



PIONEER
Pioneer Energy Services

RADIATION GUARD LOG

Company PICKRELL DRILLING CO., INC.
Well NUSS-COPELAND UNIT #1
Field WILDCAT
County NESS
State KANSAS

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Location: API #: 15-135-26084-00-00

2500' FSL & 1940' FEL

SEC 36 TWP 20S RGE 25W

Permanent Datum GROUND LEVEL Elevation 2368'
Log Measured From KELLY BUSHING
Drilling Measured From KELLY BUSHING

Elevation
K.B. 2375'
D.F. N/A
G.L. 2368'

Date 11/1/2019

Run Number ONE

Depth Driller 4510'

Depth Logger 4513'

Bottom Logged Interval 4512'

Top Log Interval 250'

Casing Driller 8.625" @ 263'

Casing Logger 263'

Bit Size 7.875"

Type Fluid in Hole CHEMICAL

Salinity, ppm CL 6000

Density / Viscosity 9.5 49

pH / Fluid Loss 10.0 9.2

Source of Sample FLOWLINE

Rm @ Meas. Temp 0.60 @ 62

Rmt @ Meas. Temp 0.45 @ 62

Rmc @ Meas. Temp 0.31 @ 62

Source of Rmt / Rmc CHARTS

Rm @ BHT 0.31 @ 121

Operating Rig Time 2 HOURS

Max Rec. Temp. F 121

Equipment Number P-24

Location HAYS

Recorded By IAN MABB

Witnessed By AARON YOUNG

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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.

NESS CITY, KS.

SOUTH TO 20 RD, WEST 2 MILES TO Q RD,
SOUTH 1 MILE TO 10 RD, WEST 5 MILES TO SL RD,
SOUTH 1/2 MILE & WEST INTO

Log Measured From: KELLY BUSHING 7 Ft. Above Permanent Datum

THANK YOU FOR USING PIONEER ENERGY SERVICES
www.pioneerenergy.com 785-625-3858

Your Pioneer Energy Services Crew

Engineer: IAN MABB
Operator:
Operator:
Operator:

This Log Record Was Witnessed By

Primary Witness: AARON YOUNG
Secondary Witness:
Secondary Witness:
Secondary Witness:

Top - Bottom

AIR_HOLE? No	BOREID in 7.875	BOTTEMP degF 121	CASEOD in 5.5	CASETHCK in 0	MudWgt lb/gal 9.5	NPORSEL Limestone	PERFS 0
SPSHIFT mV -20	SRFTEMP degF 0	TDEPTH ft 4513					

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
GR	15.00		GR-M&W (89)	3.00	3.50	50.00
LGRD	11.00		LGRD-M&W (177) Simlec Long Guard	4.00	3.50	40.00
SCAL	5.10		SWN-M&W-SP (SP162-87)	10.50	4.00	190.00
SWN	4.45					

SP

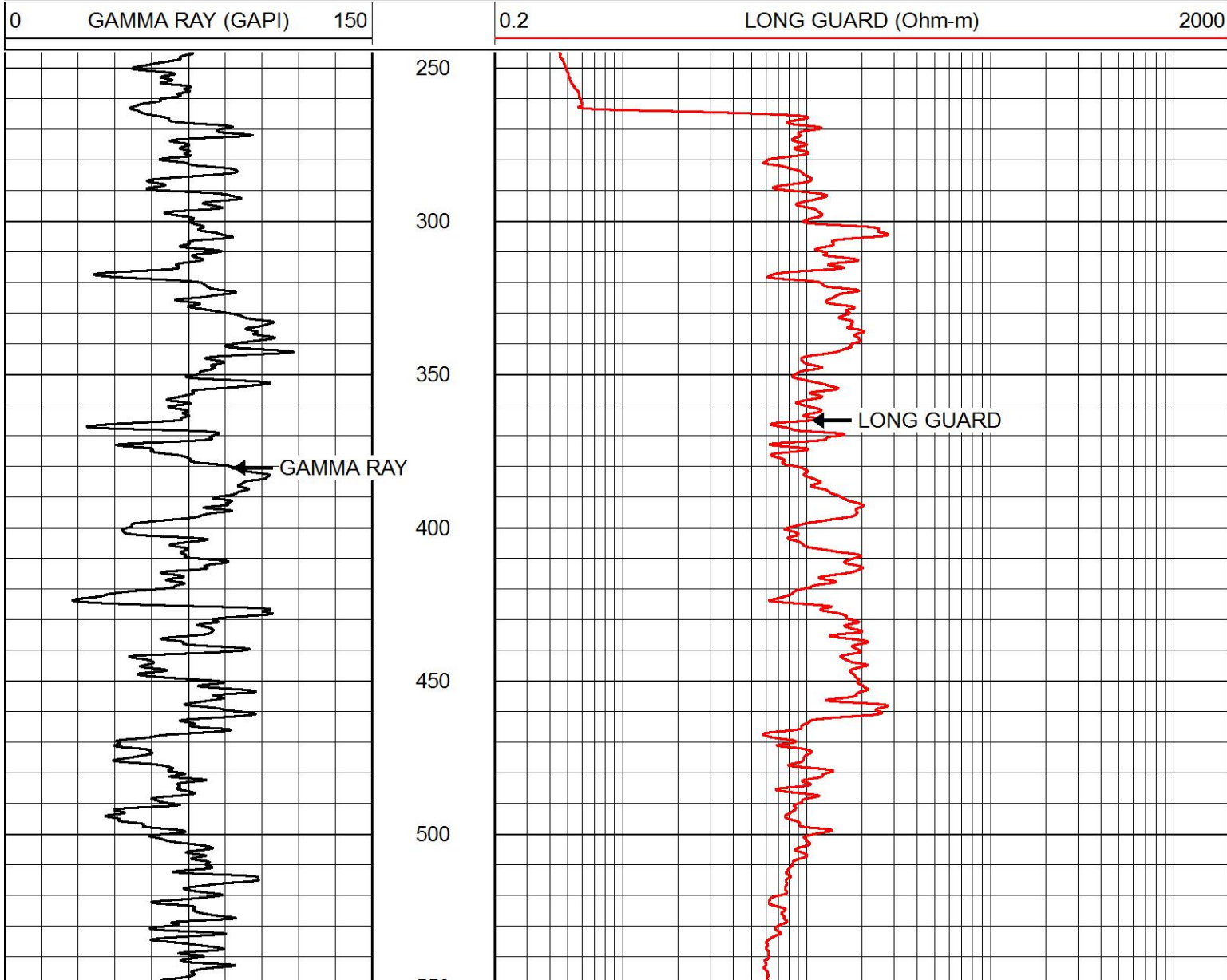
0.20

Dataset: pickrell_nuss-copeland_unit_1.db: field/well/RAG/pass3.1
Total length: 17.50 ft
Total weight: 280.00 lb
O.D.: 4.00 in

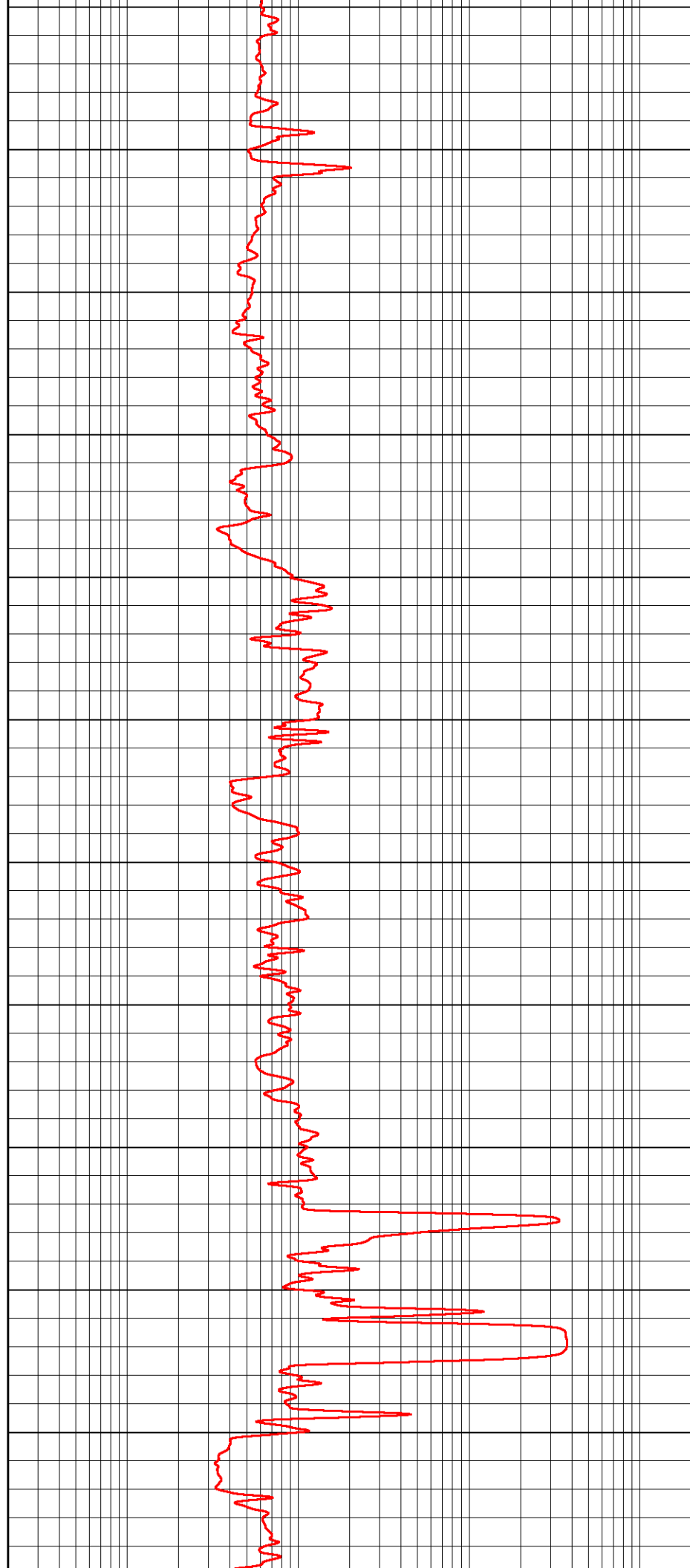
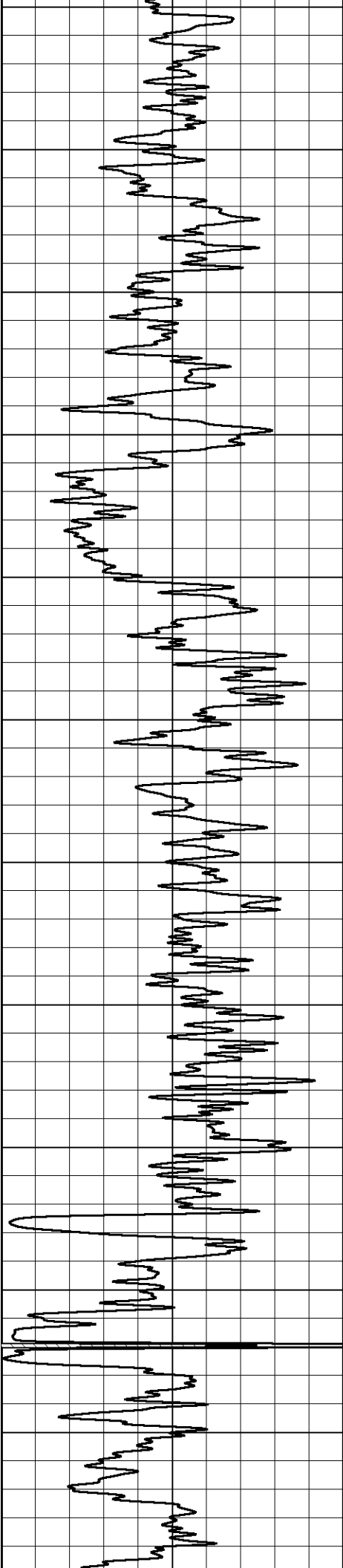


