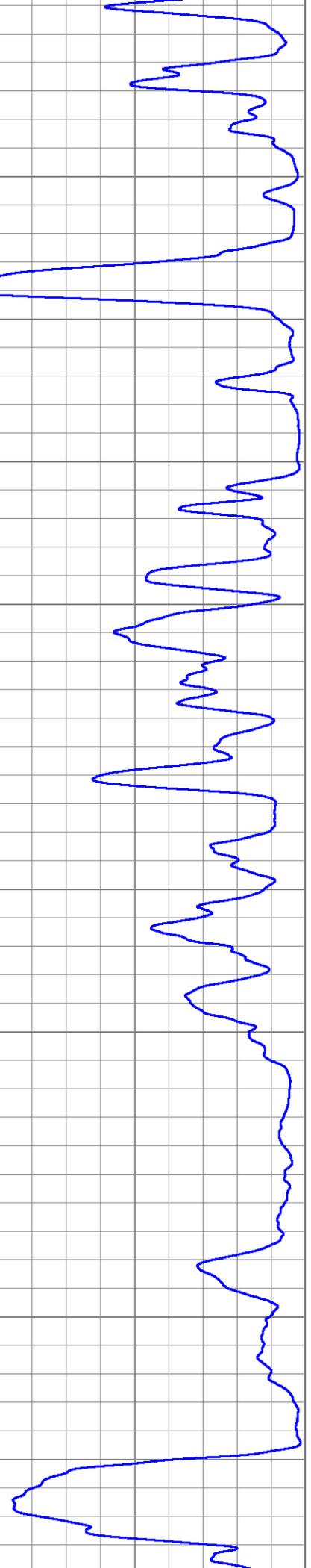
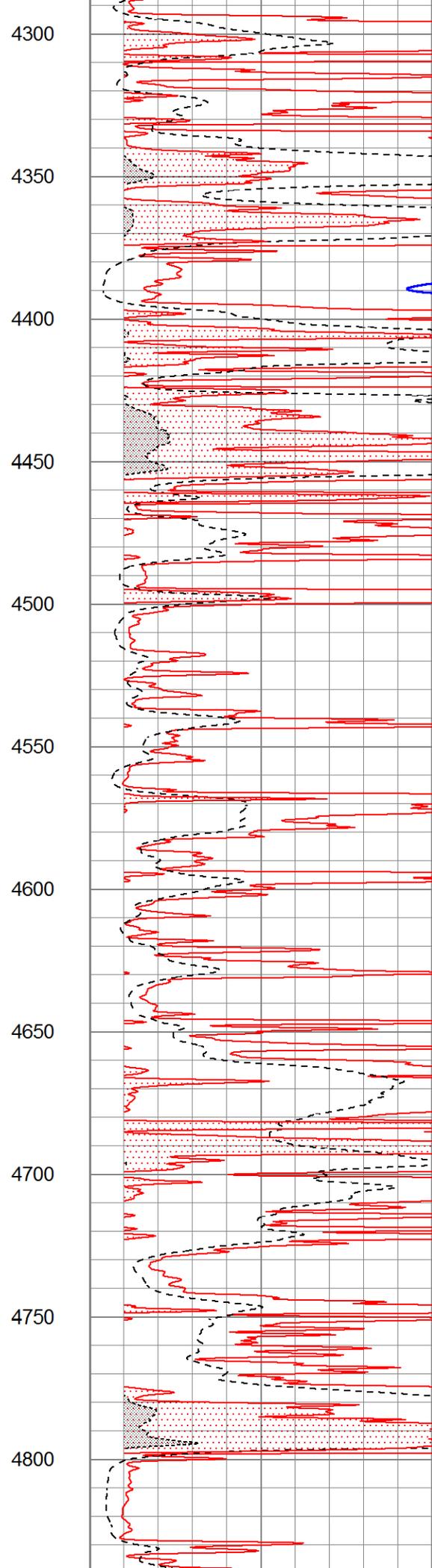
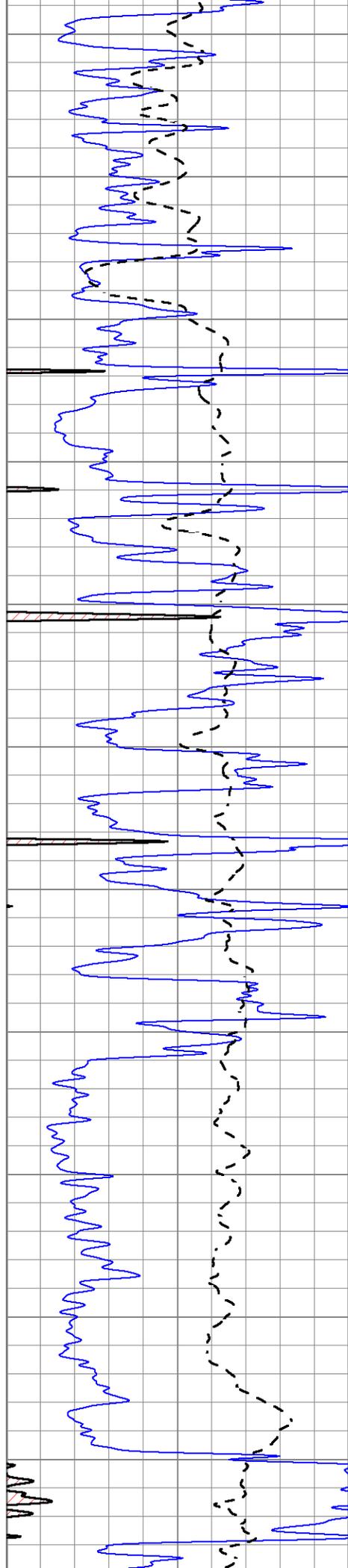


