



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

## DUAL INDUCTION LOG

Company XTO Energy Inc.  
Well Apache Canyon 04-13  
Field Purgatoire River  
County Las Animas State Colorado

Location: API # : 05 071 09582 00

704' FSL & 1245' FWL

SEC 04 TWP 34S RGE 67W

Permanent Datum Ground Level Elevation 7359'  
Log Measured From Ground Level  
Drilling Measured From Ground Level

Other Services  
cdl  
neu  
Elevation  
K.B. -----  
D.F. -----  
G.L. 7359'

Date 7-20-08

Run Number One

Depth Driller 2000'

Depth Logger 2007'

Bottom Logged Interval 2005'

Top Log Interval Surface Casing

Casing Driller 8 5/8" @ 467'

Casing Logger 469'

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 1:30 P.M.

Time Logger on Bottom 5:00 P.M.

Maximum Recorded Temperature 120 DEG F

Equipment Number T0701

Location Trinidad

Recorded By C. Sinerros

Witnessed By Mr. Don Johnson

<<< 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

#### Well Directions:

First Bosque Entrance, turn right up Alamacito Canyon, got thru gate after first one way, take immediate left after second one way, dead end on location.



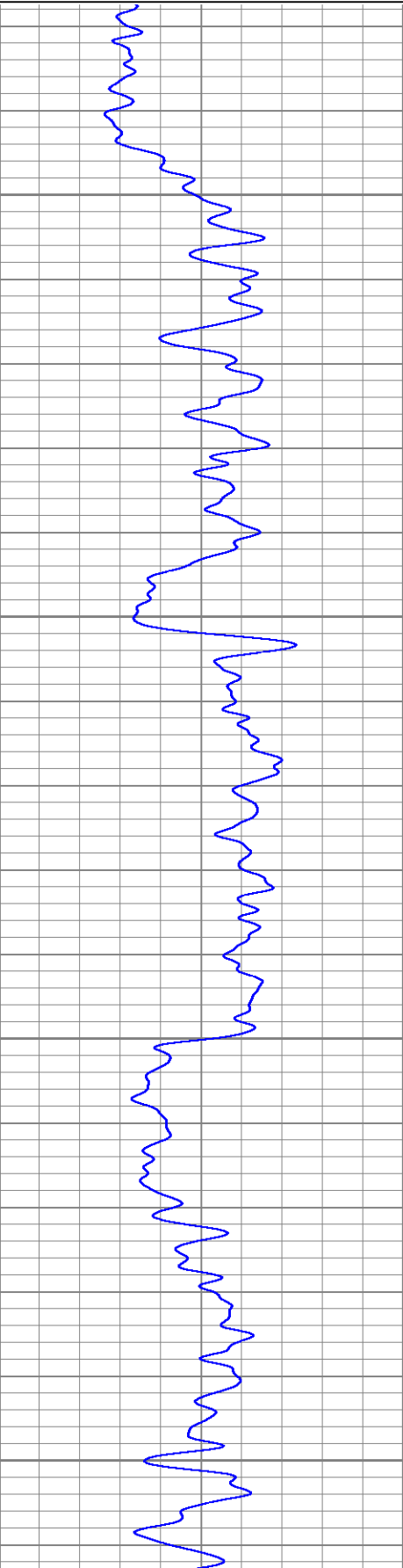
**SUPERIOR**  
Black Lick, Pa.  
Mercer, Pa.  
Wooster, Oh.  
Cleveland, Ok.  
Trinidad, Co.

# Main Pass

Database File: xtoac0413.db  
Dataset Pathname: pass2.1  
Presentation Format: dil  
Dataset Creation: Sun Jul 20 18:36:04 2008 by Calc Open-Cased 070814  
Charted by: Depth in Feet scaled 1:240

