



DUAL INDUCTION

MIDWEST WIRELINE

Company American Warrior, Inc.	
Well	Industrial Unit #1-33
Field	Unnamed
County	Graham
State	Kansas
Company American Warrior, Inc.	
Well	Industrial Unit #1-33
Field	Unnamed
County	Graham
State	Kansas
Location:	API #: 15-065-24253-00-00
Permanent Datum	NW SW NW SE
Log Measured From	1824 FSL & 2404 FEL
Drilling Measured From	SEC 33 TWP 7S RGE 21W
Elevation	2075
Other Services	CNL/CDL MEL/BHCS
K.B.	2083
D.F.	
G.L.	2075
Date	6/6/2023
Run Number	One
Depth Driller	3700
Depth Logger	3699
Bottom Logged Interval	3698
Top Log Interval	200
Casing Driller	8.625 @ 223
Casing Logger	222
Bit Size	7.875
Type Fluid in Hole	Chemical
Salinity, ppm CL	1200
Density / Viscosity	8.9 65
pH / Fluid Loss	11.0 5.4
Source of Sample	Flowline
Rm @ Meas. Temp	0.85 @ 72
Rmt @ Meas. Temp	0.64 @ 72
Rmc @ Meas. Temp	1.15 @ 72
Source of Rmt / Rmc	Charts
Rm @ BHT	0.54 @ 113
Operating Rig Time	4 Hours
Max Rec. Temp. F	113
Equipment Number	P-24
Location	Hays
Recorded By	T. Martin
Witnessed By	Jason Alm

<<< 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.

Bogue, KS, Hwy 18/24, 1/8 E,
1 N, 1/2 E, N into

Log Measured From: Kelly Bushing

8 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: Jason Alm
Secondary Witness:
Secondary Witness:
Secondary Witness:

Top - Bottom

A	BOREID	BOTTEMP	CASEOD	CASETHCK	FLUIDDEN	M	MATRXDEN
1	in 7.875	degF 113	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 2	mmho/m -1	mV 170	degF 80	Off	ft 3699

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

Database Fileamwar_industrial unit #1-33.db

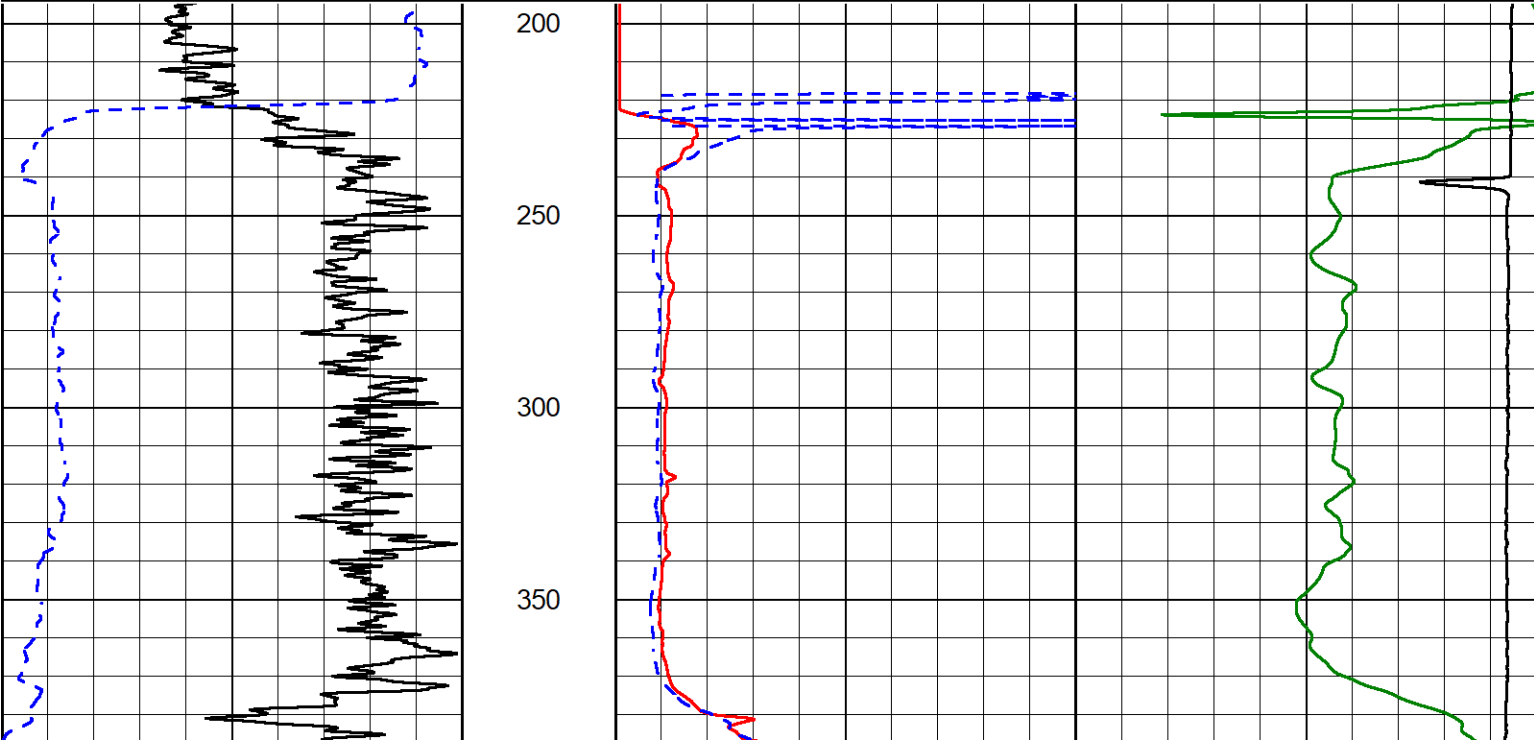
Dataset PathnameStack/pass3.2

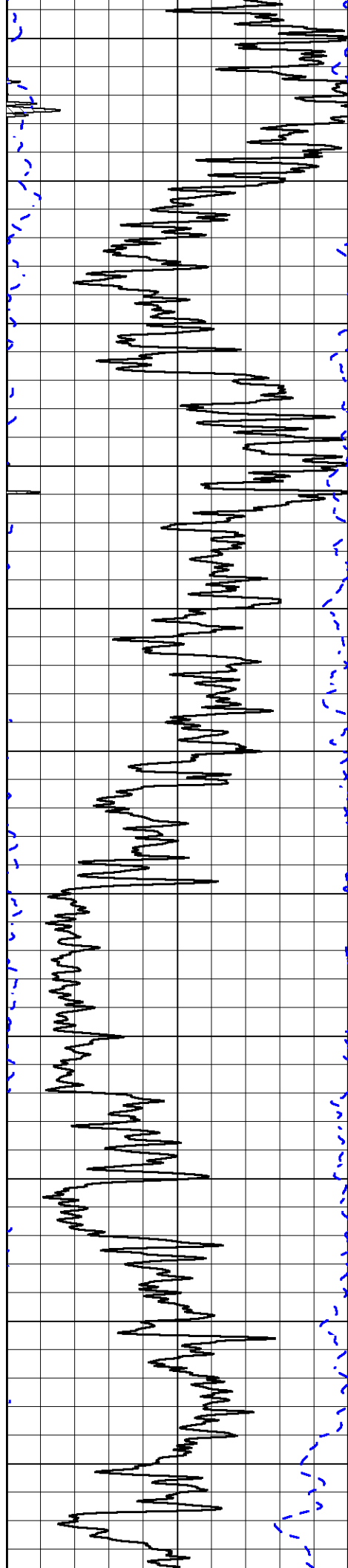
Presentation Format_dil2in

Dataset CreationTue Jun 06 21:28:42 2023

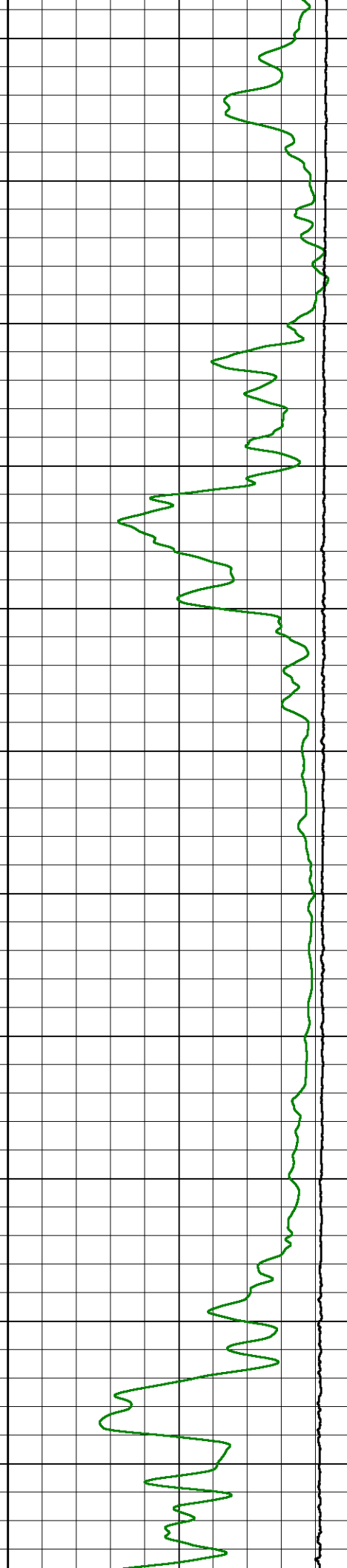
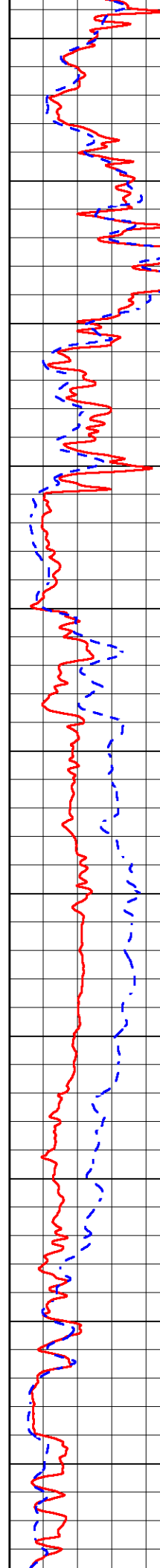
Charted byDepth in Feet scaled 1:600

