



SUPERIOR
Hays,
Kansas

DUAL
INDUCTION
LOG

Company EMPIRE ENERGY E&P, LLC.
Well WOKATY #7
Field MAX
County STAFFORD
State KANSAS

Company EMPIRE ENERGY E&P, LLC.
Well WOKATY #7
Field MAX
County STAFFORD State KANSAS

Location: 2300' FNL & 1300' FVL
NE - SE - SW - NW
APL # : 15-185-23701-0000
SEC 12 TWP 22S RGE 12W
Permanent Datum GROUND LEVEL Elevation 1822
Log Measured From KELLY BUSHING 11' A.G.L.
Drilling Measured From KELLY BUSHING
Other Services
CDL/CNL/PE
MEL/SON
Elevation
K.B. 1833
D.F. 1831
G.L. 1822

Date	10/28/11		
Run Number	ONE		
Depth Driller	3700		
Depth Logger	3702		
Bottom Logged Interval	3700		
Top Log Interval	00		
Casing Driller	8 5/8" @ 598		
Casing Logger	610		
Bit Size	7 7/8"		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 6100 PPM	
Density / Viscosity	9.4/52		
pH / Fluid Loss	10.5/9.6		
Source of Sample	FLOWLINE		
Rim @ Meas. Temp	.85 @ 79F		
Rmf @ Meas. Temp	.63 @ 79F		
Rmc @ Meas. Temp	1.02 @ 79F		
Source of Rmf / Rmc	MEASURED		
Rim @ BHT	.59 @ 113F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom			
Maximum Recorded Temperature	113F		
Equipment Number	680		
Location	HAYS, KS.		
Recorded By	JASON CAPPELLUCCI		
Witnessed By	JOSH AUSTIN	RICK POPP	

<<< 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 SUPERIOR WELL SERVICE (785) 628-6395
DIRECTIONS
GREAT BEND, KS. - S. ON 281 TO HWY 19 - 8 E. TO STAFFORD BLKTOP
1/4 S. - E. INTO



SUPERIOR
Hays,
Kansas

MAIN SECTION

Database File: 007894pe.db
Dataset Pathname: pass3.2
Presentation Format: _dil2
Dataset Creation: Sat Oct 29 00:24:27 2011 by Calc Open-Cased 090629
Charted by: Depth in Feet scaled 1:600

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

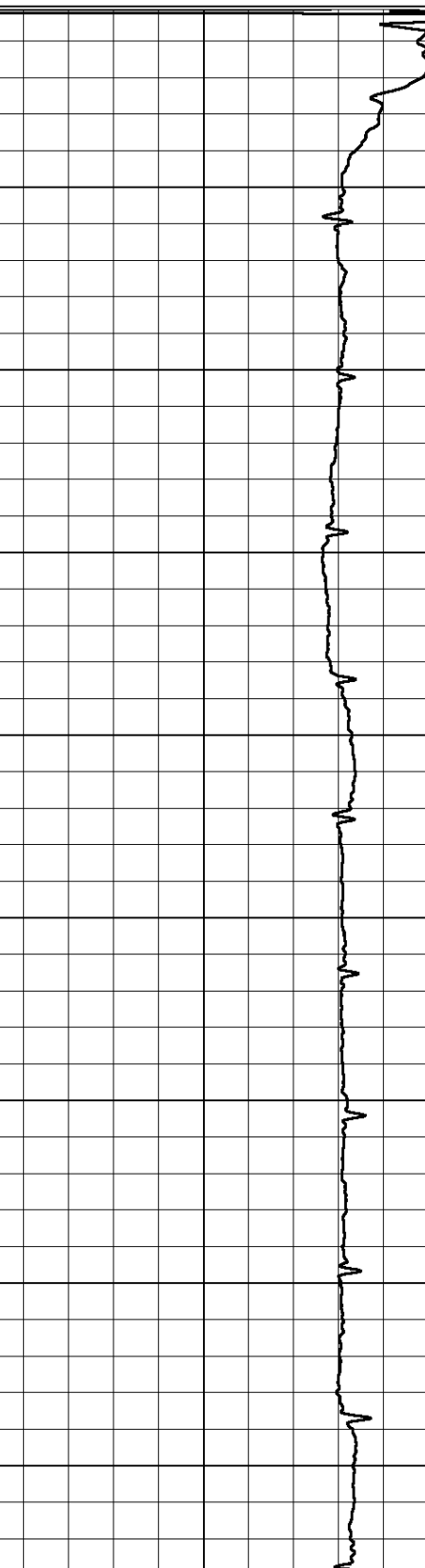
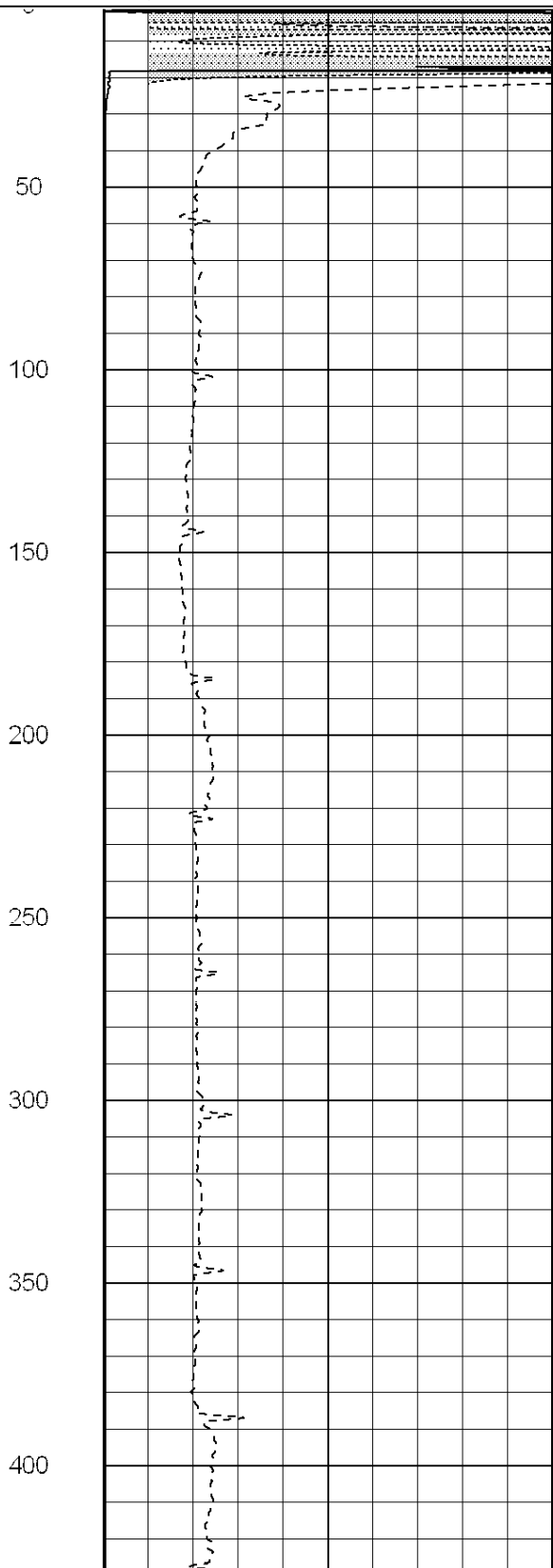
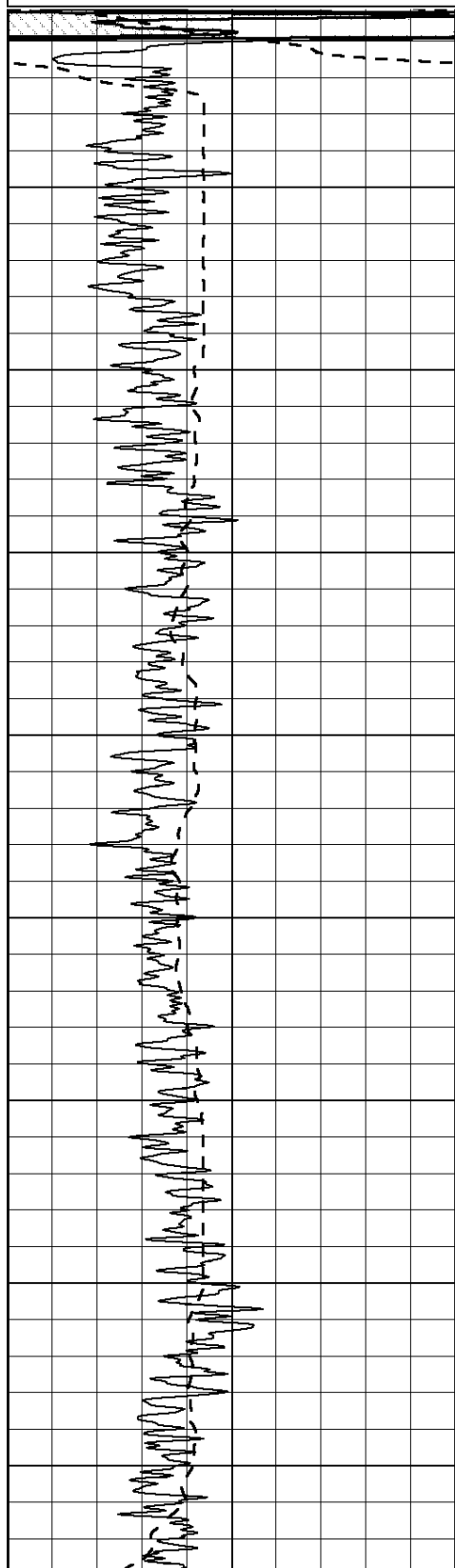
0 RLL3 (Ohm-m) 50

