

HALLIBURTON

ARRAY COMPENSATED
TRUE RESISTIVITY
LOG

COMPANY		HARTMAN OIL CO., INC.			
WELL		ROSE #3-1			
FIELD/BLOCK		AMERICAN BEAUTY			
COUNTY		WICHITA COUNTY			
STATE		KANSAS			
Permanent Datum		Sect. 1		Twp. 16S	Rge. 35W
Log measured from		GL		Elev. 3110.0 ft	
Drilling measured from		KB		D.F. 3121.0 ft	
		KB		G.L. 3110.0 ft	
Date		03-Aug-14			
Run No.		ONE			
Depth - Driller		4800.00 ft			
Depth - Logger		4800.0 ft			
Bottom - Logged Interval		4798.0ft			
Top - Logged Interval					
Casing - Driller		8.625 in @ 356.0 ft			
Casing - Logger		348.0 ft @			
Bit Size		7.875 in @			
Type Fluid in Hole		Water Based Mud			
Density		10.4 ppg		55.00 s/qt	
PH		9.00 pH		12.0 cp/m	
Source of Sample		FLOWLINE			
Rm @ Meas. Temperature		0.30 ohmm		@ 85.00 degF	
Rmf @ Meas. Temperature		0.20 ohmm		@ 80.00 degF	
Rmc @ Meas. Temperature		0.350 ohmm		@ 80.00 degF	
Source Rmf		Rmc		MEASURED	
Rm @ BHT		0.20 ohmm		@ 128.0 degF	
Time Since Circulation		5.0 hr			
Time on Bottom		03-Aug-14 09:56			
Max. Rec. Temperature		128.0 degF		@ 4800.0 ft	
Equipment		15049592		ELRENO	
Recorded By		CHRIS MARLOWE			
Witnessed By		KITT NOZH			

API No. 15-203-20,275
Location SE SW NW NW
1100 FNL & 570 FWL

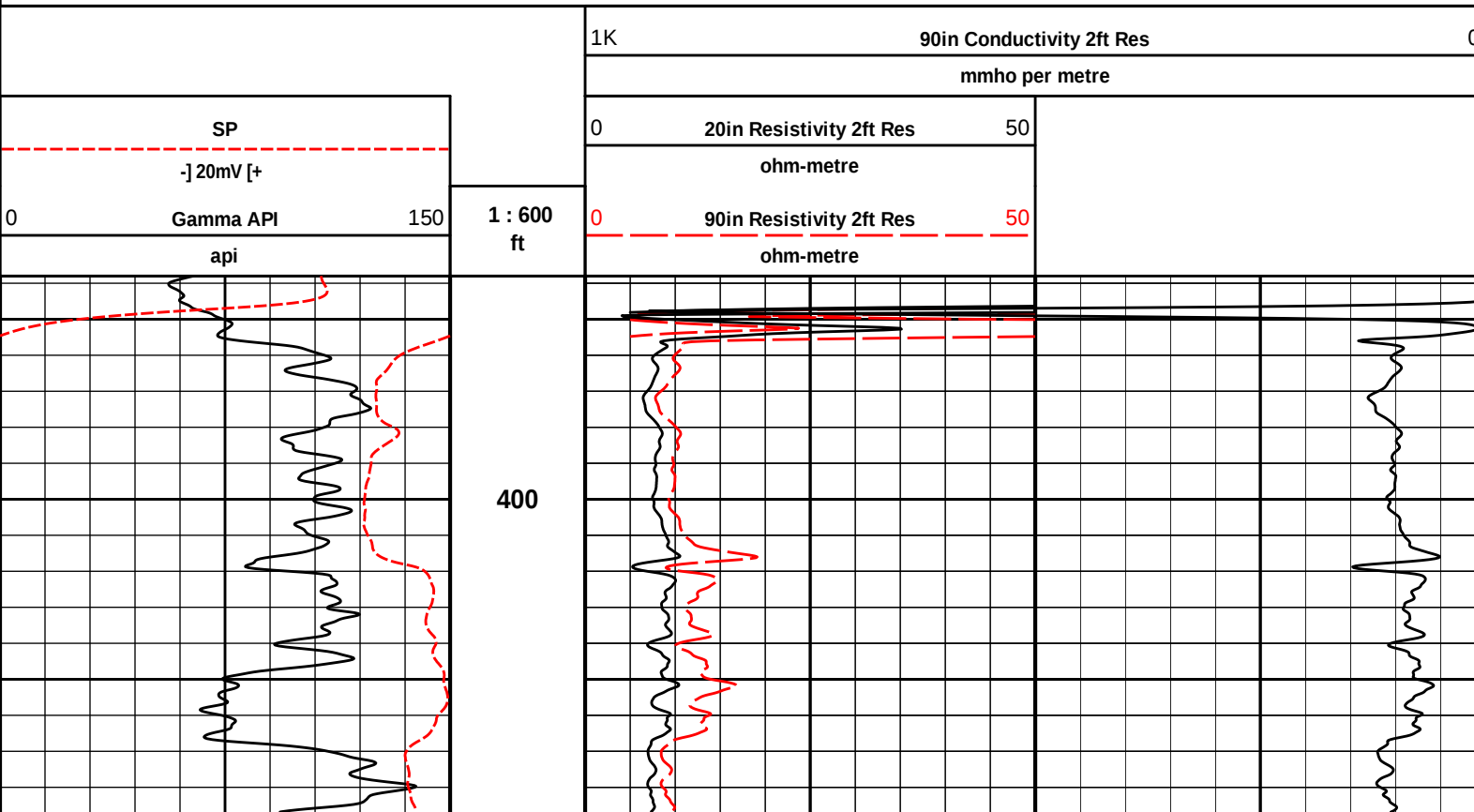
COMPANY	HARTMAN OIL CO., INC.
WELL	ROSE #3-1
FIELD/BLOCK	AMERICAN BEAUTY
COUNTY	WICHITA COUNTY
STATE	KANSAS

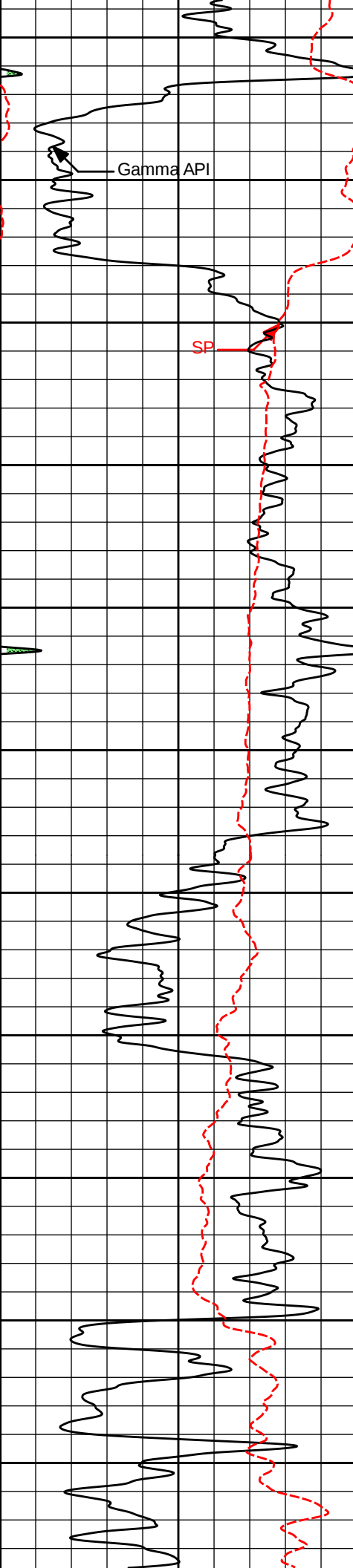
Other Services:
DSNT/SDLT
ML
BSAT

Fold here

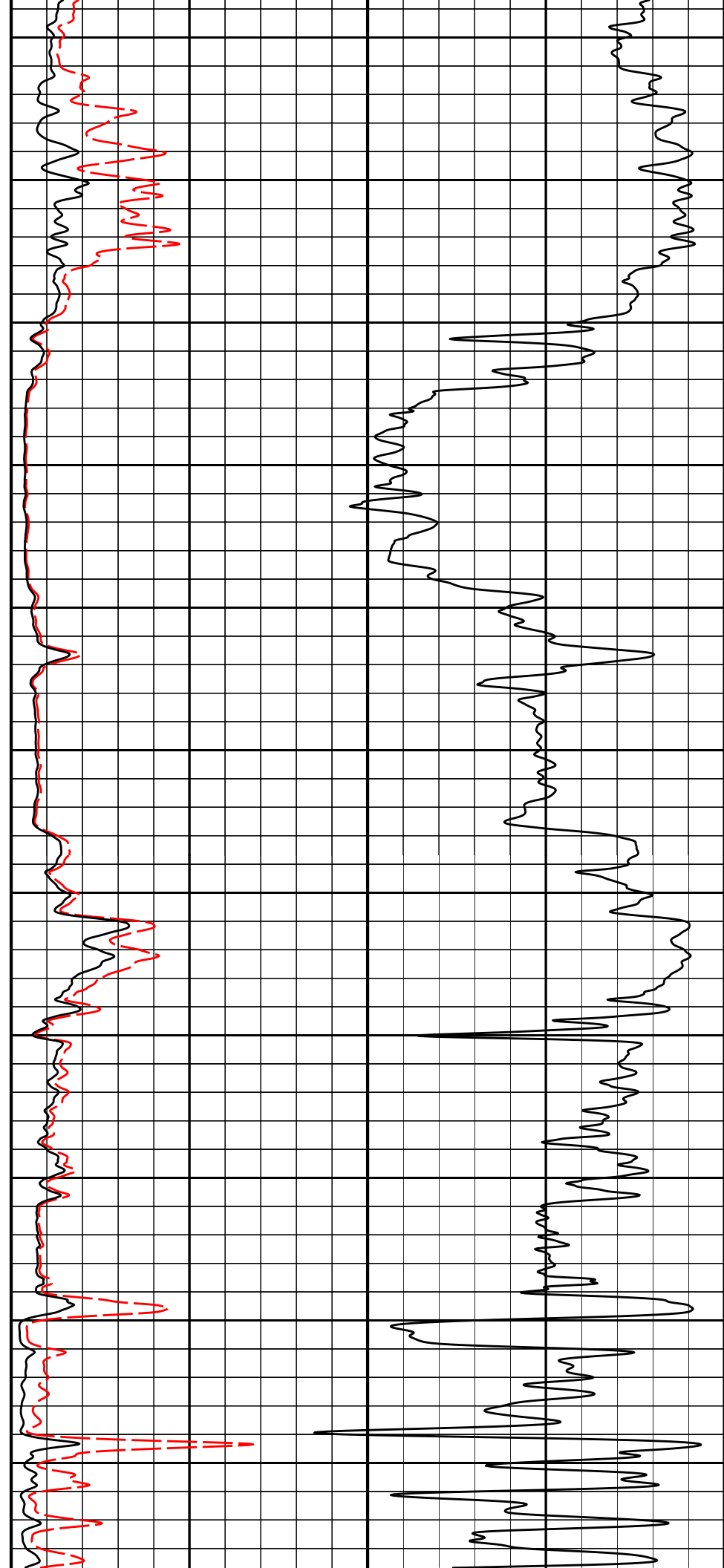
Service Ticket No.: 901558897				API Serial No.: 15-203-20,275				PGM Version: WL INSITE R4.2.0 (Build 2)							
CHANGE IN MUD TYPE OR ADDITIONAL SAMPLE						RESISTIVITY SCALE CHANGES									
Date		Sample No.				Type Log		Depth		Scale Up Hole		Scale Down Hole			
Depth-Driller															
Type Fluid in Hole															
Density		Viscosity													
Ph		Fluid Loss													
Source of Sample						RESISTIVITY EQUIPMENT DATA									
Rm @ Meas. Temp		@		@		Run No.		Tool Type & No.		Pad Type		Tool Pos.		Other	
Rmf @ Meas. Temp.		@		@		ONE		ACRT		NA		1.5" S.O.		NA	
Rmc @ Meas. Temp.		@		@				I095S908							
Source Rmf		Rmc													
Rm @ BHT		@		@											
Rmf @ BHT		@		@											
Rmc @ BHT		@		@											
EQUIPMENT DATA															
GAMMA				ACOUSTIC				DENSITY				NEUTRON			
Run No.		ONE		Run No.				Run No.				Run No.			
Serial No.		11013114		Serial No.				Serial No.				Serial No.			
Model No.		GTET		Model No.				Model No.				Model No.			
Diameter		3.625"		No. of Cent.				Diameter				Diameter			
Detector Model No.		T-102		Spacing				Log Type				Log Type			
Type		SCINT						Source Type				Source Type			
Length		8"		LSA [Y/N]				Serial No.				Serial No.			
Distance to Source		10'		FWDA [Y/N]				Strength				Strength			
LOGGING DATA															

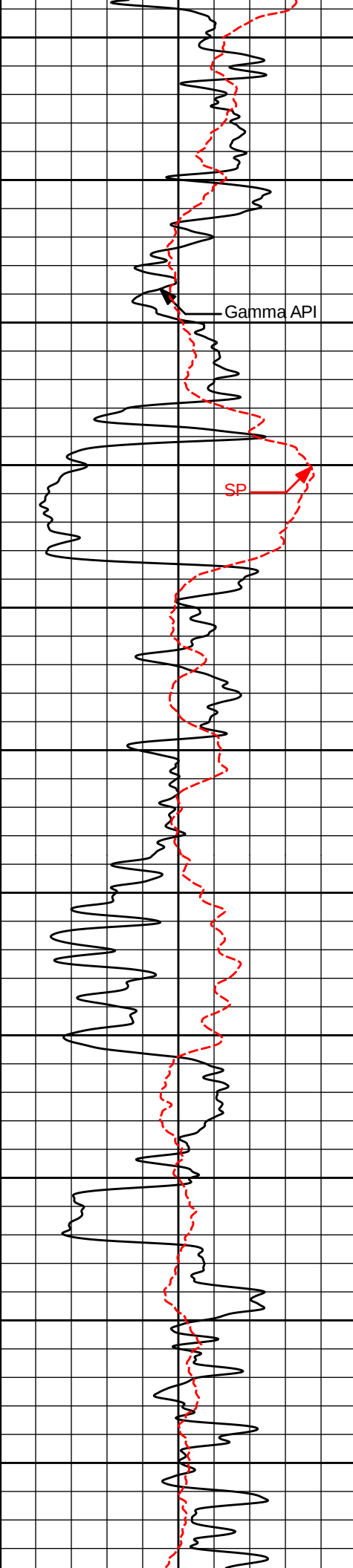
GENERAL			GAMMA		ACOUSTIC			DENSITY			NEUTRON			
Run	Depth		Speed	Scale		Scale		Matrix	Scale		Matrix	Scale		Matrix
No.	From	To	ft/min	L	R	L	R		L	R		L	R	
ONE	TD	CSG	REC	0	150									
DIRECTIONAL INFORMATION														
Maximum Deviation @								KOP @						
Remarks: ANNULAR HOLE VOLUME CALCULATED FOR 5.5 INCH CASING														
CHLORIDES REPORTED AT 12000 PPM														
TODAY'S CREW: J. WOOD, J. SUMNER														
THANK YOU FOR CHOOSING HALLIBURTON ENERGY SERVICES: PAULS VALLEY, OK														
HALLIBURTON DOES NOT GUARANTEE THE ACCURACY OF ANY INTERPRETATION OF THE LOG DATA, CONVERSION OF LOG DATA TO PHYSICAL ROCK PARAMETERS OR RECOMMENDATIONS WHICH MAY BE GIVEN BY HALLIBURTON PERSONNEL OR WHICH APPEAR ON THE LOG OR IN ANY OTHER FORM. ANY USER OF SUCH DATA, INTERPRETATIONS, CONVERSIONS, OR RECOMMENDATIONS AGREES THAT HALLIBURTON IS NOT RESPONSIBLE EXCEPT WHERE DUE TO GROSS NEGLIGENCE OR WILLFUL MISCONDUCT, FOR ANY LOSS, DAMAGES, OR EXPENSES RESULTING FROM THE USE THEREOF.														
HALLIBURTON														