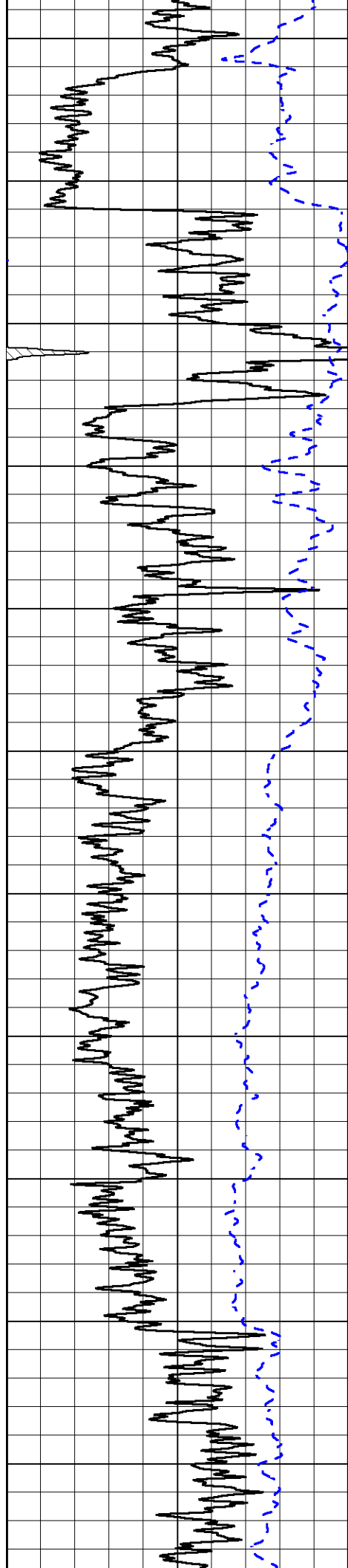
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-200	SP (mV)	0	15000	Line Tension (lb)	0
0	Shallow Resistivity (Ohm-m)	50			
0	Deep Resistivity (Ohm-m)	50			
Shallow Resistivity					
50	(Ohm-m)	200			
50	Deep Resistivity (Ohm-m)	200			



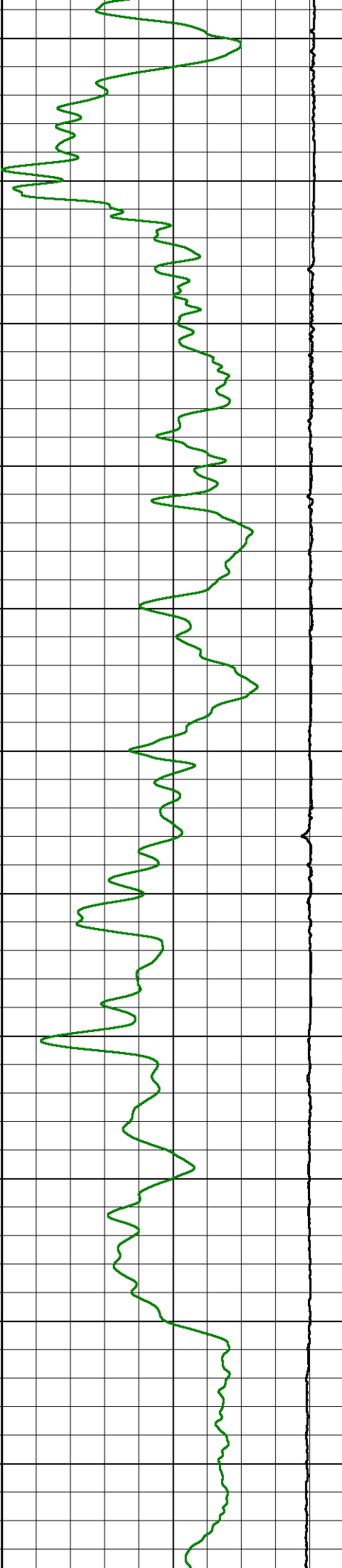
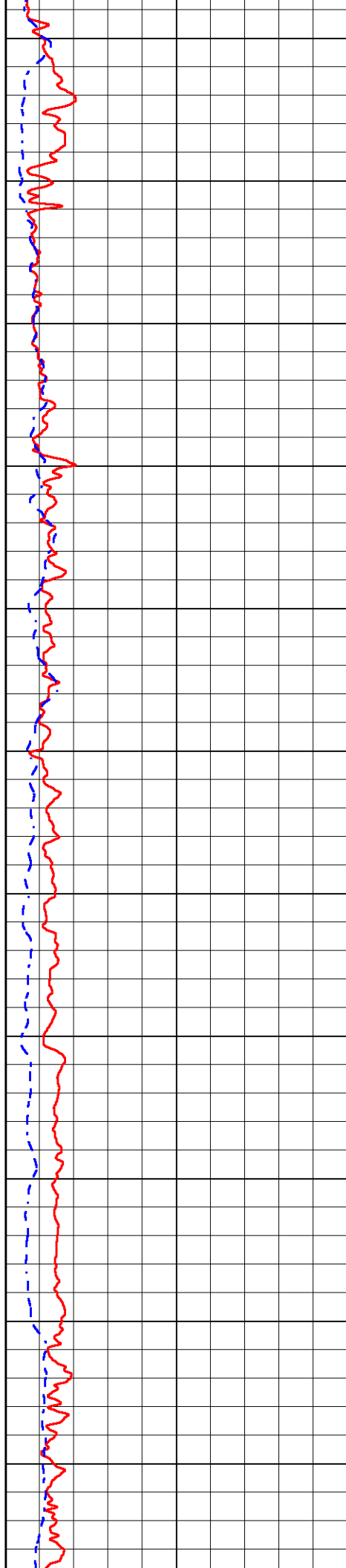


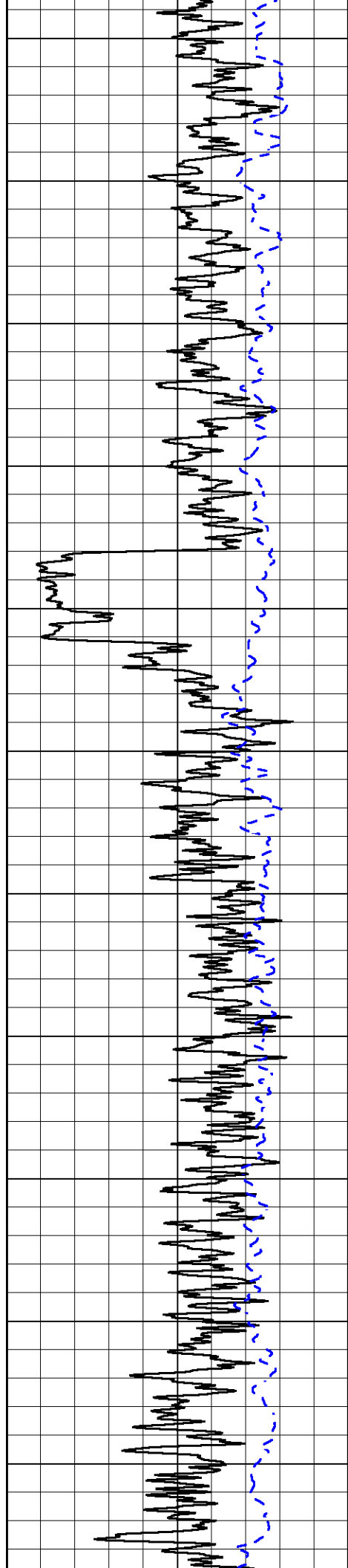
400
450
500
550
600
650
700
750
800
850
900



