MIDWEST WIRELINE

DUAL INDUCTION LOG

Company Berexco, LLC
Well Robb #4
Field
County Gove State Kansas
Location: API # : 15-063-22445-00-00
330 FSL & 780 FEL
SEC 6 TWP 15S RGE 29W

Other Services
CNL/CDL
MEL

Elevation
K.B. 2586
D.F.
G.L. 2576

Permanent Datum Ground Level Elevation 2576
Log Measured From Kelly Bushing
Drilling Measured From Kelly Bushing

Company Berexco, LLC
Well Robb #4
Field
County Gove
State Kansas

Date	6/30/2024		
Run Number	One		
Depth Driller	4330		
Depth Logger	4332		
Bottom Logged Interval	4331		
Top Log Interval	400		
Casing Driller	8.625 @ 403		
Casing Logger	399		
Bit Size	7.875		
Type Fluid in Hole	Chemical		
Salinity,ppm CL	3600		
Density / Viscosity	9.1 / 58		
pH / Fluid Loss	10.0 / 7.2		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	0.70 @ 78		
Rmf @ Meas. Temp	0.53 @ 78		
Rmc @ Meas. Temp	0.95 @ 78		
Source of Rmf / Rmc	CHARTS		
Rm @ BHT	0.46 @ 119		
Operating Rig Time	3 Hours		
Max Rec. Temp. F	119		
Equipment Number	110		
Location	HAYS		
Recorded By	D. Schmidt		
Witnessed By	Larry Friend		

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All interpretations are opinions based on inferences from electrical or other measurements and Midwest Wireline LLC cannot and does not guarantee the accuracy or correctness of any interpretation, and Midwest Wireline LLC will not 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.

Comments

N/A DENOTES NOT AVAILABLE OR NON-APPLICABLE.

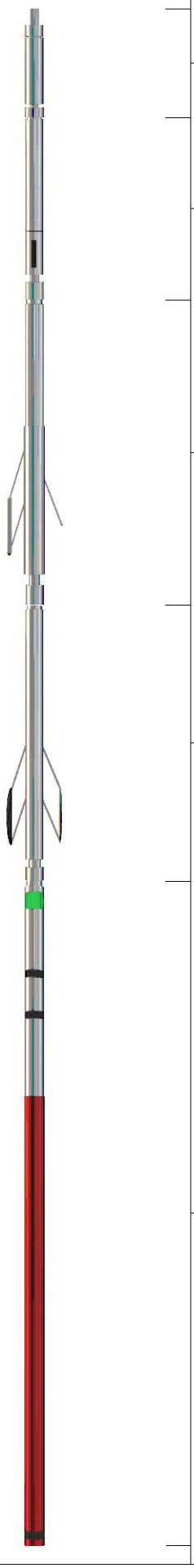
Gove,
South to C Rd, 5 West to Rd 32,
North to E Rd, East to Rd 36, 1 North,
West into

Log Measured From: Kelly Bushing 10 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: Larry Friend
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 (703-03)	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 (506)	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:	berexco_robb 4.db: field/well/stkml/pass3.1
Total length:	42.23 ft
Total weight:	685.00 lb
O.D.:	5.00 in

Log Variables

DatabaseC:\ProgramData\Warrior\Data\berexco_robb 4.db
Dataset field/well/stkml/pass3.1/_vars_

Top - Bottom

A	BOREID in	BOTTEMP degF	CASEOD in	CASETHCK in	FLUIDDEN g/cc	M	MATRXDEN g/cc
1	7.875	119	5.5	0	1	2	2.71

NPORSEL	PERFS	SNDERR mmho/m	SNDERRM mmho/m	SPSHIFT mV	SRFTEMP degF	SZCOR	TDEPTH ft
Limestone	No	1.5	-6	140	75	Off	4332

Variable Description

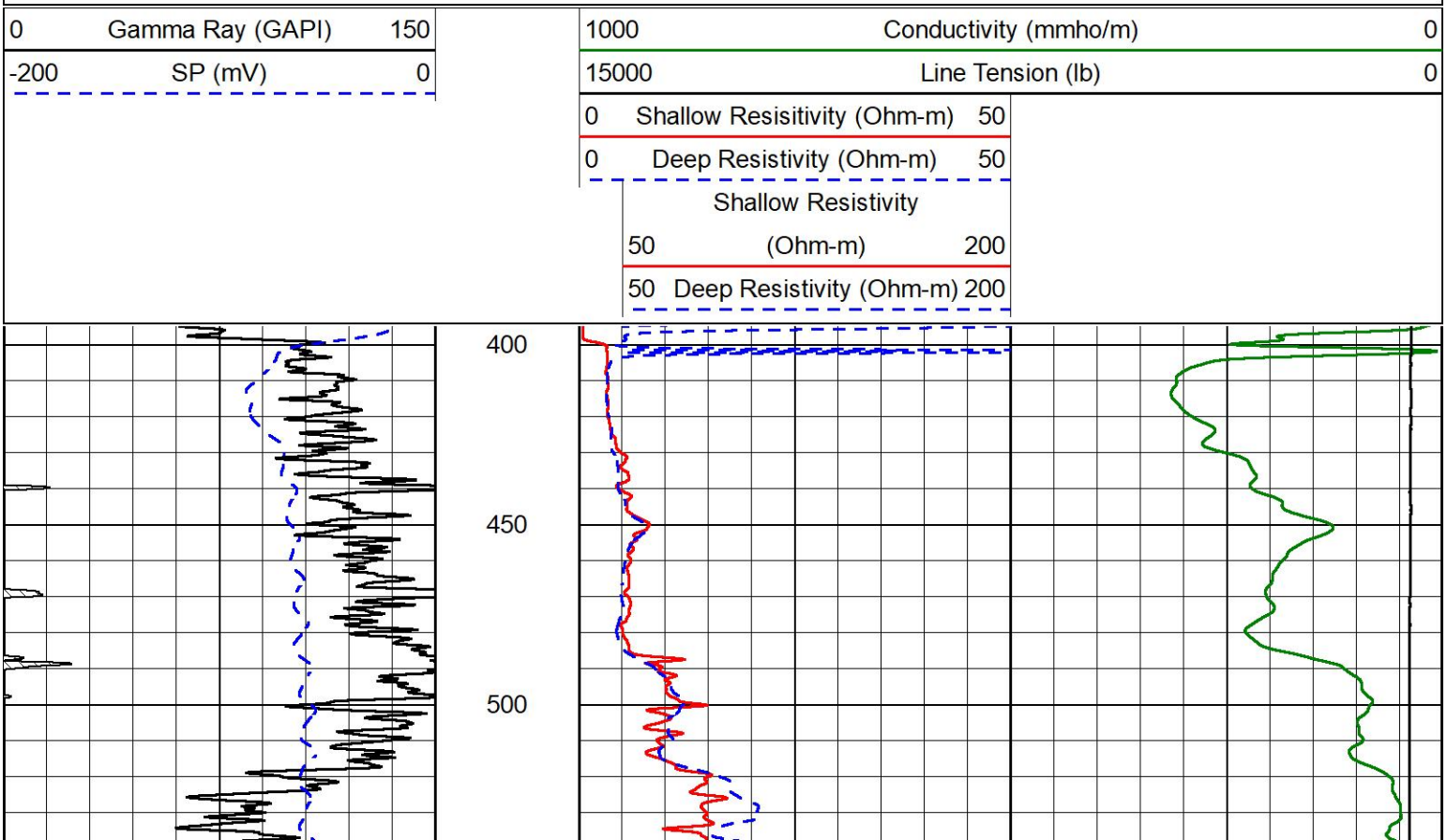
A : Cement Factor (a)
BOREID : Borehole I.D.
BOTTEMP : Bottom Hole Temperature
CASEOD : Casing O.D.
CASETHCK : Casing Thickness
FLUIDDEN : Fluid Density
M : Cement Exp (m)
MATRXDEN : Matrix Density
NPORSEL : Neutron Porosity Curve Select
PERFS : Perforation Flag
SNDERR : Deep Sonde Error Correction
SNDERRM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