0 Deep Induction (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

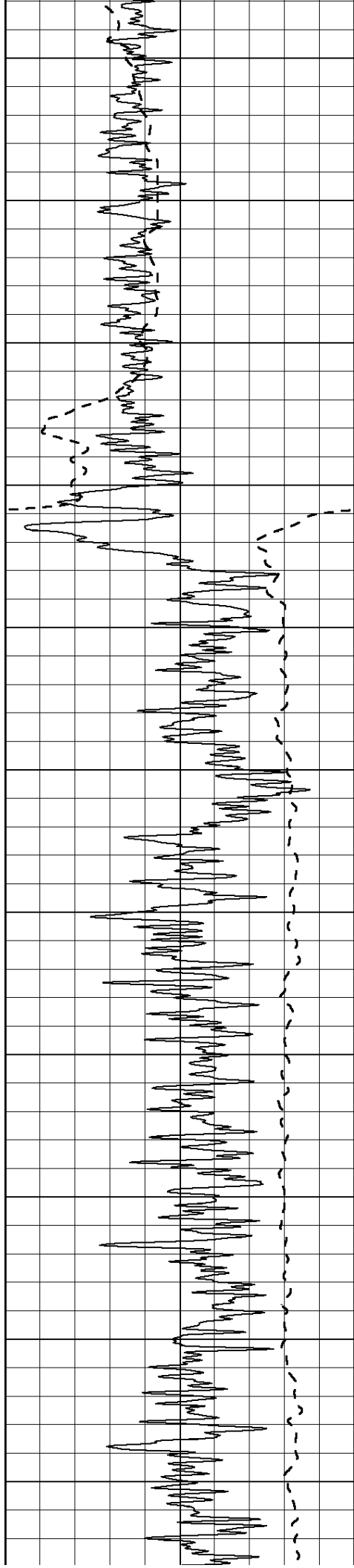
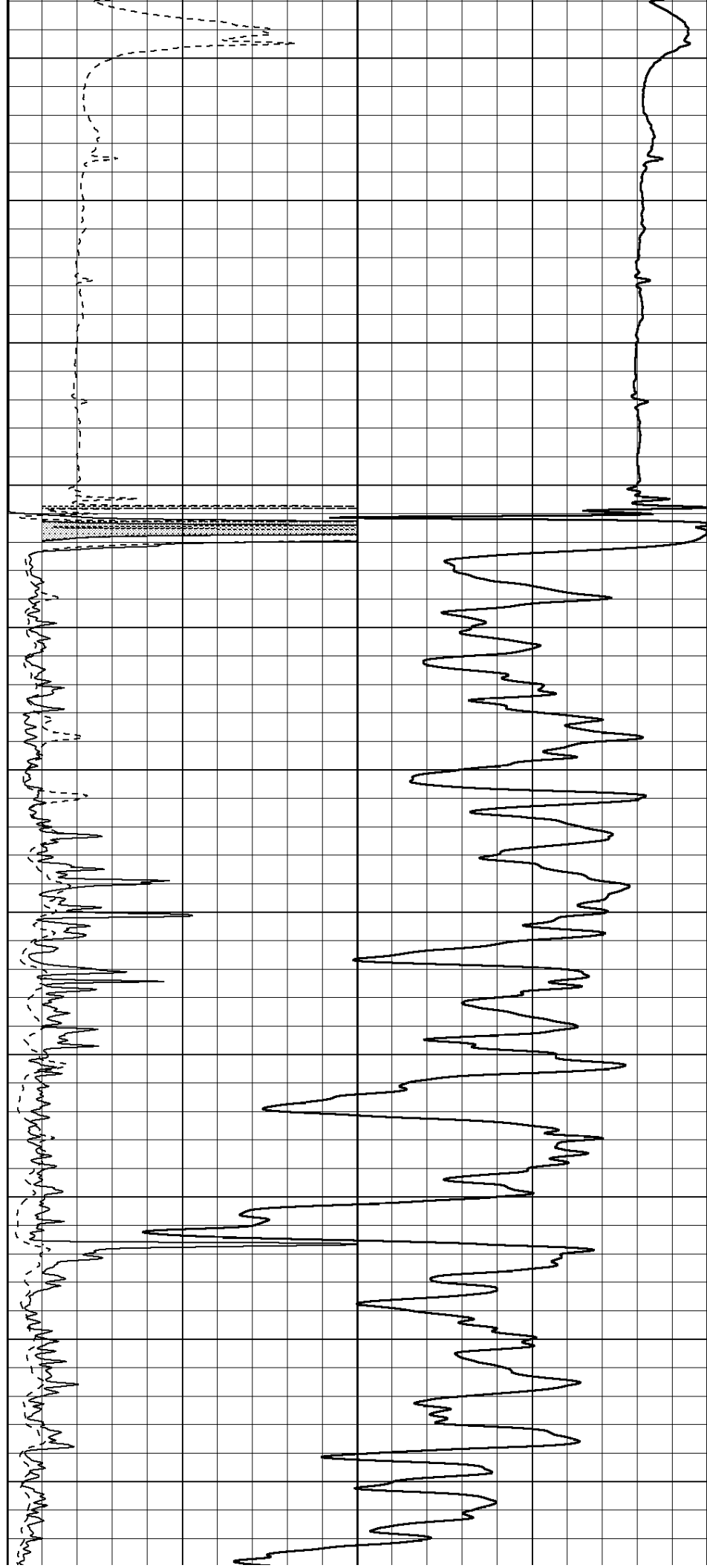
750