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

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

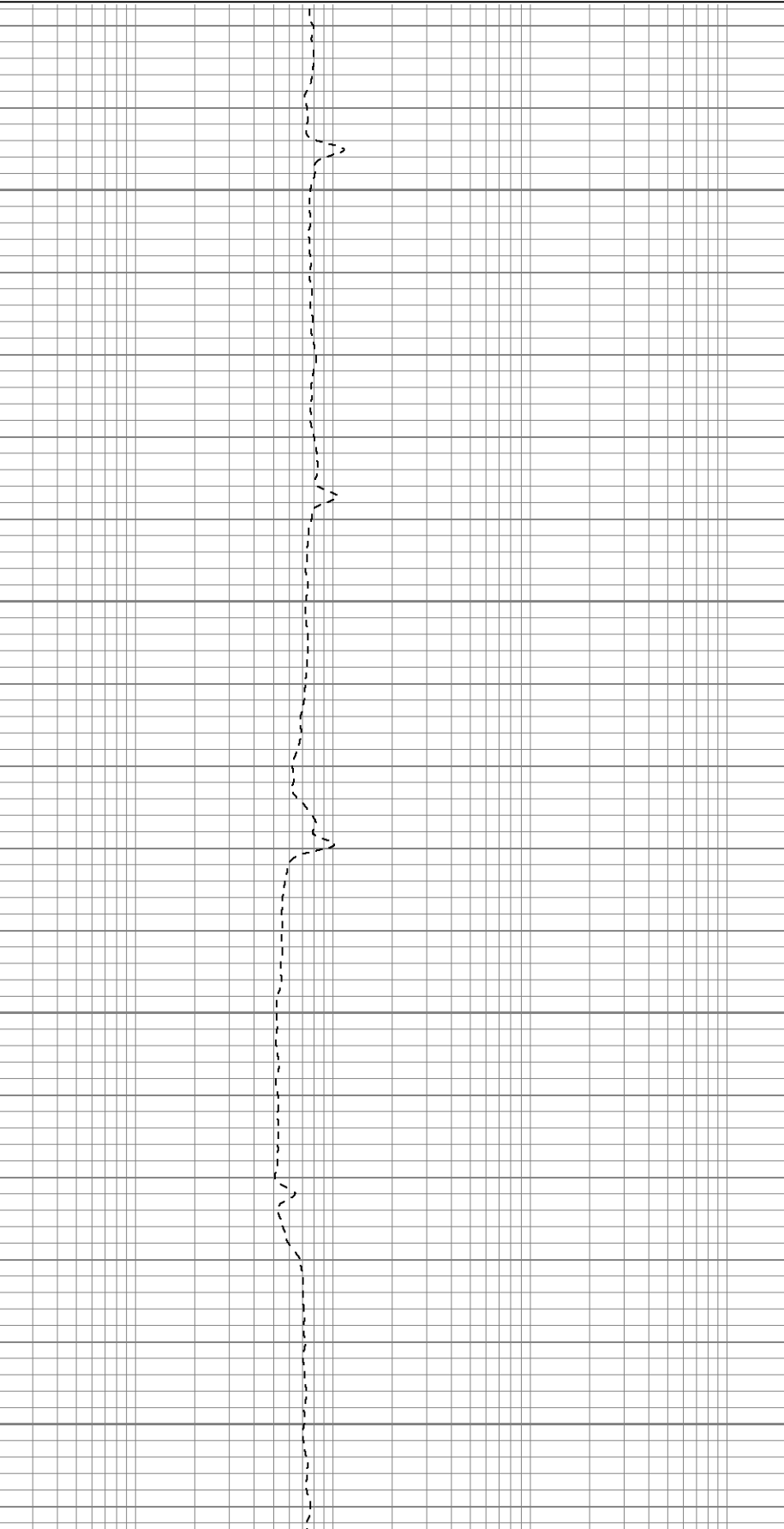


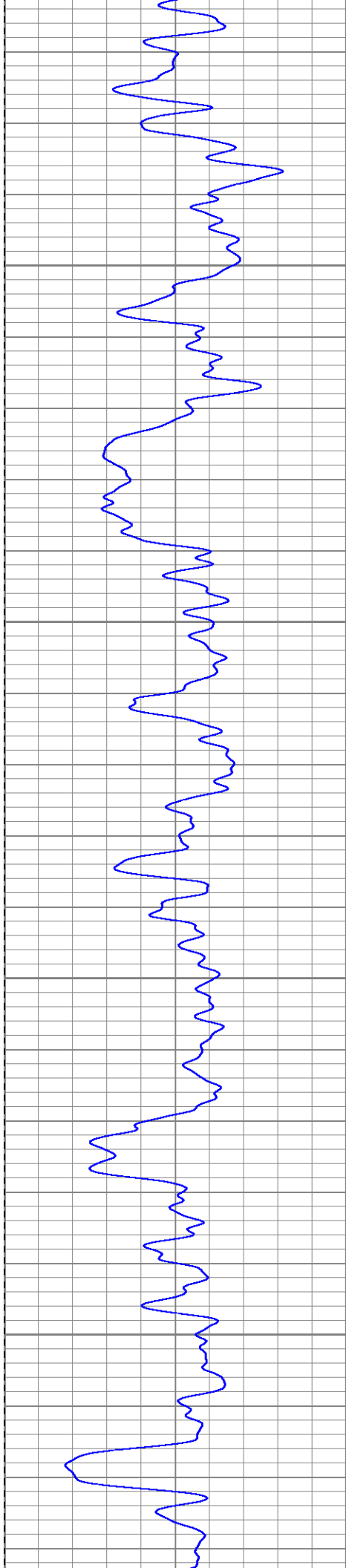
