



RESERVOIR PERFORMANCE MONITOR

Baker Atlas

File No: WPX ENERGY

CH082309 SAVAGE RWF 14-25

API No: RULISON

05045219800000 County GARFIELD State COLORADO

Location

25 6S 94W SHL: 1699' FSL & 2295' FWL

RWF 23-25 PAD BHL: 501' FSL & 836' FWL (SWSW)

NABORS 677 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	31/JAN/14	
Run	ONE	
Service Order	US62E098	
Depth Driller	8819 ft	
Depth Logger	8797 ft	
Bottom Logged Interval	8787 ft	
Top Logged Interval	4669 ft	
Time Started	1430	
Time Finished	2030	
Operator Rig Time	6 HRS	
Type of Fluid in Hole	WATER	
Fluid Density	NA	
Salinity	NA	
Fluid Level	71 ft	
Logged Cement Top	NA	
Wellhead Pressure	0 psi	
Maximum Hole Deviation	NA	
Nominal Logging Speed	10 fpm	
Maximum Recorded Temperature	230 degF	
Reference Log	BAKER HUGHES BOND LOG	
Reference Log Date	31/JAN/14	
Equipment No.	4271	GRAND JCT
Recorded By	FLORYD 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	1139 ft
8.75 in	1139 ft	8819 ft

Casing Record				
Size	Weight	Grade	From	To
9.625 in			0 ft	1139 ft
4.5 in	11.6 lbm/ft	I-80	0 ft	8819 ft

Remarks
All data on this log is shifted and depth matched using the Gamma Ray curve to the Baker Hughes bond log dated 1/31/2014 at the client's request.
The amount of linear shift is 10 feet.
Logged in PNC-3D mode.
BHT = 230 °F
SJ = 5163'-5187'

Equipment Data					
Run	Trip	Tool	Series Number	Serial Number	Position
1	1	TEMP	8255XA	Z176973	FREE
1	1	RPM	8281FA	10401926	FREE
1	1	RPM	8281PA	10160383	FREE
1	1	RPM	8281EA	10273848	FREE
1	1	GR	2812LA	10274385	FREE
1	1	TEL/CCL	8248EA	Z120493	FREE
1	1	PCM	8250EA	10314363	FREE

MAIN SECTION
PNC 3-D MODE

SPL PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
PNC Porosity	Borehole	Cased		4639.750	8807.687
PNC Porosity	Borehole Size	8.750	inch	4639.750	8807.687
PNC Porosity	Casing Size	4.500	inch	4639.750	8807.687
PNC Porosity	Gas Filled	Non Gas Filled		4639.750	8807.687
PNC Porosity	Matrix	Sandstone		4639.750	8807.687
TPS Pressure	Temperature Corr. Source	Fixed (72.00)	degF	4639.750	8807.687

DEPTH OFFSETS
(for Acquired Curves)

SERIES	DEPTH OFFSET	ACQUIRED CURVES
8248EA	-26.519	FLTM
8248EA	-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

8281XA -12.291

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

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 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 WDT1 RICSC CSSR G1R
G2R ISSR SSR SS2R RATOR RATO13R
RBORR RICSR RINR RIN13R RONE 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 14-25

