



RESERVOIR PERFORMANCE MONITOR

Baker Atlas

File No: CH050362	Company Well	WPX ENERGY FEDERAL PA 323-29
API No: 05045195240000	Field County	PARACHUTE GARFIELD
	State	COLORADO
29-16S-R9SW DDE 3-W-29 pod Nabors 577	Location SHL: 585' FSL 2265' FWL BHL: 1669' FSL 1986' FWL SEC 29 TWP 6S RGE 9SW	Other Services CBL
Permanent Datum Log Measured From Drill Measured From	GL KB KELLY BUSHING	Elevations KB 5702 ft DF GL 5675 ft

Date	28 FEB 2012	
Run	ONE	
Service Order	574780	
Depth Driller	7700 ft	
Depth Logger	7685 ft	
Bottom Logged Interval	7675 ft	
Top Logged Interval	26 ft	
Time Started	0000	
Time Finished	500	
Operator Rig Time	5 HOURS	
Type of Fluid in Hole	WATER	
Fluid Density	NA	
Salinity	NA	
Fluid Level	NA	
Logged Cement Top	NA	
Wellhead Pressure	0 psi	
Maximum Hole Deviation	NA	
Nominal Logging Speed	10 fpm	
Maximum Recorded Temperature	210 degF	
Reference Log	BAKER HUGHES BOND LOG	
Reference Log Date	27 FEB 2012	
Equipment No.	4214	GRAND JCT
Recorded By	JACOB STALEY	
Witnessed By	Dustin Welsh	

- FOLD HERE

In making interpretations of logs, our employees will give the customer the benefit of their best judgement. But since all interpretations are opinions based on inferences from electrical or other measurements, we cannot, and we do not guarantee the accuracy or correctness of any interpretation. We shall not be liable or responsible for any loss, cost, damages, or expenses whatsoever incurred or sustained by the customer resulting from any interpretation made by any of our employees.

Borehole Record		
Bit Size	From	To
13.5 In	0 ft	2213 ft
7.875 In	0 ft	7700 ft

Casing Record				
Size	Weight	Grade	From	To
9.625 In			0 ft	2213 ft
4.5 In			0 ft	7700 ft

Remarks

ALL DATA WAS DEPTH SHIFTED TO MATCH THE GR CURVE OF THE BAKER HUGHES BOND LOG

DATED 27 FEB 2012 WITH A SHIFT OF +4 FT

LOGGED IN PNC3D MODE

LOGGED WITH 0 PSI AT WELLHEAD

SJ = 4210'-4232'

BHT = 210 DEG F

Equipment Data					
Run	Trip	Tool	Series Number	Serial Number	Position
1	1	RPM	8281FA	10460082	FREE
1	1	RPM	8281PA	11802753	FREE
1	1	RPM	8281EA	10169250	FREE
1	1	GR	8262XA	10485470	FREE
1	1	TEL/CCL	8248EA	10460262	FREE
1	1	PCM	8250EA	10586851	FREE

MAIN SECTION
PNC 3-D MODE

SPL PROCESSING					
MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
PNC Porosity	Borehole	Cased		3961.750	7691.968
PNC Porosity	Borehole Size	8.750	inch	3961.750	7691.968
PNC Porosity	Casing Size	4.500	inch	3961.750	7691.968
PNC Porosity	Gas Filled	Non Gas Filled		3961.750	7691.968
PNC Porosity	Matrix	Sandstone		3961.750	7691.968

DEPTH OFFSETS							
(for Acquired Curves)							
SERIES	DEPTH OFFSET	ACQUIRED CURVES					
8248EA	-15.320	FLTM					
8248EA	-13.320	CCL	CHV				
8262XA	-10.189	GR					
8281XA	-0.662	HVC3Q0	SEQ3	AMA3	AML3	BKX	CXS
		CPT3Q0	CPT3Q2	CPT3Q3	CPT3Q4	ET3	IXS
		MCS3	MCS3Q0	QCAL3	RGN3	RICX	SDA3
		CDL3	CDL3	CDL3	CDL3	CDL3	CDL3

		SDL3	SGA3	SGL3	STA3	XS	ASPEC3
		AMB3	AMF3	CHF3	IXSC	IXSN	RAT023
		RICXC	RIN13C	RIN23	RIN23C	SD3D	SG3D
		SGB3	SGF3	WDTH3	CXSR	IXSR	XSR
		RICXR					
8281XA	-0.250	HVC2Q0	SEQ2	AMA2	AMB2	AMF2	AML2
		BKL	CHF2	CLS	CPT2Q0	CPT2Q2	CPT2Q3
		CPT2Q4	ET2	ILS	LS	MCS2	MCS2Q0
		QCAL2	RGN2	RICL	RONE23	RTW023	SDA2
		SDL2	SGA2	SGB2	SGF2	SGK2	SGL2
		STA2	ASPEC2	ILSC	ILSN	WDTH2	RICLC
		CLSR	ILSR	LSR	RICLR		
8281XA	0.000	CPRS	HVC1Q0	MV	SEQ	SEQ1	AMA1
		AMB1	AME1	AMF1	AML1	BKS	CHF1
		CSS	CORB	CORF	CPT1Q0	CPT1Q2	CPT1Q2A
		CPT1Q2B	CPT1Q2C	CPT1Q3	CPT1Q4	CPT1Q5	ET1
		G1	G2	GE1S	GE2S	ISS	MCS1
		MCS1Q0	QA1	QCAL1	QM1	RATO	RATO13
		RBOR	RGN1	RICS	RIN	RONE	RPOR
		RTW0	RIN13	RONE13	RTW013	SALB	SC1
		SDA1	SDL1	SGA1	SGB1	SGBC	SGE1
		SGF1	SGFC	SGK1	SGL1	SS	SS2
		STA1	PD1S	PD2S	PD3S	MD1S	MD2S
		MD3S	DG1S	DG2S	DG3S	PD1M	PD2M
		PD3M	MD1M	MD2M	MD3M	DG1M	DG2M
		DG3M	MVS	MA	MVM	FILV	IAM
		TA	PVM	PVS	IAS	SSTAT	QPD1
		QPD2	QPD3	QMD1	QMD2	QMD3	QDG1
		QDG2	QDG3	QMA	QTA	QFILV	QMV
		QPV	QIA	DERR	DCNT	QPK1	QSA1
		PKS1	ASPEC1	HOC	FE2XC	ISSC	RINC
		ISSN	RDEN	WDTH1	RICSC	CSSR	G1R
		G2R	ISSR	SSR	SS2R	RATOR	RATO13R
		RBORR	RICSR	RINR	RIN13R	RONER	RPORR
		RTWOR					
SYSTEM	0.000	TEN	TTEN				

Created by : RPM9, v5.3.1.0

Plotted by : PlotMgr, v5.4.504

Company : WPX ENERGY

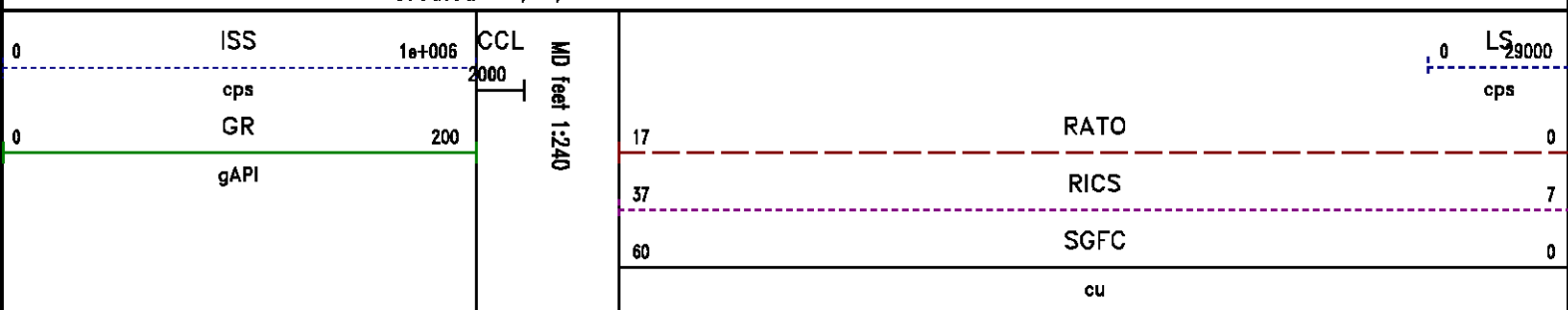
Well : FEDERAL PA 323-29

File Name : d:\welldata\williams\federal pa 323-29\rpm323\main.xtf

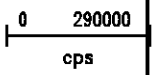
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Interval : -0.25 - 7696.00 feet UP

Created : 2/28/2012 12:56:31 AM



SS



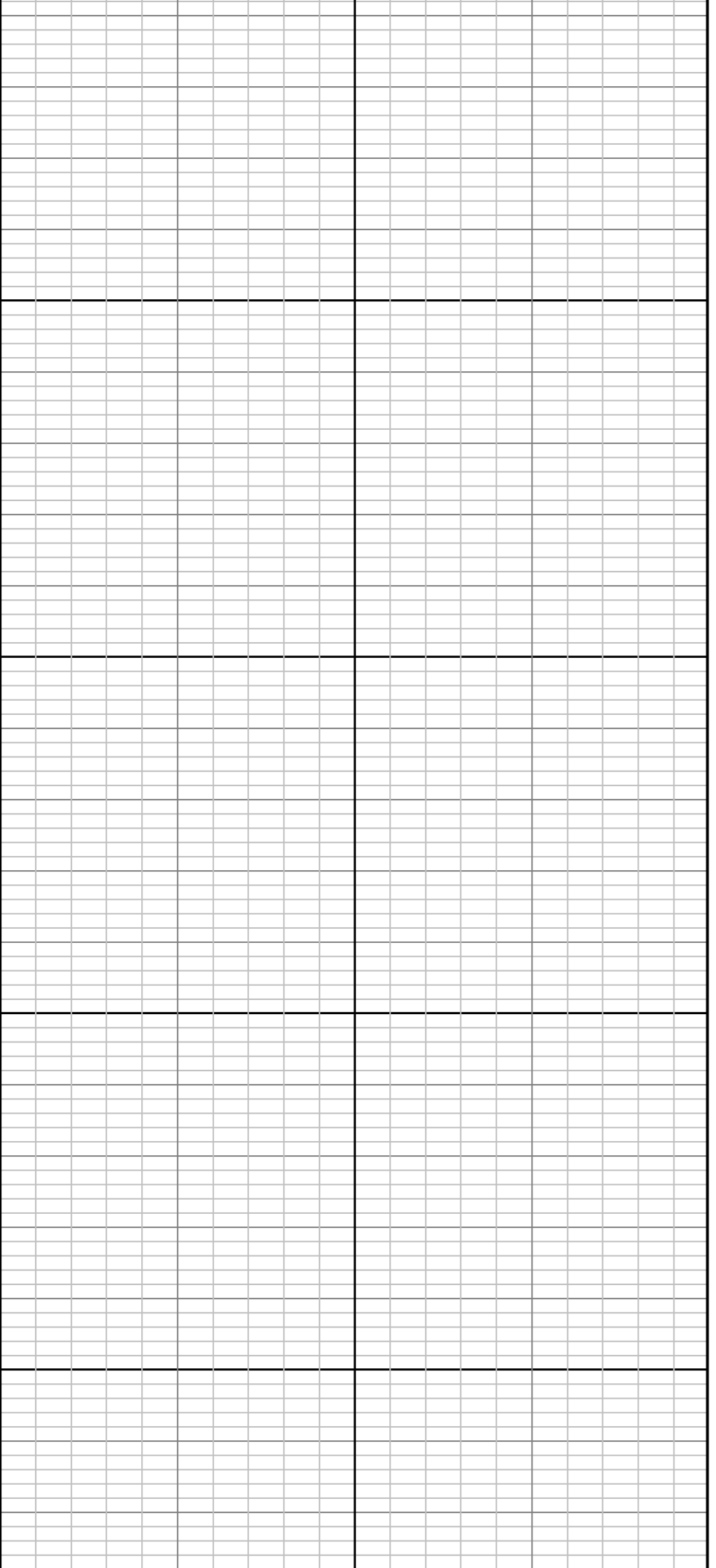
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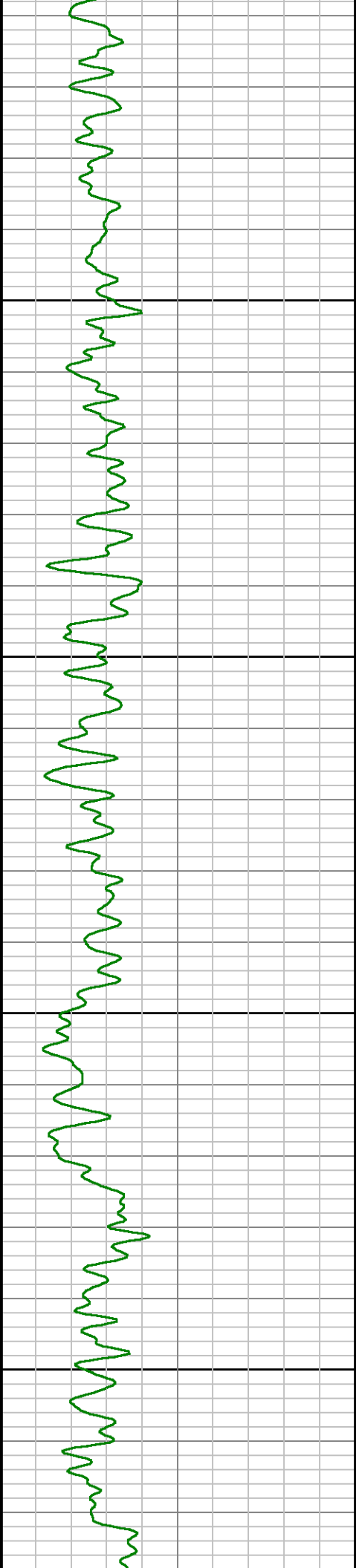
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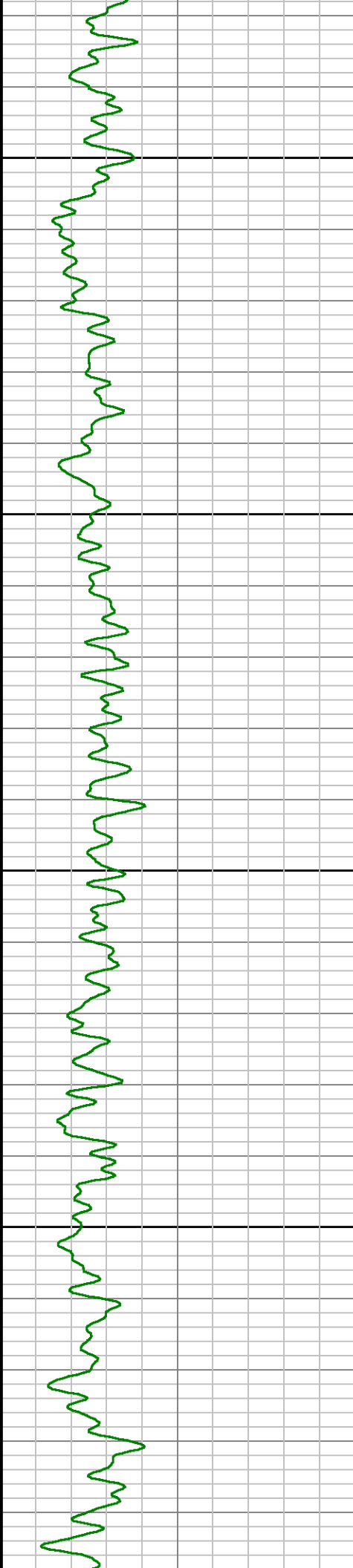




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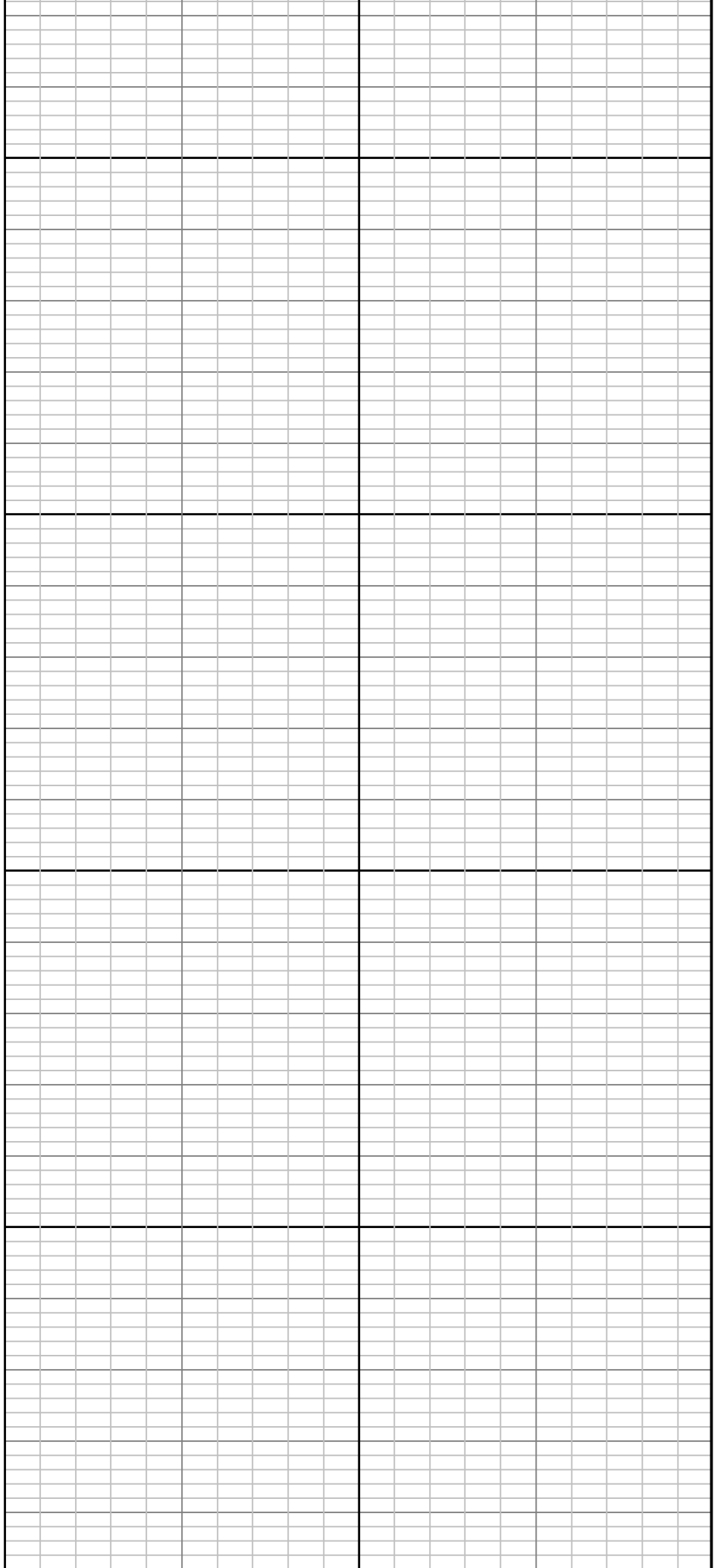
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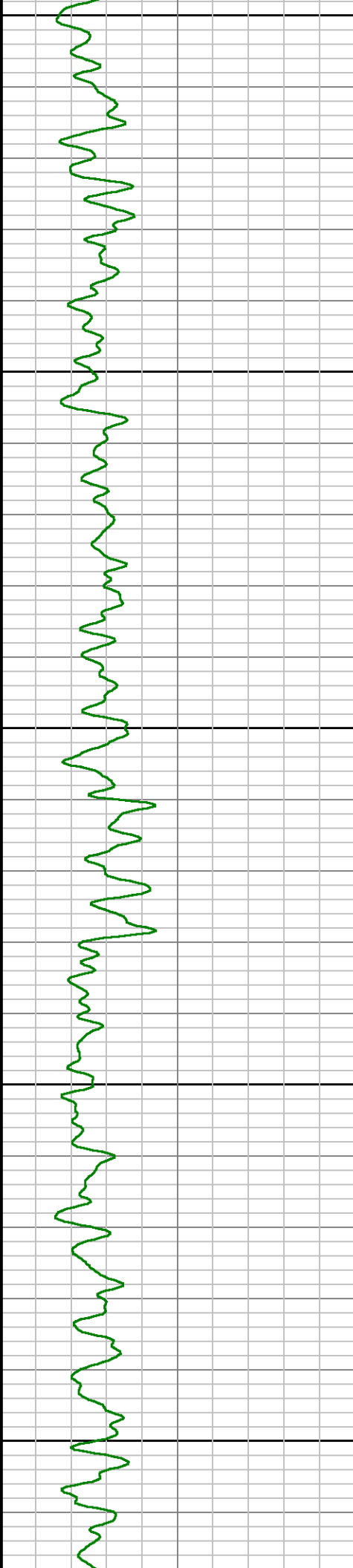




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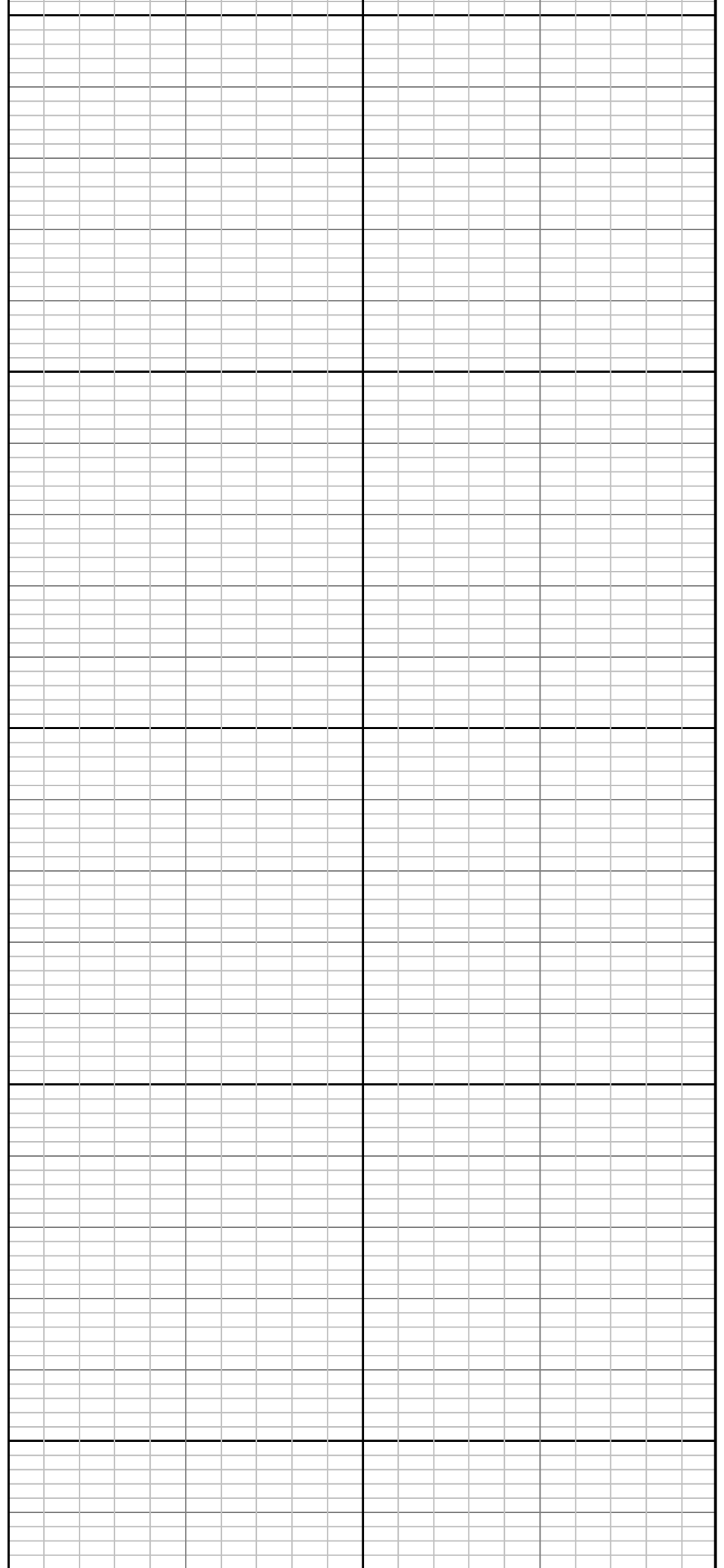
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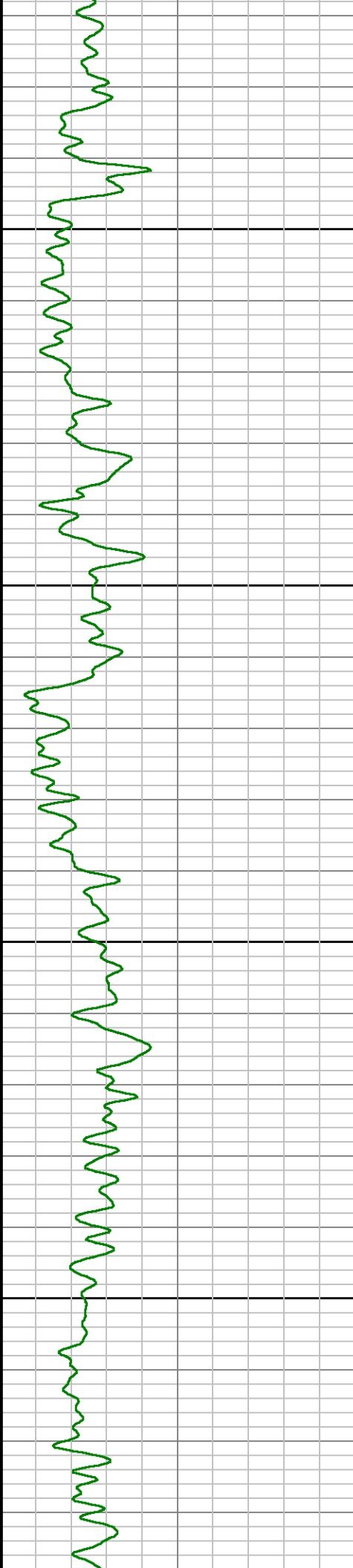




