

Schlumberger

Company: **Orr Energy, LLC**

Well: **PRR 32-14D**

Field: **Wattenberg**

County: **Weld**

State: **Colorado**

Orr Energy, LLC

PRR 32-14D

Wattenberg

Weld

State: Colorado

County:	Weld
Field:	Wattenberg
Location:	SWSW Sec. 32, T6N, R66W.
Well:	PRR 32-14D
Company:	Orr Energy, LLC

Platform Express Compensated Neutron Litho Density			
LOCATION			
SWSW Sec. 32, T6N, R66W. SHL: 479' FSL & 217' FEL (SESE Sec. 31) BHL: 672' FSL & 666' FWL (Projected)	Elev.: K.B. 4728 ft G.L. 4722 ft D.F. 4727 ft		
Permanent Datum: _____ Log Measured From: Kelly Bushing _____ Drilling Measured From: Kelly Bushing _____	Elev.: 4722 ft 6.0 ft above Perm. Datum		
API Serial No. 05-123-23762-0C	Section 32	Township 6N	Range 66W

[illegible]

Logging Date	1-Feb-2007				
Run Number	1				
Depth Driller	7741 ft				
Schlumberger Depth	7747 ft				
Bottom Log Interval	7739 ft				
Top Log Interval	780 ft				
Casing Driller Size @ Depth	8.625 in @ 730 ft				
Casing Schlumberger	780 ft				
Bit Size	7.875 in				
Type Fluid In Hole	Gel & Chemical				
Density	Viscosity	36 s			
Fluid Loss	PH	9			
Source Of Sample	AIT Mud Sensor				
RM @ Measured Temperature	2.200 ohm.m @ 70 degF				
RMF @ Measured Temperature	1.760 ohm.m @ 70 degF				
RMC @ Measured Temperature	2.640 ohm.m @ 70 degF				
Source RMF	RMC	Calculated			
RM @ MRT	RMF @ MRT	0.858 @ 190	0.687 @ 190	@	@
Maximum Recorded Temperatures	190 degF				
Circulation Stopped	Time	1-Feb-2007		1:45	
Logger On Bottom	Time	1-Feb-2007		11:45	
Unit Number	Location	3055 Fort Morgan			
Recorded By	Jeremy Boon / Ingrid Castrejon				
Witnessed By	Mr. Mark Scanniello / Rick Grimmer				

[illegible]

[illegible]

DEPTH SUMMARY LISTING

Date Created: 29-JAN-2007 8:50:25

Depth System Equipment

Depth Measuring Device		Tension Device		Logging Cable	
Type:	IDW-B	Type:	CMTD-B/A	Type:	7-39P-LXS
Serial Number:	3006	Serial Number:	1223	Serial Number:	3095
Calibration Date:	26-Jul-2006	Calibration Date:	20-Jan-2006	Length:	11440.00 FT
Calibrator Serial Number:	33	Calibrator Serial Number:	100513	Conveyance Method:	Wireline
Calibration Cable Type:	7-39P-LXS	Calibration Gain:	0.85	Rig Type:	LAND
Wheel Correction 1:	-4	Calibration Offset:	404.00		
Wheel Correction 2:	-2				

Depth Control Parameters

Log Sequence:	First Log In the Well
Rig Up Length At Surface:	0.00 FT
Rig Up Length At Bottom:	0.00 FT
Rig Up Length Correction:	0.00 FT
Stretch Correction:	0.00 FT
Tool Zero Check At Surface:	0.30 FT

Depth Control Remarks

1. This is the primary depth reference
2. All SLB depth policy procedures applied
- 3.
- 4.
- 5.
- 6.

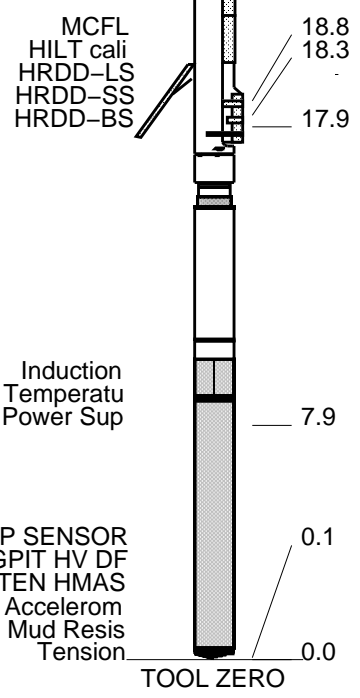
DISCLAIMER

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OTHER SERVICES1 OS1: OS2: OS3: OS4: OS5:	OTHER SERVICES2 OS1: OS2: OS3: OS4: OS5:
REMARKS: RUN NUMBER 1	REMARKS: RUN NUMBER 2
1) All Schlumberger depth control policies followed for first run in hole	
2) Toolstring as per toolsketch	
3) Matrices and densities annotated on Porosity log	
4) Rig Lags 111	
5)	

Thank you for choosing Schlumberger					
Your crew today was Ingrid, Jeremy, Tim and Brent					
RUN 1			RUN 2		
SERVICE ORDER #:		11636511	SERVICE ORDER #:		
PROGRAM VERSION:		14C0-302	PROGRAM VERSION:		
FLUID LEVEL:			FLUID LEVEL:		
LOGGED INTERVAL	START	STOP	LOGGED INTERVAL	START	STOP
EQUIPMENT DESCRIPTION					
RUN 1			RUN 2		
SURFACE EQUIPMENT					
WITM (DTS)-A					
GSR-U/Y					
NCT-B					
CNB-AB					
NCS-VB					
DOWNHOLE EQUIPMENT					
LEH-QT					
LEH-QT					
					55.6
DTC-H					
ECH-KC	CTEM		— 51.7		52.6
DTCH0-A	TelStatus				
DTCH1-A	ToolStatu		— 49.6		
AH-NM					49.6
AH-NM					
GPIT-C					41.6
GPIC-C					
GPIH-B					
HILTB-FTB	HGNS HTEM		— 37.6		37.6
HGNSD-B	HMCA		— 36.9		
HMCA	HGNS Gamm				
HGNH					
NLS-KL					
NSR-F 5068					
HACCZ					
HCNT	HGNS Neut		— 31.1		
HGR	HGNS Neut		— 30.6		
HRCC-B					
HRMS-B					
HRGD-B	HGNS sens		— 28.2		
GLS-VJ 1827					
MCFL Device					
HILT Nucl. LS					
HILT Nucl. SS					
HILT Nucl. BS					
AIT-H	HRCC cart		— 24.2		
AHIS-BA 397					

HRD-BS
AHRM-A
NPV-N

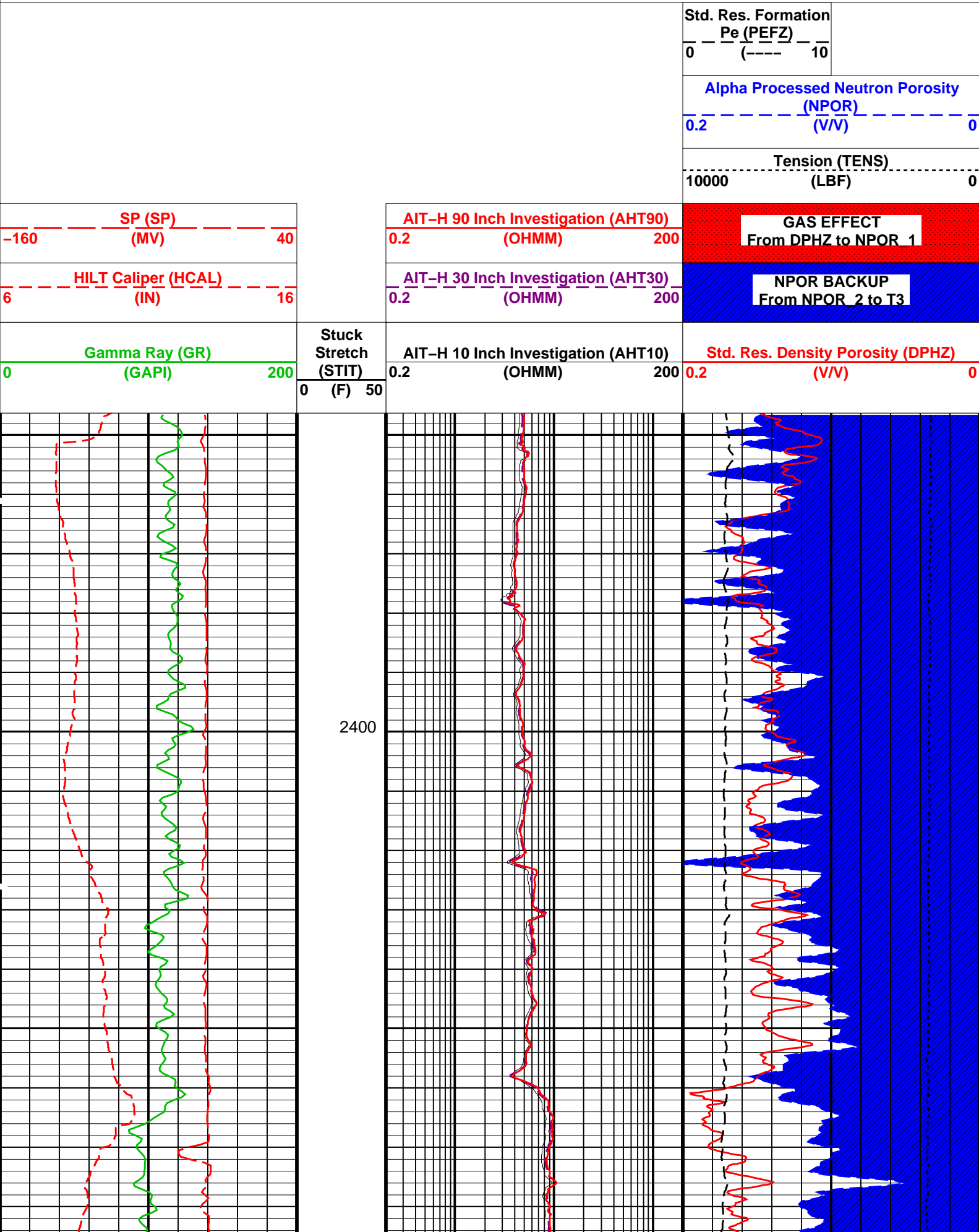


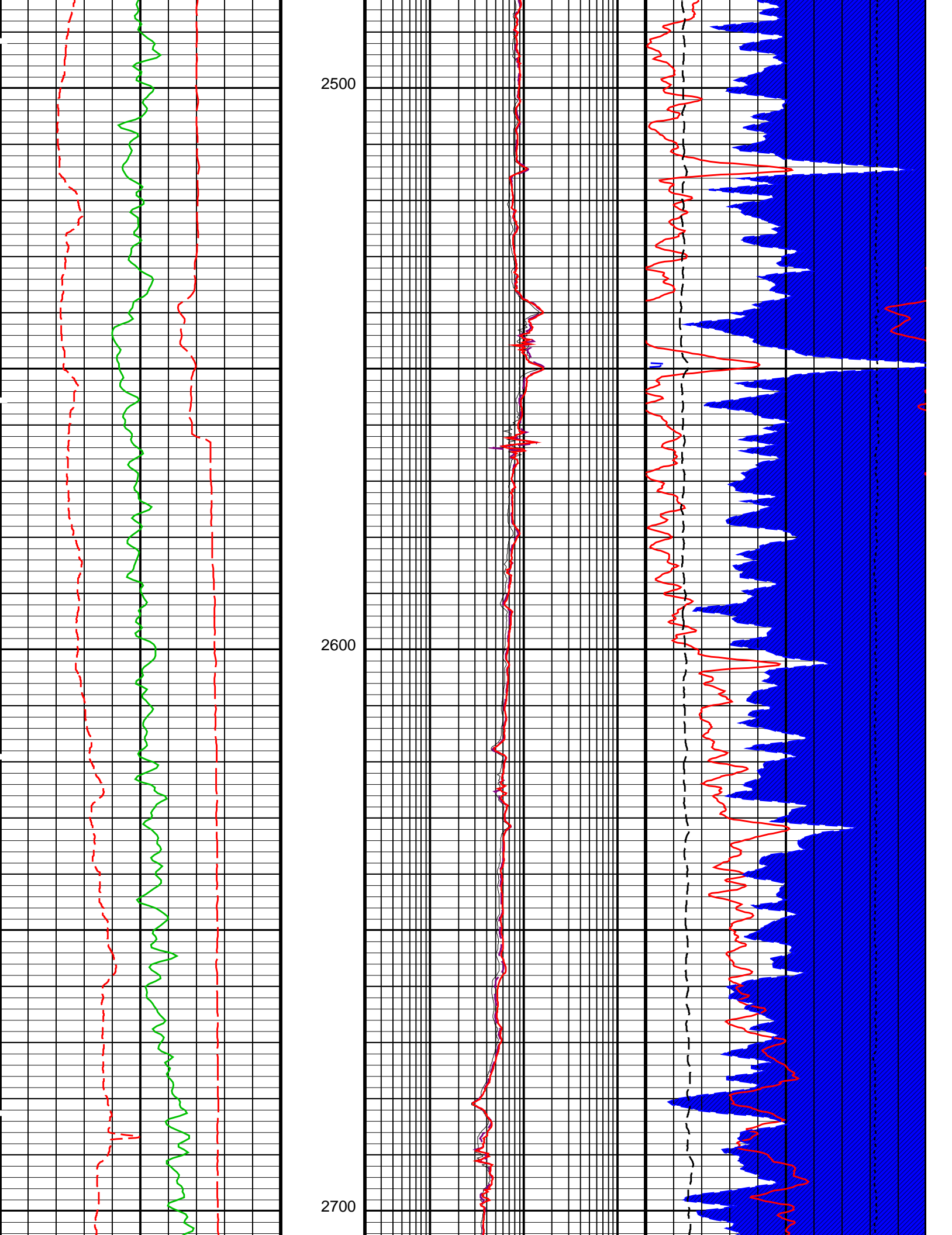
MAXIMUM STRING DIAMETER 4.63 IN
MEASUREMENTS RELATIVE TO TOOL ZERO
ALL LENGTHS IN FEET

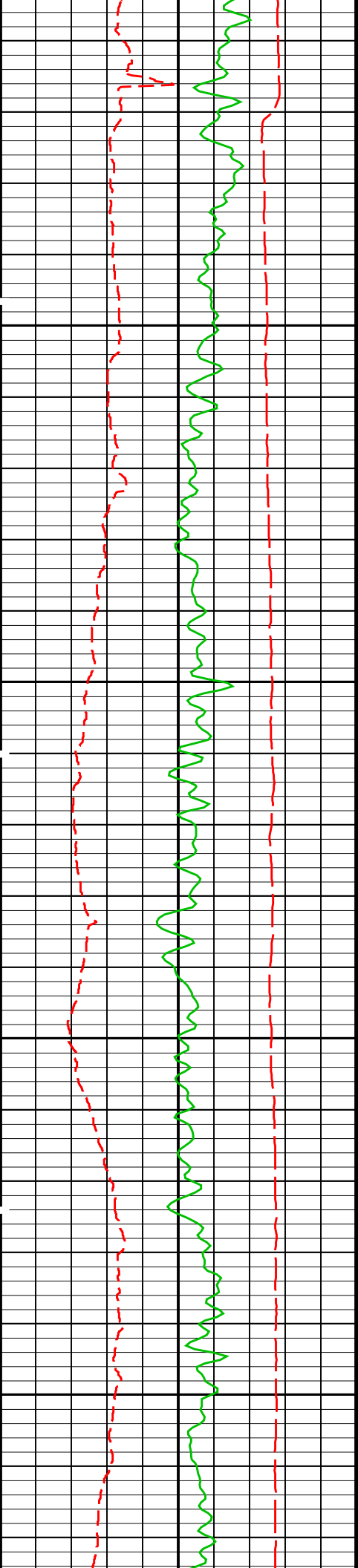
Production String	(in)		(ft)	Well Schematic	(ft)	(in)		Casing String
	OD	ID	MD		MD	OD	ID	
					0.0	8.625	8.097	Casing String, 24.0 lbm/ft
					730.0	8.625	8.097	Casing Shoe
					730.0	7.875		Borehole Segment