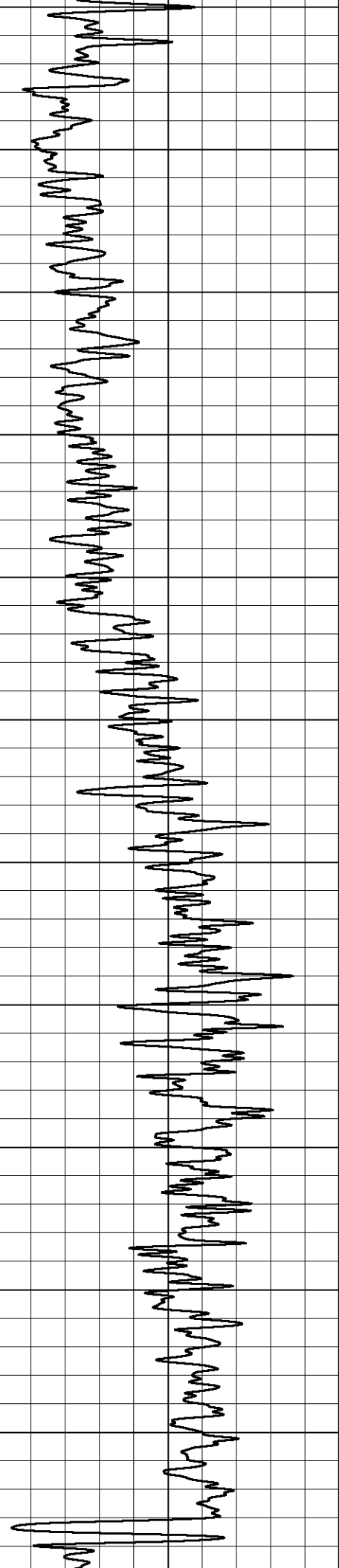
MAIN PASS

Database File pickrell_nuss-copeland_unit_1.db
Dataset Pathname RAG/pass3.1
Presentation Format rag2in
Dataset Creation Fri Nov 01 06:38:47 2019
Charted by Depth in Feet scaled 1:600

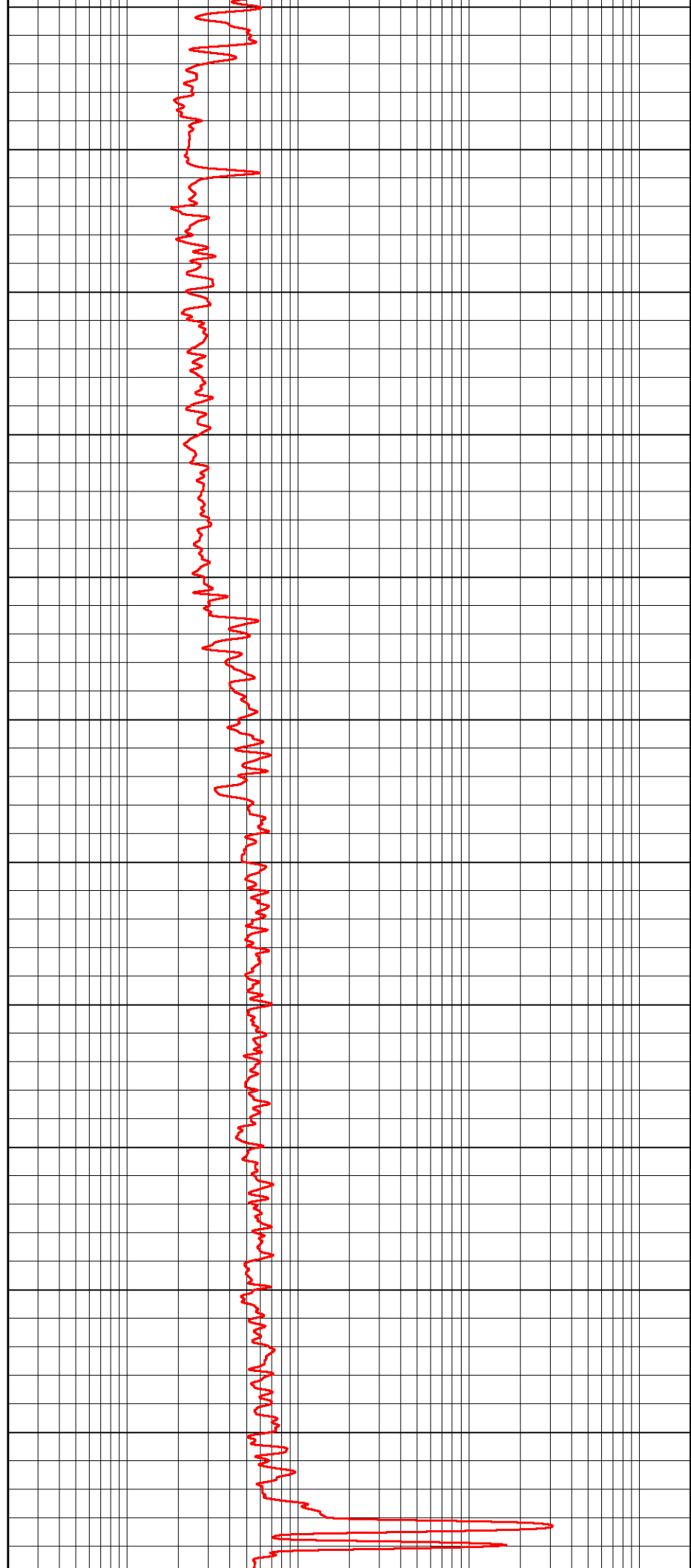


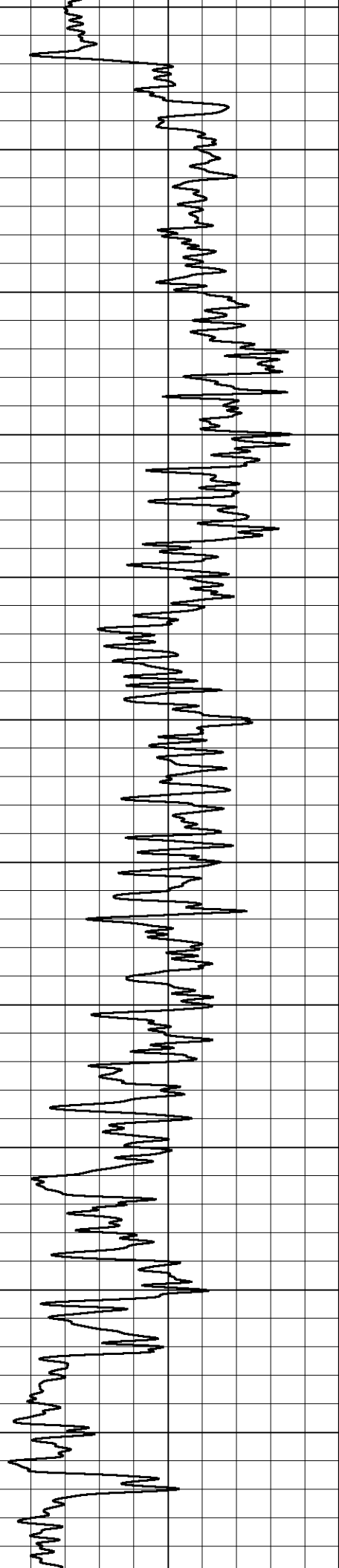
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950
1000
1050