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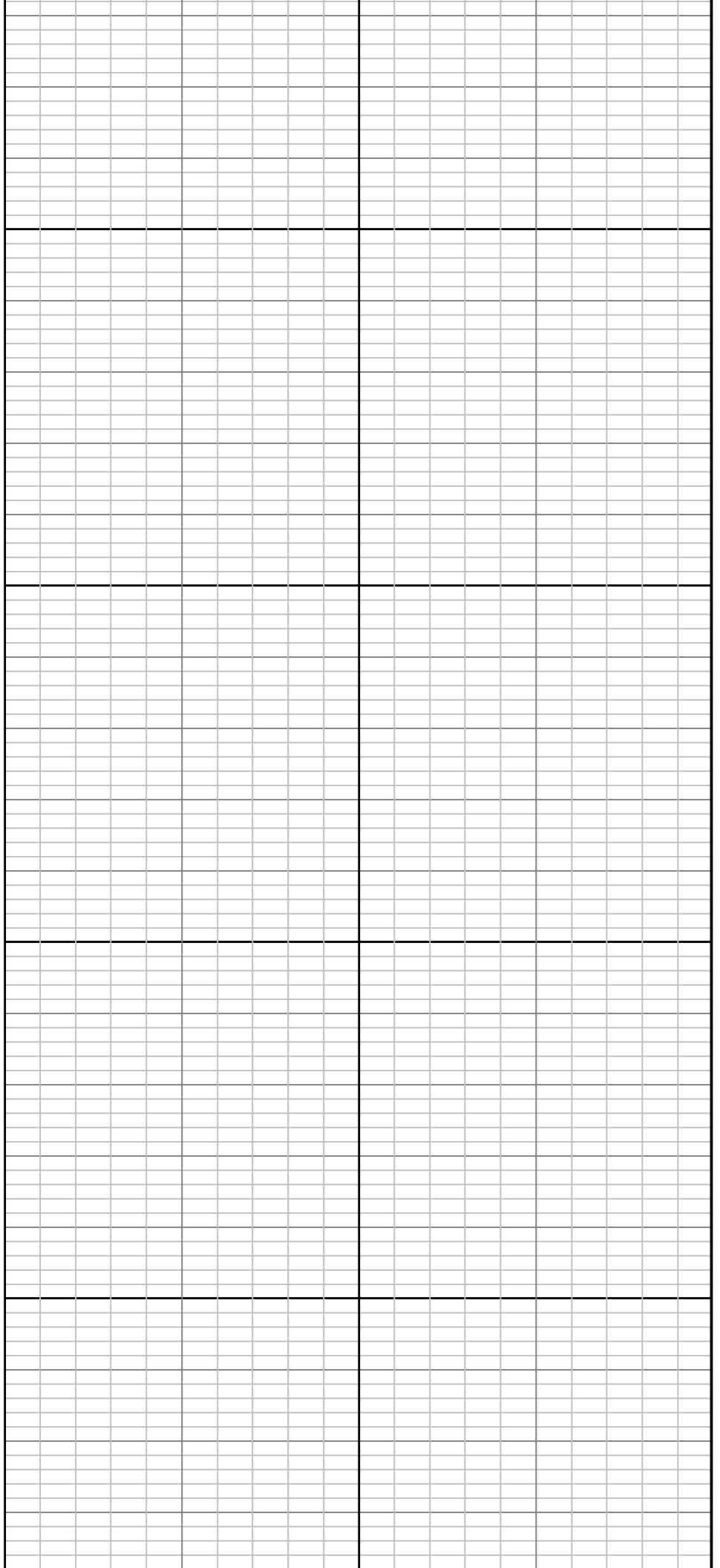
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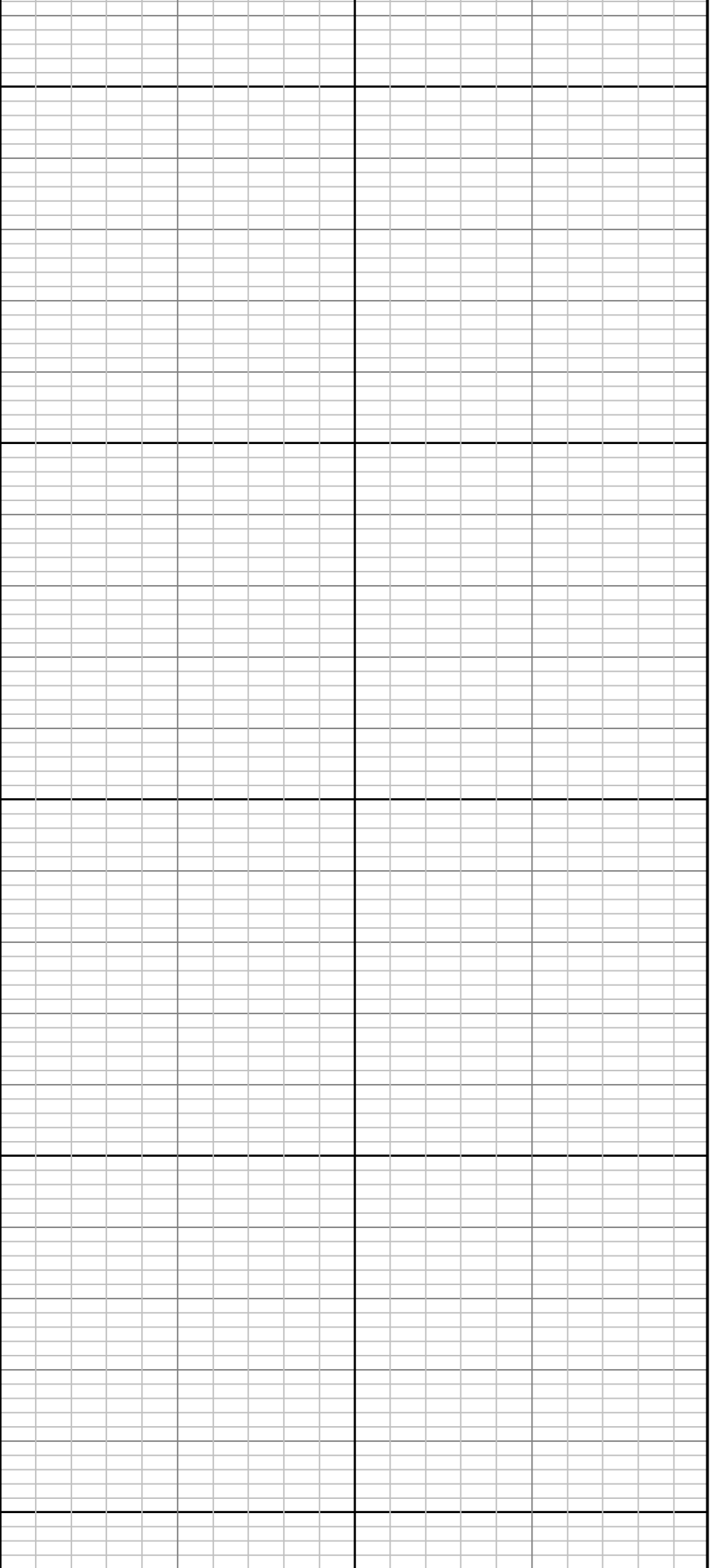




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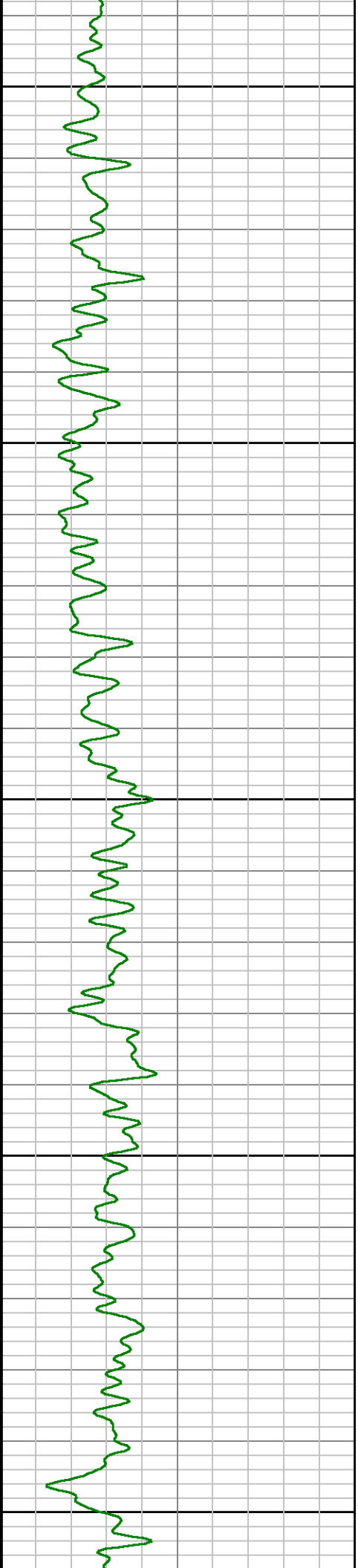


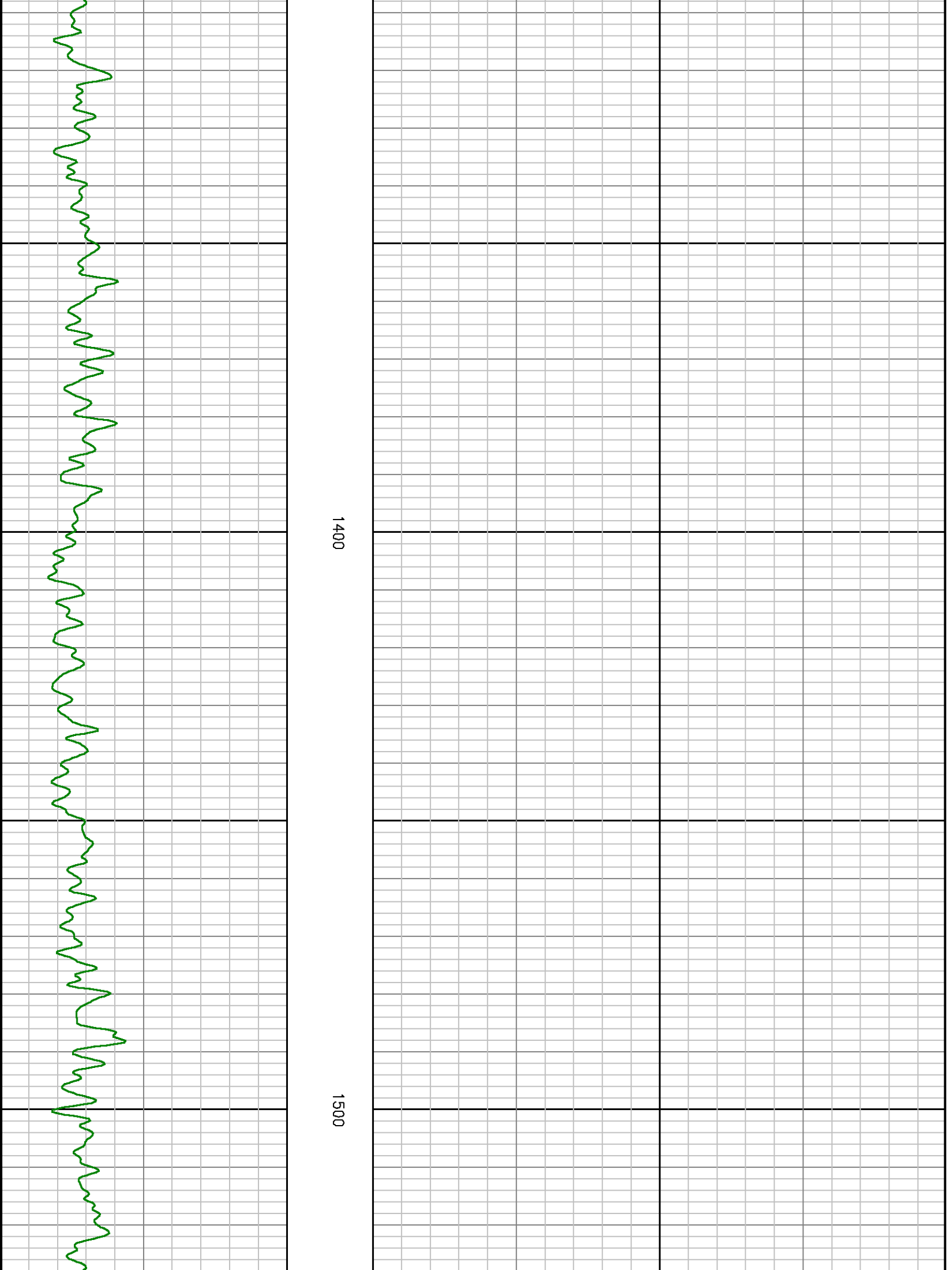


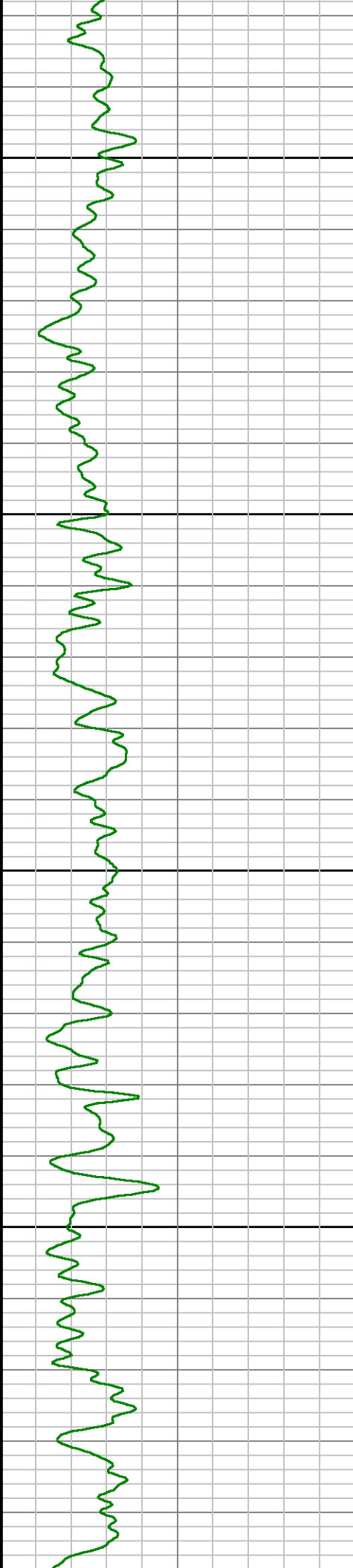
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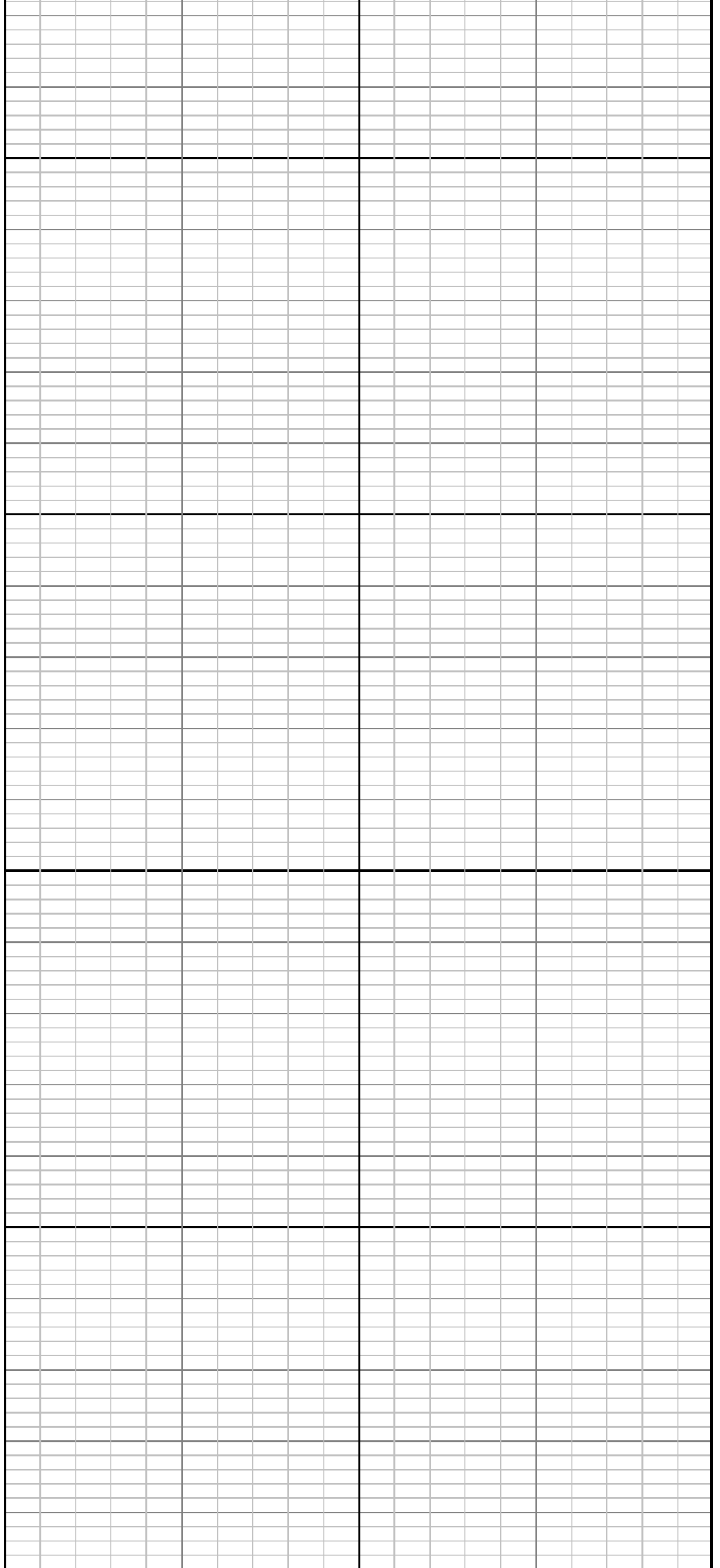


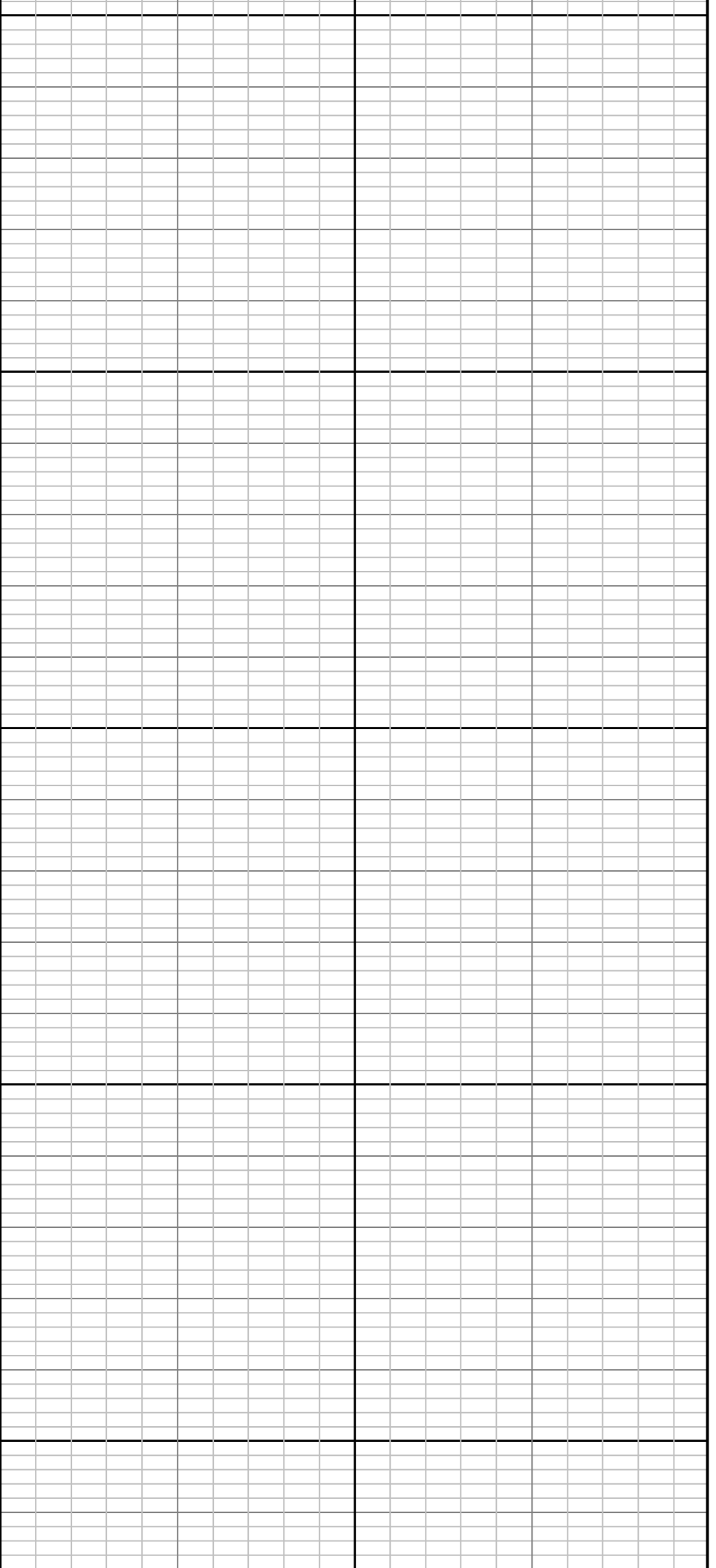




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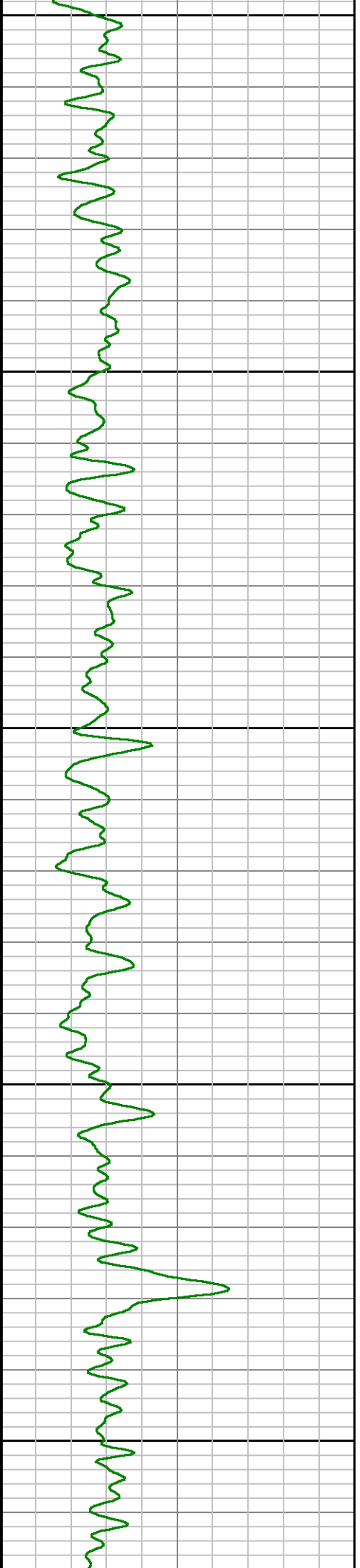
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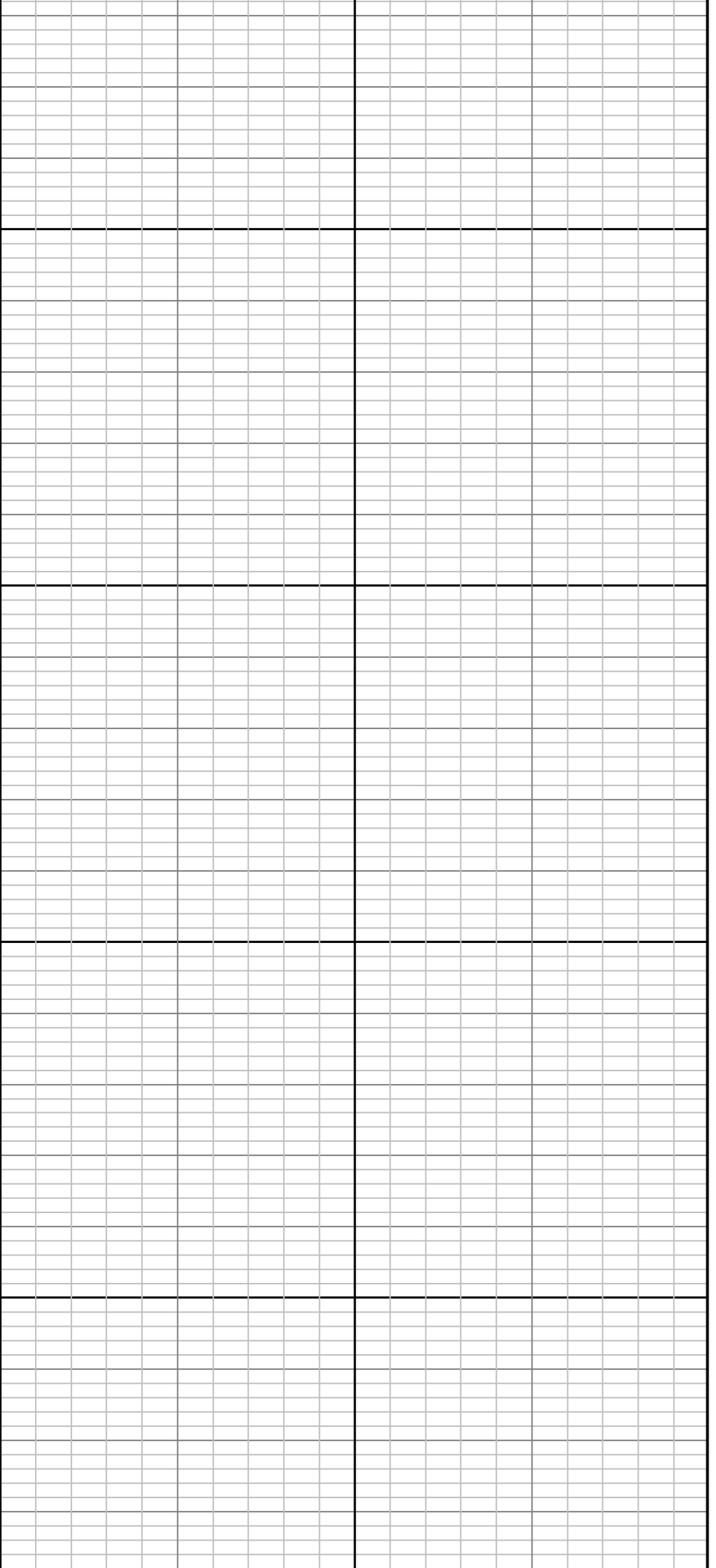




