



DUAL INDUCTION LOG

MIDWEST WIRELINE

CompanyLandmark Resources, Inc.		Company Landmark Resources, Inc.	
Well	Godfrey A 1-32	Well	Godfrey A 1-32
Field	Unnamed	Field	Unnamed
County	Sheridan	County	Sheridan
State	Kansas	State	Kansas
Location: API #: 15-179-21485-00-00		Other Services	
1207 FNL & 573 FWL		CNL/CDL MEL/BHCS	
Permanent Datum	Ground Level	Elevation	2784
Log Measured From	Kelly Bushing	K.B.	2789
Drilling Measured From	Kelly Bushing	D.F.	
		G.L.	2784
SEC 32	TWP 6S	RGE 28W	
Date 4/18/2022			
Run Number	One		
Depth Driller	4509		
Depth Logger	4509		
Bottom Logged Interval	4508		
Top Log Interval	300		
Casing Driller	8.625 @ 312		
Casing Logger	303		
Bit Size	7.875		
Type Fluid in Hole	Chemical		
Salinity,ppm CL	2400		
Density / Viscosity	9.3 67		
pH / Fluid Loss	10.0 7.2		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	.80 @ 68		
Rmt @ Meas. Temp	.60 @ 68		
Rmc @ Meas. Temp	1.08 @ 68		
Source of Rmt / Rmc	CHARTS		
Rm @ BHT	.45 @ 121		
Operating Rig Time	4 Hours		
Max Rec. Temp. F	124		
Equipment Number	P-108		
Location	HAYS		
Recorded By	J. Henrickson		
Witnessed By	Terry McLeod		

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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.

Hoxie Kansas
North to 110, 2 West, 1.2 South,
East Into

Log Measured From: Kelly Bushing 5 Ft. Above Permanent Datum

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

Your Midwest Wireline Crew

Engineer: J. Henrickson
Operator:
Operator:
Operator:

This Log Record Was Witnessed By

Primary Witness: Terry McLeod
Secondary Witness:
Secondary Witness:
Secondary Witness:

Top - Bottom

A	BOREID	BOTTEMP	CASEOD	CASETHCK	FLUIDDEN	M	MATRXDEN
1	in 7.875	degF 124	in 5.5	in 0	g/cc 1	2	g/cc 2.71
NPORSEL	PERFS	SNDERR	SNDERRM	SPSHIFT	SRFTEMP	SZCOR	TDEPTH
Limestone	0	mmho/m 0	mmho/m 0	mV 460	degF 50	Off	ft 4509

Variable Description

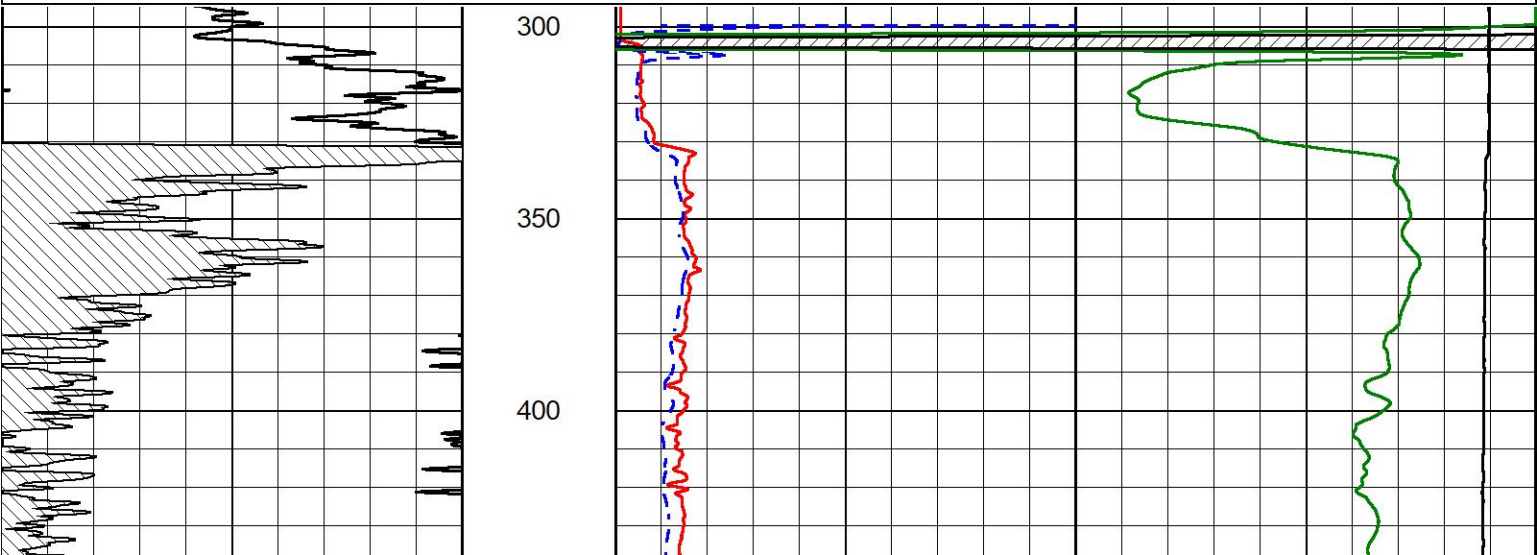
A : Cement Factor (a)
BOREID : Borehole I.D.
BOTTEMP : Bottom Hole Temperature
CASEOD : Casing O.D.
CASETHCK : Casing Thickness
FLUIDDEN : Fluid Density
M : Cement Exp (m)
MATRXDEN : Matrix Density

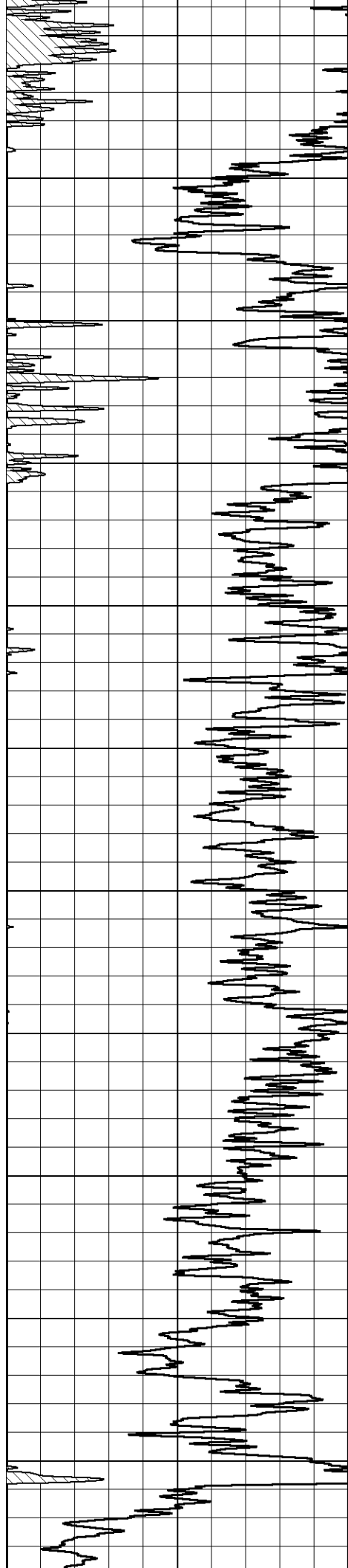
NPORSEL : Neutron Porosity Curve Select
PERFS : Perforation Flag
SNDERR : Deep Sonde Error Correction
SNDERRM : Medium Sonde Error Correction
SPSHIFT : S.P. Baseline Offset
SRFTEMP : Surface Temperature
SZCOR : CN Size Cor. ?
TDEPTH : Total Depth

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
GR	40.33		GR-M&W (103)	3.00	3.50	50.00
CNLSC	37.23		CNT-M&W (210)	5.00	3.50	100.00
CNSSC	36.48					
LSD	28.18		CDL-M&W (303-03)	8.50	4.00	250.00
	28.17					
	27.68					
ML-PSI STKBL ML (402)	19.58		ML-PSI STKBL ML (402)	7.58	4.00	65.00
	19.58					
	19.58					
RLL3F	15.50		RLL3F	15.50		
RLL3	15.50					

CILD	8.33		DIL-M&W (504 HT)	18.25	3.50	220.00
CILM	4.50					
SP	0.20					
Dataset: landmark_godfrey_a_1_32.db: field/well/stackml/pass3.1 Total length: 42.33 ft Total weight: 685.00 lb O.D.: 4.00 in						

 MIDWEST WIRELINE		2" SCALE RESISTIVITY MAIN PASS	
Database File	landmark_godfrey_a_1_32.db		
Dataset Pathname	stackml/pass6.1		
Presentation Format	_dil2in		
Dataset Creation	Tue Apr 19 00:08:52 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 Resisitivity (Ohm-m) 50
		0	Deep Resistivity (Ohm-m) 50
		Shallow Resistivity	
		50	(Ohm-m) 200
		50	Deep Resistivity (Ohm-m) 200





