



DUAL IND / DUAL COMP
POROSITY LOG

CompanyEXTRACTION OIL & GAS LLC		Company	EXTRACTION OIL & GAS LLC
Well	JANSSEN NO. 11	Well	JANSSEN NO. 11
Field	WATTENBERG	Field	WATTENBERG
County	WELD	County	WELD
State	COLORADO	State	COLORADO
Location:		API # : 05-123-42363-00	Other Services
2399' FNL & 2396' FWL		NONE	
Permanent Datum	GROUND LEVEL	Elevation	4772'
Log Measured From	KELLY BUSHING	K.B.	4797'
Drilling Measured From	KELLY BUSHING	D.F.	5606'
		G.L.	4772'
Date	12/2/2015		
Run Number	ONE		
Depth Driller	11290'		
Depth Logger	6650'		
Bottom Logged Interval	6650'		
Top Log Interval	SURFACE CASING		
Casing Driller	9.625" @ 1543'		
Casing Logger	1554'		
Bit Size	8.750"		
Type Fluid in Hole	OIL BASED MUD		
Salinity ,ppm CL	N/A		
Density / Viscosity	N/A		
pH / Fluid Loss	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 @ 205		
Source of Rmf / Rmc	Charts		
Rm @ BHT	N/A @ N/A		
Operating Rig Time	2 HOURS		
Max Rec. Temp. F	205 DEG F		
Equipment Number	108		
Location	Colby		
Recorded By	J. HENRICKSON	SHAUN STUMP	
Witnessed By	LARRY SEIGEL		J. LONG

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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.

PATTERSON DRILLING RIG. 346

NO REPEAT DUE TO HOLE CONDITIONS
NO FOCUS TOOL DUE TO OIL BASED MUD

SO# 1-50131

Log Measured From: KELLY BUSHING 25 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: SHAUN STUMP
Operator: J. LONG
Operator:

This Log Record Was Witnessed By


Primary Witness: LARRY SEIGEL
Secondary Witness:
Secondary Witness:
Secondary Witness:

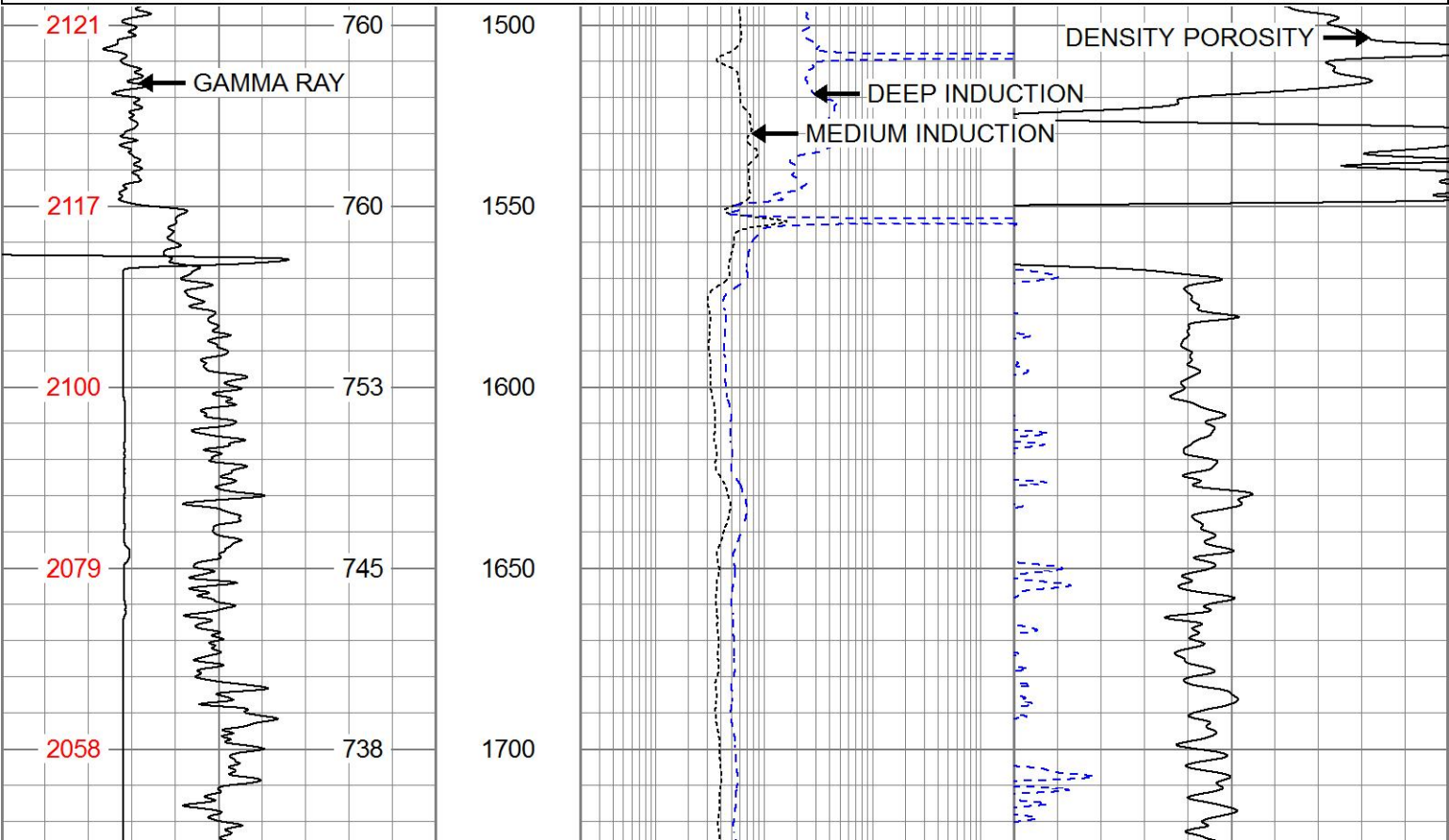
Top - Bottom

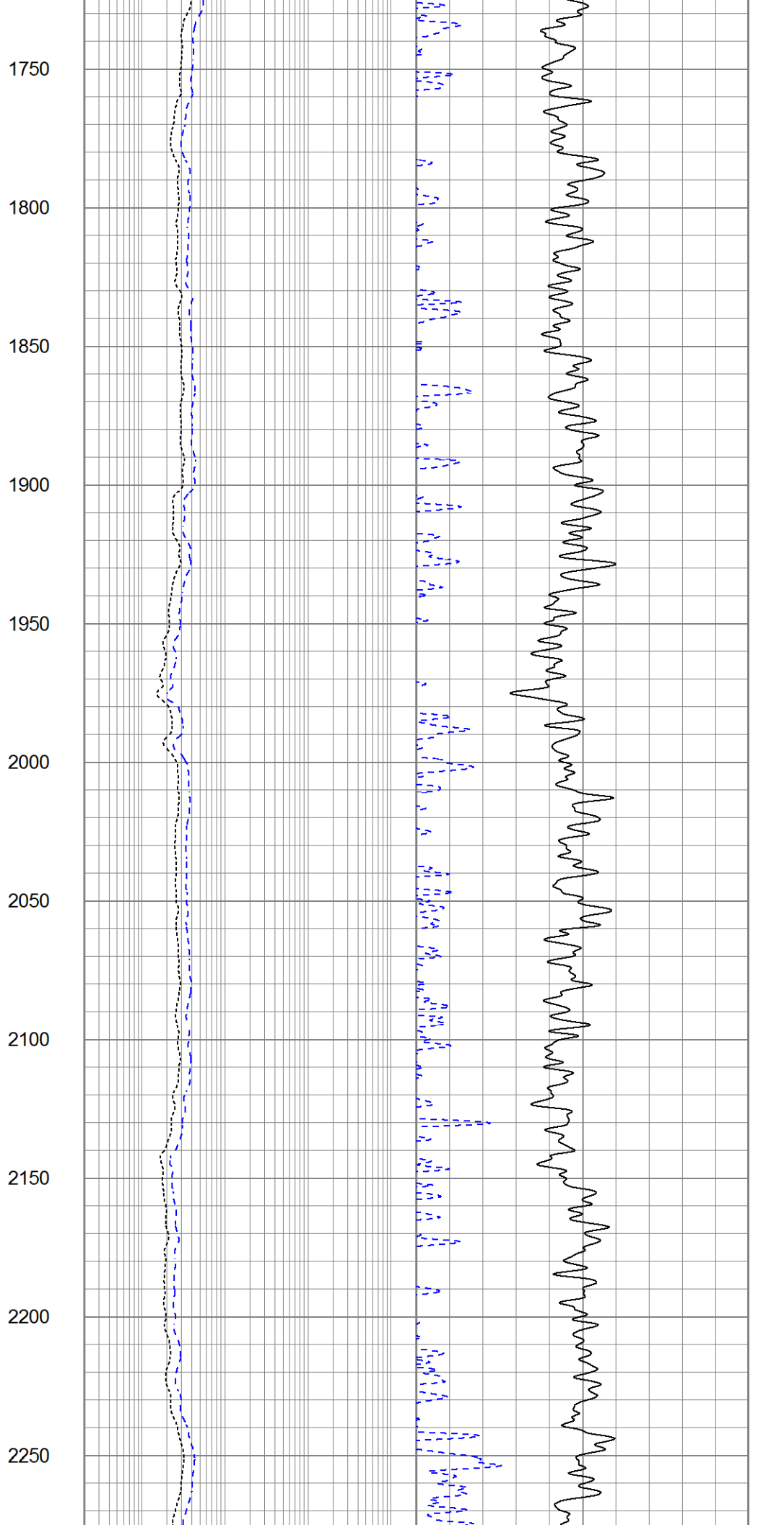
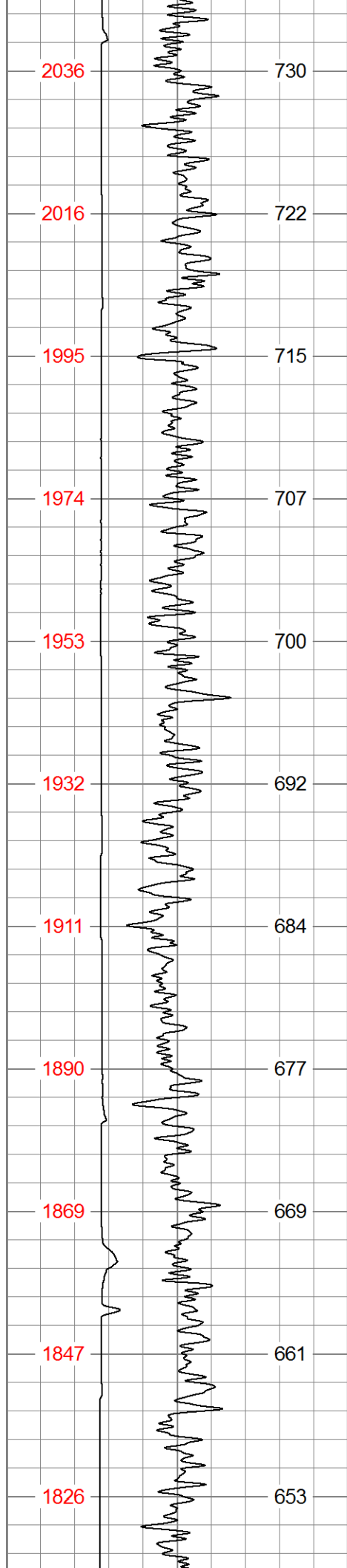
M	A	SZCOR	NPORSEL	FLUIDDEN g/cc	MATRXDEN g/cc	SPSHIFT mV	SNDERRM mmho/m
2	1	Off	Sandstone	1	2.68	0	0
SNDERR mmho/m	SRFTEMP degF	CASETHCK in	CASEOD in	PERFS	TDEPTH ft	BOTTEMP degF	BOREID in
0	52	0	7	0	0	180	8.75

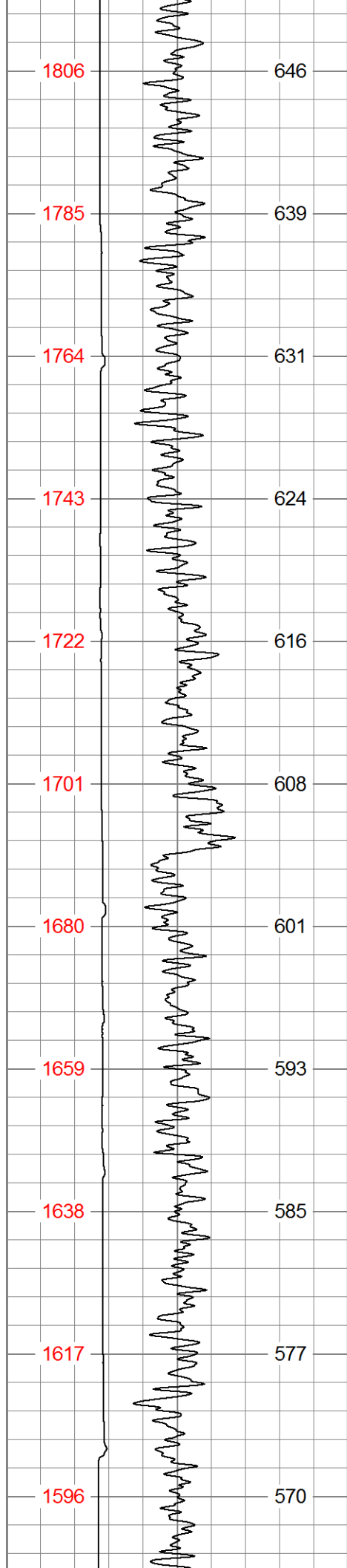
Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
GR	33.00		GR-M&W (89-M&W)	3.00	3.50	50.00
CNLSC CNSSC	29.90 29.15		CNT-M&W (tk10-MW)	5.50	3.50	100.00
LSD DCAL SSD	20.85 20.83 20.35		CDL-M&W (71-914)	8.50	4.00	250.00
RLL3F RLL3	15.80 15.80					
CILD	8.00		DIL-PSI HIGH TEMP (PSI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

CILM	4.70								
SP	0.20								
Dataset: extraction_janssen_11.db: field/well/stack/pass3.1 Total length: 35.50 ft Total weight: 620.00 lb O.D.: 4.00 in									

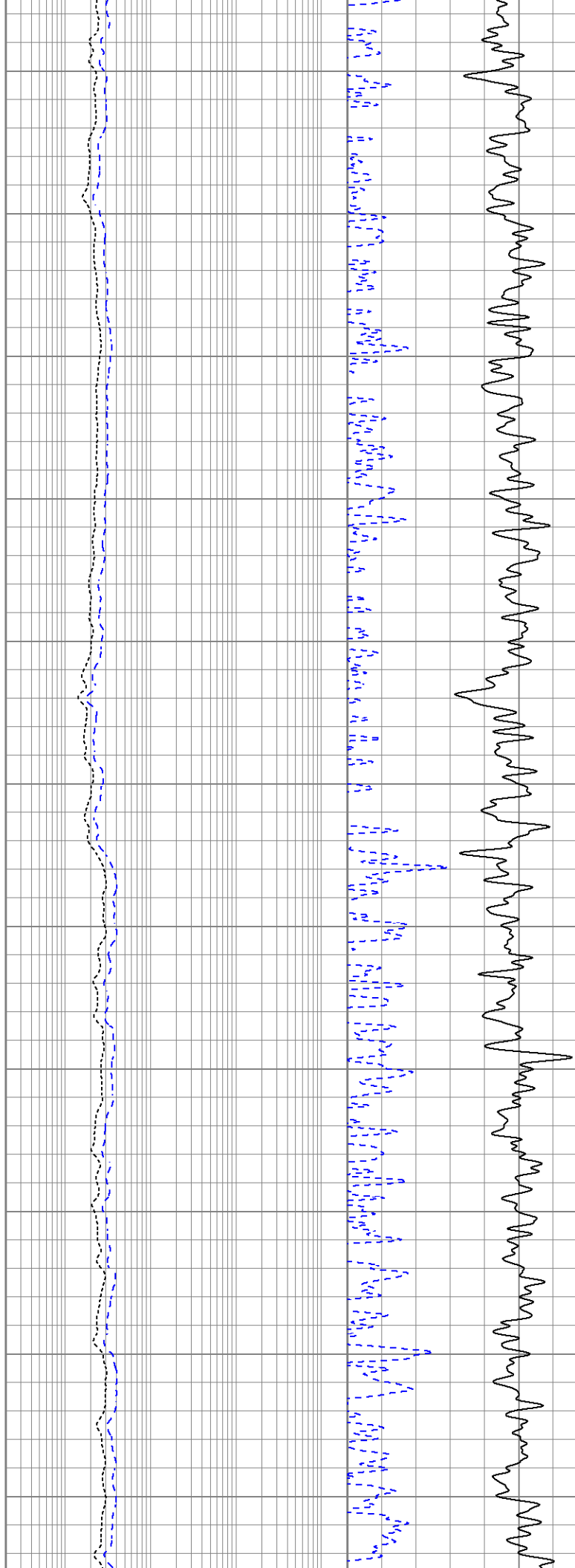
		MAIN PASS SANDSTONE (2.68)			
Database File extraction_janssen_11.db Dataset Pathname stack/pass3.1 Presentation Format split Dataset Creation Wed Dec 02 02:28:55 2015 Charted by Depth in Feet scaled 1:600					
0	GAMMA RAY (GAPI)	200	MEDIUM INDUCTION		30 DENSITY POROSITY (pu) 0
6	CALIPER (in)	16	0.2 (Ohm-m)	2000	30 NEUTRON POROSITY (pu) 0
6	DCAL (in)	16	DEEP INDUCTION		
			0.2 (Ohm-m)	2000	

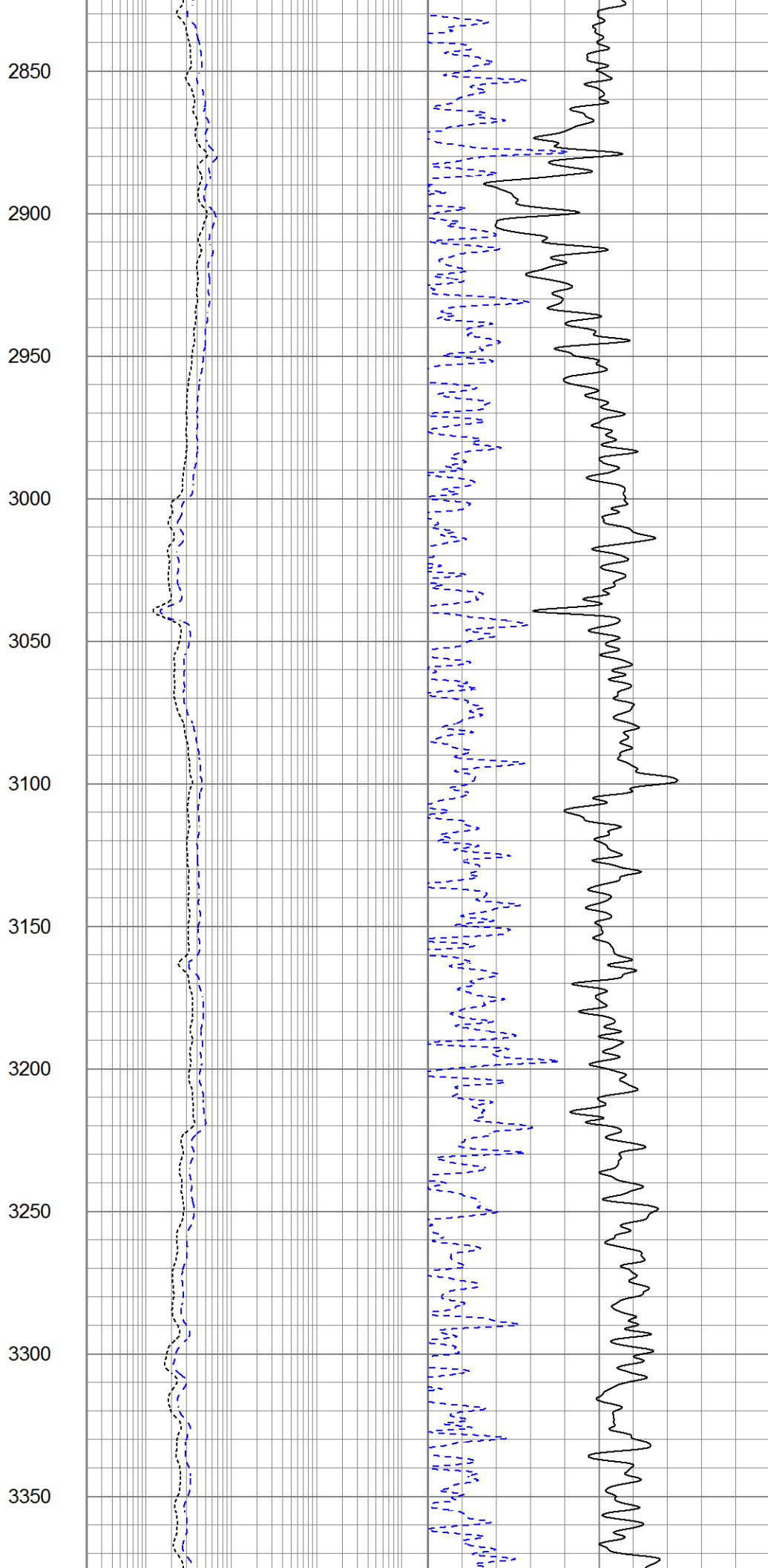
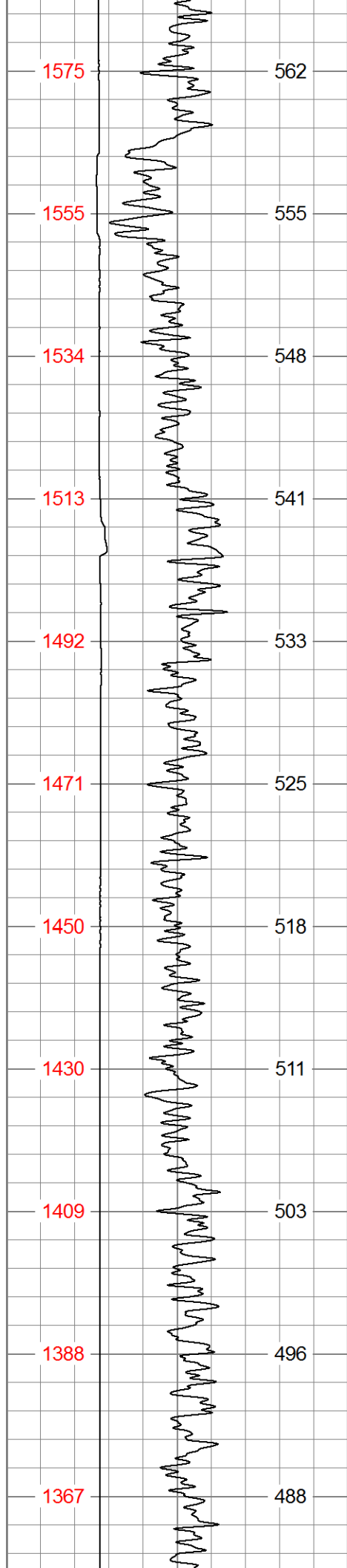