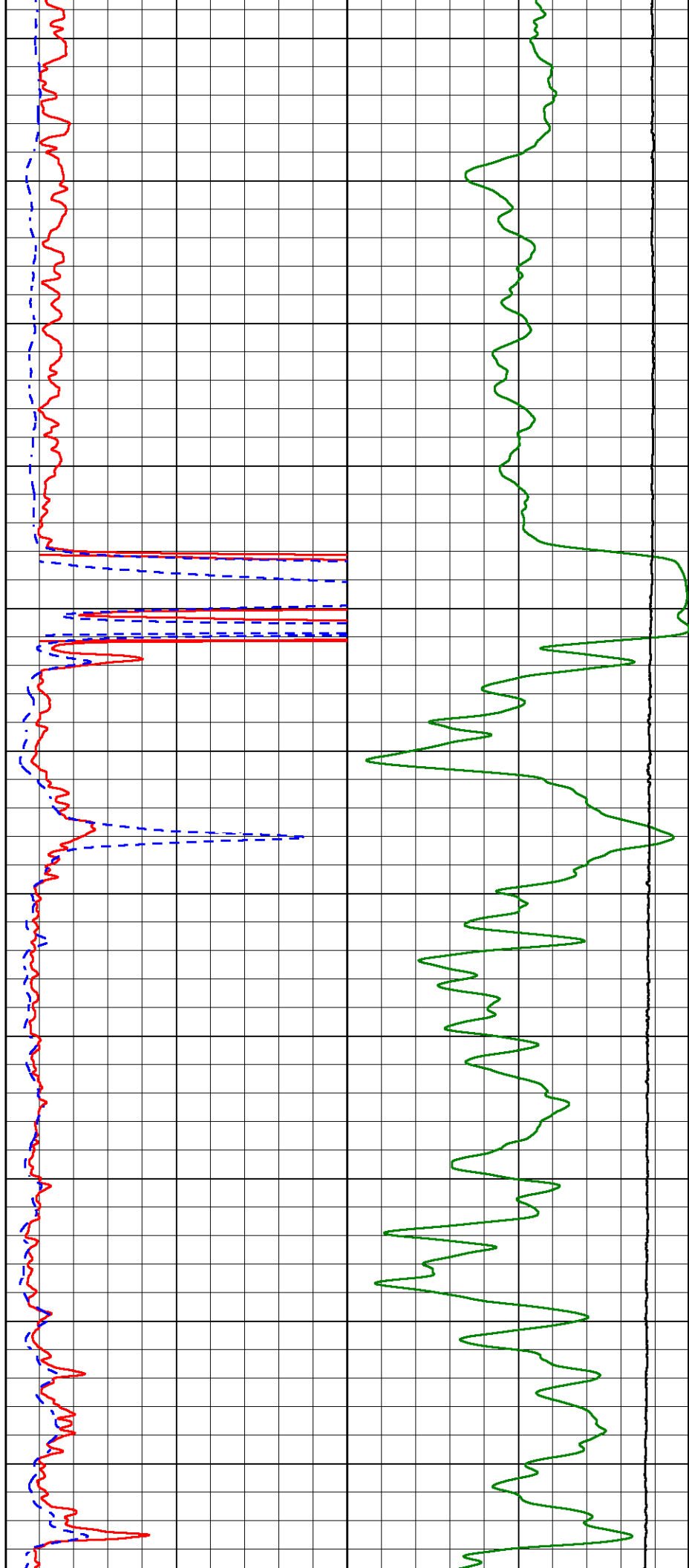


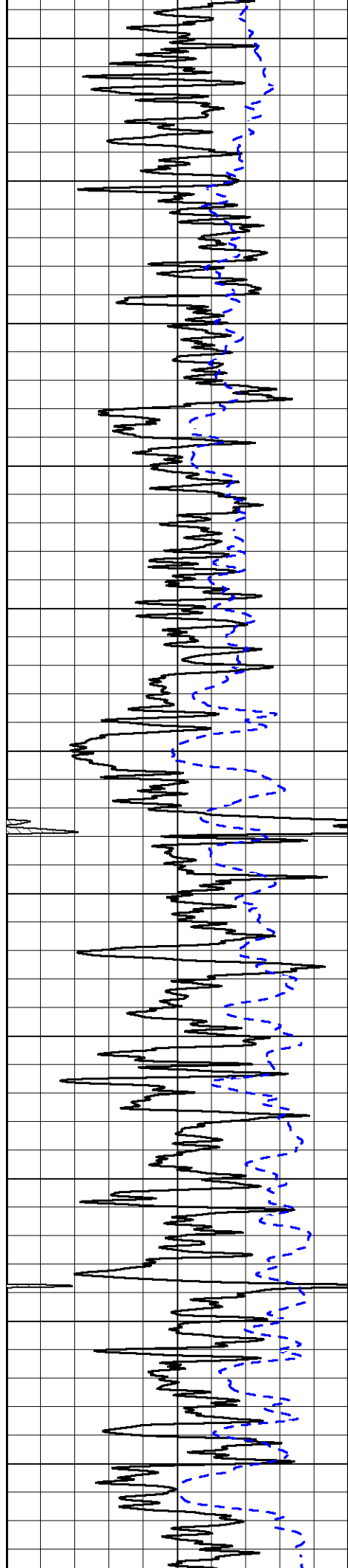
950
1000
1050
1100
1150
1200
1250
1300
1350
1400
1450





1500
1550
1600
1650
1700
1750
1800
1850
1900
1950
2000





2050

2100

2150

2200

2250

2300

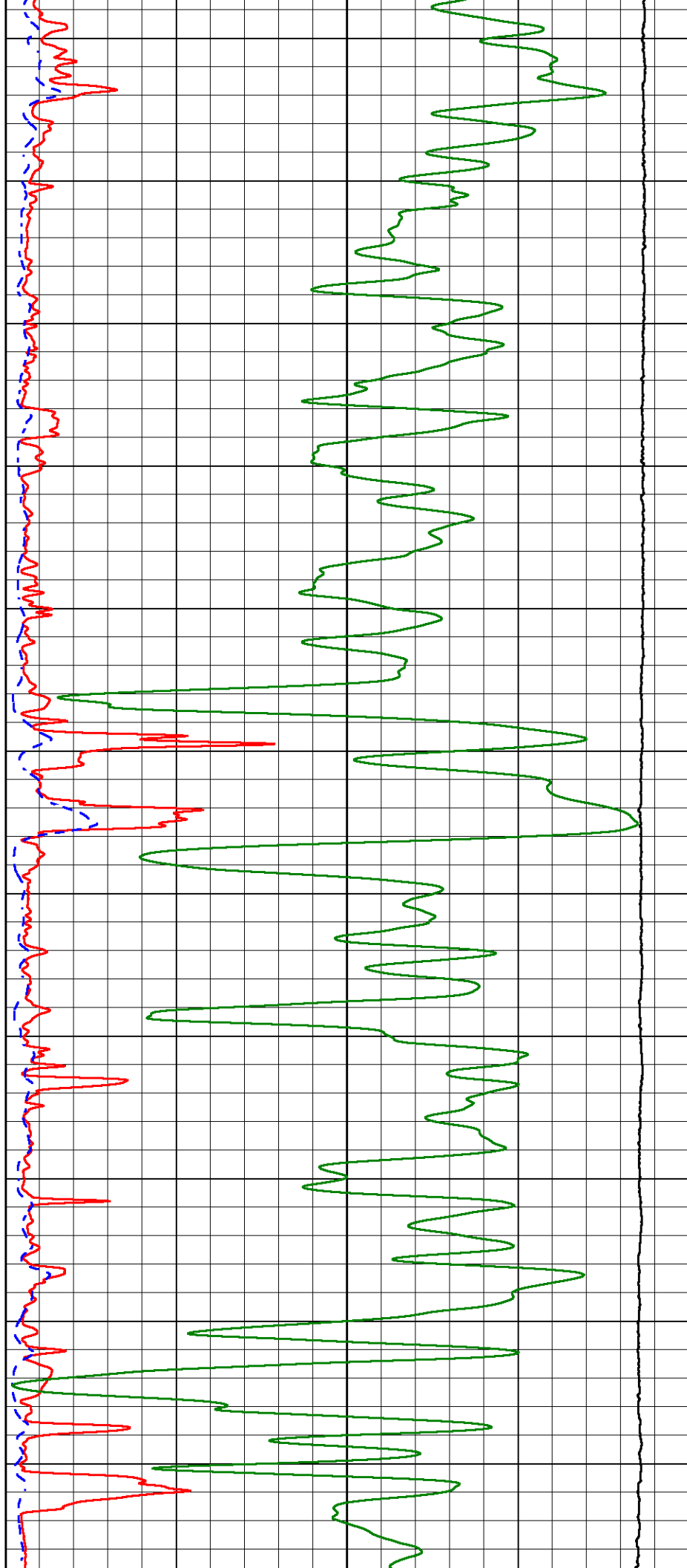
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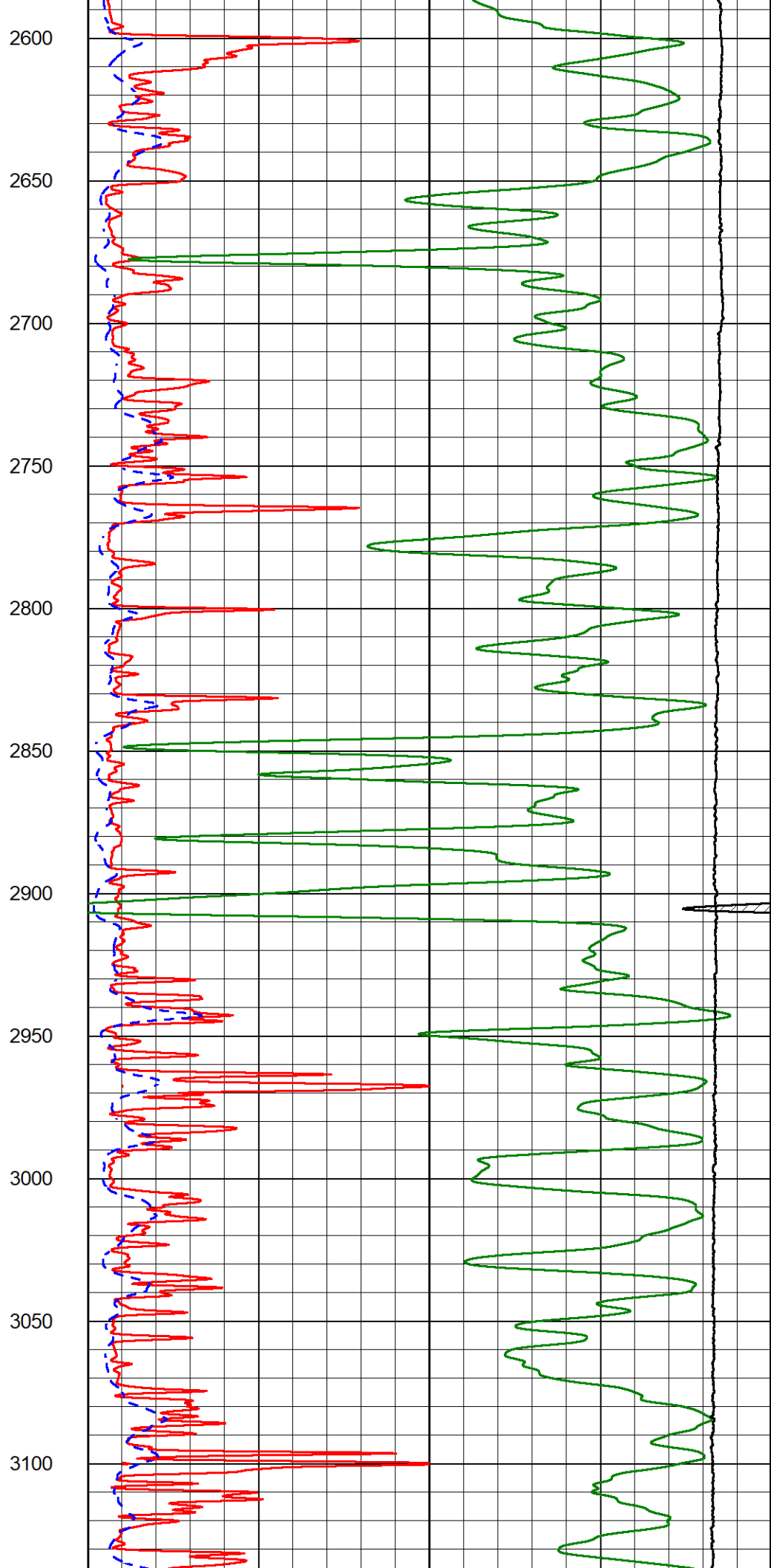
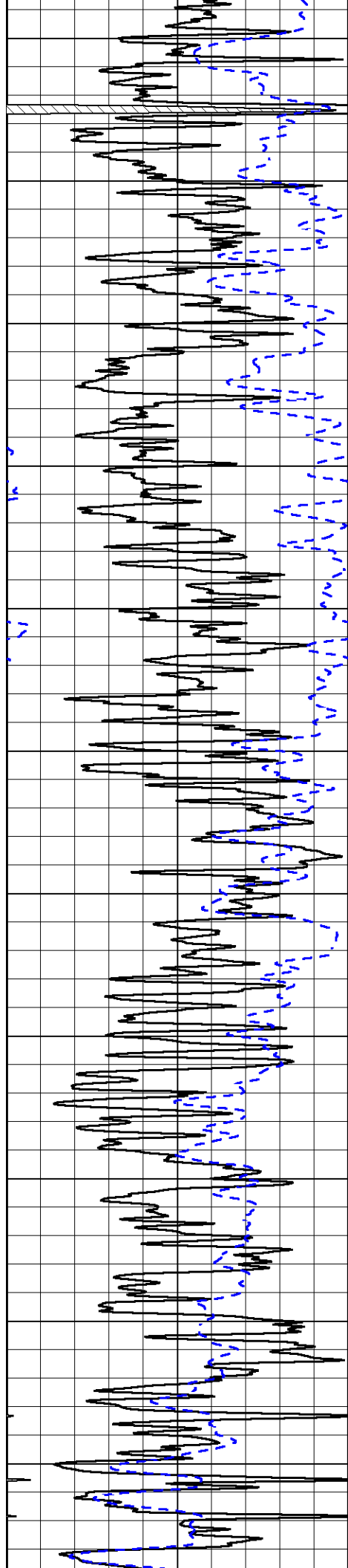
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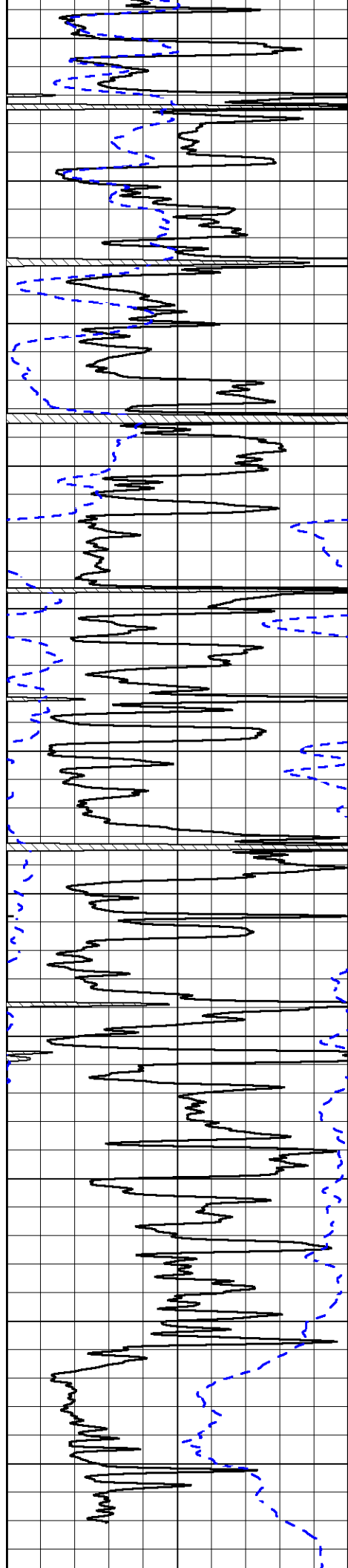
2450

