

Company	Pioneer Natural Resources	Company	Pioneer Natural Resources
Well	Timbale 32-12	Well	Timbale 32-12
Field	Purgatoire River	Field	Purgatoire River
County	Las Animas	County	Las Animas
State	Colorado	State	Colorado
Location:	API #: 05 071 09817-00 1569' FNL & 1854' FEL		
Permanent Datum	SEC 12 TWP 33S RGE 68W	Ground Level	Elevation 7894'
Log Measured From		Kelly Bushing 9' AGL	
Drilling Measured From		Kelly Bushing	
Other Services	CDNL		
Elevation	K.B. 7903' D.F. ----- G.L. 7894'		
Date	6-18-11	6-19-11	
Run Number	One	Eight	
Depth Driller	2548'	2548'	
Depth Logger	1276'	2529'	
Bottom Logged Interval	1260'	2527'	
Top Log Interval	Surface Casing	5 1/2" Casing	
Casing Driller	8 5/8" @ 552'	1892'	
Casing Logger	552'	1892'	
Bit Size	7 7/8"	7 7/8"	
Type Fluid in Hole	Airated Water	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	1:15 P.M.	1:15 P.M.	
Time Logger on Bottom	2:30 P.M.	1:00 A.M.	
Maximum Recorded Temperature	71 DEG F	///	
Equipment Number	T590	T590	
Location	Trinidad	Trinidad	
Recorded By	C. Sisneros	C. Sisneros	
Witnessed By	Mr. Dave Martinez	Mr. Dave Martinez	

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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.

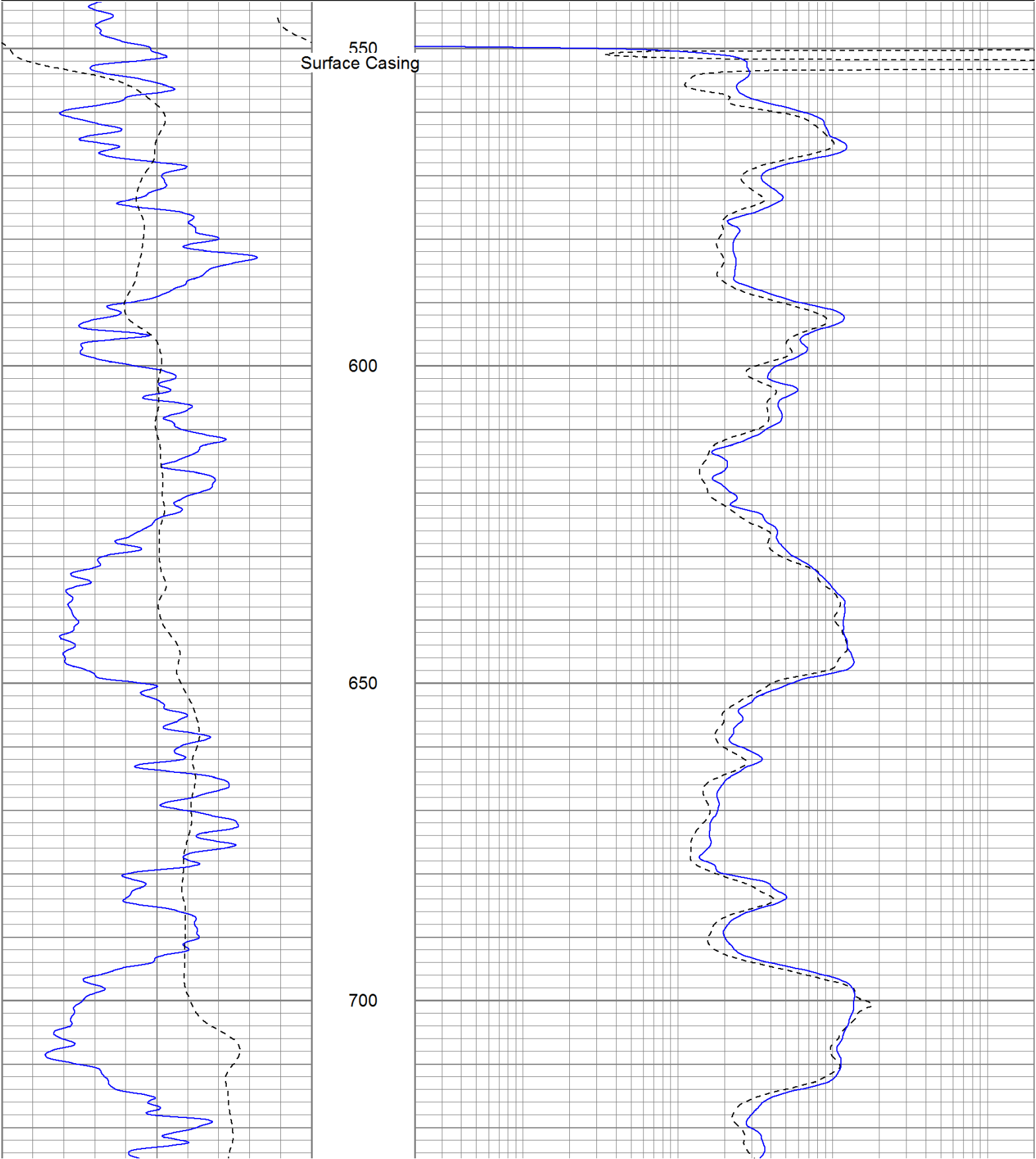
Comments

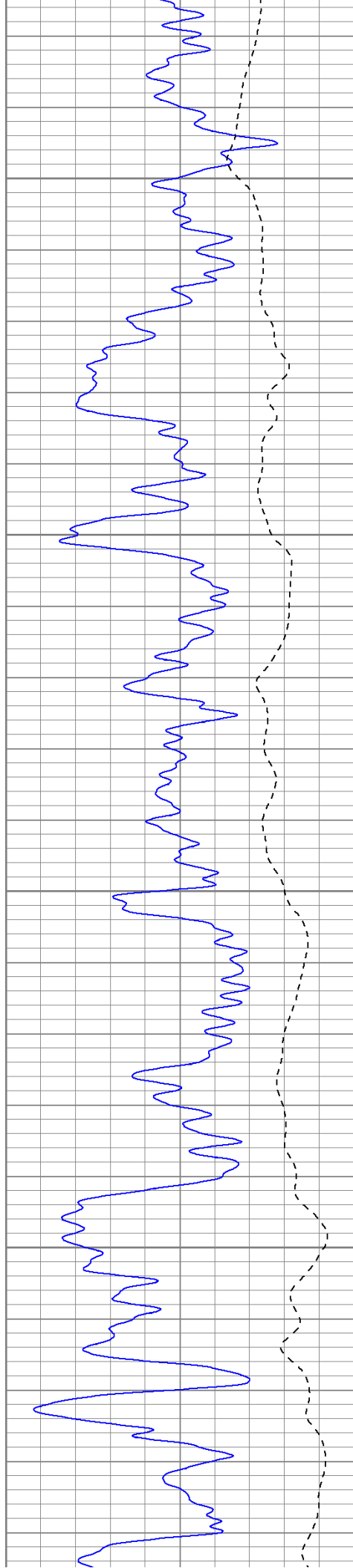
Multiple Passes logged thru 5.5" casing. Merged all passes.
 Neuton not ran from 2529' to 1276' due to hole conditions.
 Directions:
 Rancho Escondido, turn left at trash dumpsters, go thru gate on cattle gaurd,
 straight to top of hill and go right, 2nd right to location.