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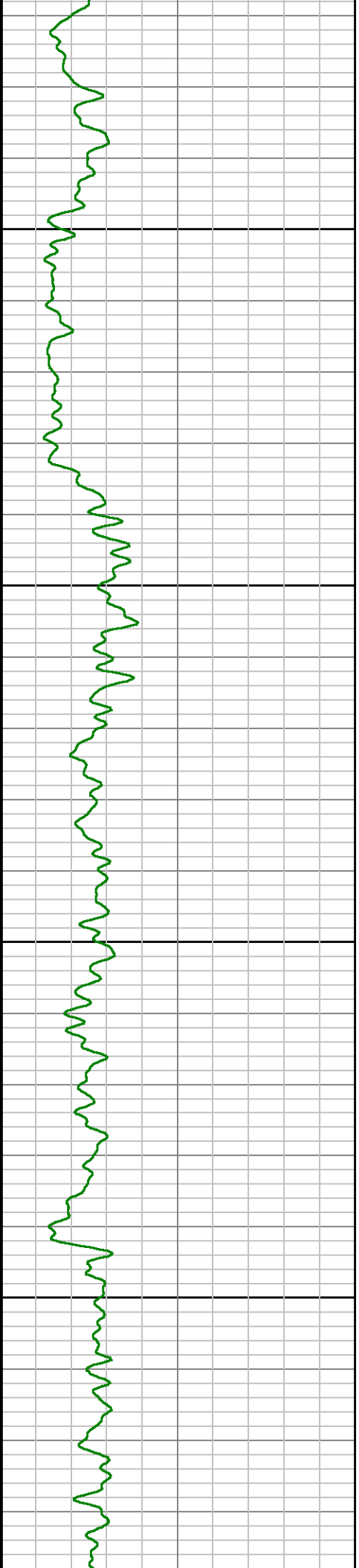
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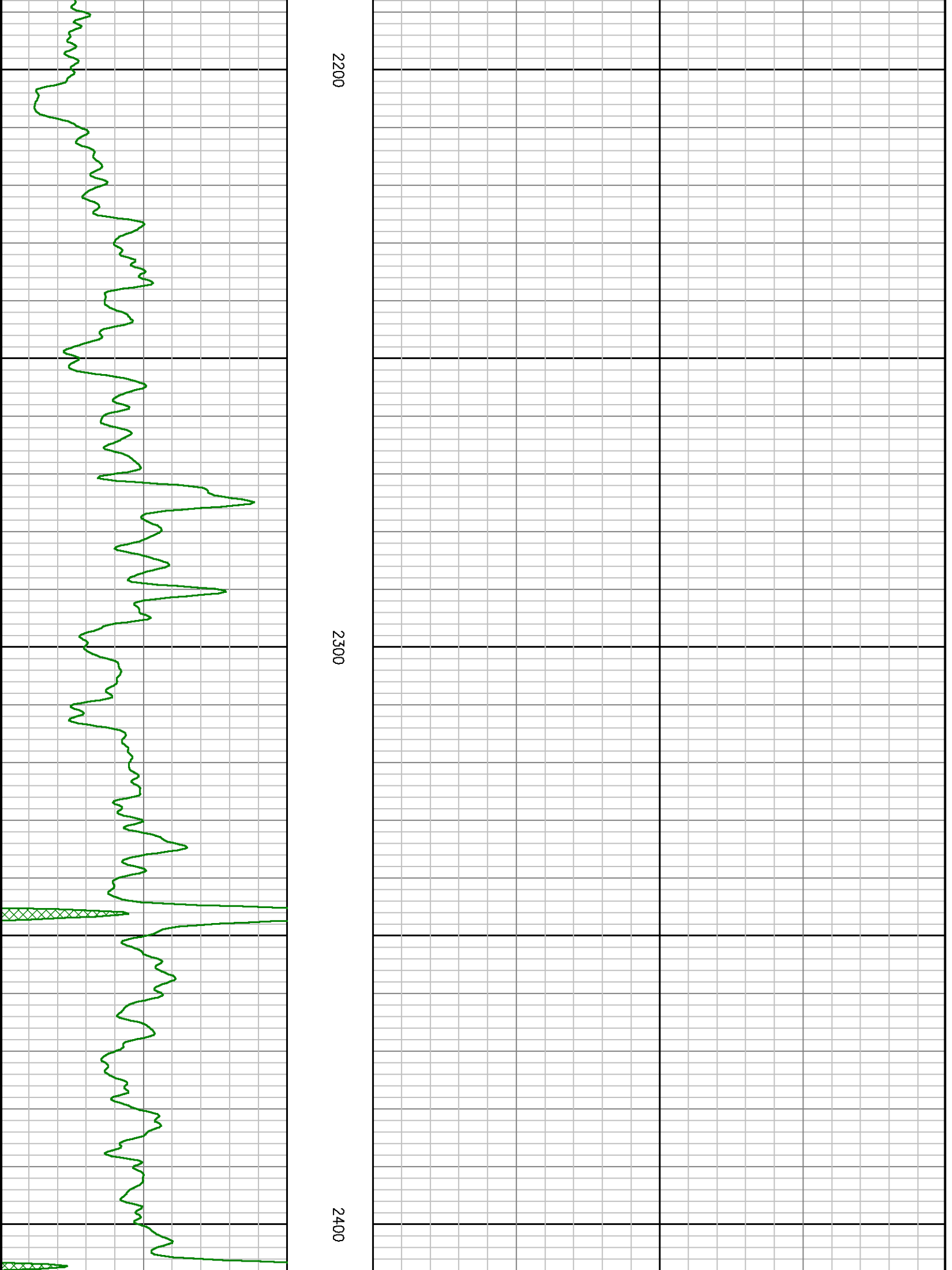


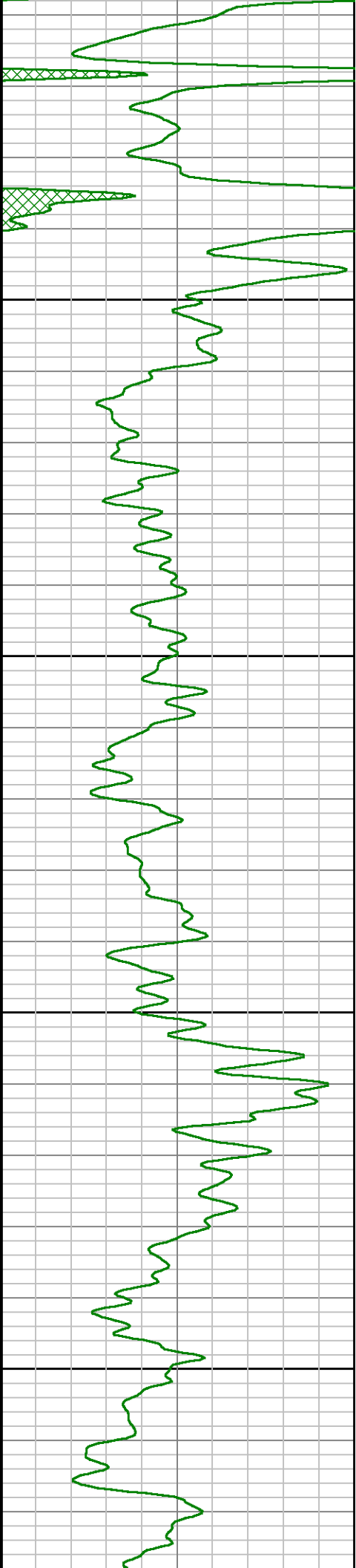


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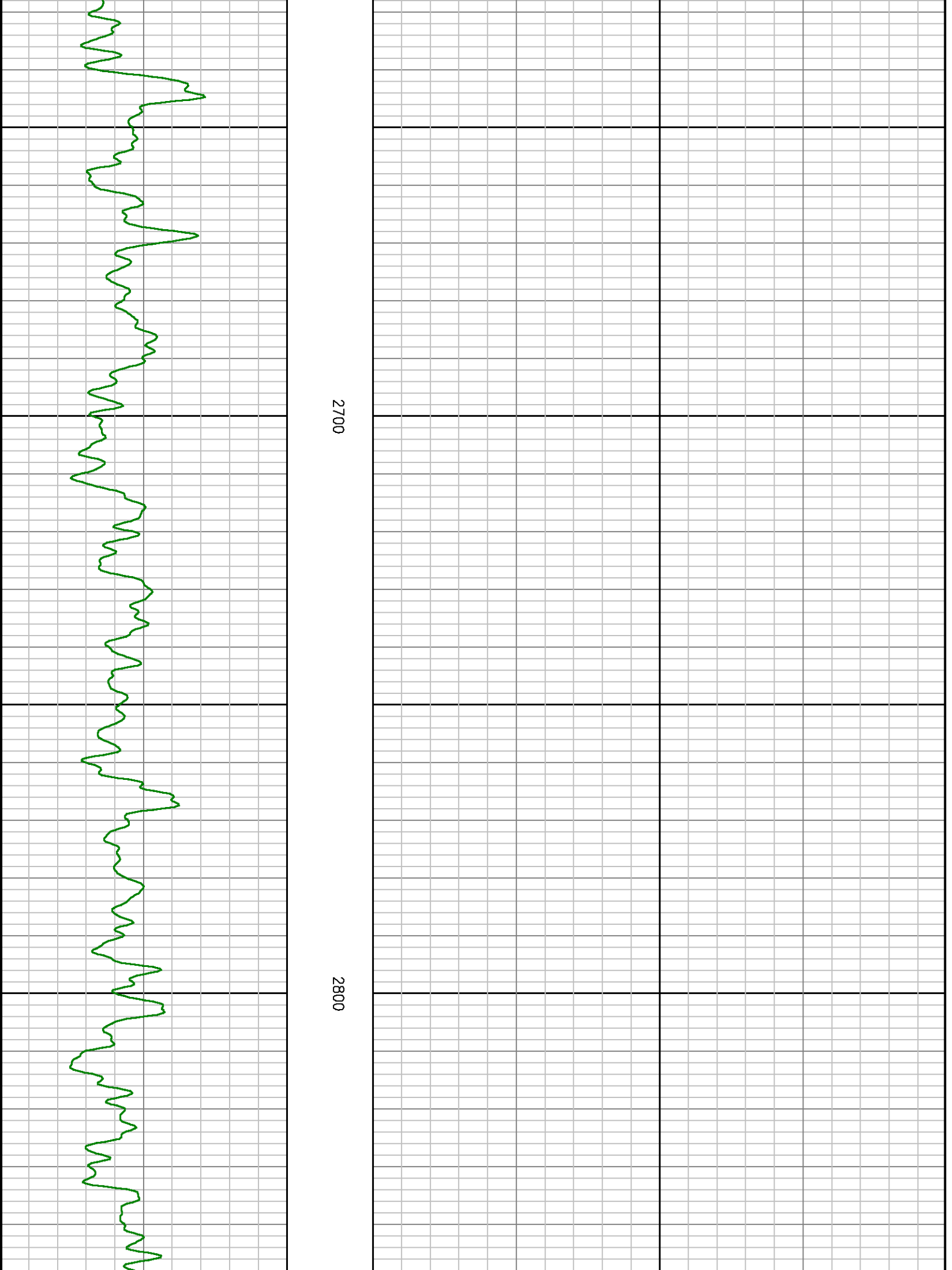


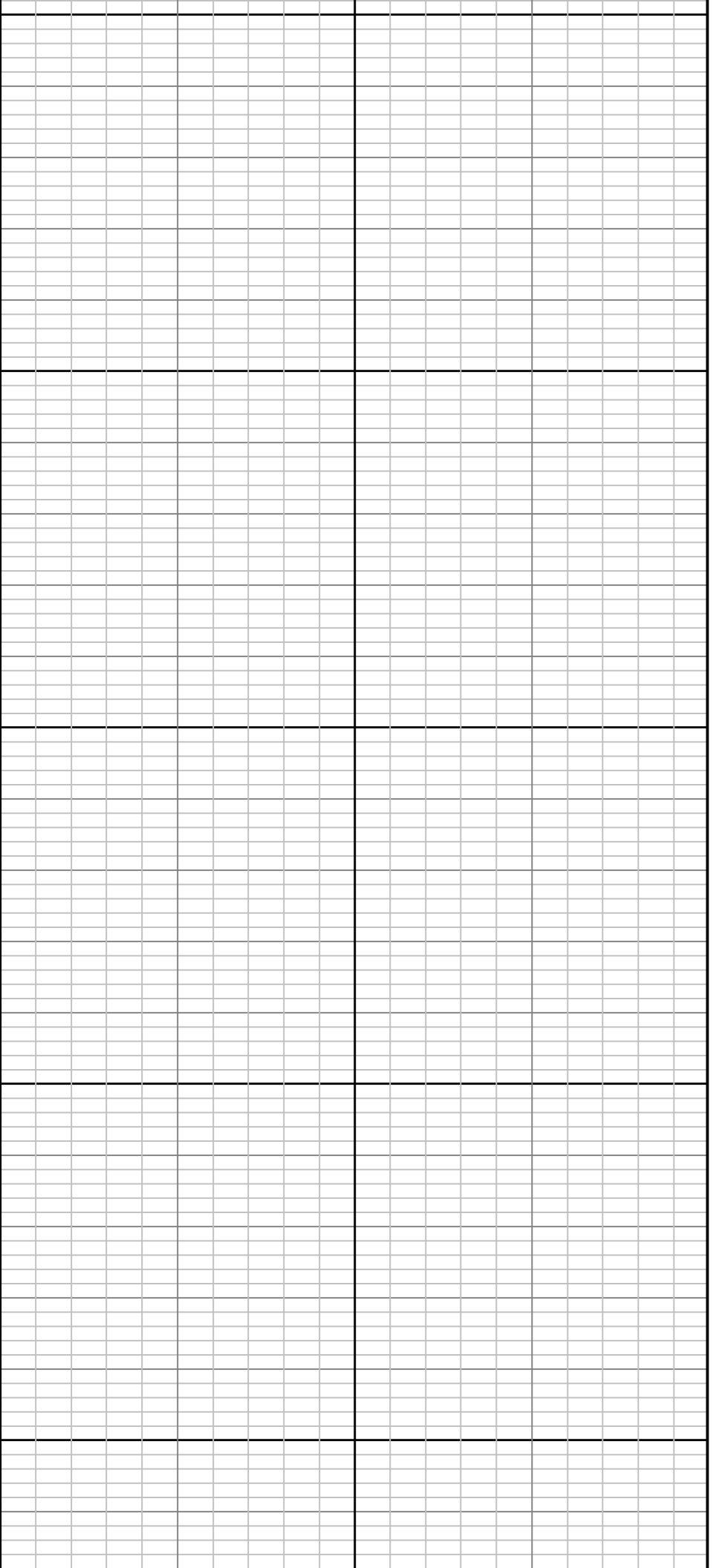




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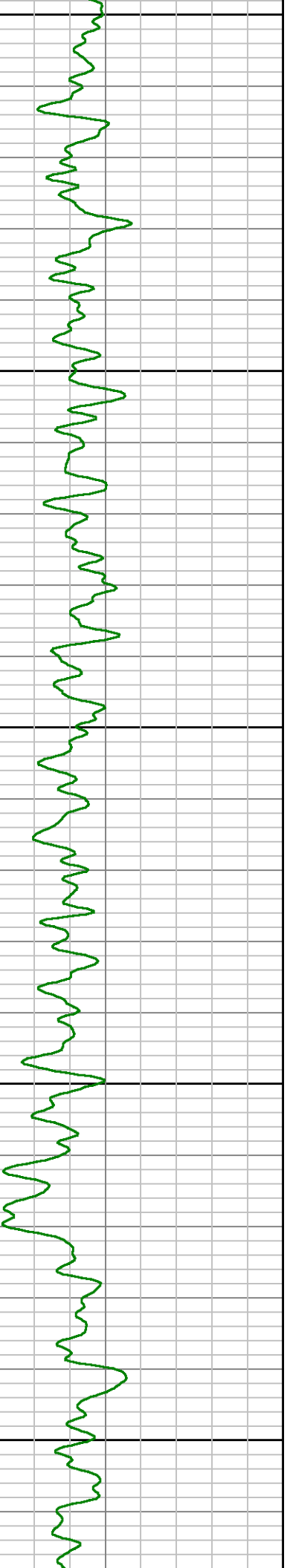
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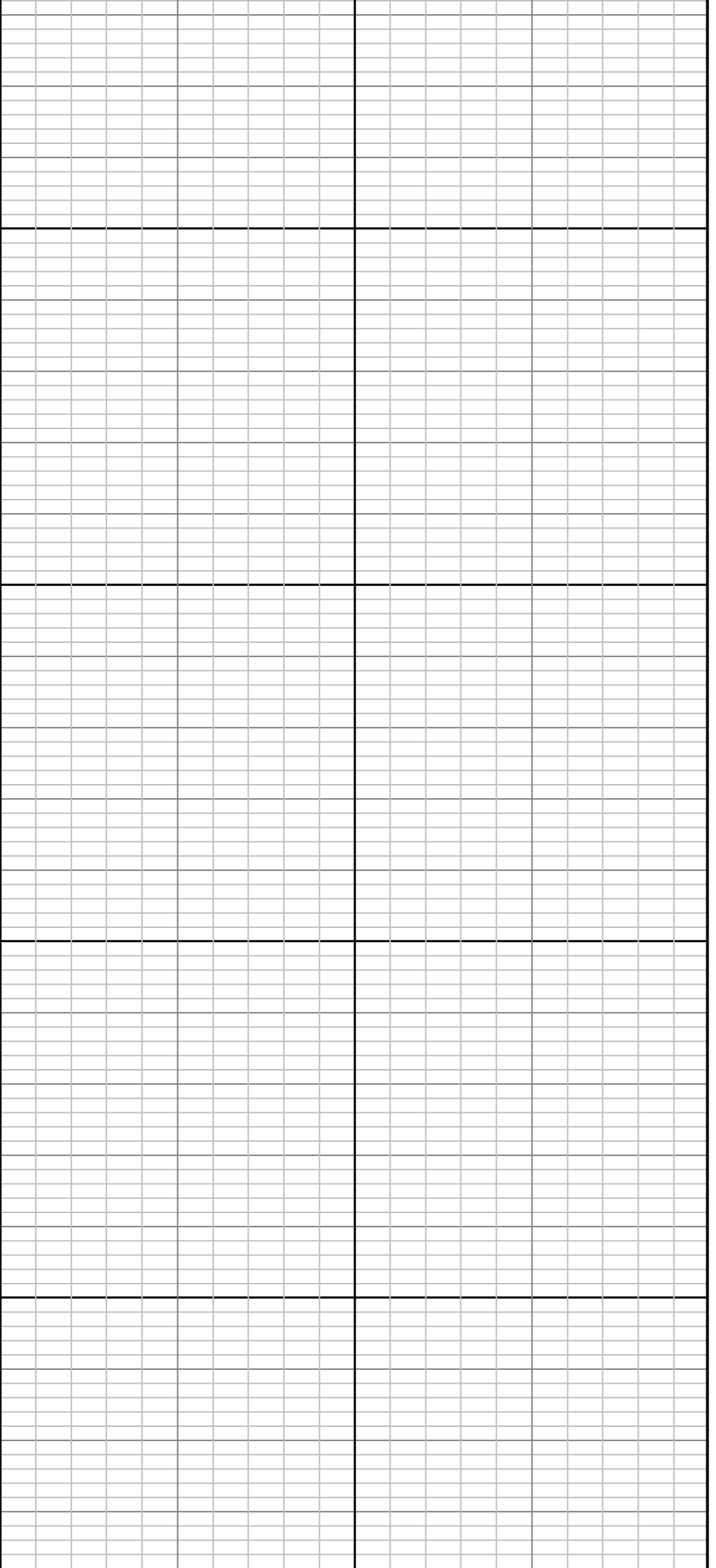