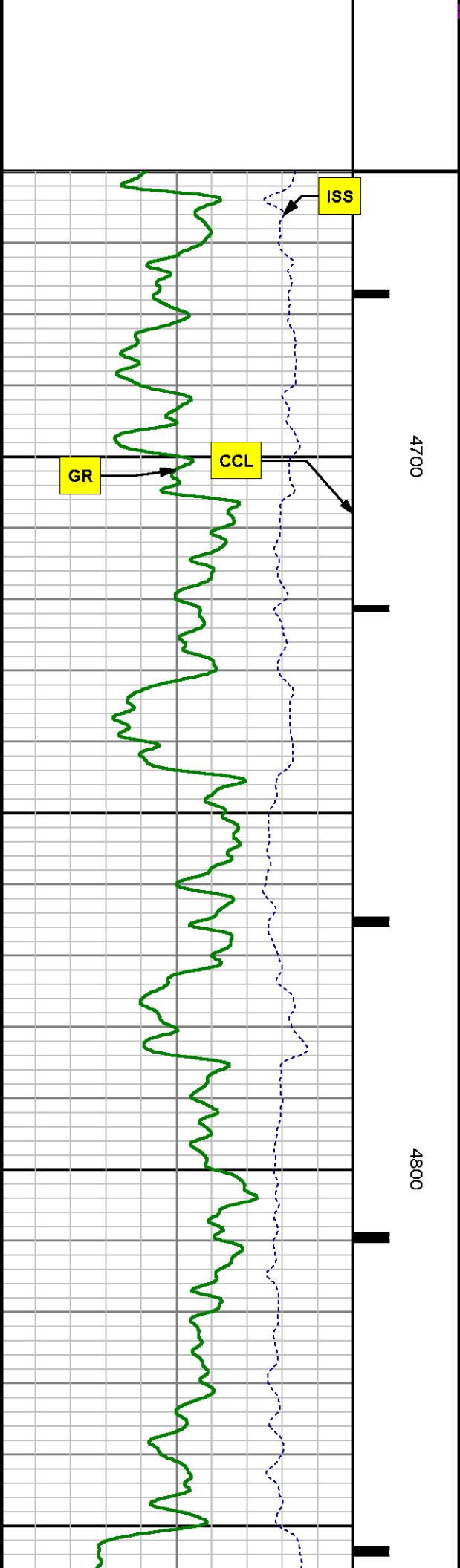
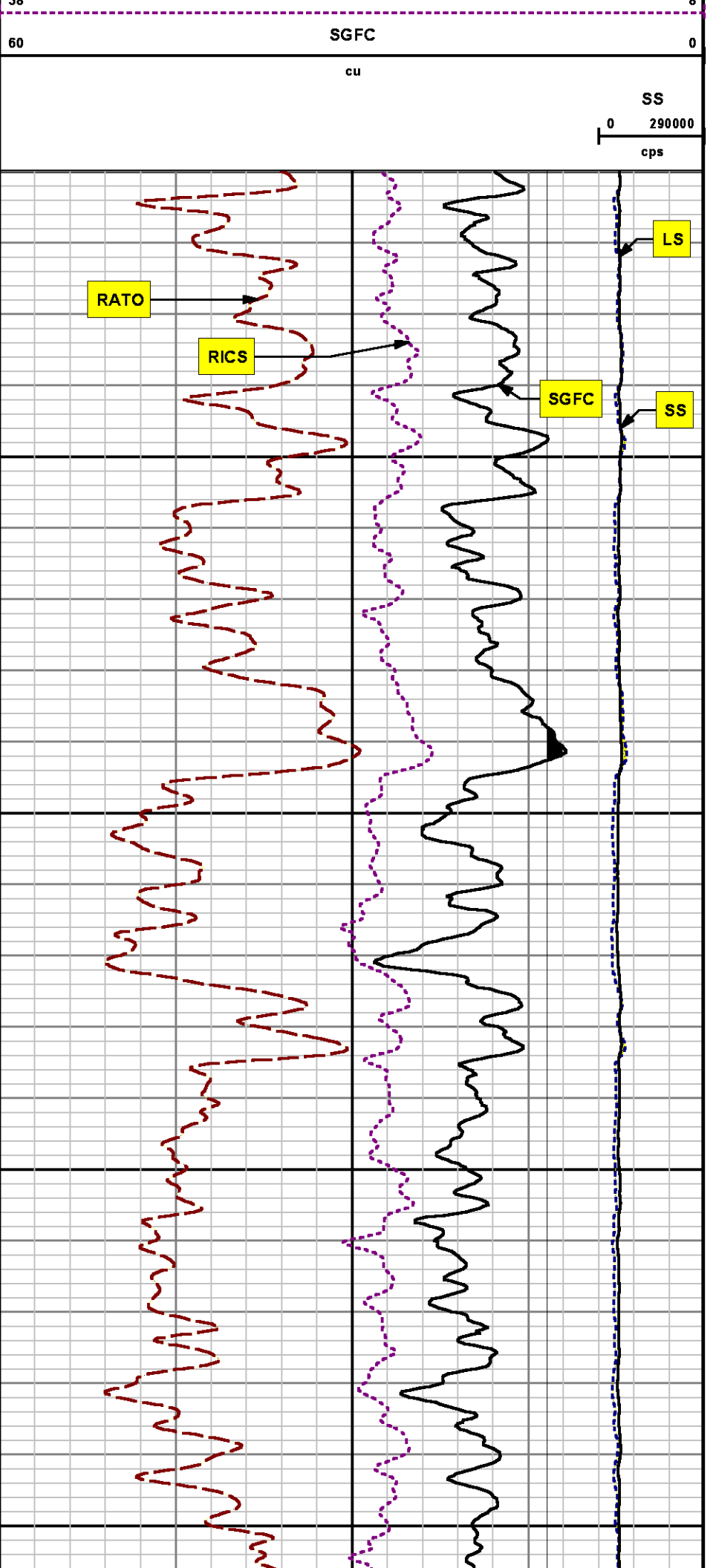
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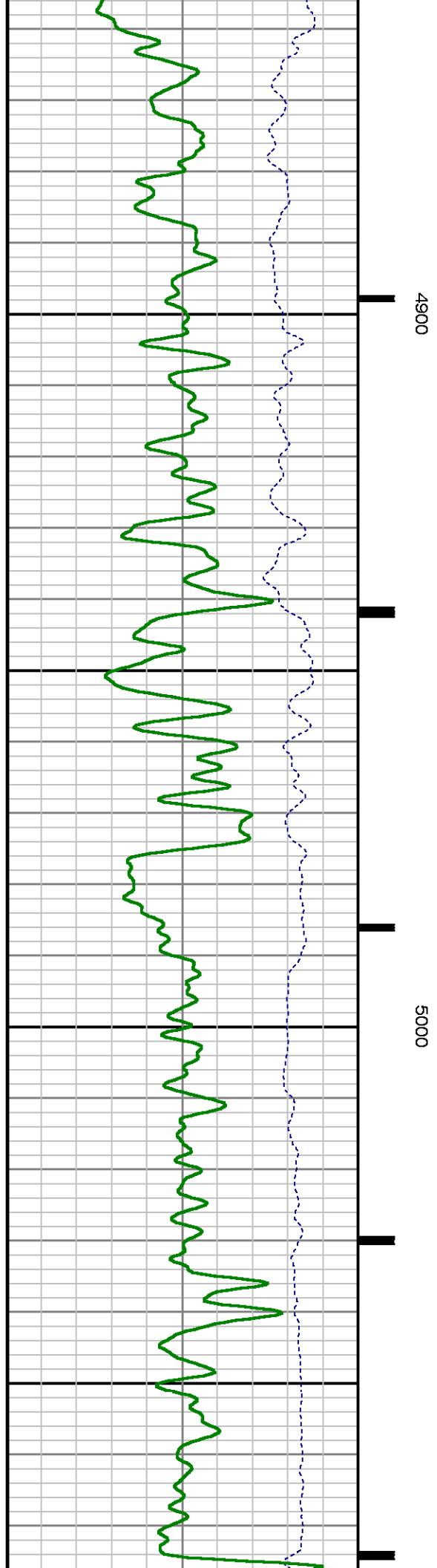
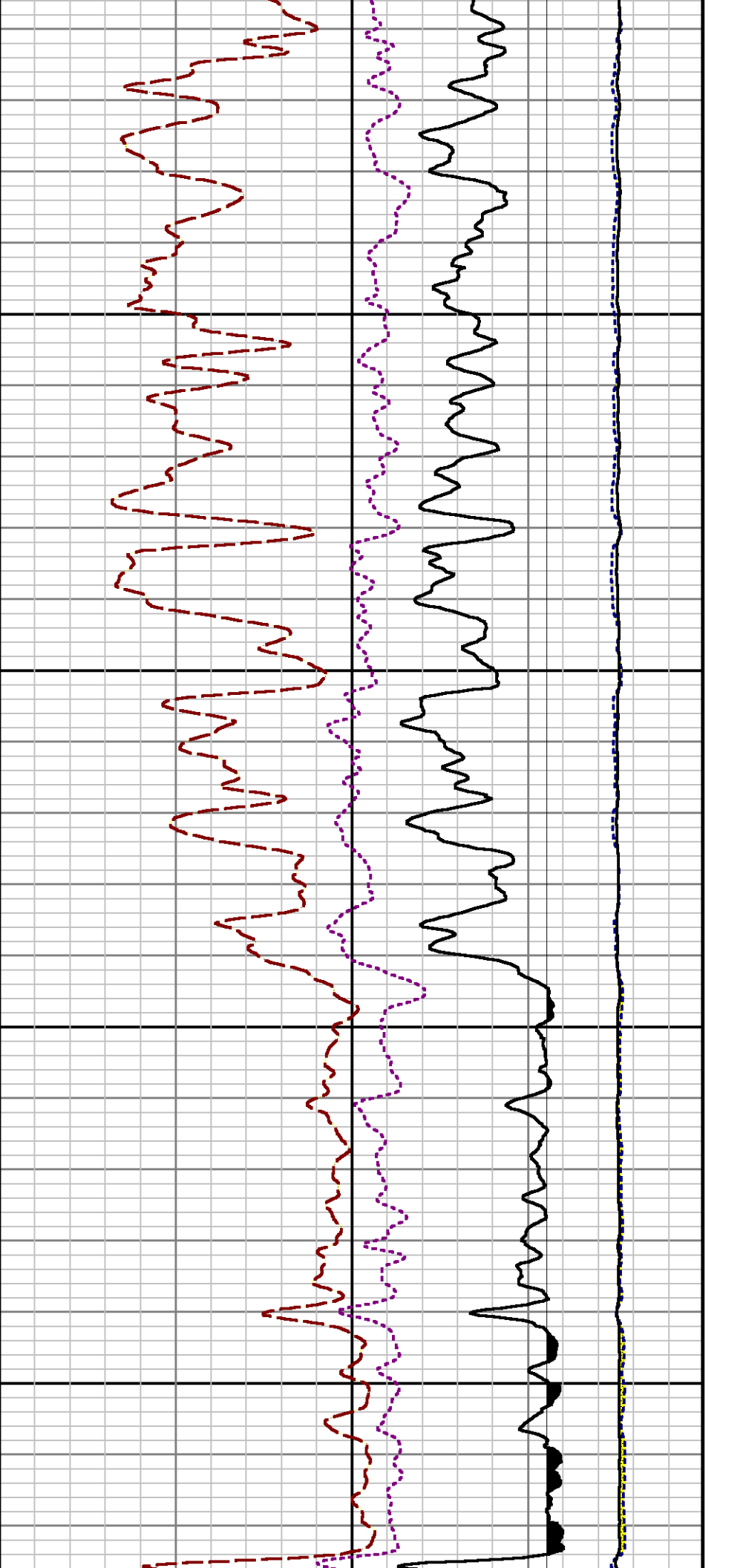
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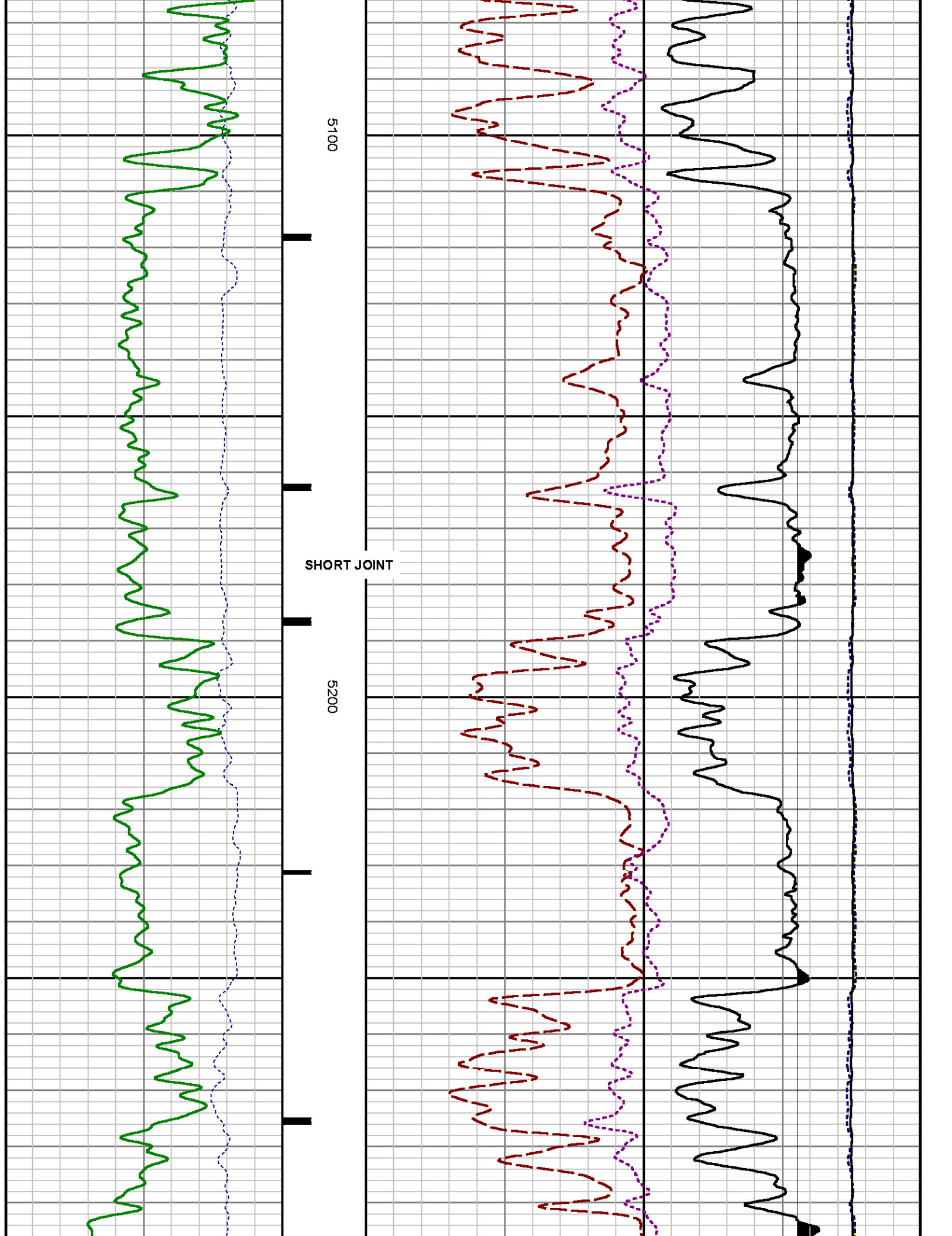
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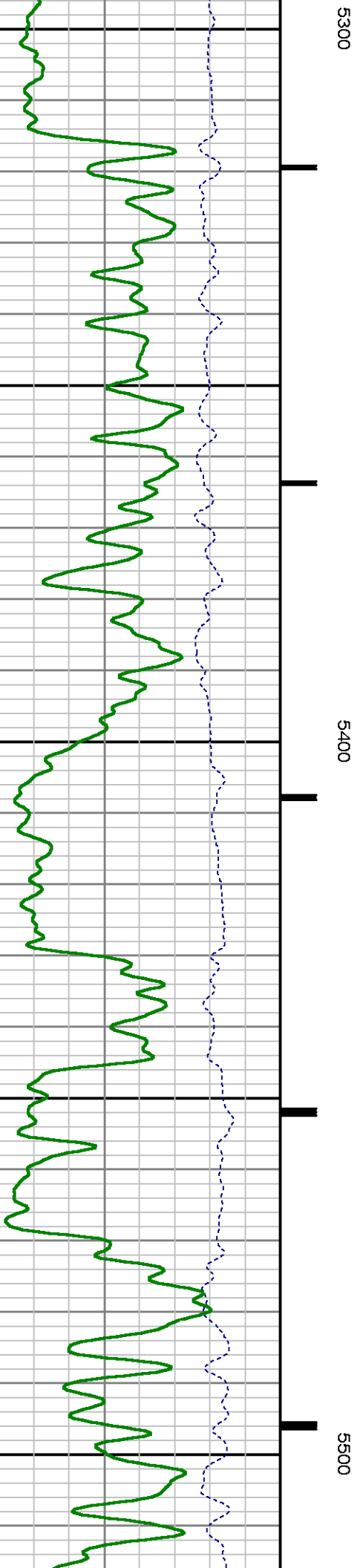
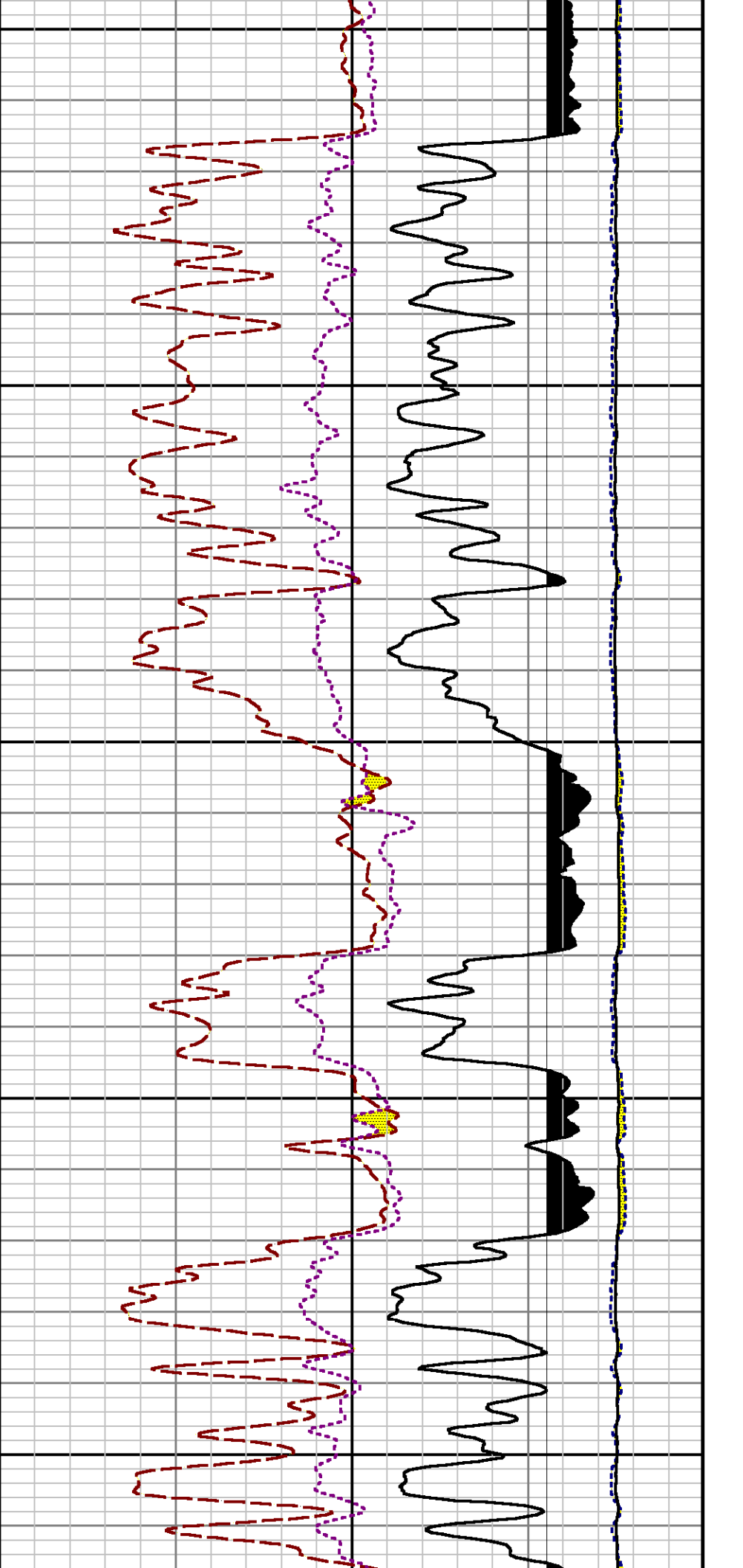
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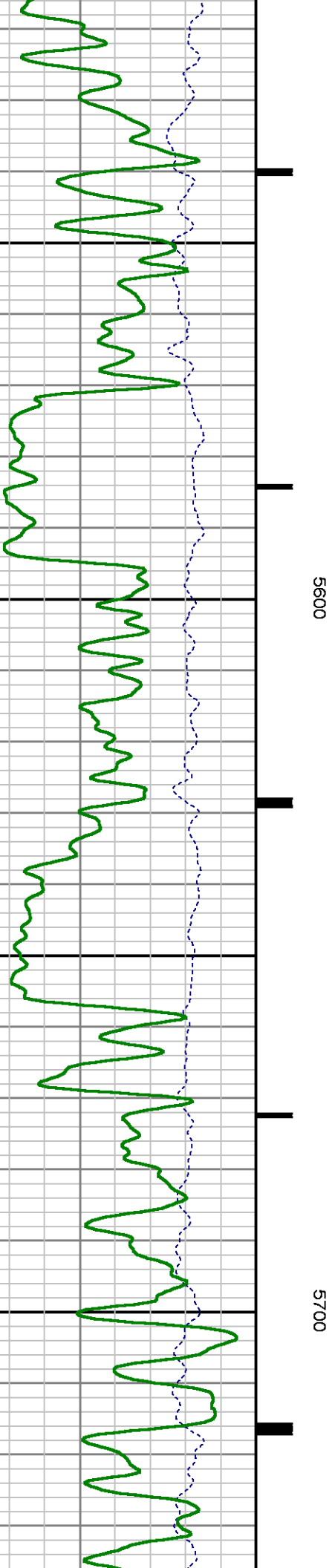
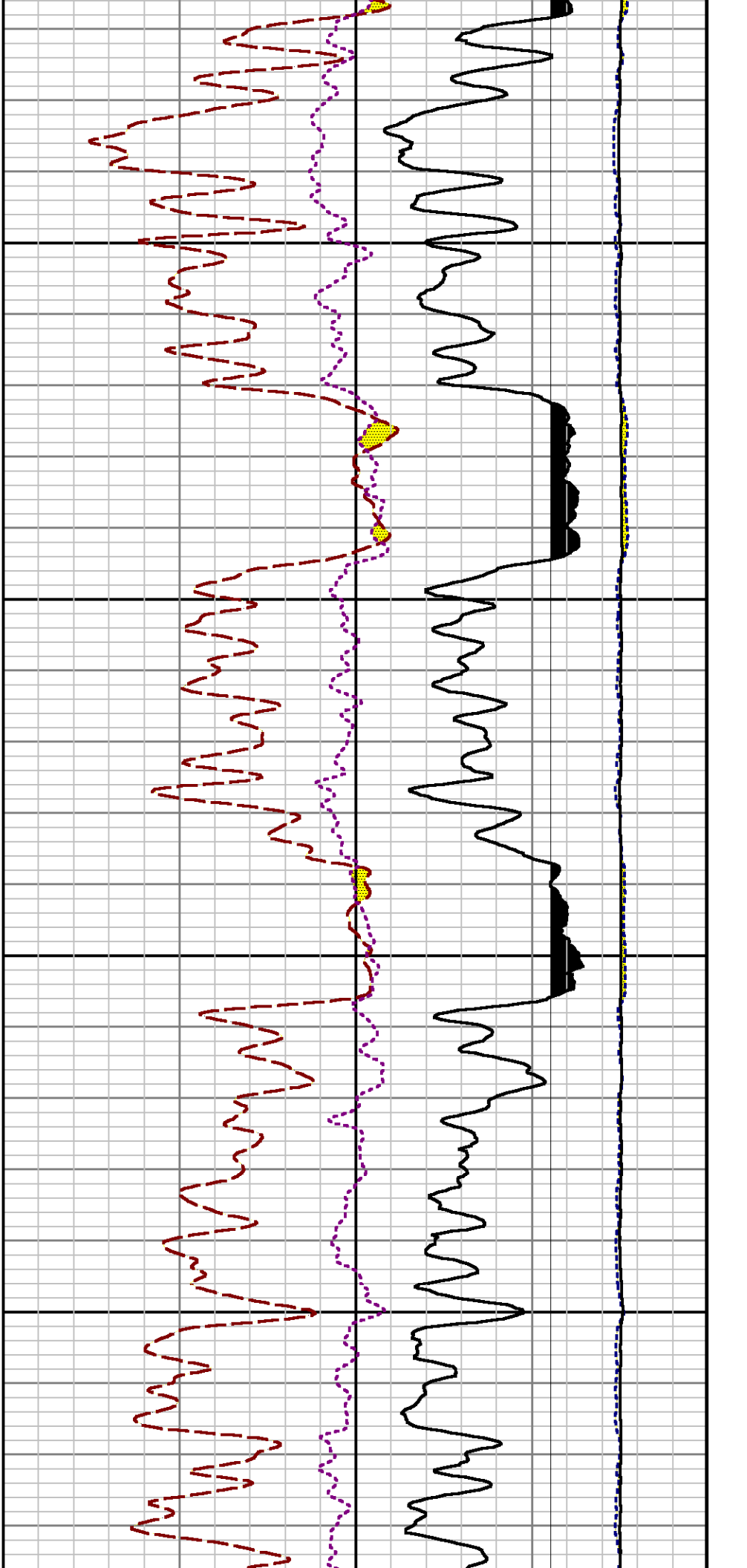