PIP SUMMARY

Time Mark Every 60 S

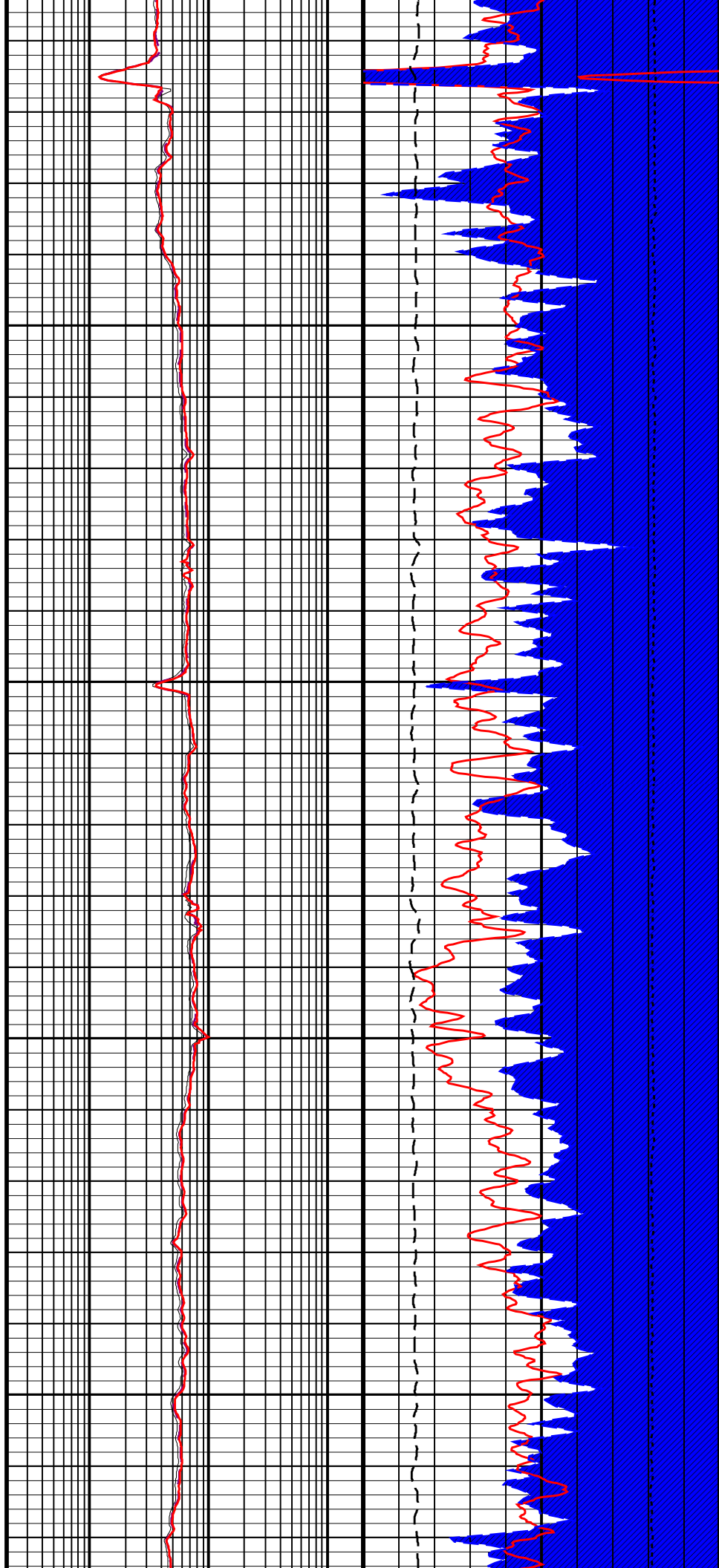


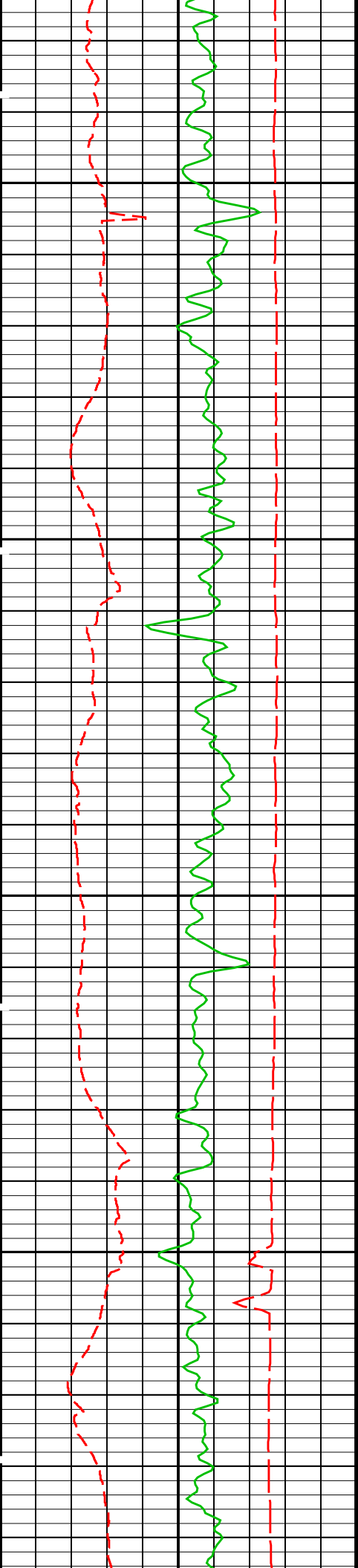




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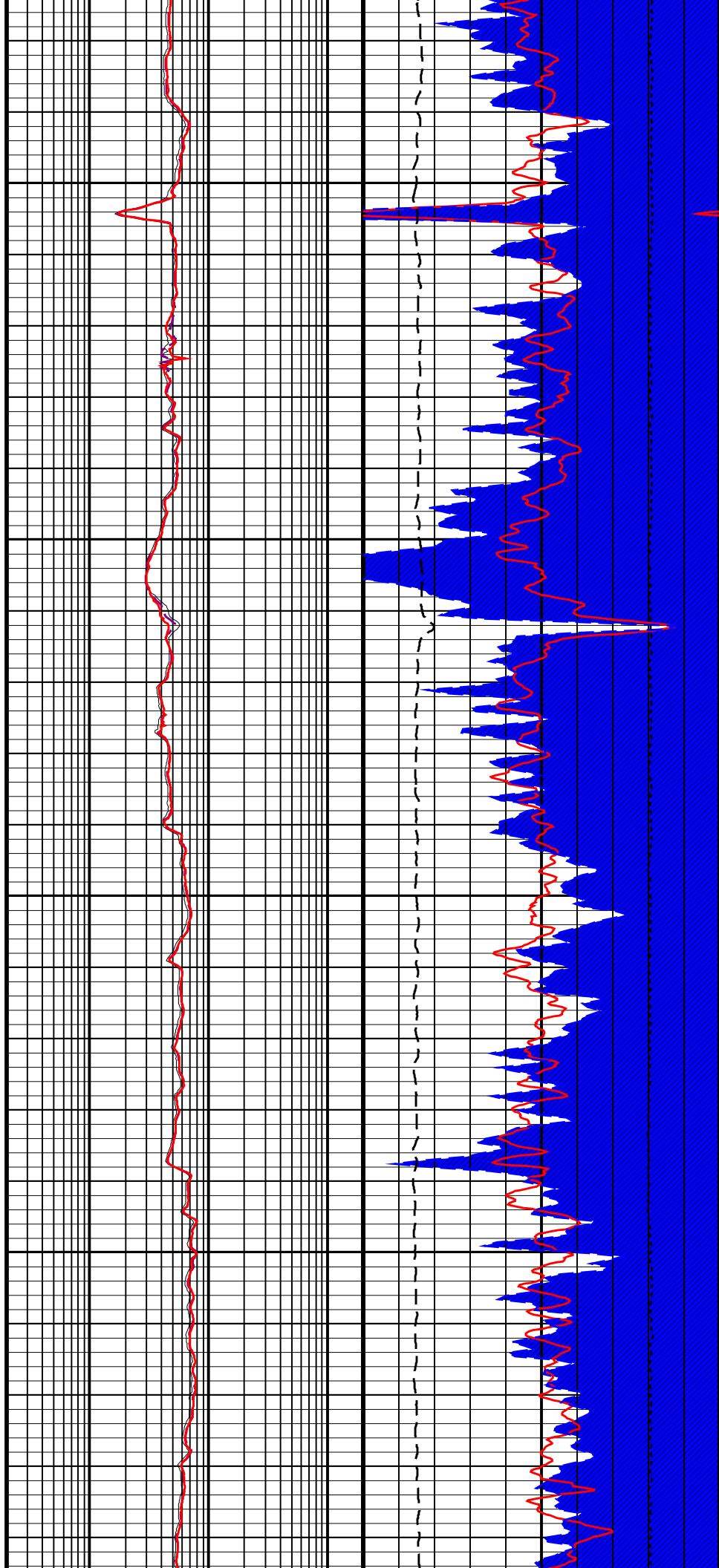
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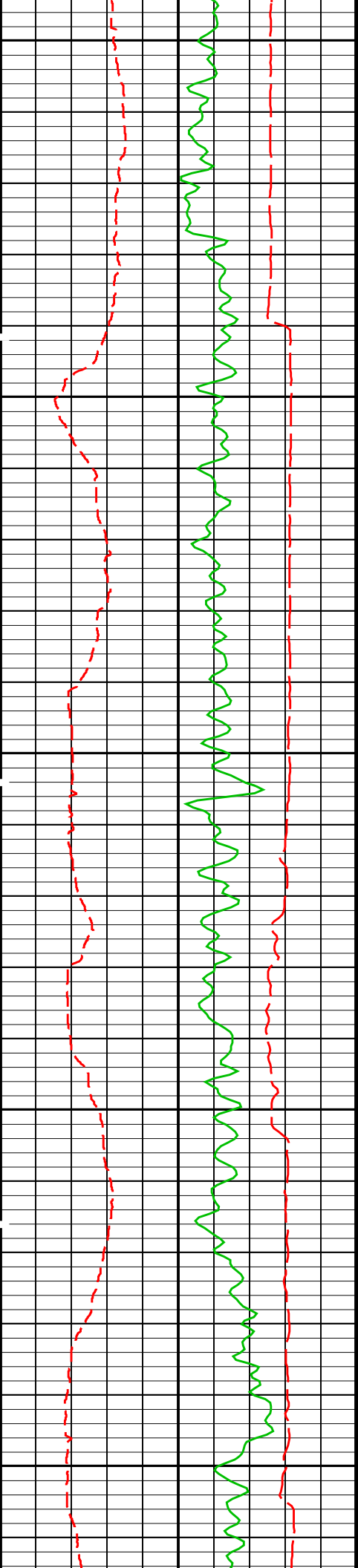




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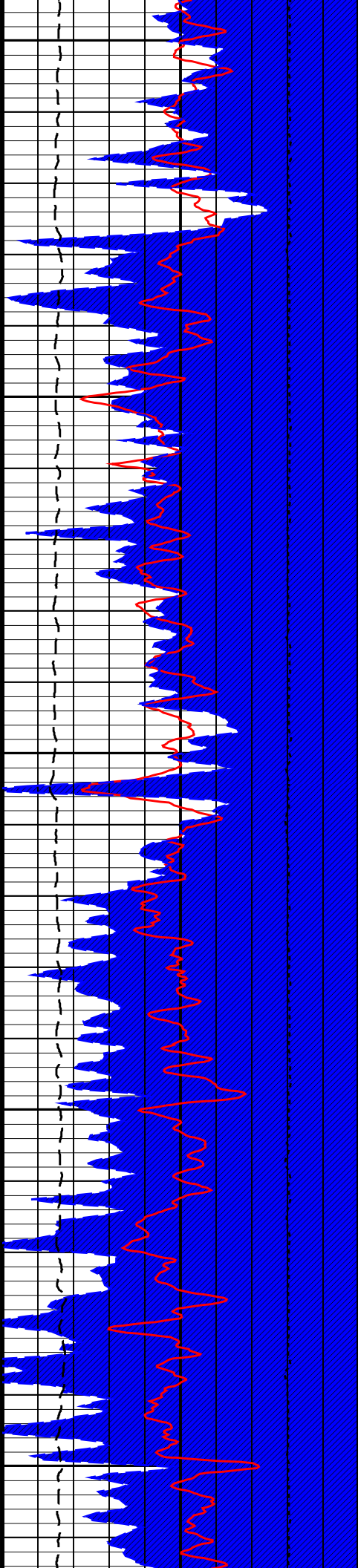
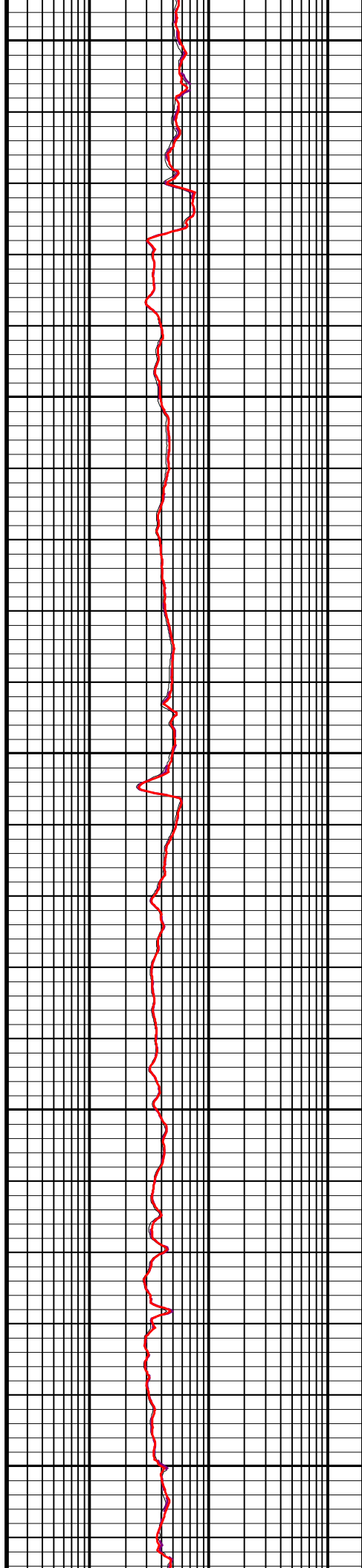
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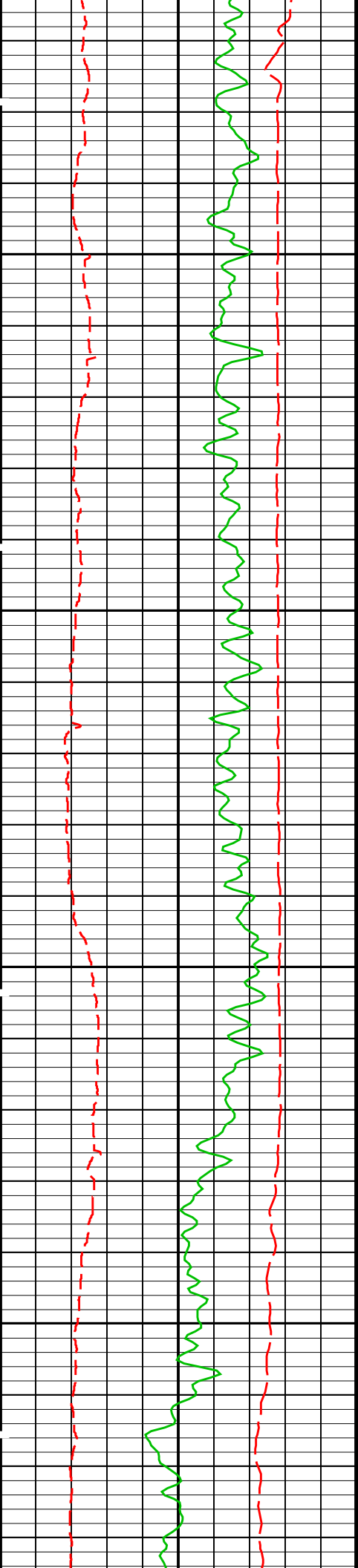




