PIONEER
Pioneer Energy Services

DUAL INDUCTION LOG

Company IGWT, INC.
Well BENJAMIN PEFFLY #1
Field PIERCE
County BUTLER State KANSAS

Location: API #: 15-015-24090-00-00
330' FSL & 560' FWL
SEC 28 TWP 25S RGE 4E

Other Services
CNL/CDL
MEL

Permanent Datum GROUND LEVEL Elevation 1341'
Log Measured From KELLY BUSHING
Drilling Measured From KELLY BUSHING

Elevation
K.B. 1347'
D.F. N/A
G.L. 1341'

Company IGWT, INC.
Well BENJAMIN PEFFLY #1
Field PIERCE
County BUTLER
State KANSAS

Date	10/12/2017		
Run Number	ONE		
Depth Driller	2672'		
Depth Logger	2671'		
Bottom Logged Interval	2670'		
Top Log Interval	200'		
Casing Driller	8.625" @ 207'		
Casing Logger	215'		
Bit Size	7.875"		
Type Fluid in Hole	CHEMICAL		
Salinity,ppm CL	1150		
Density / Viscosity	9.3 48		
pH / Fluid Loss	8.5 9.0		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	0.90 @ 80		
Rmf @ Meas. Temp	0.68 @ 80		
Rmc @ Meas. Temp	1.22 @ 80		
Source of Rmf / Rmc	CHARTS		
Rm @ BHT	0.70 @ 103		
Operating Rig Time	3 HOURS		
Max Rec. Temp. F	103		
Equipment Number	91		
Location	HAYS		
Recorded By	D. SCHMIDT		
Witnessed By	KENT HUPP	DAN JOHNSON	

<<< Fold Here >>>

Comments

N/A DENOTES NOT AVAILABLE OR NON-APPLICABLE.

POTWIN,
6 1/2 SOUTH TO 10 RD, 1 1/4 EAST,
NORTH INTO

Log Measured From: KELLY BUSHING 6 Ft. Above Permanent Datum

THANK YOU FOR USING PIONEER ENERGY SERVICES
www.pioneeres.com 785-625-3858