450

500

550

600

650

700

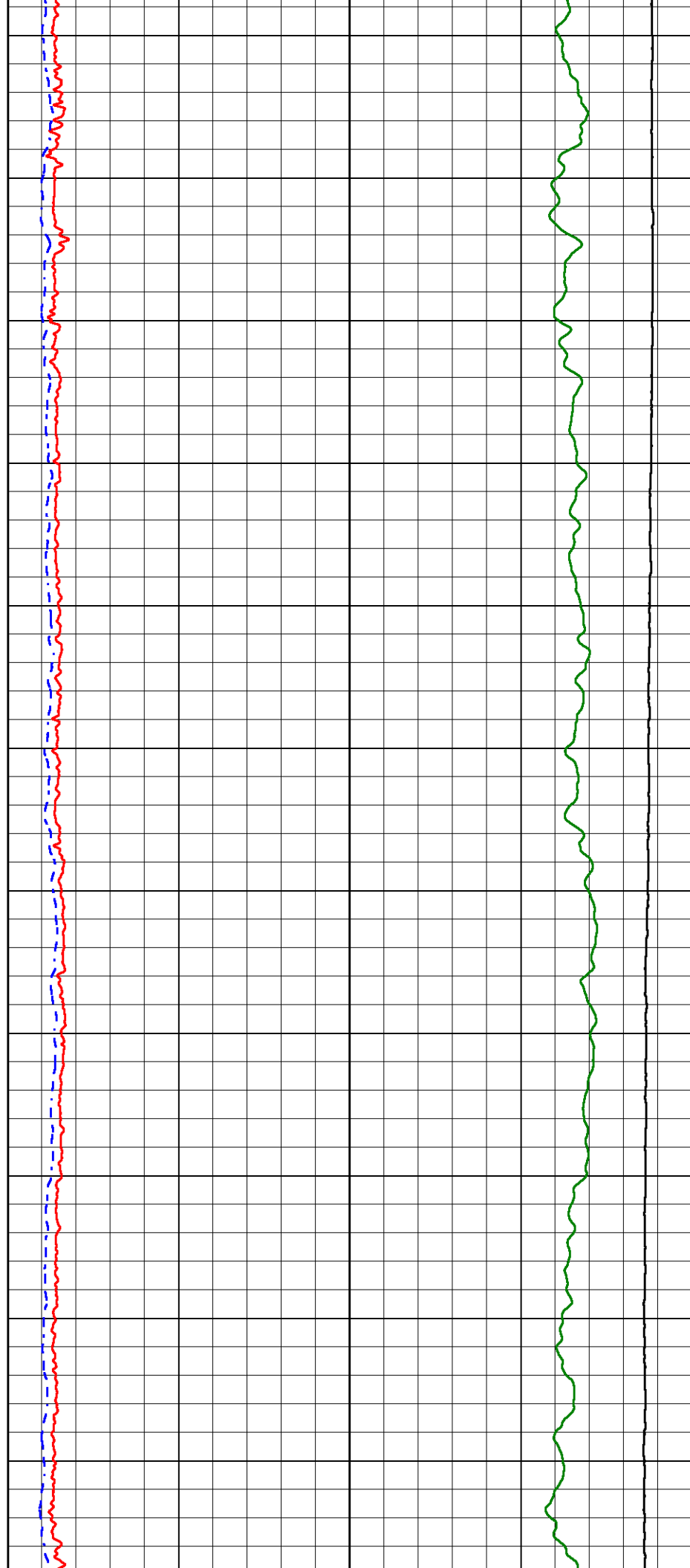
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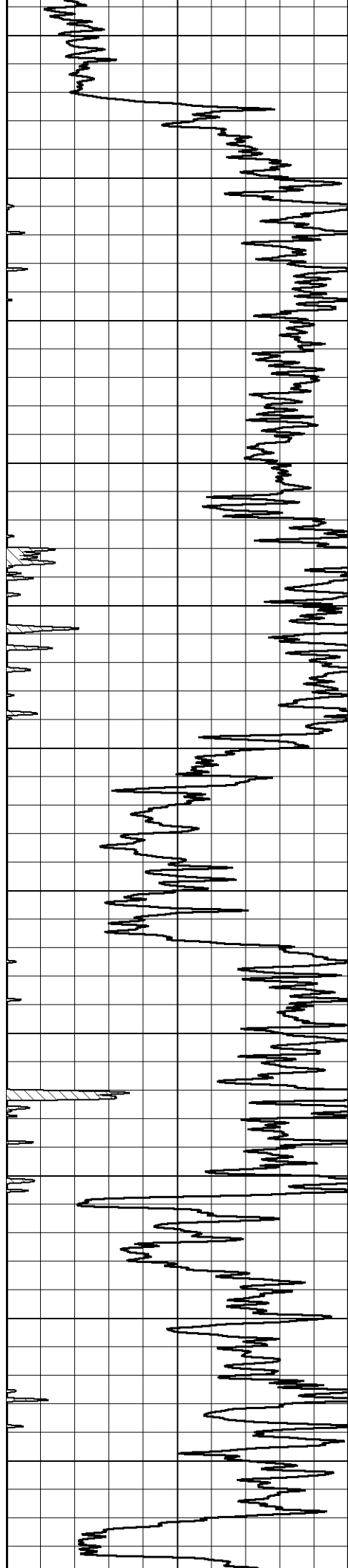
800

850

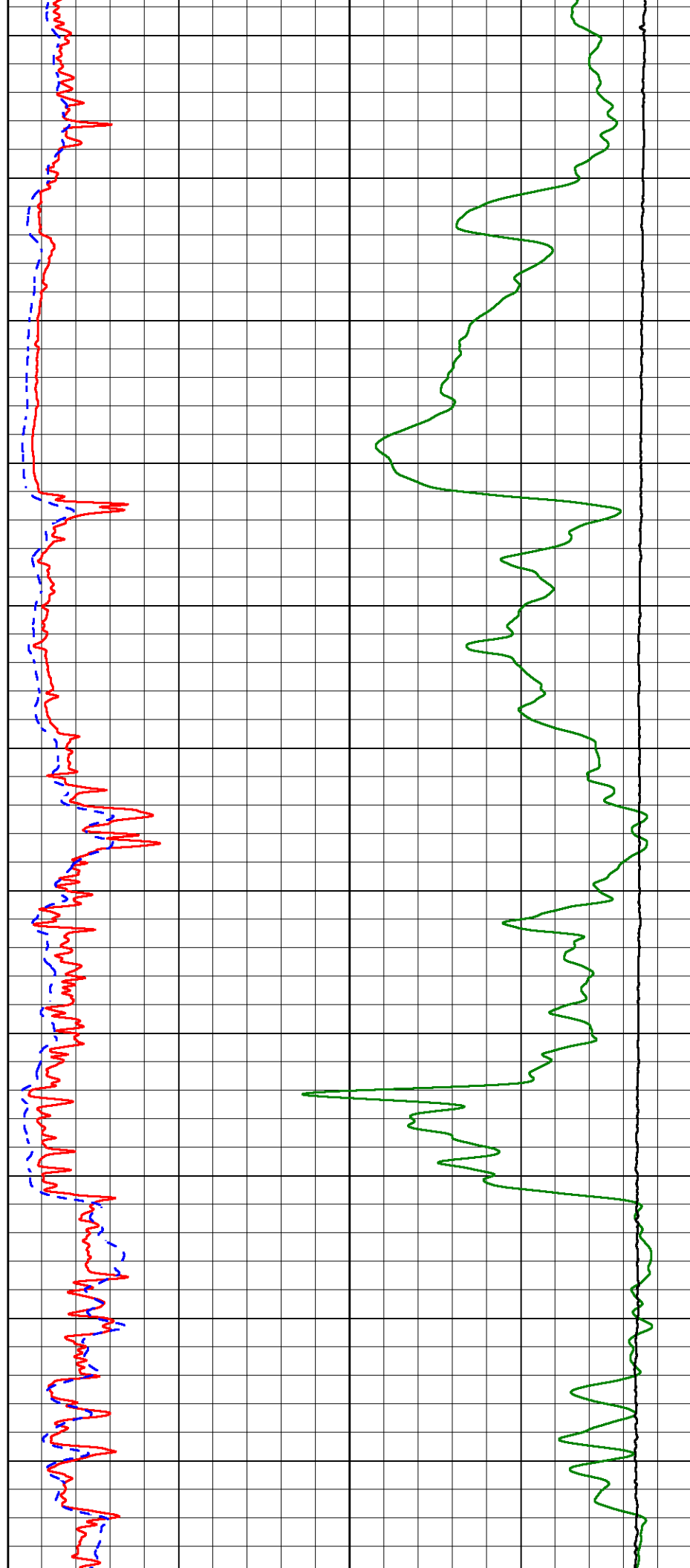
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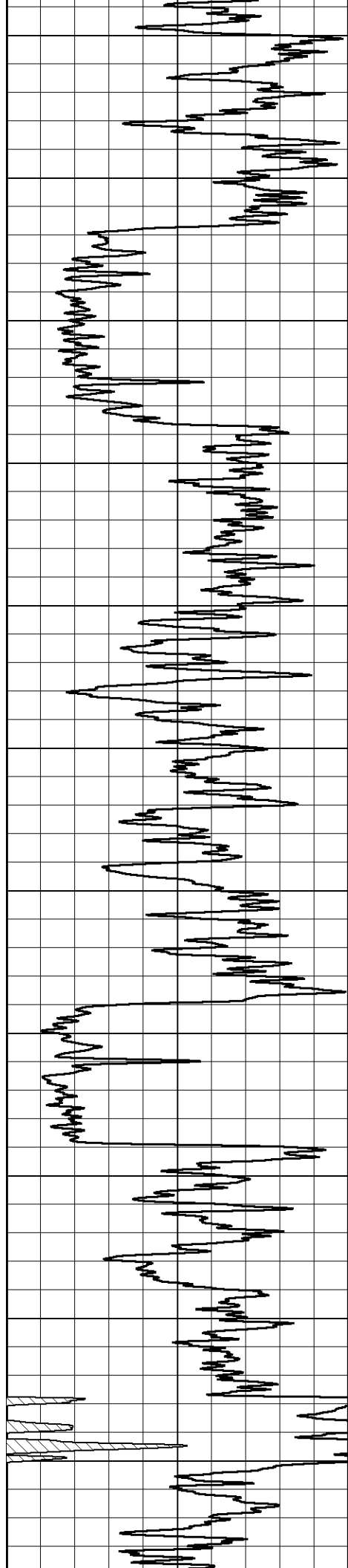
950