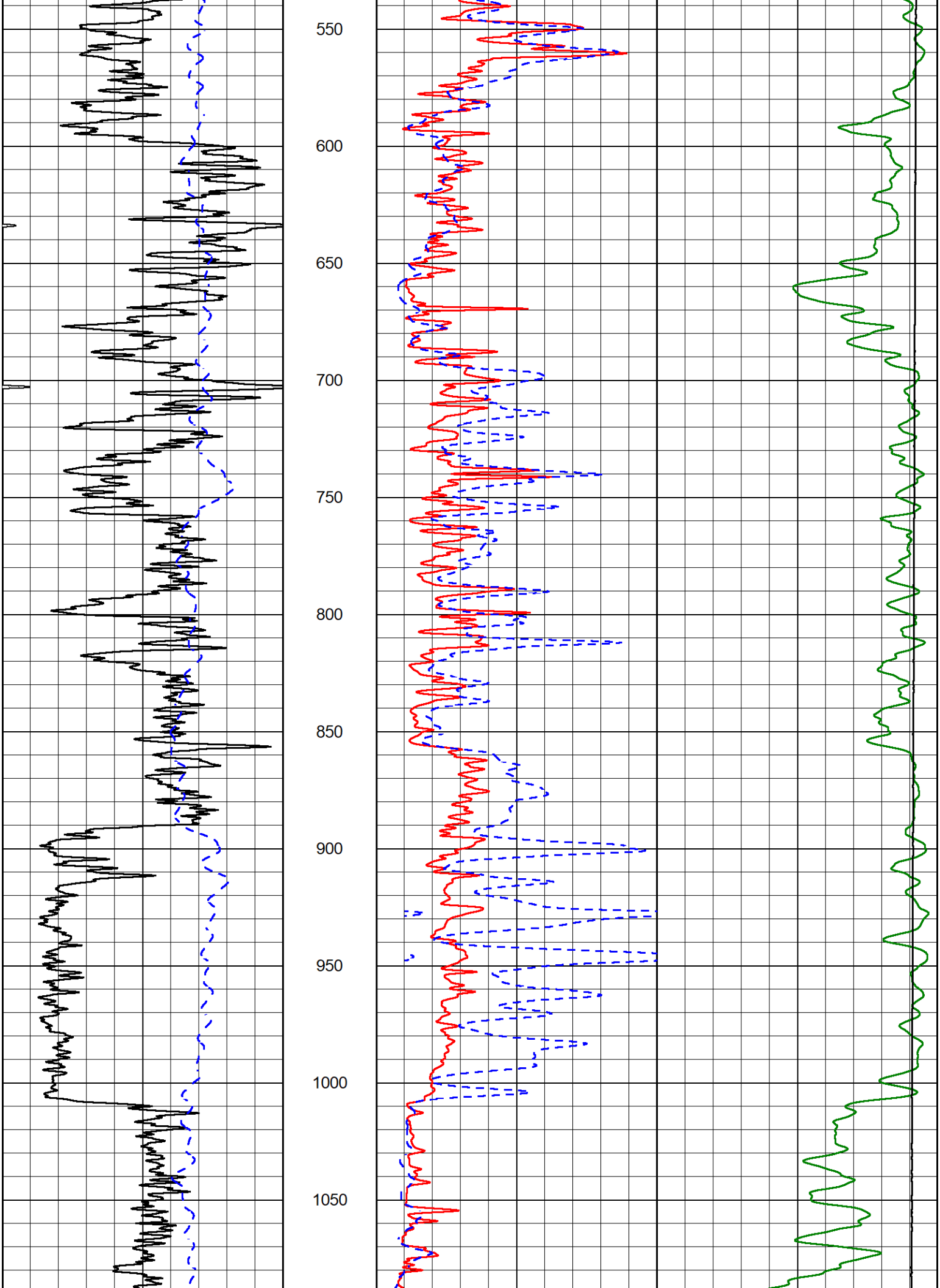
MIDWEST WIRELINE

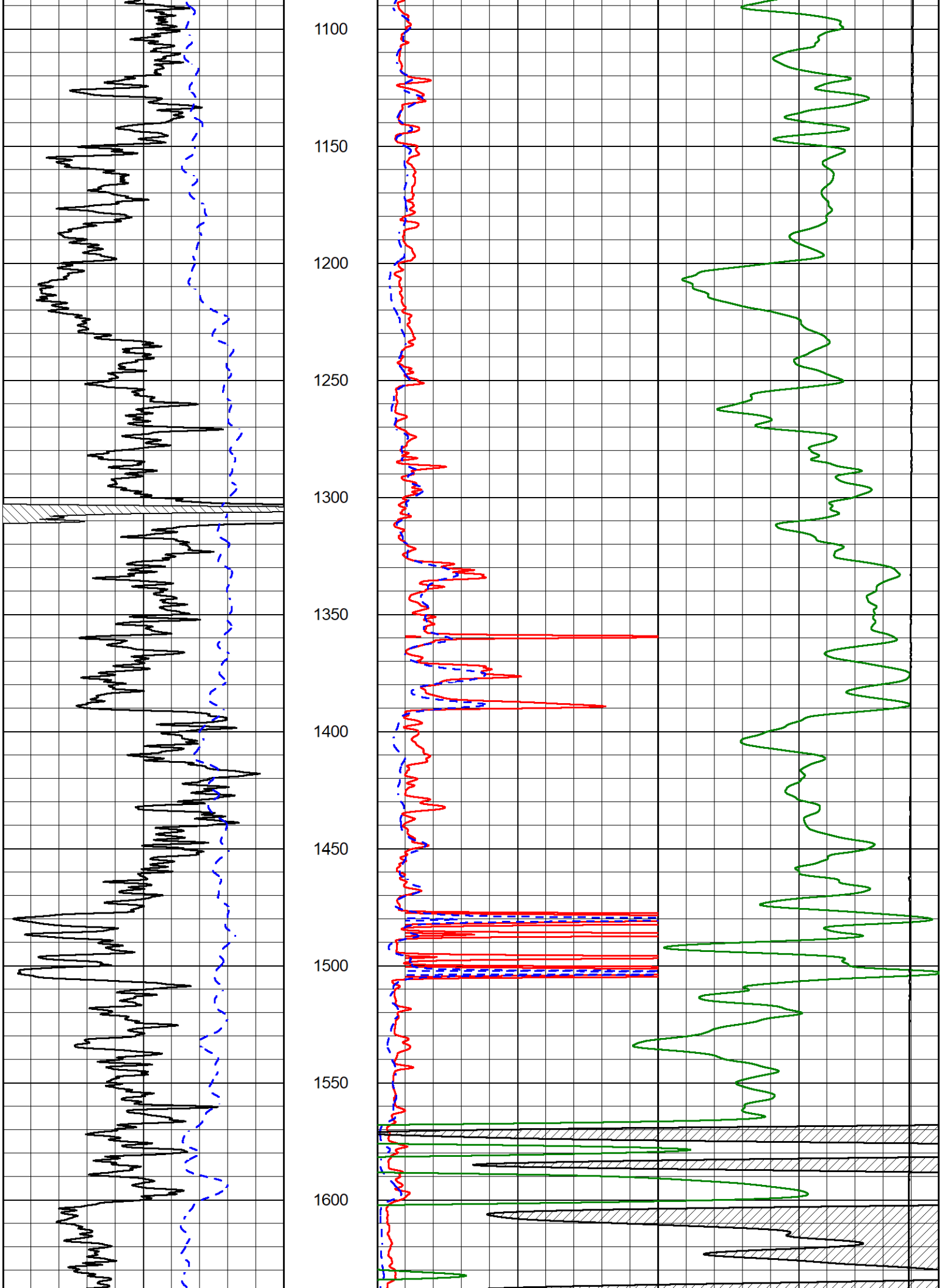
2" SCALE RESISTIVITY

MAIN PASS

Database File	berexco_robb 4.db
Dataset Pathname	stkml/pass3.3
Presentation Format	_dil2in
Dataset Creation	Sun Jun 30 22:46:59 2024
Charted by	Depth in Feet scaled 1:600