Database File: timbale.db
Dataset Pathname: pass1sil
Presentation Format: iel
Dataset Creation: Tue Jun 21 07:59:11 2011
Charted by: Depth in Feet scaled 1:240

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

0.2	DIR (Ohm-m)	2000
0.2	SN (Ohm-m)	2000



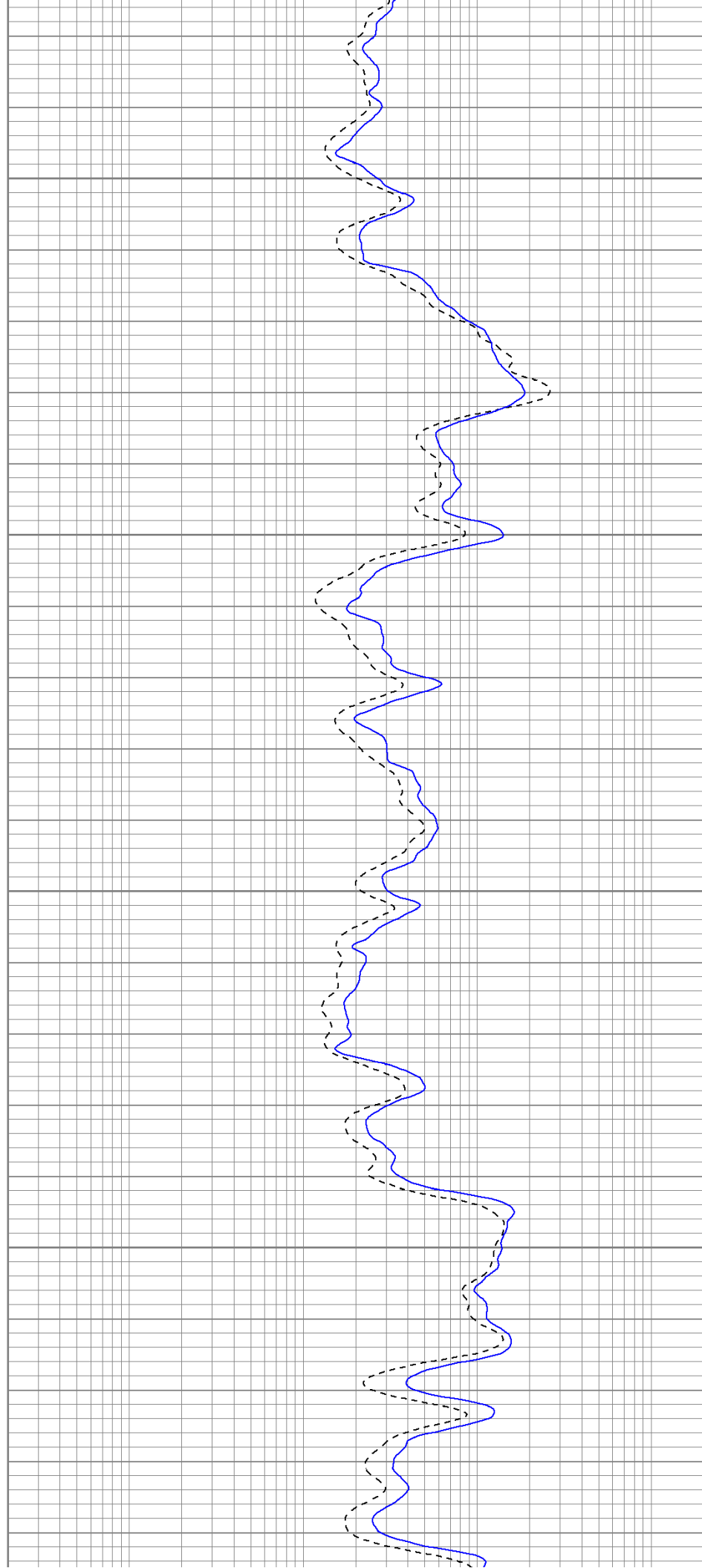


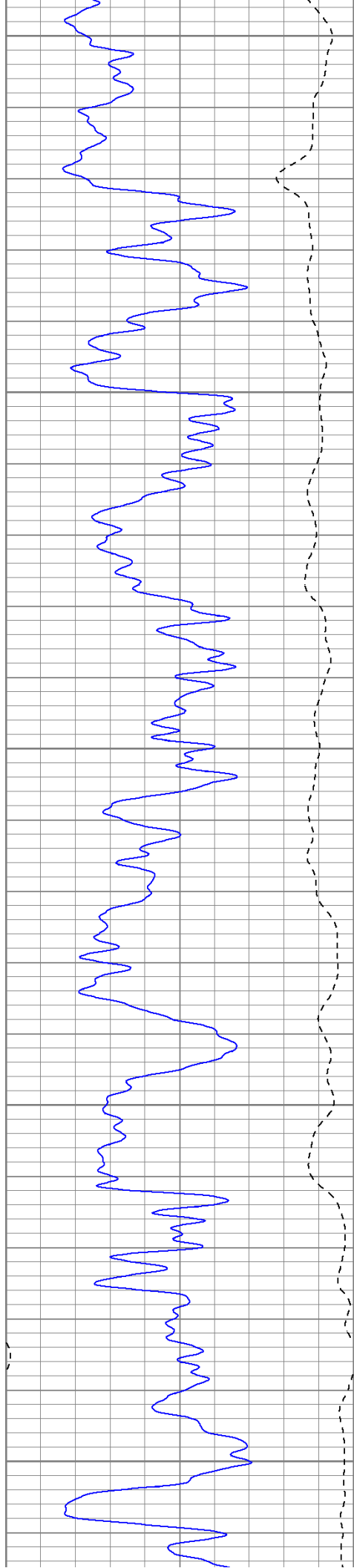
750

800

850

900





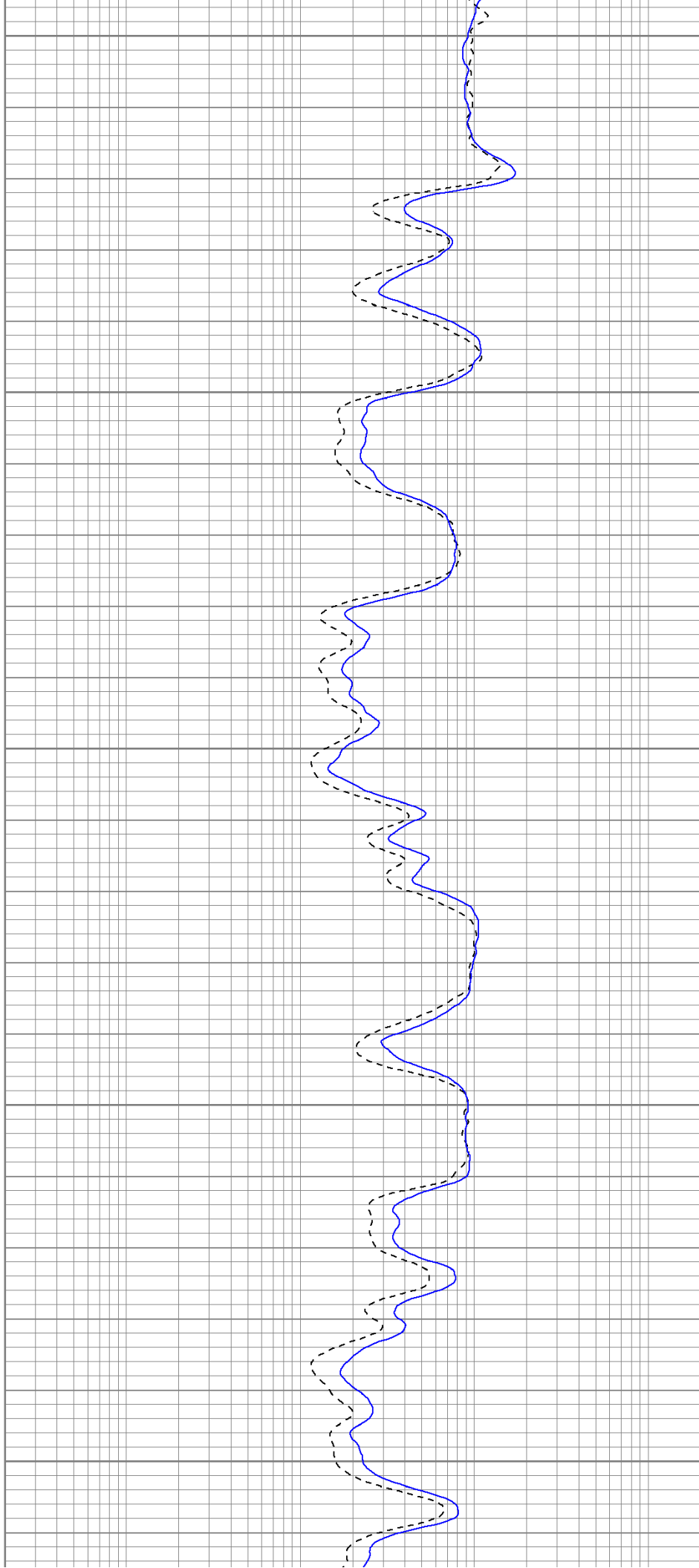
950

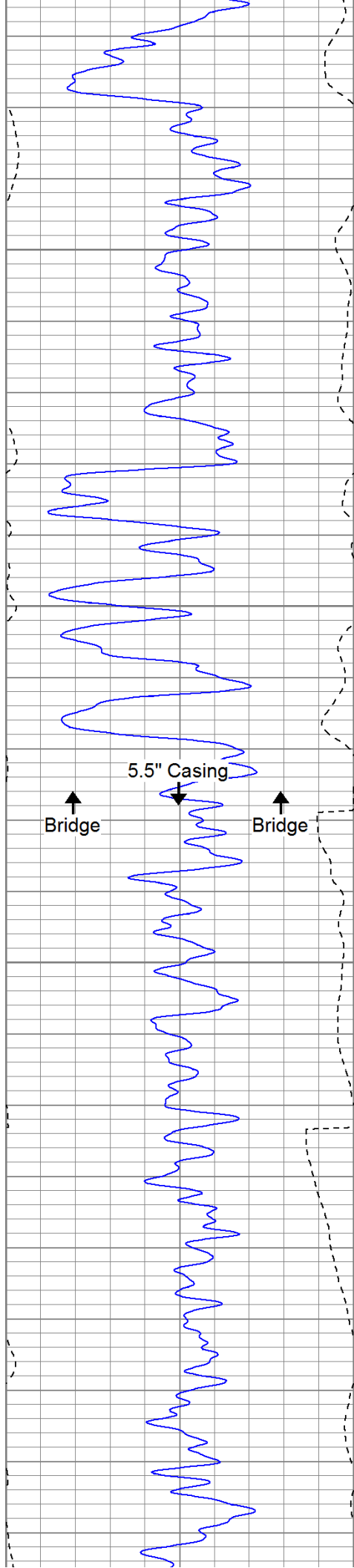
1000

1050

1100

1150





1200

1250

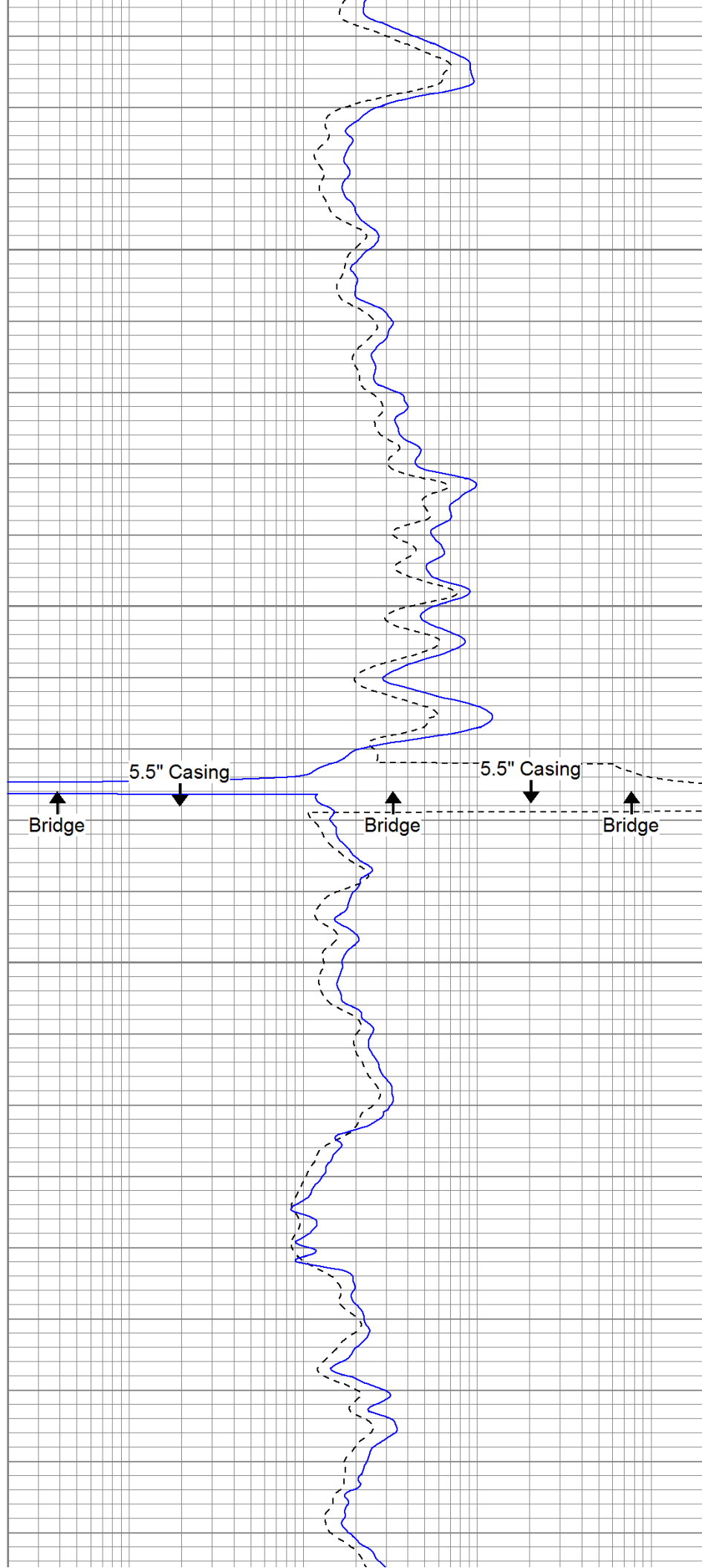
1300

1350

↑
Bridge

5.5" Casing
↓

↑
Bridge



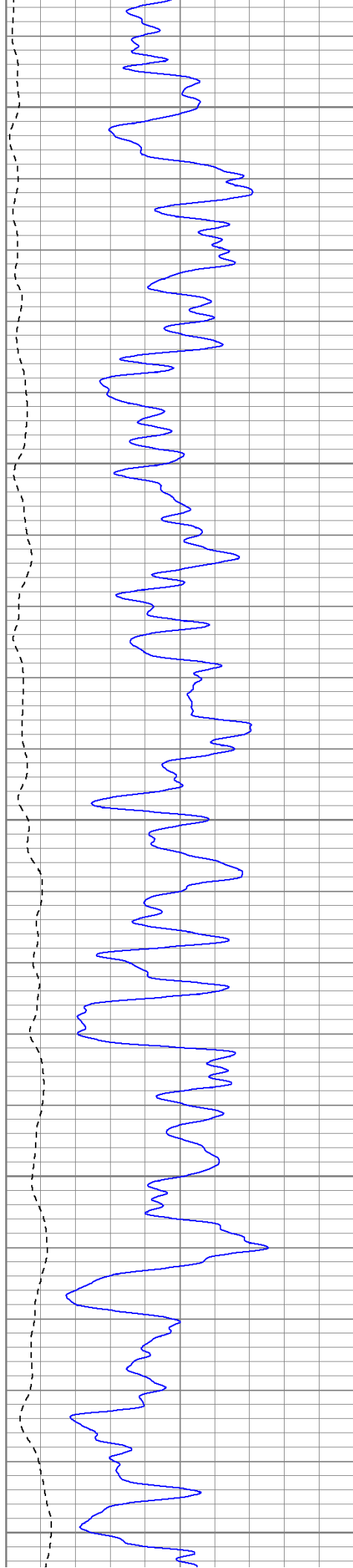
