



RESERVOIR PERFORMANCE MONITOR

Baker Atlas

File No: **Company** **WPX ENERGY**

CH082862 **Well** **SAVAGE RWF 514-25**

API No: **Field** **RULISON**

05045219890000 **County** **GARFIELD** **State** **COLORADO**

25 6S 94W **Location**

RWF 23-25 PAD SHL: 1610' FSL & 2295' FWL

NABORS 677 BHL: 317' FSL & 435' FWL (SWSW)

SEC 25 **TWP** 6S **RGE** 94W

Other Services
BOND LOG

Permanent Datum **GL** **Elevation** 6096 ft

Log Measured From **KB** 26 ft **Above P. D.**

Drill Measured From **KELLY BUSHING**

Elevations
KB 6122 ft
DF

GL 6096 ft

Date	14/MAR/14	
Run	ONE	
Service Order	US625360	
Depth Driller	8982 ft	
Depth Logger	8940 ft	
Bottom Logged Interval	8930 ft	
Top Logged Interval	26 ft	
Time Started	1215	
Time Finished	1745	
Operator Rig Time	5 HRS	
Type of Fluid in Hole	WATER	
Fluid Density	NA	
Salinity	NA	
Fluid Level	73 ft	
Logged Cement Top	NA	
Wellhead Pressure	0 psi	
Maximum Hole Deviation	NA	
Nominal Logging Speed	10 fpm	
Maximum Recorded Temperature	236 degF	
Reference Log	BAKER HUGHES BOND LOG	
Reference Log Date	14/MAR/14	
Equipment No.	4271	GRAND JCT
Recorded By	FLYOD RENEAU	
Witnessed By	BOB CADY	

- 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	1170 ft
8.75 in	1170 ft	8982 ft

Casing Record				
Size	Weight	Grade	From	To
9.625 in			0 ft	1170 ft
4.5 in	11.6 lbm/ft	I-80	0 ft	8982 ft

Remarks
All data on this log is shifted and depth matched using the Gamma Ray curve to the Baker Hughes bond log dated 3/14/2014 at the client's request.
The amount of linear shift is 12 feet.
Logged in PNC-3D mode.
BHT = 236 °F
SJ = 5727'-5751'

Equipment Data					
Run	Trip	Tool	Series Number	Serial Number	Position
1	1	TEMP	8255XA	11774568	FREE
1	1	RPM	8281FA	10191667	FREE
1	1	RPM	8281PA	10169251	FREE
1	1	RPM	8281EA	10169250	FREE
1	1	GR	2812LA	10274382	FREE
1	1	TEL/CCL	8248ED	10296408	FREE
1	1	PCM	8250EA	10397894	FREE

MAIN SECTION
PNC 3-D MODE

SPL PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
PNC Porosity	Borehole	Cased		4819.750	8935.000
PNC Porosity	Borehole Size	8.750	inch	4819.750	8935.000
PNC Porosity	Casing Size	4.500	inch	4819.750	8935.000
PNC Porosity	Gas Filled	Non Gas Filled		4819.750	8935.000
PNC Porosity	Matrix	Sandstone		4819.750	8935.000
TPS Pressure	Temperature Corr. Source	Fixed (72.00)	degF	4819.750	8935.000

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	RATO23
		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	RTWO23	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	RATO	RATO13
		RBOR	RGN1	RICS	RIN	RONE	RPOR
		RTWO	RIN13	RONE13	RTWO13	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	H0C	FE2XC	ISSC	RINC
		ISSN	RDEN	WDTH1	RICSC	CSSR	G1R
		G2R	ISSR	SSR	SS2R	RATOR	RATO13R
		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

