



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

## DUAL INDUCTION LOG

Company XTO Energy Inc.  
Well Apache Canyon 05-02  
Field Purgatoire River  
County Las Animas State Colorado

Location: API # : 05 071 09134 00

546' FNL & 1492' FEL

SEC 05 TWP 34S RGE 67W

Permanent Datum Ground Level Elevation 7870'  
Log Measured From Ground Level  
Drilling Measured From Ground Level

Other Services  
cdl  
neutron  
Elevation  
K.B. -----  
D.F. -----  
G.L. 7870'

Date 6-11-07

Run Number One

Depth Driller 2475'

Depth Logger 2472'

Bottom Logged Interval 2470'

Top Log Interval Surface Casing

Casing Driller 8 5/8" @ 496'

Casing Logger 495'

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 11:00 A.M.

Time Logger on Bottom 1:30 P.M.

Maximum Recorded Temperature 108 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 right, second drive thru location.

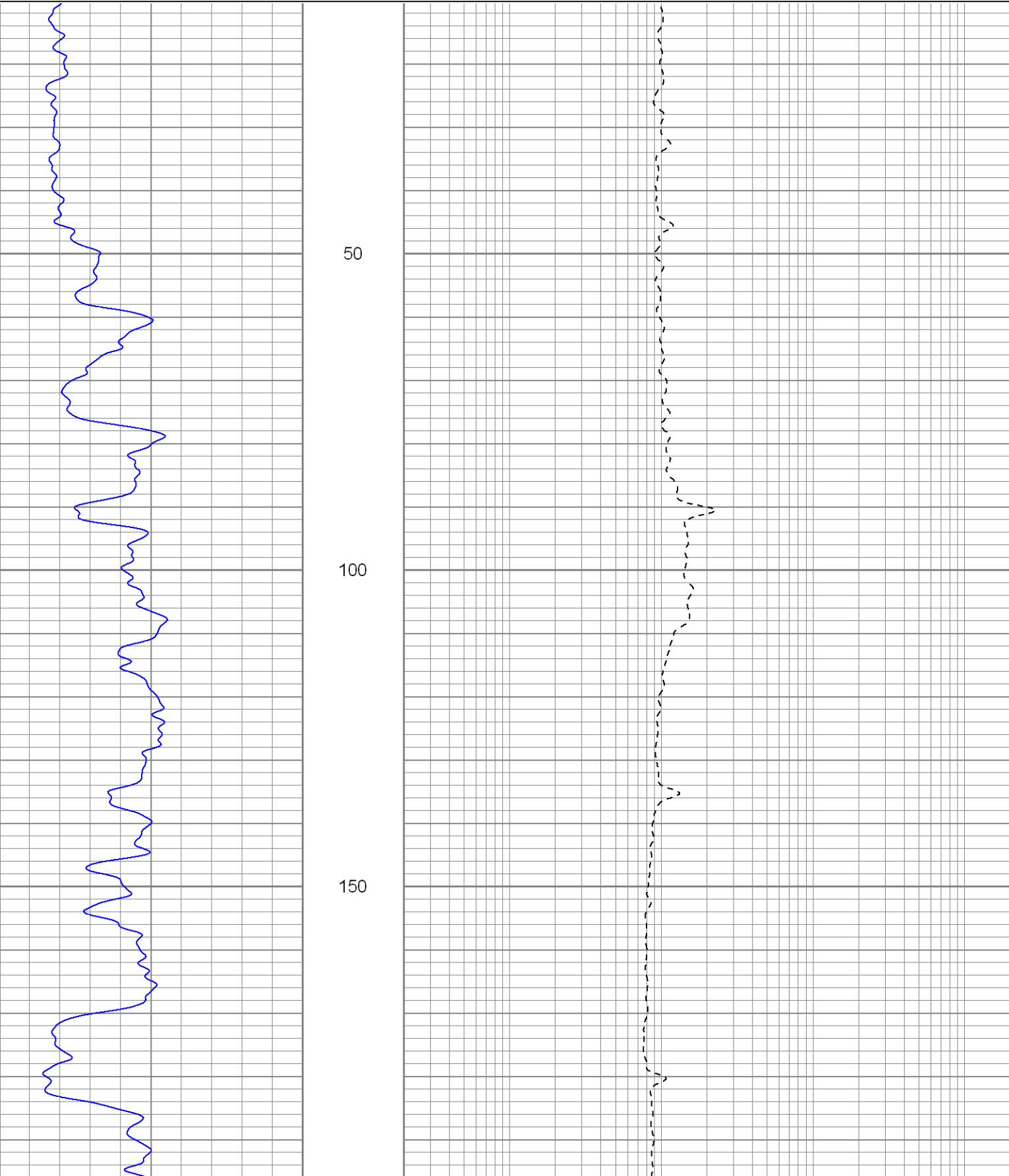


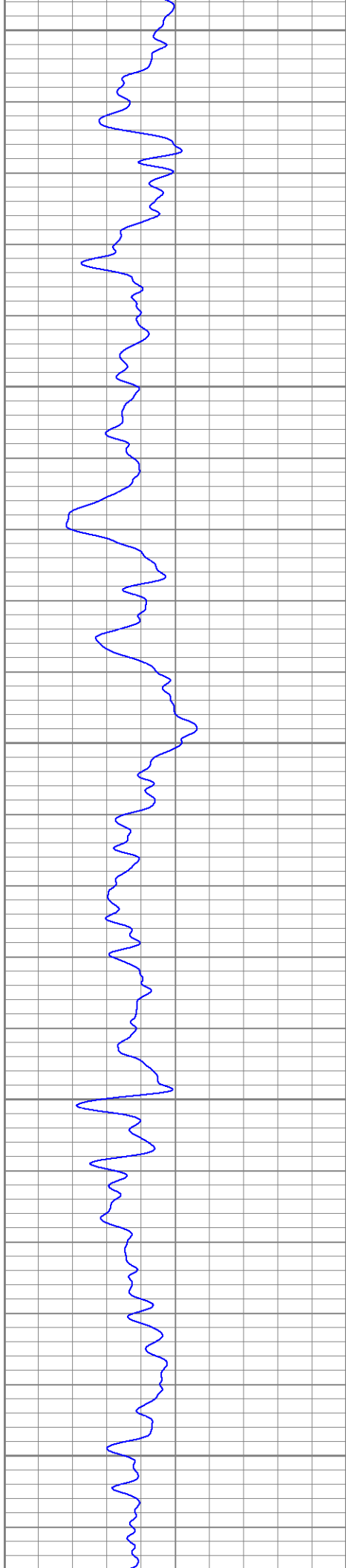
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# Main Pass

Database File: xtoac0502.db  
Dataset Pathname: pass2.1  
Presentation Format: dil  
Dataset Creation: Mon Jun 11 15:39:36 2007 by Calc Open-Cased 061129  
Charted by: Depth in Feet scaled 1:240