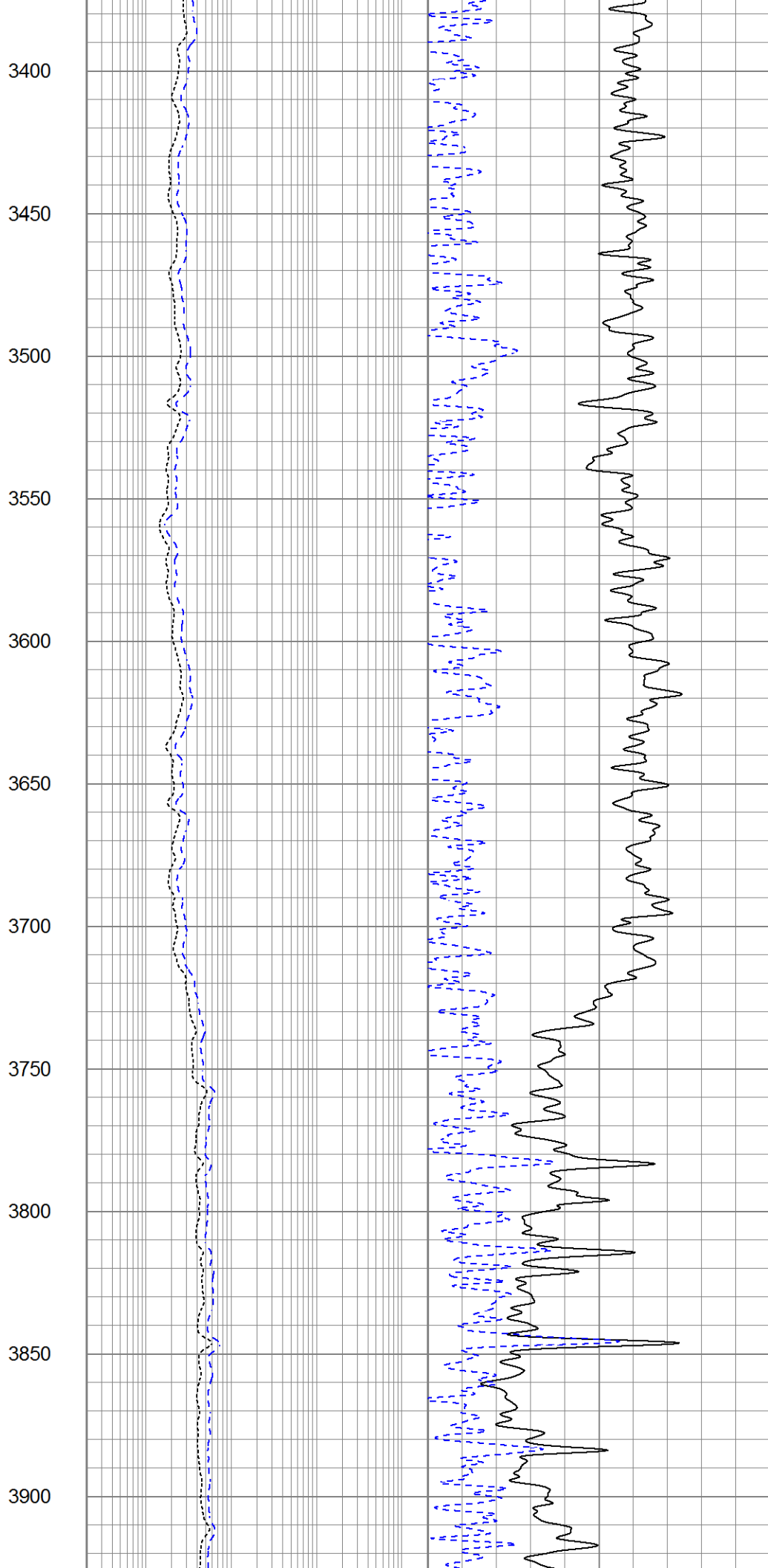
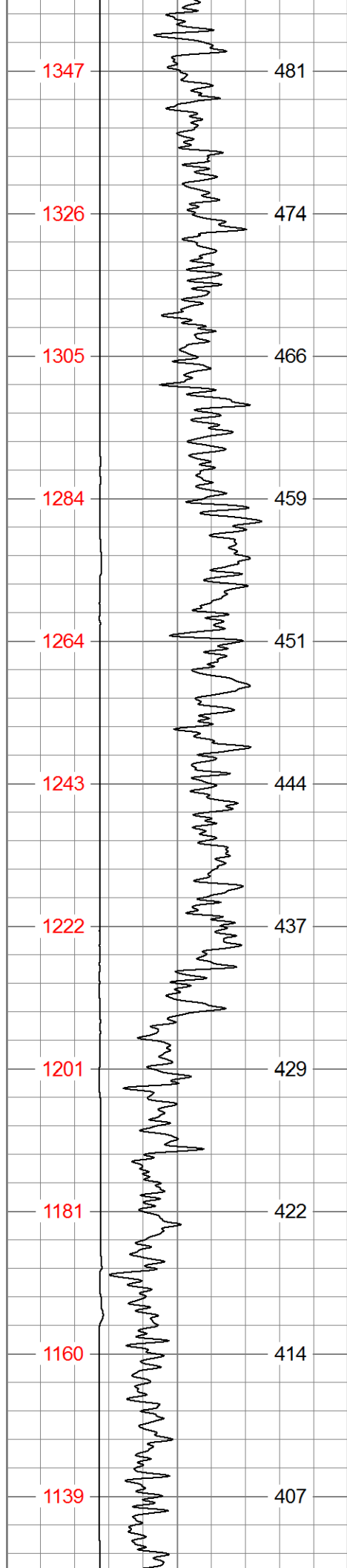


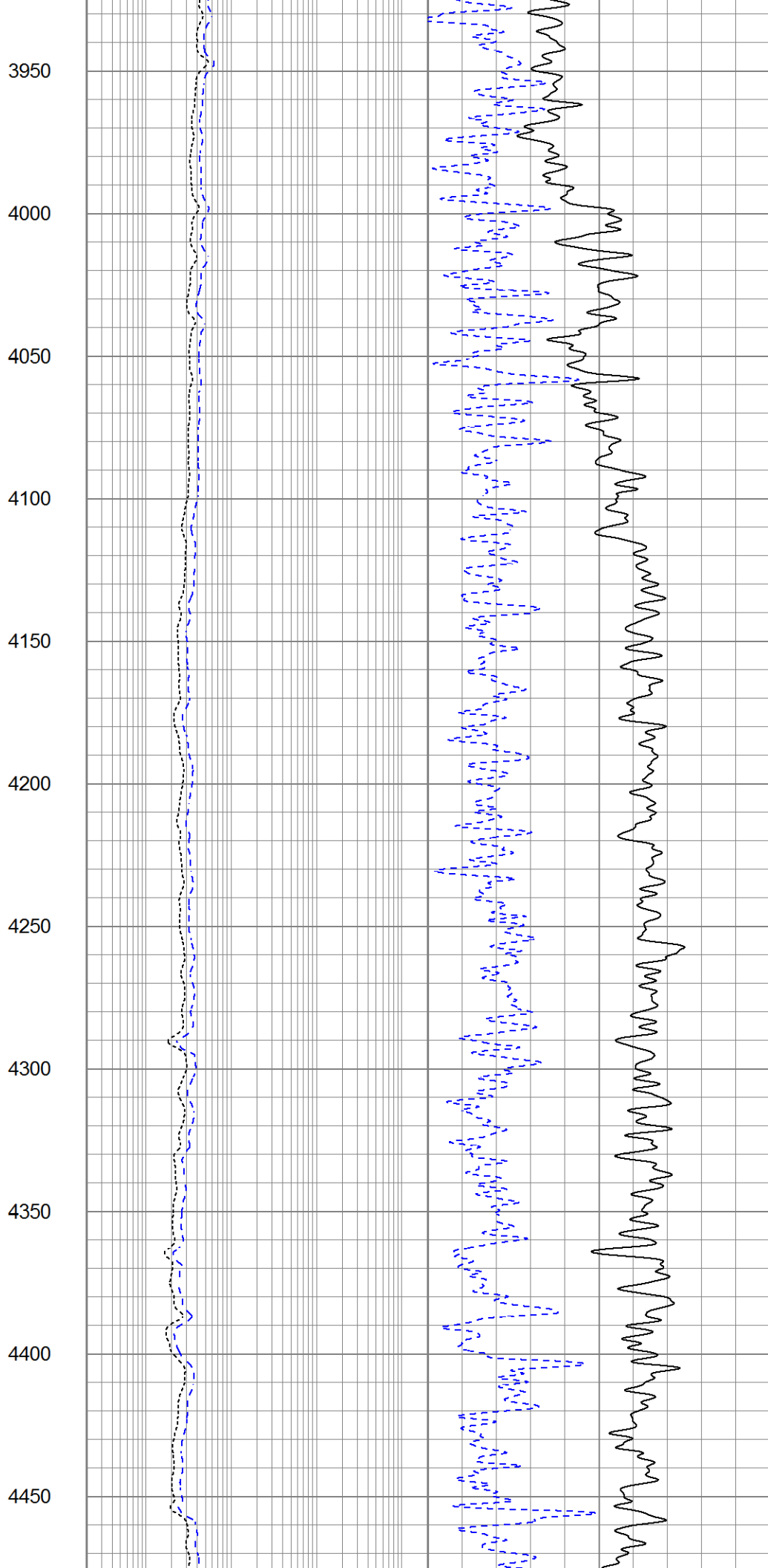
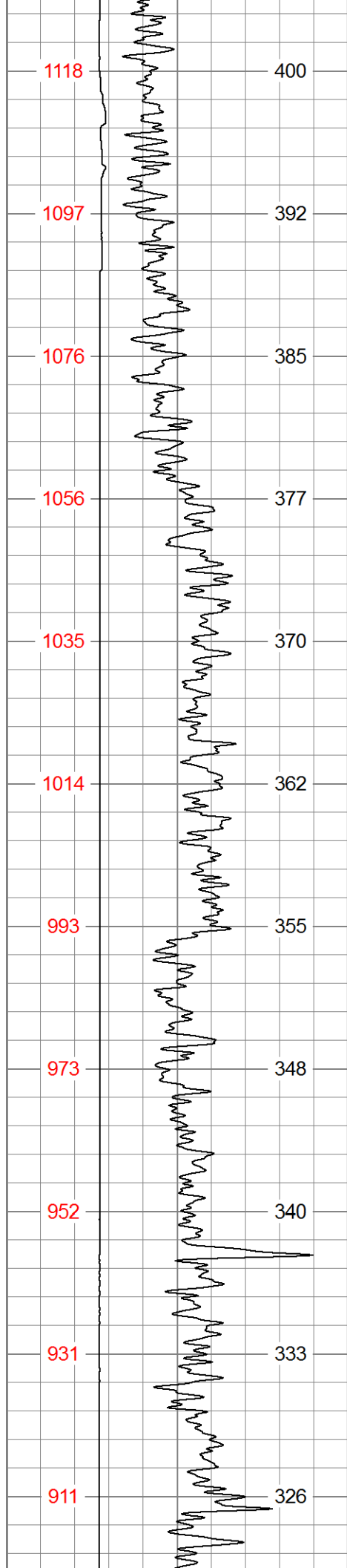


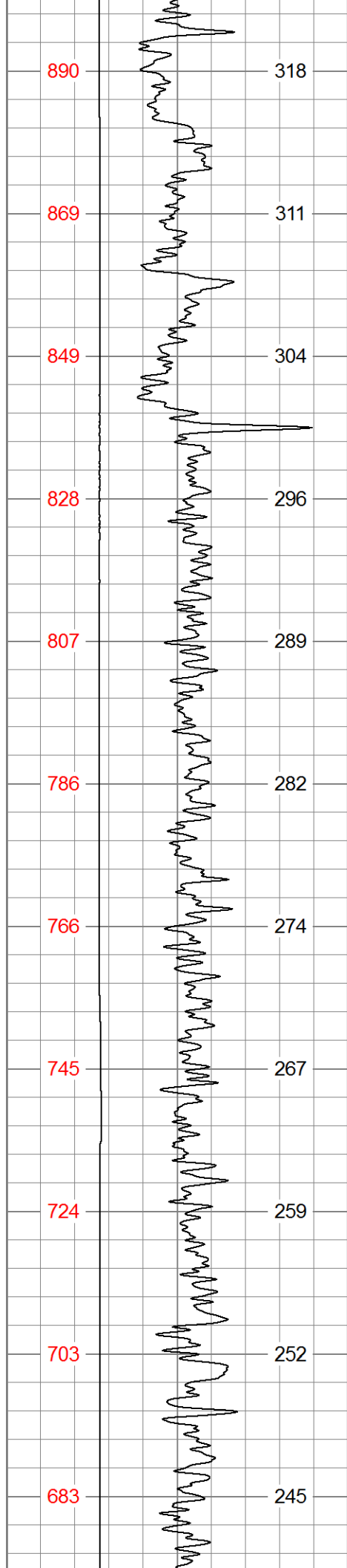
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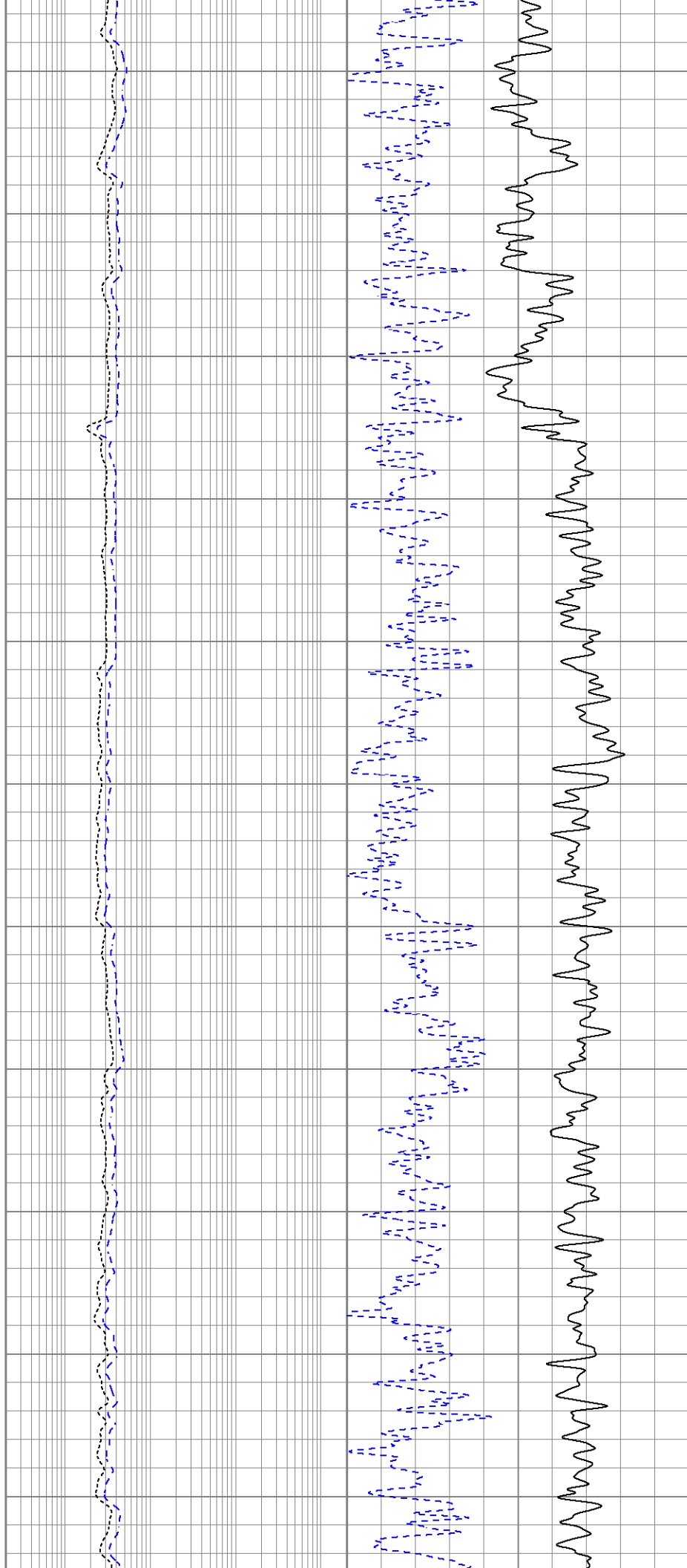


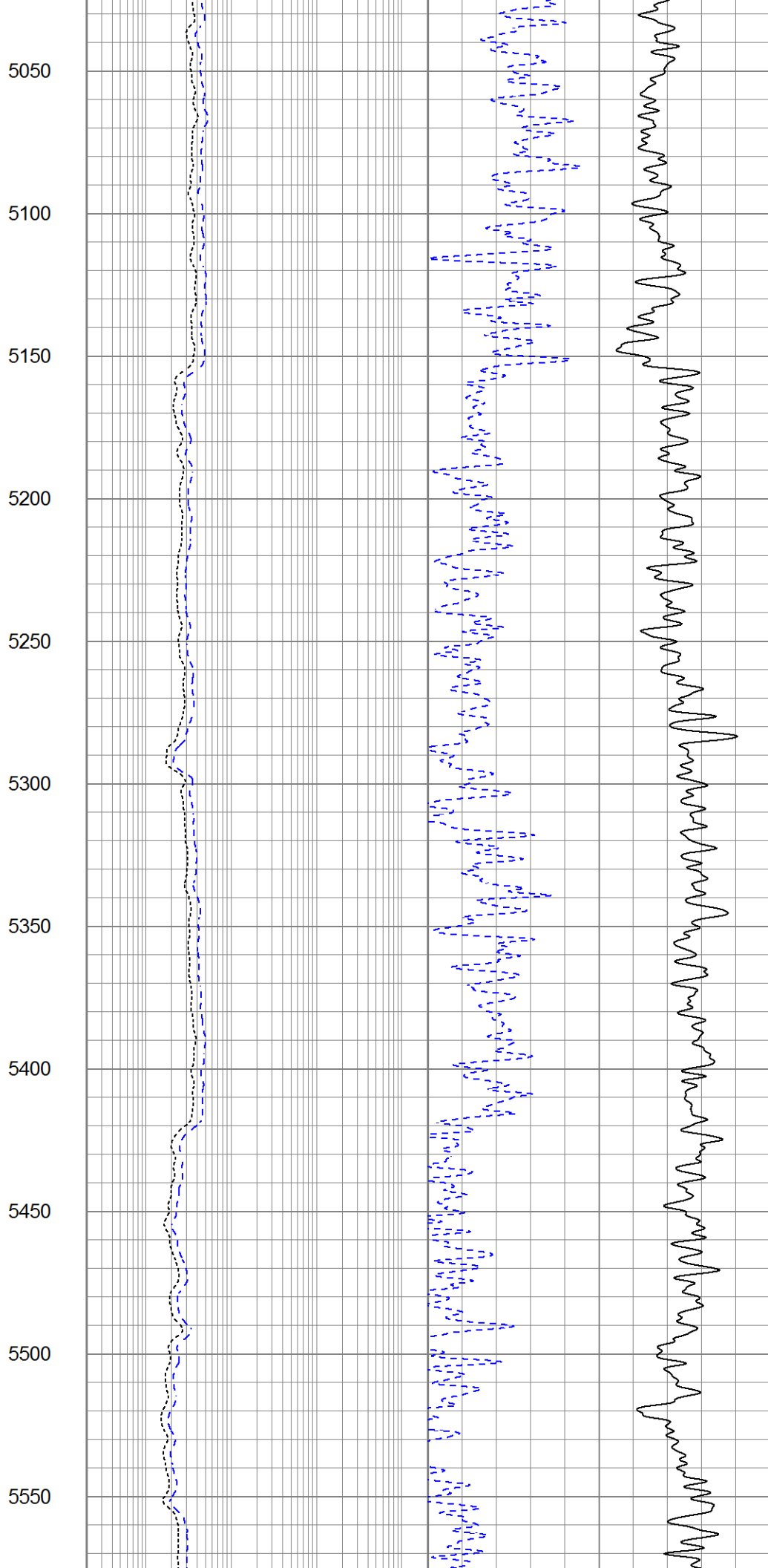
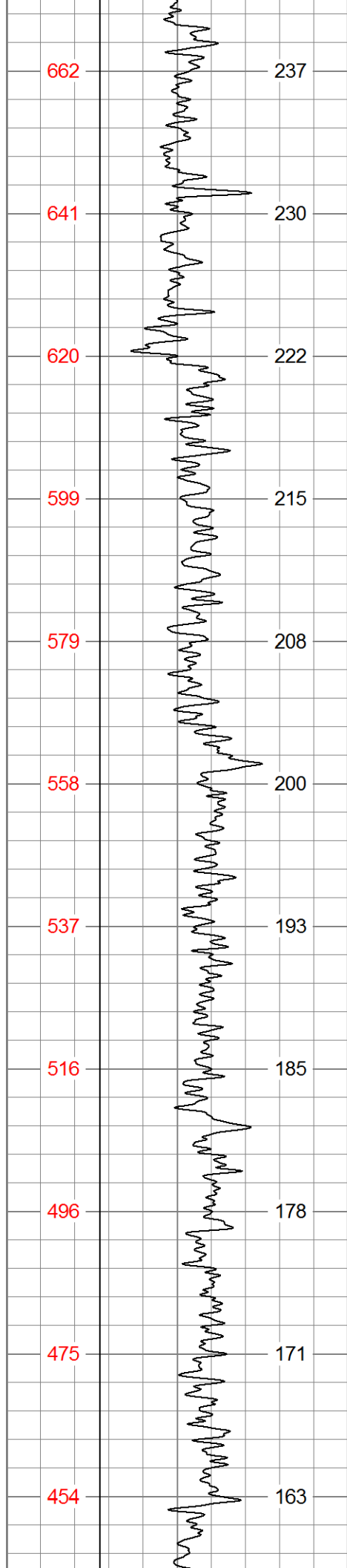


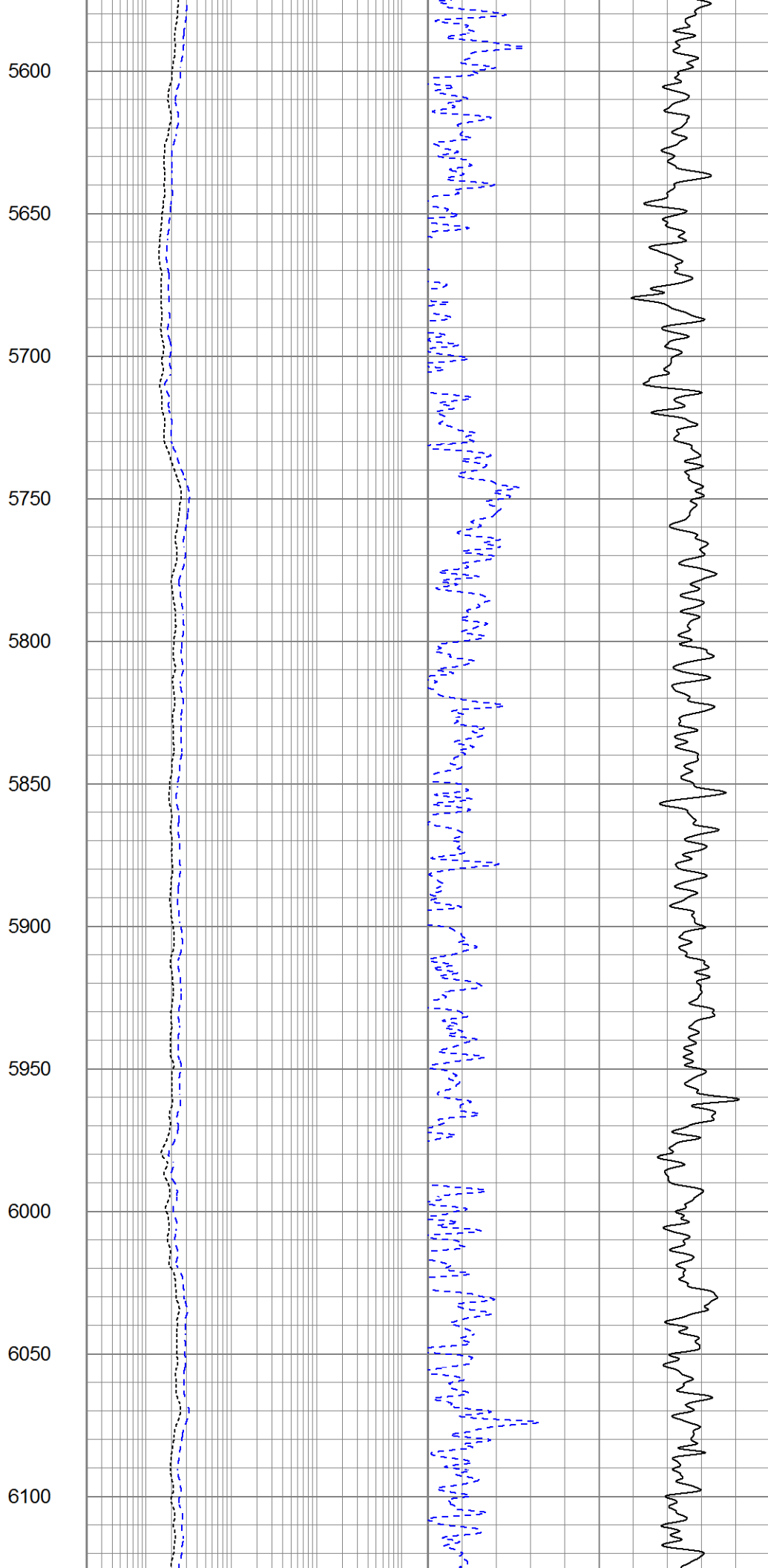
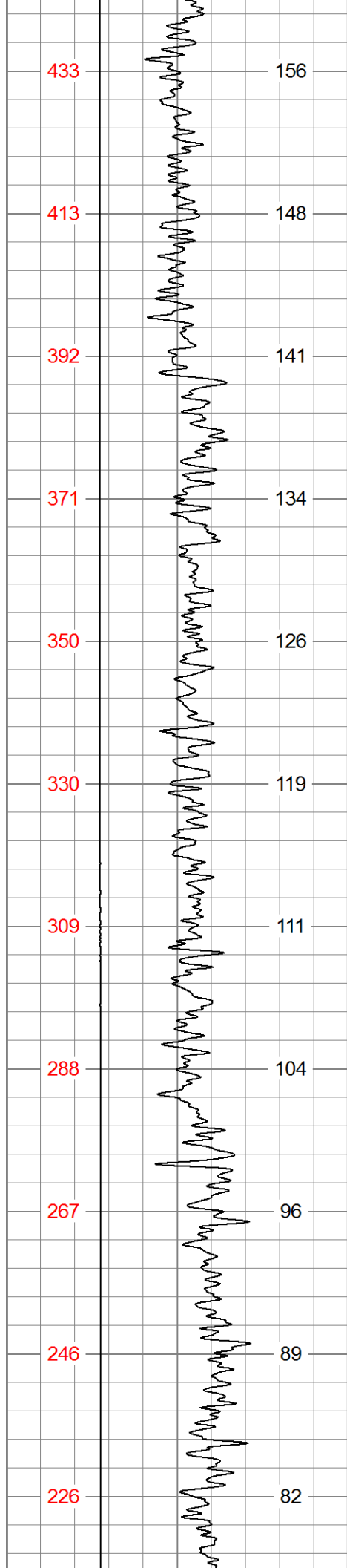


