



Baker Atlas

RESERVOIR PERFORMANCE MONITOR

File No: CH022856	Company Well	WPX ENERGY FEDERAL RG 312-14-298
API No: 05103117910000	Field County	SULPHUR CREEK RIO BLANCO State CO
1 4 2S 98W RG 12-14-298 PAD CYCLONE 29	Location SHL: 1644' FNL & 505' FWL BHL: 1671' FNL & 645' FWL SEC 14 TWP 25 RGE 98W	Other Services BOND LOG
Permanent Datum Log Measured From Drill Measured From	GL KB KB Elevation 21 ft Above P. D.	Elevations KB 6561 ft DF GL 6560 ft

Date	20/FEB/14	
Run	ONE	
Service Order	US625290	
Depth Driller	10897 ft	
Depth Logger	10817 ft	
Bottom Logged Interval	10807 ft	
Top Logged Interval	3007 ft	
Time Started	13:30	
Time Finished	23:30	
Operator Rig Time	10 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	265 degF	
Reference Log	BAKER HUGHES BOND LOG	
Reference Log Date	20/FEB/14	
Equipment No.	4271	GRAND JCT.
Recorded By	NEWELL	
Witnessed By	WAYNE MARCOTTE	

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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
30 in	0 ft	80 ft
14.75/13.5	80 ft	3007 ft
8.75/7.875	3007 ft	10978 ft

Casing Record				
Size	Weight	Grade	From	To
18 in			0 ft	80 ft
9.625 in			0 ft	3007 ft
4.5 in	11.6 lbm/ft	P-110	0 ft	10978 ft

Remarks
All data on this log is shifted and depth matched using the Gamma Ray curve to the Baker Hughes bond log dated 2/20/2014 at the client's request.
The depth matching process creates potential for collar lengths to vary from those recorded on other cased hole wireline units without a Gamma Ray reference.

The amount of linear shift is 4 feet.

Logged In PNC-3D mode.

BHT = 265 °F

SJ = 5733'–5755'

Equipment Data					
Run	Trip	Tool	Series Number	Serial Number	Position
1	1	PCM	8250EA	10397894	FREE
1	1	TEL/CCL	8248ED	10296408	FREE
1	1	GR	2812LA	10274385	FREE
1	1	RPM	8281EA	10294755	FREE
1	1	RPM	8283PA	10585555	FREE
1	1	RPM	8281FA	10307727	FREE
1	1	TEMP	8255XA	11774568	FREE

MAIN SECTION
PNC 3-D MODE

SPL PROCESSING					
MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
PNC Porosity	Borehole	Cased		2949.000	10814.941
PNC Porosity	Borehole Size	8.750	inch	2949.000	10814.941
PNC Porosity	Casing Size	4.500	inch	2949.000	10814.941
PNC Porosity	Gas Filled	Non Gas Filled		2949.000	10814.941
PNC Porosity	Matrix	Sandstone		2949.000	10814.941
TPS Pressure	Temperature Corr. Source	Fixed (72.00)	degF	2949.000	10814.941

DEPTH OFFSETS		
(for Acquired Curves)		
SERIES	DEPTH OFFSET	ACQUIRED CURVES
8248ED	-26.519	FLTM
8248ED	-26.519	CCL

8248ED	-24.519	CCL	CHV				
2812LA	-21.969	GR					
8281XA	-12.702	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
		RICXC	RIN13C	RIN23	RIN23C	SD3D	SG3D
		SGB3	SGF3	WDTH3	CXSR	IXSR	XSR
		RICXR					
8281XA	-12.291	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	-12.041	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	RAT0	RAT013
		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	RAT013R
		RBORR	RICSR	RINR	RIN13R	RONER	RPORR
		RTWOR					
8255XA	-0.792	PTFS	PTMS				
8255XA	-0.775	SPF1	SPFQ	TSCP	TSDP		
8255XA	0.000	DTEM	TEMP	TNF			
SYSTEM	0.000	TEN	TTEN				

Created by : RPM9, v5.3.1.0

Plotted by : PlotMgr, v5.4.504

Company : WPX ENERGY

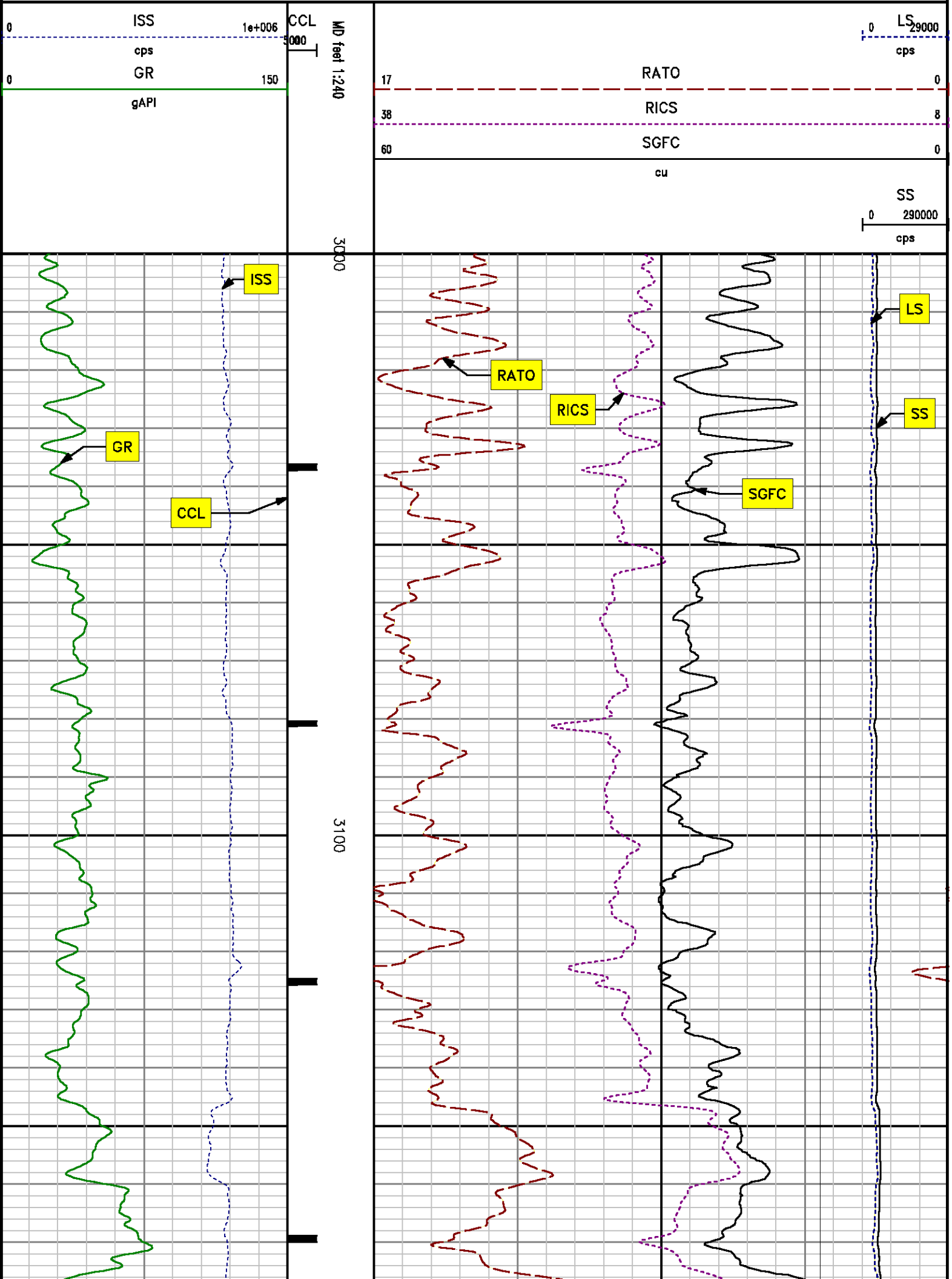
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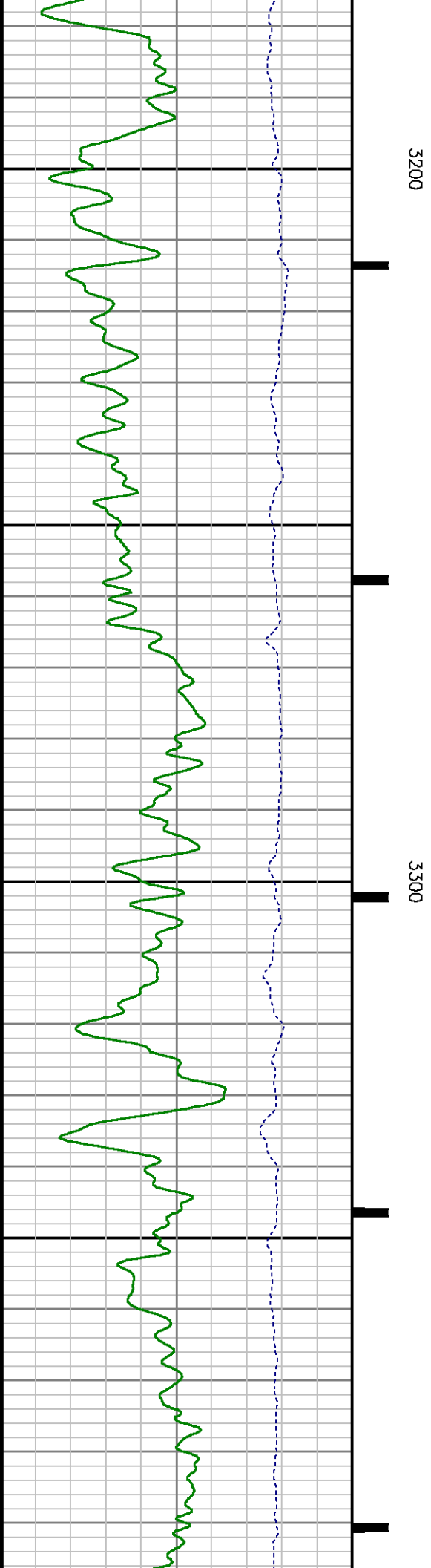
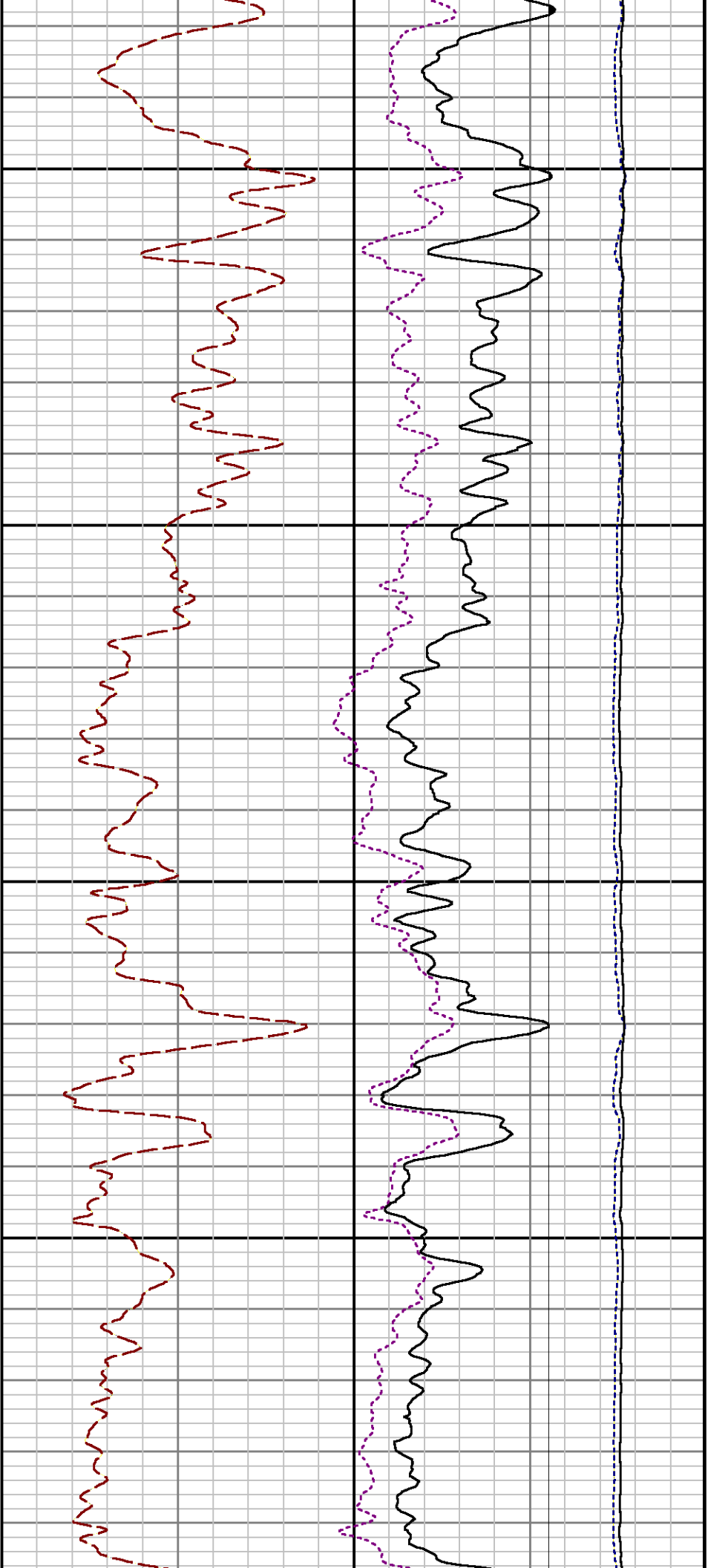
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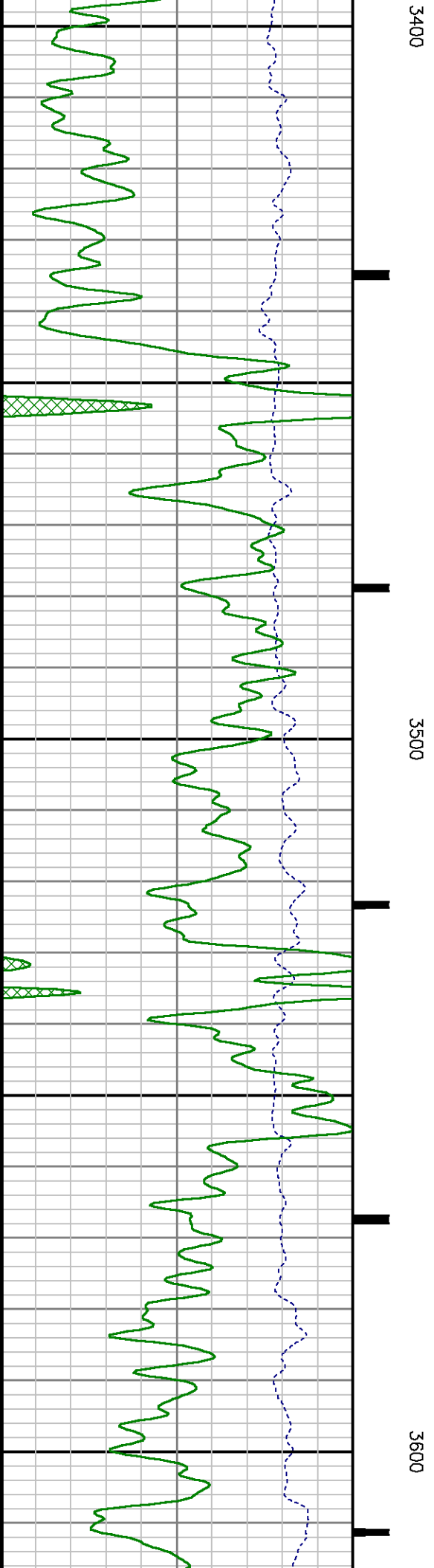
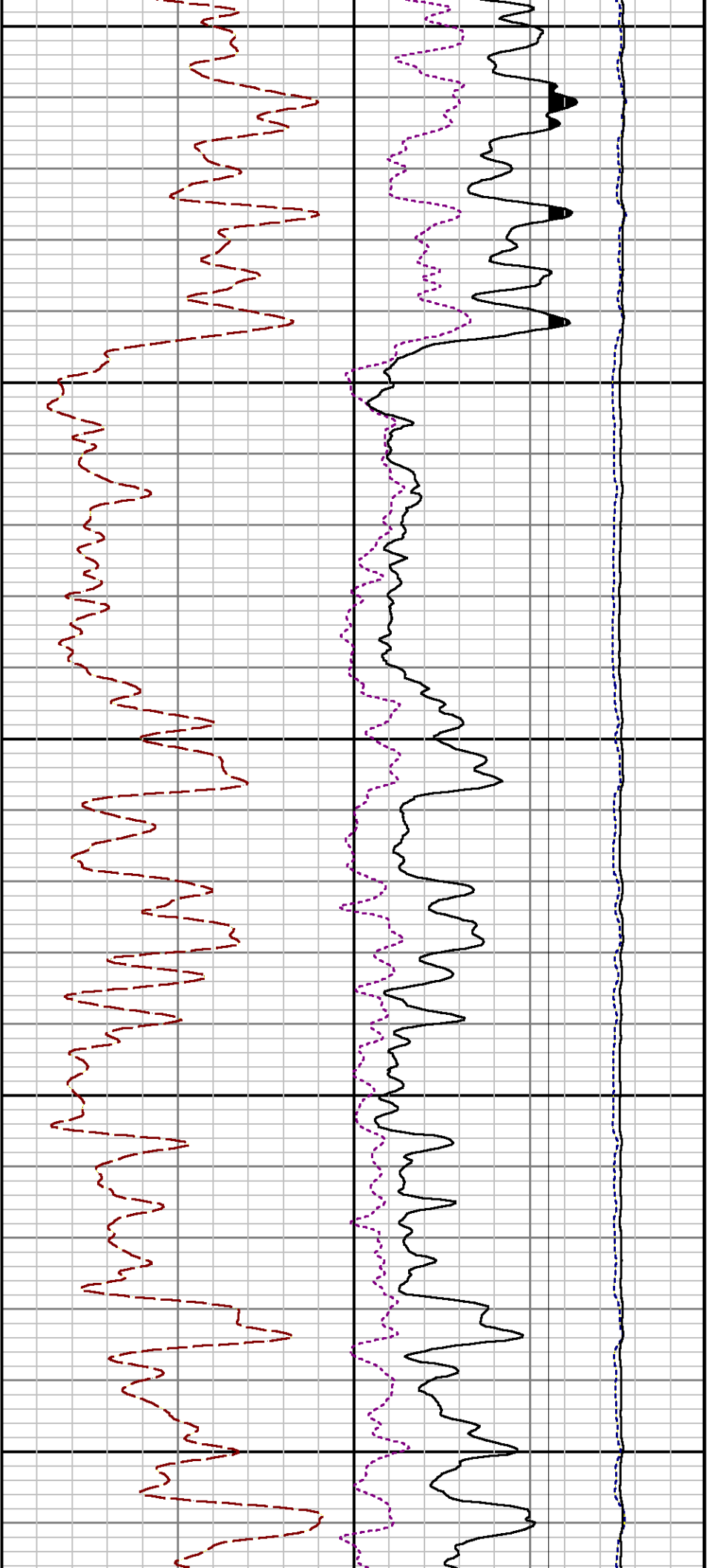
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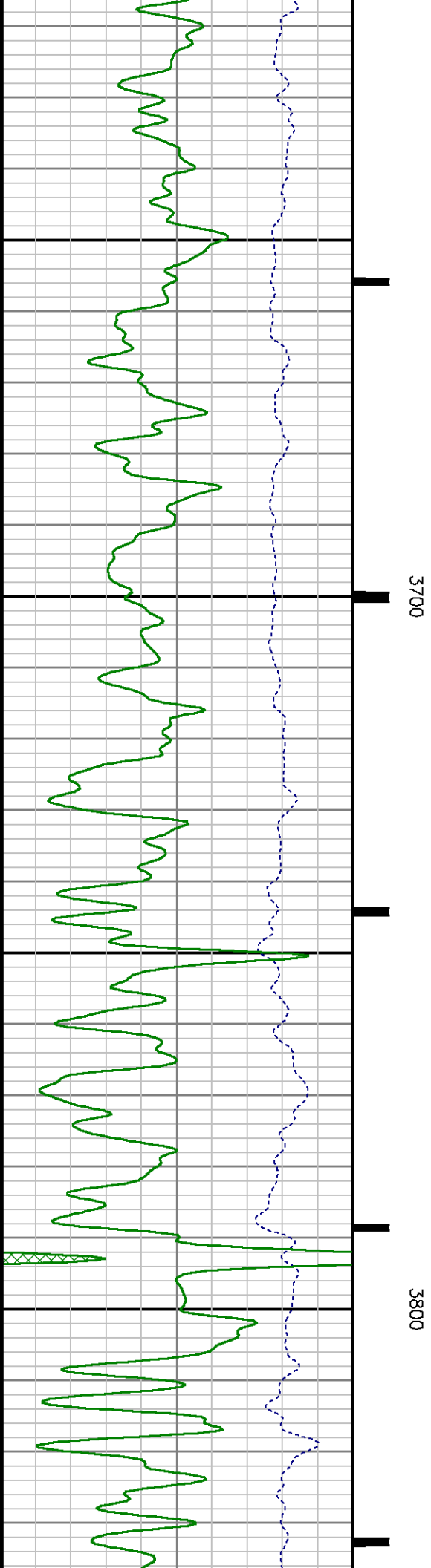
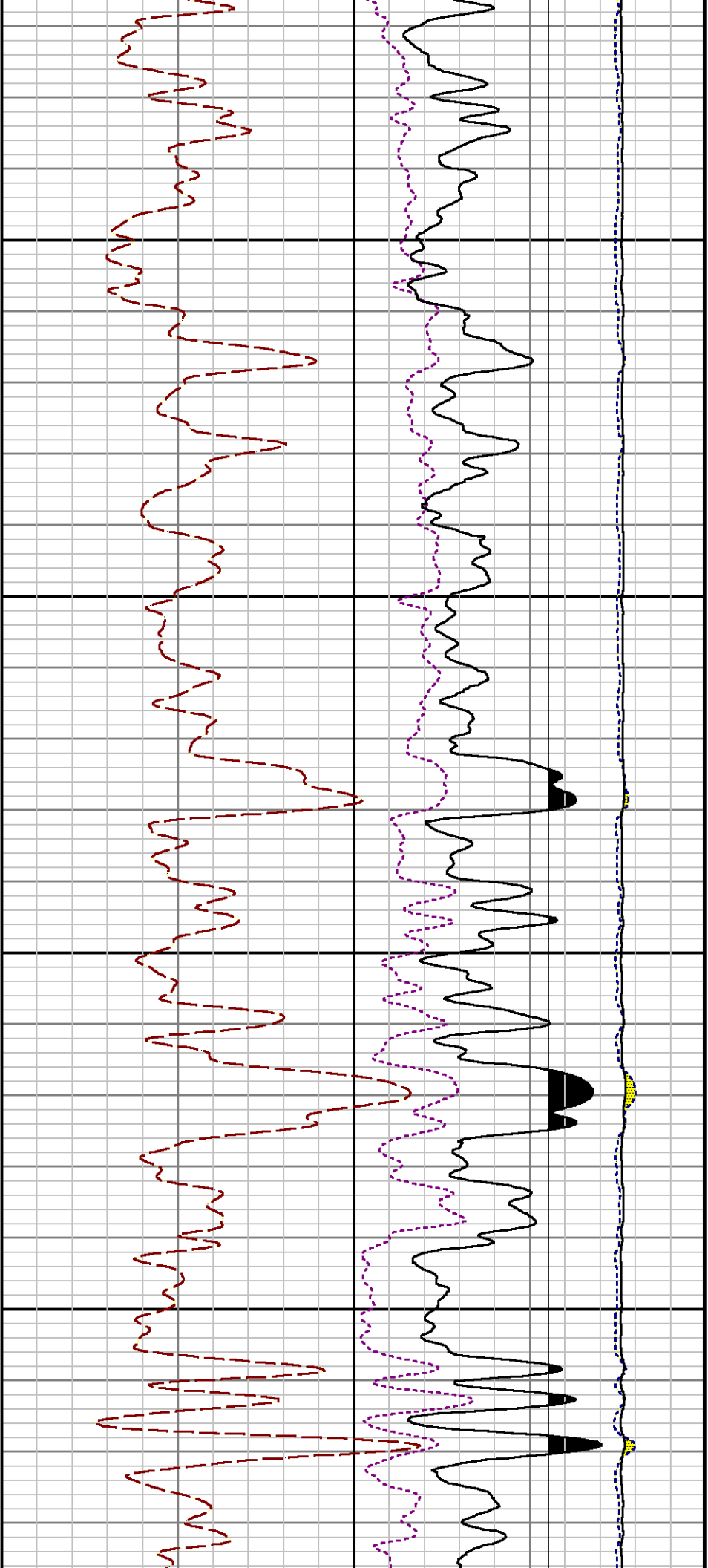
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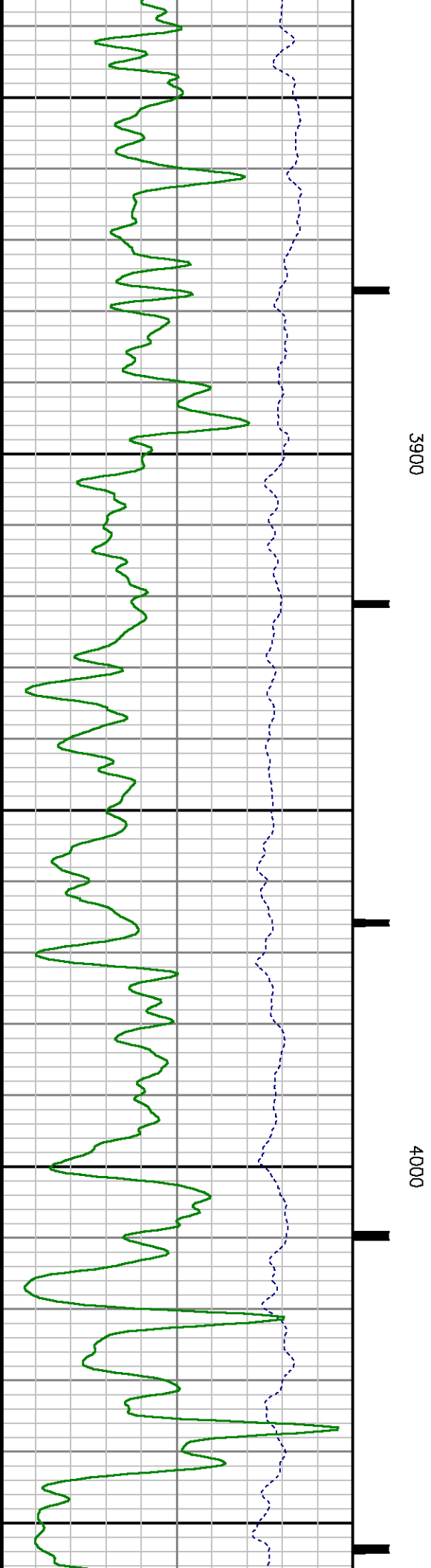
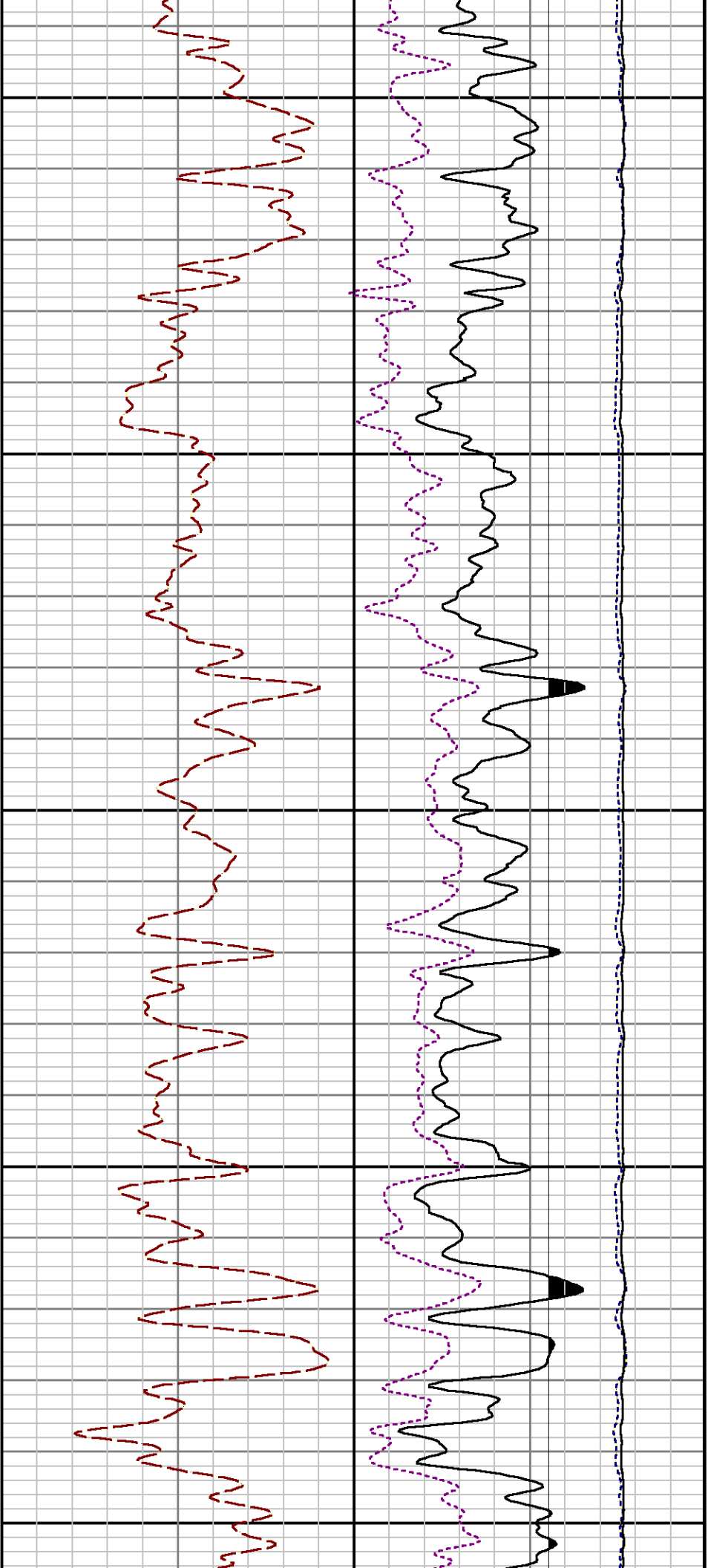
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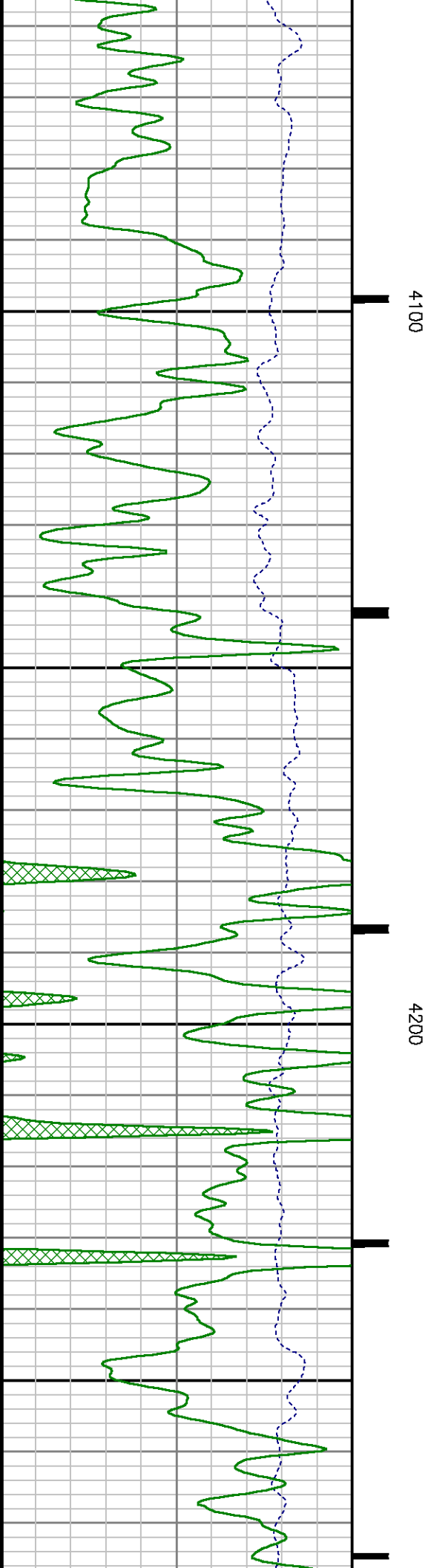
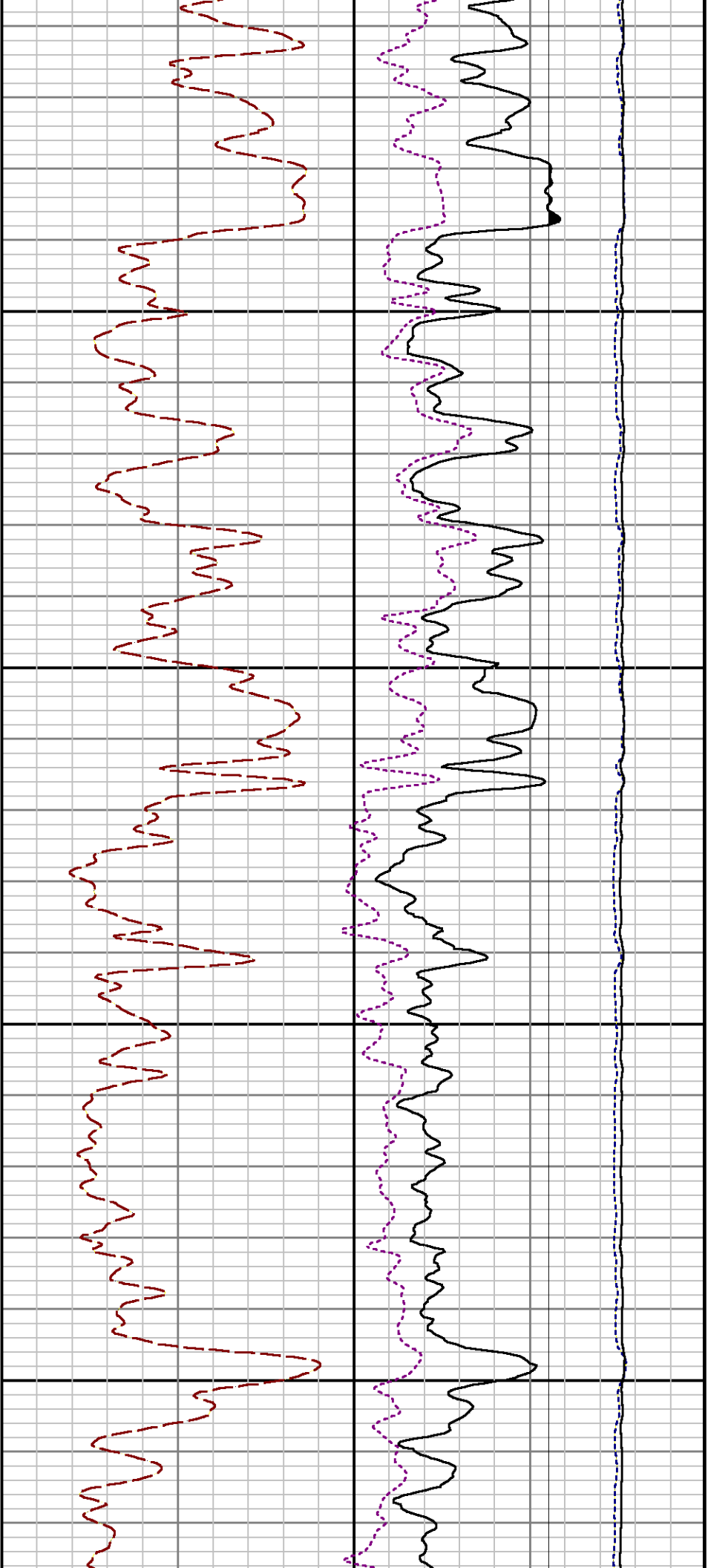