500
600
700
800
900
1000





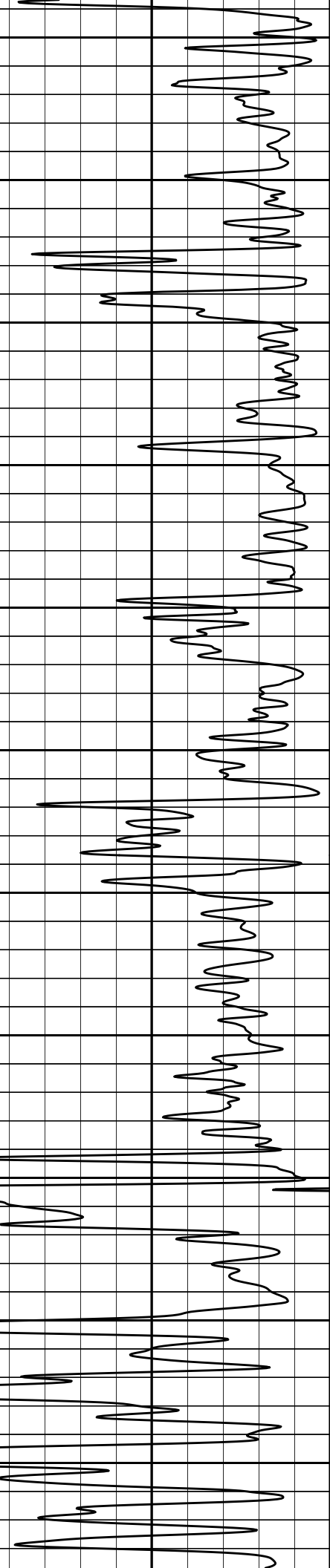
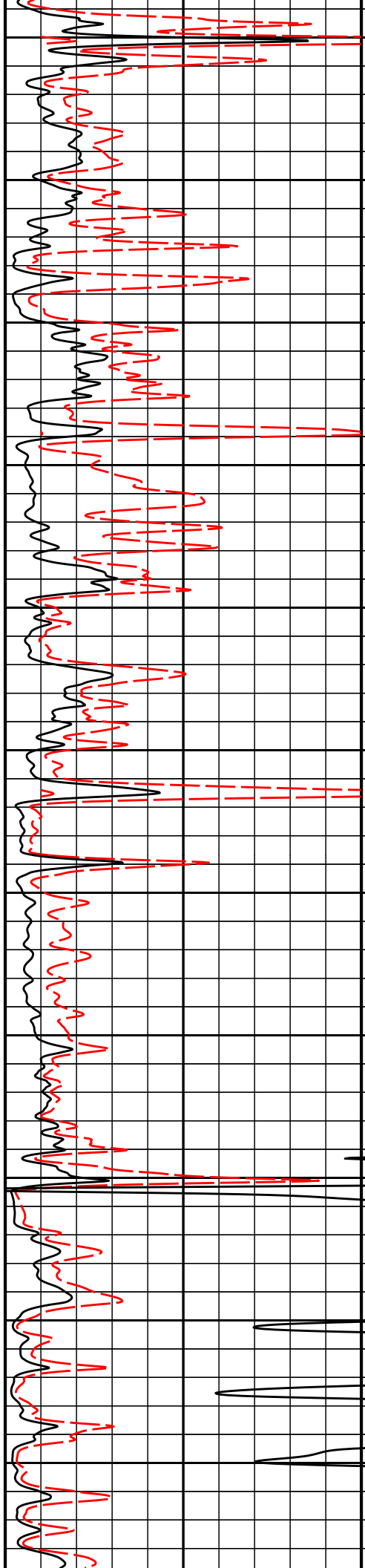
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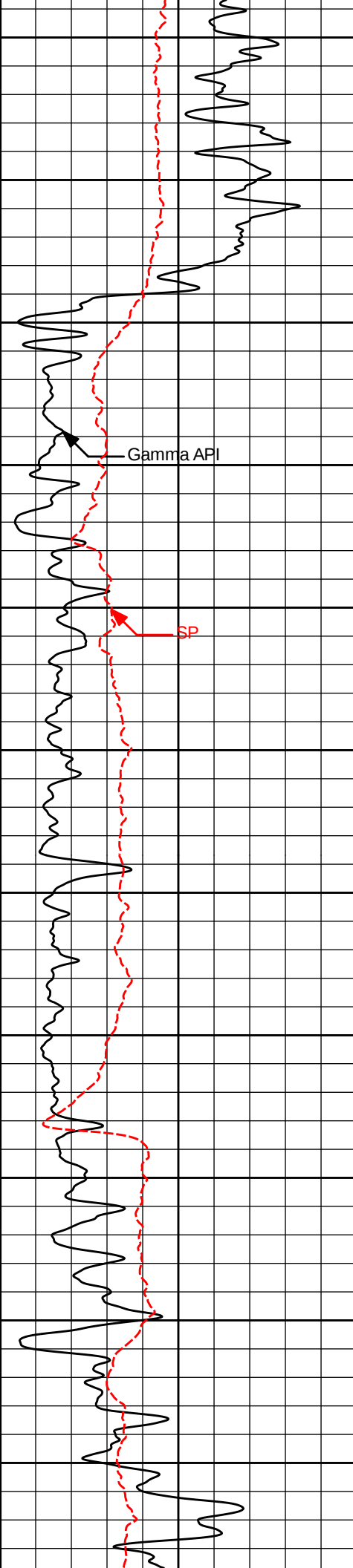
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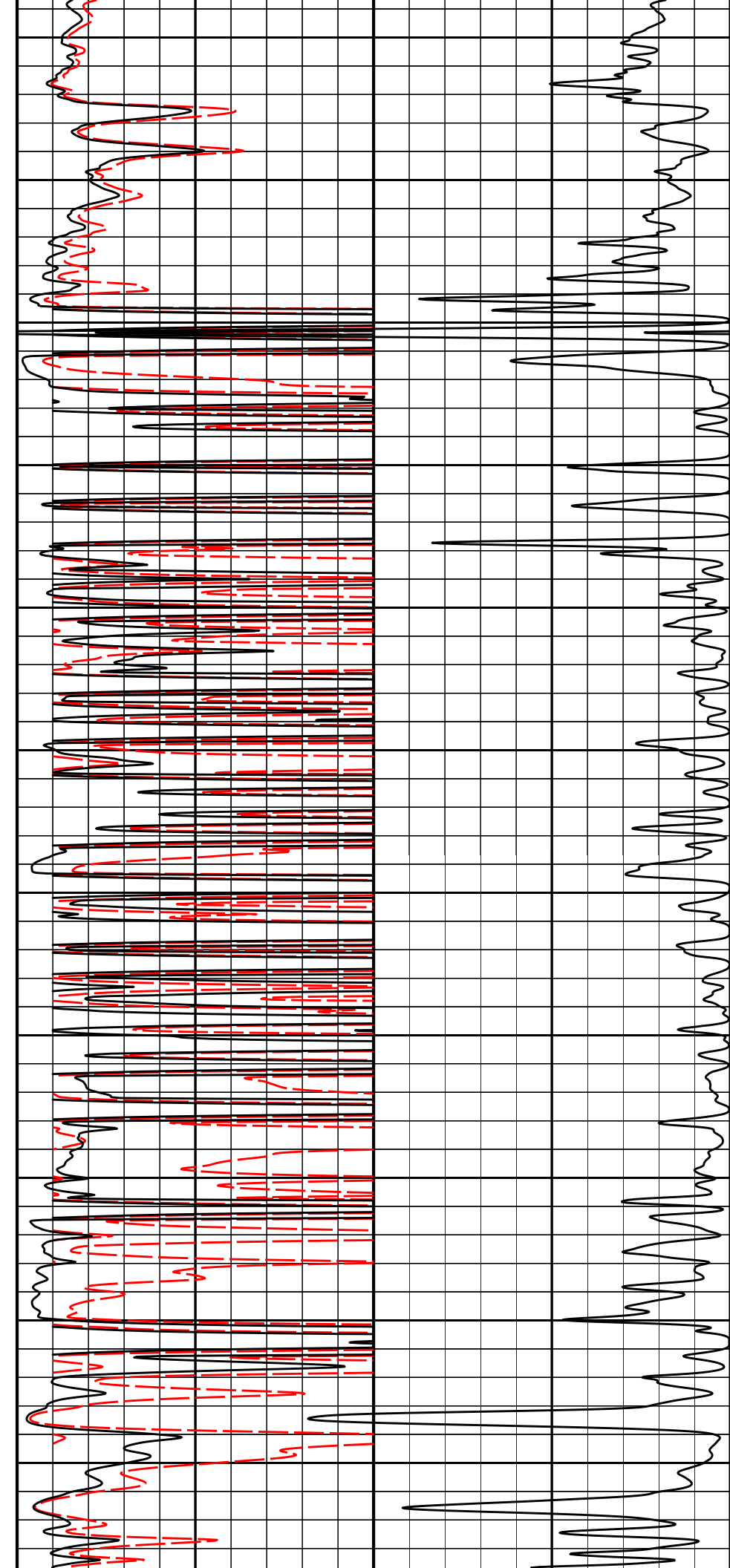
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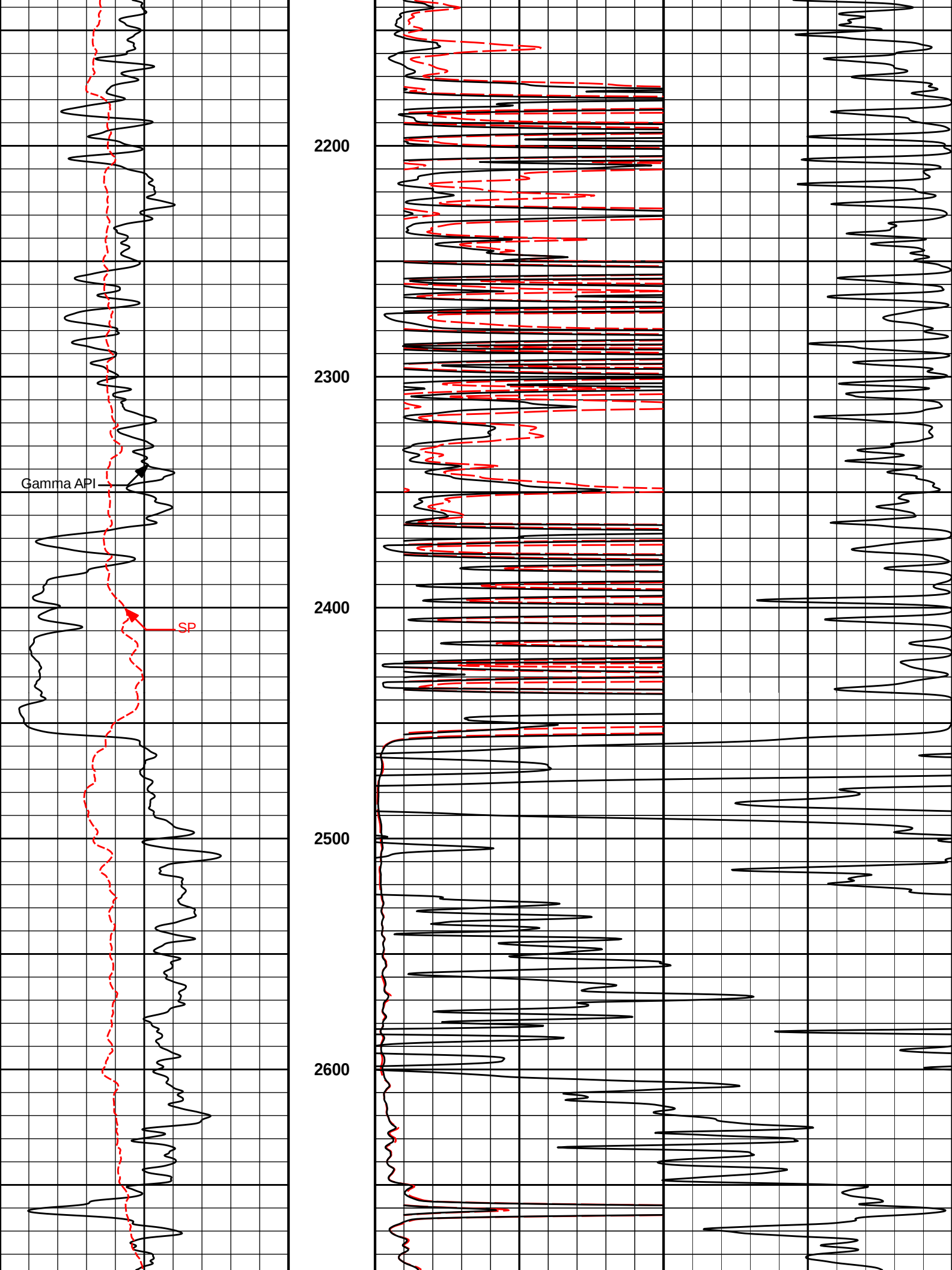
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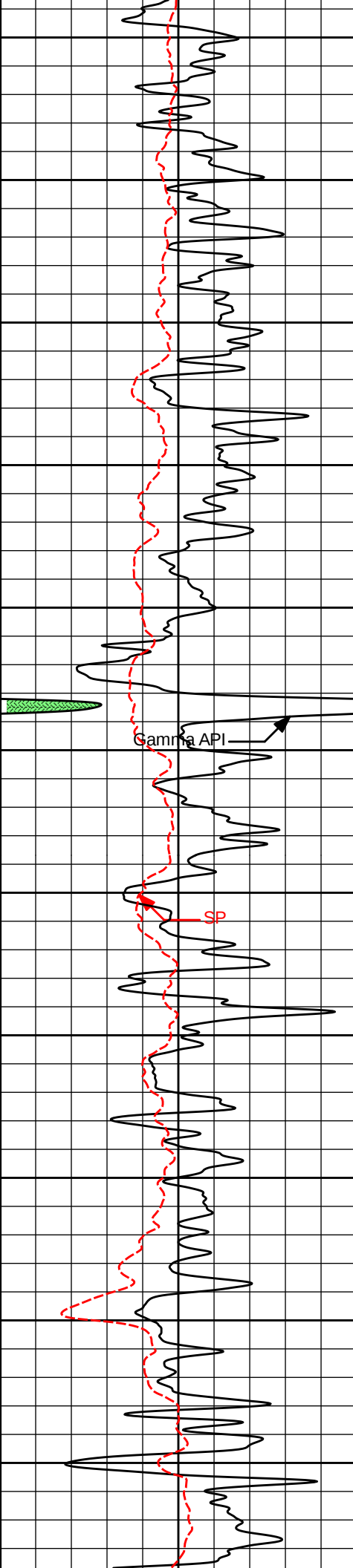
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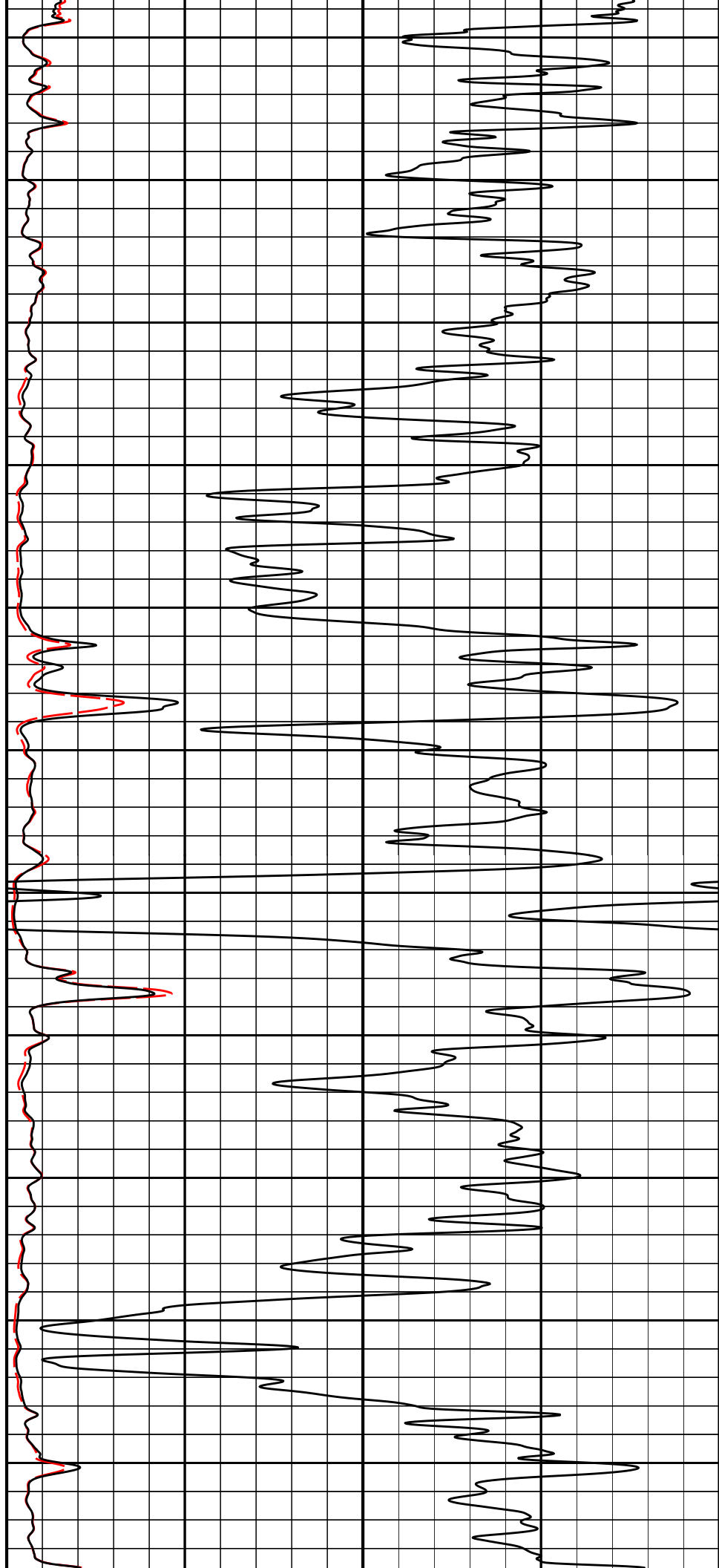
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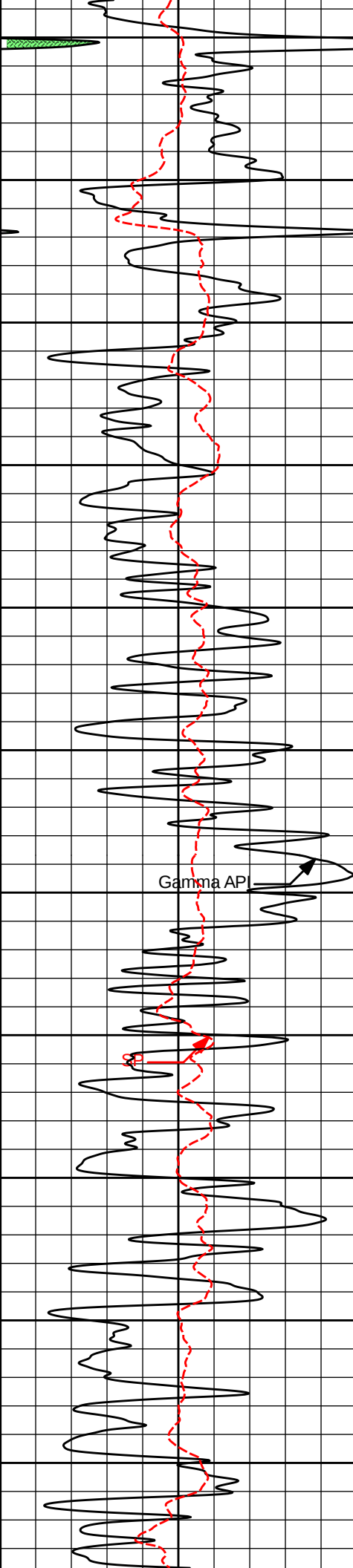
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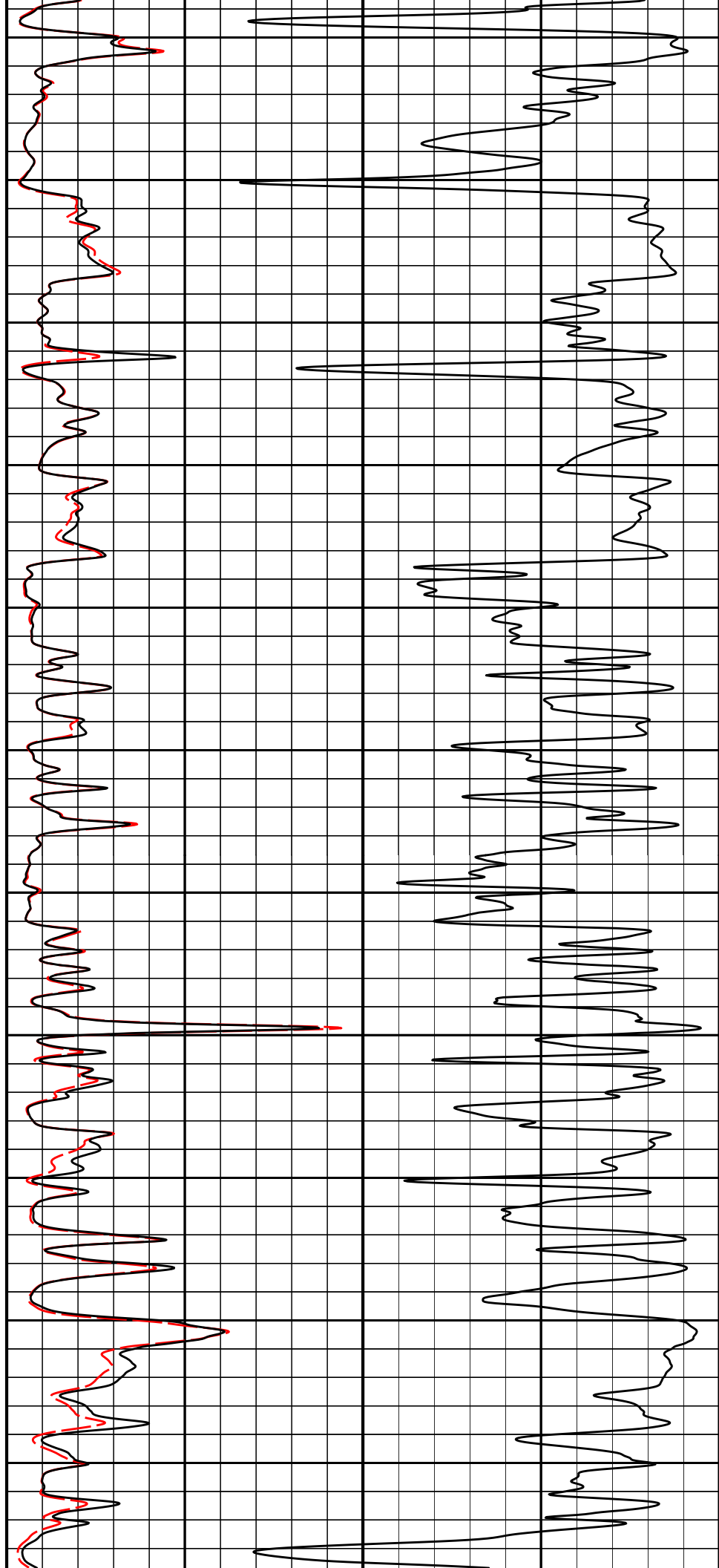
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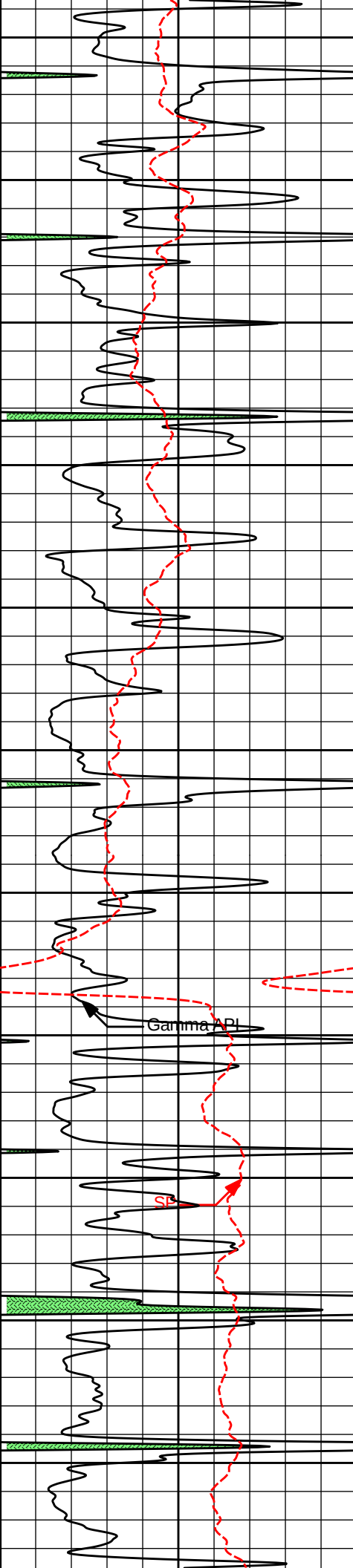
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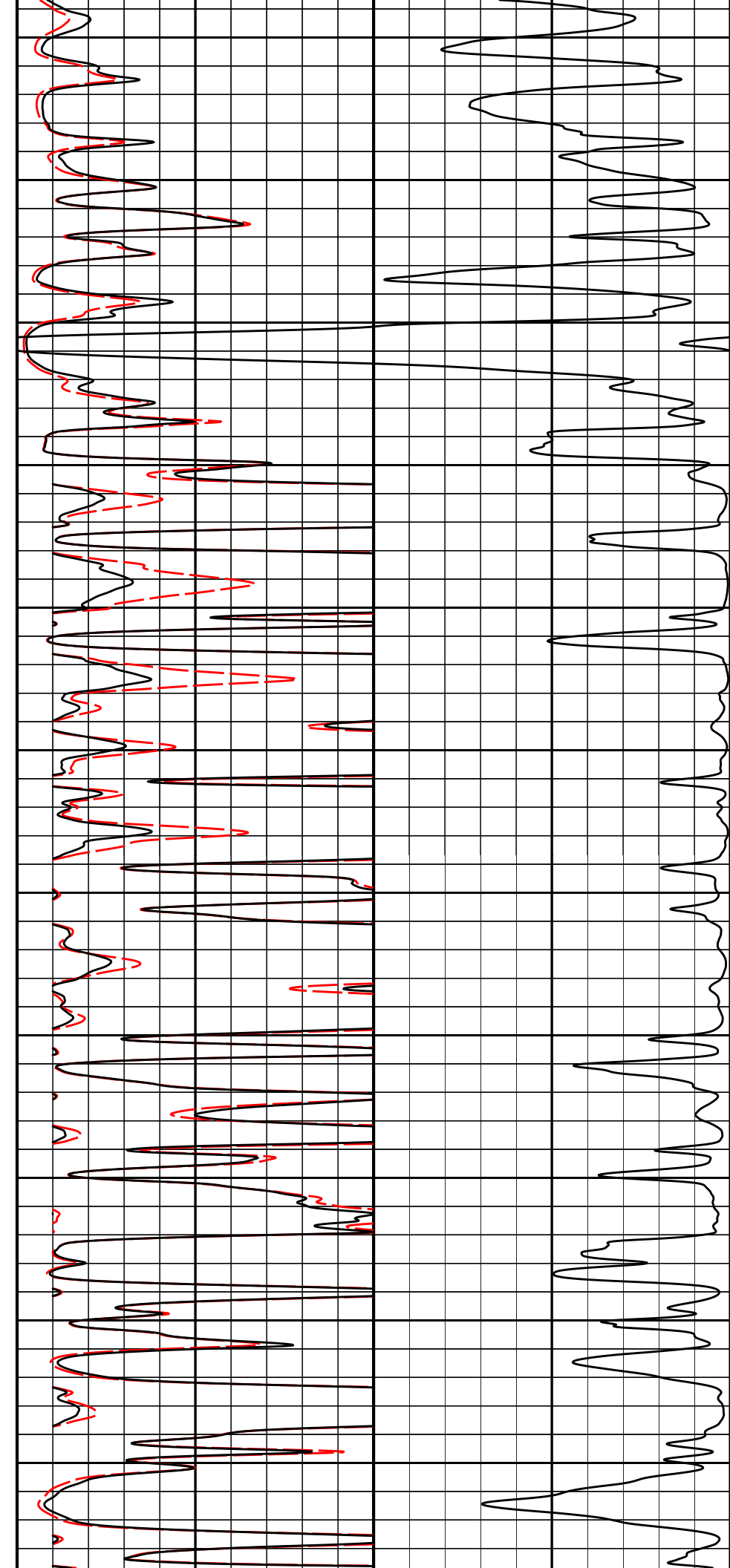
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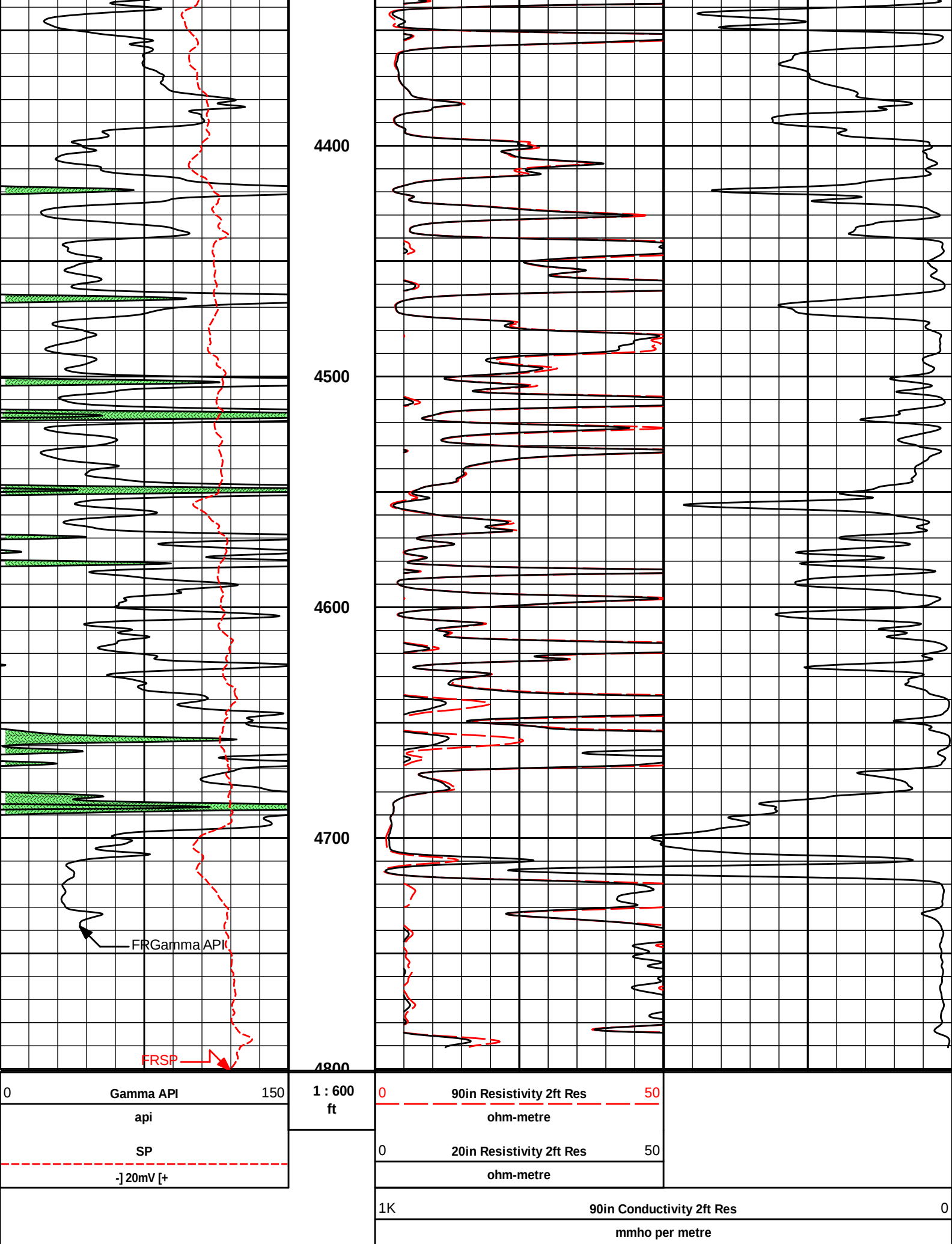
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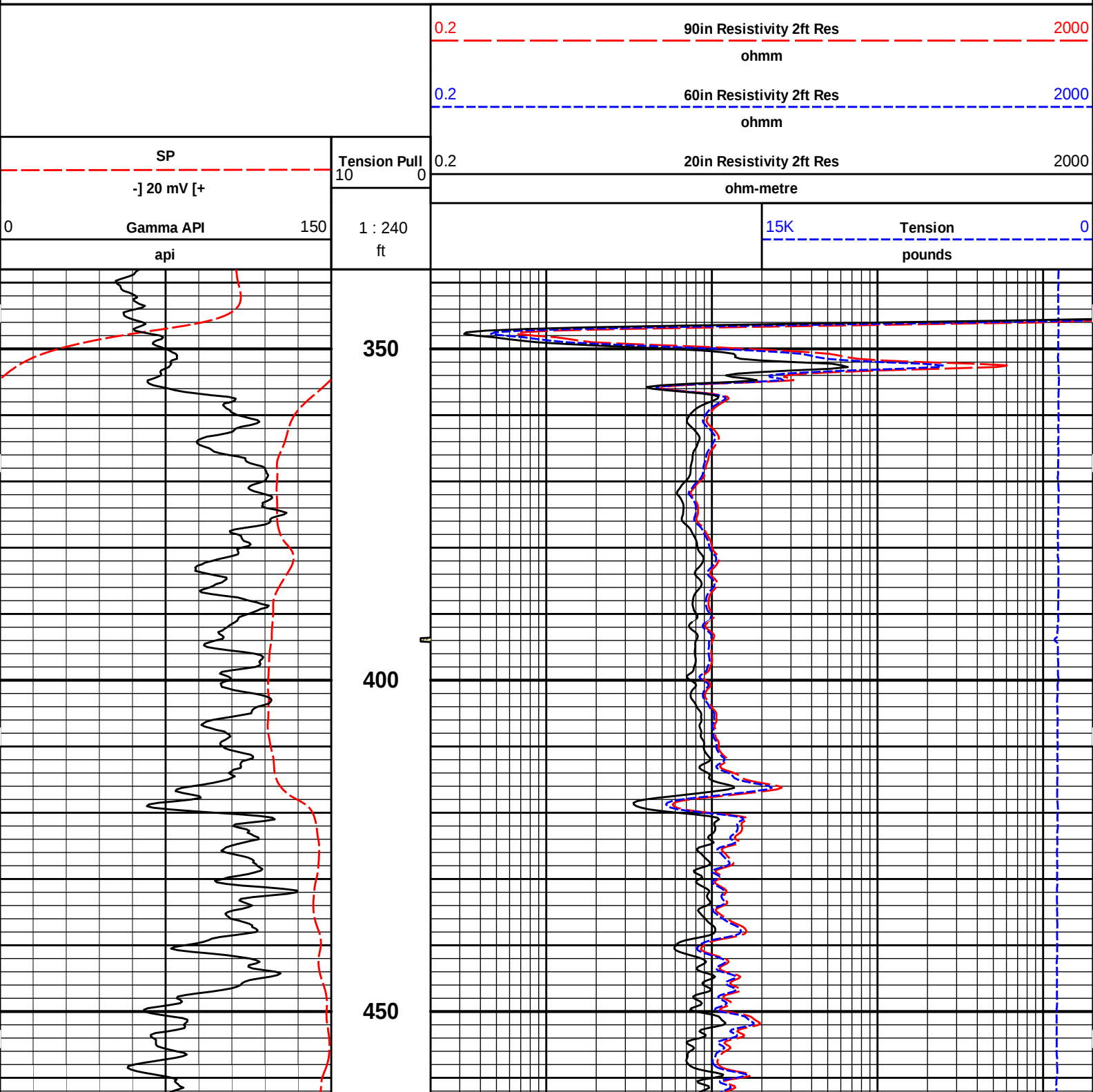


2 INCH MAIN LOG

HALLIBURTON

Plot Time: 03-Aug-14 13:45:13
Plot Range: 338 ft to 4803.58 ft
Data: ROSE_3_1\Well Based\DAQ-0001-003\
Plot File: \\-LOCAL-\\ROSE_3_1\0001 QUAD_BSAT\ACRT1 ACRT_5_mainx

