

DUAL INDUCTION LOG

Company	RED OAK ENERGY, INC.		
Well	JHT #1-14		
Field	WILDCAT		
County	GREELEY	State	KANSAS
Location:	API # : 15-071-20893-0000 678' FSL & 1409' FEL NE - SE - SW - SE		Other Services
Permanent Datum	GROUND LEVEL	Elevation	3794
Log Measured From	KELLY BUSHING 11" A.G.L.	CDL/CNL/PE	
Drilling Measured From	KELLY BUSHING	Elevation	K.B. 3805 D.F. 3803 G.L. 3794
Date	5/26/20		
Run Number	ONE		
Depth Driller	5160		
Depth Logger	5162		
Bottom Logged Interval	5160		
Top Log Interval	00		
Casing Driller	8 5/8"@356'		
Casing Logger	354		
Bit Size	7 7/8"		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 3,400 PPM	
Density / Viscosity	9.4/62		
pH / Fluid Loss	9.0/8.0		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	1.00@108F		
Rmf @ Meas. Temp	.750@108F		
Rmc @ Meas. Temp	1.20@108F		
Source of Rmf / Rmc	MEASUREMENT		
Rm @ BHT	.857@126F		
Time Circulation Stopped	2.5 HOURS		
Time Logger on Bottom	7:00 P.M.		
Maximum Recorded Temperature	126F		
Equipment Number	922339		
Location	HAYS, KANSAS		
Recorded By	JEFF LUEBBERS		
Witnessed By	RYAN DAVIS	KEVIN DAVIS	

<<< 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.

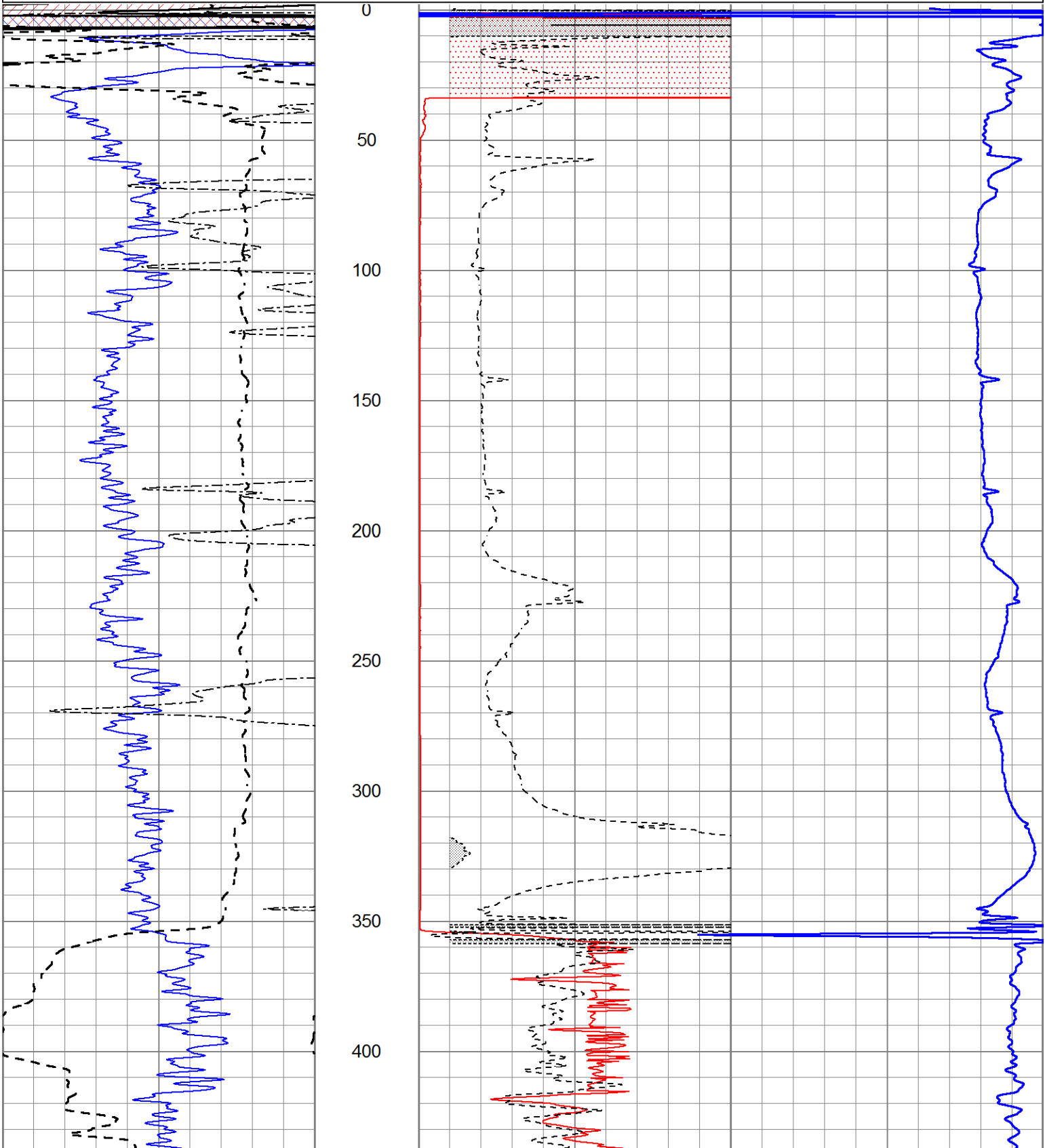
Comments

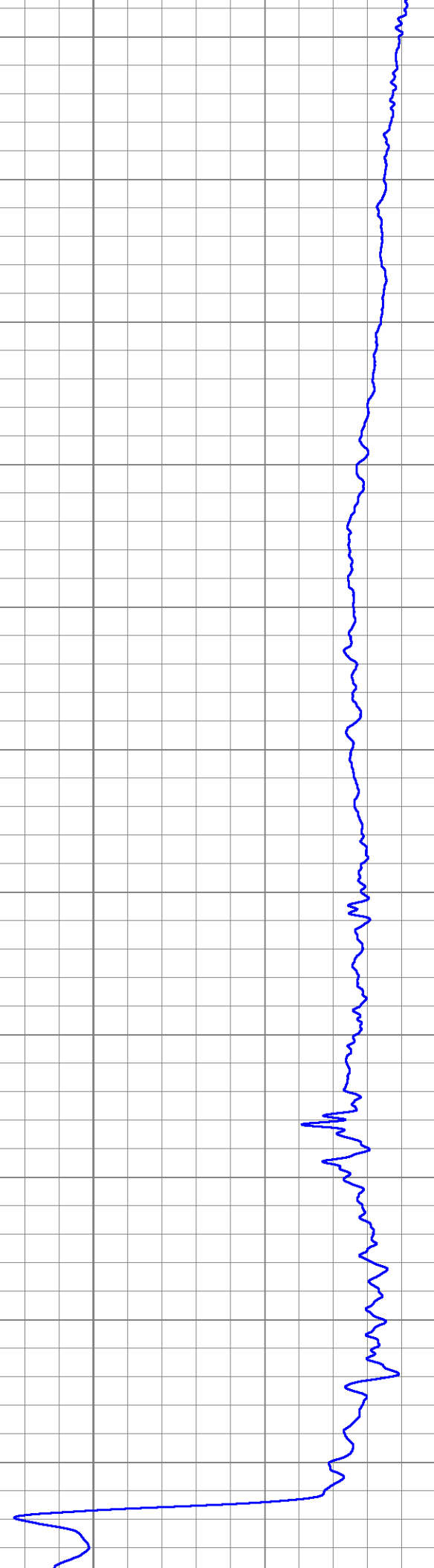
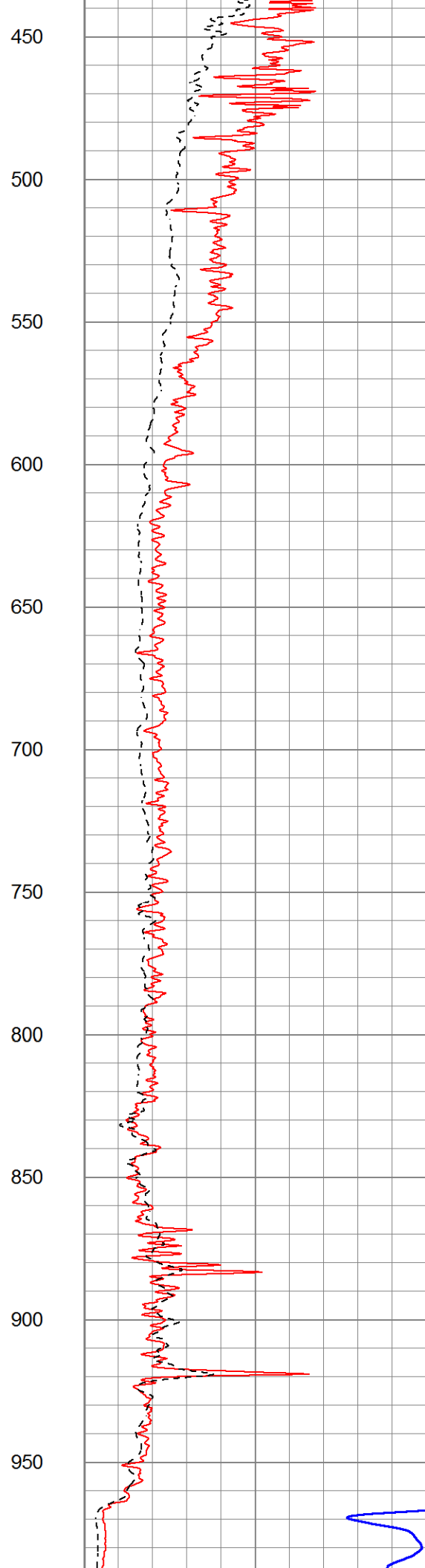
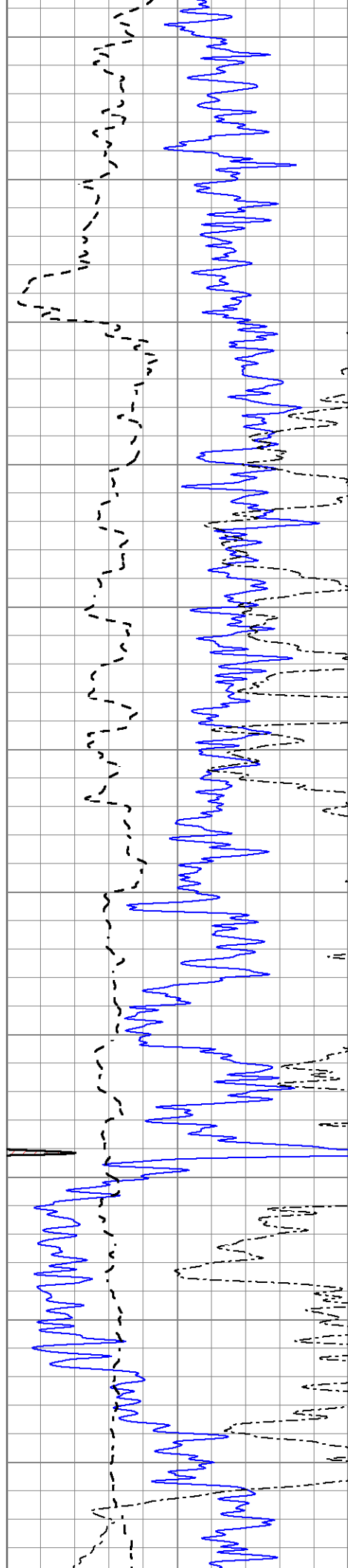
THANK YOU FOR USING E.L.I. WIRELINE SERVICES HAYS, KANSAS (785)628-6395
DIRECTIONS
SHARON SPRINGS, KS. 17S. ON HWY 27 TO "RD. D", 9 1/2W., N. INTO

