



**DUAL
INDUCTION
LOG**

Company Taos Resources Operating Company LLC
 Well Richardson #28-1
 Field Unnamed
 County Cowley
 State Kansas

Company Taos Resources Operating Company LLC
 Well Richardson #28-1
 Field Unnamed
 County Cowley State Kansas

Location: API #: 15 035 24677
 790' FSL & 1190' FEL
 SEC 28 TWP 32S RGE 5E
 Permanent Datum Ground Level Elevation 1249'
 Log Measured From KB 5' AGL
 Drilling Measured From KB
 Other Services
 CDNL
 BHC
 ML
 Elevation
 K.B. 1254'
 D.F. 1253'
 G.L. 1249'

Date	10-07-17
Run Number	One
Depth Driller	3560'
Depth Logger	3561'
Bottom Logged Interval	3559'
Top Log Interval	210'
Casing Driller	8 5/8" @ 235'
Casing Logger	235'
Bit Size	7 7/8"
Type Fluid in Hole	Chemical
Density / Viscosity	9.5/40
PH / Fluid Loss	10.0/7.6
Source of Sample	Pit
Rm @ Meas. Temp	1.20@76degf
Rmf @ Meas. Temp	0.96@76degf
Rmc @ Meas. Temp	1.54@76degf
Source of Rmf / Rmc	Calculated
Rm @ BHT	0.78@117degf
Time Circulation Stopped	9:45 p.m.
Time Logger on Bottom	12:15 a.m.
Maximum Recorded Temperature	117degf
Equipment Number	T-729
Location	Hays, KS
Recorded By	C.Patterson
Witnessed By	Mr. Mike Pressnall

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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

East of Winfield(Main St. and 160 Hwy) 6.5 mi. to 151st rd., 1 south to 172nd Rd.,
 1/2 West, North into Location

Thank you for using Gemini Wireline
 785-625-1182



MAIN PASS

Database File trorichardson28-1oh.db
 Dataset Pathname pass2.2
 Presentation Format kdillinn
 Dataset Creation Sun Oct 08 01:55:46 2017
 Charted by Depth in Feet scaled 1:600

0 GR (GAPI) 150

1000 CILD (mmho/m) 0

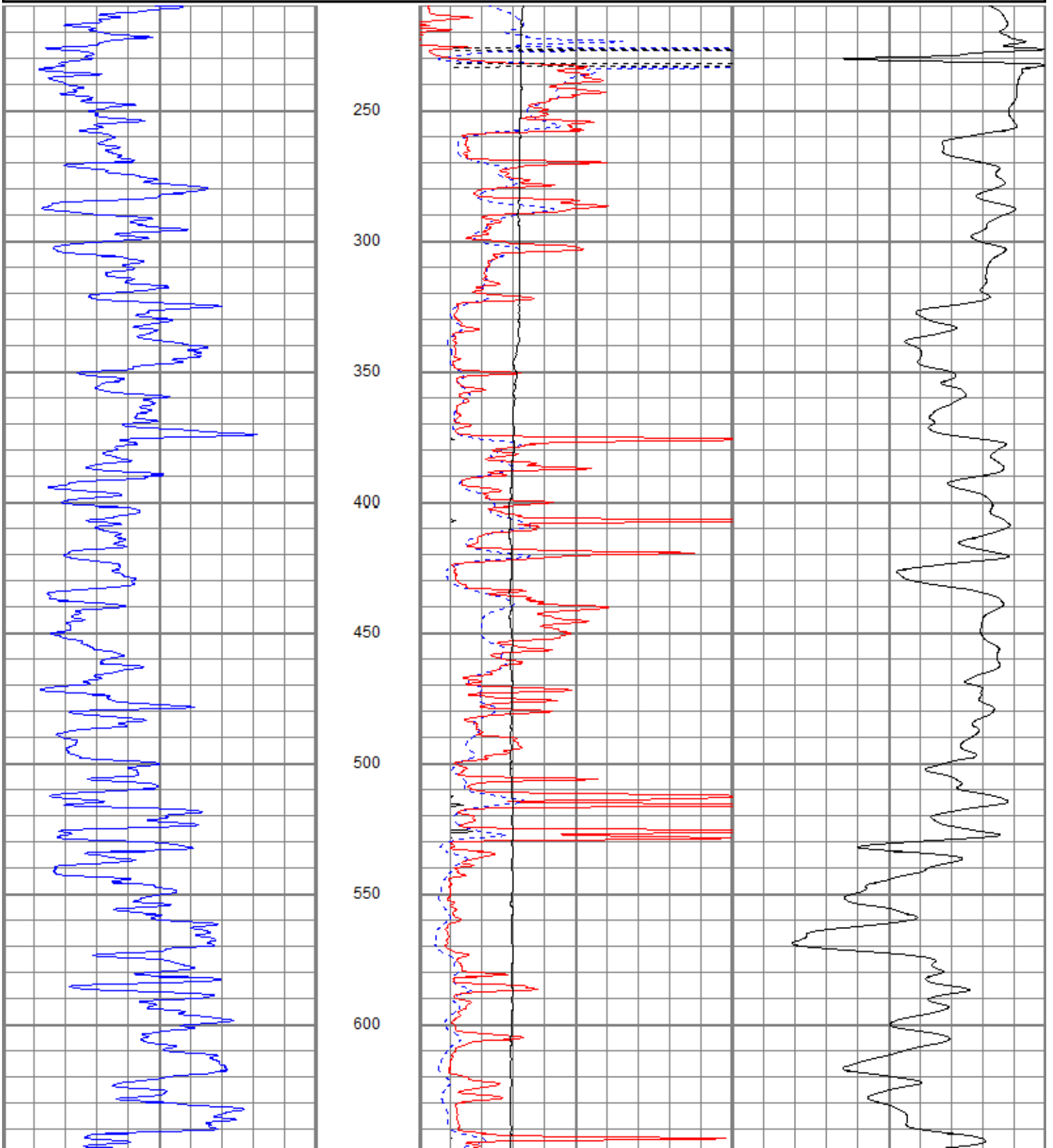
10000 LTEN (lb) 0

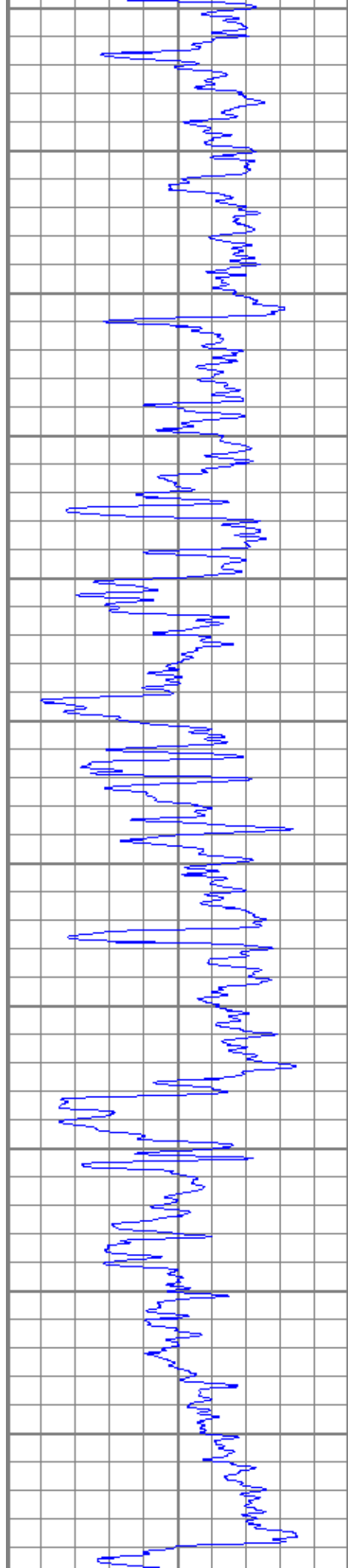
0 RILD (Ohm-m) 50

0 RLL3 (Ohm-m) 50

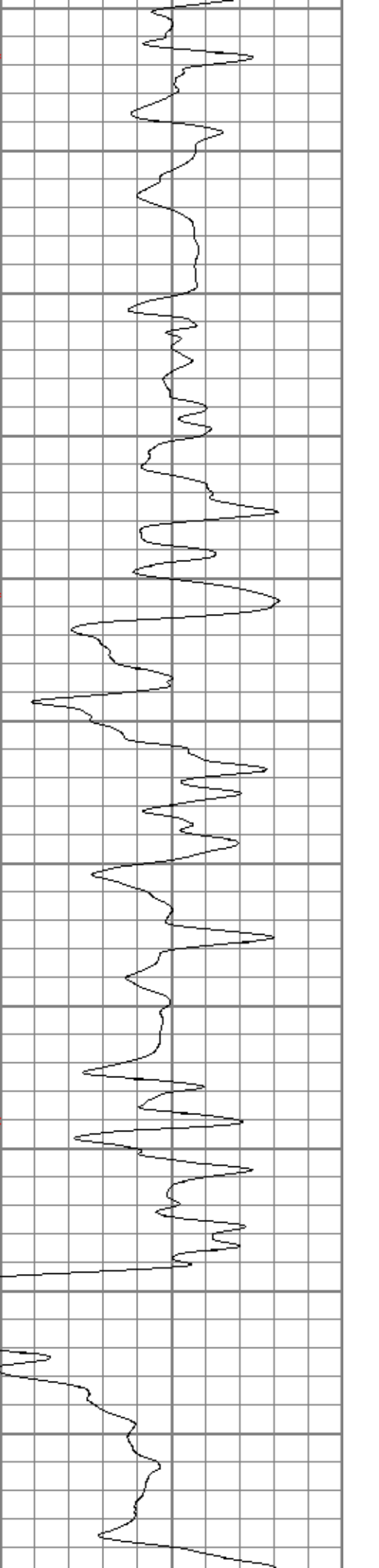
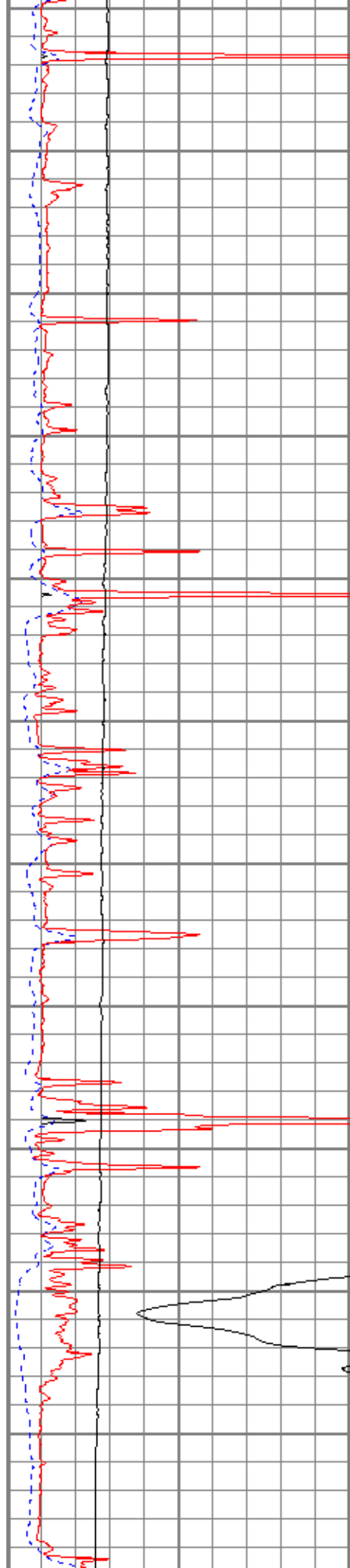
50 RILD x 10 (Ohm-m) 500

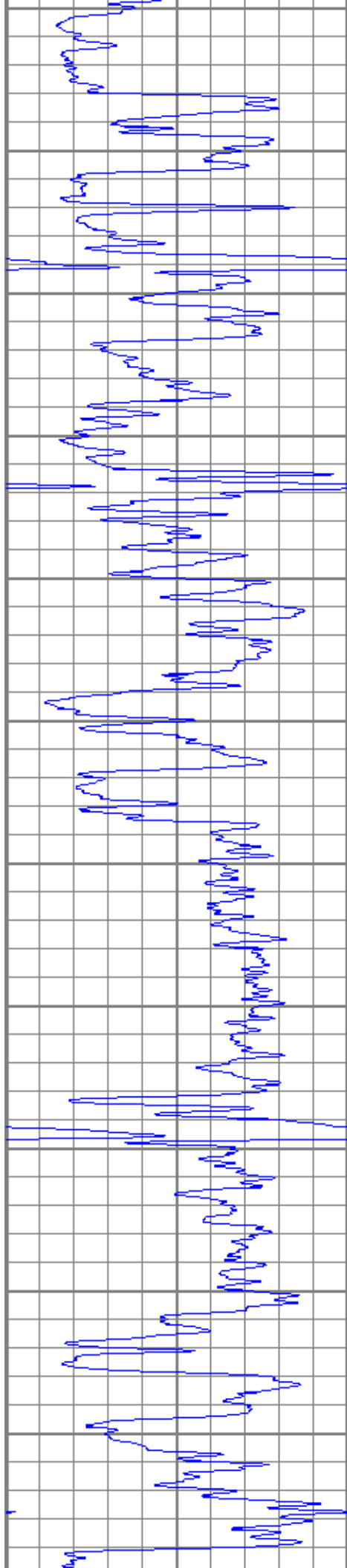
50 RLL3 x 10 (Ohm-m) 500



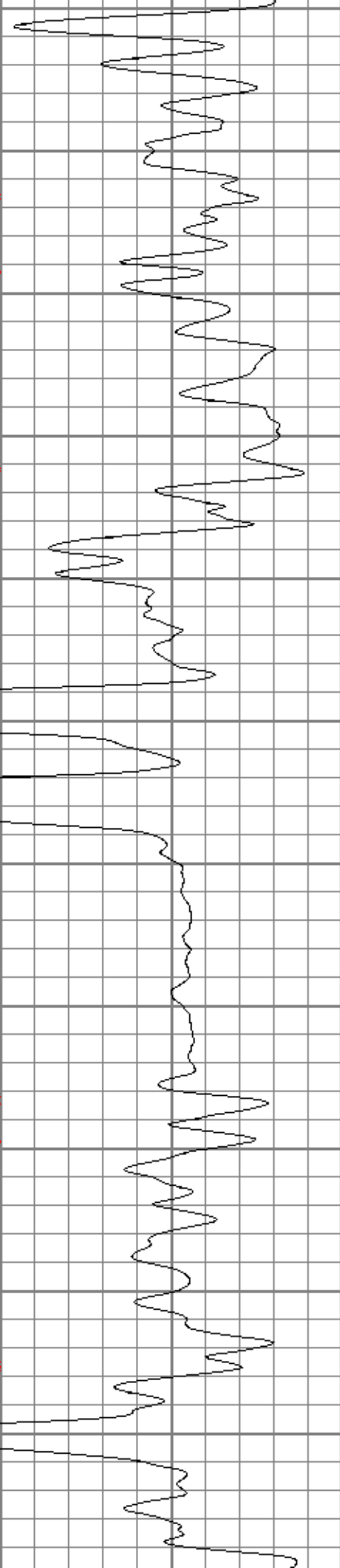
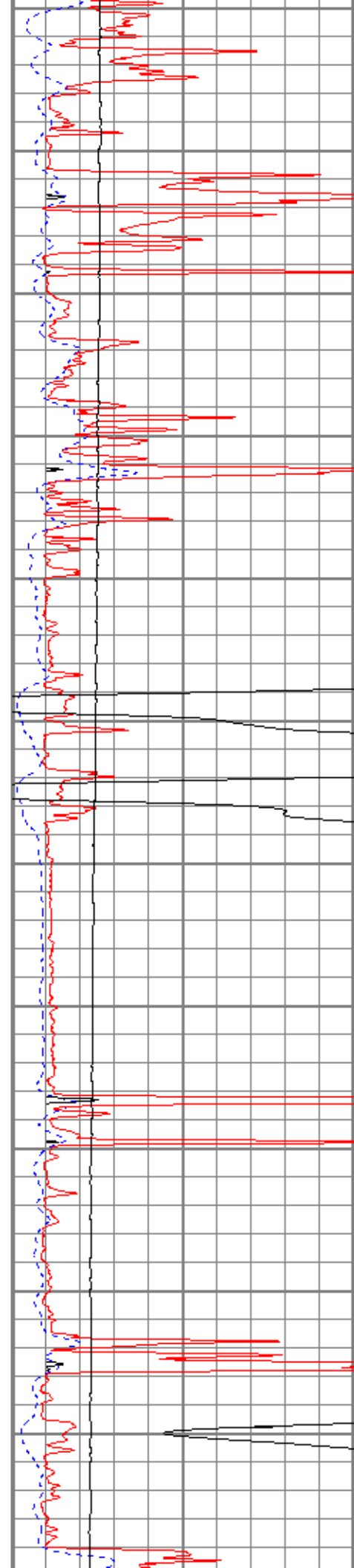