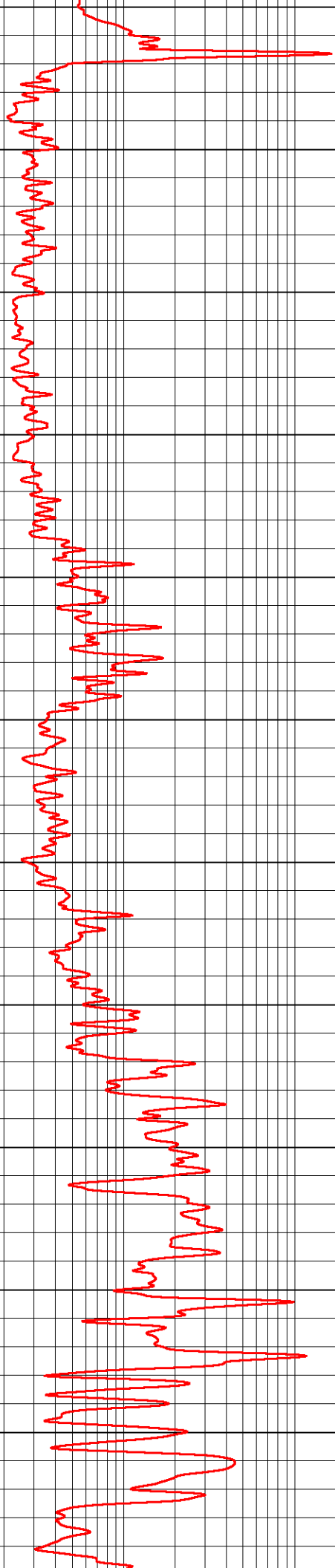


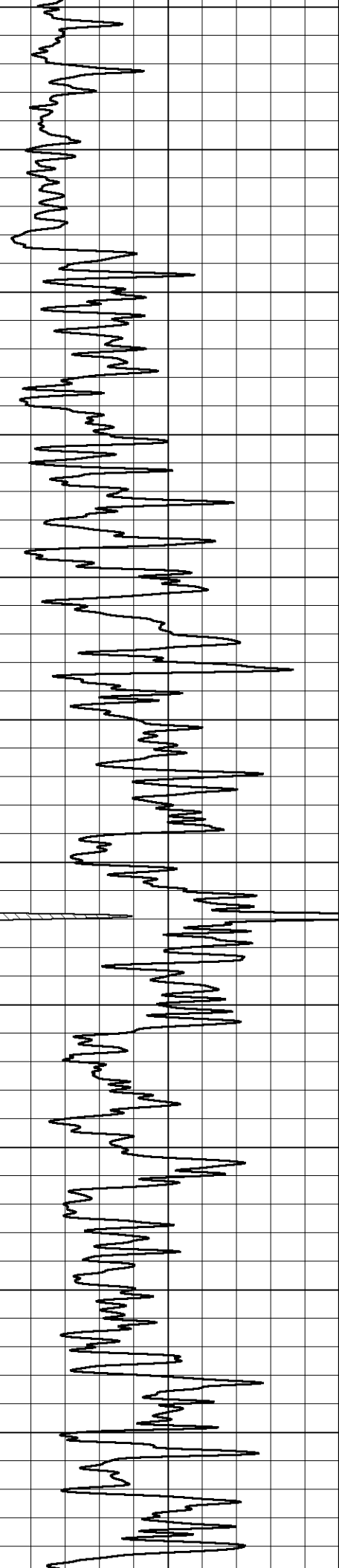
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1450
1500
1550
1600



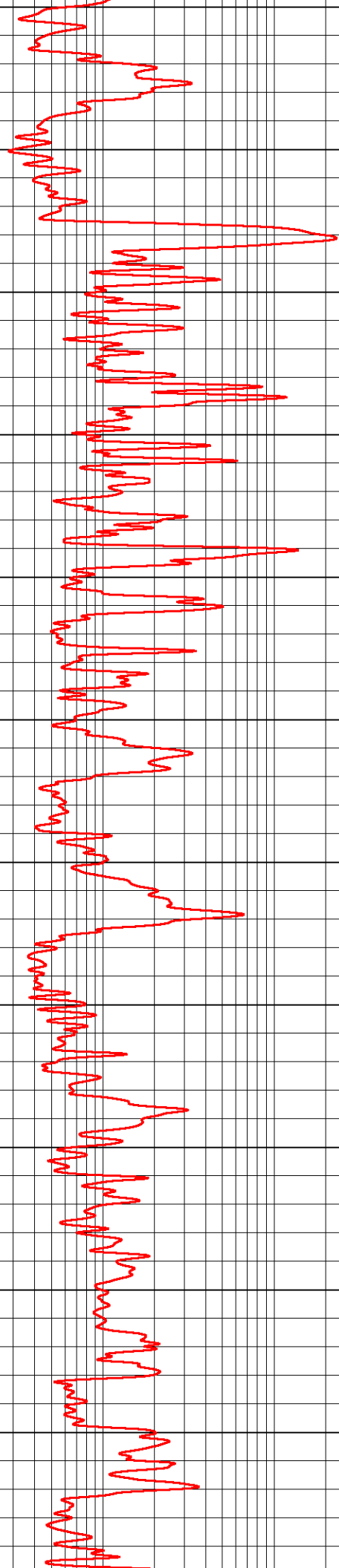


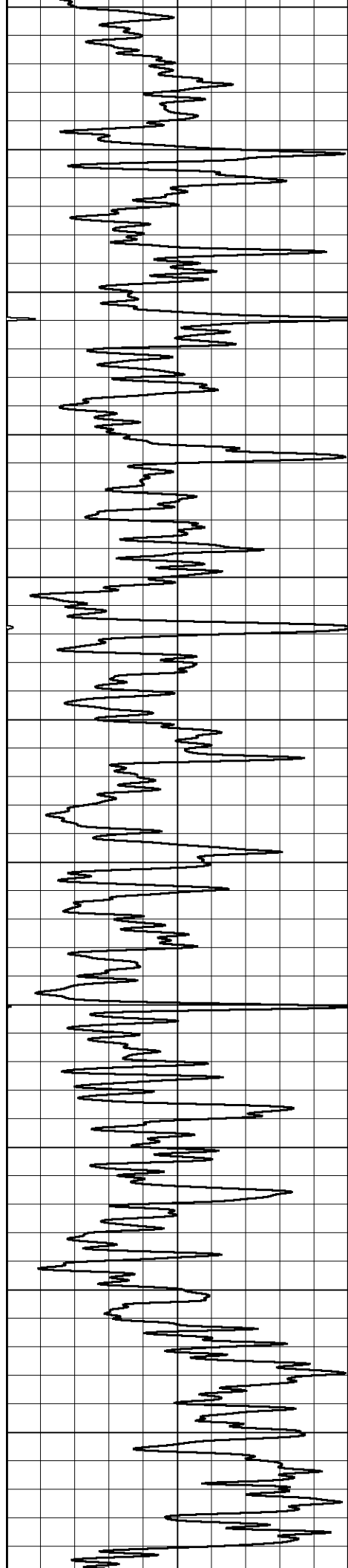
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1800
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1900
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2000
2050
2100
2150