1000
1050
1100
1150
1200
1250
1300
1350
1400
1450
1500





1550

1600

1650

1700

1750

1800

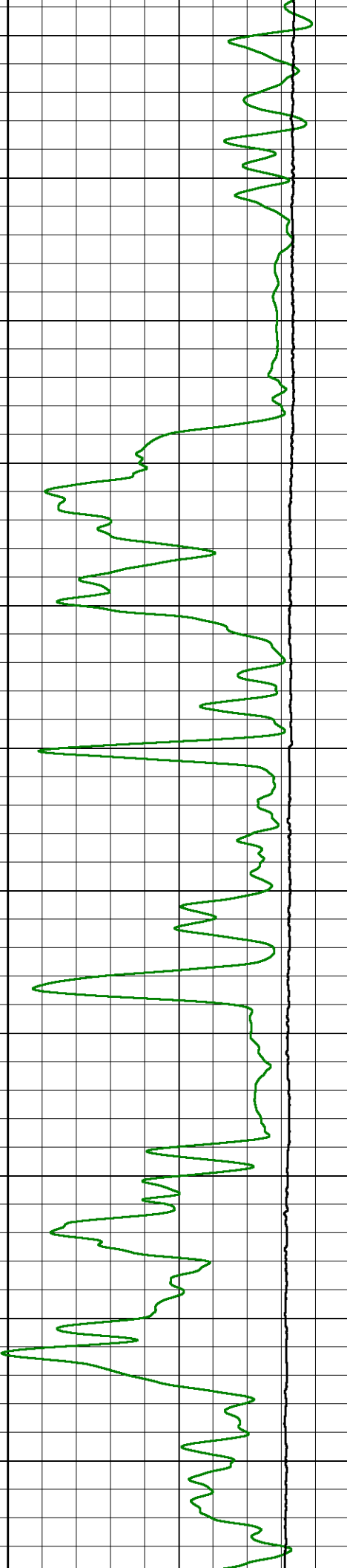
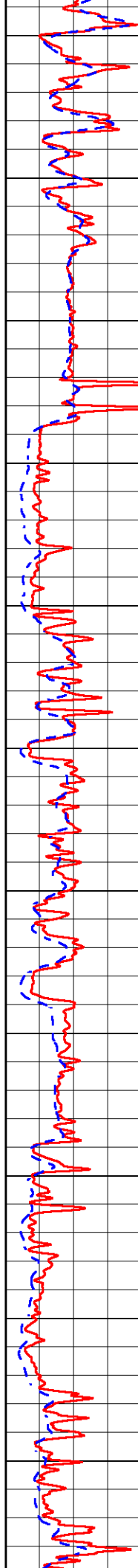
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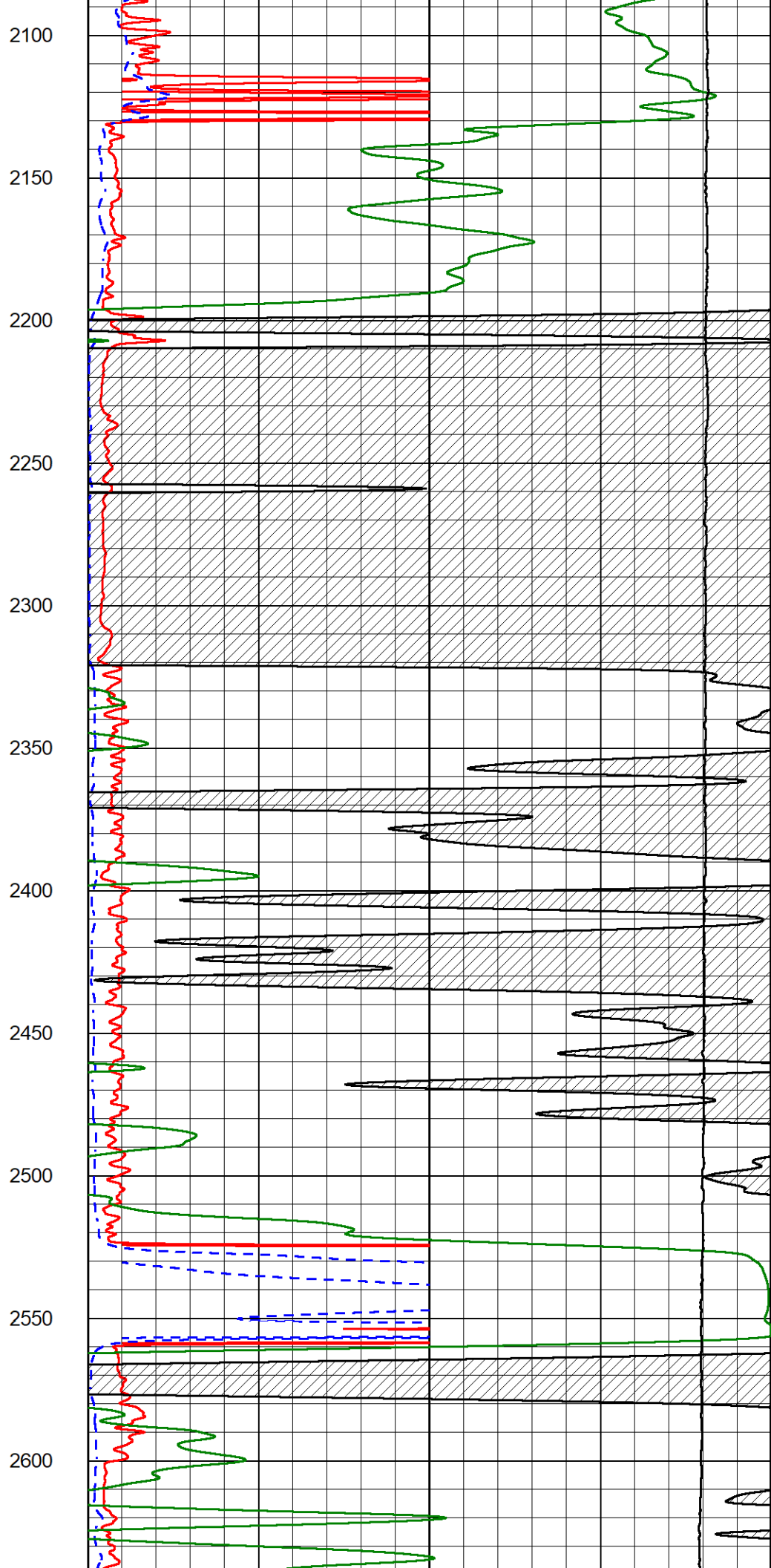
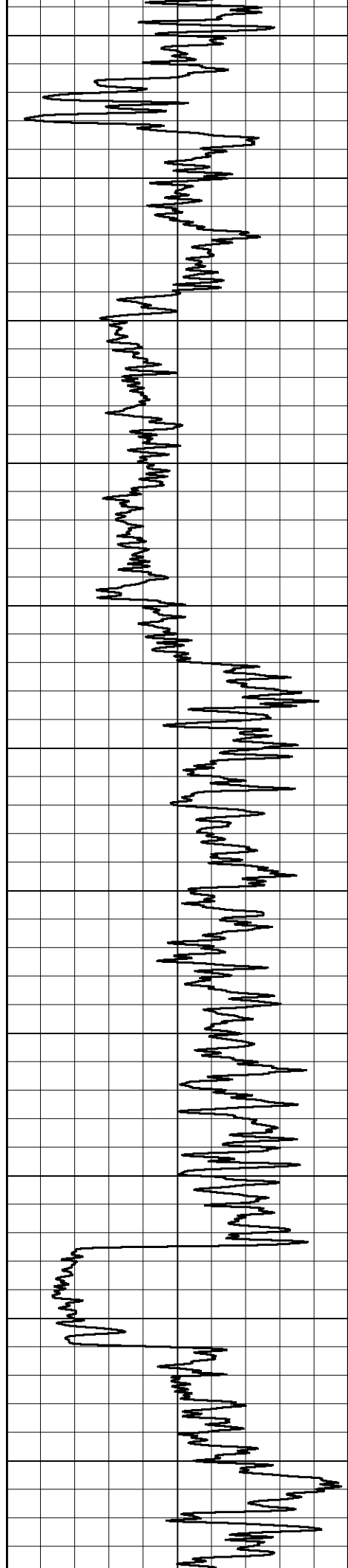
1900

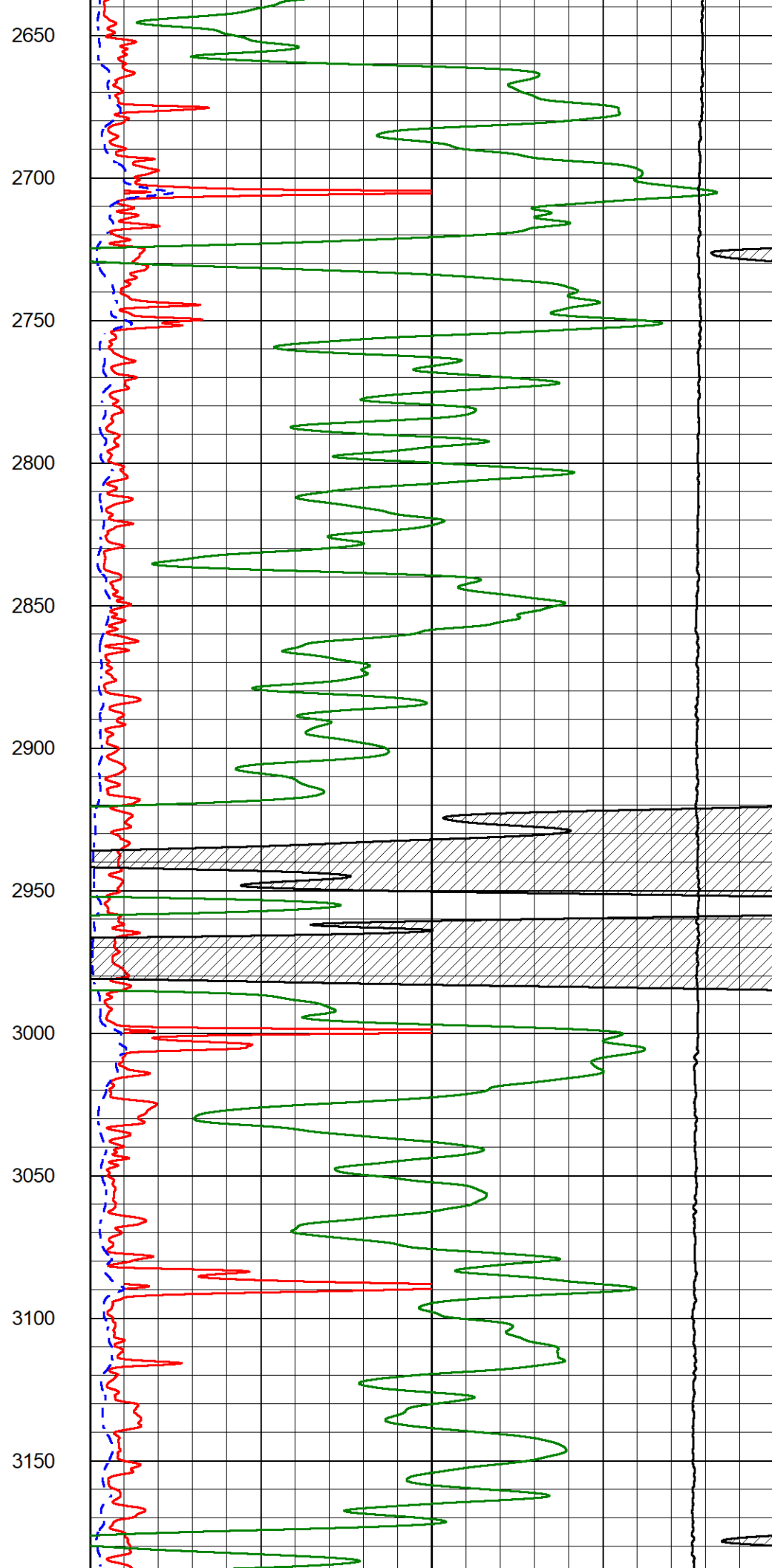
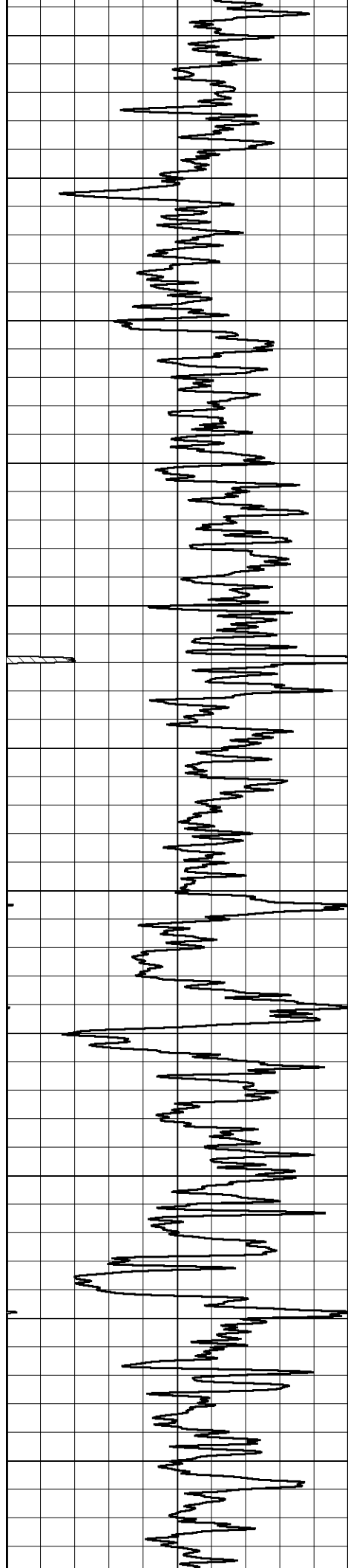
1950

