



MIDWEST WIRELINE

# DUAL INDUCTION LOG

Company WEBCO Oil Company, Inc.  
 Well Schauf W #1  
 Field Kraft-Prusa  
 County Barton State Kansas

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 Well Schauf W #1  
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 County Barton  
 State Kansas

Location: API #: 15-009-26377-00-00  
 730 FSL & 473 FEL  
 SEC 2 TWP 16S RGE 12W  
 Permanent Datum Ground Level Elevation 1905  
 Log Measured From Kelly Bushing  
 Drilling Measured From Kelly Bushing  
 Other Services  
 CNL/CDL  
 MEL/BHCS  
 Elevation  
 K.B. 1915  
 D.F.  
 G.L. 1905

Date	1/29/2023
Run Number	One
Depth Driller	3410
Depth Logger	3410
Bottom Logged Interval	3409
Top Log Interval	350
Casing Driller	8.625 @ 341
Casing Logger	351
Bit Size	7.875
Type Fluid in Hole	Chemical
Salinity, ppm CL	5000
Density / Viscosity	9.3 53
pH / Fluid Loss	9.5 9.2
Source of Sample	FLOWLINE
Rm @ Meas. Temp	0.50 @ 45
Rmt @ Meas. Temp	0.38 @ 45
Rmc @ Meas. Temp	0.68 @ 45
Source of Rmf / Rmc	CHARTS
Rm @ BHT	0.20 @ 110
Operating Rig Time	4 Hours
Max Rec. Temp. F	110
Equipment Number	P-108
Location	HAYS
Recorded By	D. Schmidt
Witnessed By	Jim Musgrove

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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,  
 2 East, 2 1/2 North,  
 West into

Log Measured From: Kelly Bushing 10 Ft. Above Permanent Datum

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

Your Midwest Wireline Crew		This Log Record Was Witnessed By	
Engineer: D. Schmidt	Operator:	Primary Witness: Jim Musgrove	Secondary Witness:
Operator:	Operator:	Secondary Witness:	Secondary Witness:
Operator:		Secondary Witness:	

Core	Offset (ft)	Depth	Description	Length (ft)	O.D. (in)	Weight (lb)
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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 CNSSC	37.23 36.48		CNT-M&W (210)	5.00	3.50	100.00
LSD DCAL SSD	28.18 28.17 27.68		CDL-M&W (306-06)	8.50	4.00	250.00
ML-PSI STKBL ML (402)			7.58	4.00	65.00	
MCAL MI MN	19.58 19.58 19.58					
RLL3F RLL3	15.50 15.50					
DIL-M&W (504 HT)			18.25	3.50	220.00	
CILD	8.33					
CILM	4.50					
SP	0.20					

Dataset: webco\_schauf w 1.db: field/well/stkml/pass8.1  
 Total length: 42.33 ft  
 Total weight: 685.00 lb  
 O.D.: 4.00 in

# Log Variables

DatabaseC:\ProgramData\Warrior\Data\webco\_schauf w 1.db  
 Dataset field/well/stkml/pass8.1/\_vars\_

## Top - Bottom

A	BOREID in	BOTTEMP degF	CASEOD in	CASETHCK in	FLUIDDEN g/cc	M	MATRXDEN g/cc
1	7.875	110	5.5	0	1	2	2.71
NPORSEL	PERFS	SNDERR mmho/m	SNDERRM mmho/m	SPSHIFT mV	SRFTEMP degF	SZCOR	TDEPTH ft
Limestone	No	0	0	348	10	Off	3410

