



DUAL INDUCTION

MIDWEST WIRELINE

Company Satchell Creek Petroleum LLC
 Well Worcester A #4-22
 Field Alda South
 County Graham State Kansas

Location: API #: 15-065-24257-00-00
 NE SW/NW/SW
 1734 FSL & 567 FWL
 SEC 22 TWP 7S RGE 22W
 Permanent Datum Ground Level Elevation 2264
 Log Measured From Kelly Bushing
 Drilling Measured From Kelly Bushing
 Other Services
 CNL/CDL
 MEL/BHCS
 Elevation
 K.B. 2271
 D.F.
 G.L. 2264

Date	7/15/2023
Run Number	One
Depth Driller	3913
Depth Logger	3907
Bottom Logged Interval	3906
Top Log Interval	200
Casing Driller	8:625 @ 220
Casing Logger	221
Bit Size	7.875
Type Fluid in Hole	Chemical
Salinity, ppm CL	1000
Density / Viscosity	9.4 61
pH / Fluid Loss	10.0 5.8
Source of Sample	Flowline
Rm @ Meas. Temp	0.8 @ 74
Rmt @ Meas. Temp	0.6 @ 74
Rmc @ Meas. Temp	1.08 @ 74
Source of Rmf / Rmc	Charts
Rm @ BHT	0.51 @ 115
Operating Rig Time	3.5 Hours
Max Rec. Temp. F	115
Equipment Number	P-24
Location	Hays
Recorded By	T. Martin
Witnessed By	Sean Deenihan

<<< 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.

Hill City, KS, 3 E to Rd 310,
2.5 N to TB, E & N 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: T. Martin
Operator:
Operator:
Operator:

This Log Record Was Witnessed By

Primary Witness: Sean Deenihan
Secondary Witness:
Secondary Witness:
Secondary Witness:

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
GR	32.75		GR-M&W (105)	3.00	3.50	50.00
CNLSC CNSSC	29.65 28.90		CNT-M&W (201-M&W)	5.00	3.50	100.00
LSD DCAL SSD	20.60 20.58 20.10		CDL-M&W (307-11)	8.50	4.00	250.00
RLL3F RLL3	15.50 15.50		DIL-M&W (507)	18.25	3.50	220.00
CILD	8.33					
CILM	4.50					
SP	0.20					

Dataset: satchell_worcester a #4-22.db: field/well/Stack/pass3.1
 Total length: 34.75 ft
 Total weight: 620.00 lb
 O.D.: 4.00 in

Log Variables

DatabaseC:\ProgramData\Warrion\Data\satchell_worcester a #4-22.db
 Dataset field/well/Stack/pass3.1/_vars_

Top - Bottom

BOREID in 7.875	BOTTEMP degF 115	CASEOD in 5.5	CASETHCK in 0	FLUIDDEN g/cc 1	MATRXDEN g/cc 2.71	NPORSEL Limestone	PERFS No
SNDERR mmho/m -2	SNDERRM mmho/m 0	SPSHIFT mV 380	SRFTEMP degF 85	SZCOR Off	TDEPTH ft 3907		

Variable Description

BOREID : Borehole I.D.
 BOTTEMP : Bottom Hole Temperature
 CASEOD : Casing O.D.
 CASETHCK : Casing Thickness
 FLUIDDEN : Fluid Density
 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

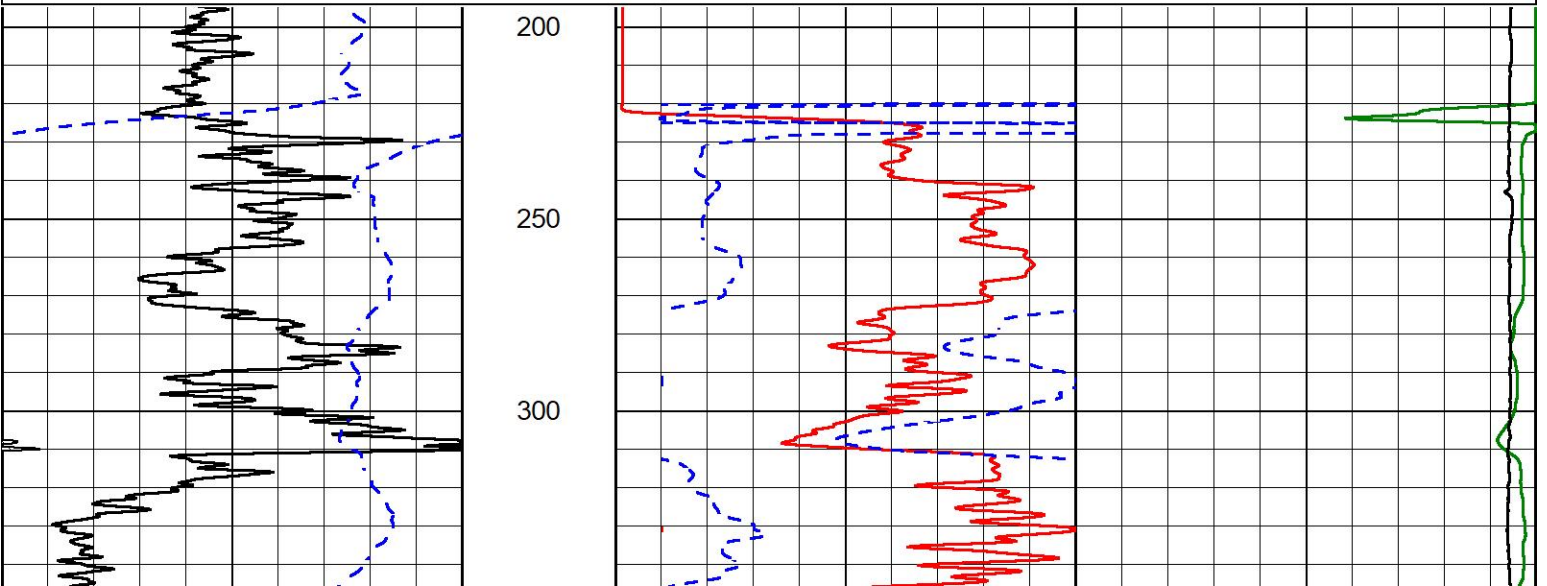


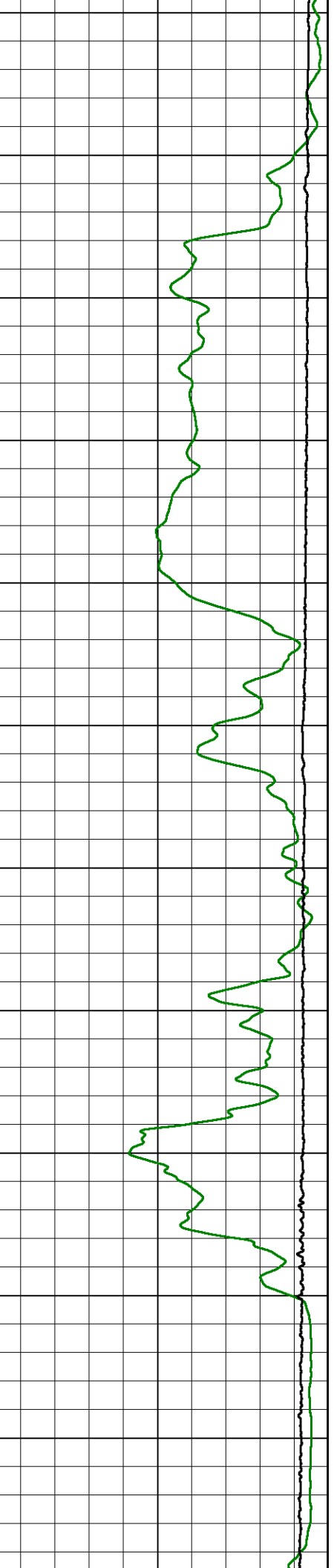
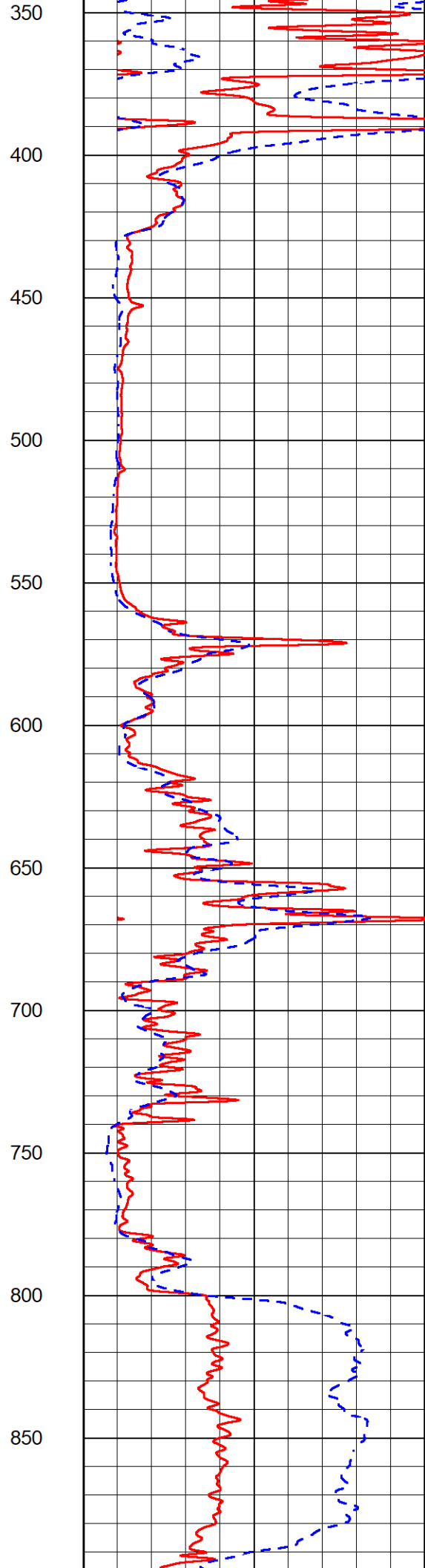
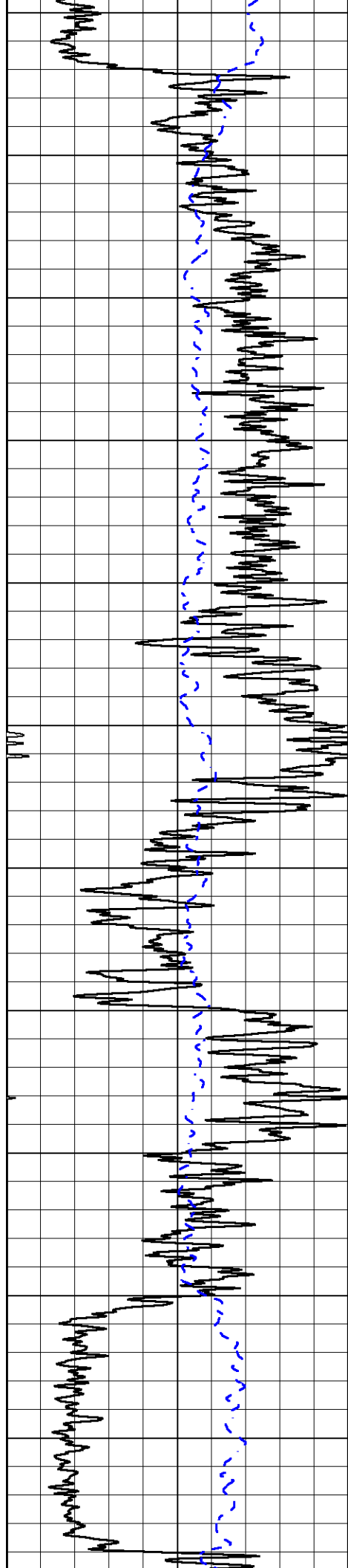
2" SCALE RESISTIVITY