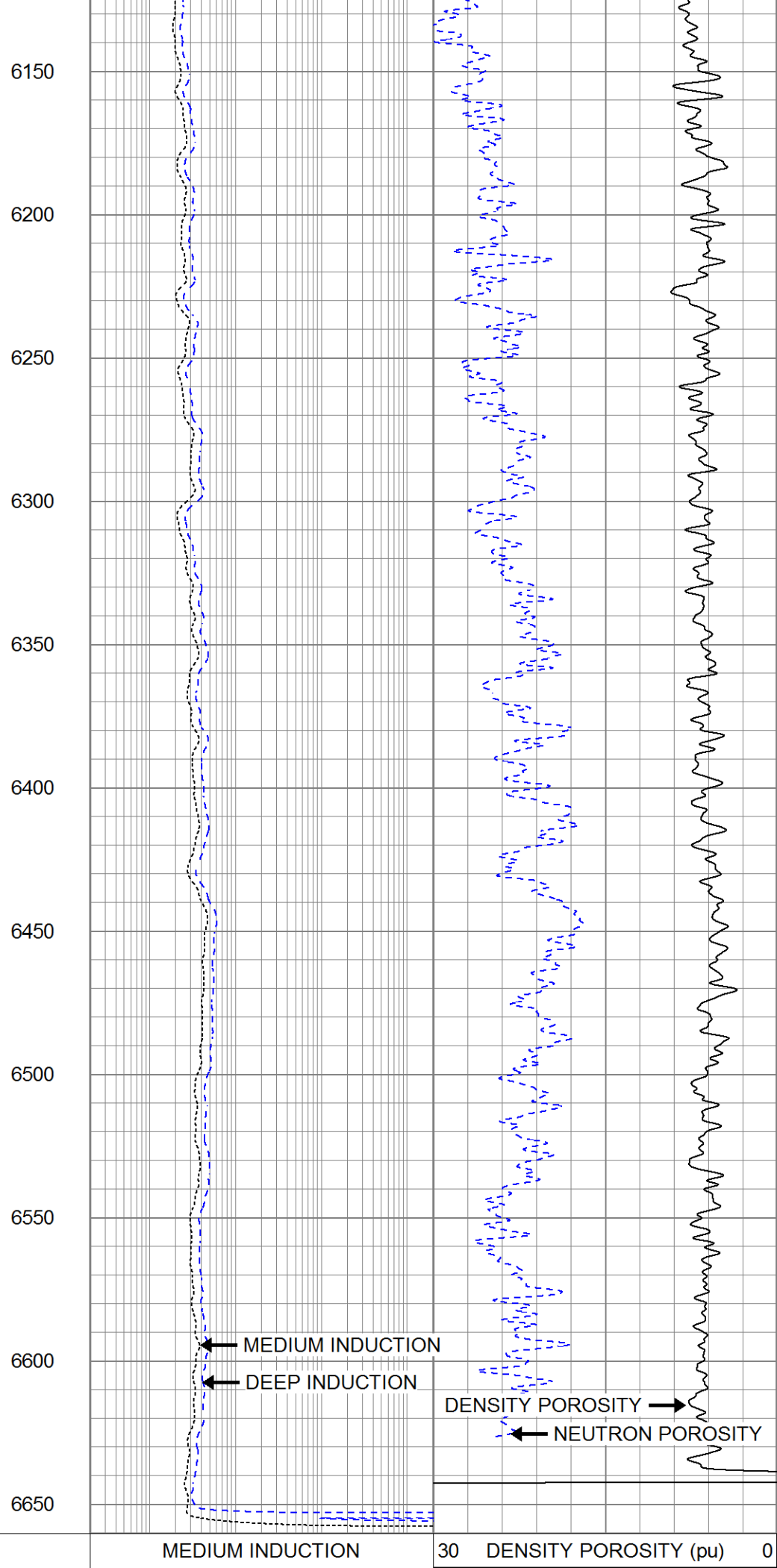
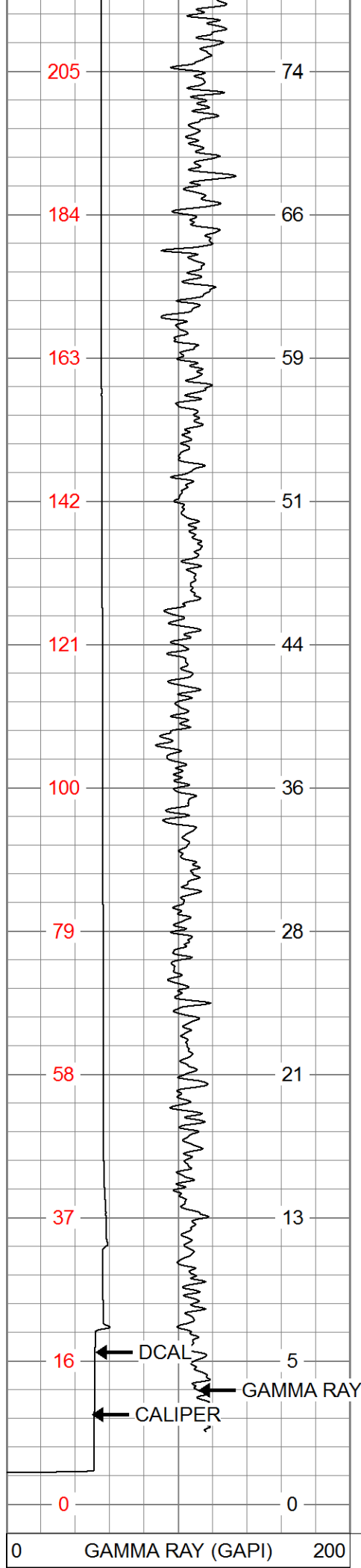


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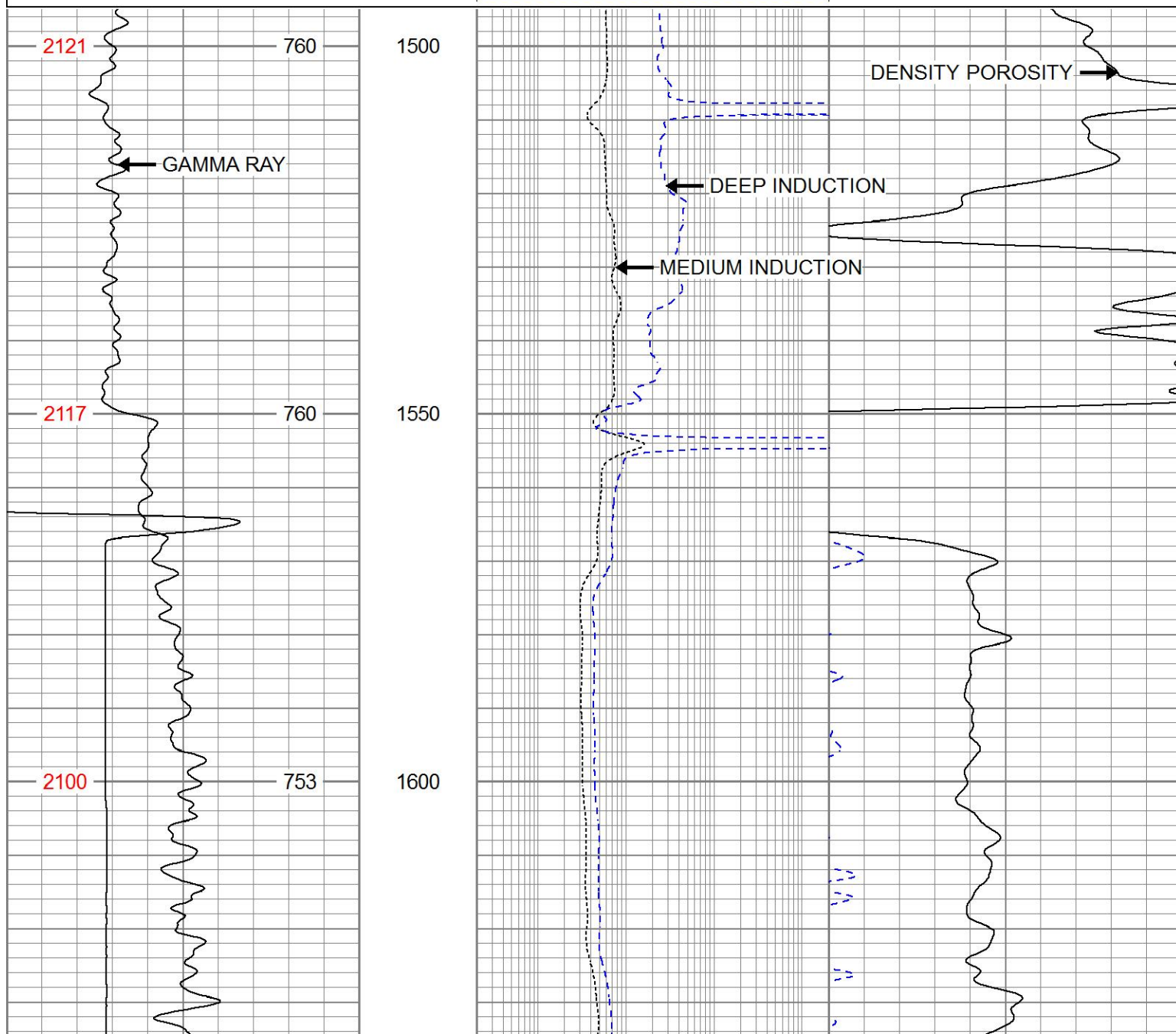


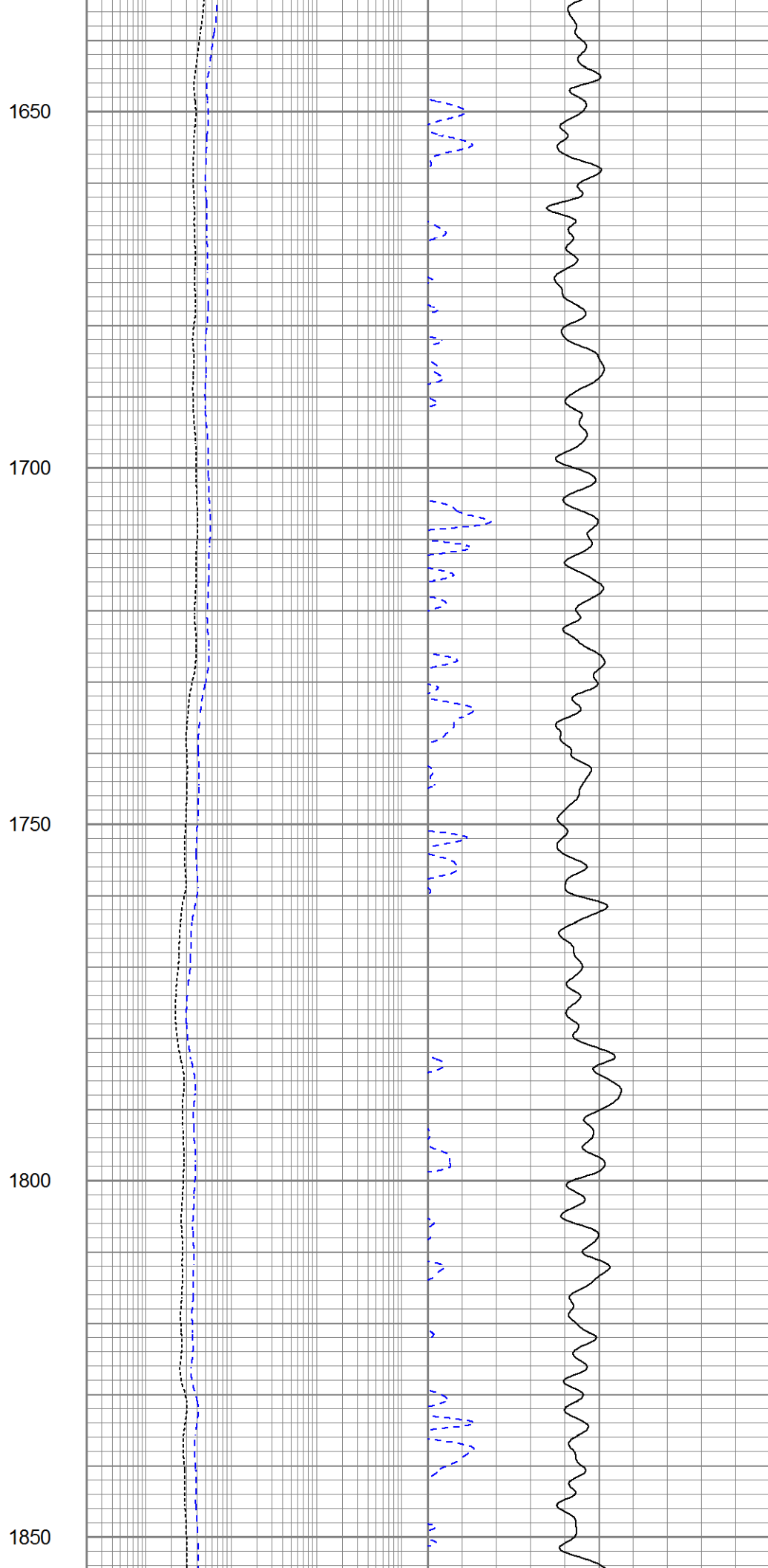
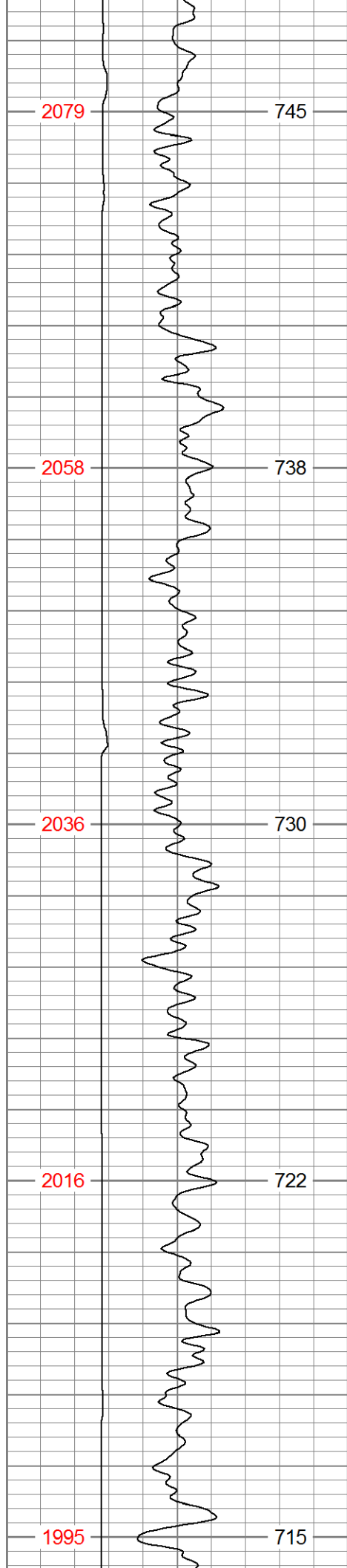
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6	DCAL (in)	16	DEEP INDUCTION					
			0.2	(Ohm-m)	2000			

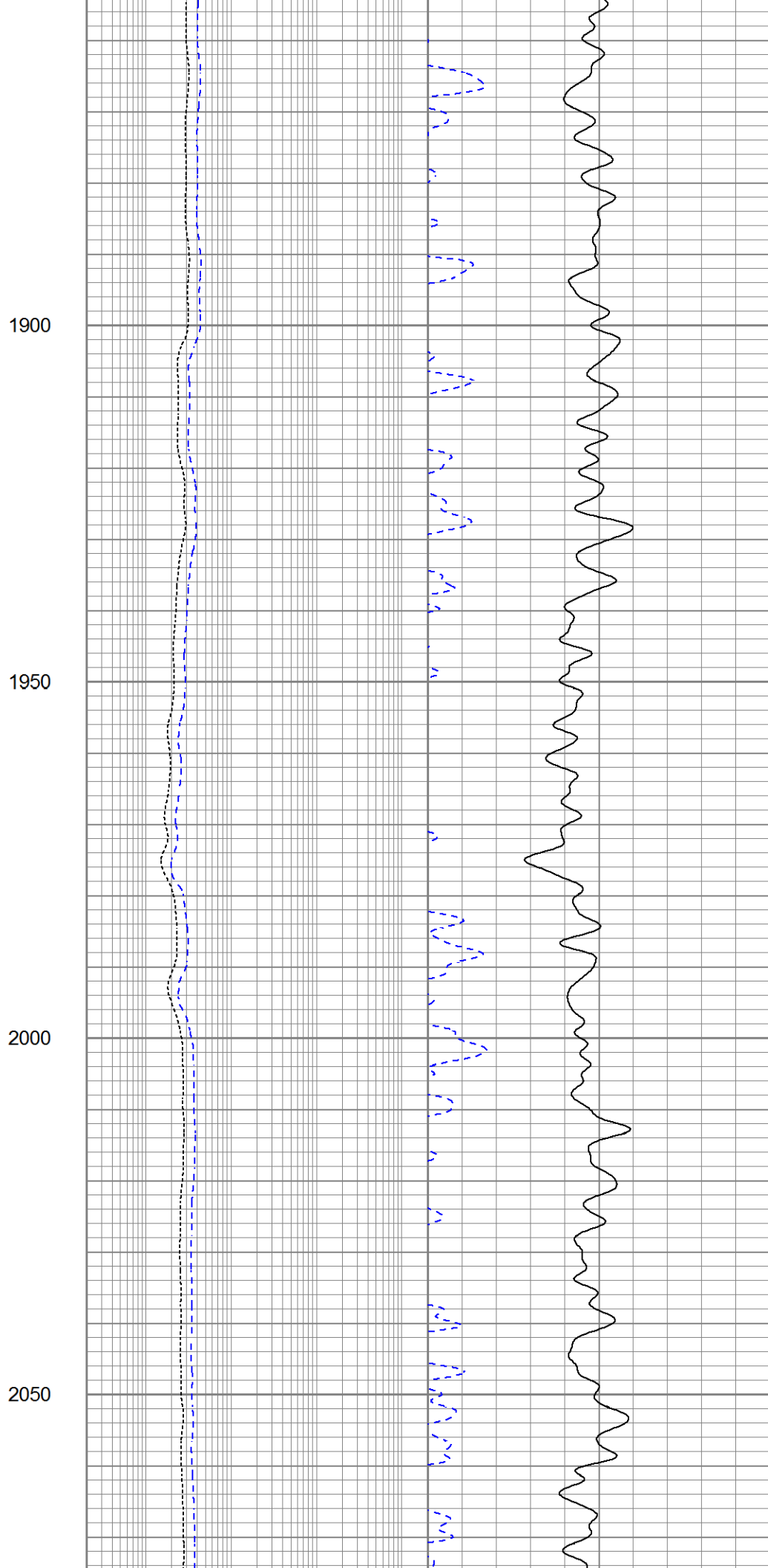
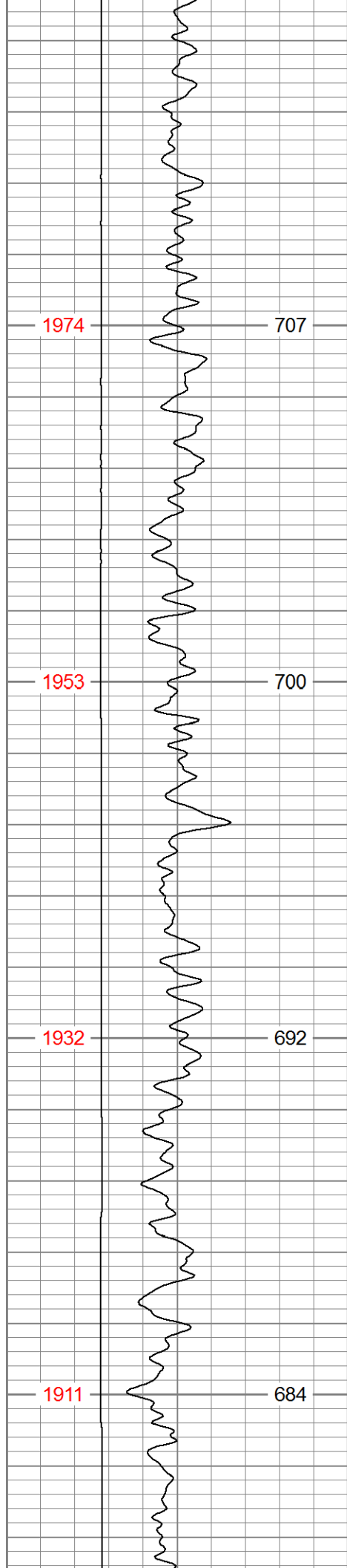
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		SANDSTONE (2.68)						