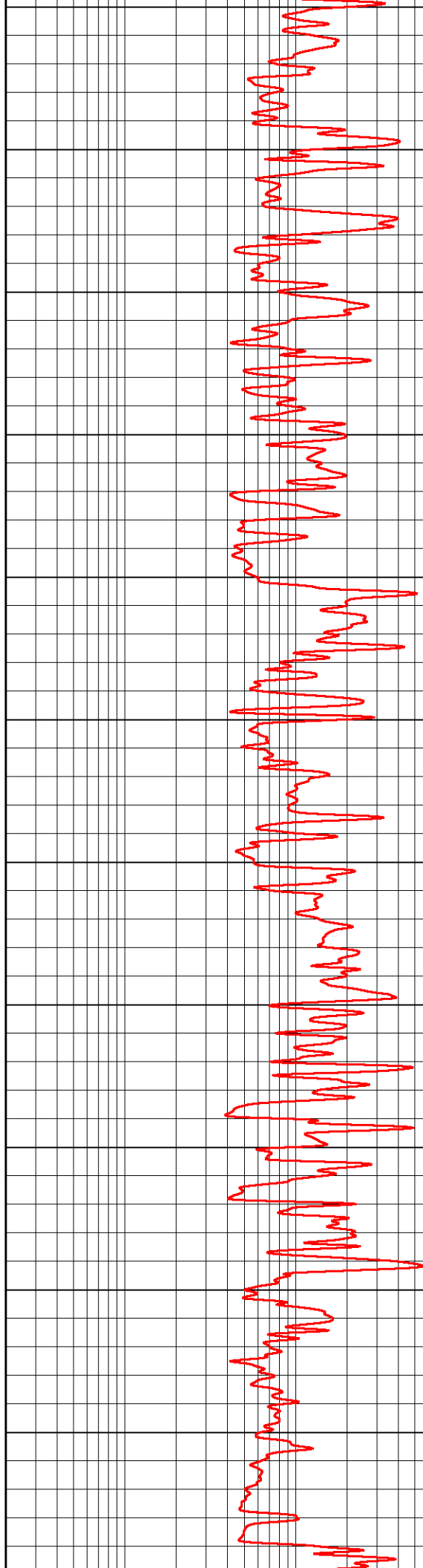


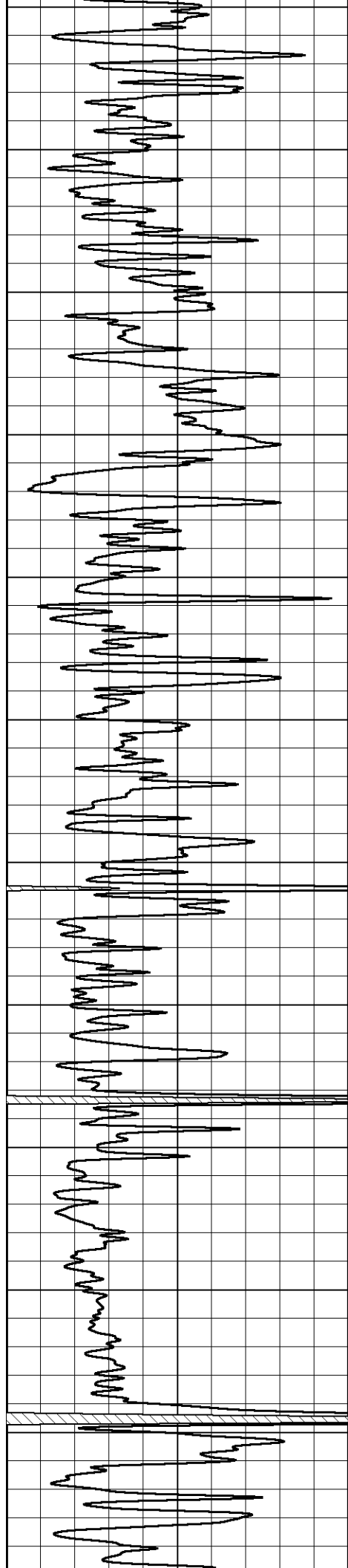
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2600
2650
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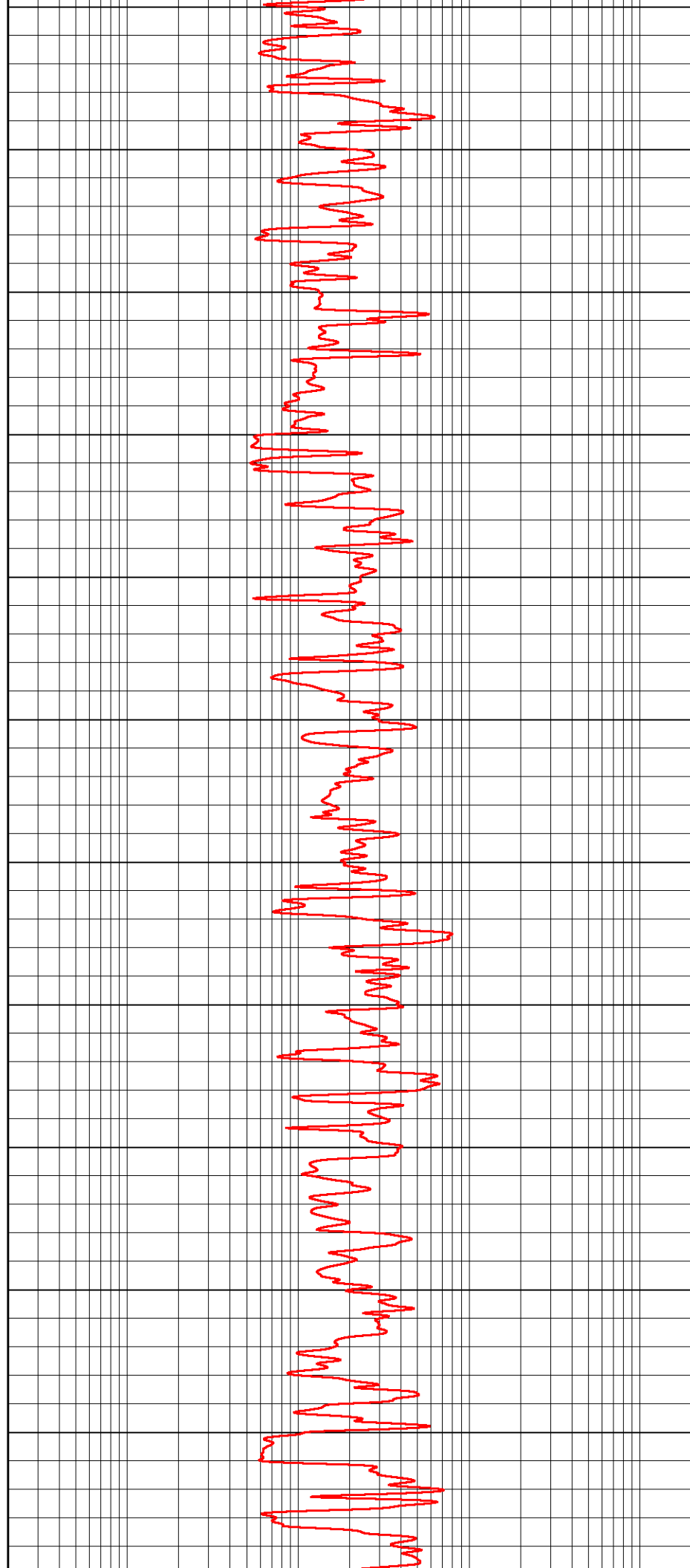


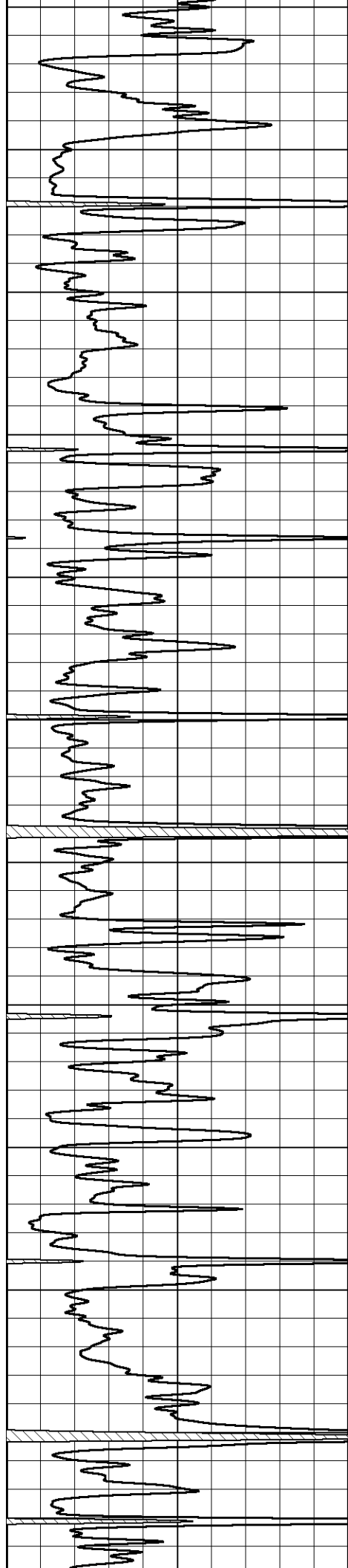
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3150
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3250