↑
Bridge

5.5" Casing
↓

↑
Bridge

5.5" Casing
↓

↑
Bridge



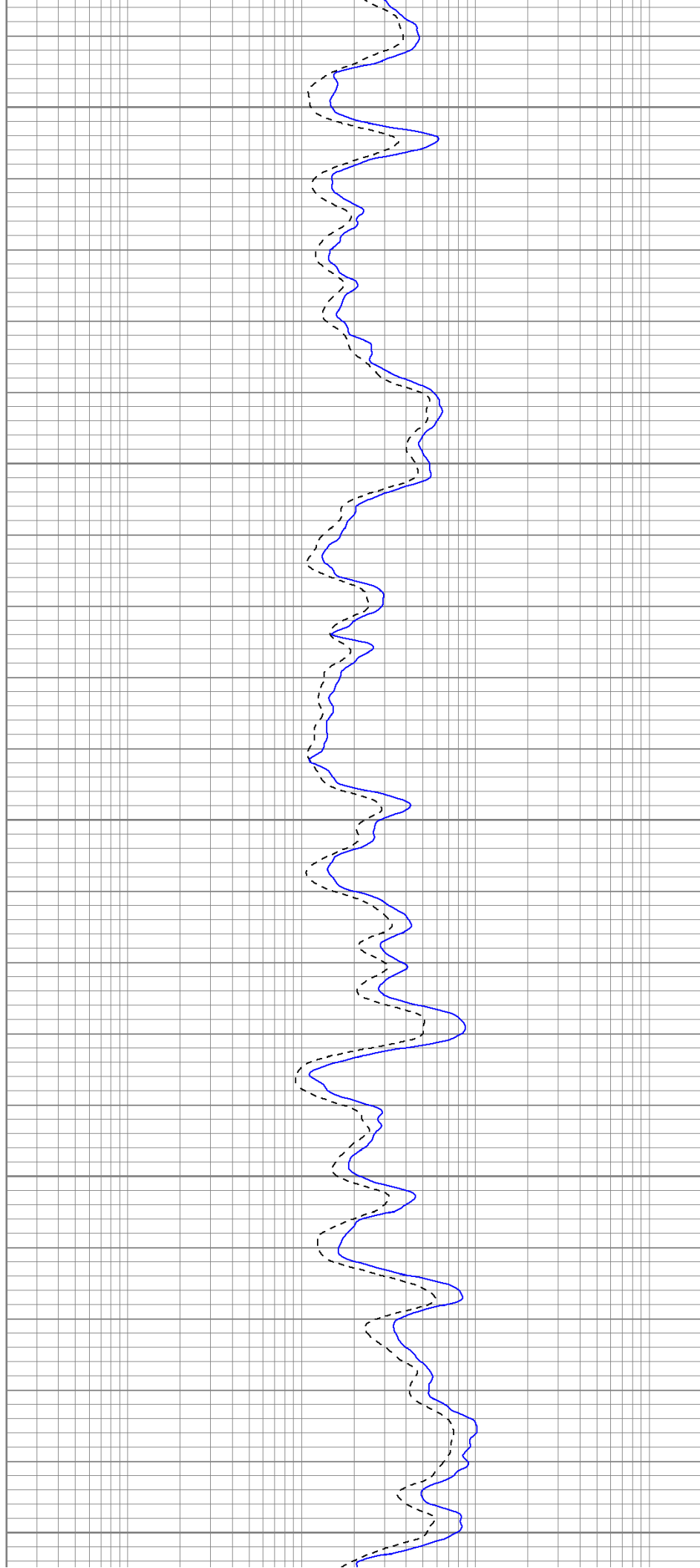
1400

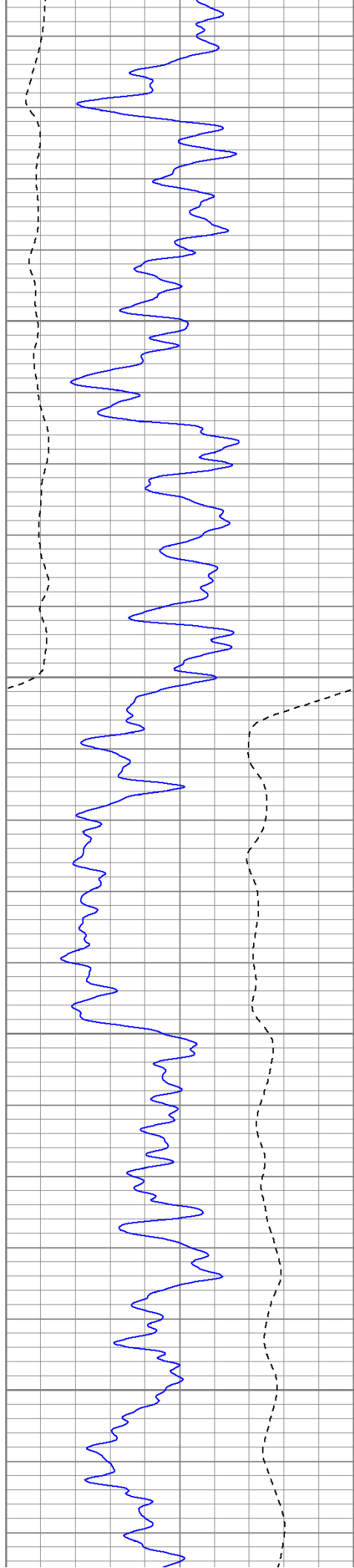
1450

1500

1550

1600



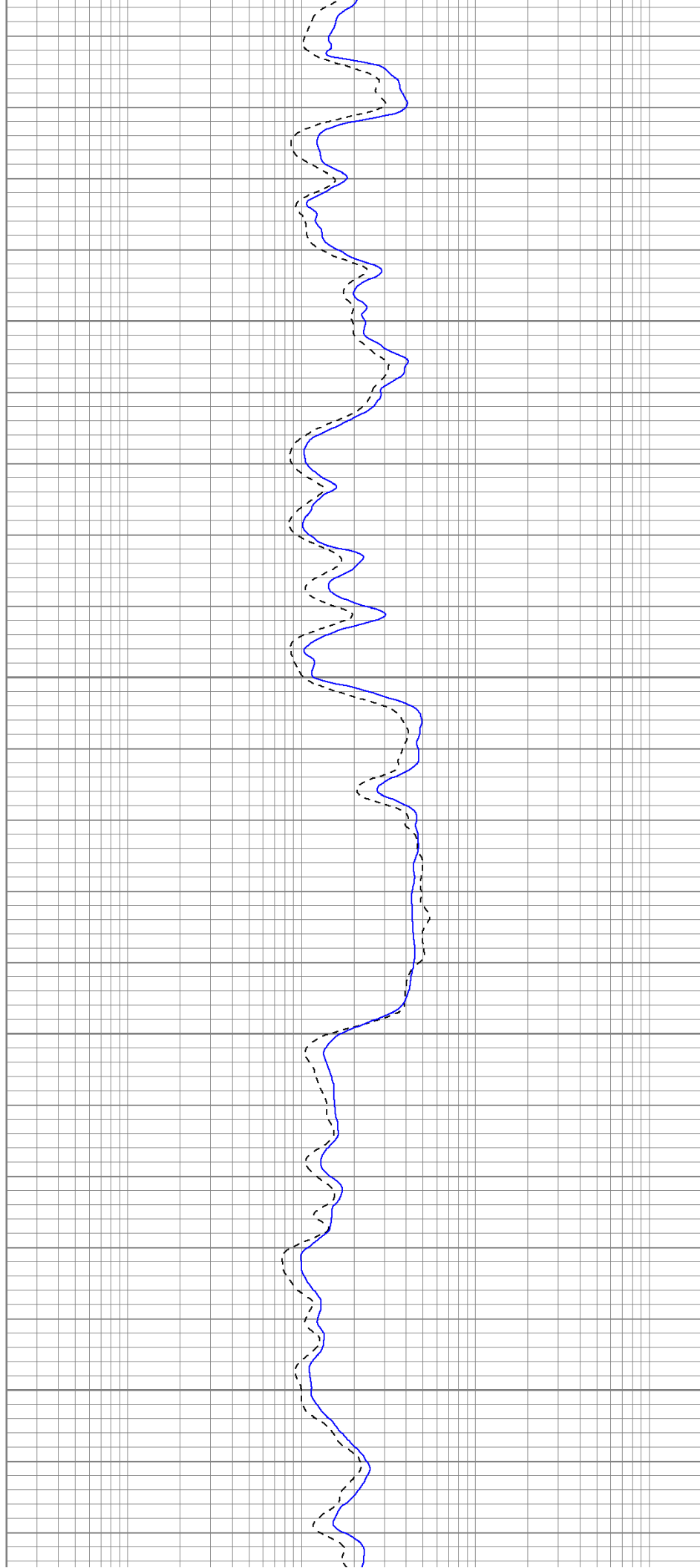


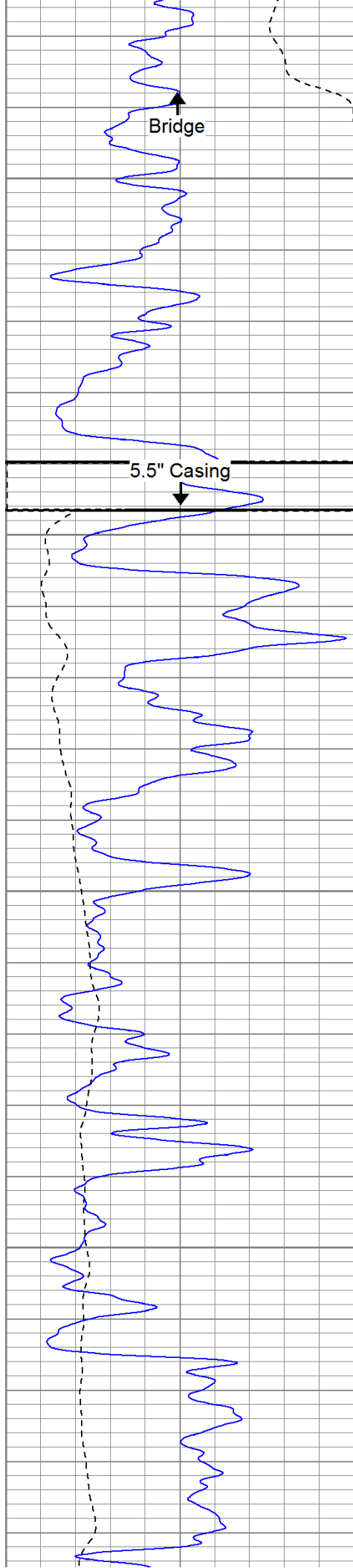
1650

1700

1750

1800



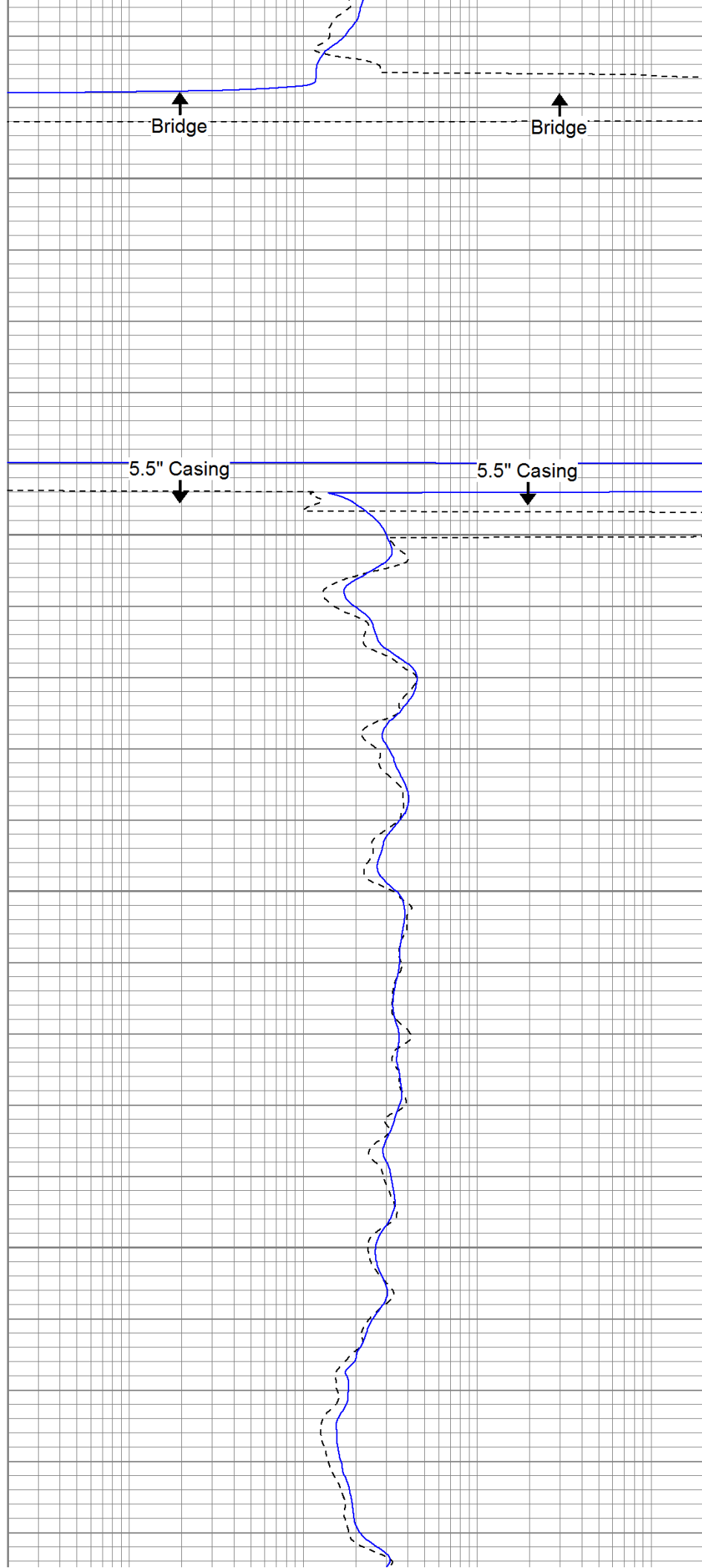


1850

1900

1950

2000

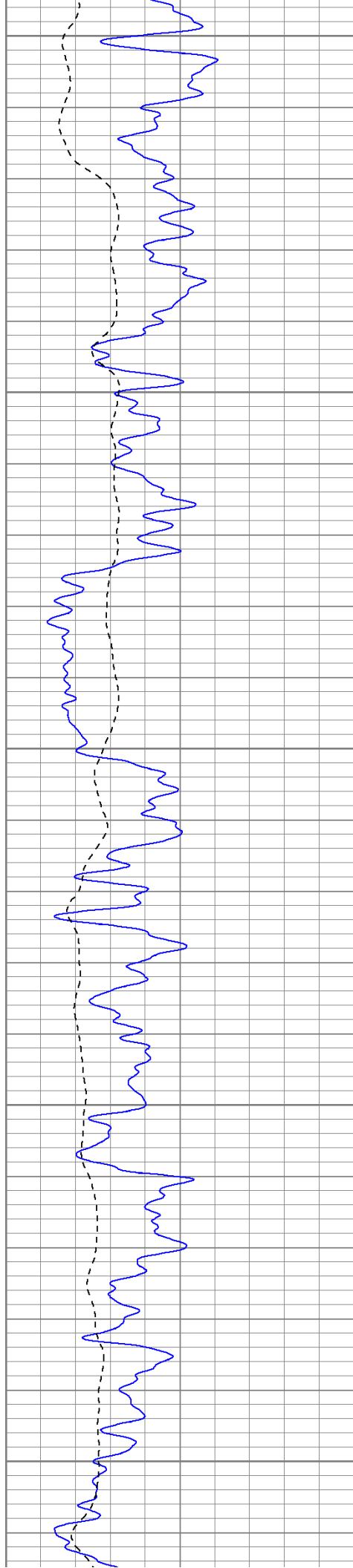


Bridge

Bridge

5.5\" Casing

5.5\" Casing



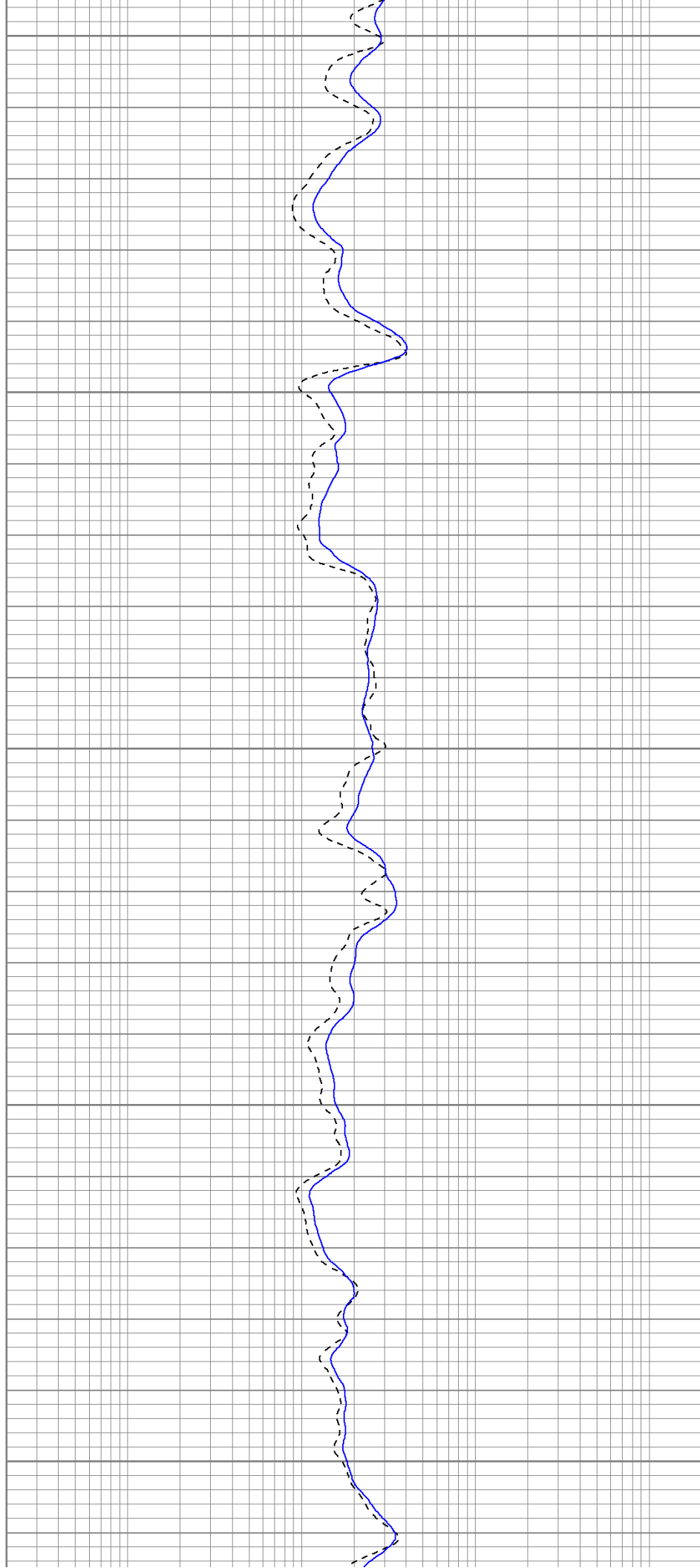
2050

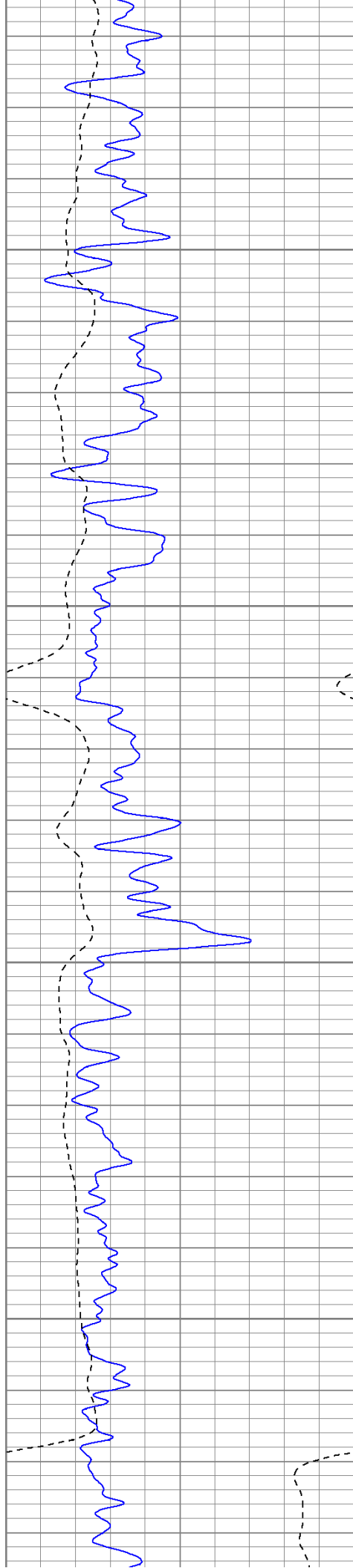
2100

2150

2200

2250



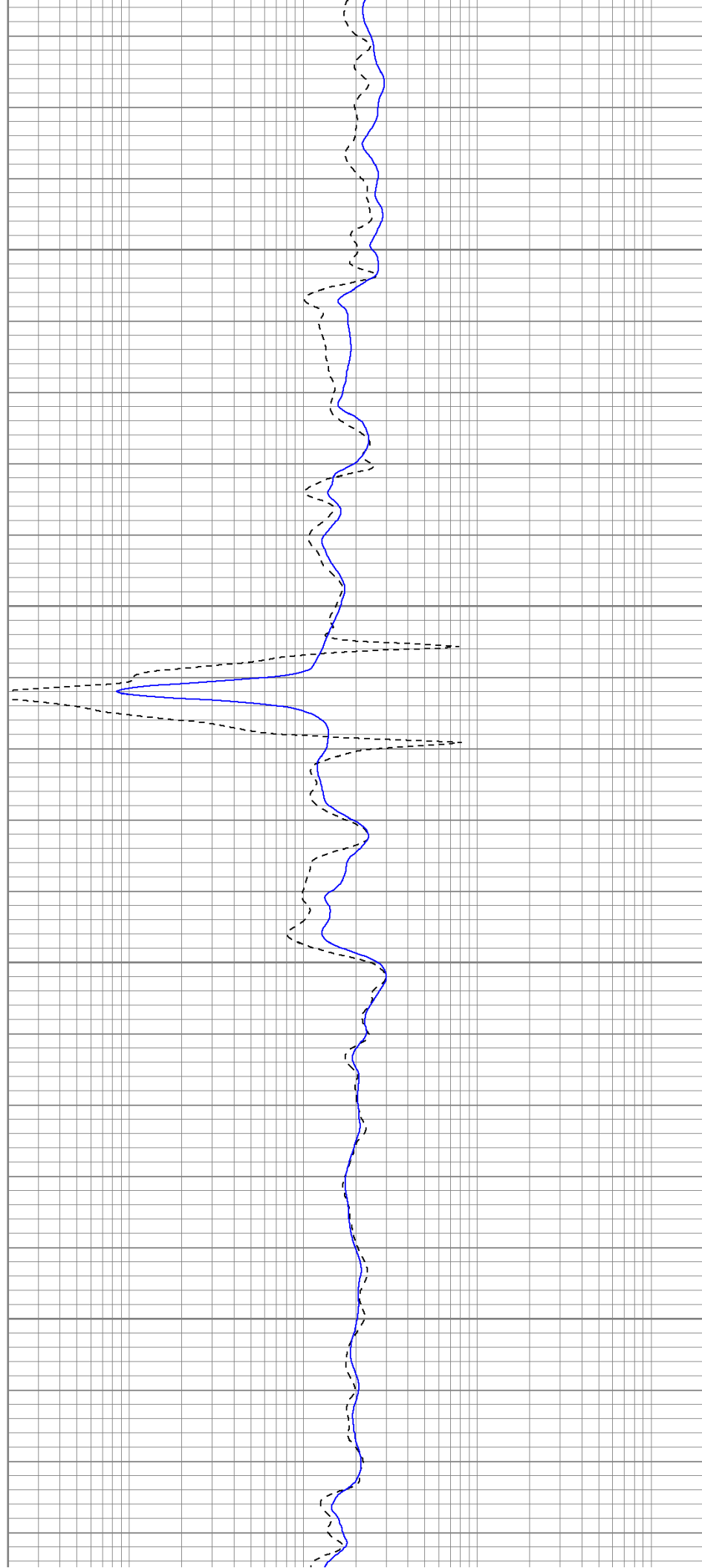


