



**SUPERIOR**  
Black Lick, Pa.  
Mercer, Pa.  
Wooster, Oh.  
Cleveland, Ok.  
Trinidad, Co.

## DUAL INDUCTION LOG

Company XTO Energy Inc.  
Well Apache Canyon 32-14  
Field Purgatoire River  
County Las Animas State Colorado

Location: API # : 05 071 09129 00

716' FSL & 2071' FWL

SEC 32 TWP 33S RGE 67W

Permanent Datum Ground Level Elevation 7983'  
Log Measured From Ground Level  
Drilling Measured From Ground Level

Other Services  
cdl  
neutron  
Elevation  
K.B. -----  
D.F. -----  
G.L. 7983'

Date 6-15-07

Run Number One

Depth Driller 2600'

Depth Logger 2598'

Bottom Logged Interval 2596'

Top Log Interval Surface Casing

Casing Driller 8 5/8" @ 496'

Casing Logger 496'

Bit Size 7 7/8"

Type Fluid in Hole Water

Density / Viscosity ///

pH / Fluid Loss ///

Source of Sample ///

Rm @ Meas. Temp ///

Rmf @ Meas. Temp ///

Rmc @ Meas. Temp ///

Source of Rmf / Rmc ///

Rm @ BHT ///

Time Circulation Stopped 9:45 P.M.

Time Logger on Bottom 11:45 P.M.

Maximum Recorded Temperature 112 DEG F

Equipment Number T697

Location Trinidad

Recorded By M. Norton

Witnessed By Mr. Don Johnson

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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

#### Well Directions:

First Bosque entrance just before Weston, first right at Cherry Canyon, stay left at Y, stay on main road approx. four and half miles, take road to left, first location.



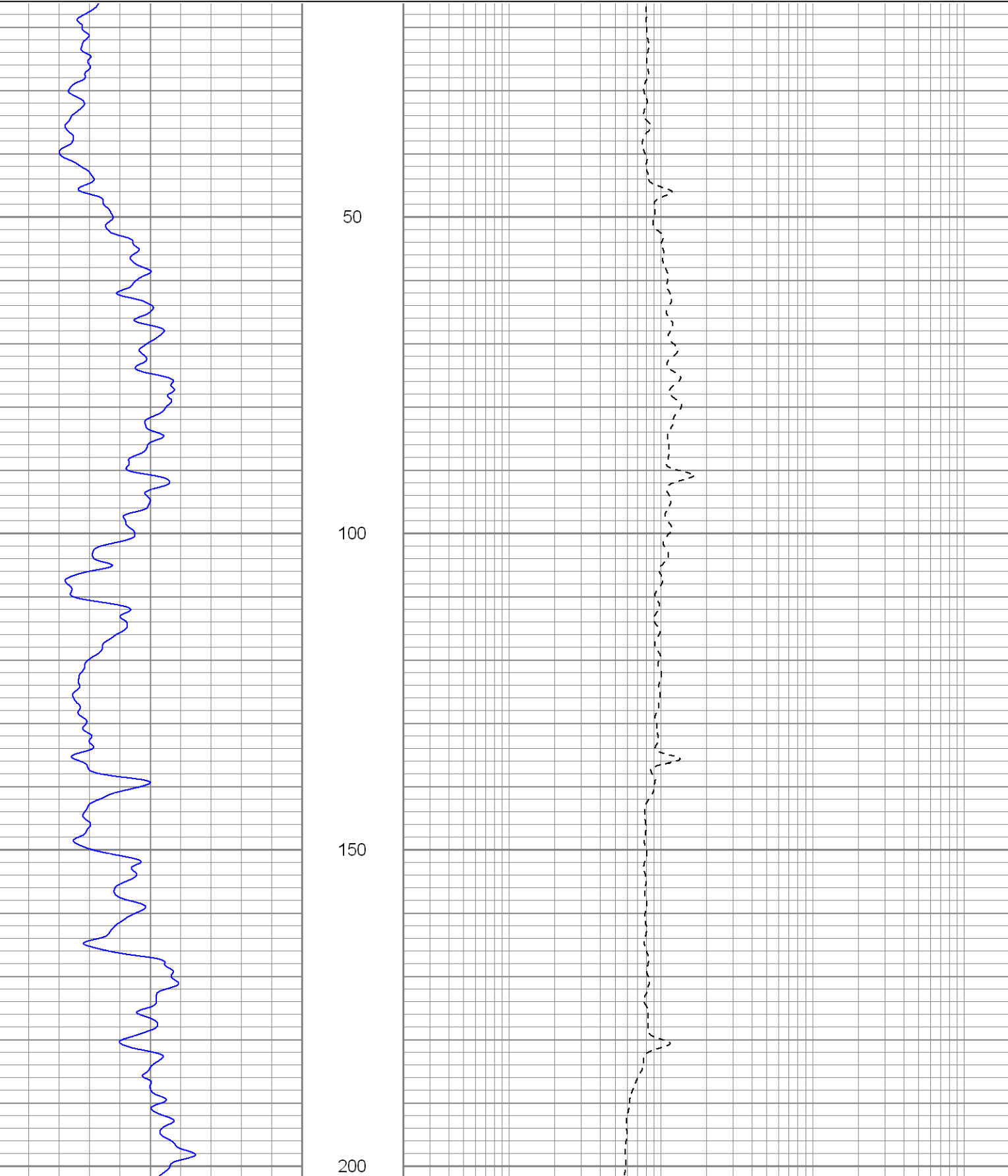
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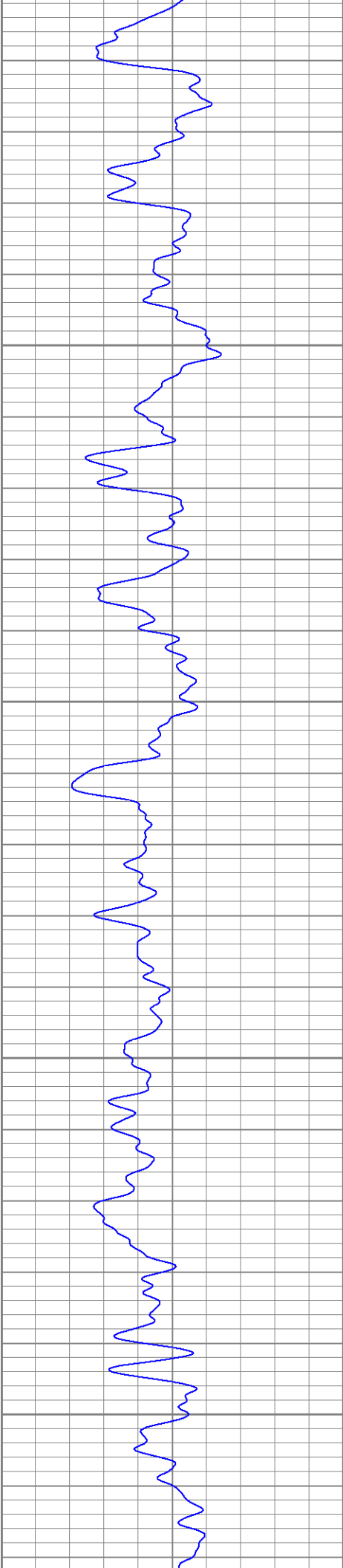
# Main Pass

Database File: xtoac3214.db  
Dataset Pathname: pass2.1  
Presentation Format: dil  
Dataset Creation: Fri Jun 15 02:03:13 2007 by Calc Open-Cased 061129  
Charted by: Depth in Feet scaled 1:240