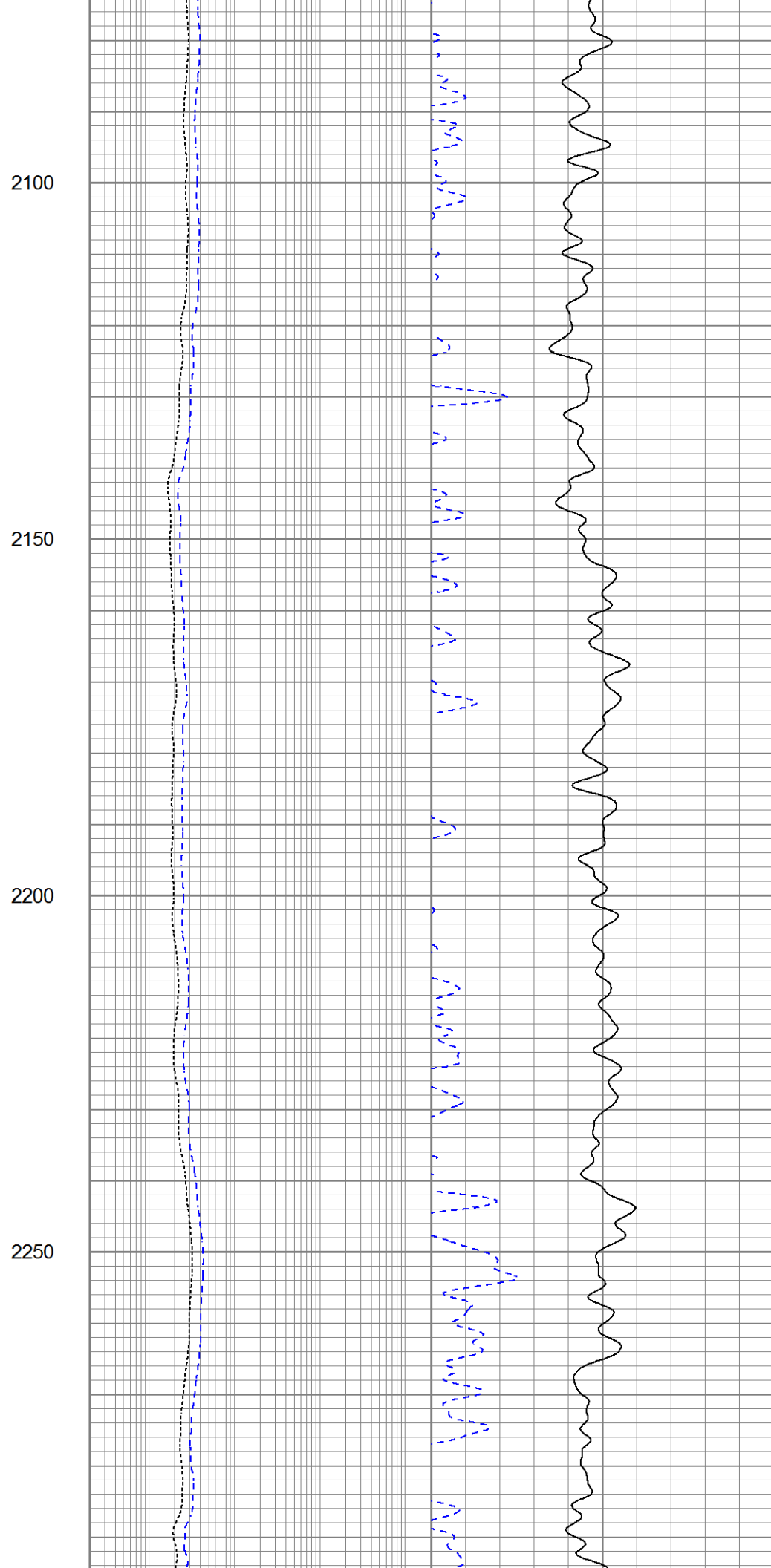
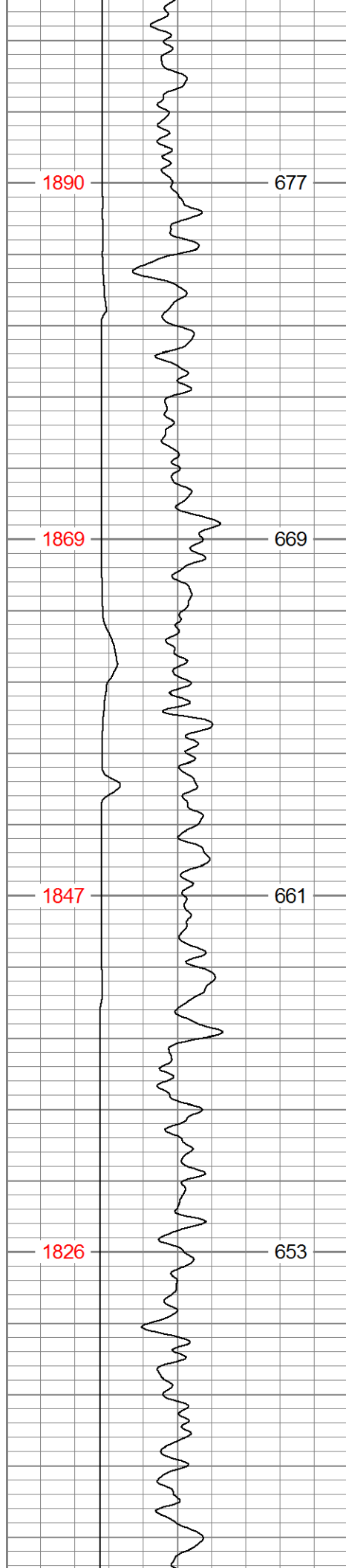
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 Dataset Pathname stack/pass3.1
 Presentation Format split
 Dataset Creation Wed Dec 02 02:28:55 2015
 Charted by Depth in Feet scaled 1:240

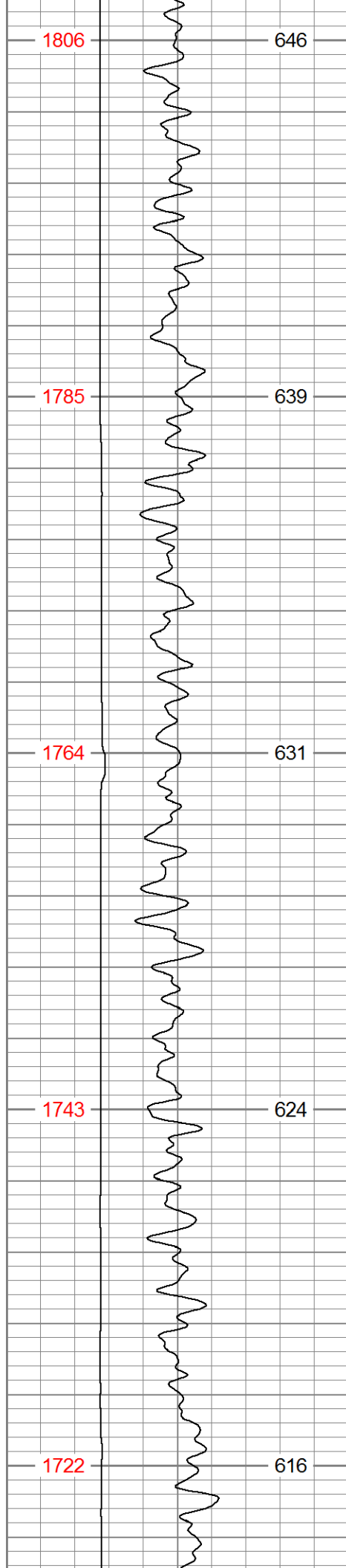
0	GAMMA RAY (GAPI)	200	MEDIUM INDUCTION			30	DENSITY POROSITY (pu)	0
6	CALIPER (in)	16	0.2	(Ohm-m)	2000	30	NEUTRON POROSITY (pu)	0
6	DCAL (in)	16	DEEP INDUCTION					
			0.2	(Ohm-m)	2000			











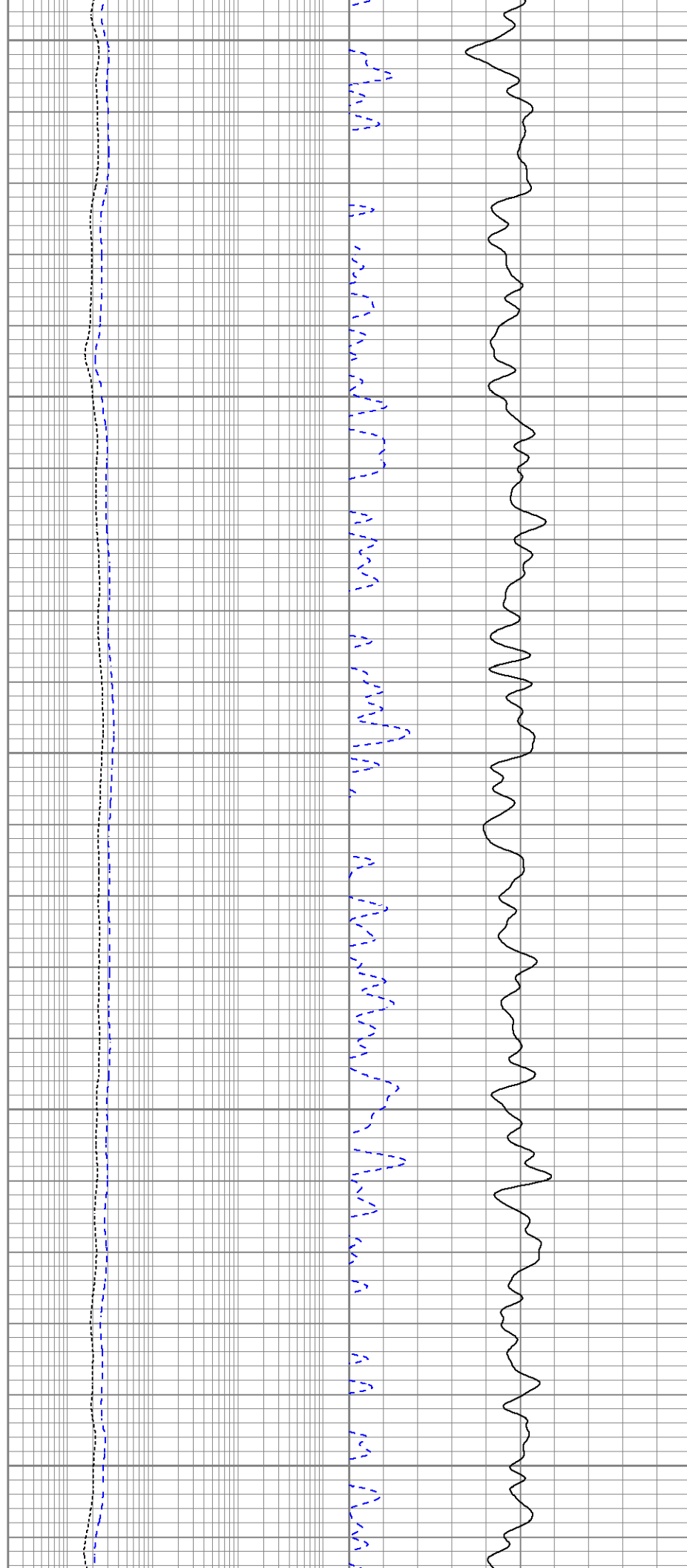
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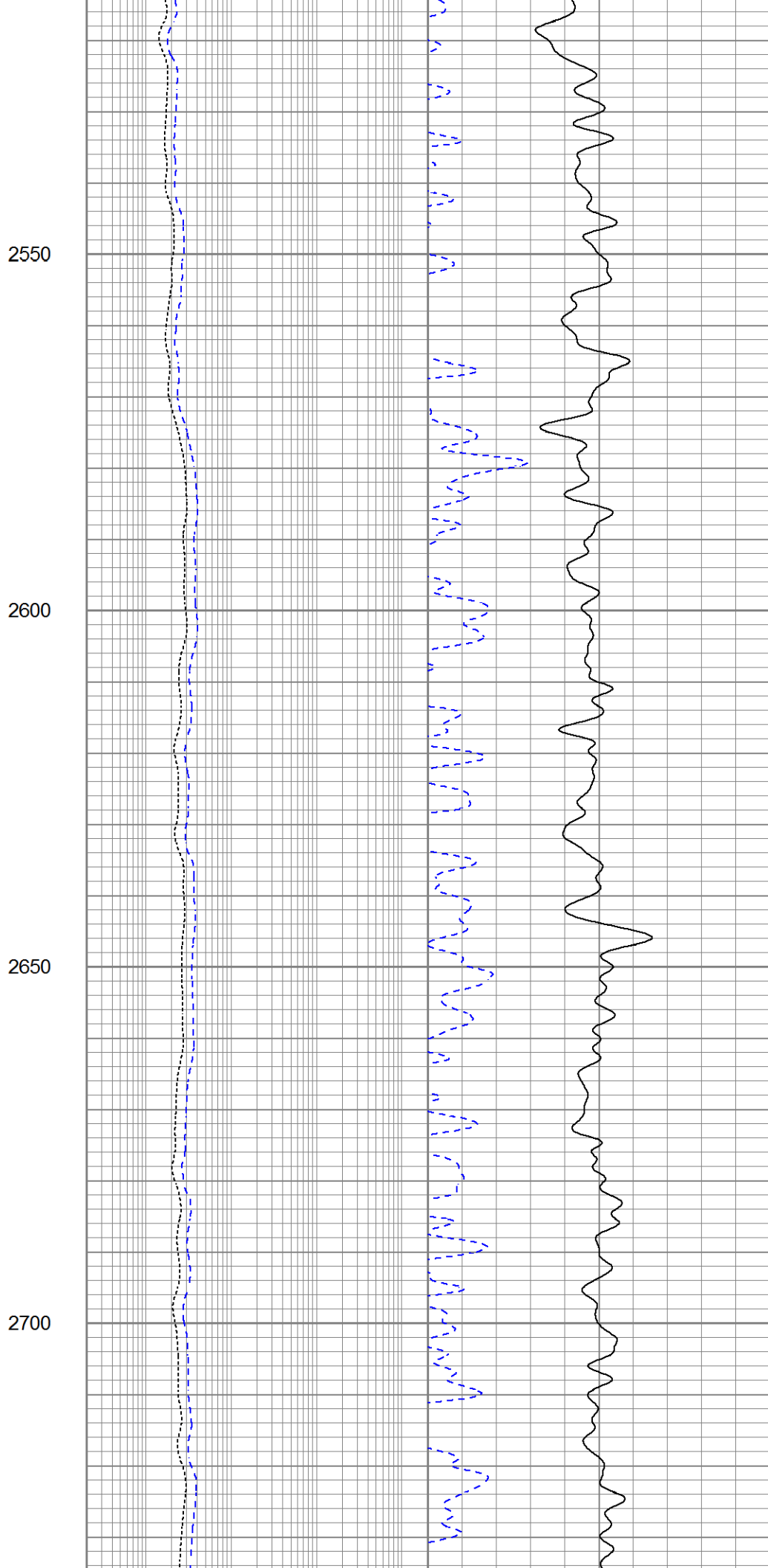
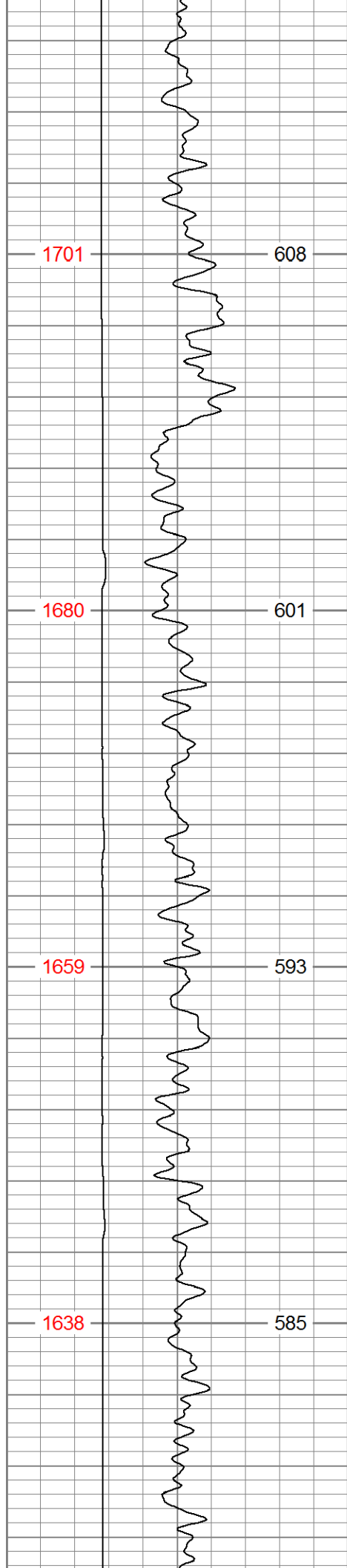
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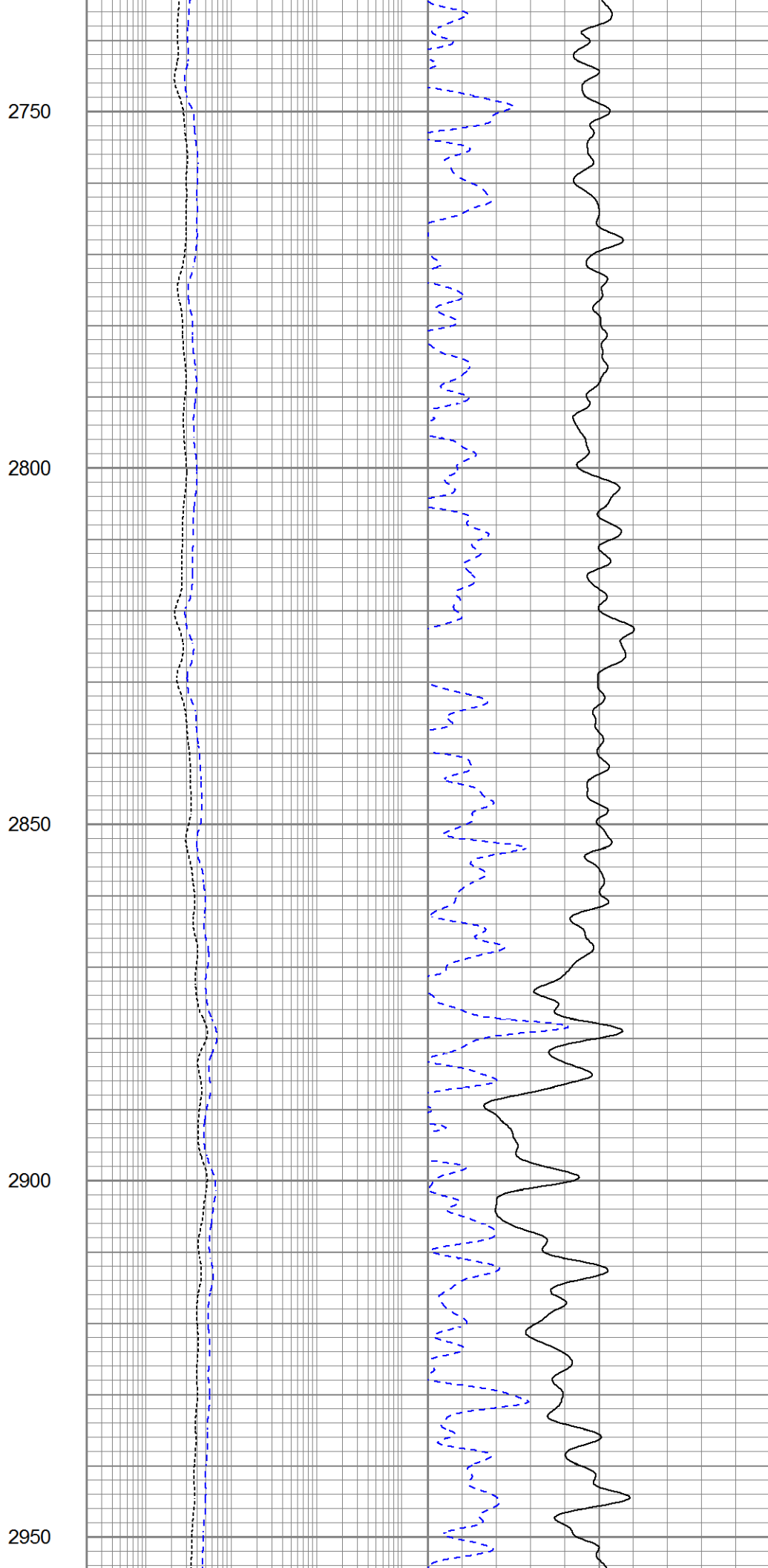
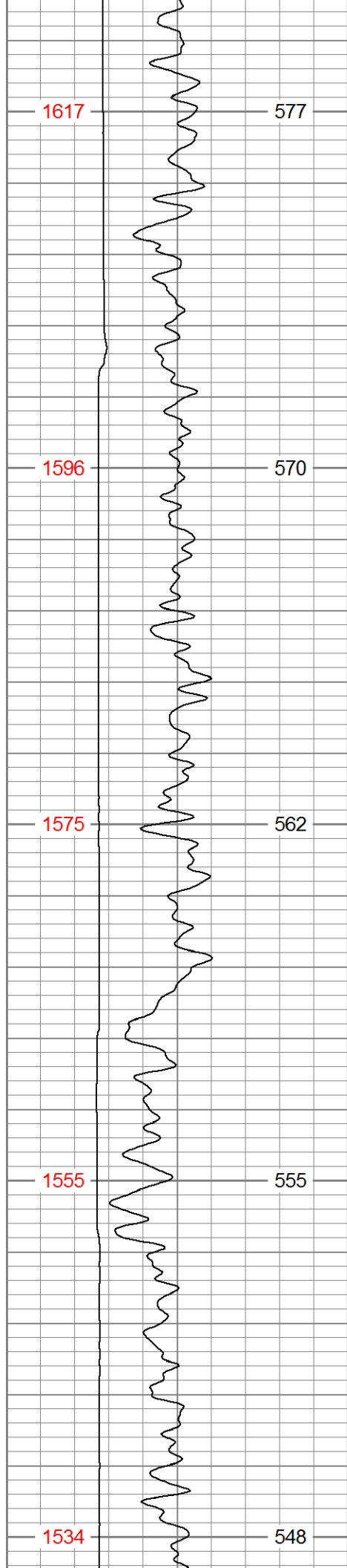
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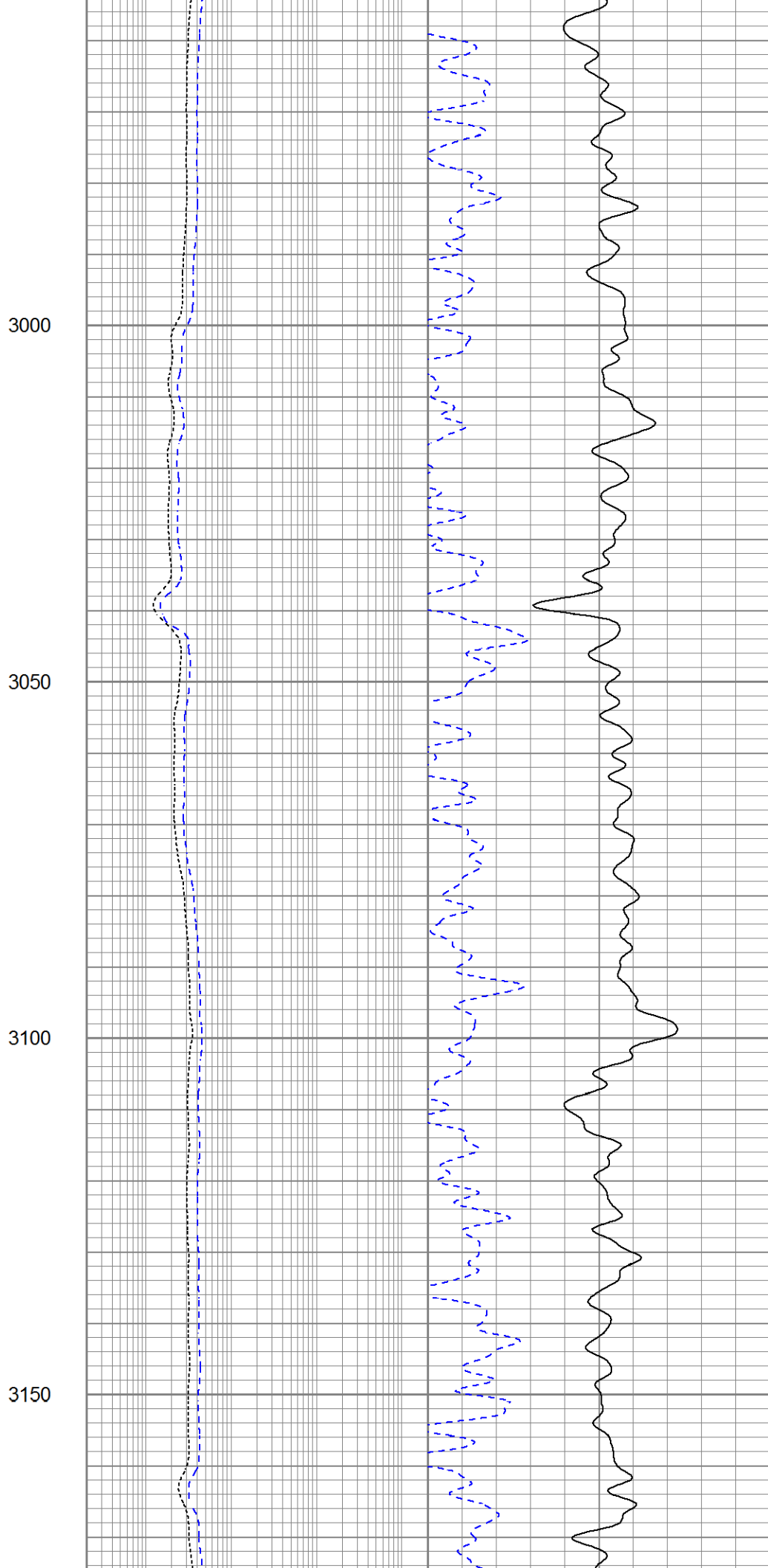
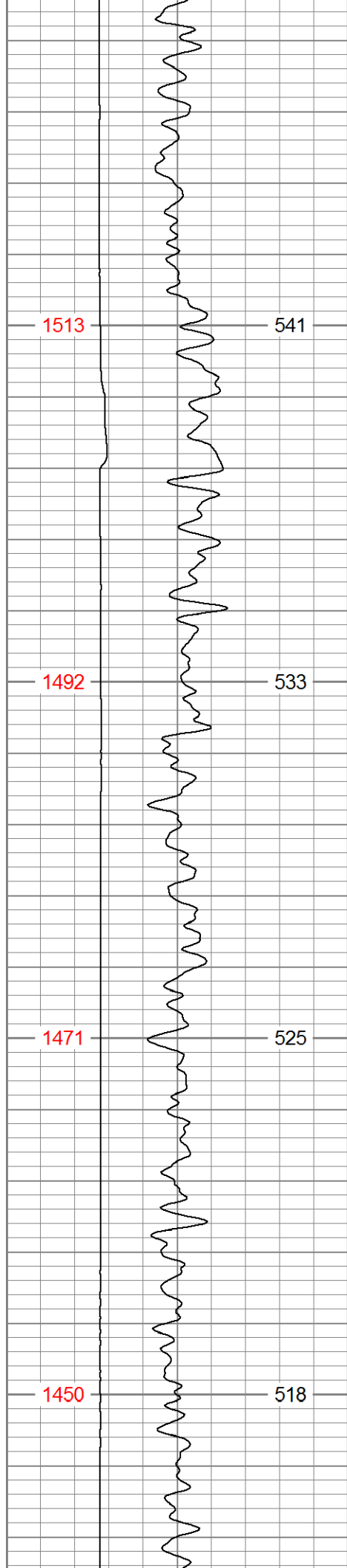
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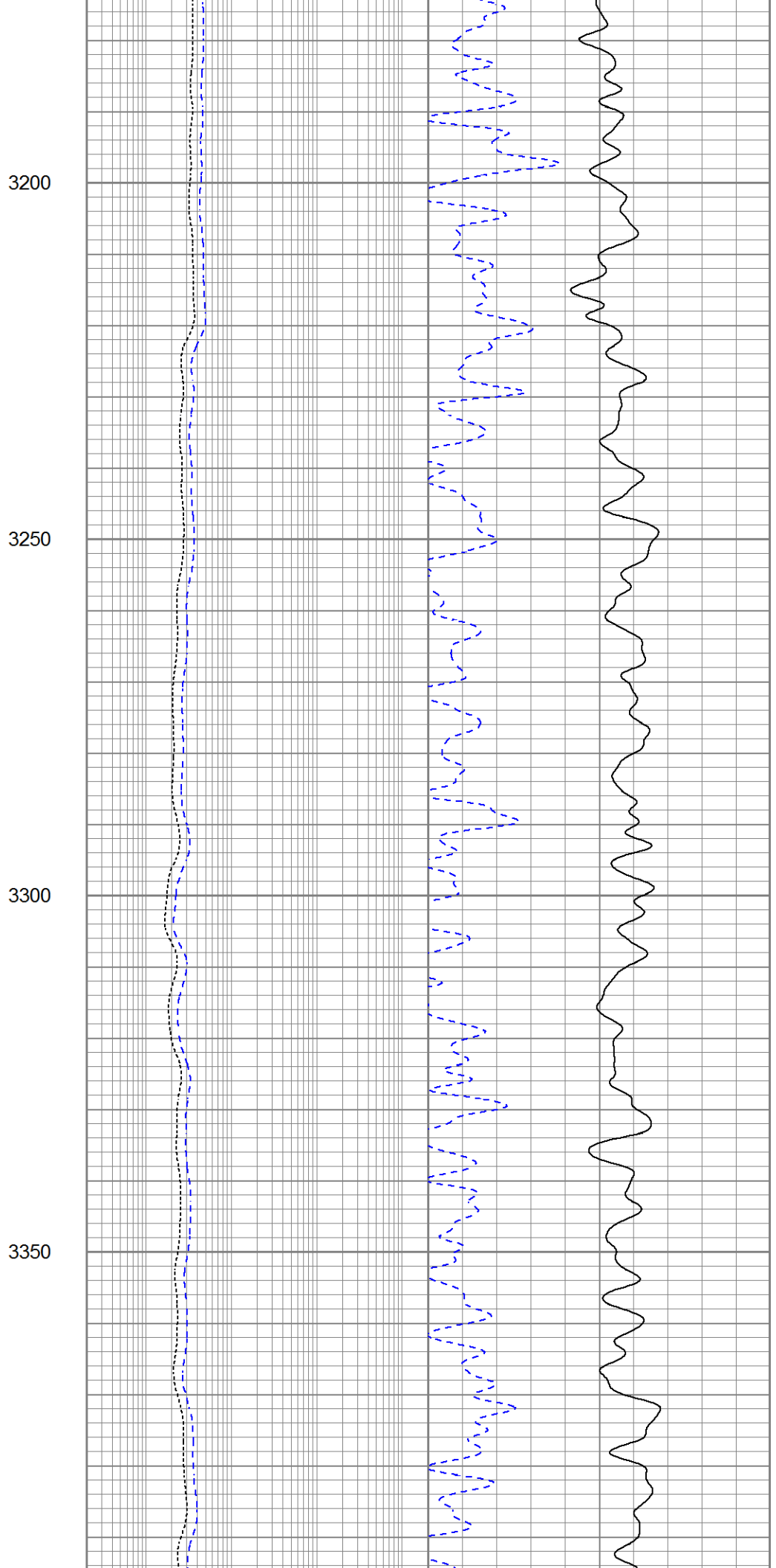
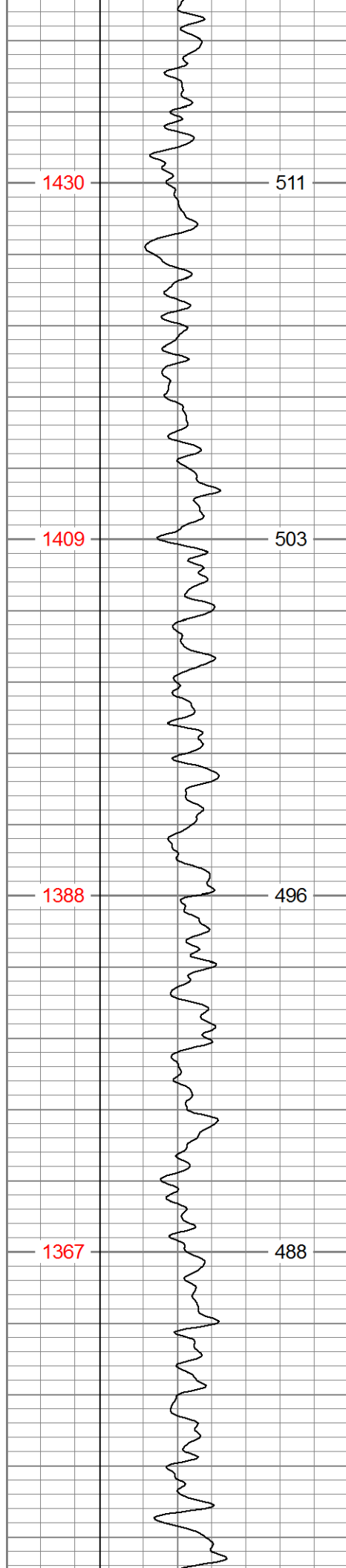
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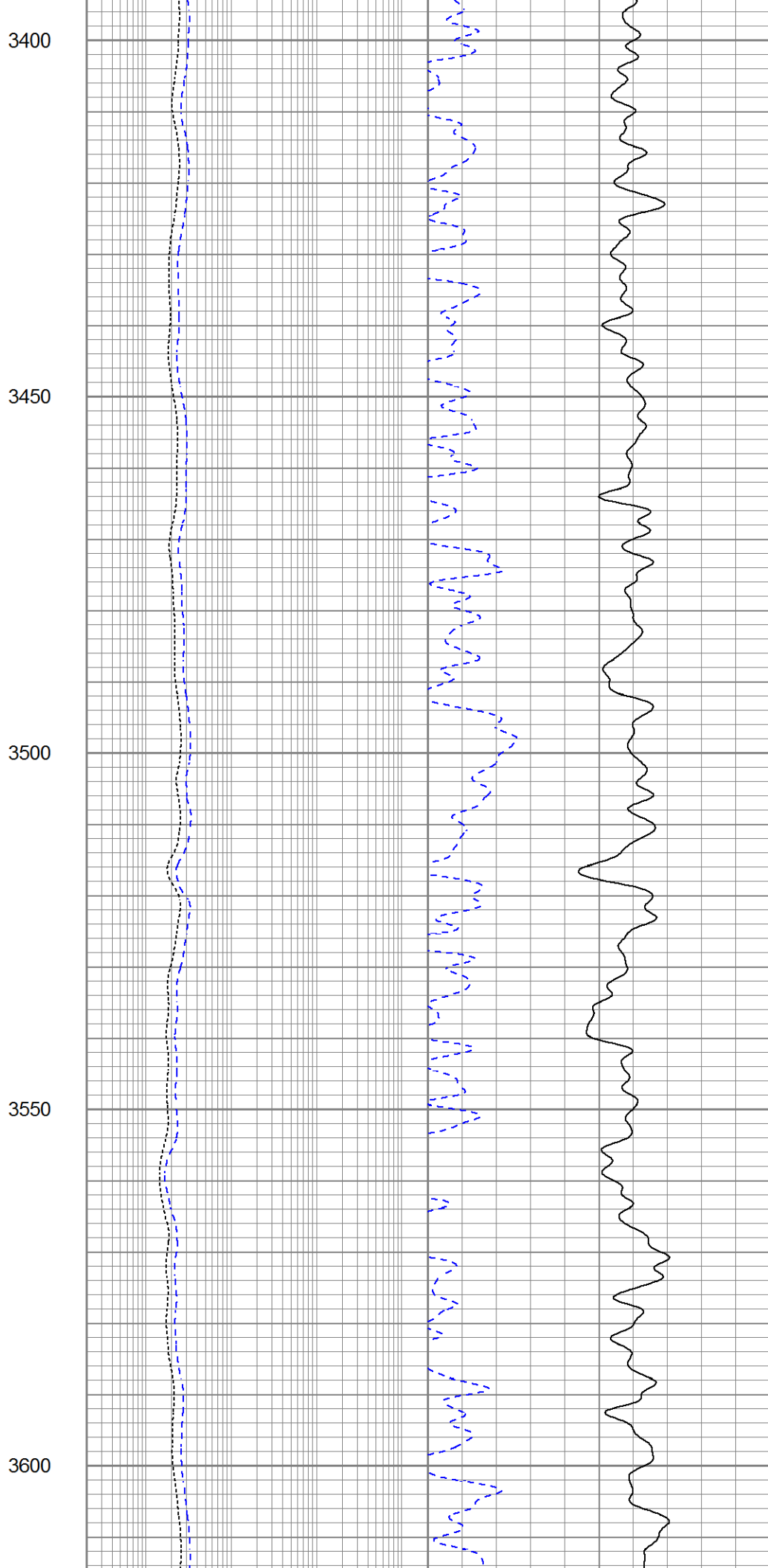
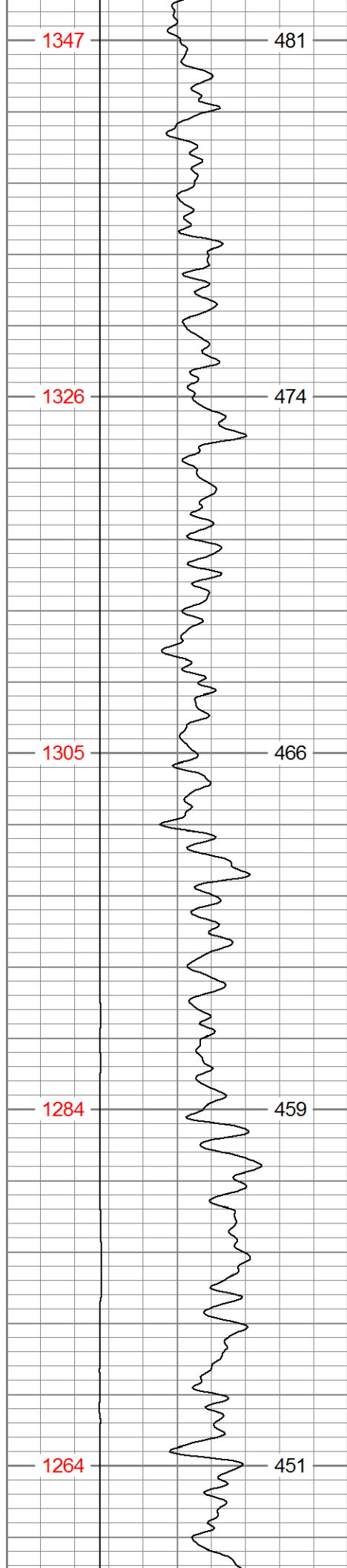


