



DUAL INDUCTION LOG

MIDWEST WIRELINE

Company War Cry LLC		Company War Cry LLC	
Well	Casey #6	Well	Casey #6
Field	Beaver North	Field	Beaver North
County	Barton	County	Barton
State	Kansas	State	Kansas
Location: API #: 15-009-26353-00-00		Other Services	
2040 FNL & 1855 FEL		CNL/CDL MEL	
Permanent Datum	Ground Level	Elevation	1876
Log Measured From	Kelly Bushing	K.B.	1884
Drilling Measured From	Kelly Bushing	D.F.	
		G.L.	1876
SEC 4 TWP 16S RGE 12W			
Date	4/9/2022		
Run Number	One		
Depth Driller	3424		
Depth Logger	3426		
Bottom Logged Interval	3425		
Top Log Interval	600		
Casing Driller	8.625 @ 605		
Casing Logger	605		
Bit Size	7.875		
Type Fluid in Hole	Chemical		
Salinity, ppm CL	5000		
Density / Viscosity	9.1 50		
pH / Fluid Loss	9.5 8.0		
Source of Sample	Flowline		
Rm @ Meas. Temp	0.9 @ 60		
Rmt @ Meas. Temp	0.68 @ 60		
Rmc @ Meas. Temp	1.22 @ 60		
Source of Rmt / Rmc	Charts		
Rm @ BHT	0.49 @ 110		
Operating Rig Time	2.5 Hours		
Max Rec. Temp. F	110		
Equipment Number			
Location	Hays		
Recorded By	T. Martin		
Witnessed By	Jason Alm	Ward Craig	

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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.

Beaver, KS, 3 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: Ward Craig
Secondary Witness:
Secondary Witness:

Log Variables

DatabaseC:\ProgramData\Warrior\DataNeeds backed up\war cry_casey #6.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	110	5.5	0	1		2.71
NPORSEL	PERFS	SNDERR	SNDERRM	SPSHIFT	SRFTEMP	SZCOR	TDEPTH
Limestone	0	mmho/m	mmho/m	mV	degF	Off	ft
		0	0	-215	60		3426

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

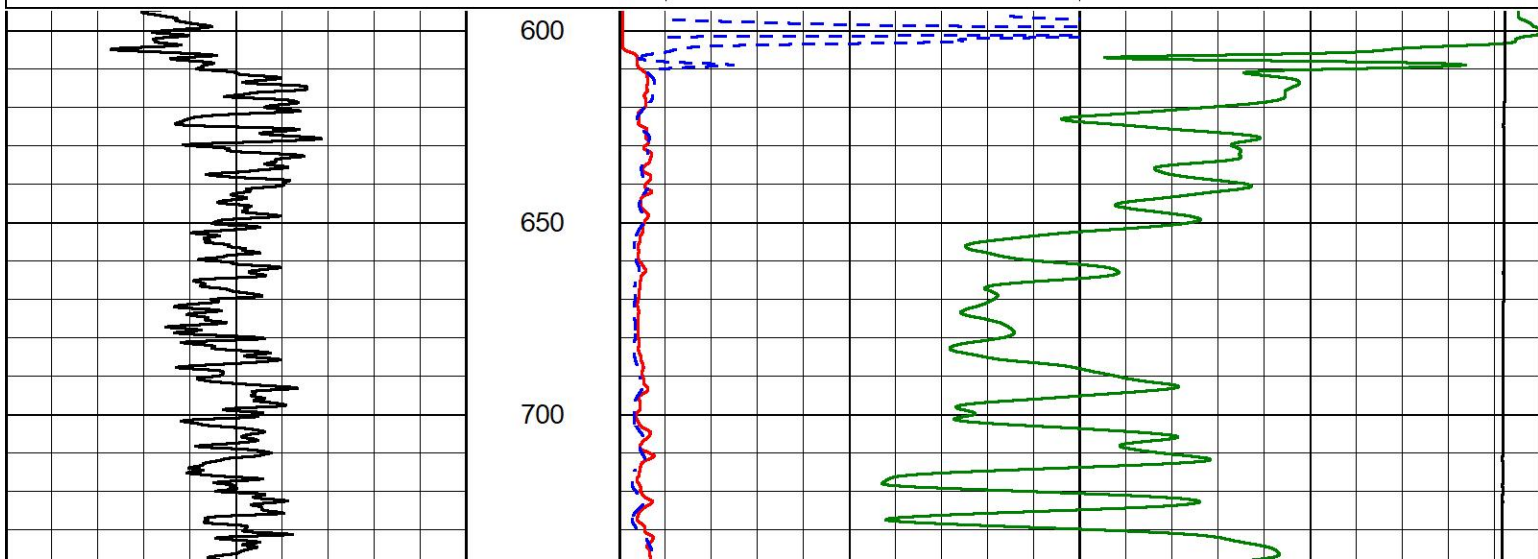


2" SCALE RESISTIVITY

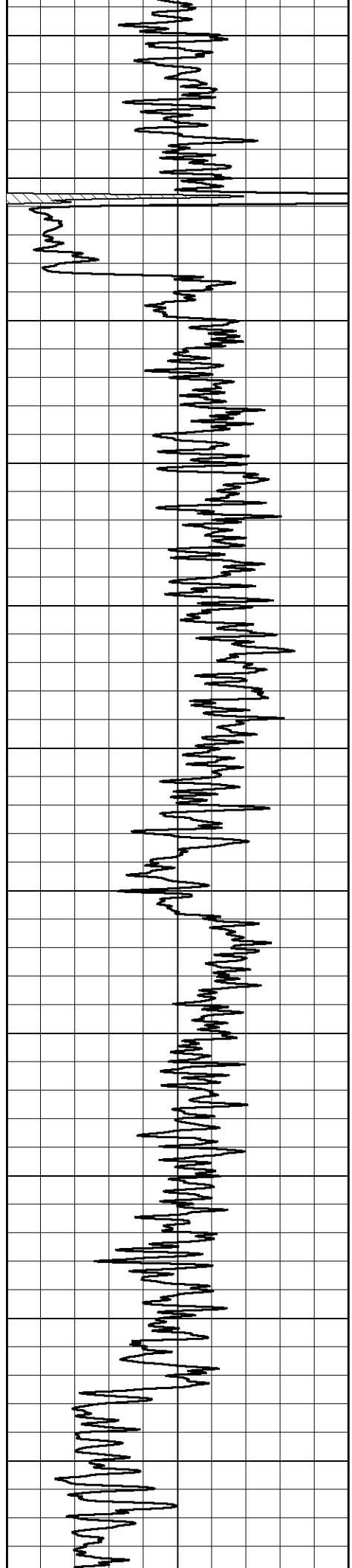
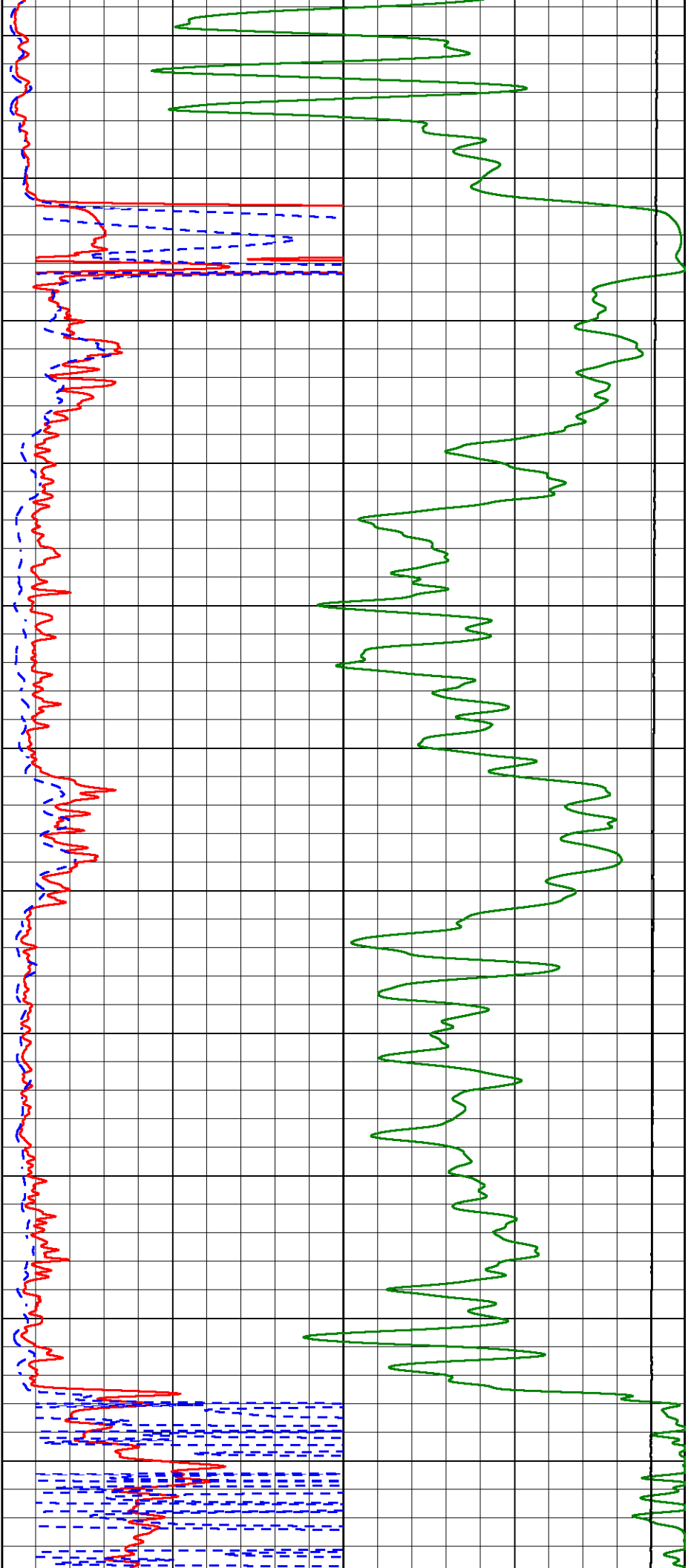
MAIN PASS