2500

2550







3150

3200

3250

3300

3350

3400

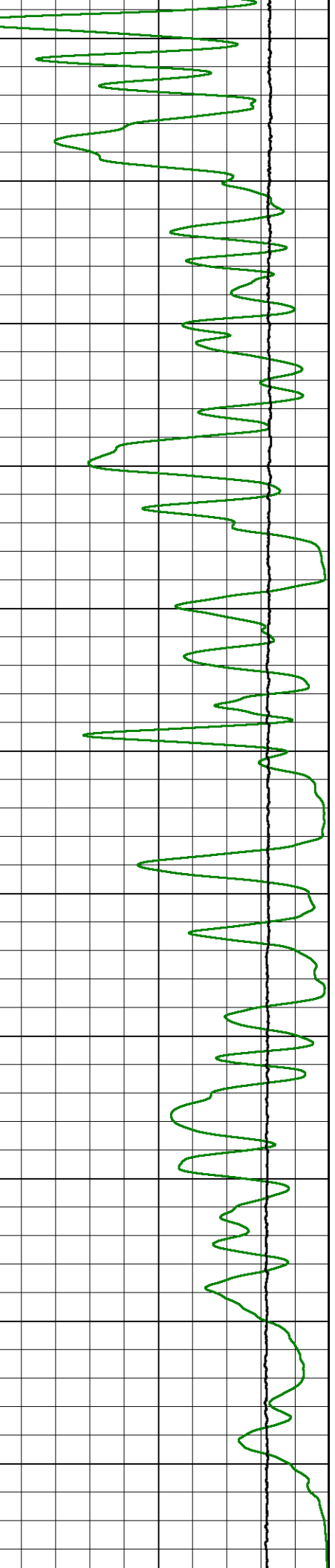
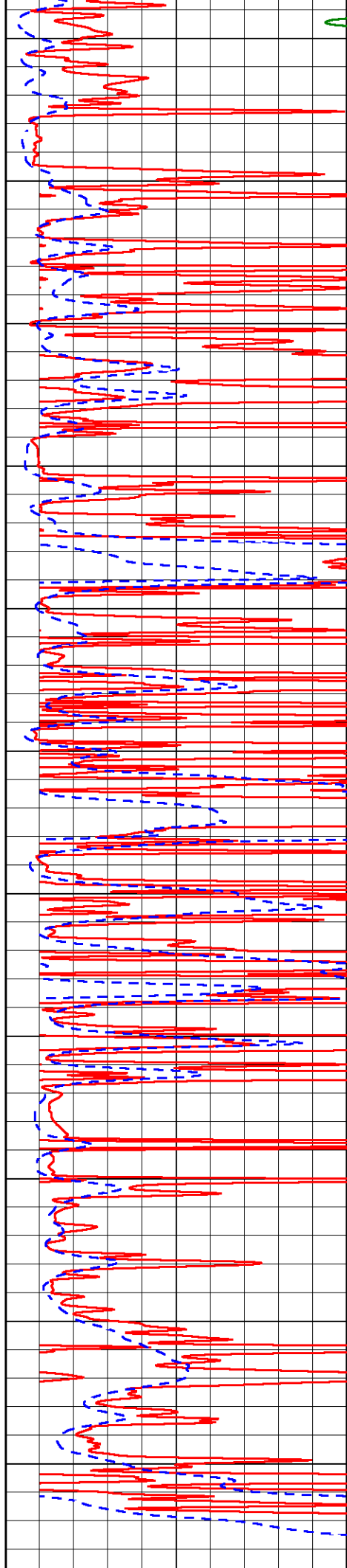
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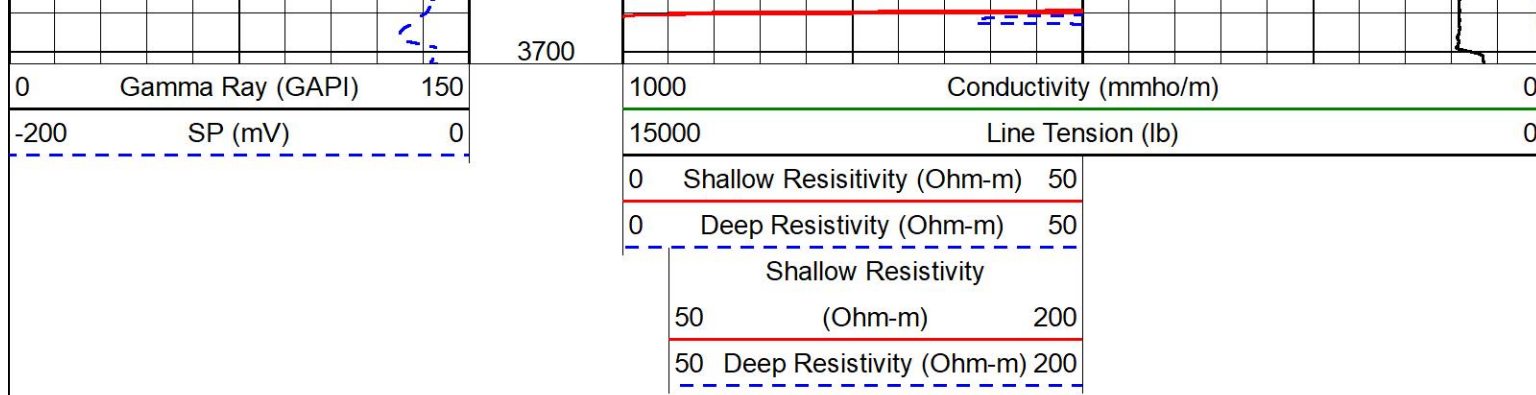
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3550