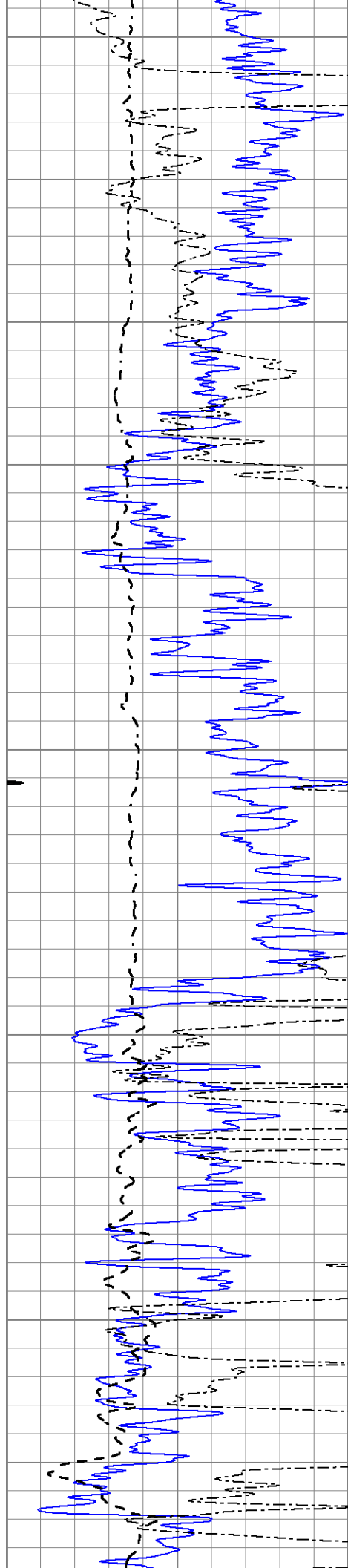


MAIN SECTION

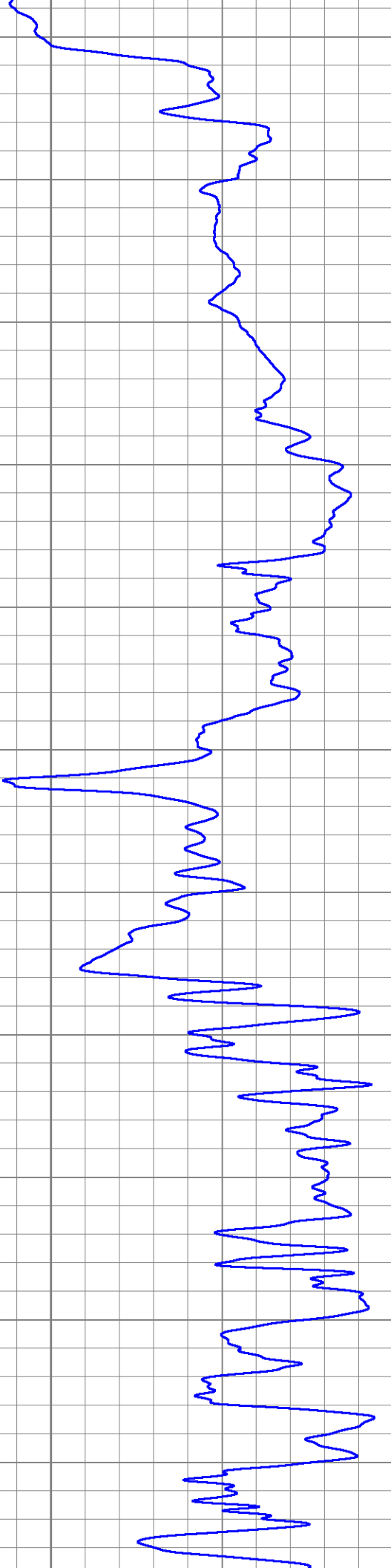
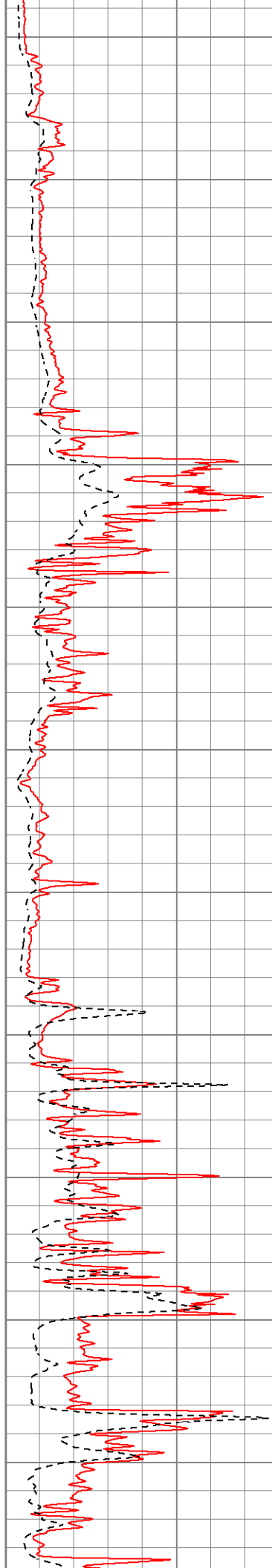
0	Gamma Ray (GAPI)	150	1000	CILD (mmho/m)	0
-100	SP (mV)	100	0	RLL3 (Ohm-m)	50
0	RWA (Ohm-m)	1	0	RILD (Ohm-m)	50
			50	RILD X10 (Ohm-m)	500
			50	RLL3 X10 (Ohm-m)	500

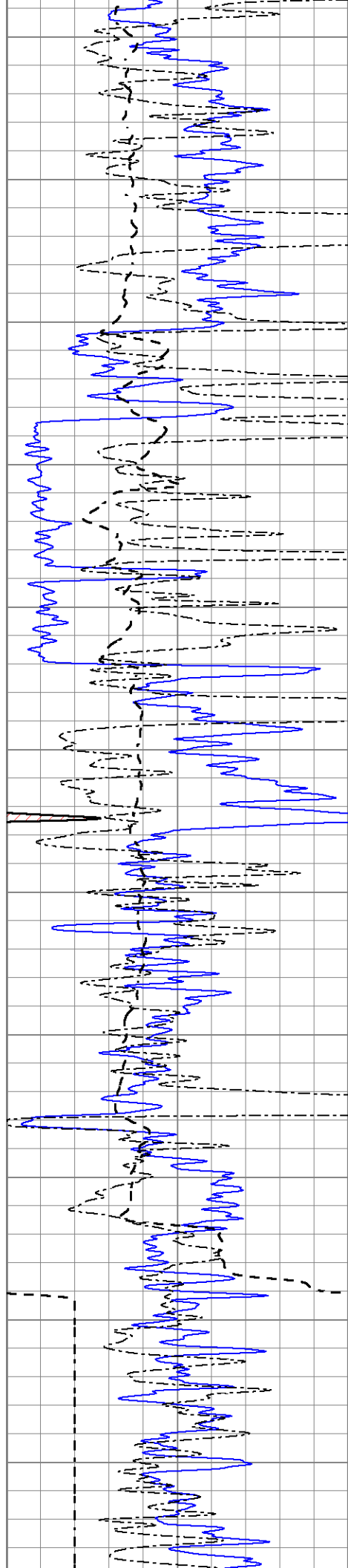






1000
1050
1100
1150
1200
1250
1300
1350
1400
1450
1500





1550

1600

1650

1700

1750

1800

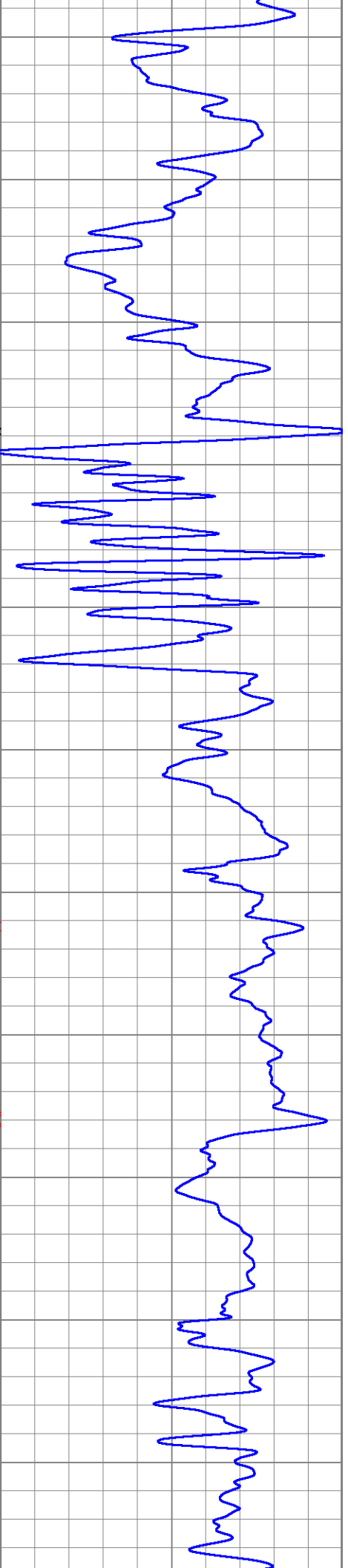
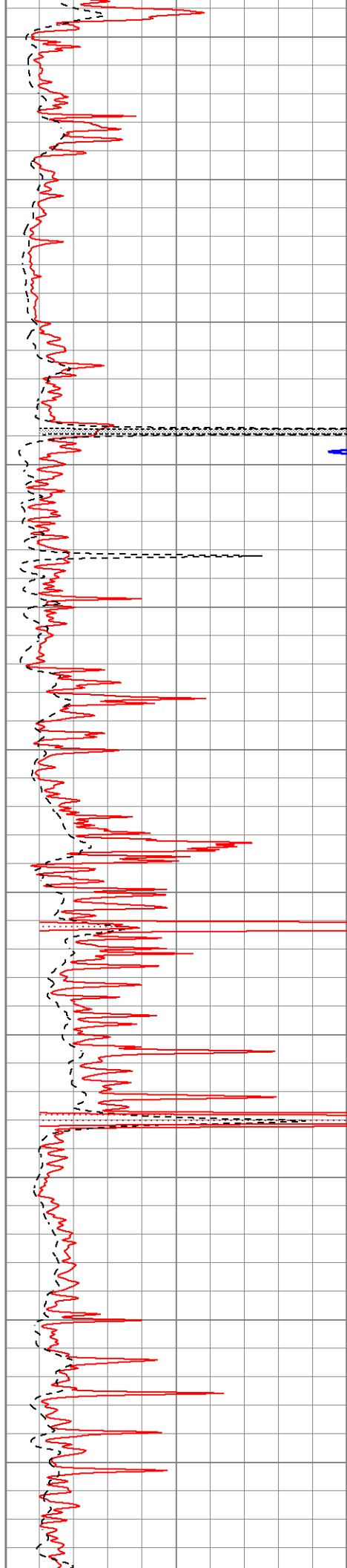
1850

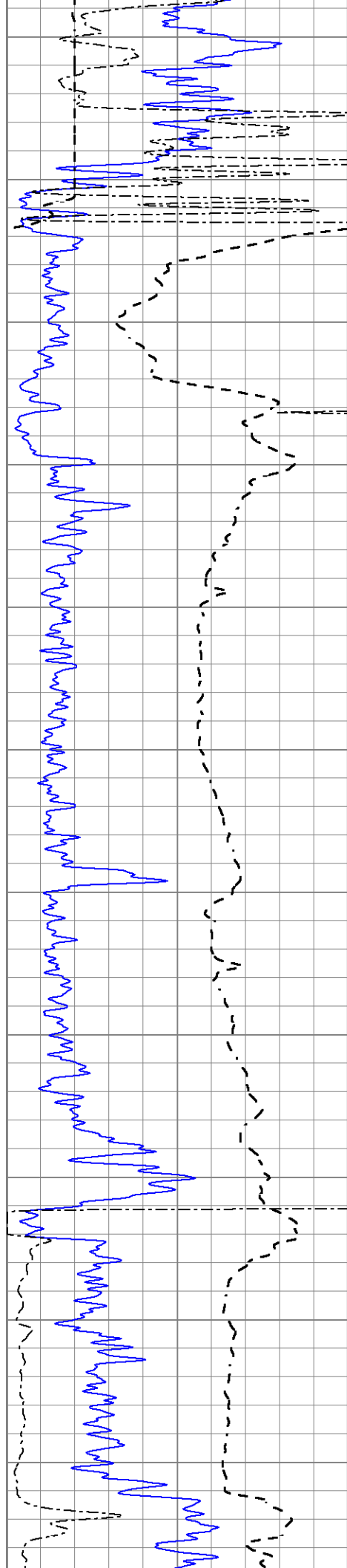
1900

1950

2000

2050





2100

2150

2200

2250

2300

2350

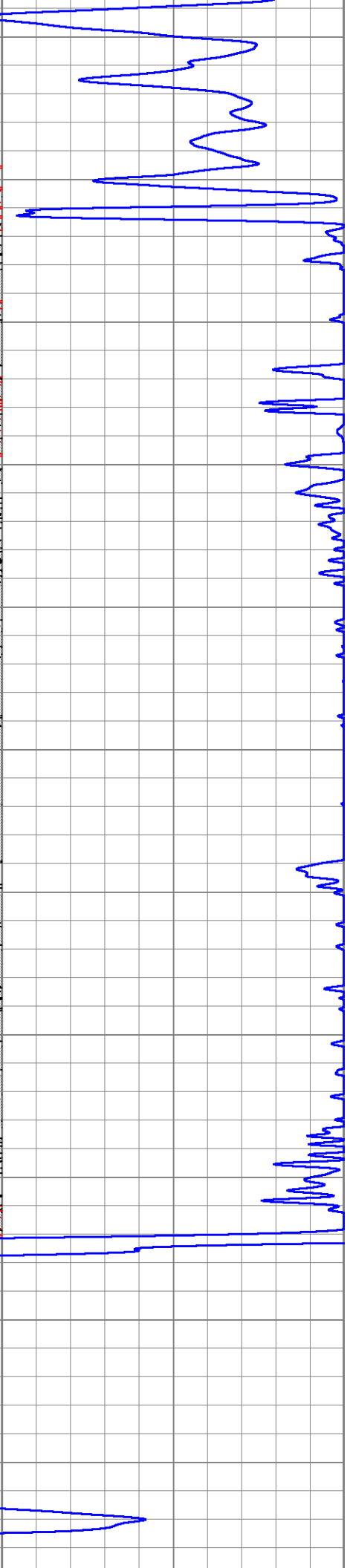
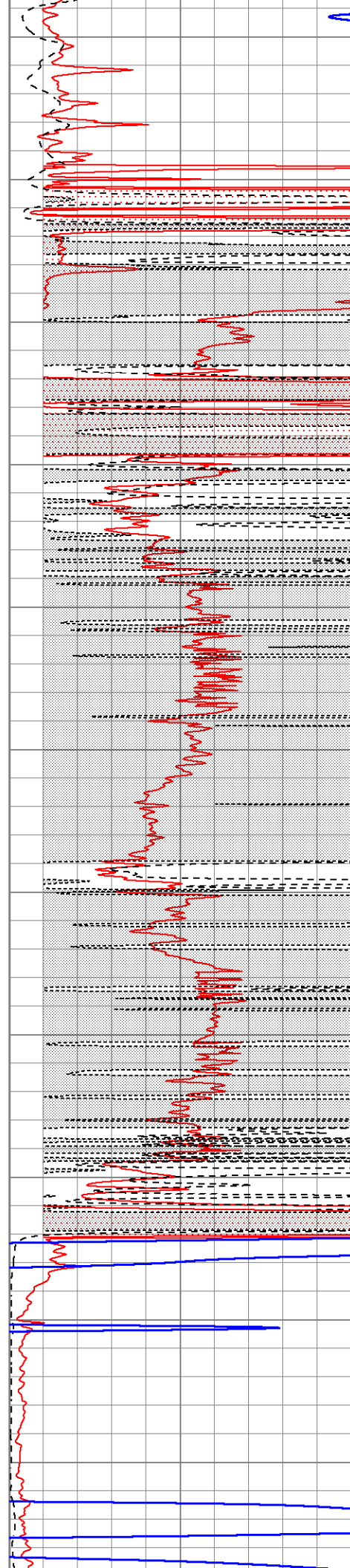
2400