550
600
650
700
750
800
850
900
950
1000
1050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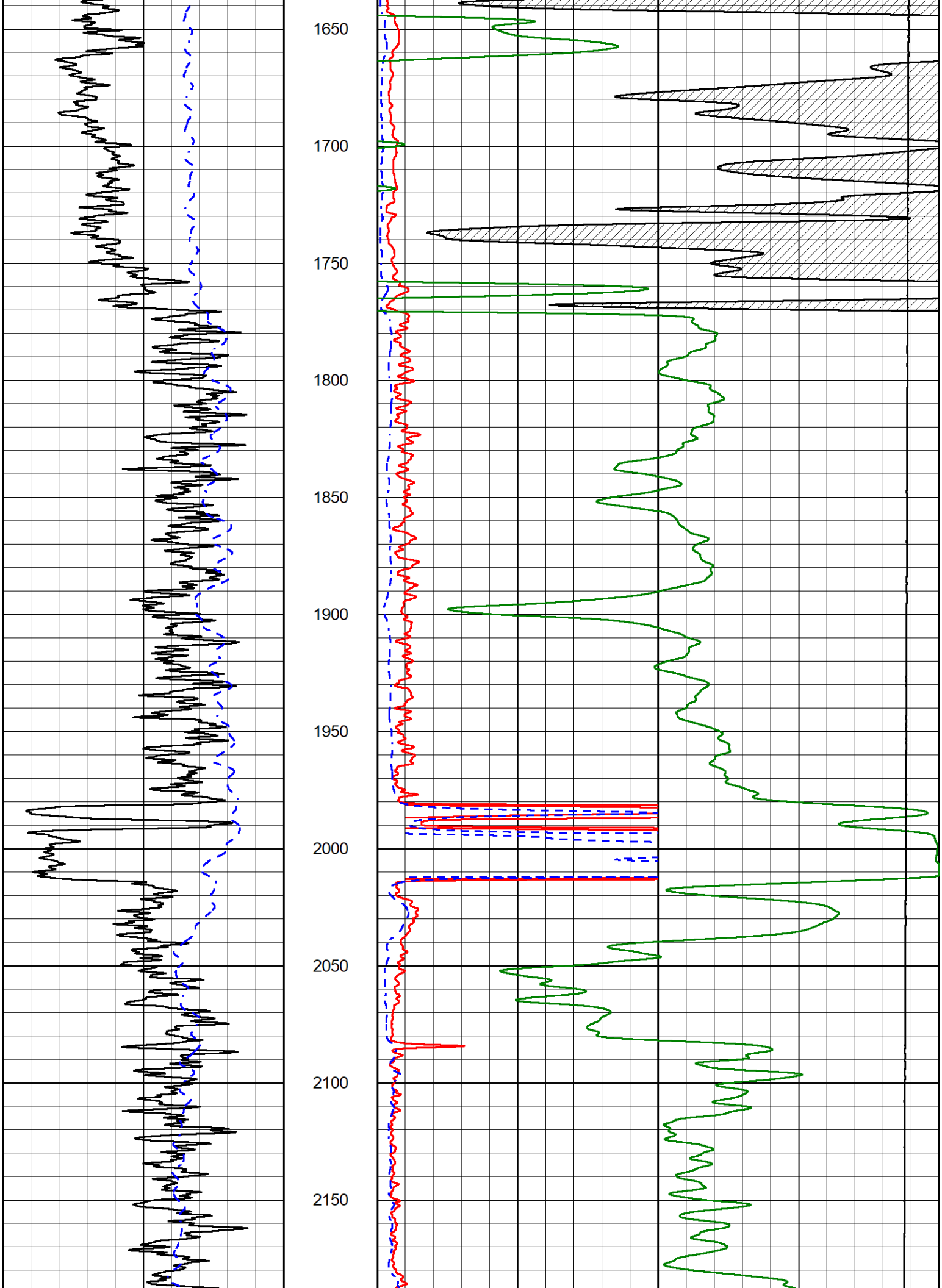
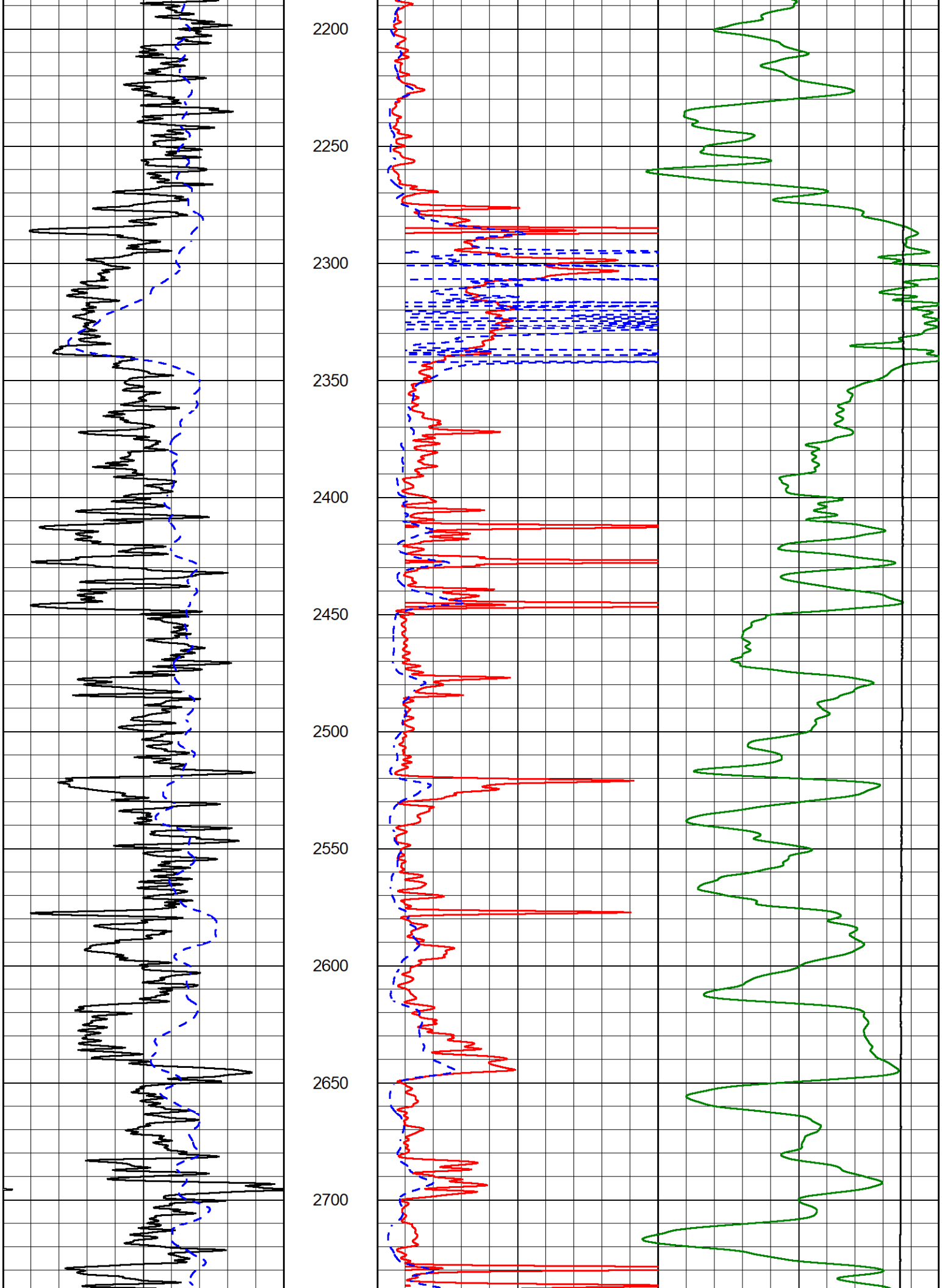
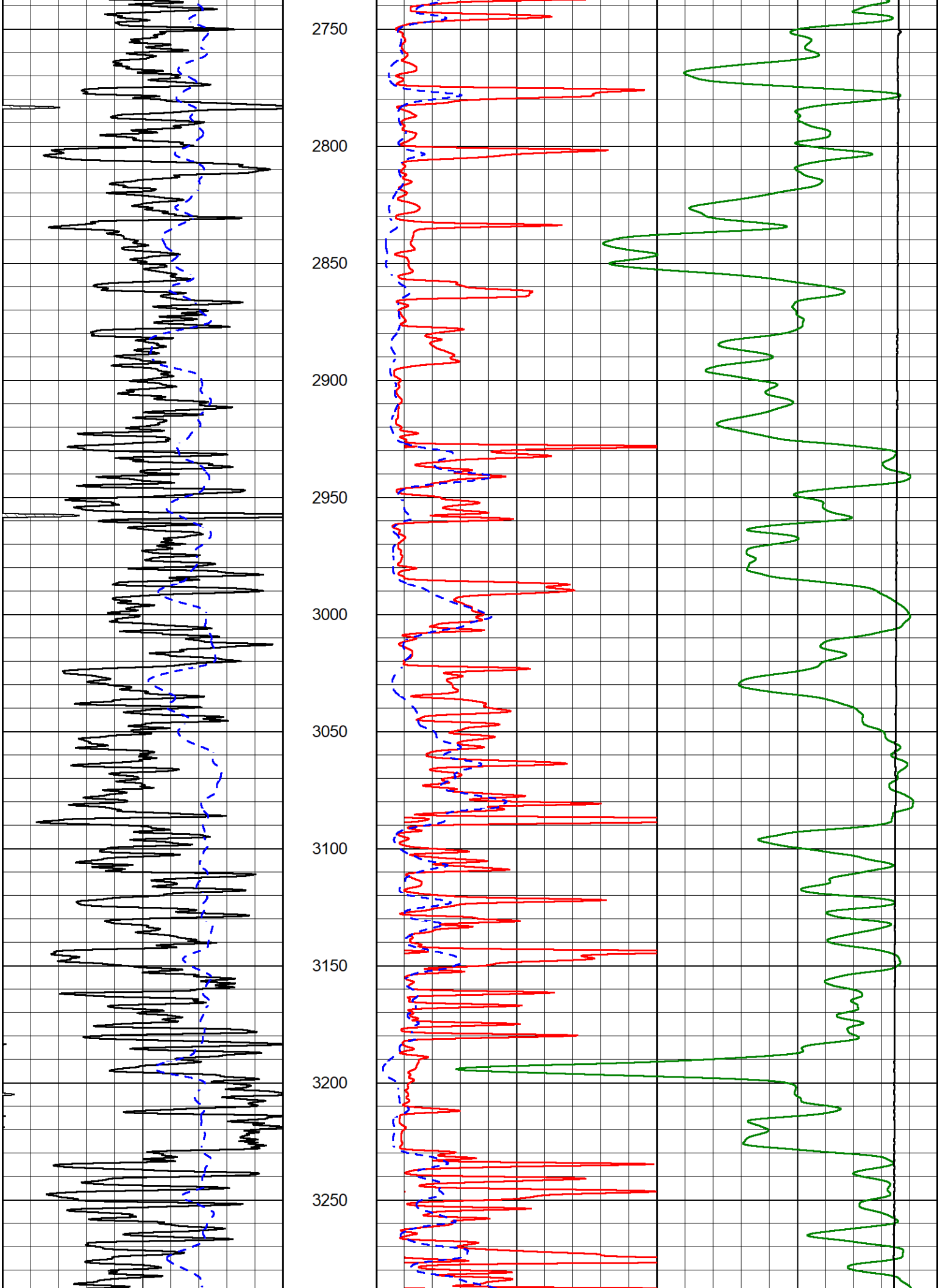
1150
1200
1250
1300
1350
1400
1450
1500
1550
1600