## 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

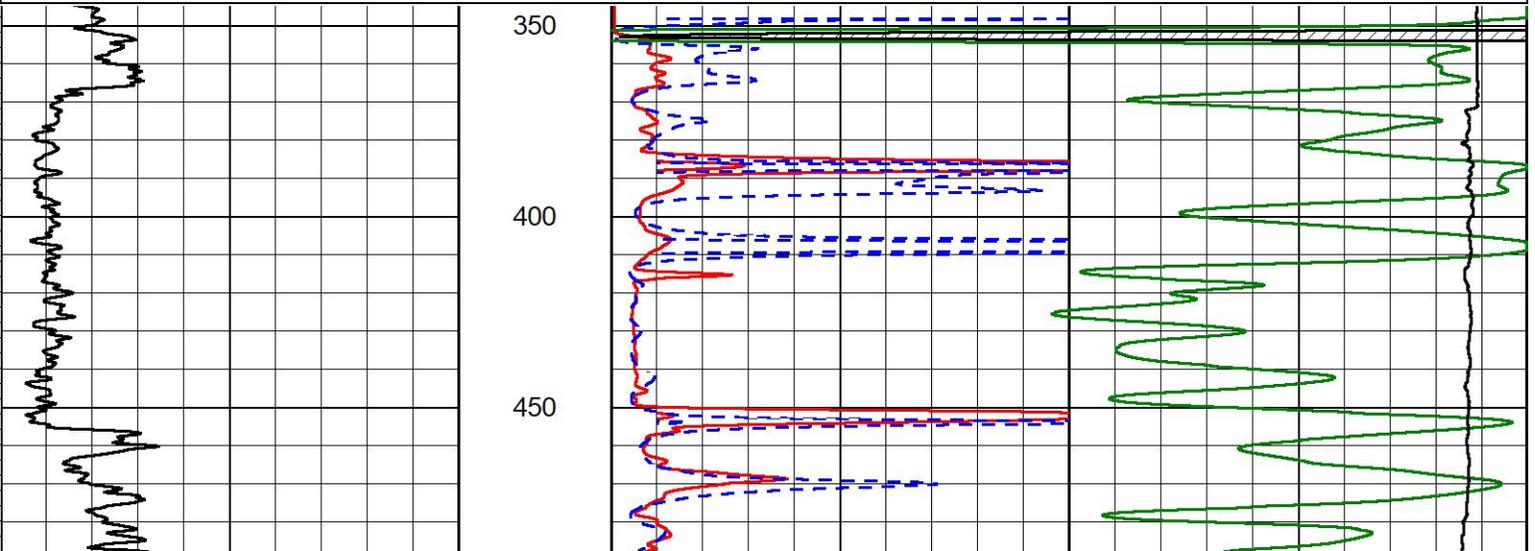


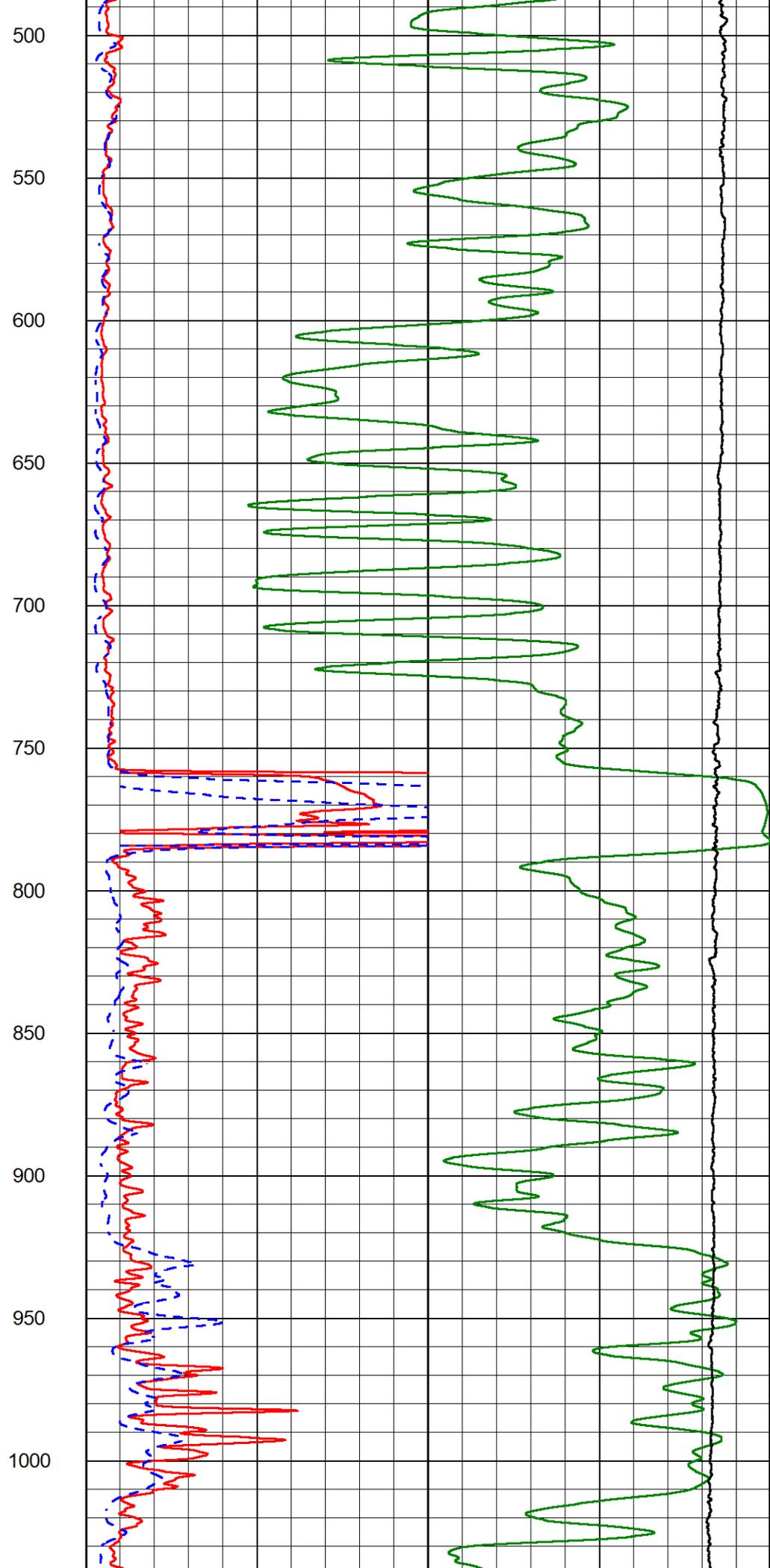
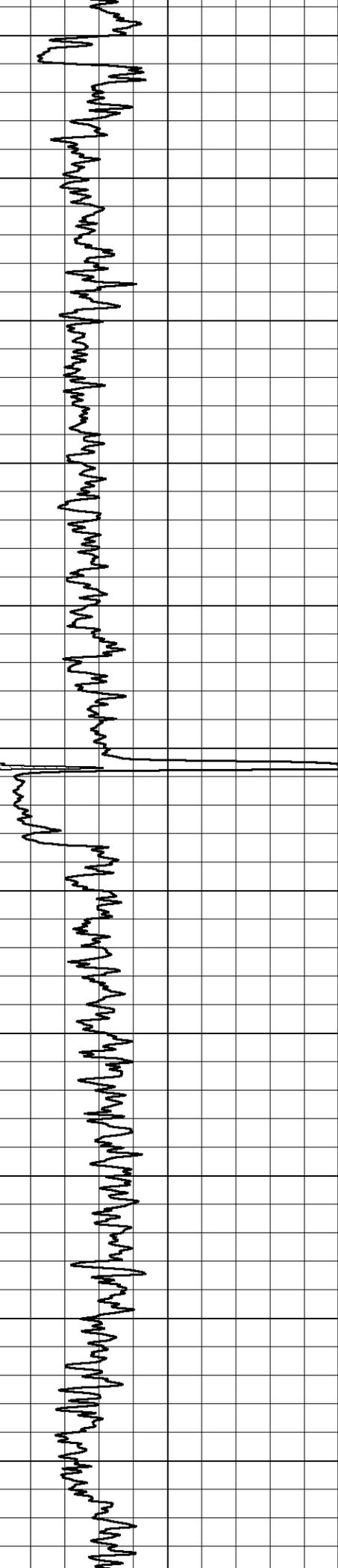
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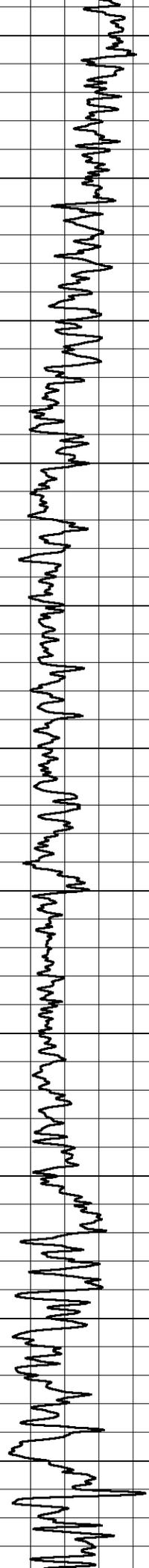
### MAIN PASS

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 Charted by Depth in Feet scaled 1:600

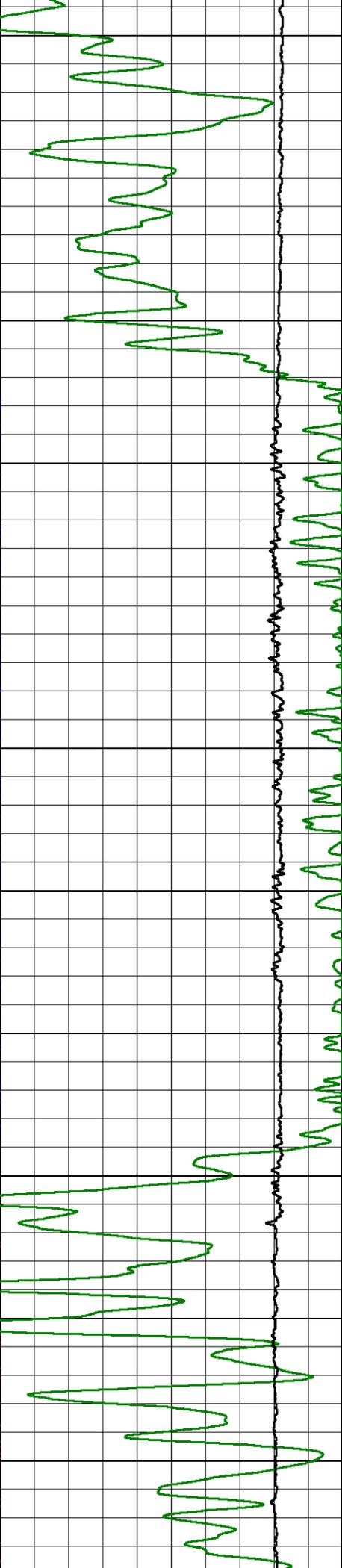
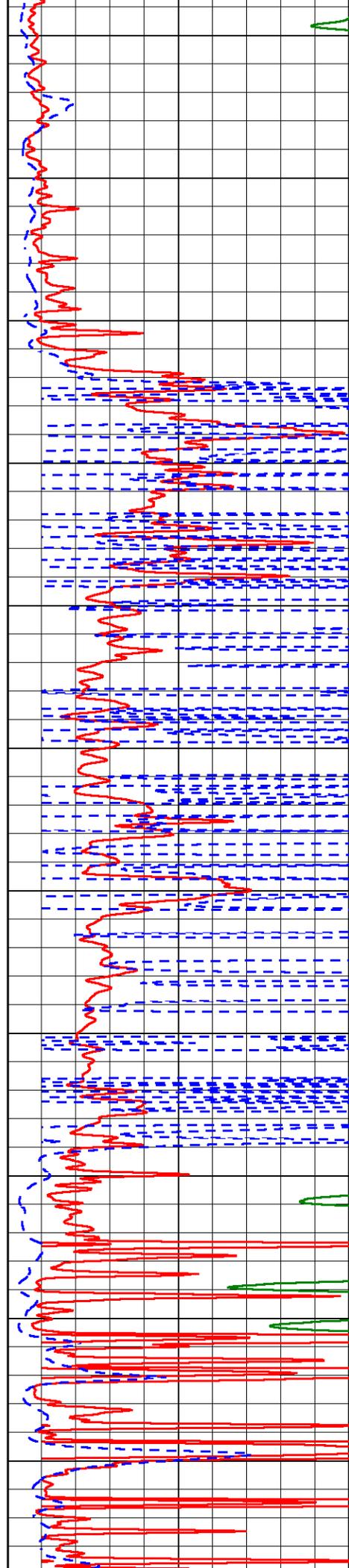
0	Gamma Ray (GAPI)	300	1000	Conductivity (mmho/m)	0
			15000	Line Tension (lb)	0
0	Shallow Resistivity (Ohm-m)	50			
0	Deep Resistivity (Ohm-m)	50			
	Shallow Resistivity				
50	(Ohm-m)	200			
50	Deep Resistivity (Ohm-m)	200			