3600

3650



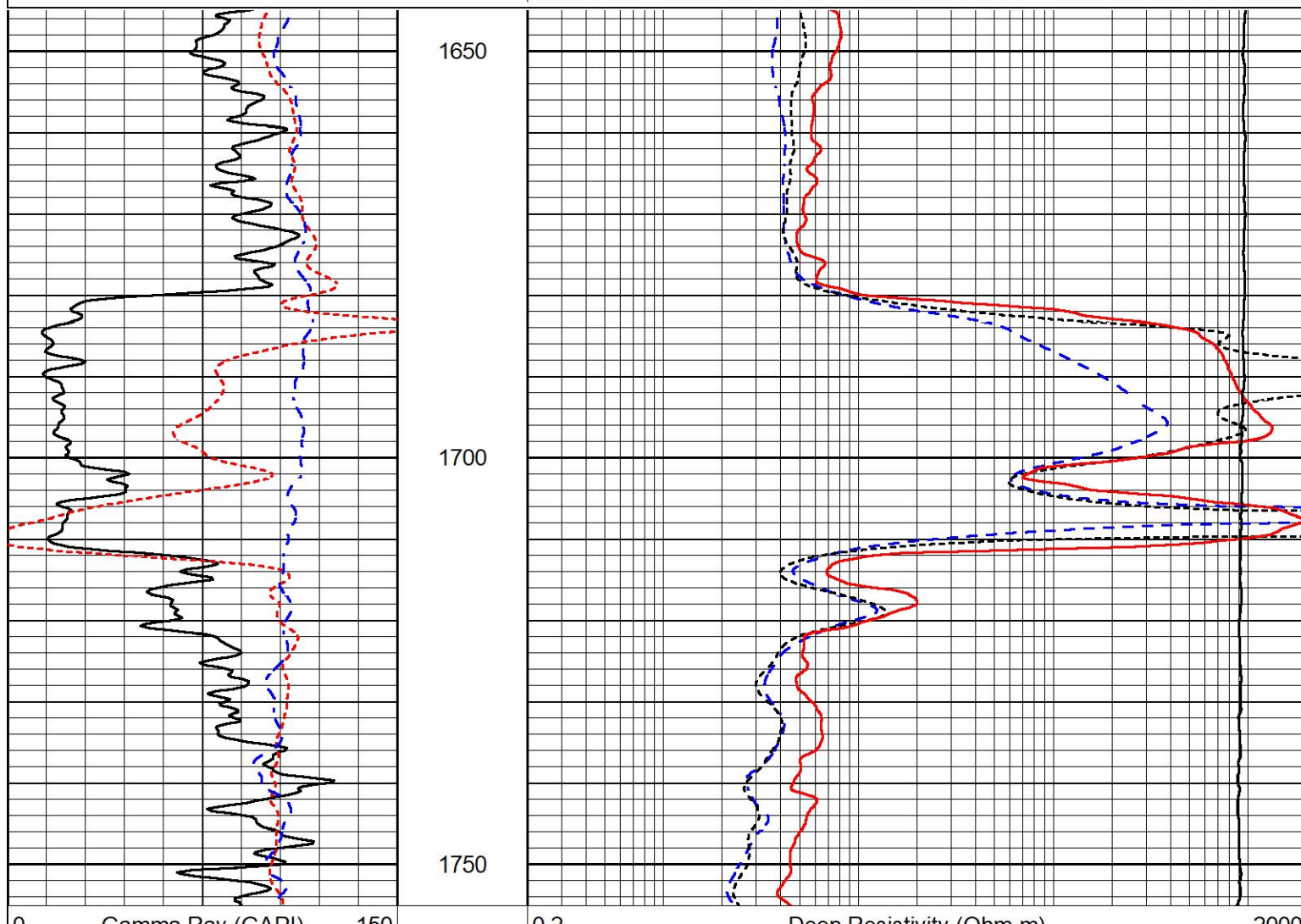


MIDWEST WIRELINE

ANHYDRITE SECTION

MAIN PASS

Database File amwar_industrial unit #1-33.db
 Dataset Pathname Stack/pass3.4
 Presentation Format _dil
 Dataset Creation Tue Jun 06 21:10:59 2023
 Charted by Depth in Feet scaled 1:240



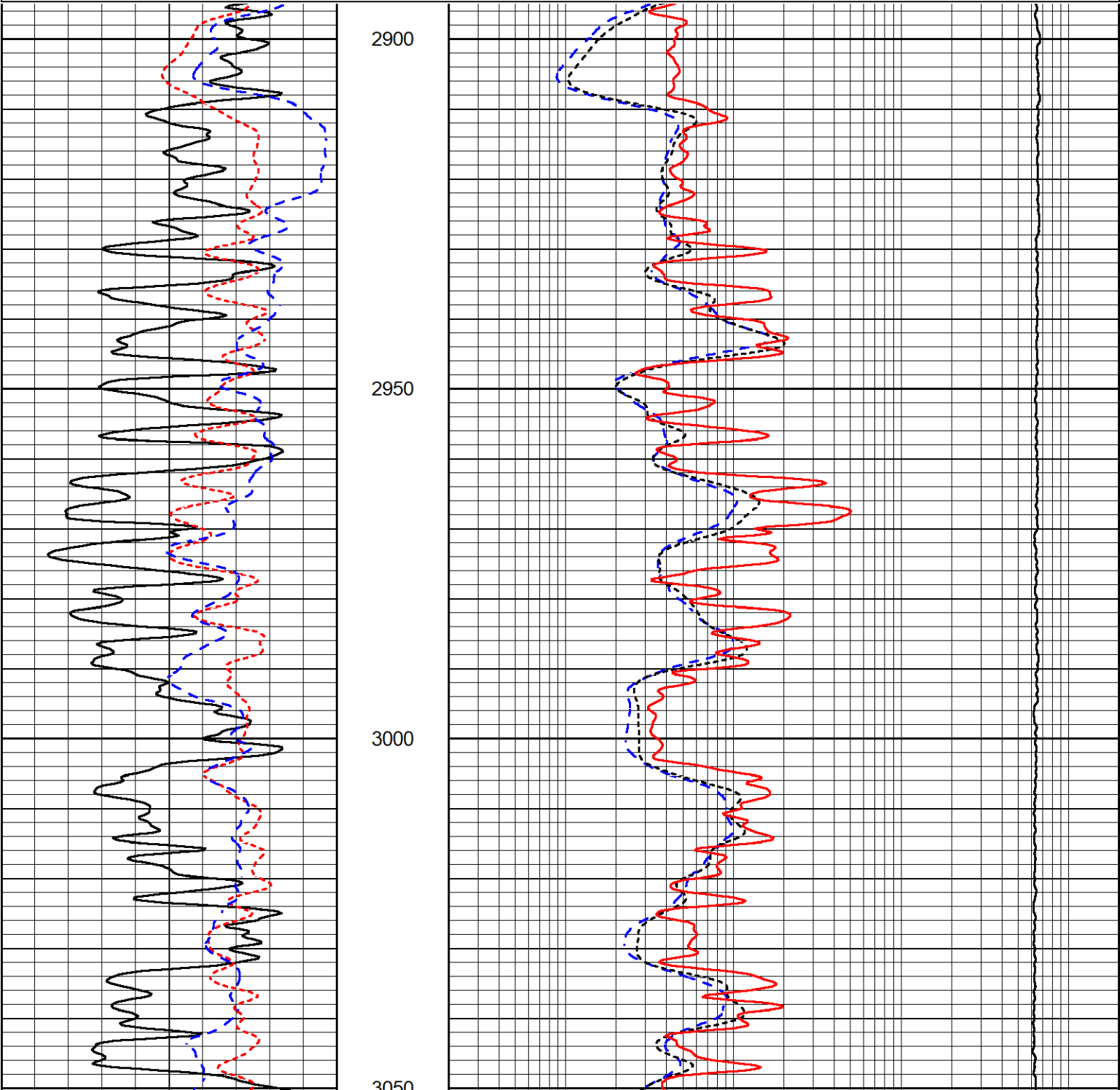
0	Gamma Ray (GAPI)	150
-160	RXORT	40
-200	SP (mV)	0