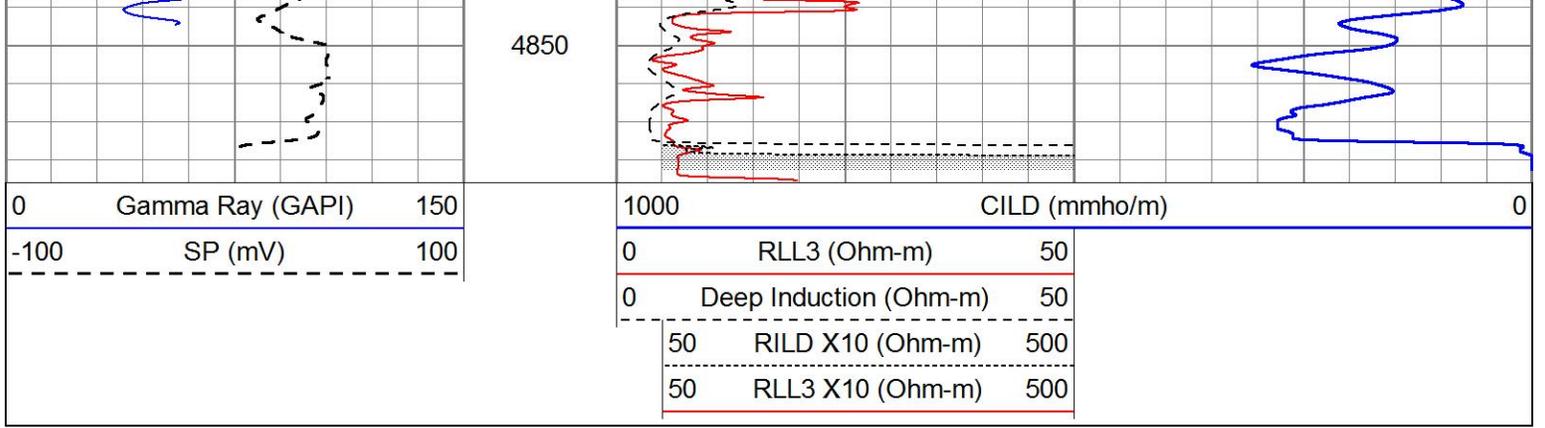








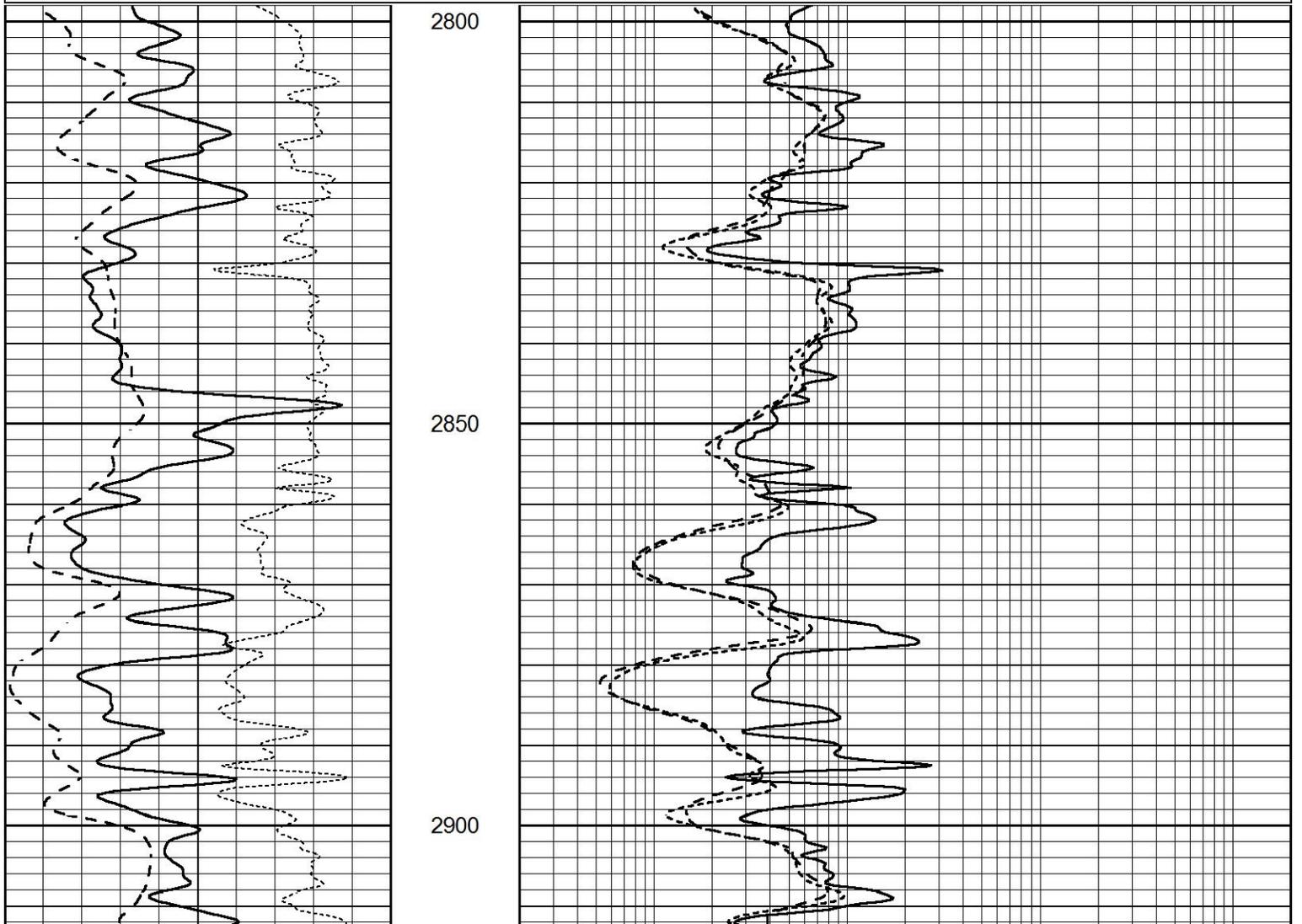


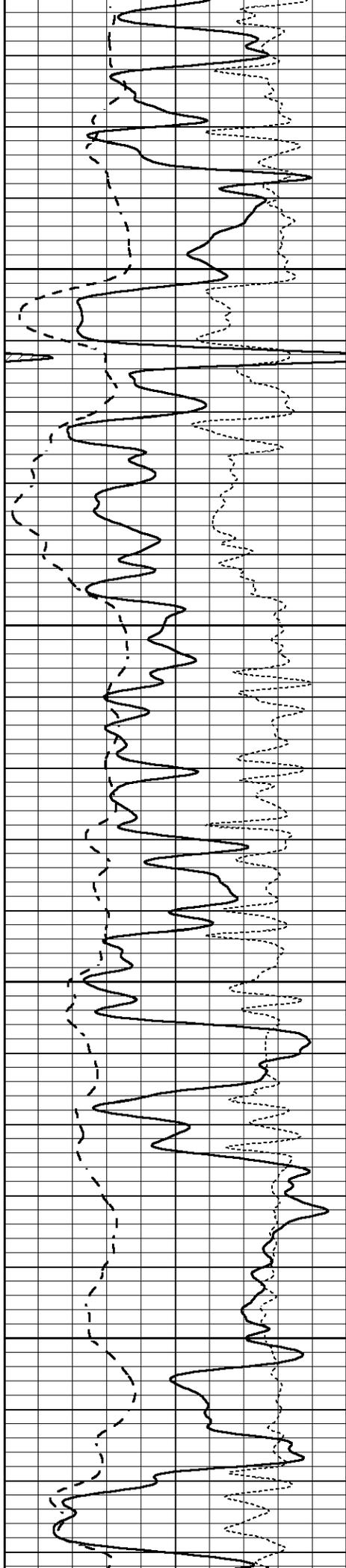


MAIN SECTION

Database File 5213pe.db
 Dataset Pathname pass3.1
 Presentation Format _dil
 Dataset Creation Thu Apr 15 10:42:22 2021
 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