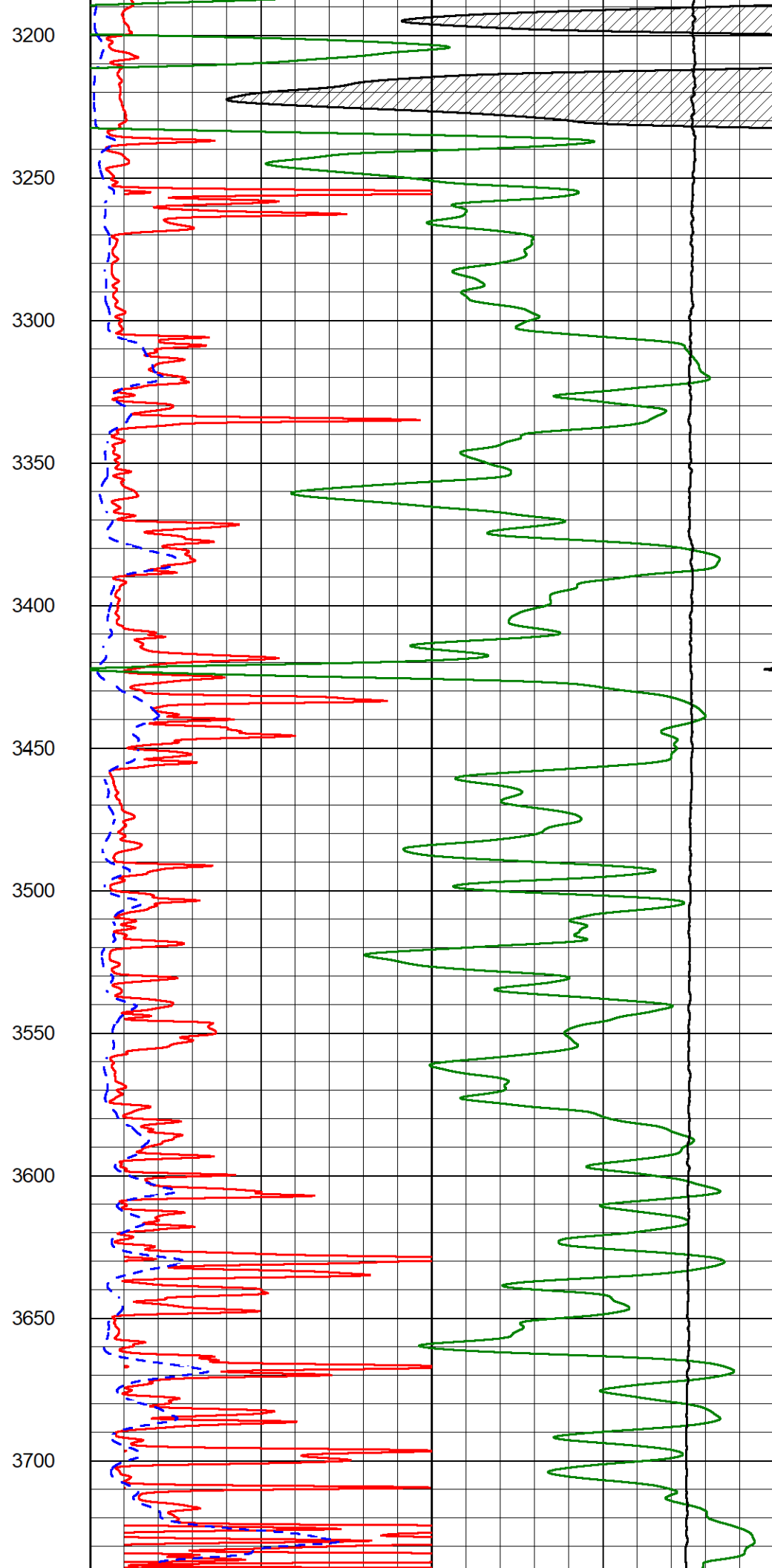
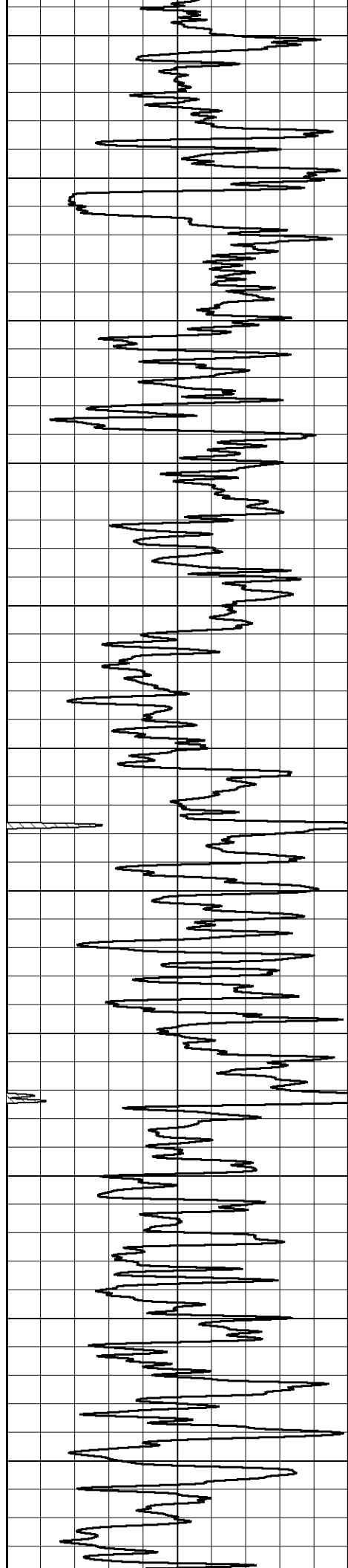
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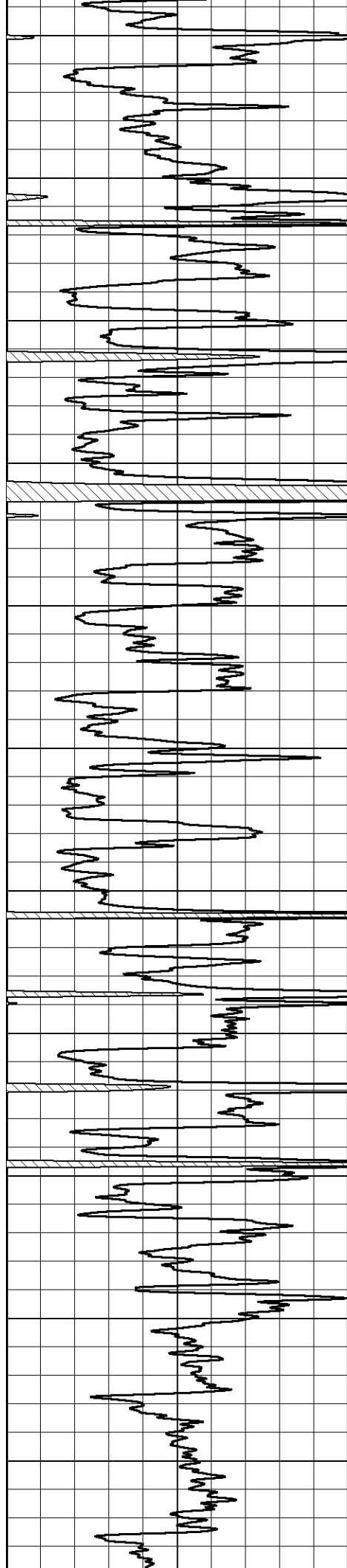
2050











3750

3800

3850

3900

3950

4000

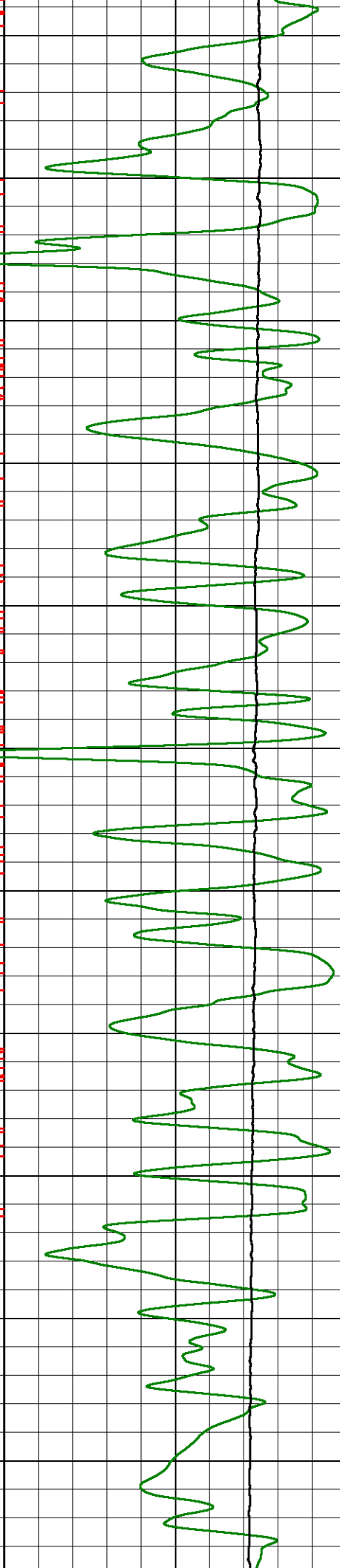
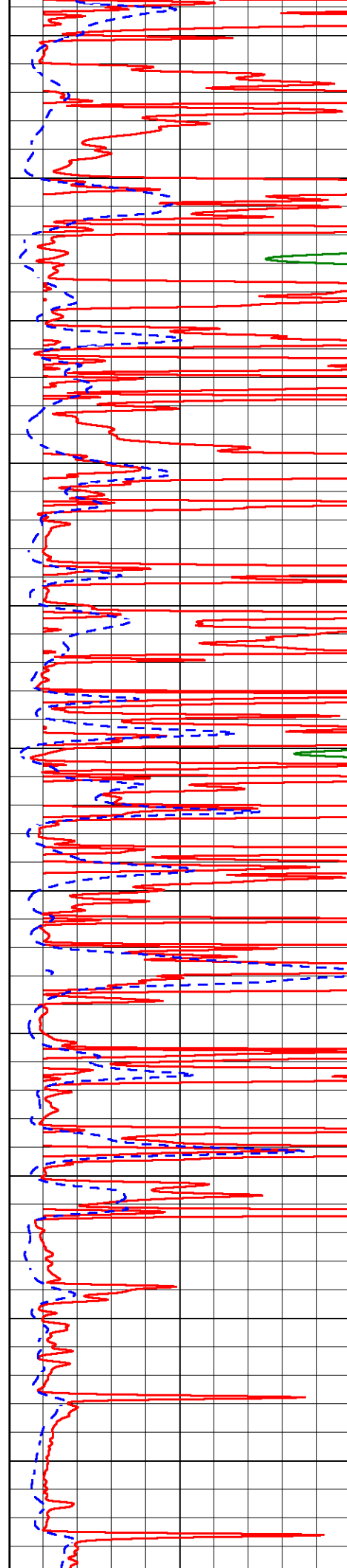
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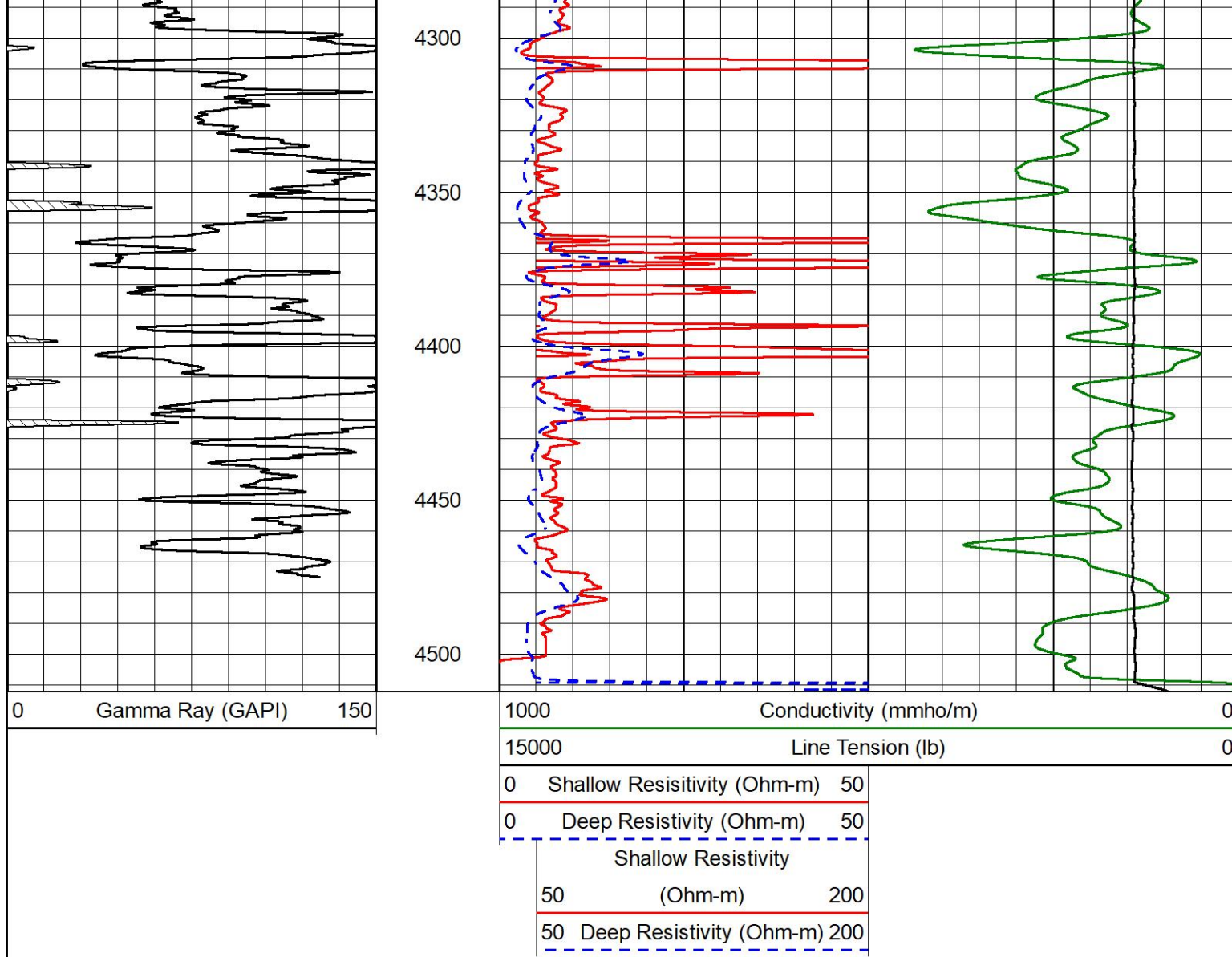
4100