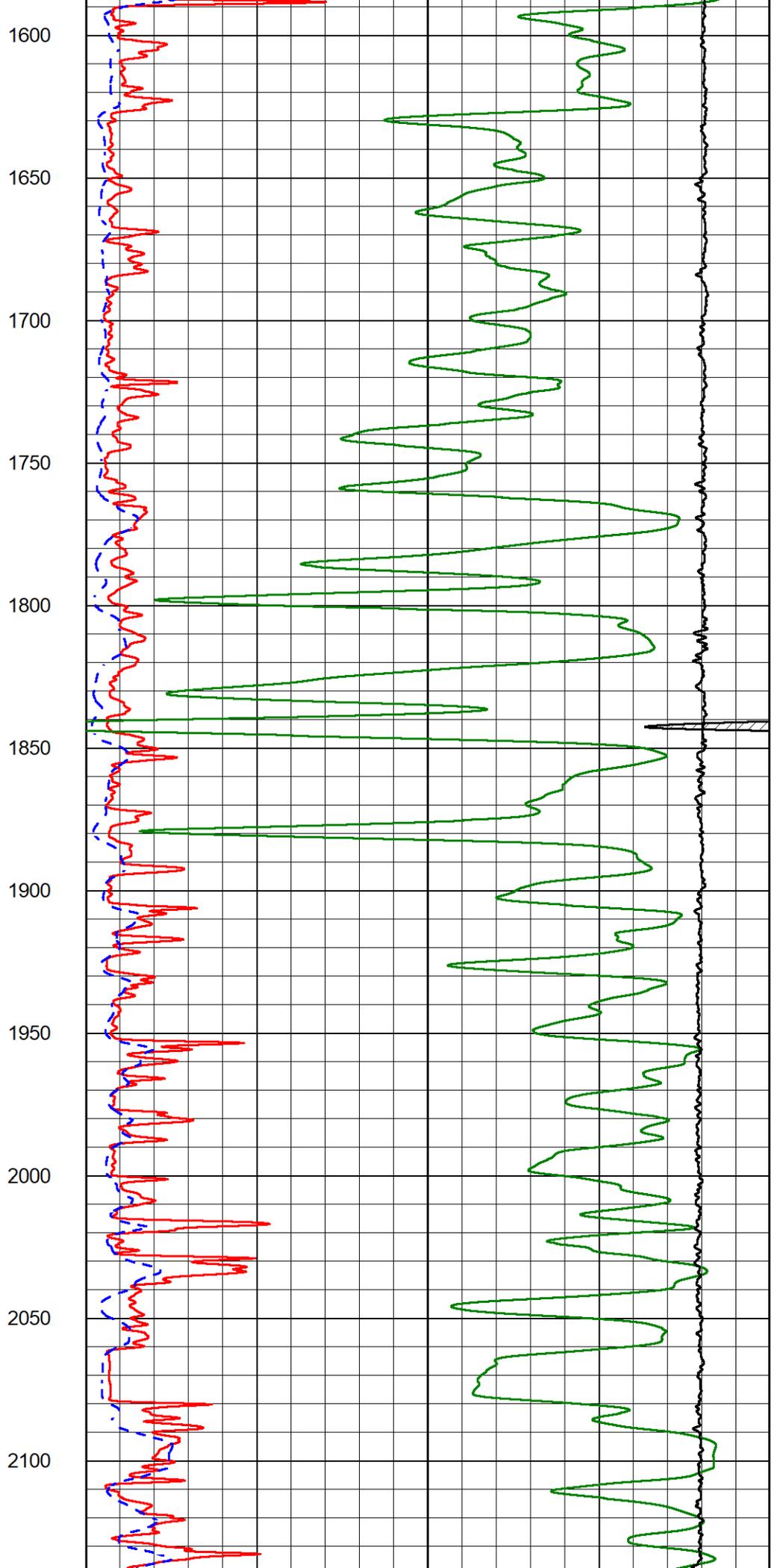
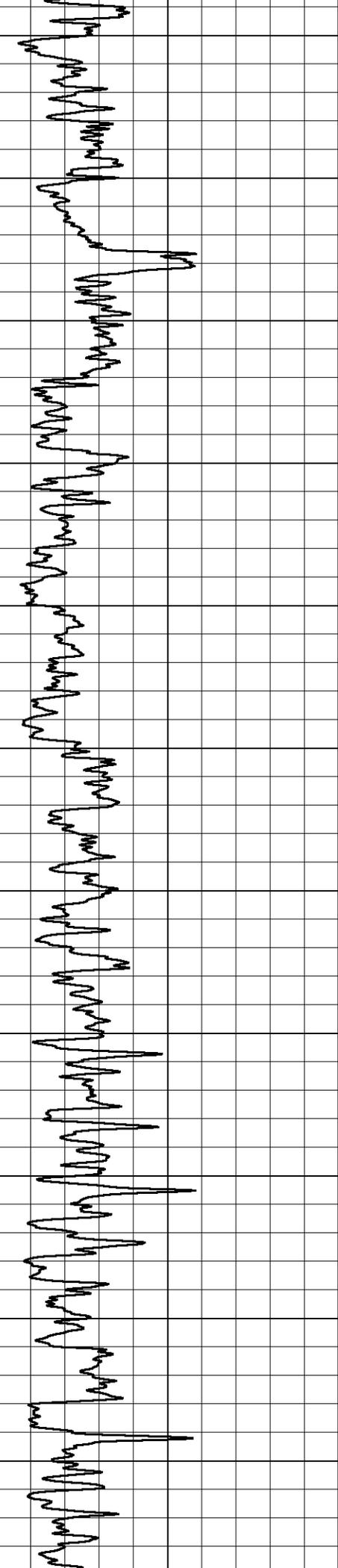


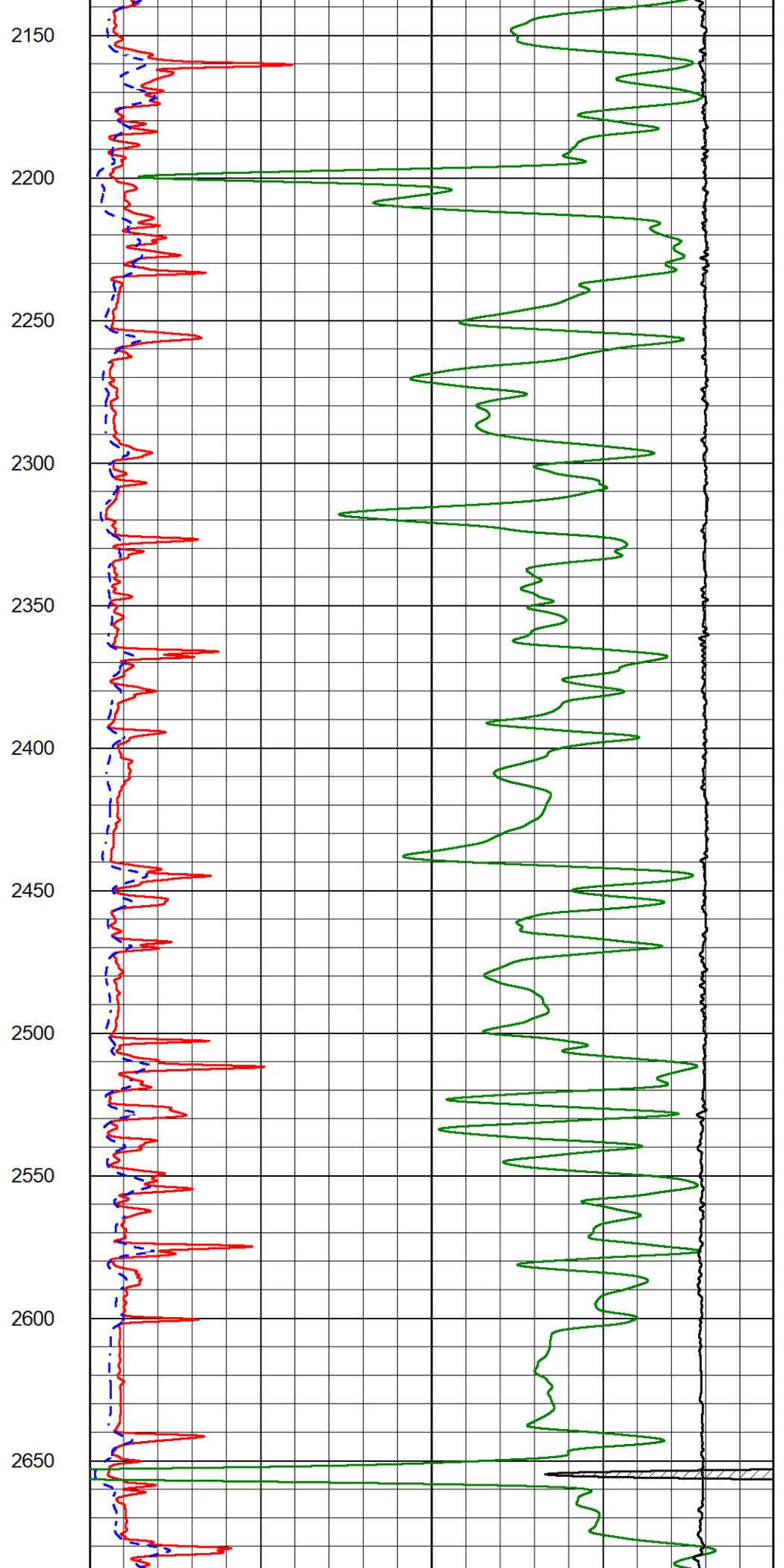
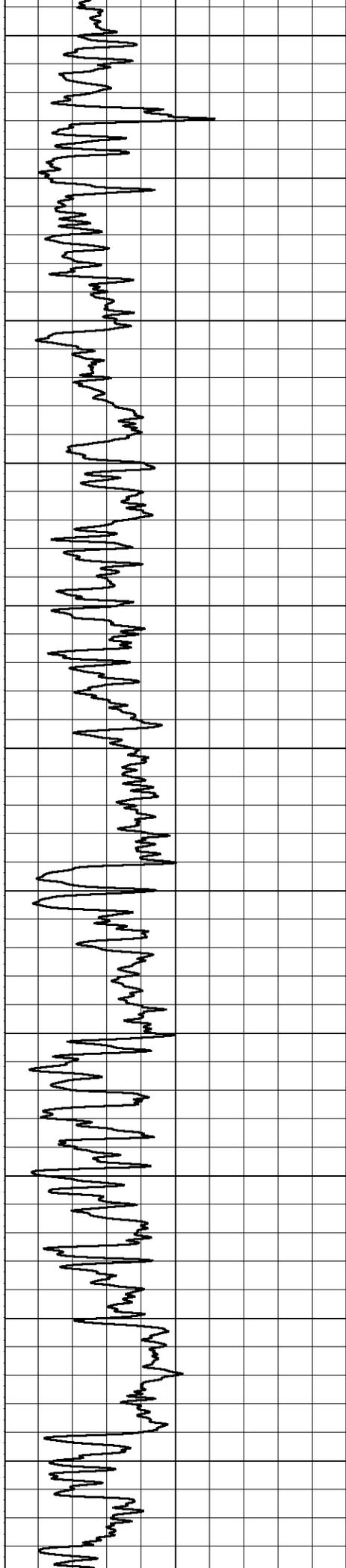