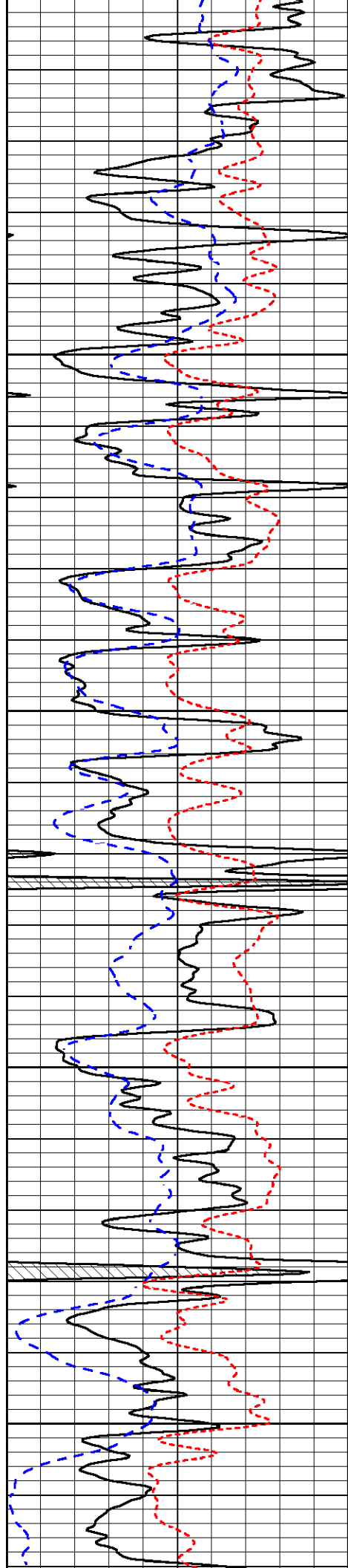
0.2	Deep Resistivity (Ohm-m)	2000
0.2	Medium Resistivity (Ohm-m)	2000
0.2	RLL3 (Ohm-m)	2000
10000	Line Tension (lb)	0

Database File	amwar_industrial unit #1-33.db
Dataset Pathname	Stack/pass3.1
Presentation Format	_dil
Dataset Creation	Tue Jun 06 21:28:54 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





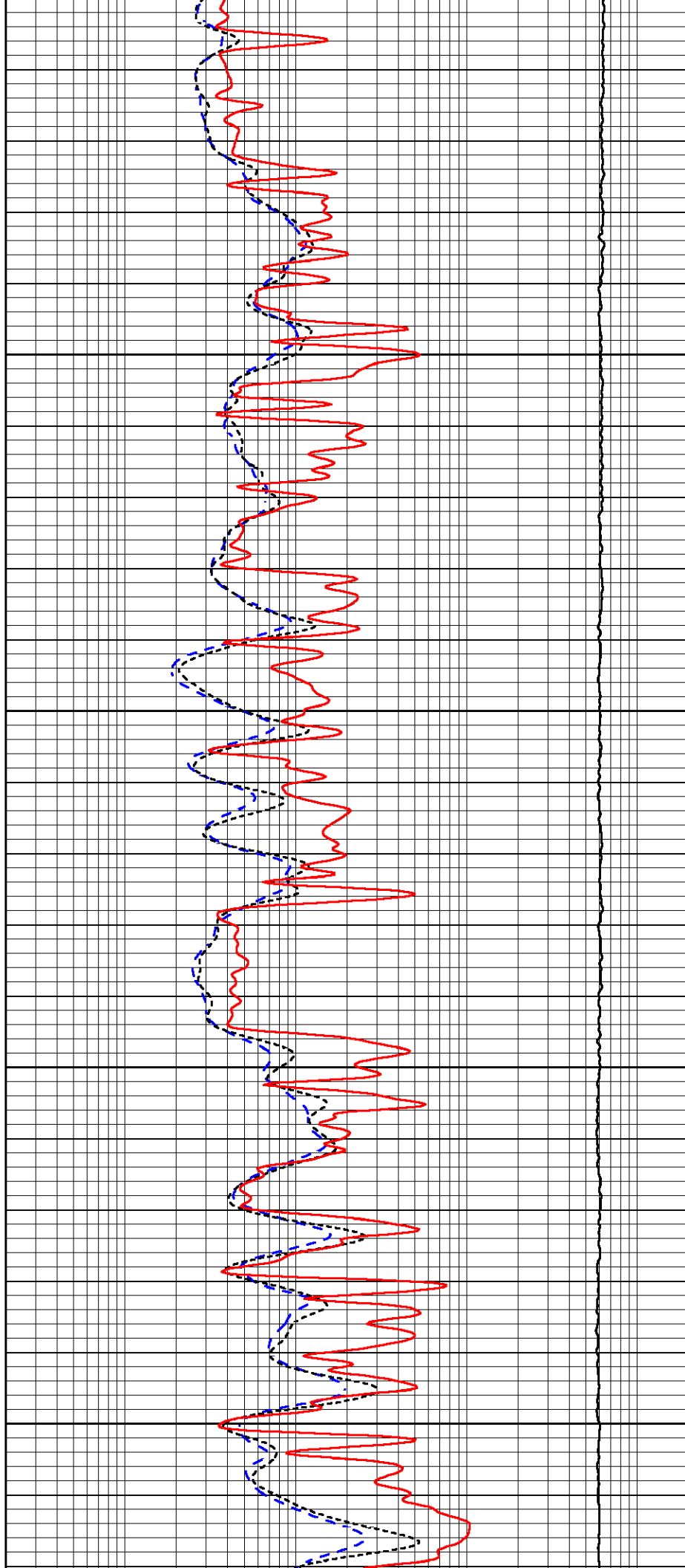
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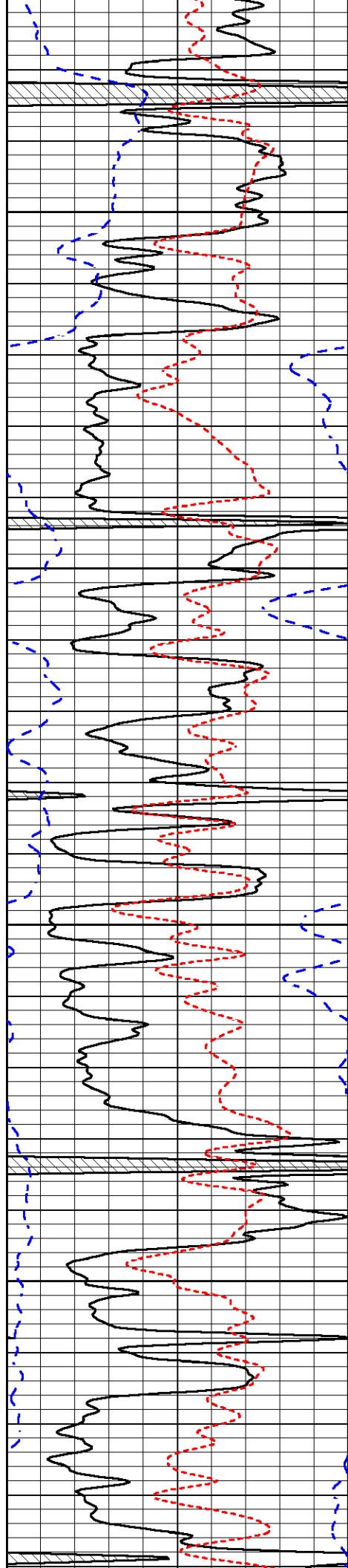
3100

