



PIONEER
Pioneer Energy Services

**DUAL IND / DUAL COMP
POROSITY LOG**

Company **EXTRACTION OIL AND GAS, LLC**
Well **FAIRVIEW NO. 2**
Field **WATTENBERG**
County **WELD**
State **COLORADO**

Company **EXTRACTION OIL AND GAS, LLC**
Well **FAIRVIEW NO. 2**
Field **WATTENBERG**
County **WELD** State **COLORADO**

Location: API #: 05-123-41666-00
1855' FSL & 502' FWL
SEC 5 TWP 2N RGE 68W
Permanent Datum **GROUND LEVEL** Elevation **4942'**
Log Measured From **KELLY BUSHING**
Drilling Measured From **KELLY BUSHING**
Other Services
NONE
Elevation
K.B. 4962'
D.F. 4961'
G.L. 4942'

Date	1/29/16
Run Number	ONE
Depth Driller	8692'
Depth Logger	7322'
Bottom Logged Interval	7321'
Top Log Interval	SURFACE CASING
Casing Driller	9.625" @ 1552'
Casing Logger	1556'
Bit Size	8.750"
Type Fluid in Hole	OIL BASED MUD
Salinity, ppm CL	N/A
Density / Viscosity	8.7 43
pH / Fluid Loss	N/A N/A
Source of Sample	Flowline
Rm @ Meas. Temp	N/A @ N/A
Rmf @ Meas. Temp	N/A @ N/A
Rmc @ Meas. Temp	N/A @ N/A
Source of Rmf / Rmc	Charts
Rm @ BHT	N/A @ N/A
Operating Rig Time	2 HOURS
Max Rec. Temp. F	N/A
Equipment Number	108
Location	Colby
Recorded By	J. HENRICKSON
Witnessed By	SHAWN MCINTYRE
	J. BEGLER

<<< Fold Here >>>

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.

**SAVANNA DRILLING RIG NO. 802
NO REPEAT DUE TO HOLE CONDITIONS
NO FOCUS TOOL DUE TO OIL BASED MUD**

SO# 1-50576

Log Measured From: KELLY BUSHING 20 Ft. Above Permanent Datum

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

Your Pioneer Energy Services Crew



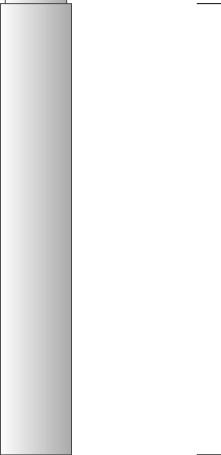
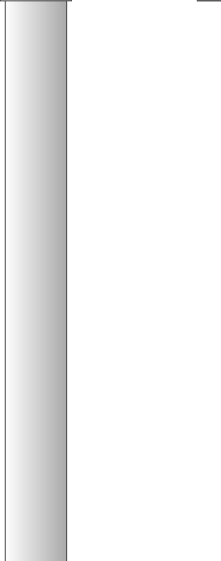
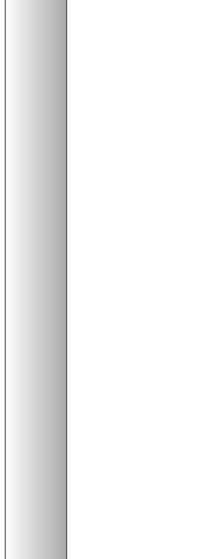
**Engineer: J. HENRICKSON
Operator: J. BEGLER
Operator:
Operator:**

This Log Record Was Witnessed By


**Primary Witness: SHAWN MCINTYRE
Secondary Witness:
Secondary Witness:
Secondary Witness:**

Top - Bottom

M	A	SZCOR	NPORSEL	FLUIDDEN g/cc	MATRXDEN g/cc	SPSHIFT mV	SNDERRM mmho/m
2	1	Off	Limestone	1	2.71	0	0
SNDERR mmho/m	SRFTEMP degF	CASETHCK in	CASEOD in	PERFS	TDEPTH ft	BOTTEMP degF	BOREID in
0	0	0	7	0	7322	200	8.75

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
GR	33.00		GR-M&W (89-M&W)	3.00	3.50	50.00
CNLSC CNSSC	29.90 29.15		CNT-M&W (tk10-MW)	5.50	3.50	100.00
LSD DCAL SSD	20.85 20.83 20.35		CDL-M&W (71-914)	8.50	4.00	250.00
RLL3F RLL3	15.80 15.80					
CILD	8.00		DIL-PSI HIGH TEMP (PSI 216 HT)	18.50	3.50	220.00

CILM	4.70								
SP	0.20								
Dataset: extraction_fairview_2.db: field/well/stack/pass4.1 Total length: 35.50 ft Total weight: 620.00 lb O.D.: 4.00 in									



PIONEER

Pioneer Energy Services

MAIN PASS

Database File

extraction_fairview_2.db

Dataset Pathname

stack/pass4.1

Presentation Format

split

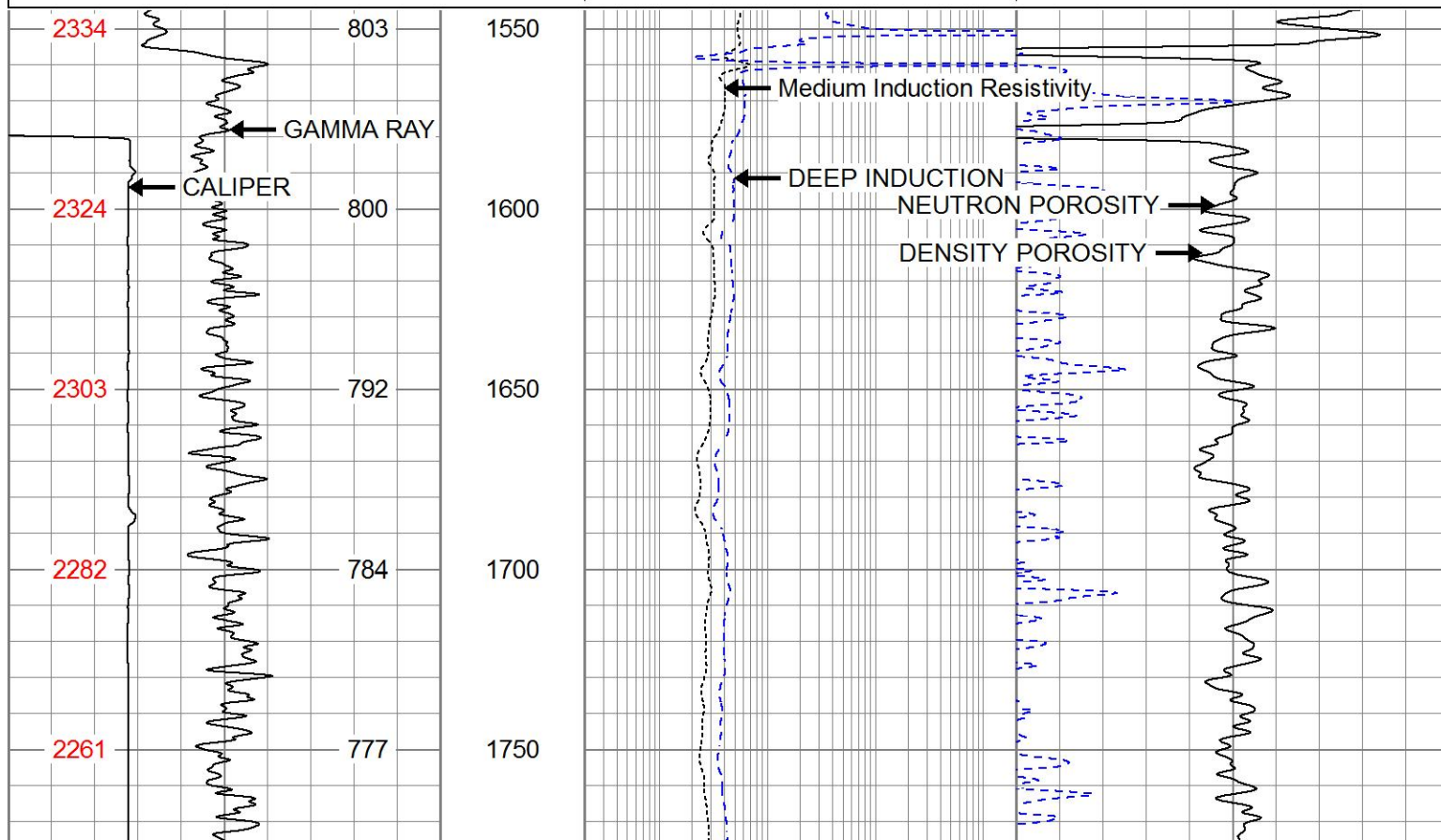
Dataset Creation

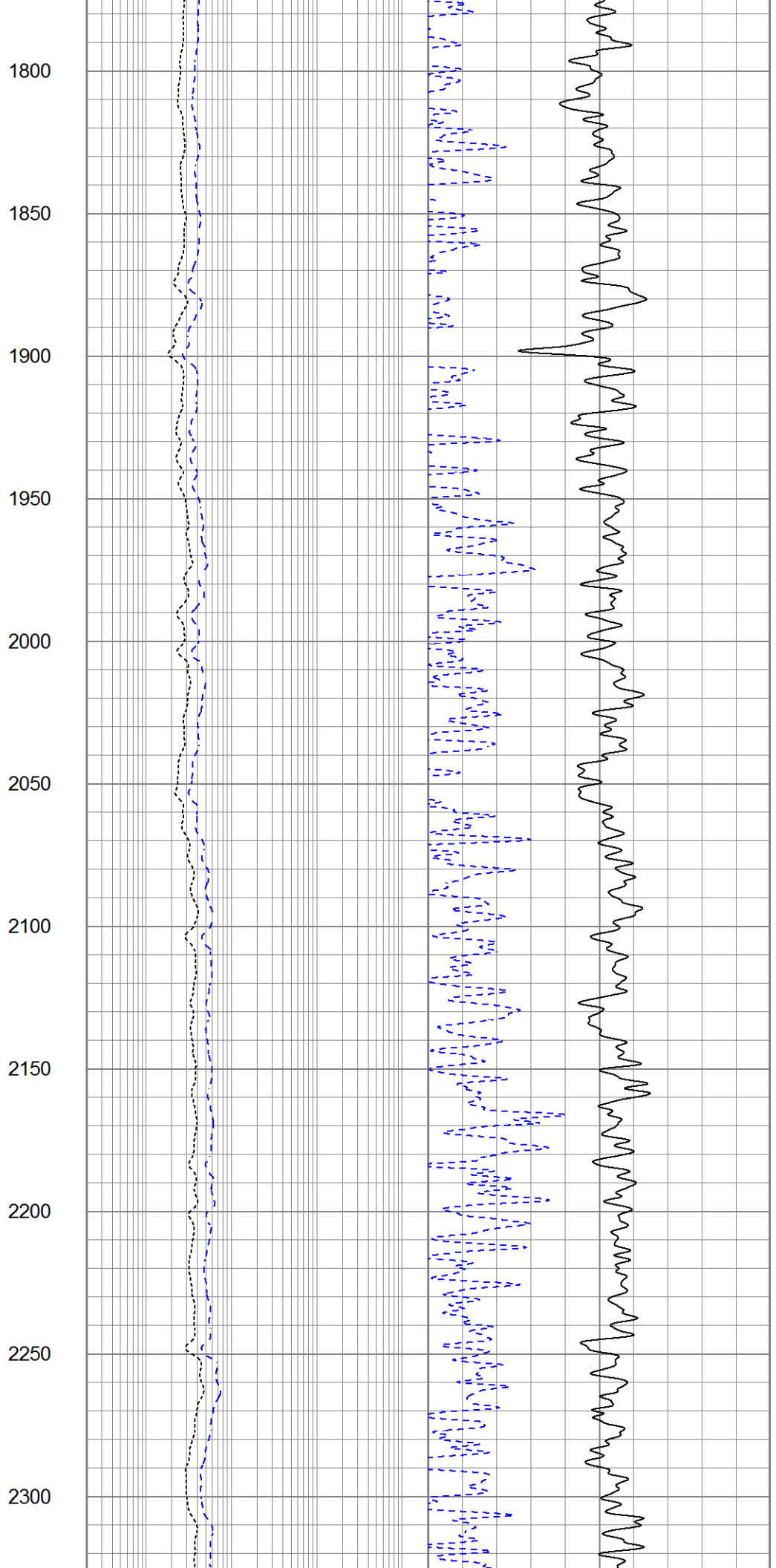
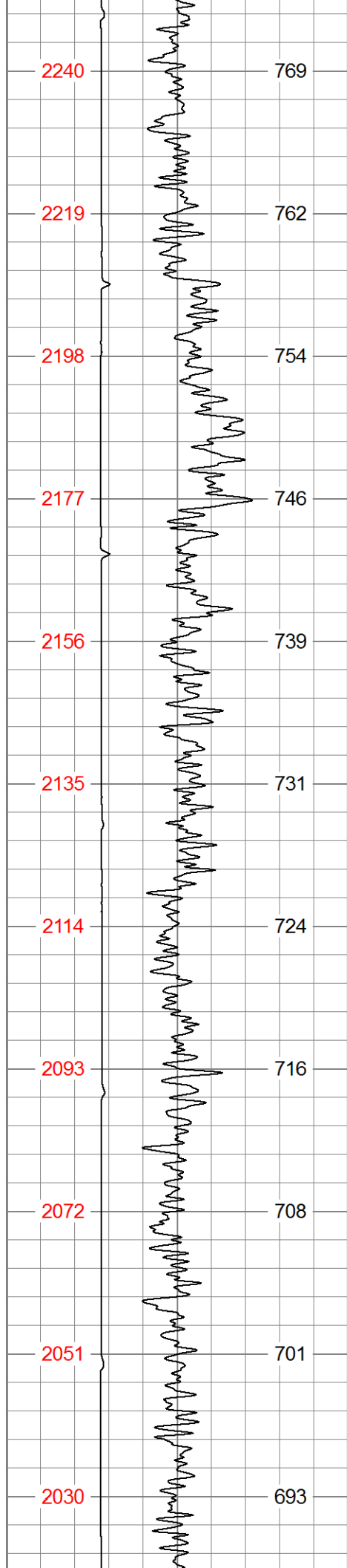
Fri Jan 29 20:45:53 2016

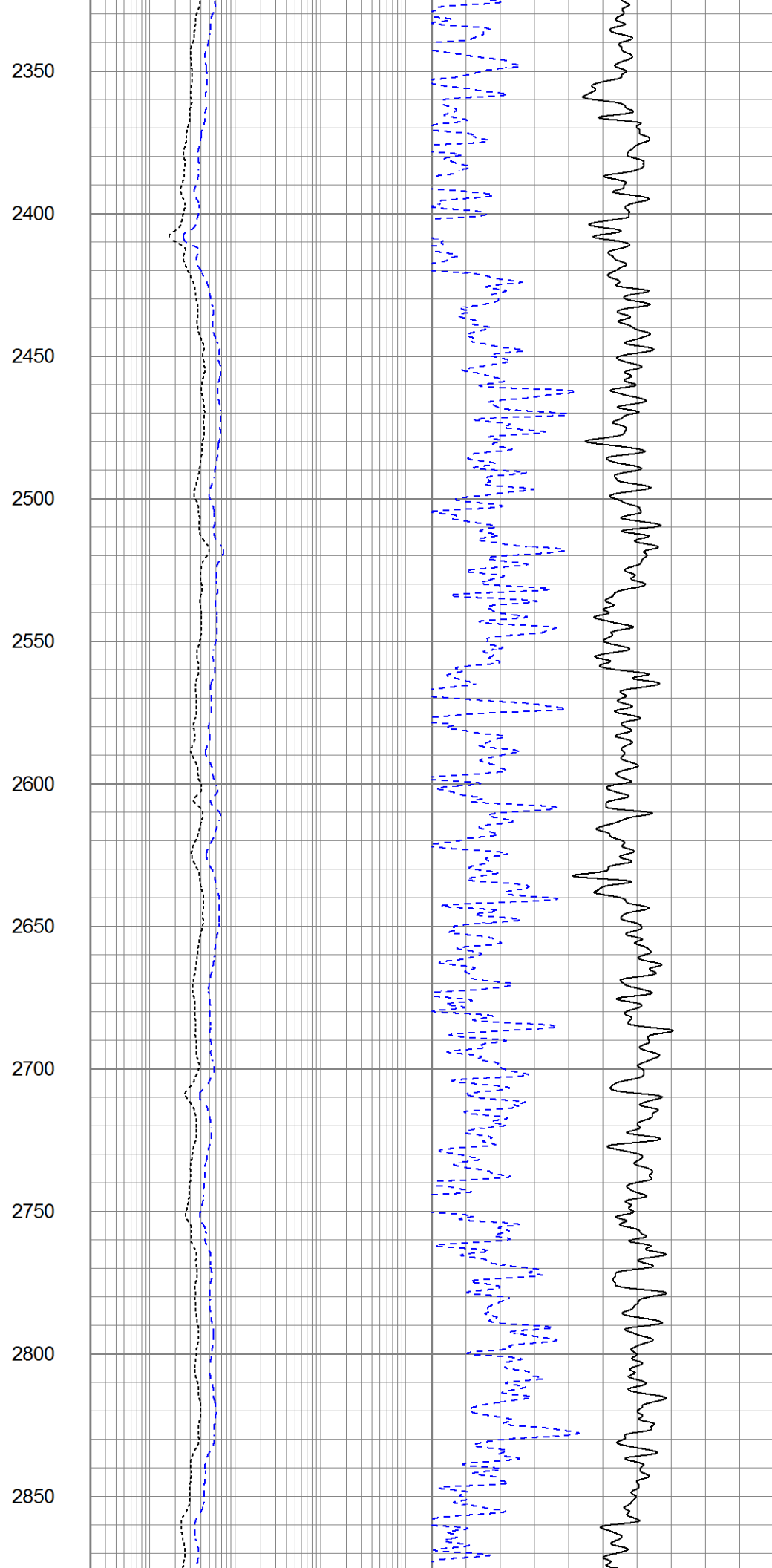
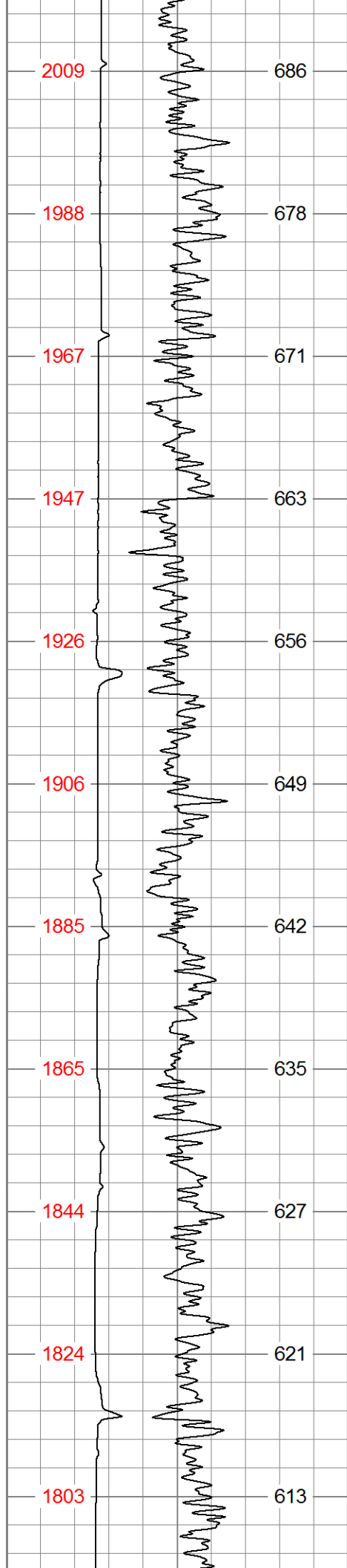
Charted by

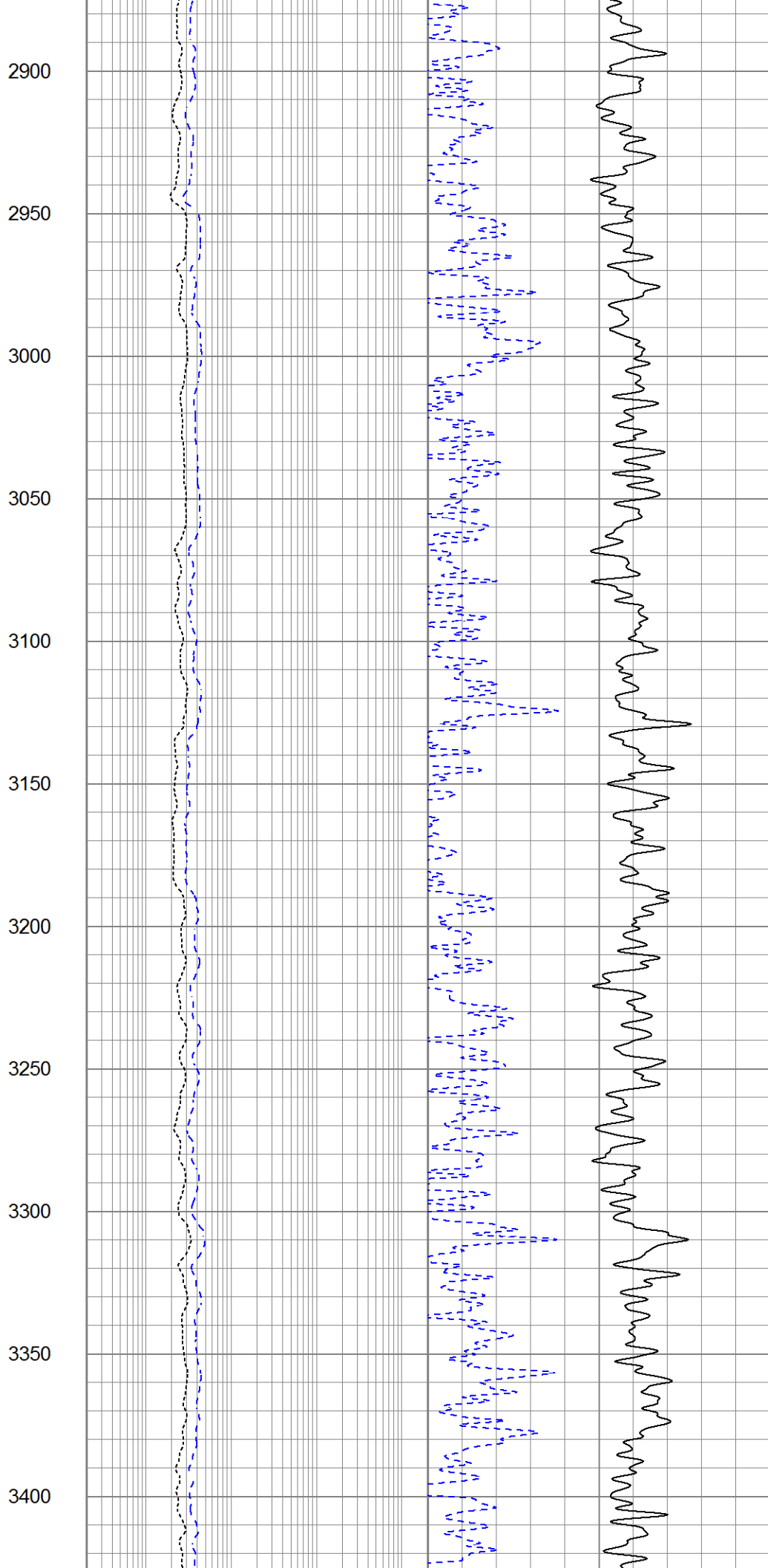
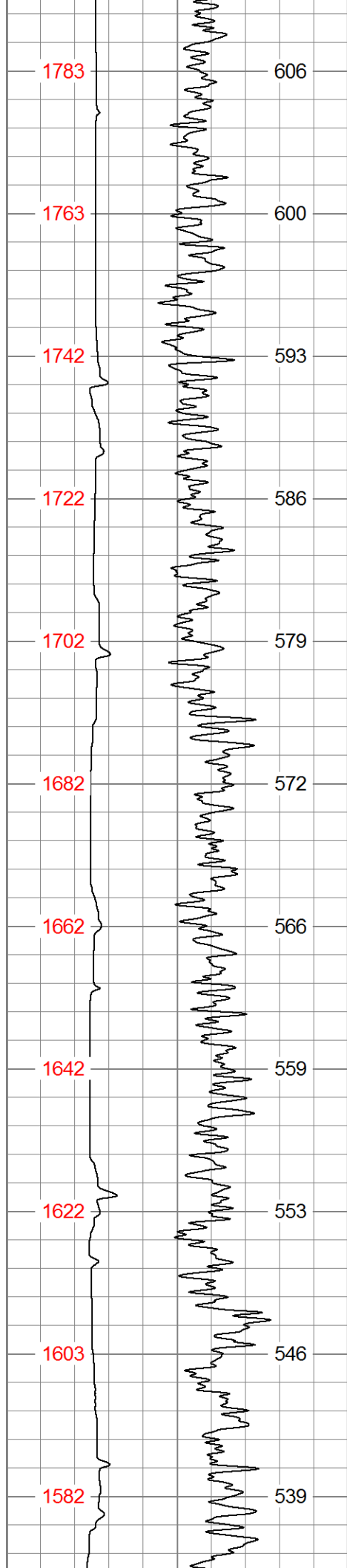
Depth in Feet scaled 1:600

