

DUAL INDUCTION LOG

MIDWEST WIRELINE

Company Hawkins Oil LLC		Company Hawkins Oil LLC	
Well	JW Smith #5B	Well	JW Smith #5B
Field	Augusta	Field	Augusta
County	Butler	County	Butler
State	Kansas	State	Kansas
Location: API #: 15-15-24190-00-00		Other Services	
SEC 20 TWP 28S RGE 4E		CNL/CDL MEL	
Permanent Datum	Ground Level	Elevation	1272
Log Measured From	Kelly Bushing	K.B.	1281
Drilling Measured From	Kelly Bushing	D.F.	
		G.L.	1272
Date	3/1/2023		
Run Number	One		
Depth Driller	2936		
Depth Logger	2937		
Bottom Logged Interval	2936		
Top Log Interval	200		
Casing Driller	8.625 @ 218		
Casing Logger	220		
Bit Size	7.875		
Type Fluid in Hole	Chemical		
Salinity, ppm CL	900		
Density / Viscosity	9.2 41		
pH / Fluid Loss	10.5 9.6		
Source of Sample	Flowline		
Rm @ Meas. Temp	1.2 @ 68		
Rmt @ Meas. Temp	0.9 @ 68		
Rmc @ Meas. Temp	1.62 @ 68		
Source of Rmt / Rmc	Charts		
Rm @ BHT	0.77 @ 105		
Operating Rig Time	2 Hours		
Max Rec. Temp. F	109		
Equipment Number	P-24		
Location	Hays		
Recorded By	T. Martin		
Witnessed By	Bill Stout		

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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.

Andover, KS, 5 E on 400 to SW Santa Fe Lake Rd,
5 S to SW 150th, 1 E to SW Diamond Rd, 3/4 S, E into

Log Measured From: Kelly Bushing 6 Ft. Above Permanent Datum

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

Your Midwest Wireline Crew

Engineer: T. Martin
Operator:
Operator:
Operator:

This Log Record Was Witnessed By

Primary Witness: Bill Stout
Secondary Witness:
Secondary Witness:
Secondary Witness:

Log Variables

DatabaseC:\ProgramData\Warrior\Data\hawkins_jw smith #5b.db
Dataset field/well/StkMI/pass3.1/_vars_

Top - Bottom

A	BOREID	BOTTEMP	CASEOD	CASETHCK	FLUIDDEN	M	MATRXDEN
1	in	degF	in	in	g/cc	2	g/cc
	7.875	105	5.5	0	1		2.71
NPORSEL	PERFS	SNDERR	SNDERRM	SPSHIFT	SRFTEMP	SZCOR	TDEPTH
Limestone	No	mmho/m	mmho/m	mV	degF	Off	ft
		0	0	60	40		2937

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

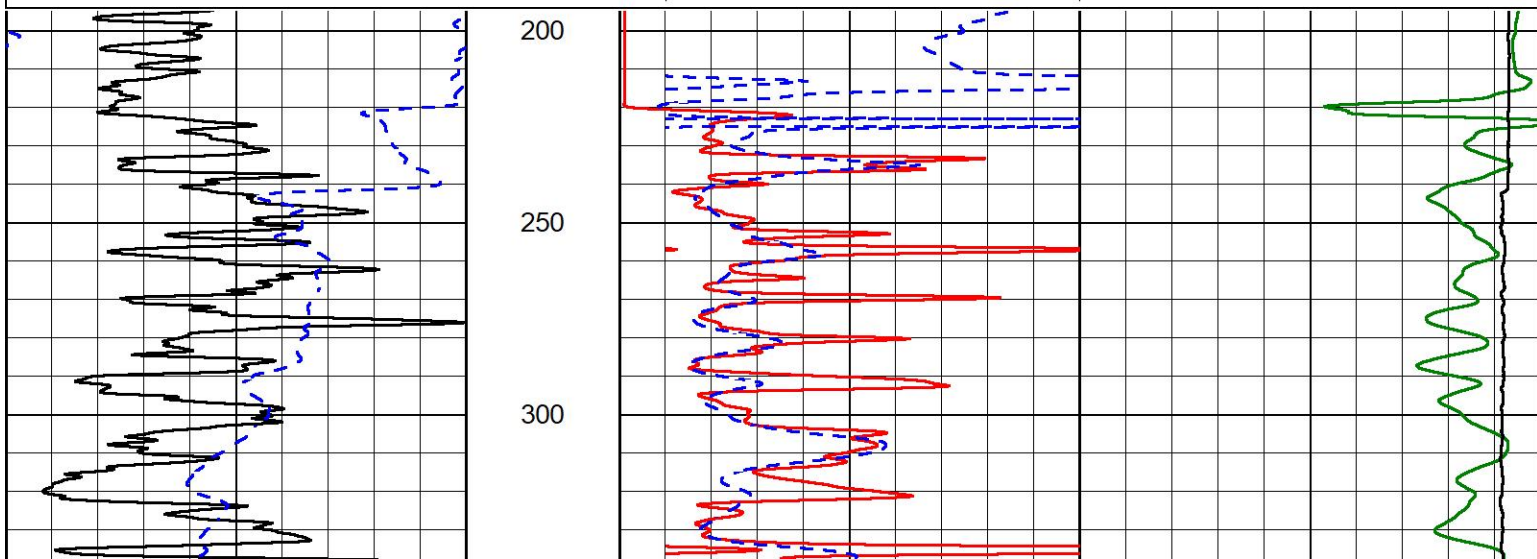


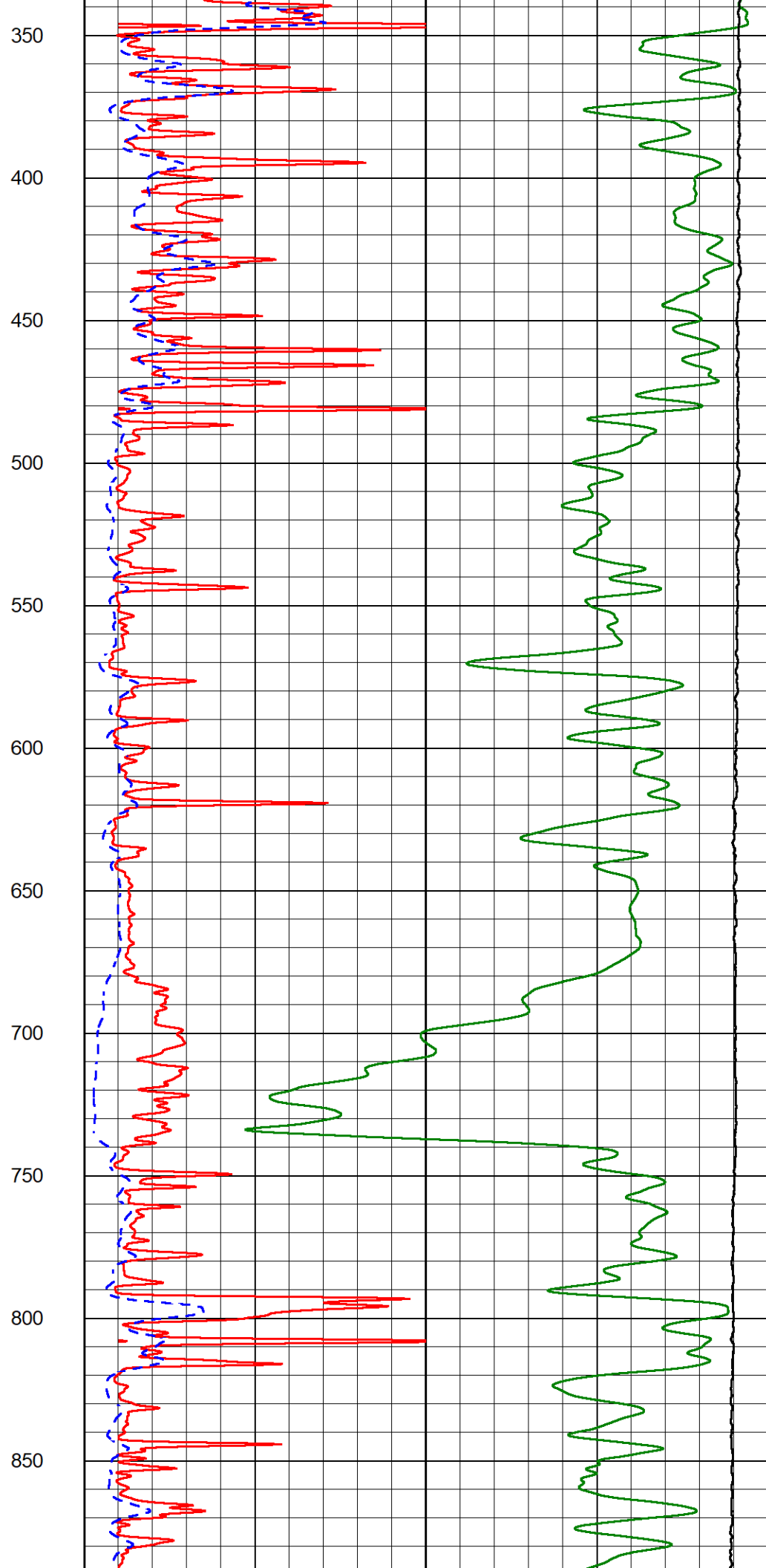
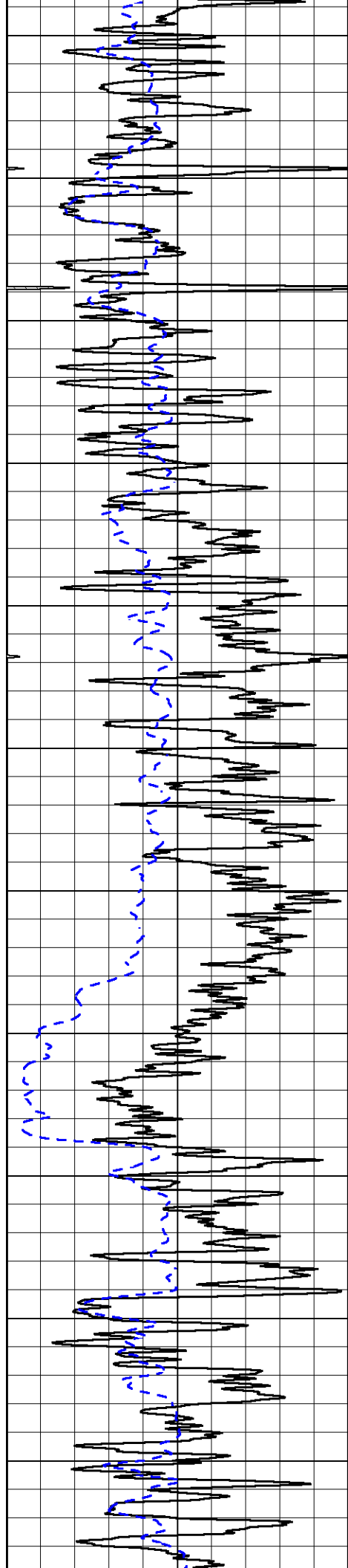
2" SCALE RESISTIVITY