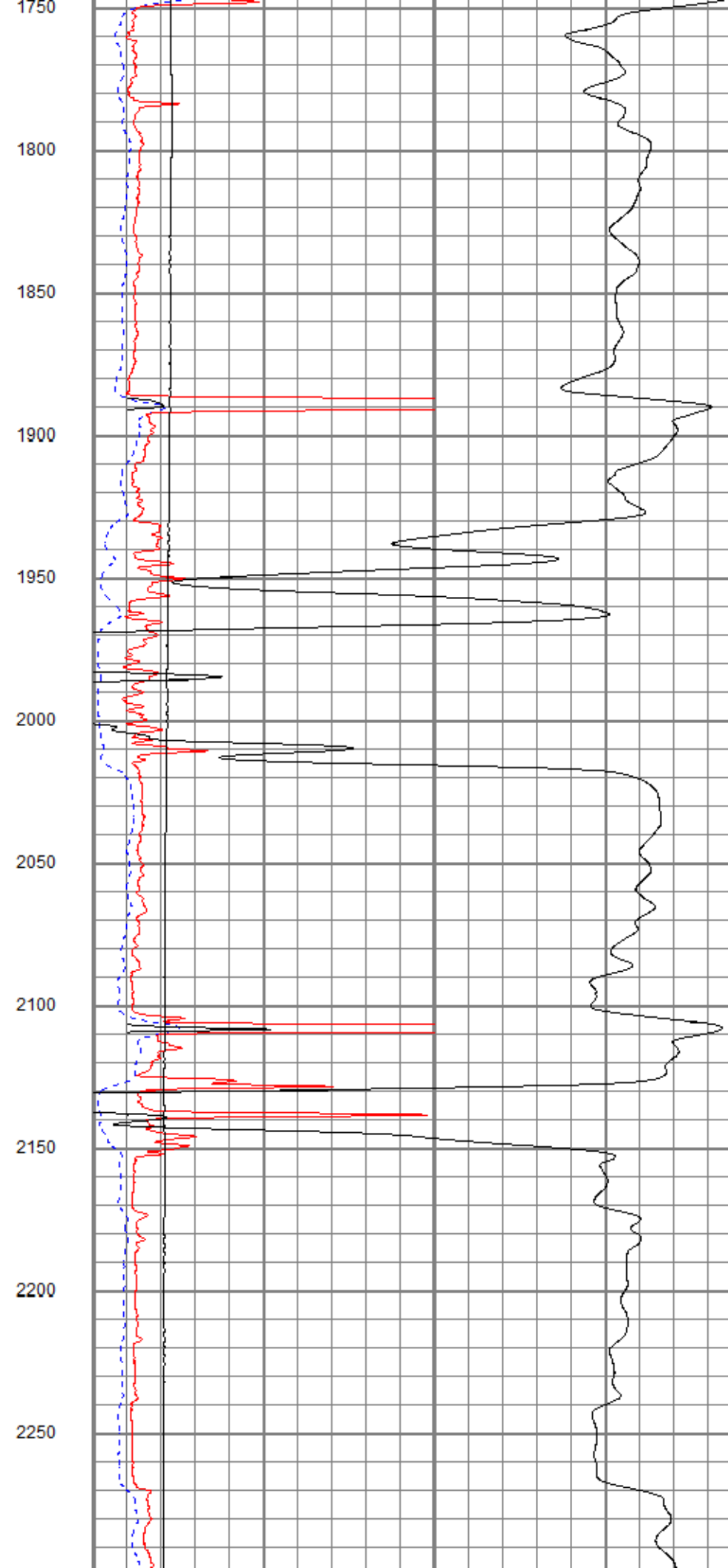
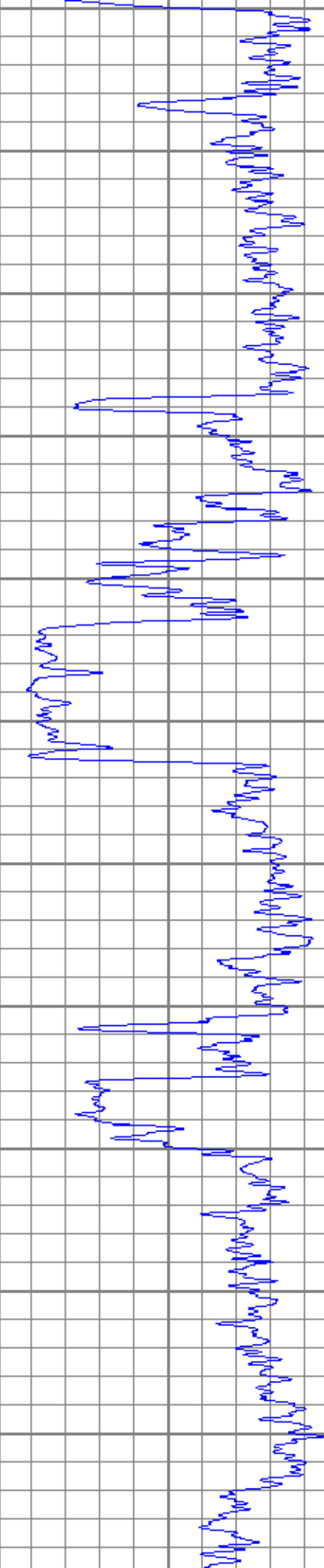
650
700
750
800
850
900
950
1000
1050
1100
1150

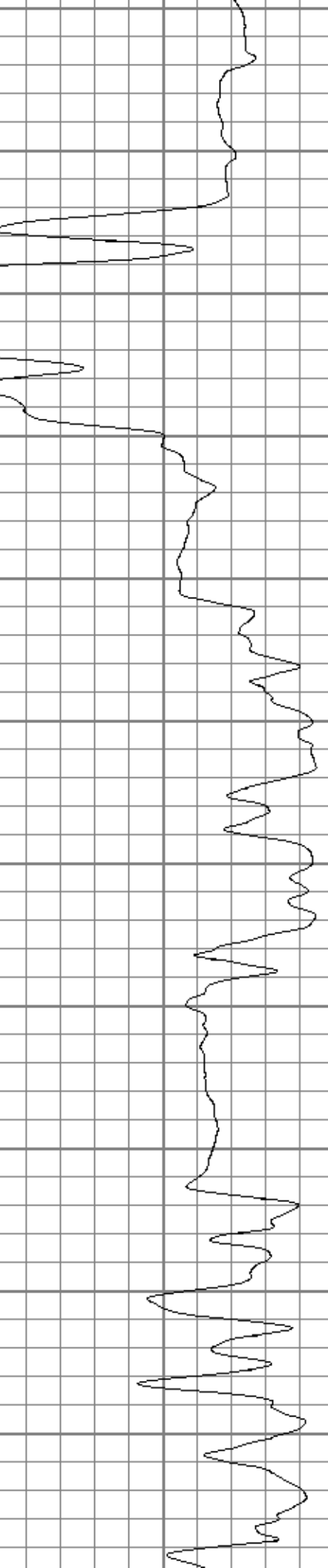
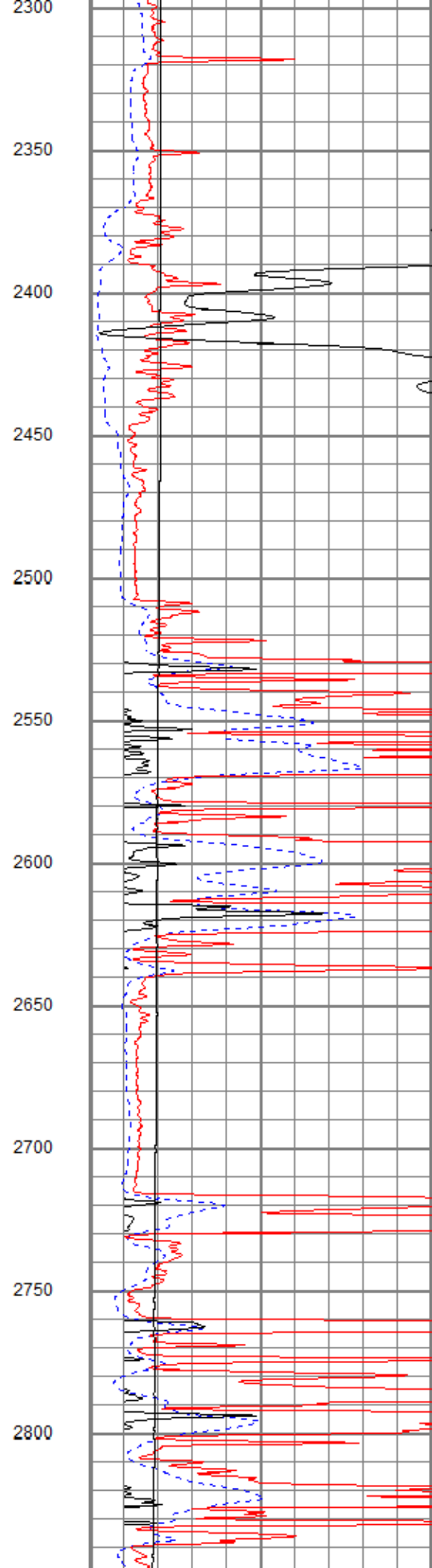
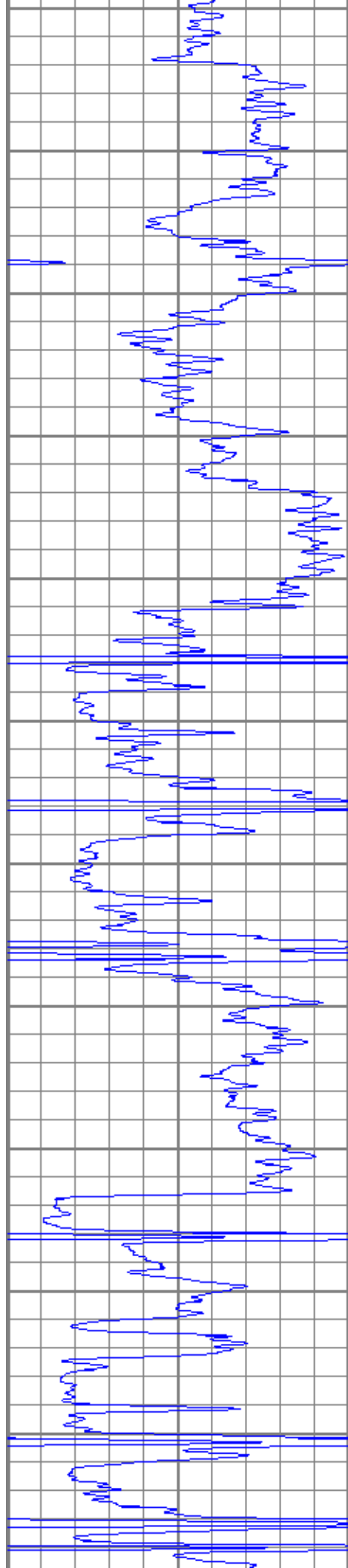


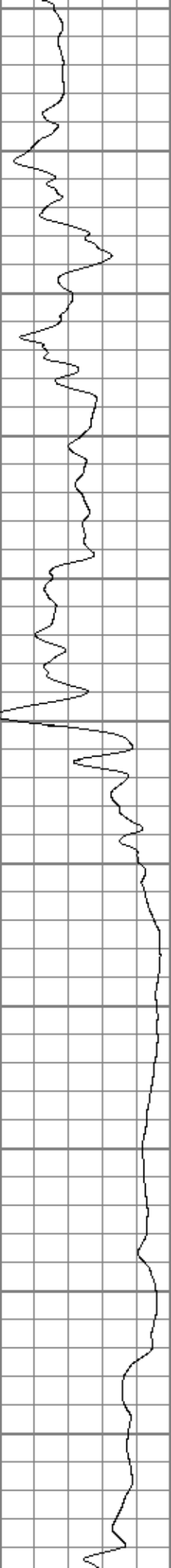
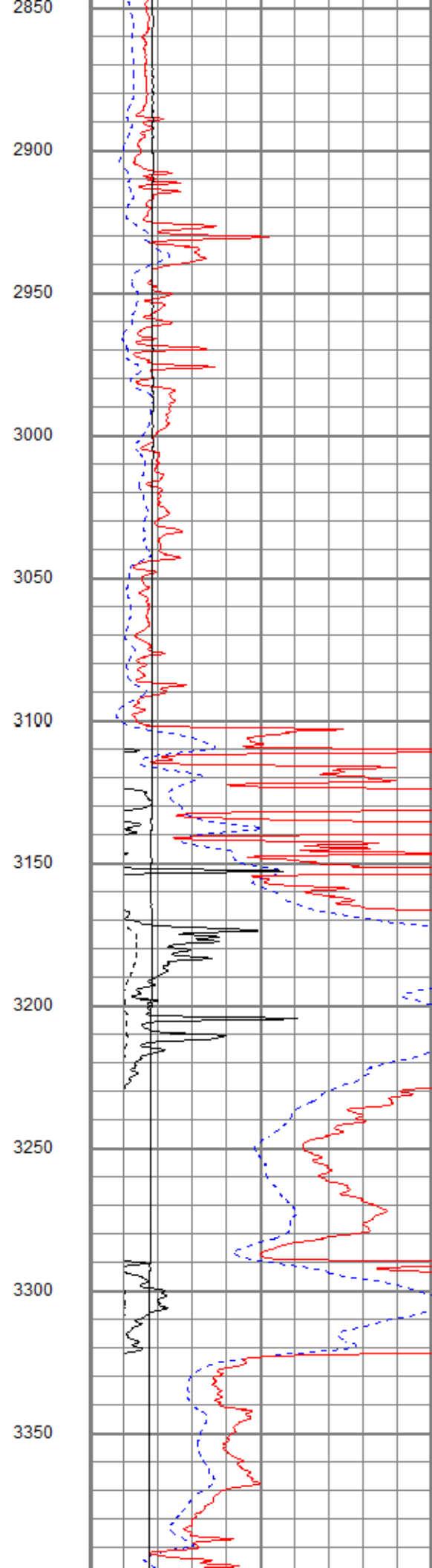
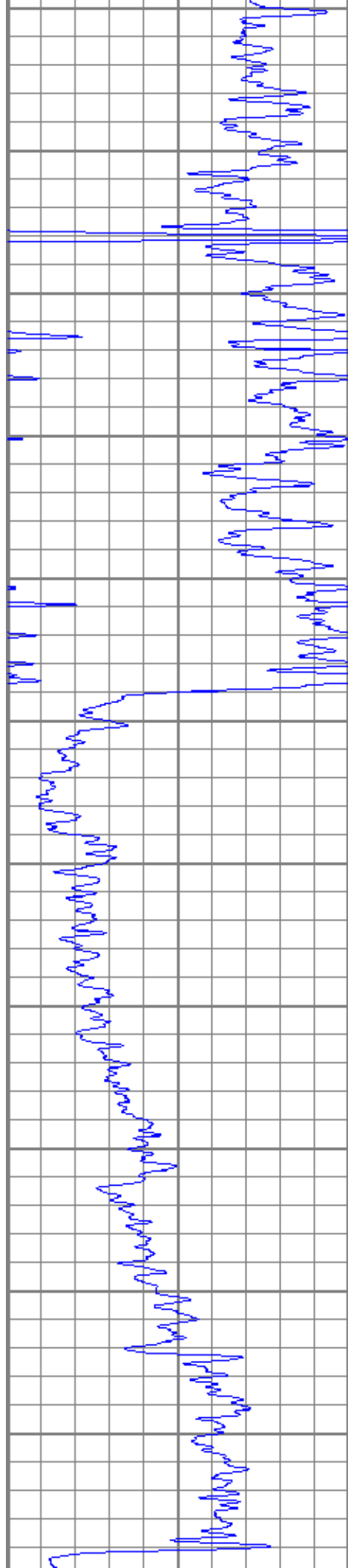


