



# DUAL INDUCTION LOG

Company CHIZUM OIL, LLC  
 Well GASKILL #2-35  
 Field UNKNOWN  
 County SHERMAN  
 State KANSAS

Company CHIZUM OIL, LLC  
 Well GASKILL #2-35  
 Field UNKNOWN  
 County SHERMAN State KANSAS

Location: 335' FSL & 1382' FEL  
 SEC 35 TWP 7S RGE 37W  
 Permanent Datum GROUND LEVEL Elevation 3462'  
 Log Measured From KELLY BUSHING  
 Drilling Measured From KELLY BUSHING  
 Other Services CNL/CDL  
 Elevation K.B. 3467', D.F. N/A, G.L. 3462'

Date	4/19/2019
Run Number	ONE
Depth Driller	5034'
Depth Logger	5034'
Bottom Logged Interval	5033'
Top Log Interval	300'
Casing Driller	8.625" @ 345'
Casing Logger	346'
Bit Size	7.875"
Type Fluid in Hole	CHEMICAL
Salinity, ppm CL	8000
Density / Viscosity	9.5 49
pH / Fluid Loss	10.0 8.8
Source of Sample	FLOWLINE
Rm @ Meas. Temp	0.30 @ 60
Rmt @ Meas. Temp	0.23 @ 60
Rmc @ Meas. Temp	0.41 @ 60
Source of Rmf / Rmc	CHARTS
Rm @ BHT	0.14 @ 126
Operating Rig Time	4 HOURS
Max Rec. Temp. F	126
Equipment Number	P-24
Location	HAYS
Recorded By	D. SCHMIDT
Witnessed By	TIM PRIEST

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All interpretations are opinions based on inferences from electrical or other measurements and Pioneer Wireline Services, LLC cannot and does not guarantee the accuracy or correctness of any interpretation, and Pioneer Wireline Services, 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.

BREWSTER,  
 NORTH TO S RD, 2 WEST,  
 NORTH INTO

Log Measured From: KELLY BUSHING 5 Ft. Above Permanent Datum

THANK YOU FOR USING PIONEER ENERGY SERVICES  
[www.pioneerenergy.com](http://www.pioneerenergy.com) 785-625-3858

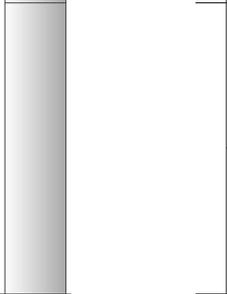
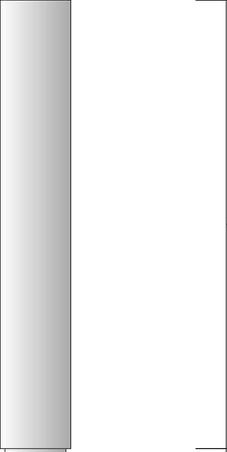
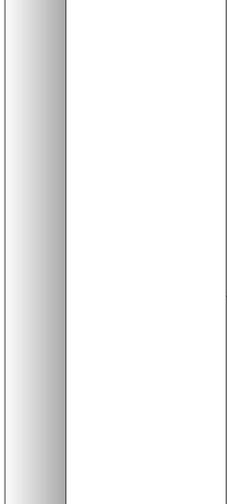
Your Pioneer Energy Services Crew	This Log Record Was Witnessed By
Engineer: D. SCHMIDT	Primary Witness: TIM PRIEST
Operator:	Secondary Witness:
Operator:	Secondary Witness:
Operator:	Secondary Witness:

# Log Variables

DatabaseC:\ProgramData\Warrior\Data\chizum\_gaskill 2-35.db  
 Dataset field/well/STKML/pass99/\_vars\_

## Top - Bottom

A	BOREID in	BOTTEMP degF	CASEOD in	CASETHCK in	FLUIDDEN g/cc	M	MATRXDEN g/cc
1	7.875	100	5.5	0	1	2	2.71
NPORSEL	PERFS	SNDERR mmho/m	SNDERRM mmho/m	SPSHIFT mV	SRFTEMP degF	SZCOR	TDEPTH ft
Limestone	0	0	0	400	0	Off	0

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
GR	33.00		GR-M&W (89)	3.00	3.50	50.00
CNLSC CNSSC	29.90 29.15		CNT-M&W (207-MW)	5.50	3.50	100.00
LSD DCAL SSD	20.85 20.83 20.35		CDL-M&W (96-916)	8.50	4.00	250.00
RLL3F RLL3	15.80 15.80					
CILD	8.00		DIL-PSI HIGH TEMP (967 (HT))	18.50	3.50	220.00

CILM 4.70

SP 0.20

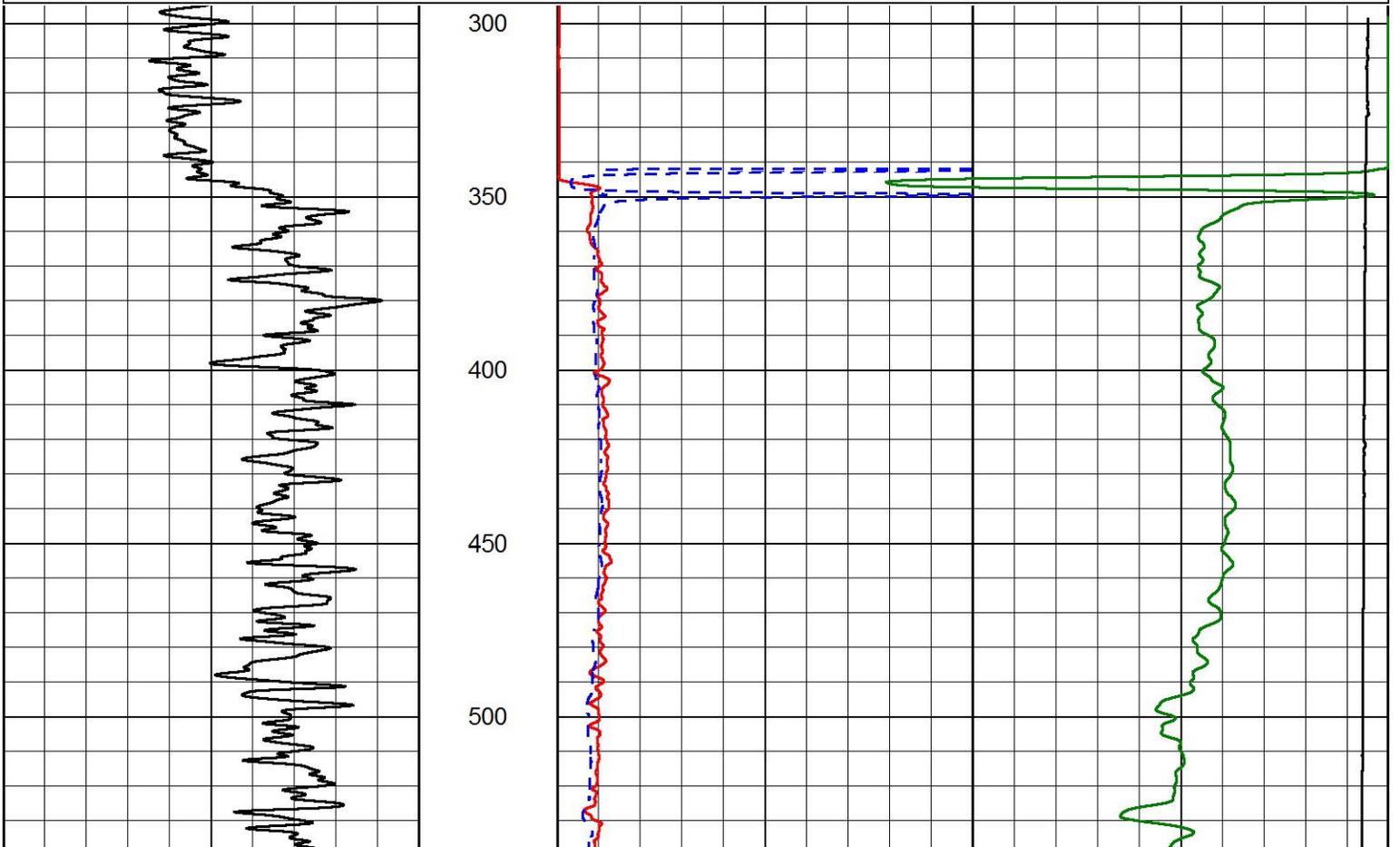
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 Total length: 35.50 ft  
 Total weight: 620.00 lb  
 O.D.: 4.00 in

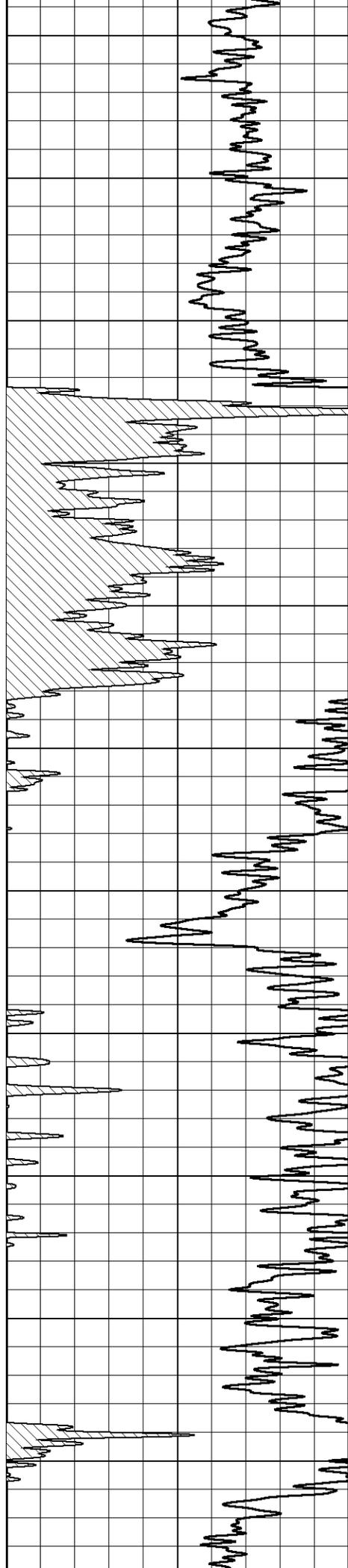


# MAIN PASS

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 Dataset Pathname STKML/pass99  
 Presentation Format \_dil2in  
 Dataset Creation Fri Apr 19 14:37:52 2019  
 Charted by Depth in Feet scaled 1:600

GAMMA RAY  (GAPI)	1000	CONDUCTIVITY (mmho/m)	0
	15000	Line Tension (lb)	0
	0	RLL3 (Ohm-m)	50
	0	DEEP RESISTIVITY (Ohm-m)	50
	50	RLL3 (Ohm-m)	500
	50	Deep Resistivity (Ohm-m)	500