Your Pioneer Energy Services Crew	This Log Record Was Witnessed By
Engineer: D. SCHMIDT	Primary Witness: KENT HUPP
Operator:	Secondary Witness: DAN JOHNSON
Operator:	Secondary Witness:
Operator:	Secondary Witness:

Log Variables

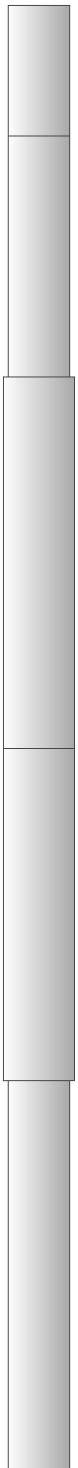
Database C:\ProgramData\Warrior\Data\igwt_benjamin peffly_1.db
Dataset field/well/STKML/pass3.3/_vars_

Top - Bottom

M	A	SZCOR	NPORSEL	FLUIDDEN g/cc	MATRXDEN g/cc	SPSHIFT mV	SNDERRM mmho/m
2	1	Off	Limestone	1	2.71	-257	0

SNDERR mmho/m	SRFTEMP degF	CASETHCK in	CASEOD in	PERFS	TDEPTH ft	BOTTEMP degF	BOREID in
0	80	0	5.5	0	2671	103	7.875

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb
GR	40.58		GR-M&W (89)	3.00	3.50	50.00
CNLSC	37.48		CNT-M&W (207-MW)	5.50	3.50	100.00
CNSSC	36.73					
			CDL-M&W (90-1031)	8.50	4.00	250.00
LSD	28.43					
DCAL	28.42					
SSD	27.93					
			ML-PSIML (PSI-01) GO Micro log tools converted to Simplec electronics	7.58	4.00	65.00
MCAL	19.83					
MI	19.83					
MN	19.83					
RLL3F	15.80					
RLL3	15.80					



			DIL-M&W (PSI 91)	18.50	3.50	220.00
CILD	8.00					
CILM	4.70					
SP	0.20					

Dataset: igwt_benjamin peffly_1.db: field/well/STKML/pass3.3
Total length: 43.08 ft
Total weight: 685.00 lb
O.D.: 4.00 in

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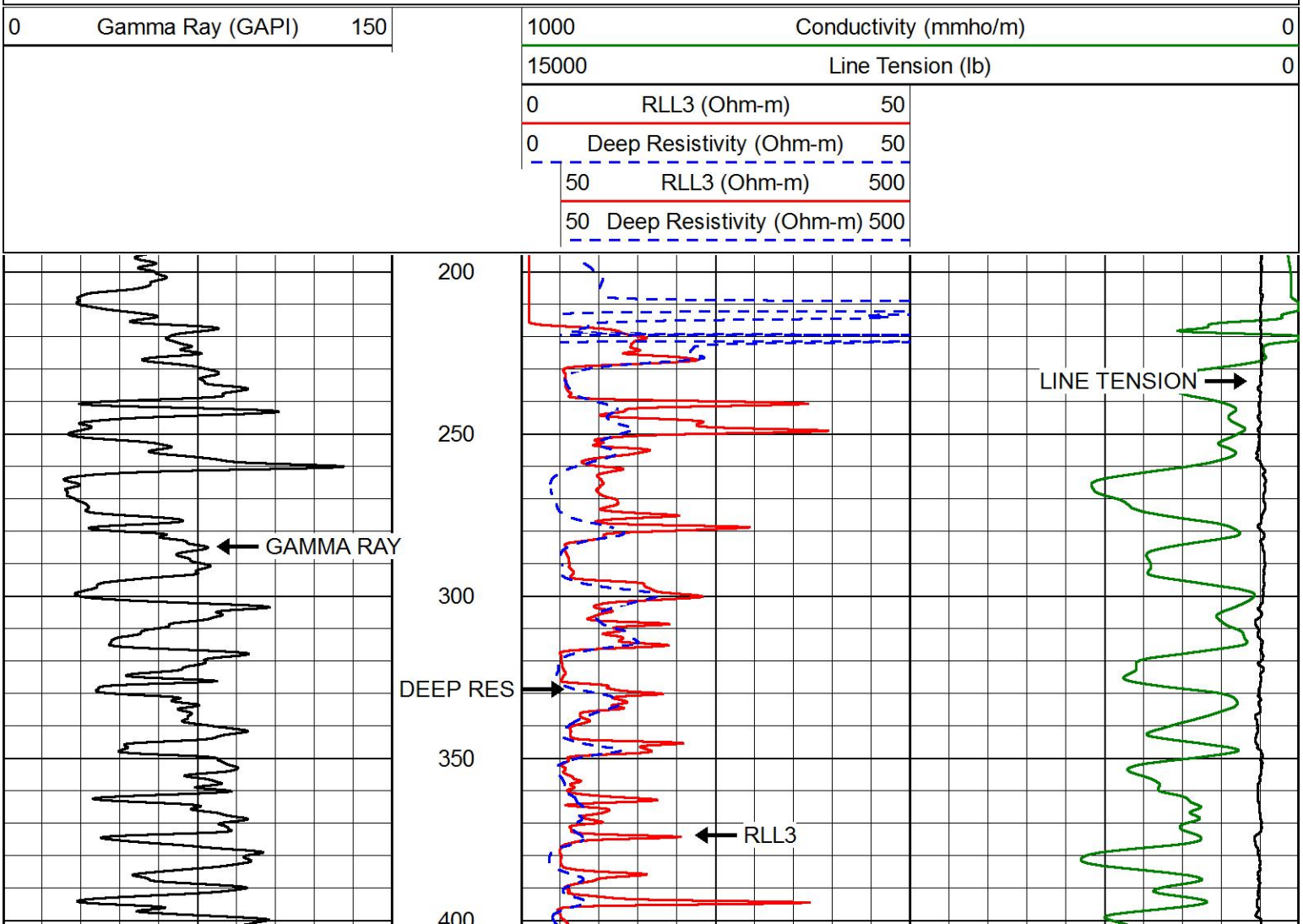
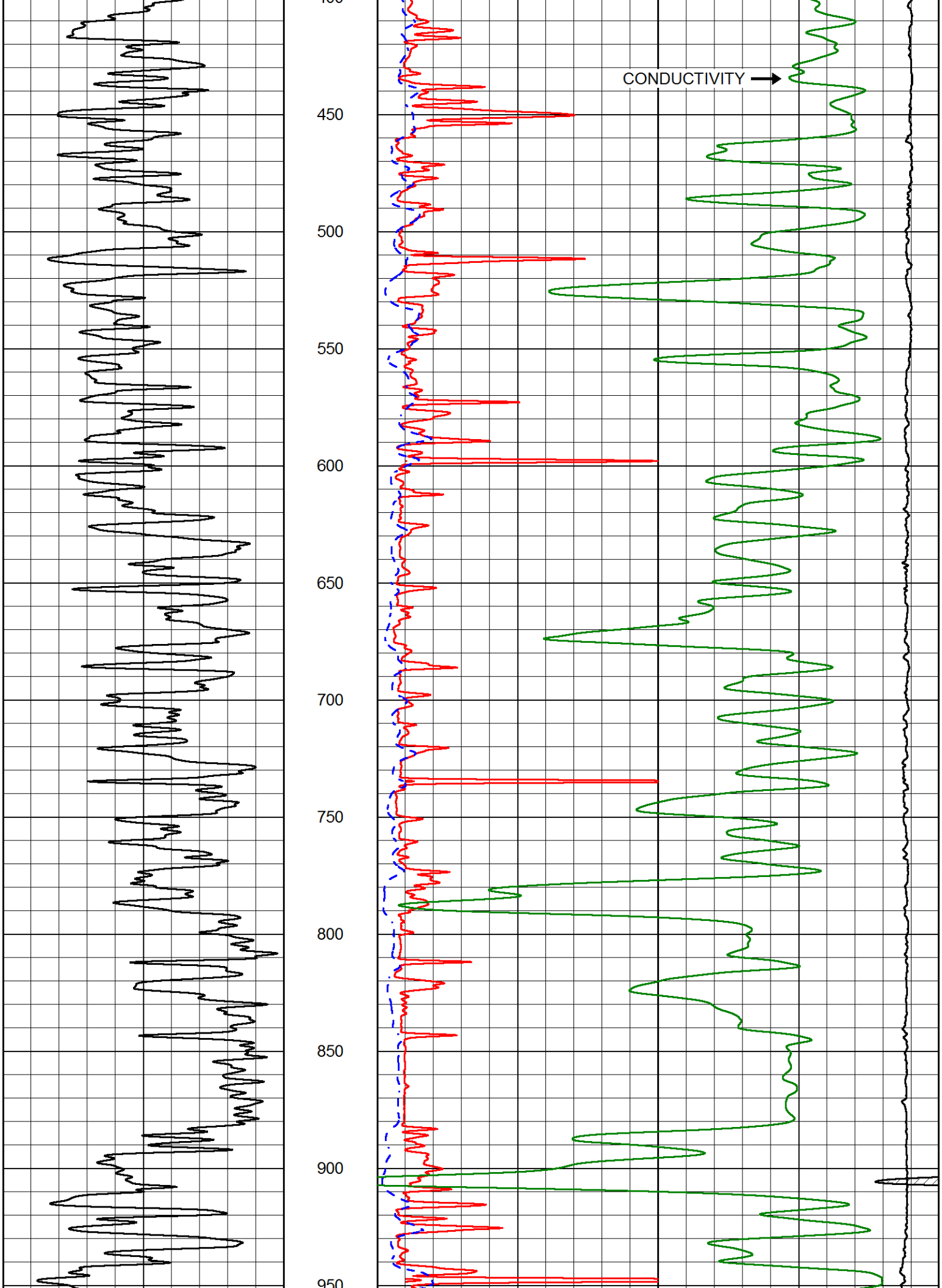
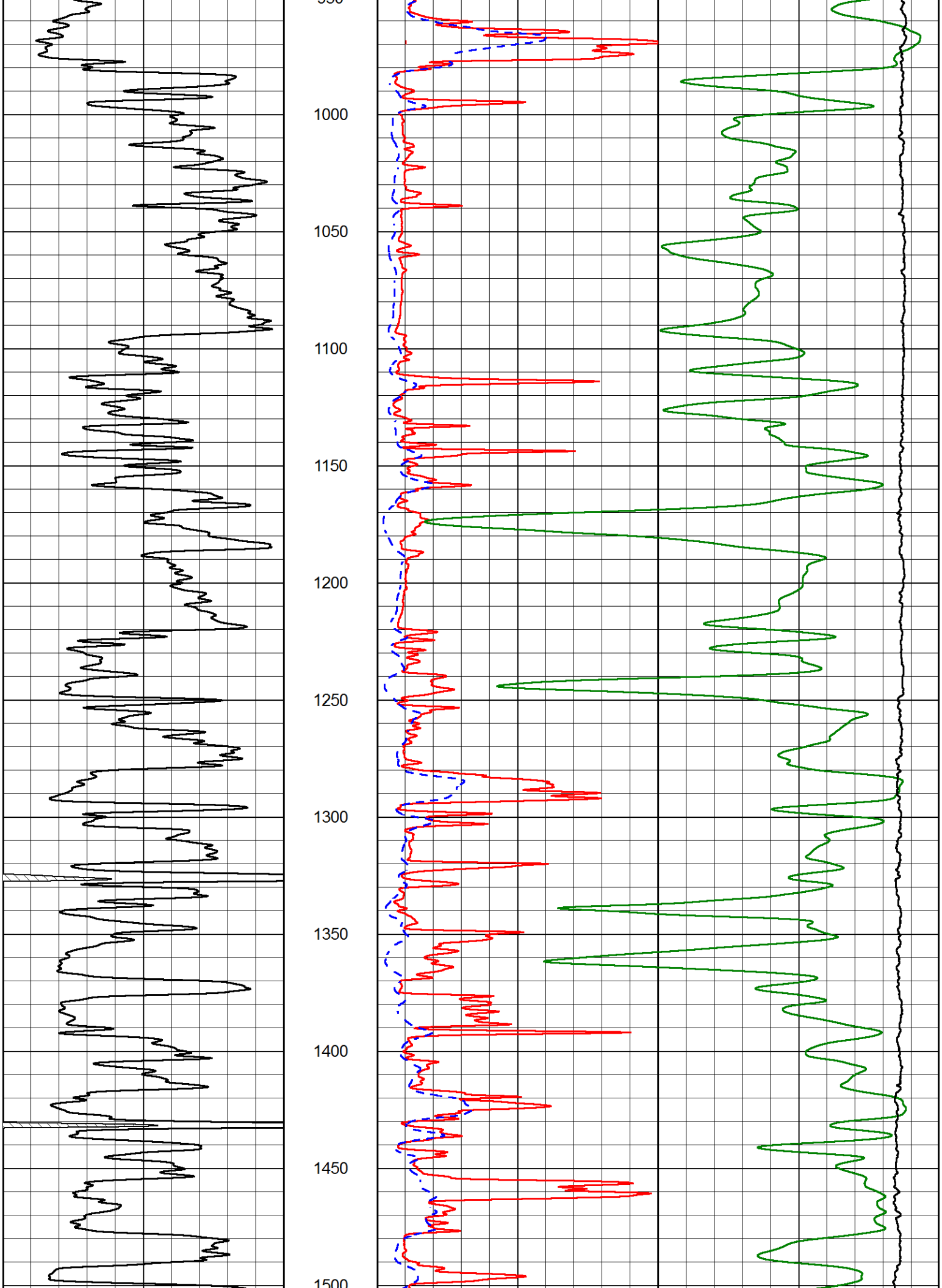
MAIN PASS

