



**COMPLETION
& PRODUCTION
SERVICES CO.**

**DUAL INDUCTION
LOG**

Company SPECIAL ENERGY CORPORATION
Well HXP #4
Field CHURCHVIEW
County EDWARDS
State KANSAS

Company SPECIAL ENERGY CORPORATION
Well HXP #4
Field CHURCHVIEW
County EDWARDS State KANSAS

Location: API # : 15-047-21649-0000
3795' FSL & 2310' FWL
N/2 - NE - SE - NW
SEC 20 TWP 23S RGE 19W
Permanent Datum GROUND LEVEL Elevation 2240
Log Measured From KELLY BUSHING 11' A.G.L.
Drilling Measured From KELLY BUSHING
Other Services
CDL/CNL/PE
MEL
Elevation
K.B. 2251
D.F. 2249
G.L. 2240

Date	10/6/14
Run Number	ONE
Depth Driller	4775
Depth Logger	4765
Bottom Logged Interval	4763
Top Log Interval	00
Casing Driller	8 5/8"@860'
Casing Logger	856
Bit Size	7 7/8"
Type Fluid in Hole	CHEMICAL MUD
Density / Viscosity	9.2/50
pH / Fluid Loss	9.5/10.0
Source of Sample	FLOWLINE
Rim @ Meas. Temp	.650@86F
Rmf @ Meas. Temp	.488@86F
Rmc @ Meas. Temp	.780@86F
Source of Rmf / Rmc	MEASUREMENT
Rim @ BHT	.454@123F
Time Circulation Stopped	3 HOURS
Time Logger on Bottom	9:15 P.M.
Maximum Recorded Temperature	123F
Equipment Number	4854
Location	HAYS, KANSAS
Recorded By	JEFF LUEBBERS
Witnessed By	ROD ANDERSEN
	GEORGE UTLEY

<<< 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 "NABORS" HAYS, KANSAS (785) 628-6395
DIRECTIONS
ROZEL, KS. (156 & 280TH AVE.), 10S. TO "RD. D", 1 1/2W., S. INTO



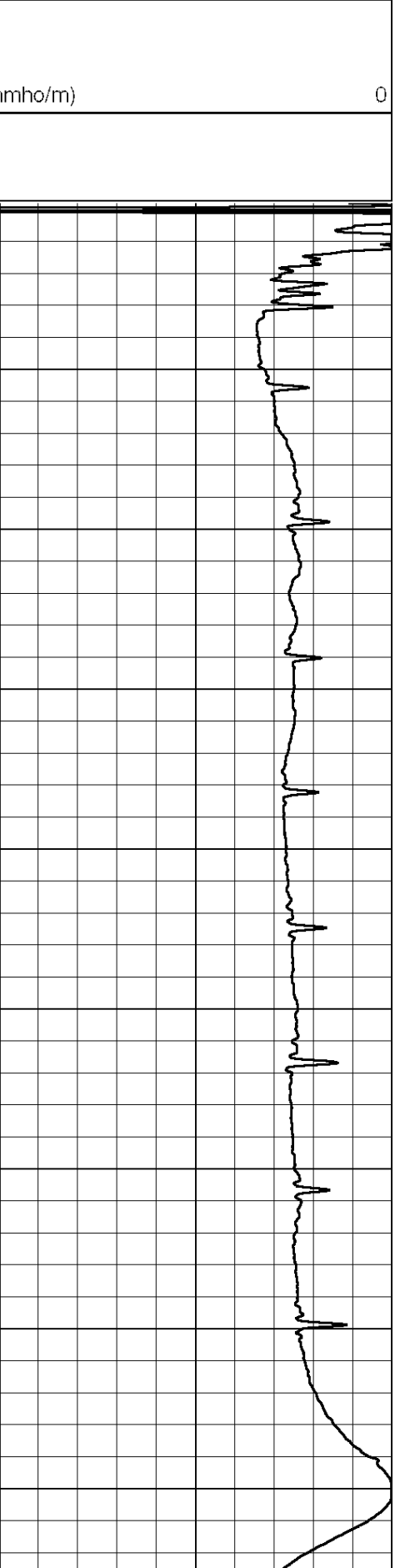
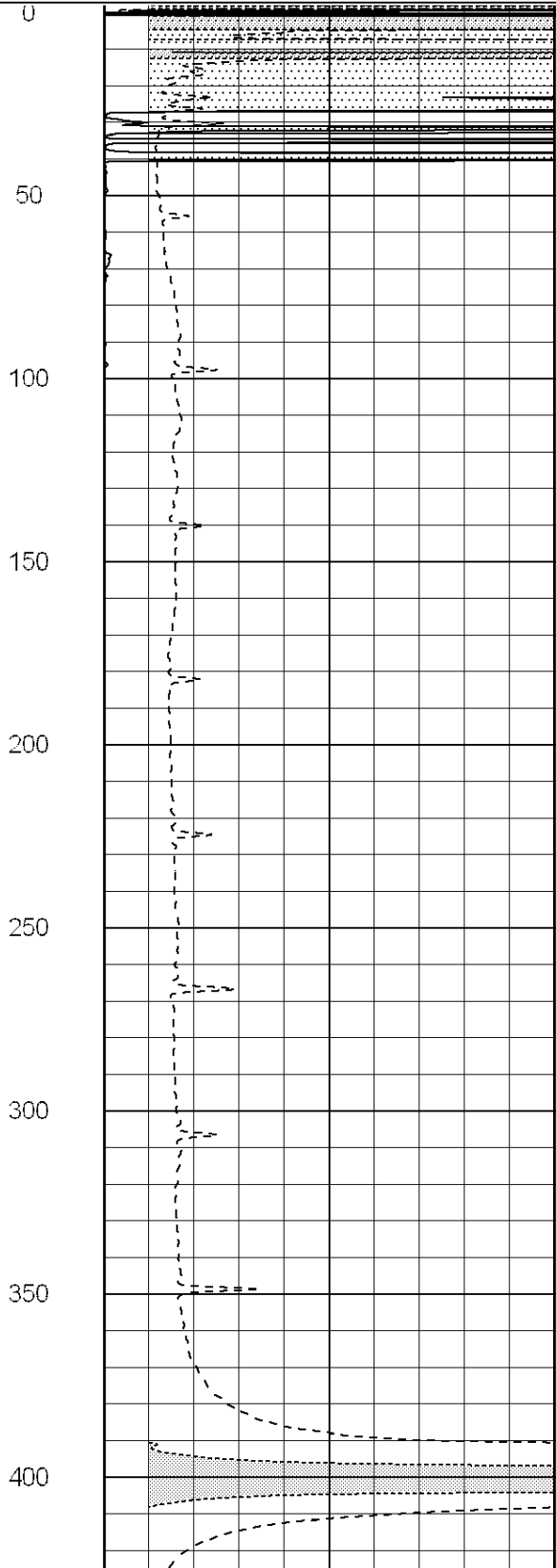
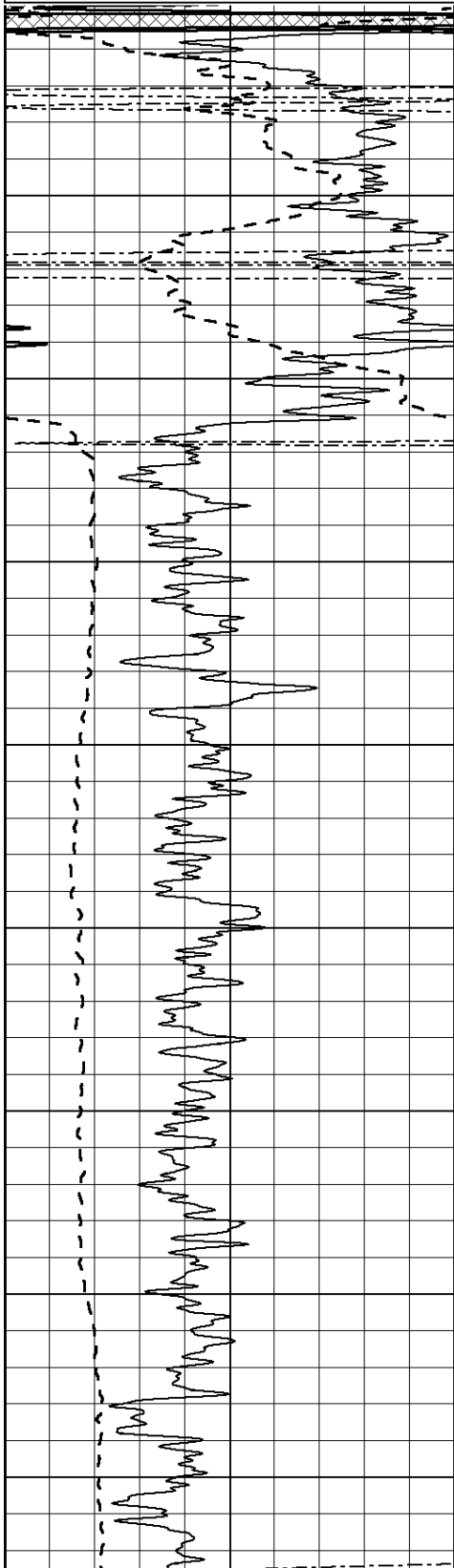
MAIN SECTION

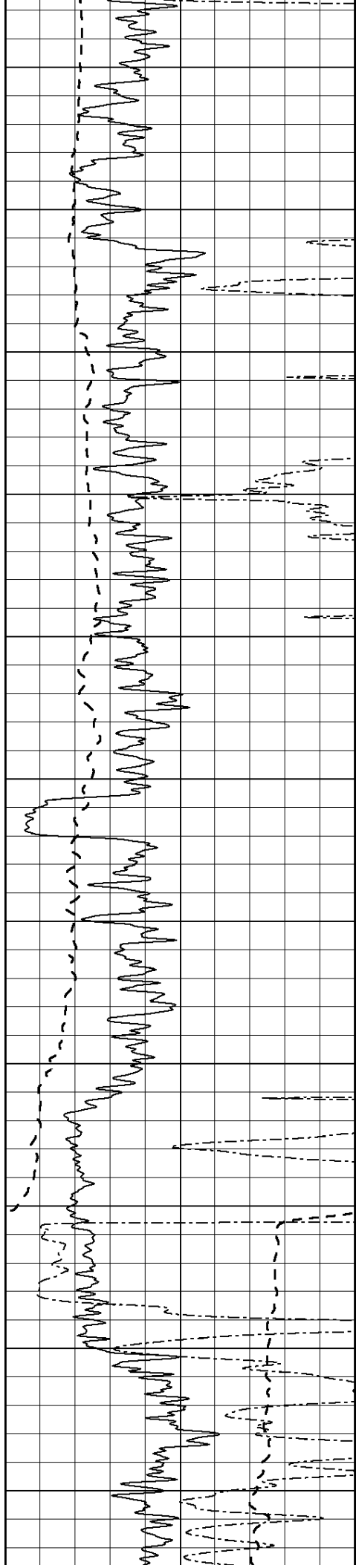
Database File: 25891pe.db
 Dataset Pathname: pass4.7
 Presentation Format: dil2
 Dataset Creation: Mon Oct 06 23:23:19 2014 by Calc SOC 120430
 Charted by: Depth in Feet scaled 1:600