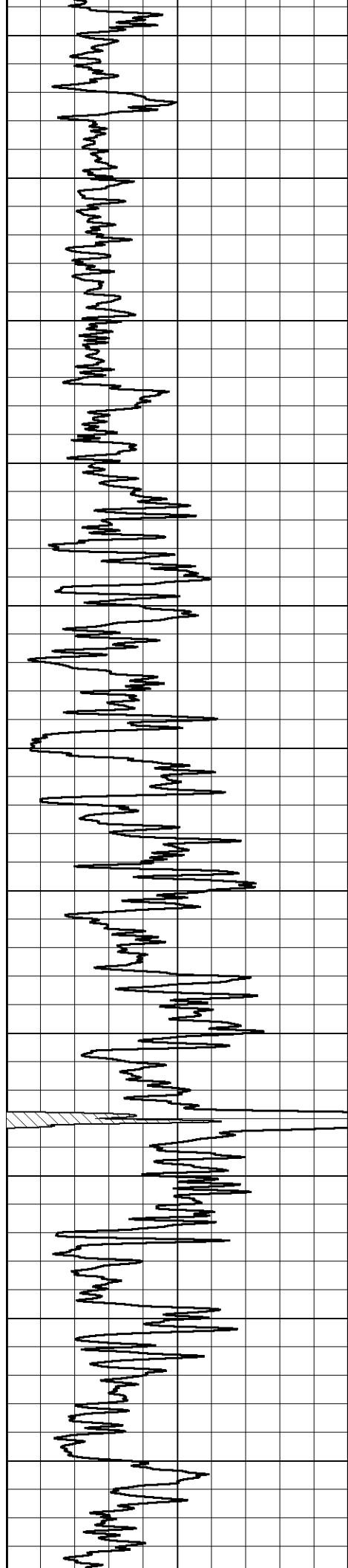
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Dataset Pathname StkMI/pass3.2
Presentation Format _dil2in
Dataset Creation Sat Apr 09 13:53:01 2022
Charted by Depth in Feet scaled 1:600