Database File igwt_benjamin peffly_1.db
Dataset Pathname STKML/pass3.1
Presentation Format dil2in
Dataset Creation Thu Oct 12 07:03:05 2017
Charted by Depth in Feet scaled 1:600




CONDUCTIVITY
450
500
550
600
650
700
750
800
850
900
950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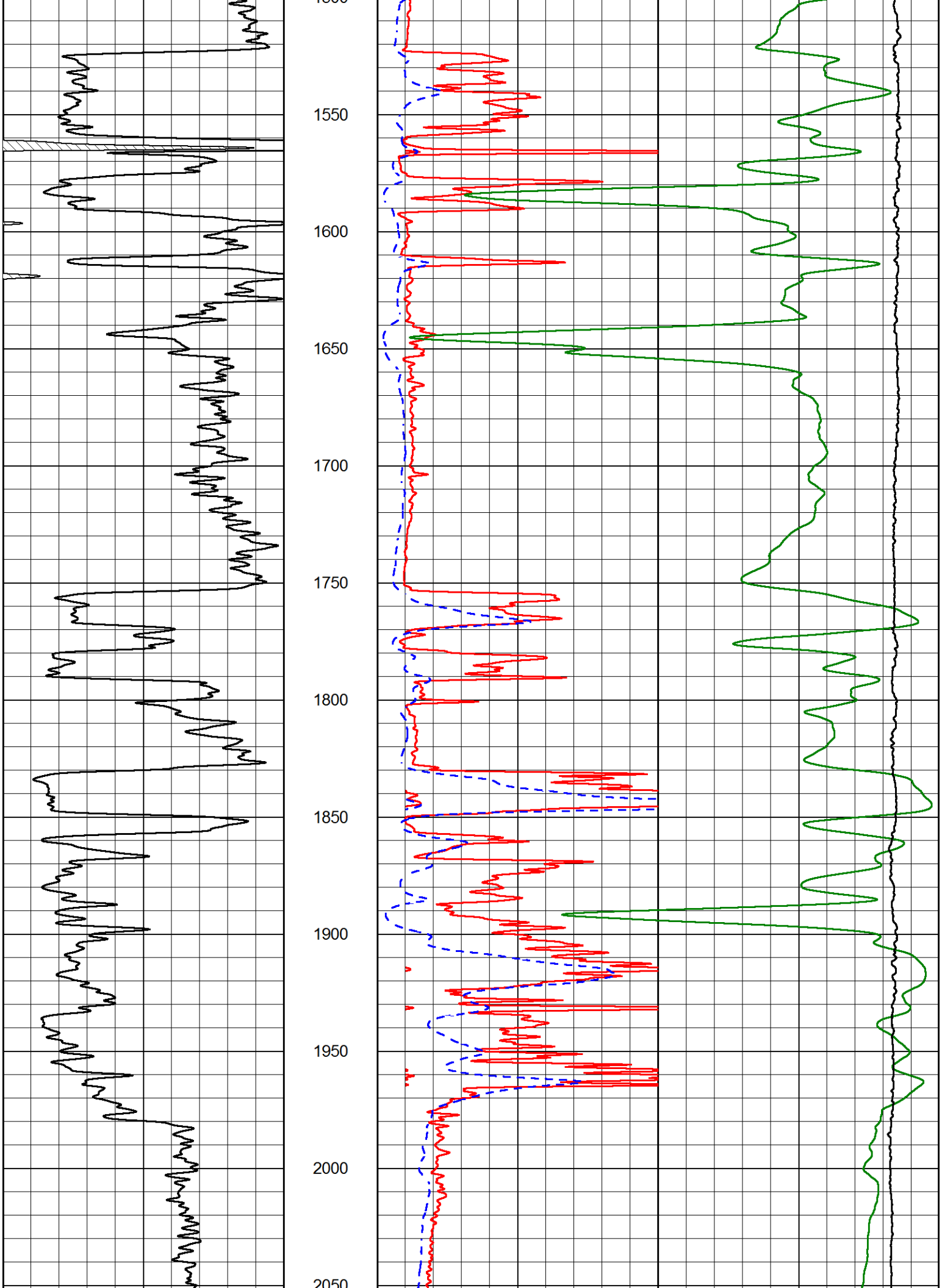
1050
1100
1150
1200
1250
1300
1350
1400
1450
1500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1700