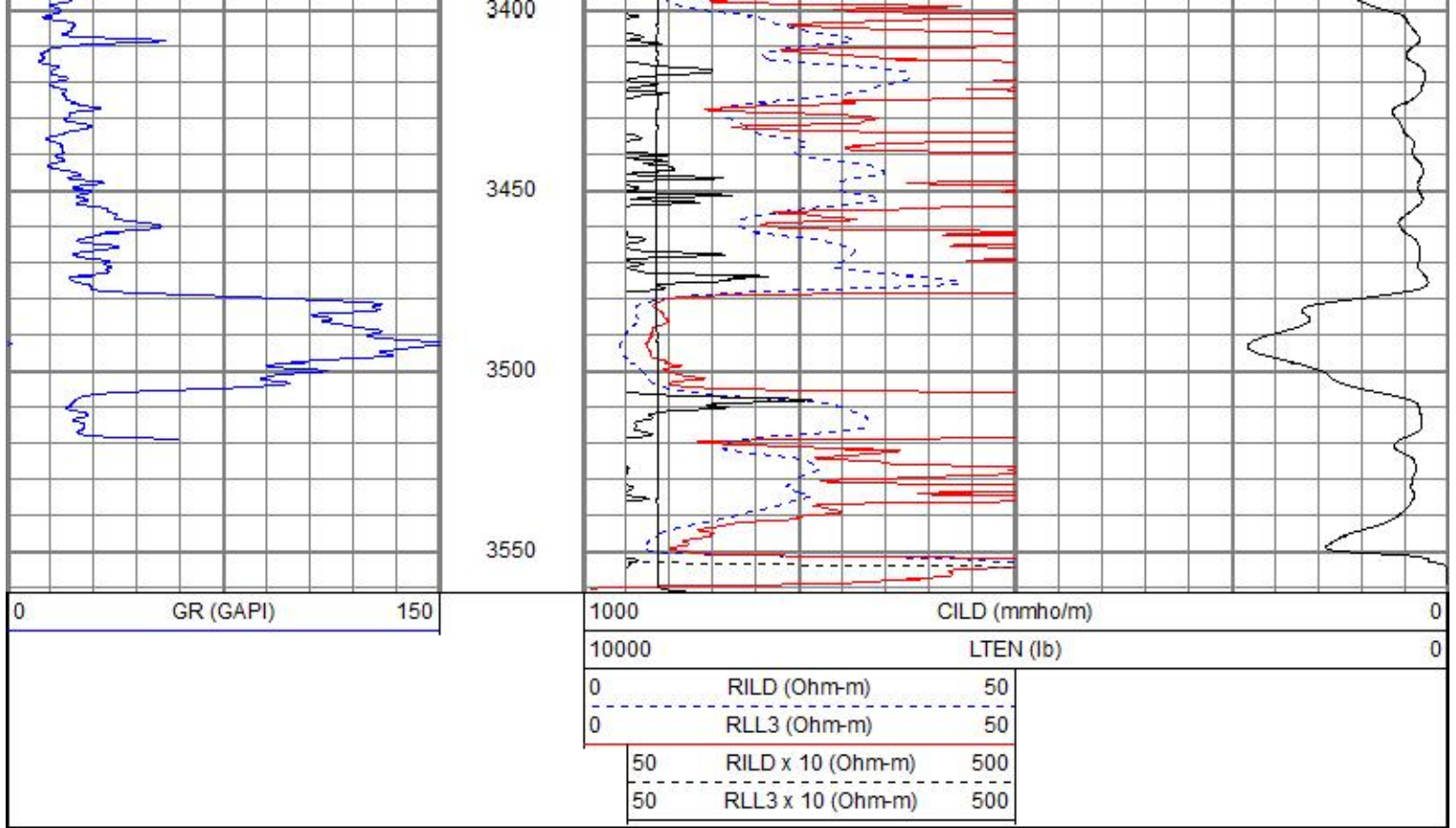
1200
1250
1300
1350
1400
1450
1500
1550
1600
1650
1700









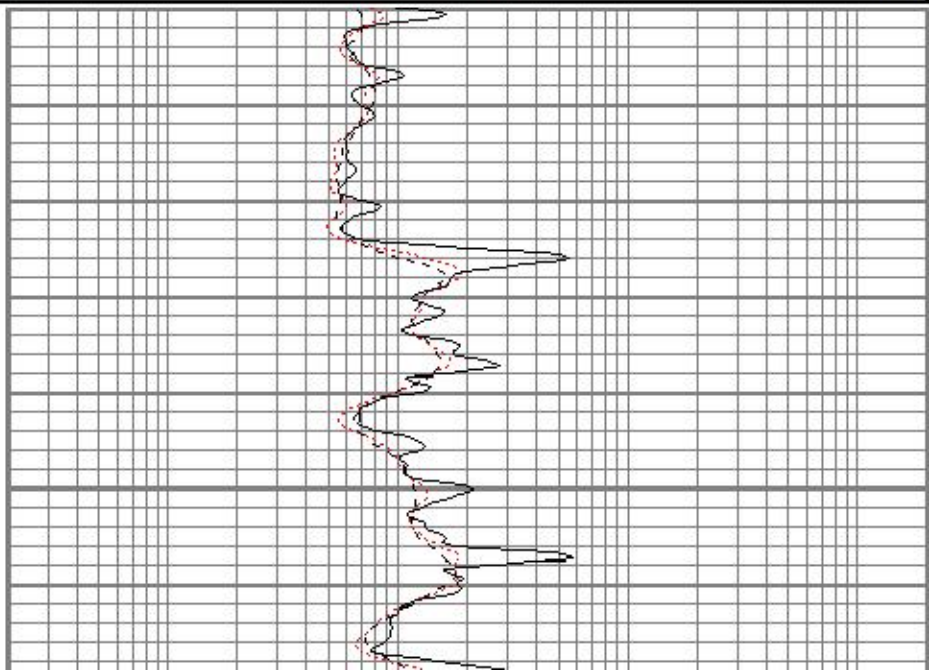
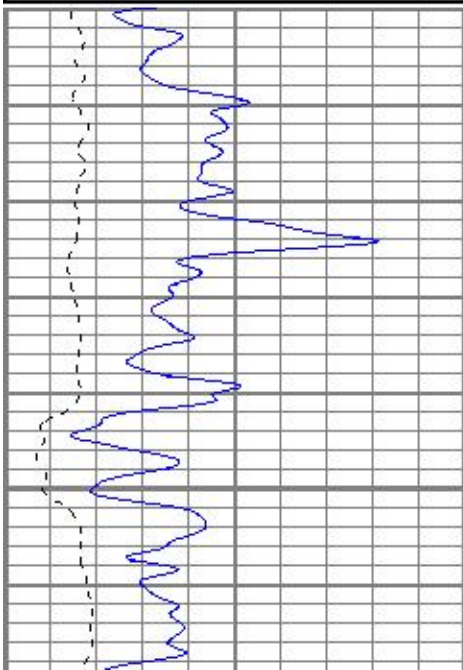


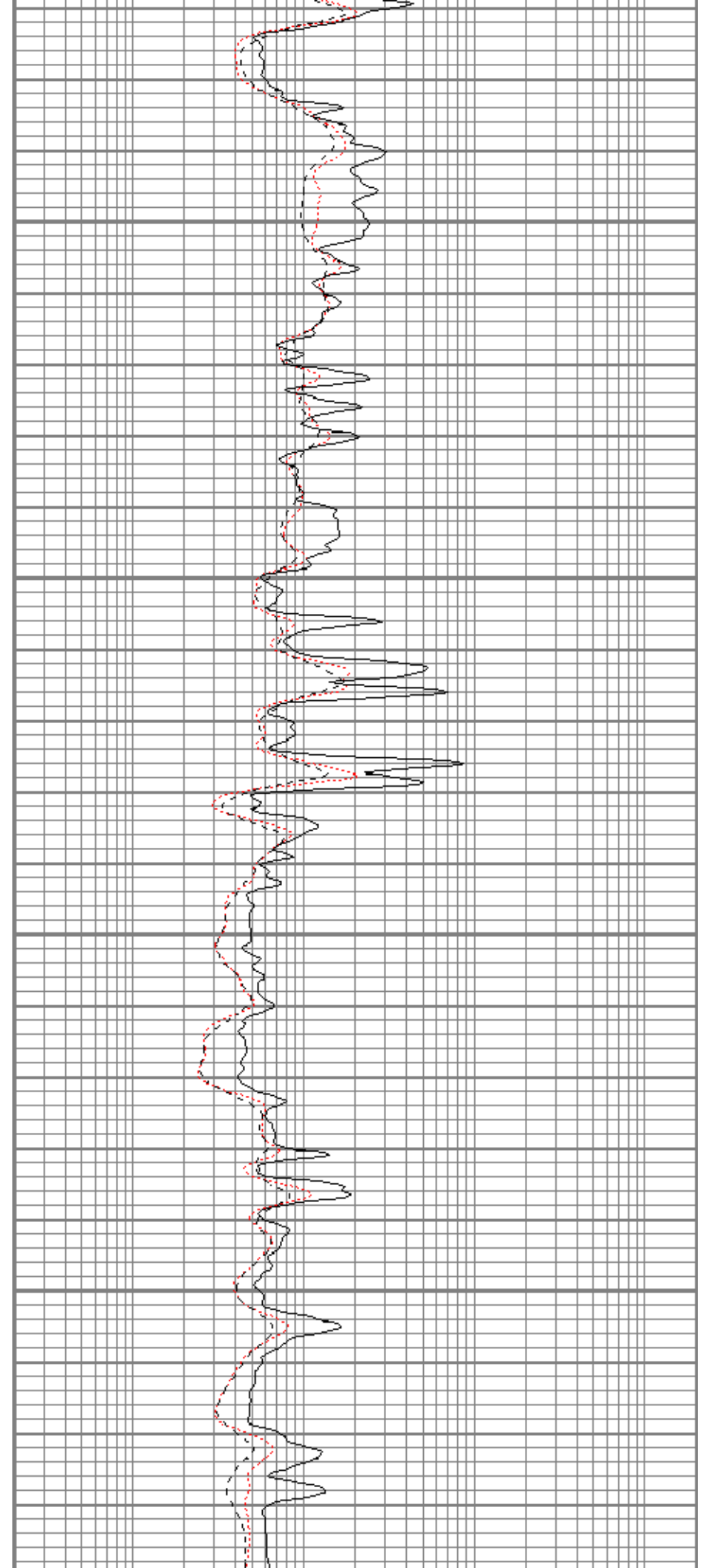
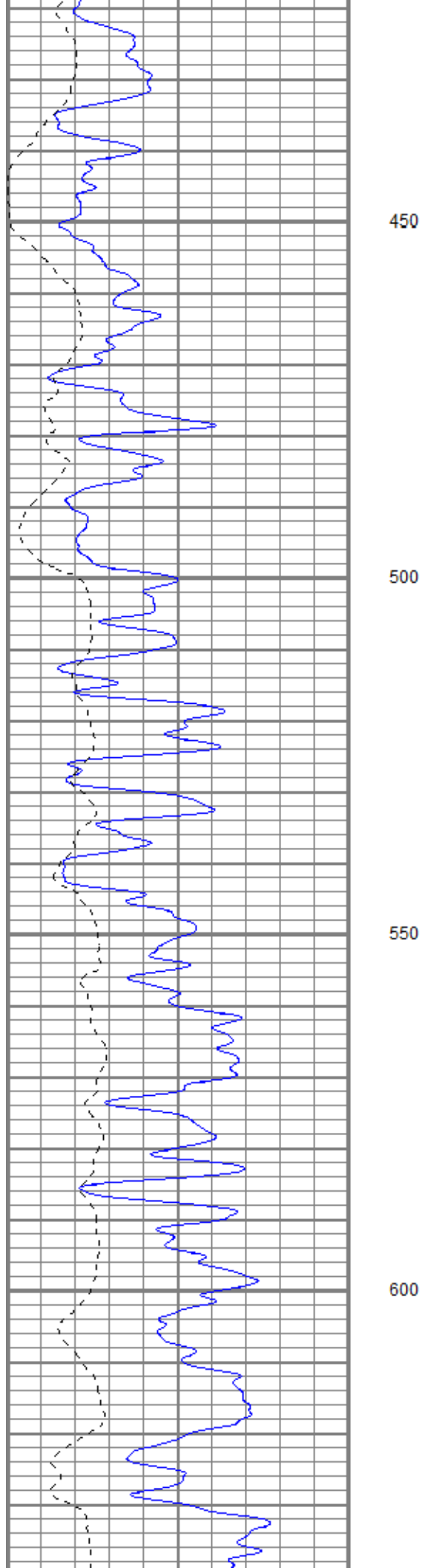
MAIN PASS