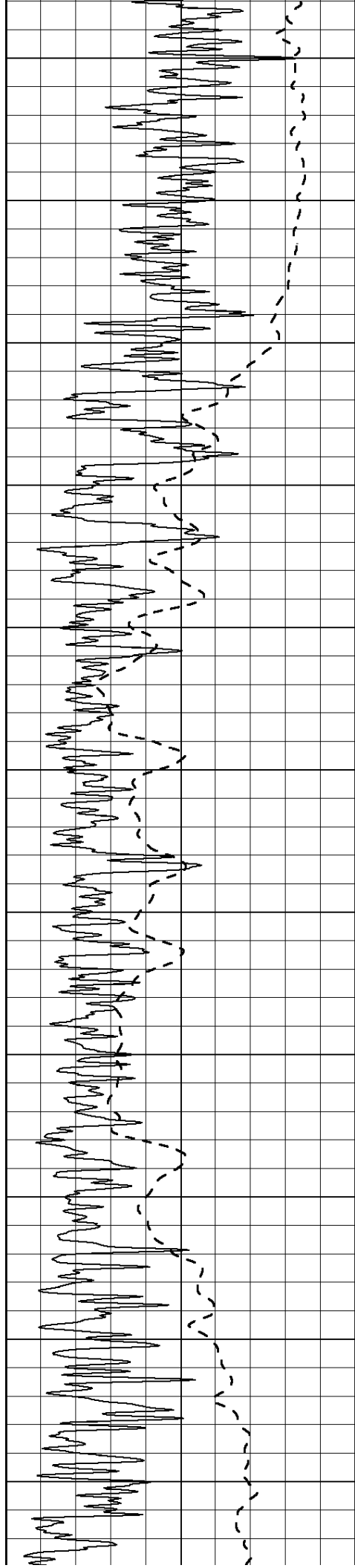
800

850

900

950





1000

1050

1100

1150

1200

1250

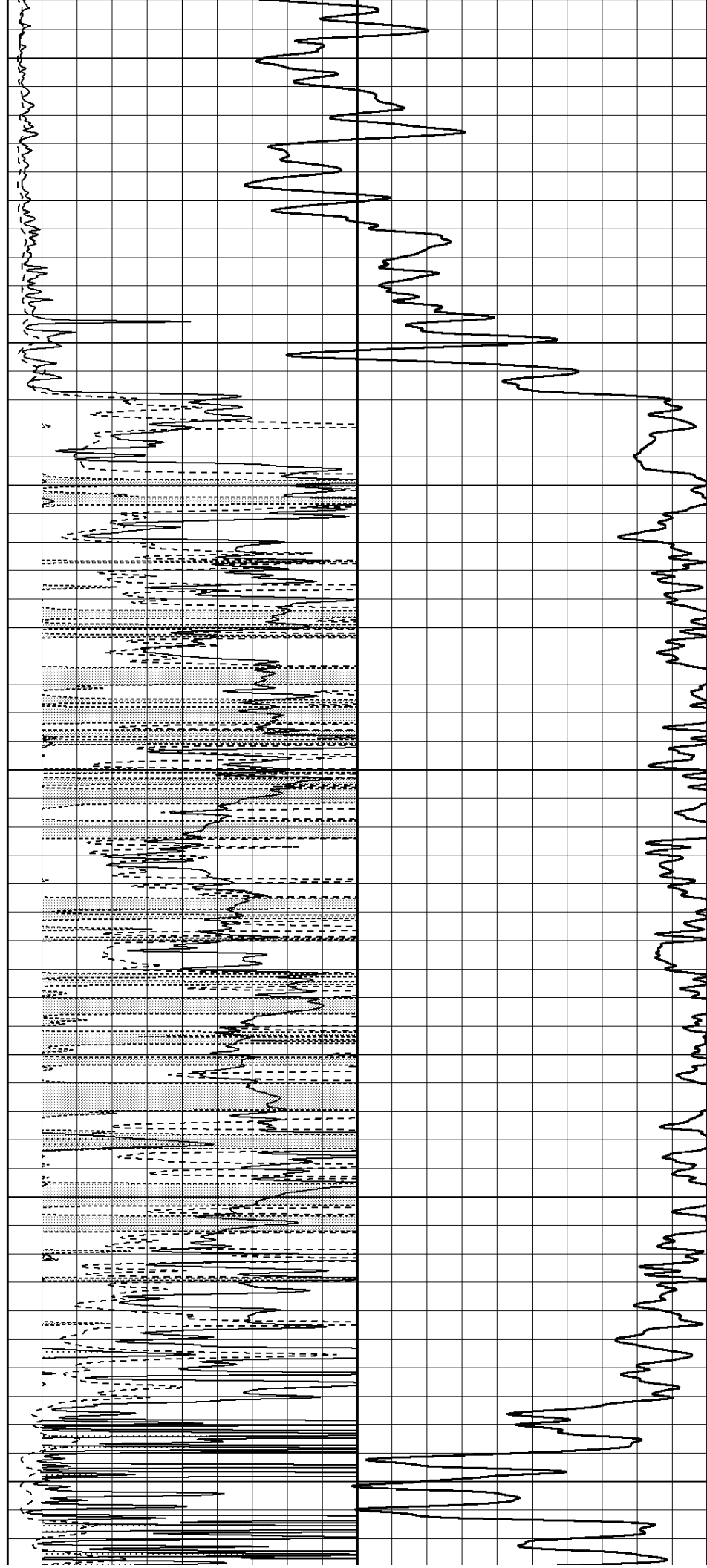
1300

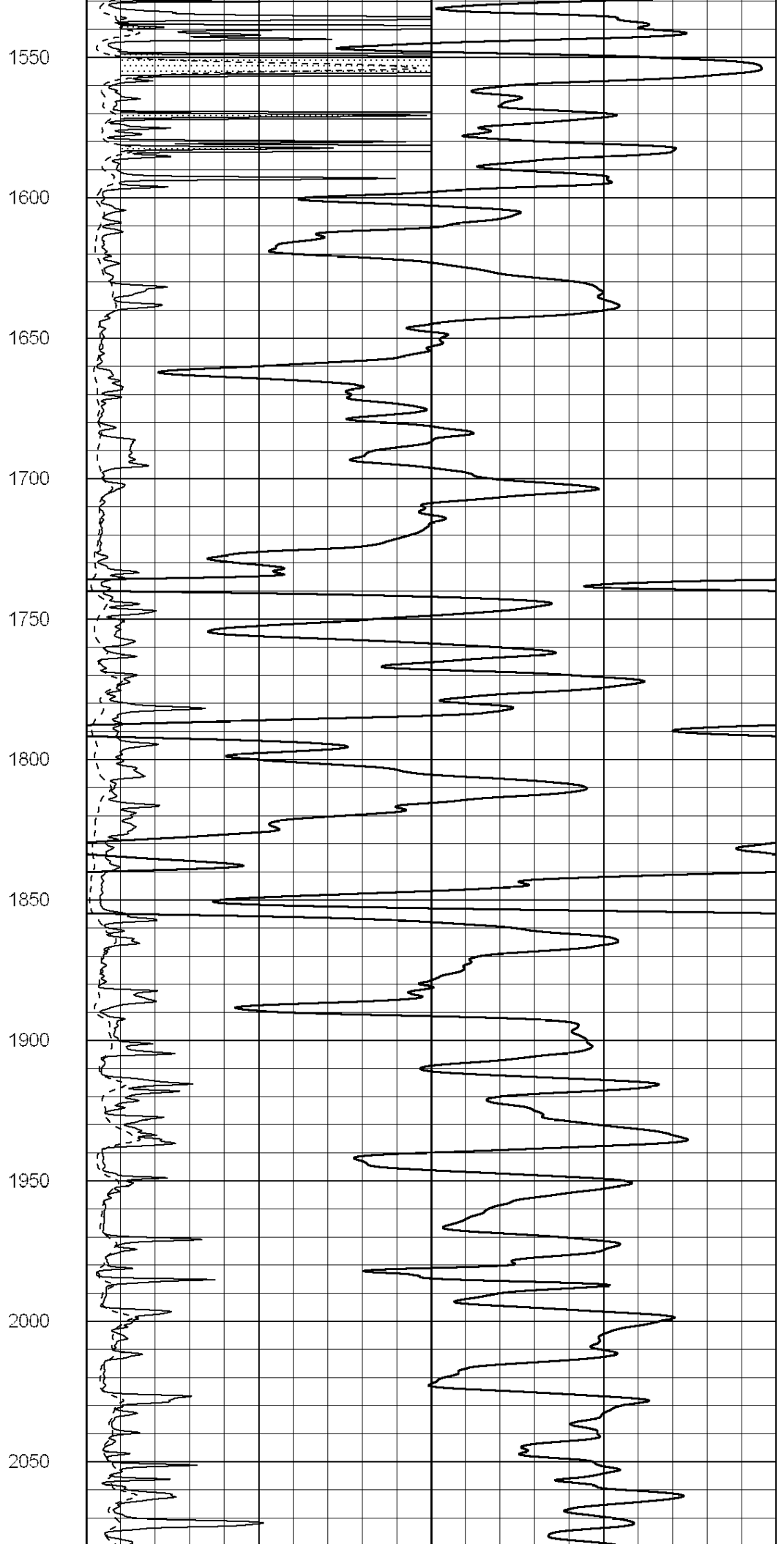
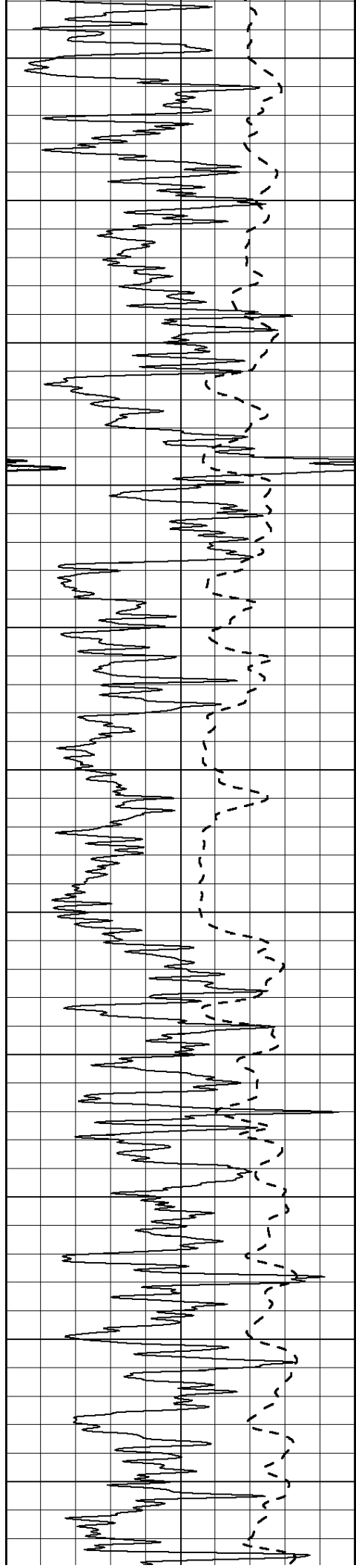
1350

