MIDWEST WIRELINE

DUAL INDUCTION LOG

Company Landmark Resources, Inc.
Well Godfrey A #3-32
Field
County Sheridan
State Kansas

Company Landmark Resources, Inc.
Well Godfrey A #3-32
Field
County Sheridan State Kansas

Location: API #: 15-179-21502-00-00
1018 FNL & 1350 FWL
SEC 32 TWP 6S RGE 28W

Other Services
CNL/CDL
MEL/BHCS

Permanent Datum Ground Level Elevation 2783
Log Measured From Kelly Bushing
Drilling Measured From Kelly Bushing

Elevation
K.B. 2788
D.F.
G.L. 2783

Date	12/11/2023		
Run Number	One		
Depth Driller	4535		
Depth Logger	4535		
Bottom Logged Interval	4534		
Top Log Interval	300		
Casing Driller	8.625 @ 305		
Casing Logger	301		
Bit Size	7.875		
Type Fluid in Hole	Chemical		
Salinity,ppm CL	3000		
Density / Viscosity	9.3 54		
pH / Fluid Loss	11.0 6.4		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	0.70 @ 55		
Rmf @ Meas. Temp	0.53 @ 55		
Rmc @ Meas. Temp	0.95 @ 55		
Source of Rmf / Rmc	CHARTS		
Rm @ BHT	0.32 @ 121		
Operating Rig Time	5 Hours		
Max Rec. Temp. F	121		
Equipment Number	P-108		
Location	HAYS		
Recorded By	D. Schmidt		
Witnessed By	Terry McLeod		

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Comments

N/A DENOTES NOT AVAILABLE OR NON-APPLICABLE.

Hoxie,
6 1/2 North to 70th,
2 West, 3 3/4 North,
East into on north side of fence

Log Measured From: Kelly Bushing 5 Ft. Above Permanent Datum

THANK YOU FOR USING MIDWEST WIRELINE LLC
785-625-3858

Your Midwest Wireline Crew	This Log Record Was Witnessed By
Engineer: D. Schmidt	Primary Witness: Terry McLeod
Operator:	Secondary Witness:
Operator:	Secondary Witness:
Operator:	Secondary Witness:

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb
GR	40.23		GR-M&W (105)	3.00	3.50	50.00
CNLSC	37.13		CNT-M&W (210)	5.00	3.50	100.00
CNSSC	36.38					
			MWLith-STEP LITHO Short (701-01)	8.40	5.00	250.00
LCAL	28.21					
LLW8N	28.21					
LLW7N	28.21					
LLW6N	28.21					
LLW5N	28.21					
LLW4N	28.21					
LLW3N	28.21					
LLW2N	28.21		ML-PSI STKBL ML (402)	7.58	4.00	65.00
LLW1N	28.21					
LSLOCK	27.96					
LLLOCK	27.96					
PELTMPR	27.96					
LSHVNG	27.96					
LLHVNG	27.96					
LSW8N	27.71					
LSW7N	27.71					
LSW6N	27.71					
LSW5N	27.71					
LSW4N	27.71					
LSW3N	27.71					
LSW2N	27.71					
LSW1N	27.71					
MCAL	19.58		DIL-M&W (504 HT)	18.25	3.50	220.00
MI	19.58					
MN	19.58					
RLL3F	15.50					
RLL3	15.50					
CILD	8.33					
CILM	4.50					
SP	0.20					

Dataset: landmark_godfrey a 3-32.db: field/well/stkml/pass4.1
Total length: 42.23 ft
Total weight: 685.00 lb
O.D.: 5.00 in

Log Variables

DatabaseC:\ProgramData\Warrior\Data\landmark_godfrey a 3-32.db
Dataset field/well/stkml/pass4.1/_vars_

Top - Bottom

A	BOREID in	BOTTEMP degF	CASEOD in	CASETHCK in	FLUIDDEN g/cc	M	MATRXDEN g/cc
1	7.875	121	5.5	0	1	2	2.71

NPORSEL	PERFS	SNDERR mmho/m	SNDERRM mmho/m	SPSHIFT mV	SRFTEMP degF	SZCOR	TDEPTH ft
Limestone	No	-7.5	-1	640	40	Off	4535

Variable Description

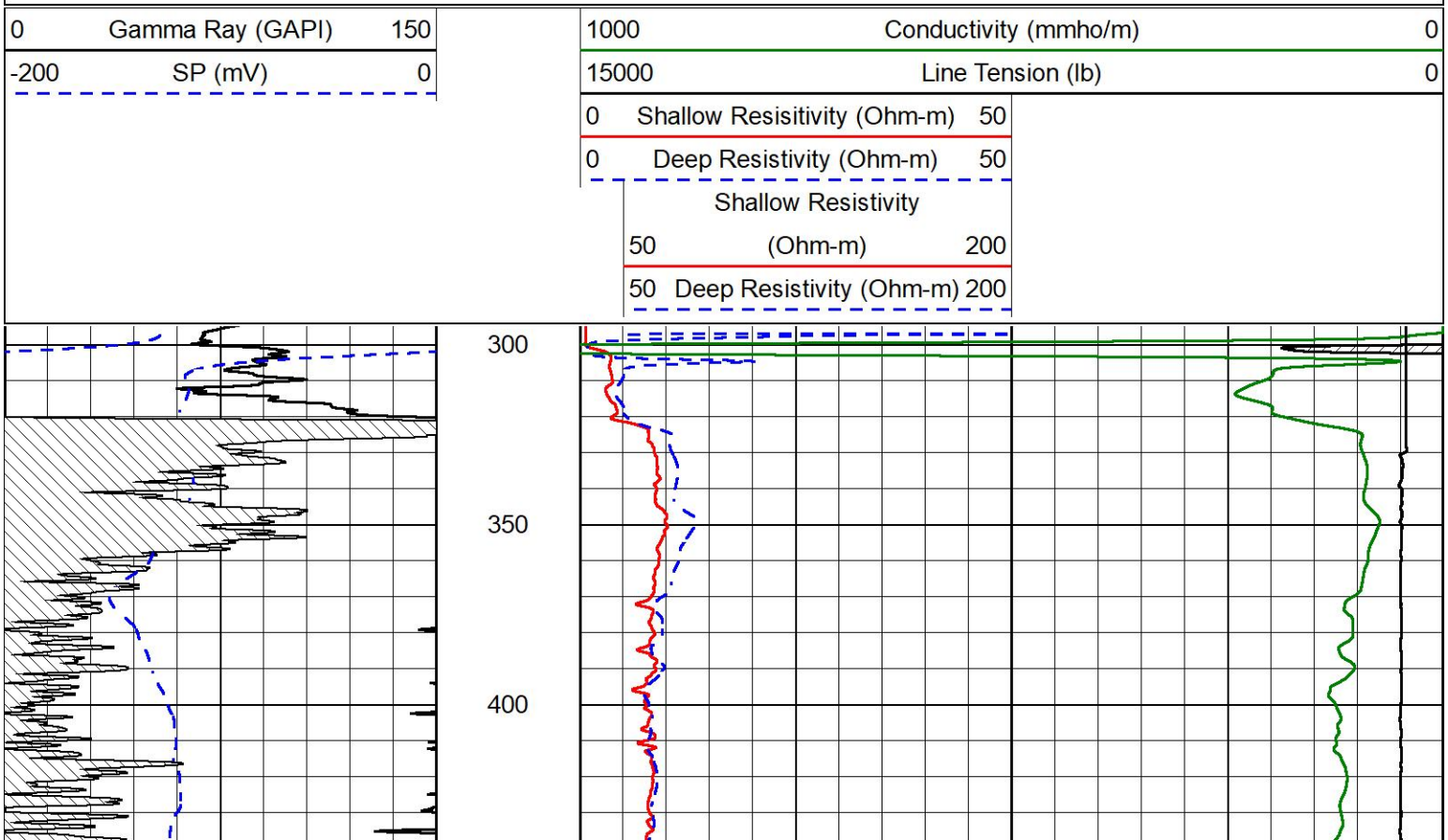
A : Cement Factor (a)
BOREID : Borehole I.D.
BOTTEMP : Bottom Hole Temperature
CASEOD : Casing O.D.
CASETHCK : Casing Thickness
FLUIDDEN : Fluid Density
M : Cement Exp (m)
MATRXDEN : Matrix Density
NPORSEL : Neutron Porosity Curve Select
PERFS : Perforation Flag
SNDERR : Deep Sonde Error Correction
SNDERRM : Medium Sonde Error Correction
SPSHIFT : S.P. Baseline Offset
SRFTEMP : Surface Temperature
SZCOR : CN Size Cor. ?
TDEPTH : Total Depth