0	GR (GAPI)	200
-100	SP (mV)	100

0.2	RILM (Ohm-m)	2000
0.2	RILD (Ohm-m)	2000
0.2	RLL3 (Ohm-m)	2000



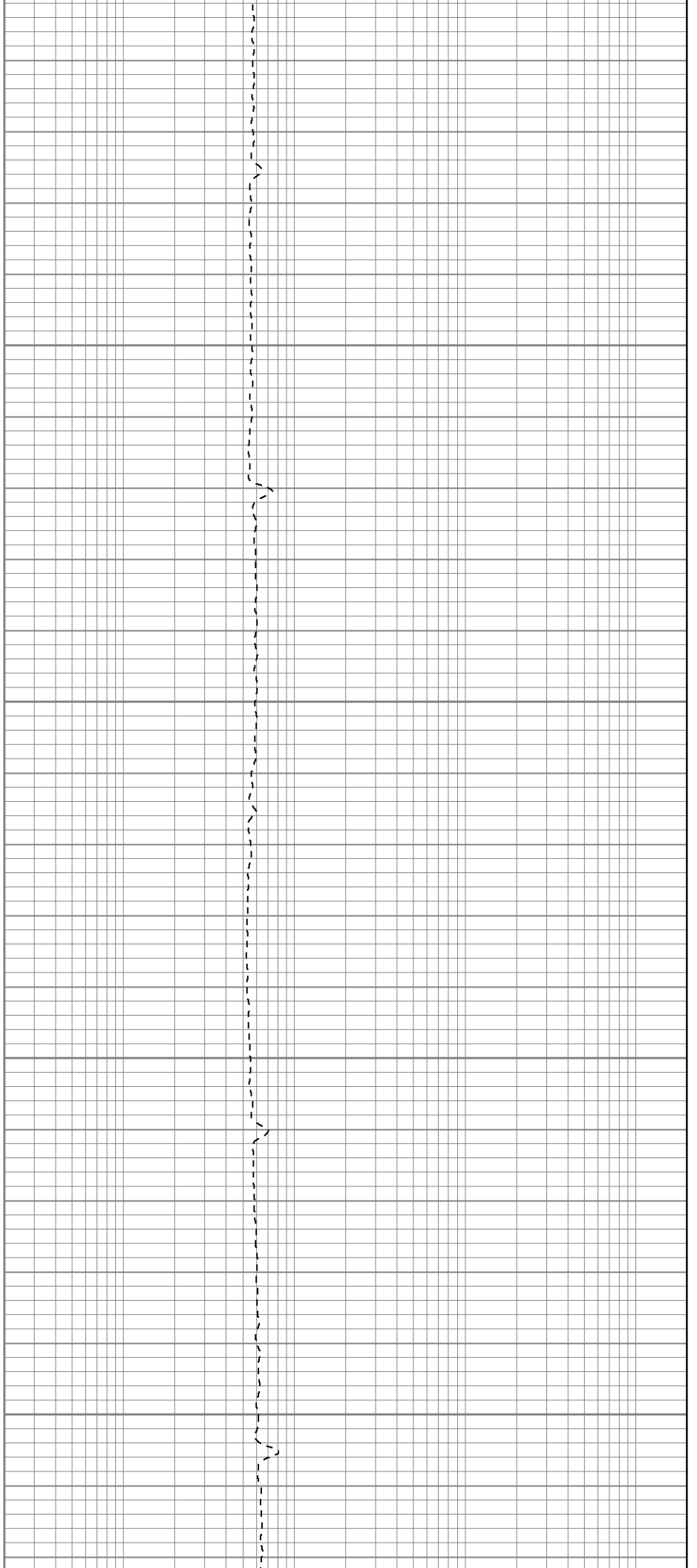


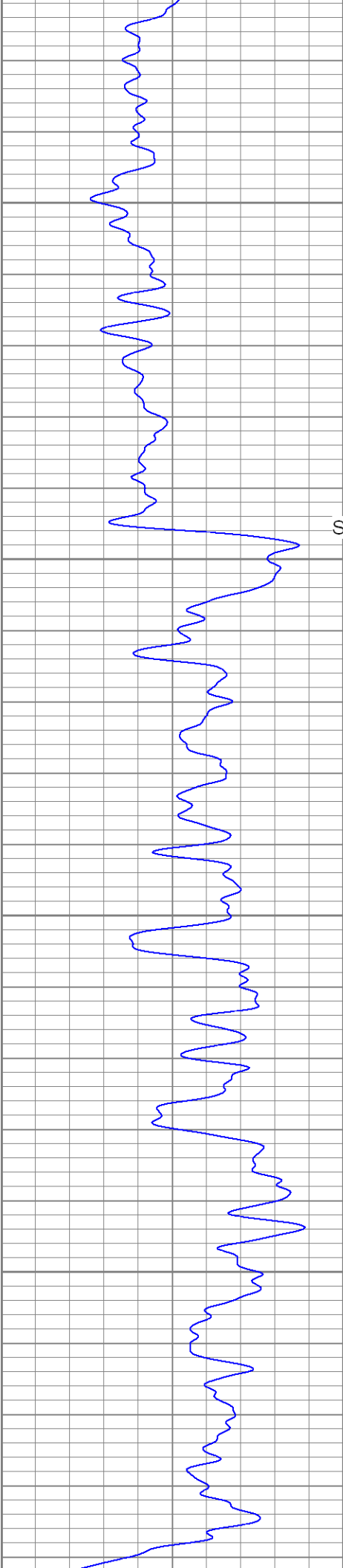
250

300

350

400





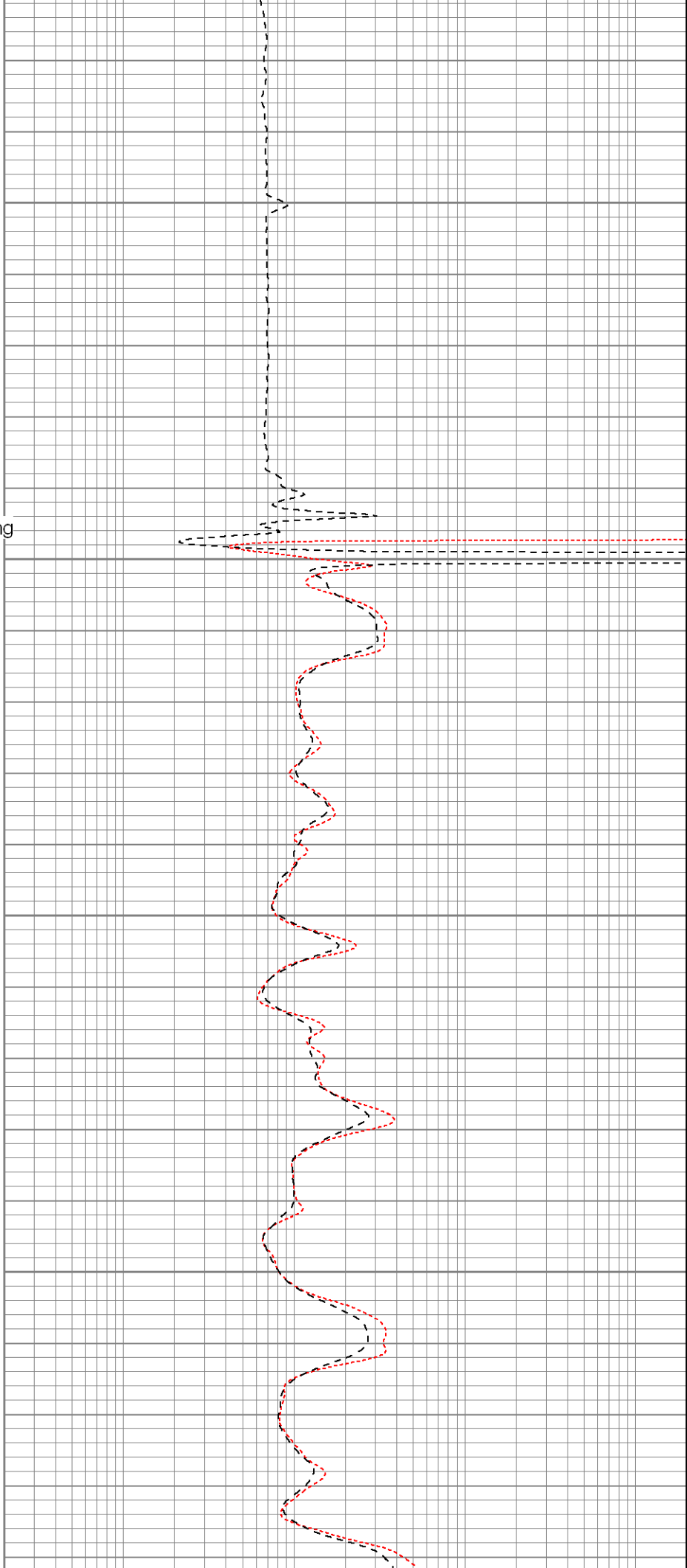
Surface Casing