Well : SAVAGE RWF 514-25

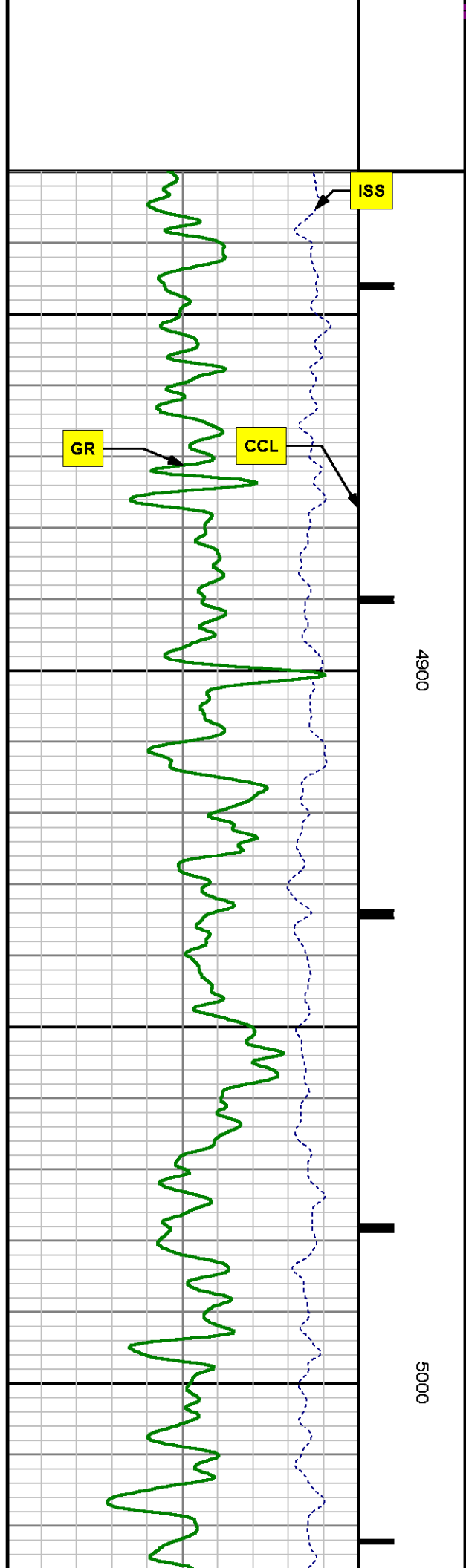
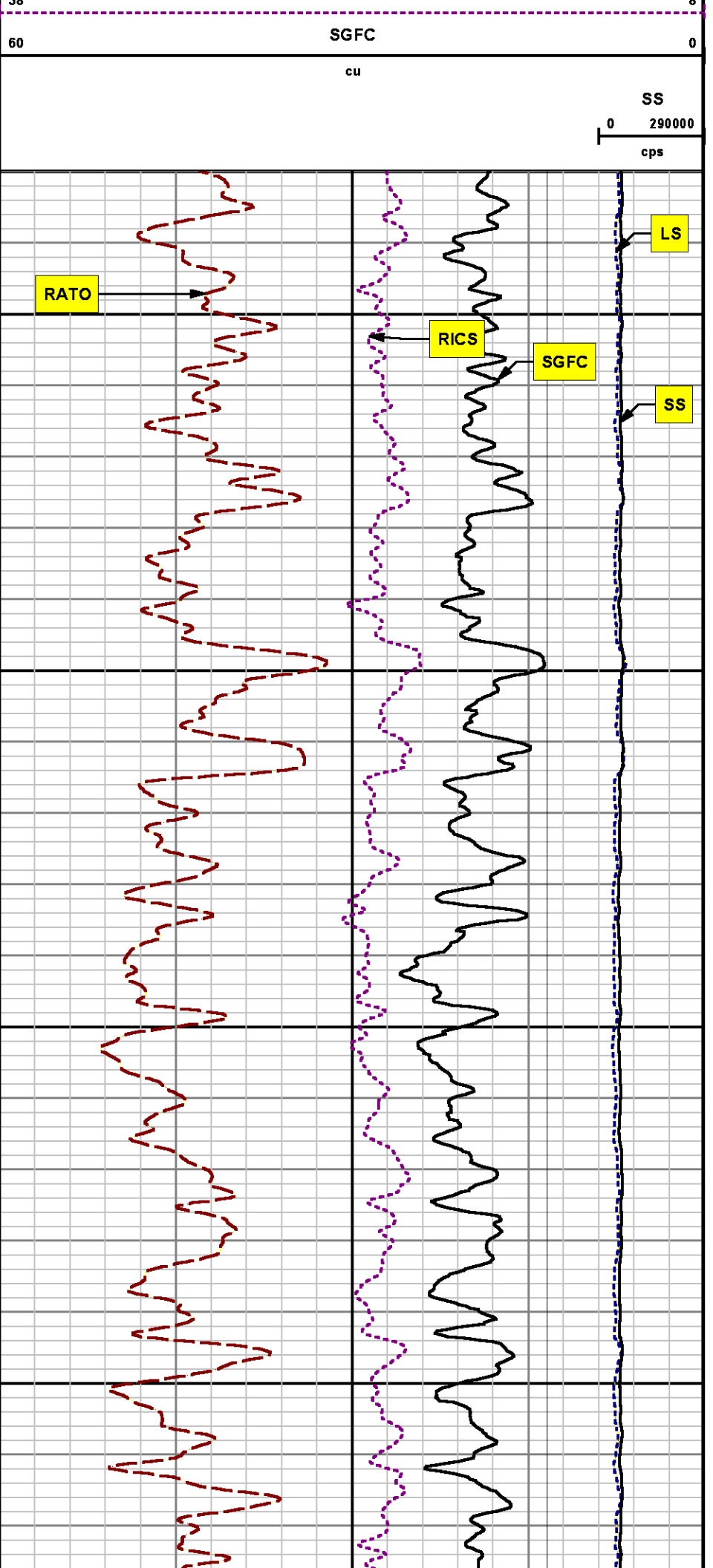
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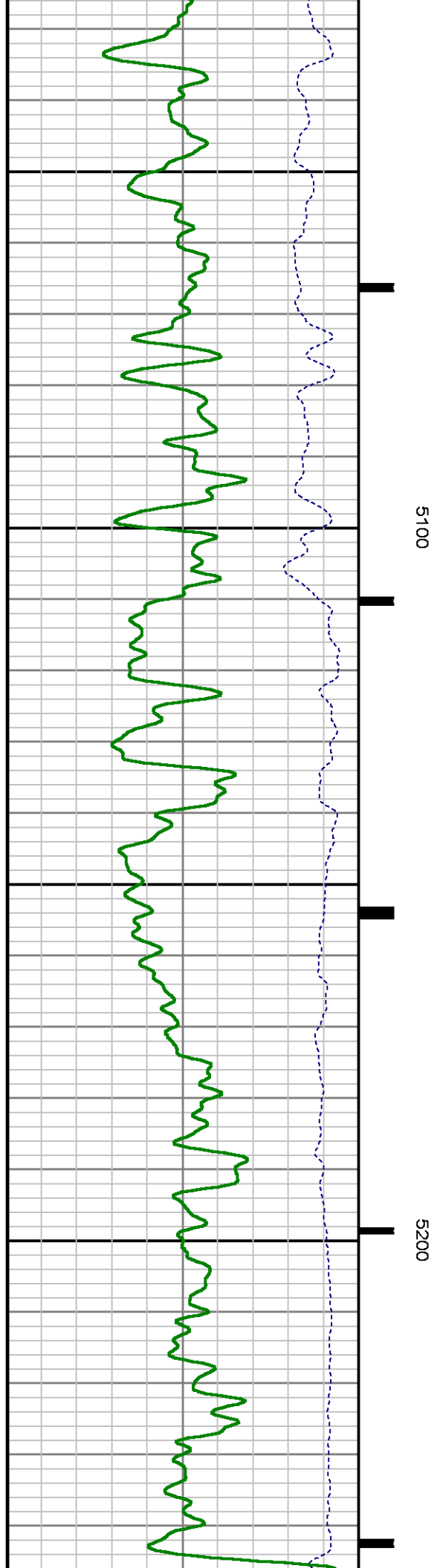
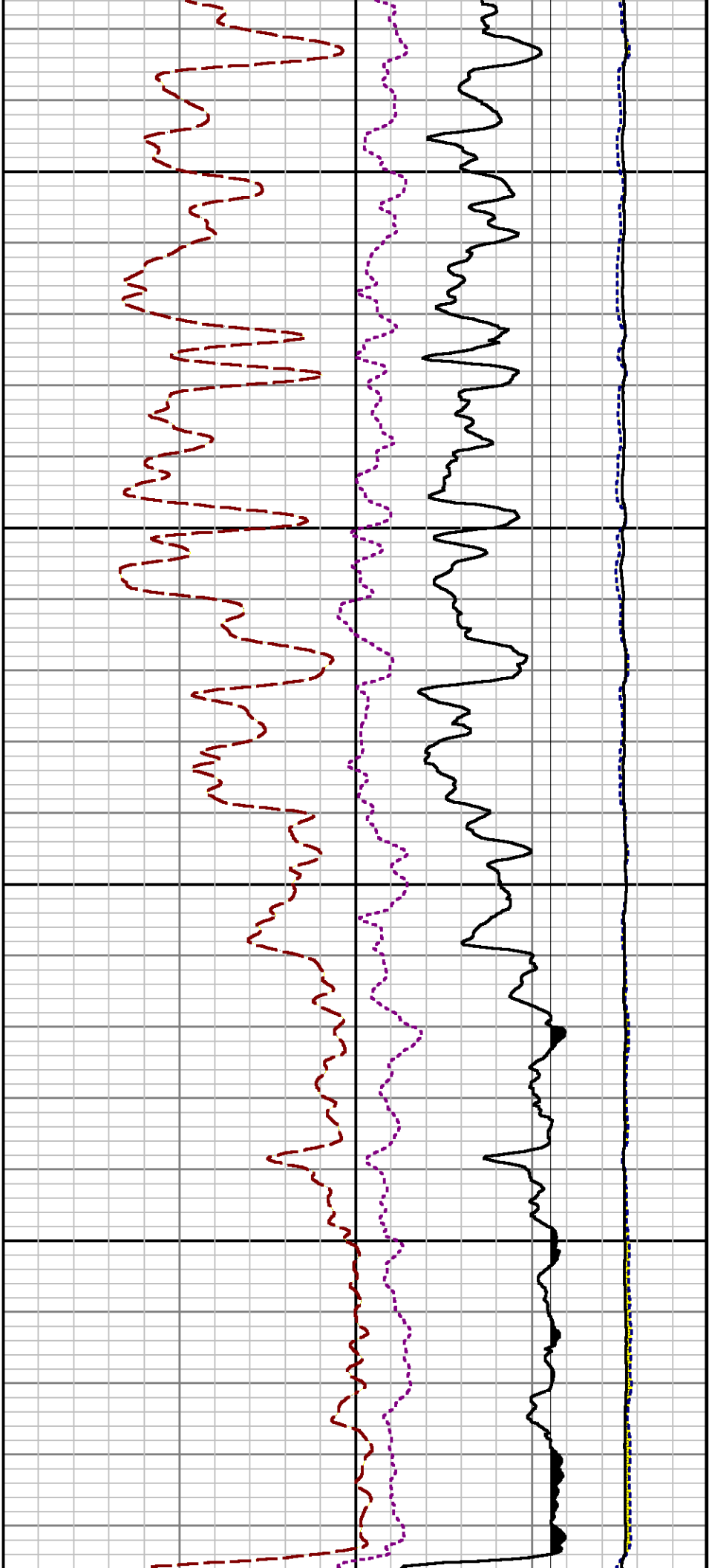
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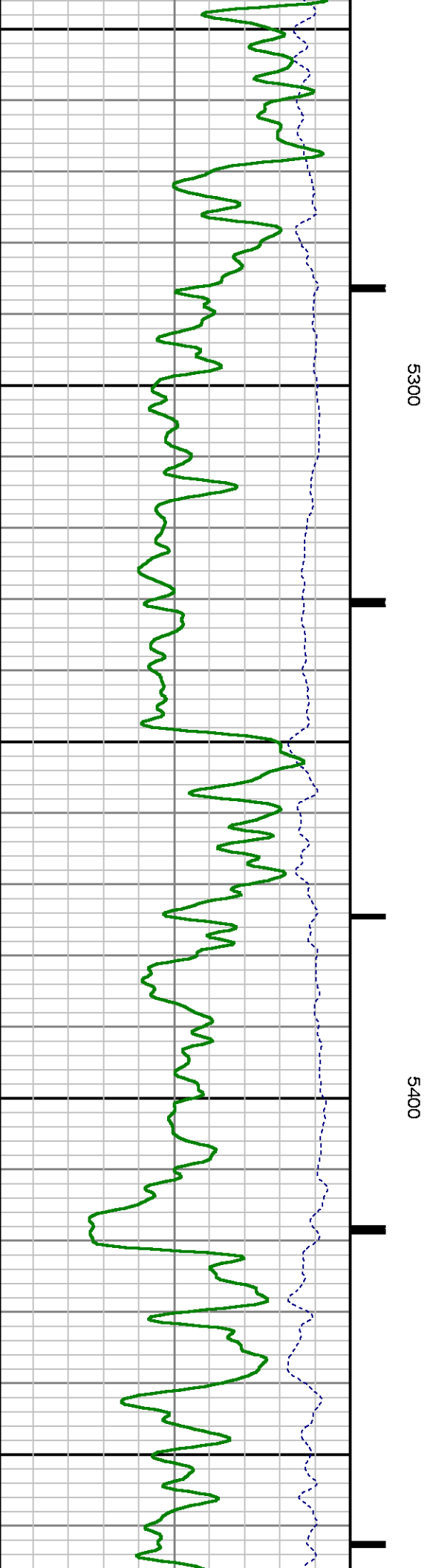
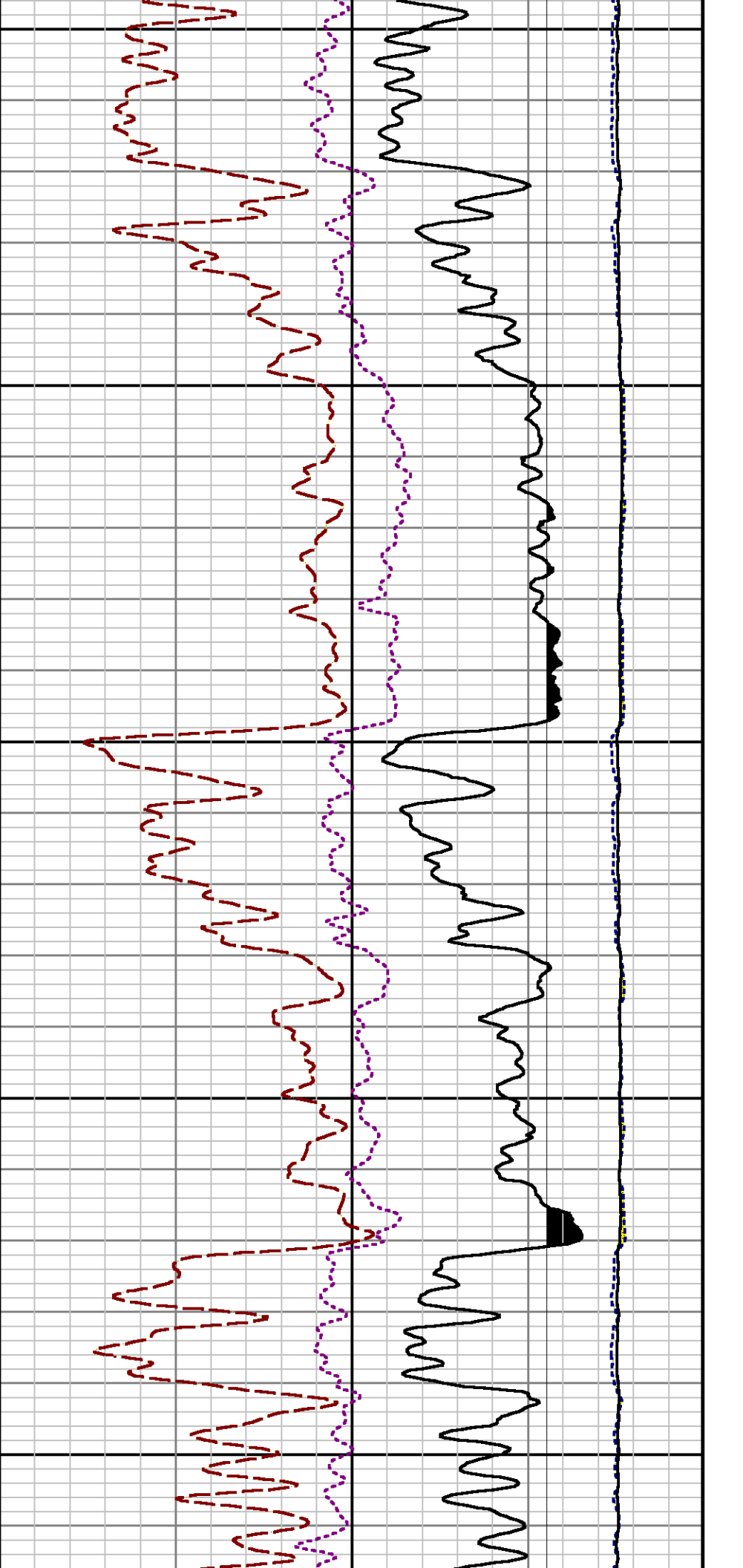
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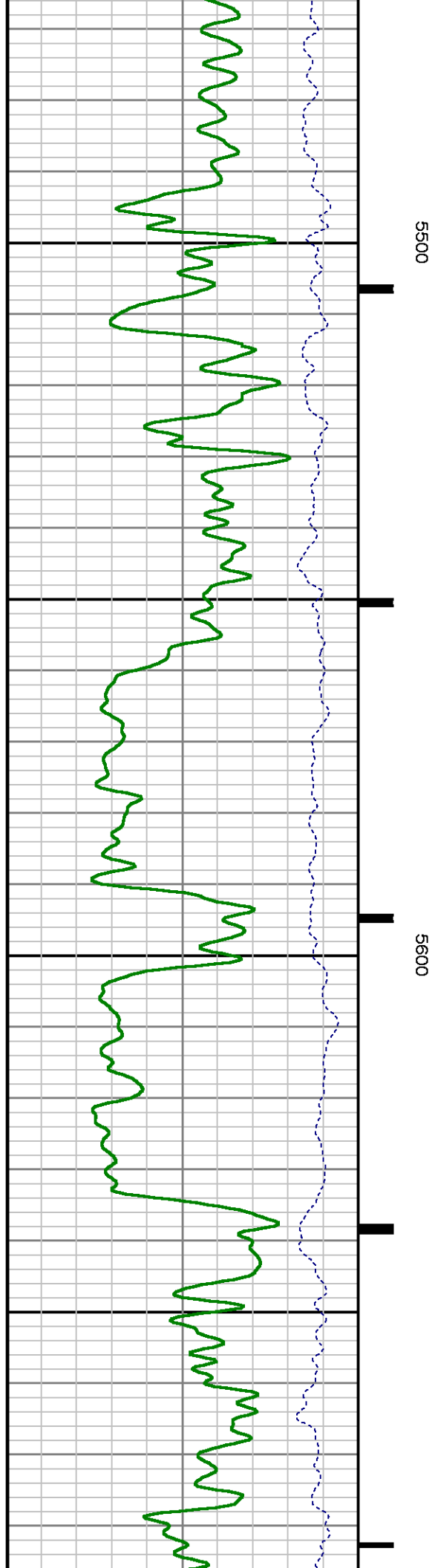
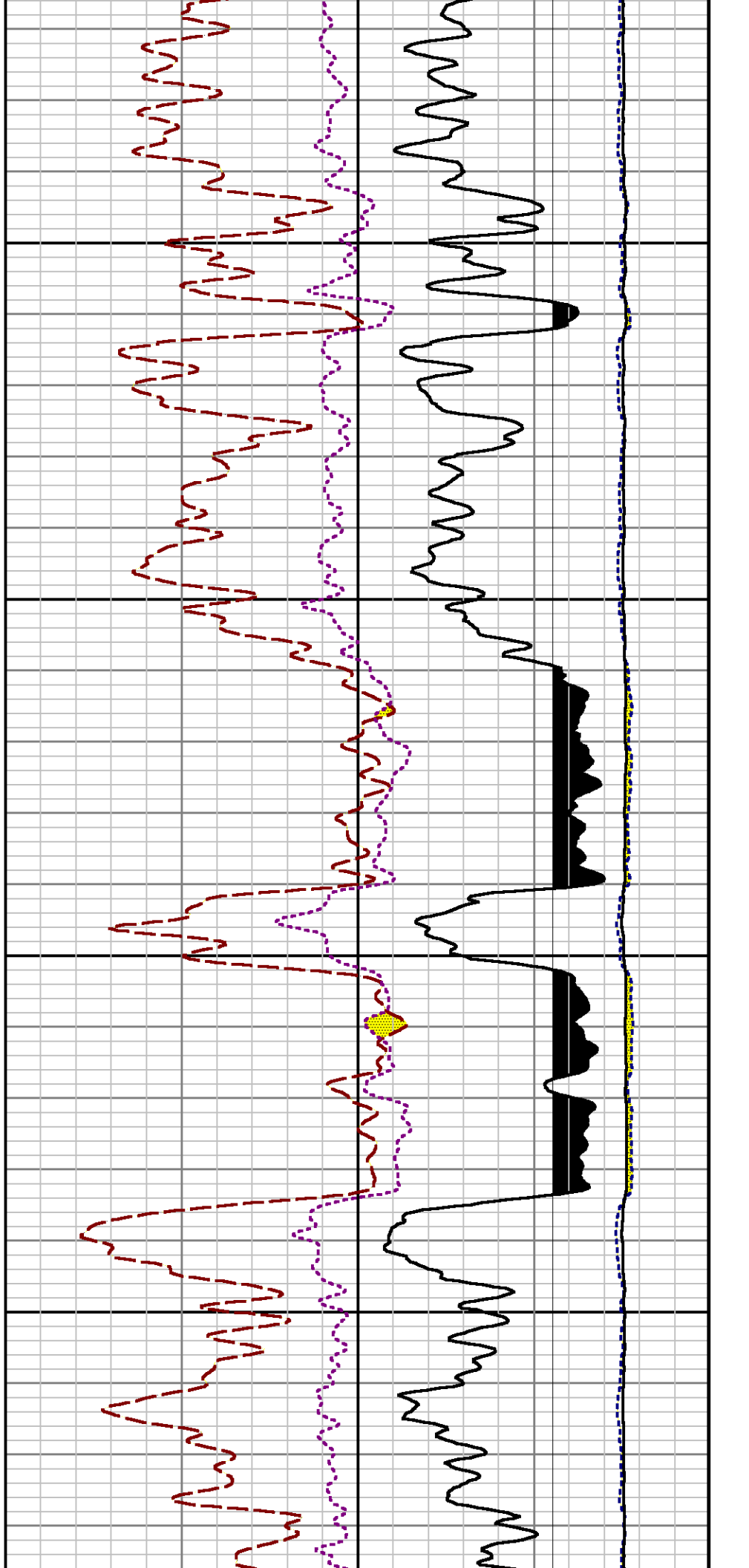
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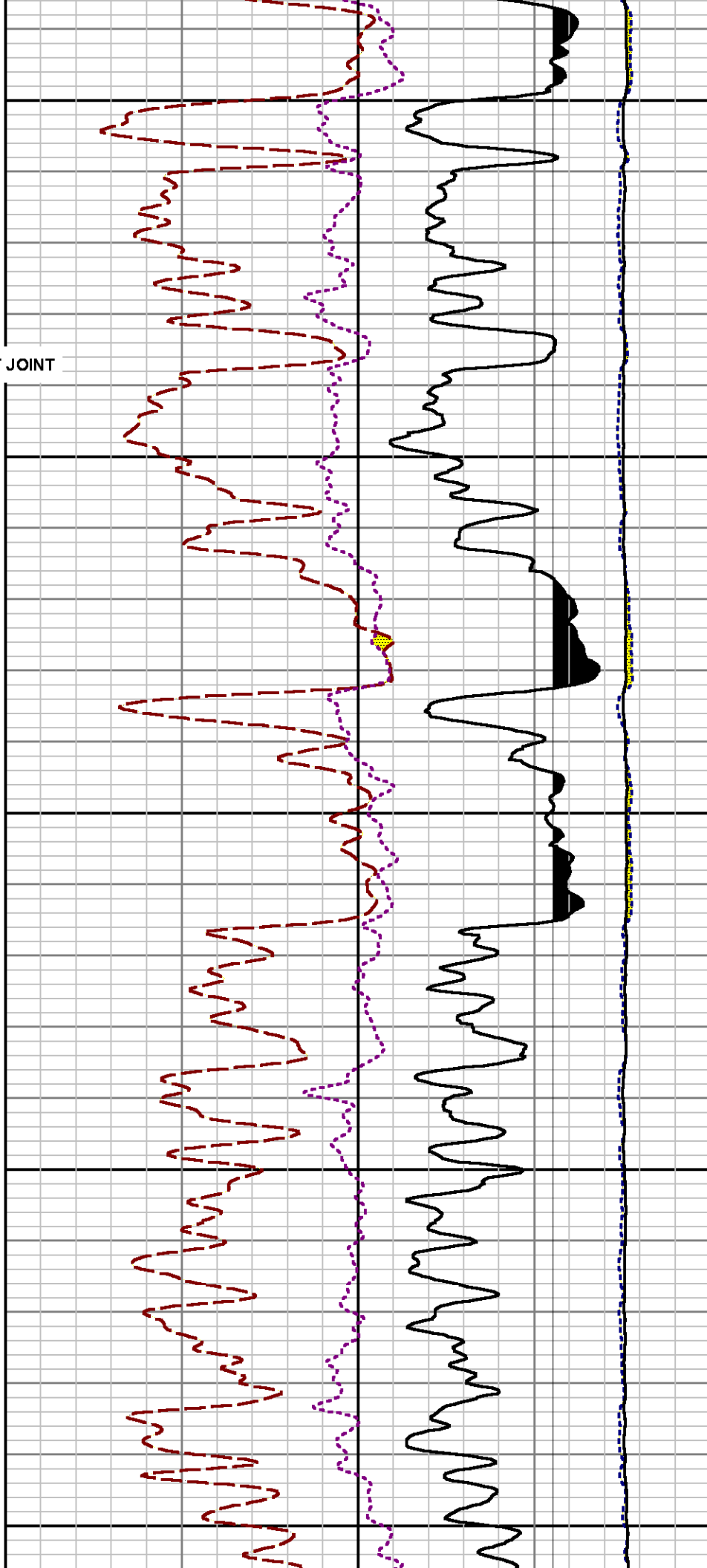