0	Gamma Ray (GAPI)	150	1000	Conductivity (mmho/m)	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



750
800
850
900
950
1000
1050
1100
1150
1200
1250





1300

1350

1400

1450

1500

1550

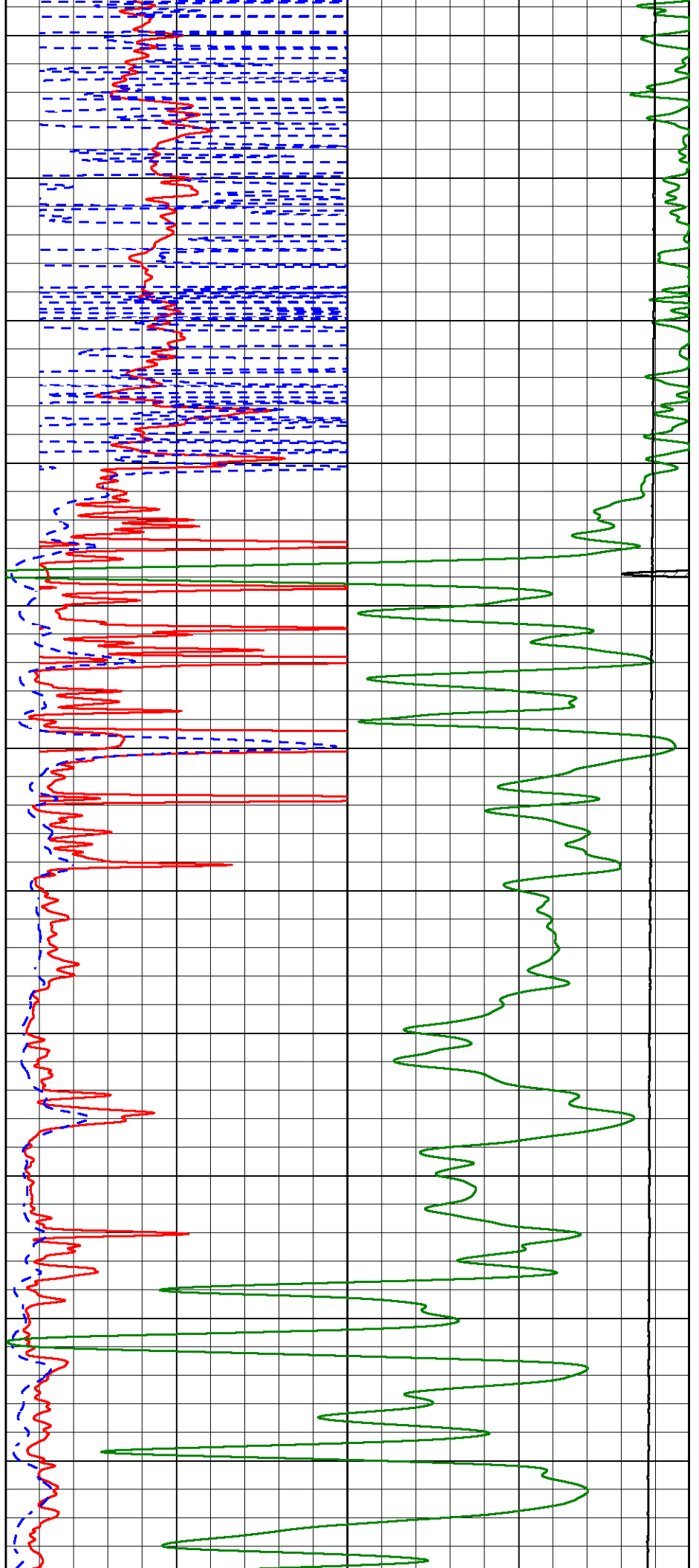
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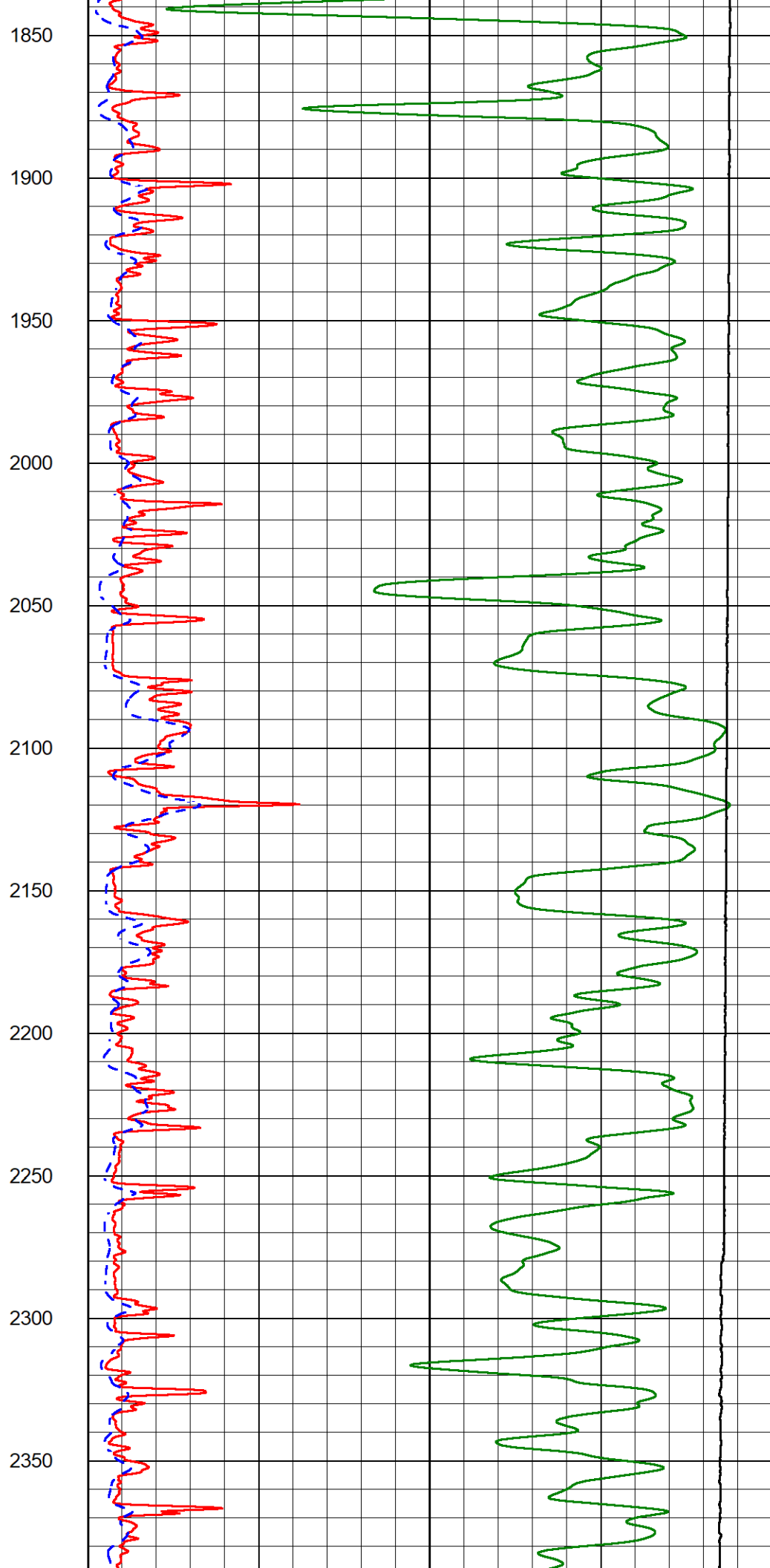
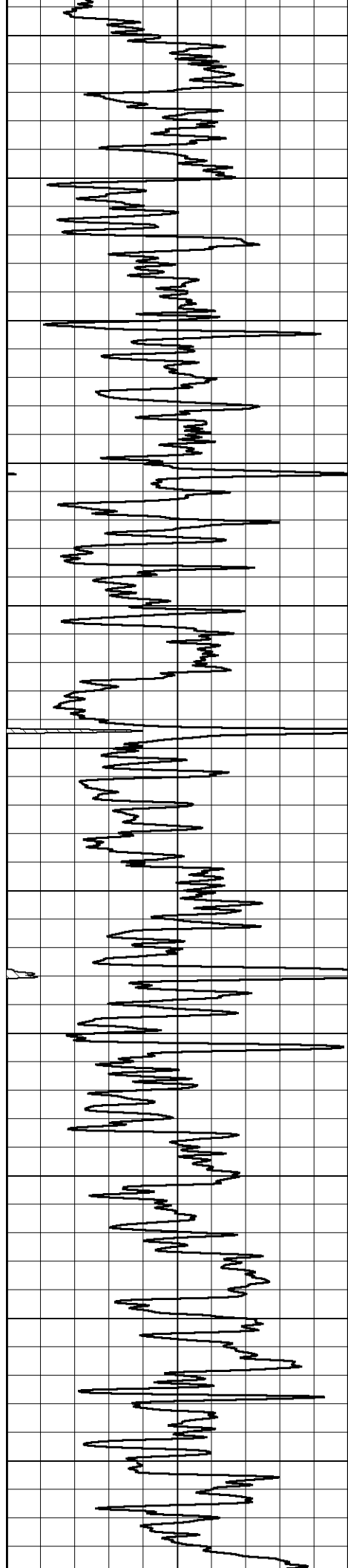
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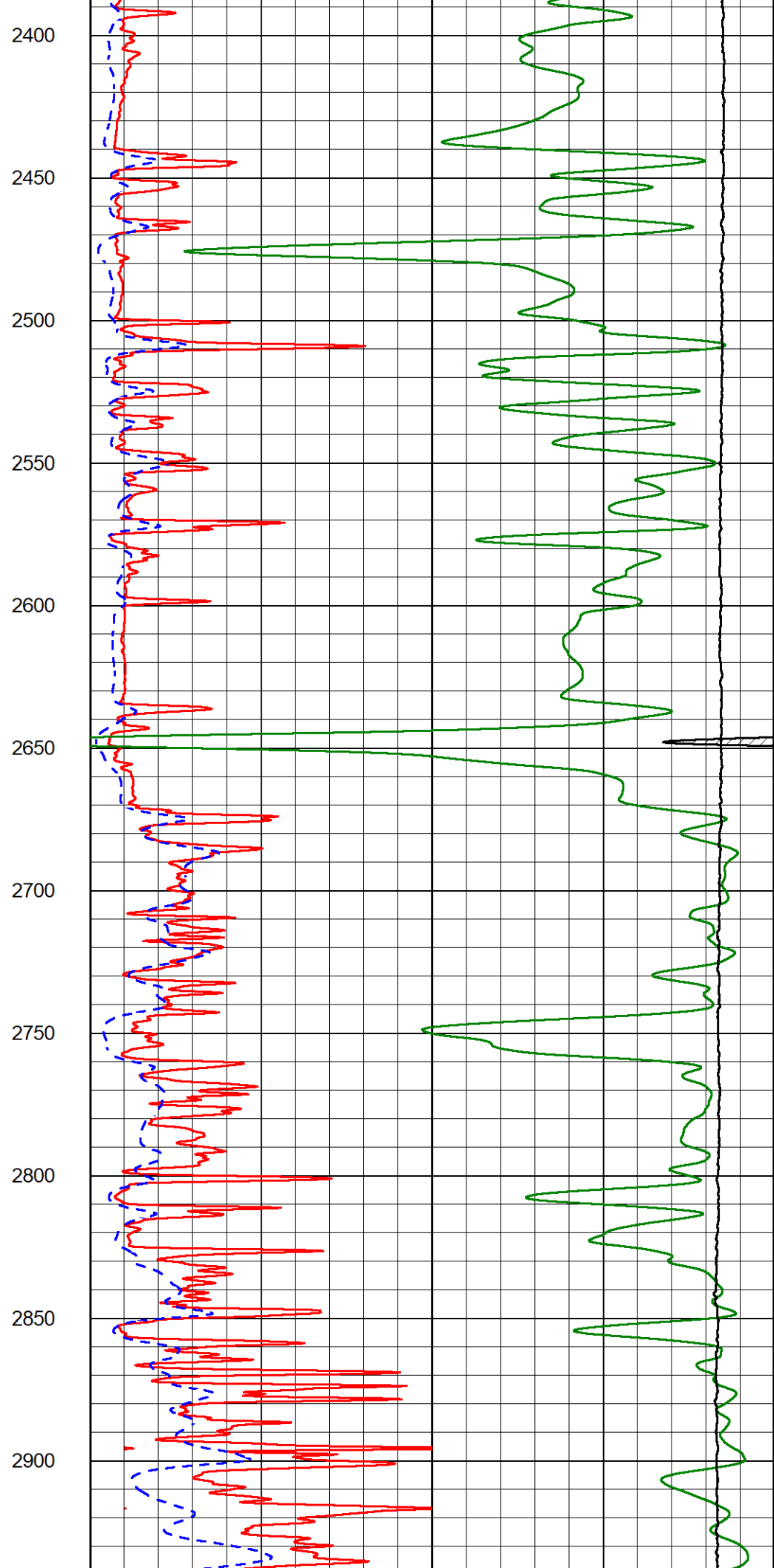
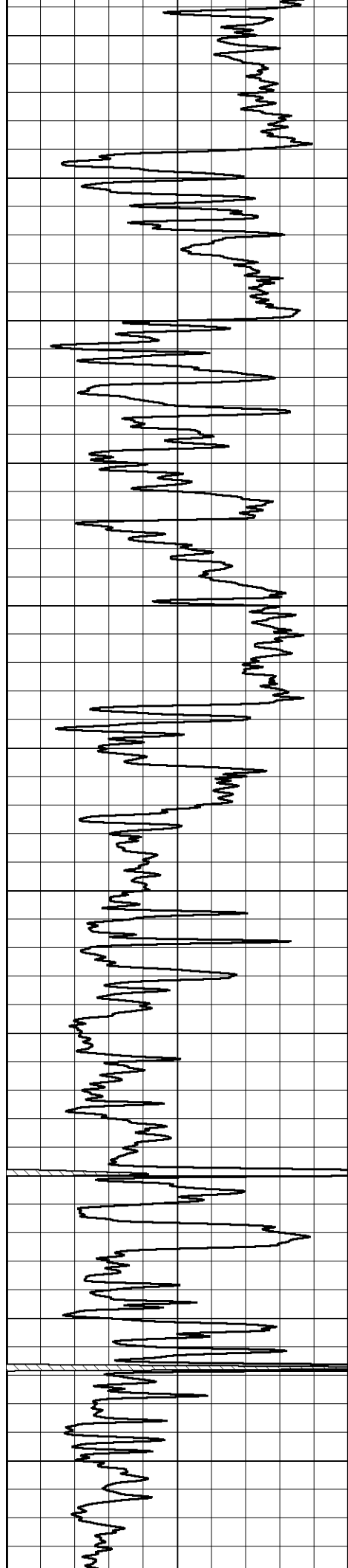
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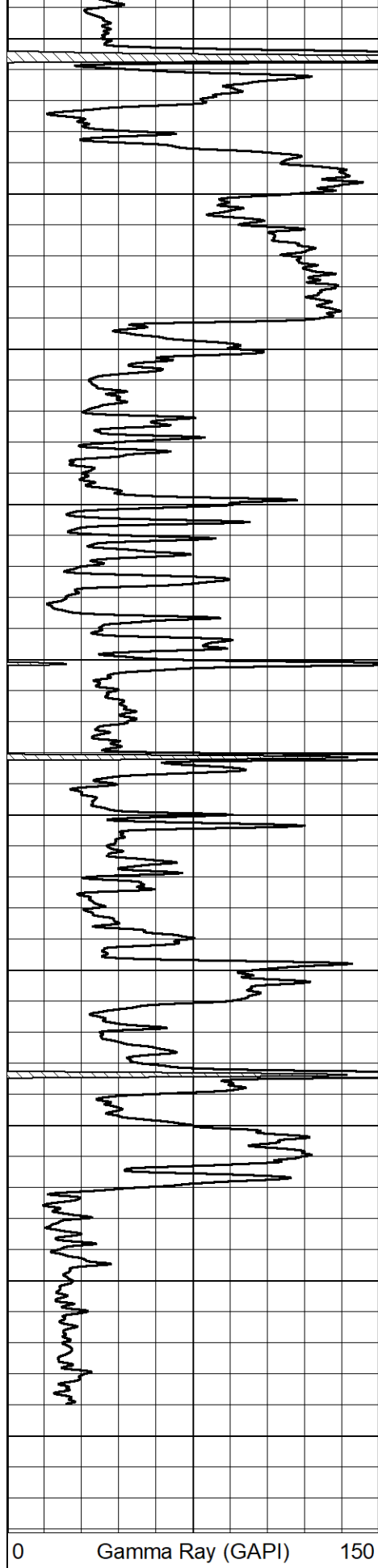
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1800