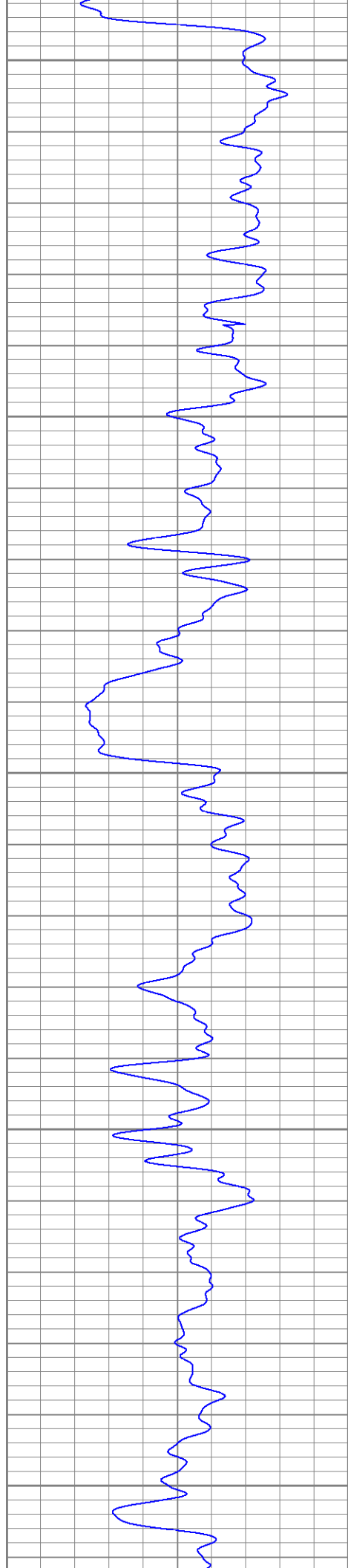
450

500

550

600





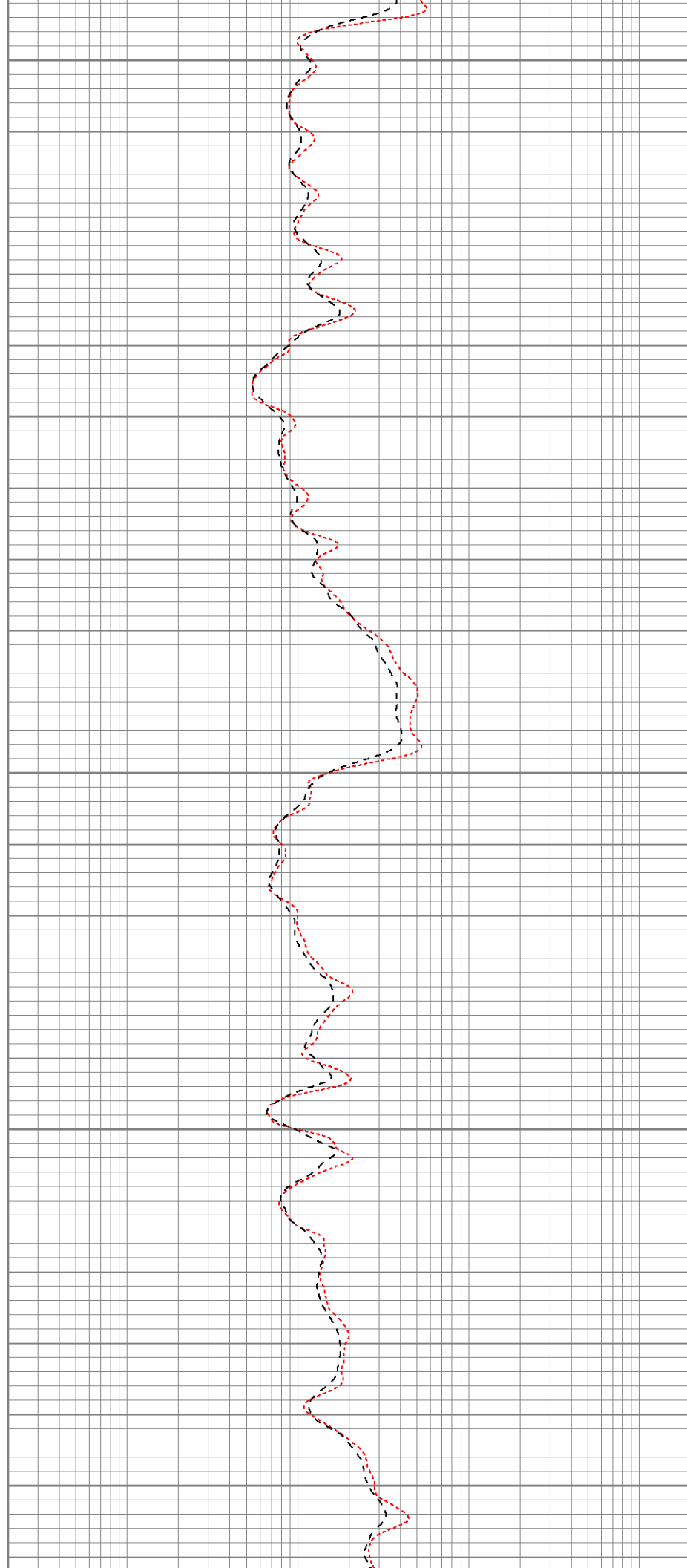
650

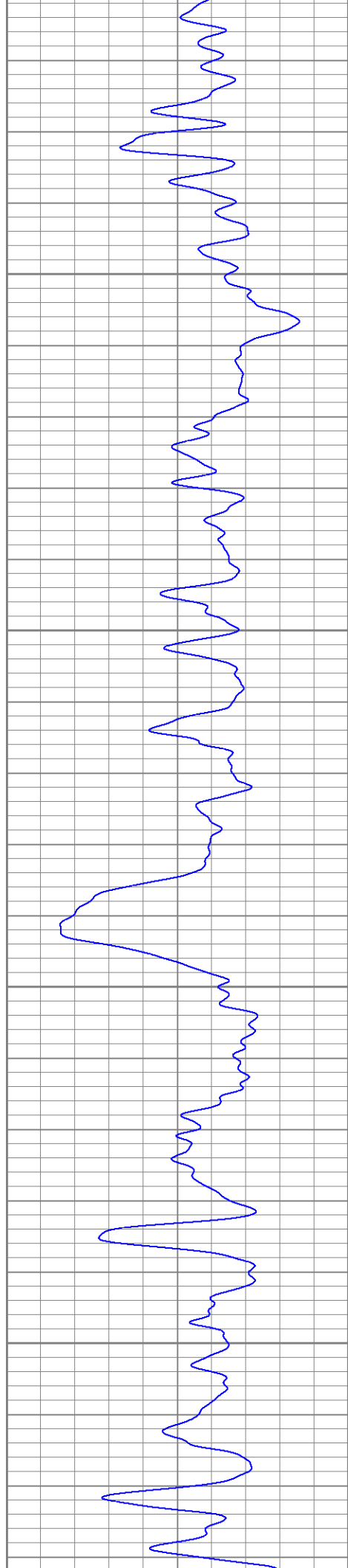
700

750

800

850



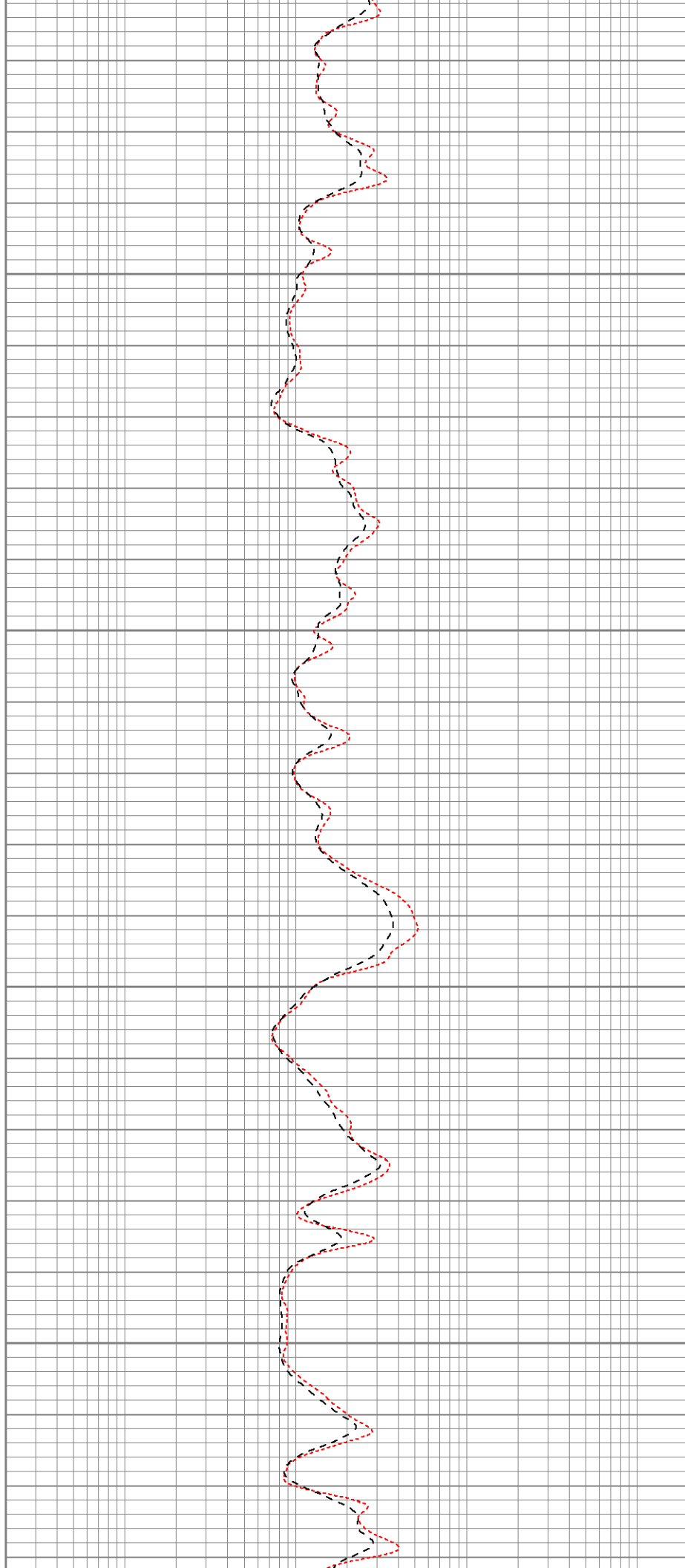


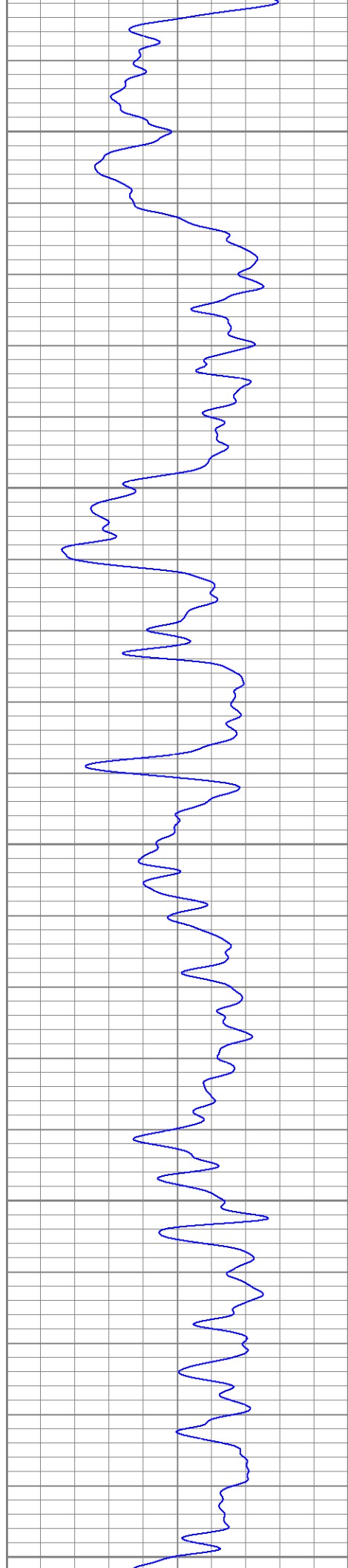
900

950

1000