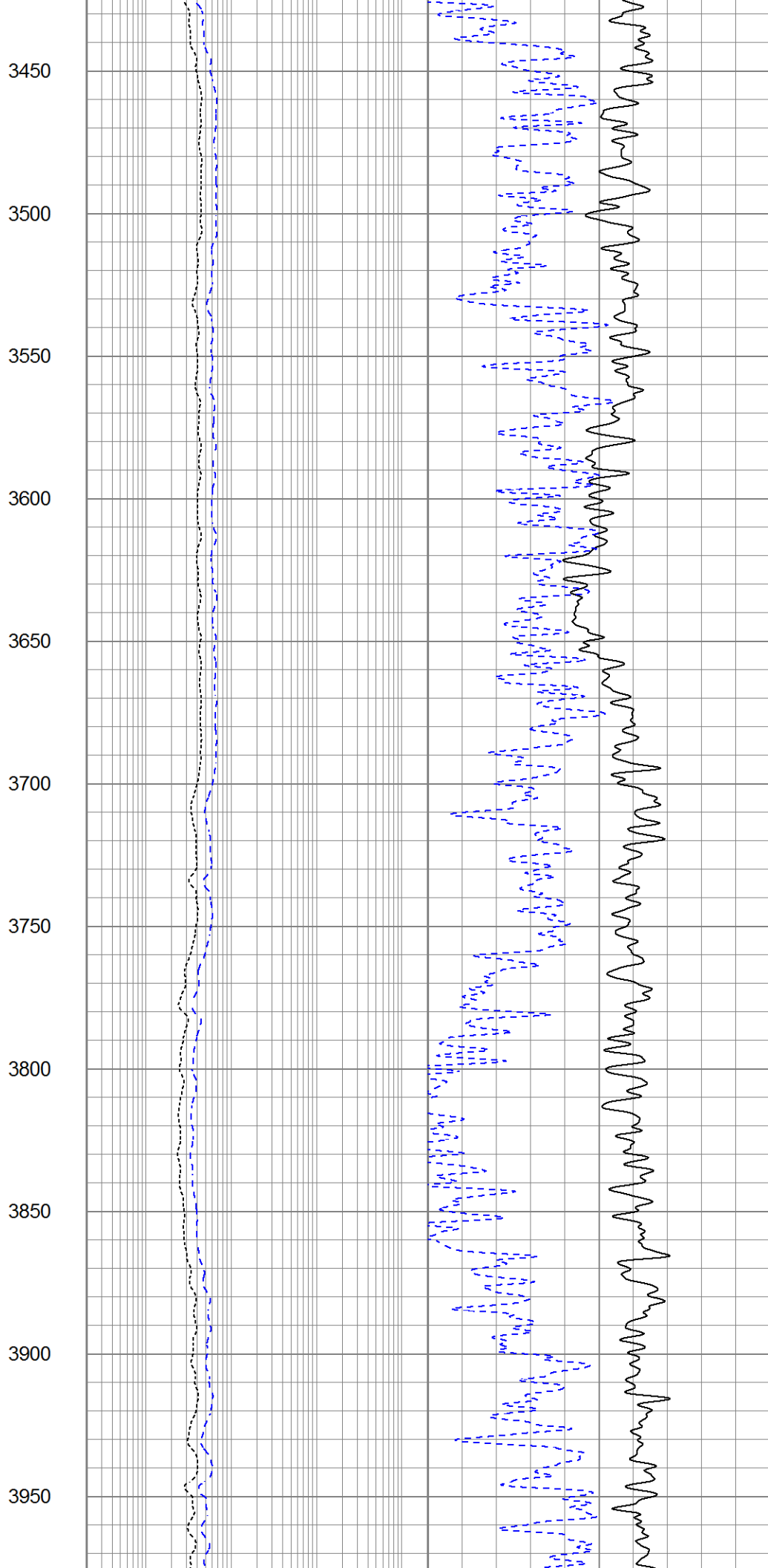
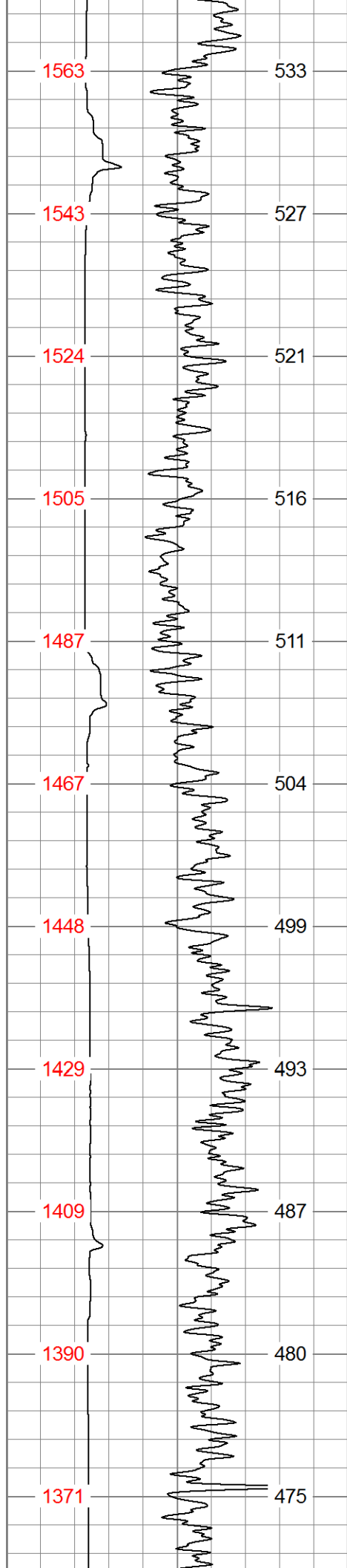
0	GAMMA RAY (GAPI)	200	MEDIUM INDUCTION	0.2	(Ohm-m)	2000	30	DENSITY POROSITY (pu)	0
6	CALIPER (in)	16					30	NEUTRON POROSITY (pu)	0
6	DCAL (in)	16							
			DEEP INDUCTION	0.2	(Ohm-m)	2000			

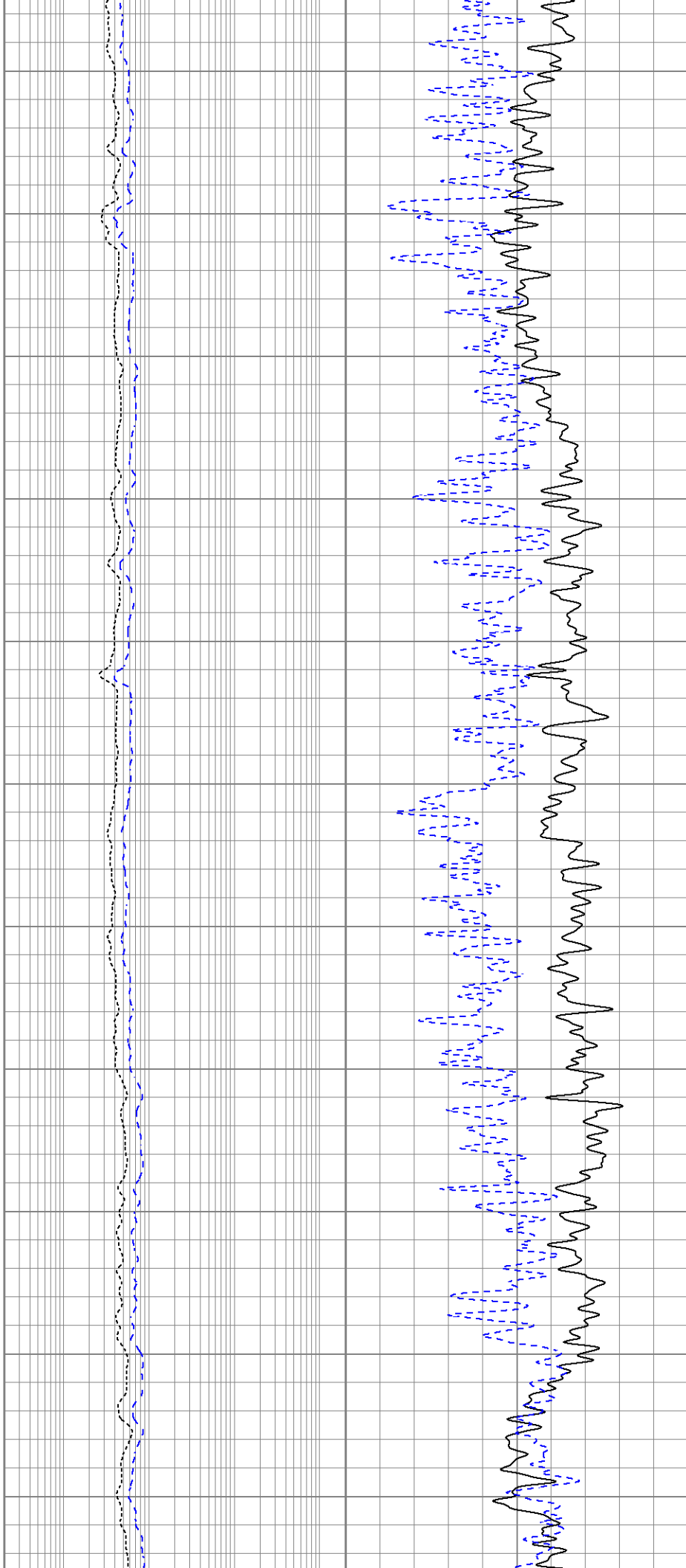
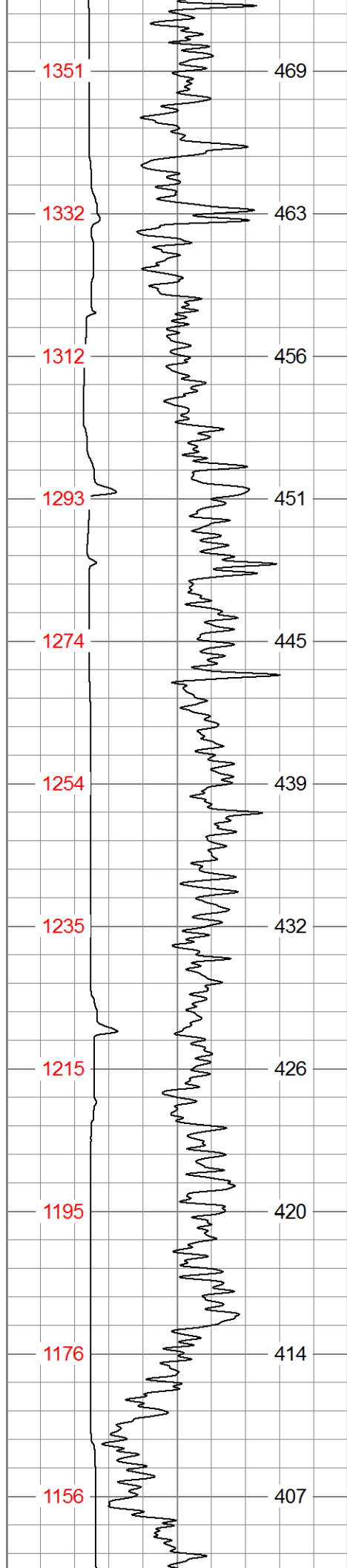


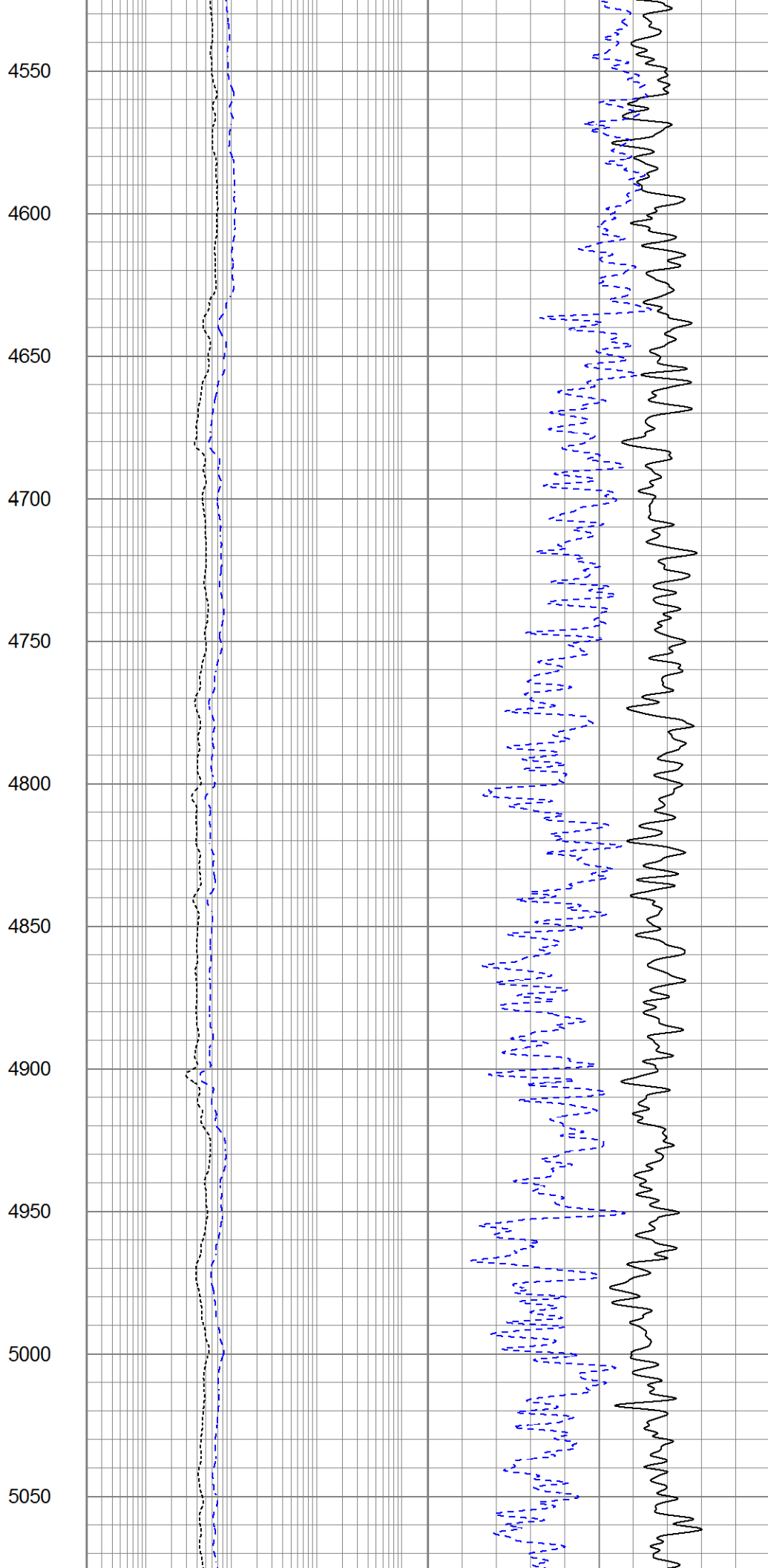
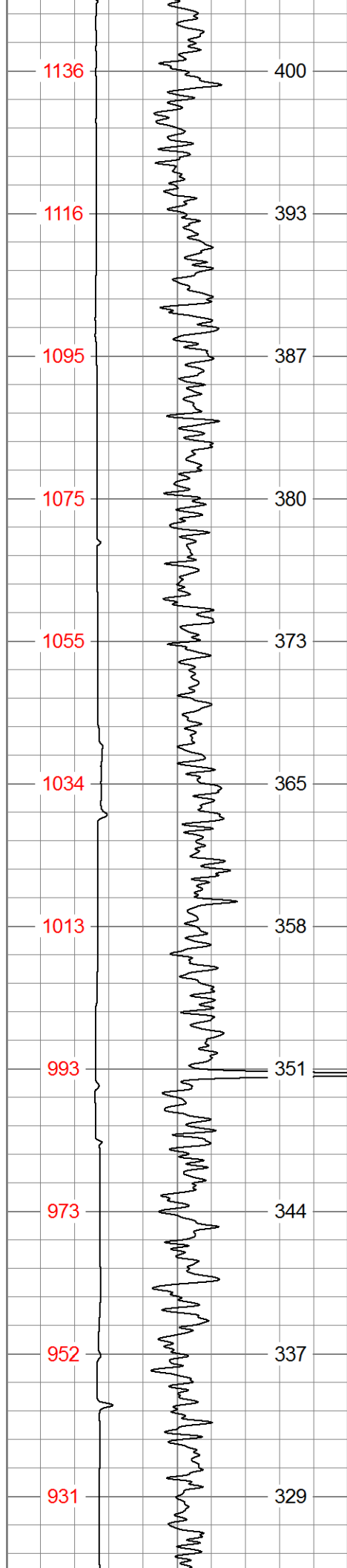


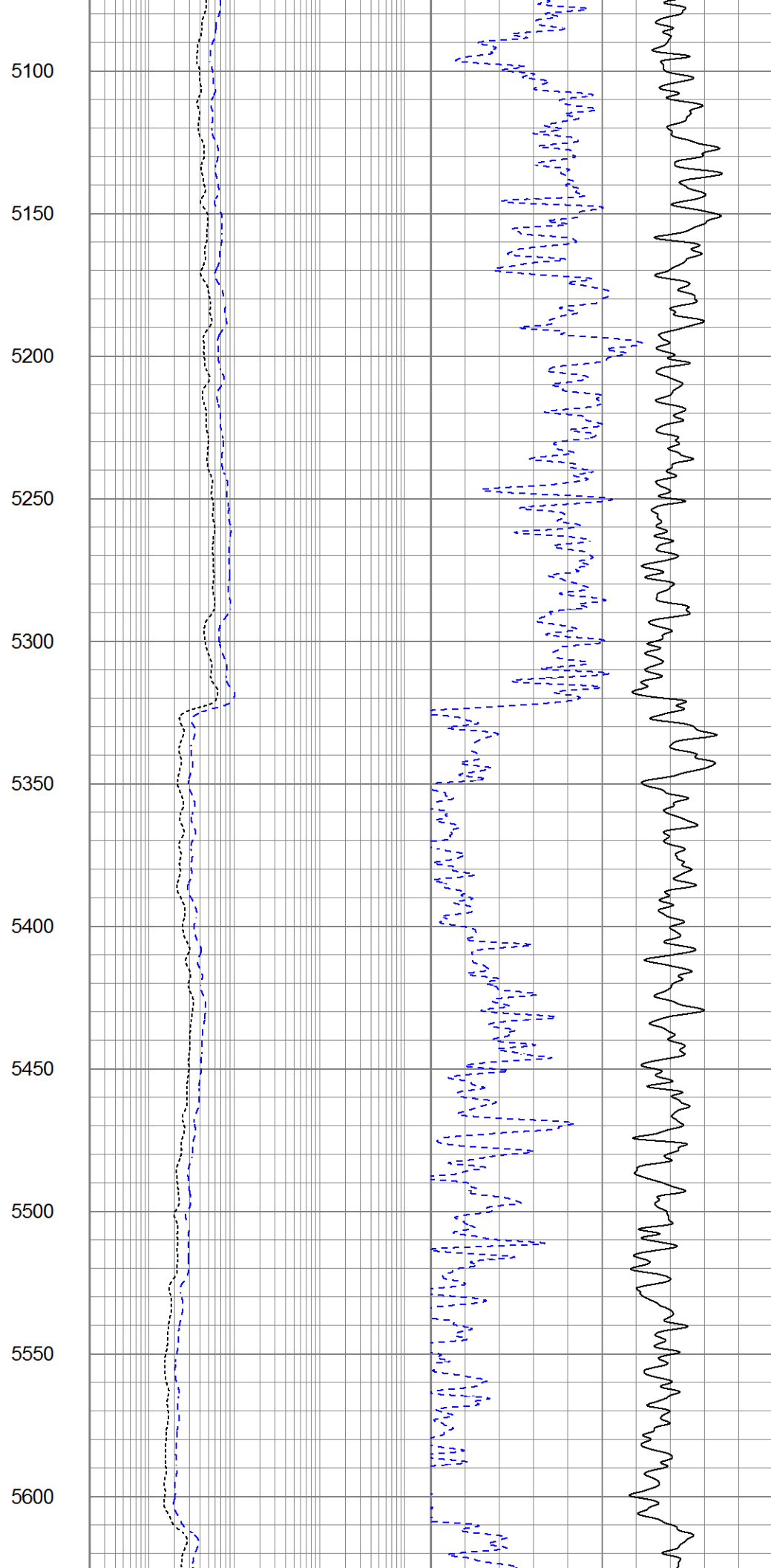
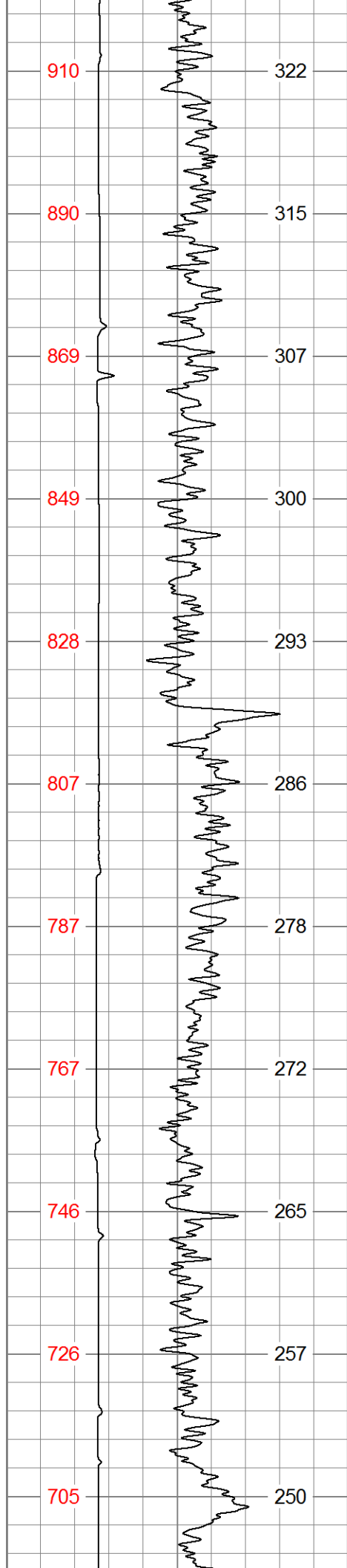


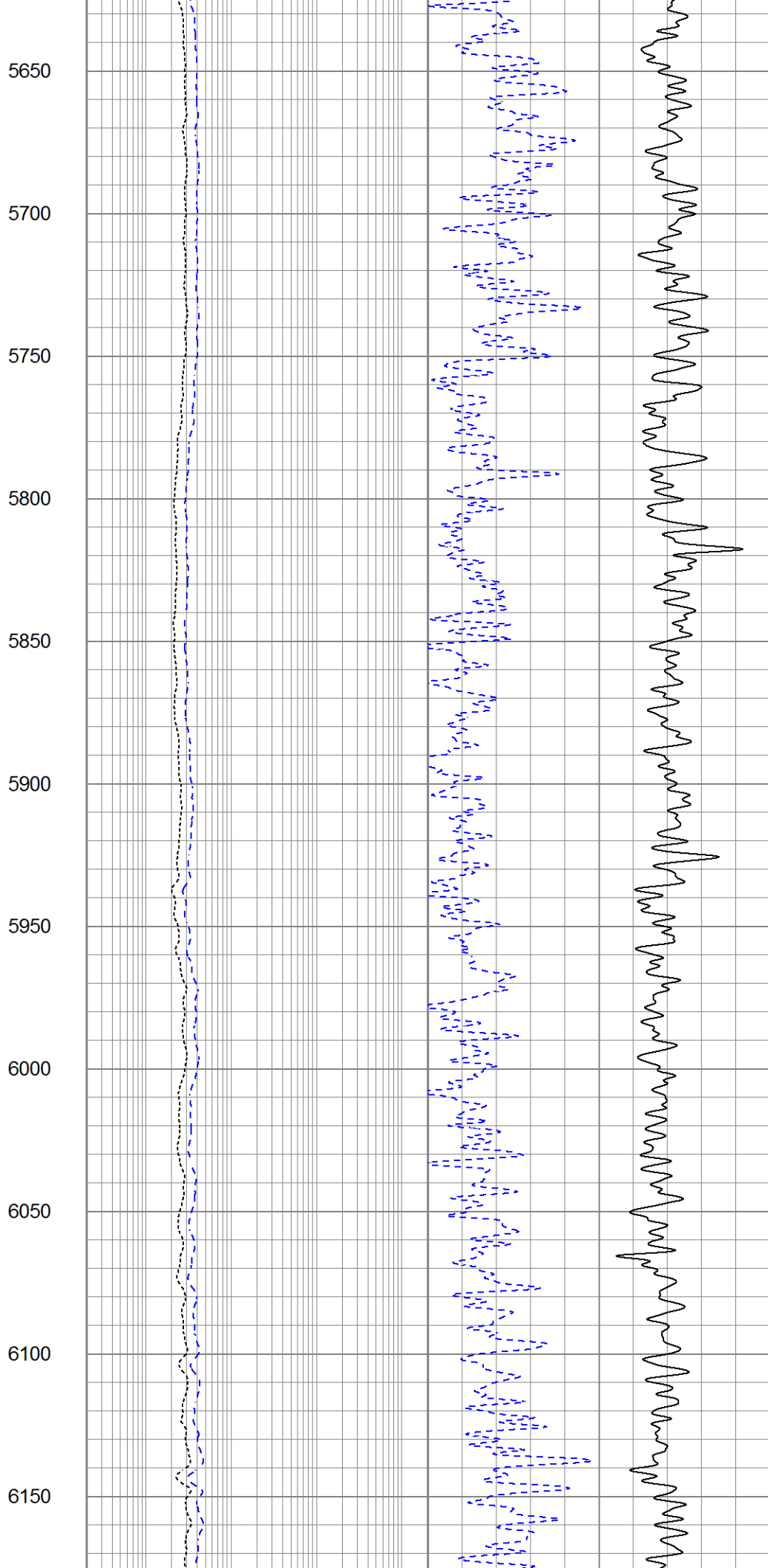
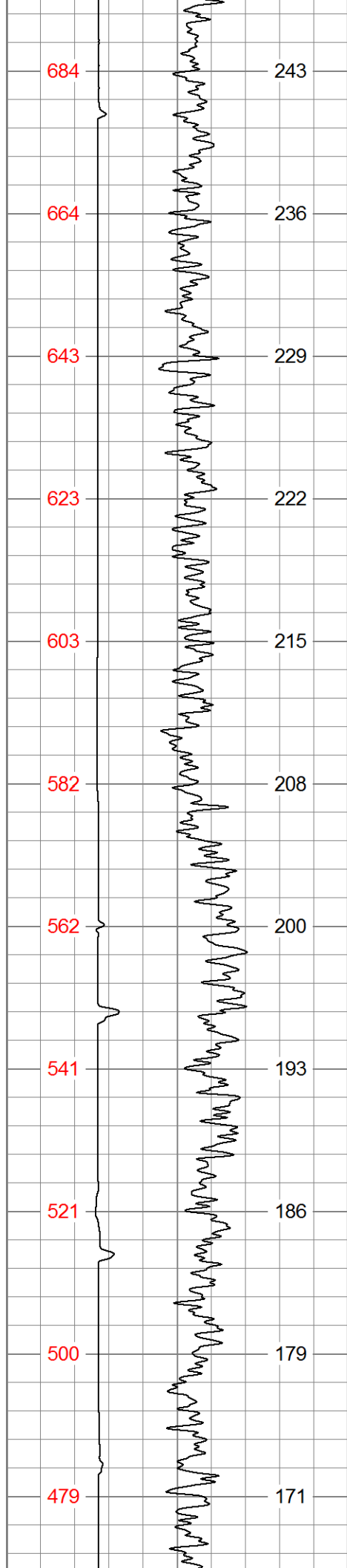