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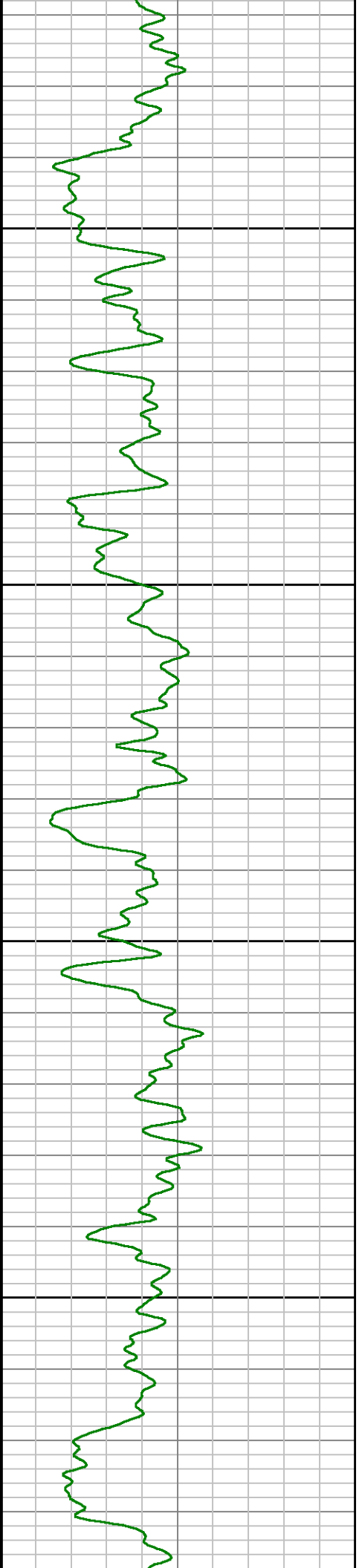
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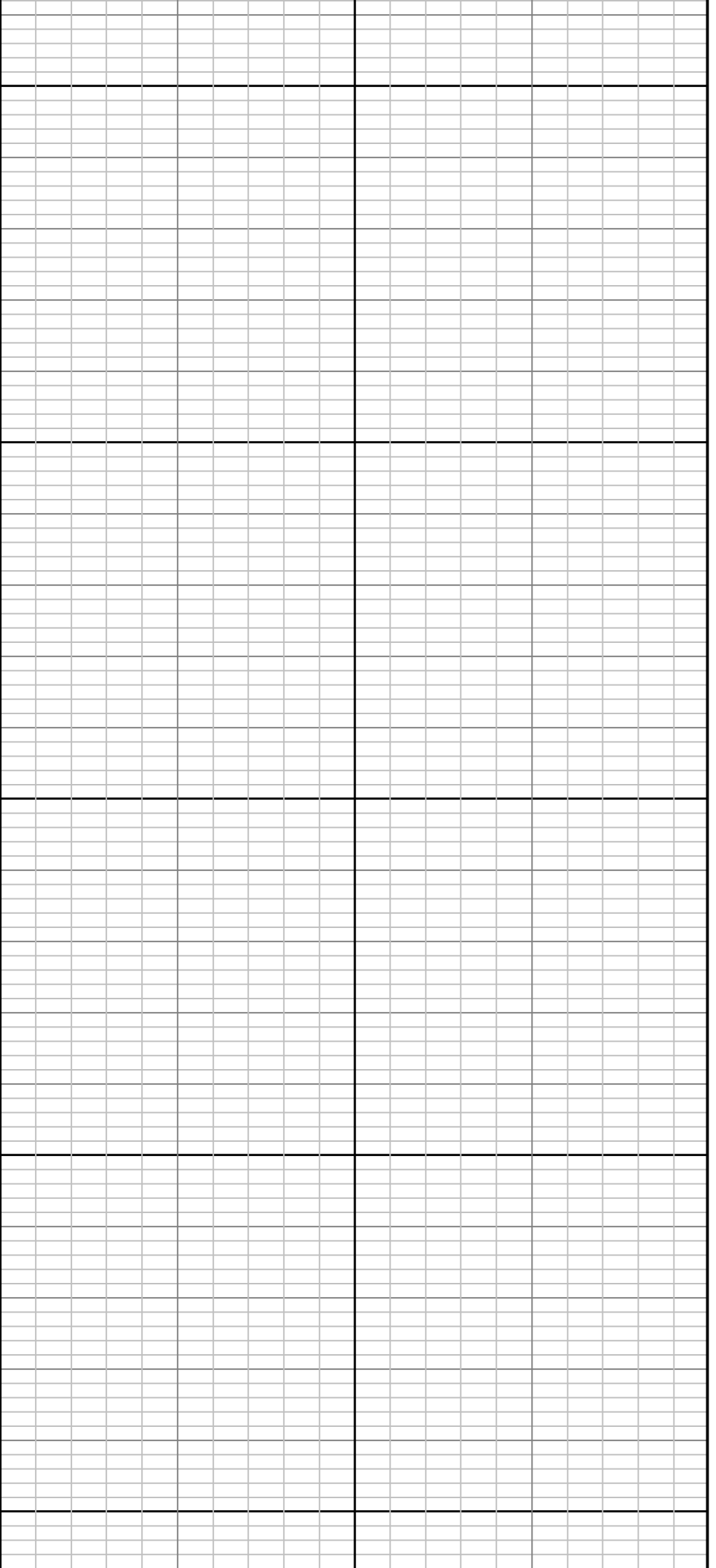




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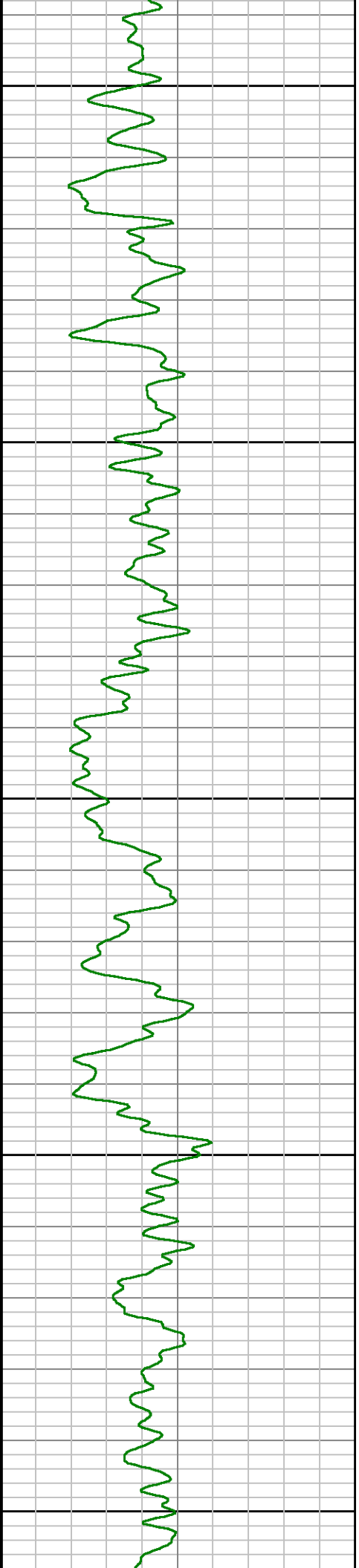


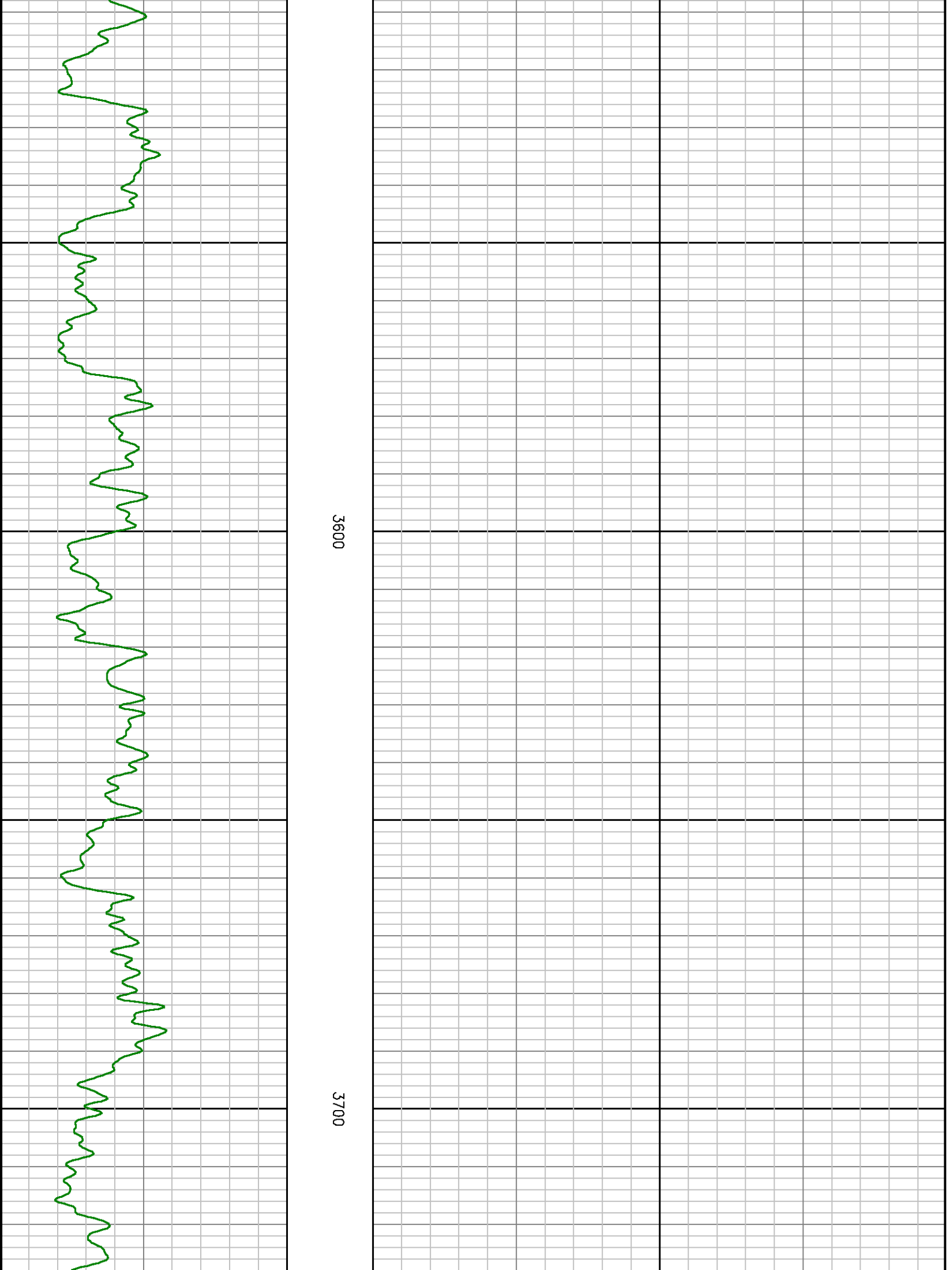


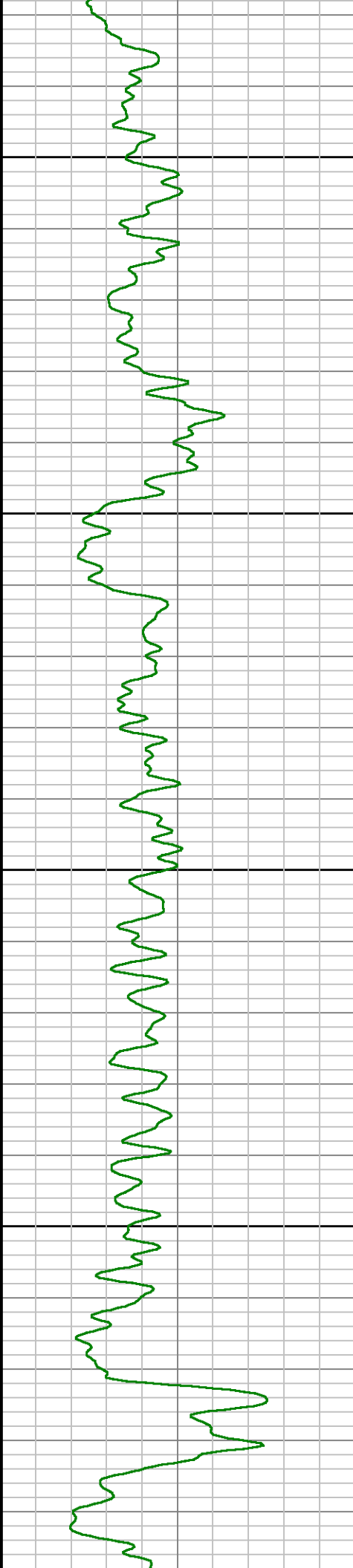
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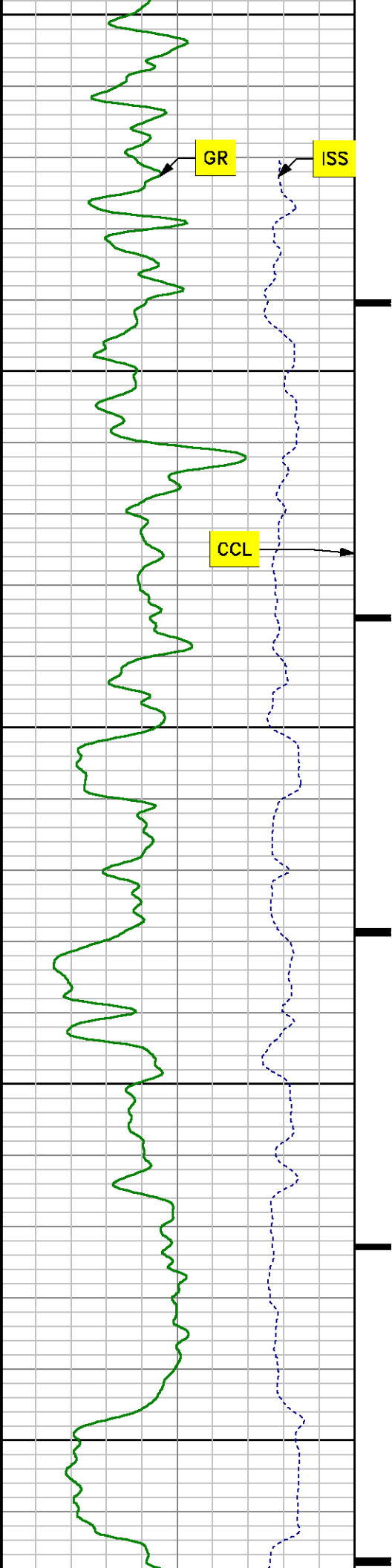






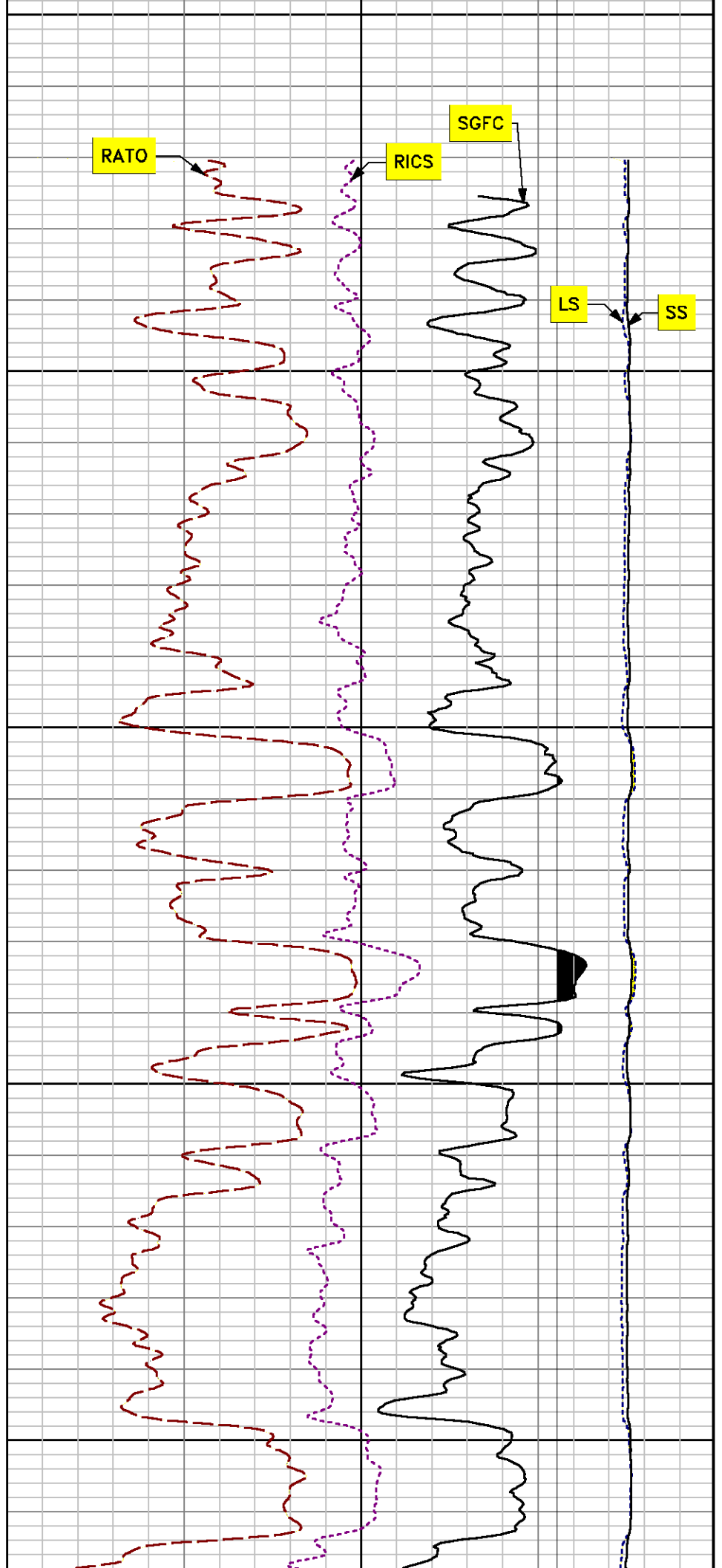
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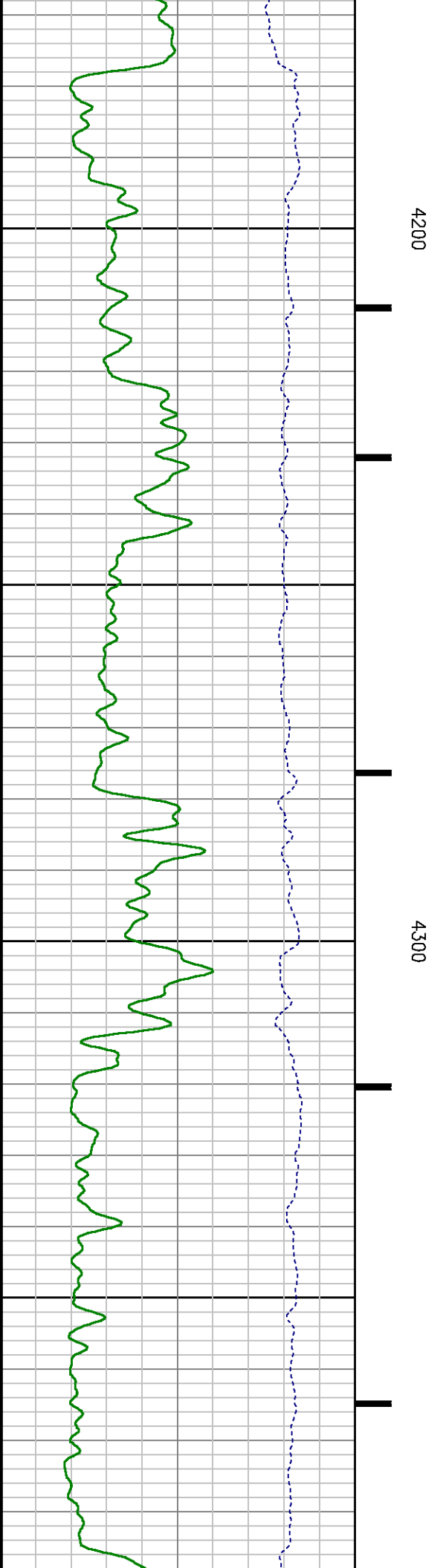
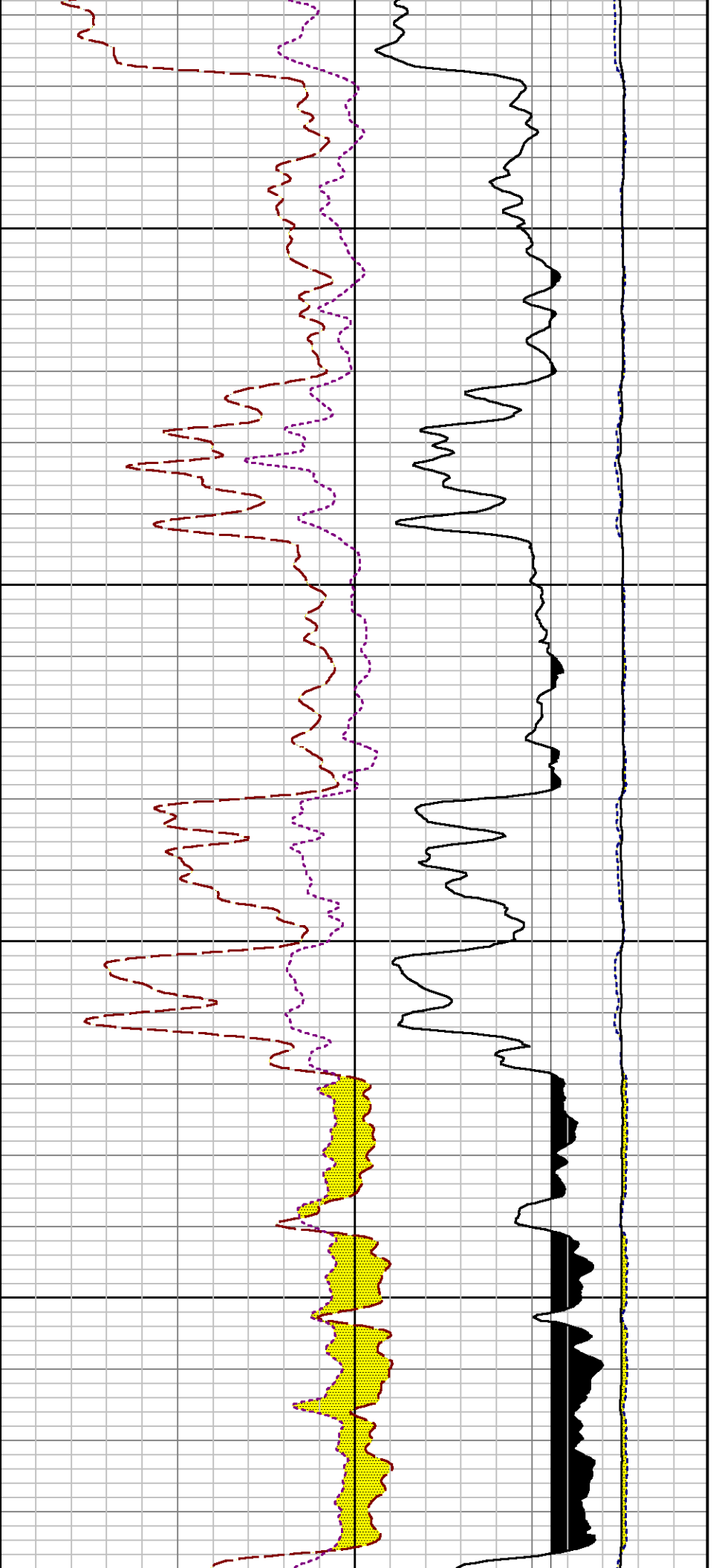
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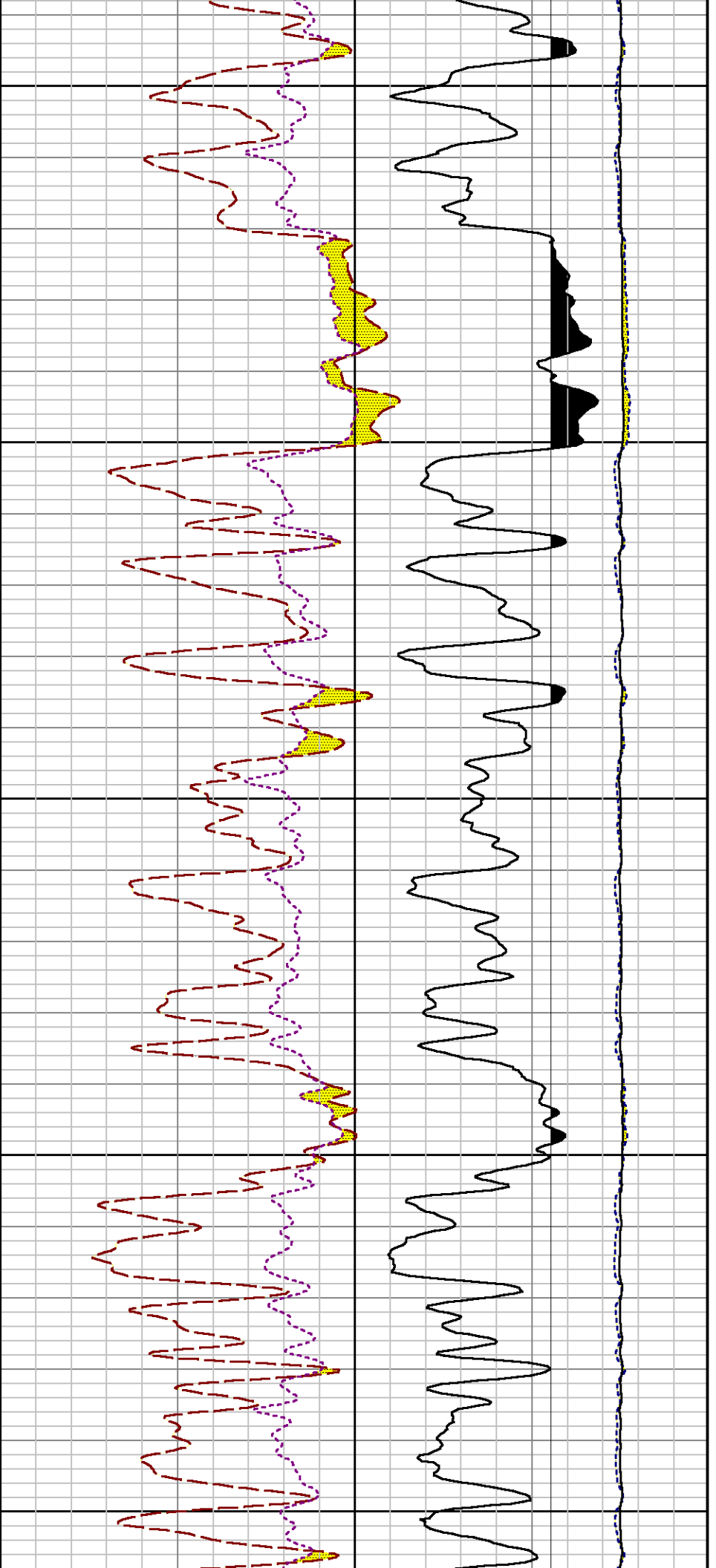
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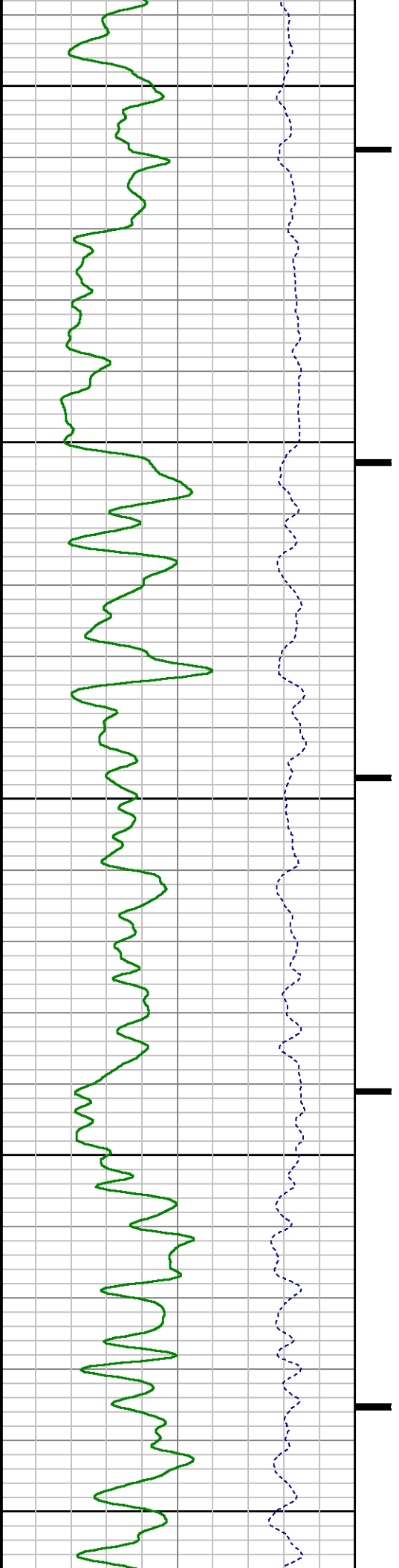