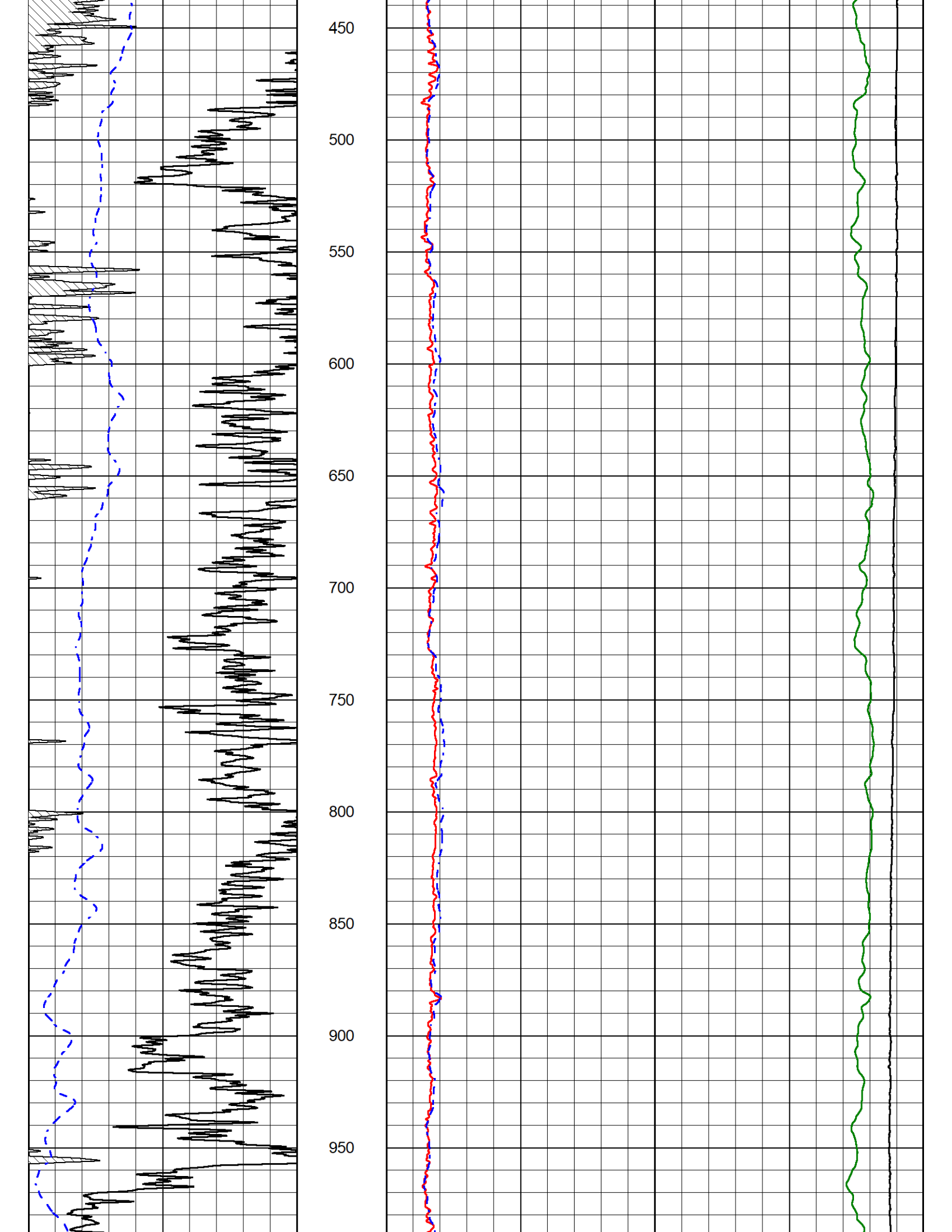
MIDWEST WIRELINE

2" SCALE RESISTIVITY

MAIN PASS

Database File	landmark_godfrey a 3-32.db
Dataset Pathname	stkml/pass4.3
Presentation Format	_dil2in
Dataset Creation	Tue Dec 12 01:40:32 2023
Charted by	Depth in Feet scaled 1:600