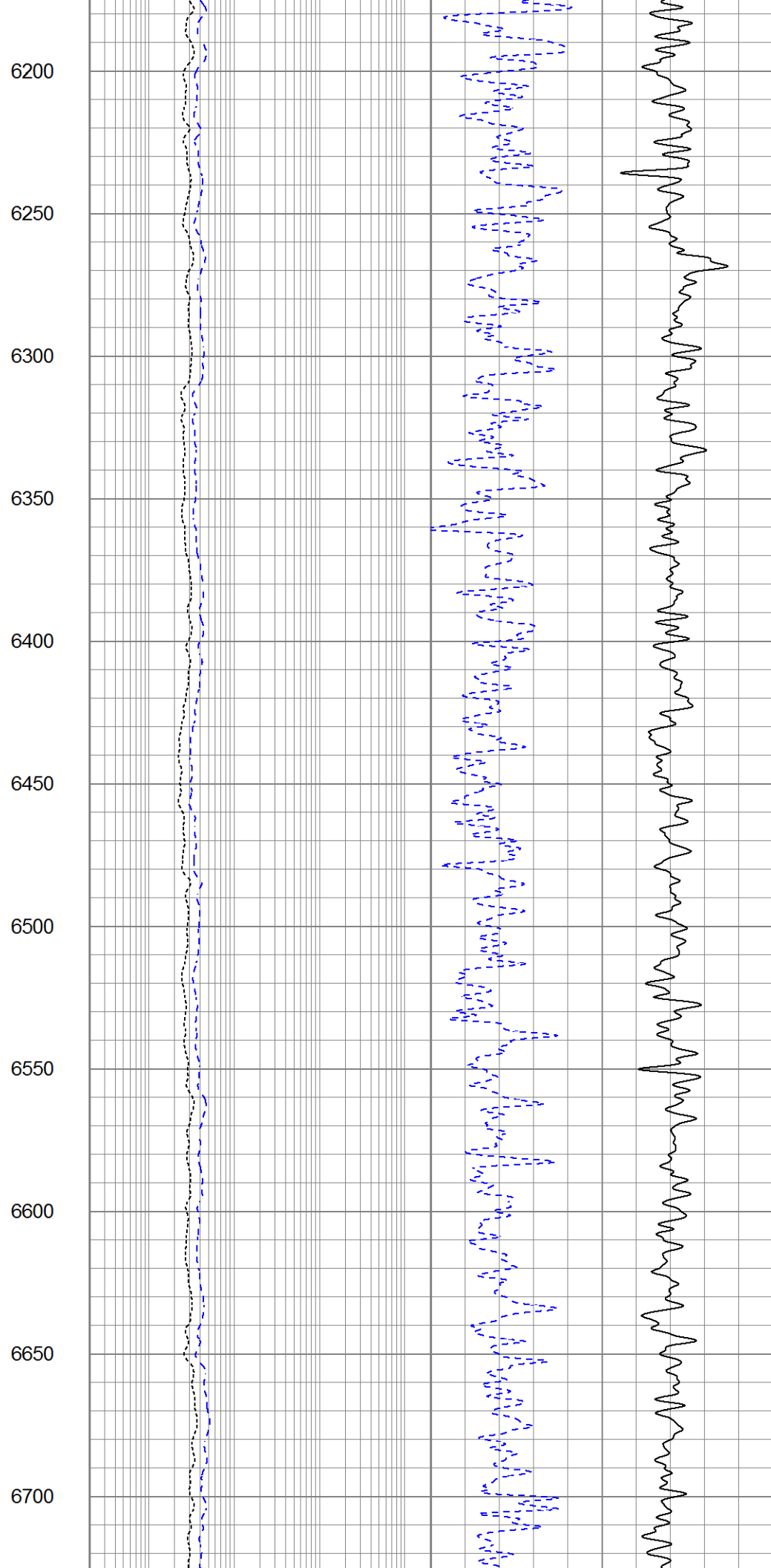
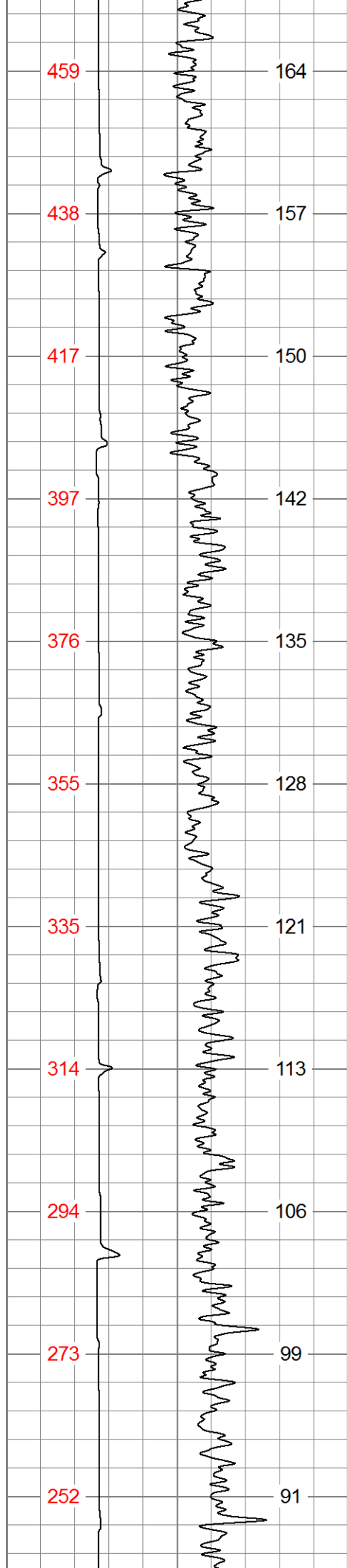


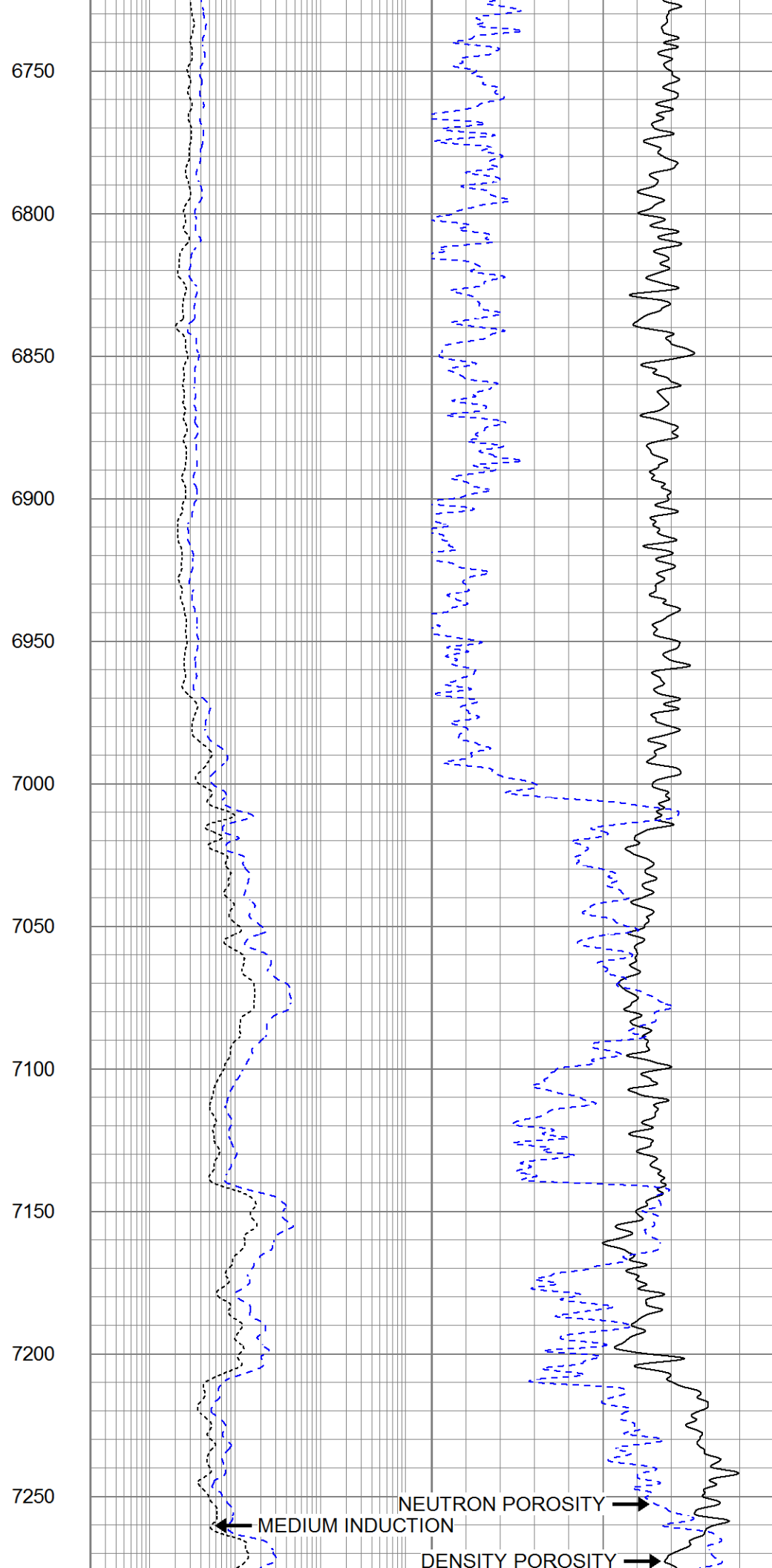
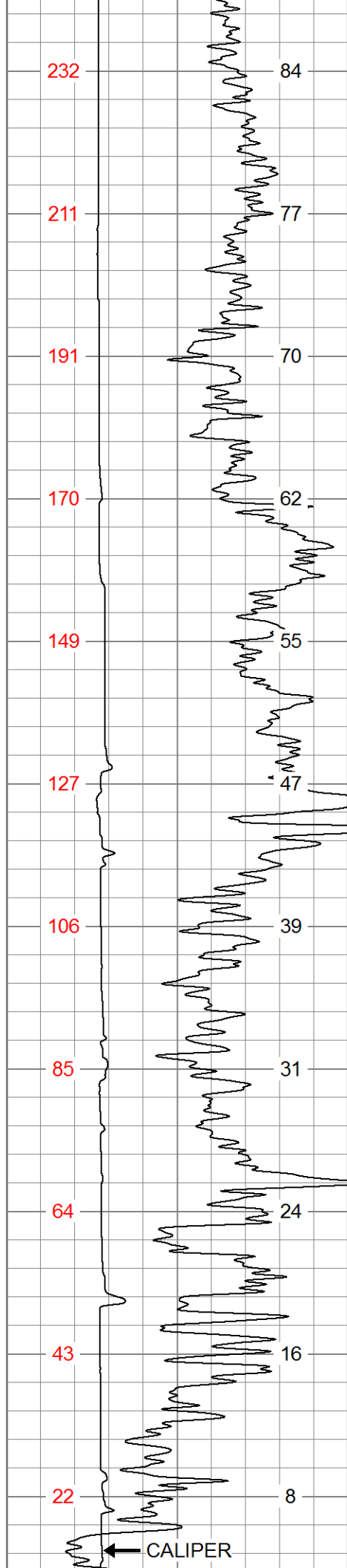


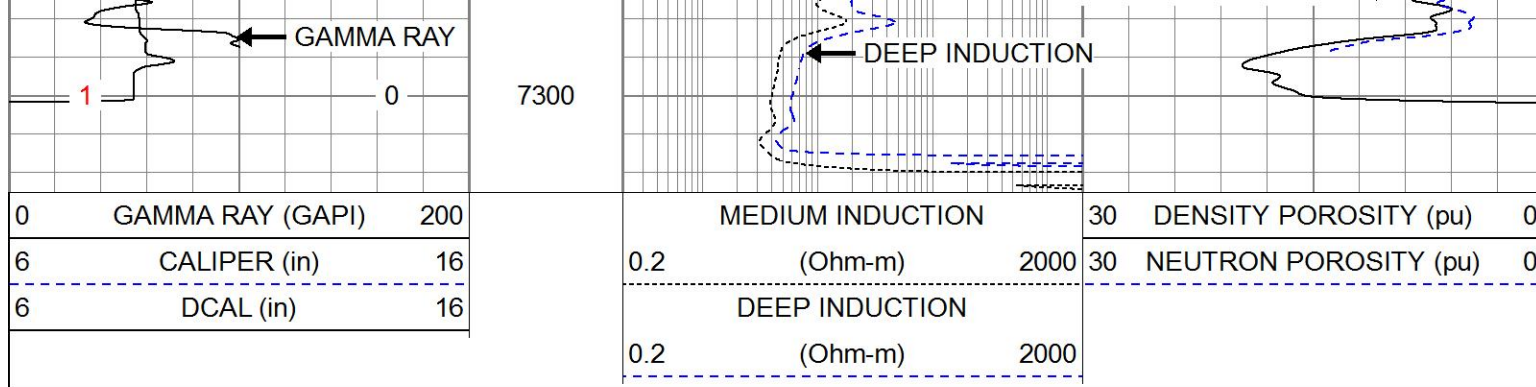






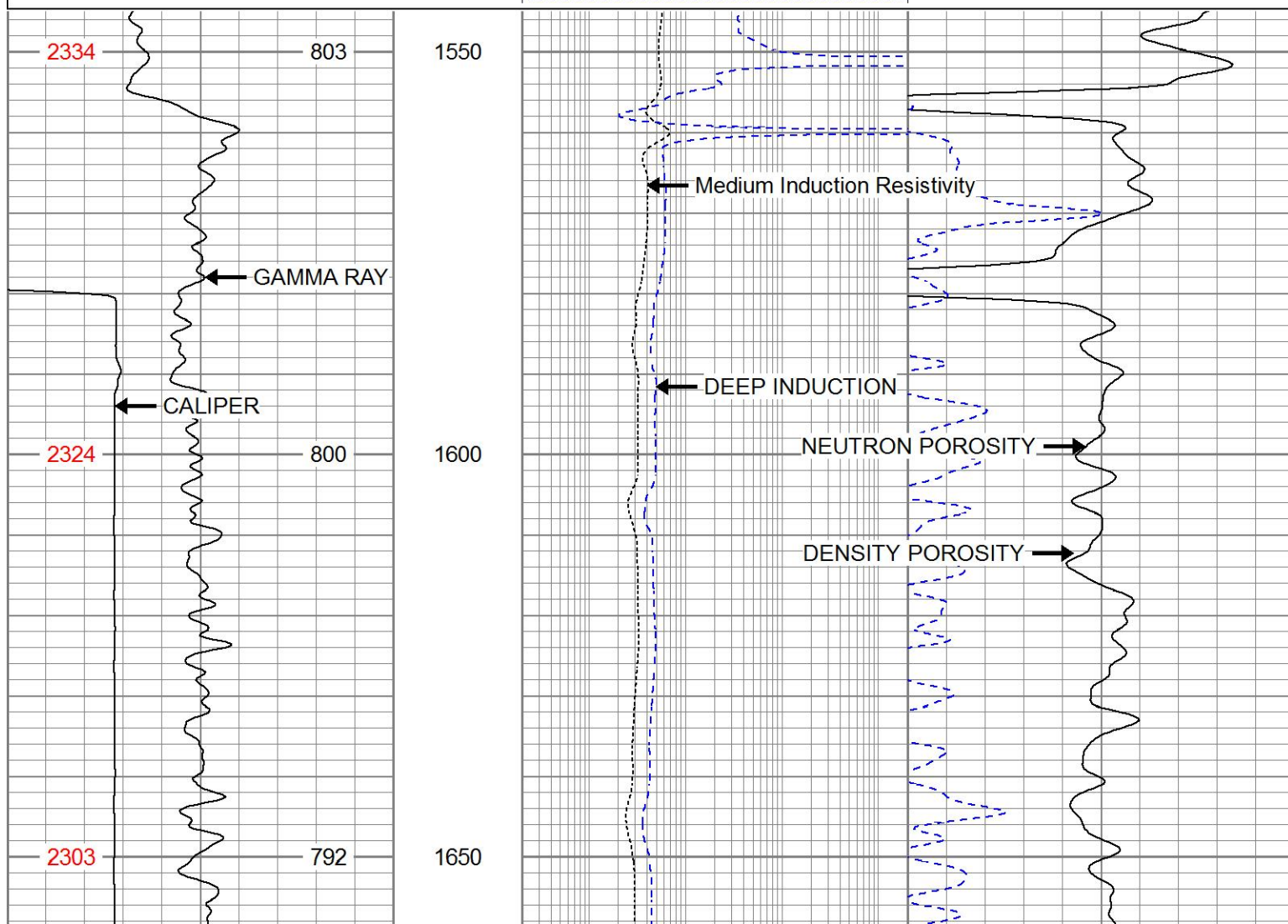
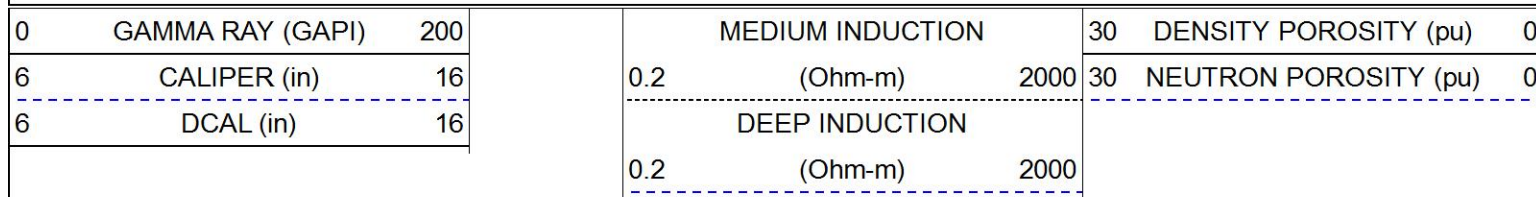


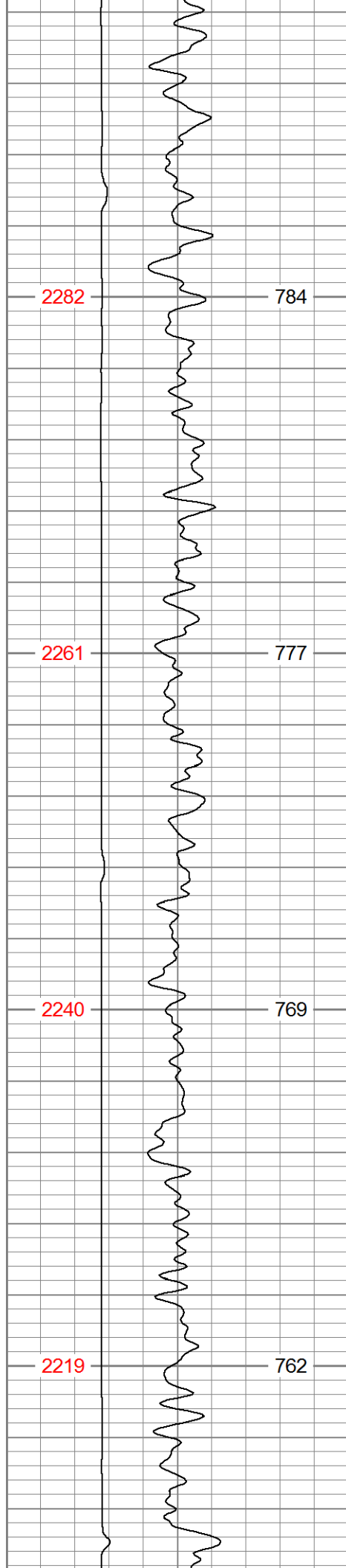




MAIN PASS

Database File extraction_fairview_2.db
 Dataset Pathname stack/pass4.1
 Presentation Format split
 Dataset Creation Fri Jan 29 20:45:53 2016
 Charted by Depth in Feet scaled 1:240



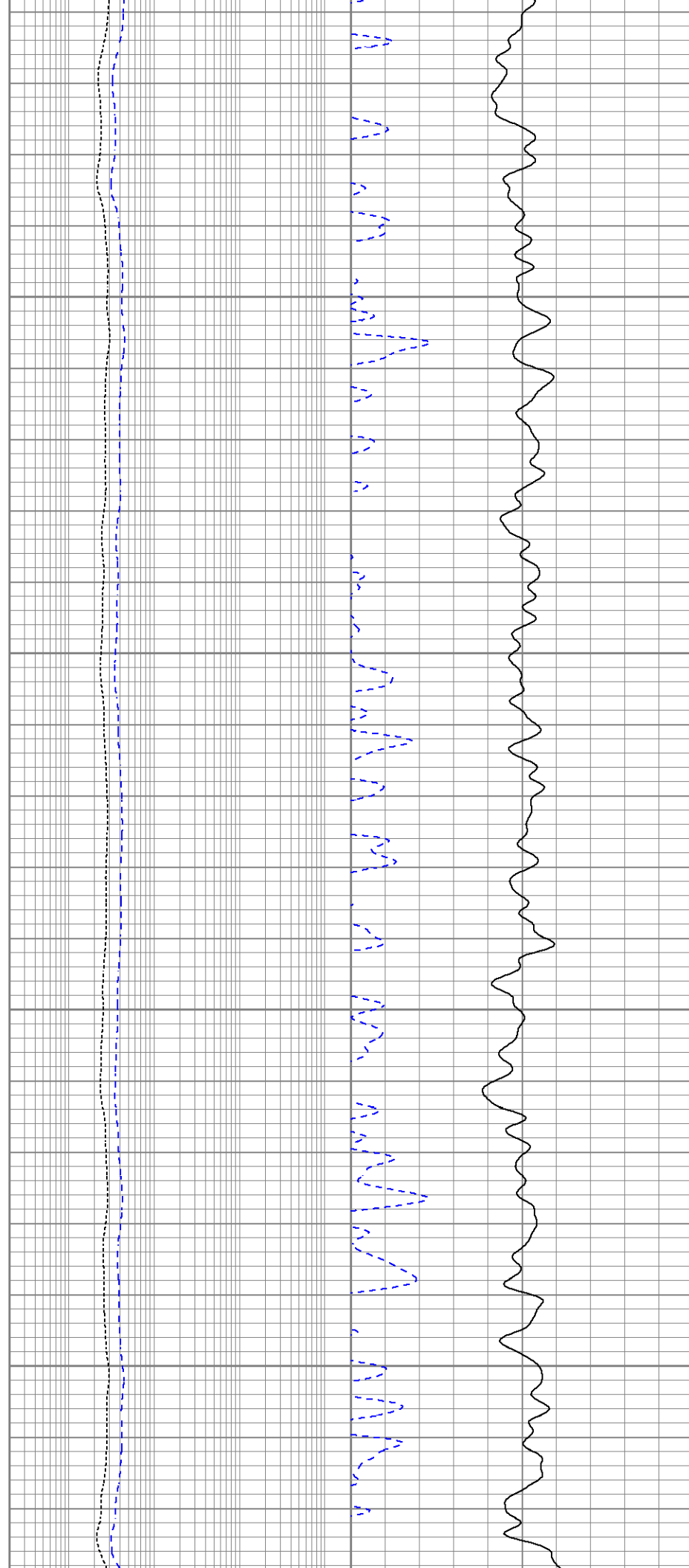


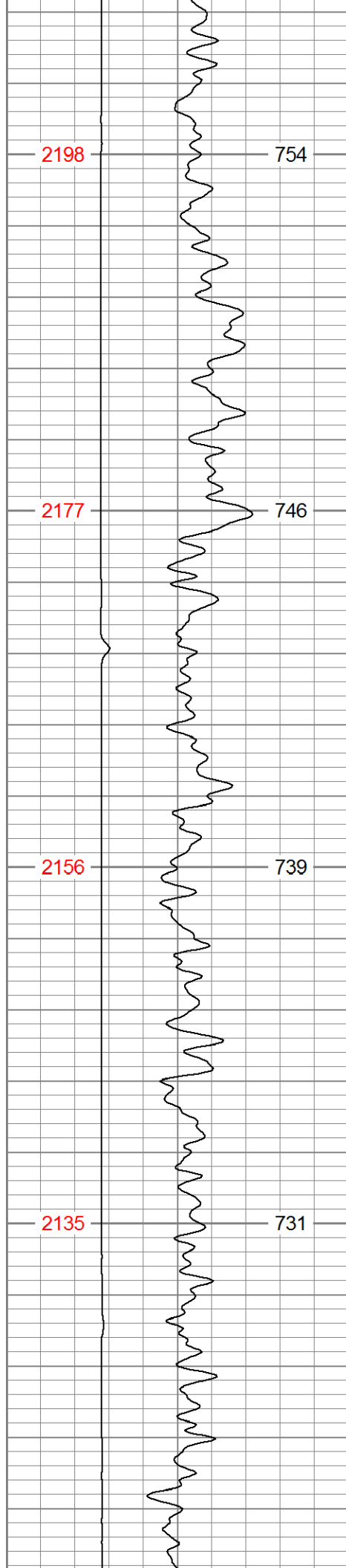
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1750