5 INCH MAIN LOG



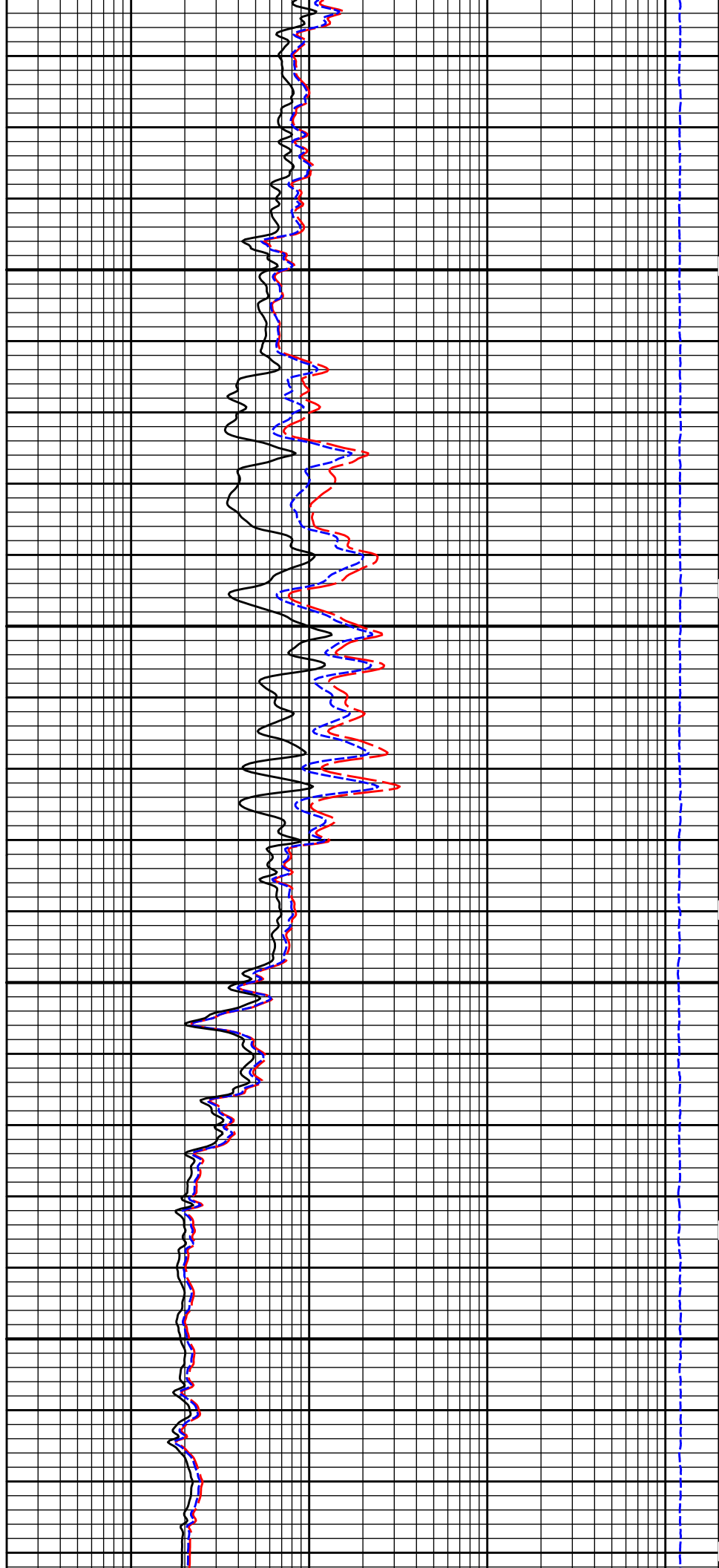


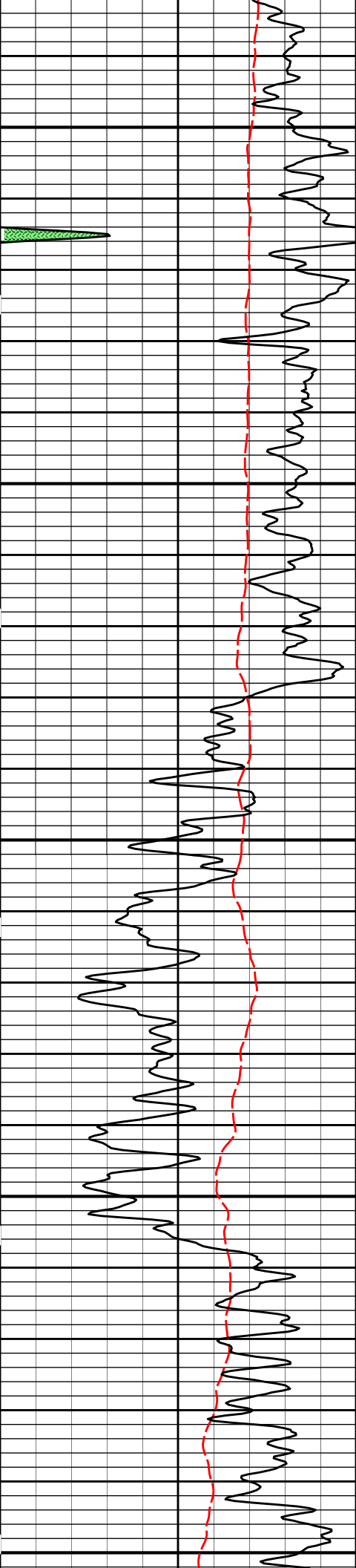
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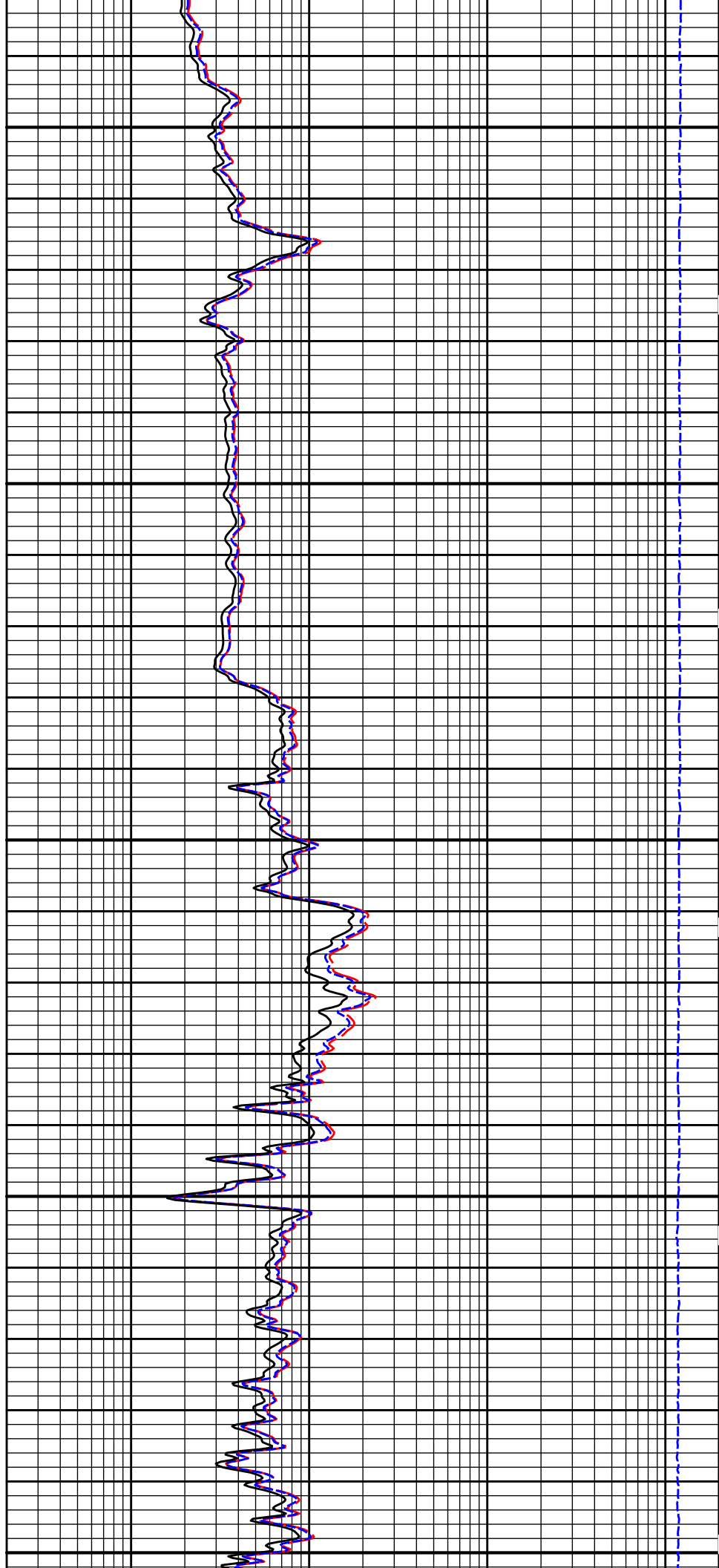
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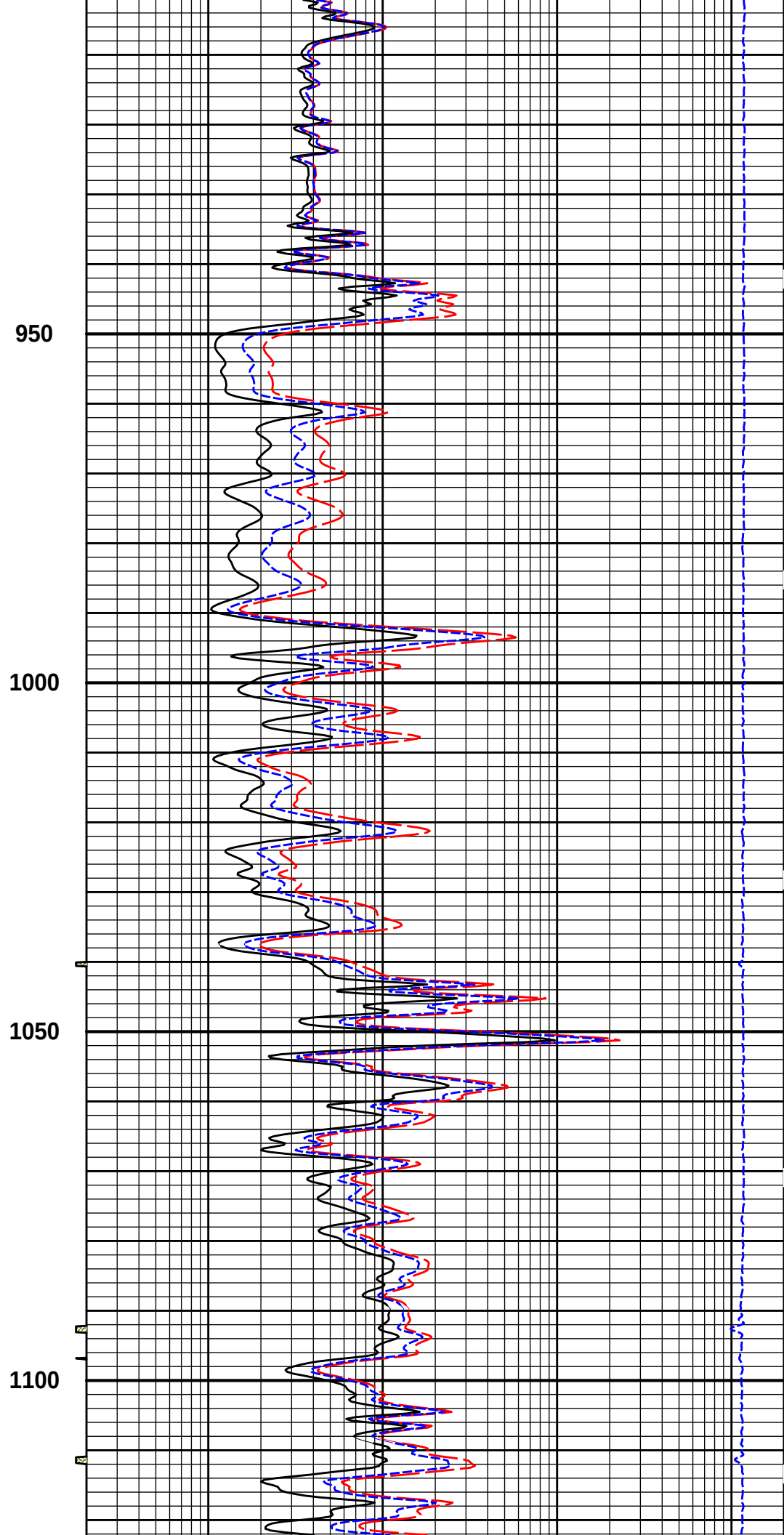
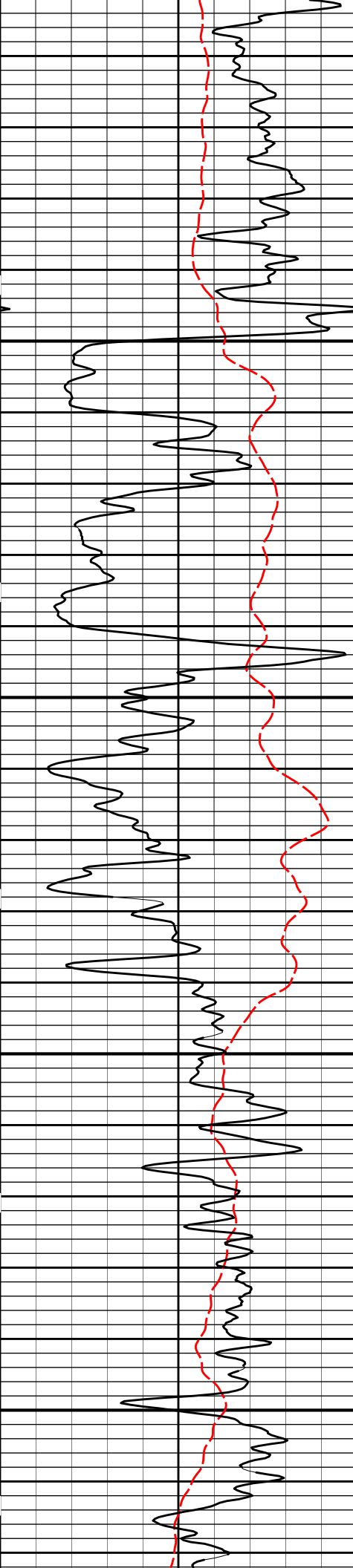
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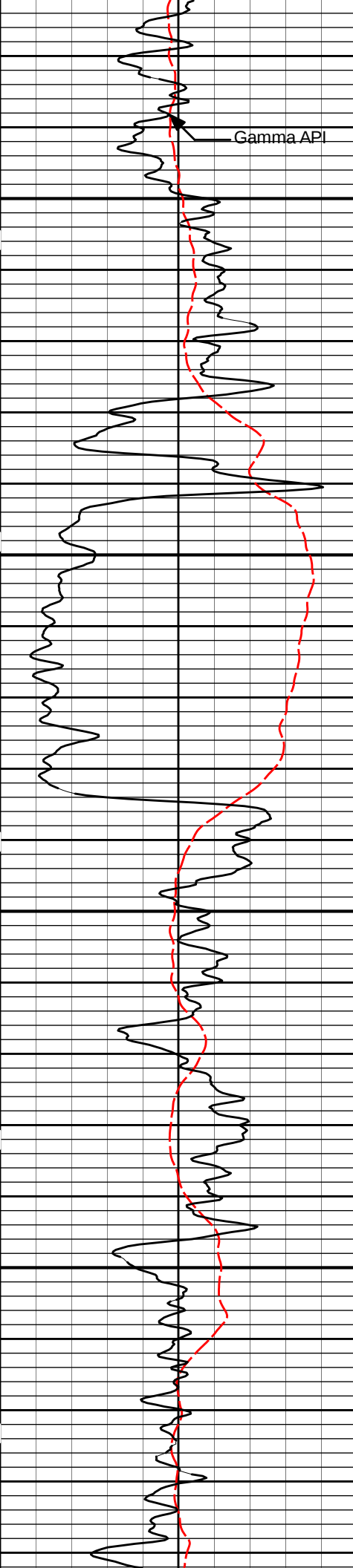
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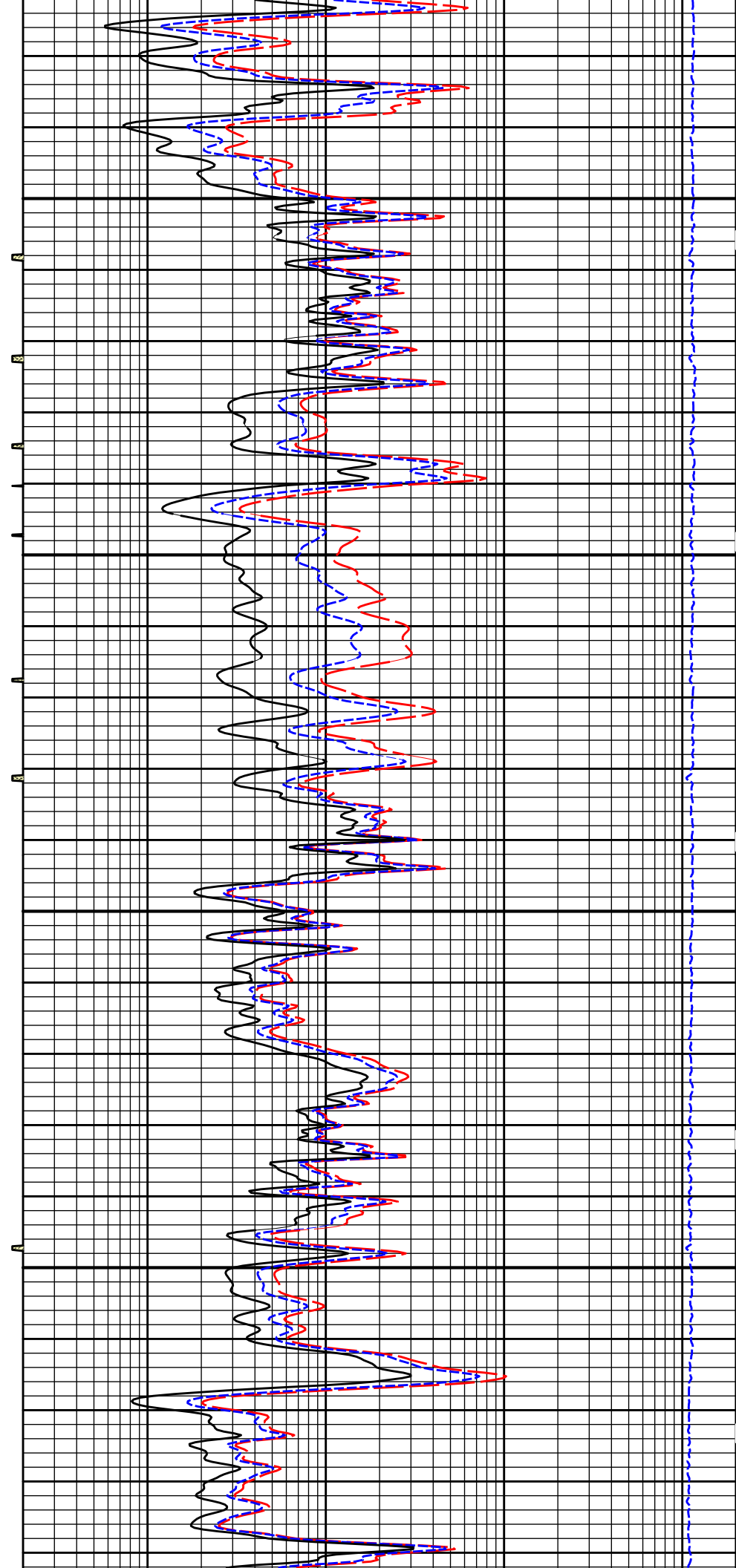


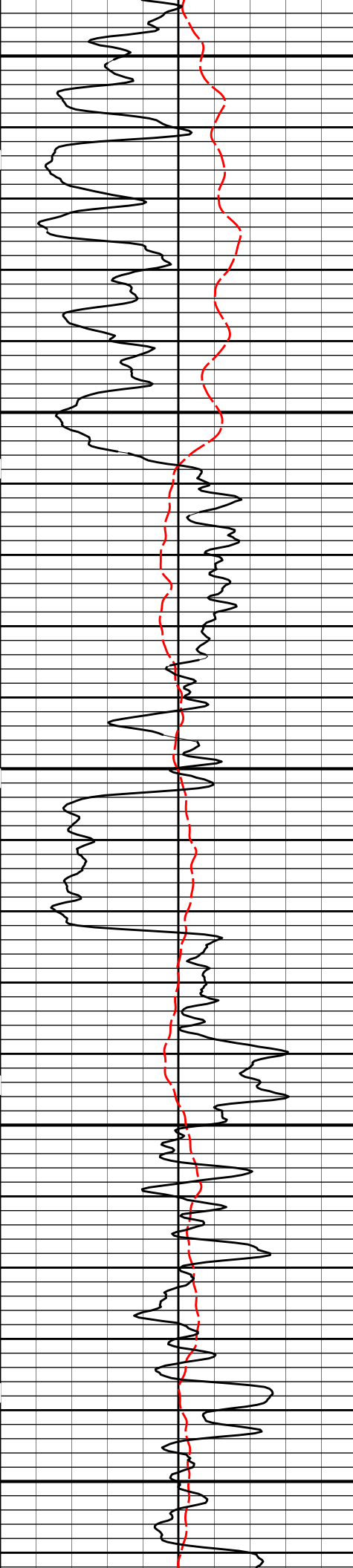
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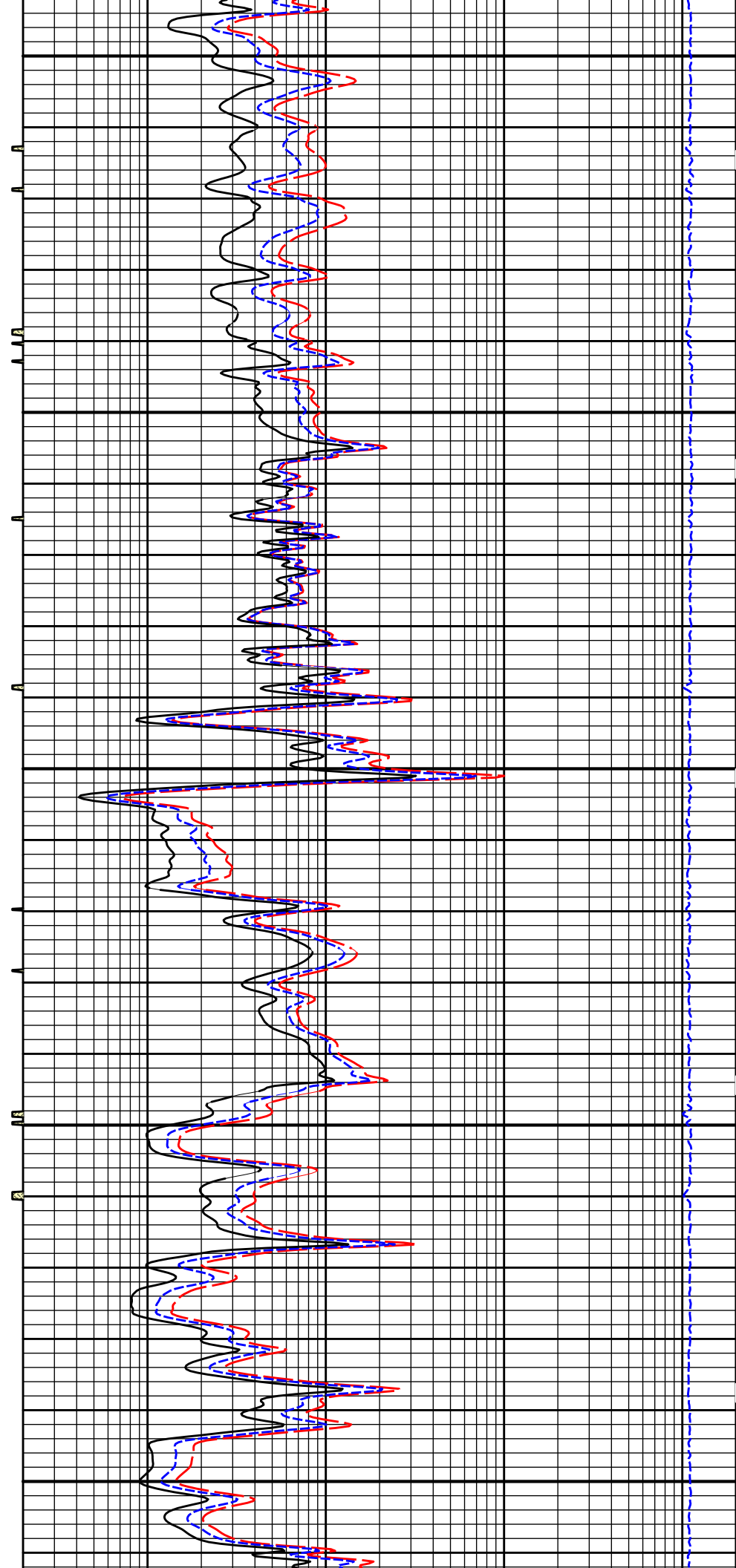
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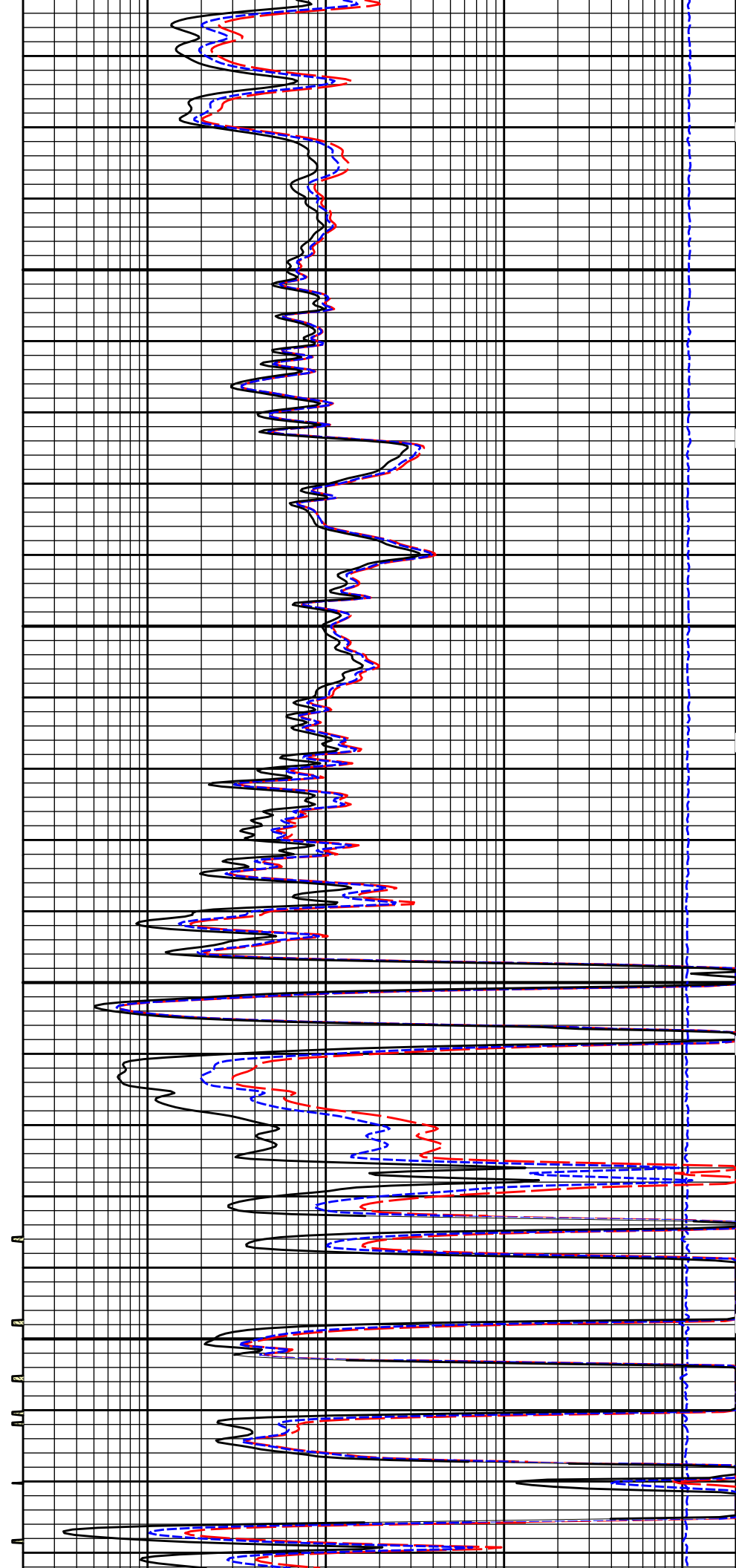


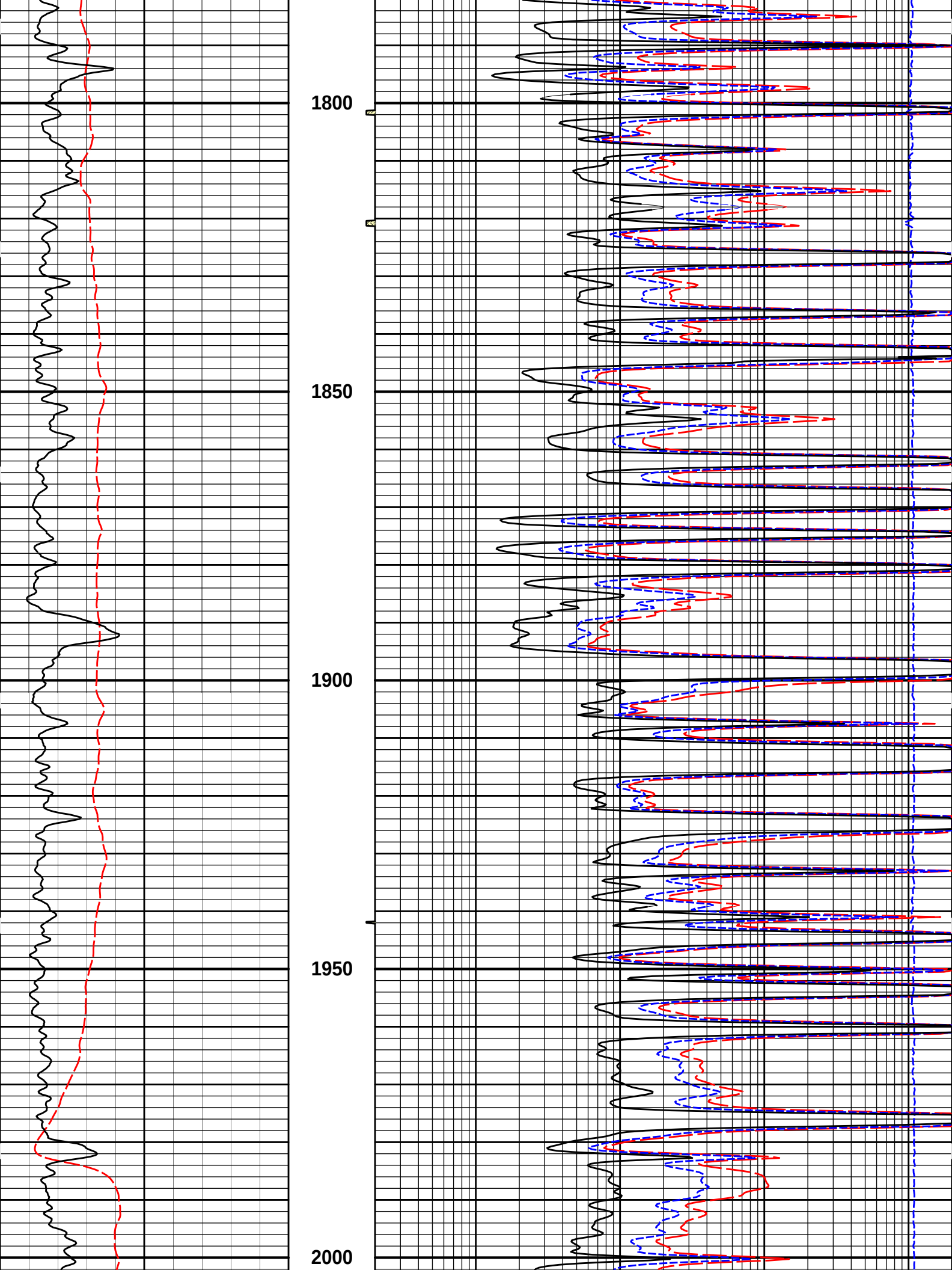
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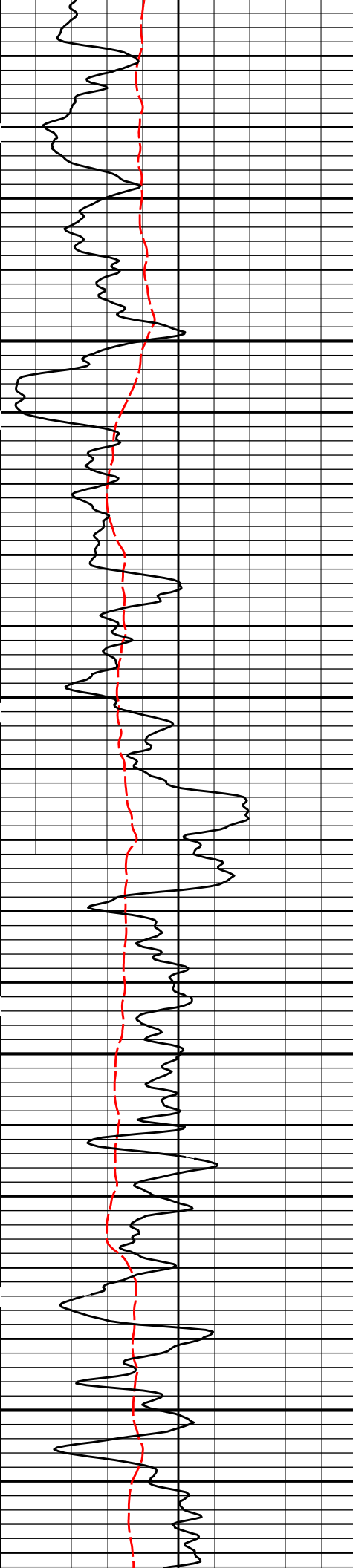
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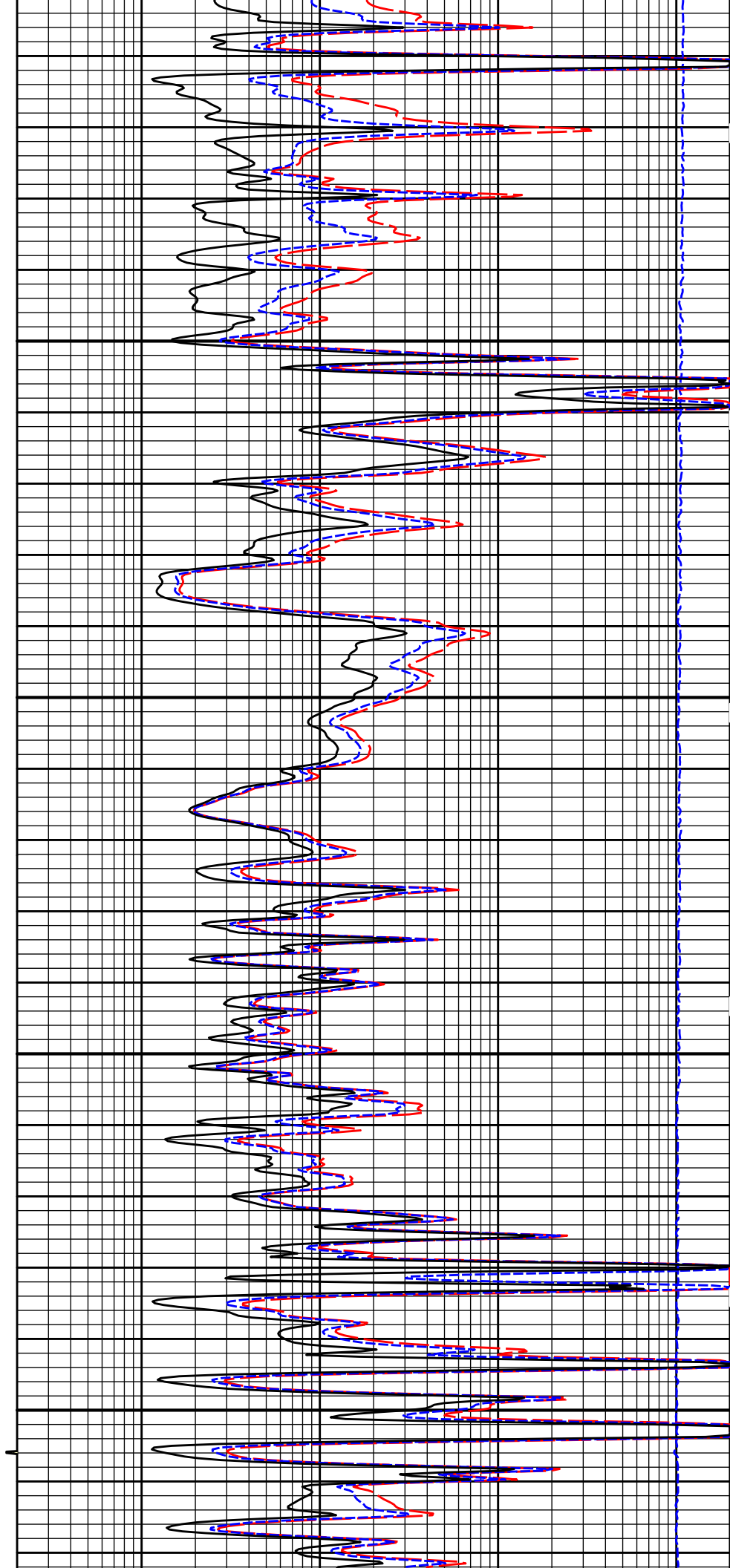