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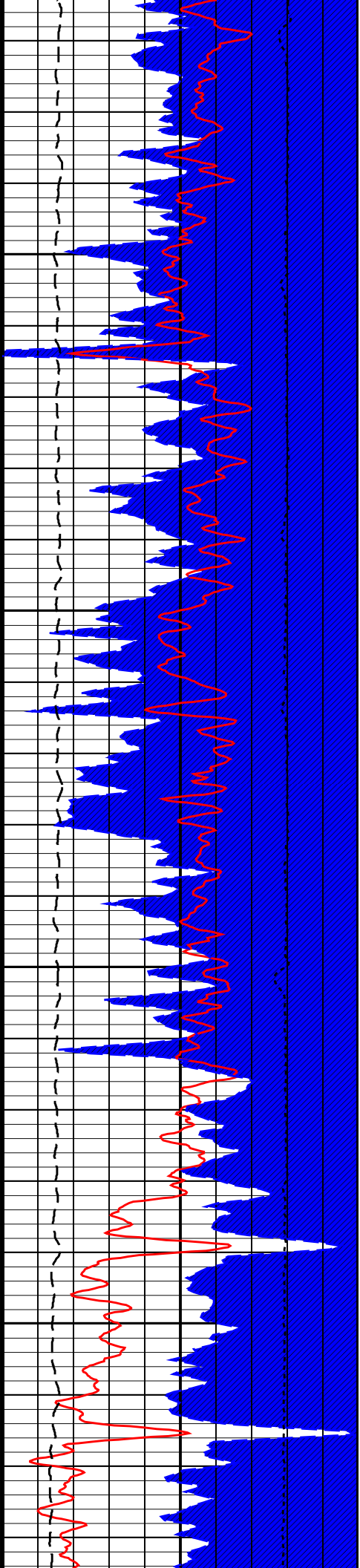
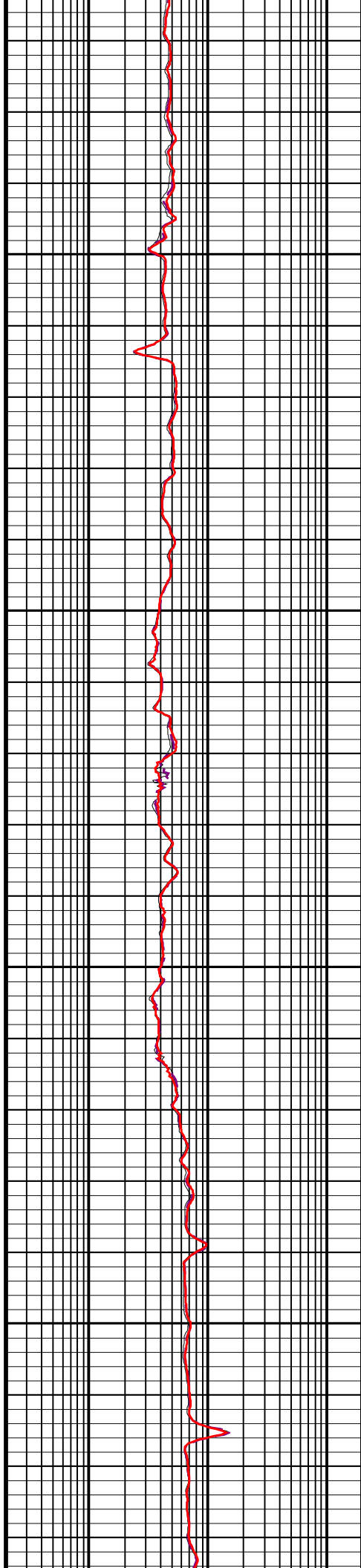
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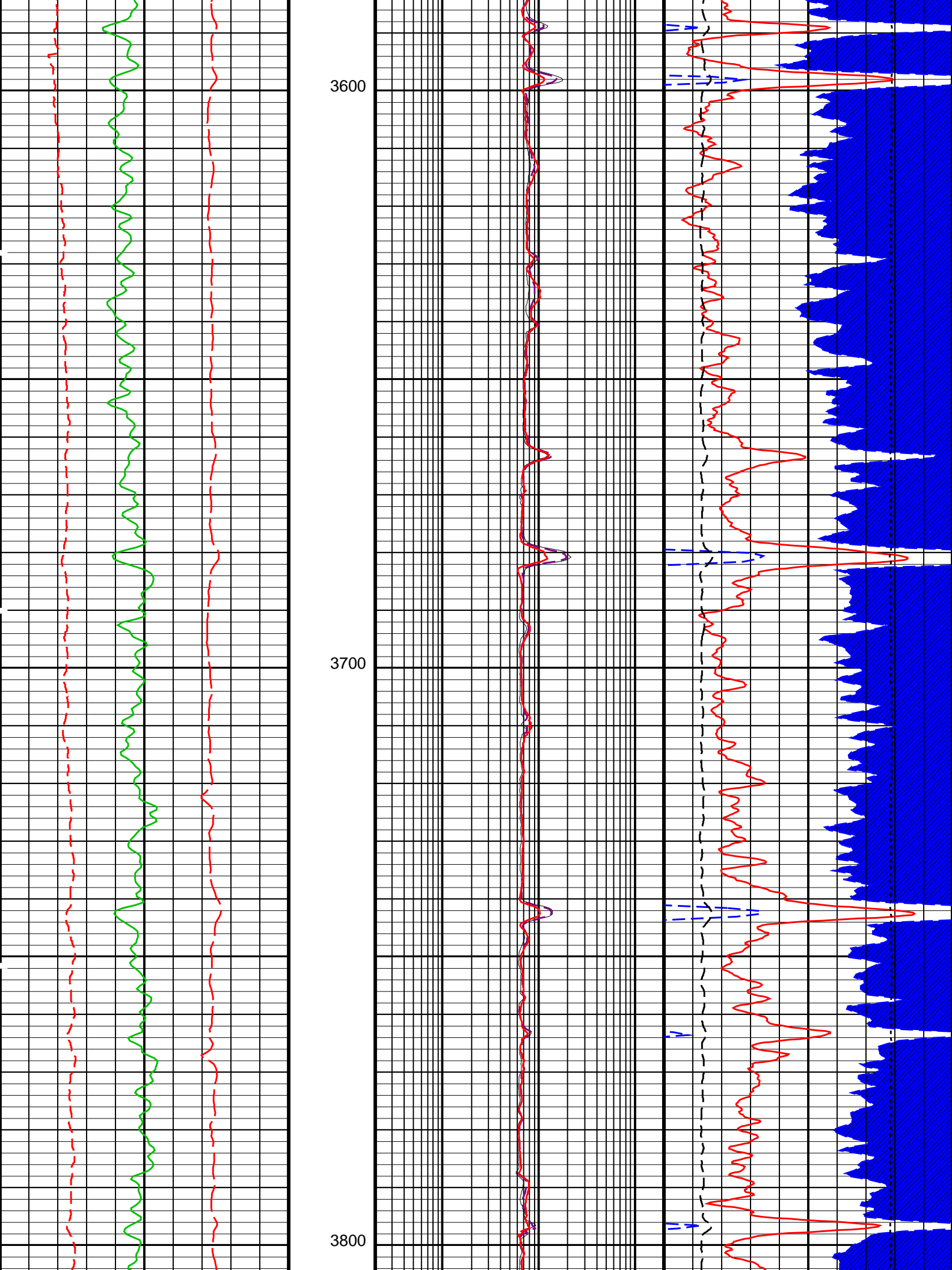


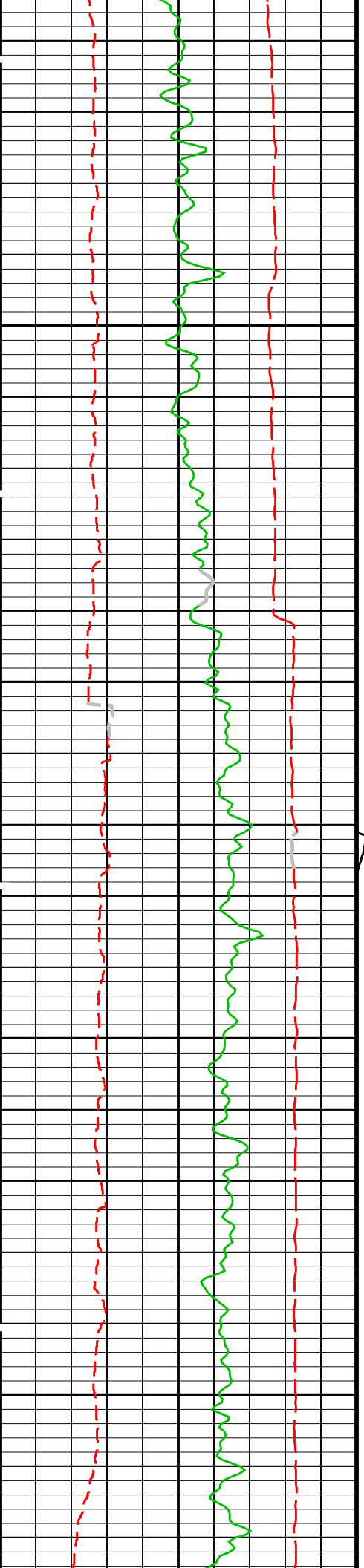


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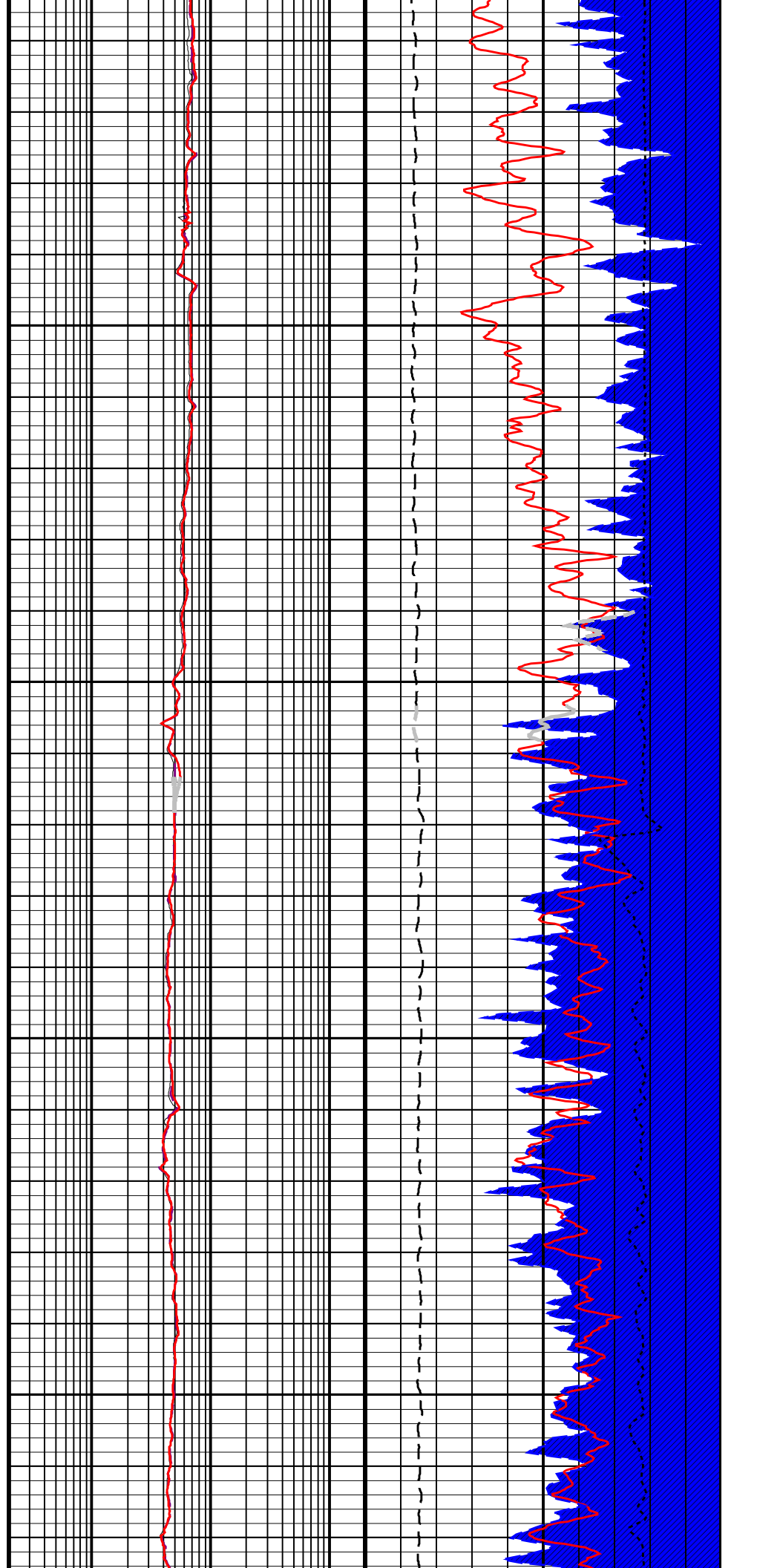