1800

1850



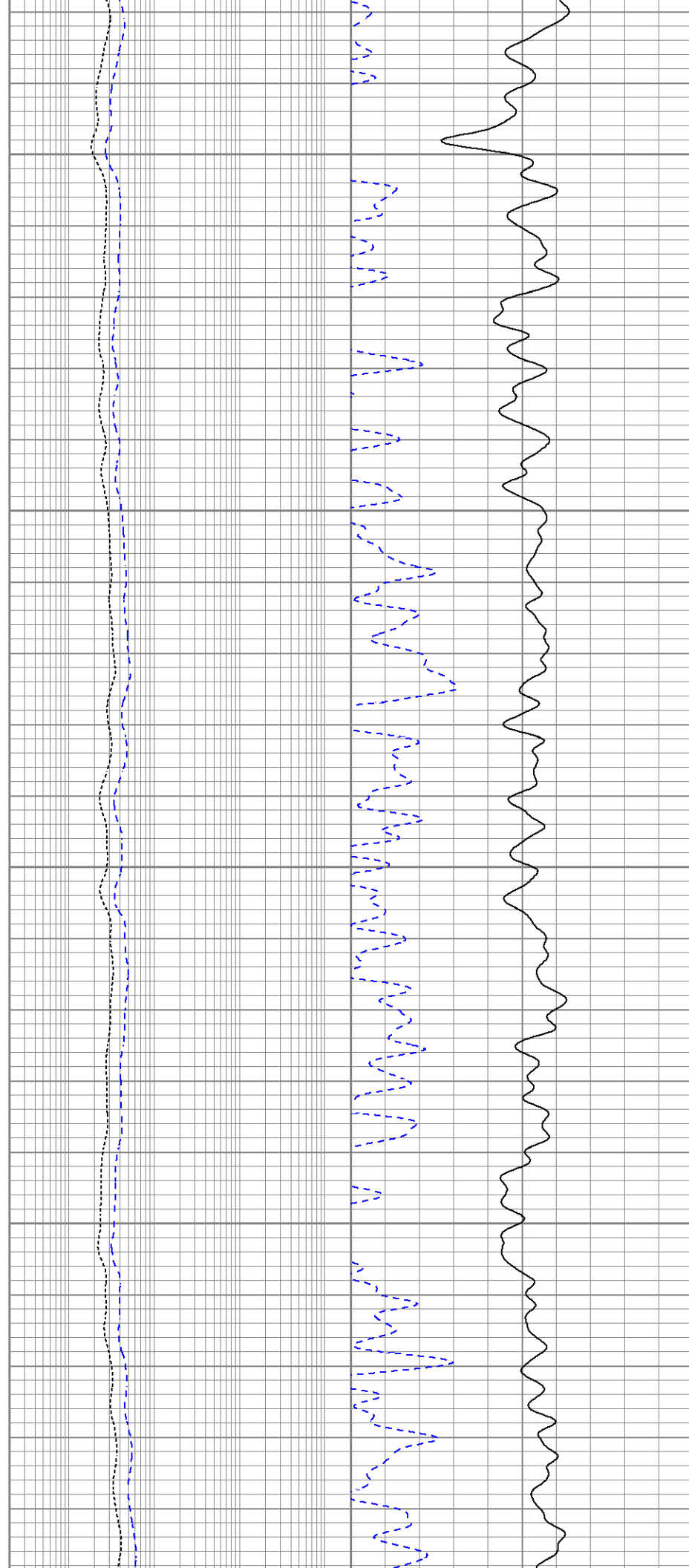


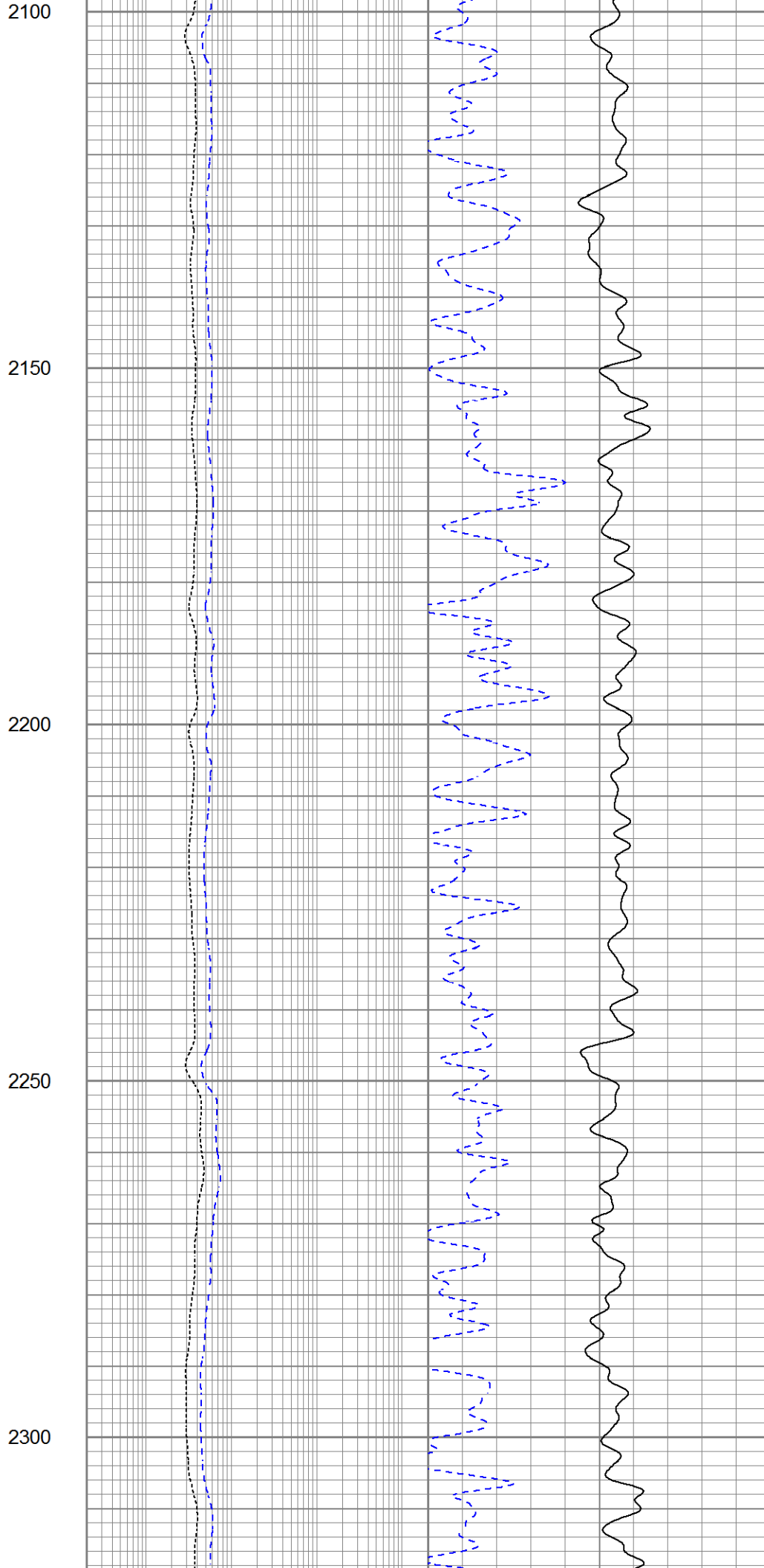
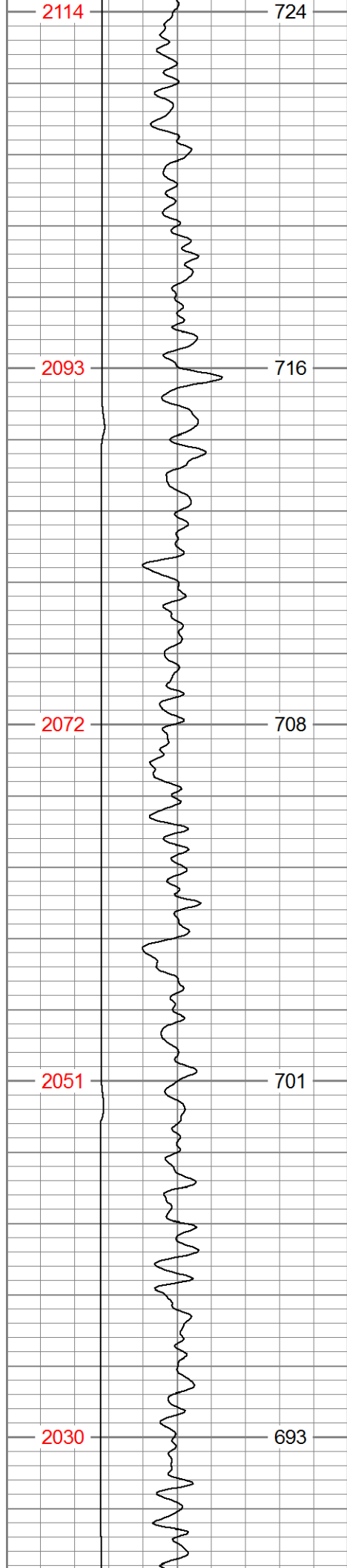
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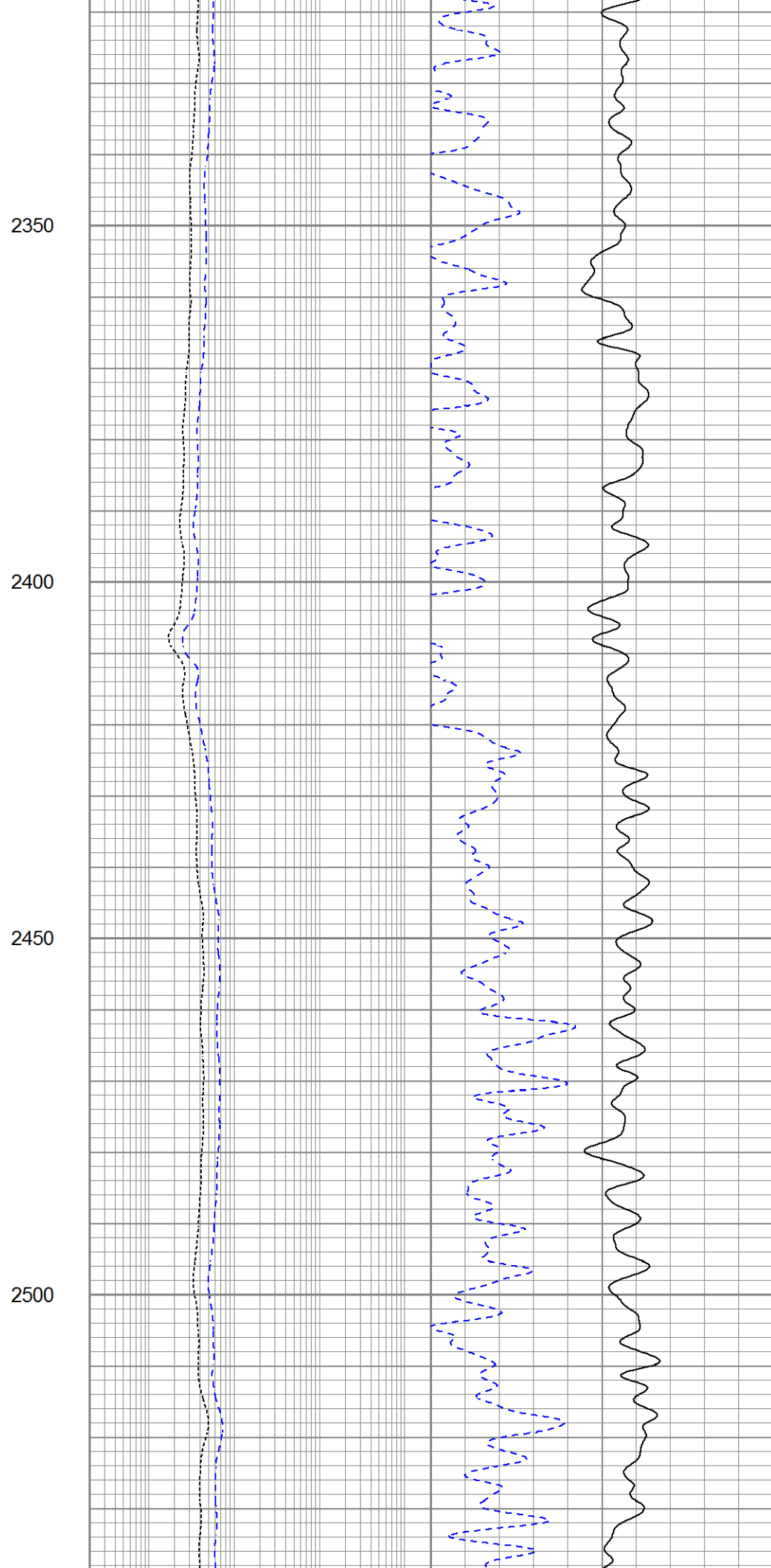
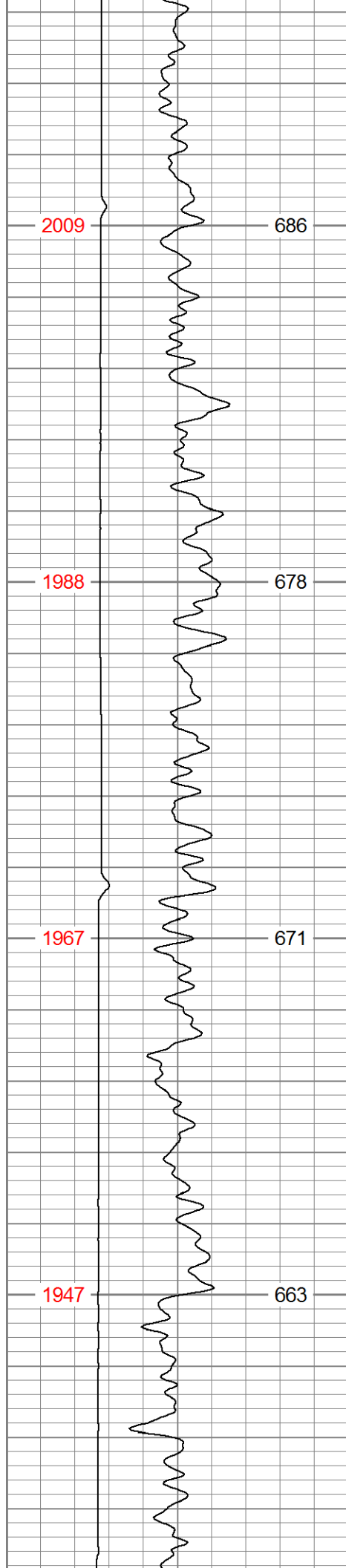
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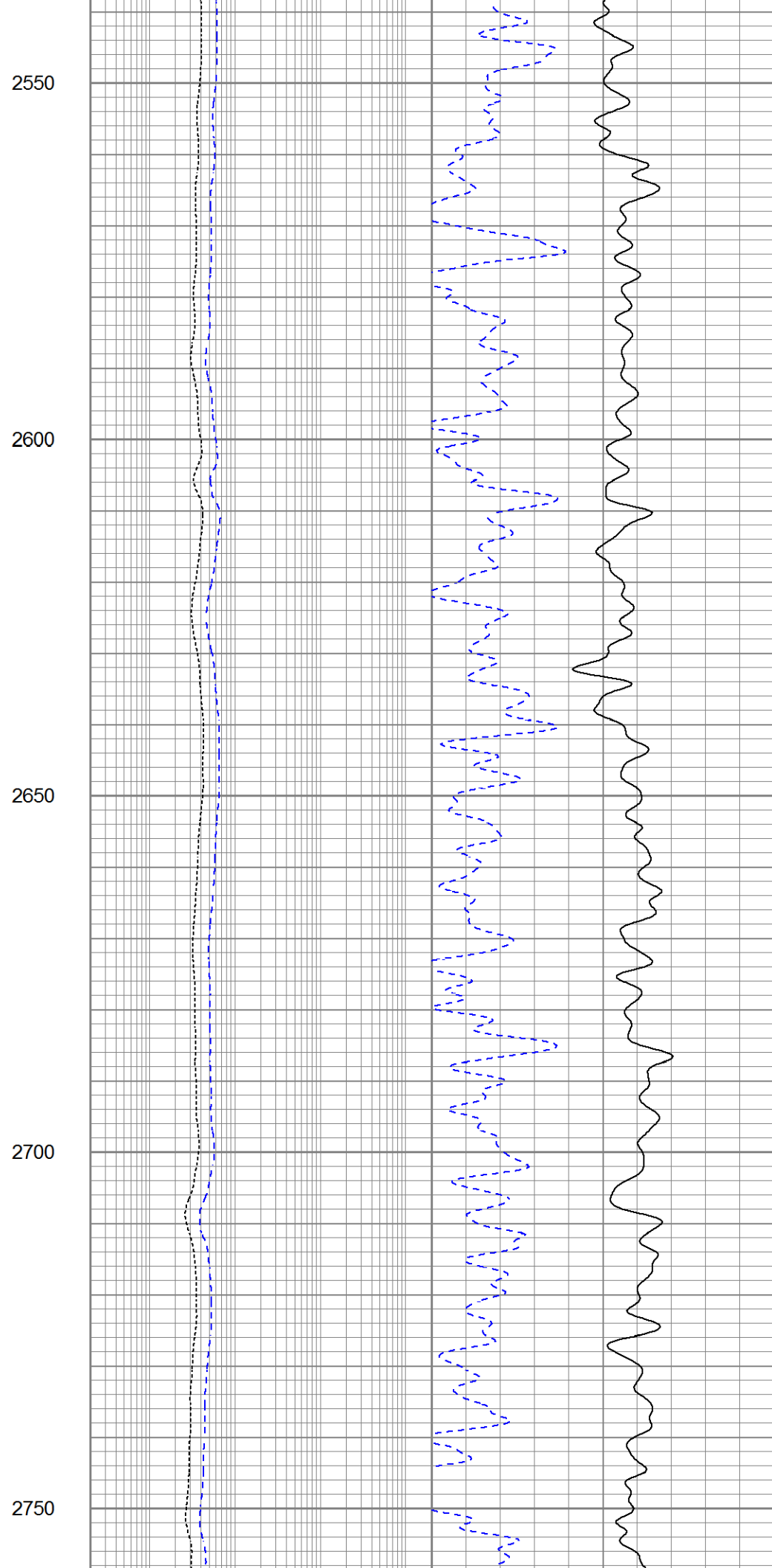
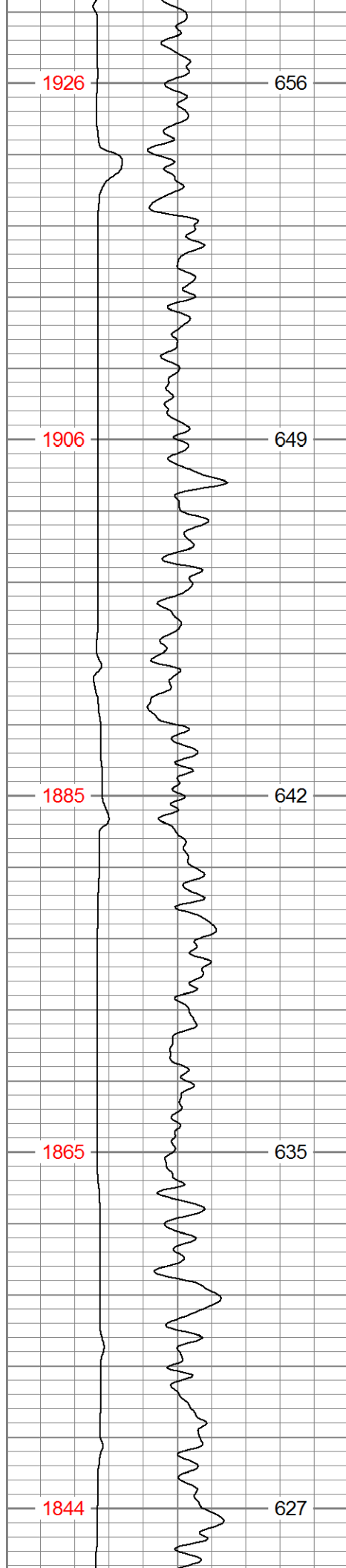
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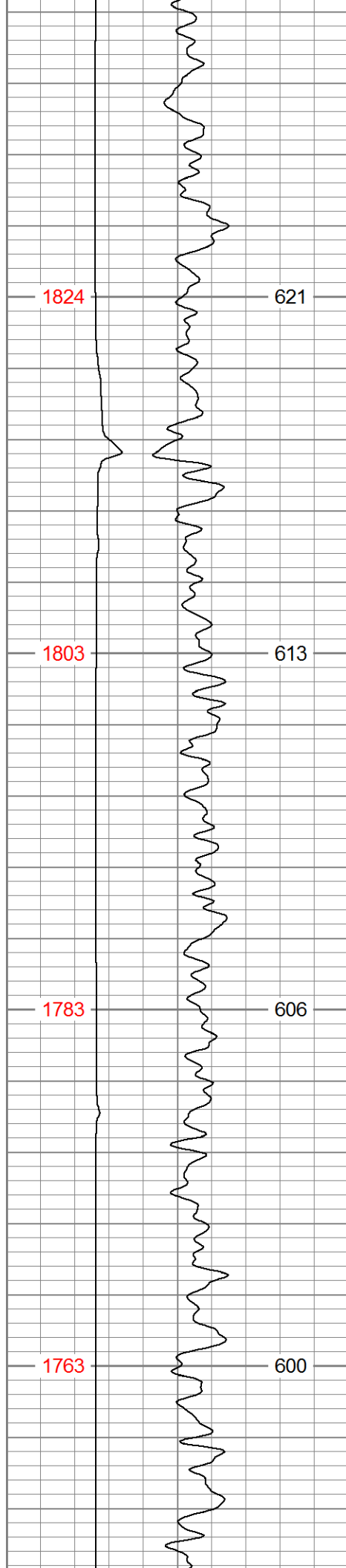
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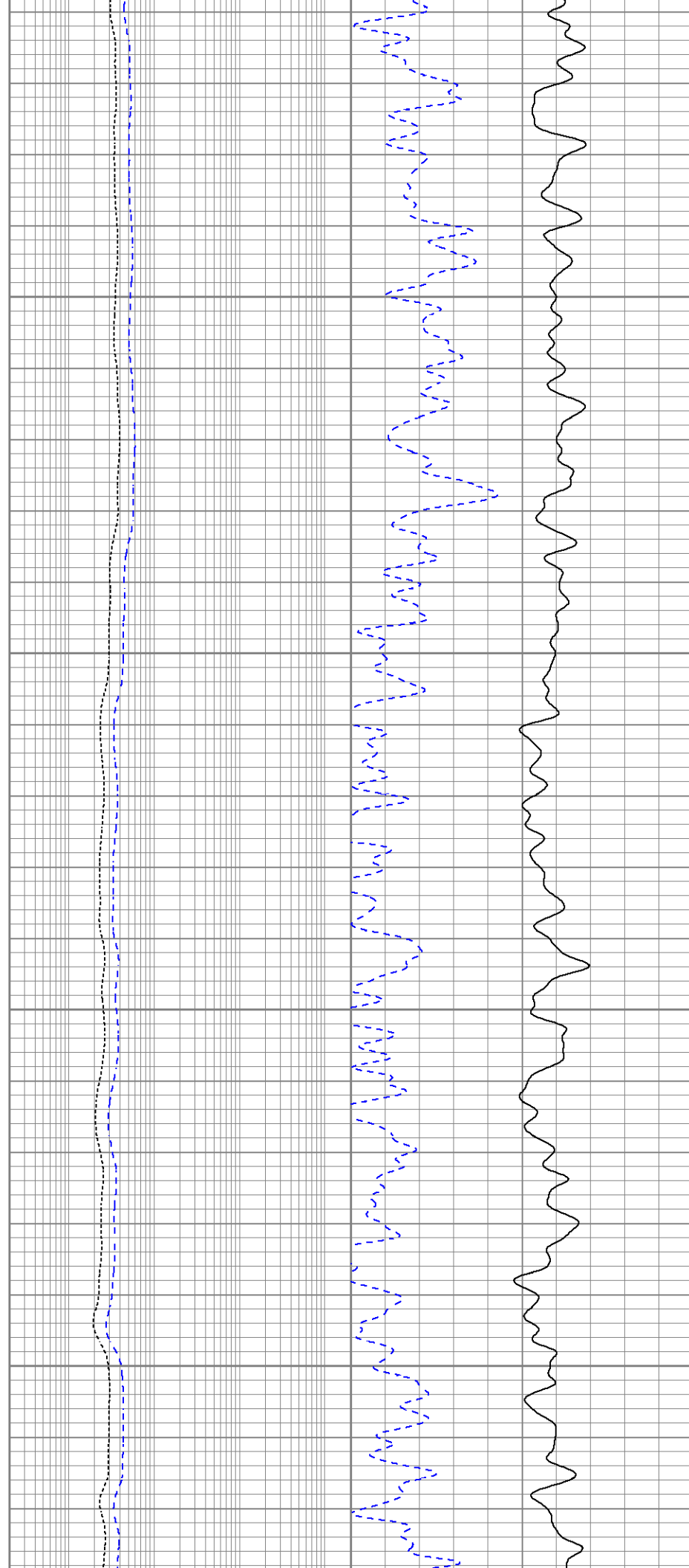