1750
1800
1850
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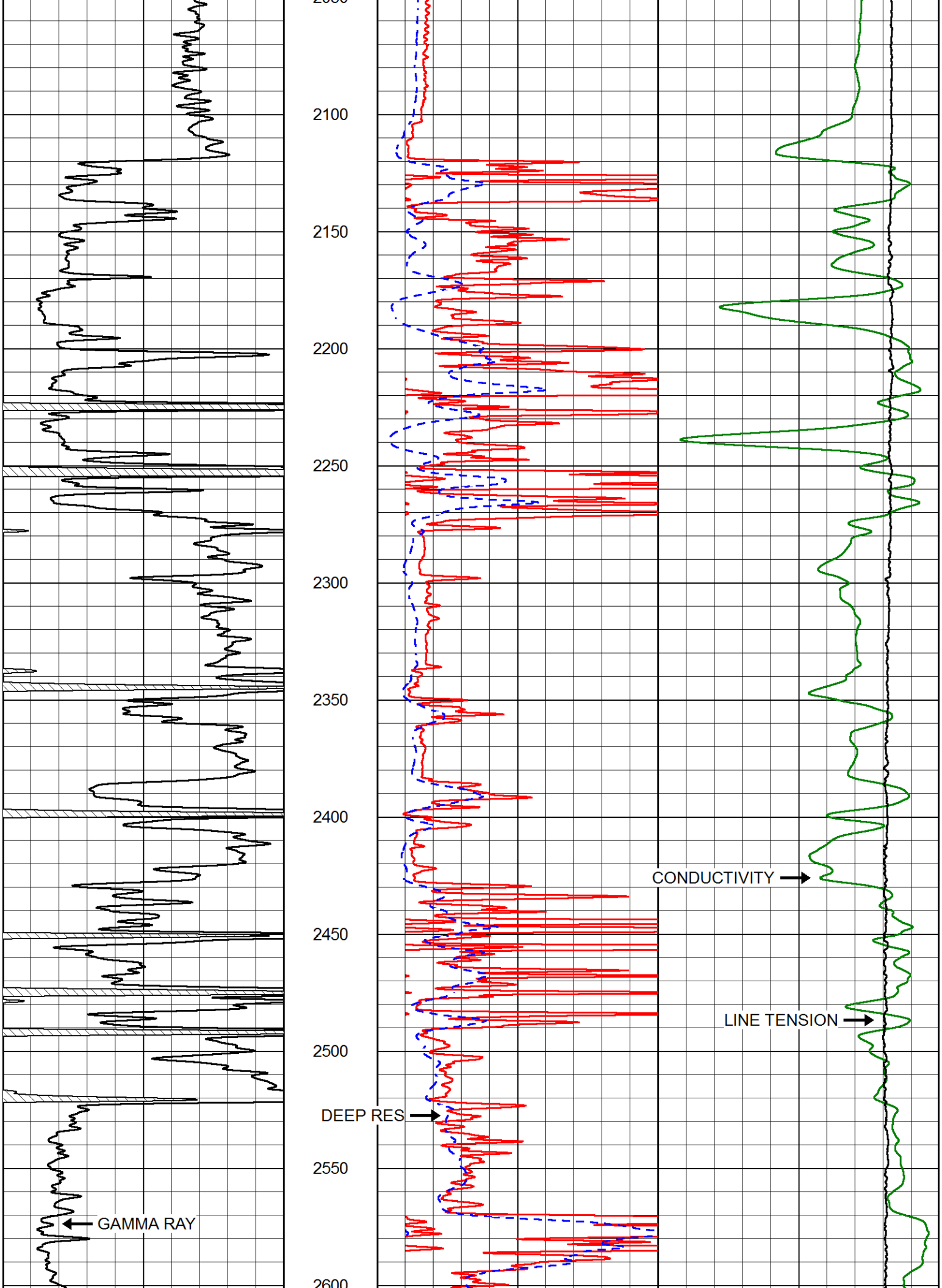
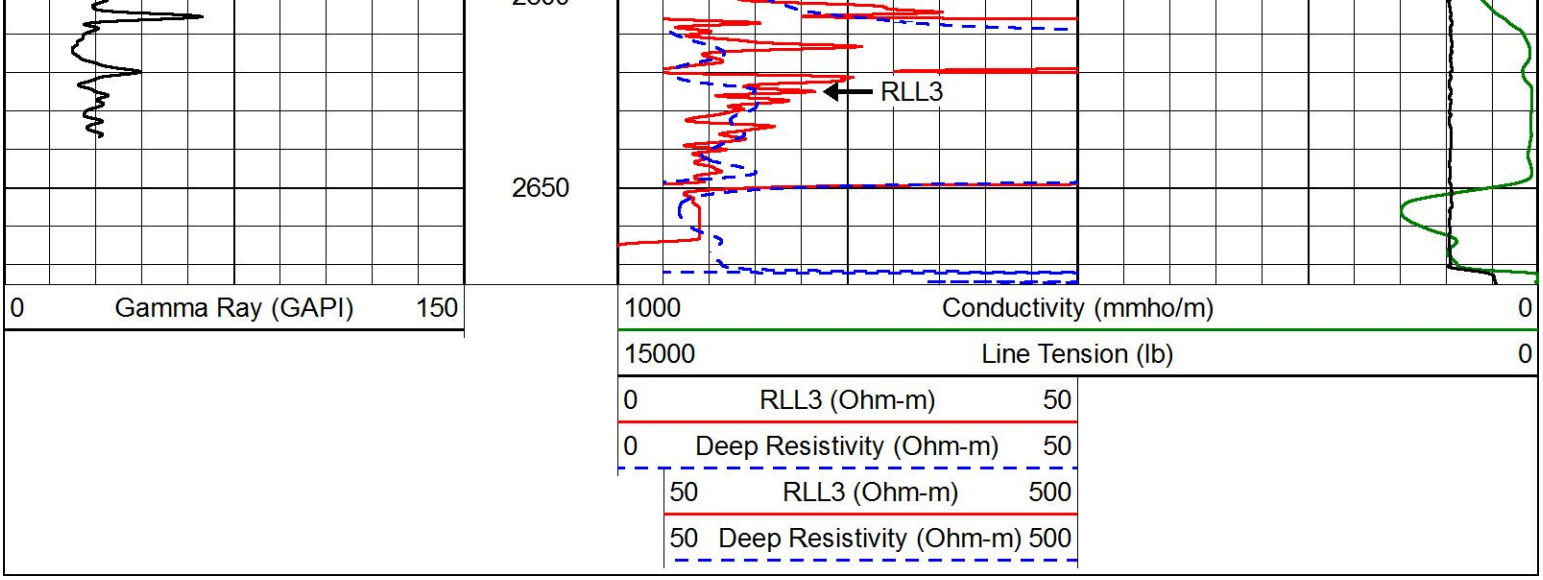
2000
2050


2100
2150
2200
2250
2300
2350
2400
2450
2500
2550
2600
CONDUCTIVITY
LINE TENSION
DEEP RES
GAMMA RAY



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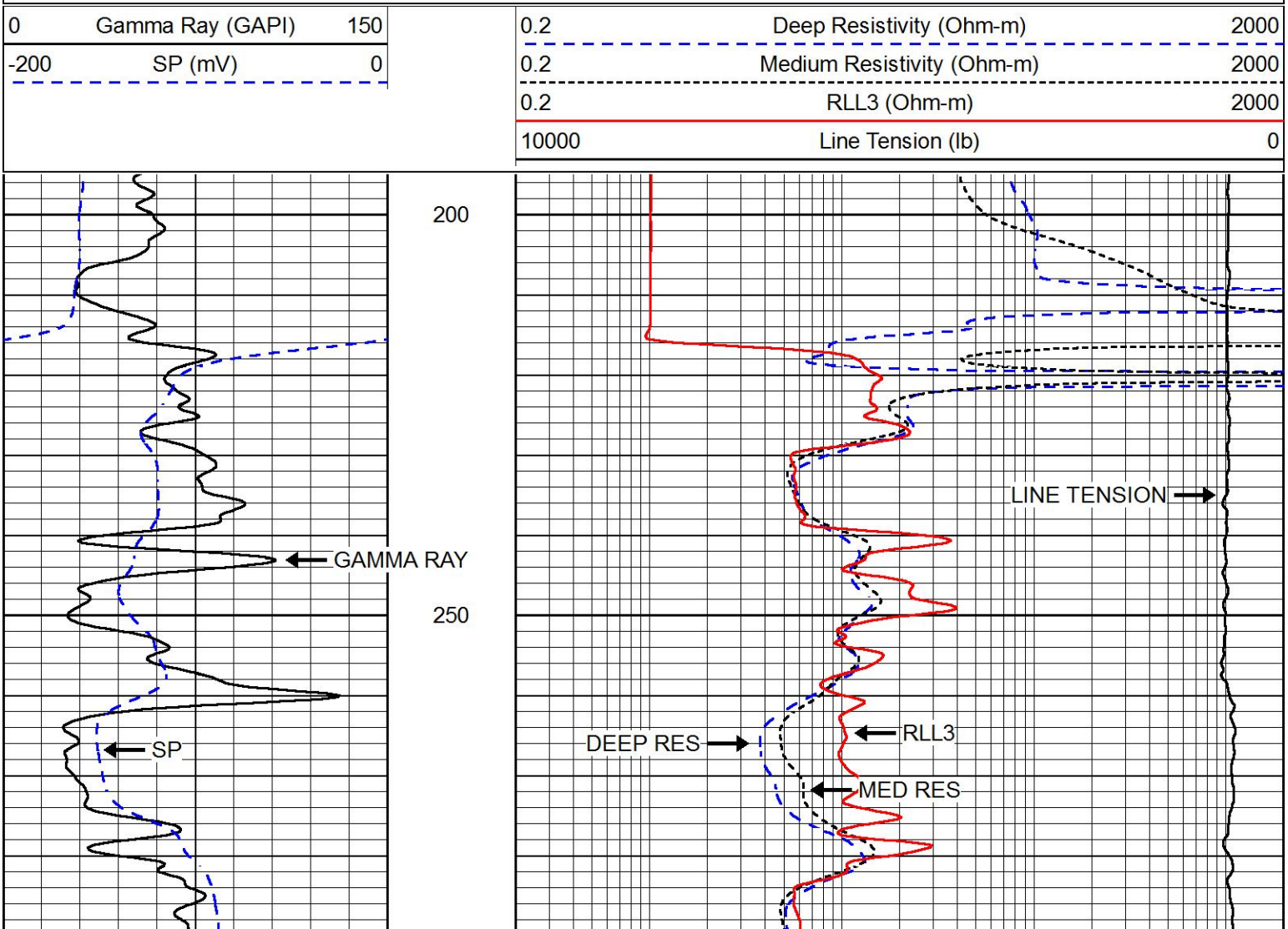
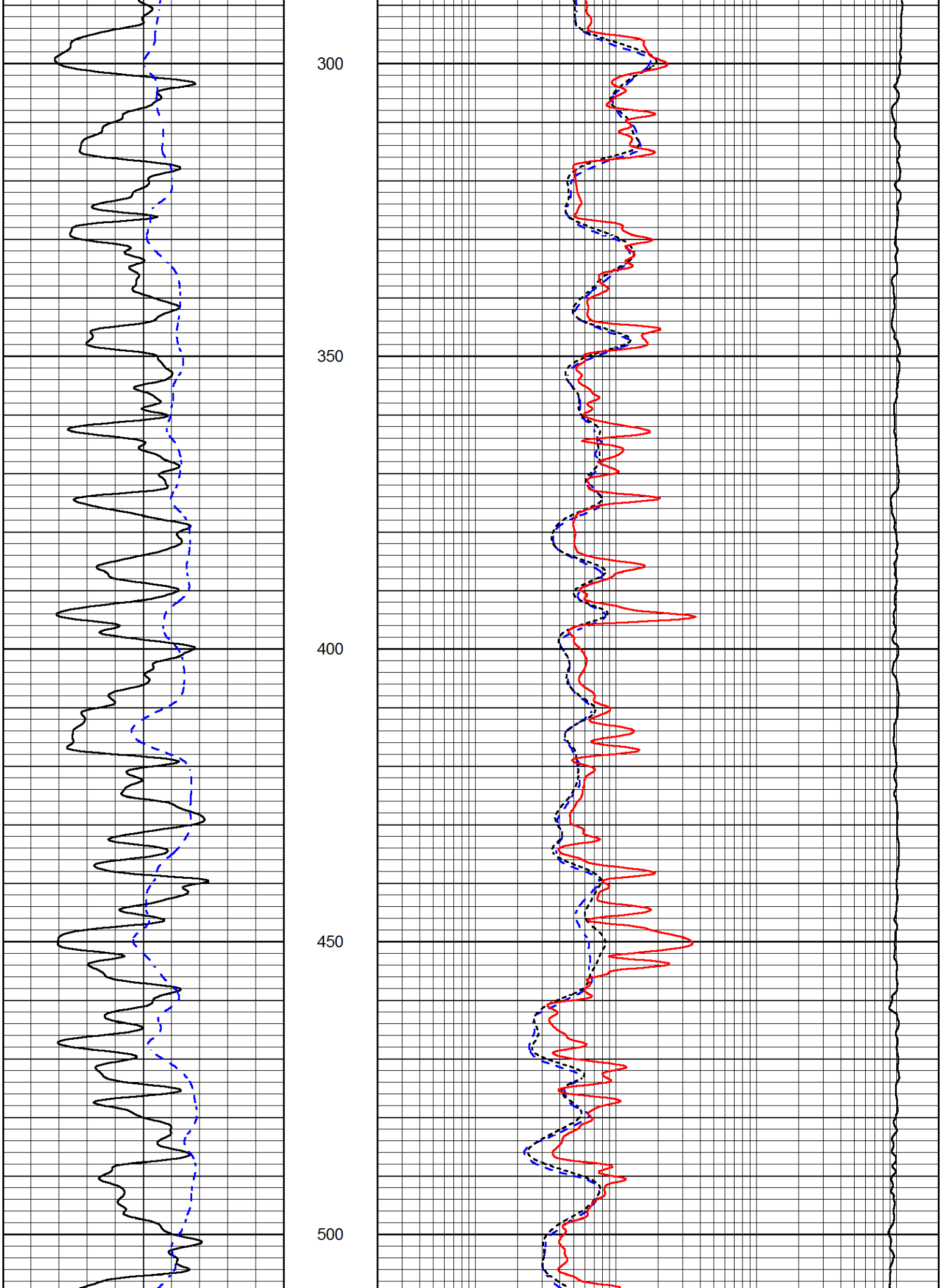
MAIN PASS

