

MIDWEST WIRELINE

DUAL INDUCTION LOG

Company American Warrior, Inc.

Well Wark #1-21

Field

County Thomas

State Kansas

Location: API #: 15-193-21130-00-00

1218 FSL & 349 FEL

SEC 21 TWP 6S RGE 31W

Permanent Datum Ground Level Elevation 2951
Log Measured From Kelly Bushing
Drilling Measured From Kelly Bushing

Other Services
CNL/CDL
MEL/BHCS
Elevation
K.B. 2962
D.F.
G.L. 2951

Date 8/29/2024

Run Number One

Depth Driller 4563

Depth Logger 4562

Bottom Logged Interval 4561

Top Log Interval 350

Casing Driller 8.625 @ 352

Casing Logger 353

Bit Size 7.875

Type Fluid in Hole Chemical

Salinity, ppm CL 3000

Density / Viscosity 9.4 54

pH / Fluid Loss 10.7 8.0

Source of Sample FLOWLINE

Rm @ Meas. Temp 1.50 @ 80

Rmt @ Meas. Temp 1.13 @ 80

Rmc @ Meas. Temp 2.03 @ 80

Source of Rmt / Rmc CHARTS

Rm @ BHT 1.02 @ 118

Operating Rig Time 4 Hours

Max Rec. Temp. F 118

Equipment Number 110

Location HAYS

Recorded By D. Schmidt

Witnessed By Marc Downing

<<< Fold Here >>>

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.

Rexford,
North to Y Rd, 1 West, 1North, 1 West, 1 1/4 North,
West into

Log Measured From: Kelly Bushing

11 Ft. Above Permanent Datum

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

Your Midwest Wireline Crew

Engineer: D. Schmidt
Operator:
Operator:
Operator:

This Log Record Was Witnessed By

Primary Witness: Marc Downing
Secondary Witness:
Secondary Witness:
Secondary Witness:

Log Variables

DatabaseC:\ProgramData\Warrior\Data\amwar_wark 1-21.db
Dataset field/well/stack/pass3.1/_vars_

Top - Bottom							
A	BOREID	BOTTEMP	CASEOD	CASETHCK	FLUIDDEN	M	MATRXDEN
1	in 7.875	degF 118	in 5.5	in 0	g/cc 1	2	g/cc 2.71
NPORSEL	PERFS	SNDERR	SNDERRM	SPSHIFT	SRFTEMP	SZCOR	TDEPTH
Limestone	No	mmho/m 0	mmho/m 0	mV 175	degF 85	Off	ft 4562



MIDWEST WIRELINE

2" SCALE RESISTIVITY

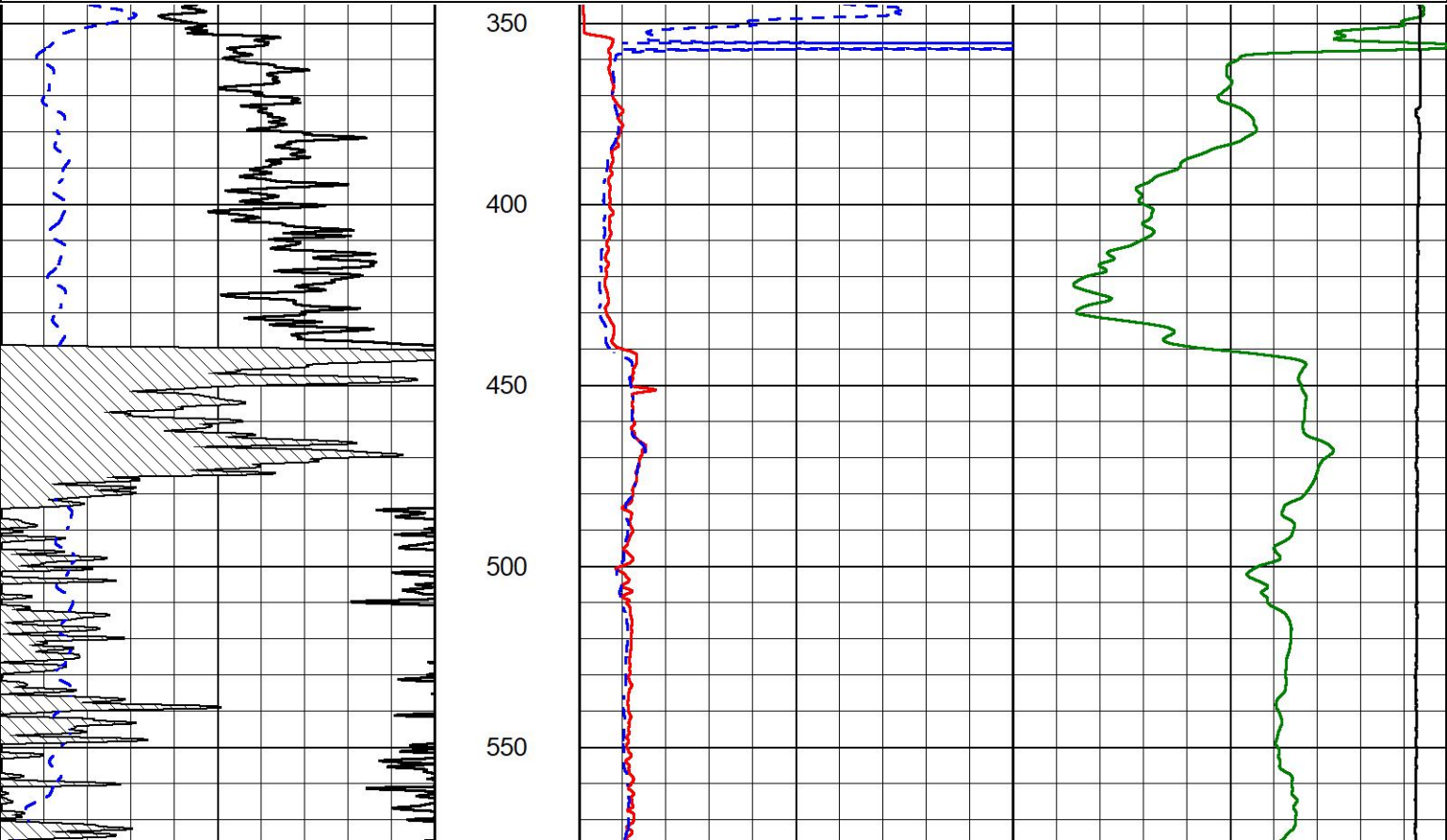
MAIN PASS

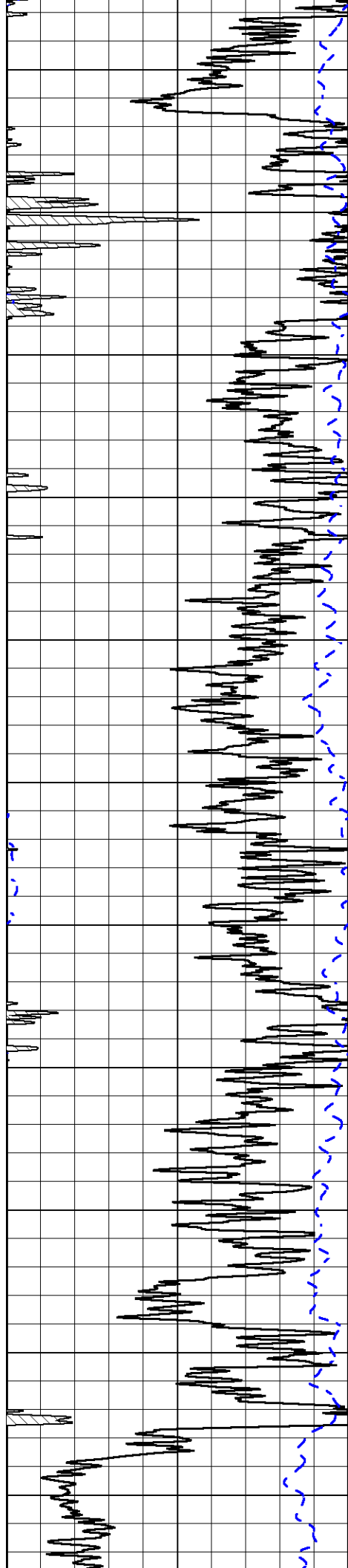
Database File
Dataset Pathname
Presentation Format
Dataset Creation
Charted by

amwar_wark 1-21.db
stack/pass3.3
_dil2in
Thu Aug 29 22:33:44 2024
Depth in Feet scaled 1:600

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

1000	Conductivity (mmho/m)	0
15000	Line Tension (lb)	0
0	Shallow Resistivity (Ohm-m)	50
0	Deep Resistivity (Ohm-m)	50
50	Shallow Resistivity (Ohm-m)	200
50	Deep Resistivity (Ohm-m)	200