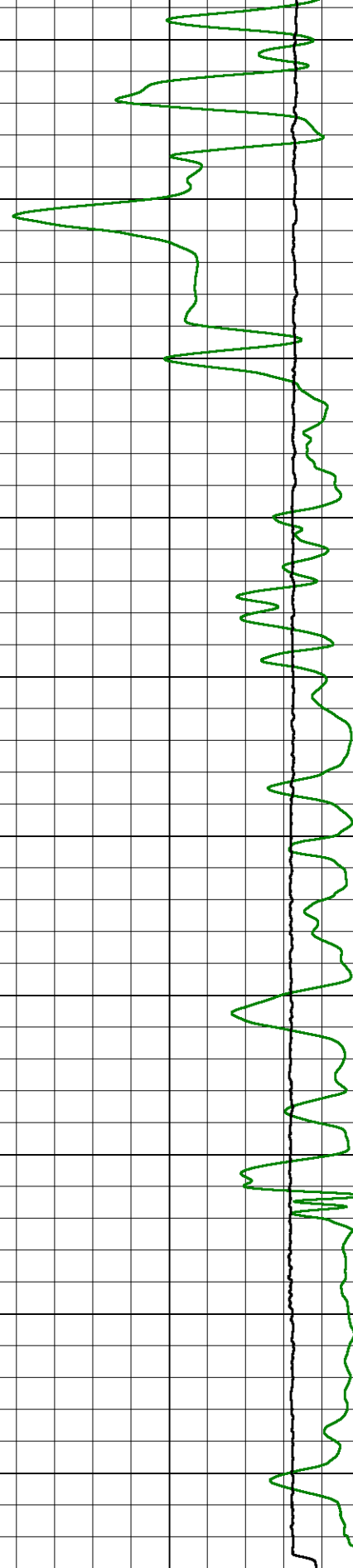
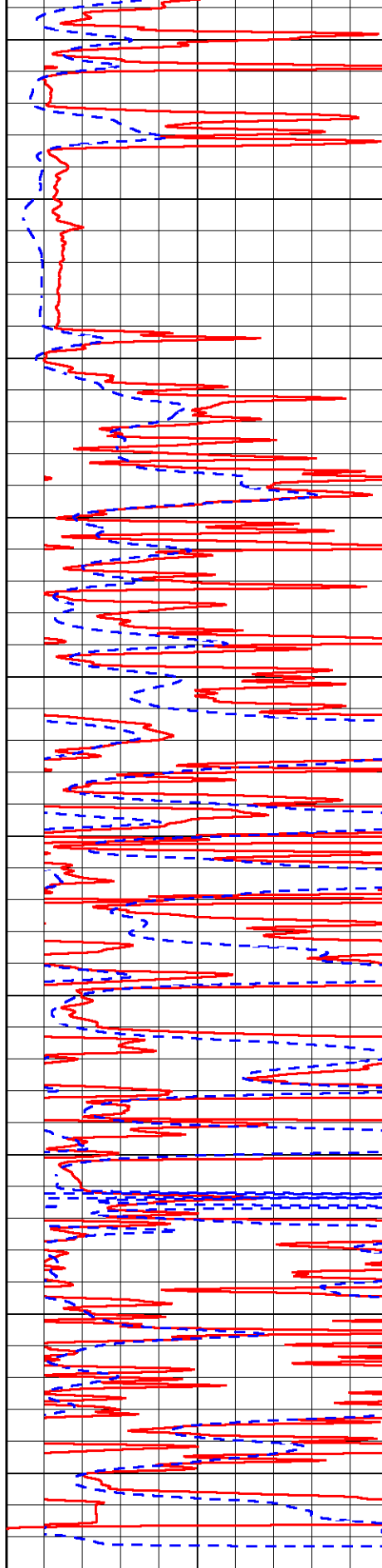








2950
3000
3050
3100
3150
3200
3250
3300
3350
3400



0 150

1000 15000

0 50

0 50

Shallow Resistivity

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



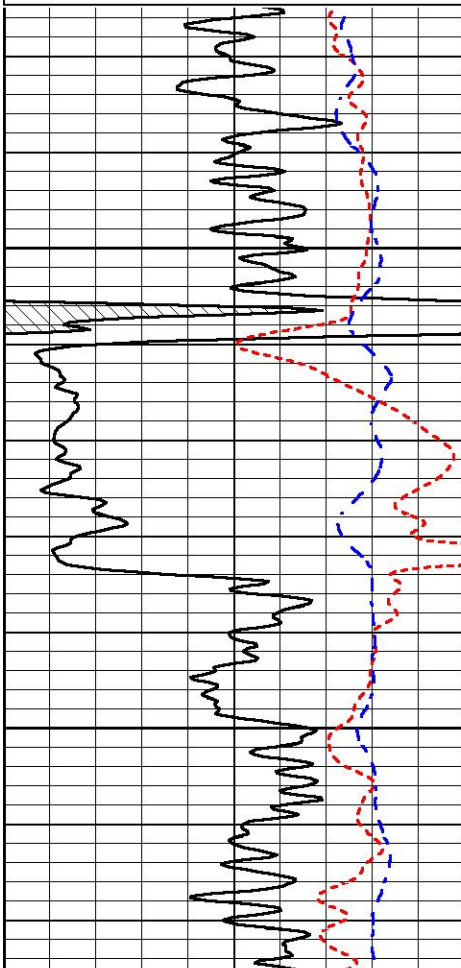
ANHYDRITE SECTION

MAIN PASS

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 Dataset Pathname StkMI/pass3.4
 Presentation Format _dil
 Dataset Creation Sat Apr 09 13:50:18 2022
 Charted by Depth in Feet scaled 1:240

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

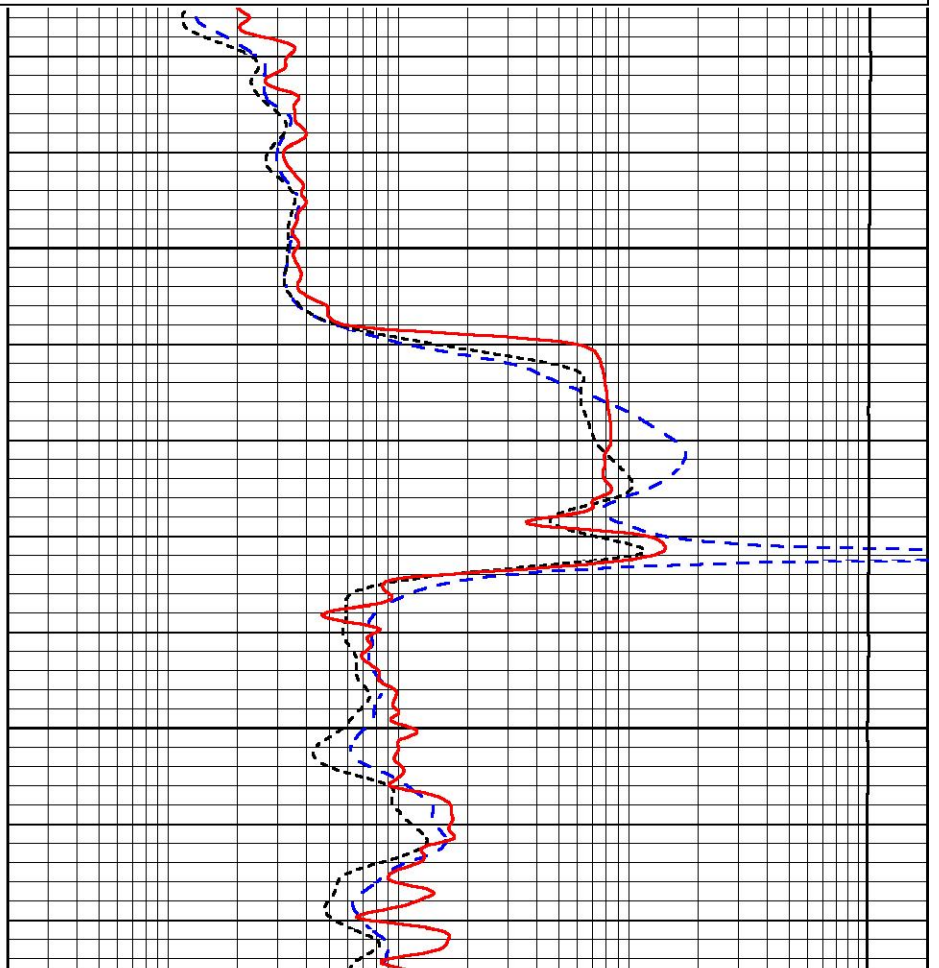
0.2	Deep Resistivity (Ohm-m)	2000
0.2	Medium Resistivity (Ohm-m)	2000
0.2	Shallow Resistivity (Ohm-m)	2000
10000	Line Tension (lb)	0



800

850

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	Shallow Resistivity (Ohm-m)	2000
10000	Line Tension (lb)	0