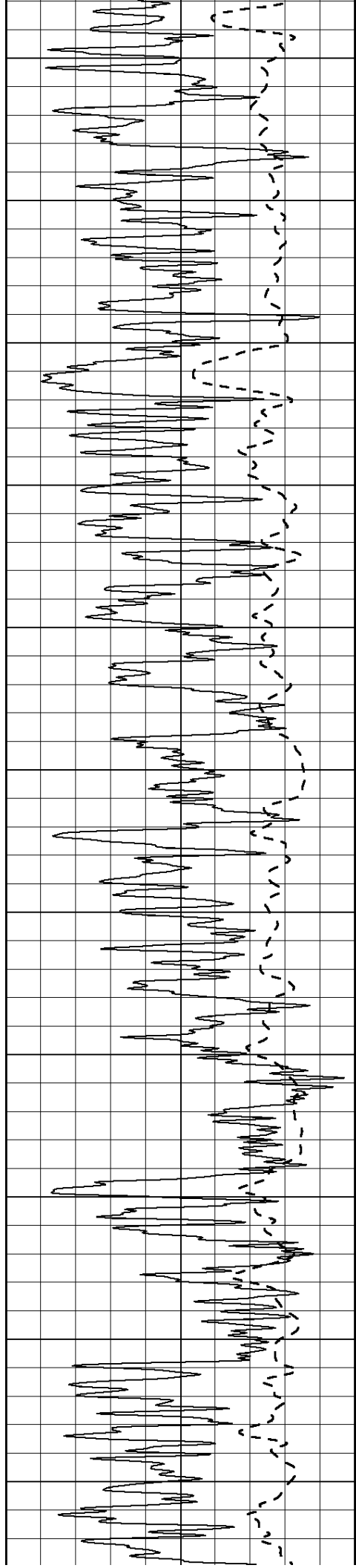
1400

1450

1500







2100

2150

2200

2250

2300

2350

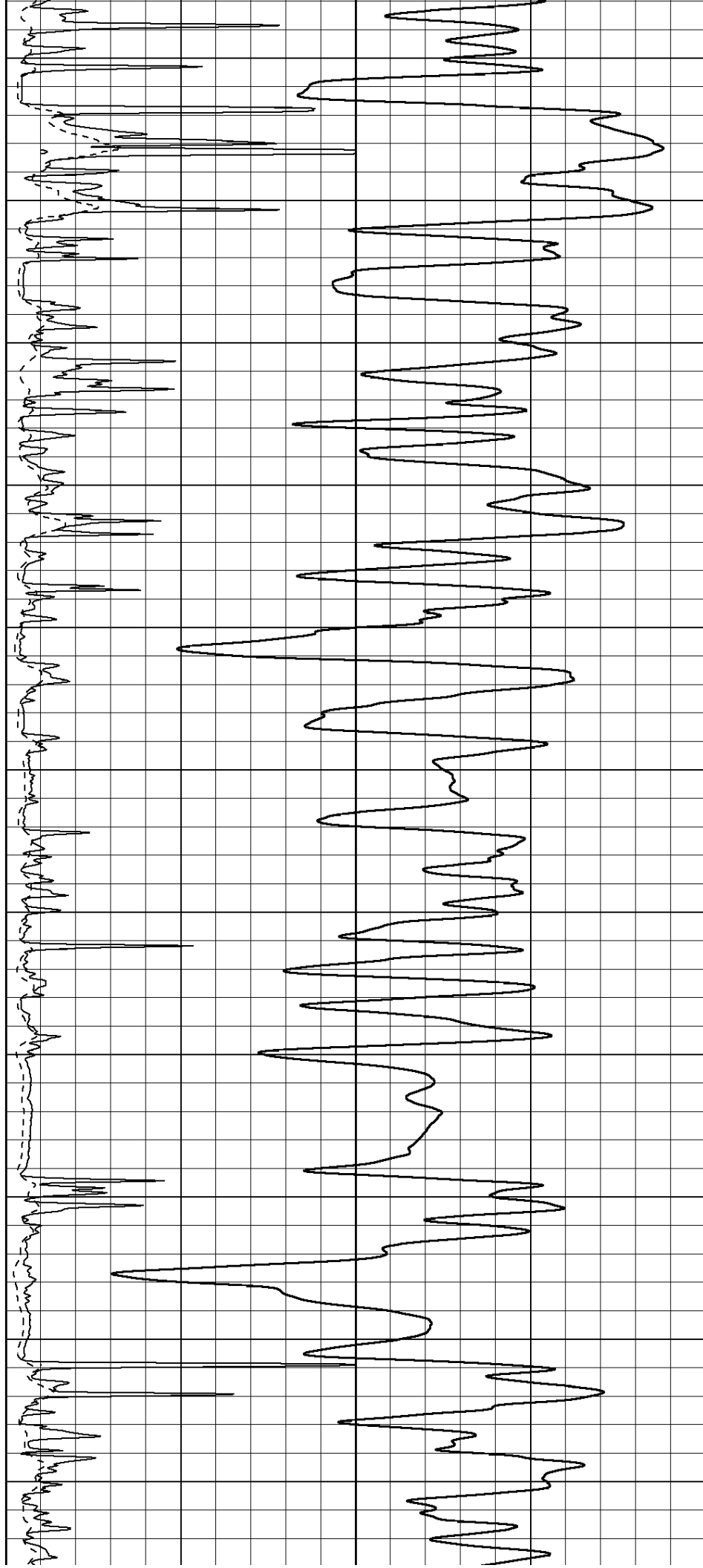
2400

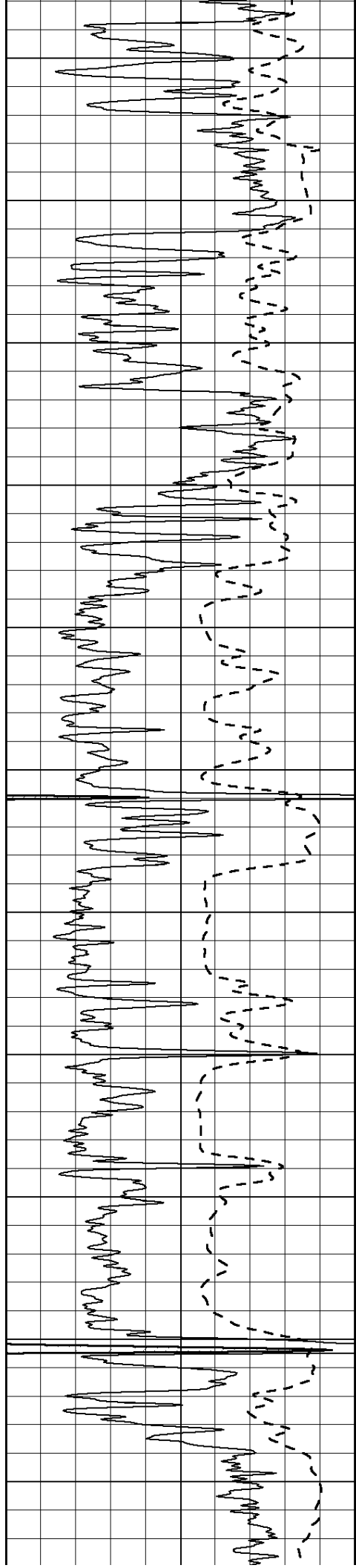
2450

2500

2550

2600





2650

2700

2750

2800

2850

2900

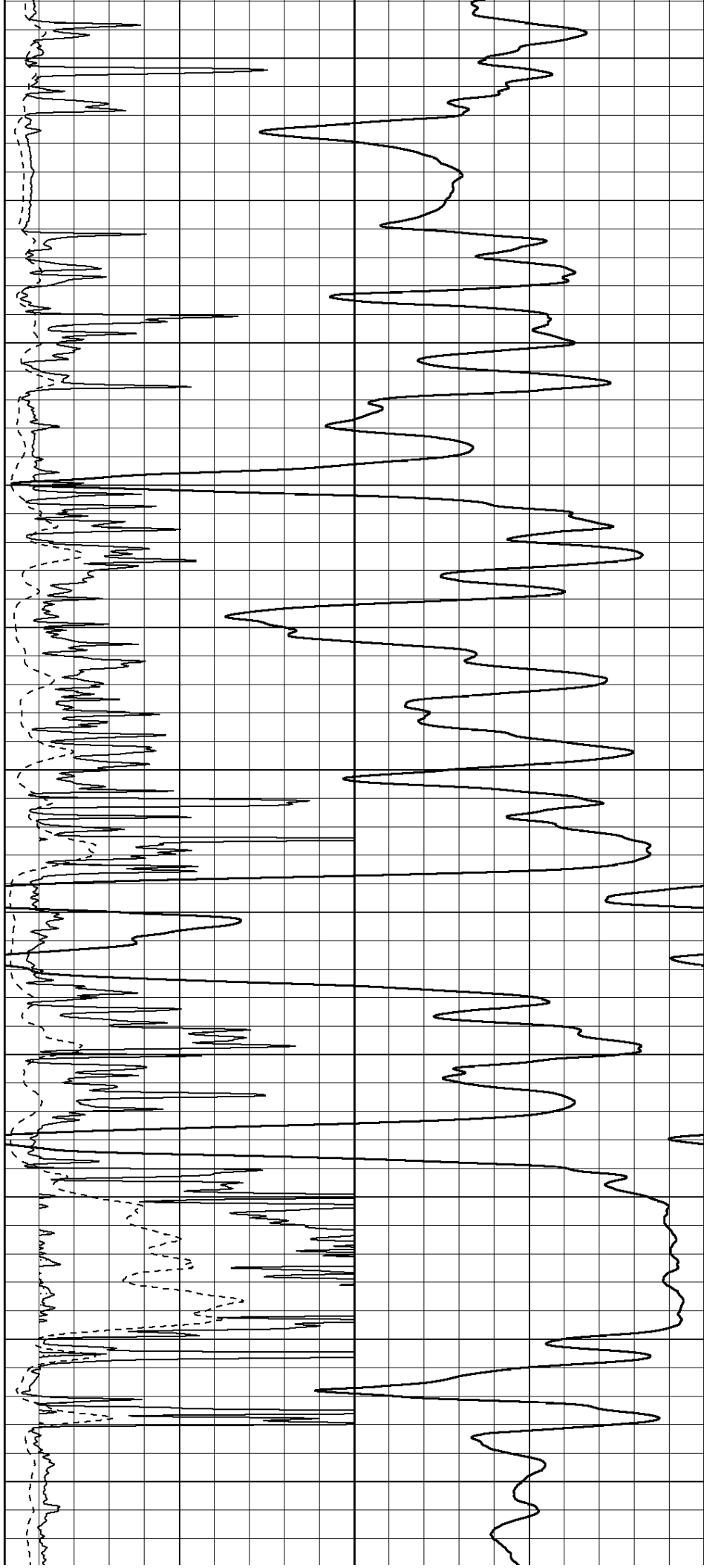
2950

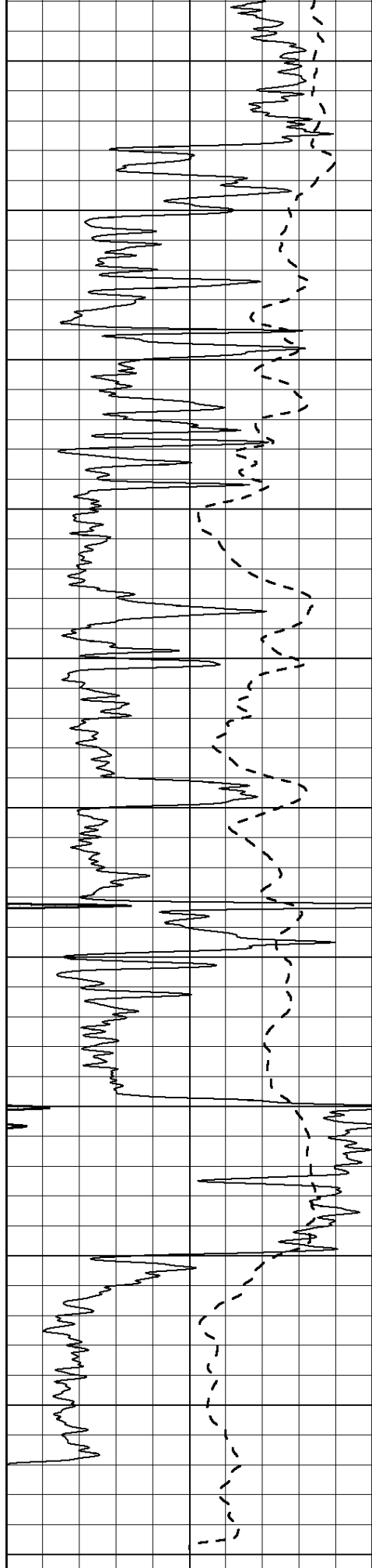
3000

3050

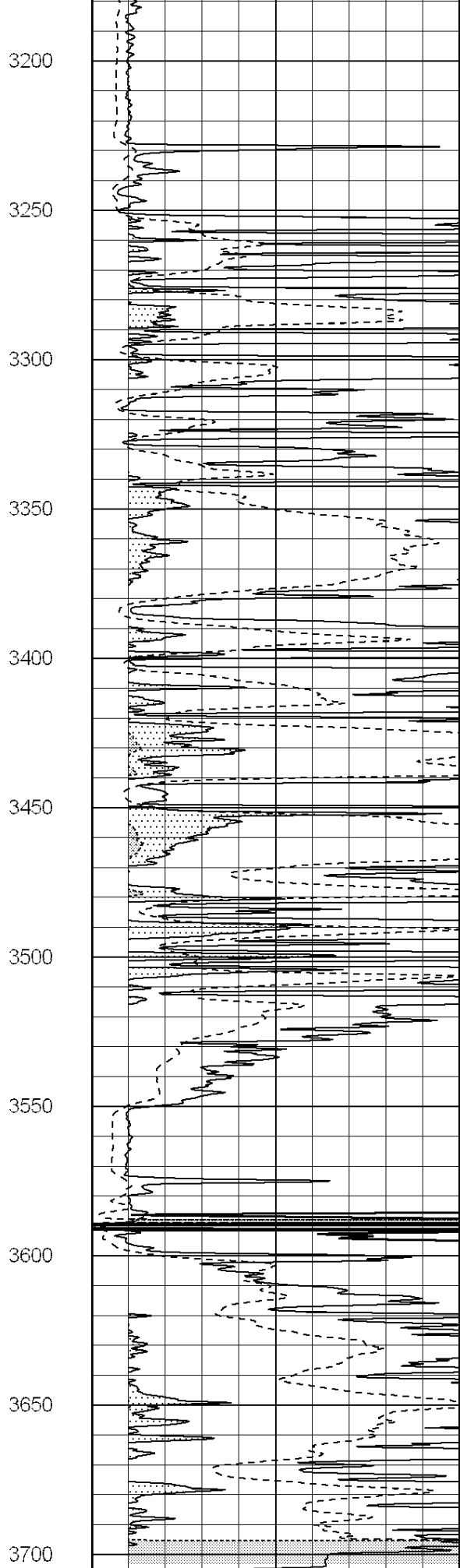
3100

3150





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



0	RLL3 (Ohm-m)	50