600

650

700

750

800

850

900

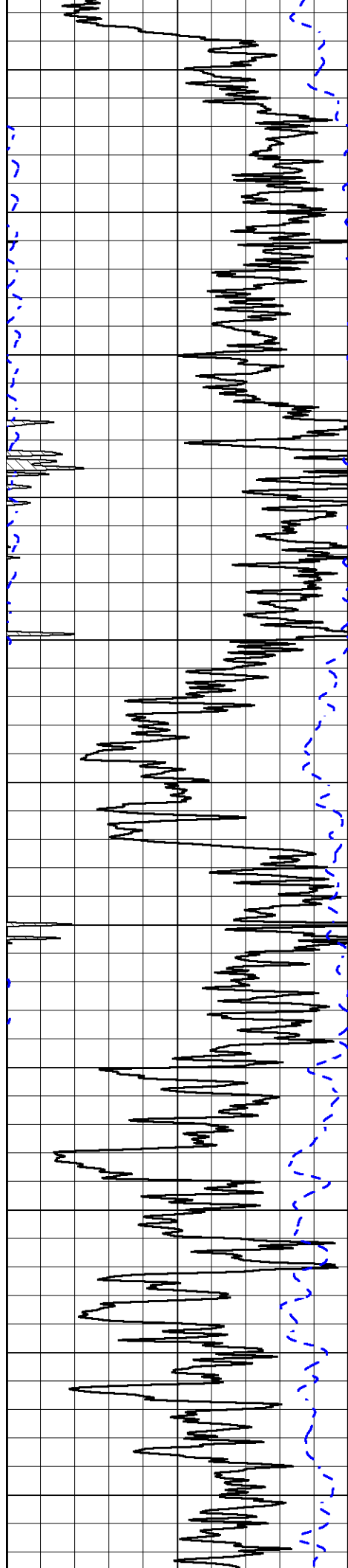
950

1000

1050

1100





1150

1200

1250

1300

1350

1400

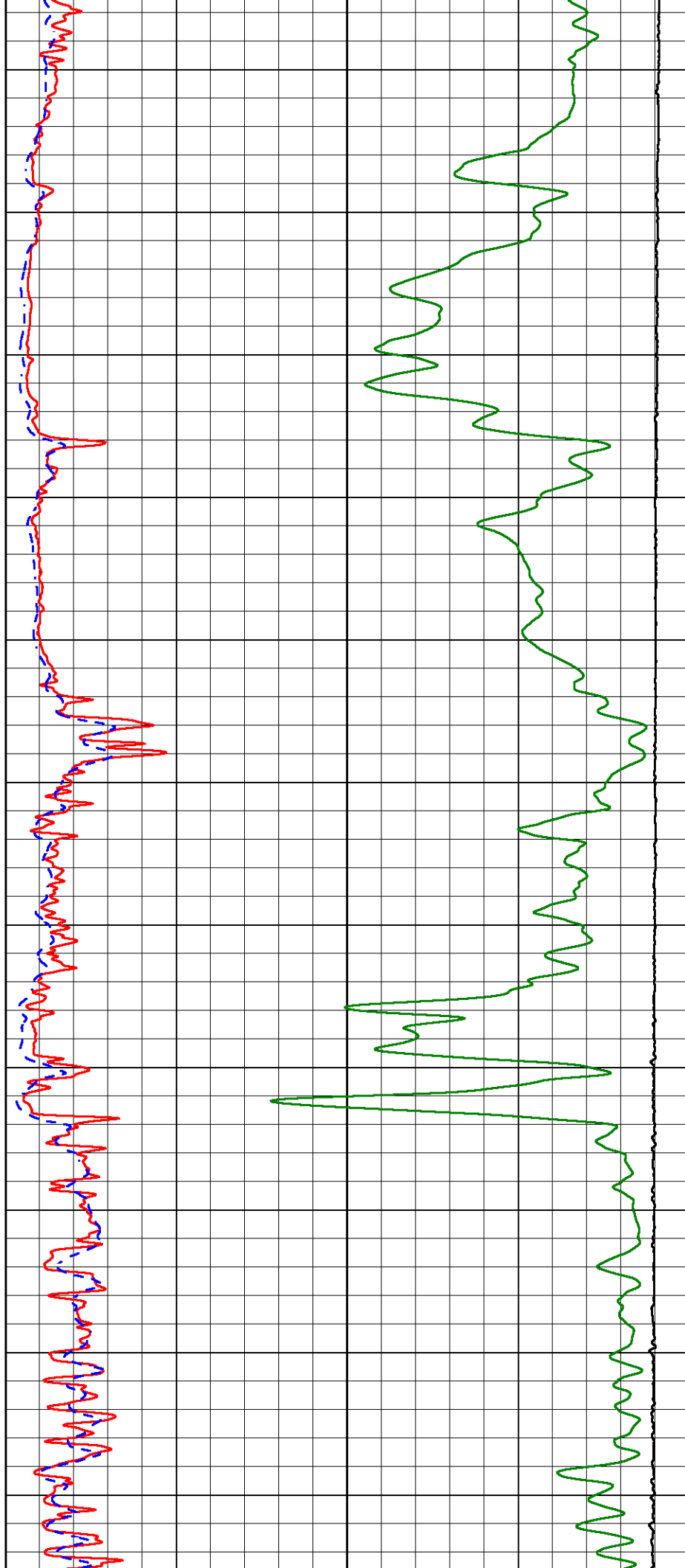
1450

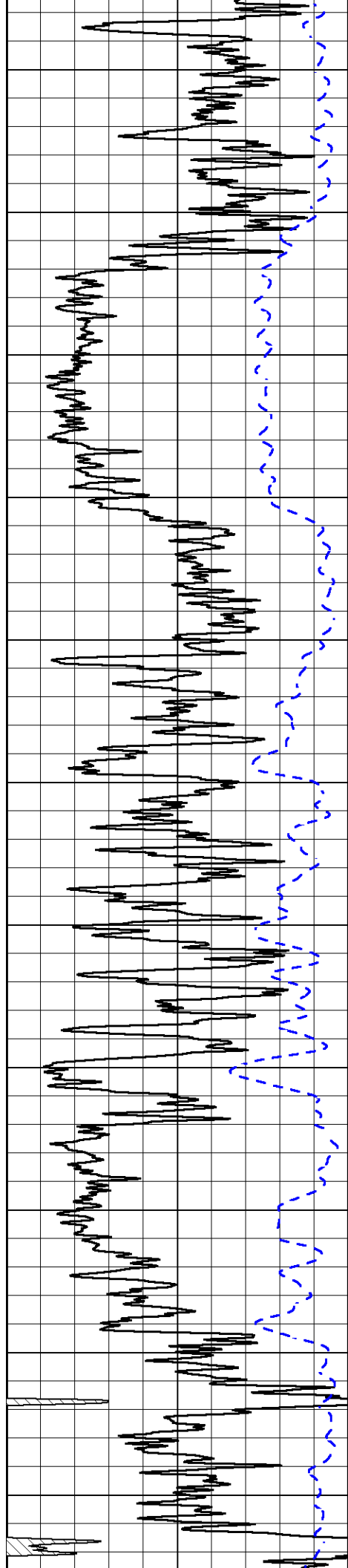
1500

1550

1600

1650





1700

1750

1800

1850

1900

1950