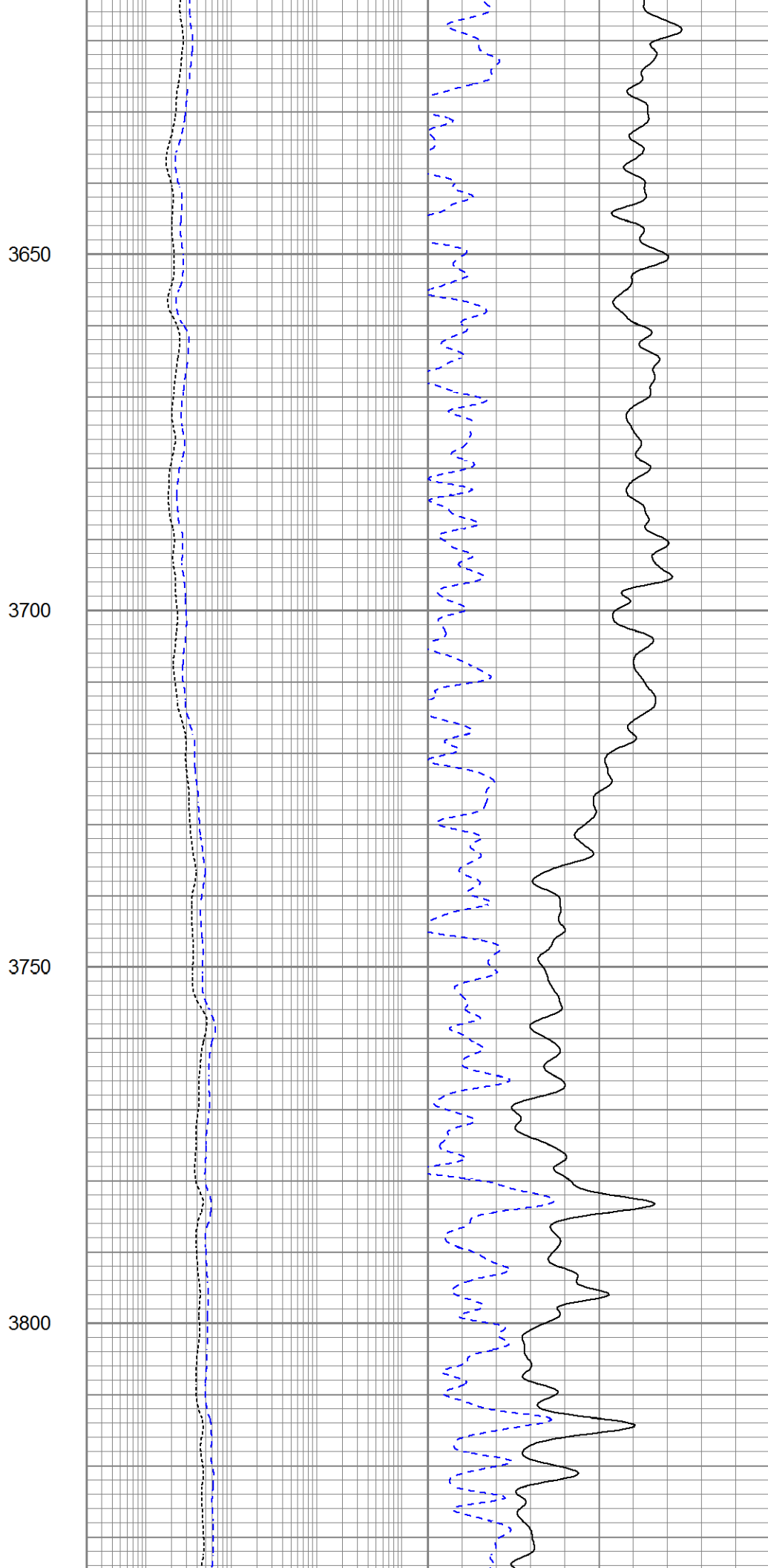
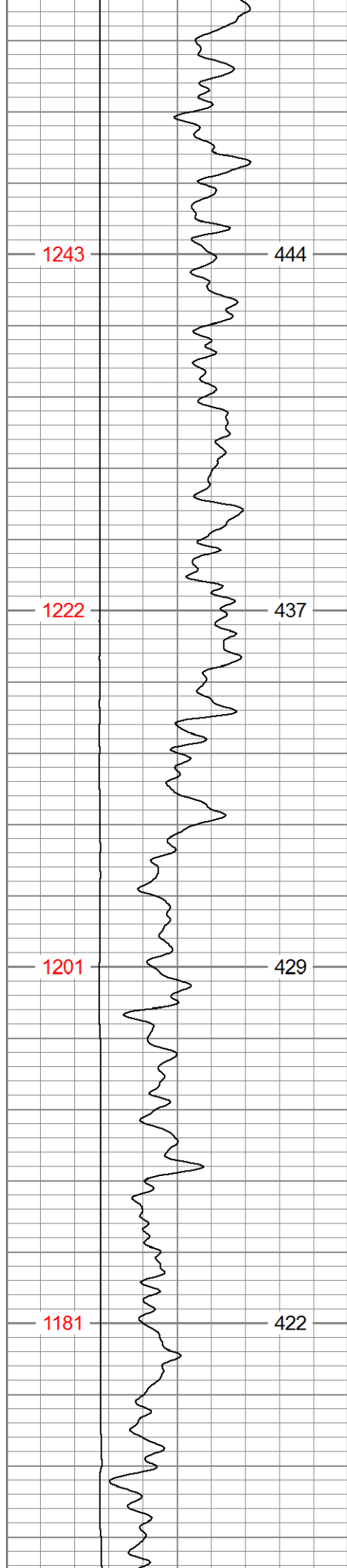


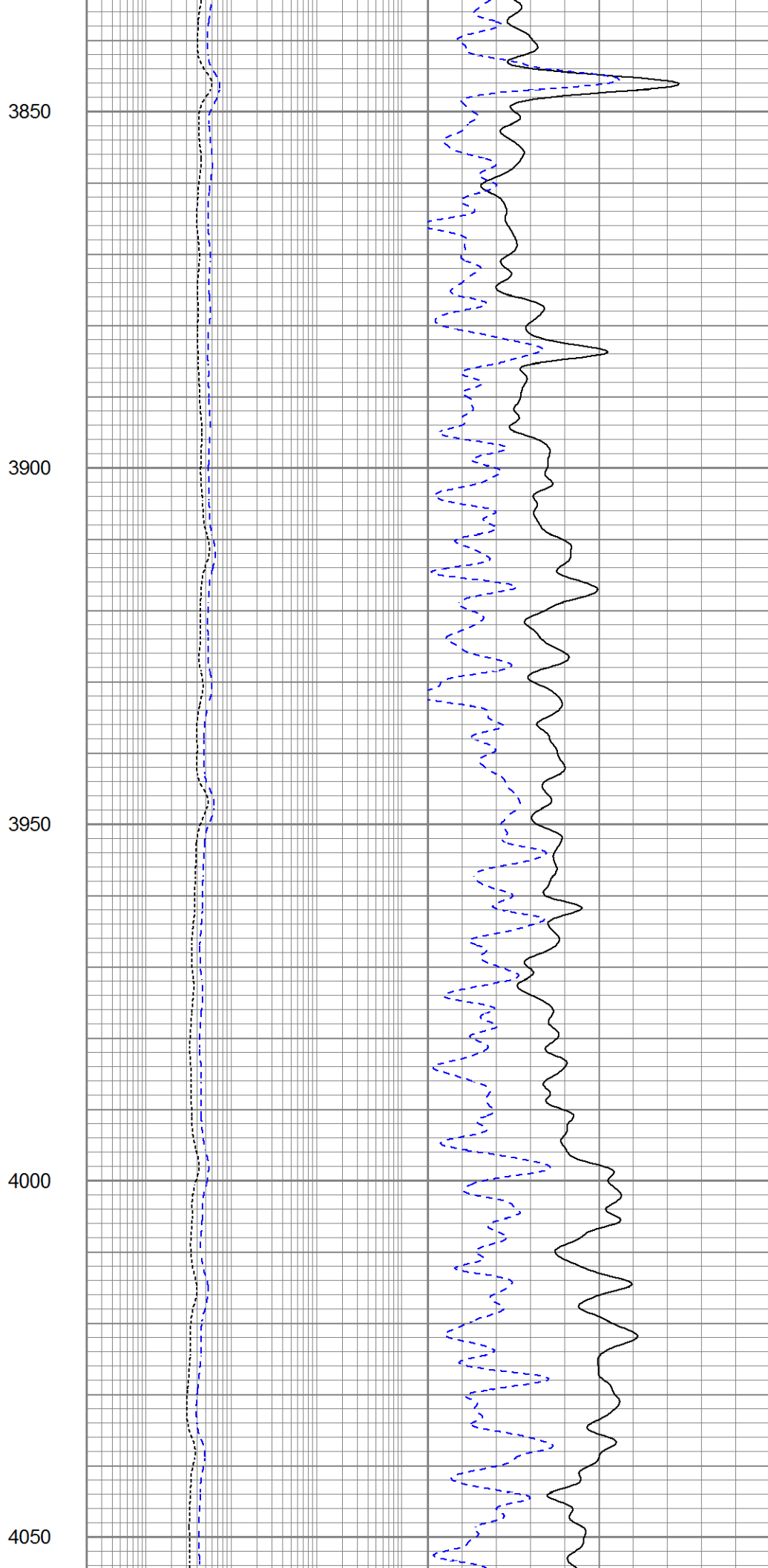
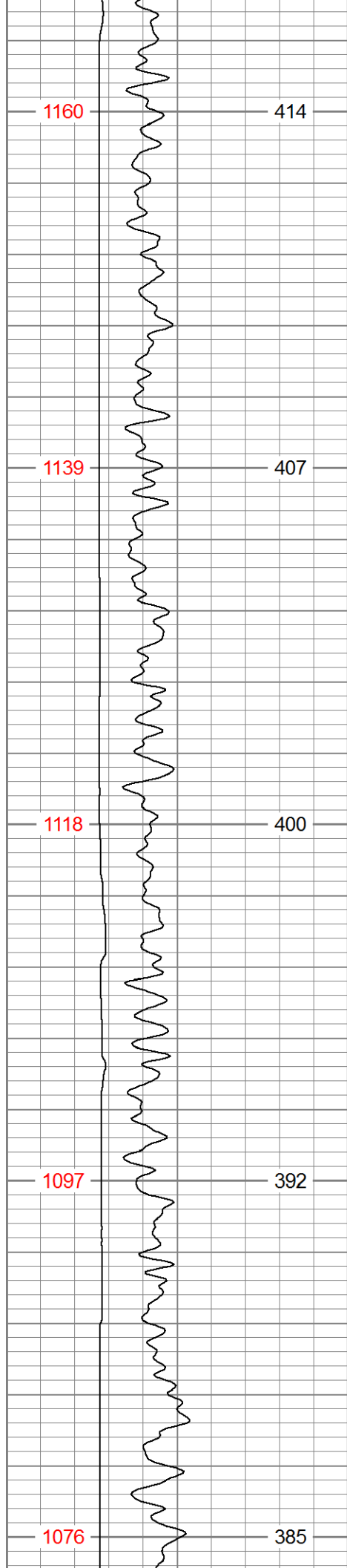