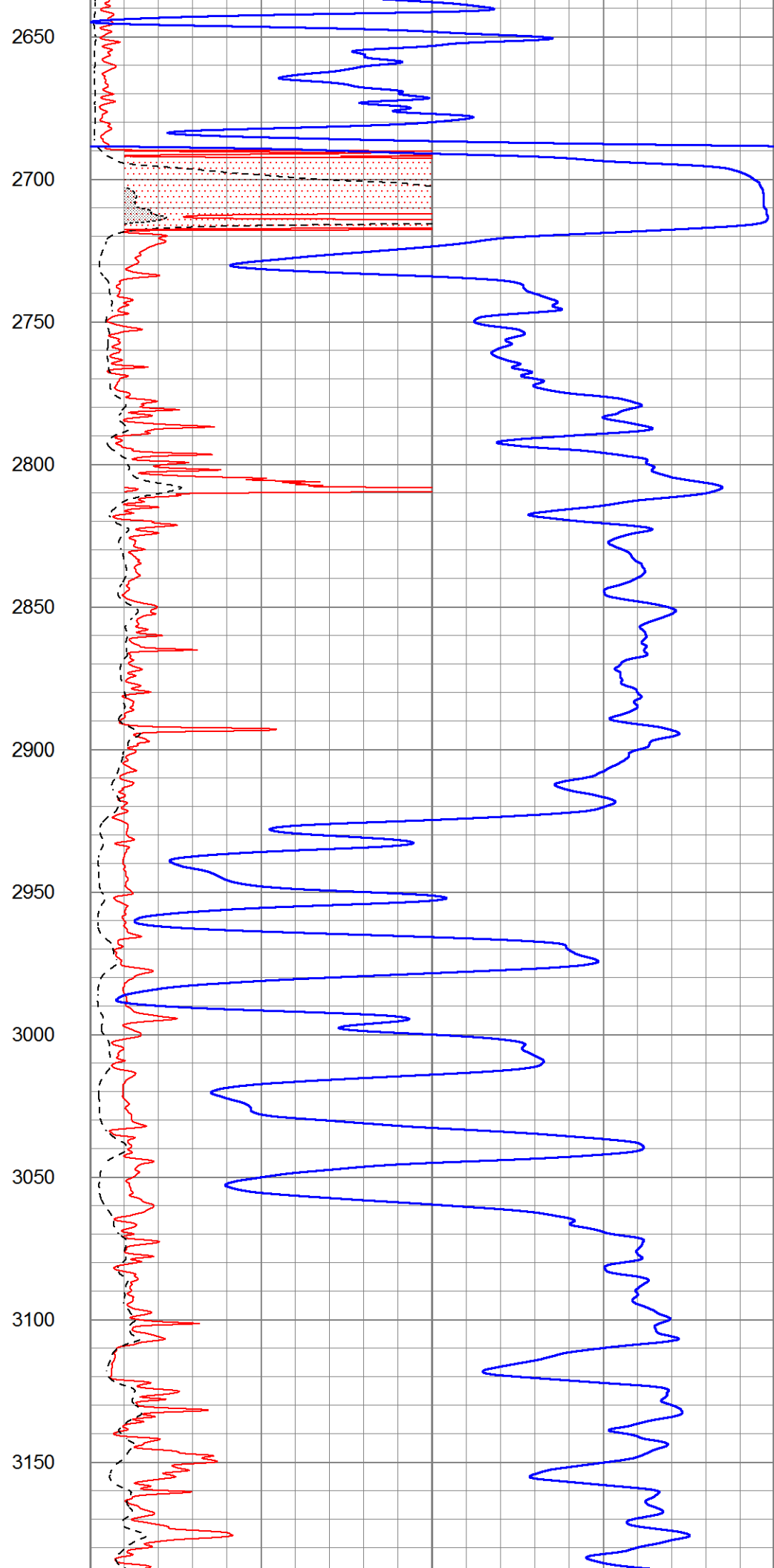
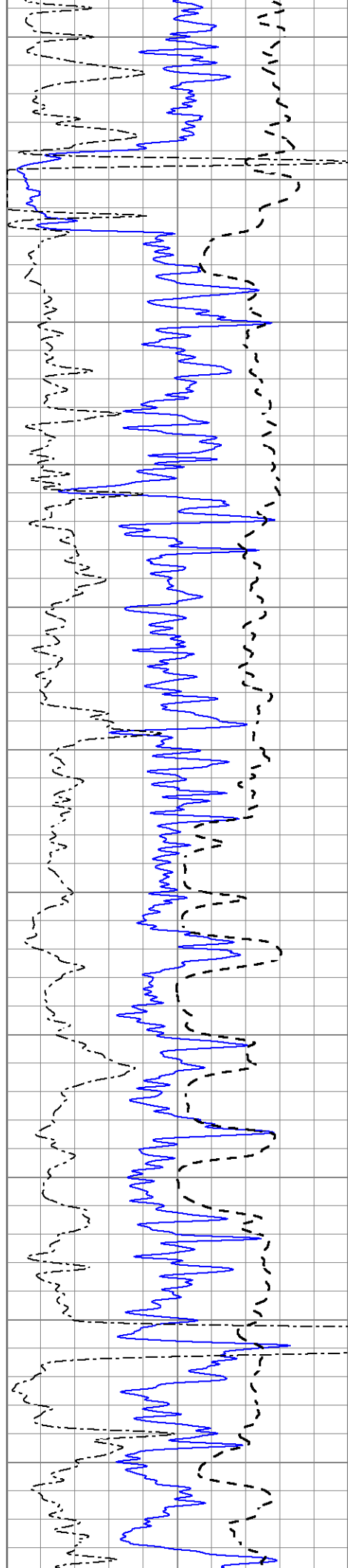
2450