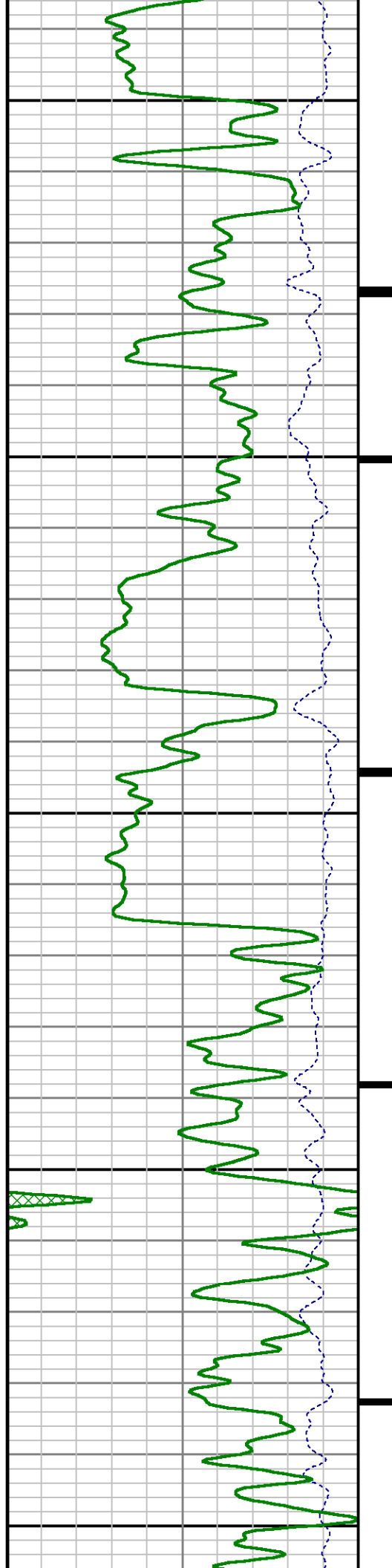


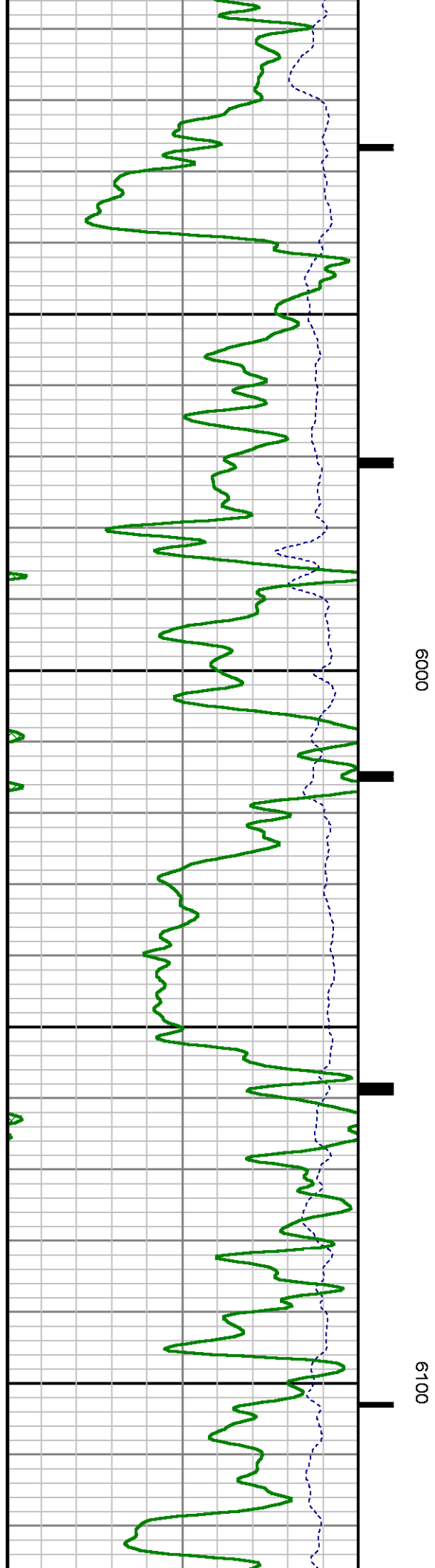
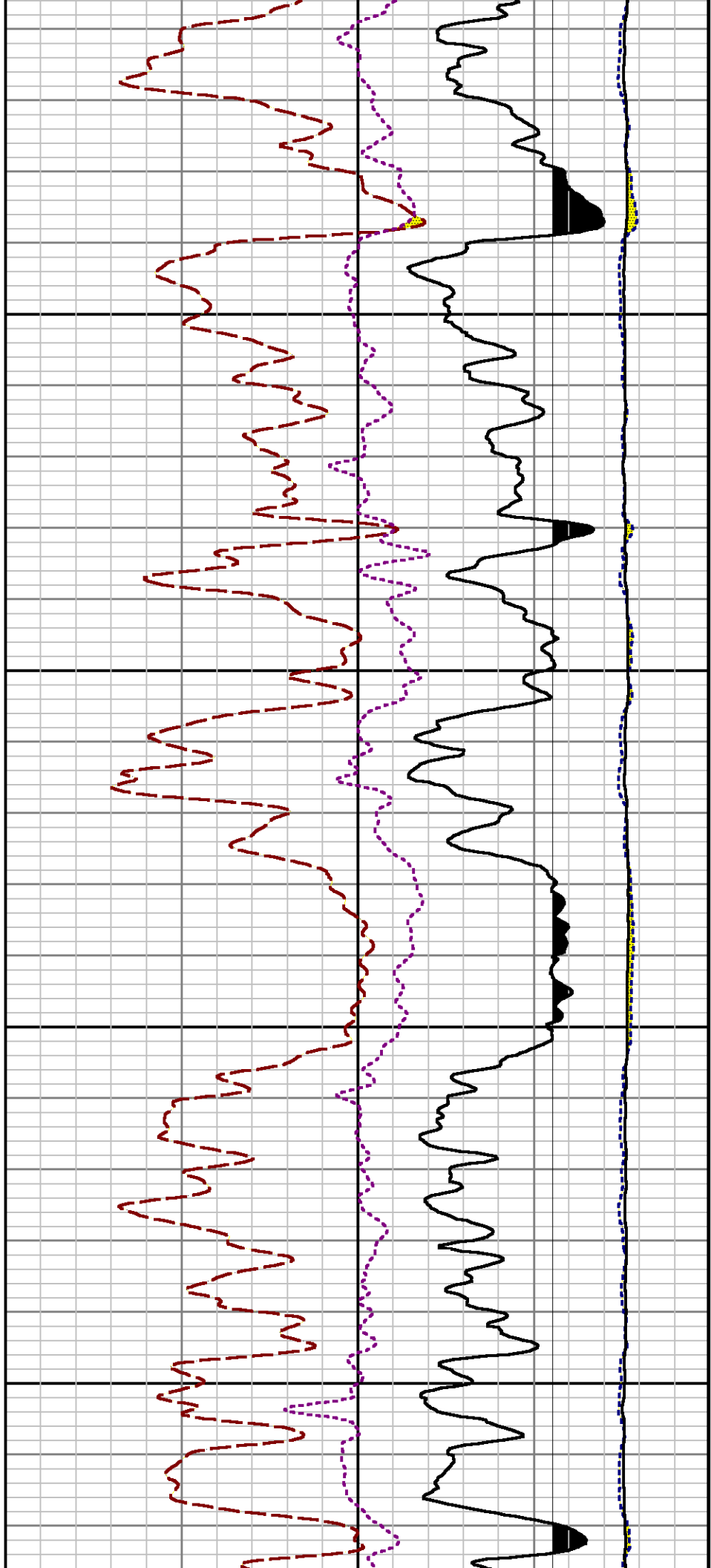
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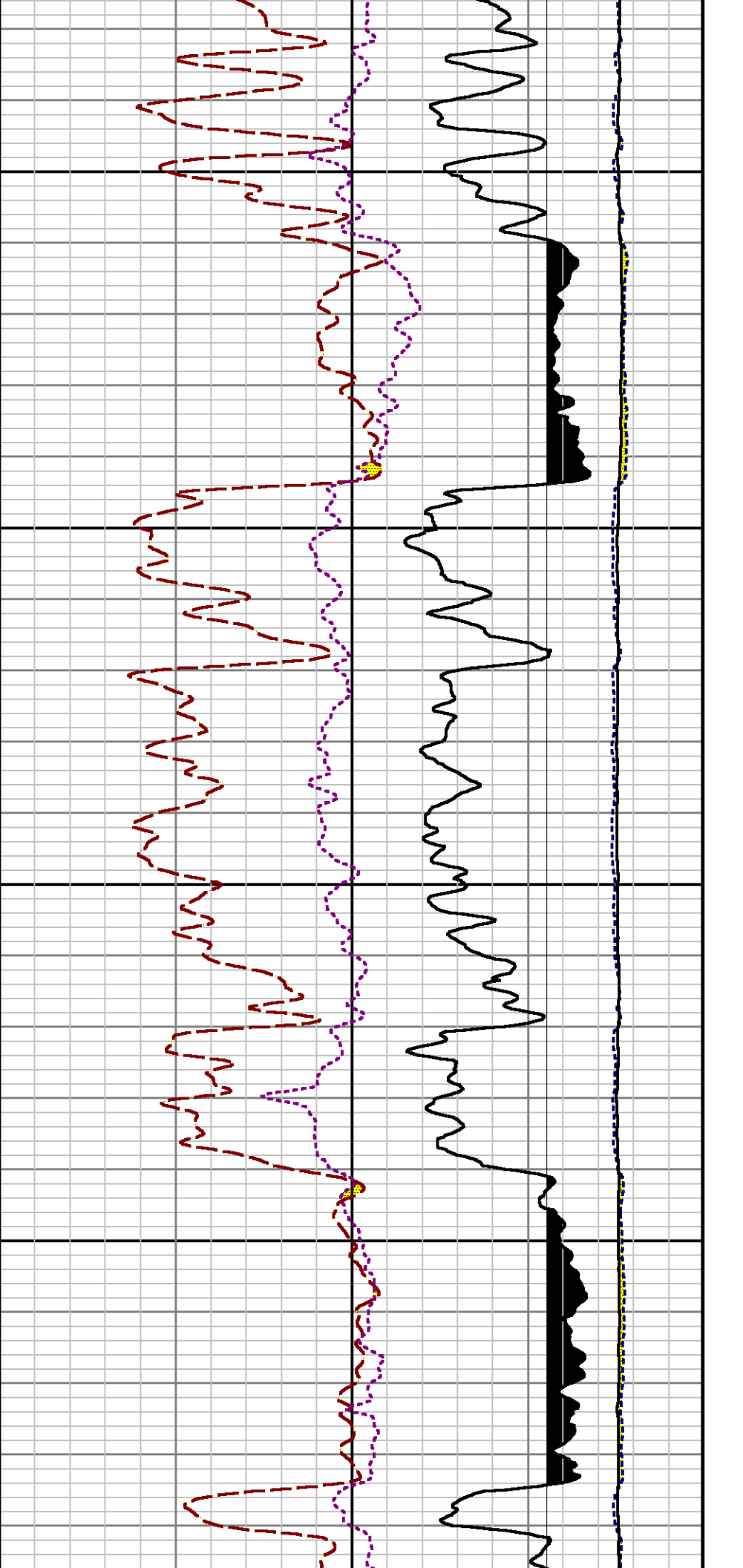
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5800

5900

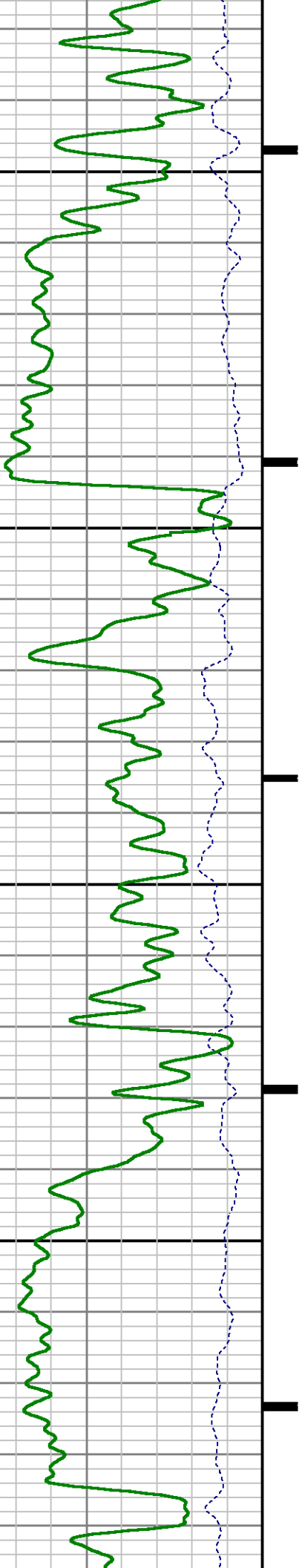


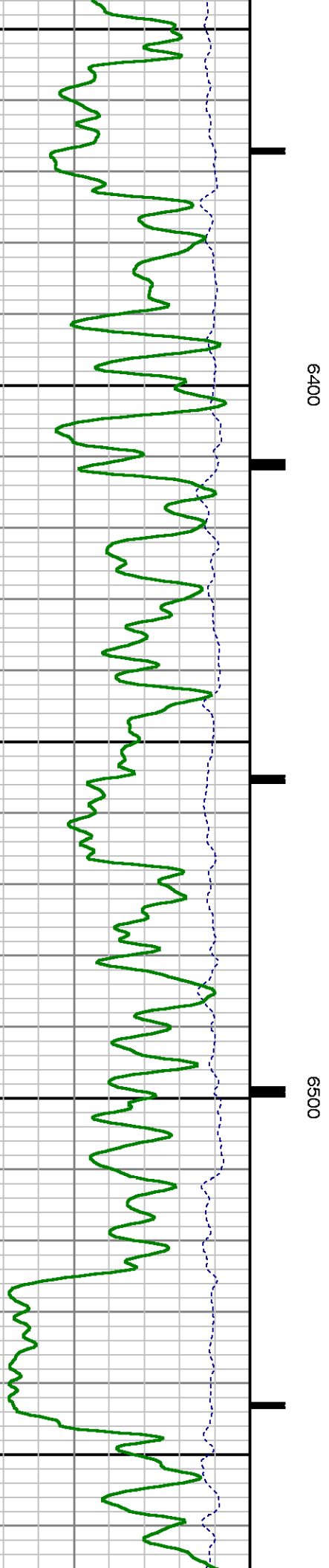
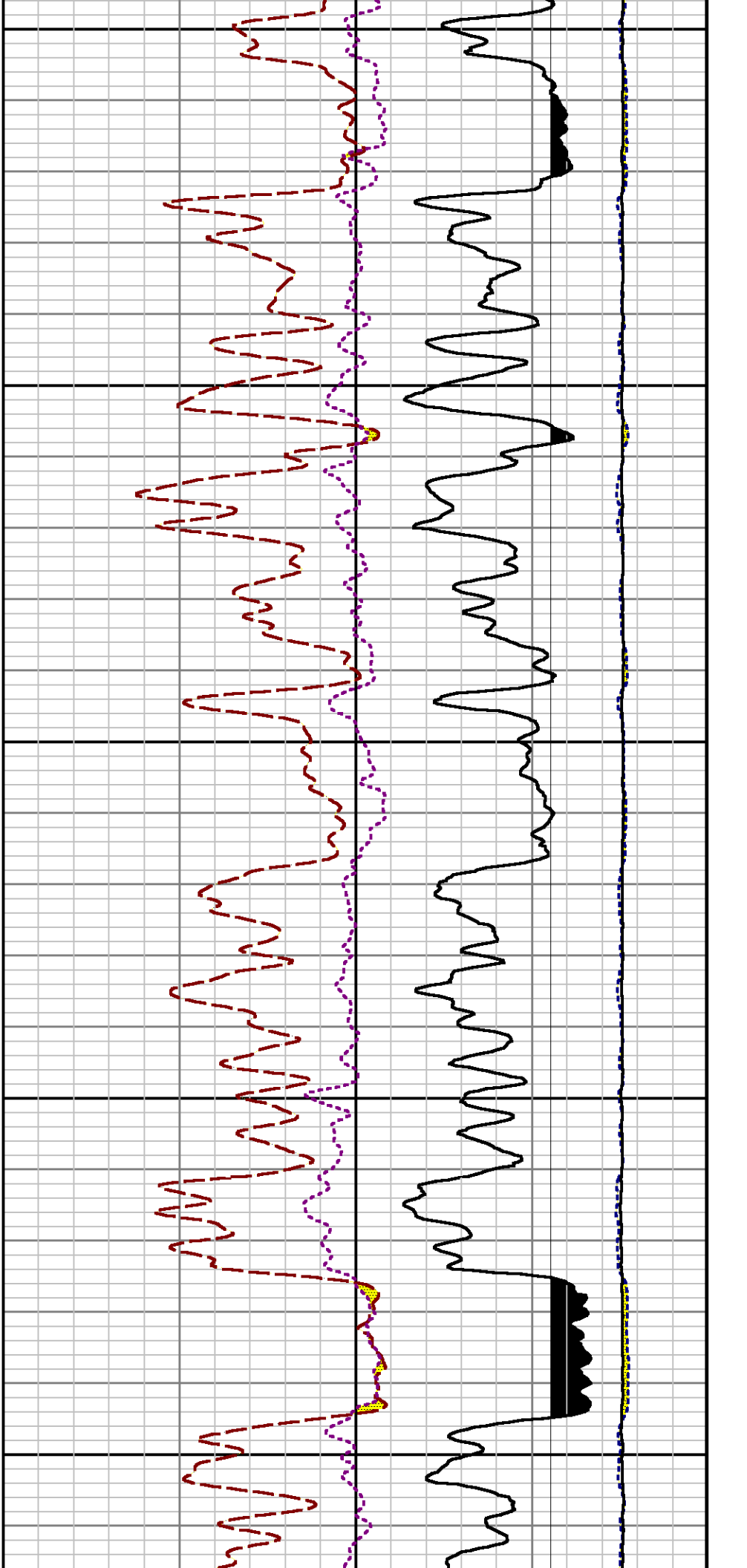