550

600

650

700

750

800

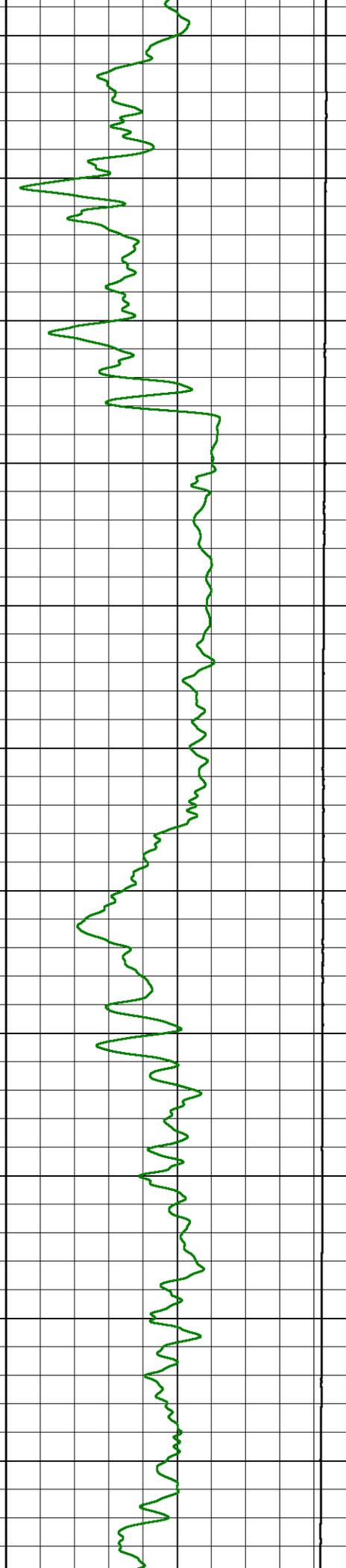
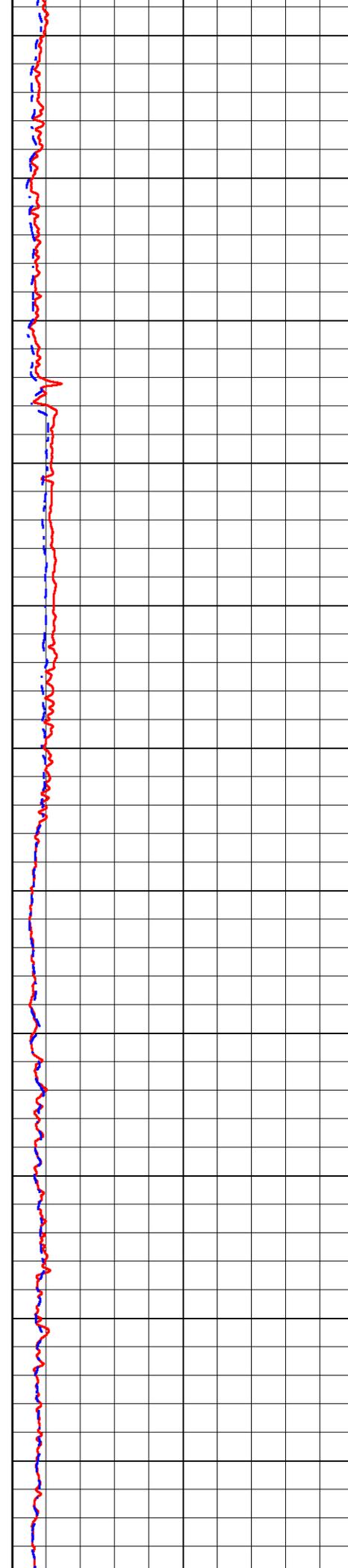
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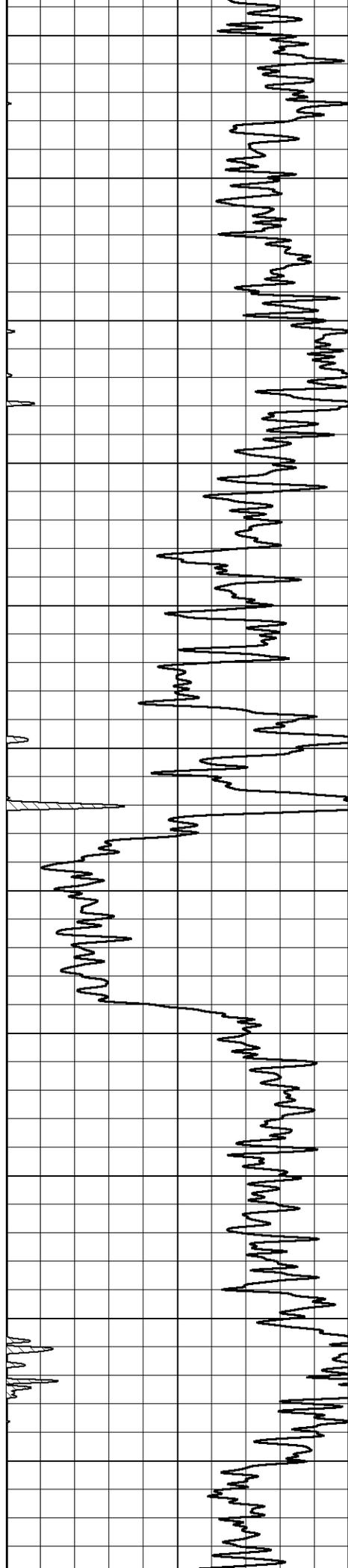
900

950

1000

1050





1100

1150

1200

1250

1300

1350

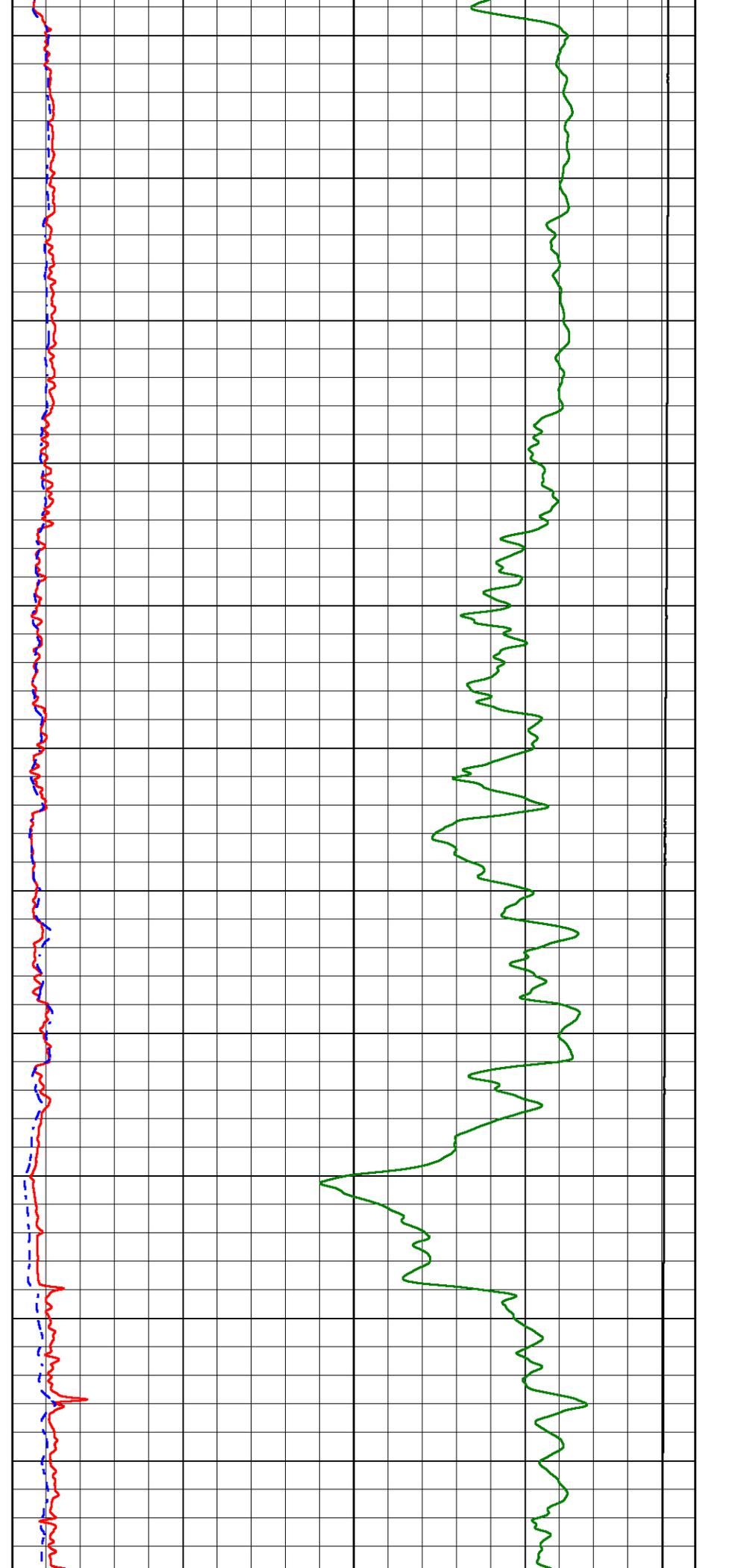
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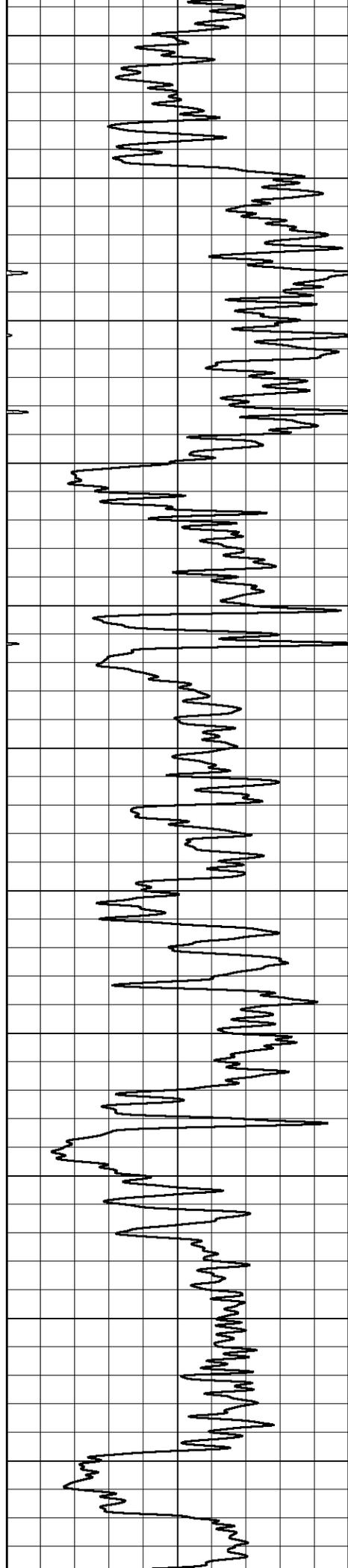
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1500

