



RESERVOIR PERFORMANCE MONITOR

Baker Atlas

File No: CH083166

Company Well WPX ENERGY FEDERAL PA 42-21

API No: Field PARACHUTE

County GARFIELD State COLORADO

05045220370000

Location

21 6S 95W

PA 22-21 PAD

NABORS 573

SHL: 2610' FNL & 1441' FWL

BHL: 1610' FNL & 251' FEL (SENE)

SEC 21 TWP 6S RGE 95W

Other Services
BOND LOG

Permanent Datum GL Elevation 6030 ft

Log Measured From KB 26 ft Above P. D.

Drill Measured From KELLY BUSHING

Elevations

KB 6056 ft

DF

GL 6030 ft

Date	28/FEB/14	
Run	ONE	
Service Order	US625295	
Depth Driller	9996 ft	
Depth Logger	9966 ft	
Bottom Logged Interval	9956 ft	
Top Logged Interval	6091 ft	
Time Started	0800	
Time Finished	1430	
Operator Rig Time	6.5 HRS	
Type of Fluid in Hole	WATER	
Fluid Density	NA	
Salinity	NA	
Fluid Level	77 ft	
Logged Cement Top	NA	
Wellhead Pressure	0 psi	
Maximum Hole Deviation	NA	
Nominal Logging Speed	10 fpm	
Maximum Recorded Temperature	248 degF	
Reference Log	BAKER HUGHES BOND LOG	
Reference Log Date	27/MAR/14	
Equipment No.	4271	GRAND JCT
Recorded By	FLYOD RENEAU	
Witnessed By	COLE APRILEGATE	

- 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	26 ft	2238 ft
8.75 in	2238 ft	9996 ft

Casing Record				
Size	Weight	Grade	From	To
9.625 in			26 ft	2238 ft
4.5 in	11.6 lbm/ft	I-80	26 ft	9996 ft

Remarks
All data on this log is shifted and depth matched using the Gamma Ray curve to the Baker Hughes bond log dated 2/27/2014 at the client's request.
The amount of linear shift is 6.5 feet.
Logged in PNC-3D mode.
BHT = 248 °F
SJ = 6344'-6368'

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	10414345	FREE
1	1	RPM	8281EA	10190984	FREE
1	1	GR	2812LA	10274385	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		6069.816	9958.816
PNC Porosity	Borehole Size	8.750	inch	6069.816	9958.816
PNC Porosity	Casing Size	4.500	inch	6069.816	9958.816
PNC Porosity	Gas Filled	Non Gas Filled		6069.816	9958.816
PNC Porosity	Matrix	Sandstone		6069.816	9958.816
TPS Pressure	Temperature Corr. Source	Fixed (72.00)	degF	6069.816	9958.816

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
		SDA3	SDA3	SDA3	SDA3	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 : FEDERAL PA 42-21

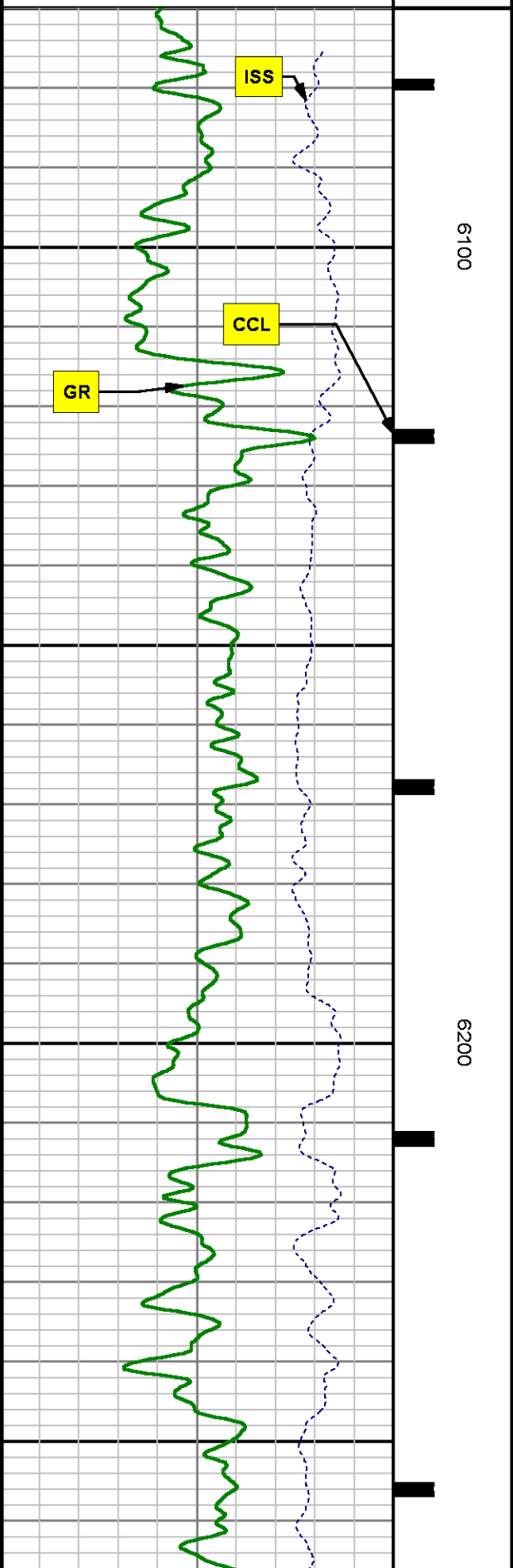
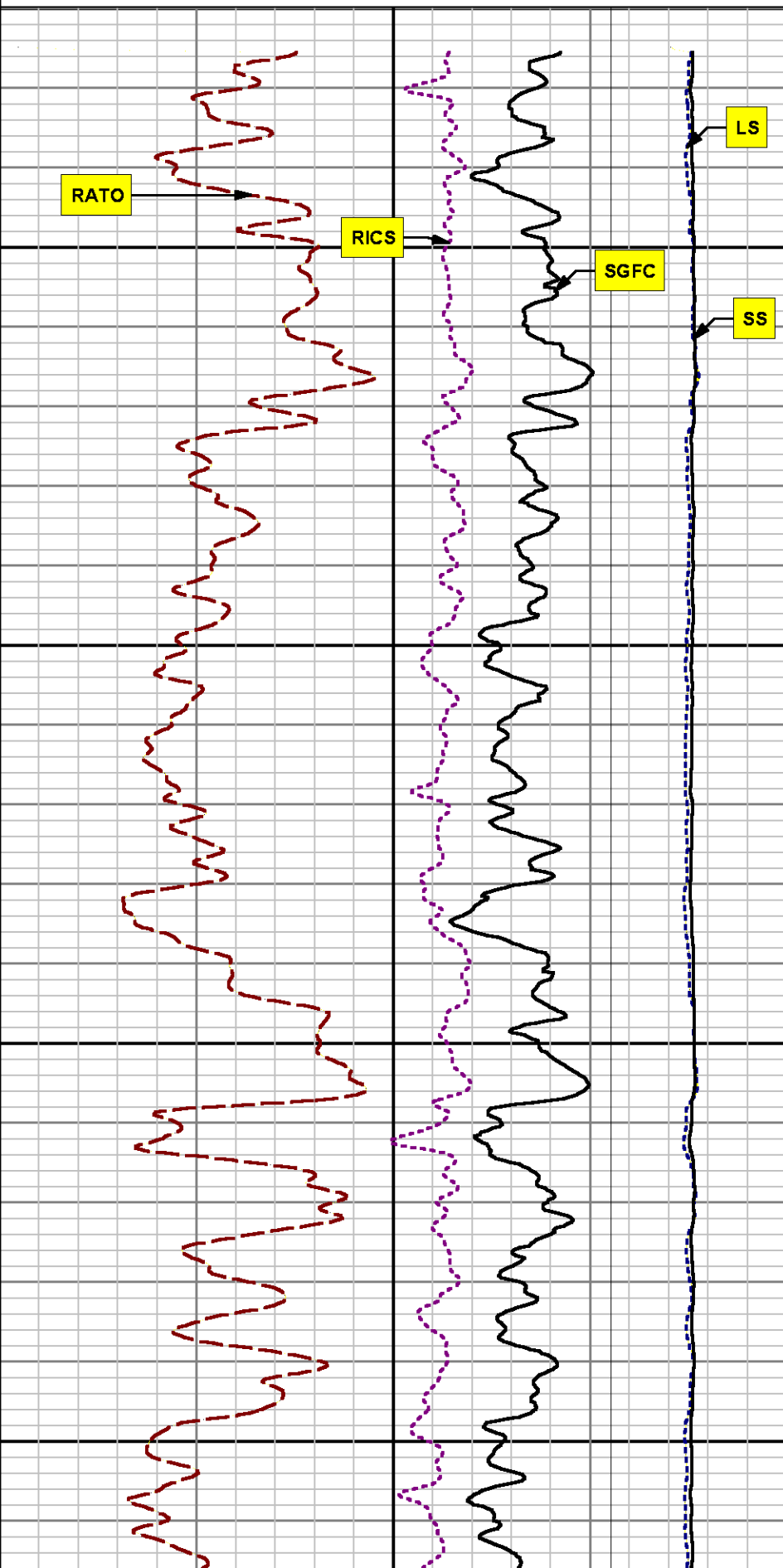
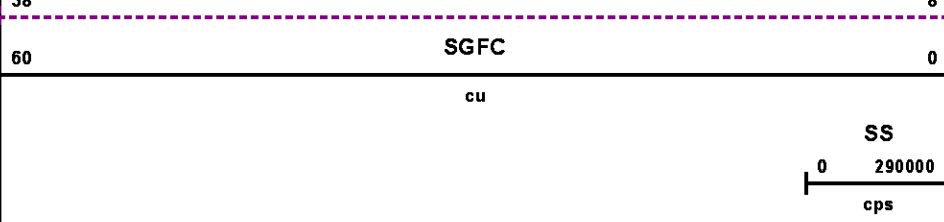
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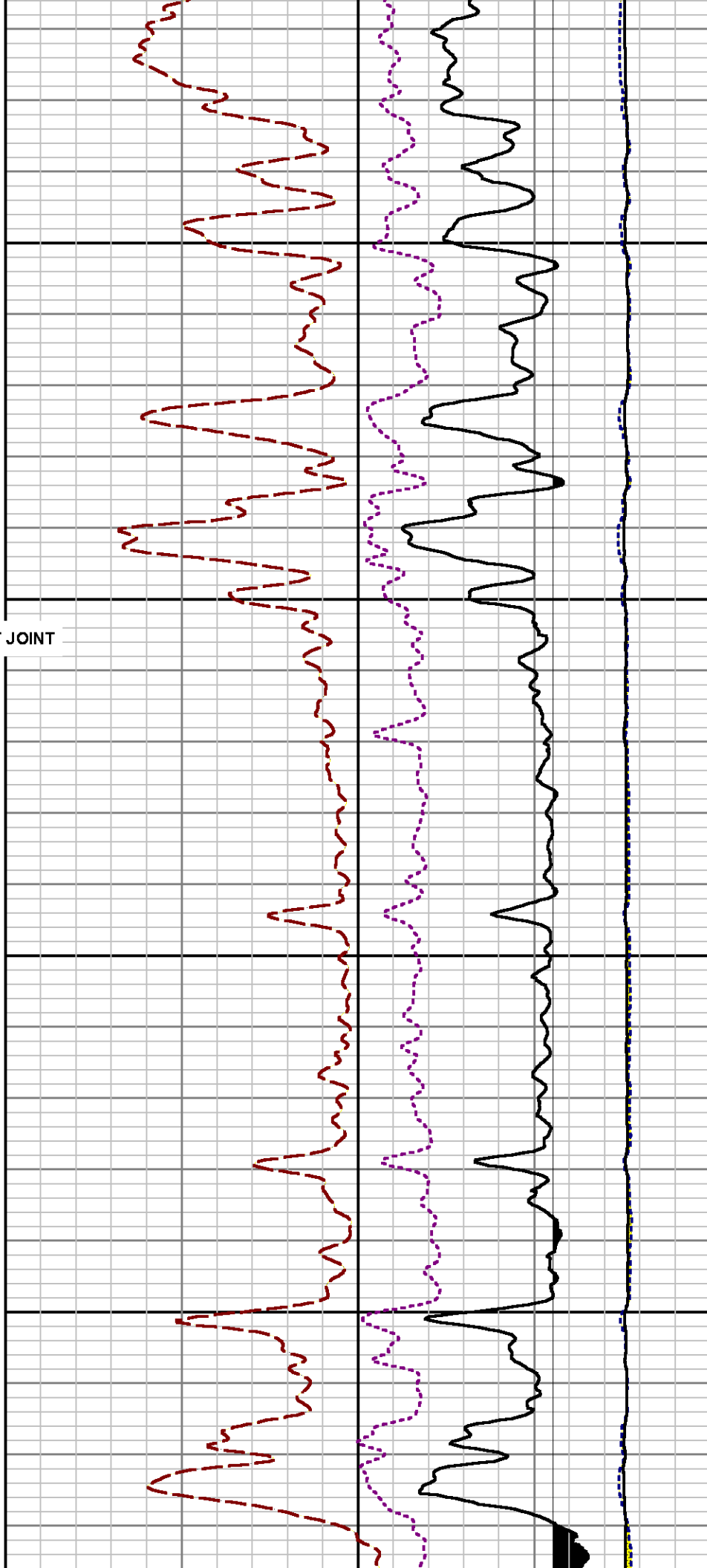
Mode : PlotMgr 5.4.504