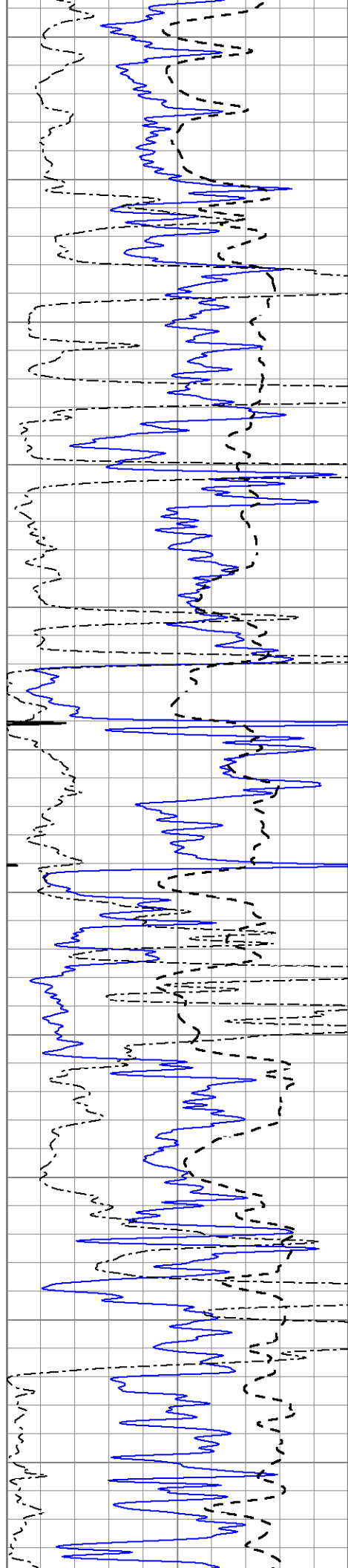
2500

2550

2600







3200

3250

3300

3350

3400

3450

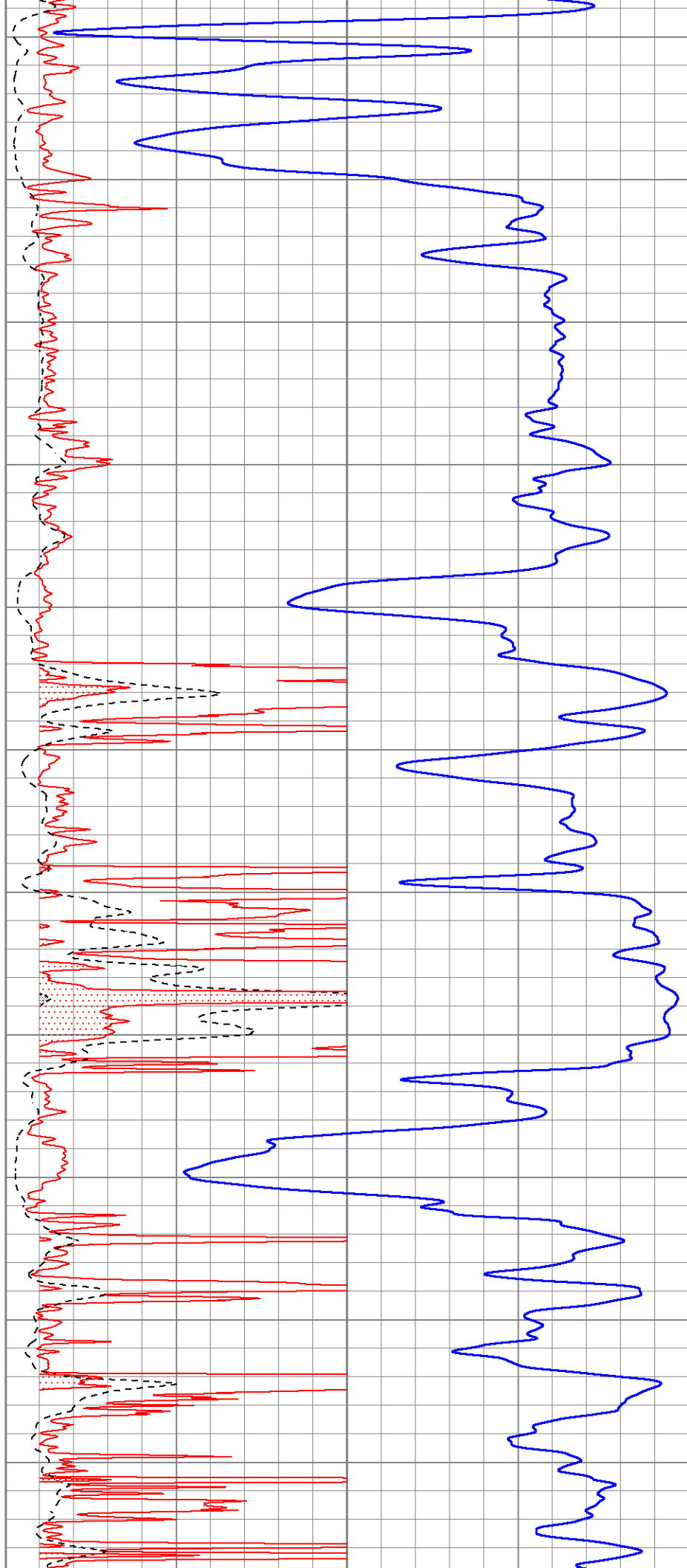
3500

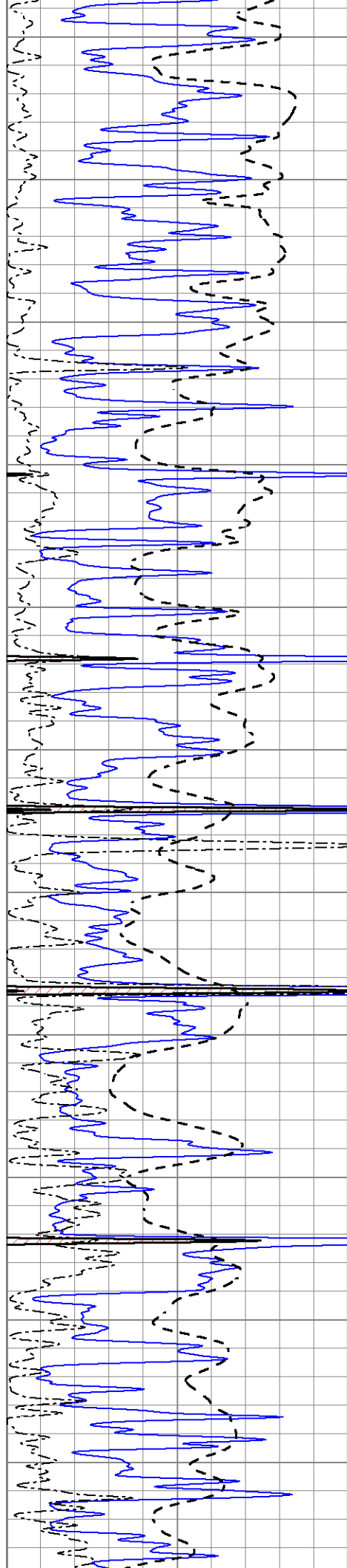
3550

3600

3650

3700





3750

3800

3850

3900

3950

4000

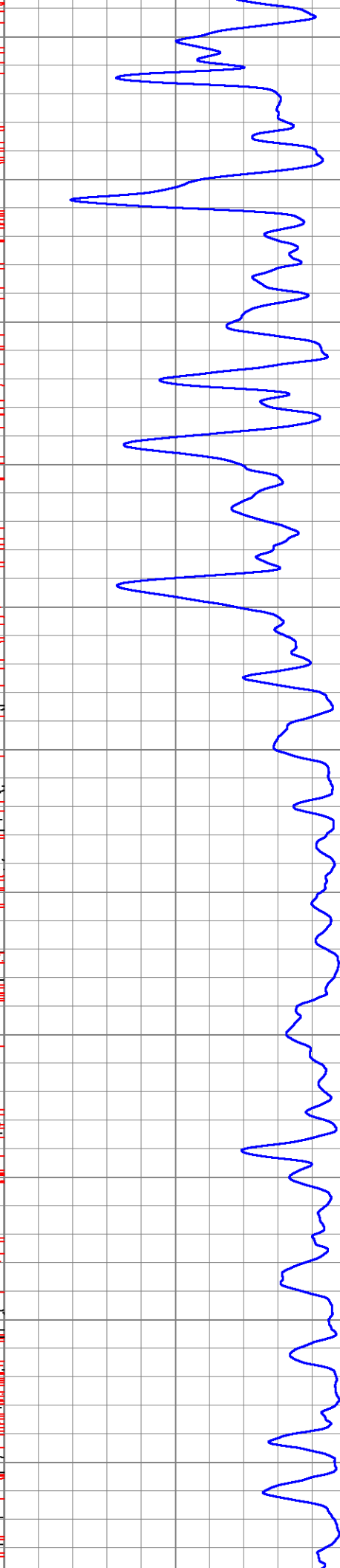
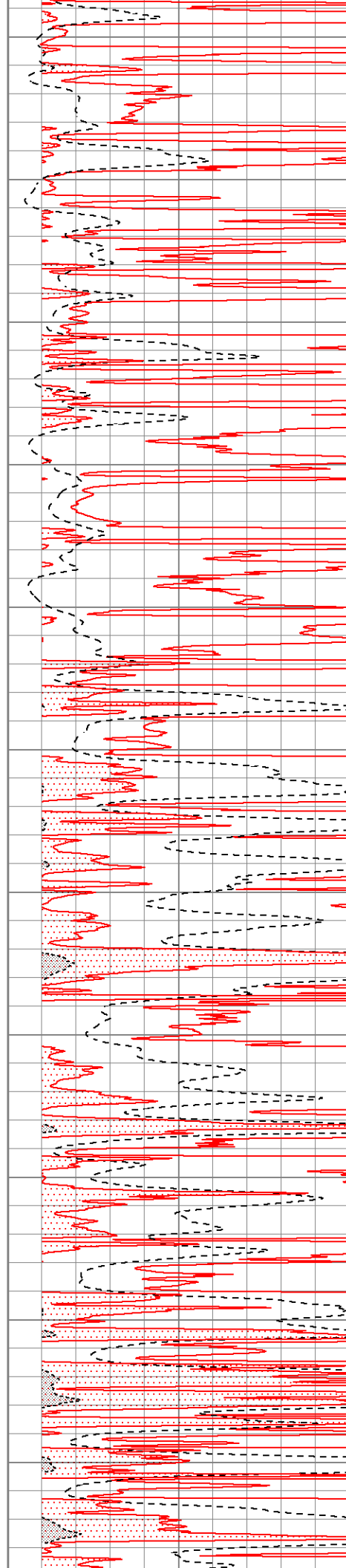
4050

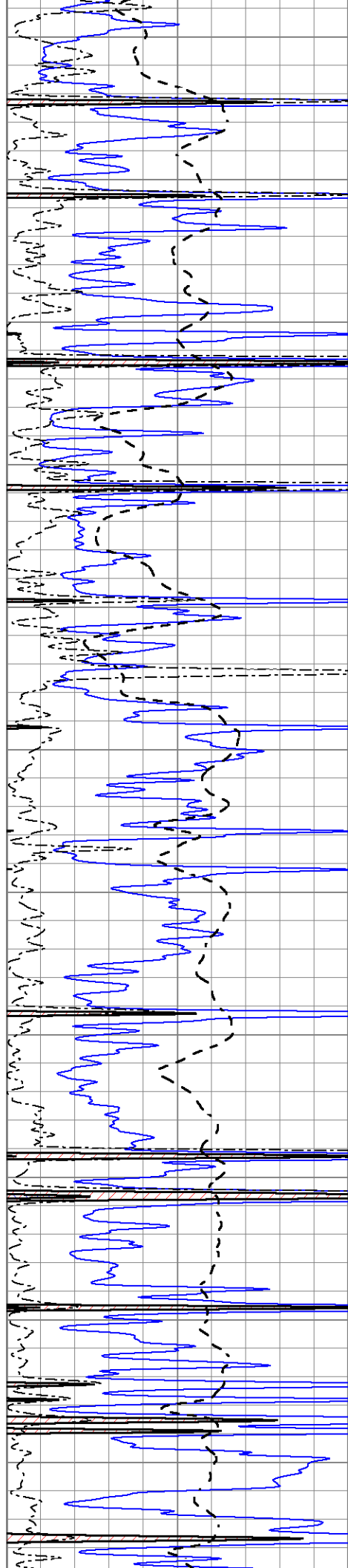
4100

4150

4200

4250





4300

4350

4400

4450

4500

4550

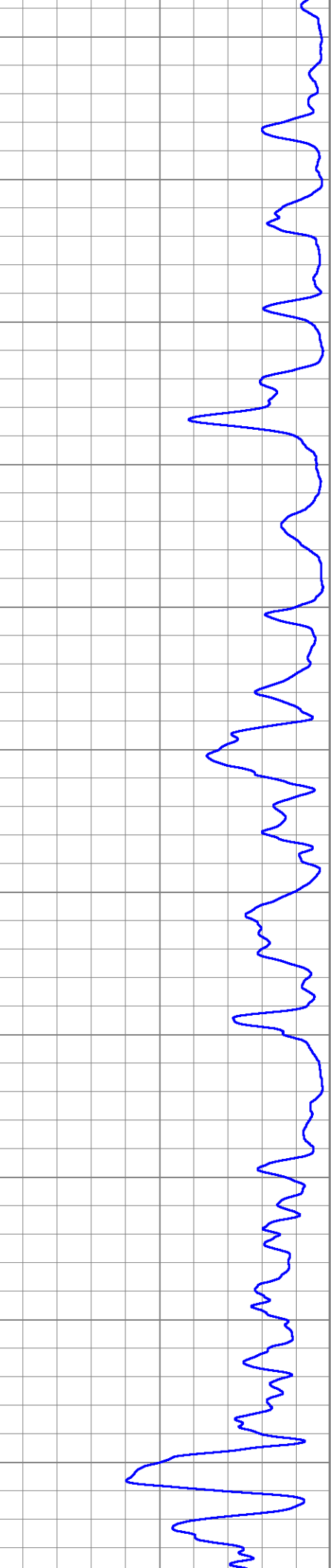
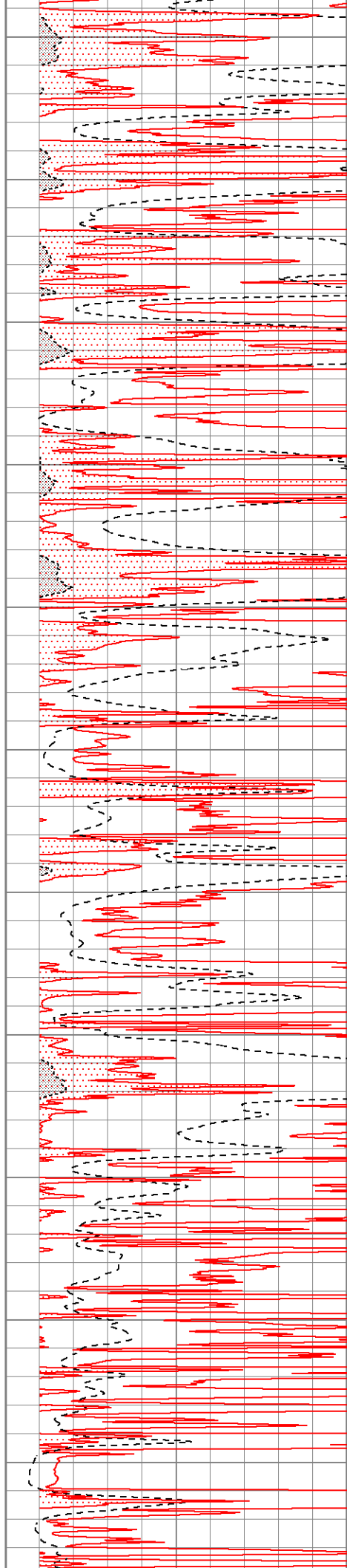
4600