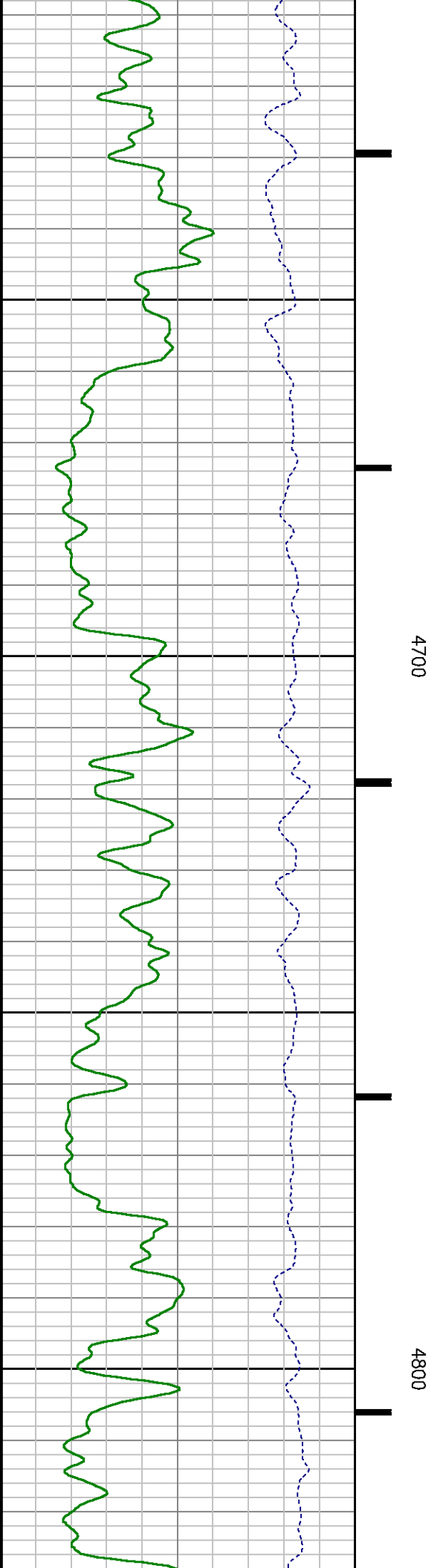
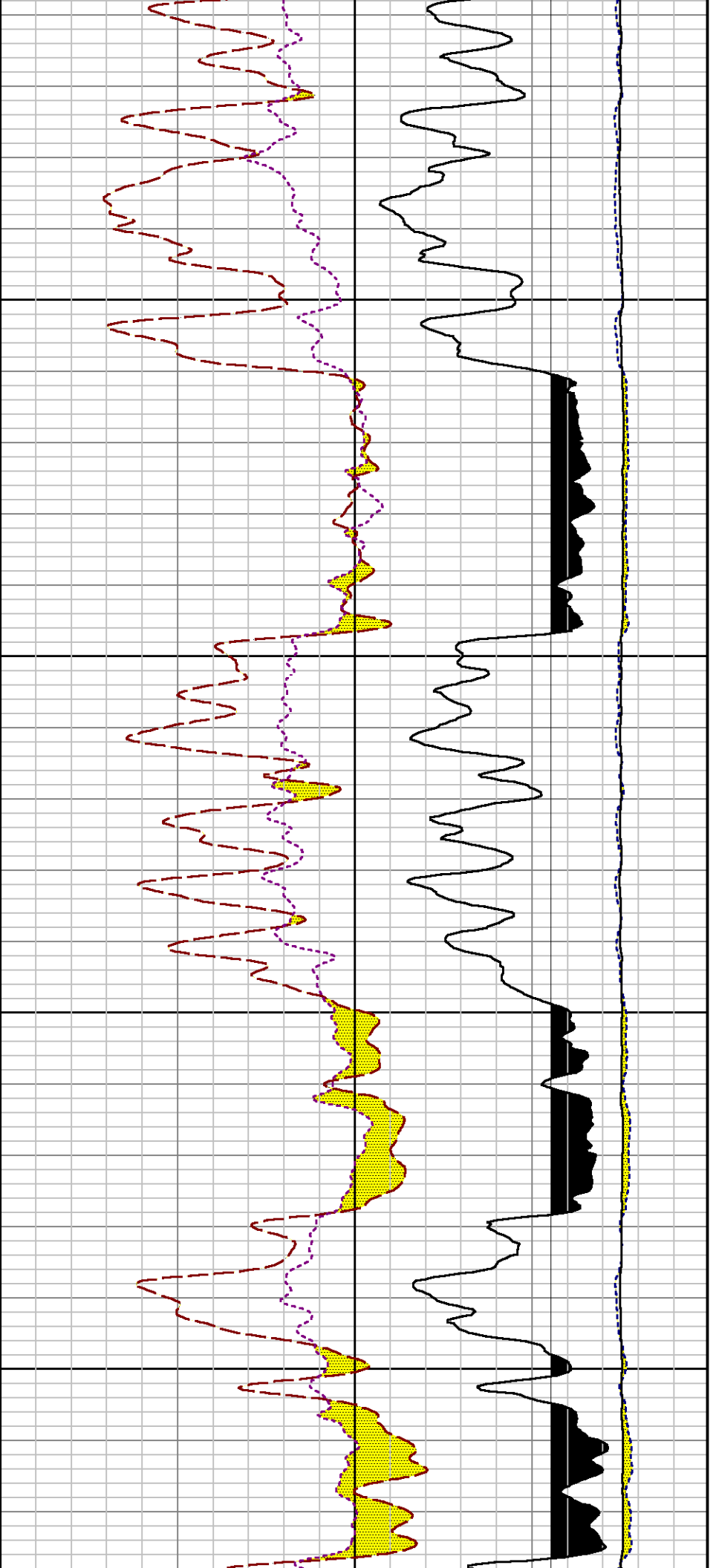


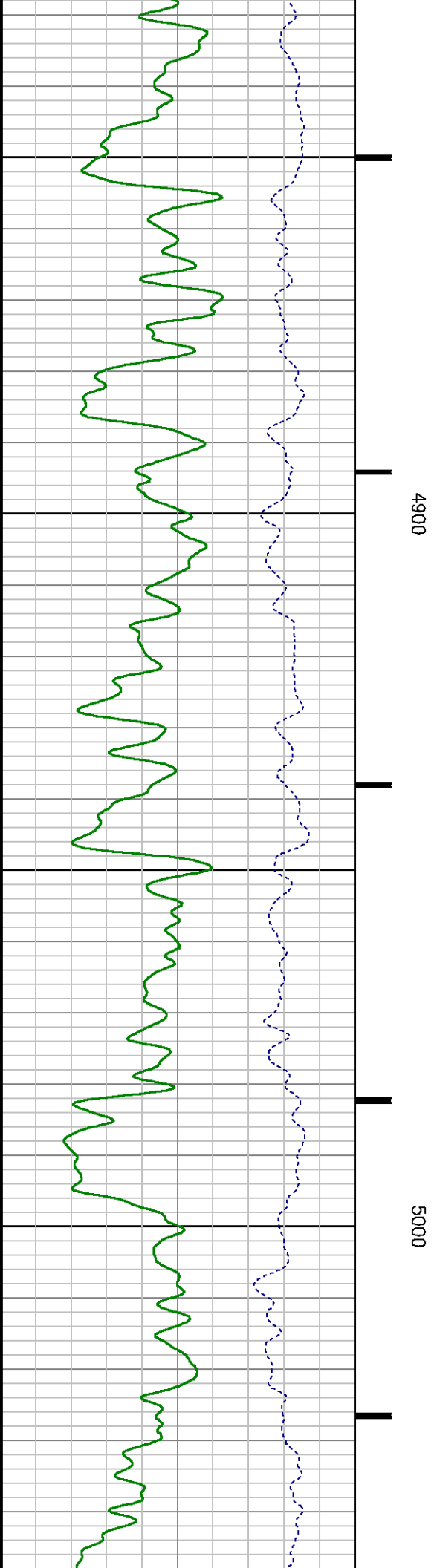
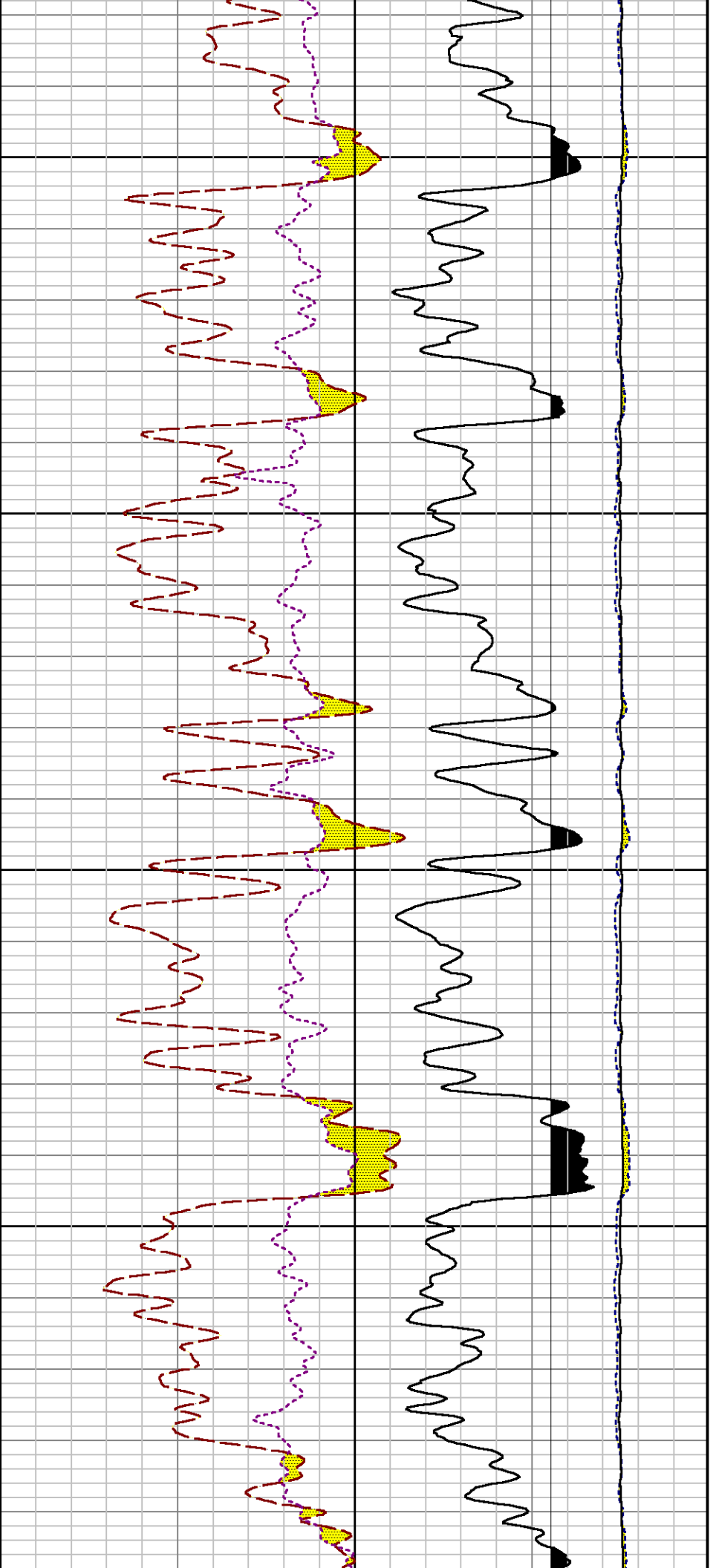
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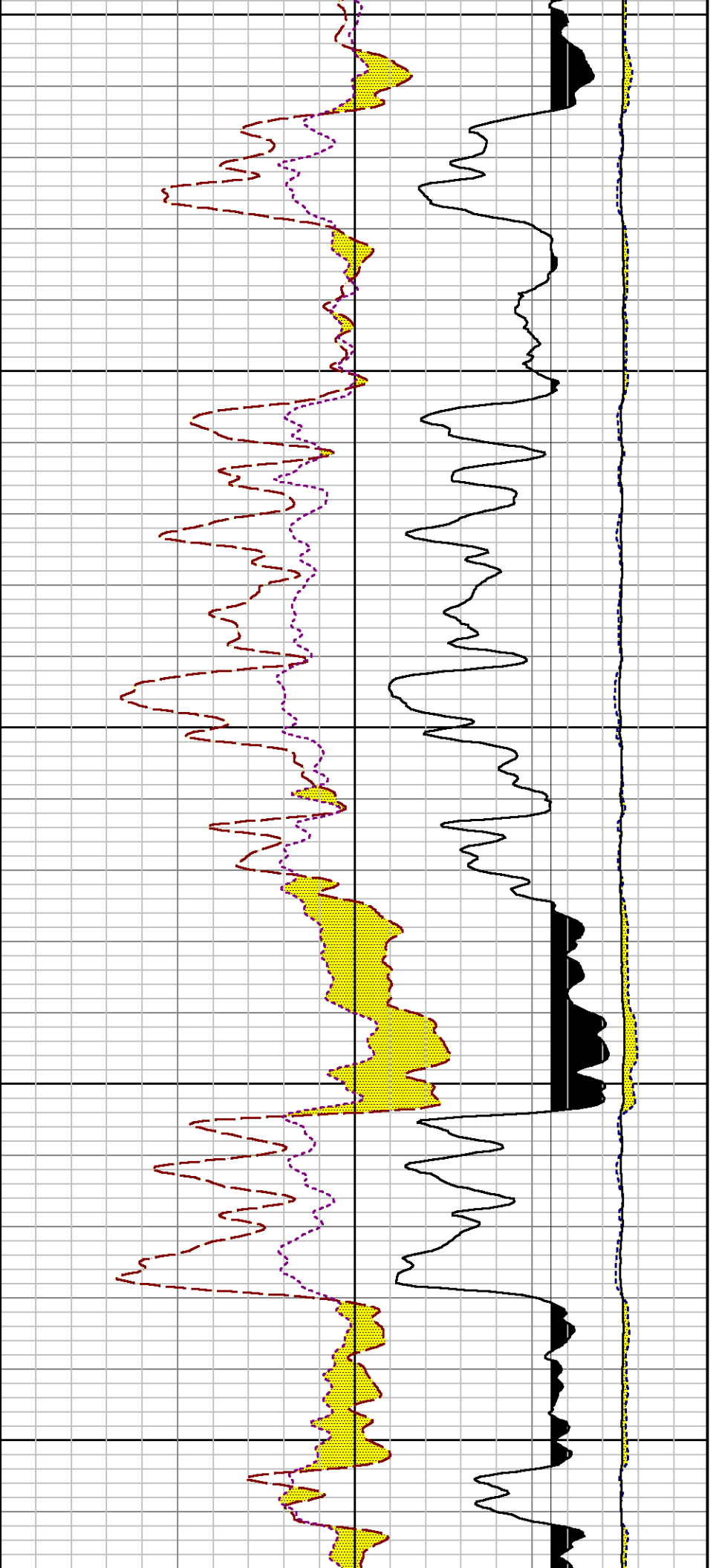
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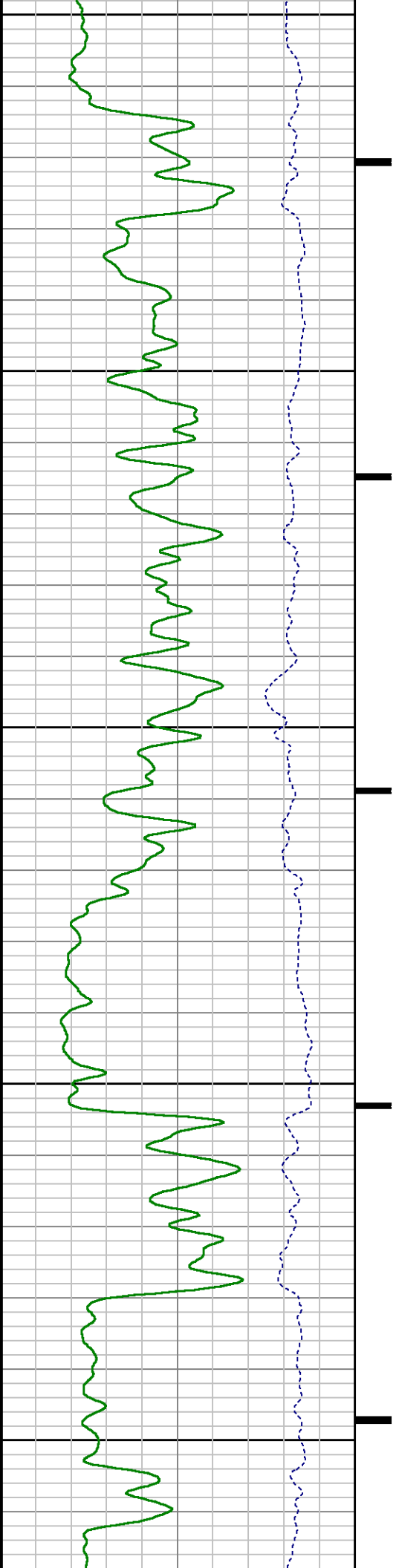


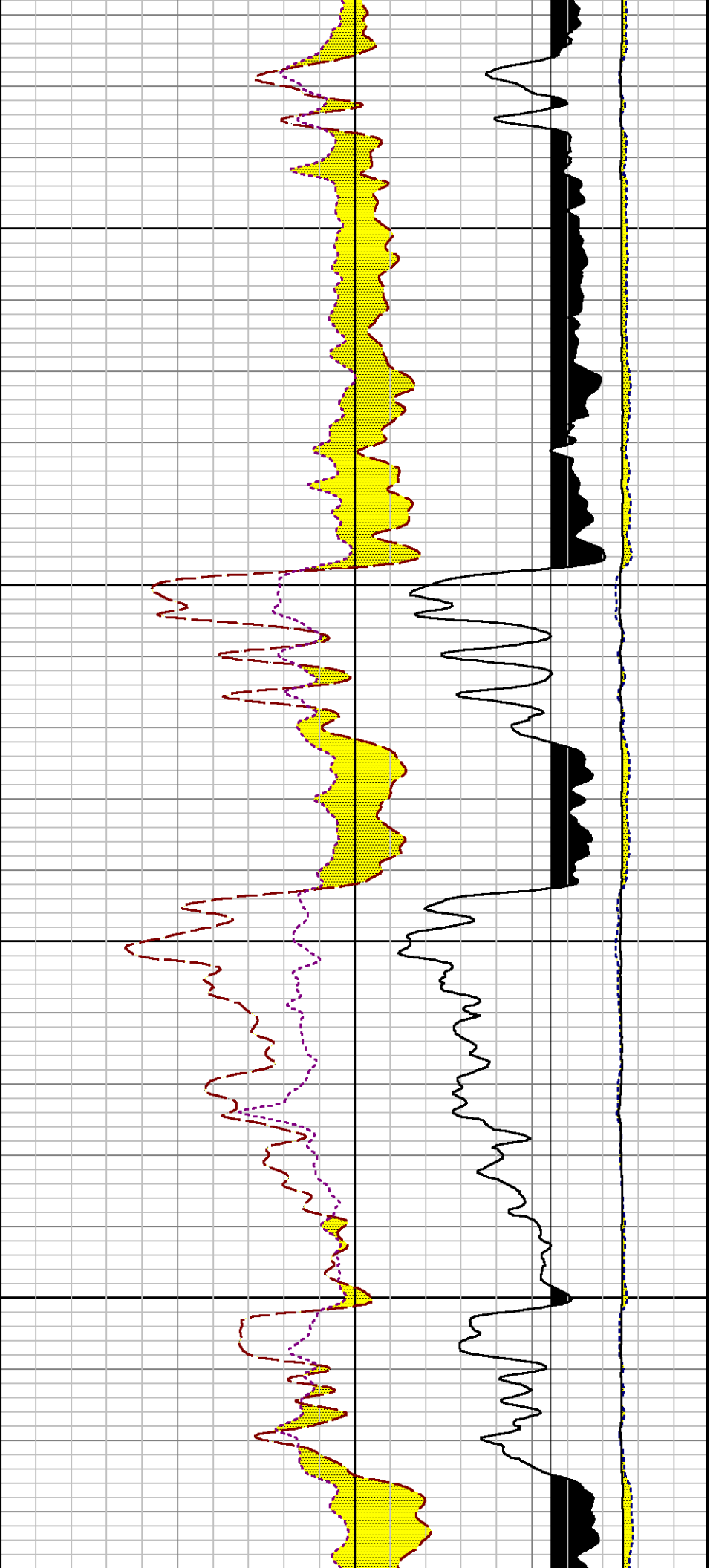




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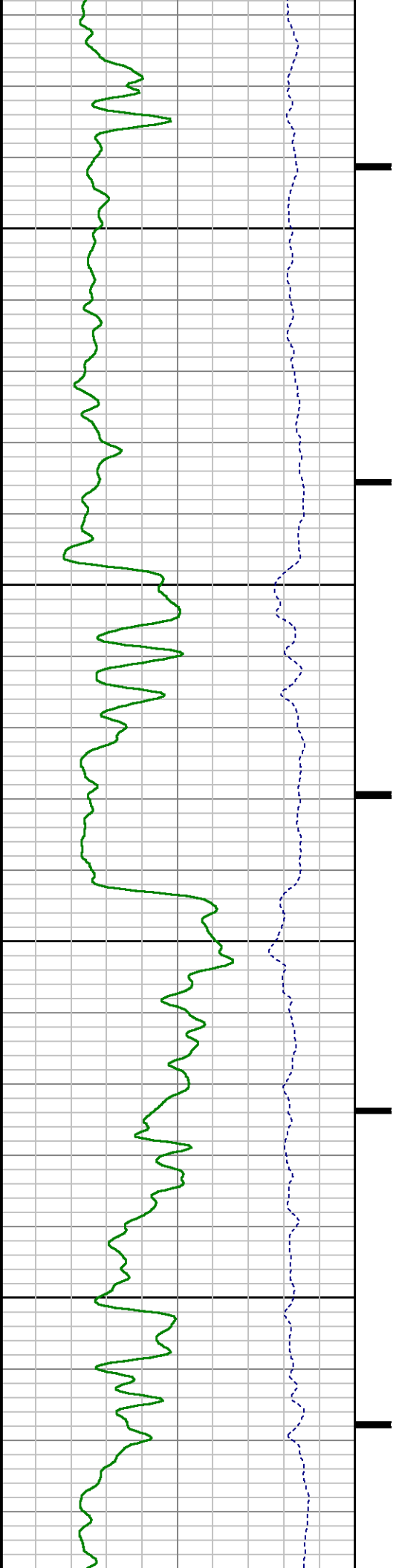
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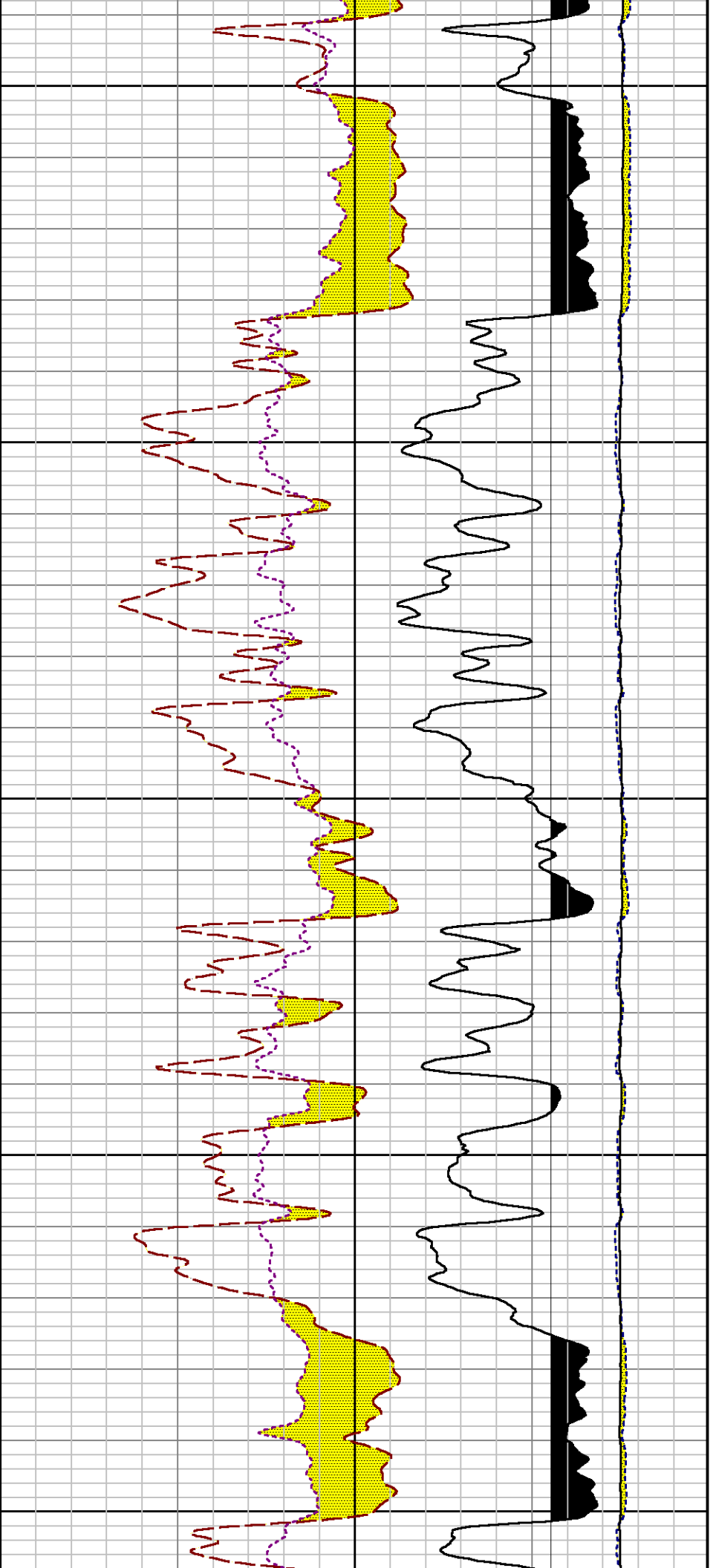