Interval : 6070.00 - 9959.00 feet UP

Created : 2/28/2014 10:09:48 AM



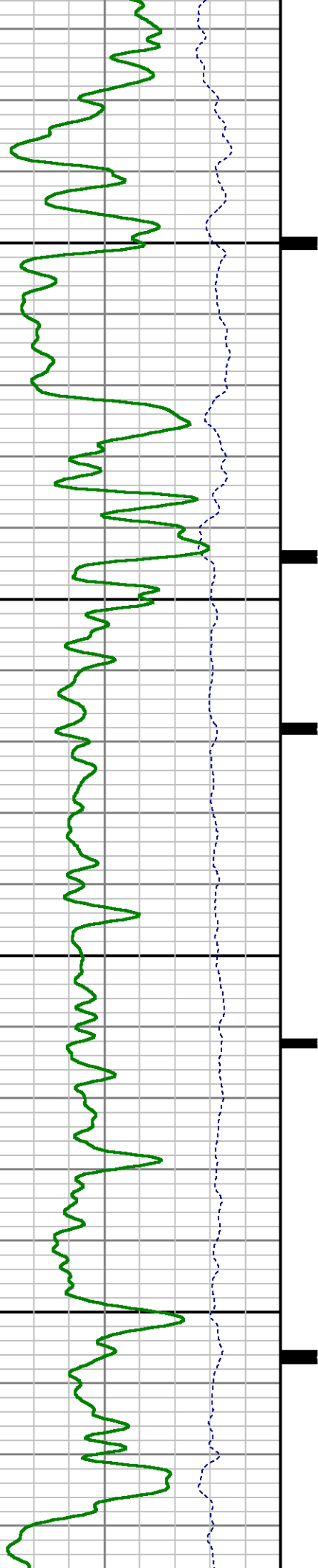


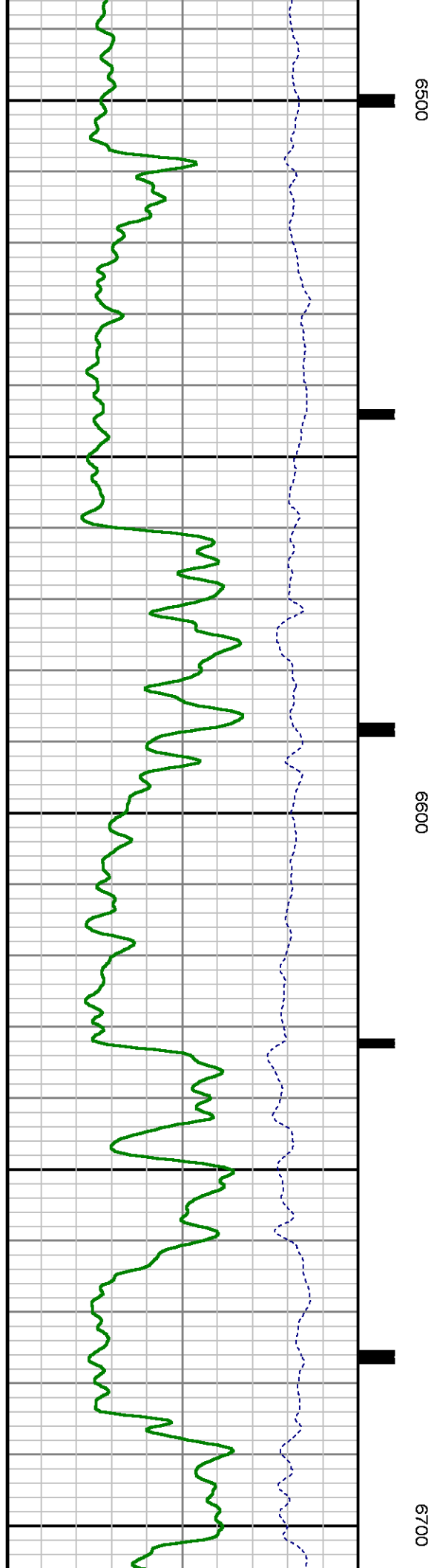
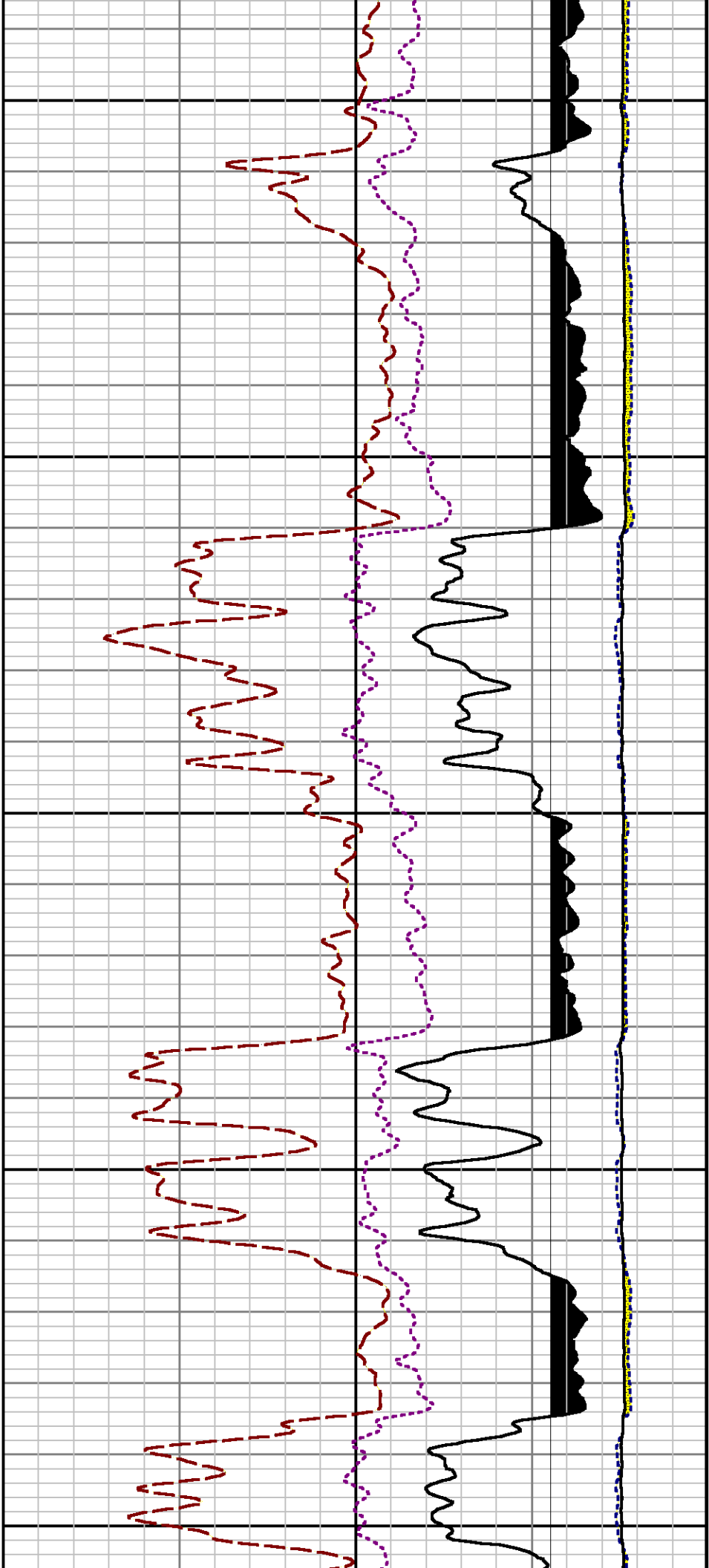