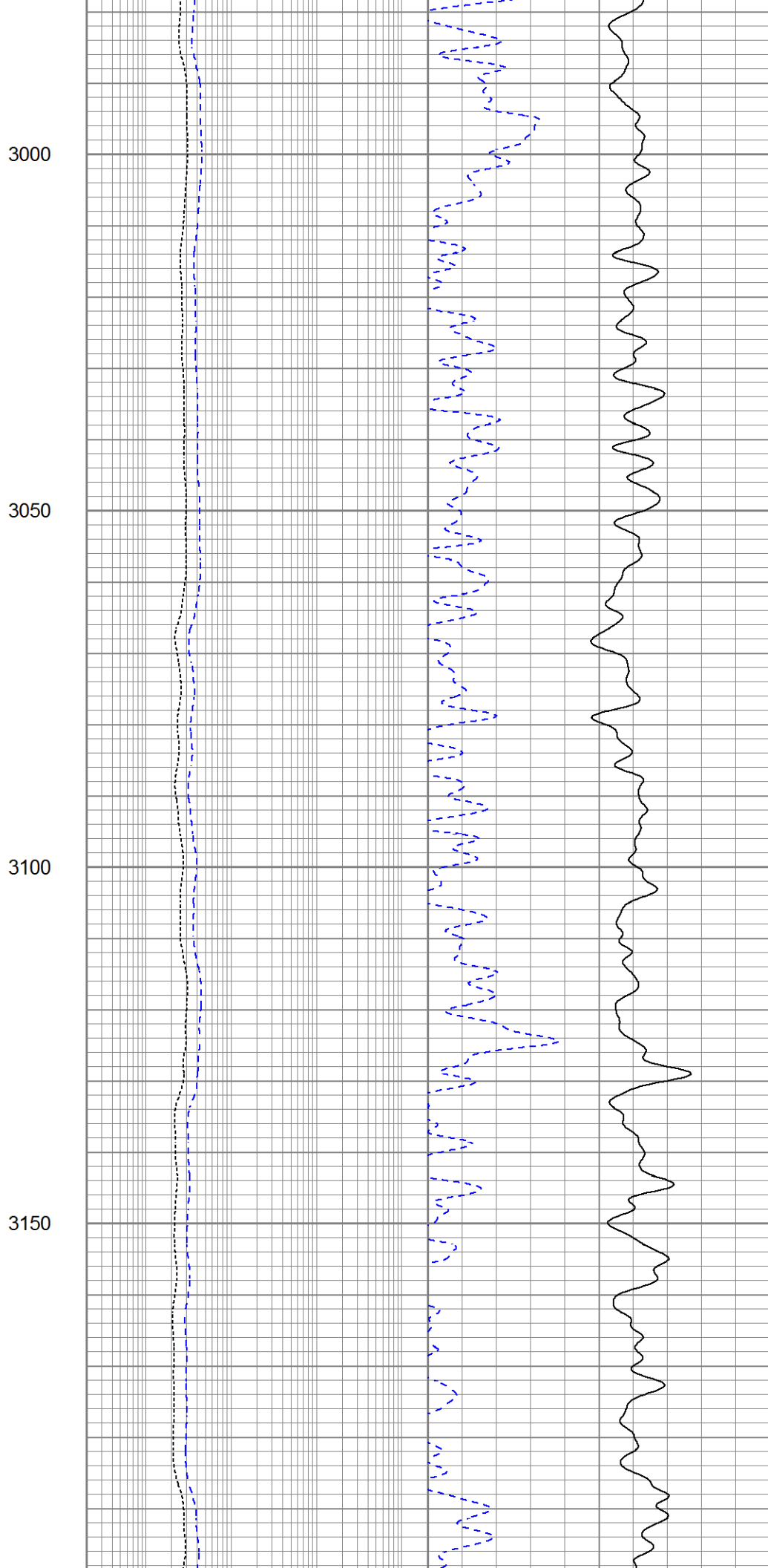
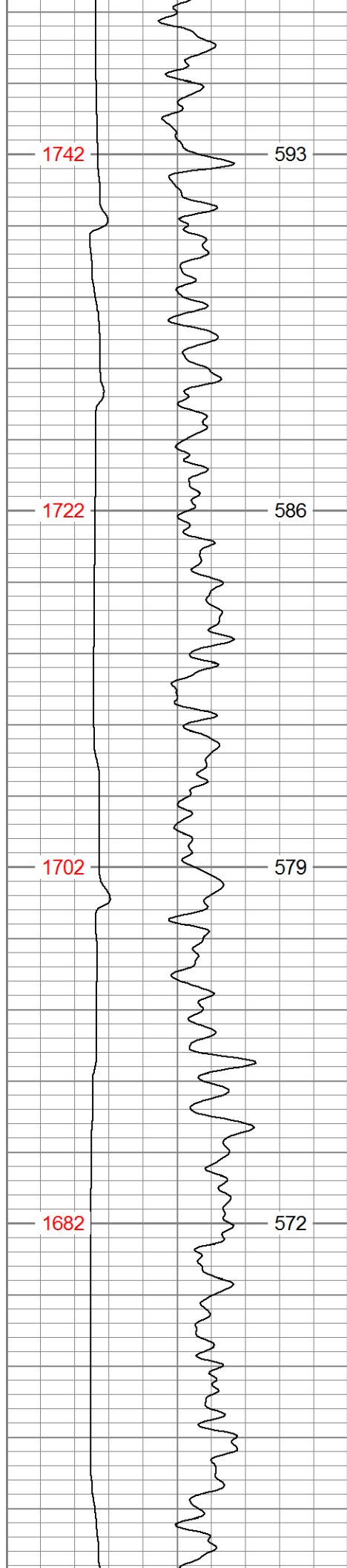
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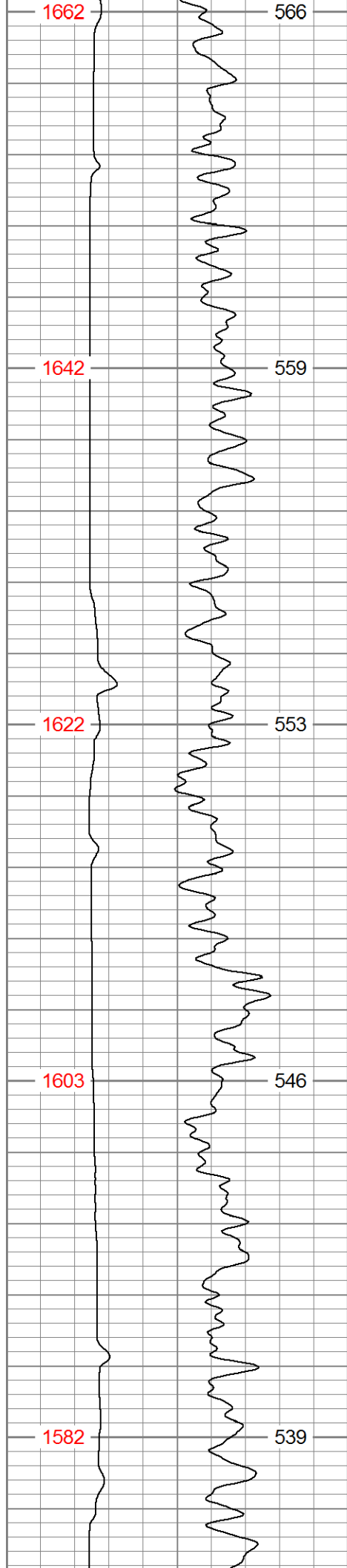
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2900

2950







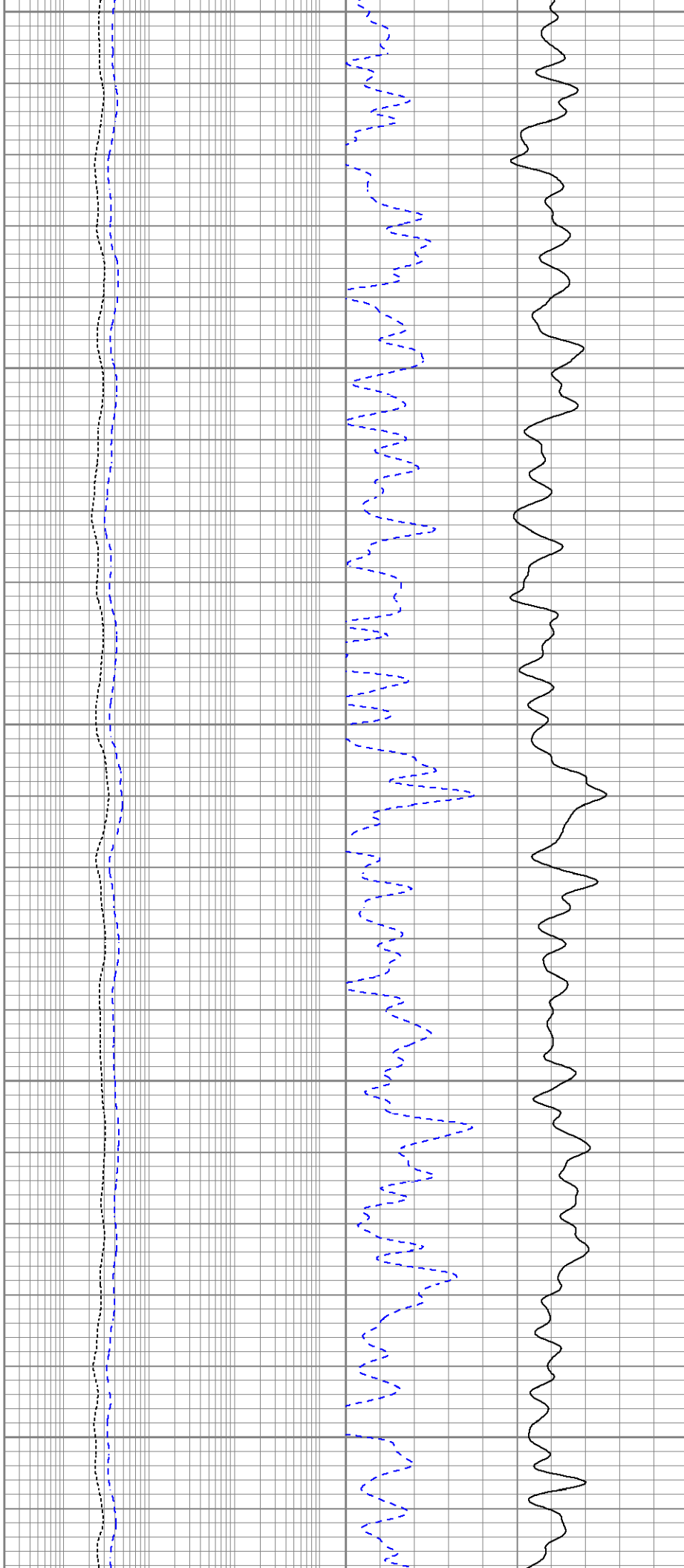
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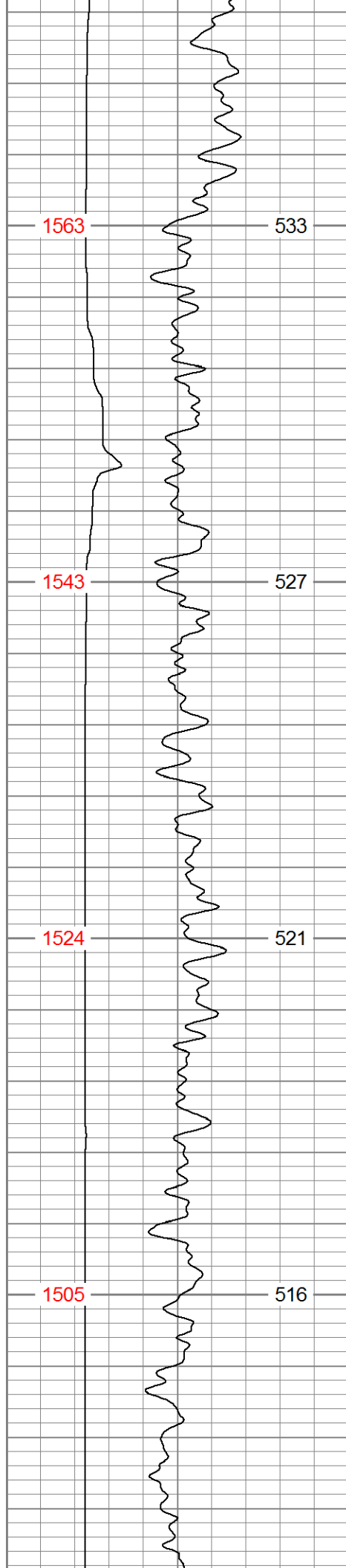
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3350

3400



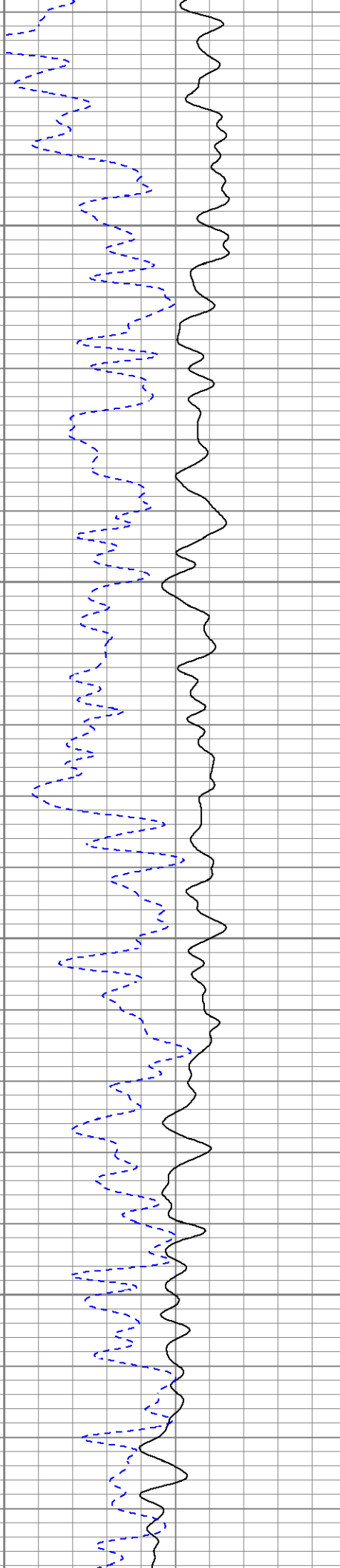
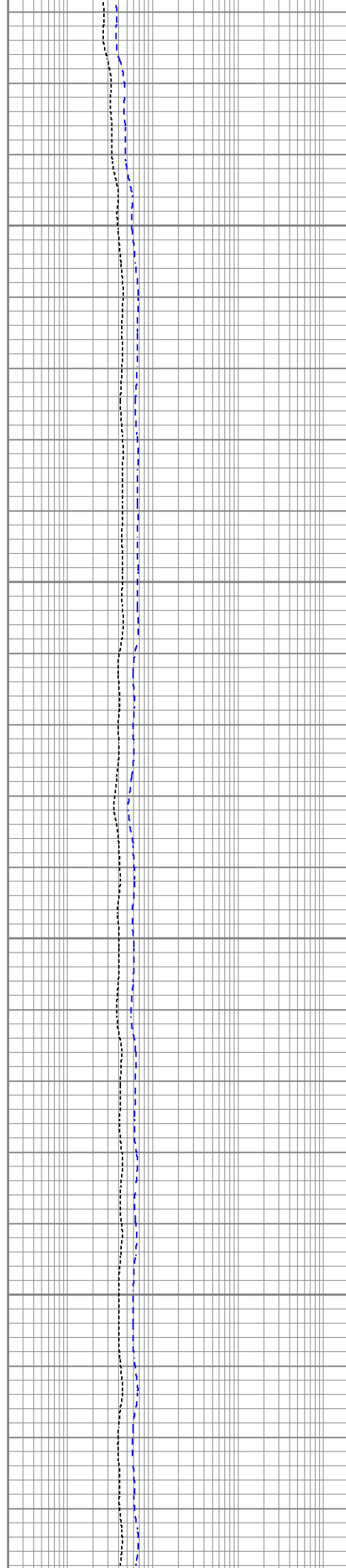


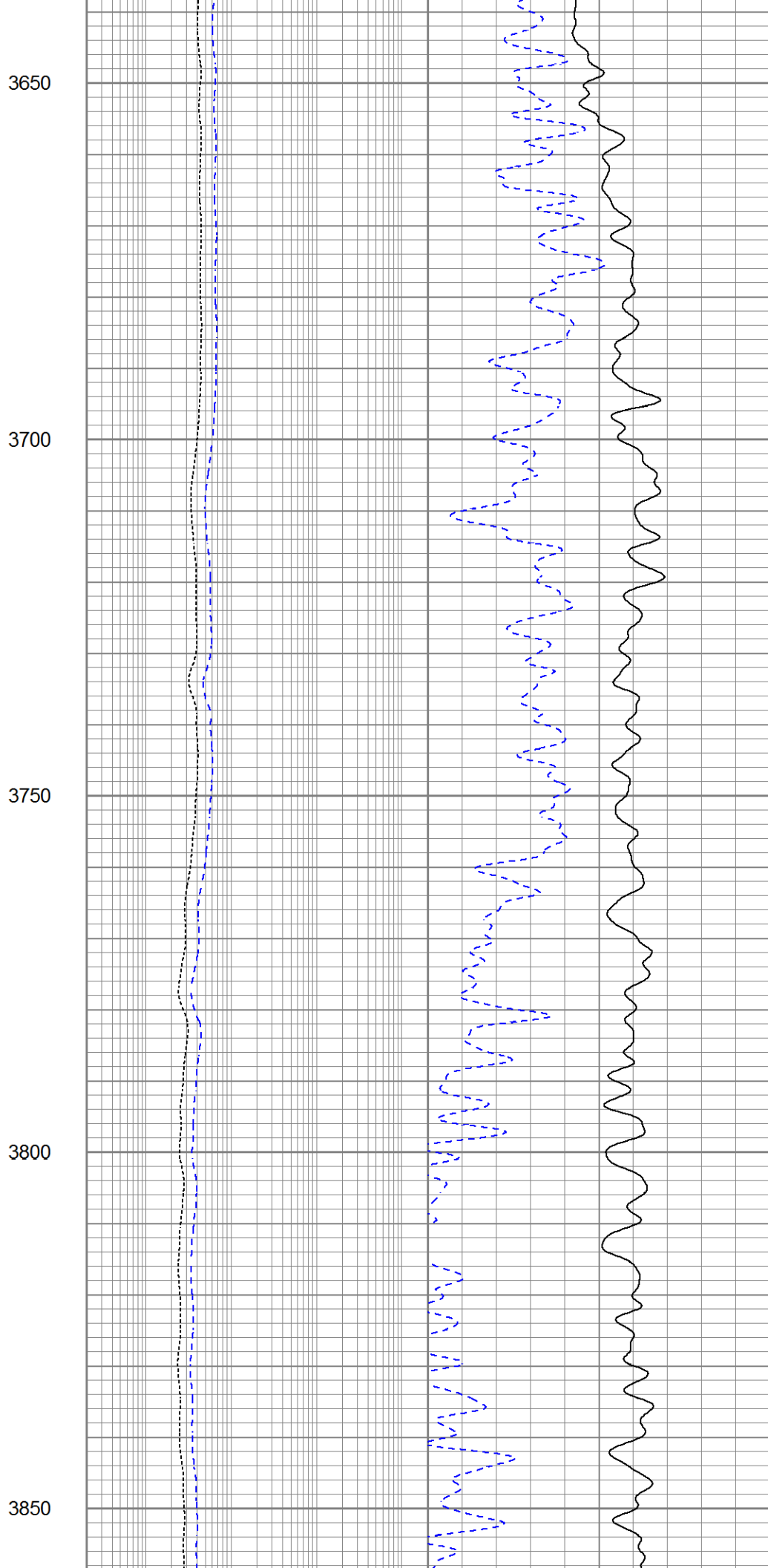
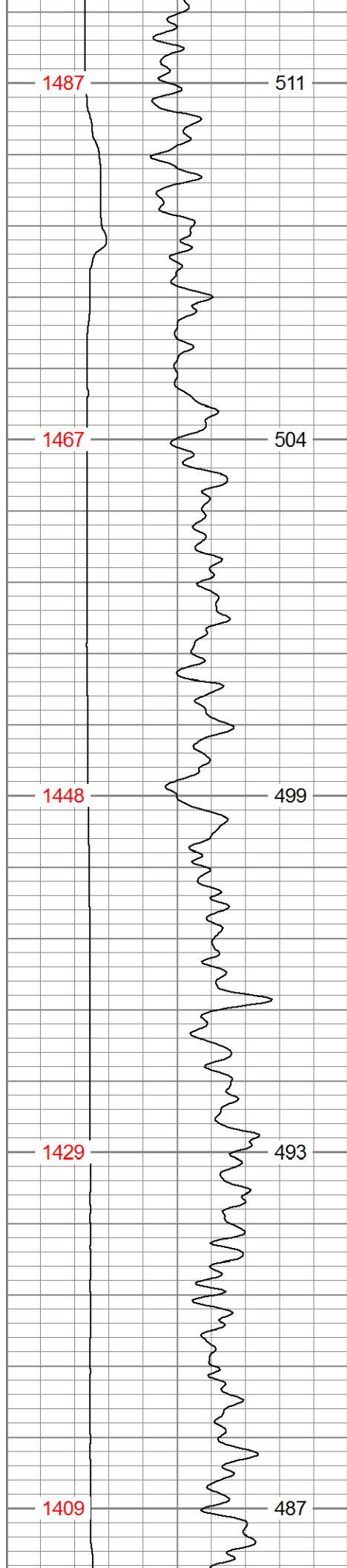
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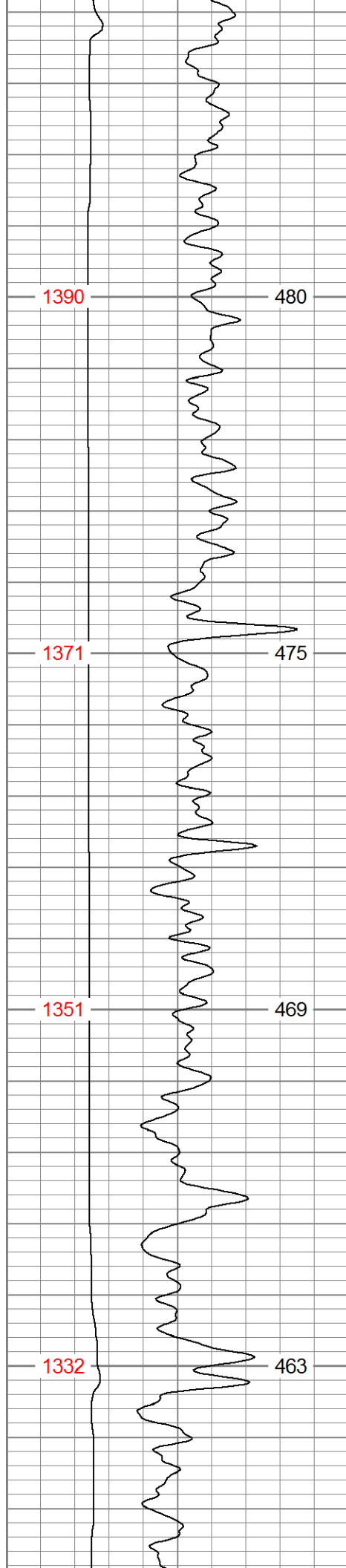
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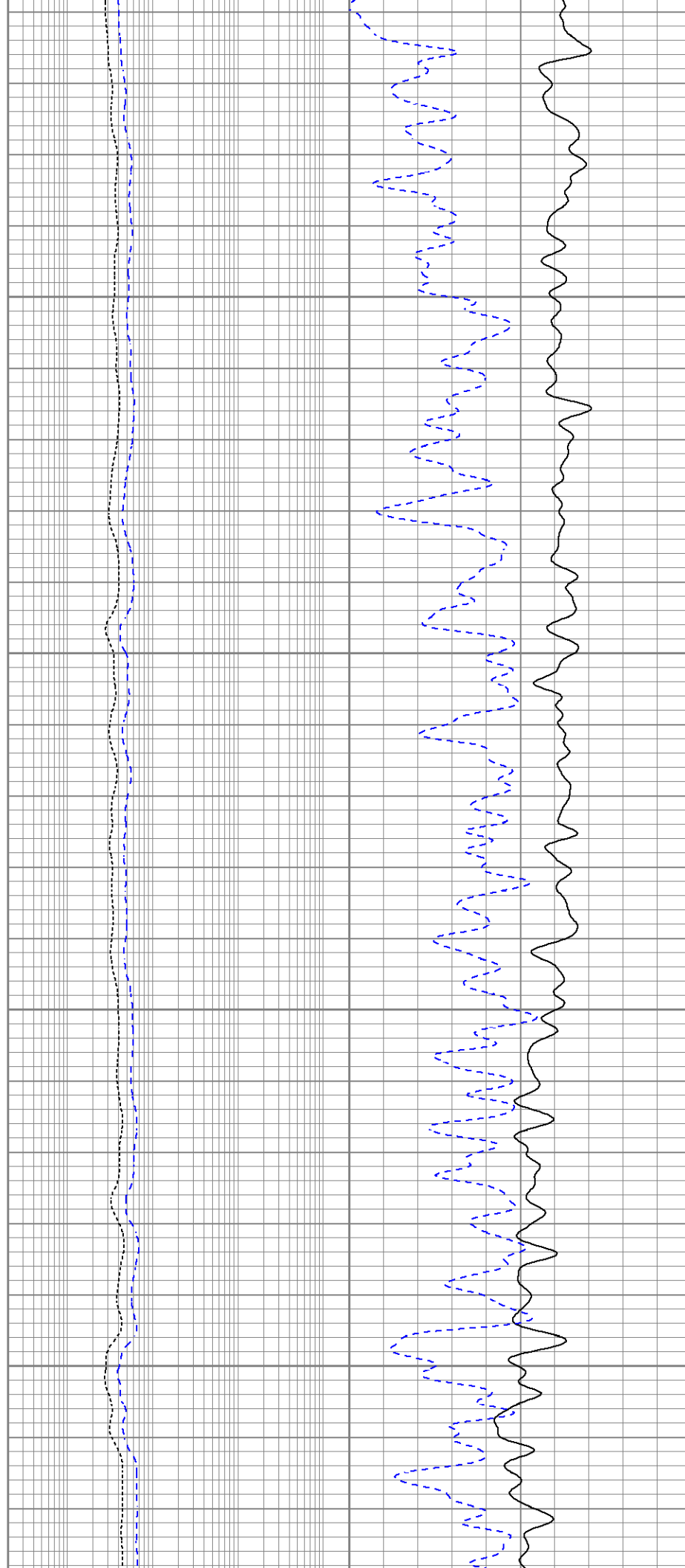
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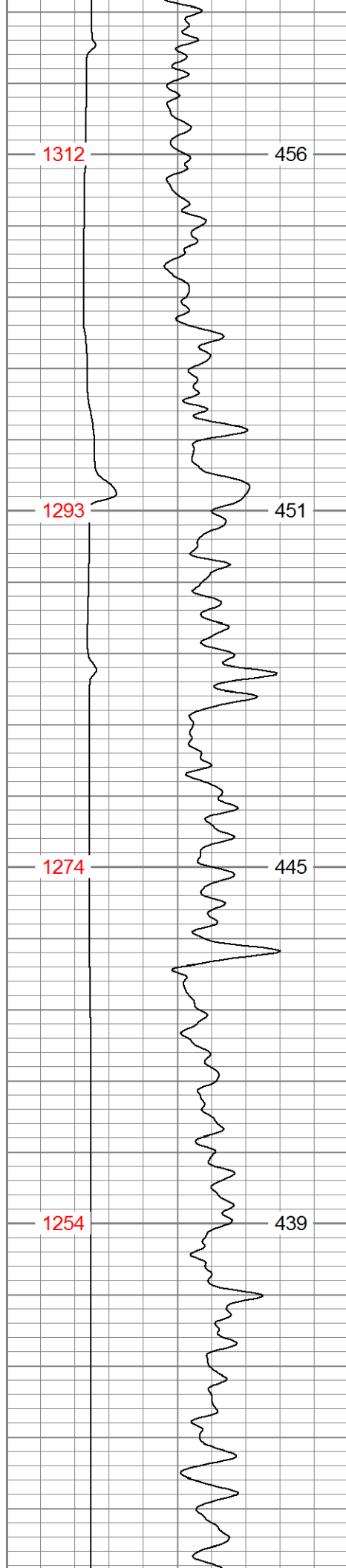
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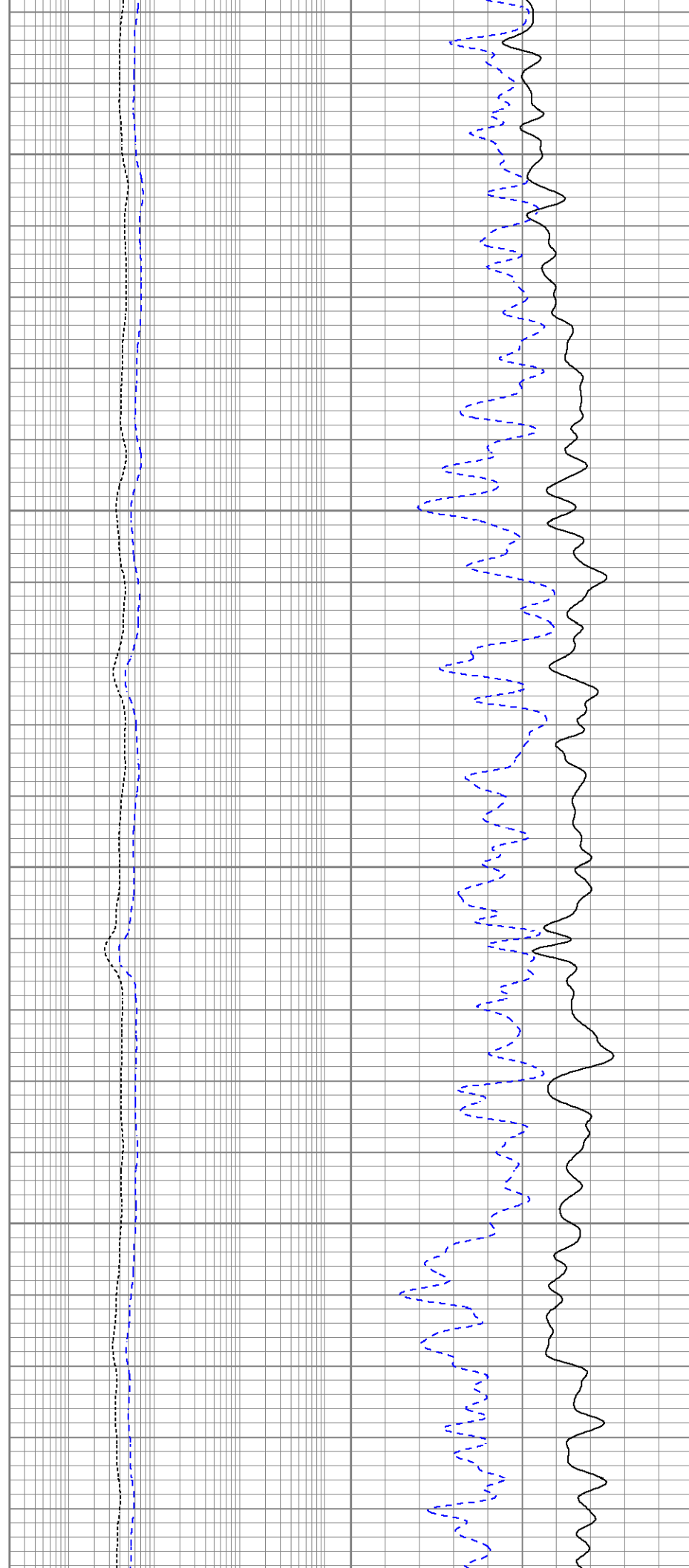