1050





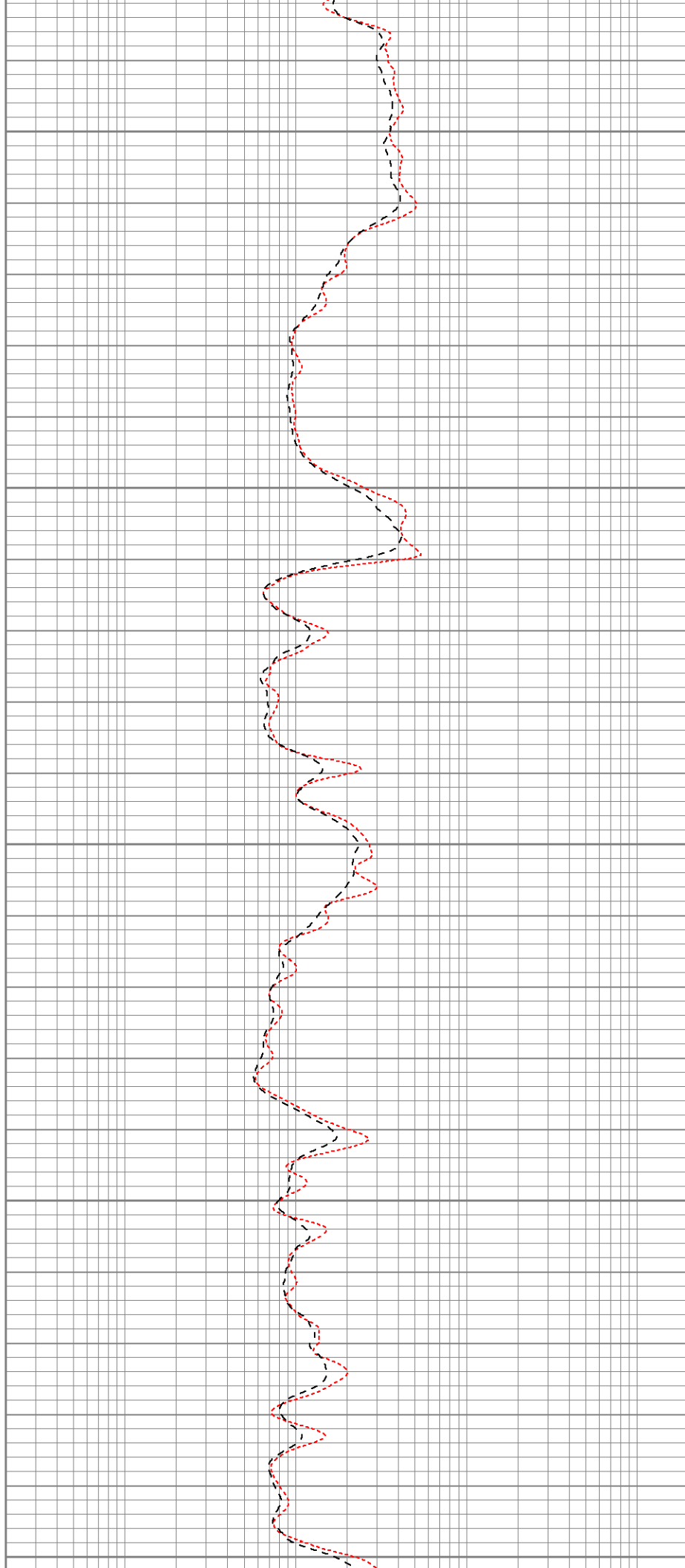
1100

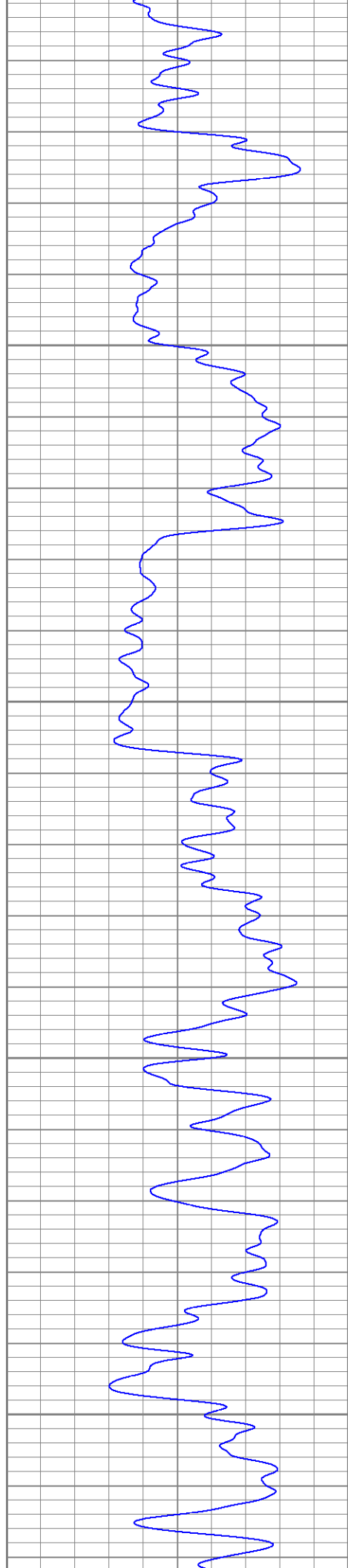
1150

1200

1250

1300



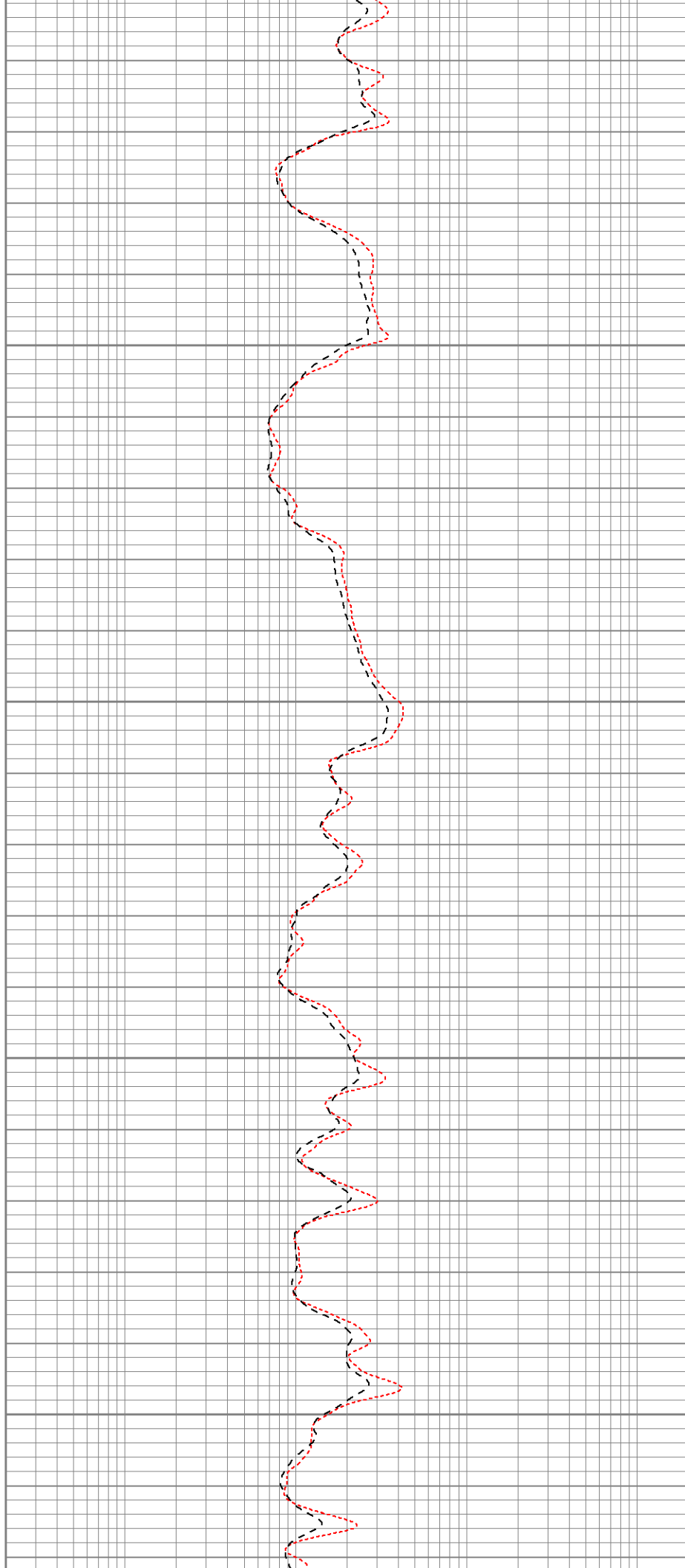


1350

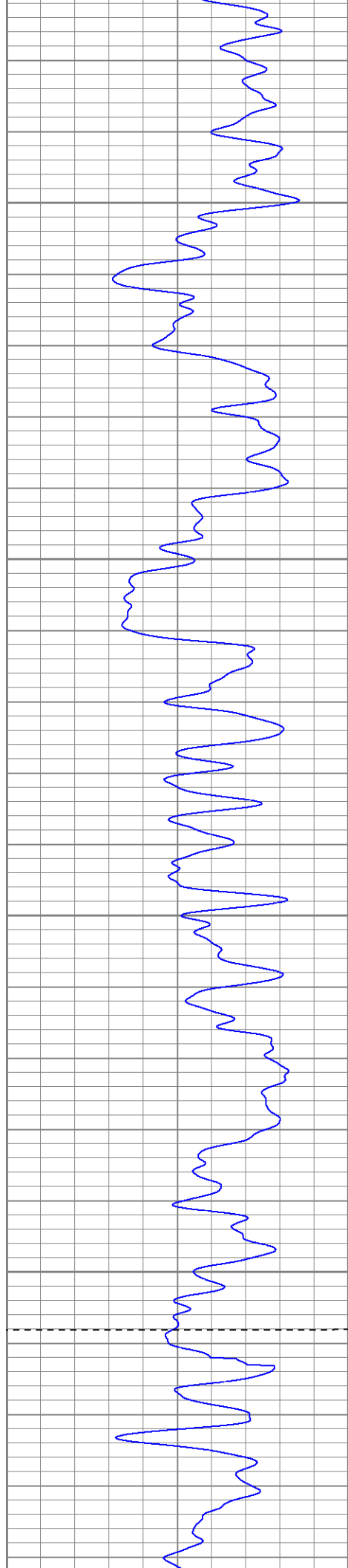
1400

1450

1500







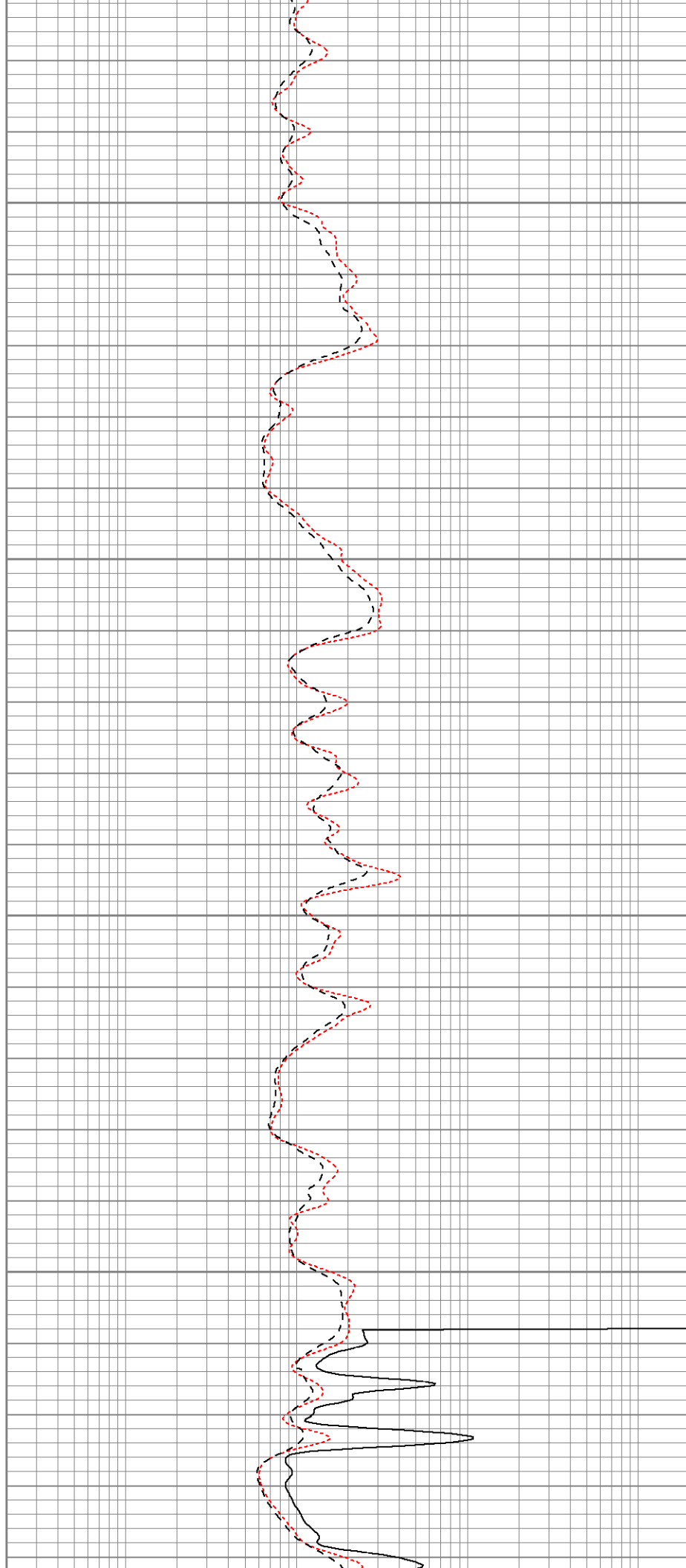