4150

4200

4250



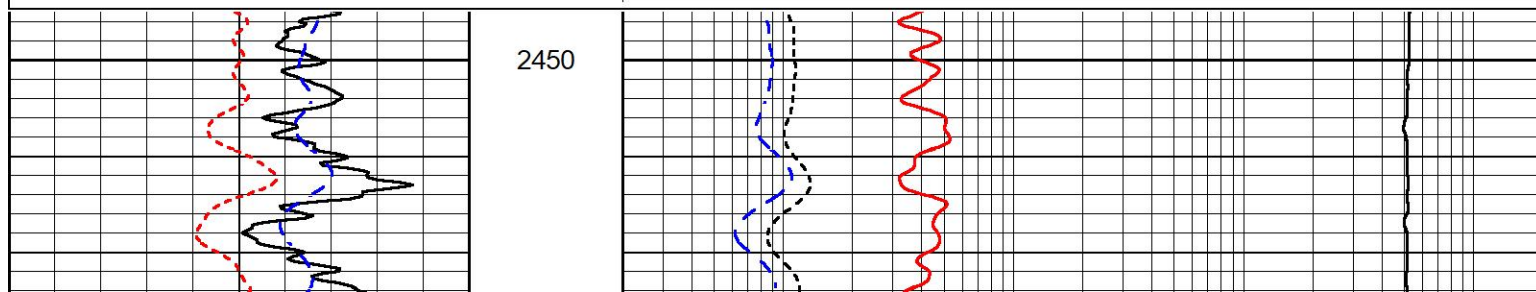


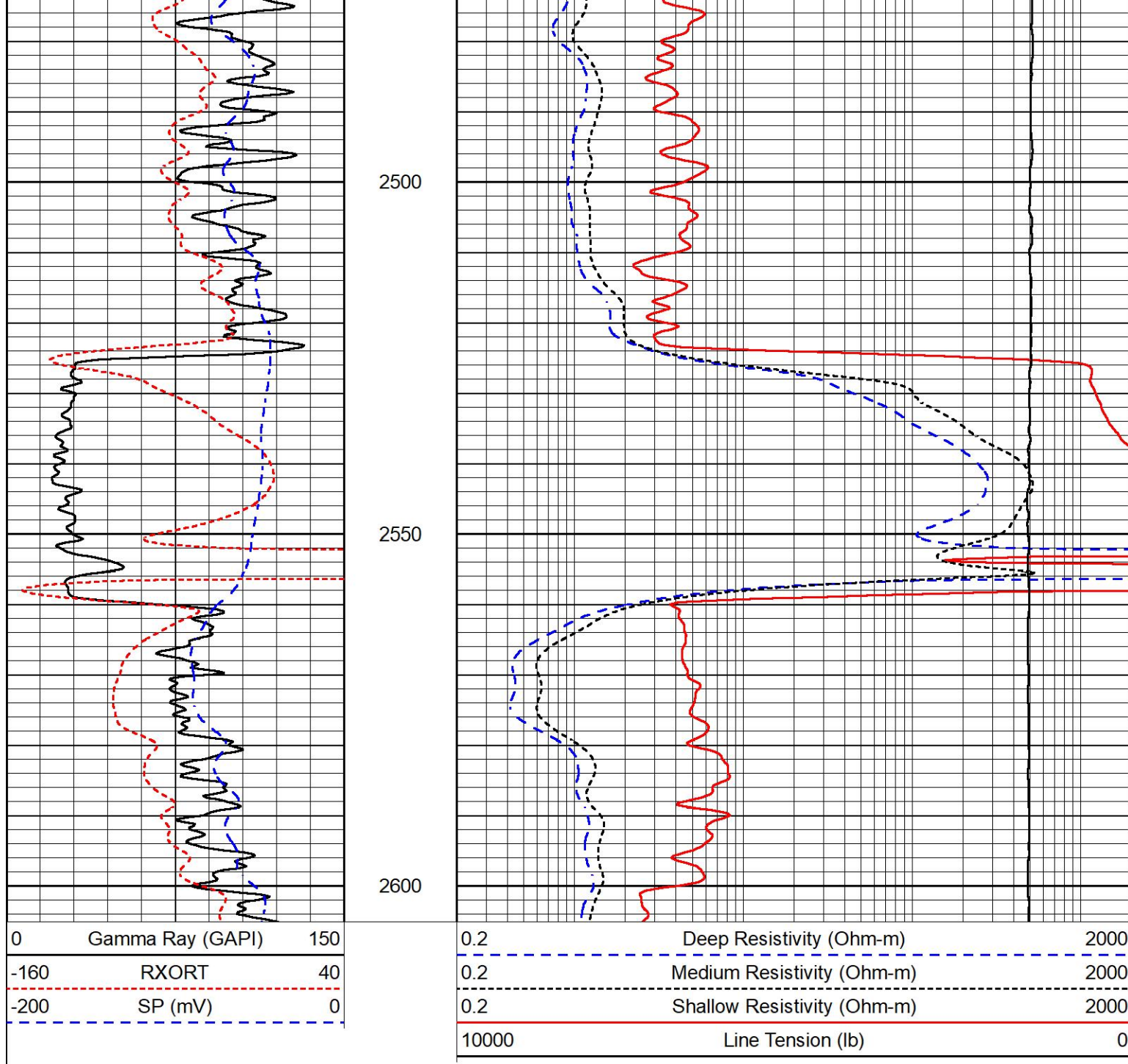
ANHYDRITE SECTION

MAIN PASS

Database File: landmark_godfrey_a_1_32.db
 Dataset Pathname: stackml/pass5.1
 Presentation Format: _dil
 Dataset Creation: Mon Apr 18 23:43:21 2022
 Charted by: Depth in Feet scaled 1:240

0	Gamma Ray (GAPI)	150	0.2	Deep Resistivity (Ohm-m)	2000
-160	RXORT	40	0.2	Medium Resistivity (Ohm-m)	2000
-200	SP (mV)	0	0.2	Shallow Resistivity (Ohm-m)	2000
			10000	Line Tension (lb)	0





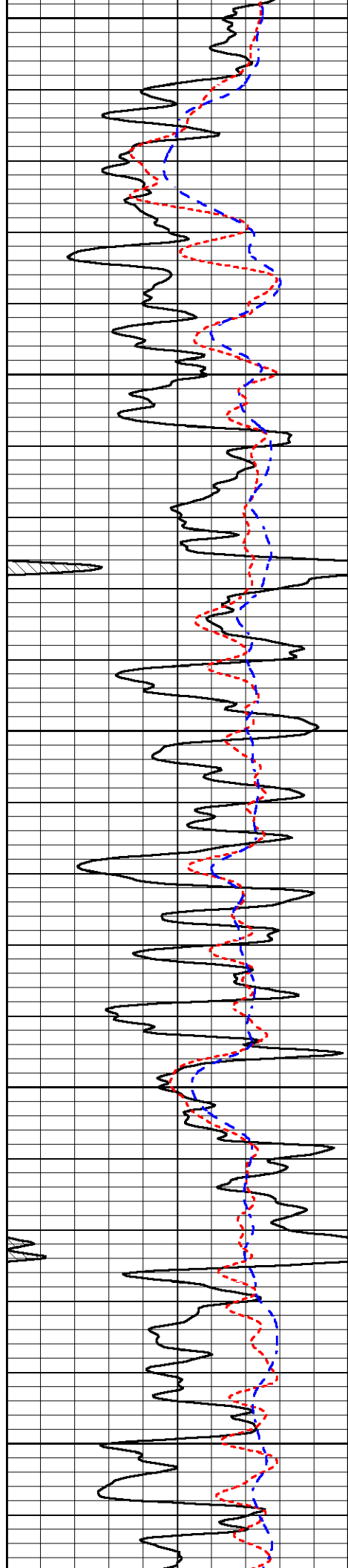
MIDWEST WIRELINE

DETAIL SECTION

MAIN PASS

Database File: landmark_godfrey_a_1_32.db
 Dataset Pathname: stackml/pass4.1
 Presentation Format: _dil
 Dataset Creation: Mon Apr 18 23:31:16 2022
 Charted by: Depth in Feet scaled 1:240

0	Gamma Ray (GAPI)	150	0.2	Deep Resistivity (Ohm-m)	2000
-160	RXORT	40	0.2	Medium Resistivity (Ohm-m)	2000
-200	SP (mV)	0	0.2	Shallow Resistivity (Ohm-m)	2000
			10000	Line Tension (lb)	0