1550

1600





1650

1700

1750

1800

1850

1900

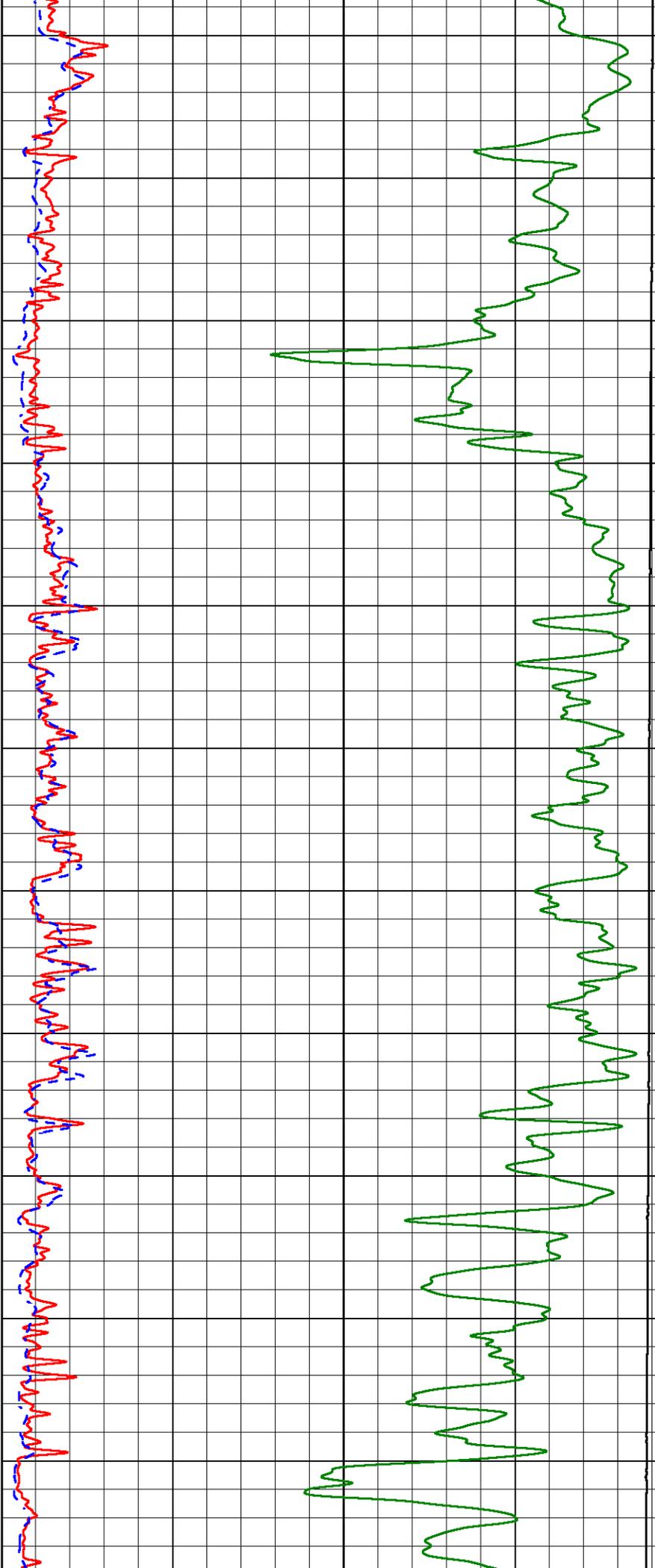
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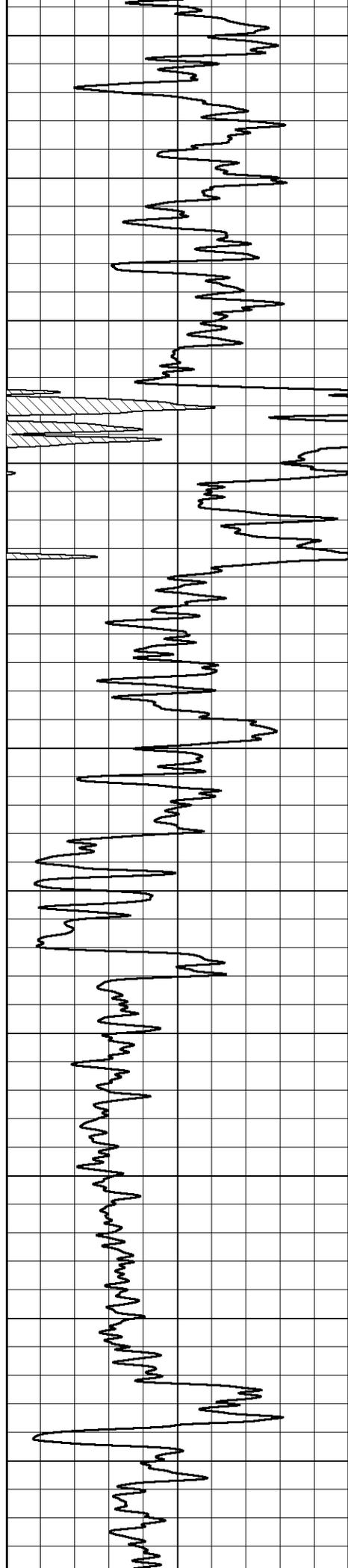
2000

2050

2100

2150





2200

2250

2300

2350

2400

2450

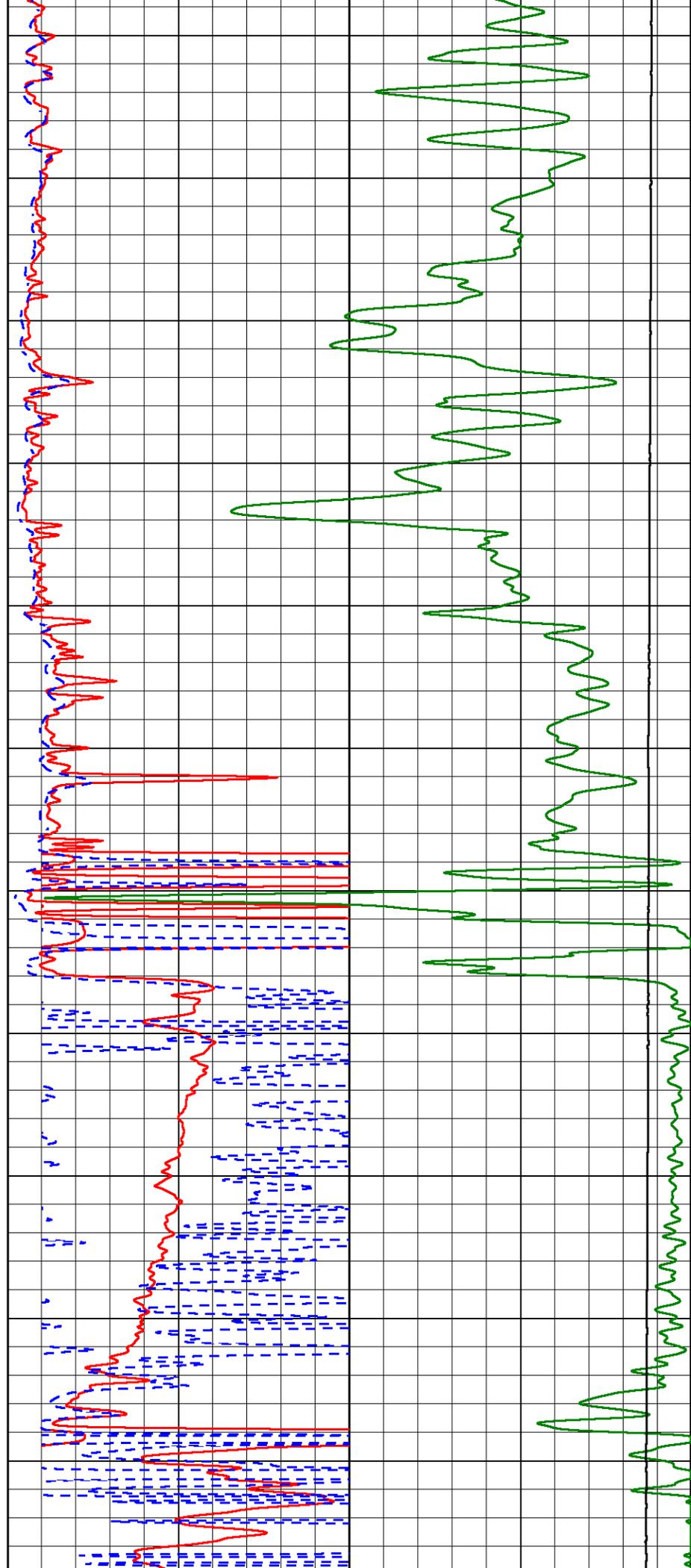
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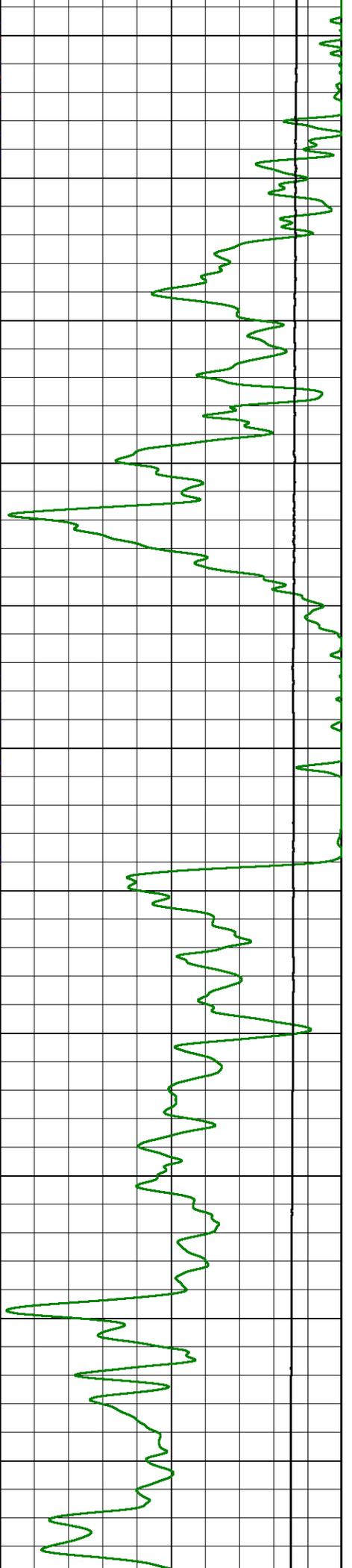
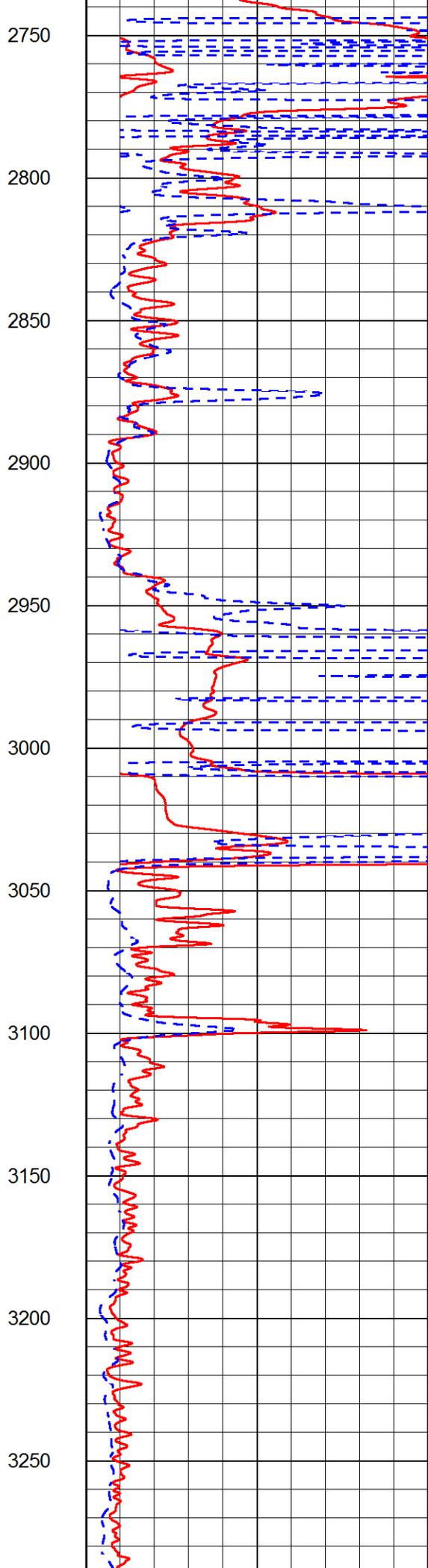
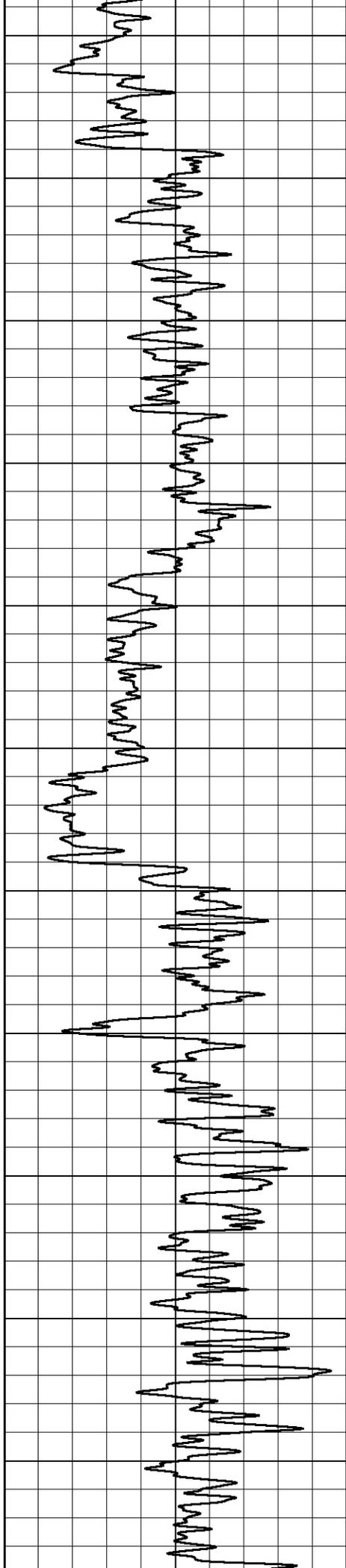
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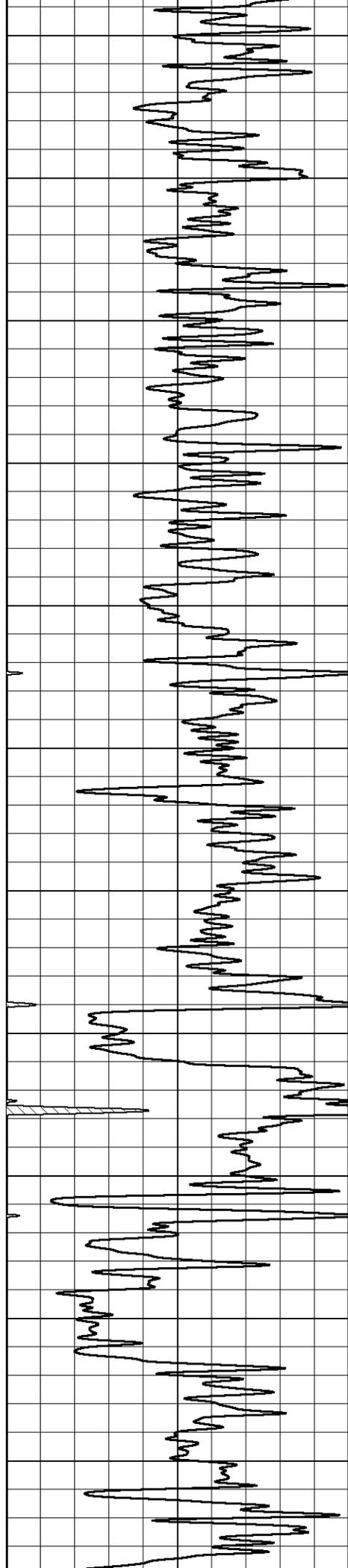
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2650

