

DUAL INDUCTION LOG

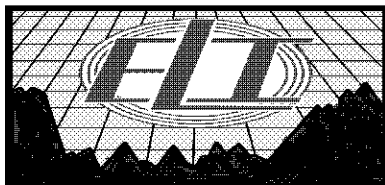
Company		GRIFFIN MANAGEMENT	
Well	#2 MILLS		
Field	SKINNER		
County	BARBER	State	KANSAS
Location:		API #: 15-007-24337-0000	Other Services CDL/CNL SON
Permanent Datum Log Measured From Drilling Measured From		SEC 9 TWP 31S RGE 14W 660' FNL & 330' FWL GROUND LEVEL Elevation 1654 KELLY BUSHING 5' A.G.L KELLY BUSHING	Elevation K.B. 1659 D.F. 1657 G.L. 1654
Date	8/25/18		
Run Number	ONE		
Depth Driller	4650		
Depth Logger	4656		
Bottom Logged Interval	4654		
Top Log Interval	00		
Casing Driller	8 5/8" @ 260		
Casing Logger	260		
Bit Size	7 7/8		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 6000 PPM	
Density / Viscosity	9.2/55		
pH / Fluid Loss	11.0/10.2		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	.60 @ 90F		
Rmf @ Meas. Temp	.45 @ 90F		
Rmc @ Meas. Temp	.72 @ 90F		
Source of Rmf / Rmc	MEASUREMENT		
Rm @ BHT	.44 @ 122F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom	////		
Maximum Recorded Temperature	122F		
Equipment Number	3802		
Location	HAYS, KANSAS		
Recorded By	JASON CAPPELLUCCI		
Witnessed By	BRUCE REED		

<<< 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
MEDICINE LODGE, KS. - WEST ON RIVER RD. (NORTH END OF TOWN) TO LAKE CITY
2 WEST - NORTH INTO

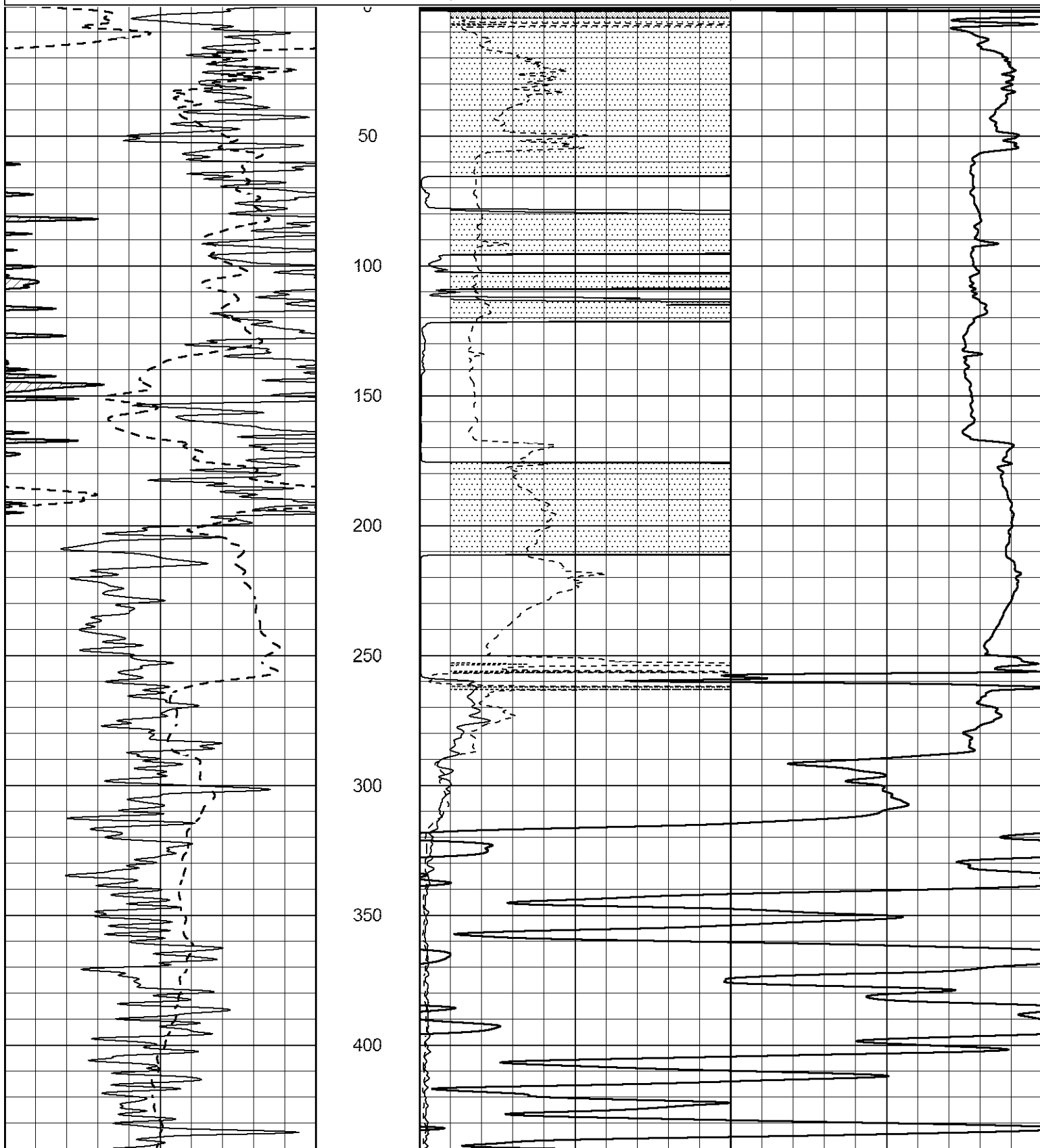


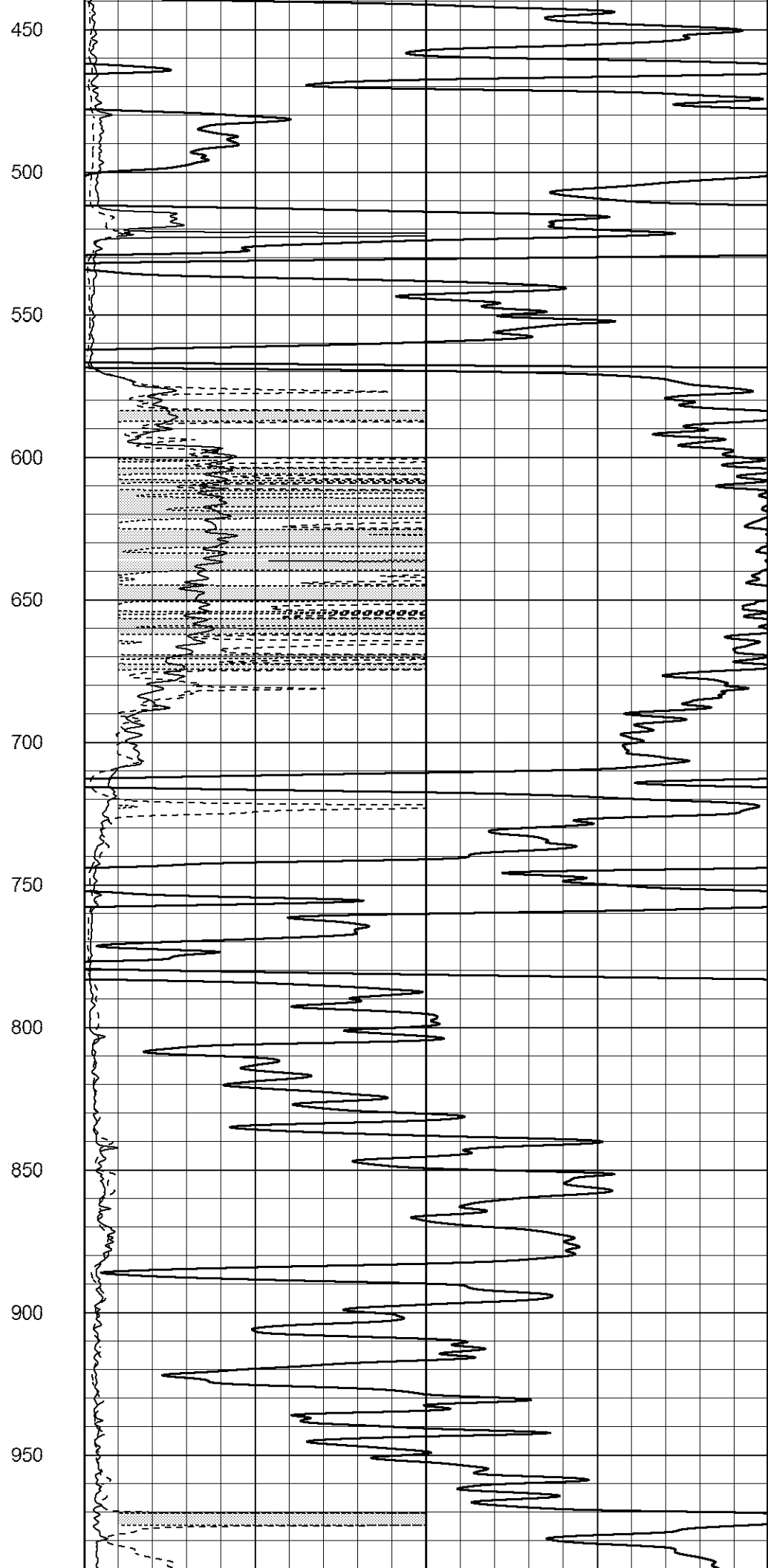
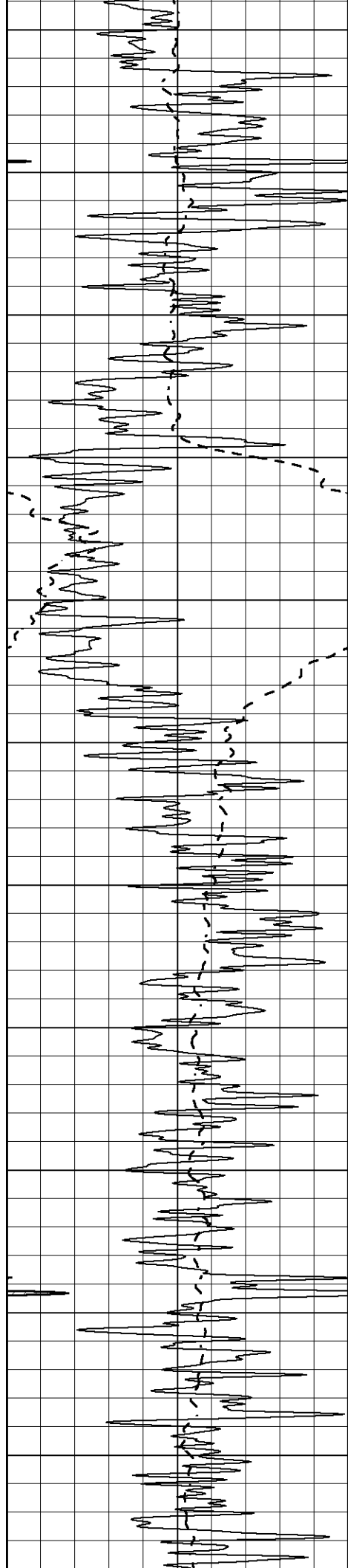
MAIN SECTION