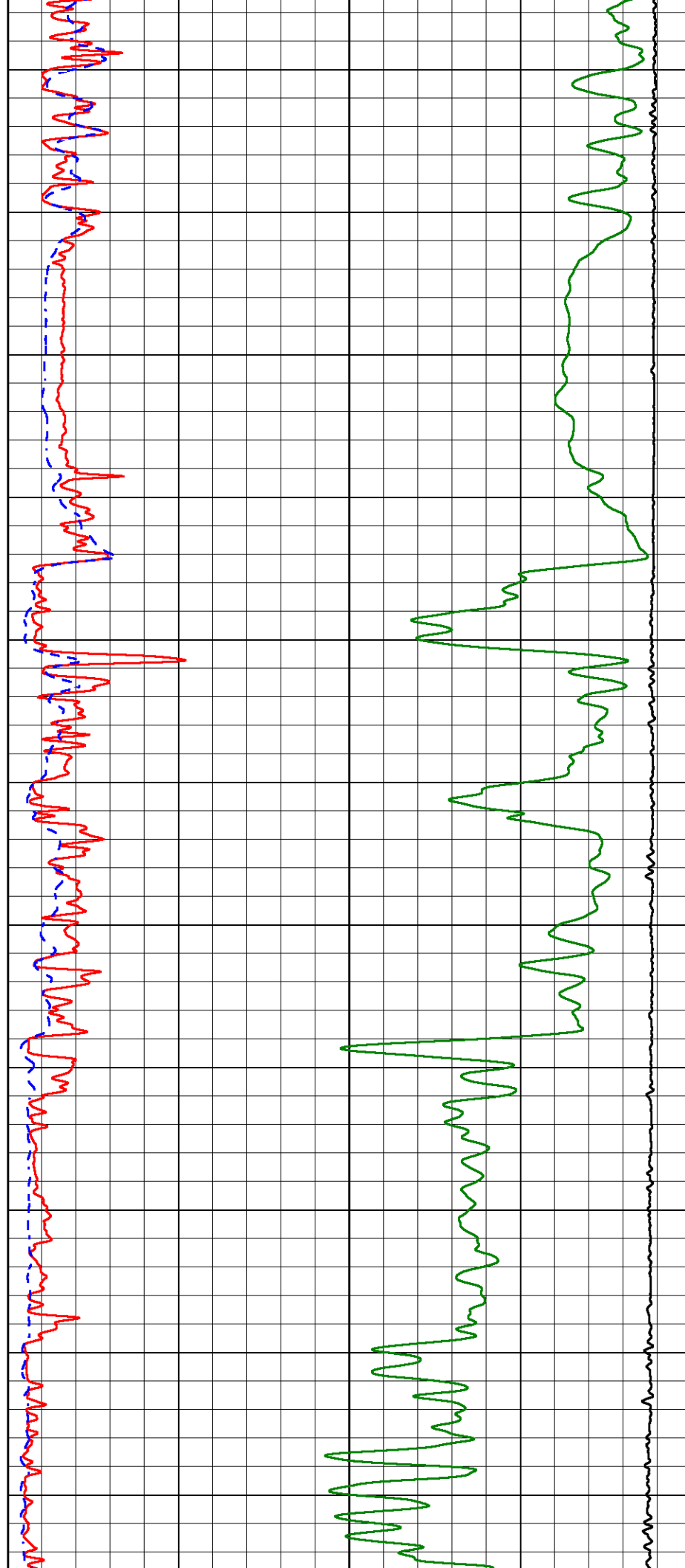
2000

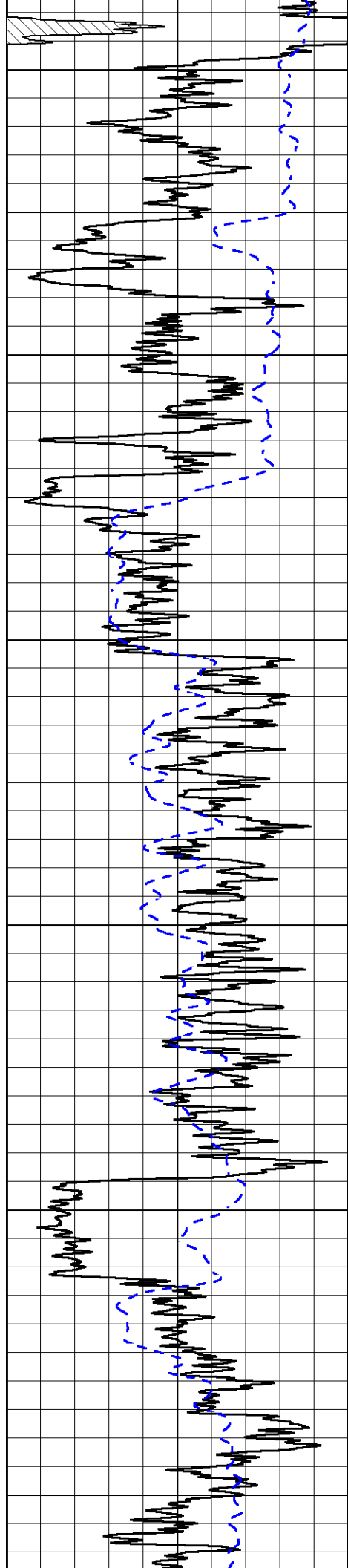
2050

2100

2150

2200





2250

2300

2350

2400

2450

2500

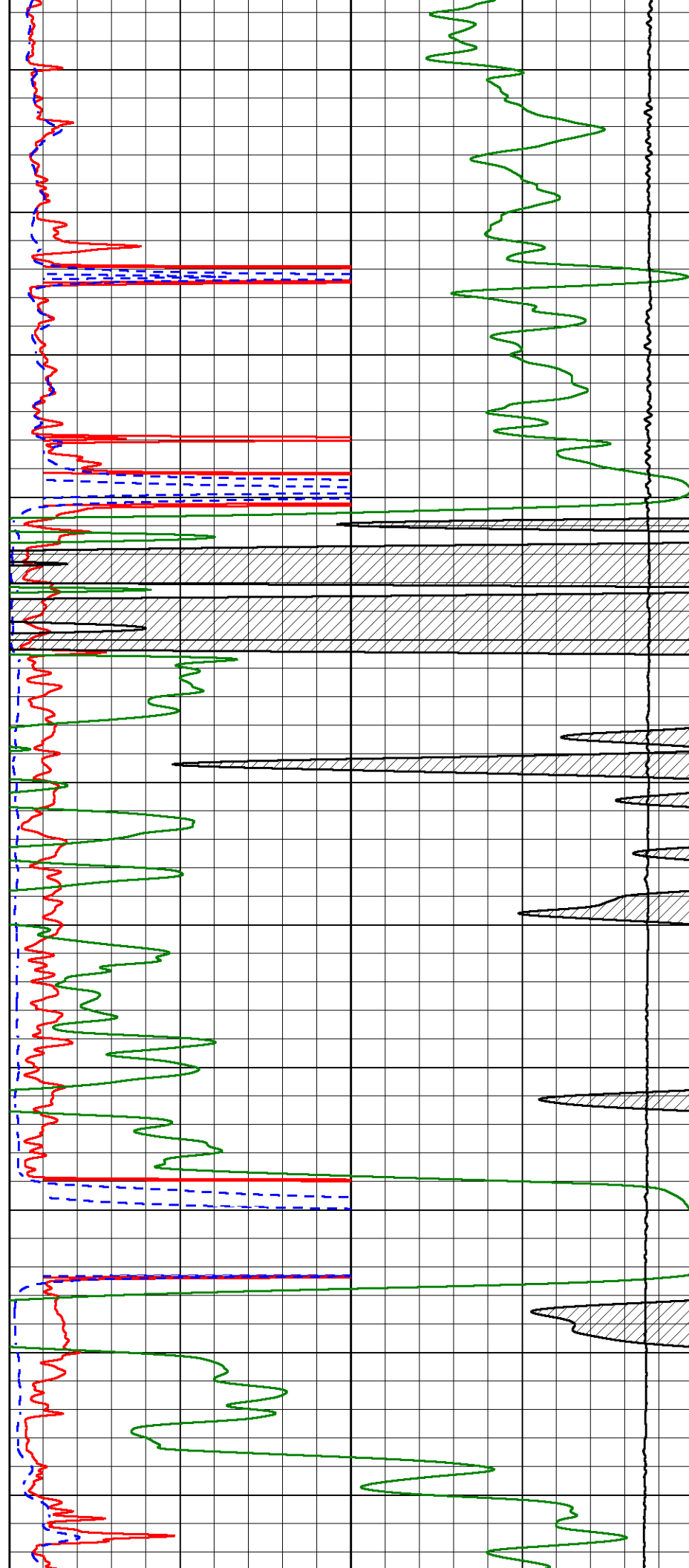
2550

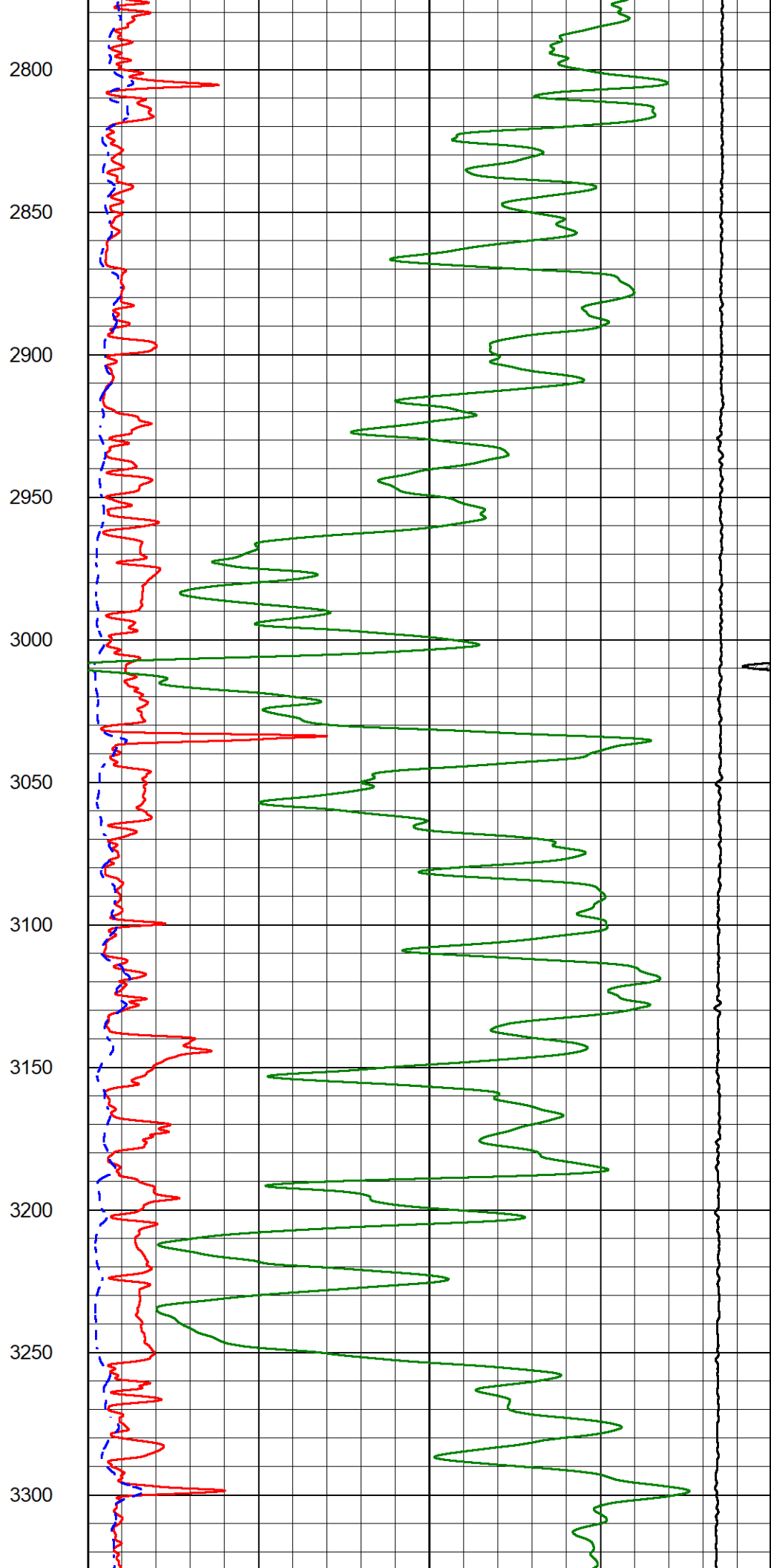
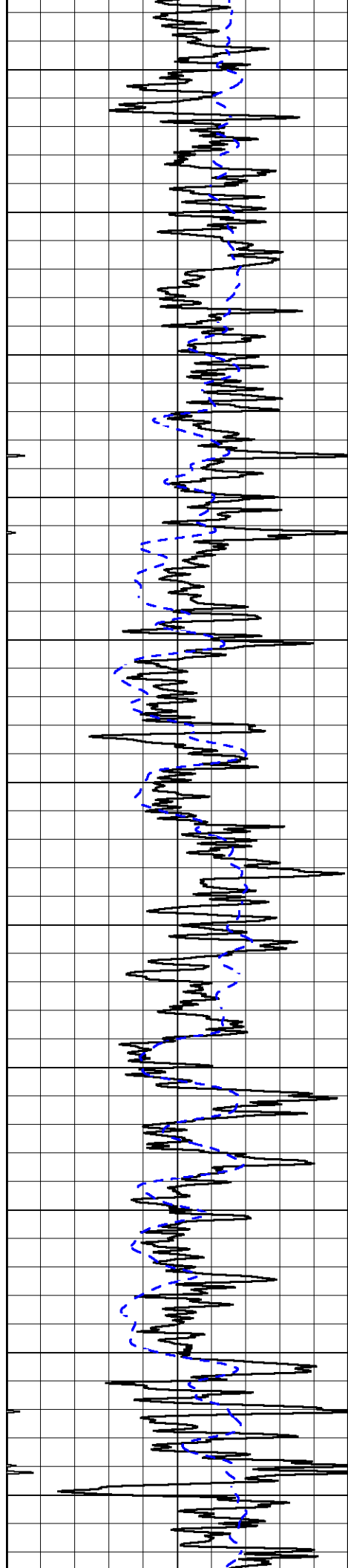
2600