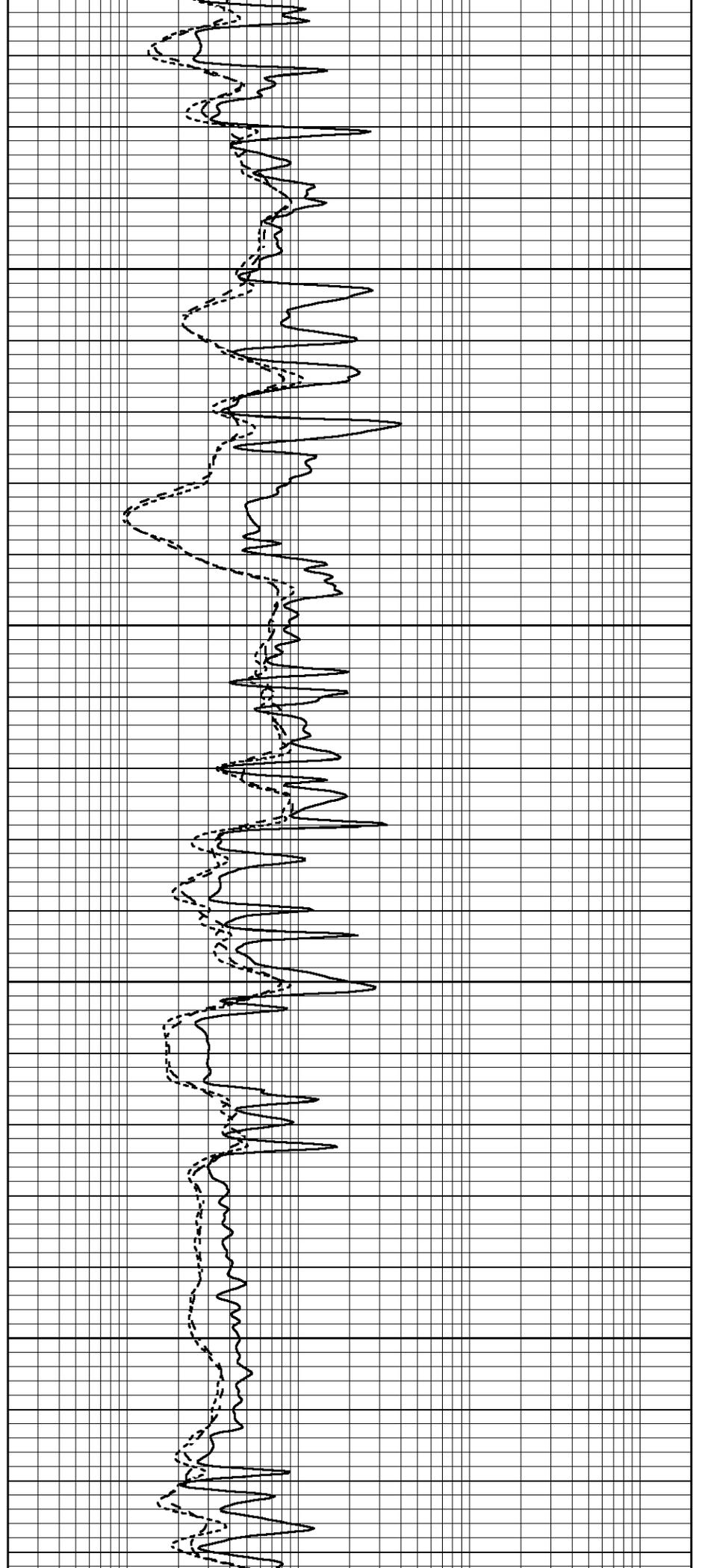


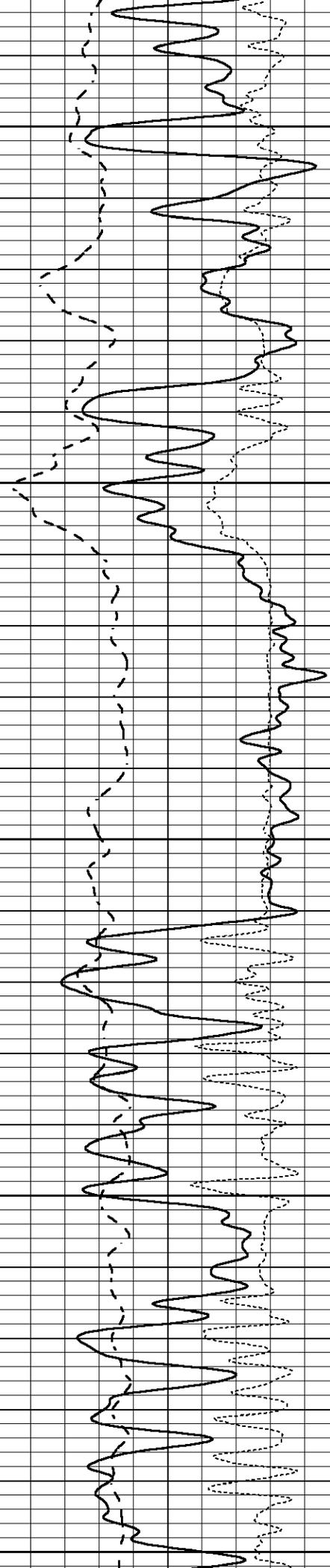
2950

3000

3050

3100





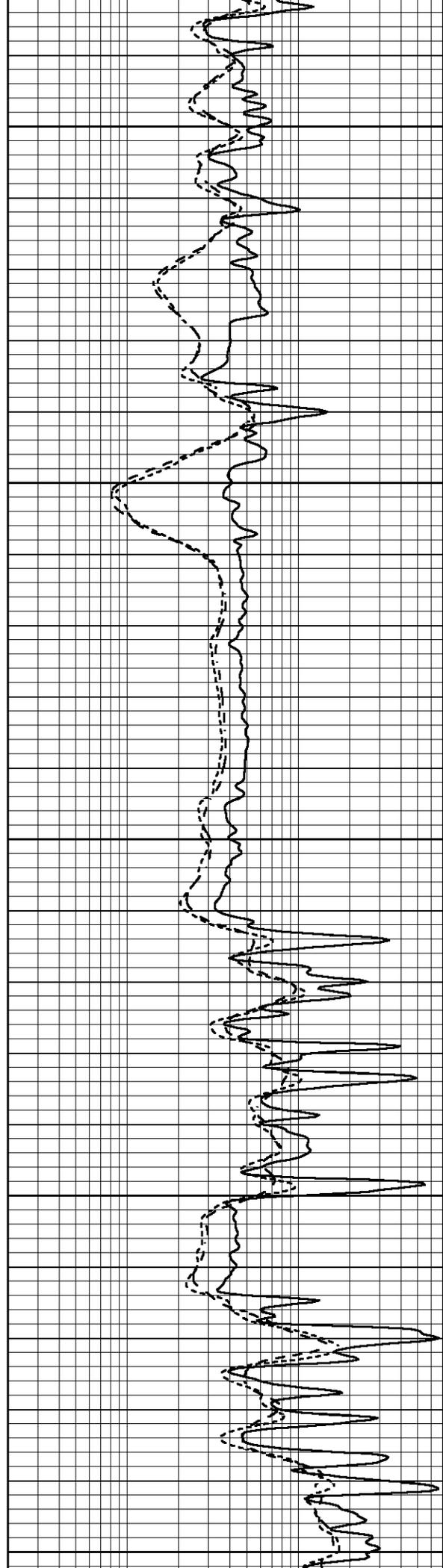
3150

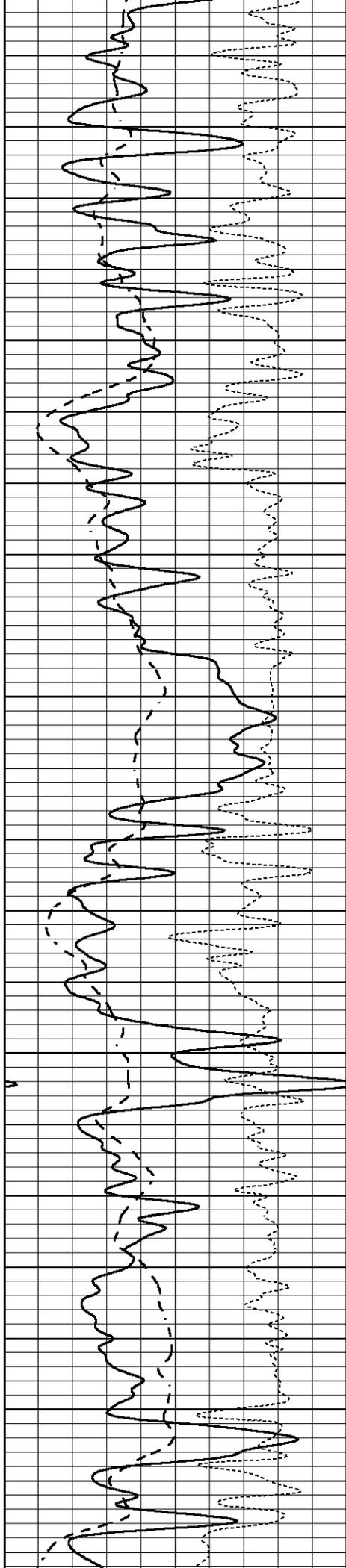
3200

3250

3300

3350



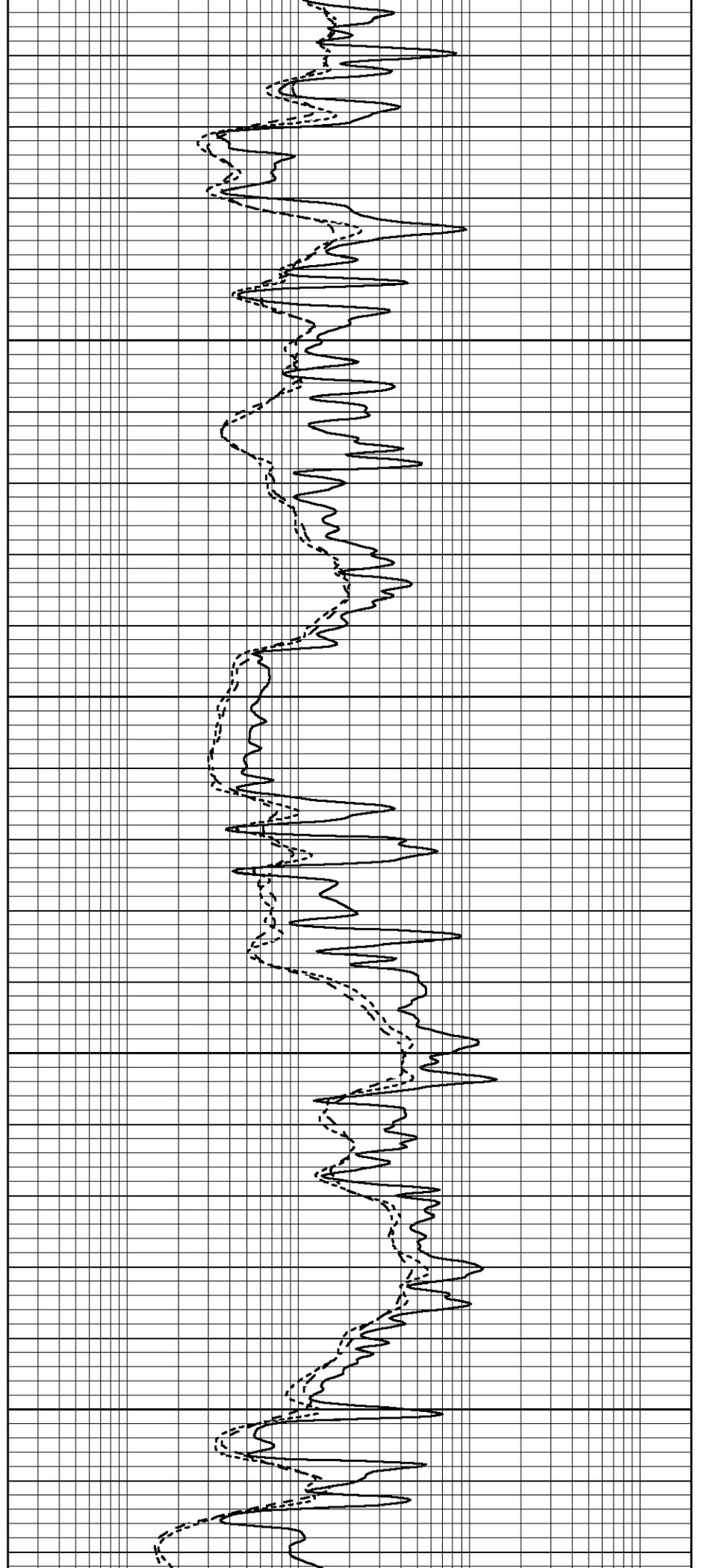