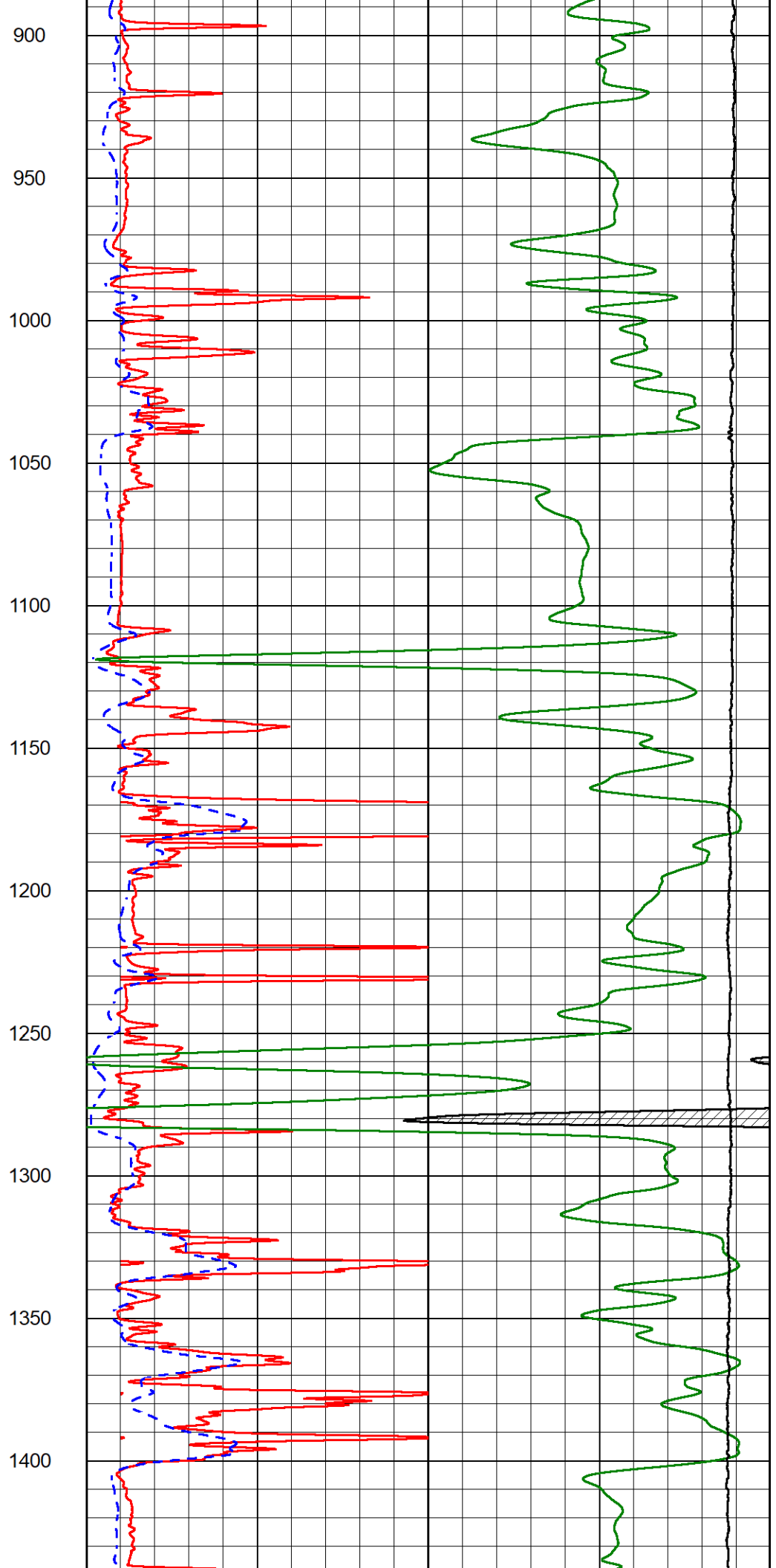
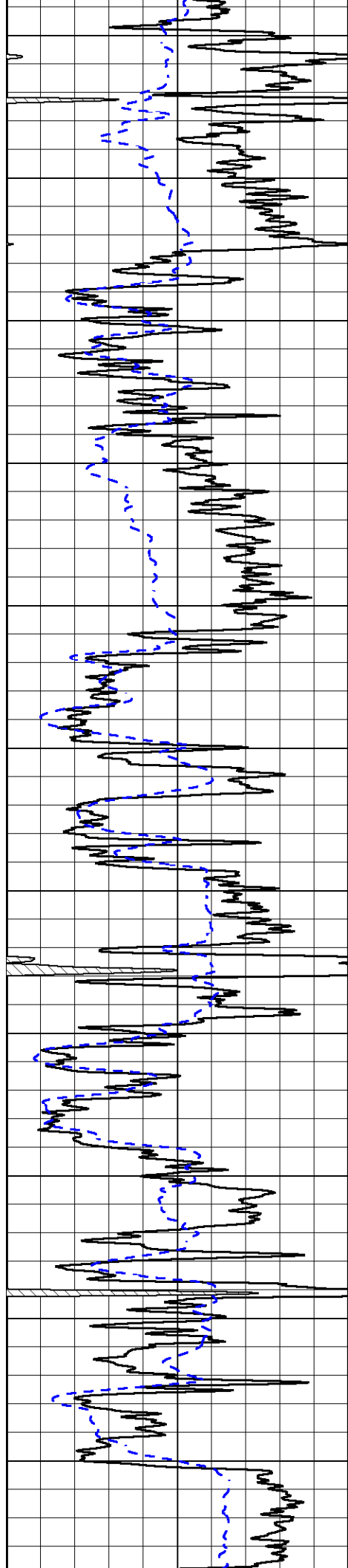
MAIN PASS

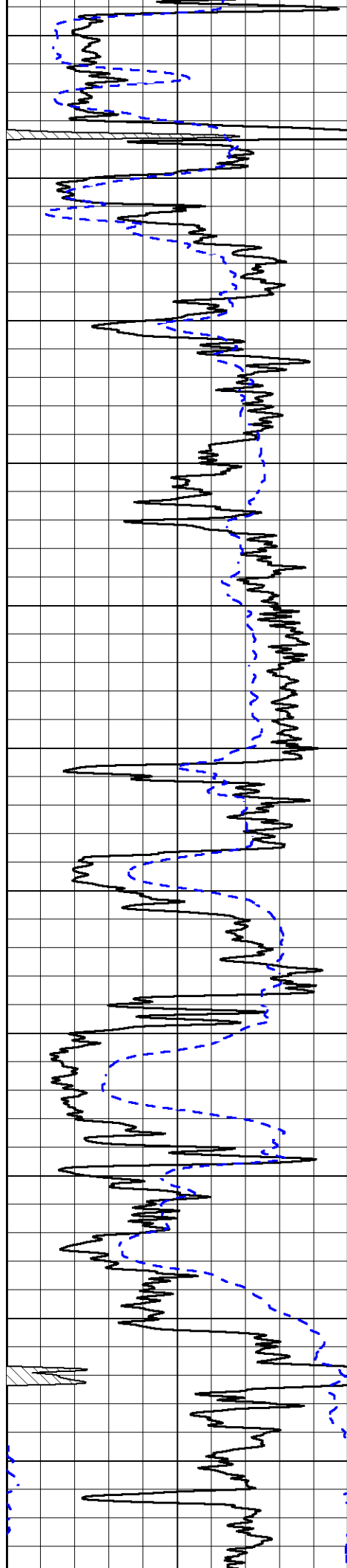
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Dataset Pathname StkMI/pass3.2
Presentation Format _dil2in
Dataset Creation Wed Mar 01 11:15:16 2023
Charted by Depth in Feet scaled 1:600