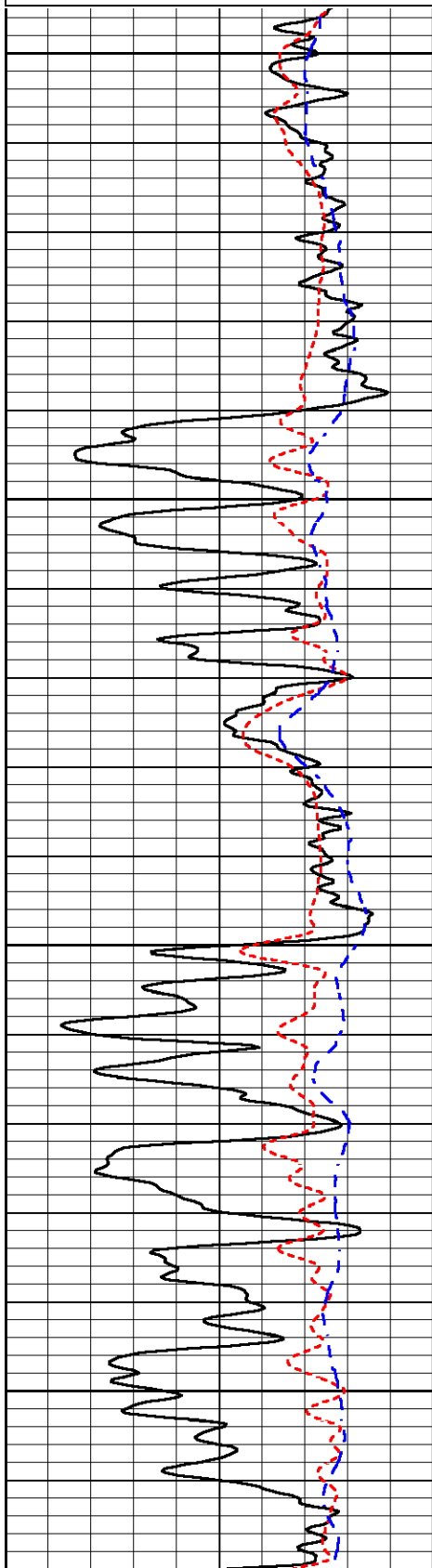
DETAIL SECTION

MAIN PASS

Database File needs backed up\war cry_casey #6.db
Dataset Pathname StkMI/pass3.1
Presentation Format _dil
Dataset Creation Sat Apr 09 13:53:14 2022
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	Shallow Resistivity (Ohm-m)	2000
10000	Line Tension (lb)	0