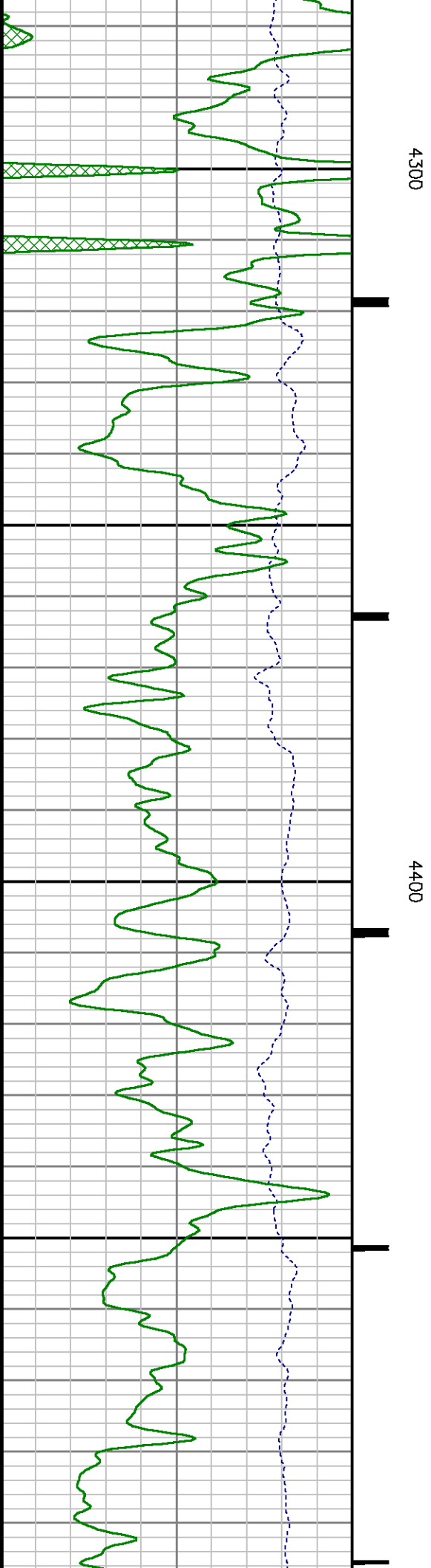
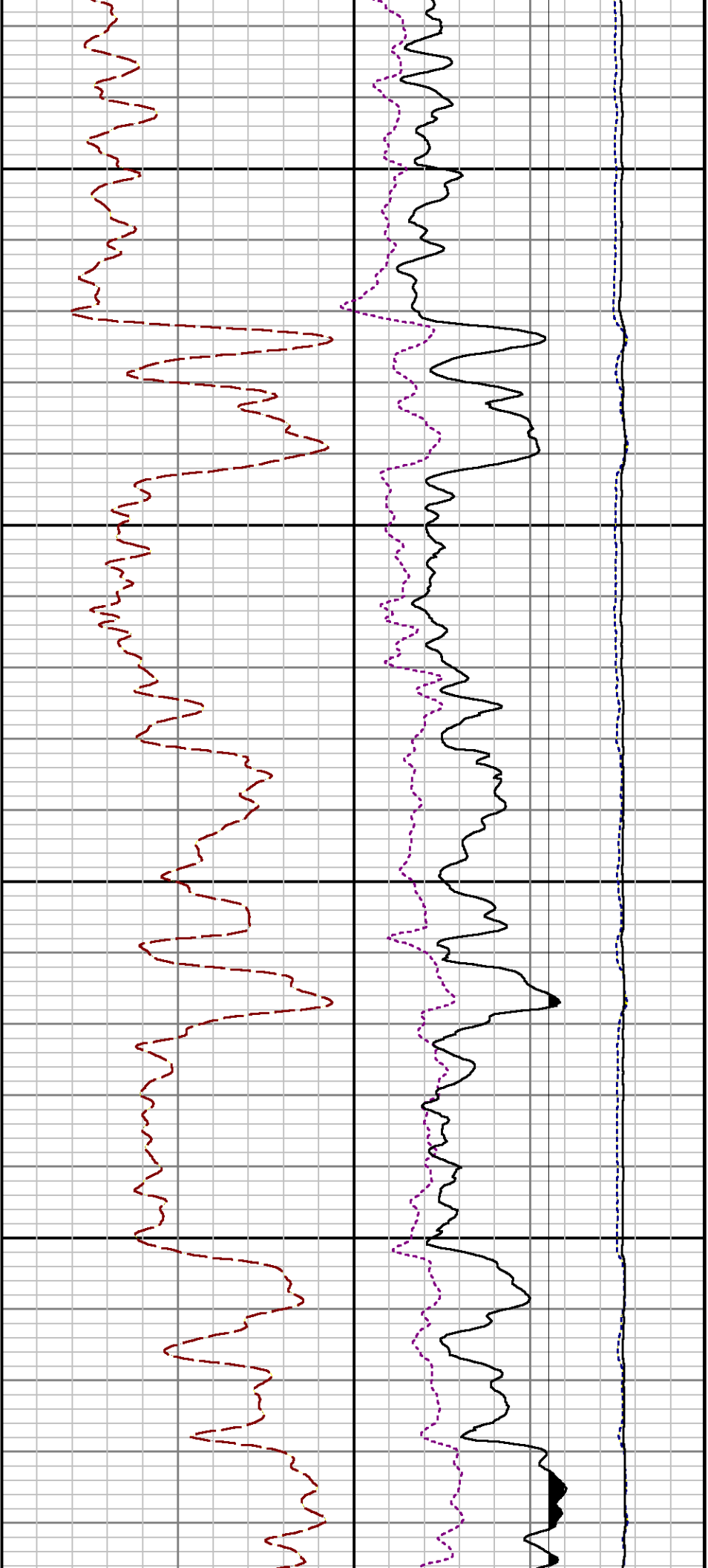


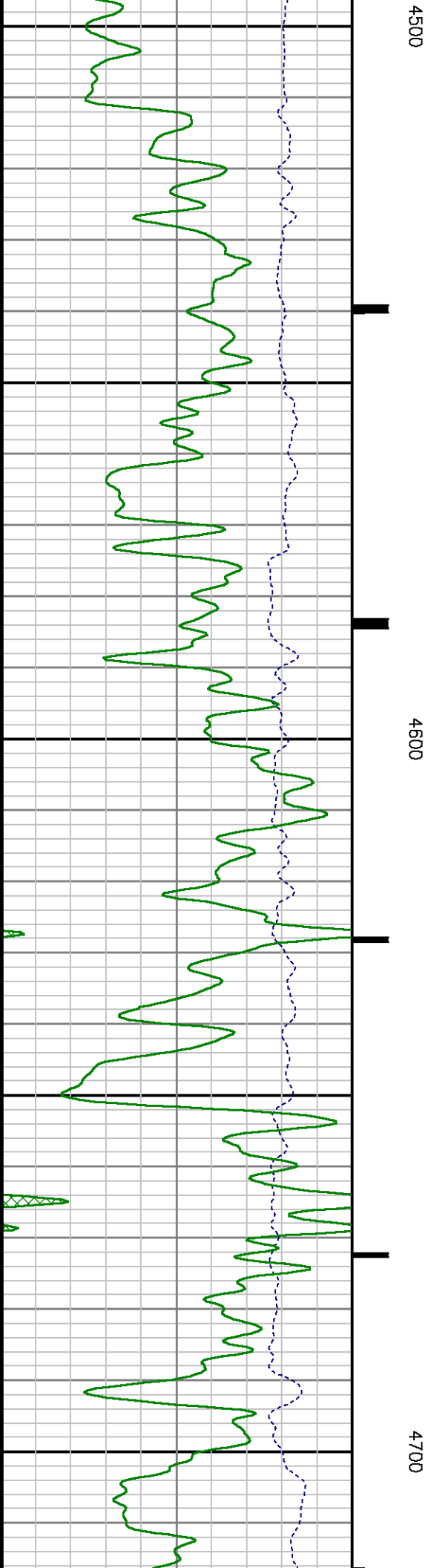
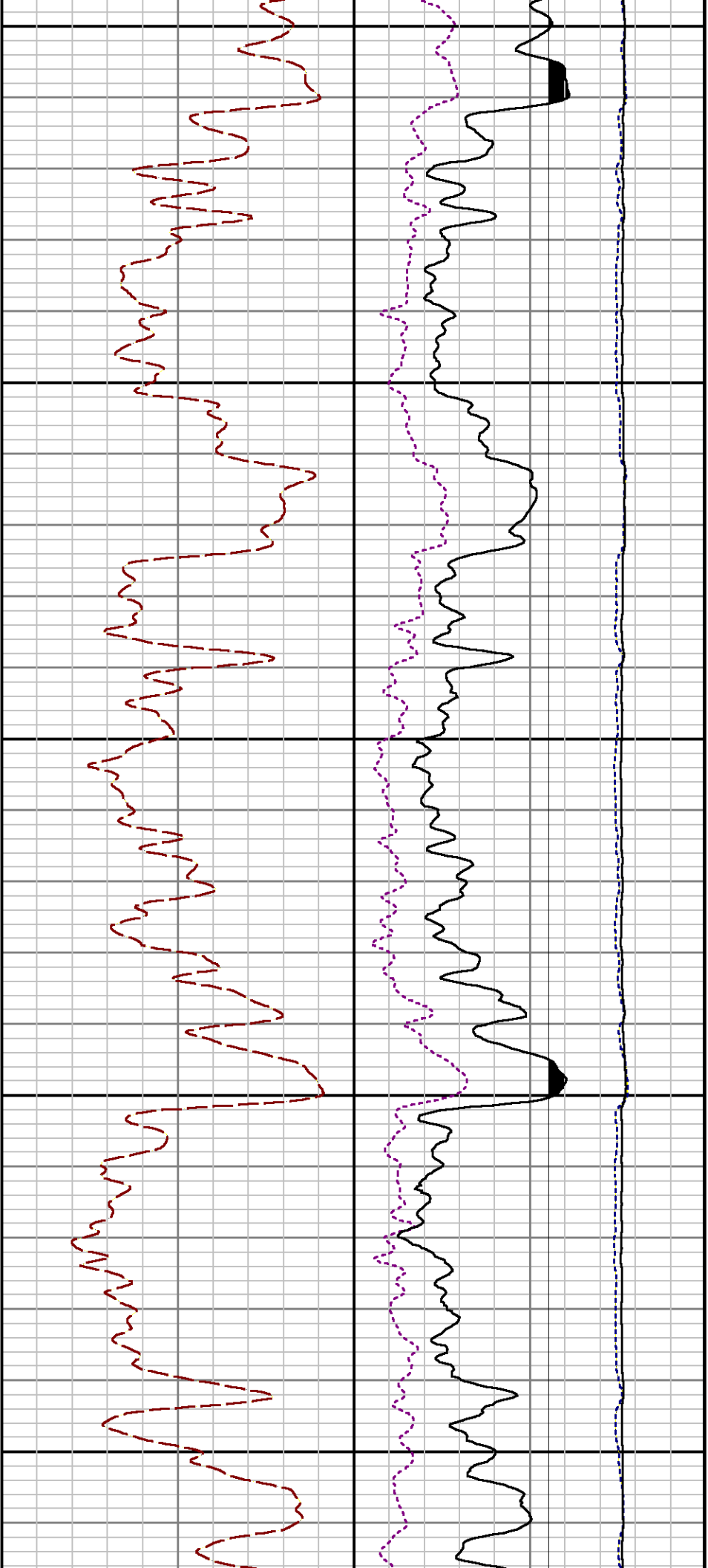


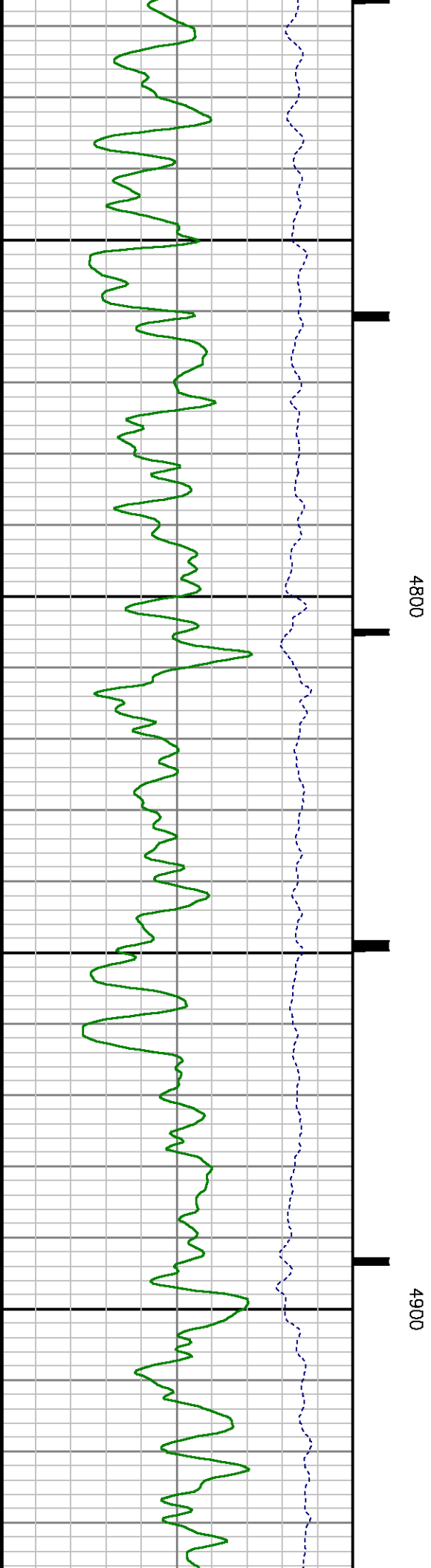
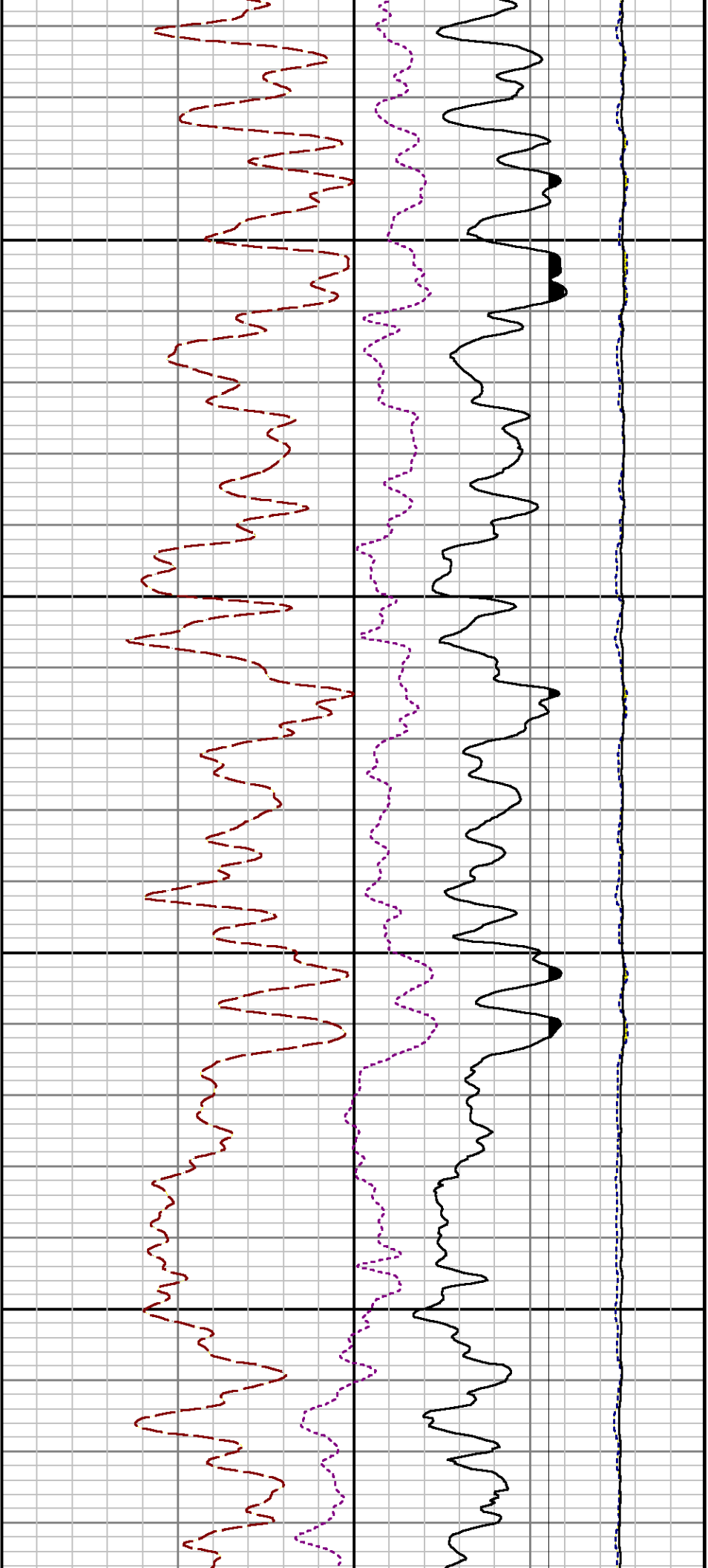