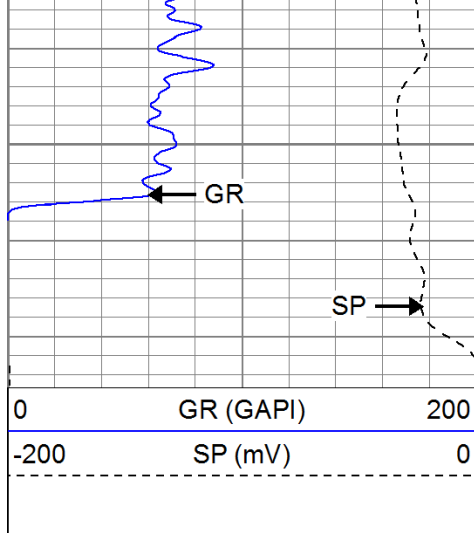
2300

2350

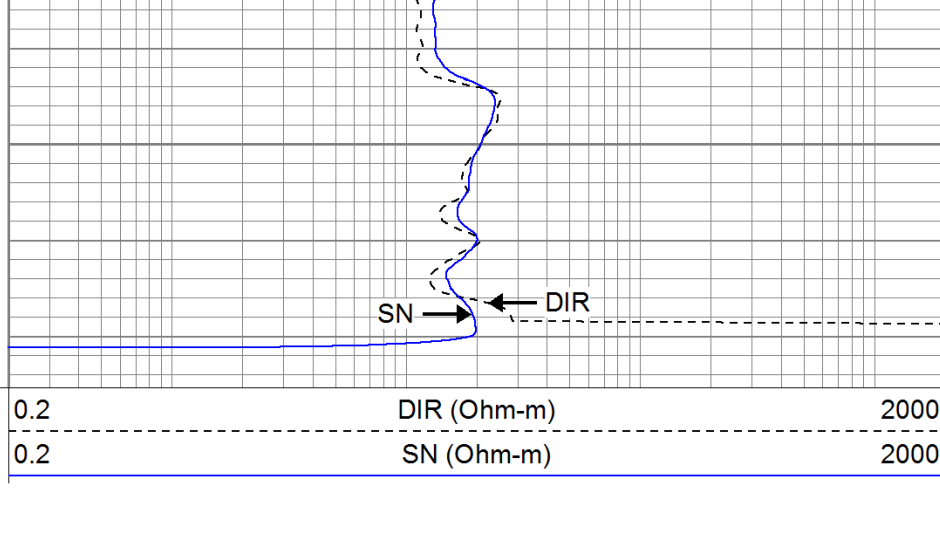
2400

2450



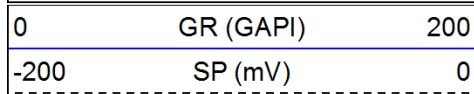


2500



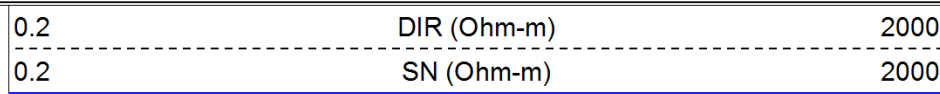
Repeat Pass

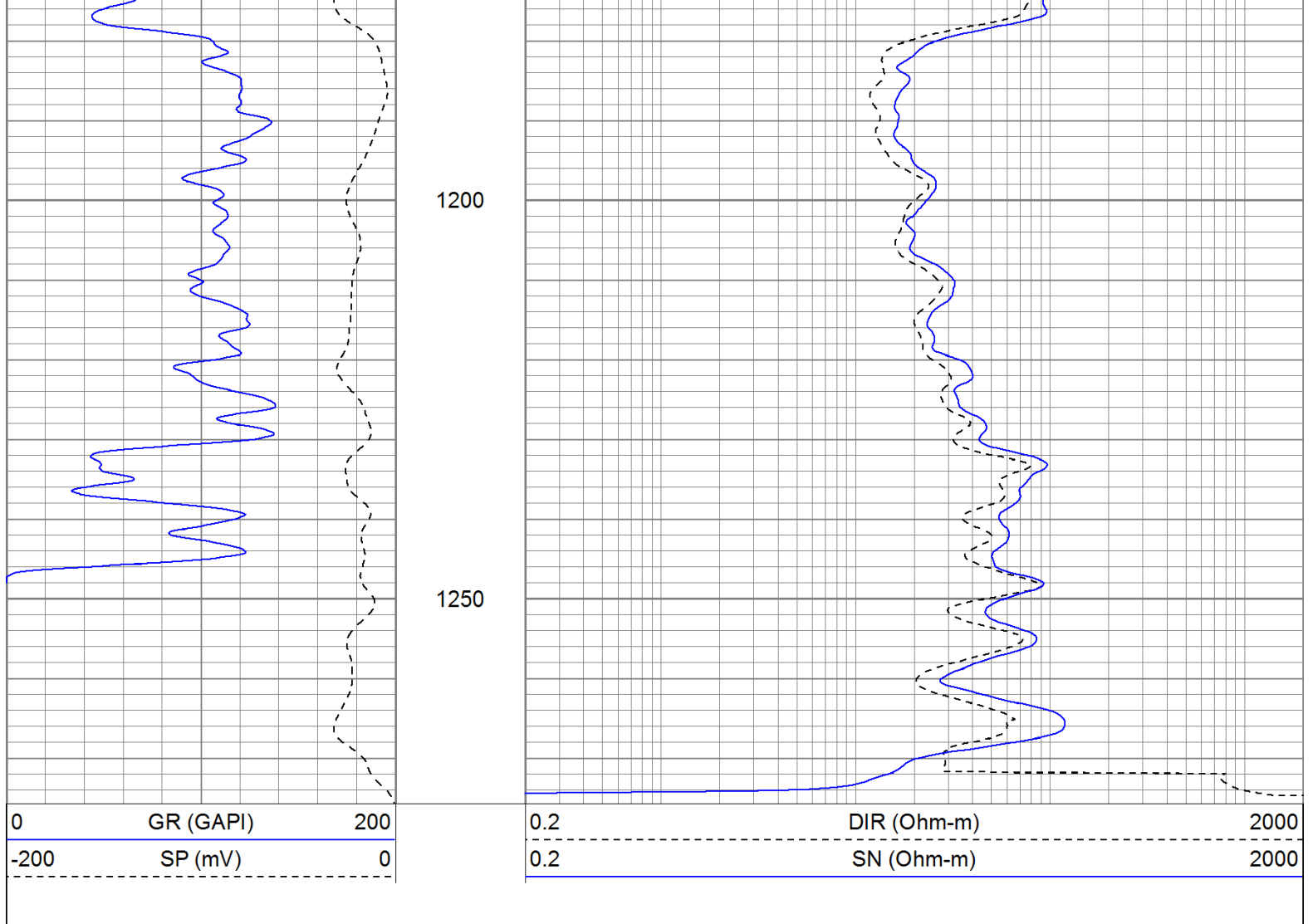
Database File: timbale.db
 Dataset Pathname: pass2.1
 Presentation Format: iel
 Dataset Creation: Sat Jun 18 15:12:09 2011 by Calc Open-Cased 110302
 Charted by: Depth in Feet scaled 1:240



1100

1150





Calibration Report

Database File: timbale.db
 Dataset Pathname: pass2
 Dataset Creation: Sat Jun 18 15:04:32 2011 by Log Open-Cased 110302

Induction Tool Calibration Report