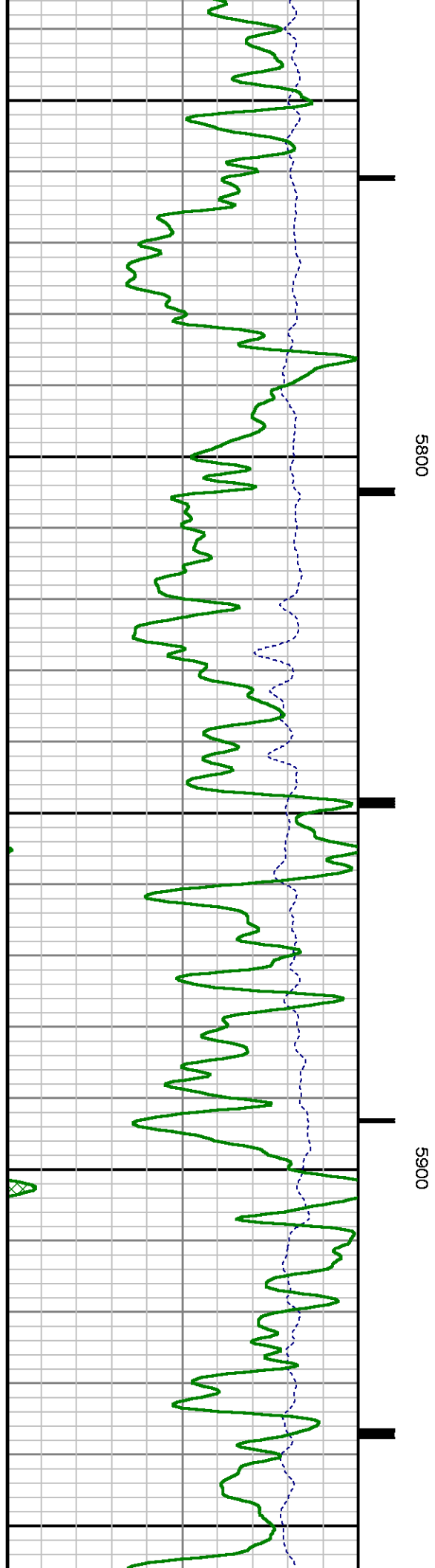
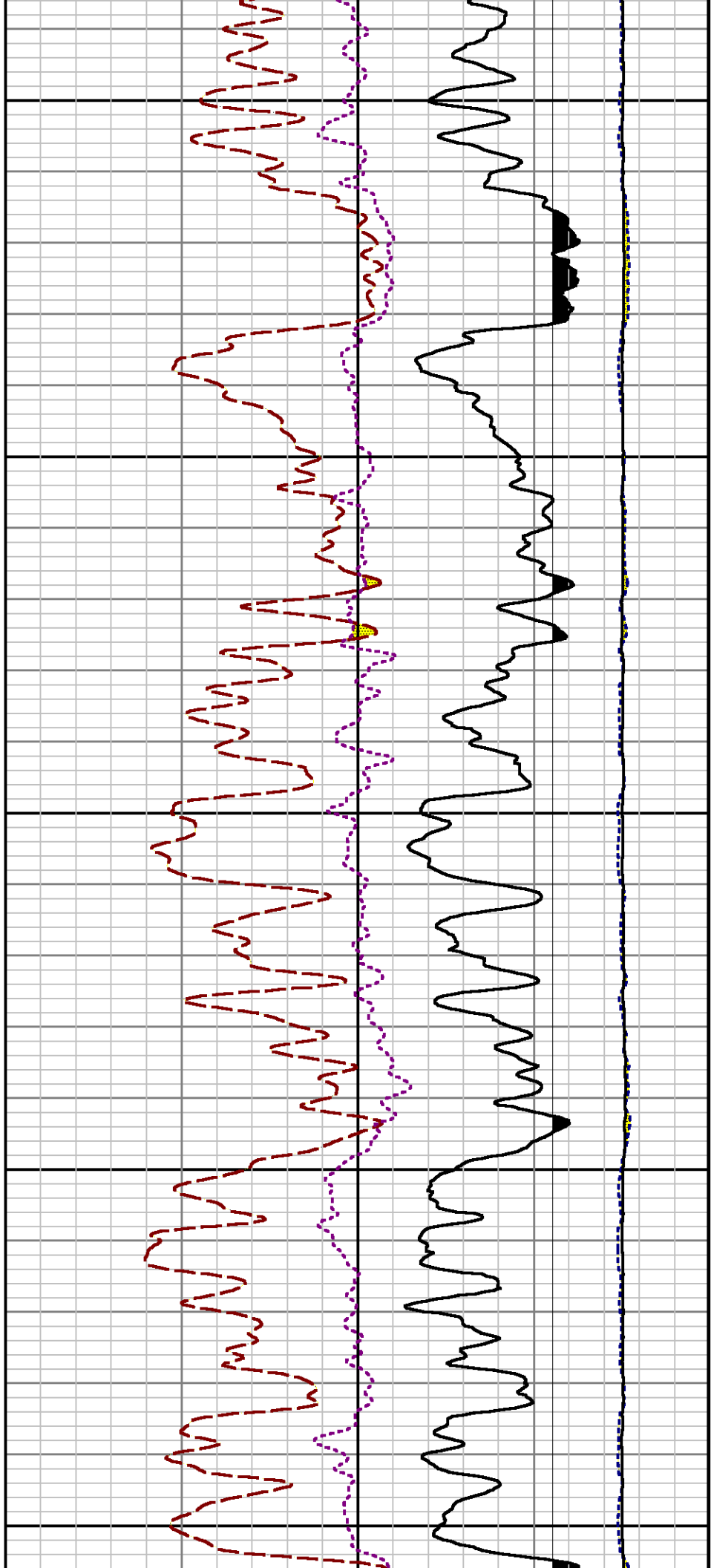


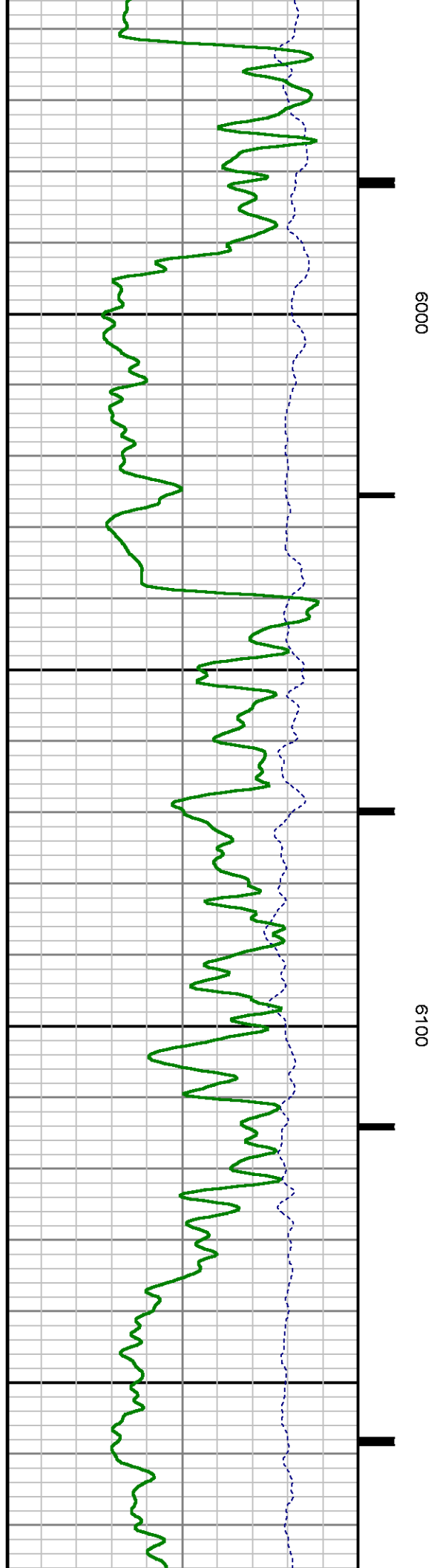
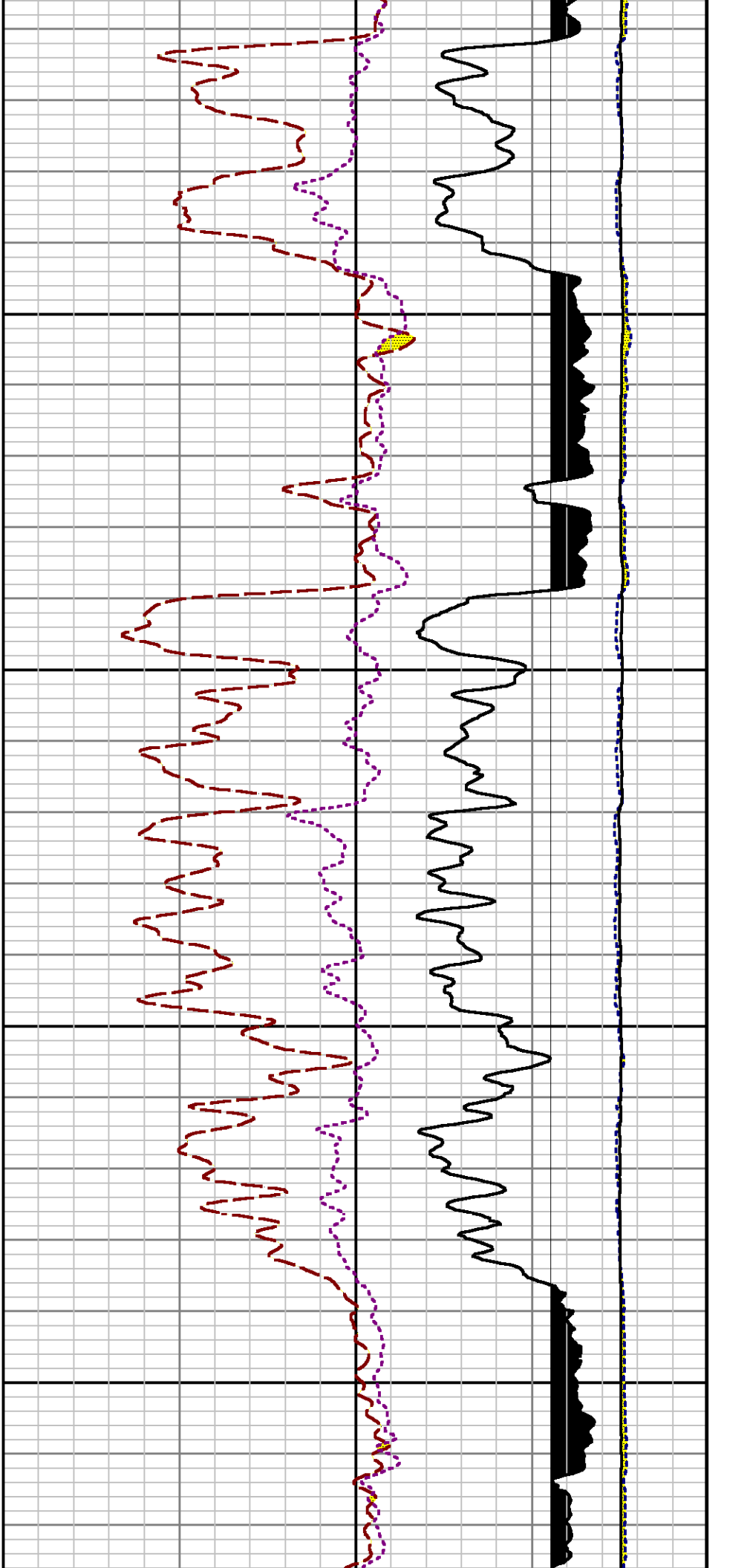


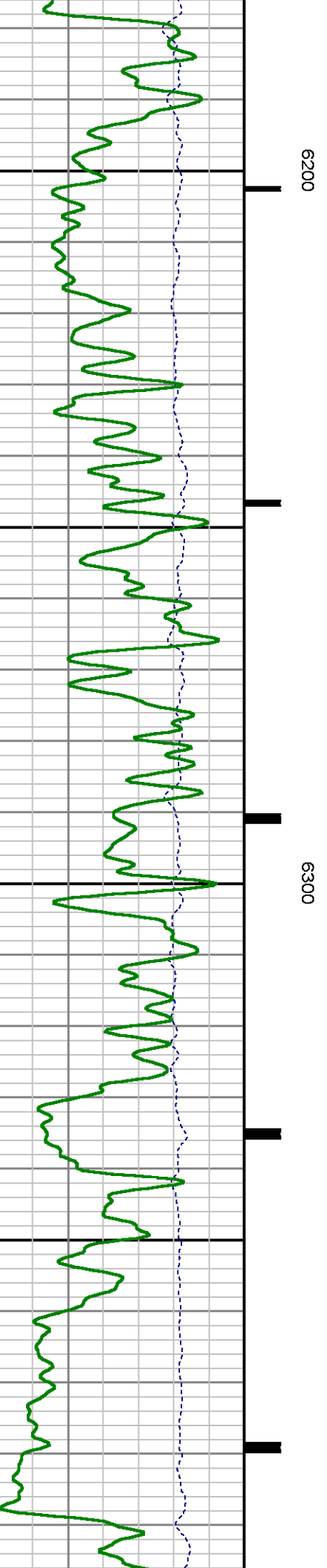
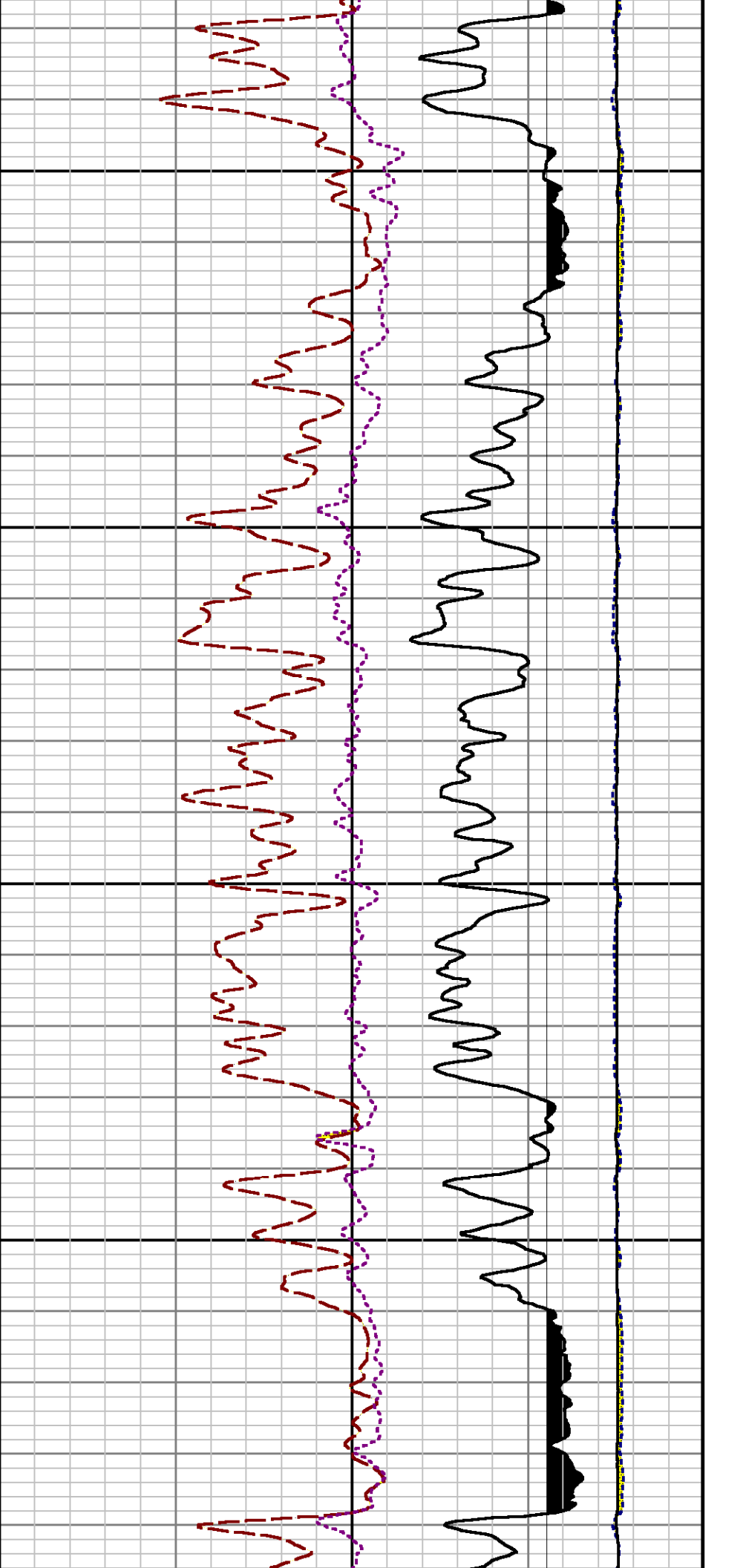