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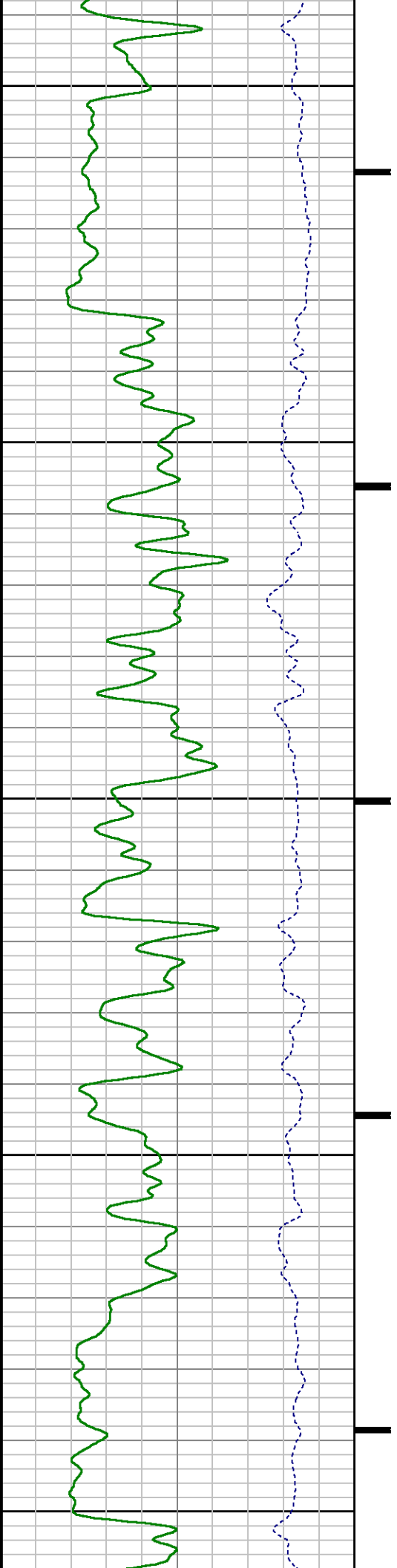


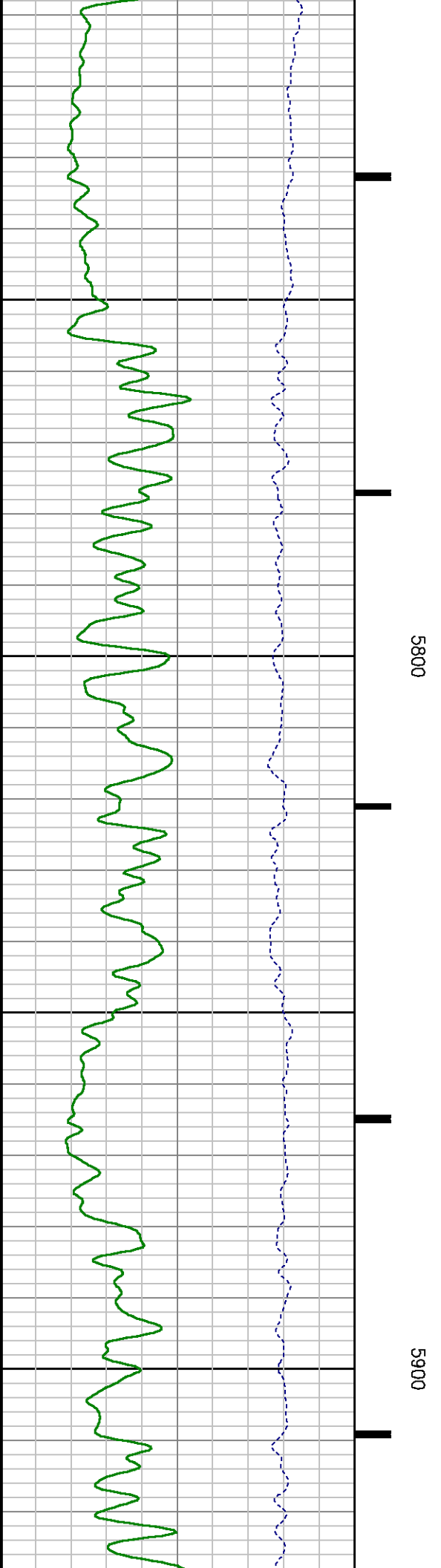
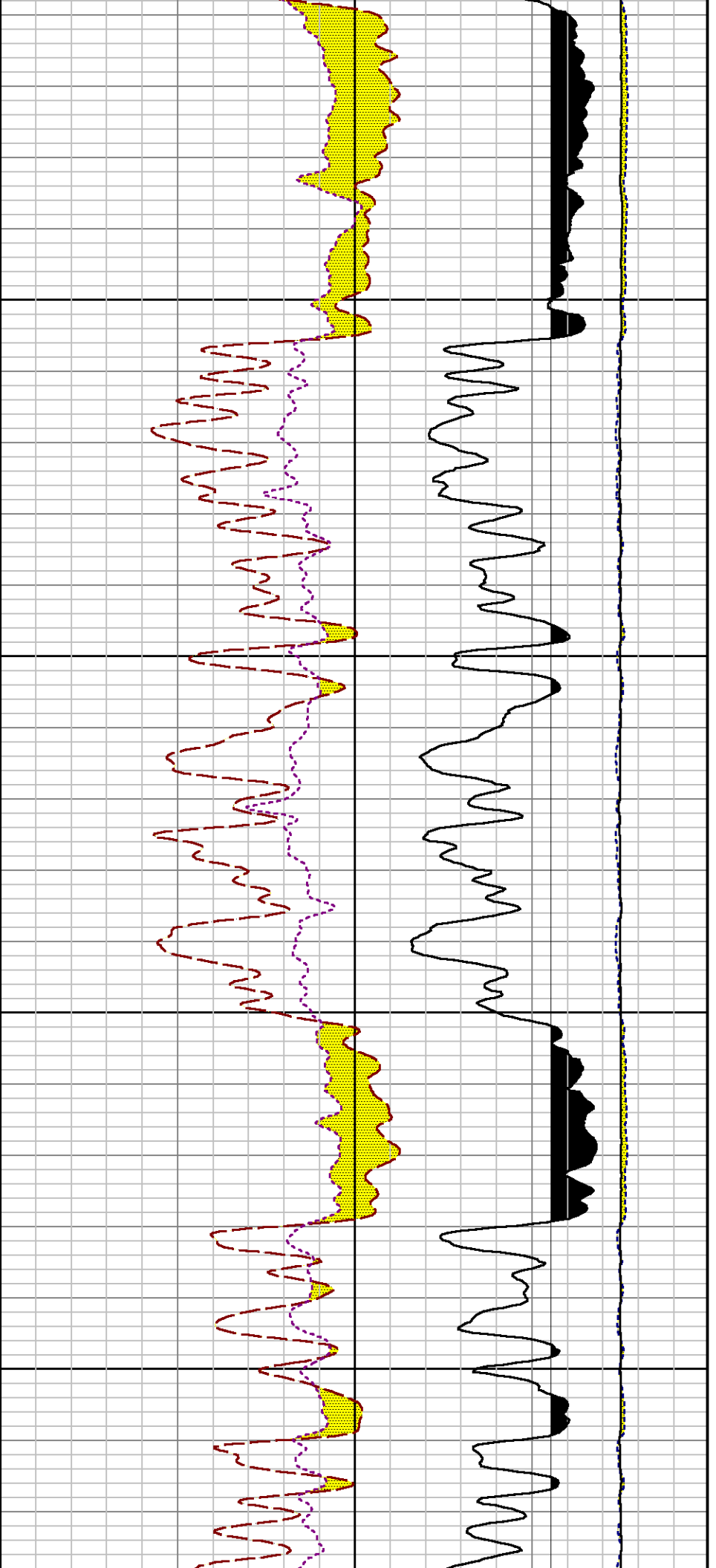


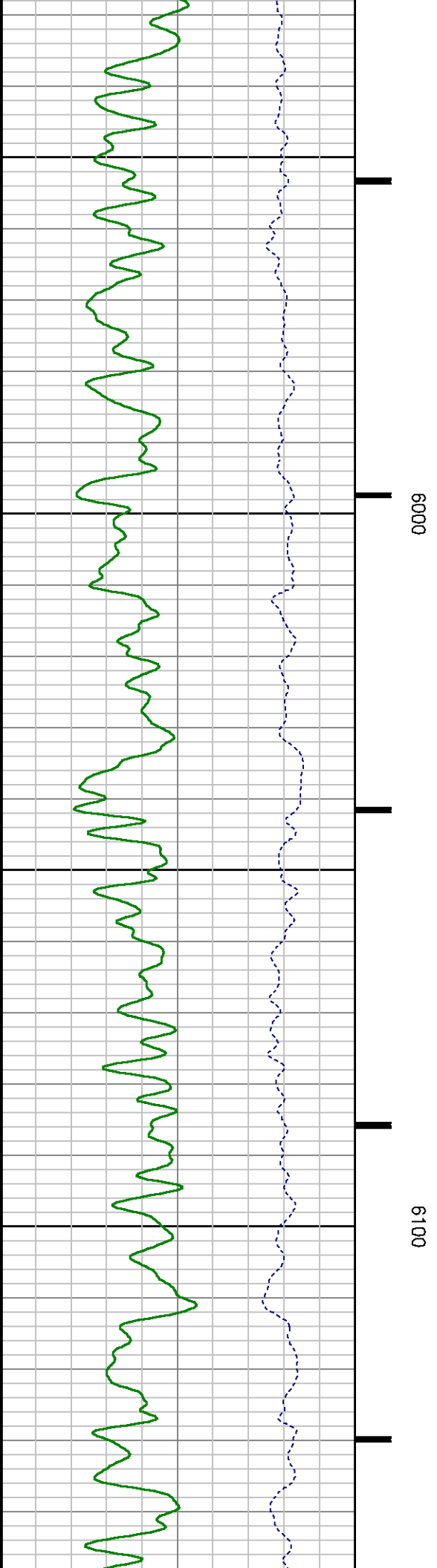
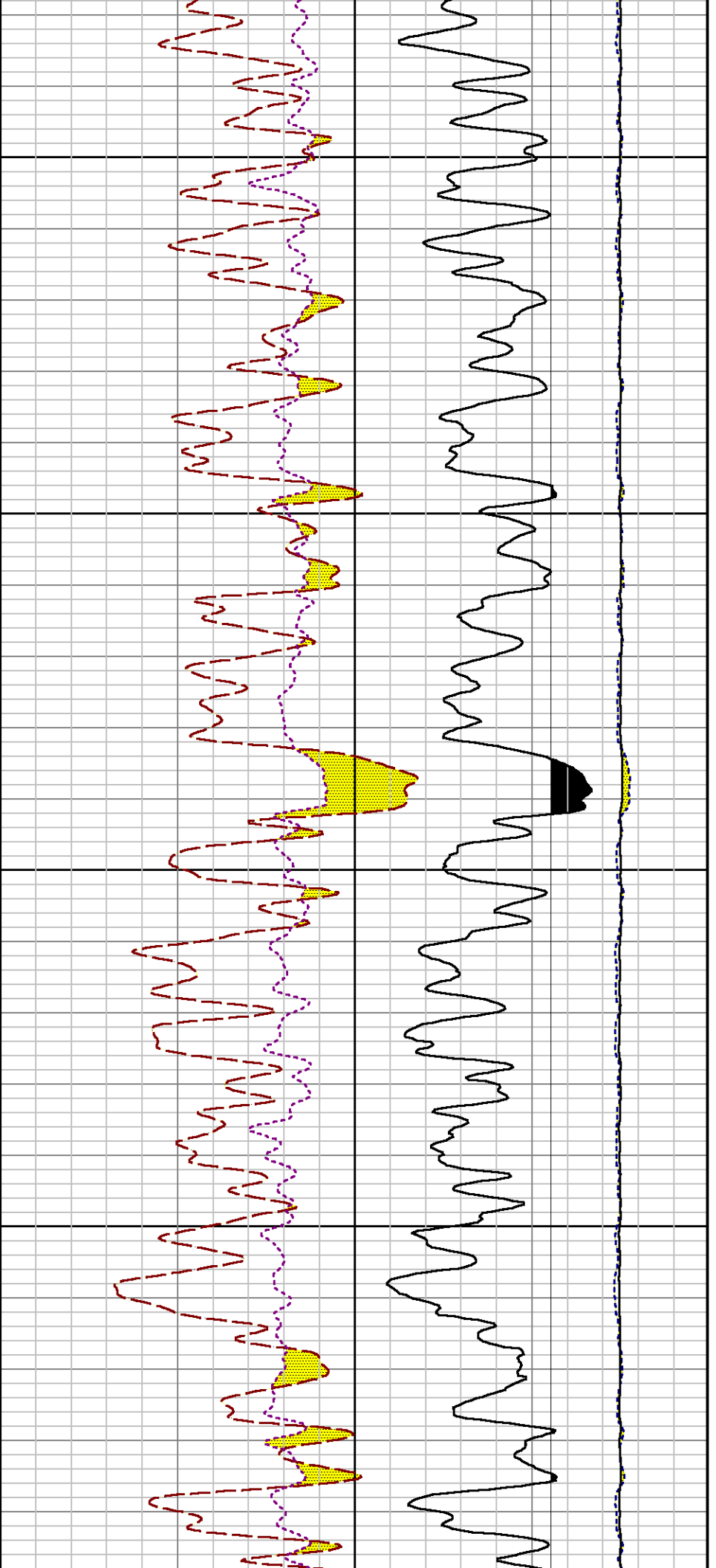
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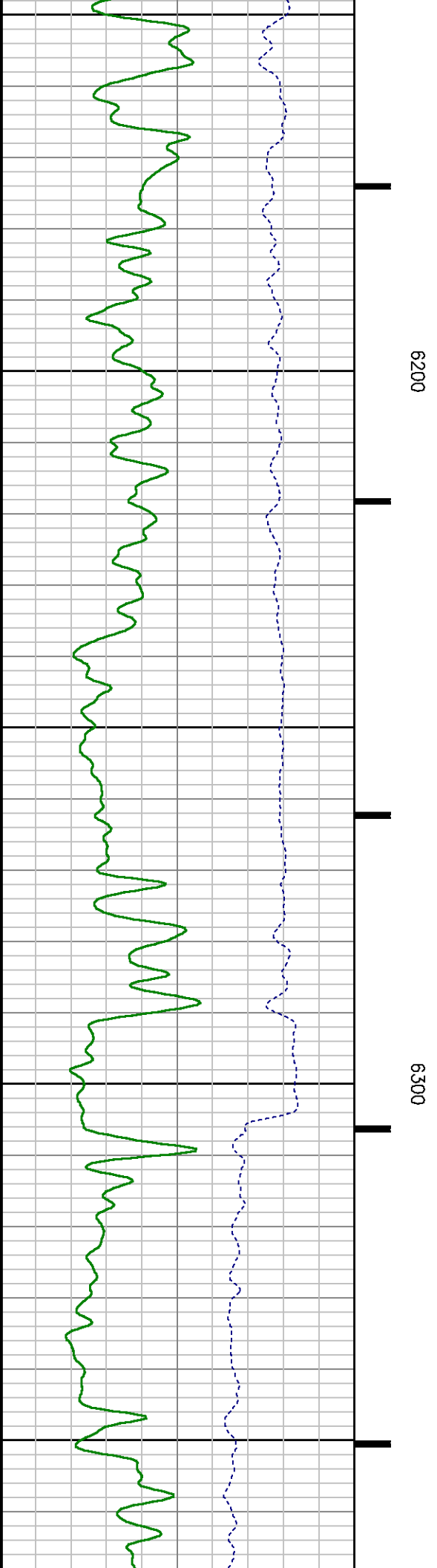
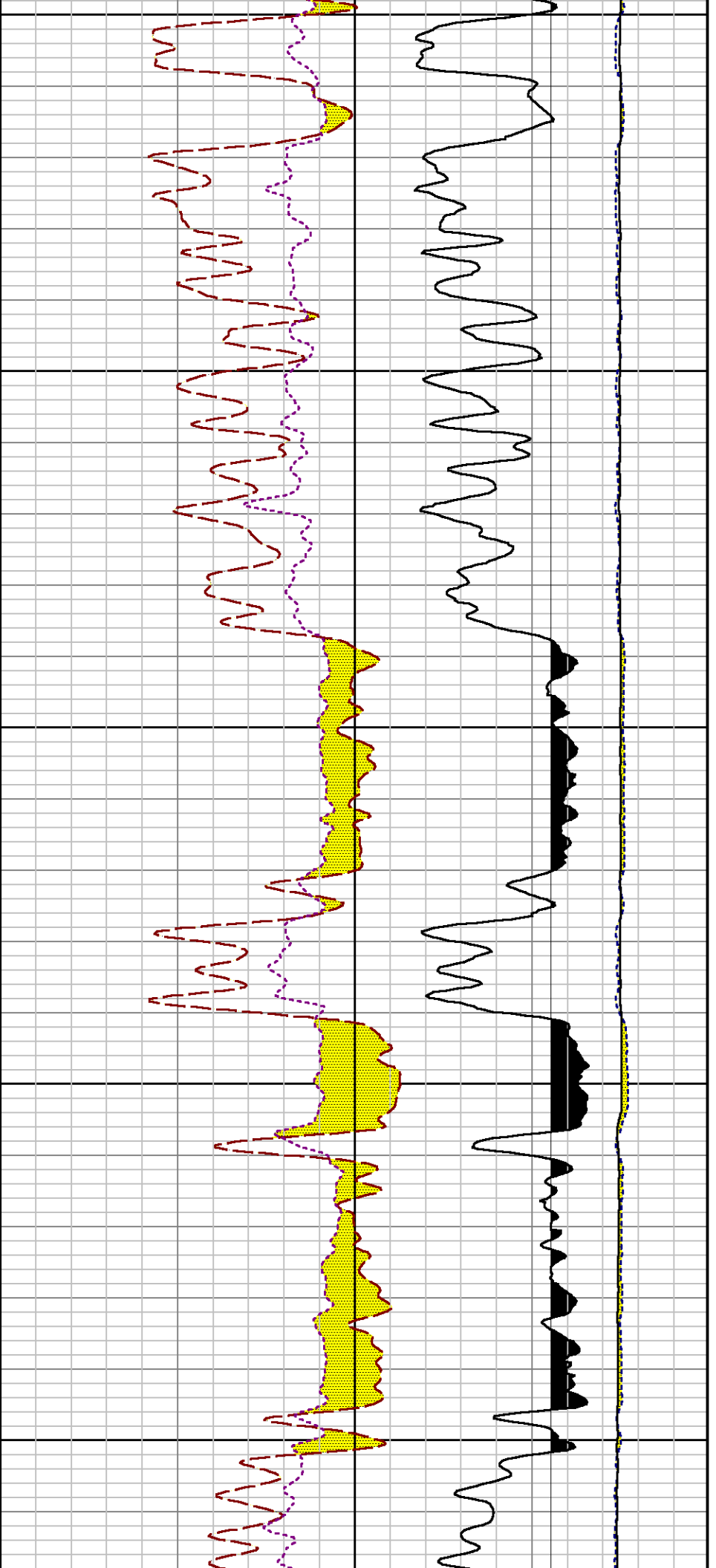
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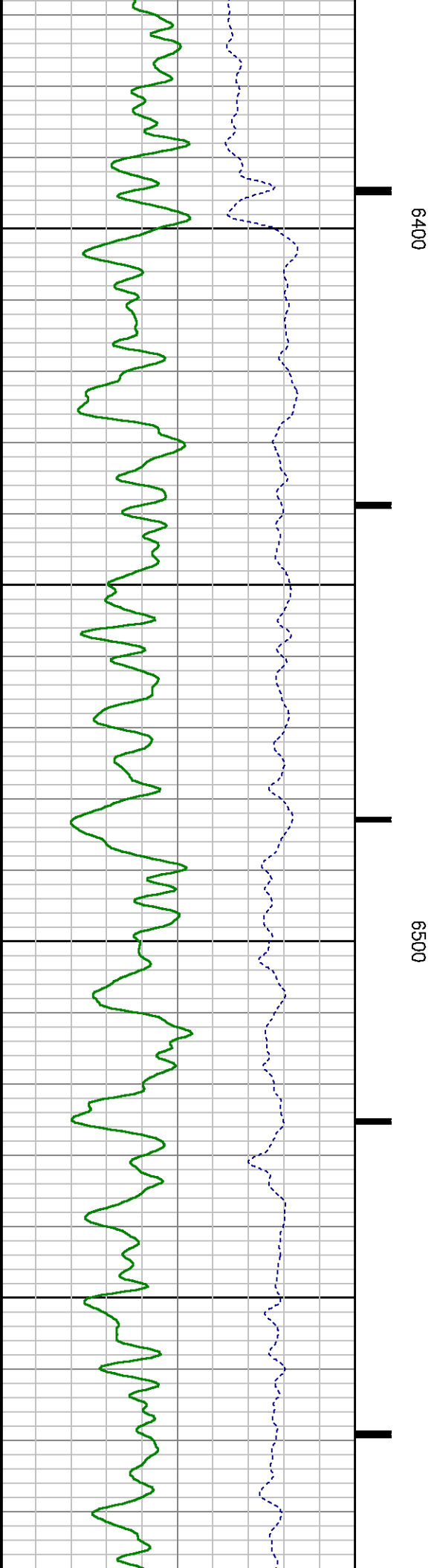
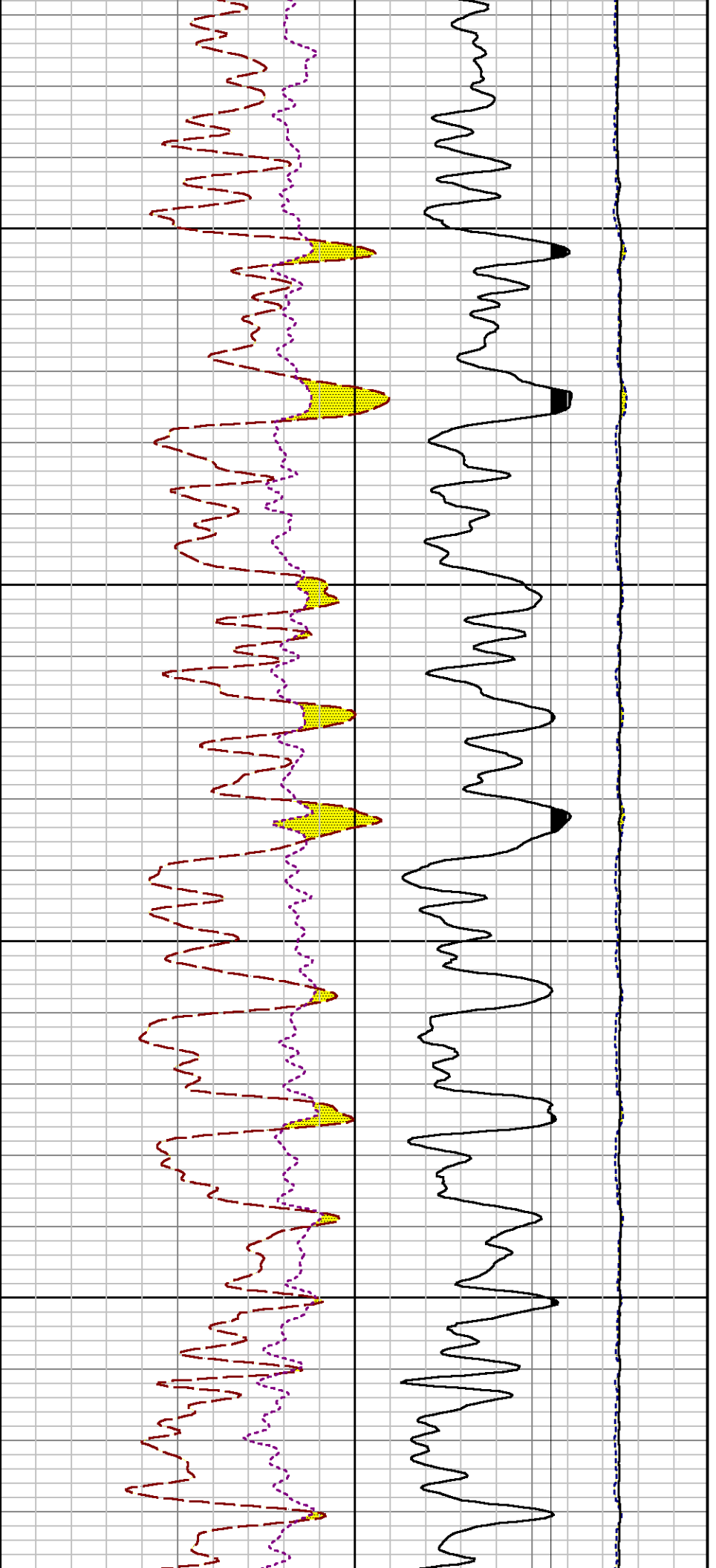
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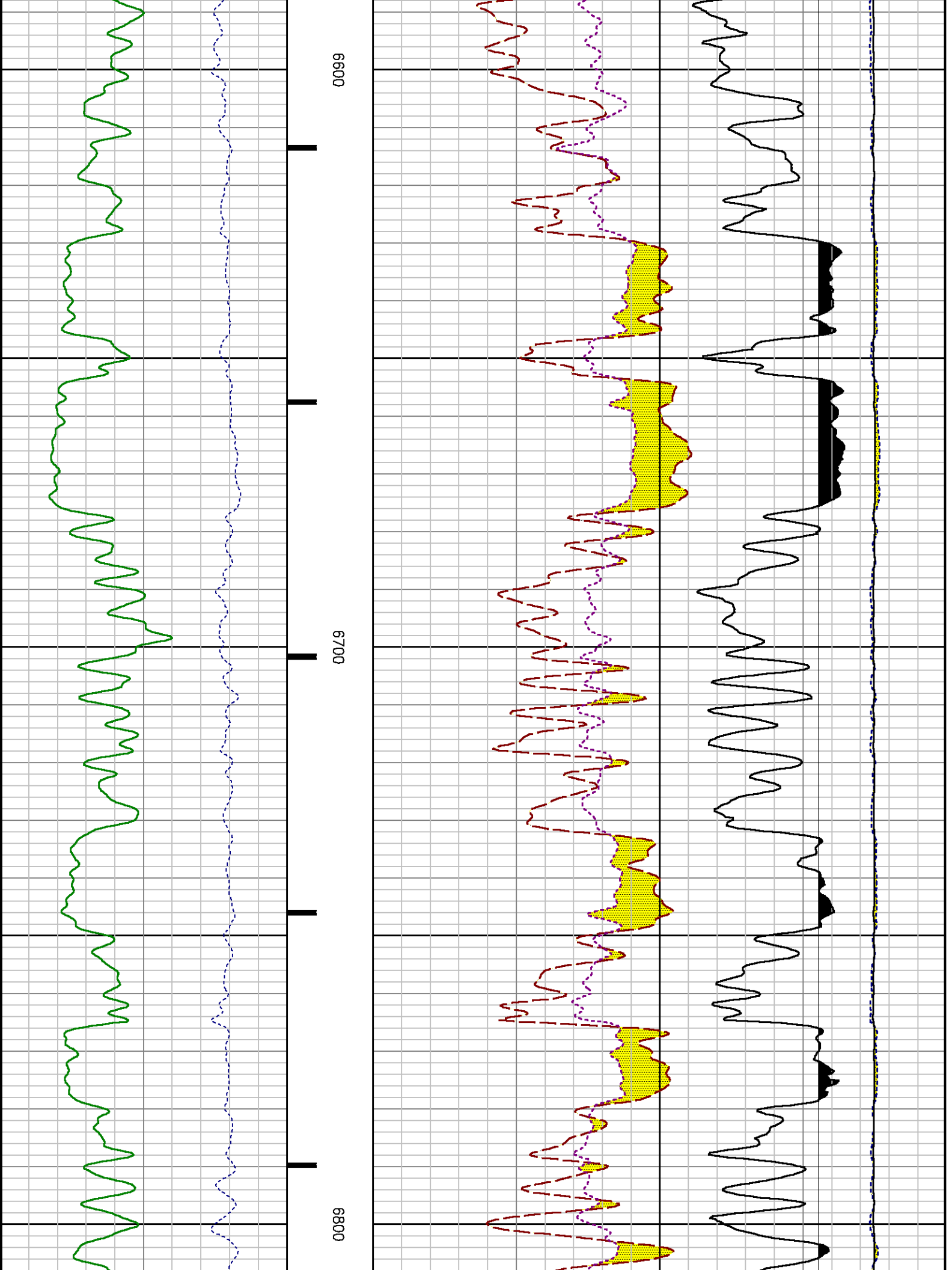