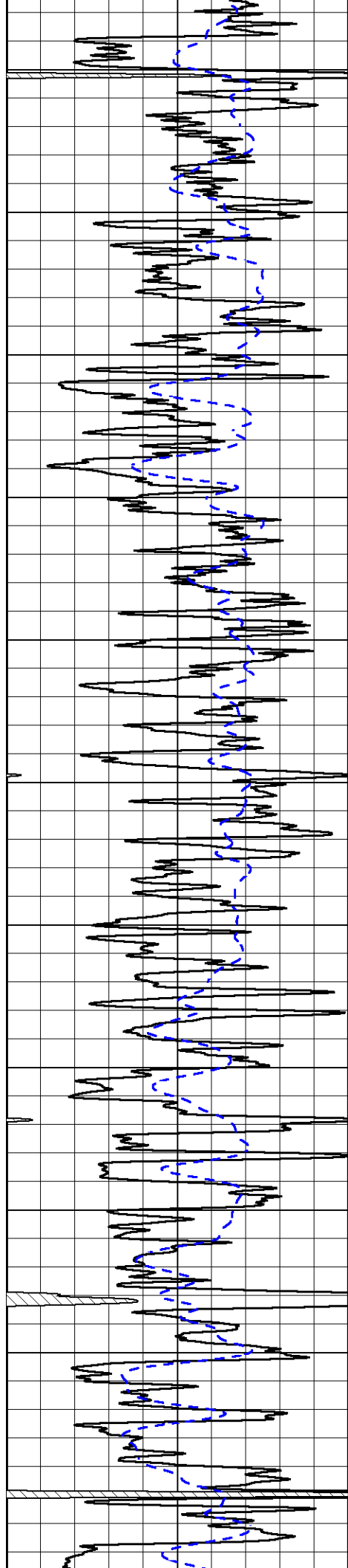
2650

2700

2750







3350

3400

3450

3500

3550

3600

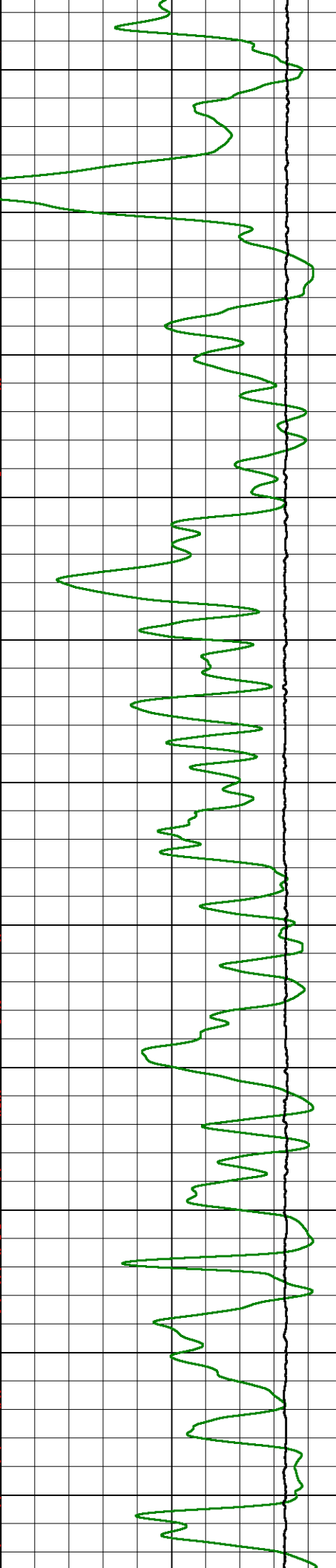
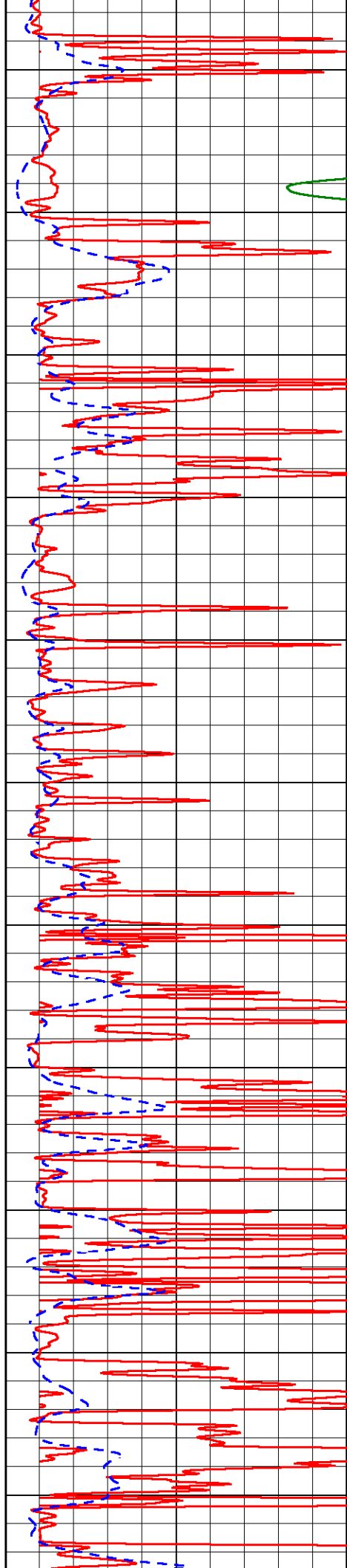
3650