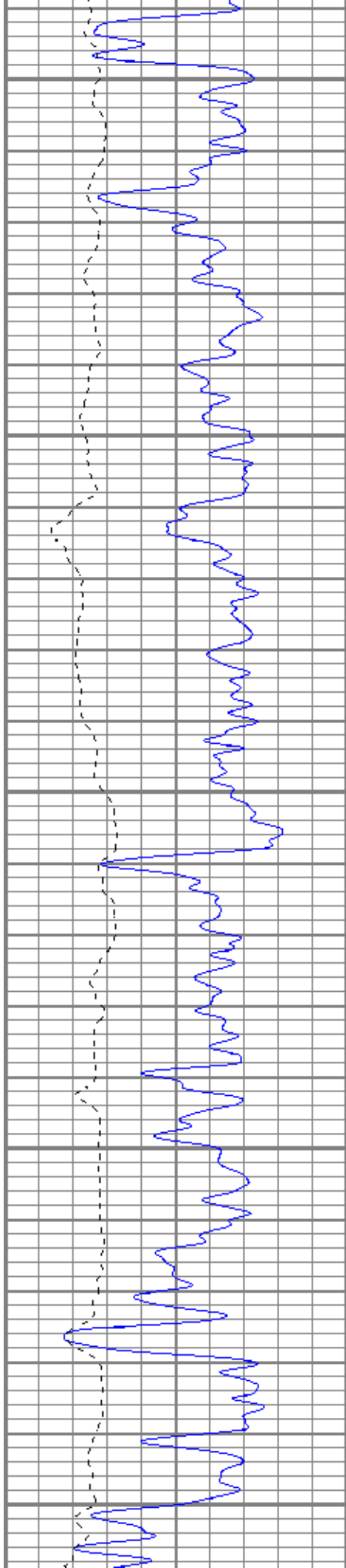
Database File: trorichardson28-1oh.db
 Dataset Pathname: pass2.2
 Presentation Format: kdil
 Dataset Creation: Sun Oct 08 01:55:46 2017
 Charted by: Depth in Feet scaled 1:240