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









1450

1500

1550

1600

1650

1700

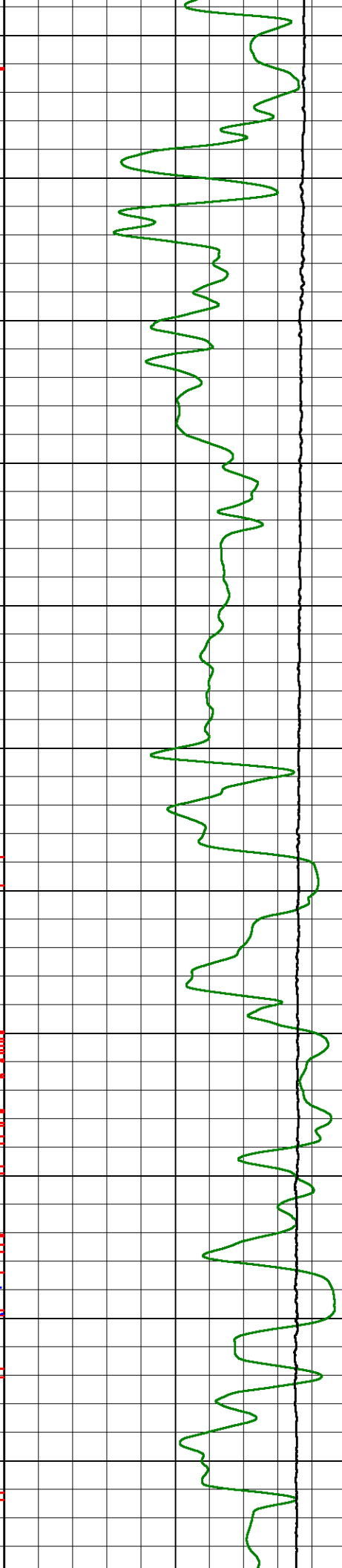
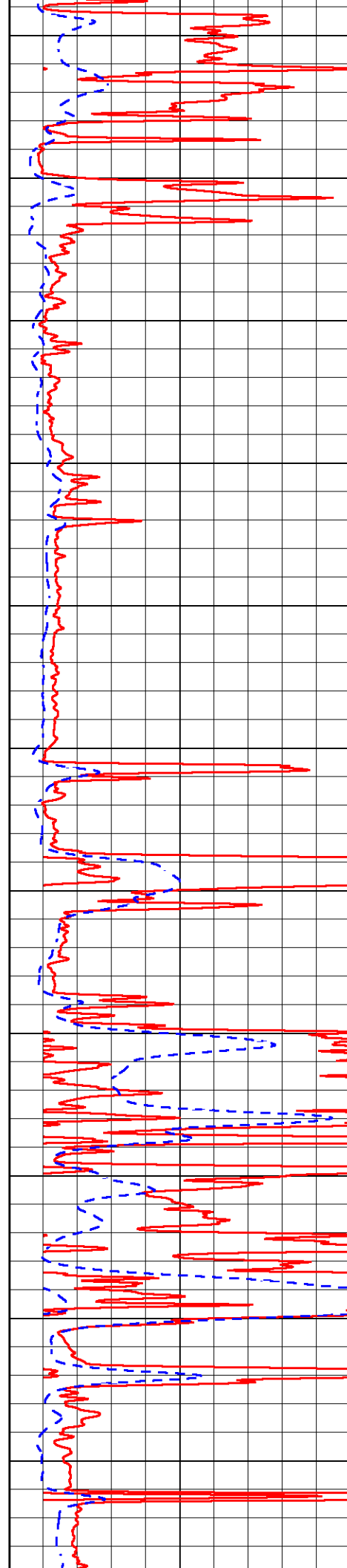
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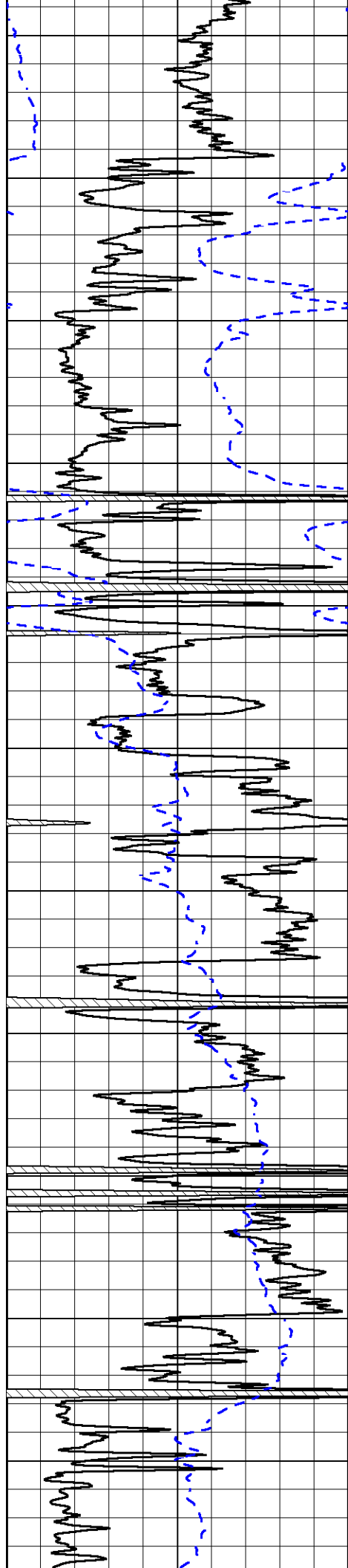
1800

1850

1900

1950





2000

2050

2100

2150

2200

2250

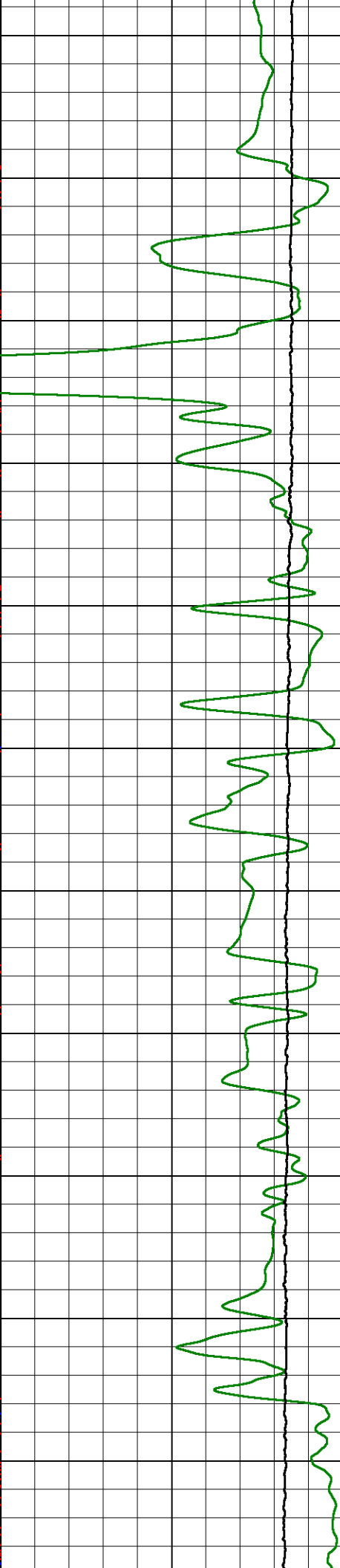
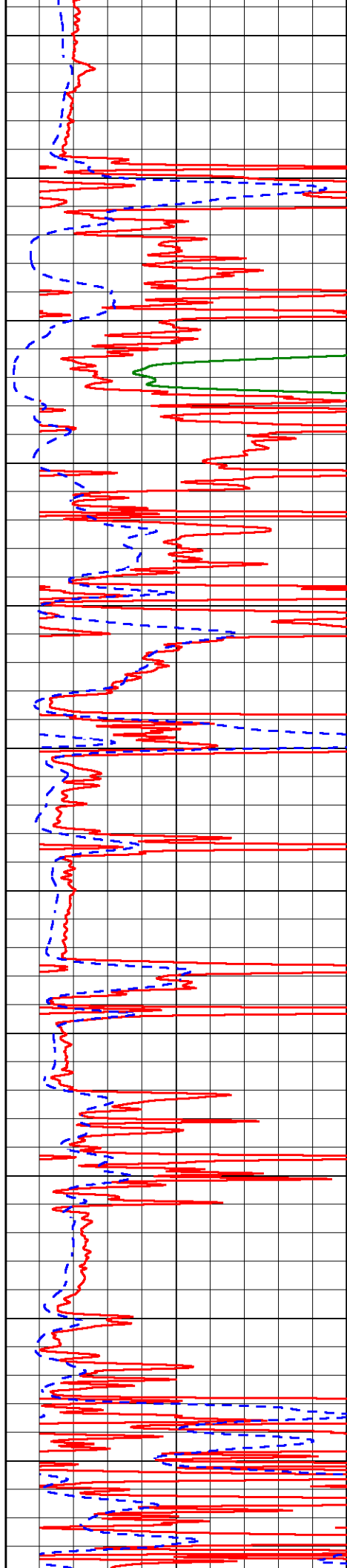
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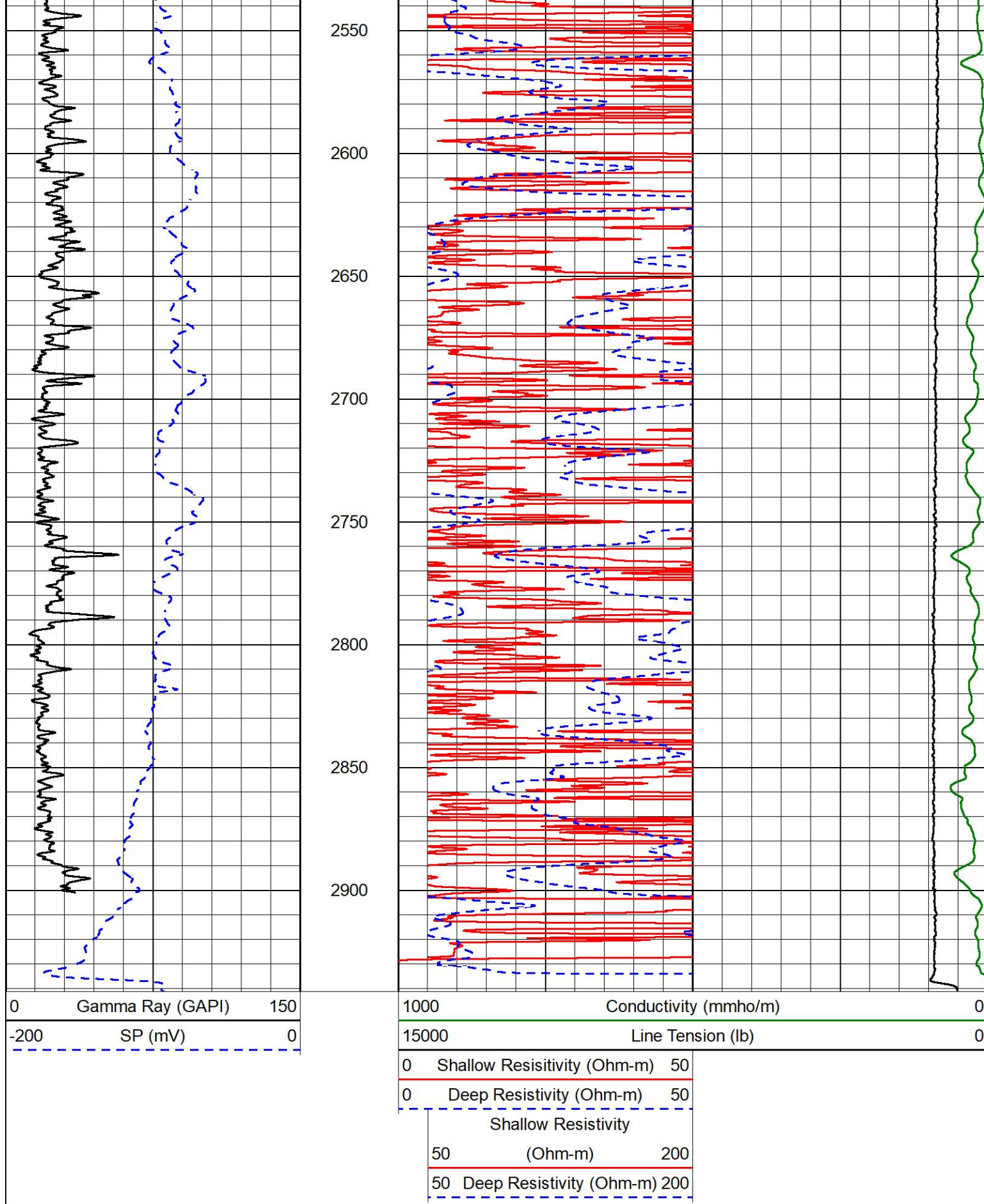
2350