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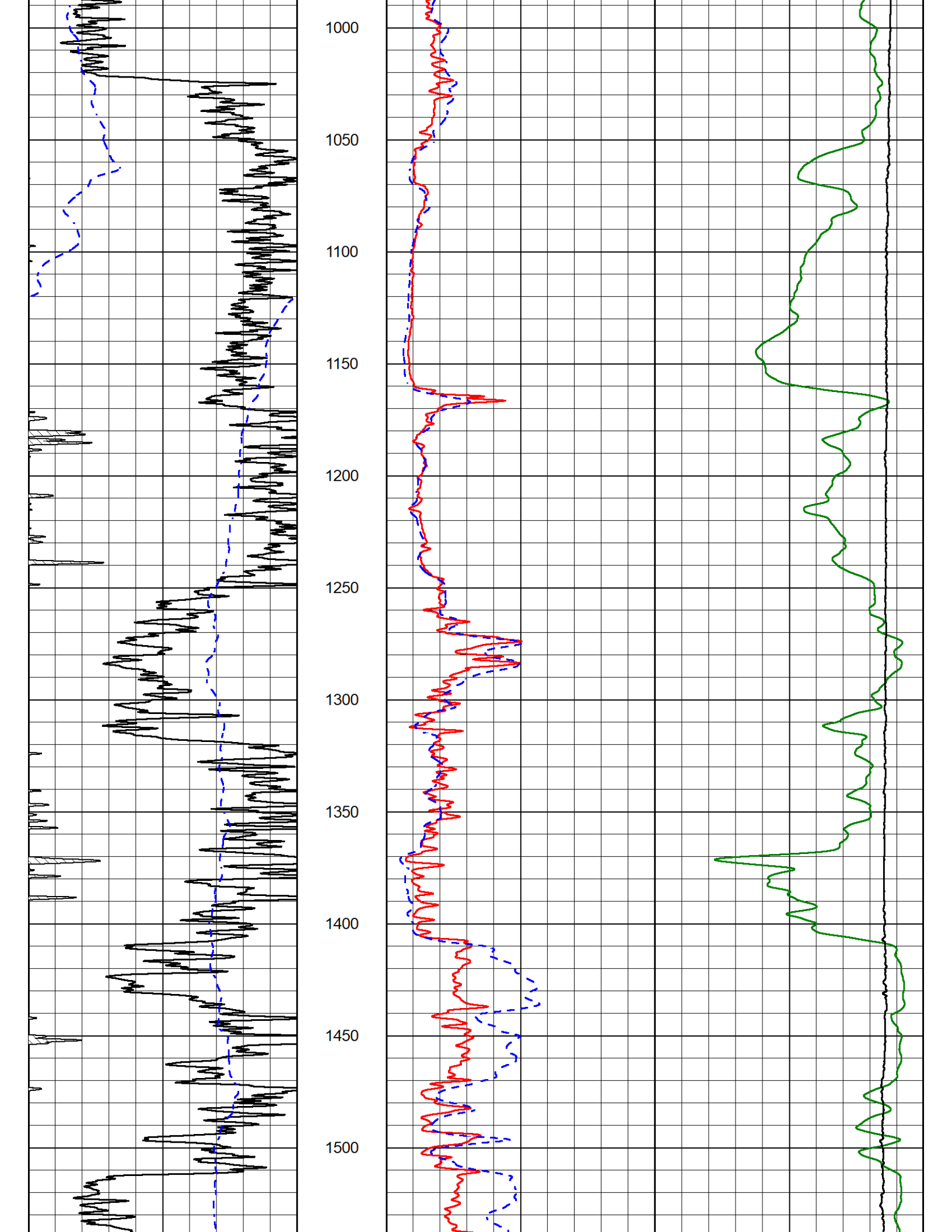
550
600
650
700
750
800
850
900
950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1300
1350
1400
1450
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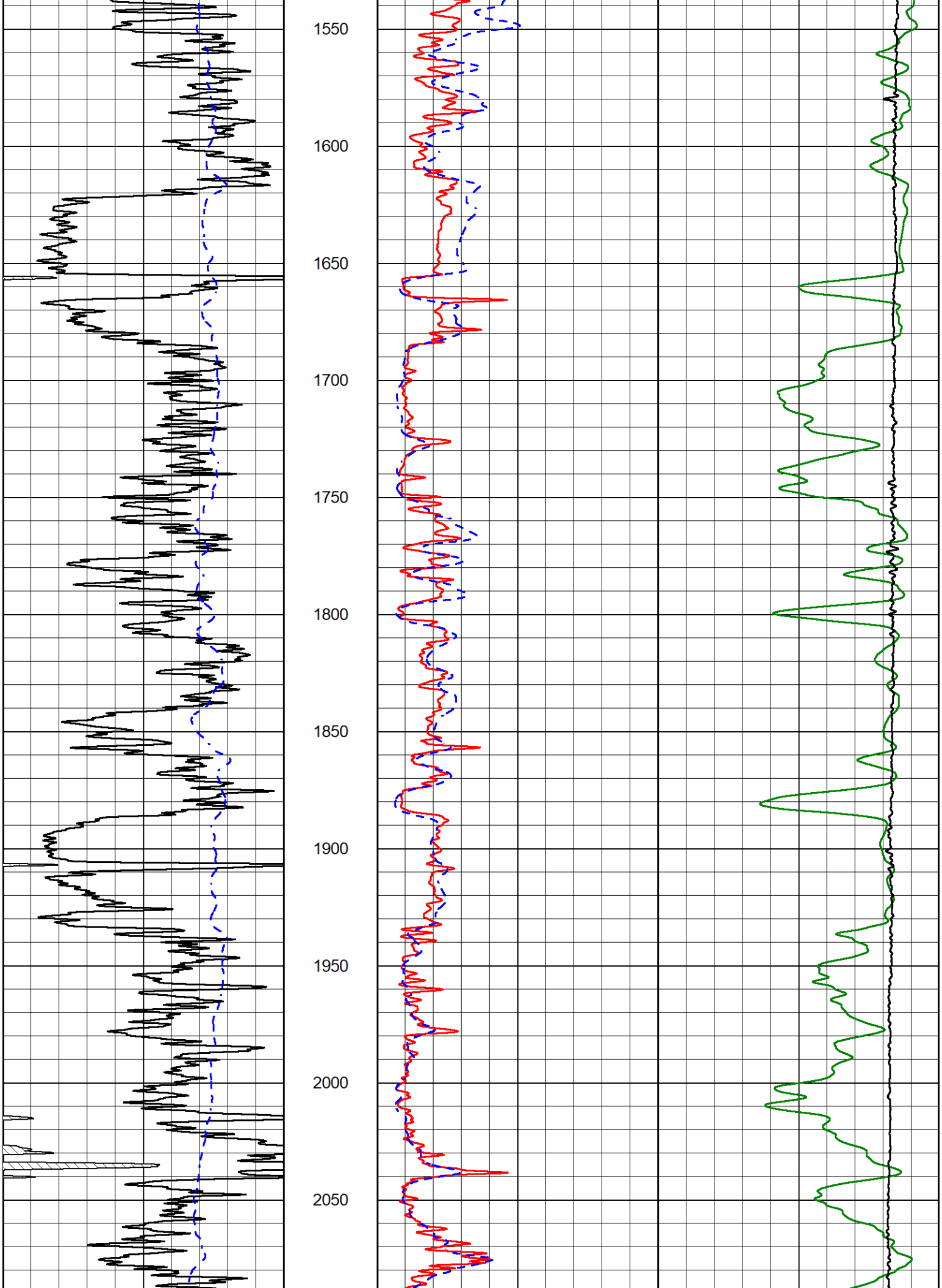
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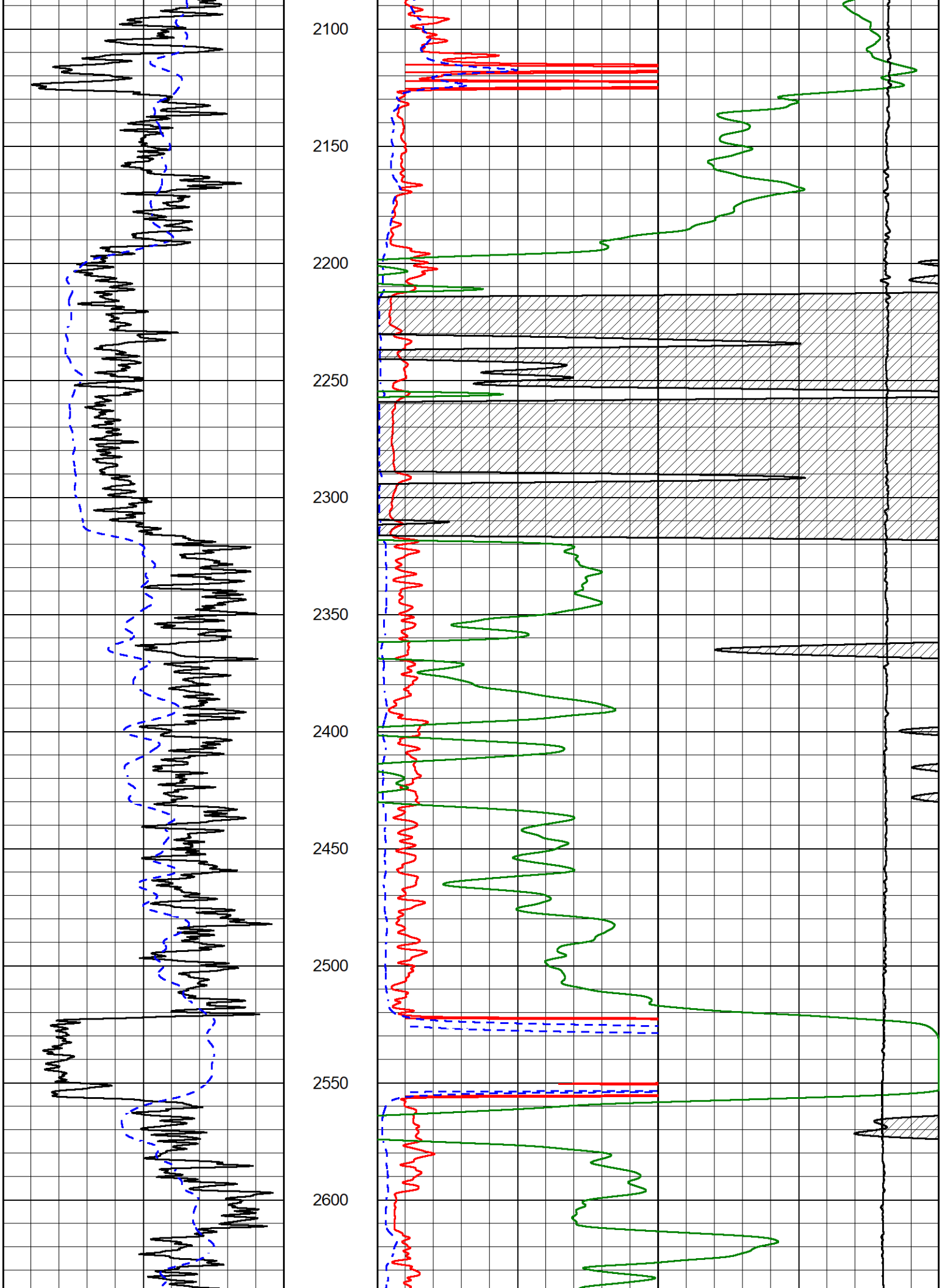
1700
1750
1800
1850
1900
1950
2000
2050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2200
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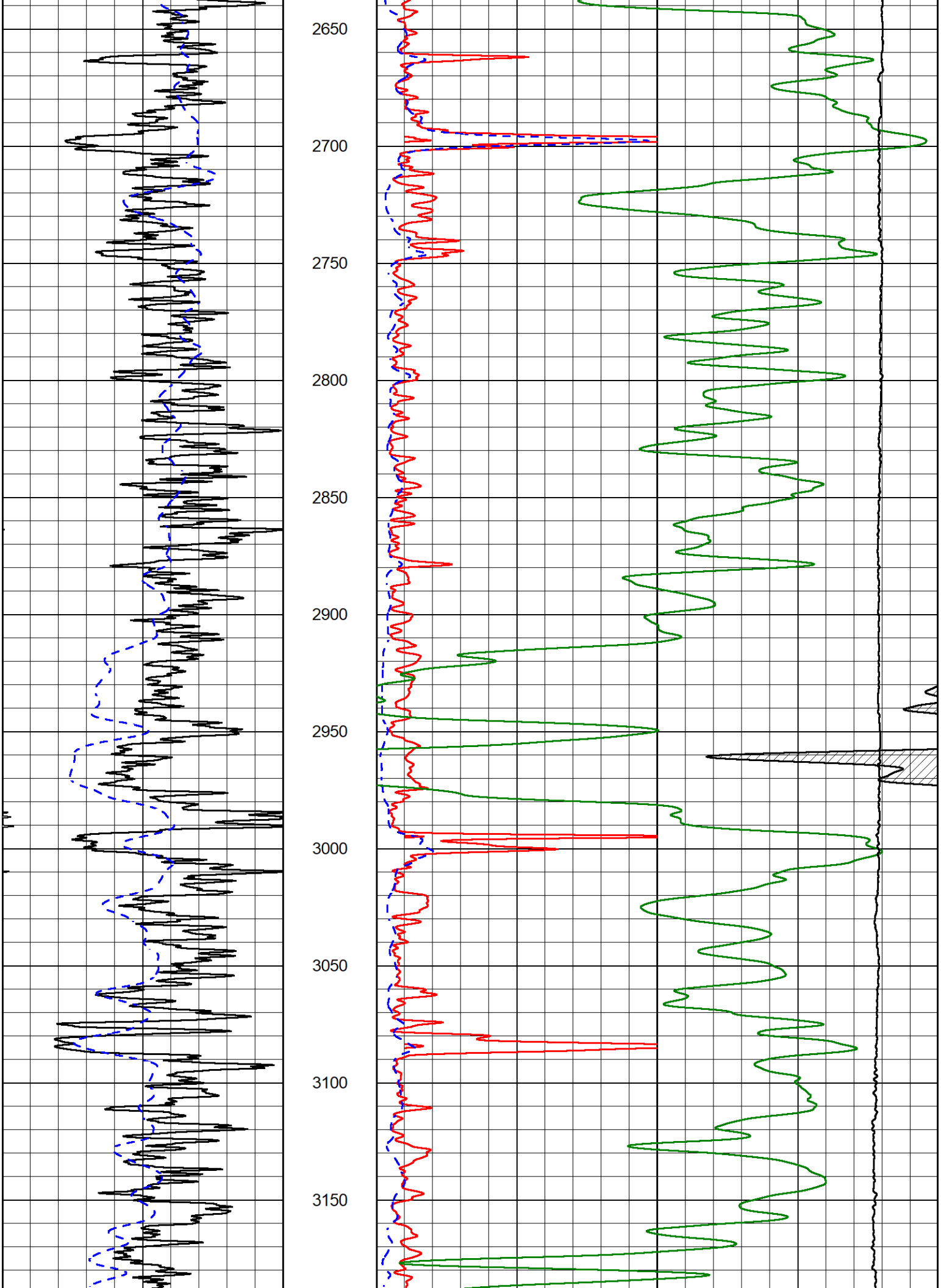
2300