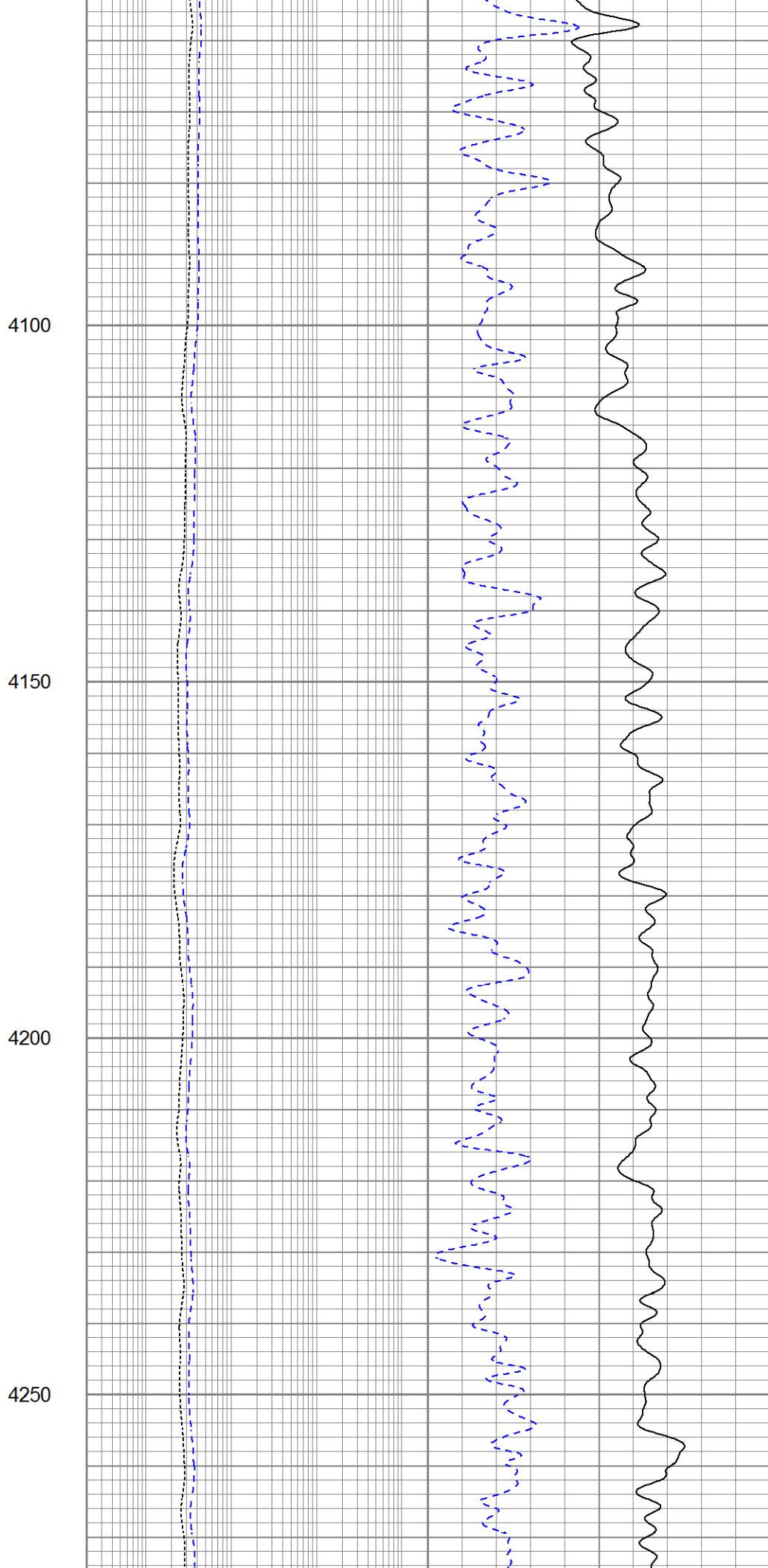
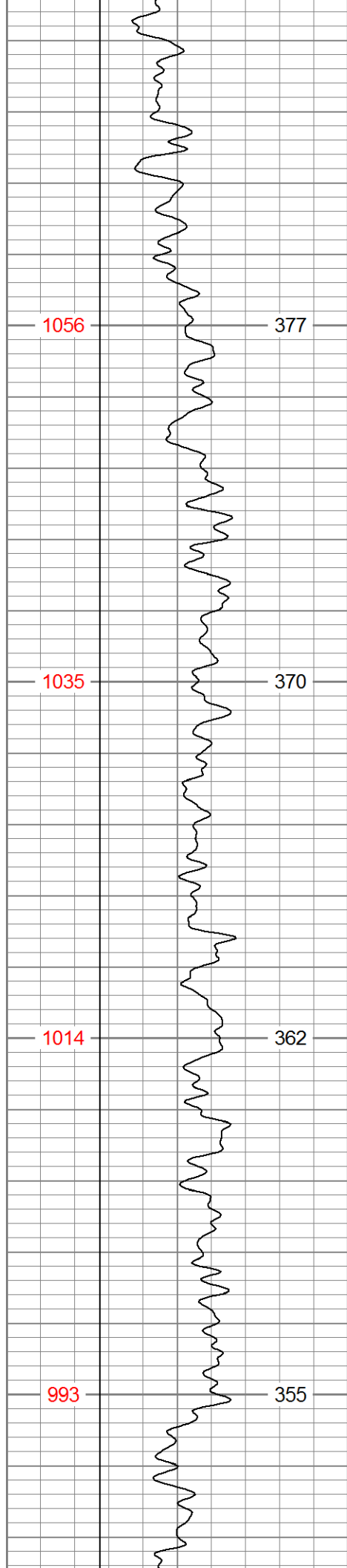


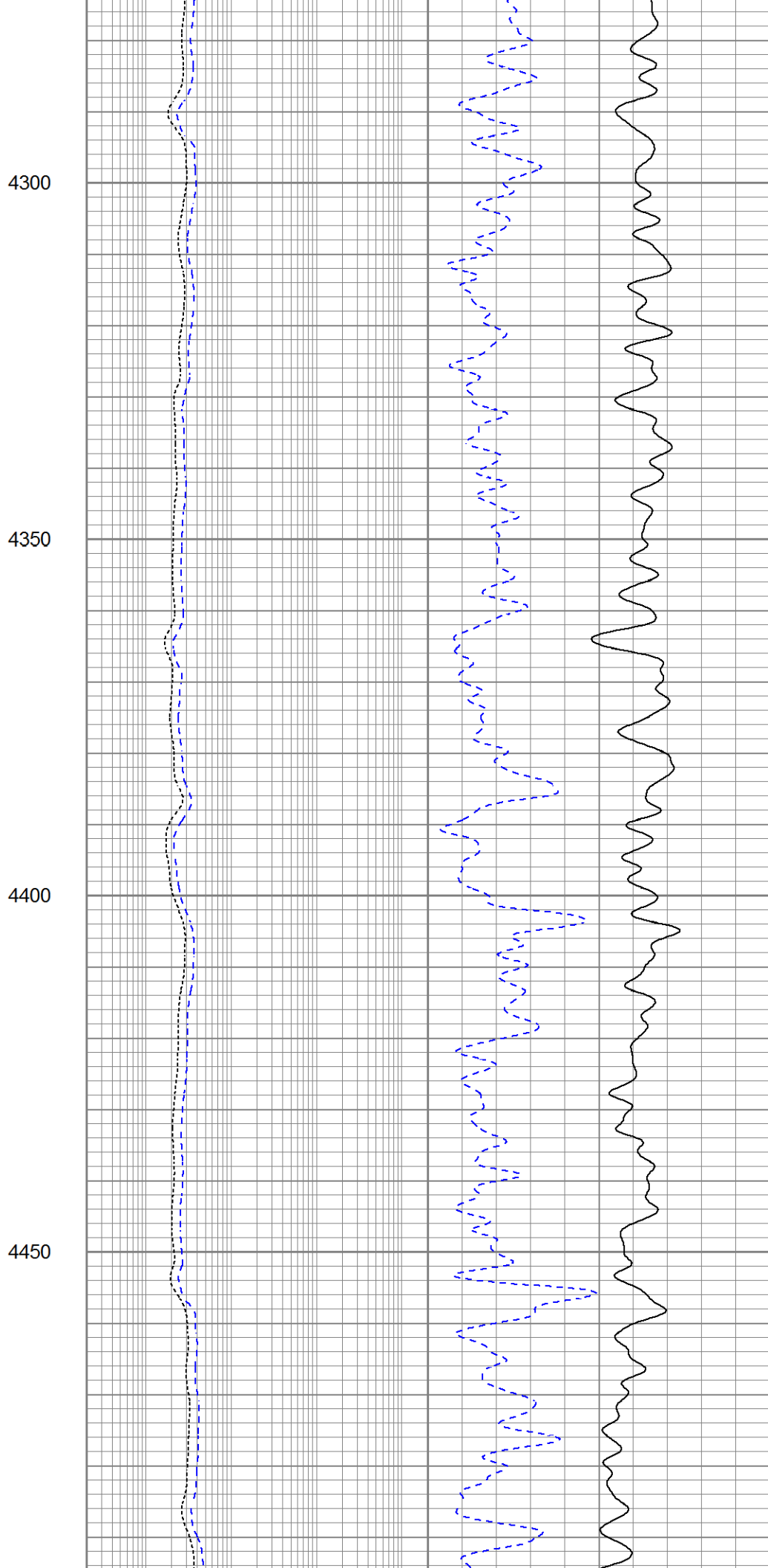
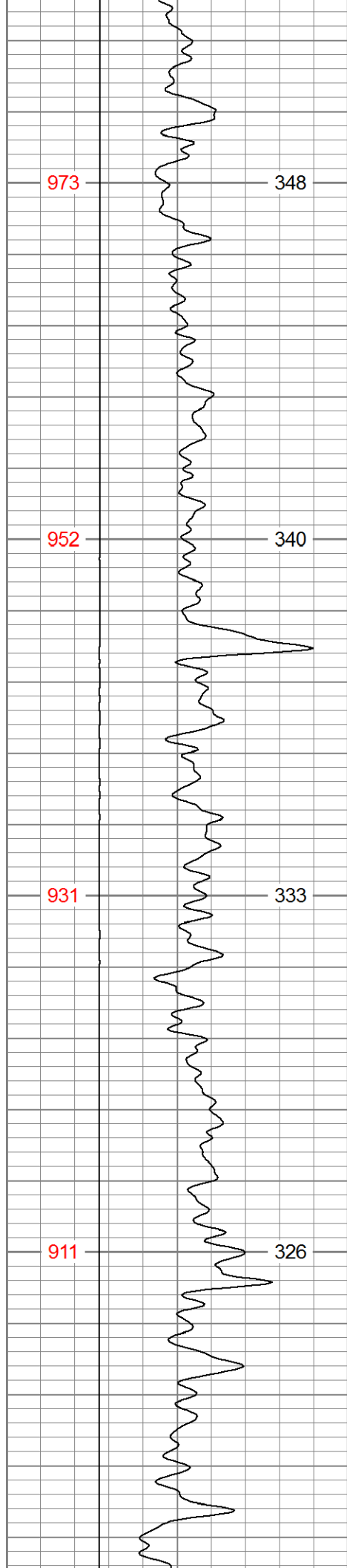


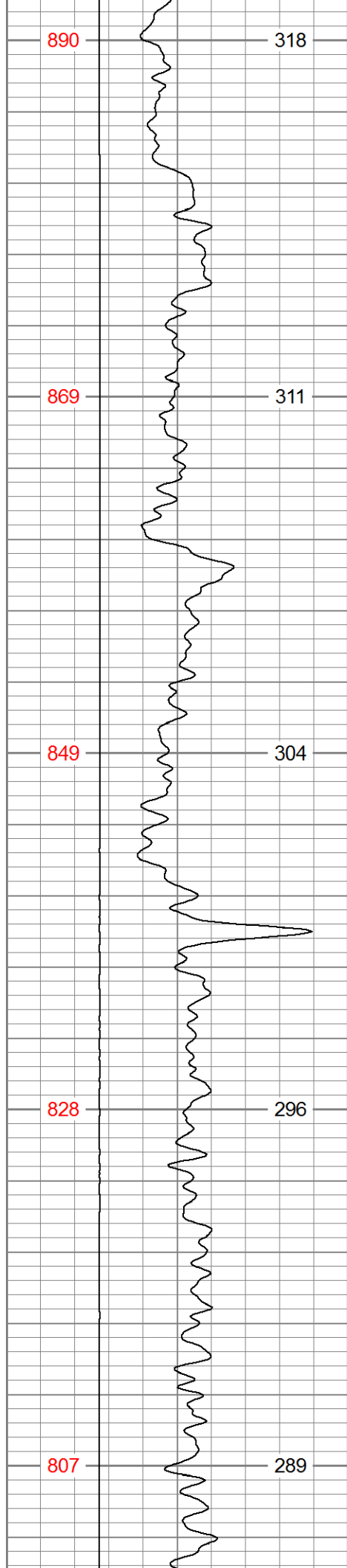




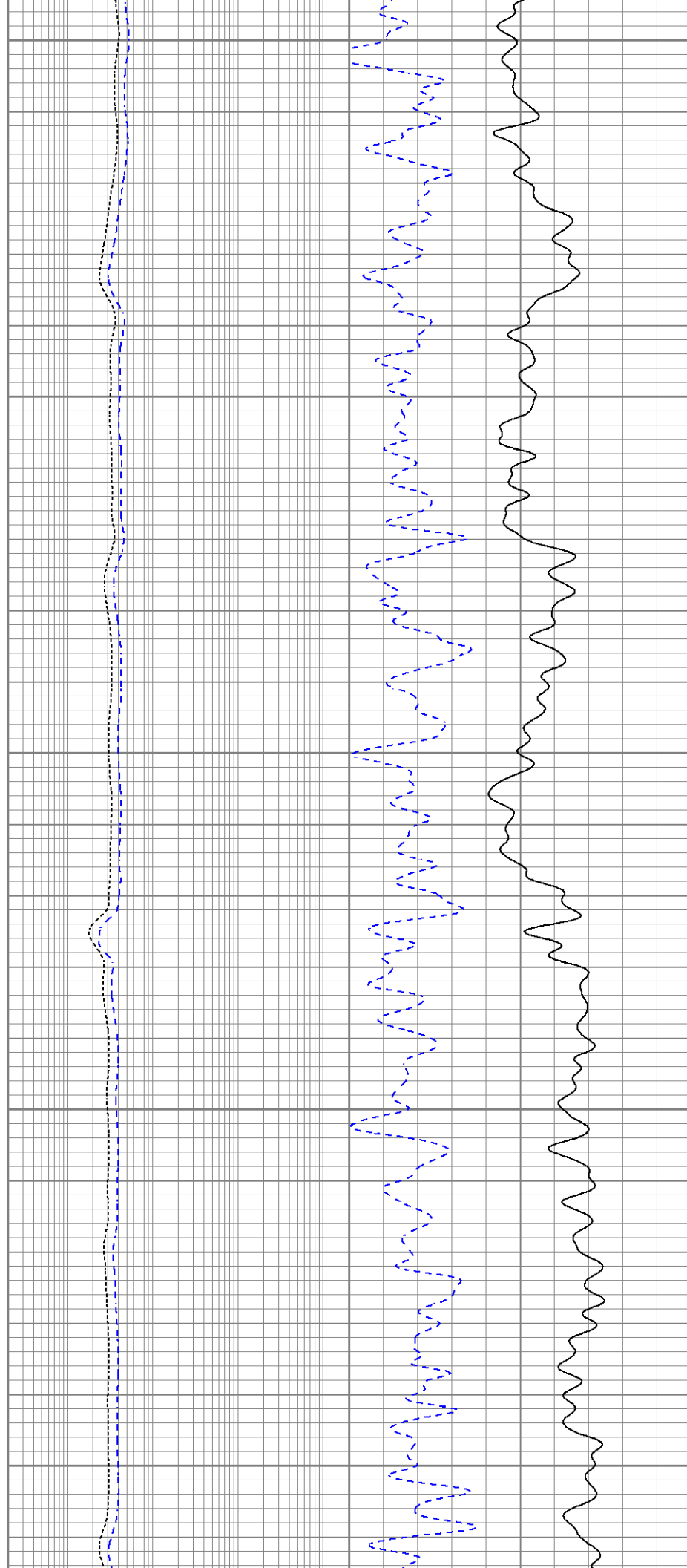


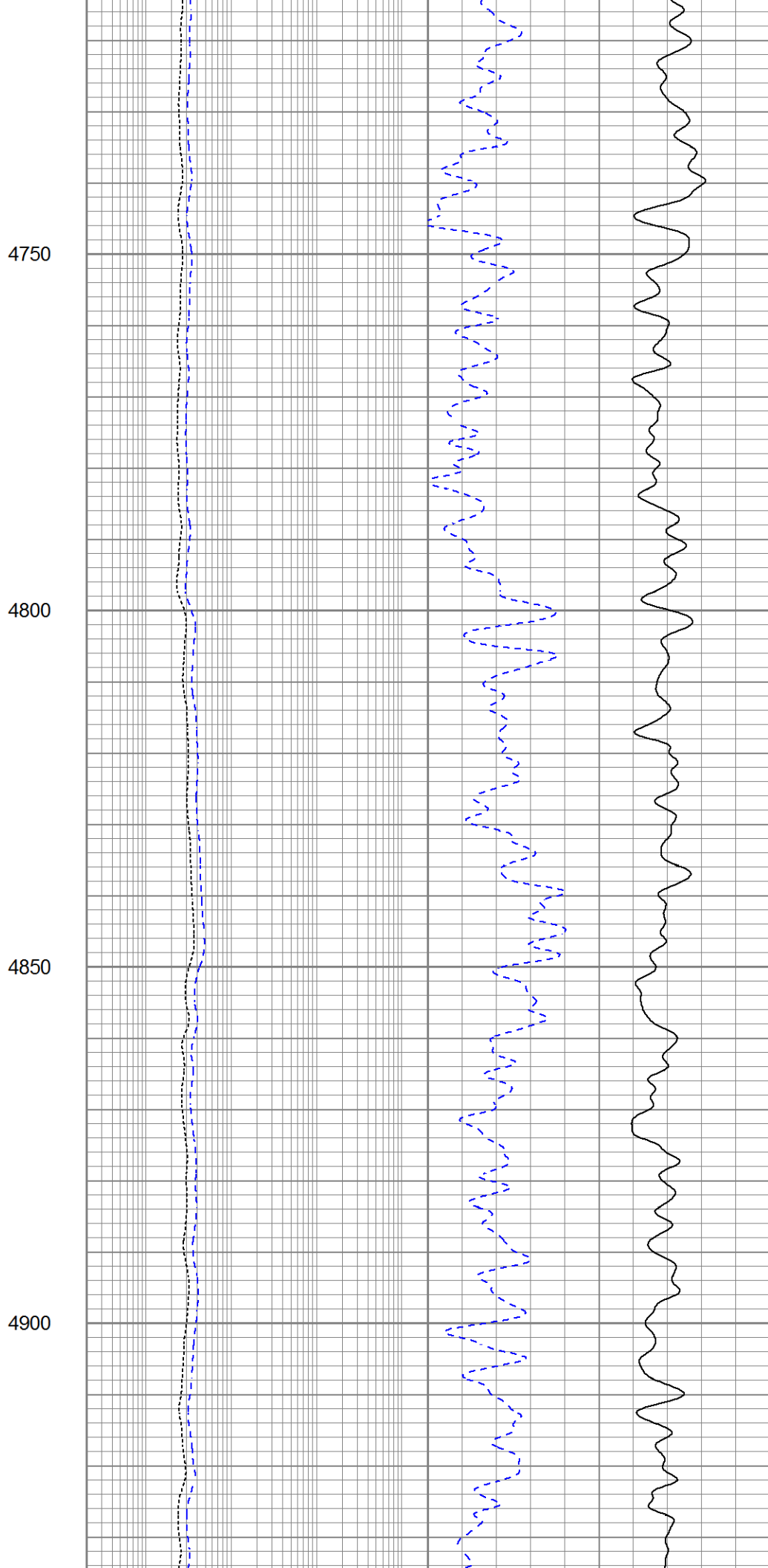
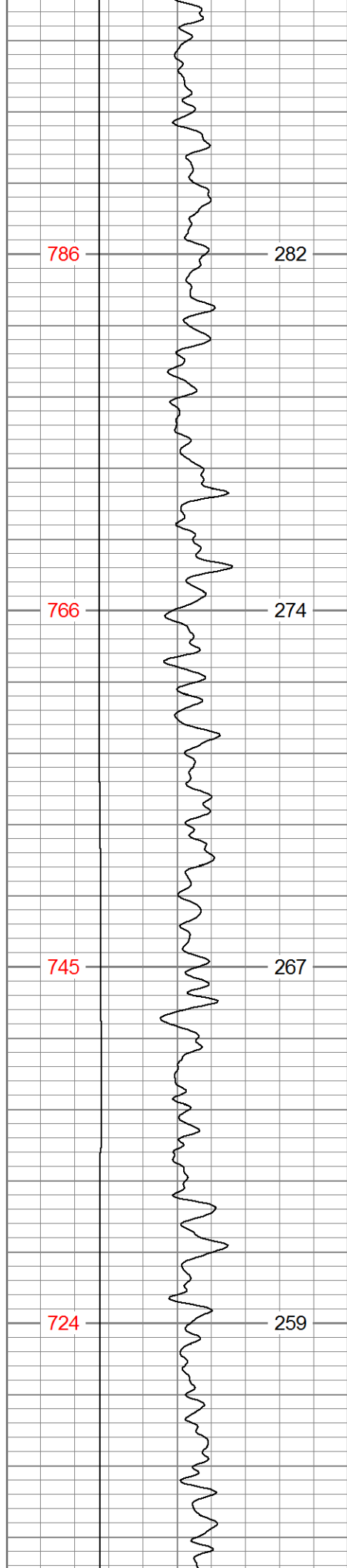