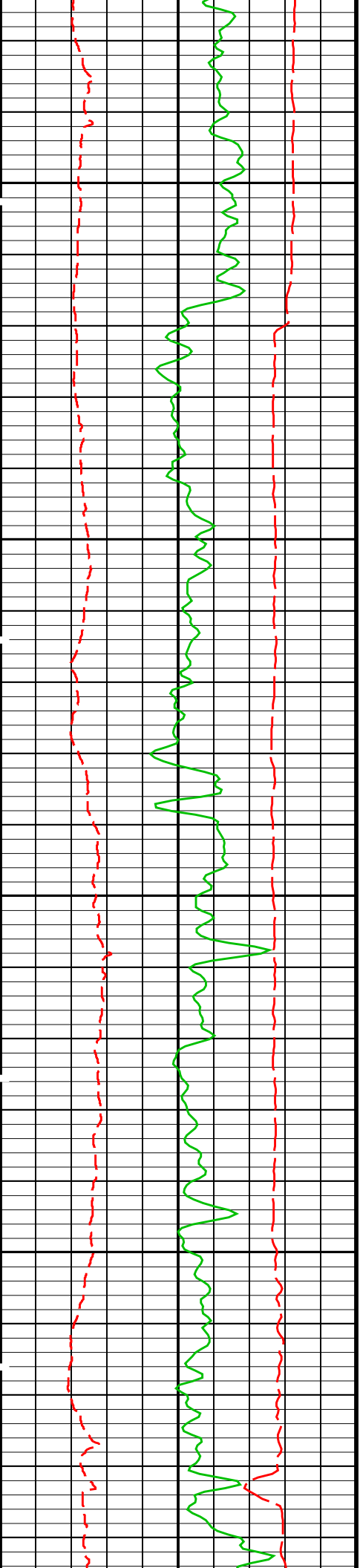




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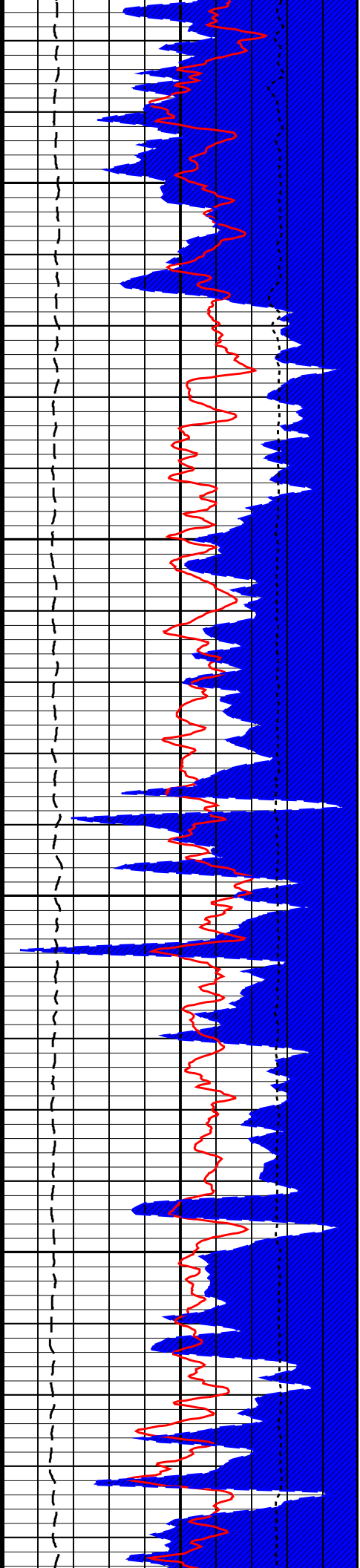
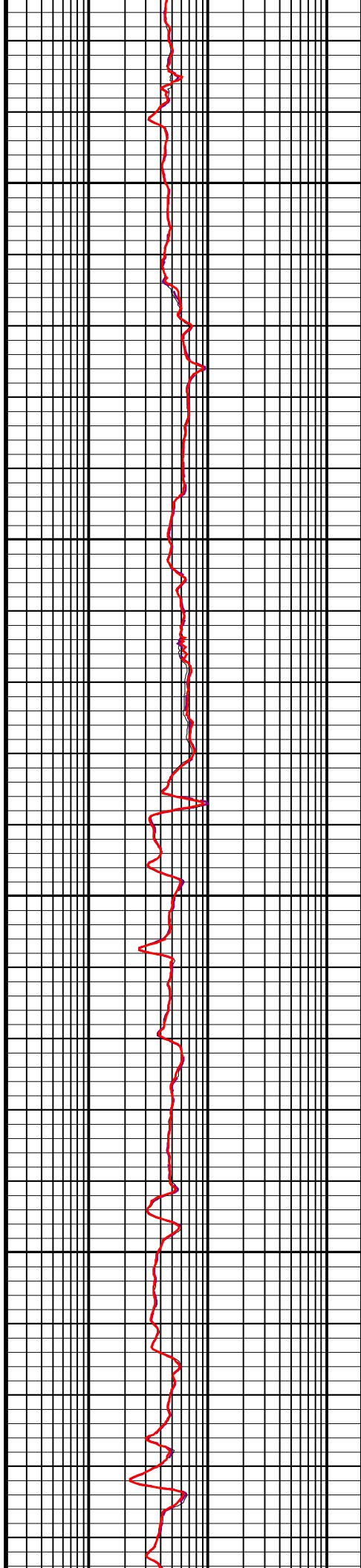
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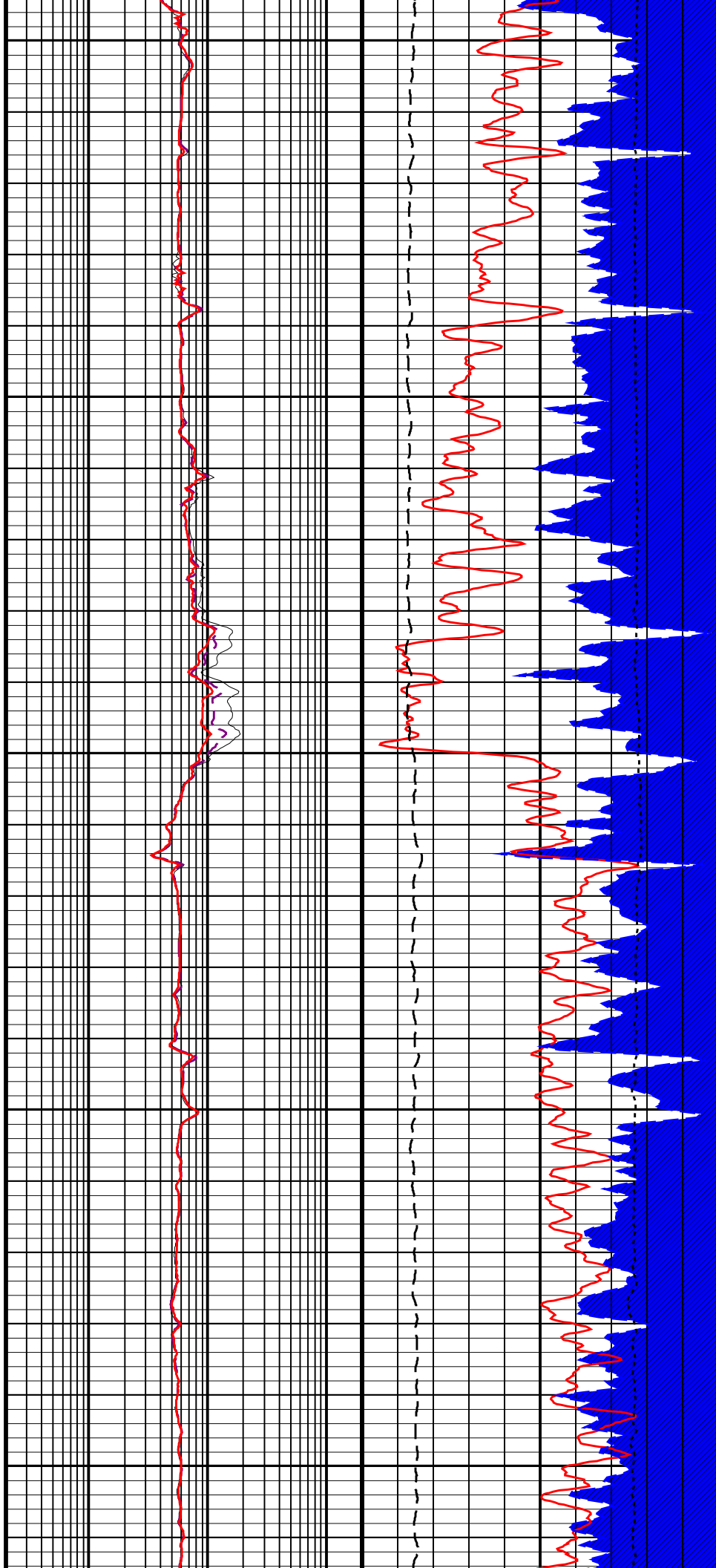
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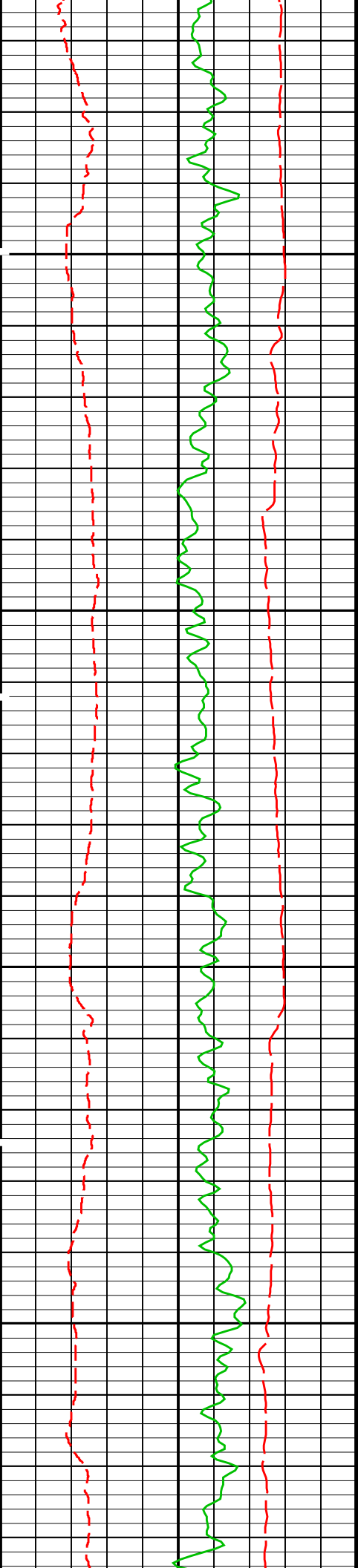




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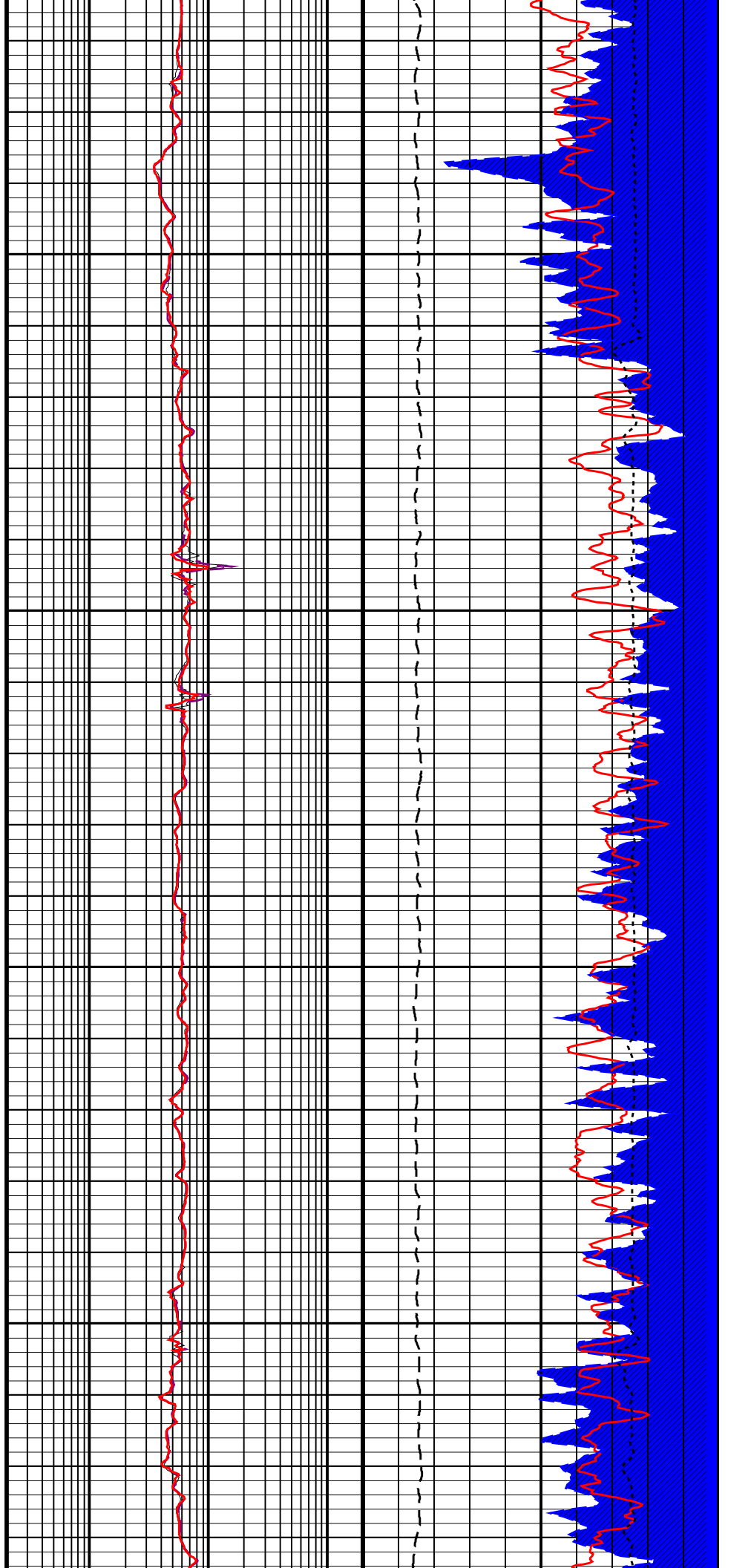
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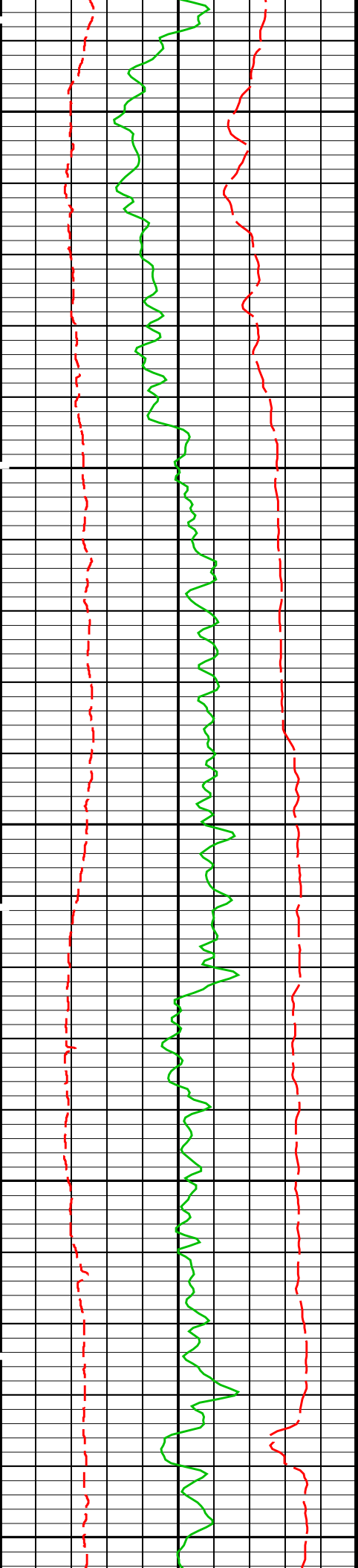




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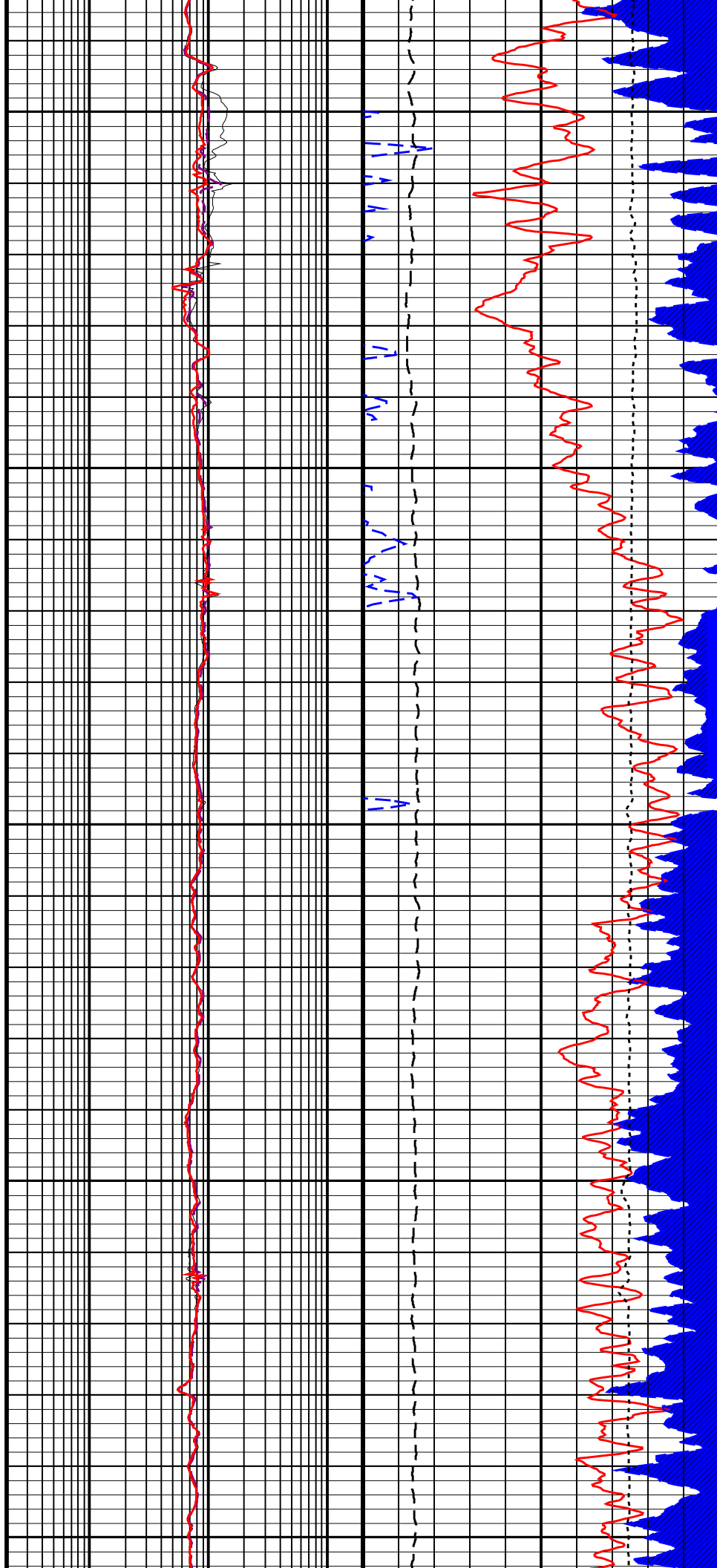