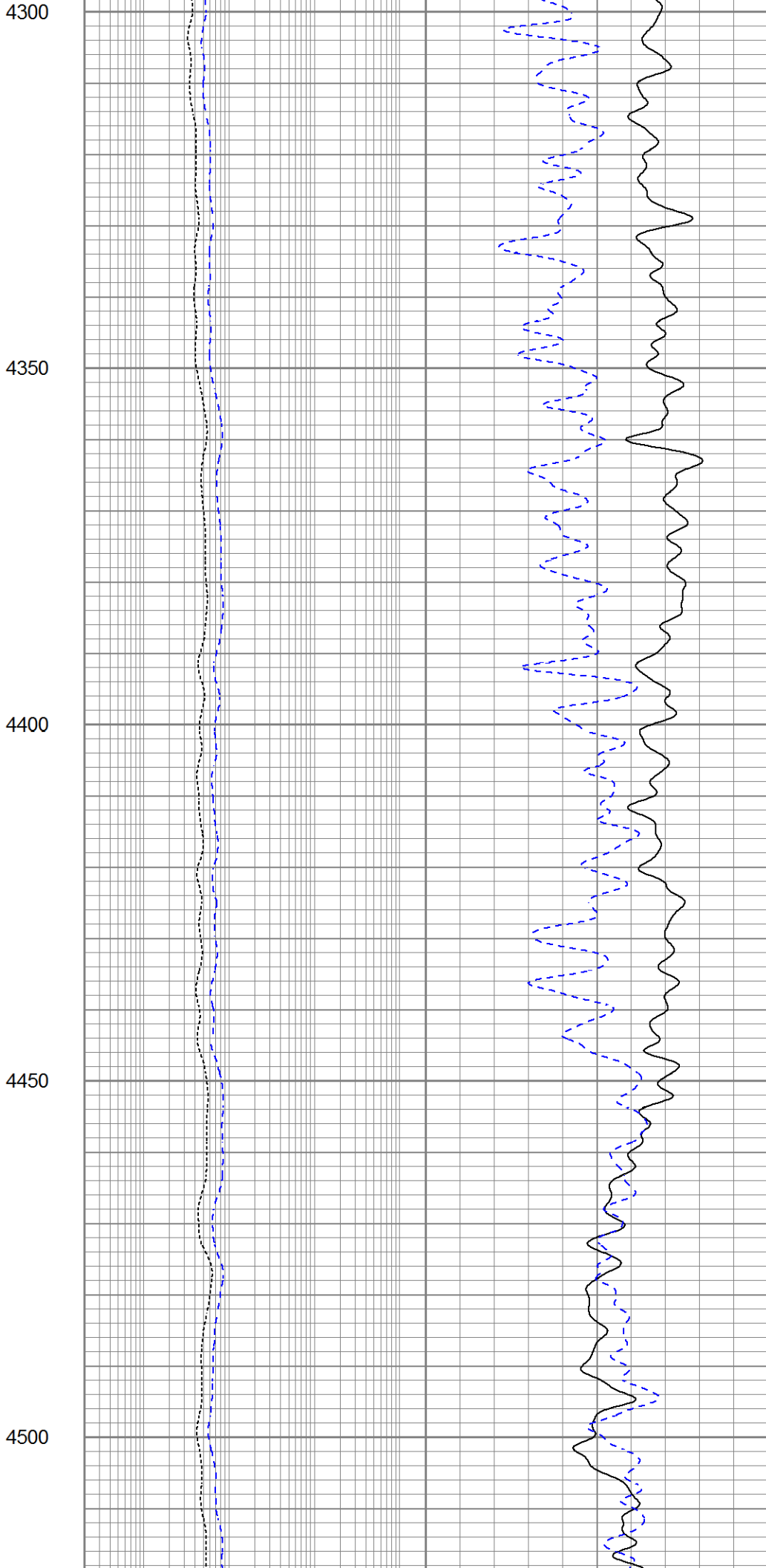
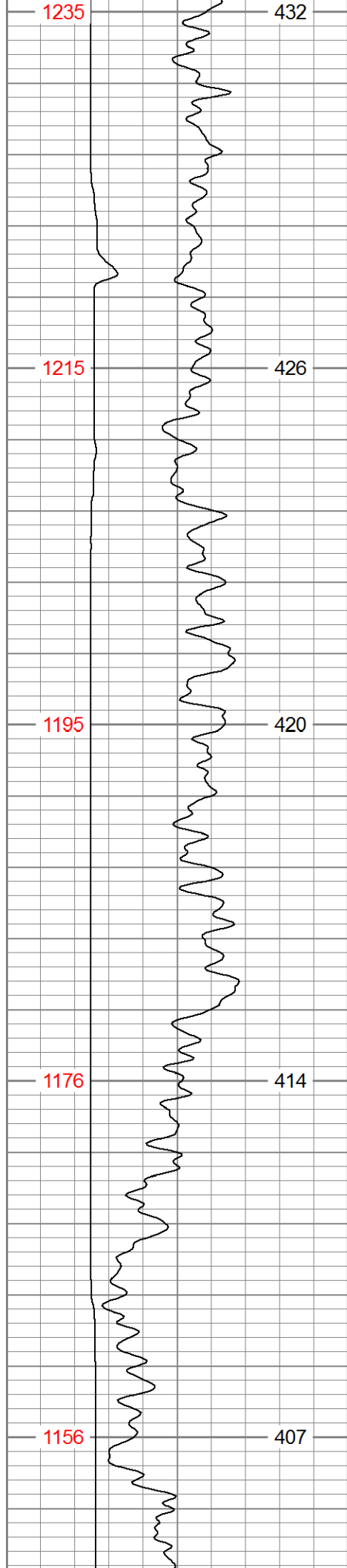
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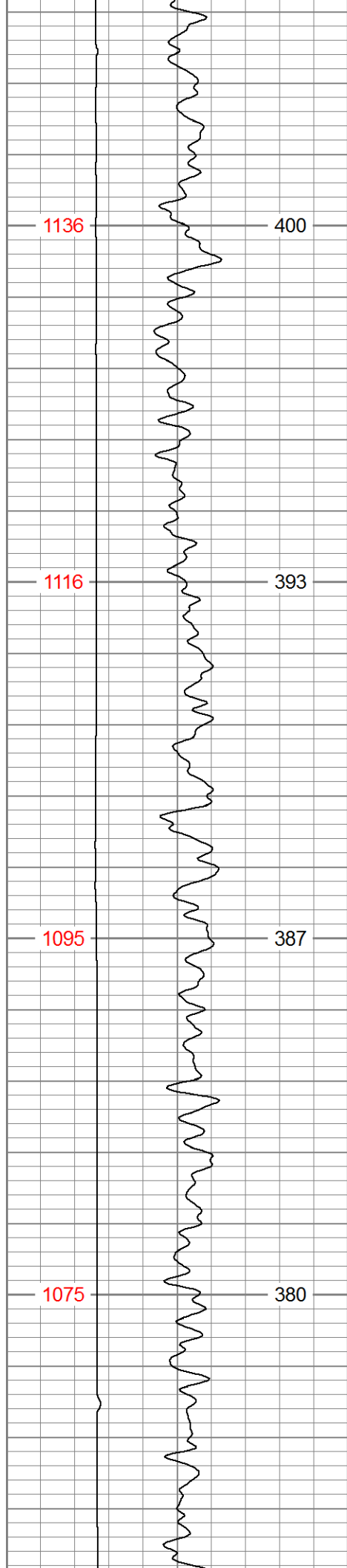
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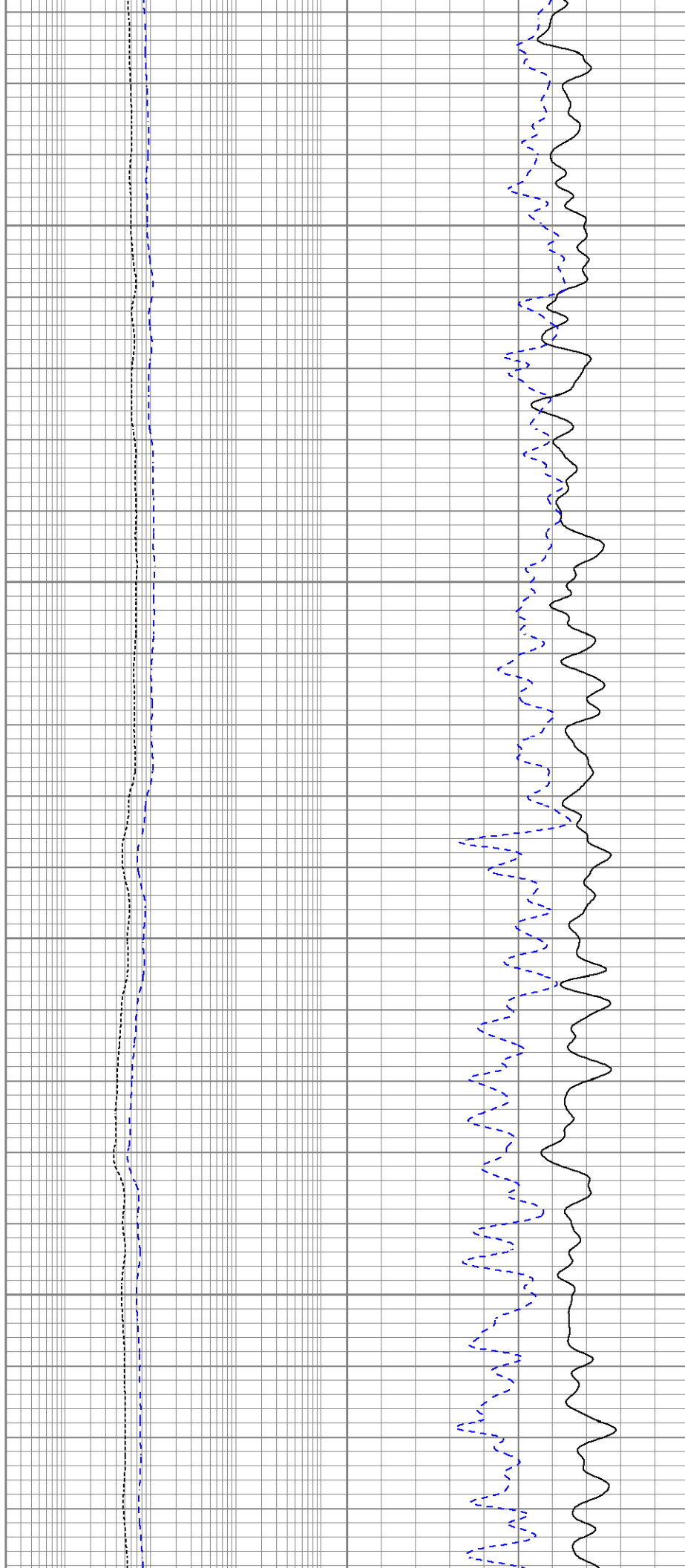


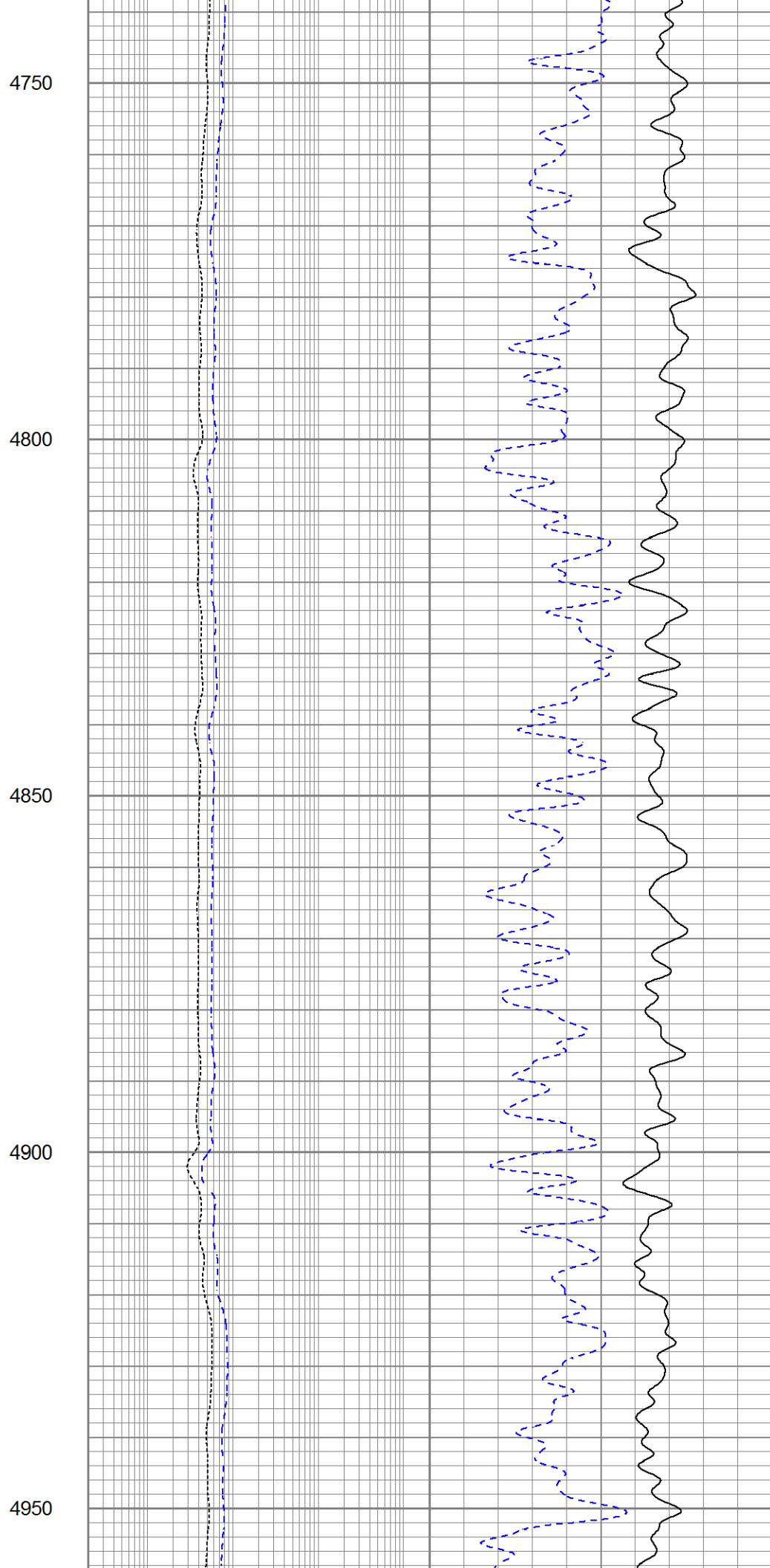
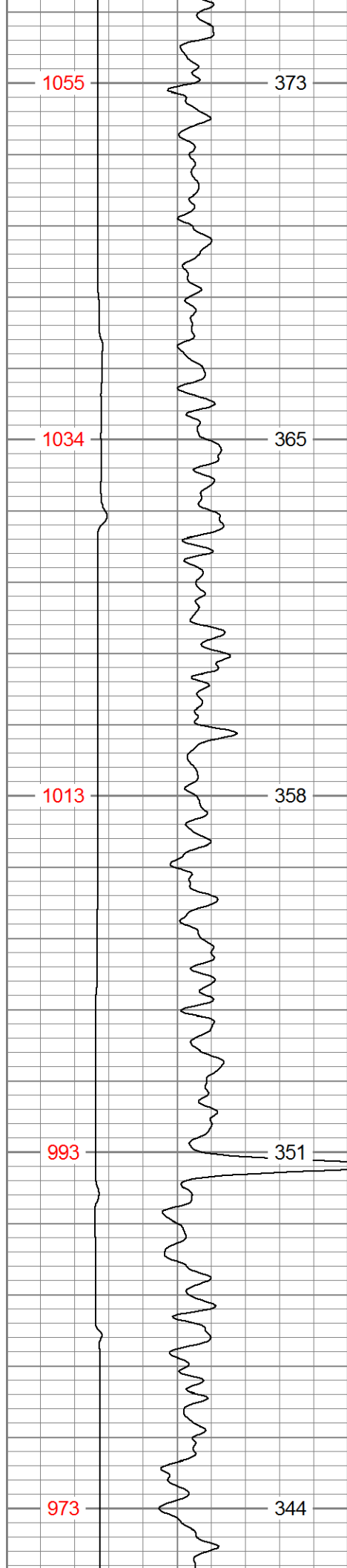
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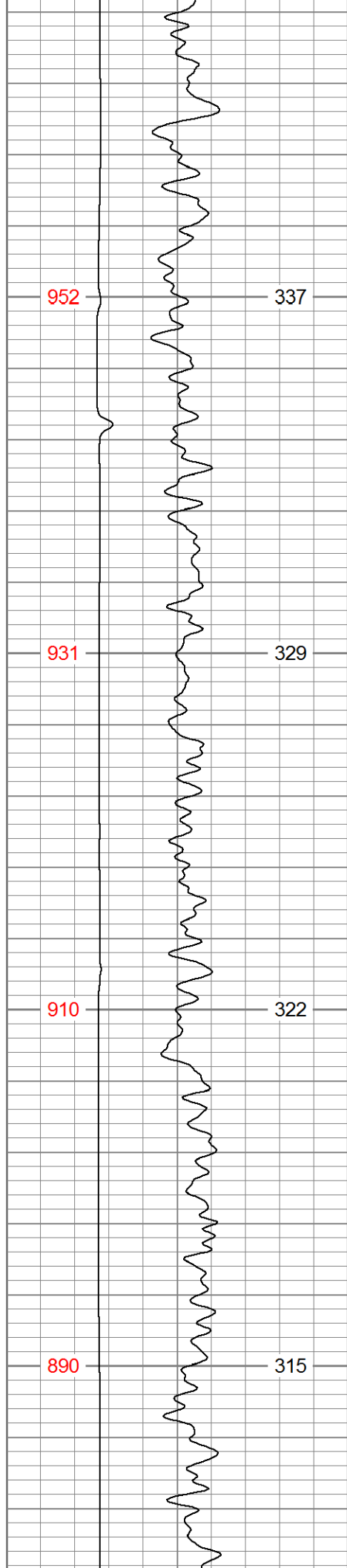
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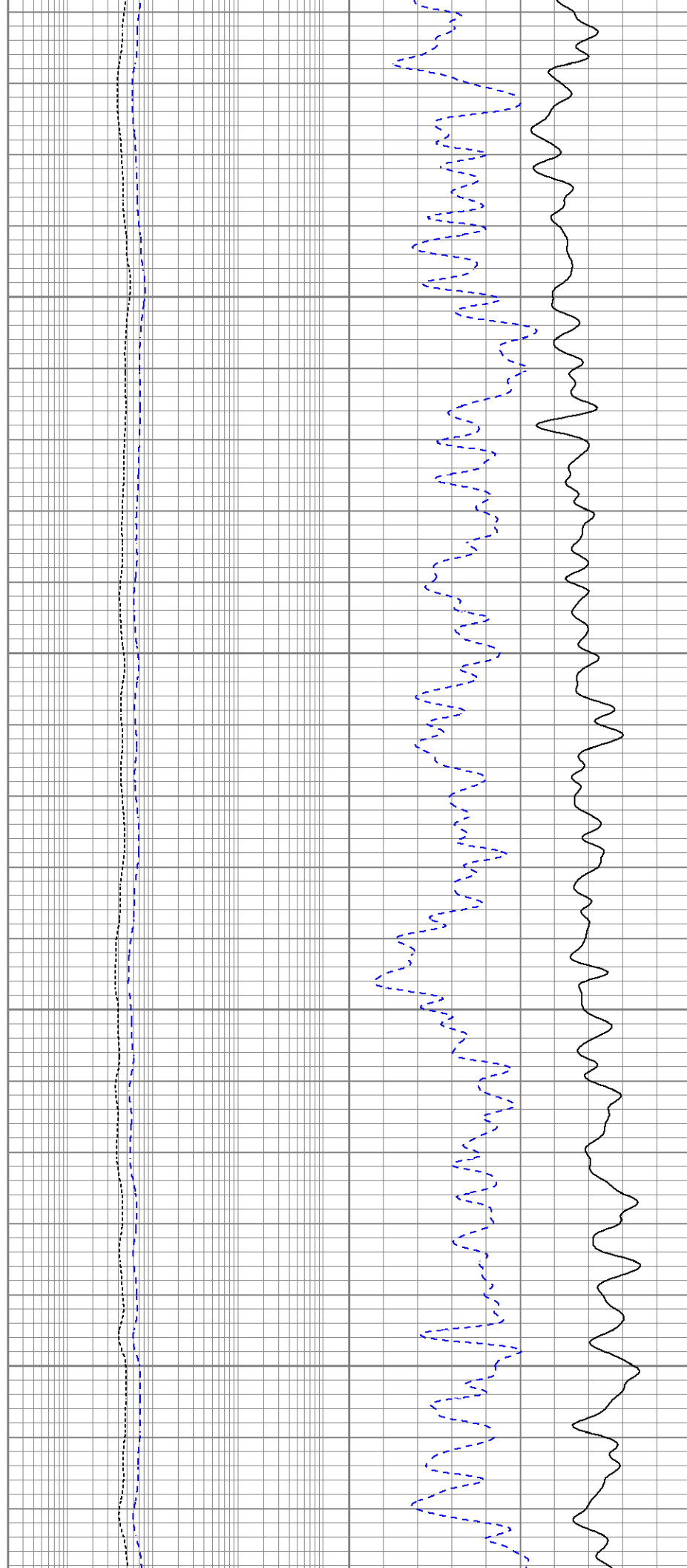