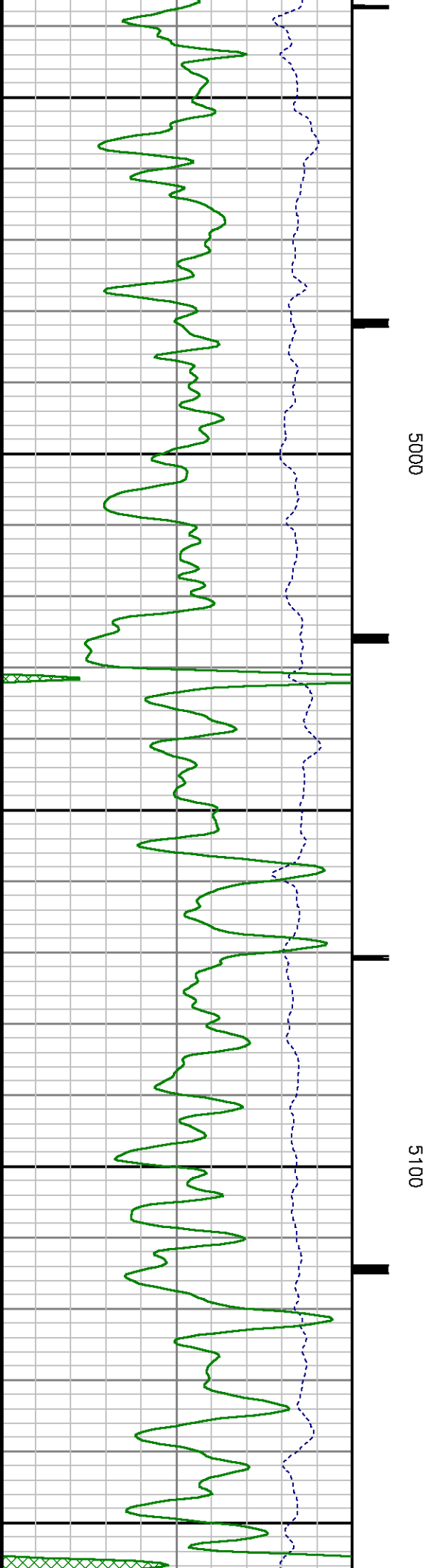
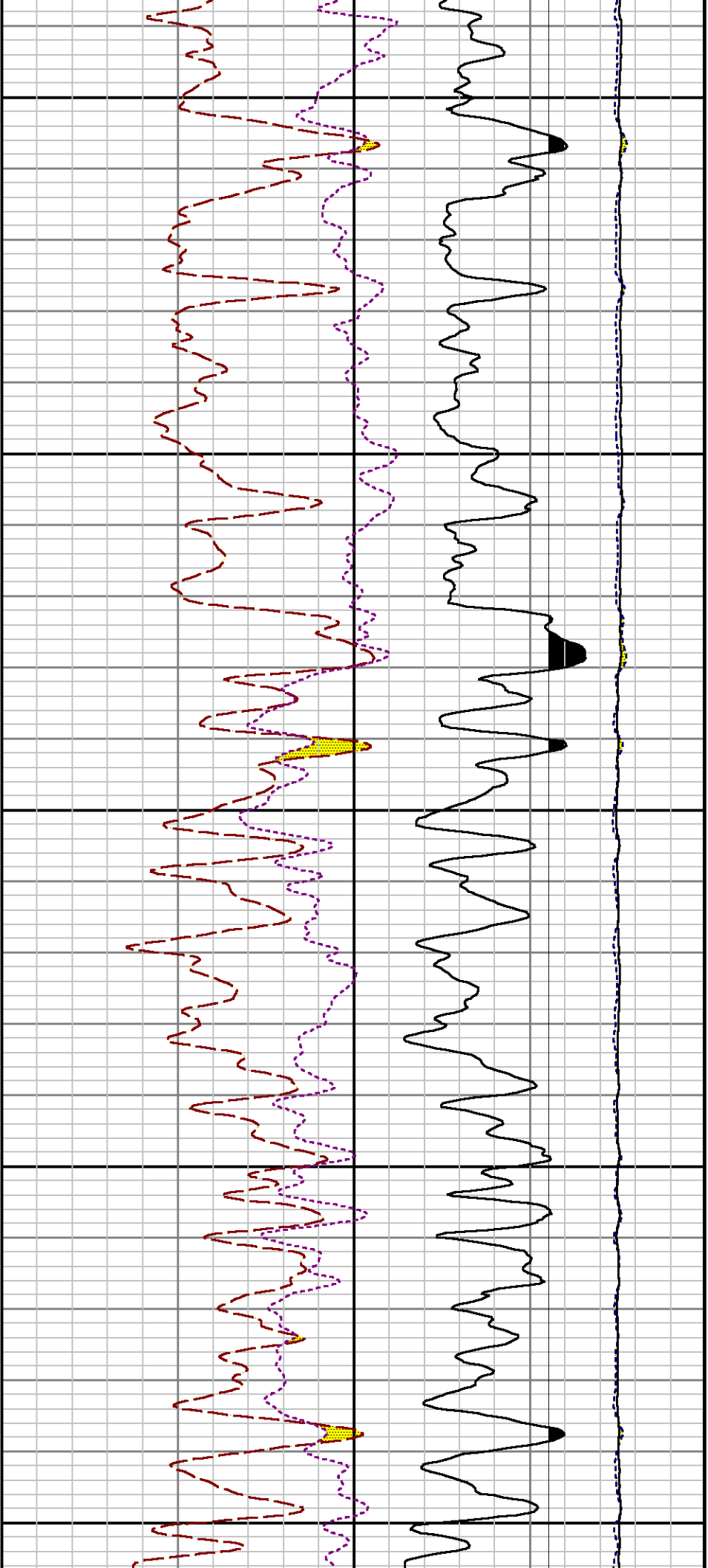


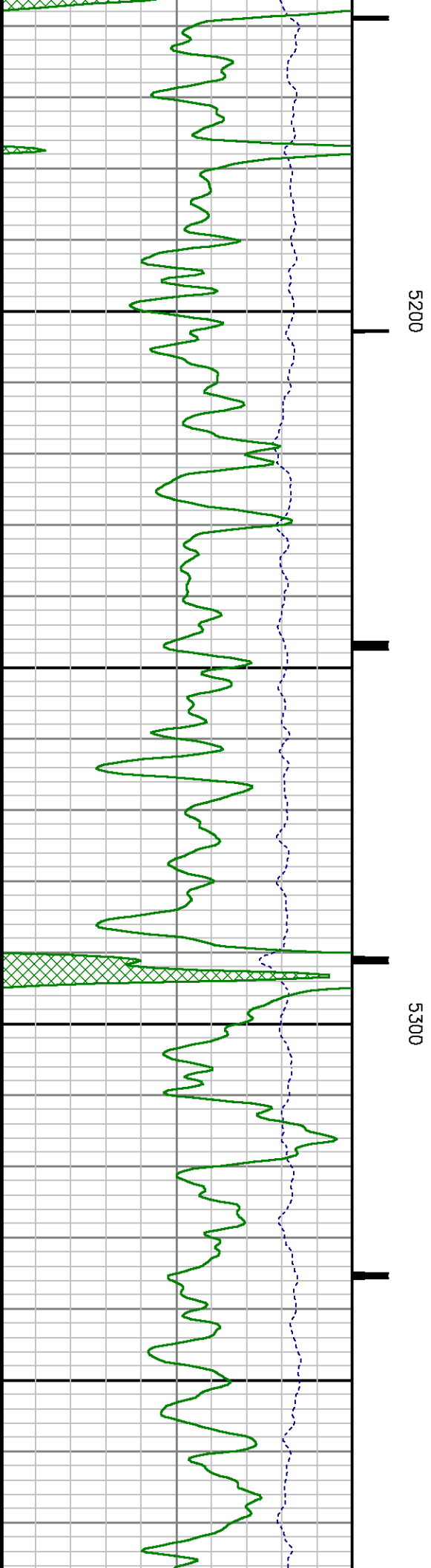
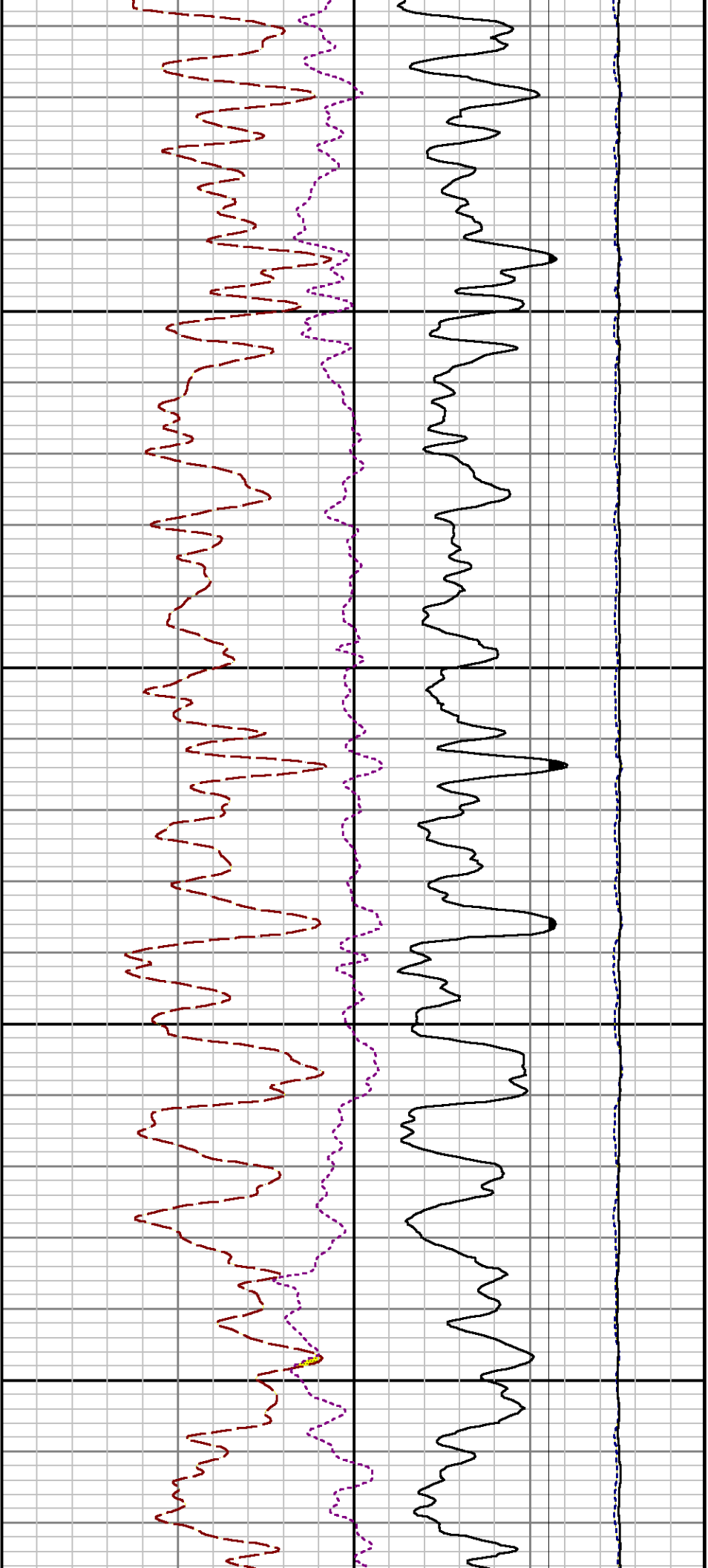


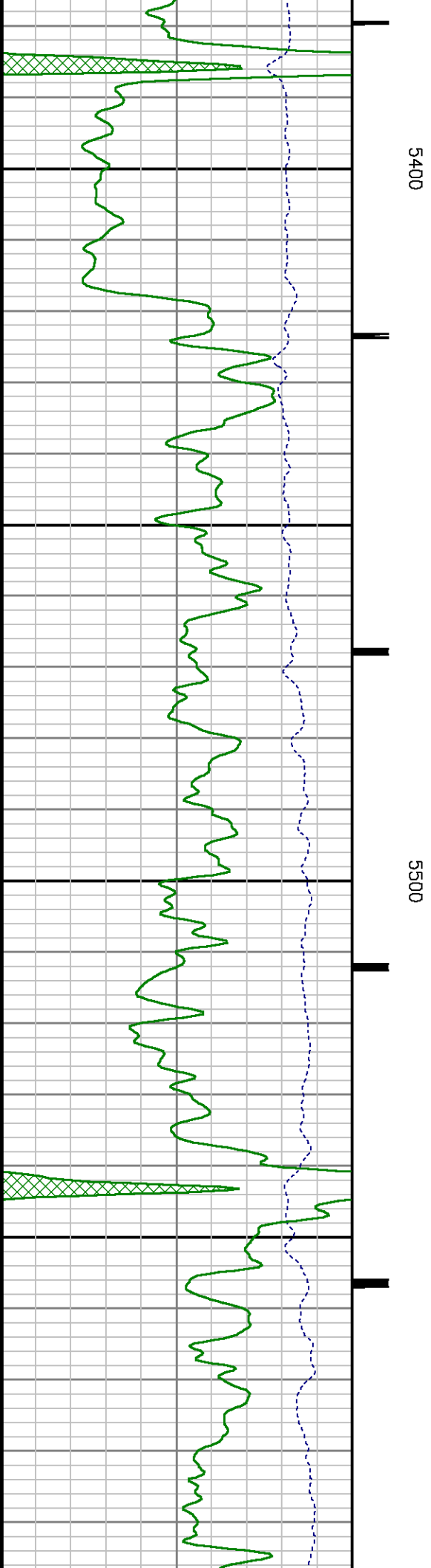
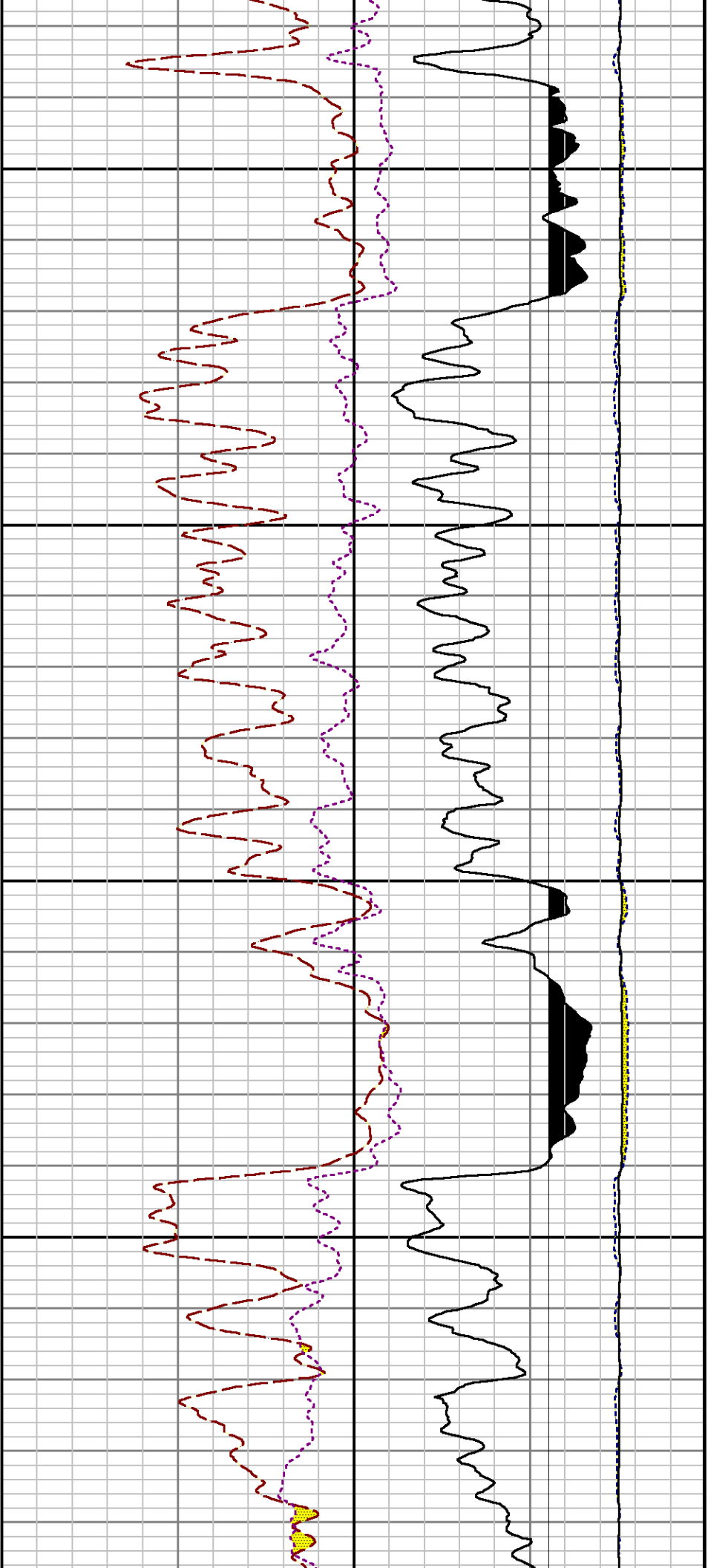


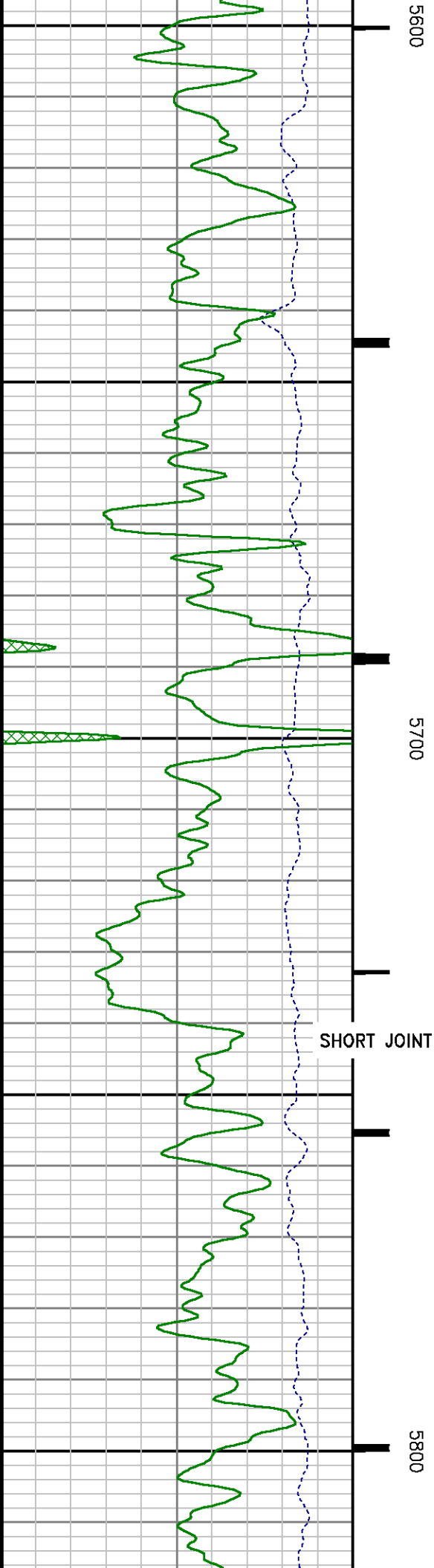
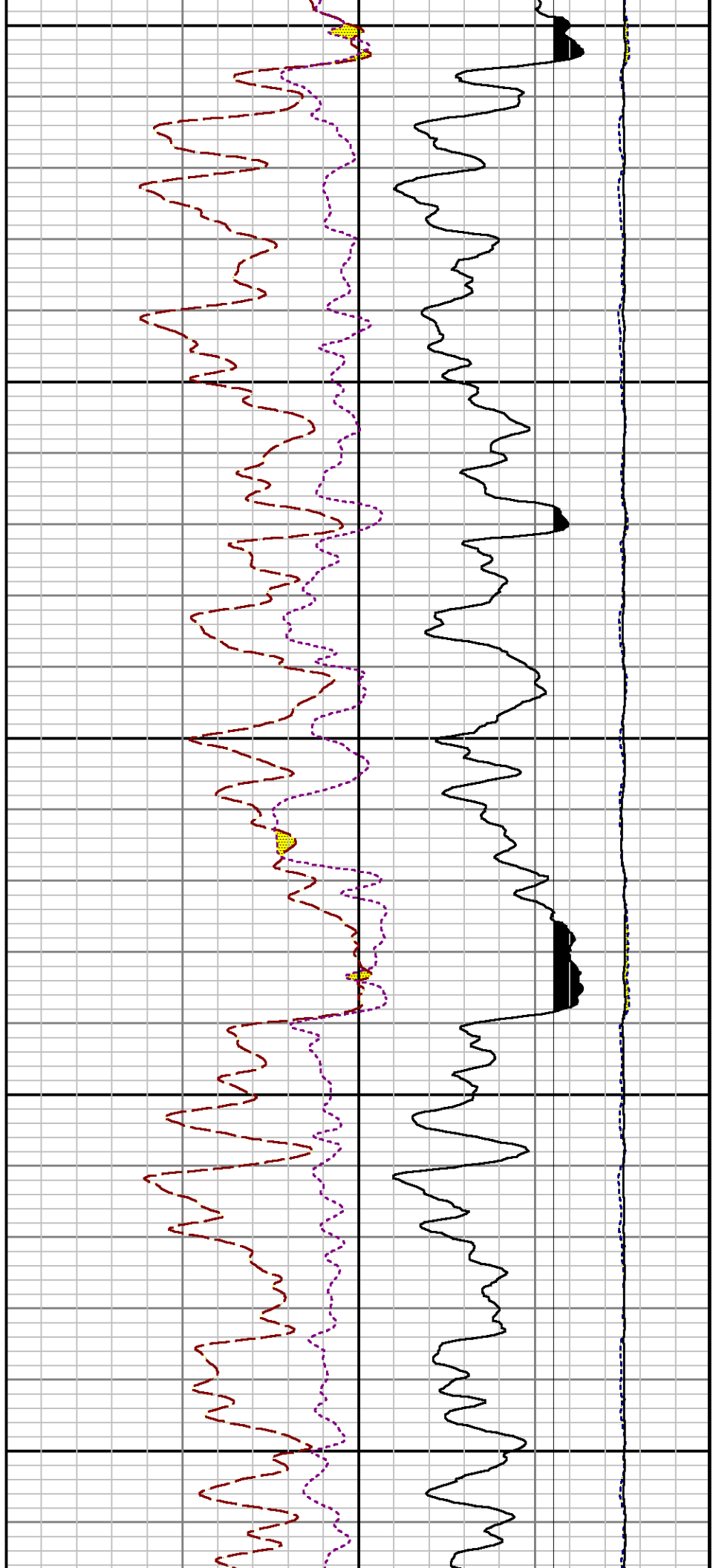


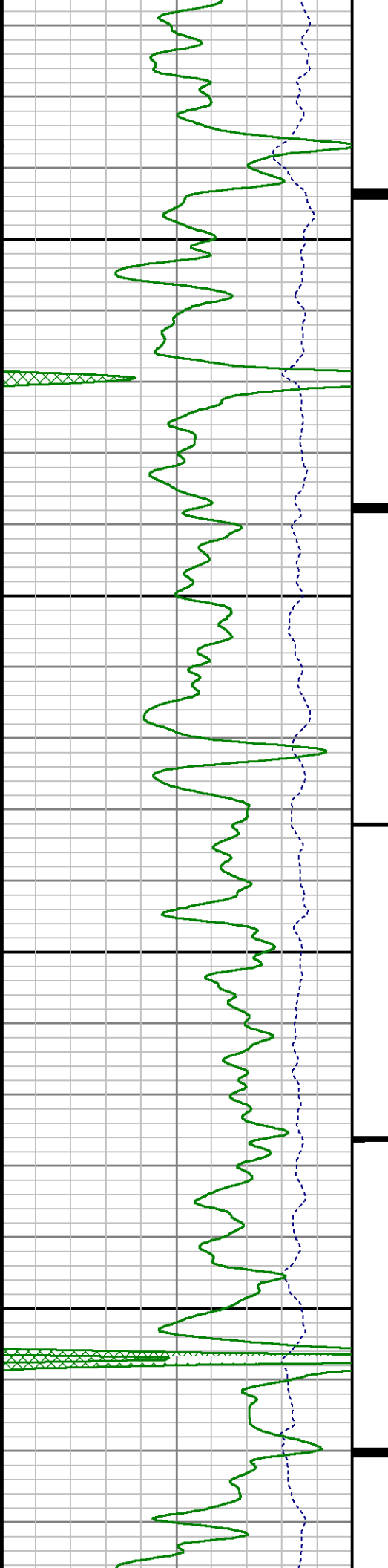






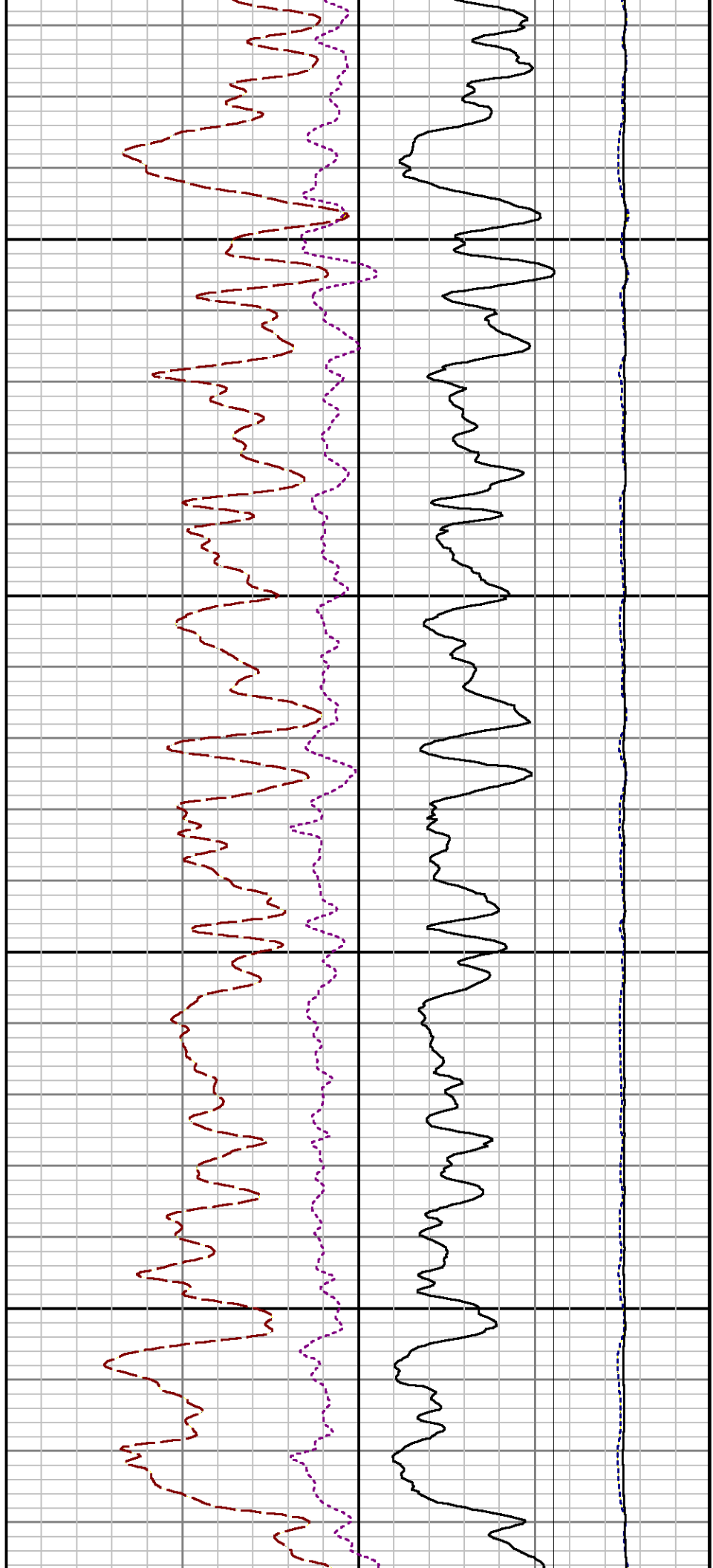


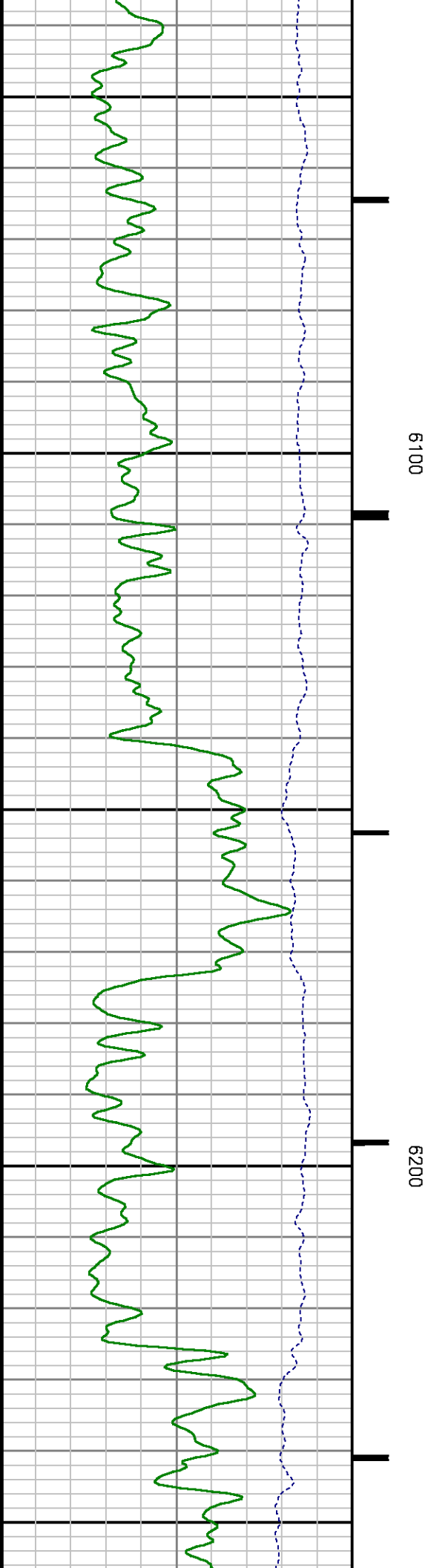
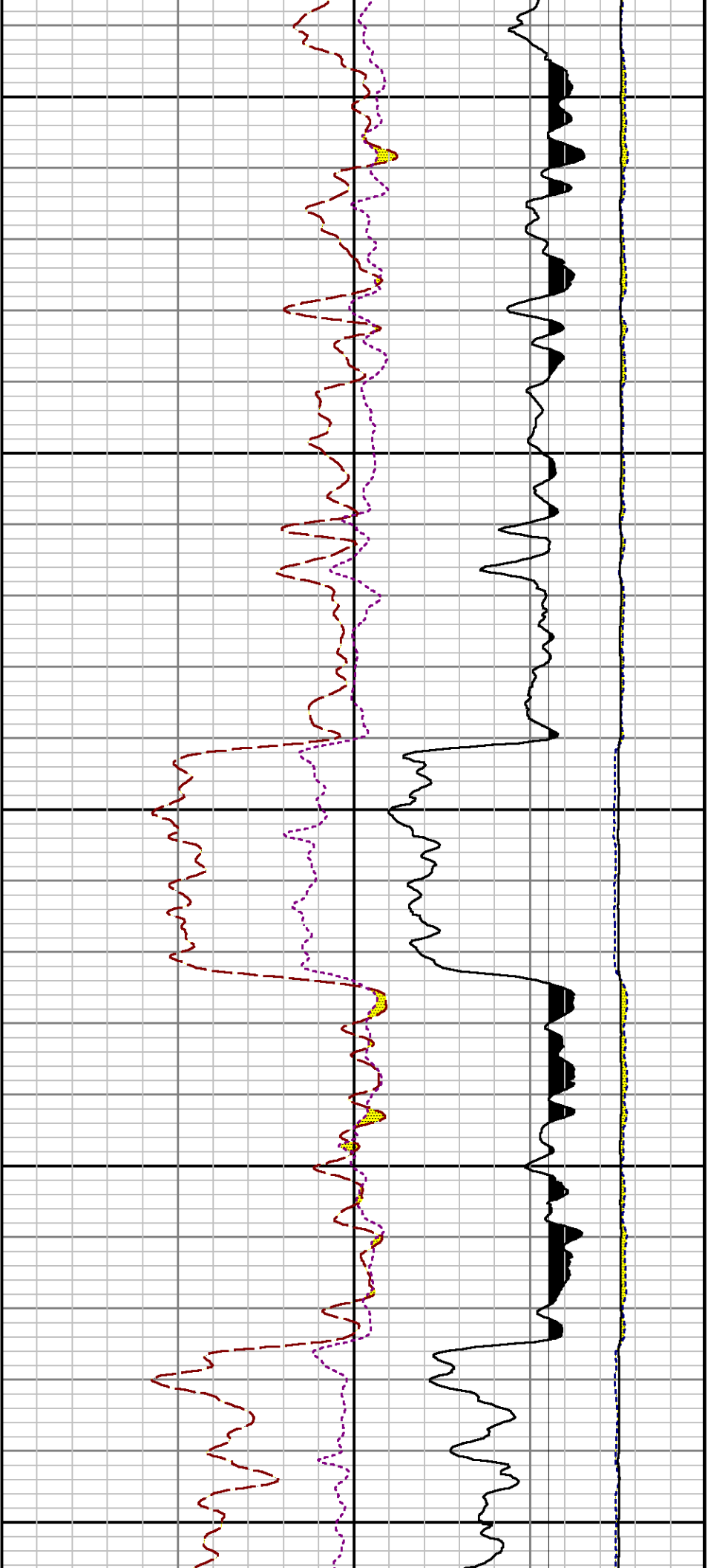