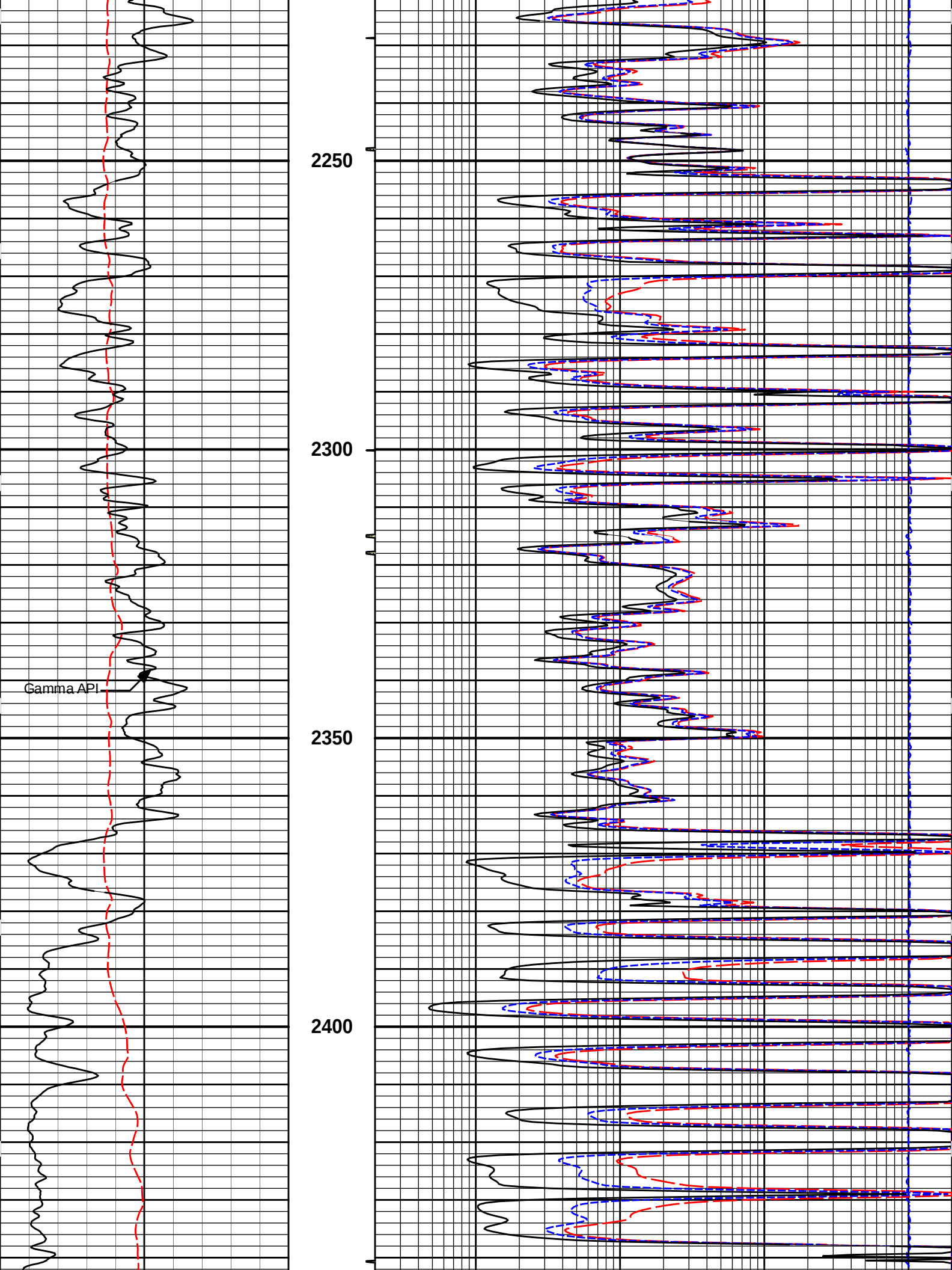
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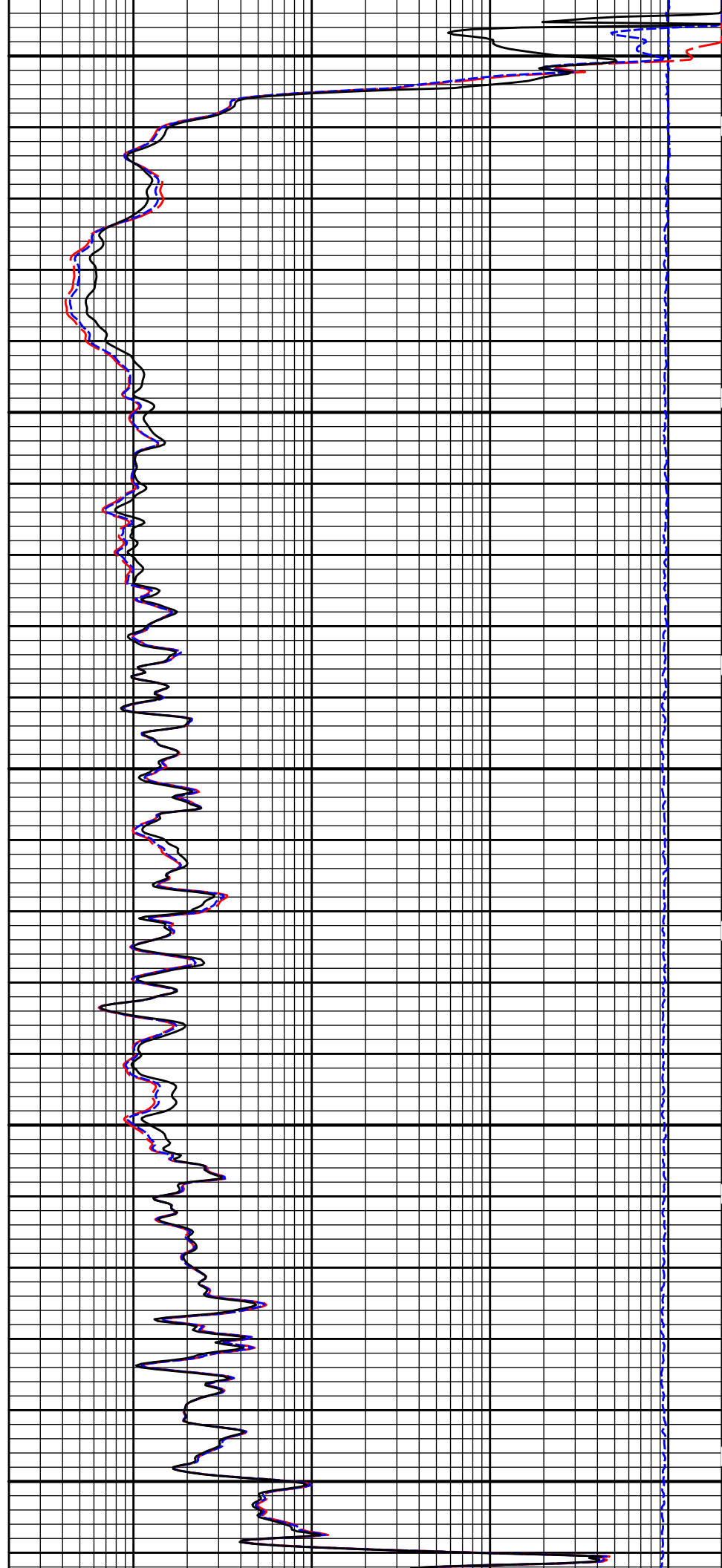
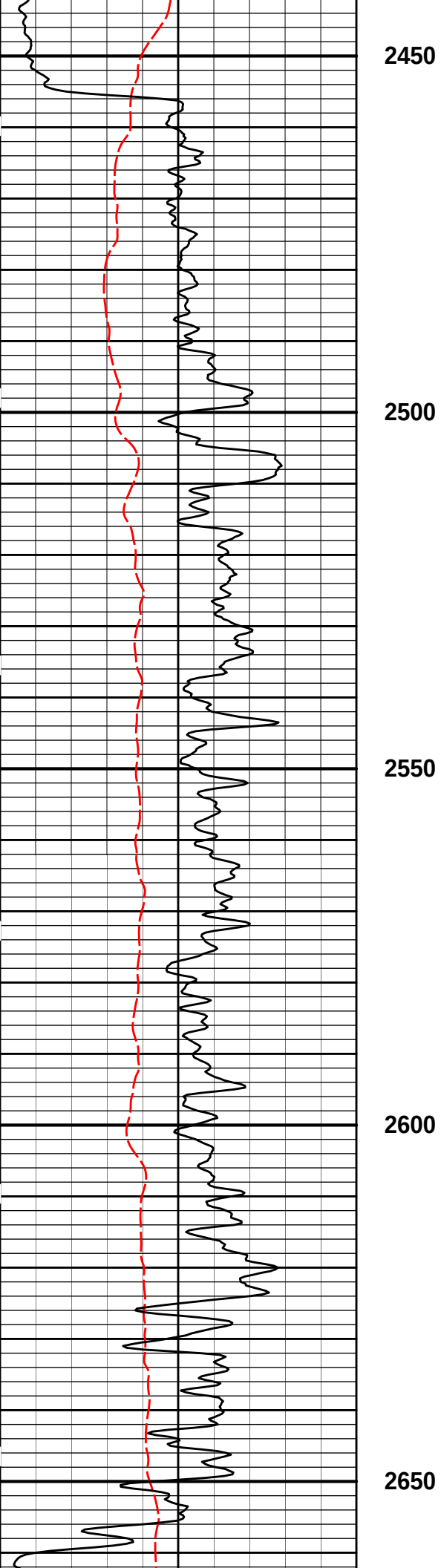
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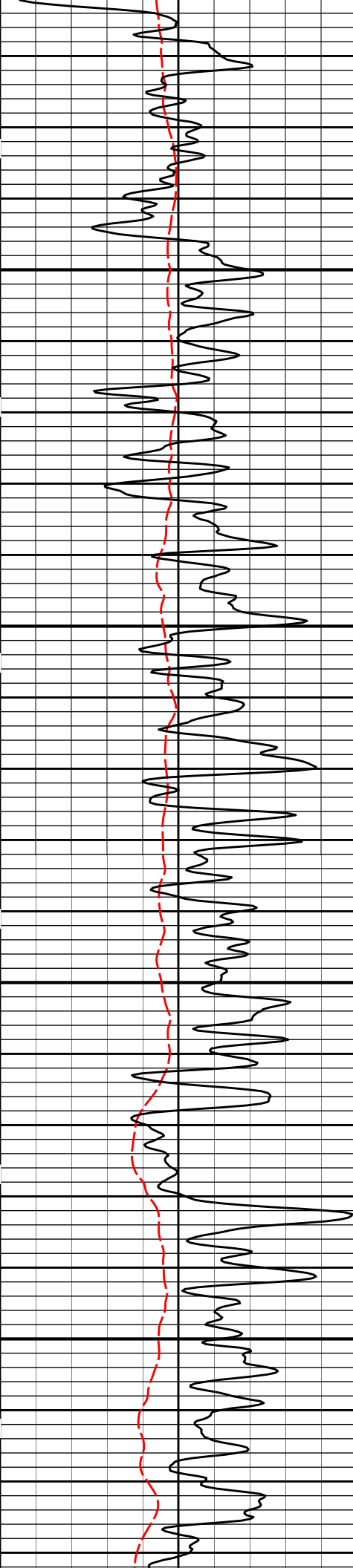
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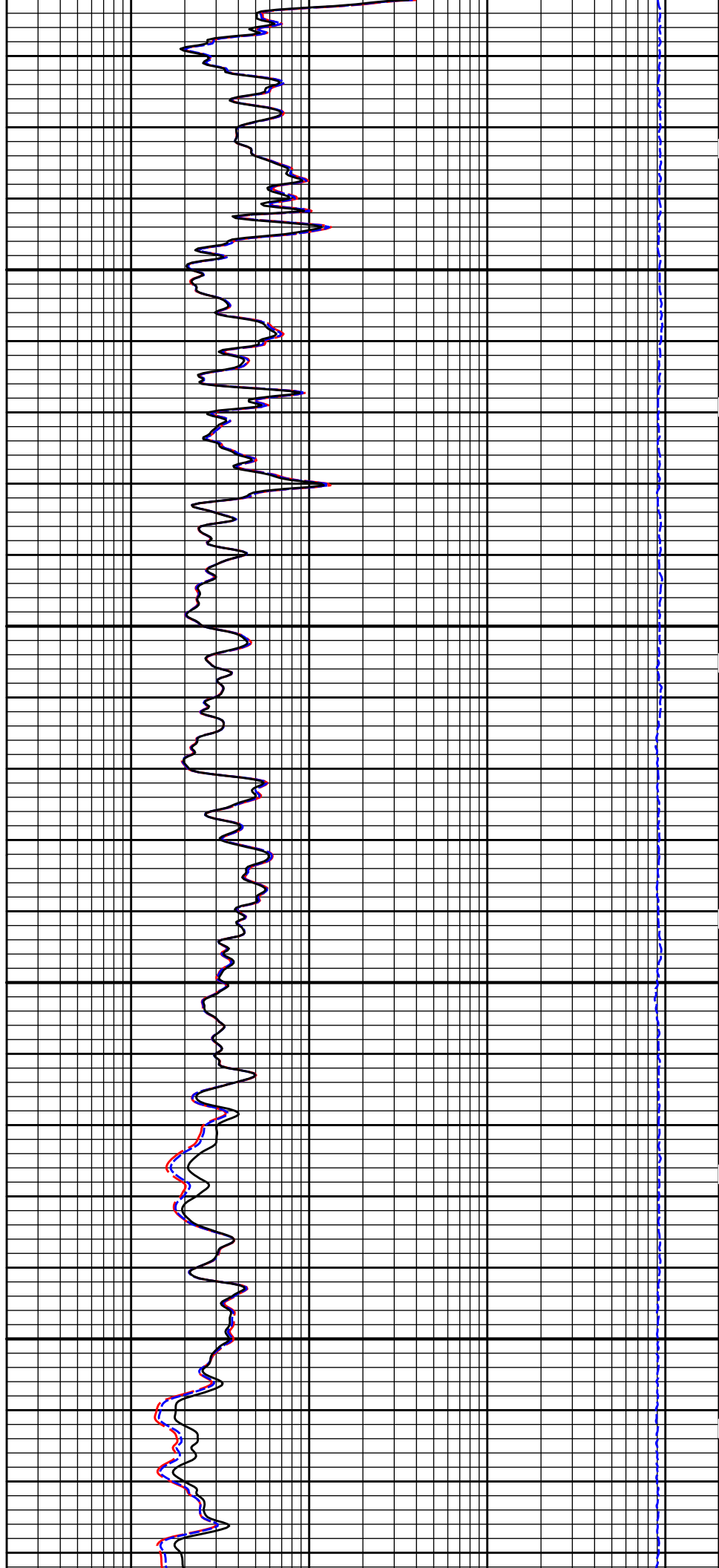


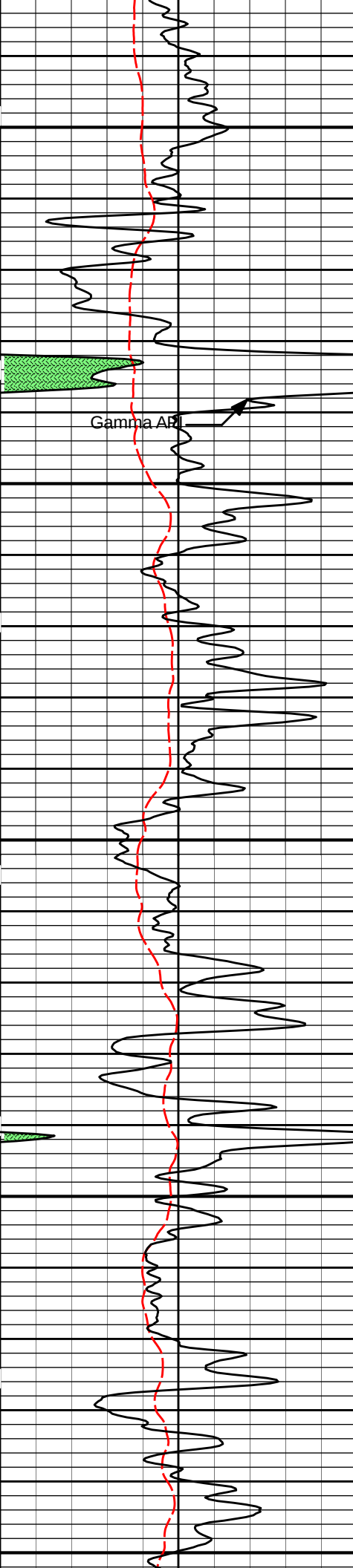
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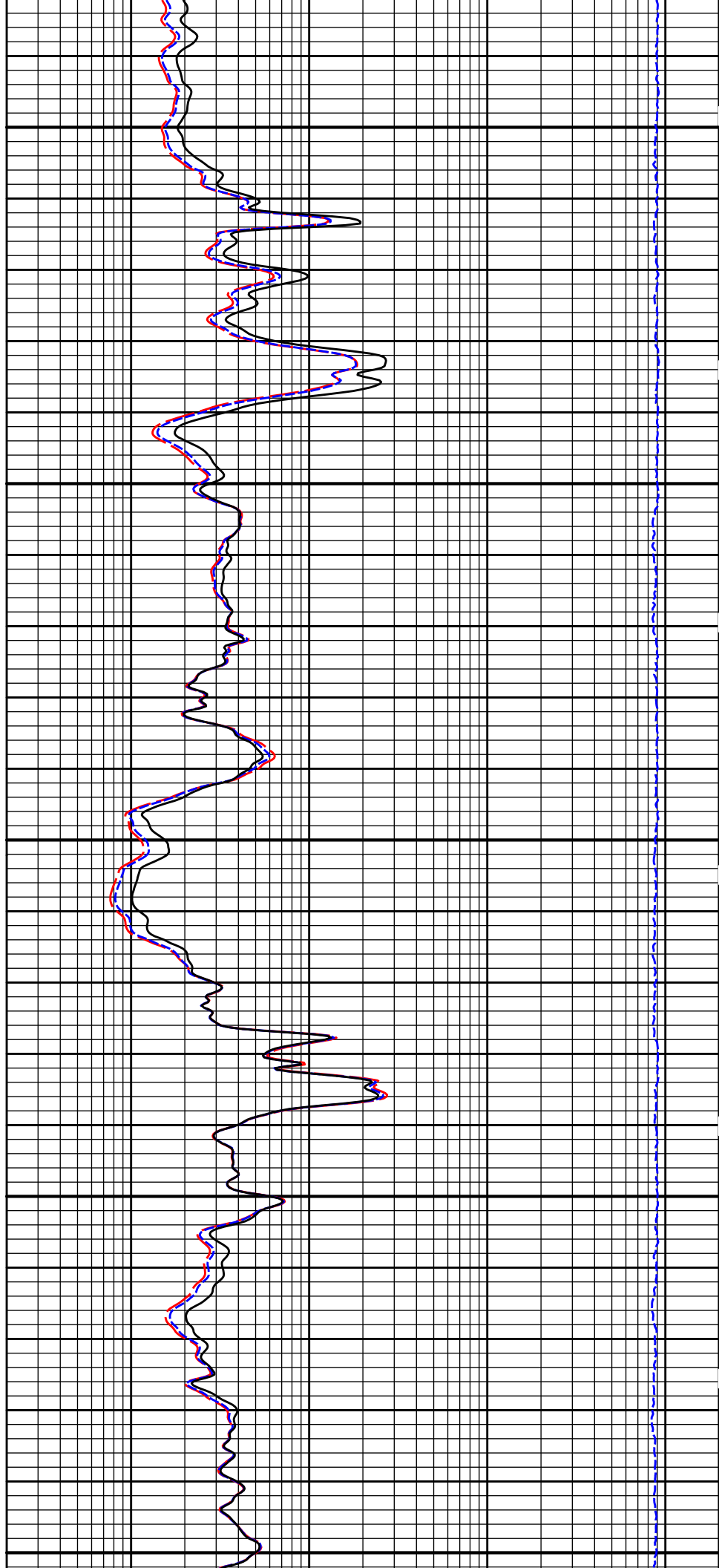
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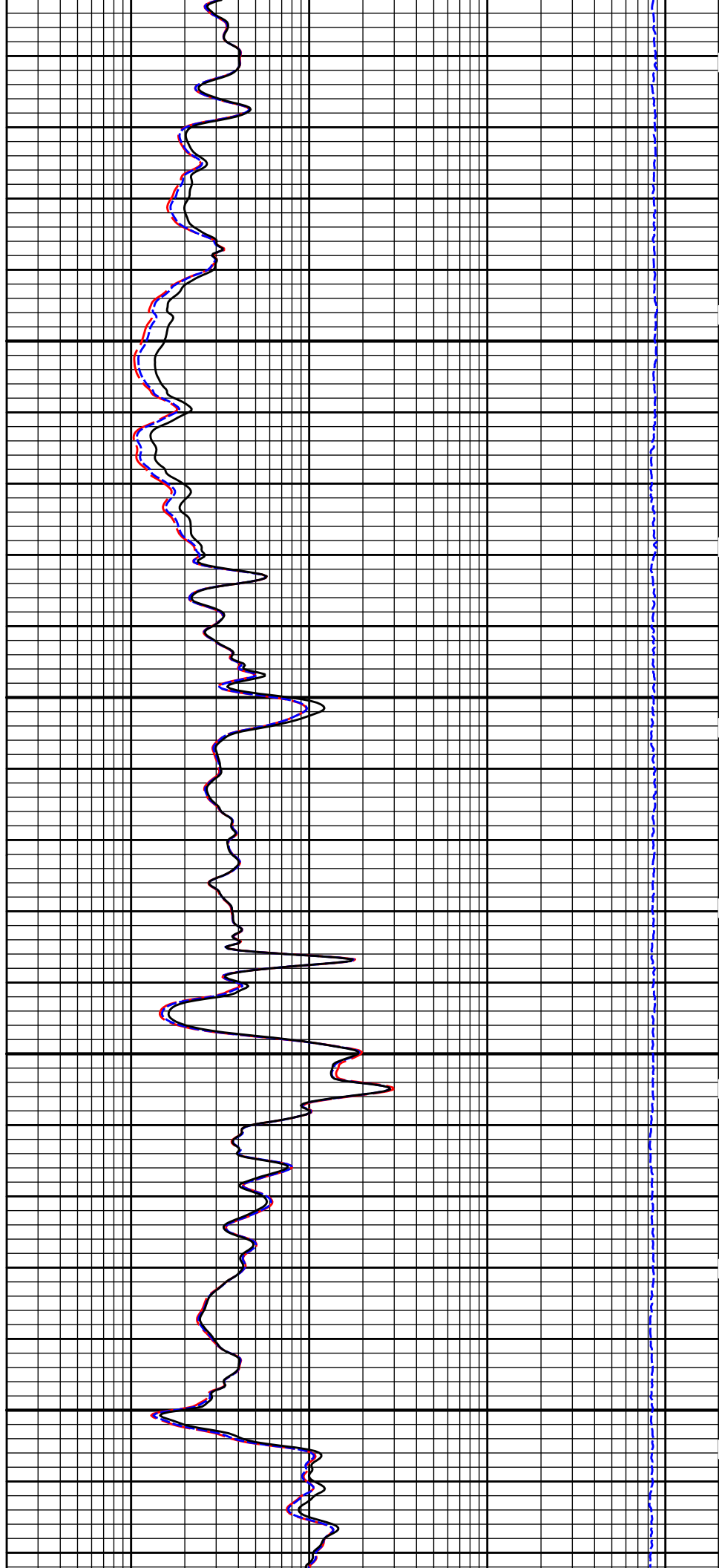


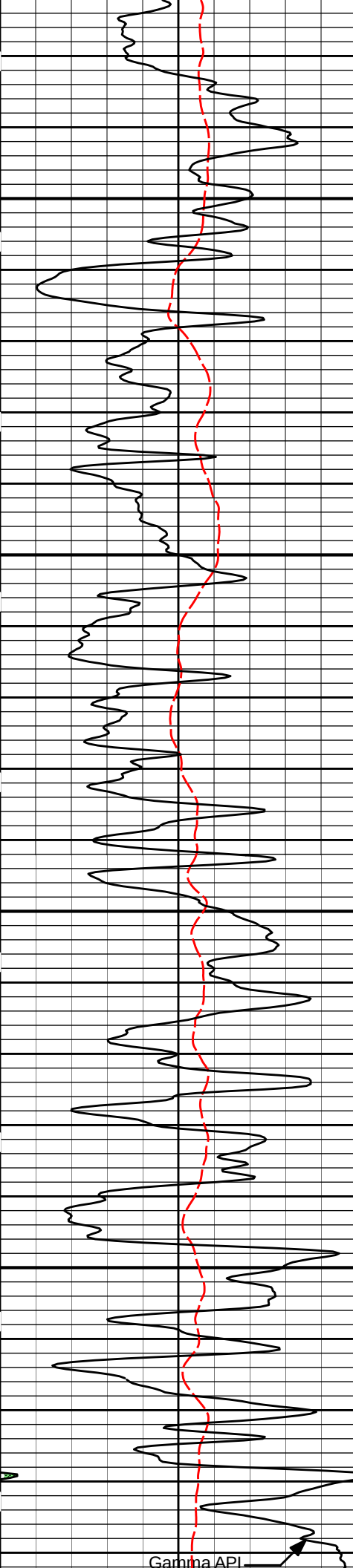
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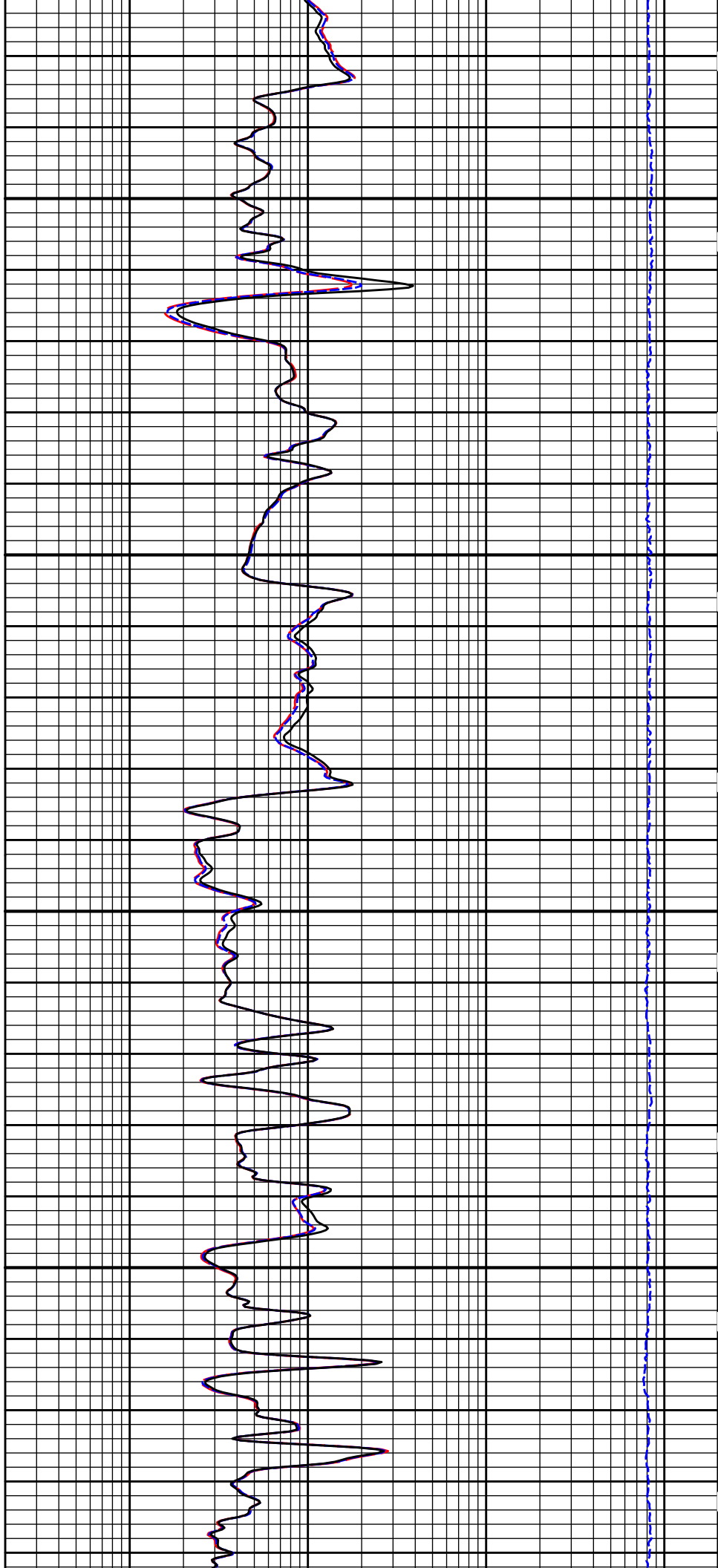
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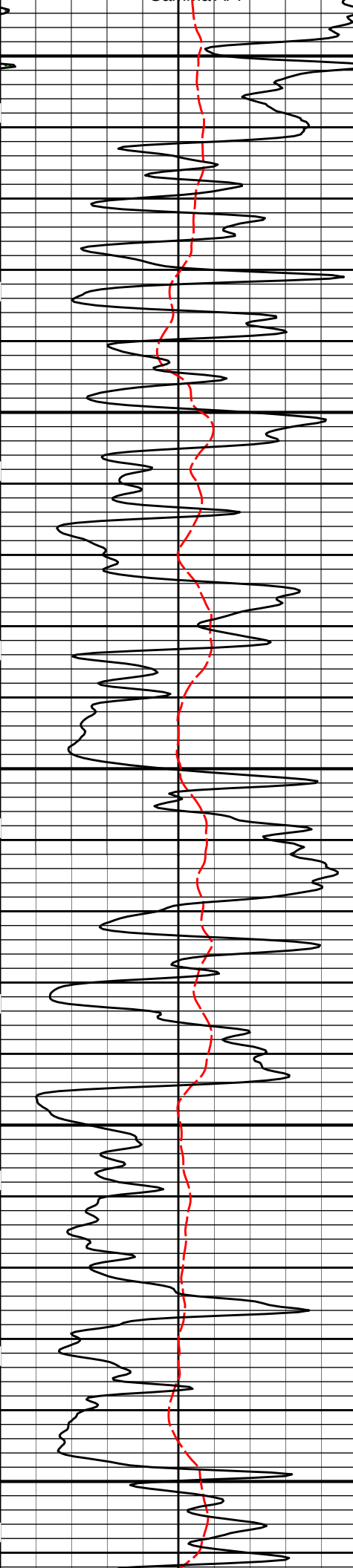
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Gamma API