1550

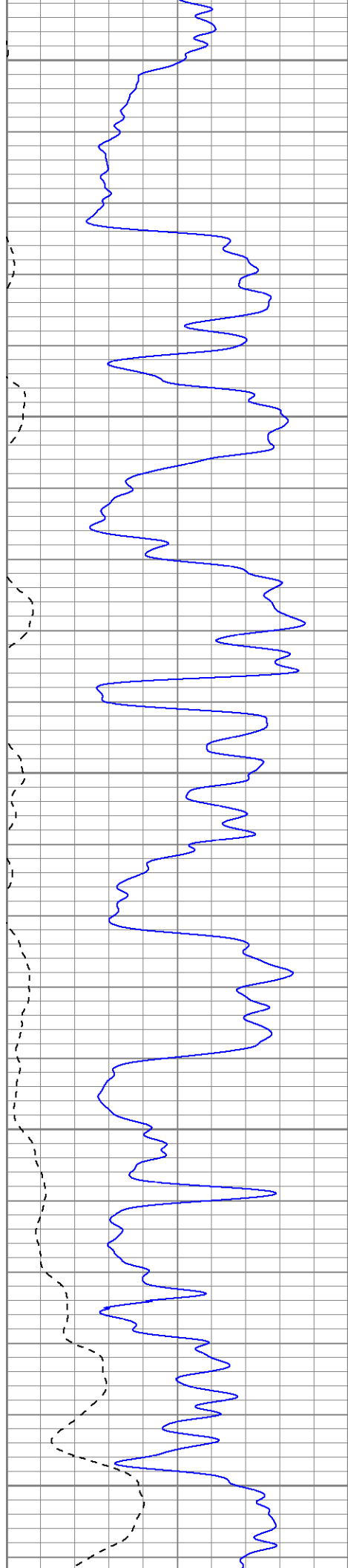
1600

1650

1700

Fluid Level





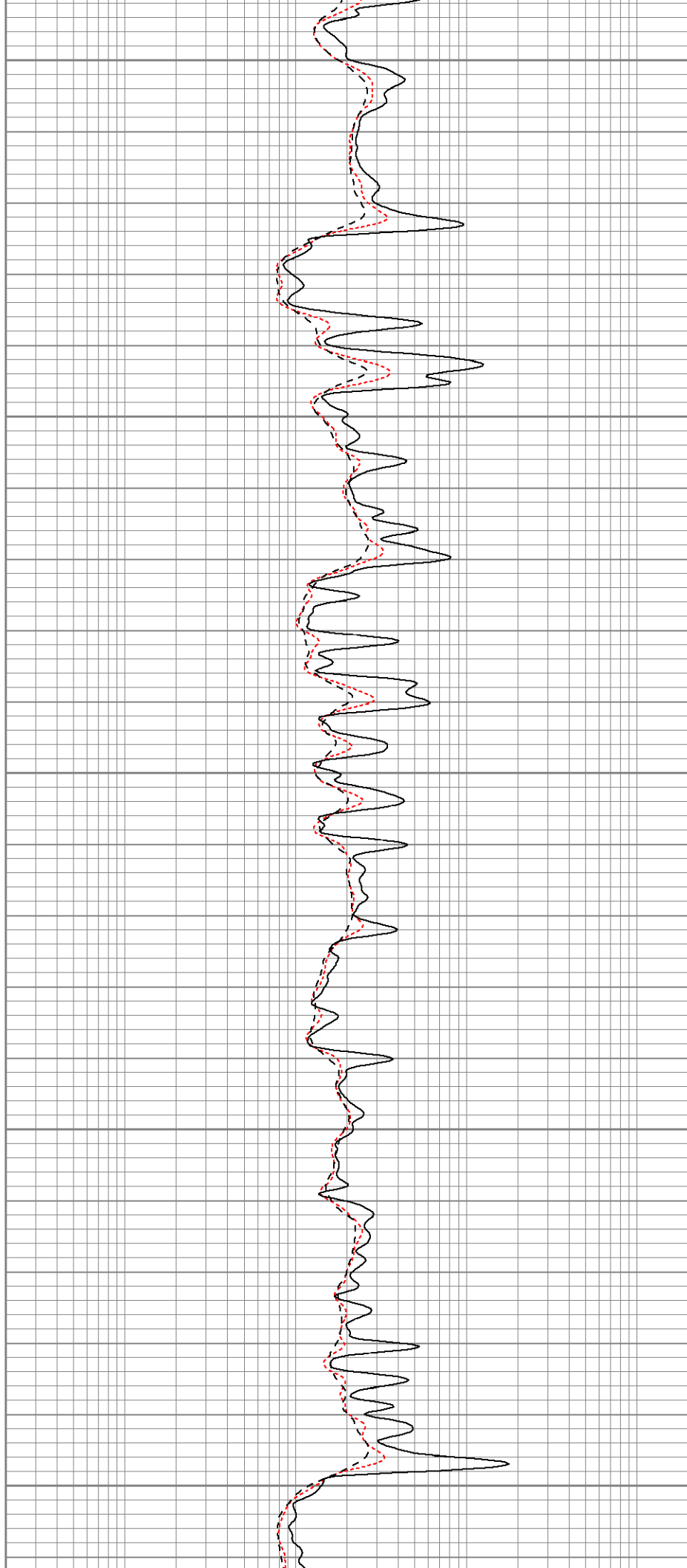
1750

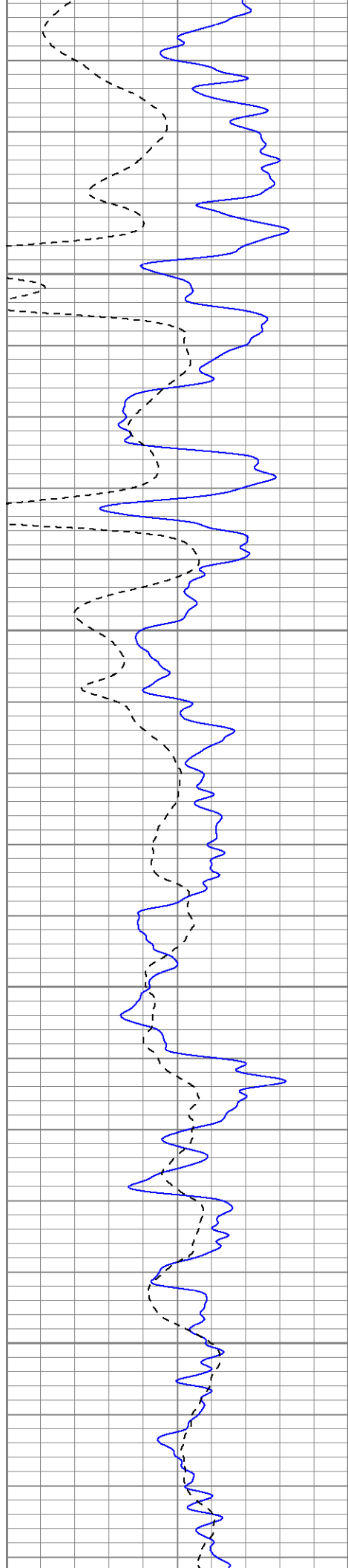
1800

1850

1900

1950



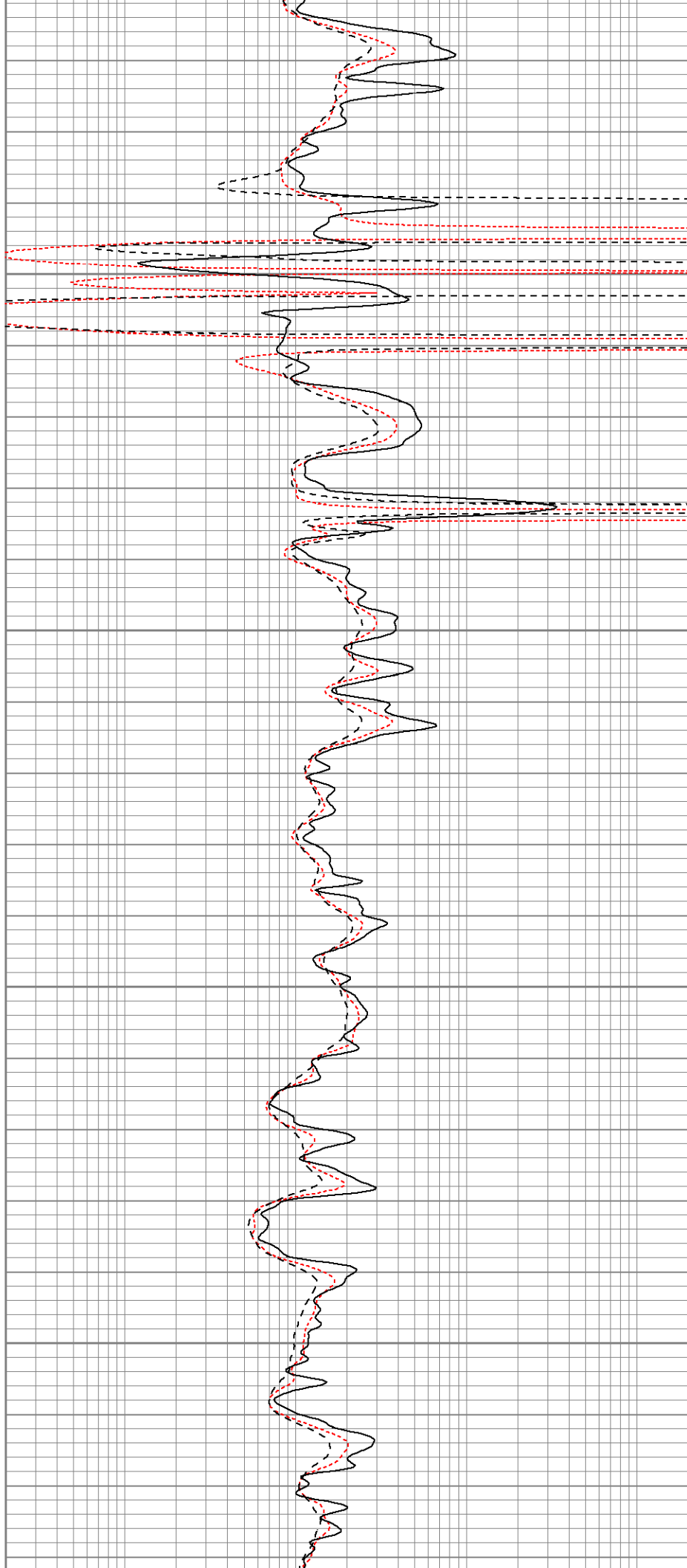


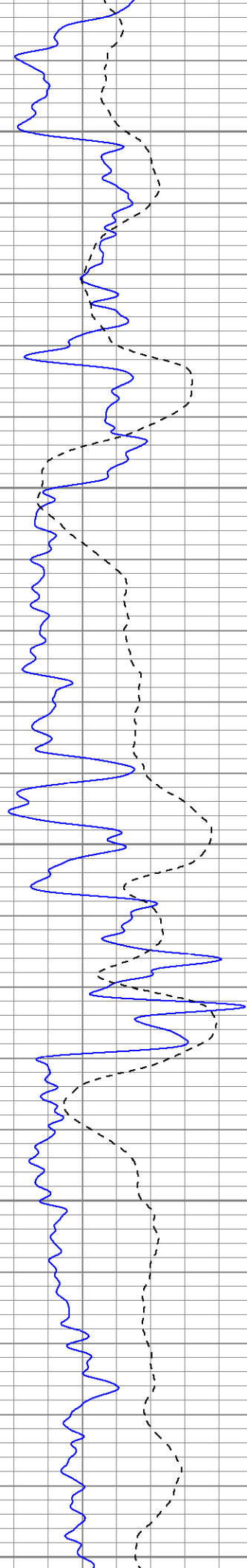