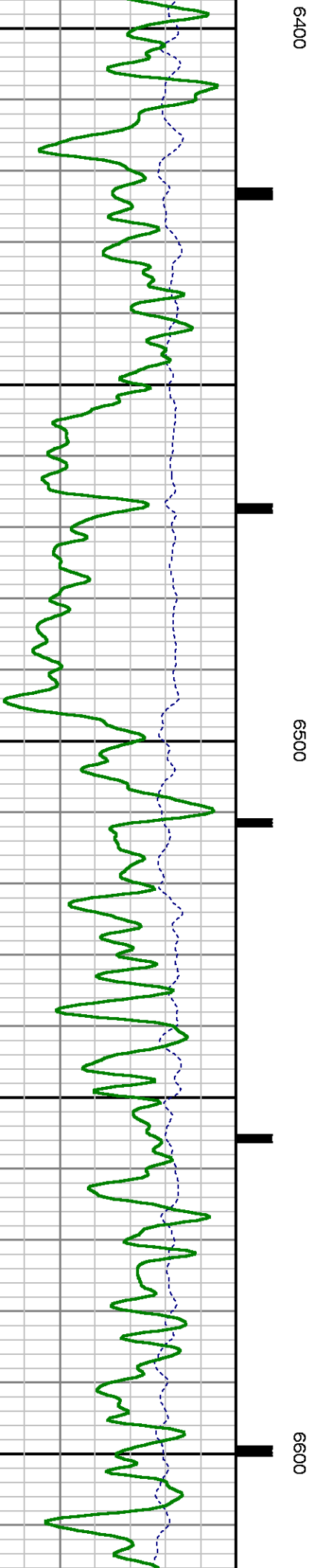
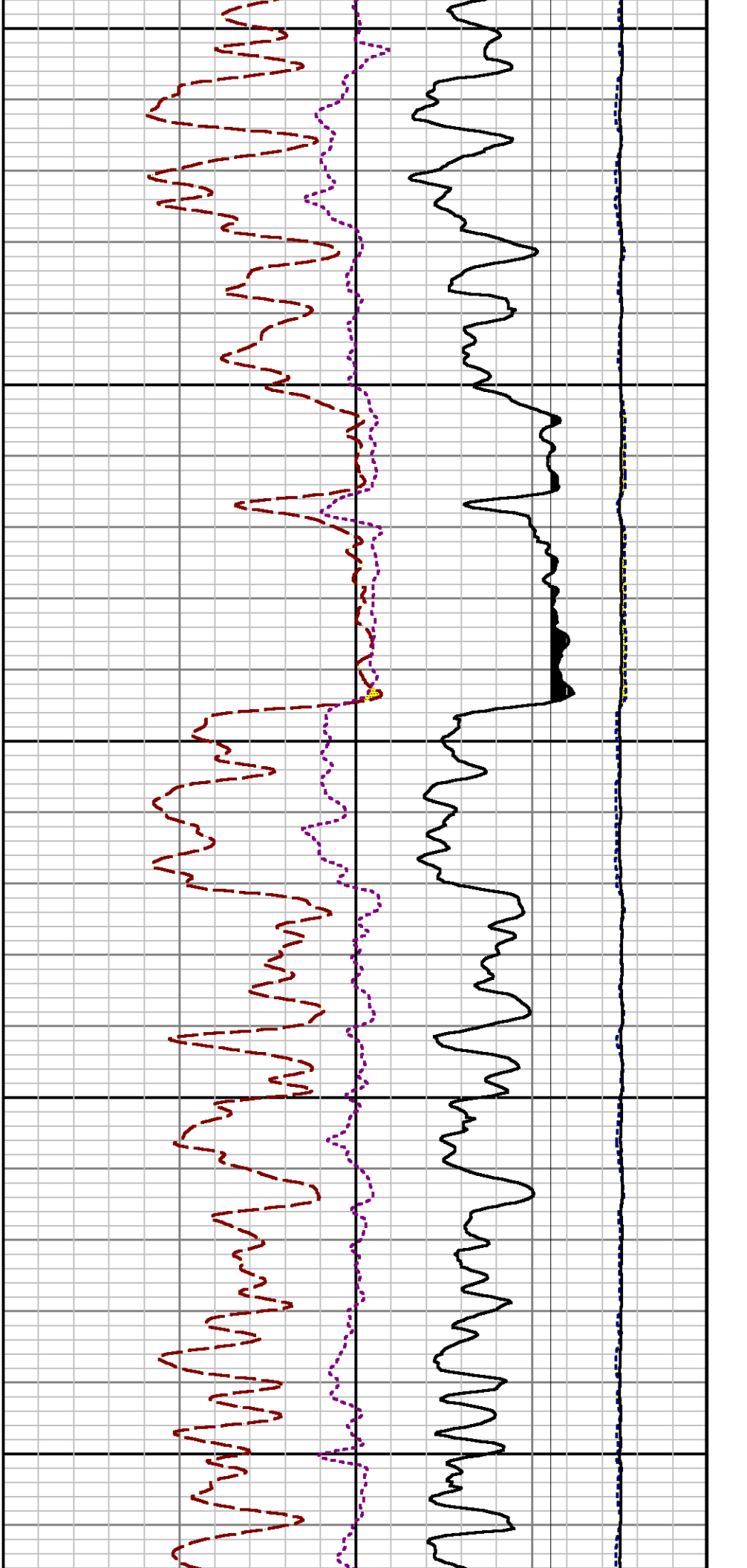


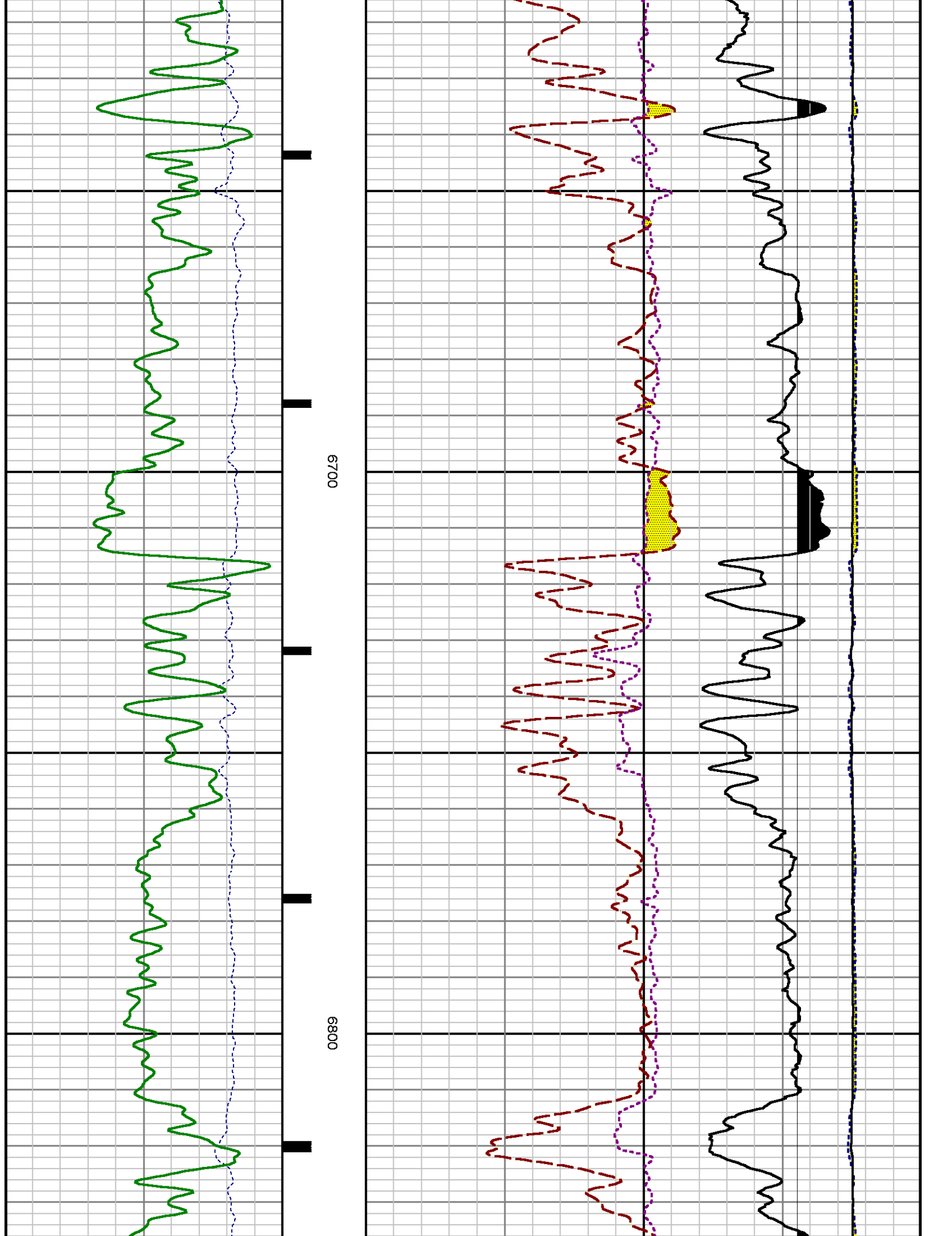


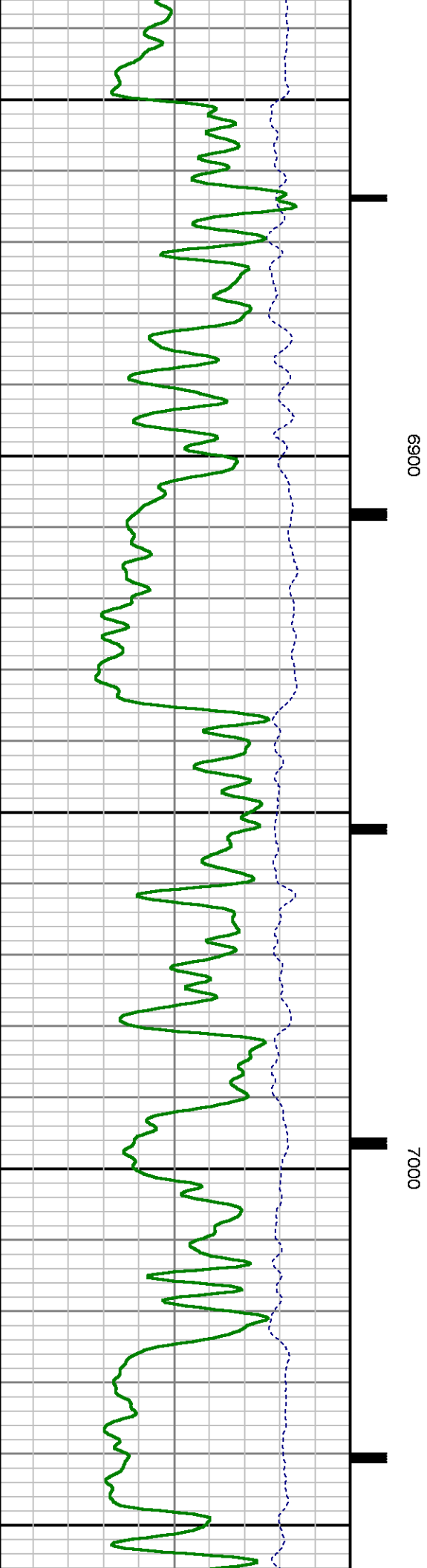
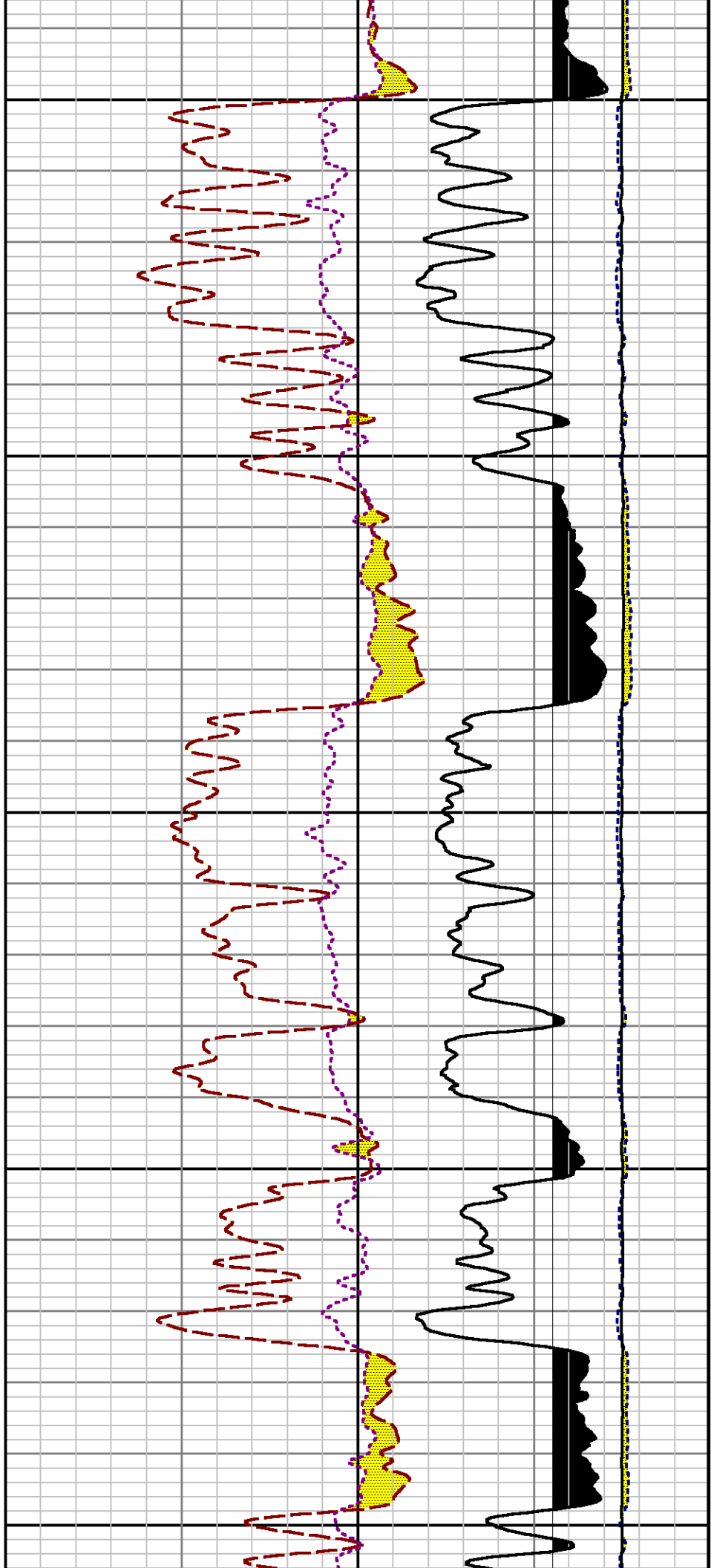