Database File	igwt_benjamin peffly_1.db
Dataset Pathname	STKML/pass3.1
Presentation Format	dil
Dataset Creation	Thu Oct 12 07:03:05 2017
Charted by	Depth in Feet scaled 1:240

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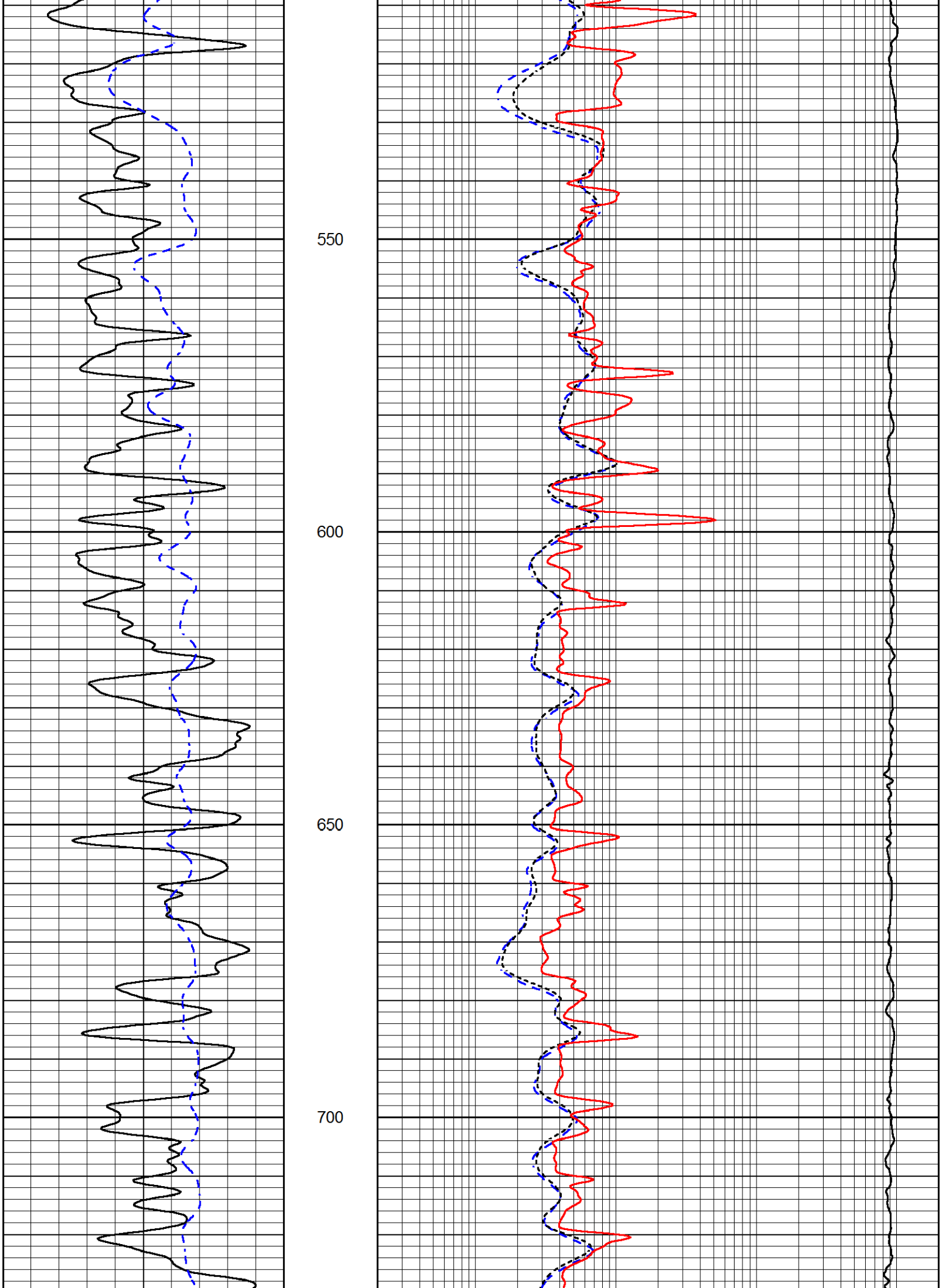
400
450
500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650
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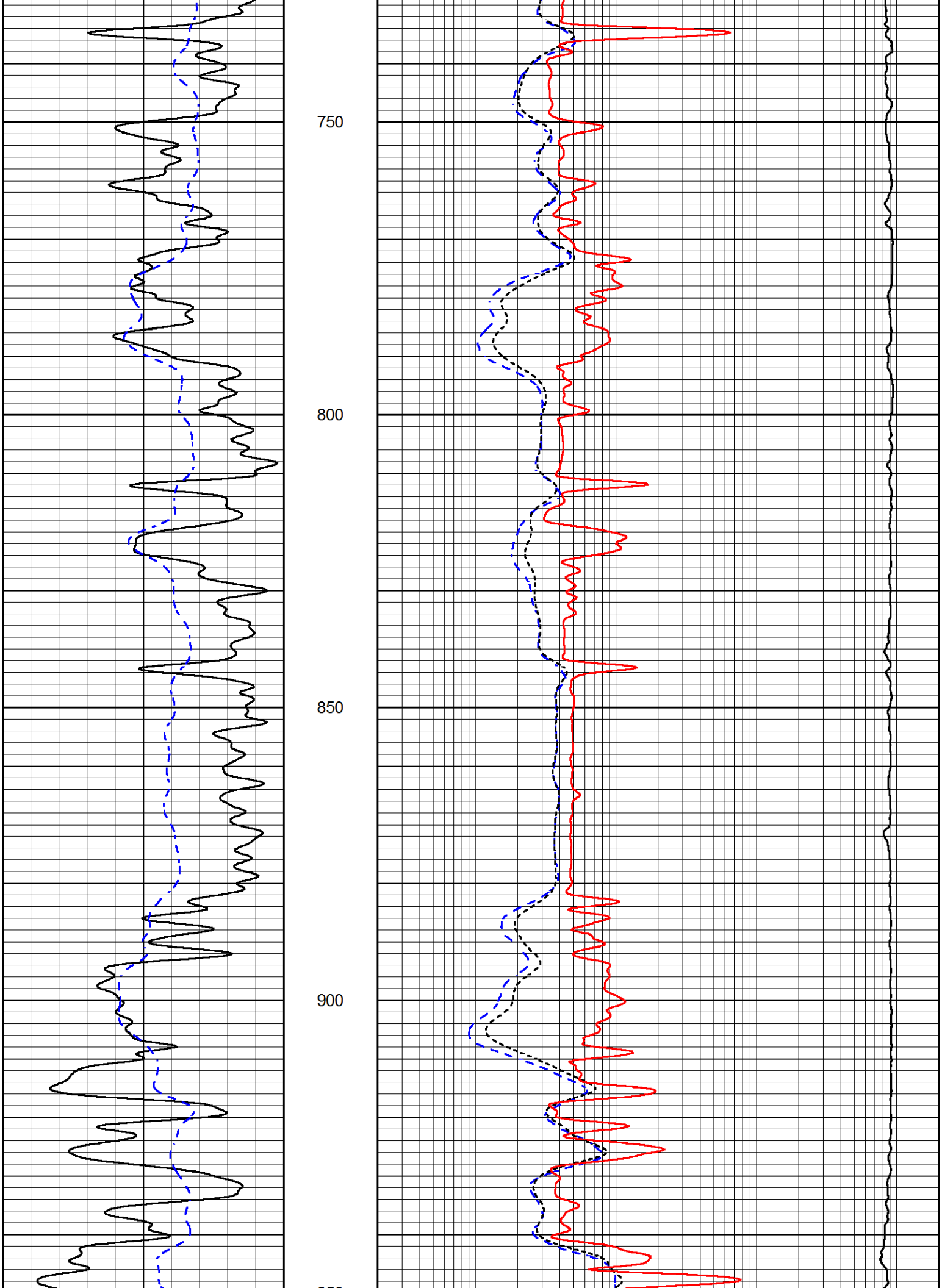
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850
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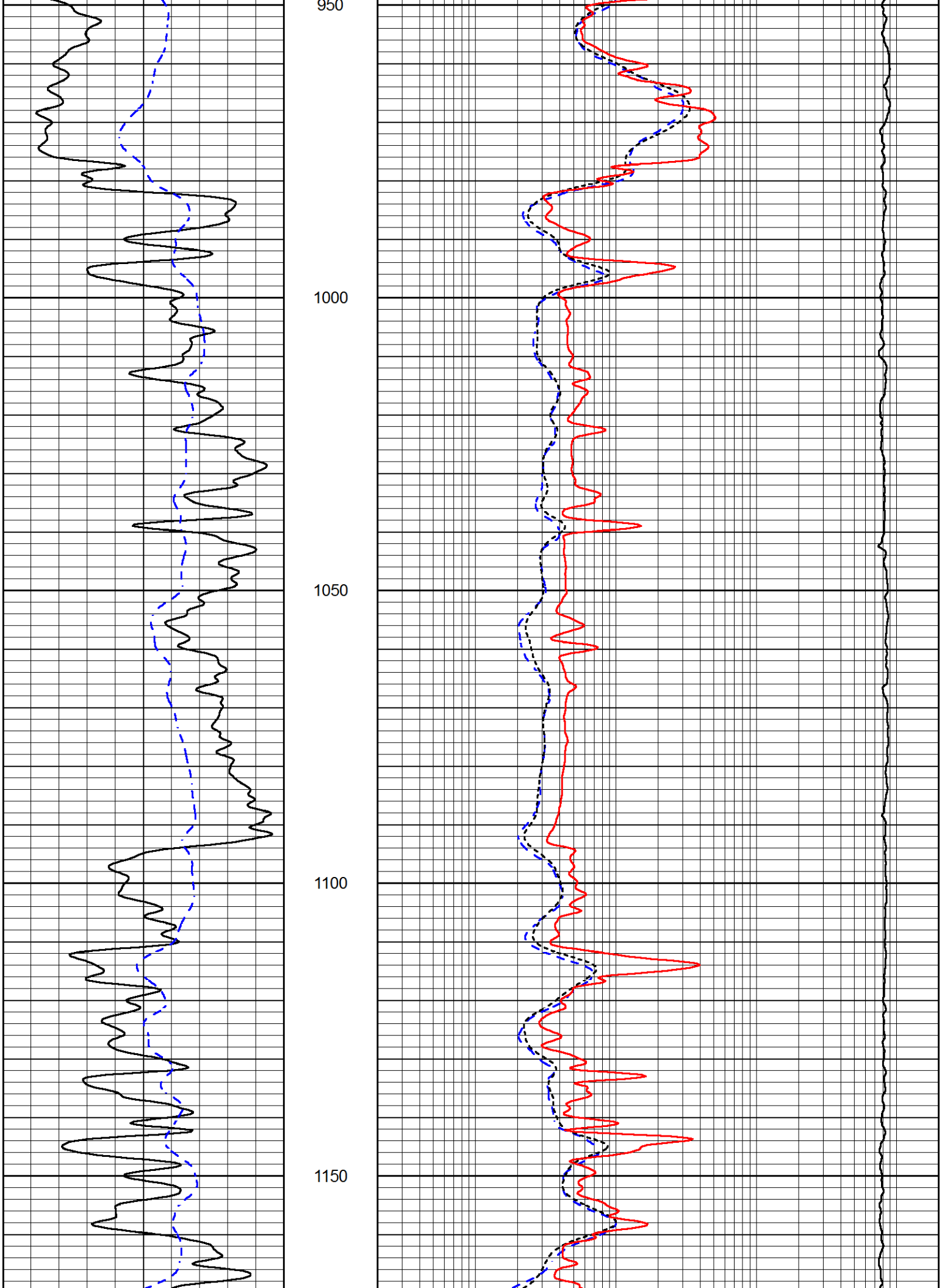
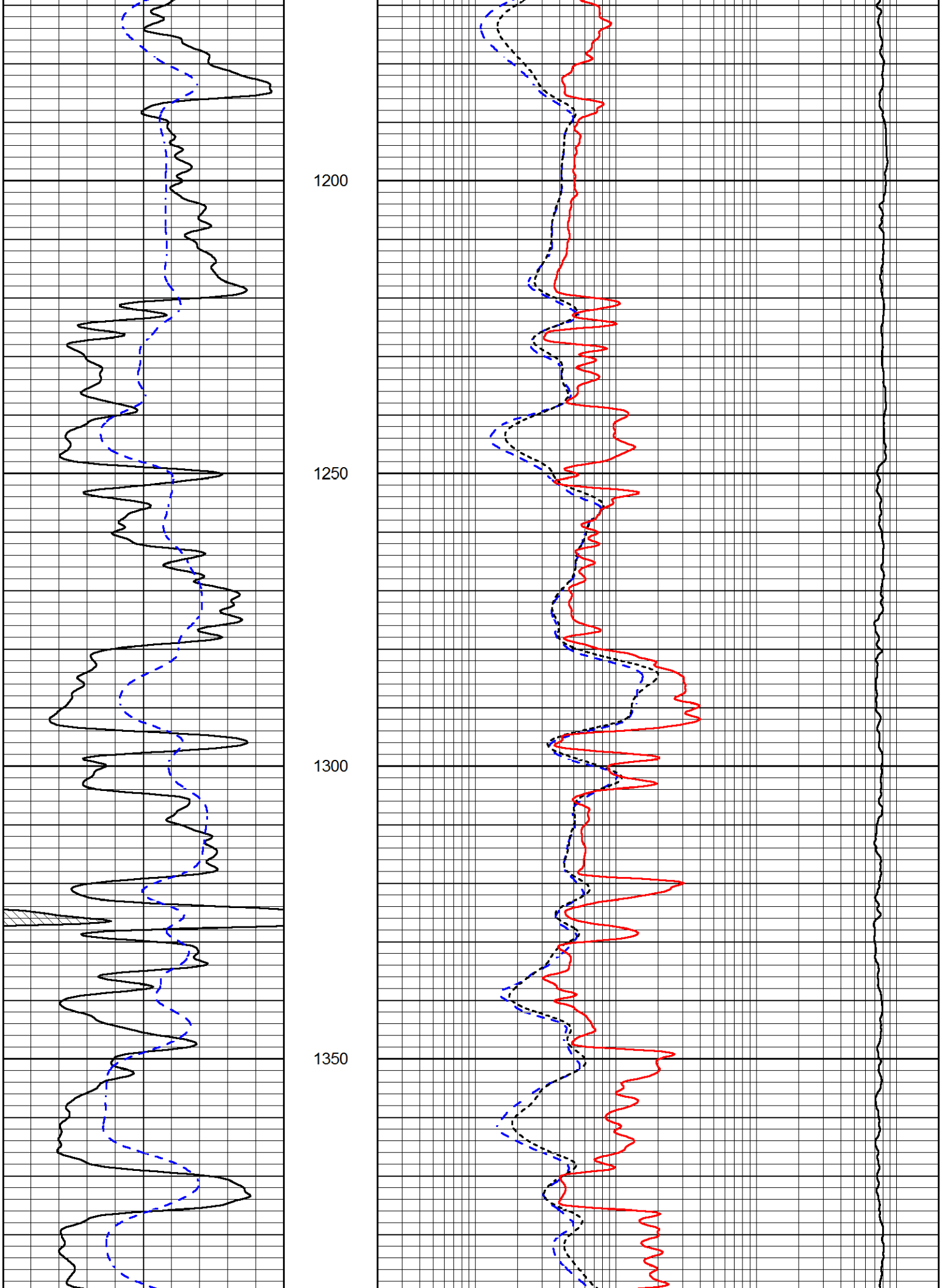