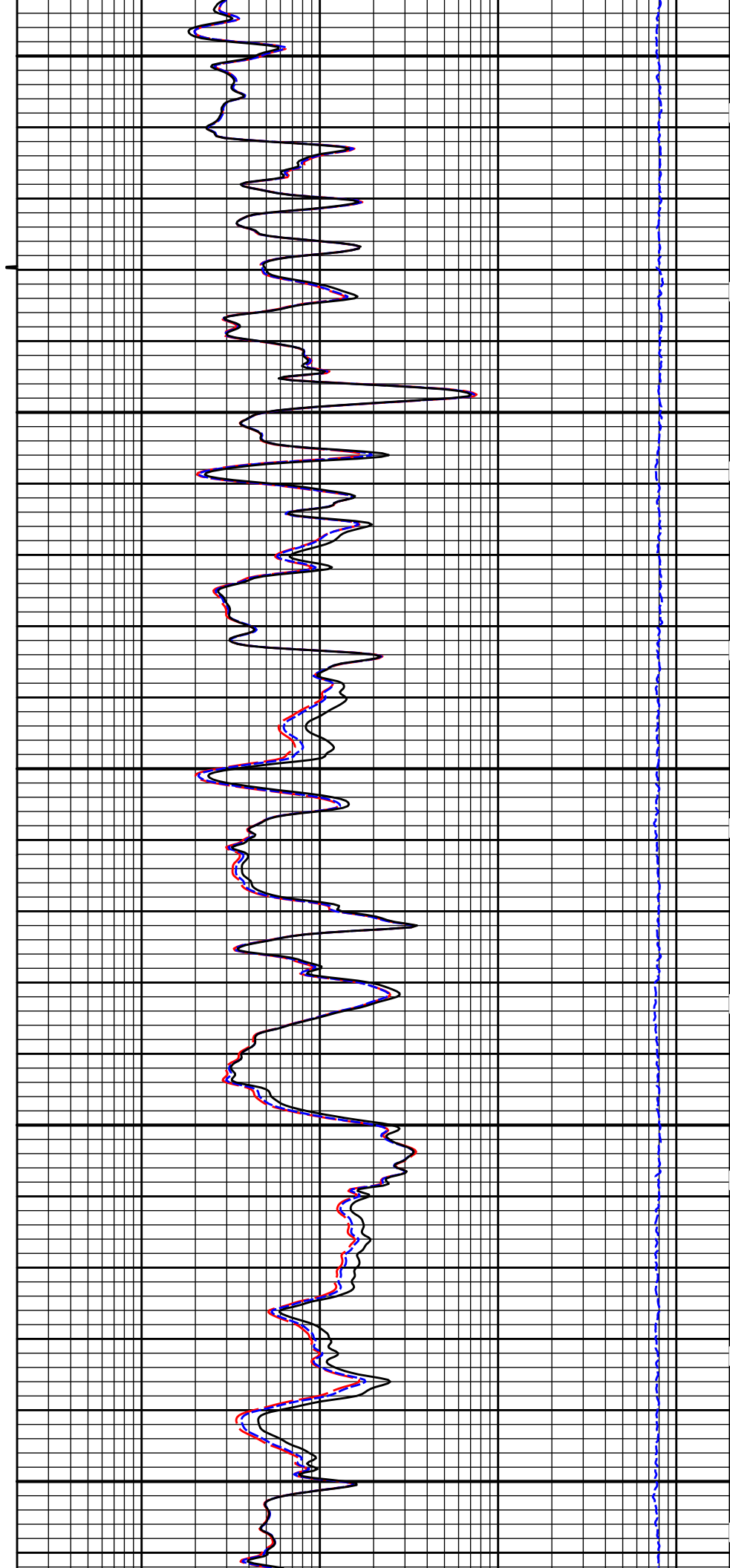
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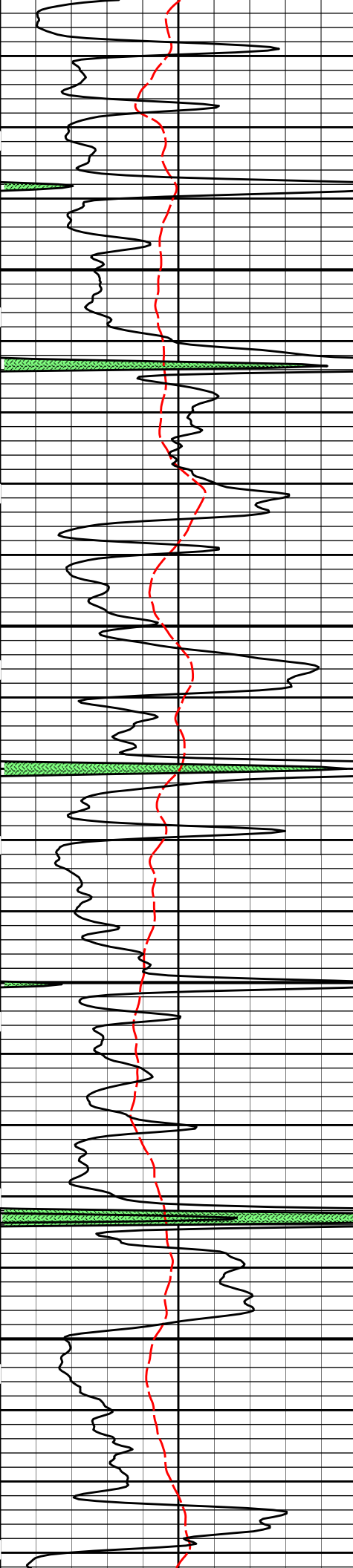
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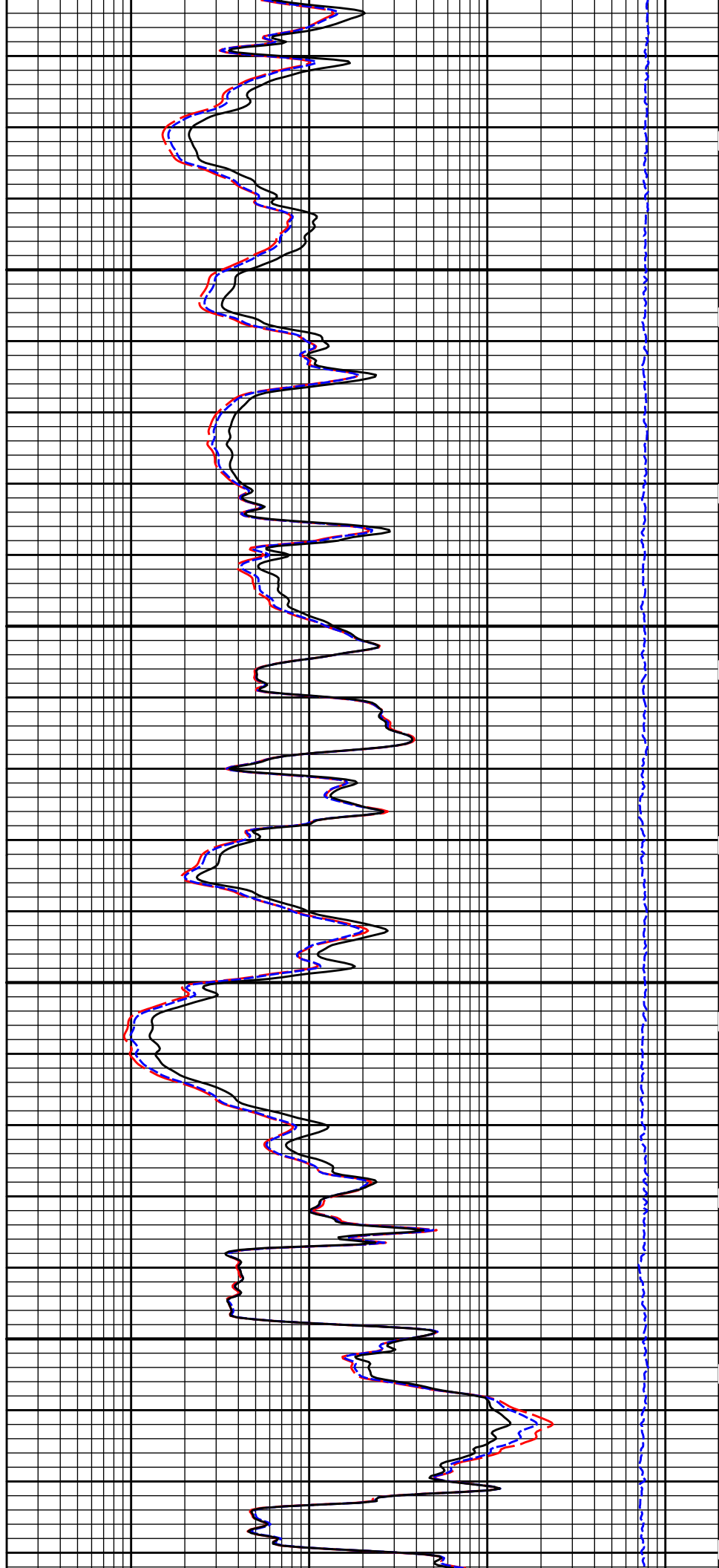


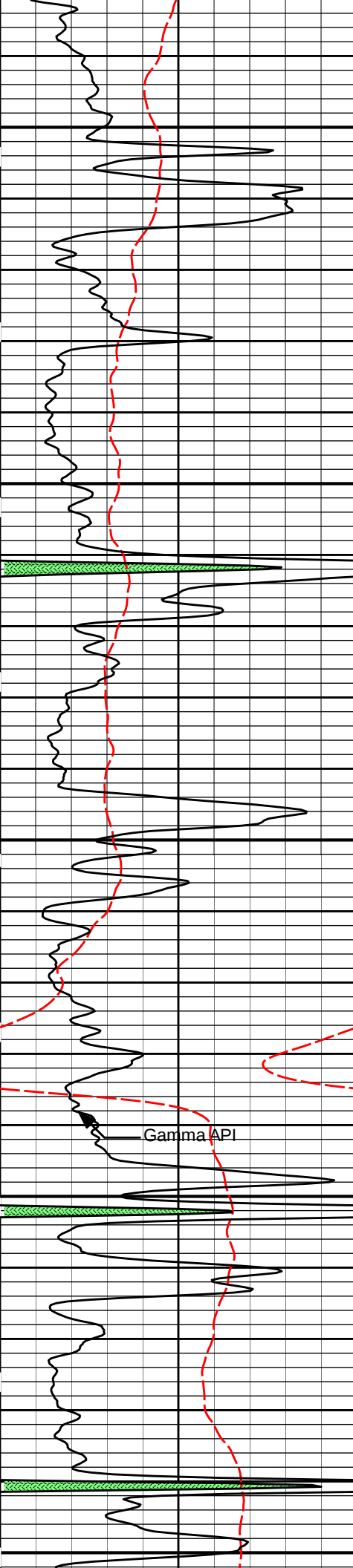
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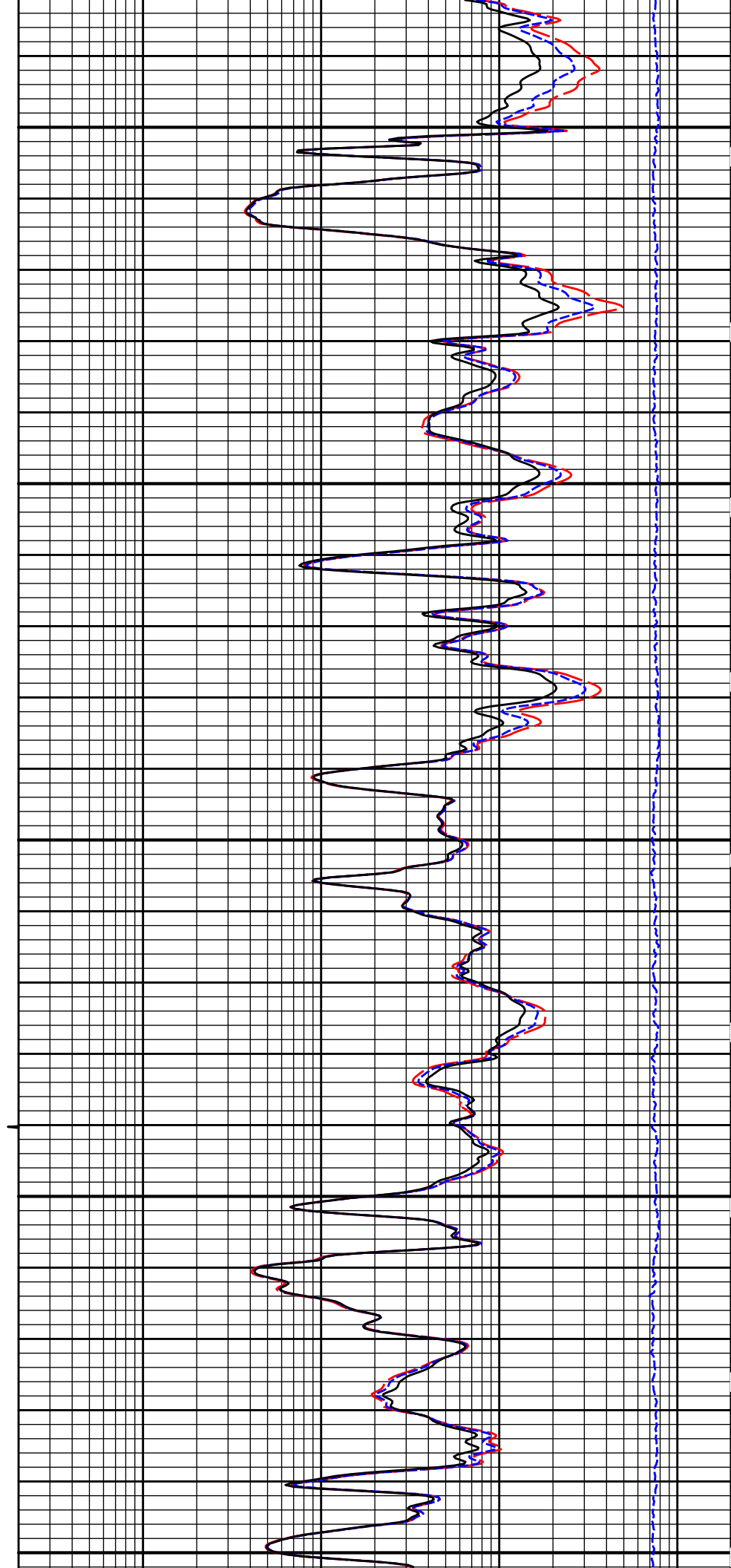
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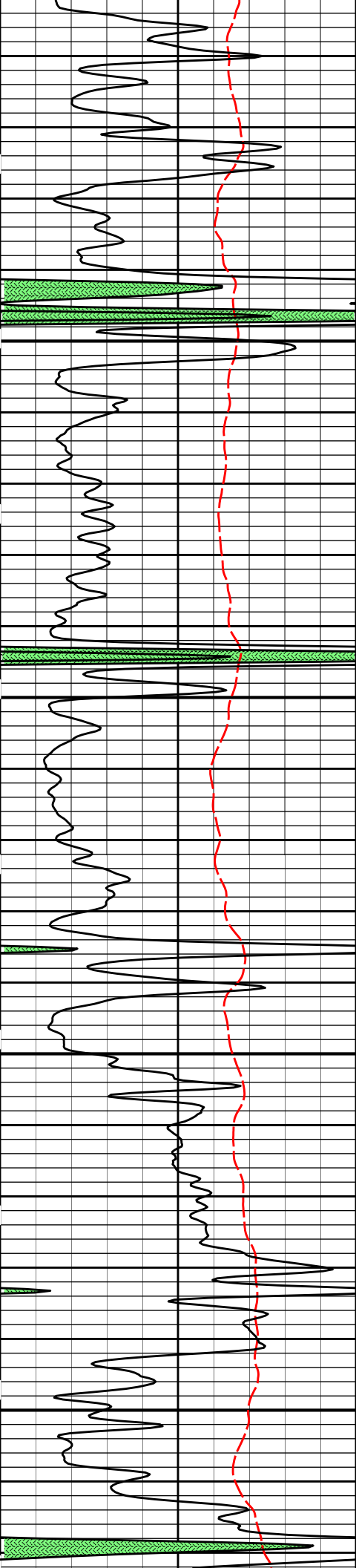
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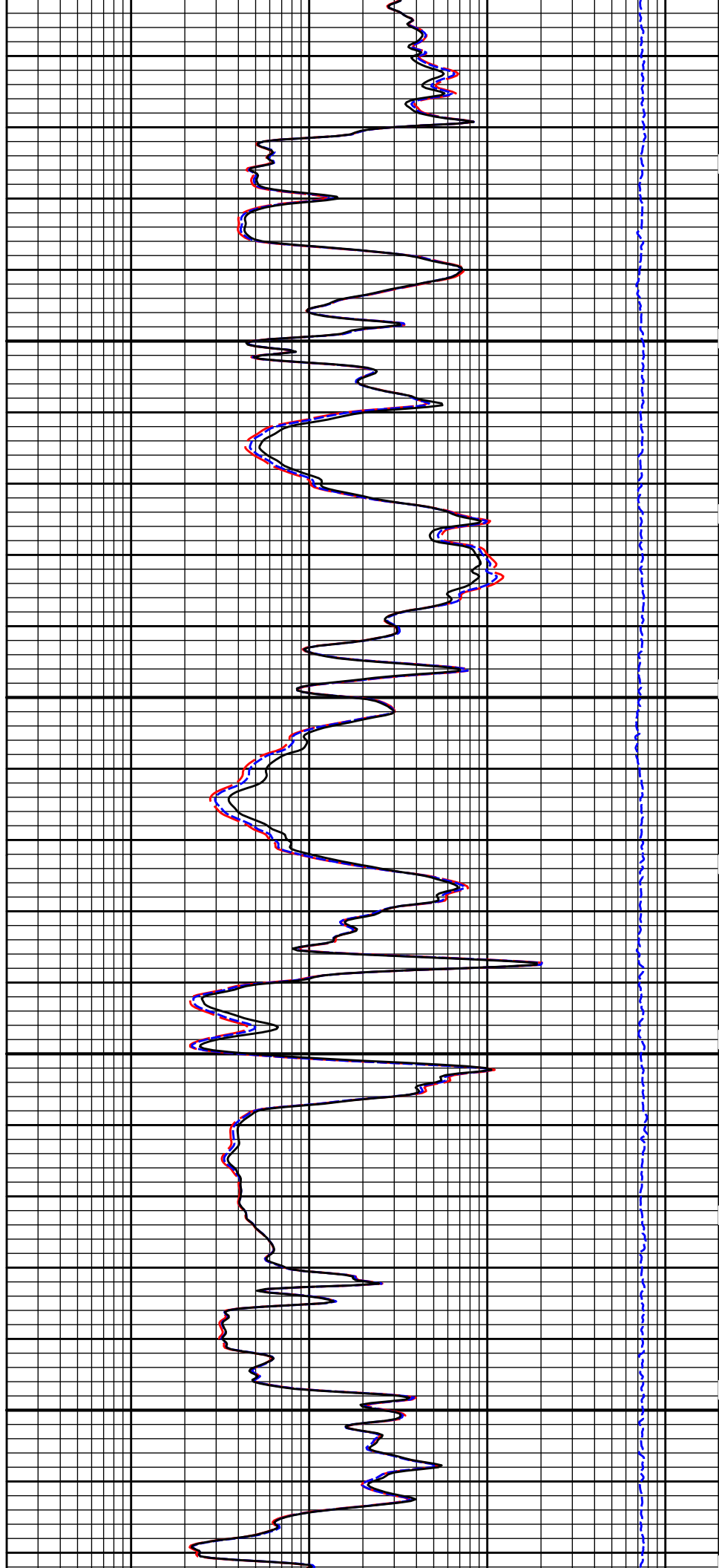


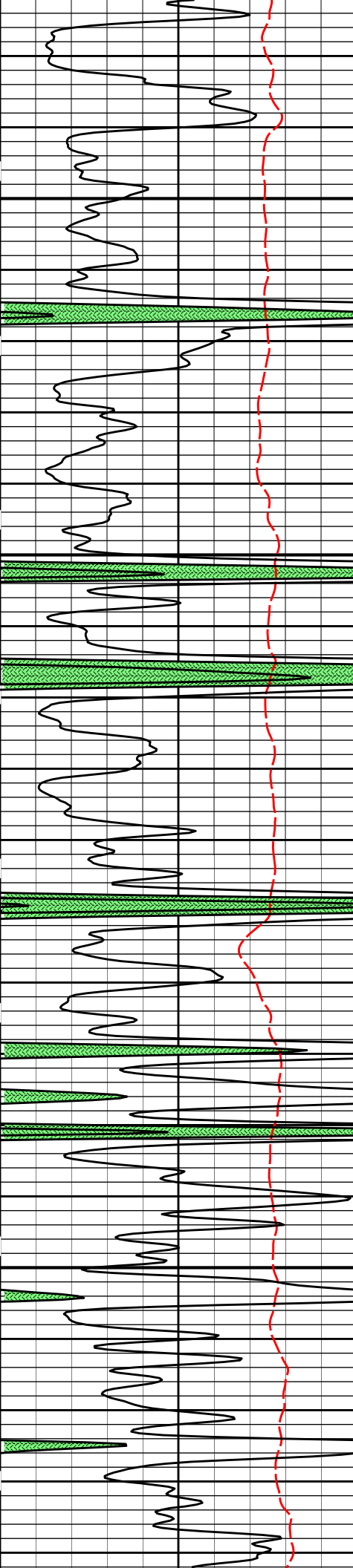
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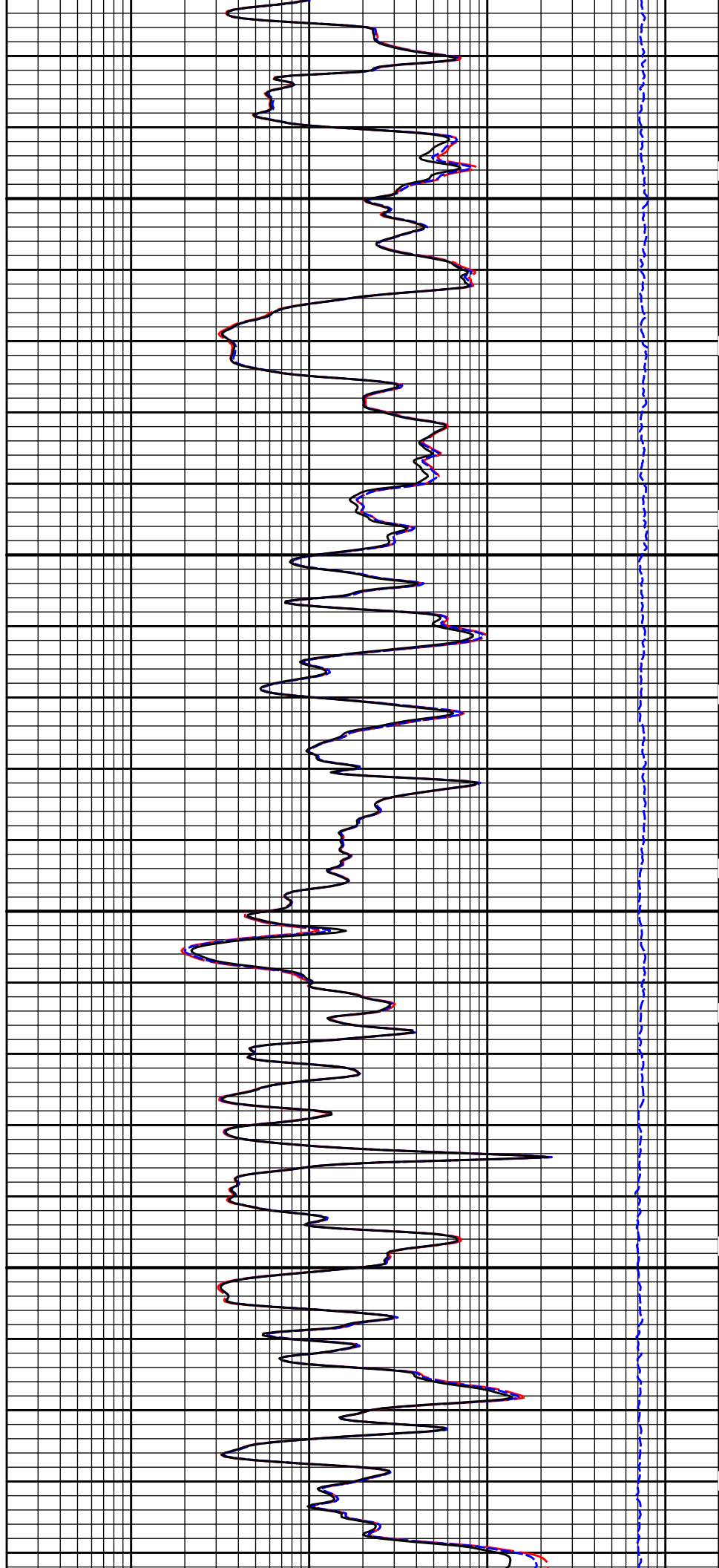


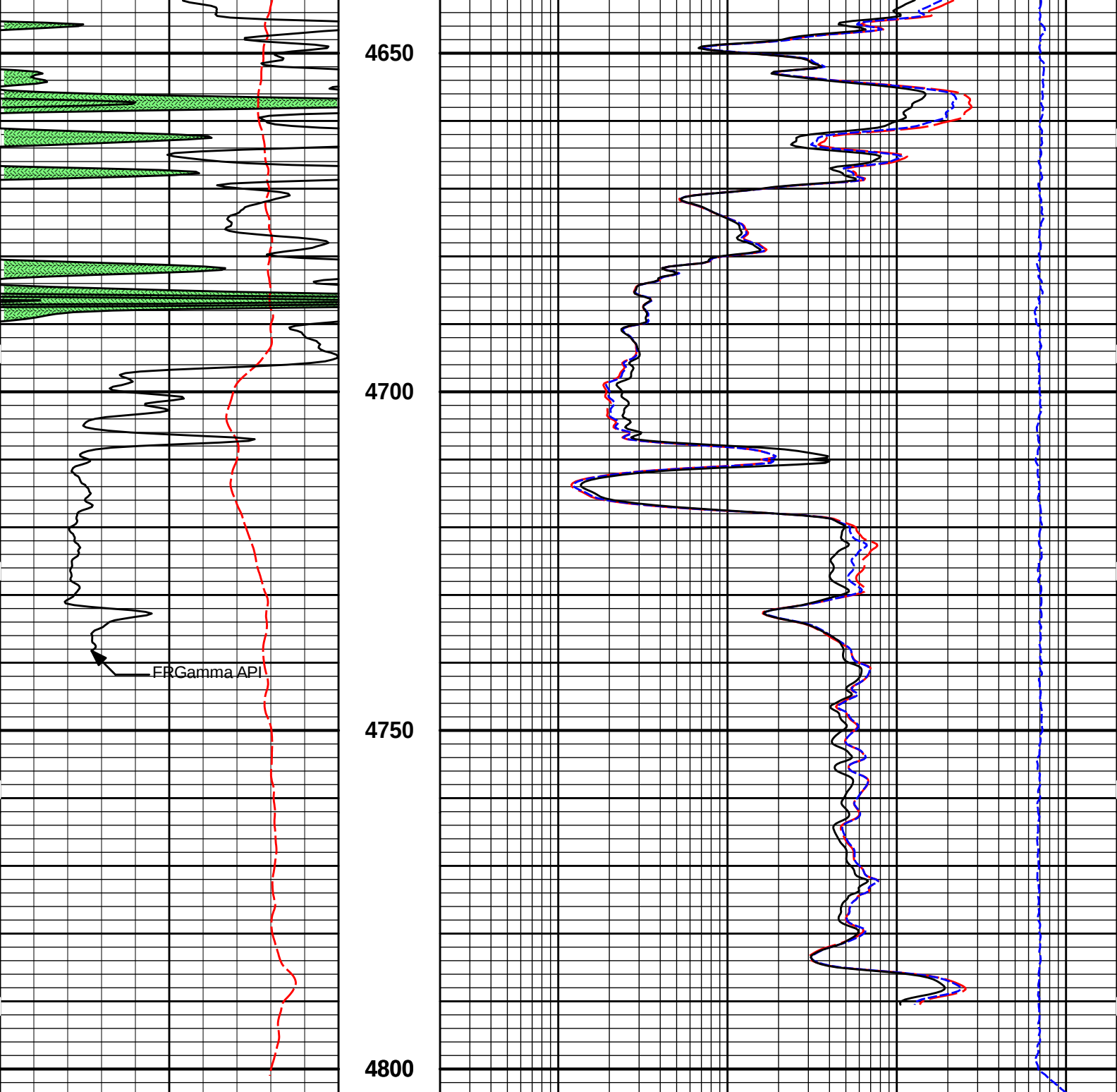
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4500

4550

4600





0	Gamma API	150	1 : 240	15K	Tension	0
	api		ft		pounds	
	SP		Tension Pull	0.2	20in Resistivity 2ft Res	2000
	-] 20 mV [+]	10	0		ohm-metre	
				0.2	60in Resistivity 2ft Res	2000
					ohmm	
				0.2	90in Resistivity 2ft Res	2000
					ohmm	