1650
1700
1750
1800
1850
1900
1950
2000
2050
2100
2150


2200
2250
2300
2350
2400
2450
2500
2550
2600
2650
2700


2750
2800
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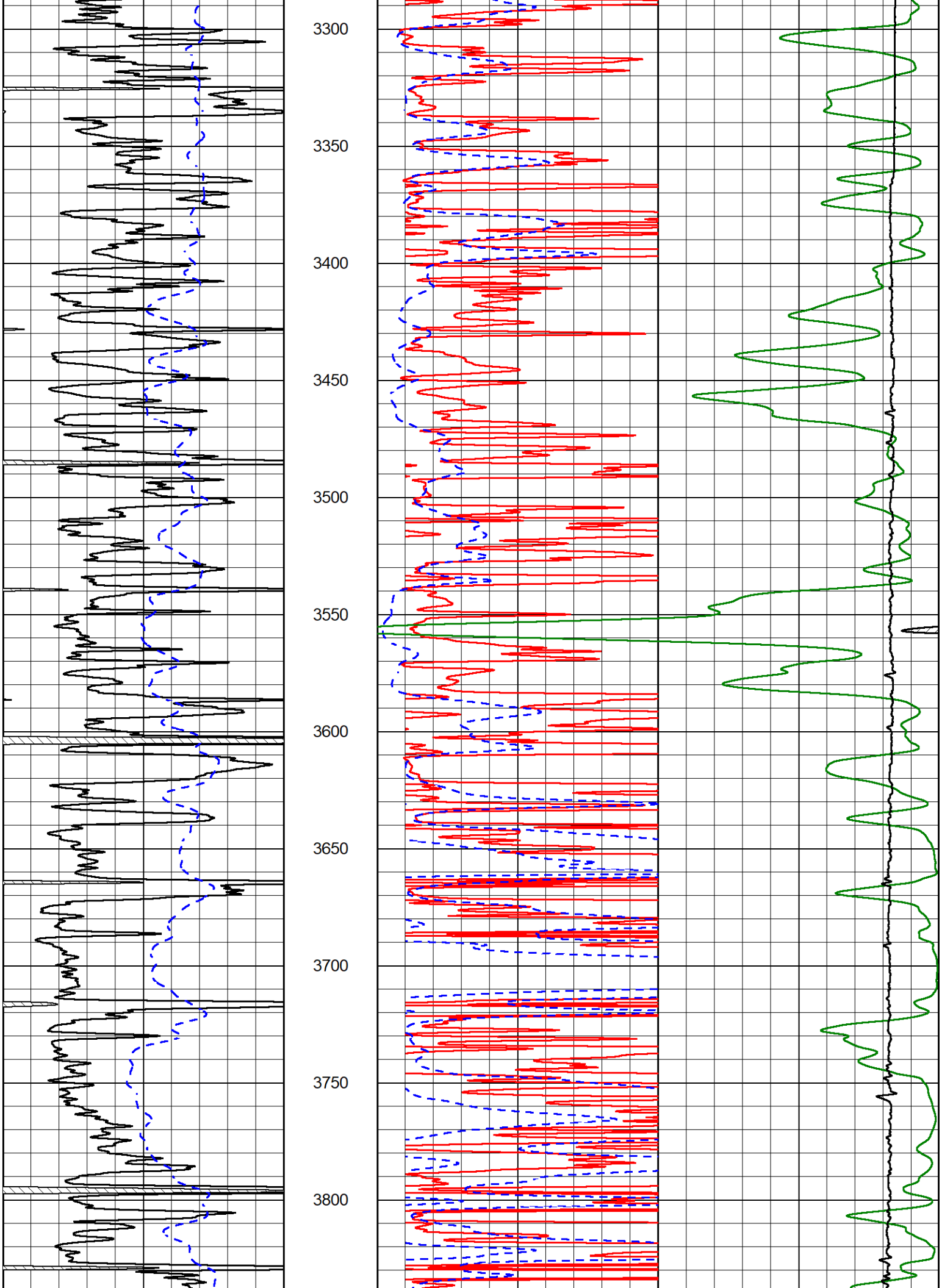
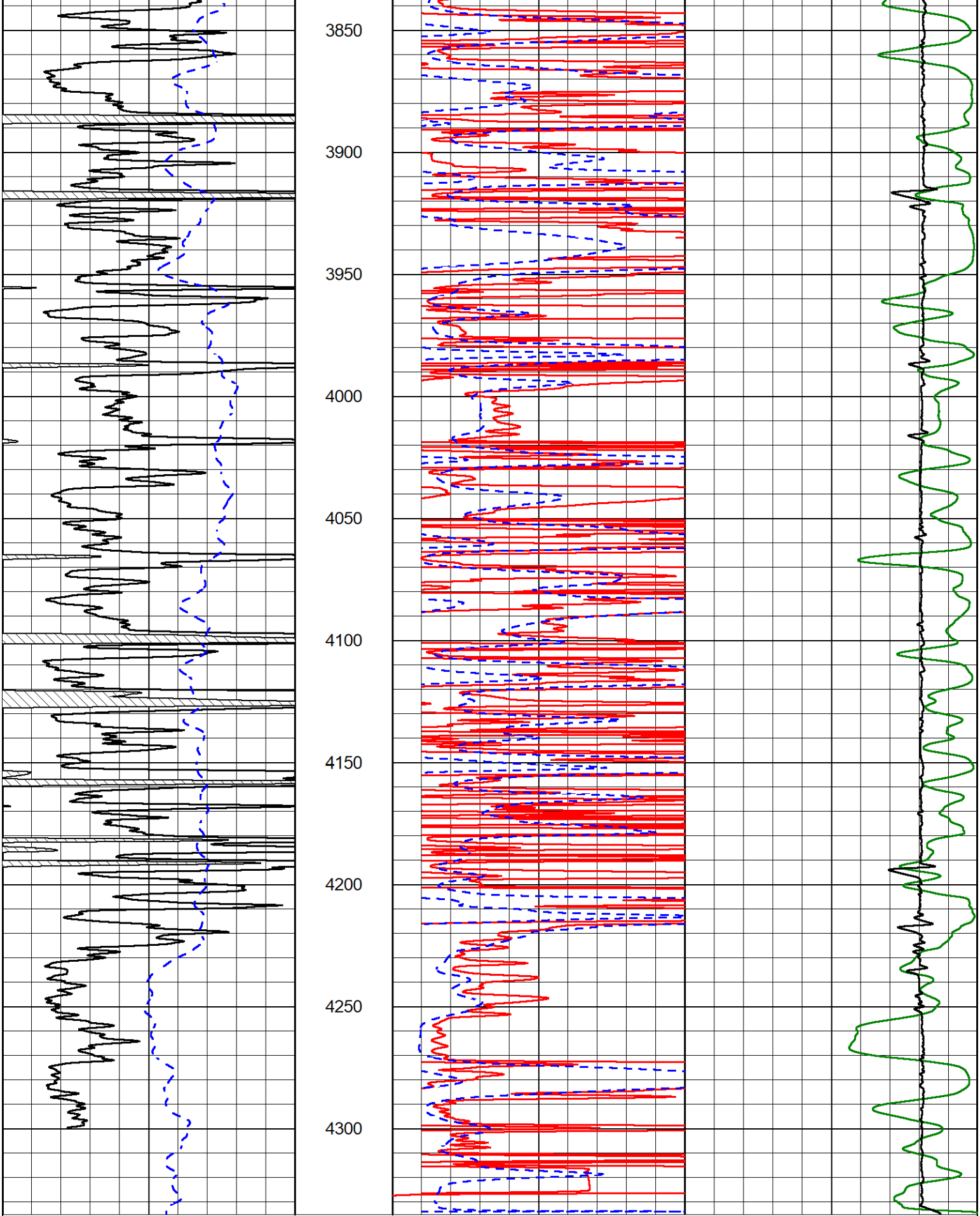
2900
2950
3000
3050
3100
3150
3200
3250