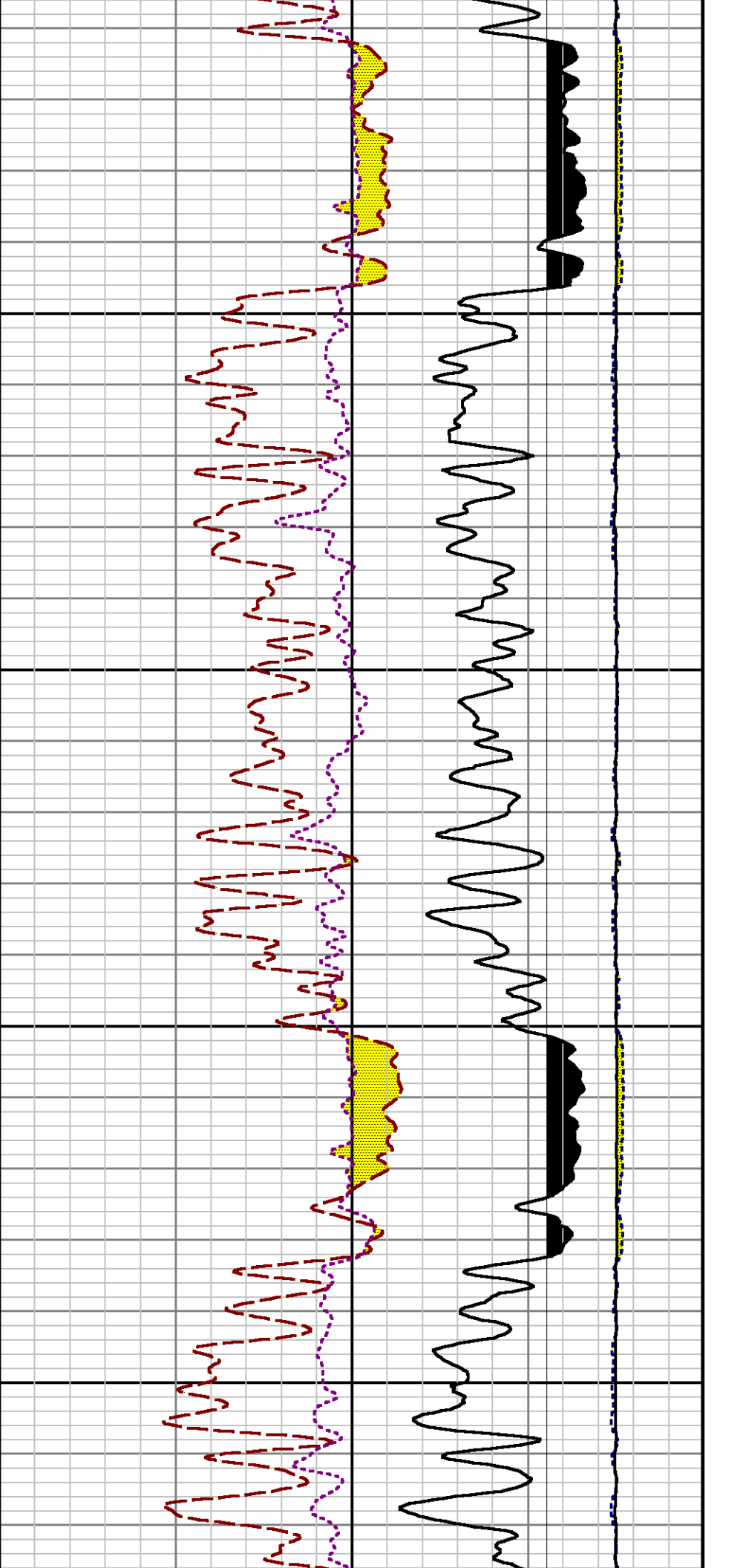






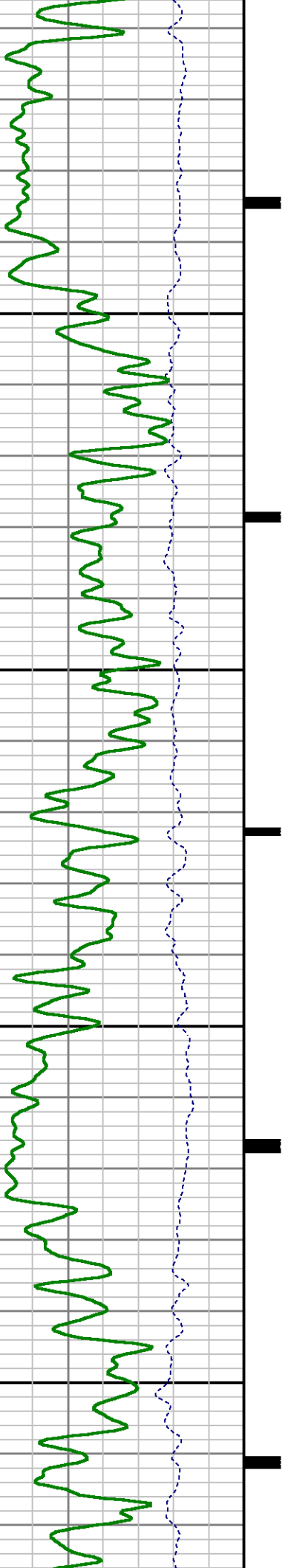


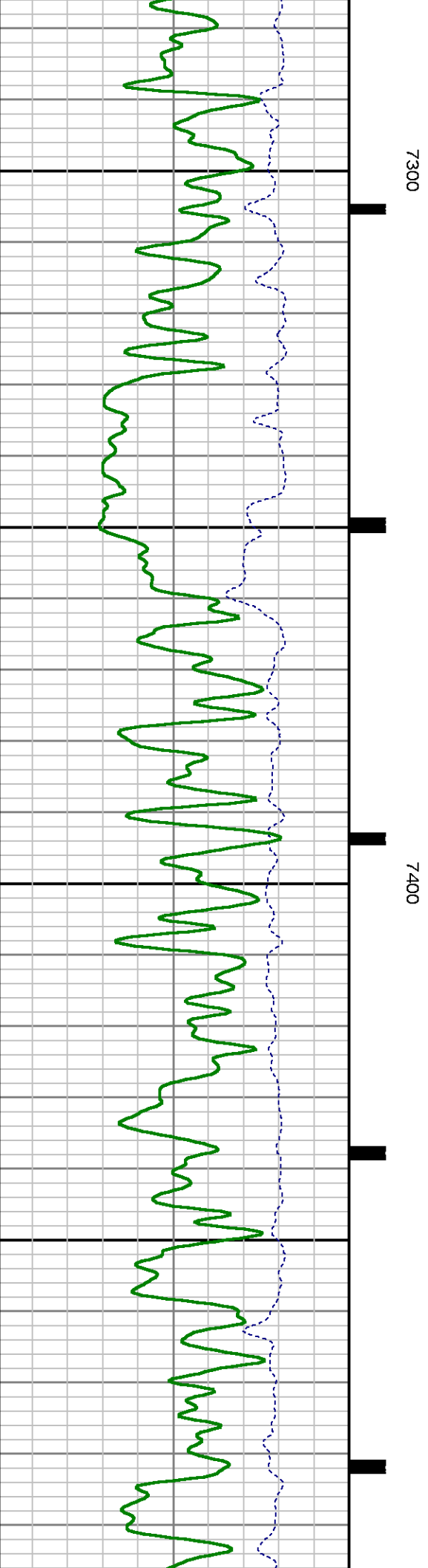
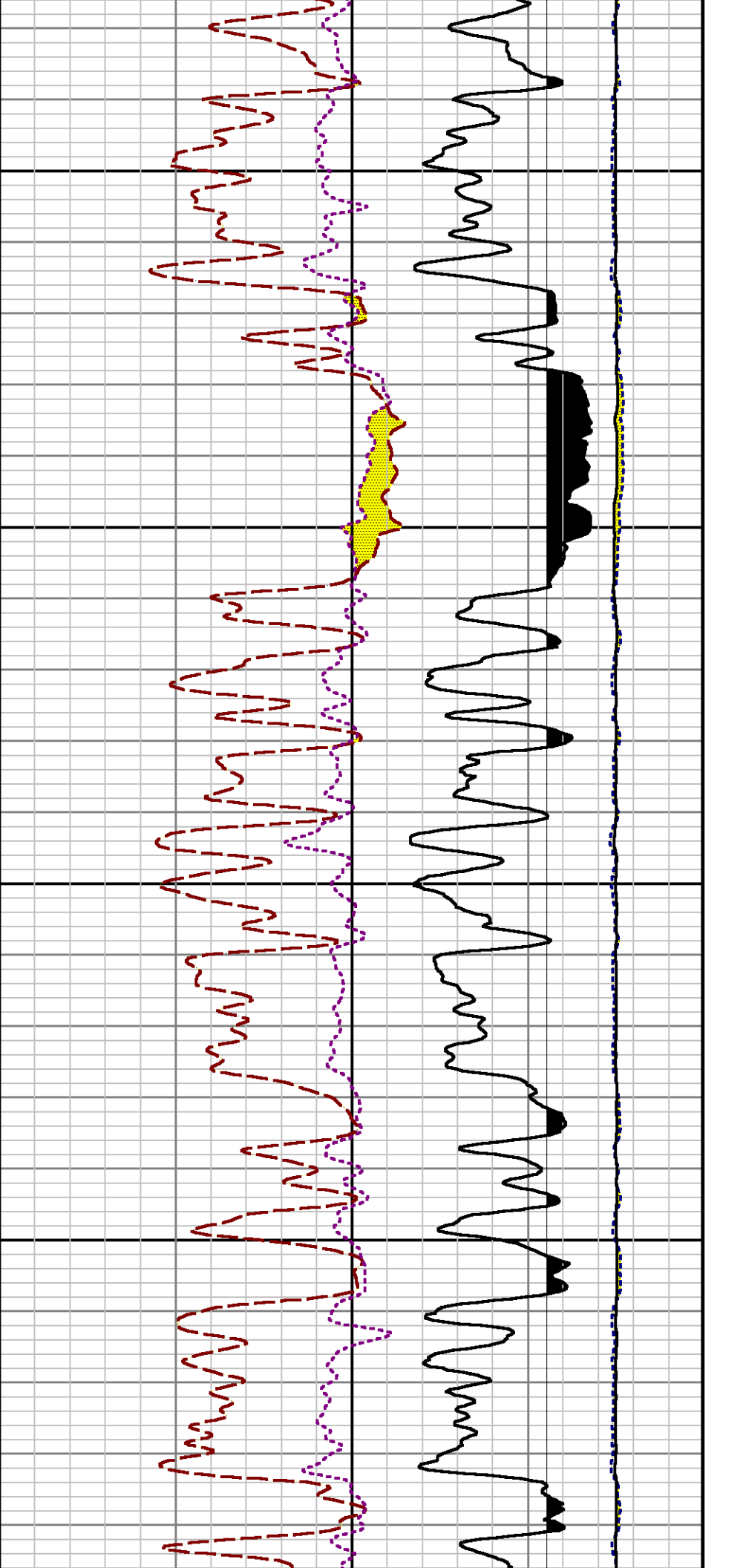