0	GR (GAPI)	150
-100	SP (mV)	100

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







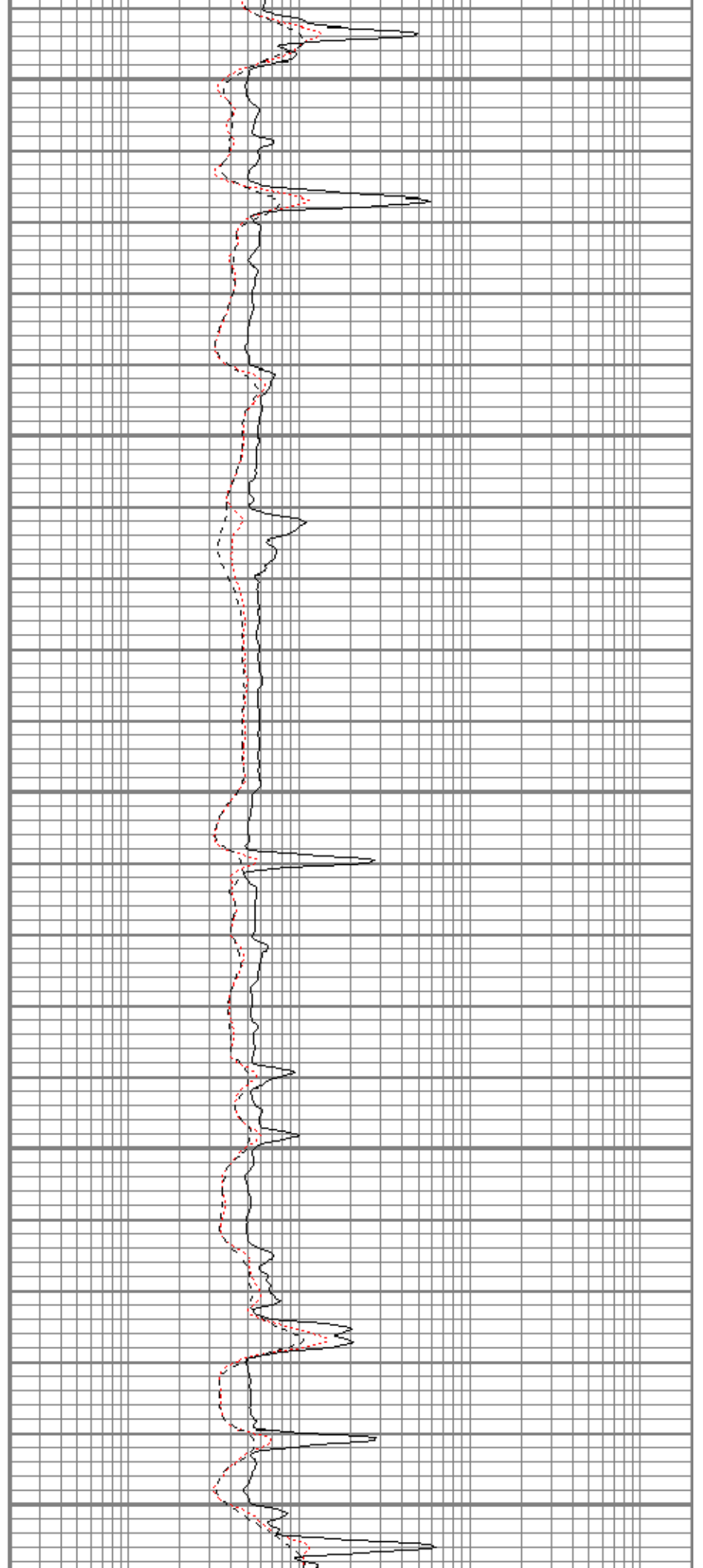
650

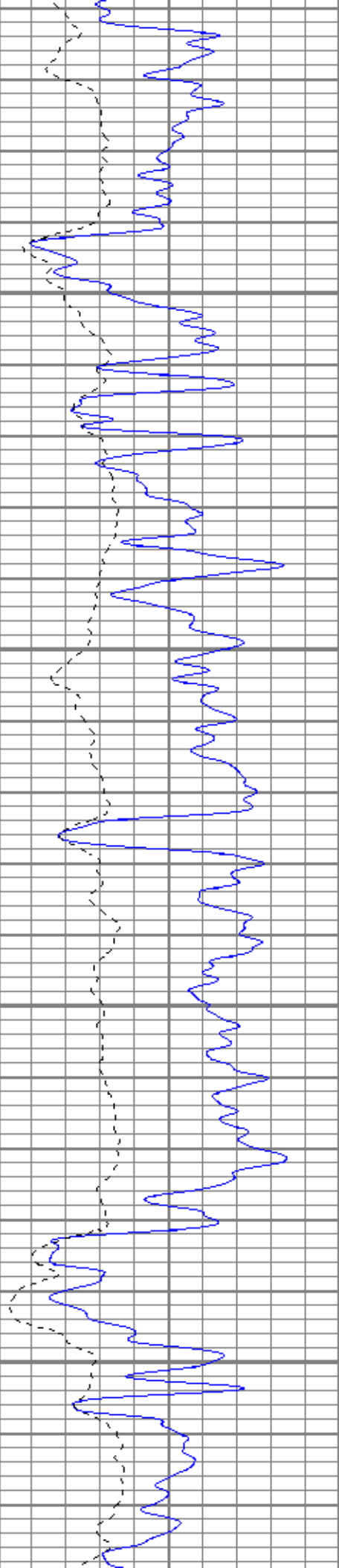
700

750

800

850



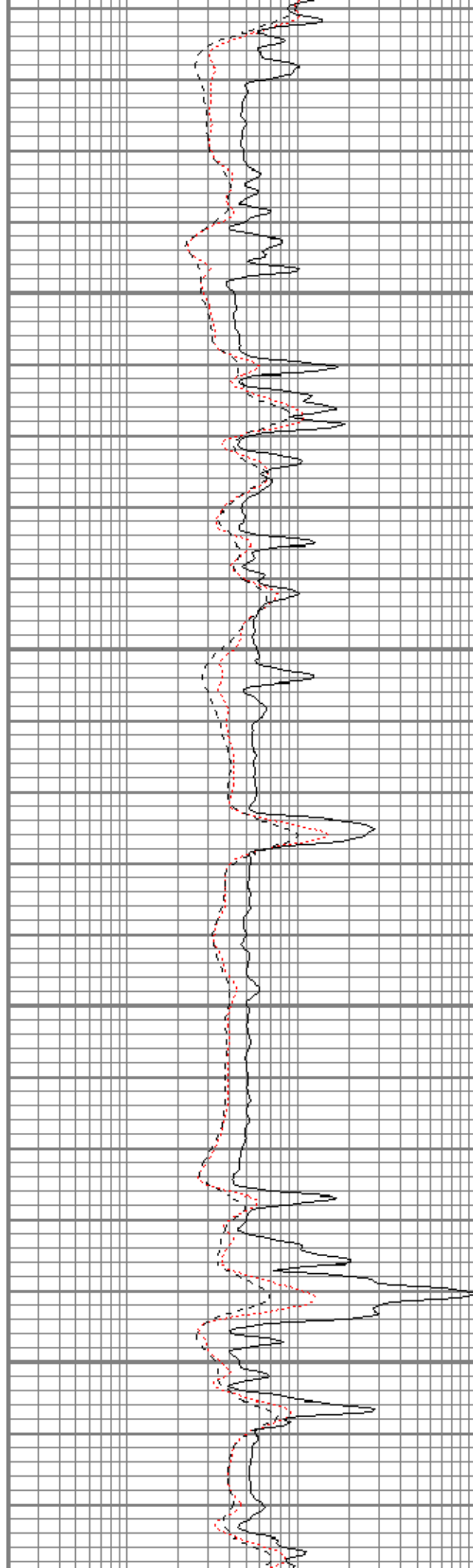


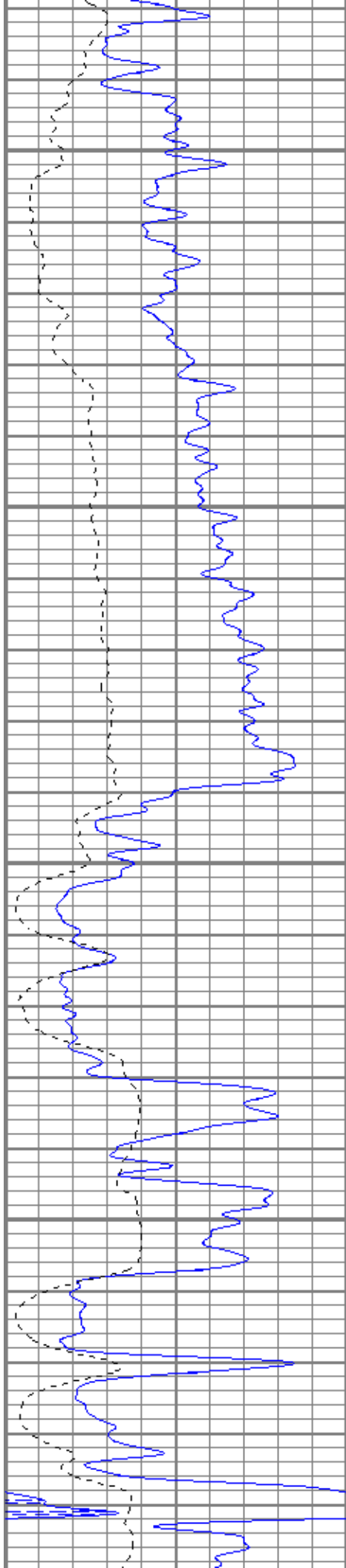
900

950

1000

1050



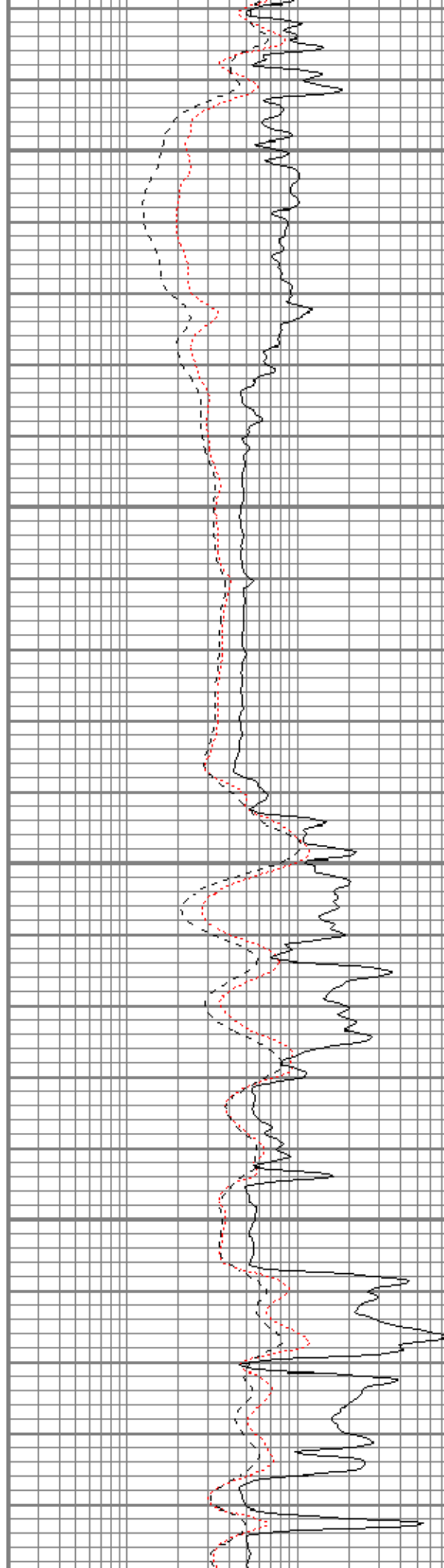


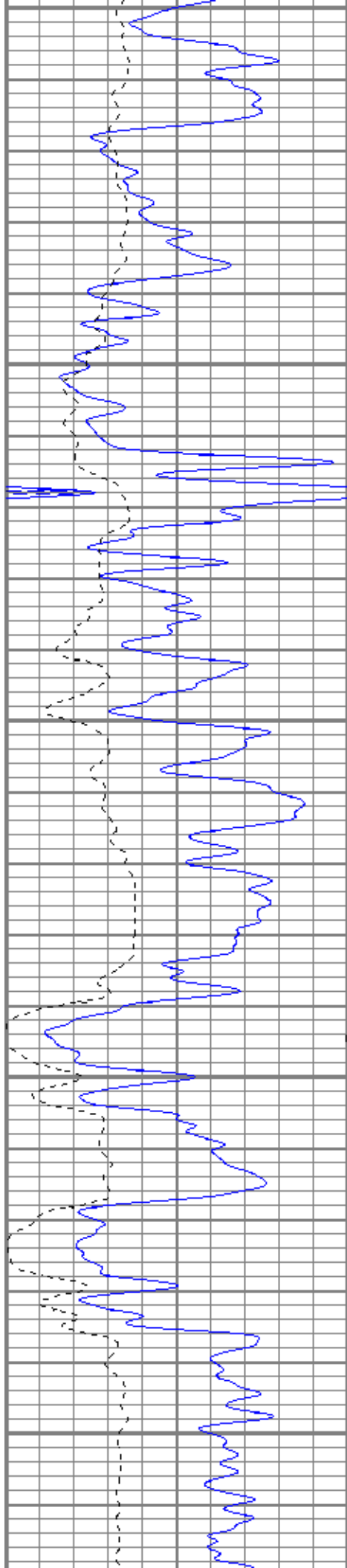
1100

1150

1200

1250





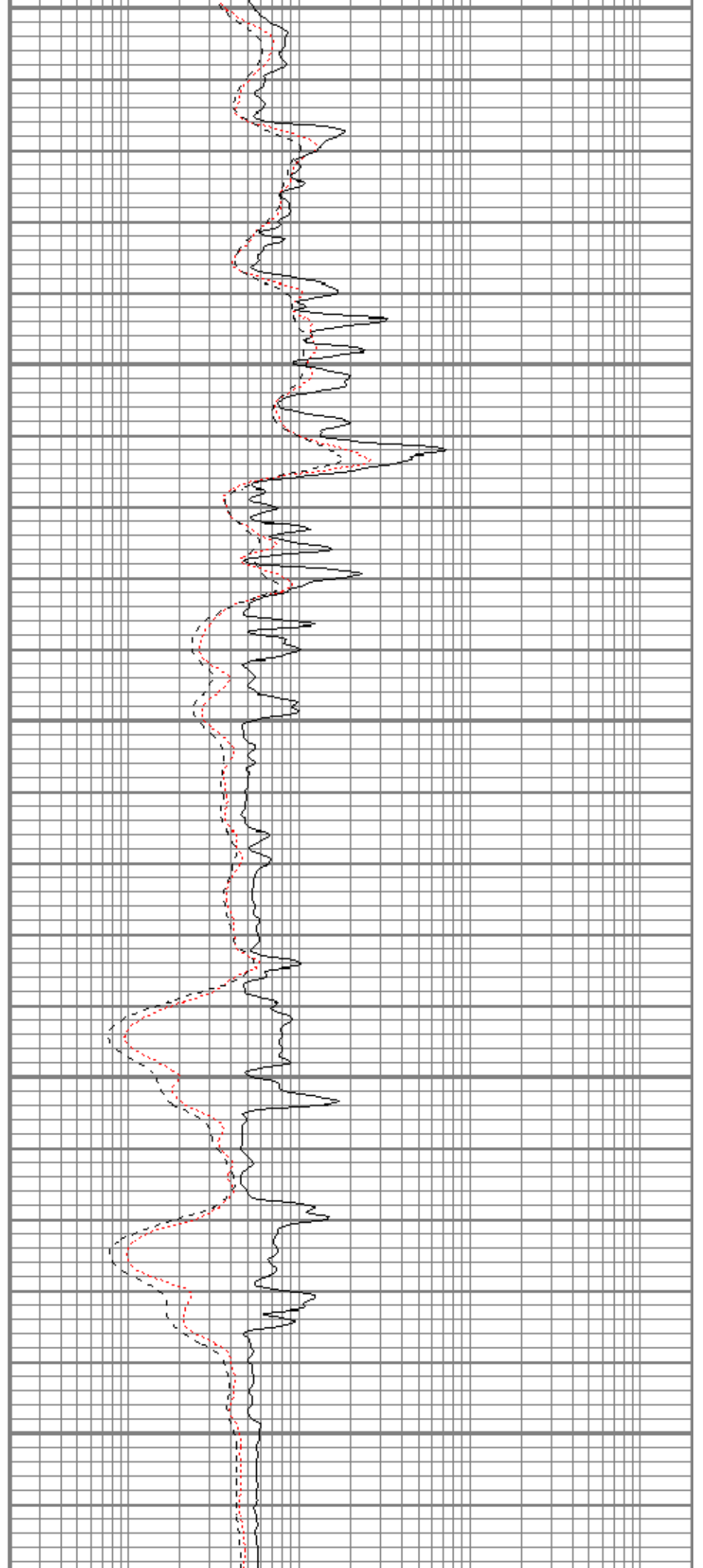
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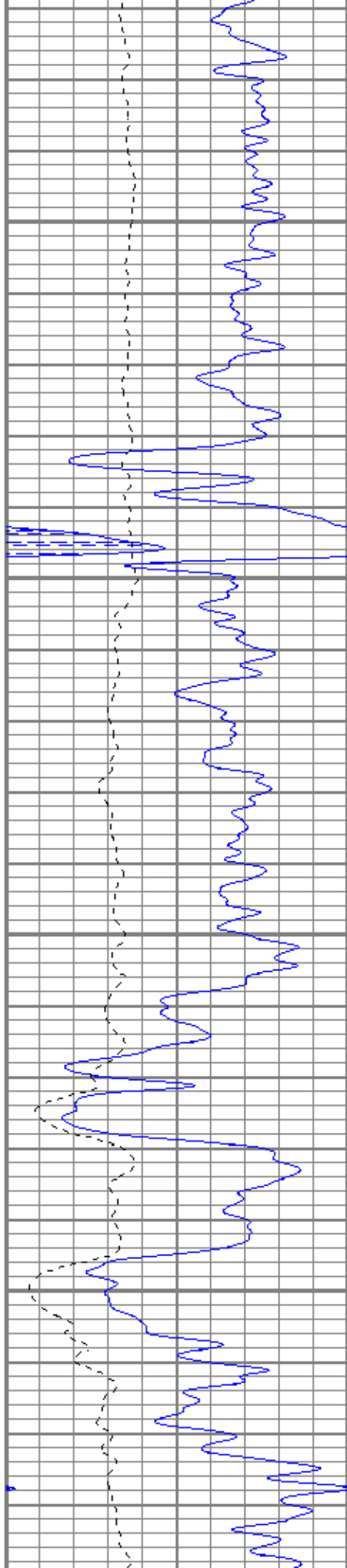
1350

1400

1450

1500



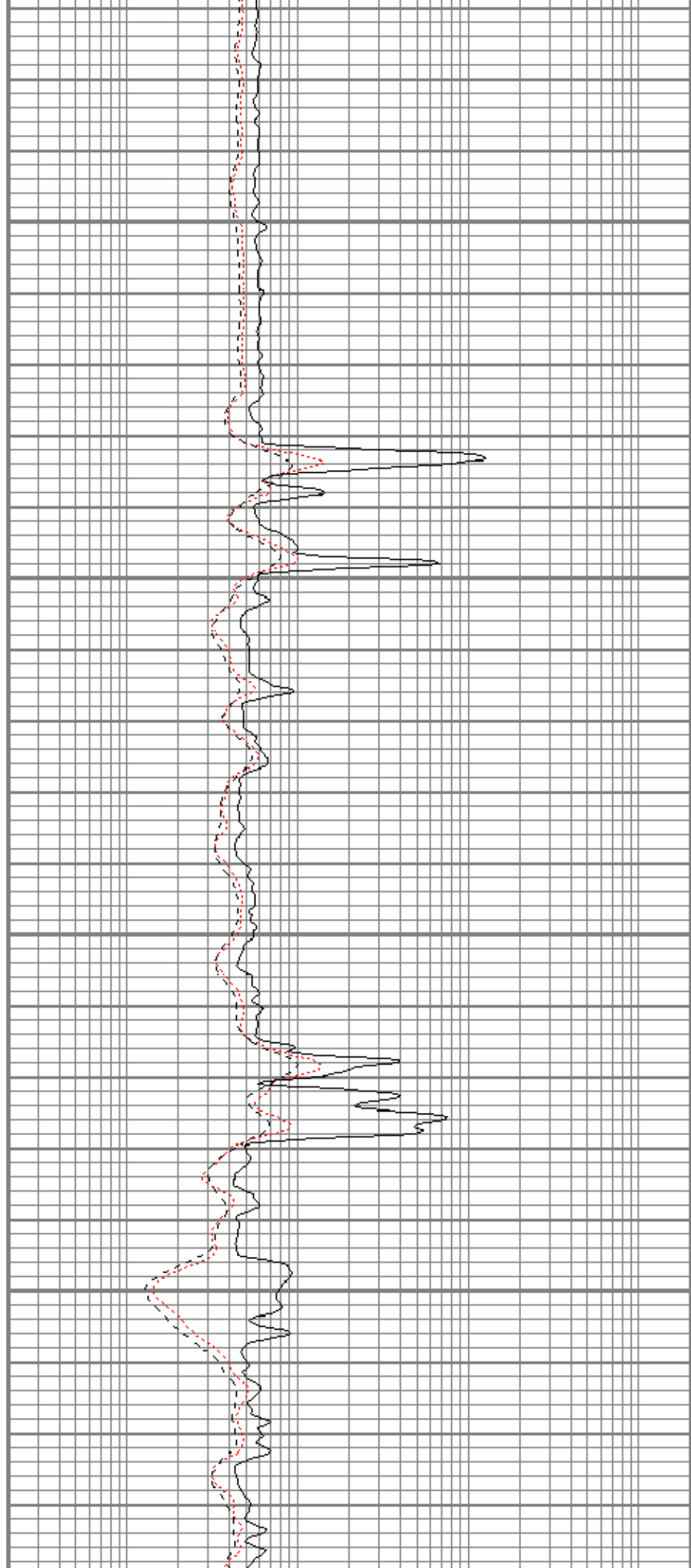


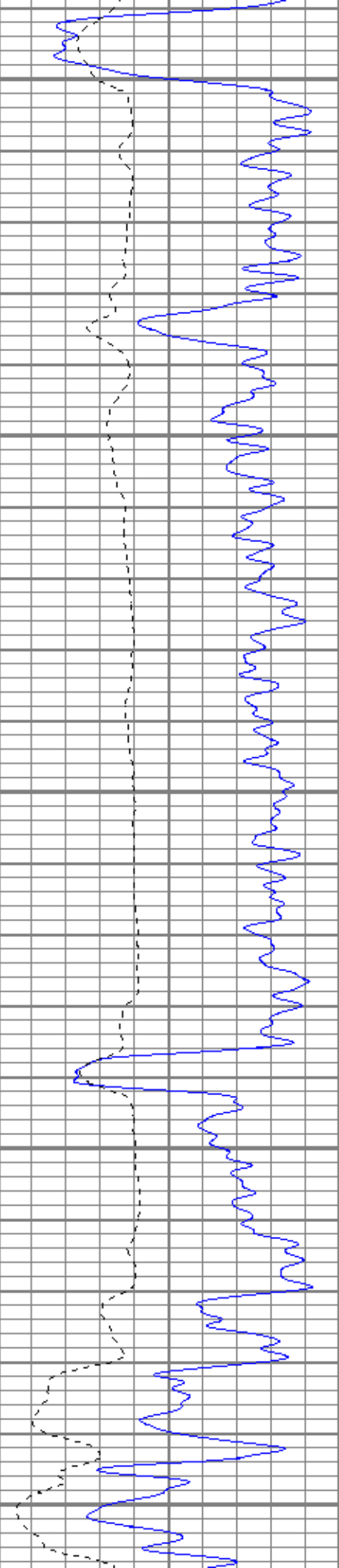
1550

1600

1650

1700





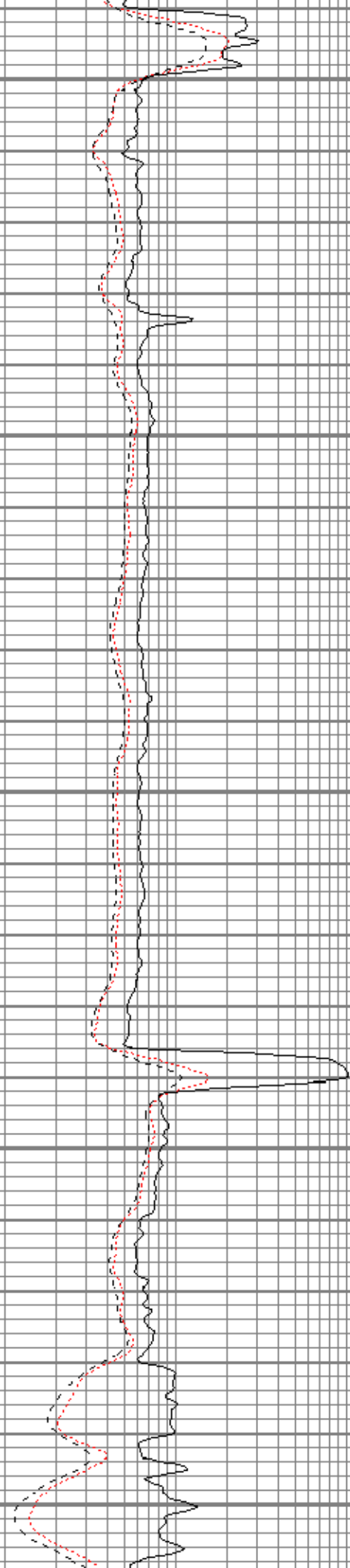
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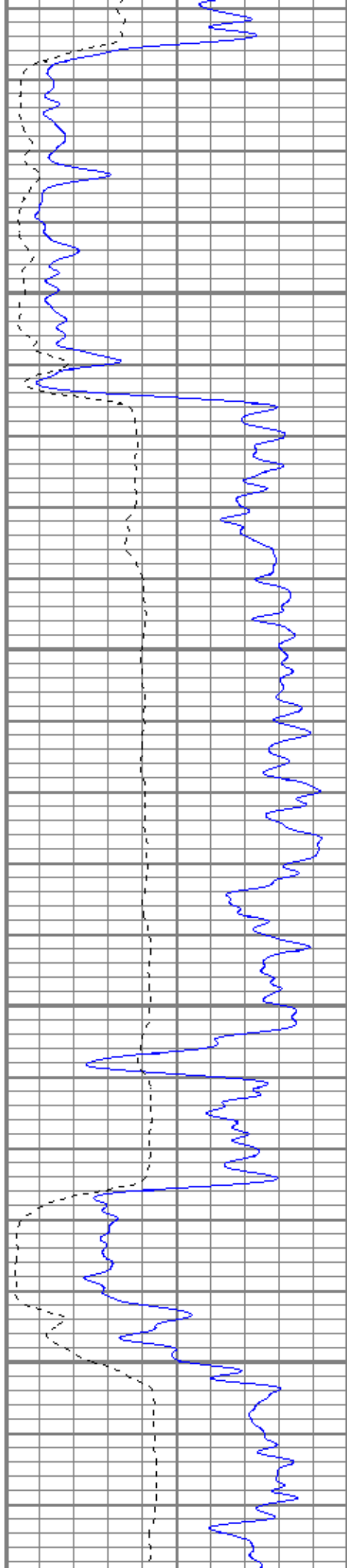
1800