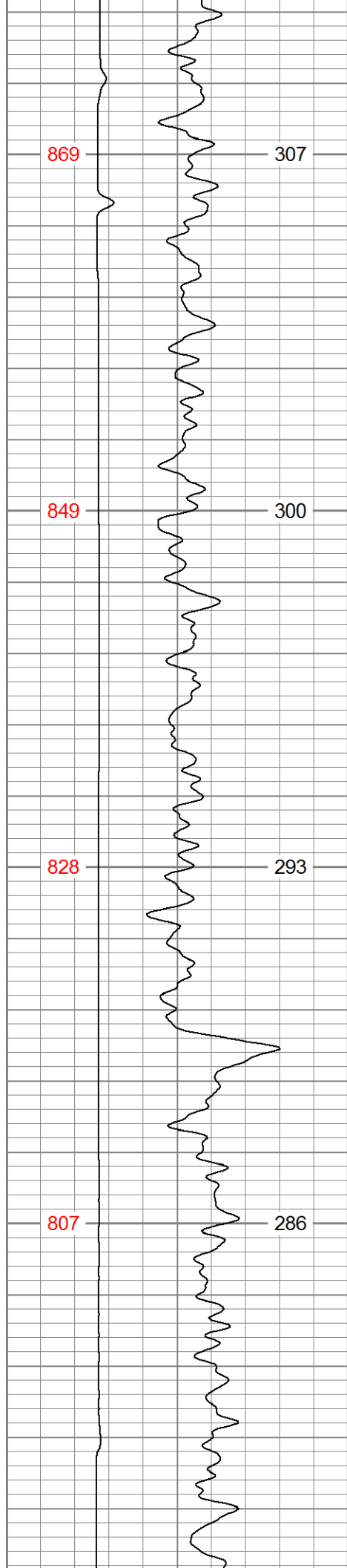
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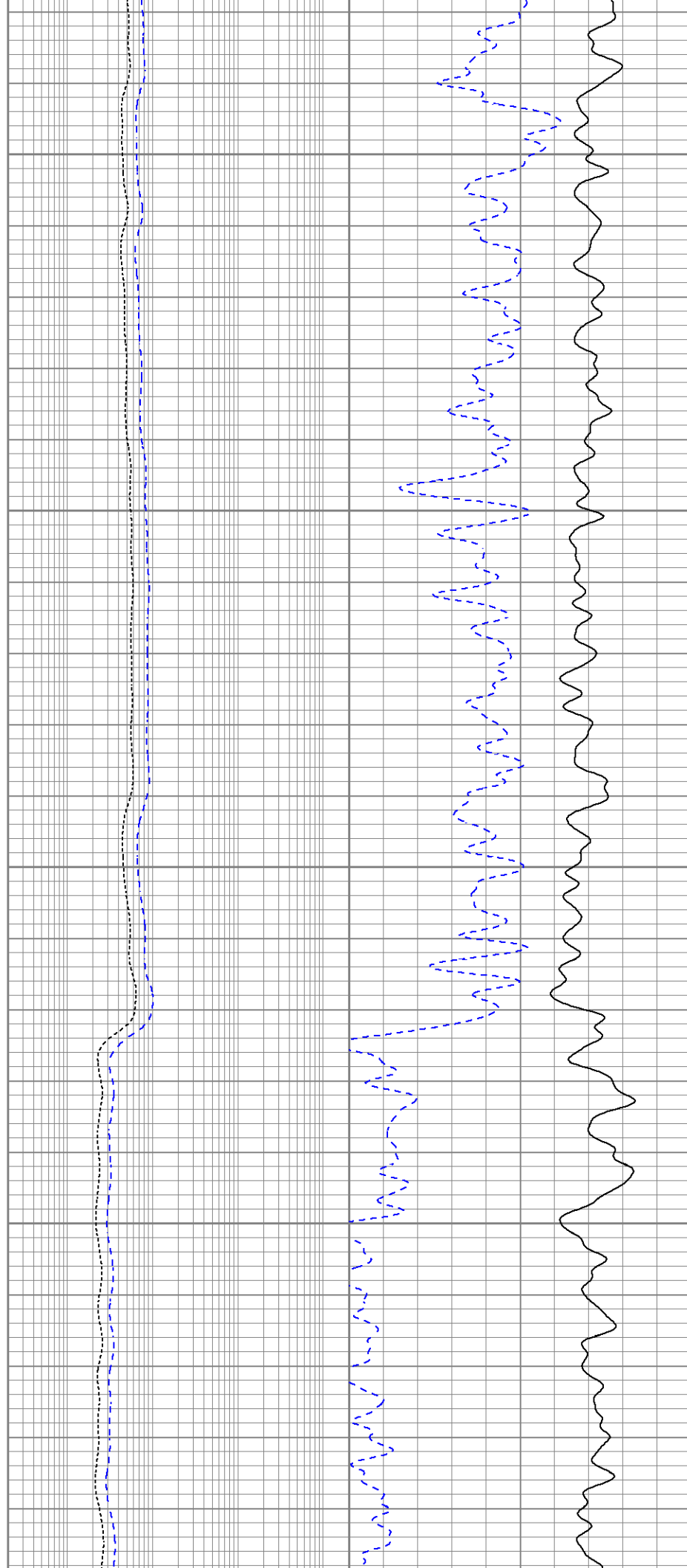


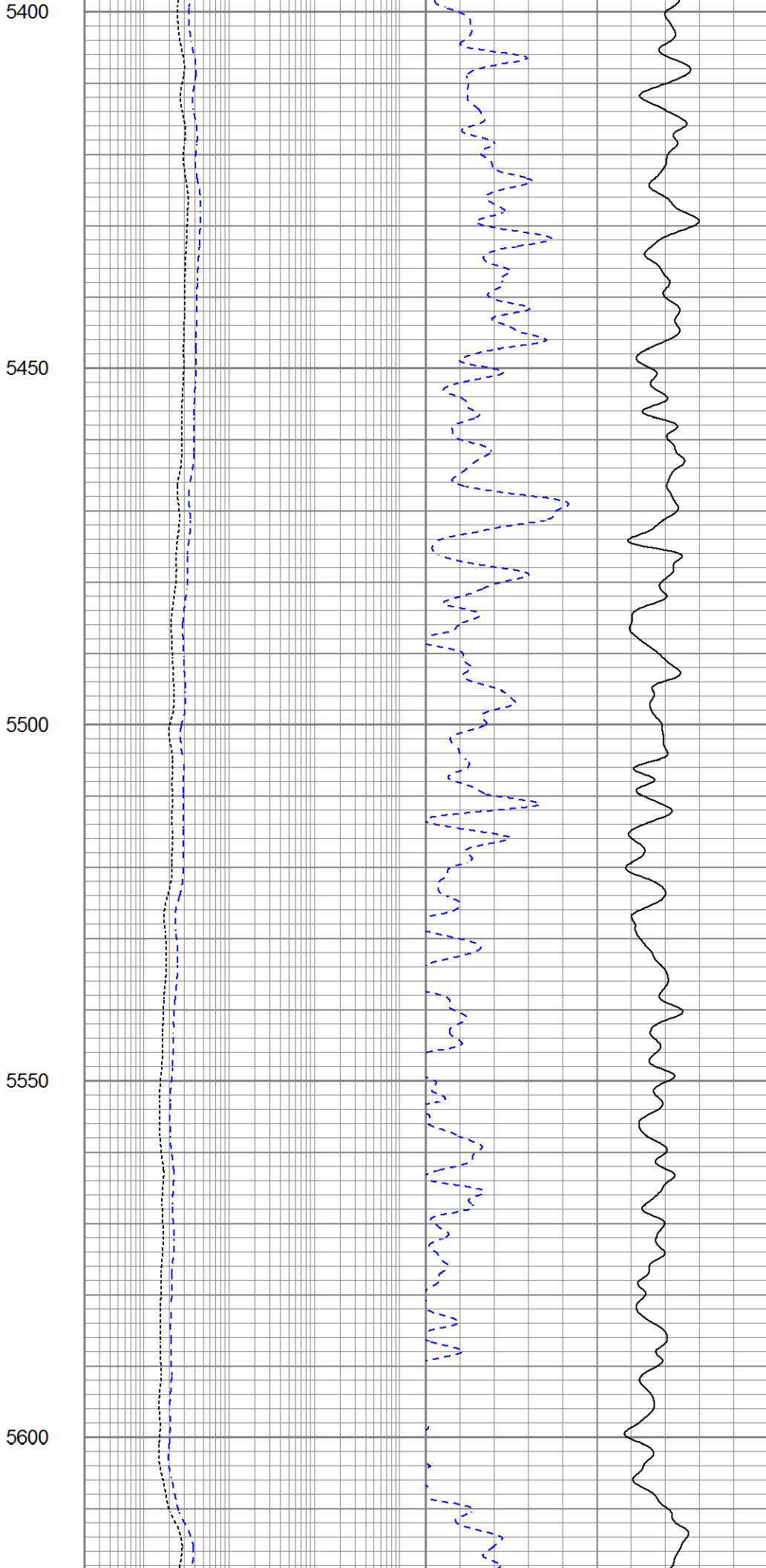
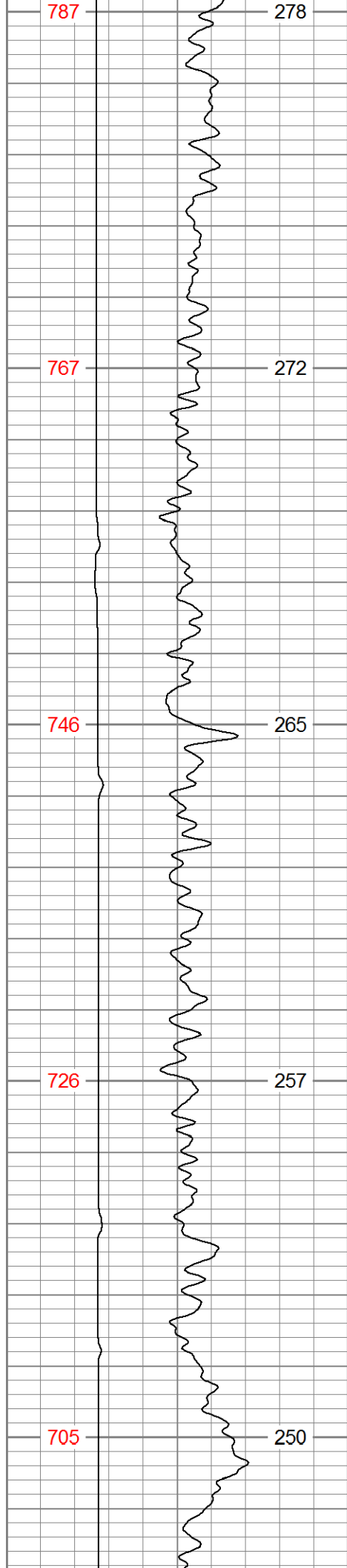
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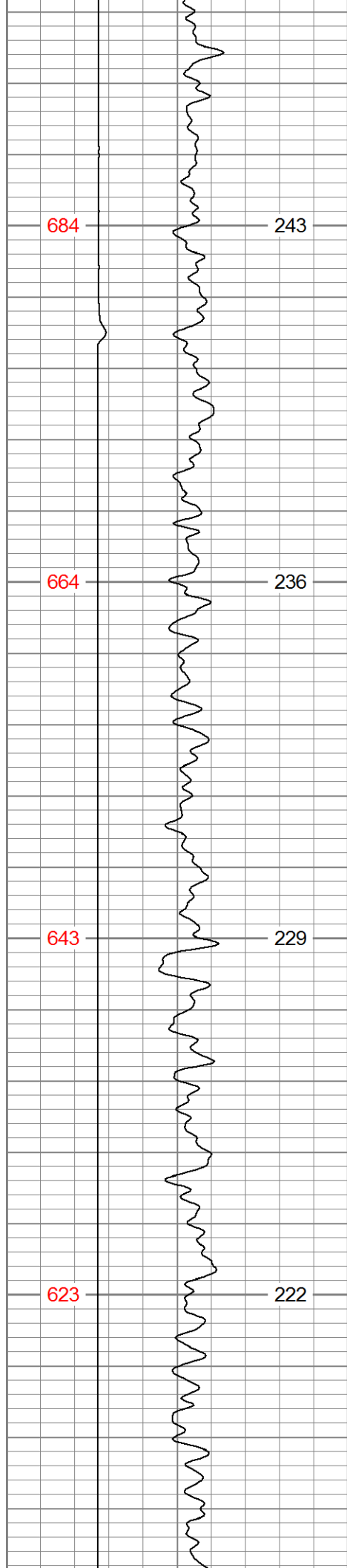
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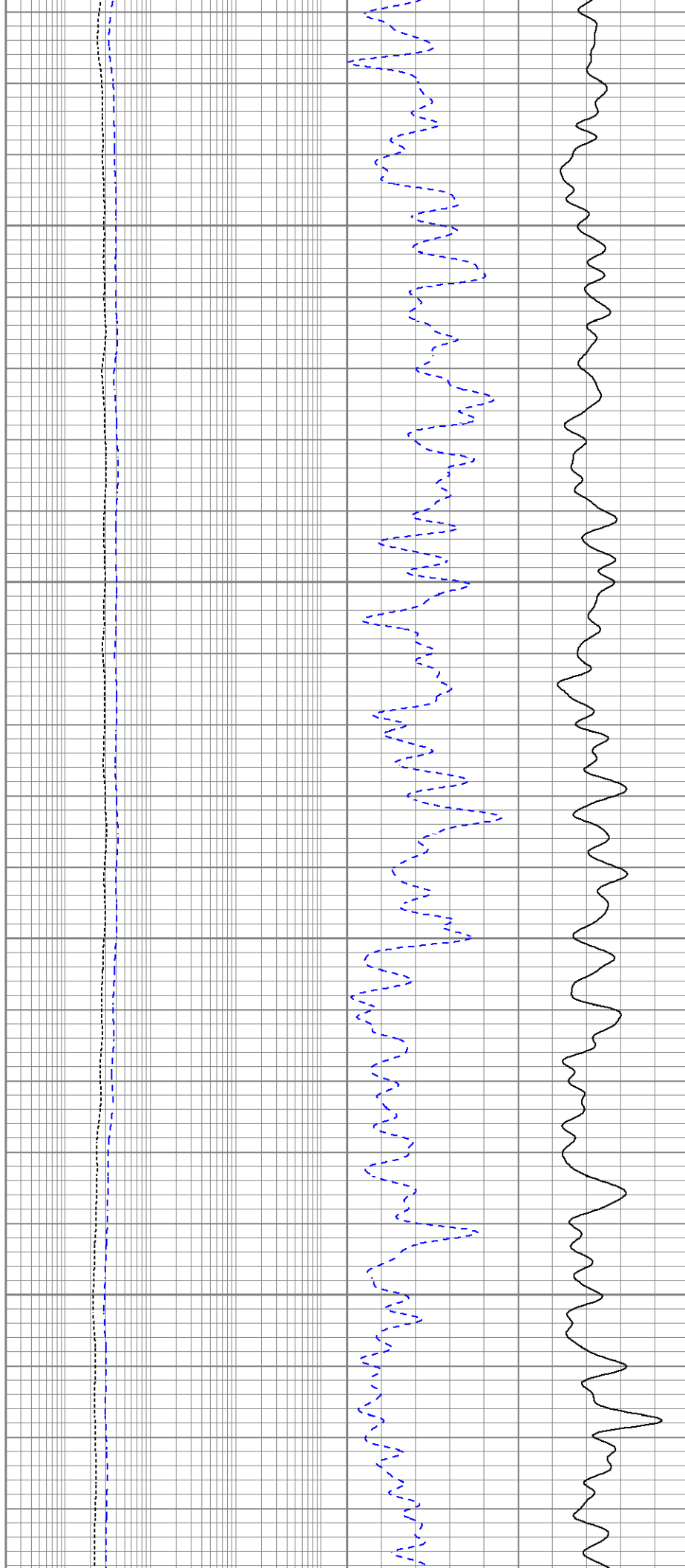