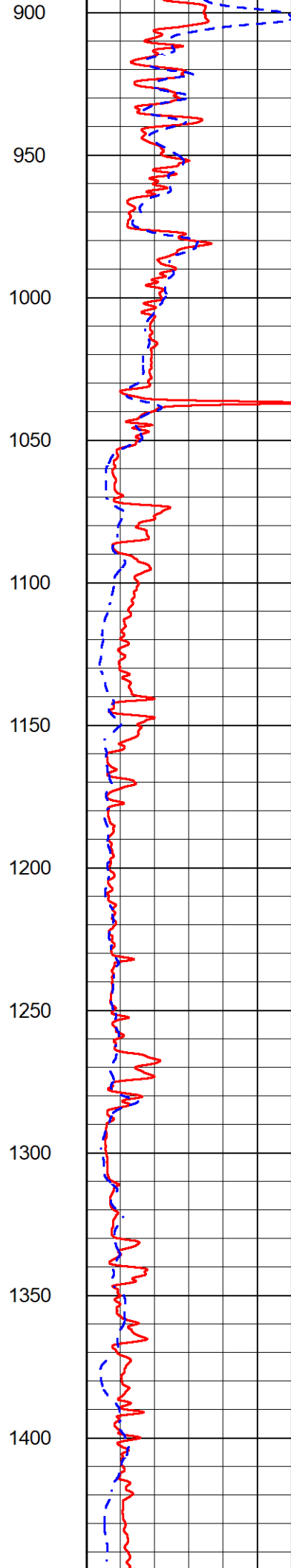
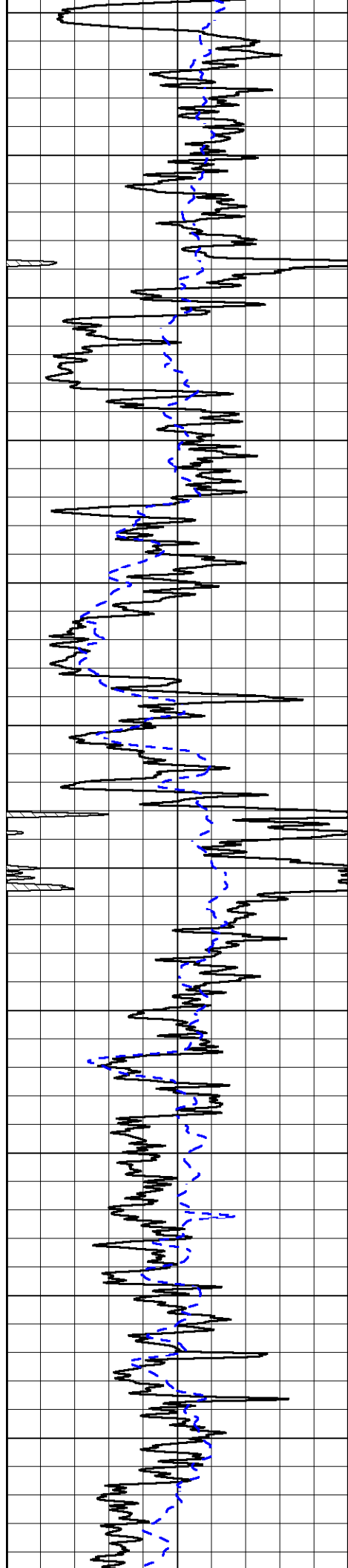
MAIN PASS

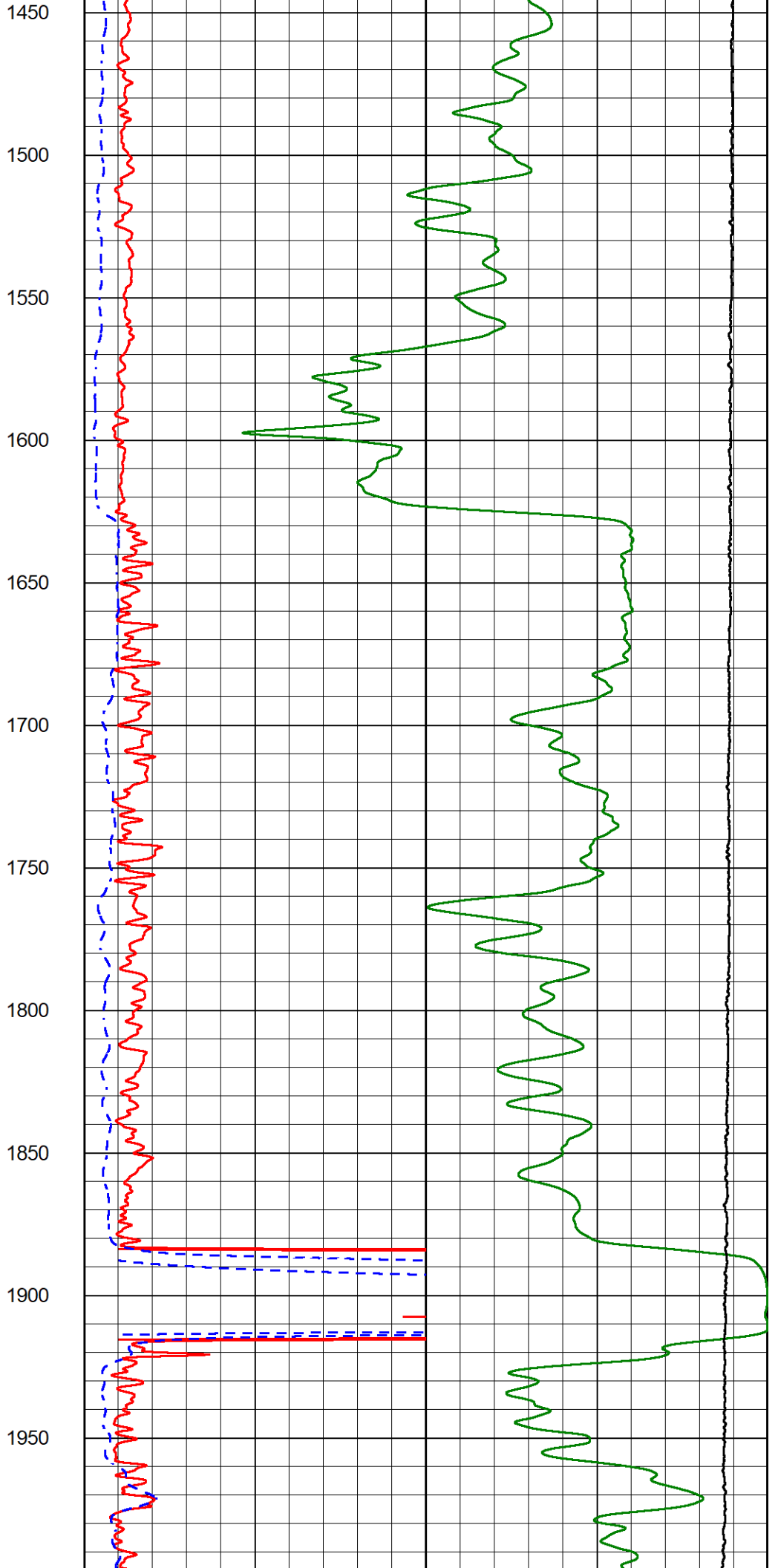
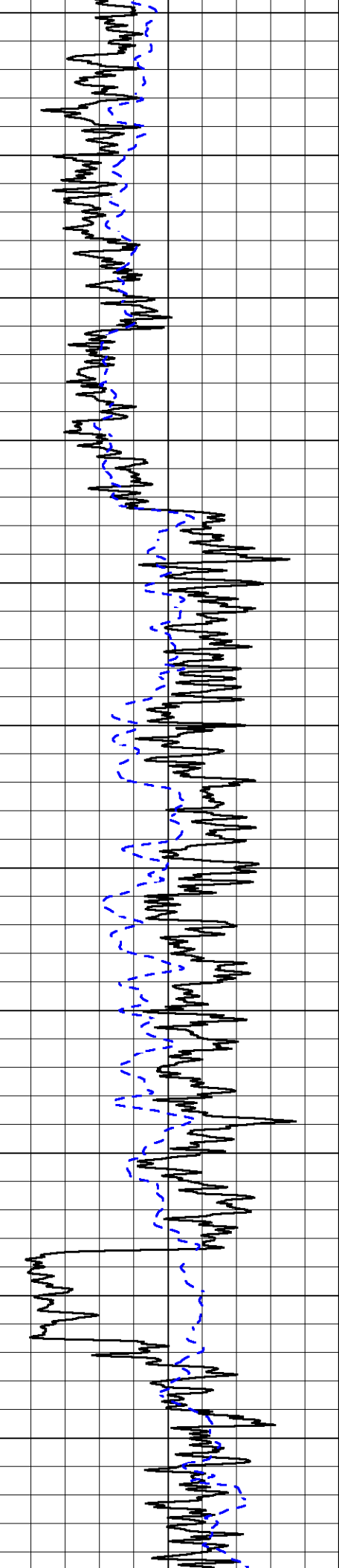
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 Dataset Pathname Stack/pass3.2
 Presentation Format _dil2in
 Dataset Creation Sat Jul 15 14:00:11 2023
 Charted by Depth in Feet scaled 1:600