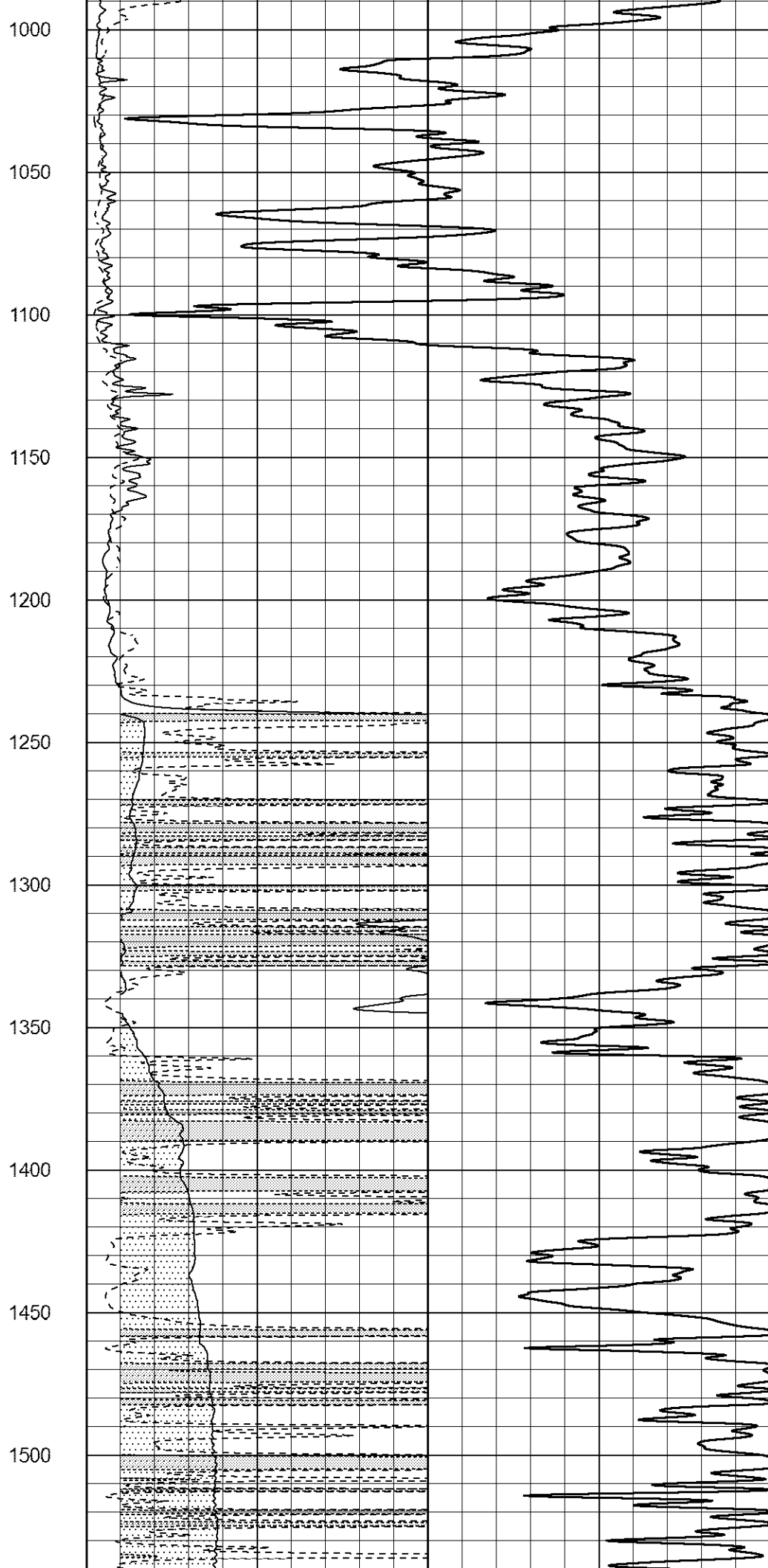
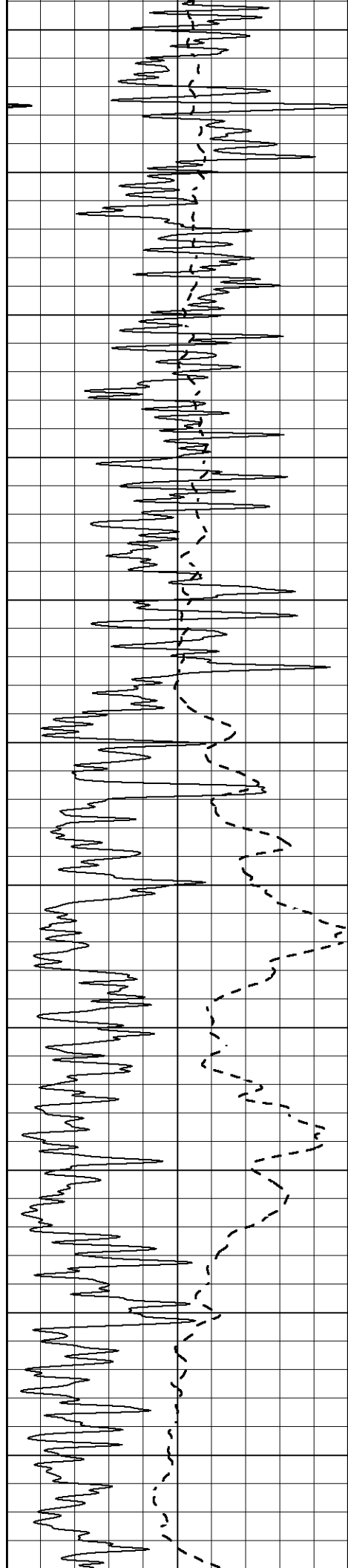
Database File 2524ddn8.db
Dataset Pathname pass3.2
Presentation Format _dil2
Dataset Creation Sat Aug 25 14:35:49 2018
Charted by Depth in Feet scaled 1:600

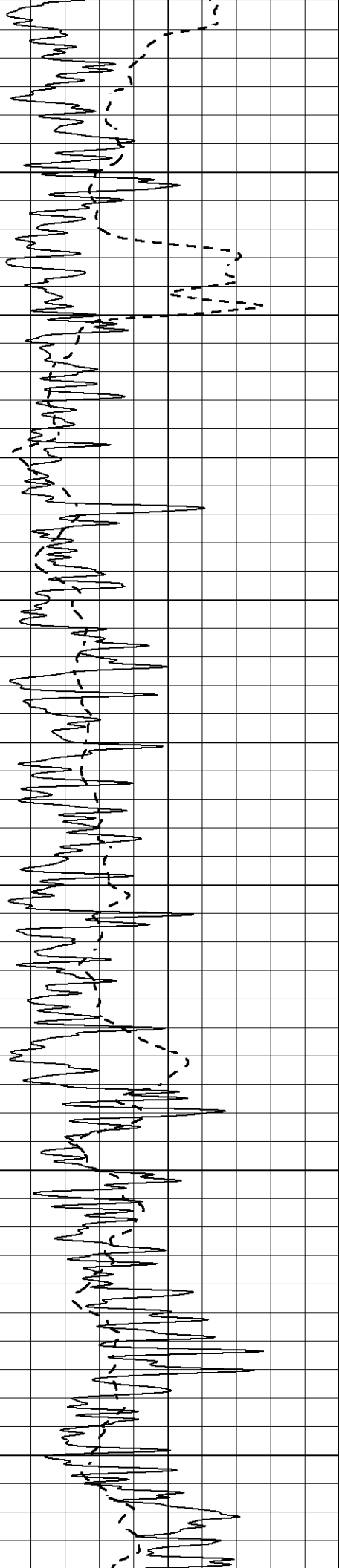
0	Gamma Ray (GAPI)	150
-100	SP (mV)	100

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









1550

1600

1650

1700

1750

1800

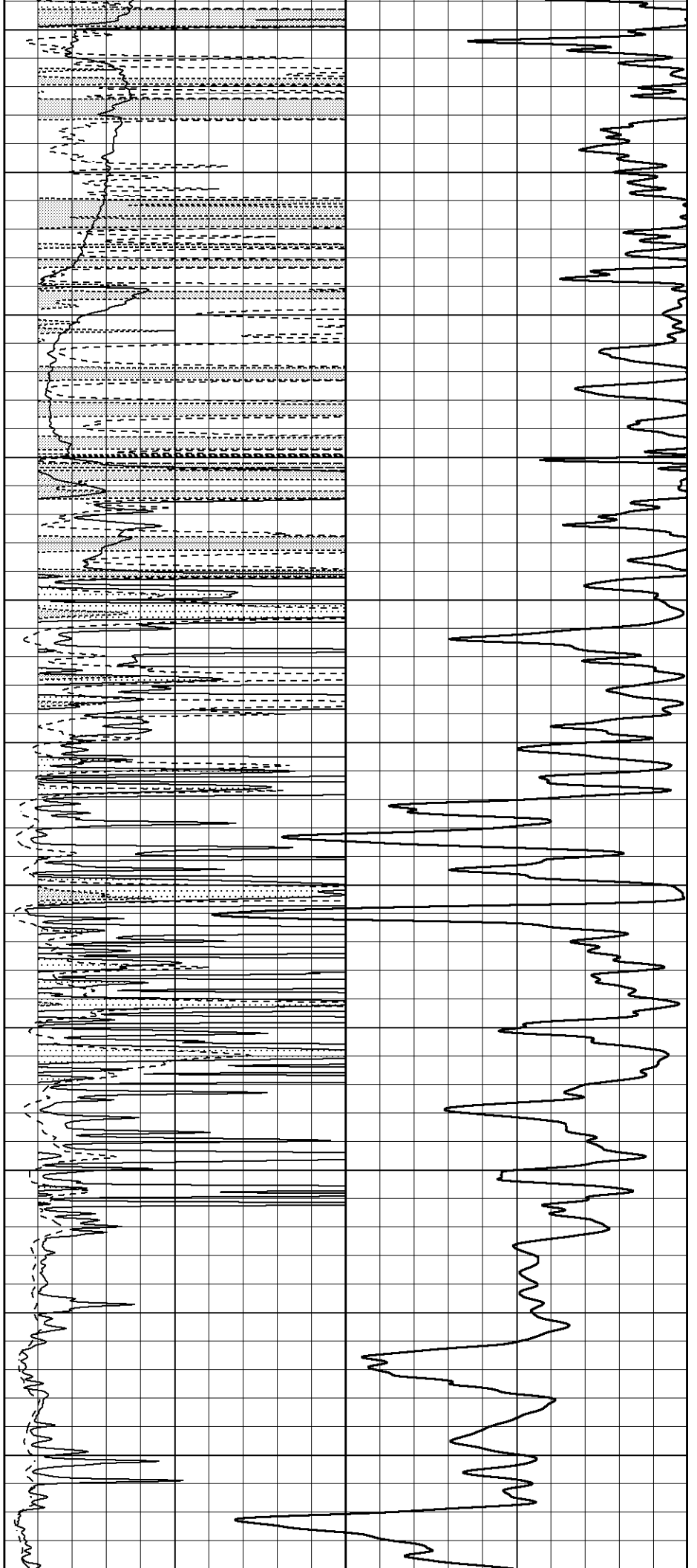
1850

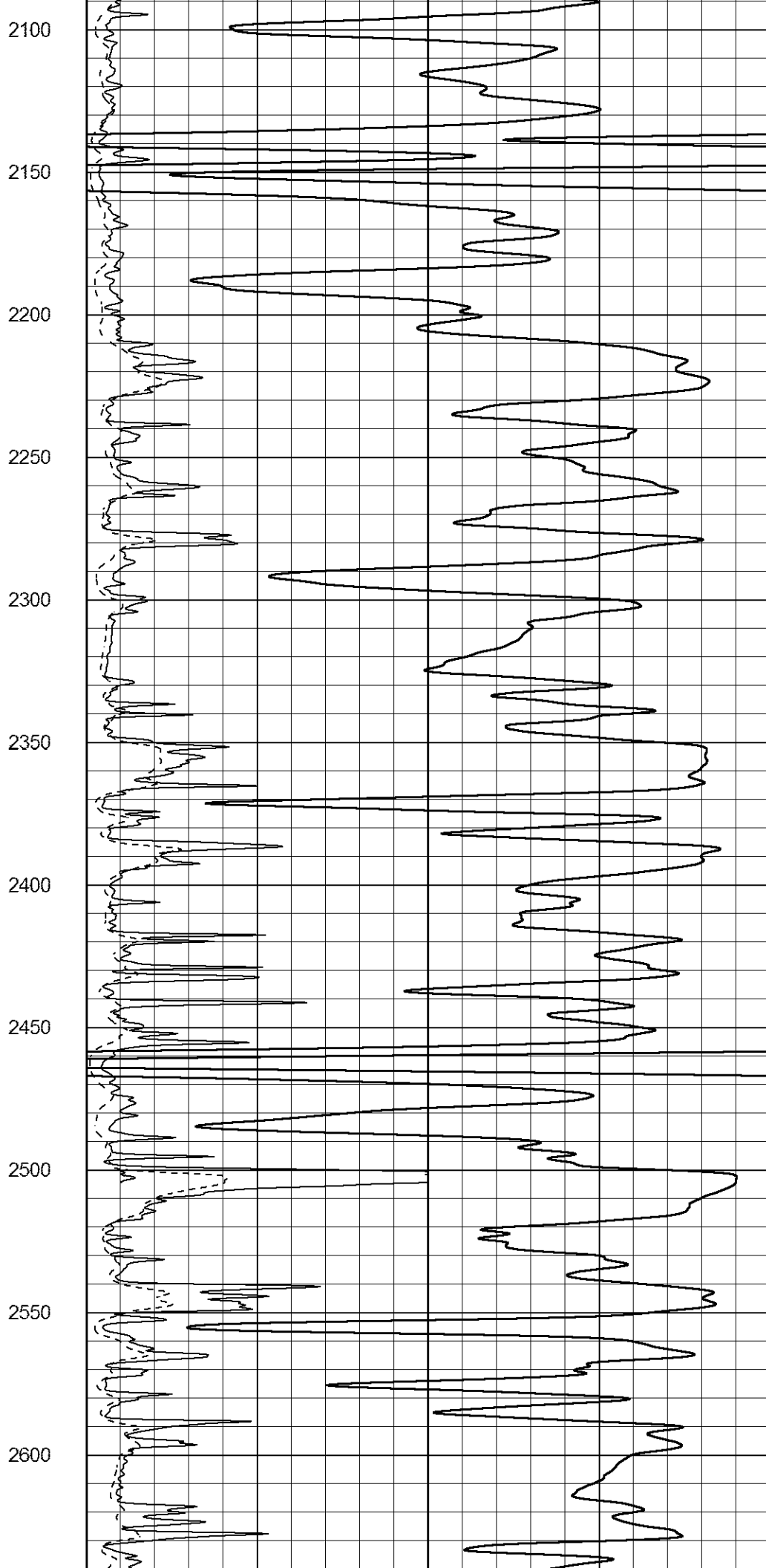
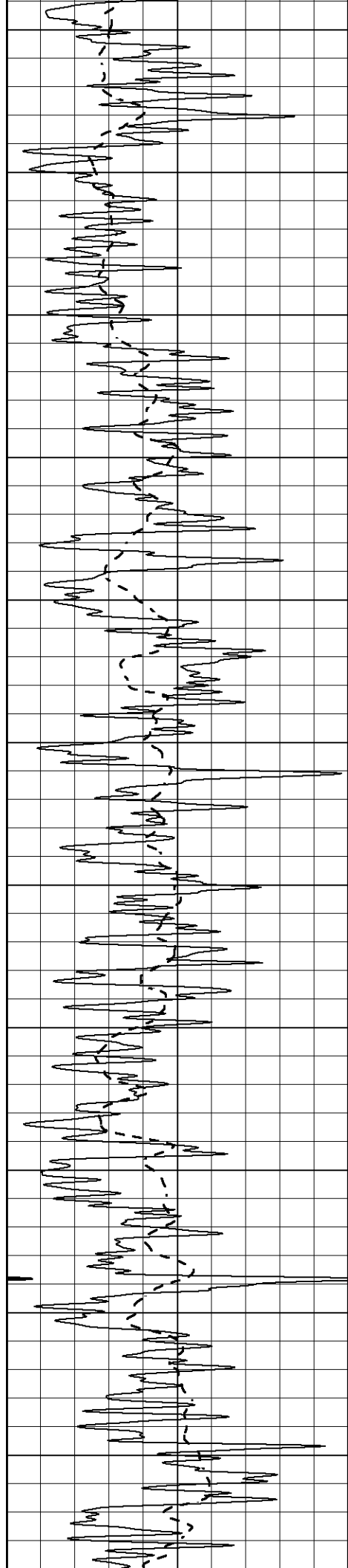
1900