0	Gamma Ray (GAPI)	150
-100	SP (mV)	100
0	RWA (Ohm-m)	1

0	RLL3 (Ohm-m)	50
0	RILD (Ohm-m)	50
1000	CILD (mmho/m)	0

50	RILD X10 (Ohm-m)	500
50	RLL3 X10 (Ohm-m)	500





450

500

550

600

650

700

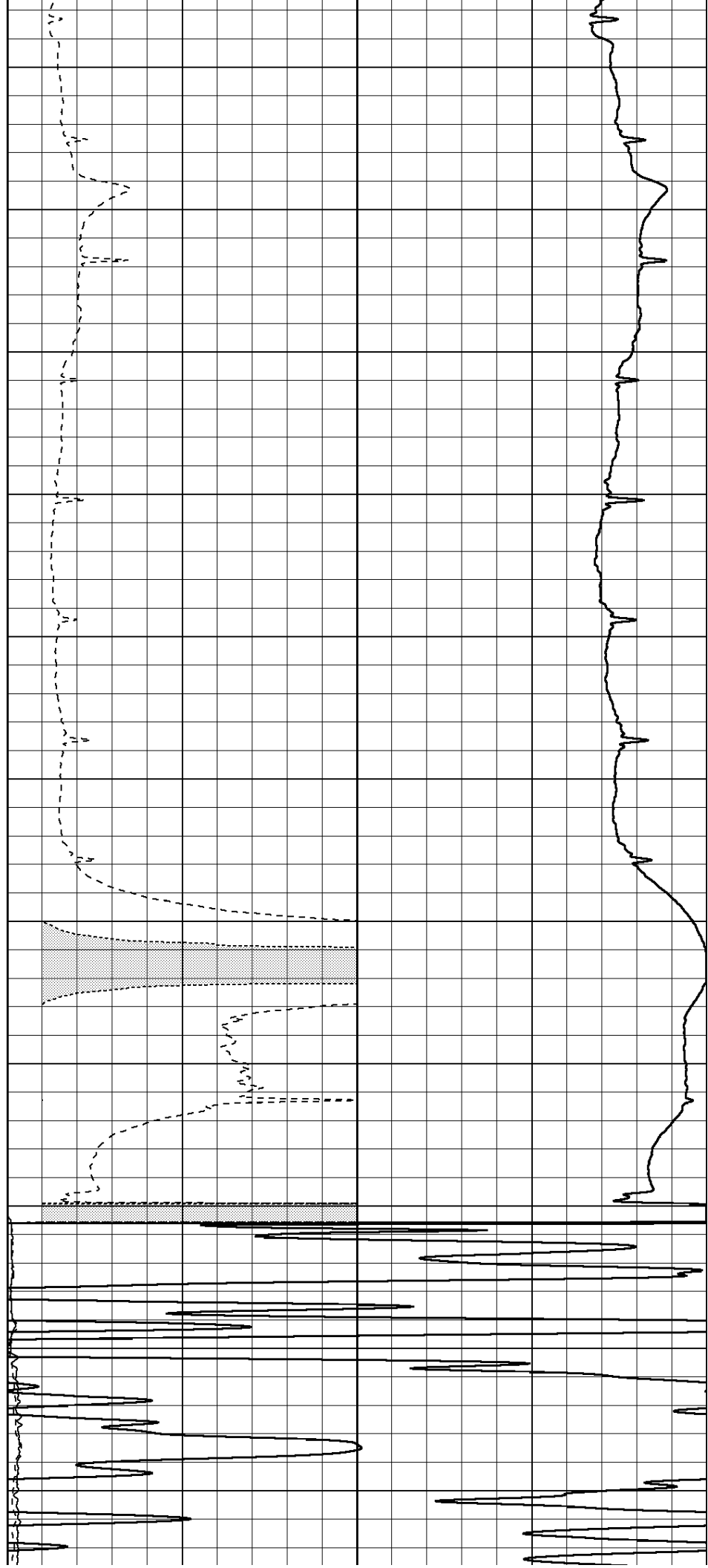
750

800

850

900

950



450

500

550

600

650

700

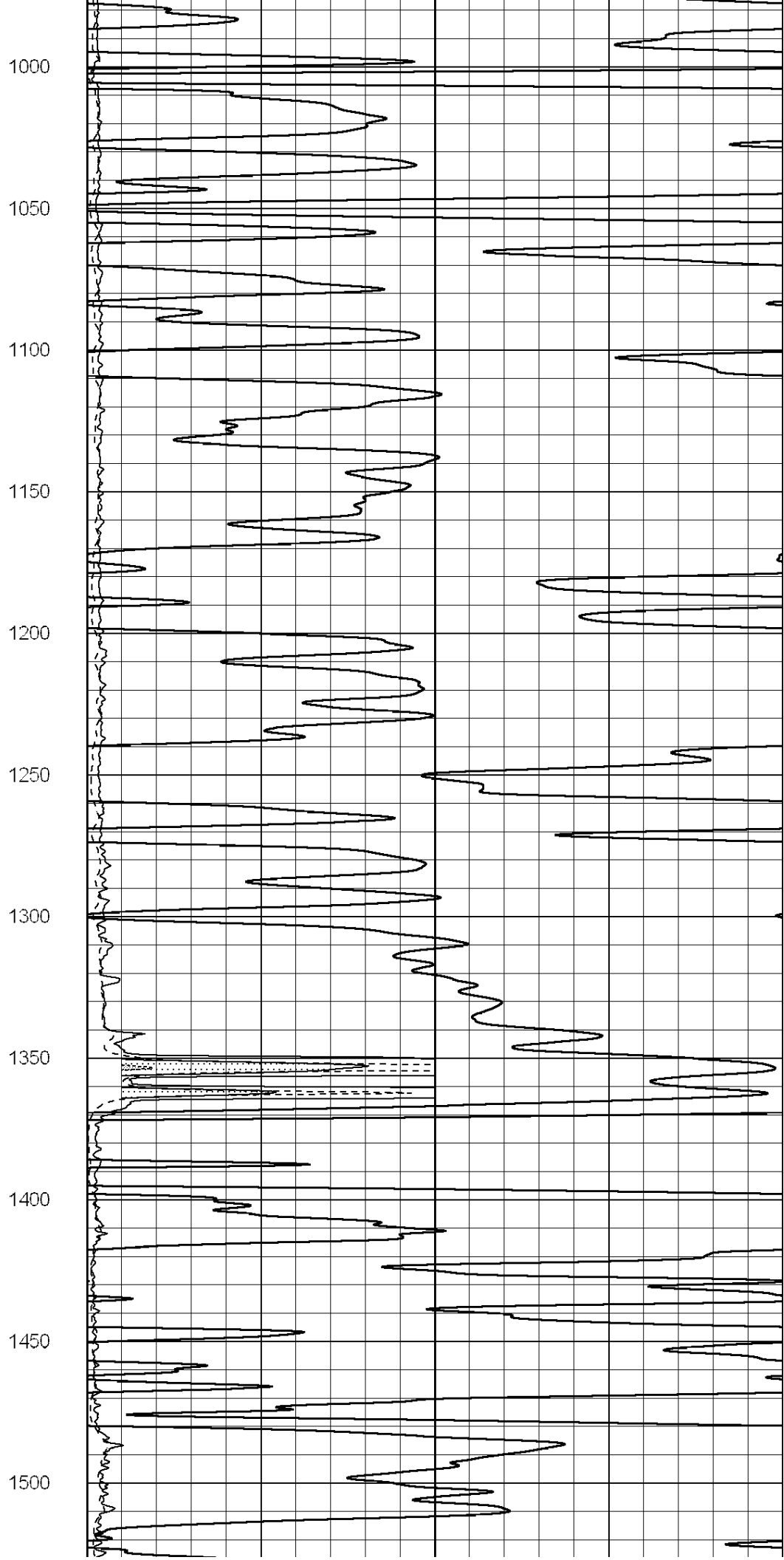
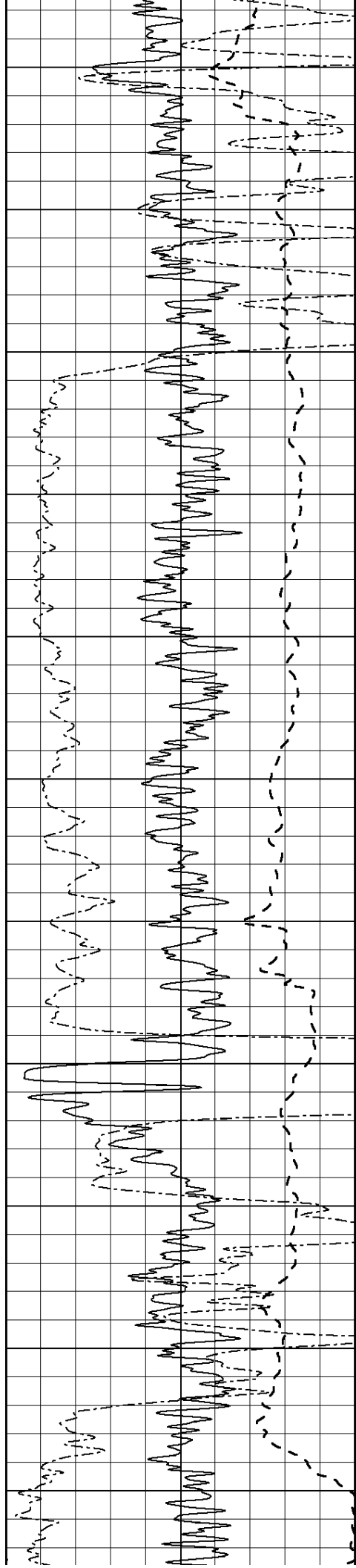
750

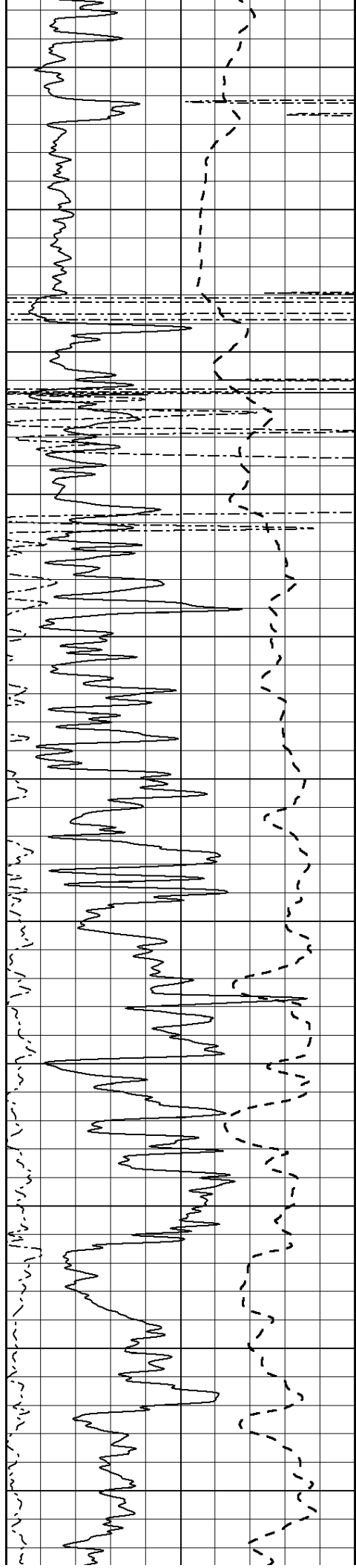
800

850

900

950





2100

2150

2200

2250

2300

2350

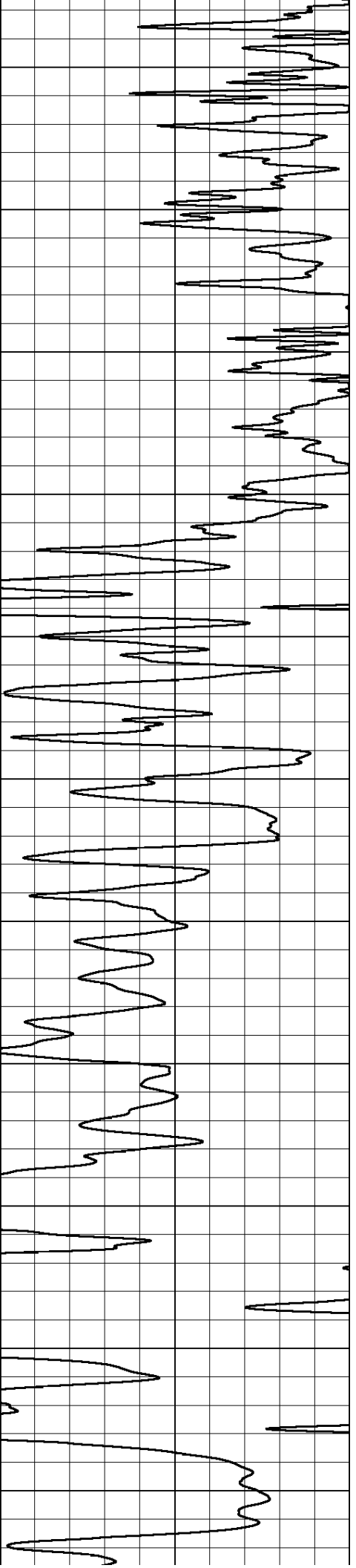
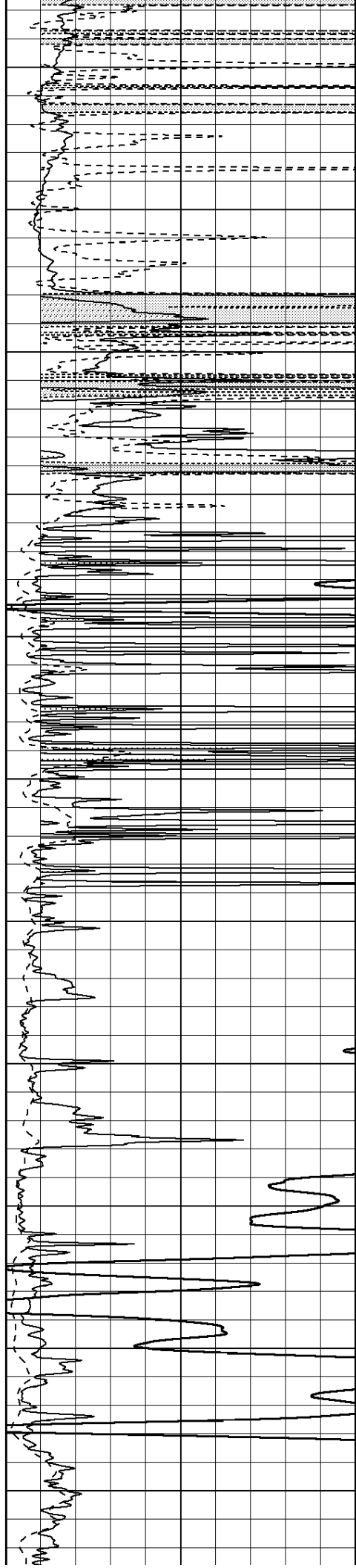
2400