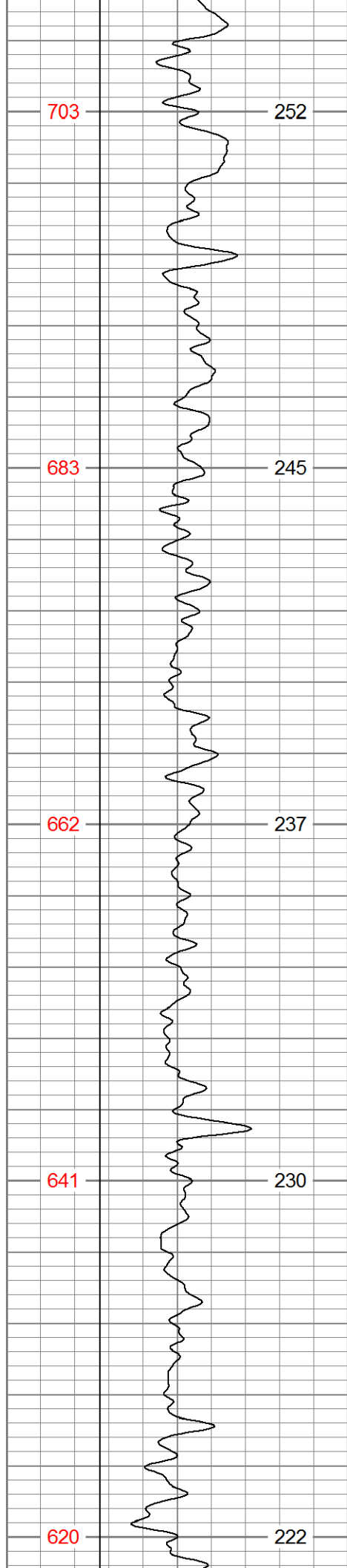




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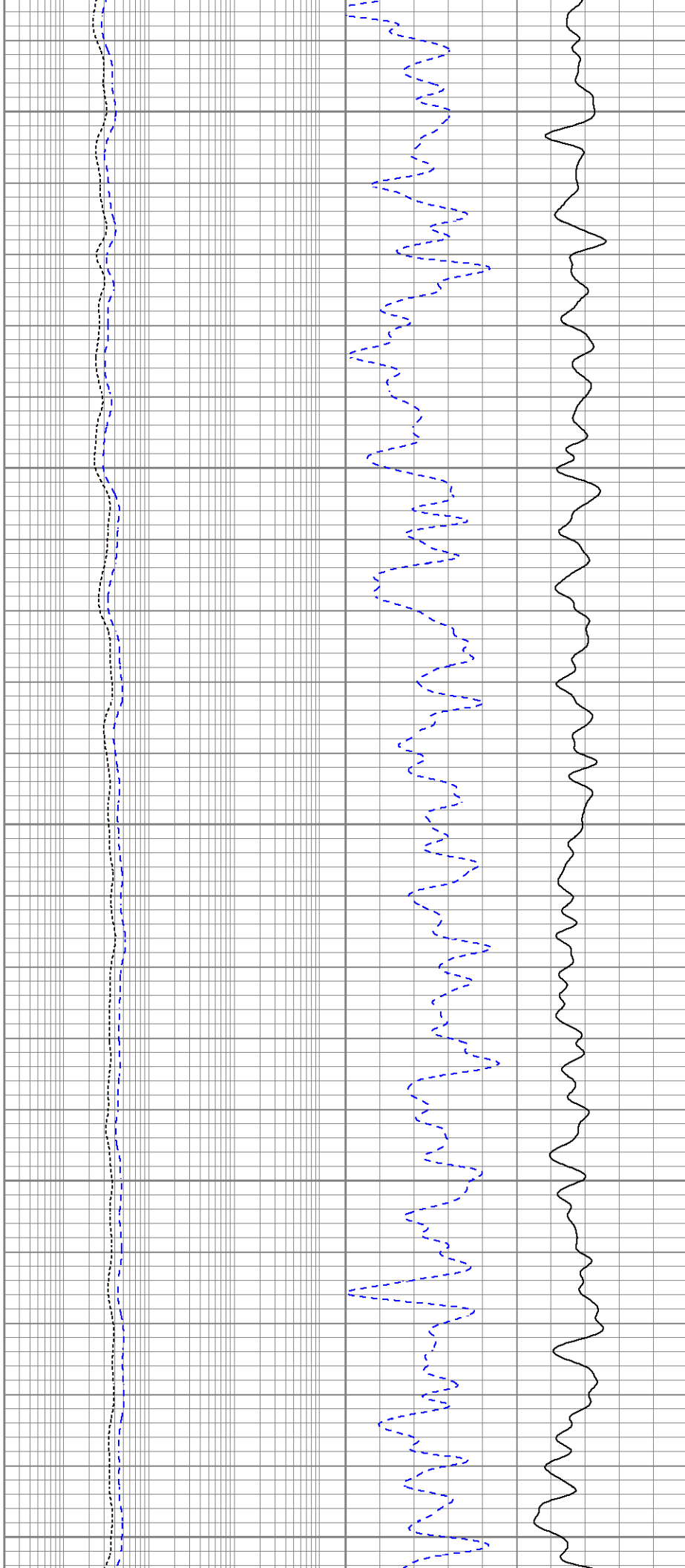
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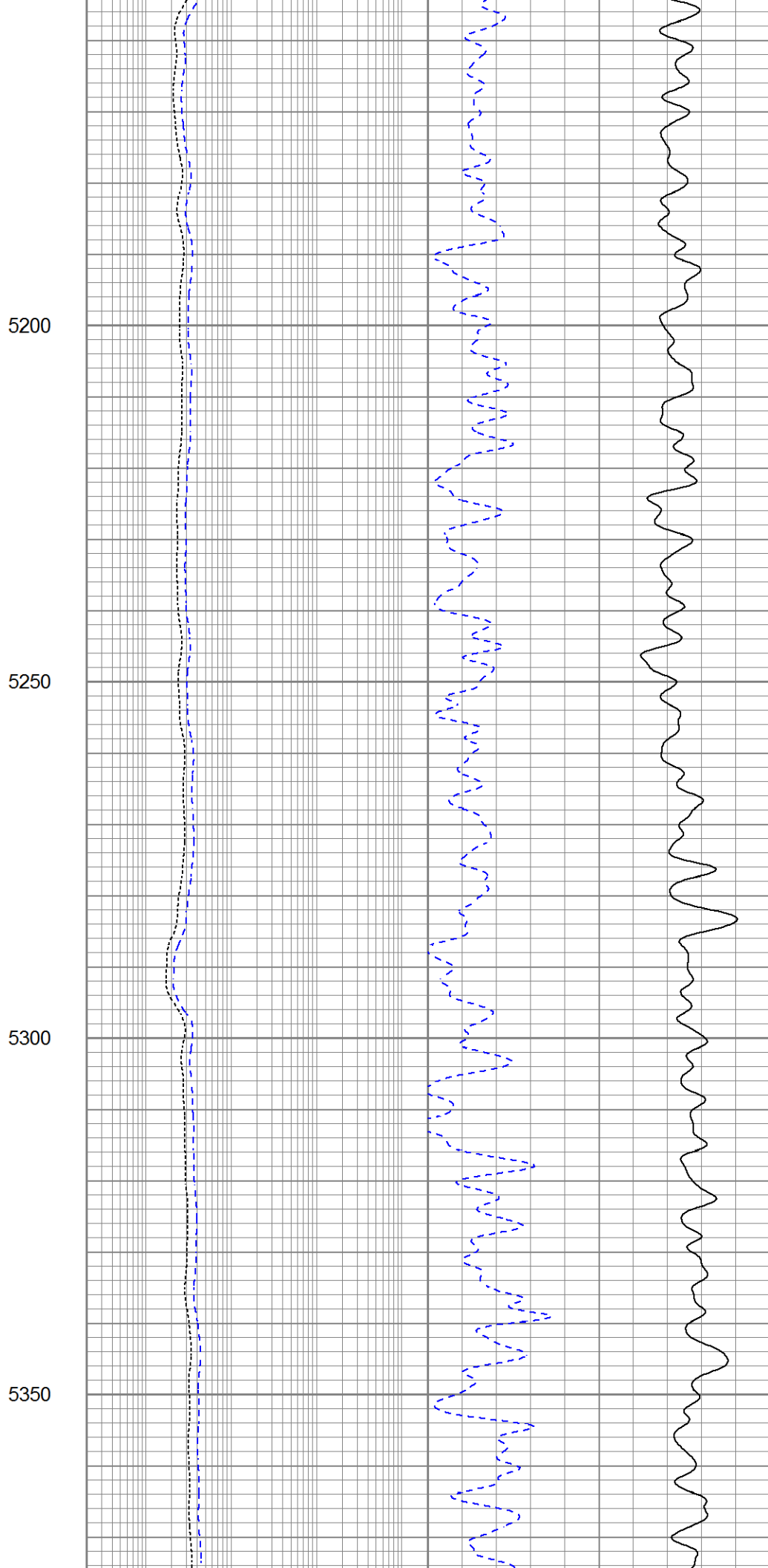
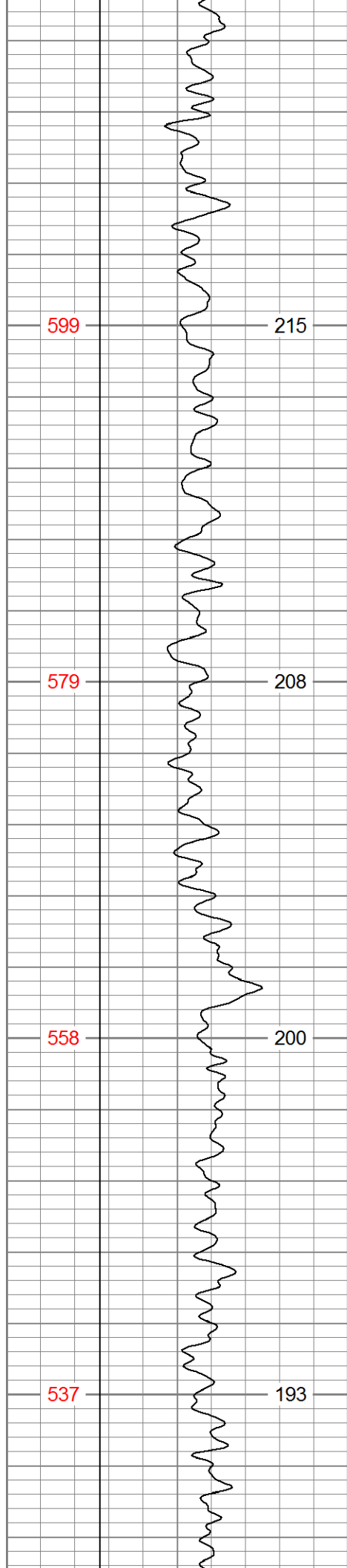
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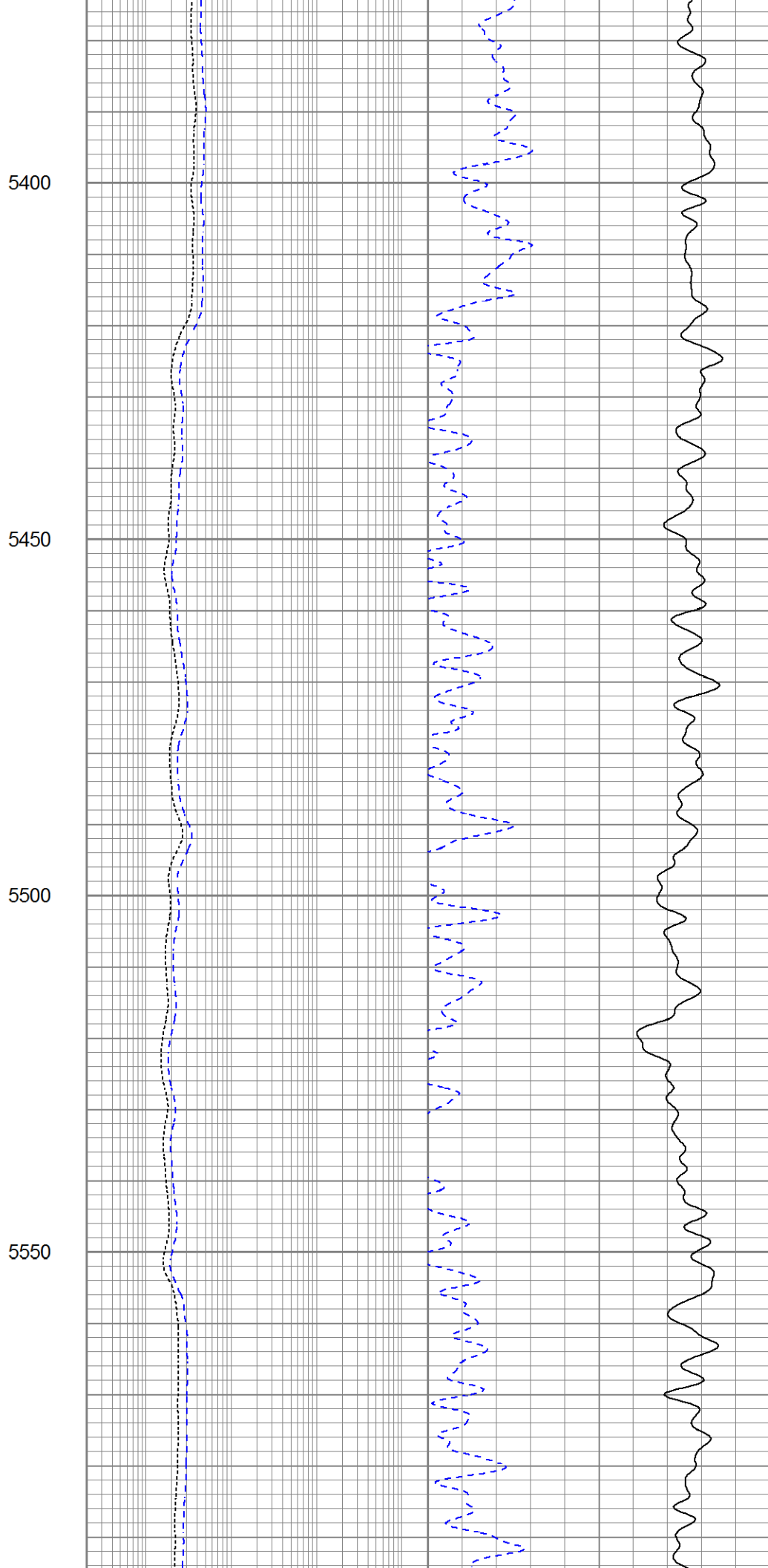
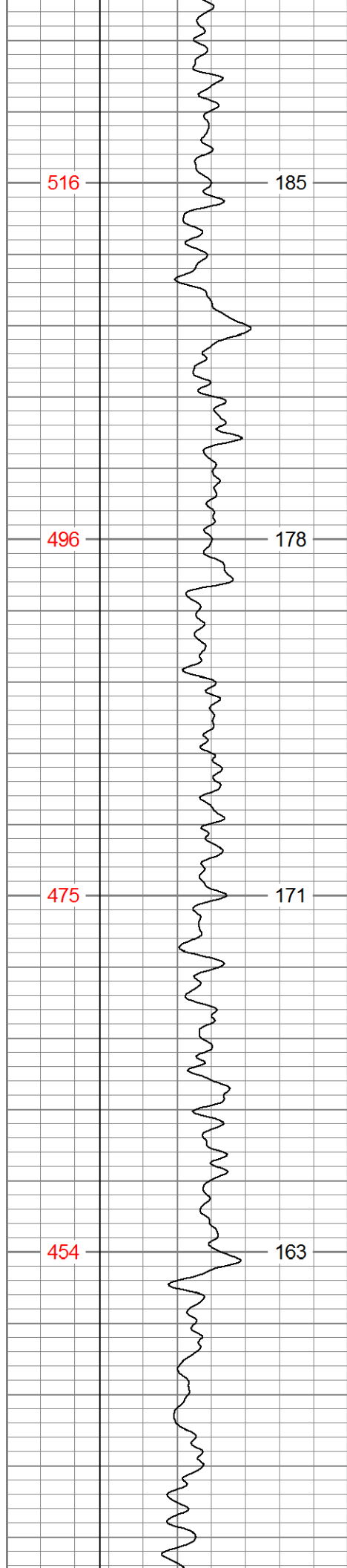
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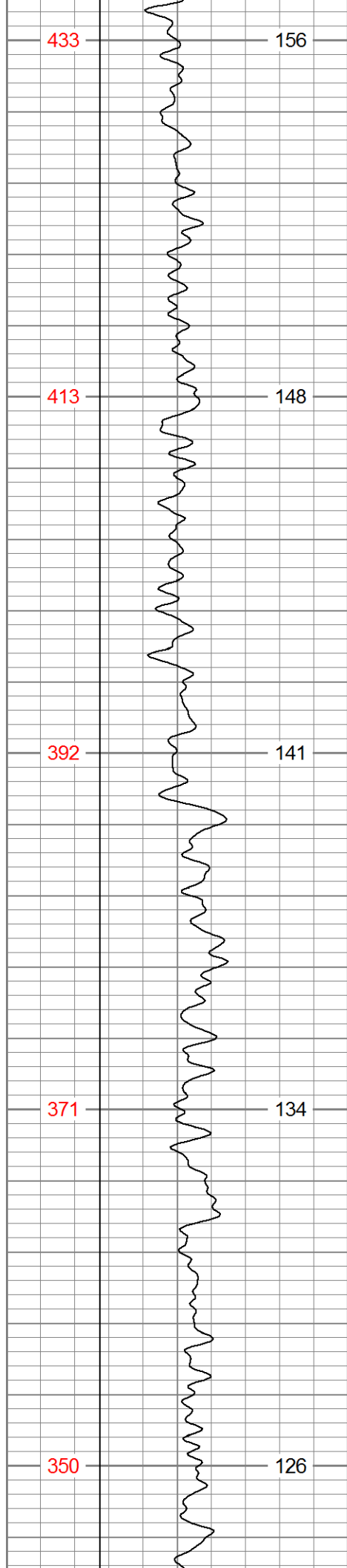
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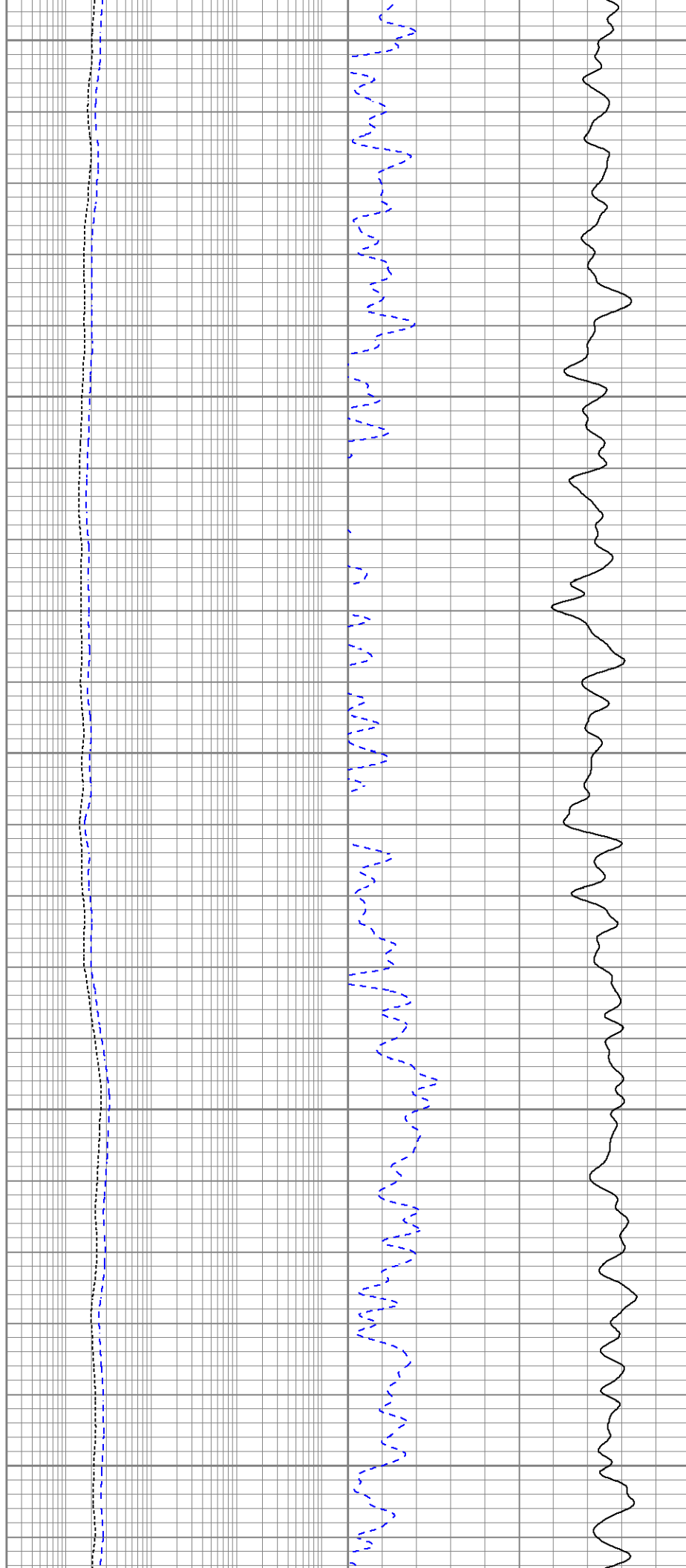
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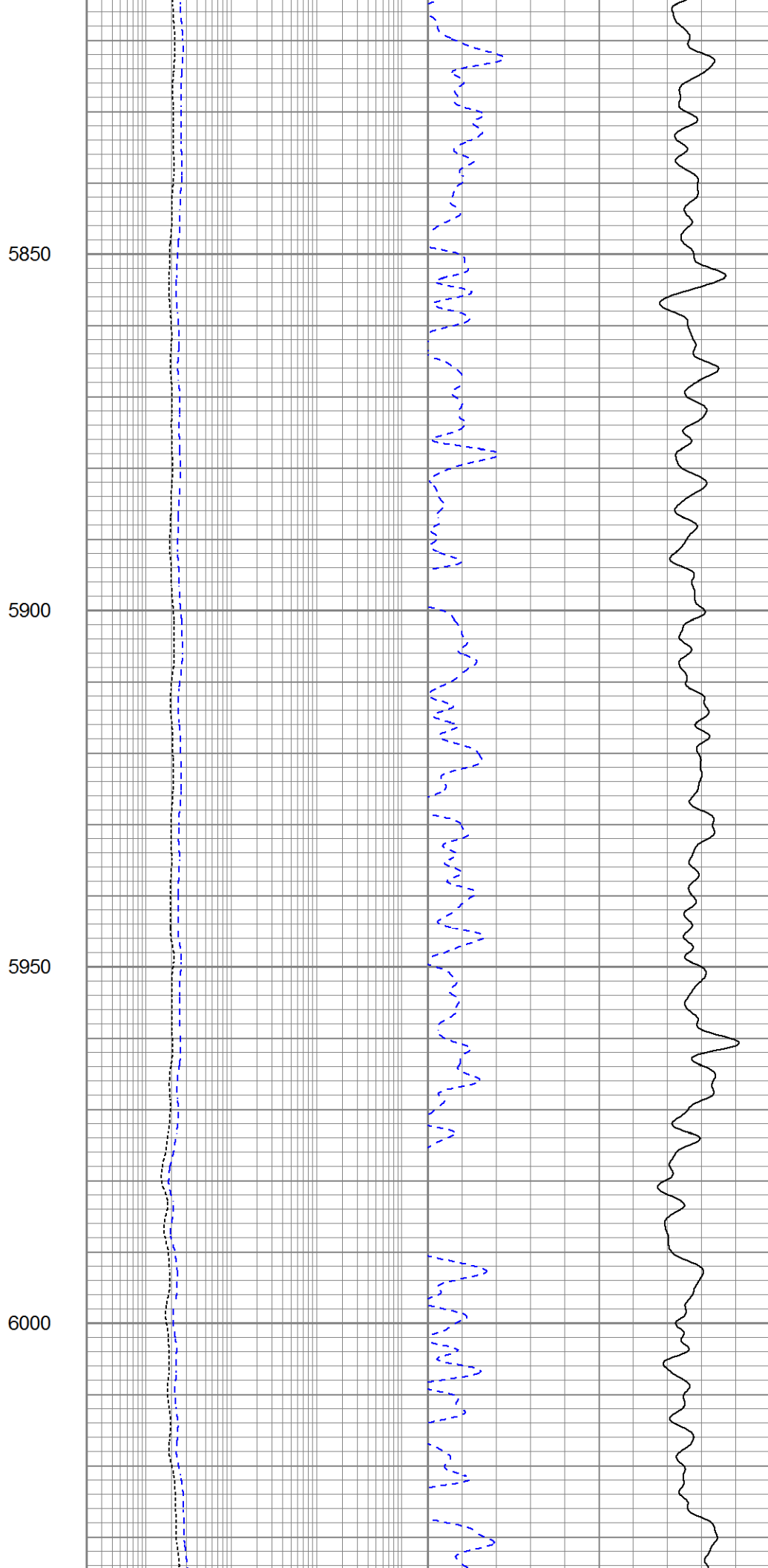
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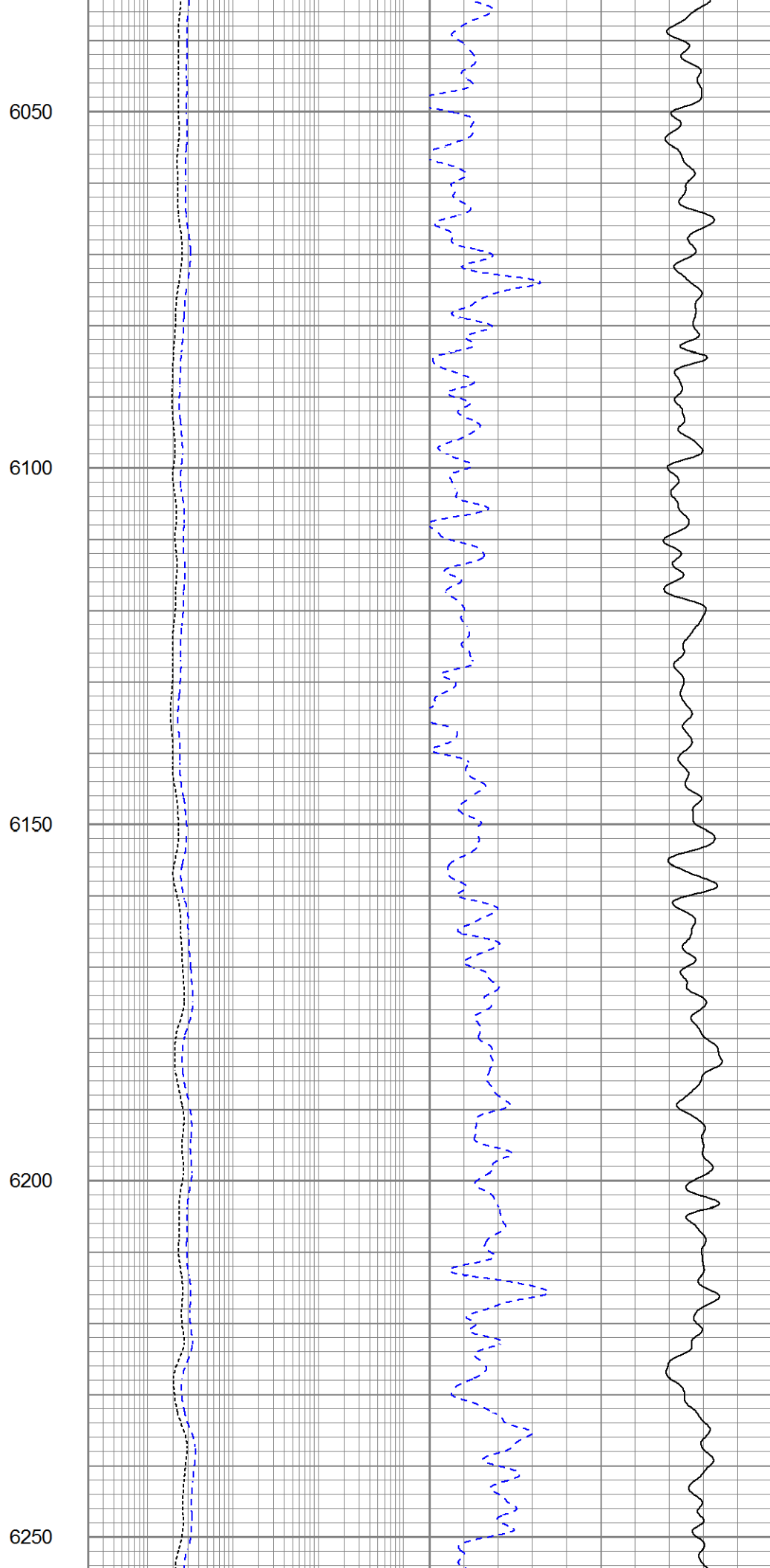
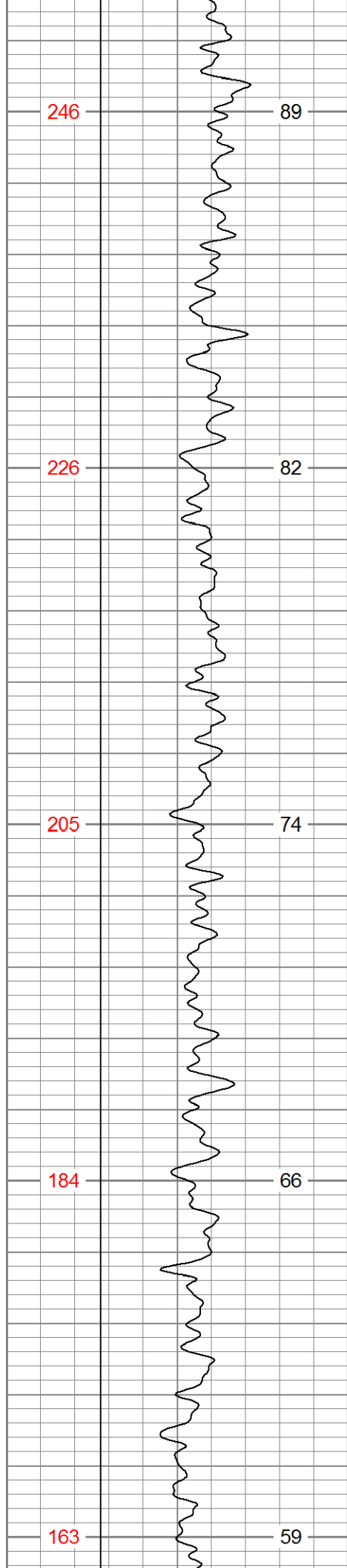
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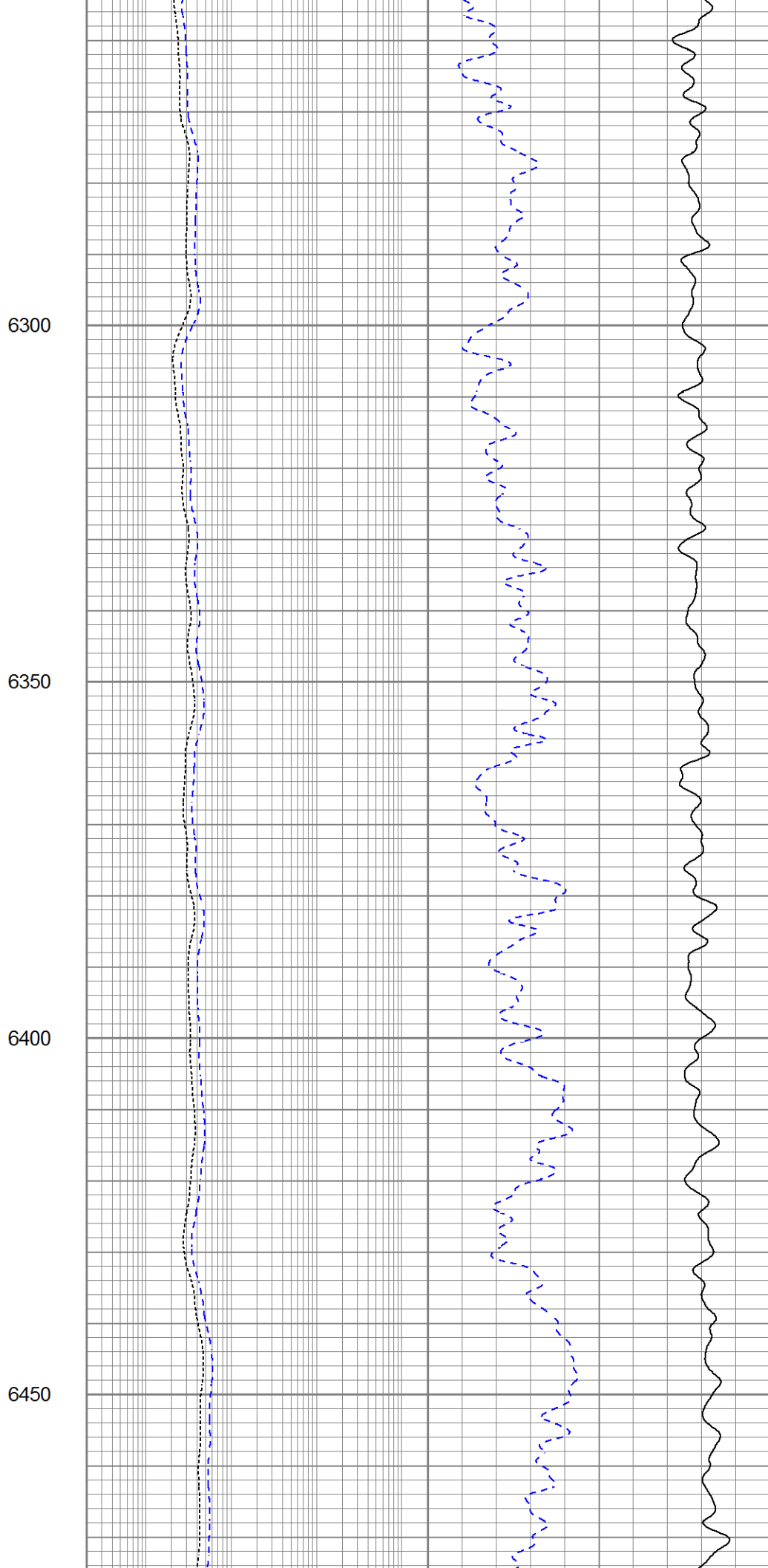
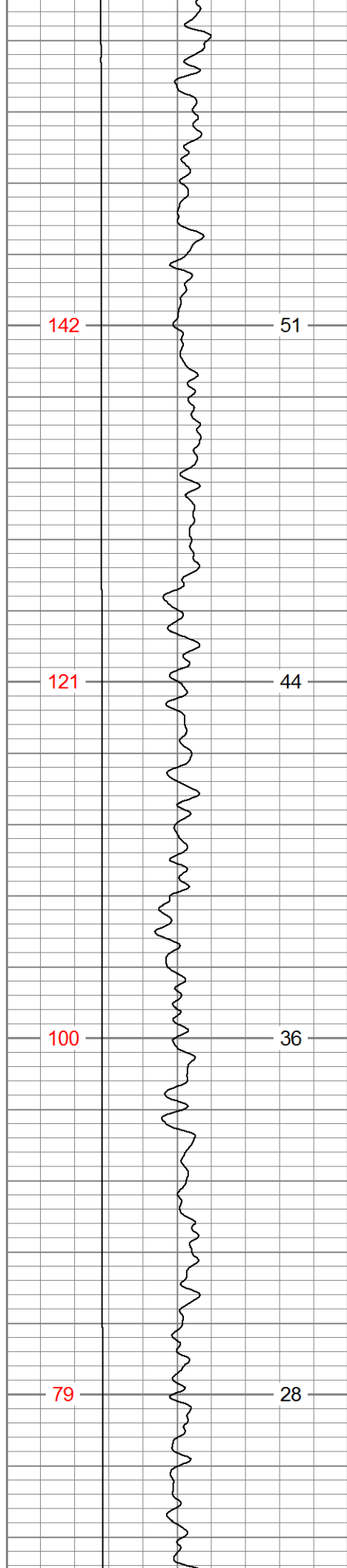
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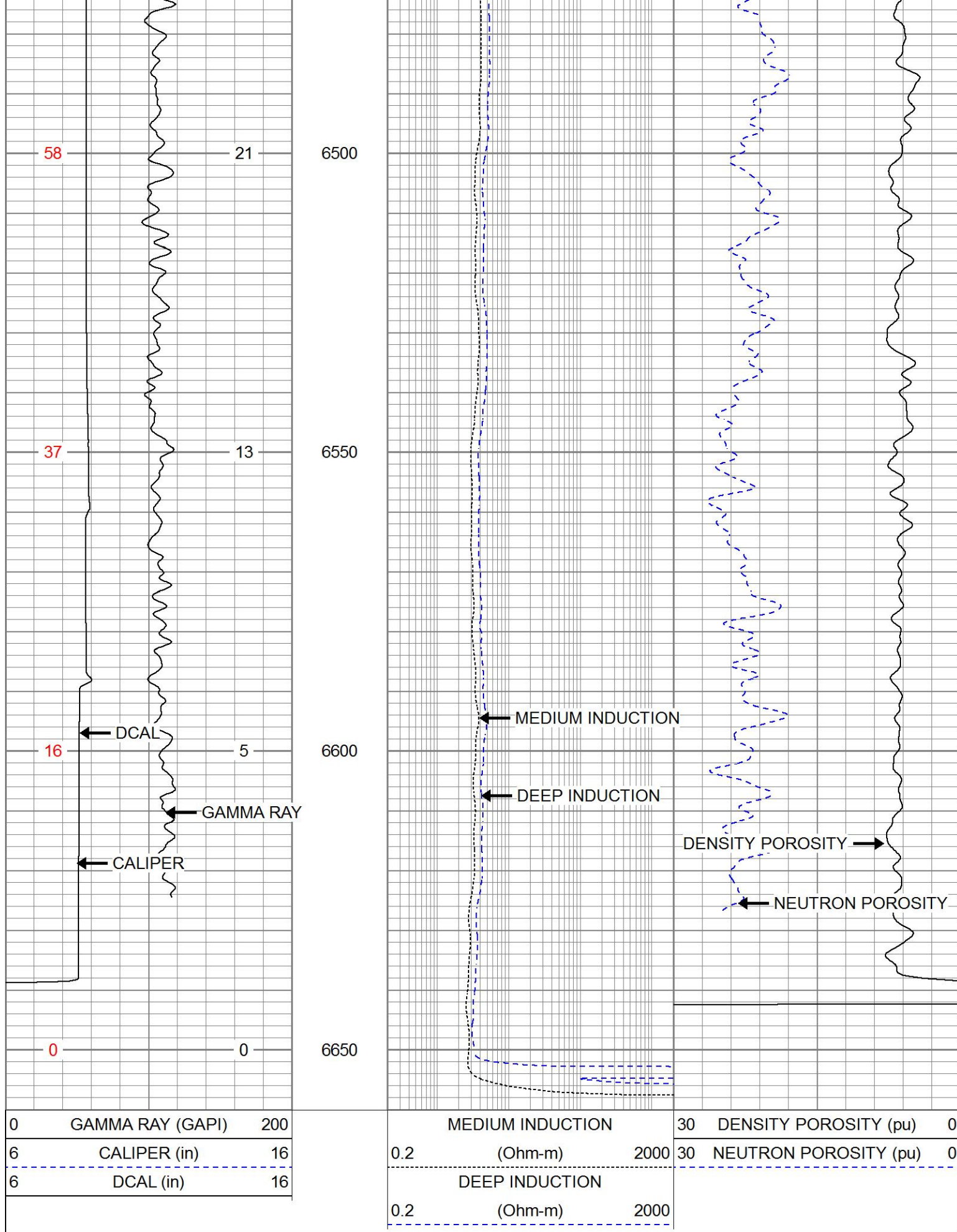
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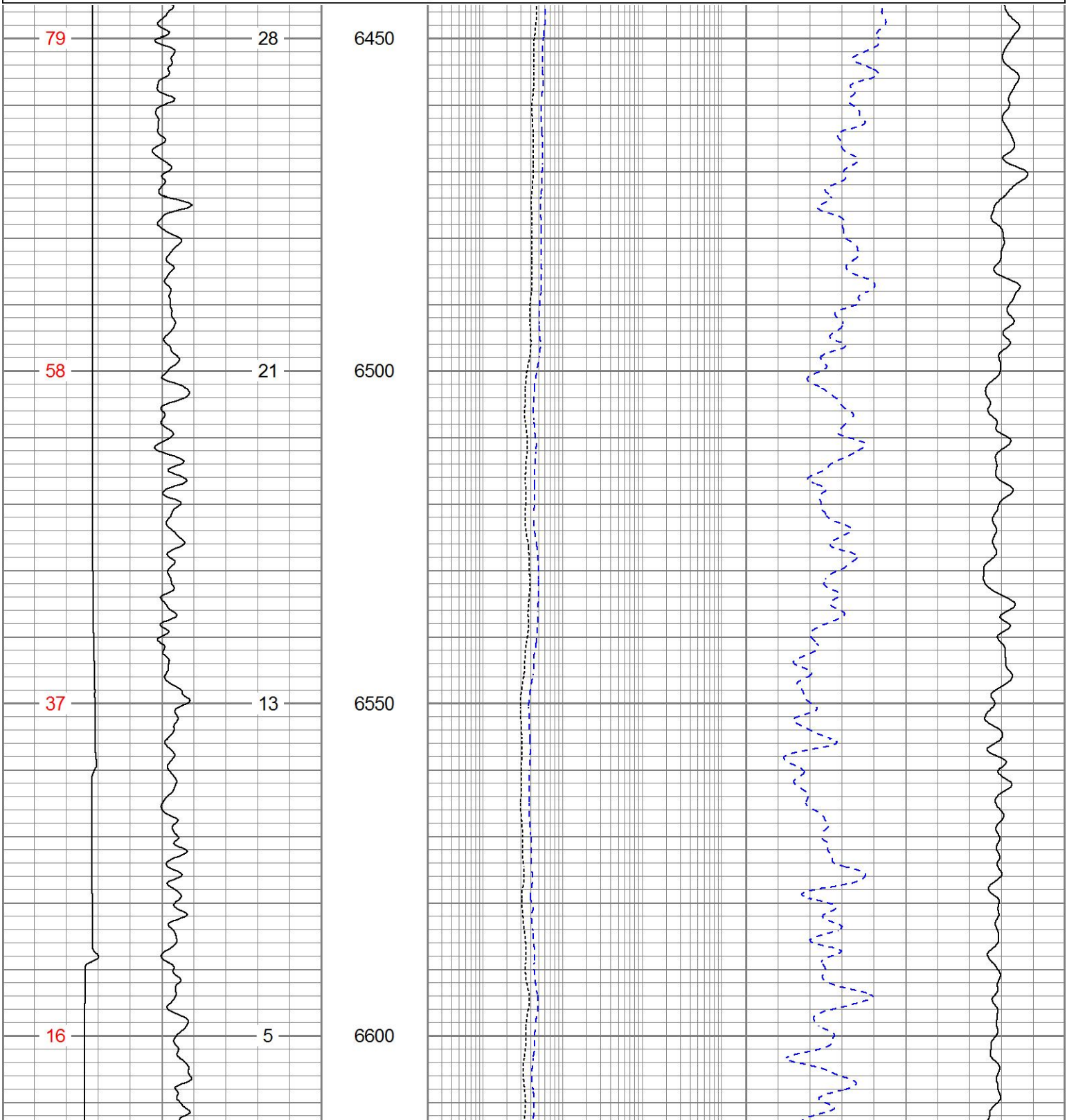