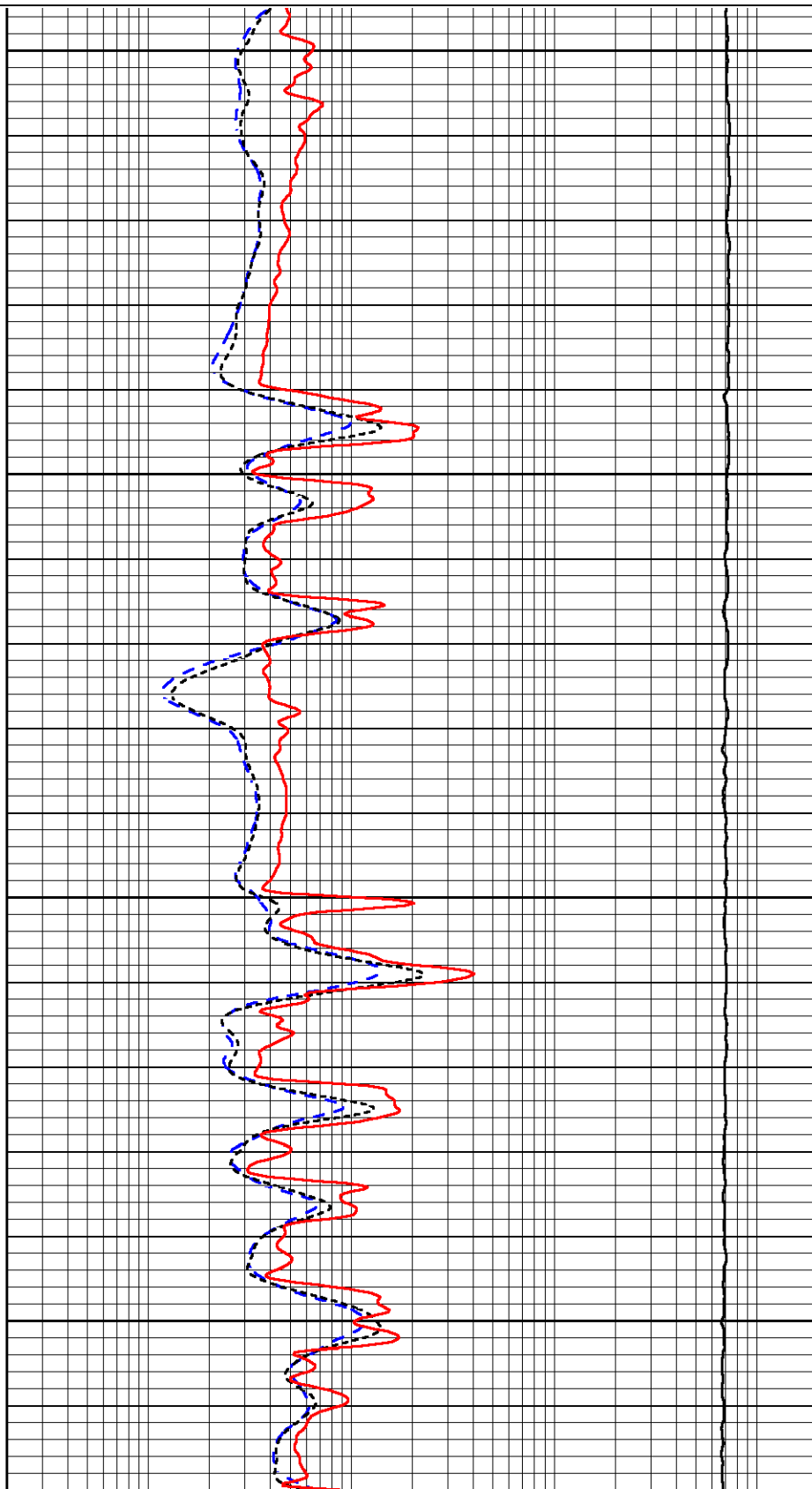


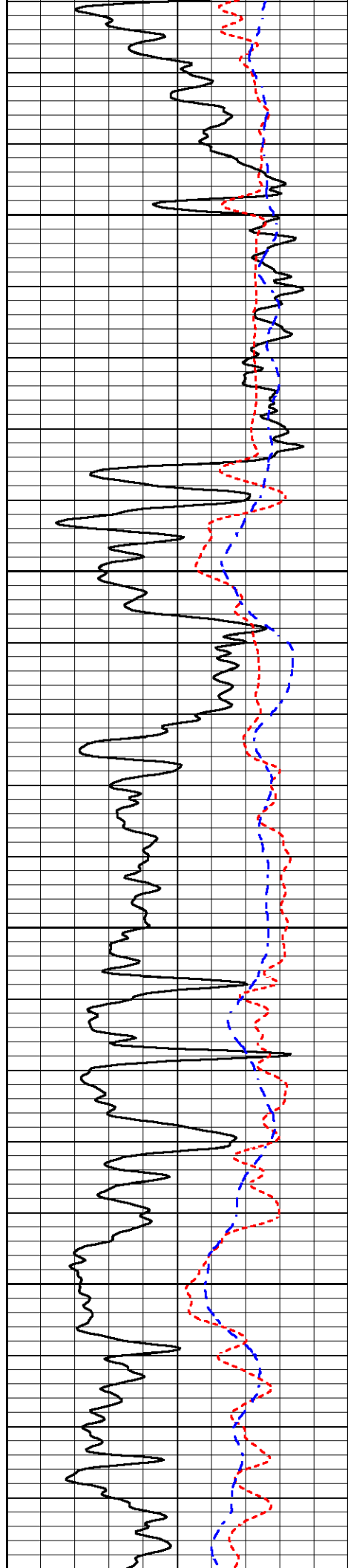
2400

2450

2500

2550



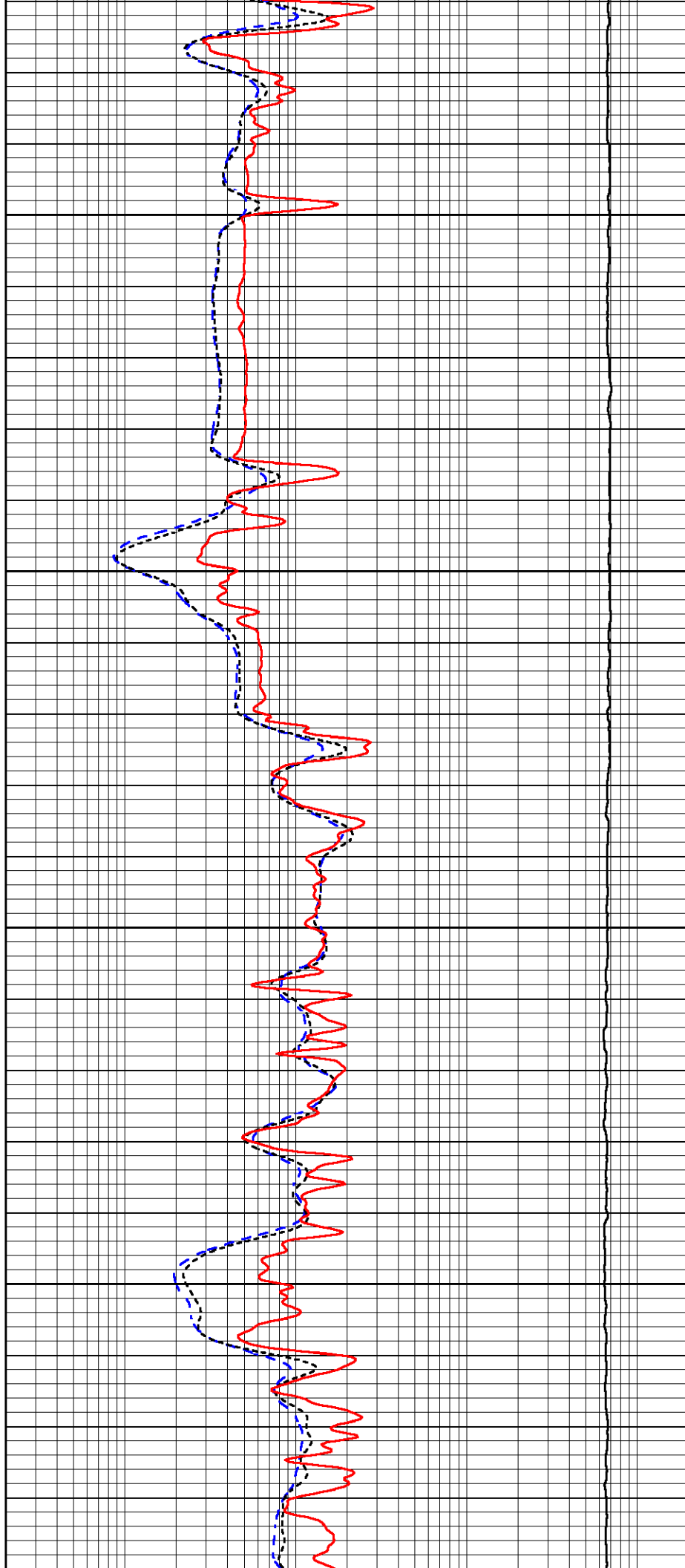


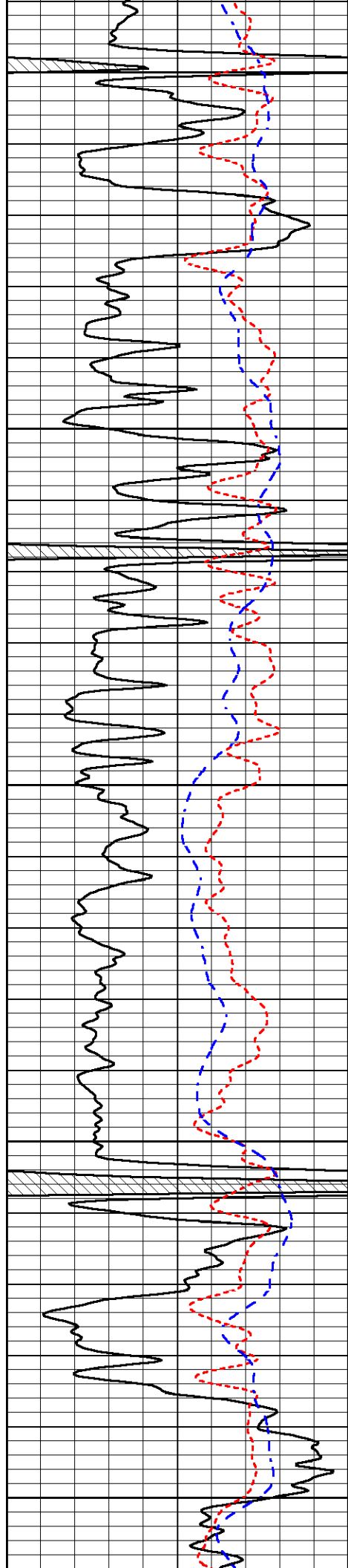
2600

2650

2700

2750





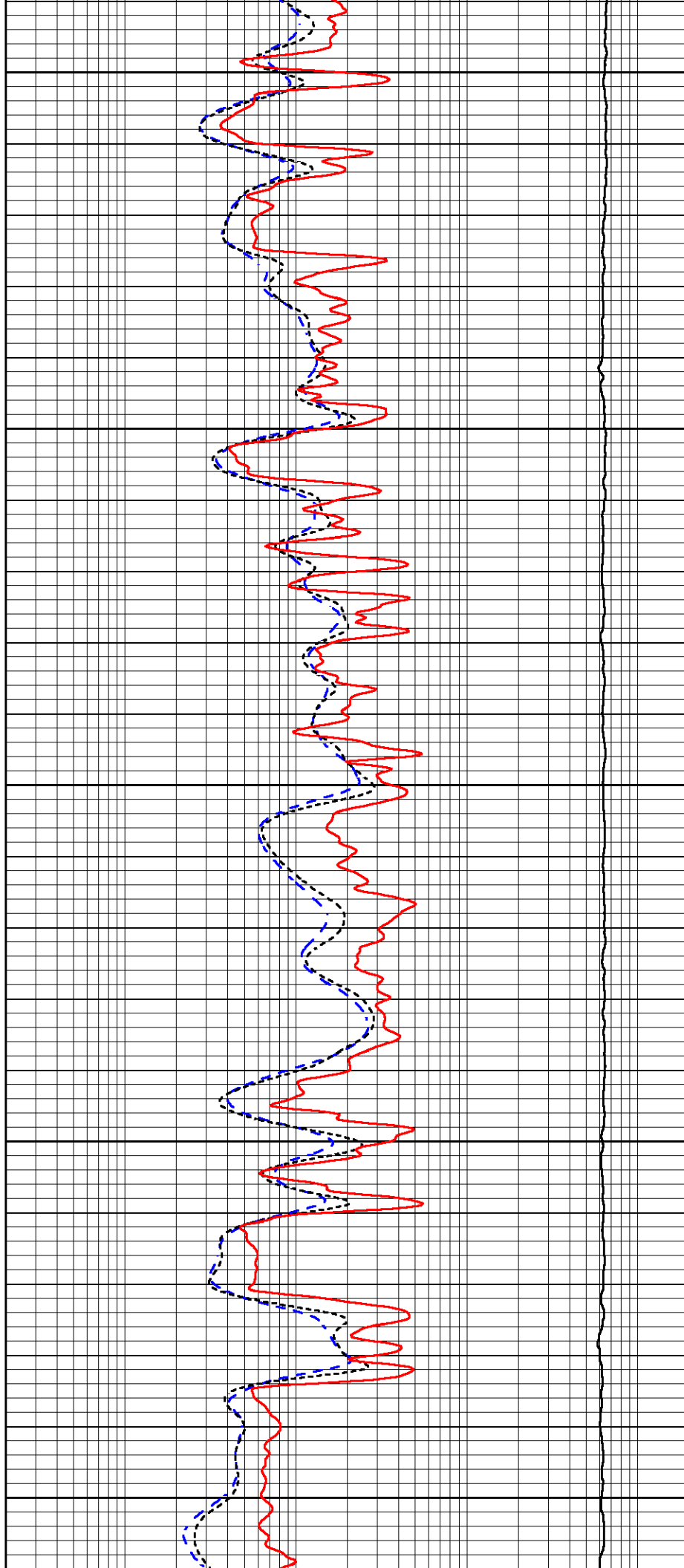
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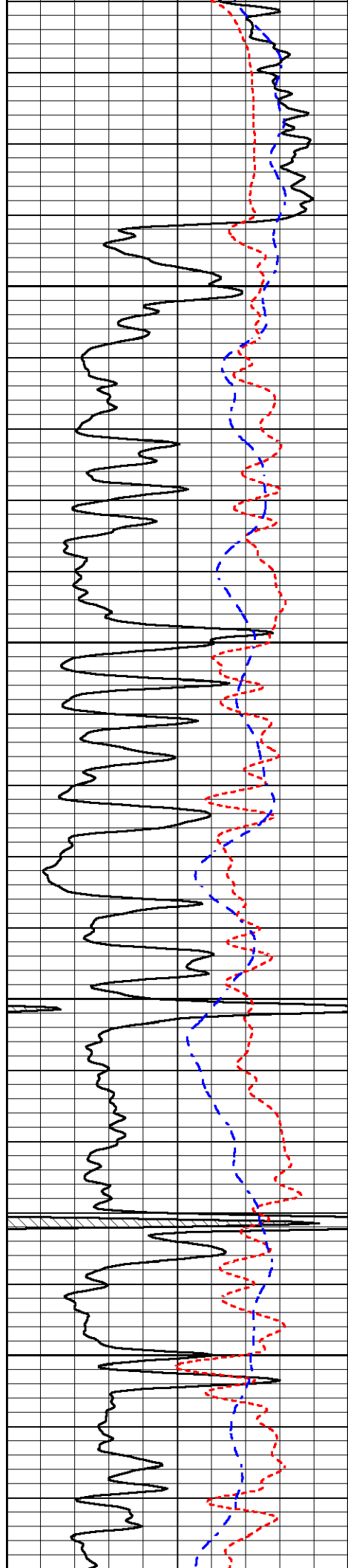
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2900