0	GR (GAPI)	200	0.2	RILM (Ohm-m)	2000
-100	SP (mV)	100	0.2	RILD (Ohm-m)	2000
			0.2	RLL3 (Ohm-m)	2000





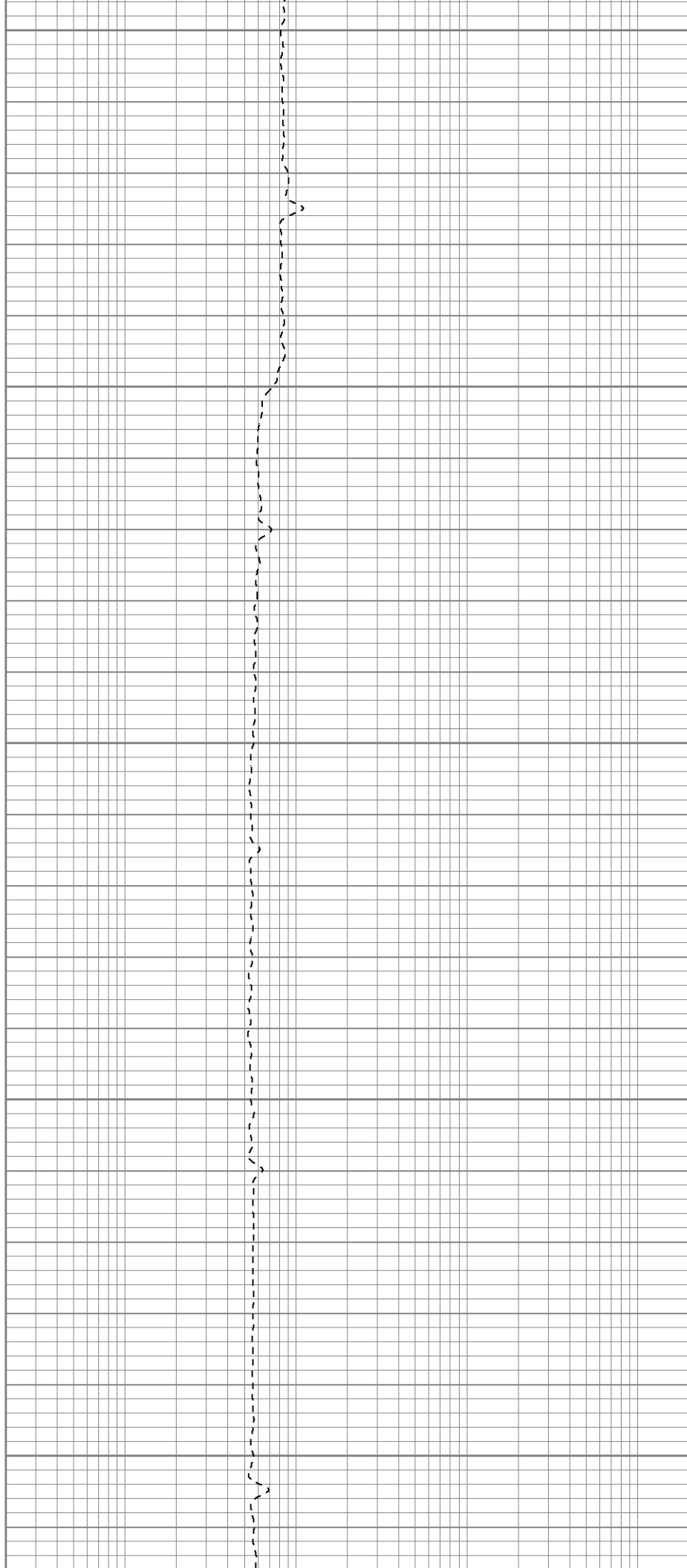
200

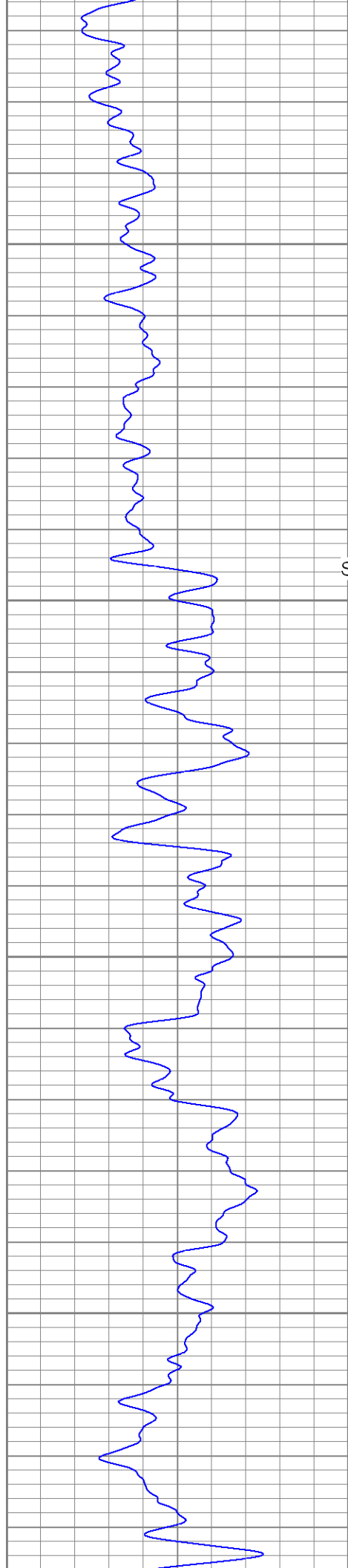
250

300

350

400