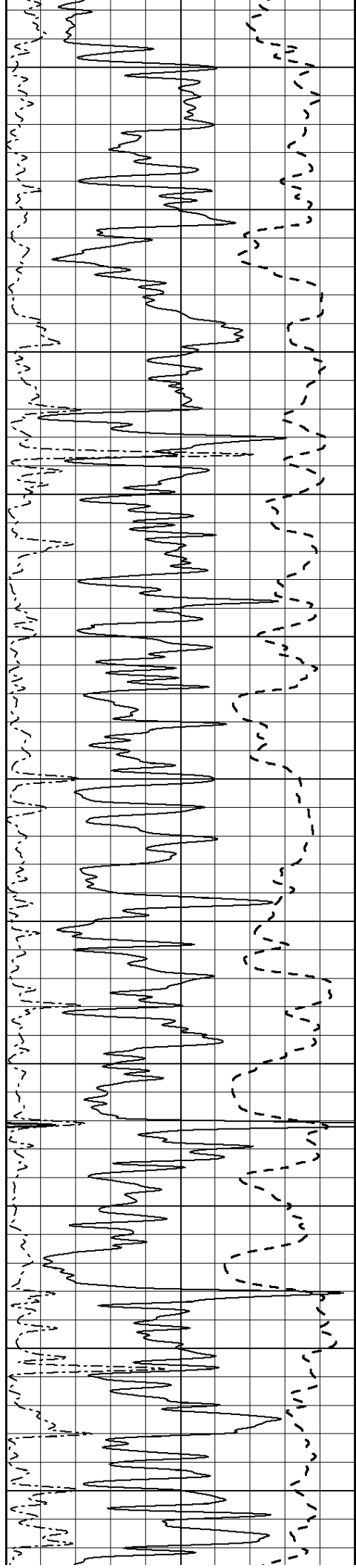
2450

2500

2550

2600





2650

2700

2750

2800

2850

2900

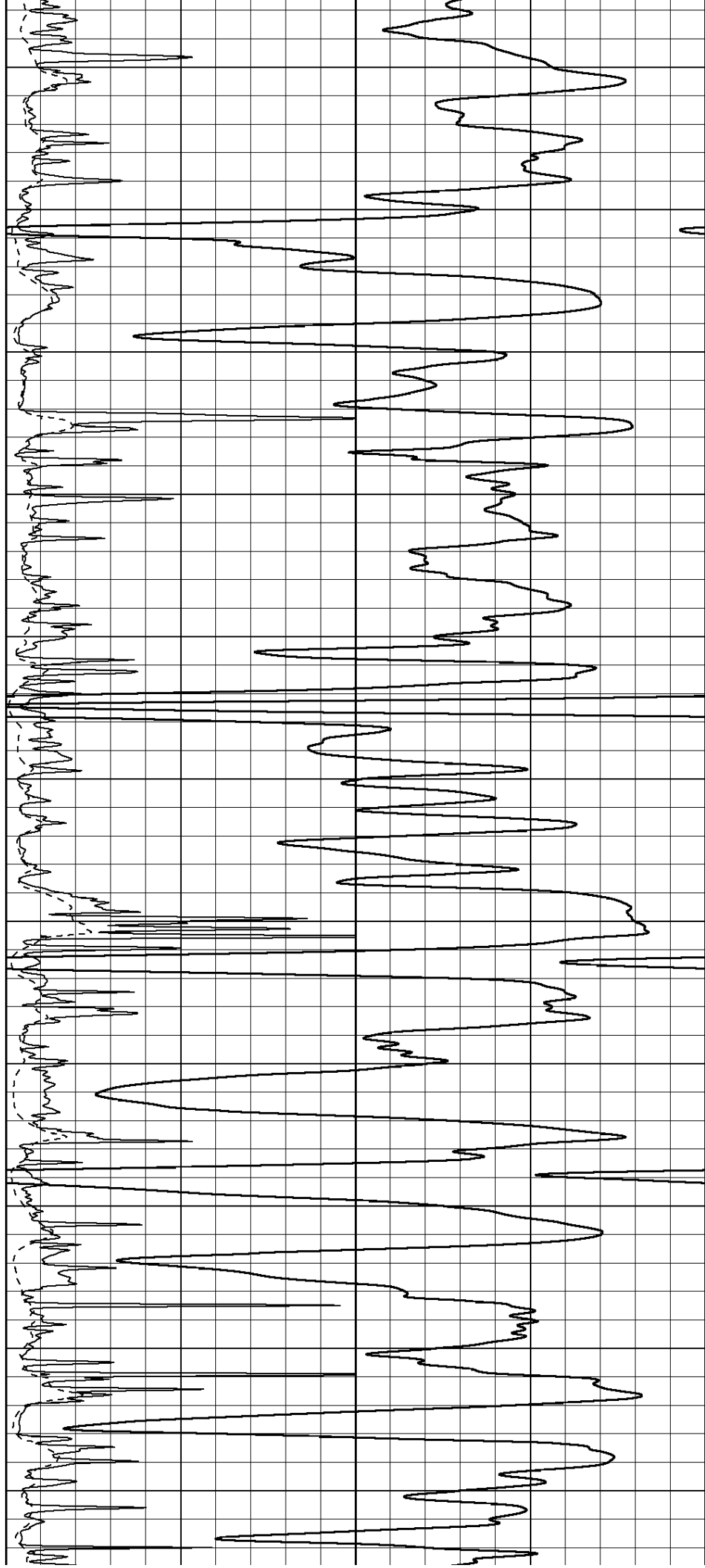
2950

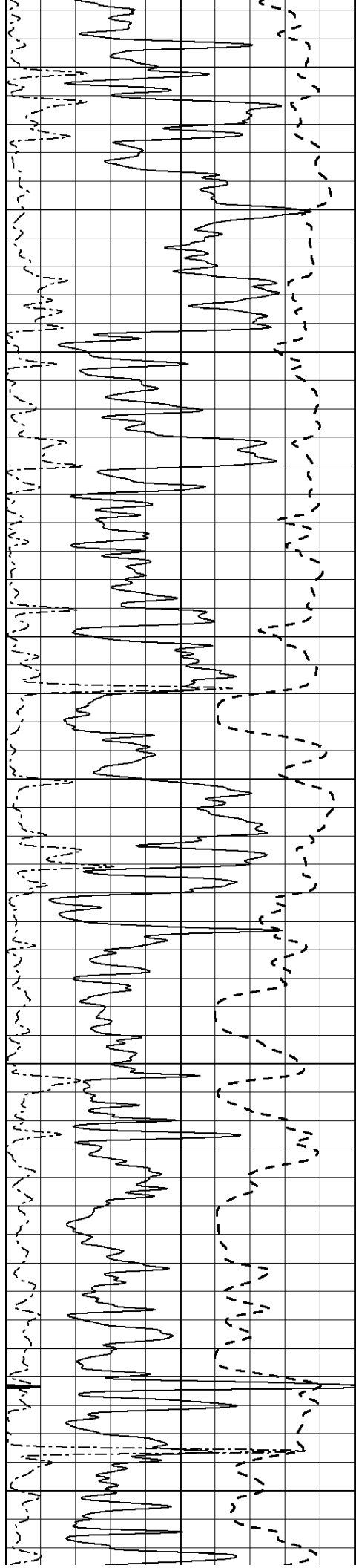
3000

3050

3100

3150





3200

3250

3300

3350

3400

3450

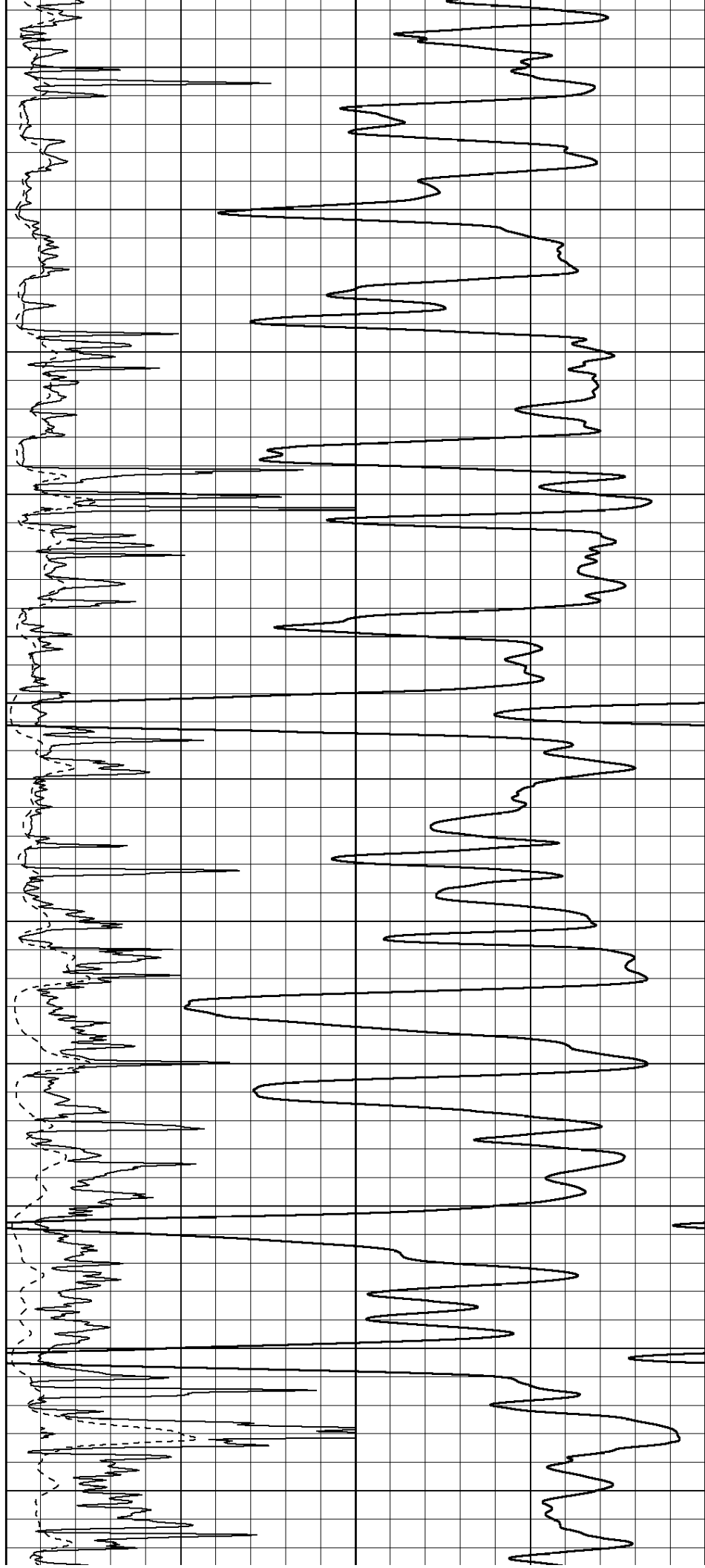
3500

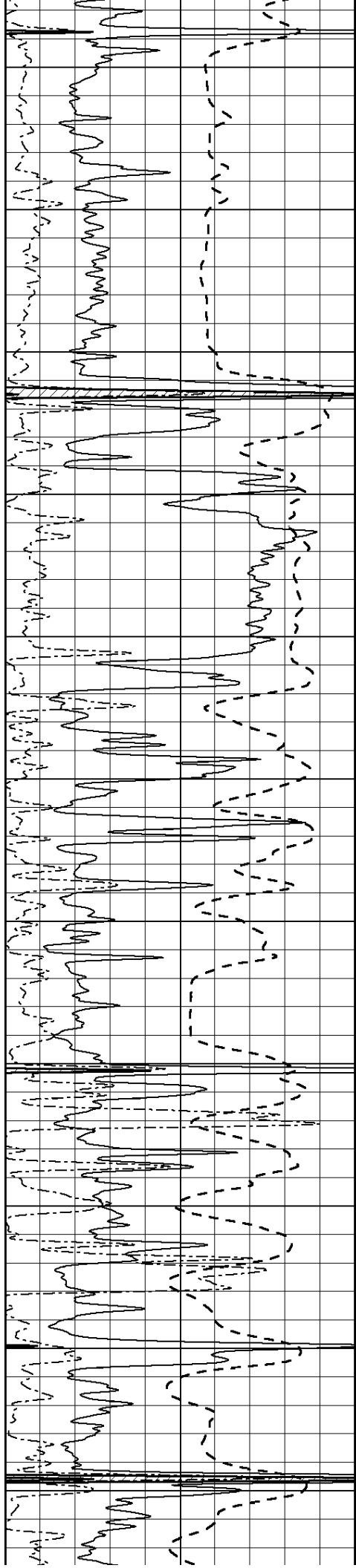
3550

3600

3650

3700





3750

3800

3850

3900

3950

4000

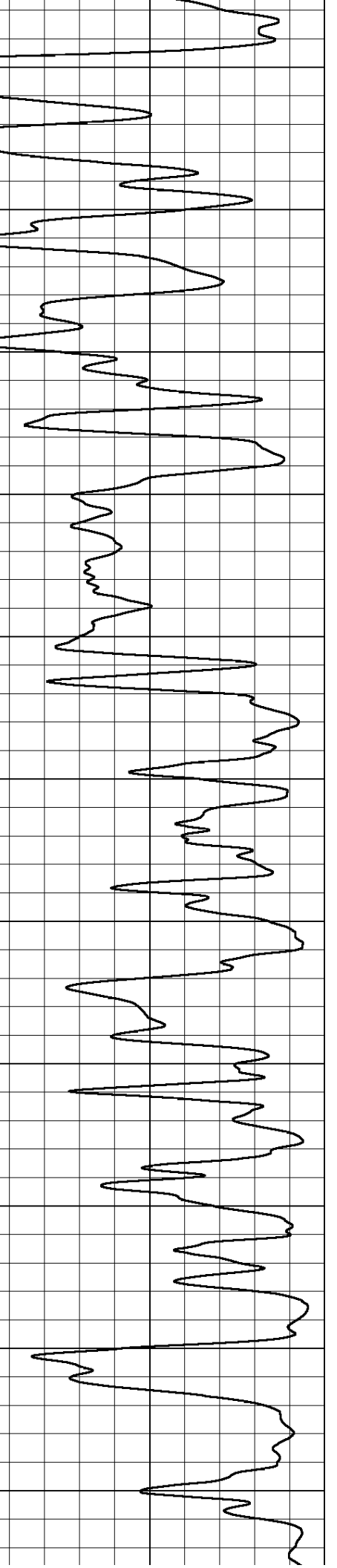
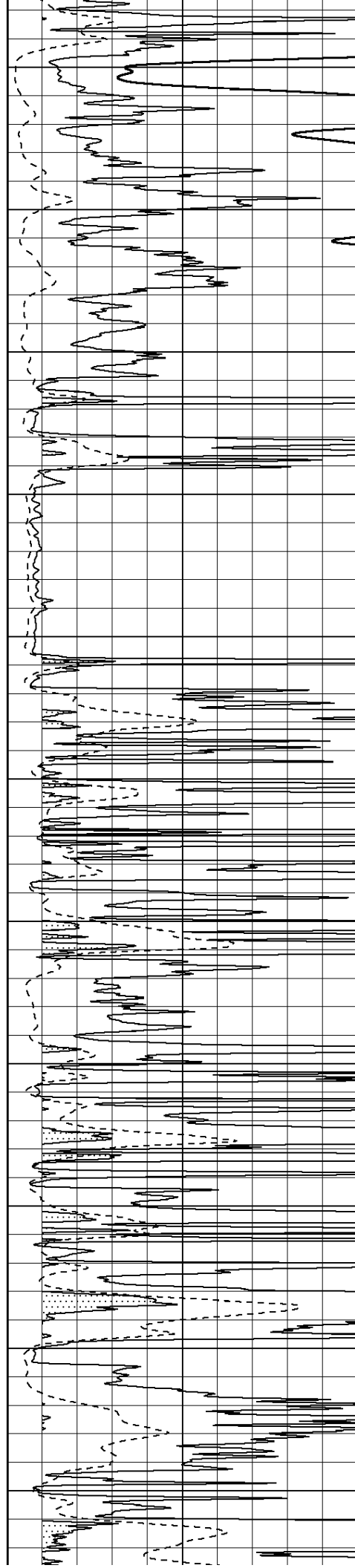
4050

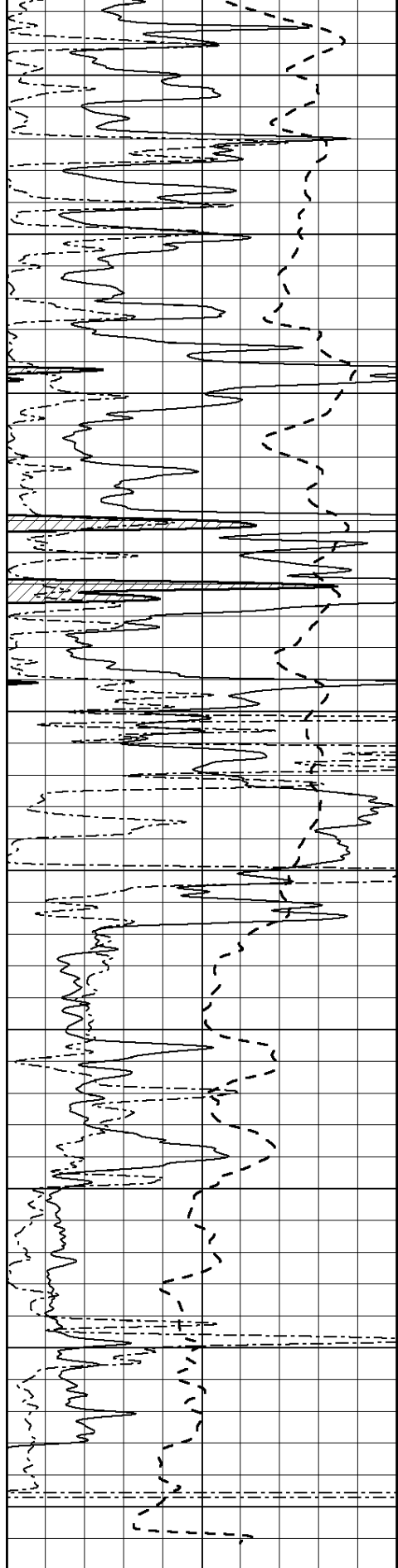
4100

4150

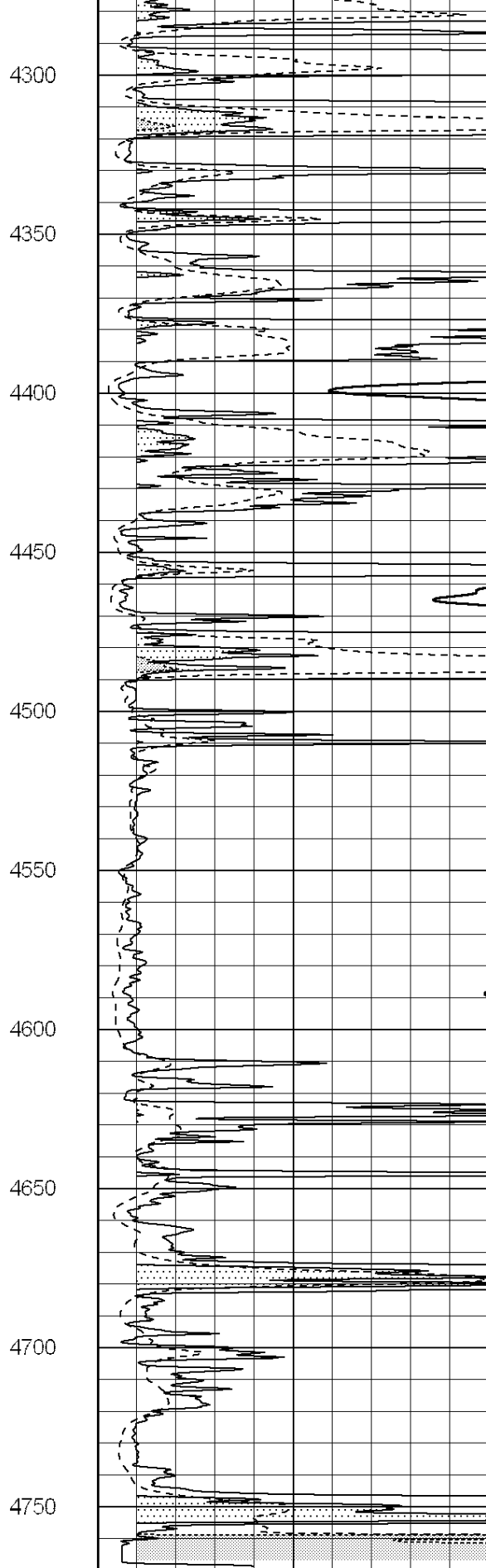
4200

4250



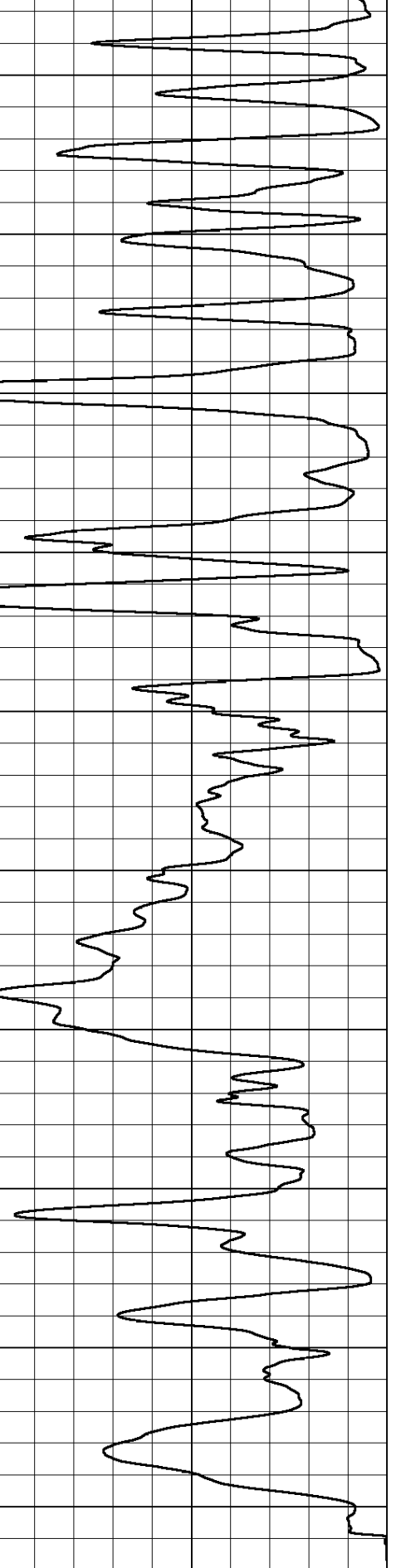


0	Gamma Ray (GAPI)	150
-100	SP (mV)	100
0	RWA (Ohm-m)	1



0	RLL3 (Ohm-m)	50
0	RILD (Ohm-m)	50
1000	CILD (mmho/m)	0

50	RILD X10 (Ohm-m)	500
50	RLL3 X10 (Ohm-m)	500





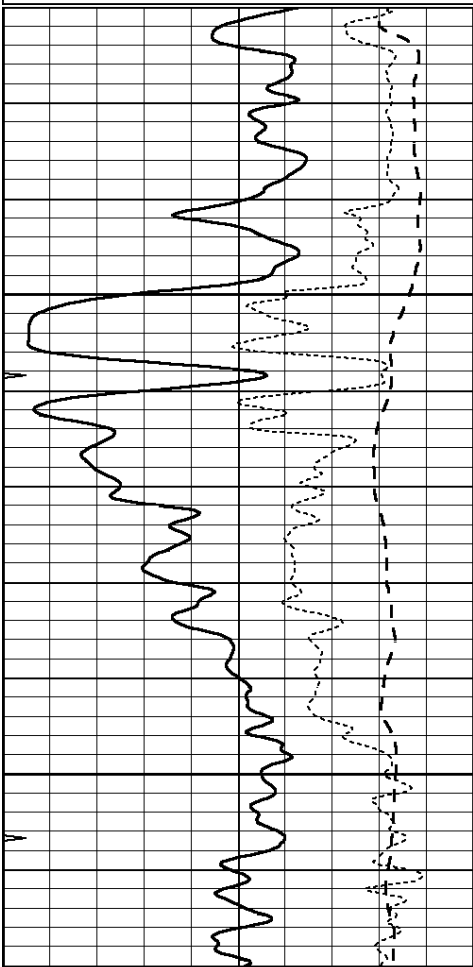
**COMPLETION
& PRODUCTION
SERVICES CO.**