50

100

150

200



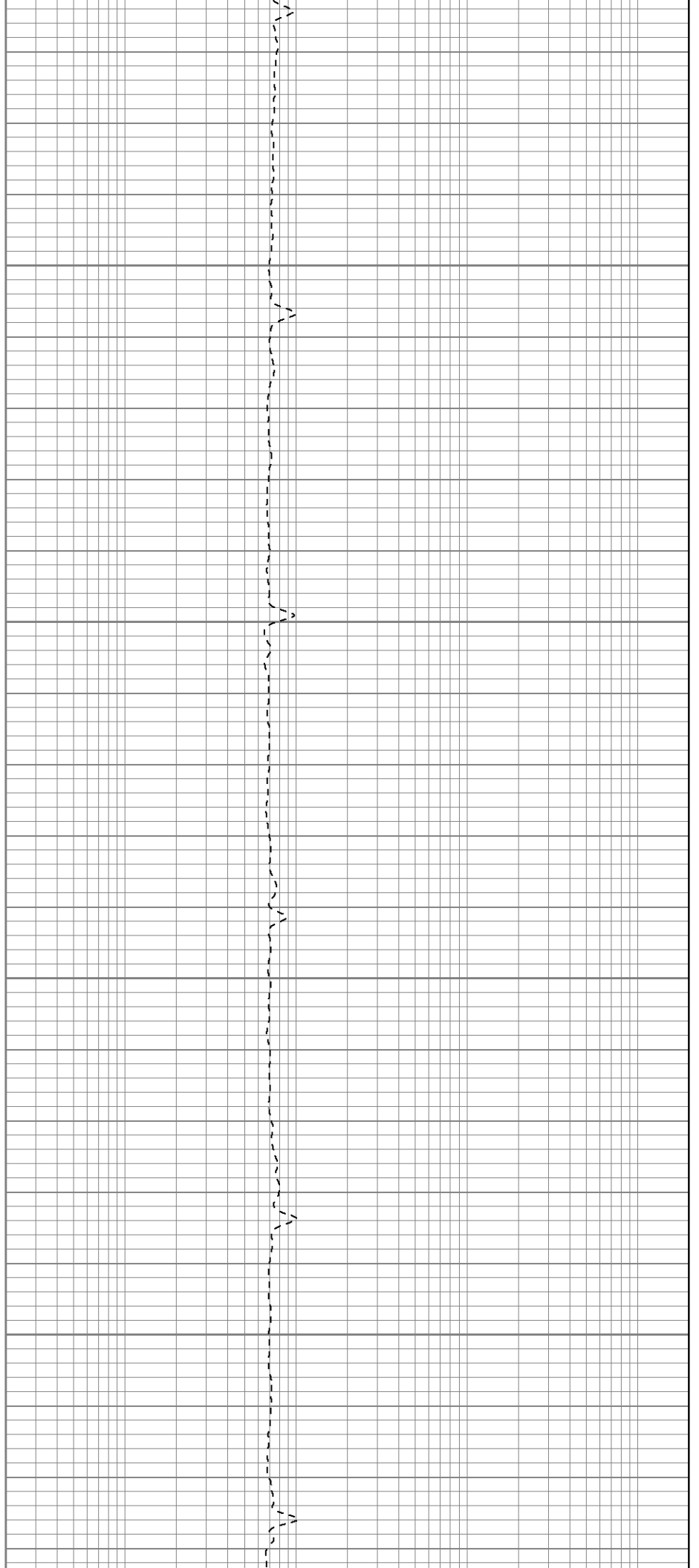


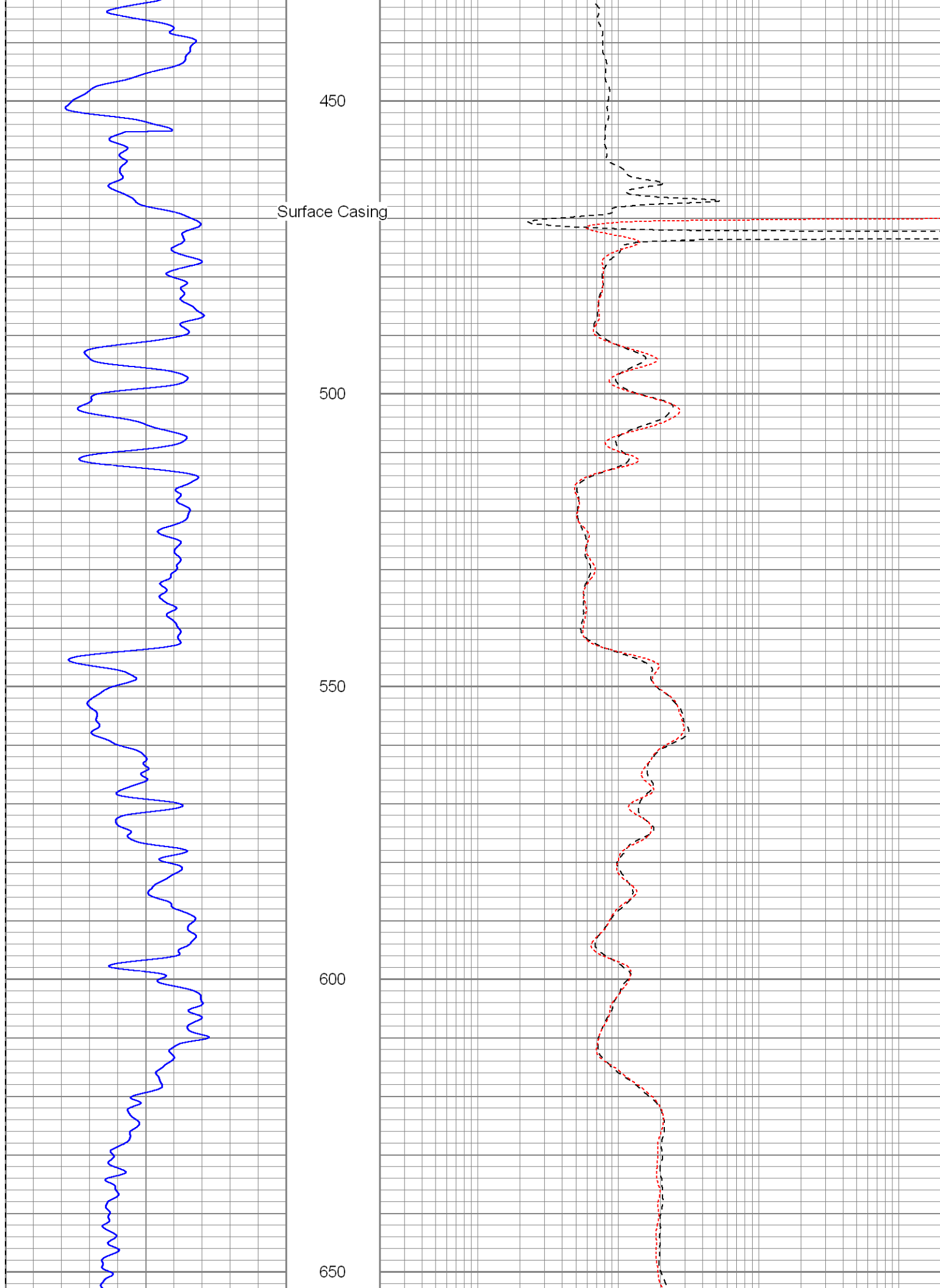
250

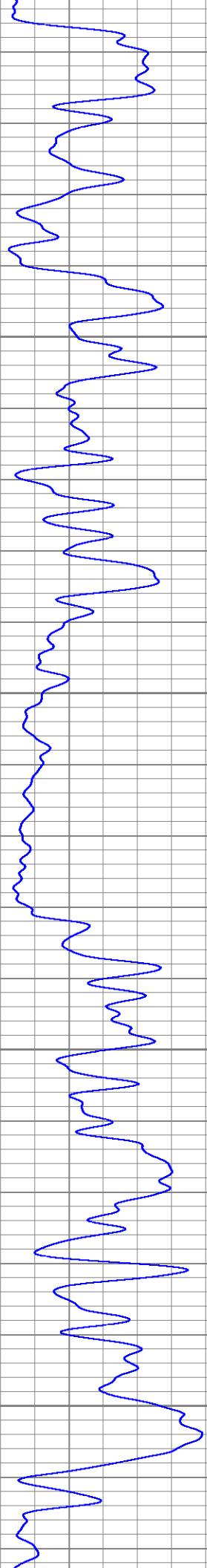
300

350

400