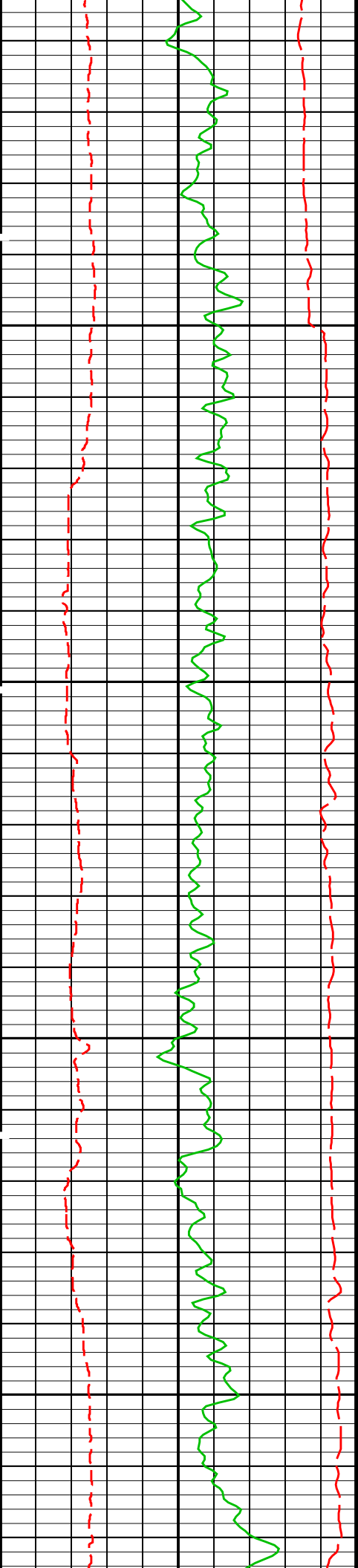


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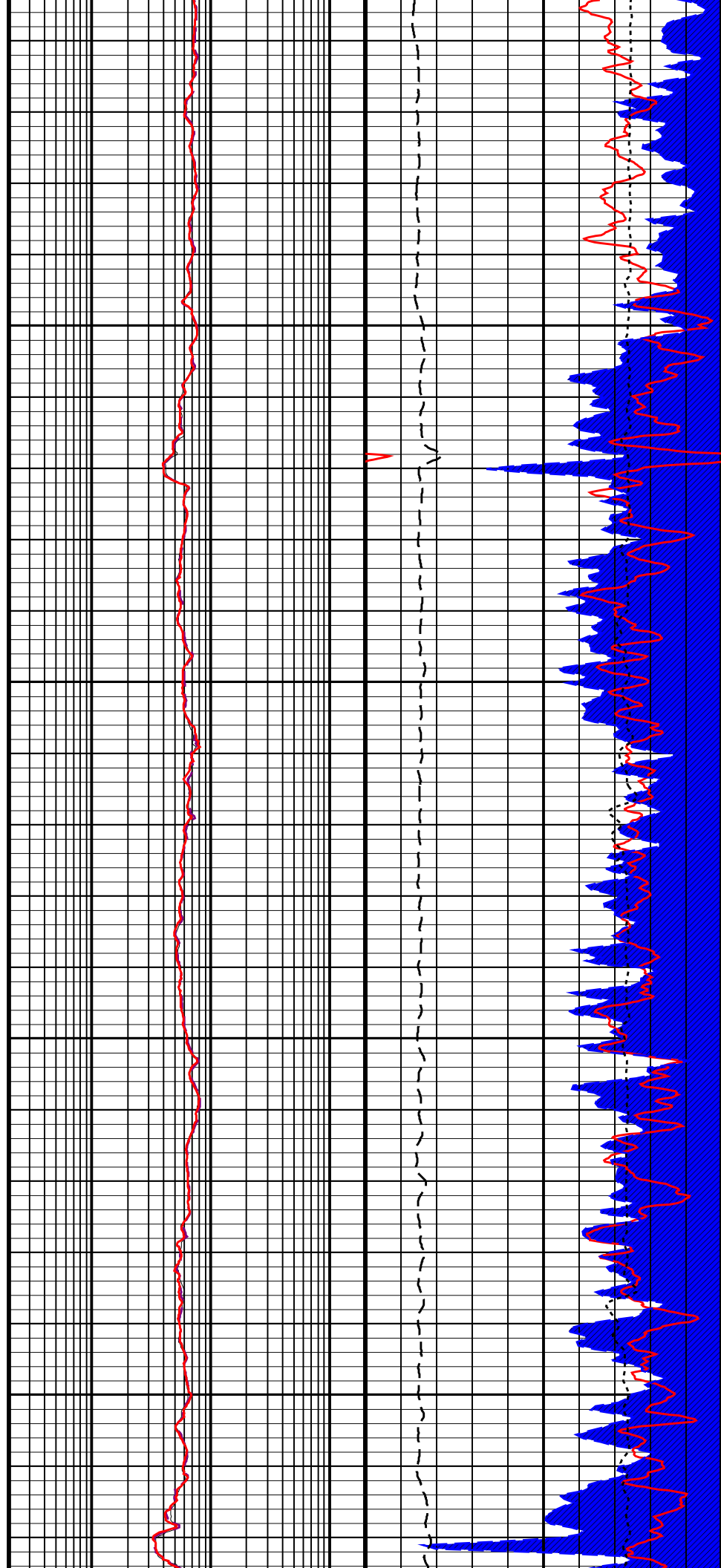
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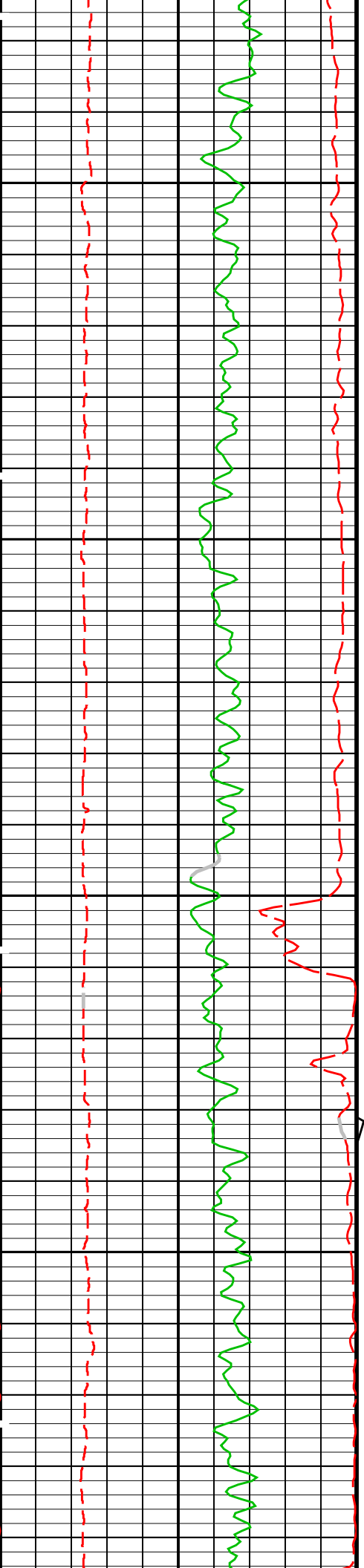




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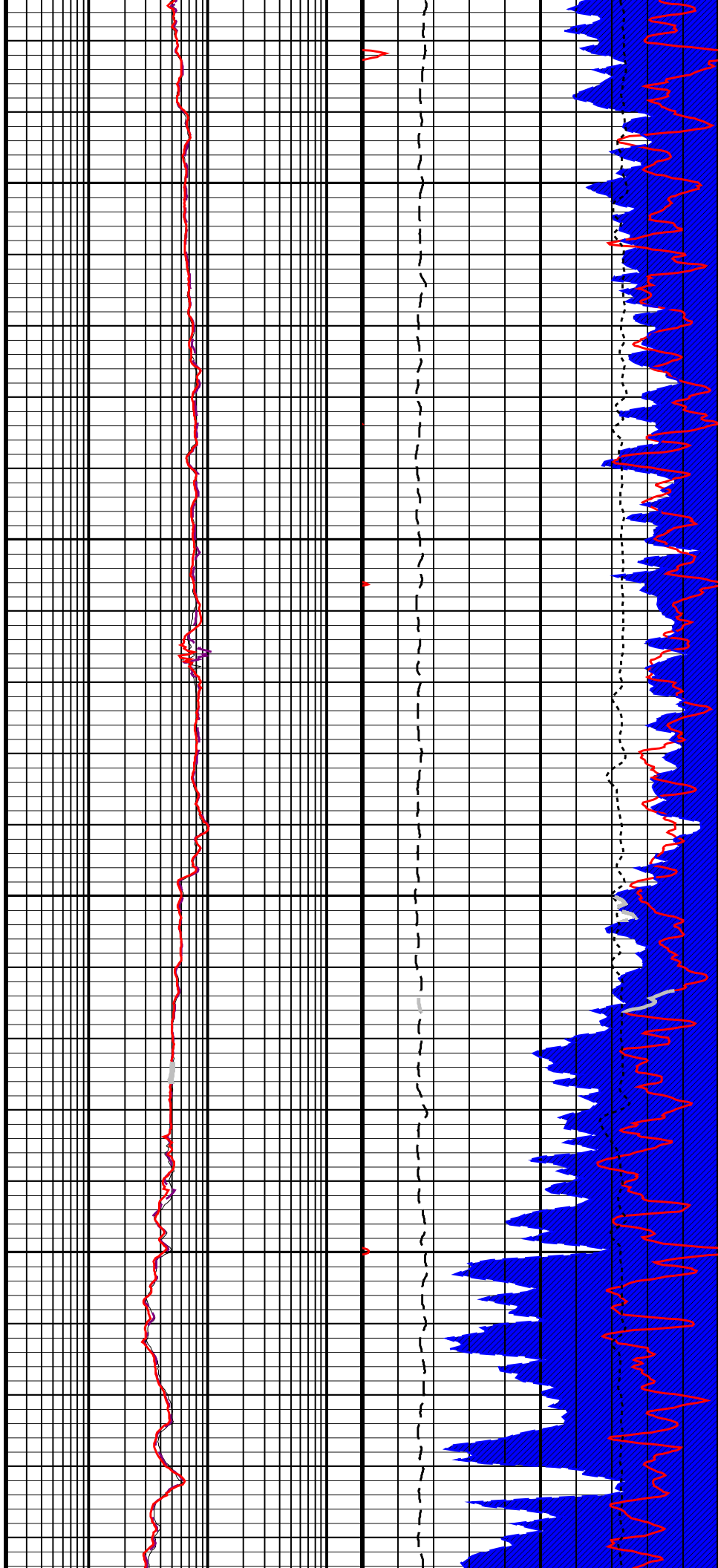
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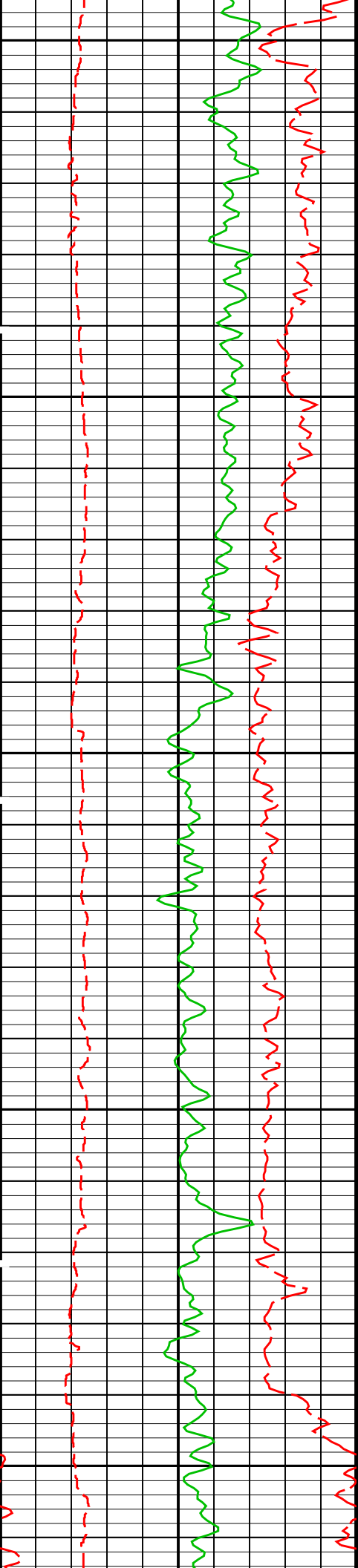




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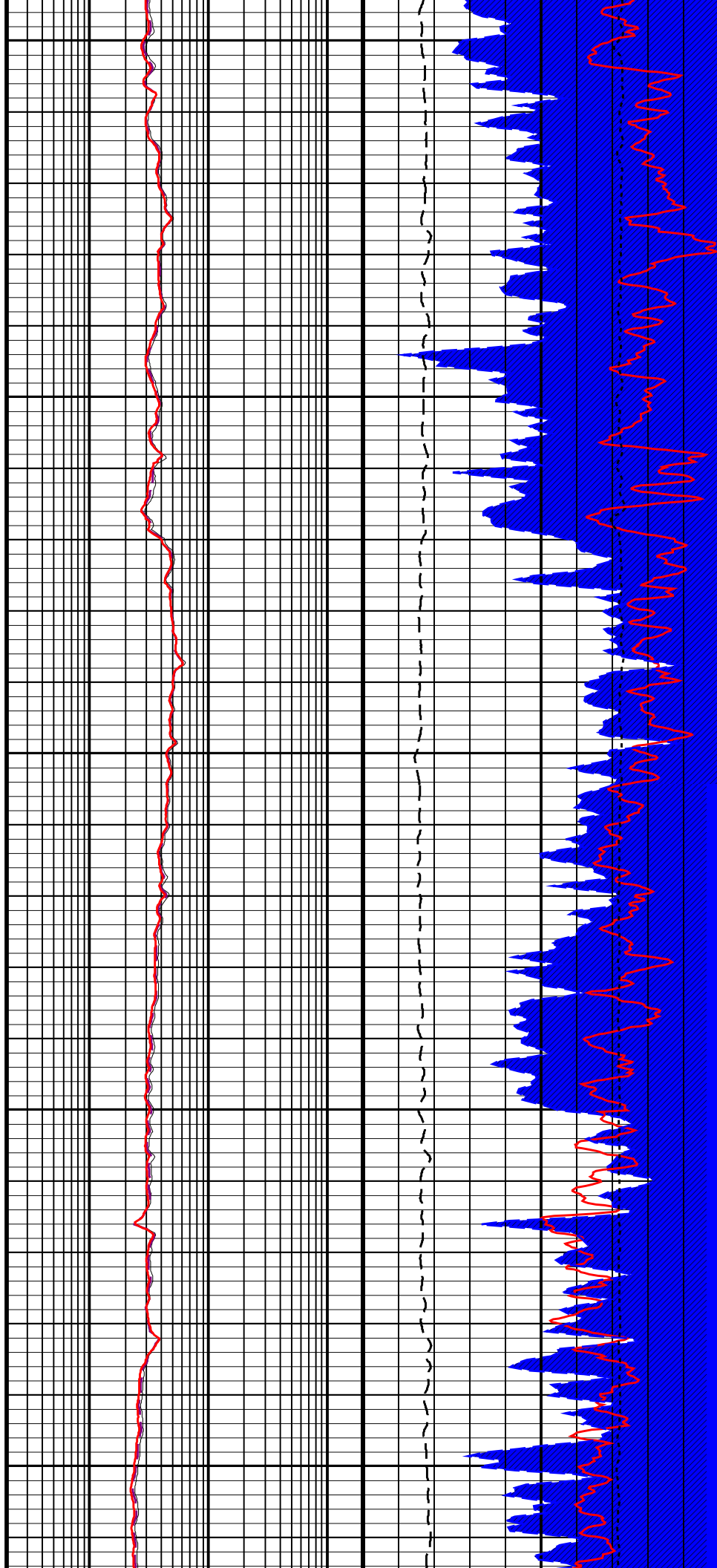
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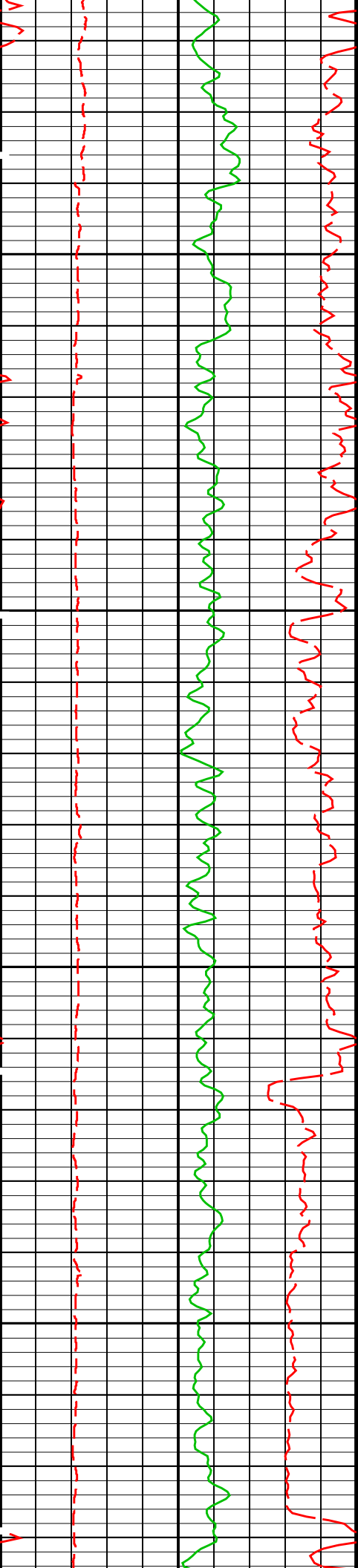