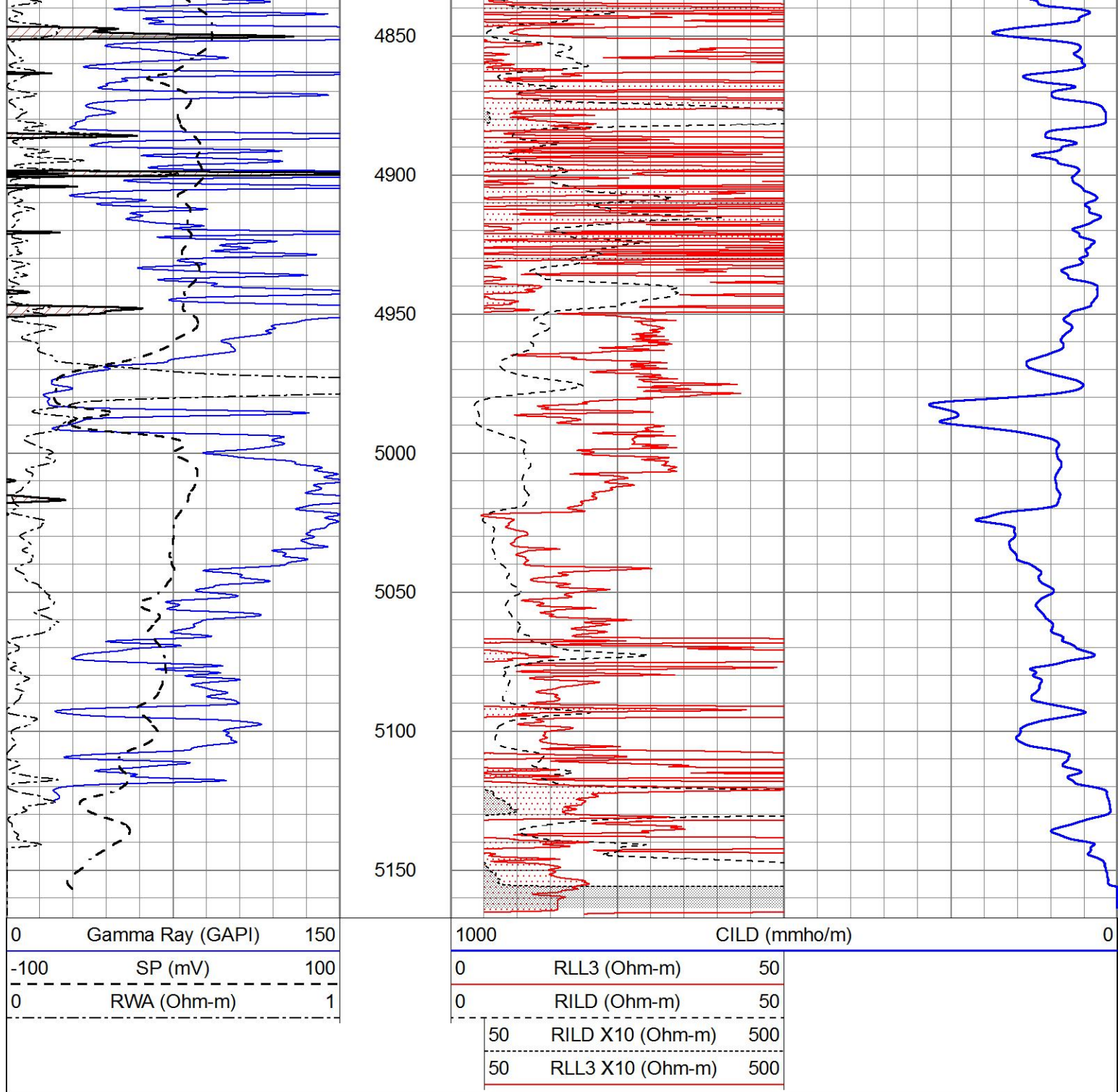
4650

4700

4750

4800

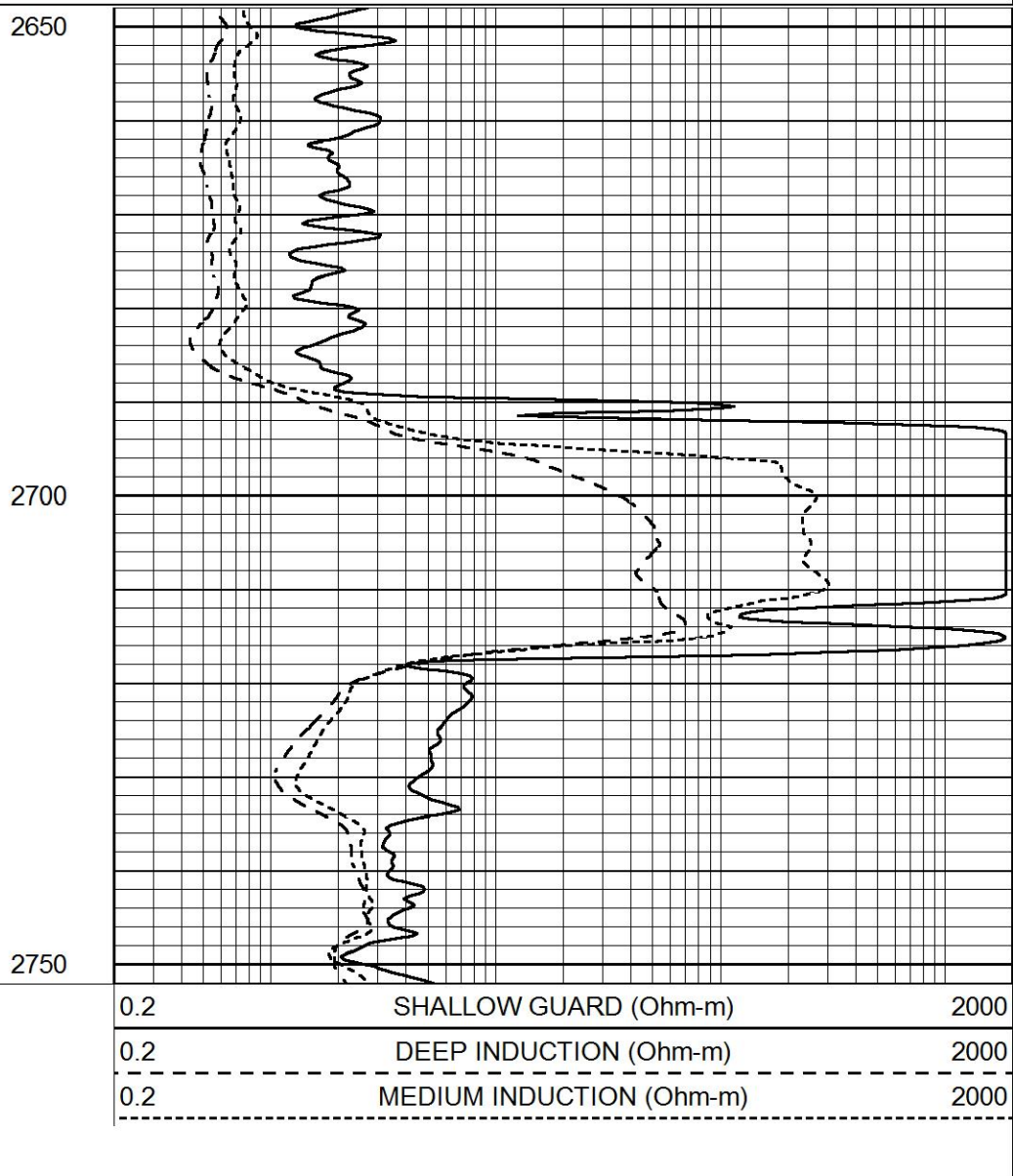
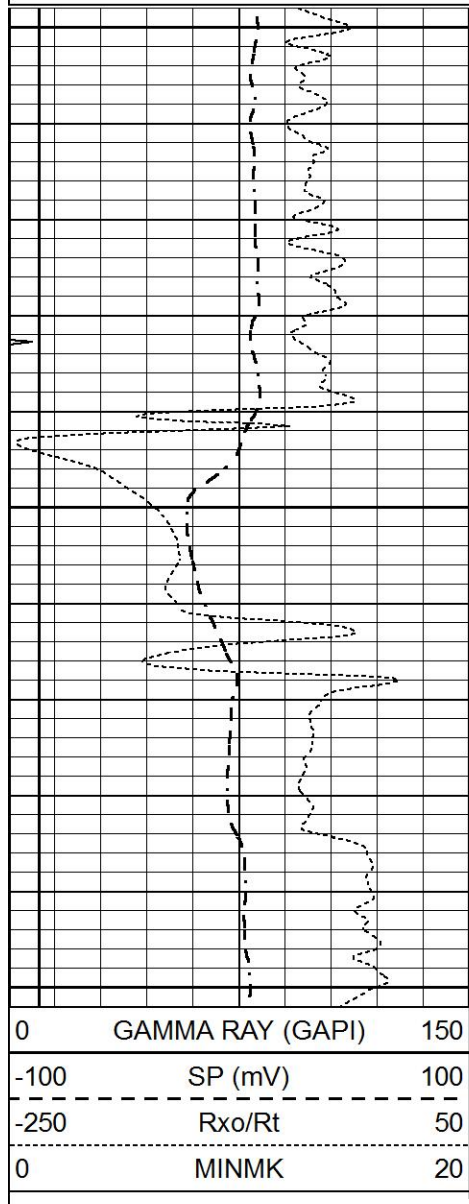




ANHYDRITE

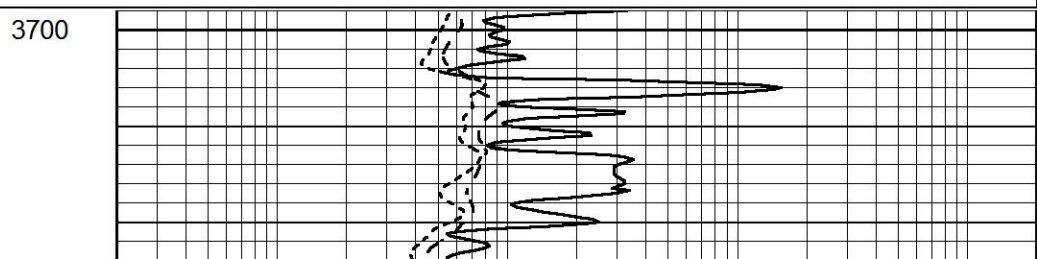
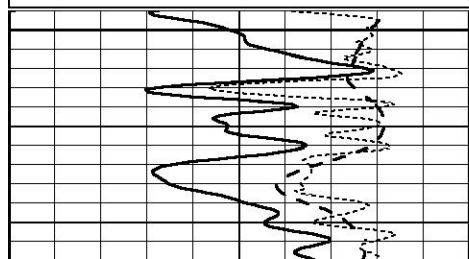
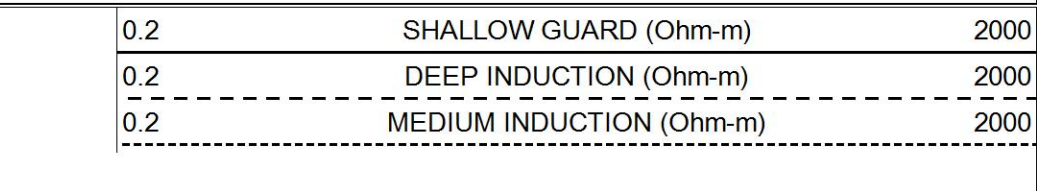
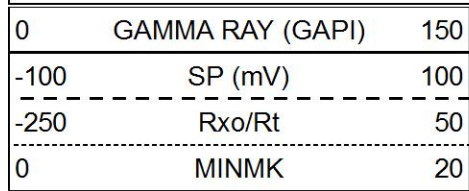
Database File 4542pe.db
 Dataset Pathname pass3.2A
 Presentation Format _dil
 Dataset Creation Tue May 26 22:34:25 2020
 Charted by Depth in Feet scaled 1:240

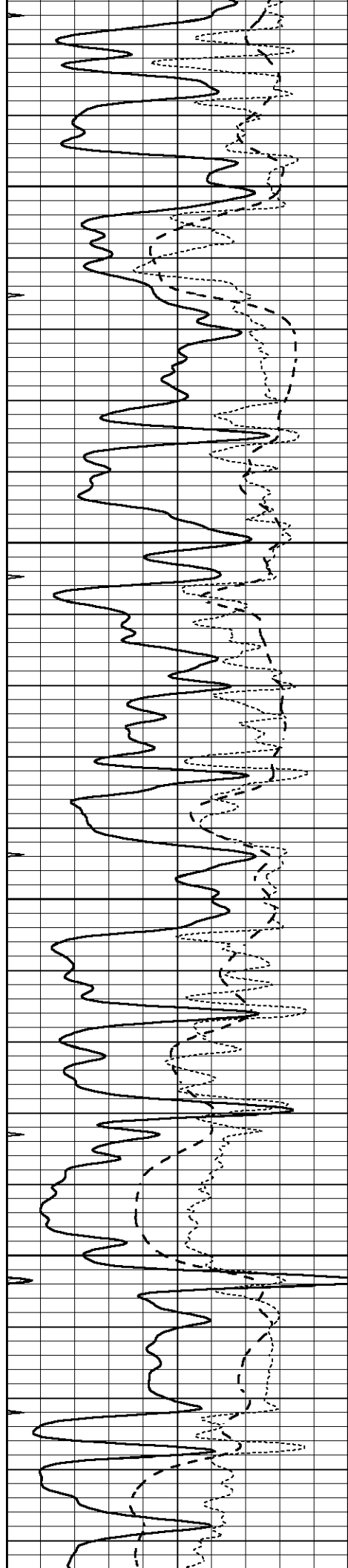
0	GAMMA RAY (GAPI)	150	0.2	SHALLOW GUARD (Ohm-m)	2000
-100	SP (mV)	100	0.2	DEEP INDUCTION (Ohm-m)	2000
-250	Rxo/Rt	50	0.2	MEDIUM INDUCTION (Ohm-m)	2000
0	MINMK	20			



MAIN SECTION

Database File 4542pe.db
 Dataset Pathname pass3.3M
 Presentation Format _dil
 Dataset Creation Tue May 26 22:38:27 2020
 Charted by Depth in Feet scaled 1:240