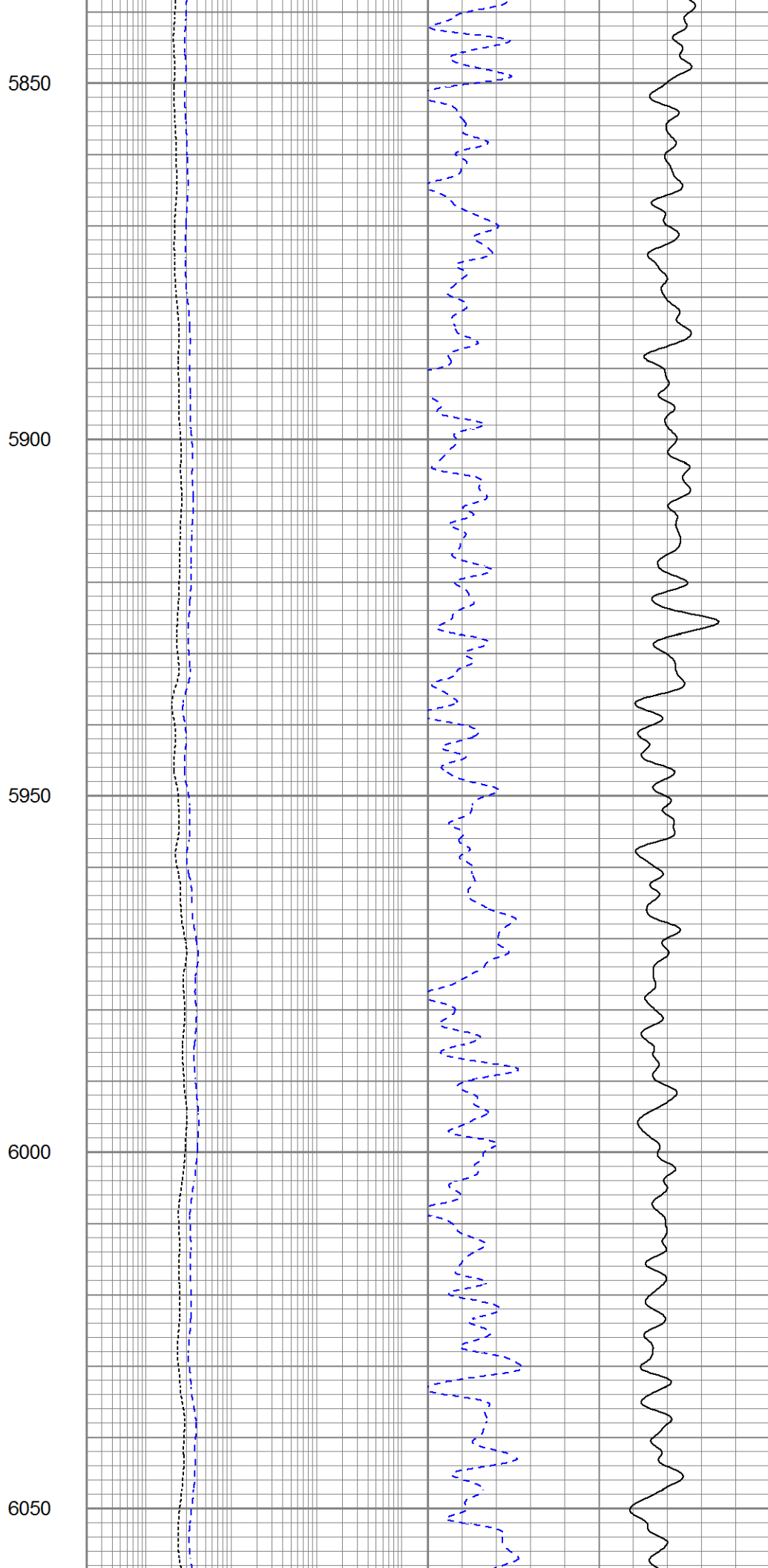
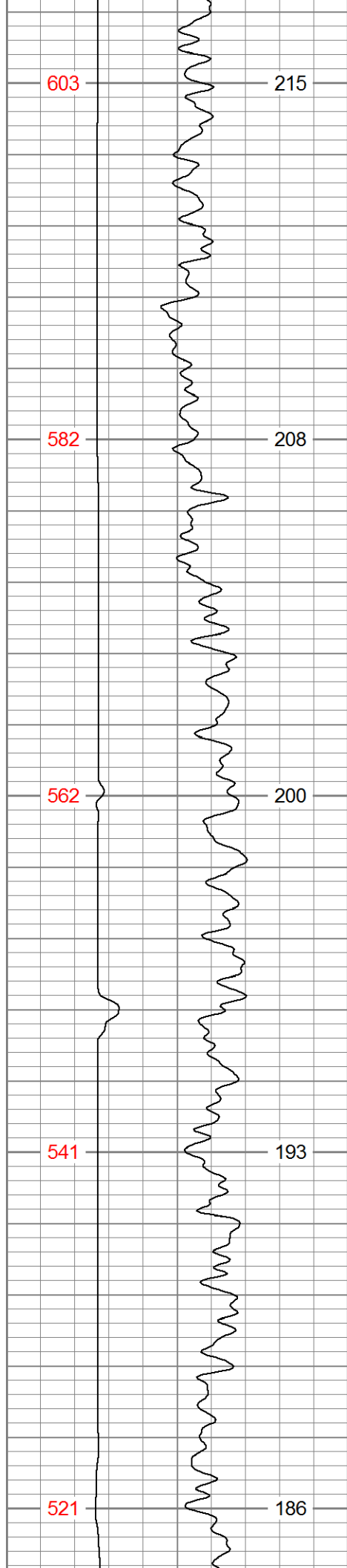
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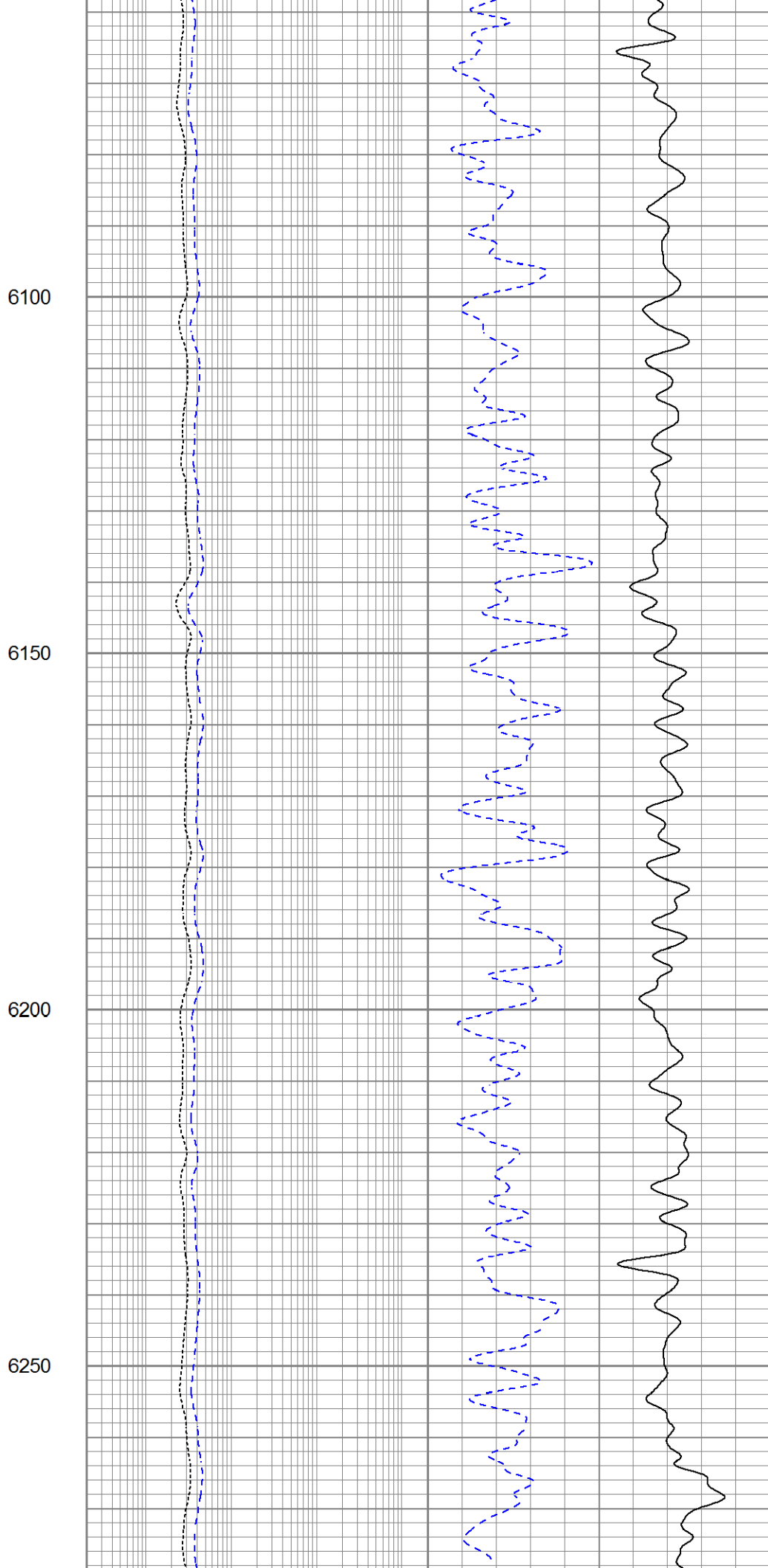
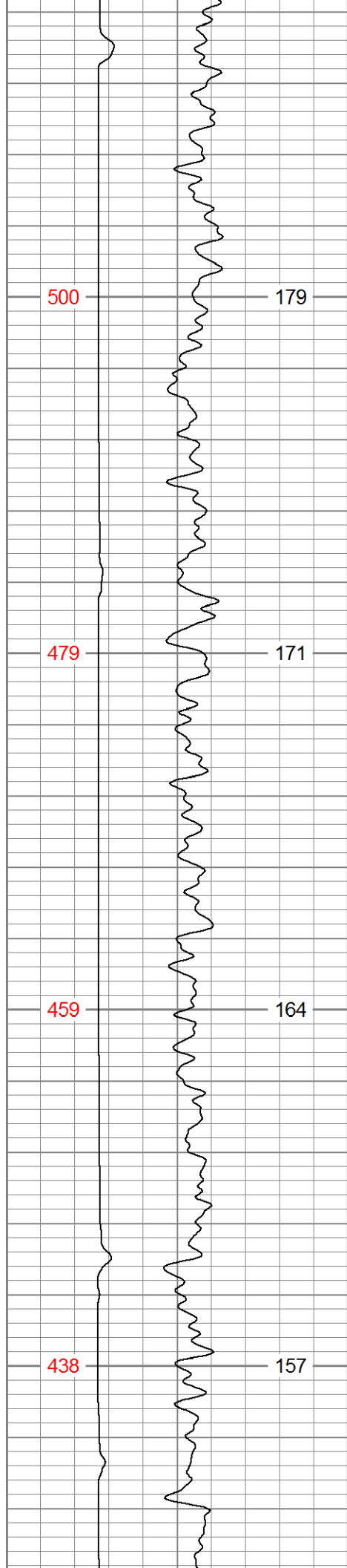
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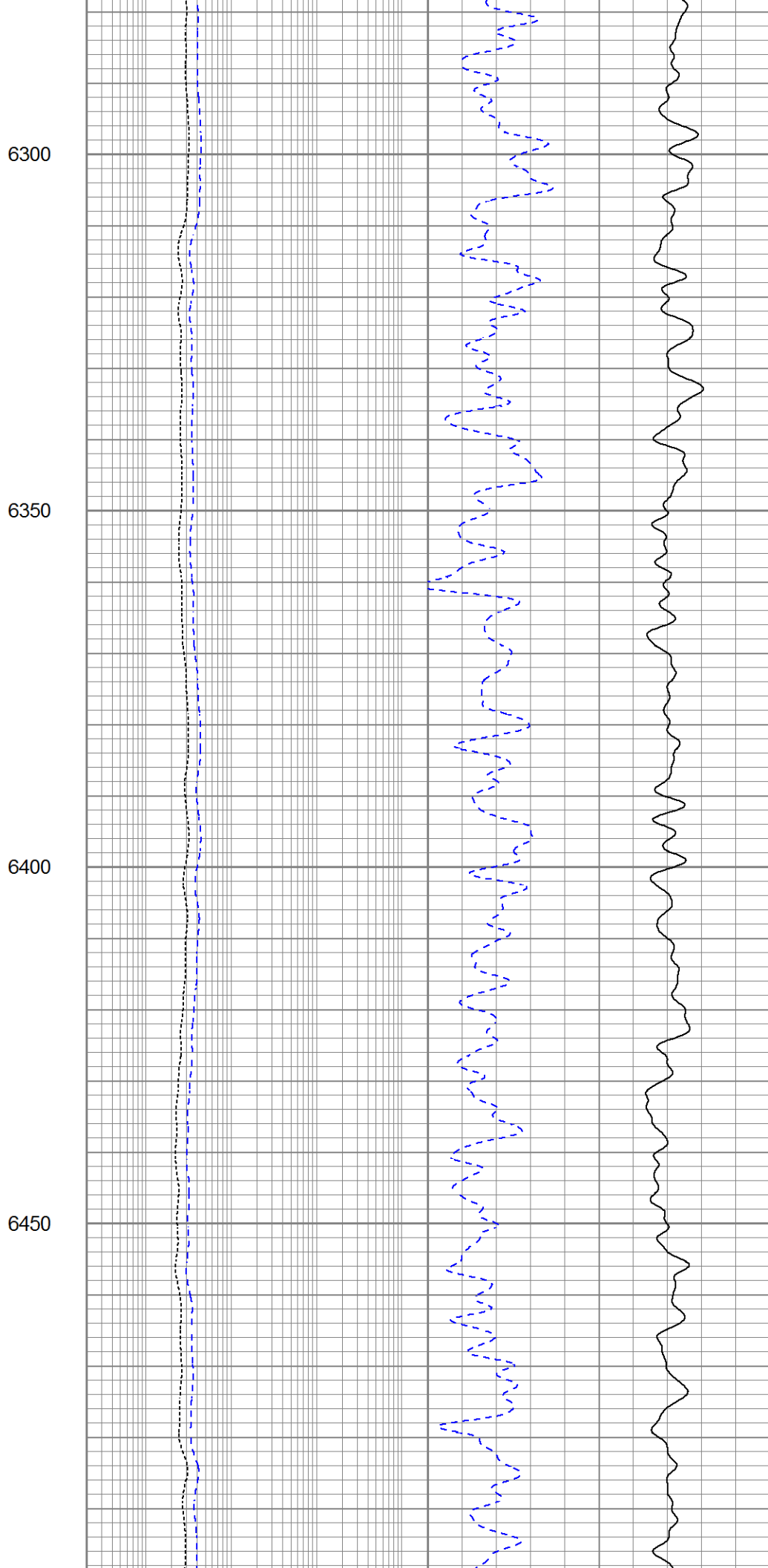
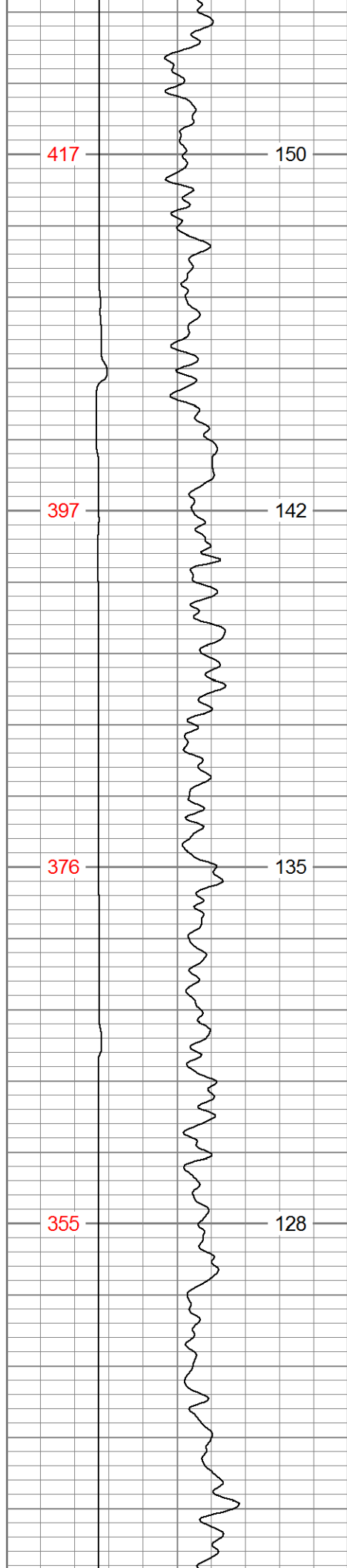
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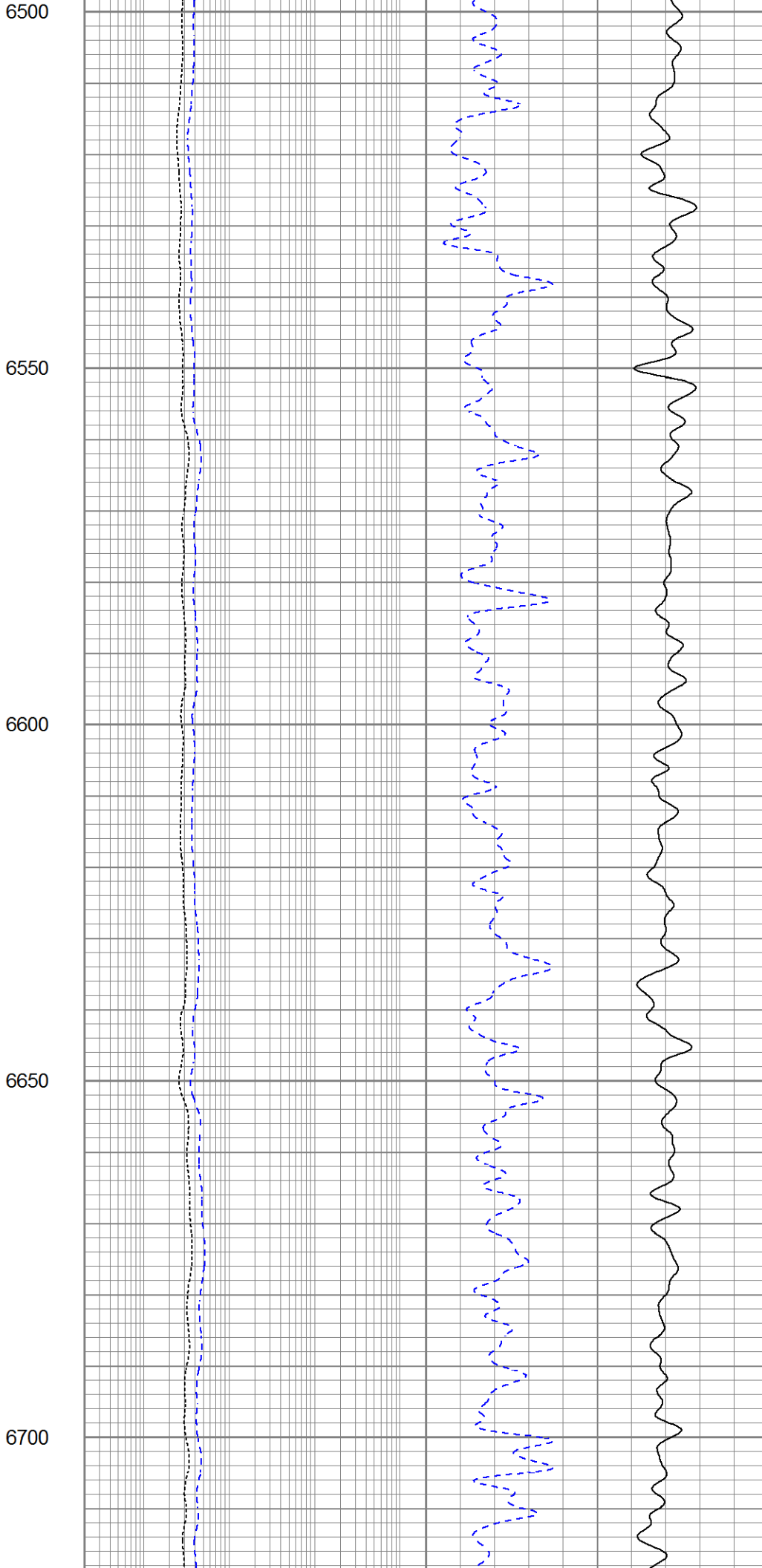
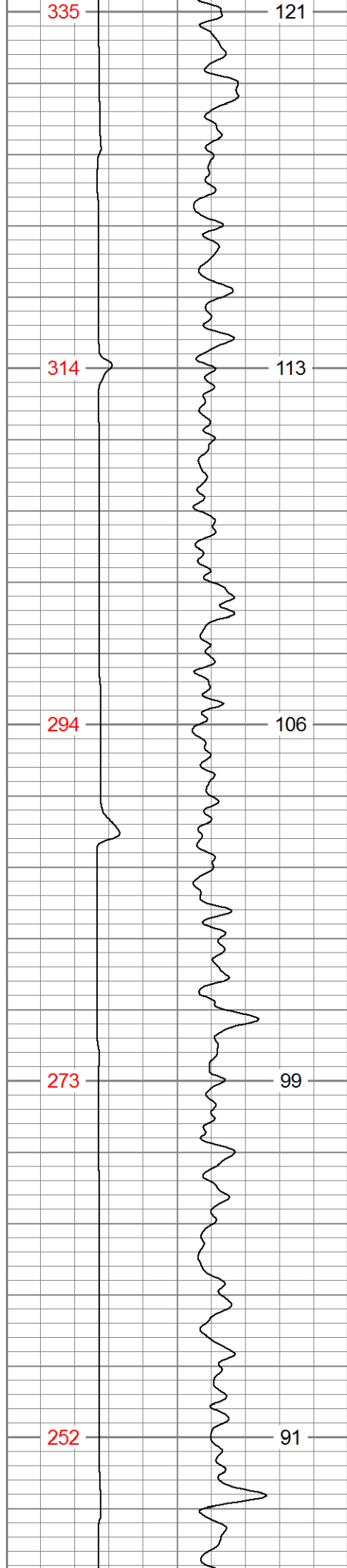
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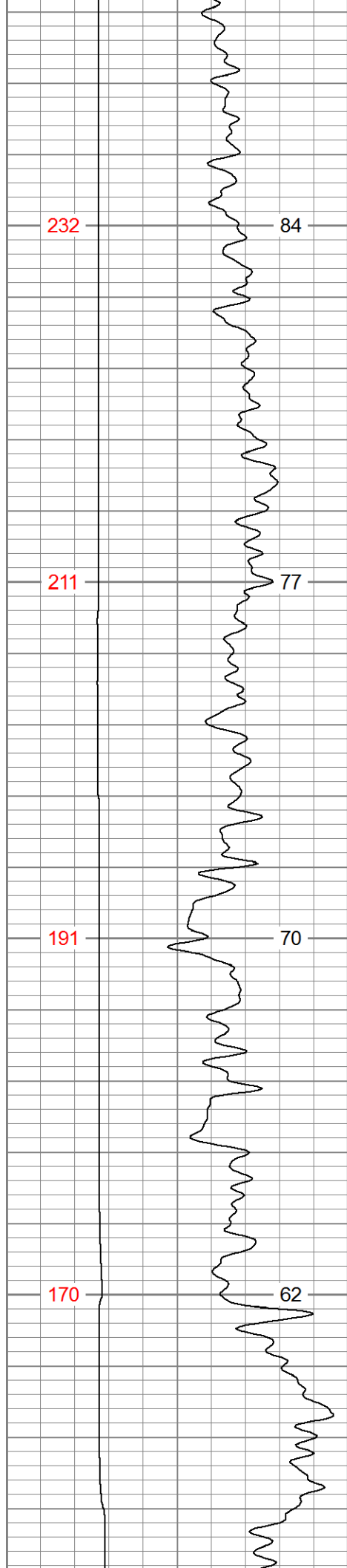










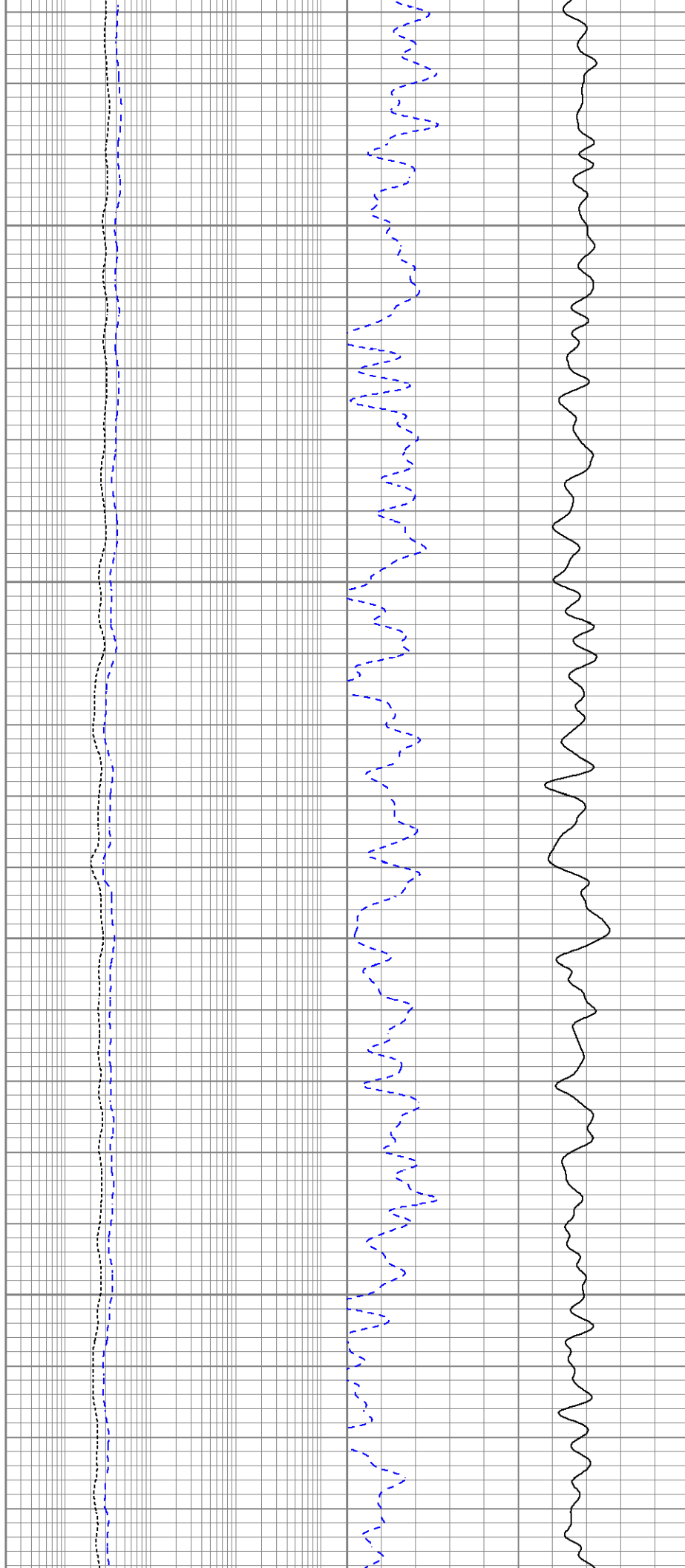


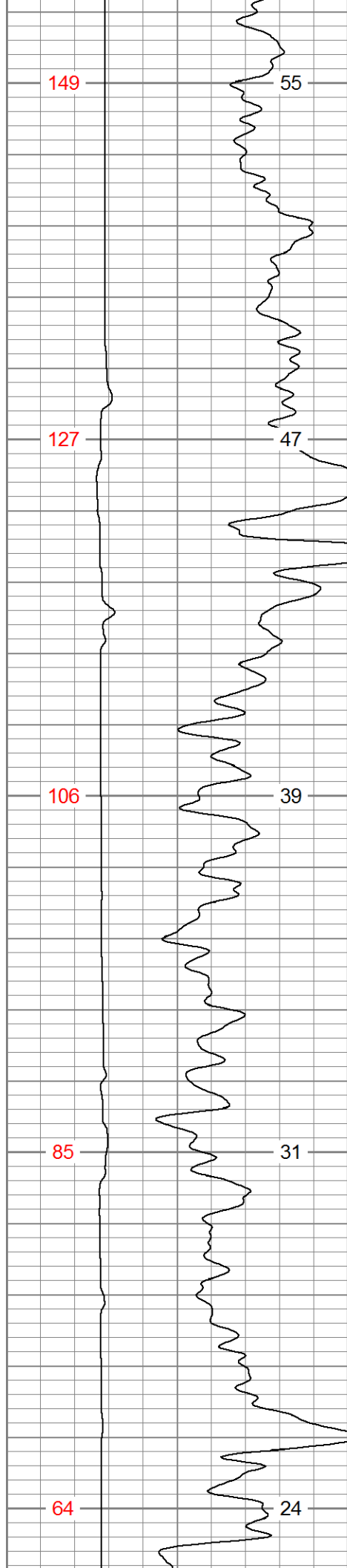
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6850

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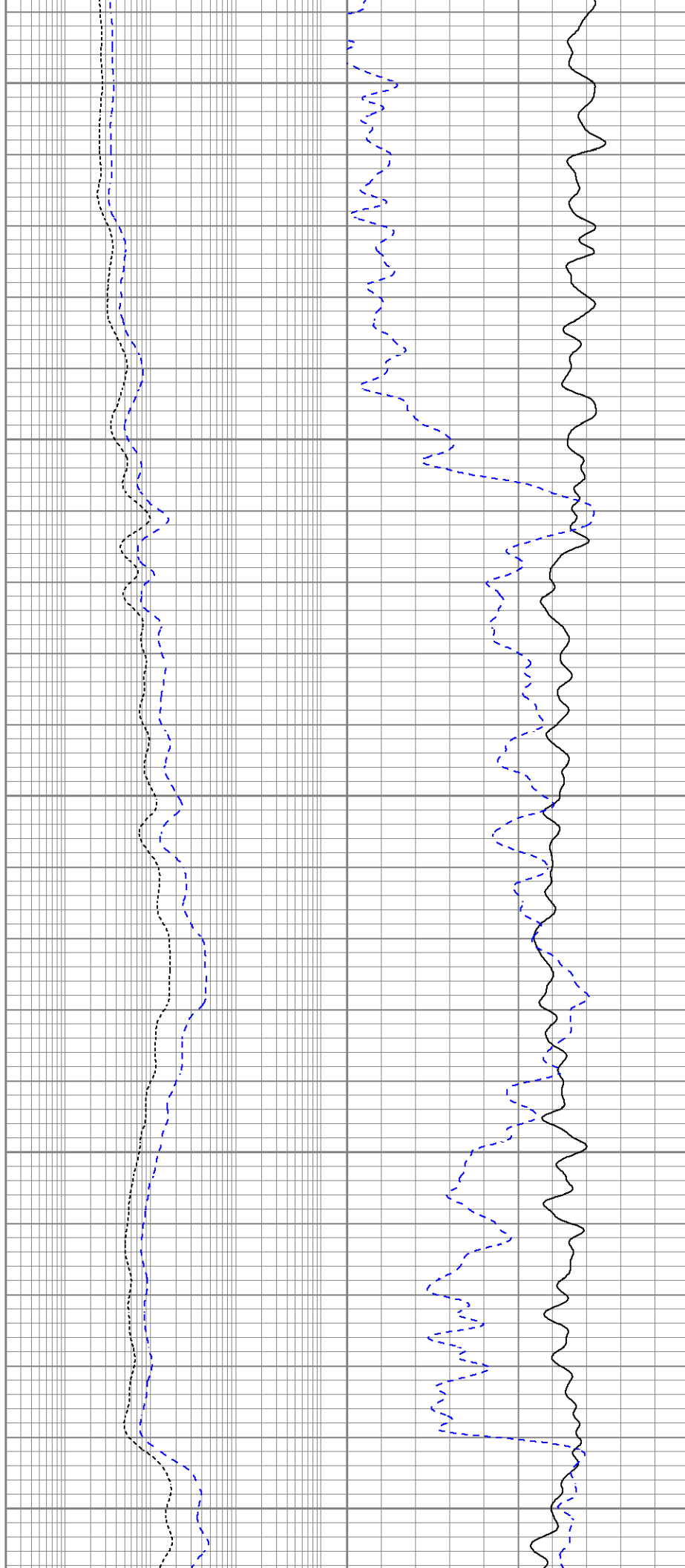
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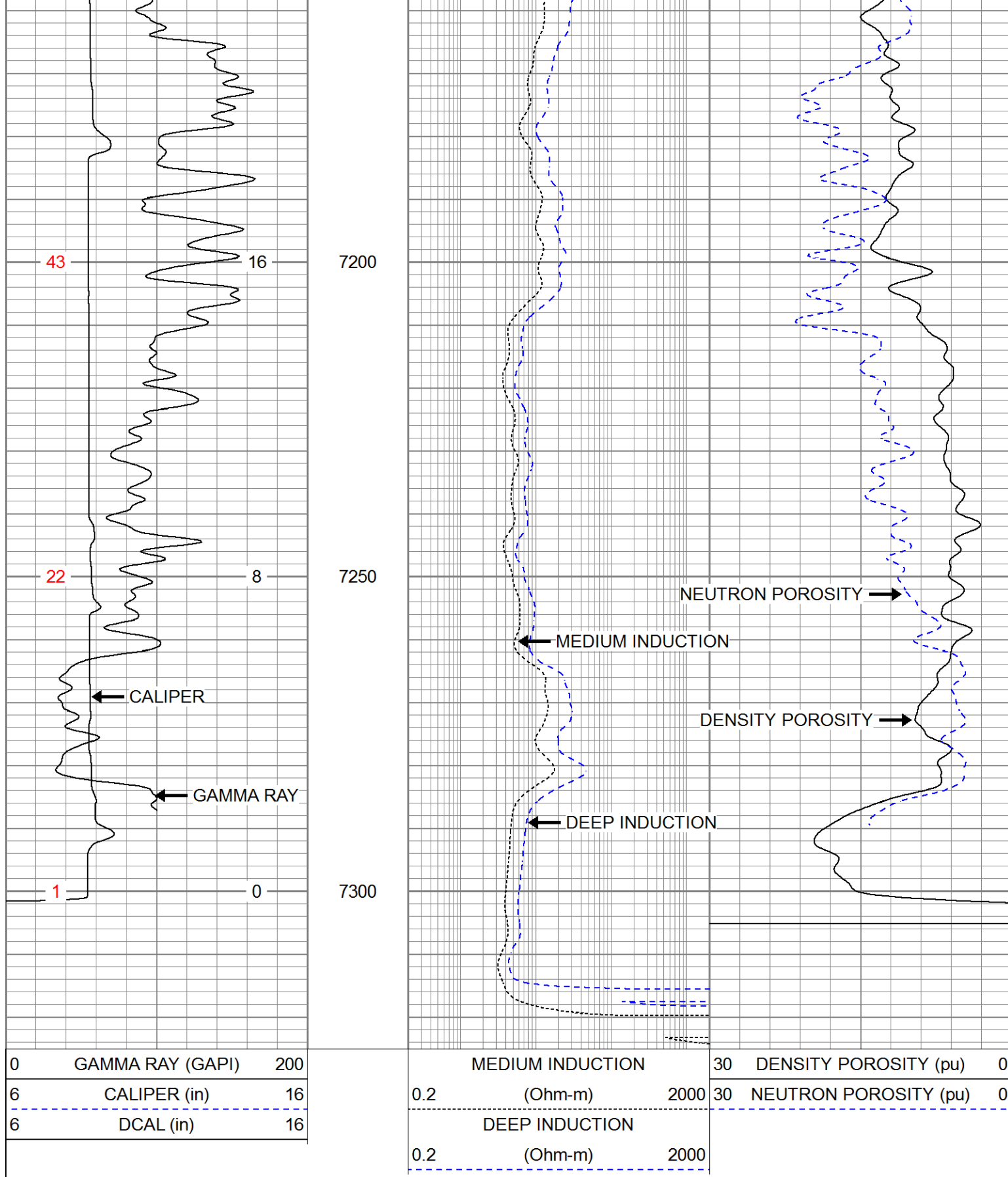
7000

7050

7100

7150





Calibration Report

Database File extraction_fairview_2.db
Dataset Pathname stack/pass4.1
Dataset Creation Fri Jan 29 20:45:53 2016

Dual Induction Calibration Report

Serial-Model:

PSI 216 HT-PSI HIGH TEMP

Loop:	Readings		References			Results	
	Air	Loop	Air	Loop		Gain	Offset
Deep	75.411	495.929	4.000	250.000	mmho/m	0.585	-40.115
Medium	75.269	470.661	10.000	100.000	mmho/m	0.628	-22.133

Compensated Density Calibration Report

Serial-Model: 71-914-M&W
 Source / Verifier: /
 Master Calibration Performed: Tue Dec 08 03:30:25 2015

Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.755	g/cc	4314.49	5307.52	cps
Aluminum	2.670	g/cc	822.19	3456.36	cps
Spine Angle = 75.49			Density/Spine Ratio = 0.534		
	Size		Reading		
Small Ring	4.00	in	1.16		
Large Ring	14.00	in	1.57		

Compensated Neutron Calibration Report

Serial Number: tk10-MW
 Tool Model: M&W
 Calibration Performed: Mon Dec 7 11:08:05 2015

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-M&W
 Tool Model: M&W
 Calibration Performed: Tue Dec 08 03:19:38 2015
 Calibrator Value: 1000.0 GAPI
 Background Reading: 0.0 cps
 Calibrator Reading: 6.2 cps
 Sensitivity: 0.5200 GAPI/cps



Company EXTRACTION OIL AND GAS, LLC
 Well FAIRVIEW NO. 2
 Field WATTENBERG
 County WELD
 State COLORADO

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