0	Deep Induction (Ohm-m)	50

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



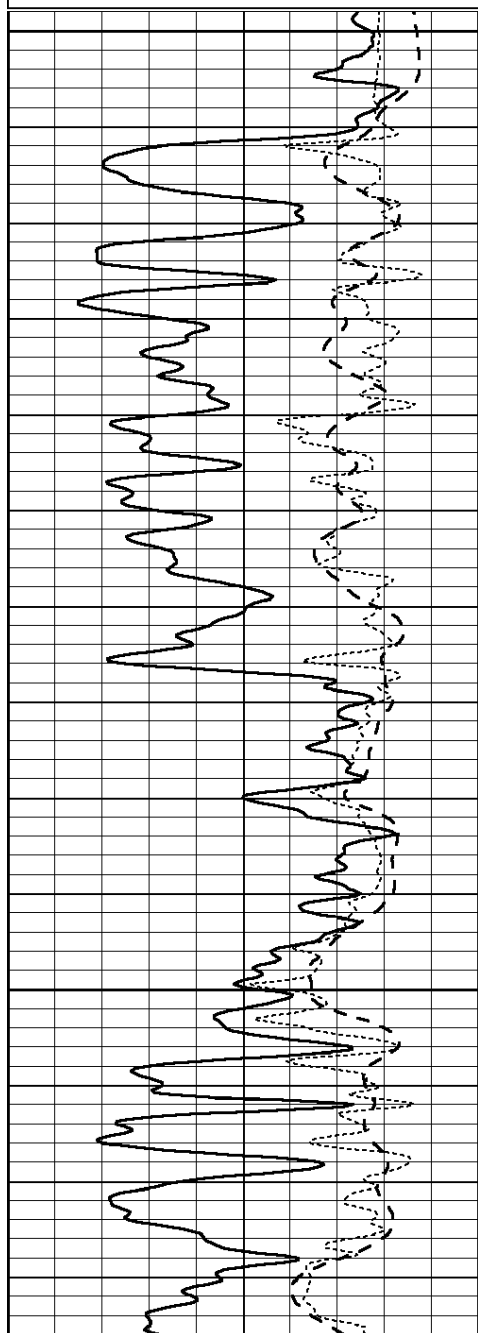
SUPERIOR
Hays,
Kansas

MAIN SECTION

Database File: 007894pe.db
Dataset Pathname: pass3.1
Presentation Format: _dil
Dataset Creation: Fri Oct 28 23:47:52 2011 by Calc Open-Cased 090629
Charted by: Depth in Feet scaled 1:240

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

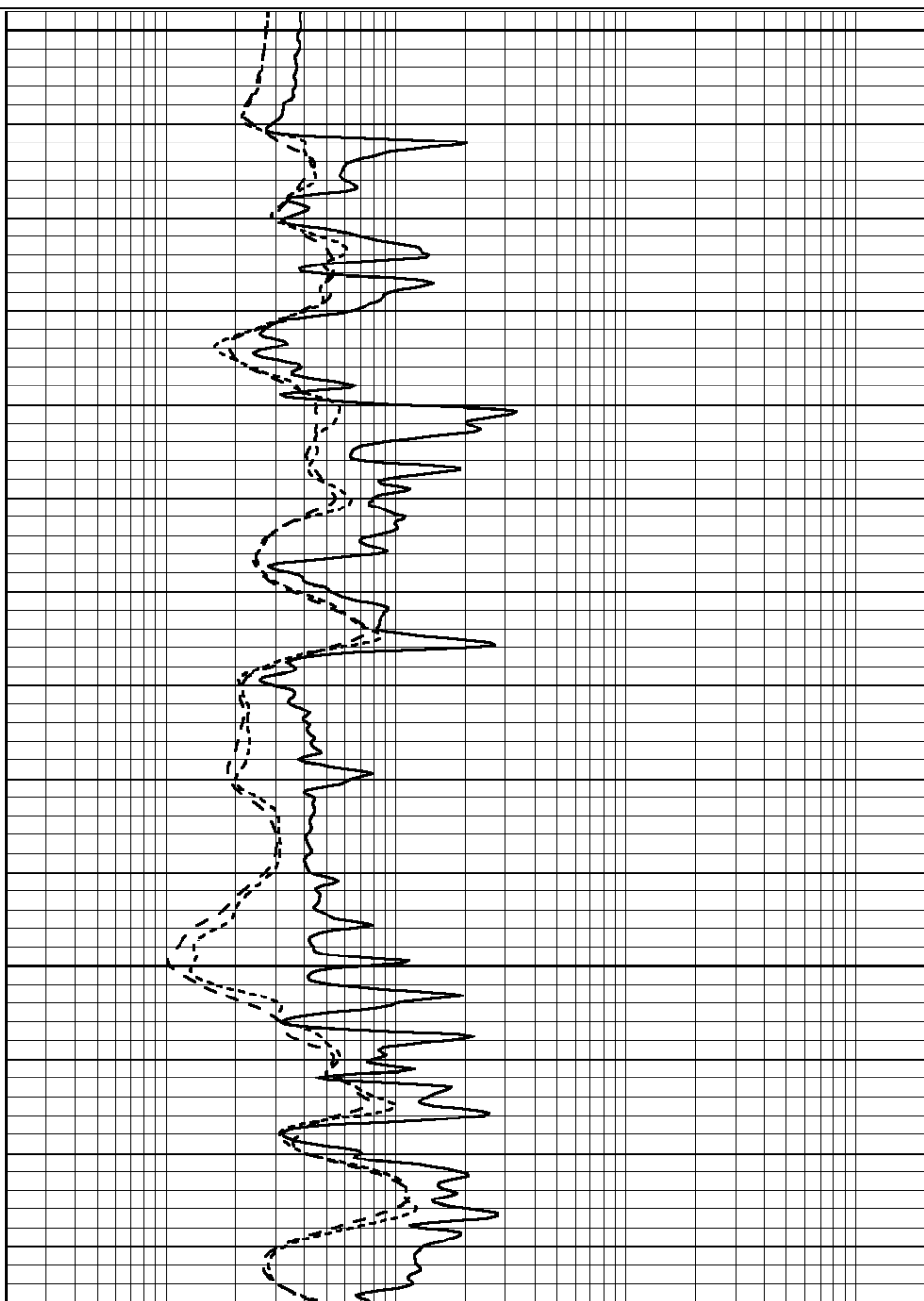
0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000