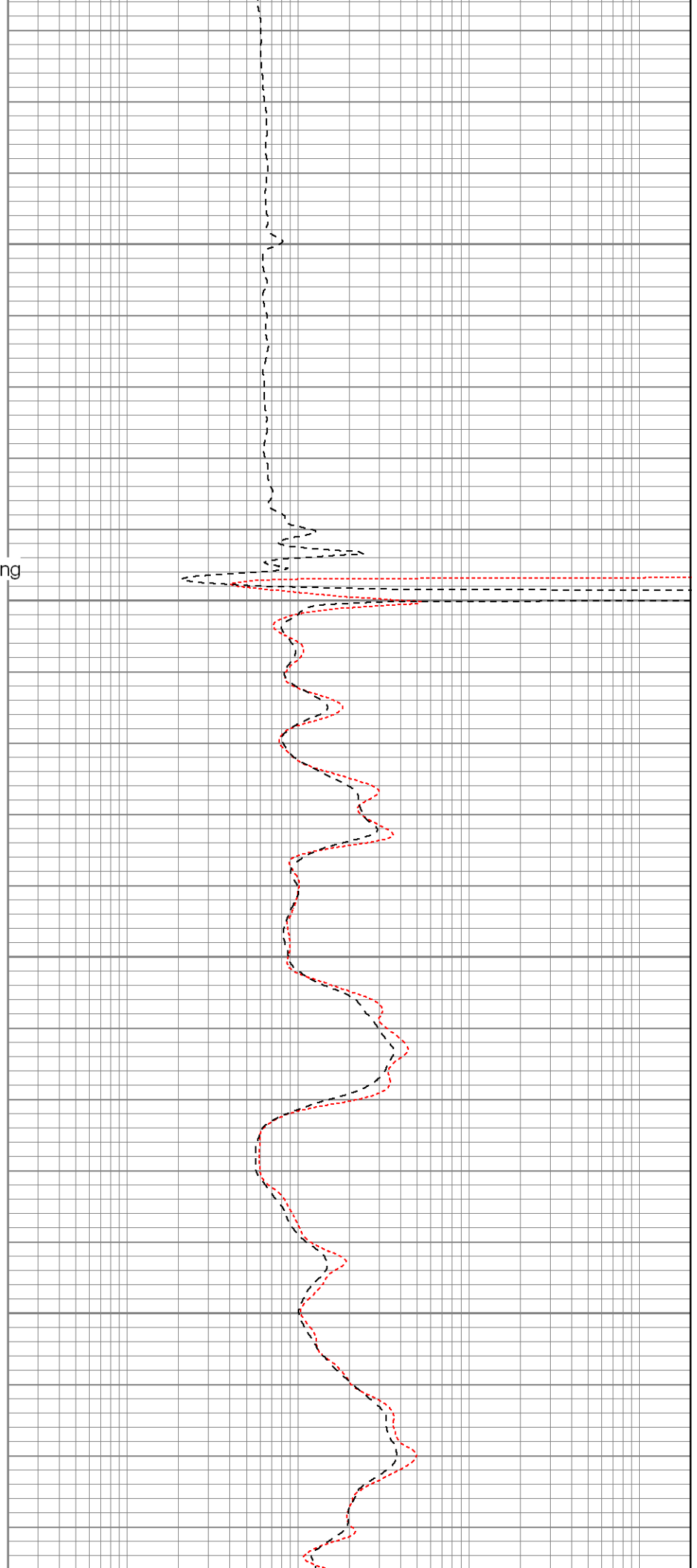
450

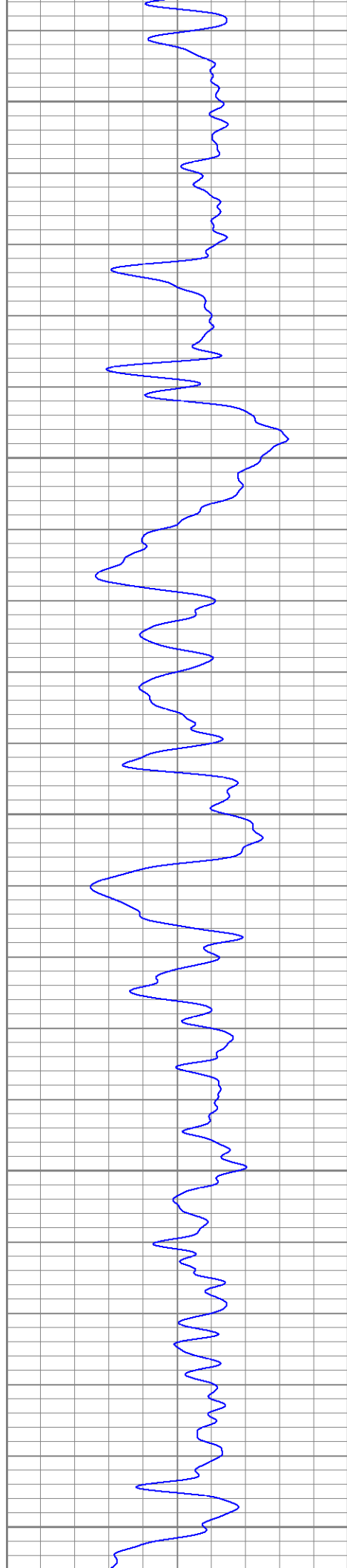
Surface Casing

500

550

600





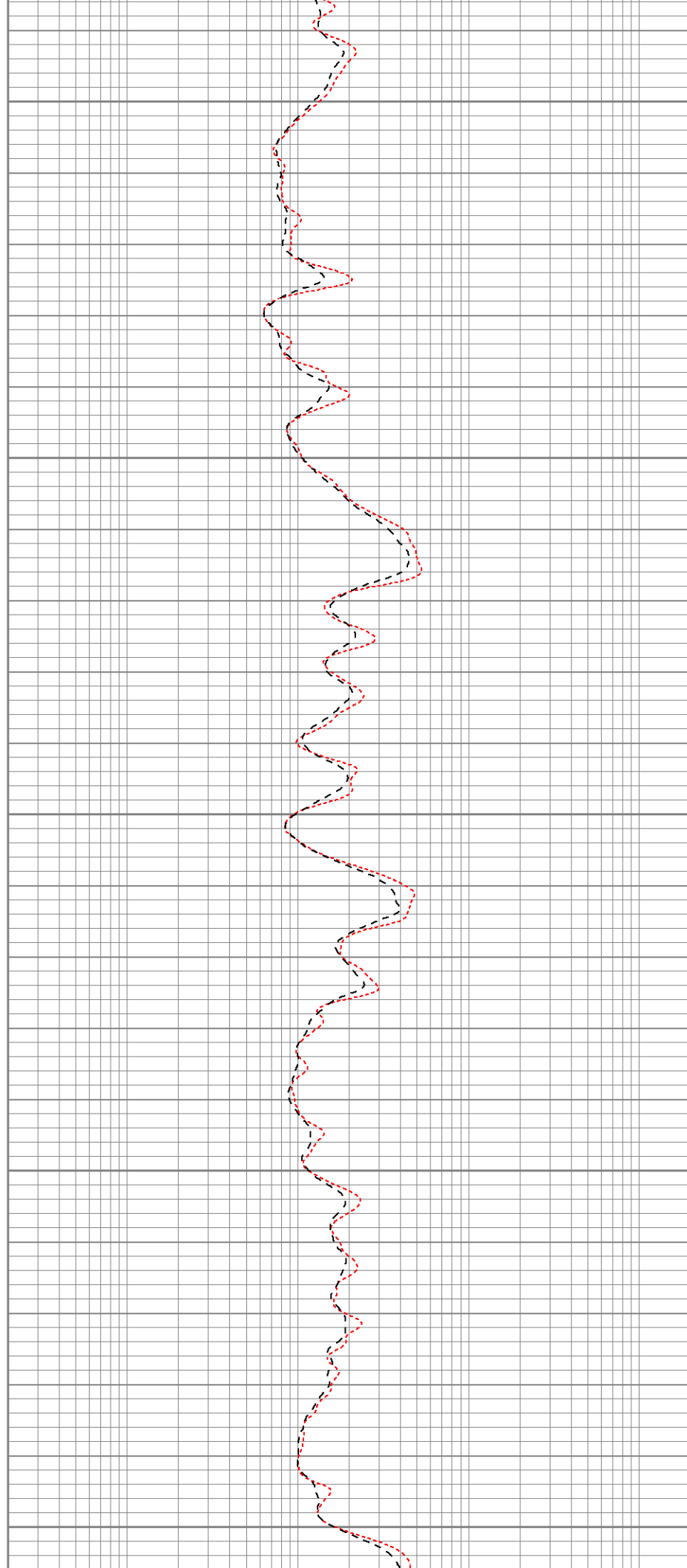
650

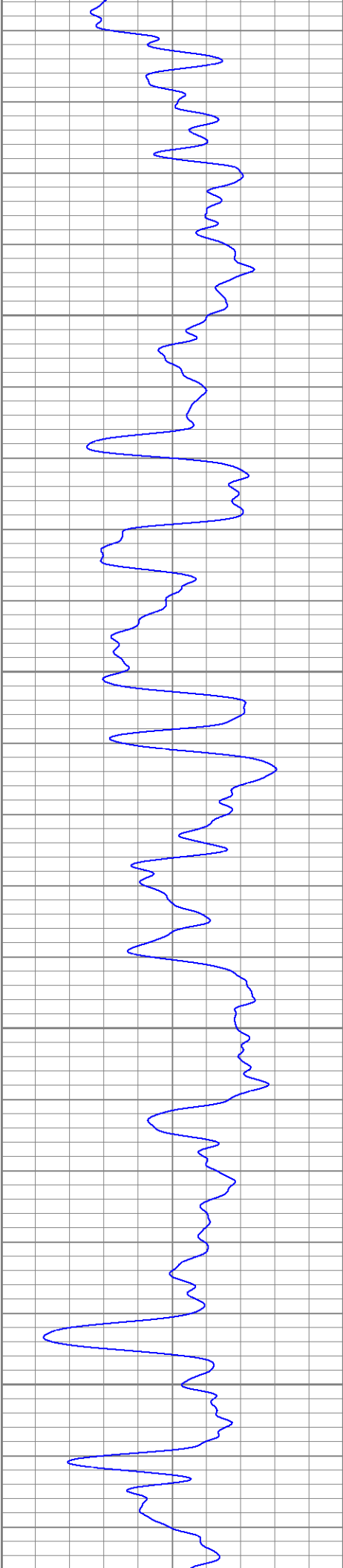
700

750

800

850