950
1000
1050
1100
1150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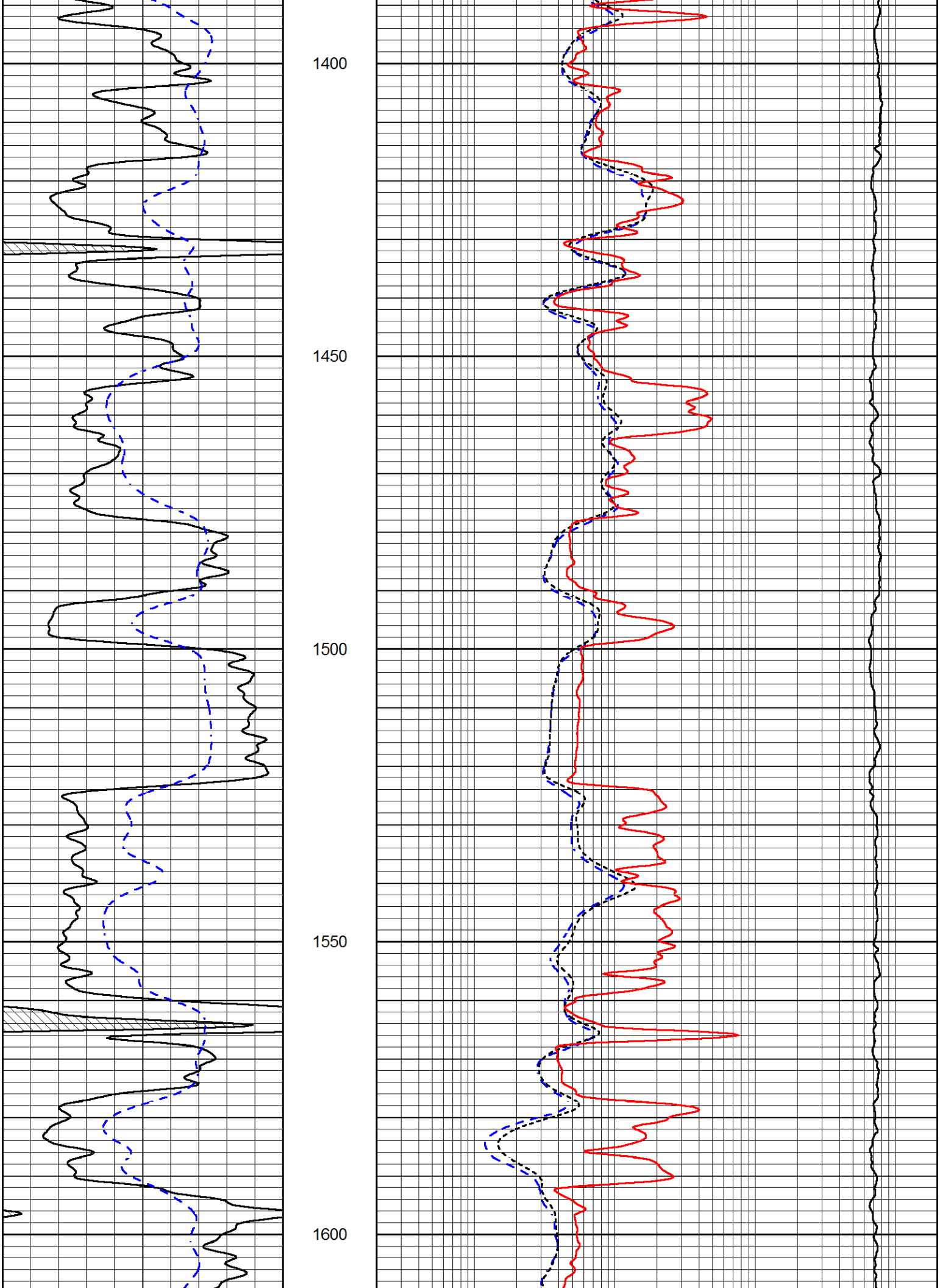
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1450
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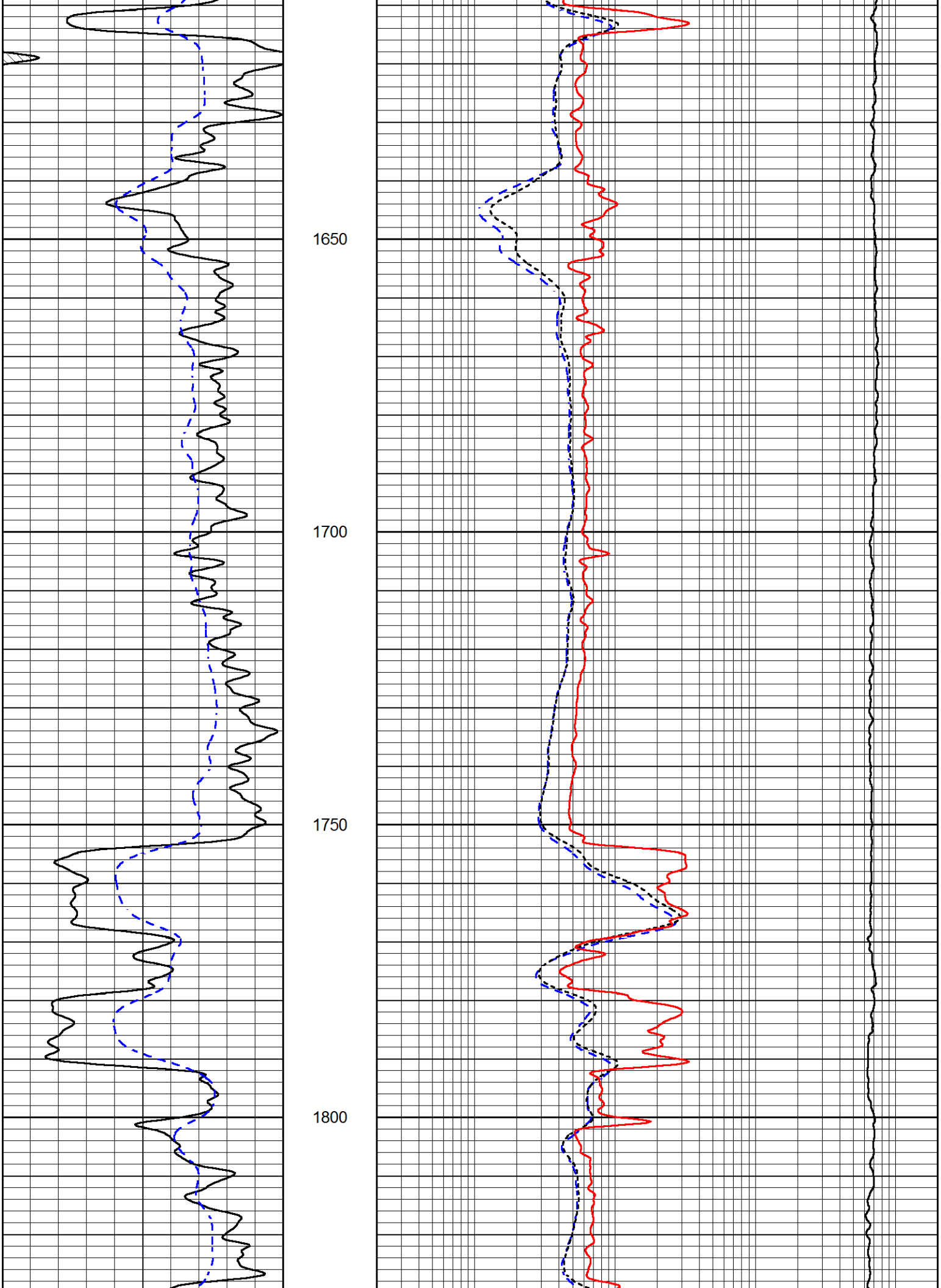
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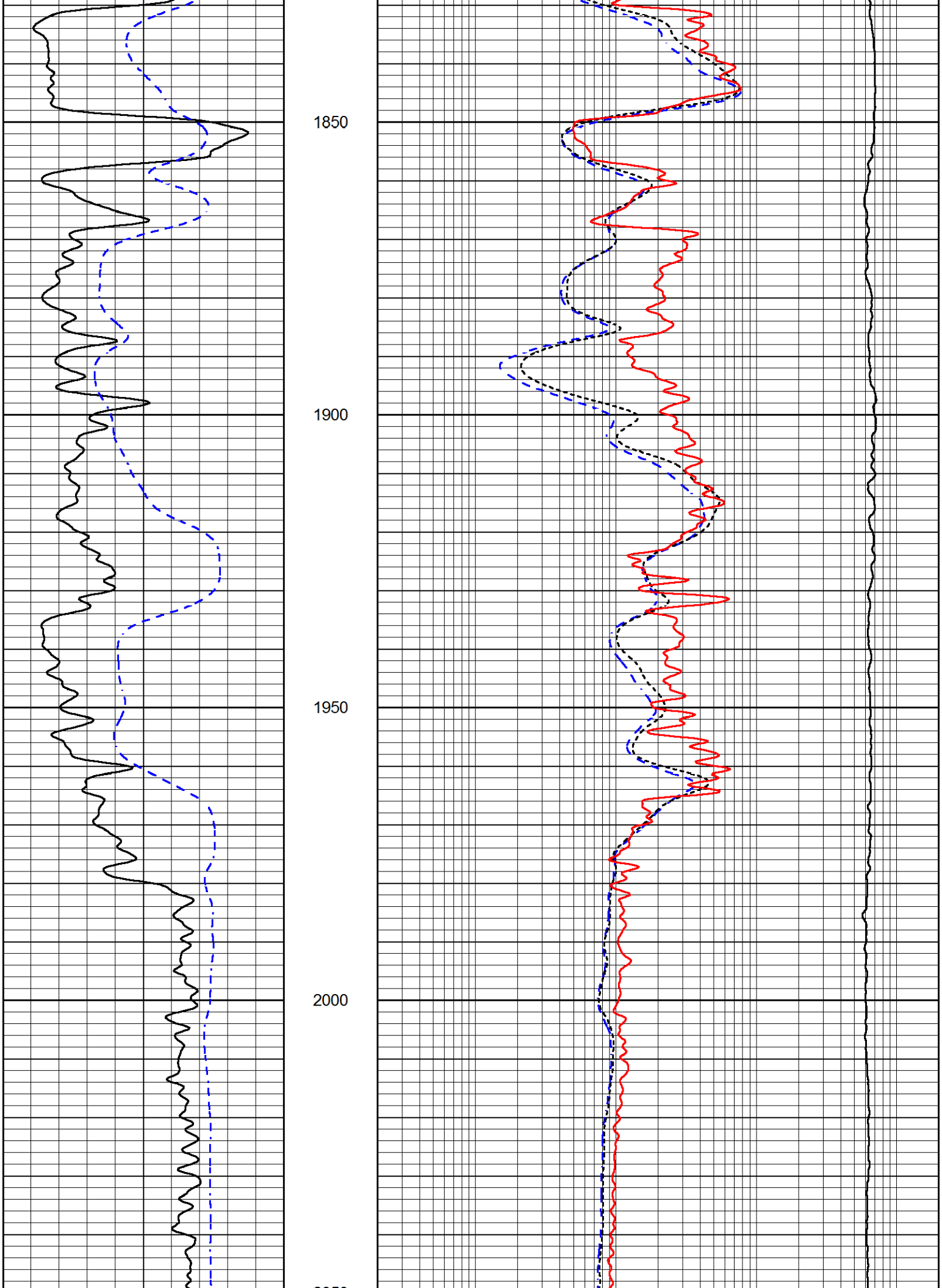