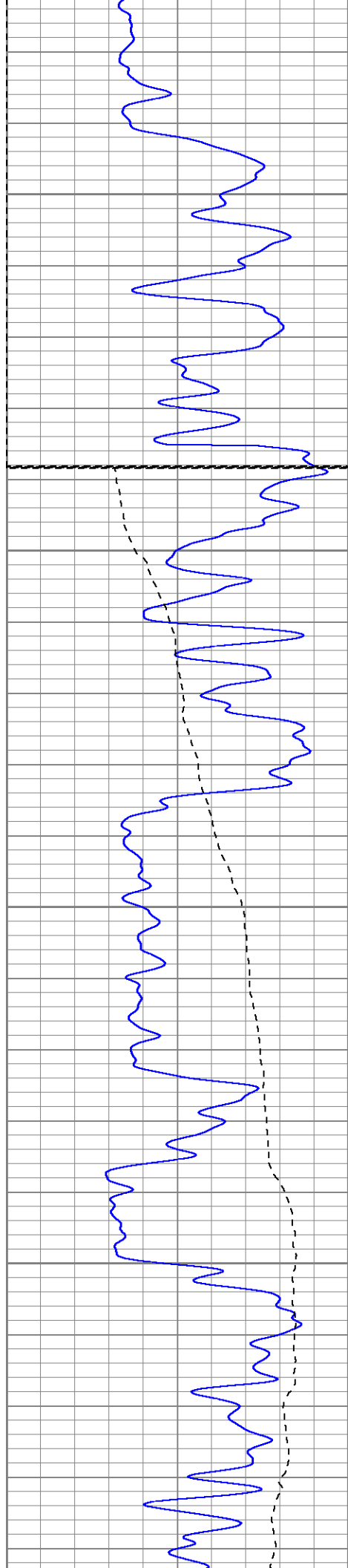
700

750

800

850





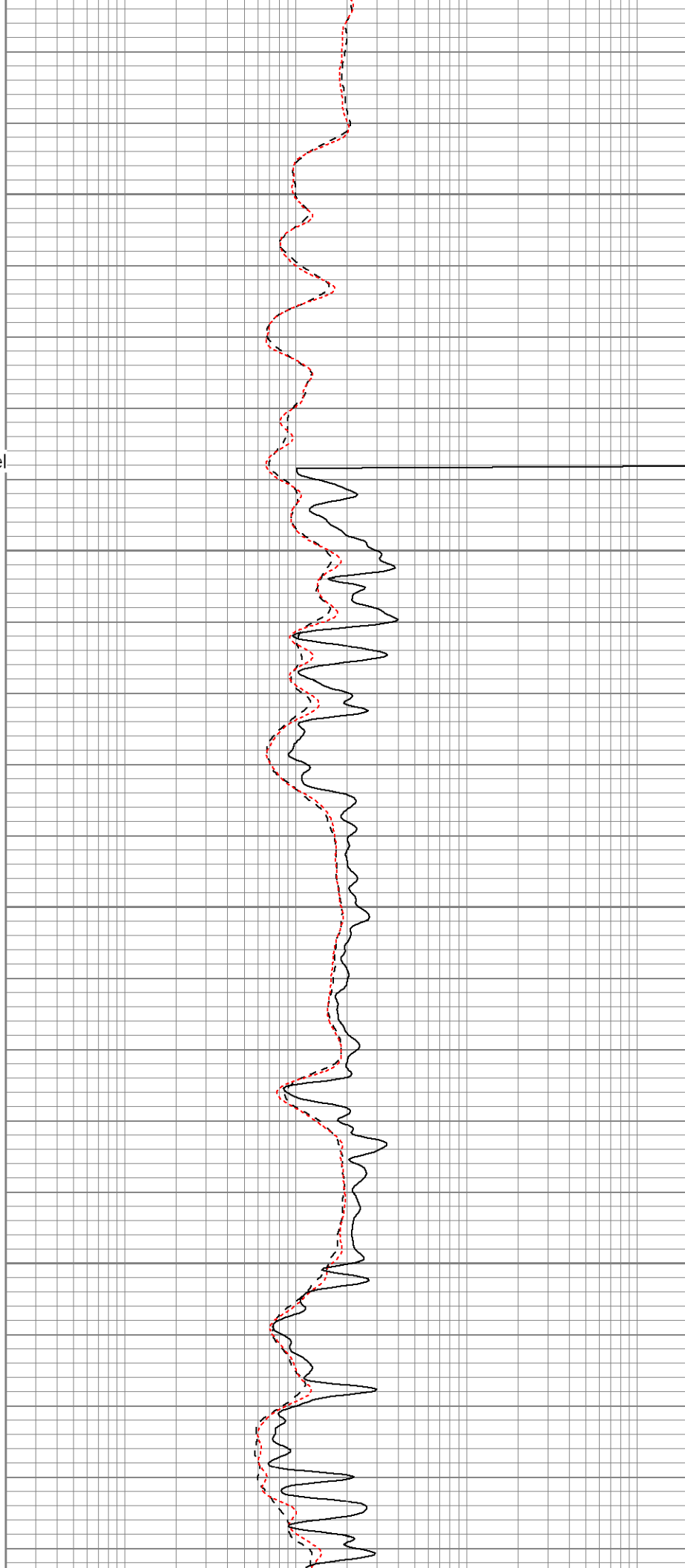
900

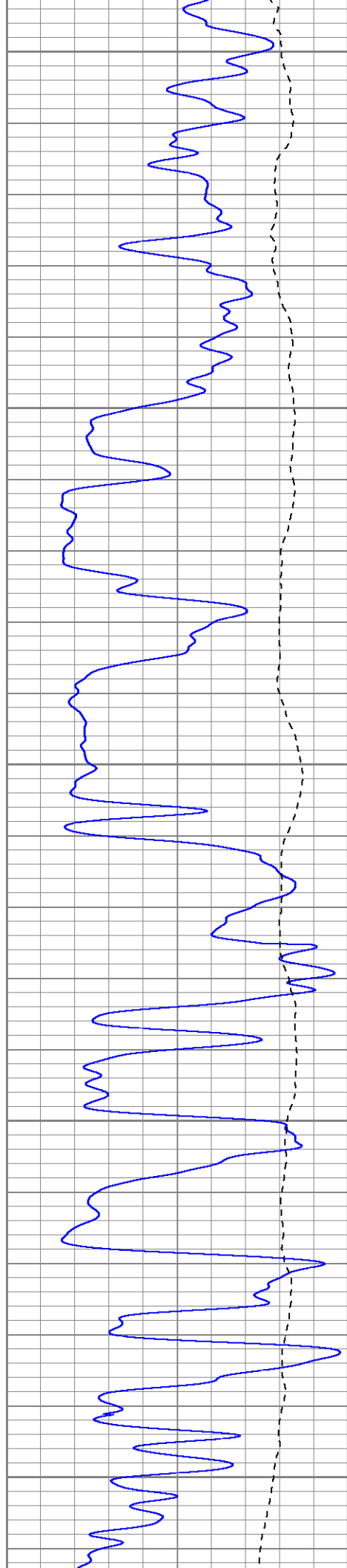
Fluid Level

950

1000

1050