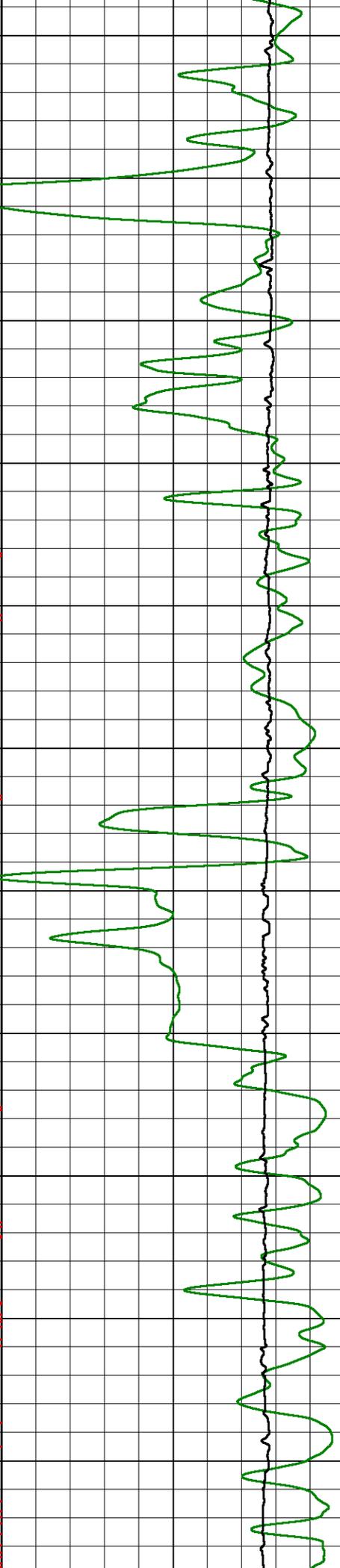
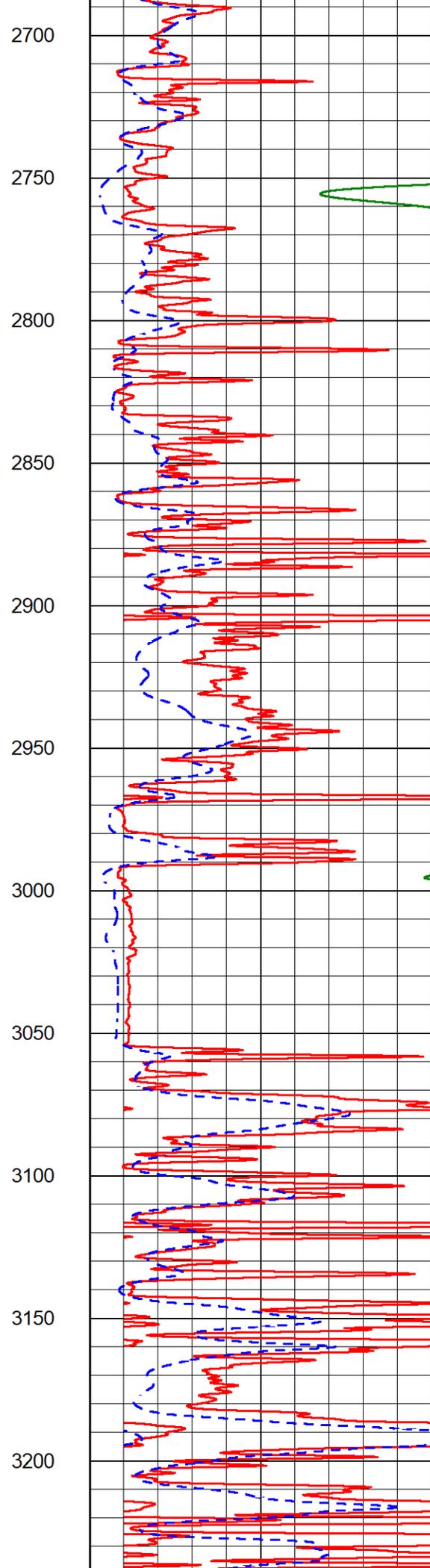
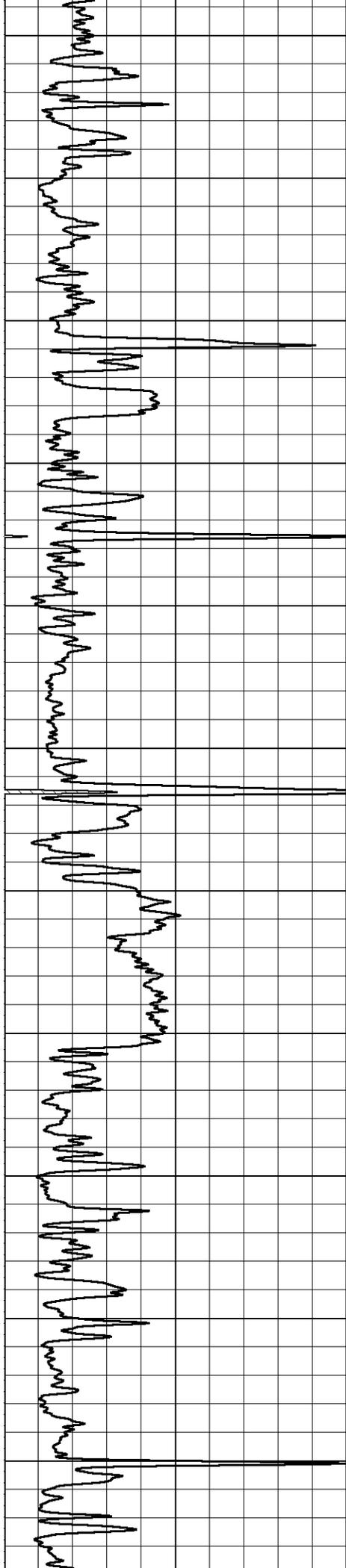