3150

3200

3250



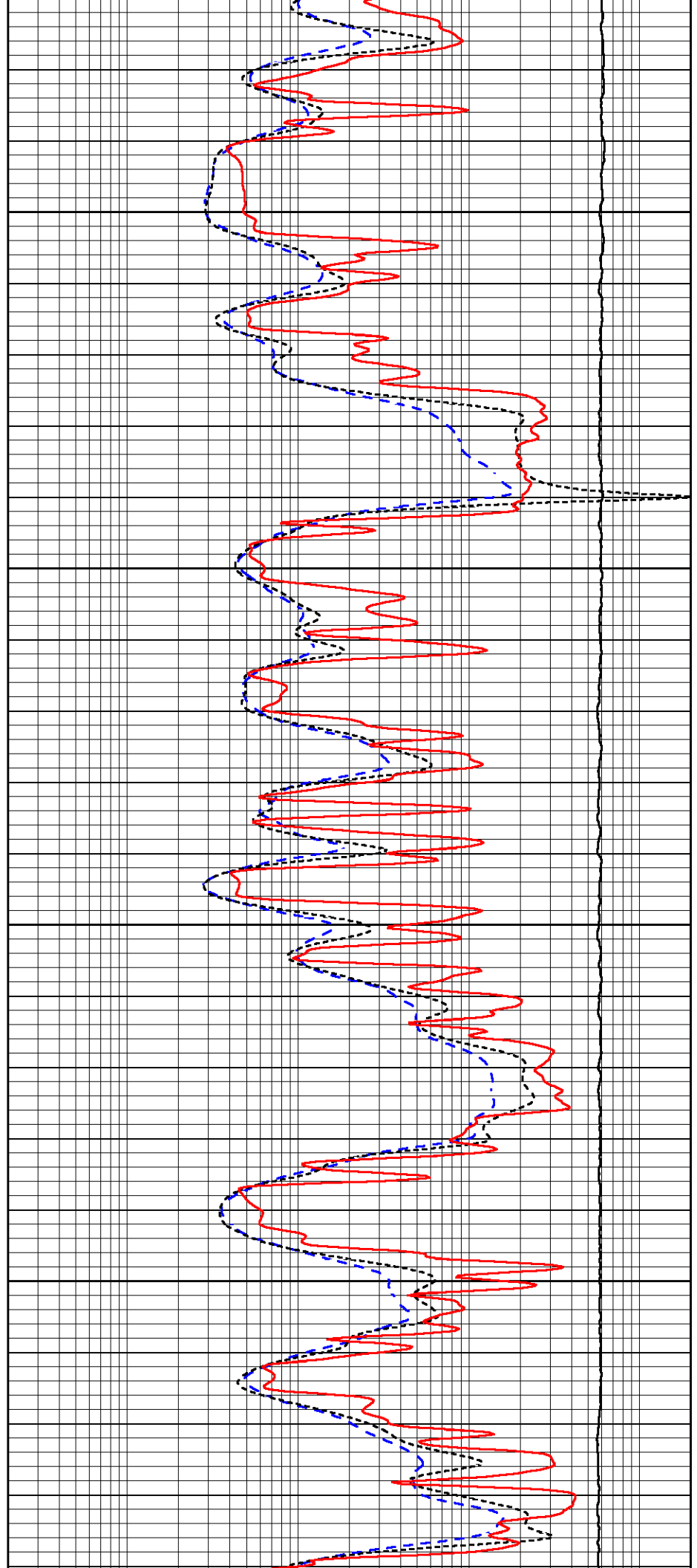


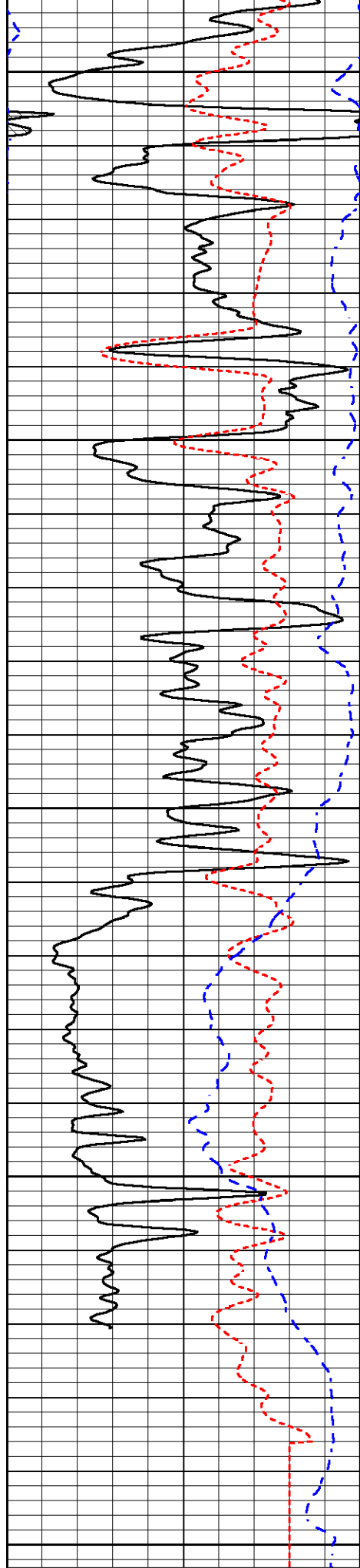
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3350

3400

3450





3500

3550

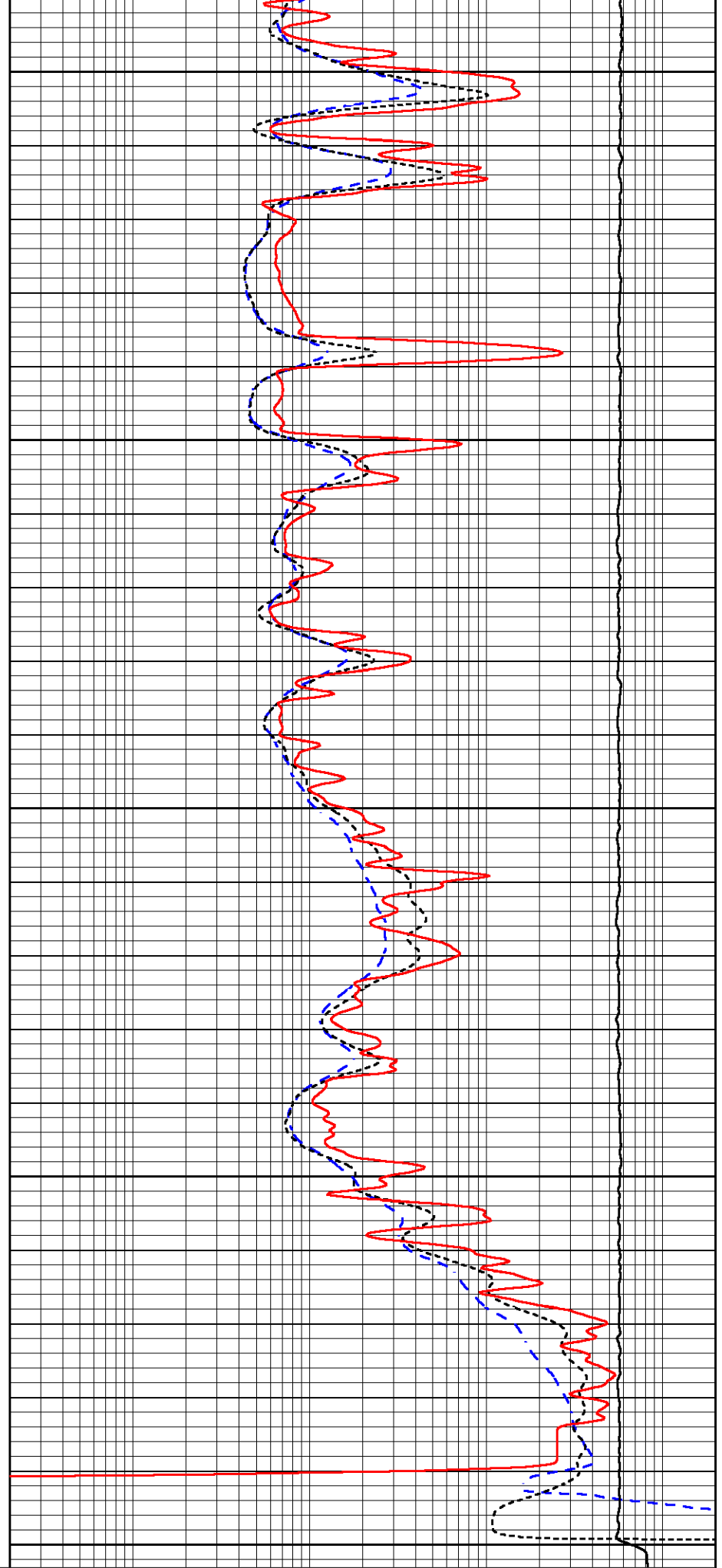
3600

3650

3700

0 Gamma Ray (GAPI) 150

160 PYOPT 40



0.2 Deep Resistivity (Ohm-m) 2000

0.2 Medium Resistivity (Ohm-m) 2000

-160	RXORT	40
-200	SP (mV)	0

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



MIDWEST WIRELINE

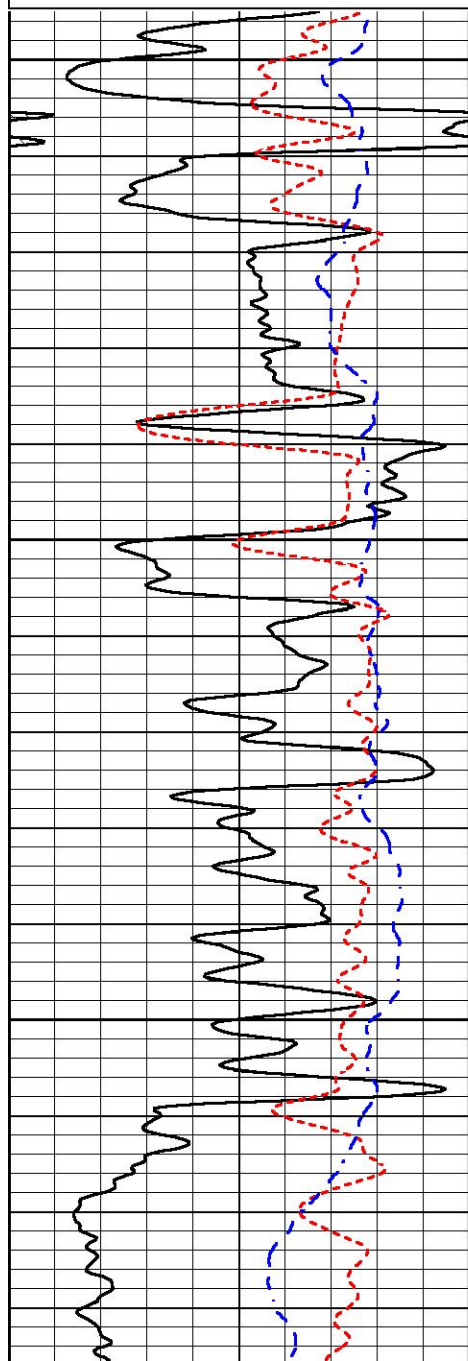
REPEAT SECTION

REPEAT PASS

Database File amwar_industrial unit #1-33.db
Dataset Pathname Stack/pass2.1
Presentation Format _dil
Dataset Creation Tue Jun 06 20:43:37 2023
Charted by Depth in Feet scaled 1:240