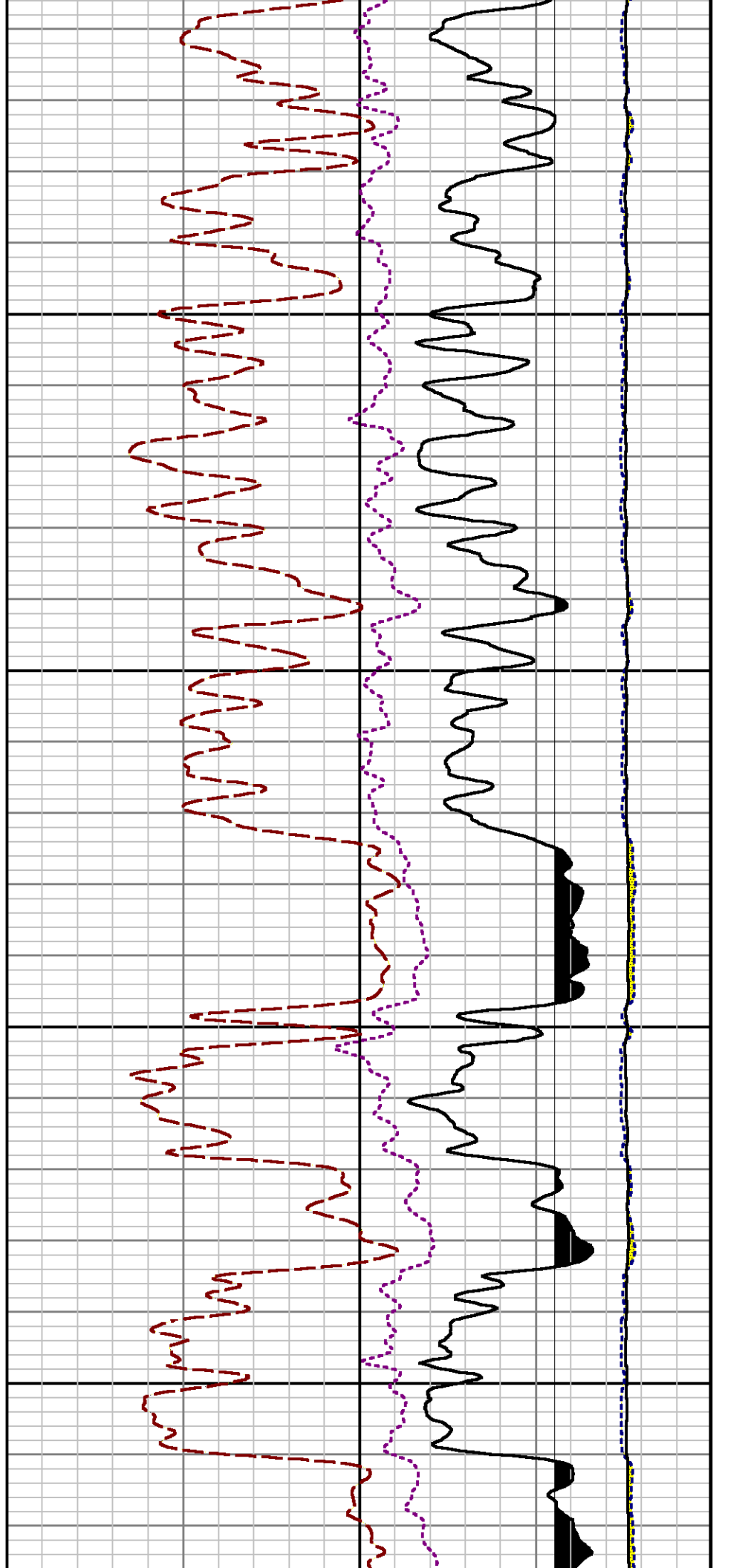
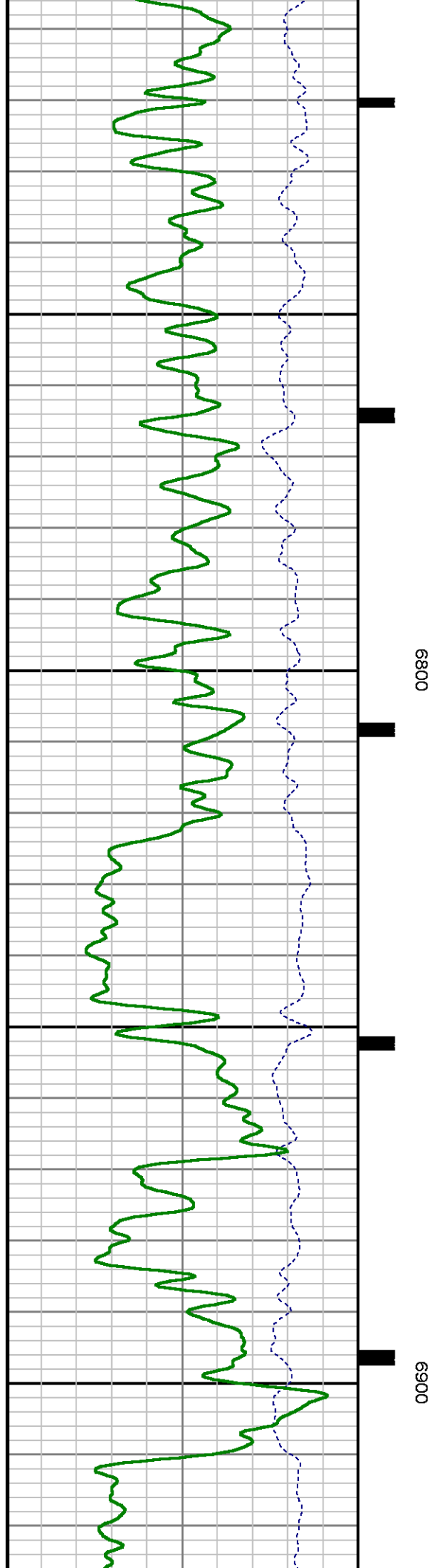
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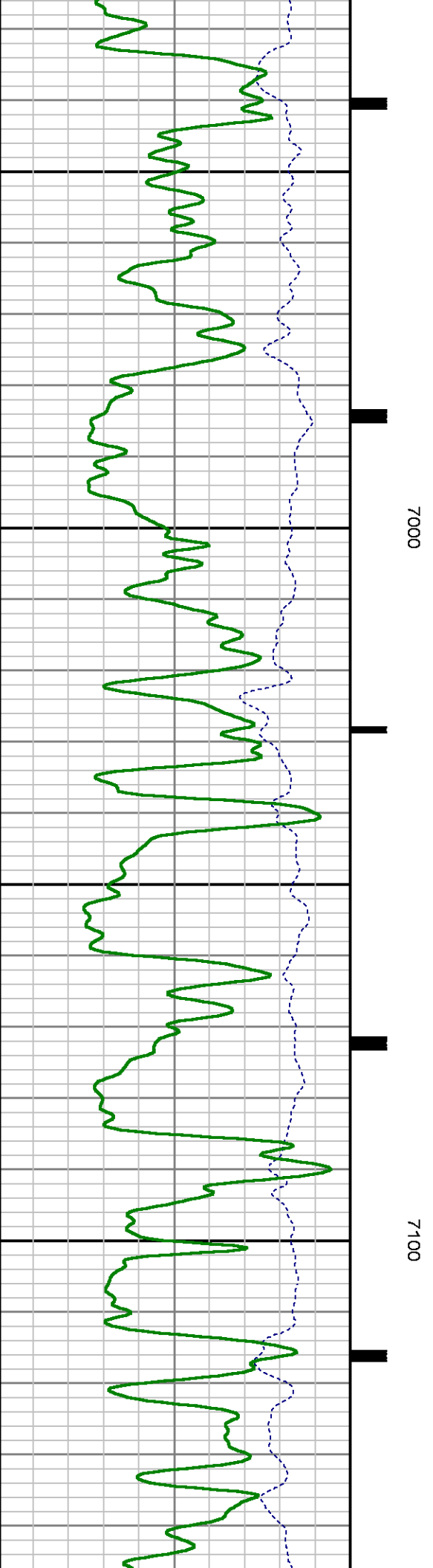
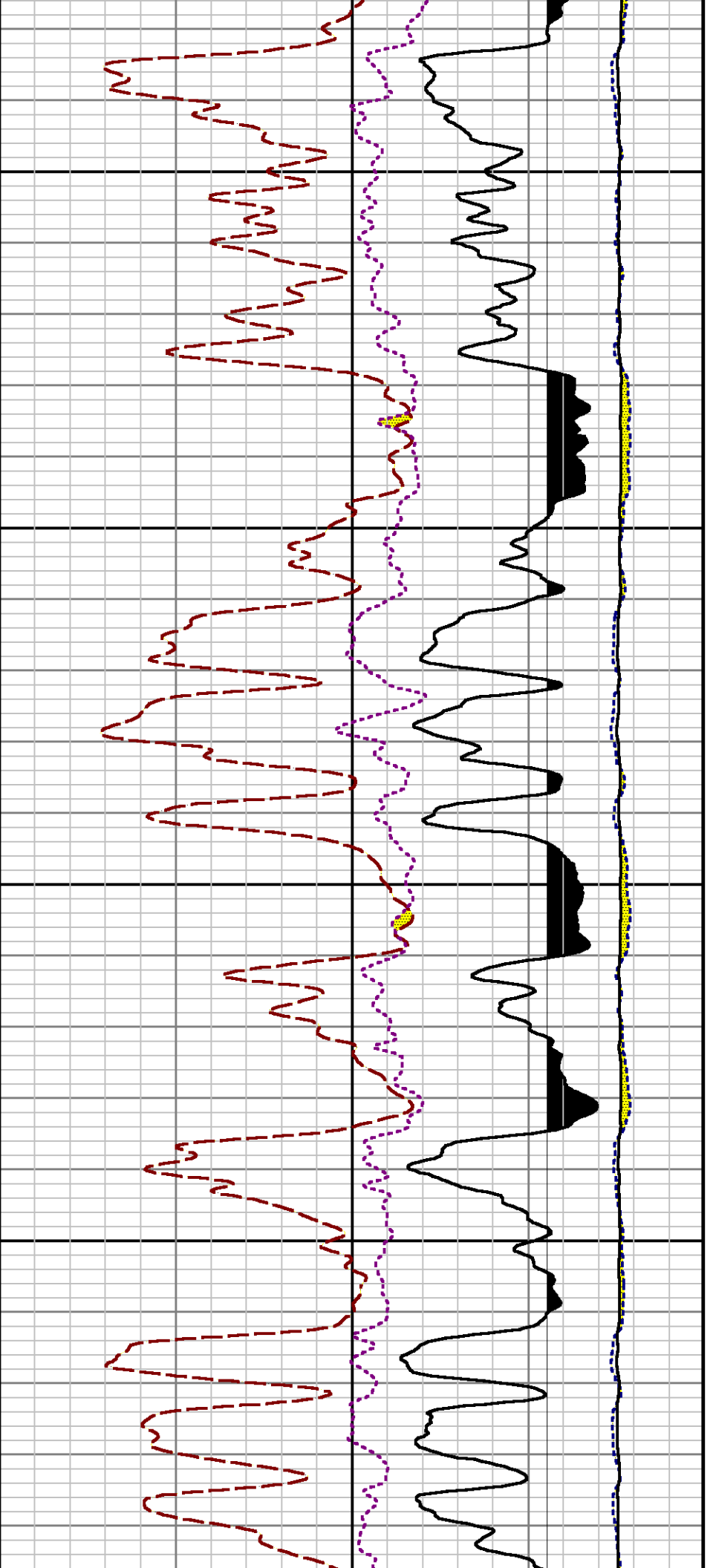
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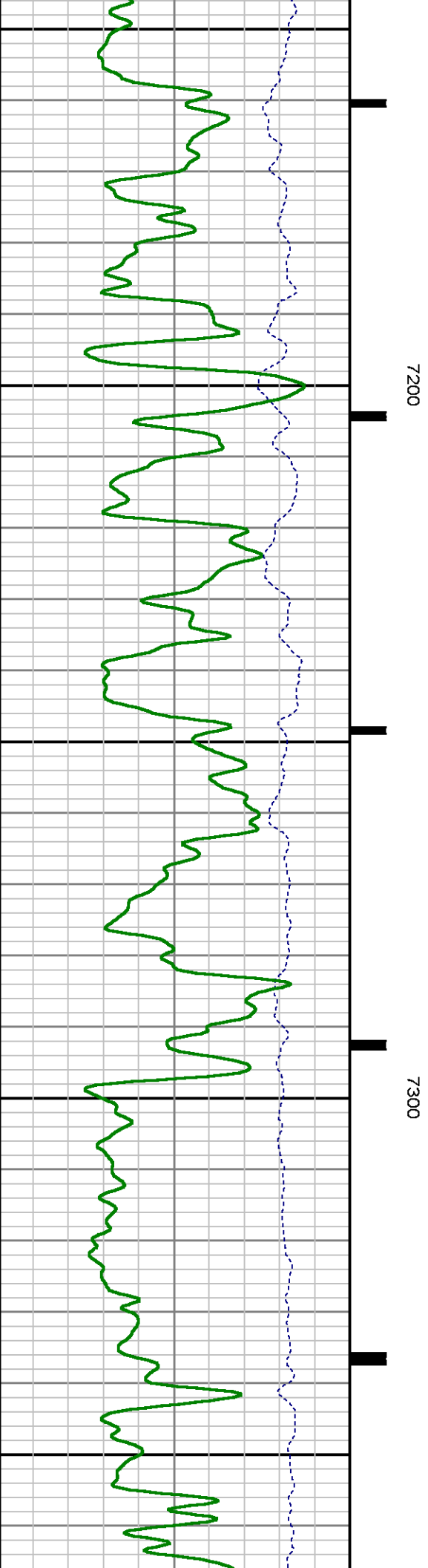
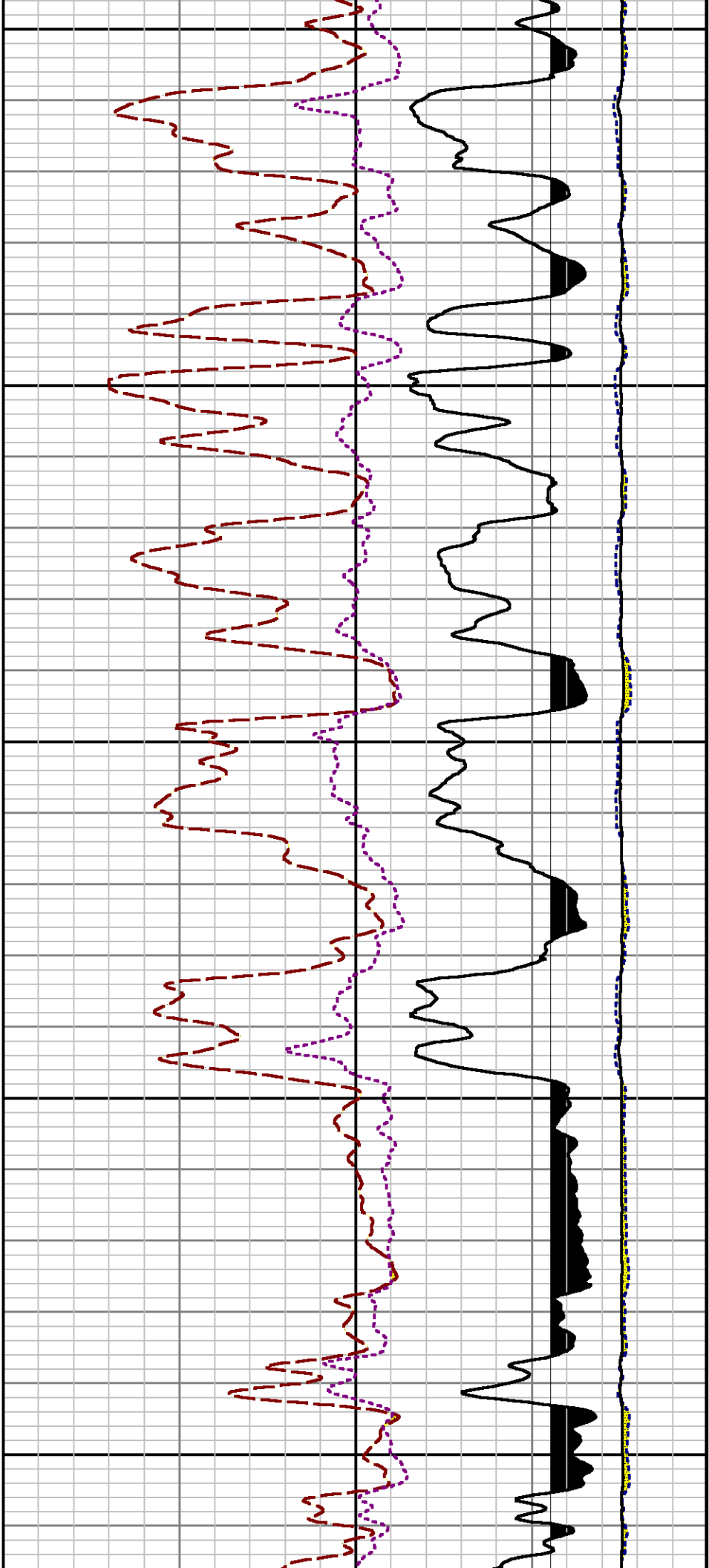
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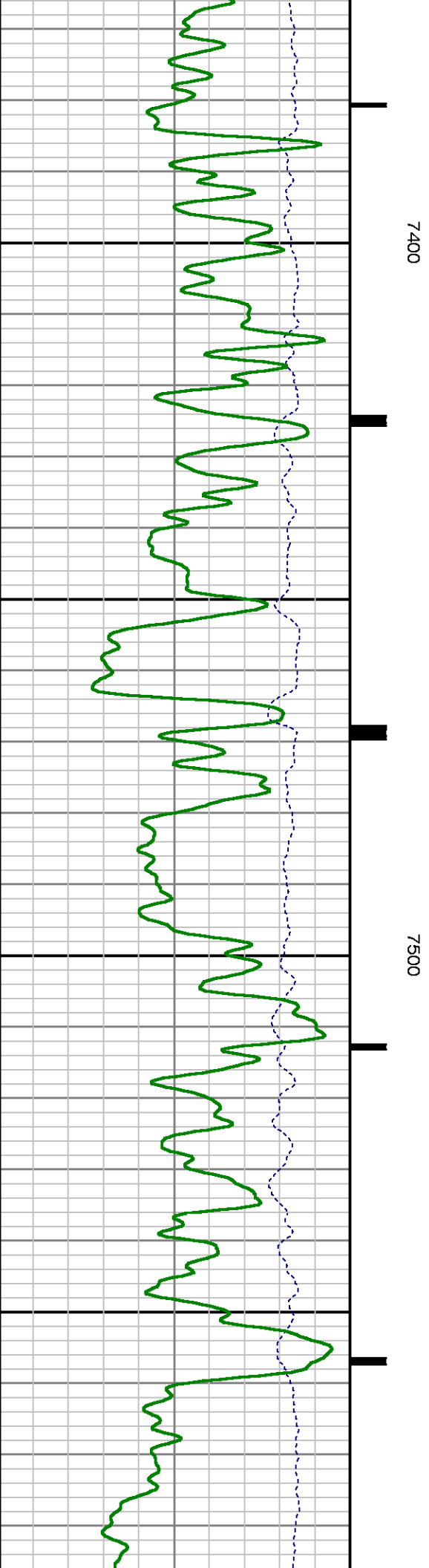
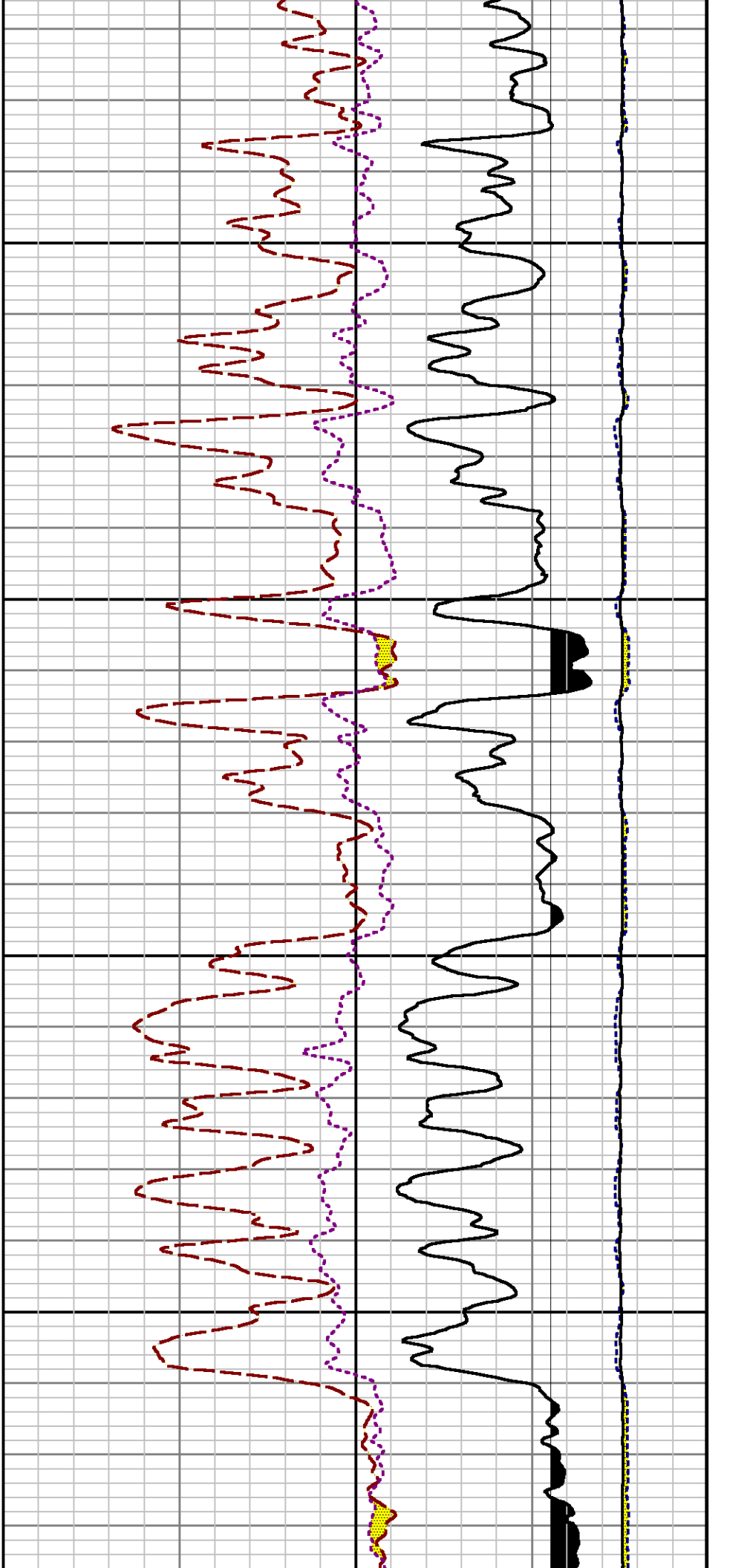