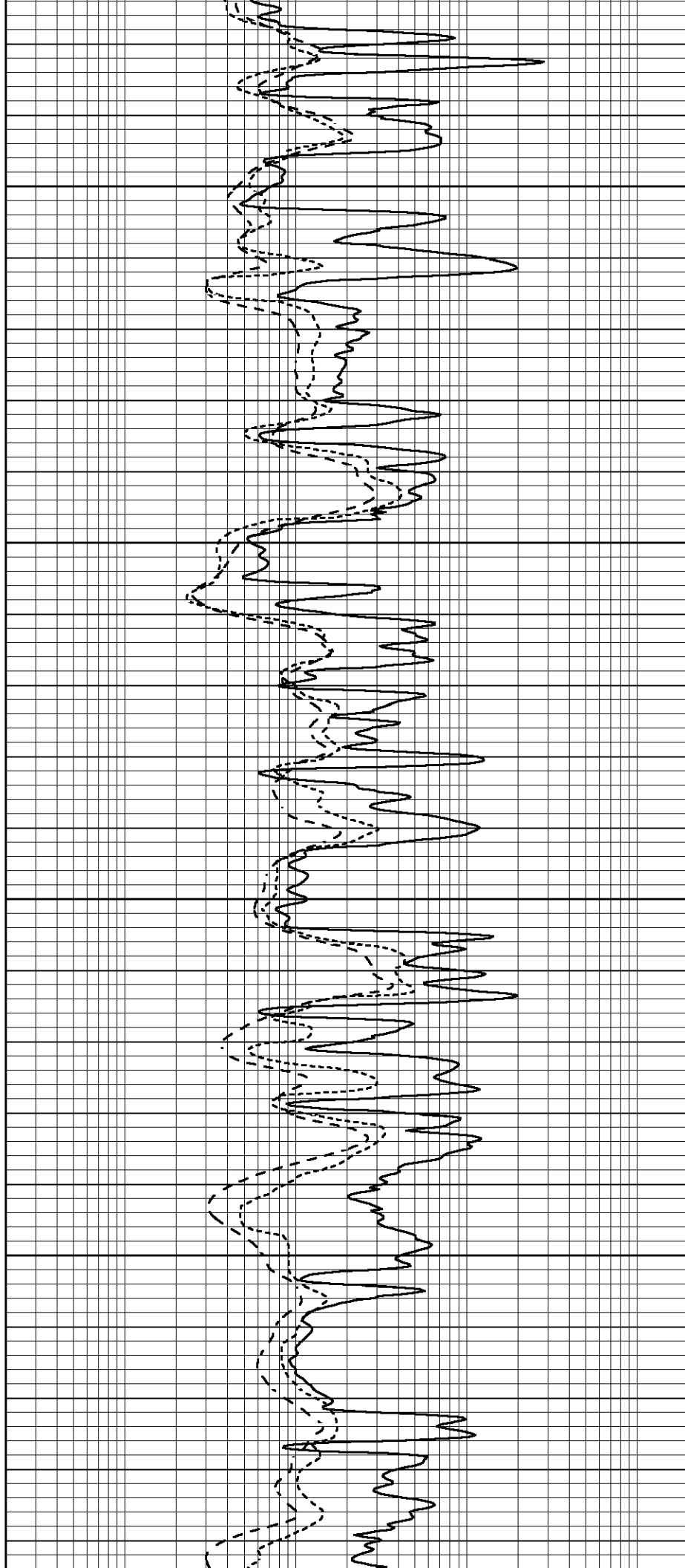


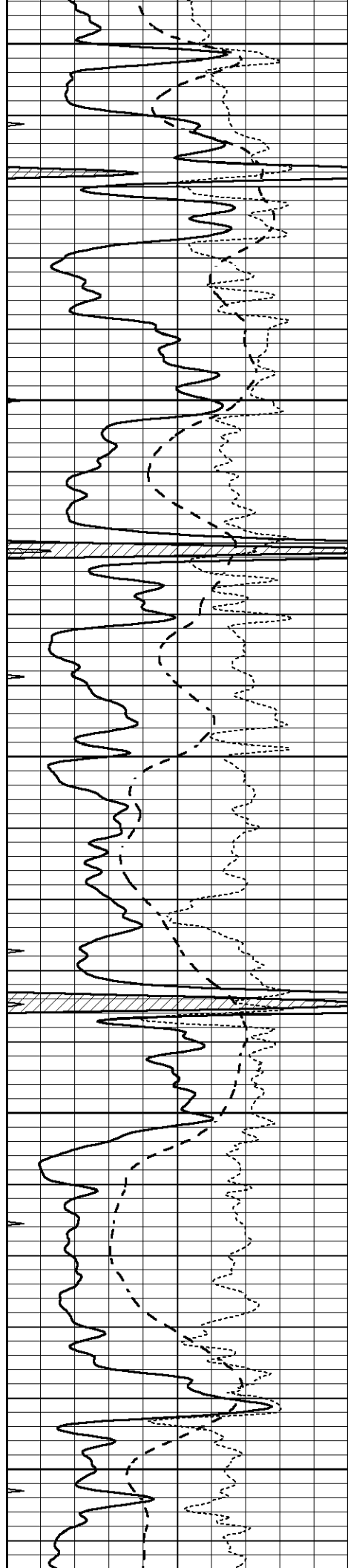
3750

3800

3850

3900





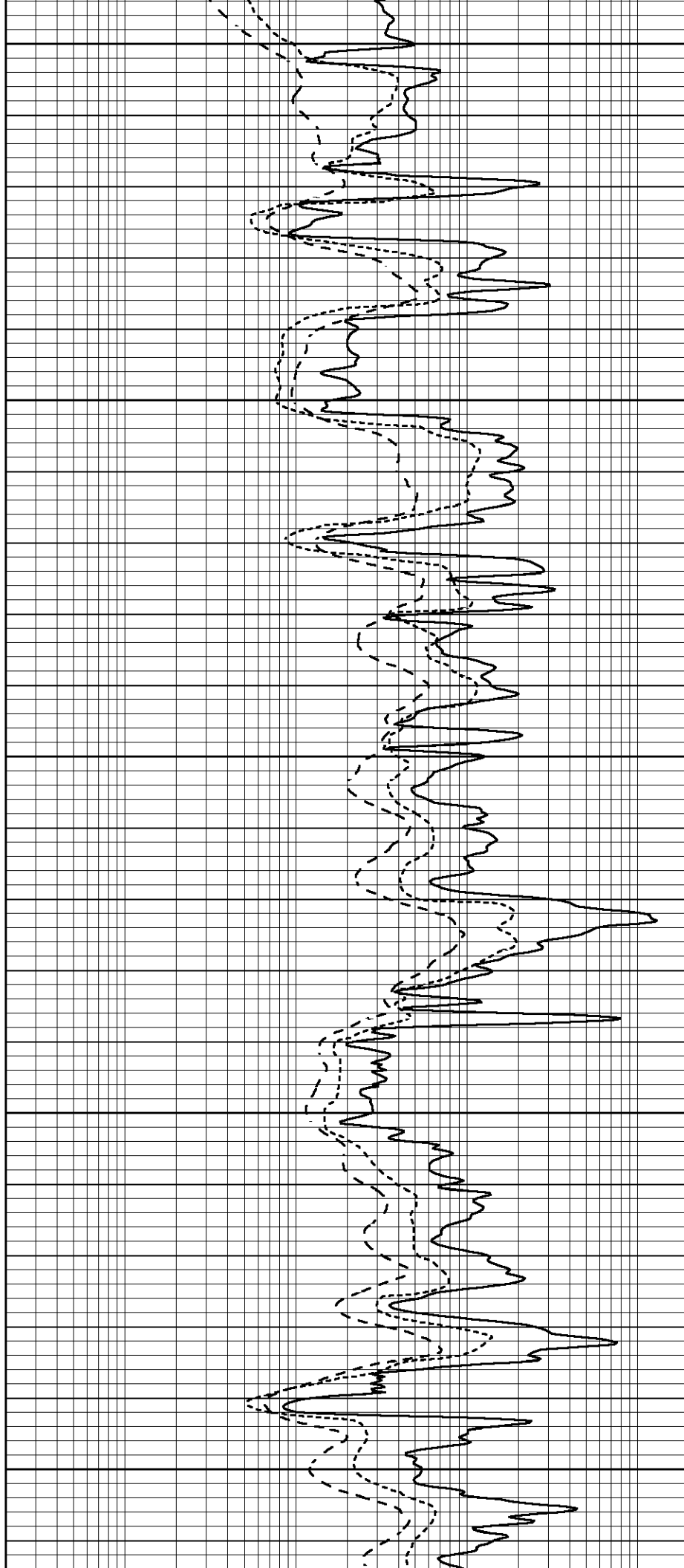
3950

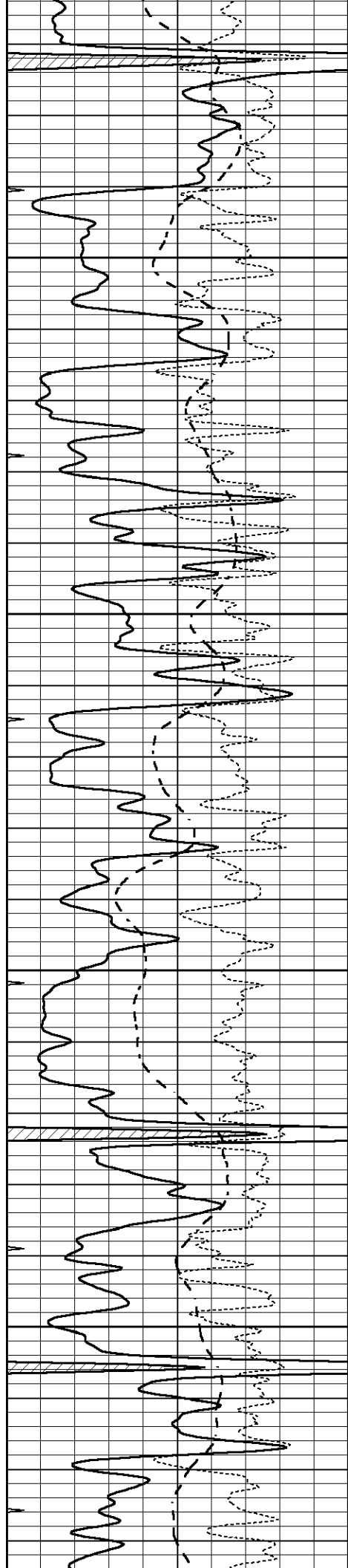
4000

4050

4100

4150



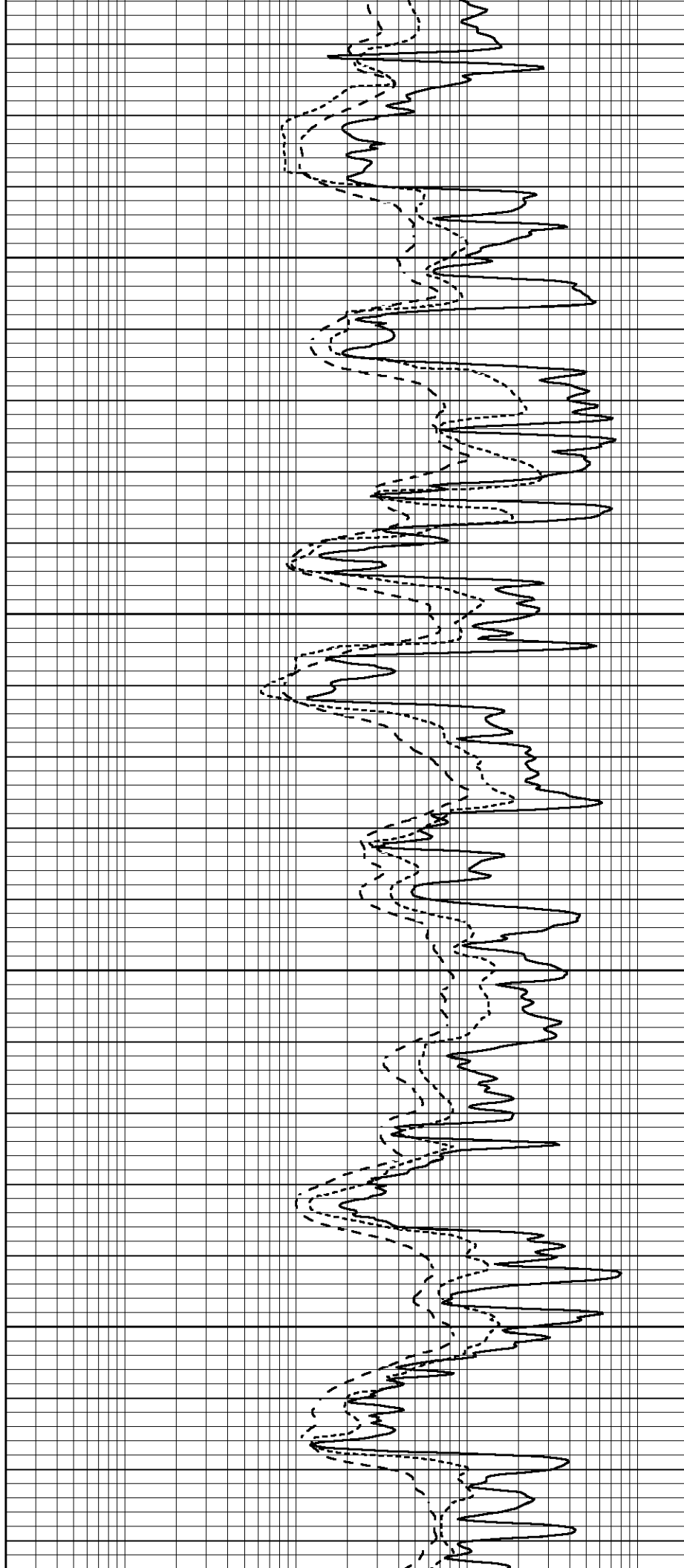


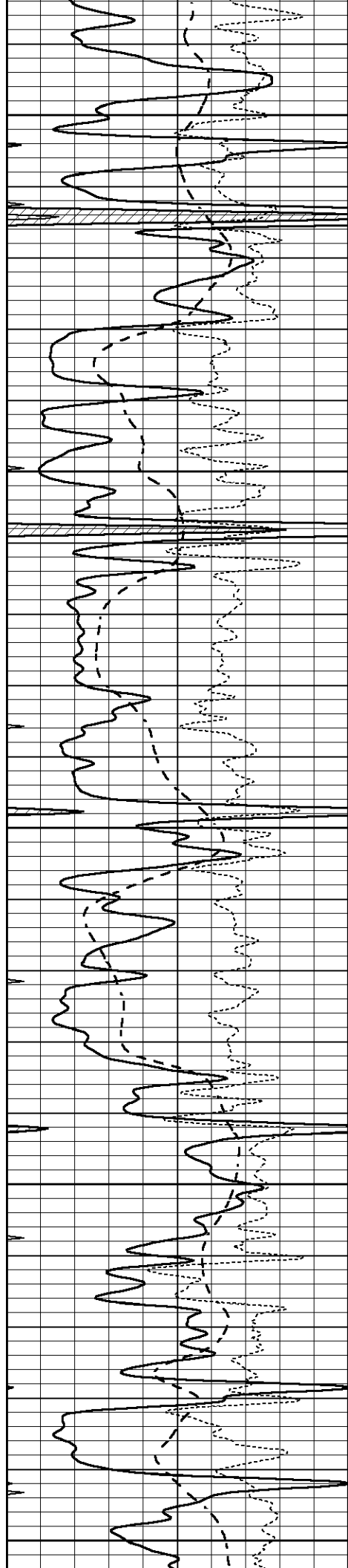
4200

4250

4300

4350





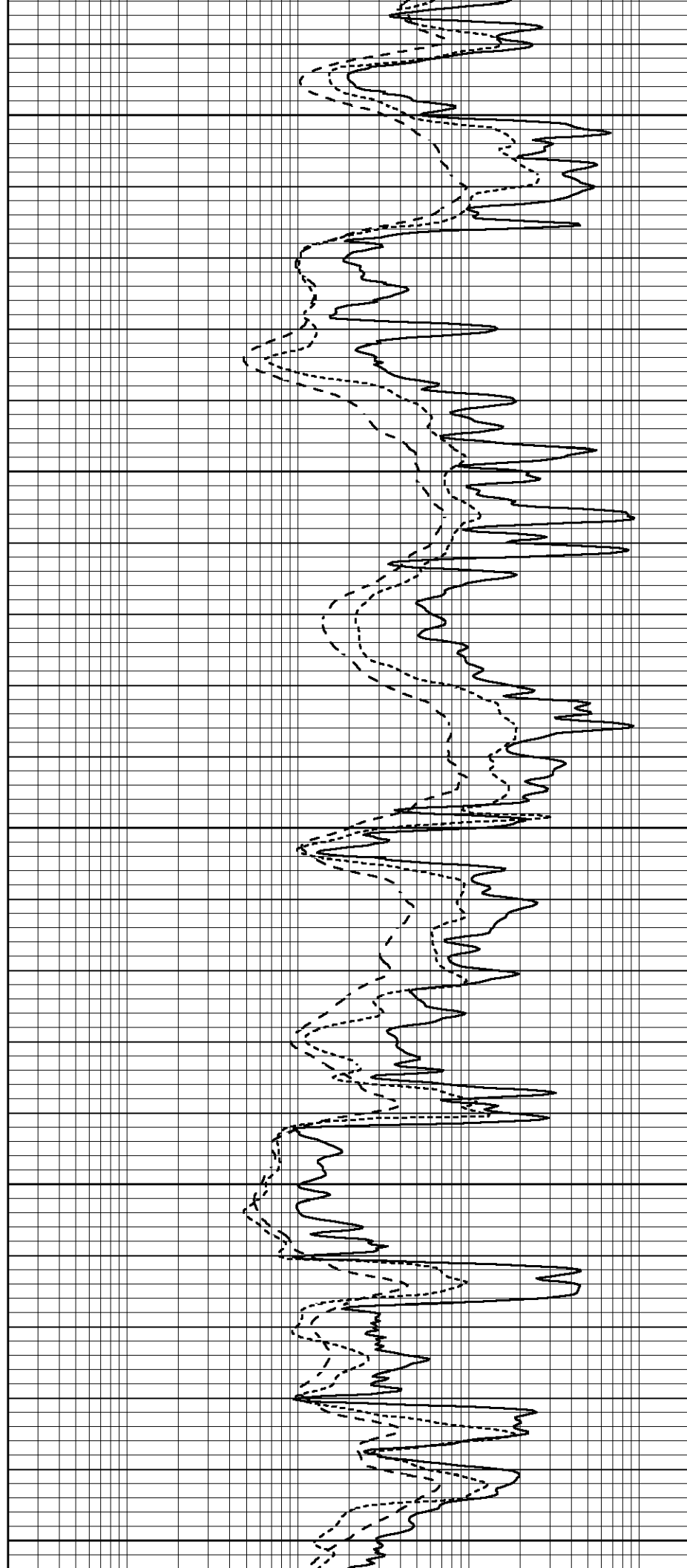
4400

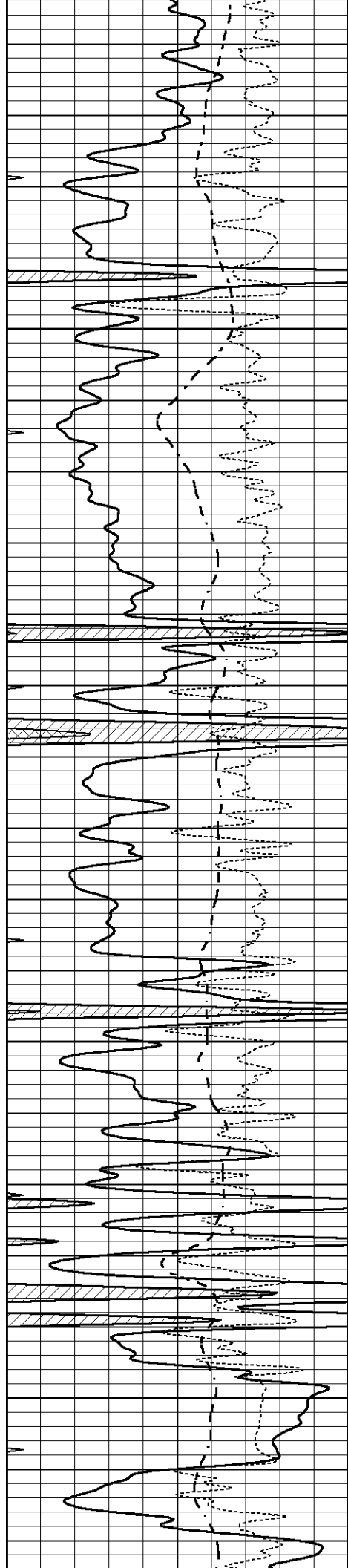
4450

4500

4550

4600



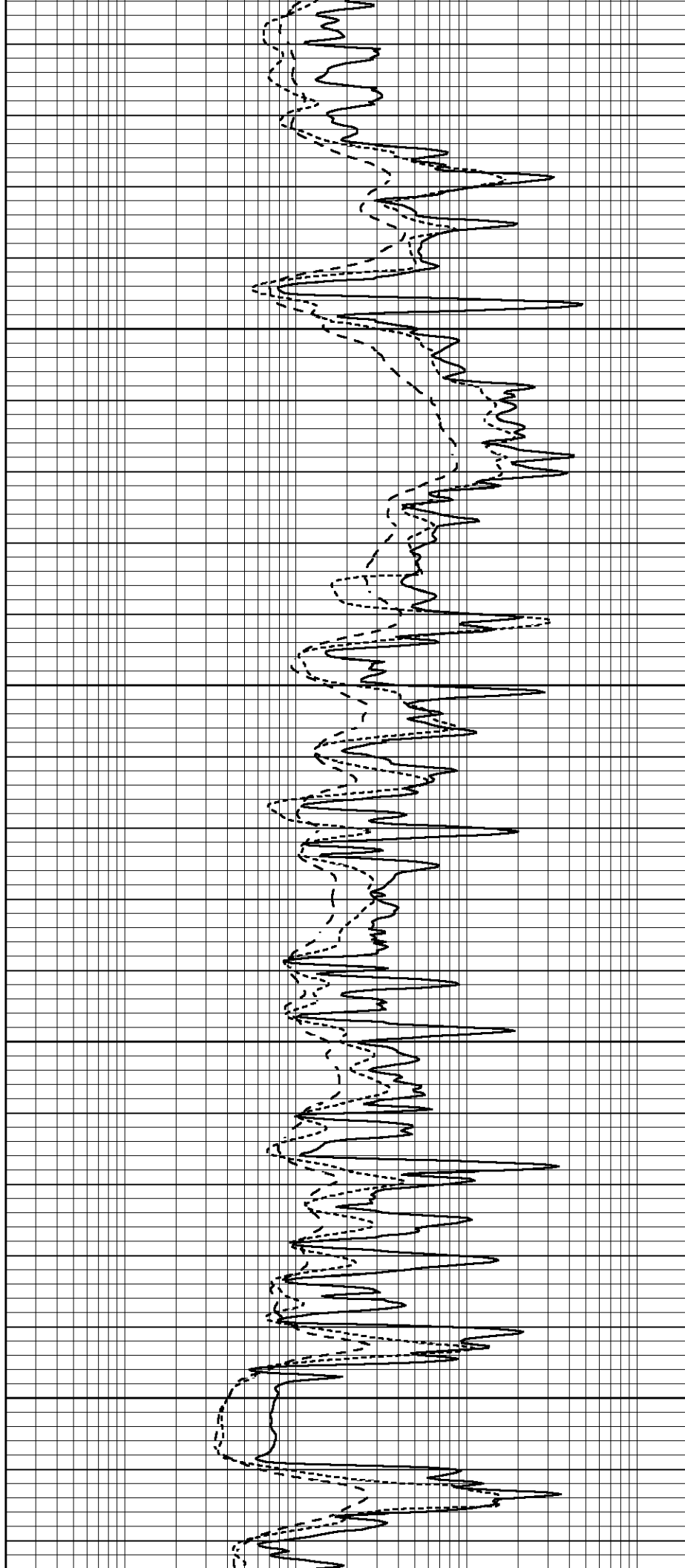


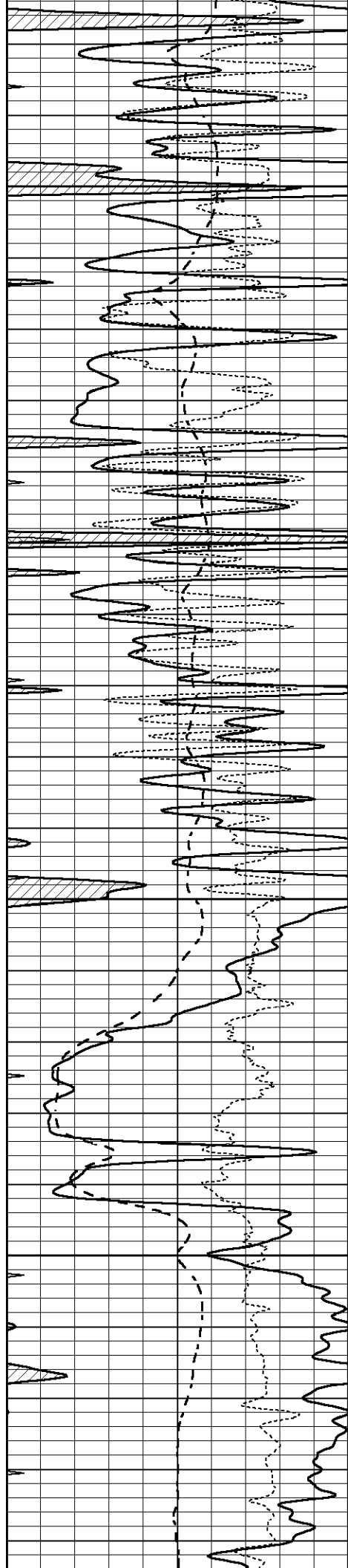
4650

4700

4750

4800



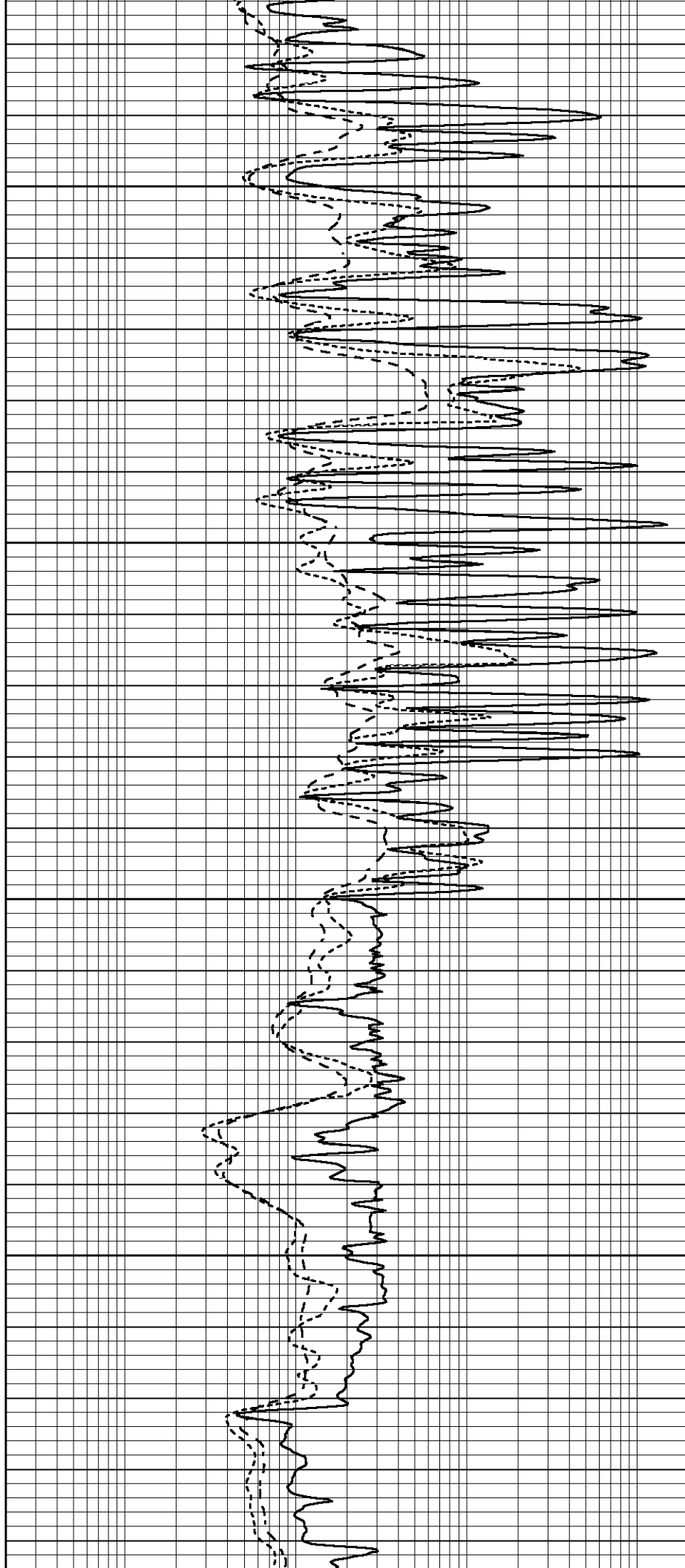


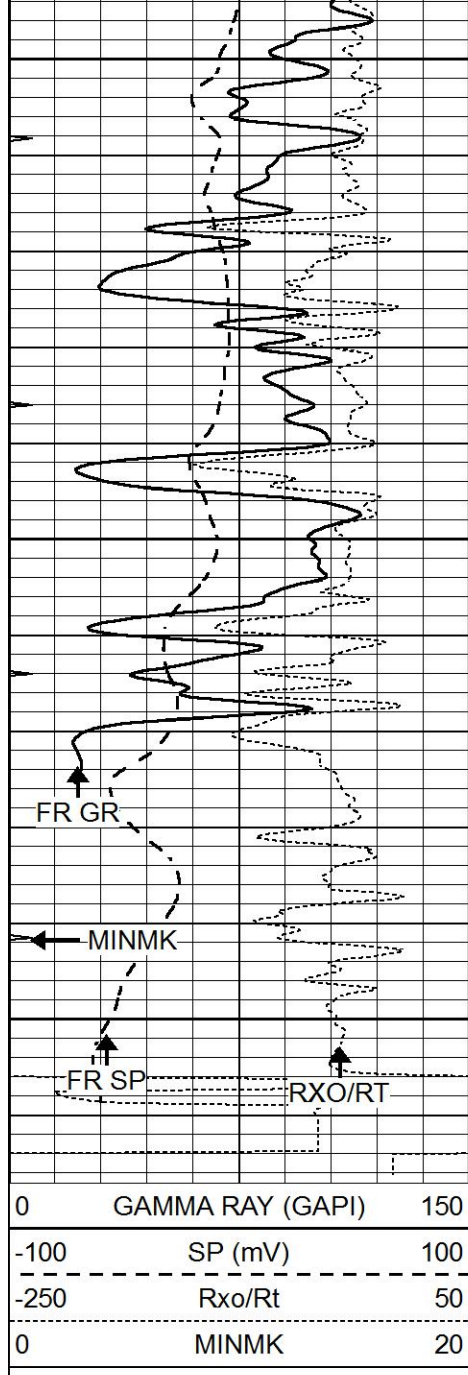
4850

4900

4950

5000



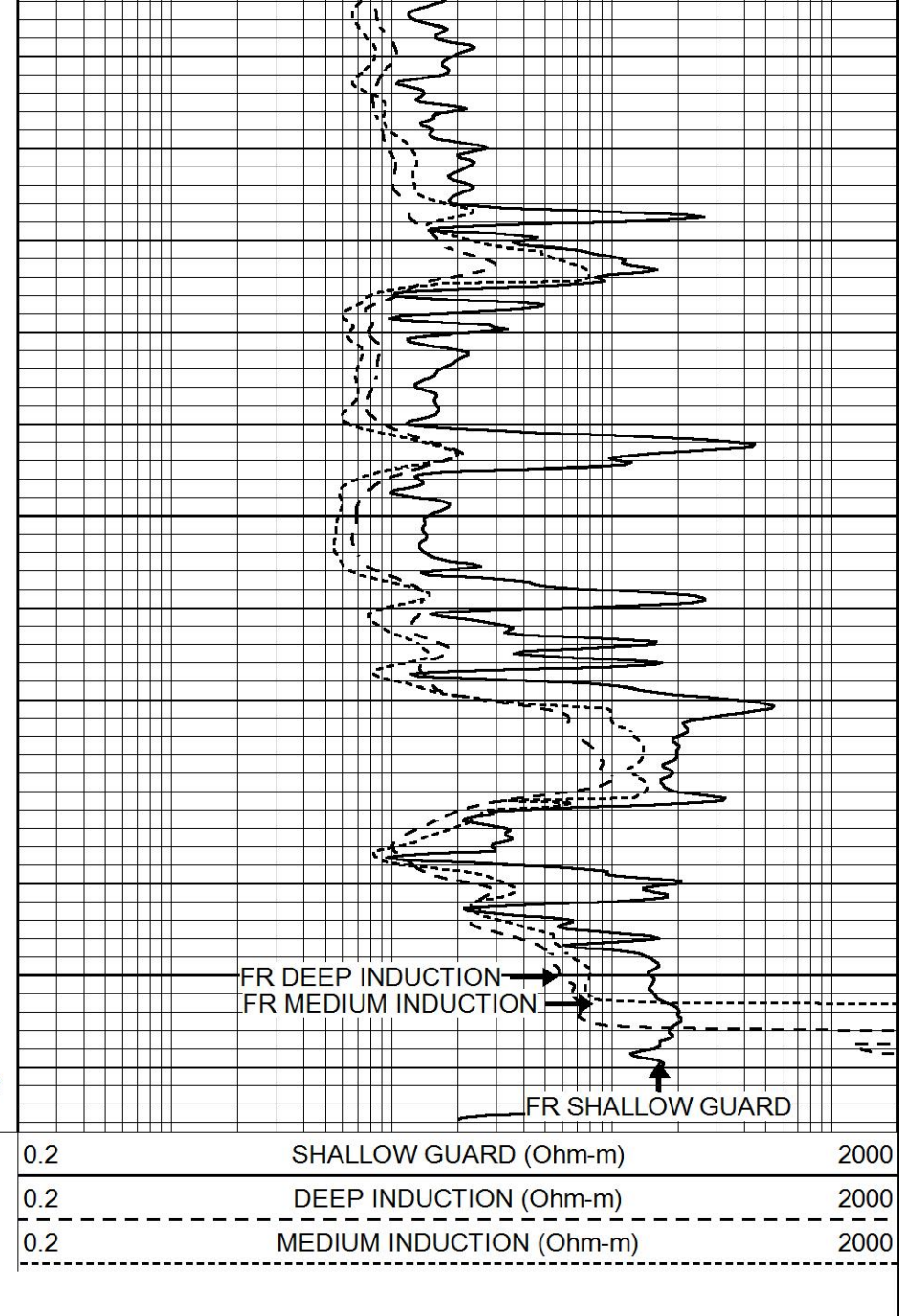


5050

5100

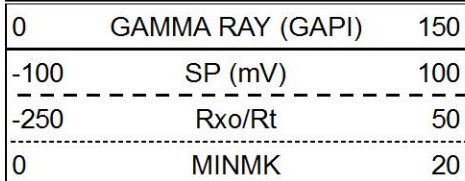
5150

LTD 5162

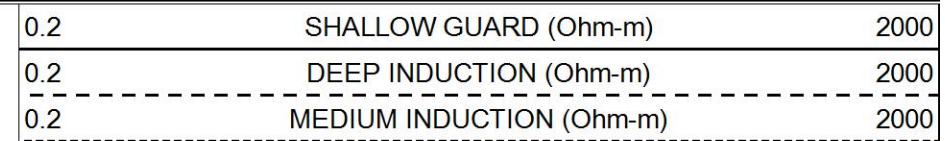


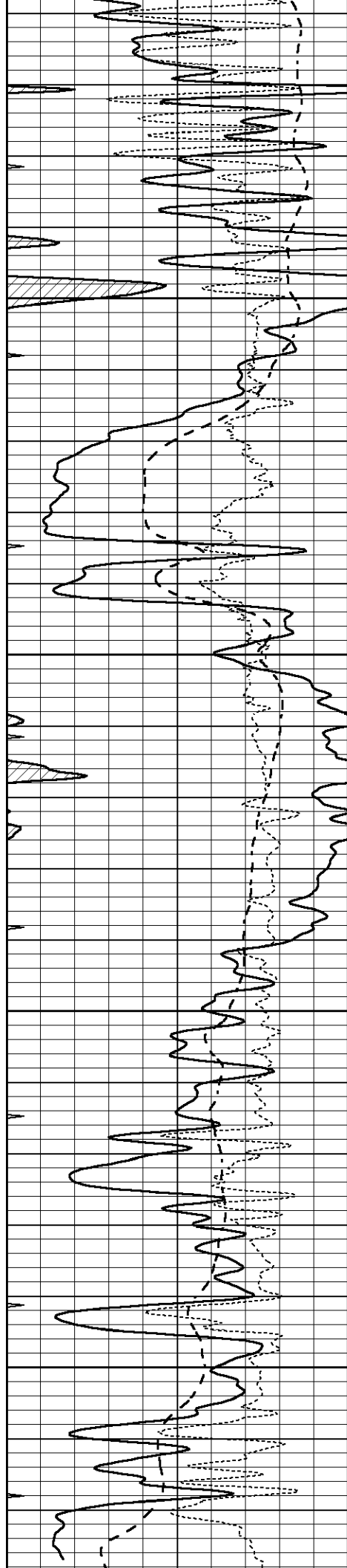