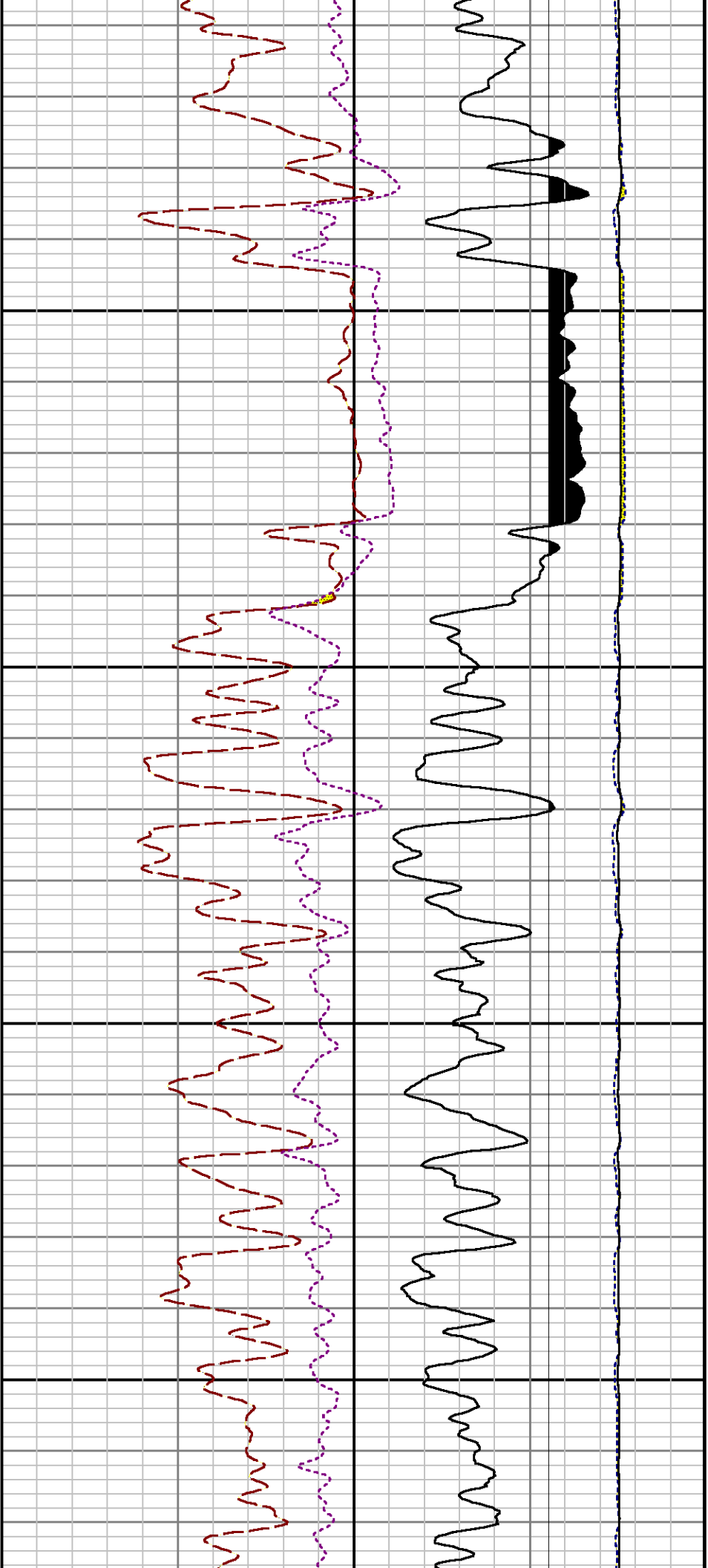


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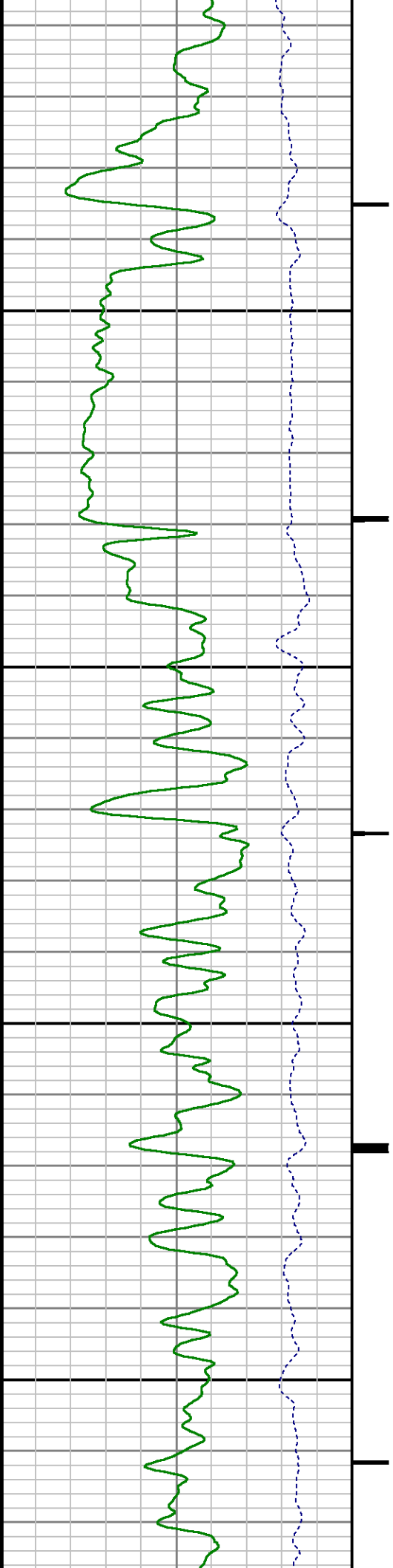


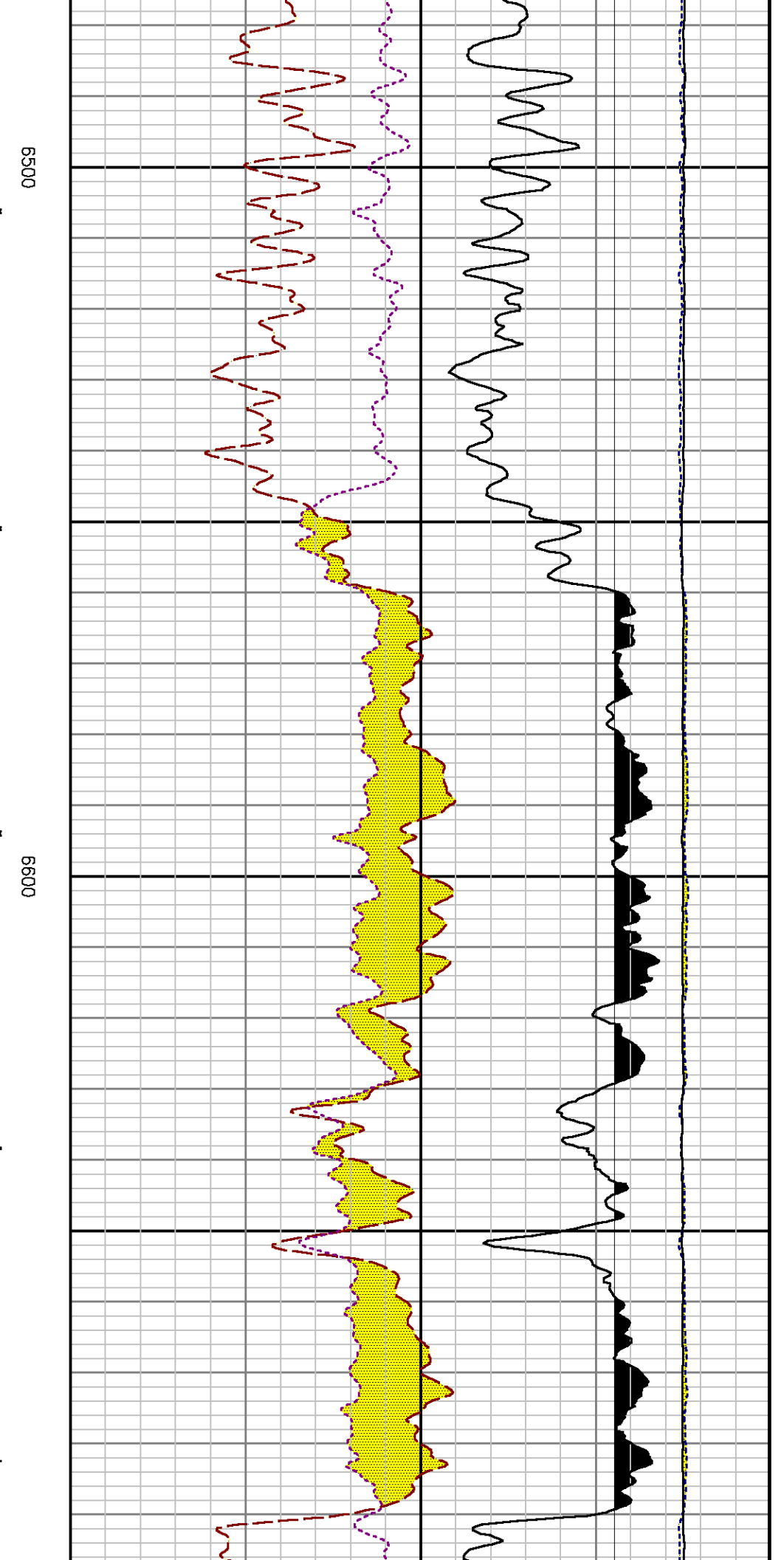
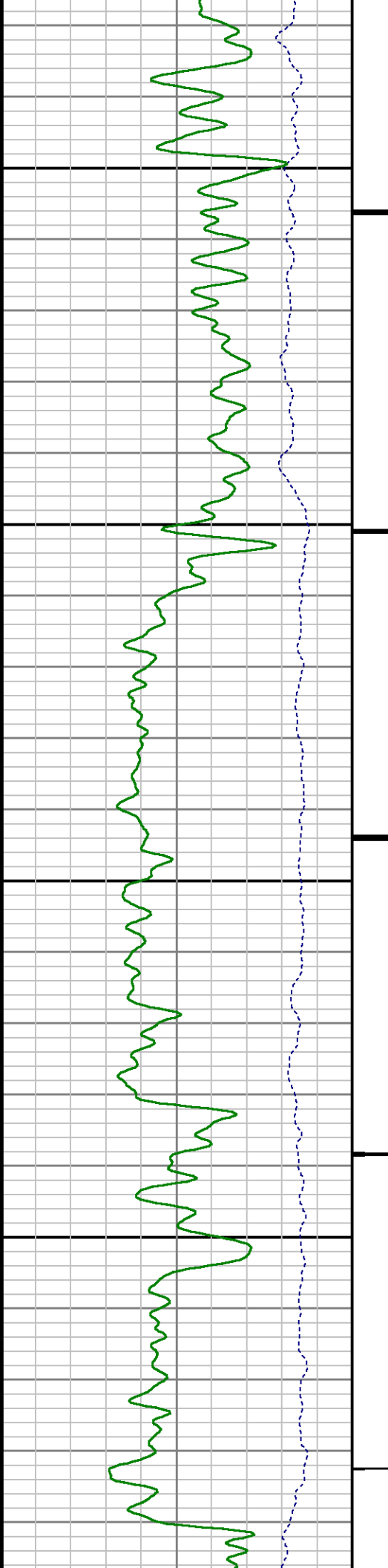


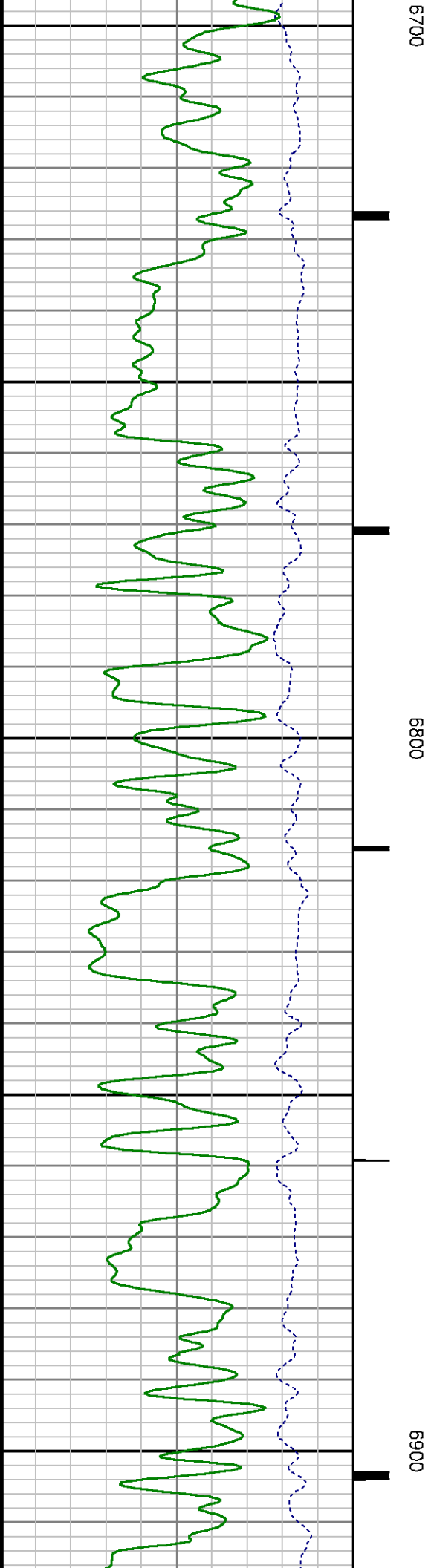
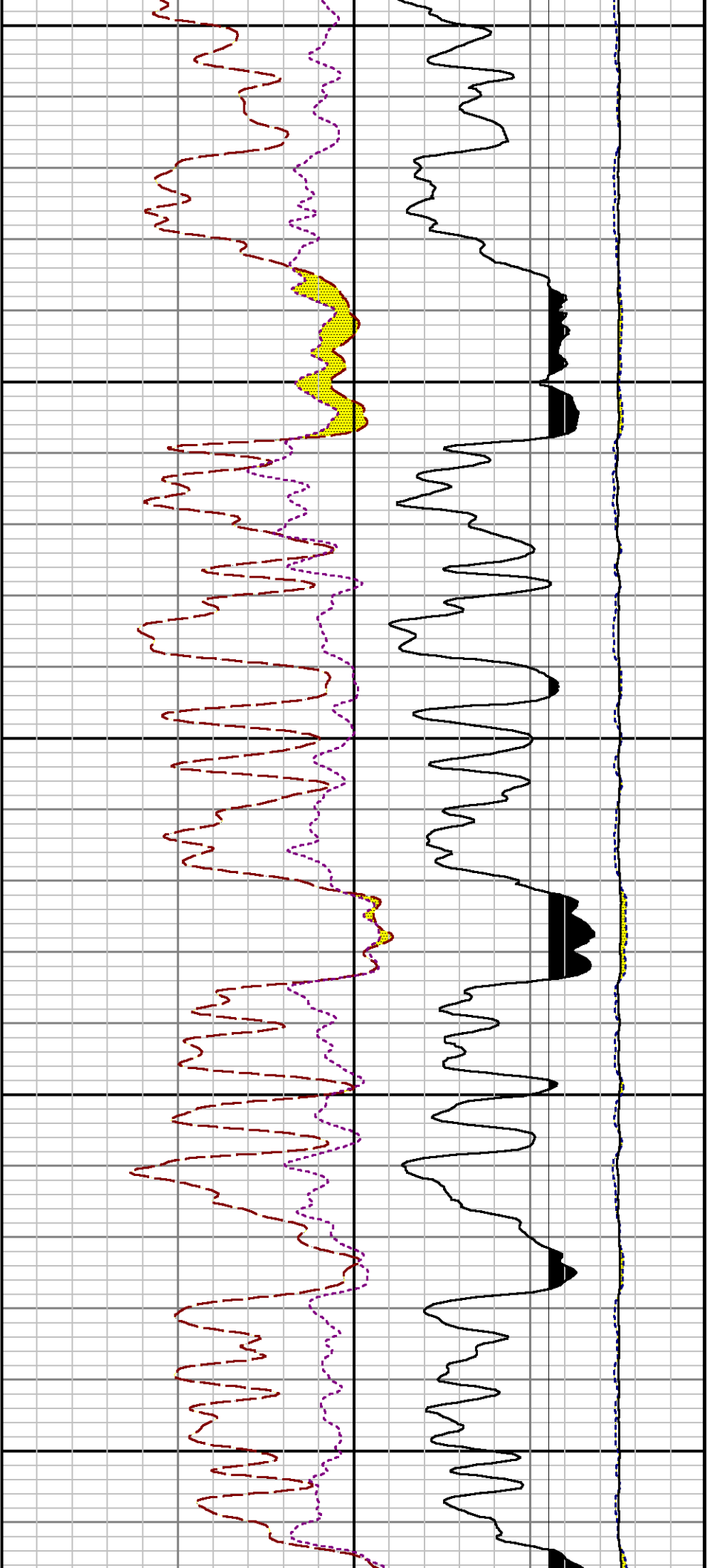