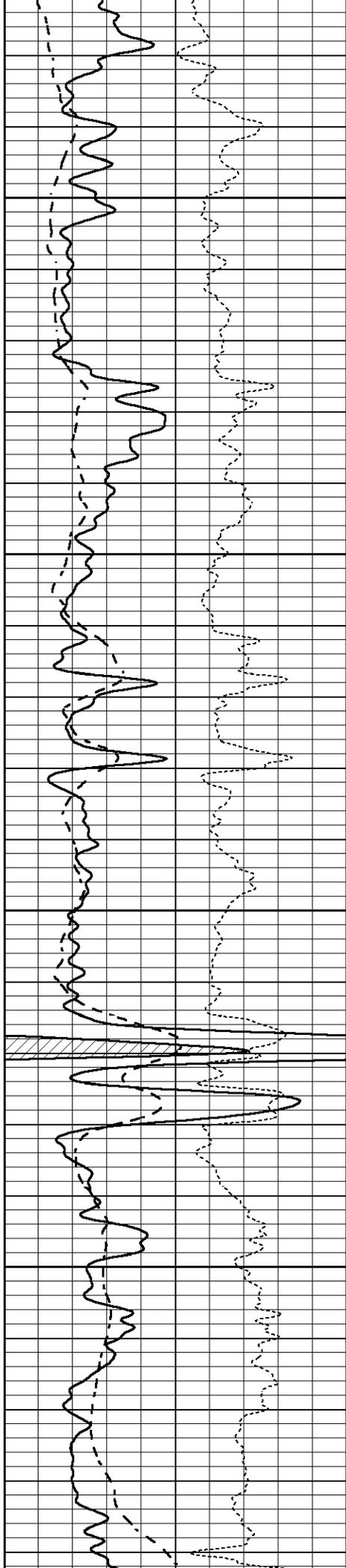
3400

3450

3500

3550



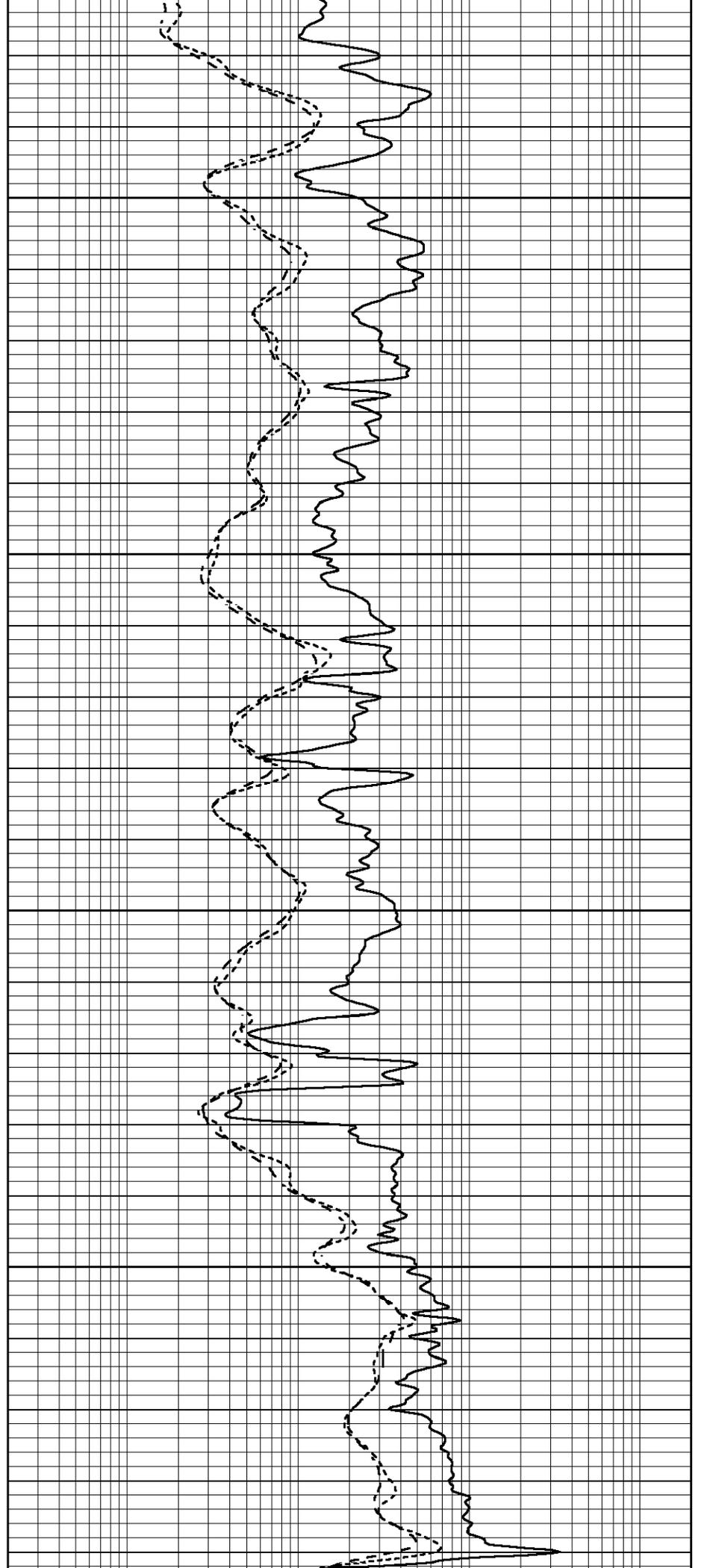


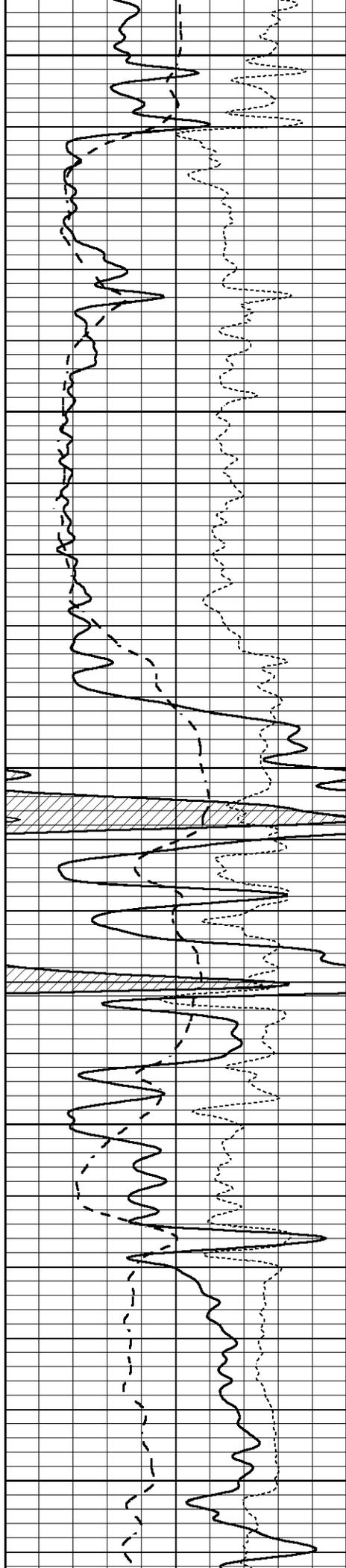
3600

3650

3700

3750





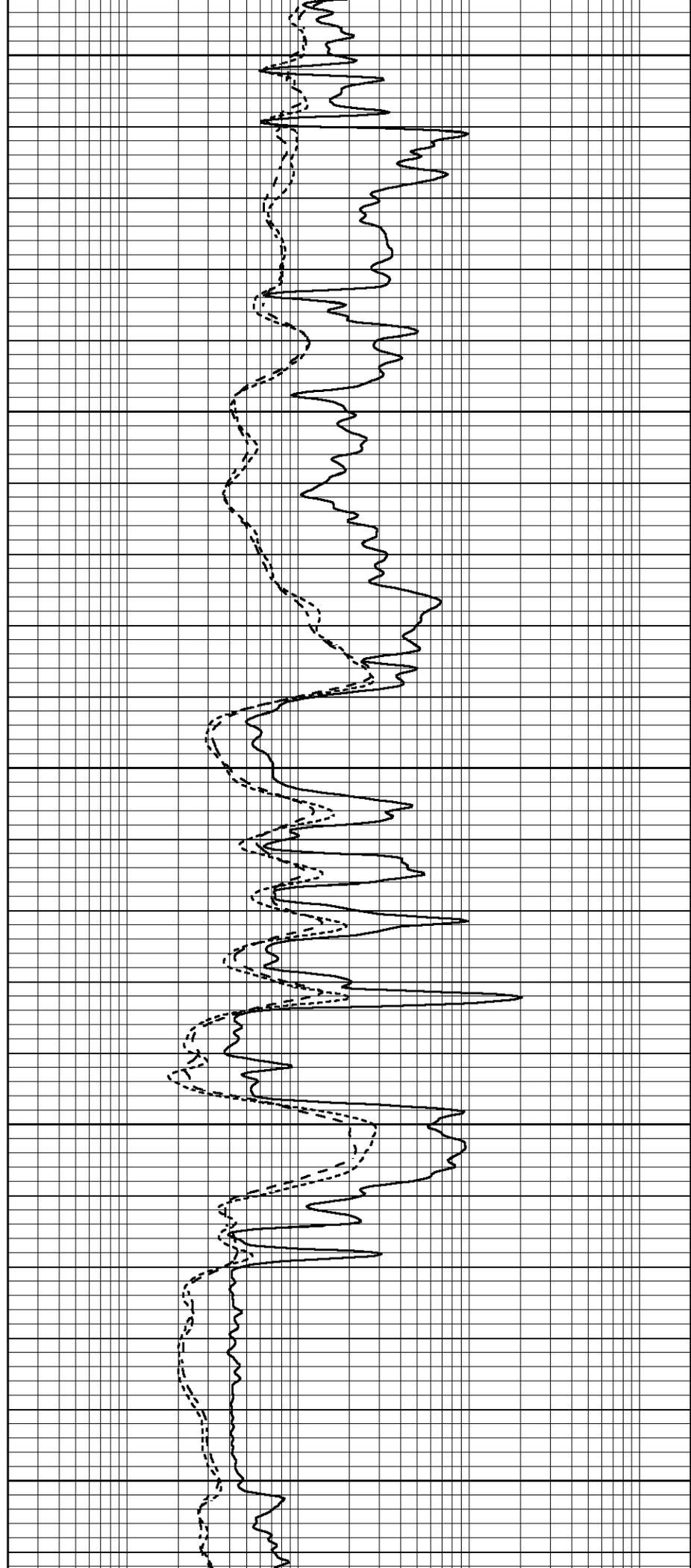
3800

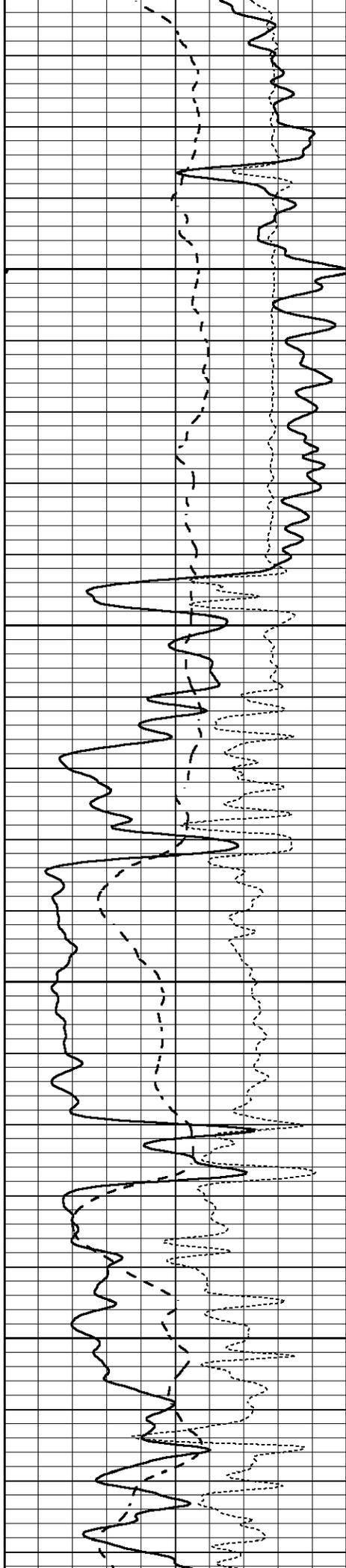