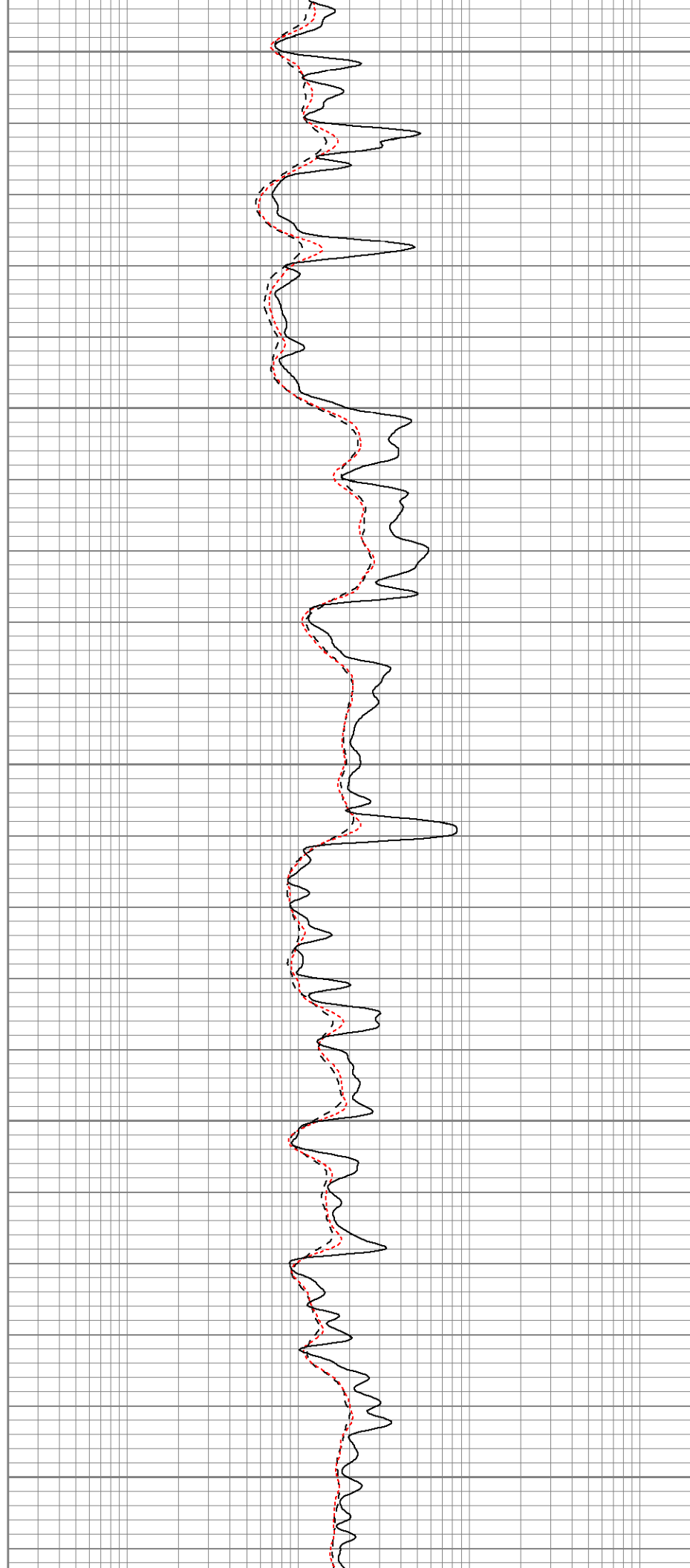
1100

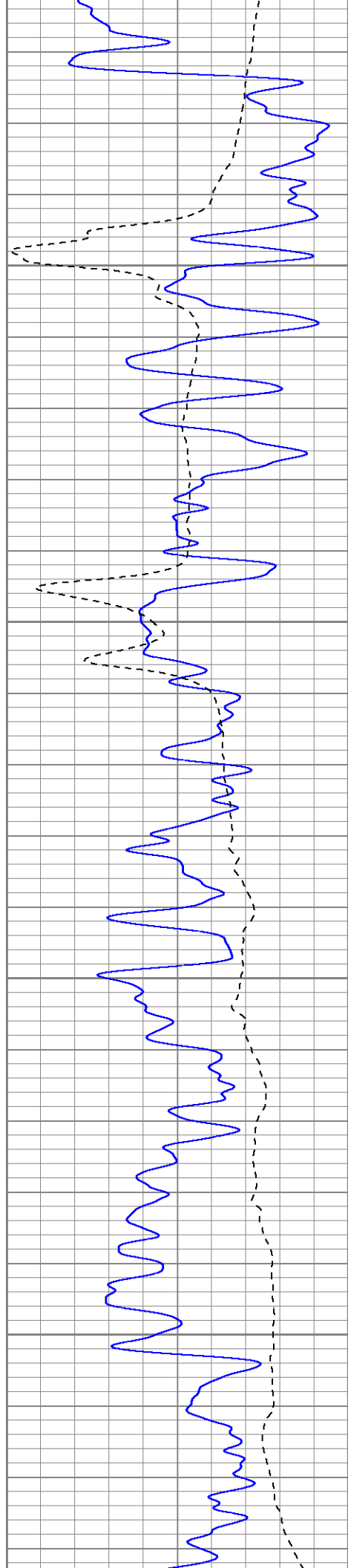
1150

1200

1250

1300



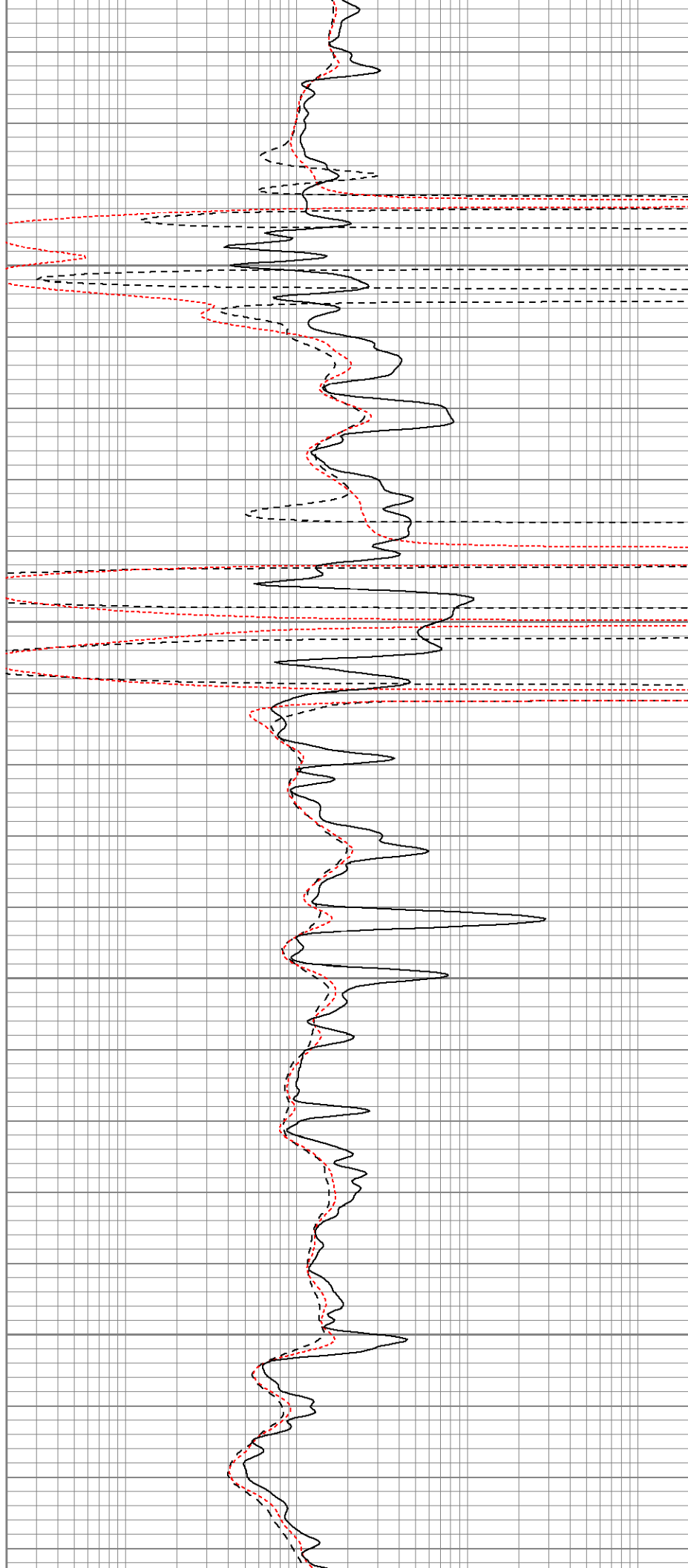


1350