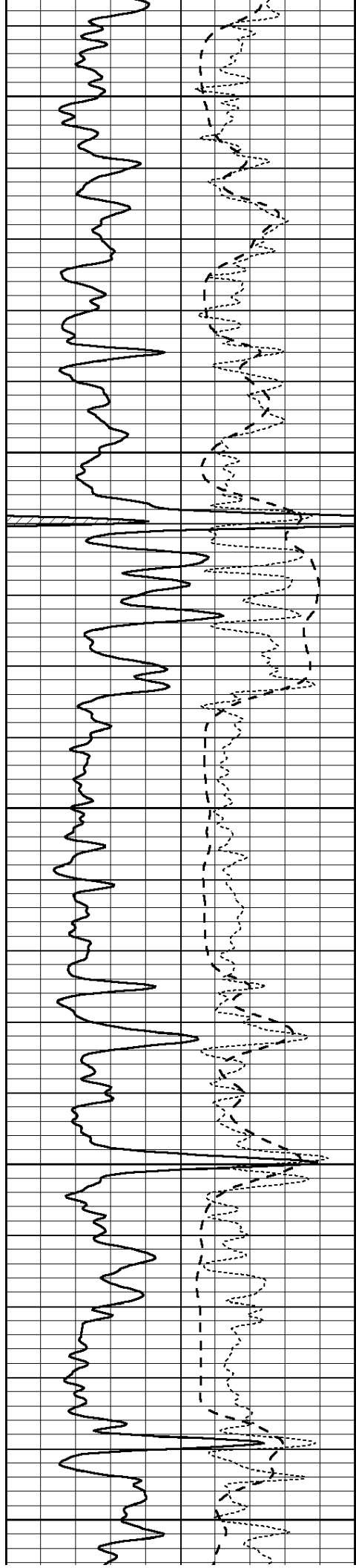


2700

2750

2800





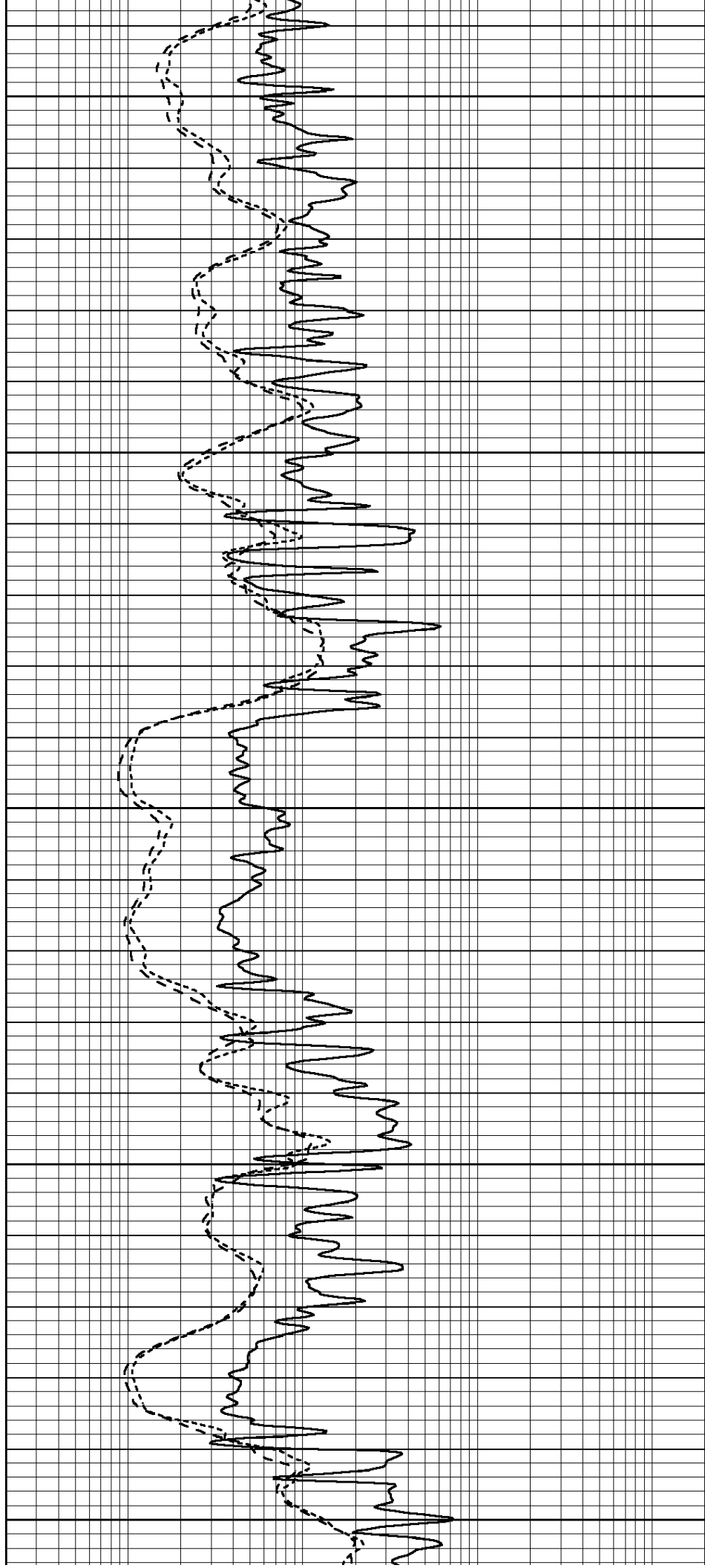
2850

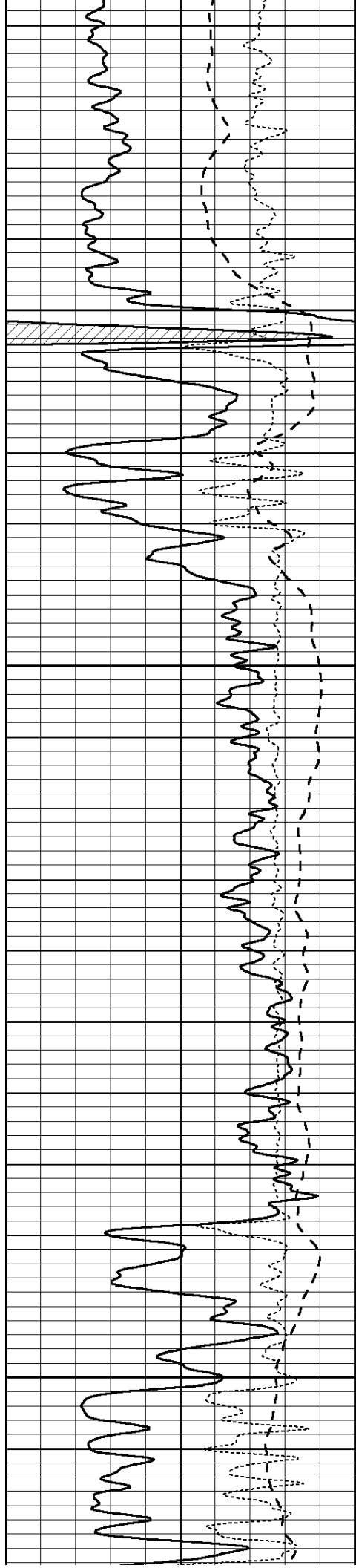
2900

2950

3000

3050



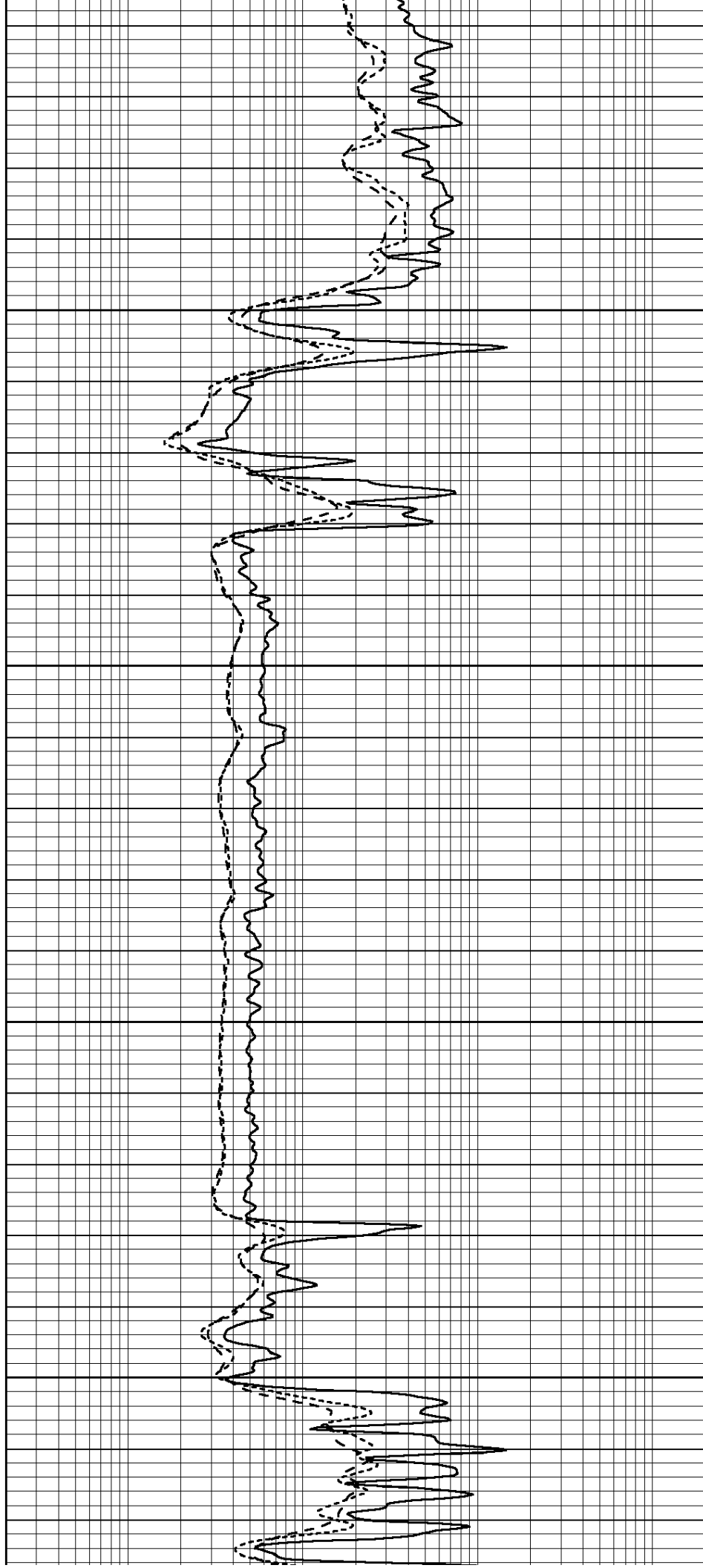


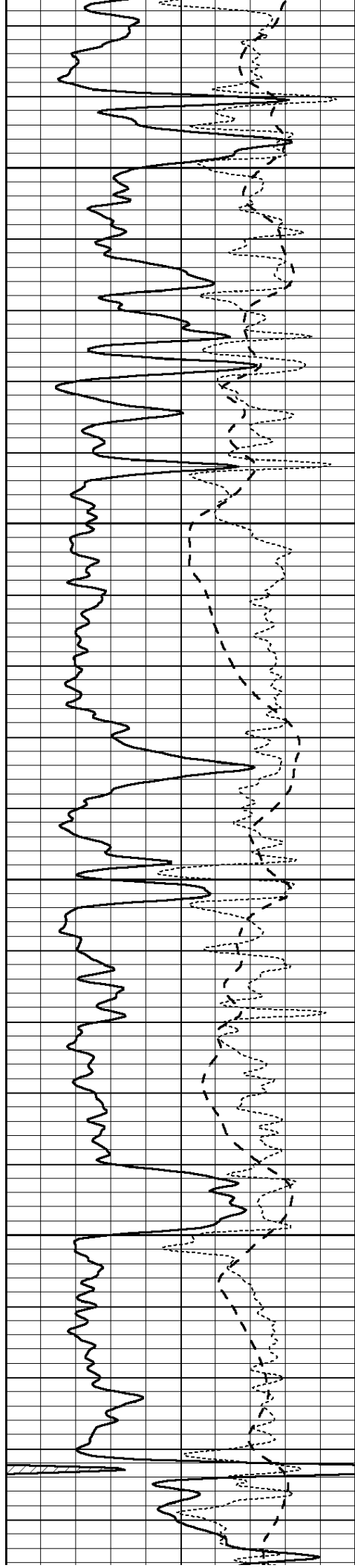
3100

3150

3200

3250



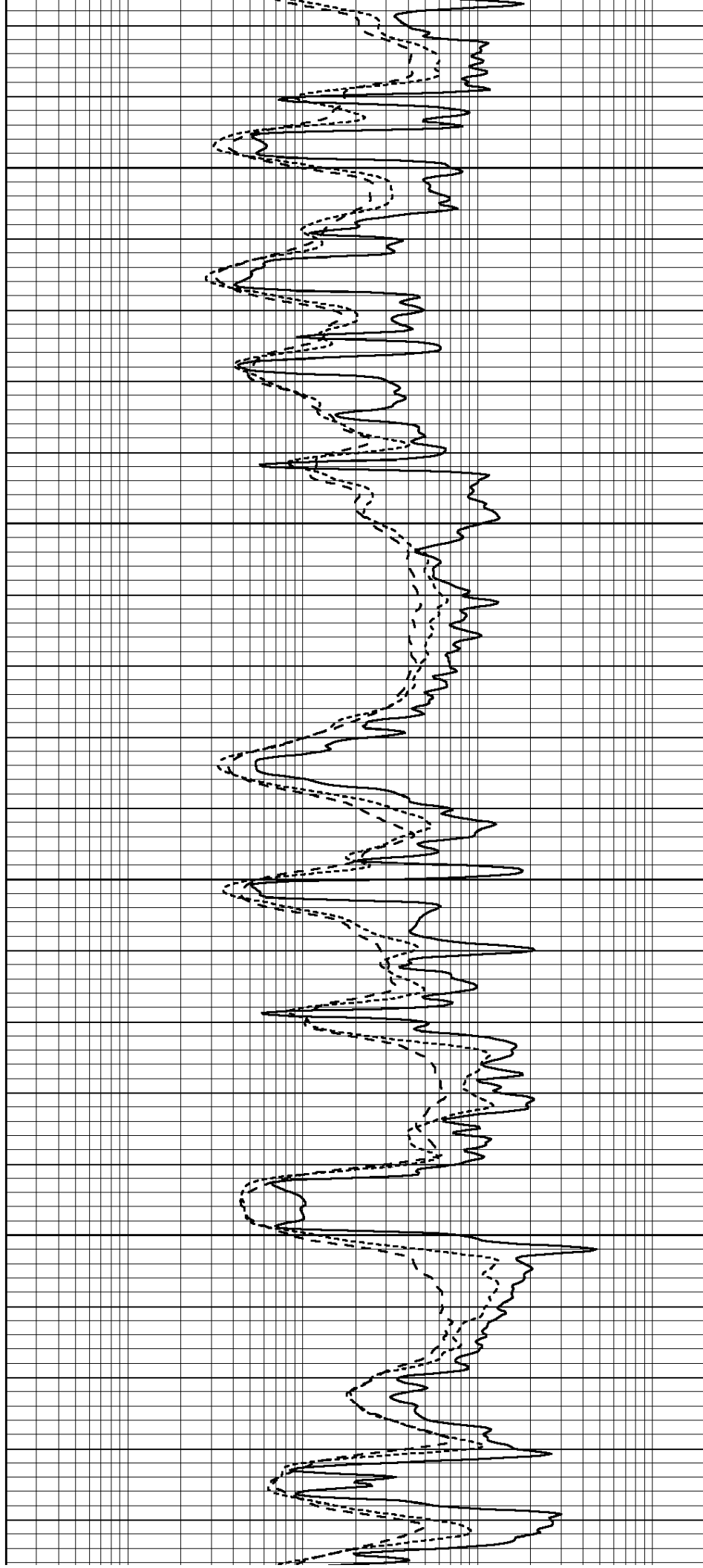


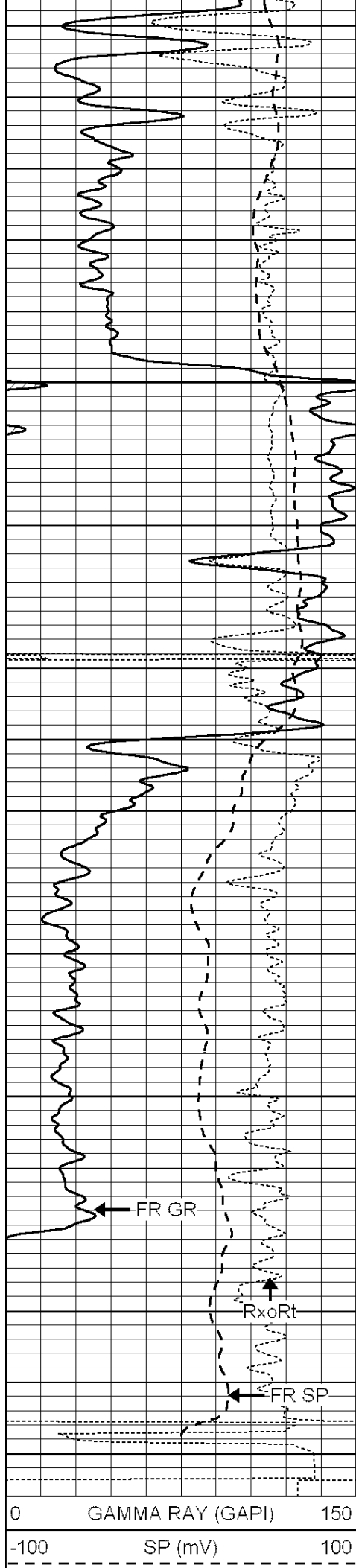
3300

3350

3400