3850

3900

3950

4000



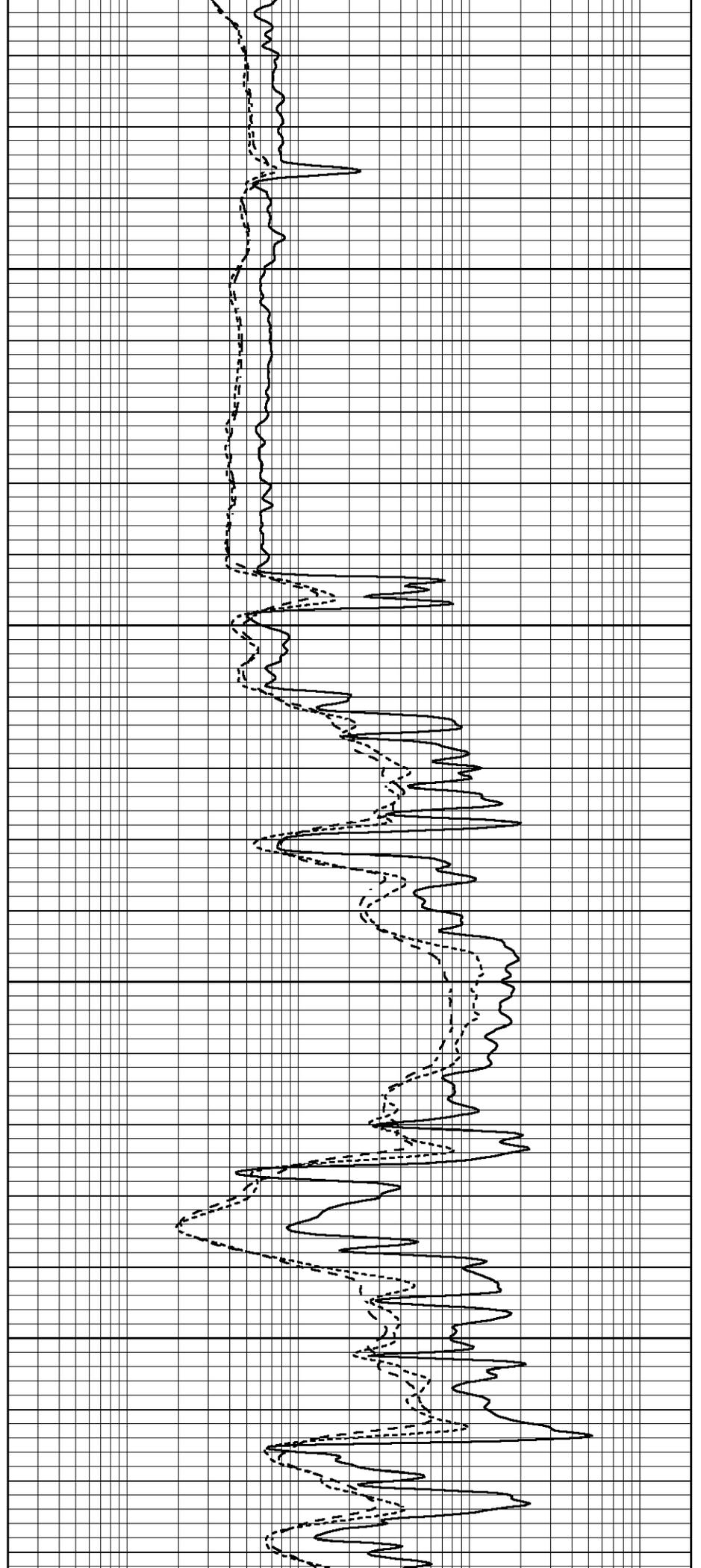


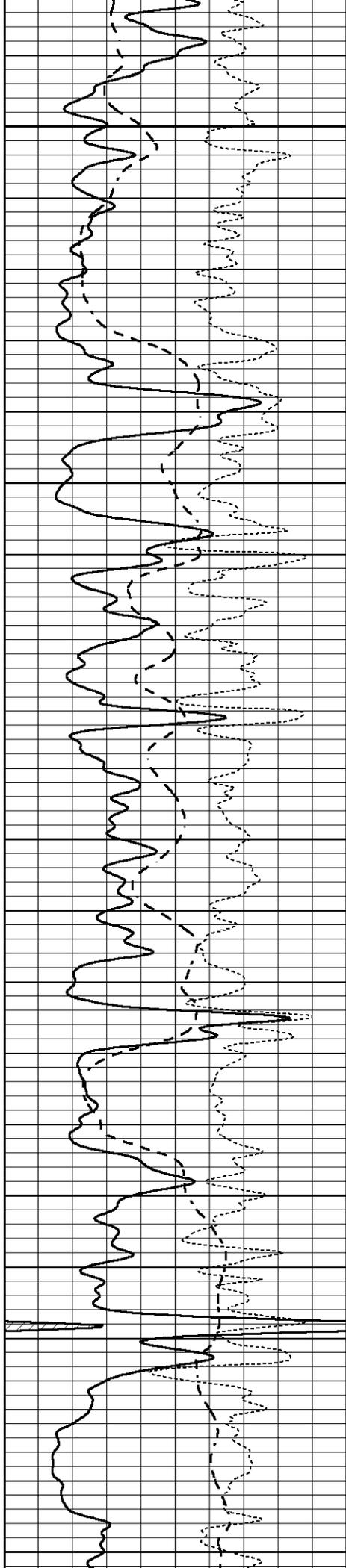
4050

4100

4150

4200





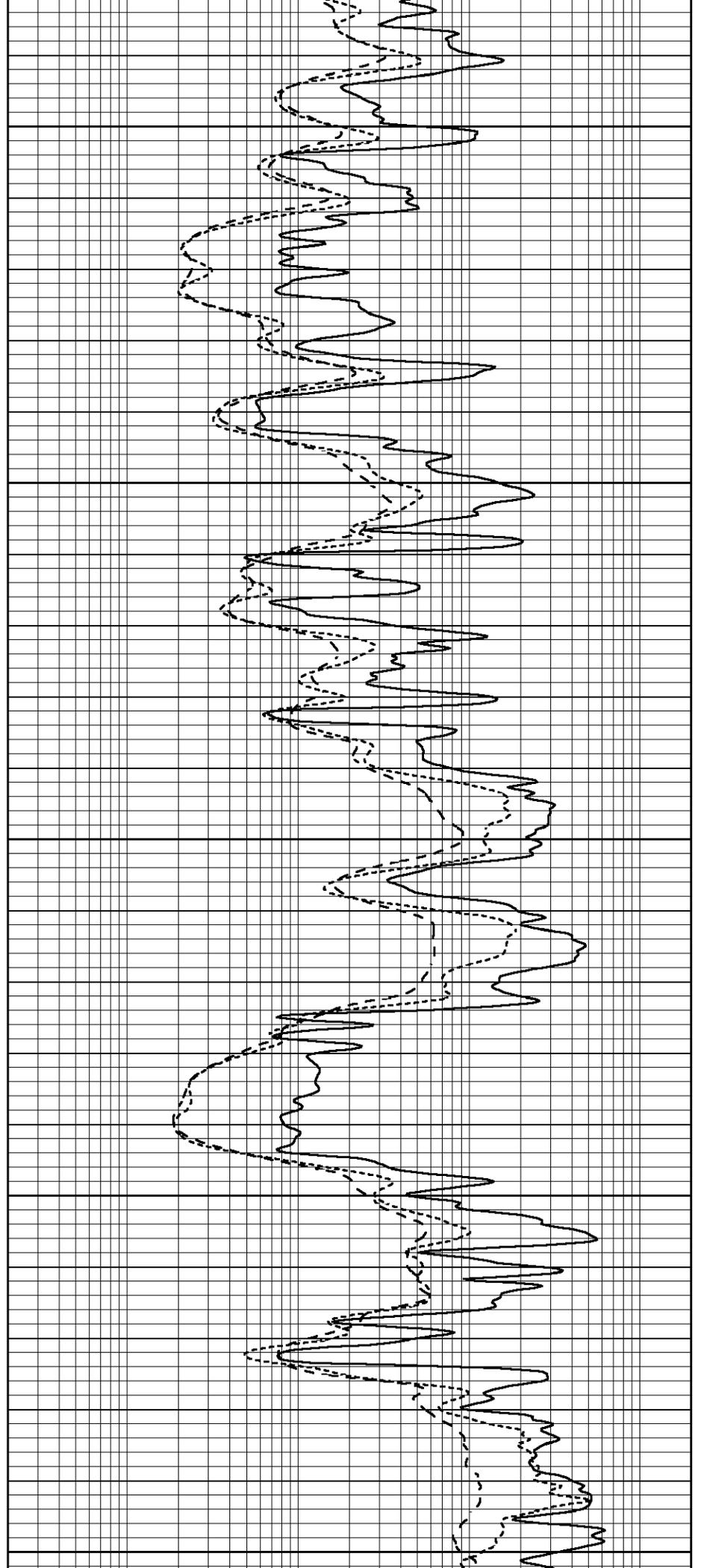
4250

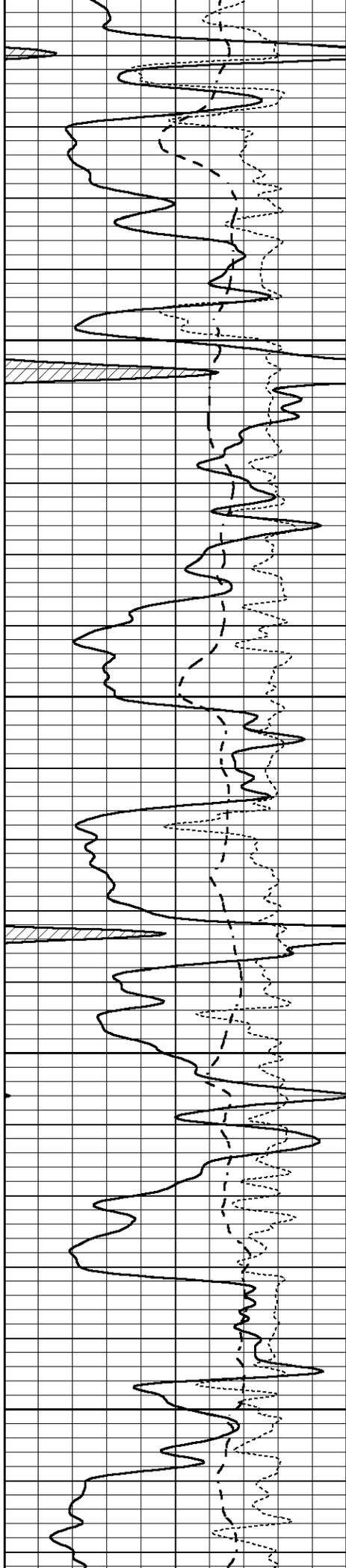
4300

4350

4400

4450