2950

3000



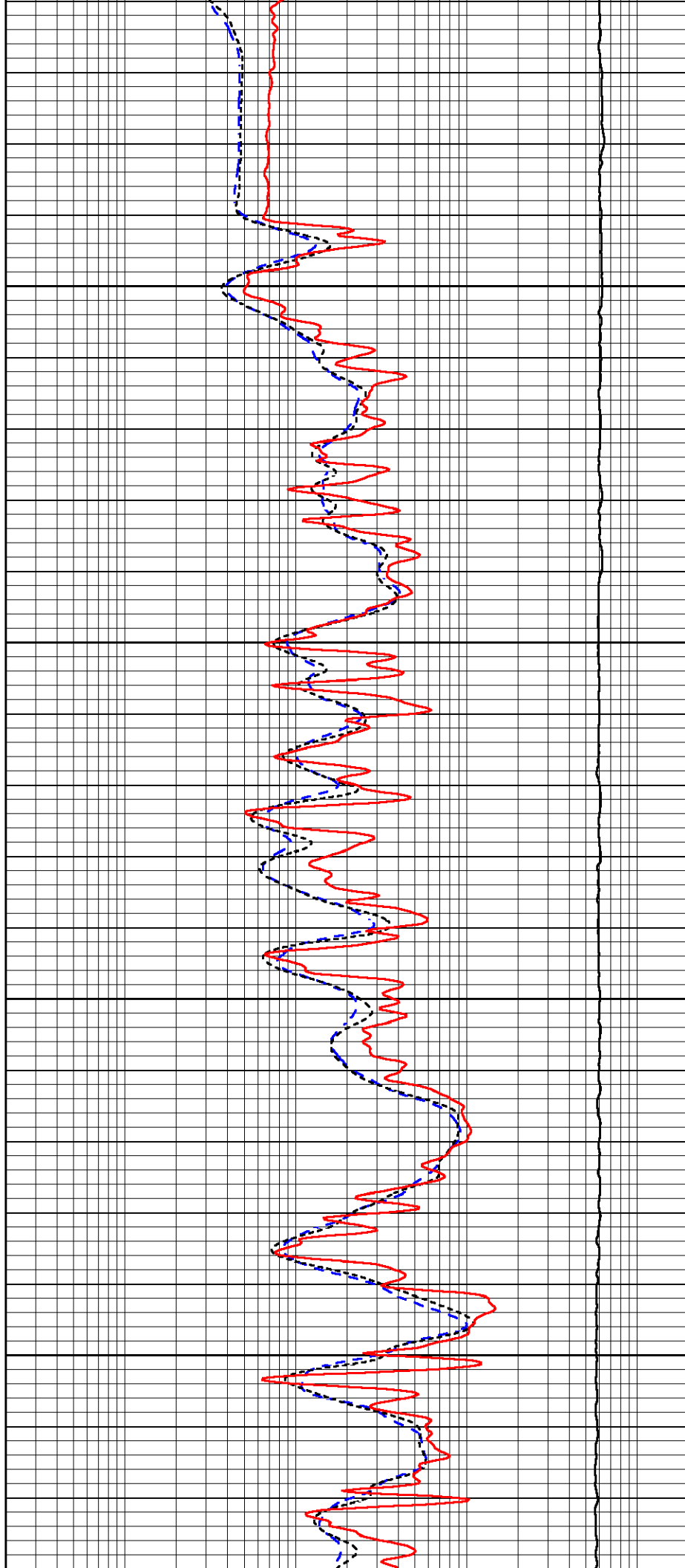


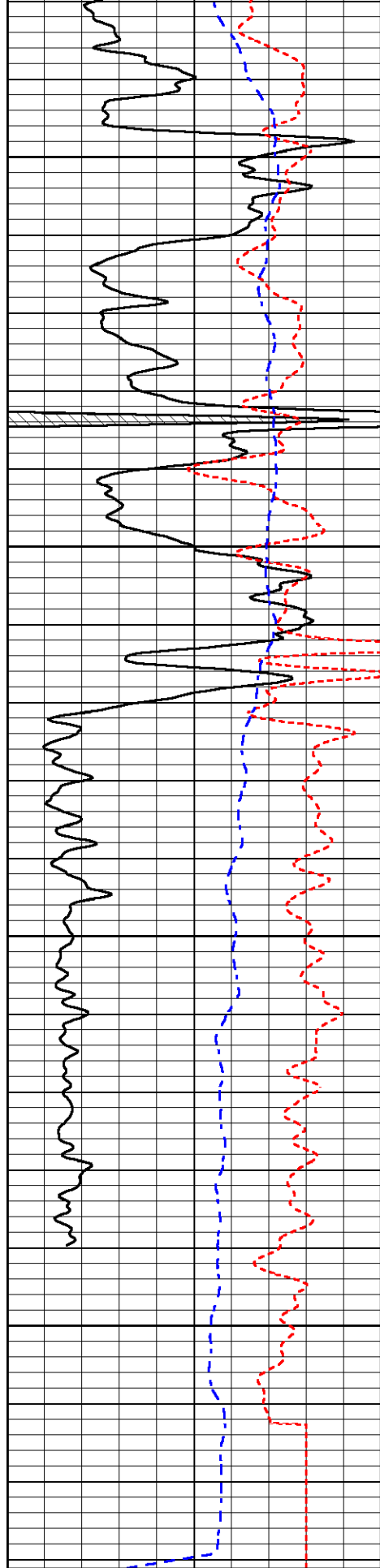
3050

3100

3150

3200



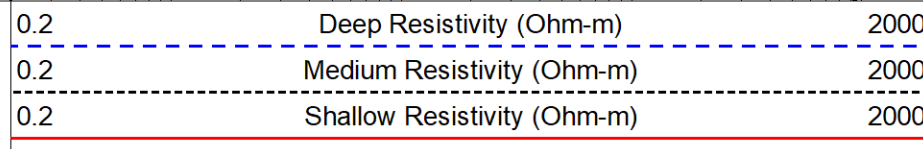
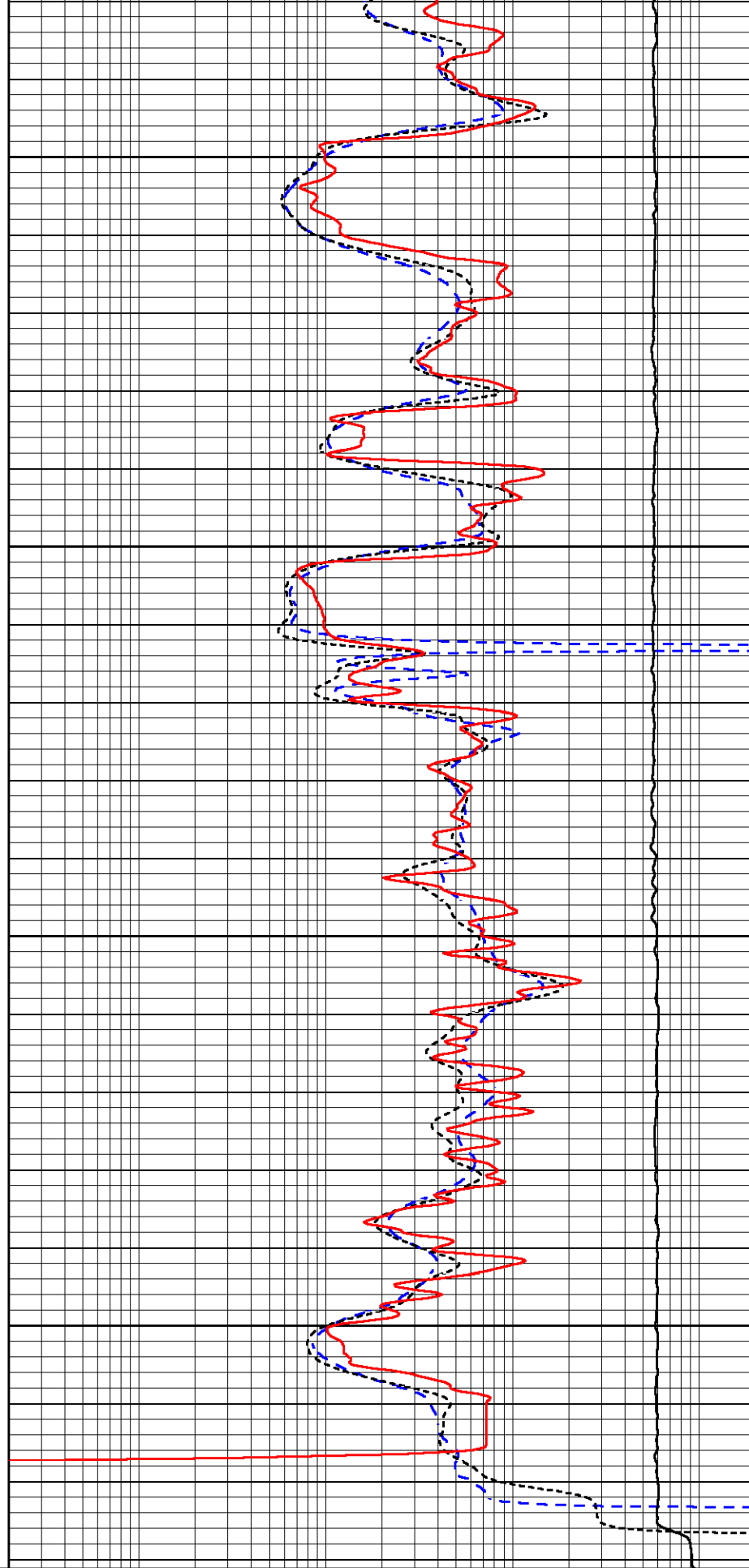
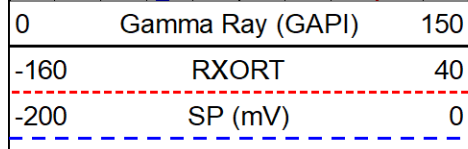


3250

3300

3350

3400





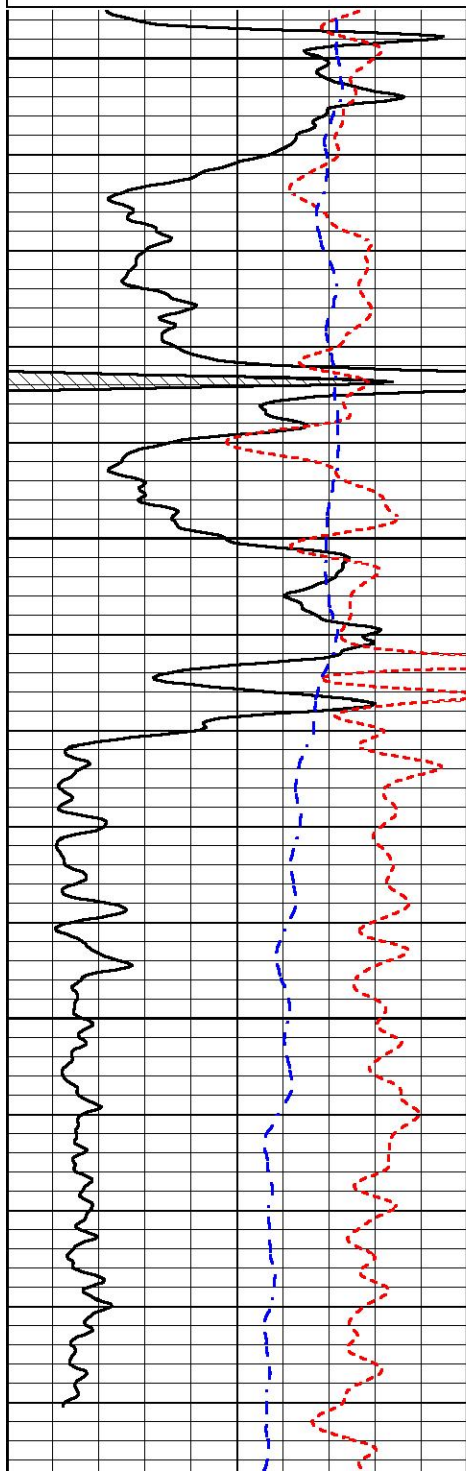
REPEAT SECTION

REPEAT PASS

Database File needs backed up\war cry_casey #6.db
Dataset Pathname StkMI/pass2.1
Presentation Format _dil
Dataset Creation Sat Apr 09 13:24:40 2022
Charted by Depth in Feet scaled 1:240