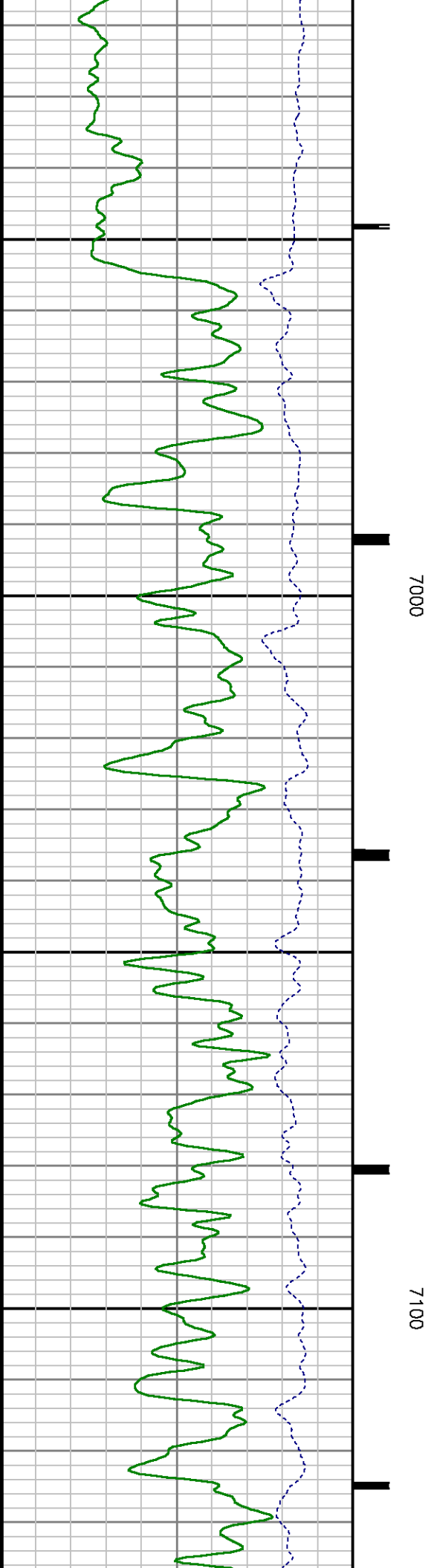
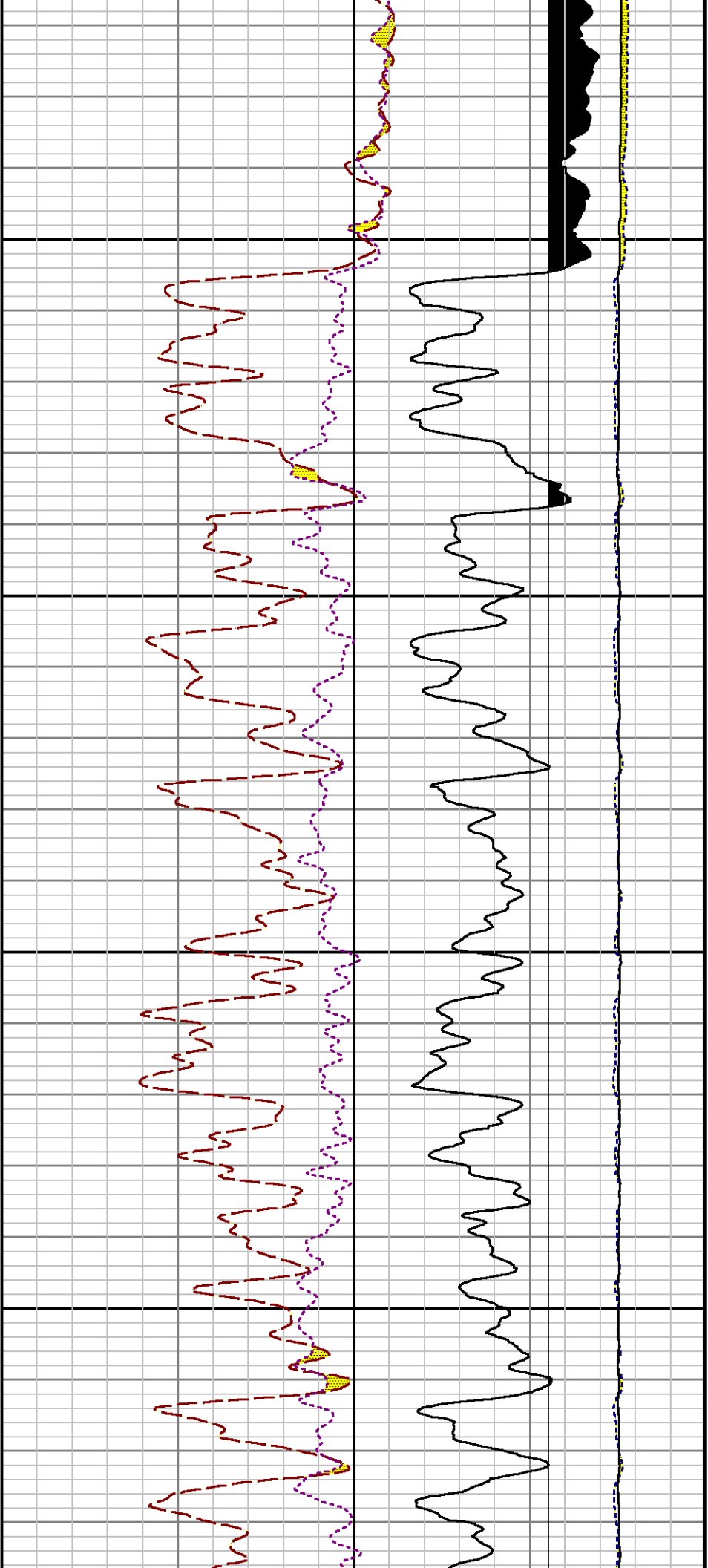
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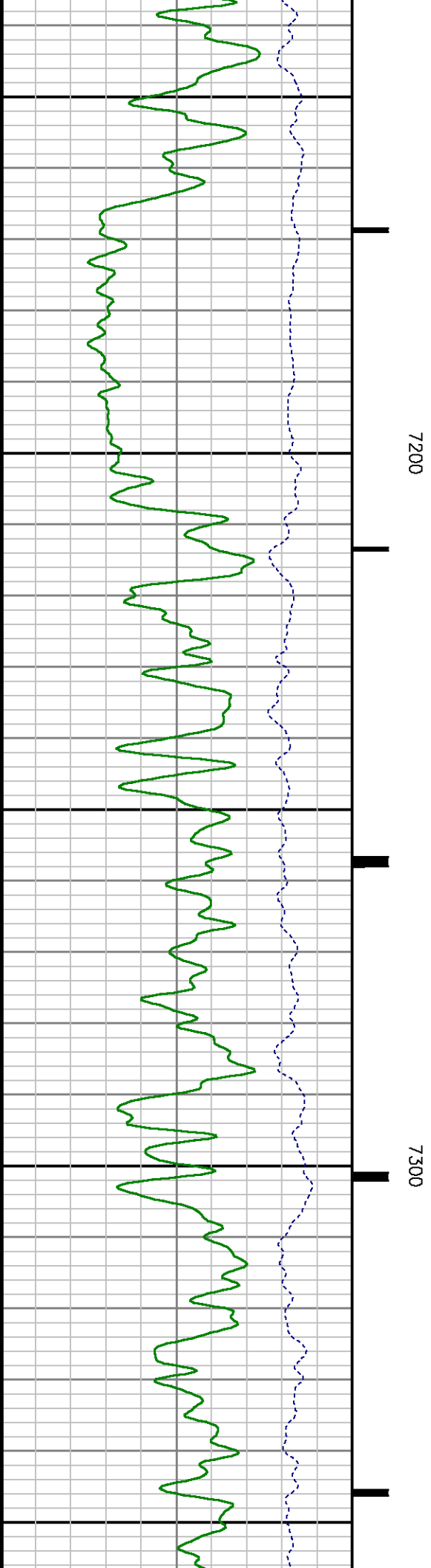
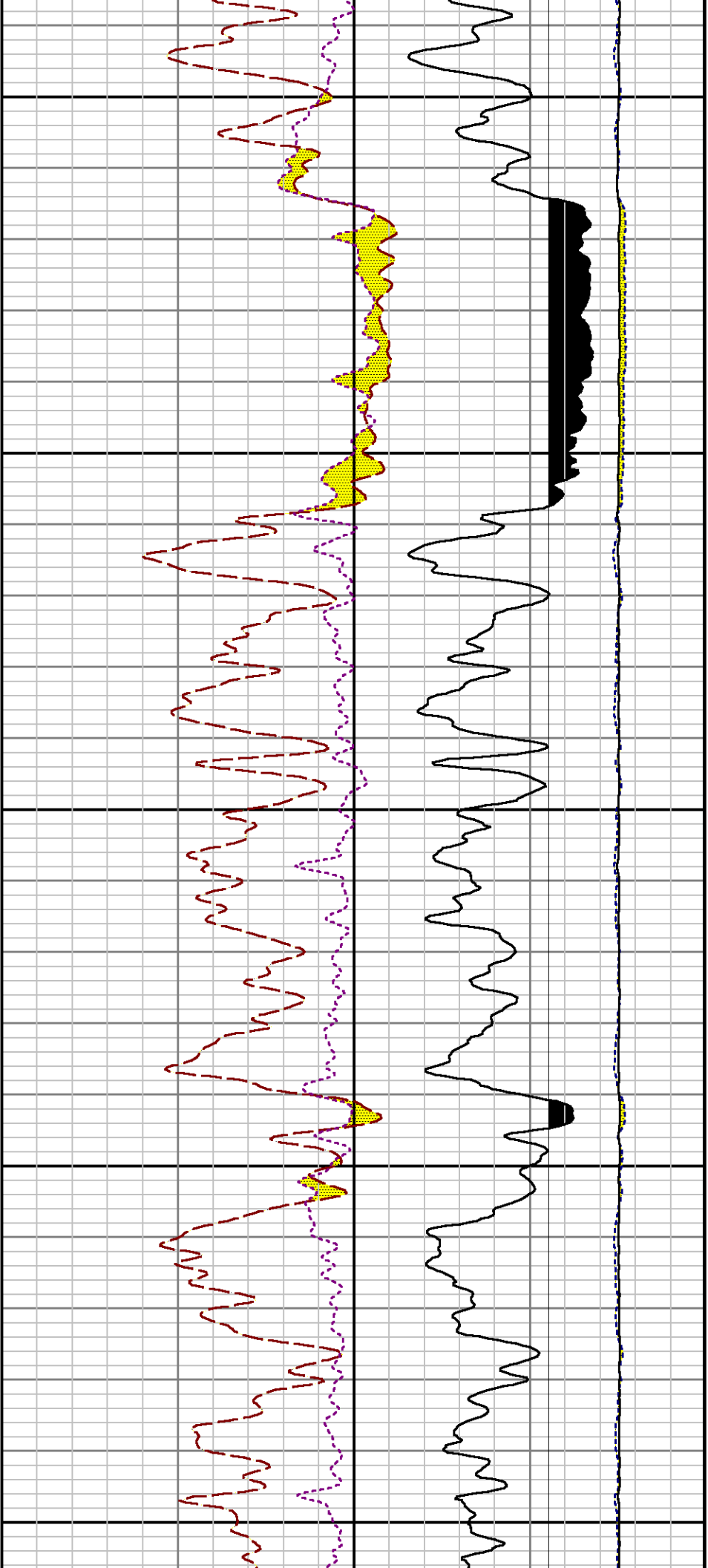
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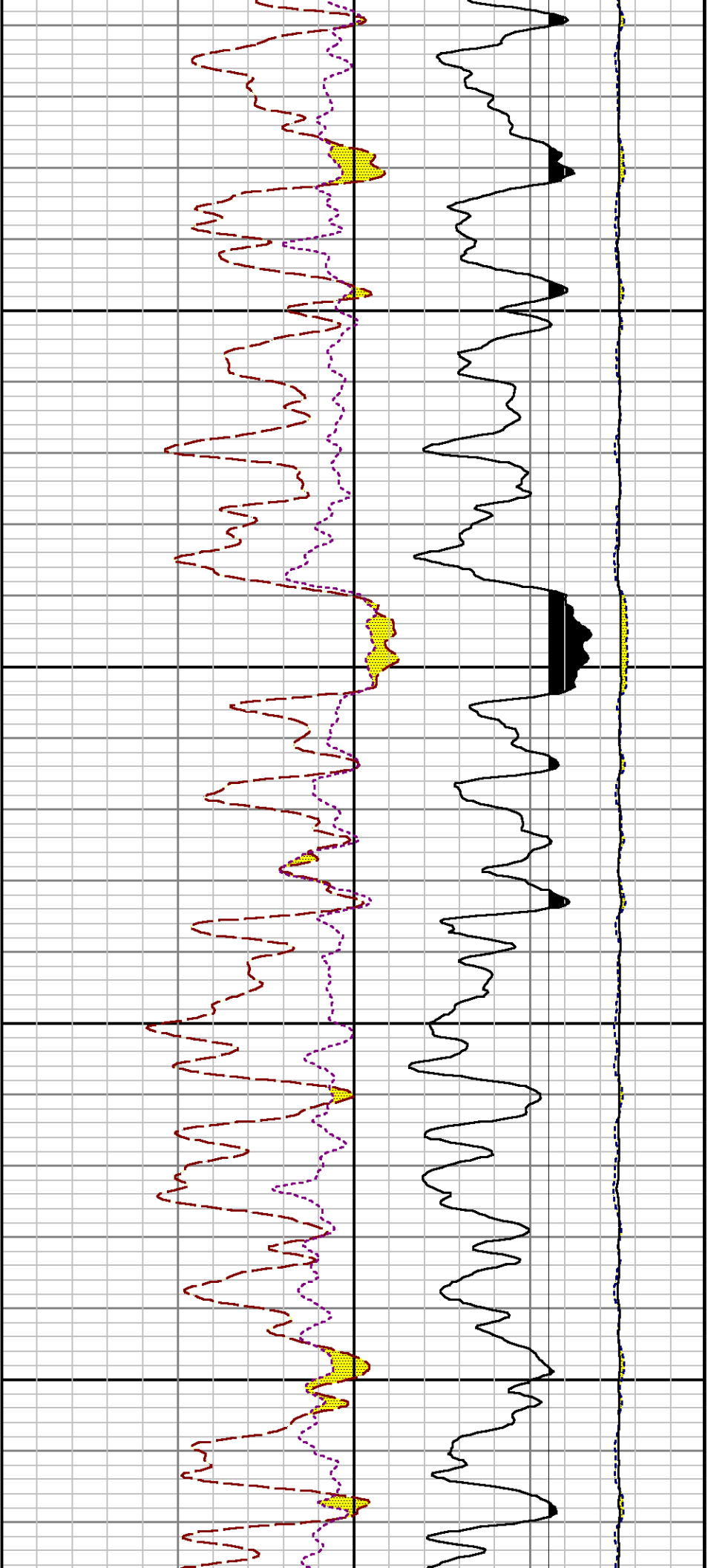






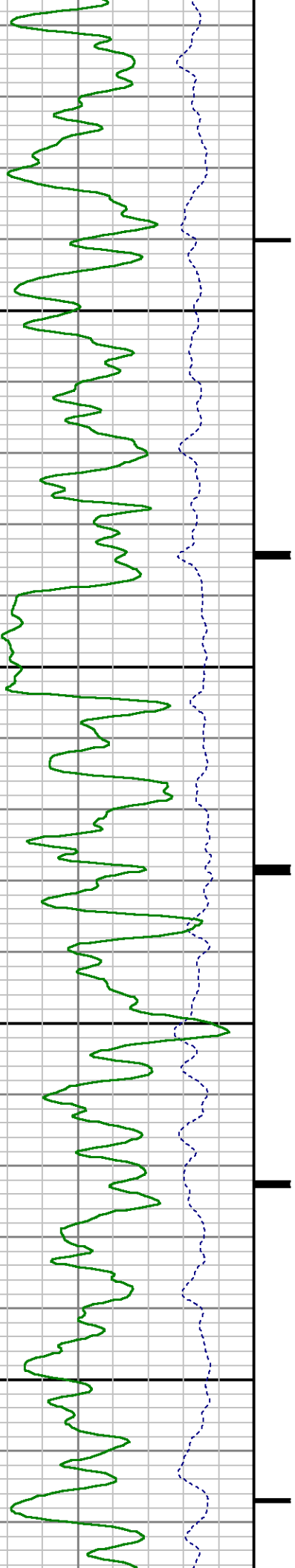


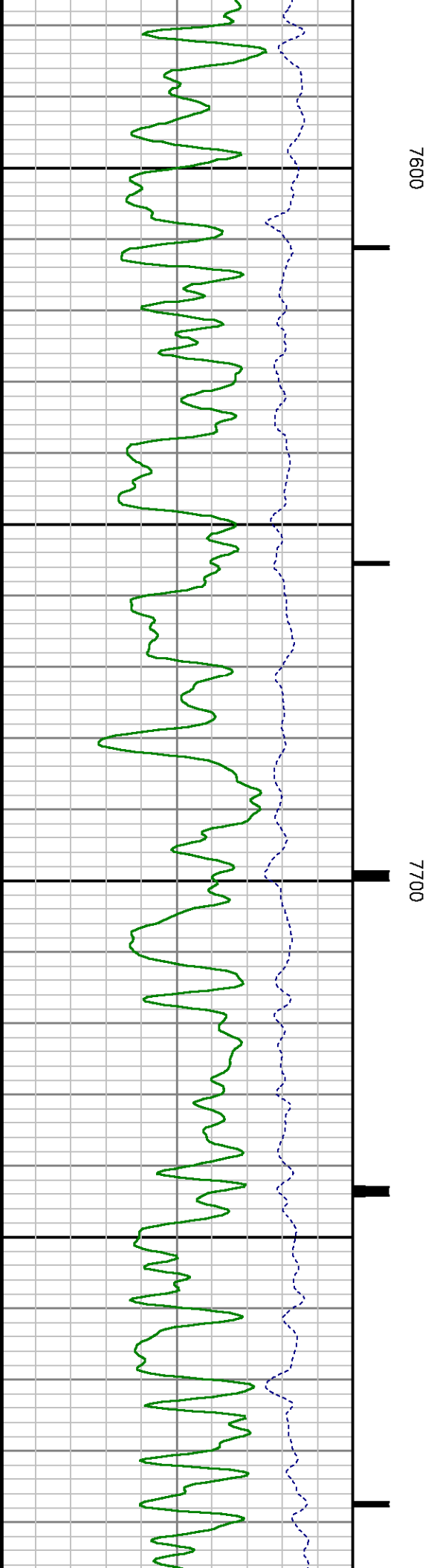
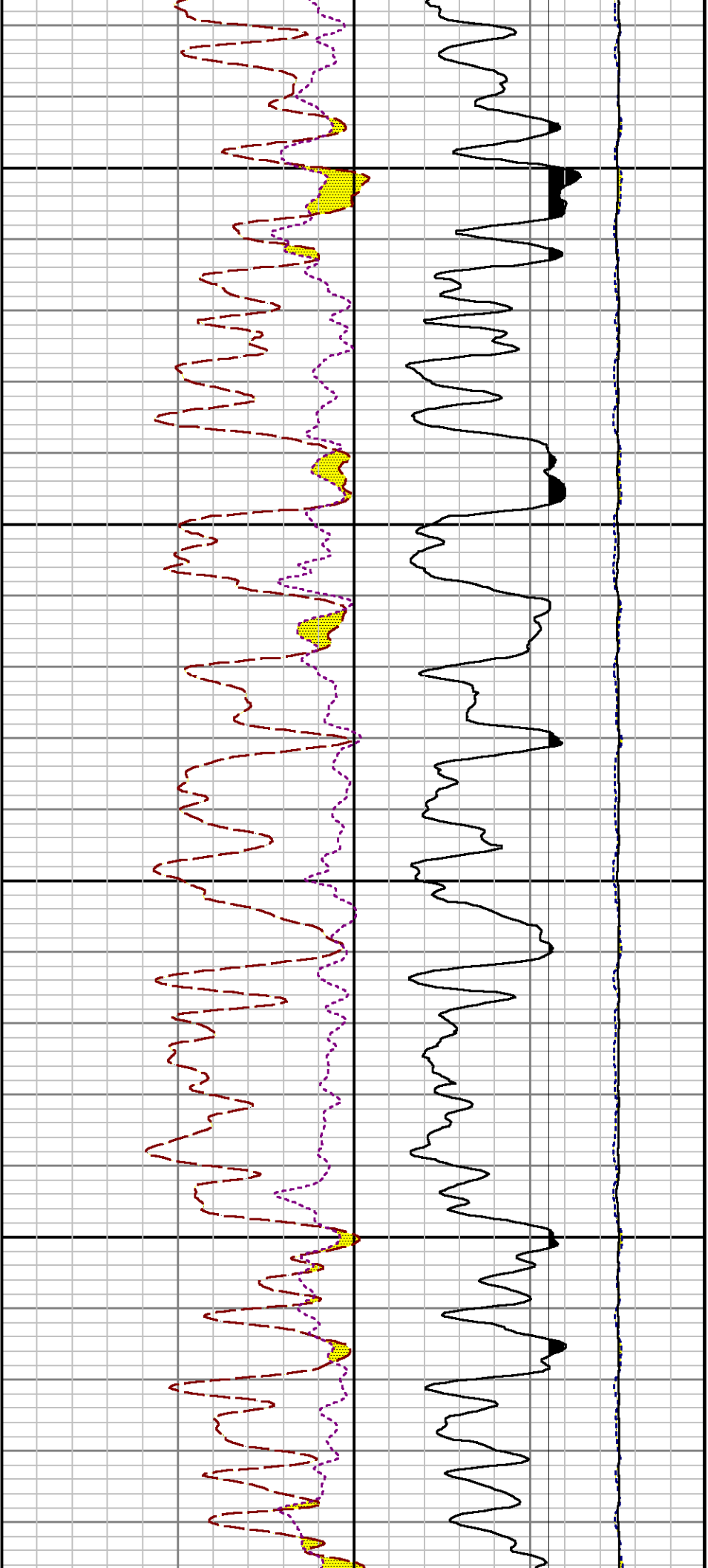


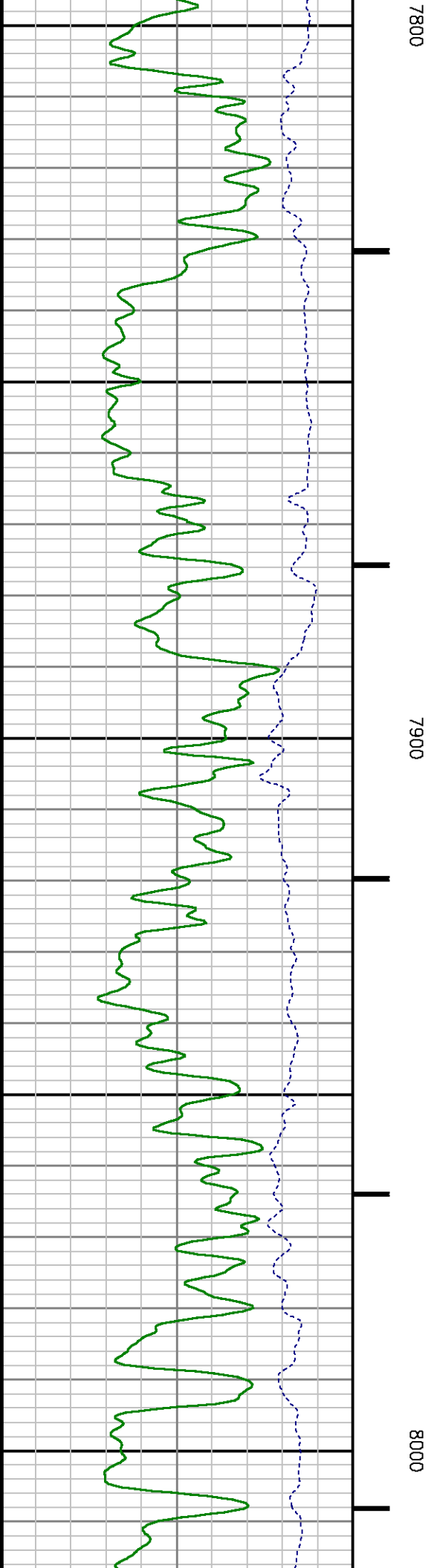
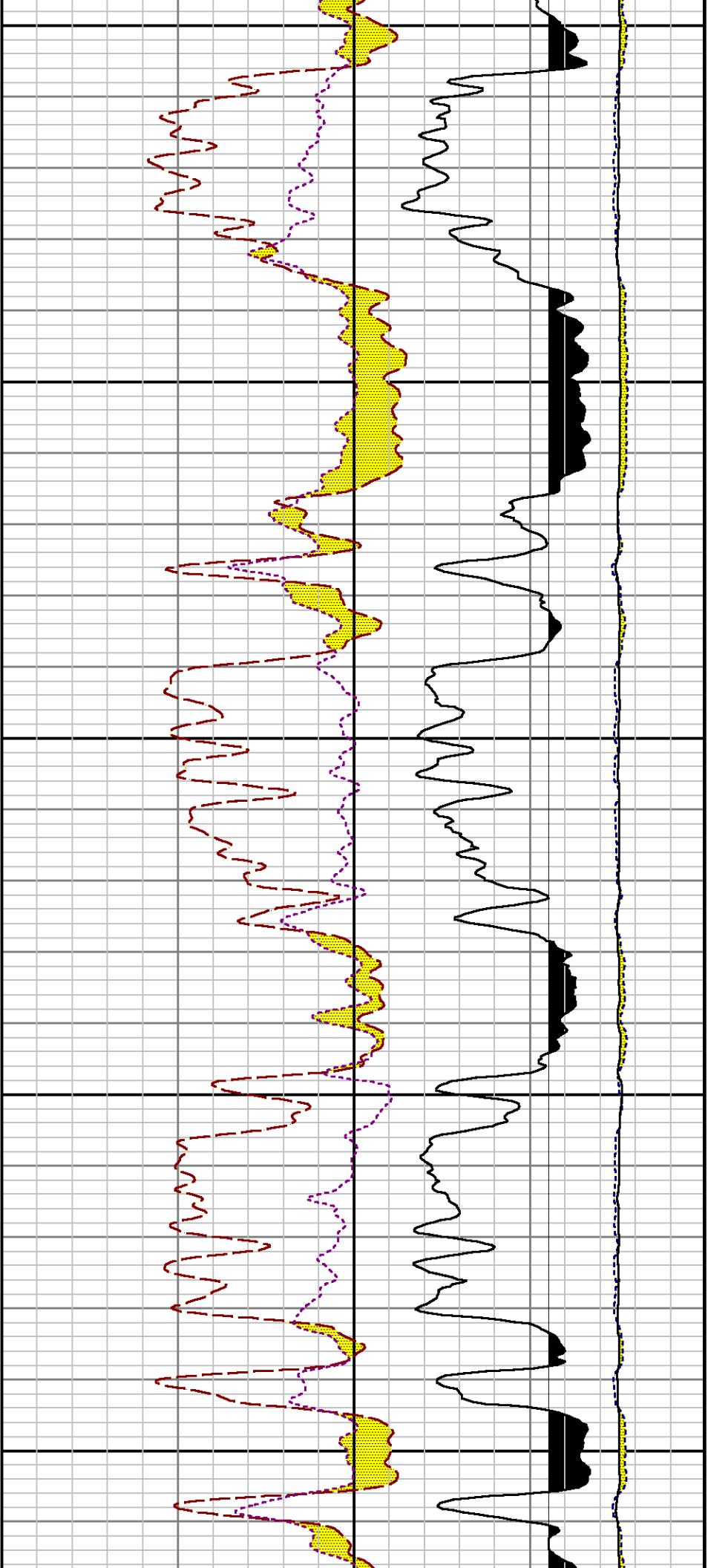


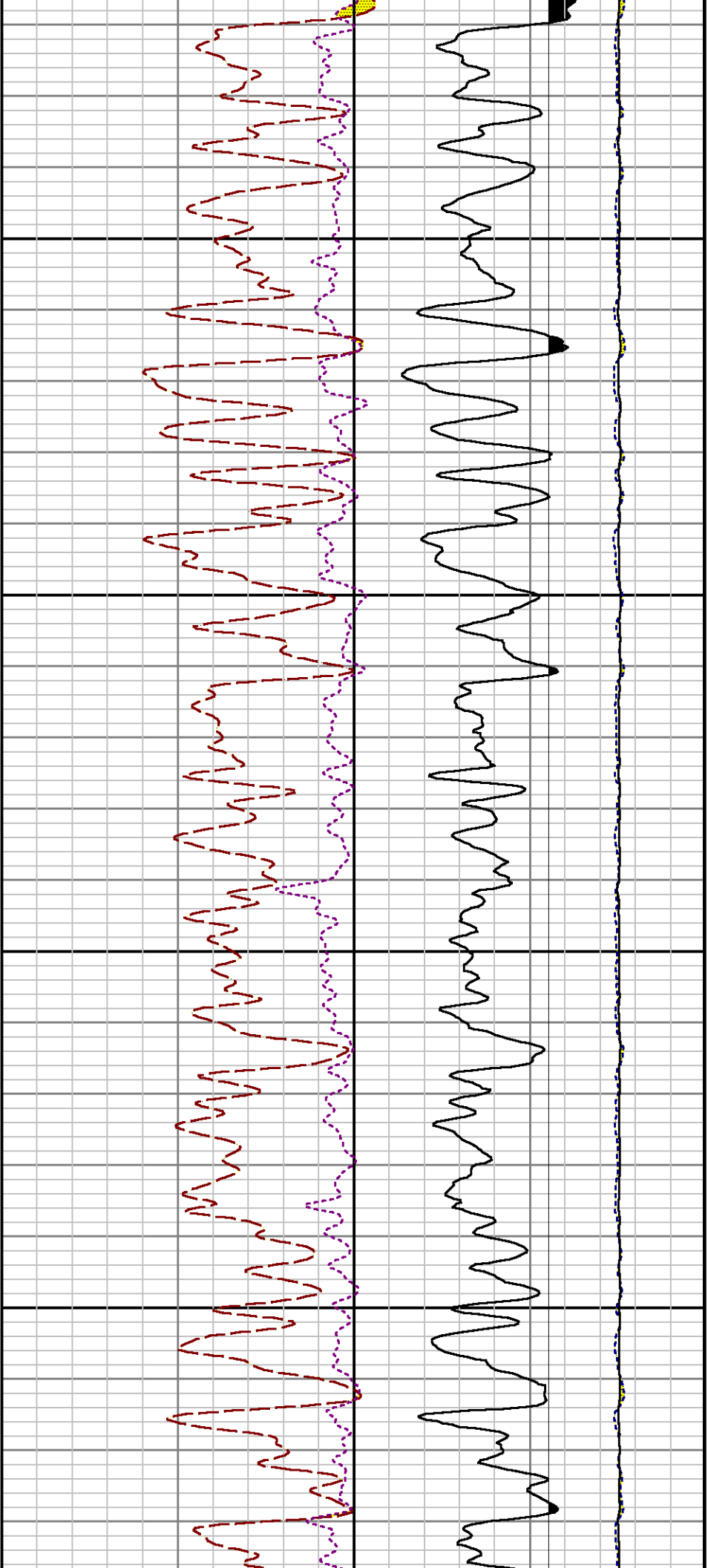
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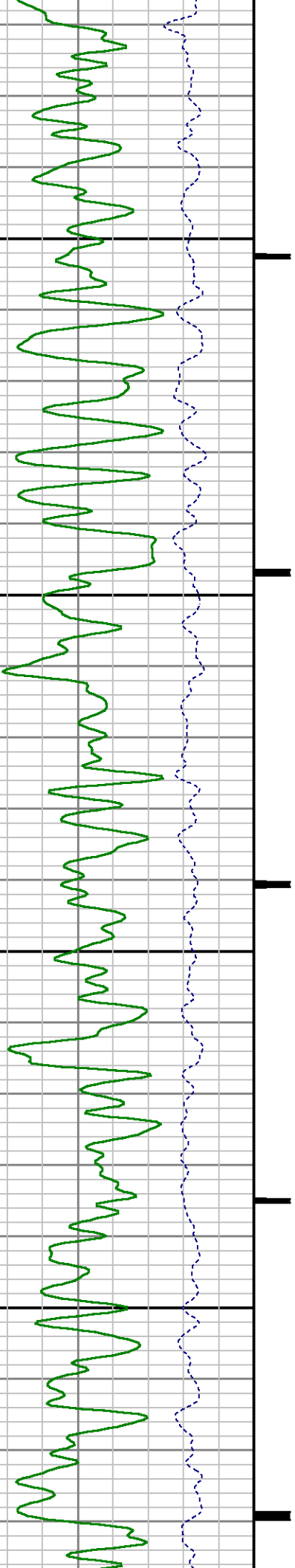