Serial Number: 903
 Tool Model: Probe
 Downhole Cal Performed: Sat Jun 18 15:02:12 2011
 Surface Cal Performed: Sat Jun 18 10:01:28 2011
 After Survey Verification Performed:

Surface Calibration:	Air	Loop	
Conductivity Reference:	0.000	500.000	mmho
Conductivity Reading:	0.007	0.642	V
Internal Reference:	Zero	Cal	
Conductivity Reference:	0.000	500.000	mmho
Conductivity Reading:	0.006	0.641	V

Downhole Calibration:	Internal Zero	Internal Cal	
Conductivity Reference:	-0.702	499.904	mmho
Conductivity Reading:	-0.082	503.319	V
Short Normal Reference:	0.000	20.000	Ohm-m
Short Normal Reading:	0.006	0.233	V

Results:	Gain	Offset
Loop Conductivity:	788.230	-5.739
Downhole Correction:	0.994	-0.621
Short Normal Resistivity:	88.245	-3.000

After Survey Verification	Internal Zero	Internal Cal	
Conductivity Reading:	0.000	0.000	V
Conductivity Result:	0.000	0.000	mmho
Short Normal Reading:	0.000	0.000	V
Short Normal Result:	0.000	0.000	Ohm-m

Compensated Density Calibration Report

Serial-Model:	901-2.75POH
Source / Verifier:	/
Master Calibration Performed:	Wed Jun 08 09:11:26 2011
Before Survey Verification Performed:	
After Survey Verification Performed:	

Master Calibration					
	Density		Far Detector	Near Detector	