ANHYDRITE

Database File: 25891pe.db
 Dataset Pathname: pass4.8
 Presentation Format: _dil
 Dataset Creation: Mon Oct 06 23:24:58 2014 by Calc SOC 120430
 Charted by: Depth in Feet scaled 1:240

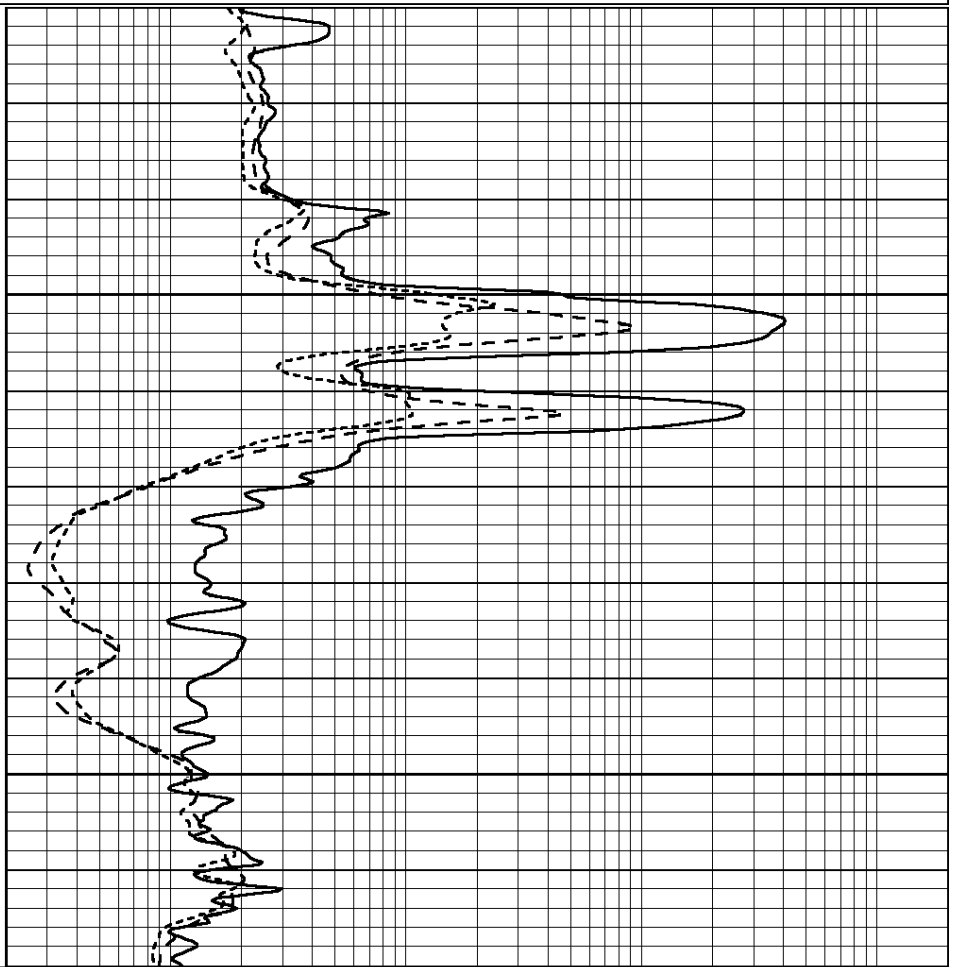
0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	20

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



1350

1400



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



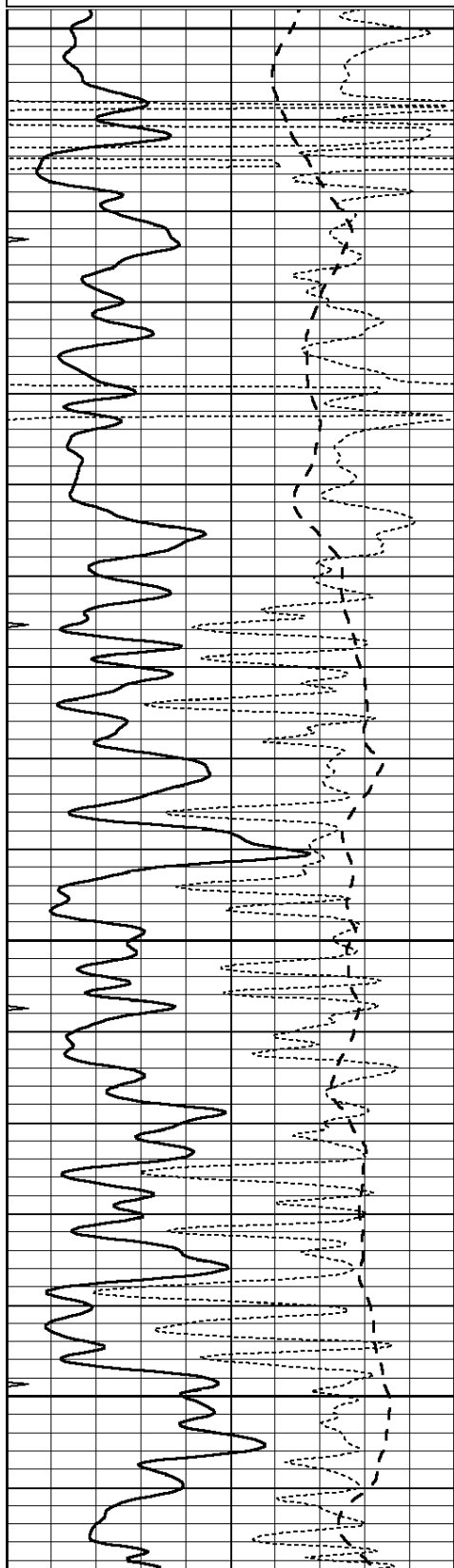
**COMPLETION
& PRODUCTION
SERVICES CO.**

MAIN SECTION

Database File: 25891pe.db
 Dataset Pathname: pass4.7
 Presentation Format: _dil
 Dataset Creation: Mon Oct 06 23:23:19 2014 by Calc SOC 120430
 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