2000

2050

2100

2150





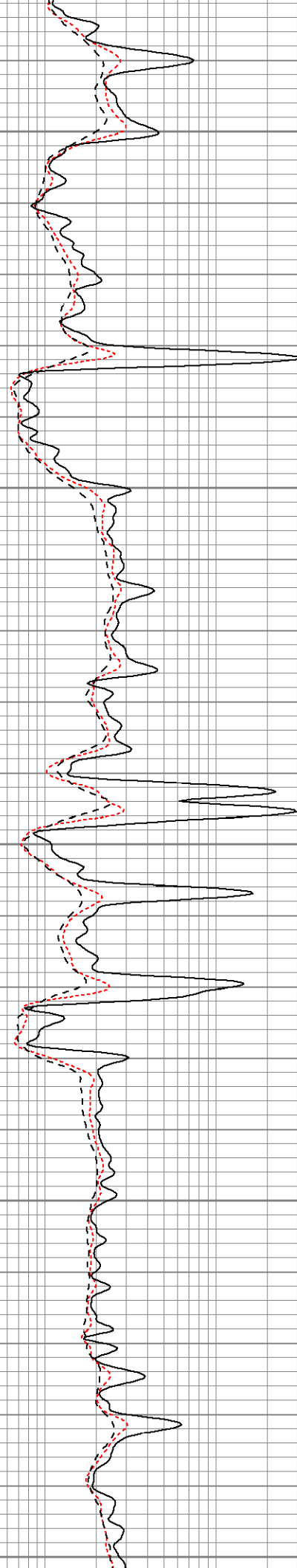
2200

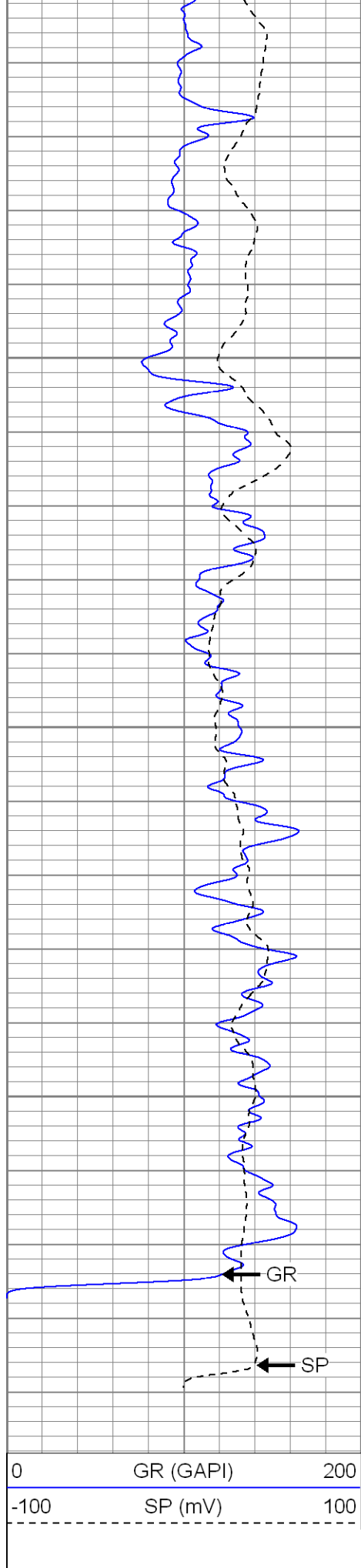
2250

2300

2350

2400

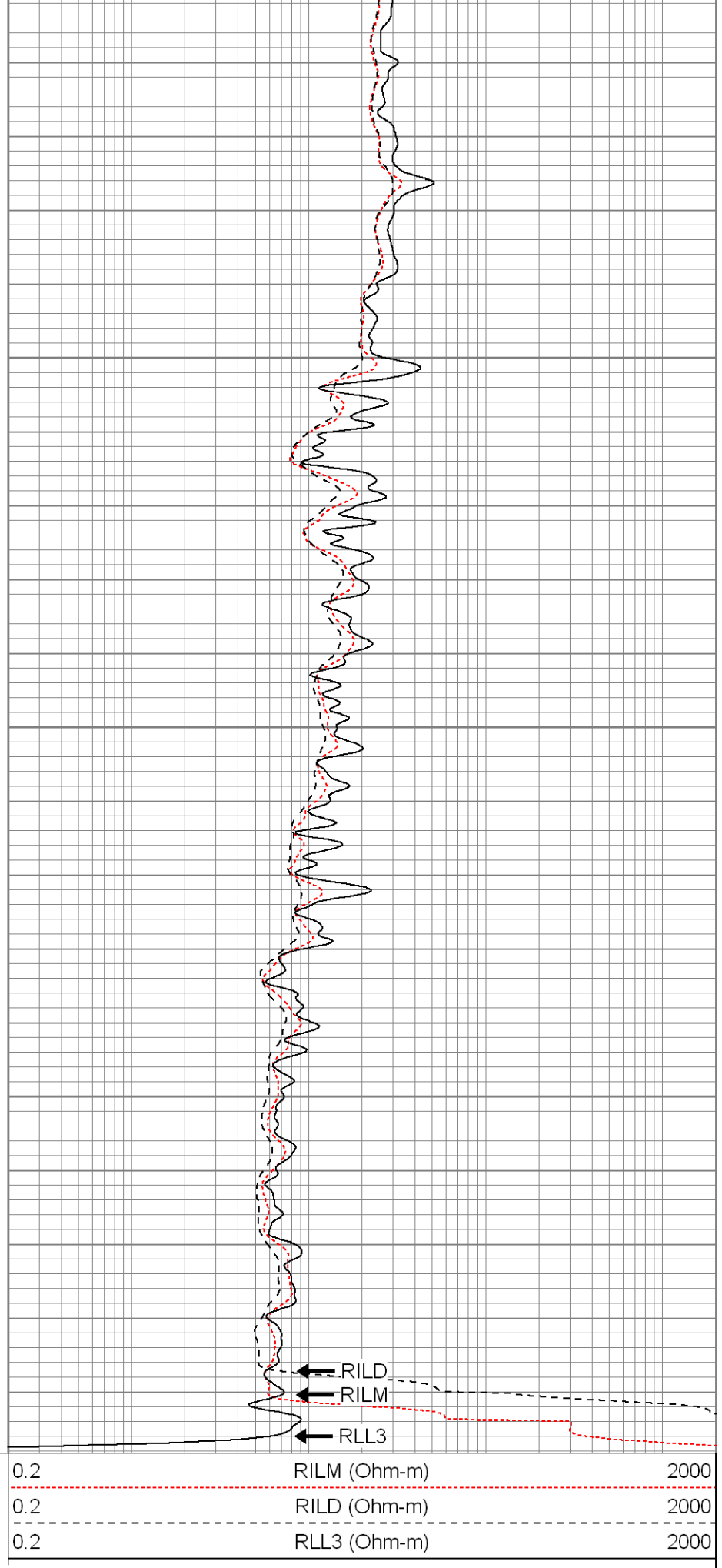




2450

2500

2550





SUPERIOR

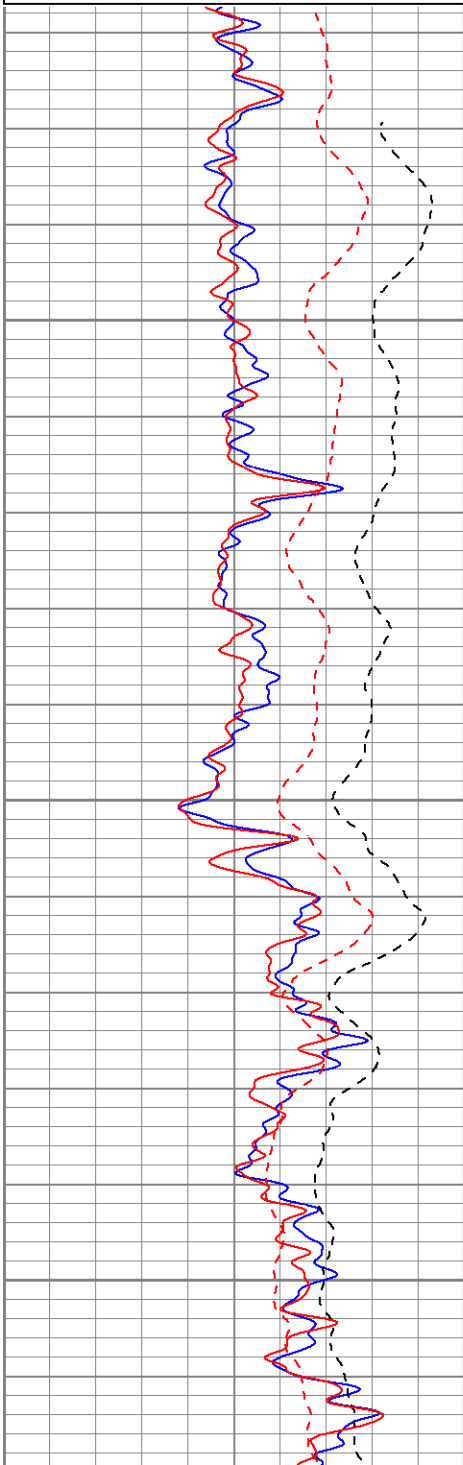
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# Repeat Section

Database File: xtoac3214.db  
Dataset Pathname: pass1.1  
Presentation Format: dil  
Dataset Creation: Fri Jun 15 02:02:39 2007 by Calc Open-Cased 061129  
Charted by: Depth in Feet scaled 1:240