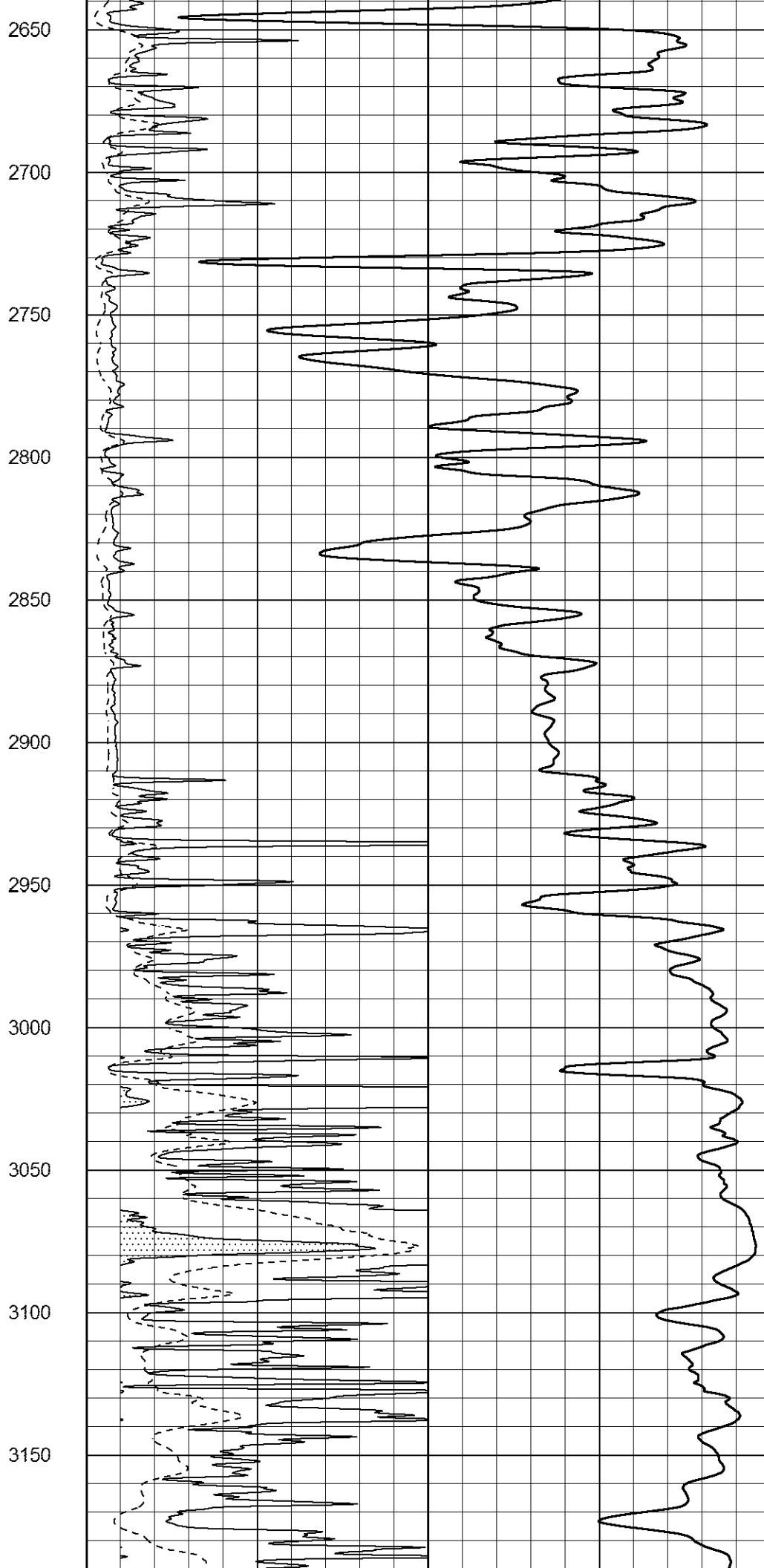
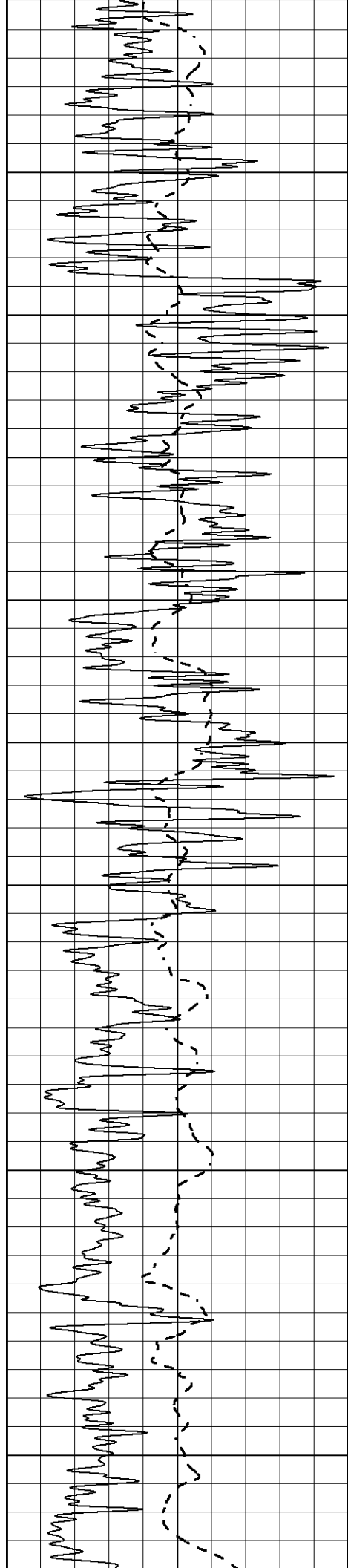
1950

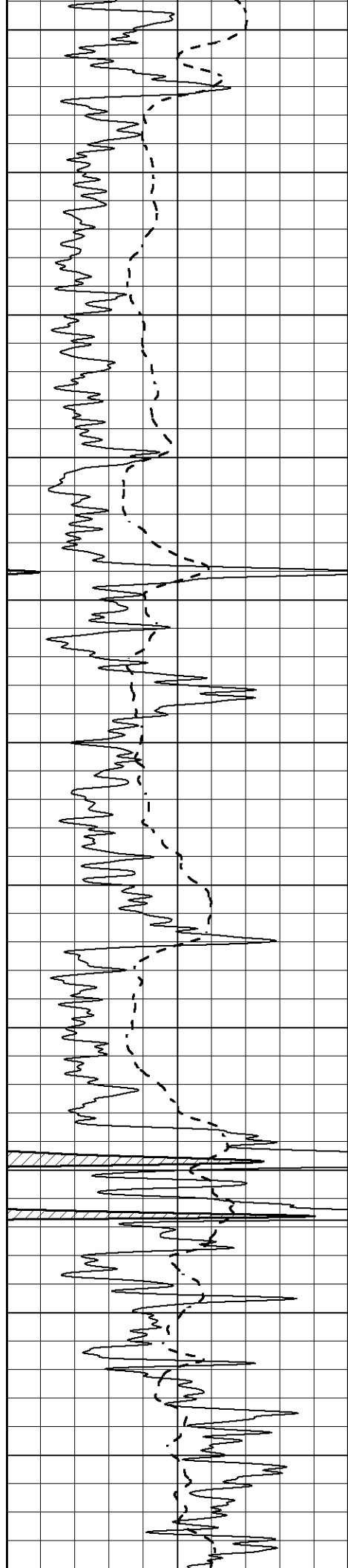
2000

2050









3200

3250

3300

3350

3400

3450

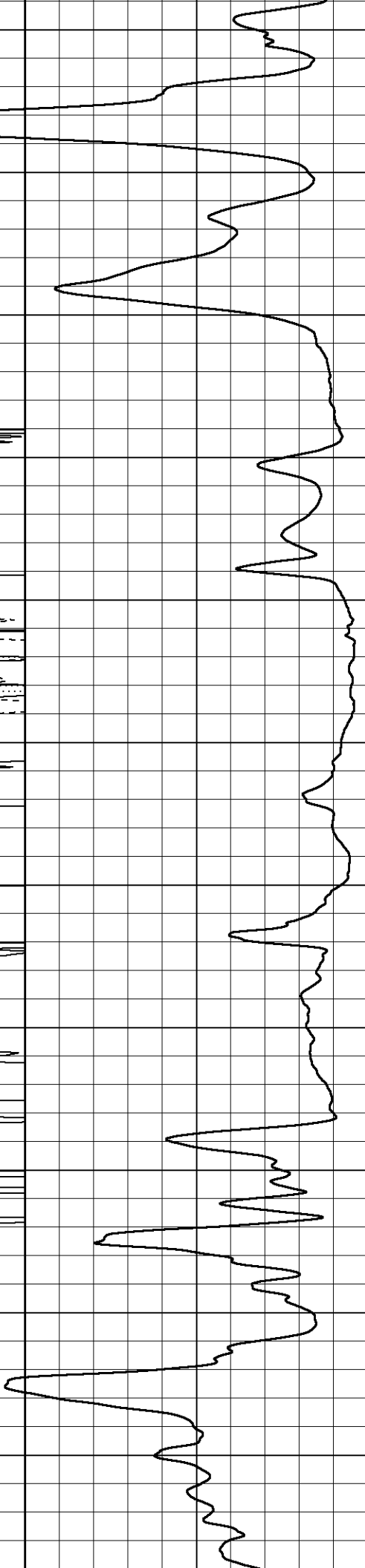
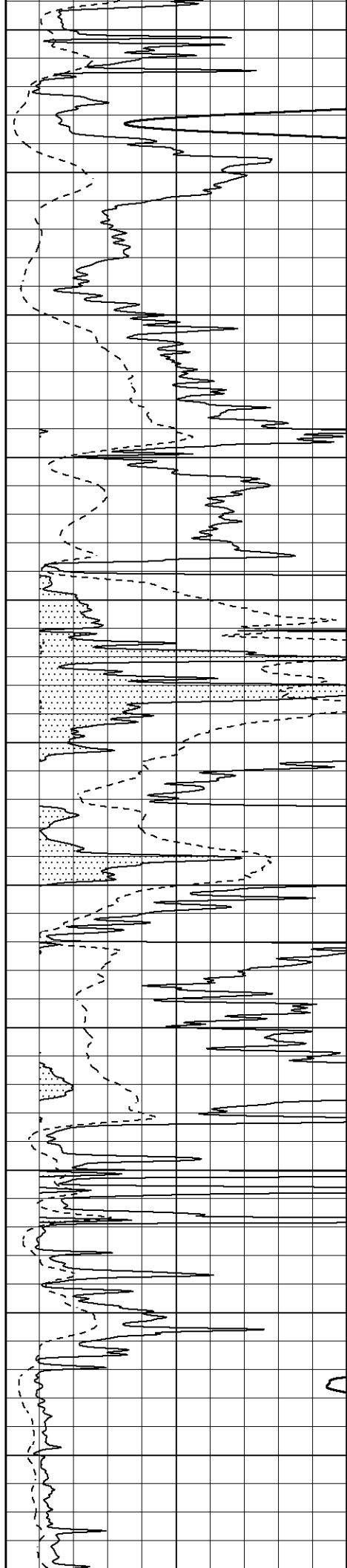
3500