2350
2400
2450
2500
2550
2600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2700
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2800
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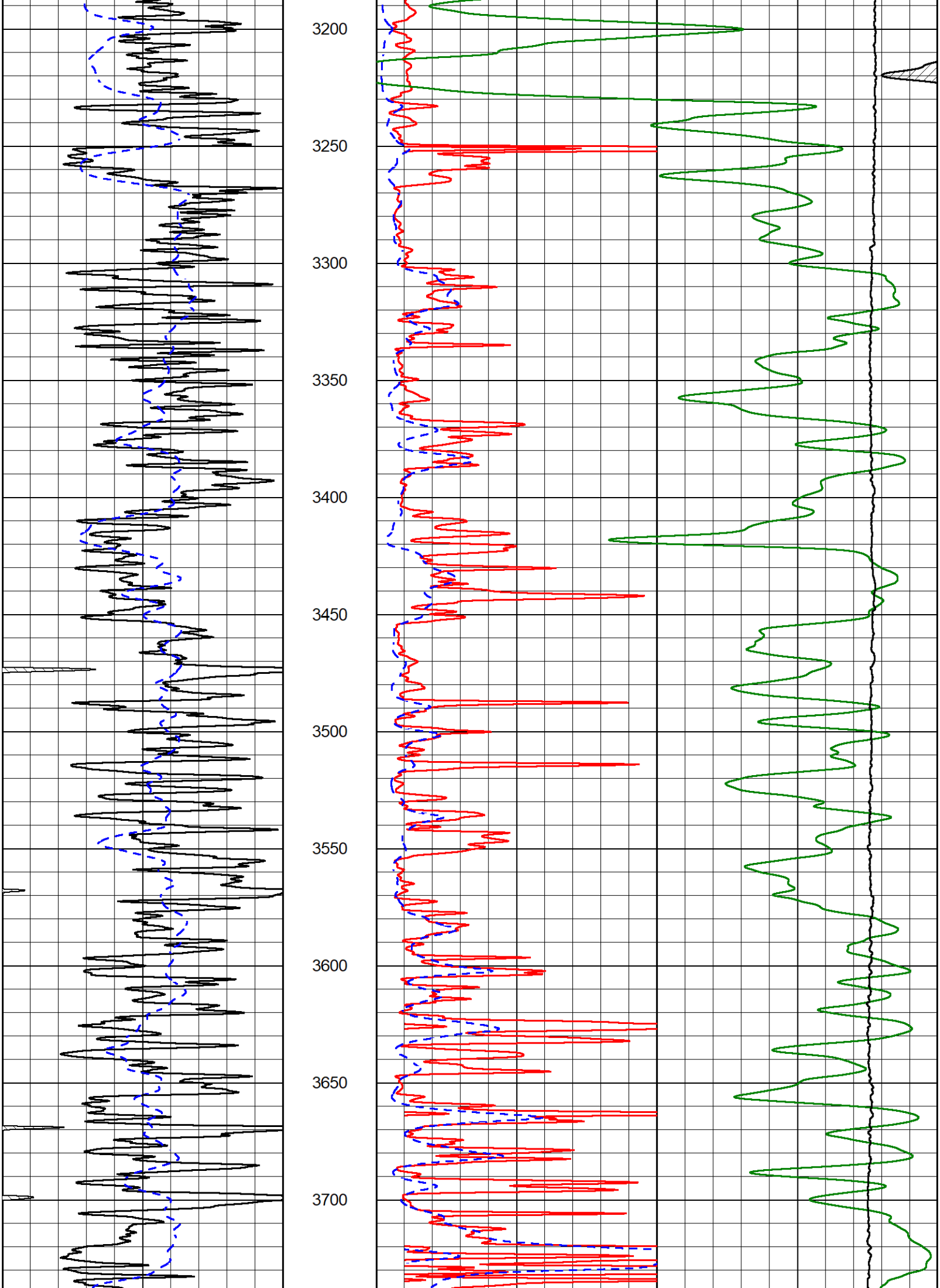
2900
2950
3000
3050
3100
3150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3350
3400
3450
3500
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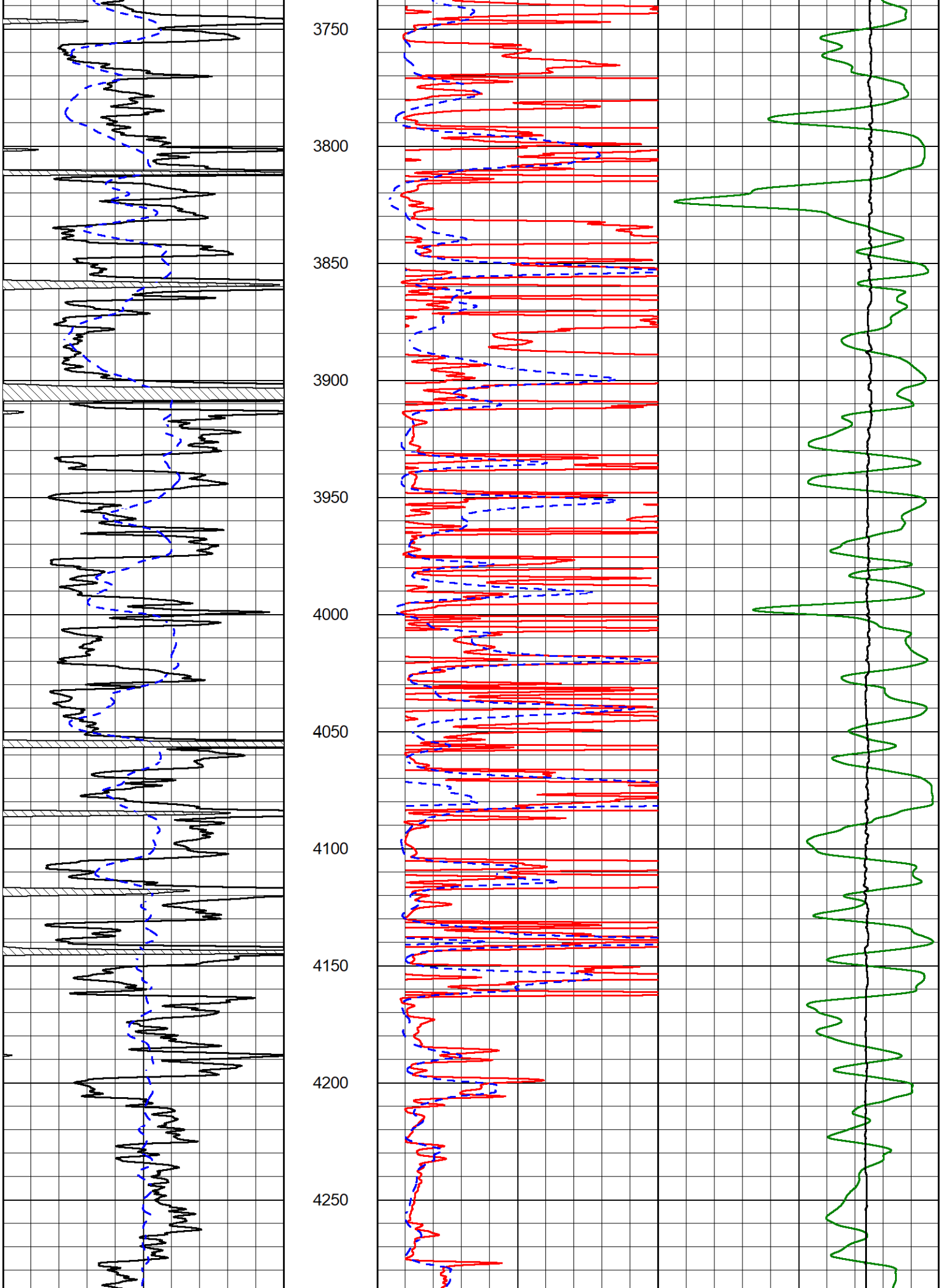
3600
3650
3700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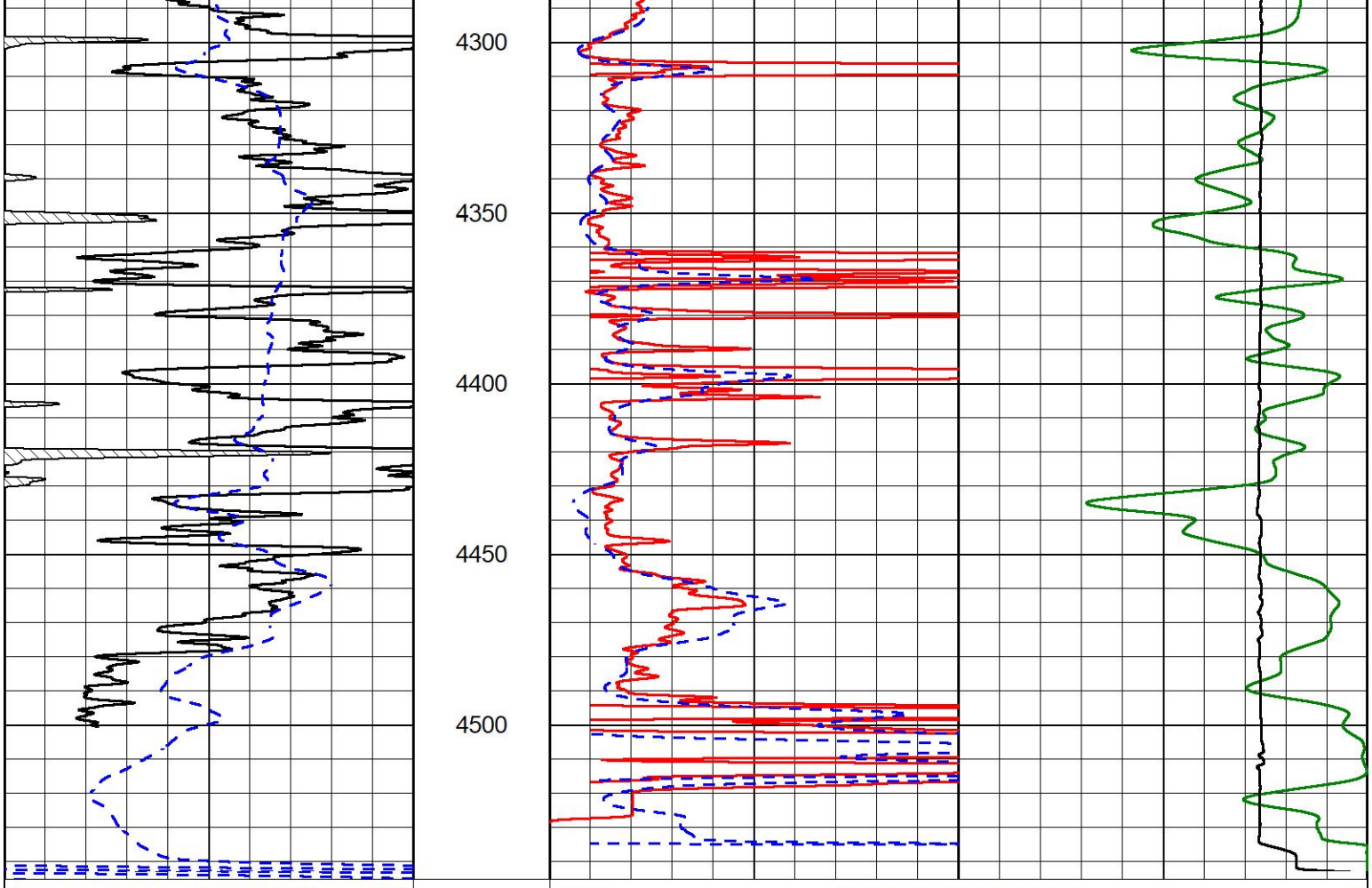
3900
3950
4000
4050
4100
4150
4200
4250