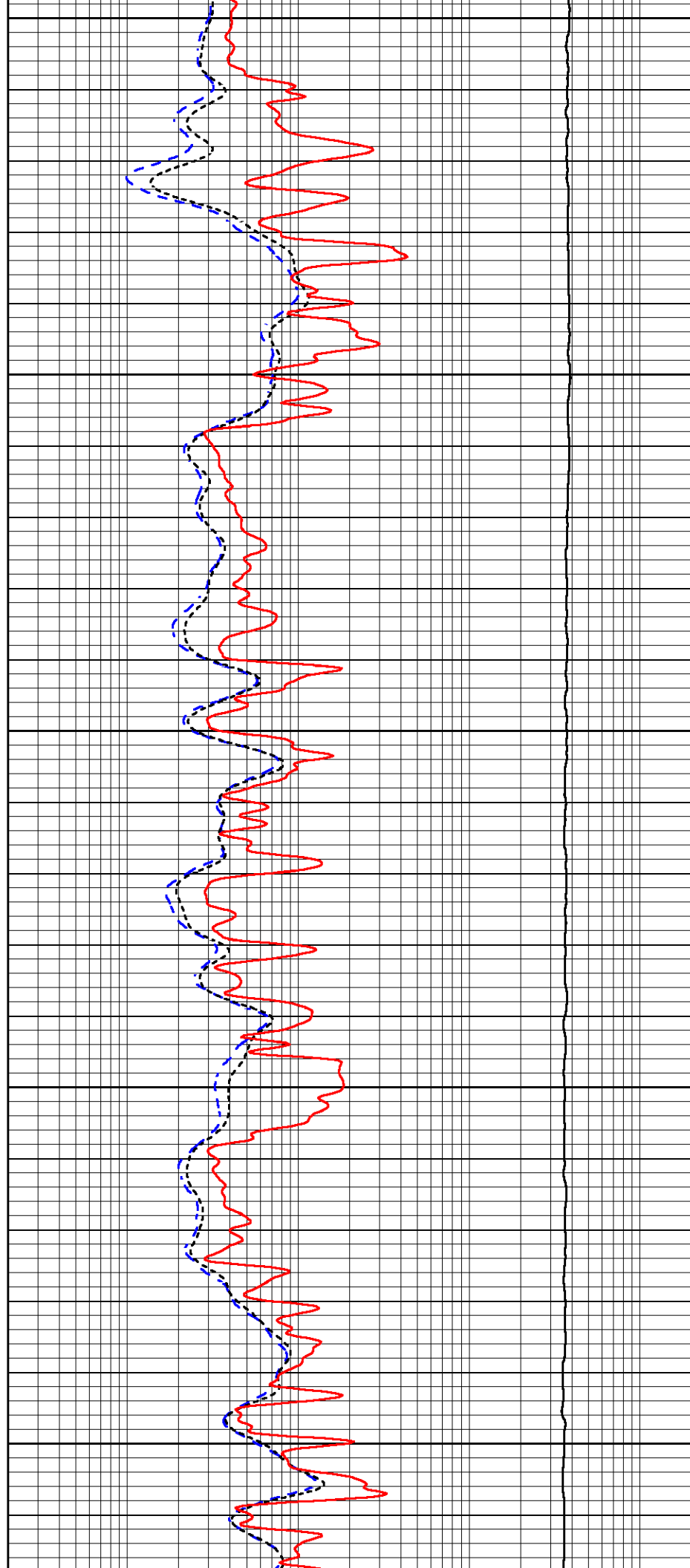
3400

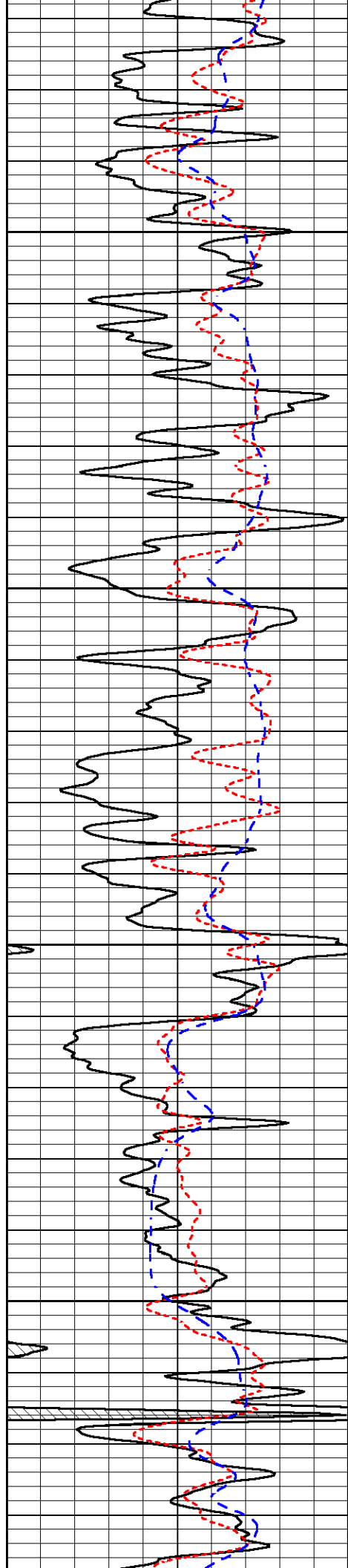
3450

3500

3550

3600



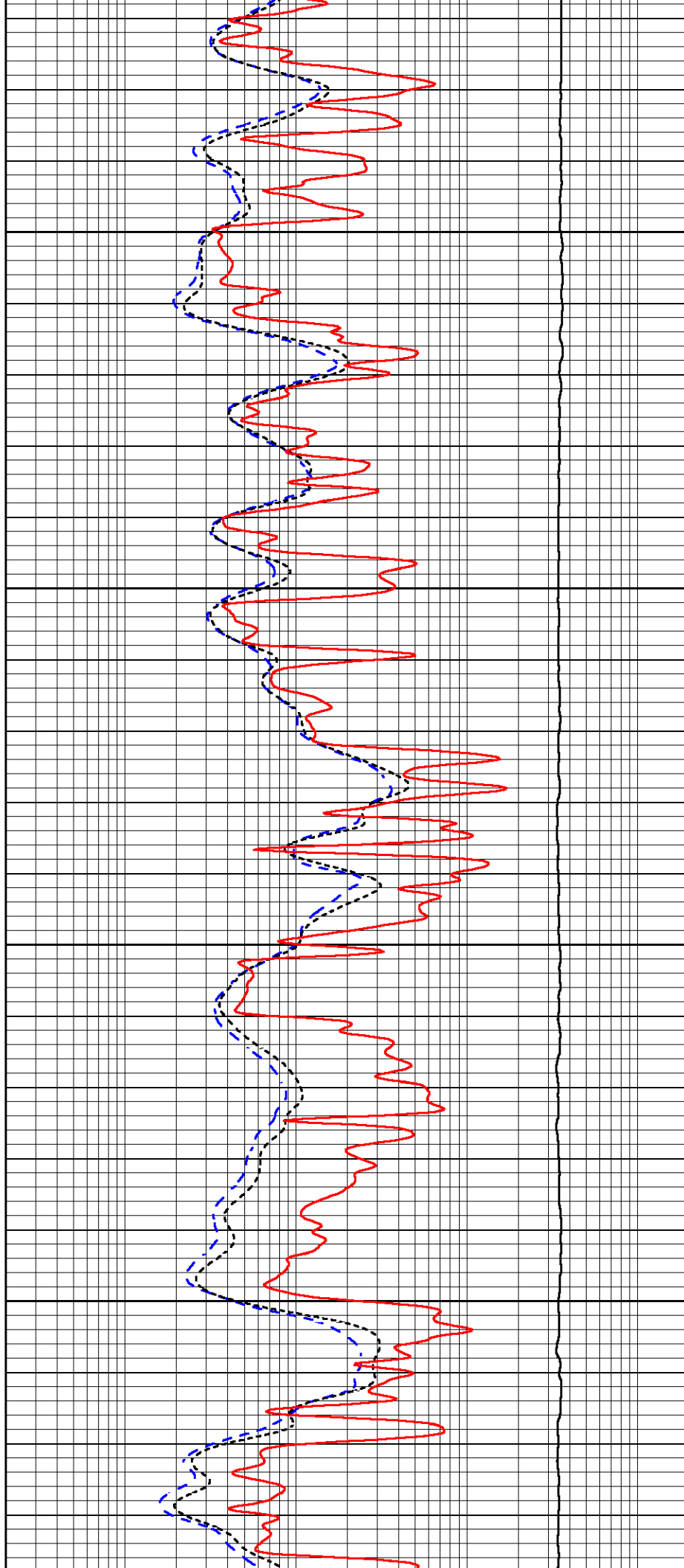


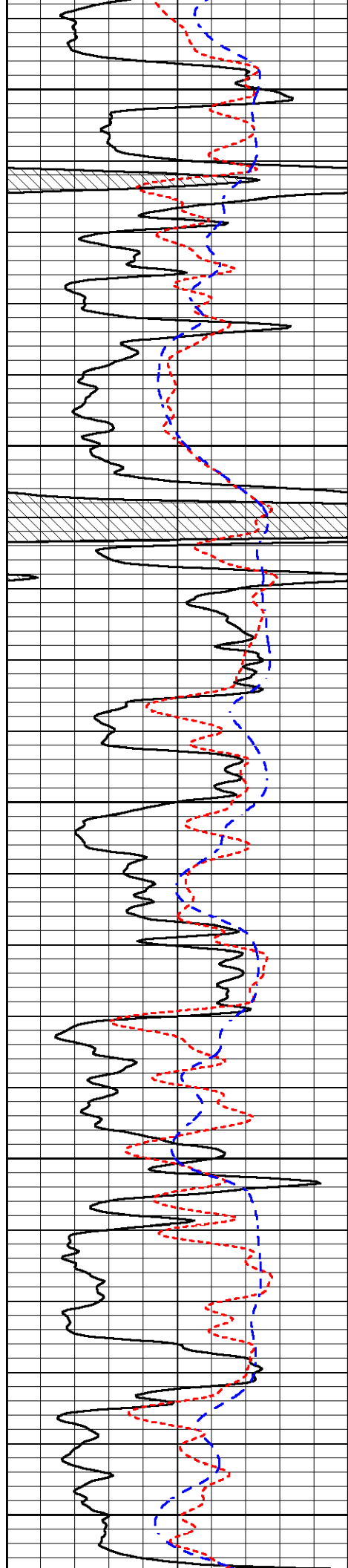
3650

3700

3750

3800





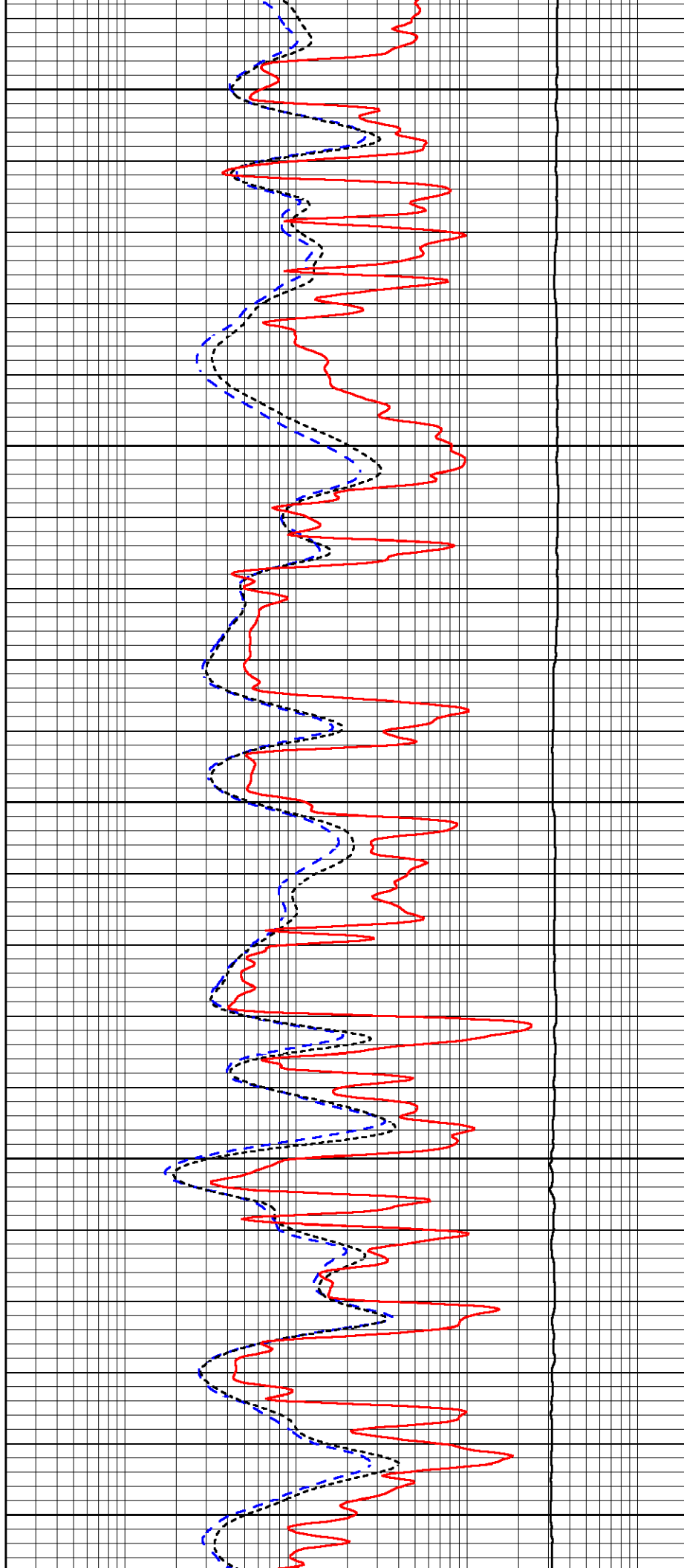
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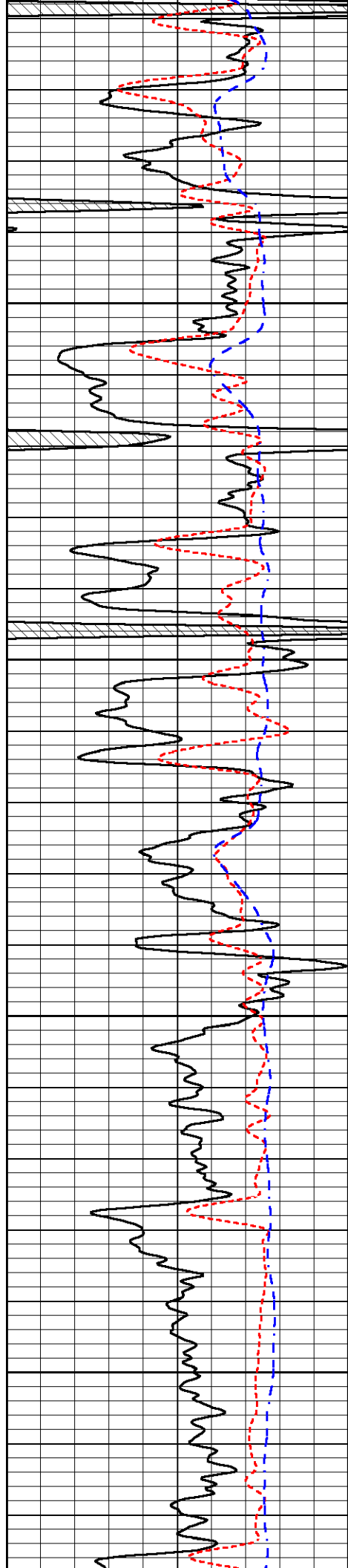
3900

3950

4000

4050