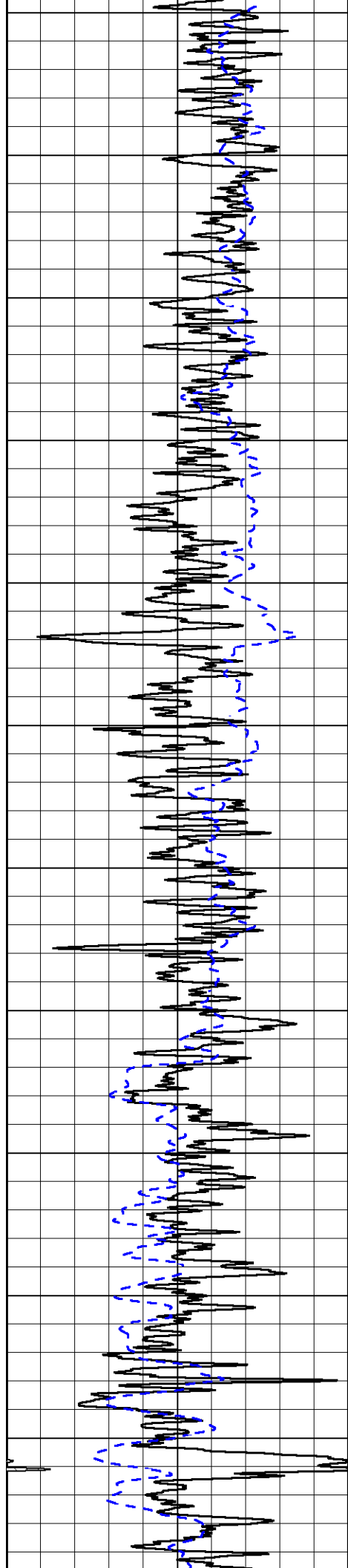
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-200	SP (mV)	0	15000	Line Tension (lb)	0
			0	Shallow Resistivity (Ohm-m)	50
			0	Deep Resistivity (Ohm-m)	50
			50	Shallow Resistivity (Ohm-m)	200
			50	Deep Resistivity (Ohm-m)	200



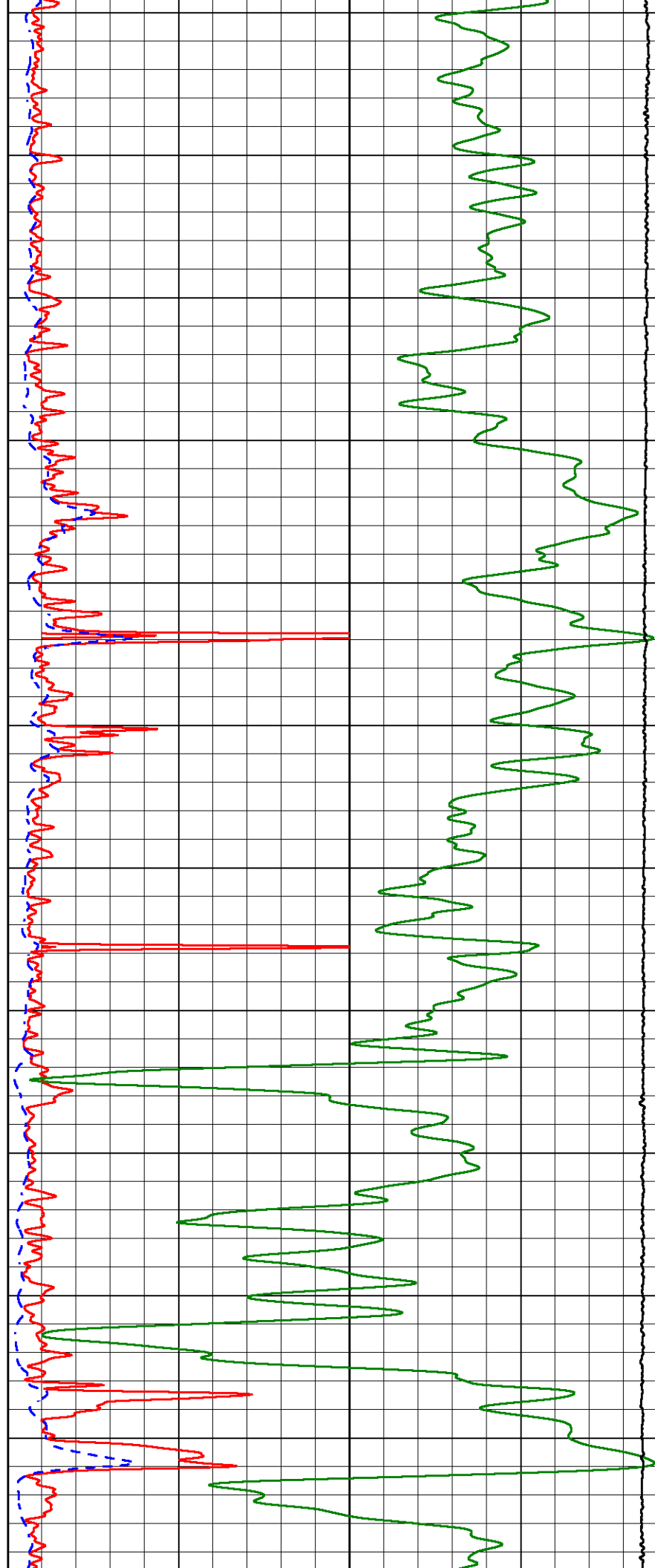


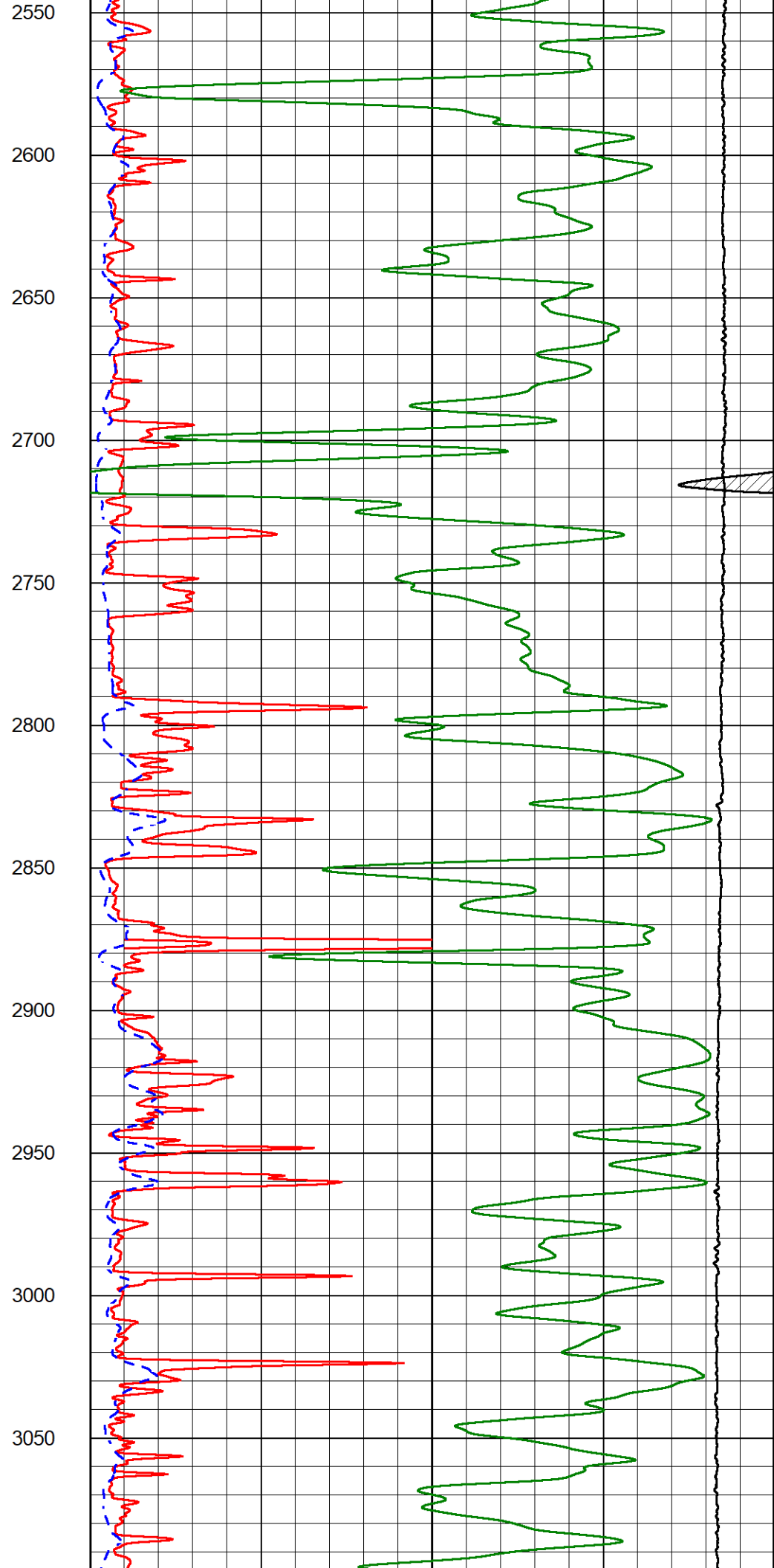
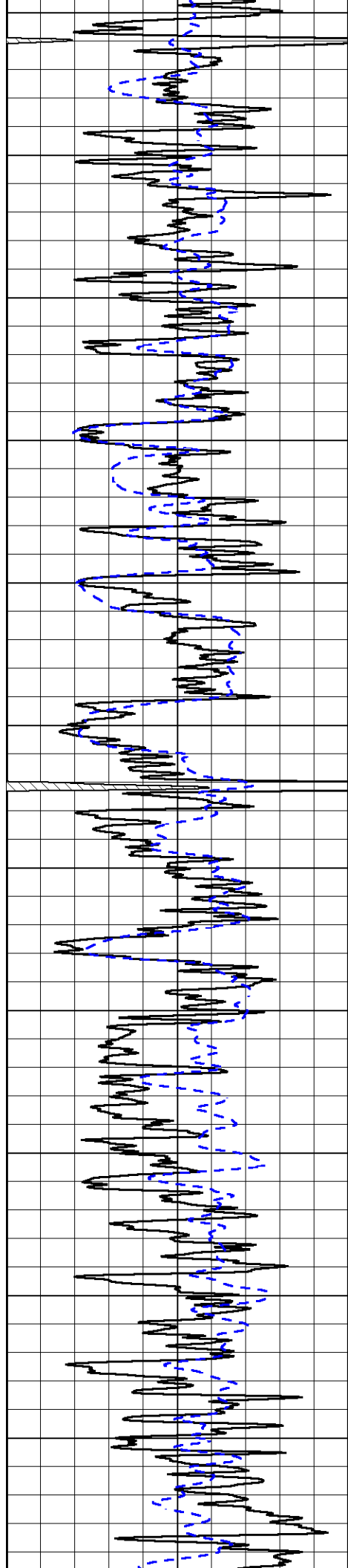