0	Gamma Ray (GAPI)	150
-200	SP (mV)	0
1000	Conductivity (mmho/m)	0
15000	Line Tension (lb)	0
0	Shallow Resisitivity (Ohm-m)	50
0	Deep Resistivity (Ohm-m)	50
50	Shallow Resistivity (Ohm-m)	200
50	Deep Resistivity (Ohm-m)	200

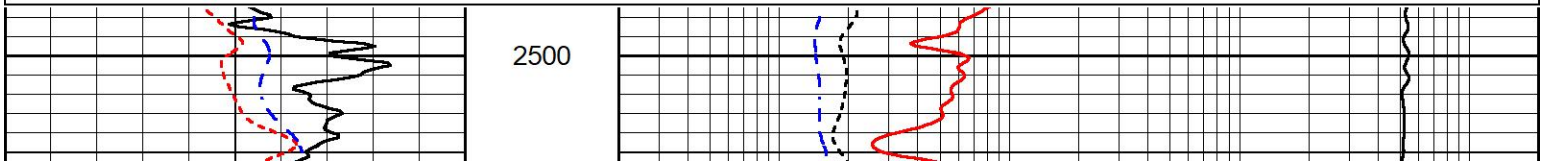
MIDWEST WIRELINE

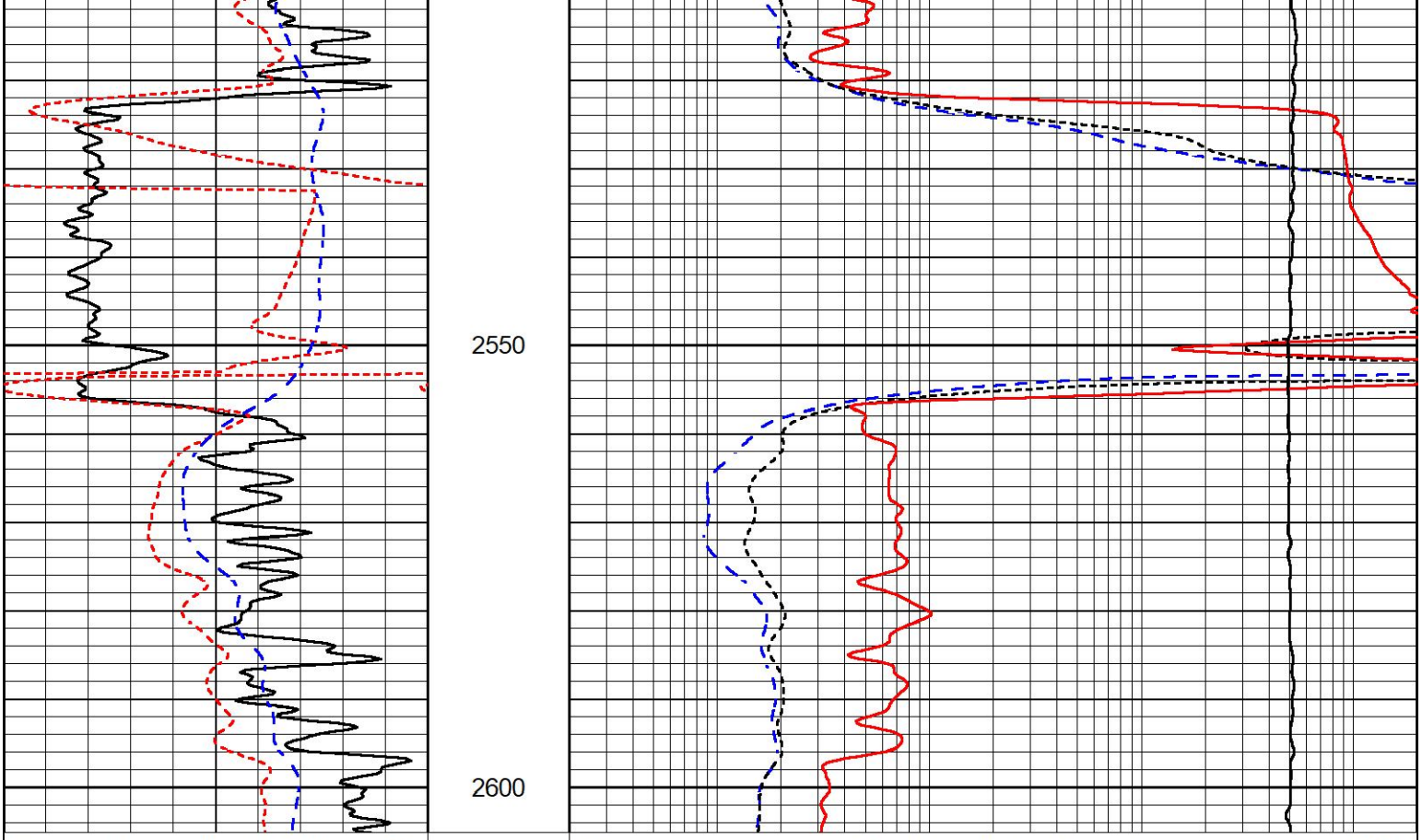
ANHYDRITE SECTION

MAIN PASS

Database File	landmark_godfrey a 3-32.db
Dataset Pathname	stkml/pass4.4
Presentation Format	_dil
Dataset Creation	Tue Dec 12 01:47:09 2023
Charted by	Depth in Feet scaled 1:240