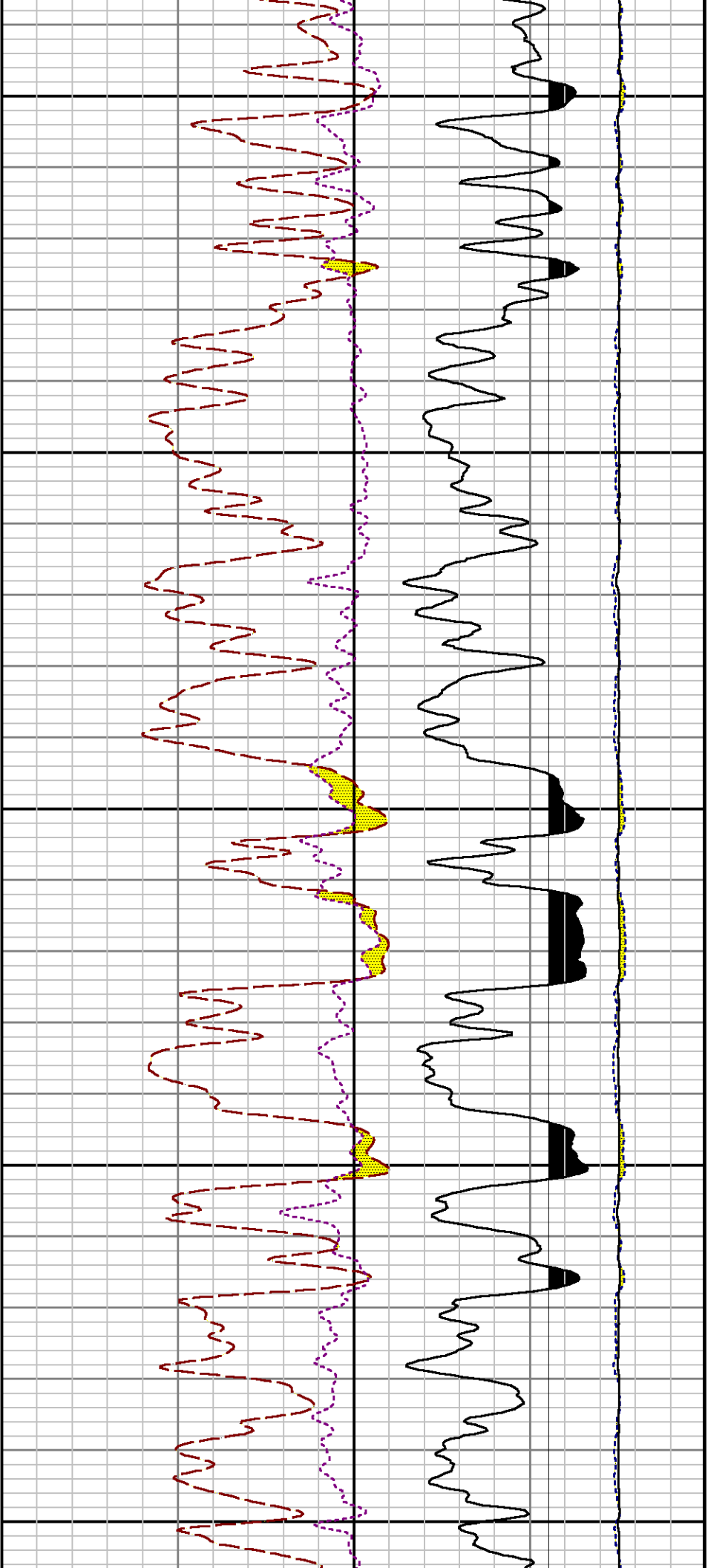




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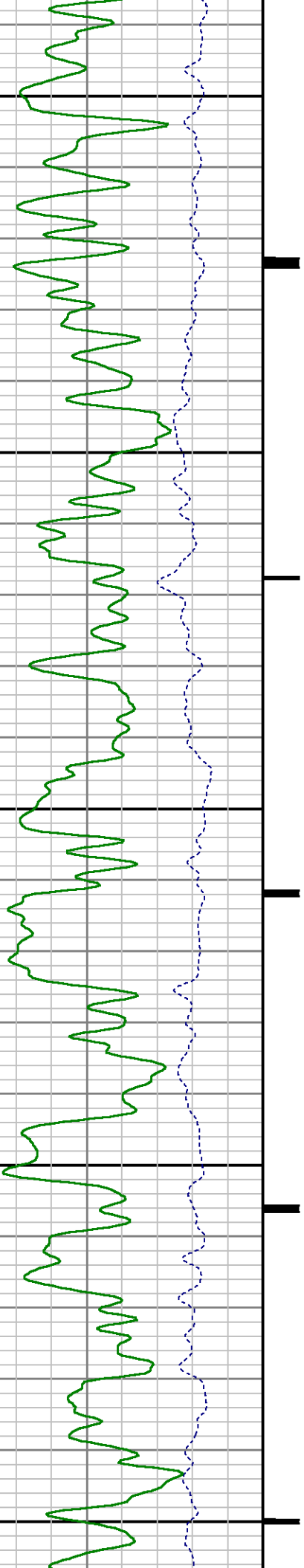
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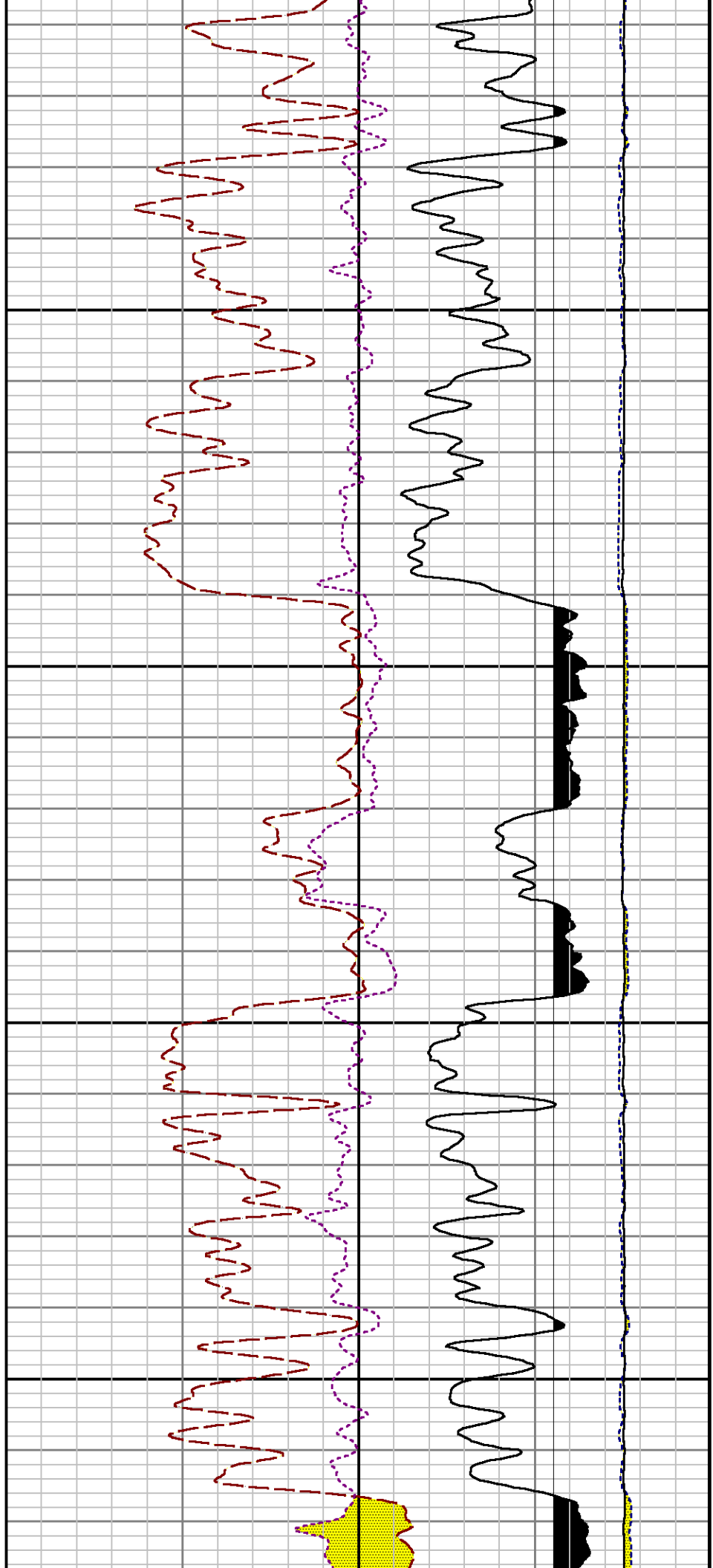




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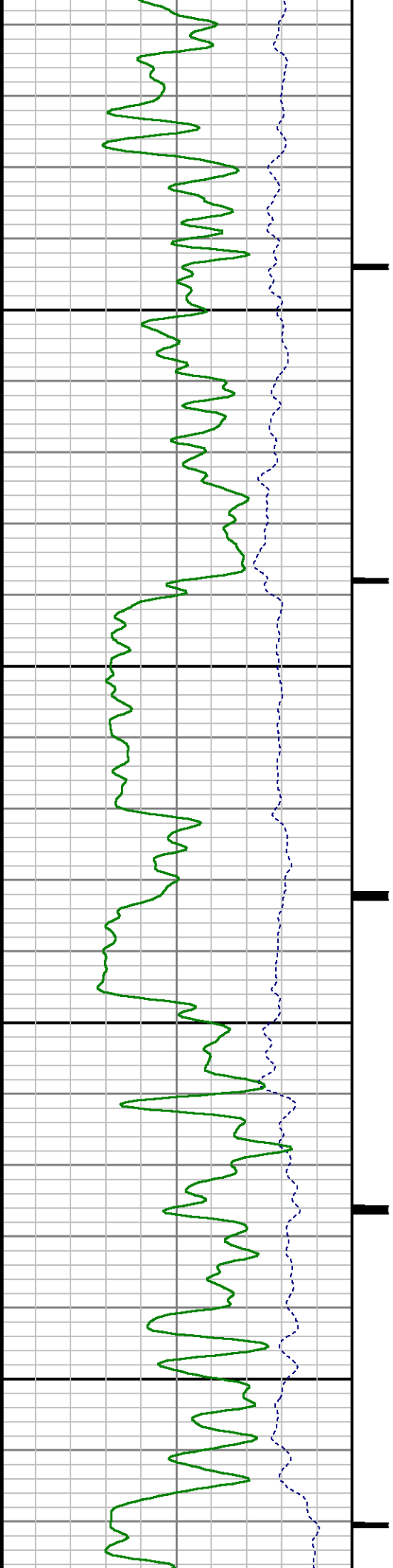
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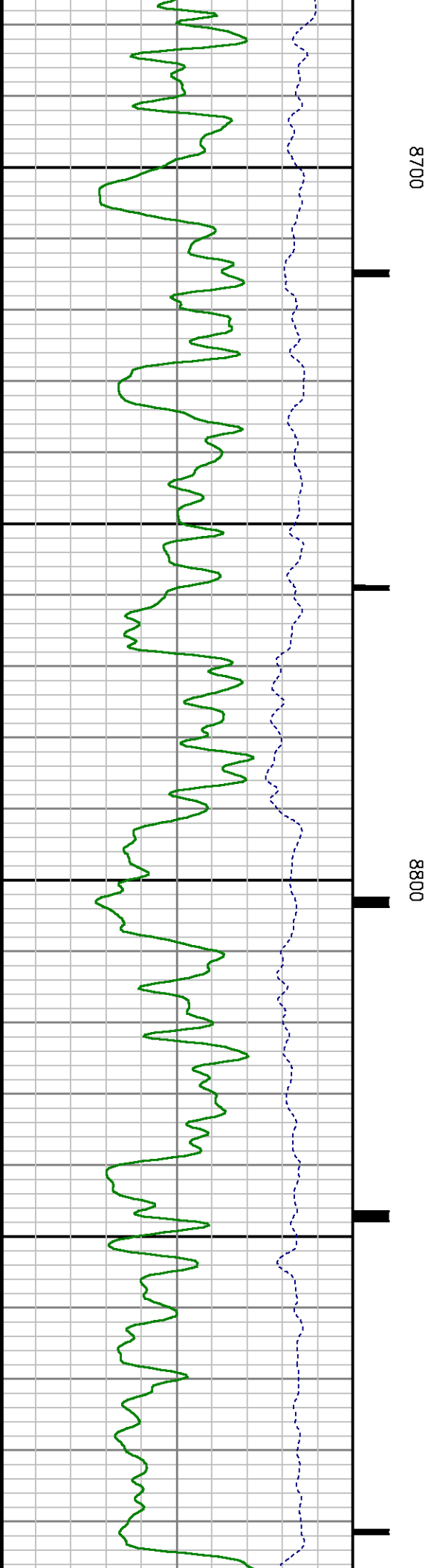
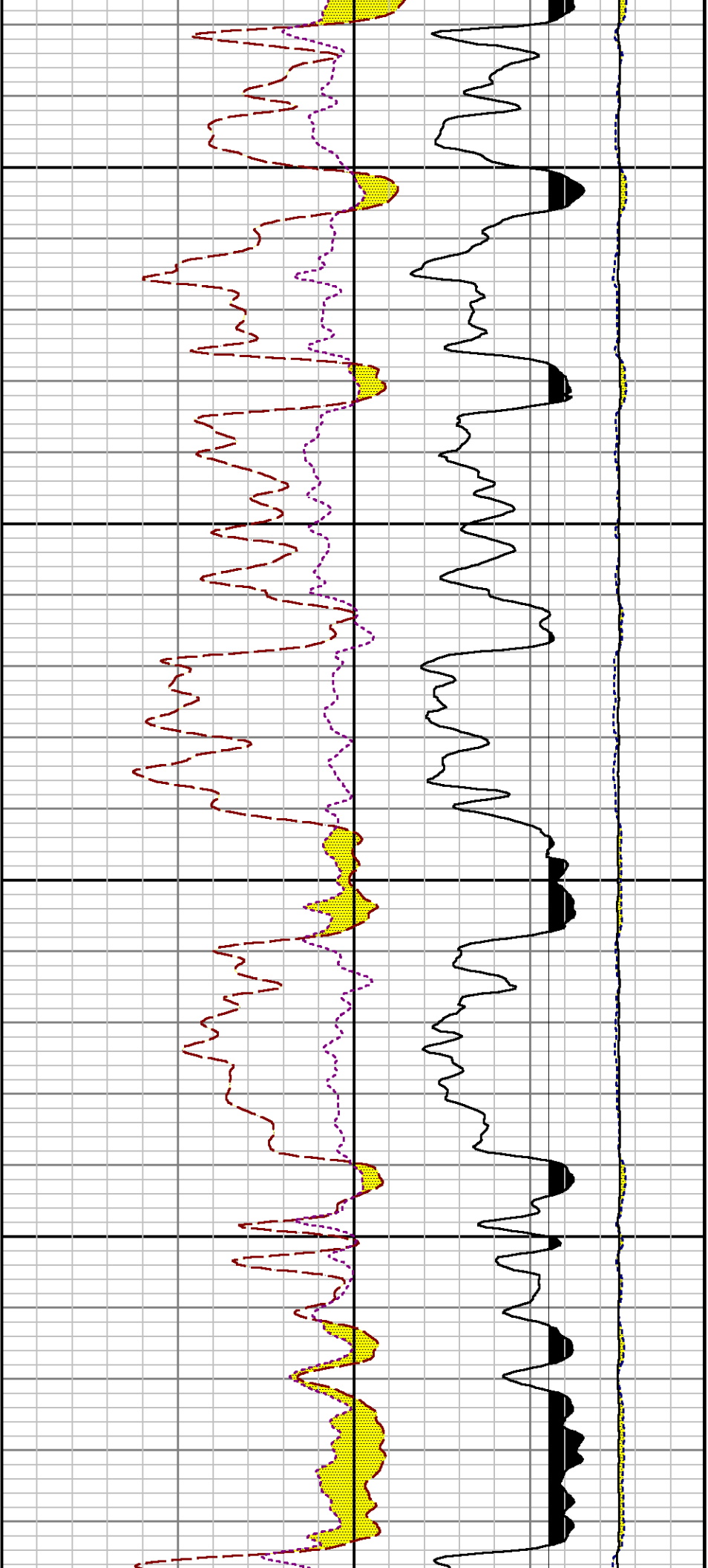


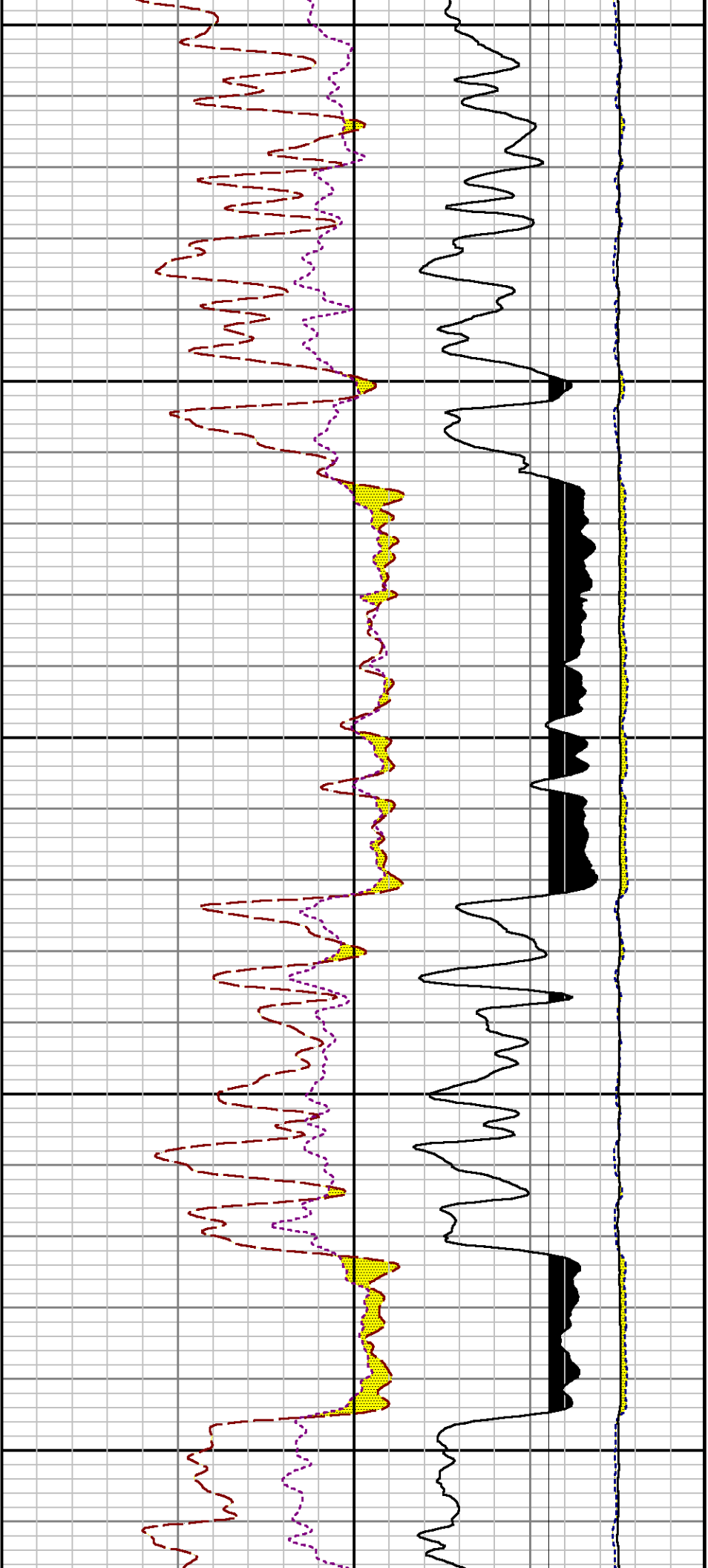


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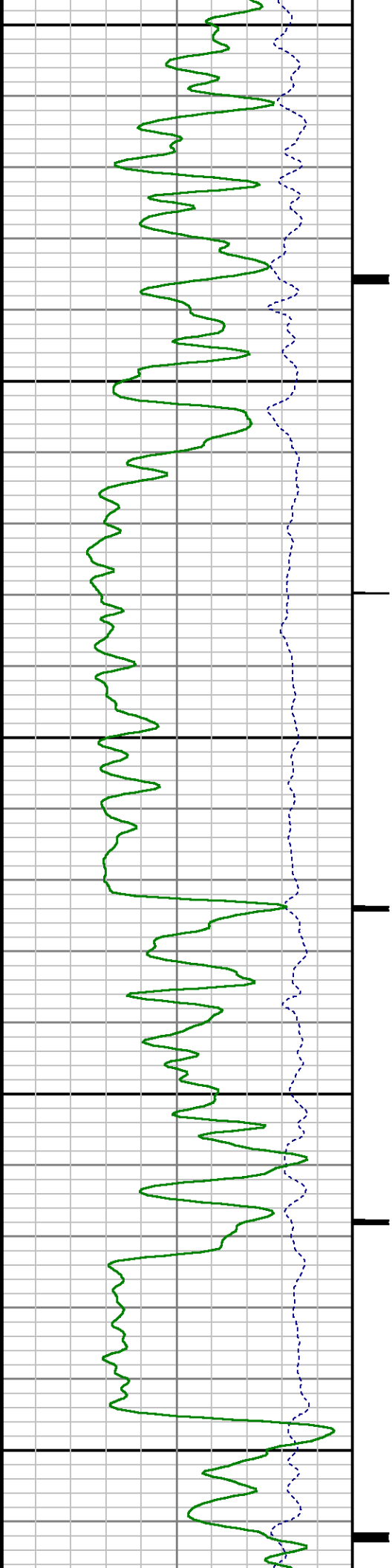


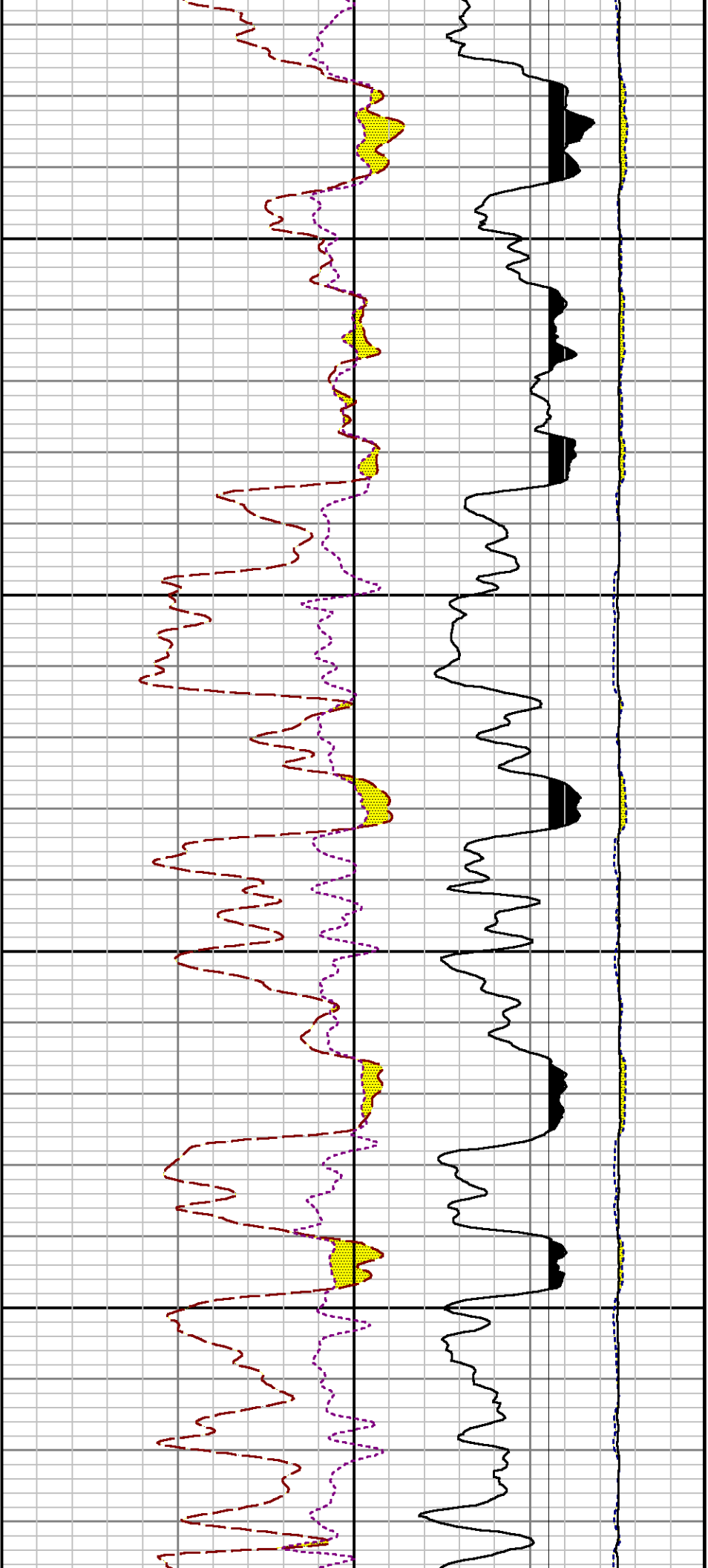


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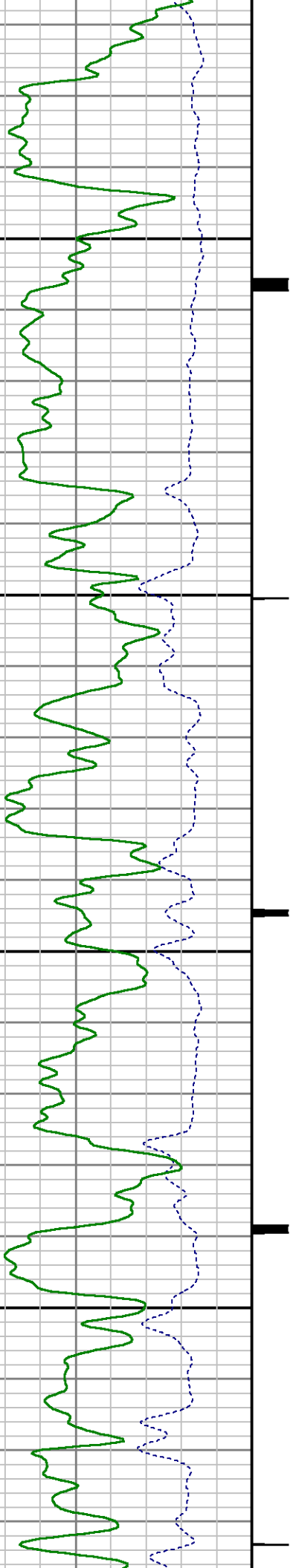
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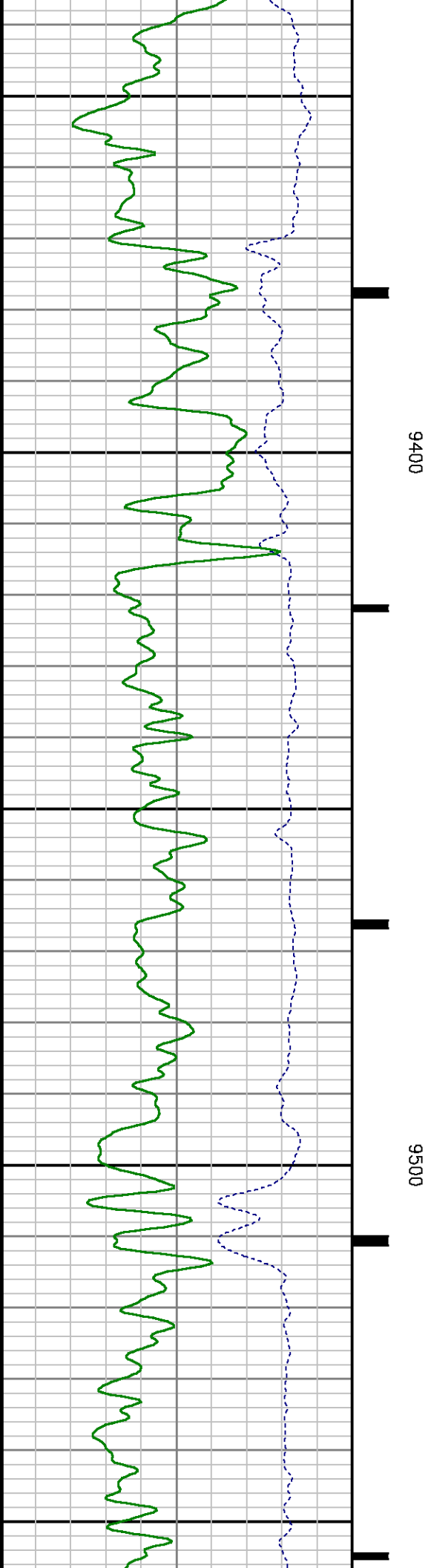
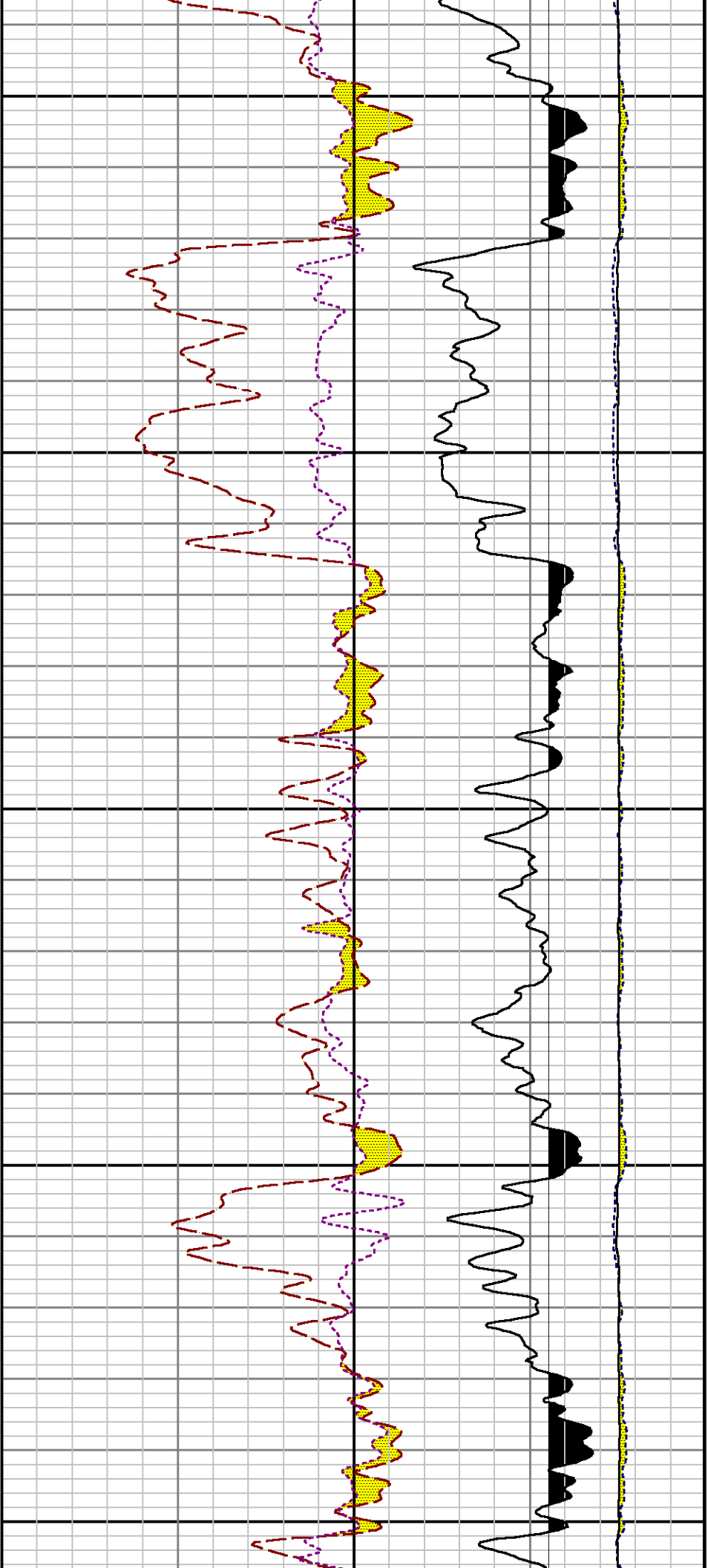