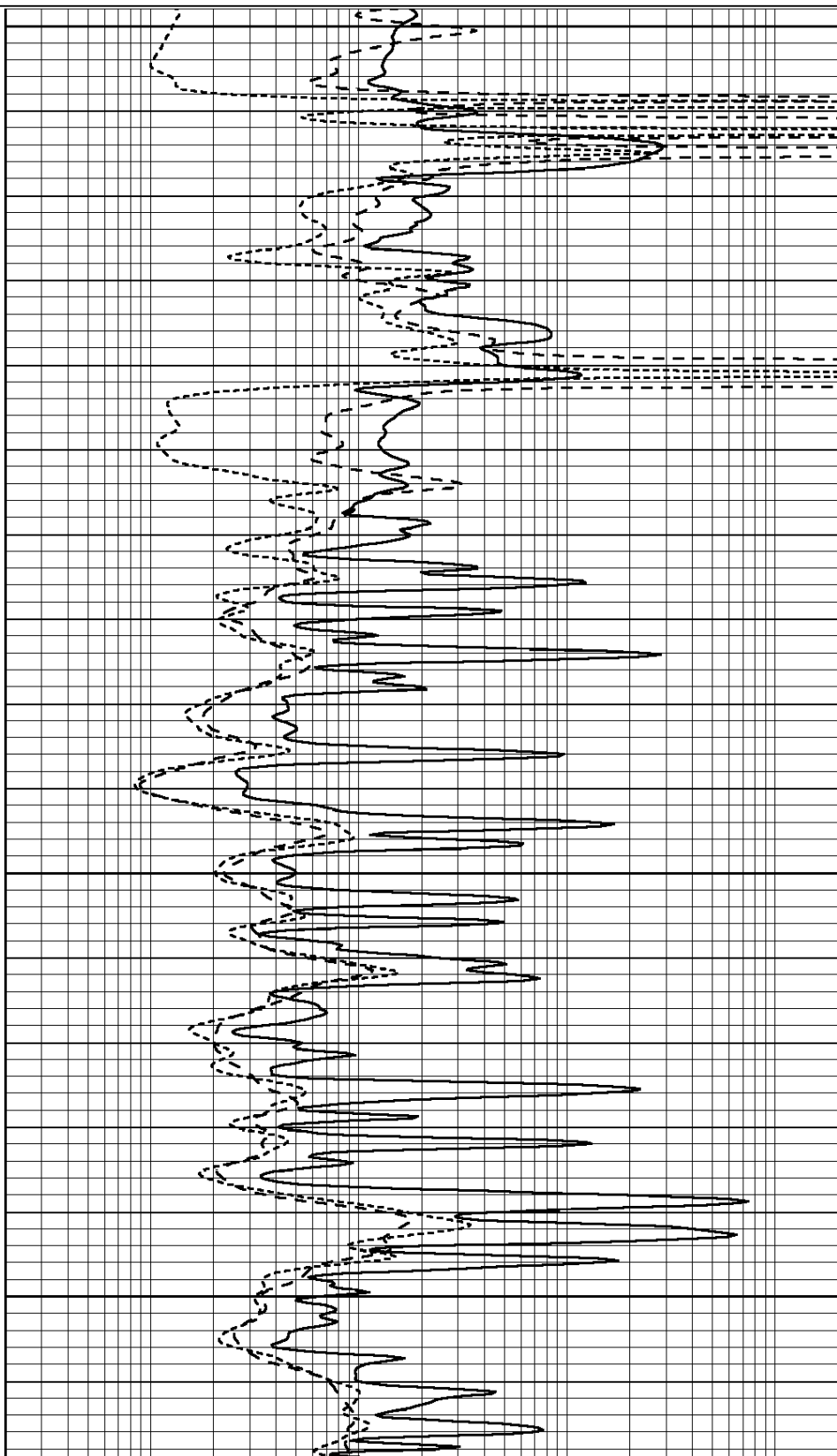


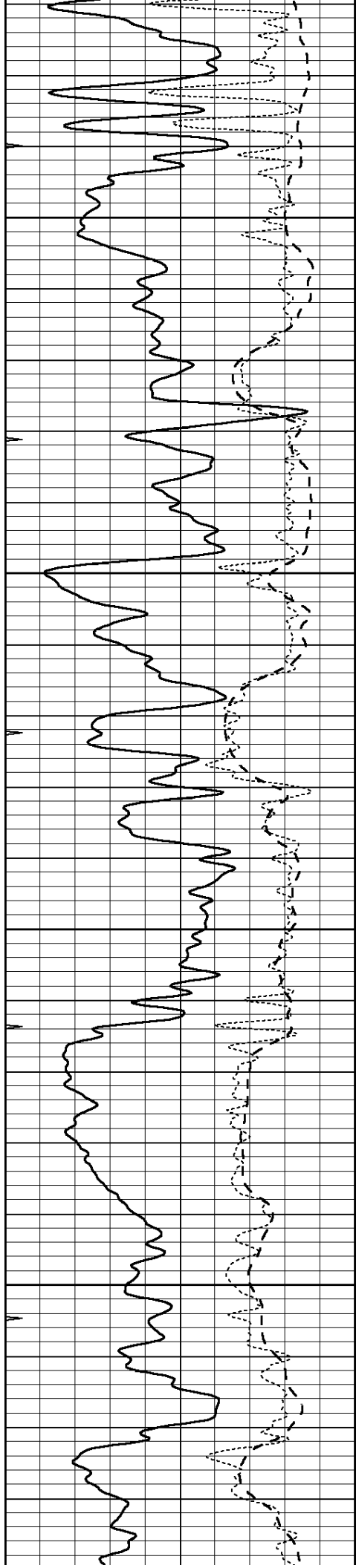
2200

2250

2300

2350



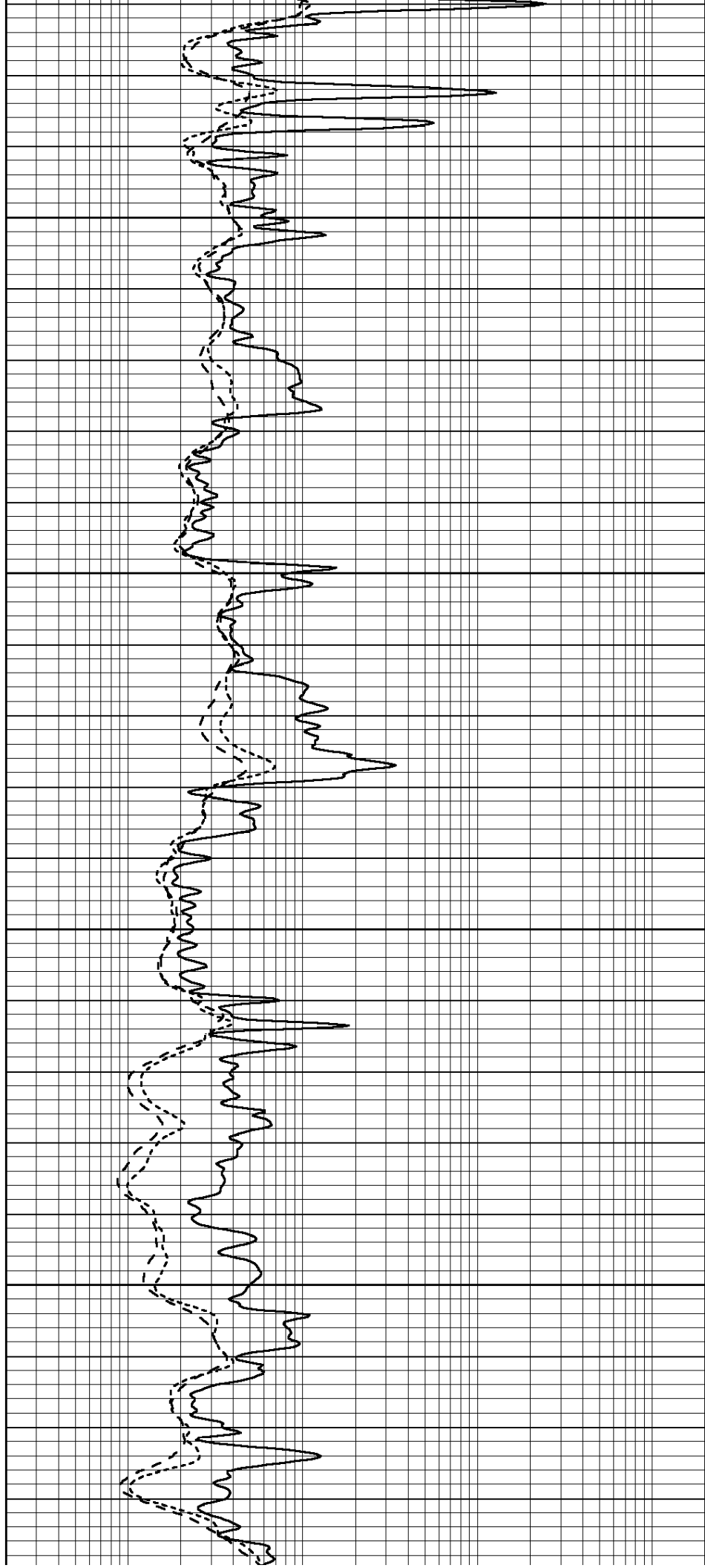


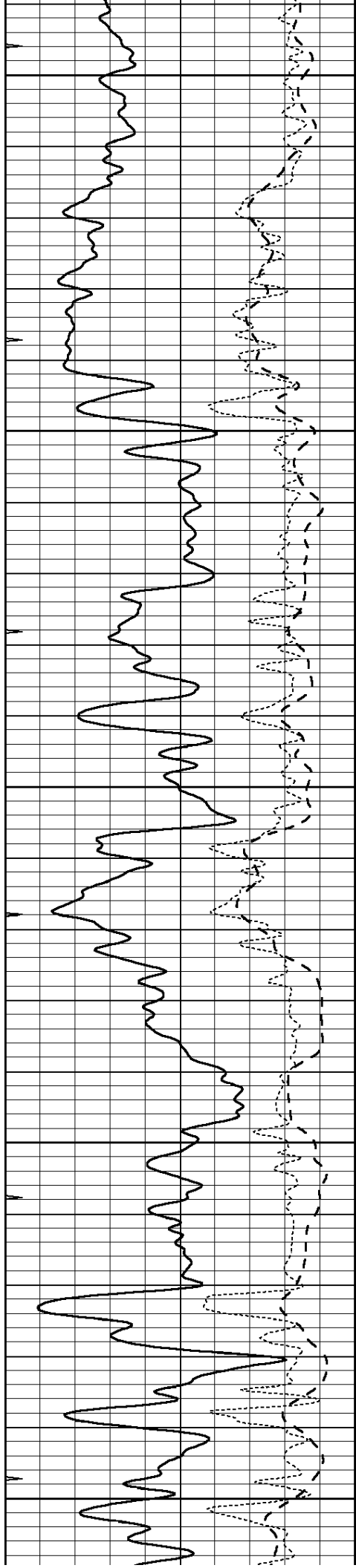
2400

2450

2500

2550





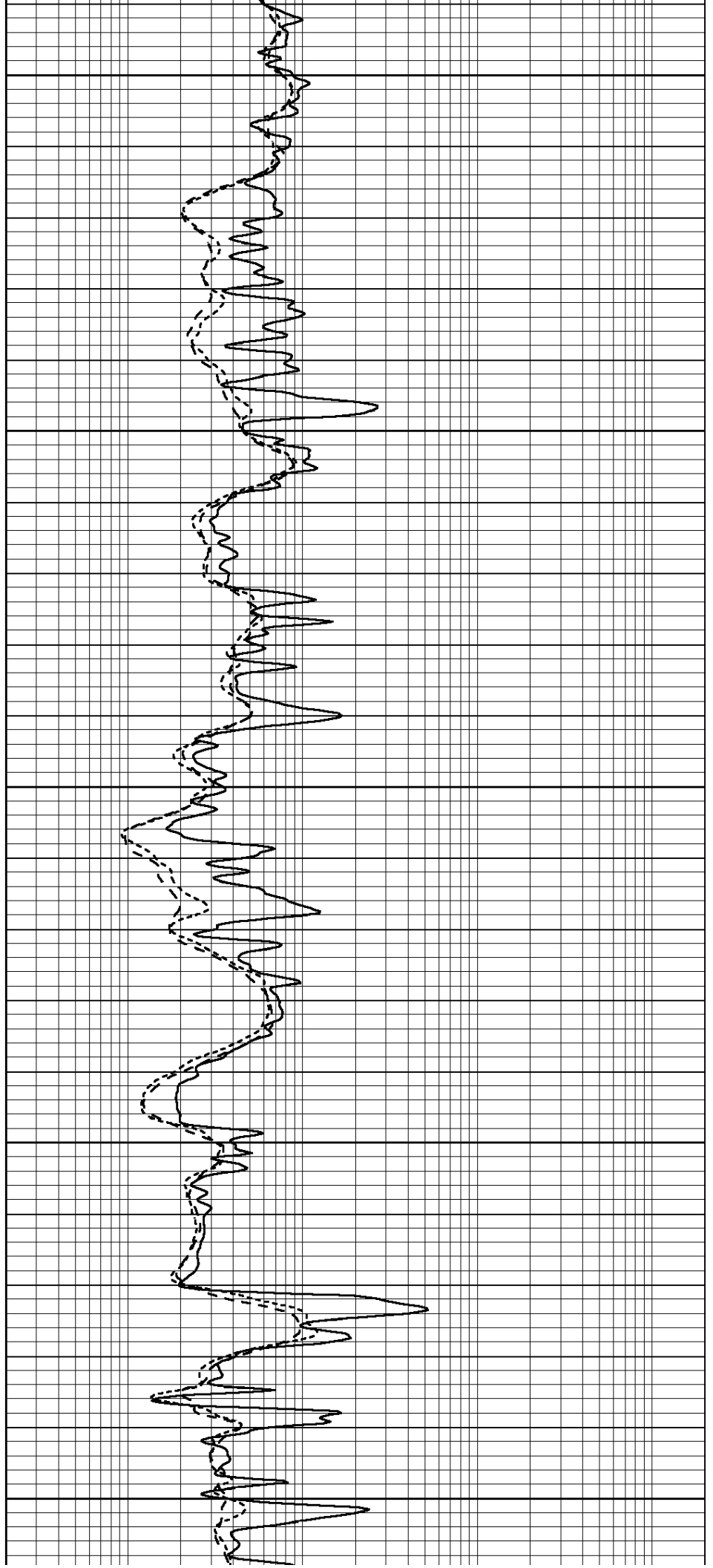
2600

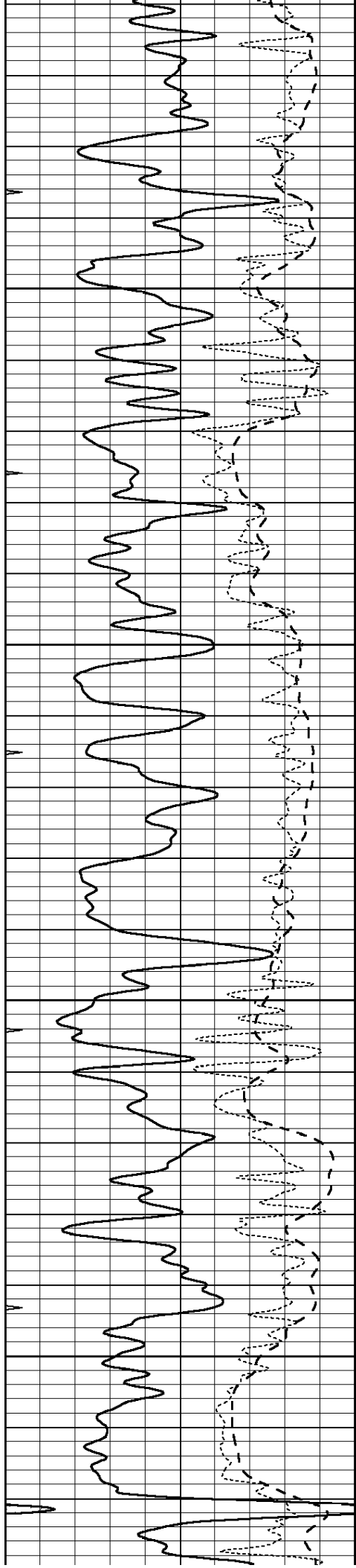
2650

2700

2750

2800



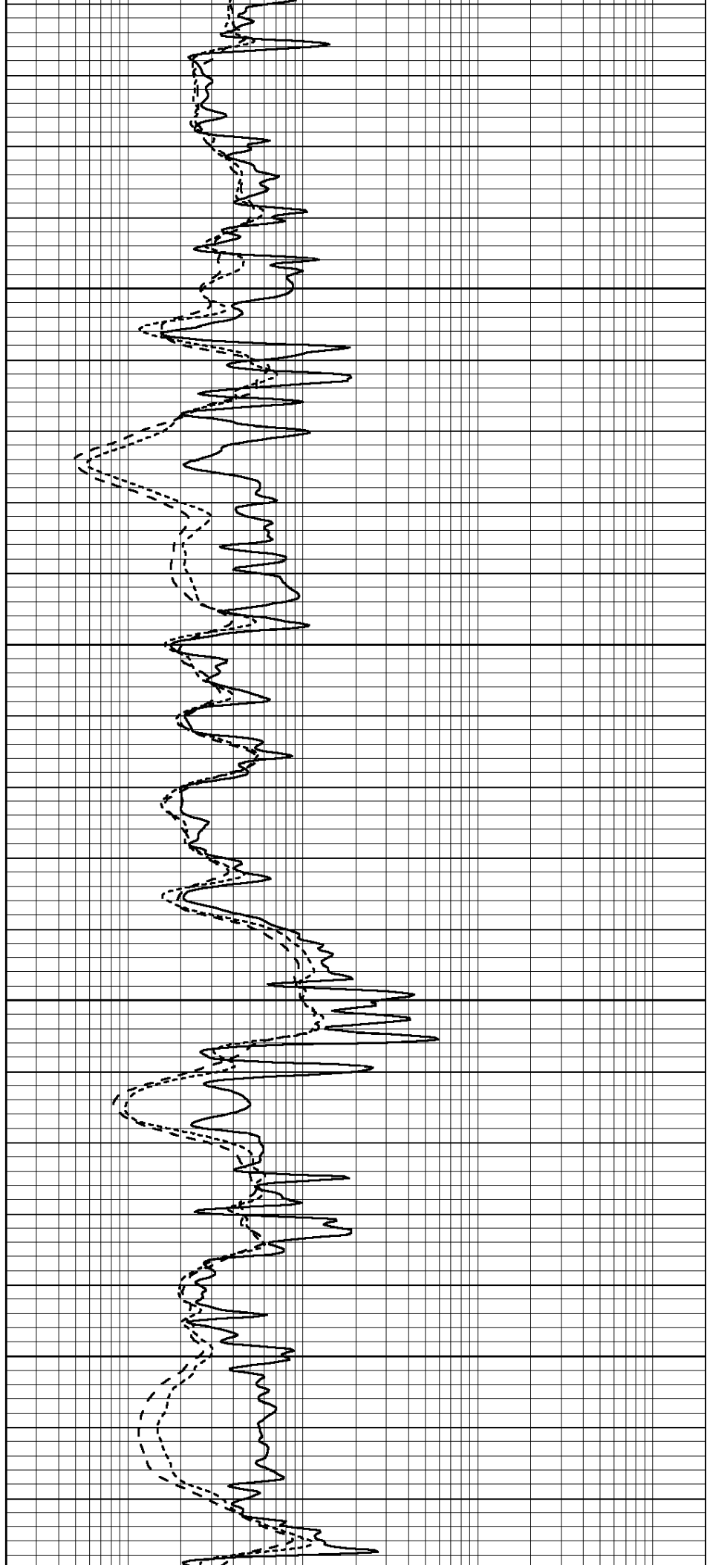


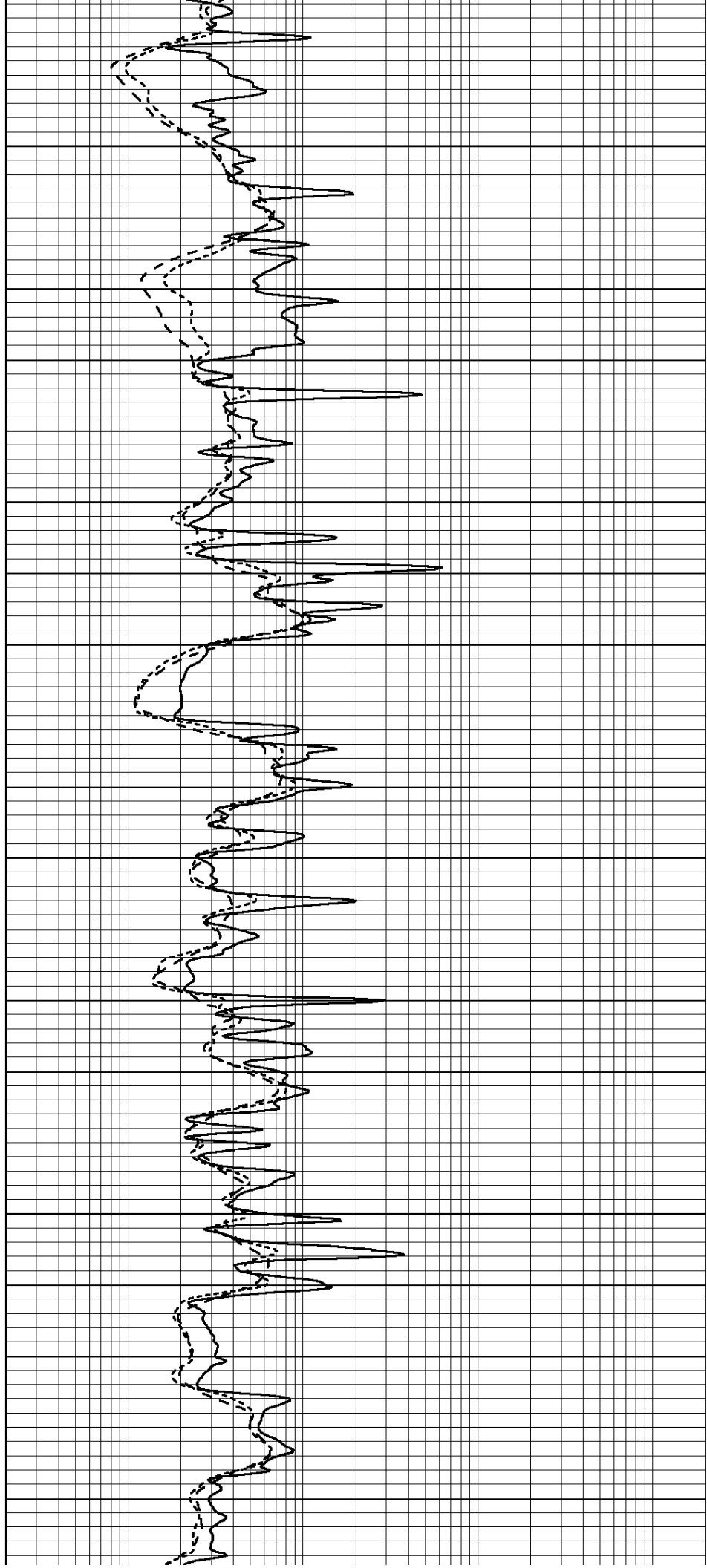
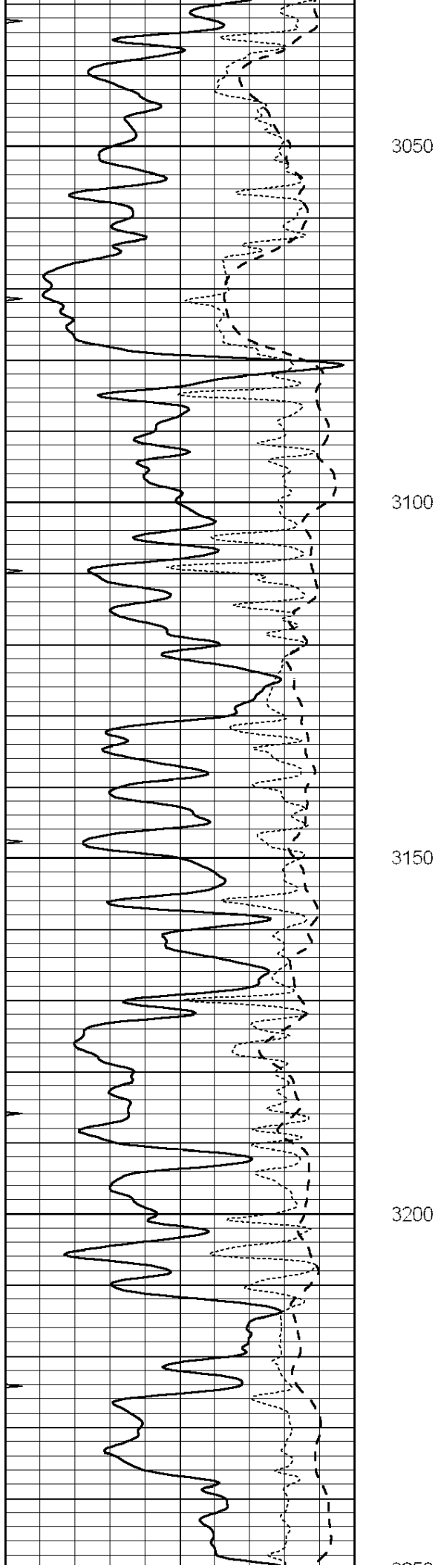
2850