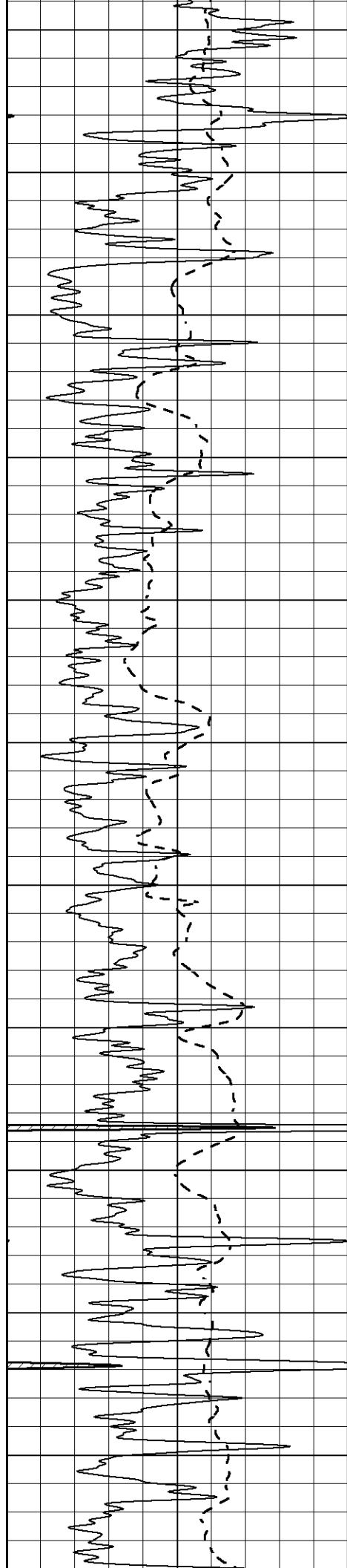
3550

3600

3650

3700





3750

3800

3850

3900

3950

4000

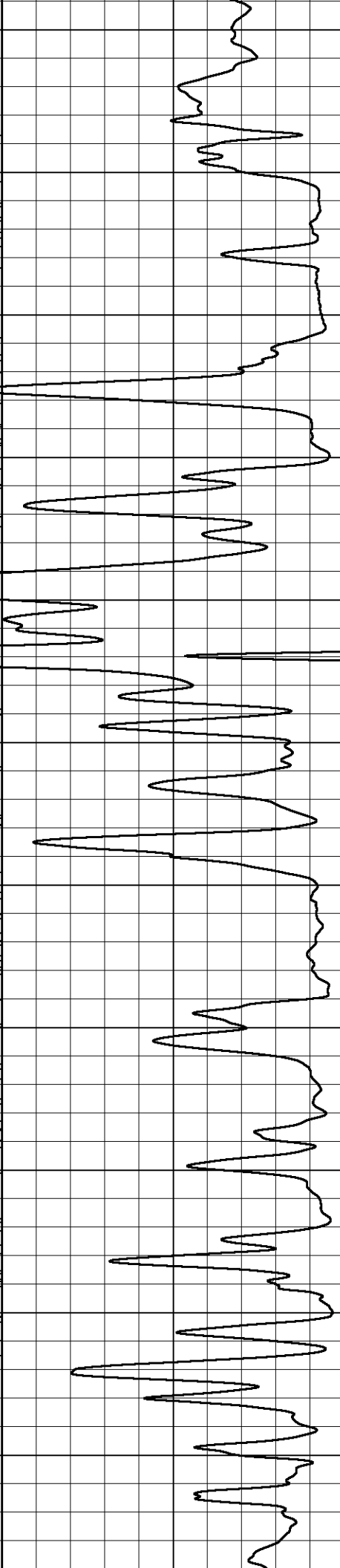
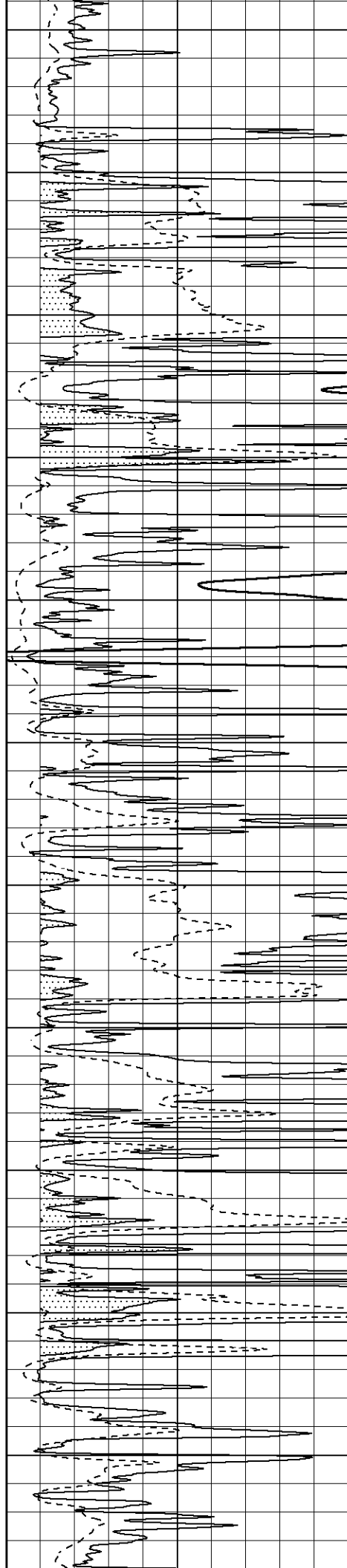
4050

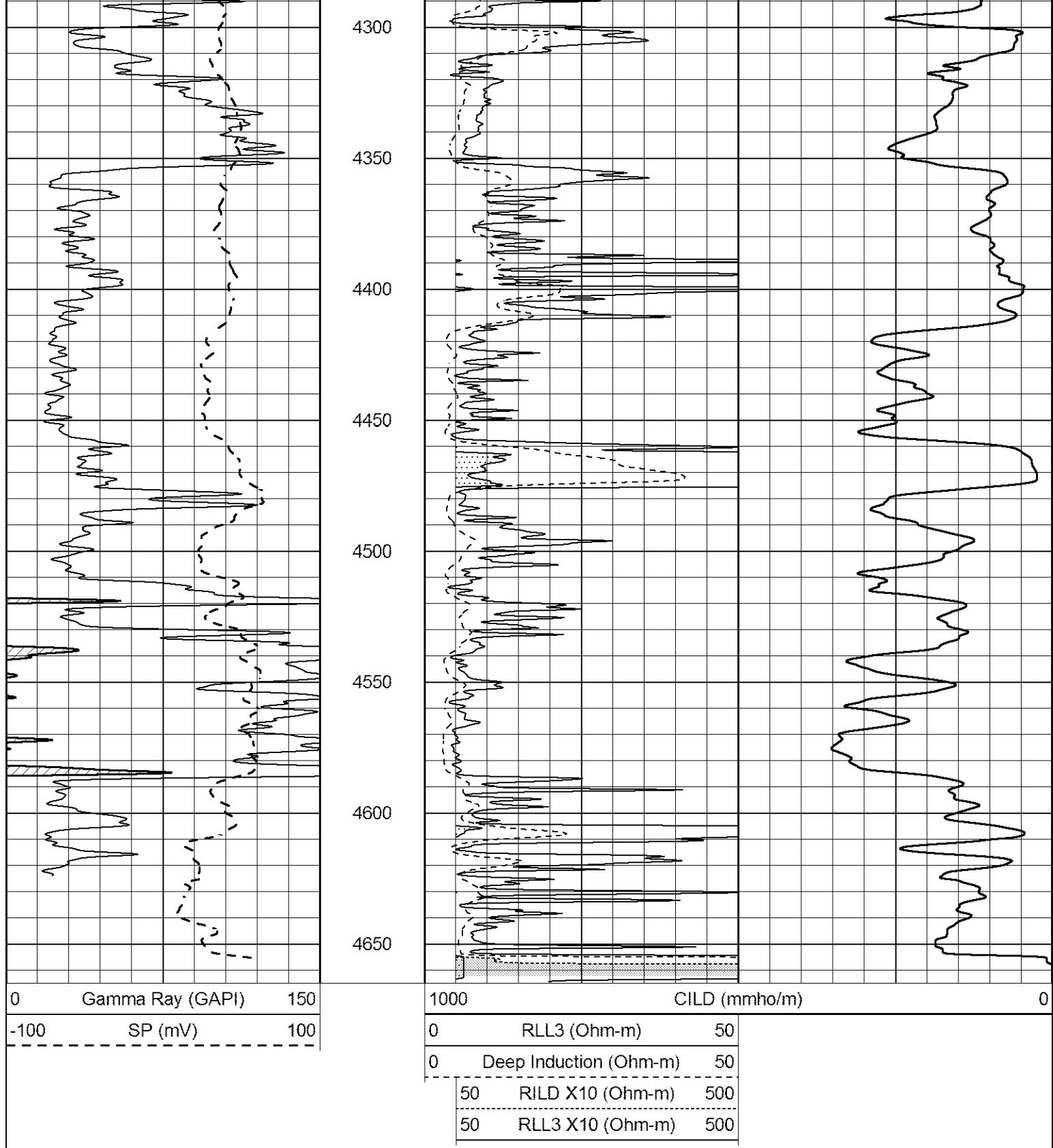
4100

4150

4200

4250

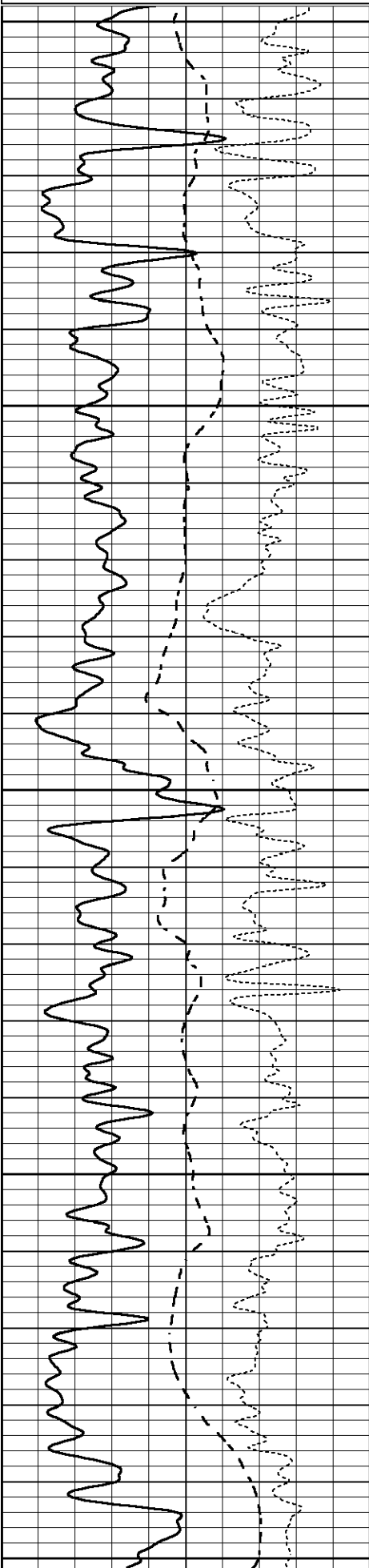




MAIN SECTION

Database File 2524ddn8.db
 Dataset Pathname pass3.1
 Presentation Format _dil
 Dataset Creation Sat Aug 25 13:54:09 2018
 Charted by Depth in Feet scaled 1:240