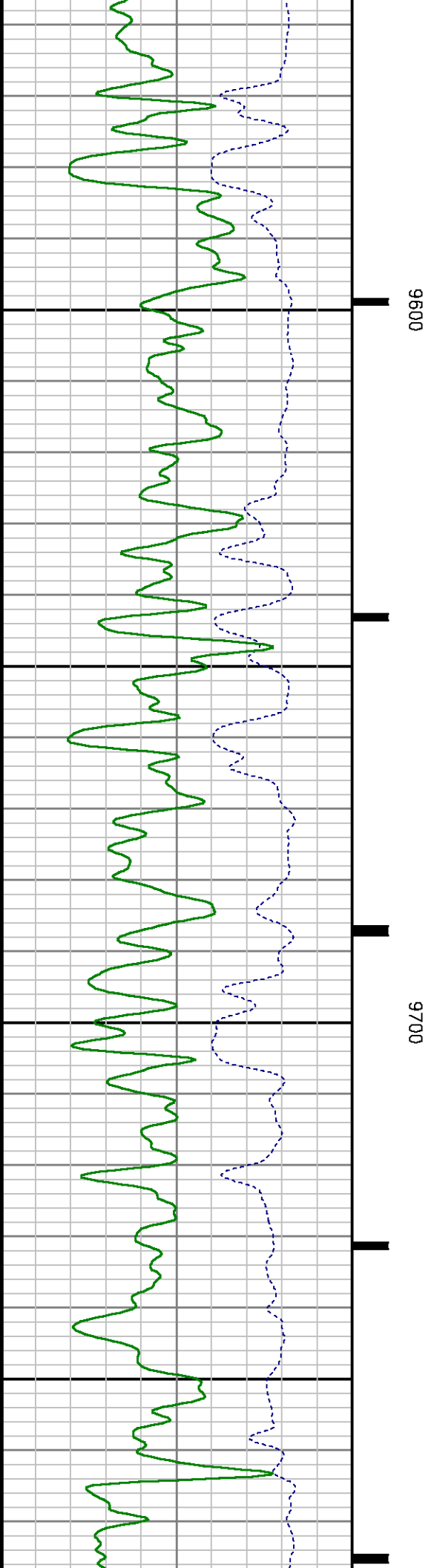
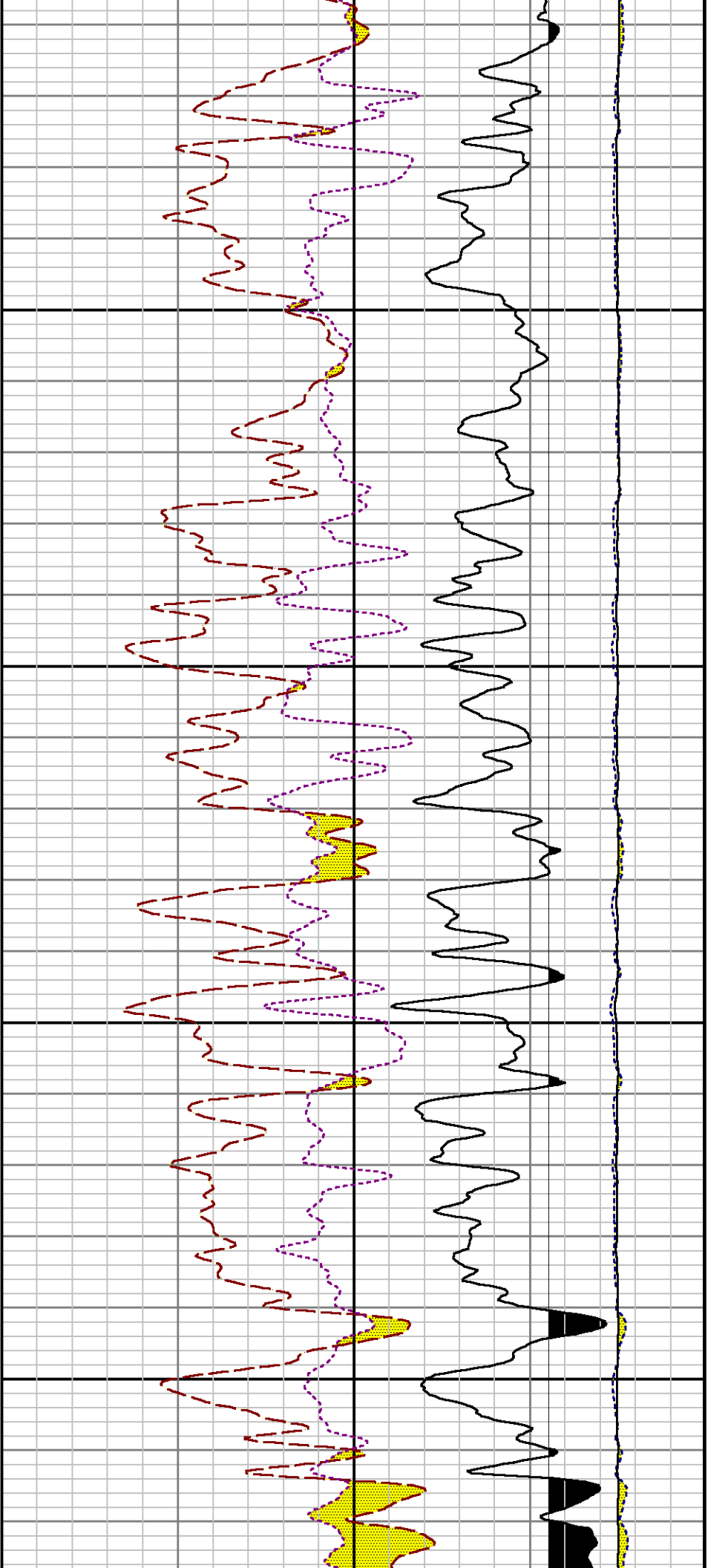


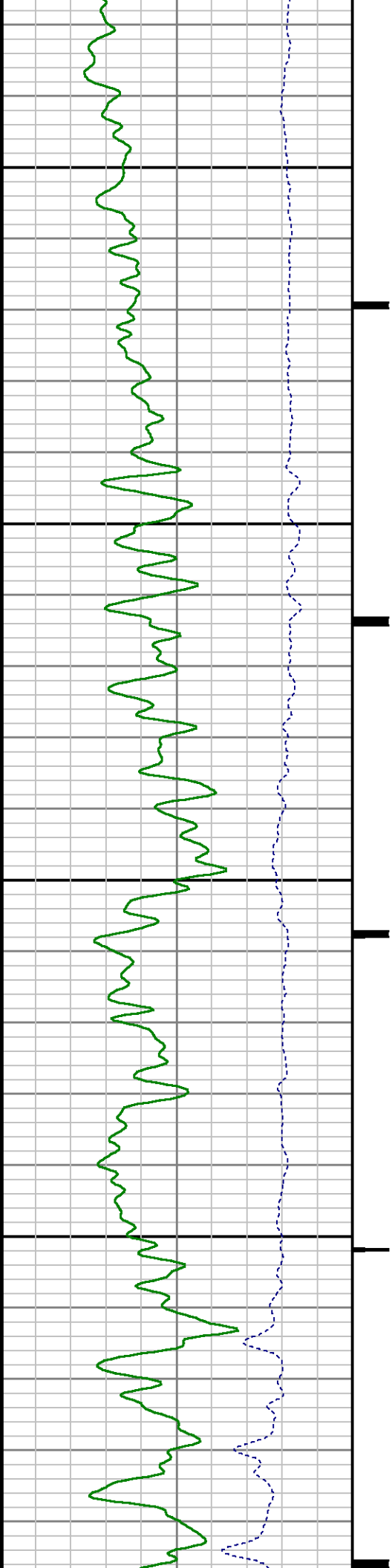
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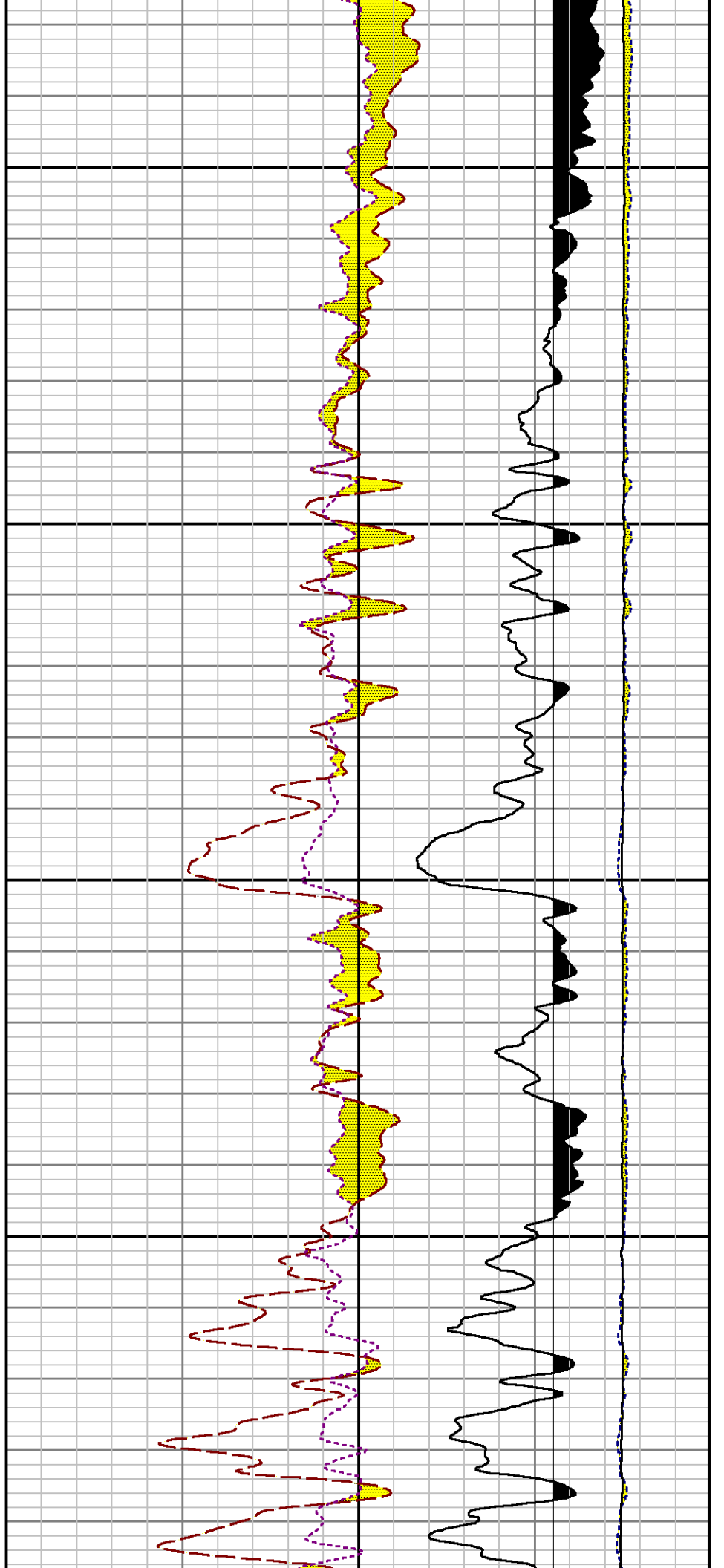


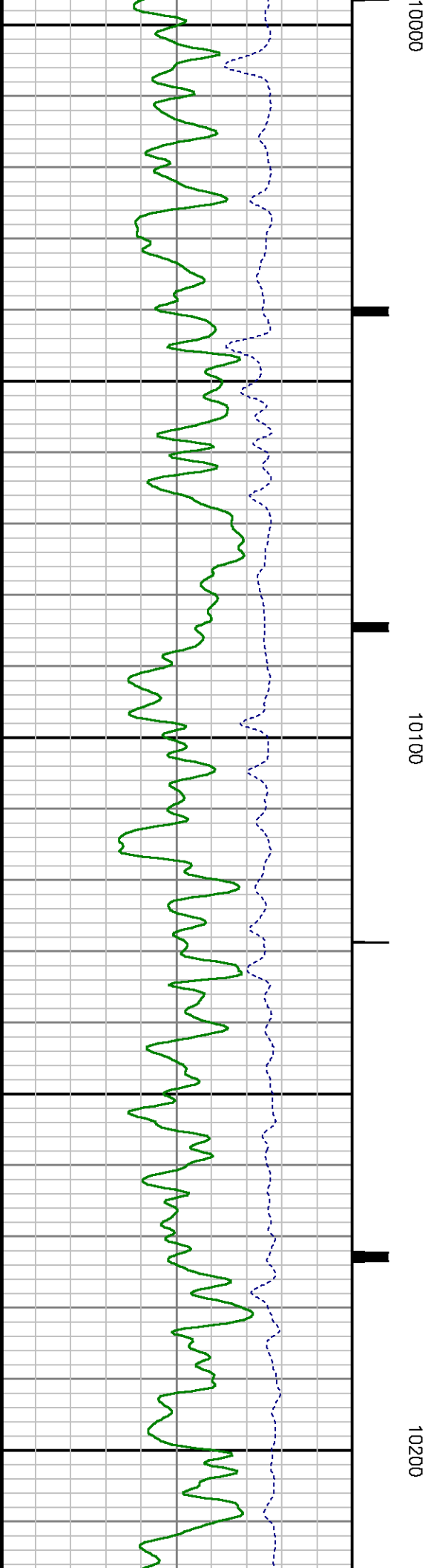
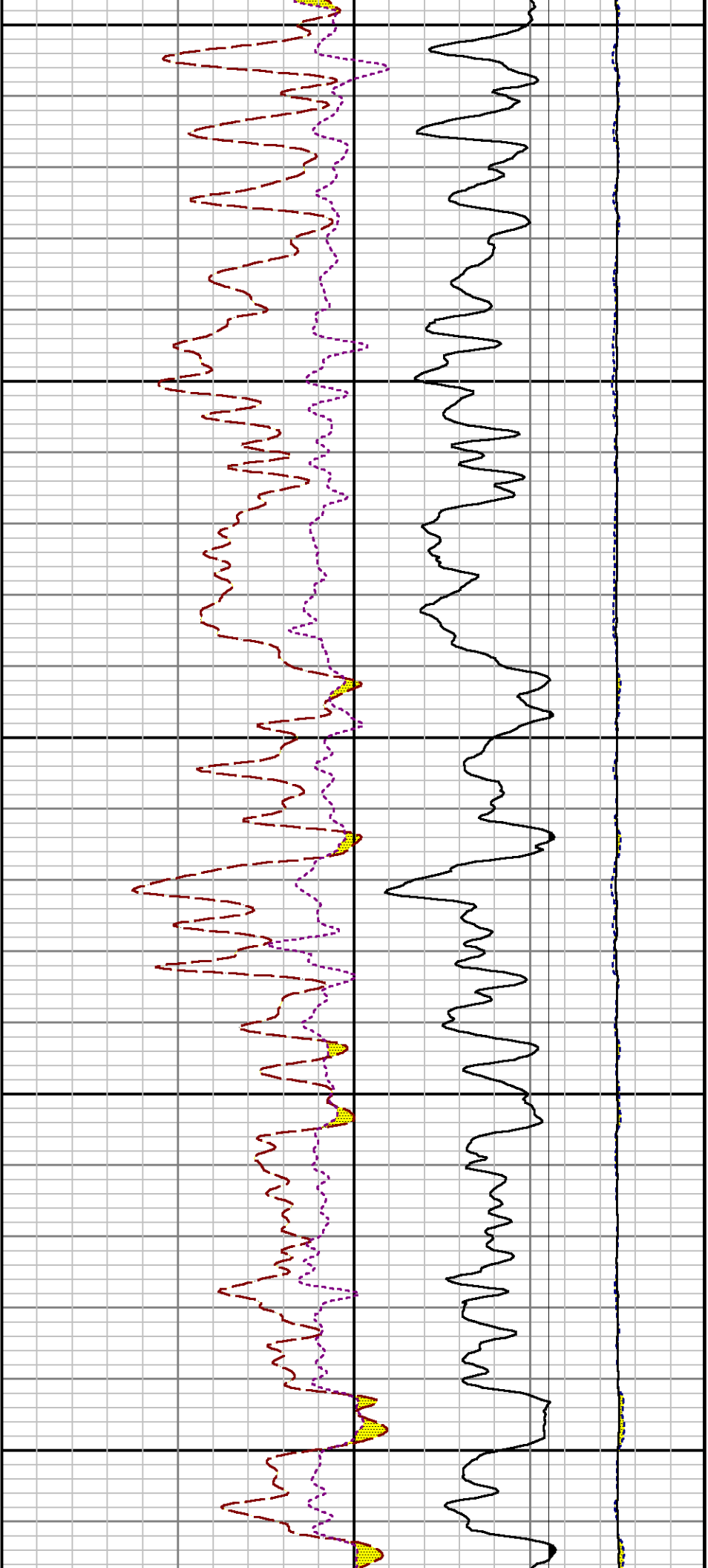


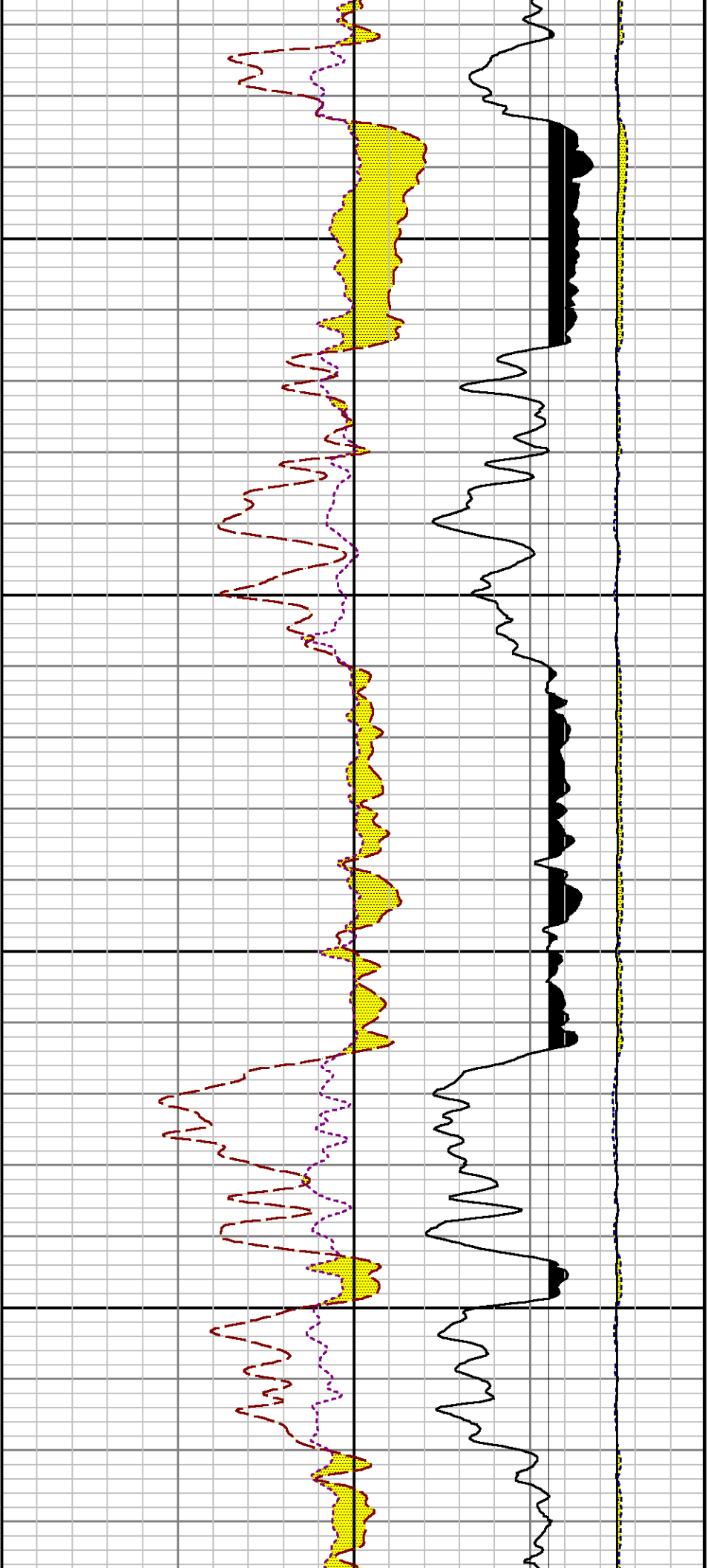


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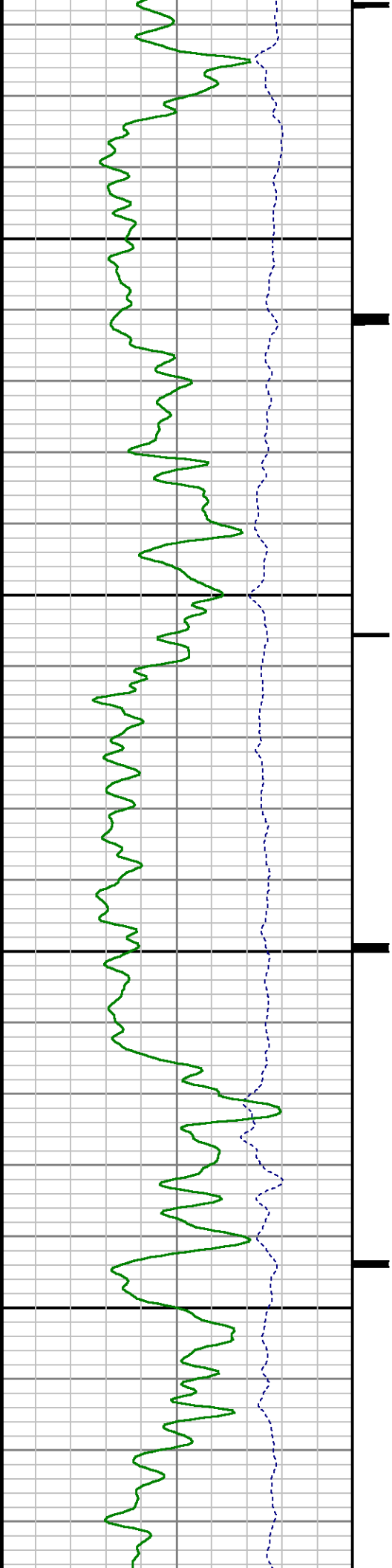