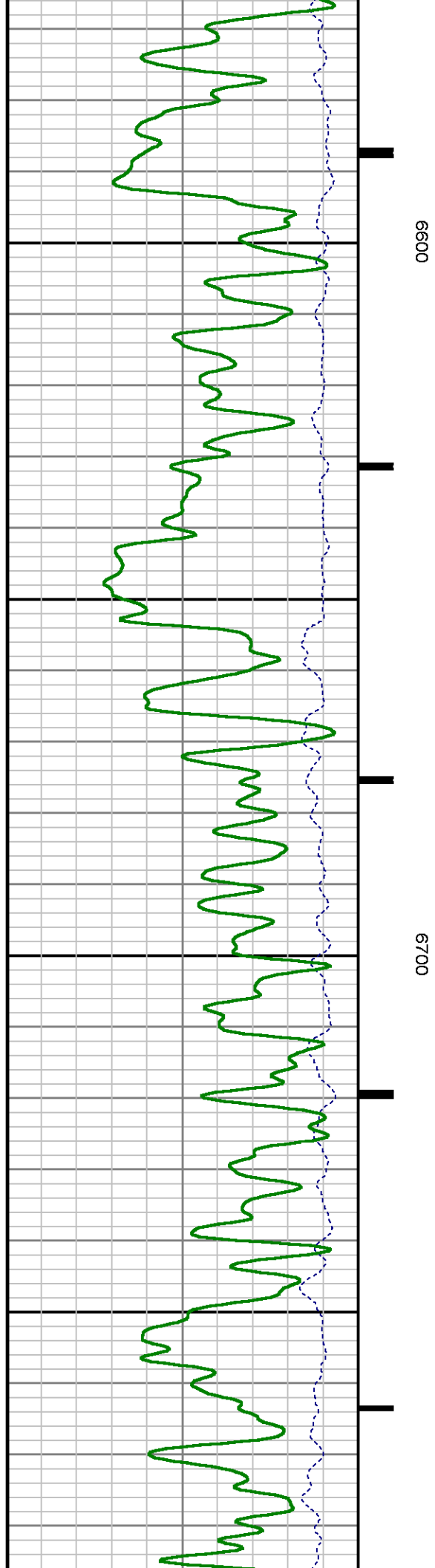
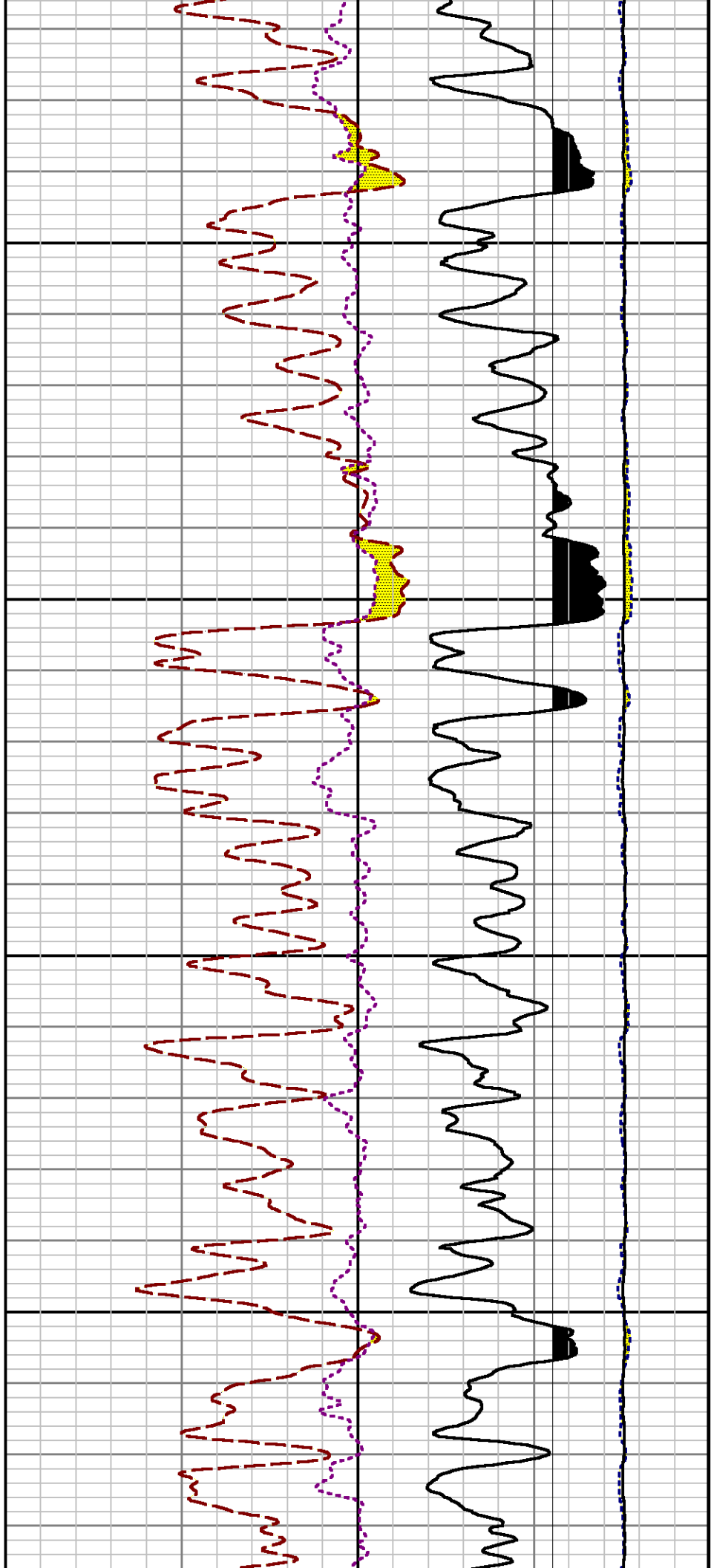


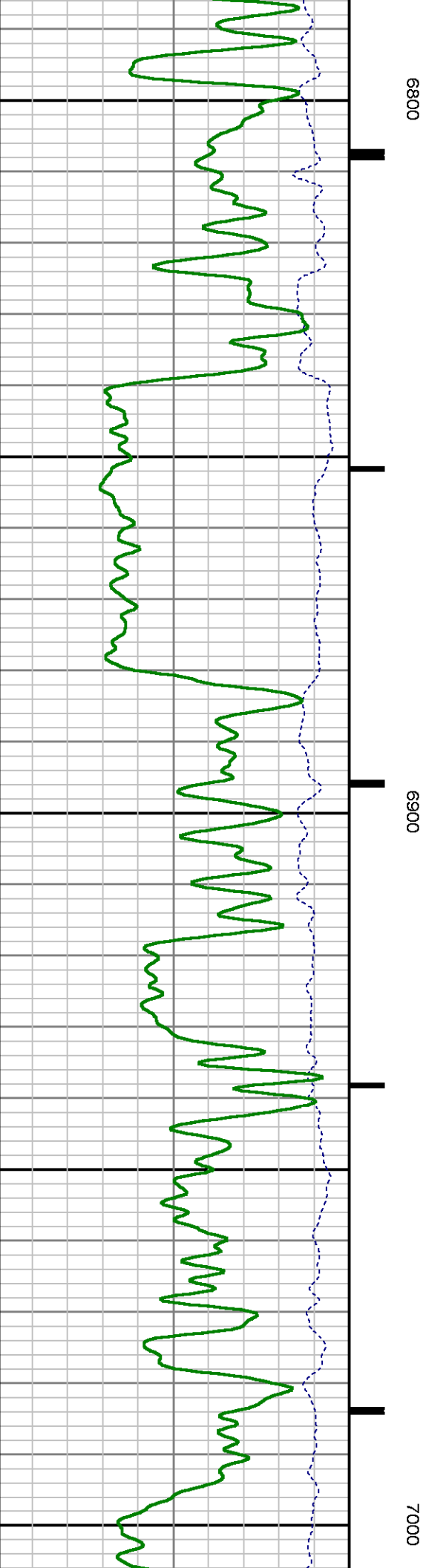
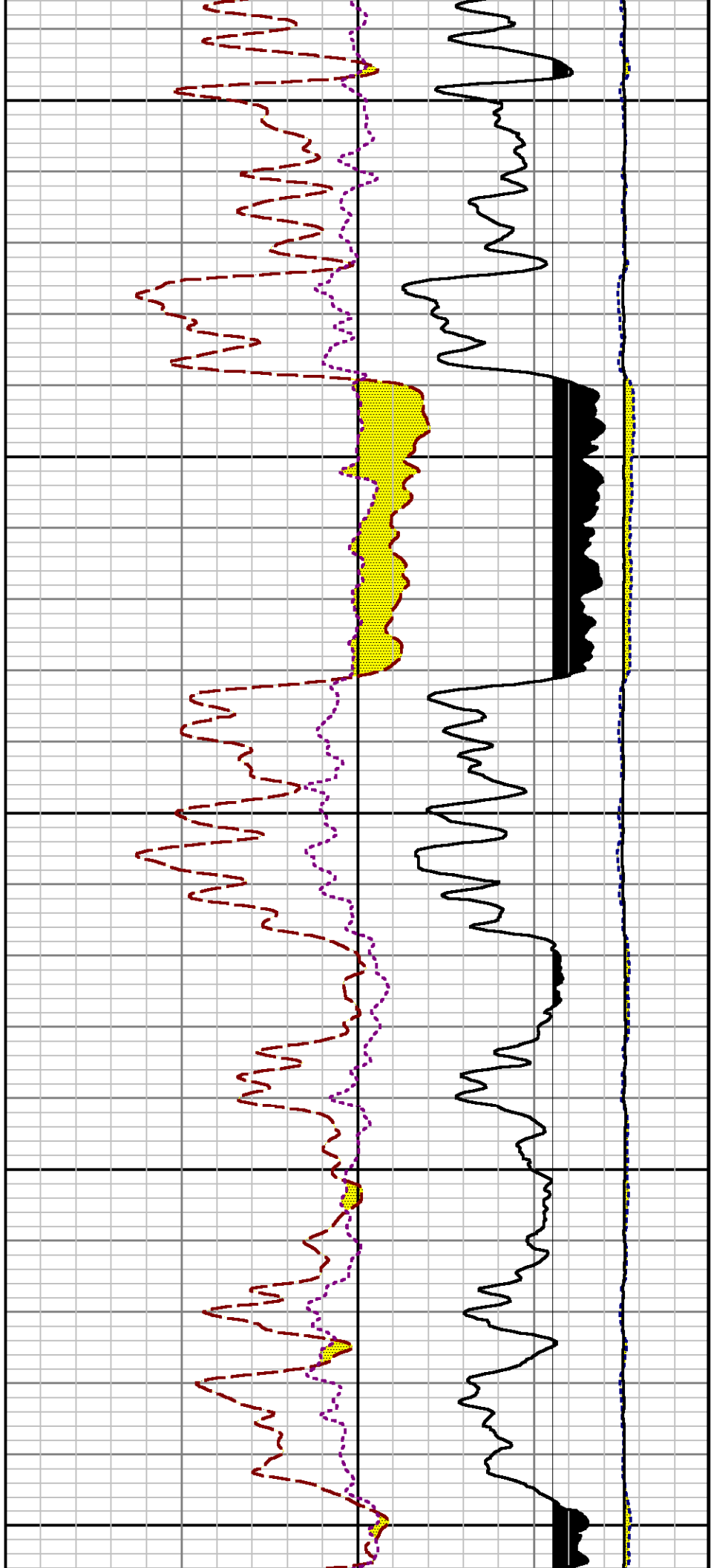
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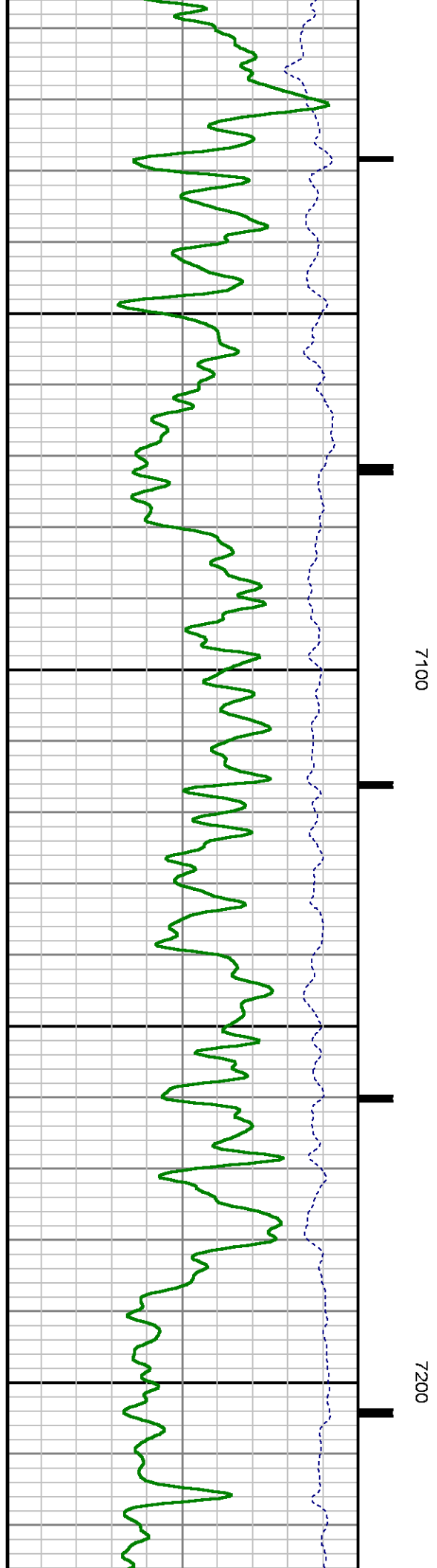
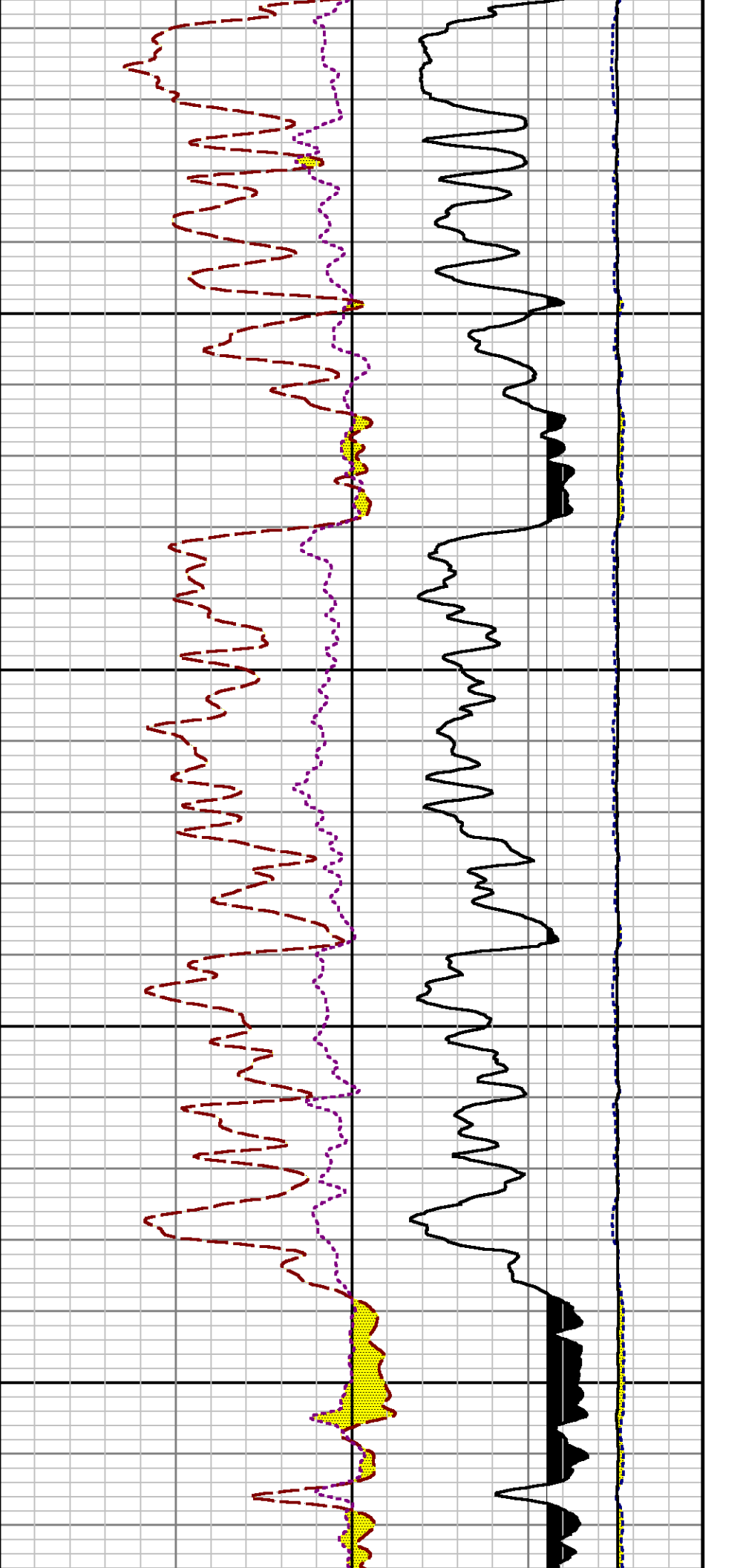
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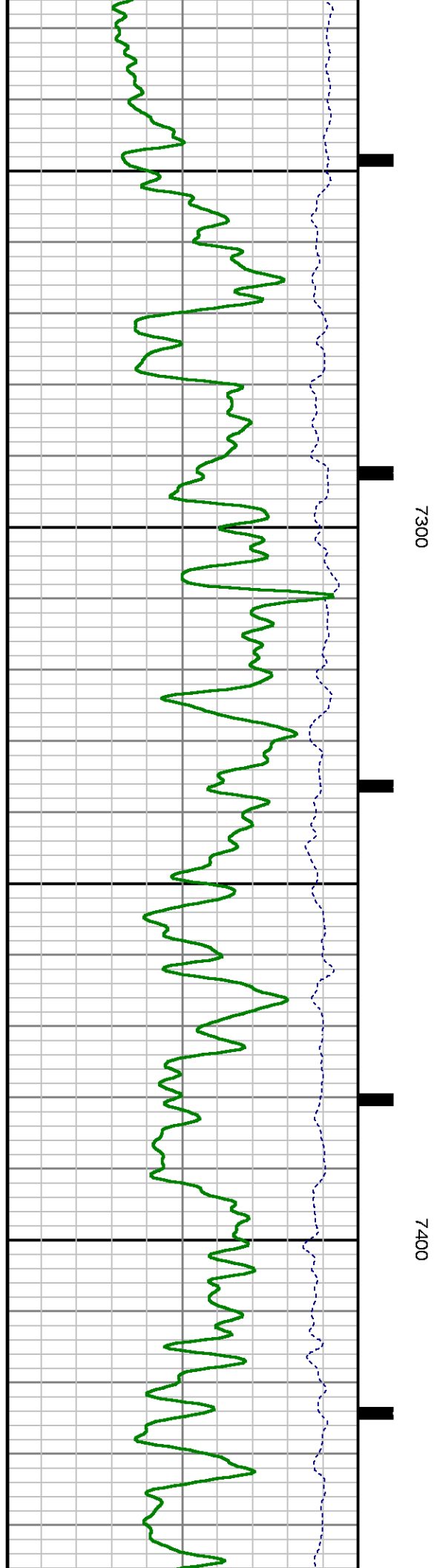
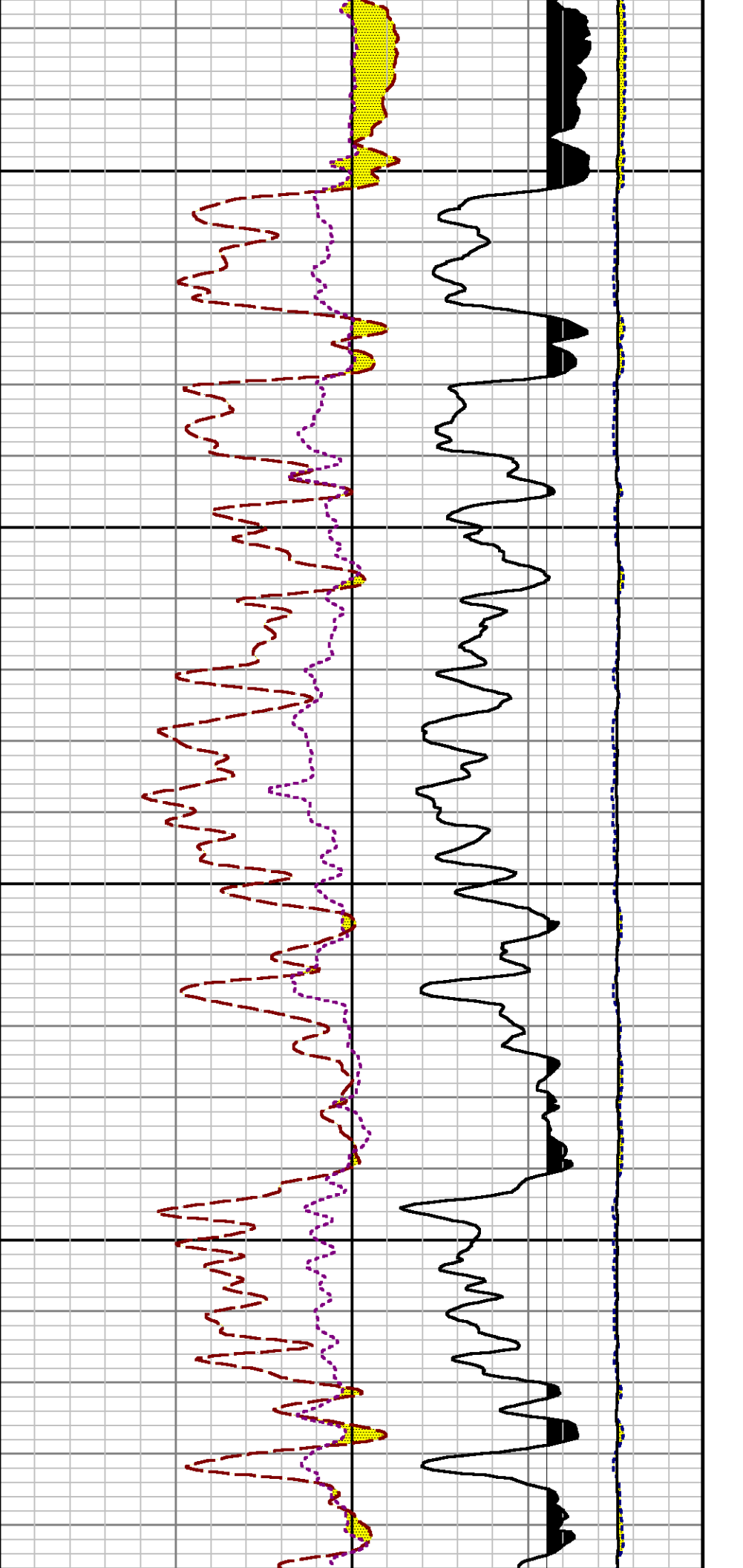