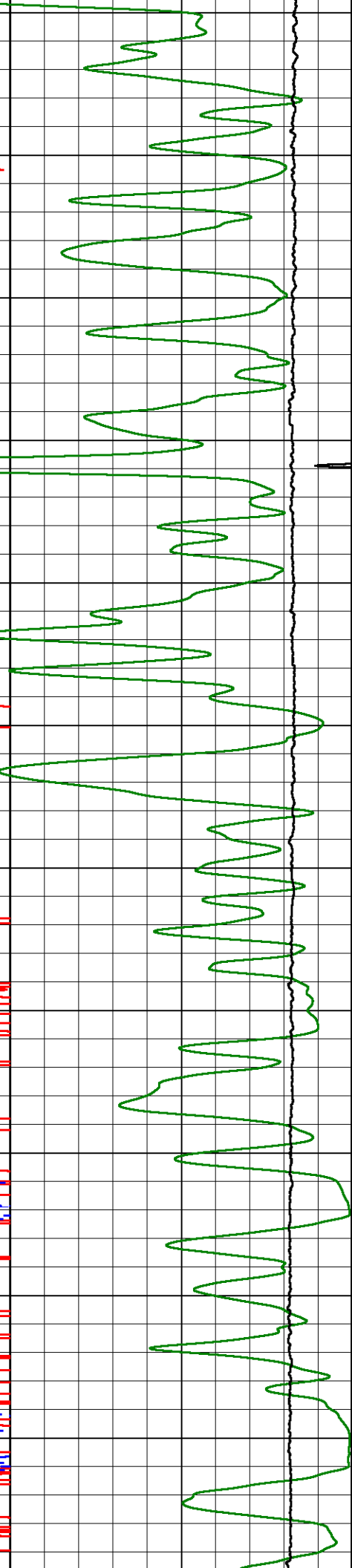
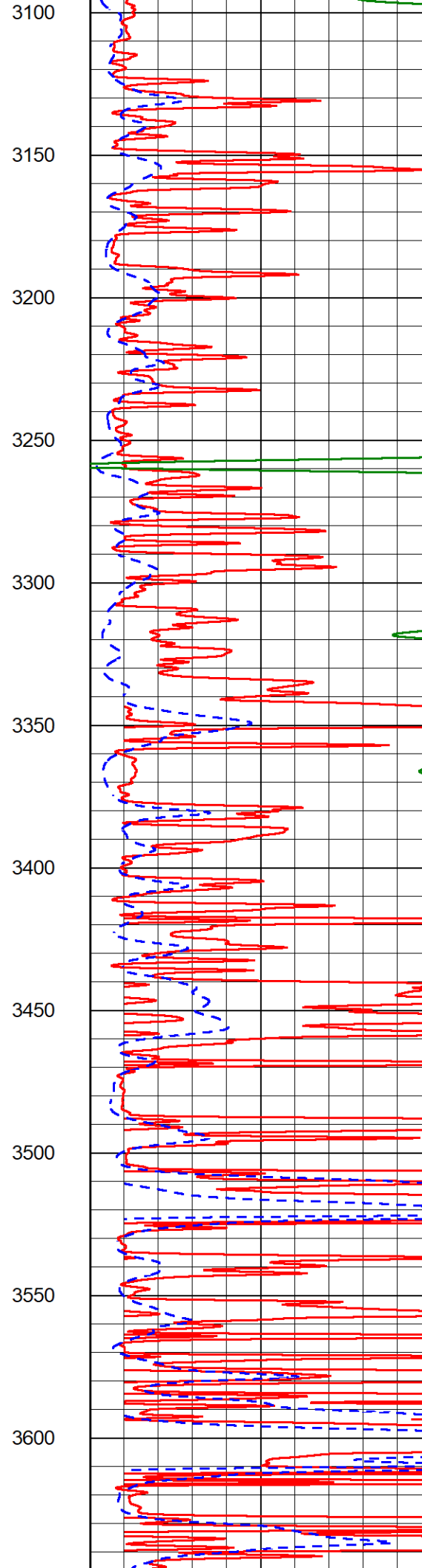
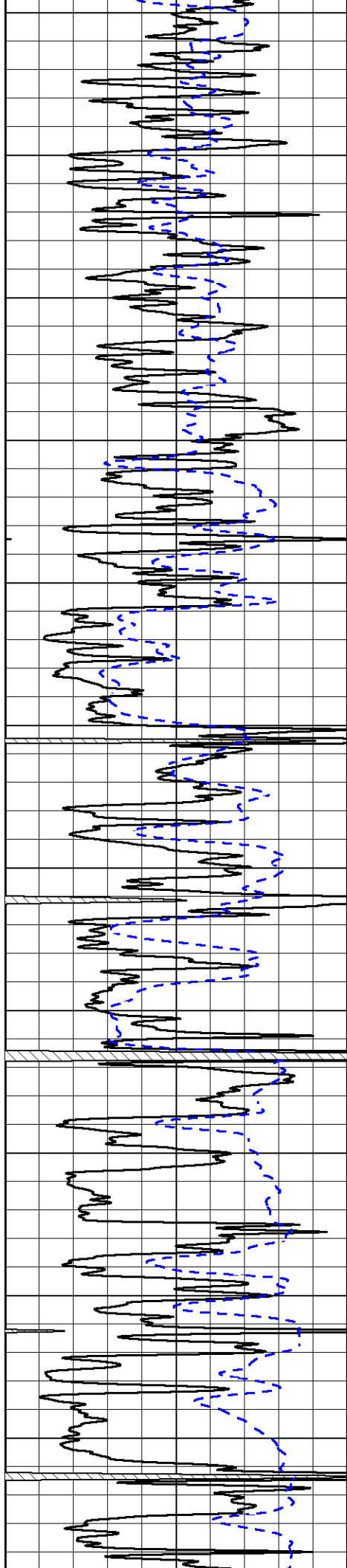