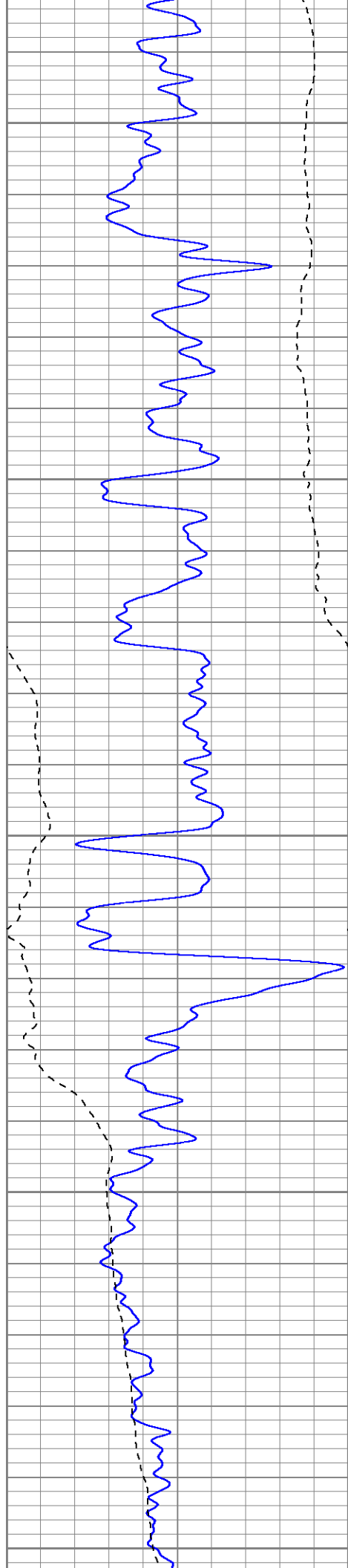
1400

1450

1500







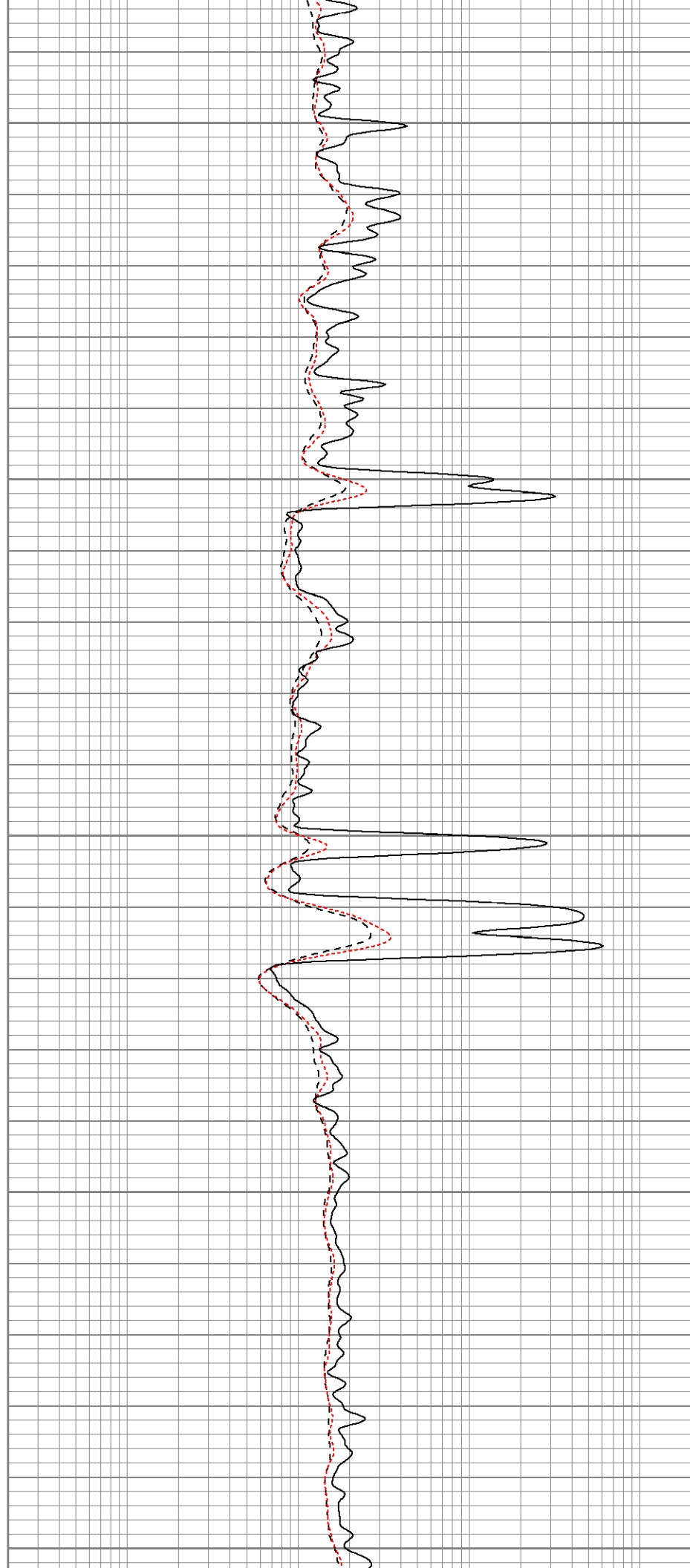
1550

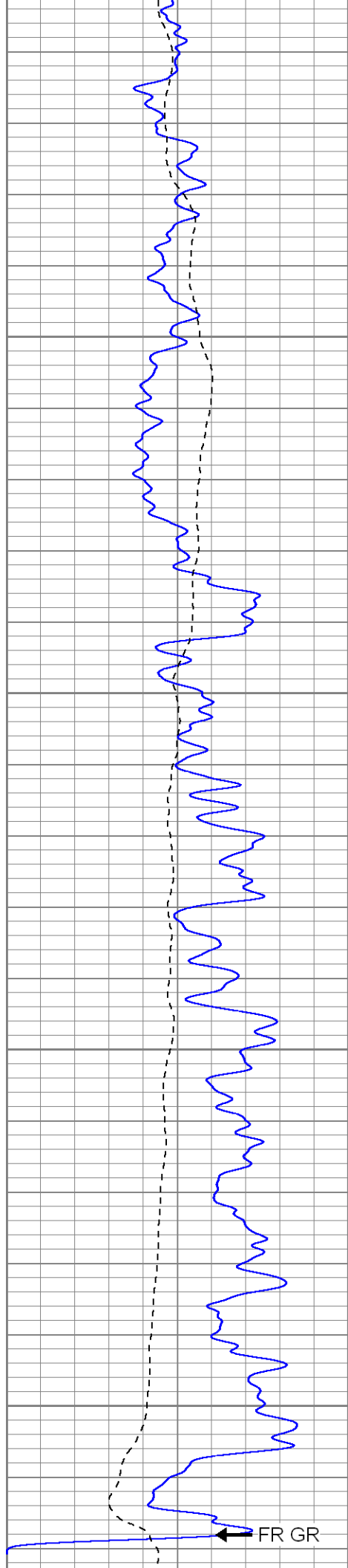
1600

1650

1700

1750