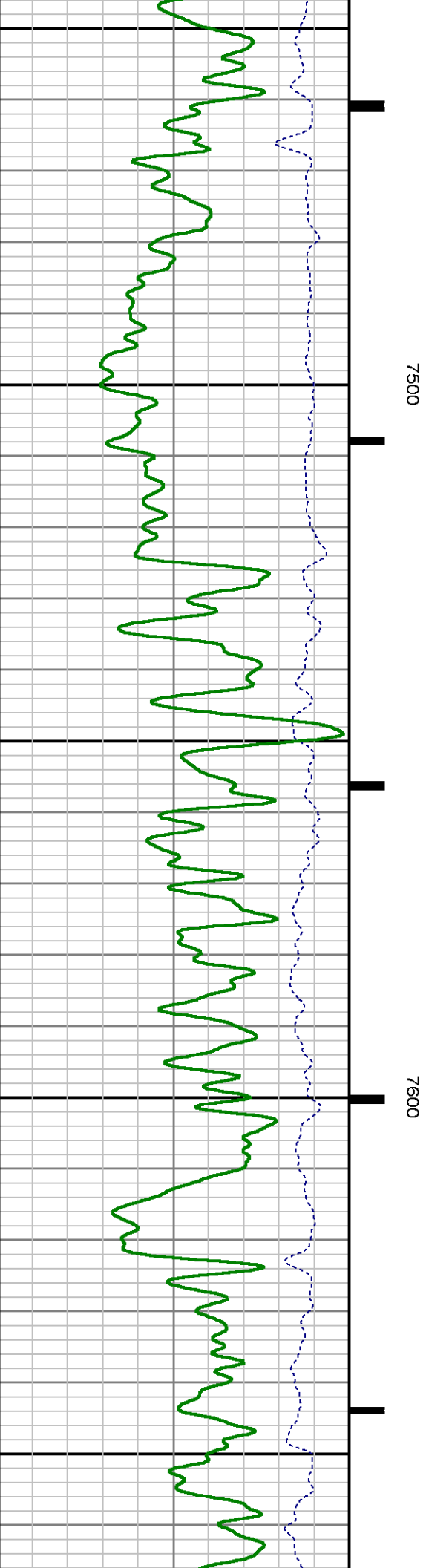
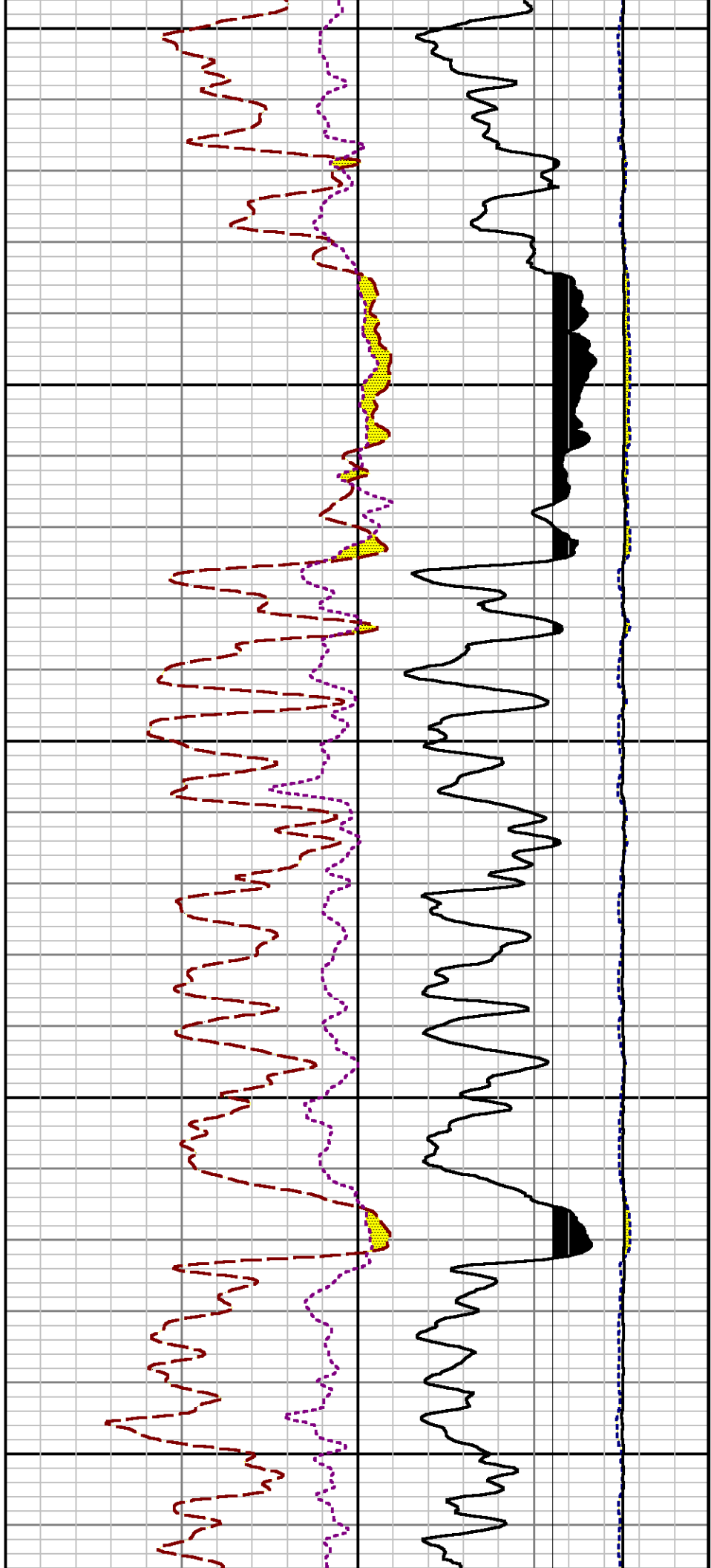