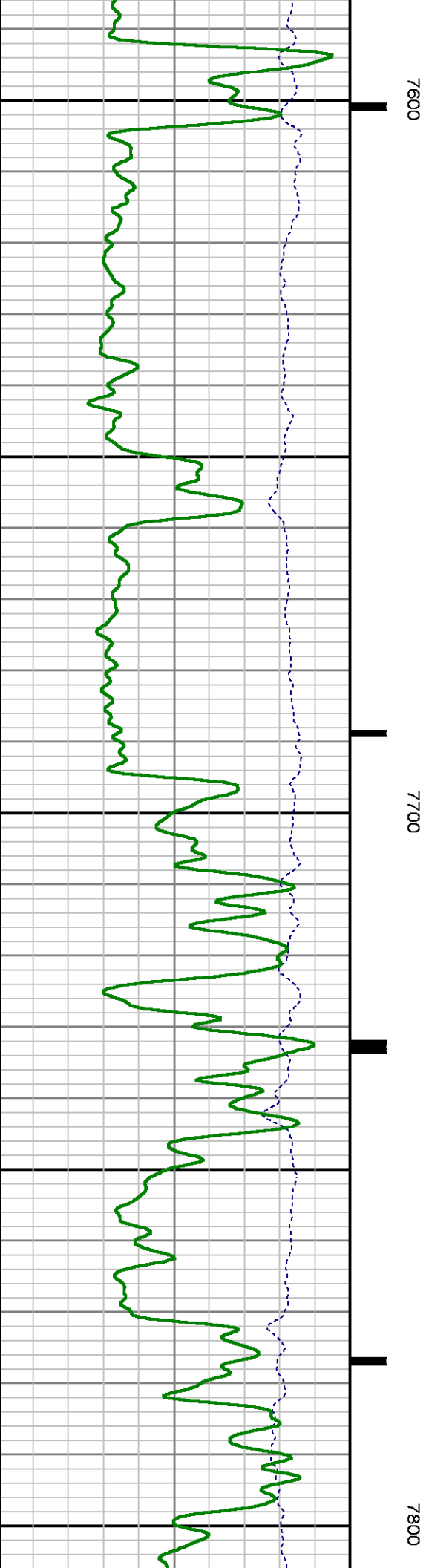
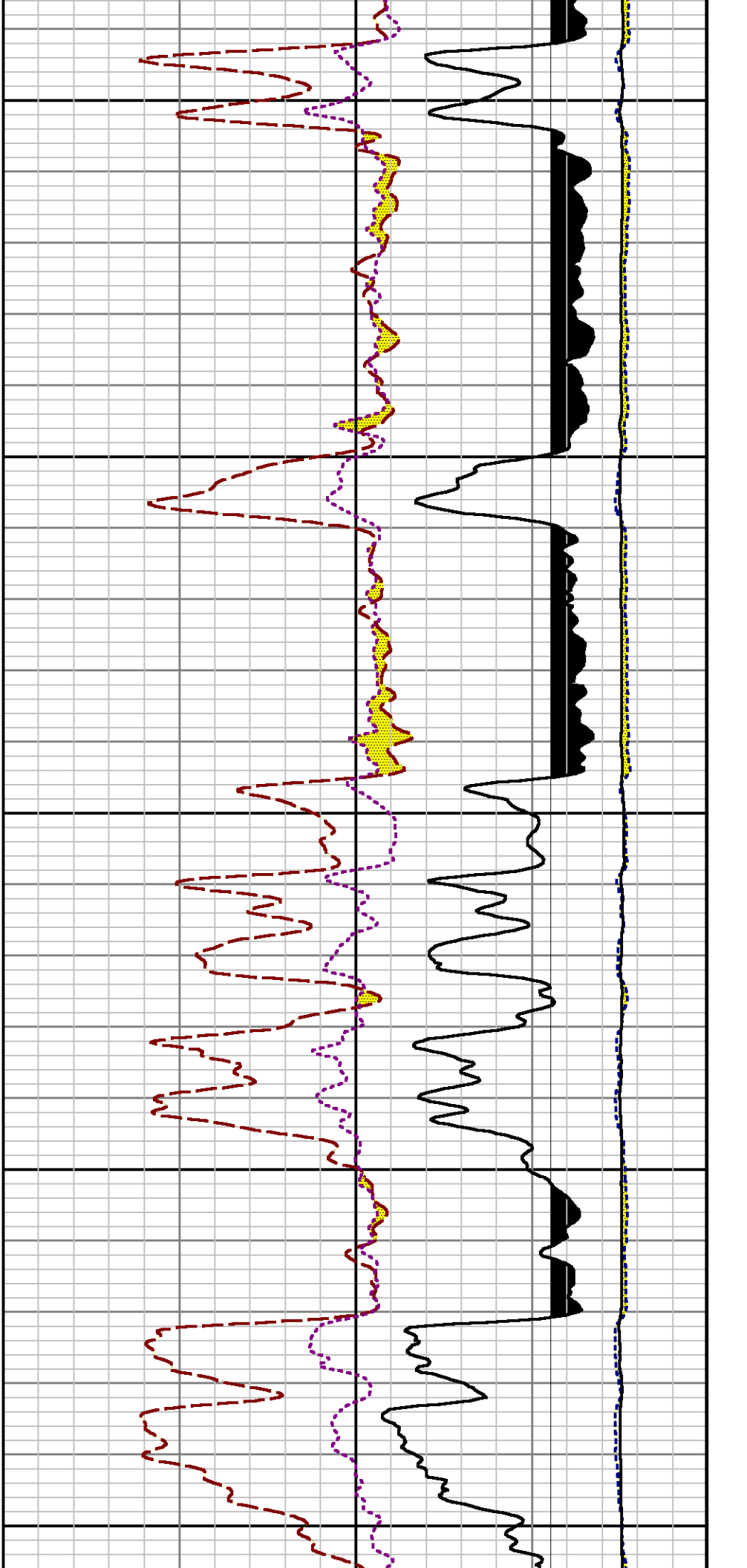


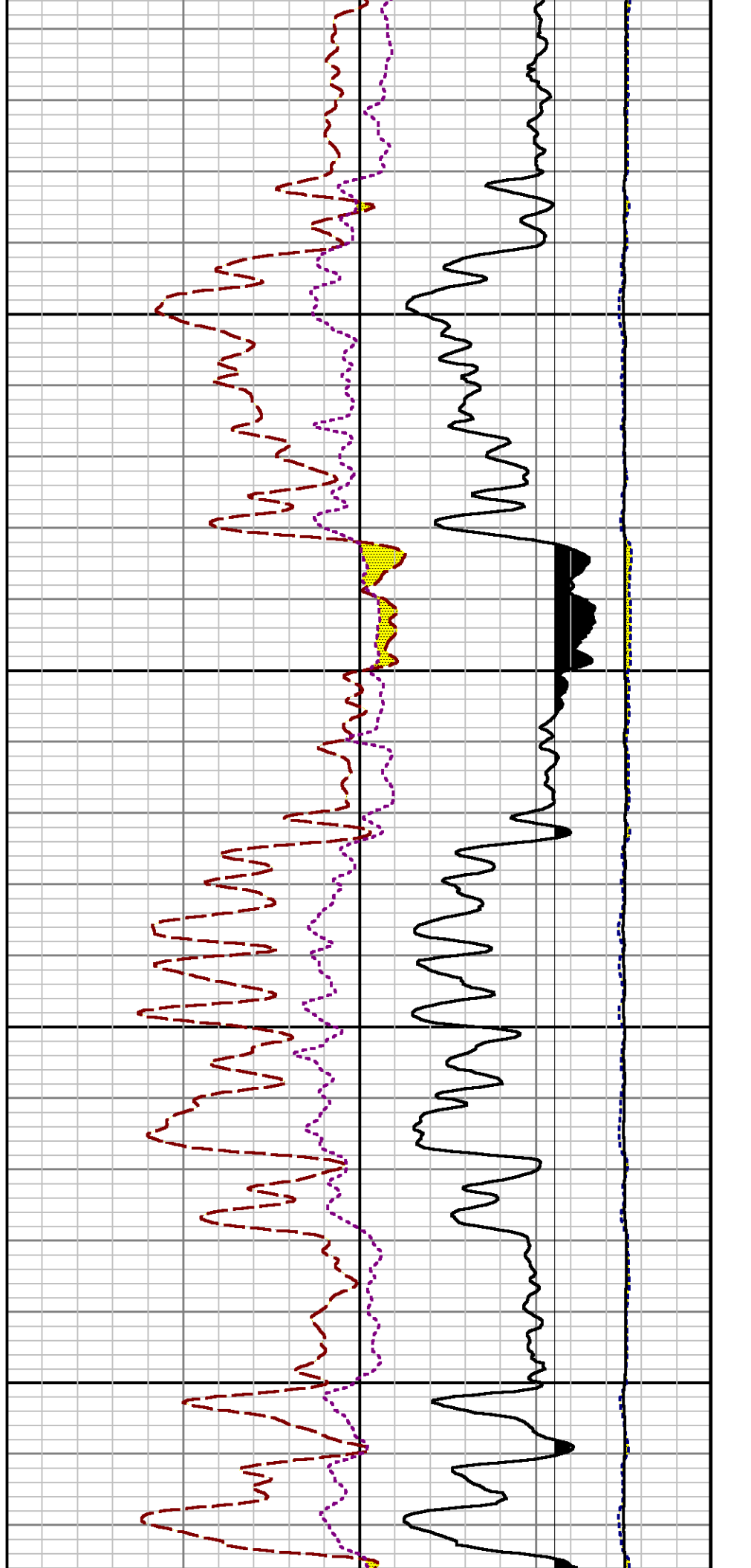
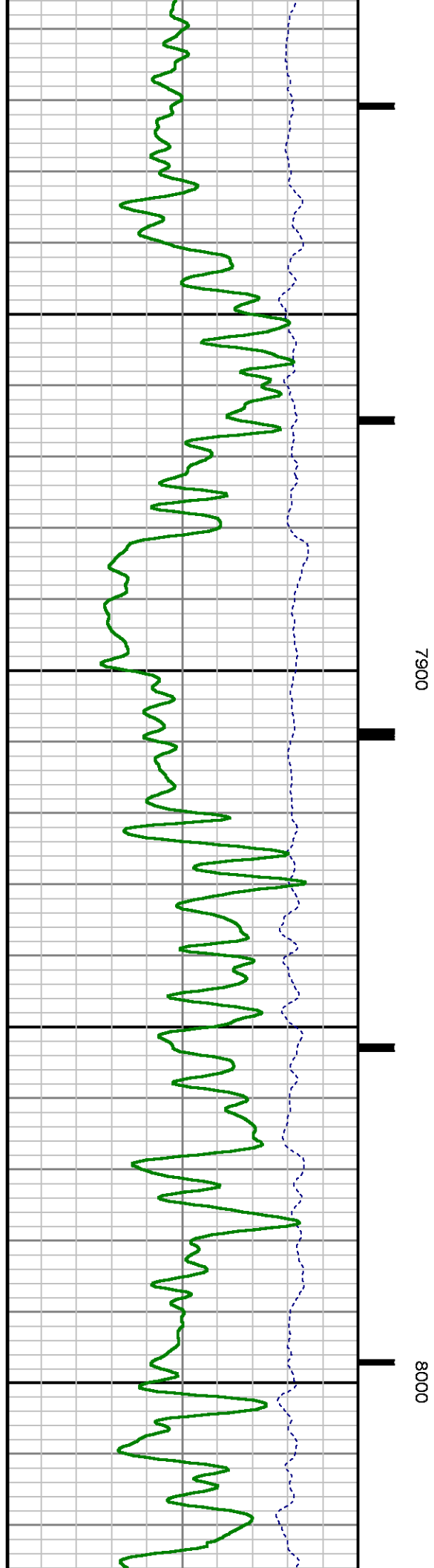