0	Gamma Ray (GAPI)	150
50	RXORT	250
-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





0	Gamma Ray (GAPI)	150
50	RXORT	250
-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

MIDWEST WIRELINE

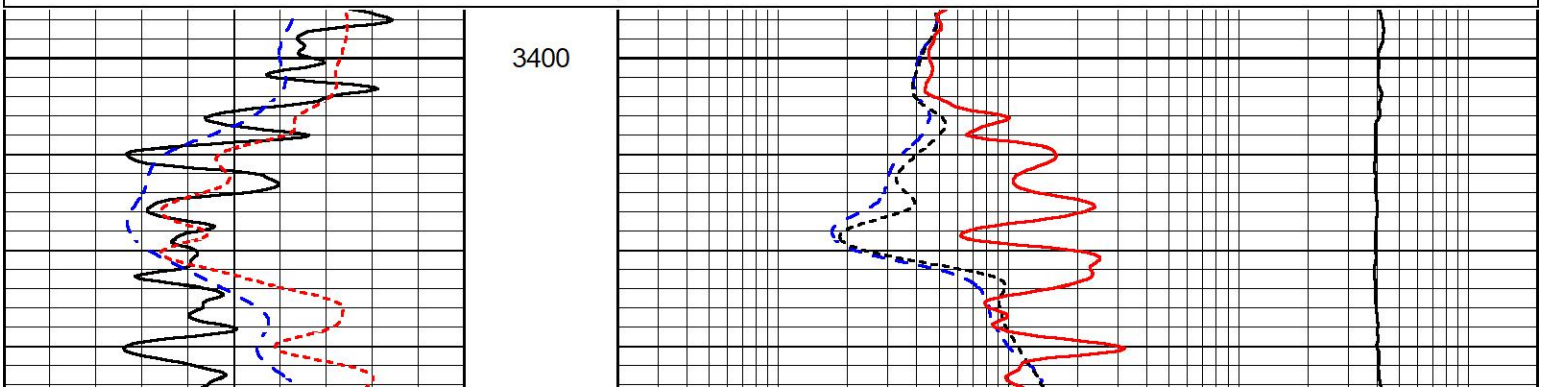
DETAIL SECTION

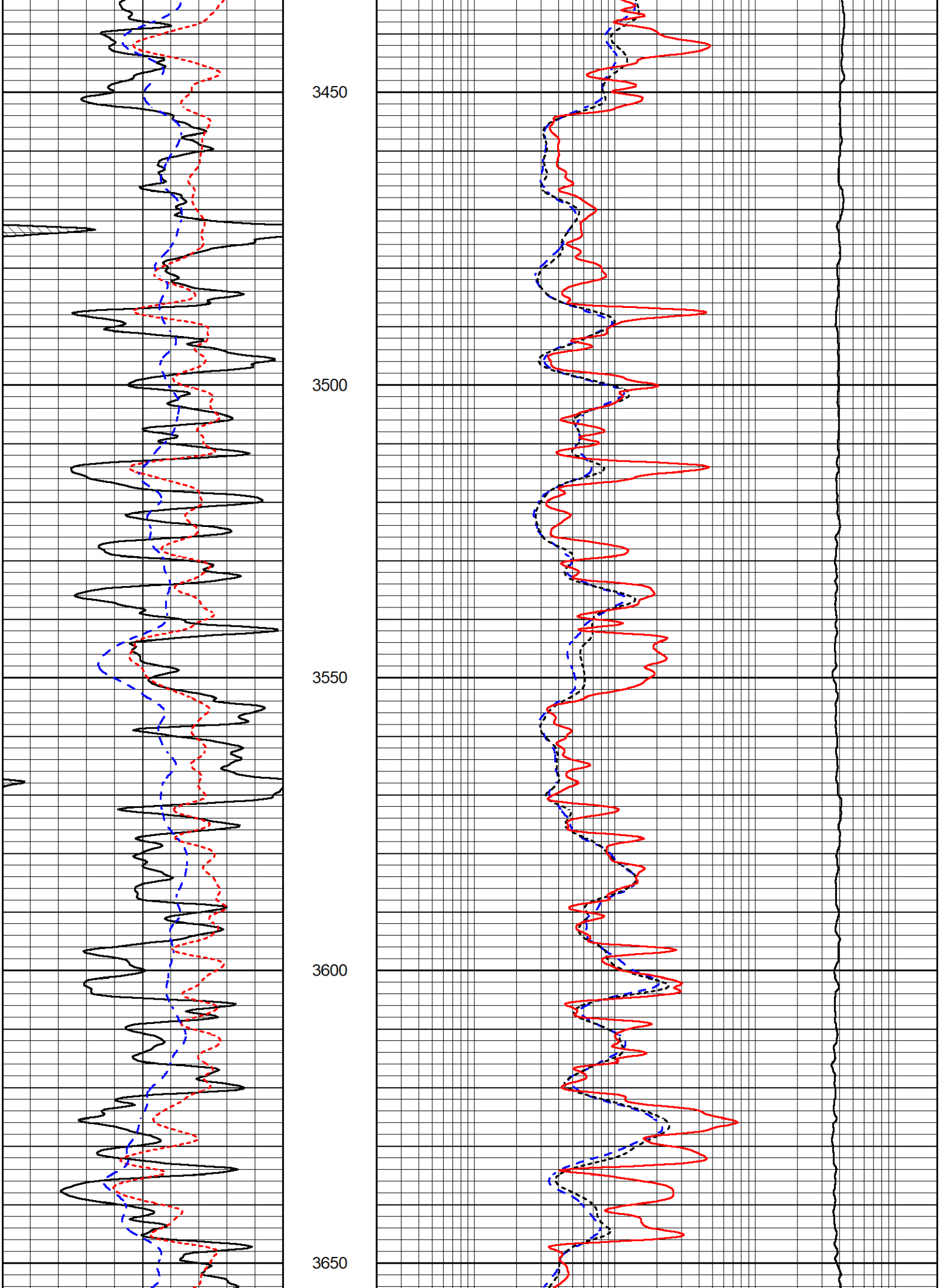
MAIN PASS

Database File	landmark_godfrey a 3-32.db
Dataset Pathname	stkml/pass4.1
Presentation Format	_dil
Dataset Creation	Tue Dec 12 01:46:59 2023
Charted by	Depth in Feet scaled 1:240