Magnesium	1.710	g/cc	1001.79	578.48	cps
Aluminum	2.590	g/cc	180.36	300.39	cps
	Spine Angle = 69.08		Density/Spine Ratio = 0.479		
	Size		Reading		
Small Ring	8.00	in	2.50	V	
Large Ring	16.00	in	4.57	V	

Before Survey Verification					
	Target		Measured		
		g/cc			g/cc
		g/cc			g/cc
		g/cc			g/cc




After Survey Verification					
	Target		Measured		
		g/cc			g/cc
		g/cc			g/cc
		g/cc			g/cc

Neutron Calibration Report

Serial Number:	803	
Tool Model:	2.75POH	
Performed:	Wed Jun 08 13:12:55 2011	
Calibrator Value:	1	NAPI
Calibrator Reading:	1	cps
Sensitivity:	1	NAPI/cps

Gamma Ray Calibration Report

Serial Number:	804	
Tool Model:	2.75POH	
Performed:	Tue Jun 14 18:09:29 2011	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	0.6000	GAPI/cps

Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
GR	29.58		None	0.75	1.50	5.00
			GR-2.75POH (804) Probe 2.75" Probe Open Hole Gamma Ray	3.73	2.75	43.00
NEU	24.04		NEU-2.75POH (803) Probe Epithermal	4.75	2.75	58.00
LSD	16.21		CDL-2.75POH (901) Probe	8.43	2.75	106.00
DCAL	15.94					
SSD	15.69					
DIC	6.24		IEL-Probe (903)	13.46	2.75	93.00
SP	2.25					
SN	1.71					
Dataset: timbale.db: field/well/run1/pass2 Total Length: 31.11 ft Total Weight: 305.00 lb O.D. 2.75 in						