1850

1900

1950



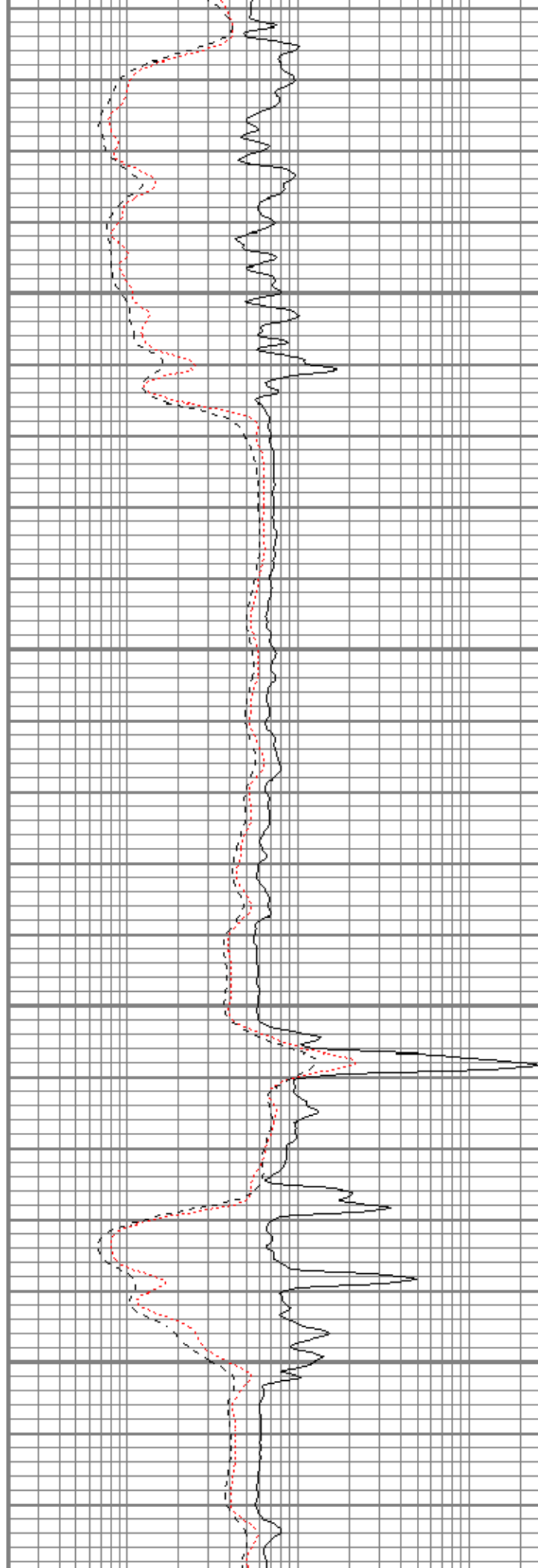


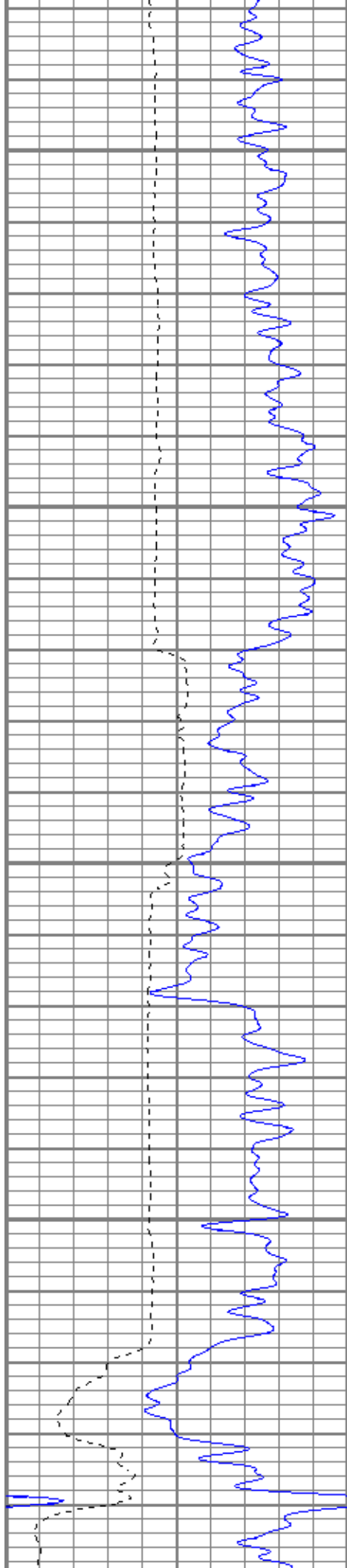
2000

2050

2100

2150



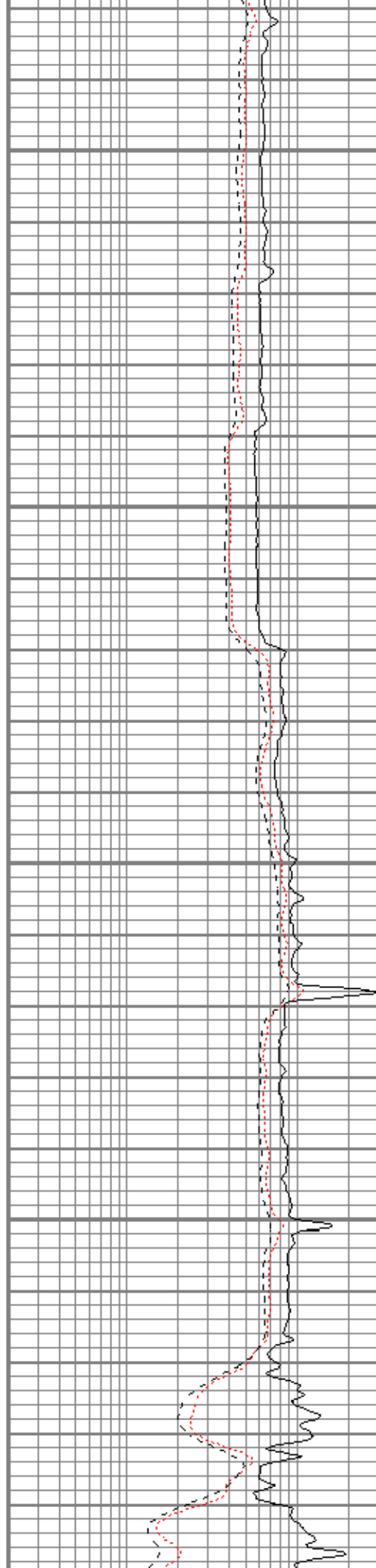


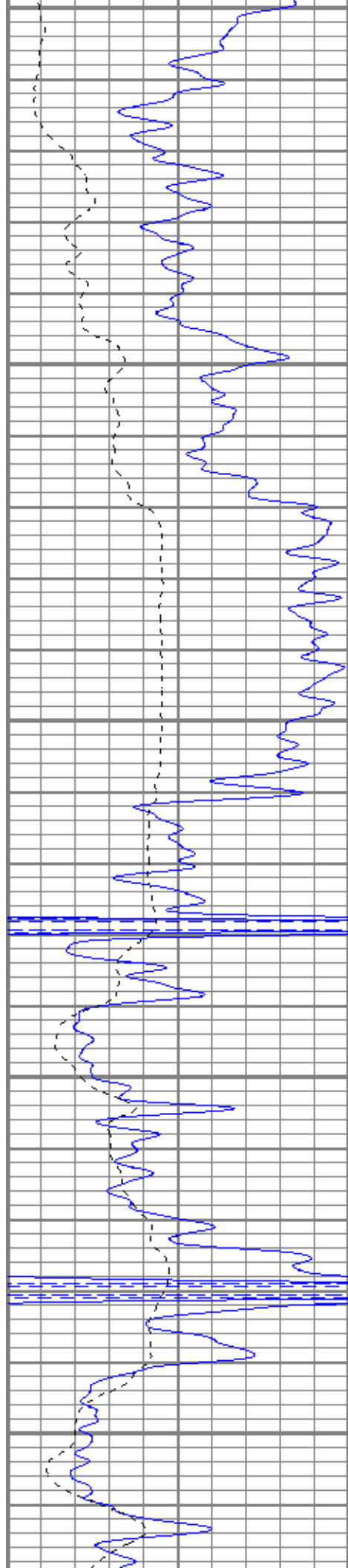
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2250

2300

2350





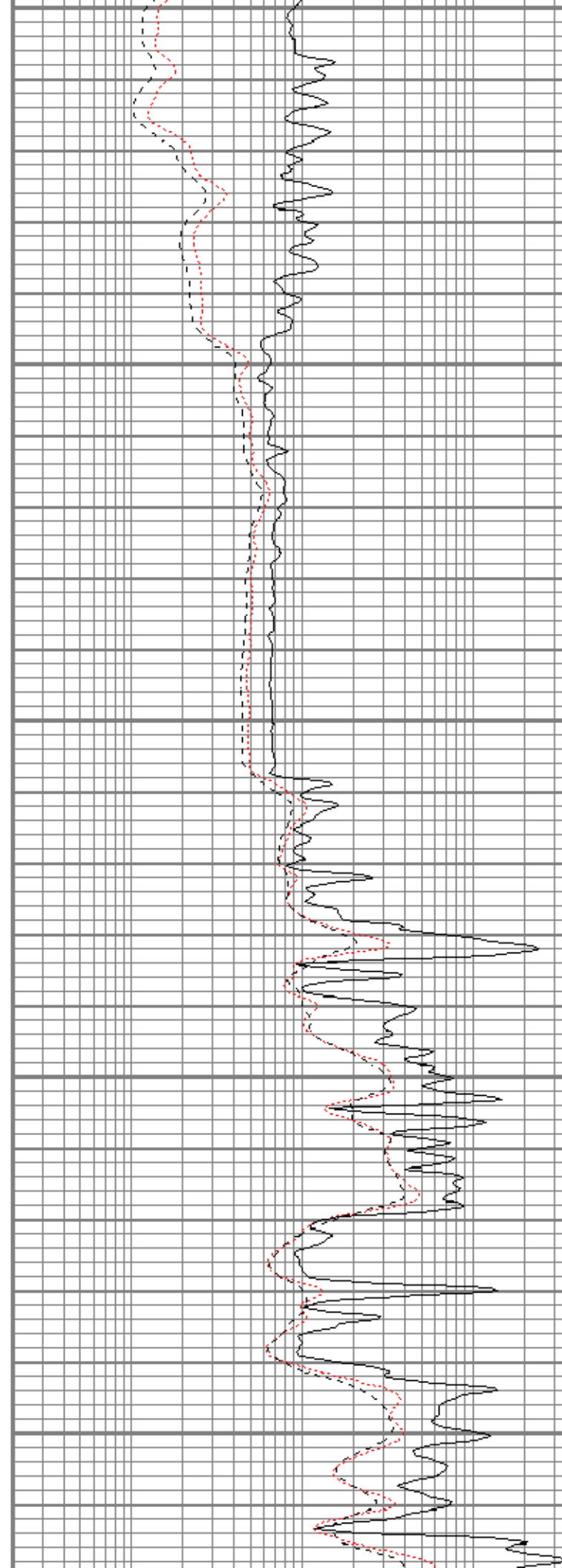
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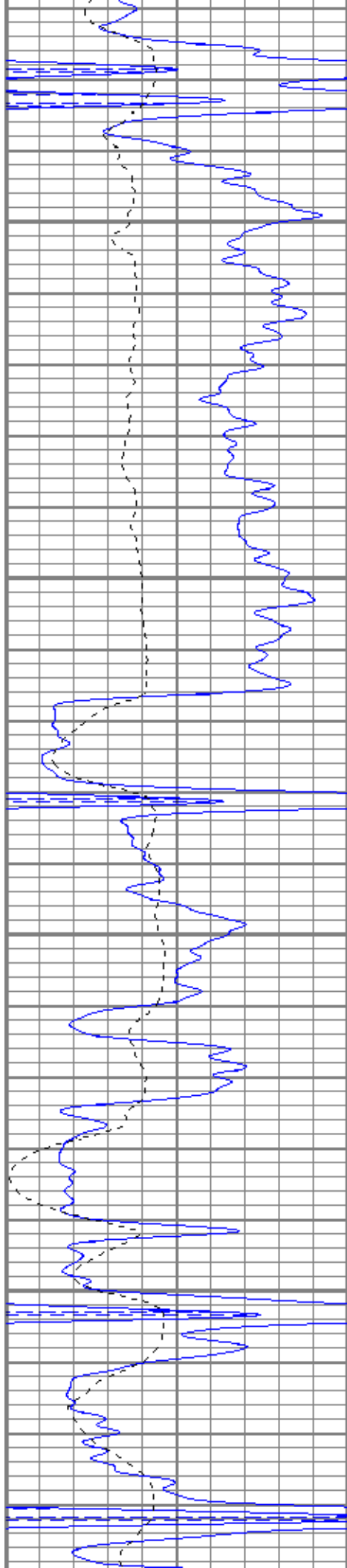
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2500

2550

2600



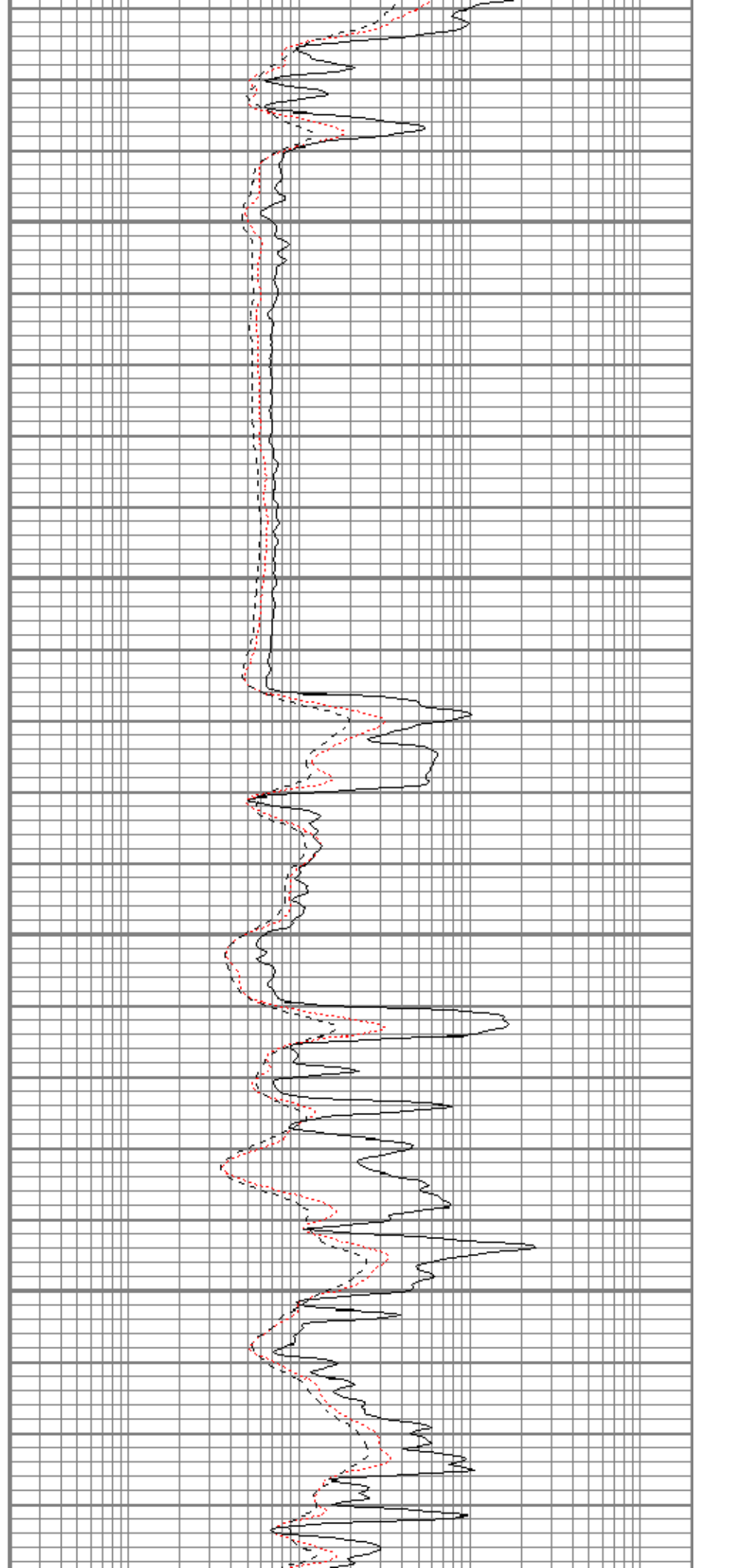


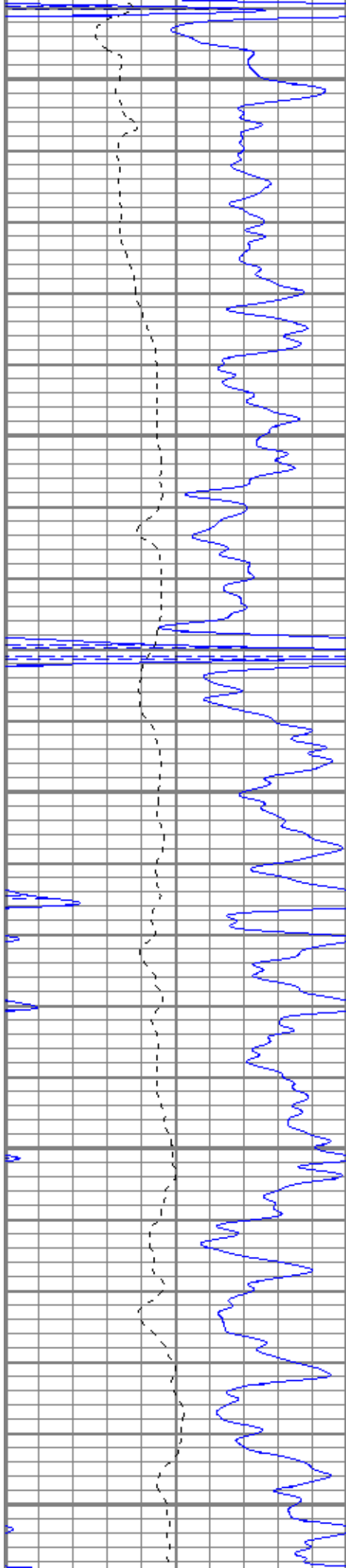
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2700