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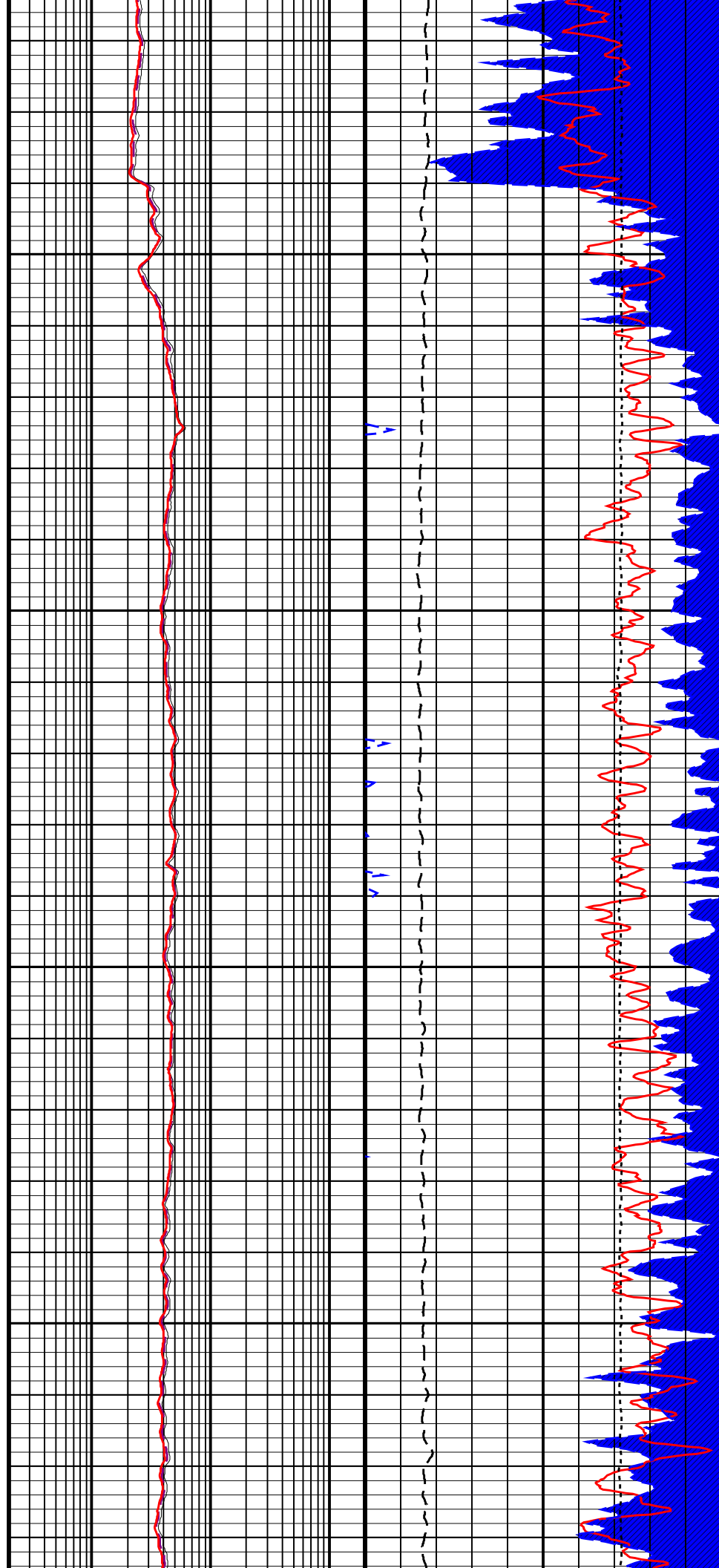
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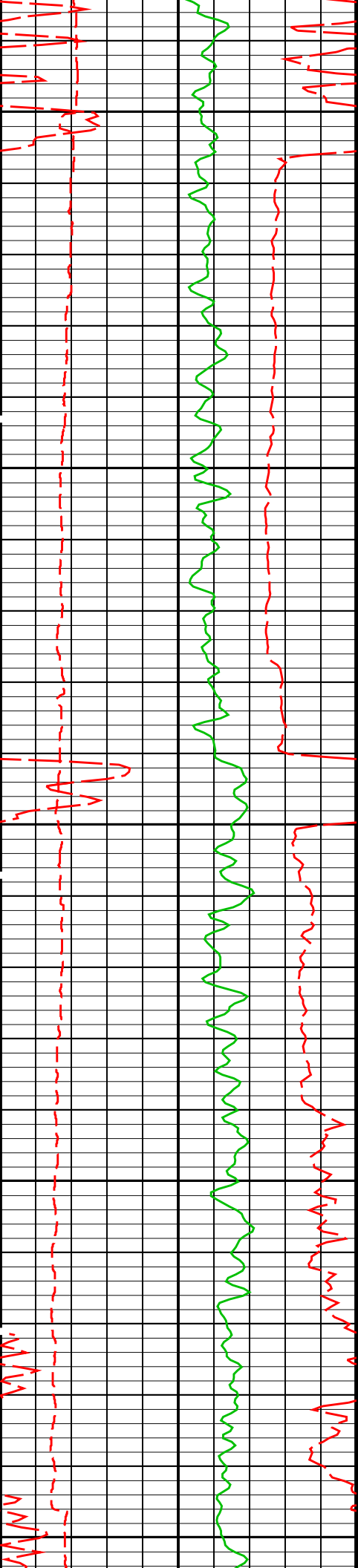




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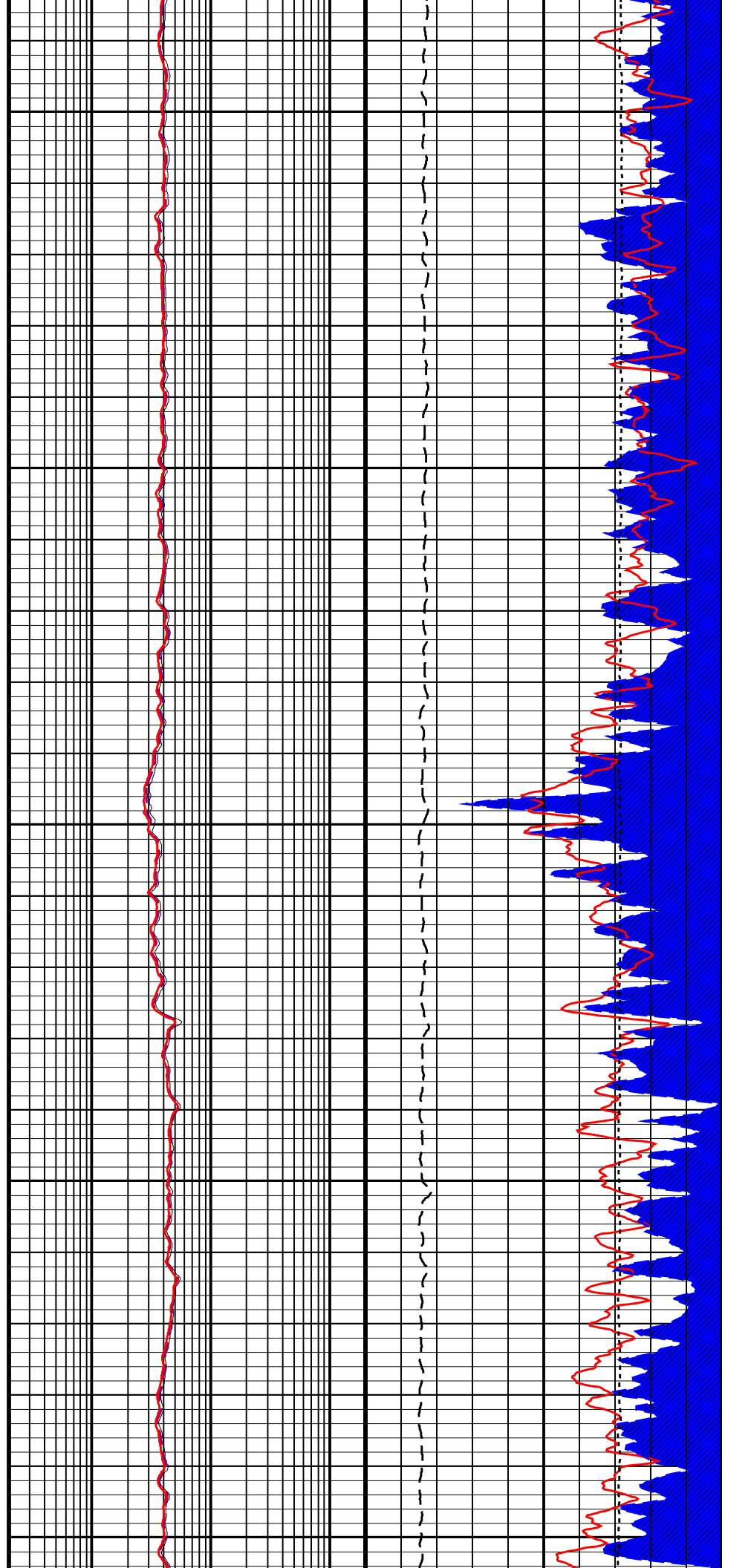


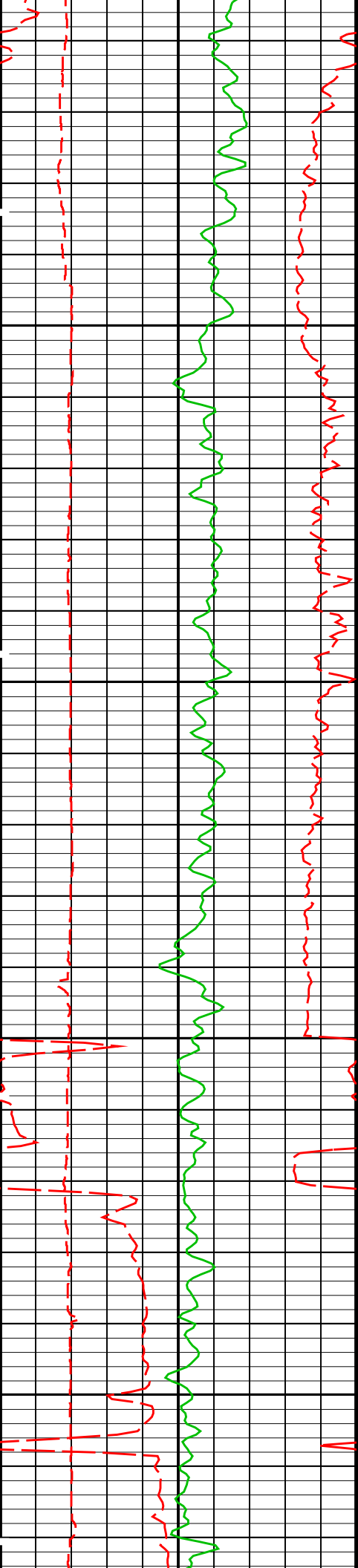


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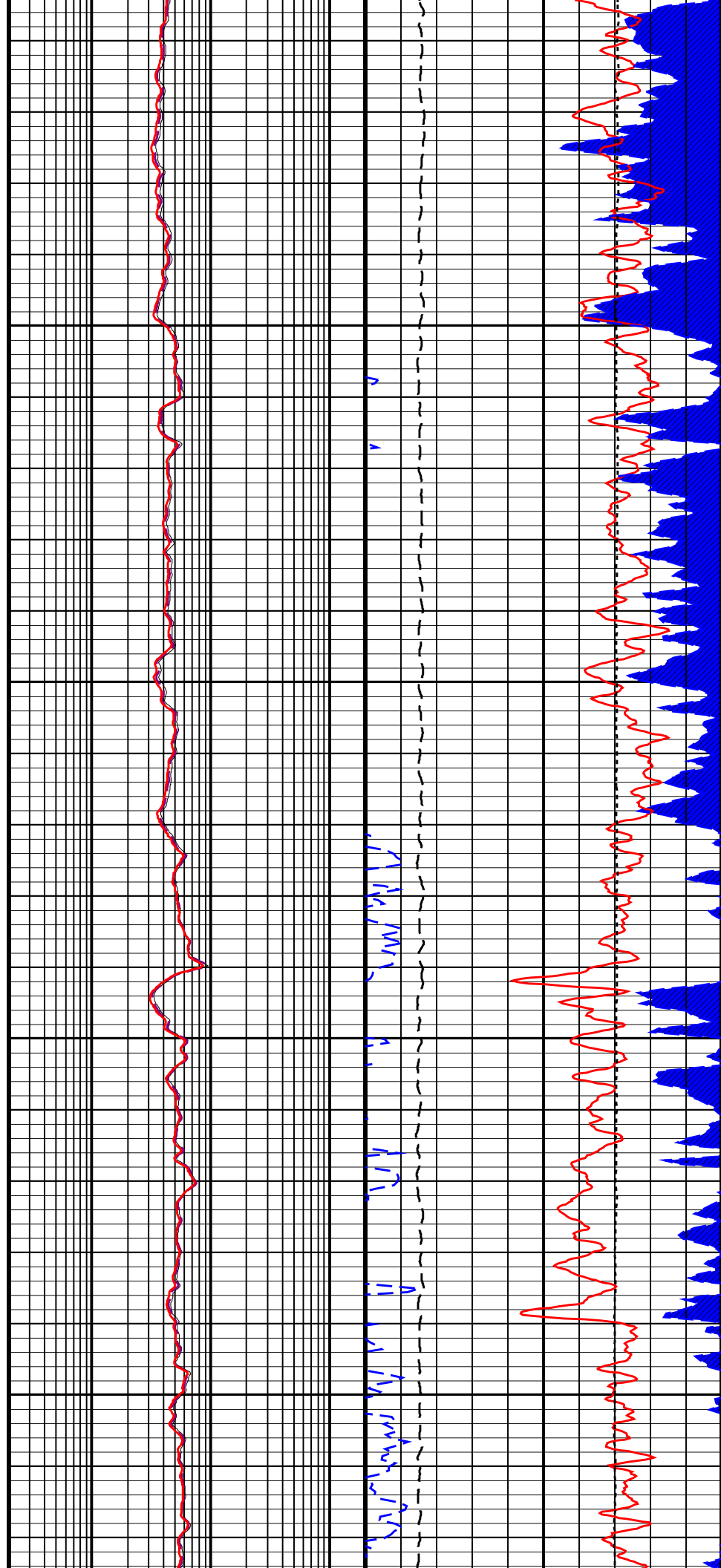
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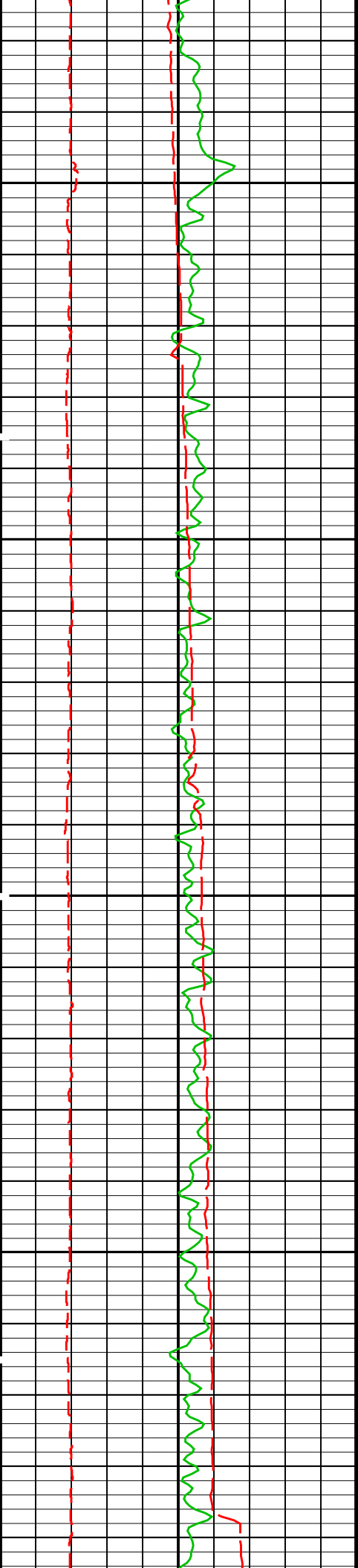