0	Gamma Ray (GAPI)	150
50	RXORT	250
-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

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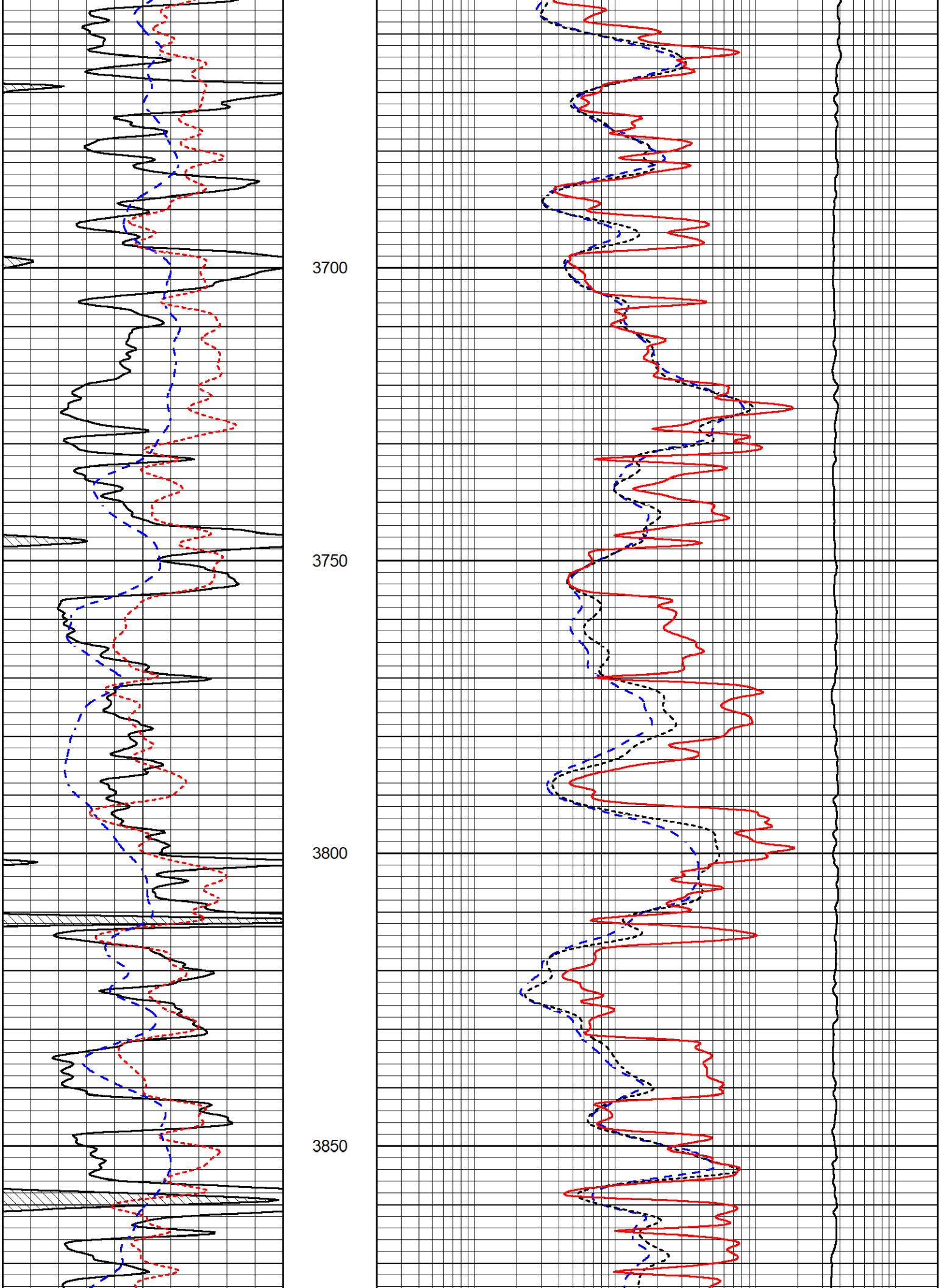
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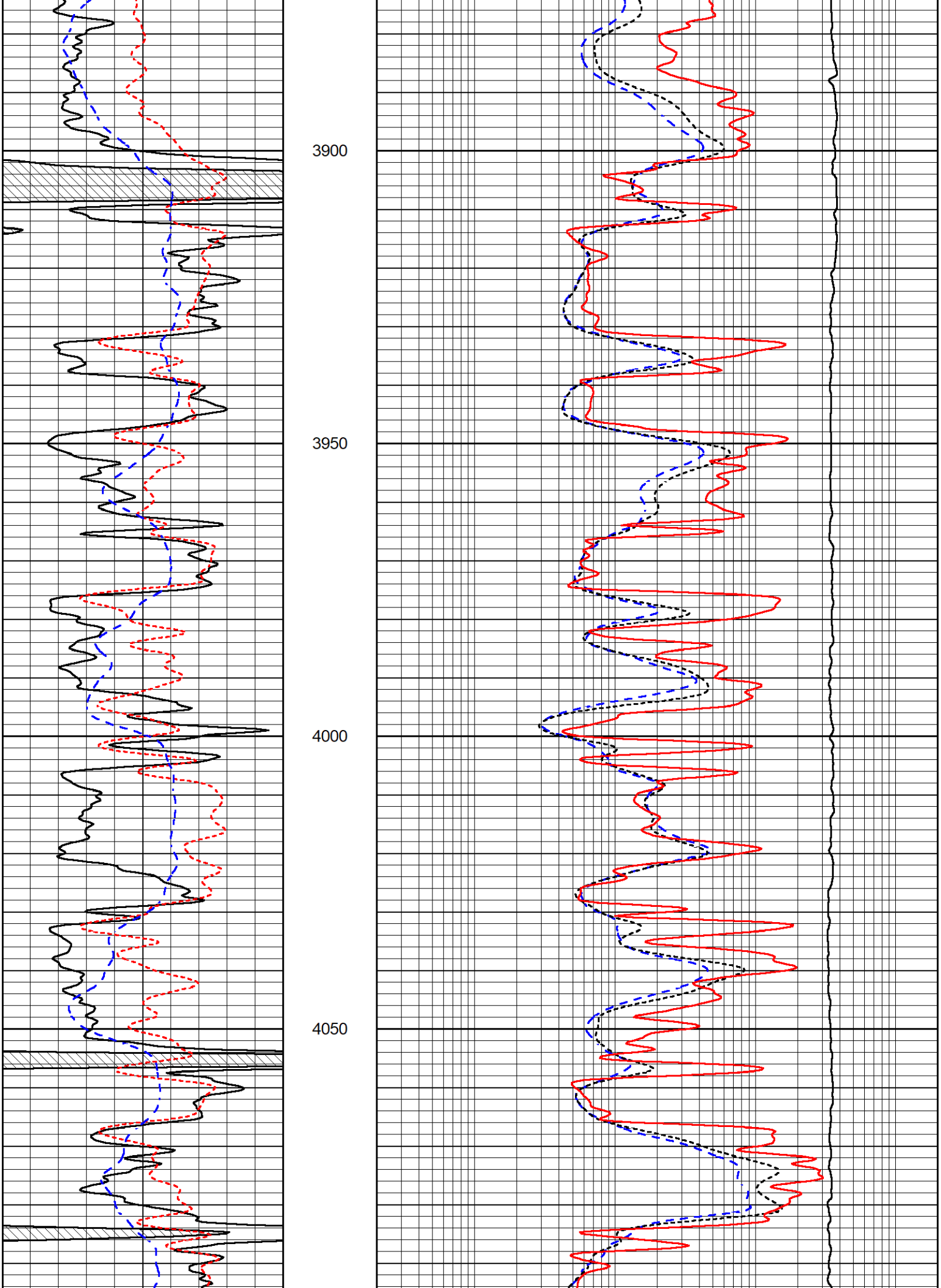
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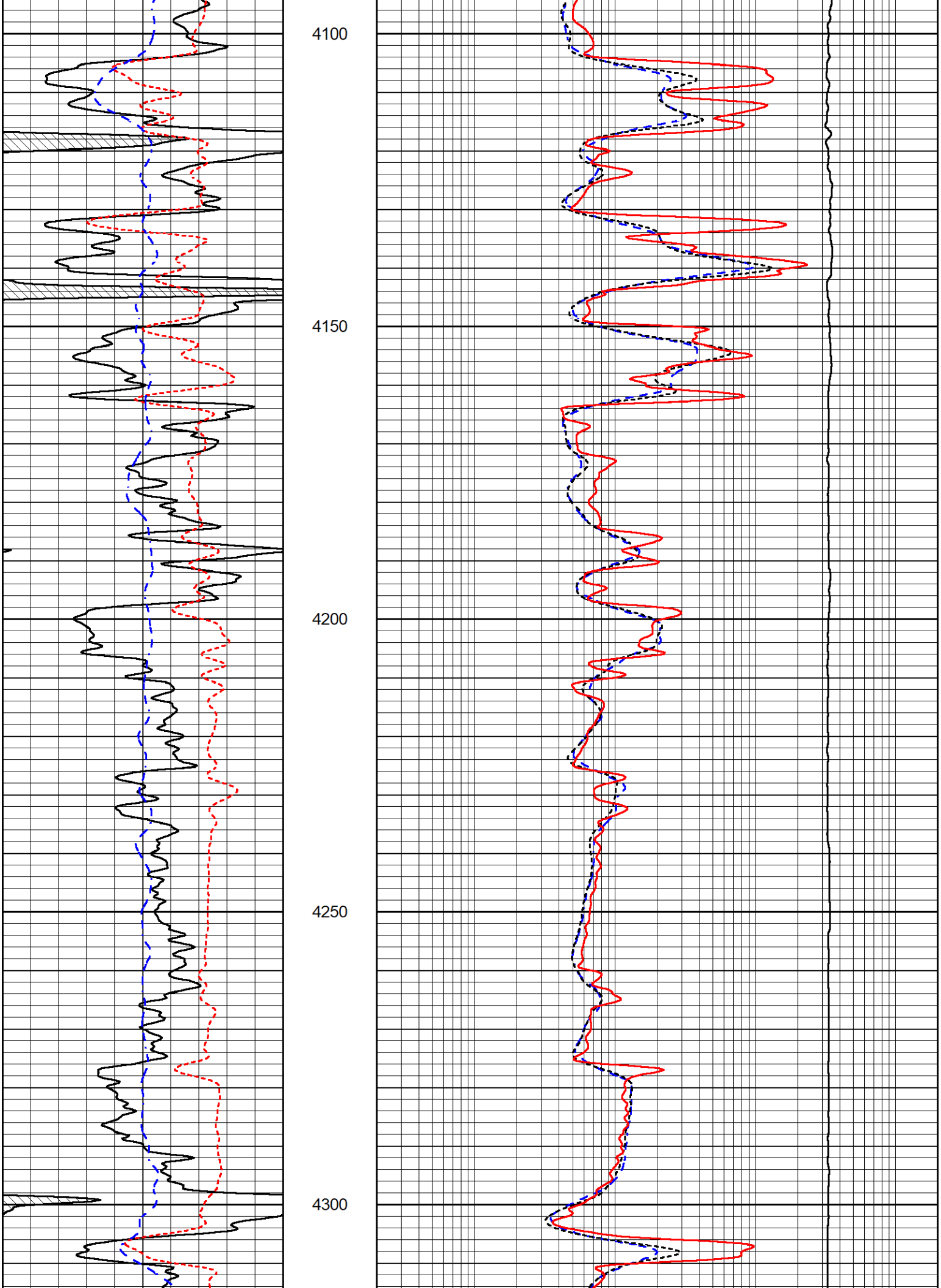
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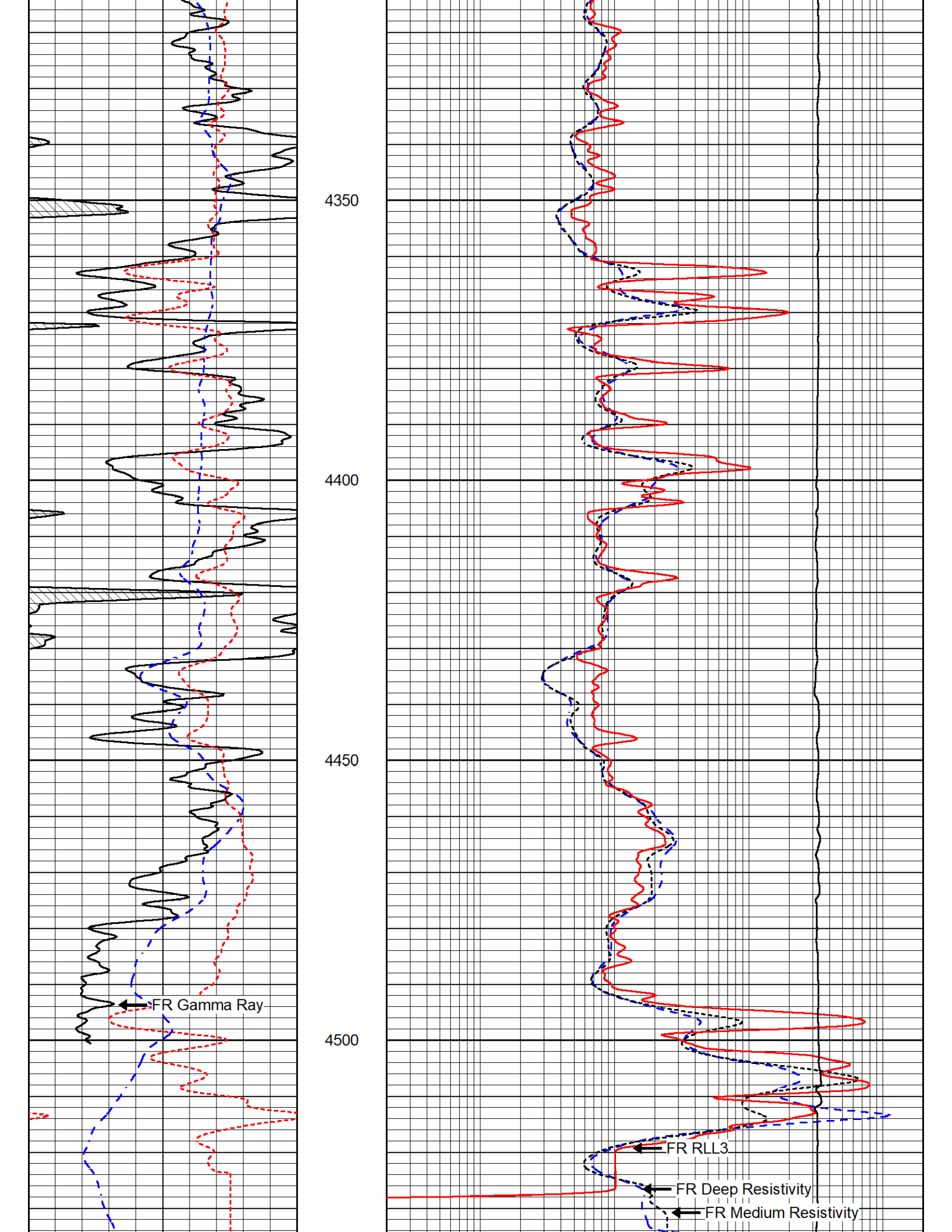
4200
4250
4300


4350
4400
4450
4500
FR Gamma Ray
FR RLL3
FR Deep Resistivity
FR Medium Resistivity