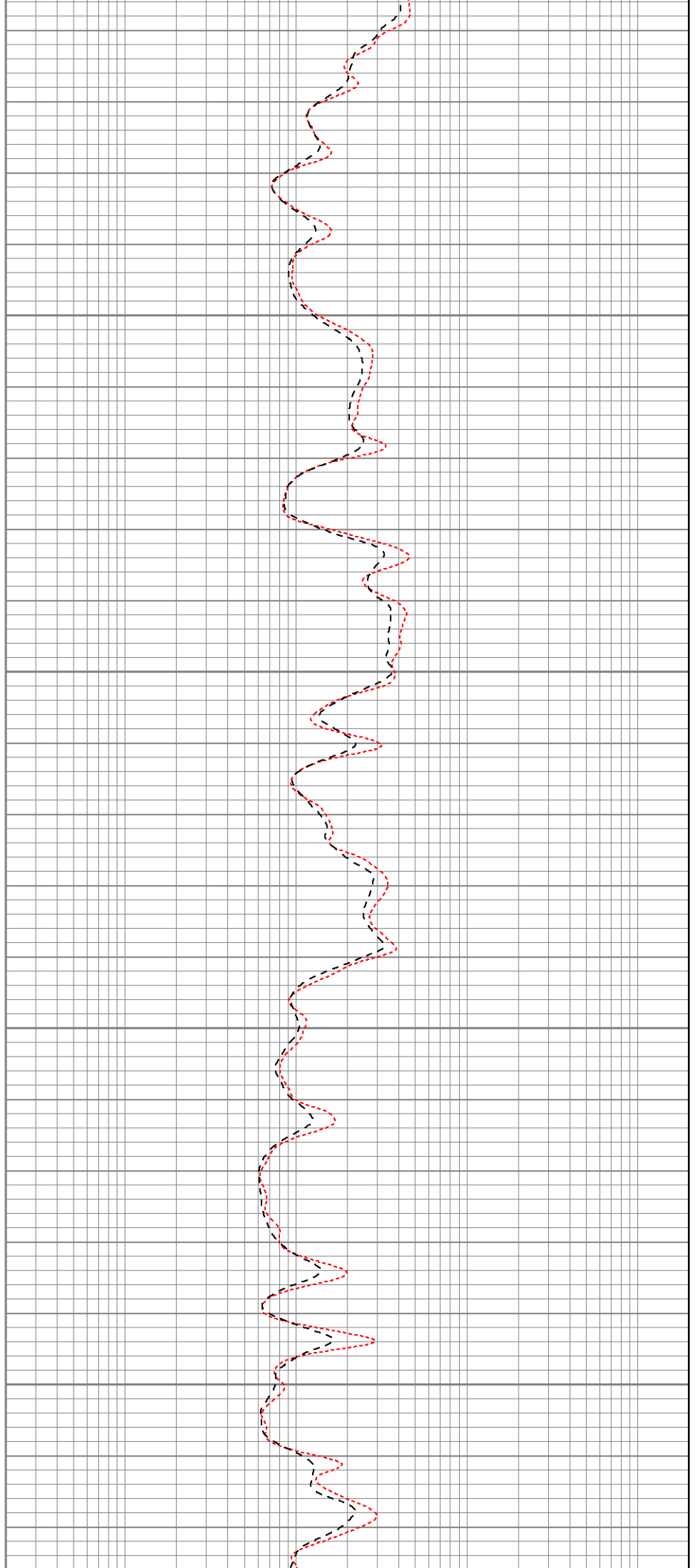


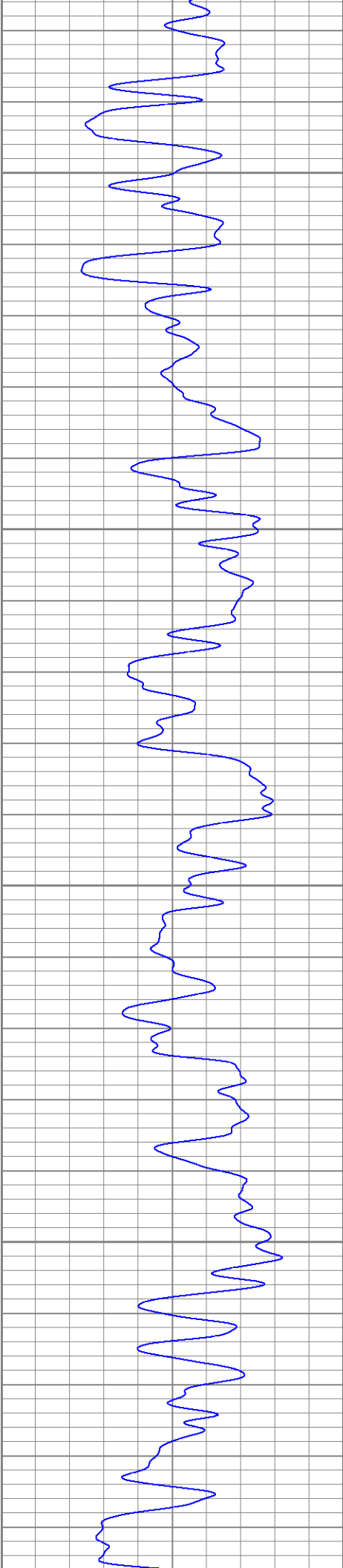
900

950

1000

1050



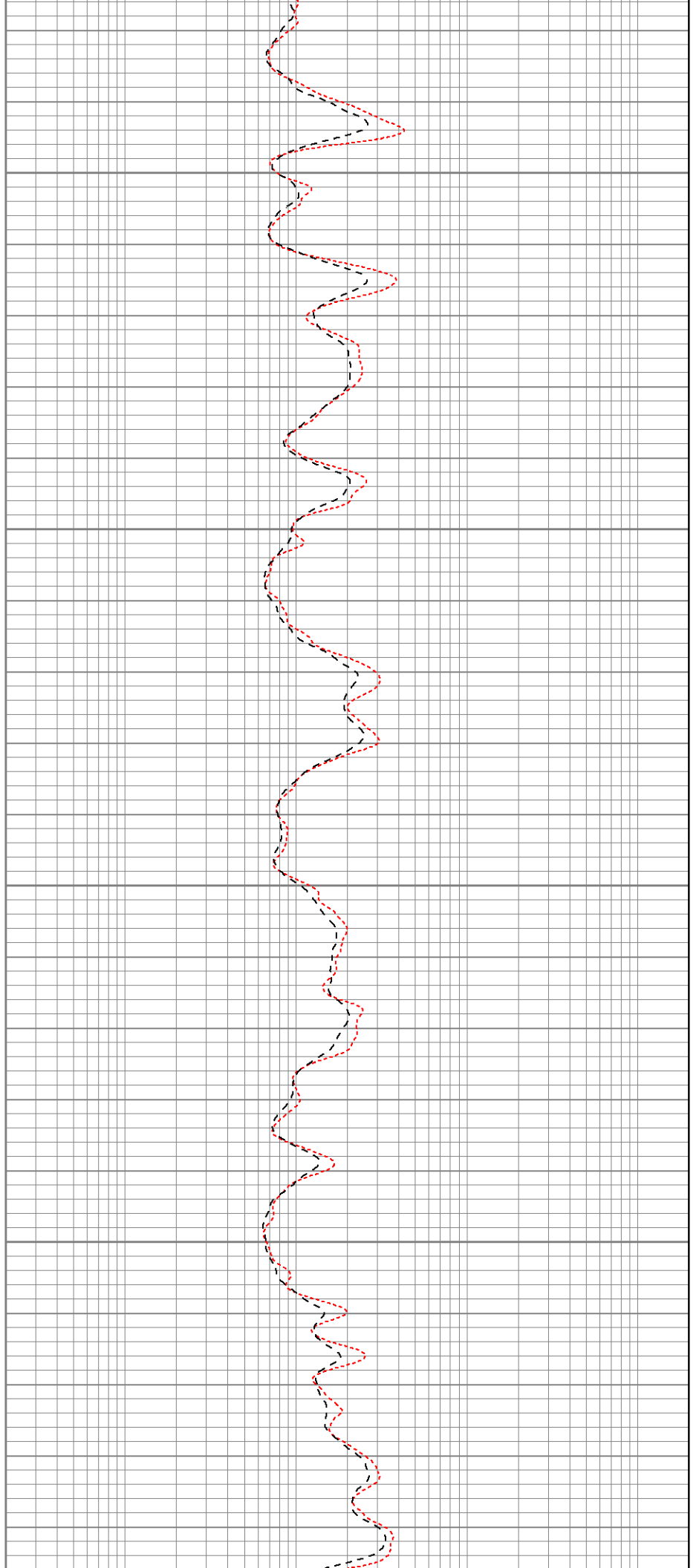


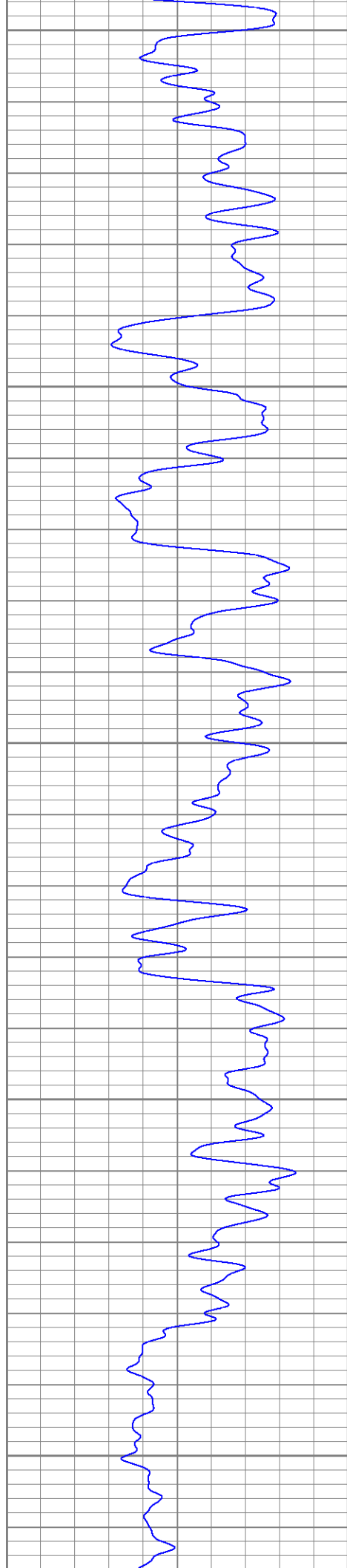
1100

1150

1200

1250





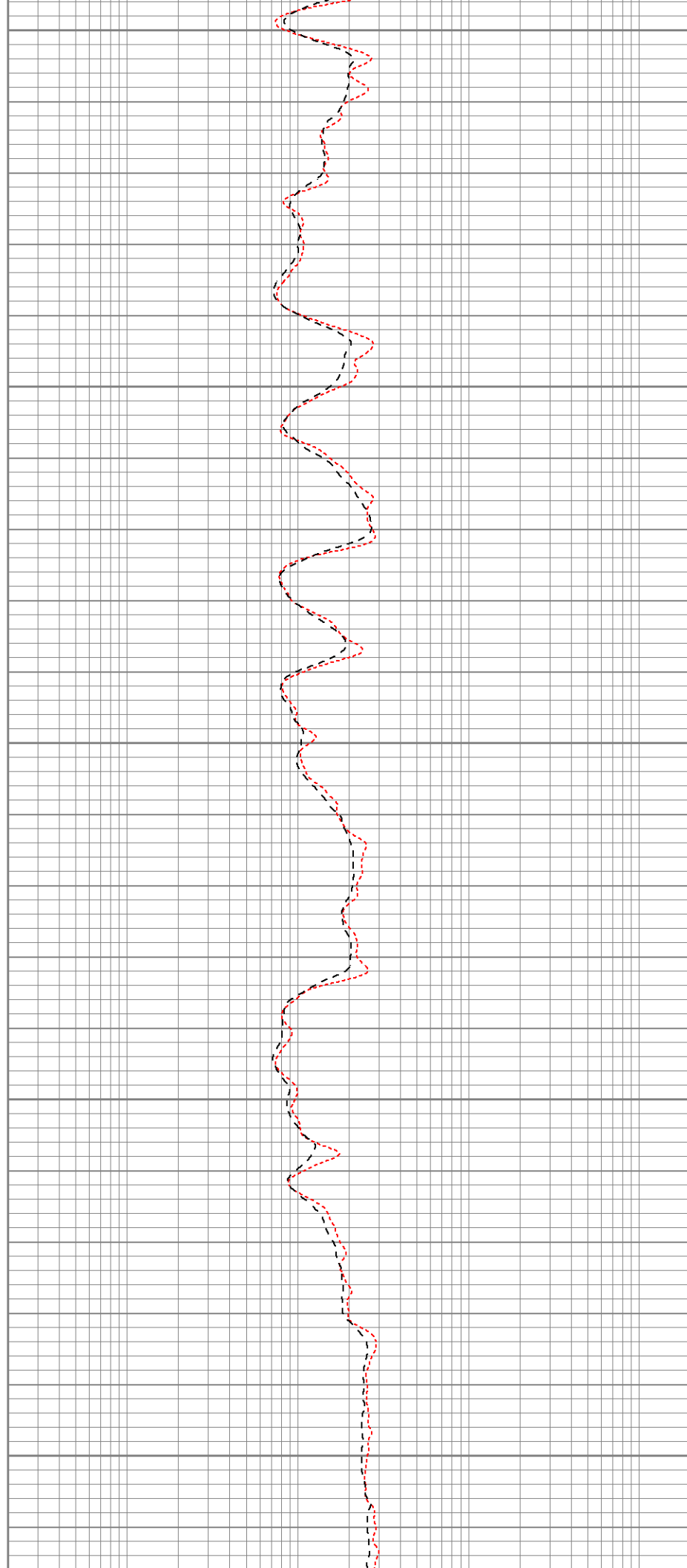