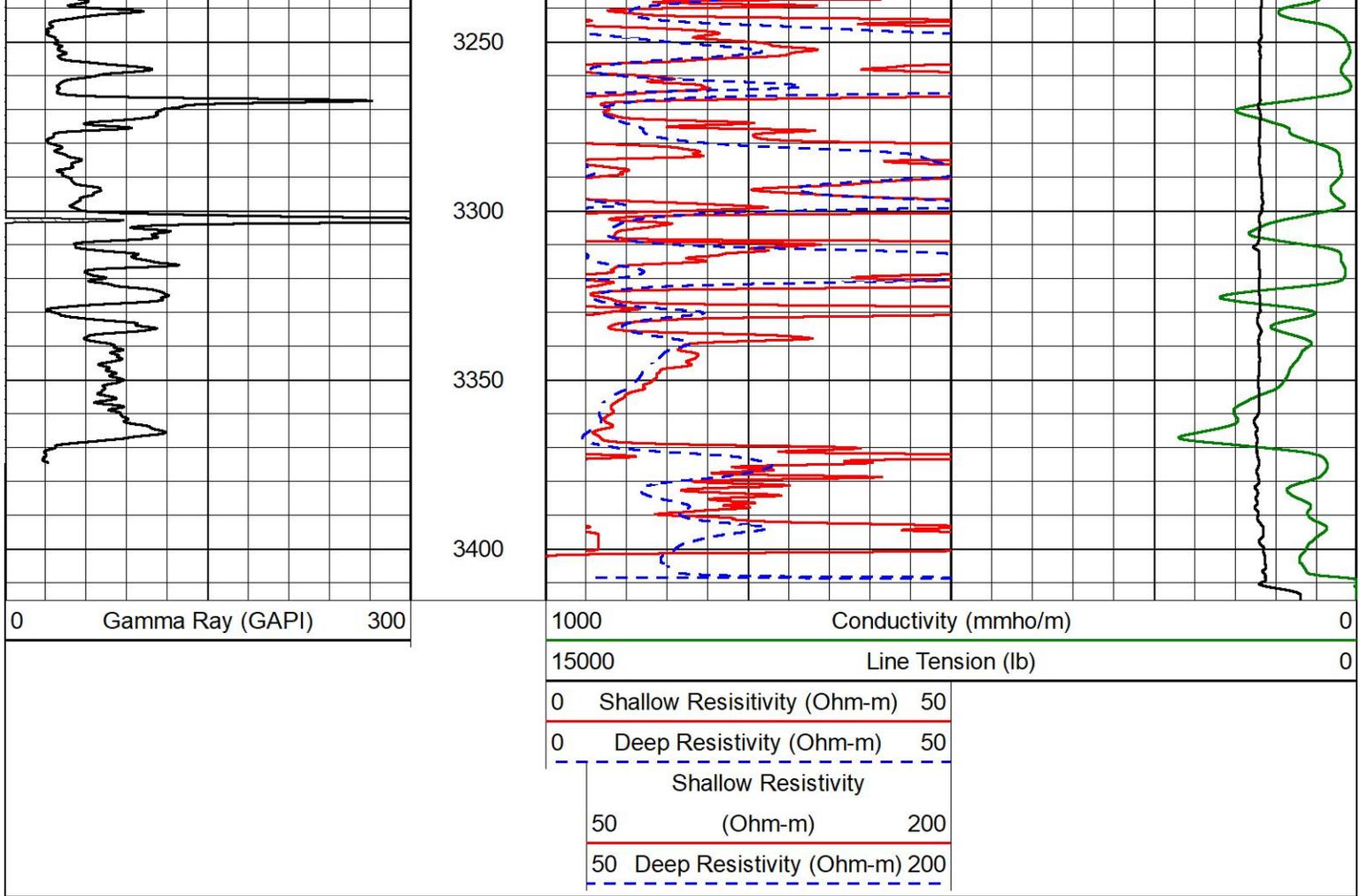
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1200  
1250  
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1400  
1450  
1500  
1550









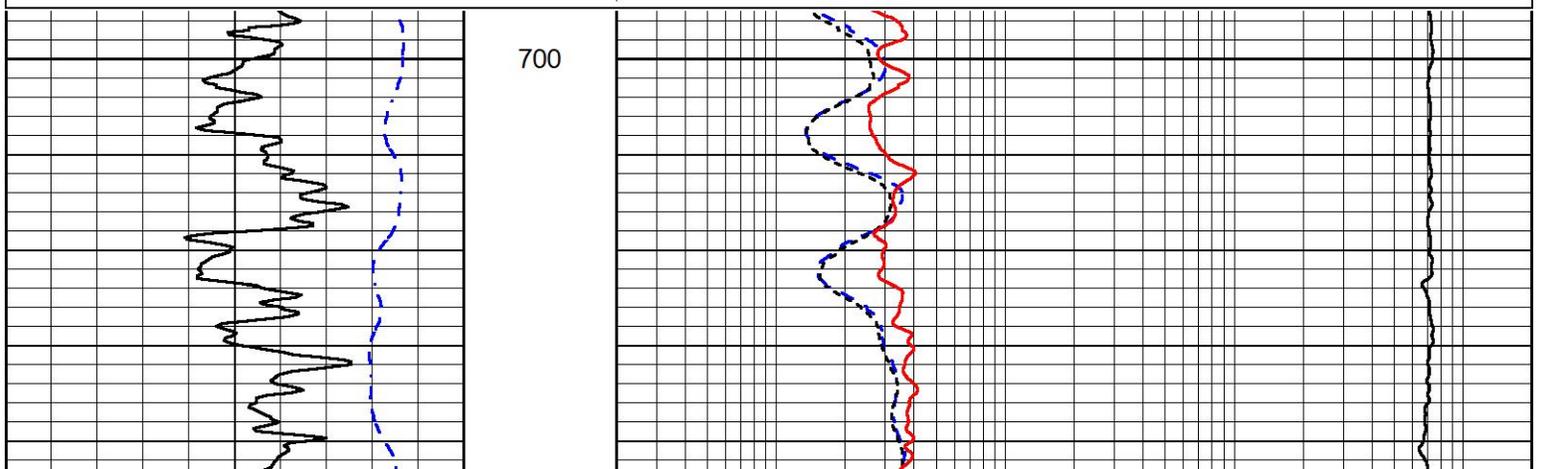
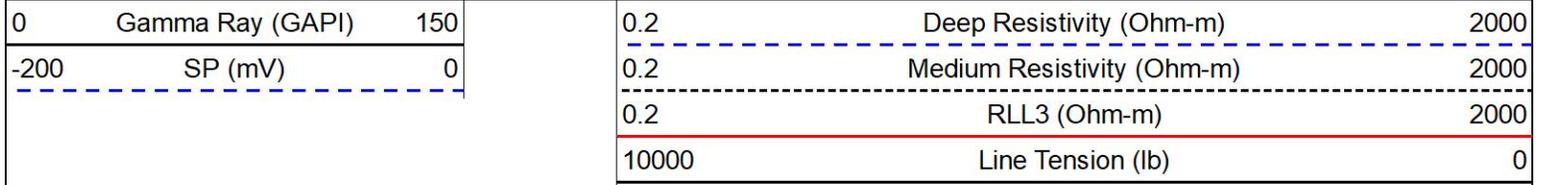


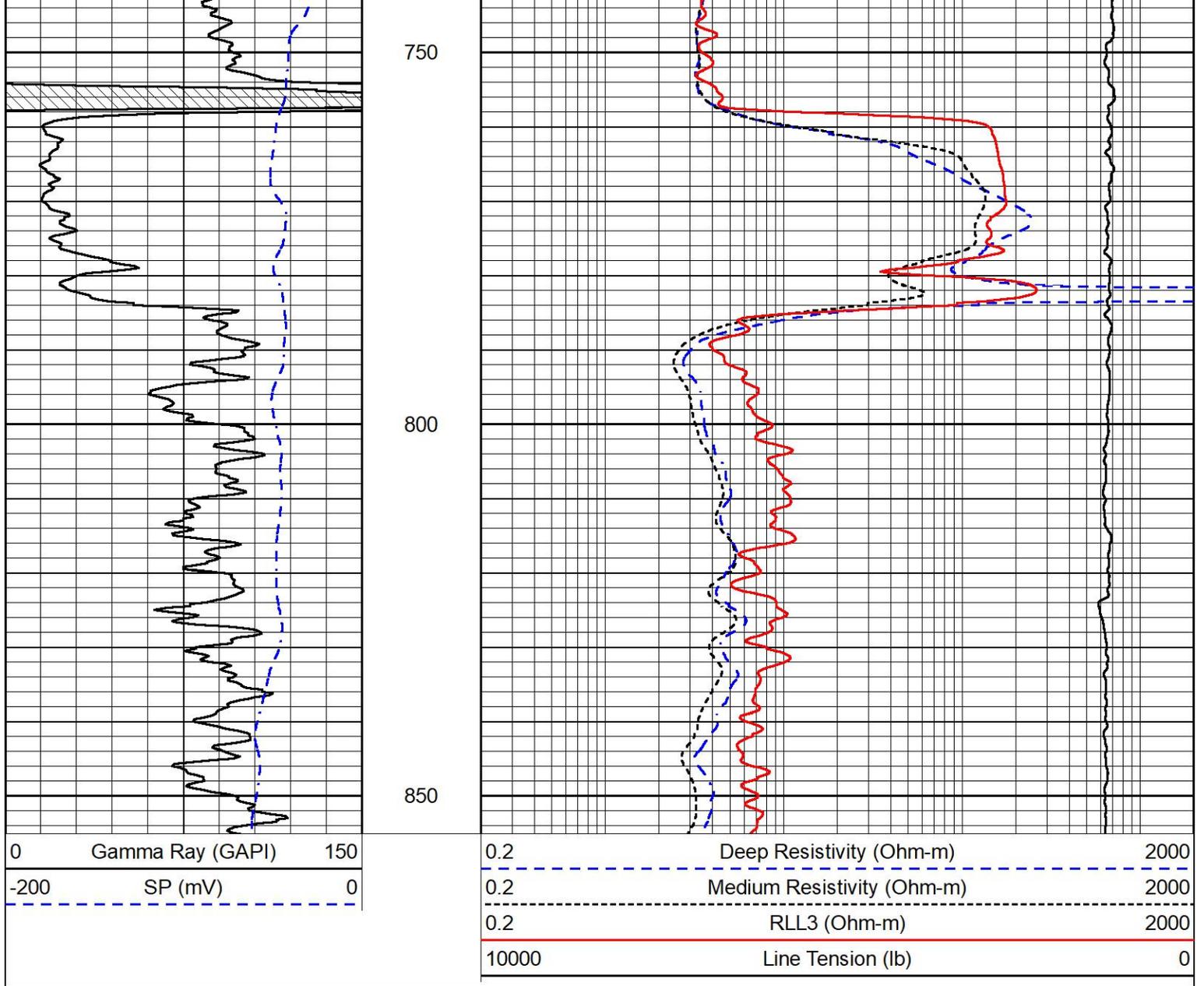
MIDWEST WIRELINE

# ANHYDRITE SECTION

## MAIN PASS

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 Presentation Format \_dil  
 Dataset Creation Sun Jan 29 12:18:35 2023  
 Charted by Depth in Feet scaled 1:240