REPEAT SECTION

Database File 4542pe.db
 Dataset Pathname pass2.9R
 Presentation Format _dil
 Dataset Creation Tue May 26 22:46:23 2020
 Charted by Depth in Feet scaled 1:240



4900



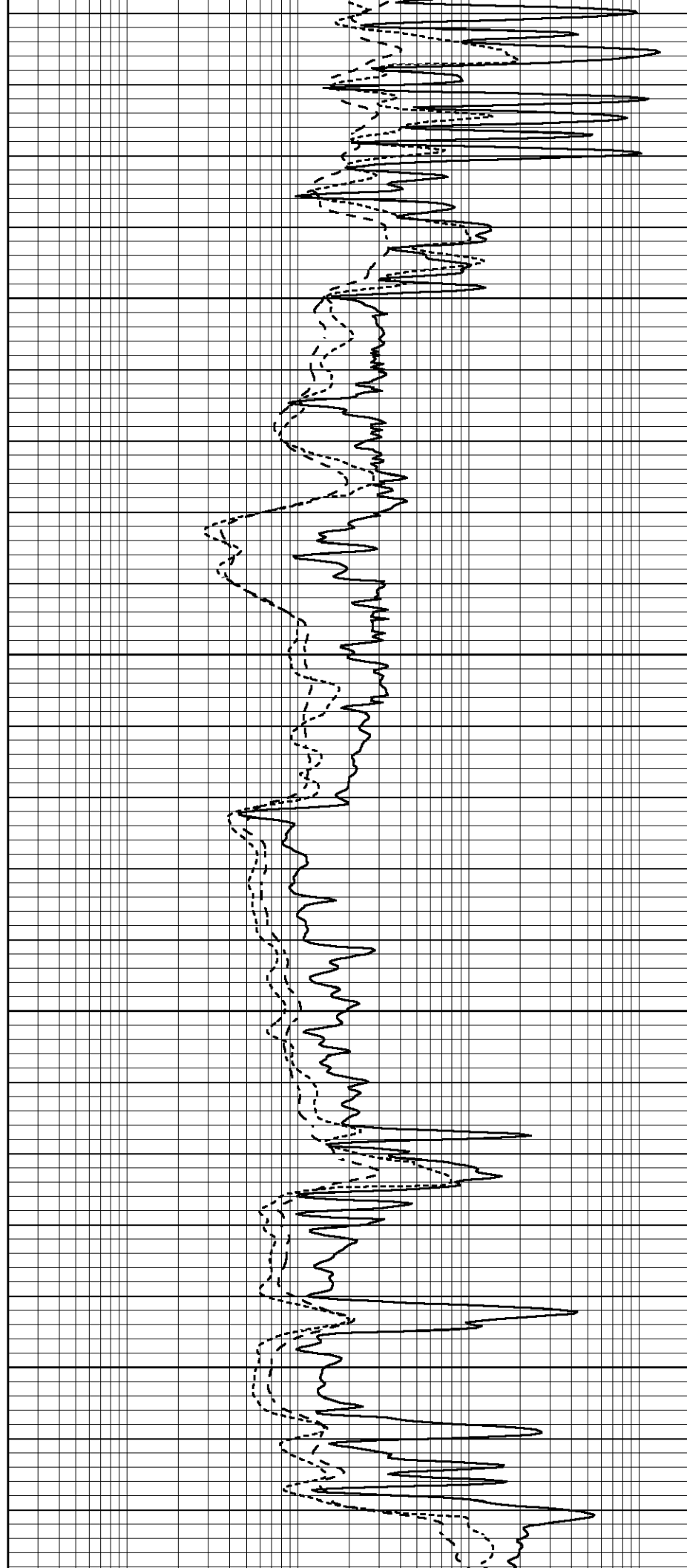


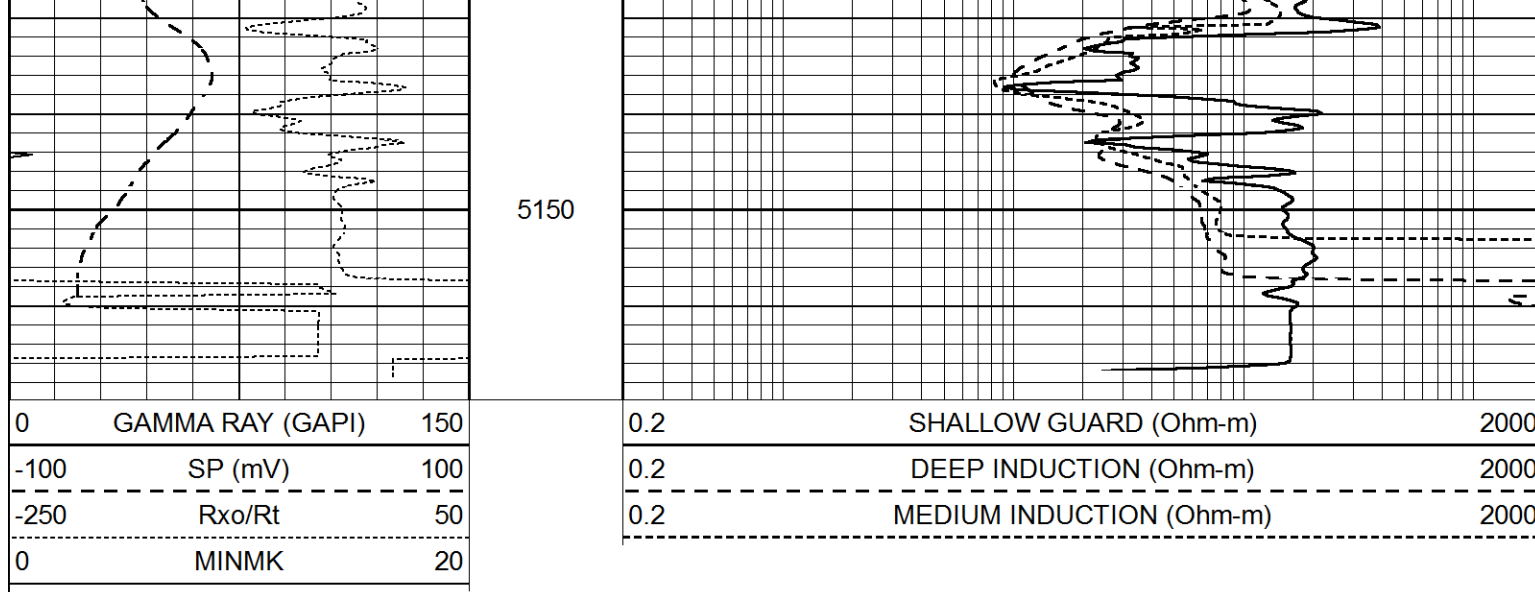
4950

5000

5050

5100





Calibration Report									
Database File	4542pe.db								
Dataset Pathname	pass3.3M								
Dataset Creation	Tue May 26 22:38:27 2020								
Dual Induction Calibration Report									
Serial-Model:				PROBE7-DILG					
Surface Cal Performed:				Tue May 26 20:02:33 2020					
Downhole Cal Performed:				Thu Mar 12 11:45:10 2020					
After Survey Verification Performed:				Thu Mar 12 11:45:00 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	620.000	-8.000	
Medium	0.039	0.728	V	0.000	464.000	mmho/m	675.000	-54.000	
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	0.000	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			
		0.000	mmho-m		4000.000	mmho-m			

Litho Density Calibration Report
Serial: 004 Model: PRB

Master Calibration

Performed Mon May 11 10:45:58 2020

	Background	Magnesium	Aluminum	Aluminum+Fe	
Window 1	1199.7	10039.4	3208.4	2838.9	cps
Window 2	1096.3	8590.5	2806.1	2527.9	cps
Window 3	934.1	5176.2	1855.7	1739.5	cps
Window 4	267.0	271.6	264.8	264.9	cps
Long Space	0.0	7494.2	1709.8	1431.6	cps
Short Space	1.1	1784.3	1183.7	971.1	cps
Rho		1.7100	2.5900	0.0000	g/cc
Pe		2.0000	2.7500	5.7900	
Rib Angle	: 44.5	Rib Slope	: 0.982	Density/Spine Ratio	: 0.574
Spine Angle	: 74.5	Spine Slope	: 3.601	Spine Intercept	: -18.0

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:	Wed Jul 03 10:25:53 2019	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	0.3000	GAPI/cps