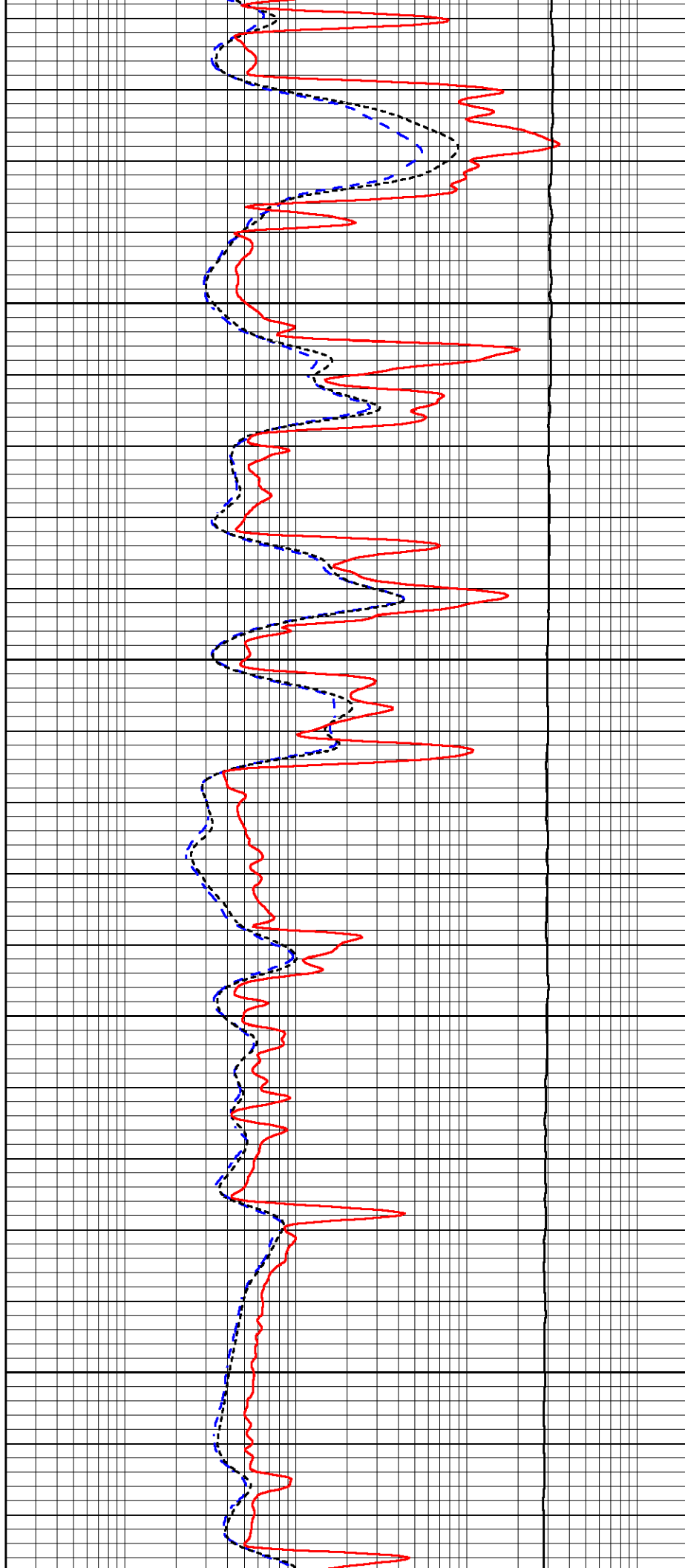


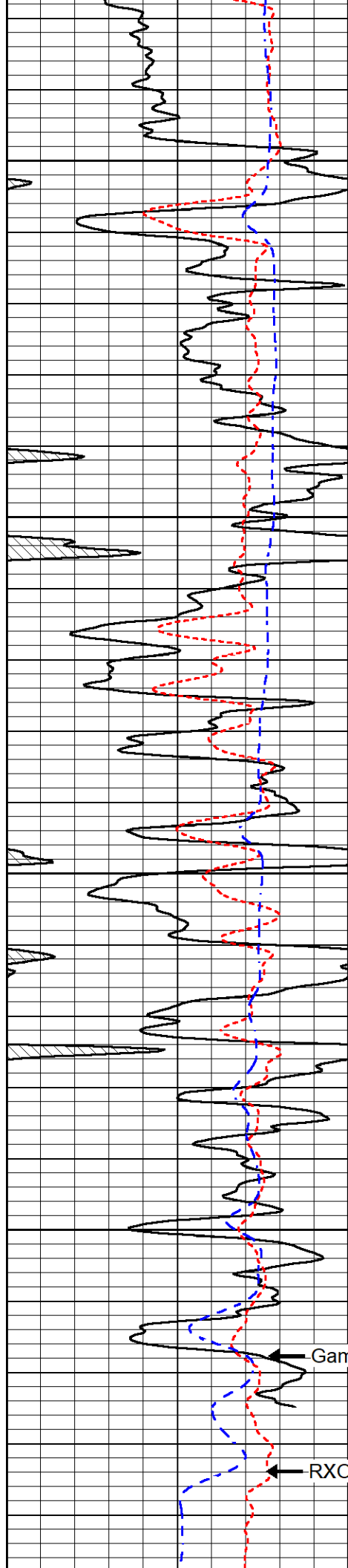
4100

4150

4200

4250





4300

4350

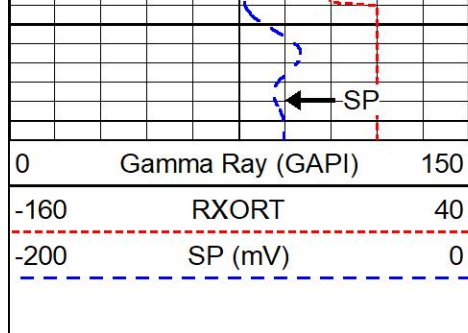
4400

4450

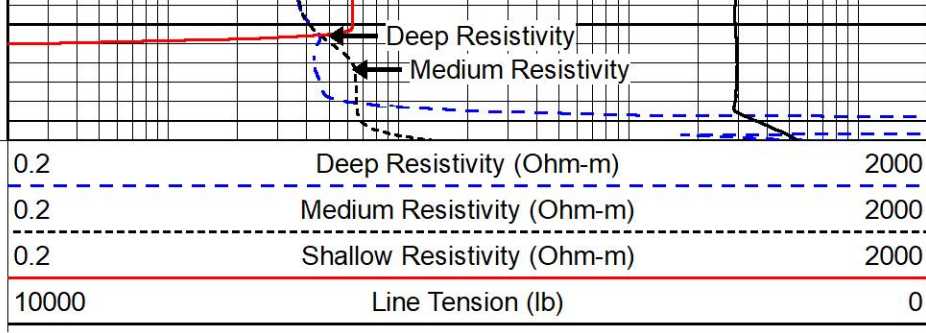
Gamma Ray

RXORT

Shallow Resistivity



4500

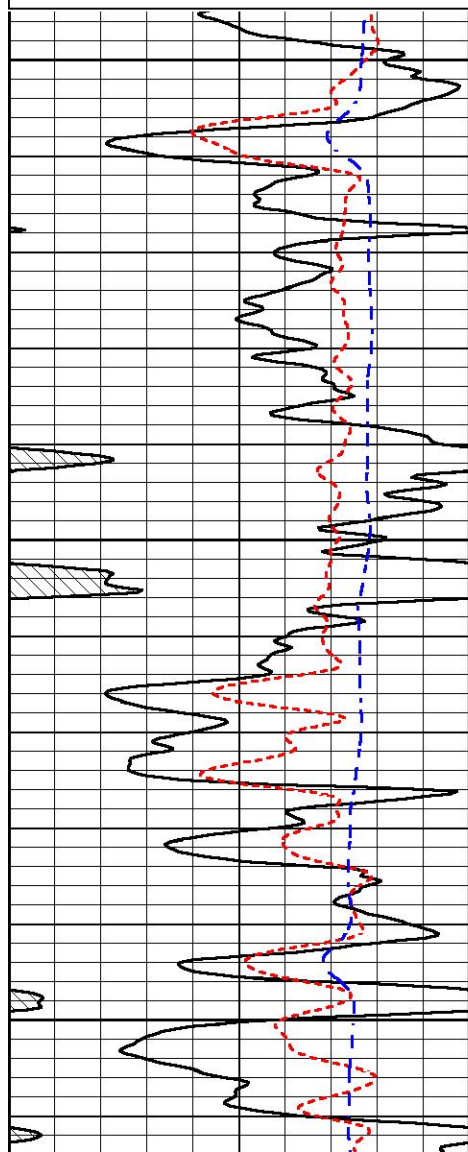
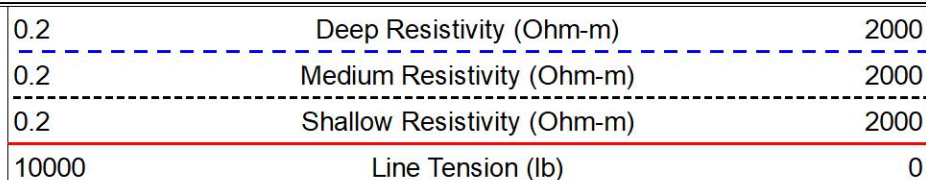
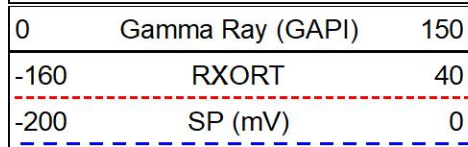