3450



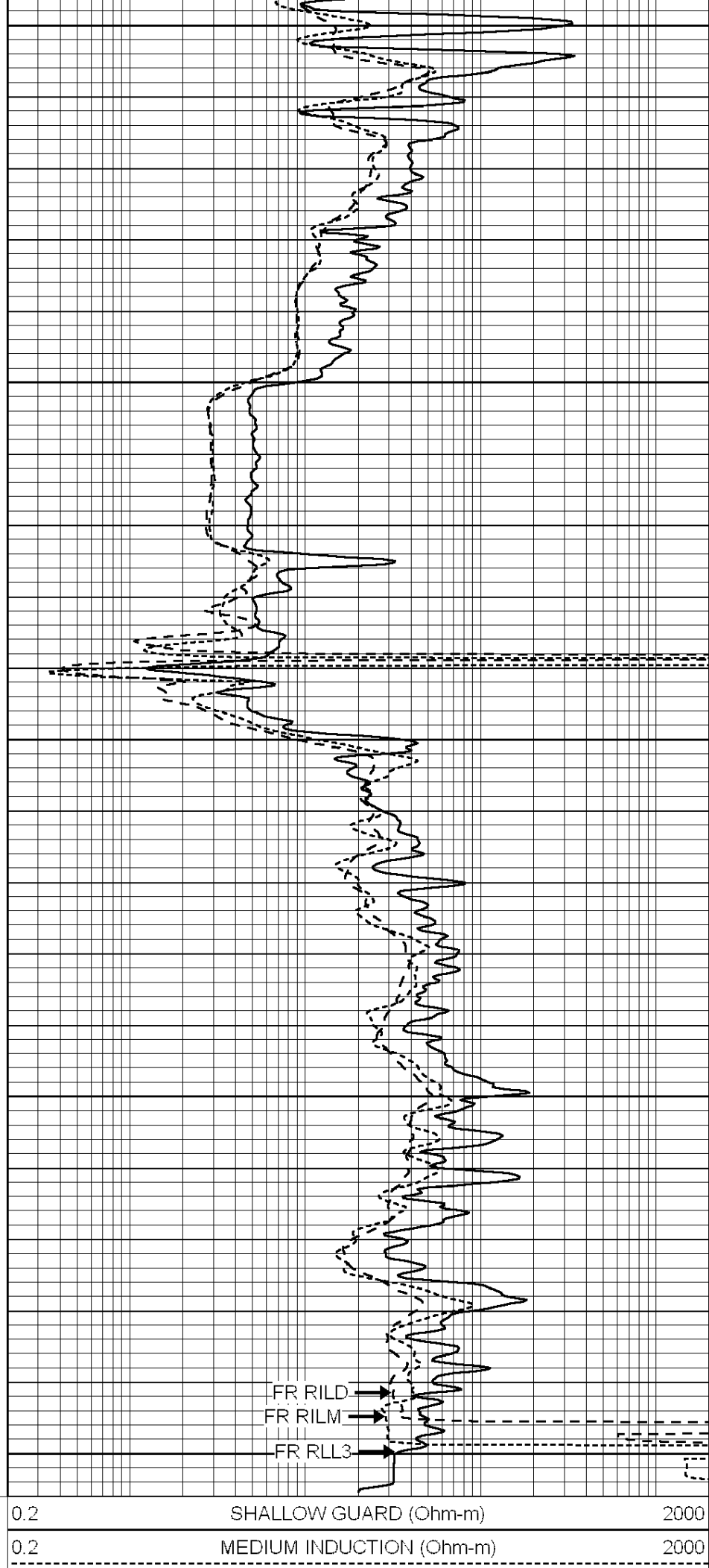


3500

3550

3600

3650



-250 Rxo/Rt 50

0.2 DEEP INDUCTION (Ohm-m) 2000



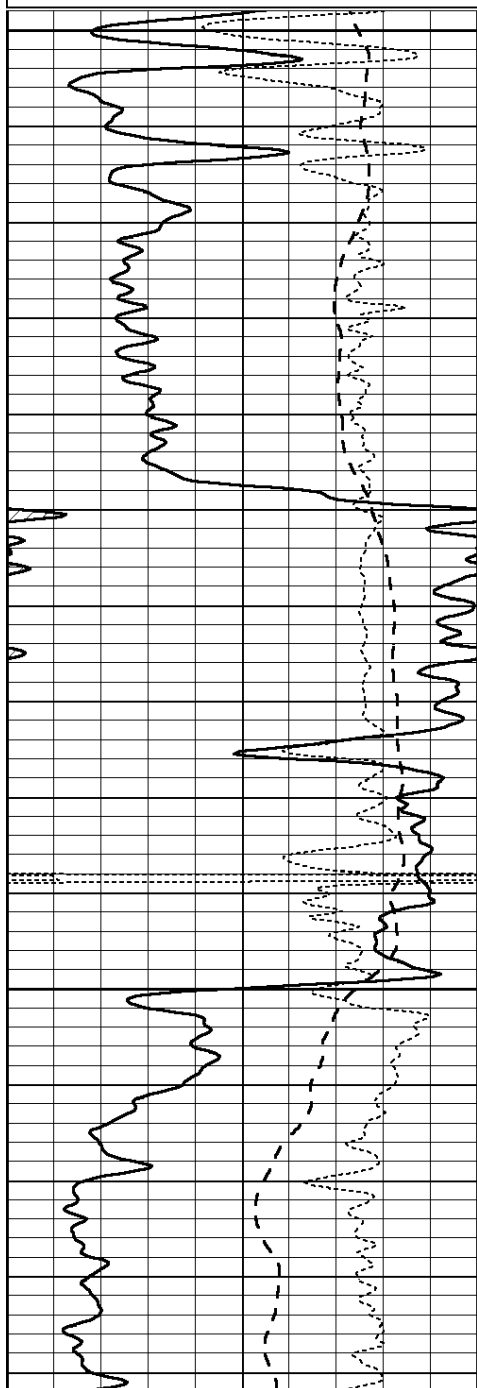
SUPERIOR
Hays,
Kansas

REPEAT SECTION

Database File: 007894pe.db
Dataset Pathname: pass2.1
Presentation Format: _dil
Dataset Creation: Fri Oct 28 23:36:45 2011 by Calc Open-Cased 090629
Charted by: Depth in Feet scaled 1:240