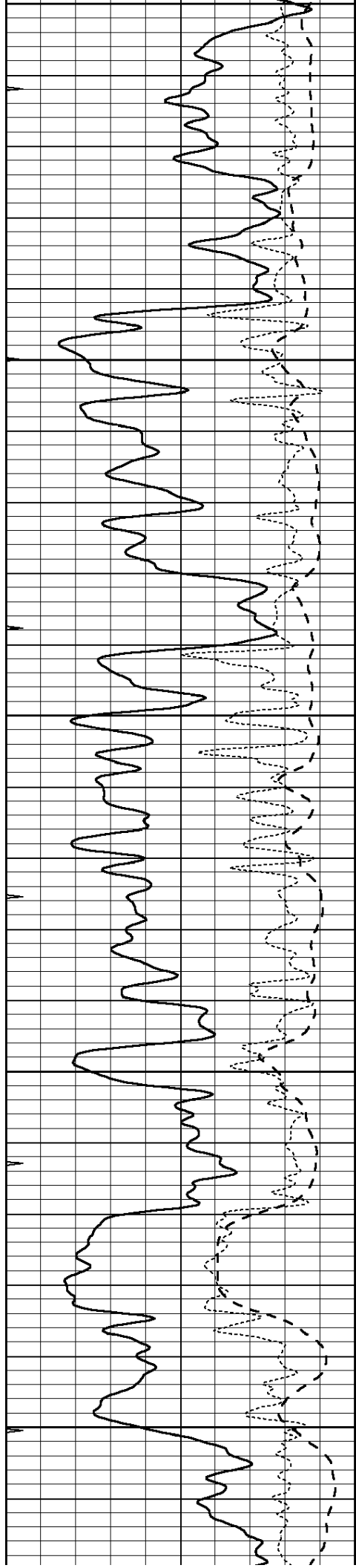
2900

2950

3000







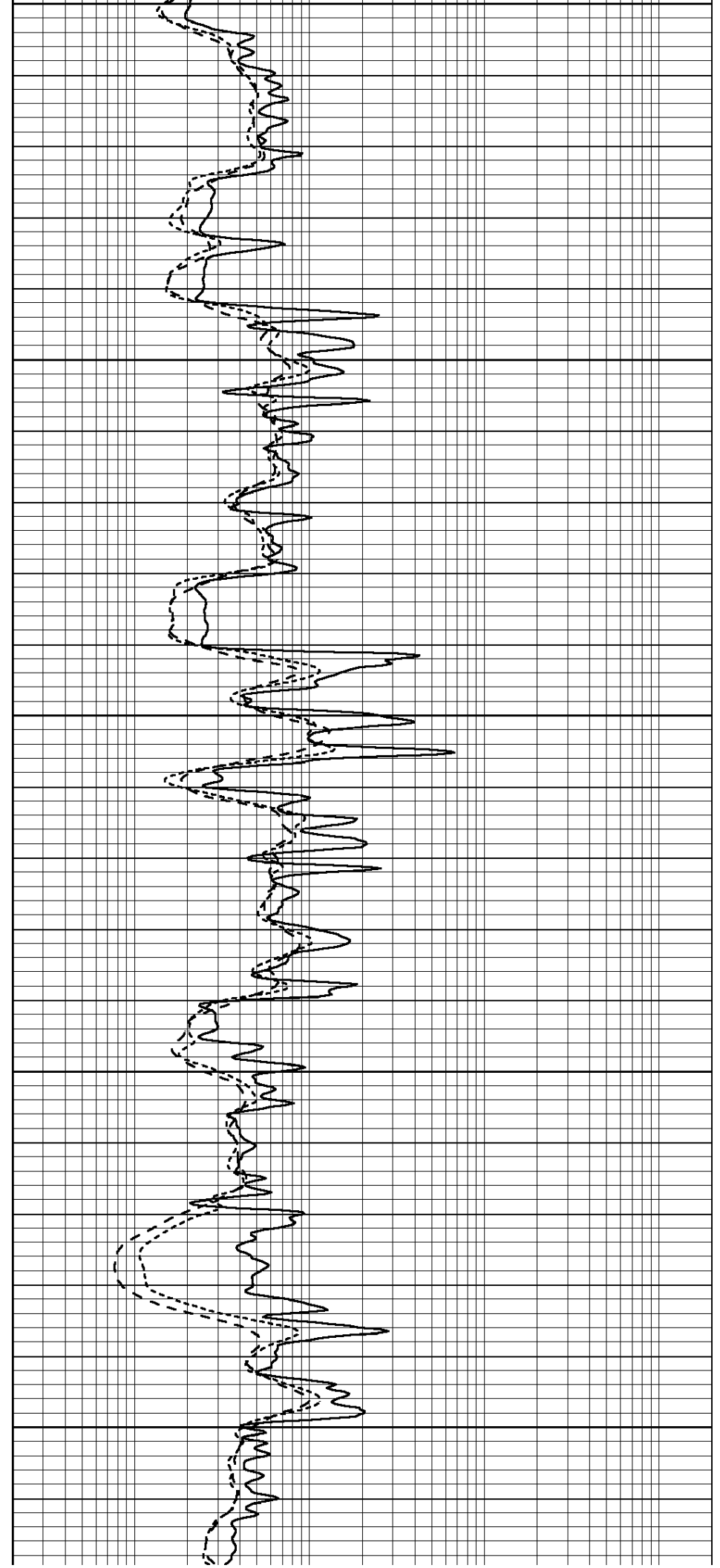
3250

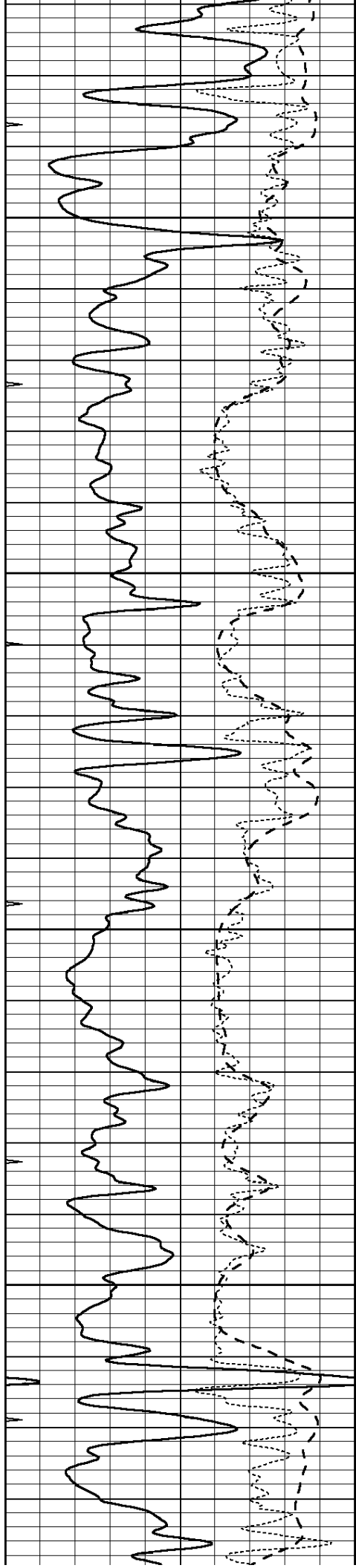
3300

3350

3400

3450



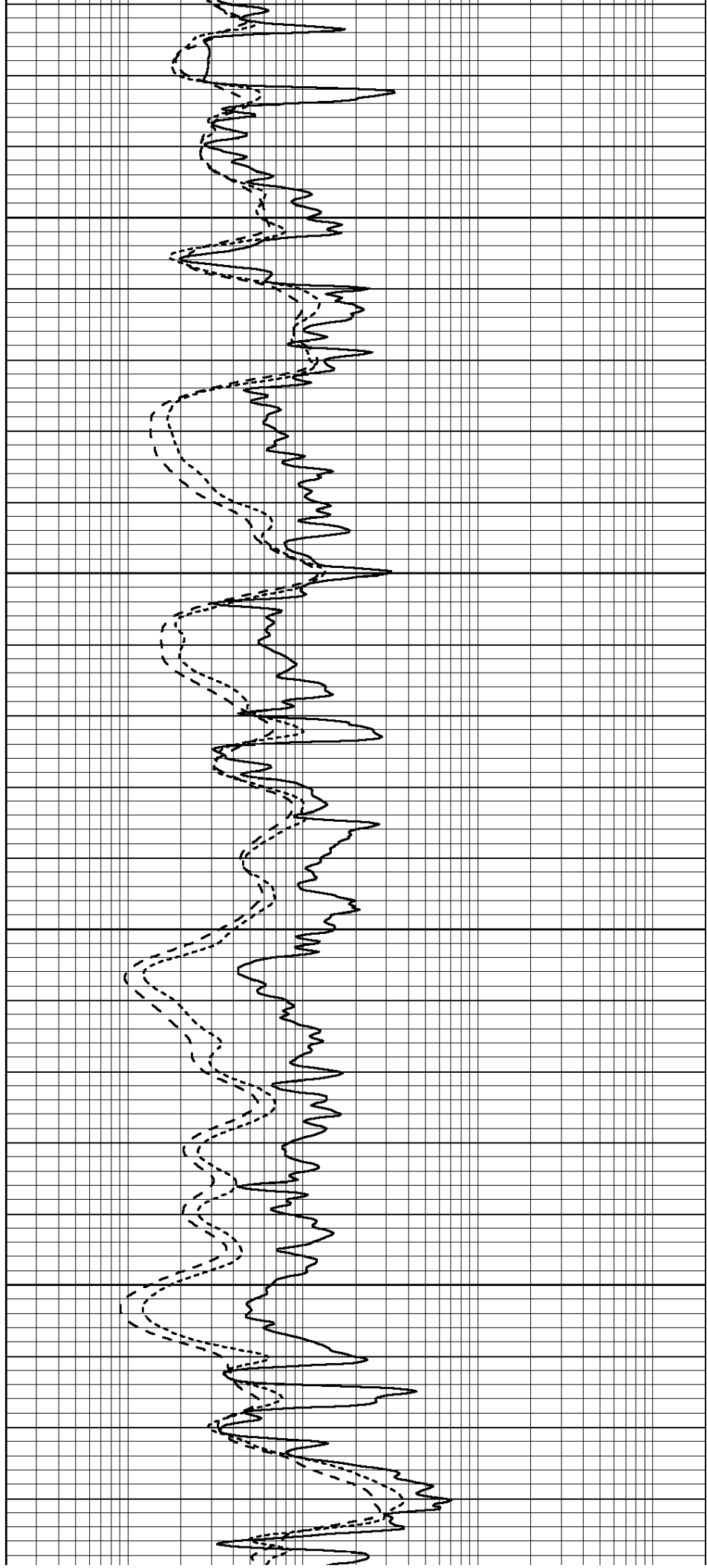


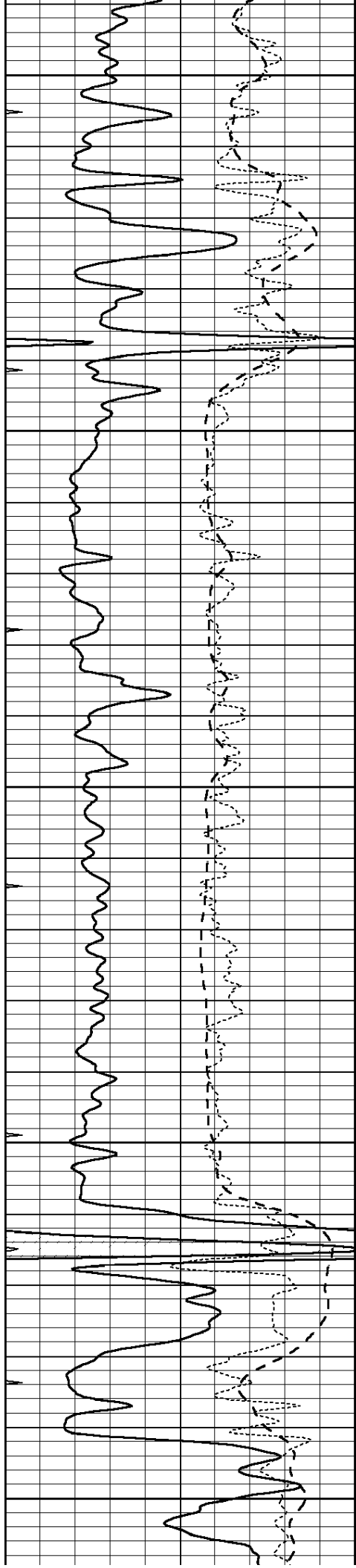
3500

3550

3600

3650





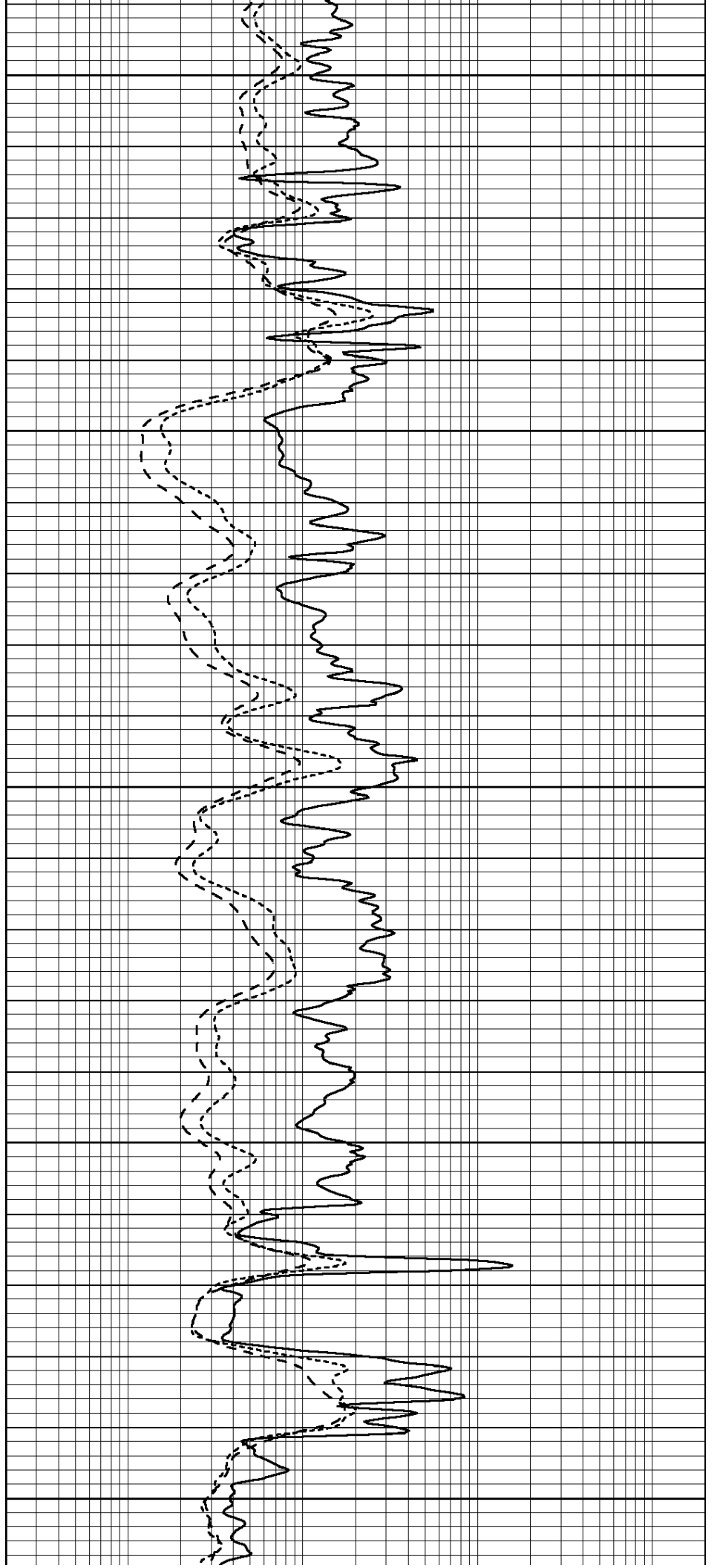
3700

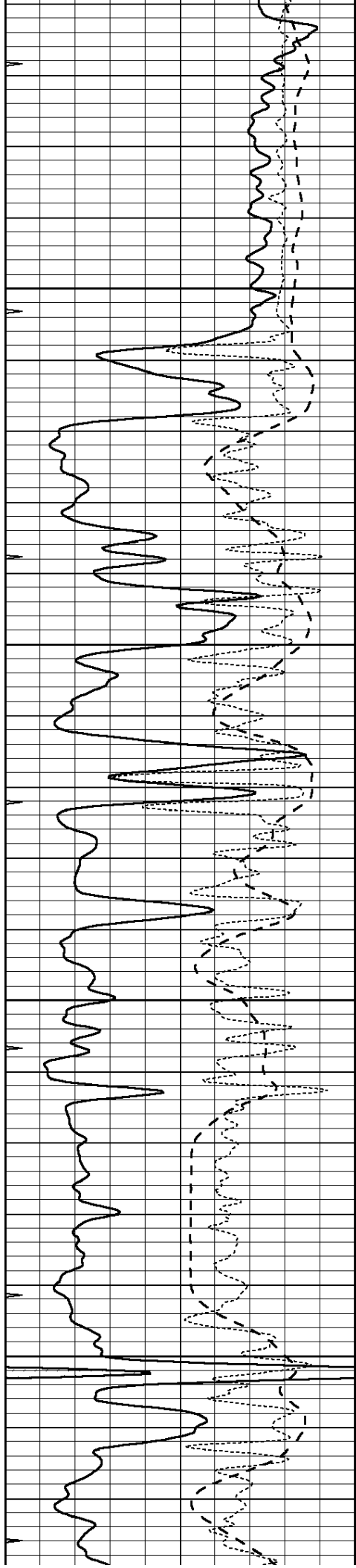
3750

3800

3850

3900



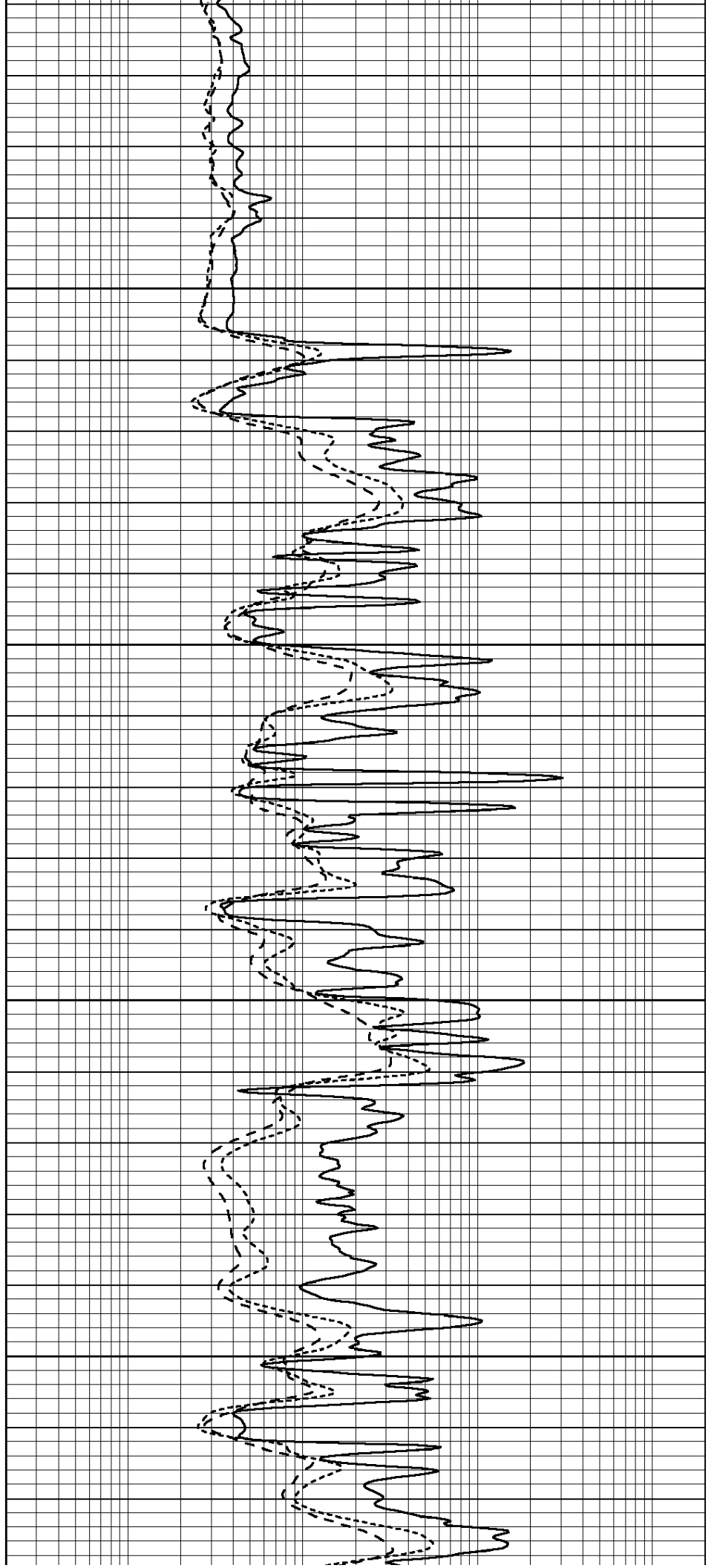


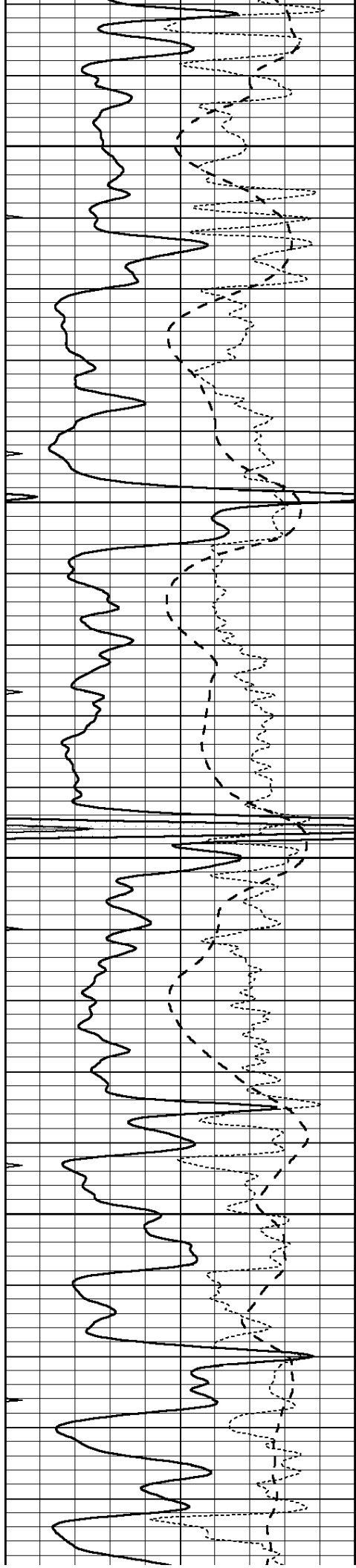
3950

4000

4050

4100



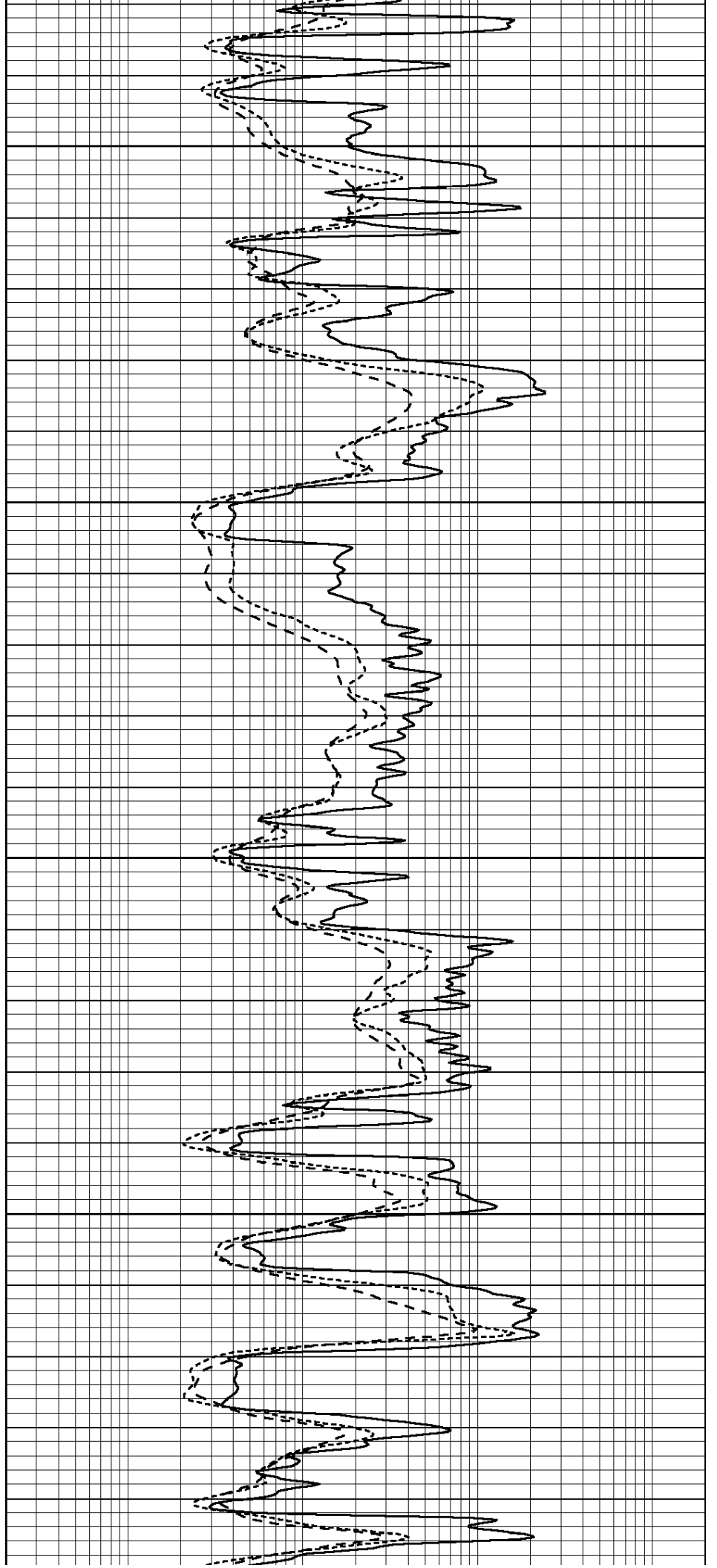


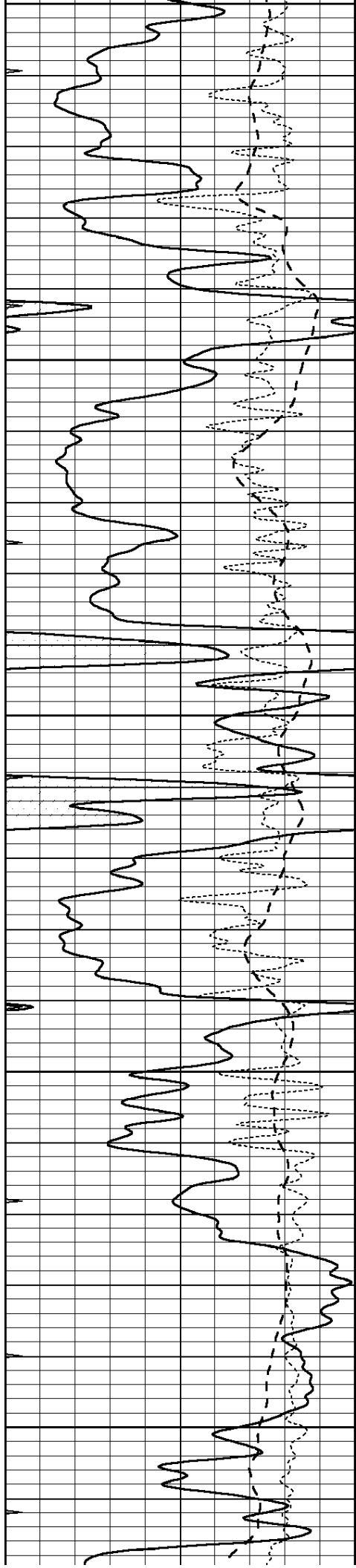
4150

4200

4250

4300





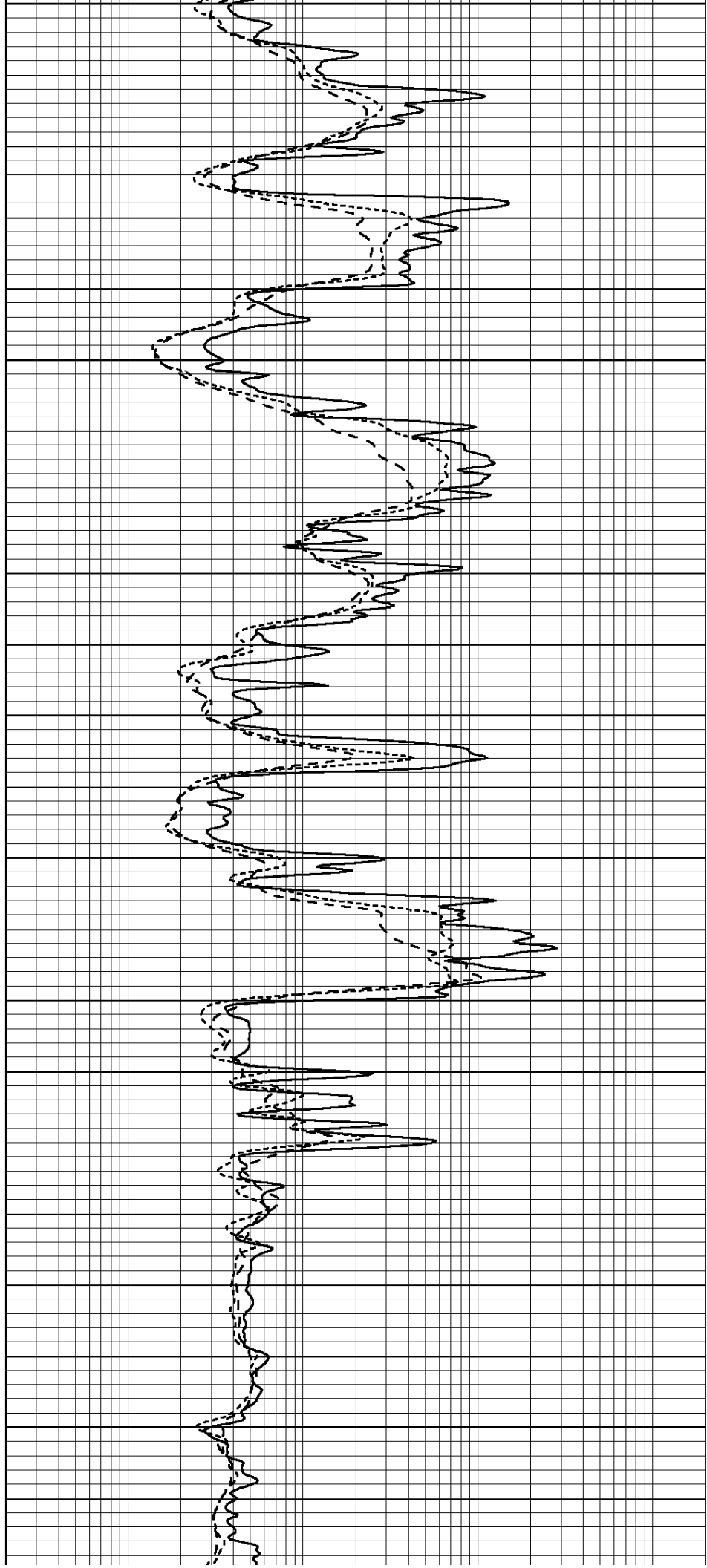
4350

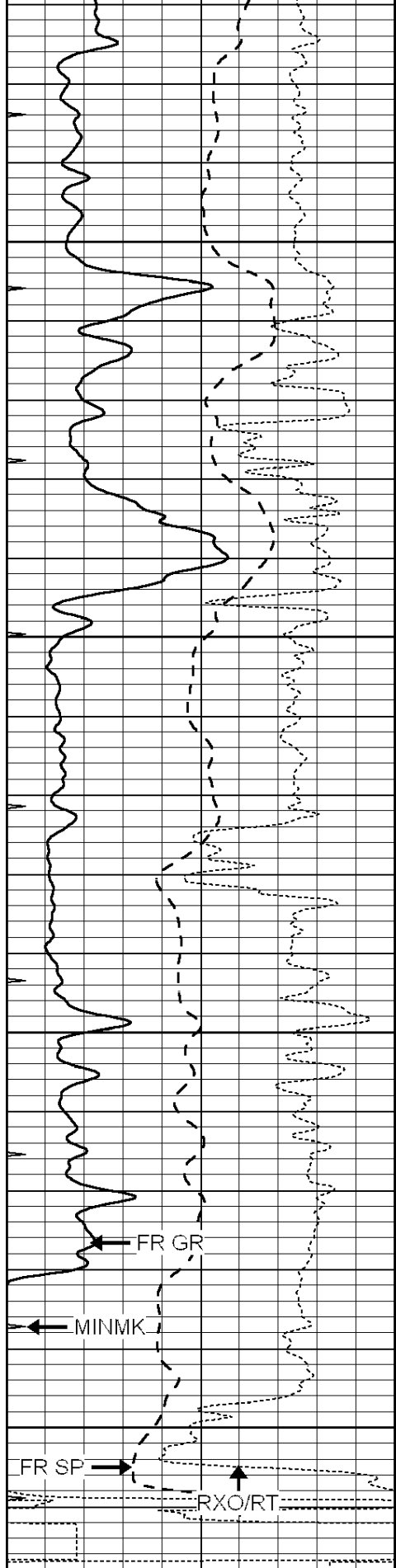
4400

4450

4500

4550





4600

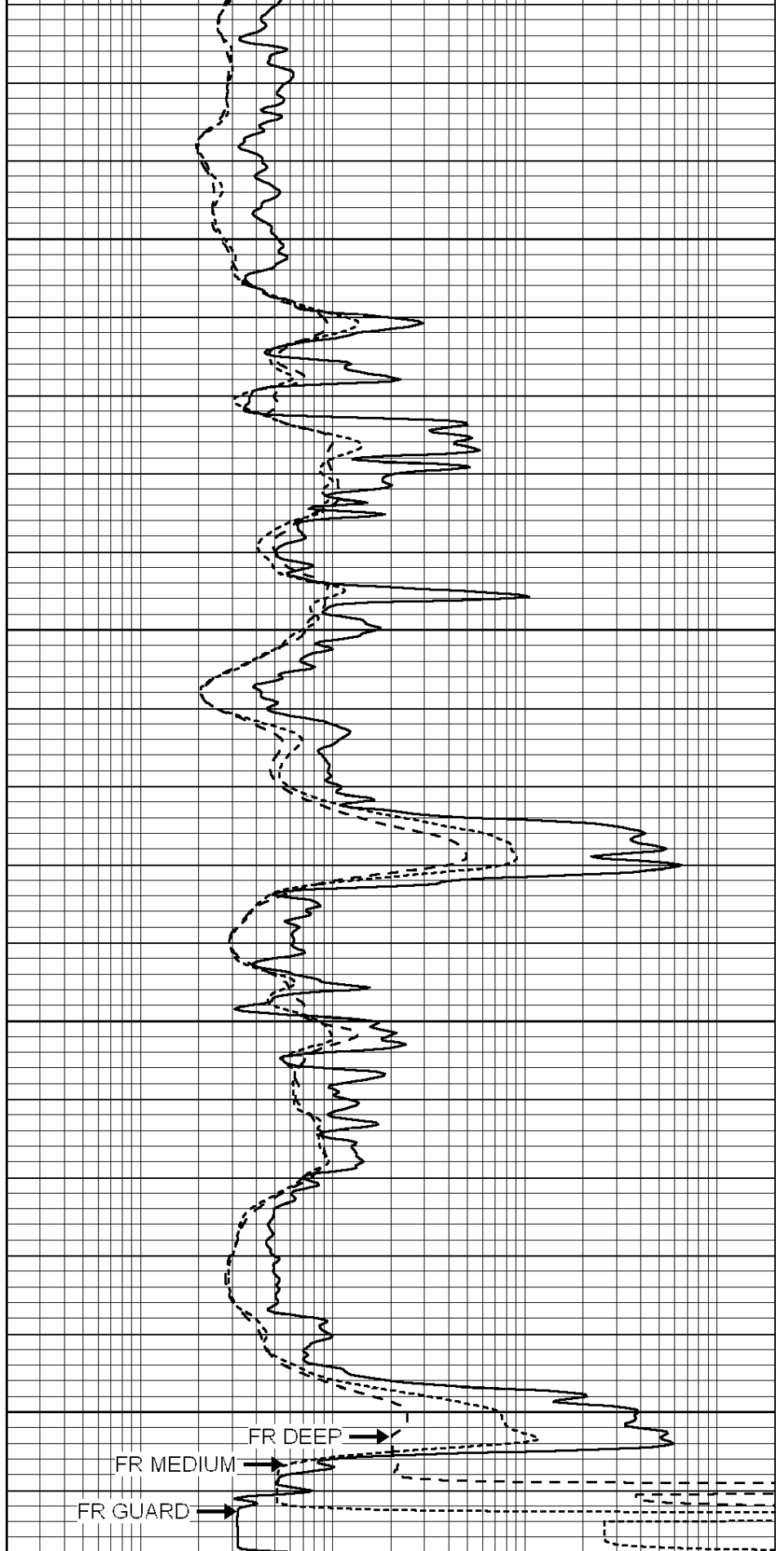
4650

4700

4750

LTD 4765

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



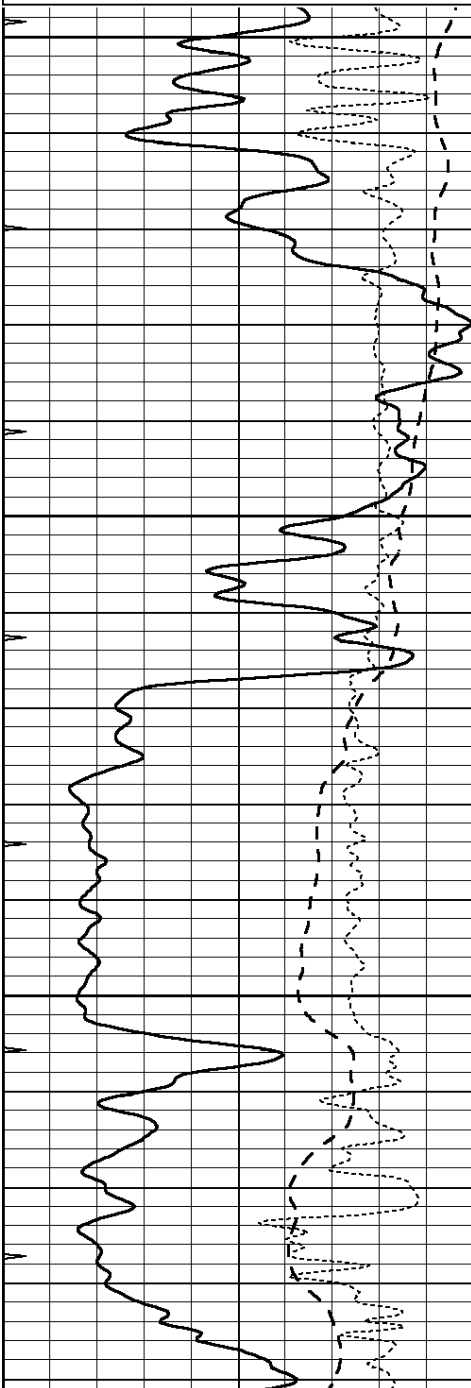
**COMPLETION
& PRODUCTION
SERVICES CO.**

REPEAT SECTION

Database File: 25891pe.db