3300
3350
3400
3450
3500
3550
3600
3650
3700
3750
3800


3850
3900
3950
4000
4050
4100
4150
4200
4250
4300
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

	Shallow Resistivity	
50	(Ohm-m)	200
50	Deep Resistivity (Ohm-m)	200

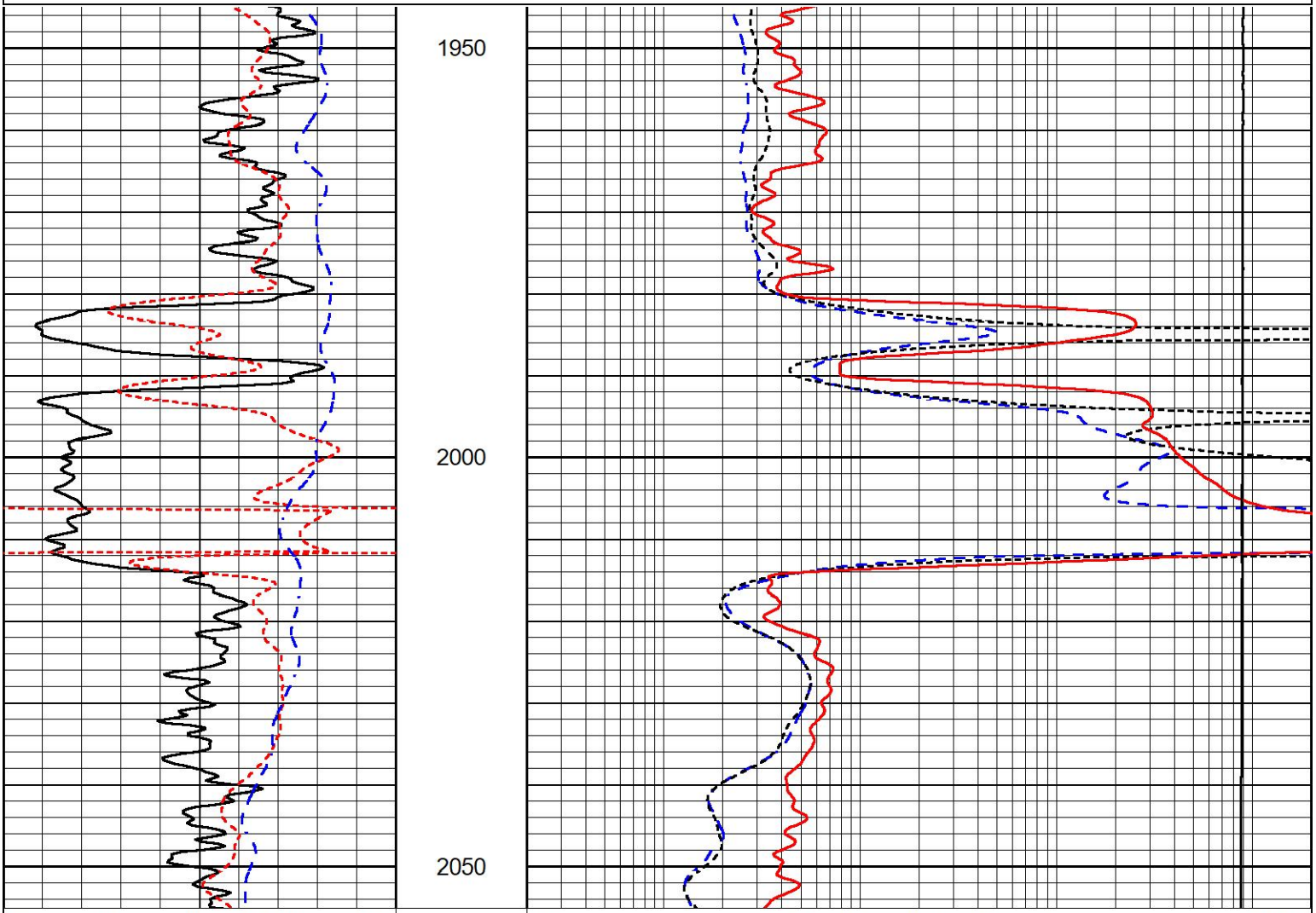
ANHYDRITE SECTION

MAIN PASS

Database File	berexco_robb 4.db
Dataset Pathname	stkml/pass3.4
Presentation Format	_dil
Dataset Creation	Sun Jun 30 22:47:14 2024
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