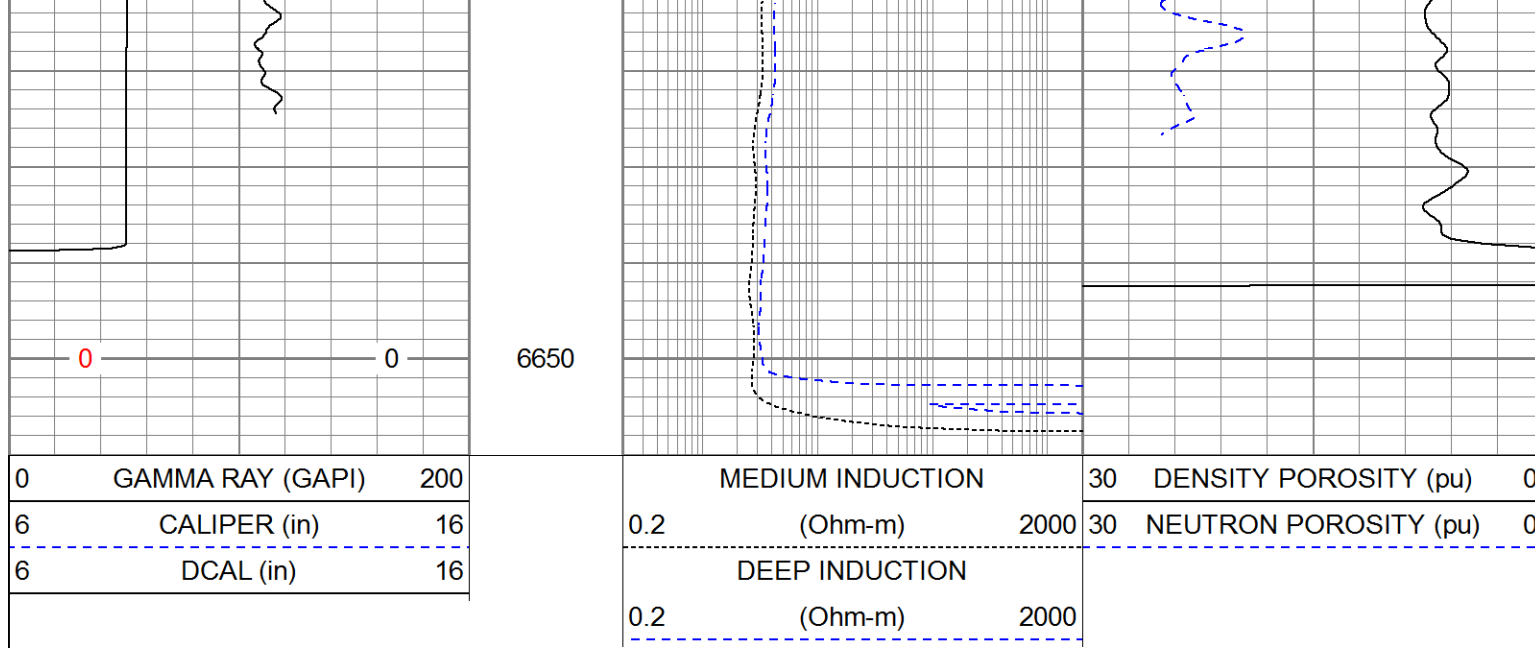


REPEAT SECTION

Database File extraction_janssen_11.db
Dataset Pathname stack/pass2.1
Presentation Format split
Dataset Creation Wed Dec 02 02:28:28 2015
Charted by Depth in Feet scaled 1:240

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





Calibration Report	
Database File	extraction_janssen_11.db
Dataset Pathname	stack/pass3.1
Dataset Creation	Wed Dec 02 02:28:55 2015

Dual Induction Calibration Report

Serial-Model:	PSI 216 HT-PSI HIGH TEMP
Calibration Performed:	Thu Aug 21 11:38:03 2014

Readings			References			Results	
Loop:	Air	Loop	Air	Loop		Gain	Offset
Deep	75.411	495.929	4.000	250.000	mmho/m	0.620	-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:	Thu Nov 05 16:11:50 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
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Tool Model: M&W
Calibration Performed: Wed Nov 4 10:14:01 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:	Thu Nov 05 15:17:24 2015
Calibrator Value:	1000.0 GAPI
Background Reading:	0.0 cps
Calibrator Reading:	6.2 cps
Sensitivity:	0.5200 GAPI/cps



Company	EXTRACTION OIL & GAS LLC
Well	JANSSEN NO. 11
Field	WATTENBERG
County	WELD
State	COLORADO