HALLIBURTON

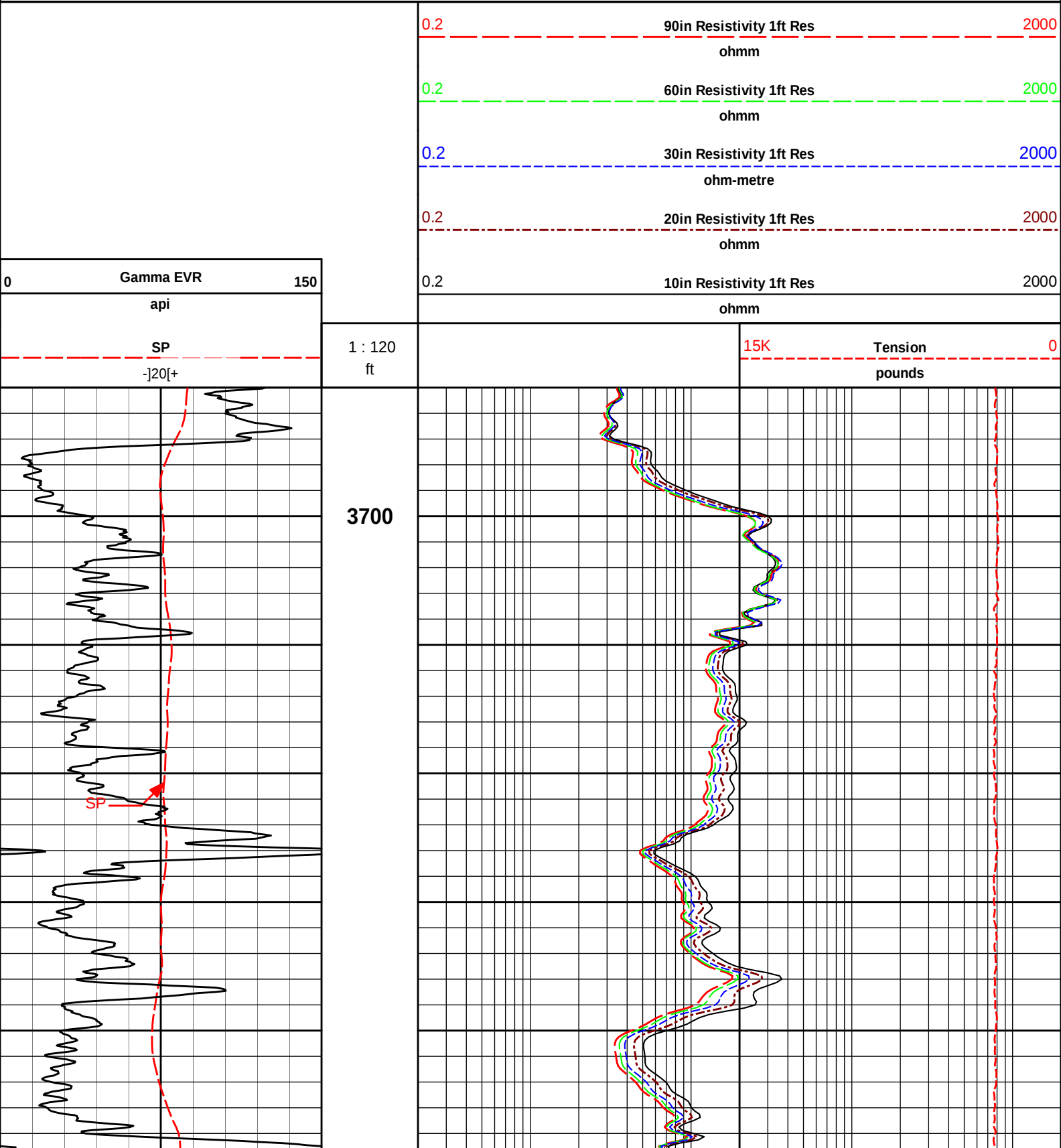
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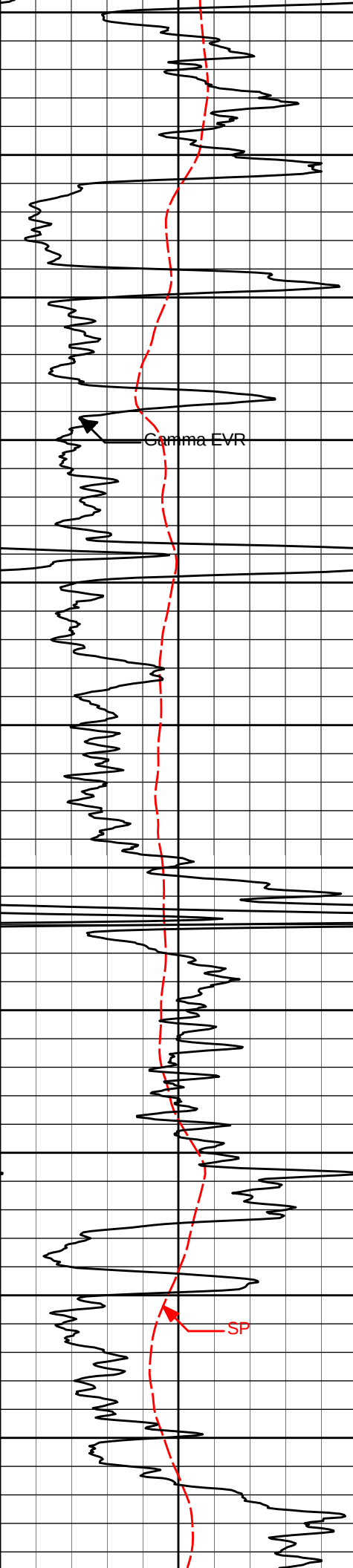
5 INCH MAIN LOG

HALLIBURTON

Plot Time: 03-Aug-14 13:45:16
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Data: ROSE_3_1\Well Based\DAQ-0001-003*
Plot File: \\-LOCAL-I\ROSE_3_1\0001 QUAD_BSAT\ACRT\ACRT_5_EVR_LIB

MAIN SECTION 10" PER 100'

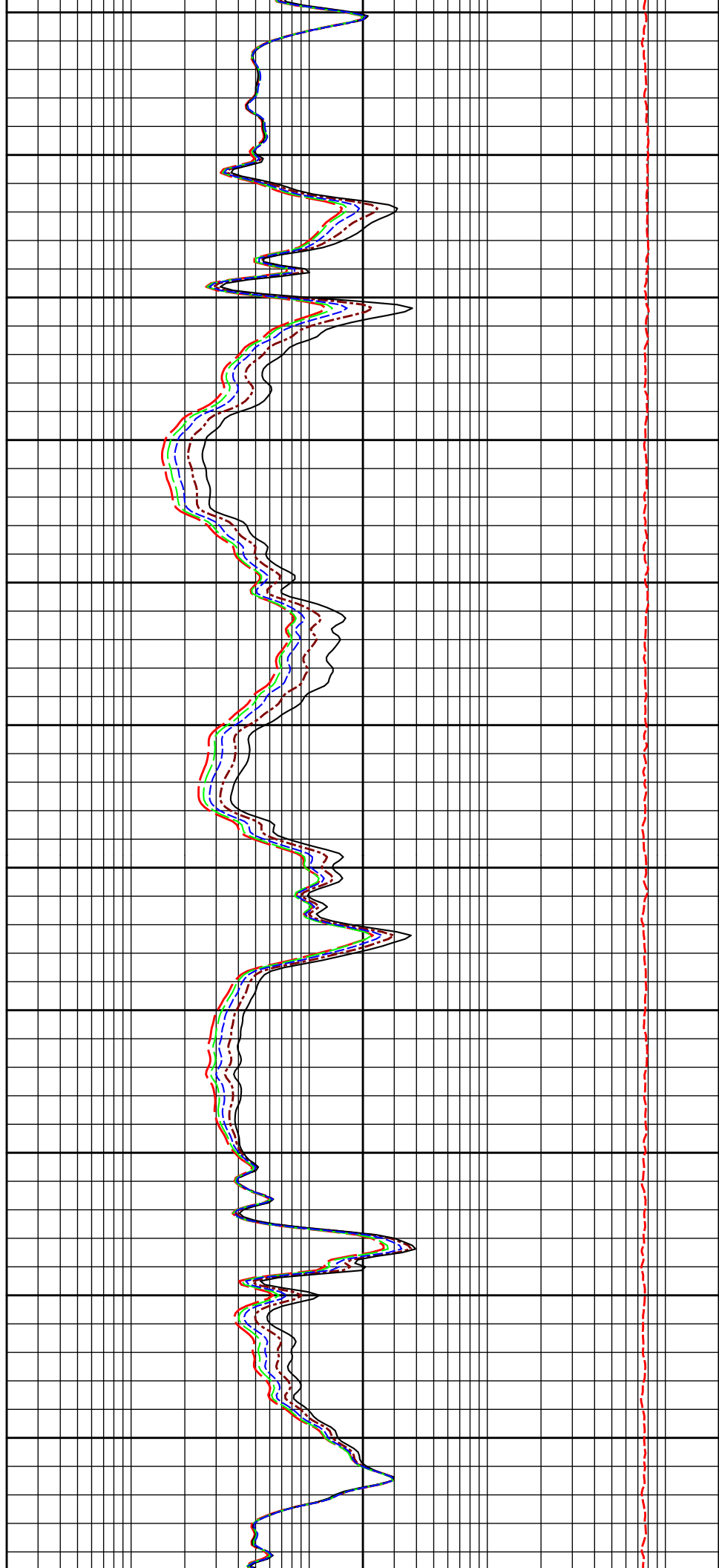


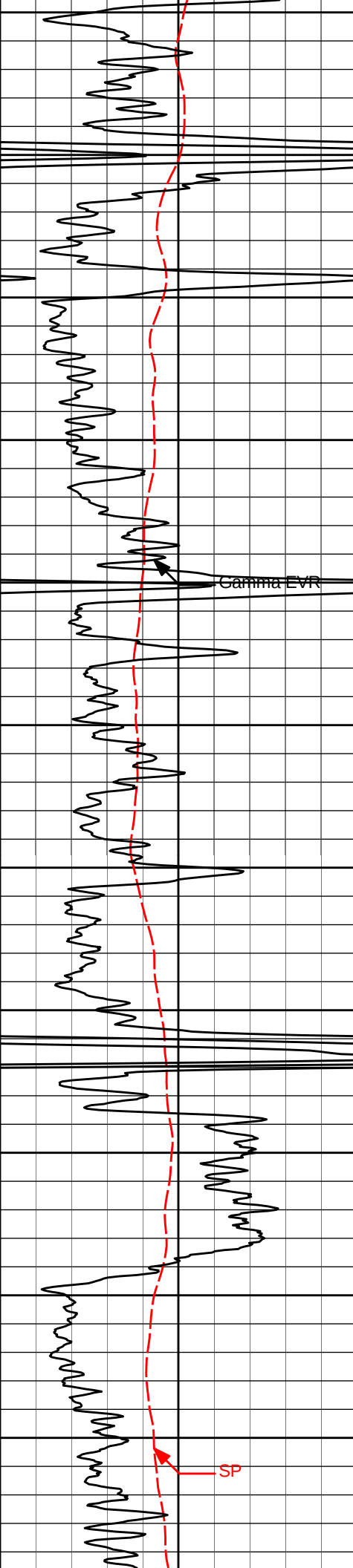


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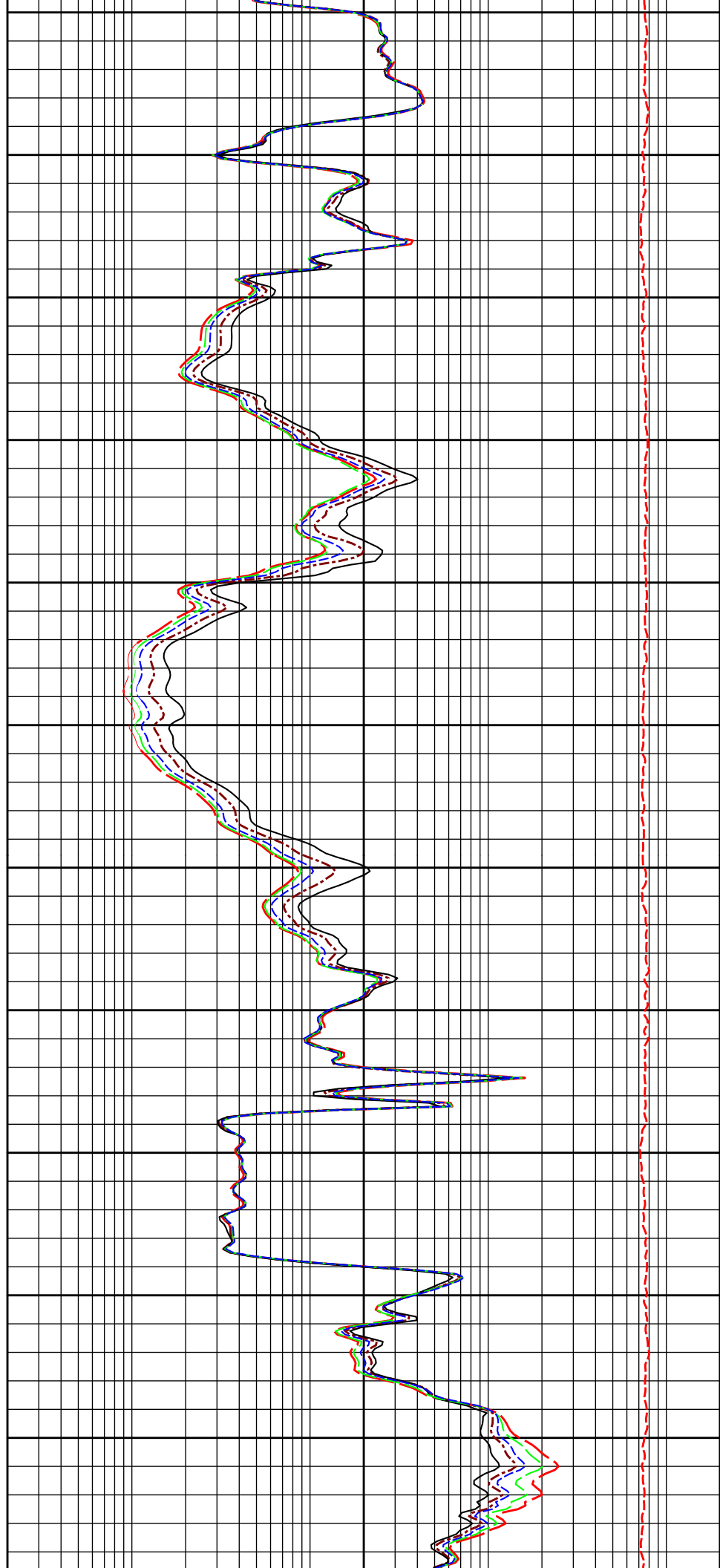
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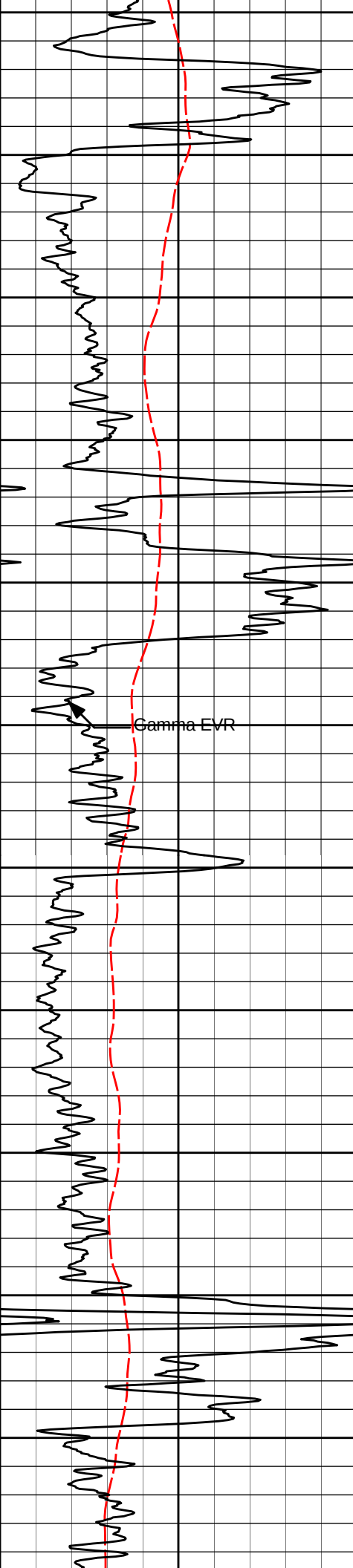




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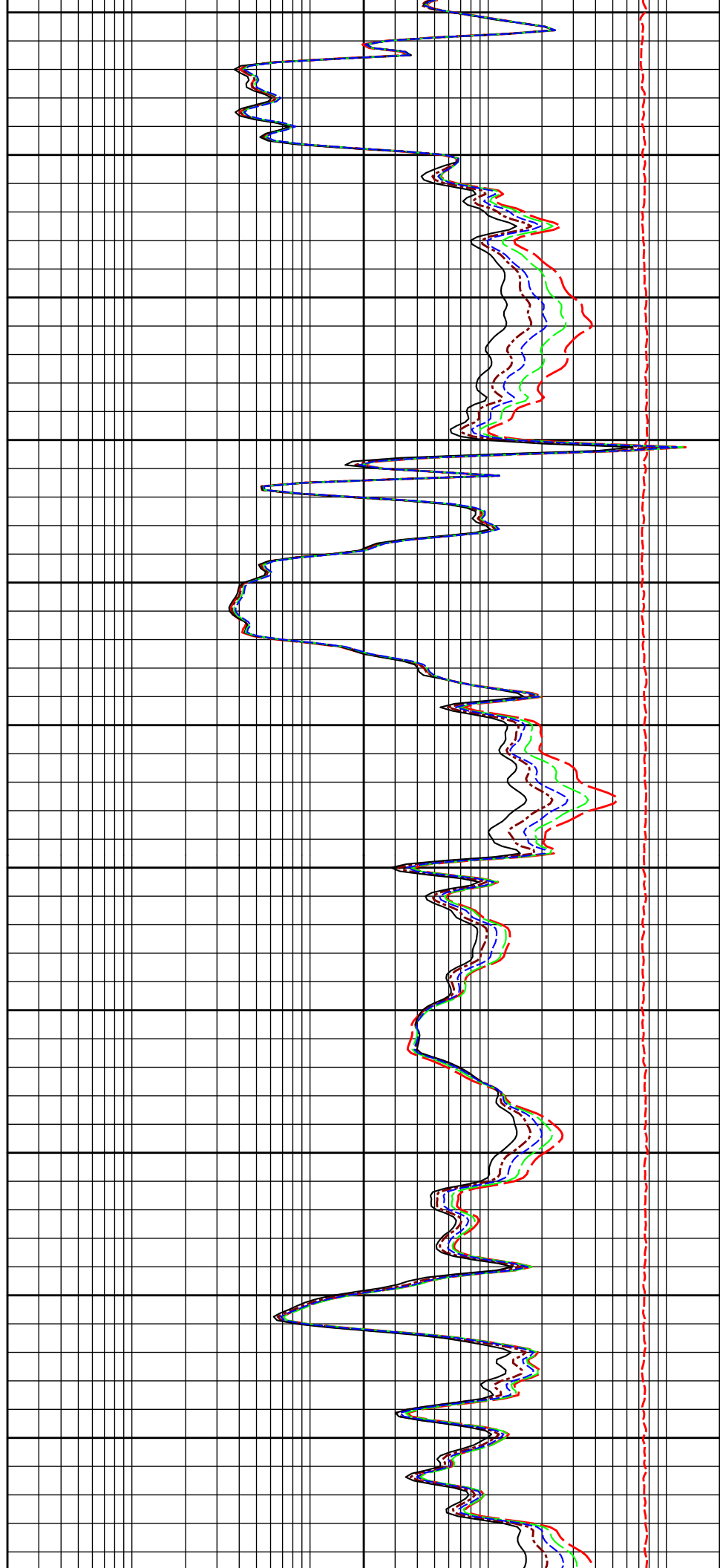


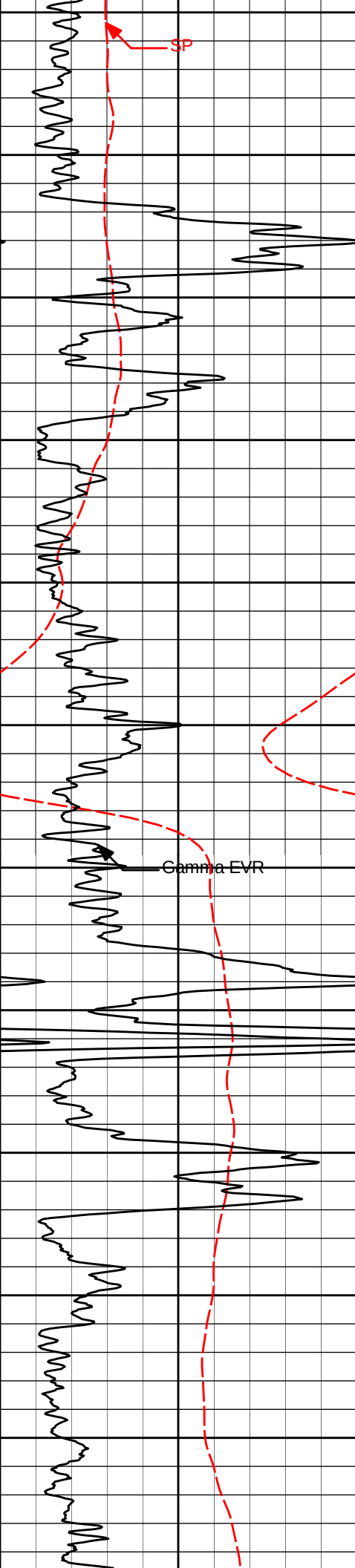


Gamma EVR

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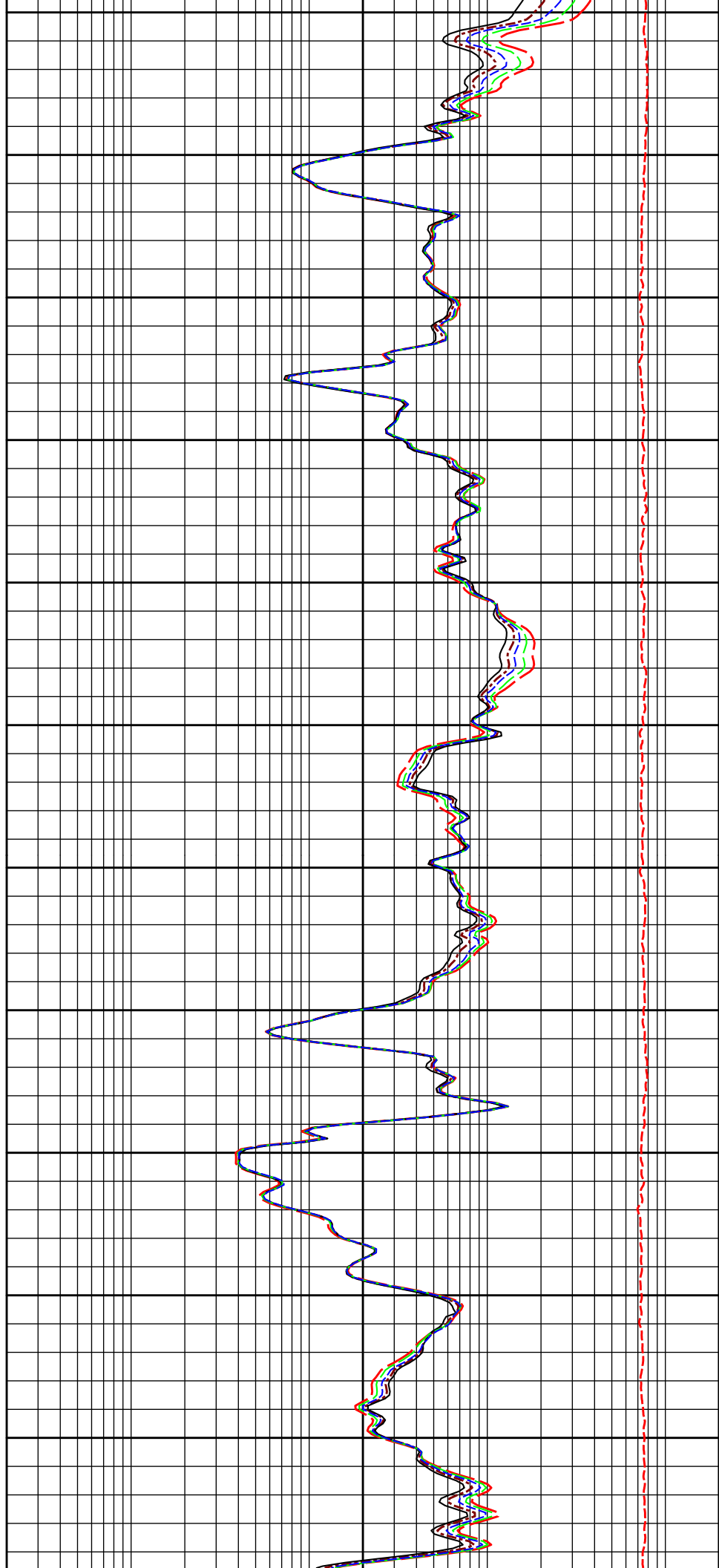
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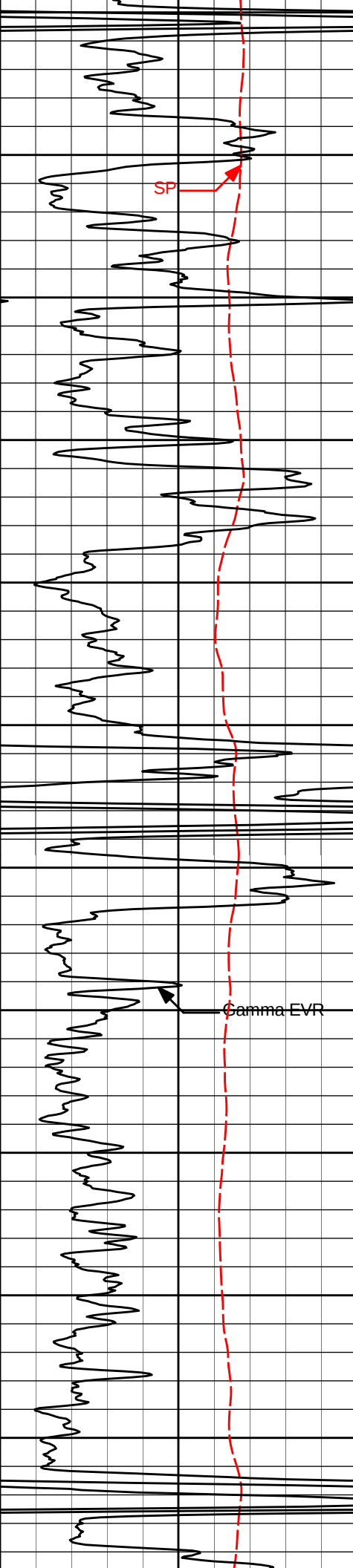




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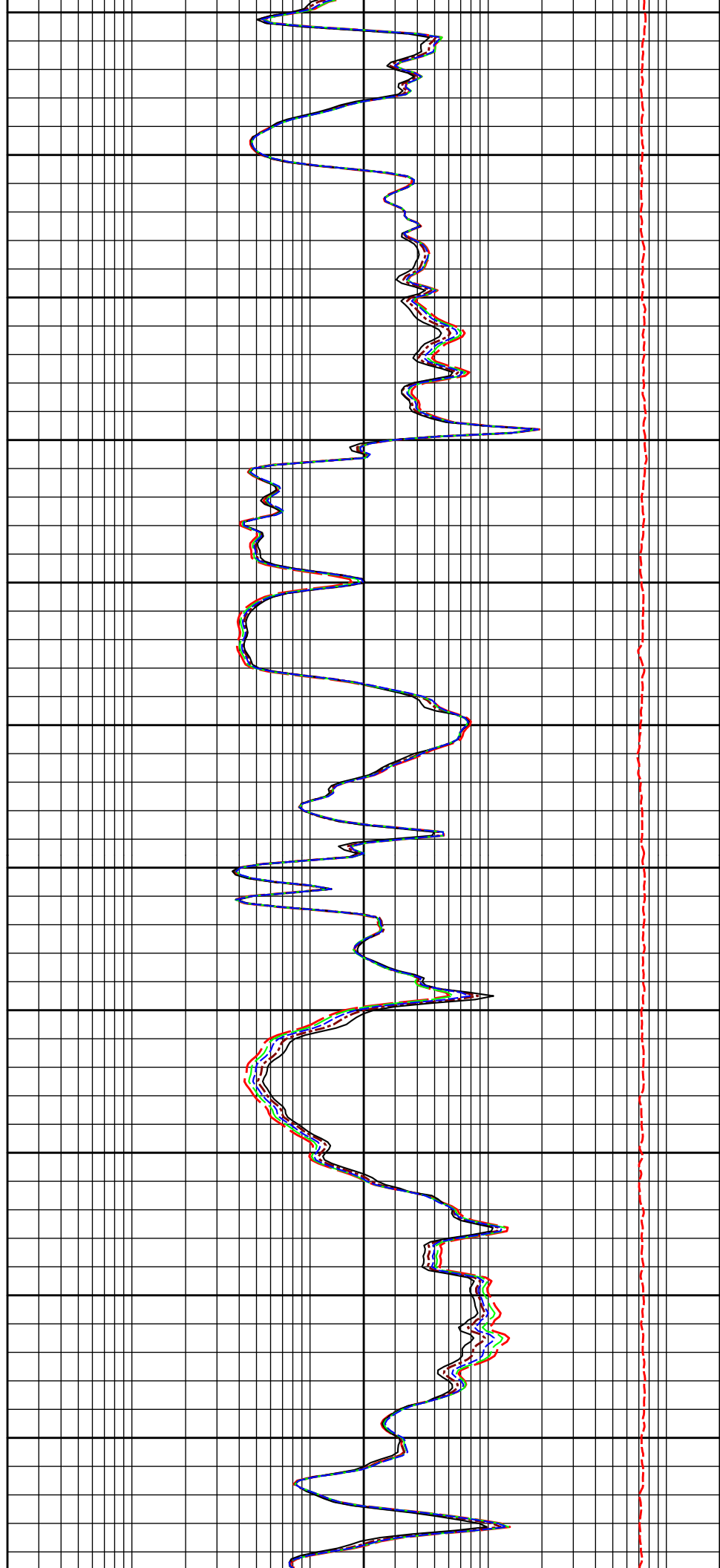