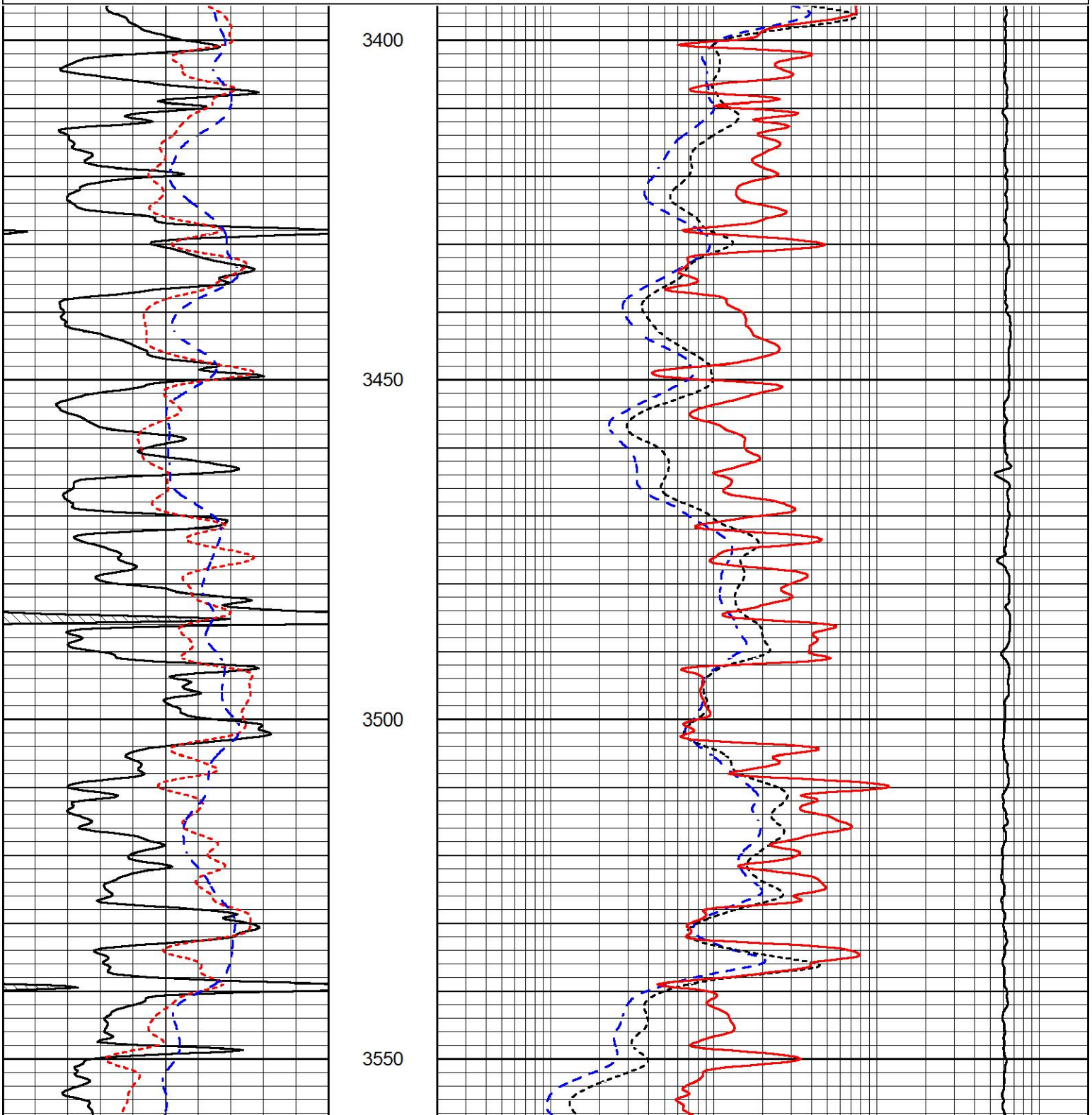
DETAIL SECTION

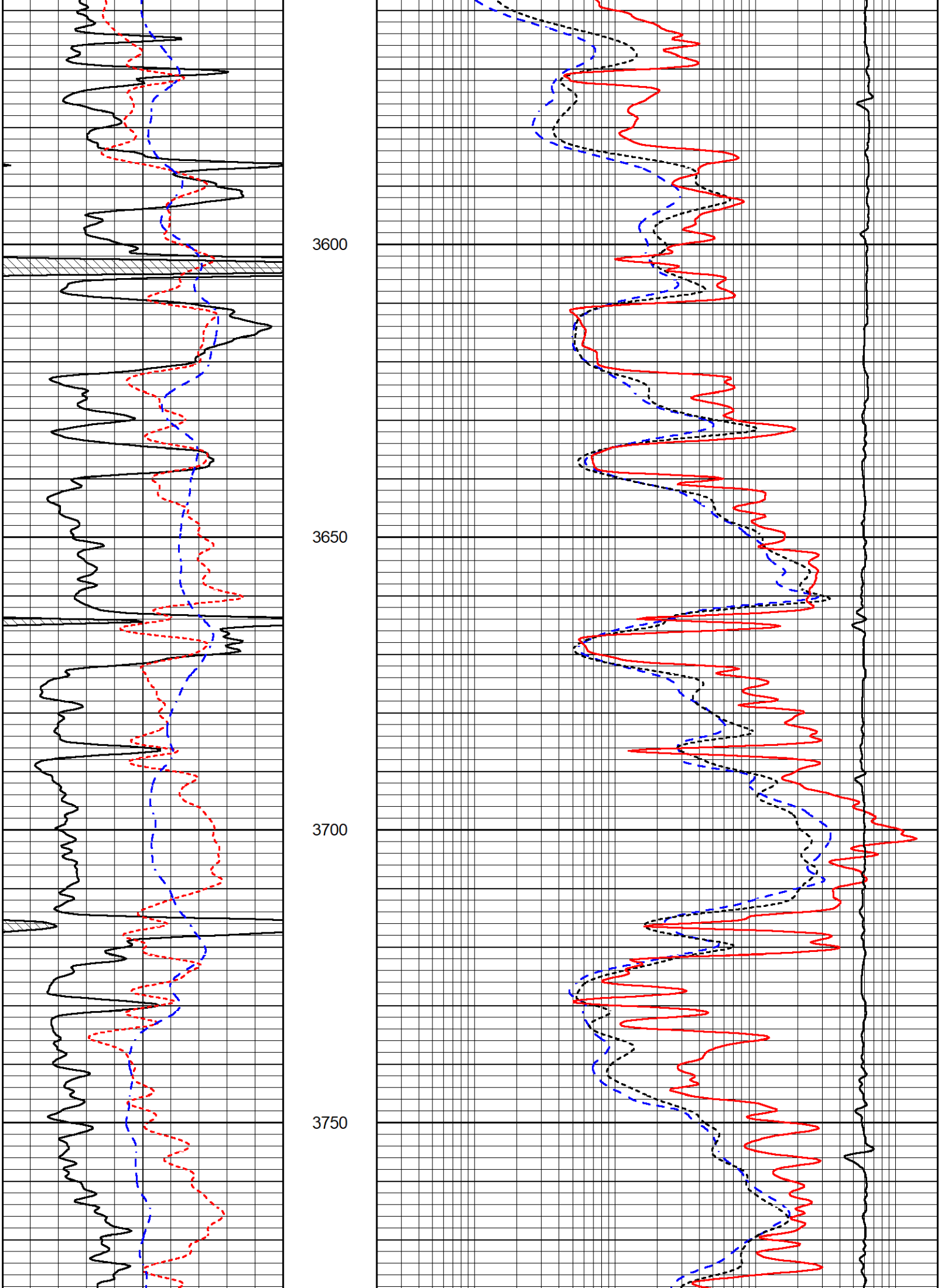
MAIN PASS

Database File	berexco_robb 4.db
Dataset Pathname	stkml/pass3.1
Presentation Format	_dil
Dataset Creation	Sun Jun 30 22:11:50 2024