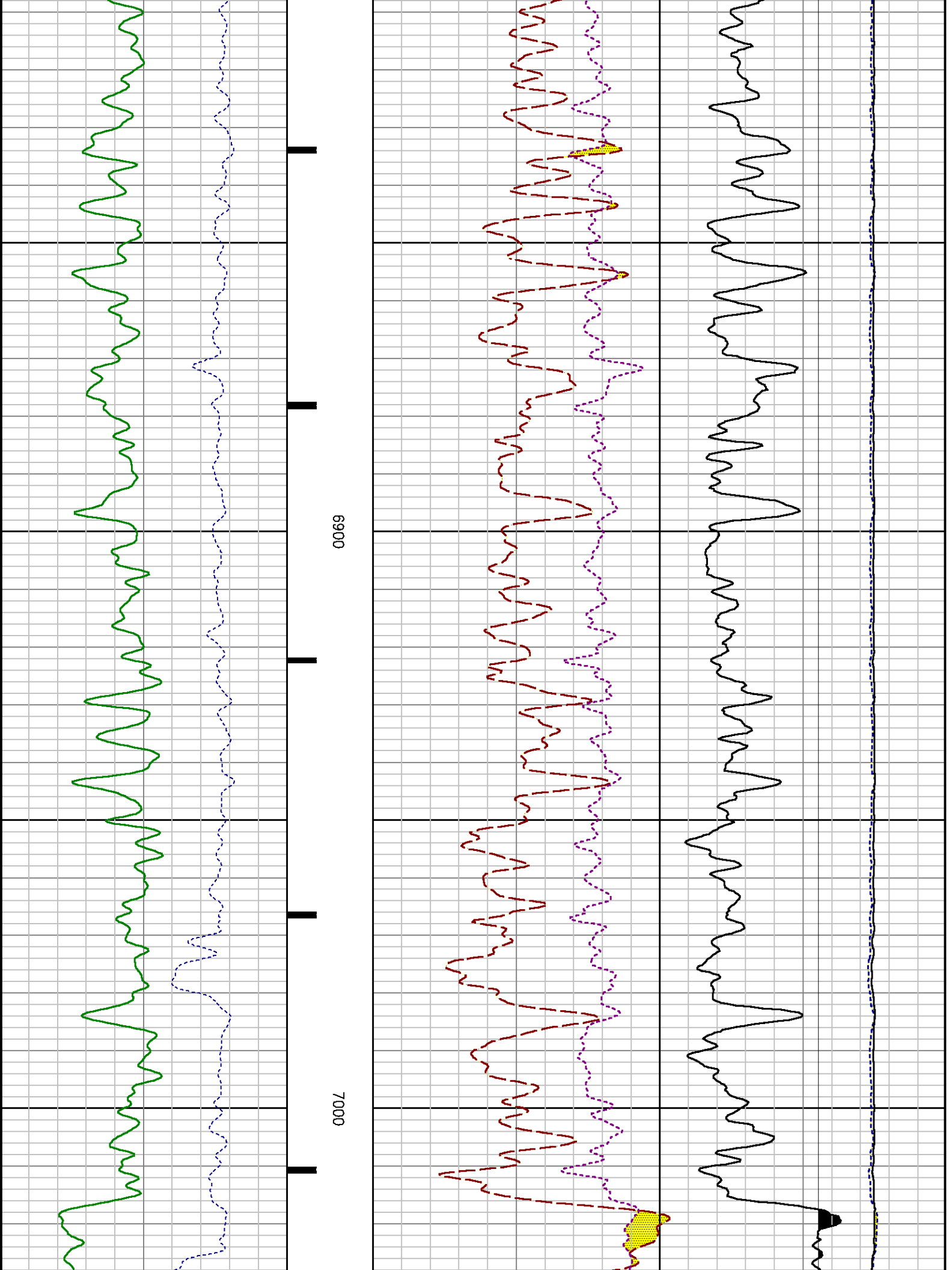


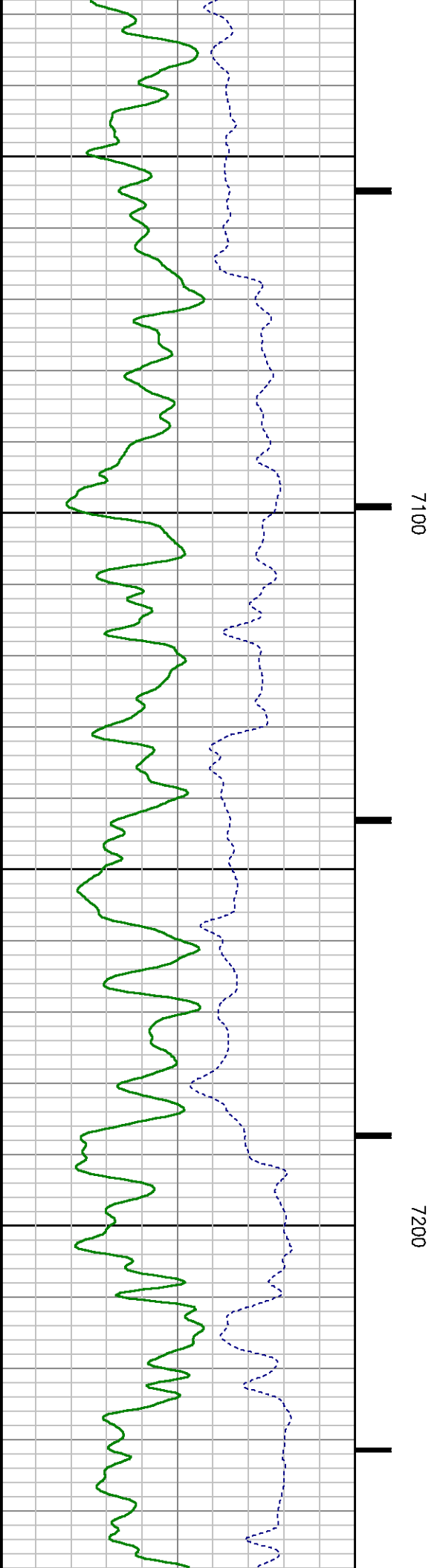
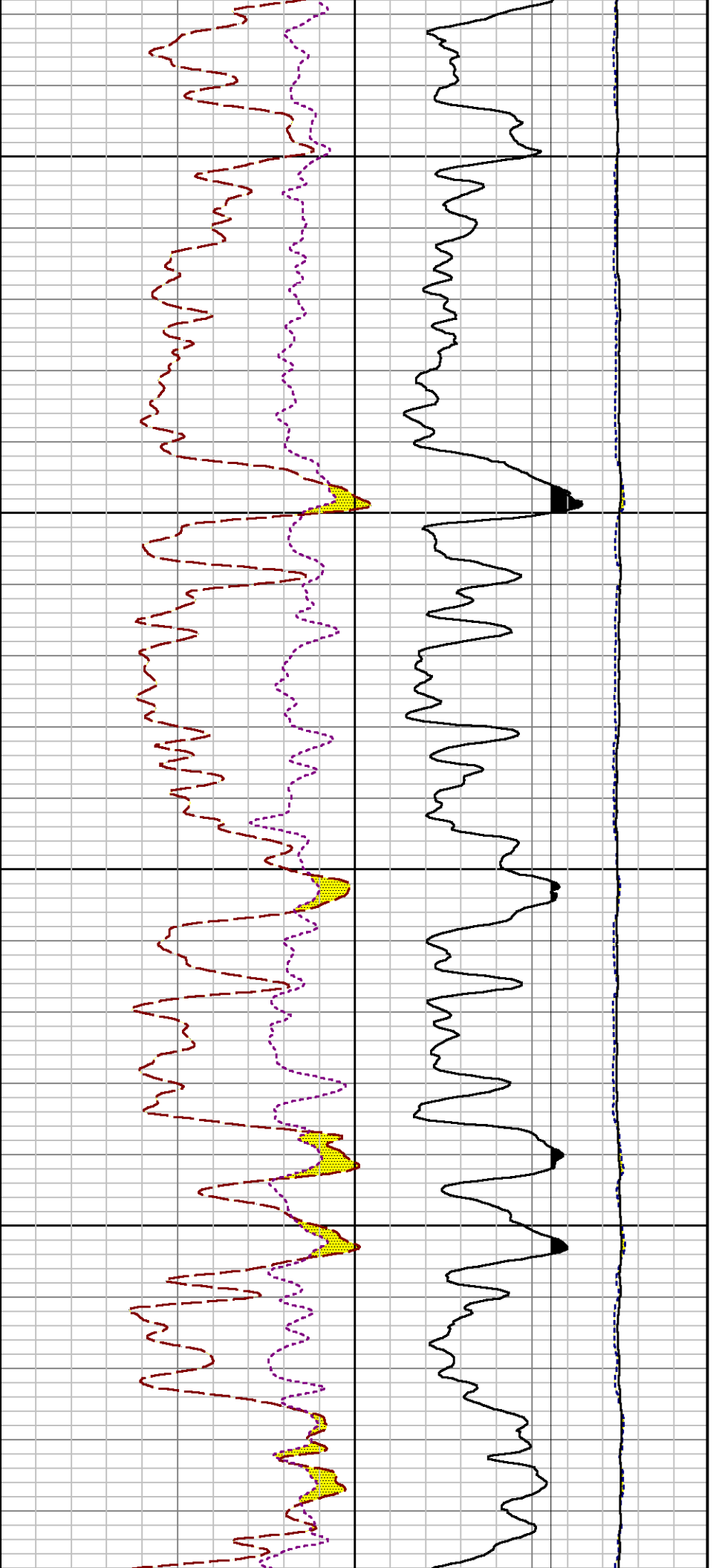


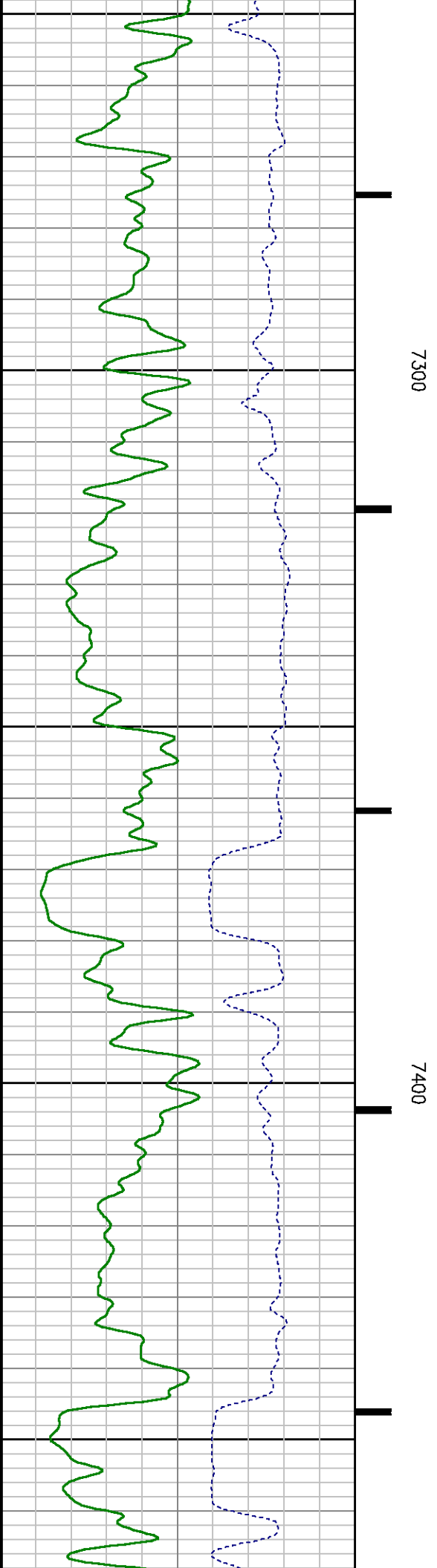
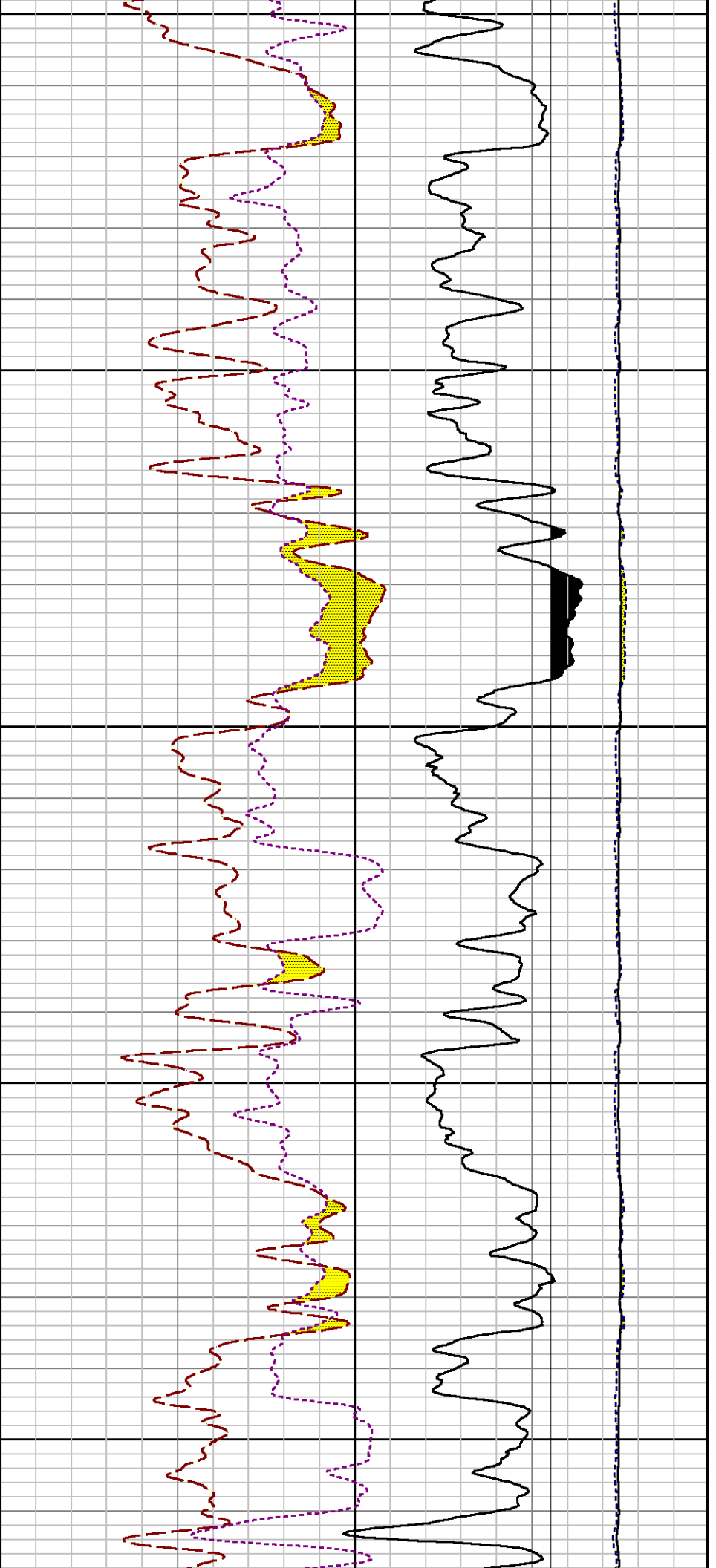