Dataset Pathname: pass3.6
Presentation Format: _dil
Dataset Creation: Mon Oct 06 22:00:53 2014 by Calc SOC 120430
Charted by: Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	20

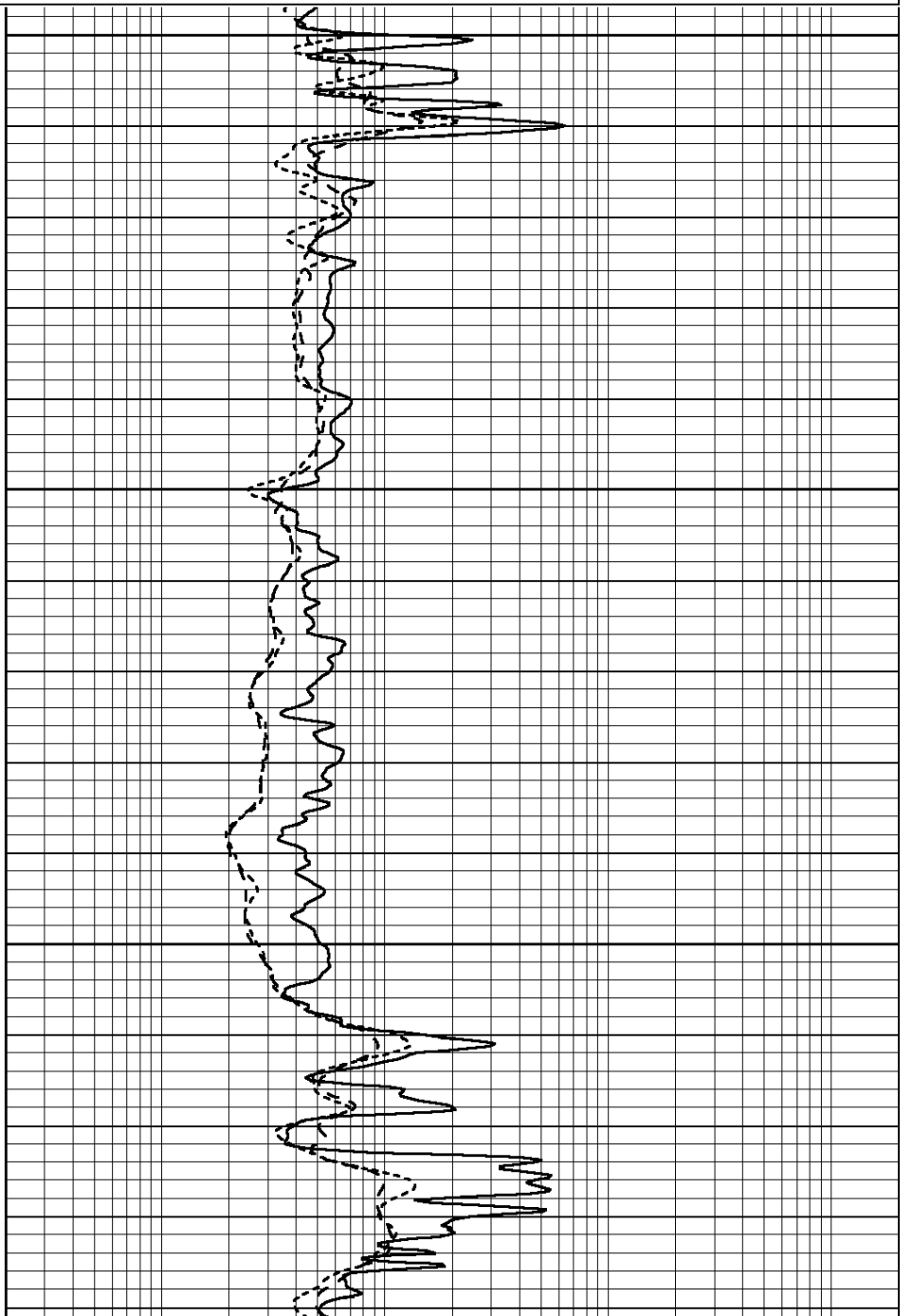
0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000

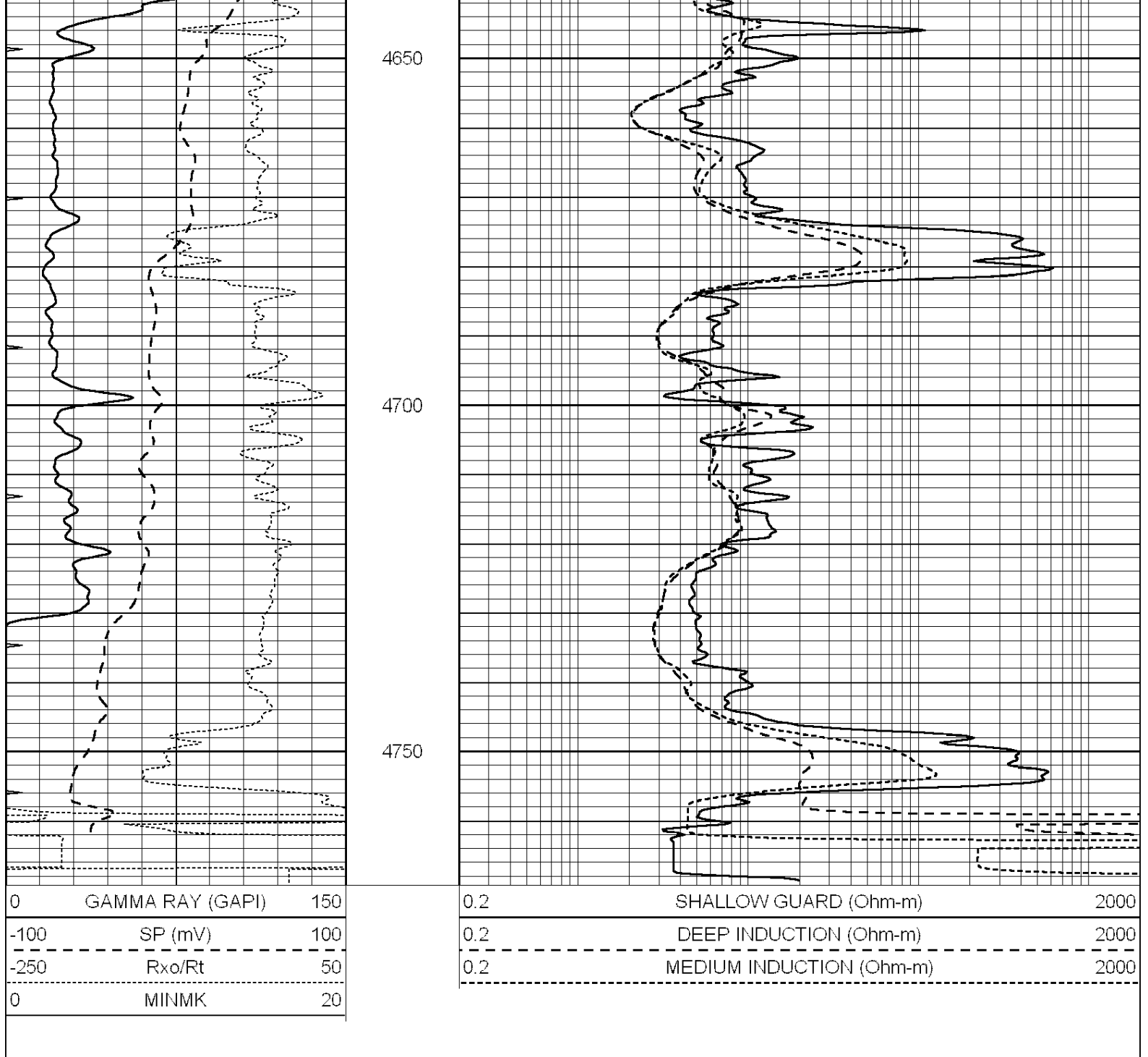


4500

4550

4600





Calibration Report

Database File: 25891pe.db
 Dataset Pathname: pass4.7
 Dataset Creation: Mon Oct 06 23:23:19 2014 by Calc SOC 120430

Dual Induction Calibration Report

Serial-Model: PROBE9-DILG
 Surface Cal Performed: Fri Sep 26 22:43:29 2014
 Downhole Cal Performed: Mon Jul 28 12:02:56 2008
 After Survey Verification Performed: Mon Jul 28 12:02:56 2008

Surface Calibration

Loop:	Readings			References			Results	
	Air	Loop	V	Air	Loop	mmho/m	m	b
Deep	-0.014	0.629	V	0.000	400.000	mmho/m	670.000	-14.000
Medium	0.039	0.728	V	0.000	464.000	mmho/m	670.000	-27.000

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: 003N Model: PRB