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

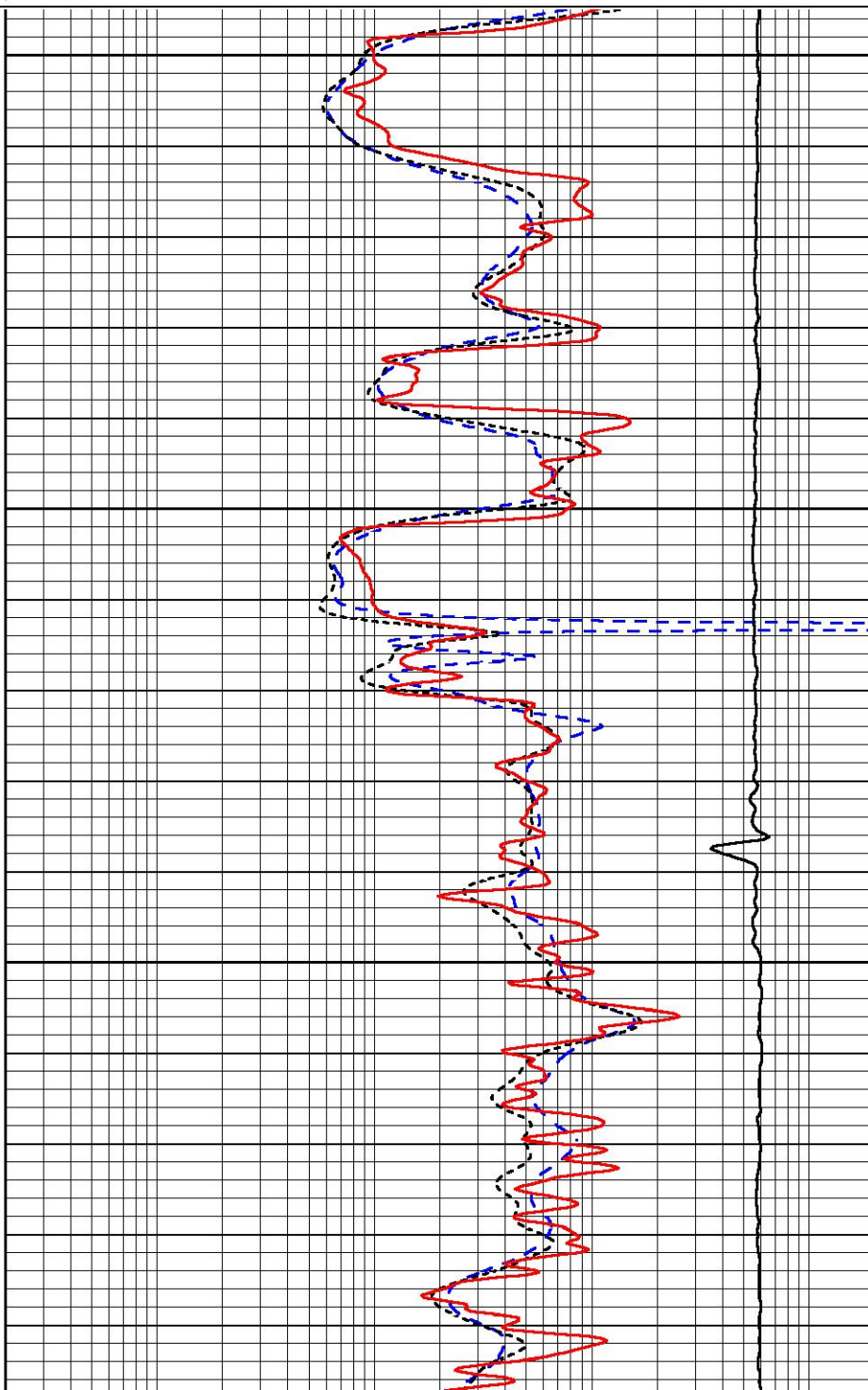
0.2	Deep Resistivity (Ohm-m)	2000
0.2	Medium Resistivity (Ohm-m)	2000
0.2	Shallow Resistivity (Ohm-m)	2000
10000	Line Tension (lb)	0

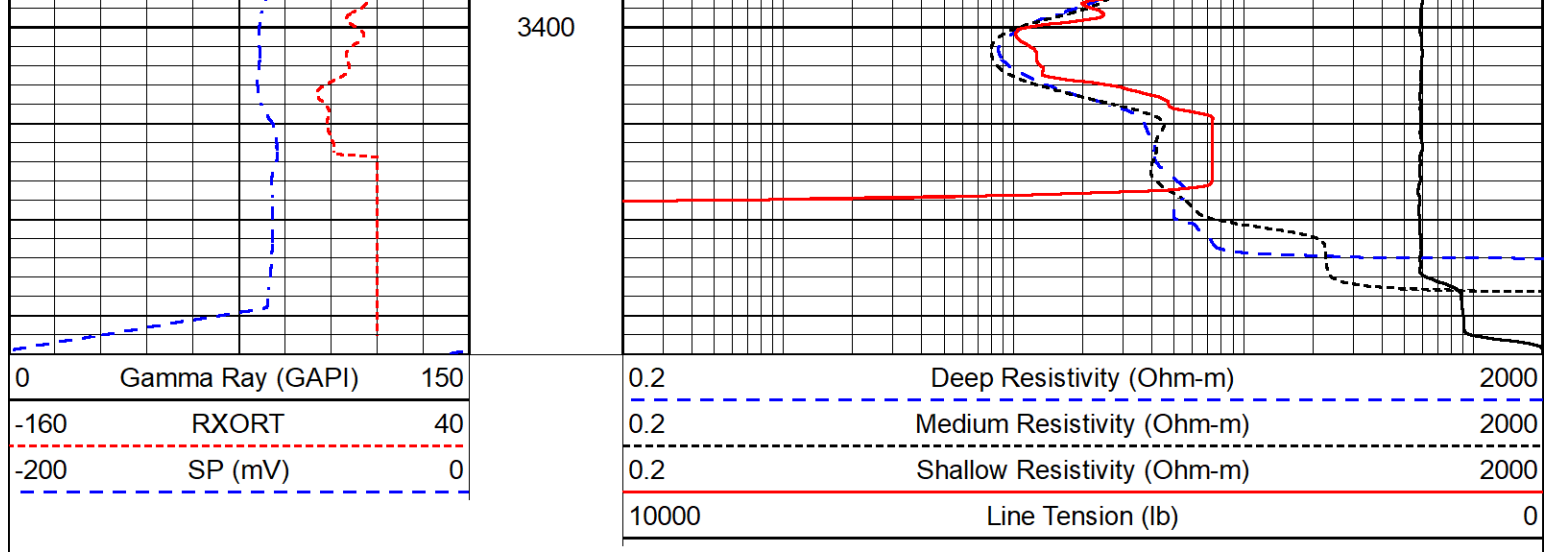


3250

3300

3350





Calibration Report		
Database File	C:\ProgramData\Warrior\Data\Needs backed up\war cry_casey #6.db	
Dataset Pathname	StkMI/pass3.3	
Dataset Creation	Sat Apr 09 13:33:19 2022	

Dual Induction Calibration Report

Serial-Model:	502 HT-M&W
Surface Cal Performed:	Wed Feb 9 17:39:00 2022

Loop:	Readings		References			Results	
	Air	Loop	Air	Loop		m	b
Deep	83.639	487.104	0.000	183.000	mmho/m	0.454	-32.000
Medium	113.335	1585.690	0.000	442.000	mmho/m	0.350	-10.000

Microlog Calibration Report

Serial-Model:	402-PSIML
Performed:	Mon Jan 24 20:31:16 2022

	Readings		References			Results	
	Zero	Cal	Zero	Cal		m	b
Normal	0.0000	1.0000	0.0000	1.0000	Ohm-m	24000.0000	-0.4000
Inverse	0.0000	1.0000	0.0000	1.0000	Ohm-m	22500.0000	0.0000
Caliper	1.0052	1.0858	5.0000	16.5000	in	125.0000	-122.2000

Compensated Density Calibration Report

Serial-Model:	305-05-M&W
Source #:	20762B
Master Calibration Performed:	Mon Mar 28 23:57:02 2022

Master Calibration						
	Density			Far Detector	Near Detector	
Magnesium	1.755	g/cc		8862.47	9339.96	cps
Aluminum	2.610	g/cc		1556.73	5707.29	cps
Spine Angle = 74.19			Density/Spine Ratio = 0.473			

		Size		Reading		
Small Ring		4.00	in	1.75		
Large Ring		14.00	in	1.38		
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:		101				
Tool Model:		M&W				
Performed:		Mon Jan 24 19:14:46 2022				
Calibrator Value:		500.0		GAPI		
Background Reading:		24.0		cps		
Calibrator Reading:		637.0		cps		
Sensitivity:		0.5500		GAPI/cps		

	Company	War Cry LLC
	Well	Casey #6
	Field	Beaver North
	County	Barton
	State	Kansas