1300

1350

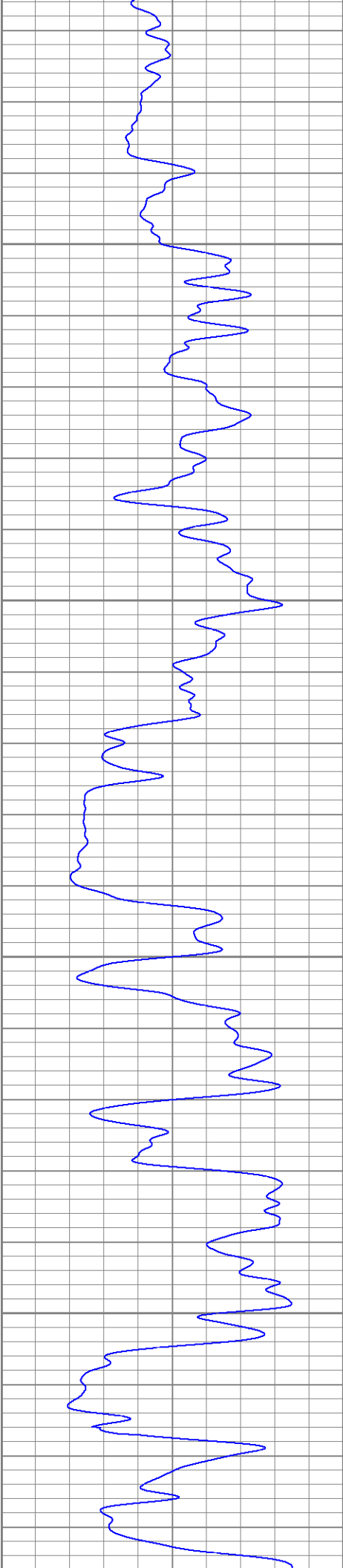
1400

1450

1500





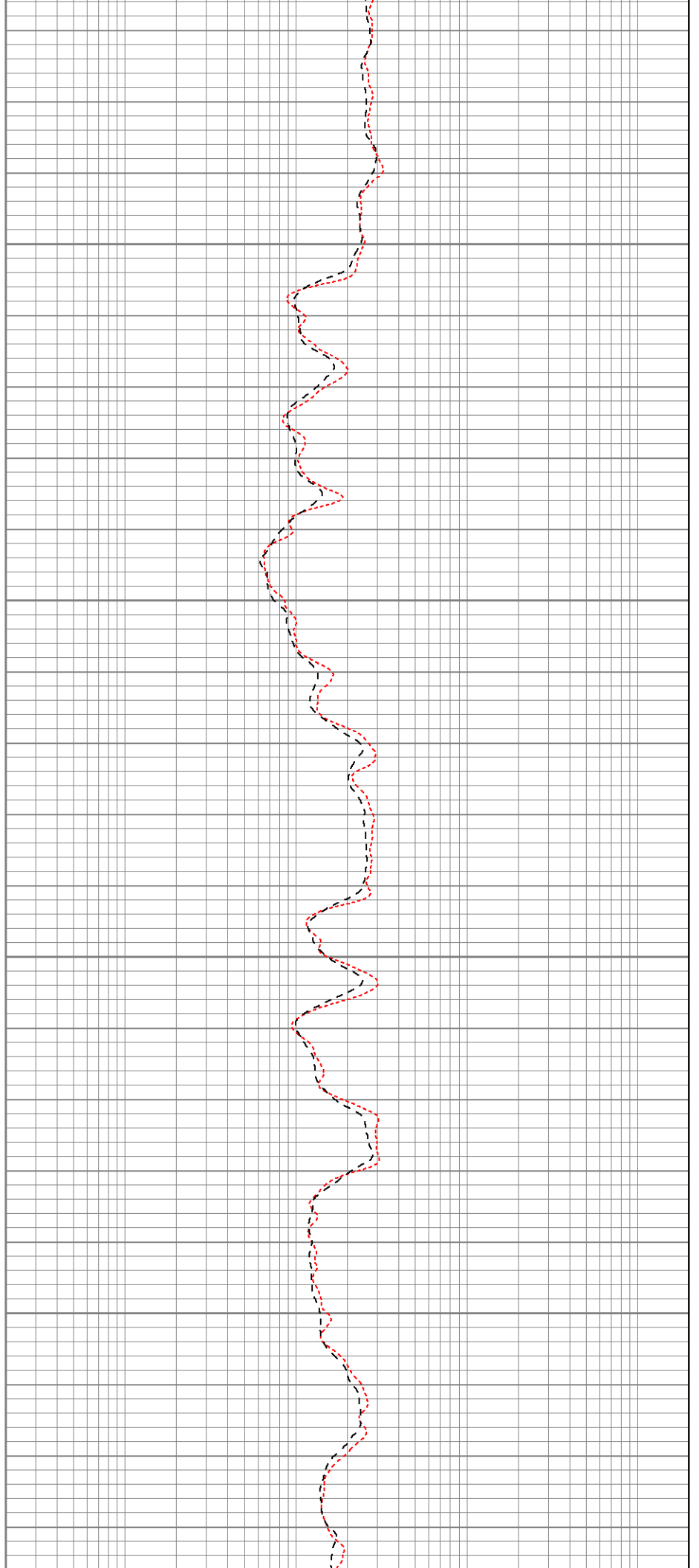


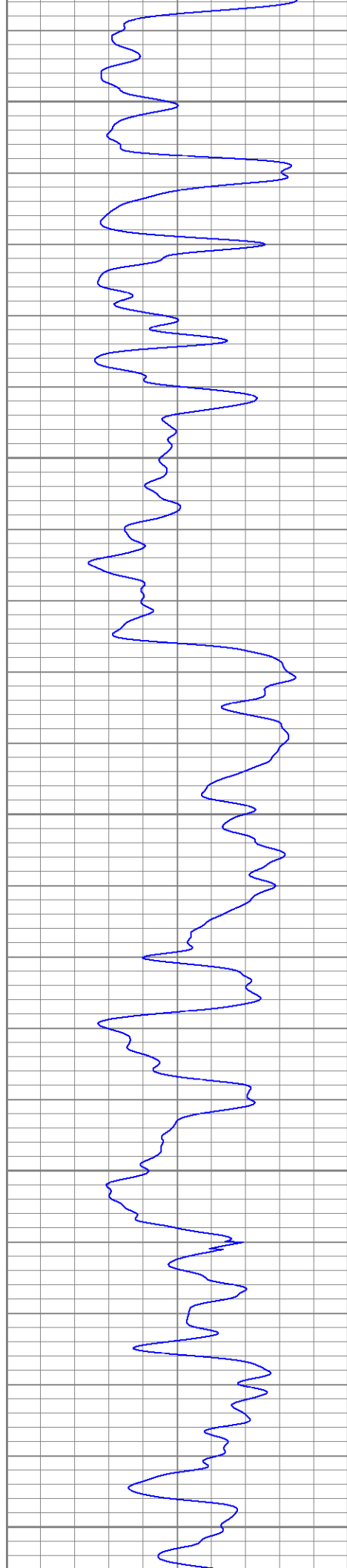
1550

1600

1650

1700





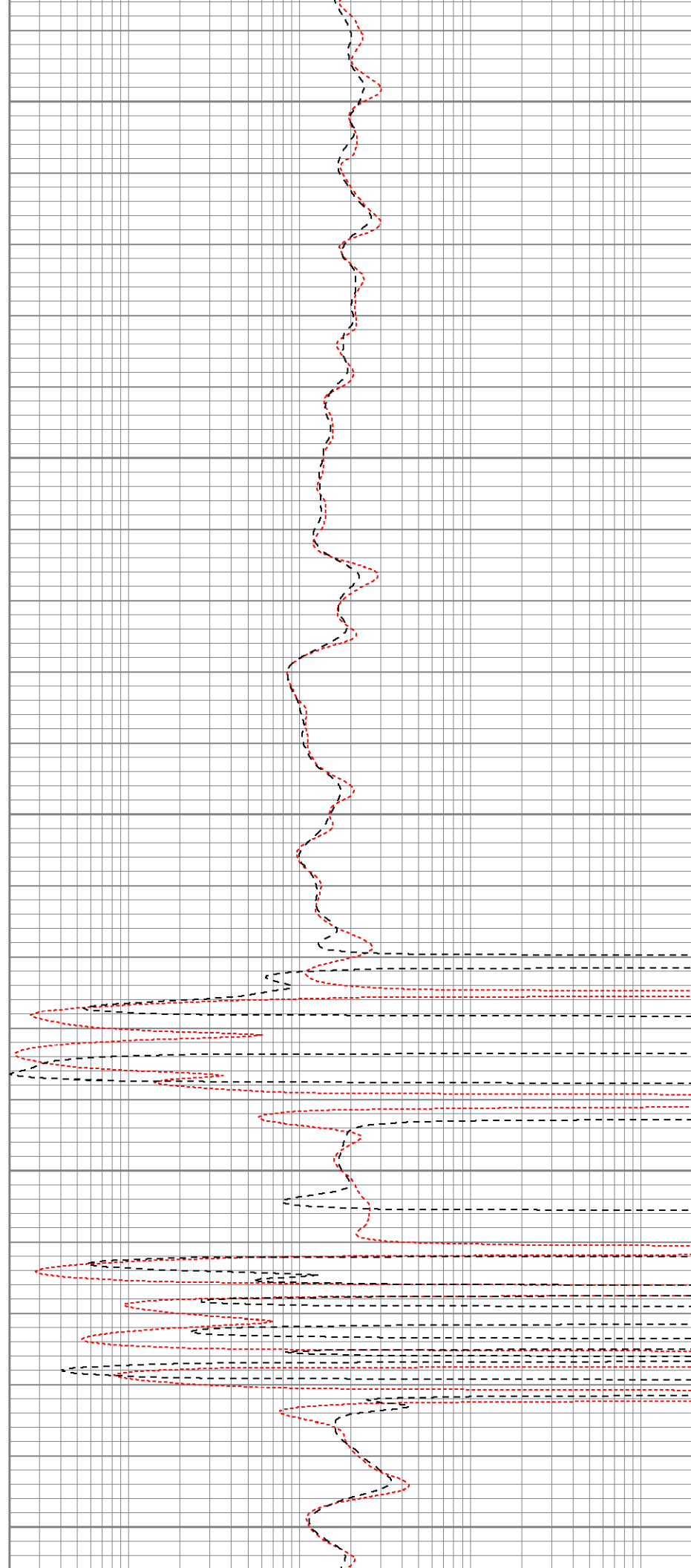