Master Calibration		Performed Tue Sep 08 14:14:44 2009				
	Background	Magnesium	Aluminum	Sandstone		
Window 1	2042.6	12312.8	4225.8	13758.4	cps	
Window 2	1855.8	10134.7	3624.2	11113.1	cps	
Window 3	1639.4	6760.2	2716.3	7260.3	cps	
Window 4	466.4	469.2	466.1	476.5	cps	
Long Space	0.0	8278.9	1768.4	9257.4	cps	
Short Space	2.2	2377.3	1544.1	2574.2	cps	
Rho		1.7100	2.5900	1.3800	g/cc	
Pe		0.0000	2.5700	1.5500		
Rib Angle	: 44.4	Rib Slope	: 0.979	Density/Spine Ratio	: 0.549	
Spine Angle	: 74.4	Spine Slope	: 3.577	Spine Intercept	: -18.8	

Before Survey Verification		Performed Wed Dec 31 18:00:00 1969				
	Background	Magnesium	Aluminum	Sandstone		
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				
	Background	Magnesium	Aluminum	Sandstone		
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: 070808
Tool Model: Probe

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: Mon Jun 30 21:53:39 2014

Calibrator Value: 1.0 GAPI
Background Reading: 0.0 cps
Calibrator Reading: 1.0 cps
Sensitivity: 0.2800 GAPI/cps