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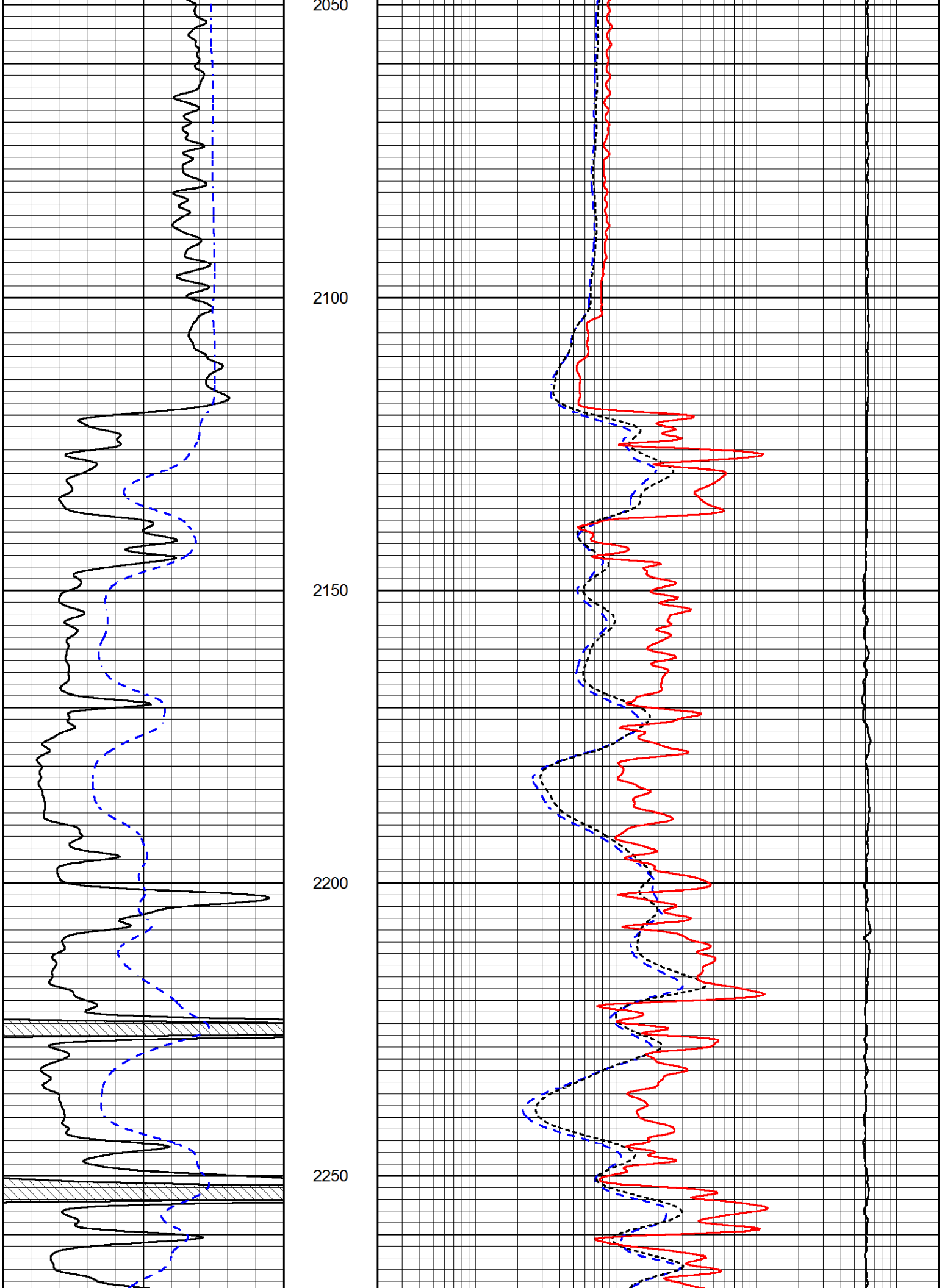
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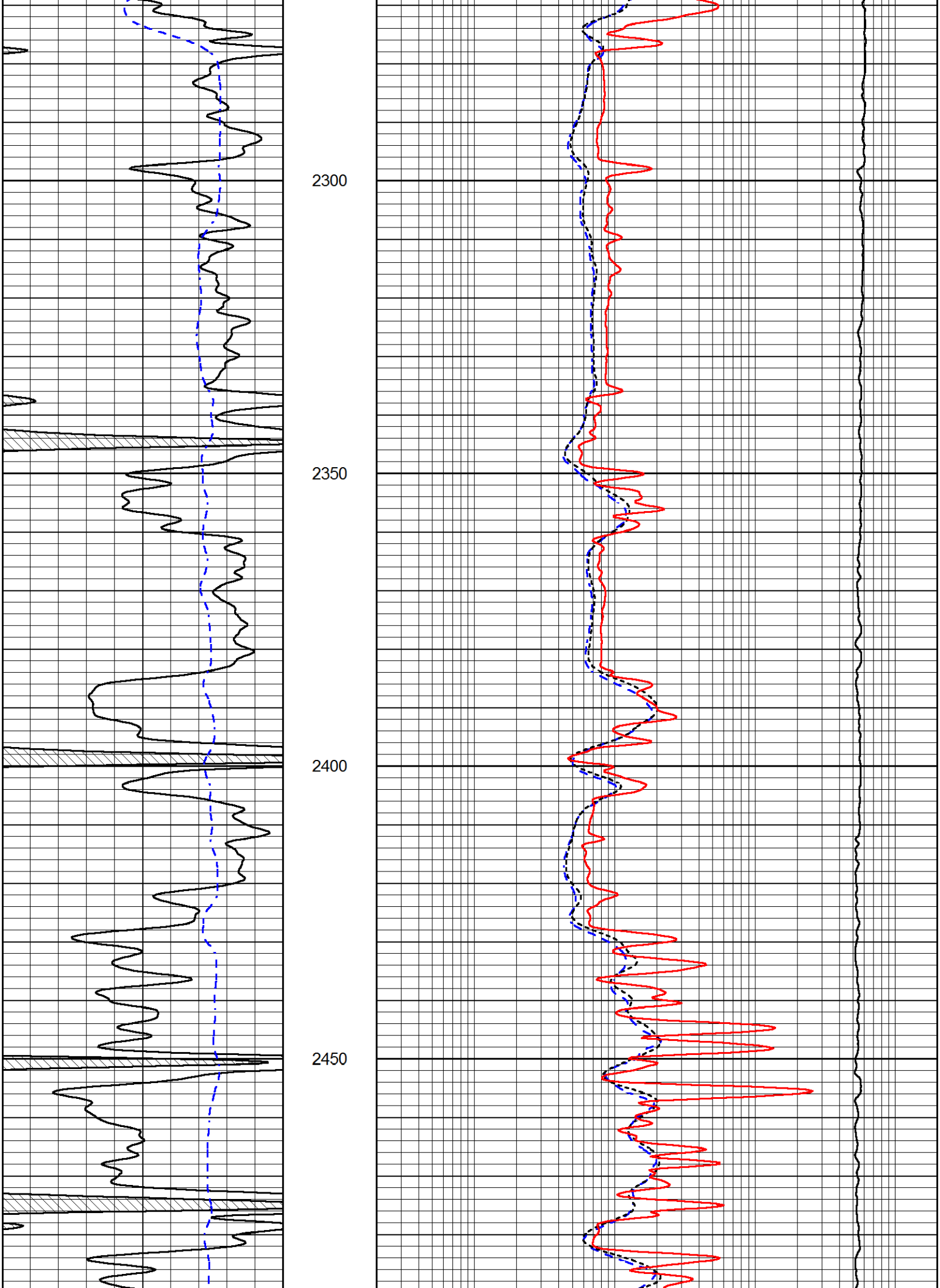
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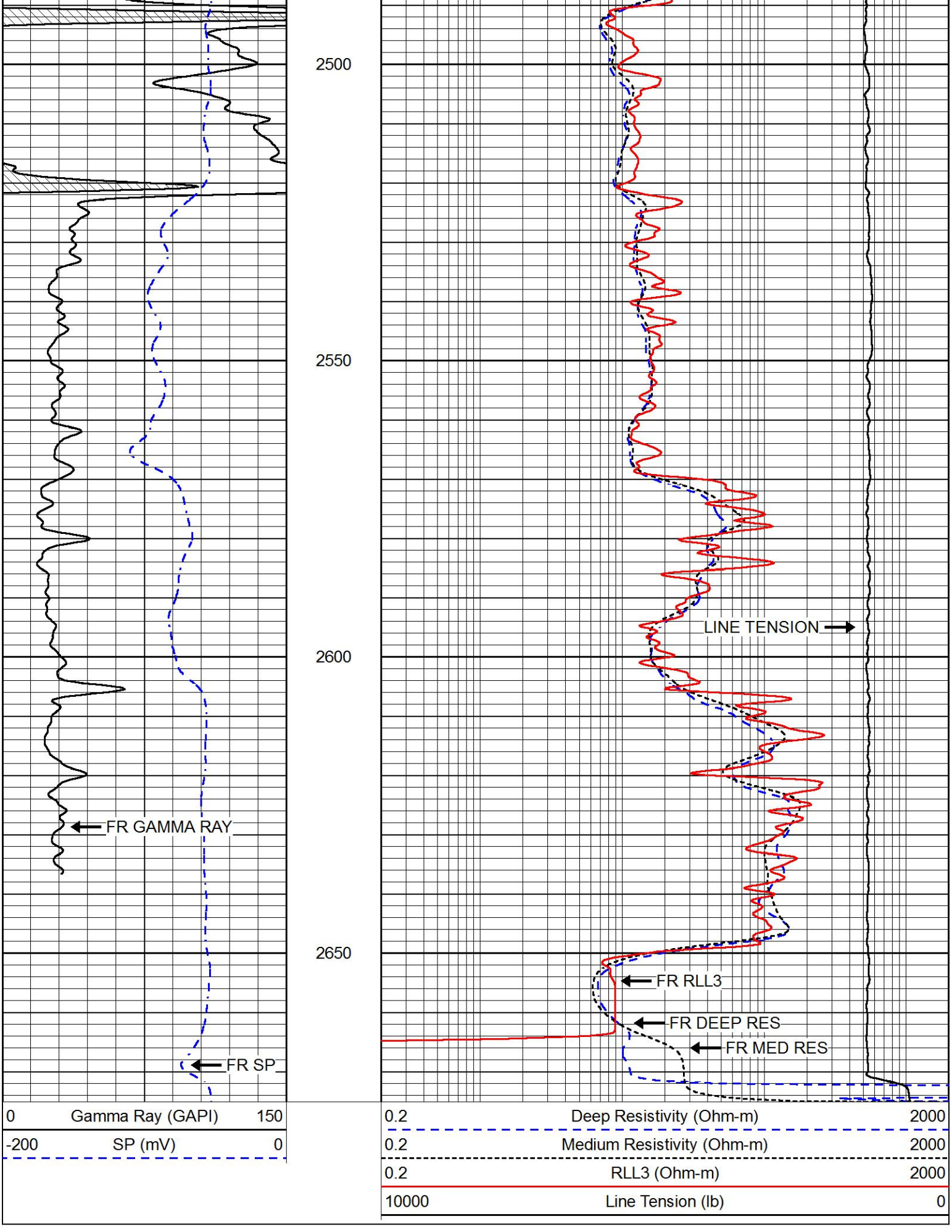