2400

2450

2500





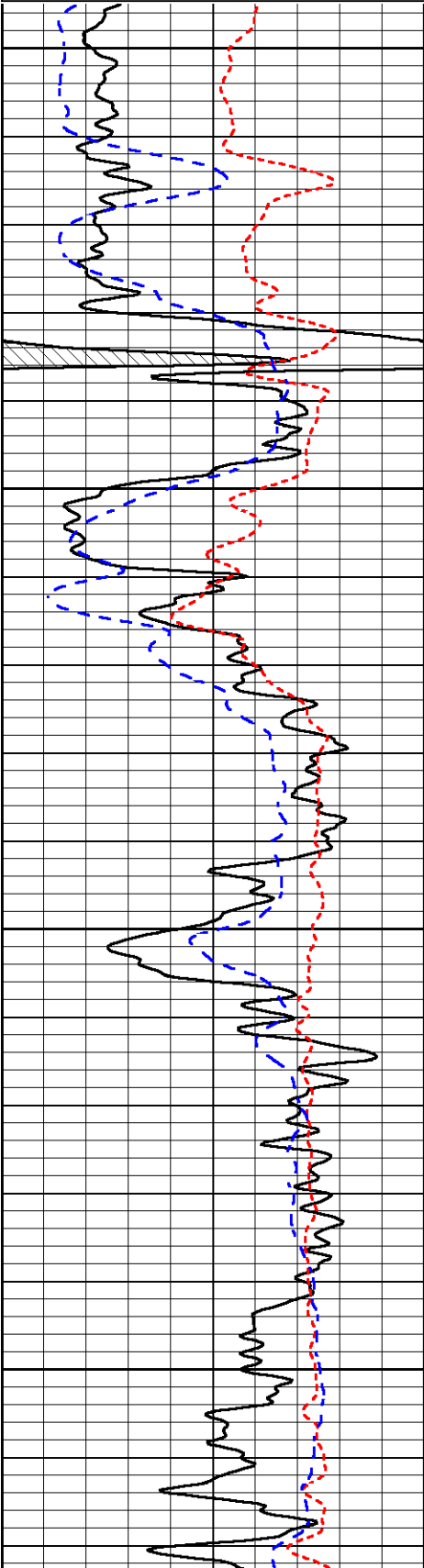
DETAIL SECTION

MAIN PASS

Database File hawkins_jw smith #5b.db
Dataset Pathname StkMI/pass3.1
Presentation Format _dil
Dataset Creation Wed Mar 01 11:15:27 2023
Charted by Depth in Feet scaled 1:240