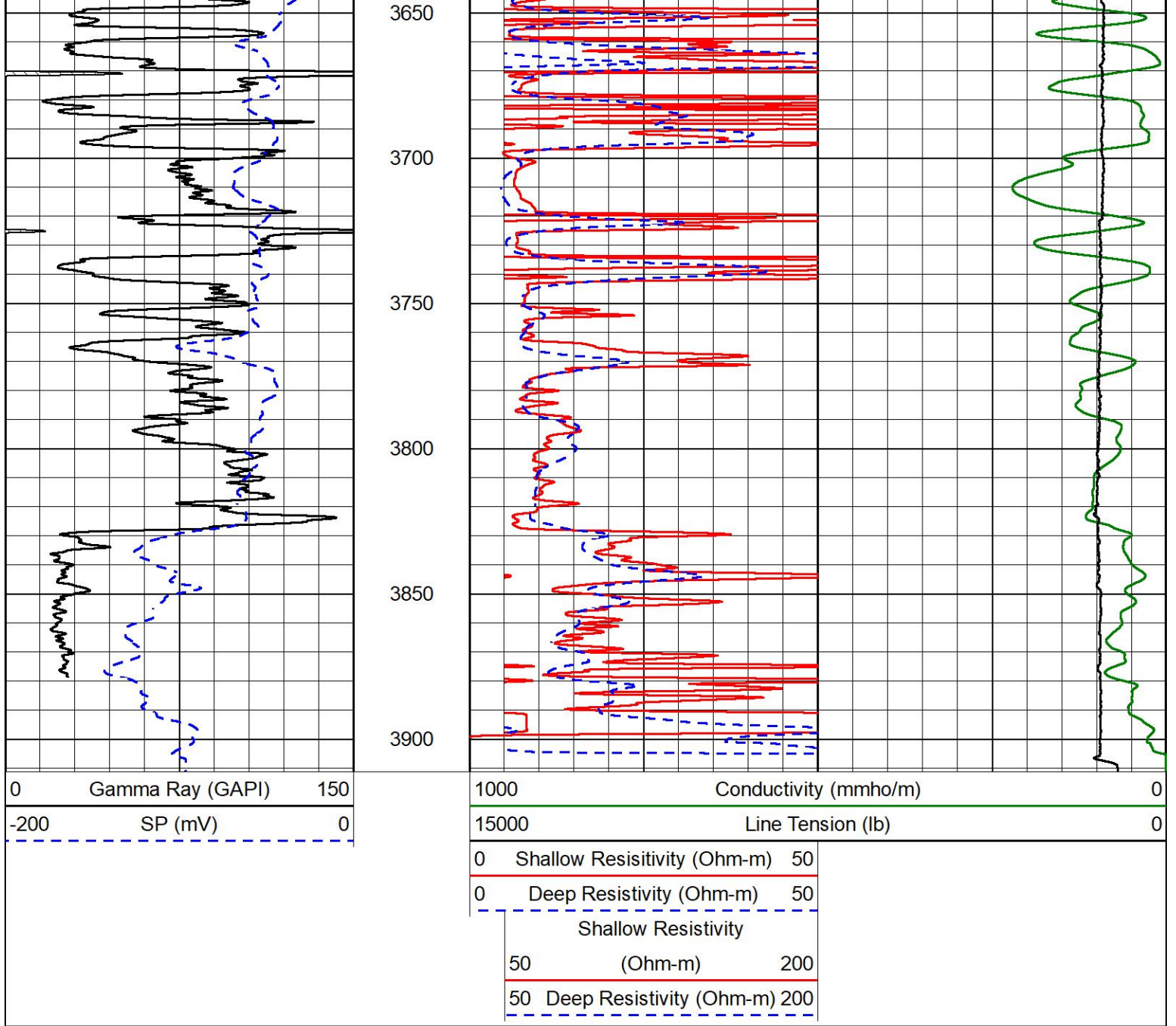


2000
2050
2100
2150
2200
2250
2300
2350
2400
2450
2500





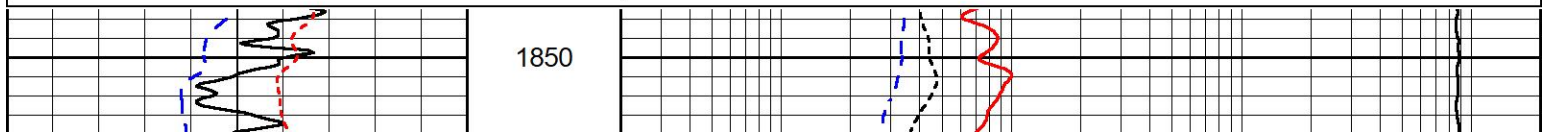
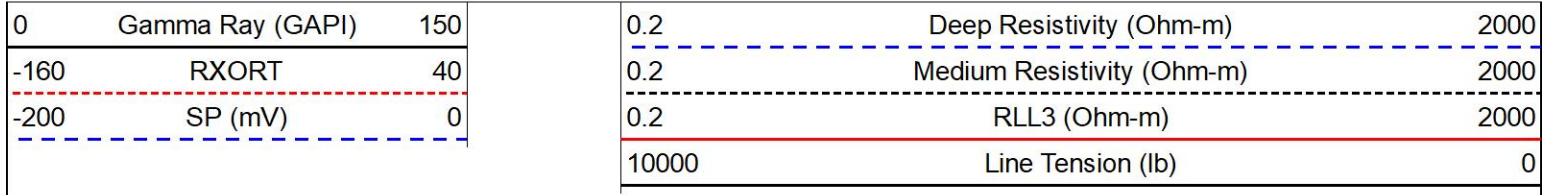


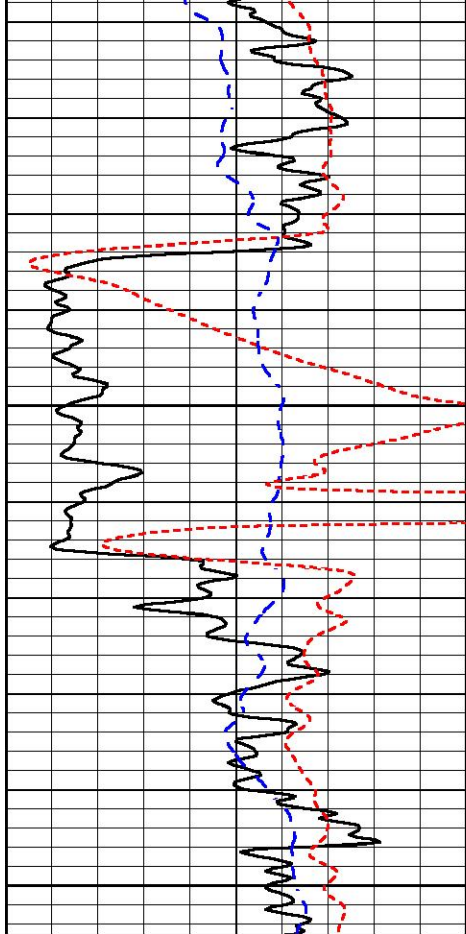


ANHYDRITE SECTION

MAIN PASS

Database File satchell_worcester a #4-22.db
 Dataset Pathname Stack/pass3.4
 Presentation Format _dil
 Dataset Creation Sat Jul 15 13:41:44 2023
 Charted by Depth in Feet scaled 1:240

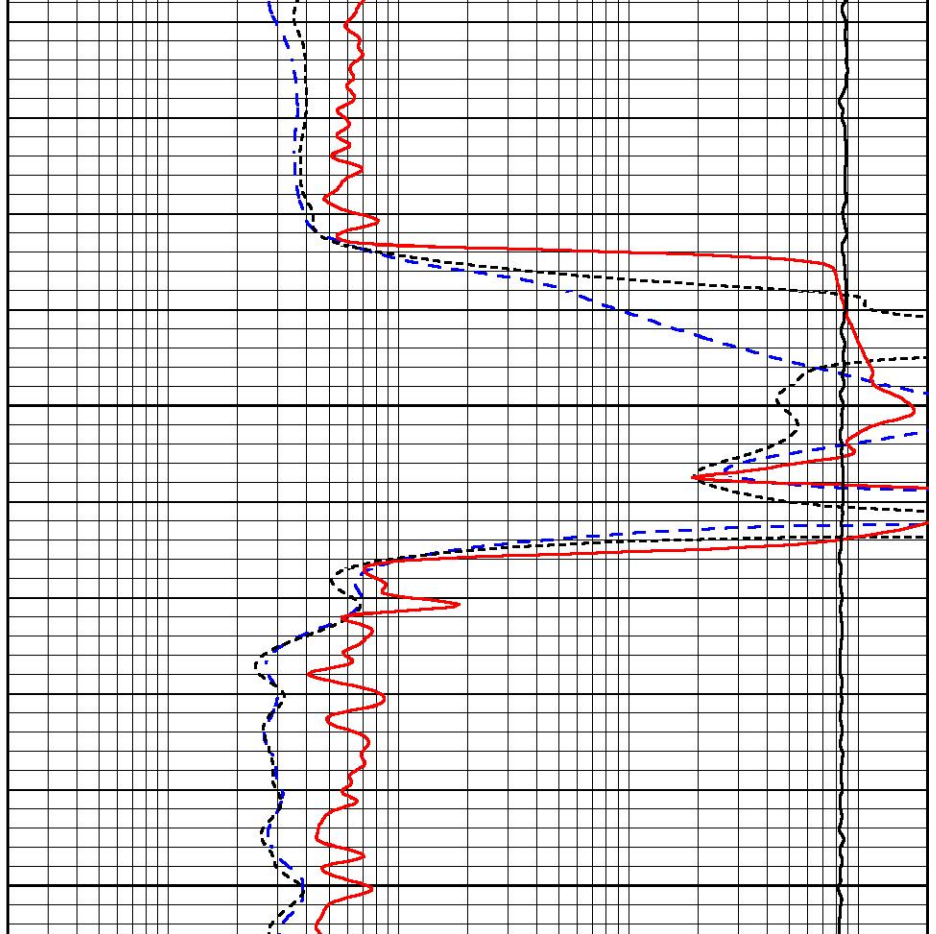




1900

1950

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



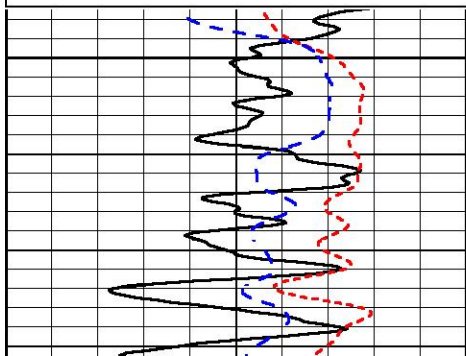
DETAIL SECTION

MAIN PASS

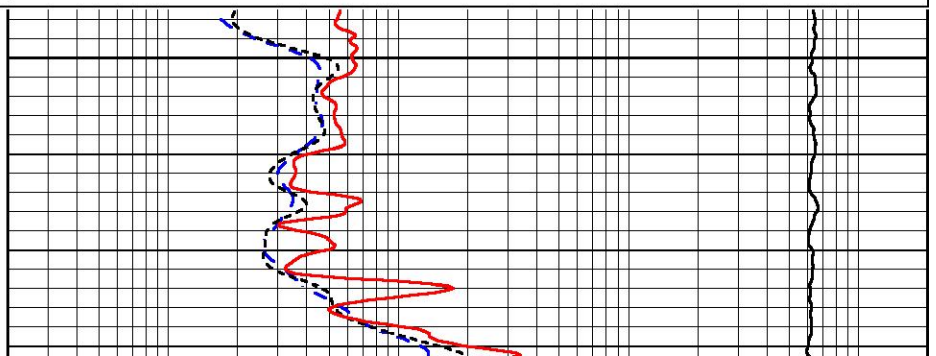
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 Dataset Pathname Stack/pass3.1
 Presentation Format _dil
 Dataset Creation Sat Jul 15 14:00:24 2023
 Charted by Depth in Feet scaled 1:240