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



3000

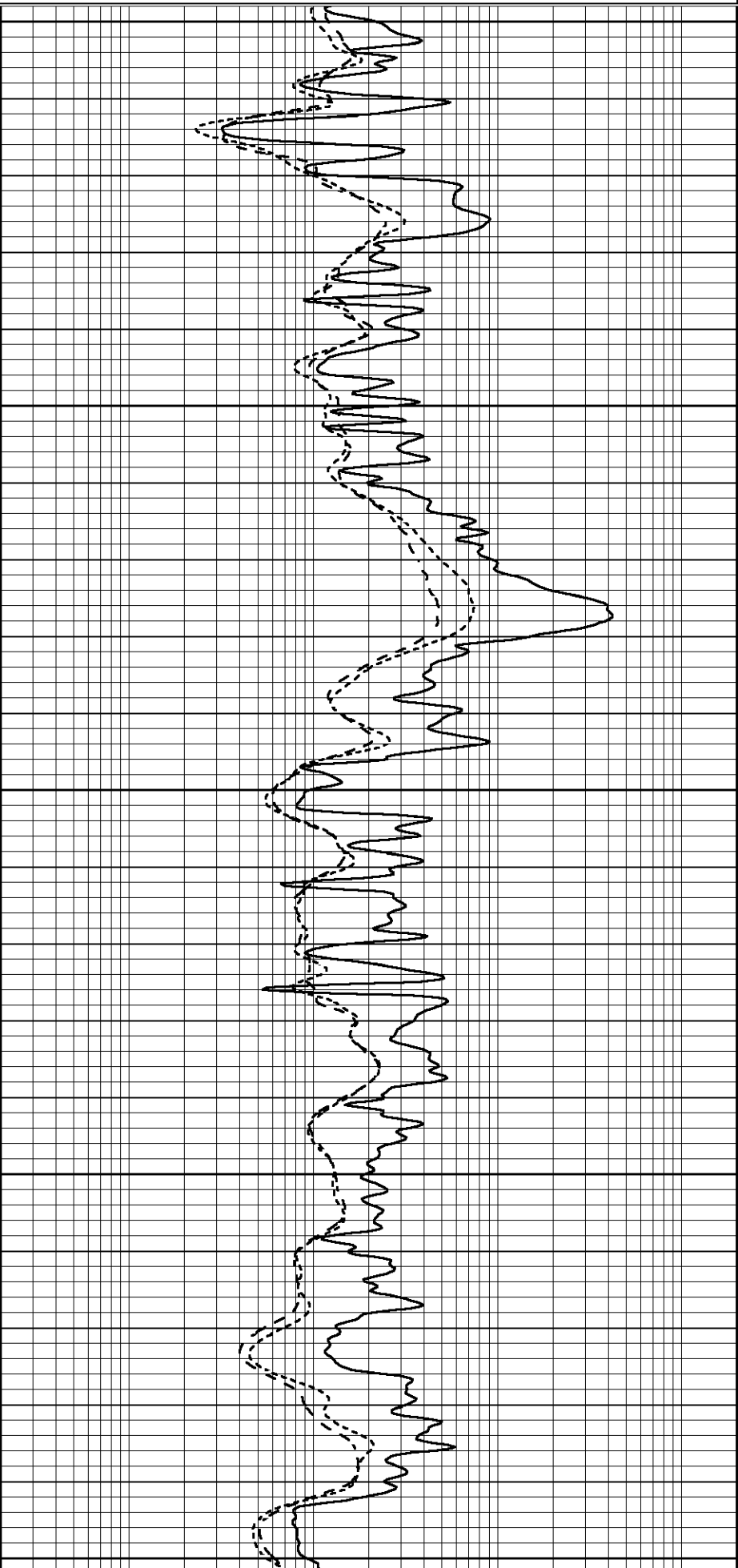
3050

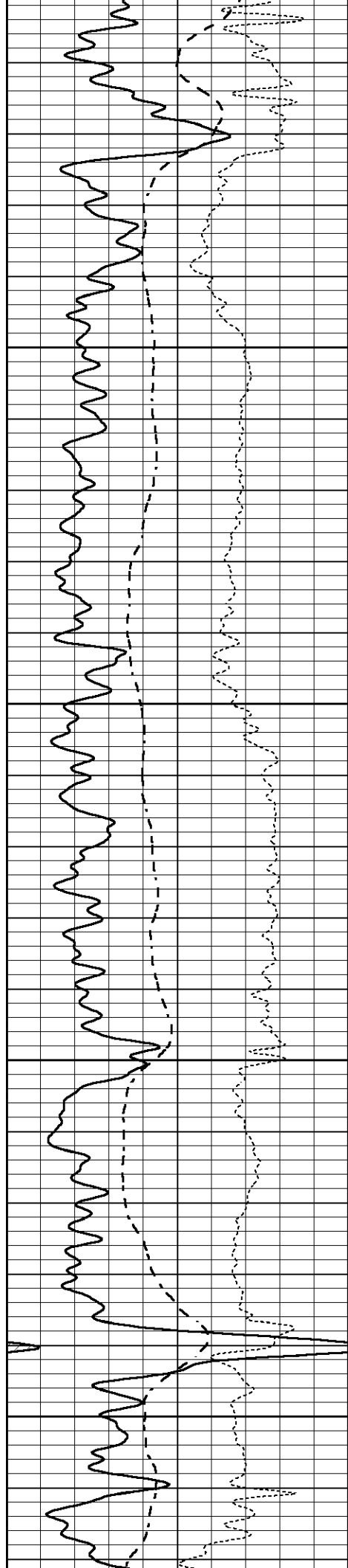
3100

3150

3200

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



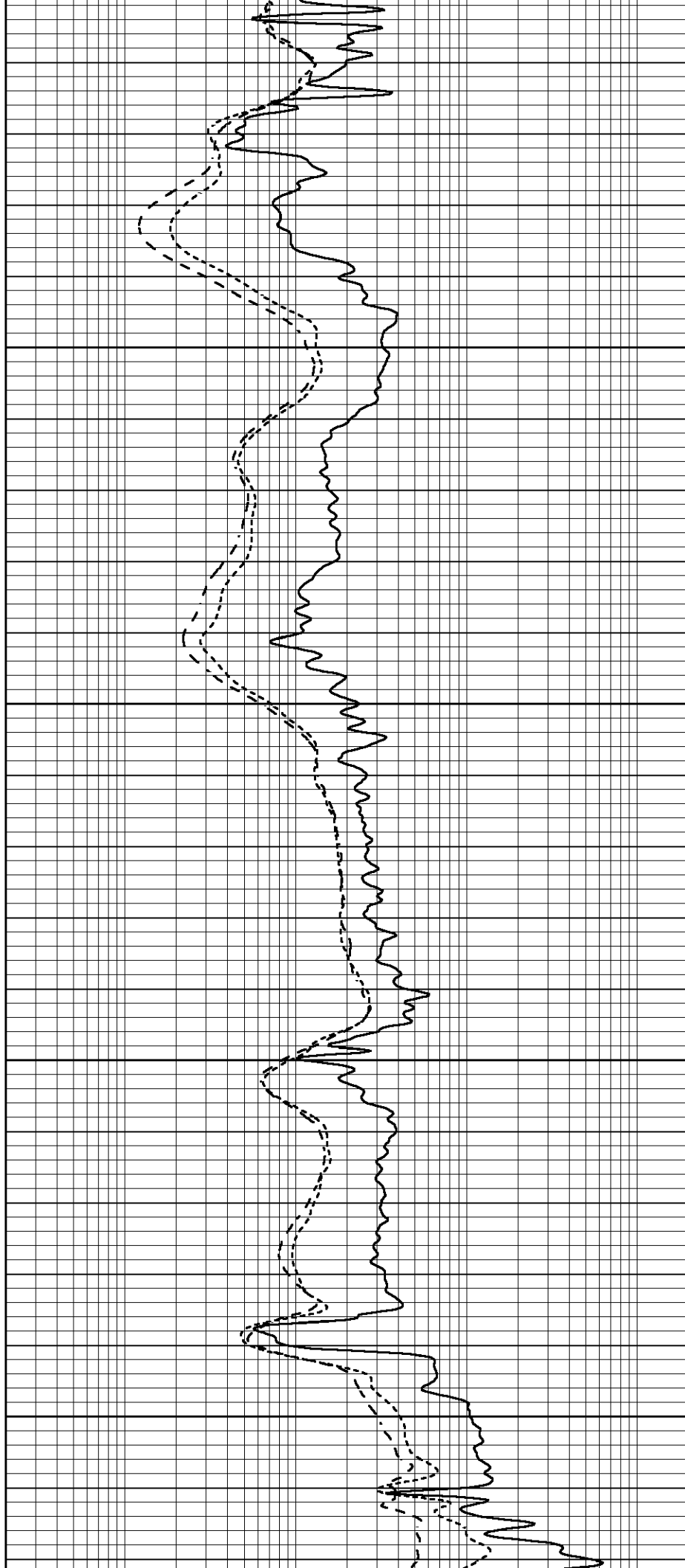


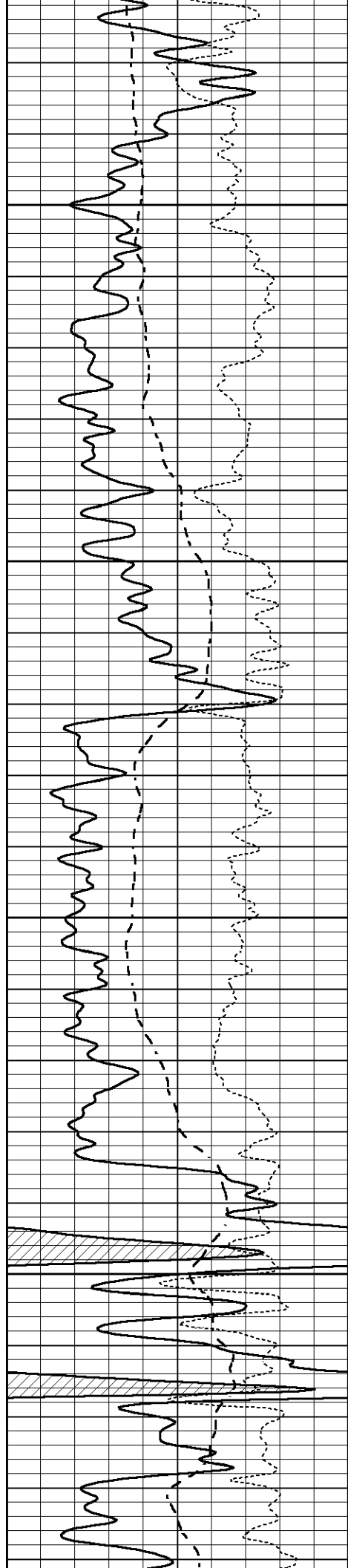
3250

3300

3350

3400



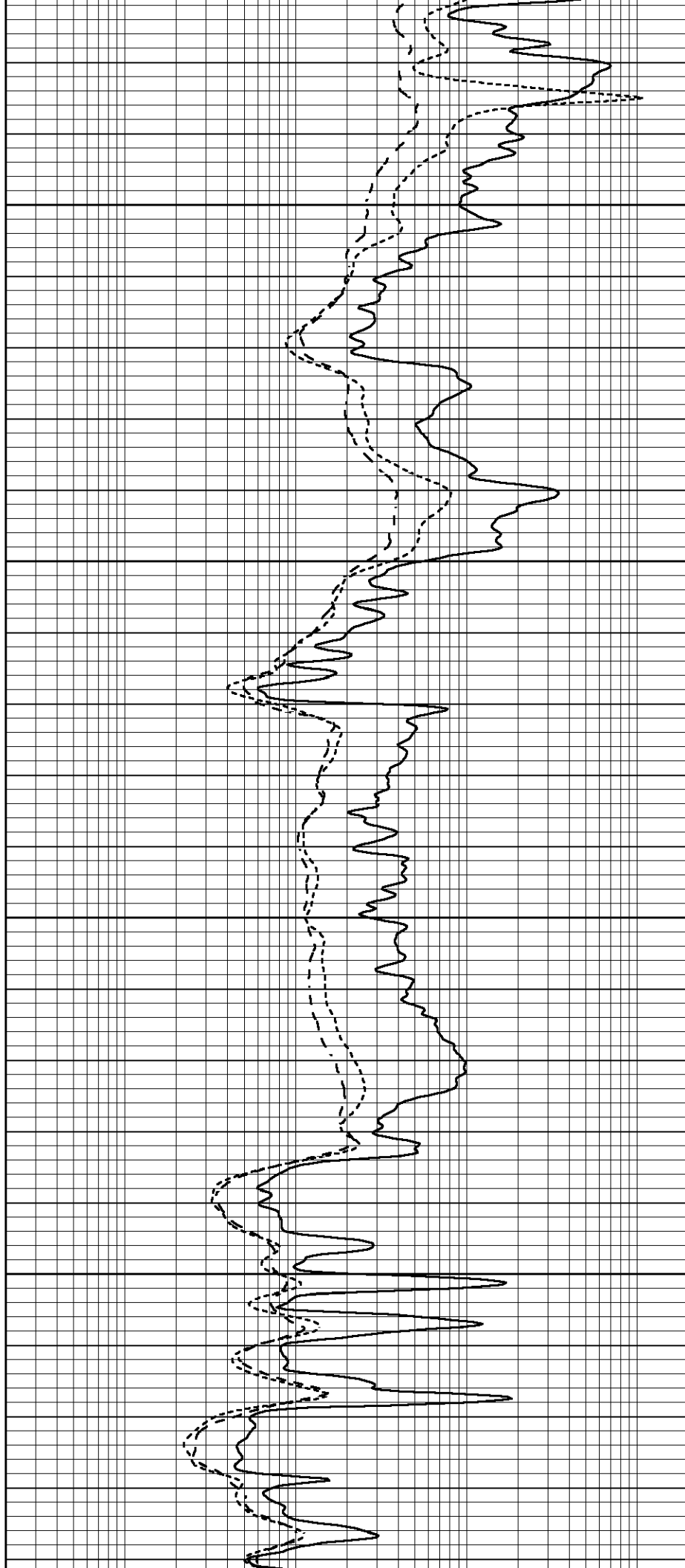


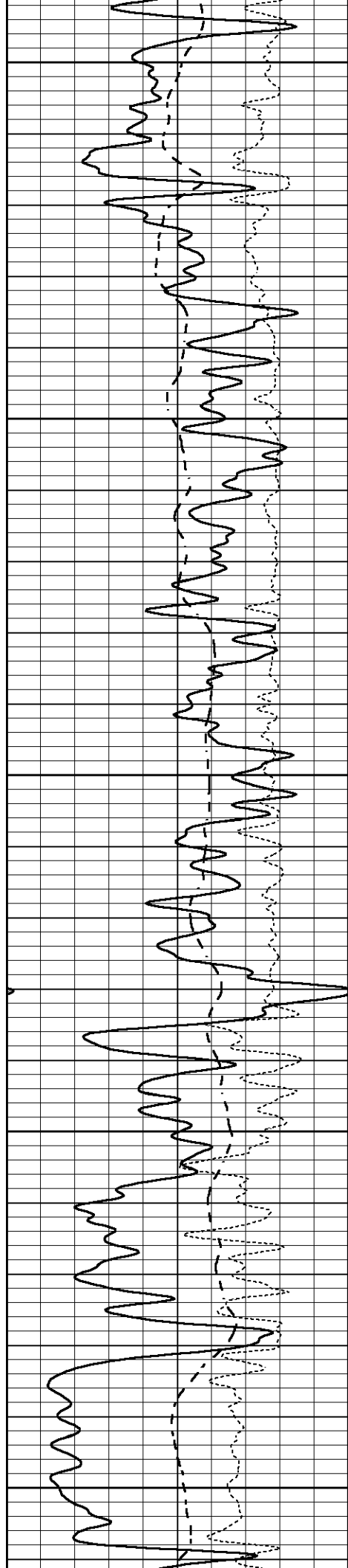
3450

3500

3550

3600





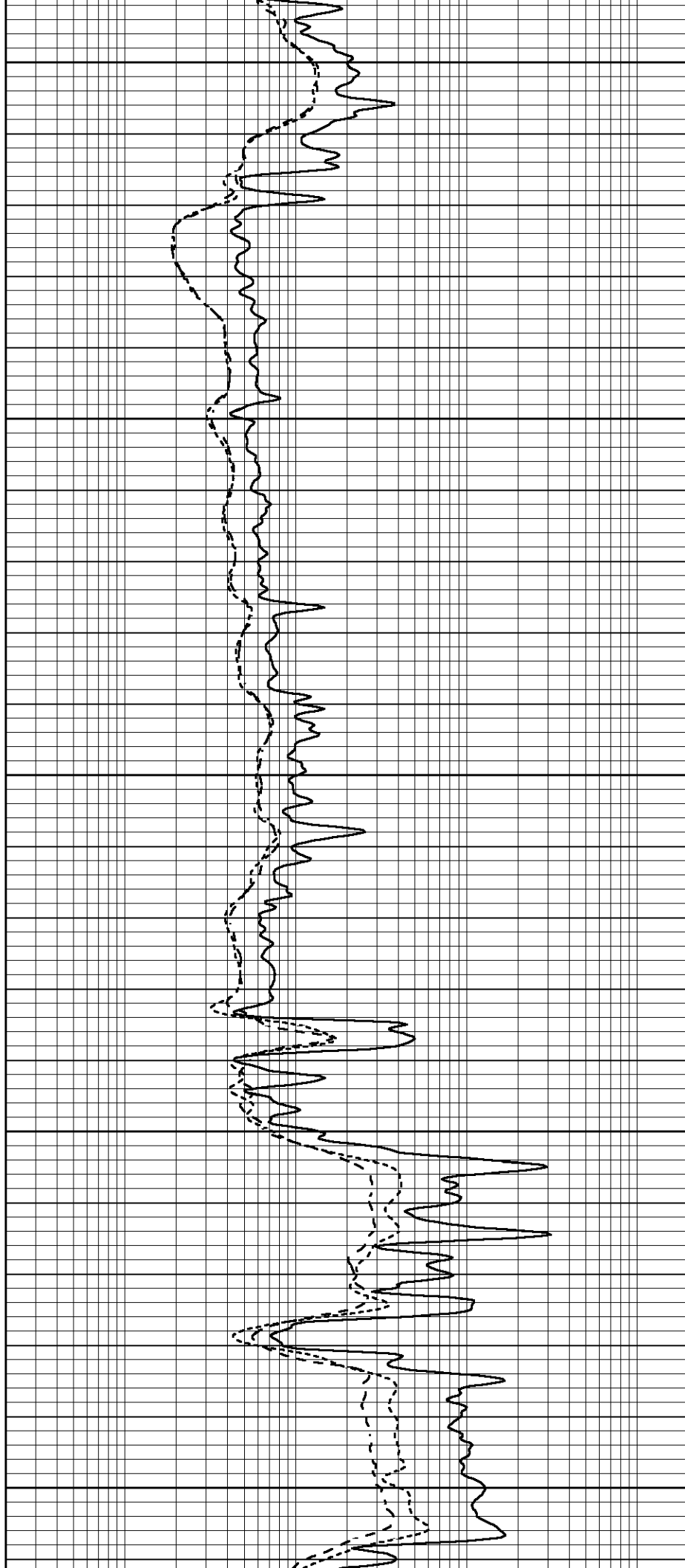
3650

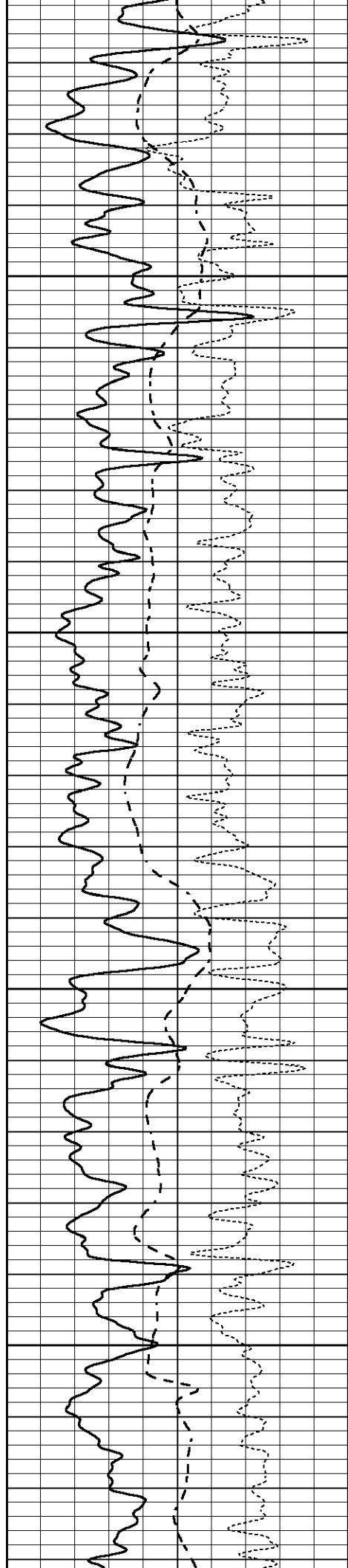
3700