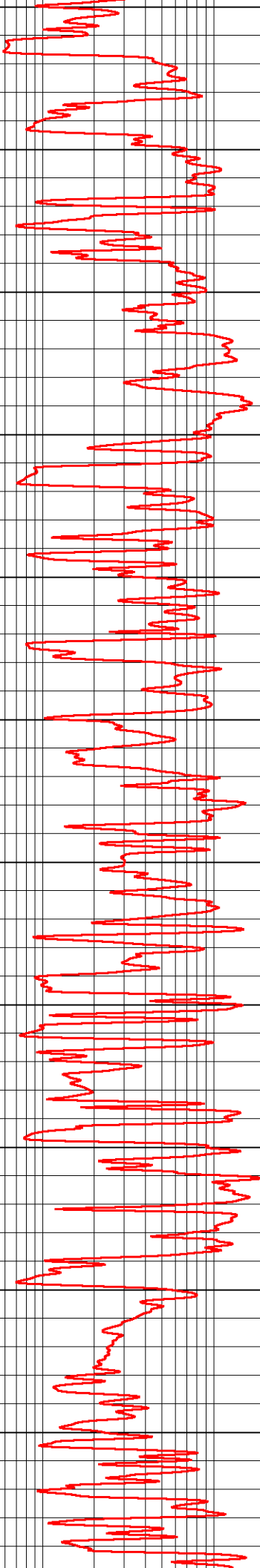


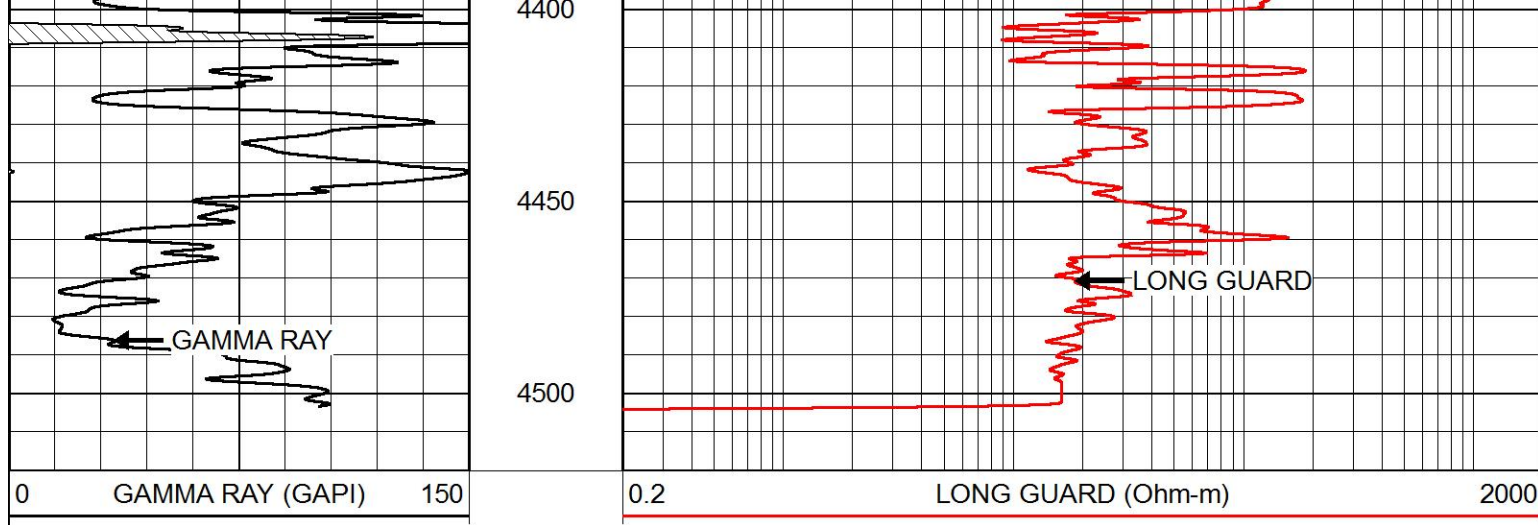
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4100
4150
4200
4250
4300
4350
4400





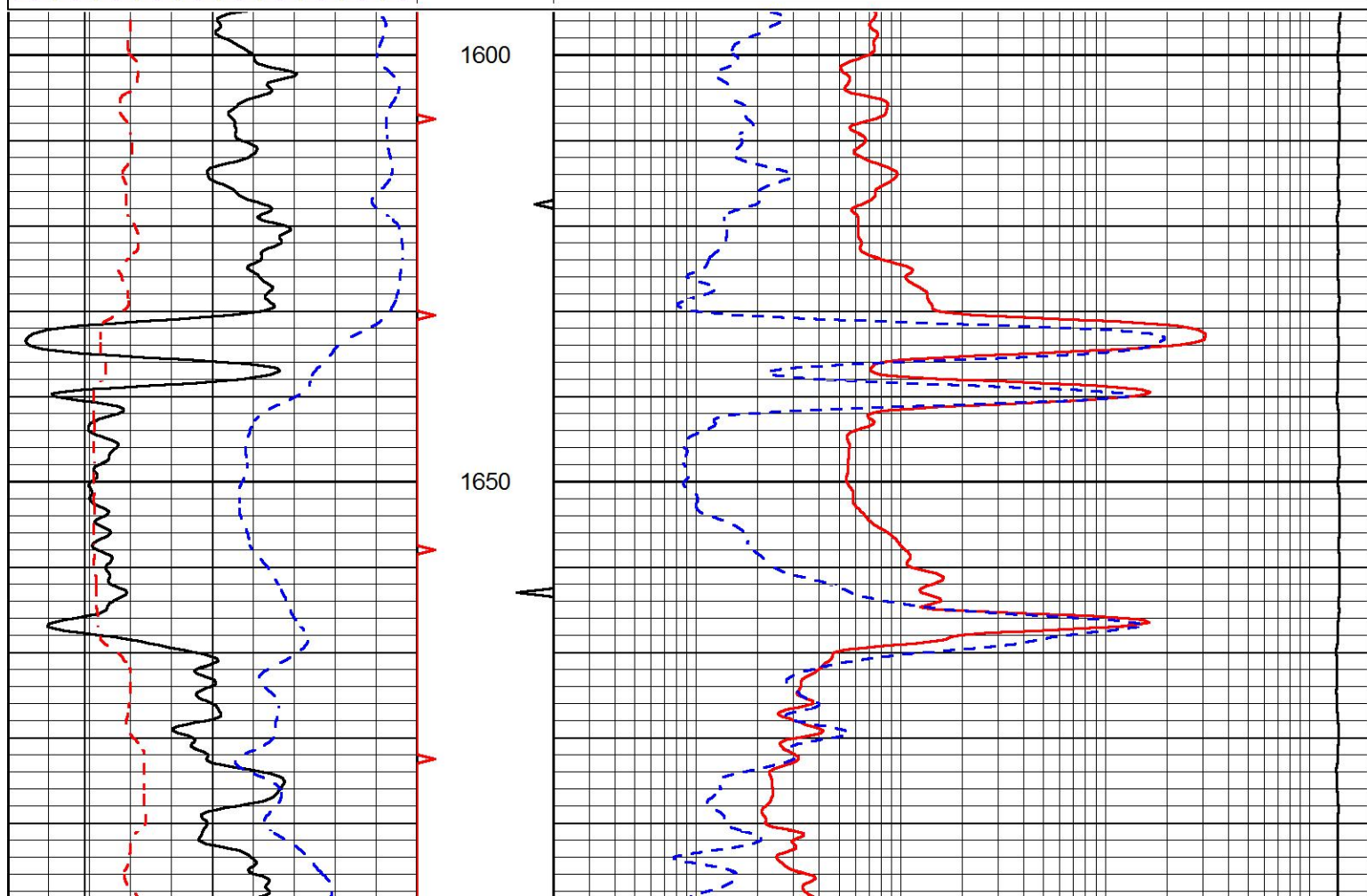


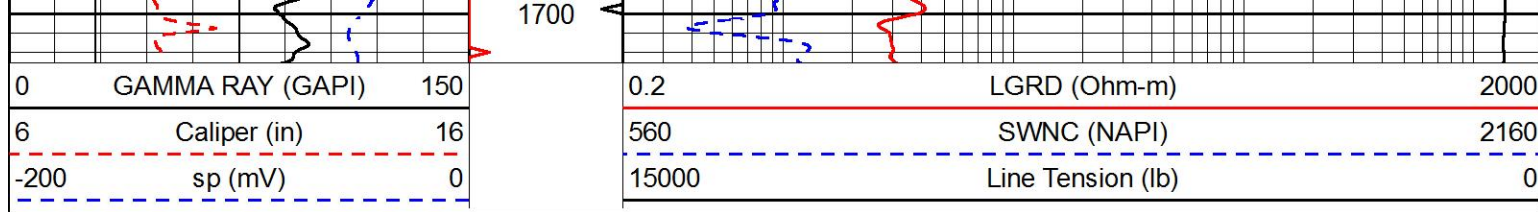
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MAIN PASS

Database File pickrell_nuss-copeland_unit_1.db
 Dataset Pathname RAG/pass3.1
 Presentation Format rag
 Dataset Creation Fri Nov 01 06:38:47 2019
 Charted by Depth in Feet scaled 1:240

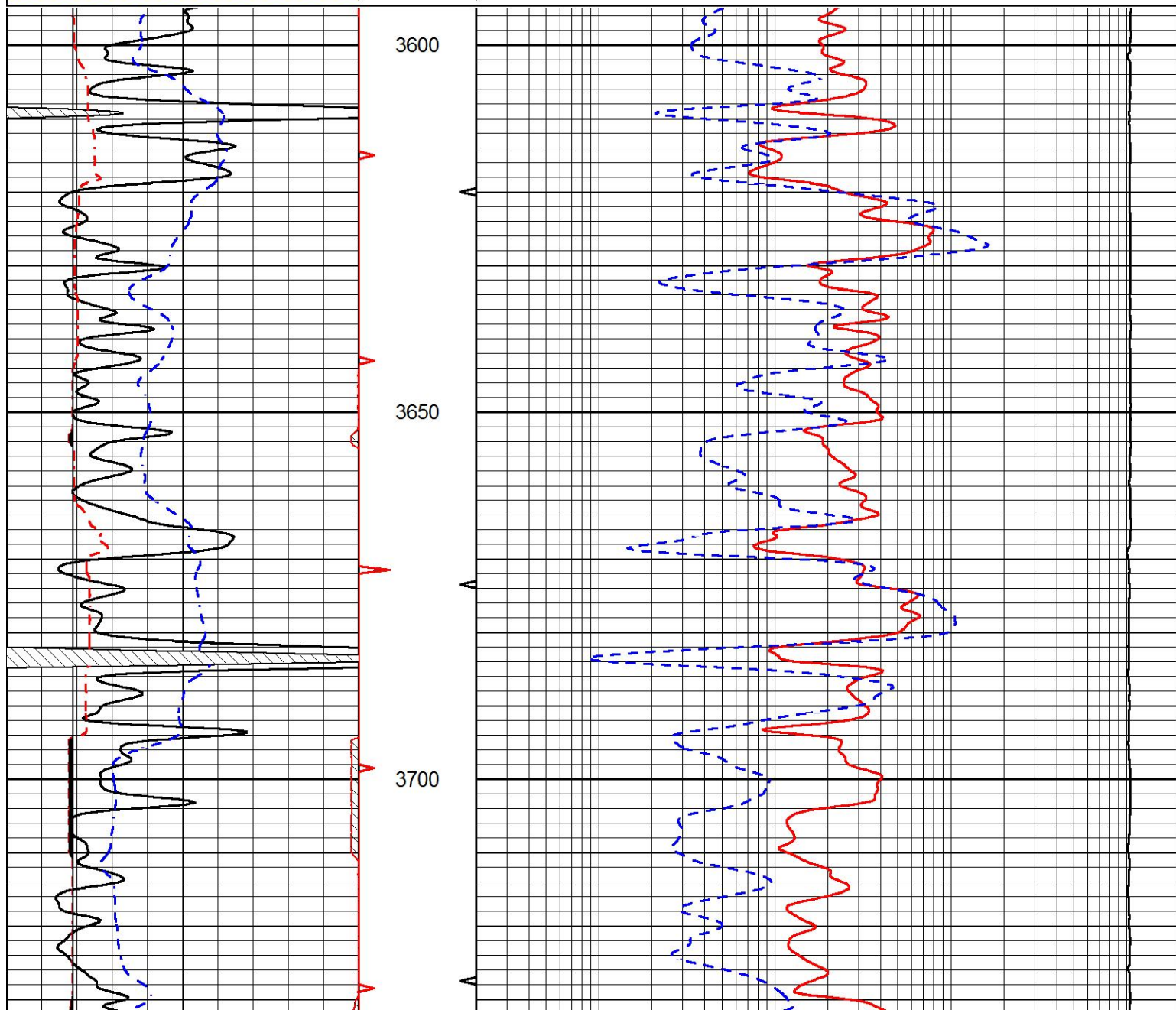
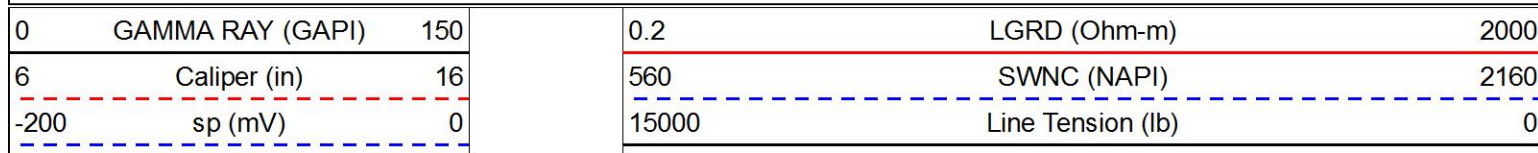
0	GAMMA RAY (GAPI)	150	0.2	LGRD (Ohm-m)	2000
6	Caliper (in)	16	560	SWNC (NAPI)	2160
-200	sp (mV)	0	15000	Line Tension (lb)	0