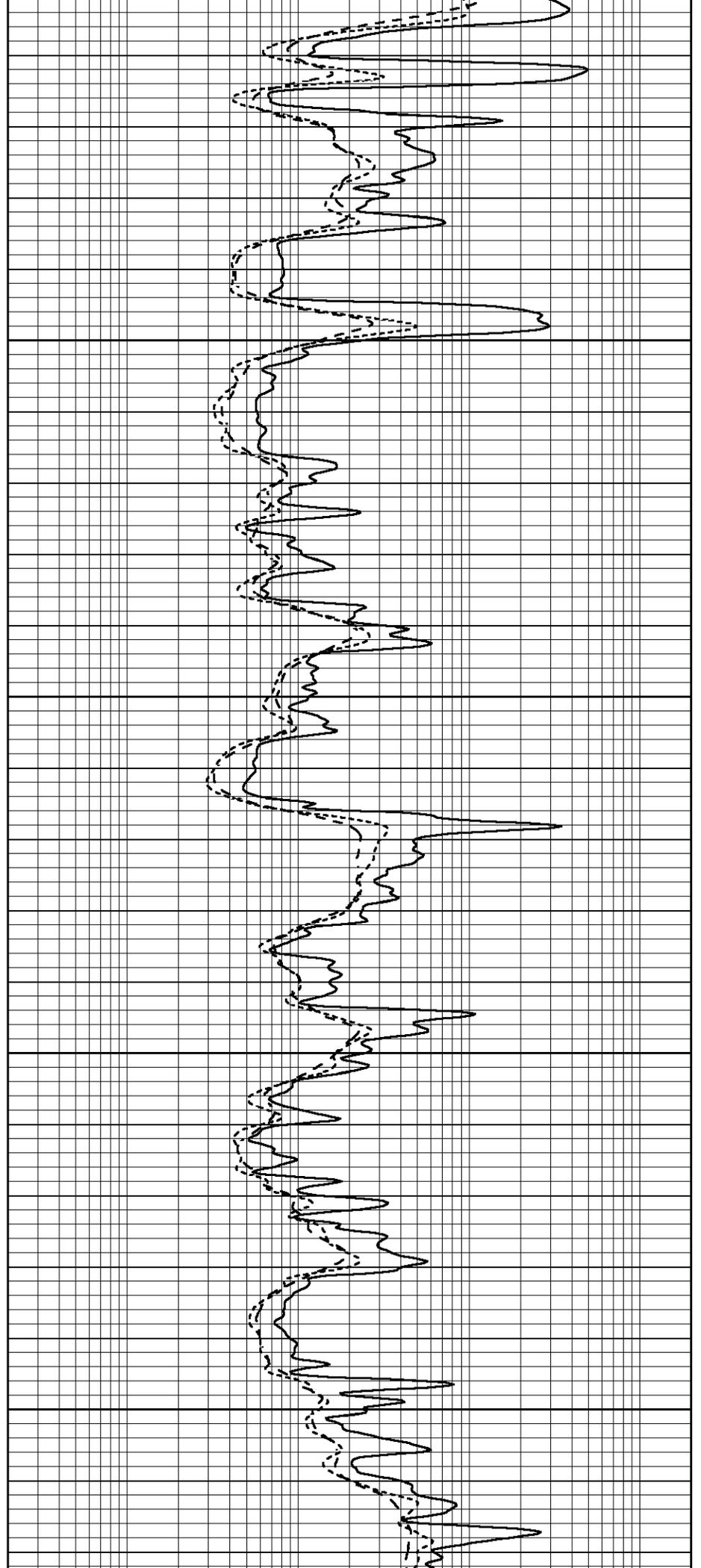


4500

4550

4600

4650





4700

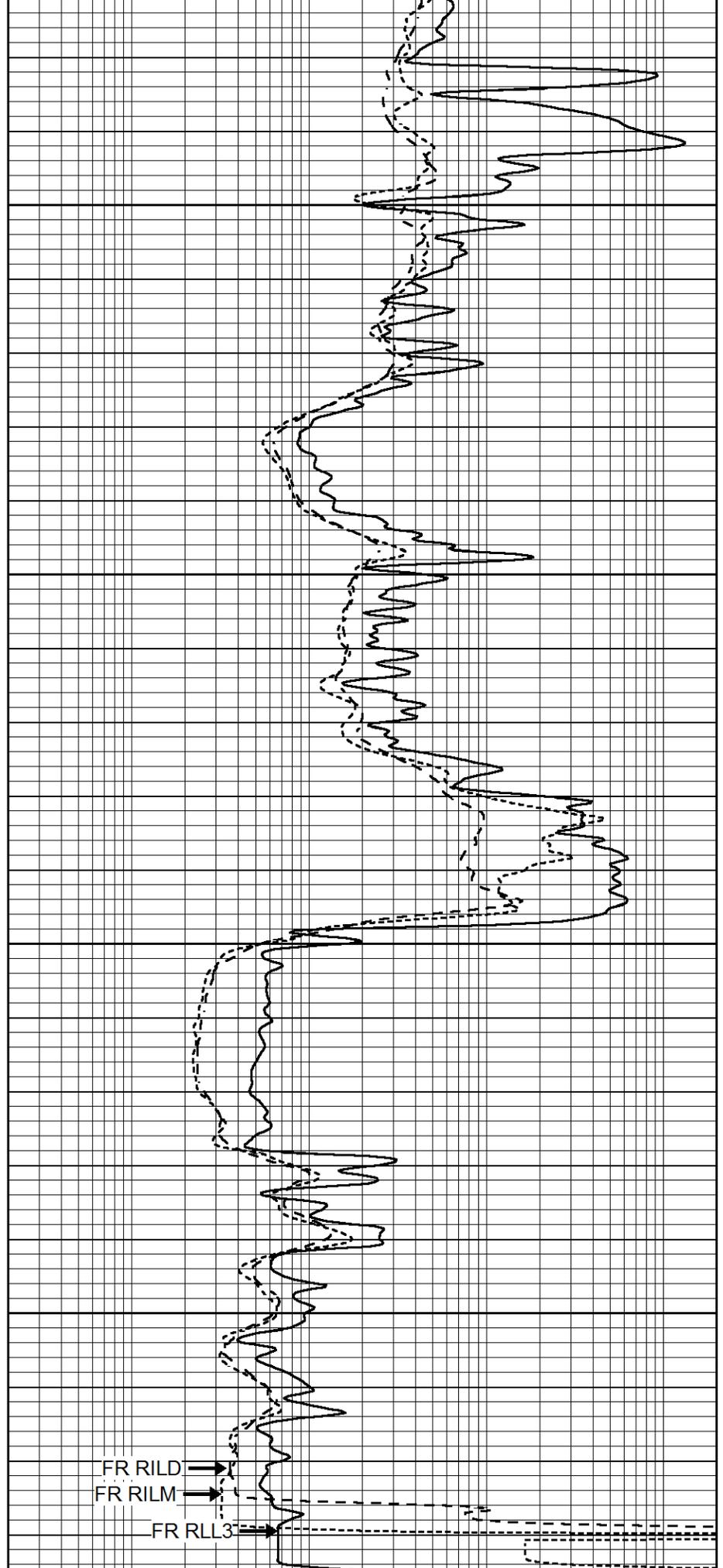
4750

4800

4850

LTD 4882

0 GAMMA RAY (GAPI) 150



FR RILD

FR RILM

FR RLL3

0.2 SHALLOW GUARD (Ohm-m) 2000

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