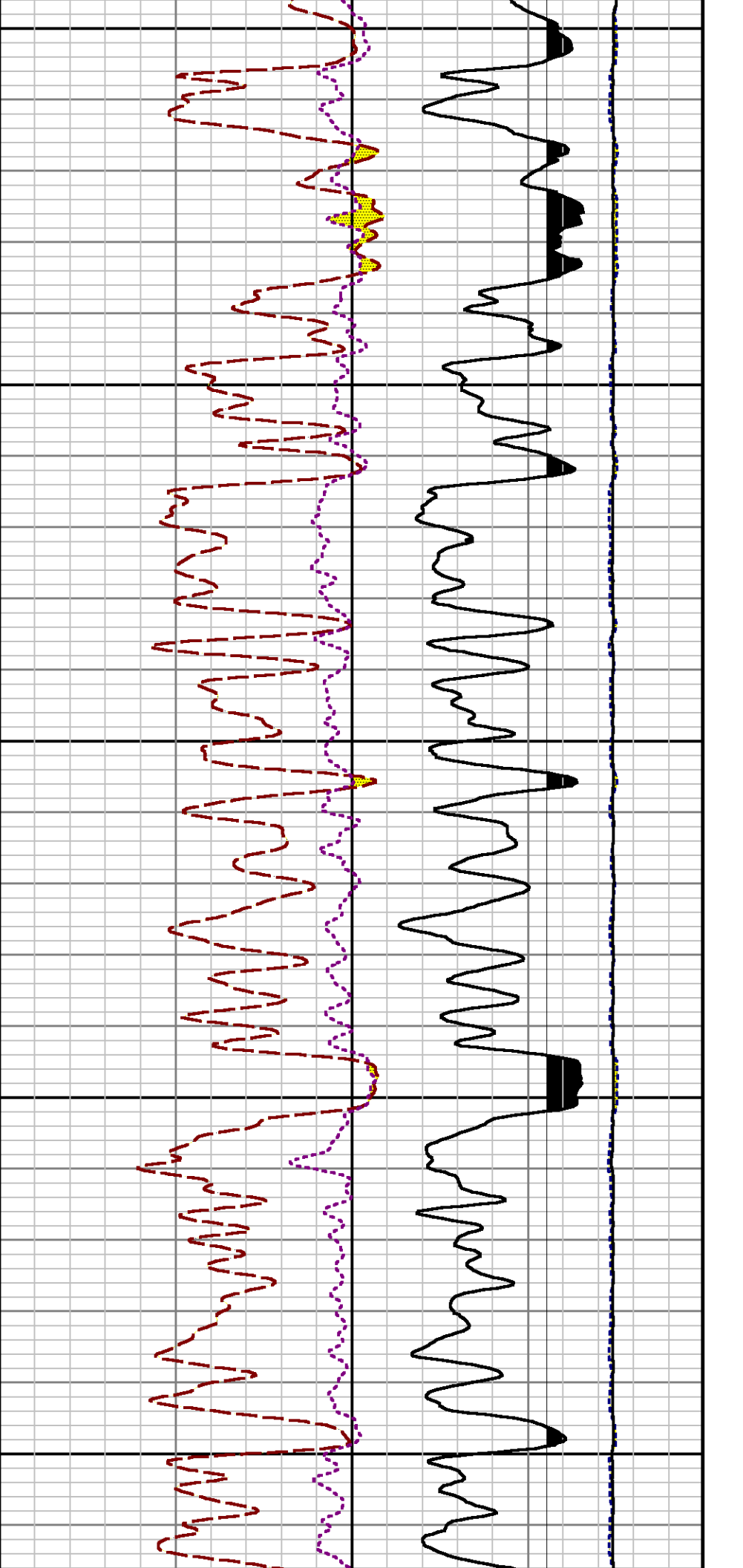


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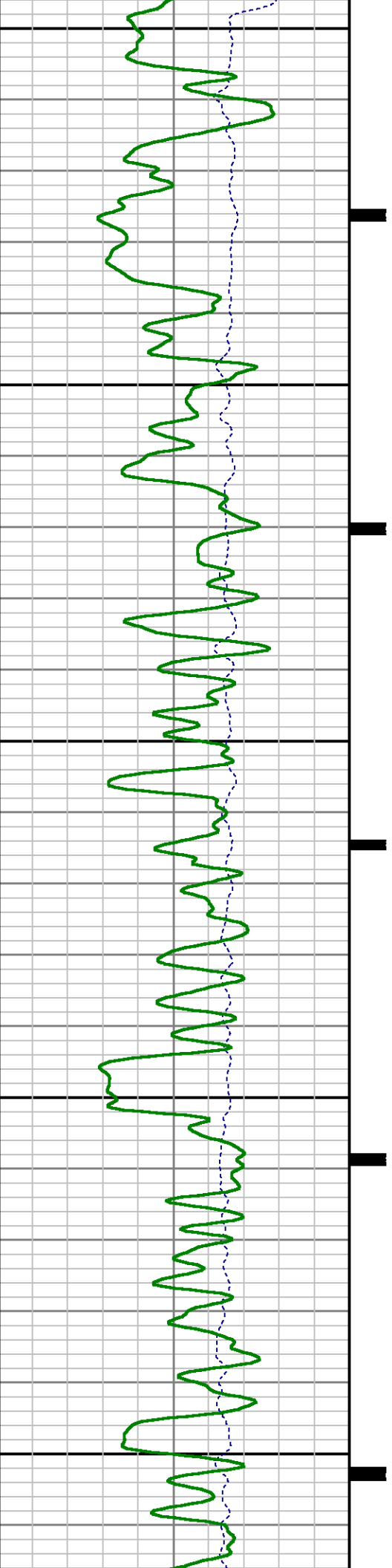


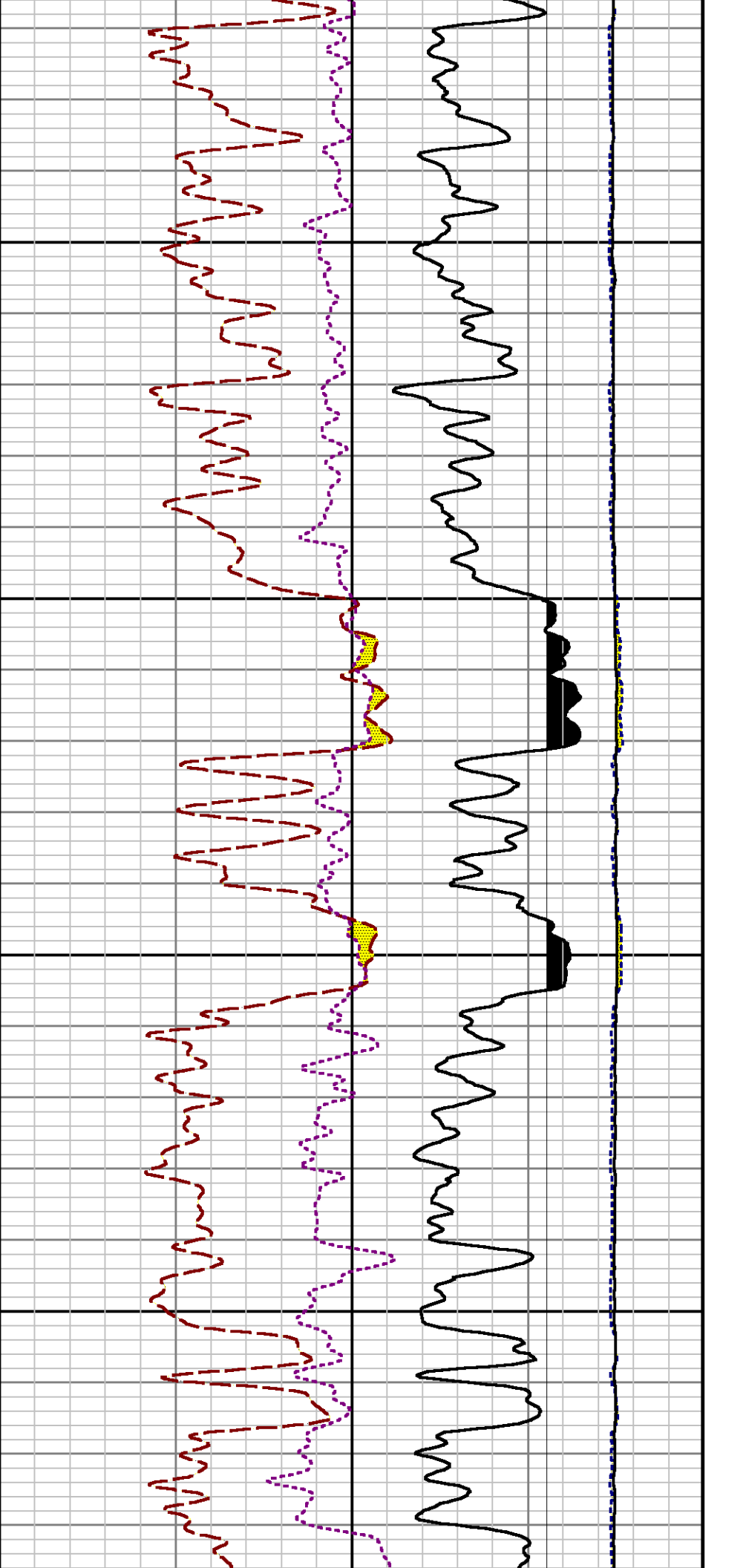


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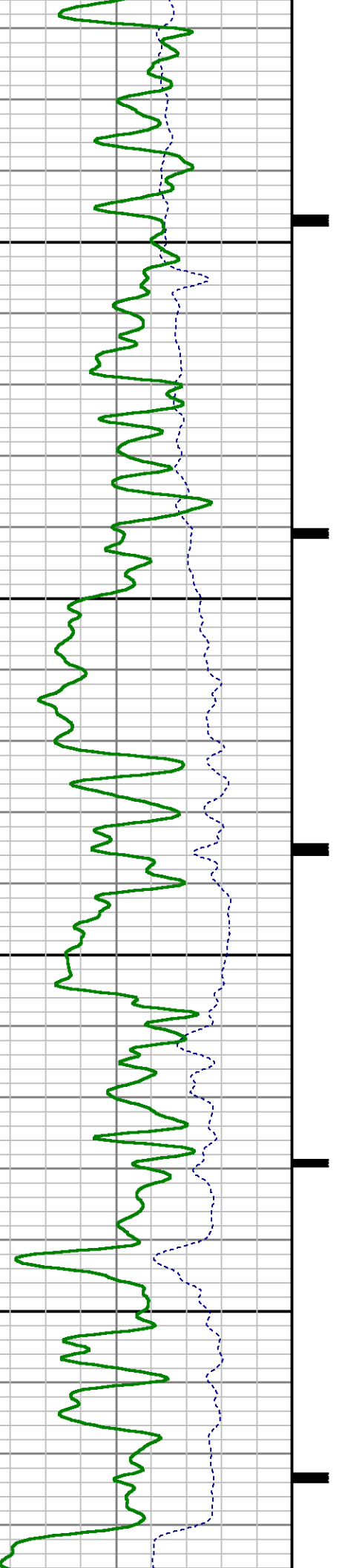
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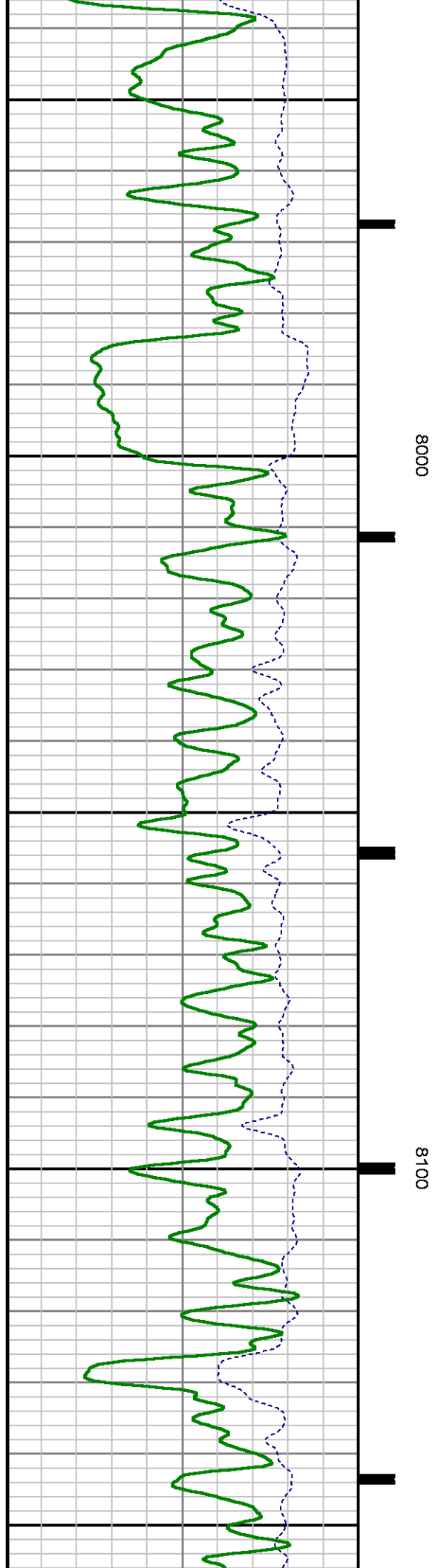
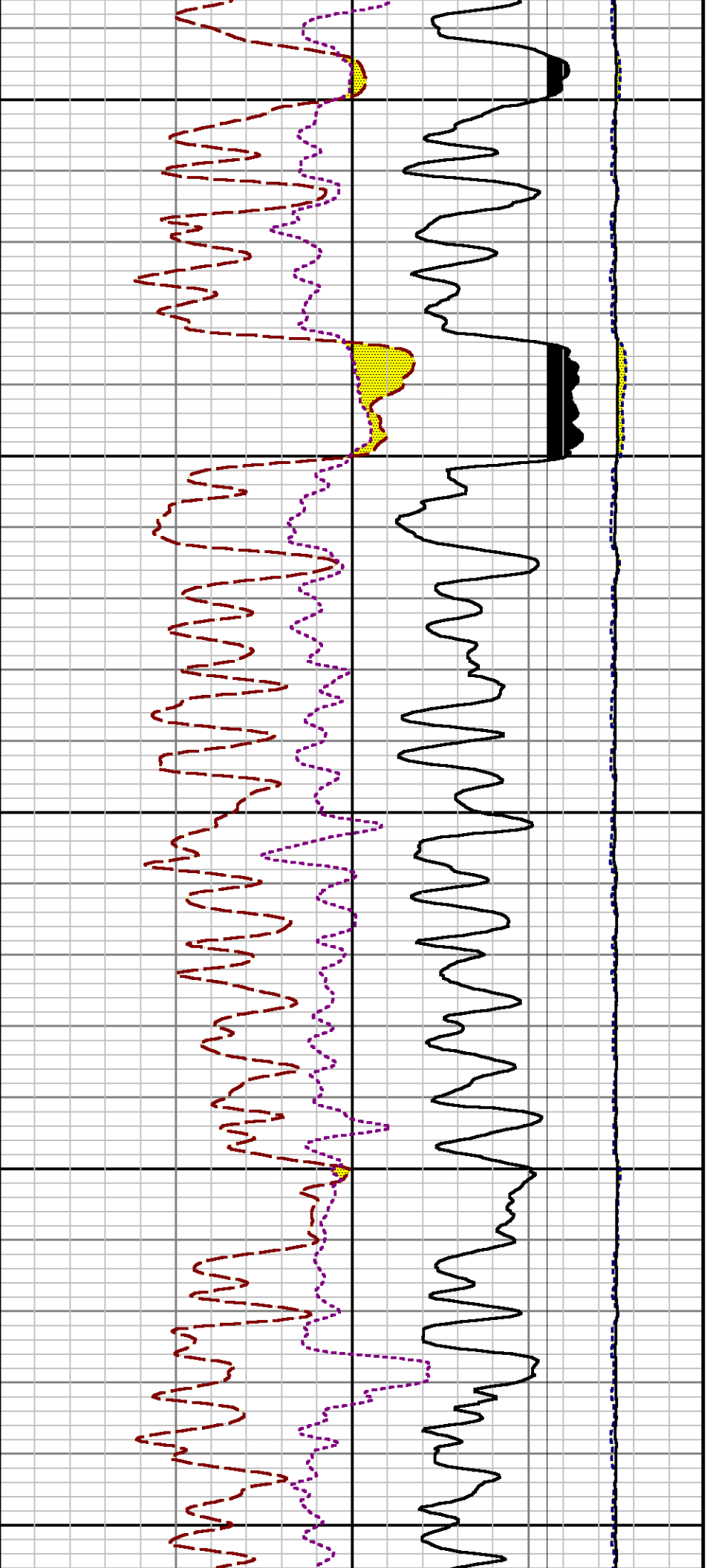