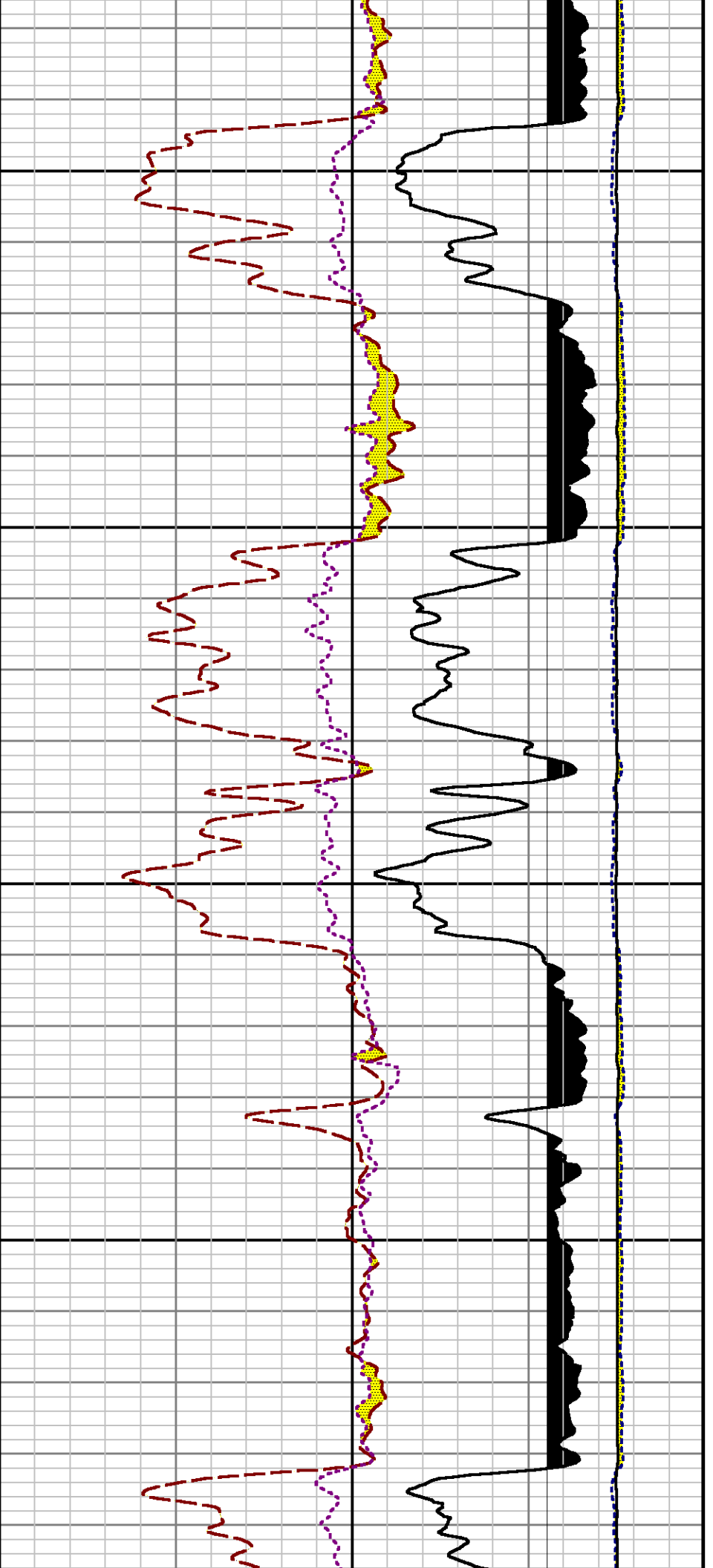






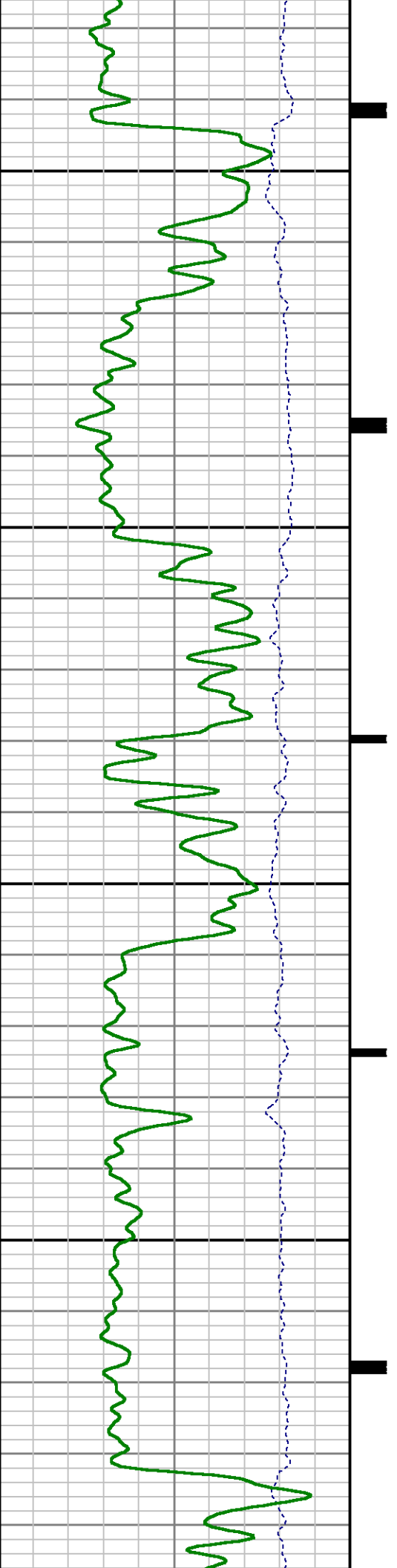


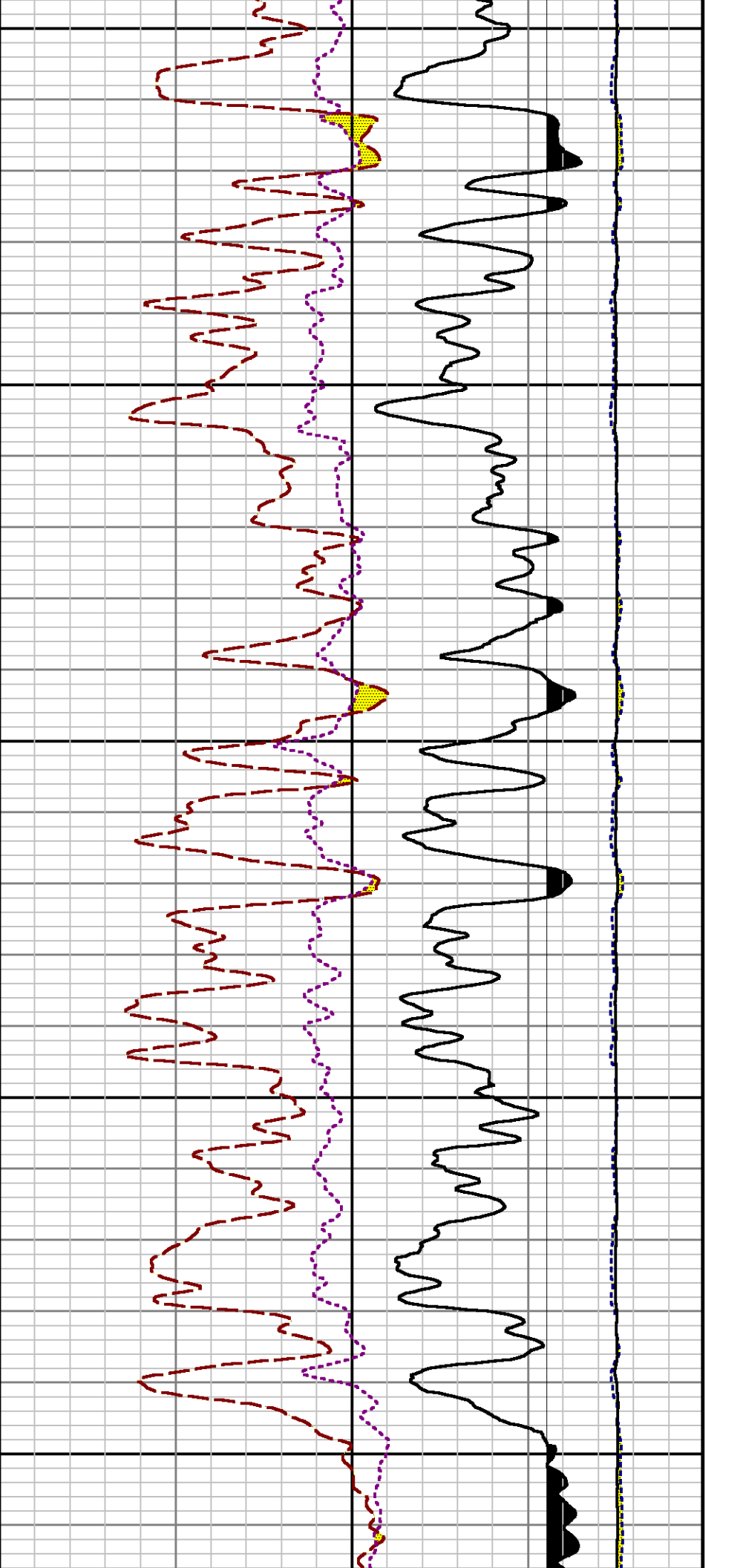




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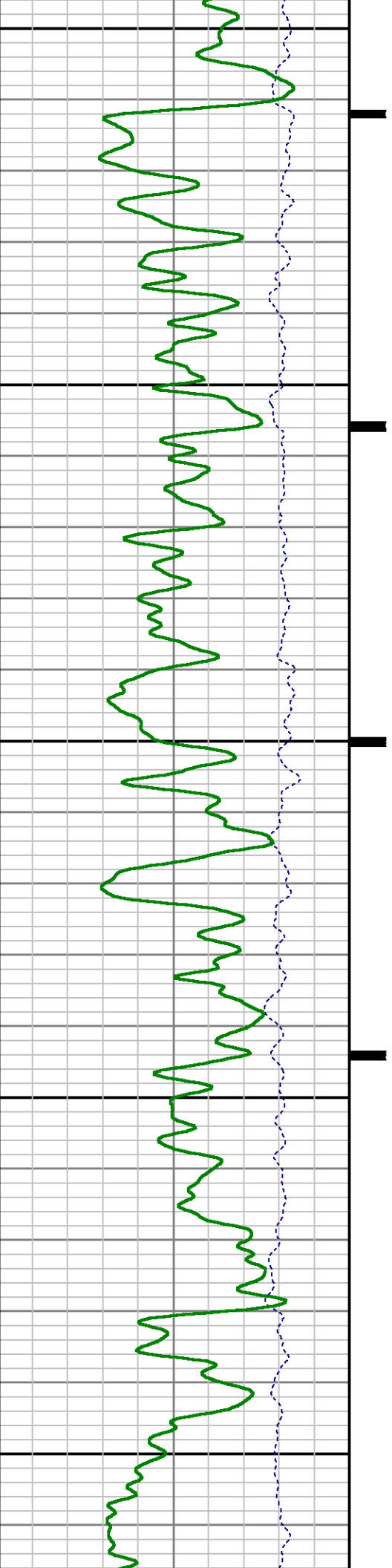
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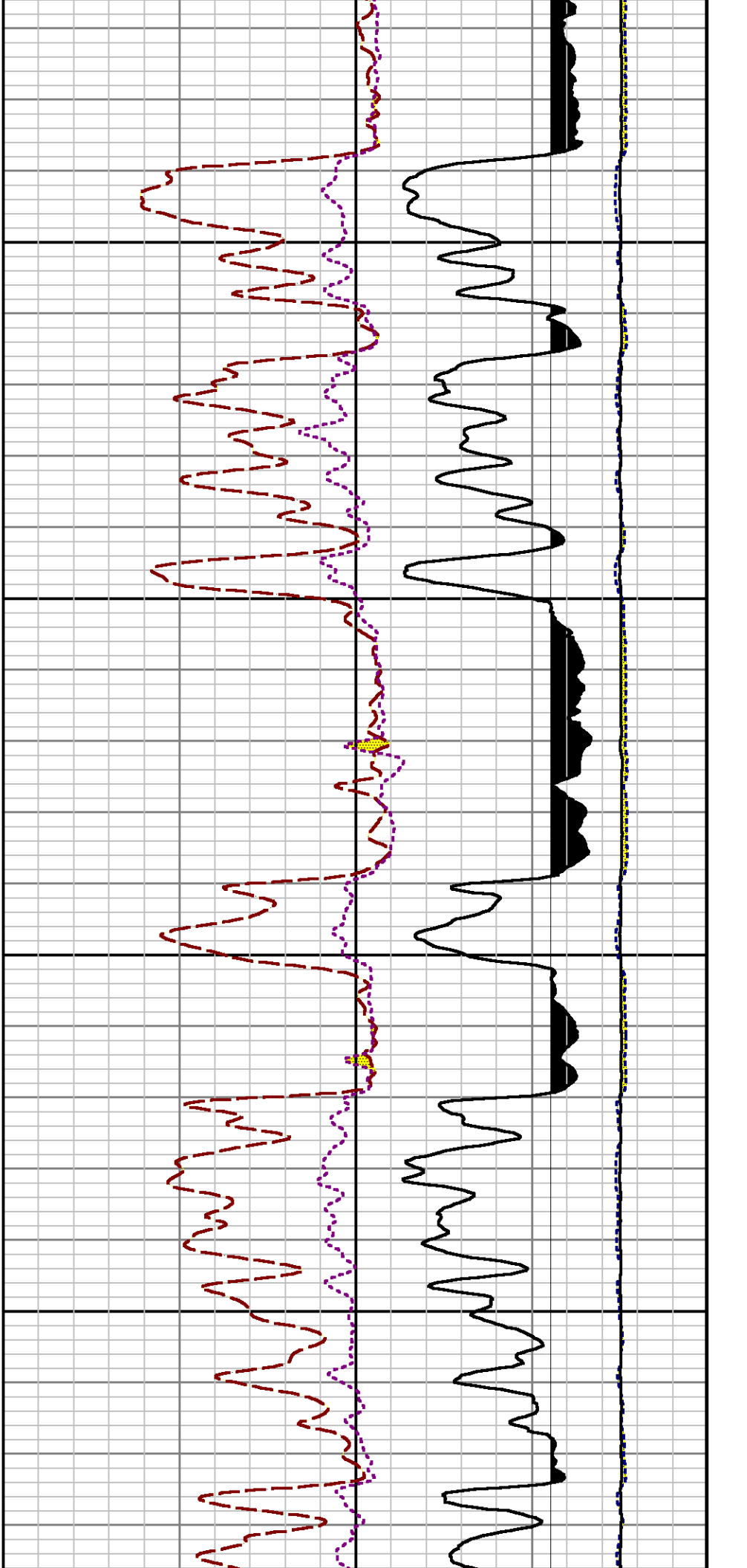
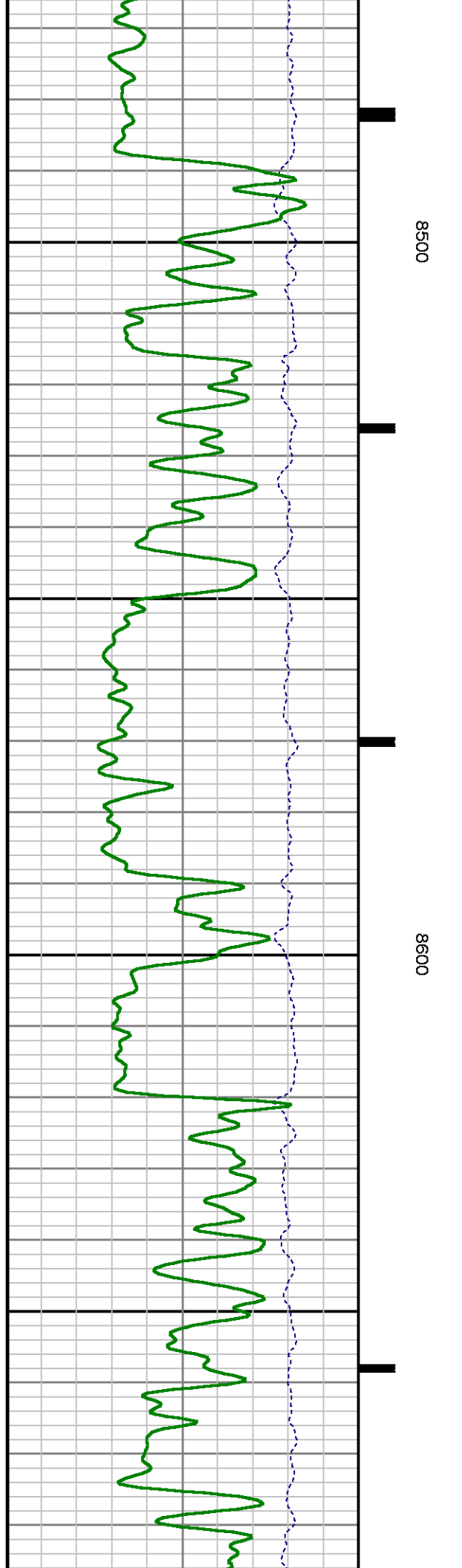