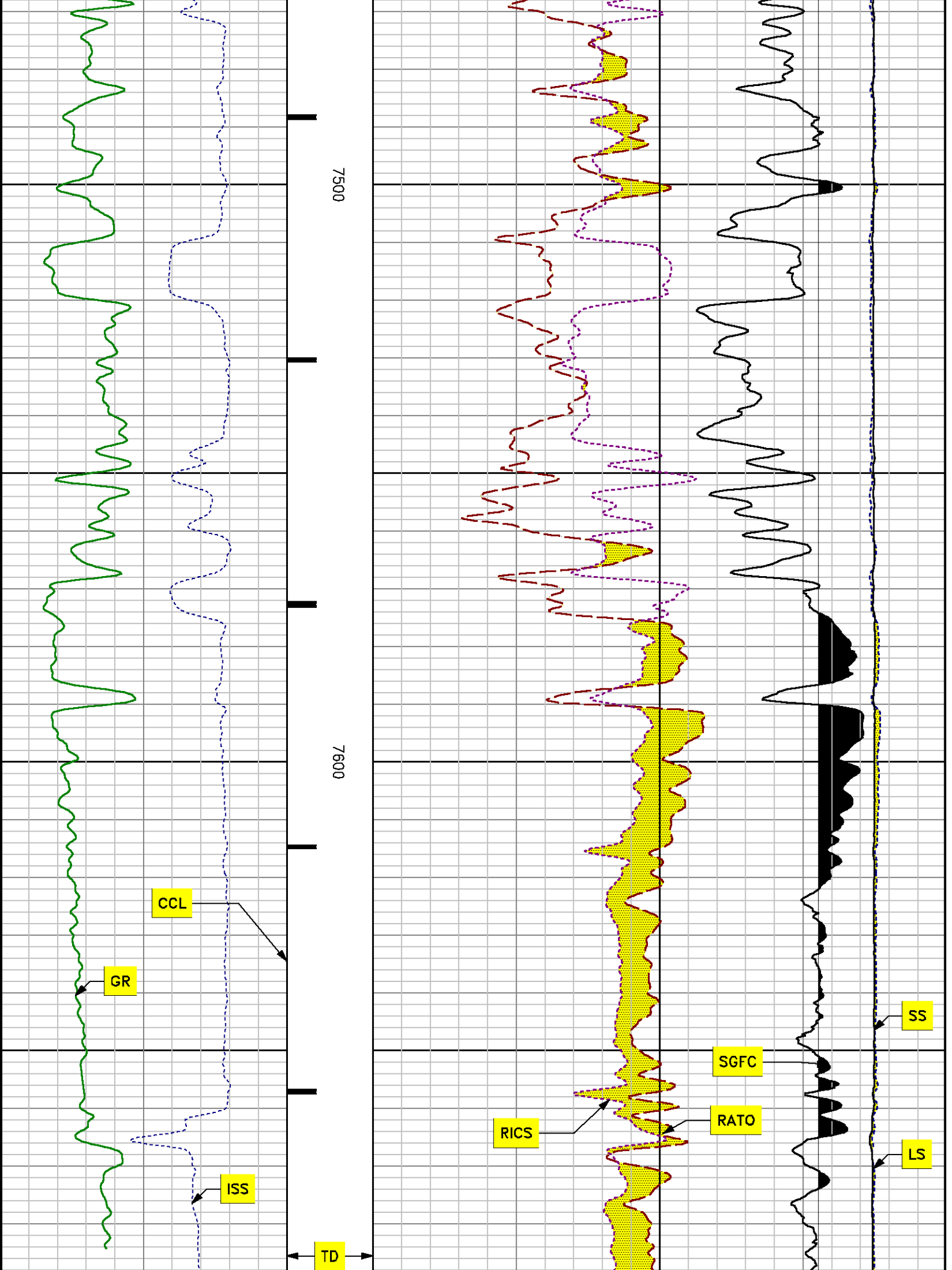


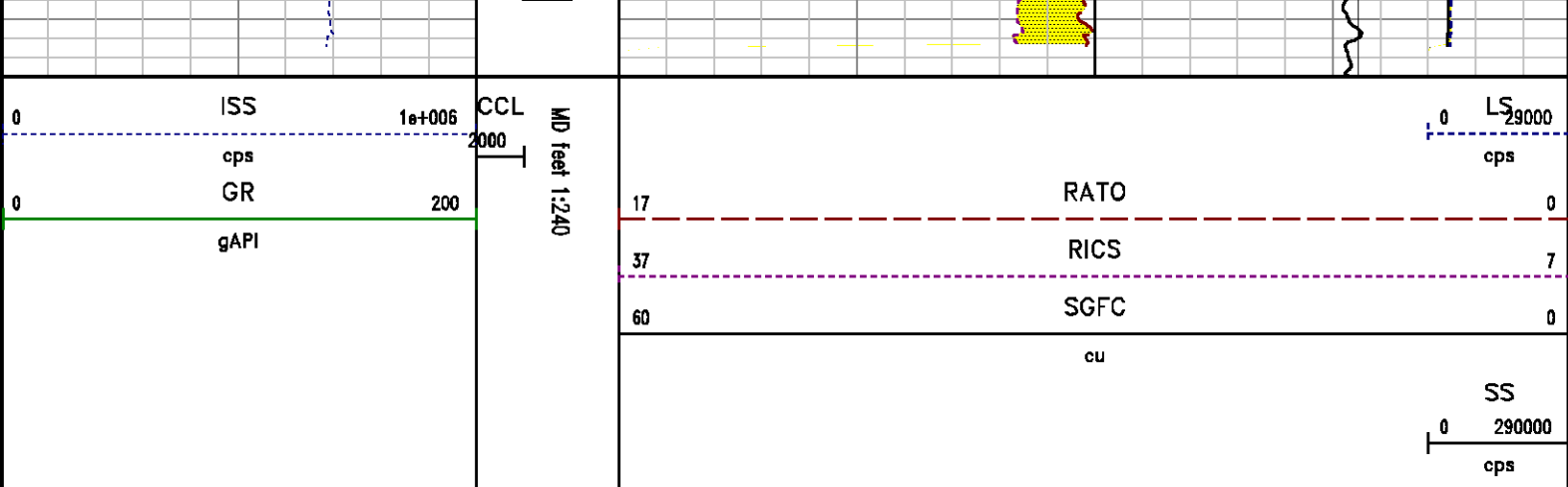












REPEAT SECTION

PNC 3-D MODE

SPL PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
PNC Porosity	Borehole	Cased		5301.260	5601.510
PNC Porosity	Borehole Size	8.750	inch	5301.260	5601.510
PNC Porosity	Casing Size	4.500	inch	5301.260	5601.510
PNC Porosity	Gas Filled	Non Gas Filled		5301.260	5601.510
PNC Porosity	Matrix	Sandstone		5301.260	5601.510

DEPTH OFFSETS

(for Acquired Curves)

SERIES	DEPTH OFFSET	ACQUIRED CURVES					
8248EA	-15.320	FLTM					
8248EA	-13.320	CCL	CHV				
8262XA	-10.189	GR					
8281XA	-0.662	HVC3Q0	SEQ3	AMA3	AML3	BKX	CXS
		CPT3Q0	CPT3Q2	CPT3Q3	CPT3Q4	ET3	IXS
		MCS3	MCS3Q0	QCAL3	RGN3	RICX	SDA3
		SDL3	SGA3	SGL3	STA3	XS	ASPEC3
		AMB3	AMF3	CHF3	IXSC	IXSN	RAT023

8281XA

-0.250

RICXC	RIN13C	RIN23	RIN23C	SD3D	SG3D
SGB3	SGF3	WDTH3	CXSR	IXSR	XSR
RICXR					
HVC2Q0	SEQ2	AMA2	AMB2	AMF2	AML2
BKL	CHF2	CLS	CPT2Q0	CPT2Q2	CPT2Q3
CPT2Q4	ET2	ILS	LS	MCS2	MCS2Q0
QCAL2	RGN2	RICL	RONE23	RTW023	SDA2
SDL2	SGA2	SGB2	SGF2	SGK2	SGL2
STA2	ASPEC2	ILSC	ILSN	WDTH2	RICLC
CLSR	ILSR	LSR	RICLR		

8281XA

0.000

CPRS	HVC1Q0	MV	SEQ	SEQ1	AMA1
AMB1	AME1	AMF1	AML1	BKS	CHF1
CSS	CORB	CORF	CPT1Q0	CPT1Q2	CPT1Q2A
CPT1Q2B	CPT1Q2C	CPT1Q3	CPT1Q4	CPT1Q5	ET1
G1	G2	GE1S	GE2S	ISS	MCS1
MCS1Q0	QA1	QCAL1	QM1	RATO	RATO13
RBOR	RGN1	RICS	RIN	RONE	RPOR
RTW0	RIN13	RONE13	RTW013	SALB	SC1
SDA1	SDL1	SGA1	SGB1	SGBC	SGE1
SGF1	SGFC	SGK1	SGL1	SS	SS2
STA1	PD1S	PD2S	PD3S	MD1S	MD2S
MD3S	DG1S	DG2S	DG3S	PD1M	PD2M
PD3M	MD1M	MD2M	MD3M	DG1M	DG2M
DG3M	MVS	MA	MVM	FILV	IAM
TA	PVM	PVS	IAS	SSTAT	QPD1
QPD2	QPD3	QMD1	QMD2	QMD3	QDG1
QDG2	QDG3	QMA	QTA	QFILV	QMV
QPV	QIA	DERR	DCNT	QPK1	QSA1
PKS1	ASPEC1	HOC	FE2XC	ISSC	RINC
ISSN	RDEN	WDTH1	RICSC	CSSR	G1R
G2R	ISSR	SSR	SS2R	RATOR	RATO13R
RBORR	RICSR	RINR	RIN13R	RONER	RPORR

SYSTEM

0.000

TEN TTEN

Created by : RPM9, v5.3.1.0

Plotted by : PlotMgr, v5.4.504

Company : WPX ENERGY

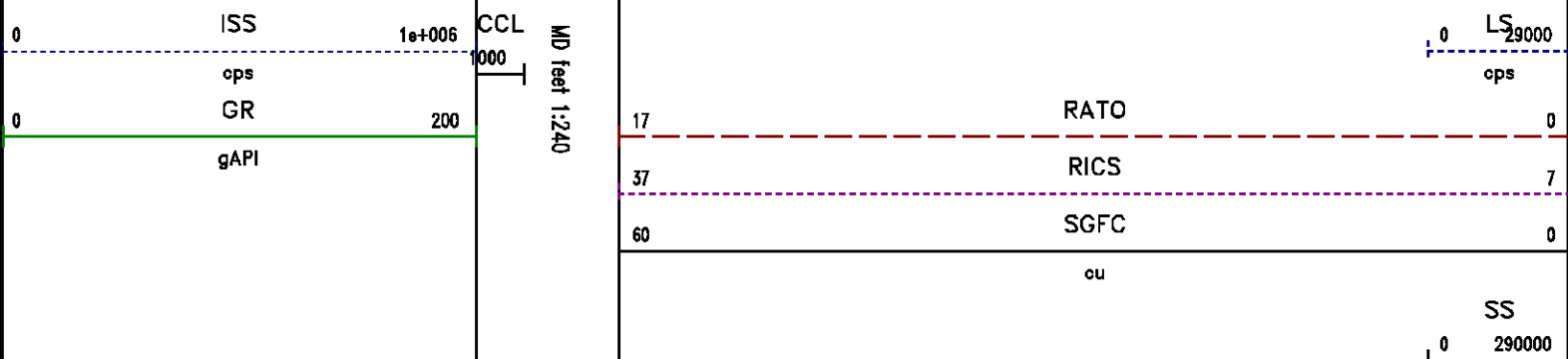
Well : FEDERAL PA 323-29

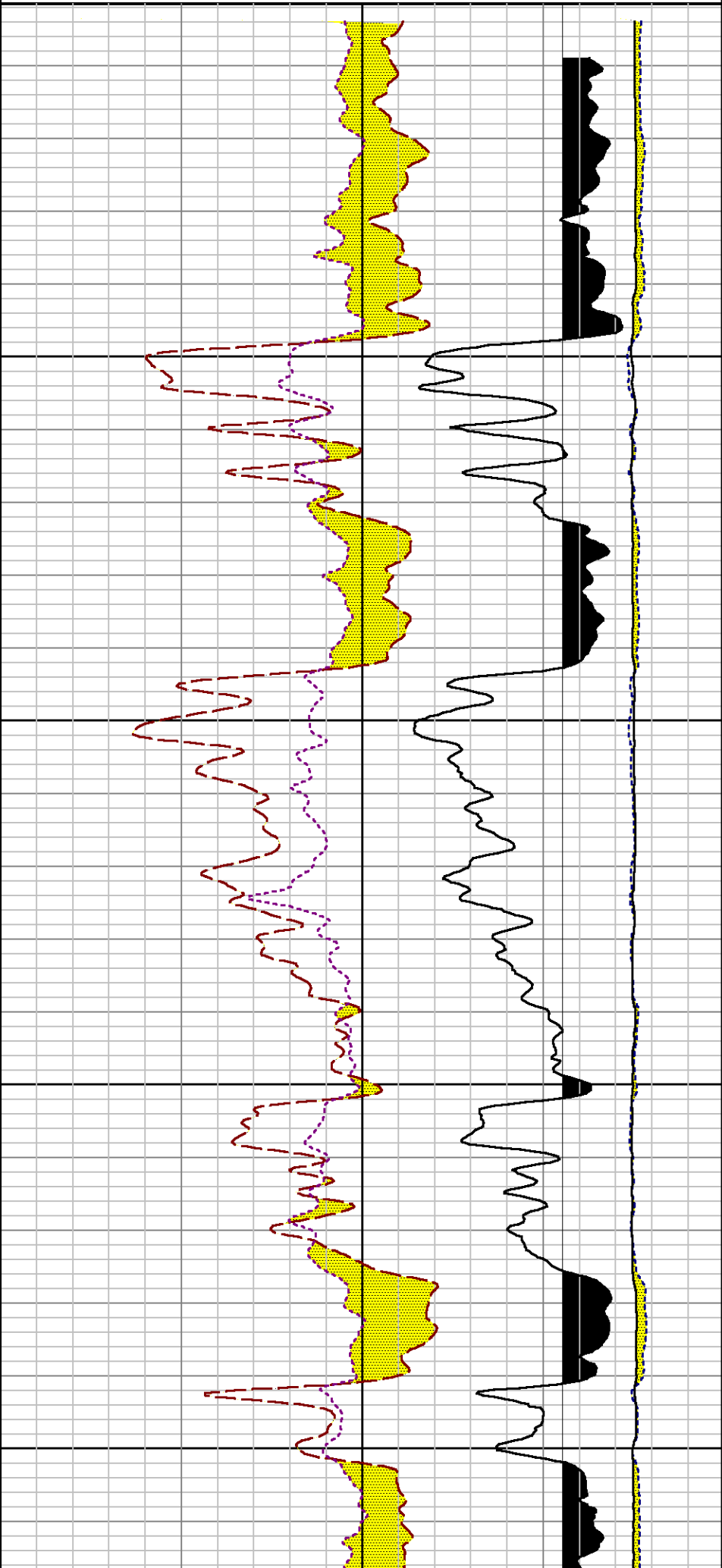
File Name : d:\welldata\williams\federal pa 323-29\rpm323\repeat.xtf

Mode : PlotMgr 5.4.504

Interval : 5301.51 - 5601.51 feet UP

Created : 2/28/2012 12:25:53 AM

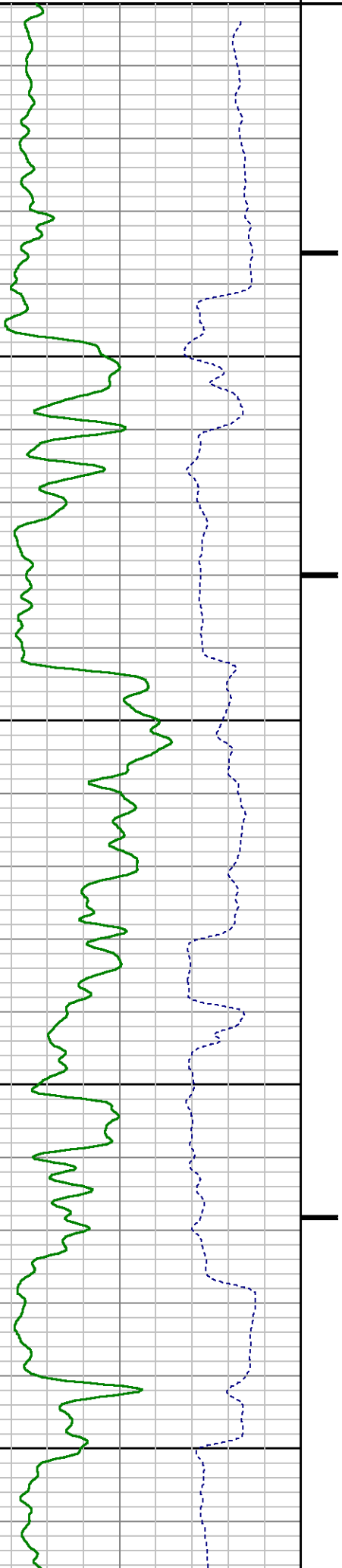


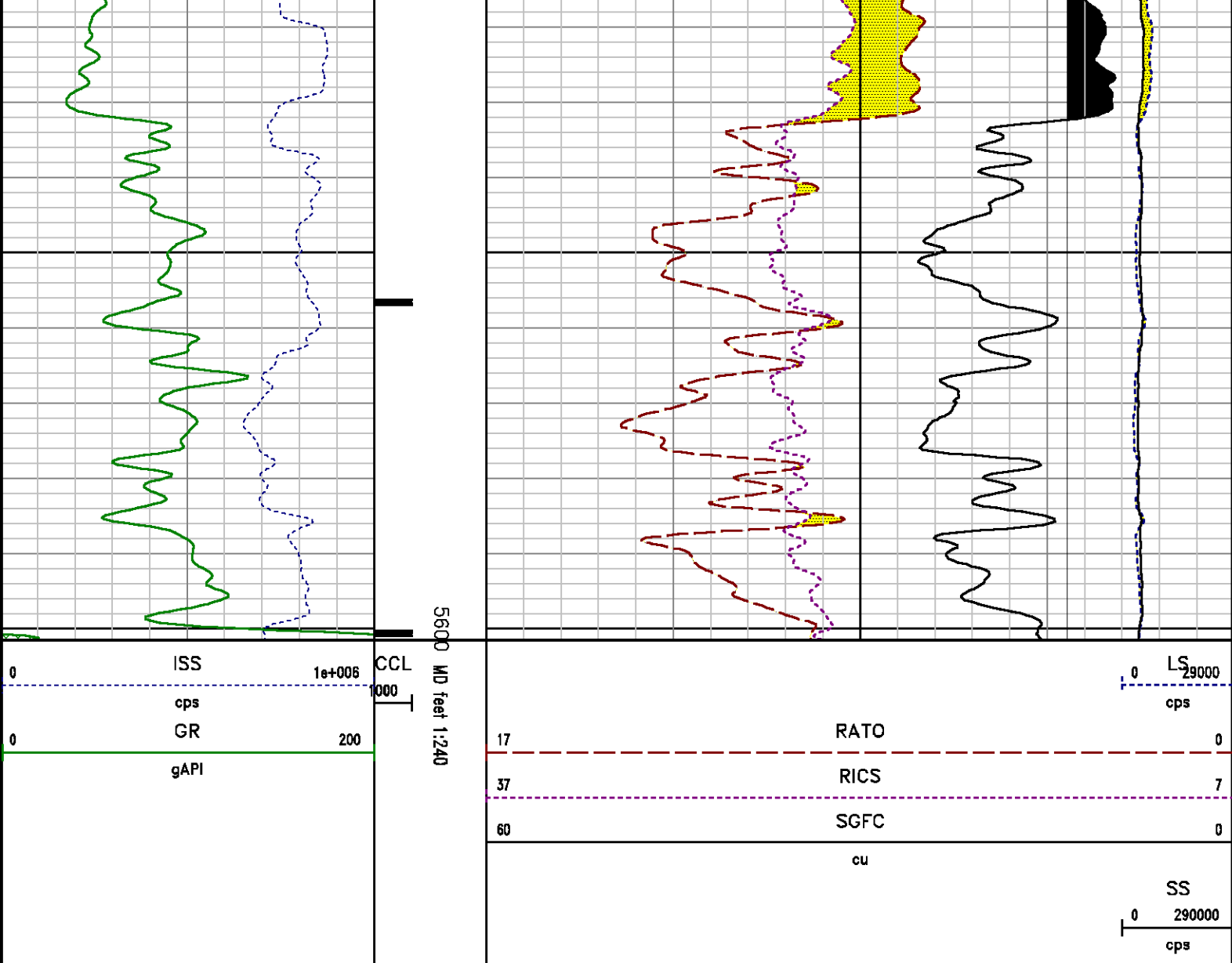


5300

5400

5500





CALIBRATION SUMMARY

GAMMA RAY

DATE/TIME PERFORMED: Thu Feb 23 11:39:37 2012			TOOL SERIES: 8262XA		ASSET: 470		SEQ: MK
Calibrator #	Background [cps]	Calibrator On [cps]	Multiplicative		Background [api]	Calibrator On [api]	Differential [api]
SHOP JIG	99.98	457.58	0.503		50.32	230.32	180.00

Verification File: C:\case\calver\GR\470MK.VP

PRIMARY VERIFICATION							
DATE/TIME PERFORMED: Thu Feb 23 11:43:37 2012			TOOL SERIES: 8262XA		ASSET: 470		SEQ: MK
Calibrator #	Background [cps]	Calibrator On [cps]	Multiplicative		Background [api]	Calibrator On [api]	Differential [api]
SHOP JIG	99.09	453.11	0.503		49.88	228.08	178.20



Calibration File: C:\case\calver\PNC\753MK.cal

PNC 3D CALIBRATION SUMMARY							
DATE/TIME PERFORMED: Mon Feb 13 16:54:33 2012			TOOL SERIES: 8281XA		ASSET: 753		SEQ: MK

Calibrator #		Source #	
SHOP BARREL		8281AA 10220691	

	ISS	Mtr Vltz (V)	SS Gain	LS Gain	XLS Gain	EA Temp (degF)	Sync Delay (usec)	RCAL
Raw Data	808270	129.00	2215.00	2206.00	2171.00	115.91	7.00	0.9733
Interpolated	1300000	150.51	2194.39	2198.31	2167.40			

	ISS	BKS	BKL	BKX	SGA1	SDA1	SGA2	SDA2
Raw Data	808270	6233.66	978.56	155.48	25.88	0.14	24.24	0.29
					25.35 26.40	0.00 0.20	23.60 24.80	0.00 0.40

	ISS	ILS	IXS	SS	SS2	LS	CSS	CLS
Raw Data	808270	166427.75	25946.72	87723.09	31240.96	8083.04	53004.05	12901.30
Fit Quality %		0.36	0.14	0.42	0.37	0.37	0.35	0.32

	ISS	RBOR	RIN ISS/ILS	RIN13 ISS/IXS	RICS ISS/CSS	RATO SS/LS	RTWO SS2/LS	RONE CSS/CLS
Raw Data	808270	1.43	4.86	31.15	15.25	10.85	3.87	4.11
		1.42 1.45	3.55 5.52	22.20 32.70	10.99 16.34	10.06 11.10	3.57 3.95	3.76 4.22
Fit Quality %		0.05	0.30	0.35	0.19	0.13	0.14	0.15
Reduced	1382722	1.43	4.85	31.12	15.27	10.83	3.86	4.10
		1.42 1.45	4.33 5.52	27.60 32.70	13.70 16.34	10.06 11.10	3.57 3.95	3.76 4.22

TOOL DIAGRAM

OTA SHORT CABLE HEAD

PCM POWER SUPPLY

Series 8250EA
Mnemonic PCM
Diameter 1.70"
Weight 18.00 lb
Length 3.86'
Temp Rating 350.00 °F

TELEMETRY / CCL

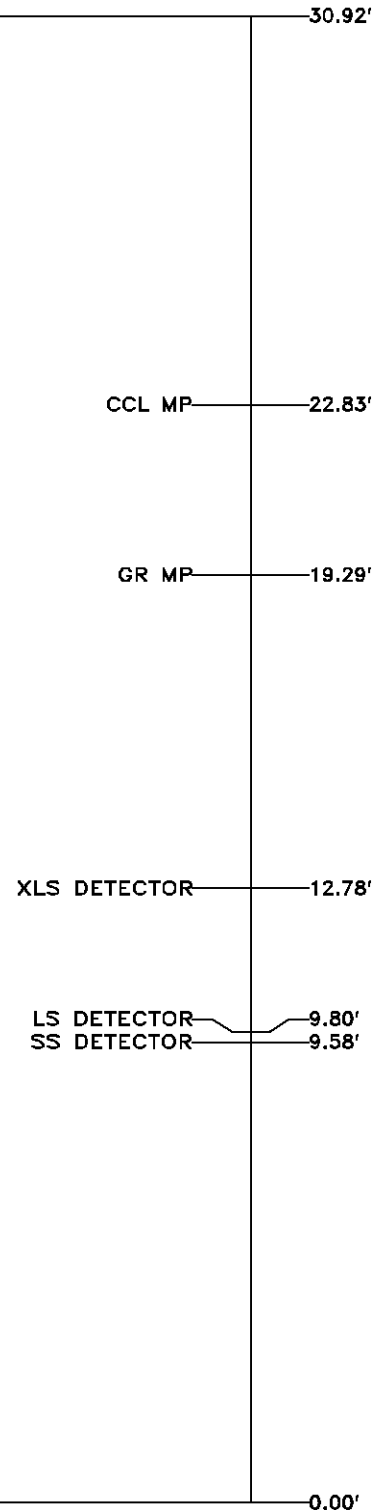
Series 8248EA
Mnemonic PCM
Diameter 1.70"
Weight 20.00 lb
Length 4.46'
Measure Point 1.00' CCL MP
Temp Rating 350.00 °F
Press Rating 15000.00 PSI

GAMMA RAY

Series 8262XA
Mnemonic GR
Diameter 1.70"
Weight 15.00 lb
Length 3.17'

RESERVOIR PERFORMANCE MONITOR

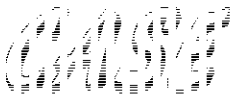
Series 8281XA
Mnemonic RPM
Diameter 1.70"
Weight 75.00 lb
Length 18.58'
Measure Point 9.49' SS DETECTOR
Measure Point 9.72' LS DETECTOR
Measure Point 12.69' XLS DETECTOR
Temp Rating 350.00 °F
Press Rating 20000.00 PSI



Total Length: 30.92'
Total Weight: Not Available
Max Diameter: 0' 1.70"



Baker Atlas



Company	WPX ENERGY		File No:
Well	FEDERAL PA 323-29		CH050362
Field	PARACHUTE		API No:
County	GARFIELD	State	COLORADO
Location		Elevations	
SHL: 585' FSL 2265' FWL		KB 5702 ft	29-T6S-R95W
BHL: 1669' FSL 1986' FWL		DF	DOE 3-W-29 pad
SEC 29 TWP 6S RGE 95W		GL 5675 ft	Nabors 577