3750

3800

3850



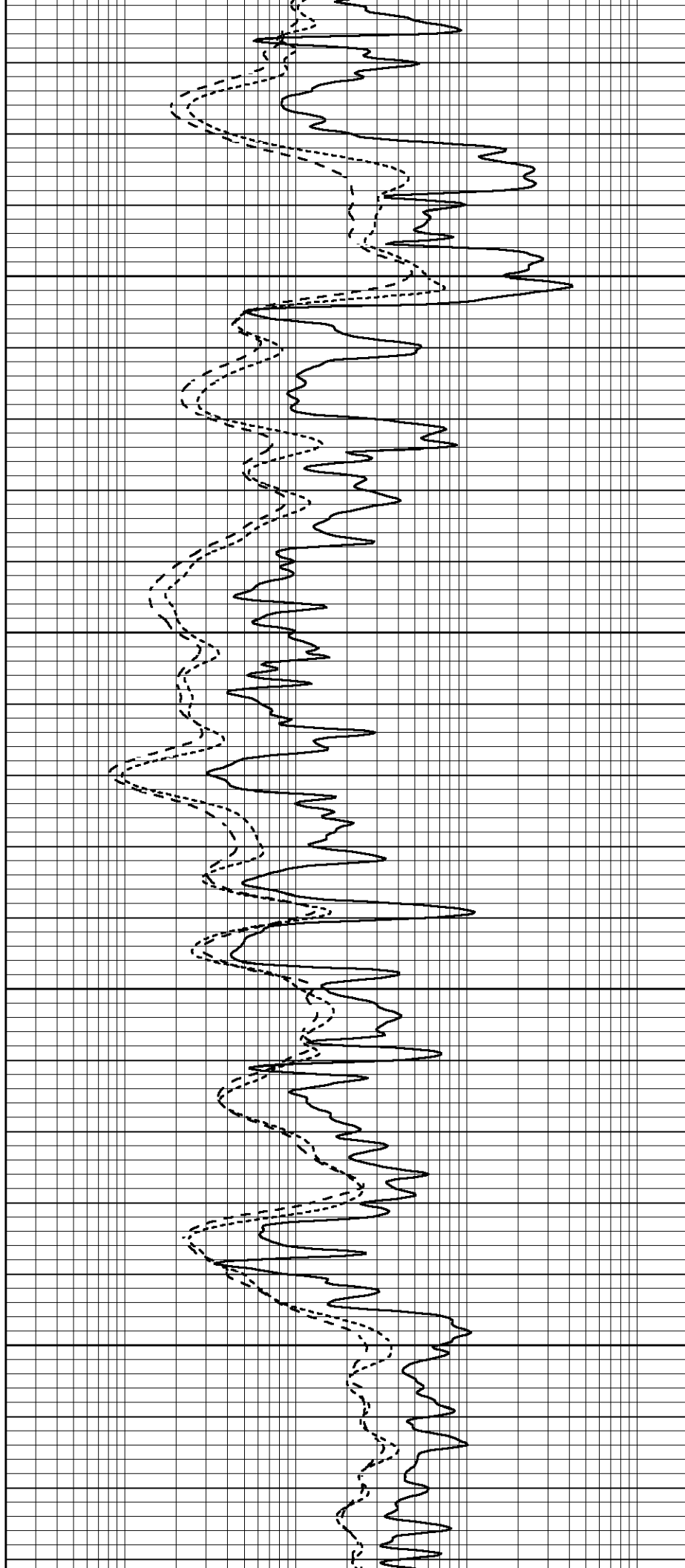


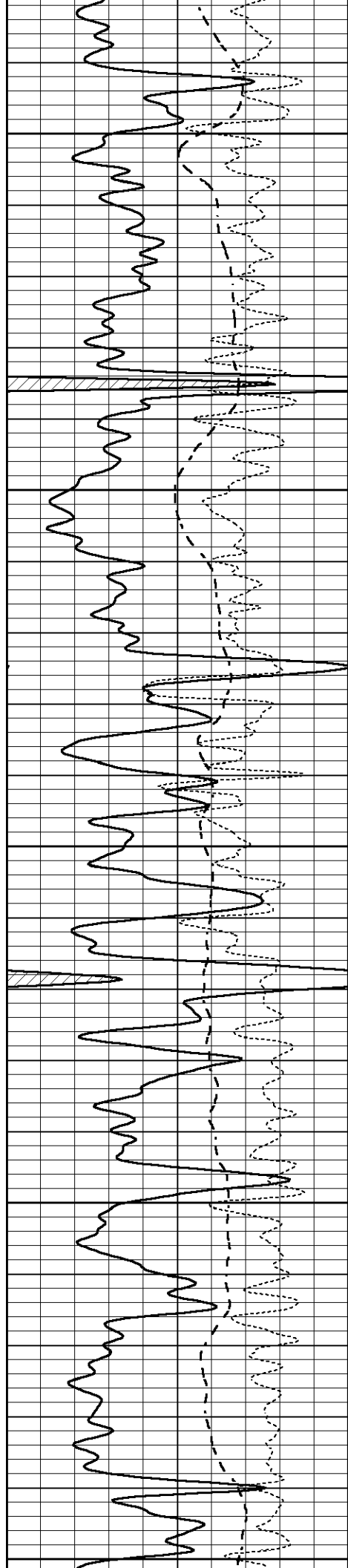
3900

3950

4000

4050





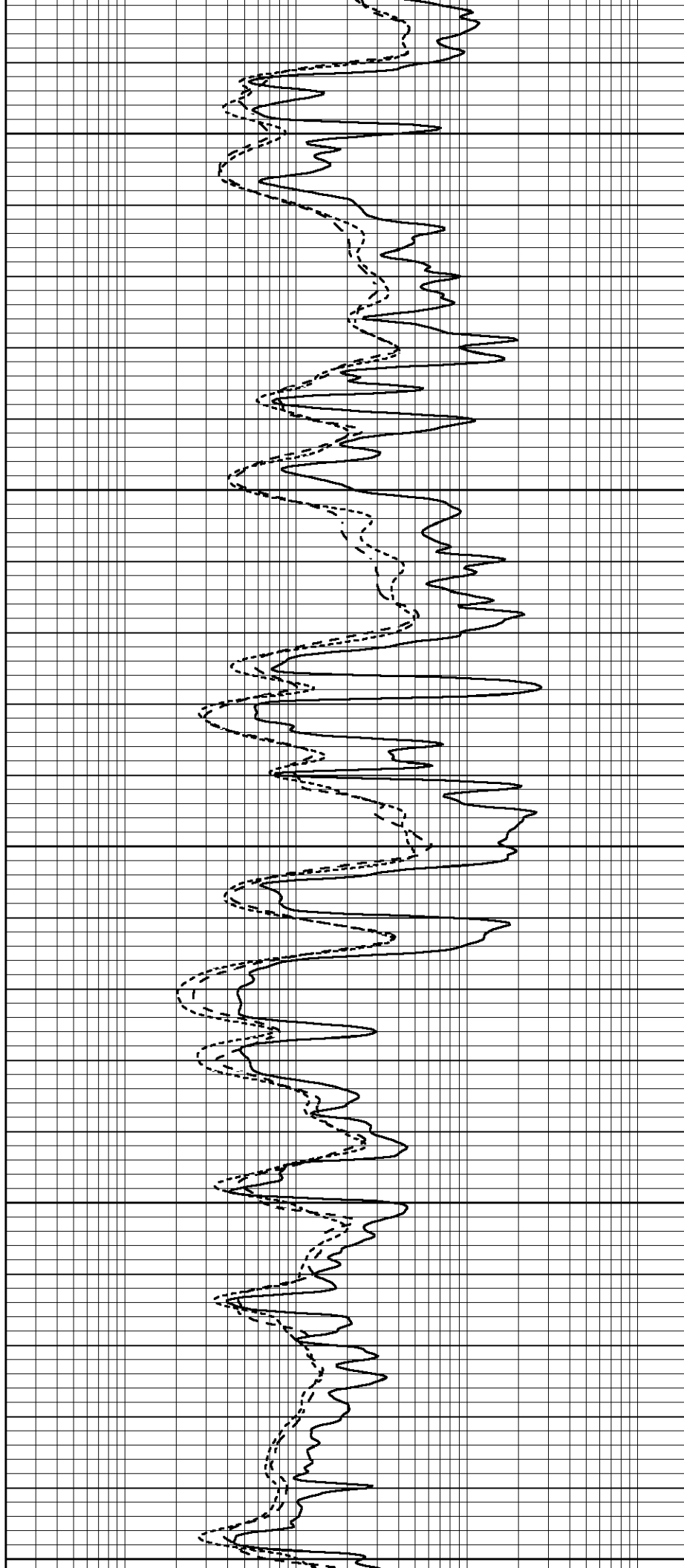
4100

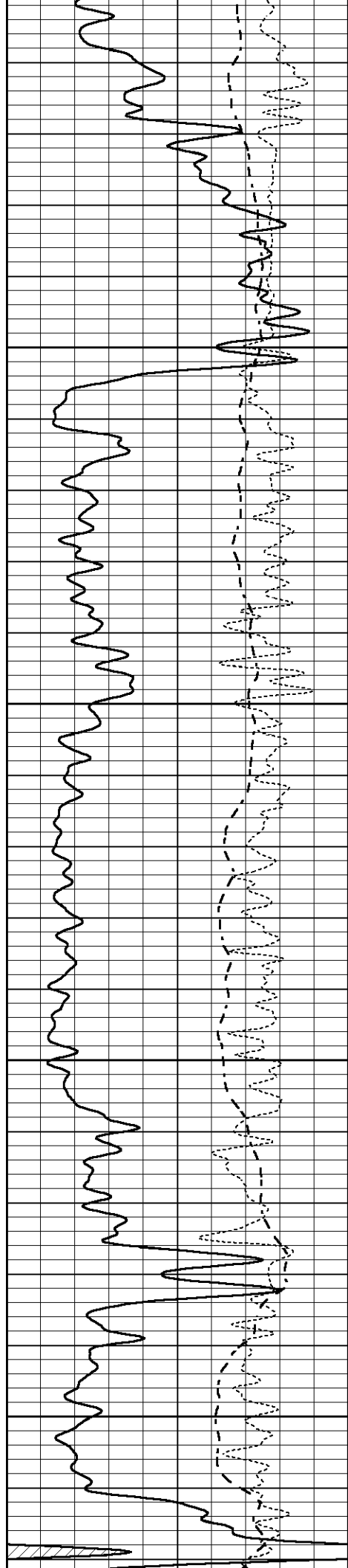
4150

4200

4250

4300



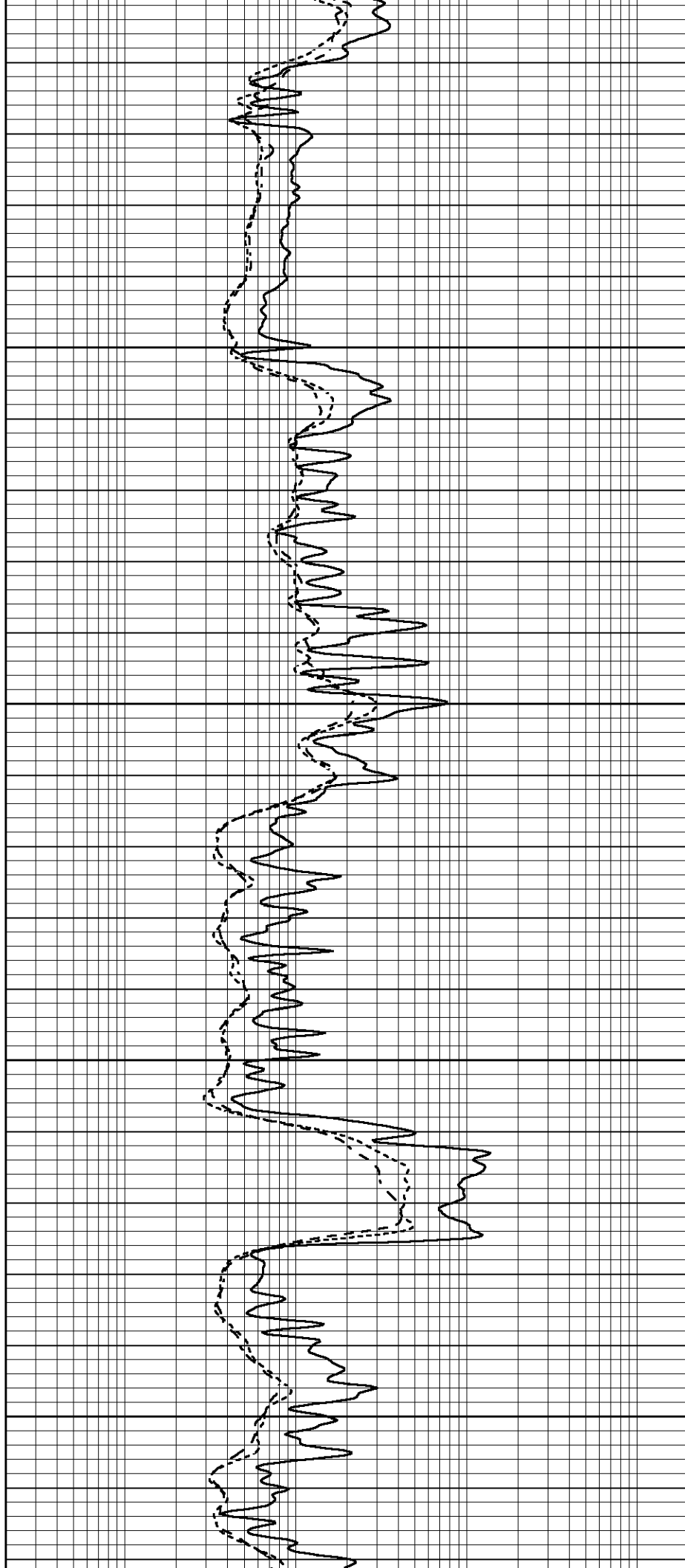


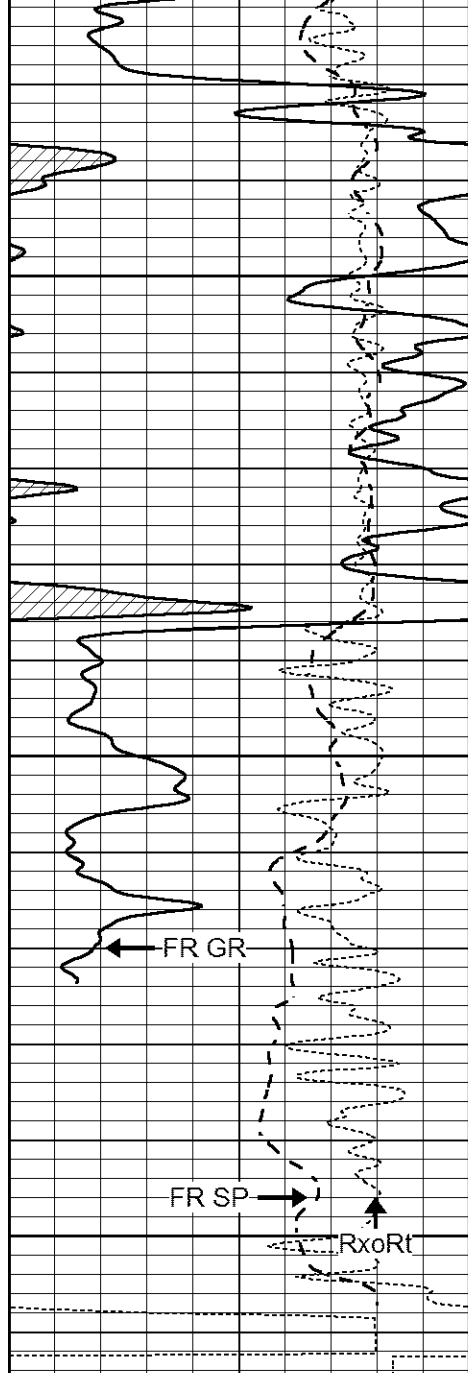
4350

4400

4450

4500





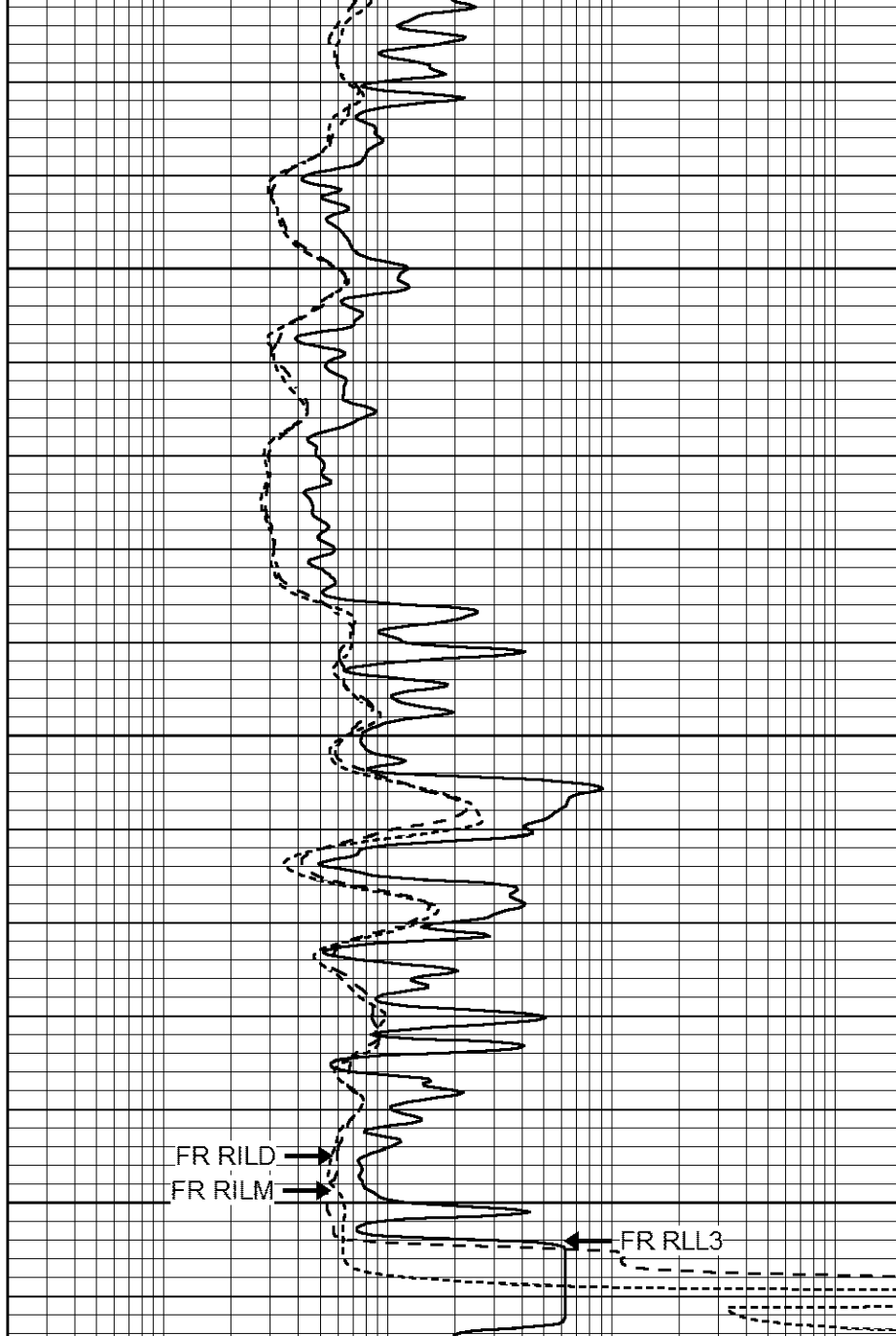
4550

4600

4650

LTD 4656

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

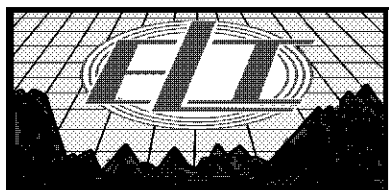


FR RILD

FR RILM