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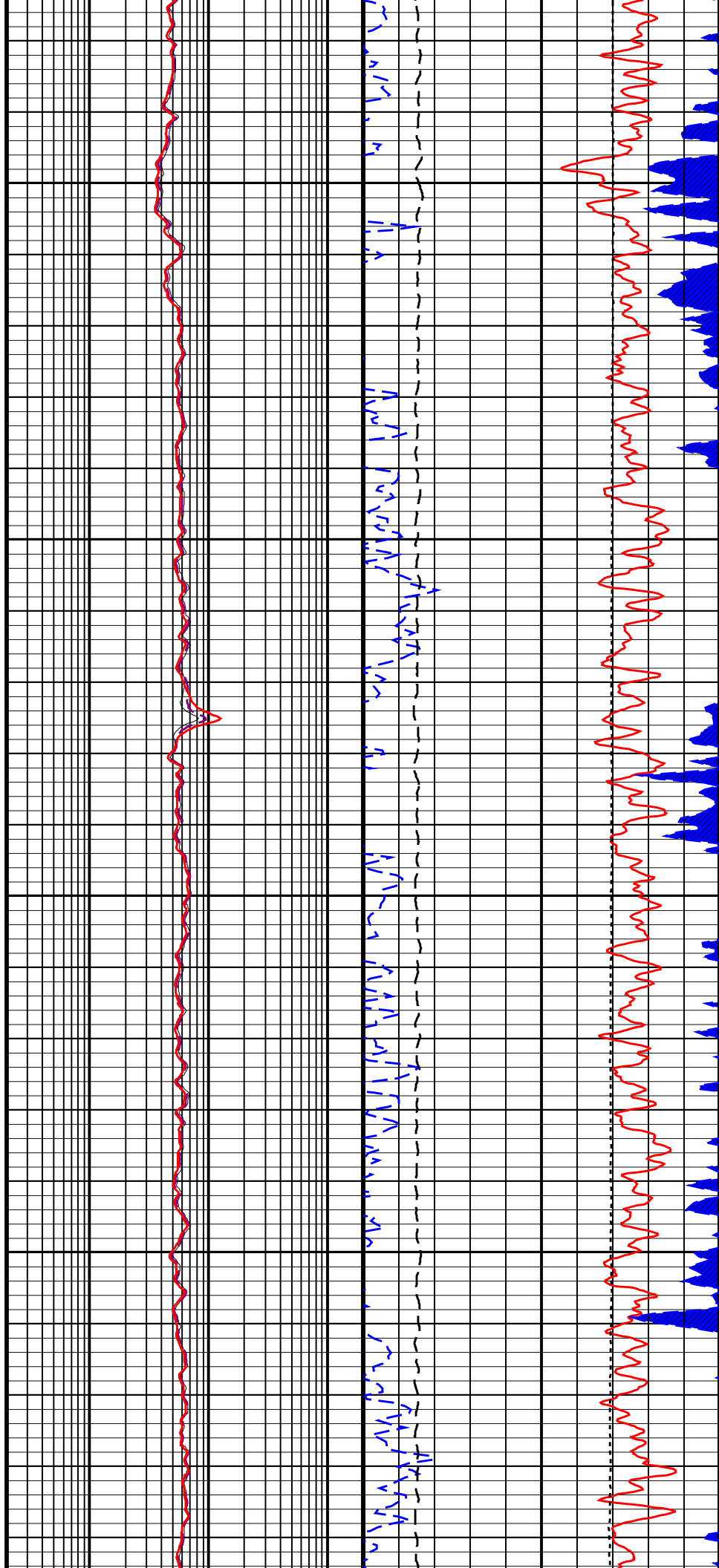
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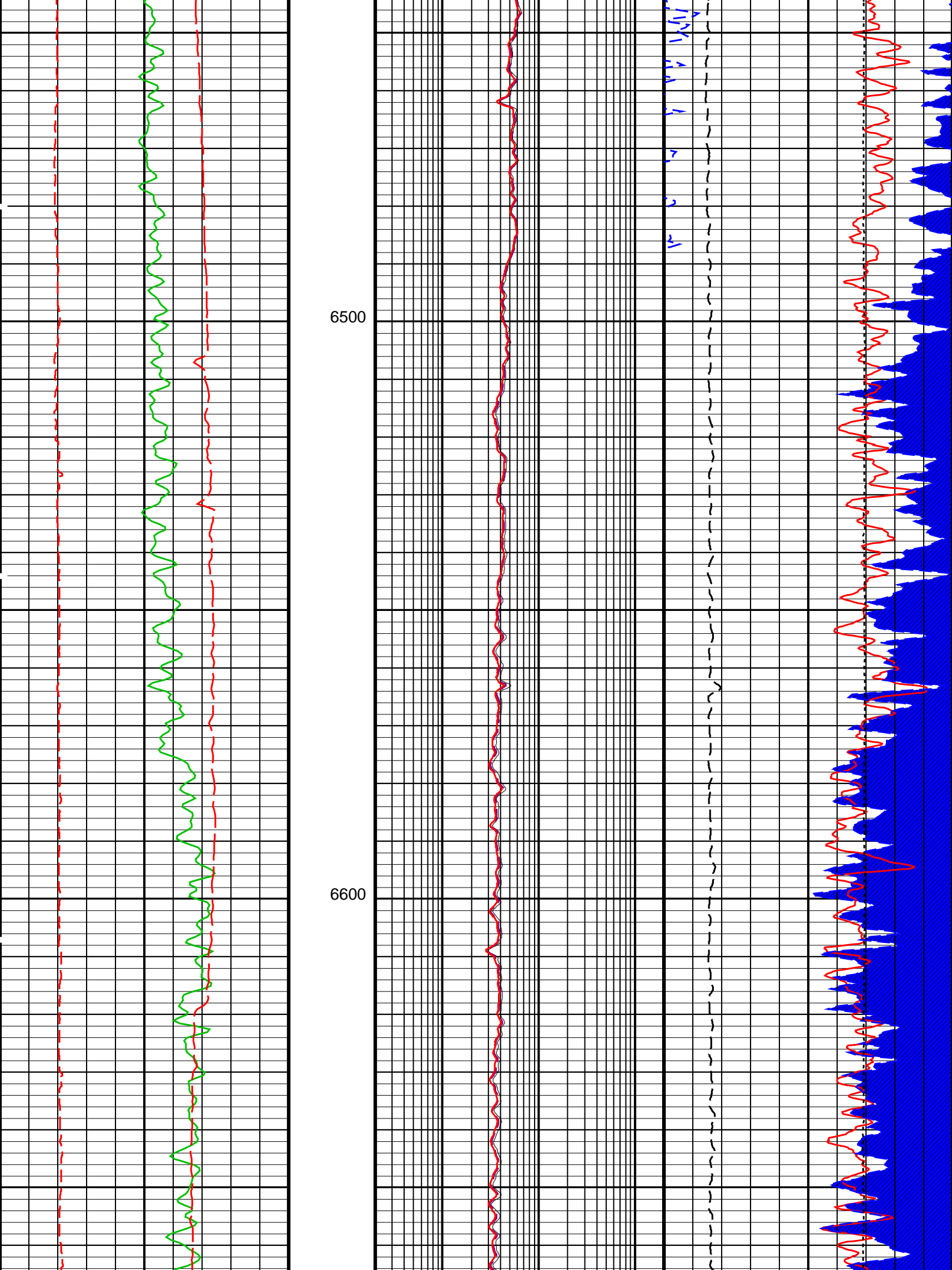


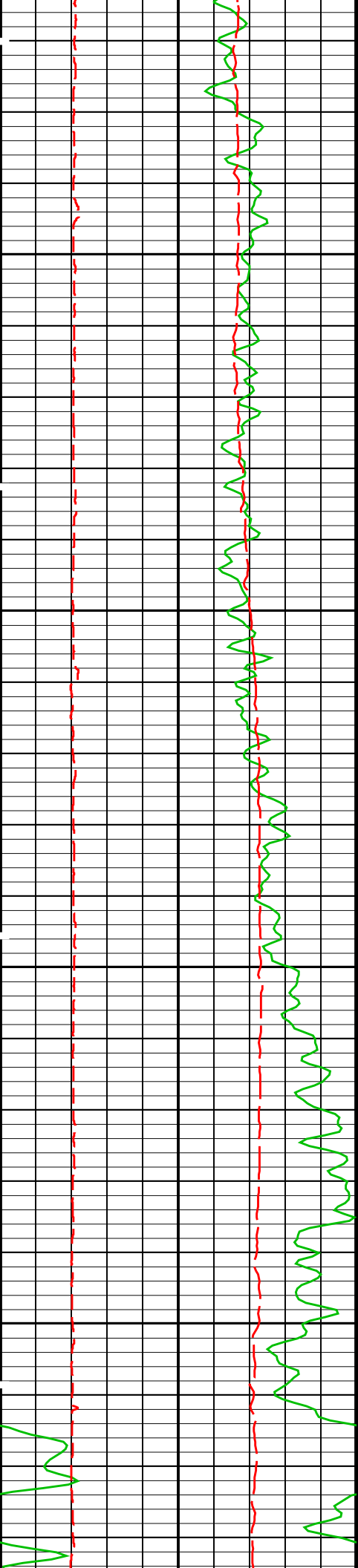


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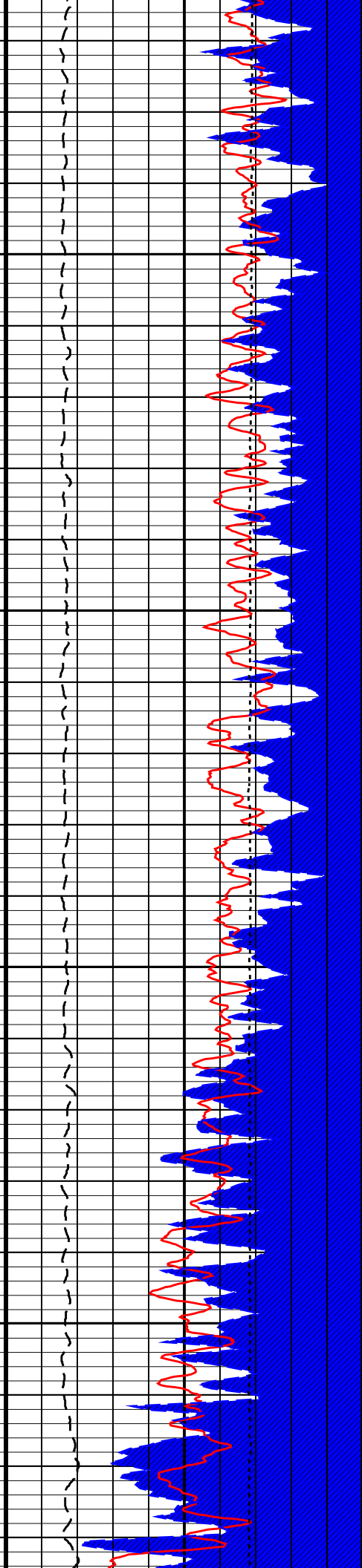
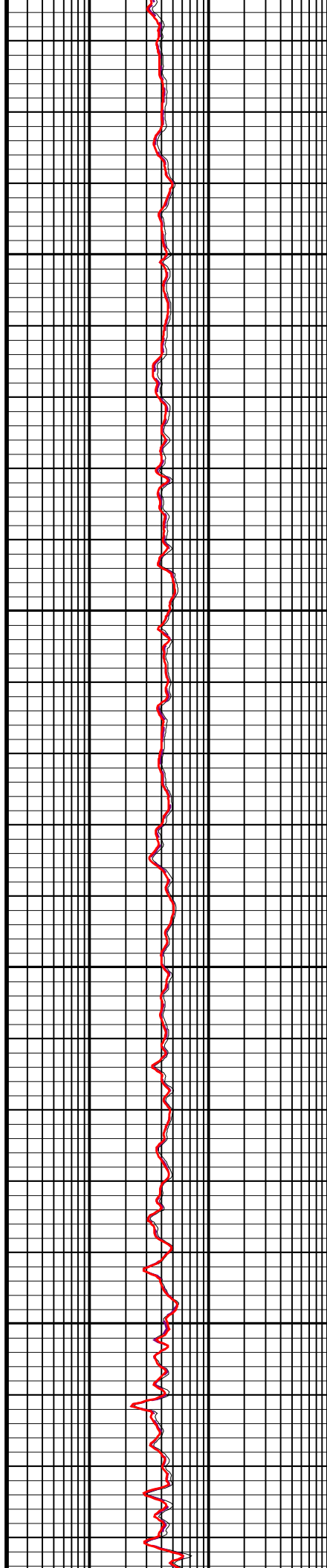


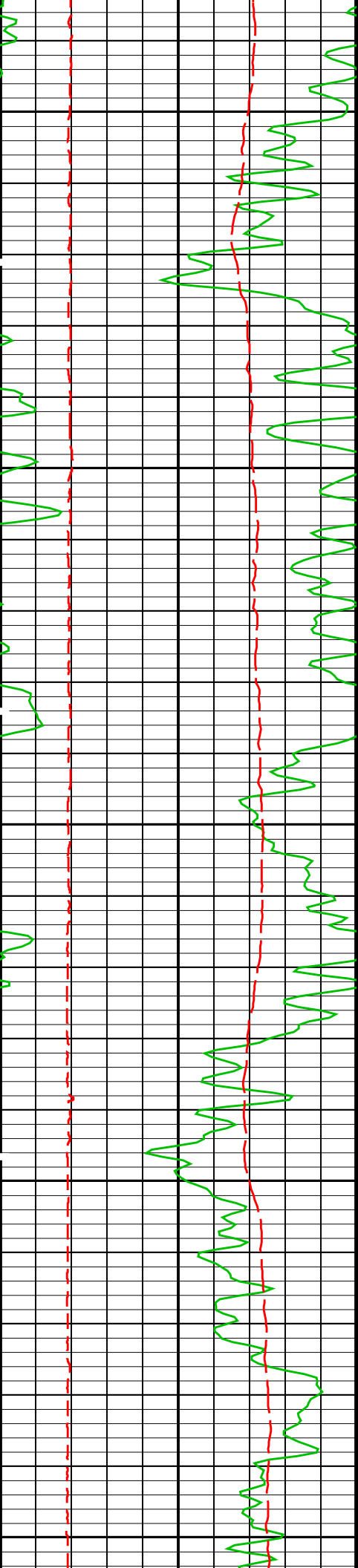




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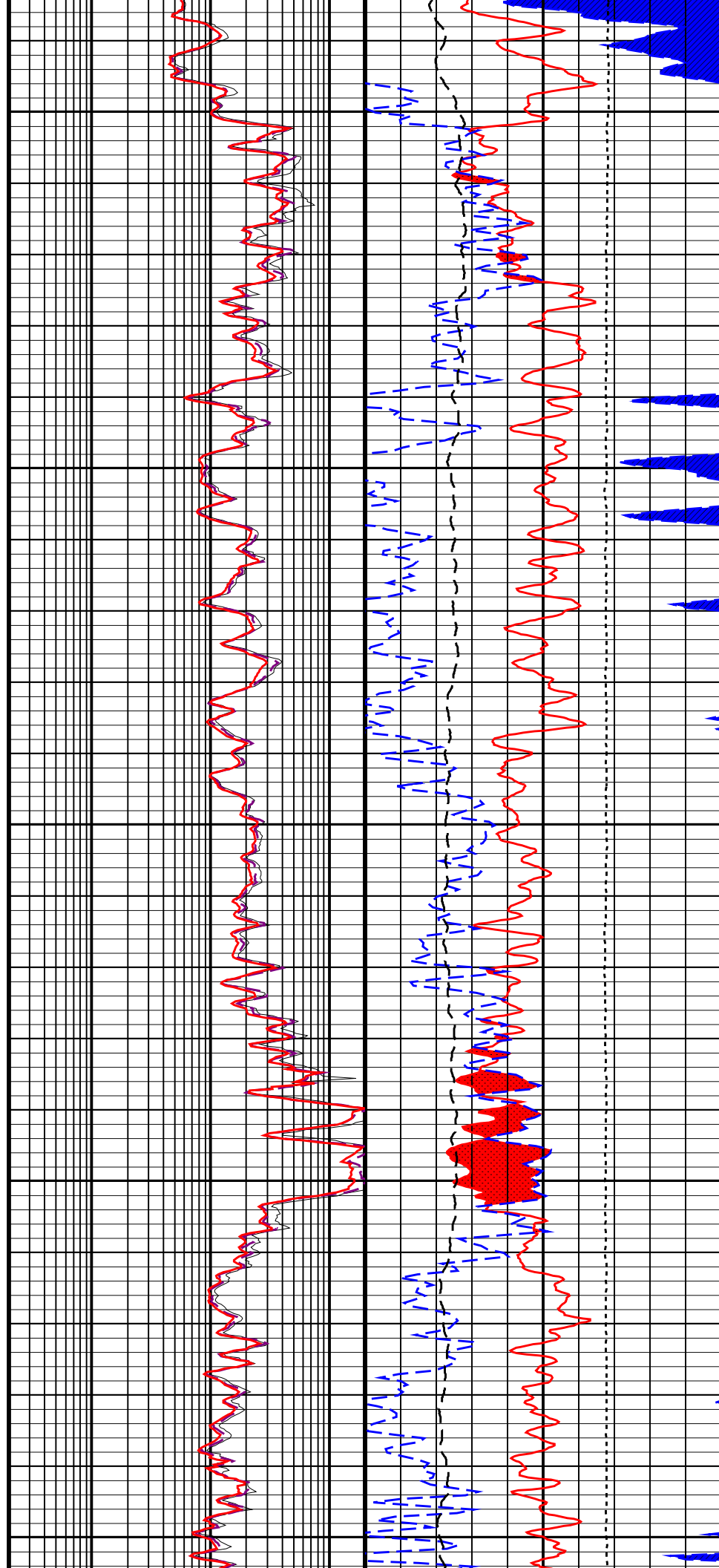