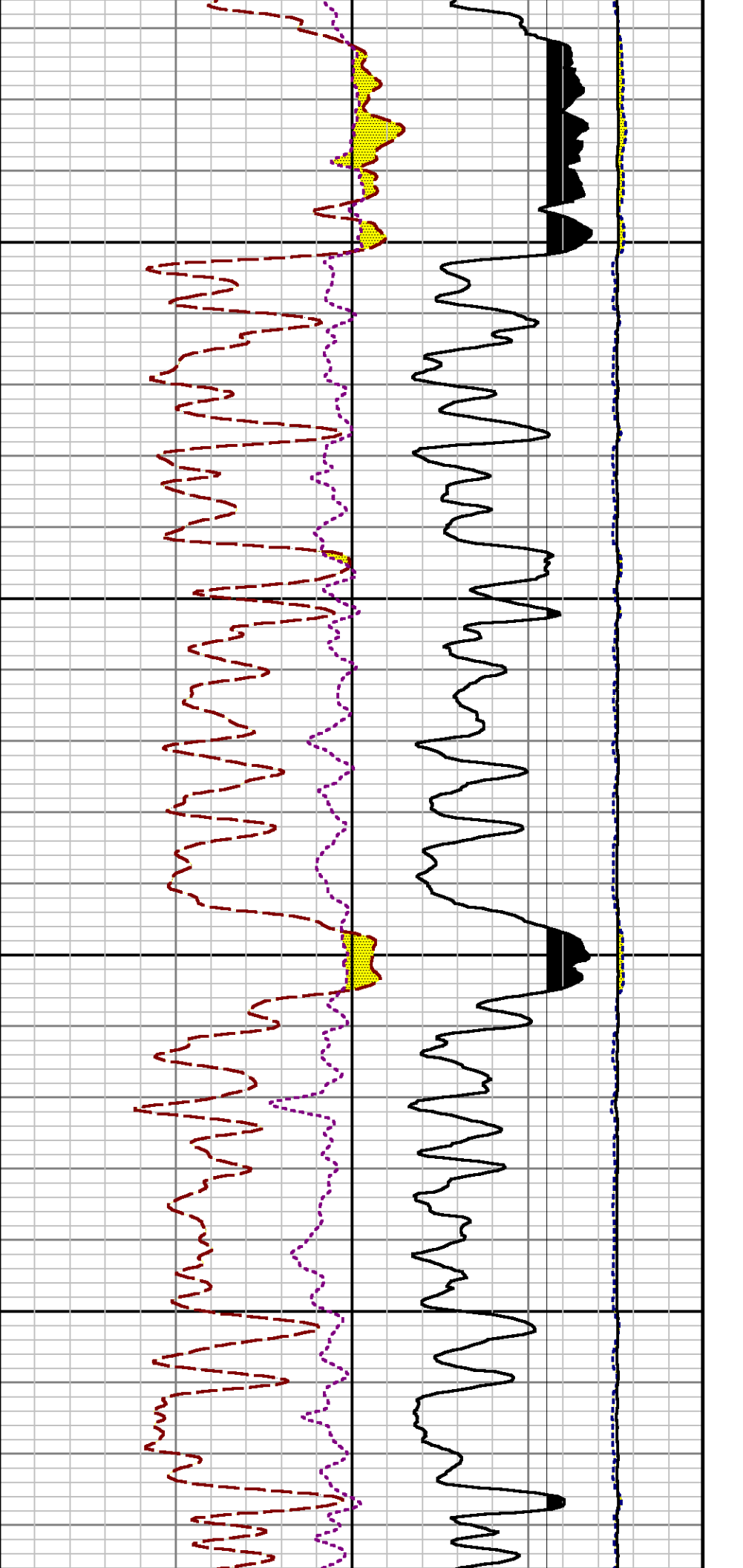






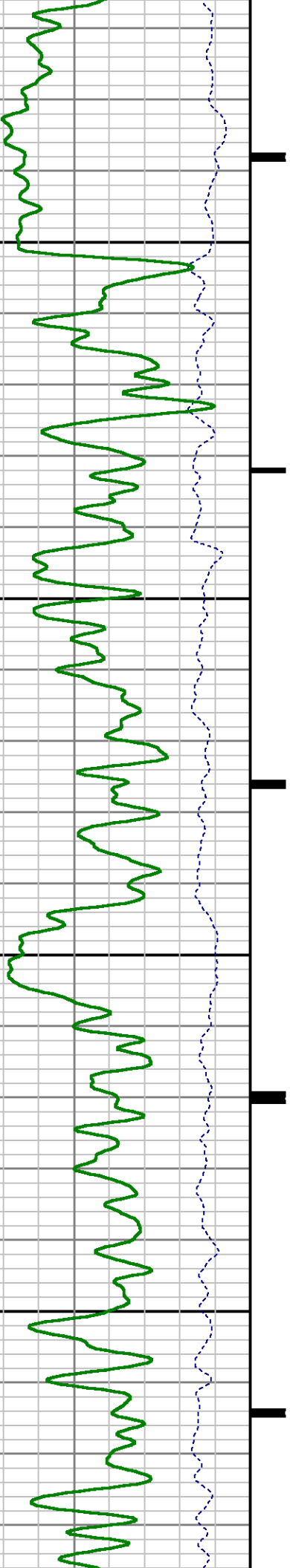


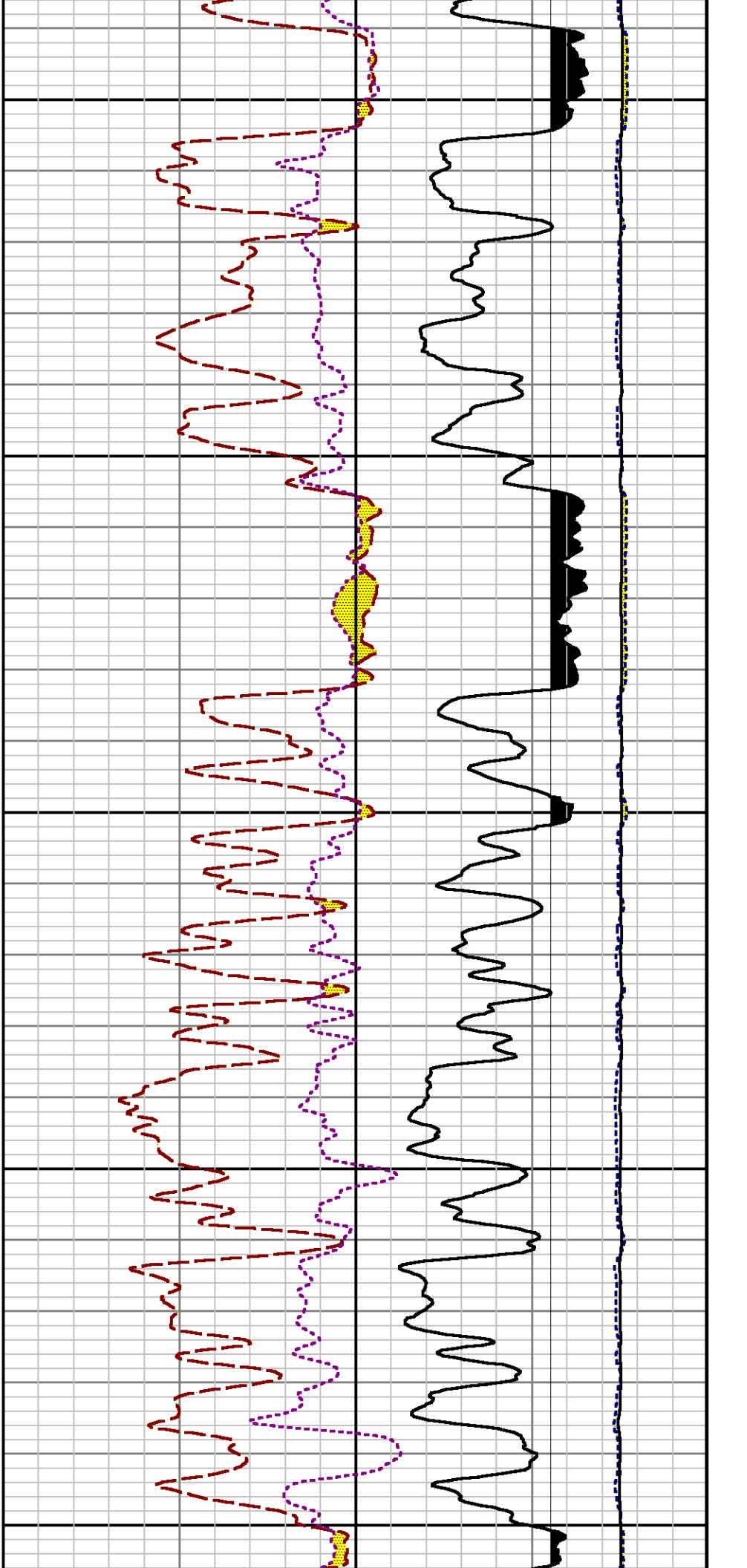




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7800

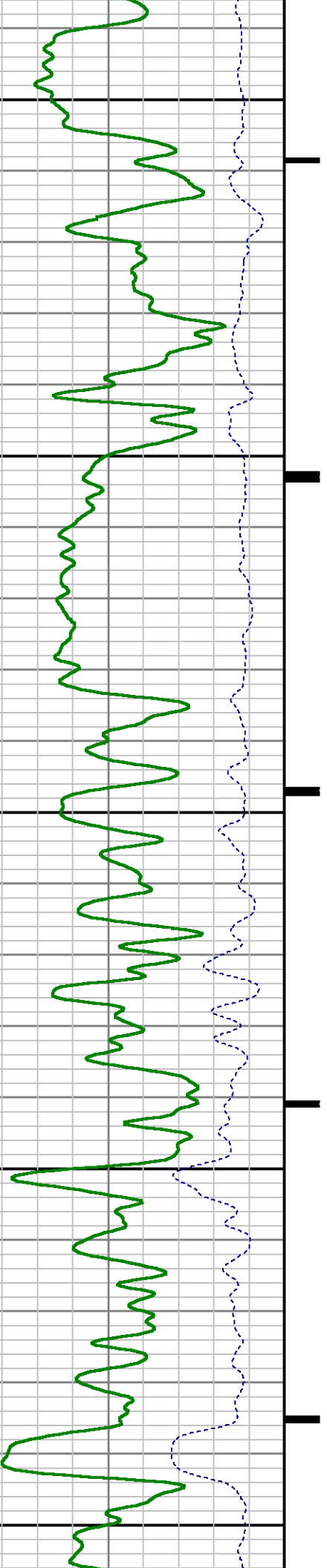


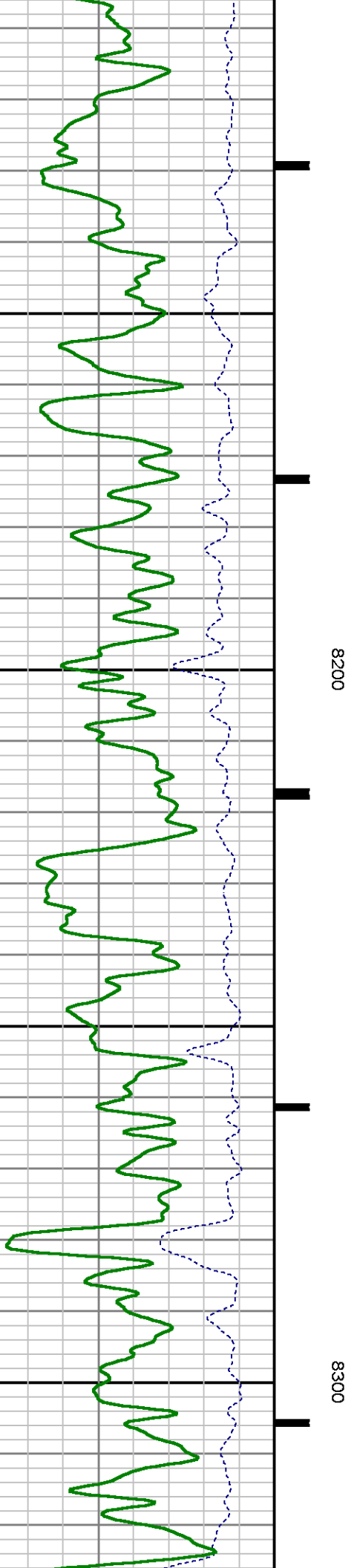
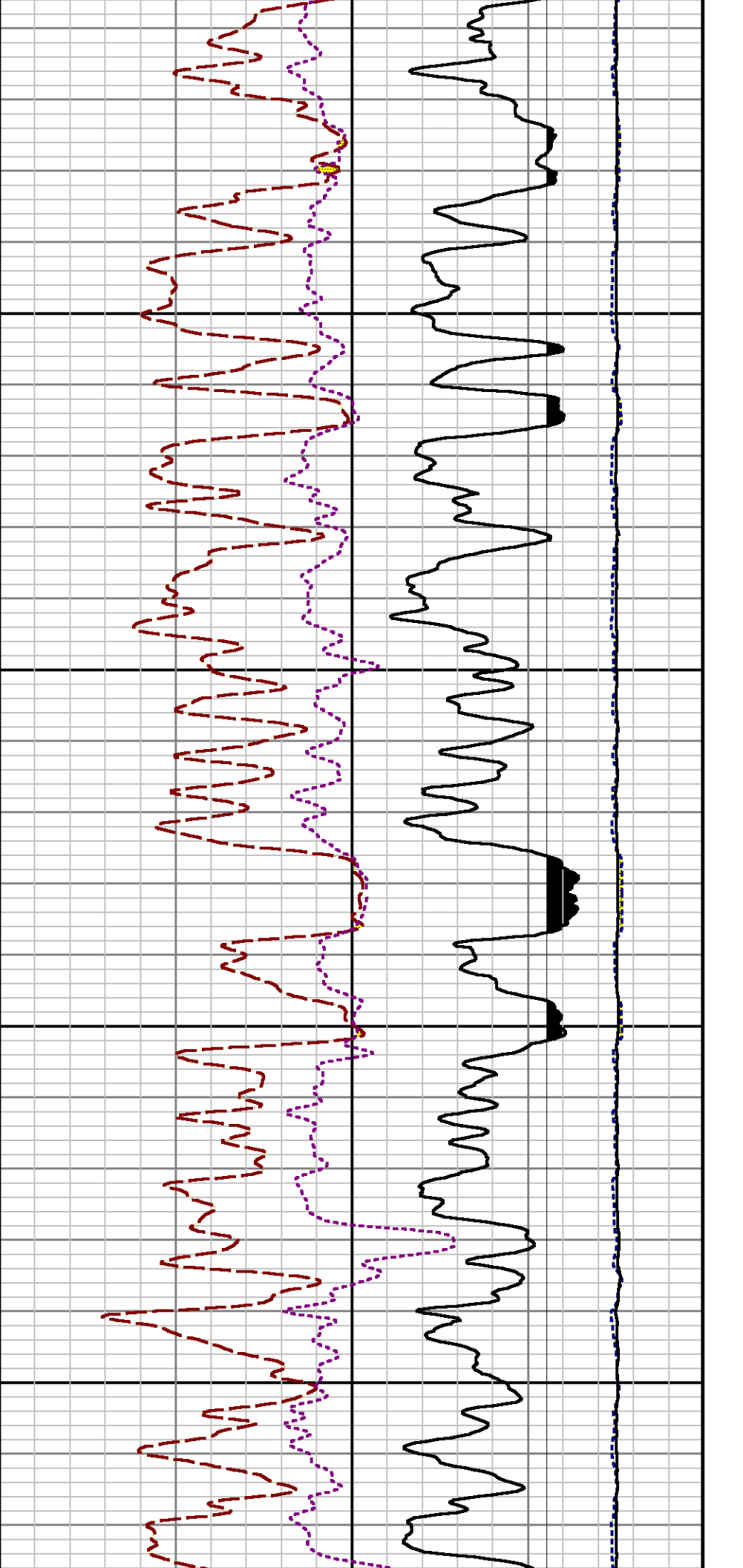