2750

2800





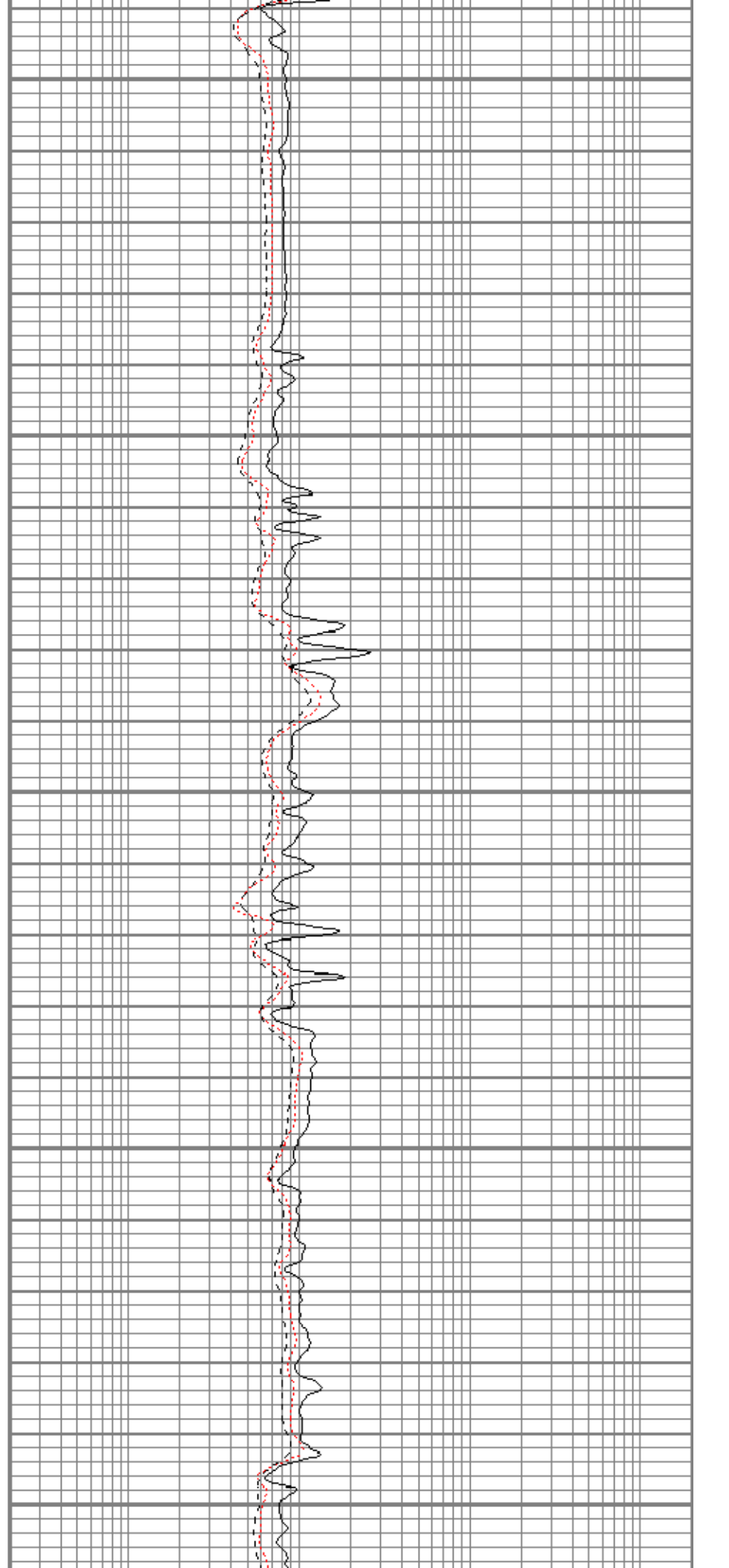
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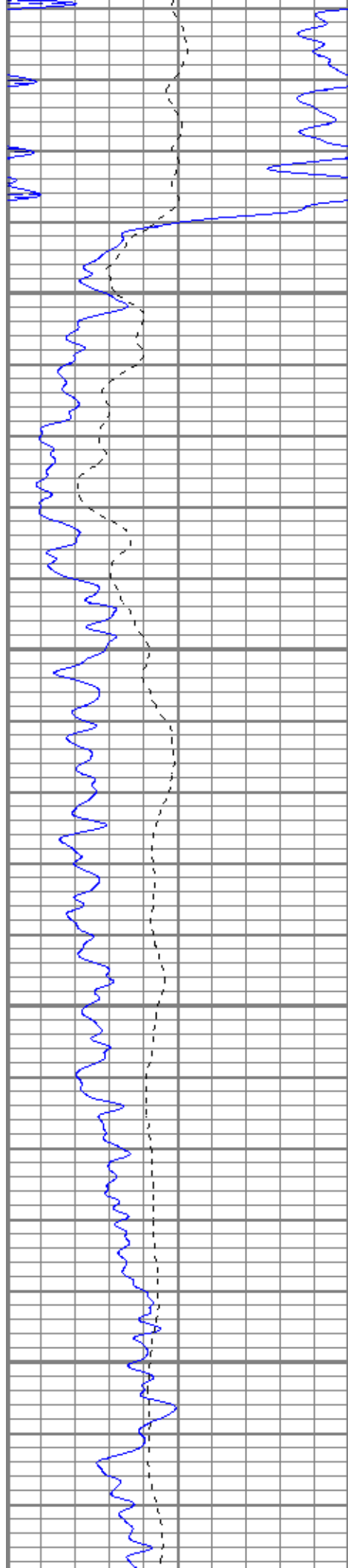
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2950

3000

3050



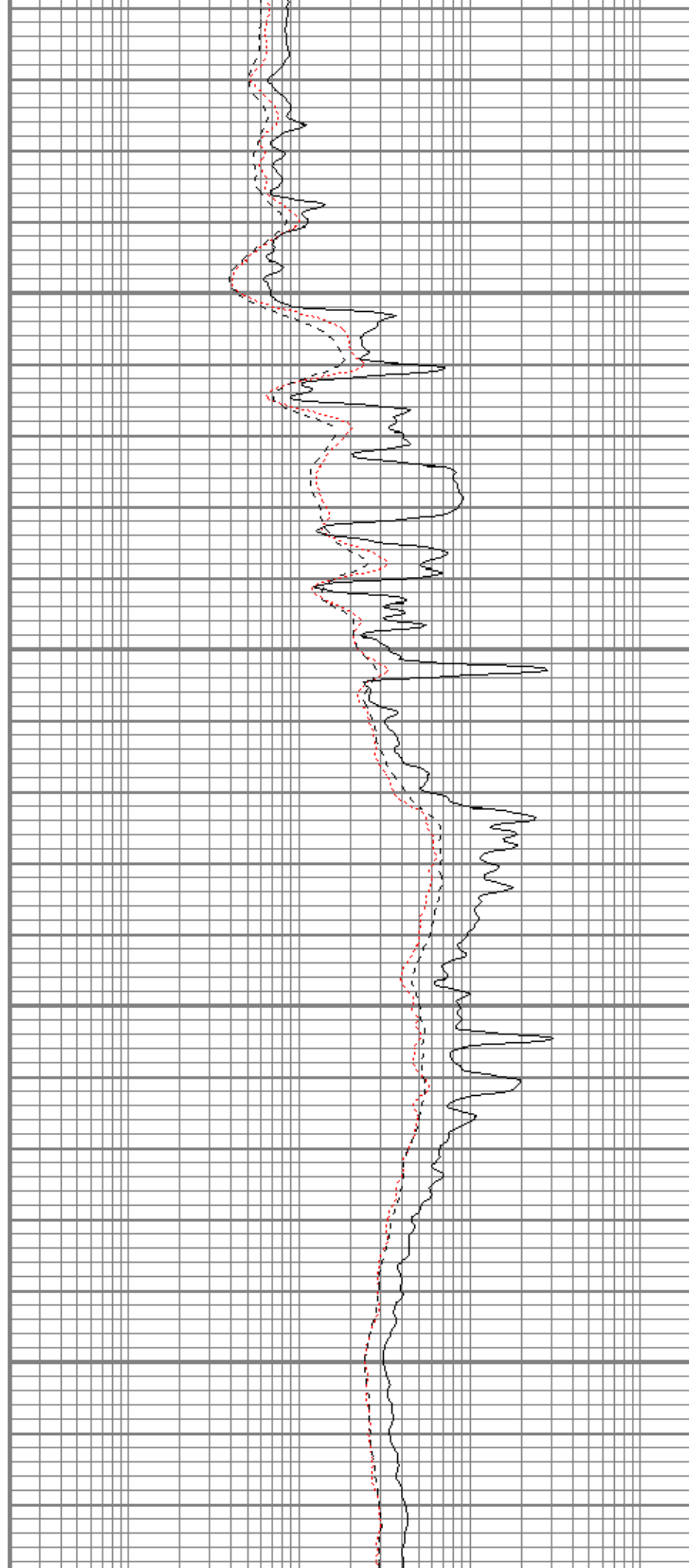


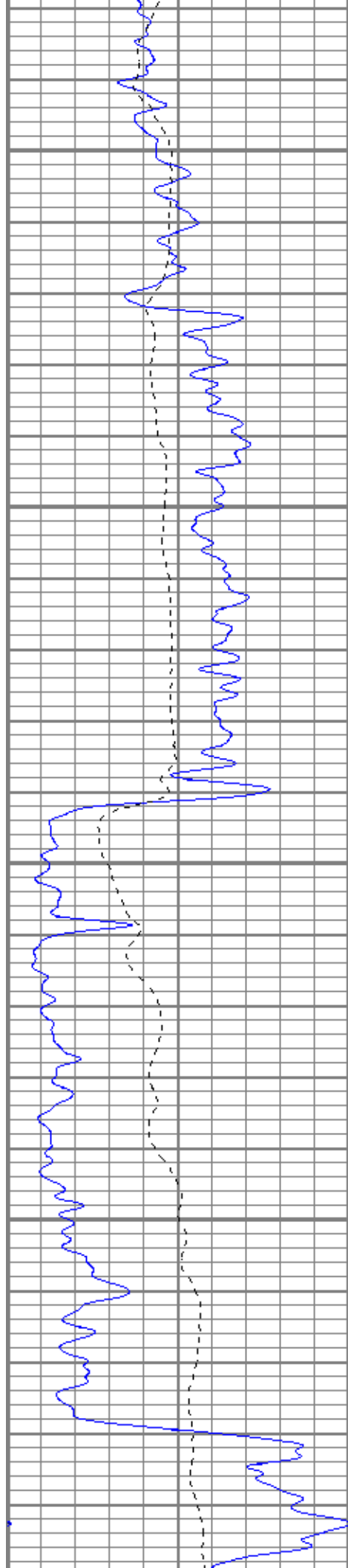
3100

3150

3200

3250



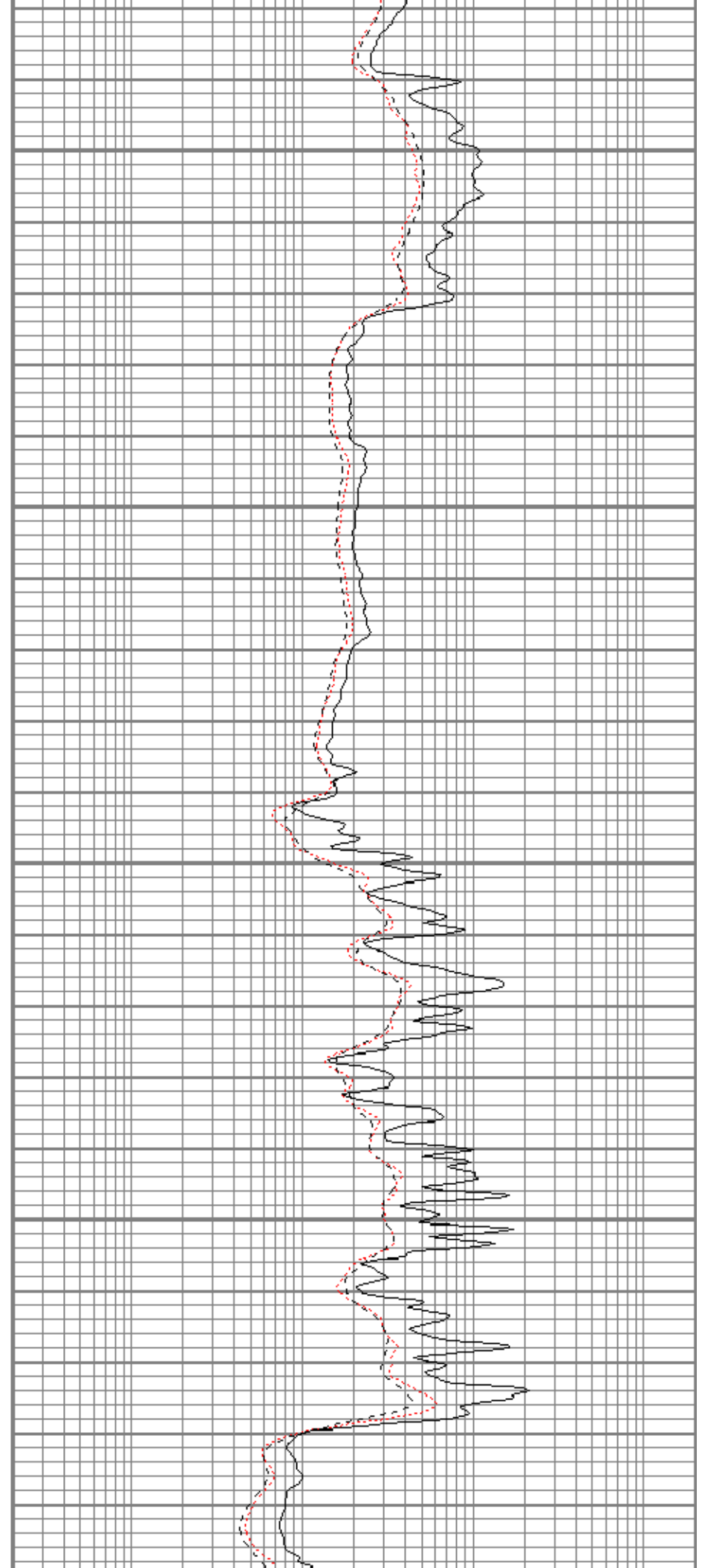


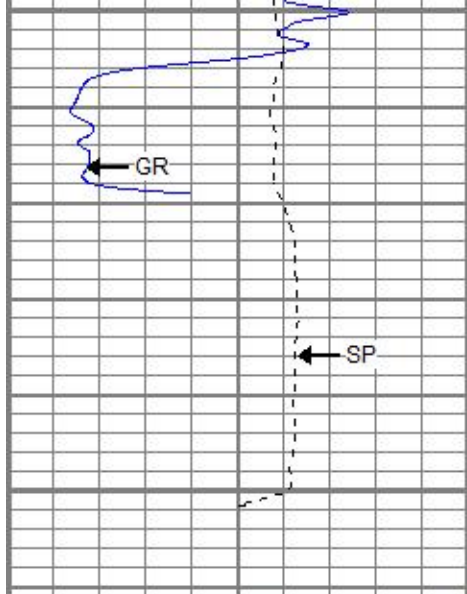
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3350