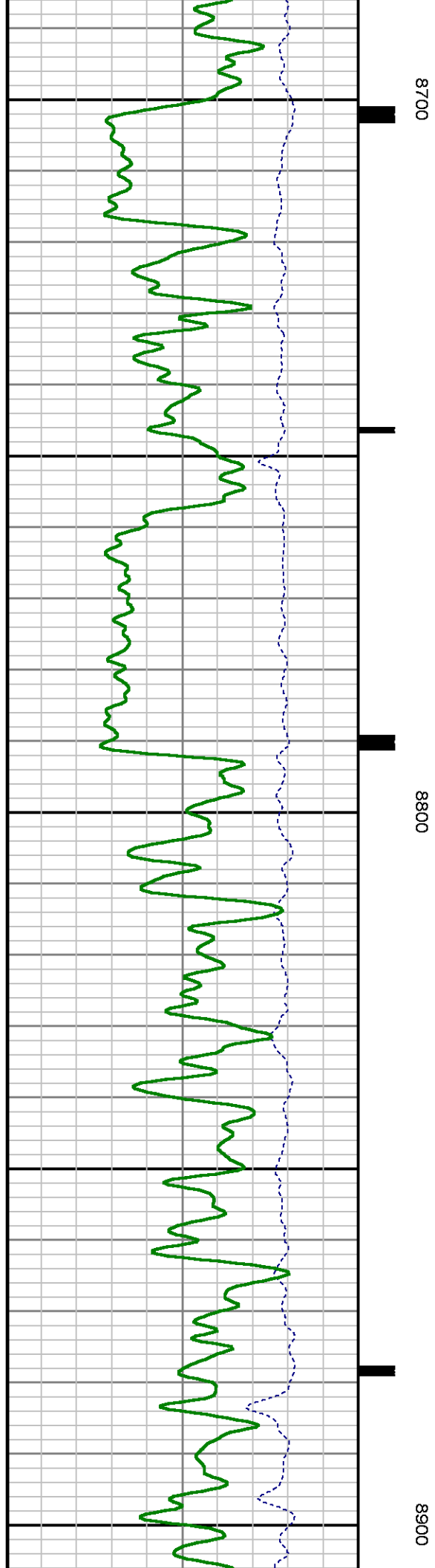
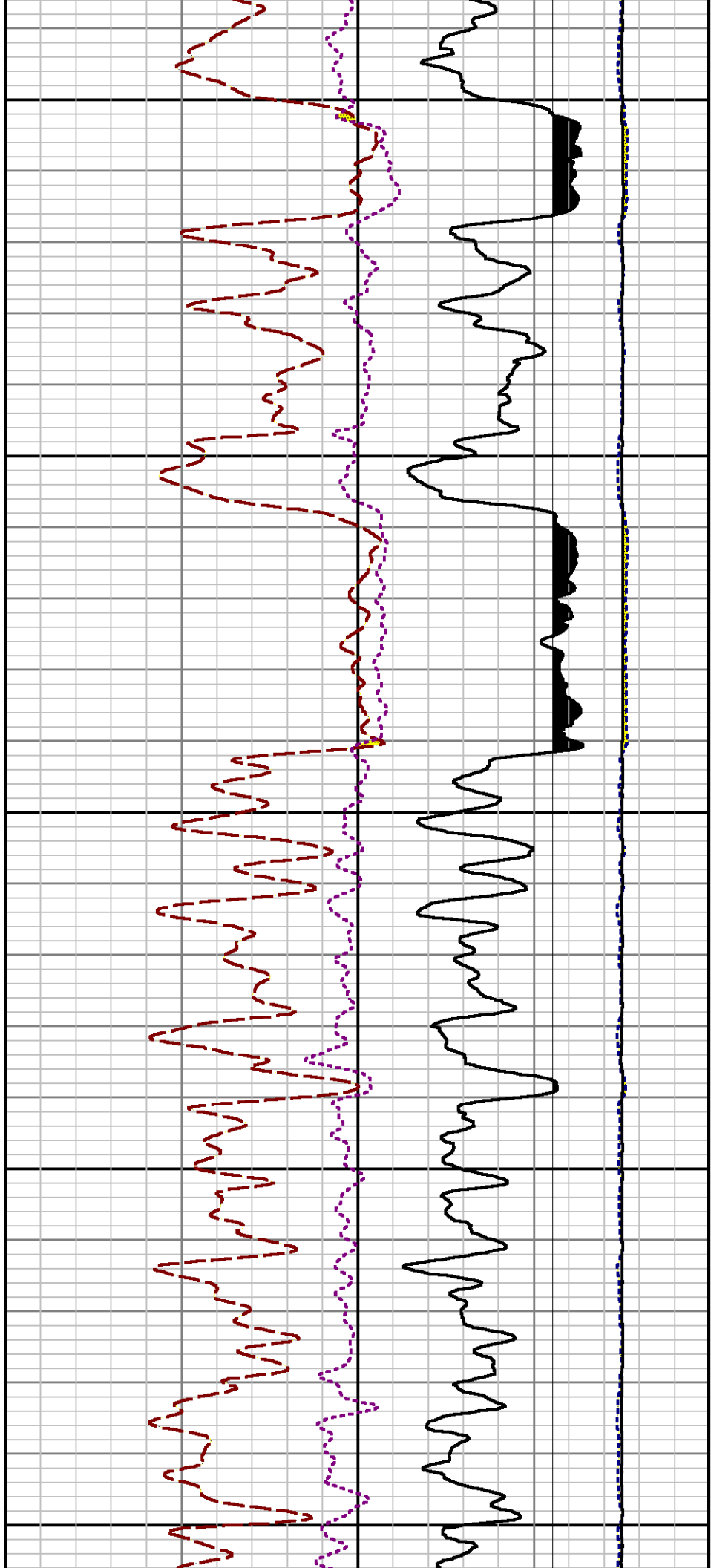


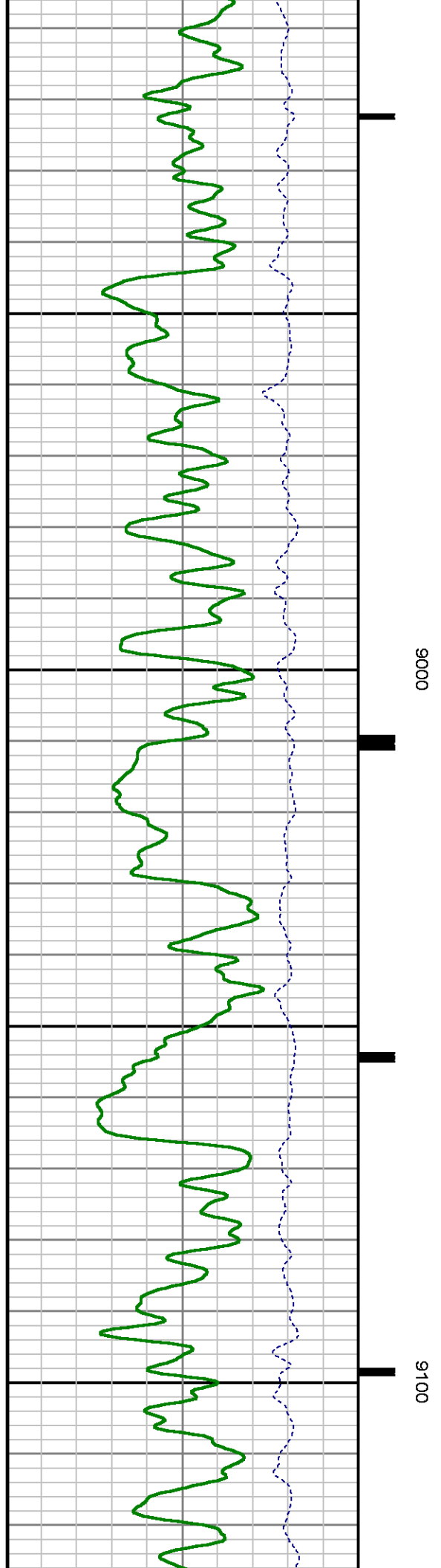
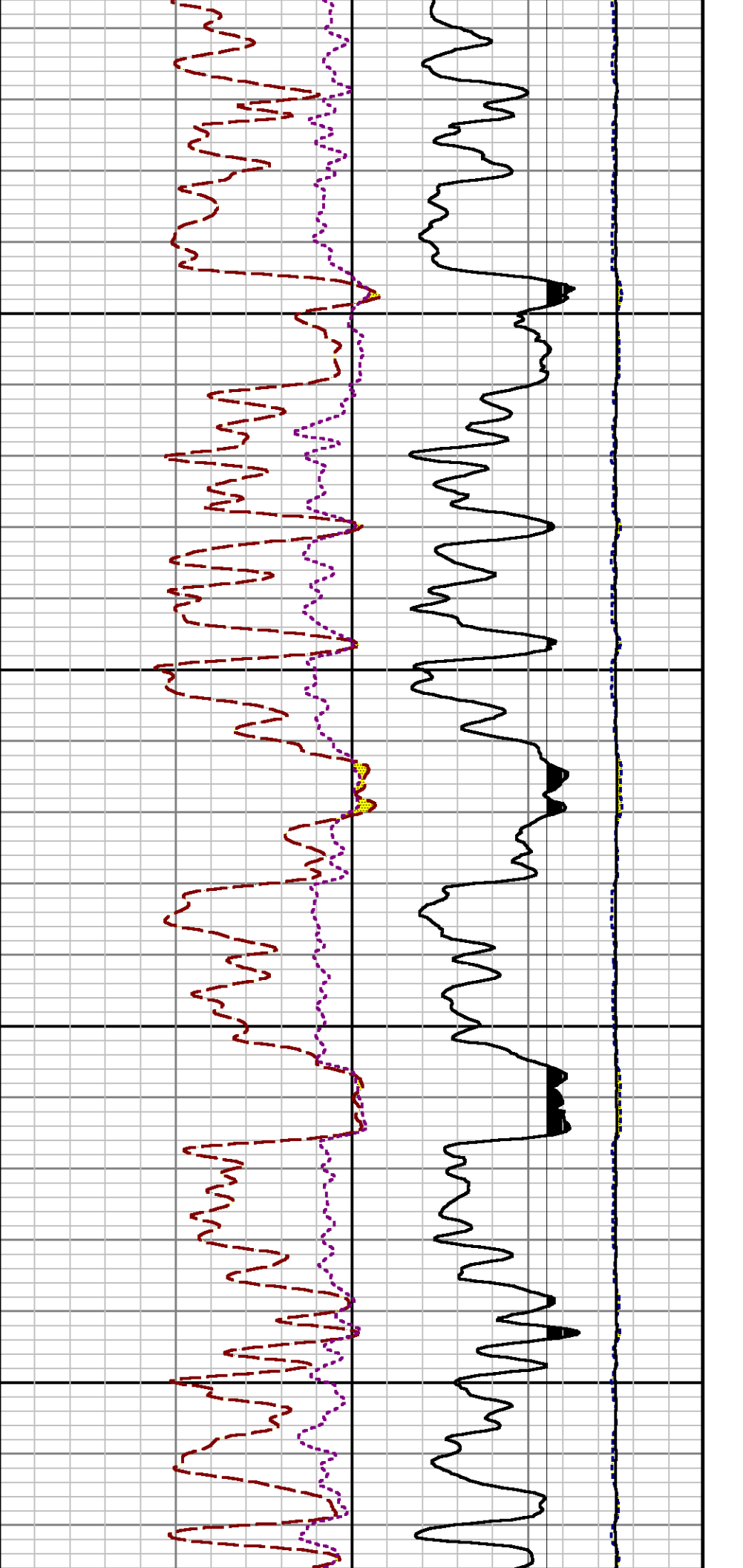
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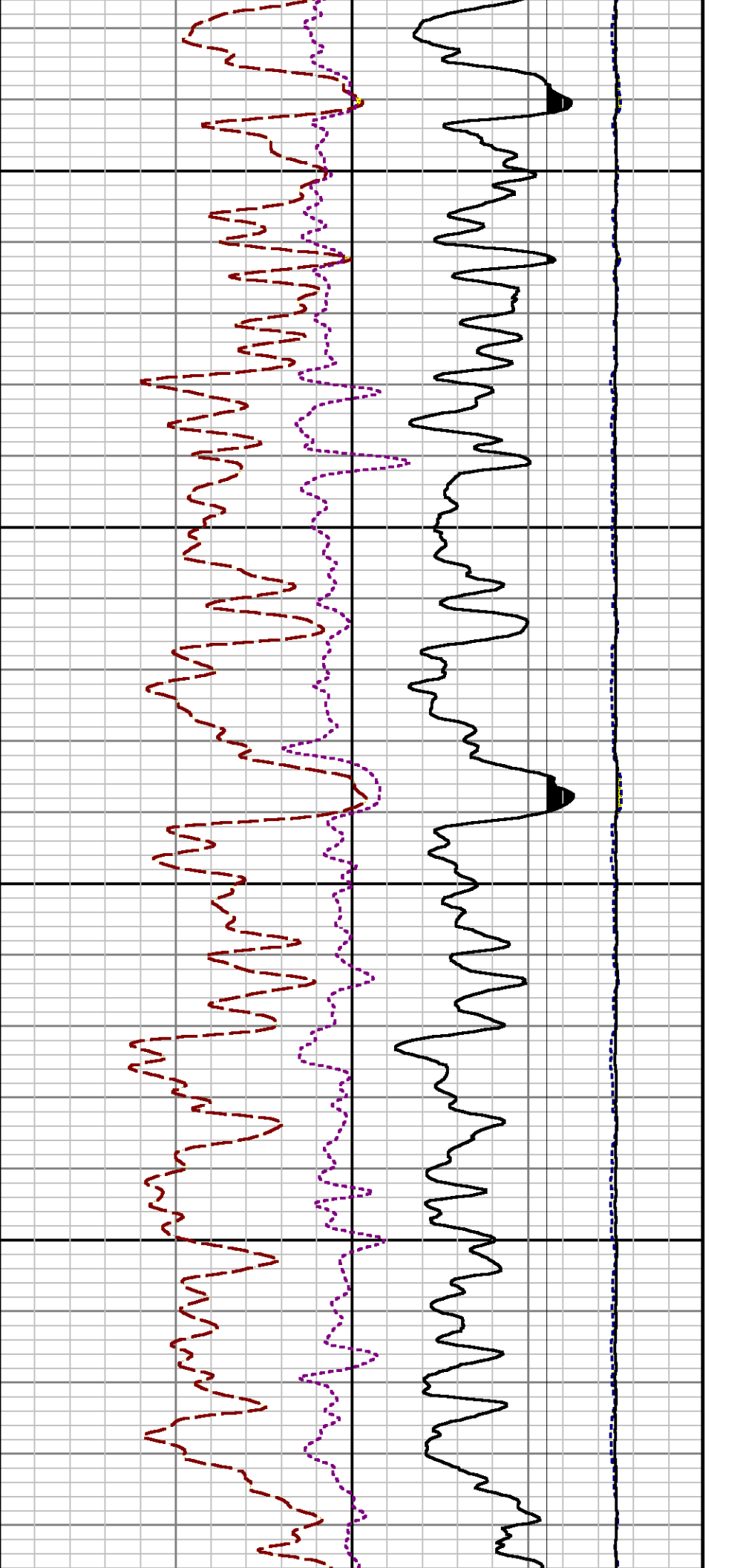
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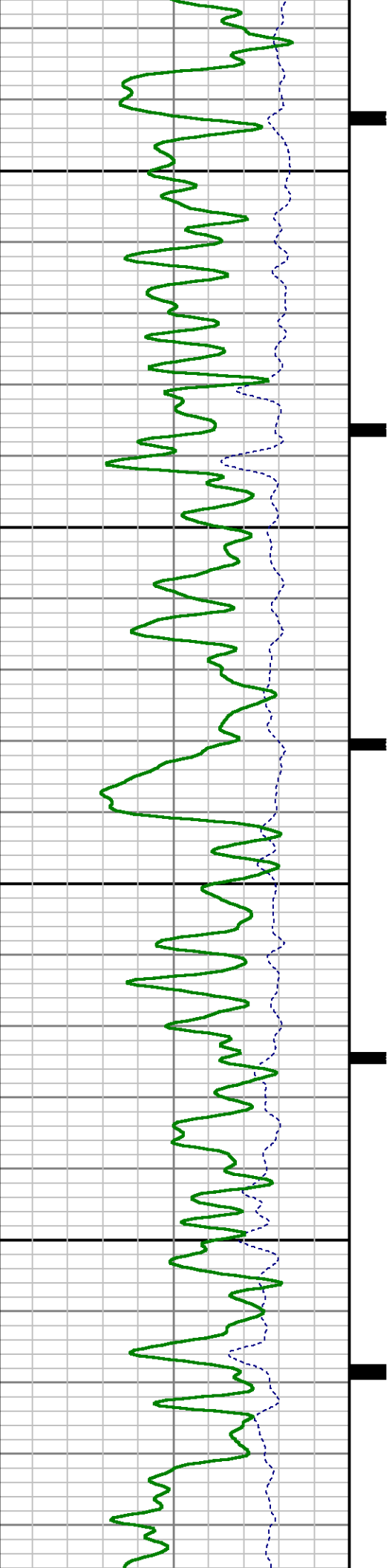