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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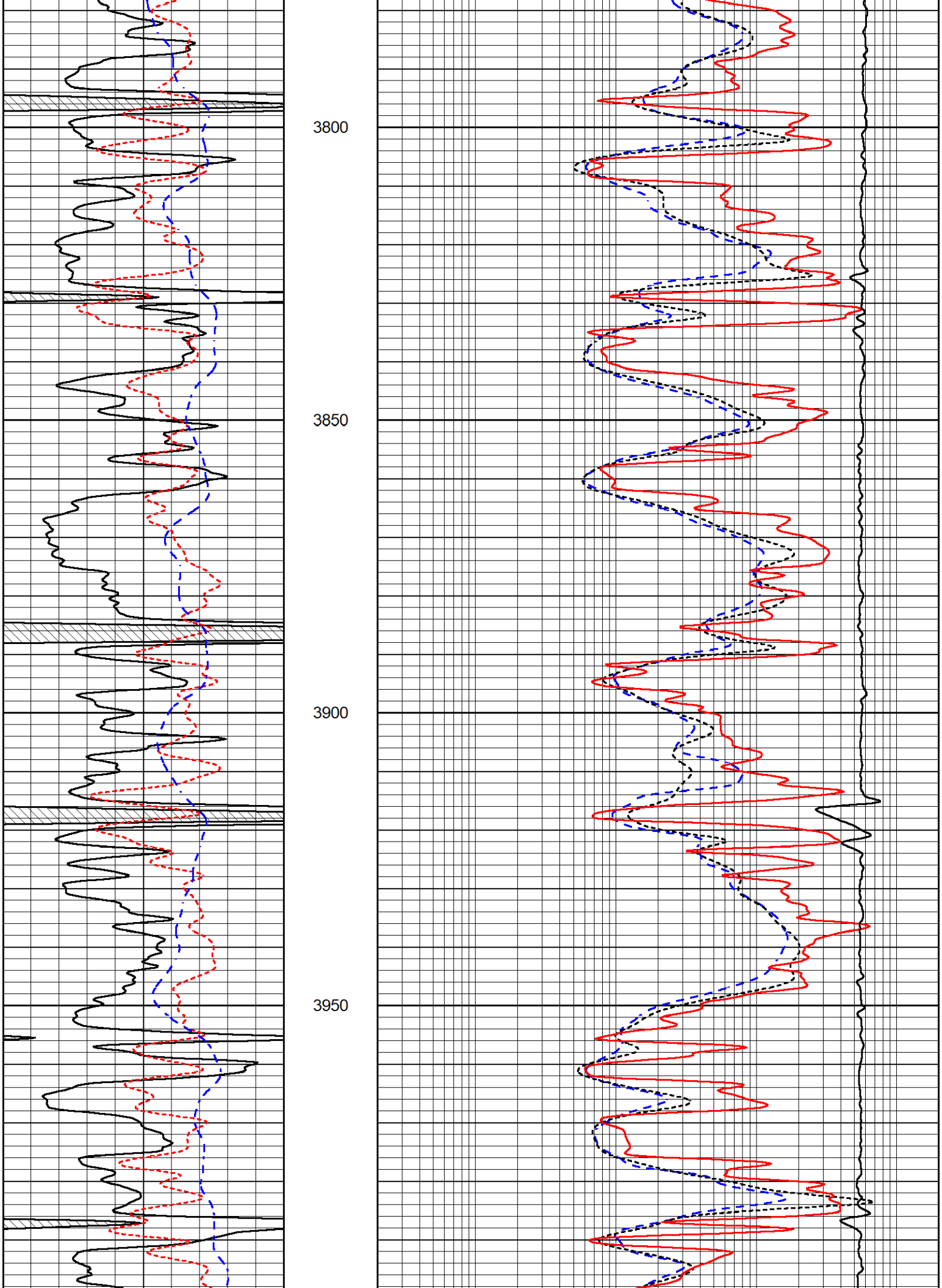
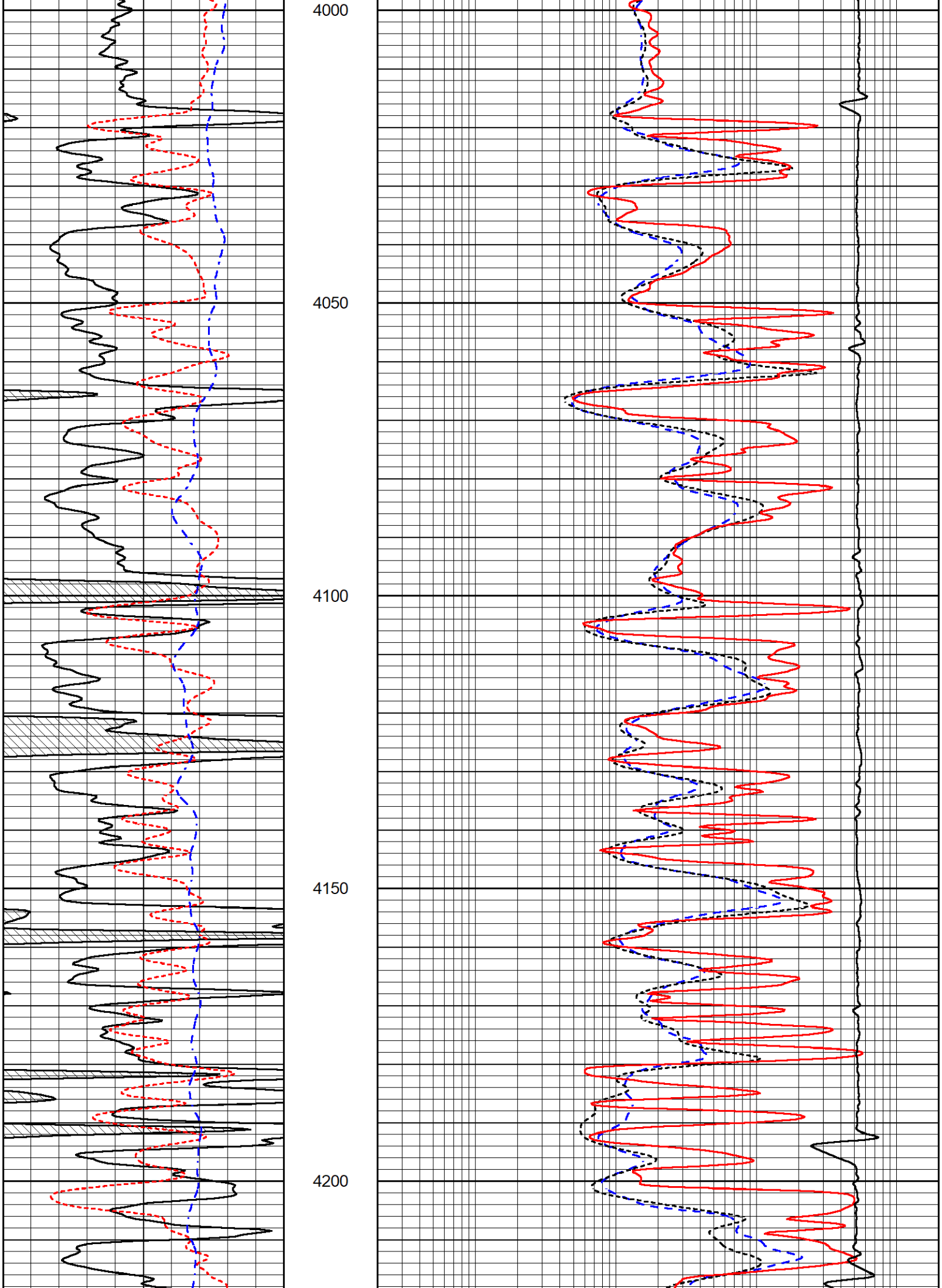
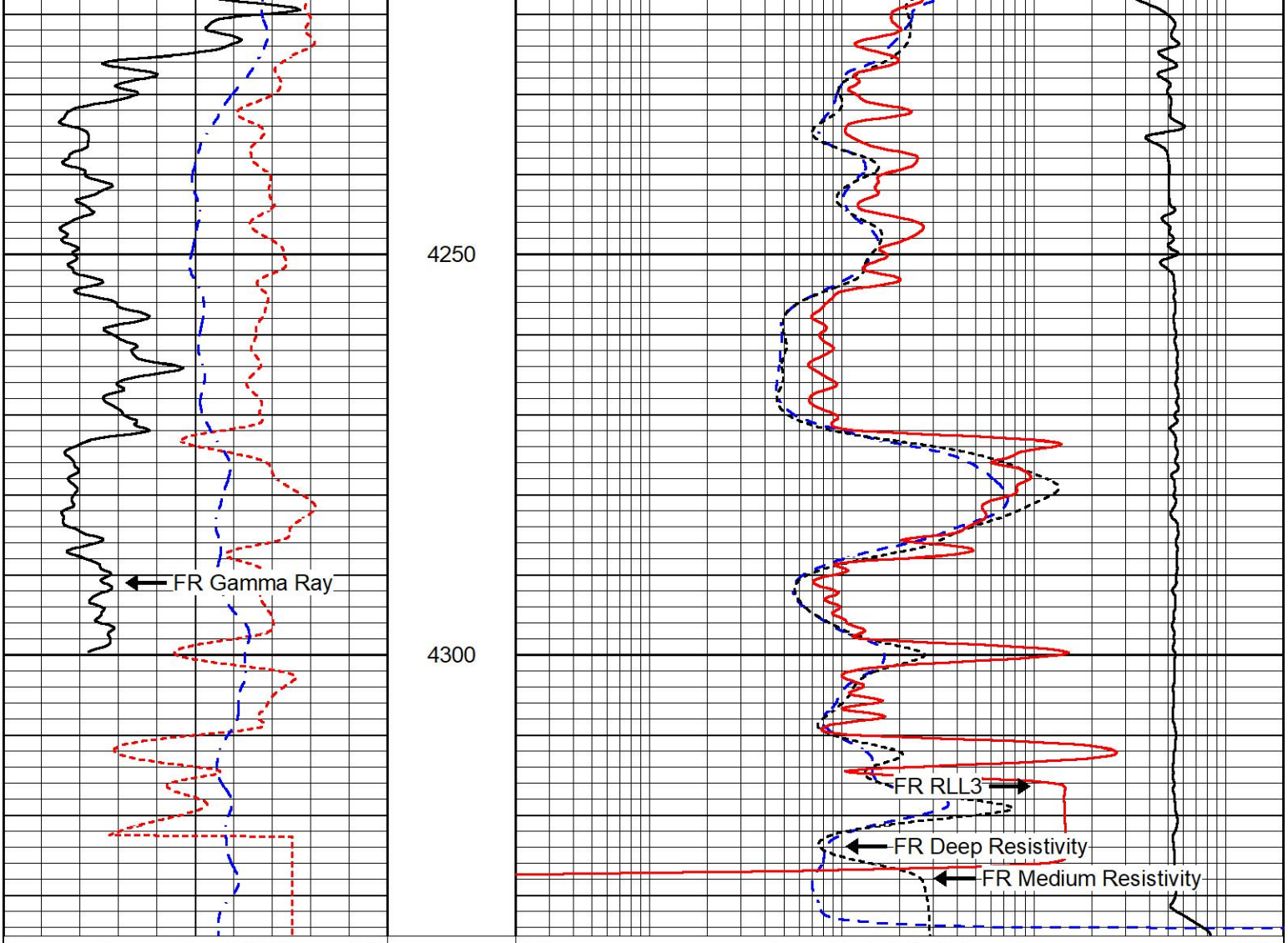
3650
3700
3750