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

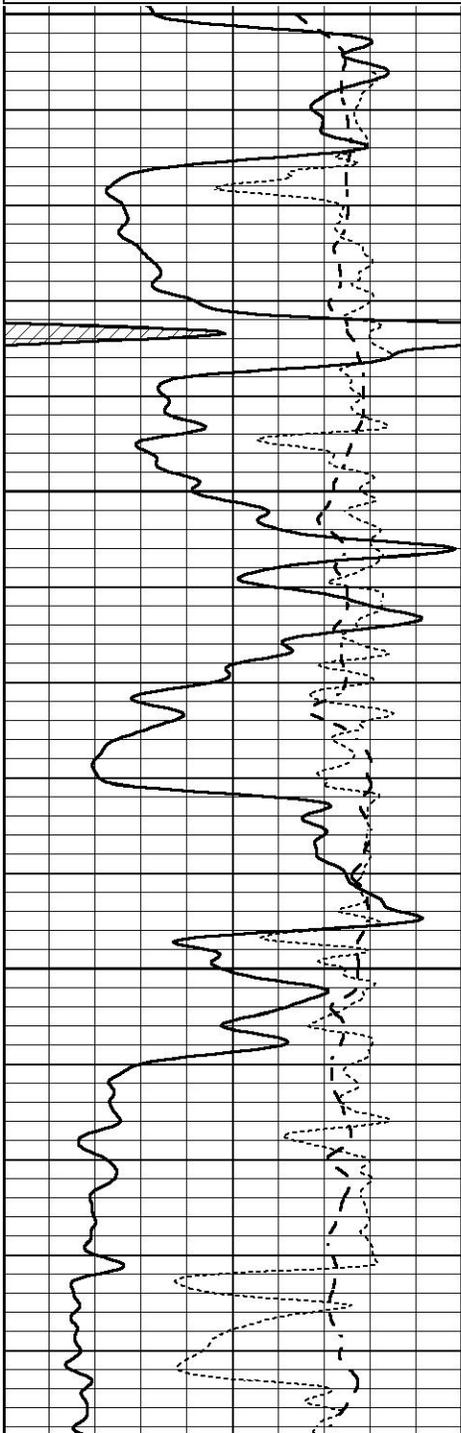


REPEAT SECTION

Database File 5213pe.db
 Dataset Pathname pass2.1
 Presentation Format _dil
 Dataset Creation Thu Apr 15 10:05:58 2021
 Charted by Depth in Feet scaled 1:240