0	Gamma Ray (GAPI)	150
-160	RXORT	40
-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

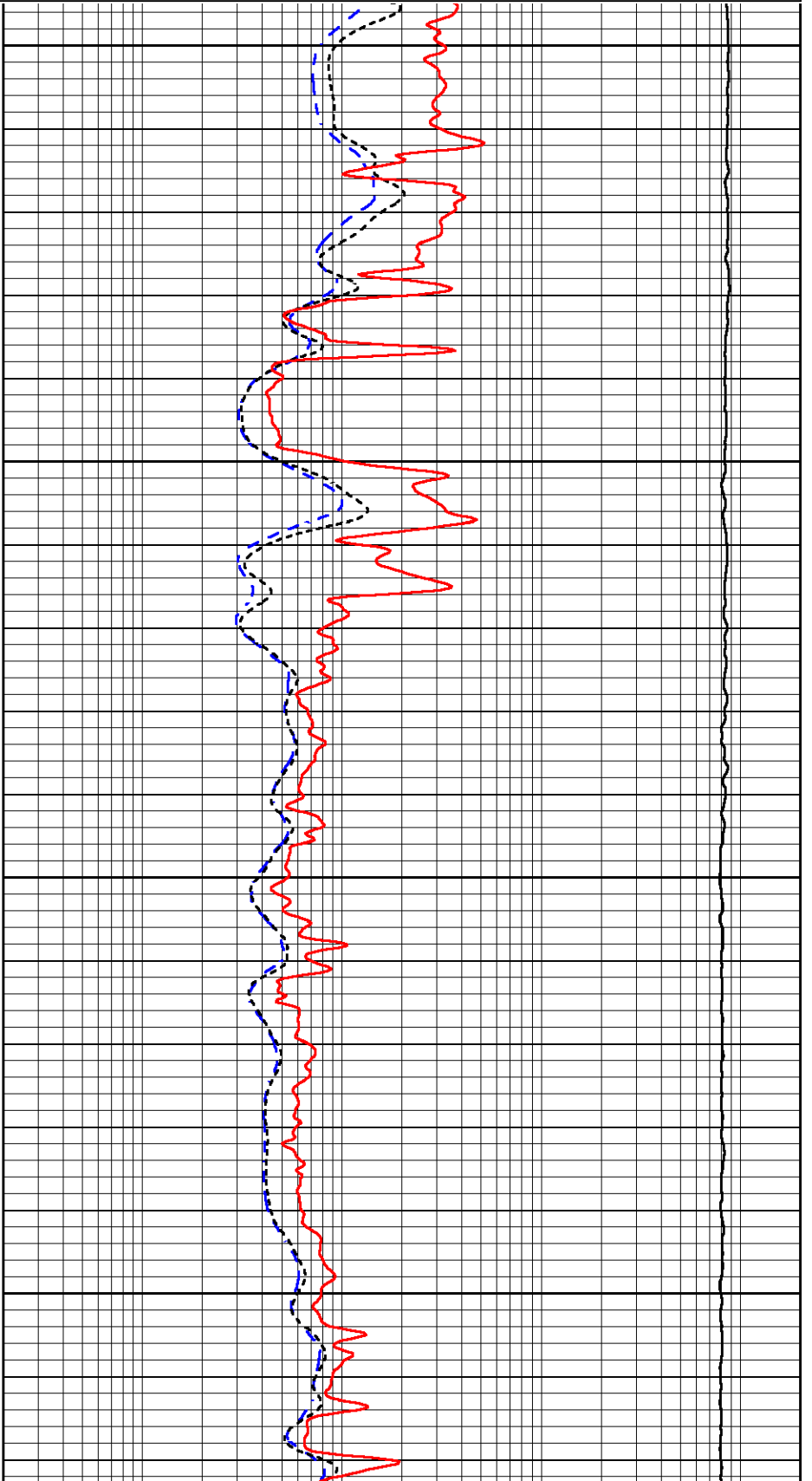


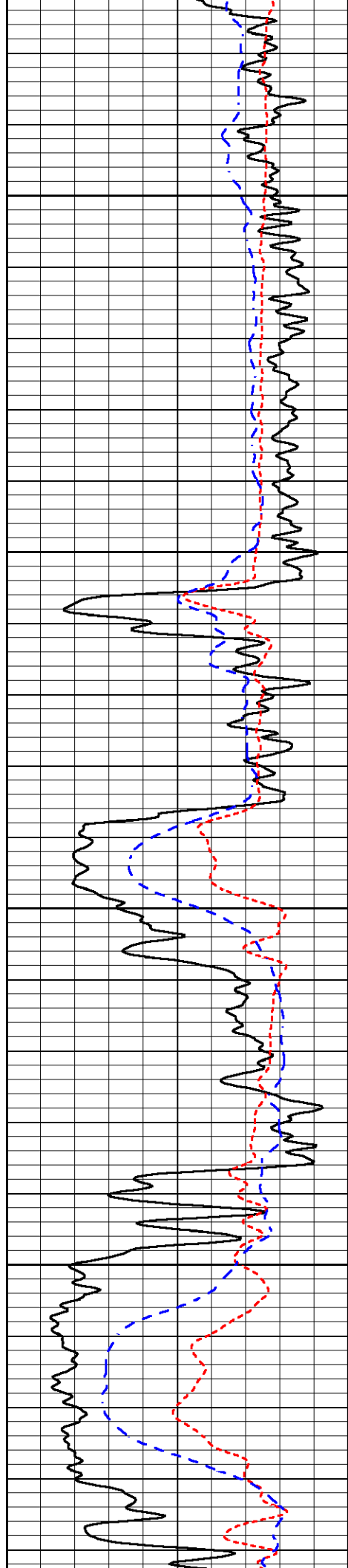
1450

1500

1550

1600



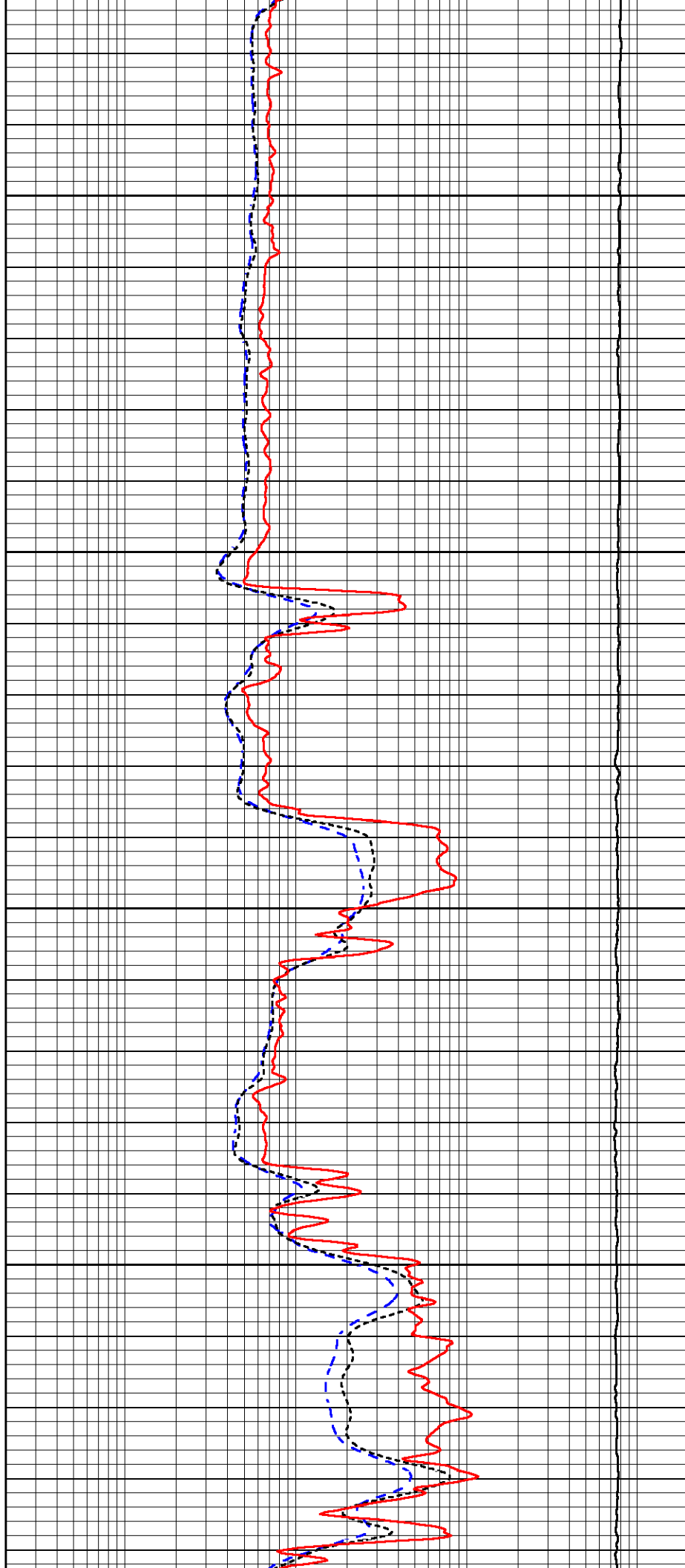


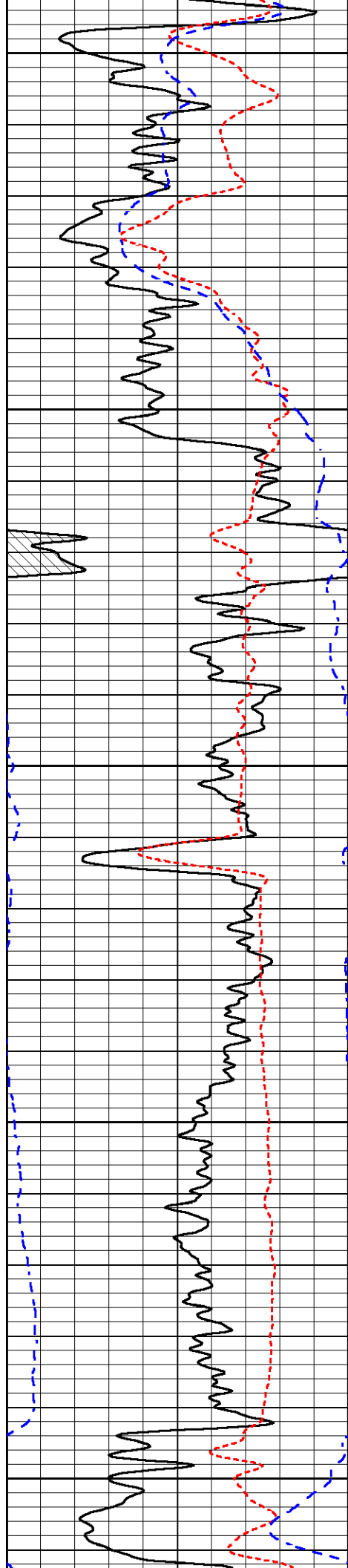
1650

1700

1750

1800





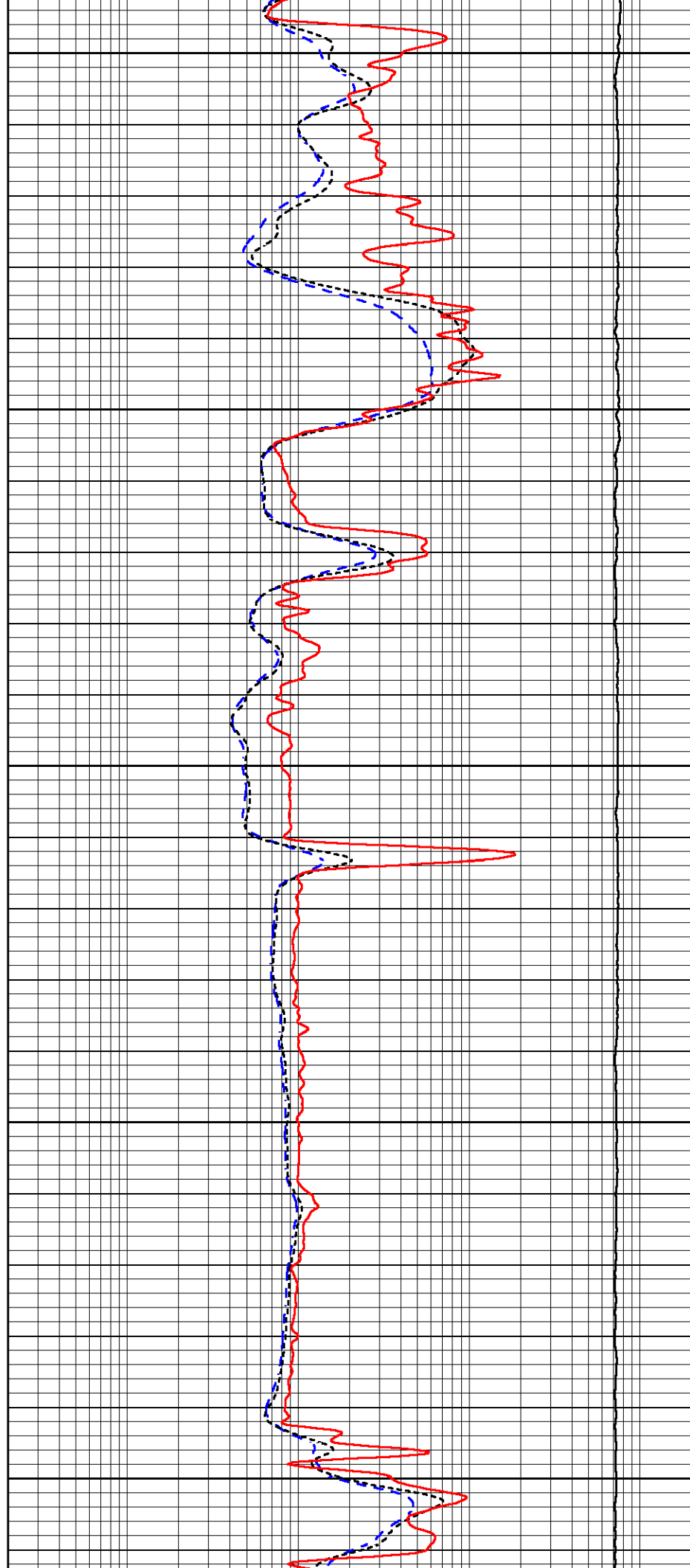
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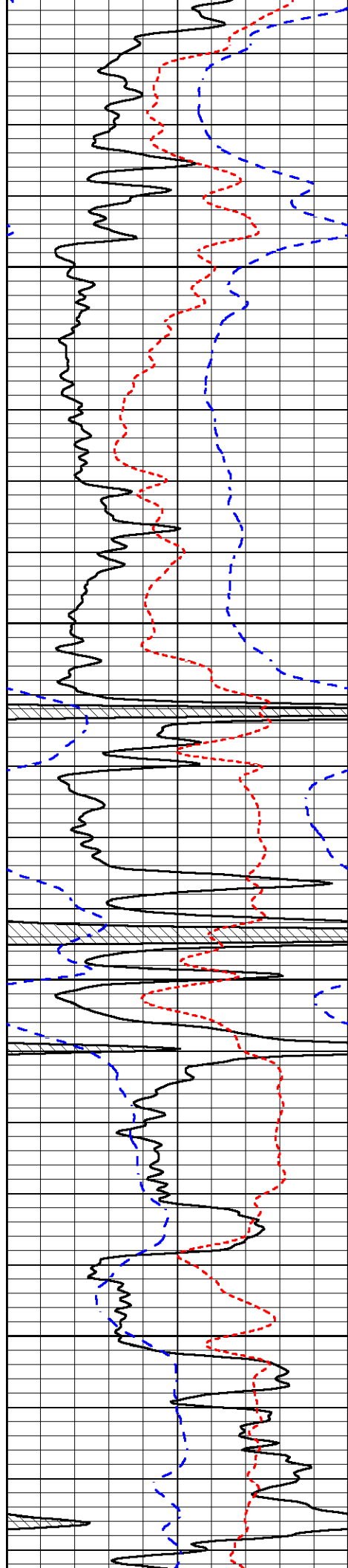
1900