2700







3300

3350

3400

3450

3500

3550

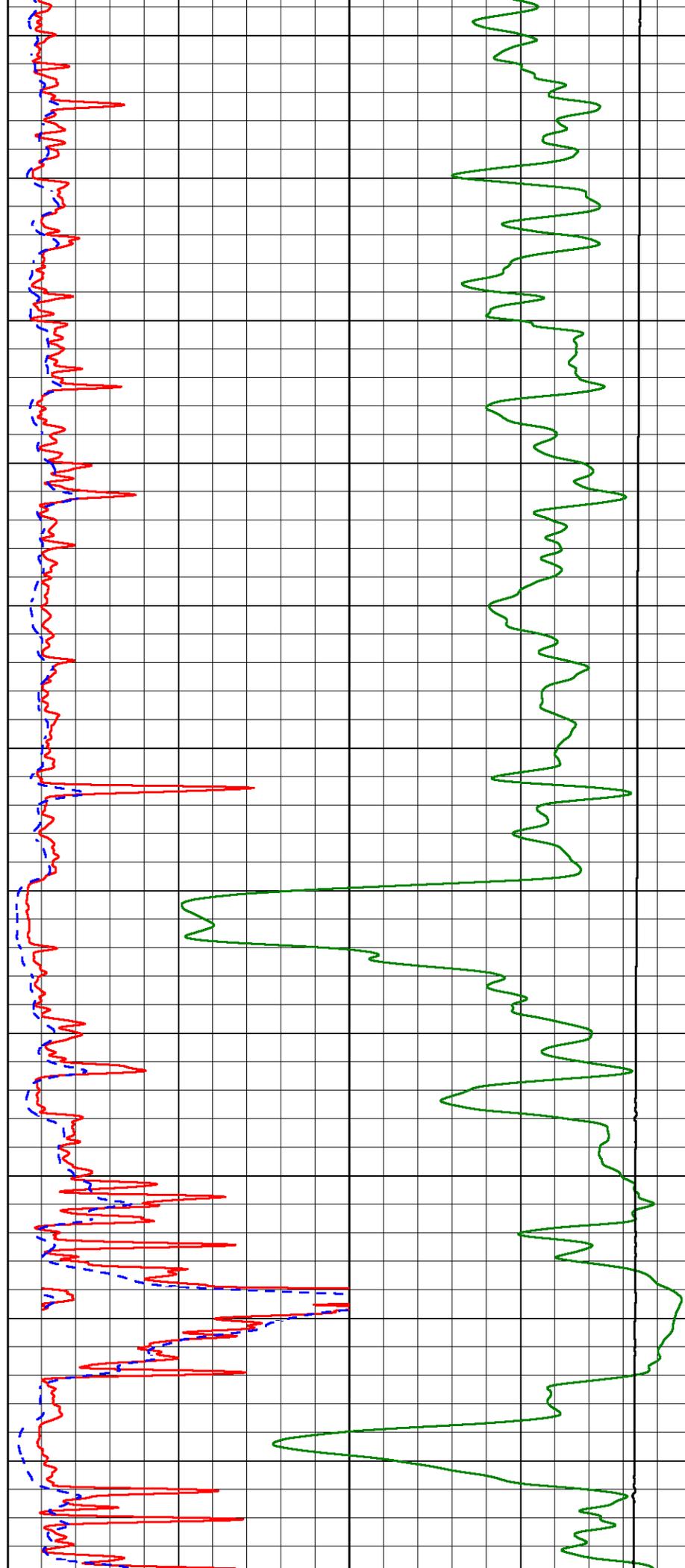
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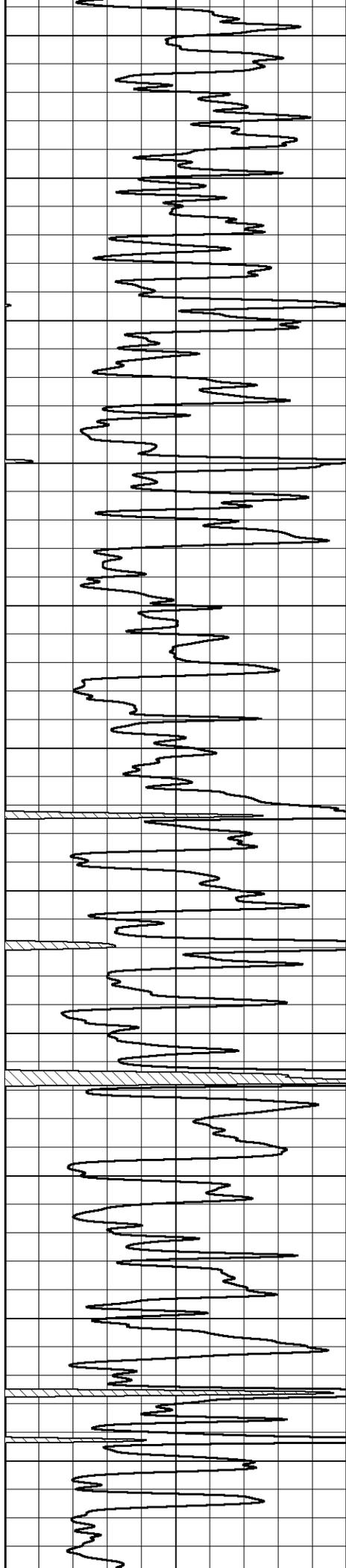
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3700

3750

3800





3850

3900

3950

4000

4050

4100

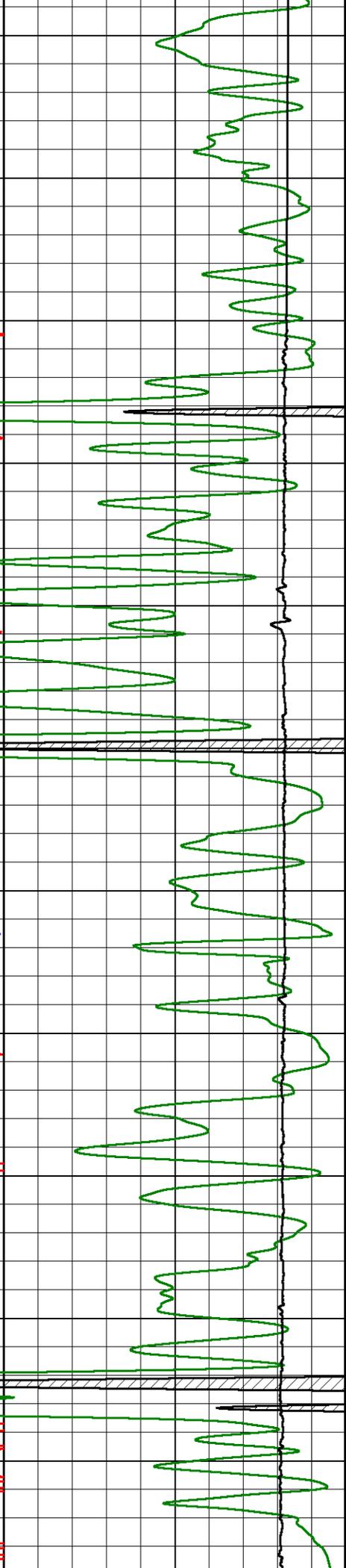
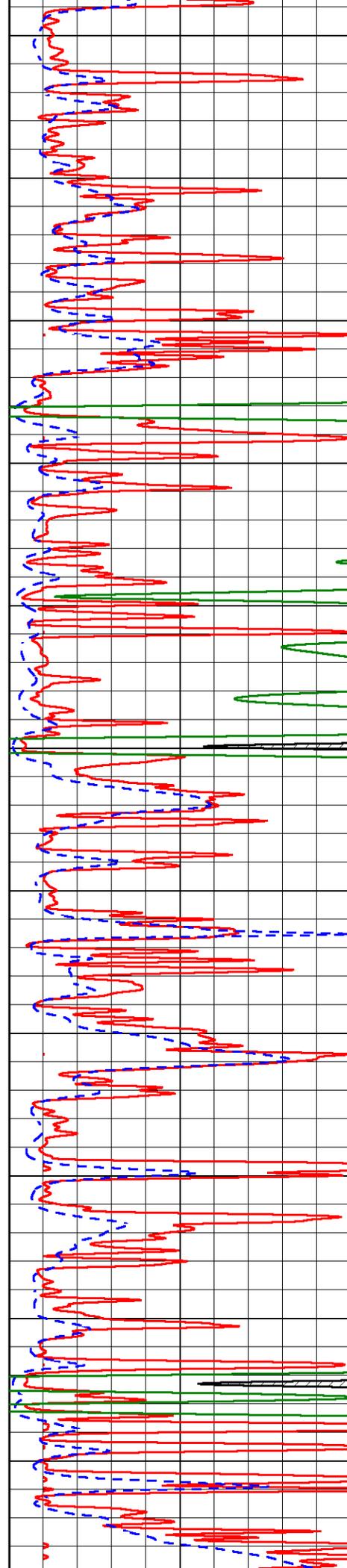
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4200