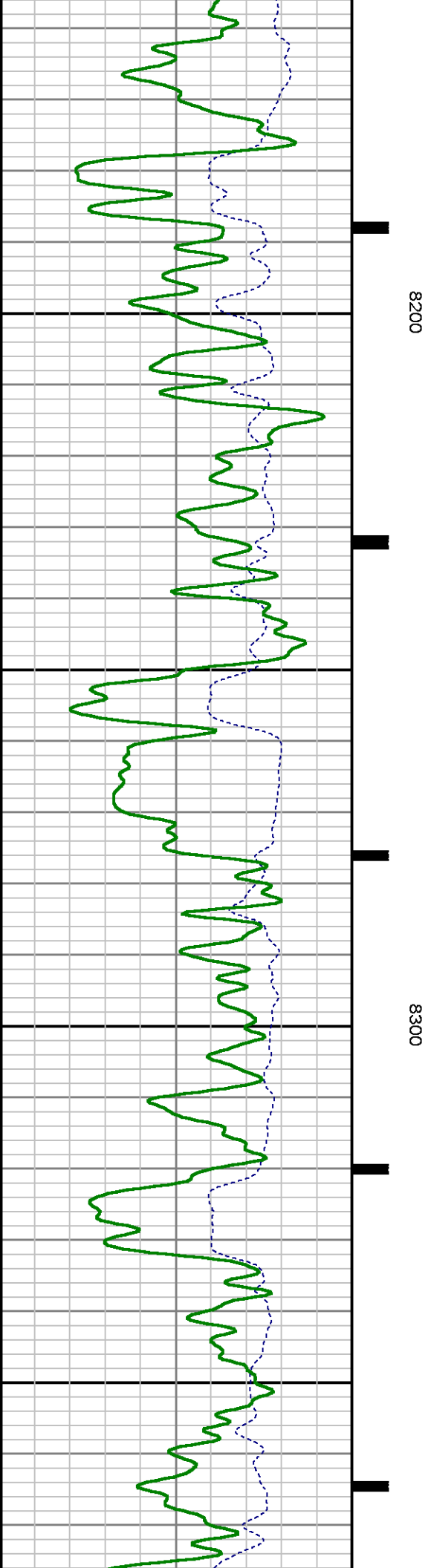
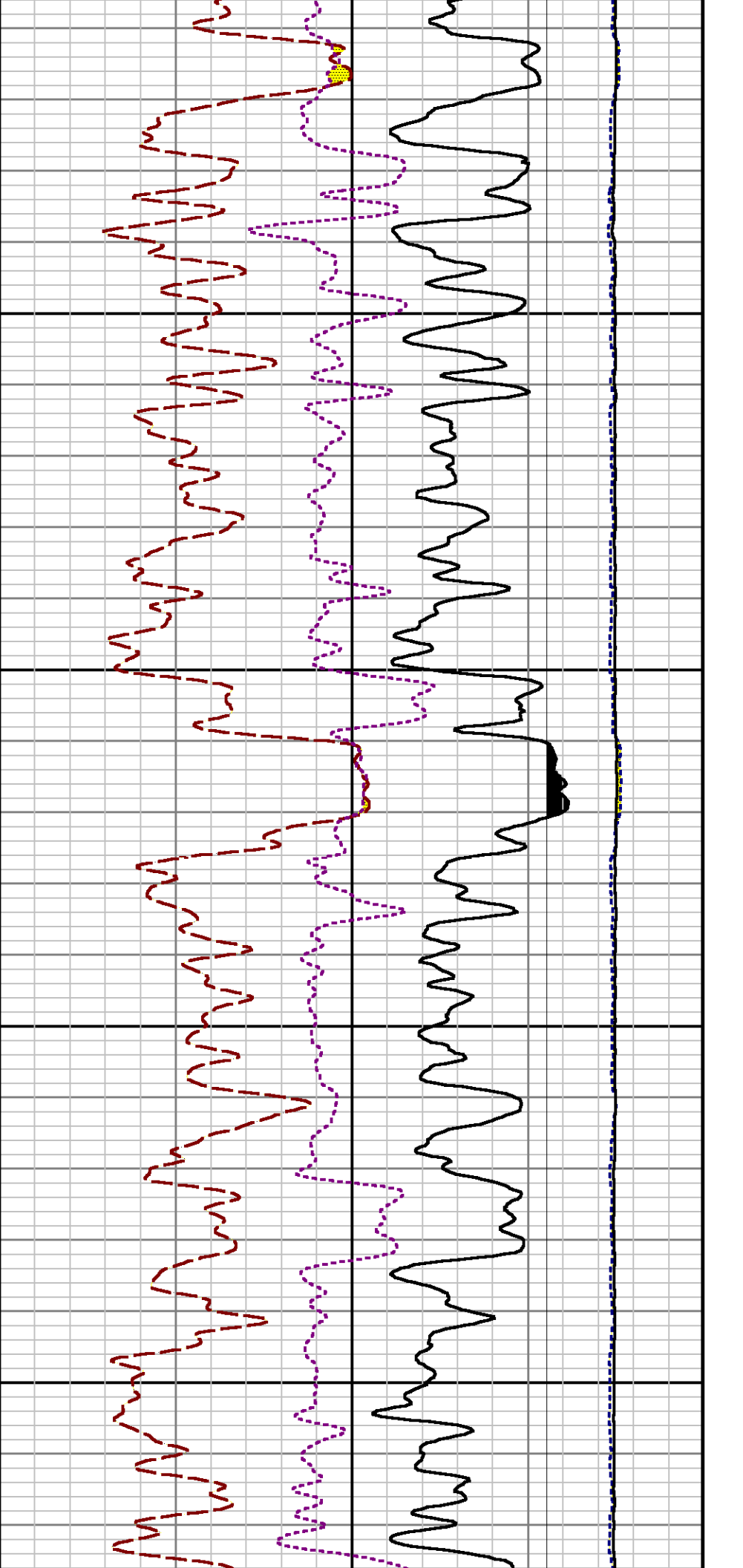


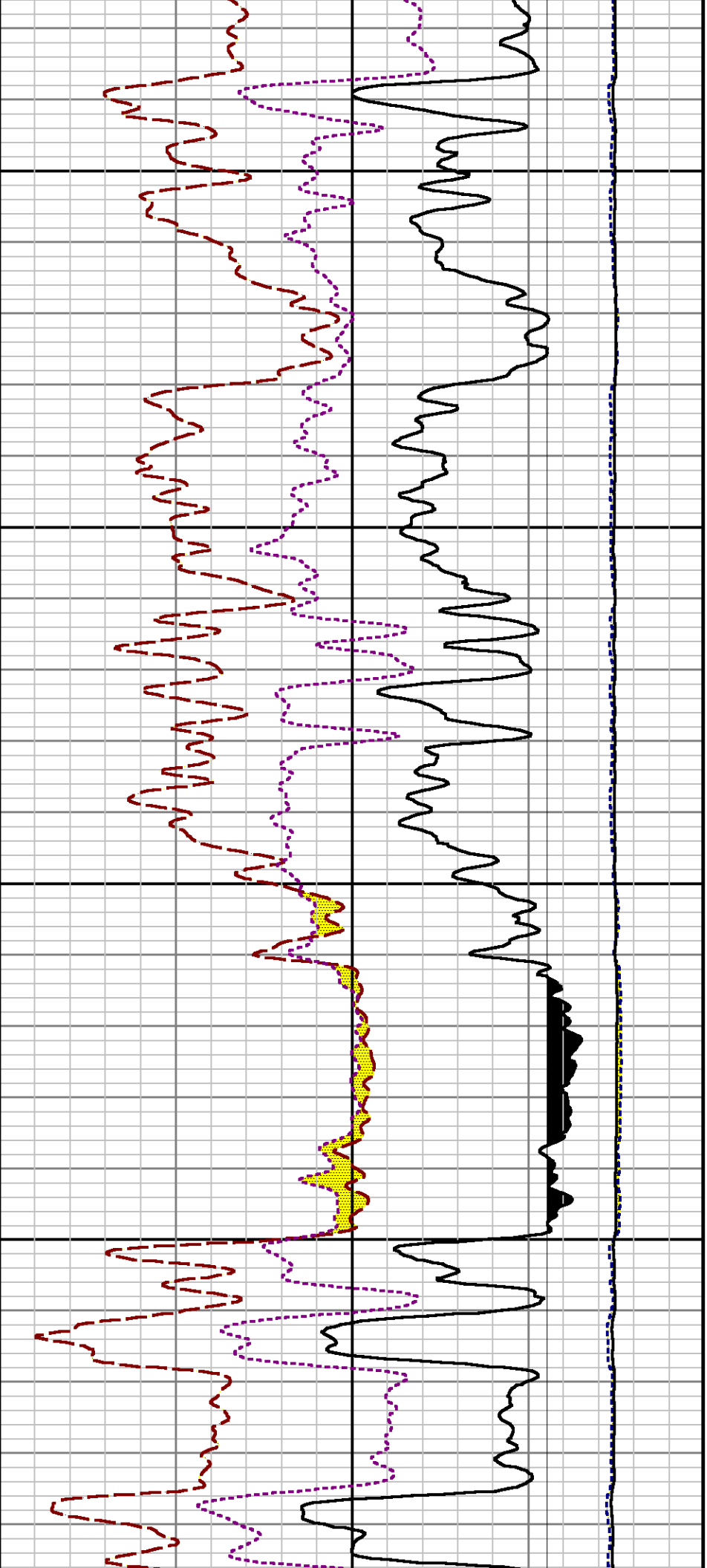
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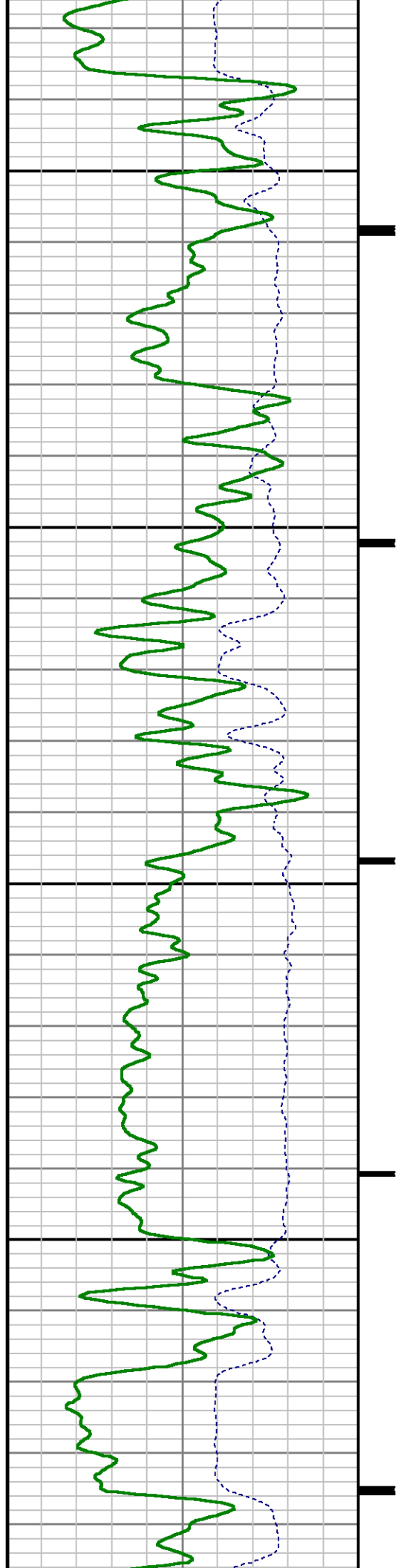


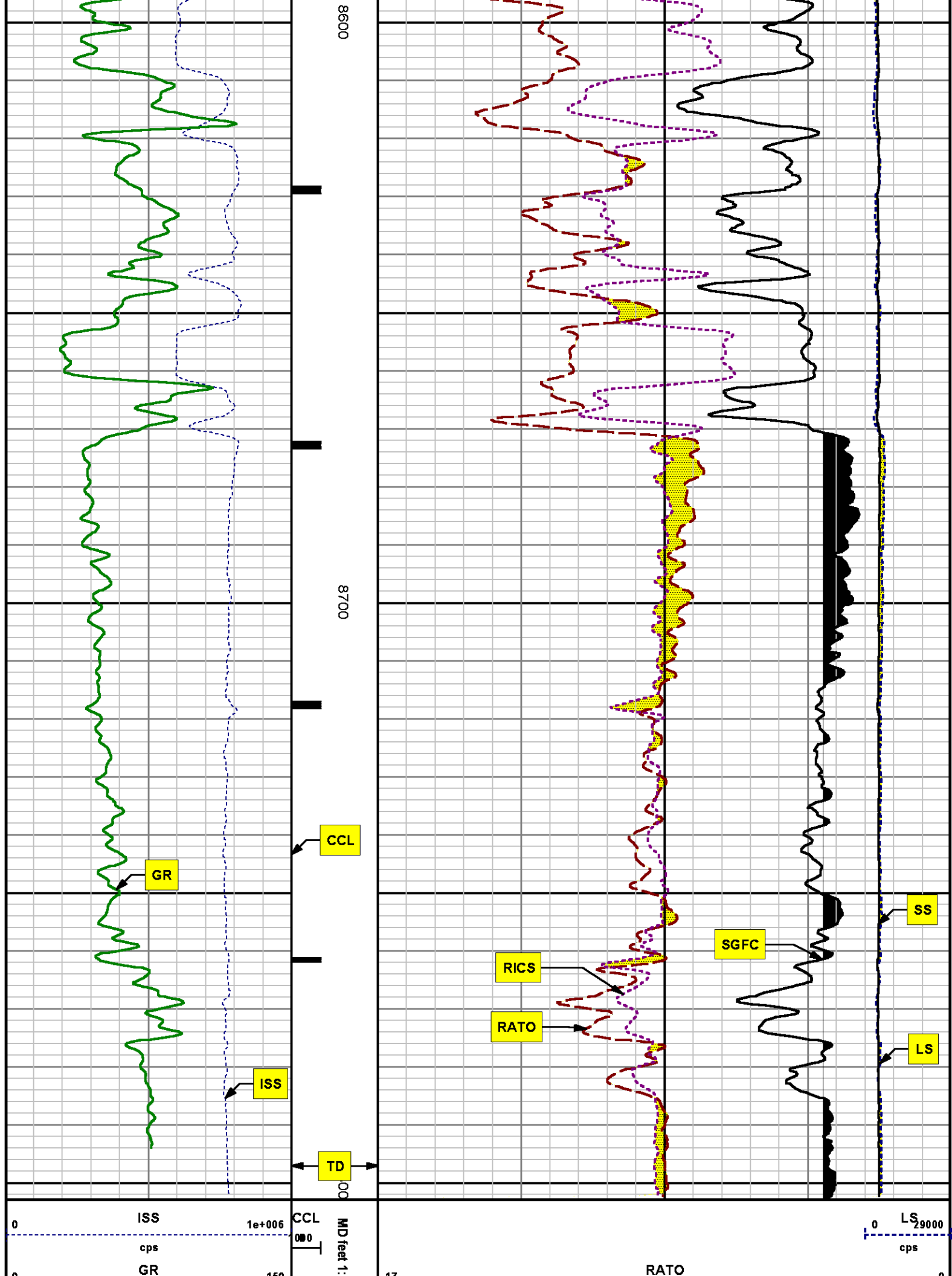




8400

8500





gAPI	240	17		0
		38	RICS	8
		60	SGFC	0
		cu		SS
				0 290000
				cps

REPEAT SECTION
PNC 3-D MODE

SPL PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
PNC Porosity	Borehole	Cased		8029.468	8346.312
PNC Porosity	Borehole Size	8.750	inch	8029.468	8346.312
PNC Porosity	Casing Size	4.500	inch	8029.468	8346.312
PNC Porosity	Gas Filled	Non Gas Filled		8029.468	8346.312
PNC Porosity	Matrix	Sandstone		8029.468	8346.312
TPS Pressure	Temperature Corr. Source	Fixed (72.00)	degF	8029.468	8346.312

DEPTH OFFSETS
(for Acquired Curves)