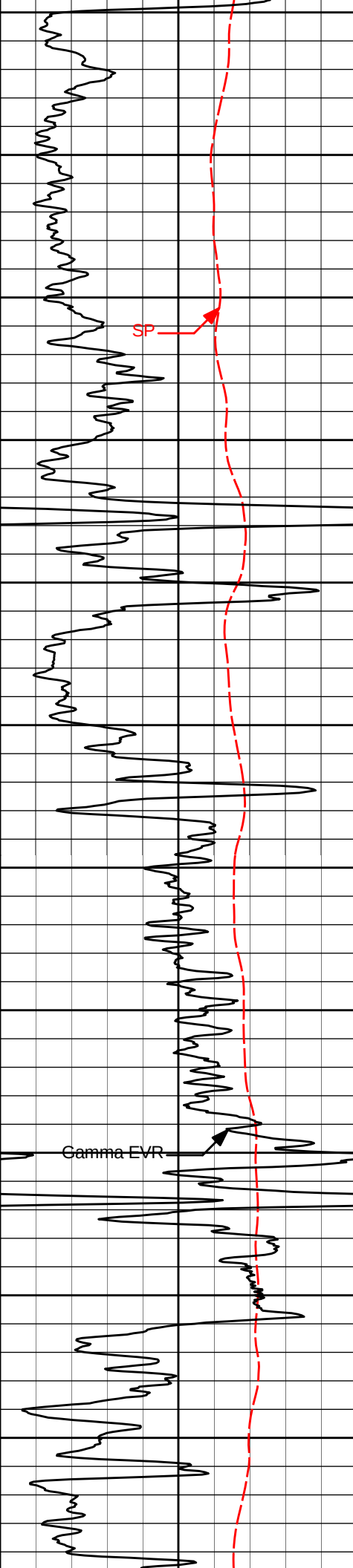


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Gamma-EVR

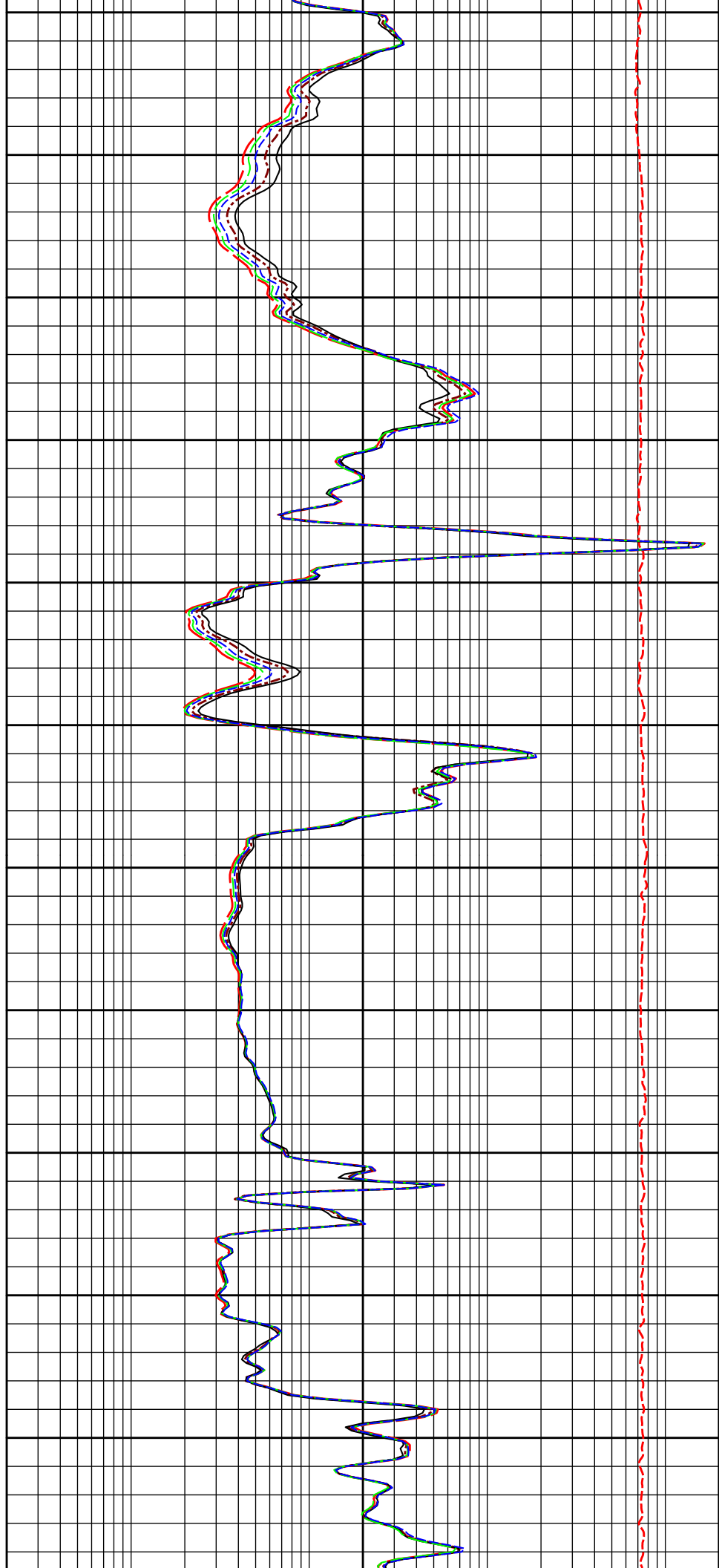




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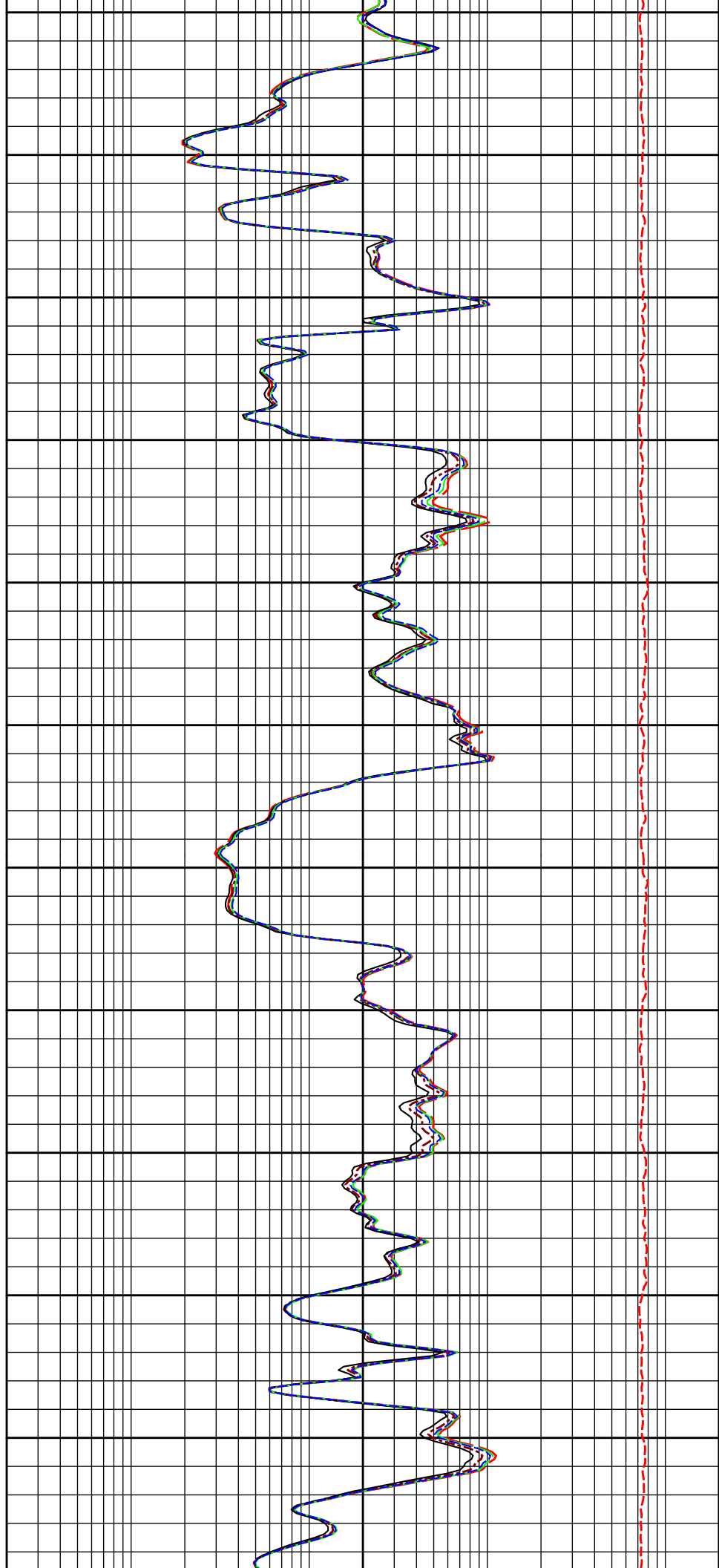
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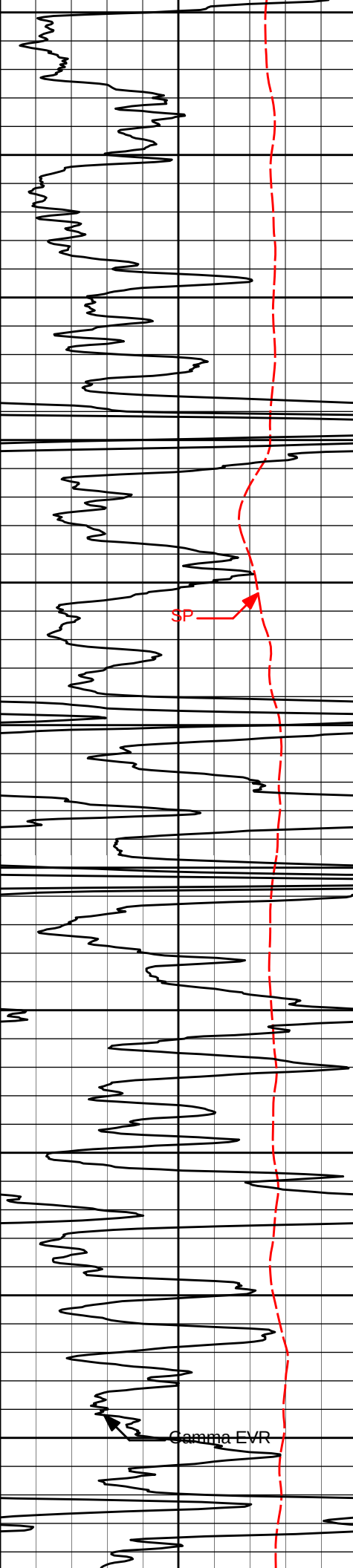




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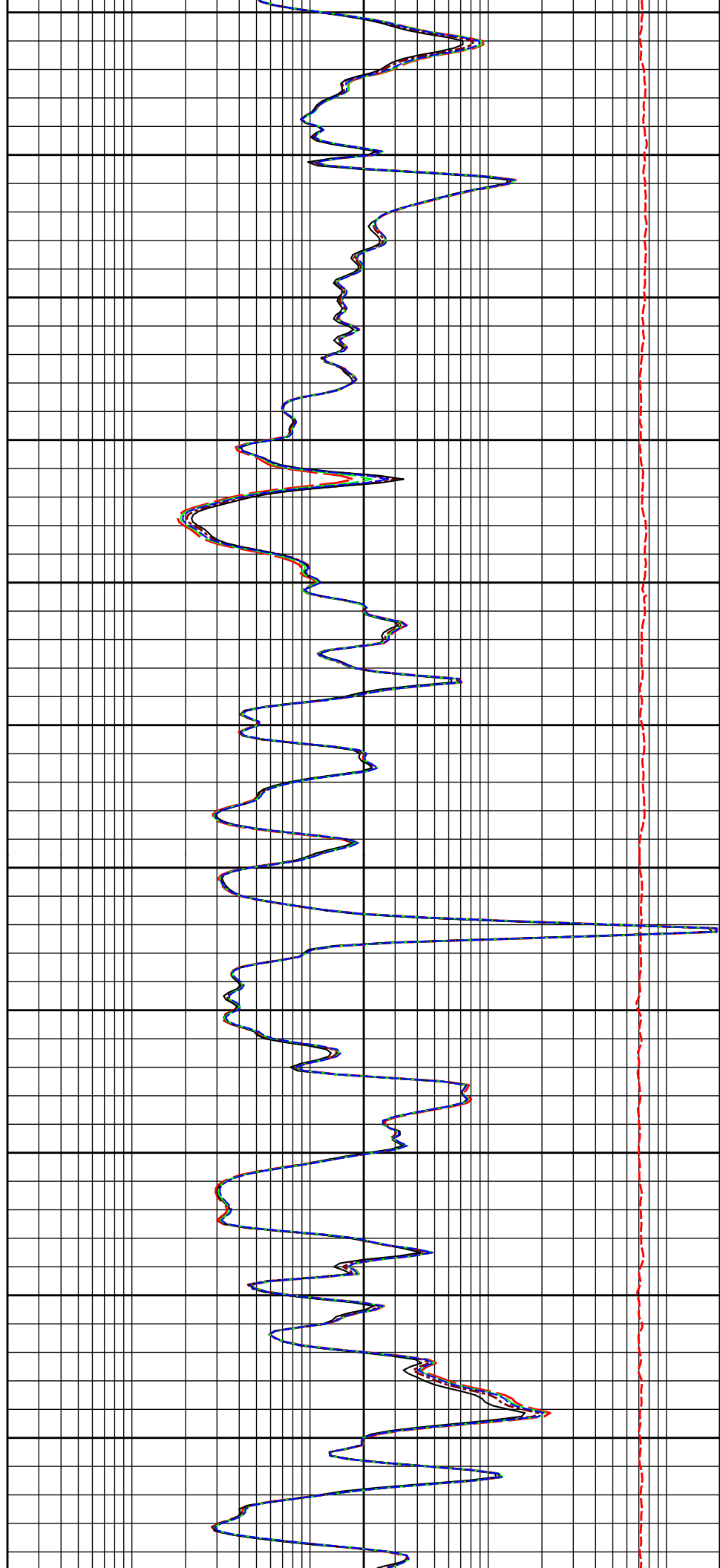
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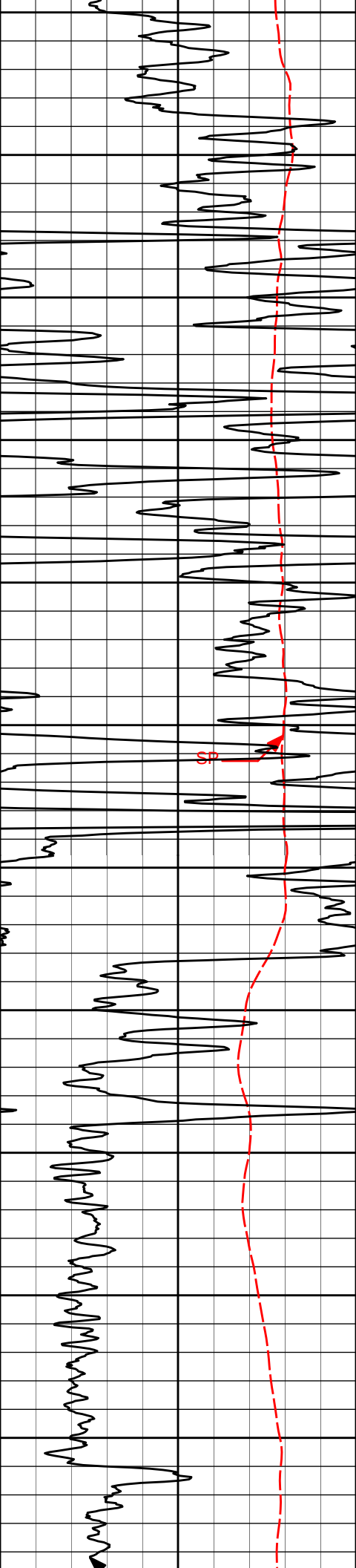




4550

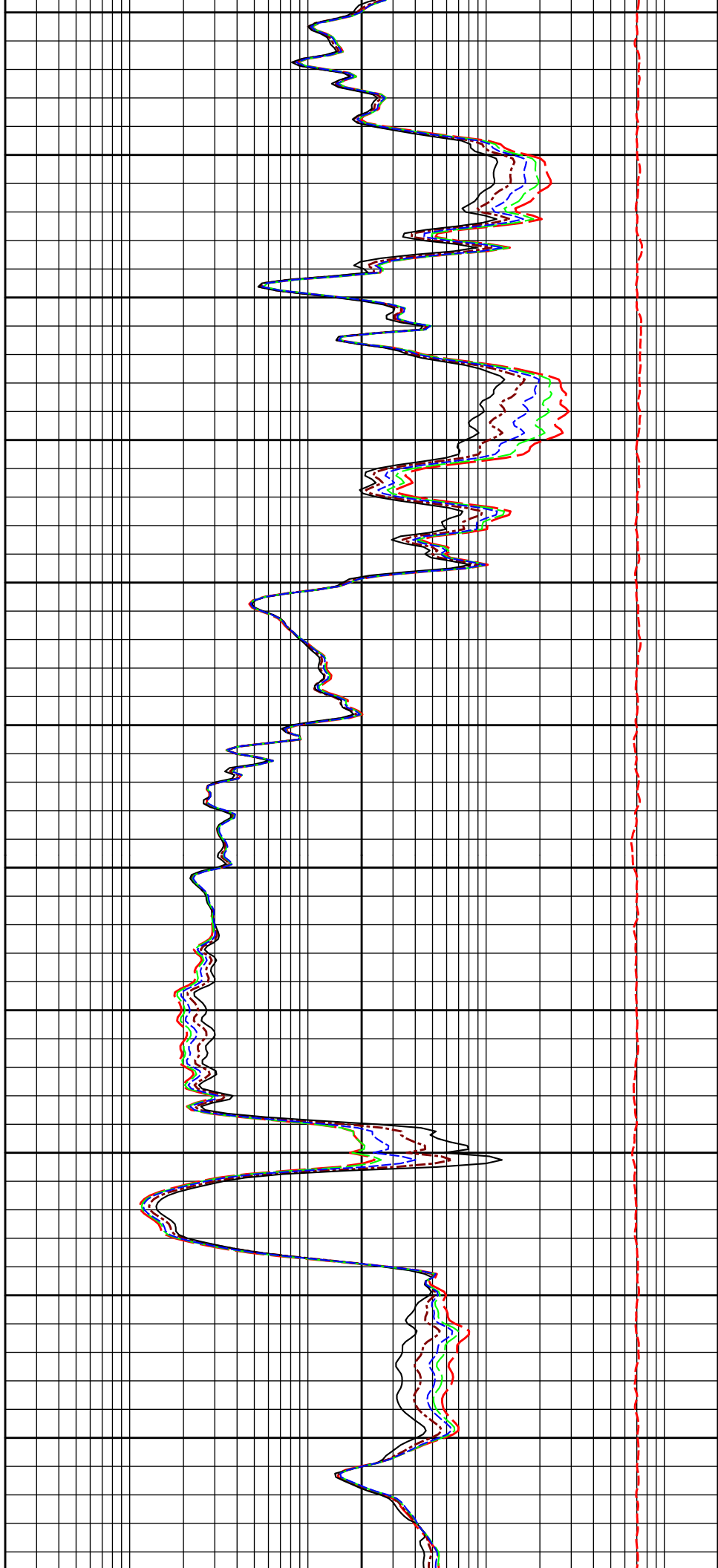
4600

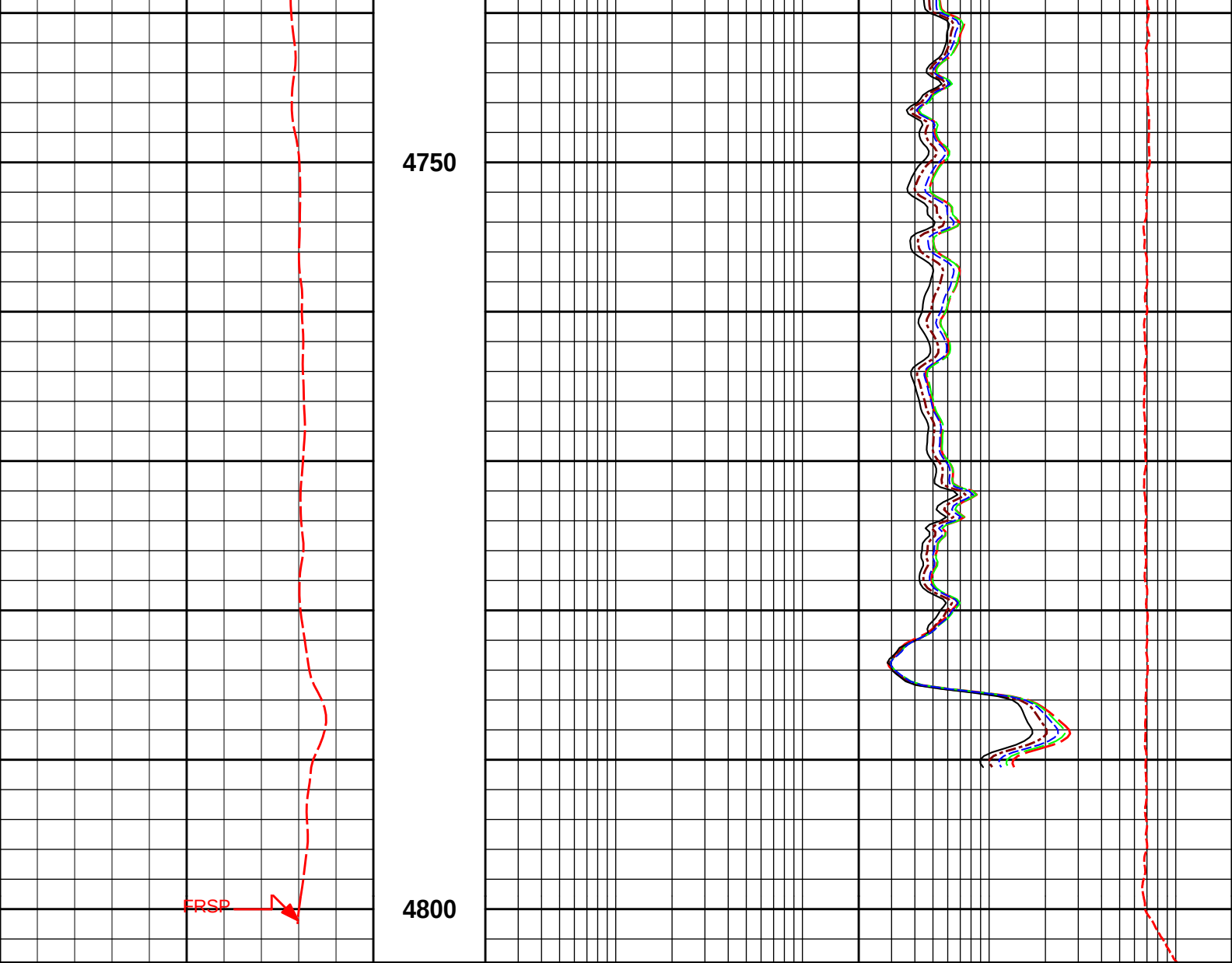




4650

4700





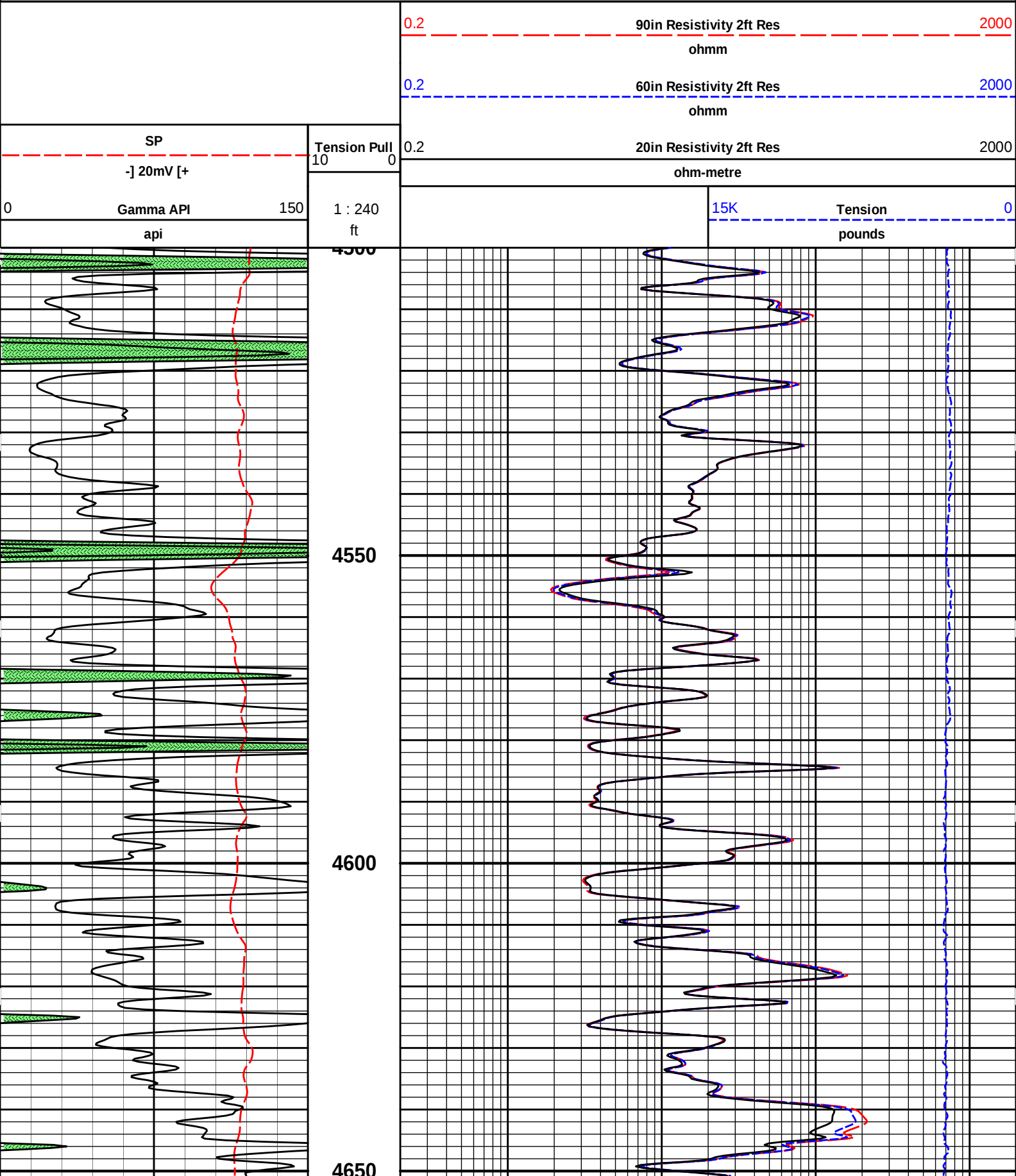
0	SP -]20[+ Gamma EVR api	1 : 120 ft	15K		Tension	0
					pounds	
			0.2	10in Resistivity 1ft Res		2000
			ohmm			
			0.2	20in Resistivity 1ft Res		2000
			ohmm			
			0.2	30in Resistivity 1ft Res		2000
			ohm-metre			
			0.2	60in Resistivity 1ft Res		2000
			ohmm			
			0.2	90in Resistivity 1ft Res		2000
			ohmm			

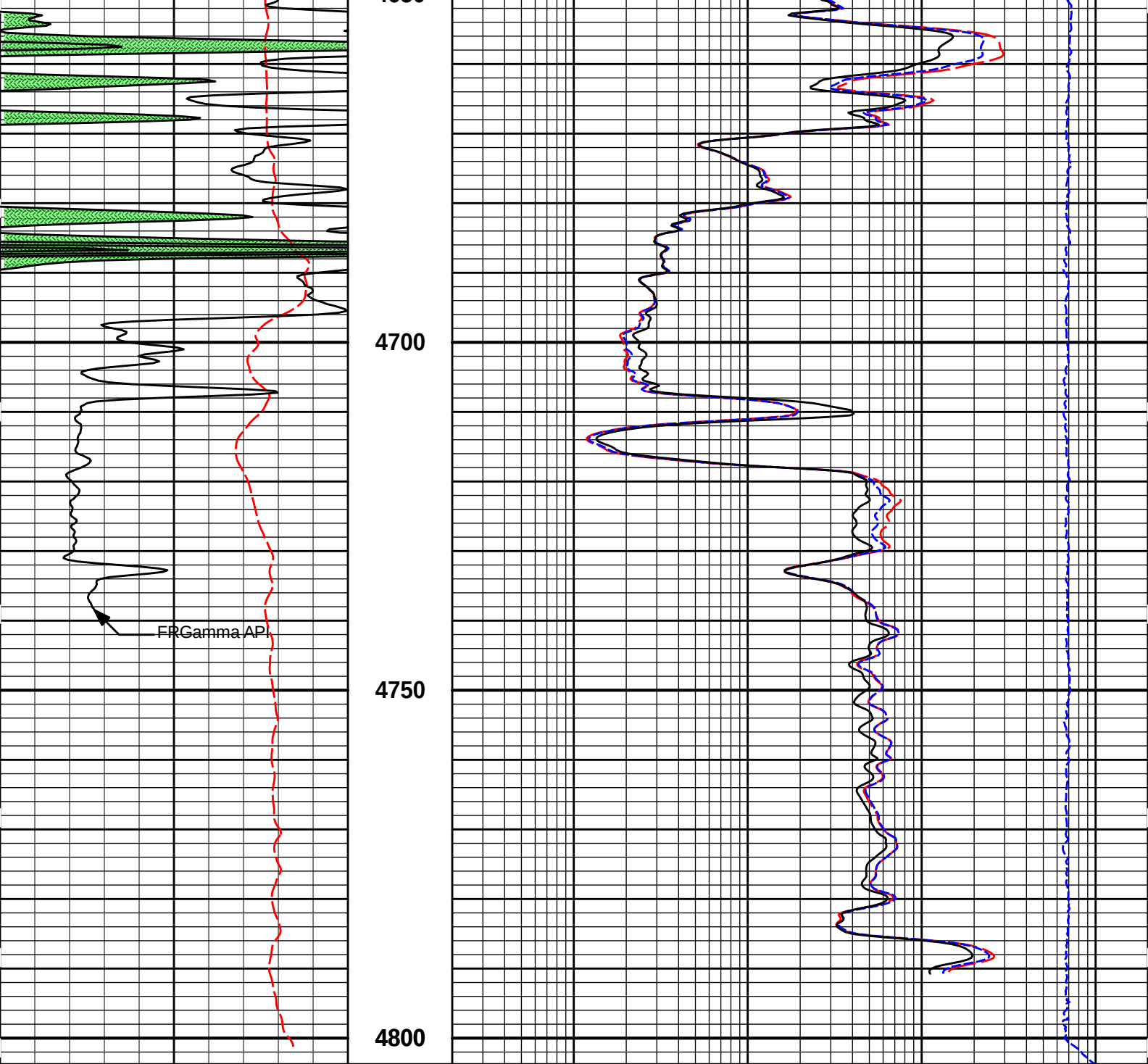
HALLIBURTON

Plot Time: 03-Aug-14 13:46:01
Plot Range: 3690 ft to 4803.58 ft
Data: ROSE_3_1\Well Based\DAQ-0001-003*
Plot File: \\-LOCAL-\\ROSE_3_1\0001 QUAD_BSAT\ACRT\ACRT_5_EVR_LIB

MAIN SECTION 10" PER 100'