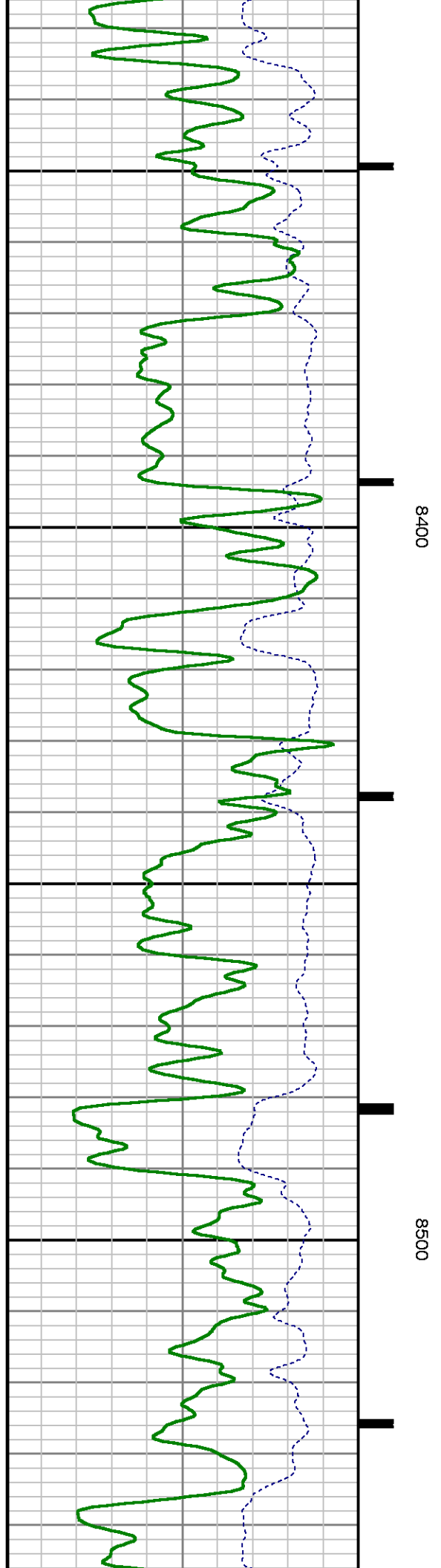
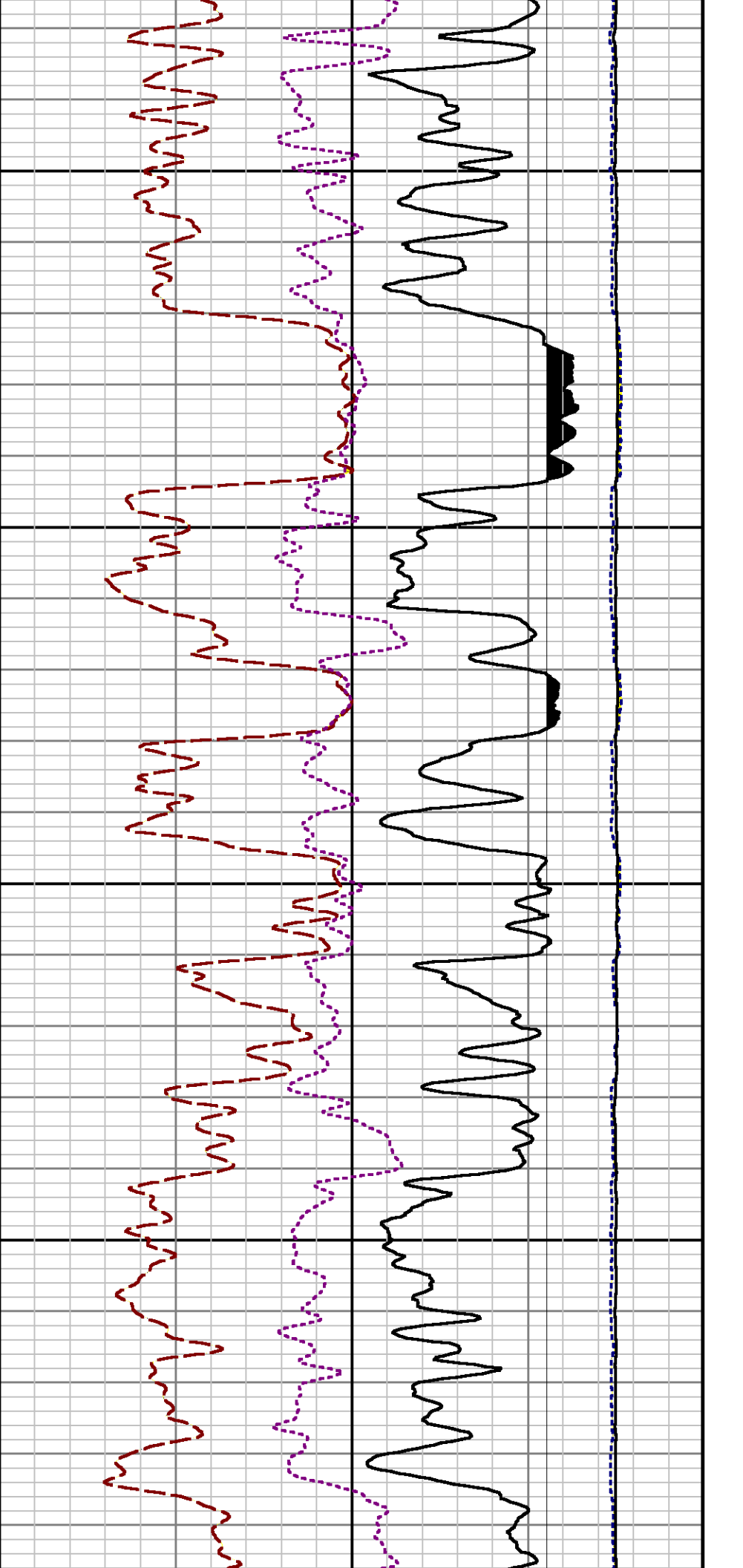
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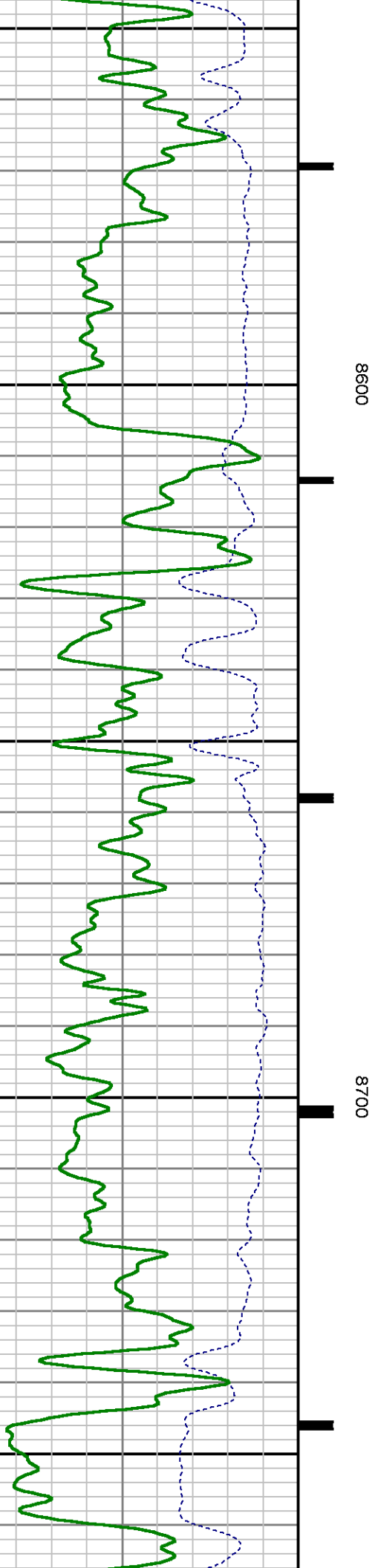
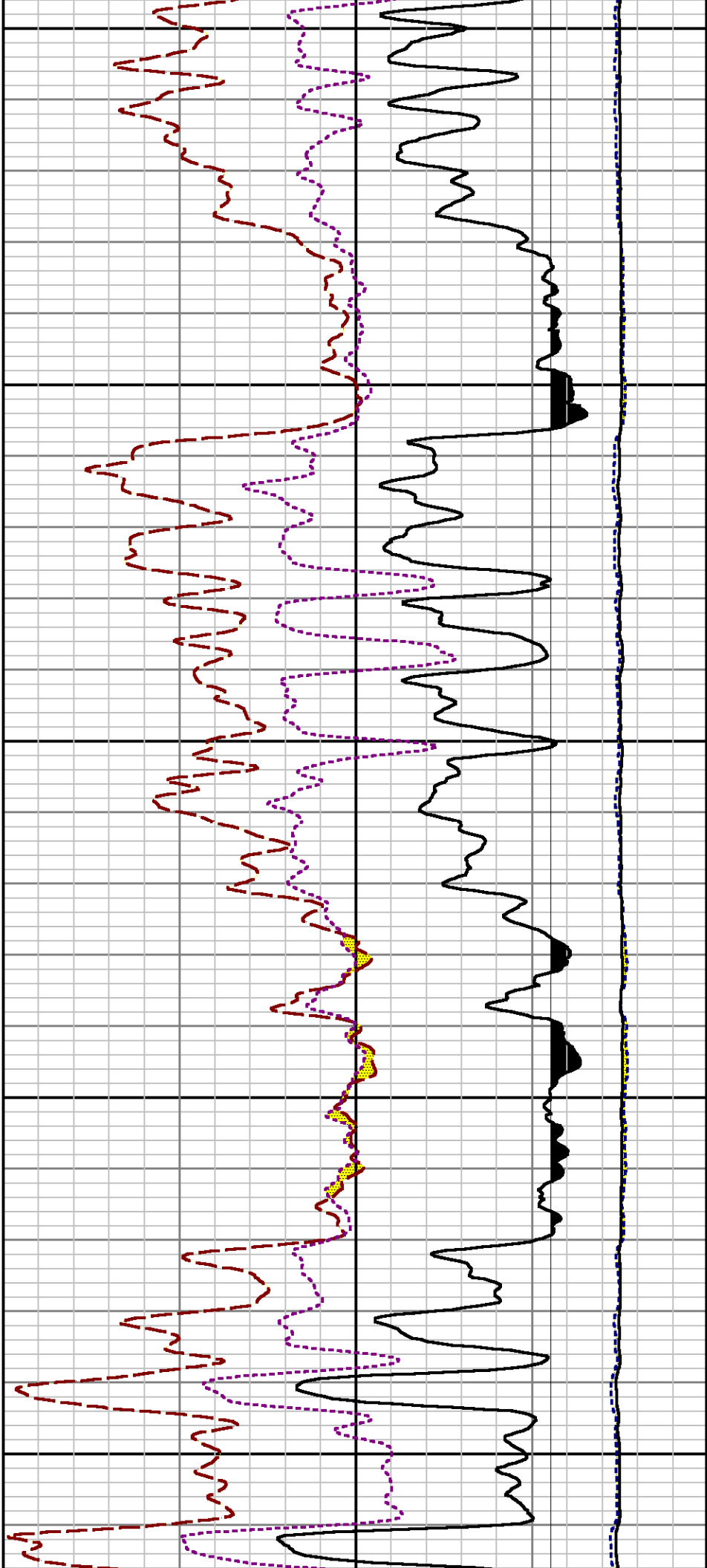
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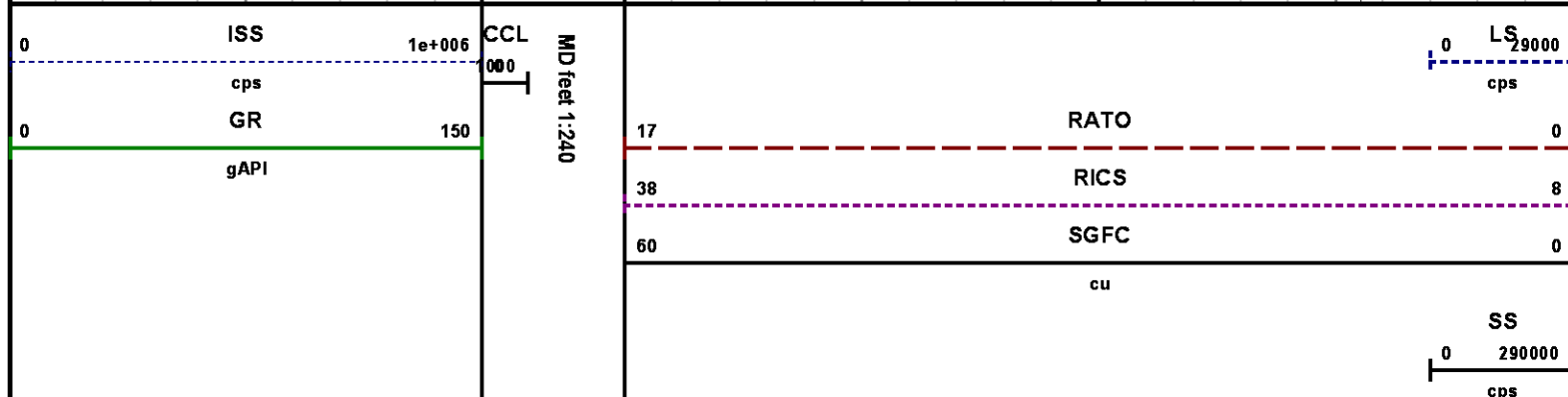
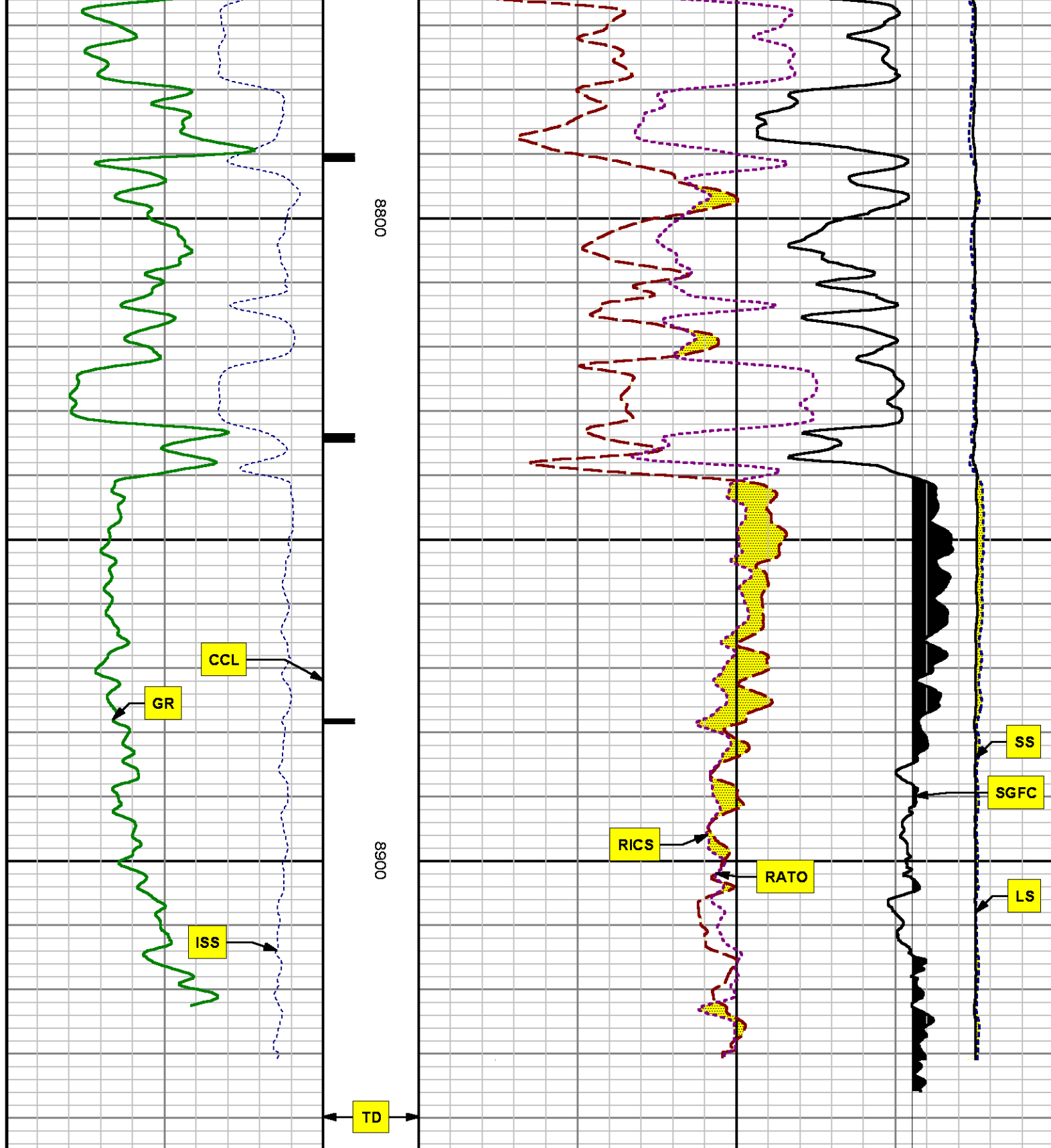
8100











REPEAT SECTION

PNC 3-D MODE

SPL PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
PNC Porosity	Borehole	Cased		8109.900	8440.180
PNC Porosity	Borehole Size	8.750	inch	8109.900	8440.180
PNC Porosity	Casing Size	4.500	inch	8109.900	8440.180
PNC Porosity	Gas Filled	Non Gas Filled		8109.900	8440.180
PNC Porosity	Matrix	Sandstone		8109.900	8440.180
TPS Pressure	Temperature Corr. Source	Fixed (72.00)	degF	8109.900	8440.180

DEPTH OFFSETS

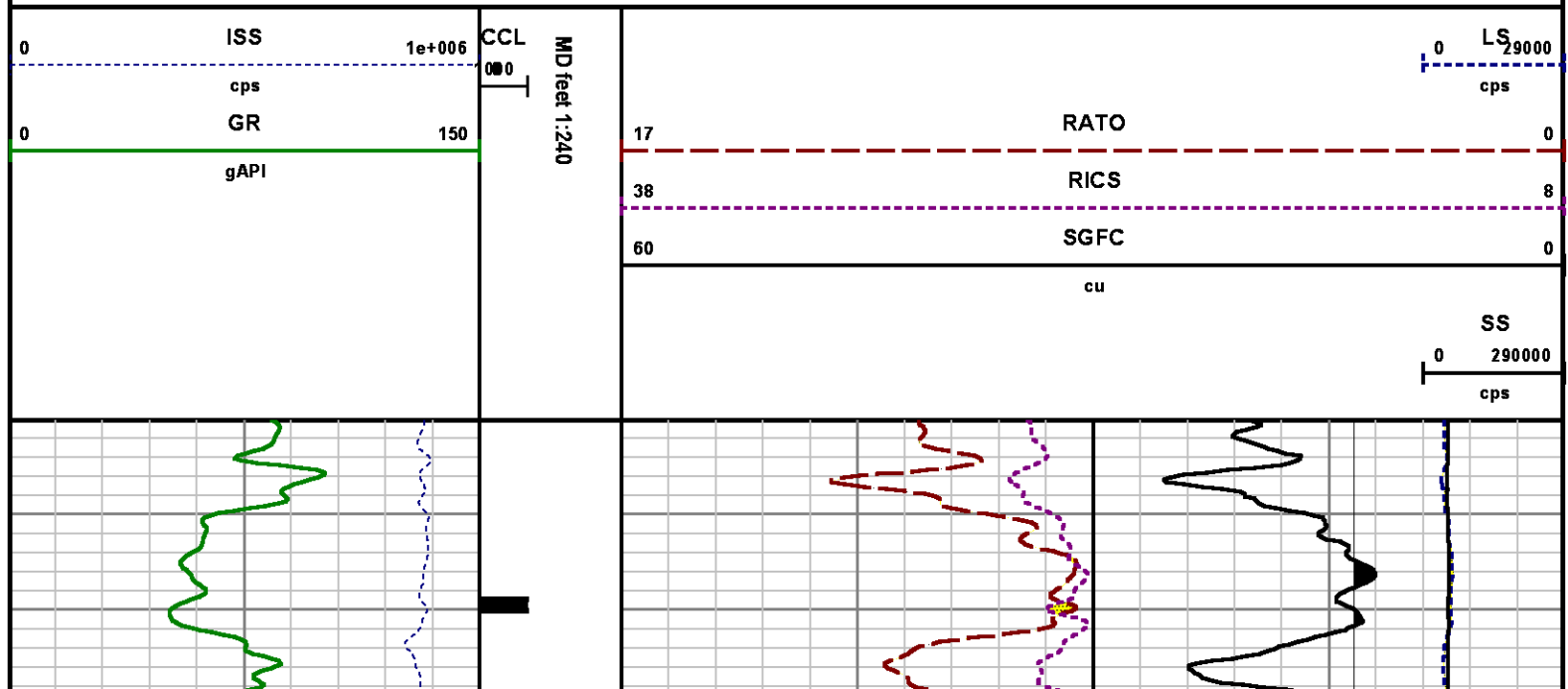
(for Acquired Curves)