0	Gamma Ray (GAPI)	150
50	RXORT	250
-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

MIDWEST WIRELINE

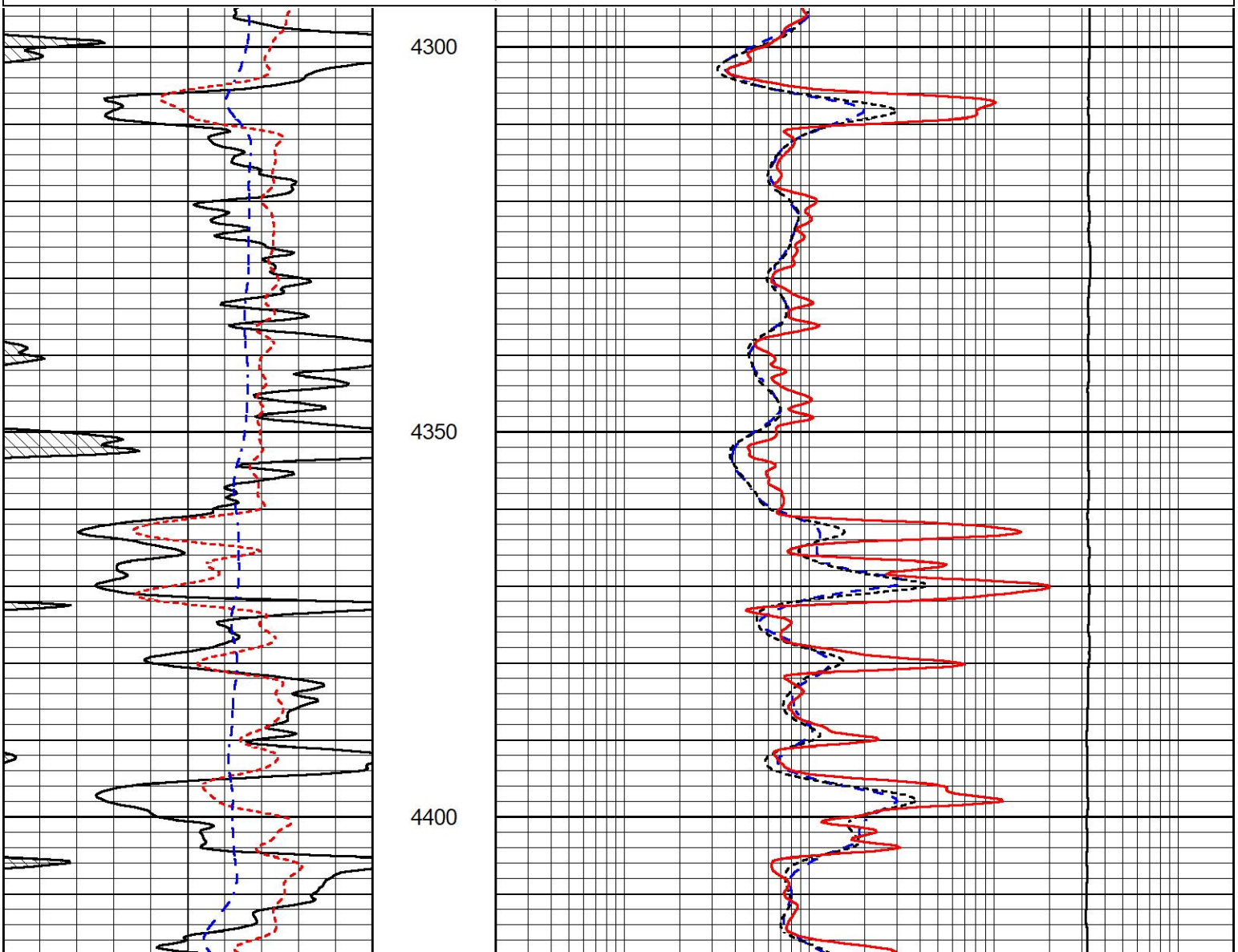
REPEAT SECTION

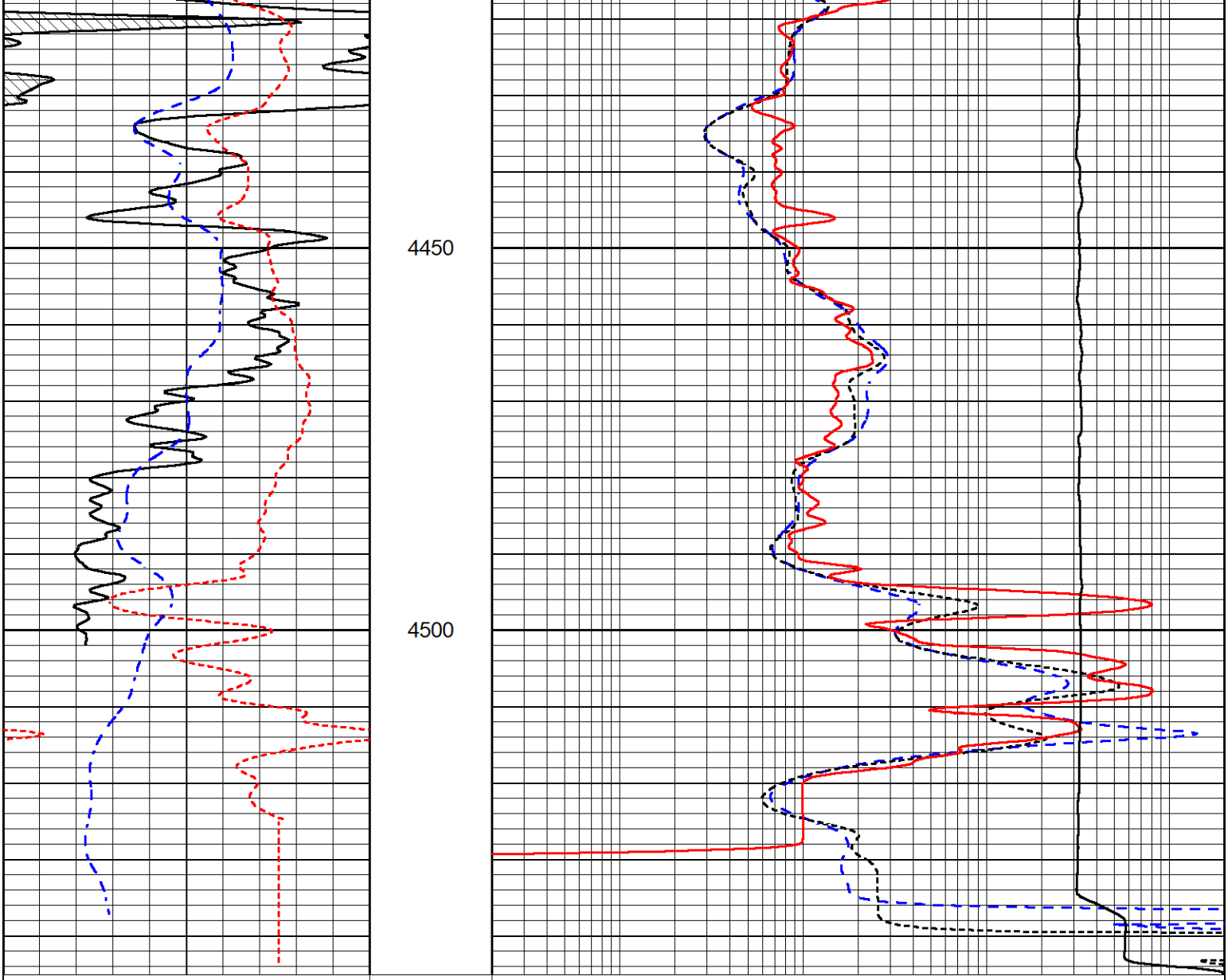
REPEAT PASS

Database File	landmark_godfrey a 3-32.db
Dataset Pathname	stkml/pass3.1
Presentation Format	_dil
Dataset Creation	Tue Dec 12 00:58:35 2023
Charted by	Depth in Feet scaled 1:240

0	Gamma Ray (GAPI)	150
50	RXORT	250
-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	landmark_godfrey a 3-32.db
Dataset Pathname	stkml/pass4.1
Dataset Creation	Tue Dec 12 01:46:59 2023

Dual Induction Calibration Report

Serial-Model:	504 HT-M&W
Surface Cal Performed:	Wed Jun 7 06:28:44 2023

	Readings		References			Results	
Loop:	Air	Loop	Air	Loop		m	b
Deep	178.615	710.235	0.000	255.800	mmho/m	1.100	-4.500
Medium	161.982	1441.110	0.000	255.800	mmho/m	0.750	-35.000

Microlog Calibration Report

Serial-Model: 402-PSI STKBL ML
Performed: Sat Dec 2 02:32:23 2023

	Readings		References			Results	
	Zero	Cal	Zero	Cal		m	b
Normal	0.0037	0.0043	0.0000	10.0000	Ohm-m	22500.0000	-0.8000
Inverse	0.1208	0.0013	0.0000	10.0000	Ohm-m	21000.0000	0.0000
Caliper	1.0046	1.1419	5.5000	20.0000	in	50.0000	-44.5500

LITHODENSITY Calibration Report

Serial Number: 701-01
Tool Model: STEP LITHO Short
Performed: Wed Nov 8 15:09:59 2023

Source:

	Win1	Win2	Win3	Win4	Win5	Win6	Win7	Win8	
Background:									
SS:	52	54	204	252	23	67	44	1	cps
LS:	78	87	326	426	46	135	86	3	cps
Aluminum:									
SS:	790	958	2239	2075	45	71	45	2	cps
LS:	877	1656	3109	1518	56	132	85	4	cps
Magnesium:									
SS:	1295	1558	3653	2988	50	71	47	3	cps
LS:	3705	6851	12249	4886	93	127	85	12	cps
Aluminum+Iron:									
SS:	500	668	1858	1761	40	72	47	2	cps
LS:	514	1150	2612	1334	53	134	84	4	cps

	Density			PE		
	Actual	Calibrated		Actual	Calibrated	Quality
Background:						
SS:						0.209
LS:						0.223
Aluminum:						
SS:	2.6000	2.6000	g/cc			0.229
LS:	2.6000	2.6000	g/cc			0.218
Magnesium:						
SS:	1.6800	1.6800	g/cc	2.5700	2.5700	0.203
LS:	1.6800	1.6800	g/cc	2.5700	2.5700	0.195
Aluminum+Iron:						
SS:					6.1800	0.207
LS:					6.1800	0.229

Caliper:	Reference:		Reading:
Small Ring:	6.0	in	0.2
Large Ring:	16.0	in	0.8
Gain:	14.000		
Offset:	1.800		

Compensated Neutron Calibration Report

Serial Number: 210
Tool Model: M&W

CALIBRATION

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:	105	
Tool Model:	M&W	
Performed:	Sat Oct 21 23:48:19 2023	
Calibrator Value:	500.0	GAPI
Background Reading:	24.0	cps
Calibrator Reading:	637.0	cps
Sensitivity:	0.6000	GAPI/cps

MIDWEST WIRELINE

Company	Landmark Resources, Inc.
Well	Godfrey A #3-32
Field	
County	Sheridan
State	Kansas