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

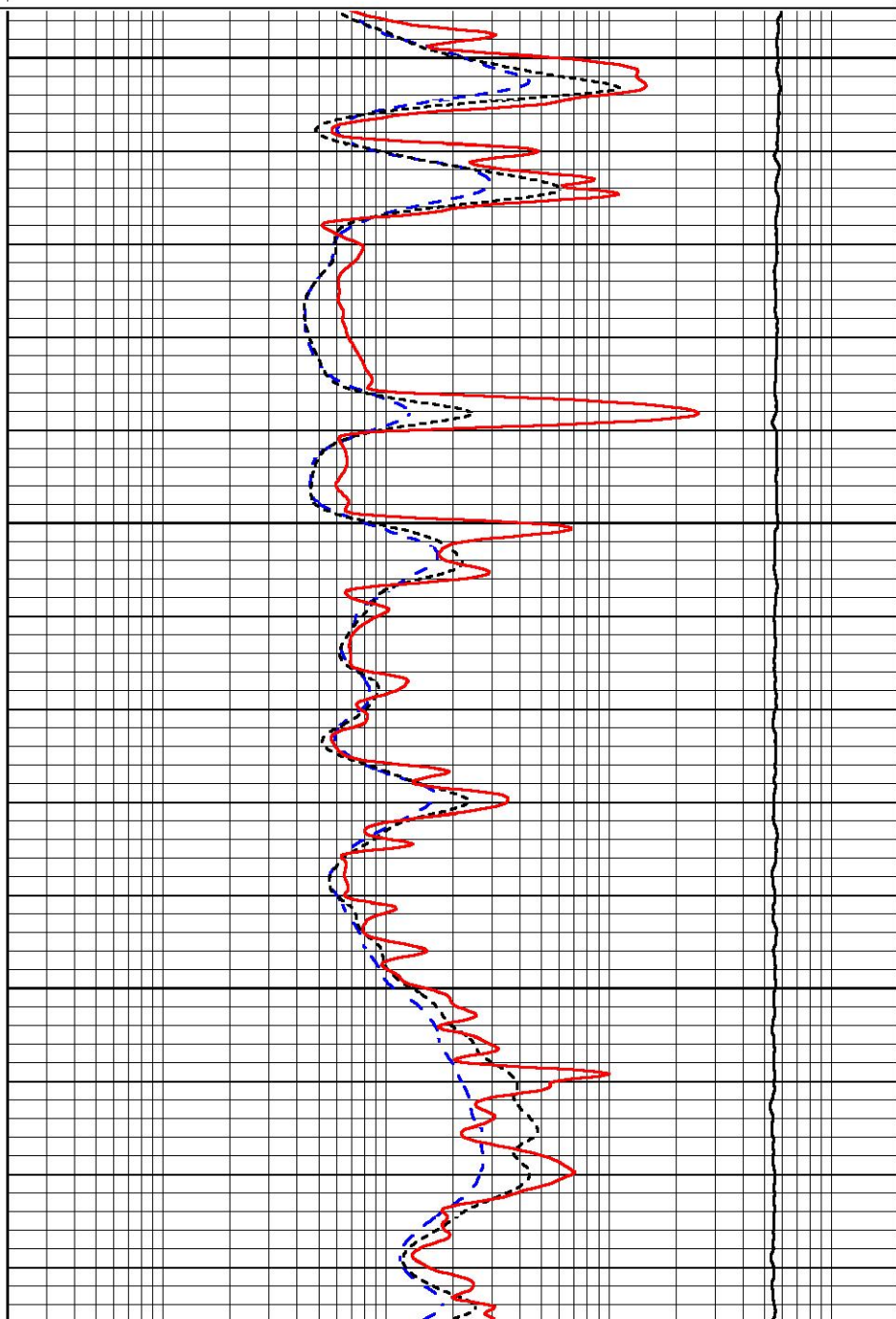
0.2	Deep Resistivity (Ohm-m)	2000
0.2	Medium Resistivity (Ohm-m)	2000
0.2	RLL3 (Ohm-m)	2000
10000	Line Tension (lb)	0

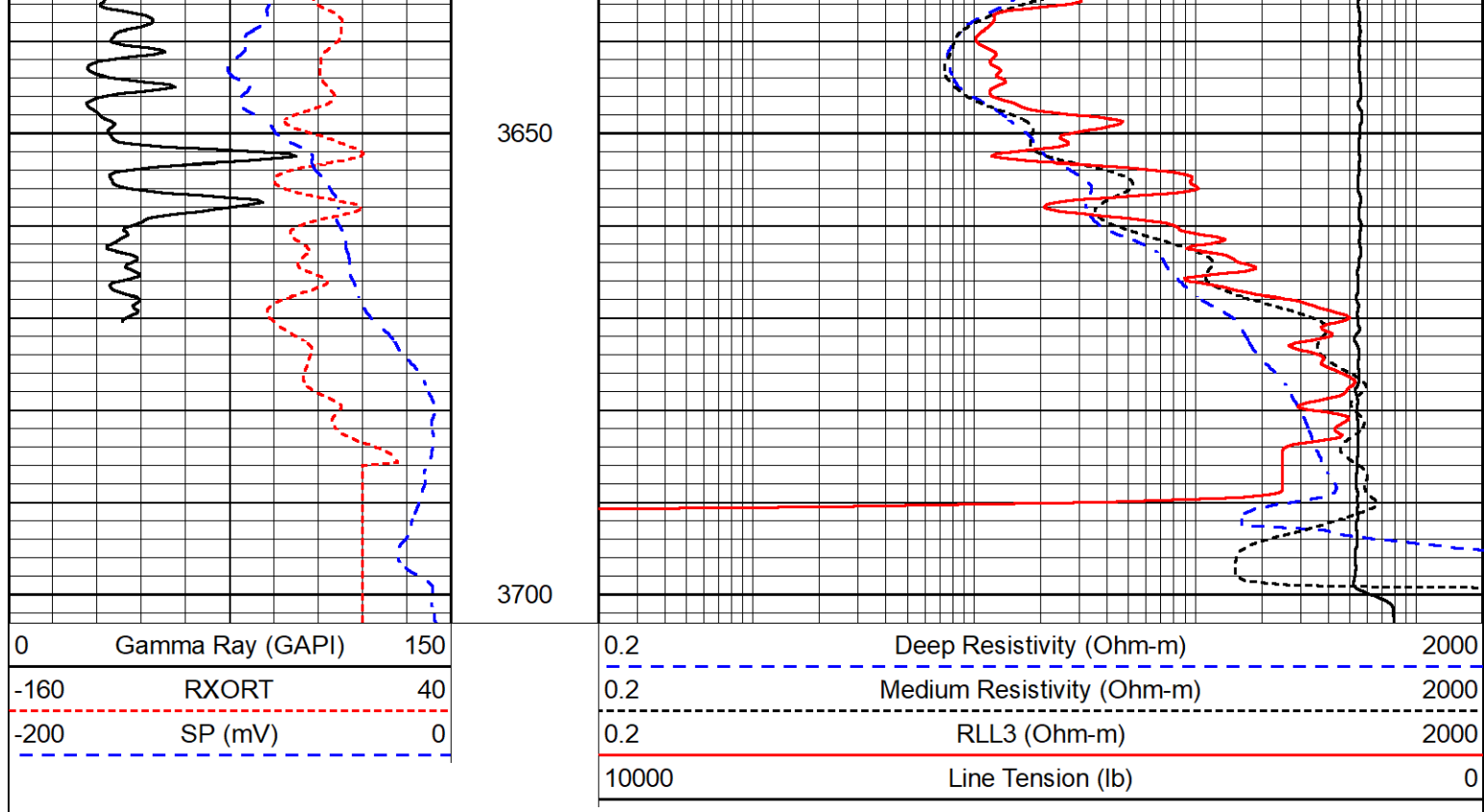


3500

3550

3600





Calibration Report							
Database File	amwar_industrial unit #1-33.db						
Dataset Pathname	Stack/pass3.1						
Dataset Creation	Tue Jun 06 21:28:54 2023						
Dual Induction Calibration Report							
Serial-Model:				507-M&W			
Surface Cal Performed:							
		Readings		References		Results	
Loop:	Air	Loop		Air	Loop	m	b
Deep	67.445	566.296		0.000	255.800	mmho/m	0.450
Medium	192.026	839.715		0.000	255.800	mmho/m	0.420
Compensated Density Calibration Report							
Serial-Model:				307-11-M&W			
Source / Verifier:				20762B / 2ci			
Master Calibration Performed:				Thu Jun 1 02:14:11 2023			
Before Survey Verification Performed:							
After Survey Verification Performed:							

Master Calibration							
		Density		Far Detector		Near Detector	
Magnesium		1.755	g/cc	3689.70		4749.82	cps
Aluminum		2.590	g/cc	822.19		3221.38	cps
Spine Angle = 75.50				Density/Spine Ratio = 0.538			
		Size		Reading			
Small Ring		6.00	in	1.16			

Large Ring	18.00	in	1.01
Before Survey Verification			
	Target		Measured
		g/cc	g/cc
		g/cc	g/cc
		g/cc	g/cc
After Survey Verification			
	Target		Measured
		g/cc	g/cc
		g/cc	g/cc
		g/cc	g/cc

Compensated Neutron Calibration Report

Serial Number:	207-MW
Tool Model:	M&W

CALIBRATION					
	Detector	Readings		Target	Normalization
	Short Space	6240.00	cps	1000.00	1.6025
	Long Space	460.00	cps	1000.00	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:	105
Tool Model:	M&W
Performed:	Fri Dec 3 15:10:46 2021
Calibrator Value:	500.0
	GAPI
Background Reading:	24.0
Calibrator Reading:	637.0
	cps
Sensitivity:	0.5750
	GAPI/cps



MIDWEST WIRELINE

Company	American Warrior, Inc.
Well	Industrial Unit #1-33
Field	Unnamed
County	Graham
State	Kansas