REPEAT SECTION

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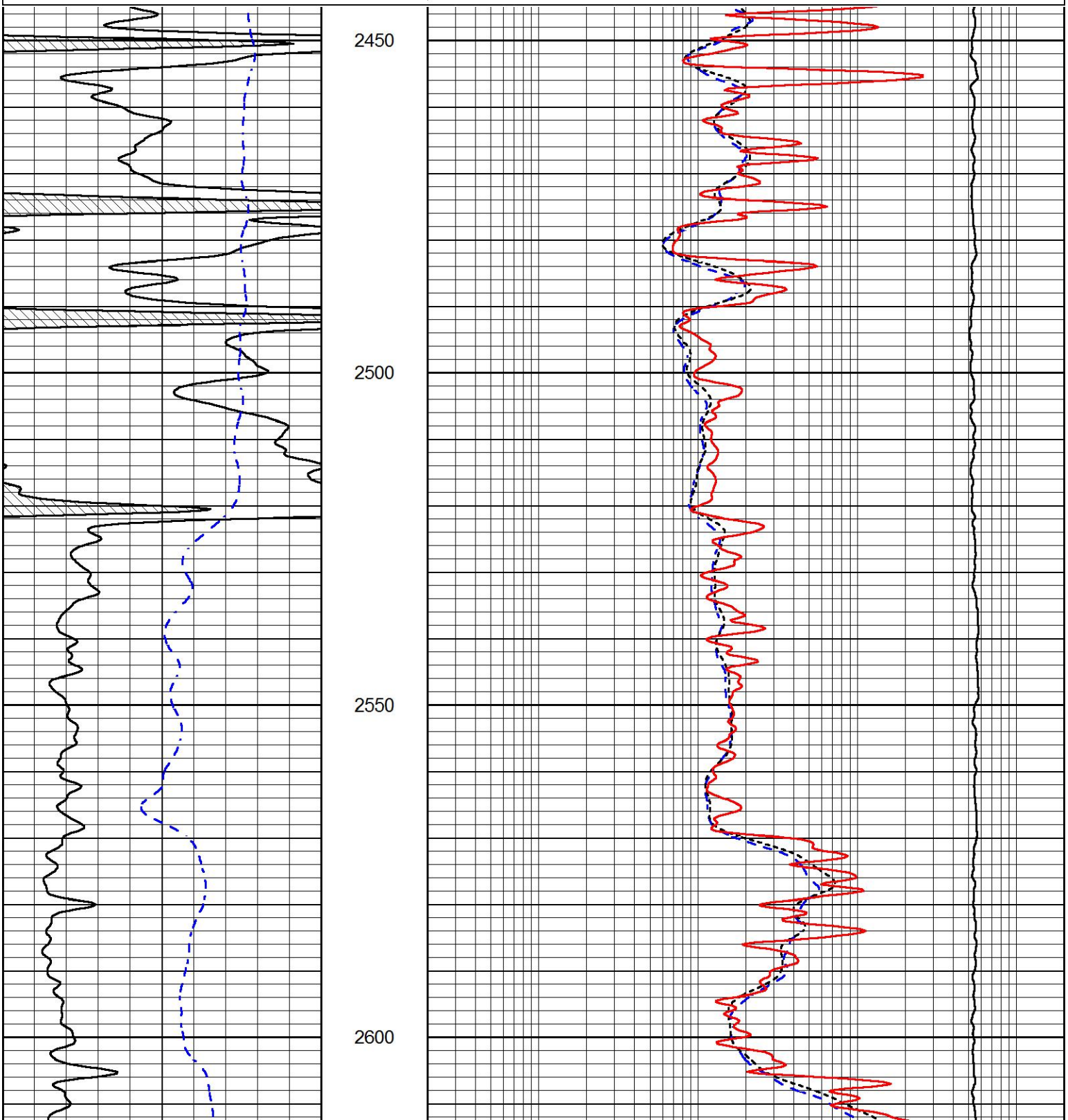
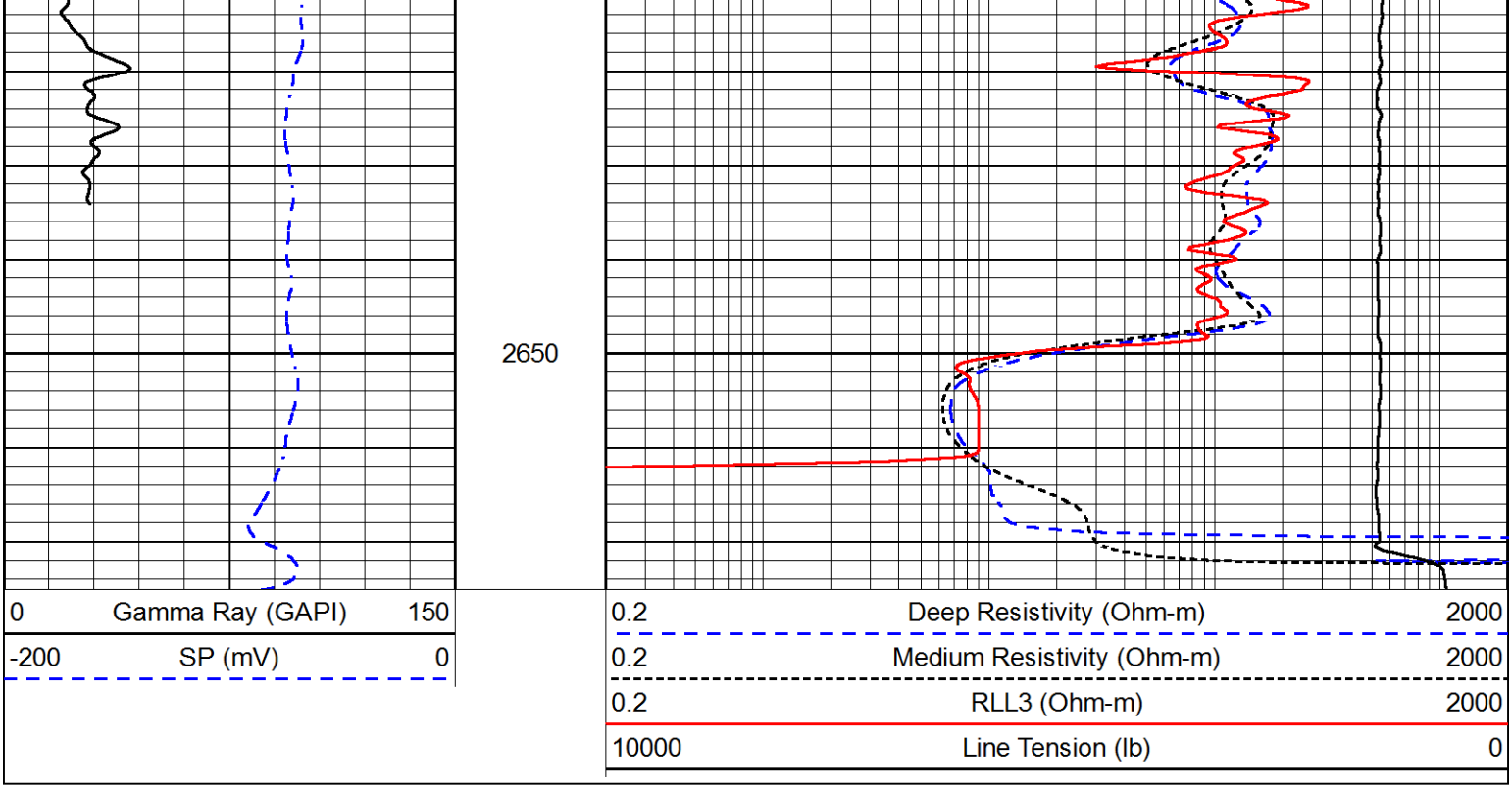
REPEAT SECTION

Database File	igwt_benjamin peffly_1.db
Dataset Pathname	STKML/pass2.1
Presentation Format	dil
Dataset Creation	Thu Oct 12 06:11:40 2017
Charted by	Depth in Feet scaled 1:240

0	Gamma Ray (GAPI)	150
-200	SP (mV)	0

0.2	Deep Resistivity (Ohm-m)	2000
0.2	Medium Resistivity (Ohm-m)	2000
0.2	RLL3 (Ohm-m)	2000
10000	Line Tension (lb)	0





Calibration Report

Database File	igwt_benjamin peffly_1.db
Dataset Pathname	STKML/pass3.3
Dataset Creation	Thu Oct 12 06:05:08 2017

Dual Induction Calibration Report

Serial-Model:	PSI 91-M&W
Calibration Performed:	Wed Sep 13 22:23:16 2017

	Readings		References			Results	
Loop:	Air	Loop	Air	Loop		Gain	Offset
Deep	166.796	835.089	0.000	255.800	mmho/m	0.430	-31.000
Medium	142.009	1348.560	0.000	255.800	mmho/m	0.360	-31.000

Microlog Calibration Report

Serial-Model:	PSI-01-PSIML
Performed:	Wed Sep 06 19:50:56 2017

	Readings		References			Results	
	Zero	Cal	Zero	Cal		m	b
Normal	0.0000	1.0000	0.0000	1.0000	Ohm-m	12000.0000	-1.0000
Inverse	0.0000	1.0000	0.0000	1.0000	Ohm-m	13150.0000	-0.3000
Caliper	1.0001	1.1397	6.5000	18.5000	in	100.0000	-97.4350

Compensated Density Calibration Report

Serial-Model:	90-1031-M&W
Source / Verifier:	16955B / 2ci
Master Calibration Performed:	Wed Sep 06 19:51:03 2017

Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.755	g/cc	4903.44	6153.79	cps
Aluminum	2.640	g/cc	934.50	4021.31	cps

Spine Angle = 75.61 Density/Spine Ratio = 0.517

	Size		Reading
Small Ring	8.00	in	1.84
Large Ring	22.00	in	1.46

Compensated Neutron Calibration Report

Serial Number: 207-MW
Tool Model: M&W
Calibration Performed: WED SEP 6 10:30:30 2017

Detector	Readings		Target		Normalization
Short Space	6240.00	cps	1000.00	cps	1.6025
Long Space	460.00	cps	1000.00	cps	1.9500

Gamma Ray Calibration Report

Serial Number: 89
Tool Model: M&W
Calibration Performed: Wed Sep 06 19:51:14 2017

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps
Calibrator Reading: 1.0 cps

Sensitivity: 0.6000 GAPI/cps

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