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

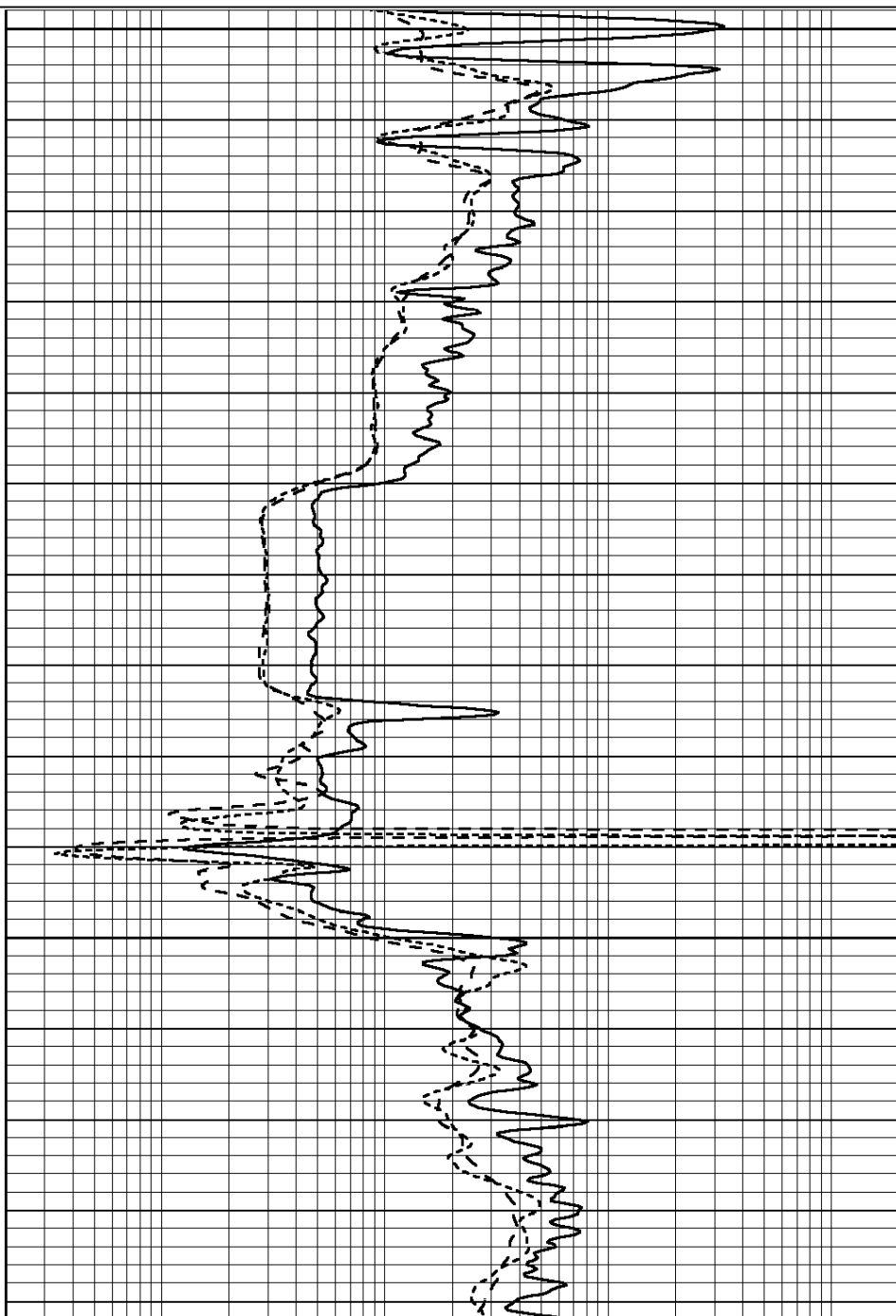
0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000

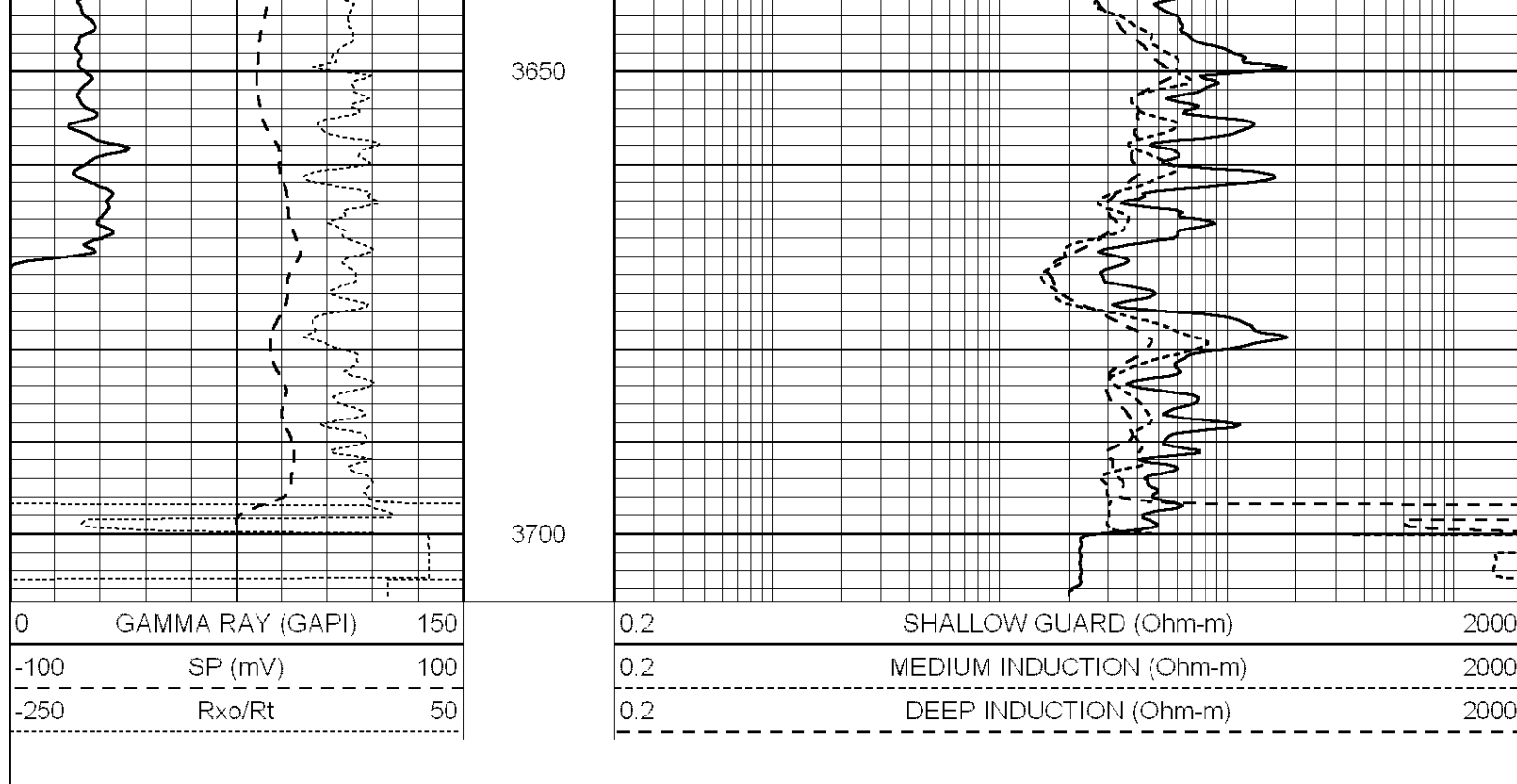


3500

3550

3600





Calibration Report

Database File: 007894pe.db
 Dataset Pathname: pass2.1
 Dataset Creation: Fri Oct 28 23:36:45 2011 by Calc Open-Cased 090629

Dual Induction Calibration Report

Serial-Model: PROBE7-DILG
 Surface Cal Performed: Wed Jul 30 06:14:24 2008
 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		Air	Loop		m	b
Deep	-0.014	0.629	V	0.000	400.000	mmho/m	621.923	8.759
Medium	0.039	0.728	V	0.000	464.000	mmho/m	673.322	-26.058
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: 002 Model: PRB
Performed Mon Oct 29 15:40:49 2007

Litho Density Calibration

	Background	Magnesium	Aluminum	Sandstone	
Window 1	1056.3	9118.0	2809.7	10378.4	cps
Window 2	969.9	7671.9	2431.6	8565.8	cps
Window 3	683.8	2939.8	1161.0	3161.8	cps
Window 4	231.4	231.6	226.7	230.8	cps
Long Space	0.0	6702.0	1461.7	7595.9	cps
Short Space	1.2	1433.6	959.4	1568.6	cps
Rho		1.7100	2.5900	1.3800	g/cc
Pe			2.5700	1.5500	
Rib Angle	: 45.2	Rib Slope	: 1.008	Density/Spine Ratio	: 0.559
Spine Angle	: 75.2	Spine Slope	: 3.791	Spine Intercept	: -18.7

Caliper

	Readings	Reference	
Low Ref	3.7	8.0	
High Ref	6.1	14.0	
	Gain: 2.5		Offset: -1.3

Compensated Neutron Calibration Report

Serial Number: 6I
Tool Model: G

CALIBRATION

Detector	Readings	Target	Normalization
Short Space	1.00 cps	1.00 cps	1.0000
Long Space	1.00 cps	1.00 cps	1.0000

Gamma Ray Calibration Report

Serial Number: #8
Tool Model: OPEN
Performed: Mon Jun 13 16:56:43 2011

Calibrator Value: 150.0 GAPI

Background Reading: 0.0 cps
Calibrator Reading: 175.0 cps

Sensitivity: 0.8371 GAPI/cps