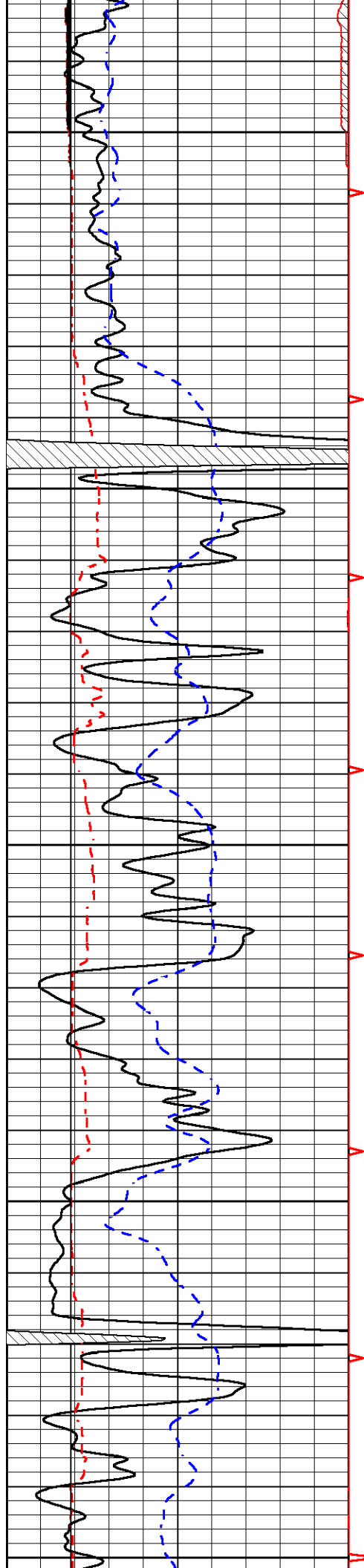




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Database File pickrell_nuss-copeland_unit_1.db
 Dataset Pathname RAG/pass3.1
 Presentation Format rag
 Dataset Creation Fri Nov 01 06:38:47 2019
 Charted by Depth in Feet scaled 1:240





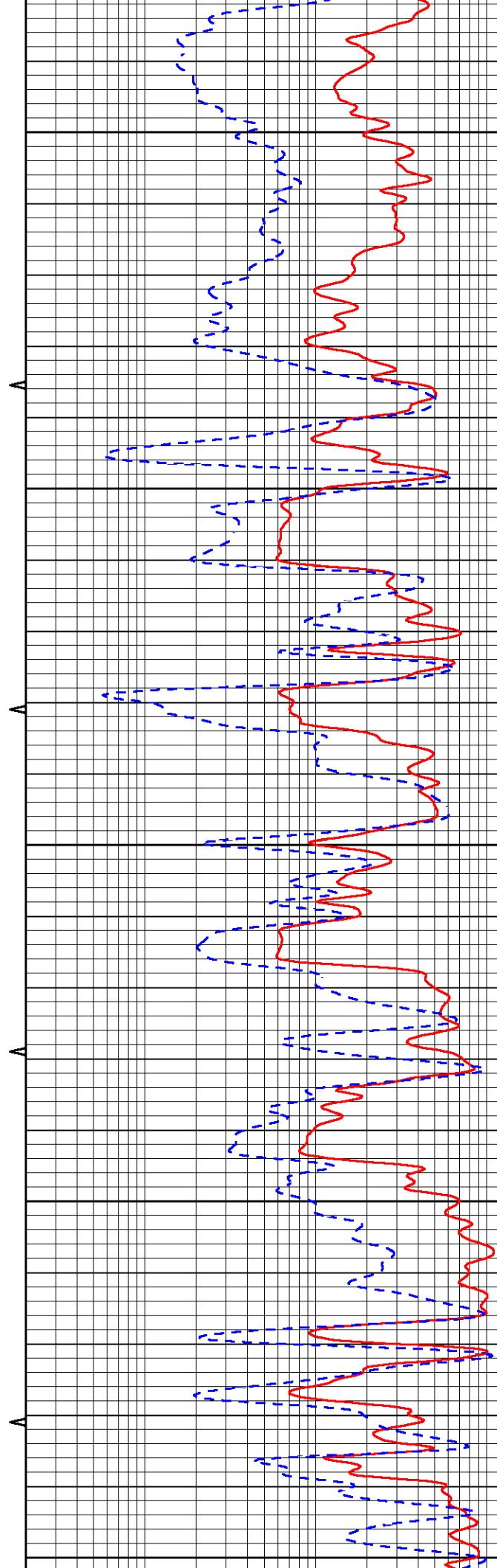
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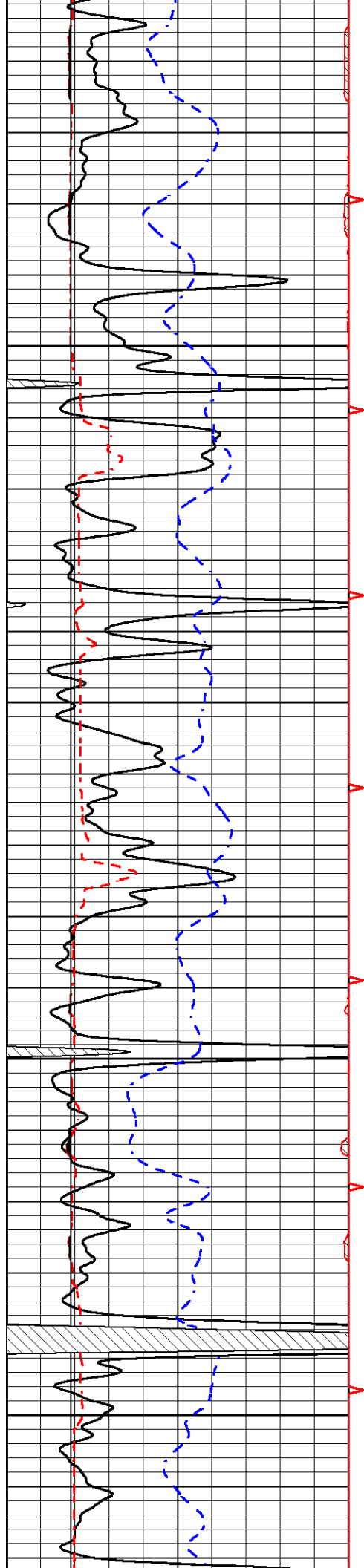
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3850