1750

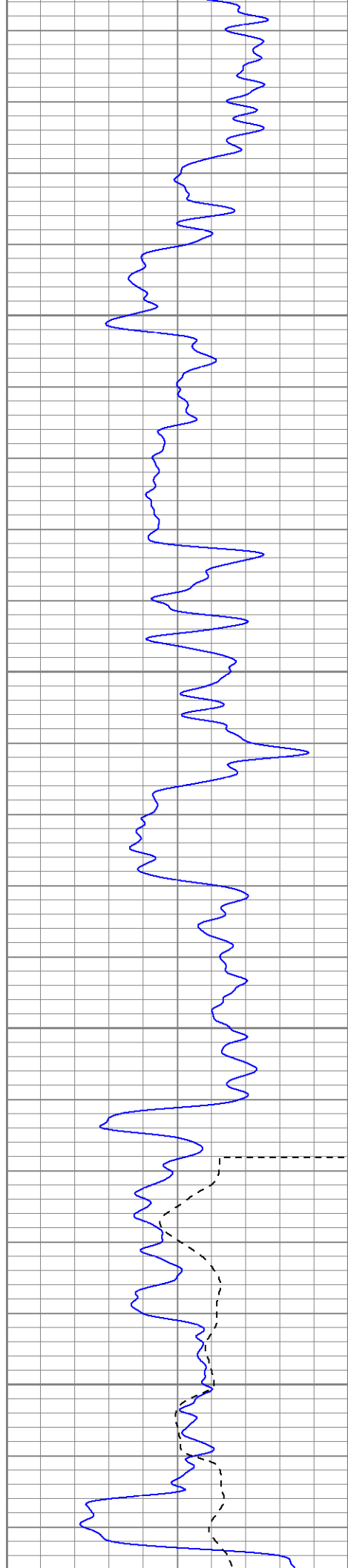
1800

1850

1900

1950





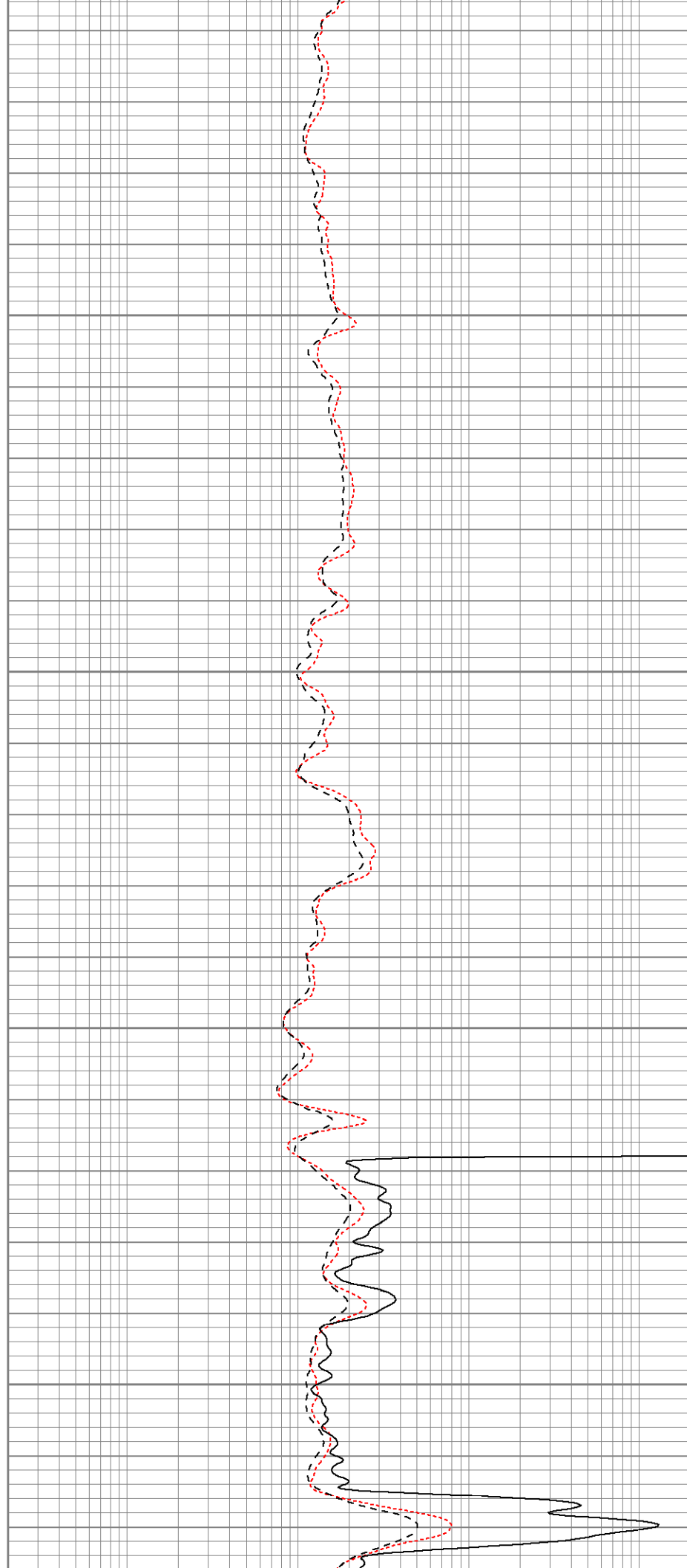
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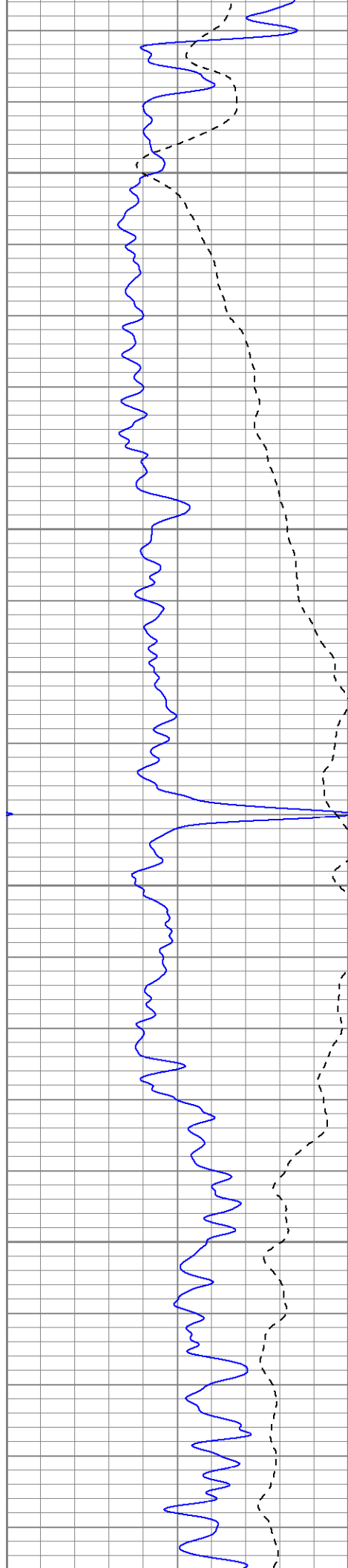
2050