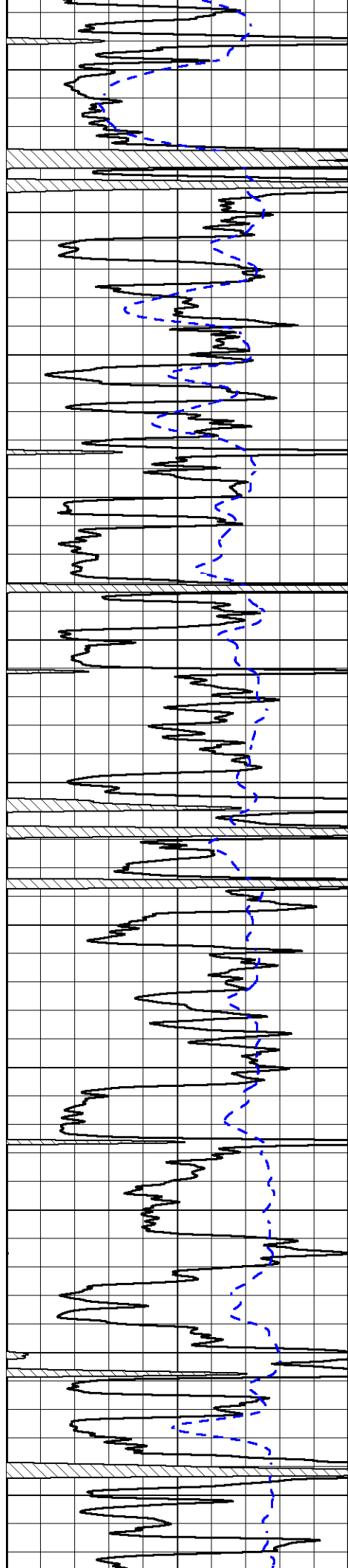
3700

3750

3800

3850





3900

3950

4000

4050

4100

4150

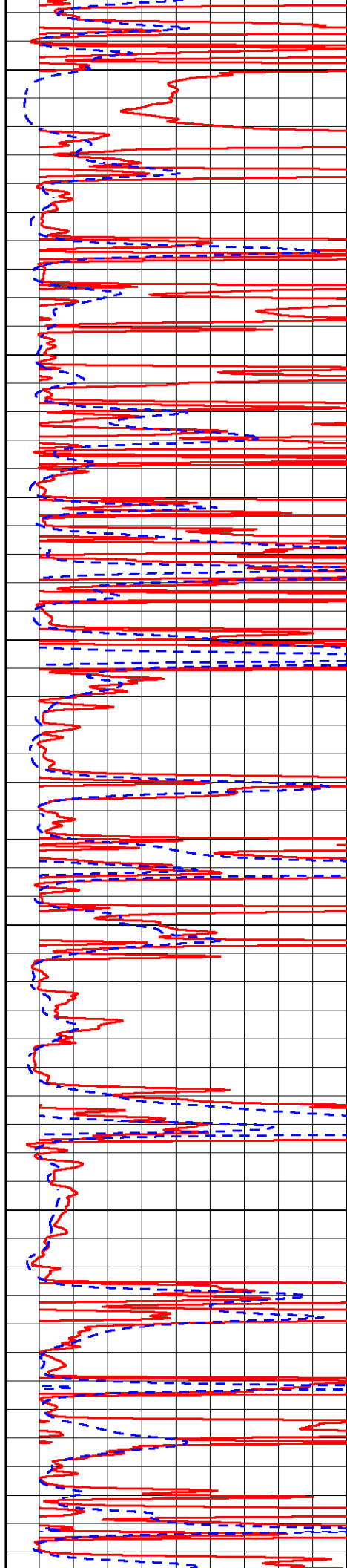
4200

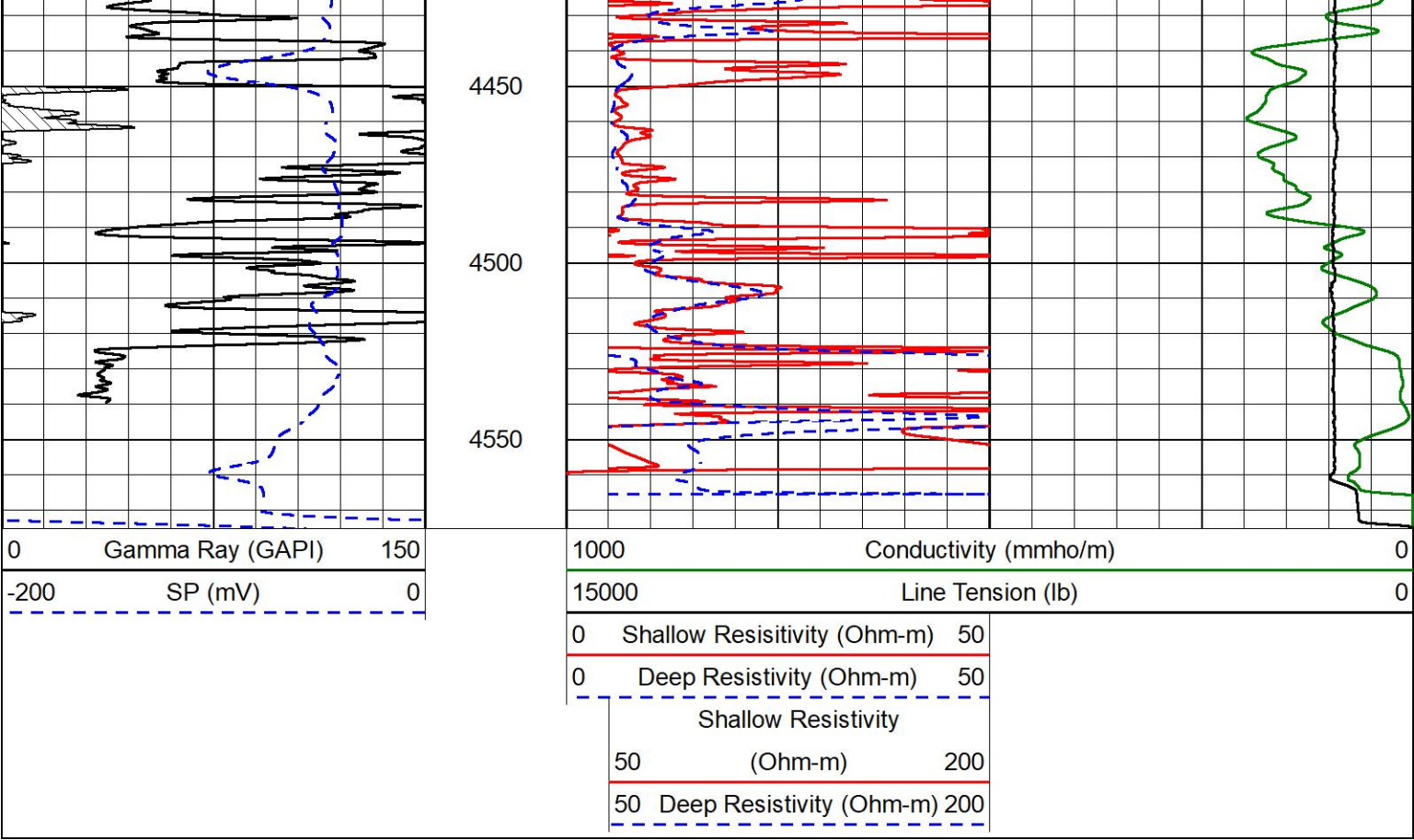
4250

4300

4350

4400

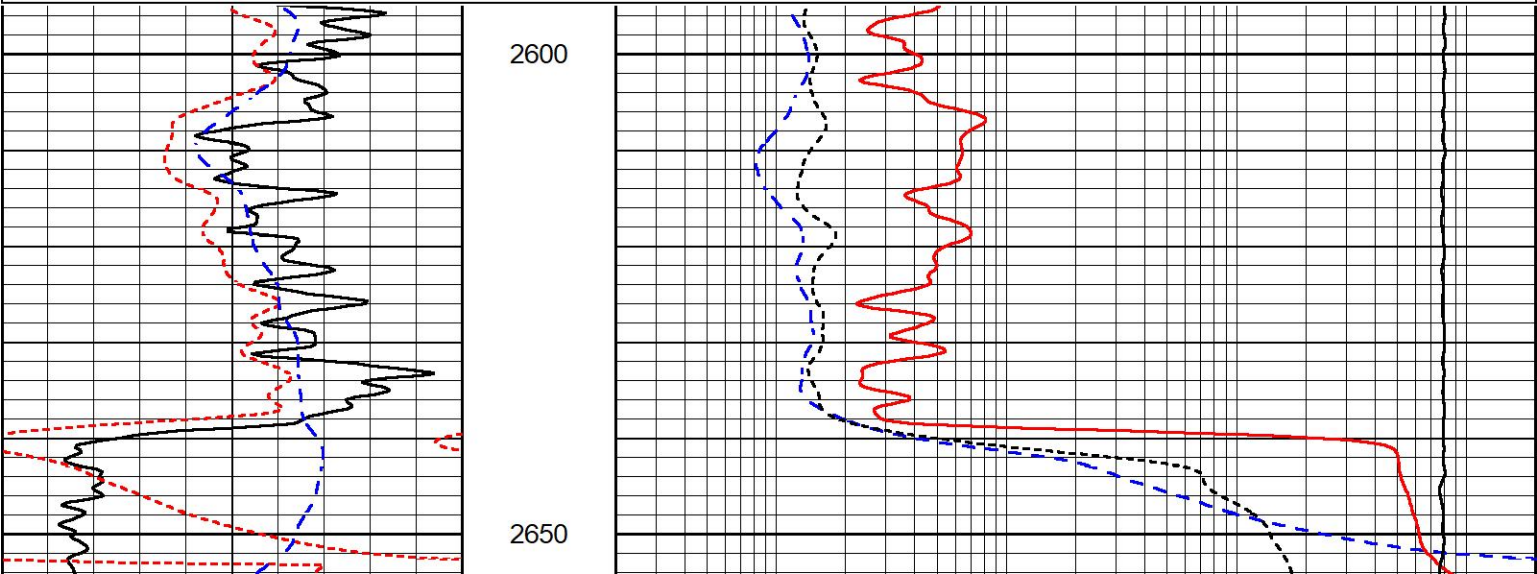
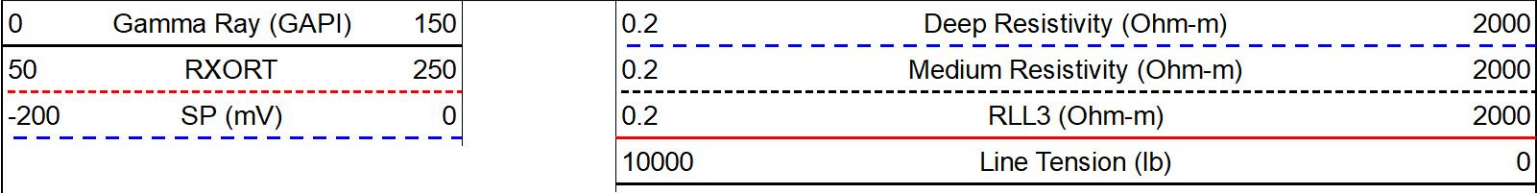


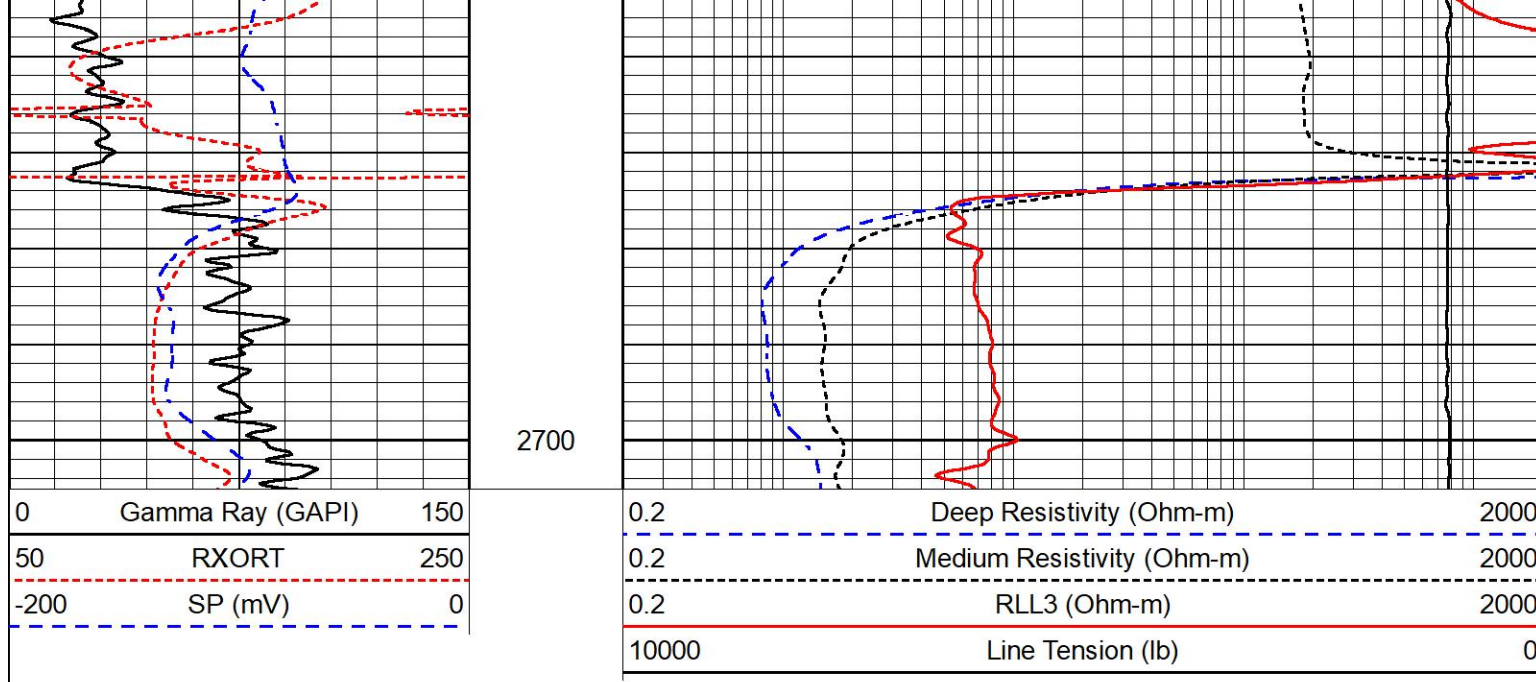


ANHYDRITE SECTION

MAIN PASS

Database File amwar_wark 1-21.db
Dataset Pathname stack/pass3.4
Presentation Format _dil
Dataset Creation Thu Aug 29 22:33:57 2024
Charted by Depth in Feet scaled 1:240



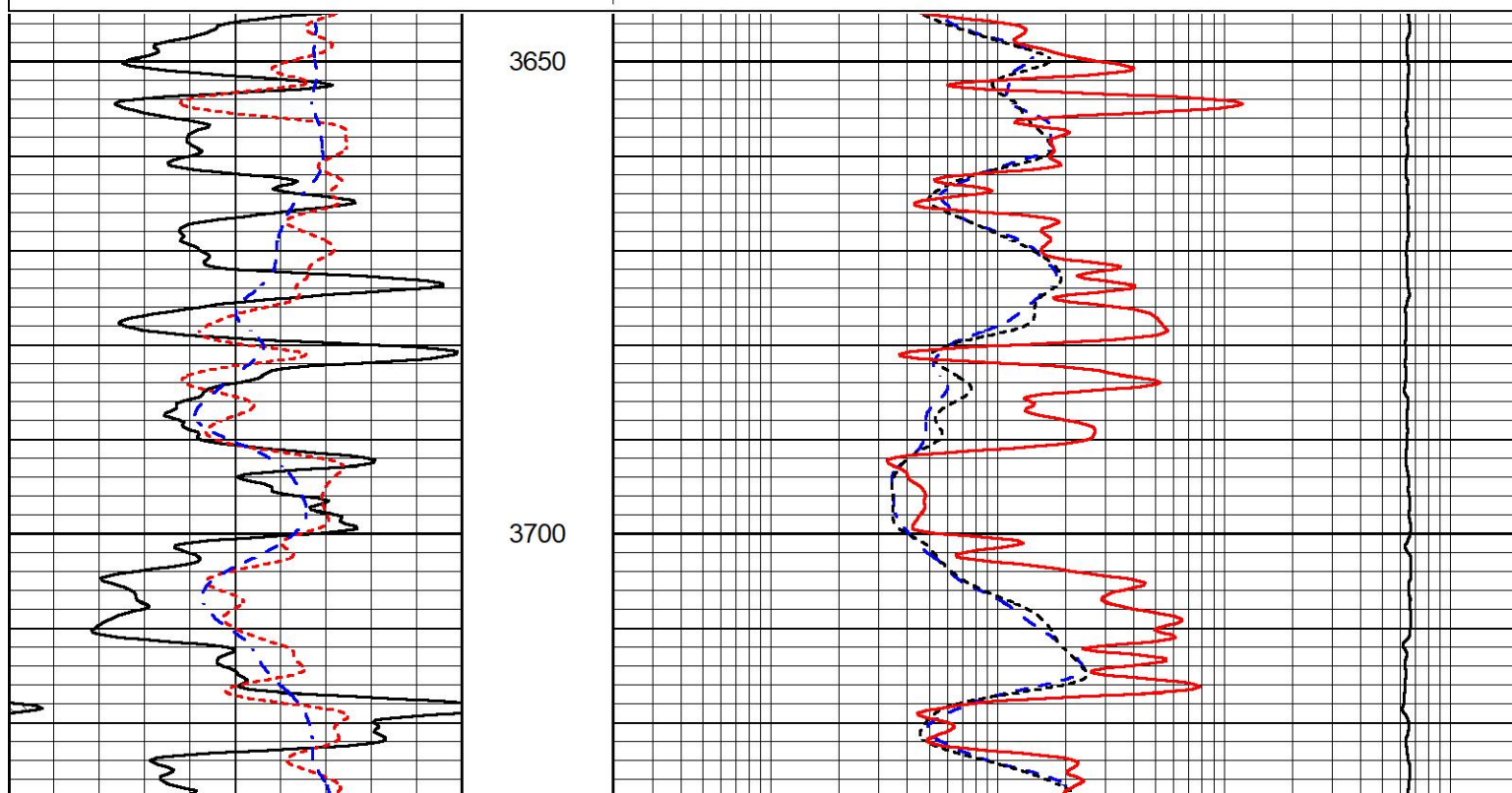
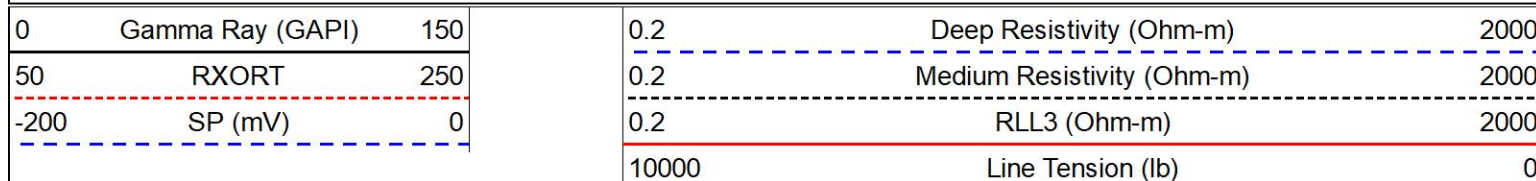