3800
3850
3900
3950


4000
4050
4100
4150
4200



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

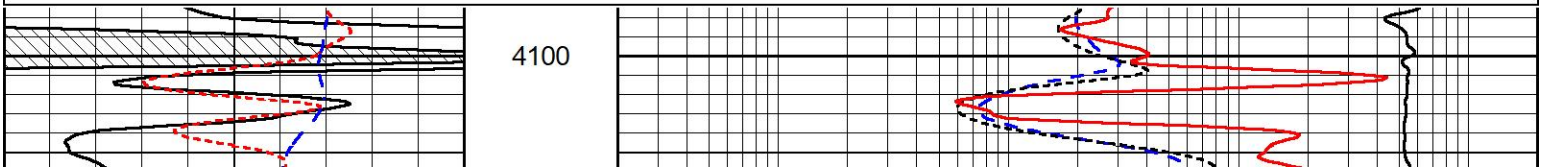
REPEAT SECTION

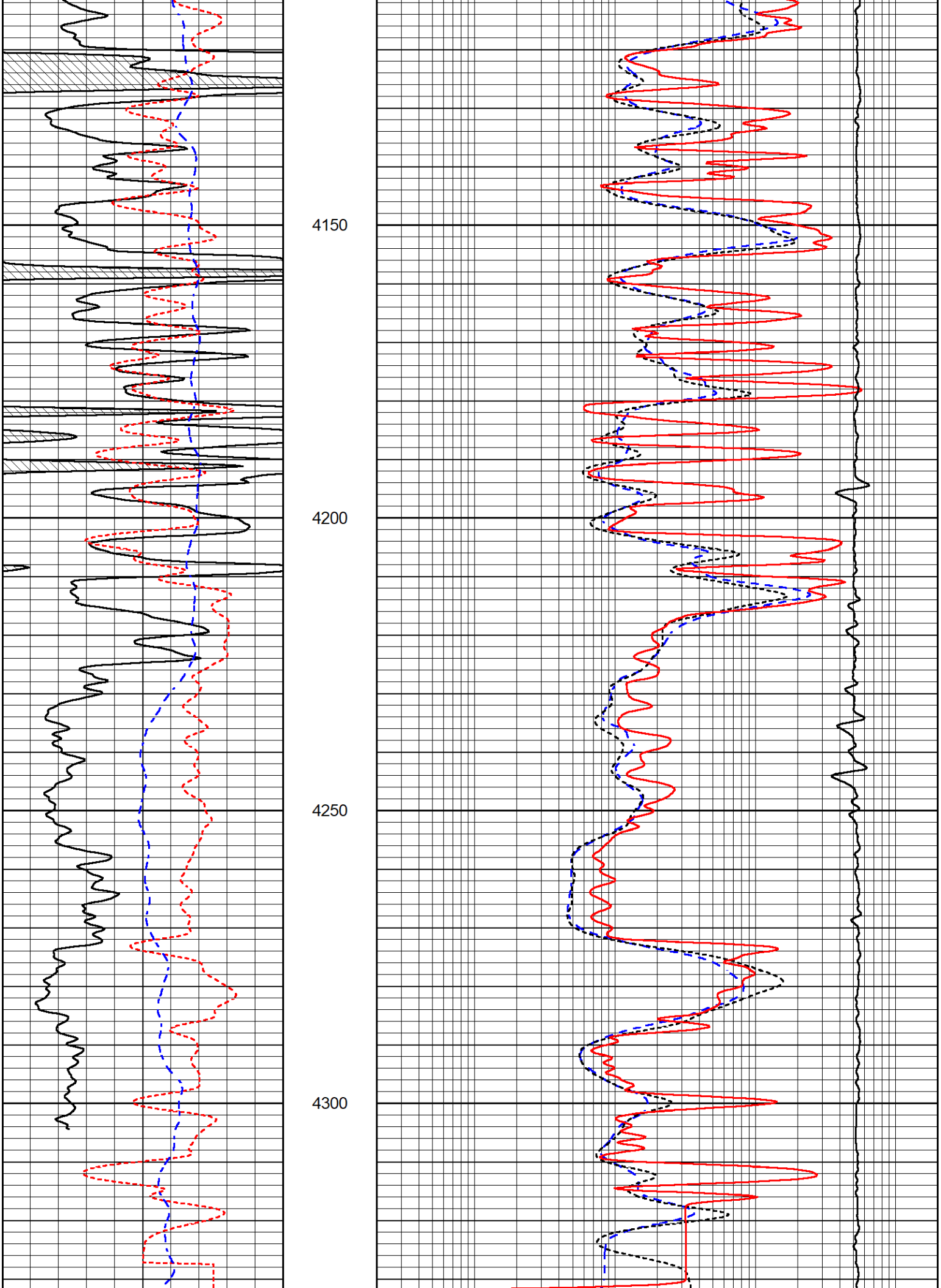
REPEAT PASS

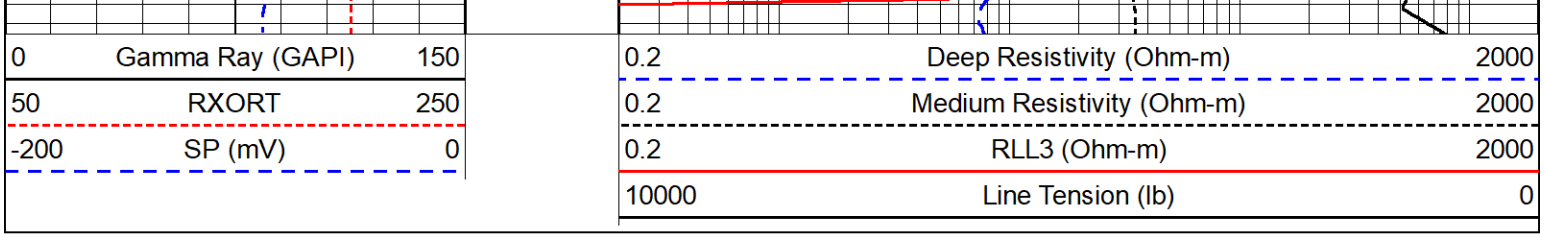
Database File	berexco_robb 4.db
Dataset Pathname	stkml/pass2.11
Presentation Format	_dil
Dataset Creation	Sun Jun 30 21:19:11 2024
Charted by	Depth in Feet scaled 1:240

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




4150
4200
4250
4300



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	berexco_robb 4.db
Dataset Pathname	stkml/pass3.1
Dataset Creation	Sun Jun 30 22:11:50 2024

Dual Induction Calibration Report

Serial-Model:	506-M&W
Surface Cal Performed:	Sun Jun 30 20:32:27 2024

	Readings		References			Results	
Loop:	Air	Loop	Air	Loop		m	b
Deep	84.211	428.152	0.000	255.800	mmho/m	0.465	-32.000
Medium	141.000	670.654	0.000	255.800	mmho/m	0.390	-10.000

Microlog Calibration Report

Serial-Model:	402-PSI STKBL ML
Performed:	Thu May 30 05:58:00 2024

	Readings		References			Results	
	Zero	Cal	Zero	Cal		m	b
Normal	0.0037	0.0043	0.0000	10.0000	Ohm-m	11000.0000	0.0000
Inverse	0.1208	0.0013	0.0000	10.0000	Ohm-m	14000.0000	0.0000
Caliper	1.0046	1.1419	5.5000	20.0000	in	50.0000	-44.6250

LITHODENSITY Calibration Report

Serial Number:	703-03
Tool Model:	STEP LITHO Short
Performed:	Fri May 31 13:59:15 2024

Source:

	Win1	Win2	Win3	Win4	Win5	Win6	Win7	Win8	
Background:									
SS:	56	59	223	276	25	75	46	1	cps
LS:	83	90	344	441	51	132	90	3	cps
Aluminum:									
SS:	1063	1260	2893	2631	48	80	48	3	cps
LS:	1179	2084	3854	1823	62	133	86	5	cps
Magnesium:									
SS:	1756	2035	4740	3894	55	79	49	4	cps
LS:	4981	8390	15059	6054	115	127	85	14	cps
Aluminum+Iron:									
SS:	676	887	2426	2310	45	79	52	2	cps
LS:	700	1495	3280	1630	60	131	90	5	cps

	Density		PE		
	Actual	Calibrated	Actual	Calibrated	Quality

	Actual	Calibrated		Actual	Calibrated	Quality
Background:						
SS:						0.236
LS:						0.189
Aluminum:						
SS:	2.6000	2.6000	g/cc			0.249
LS:	2.6000	2.6000	g/cc			0.216
Magnesium:						
SS:	1.6800	1.6800	g/cc	2.5700	2.5700	0.232
LS:	1.6800	1.6800	g/cc	2.5700	2.5700	0.198
Aluminum+Iron:						
SS:					6.1800	0.208
LS:					6.1800	0.188

Caliper:	Reference:		Reading:
Small Ring:	6.0	in	1.0
Large Ring:	14.0	in	1.0
Gain:	12.765		
Offset:	2.050		

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	Berexco, LLC
Well	Robb #4
Field	
County	Gove
State	Kansas