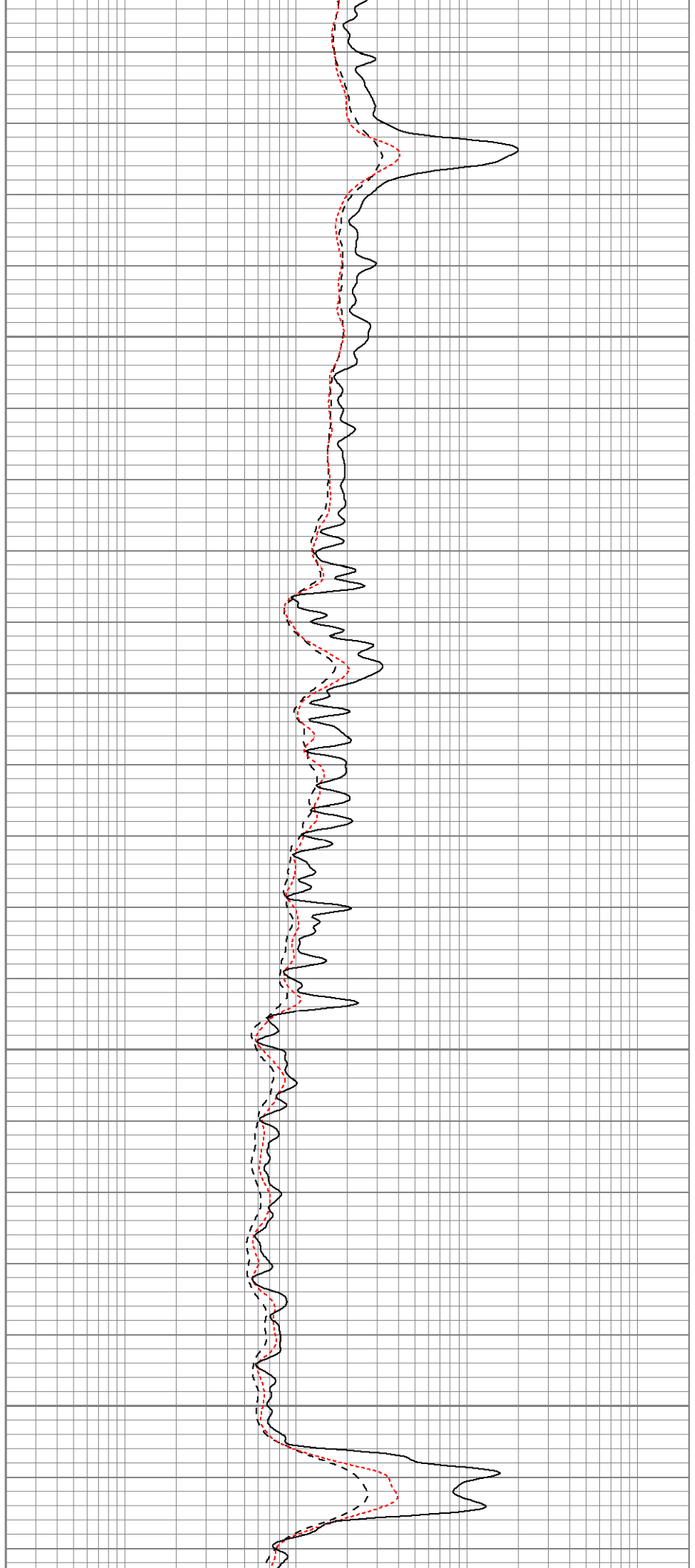
1800

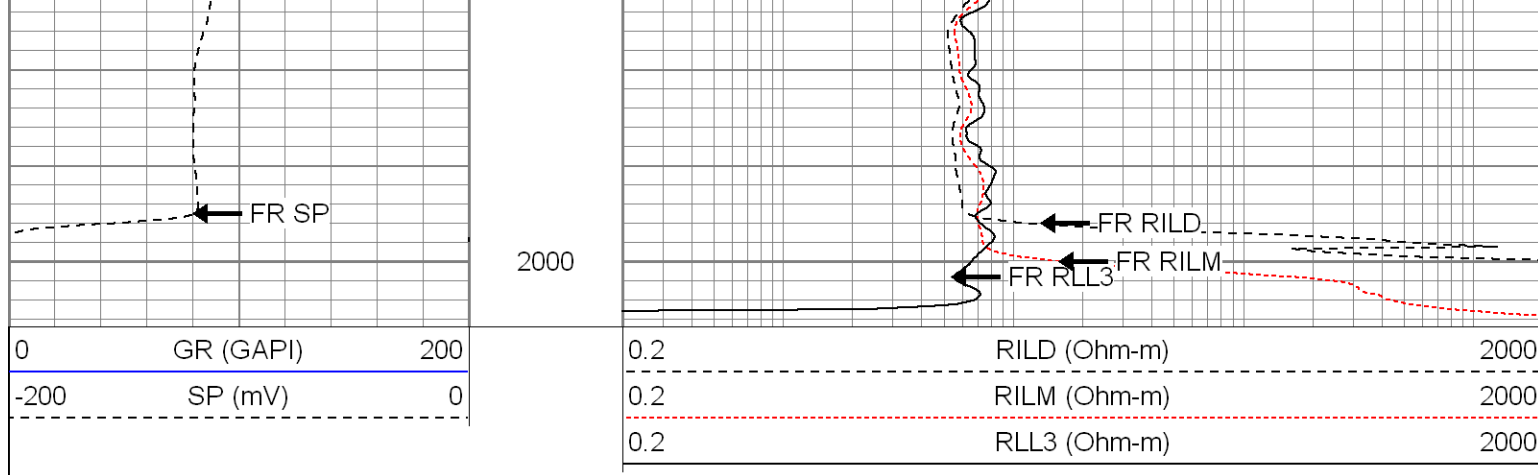
1850

1900

1950

FR GR



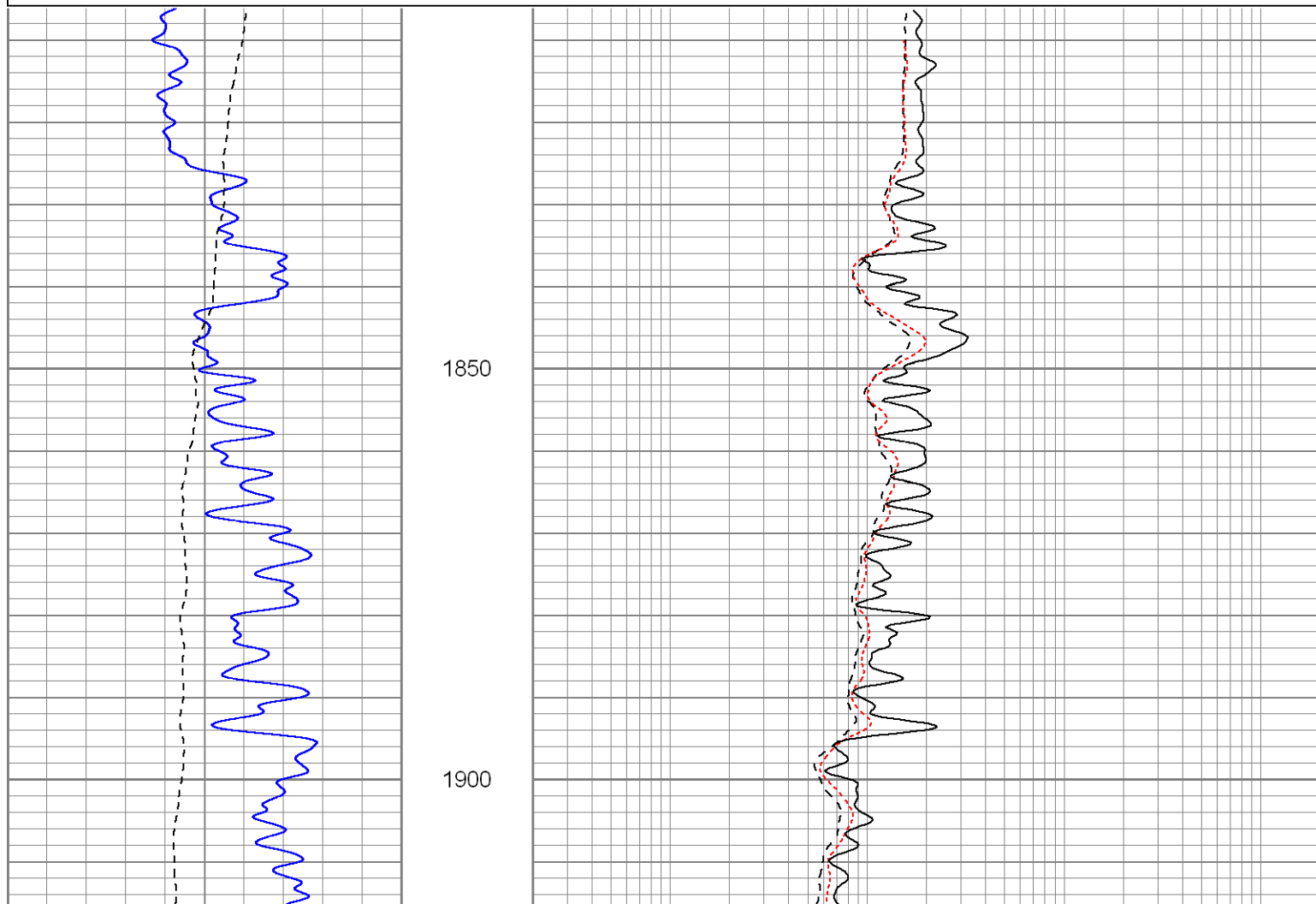
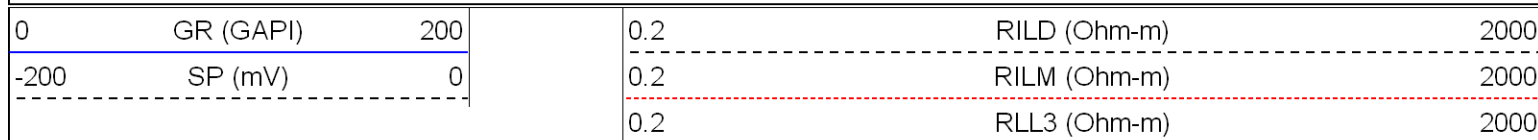