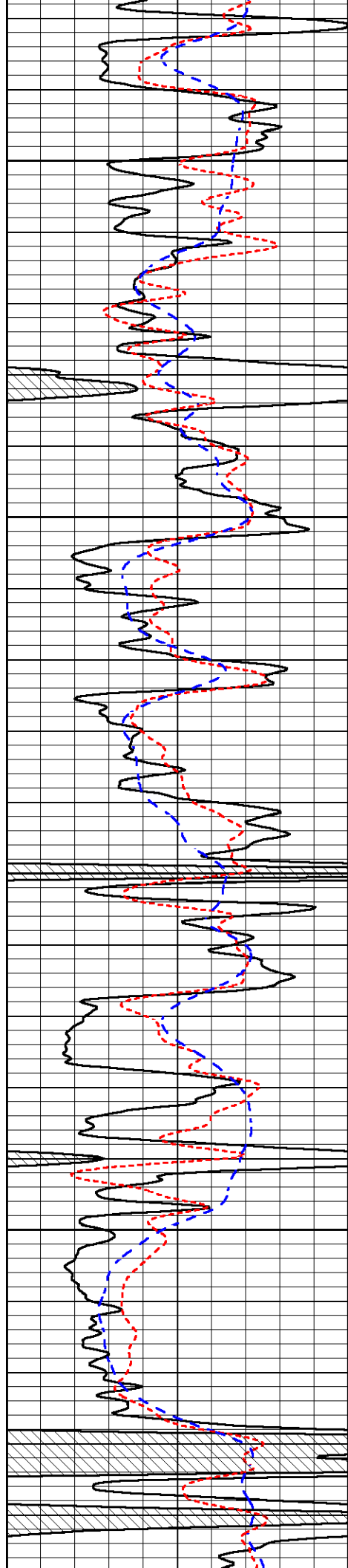
MIDWEST WIRELINE

DETAIL SECTION

MAIN PASS

Database File amwar_wark 1-21.db
 Dataset Pathname stack/pass3.1
 Presentation Format _dil
 Dataset Creation Thu Aug 29 22:33:31 2024
 Charted by Depth in Feet scaled 1:240