2100

Fluid Level

2150



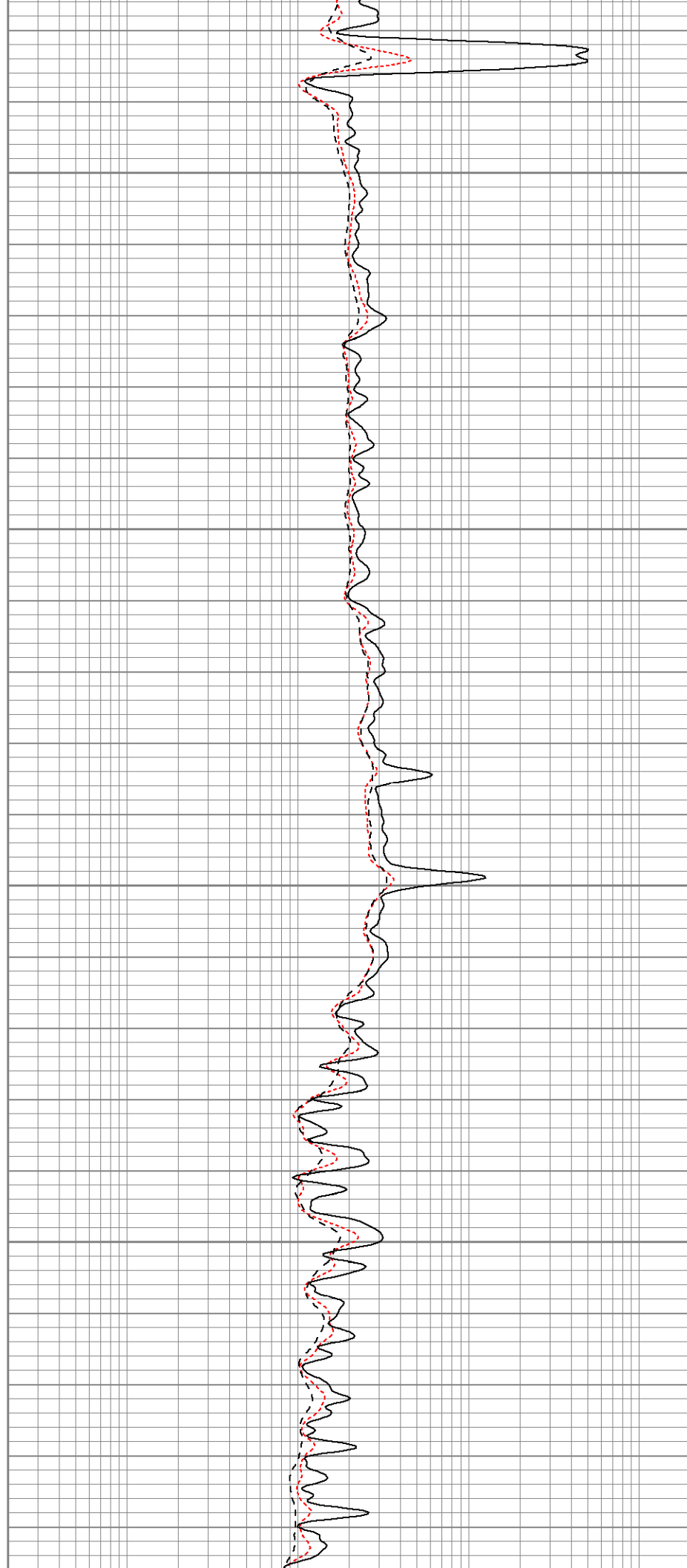


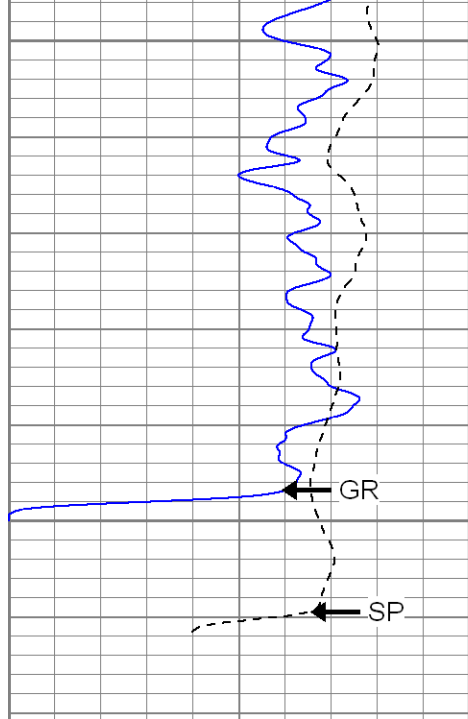
2200

2250

2300

2350

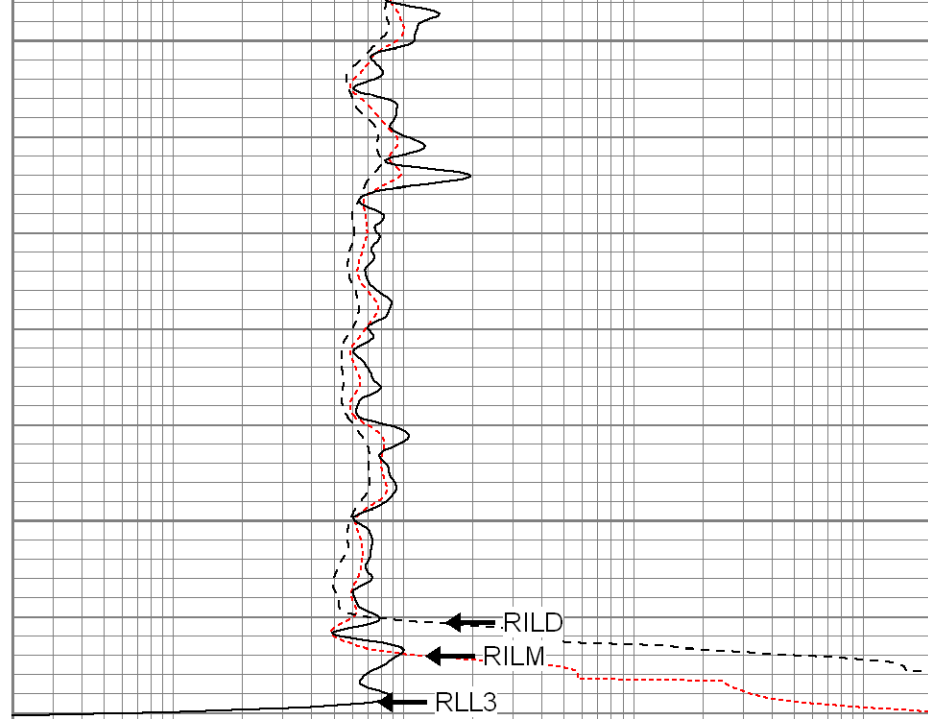




0	GR (GAPI)	200
-100	SP (mV)	100

2400

2450



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



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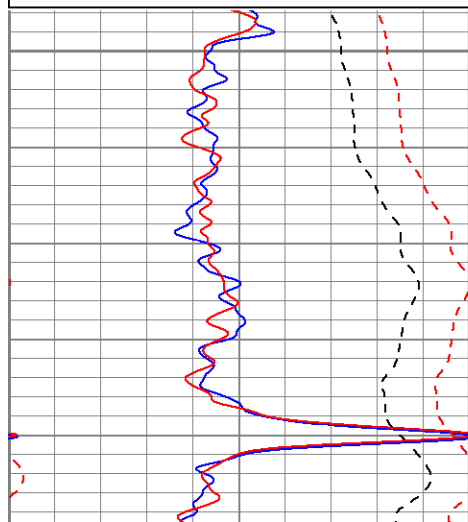
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# Repeat Section