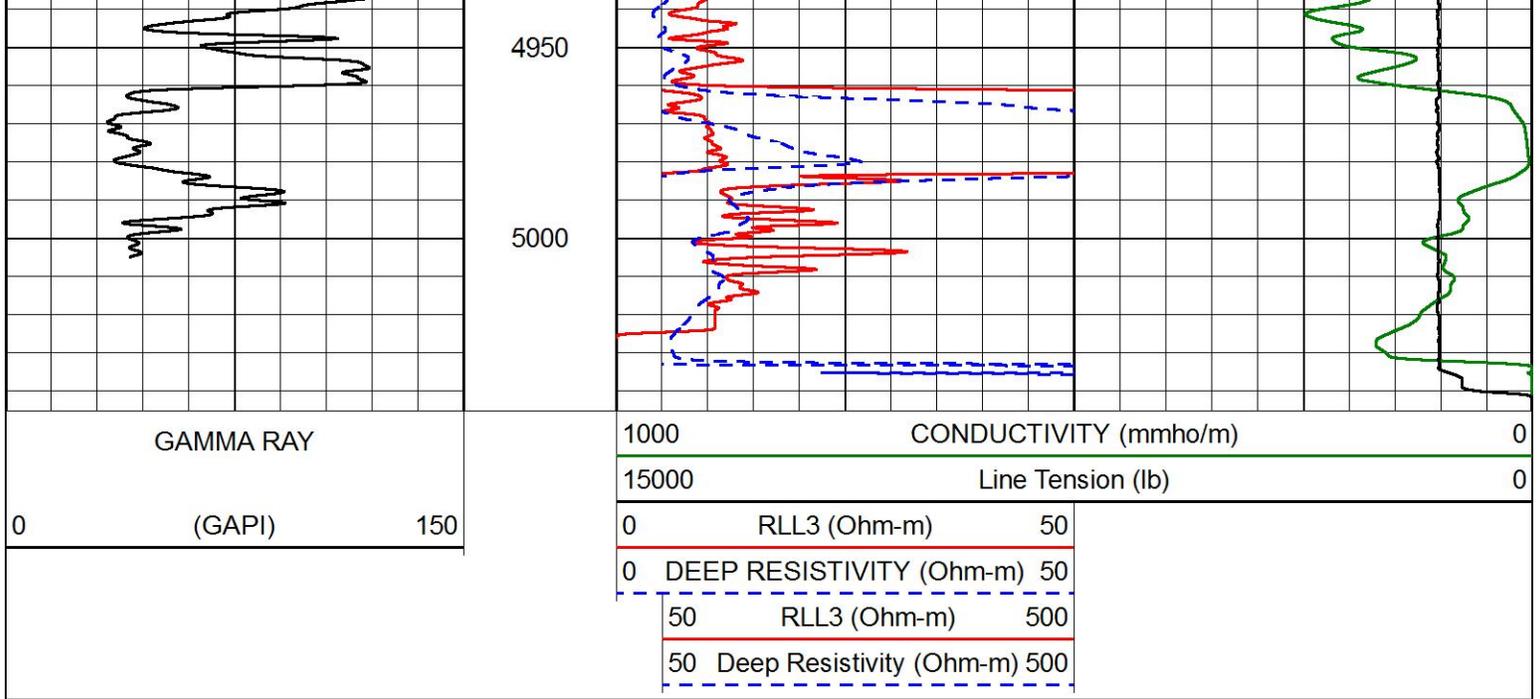
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4300

4350



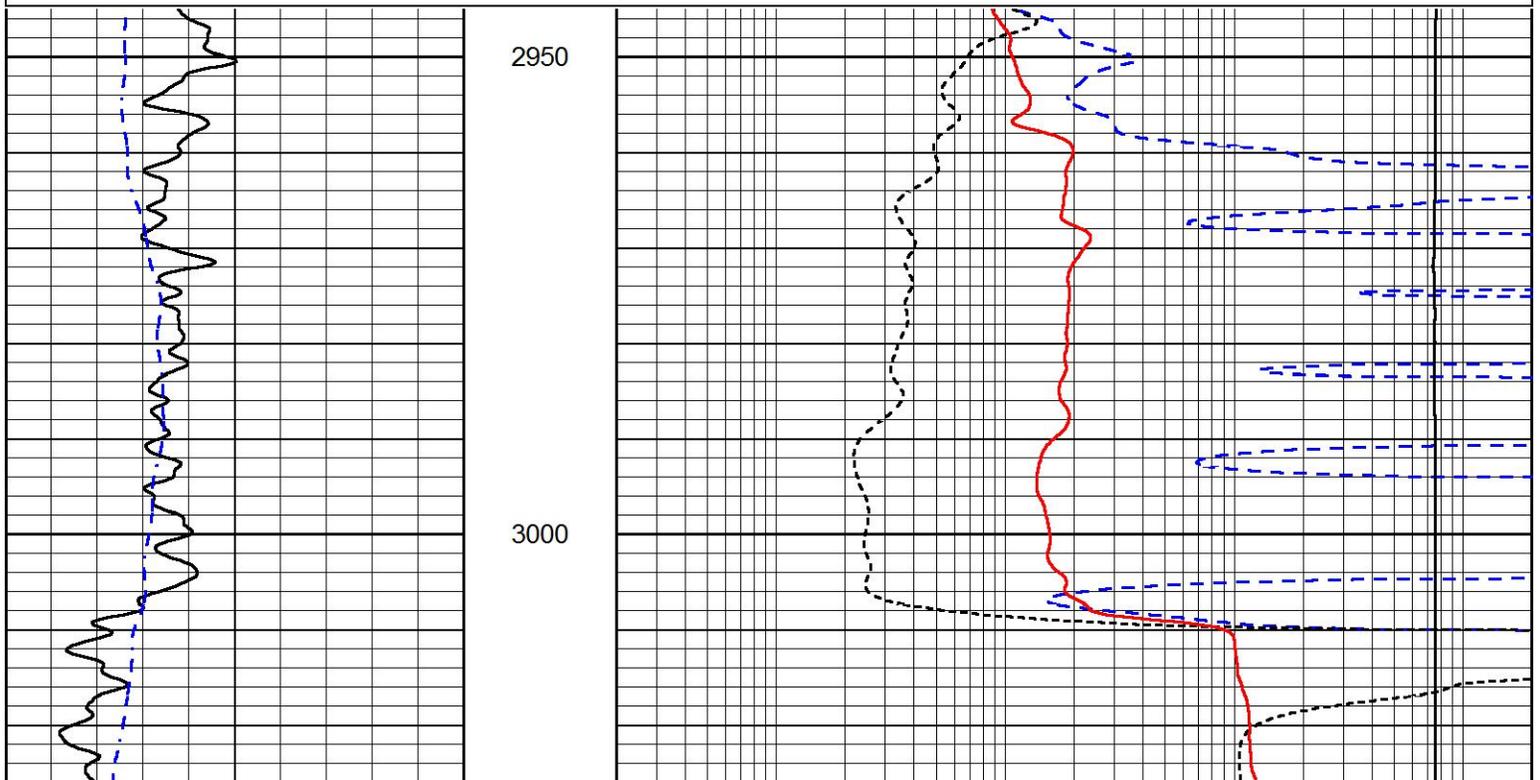


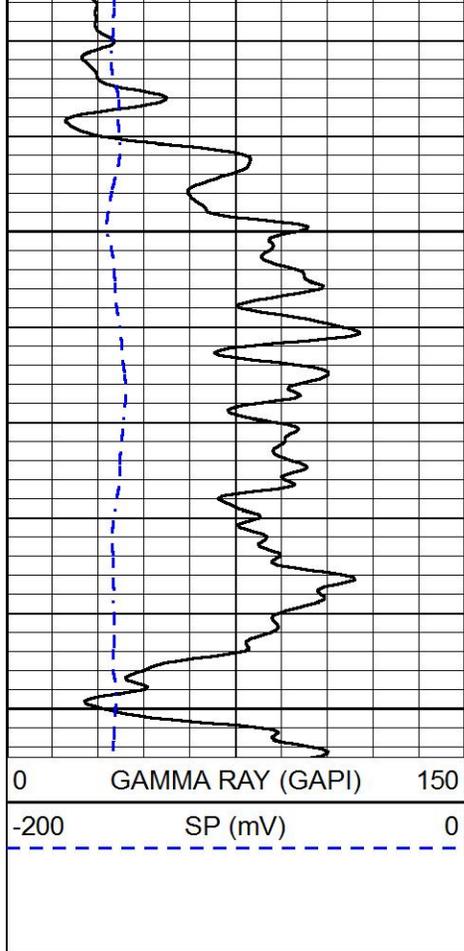


# MAIN PASS

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 Presentation Format \_dil  
 Dataset Creation Fri Apr 19 14:37:52 2019  
 Charted by Depth in Feet scaled 1:240

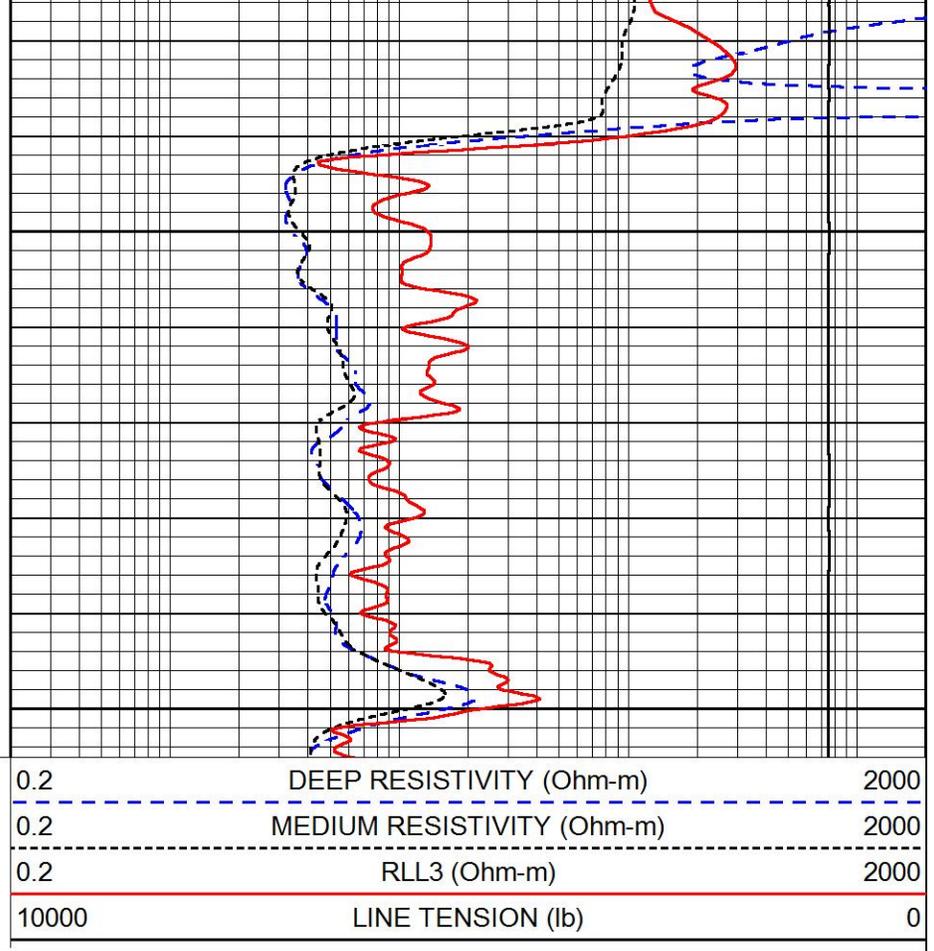
0	GAMMA RAY (GAPI)	150	0.2	DEEP RESISTIVITY (Ohm-m)	2000
-200	SP (mV)	0	0.2	MEDIUM RESISTIVITY (Ohm-m)	2000
			0.2	RLL3 (Ohm-m)	2000
			10000	LINE TENSION (lb)	0