FR RLL3

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

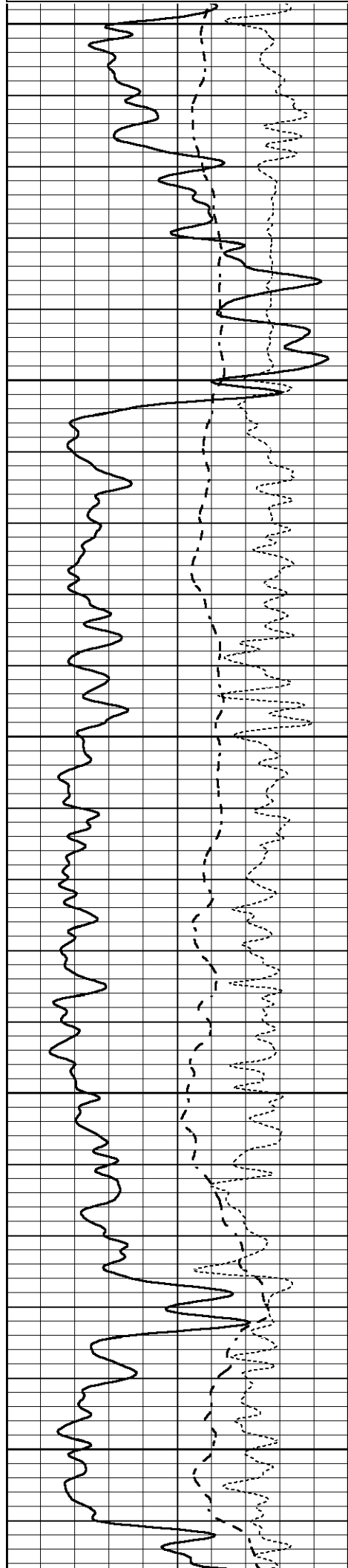


REPEAT SECTION

Database File 2524ddn8.db
 Dataset Pathname pass2.2
 Presentation Format _dil
 Dataset Creation Sat Aug 25 13:30:55 2018
 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



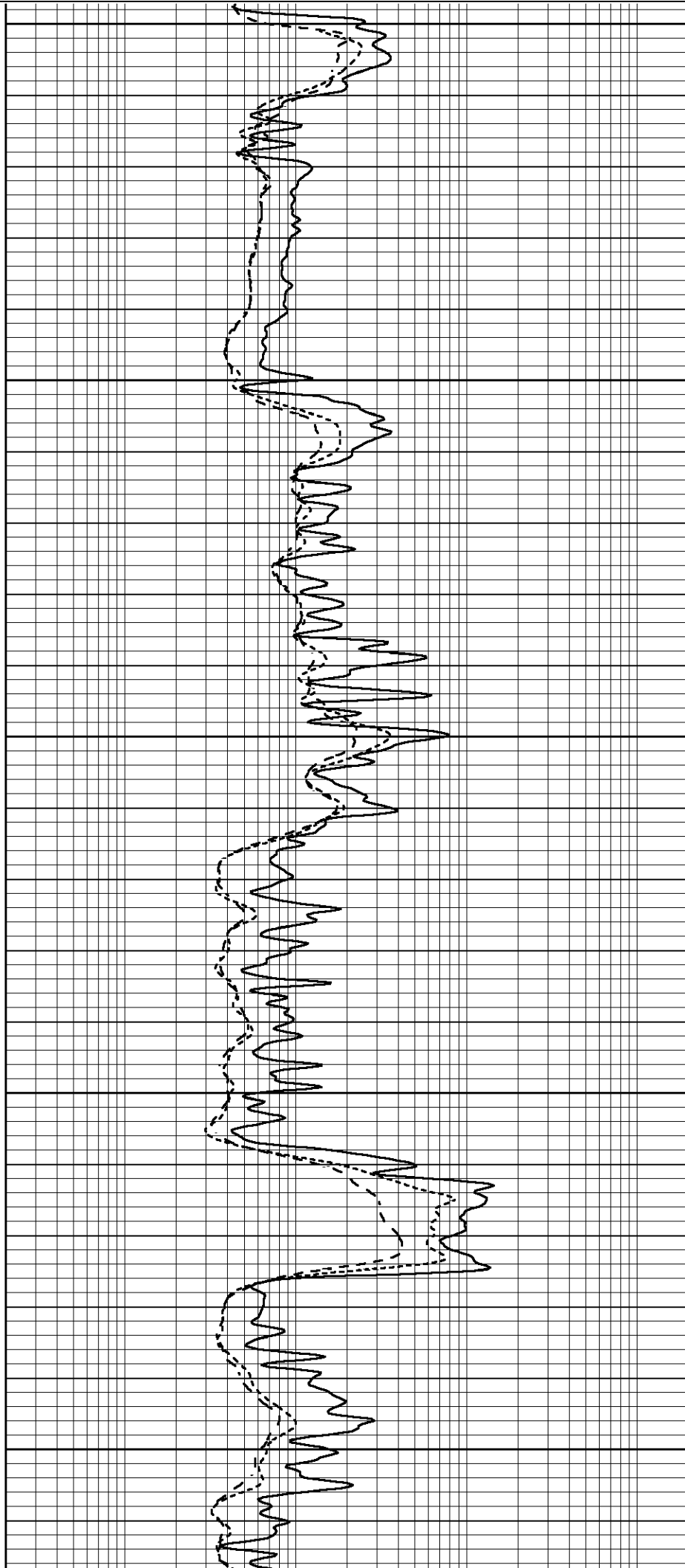
4300

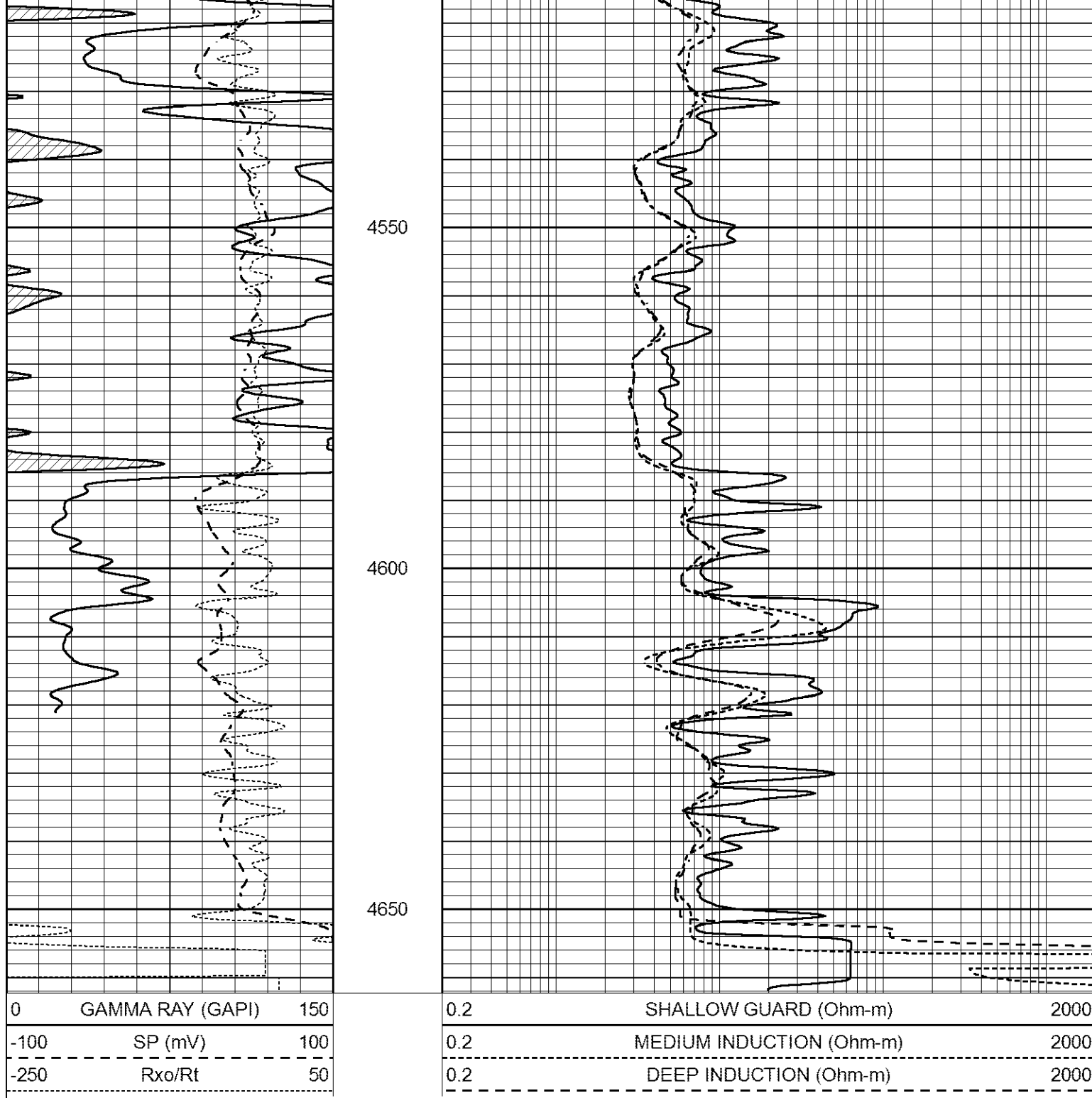
4350

4400

4450

4500





Calibration Report

Database File 2524ddn8.db
 Dataset Pathname pass2.2
 Dataset Creation Sat Aug 25 13:30:55 2018

Dual Induction Calibration Report

Serial-Model: FW1410-55-Probe
 Surface Cal Performed: Mon May 22 14:23:32 2017
 Downhole Cal Performed: Thu Mar 12 09:29:20 2015
 After Survey Verification Performed: Thu Mar 12 09:29:20 2015

Surface Calibration

Readings	References	Results
Loop: 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		
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 Jun 29 11:10:58 2016					
Calibrator Value:			1.0		GAPI			
Background Reading:			0.0		cps			
Calibrator Reading:			1.0		cps			
Sensitivity:			0.4300		GAPI/cps			