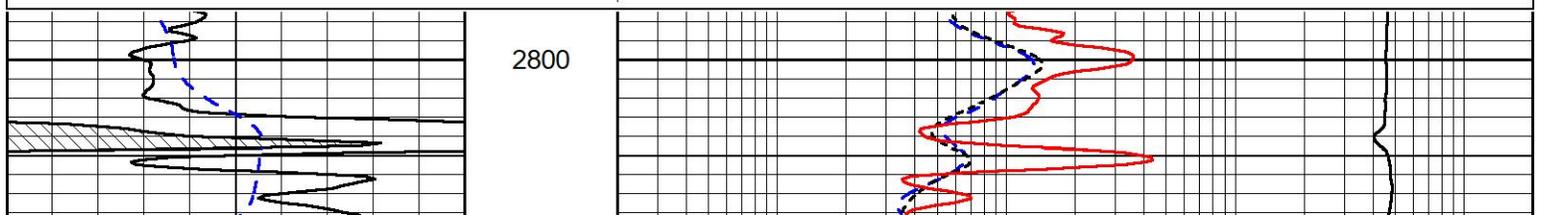
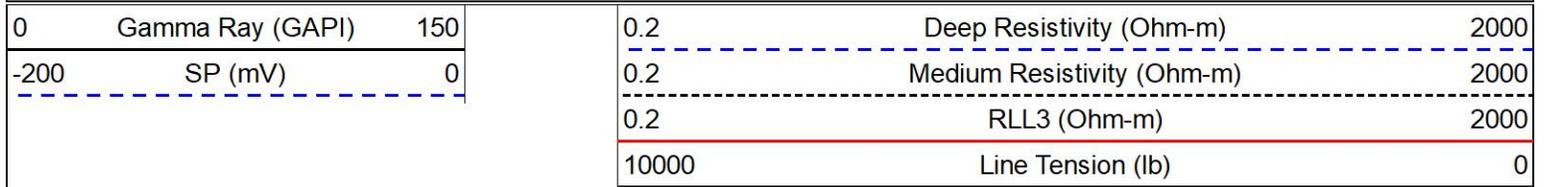


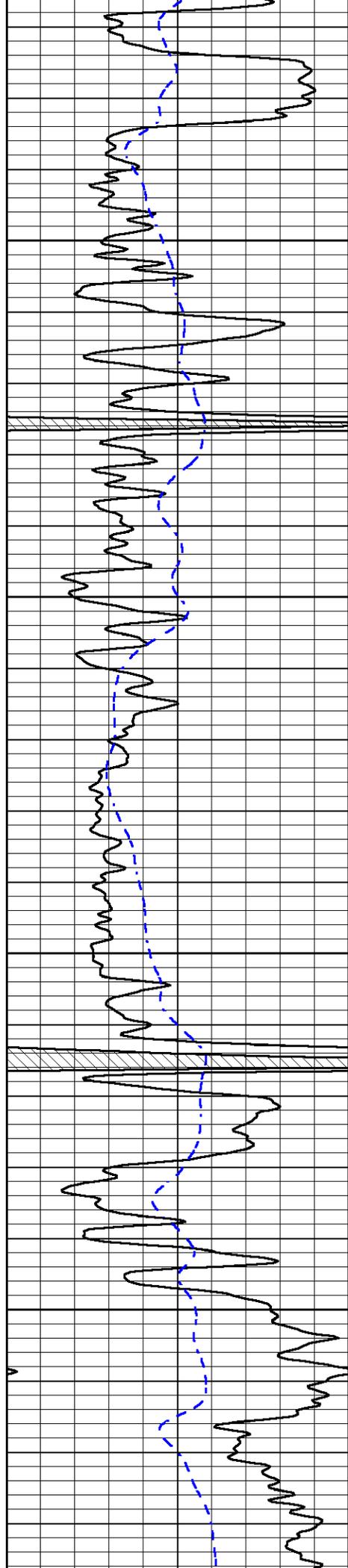


## DETAIL SECTION

### MAIN PASS

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 Presentation Format \_dil  
 Dataset Creation Sun Jan 29 12:18:18 2023  
 Charted by Depth in Feet scaled 1:240



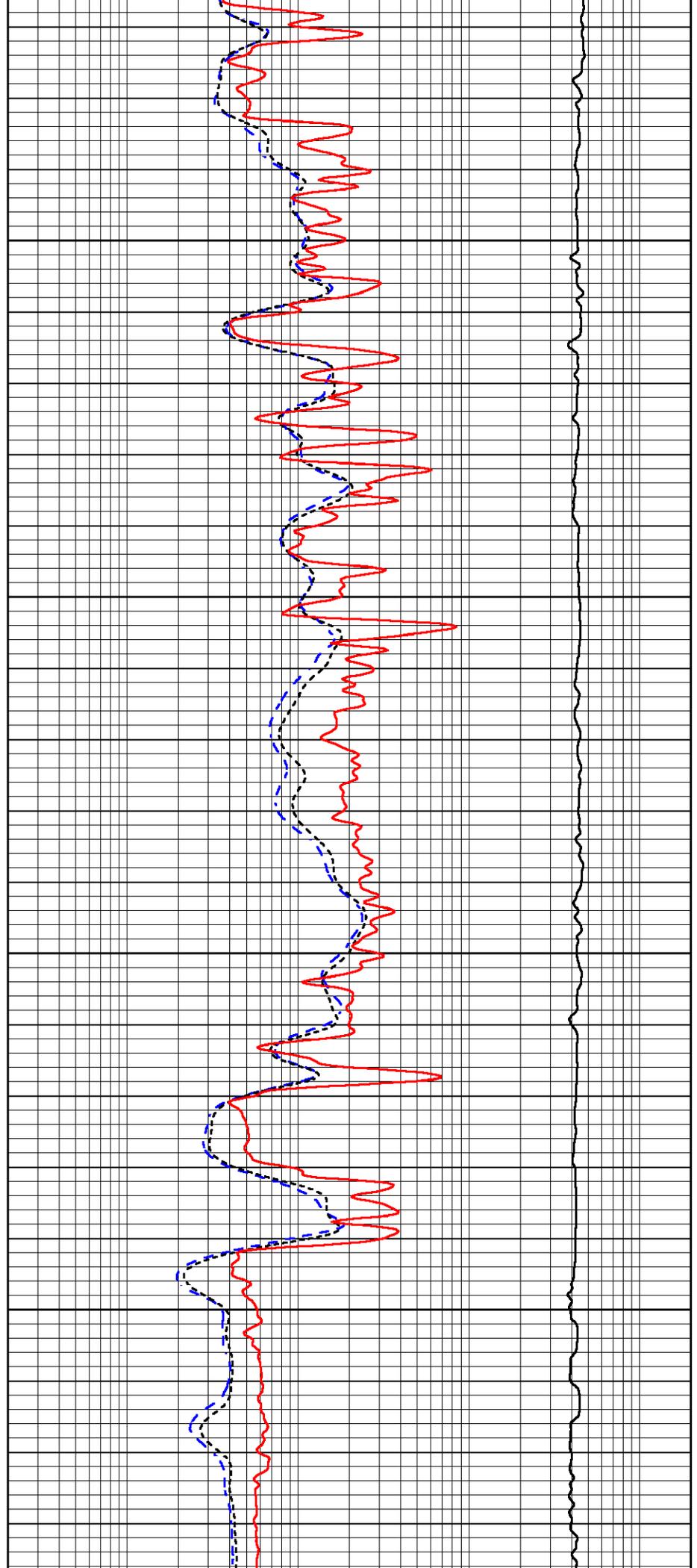


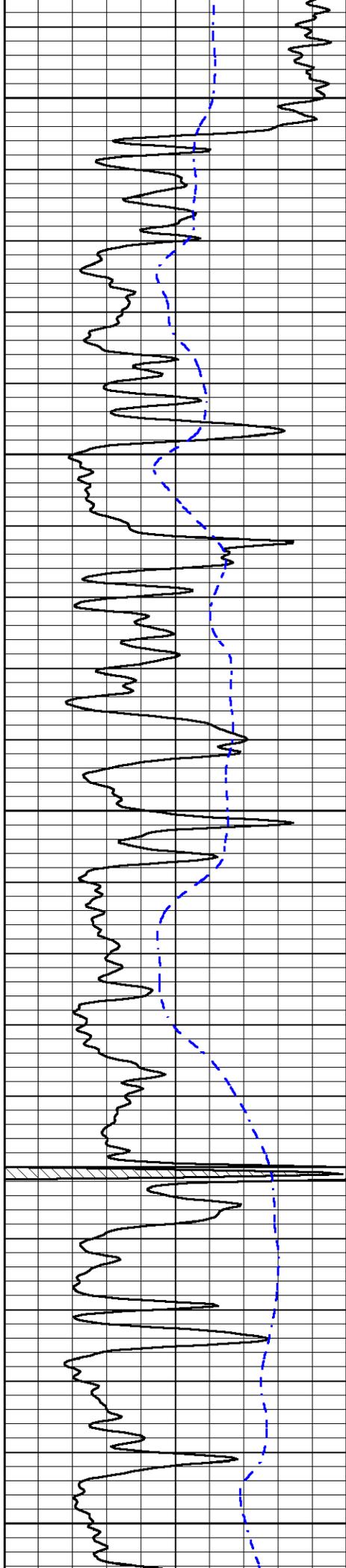
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2900