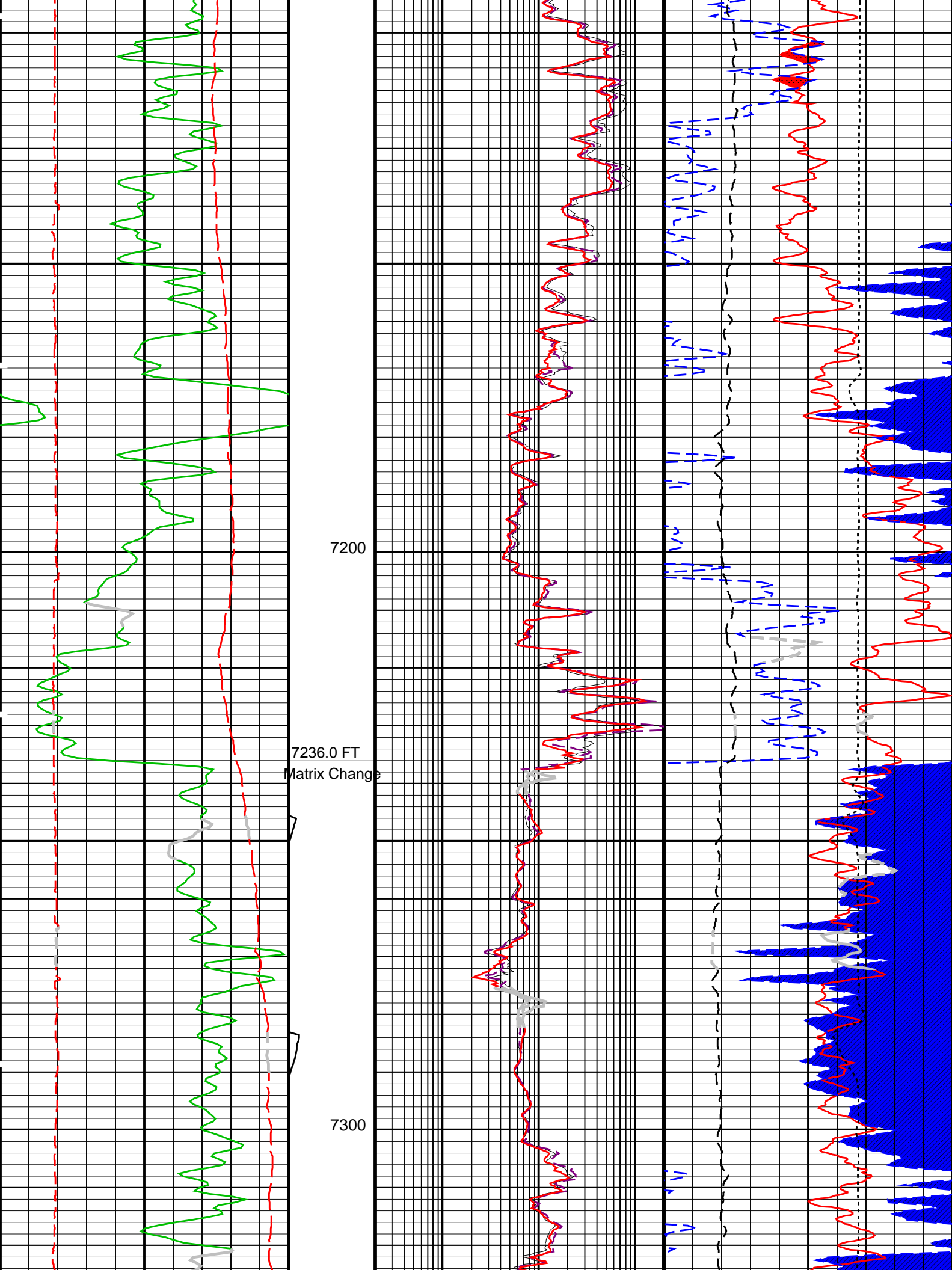


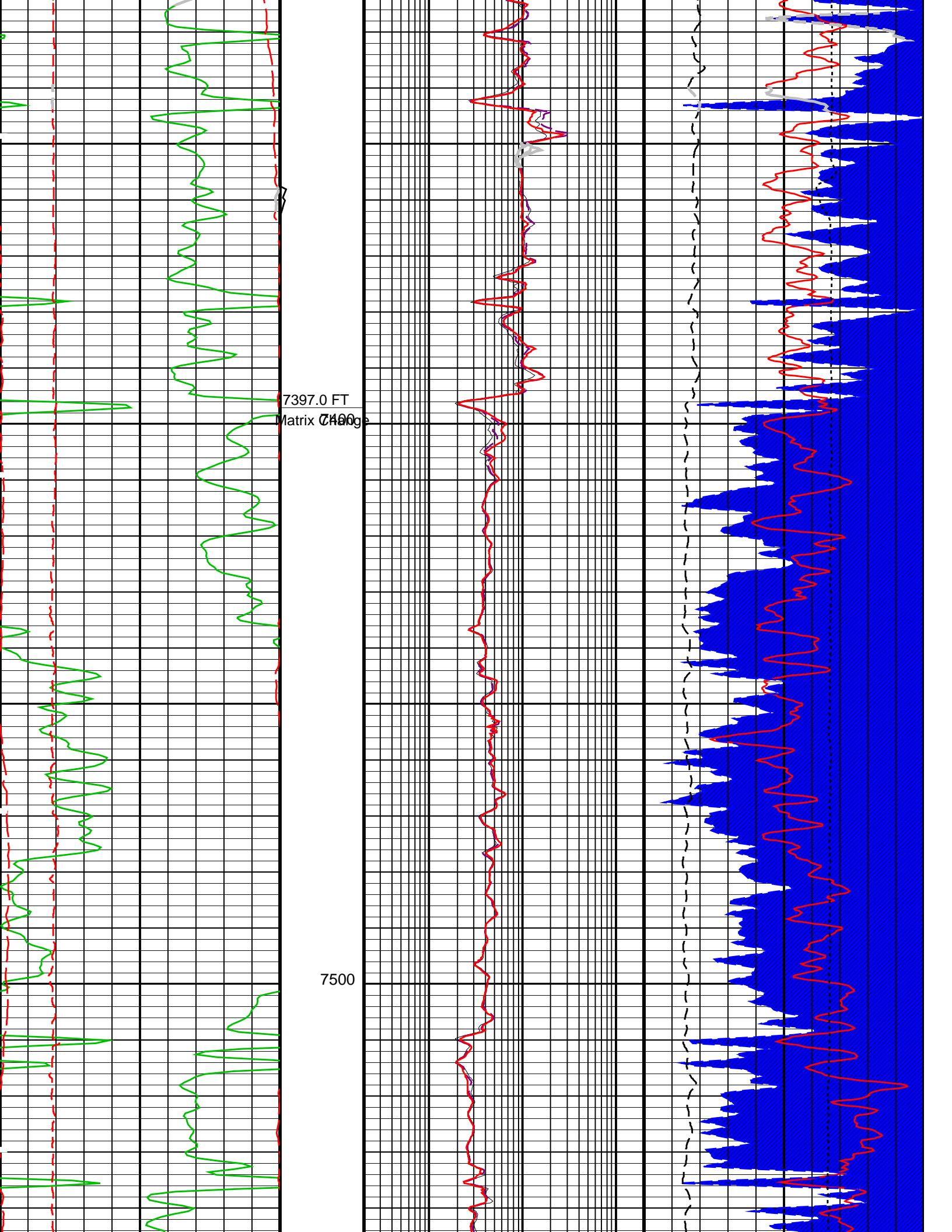
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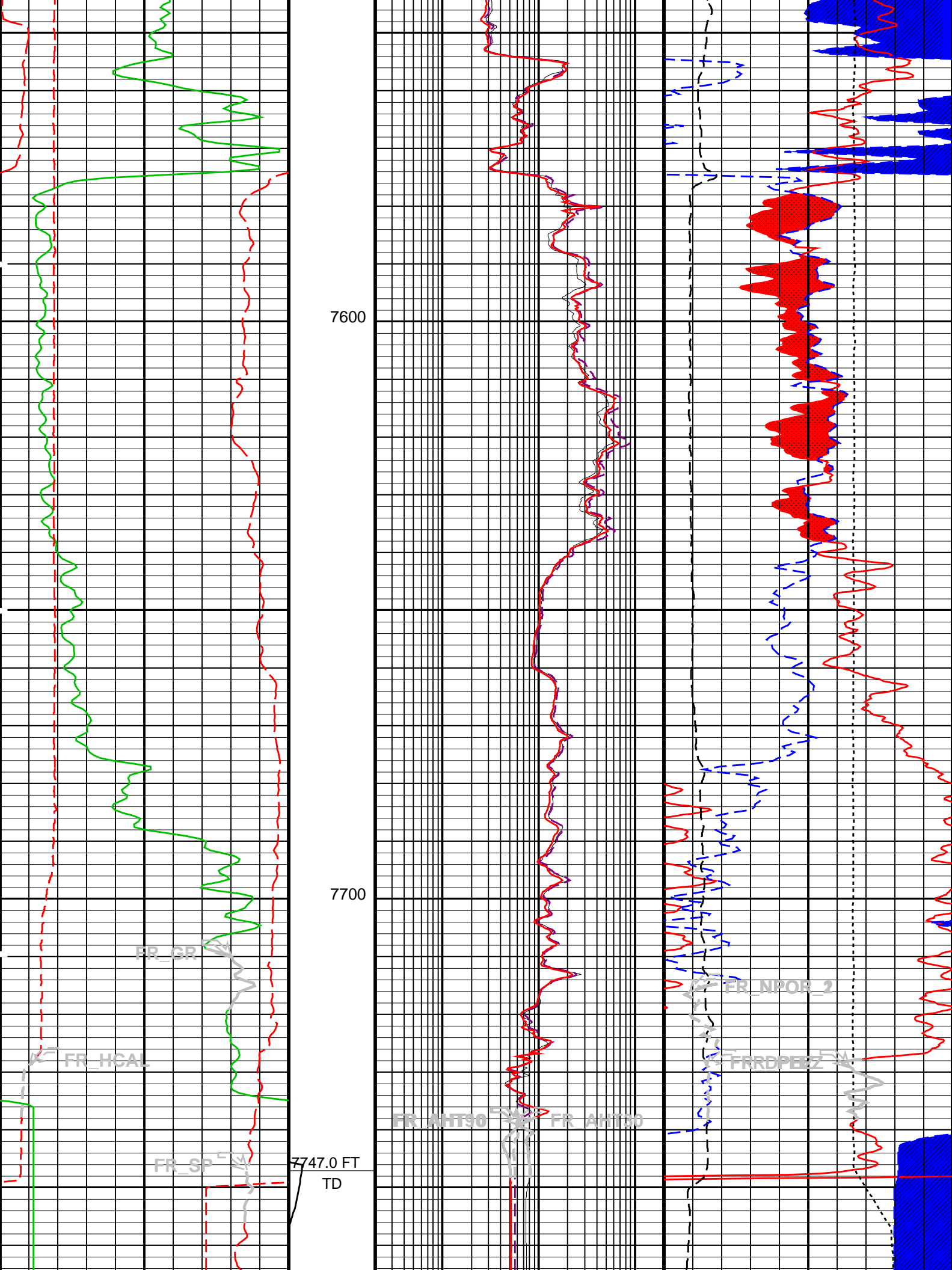
7000

7100









Gamma Ray (GR) (GAPI)			Stuck Stretch (STIT) 0 (F) 50	AIT-H 10 Inch Investigation (AHT10) (OHMM)			Std. Res. Density Porosity (DPHZ) (V/V)		
0		200		0.2		200	0.2		0
HILT Caliper (HCAL) (IN)				AIT-H 30 Inch Investigation (AHT30) (OHMM)			NPOR BACKUP From NPOR_2 to T3		
6		16		0.2		200			
SP (SP) (MV)				AIT-H 90 Inch Investigation (AHT90) (OHMM)			GAS EFFECT From DPHZ to NPOR_1		
-160		40		0.2		200			
						Tension (TENS) (LBF)			
						10000		0	
						Alpha Processed Neutron Porosity (NPOR) (V/V)			
						0.2		0	
						Std. Res. Formation Pe (PEFZ) (----			
						0		10	

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
HILTB-FTB: High resolution Integrated Logging Tool-DTS			
AHBHM	Array Induction Borehole Correction Mode	2_ComputeStandoff	
AHBHV	Array Induction Borehole Correction Code Version Number	880	
AHBLM	Array Induction Basic Logs Mode	6_One_Two_and_Four	
AHBLV	Array Induction Basic Logs Code Version Number	108	
AHCDE	Array Induction Casing Detection Enable	Yes	
AHCEN	Array Induction Tool Centering Flag (in Borehole)	Eccentered	
AHFRSV	Array Induction Response Set Version for Four ft Resolution	40.70.24.21	
AHMRF	Array Induction Mud Resistivity Factor	1	
AHORSV	Array Induction Response Set Version for One ft Resolution	40.70.24.21	
AHRFV	Array Induction Radial Profiling Code Version Number	700	
AHRPV	Array Induction Radial Parametrization Code Version Number	223	
AHSTA	Array Induction Tool Standoff	0.125	IN
AHTRSV	Array Induction Response Set Version for Two ft Resolution	40.70.24.21	
BHFL	Borehole Fluid Type	WATER	
BHFL_TLD	HILT Nuclear Mud Base	WATER	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	190	DEGF
BSCO	Borehole Salinity Correction Option	NO	
CCCO	Casing & Cement Thickness Correction Option	NO	
DHC	Density Hole Correction	BS	
FD	Fluid Density	1	G/C3
FEXP	Form Factor Exponent	2	
FNUM	Form Factor Numerator	1	
FSAL	Formation Salinity	-50000	PPM
FSCO	Formation Salinity Correction Option	NO	
GCLF	Germany Coal-like Formation Option	NO	
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	AITH_RESIST	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
HSCO	Hole Size Correction Option	YES	
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE	
MCCO	Mud Cake Correction Option	NO	
MCOR	Mud Correction	NATU	
MDEN	Matrix Density	2.68	G/C3
MWCO	Mud Weight Correction Option	NO	
NAAC	HRDD APS Activation Correction	OFF	
NMT	HILT Nuclear Mud Type	NOBARITE	
NPRM	HRDD Processing Mode	StdRes	
NSAR	HRDD Depth Sampling Rate	1	IN
PTCO	Pressure/Temperature Correction Option	NO	
SDAT	Standoff Data Source	SOCN	
SHT	Surface Hole Temperature	50	DEGF
SOCN	Standoff Distance	0.125	IN
SOCO	Standoff Correction Option	YES	

SPNV	SP Next Value	0	MV
HOLEV: Integrated Hole/Cement Volume			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	190	DEGF
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	AITH_RESIST	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE	
SHT	Surface Hole Temperature	50	DEGF
PERT: Preliminary Evaluation – Real Time			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	190	DEGF
FEXP	Form Factor Exponent	2	
FNUM	Form Factor Numerator	1	
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	AITH_RESIST	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE	
SHT	Surface Hole Temperature	50	DEGF
STI: Stuck Tool Indicator			
LBFR	Trigger for MAXIS First Reading Label	TDL	
STKT	STI Stuck Threshold	2.5	FT
TDD	Total Depth – Driller	7741.00	FT
TDL	Total Depth – Logger	7747.00	FT
System and Miscellaneous			
BS	Bit Size	7.875	IN
BSAL	Borehole Salinity	600.00	PPM
CSIZ	Current Casing Size	8.625	IN
CWEI	Casing Weight	24.00	LB/F
DFD	Drilling Fluid Density	9.20	LB/G
DORL	Depth Offset for Repeat Analysis	0.0	FT
MST	Mud Sample Temperature	70.00	DEGF
RMFS	Resistivity of Mud Filtrate Sample	1.7600	OHMM
TD	Total Depth	7747	FT

Format: COMBO Vertical Scale: 5" per 100' Graphics File Created: 01-Feb-2007 11:57

OP System Version: 14C0-302

MCM

HILTB-FTB	SRPC-3193-Q3_2006	GPIT-C	SRPC-3193-Q3_2006
DTC-H	SRPC-3193-Q3_2006		

Output DLIS Files

DEFAULT	AIT_TLD_MCFL_CNL_013LUP	FN:12	PRODUCER	01-Feb-2007 11:57
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Company: **Orr Energy, LLC**

Schlumberger

Well: **PRR 32-14D**

Field: **Wattenberg**

County: **Weld**

State: **Colorado**

Platform Express
Compensated Neutron
Litho Density