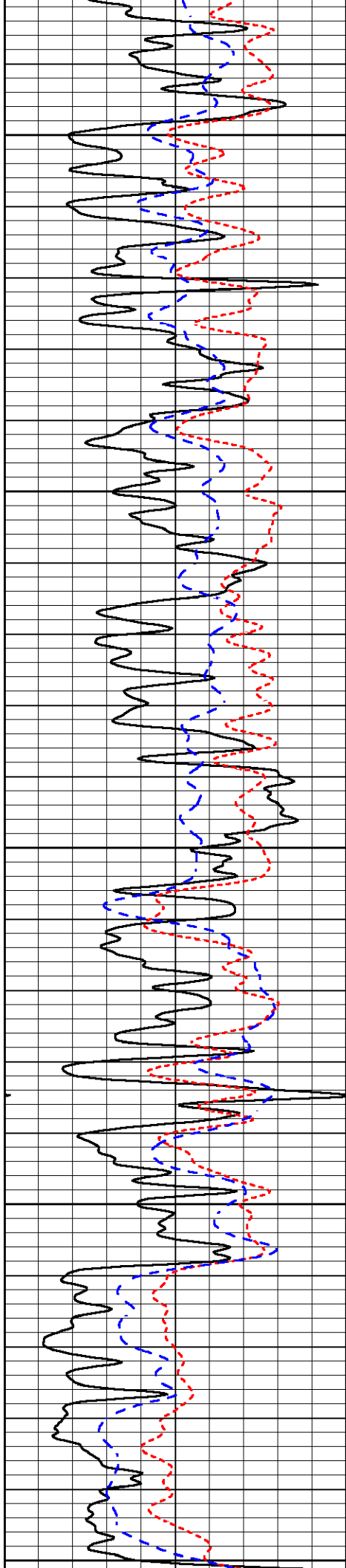
0	Gamma Ray (GAPI)	150
-160	RXORT	40
-200	SP (mV)	0

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



3100





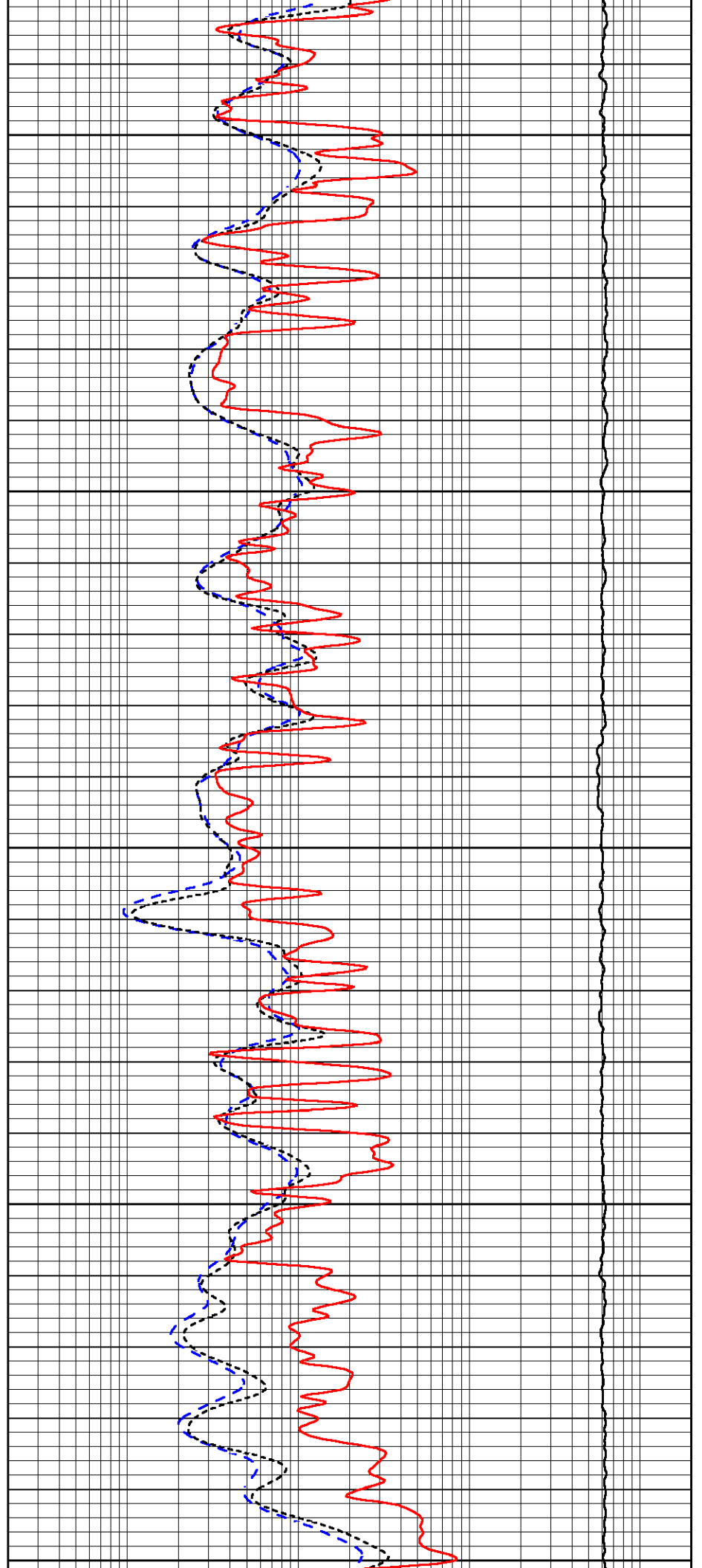
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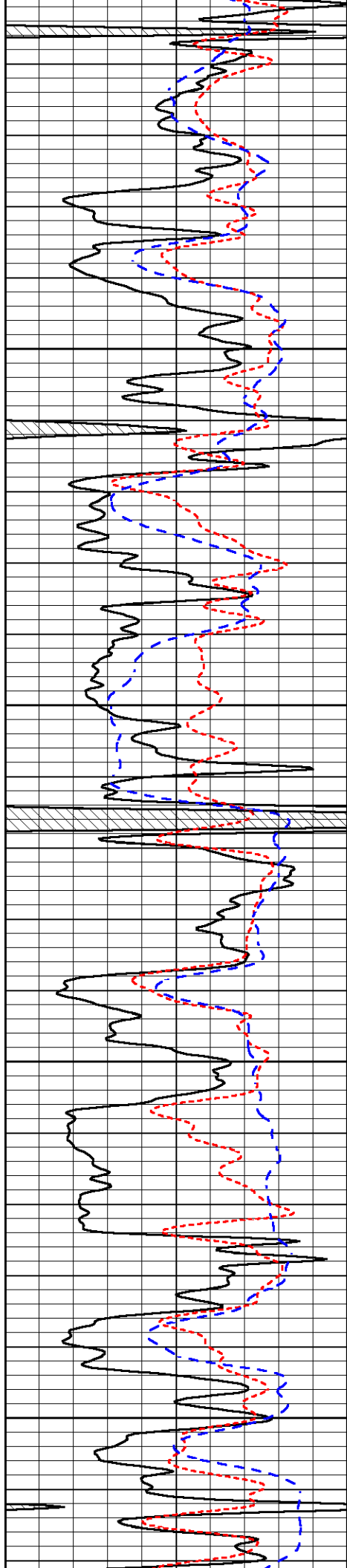
3200