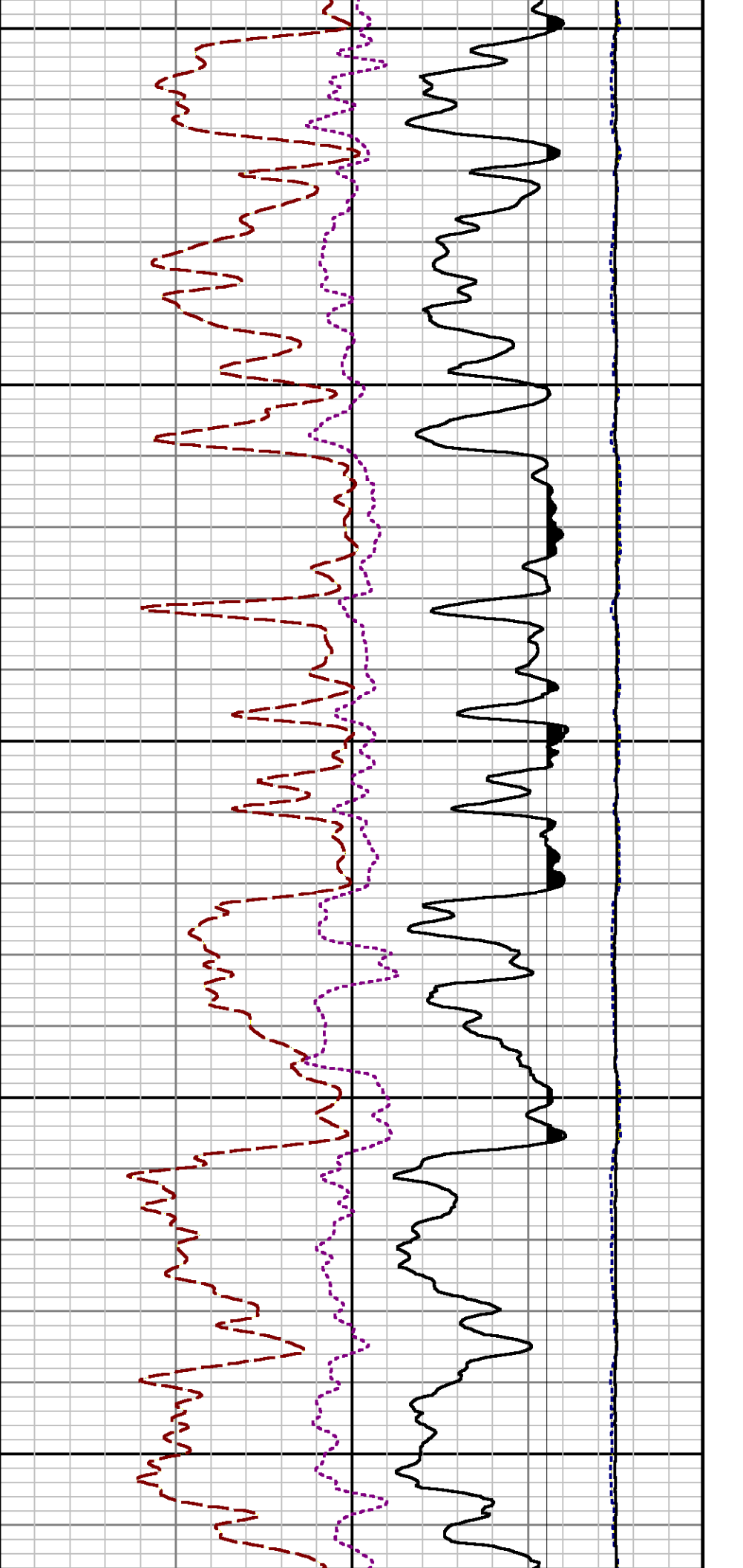




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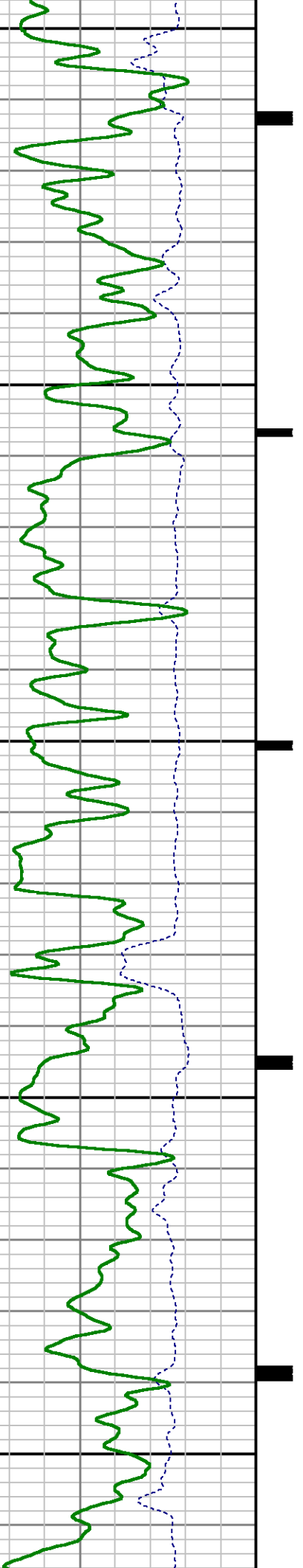
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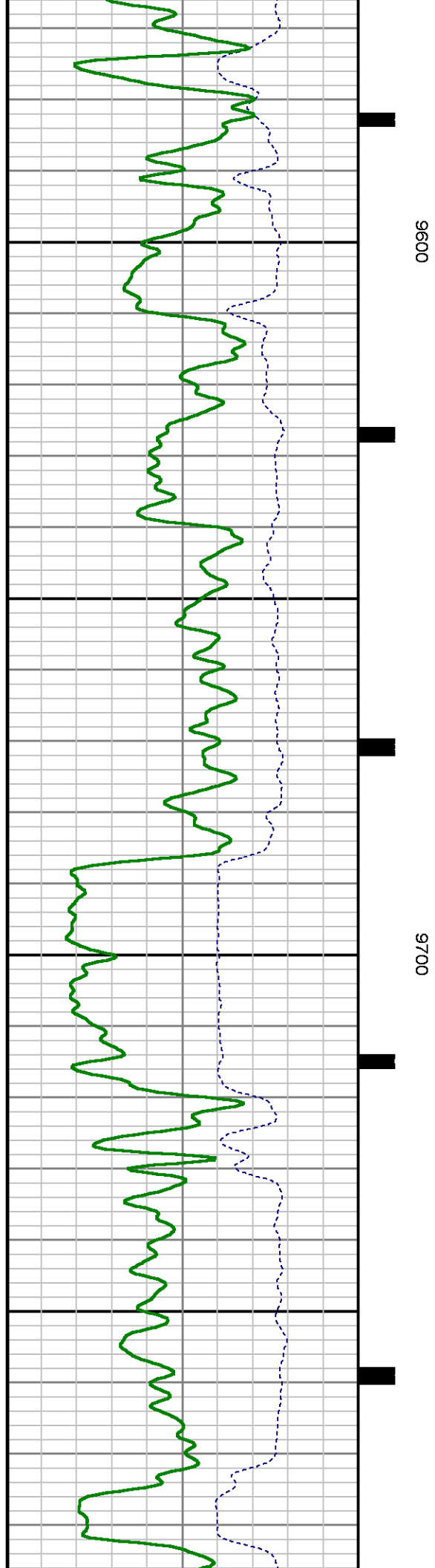
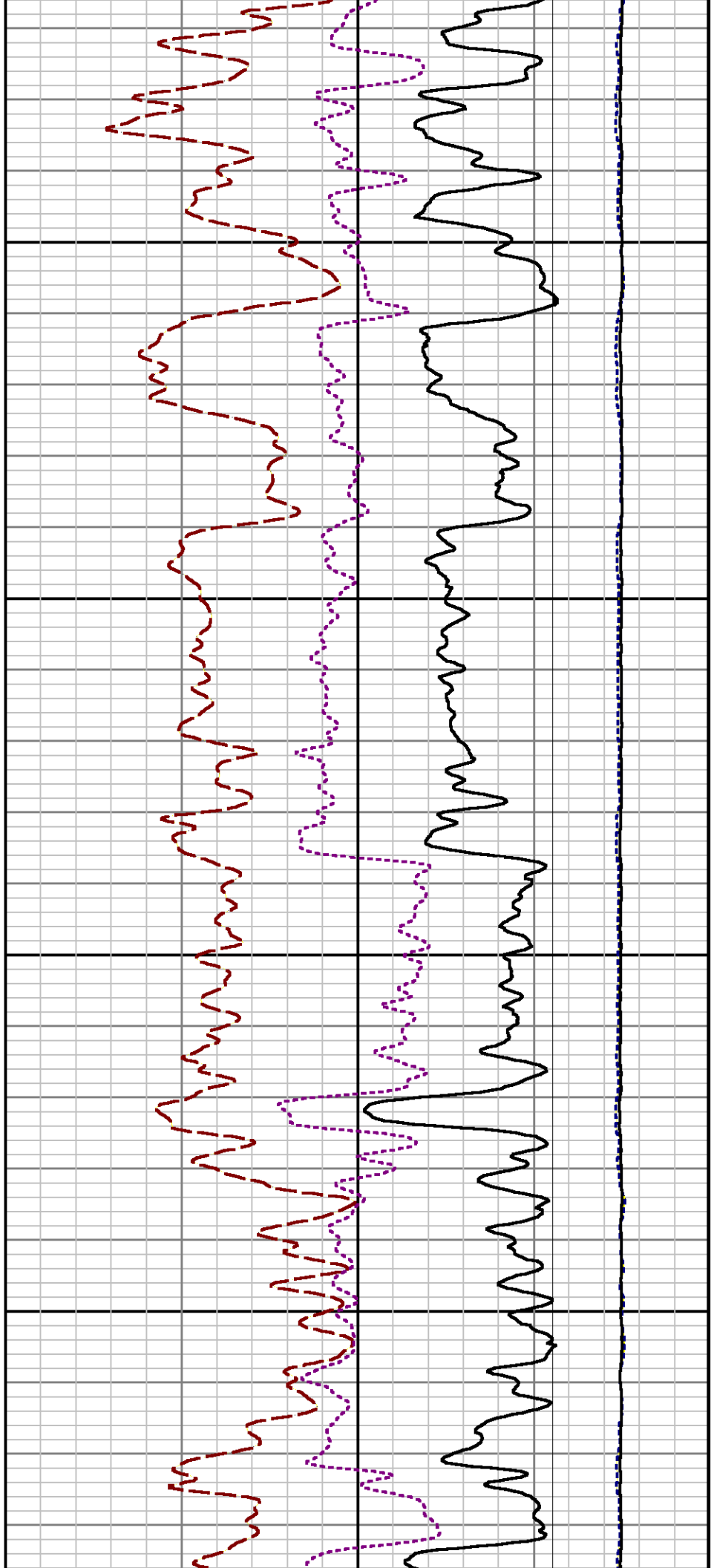