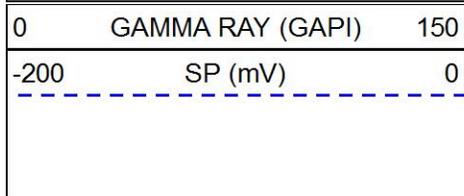
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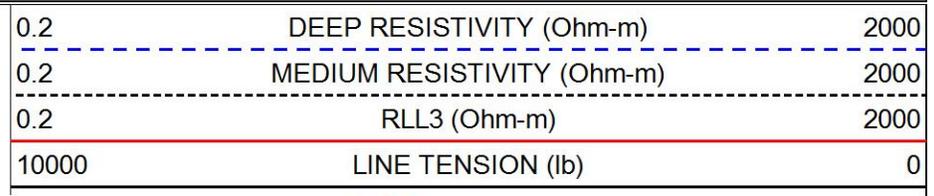


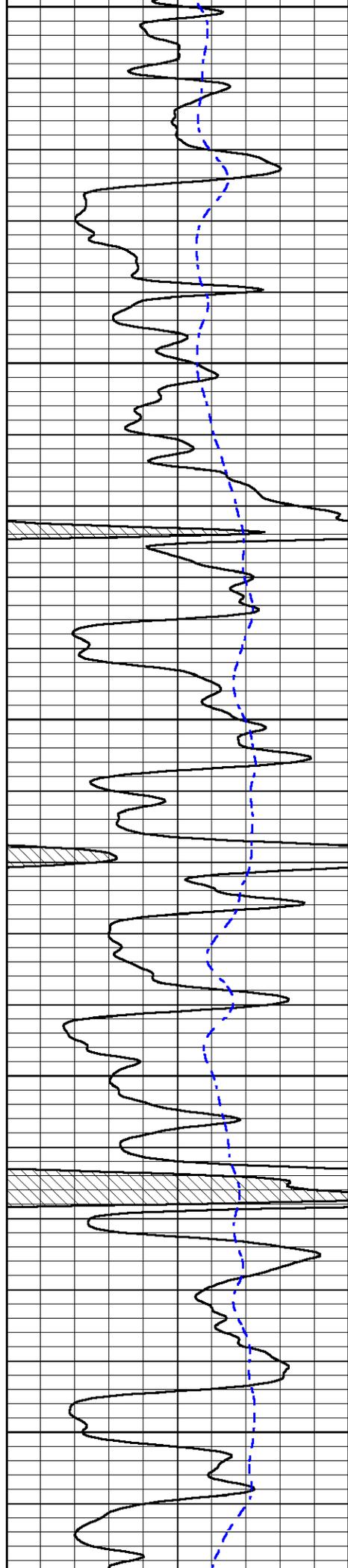
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 Dataset Creation Fri Apr 19 14:37:52 2019  
 Charted by Depth in Feet scaled 1:240



4000





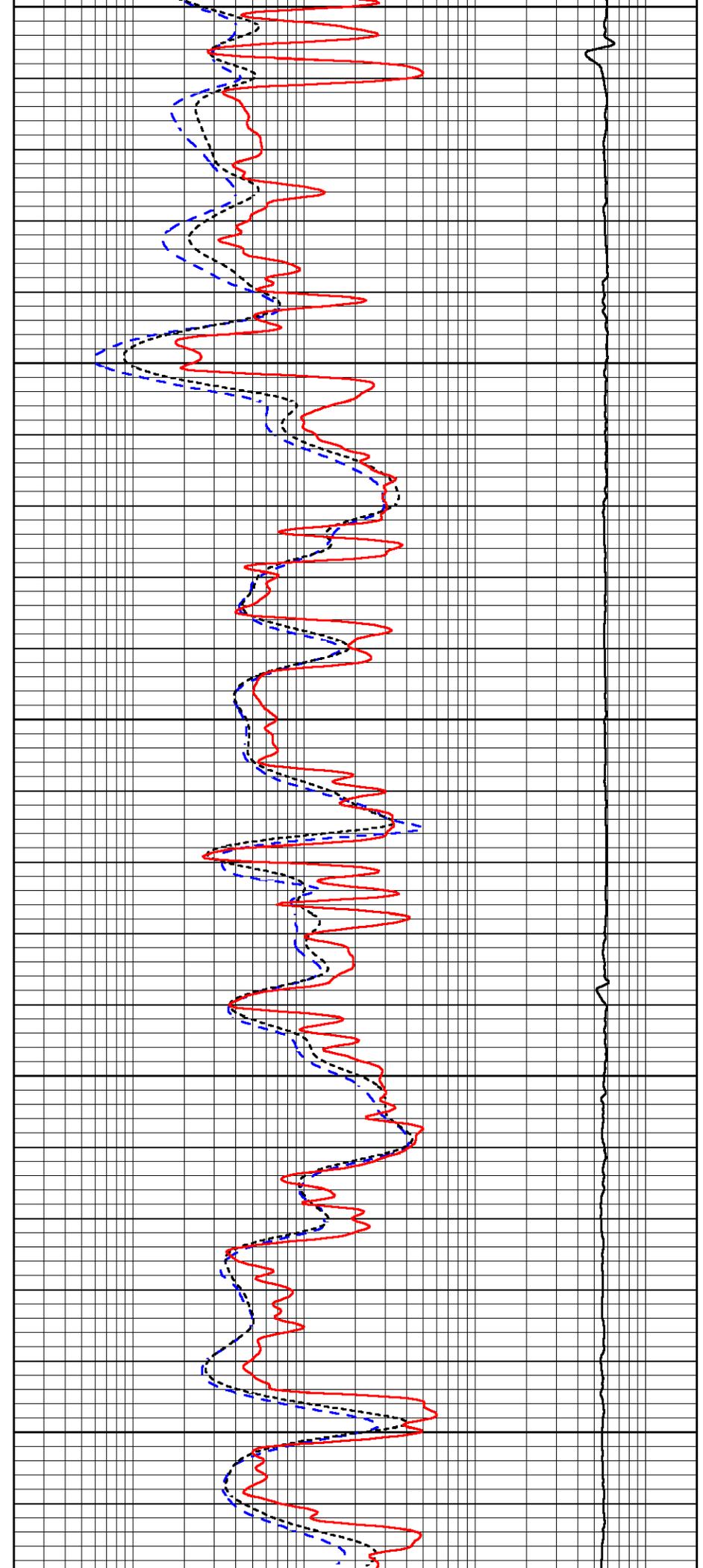
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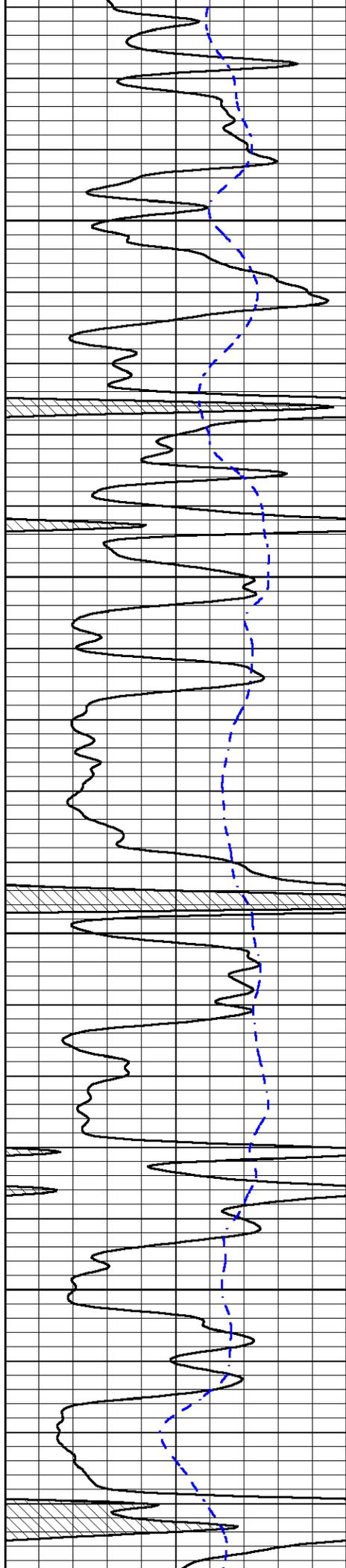
4100