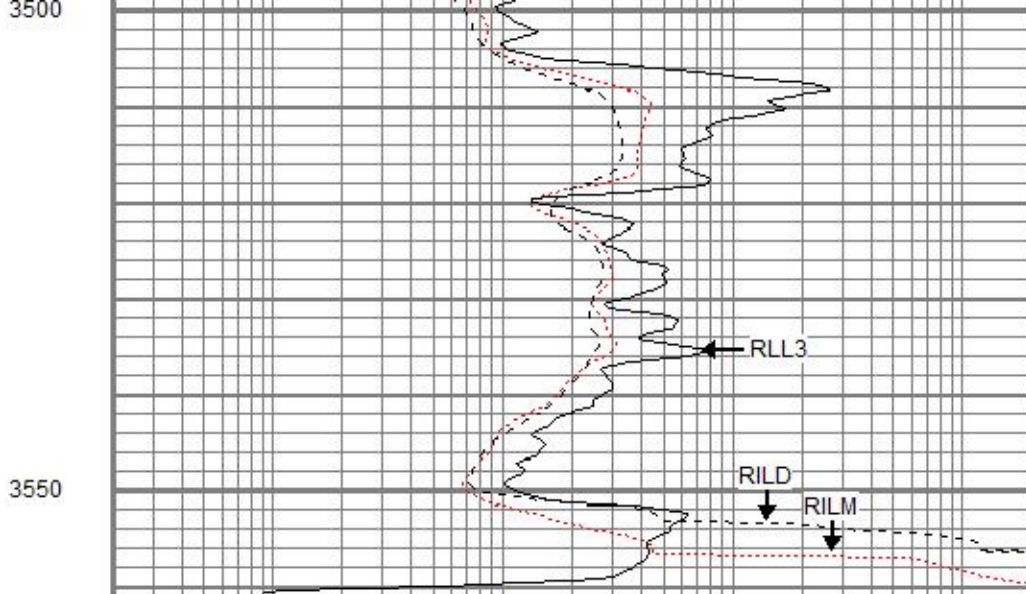
3400

3450





0	GR (GAPI)	150
-100	SP (mV)	100



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

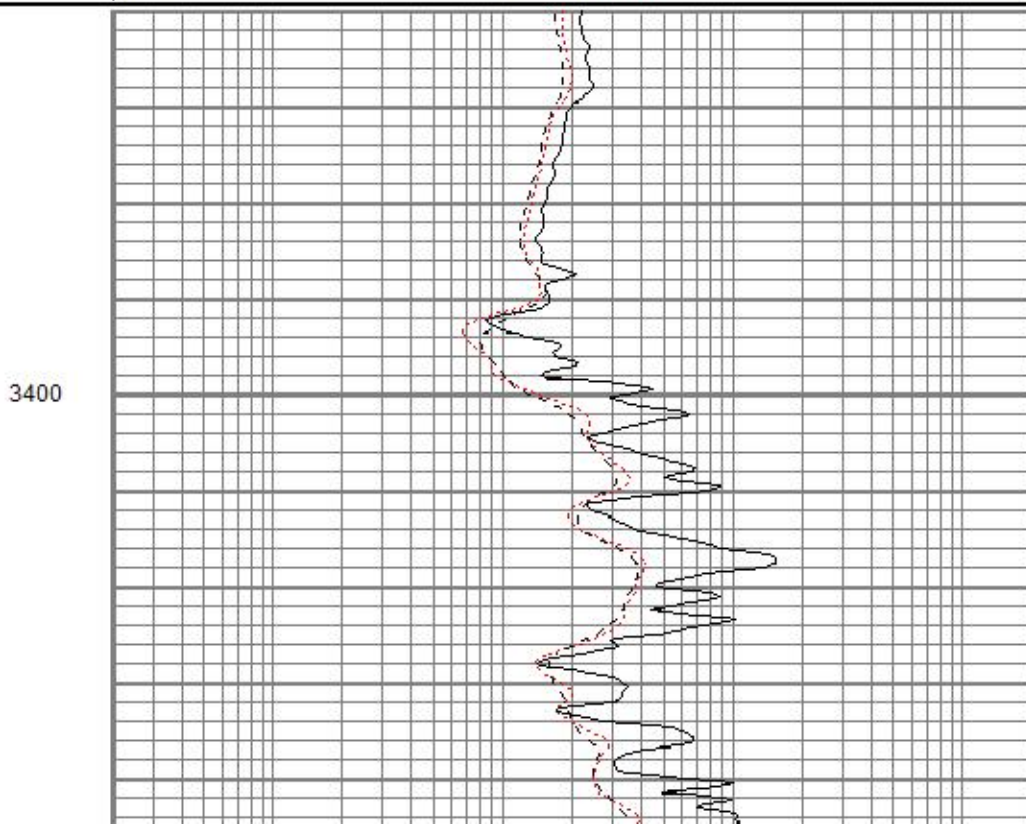
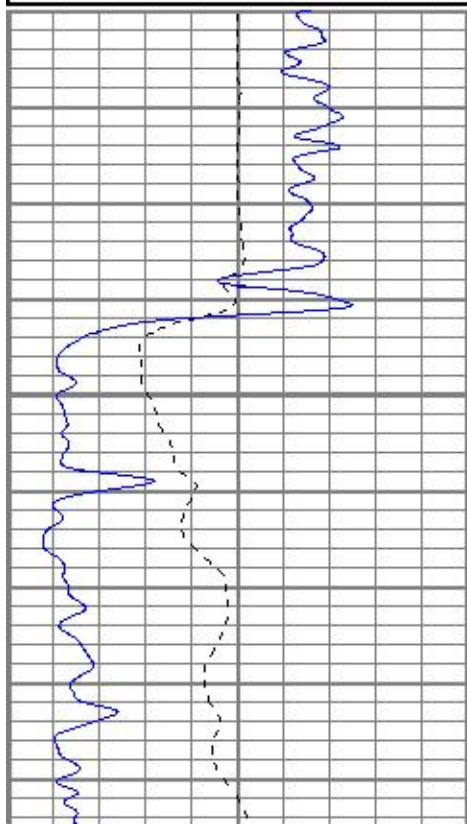


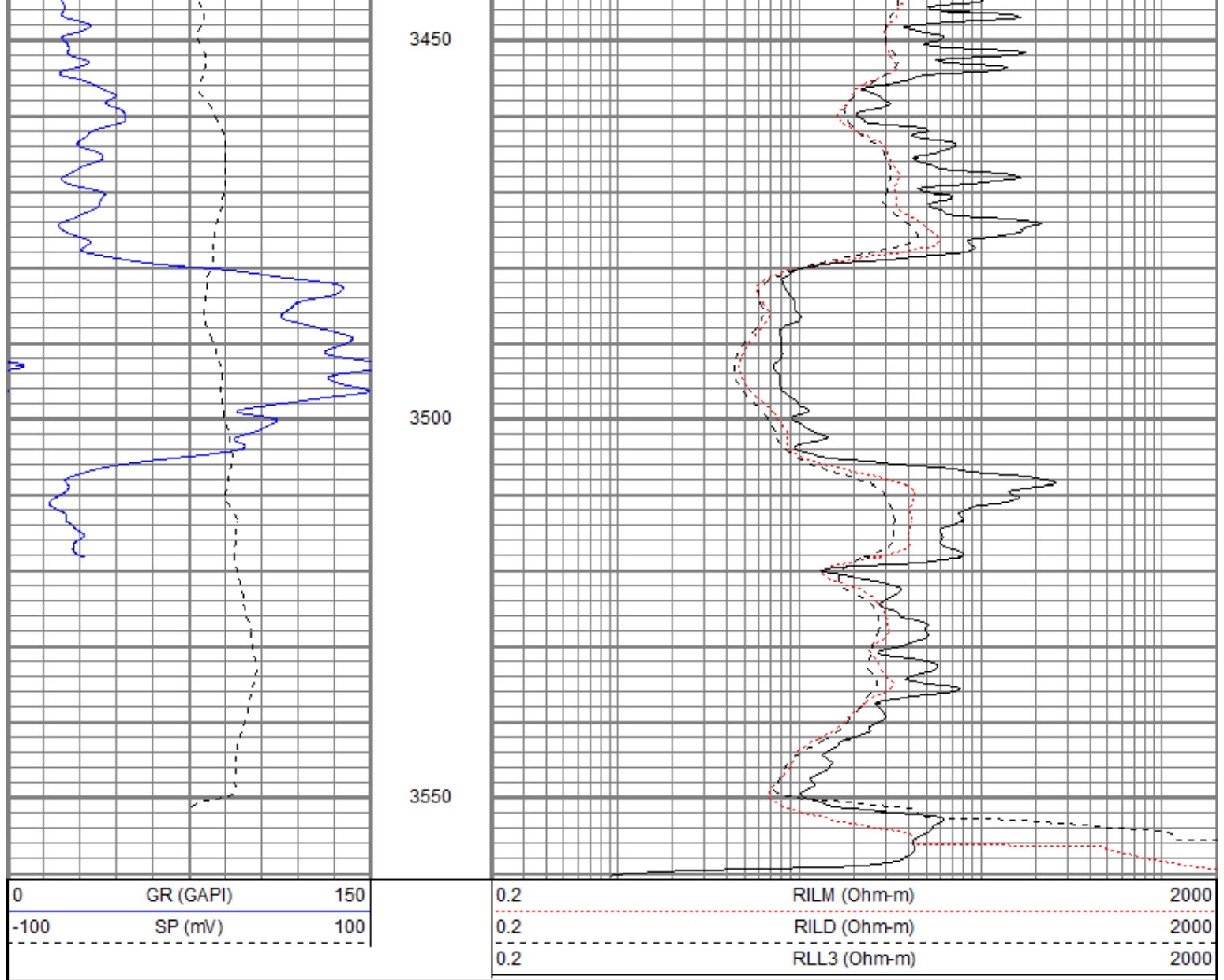
REPEAT SECTION

Database File: trorichardson28-1oh.db
 Dataset Pathname: pass1.1
 Presentation Format: kdil
 Dataset Creation: Sun Oct 08 01:17:04 2017
 Charted by: Depth in Feet scaled 1:240

0	GR (GAPI)	150
-100	SP (mV)	100

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





Calibration Report

Database File: trorichardson28-1oh.db
 Dataset Pathname: pass2.2
 Dataset Creation: Sun Oct 08 01:55:46 2017

Dual Induction Calibration Report

Serial-Model: 5375-G
 Surface Cal Performed: Tue Aug 15 10:21:23 2017
 Downhole Cal Performed: Tue Aug 15 10:22:14 2017
 After Survey Verification Performed: Tue Aug 15 10:22:14 2017

Surface Calibration

Loop:	Readings			References			Results	
	Air	Loop		Air	Loop		m	b
Deep	-0.003	0.635	V	0.000	350.000	mmho/m	548.445	1.715
Medium	-0.001	0.717	V	0.000	400.000	mmho/m	556.583	0.684
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	-0.003	0.635	V	0.000	350.000	mmho/m	548.268	1.663
Medium	-0.001	0.718	V	0.000	400.000	mmho/m	556.234	0.694

Downhole Calibration

Internal:	Readings			References			Results	
	Zero	Cal		Zero	Cal		m	b
Deep	0.131	349.928	mmho/m	0.052	350.165	mmho/m	1.001	-0.079
Medium	-0.084	400.178	mmho/m	-0.010	400.241	mmho/m	1.000	0.073
Shallow	2.425	0.005	V	500.000	2.000	Ohm-m	205.838	0.894
After Survey Verification								
Internal:	Readings			Targets			Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	0.000	0.000	mmho/m	0.131	349.928	mmho/m	1.001	-0.079
Medium	0.000	0.000	mmho/m	-0.084	400.178	mmho/m	1.000	0.073
Shallow	0.000	0.000	Ohm-m	500.000	2.000	Ohm-m	1.000	0.000
Neutron Calibration Report								
Serial Number:	2017							
Tool Model:	lithgearhart							
Performed:	(Not Performed)							
Calibrator Value:	1			NAPI				
Calibrator Reading:	1			cps				
Sensitivity:	1			NAPI/cps				
Temperature Calibration Report								
Serial Number:	WithMC							
Tool Model:	WMC							
Performed:	(Not Performed)							
			Reference		Reading			
Low Reference:	0.00	degF	0.00	degF	0.00	degF		
High Reference:	1.00	degF	1.00	degF	1.00	degF		
Gain:	1.00							
Offset:	0.00							
Delta Spacing	1							
Inclinometer Calibration Report								
Performed:	Mon Aug 07 09:05:18 2017							
	Low Read.	High Read.		Low Ref.	High Ref.			
X Accelerometer	205.00	1843.00		-1.00	1.00		gee	
Y Accelerometer	205.00	1843.00		-1.00	1.00		gee	
Z Accelerometer							gee	
Gamma Ray Calibration Report								
Serial Number:	WithMC							
Tool Model:	WMC							
Performed:	(Not Performed)							
Calibrator Value:	1.0			GAPI				
Background Reading:	0.0			cps				
Calibrator Reading:	1.0			cps				

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)	
GR	40.07		CHD-STD	0.50	1.69	1.00	
ACCY	38.91		ADT-WMC (WithMC) Admyr Telemetry With Mudcell	4.58	3.50	120.00	
ACCX	38.91						
SSTAT	38.49		NEU-lithgearhart (2017) gearhart for litho	5.65	3.50	85.00	
PSTAT	37.66						
ASTAT	37.66						
GRD	36.82						
TEMP	36.82						
NEU	33.46		ADT1LITH-A (1) Admyr Litho Density Tool	9.29	3.50	240.00	
LStat	24.30						
LS8	23.64						
LS7	23.64						
LS6	23.64						
LS5	23.64						
LS4	23.64						
LS3	23.64						
LS2	23.64						
LS1	23.64						
SSV	23.43		DIL-G (5375) Gearhart	21.47	4.00	345.00	
LSD	23.62						
SS8	23.43						
SS7	23.43						
SS6	23.43						
SS5	23.43						
SS4	23.43						
SS3	23.43						
SS2	23.43						
SS1	23.43						
DCAL	23.37						
SSD	23.04						
SP	10.60						
CILD	10.60						
CILM	6.89						
RLL3	1.70						
TR_Mon	0.00						
		Dataset:	trorichardson28-1oh.db: field/well/run1/pass2.2				
		Total length:	41.49 ft				
		Total weight:	791.00 lb				
		O.D.:	4.00 in				