1950

2000

2050



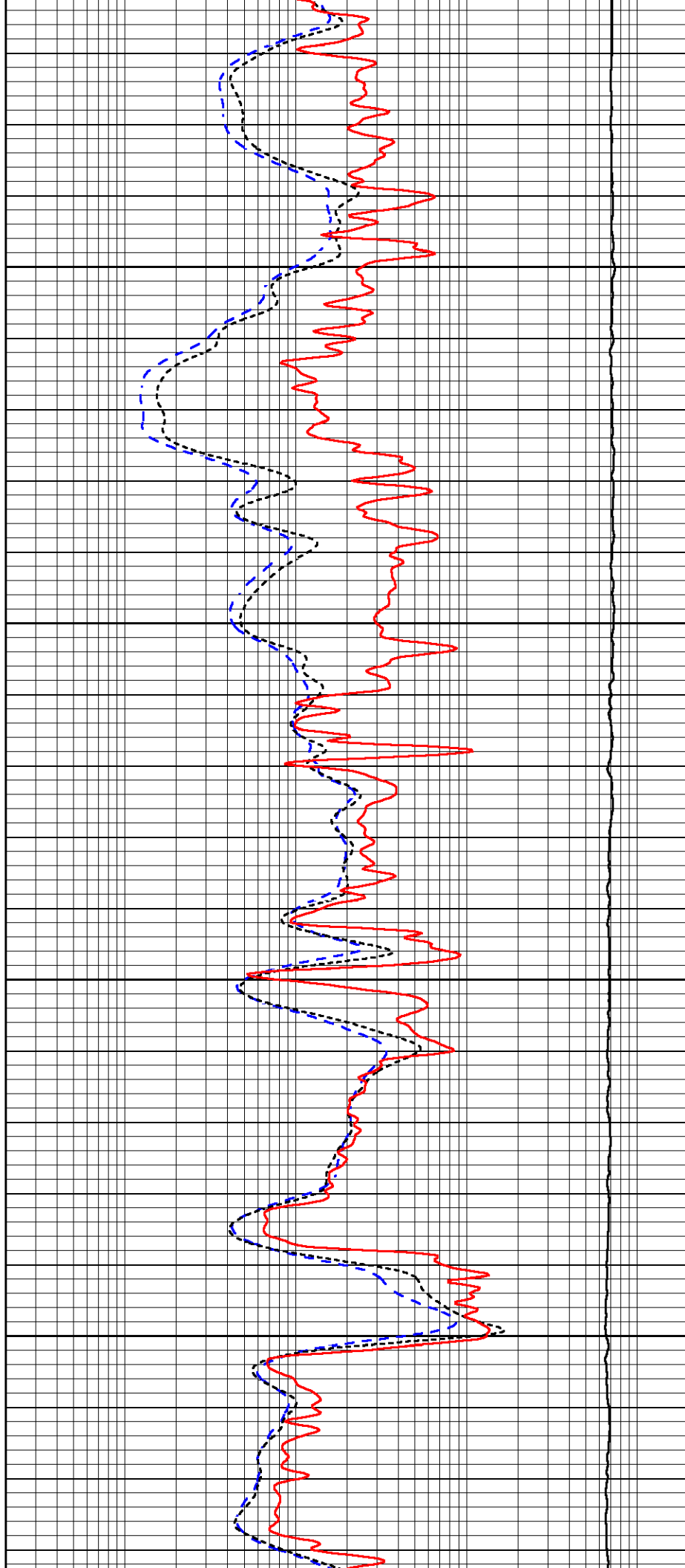


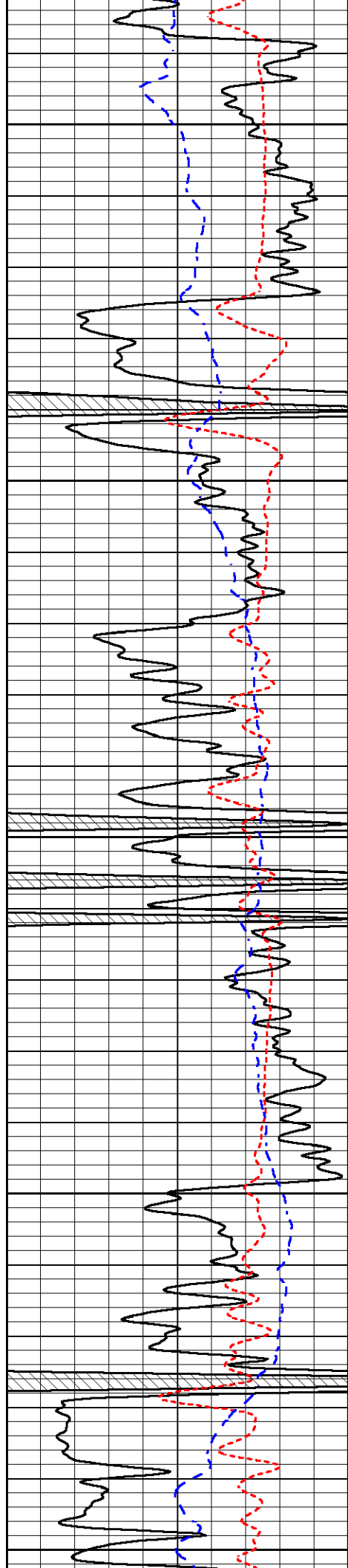
2100

2150

2200

2250





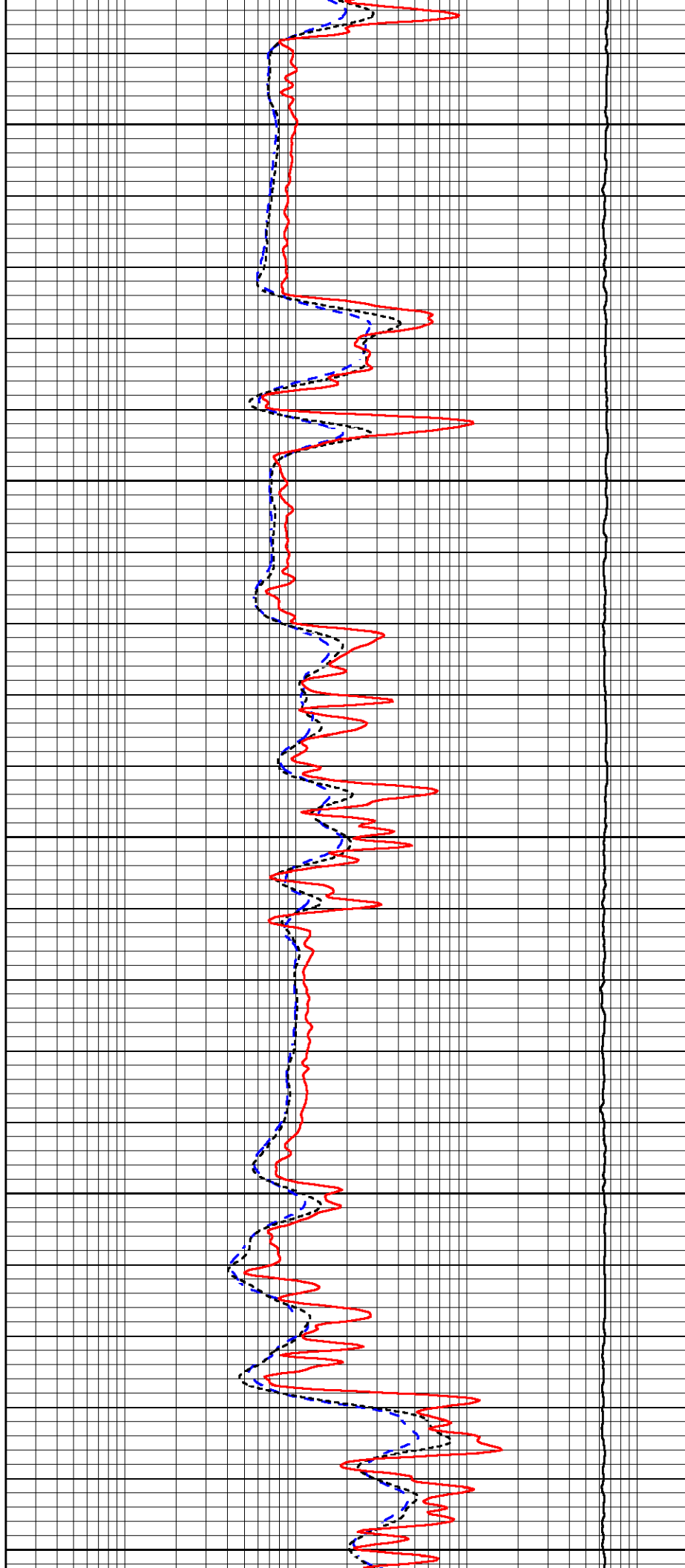
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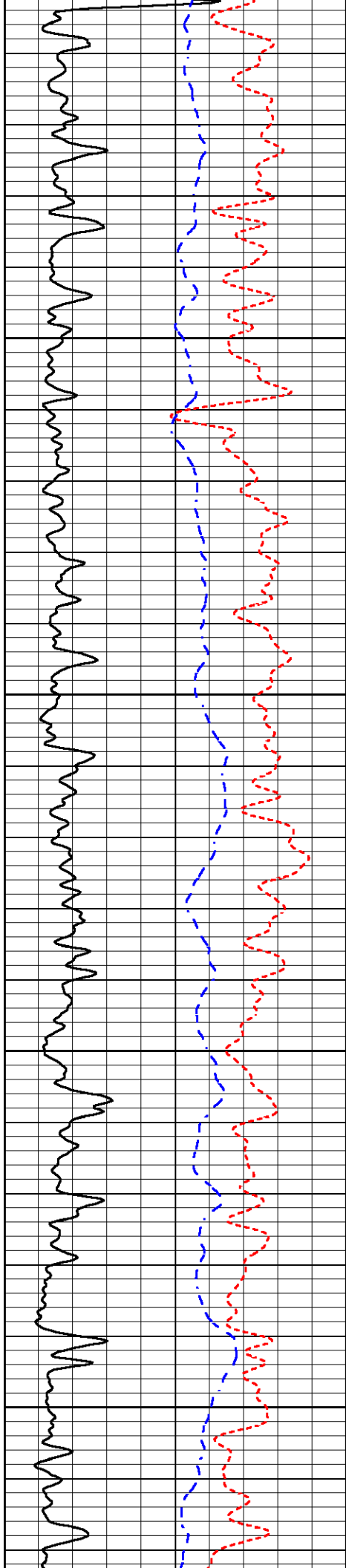
2350