SERIES	DEPTH OFFSET	ACQUIRED CURVES
8248EA	-26.519	FLTM
8248EA	-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
		RK1 QUES QLC CPT3Q0 CPT3Q2 CPT3Q3

8281XA

-12.041

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 WDTN2 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 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 WDTN1 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

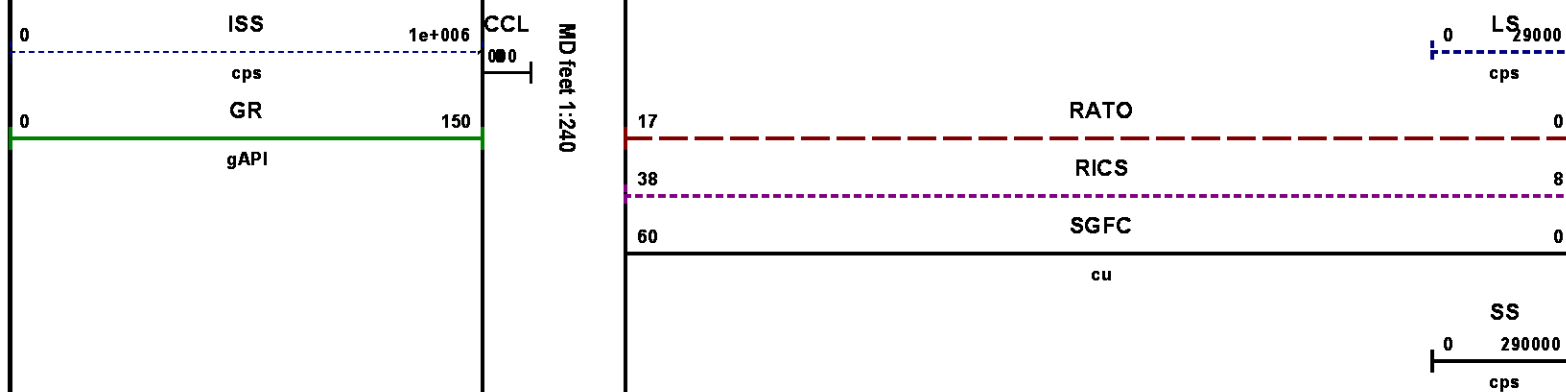
Well : SAVAGE RWF 14-25

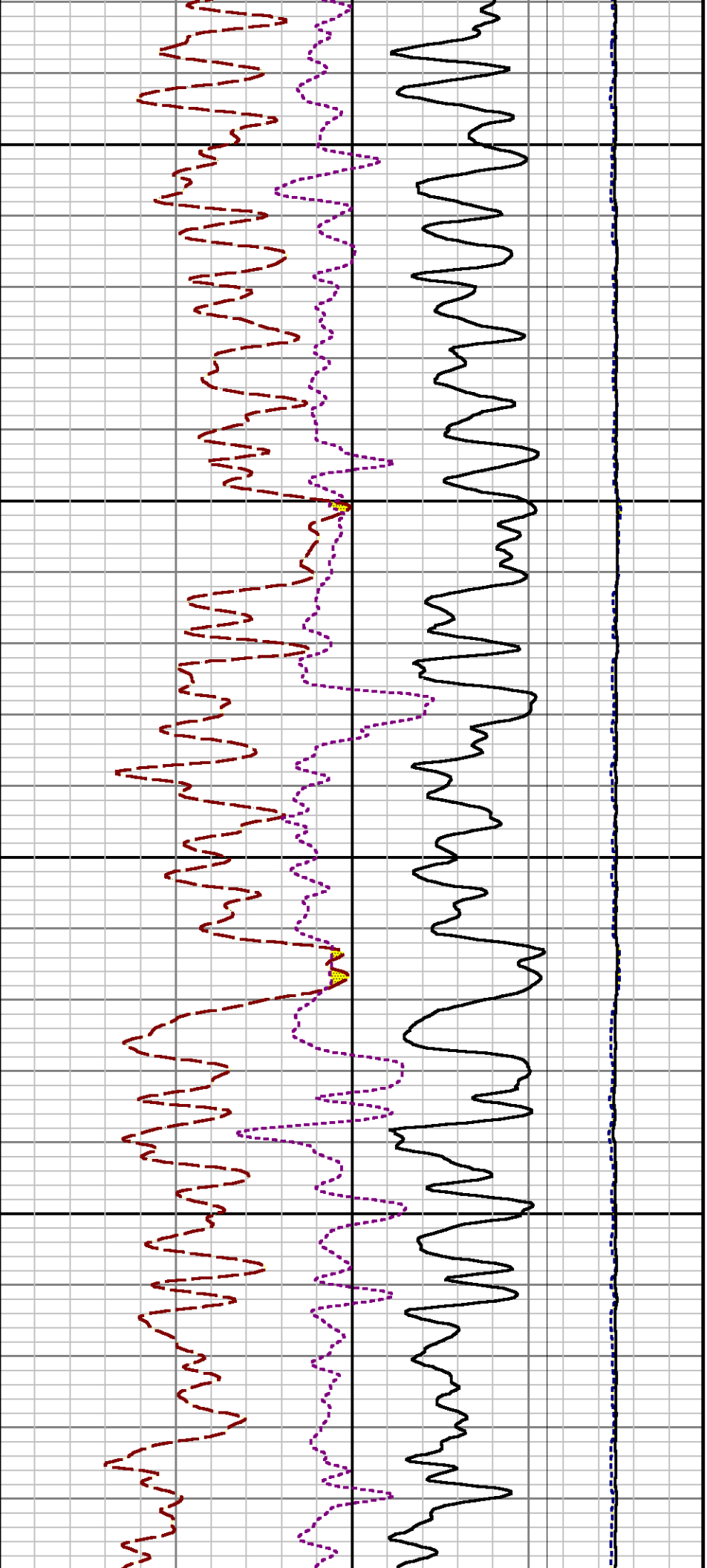
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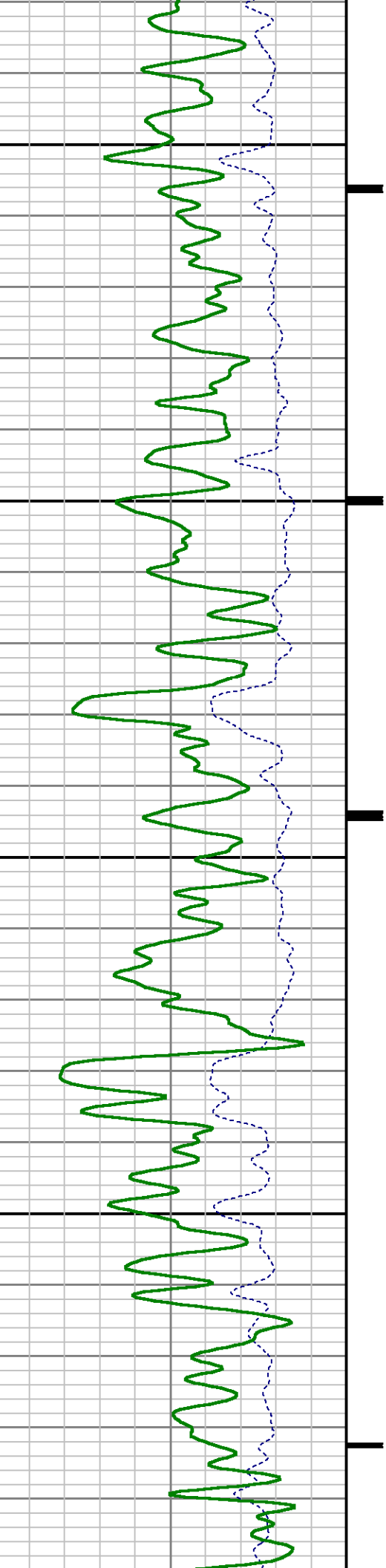
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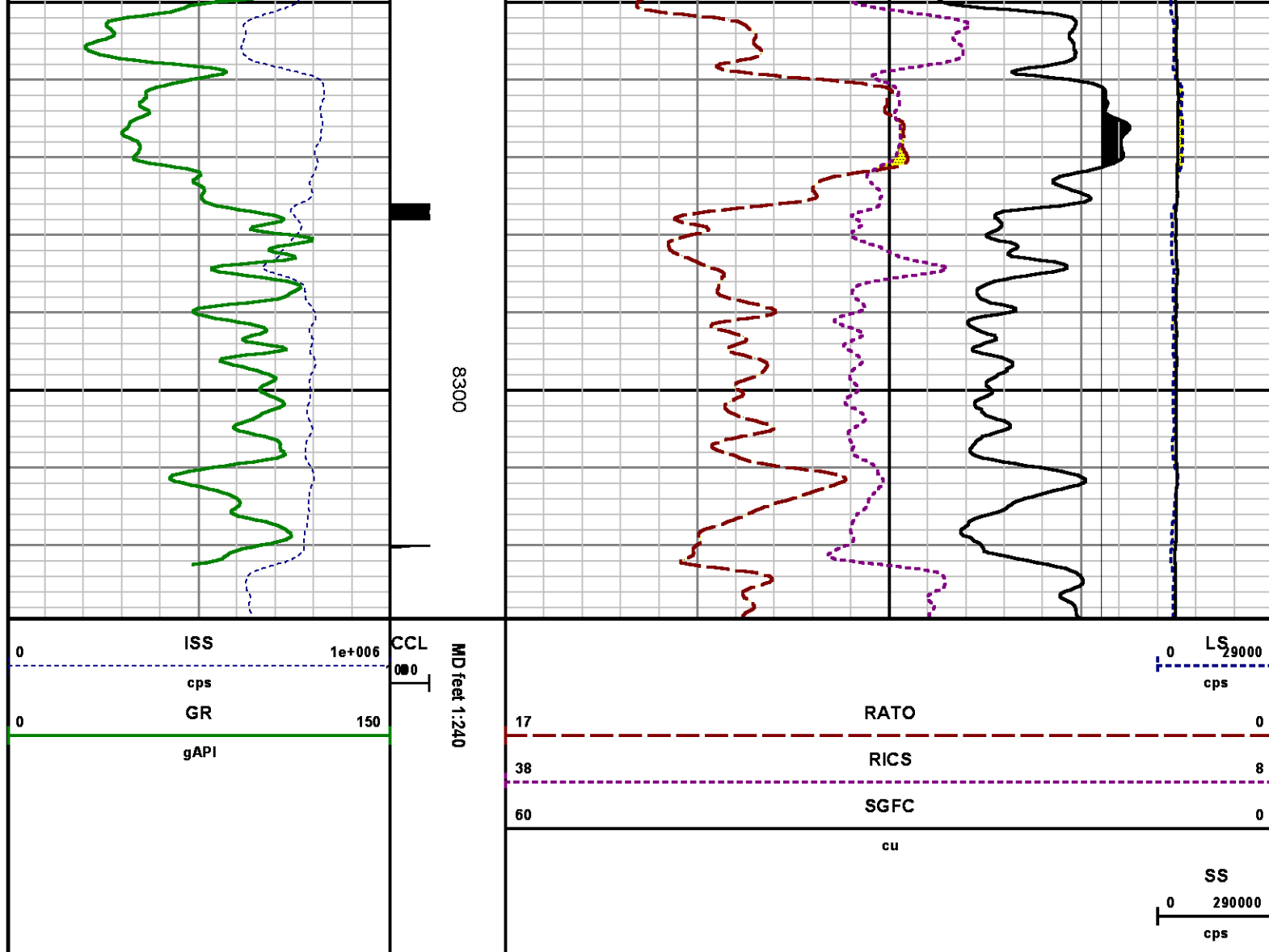




8100

8200





CALIBRATION SUMMARY

GAMMA RAY

Calibration File: C:\case\calver\GR\385J9.cal

CALIBRATION SUMMARY

DATE/TIME PERFORMED: Thu Jan 09 15:25:11 2014

TOOL SERIES: 2812LA ASSET: 385 SEQ: J9

Calibrator #	Background [cps]	Calibrator On [cps]	Multiplicative	Background [api]	Calibrator On [api]	Differential [api]
S2K WA612	62.82	283.64	0.951	59.74	269.74	210.00

PRIMARY VERIFICATION

DATE/TIME PERFORMED: Thu Jan 09 15:29:10 2014 TOOL SERIES: 2812LA ASSET: 385 SEQ: J9

Calibrator #	Background [cps]	Calibrator On [cps]	Multiplicative	Background [api]	Calibrator On [api]	Differential [api]
S2K WA612	63.02	280.18	0.951	59.93	266.45	206.51

TEMPERATURE

Calibration File: C:\case\calver\TEMP\17697330.cal

CALIBRATION SUMMARY

DATE/TIME PERFORMED: DEC 30 2013 14:00 TOOL SERIES: 8255XA ASSET: 176973 SEQ: 30

	T(0)	T(1)	T(2)	T(3)	T(4)	T(5)
Coefficients	-1.950580e+001	1.007993e-001	9.960555e-007	-1.008402e-010	0.000000e+000	0.000000e+000

PNC

Calibration File: C:\case\calver\PNC\383J7.cal

PNC 3D CALIBRATION SUMMARY

DATE/TIME PERFORMED: Fri Jan 17 14:45:45 2014 TOOL SERIES: 8281XA ASSET: 383 SEQ: J7

Calibrator #

Source #

gj shop

8281AA 10160601

	ISS	Mtr VIts (V)	SS Gain	LS Gain	XLS Gain	EA Temp (degF)	Sync Delay (usec)	RCAL
Raw Data	813732	129.00	2186.00	2253.00	2214.00	102.25	7.00	0.9976
Interpolated	1300000	152.88	2183.97	2239.94	2207.92			

	ISS	BKS	BKL	BKX	SGA1	SDA1	SGA2	SDA2
Raw Data	813732	6611.93	1055.83	146.56	25.82	0.14	24.39	0.27
					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	813732	178243.73	27579.47	92675.66	32979.46	8738.46	56027.18	14002.62
Fit Quality %		0.47	0.52	0.93	0.91	0.54	0.86	0.52

TOOL DIAGRAM

The diagram illustrates the vertical layout of the detector assembly. A central vertical line represents the axis of symmetry. Components are labeled on the left, and their distances from the top of the assembly are listed on the right. The components and their distances are:

- 33.24' (Top of assembly)
- CCL MP (25.15')
- MP (22.70')
- XLS DETECTOR (16.08')
- LS DETECTOR (13.10')
- SS DETECTOR (12.88')

TEMPERATURE / PRESSURE

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

PRES MP 1.61'

0.00'

Total Length: 33.24'**Total Weight: Not Available****Max Diameter: 0' 1.70"****Baker Atlas***CASE***Company**

WPX ENERGY

Well

SAVAGE RWF 14-25

Field

RULISON

County

GARFIELD

State

COLORADO

Location

SHL: 1595' FSL & 2295' FWL

BHL: 501' FSL & 836' FWL (SWSW)

SEC 25 TWP 6S RGE 94W

Elevations

KB 6122 ft

DF

GL 6096 ft

File No:

CH082309

API No:

05045219800000

25 6S 94W

RWF 23-25 PAD

NABORS 577