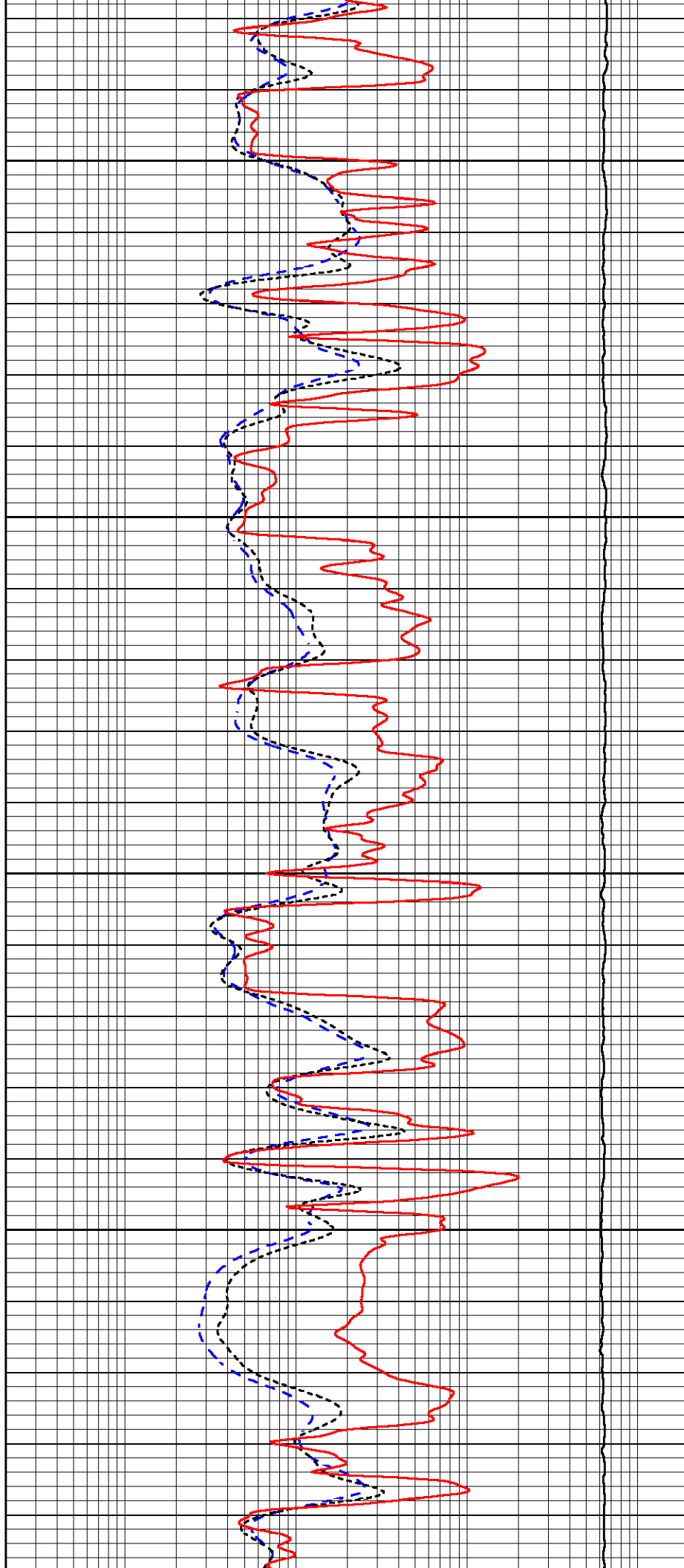


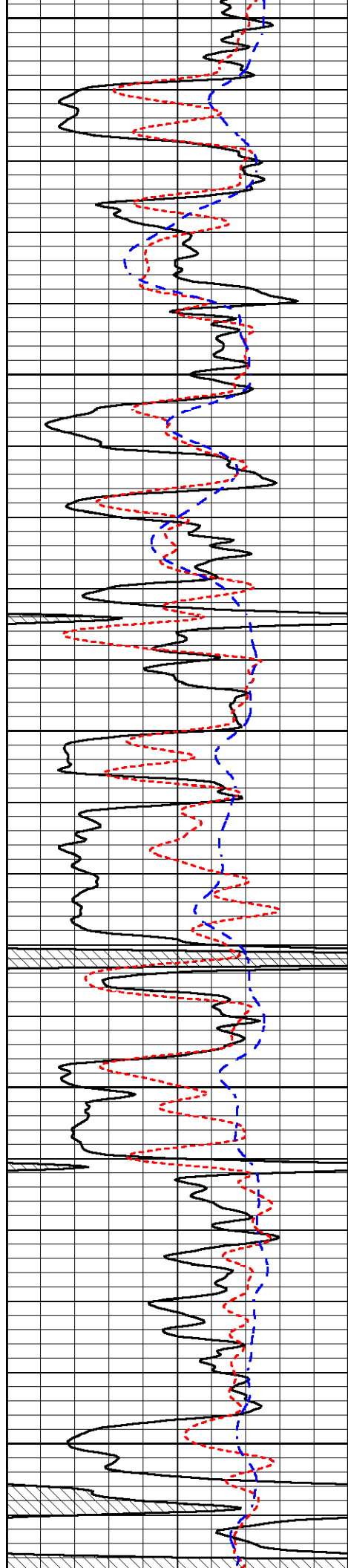
3750

3800

3850

3900





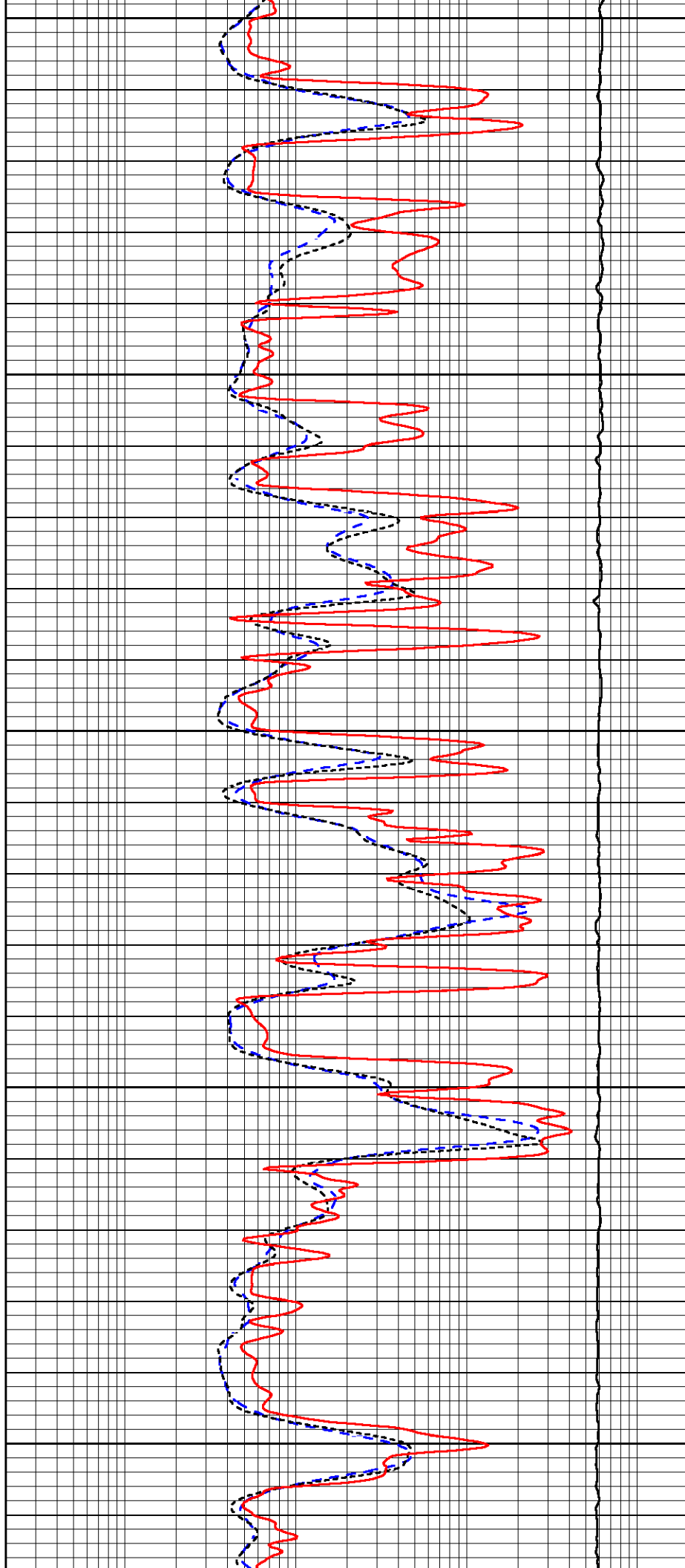
3950

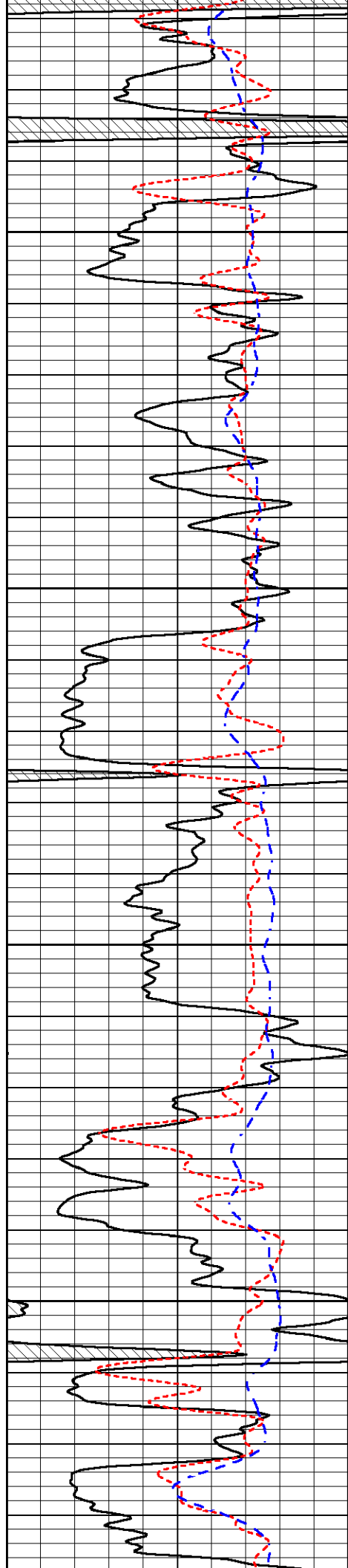
4000

4050

4100

4150



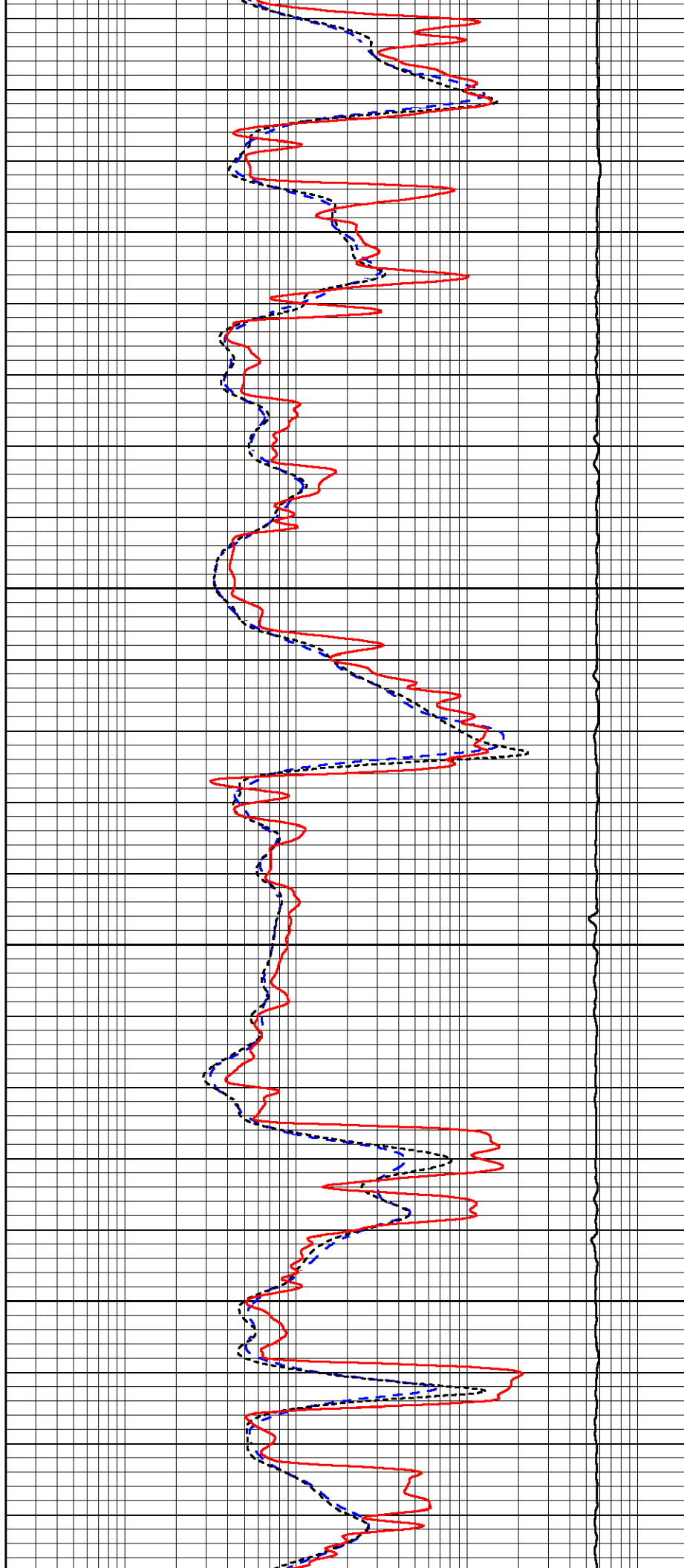


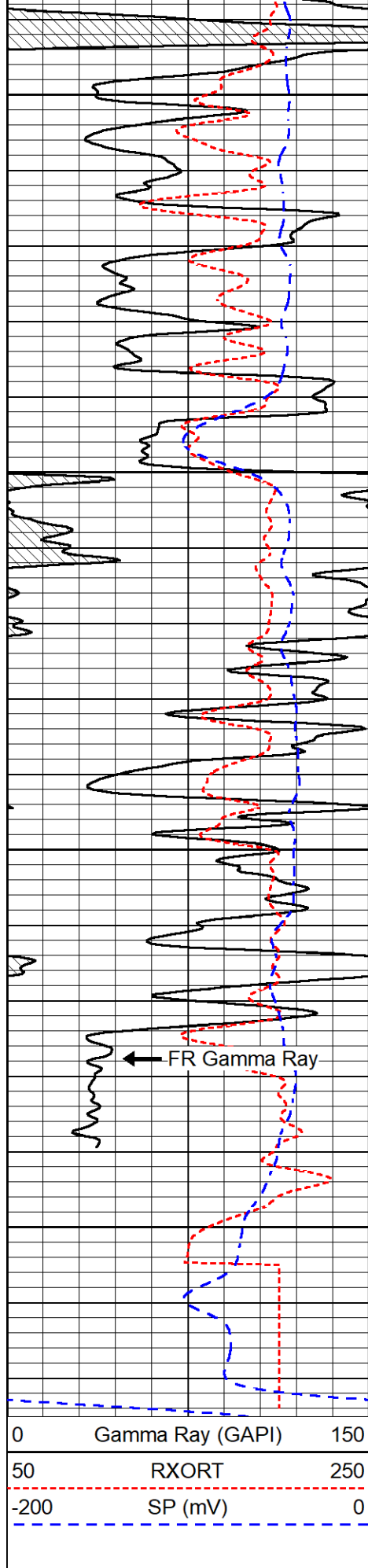
4200

4250

4300

4350



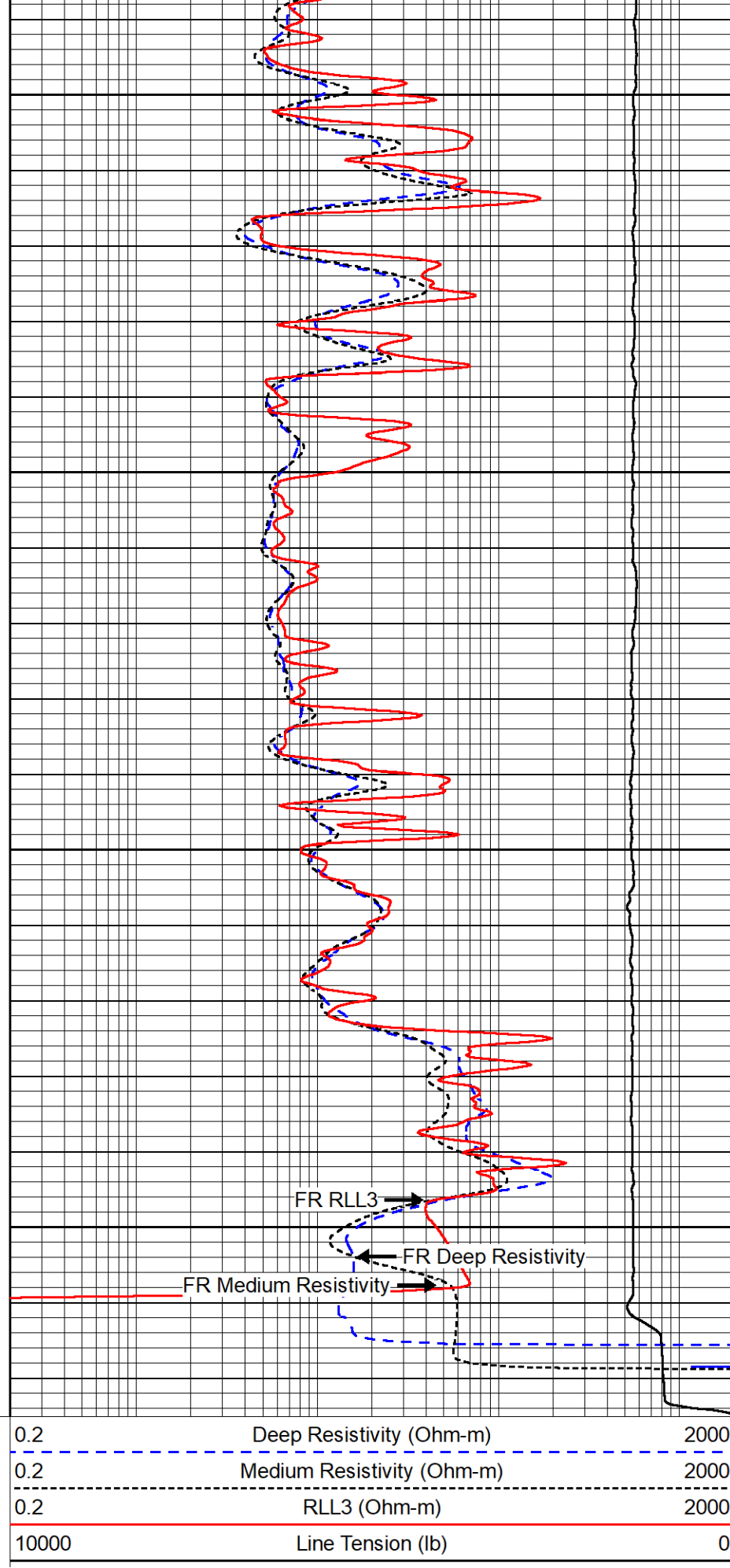


4400

4450

4500

4550



REPEAT SECTION

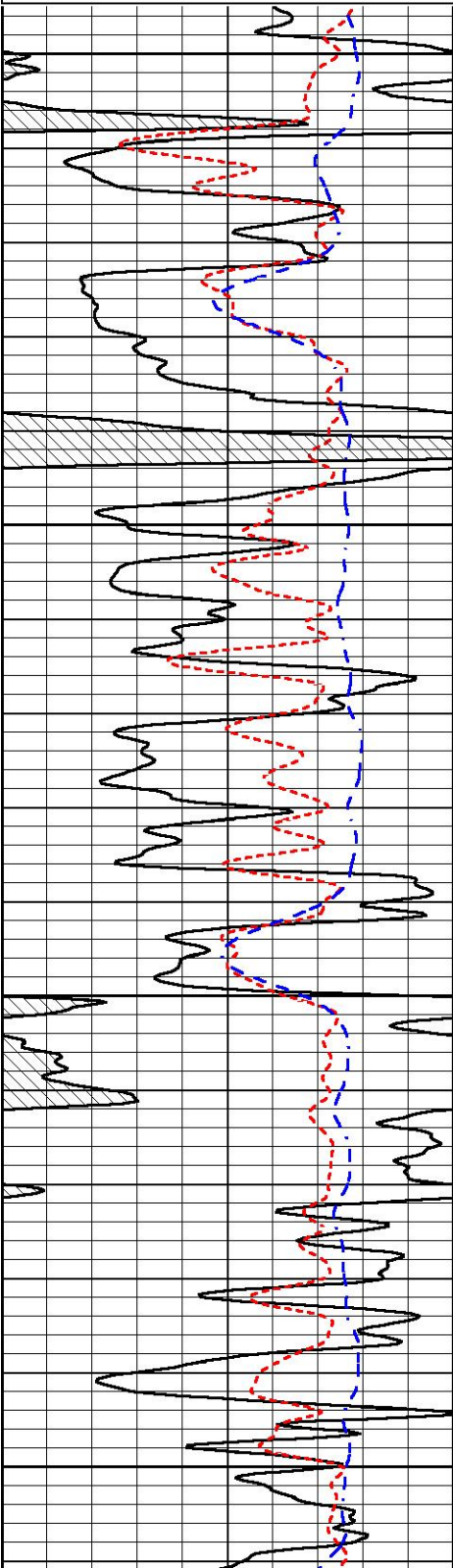


REPEAT PASS

Database File amwar_wark 1-21.db
Dataset Pathname stack/pass2.1
Presentation Format _dil
Dataset Creation Thu Aug 29 21:59:46 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

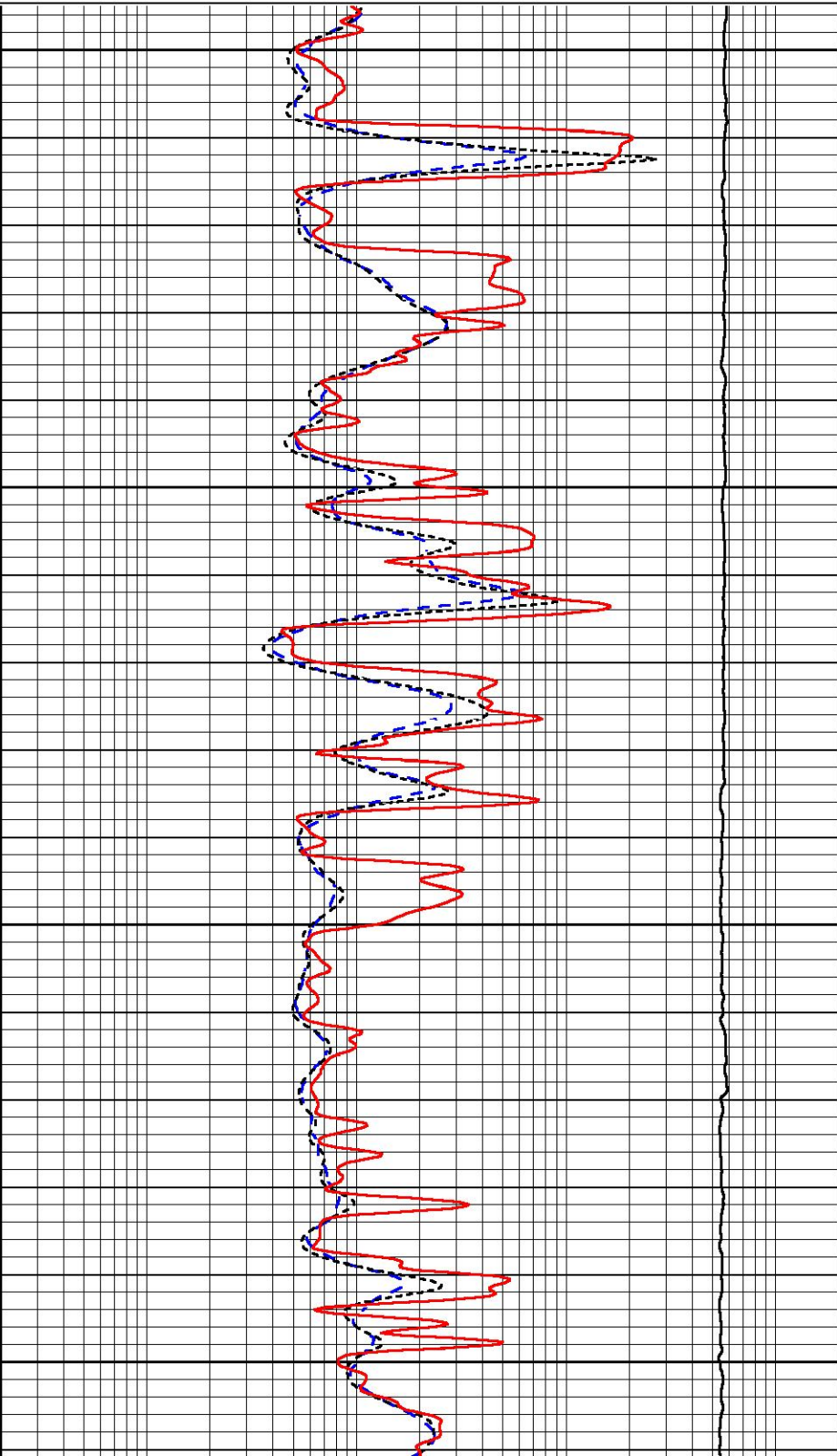


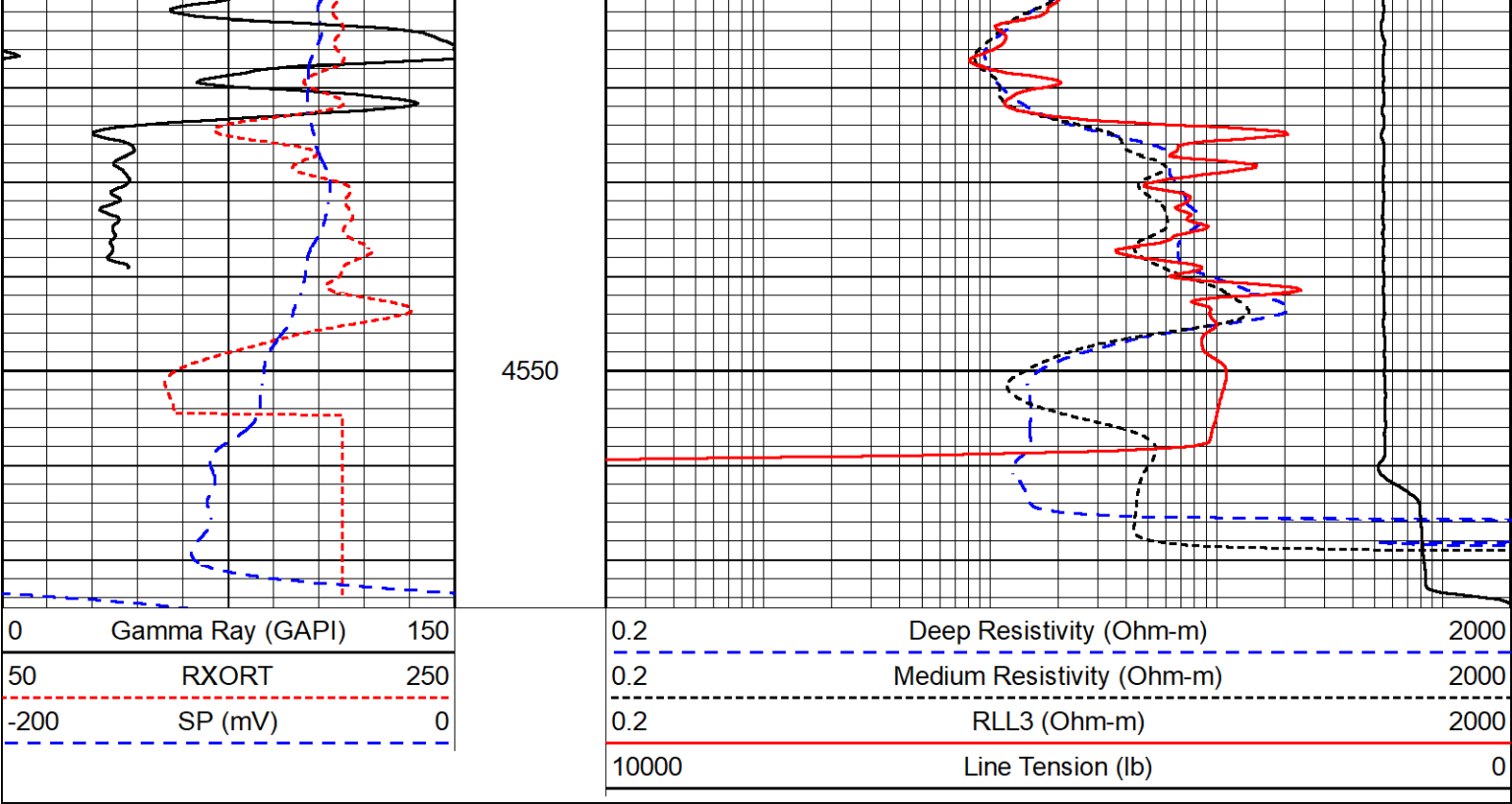
4350

4400

4450

4500





Calibration Report							
Database File	amwar_wark 1-21.db						
Dataset Pathname	stack/pass3.1						
Dataset Creation	Thu Aug 29 22:33:31 2024						
Dual Induction Calibration Report							
Serial-Model:				508A-M&W			
Surface Cal Performed:				Thu Aug 29 21:13:42 2024			
		Readings		References		Results	
Loop:	Air	Loop		Air	Loop	m	b
Deep	84.200	428.150		0.000	255.800 mmho/m	0.485	-50.000
Medium	141.000	670.654		0.000	255.800 mmho/m	0.410	-42.000
Compensated Density Calibration Report							
Serial-Model:				303-03-M&W			
Source #:				21170B			
Master Calibration Performed:				Fri Mar 22 13:26:25 2024			

Master Calibration					
	Density		Far Detector	Near Detector	
Magnesium	1.680	g/cc	5466.68	7555.42	cps
Aluminum	2.580	g/cc	1173.67	5050.86	cps
Spine Angle = 75.33			Density/Spine Ratio = 0.566		
	Size		Reading		
Small Ring	4.00	in	1.17		
Large Ring	14.00	in	1.07		

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



Company American Warrior, Inc.
Well Wark #1-21
Field
County Thomas
State Kansas