2950

3000





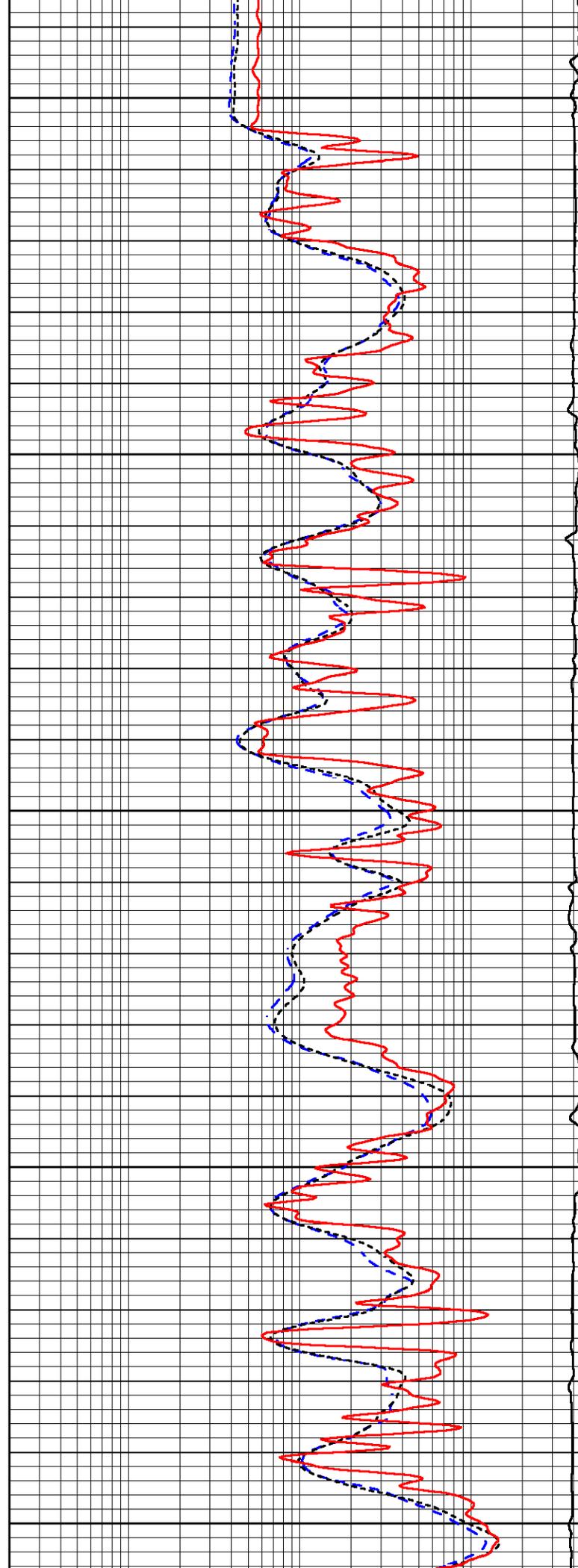
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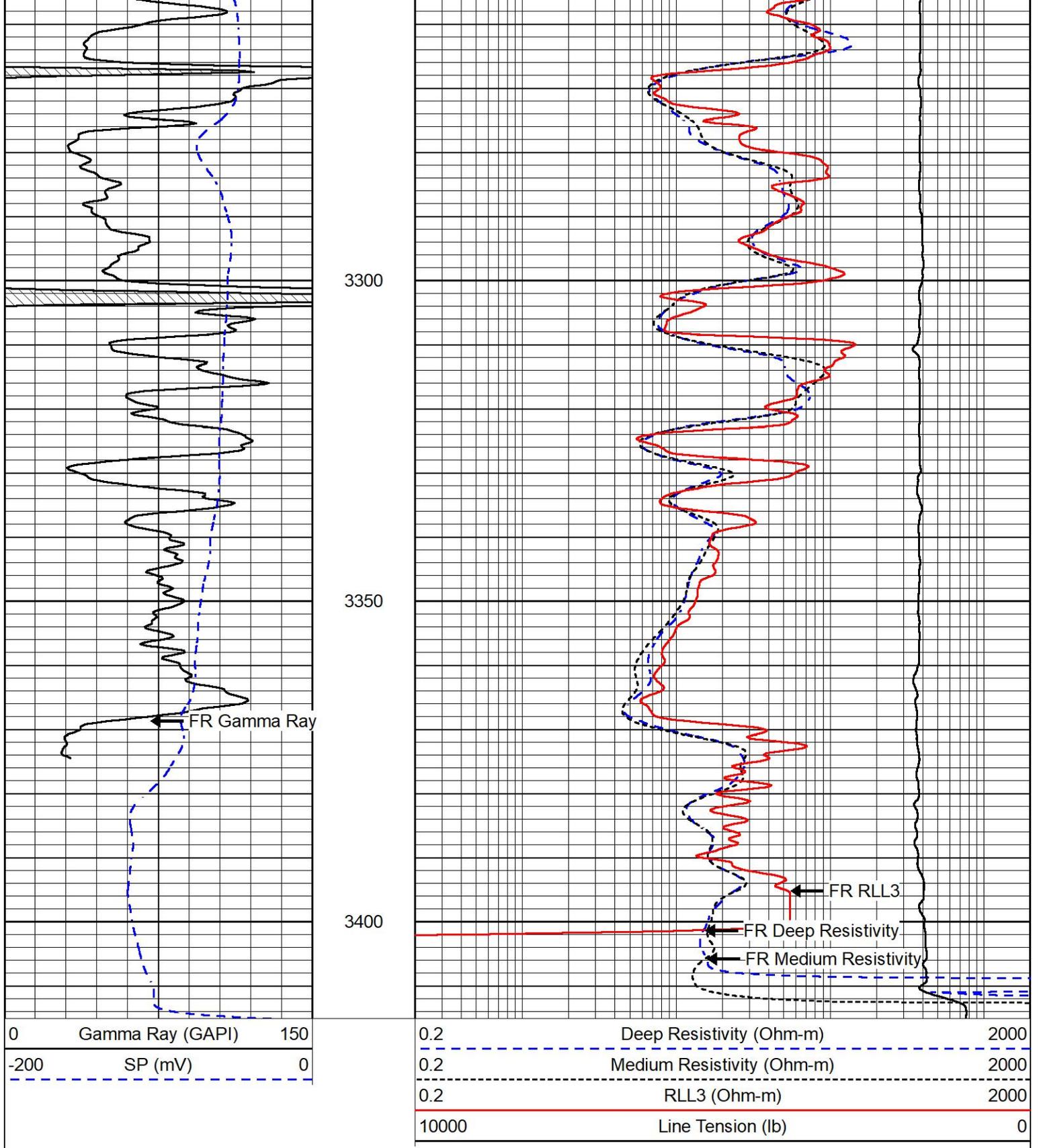
3100