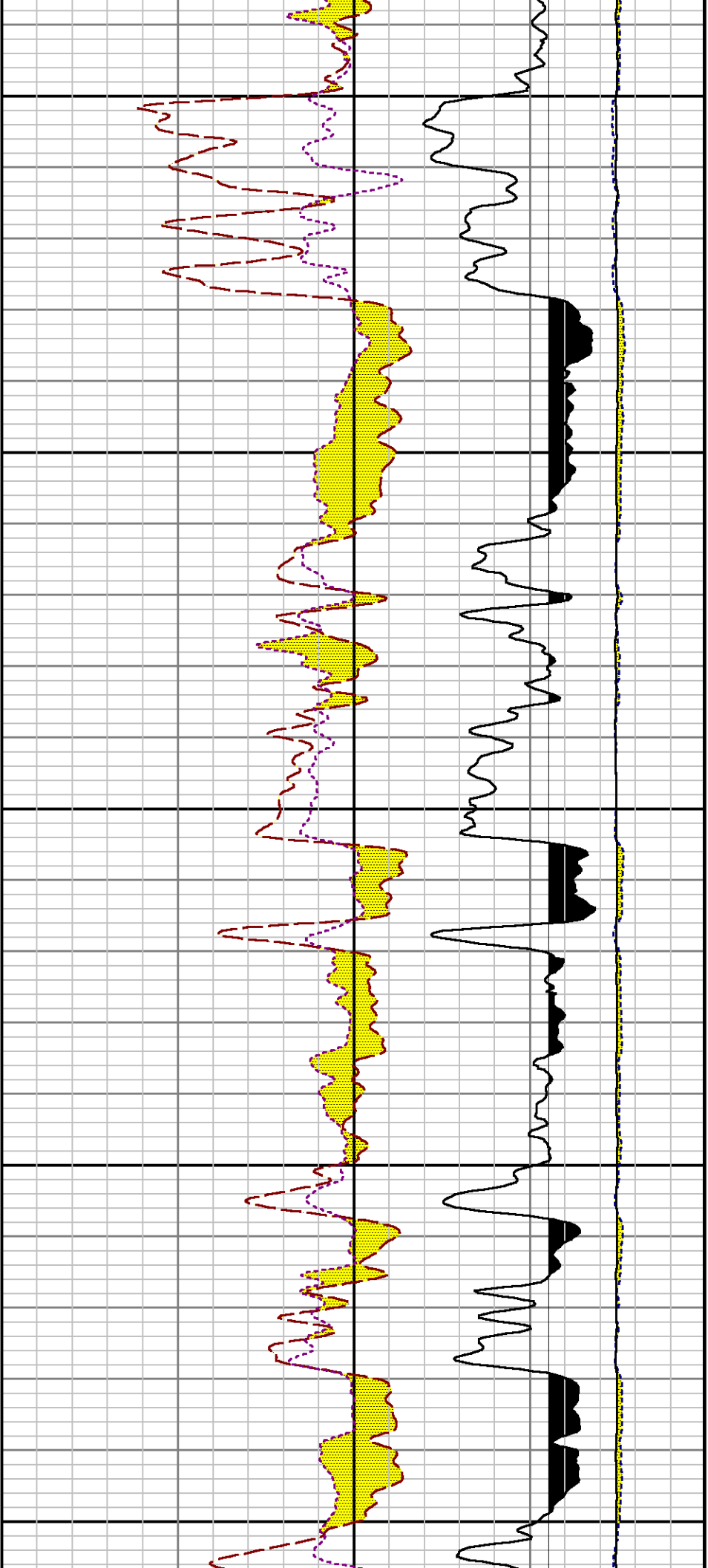




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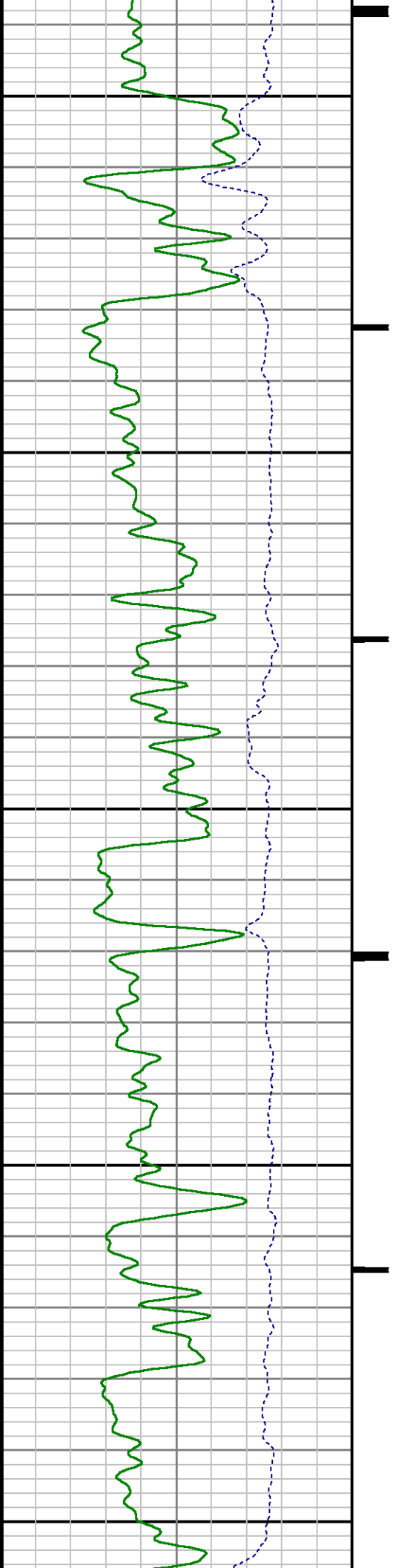
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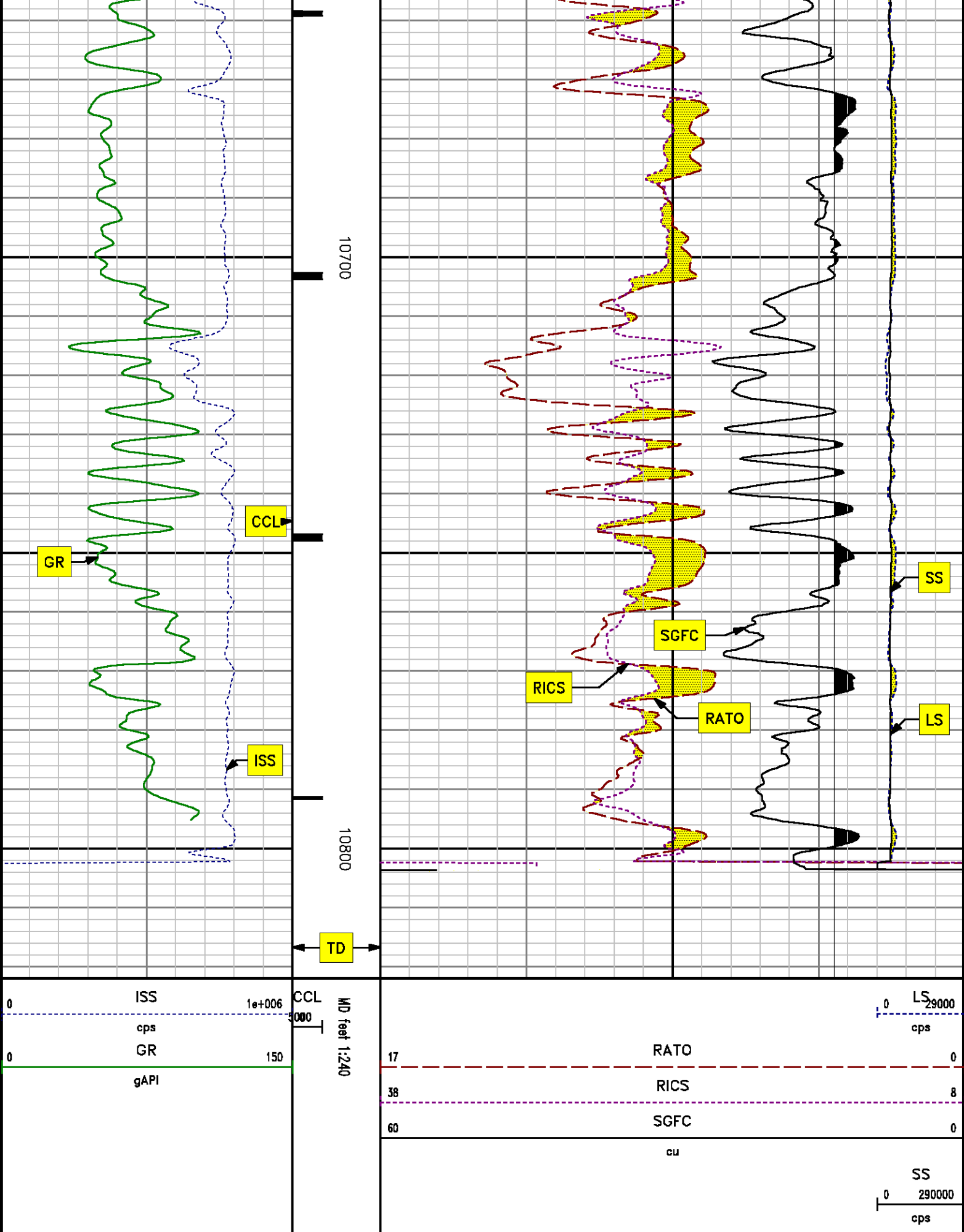




10500

10600





REPEAT SECTION

PNC 3-D MODE

SPL PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
PNC Porosity	Borehole	Cased		9953.340	10286.188
PNC Porosity	Borehole Size	8.750	inch	9953.340	10286.188
PNC Porosity	Casing Size	4.500	inch	9953.340	10286.188
PNC Porosity	Gas Filled	Non Gas Filled		9953.340	10286.188
PNC Porosity	Matrix	Sandstone		9953.340	10286.188
TPS Pressure	Temperature Corr. Source	Fixed (72.00)	degF	9953.340	10286.188

DEPTH OFFSETS

(for Acquired Curves)

SERIES	DEPTH OFFSET	ACQUIRED CURVES					
8248ED	-26.519	FLTM					
8248ED	-24.519	CCL CHV					
2812LA	-21.969	GR					
8281XA	-12.702	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
		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
8281XA	-12.291	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		
		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	RAT0	RAT013
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	RAT0R	RAT013R
RBORR	RICSR	RINR	RIN13R	RONER	RPORR
RTWOR					
PTFS	PTMS				
SPF1	SPFQ	TSCP	TSDP		
DTEM	TEMP	TNF			
TEN	TTEN				

8255XA	-0.792
8255XA	-0.775
8255XA	0.000
SYSTEM	0.000

Created by : RPM9, v5.3.1.0

Plotted by : PlotMgr, v5.4.504

Company : WPX ENERGY

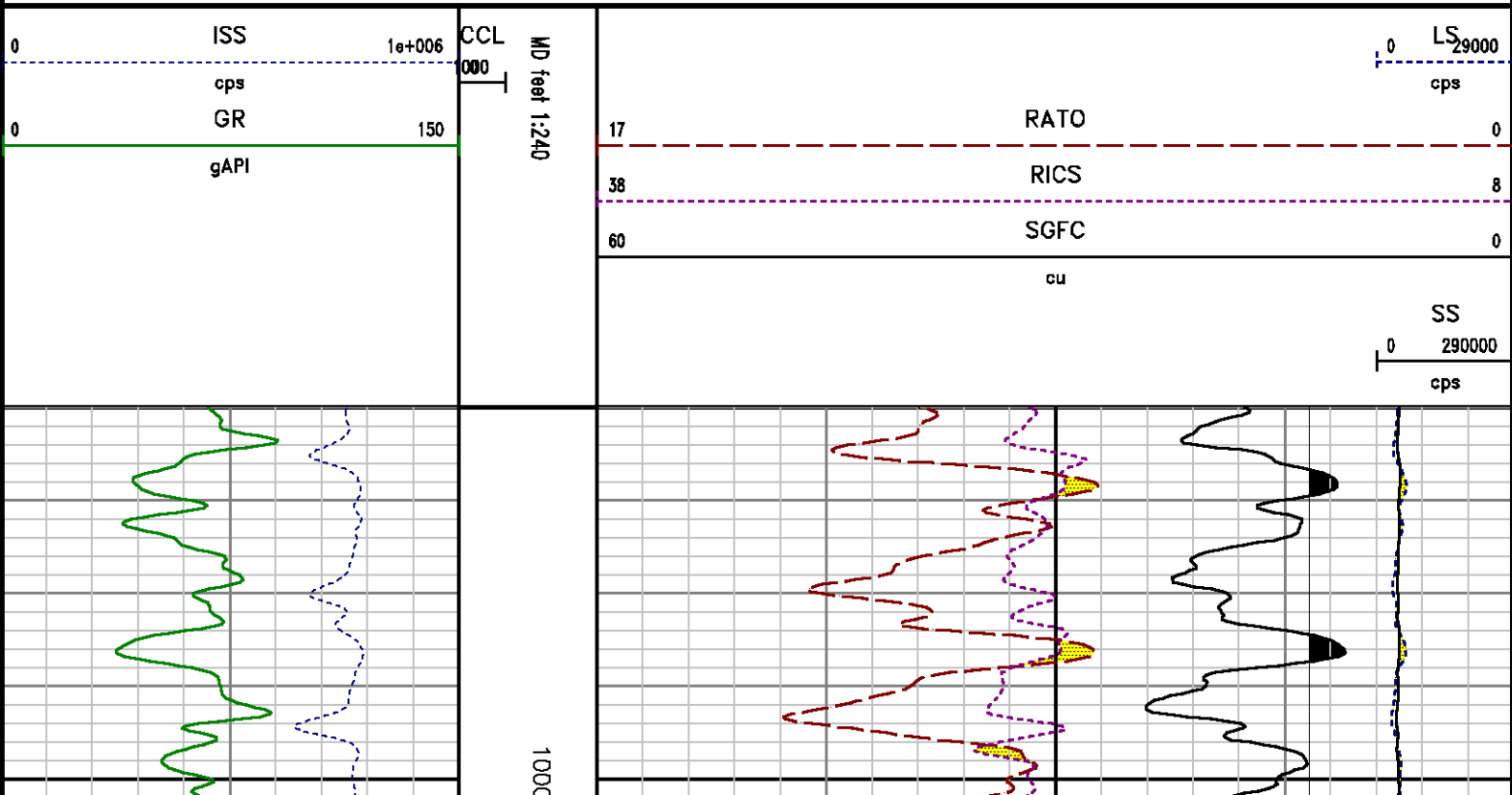
Well : FEDERAL RG 312-14-298

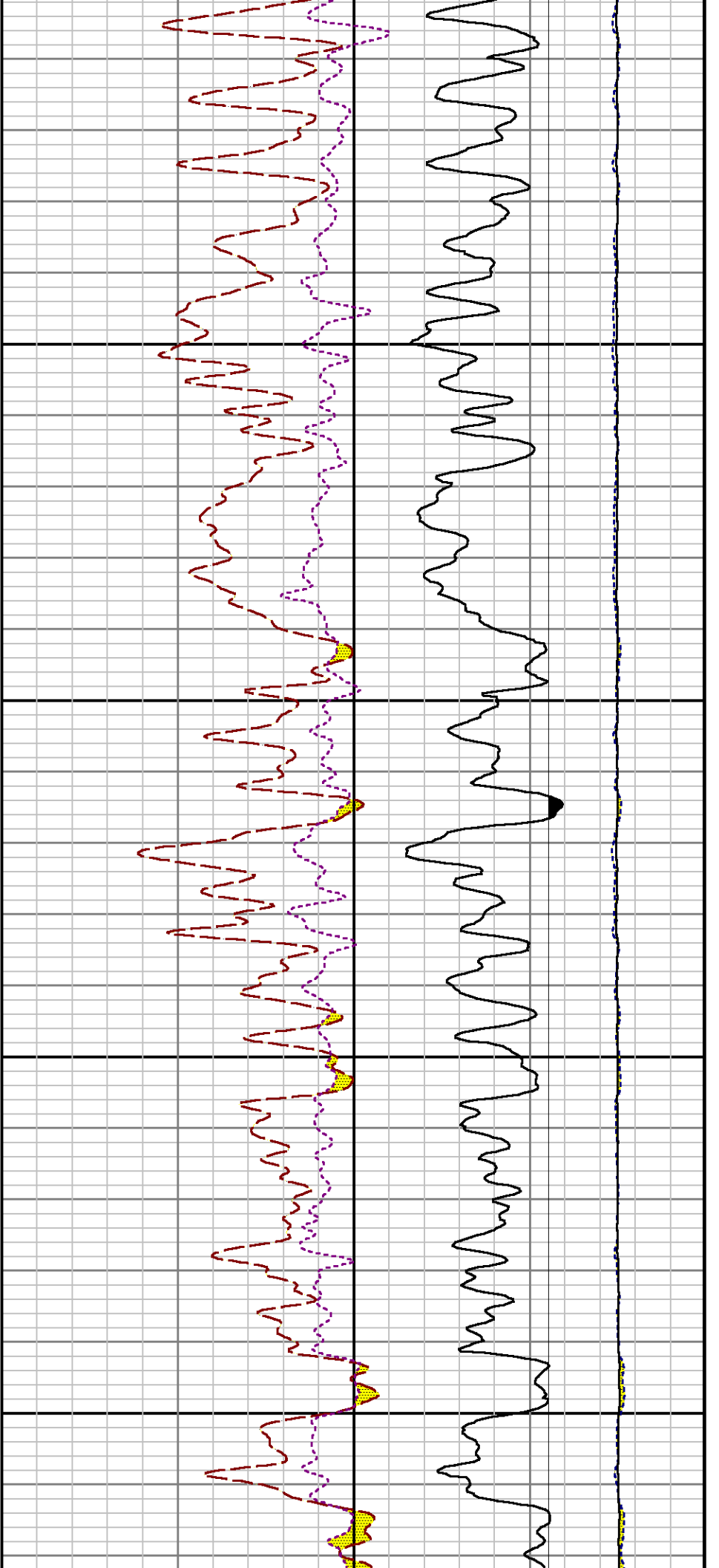
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Mode : PlotMgr 5.4.504

Interval : 9960.00 - 10260.00 feet UP

Created : 2/20/2014 2:29:15 PM

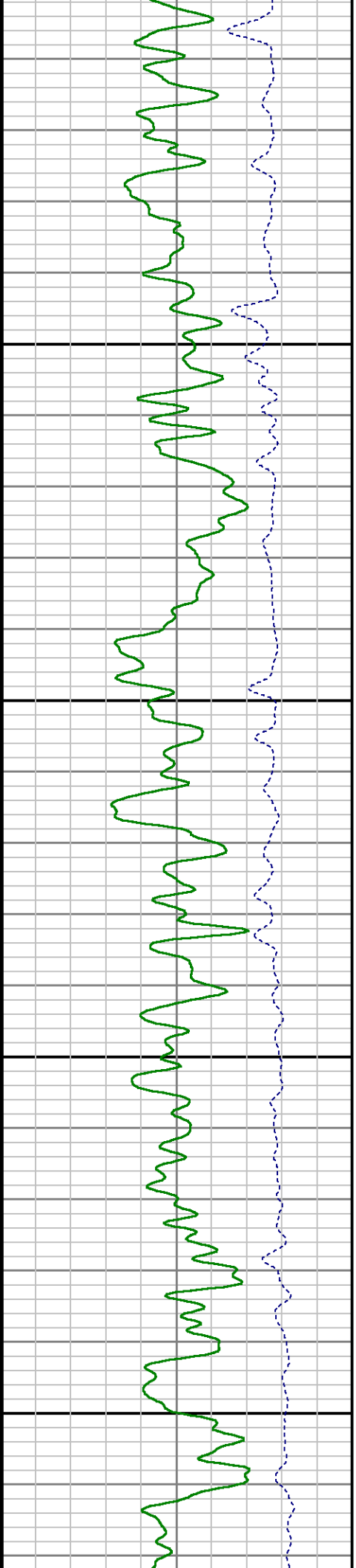


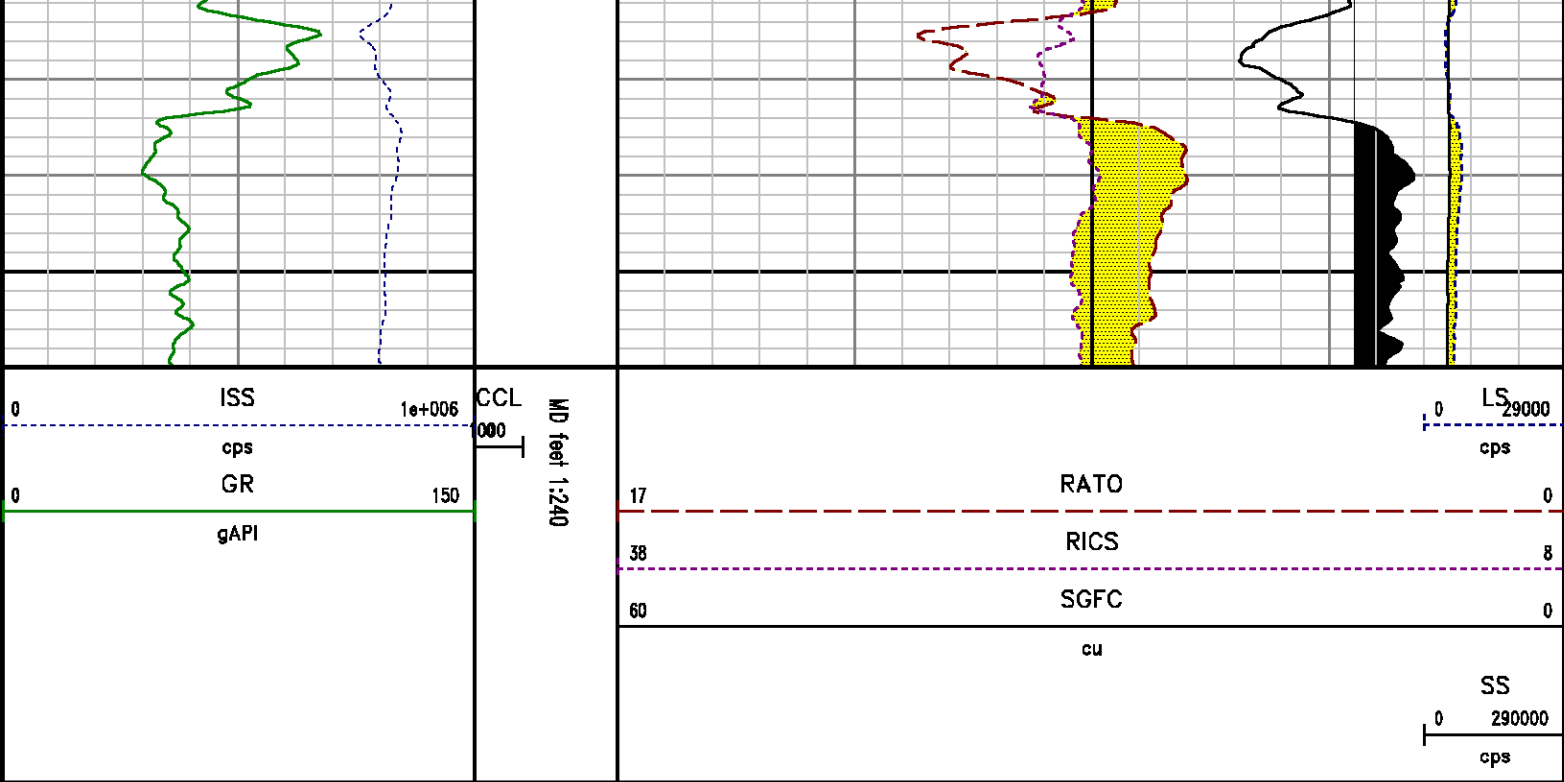


00

10100

10200





CALIBRATION SUMMARY

PNC

Calibration File: C:\case\calver\PNC\55501.cal

PNC 3D CALIBRATION SUMMARY

DATE/TIME PERFORMED: Fri Feb 14 10:06:45 2014 TOOL SERIES: 8281XA ASSET: 555 SEQ: 01

Calibrator #

GJSHOP GJSHOP

Source #

8281AA 11765054

	ISS	Mtr Vlt (V)	SS Gain	LS Gain	XLS Gain	EA Temp (degF)	Sync Delay (usec)	RCAL
Raw Data	829720	122.00	2327.00	2273.00	2234.00	128.01	7.00	0.9689
Interpolated	1300000	142.76	2304.01	2271.75	2233.84			

	ISS	BKS	BKL	BKX	SGA1	SDA1	SGA2	SDA2
Raw Data	829720	8254.34	1264.54	181.94	25.76	0.14	24.38	0.28
					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	829720	176096.14	27490.53	92898.02	33075.26	8527.33	56237.73	13651.16
Fit Quality %		0.89	0.87	0.81	0.82	0.79	0.73	0.84

	ISS	RBOR	RIN ISS/ILS	RIN13 ISS/IXS	RICS ISS/CSS	RATO SS/LS	RTWO SS2/LS	RONE CSS/CLS
Raw Data	829720	1.43 1.42 1.45	4.71 3.55 5.52	30.18 22.20 32.70	14.75 10.99 16.34	10.90 10.06 11.10	3.88 3.57 3.95	4.12 3.76 4.22
Fit Quality %		0.09	0.22	0.26	0.22	0.03	0.06	0.03
Reduced	1412637	1.43 1.42 1.45	4.75 4.33 5.52	30.38 27.60 32.70	14.89 13.70 16.34	10.89 10.06 11.10	3.88 3.57 3.95	4.12 3.76 4.22

GAMMA RAY

Calibration File: C:\case\calver\GR\385TN.cal

CALIBRATION SUMMARY

DATE/TIME PERFORMED: Wed Feb 12 17:24:19 2014 TOOL SERIES: 2812LA ASSET: 385 SEQ: TN

Calibrator #	Background [cps]	Calibrator On [cps]	Multiplicative	Background [api]	Calibrator On [api]	Differential [api]
S2K WA-612	27.64	256.80	0.916	25.33	235.33	210.00

Verification File: C:\case\calver\GR\385TN.VP

PRIMARY VERIFICATION

DATE/TIME PERFORMED: Wed Feb 12 17:29:20 2014 TOOL SERIES: 2812LA ASSET: 385 SEQ: TN

Calibrator #	Background [cps]	Calibrator On [cps]	Multiplicative	Background [api]	Calibrator On [api]	Differential [api]
S2K WA-612	28.29	252.82	0.916	25.92	231.69	205.76

TEMPERATURE

Calibration File: C:\case\calver\TEMP\77456813.cal

CALIBRATION SUMMARY

DATE/TIME PERFORMED: FEB 13 2014 TOOL SERIES: 8255XA ASSET: 774568 SEQ: 13

	T(0)	T(1)	T(2)	T(3)	T(4)	T(5)
Coefficients	-9.274653e+000	1.055639e-001	2.143764e-006	-2.782846e-010	0.000000e+000	0.000000e+000

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

SONDEX GAMMA RAY

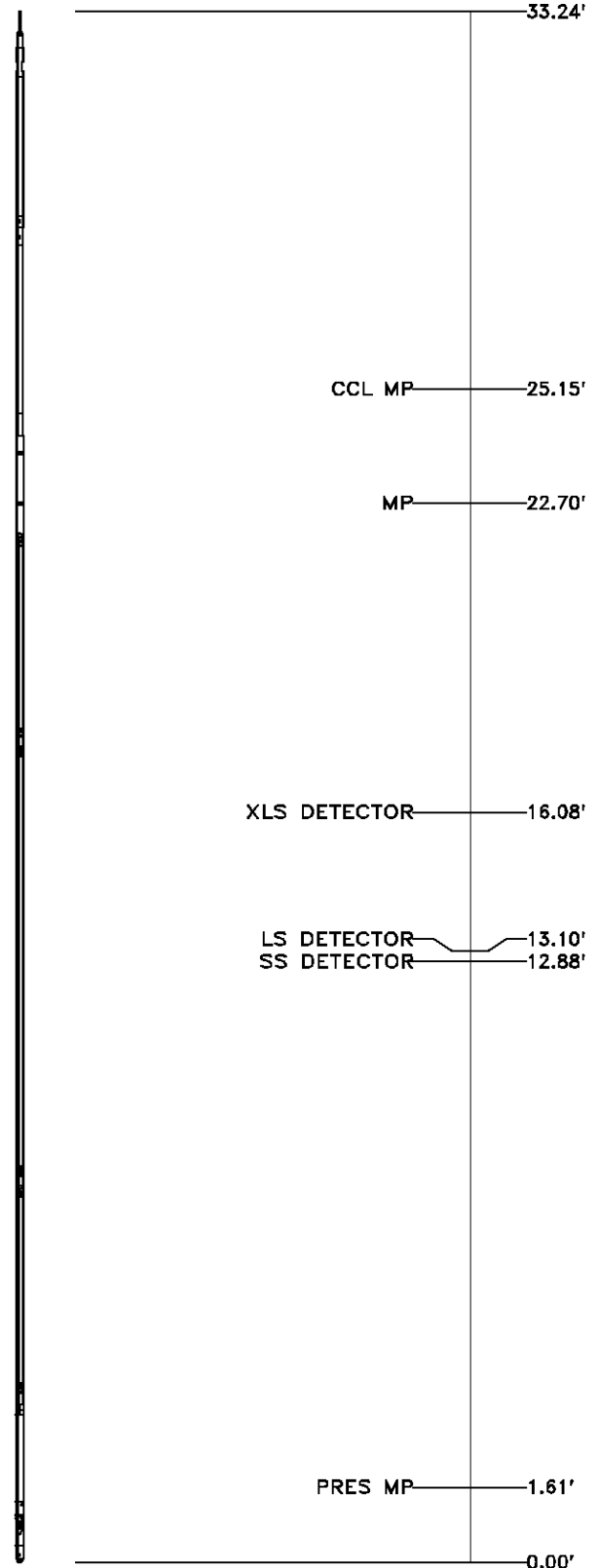
Series 2812LA
Mnemonic SNDX
Diameter 1.69"

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

TEMPERATURE / PRESSURE

Series 8255XA
Mnemonic SRPL
Diameter 1.70"
Weight 13.00 lb
Length 3.30'



Total Length: 33.24'

Total Weight: Not Available

Max Diameter: 0' 1.70"



Company	WPX ENERGY		
Well	FEDERAL RG 312-14-298		
Field	SULPHUR CREEK		
County	RIO BLANCO	State	CO

File No:
CH082856
API No:
05103117910000

Location

SHL: 1644' FNL & 505' FWL
BHL: 1671' FNL & 645' FWL

Elevations

KB 6581 ft
DF
GL 6560 ft

14 2S 98W
RG 12-14-298 PAD
CYCLONE 29

SEC 14 TWP 2S RGE 98W

CASE

Baker Atlas