2400

2450

2500



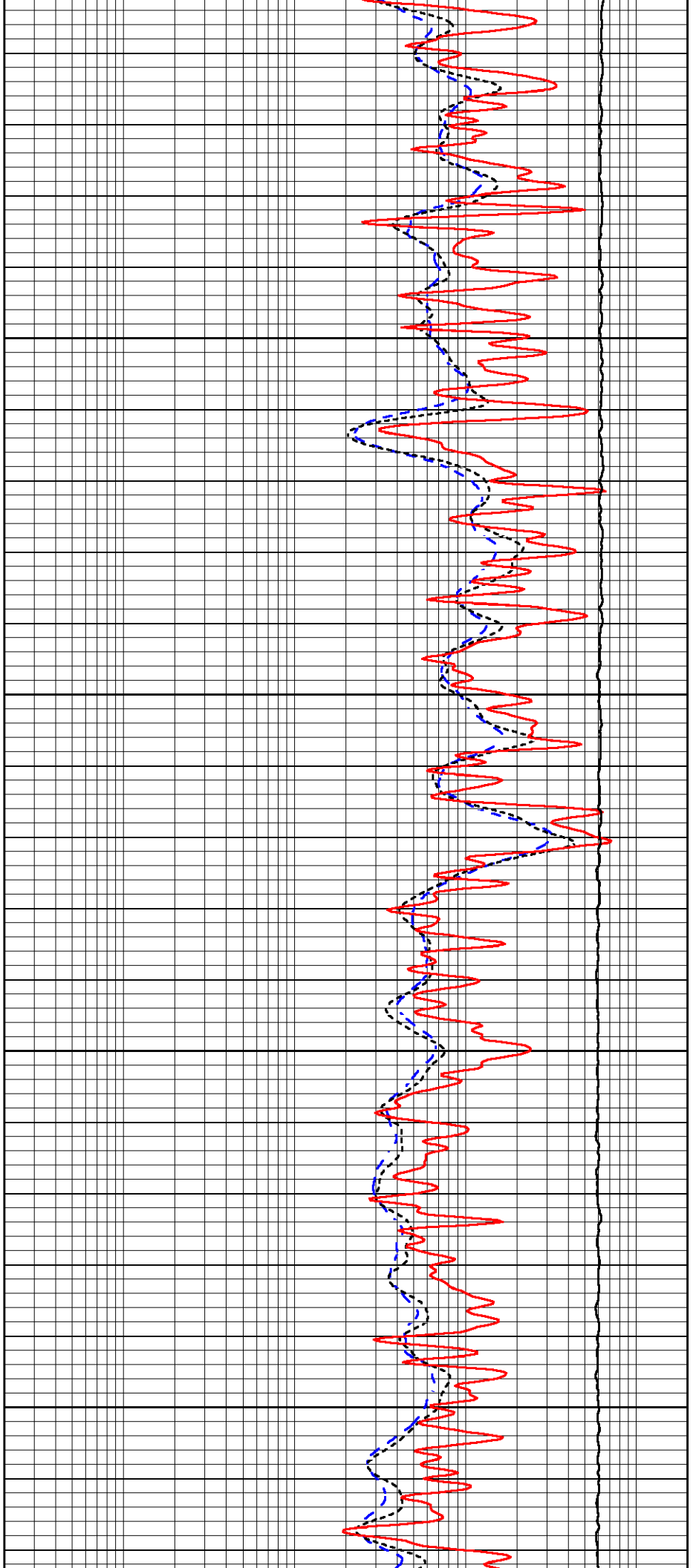


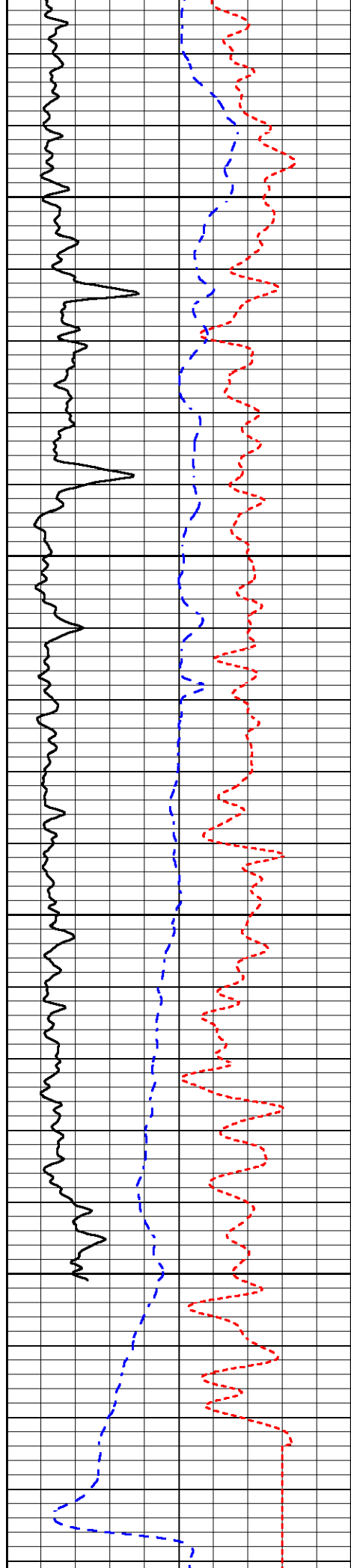
2550

2600

2650

2700



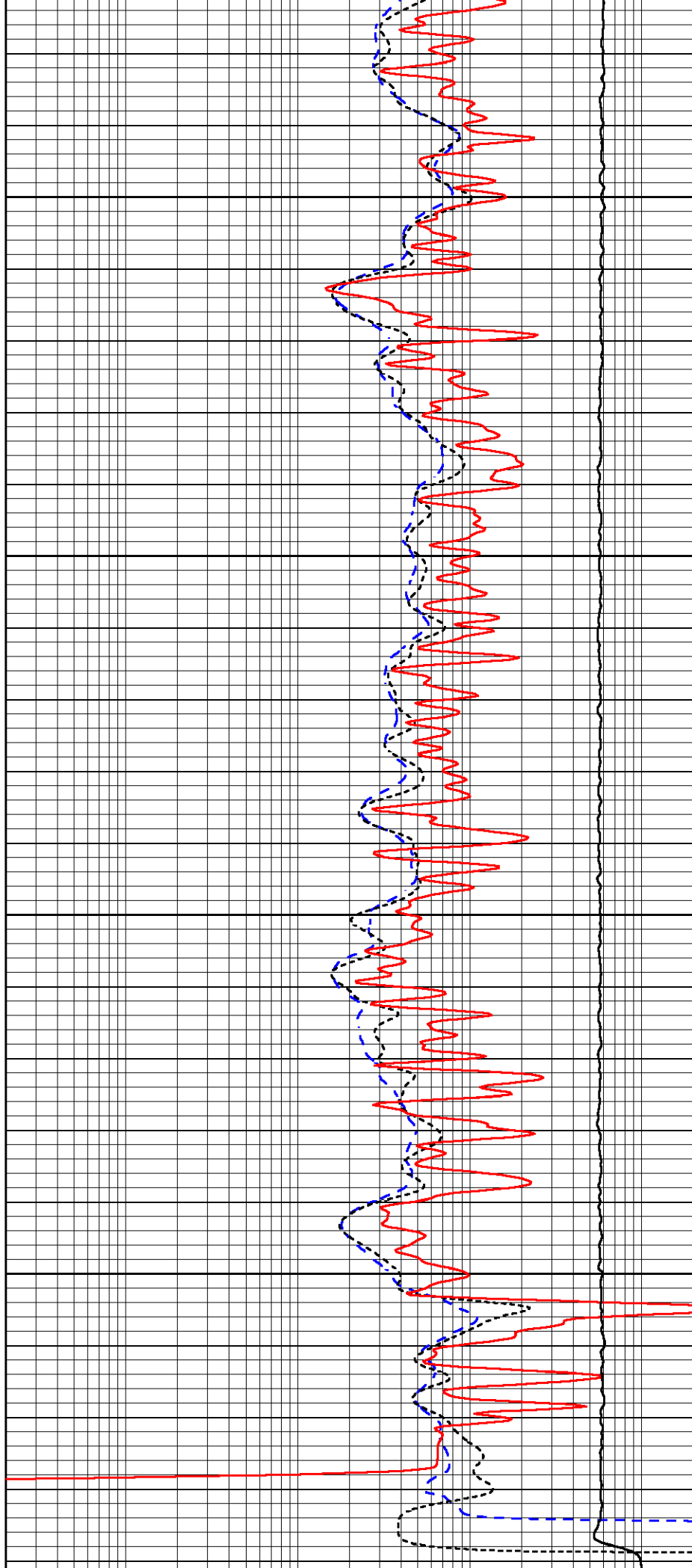


2750

2800

2850

2900



0	Gamma Ray (GAPI)	150
-160	RXORT	40
-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

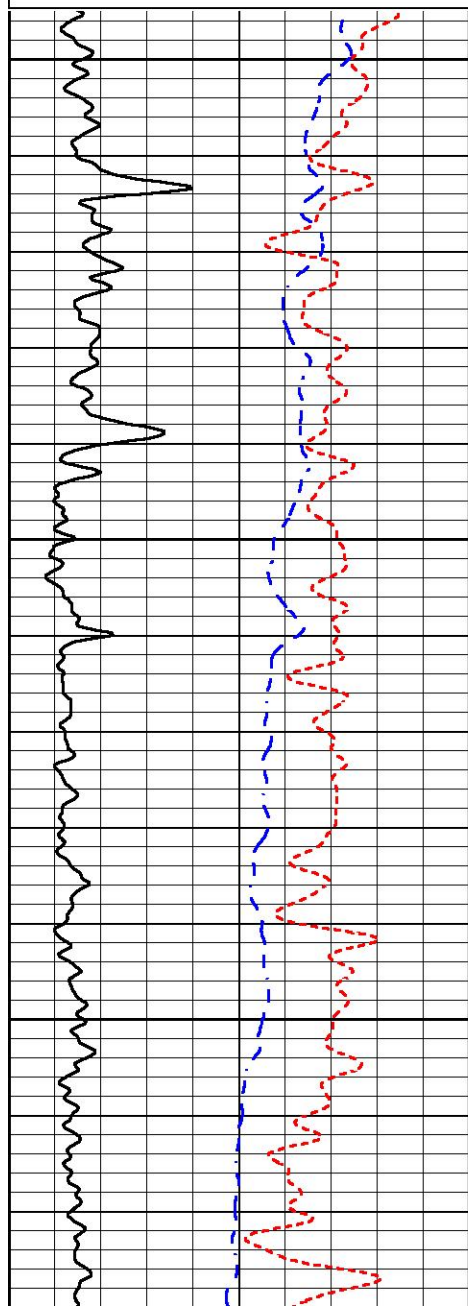
REPEAT SECTION

REPEAT PASS

Database File hawkins_jw smith #5b.db
Dataset Pathname StkMI/pass2.1
Presentation Format _dil
Dataset Creation Wed Mar 01 10:51:36 2023
Charted by Depth in Feet scaled 1:240