3900

3950



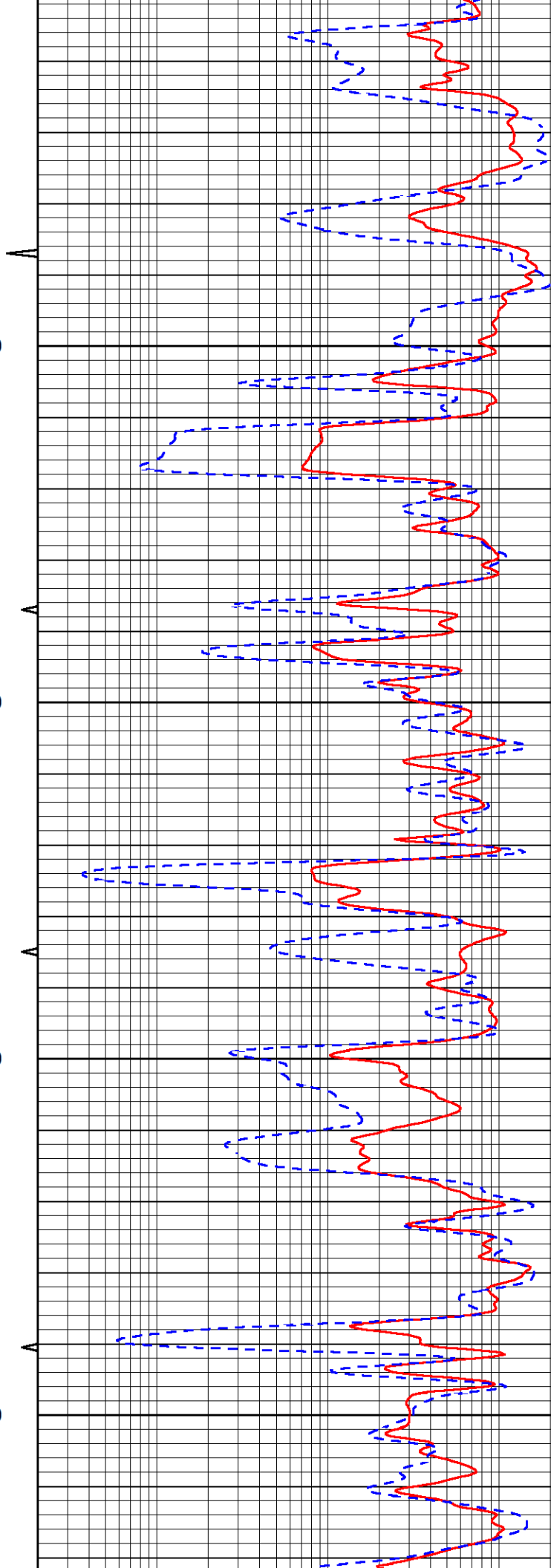


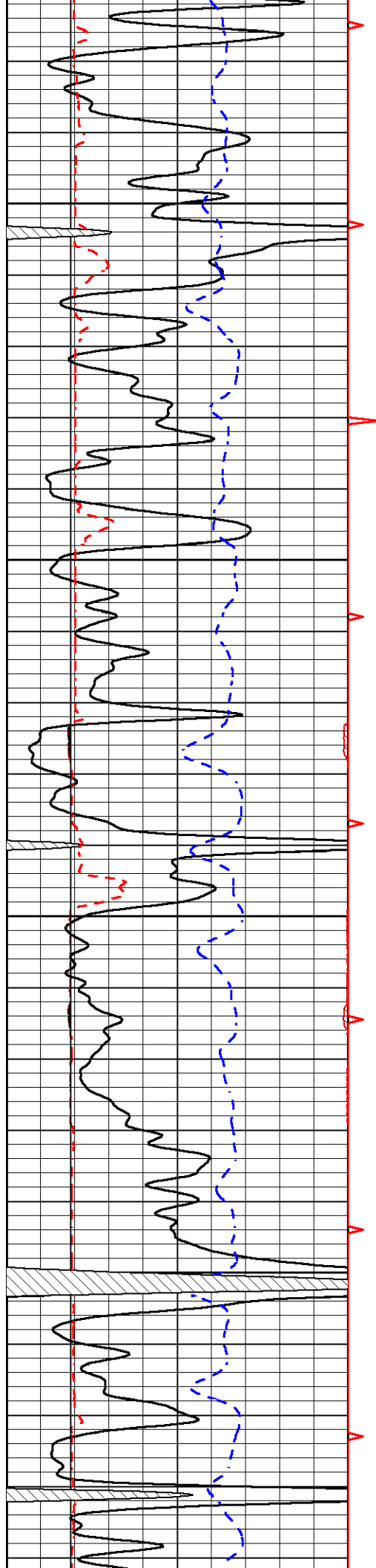
4000

4050

4100

4150



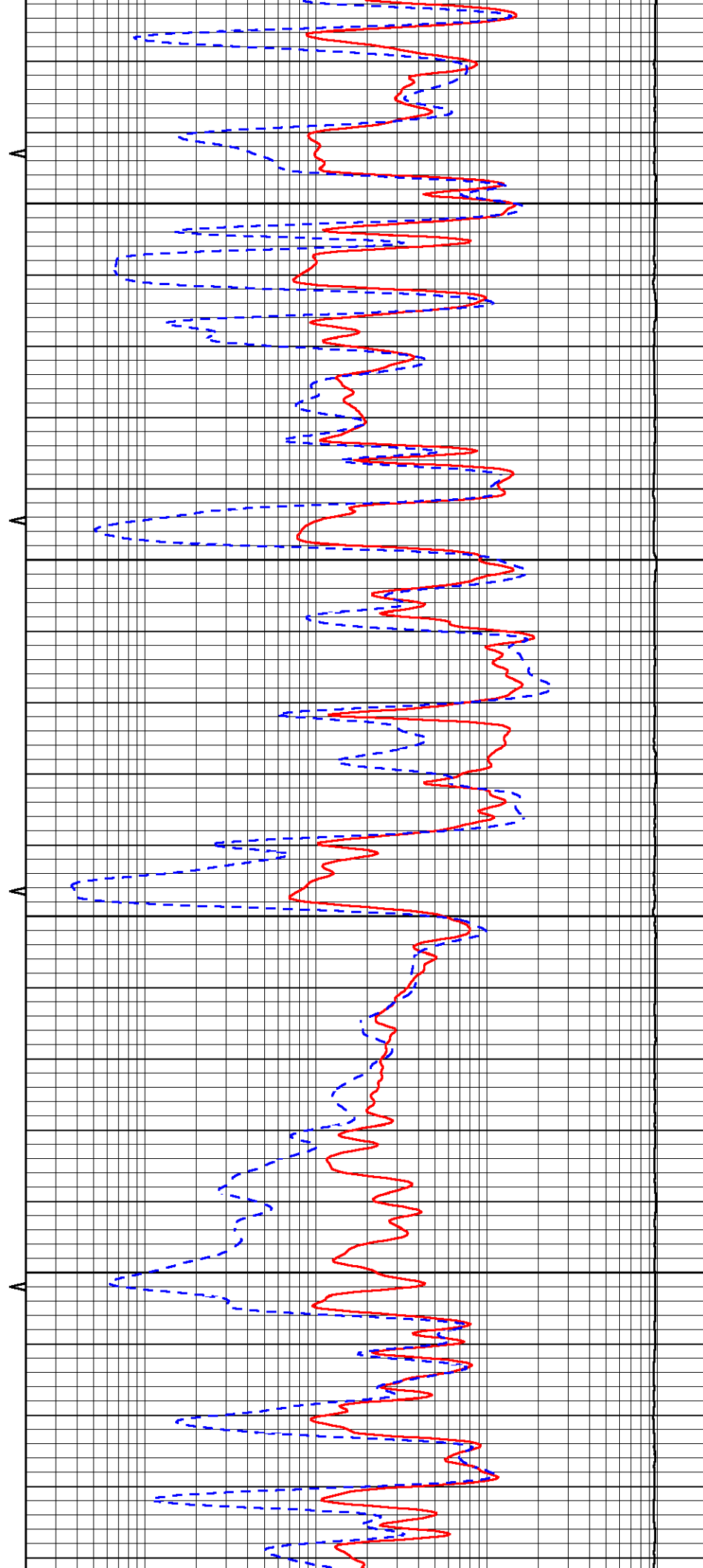


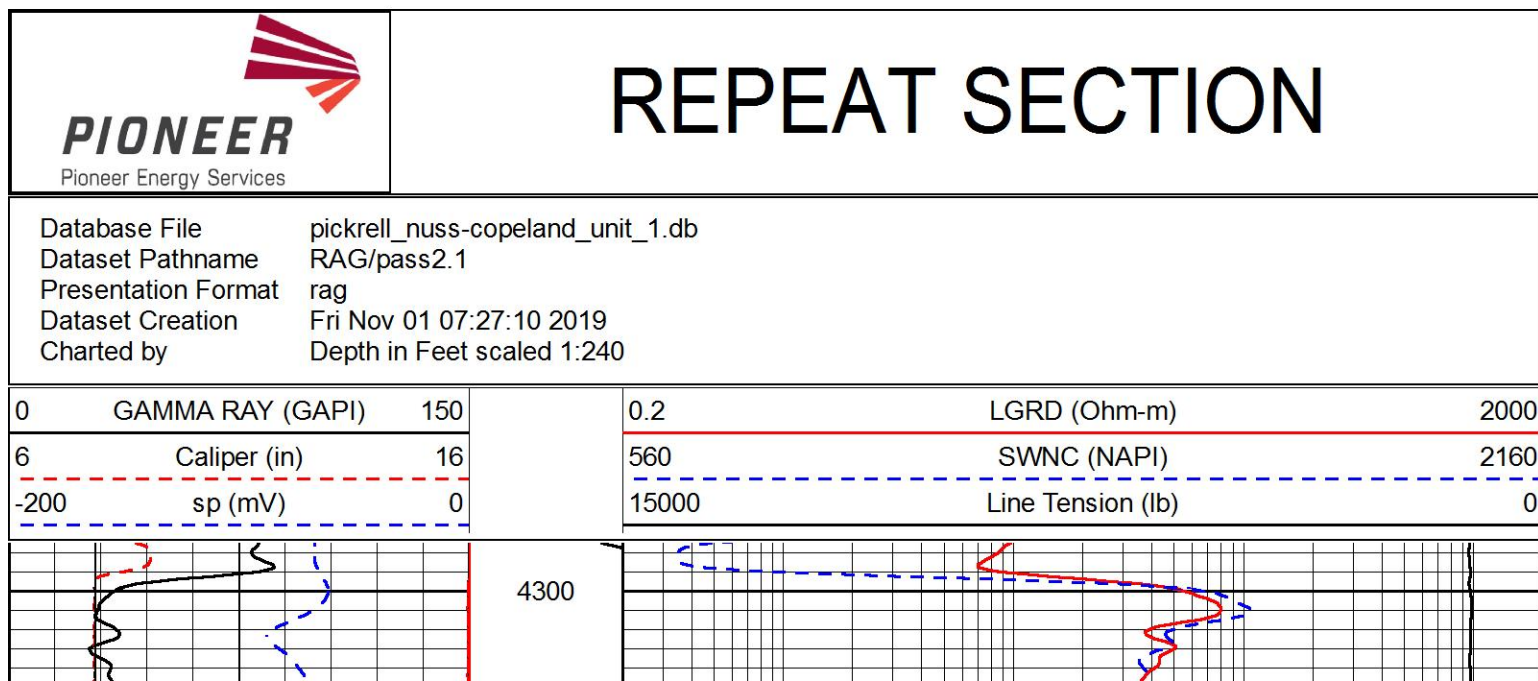
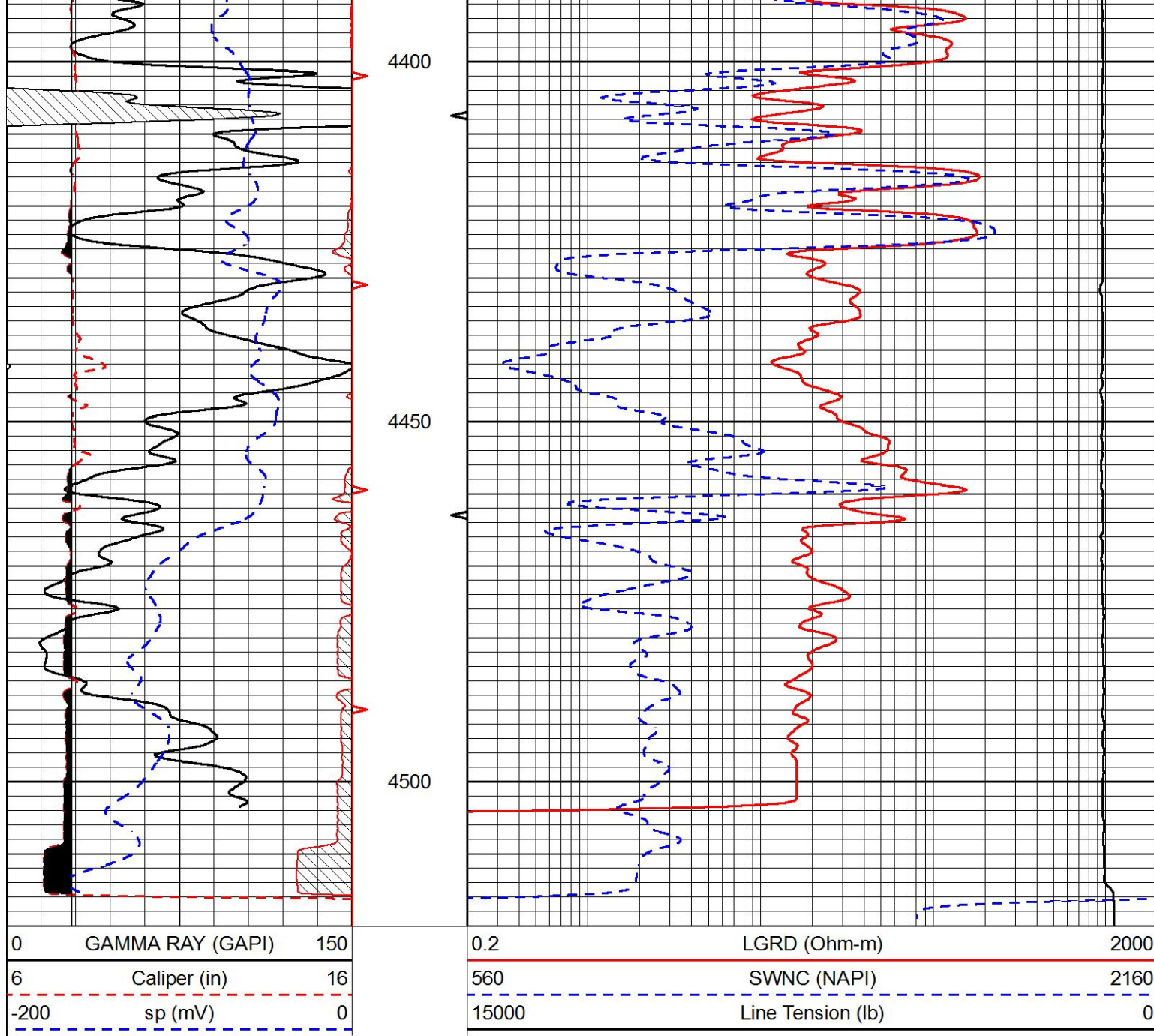
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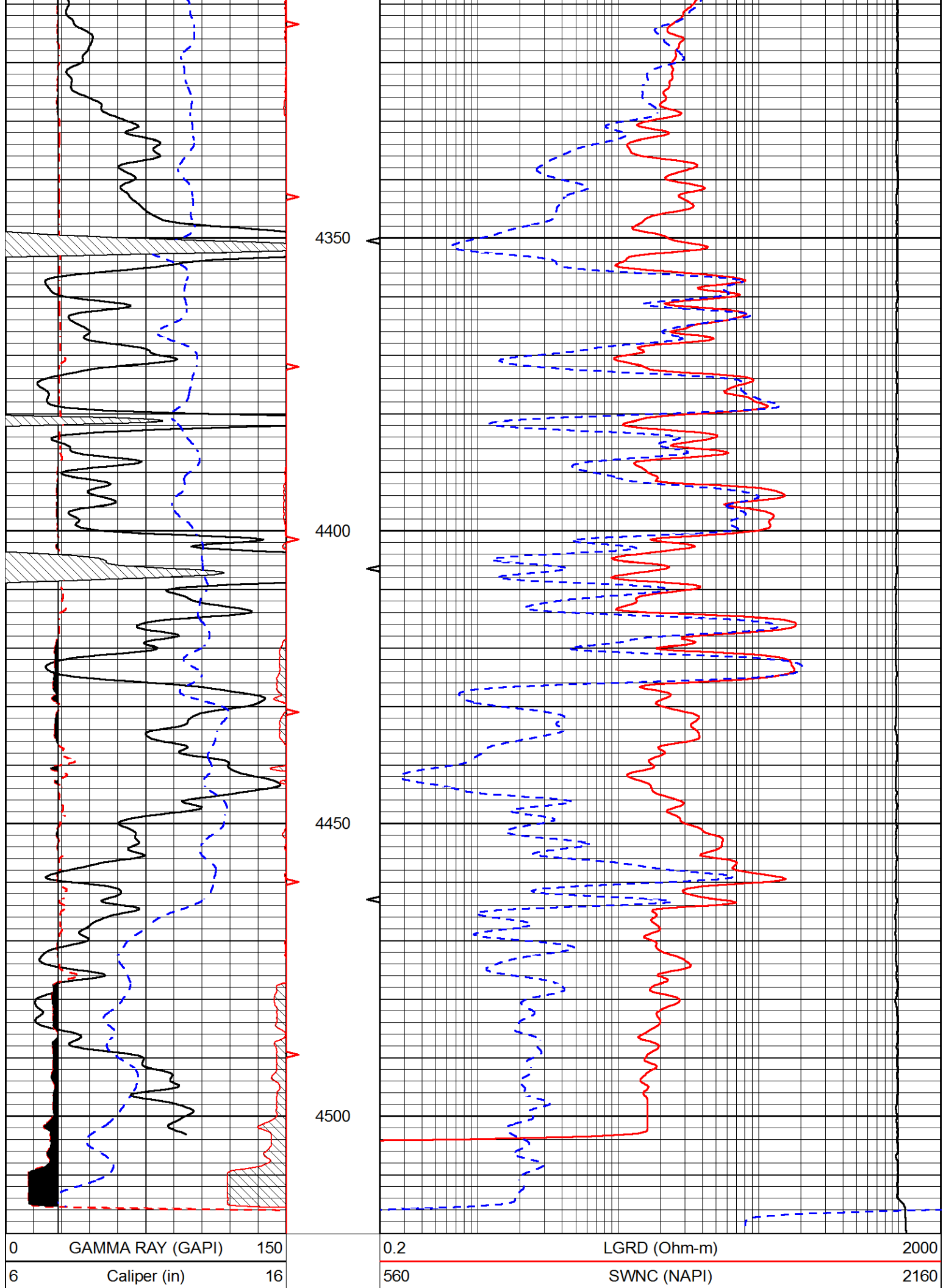
4250

4300

4350







-200	sp (mV)	0	15000	Line Tension (lb)	0
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Calibration Report

Database File pickrell_nuss-copeland_unit_1.db
Dataset Pathname RAG/pass3.1
Dataset Creation Fri Nov 01 06:38:47 2019

Sidewall Neutron Calibration Report

Serial Number: SP162-87
Tool Model: M&W-SP

SWN Calibration Mon Aug 08 12:41:49 2016

Readings	Target	Normalization
2566.42 cps	1085.00 cps	0.5300

Caliper Calibration Mon Aug 08 12:41:49 2016

Readings	Reference	Gain	Offset
0.86	4.00	-18.31	18.40
0.31	14.00		

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



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