MIDWEST WIRELINE

REPEAT SECTION

REPEAT PASS

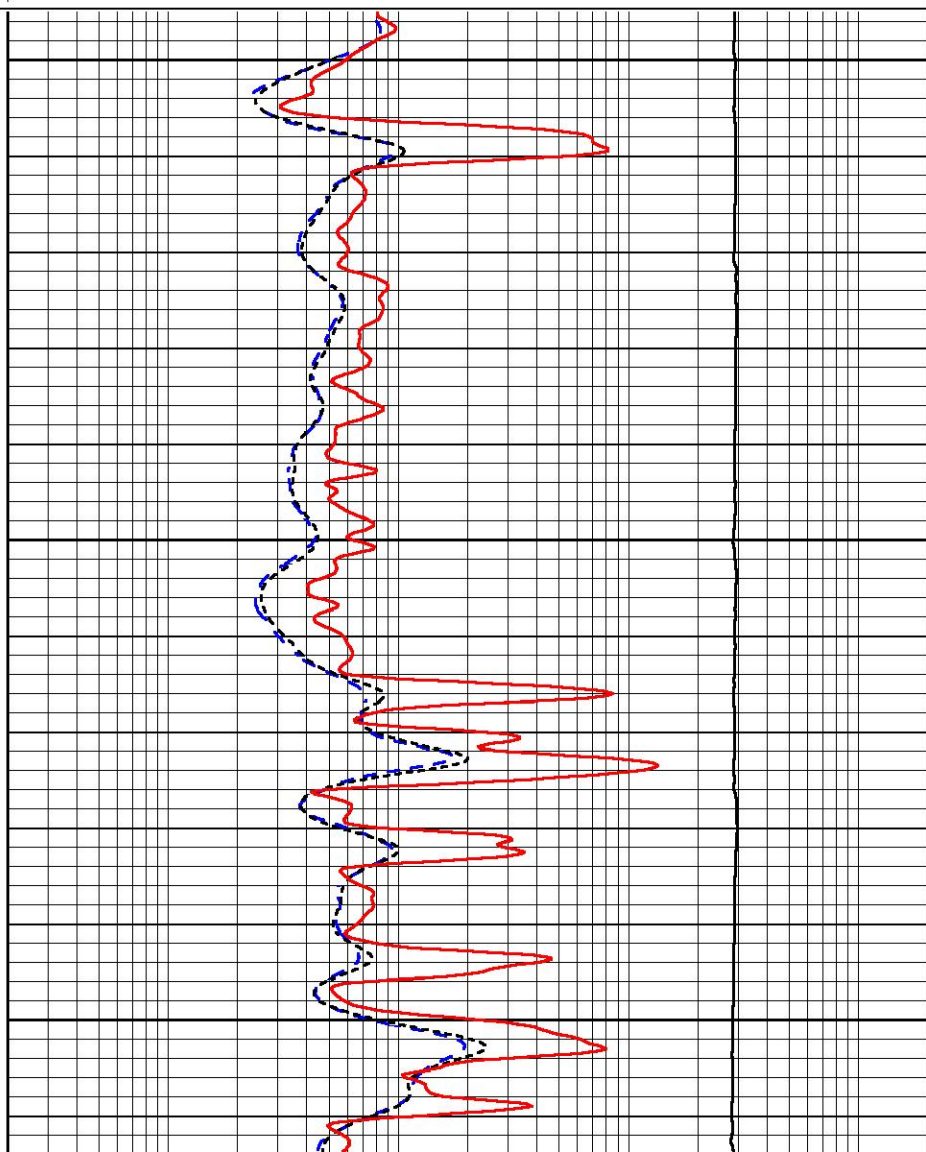
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 Dataset Pathname stackml/pass2.1
 Presentation Format _dil
 Dataset Creation Mon Apr 18 23:24:27 2022
 Charted by Depth in Feet scaled 1:240

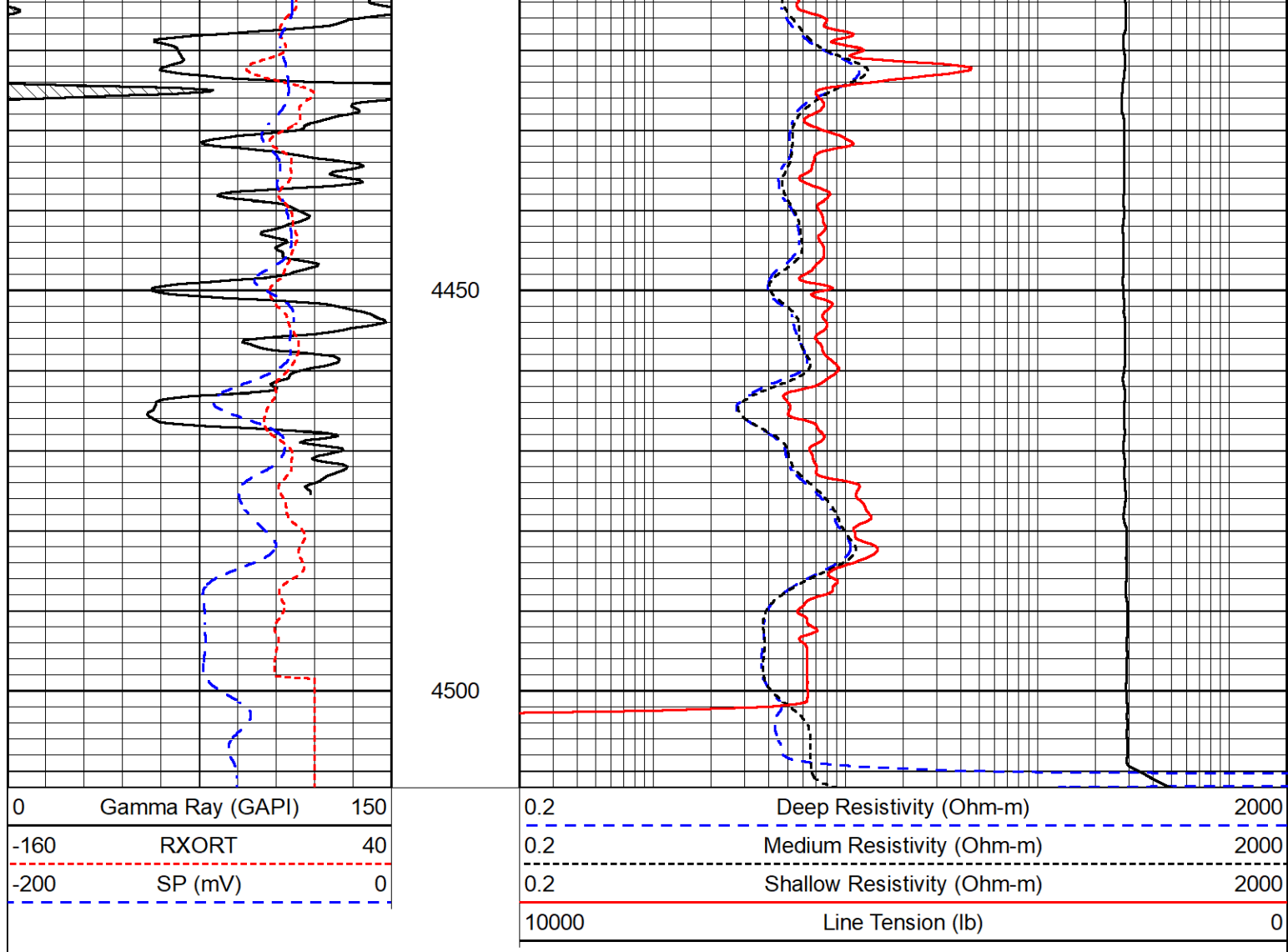


4300

4350

4400





Calibration Report							
Database File	landmark_godfrey_a_1_32.db						
Dataset Pathname	stackml/pass7.1						
Dataset Creation	Tue Apr 19 00:09:18 2022						
Dual Induction Calibration Report							
Serial-Model:		504 HT-M&W					
Surface Cal Performed:		Thu Dec 16 22:32:49 2021					
Loop:	Readings		References			Results	
	Air	Loop	Air	Loop		m	b
	Deep	178.615 710.235	0.000	255.800	mmho/m	0.650	-19.000
	Medium	161.982 1441.110	0.000	255.800	mmho/m	0.450	-45.500
Microlog Calibration Report							
Serial-Model:		402-PSI STKBL ML					
Performed:		Sat Mar 19 19:10:40 2022					
	Readings		References			Results	
	Zero	Cal	Zero	Cal		m	b
	Normal	0.0037 0.0043	0.0000	10.0000	Ohm-m	18000.0000	-1.0000

Inverse	0.1208	0.0013	0.0000	10.0000	Ohm-m	15500.0000	0.0000
Caliper	1.0020	1.0834	5.5000	16.5000	in	135.1520	-131.2000

Compensated Density Calibration Report

Serial-Model:	303-03-M&W
Source #:	21170B
Master Calibration Performed:	Thu Dec 16 23:28:34 2021

Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.755	g/cc	3841.78	5151.73	cps
Aluminum	2.670	g/cc	700.98	3068.49	cps
Spine Angle = 73.06			Density/Spine Ratio = 0.515		
	Size		Reading		
Small Ring	4.00	in	1.17		
Large Ring	14.00	in	1.04		

Compensated Neutron Calibration Report

Serial-Model:	210-M&W
Source #:	N-1238
Master Calibration Performed:	Fri Dec 3 09:16:24 2021

Master 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:	103
Tool Model:	M&W
Performed:	Fri Dec 3 12:13:24 2021
Calibrator Value:	500.0 GAPI
Background Reading:	28.0 cps
Calibrator Reading:	986.0 cps
Sensitivity:	0.5700 GAPI/cps



Company	Landmark Resources, Inc.
Well	Godfrey A 1-32
Field	Unnamed
County	Sheridan
State	Kansas