0	Gamma Ray (GAPI)	150
-160	RXORT	40
-200	SP (mV)	0

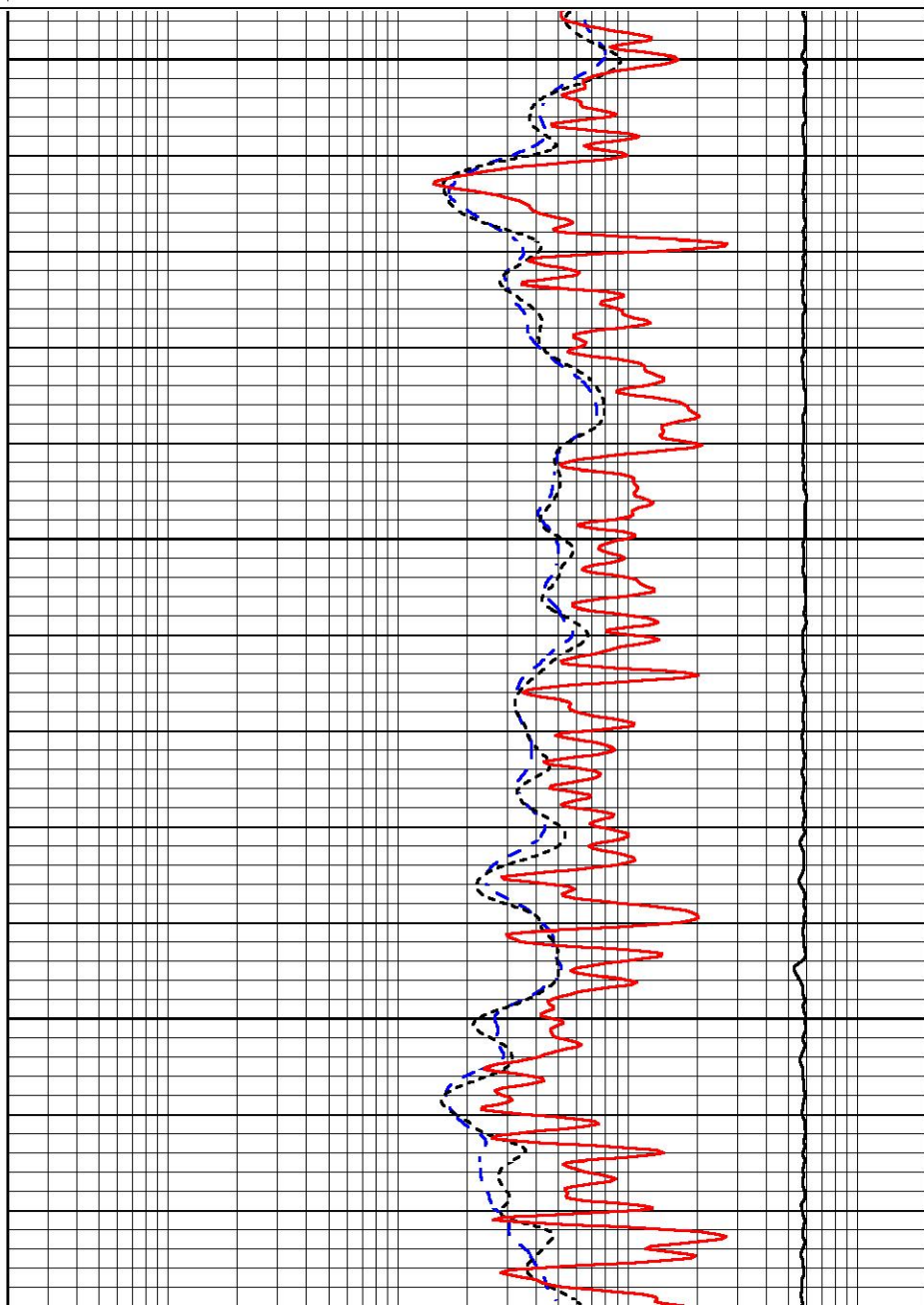
0.2	Deep Resistivity (Ohm-m)	2000
0.2	Medium Resistivity (Ohm-m)	2000
0.2	RLL3 (Ohm-m)	2000
10000	Line Tension (lb)	0

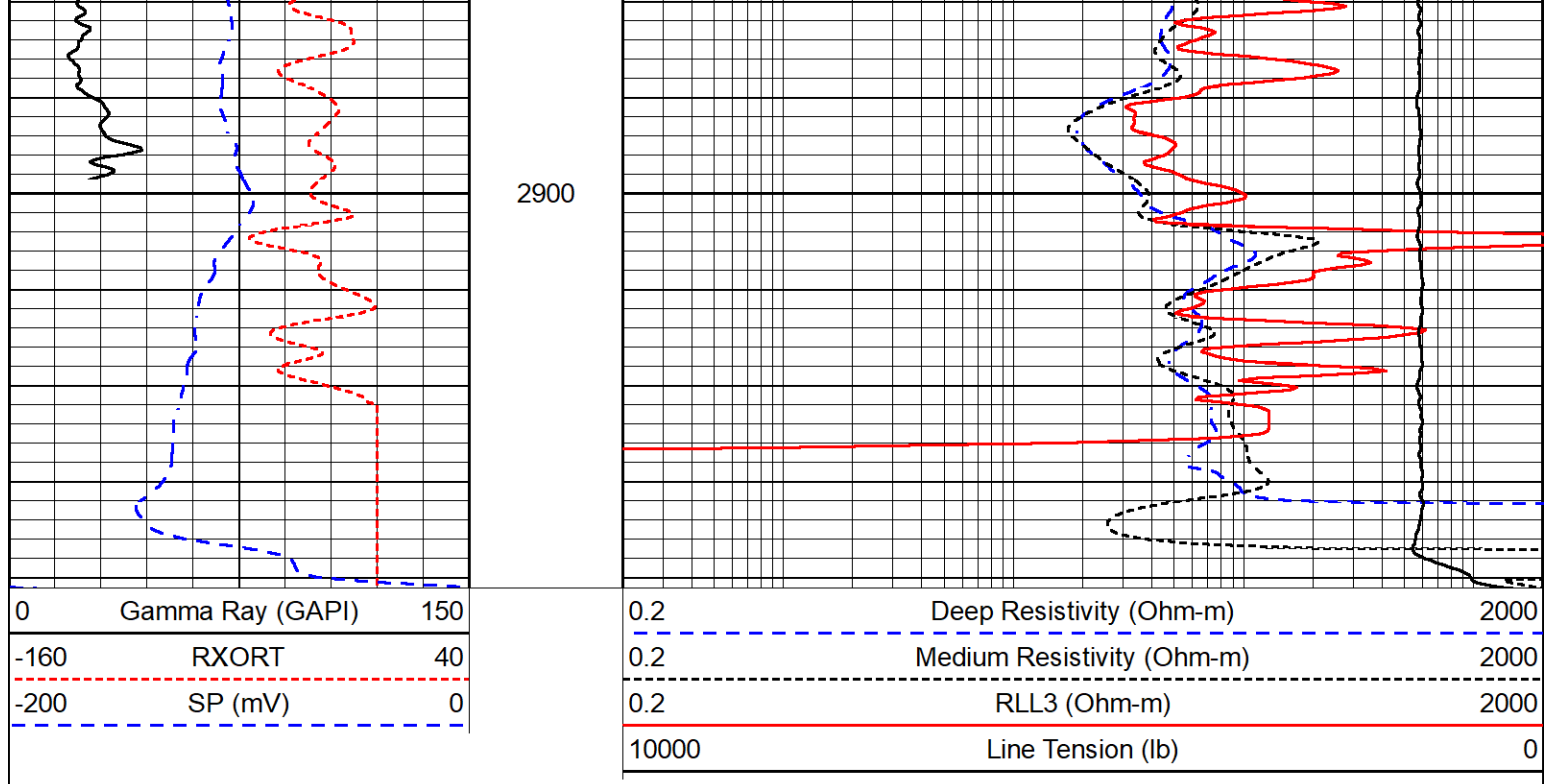


2750

2800

2850





Calibration Report

Database File hawkins_jw smith #5b.db
Dataset Pathname StkMI/pass3.1
Dataset Creation Wed Mar 01 11:15:27 2023

Dual Induction Calibration Report

Serial-Model: 502 HT-M&W
Surface Cal Performed: Tue Dec 6 09:44:10 2022

Loop:	Readings		References			Results	
	Air	Loop	Air	Loop		m	b
Deep	83.639	487.104	0.000	255.800	mmho/m	0.454	-35.000
Medium	113.335	1585.690	0.000	255.800	mmho/m	0.340	-14.000

Microlog Calibration Report

Serial-Model: 401-PSIML
Performed: Tue Jan 31 07:24:49 2023

	Readings		References			Results	
	Zero	Cal	Zero	Cal		m	b
Normal	0.0000	1.0000	0.0000	1.0000	Ohm-m	14500.0000	-0.8000
Inverse	0.0000	1.0000	0.0000	1.0000	Ohm-m	14000.0000	-0.5000
Caliper	1.0052	1.0858	5.0000	16.5000	in	142.7190	-139.3500

Compensated Density Calibration Report

Serial-Model: 307-08-M&W
Source #: 20762B
Master Calibration Performed: Sat Feb 25 11:00:49 2023

Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.755	g/cc	4131.04	5675.82	cps
Aluminum	2.635	g/cc	781.38	3576.78	cps
Spine Angle = 74.50			Density/Spine Ratio = 0.509		
	Size		Reading		
Small Ring	6.00	in	1.16		
Large Ring	18.00	in	1.01		

Compensated Neutron Calibration Report

Serial Number: 207-MW
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

PRE-SURVEY VERIFICATION

	Detector	Readings	Measured	Target
1)	Short Space	cps		
	Long Space	cps	pu	pu
2)	Short Space	cps		
	Long Space	cps	pu	
3)	Short Space	cps		
	Long Space	cps	pu	

POST-SURVEY VERIFICATION

	Detector	Readings	Measured	Target
1)	Short Space	cps		
	Long Space	cps	pu	pu
2)	Short Space	cps		
	Long Space	cps	pu	pu
3)	Short Space	cps		
	Long Space	cps	pu	pu

Gamma Ray Calibration Report

Serial Number: 106
Tool Model: M&W
Performed: Fri Dec 3 15:10:46 2021

Calibrator Value: 500.0 GAPI

Background Reading: 24.0 cps
Calibrator Reading: 637.0 cps

Sensitivity: 0.5500 GAPI/cps





MIDWEST WIRELINE

Well	JW Smith #5B
Field	Augusta
County	Butler
State	Kansas