3150

3200

3250





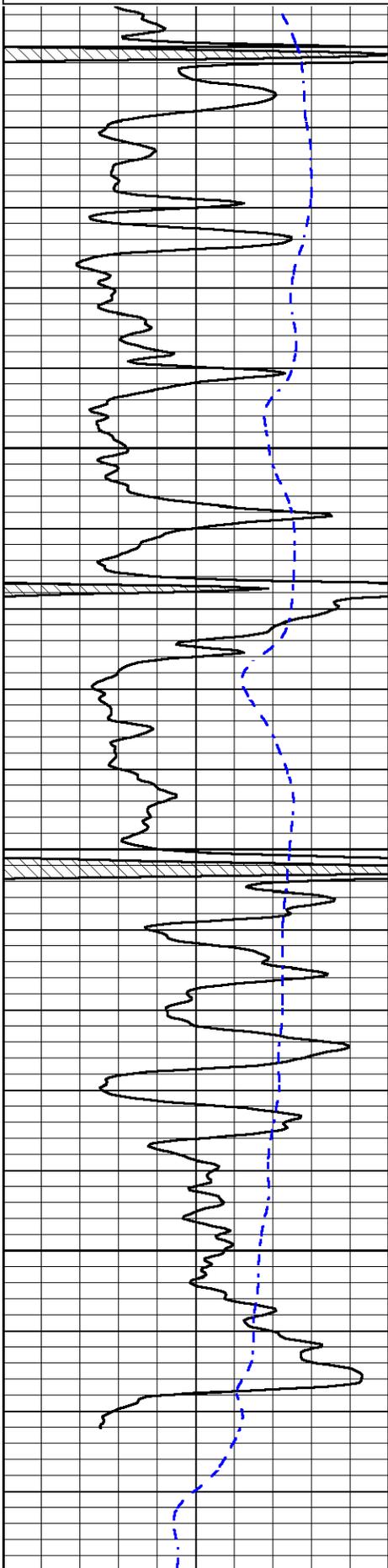
## REPEAT SECTION

REPEAT PASS

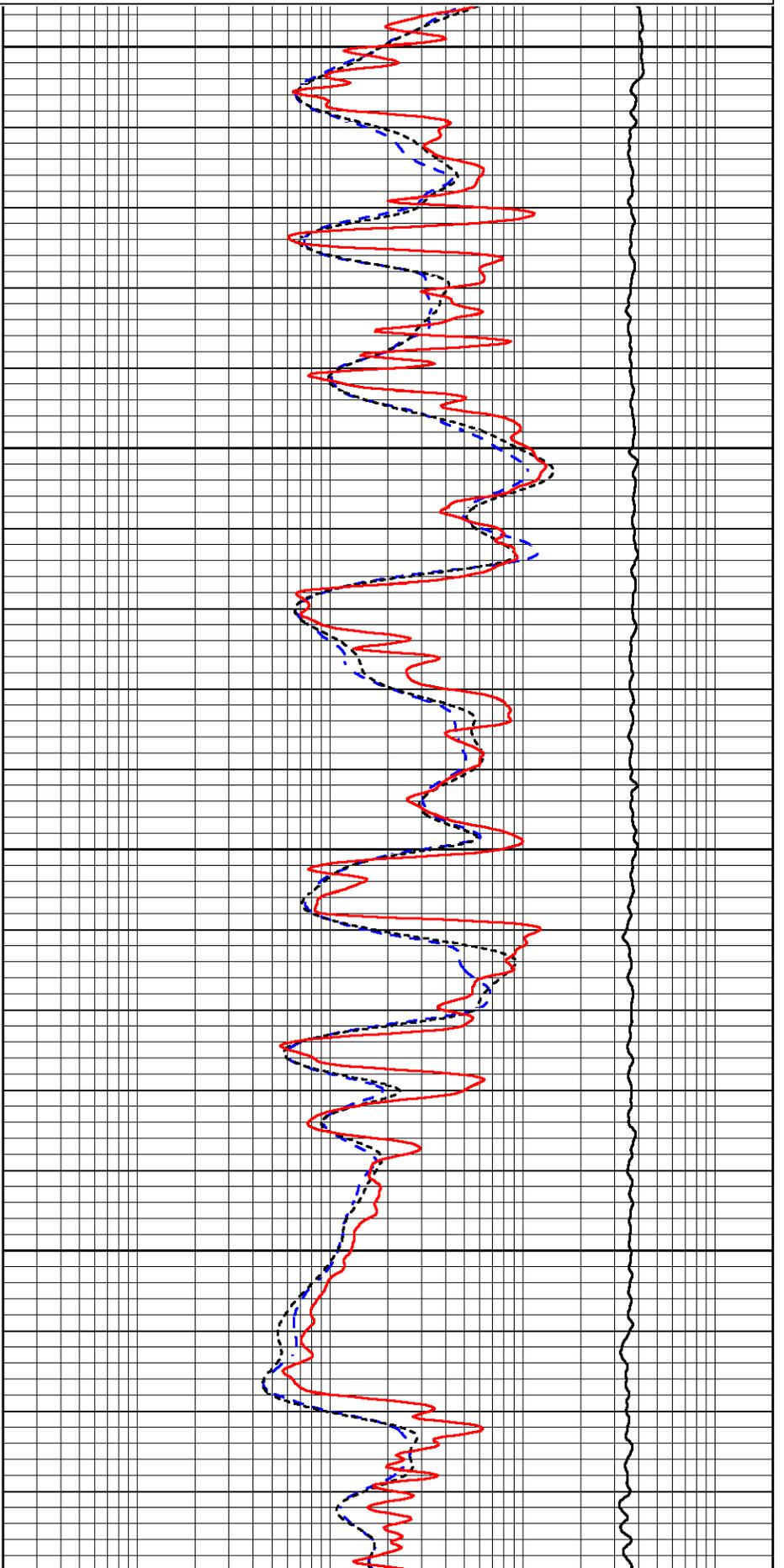
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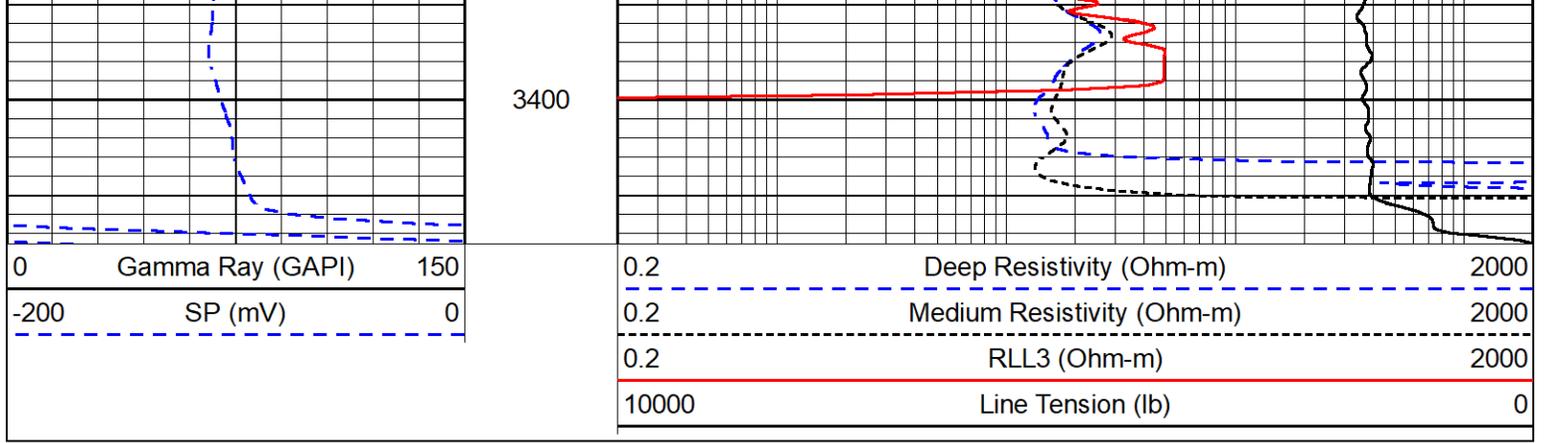
0	Gamma Ray (GAPI)	150
-200	SP (mV)	0

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



3200  
3250  
3300  
3350





**Calibration Report**

Database File      webco\_schauf w 1.db  
 Dataset Pathname    stkml/pass8.1  
 Dataset Creation     Sun Jan 29 12:18:18 2023

**Dual Induction Calibration Report**

Serial-Model:                      504 HT-M&W  
 Surface Cal Performed:            Wed Jan 25 21:25:46 2023

Loop:	Readings		References			Results	
	Air	Loop	Air	Loop		m	b
Deep	178.615	710.235	0.000	255.800	mmho/m	0.570	-20.000
Medium	161.982	1441.110	0.000	255.800	mmho/m	0.390	-36.000

**Microlog Calibration Report**

Serial-Model:                      402-PSI STKBL ML  
 Performed:                         Wed Jan 25 21:26:04 2023

	Readings		References			Results	
	Zero	Cal	Zero	Cal		m	b
Normal	0.0037	0.0043	0.0000	10.0000	Ohm-m	28000.0000	-1.3000
Inverse	0.1208	0.0013	0.0000	10.0000	Ohm-m	33000.0000	-1.0000
Caliper	1.0046	1.1419	5.5000	20.0000	in	50.0000	-44.4750

**Compensated Density Calibration Report**

Serial-Model:                      306-06-M&W  
 Source #:                            21170B  
 Master Calibration Performed:    Tue Dec 14 14:05:52 2021

**Master Calibration**

	Density		Far Detector	Near Detector	
Magnesium	1.755	g/cc	5193.26	4968.12	cps
Aluminum	2.685	g/cc	962.25	3144.87	cps

Spine Angle = 74.82

Density/Spine Ratio = 0.532

	Size		Reading
Small Ring	4.00	in	1.01

## 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:	Wed Jan 25 21:25:33 2023	
Calibrator Value:	500.0	GAPI
Background Reading:	28.0	cps
Calibrator Reading:	986.0	cps
Sensitivity:	0.5700	GAPI/cps



Company	WEBCO Oil Company, Inc.
Well	Schauf W #1
Field	Kraft-Prusa
County	Barton
State	Kansas