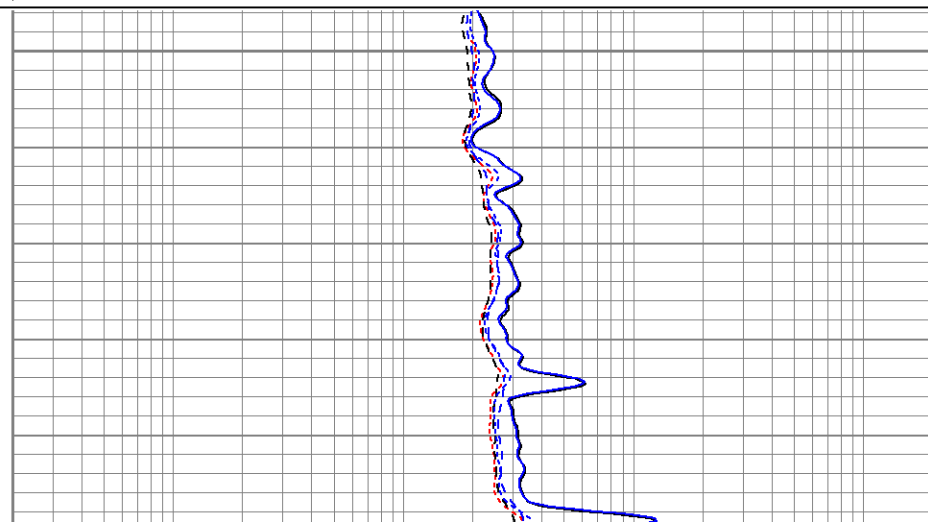
Database File: xtoac0502.db  
 Dataset Pathname: pass1.1  
 Presentation Format: dil  
 Dataset Creation: Mon Jun 11 15:36:54 2007 by Calc Open-Cased 061129  
 Charted by: Depth in Feet scaled 1:240

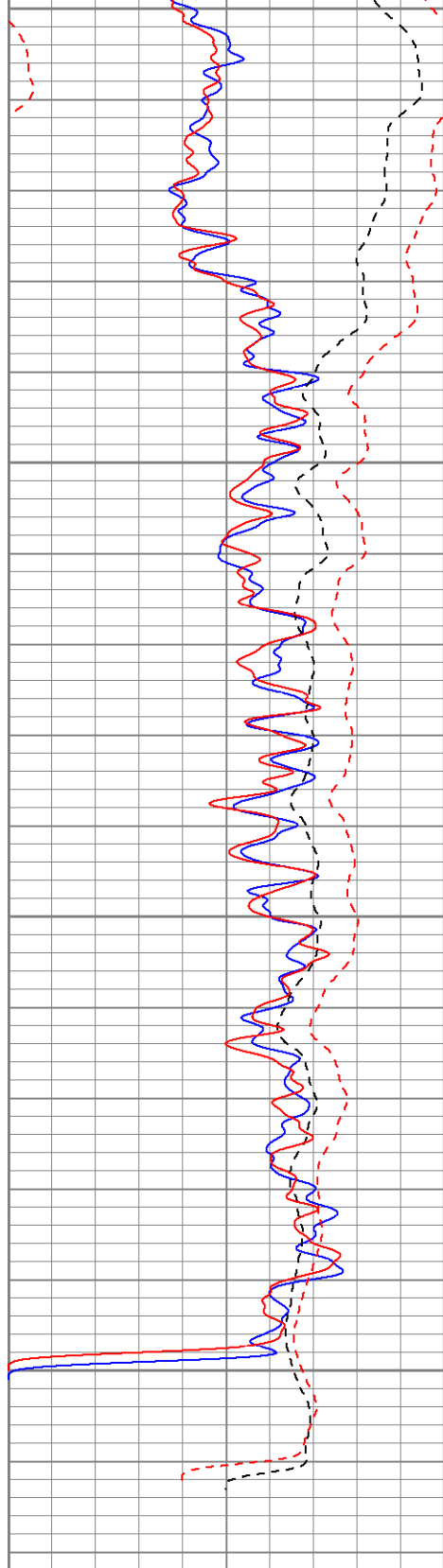
0	GR (GAPI)	200
-100	SP (mV)	100
0	GR-repeat (GAPI)	200
-100	SP-repeat (mV)	100

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

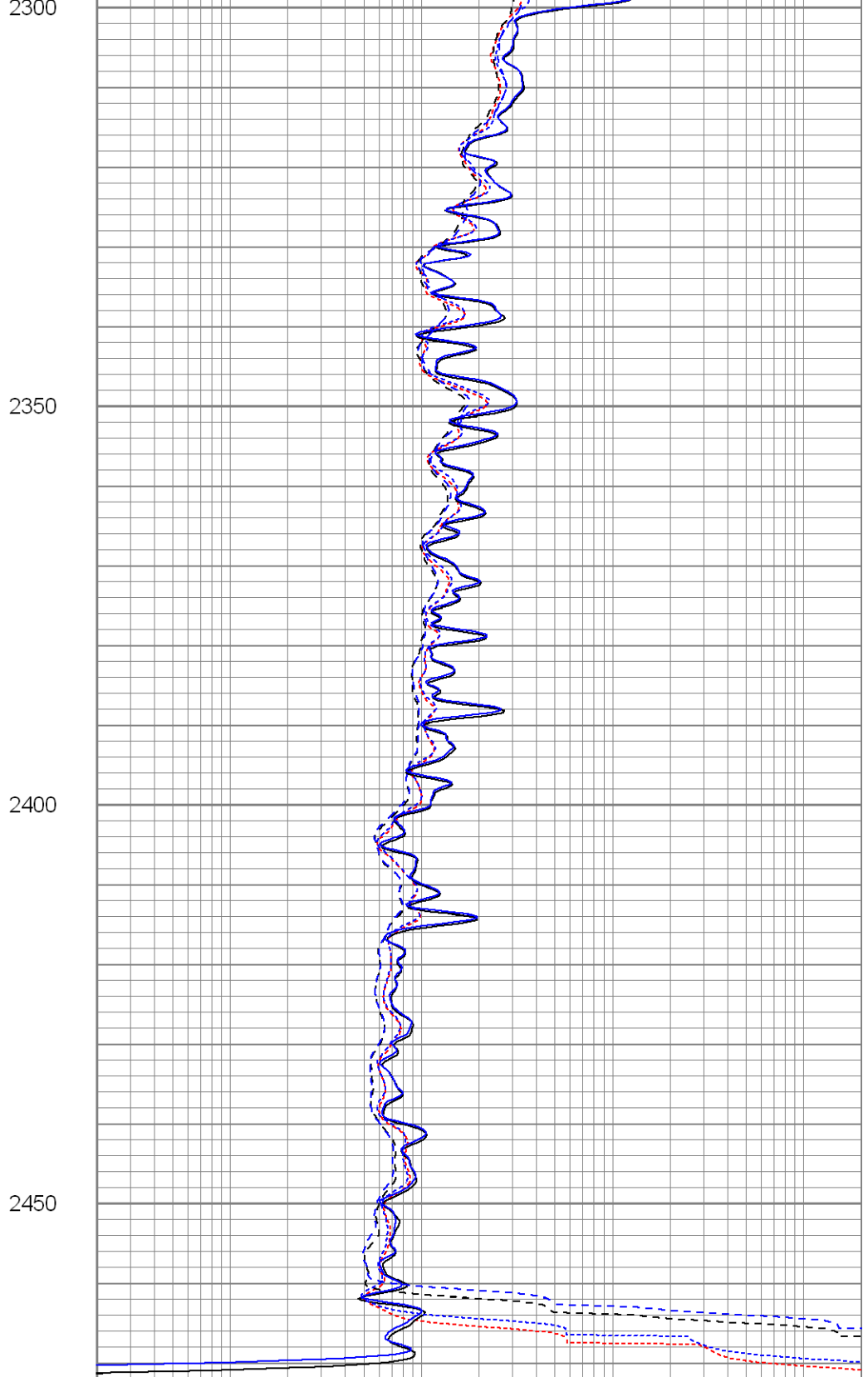


2250





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

### Calibration Report

Database File: xtoac0502.db  
 Dataset Pathname: pass2

## 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	0.123	499.901	mmho-m	0.039	500.015	mmho-m	1.000	-0.084
Medium	0.245	549.982	mmho-m	0.064	550.009	mmho-m	1.000	-0.182
Shallow	2.506	0.009	V	500.000	2.000	Ohm-m	150.000	0.000




## Gamma Ray Calibration Report

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: xtoac0502.db: field/well/run1/pass2 Total Length: 25.08 ft Total Weight: 390.00 lb O.D. 4.00 in						