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

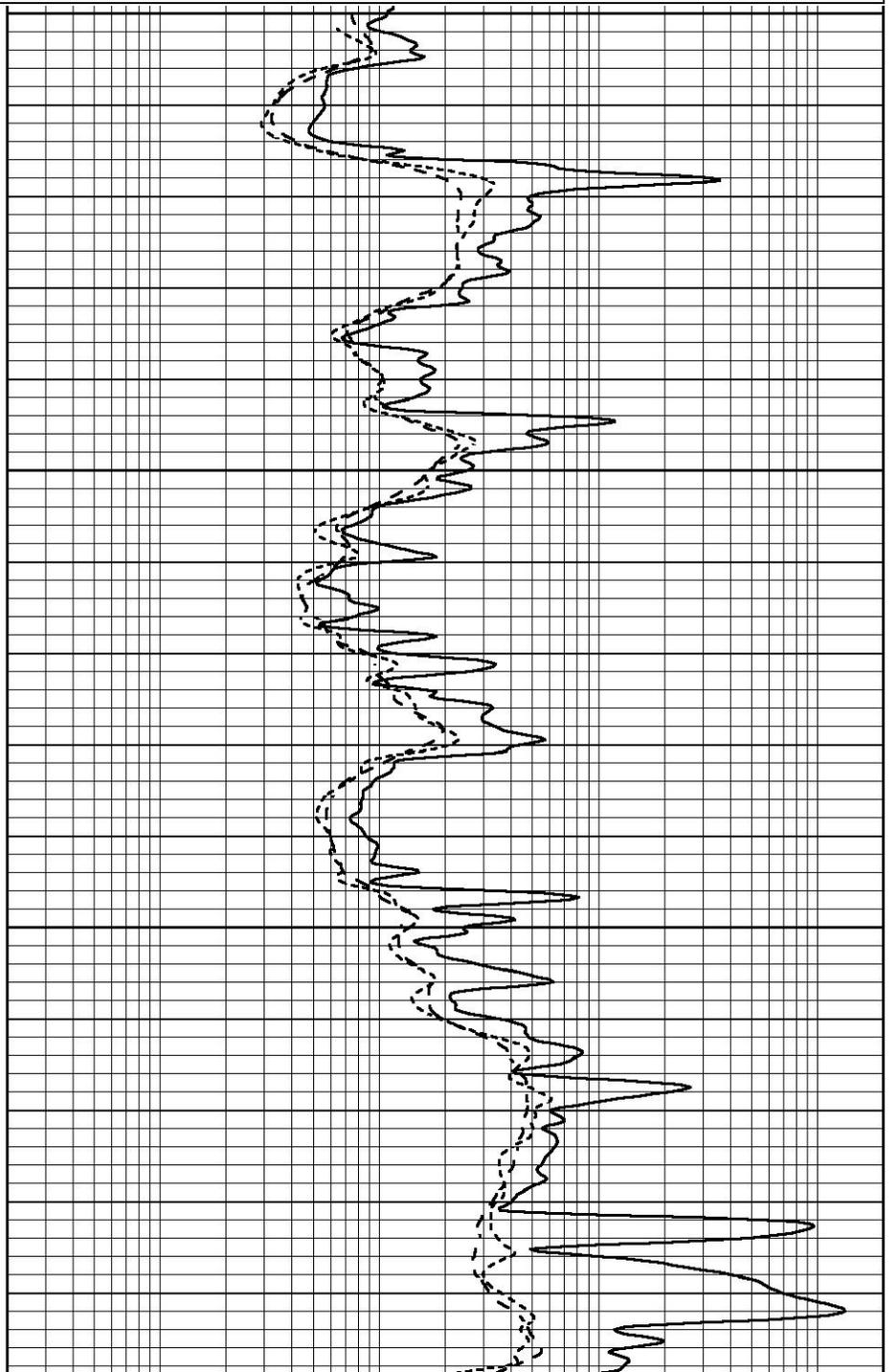
0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000

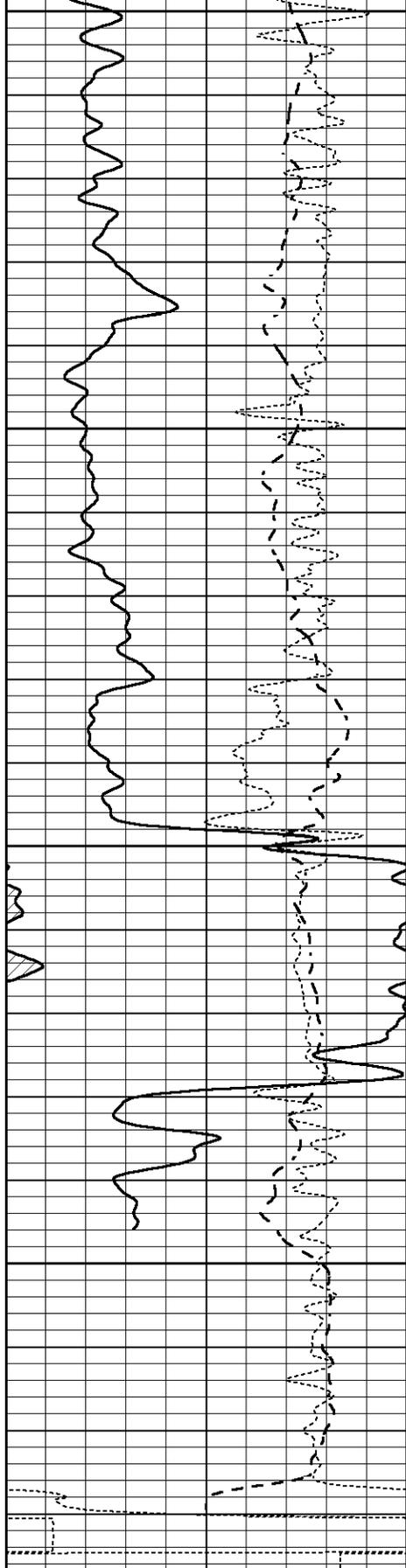


4550

4600

4650





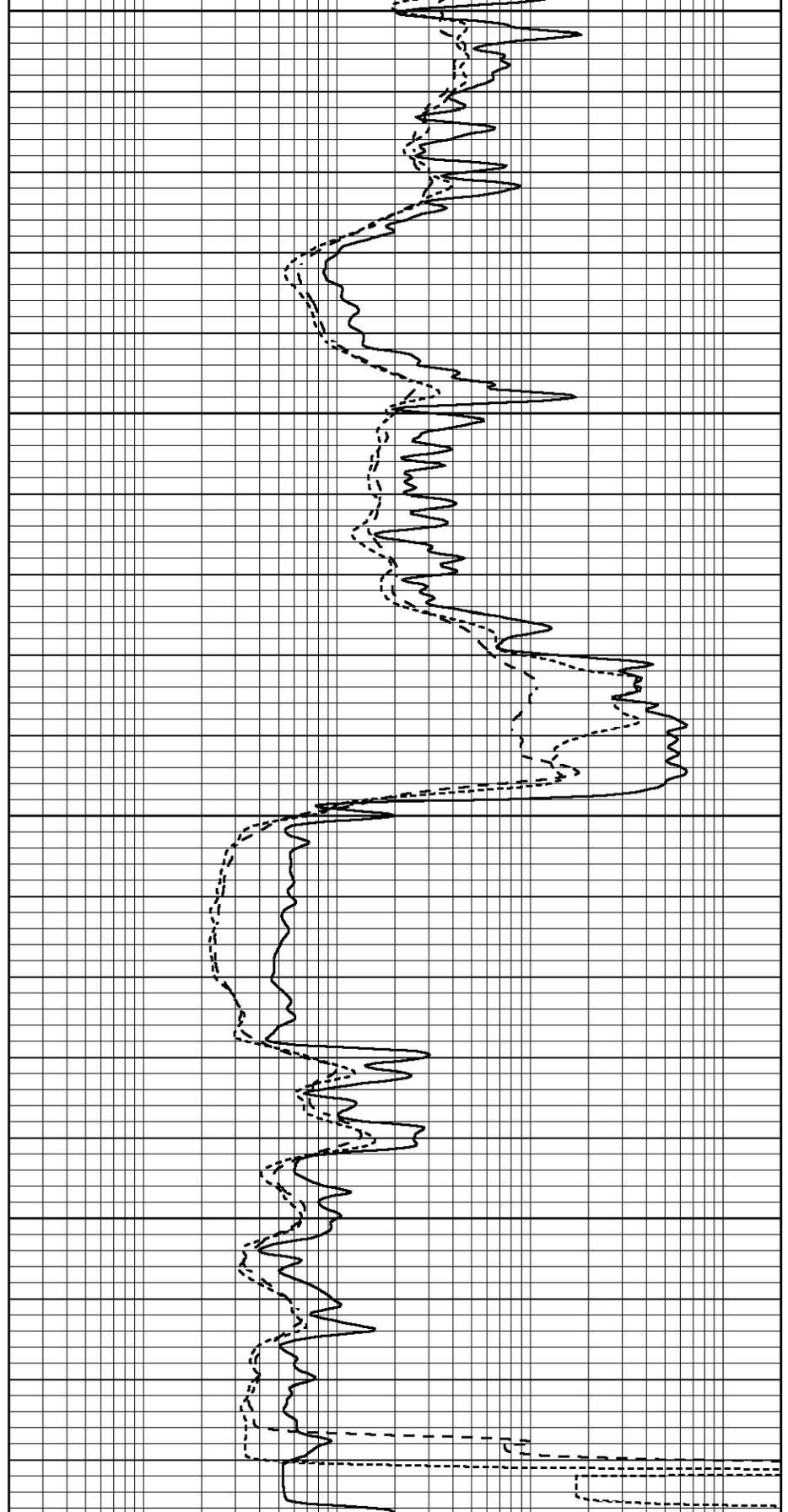
4700

4750

4800

4850

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

Calibration Report

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			References			Results	
	Air	Loop		Air	Loop		m	b
Deep	0.011	0.656	V	1.000	400.000	mmho/m	618.595	-5.524
Medium	-0.000	0.731	V	1.000	464.000	mmho/m	632.856	1.197
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: 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				
8003.0	11159.9	8.0	14.0			0.0	-7.2

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: 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