4150

4200

4250



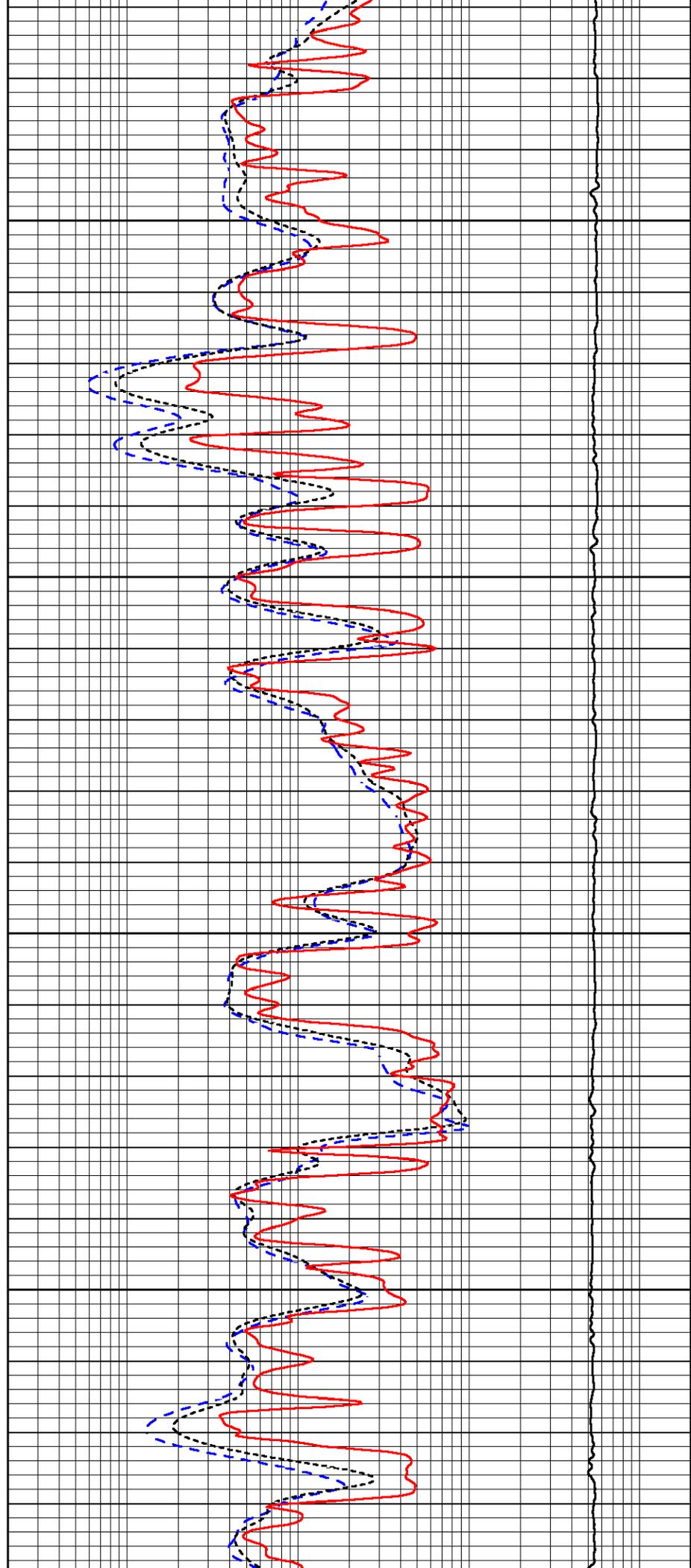


4300

4350

4400

4450

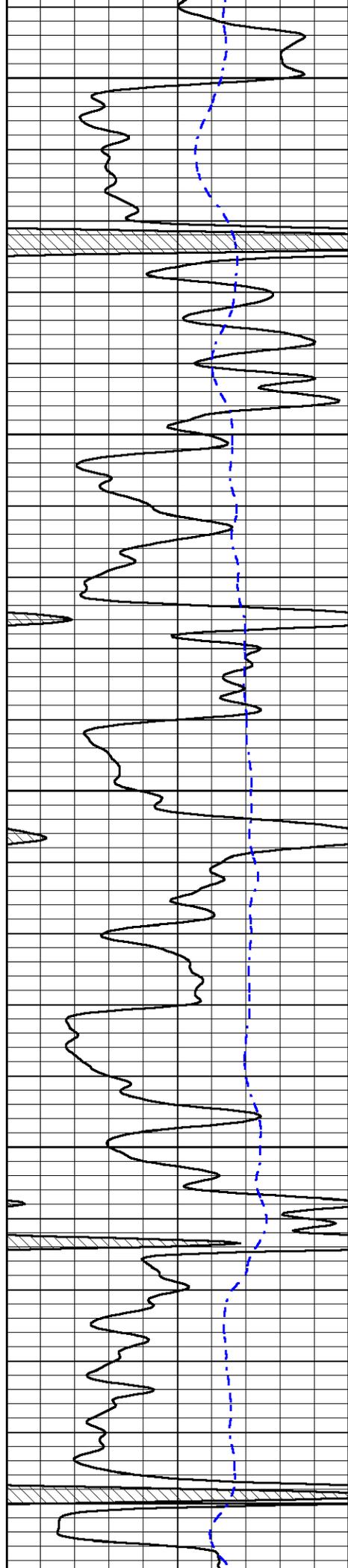


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4400

4450



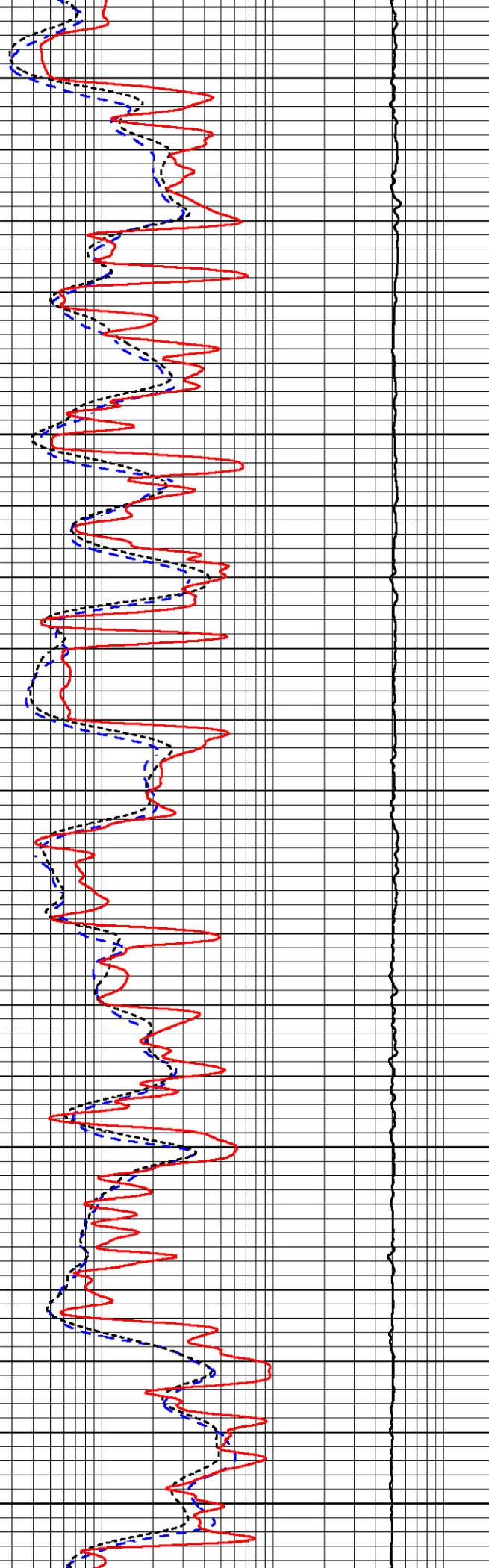
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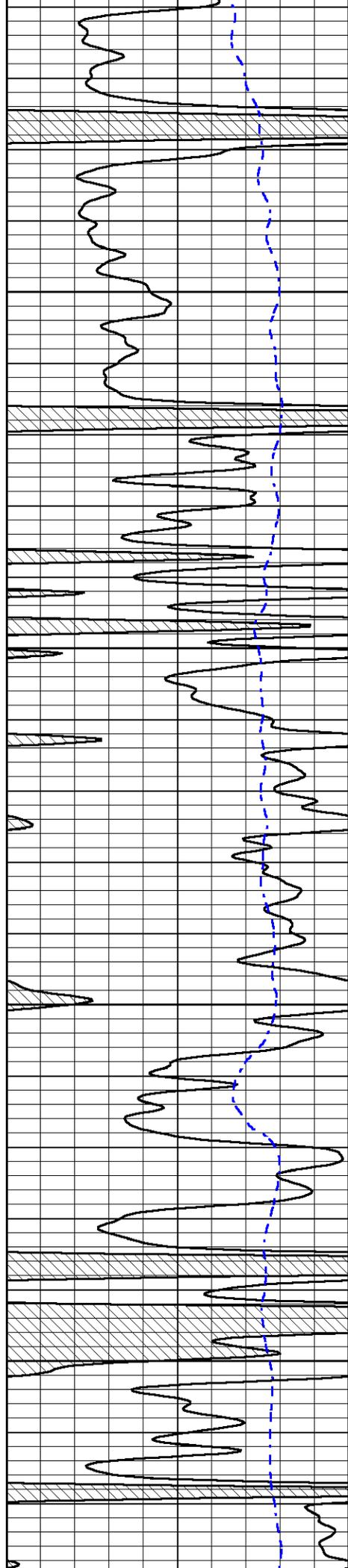
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4600

4650

4700



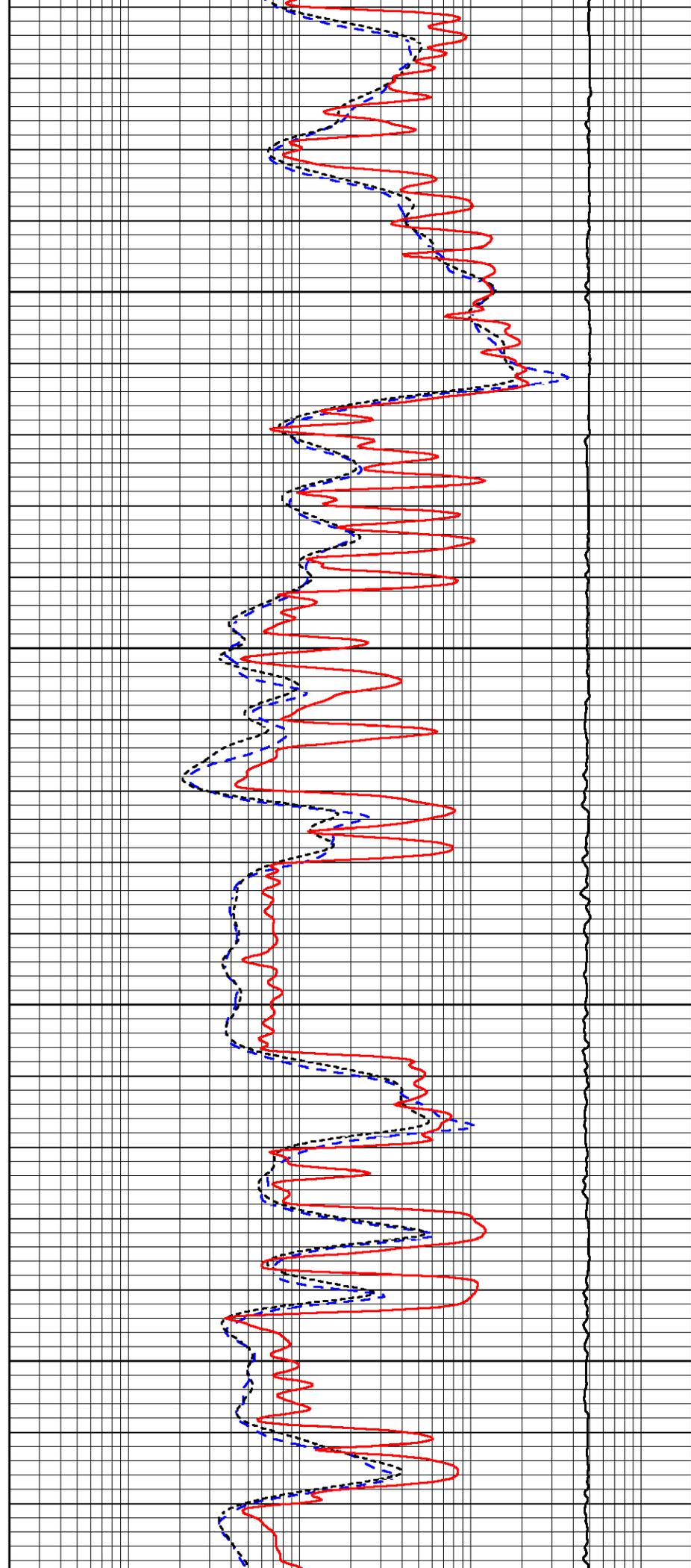


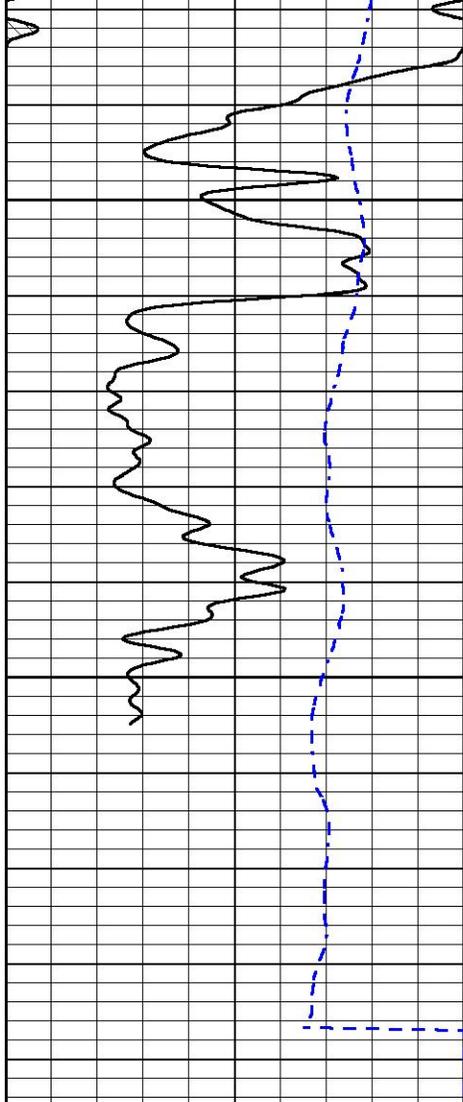
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4800