3250

3300

3350



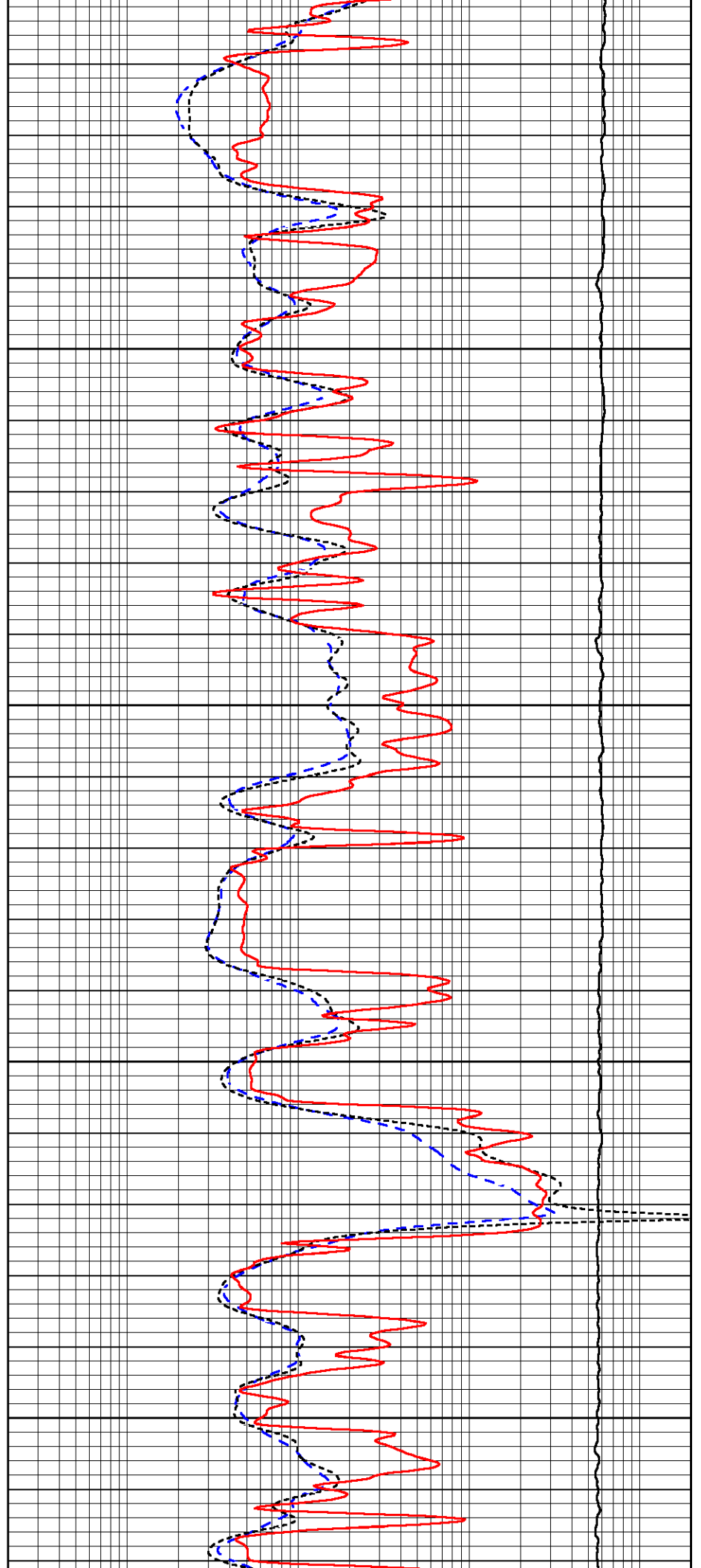


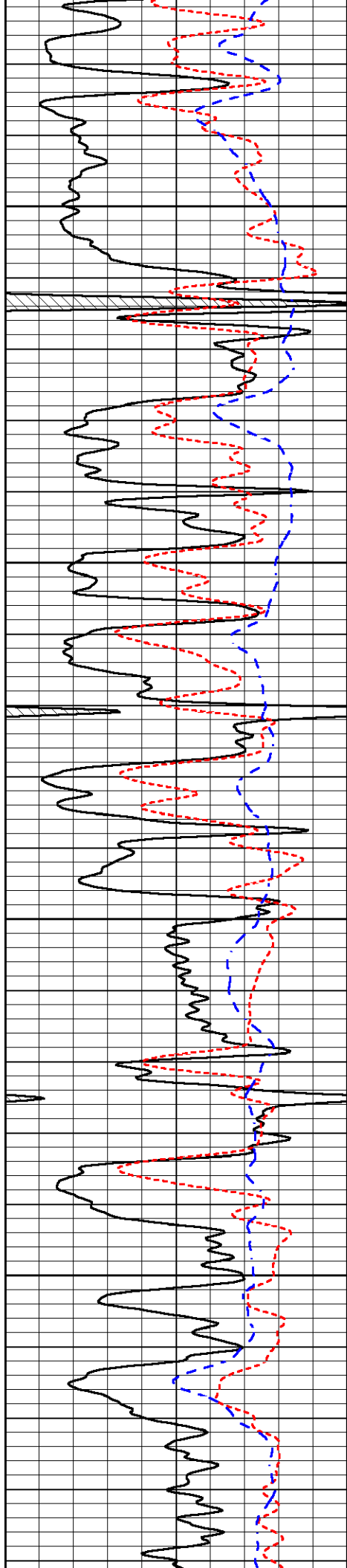
3400

3450

3500

3550



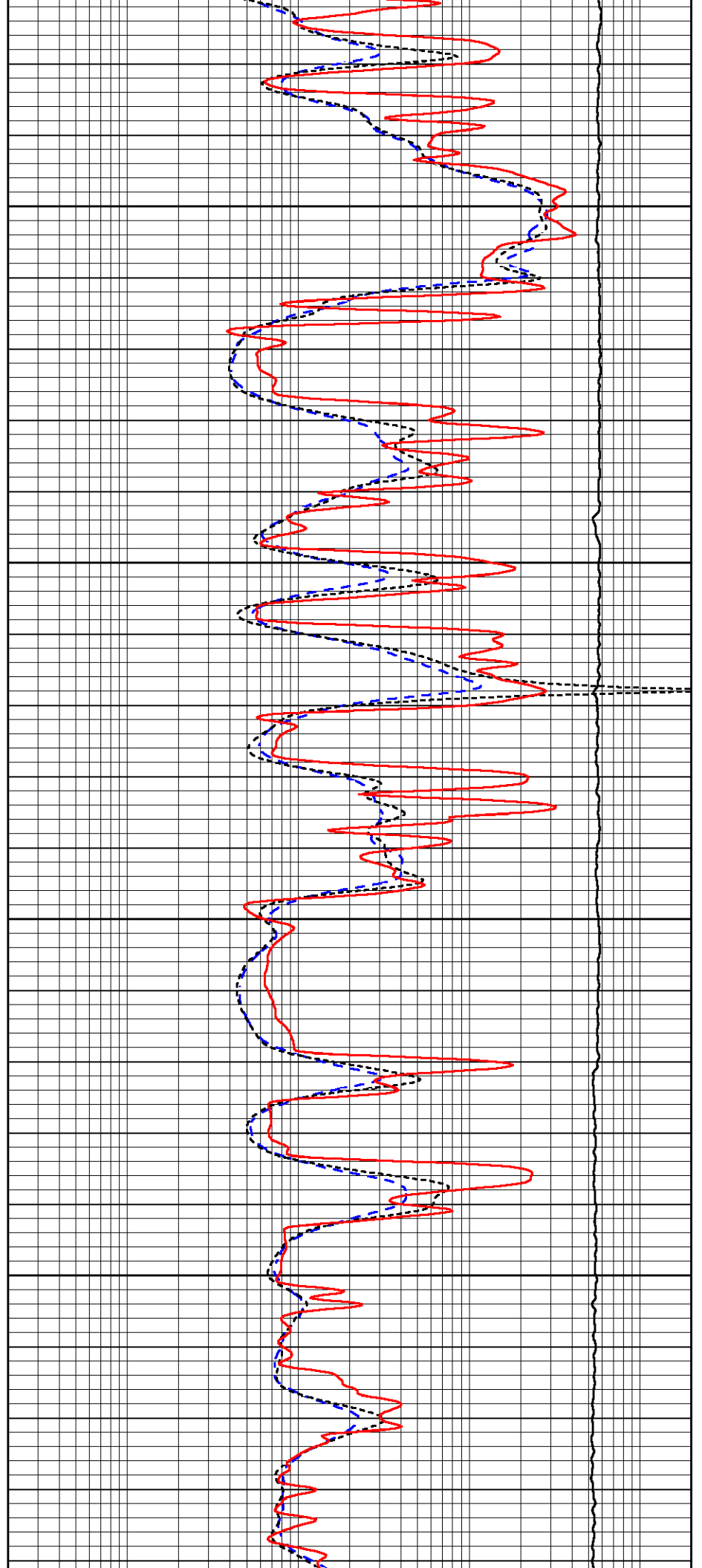


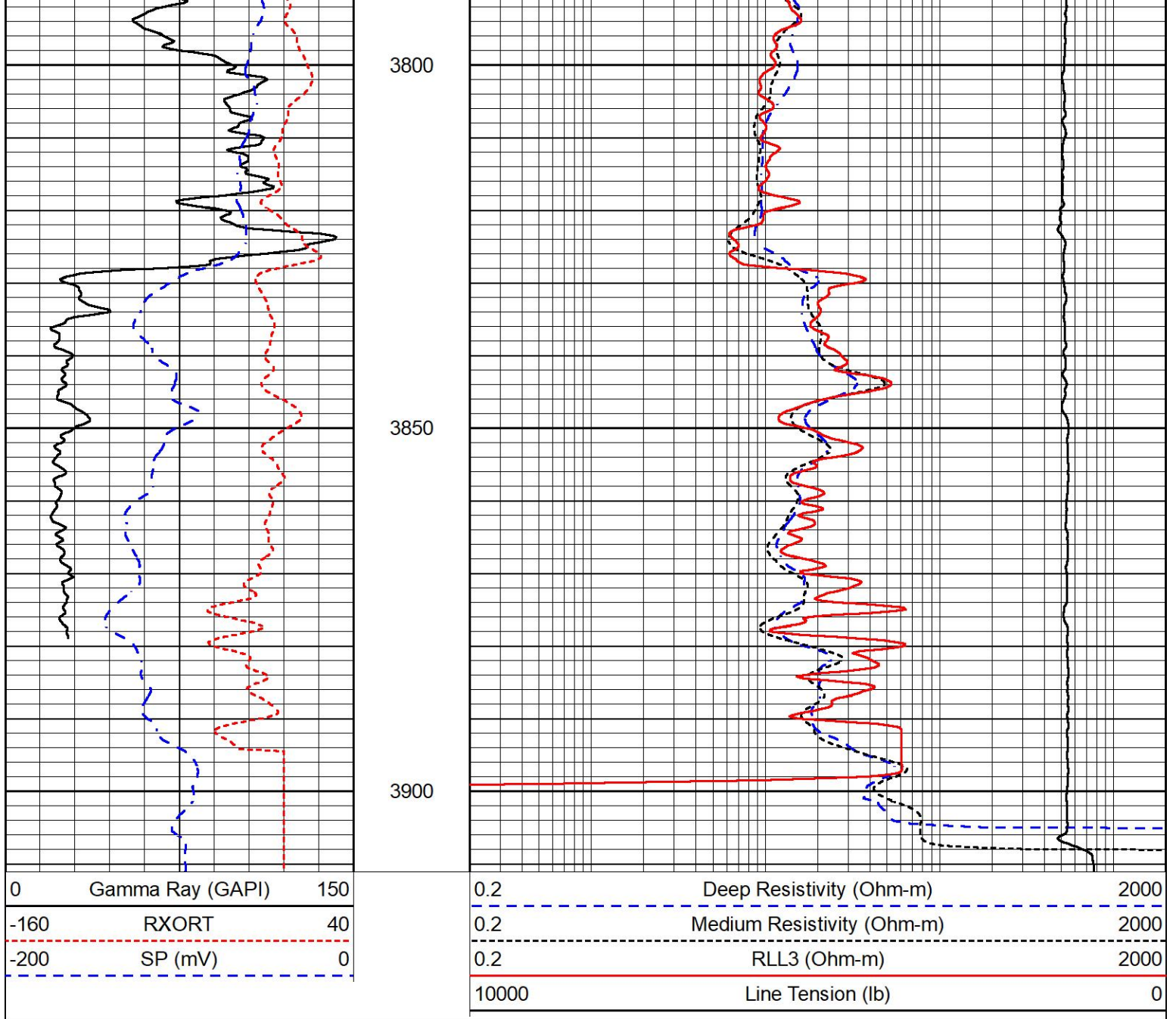
3600

3650

3700

3750

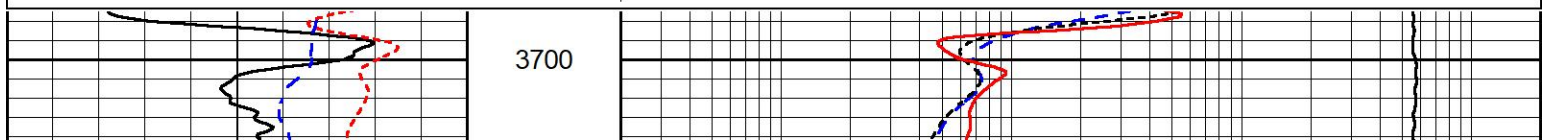
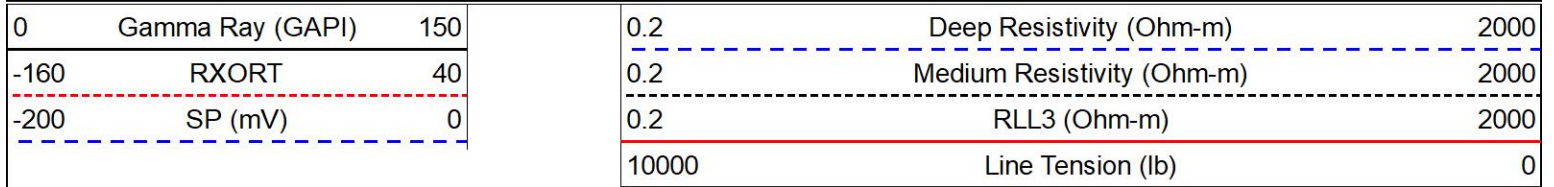


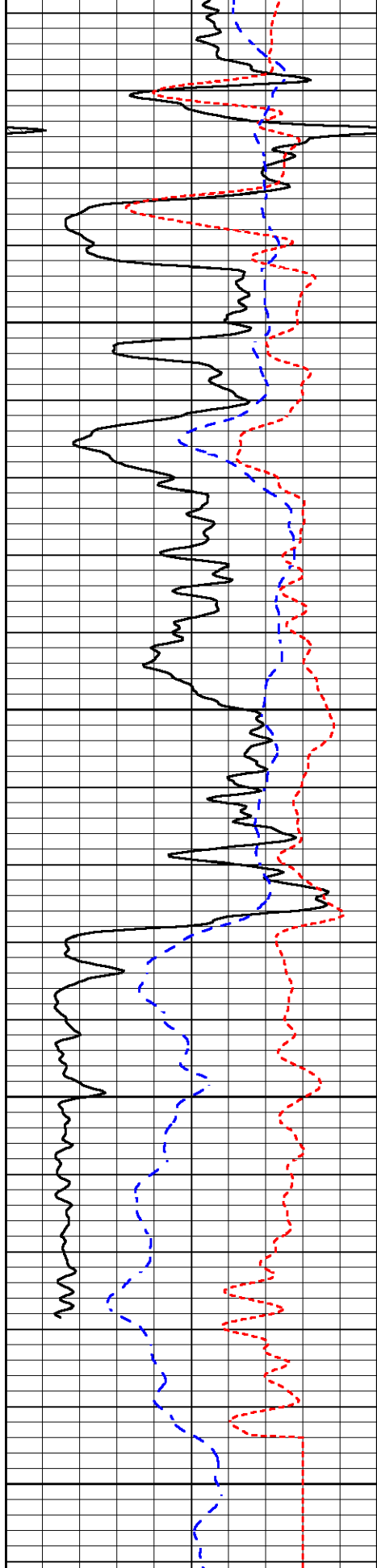


REPEAT SECTION

REPEAT PASS

Database File satchell_worcester a #4-22.db
 Dataset Pathname Stack/pass2.1
 Presentation Format _dil
 Dataset Creation Sat Jul 15 13:16:31 2023
 Charted by Depth in Feet scaled 1:240





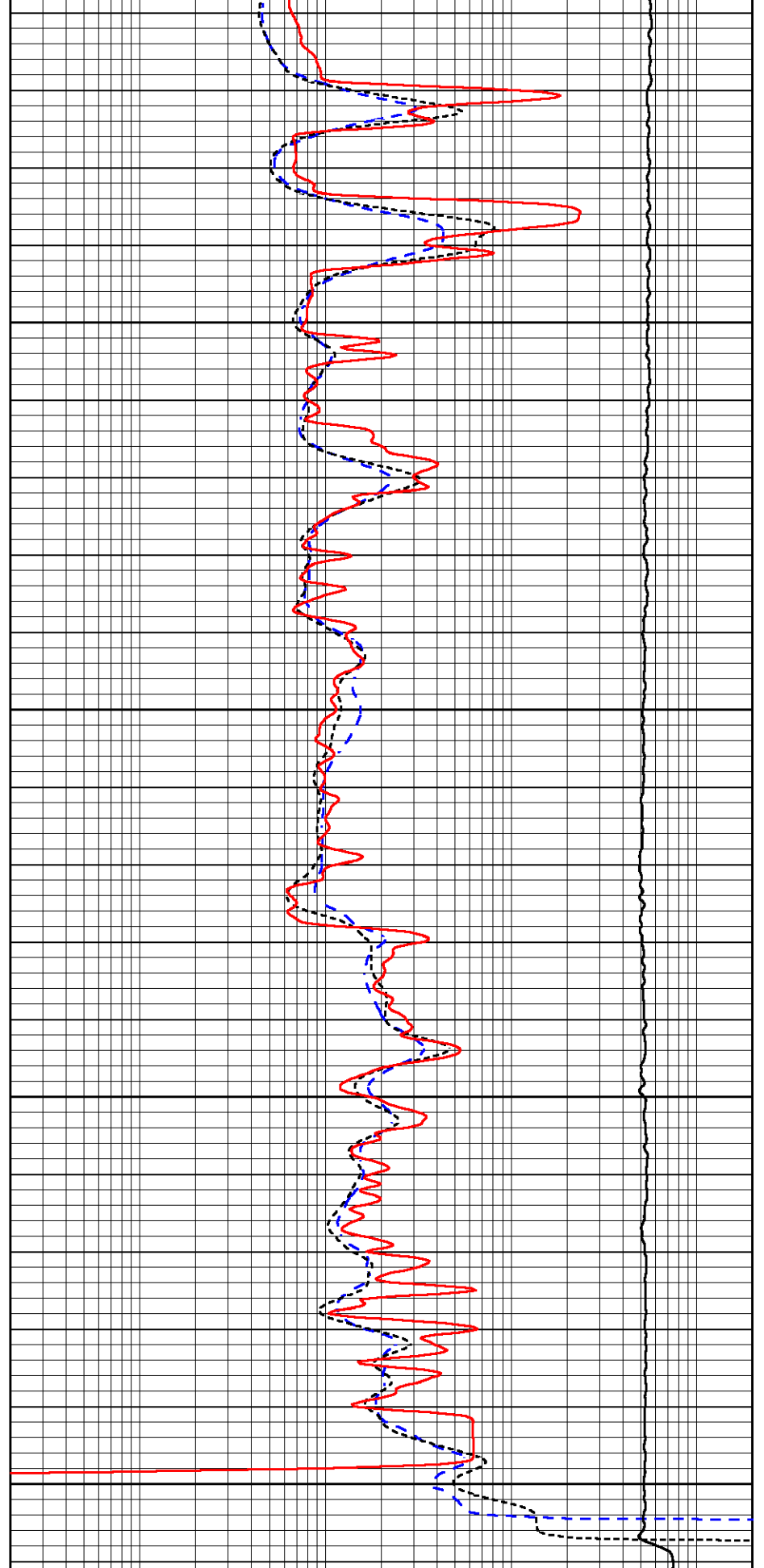
3750

3800

3850

3900

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

Calibration Report

Database File satchell_worcester a #4-22.db
 Dataset Pathname Stack/pass3.1
 Dataset Creation Sat Jul 15 14:00:24 2023

Dual Induction Calibration Report

Serial-Model: 507-M&W
 Surface Cal Performed:

Loop:	Readings		References			Results	
	Air	Loop	Air	Loop		m	b
Deep	68.570	638.100	0.000	255.800	mmho/m	0.500	-37.000
Medium	184.288	716.191	0.000	255.800	mmho/m	0.470	-84.000

Compensated Density Calibration Report

Serial-Model: 307-11-M&W
 Source / Verifier: 20762B / 2ci
 Master Calibration Performed: Tue Jun 6 21:48:20 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		

Compensated Neutron Calibration Report

Serial Number: 201-M&W
 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: Fri Dec 3 15:10:46 2021
 Calibrator Value: 500.0 GAPI
 Background Reading: 24.0 cps
 Calibrator Reading: 637.0 cps

Sensitivity:

0.6000

GAPI/cps



MIDWEST WIRELINE

Company	Satchell Creek Petroleum LLC
Well	Worcester A #4-22
Field	Alda South
County	Graham
State	Kansas