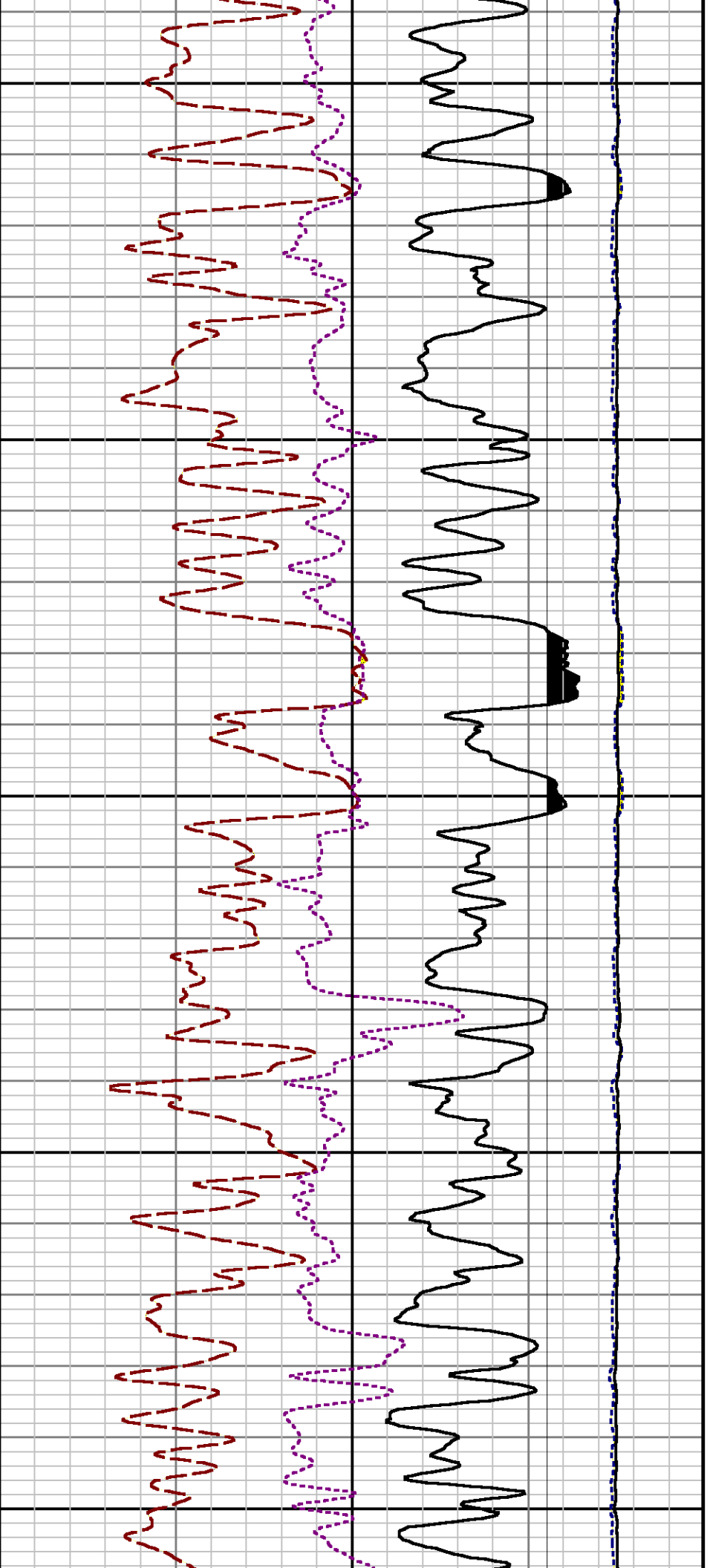
SERIES	DEPTH OFFSET	ACQUIRED CURVES
8248ED	-26.519	FLTM
8248ED	-24.519	CCL CHV
2812LA	-21.969	GR
8281XA	-12.702	HVC3Q0 SEQ3 AMA3 AML3 BKX CXS CPT3Q0 CPT3Q2 CPT3Q3 CPT3Q4 ET3 IXS MCS3 MCS3Q0 QCAL3 RGN3 RICX SDA3 SDL3 SGA3 SGL3 STA3 XS ASPEC3 AMB3 AMF3 CHF3 IXSC IXSN RATO23 RICXC RIN13C RIN23 RIN23C SD3D SG3D SGB3 SGF3 WDT3 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 RTWO23 SDA2 SDL2 SGA2 SGB2 SGF2 SGK2 SGL2 STA2 ASPEC2 ILSC ILSN WDT2 RICLC CLSR ILSR LSR RICLR
8281XA	-12.041	CPRS HVC1Q0 MV SEQ SEQ1 AMA1 AMB1 AMF1 AMF1 AML1 BKX CHF1

AMBT	AMET	AMPT	AMLT	BRS	CHPT
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
RTWO	RIN13	RONE13	RTWO13	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	H0C	FE2XC	ISSC	RINC
ISSN	RDEN	WDTH1	RICSC	CSSR	G1R
G2R	ISSR	SSR	SS2R	RATOR	RATO13R
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

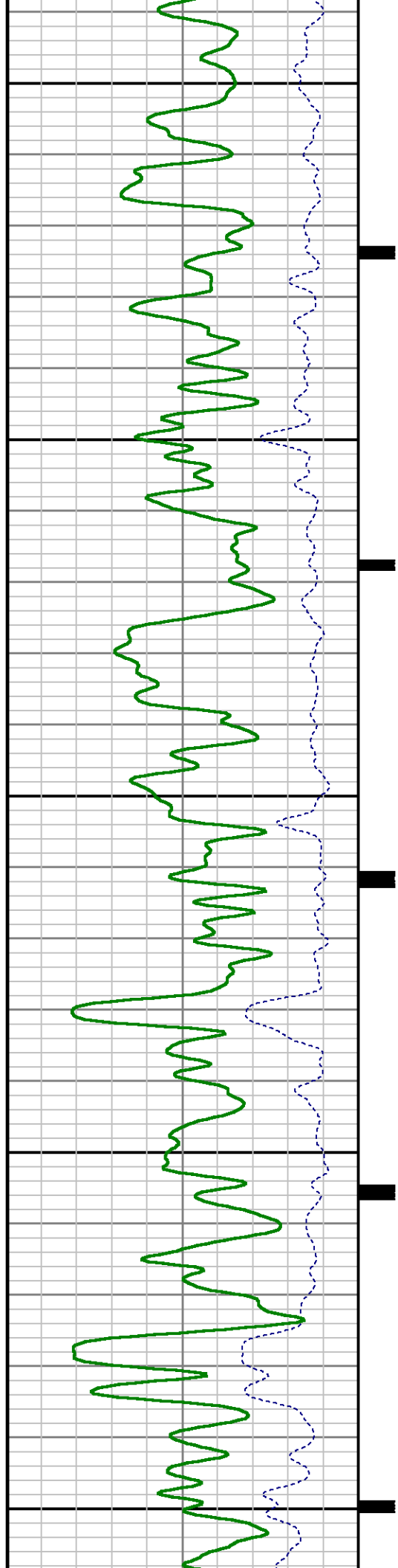
Created by : RPM9, v5.3.1.0
Plotted by : PlotMgr, v5.4.504
Company : WPX ENERGY
Well : SAVAGE RWF 514-25
File Name : d:\welldata\wpx\rwf 514-25\514rpm\repeat.xtf
Mode : PlotMgr 5.4.504
Interval : 8110.15 - 8410.00 feet UP
Created : 3/15/2014 11:19:27 AM

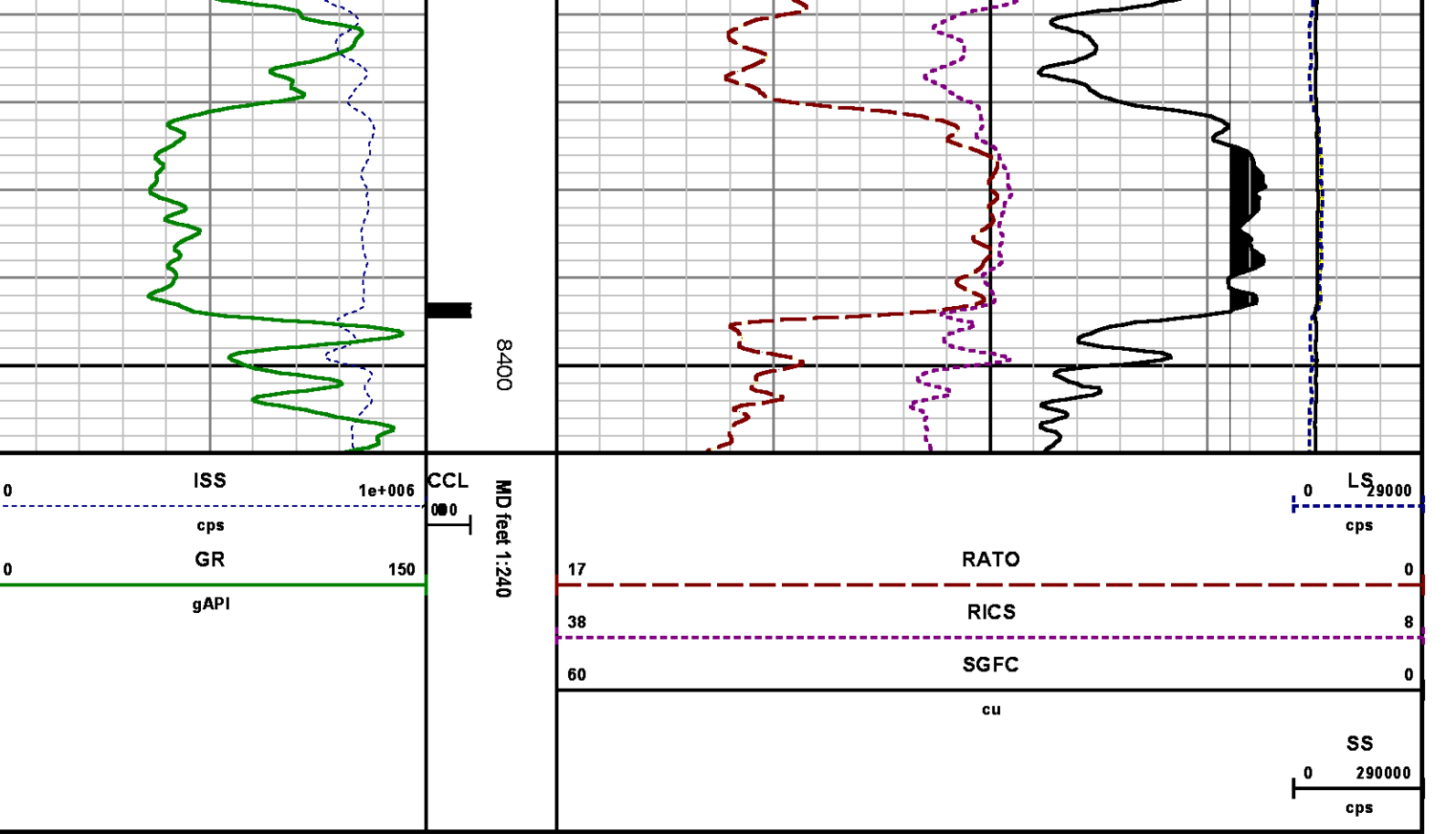




8200

8300





CALIBRATION SUMMARY

GAMMA RAY

Calibration File: C:\case\calver\GR\38209.cal

CALIBRATION SUMMARY						
DATE/TIME PERFORMED:		Sun Mar 09 17:06:22 2014		TOOL SERIES:	2812LA	ASSET: 382 SEQ: 09
Calibrator #	Background [cps]	Calibrator On [cps]	Multiplicative	Background [api]	Calibrator On [api]	Differential [api]
S2K WA-612	34.21	244.93	0.997	34.09	244.09	210.00

Verification File: C:\case\calver\GR\38209.VP

PRIMARY VERIFICATION						
DATE/TIME PERFORMED:		Sun Mar 09 17:10:55 2014		TOOL SERIES:	2812LA	ASSET: 382 SEQ: 09
Calibrator #	Background [cps]	Calibrator On [cps]	Multiplicative	Background [api]	Calibrator On [api]	Differential [api]
S2K WA-612	34.68	245.32	0.997	34.56	244.48	209.92

TEMPERATURE

Calibration File: C:\case\calver\TEMP\7745684.cal

CALIBRATION SUMMARY

DATE/TIME PERFORMED: FEB 03 2014 TOOL SERIES: 8255XA ASSET: 774568 SEQ: 4

	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

PNC

Calibration File: C:\case\calver\PNC\25101.cal

PNC 3D CALIBRATION SUMMARY

DATE/TIME PERFORMED: Thu Mar 13 14:14:10 2014 TOOL SERIES: 8281XA ASSET: 251 SEQ: 01

Calibrator #

GJSHOP GJSHOP

Source #

8281AA 10220684

	ISS	Mtr Vlt (V)	SS Gain	LS Gain	XLS Gain	EA Temp (degF)	Sync Delay (usec)	RCAL
Raw Data	814019	123.00	2309.00	2303.00	2319.00	107.03	7.00	0.9802
Interpolated	1300000	144.37	2293.78	2297.36	2317.30			

	ISS	BKS	BKL	BKX	SGA1	SDA1	SGA2	SDA2
Raw Data	814019	9005.19	1478.68	184.20	25.79	0.14	24.40	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	814019	171904.59	27109.32	91110.88	32439.69	8459.48	55168.11	13542.46
Fit Quality %		0.43	0.66	0.58	0.56	0.43	0.55	0.45

	ISS	RBOR	RIN ISS/ILS	RIN13 ISS/IXS	RICS ISS/CSS	RATO SS/LS	RTWO SS2/LS	RONE CSS/CLS
Raw Data	814019	1.43	4.74	30.03	14.76	10.77	3.83	4.07
		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 %		0.03	0.25	0.16	0.19	0.07	0.05	0.05
Reduced	1378500	1.43	4.75	30.10	14.80	10.76	3.83	4.07
		1.42 1.45	3.55 5.52	22.20 32.70	10.75 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

SONDEX GAMMA RAY

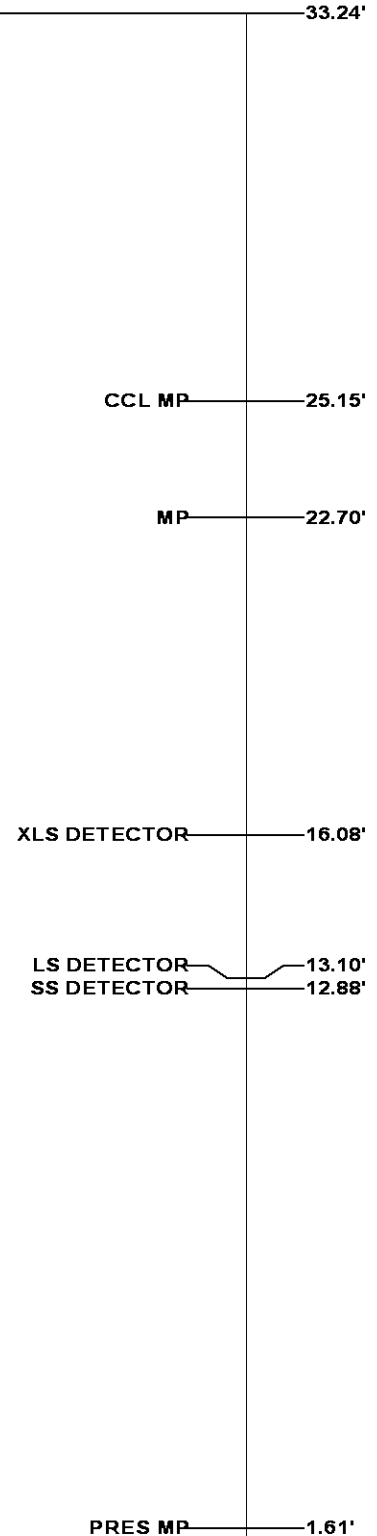
Series 2812LA
 Mnemonic SNDX
 Diameter 1.69"

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'

0.00'

Total Length: 33.24'**Total Weight: Not Available****Max Diameter: 0' 1.70"****Baker Atlas***CASE***Company****WPX ENERGY****Well****SAVAGE RWF 514-25****Field****RULISON****County****GARFIELD****State****COLORADO****Location****SHL: 1610' FSL & 2295' FWL****BHL: 317' FSL & 435' FWL (SWSW)****SEC****25****TWP****6S****RGE****94W****Elevations****KB 6122 ft****DF****GL 6096 ft****File No:****CH082862****API No:****05045219890000****25 6S 94W****RWF 23-25 PAD****NABORS 577**