4850

4900

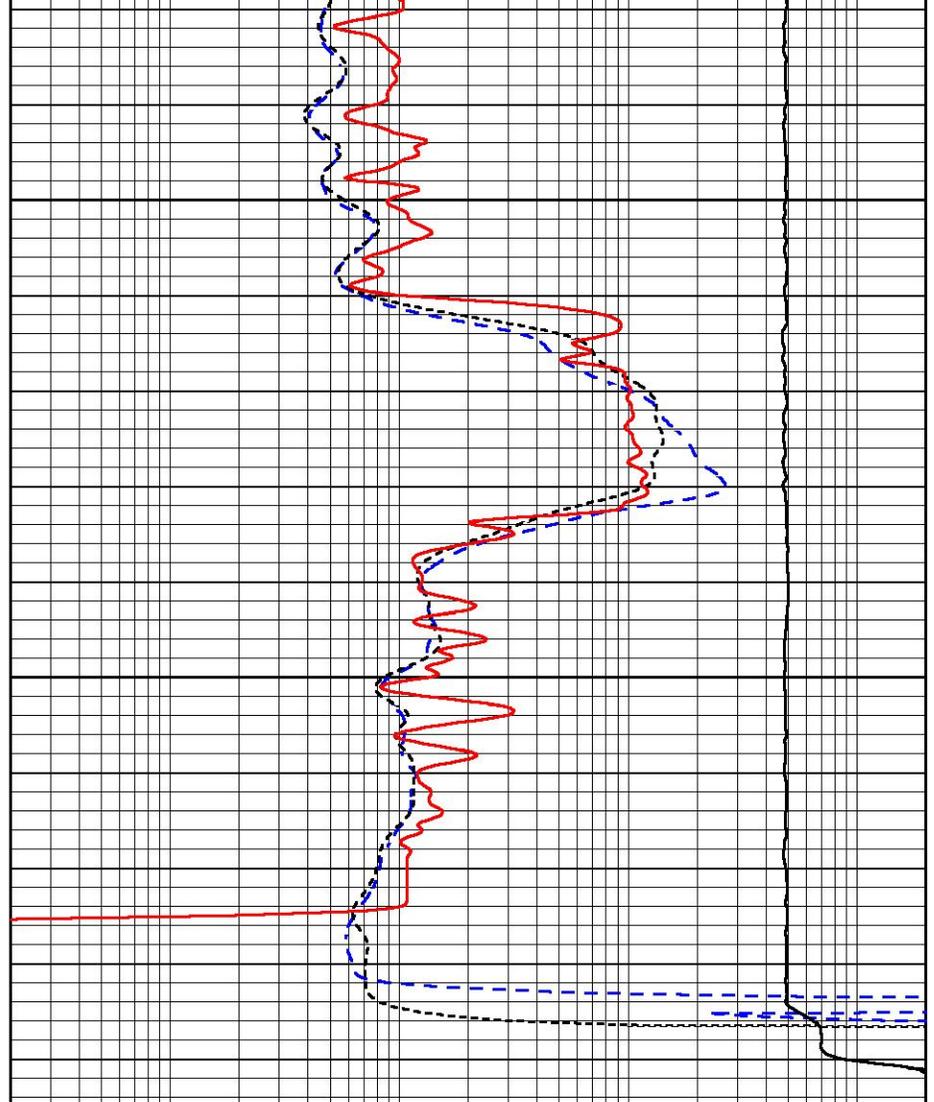




4950

5000

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

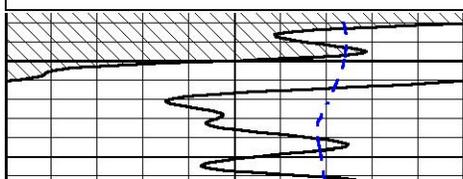


# REPEAT SECTION

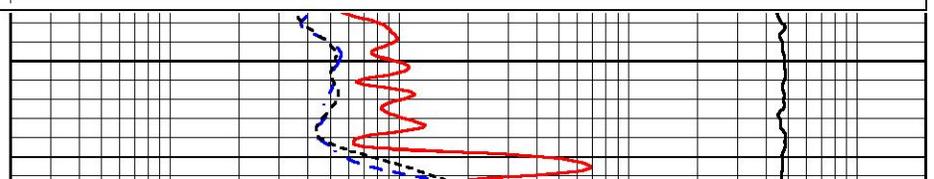
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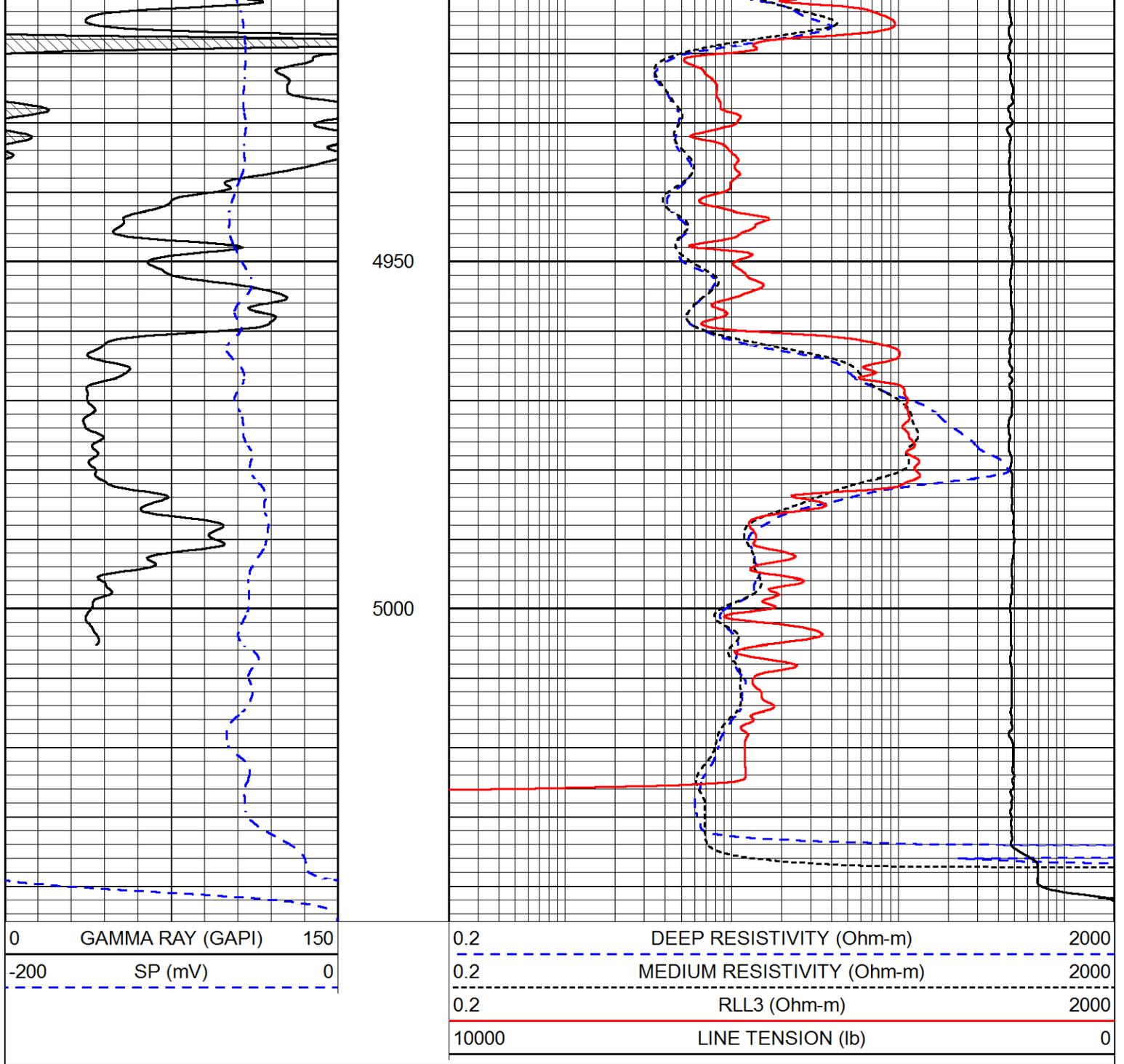
0	GAMMA RAY (GAPI)	150
-200	SP (mV)	0

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



4900





### Calibration Report

Database File chizum\_gaskill 2-35.db  
 Dataset Pathname STKML/pass99  
 Dataset Creation Fri Apr 19 14:37:52 2019

### Dual Induction Calibration Report

Serial-Model: 967 (HT)-PSI HIGH TEMP  
 Calibration Performed: Fri Apr 12 09:37:07 2019

Loop:	Readings		References			Results	
	Air	Loop	Air	Loop		Gain	Offset
Deep	167.000	835.000	0.000	255.800	mmho/m	0.565	-12.000
Medium	0.000	1348.000	142.000	255.800	mmho/m	0.390	-36.000

**Compensated Density Calibration Report**

Serial-Model: 96-916-M&W  
 Source / Verifier: 16955B / 2ci  
 Master Calibration Performed: Wed Mar 27 11:00:53 2019

**Master Calibration**

	<u>Density</u>		<u>Far Detector</u>	<u>Near Detector</u>	
Magnesium	1.755	g/cc	8943.64	10054.60	cps
Aluminum	2.655	g/cc	1595.61	6242.82	cps
	Spine Angle = 74.54		Density/Spine Ratio = 0.503		
	<u>Size</u>		<u>Reading</u>		
Small Ring	6.00	in	1.75		
Large Ring	16.00	in	1.46		

**Compensated Neutron Calibration Report**

Serial Number: 207-MW  
 Tool Model: M&W  
 Calibration Performed: WED FEB 13 10:30:30 2019

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: 89  
 Tool Model: M&W  
 Calibration Performed: Fri Aug 24 11:16:10 2018

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps  
 Calibrator Reading: 1.0 cps

Sensitivity: 0.6000 GAPI/cps



**PIONEER**  
 Pioneer Energy Services

Company CHIZUM OIL, LLC  
 Well GASKILL #2-35  
 Field UNKNOWN  
 County SHERMAN  
 State KANSAS