0	GR (GAPI)	200
-100	SP (mV)	100
0	GR-repeat (GAPI)	200
-100	SP-repeat (mV)	100

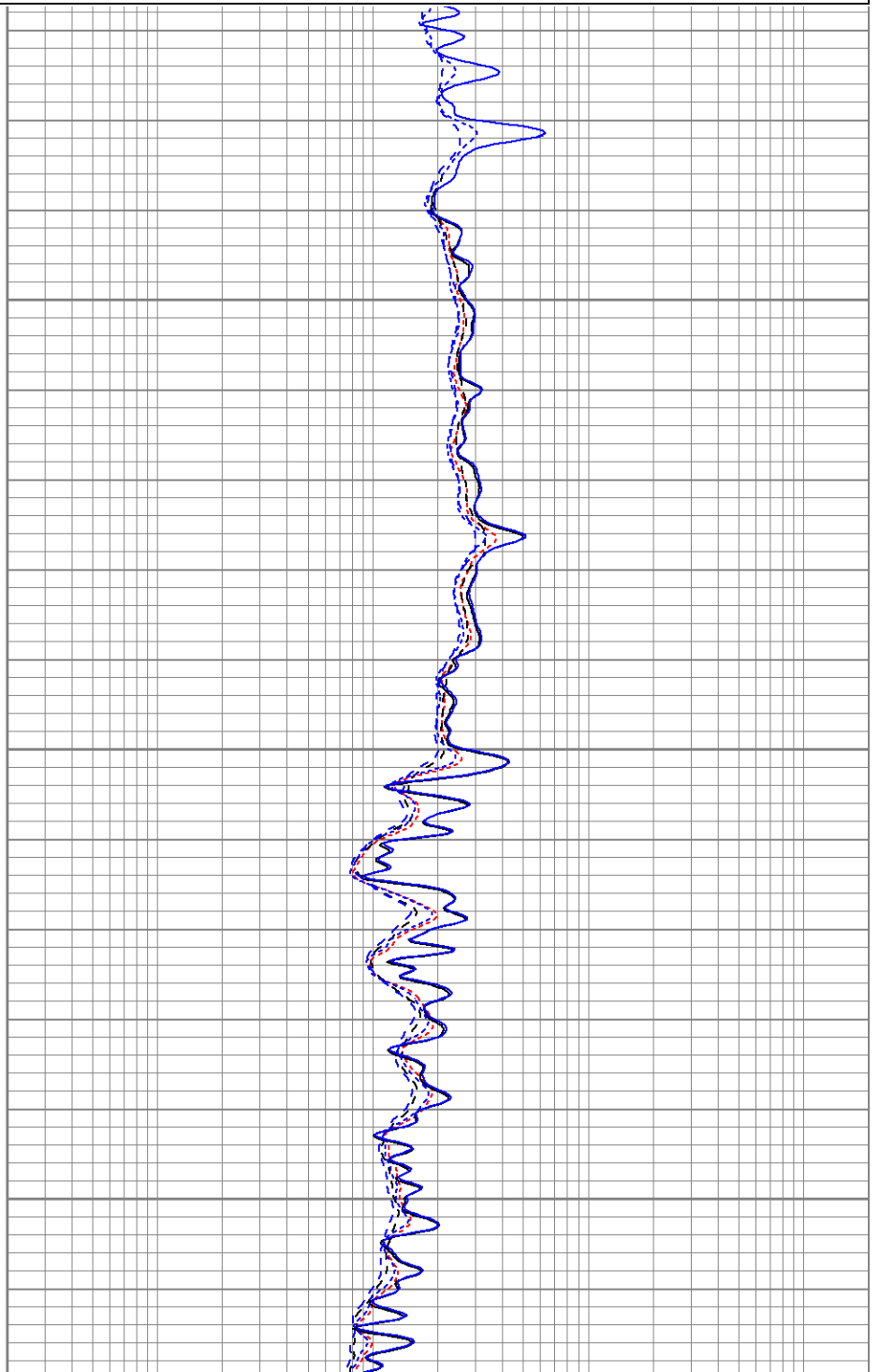
0.2	RILM (Ohm-m)	2000
0.2	RILD (Ohm-m)	2000
0.2	RLL3 (Ohm-m)	2000
0.2	RLL3-repeat (Ohm-m)	2000
0.2	RILM-repeat (Ohm-m)	2000
0.2	RILD-repeat (Ohm-m)	2000

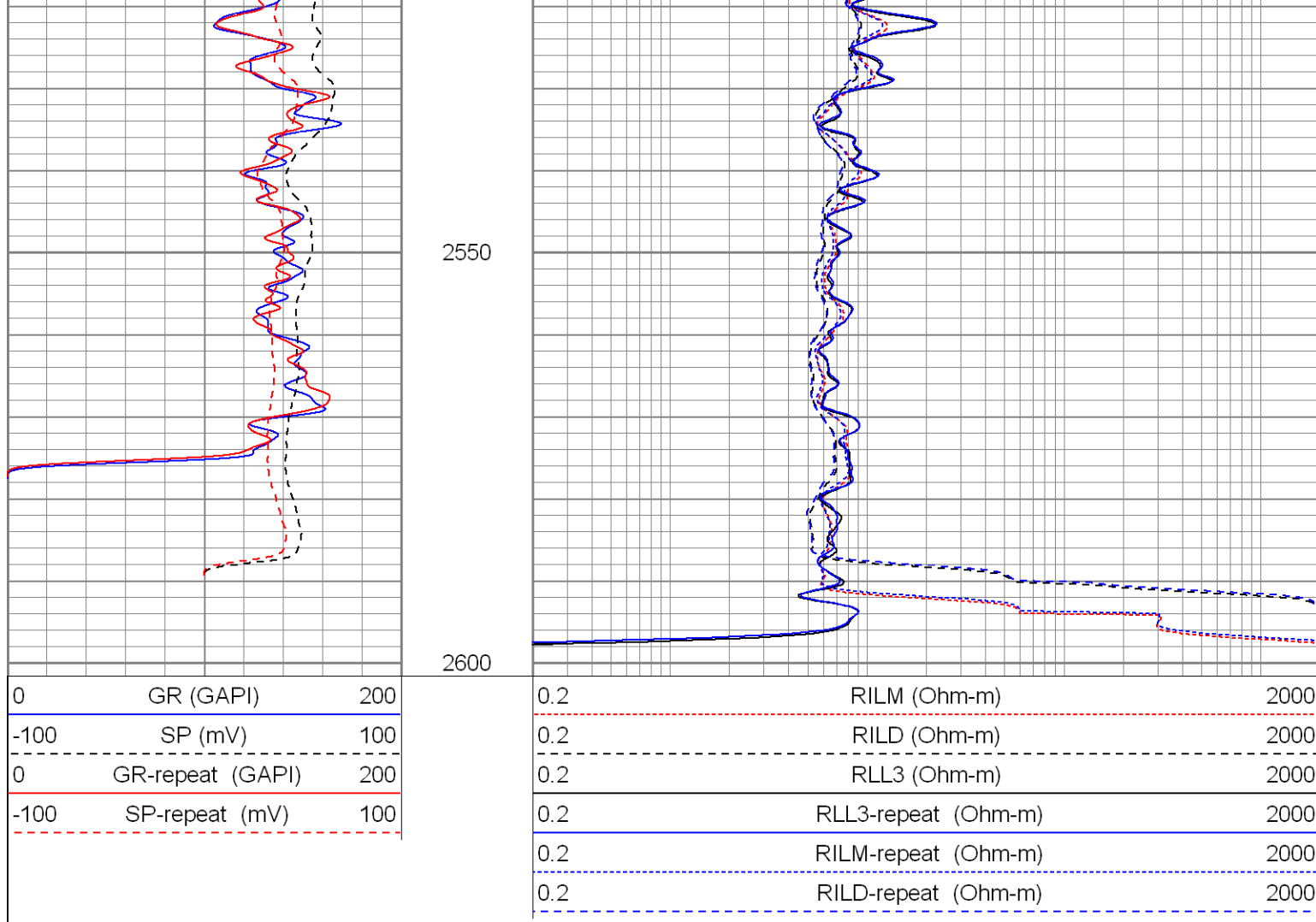


2400

2450



2500





Calibration Report									
Database File:	xtoac3214.db								
Dataset Pathname:	pass2								
Dataset Creation:	Thu Jun 14 23:53:11 2007 by Log Open-Cased 061129								
Dual Induction Calibration Report									
Serial-Model:		5375-G							
Surface Cal Performed:		Thu Apr 26 17:31:10 2007							
Downhole Cal Performed:		Thu Apr 26 17:31:26 2007							
Surface Calibration									
Readings				References			Results		
Loop:	Air	Loop		Air	Loop		m	b	
Deep	0.001	0.620	V	0.000	500.000	mmho-m	807.659	-1.119	
Medium	0.005	0.743	V	0.000	550.000	mmho-m	744.727	-3.505	
Internal:	Zero	Cal		Zero	Cal		m	b	
Deep	0.001	0.620	V	0.000	500.000	mmho-m	807.698	-1.159	
Medium	0.005	0.743	V	0.000	550.000	mmho-m	744.801	-3.569	
Downhole Calibration									
Readings				References			Results		
Internal:	Zero	Cal		Zero	Cal		m	b	
Deep	0.001	0.620	V	0.000	500.000	mmho-m	807.698	-1.159	
Medium	0.005	0.743	V	0.000	550.000	mmho-m	744.801	-3.569	

Serial Number:	2001	
Tool Model:	OH	
Performed:	Tue May 29 19:51:06 2007	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	0.2100	GAPI/cps

Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
GR	22.83		None	0.75	1.50	5.00
			GR-OH (2001) SIE	3.50	3.25	40.00
CILD SP	10.60 10.60		DIL-G (5375) Gearhart	20.83	4.00	345.00
CILM	6.89					
RLL3	1.70					
Dataset: xtoac3214.db: field/well/run1/pass2 Total Length: 25.08 ft Total Weight: 390.00 lb O.D. 4.00 in						