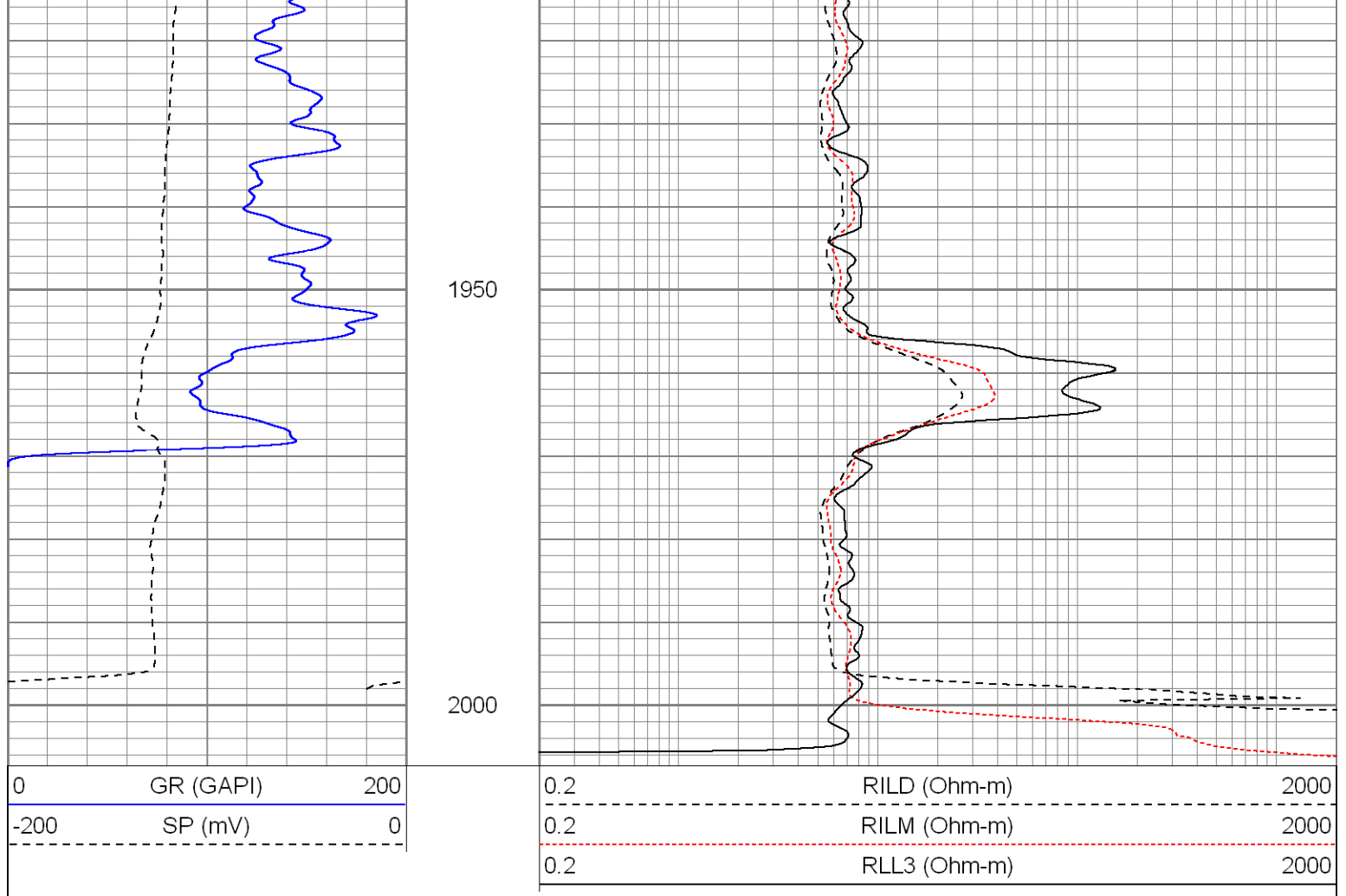
**SUPERIOR**

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

# Repeat Pass

Database File: xtoac0413.db  
Dataset Pathname: pass1.1  
Presentation Format: dil  
Dataset Creation: Sun Jul 20 18:45:47 2008 by Calc Open-Cased 070814  
Charted by: Depth in Feet scaled 1:240







Calibration Report									
Database File:	xtoac0413.db								
Dataset Pathname:	pass1								
Dataset Creation:	Sun Jul 20 17:00:27 2008 by Log Open-Cased 070814								
Dual Induction Calibration Report									
Serial-Model:		5375-G							
Surface Cal Performed:		Thu Jun 19 14:00:16 2008							
Downhole Cal Performed:		Thu Jun 19 14:11:38 2008							
Surface Calibration									
Readings				References			Results		
Loop:	Air	Loop		Air	Loop		m	b	
Deep	0.008	0.627	V	0.000	500.000	mmho-m	807.269	-6.223	
Medium	0.010	0.749	V	0.000	550.000	mmho-m	744.131	-7.221	
Internal:	Zero	Cal		Zero	Cal		m	b	
Deep	0.008	0.628	V	0.000	500.000	mmho-m	806.482	-6.237	
Medium	0.010	0.749	V	0.000	550.000	mmho-m	744.204	-7.127	
Downhole Calibration									
Readings				References			Results		
Internal:	Zero	Cal		Zero	Cal		m	b	
Deep	0.256	500.305	mmho-m	0.020	500.507	mmho-m	1.001	-0.237	

Deep	0.259	549.900	mmho-m	-0.095	549.850	mmho-m	1.001	-0.354
Medium	2.515	0.018	V	500.000	2.000	Ohm-m	125.000	-4.300
Shallow								
Compensated Density Calibration Report								
Serial-Model:				901-2.75POH				
Source / Verifier:				/				
Master Calibration Performed:				Tue Jul 08 09:03:23 2008				
Master Calibration								
	Density			Far Detector		Near Detector		
	<hr/>			<hr/>		<hr/>		
Magnesium	1.710	g/cc		1044.92		534.39	cps	
Aluminum	2.590	g/cc		190.27		268.70	cps	
Spine Angle = 68.02				Density/Spine Ratio = 0.479				
	Size			Reading				
	<hr/>			<hr/>				
Small Ring	8.00	in		2.48	V			
Large Ring	17.00	in		4.28	V			

Neutron Calibration Report		
Serial Number:	803	
Tool Model:	2.75POH	
Performed:	Tue Jul 08 09:12:41 2008	
Calibrator Value:	1	NAPI
Calibrator Reading:	1	cps
Sensitivity:	1	NAPI/cps
Gamma Ray Calibration Report		
Serial Number:	801	
Tool Model:	2.75POH	
Performed:	Wed Jul 09 11:00:40 2008	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	0.8000	GAPI/cps

Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
GR	37.81		None	0.75	1.50	5.00
			GR-2.75POH (801) Probe	3.73	2.75	43.00
NEU	32.27		NEU-2.75POH (803) Probe Epithermal	4.75	2.75	58.00

Tool Joint	Length (ft)	Weight (lb)	O.D. (in)	Remarks	Length (ft)	Weight (lb)	O.D. (in)
LSD	24.44				8.43	2.75	106.00
DCAL	24.16				0.89	3.50	20.00
SSD	23.91						
CILD SP	10.60 10.60			DIL-G (5375) Gearhart	20.80	4.00	345.00
CILM	6.89						
RLL3	1.70						
Dataset: xtoac0413.db: field/well/run1/pass1 Total Length: 39.34 ft Total Weight: 577.00 lb O.D.: 4.00 in							