REPEAT SECTION





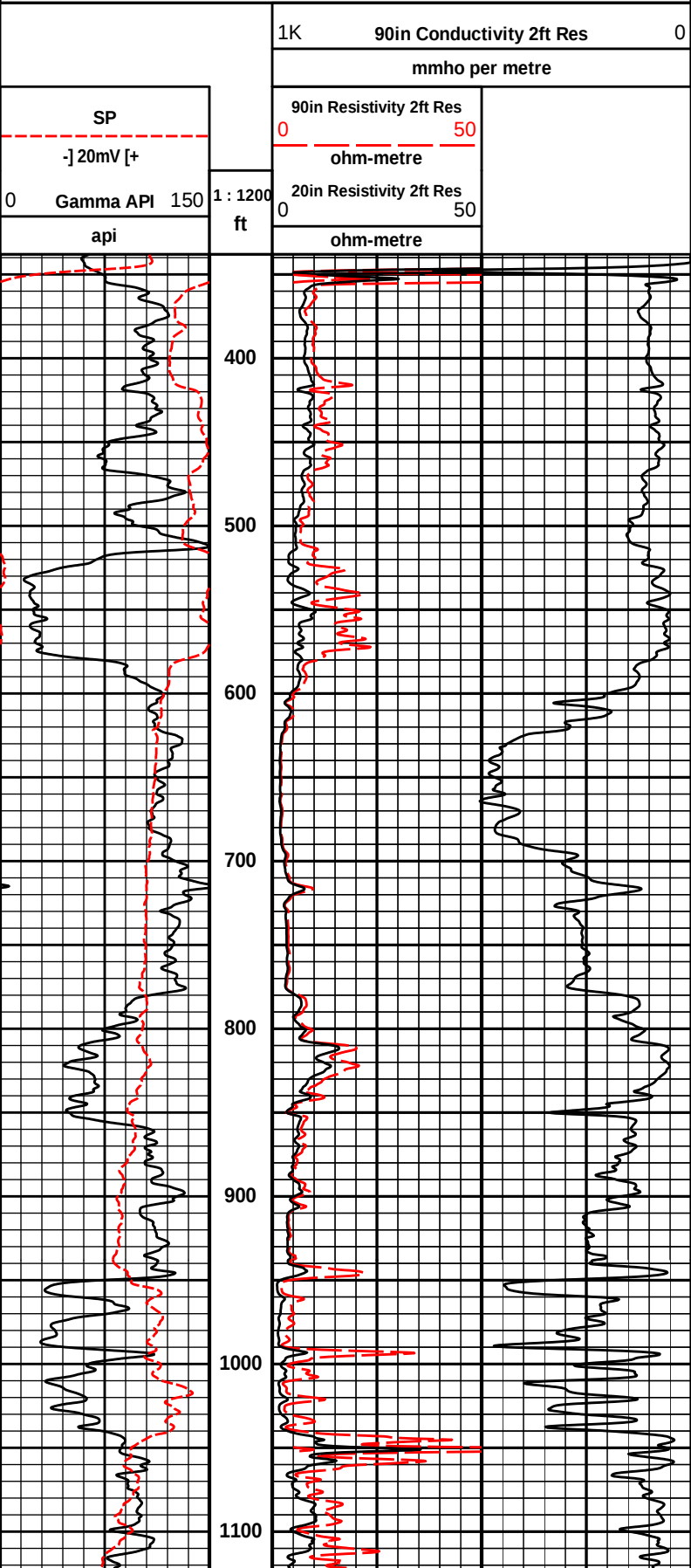
0	Gamma API	150	1 : 240 ft	15K	Tension pounds	0
	api					
	SP		Tension Pull 10	0.2	20in Resistivity 2ft Res	2000
	-] 20mV [+]			0.2	ohm-metre	
				0.2	60in Resistivity 2ft Res	2000
					ohmm	
				0.2	90in Resistivity 2ft Res	2000
					ohmm	

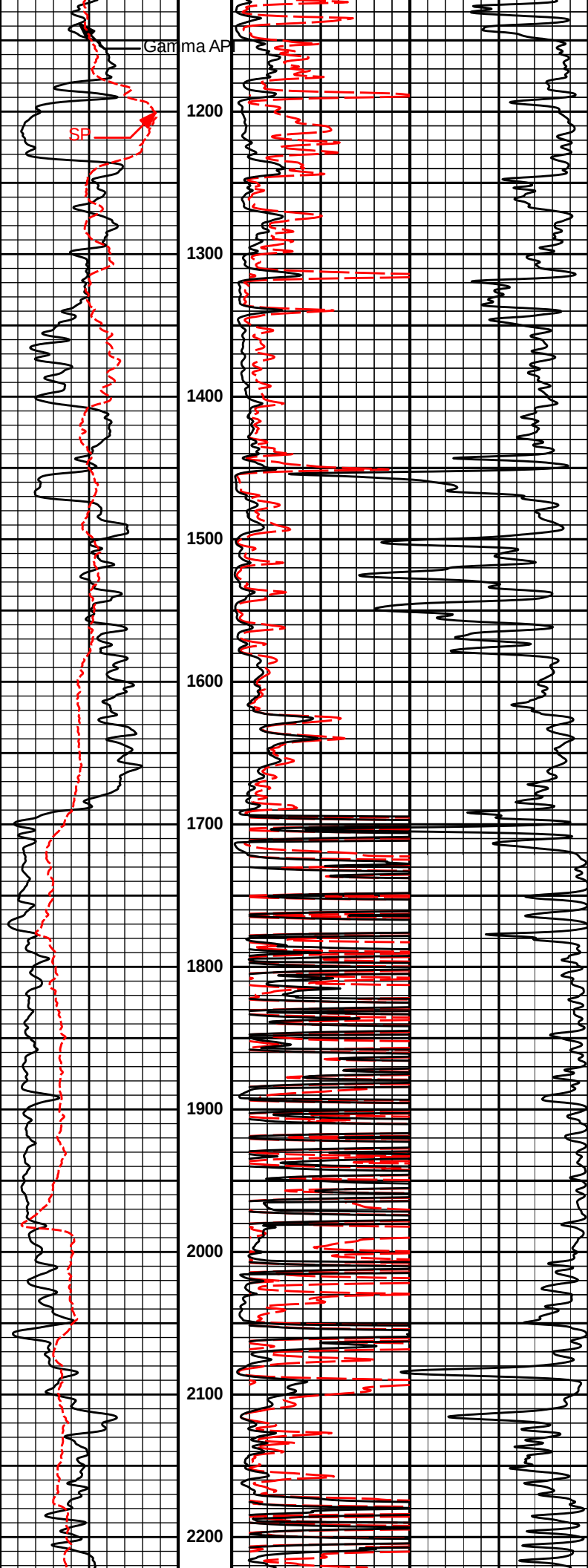
HALLIBURTON

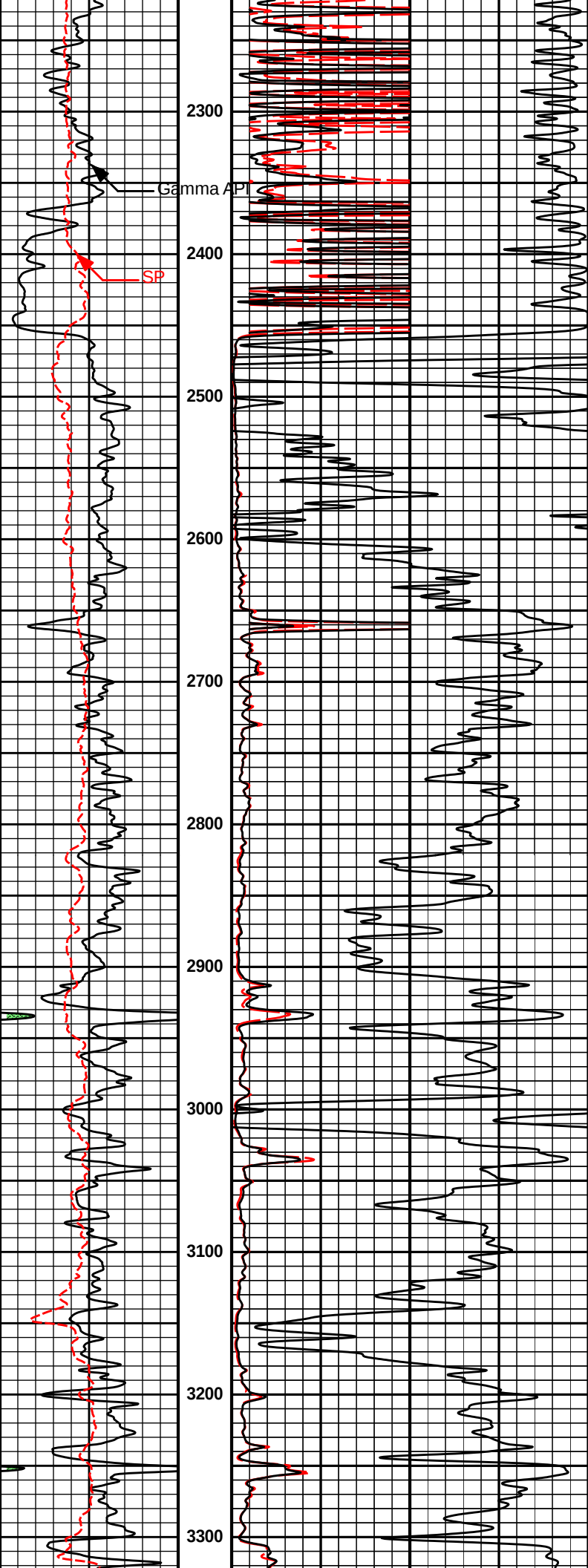
Plot Time: 03-Aug-14 13:46:02
Plot Range: 4500 ft to 4803.75 ft
Data: ROSE_3_1\Well Based\DAQ-0001-002\
Plot File: \\-LOCAL-\\ROSE_3_1\0001 QUAD_BSATI\ACRT11_ACRT_5_rptx

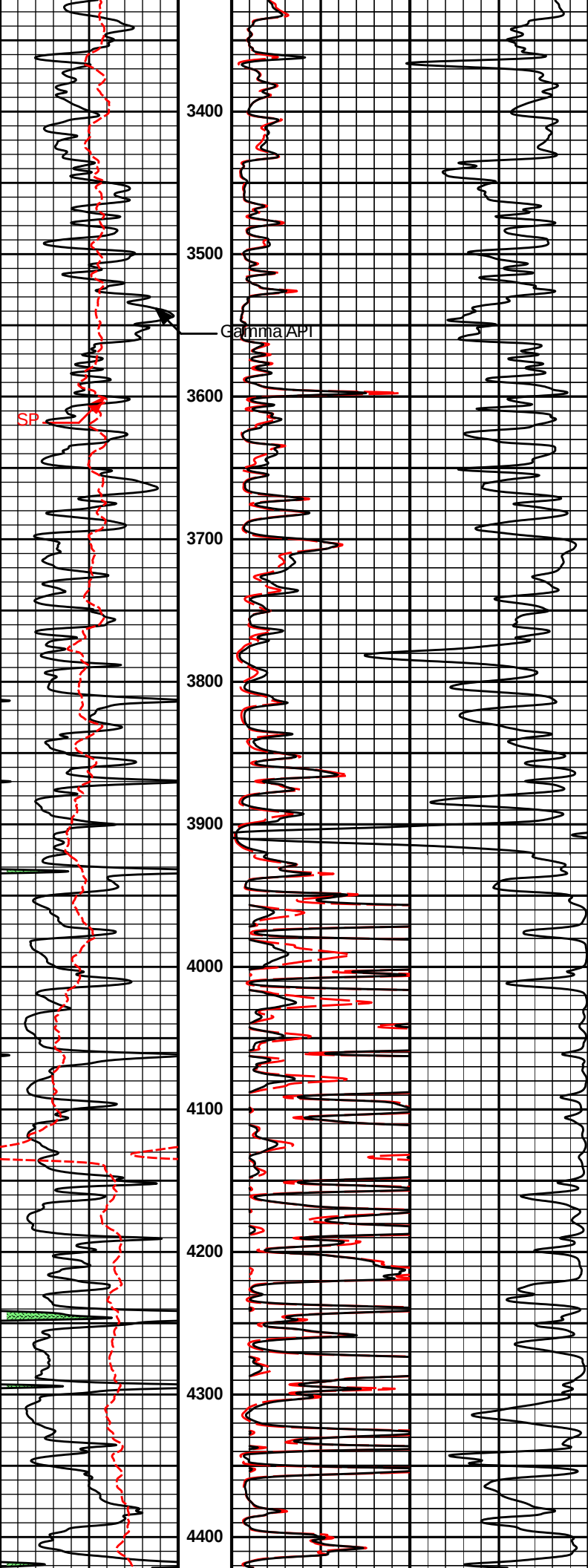
REPEAT SECTION

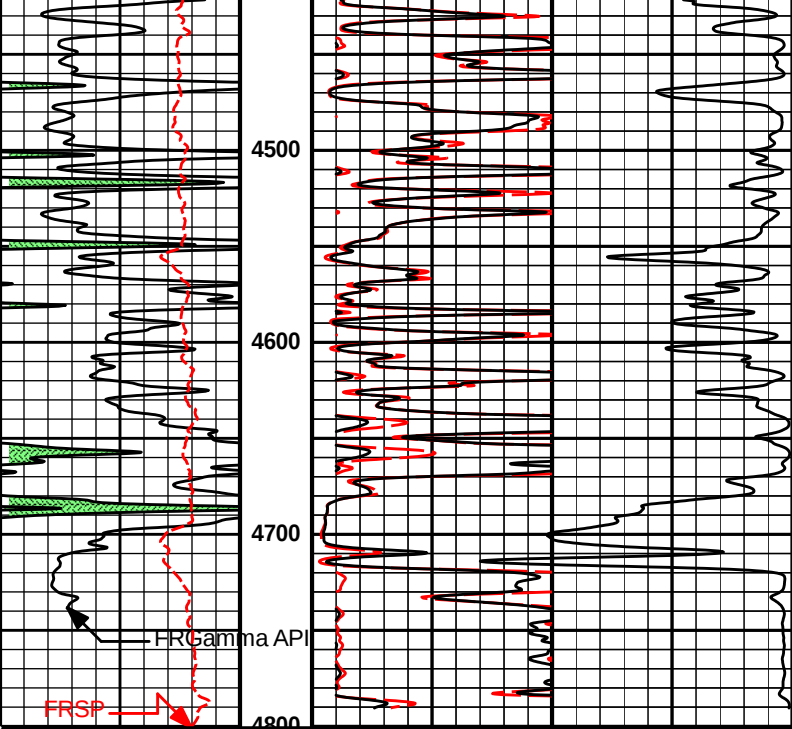
1 INCH MAIN LOG











0	Gamma API	150	1 : 1200	20in Resistivity 2ft Res	0	50
	api		ft	ohm-metre		
	SP			90in Resistivity 2ft Res	0	50
	-] 20mV [+]			ohm-metre		
				1K	90in Conductivity 2ft Res	0
					mmho per metre	

HALLIBURTON

Plot Time: 03-Aug-14 13:46:04
Plot Range: 338 ft to 4800.75 ft
ROSE_3_1\Well Based\...\n...
Plot File: \\...\n...1_ACRT_1inx

1 INCH MAIN LOG

HALLIBURTON

PARAMETERS REPORT

Depth (ft)	Tool Name	Mnemonic	Description	Value	Units
TOP					
	SHARED	BS	Bit Size	7.875	in
	SHARED	UBS	Use Bit Size instead of Caliper for all applications.	No	
	SHARED	MDBS	Mud Base	Water	
	SHARED	MDWT	Borehole Fluid Weight	10.400	ppg
	SHARED	WAGT	Weighting Agent	Barite	
	SHARED	BSAL	Borehole salinity	0.00	ppm
	SHARED	FSAL	Formation Salinity NaCl	0.00	ppm
	SHARED	KPCT	Percent K in Mud by Weight?	0.00	%
	SHARED	RMUD	Mud Resistivity	0.300	ohmm
	SHARED	TRM	Temperature of Mud	85.0	degF
	SHARED	CSD	Logging Interval is Cased?	No	
	SHARED	ICOD	AHV Casing OD	5.500	in
	SHARED	ST	Surface Temperature	75.0	degF
	SHARED	TD	Total Well Depth	4800.00	ft

SHARED	TD	Total Well Depth	1000.00	ft
SHARED	BHT	Bottom Hole Temperature	130.0	degF
SHARED	SVTM	Navigation and Survey Master Tool	NONE	
SHARED	AZTM	High Res Z Accelerometer Master Tool	GTET	
SHARED	TEMM	Temperature Master Tool	NONE	
Rwa / CrossPlot	XPOK	Process Crossplot?	Yes	
Rwa / CrossPlot	FCHO	Select Source of F	Automatic	
Rwa / CrossPlot	AFAC	Archie A factor	0.6200	
Rwa / CrossPlot	MFAC	Archie M factor	2.1500	
Rwa / CrossPlot	RMFR	Rmf Reference	0.10	ohmm
Rwa / CrossPlot	TMFR	Rmf Ref Temp	75.00	degF
Rwa / CrossPlot	RWA	Resistivity of Formation Water	0.05	ohmm
Rwa / CrossPlot	ADP	Use Air Porosity to calculate CrossplotPhi	No	
Rwa / CrossPlot	BHSM	Borehole Size Source Tool	SDLT	
GTET	GROK	Process Gamma Ray?	Yes	
GTET	GRSO	Gamma Tool Standoff	0.000	in
GTET	GEOK	Process Gamma Ray EVR?	Yes	
GTET	TPOS	Tool Position for Gamma Ray Tools.	Eccentered	
GTET	BHSM	Borehole Size Source Tool	SDLT	
DSNT	DNOK	Process DSN?	Yes	
DSNT	DEOK	Process DSN EVR?	Yes	
DSNT	NLIT	Neutron Lithology	Limestone	
DSNT	DNSO	DSN Standoff - 0.25 in (6.35 mm) Recommended	0.250	in
DSNT	DNTP	Temperature Correction Type	None	
DSNT	DPRS	DSN Pressure Correction Type	None	
DSNT	SHCO	View More Correction Options	No	
DSNT	UTVD	Use TVD for Gradient Corrections?	No	
DSNT	LHWT	Logging Horizontal Water Tank?	No	
DSNT	BHSM	Borehole Size Source Tool	SDLT	
SDLT	CLOK	Process Caliper Outputs?	Yes	
SDLT Pad	DNOK	Process Density?	Yes	
SDLT Pad	DNOK	Process Density EVR?	Yes	
SDLT Pad	CB	Logging Calibration Blocks?	No	
SDLT Pad	SPVT	SDLT Pad Temperature Valid?	Yes	
SDLT Pad	DTWN	Disable temperature warning	No	
SDLT Pad	DMA	Formation Density Matrix	2.710	g/cc
SDLT Pad	DFL	Formation Density Fluid	1.000	g/cc
SDLT Pad	BHSM	Borehole Size Source Tool	SDLT	
Microlog Pad	MLOK	Process MicroLog Outputs?	Yes	
BSAT	MBOK	Compute BCAS Results?	Yes	
BSAT	FLLO	Frequency Filter Low Pass Value?	5000	Hz
BSAT	FLHI	Frequency Filter High Pass Value?	27000	Hz
BSAT	DTFL	Delta -T Fluid	189.00	uspf
BSAT	DTMT	Delta -T Matrix Type	Limestone 47.5	
BSAT	DTSH	Delta -T Shale	100.00	uspf
BSAT	SPEQ	Acoustic Porosity Equation	Wylie	
ACRt Sonde	RTOK	Process ACRt?	Yes	
ACRt Sonde	MNSO	Minimum Tool Standoff	1.50	in
ACRt Sonde	TCS1	Temperature Correction Source	FP Lwr & FP Up	
ACRt Sonde	TPOS	Tool Position	Free Hanging	
ACRt Sonde	RMOP	Rmud Source	Mud Cell	

ACRt Sonde	RMIN	Minimum Resistivity for MAP	0.20	ohmm
ACRt Sonde	THQY	Threshold Quality	0.50	
ACRt Sonde	MRFX	Fixed mud resistivity	2000	ohmm
ACRt Sonde	BHSM	Borehole Size Source Tool	SDLT	
BOTTOM_____				
Data: ROSE_3_110001 QUAD_BSAT1003 03-Aug-14 09:56 Up @4803.8f			Date: 03-Aug-14 11:56:04	

HALLIBURTON

CALIBRATION REPORT

NATURAL GAMMA RAY TOOL SHOP CALIBRATION				
Tool Name:	GTET - 11013114	Reference Calibration Date:	17-Mar-14 06:39:24	
Engineer:	CHRIS MARLOWE	Calibration Date:	03-Aug-14 08:05:20	
Software Version:	WL INSITE R4.2.0 (Build 2)	Calibration Version:	1	

Calibrator Source S/N: 150				
Calibrator API Reference:264.00 api				
Equivalent Calibrator API Reference:268.6 api				
Measurement	Measured	Calibrated	Units	
Background	45.6	44.4	api	
Background + Calibrator	321.9	313.0	api	
Calibrator	276.2	268.6	api	

NATURAL GAMMA RAY TOOL FIELD CALIBRATION				
Tool Name:	GTET - 11013114	Reference Calibration Date:	03-Aug-14 08:05:20	
Engineer:	CHRIS MARLOWE	Calibration Date:	03-Aug-14 08:08:41	
Software Version:	WL INSITE R4.2.0 (Build 2)	Calibration Version:	1	

Calibrator Source S/N: 150				
Calibrator API Reference:264.00 api				
Equivalent Calibrator API Reference:268.6 api				
Field Verification	Shop	Field	Units	
Background	44.4	44.3	api	
Background + Calibrator	313.0	309.6	api	
Calibrator	268.6	265.3	api	
Shop	Field	Difference	Tolerance	
268.6	265.3	3.3	+/- 9.00	

DENSITY CALIPER SHOP CALIBRATION			
Tool Name:	SDLT - 10960494	Reference Calibration Date:	01-Jan-70 00:00:00
Engineer:	Jeremy Cothren	Calibration Date:	13-Jul-14 14:48:10
Software Version:	WL INSITE R4.2.0 (Build 2)	Calibration Version:	1
Host Tool Name:	DSNT - 11019641_PLEASE		

CALIBRATION COEFFICIENTS				
Measurement	Previous Value	New Value	Control Limit On New Value	
Pad Offset	-2813.20	-2813.20	-7000.00 - -1000.00	
Pad Gain	0.0003699	0.0003699	0.000200 - 0.000600	
Arm Offset	-1093.04	-1093.04	-5000.00 - 3000.00	
Arm Gain	0.0005299	0.0005299	0.000300 - 0.000700	

Arm Gain0.000052990.000052990.0000500 - 0.0000700

Arm Power-0.000005875-0.000005875-0.000010000 - 0.000010000

The ring diameter is computed from: DIAMETER = PAD EXTENSION + ARM EXTENSION + TOOL DIAMETER

Tool Diameter: 4.50 in

CALIBRATION RINGS					
Measurement	Current Reading (Previous Coeff.)	Calibrated (New Coeff.)	Change	Control Limit On New Value	
PAD EXTENSION:					
Small Ring (in)	2.00	2.00	0.00	+/- 0.20	
Medium Ring (in)	3.75	3.75	0.00	+/- 0.20	
RING DIAMETER:					
Small Ring (in)	6.50	6.50	0.00	+/- 0.20	
Medium Ring (in)	8.25	8.25	0.00	+/- 0.20	
Large Ring (in)	15.00	15.00	0.00	+/- 0.20	

PASS/FAIL SUMMARY	
Calibration-Coefficients Range Check:	Passed
Ring-Measurement Check:	Passed
PASS/FAIL SUMMARY	
Calibration-Coefficients Range Check:	Passed

SDLT CALIPER FIELD CALIBRATION

Tool Name:	SDLT - 10960494	Reference Calibration Date:	13-Jul-14 14:48:10
Engineer:	CHRIS MARLOWE	Calibration Date:	03-Aug-14 08:09:34
Software Version:	WL INSITE R4.2.0 (Build 2)	Calibration Version:	1

MEASURED CALIPER VALUES				
Measurement	Shop	Field	Change	Control Limit On New Value
Pad Extension	3.75	3.66	-0.09	+/- 0.10
Ring Diameter	8.25	8.27	0.02	+/- 0.15

PASS/FAIL SUMMARY	
Pad Extension Check:	Passed
Diameter Check:	Passed

ARRAY COMPENSATED TRUE RESISTIVITY SHOP CALIBRATION

Tool Name:	ACRt Sonde - 11005908	Reference Calibration Date:	11-Jun-14 13:10:29
Engineer:	ARK	Calibration Date:	11-Jun-14 13:17:58
Software Version:	WL INSITE R4.2.0 (Build 2)	Calibration Version:	1
Host Tool Name:	ACRt Instrument - 11026095		

TYPICAL GAIN RANGE

Subarray	R12KHz			R36KHz			R72KHz		
	Lower	(mmho/m)	Upper	Lower	(mmho/m)	Upper	Lower	(mmho/m)	Upper
A1 (80")	0.95	1.0152	1.05	0.95	1.0130	1.05	0.95	1.0108	1.05
A2 (50")	0.95	1.0136	1.05	0.95	1.0118	1.05	0.95	1.0120	1.05
A3 (29")	0.95	1.0067	1.05	0.95	1.0044	1.05	0.95	1.0005	1.05
A4 (17")	0.95	1.0121	1.05	0.95	1.0079	1.05	0.95	1.0075	1.05
A5 (10")	N/A	N/A	N/A	0.95	0.9971	1.05	0.95	0.9962	1.05
A6 (6")	N/A	N/A	N/A	0.95	0.9870	1.05	0.95	0.9849	1.05

SONDE OFFSET

Subarray	R12KHz			R36KHz			R72KHz		
----------	--------	--	--	--------	--	--	--------	--	--

(mmho/m)		(mmho/m)		(mmho/m)			
A1 (80")	-0.305		-4.311		-5.633		
A2 (50")	-2.045		-4.065		-4.979		
A3 (29")	-13.653		-4.236		-3.554		
A4 (17")	-94.374		-29.372		-24.599		
A5 (10")	N/A		-92.123		-42.210		
A6 (6")	N/A		325.118		167.465		
TRANSMITTER CURRENT GAIN				R-MUD VERIFICATION			
Signal	Lower	R	Upper	Signal	Lower (ohm-m)	Measured (ohm-m)	Upper (ohm-m)
12K	0.6	0.95	1.3	Mud Cell	0.95	1.00	1.05
36K	1.0	1.96	2.0				
72K	1.0	1.28	2.0				
PASS/FAIL SUMMARY							
GAIN RANGE CHK				PASS			
SONDE OFFSET CHK				PASS			
TOOL OK TO LOG							

CALIBRATION SUMMARY						
Sensor	Shop	Field	Post	Difference	Tolerance	Units
GTET-11013114						
Gamma Ray Calibrator	268.6	265.3	-----	3.3	+/- 9.00	api
SDLT-10960494						
Pad Extension	3.75	3.66	-----	0.09	+/-0.10	in
Ring Diameter	8.25	8.27	-----	-0.02	+/-0.15	in
ACRt Sonde-11005908						
Mud Cell	1.00	-----	-----	0.00	-----	ohm-m
Data: ROSE_3_110001 QUAD_BSAT1003 03-Aug-14 09:56 Up @4803.8f Date: 03-Aug-14 11:57:28						

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TOOL STRING DIAGRAM REPORT

Description	Overbody Description	O.D.	Diagram	Sensors @ Delays	Length	Accumulated Length
CH_HOS-590_RED 37.50 lbs		Ø 2.750 in →		← Temperature @ 73.25 ft	3.03 ft	74.27 ft
XOHD-12345678 20.00 lbs		Ø 2.750 in → Ø 3.625 in →			0.95 ft	71.25 ft
						70.30 ft
GTET-11013114 165.00 lbs		Ø 3.625 in →		← GammaRay @ 64.23 ft	8.52 ft	
						61.78 ft

DSNT-11019641_PLEASE
174.00 lbs

DSN Decentralizer-10993115
6.60 lbs

SDLT-10960494
360.00 lbs

SDLT Pad-10844774
65.00 lbs

Microlog Pad-10960494
8.00 lbs

IQ Flex-00000001
140.00 lbs

BSAT-10939050
300.00 lbs

ACRt Instrument-11026095
50.00 lbs

ACRt Sonde-11005908
200.00 lbs



DSN Far @ 54.84 ft

DSN Near @ 54.09 ft

Microlog @ 44.28 ft

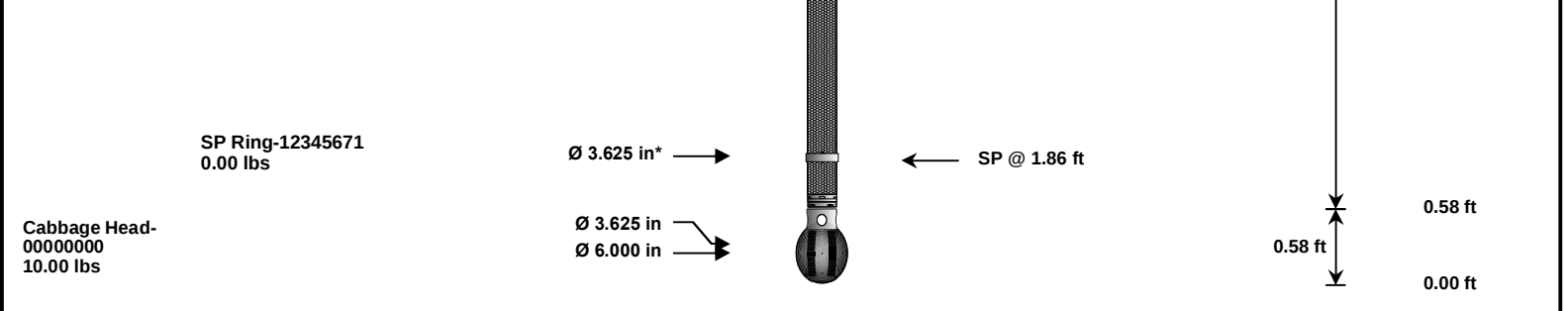
SDL Caliper @ 44.09 ft

SDL @ 44.08 ft

Sonic Receivers @ 27.09 ft

Mud Resistivity @ 13.44 ft

ACRt @ 9.46 ft



Mnemonic		Tool Name	Serial Number	Weight (lbs)	Length (ft)	Accumulated Length (ft)	Max.Log. Speed (fpm)
CH_HOS	Hostile Cable Head with Load Cell		590_RED	37.50	3.03	71.25	300.00
XOHD	Hostile to Dits Cross Over		12345678	20.00	0.95	70.30	300.00
GTET	Gamma Telemetry Tool		11013114	165.00	8.52	61.78	60.00
DSNT	Dual Spaced Neutron		11019641_PLEASE	174.00	9.69	52.09	60.00
DCNT	DSN Decentralizer		10993115	6.60	5.13	*	55.42 300.00
SDLT	Spectral Density Tool		10960494	360.00	10.81		41.28 60.00
SDLP	Density Insite Pad		10844774	65.00	2.55	*	43.49 60.00
MICP	Microlog Pad		10960494	8.00	1.00	*	43.78 60.00
IQF	IQ Flex tool		00000001	140.00	5.67		35.61 300.00
BSAT	Borehole Sonic Array Tool		10939050	300.00	15.77		19.83 60.00
ACRt	Array Compensated True Resistivity Instrument Section		11026095	50.00	5.03		14.80 120.00
ACRt	Array Compensated True Resistivity Sonde Section		11005908	200.00	14.22		0.58 120.00
SP	SP Ring		12345671	0.00	0.25	*	1.86 300.00
CBHD	Cabbage Head		00000000	10.00	0.58		0.00 300.00
Total				1,536.10	74.27		
* Not included in Total Length and Length Accumulation.							
Data: ROSE_3_1\0001 QUAD_BSAT\IDLE Date: 03-Aug-14 07:38:17							

COMPANY	HARTMAN OIL CO., INC.		
WELL	ROSE #3-1		
FIELD	AMERICAN BEAUTY		
COUNTY	WICHITA COUNTY	STATE	KANSAS
HALLIBURTON		ARRAY COMPENSATED TRUE RESISTIVITY LOG	