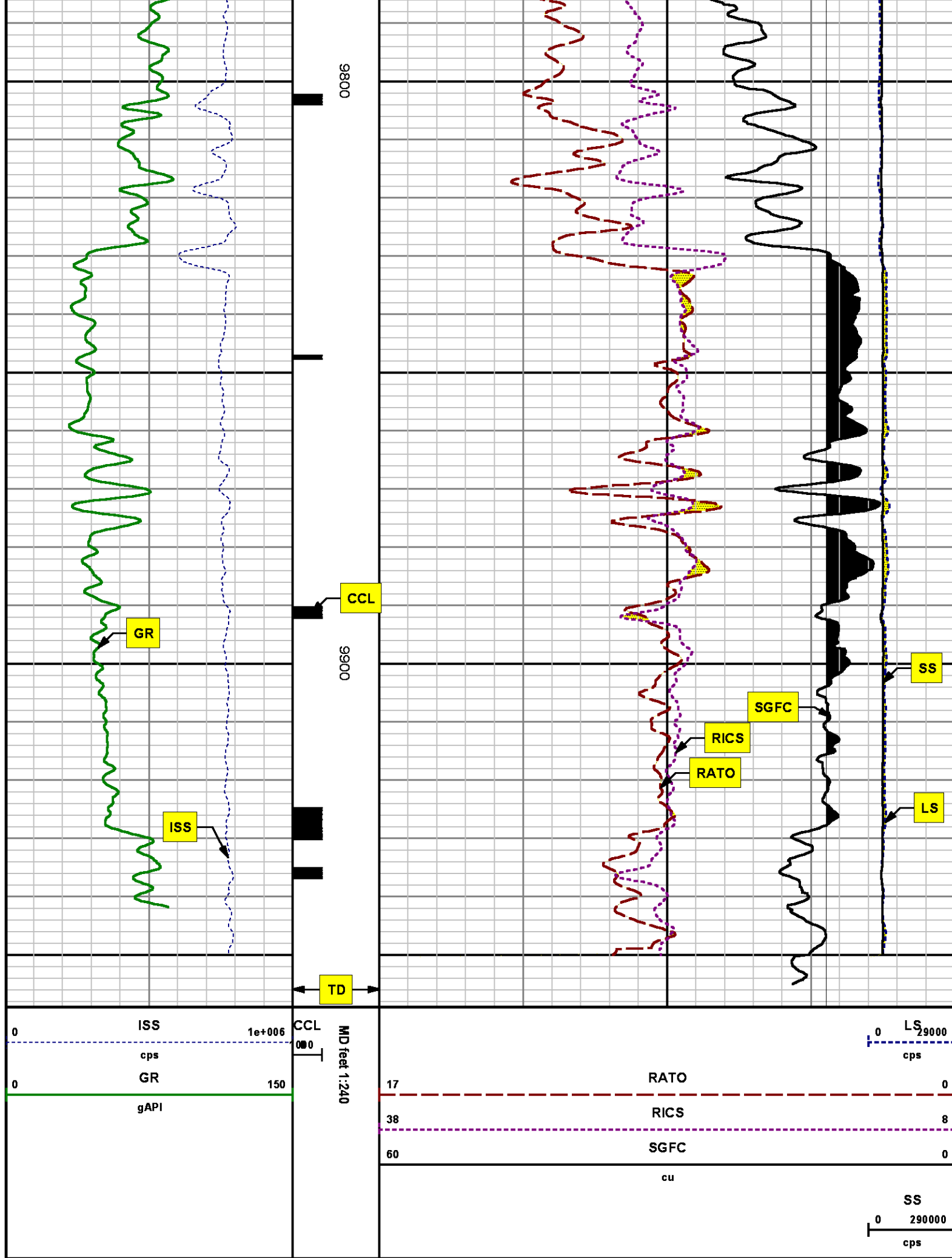


9400

9500







REPEAT SECTION

PNC 3-D MODE

SPL PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
PNC Porosity	Borehole	Cased		9155.170	9471.920
PNC Porosity	Borehole Size	8.750	inch	9155.170	9471.920
PNC Porosity	Casing Size	4.500	inch	9155.170	9471.920
PNC Porosity	Gas Filled	Non Gas Filled		9155.170	9471.920
PNC Porosity	Matrix	Sandstone		9155.170	9471.920
TPS Pressure	Temperature Corr. Source	Fixed (72.00)	degF	9155.170	9471.920

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					
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

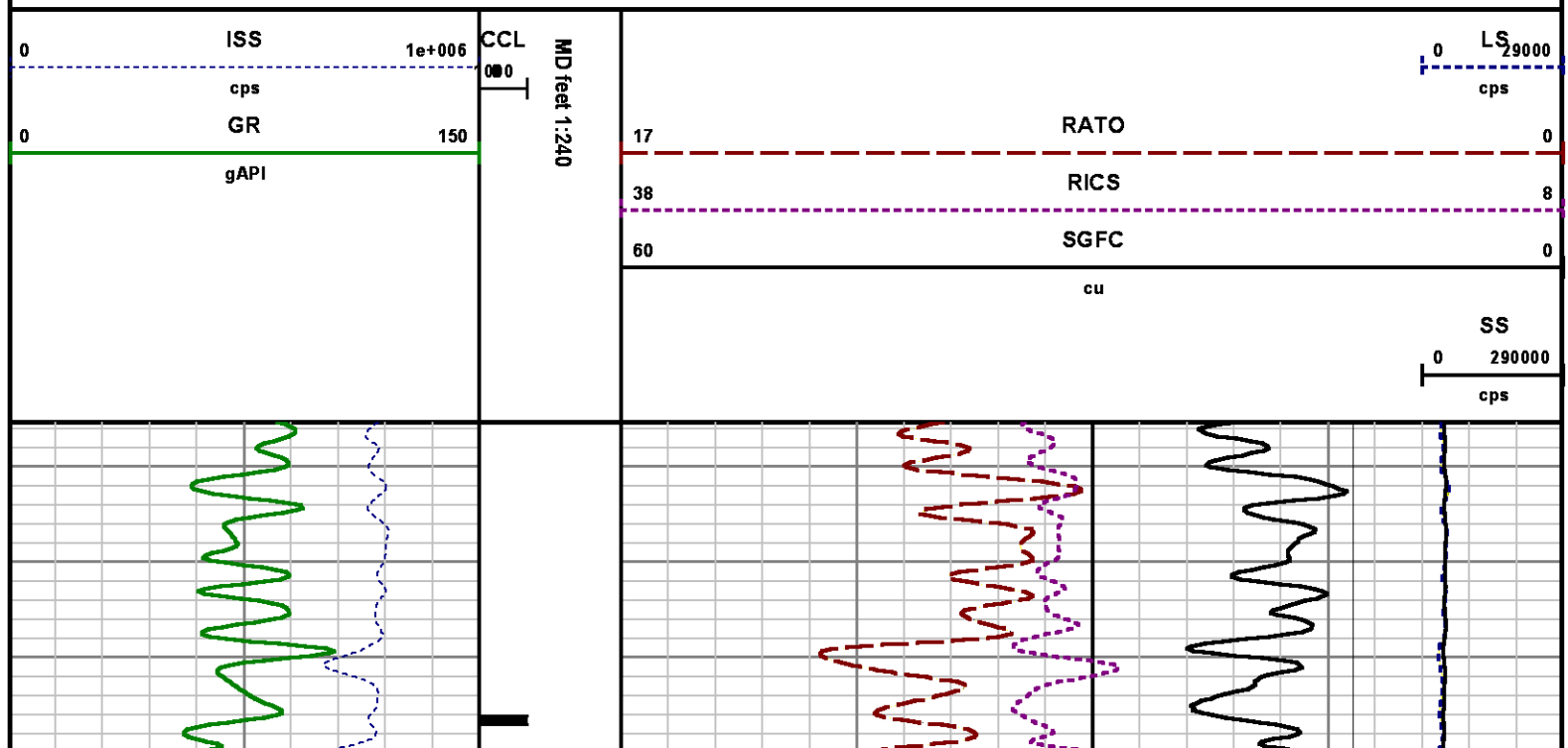
Well : FEDERAL PA 42-21

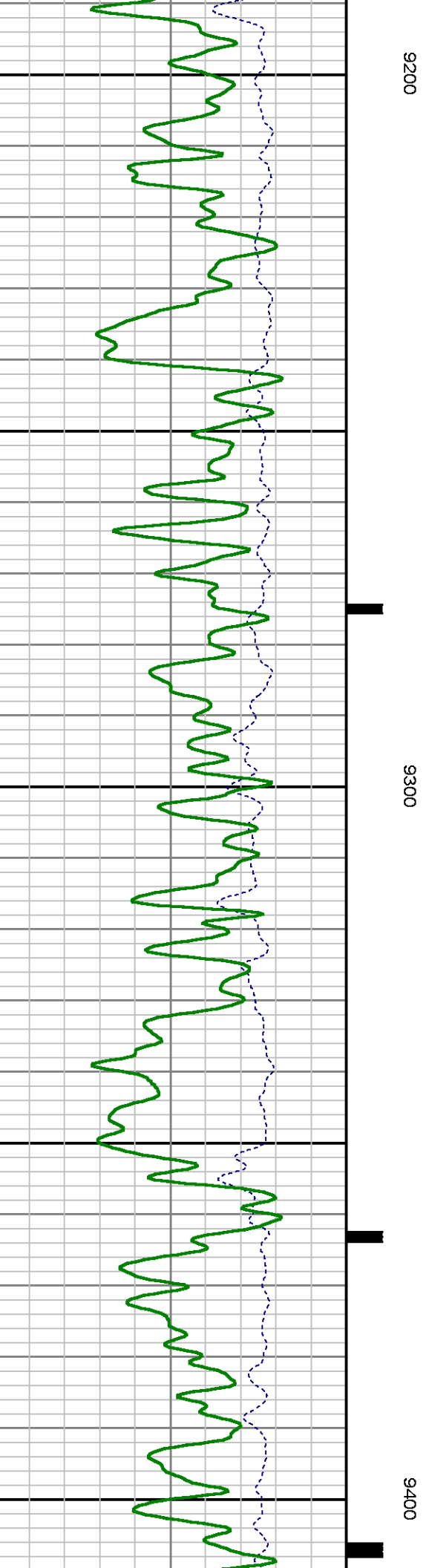
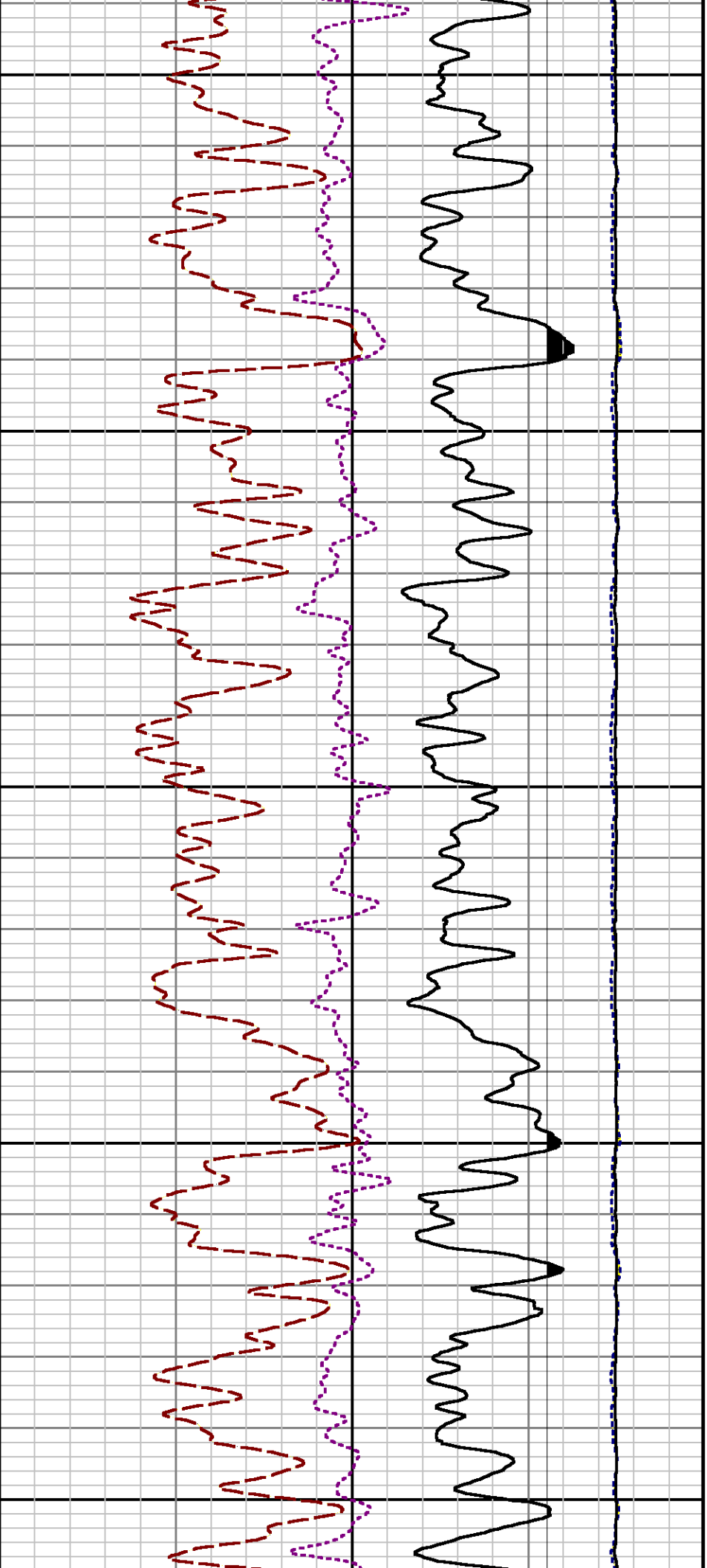
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Mode : PlotMgr 5.4.504

Interval : 9155.42 - 9455.00 feet UP

Created : 3/1/2014 5:19:44 PM







0	ISS	1e+006	CCL	000	MD feet 1:240	0	LS	29000
	cps						cps	
0	GR	150				17	RATO	0
	gAPI					38	RICS	8
						60	SGFC	0
							cu	
								SS
								0 29000
								cps

CALIBRATION SUMMARY

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

PNC

Calibration File: C:\case\calver\PNC\34517.cal

PNC 3D CALIBRATION SUMMARY

DATE/TIME PERFORMED: Mon Feb 17 17:46:16 2014 TOOL SERIES: 8281XA ASSET: 345 SEQ: 17

Calibrator

2437xb 112674

Source

8281AA 10148476

	ISS	Mtr Vlt (V)	SS Gain	LS Gain	XLS Gain	EA Temp (degF)	Sync Delay (usec)	RCAL
Raw Data	820334	120.00	2285.00	2268.00	2260.29	101.75	7.00	0.9795
Interpolated	1300000	139.11	2268.55	2260.32	2260.45			

	ISS	BKS	BKL	BKX	SGA1	SDA1	SGA2	SDA2
Raw Data	820334	6396.99	1005.70	137.84	25.78	0.14	24.27	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	820334	172554.98	26624.86	90657.22	32281.71	8422.19	54854.50	13466.67
Fit Quality %		0.58	0.67	0.54	0.53	0.54	0.50	0.57

	ISS	RBOR	RIN ISS/ILS	RIN13 ISS/IXS	RICS ISS/CSS	RATO SS/LS	RTWO SS2/LS	RONE CSS/CLS
Raw Data	820334	1.43	4.75	30.81	14.95	10.76	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 %		0.08	0.27	0.26	0.24	0.04	0.04	0.08
Reduced	1397428	1.43	4.79	31.02	15.04	10.76	3.83	4.08
		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

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

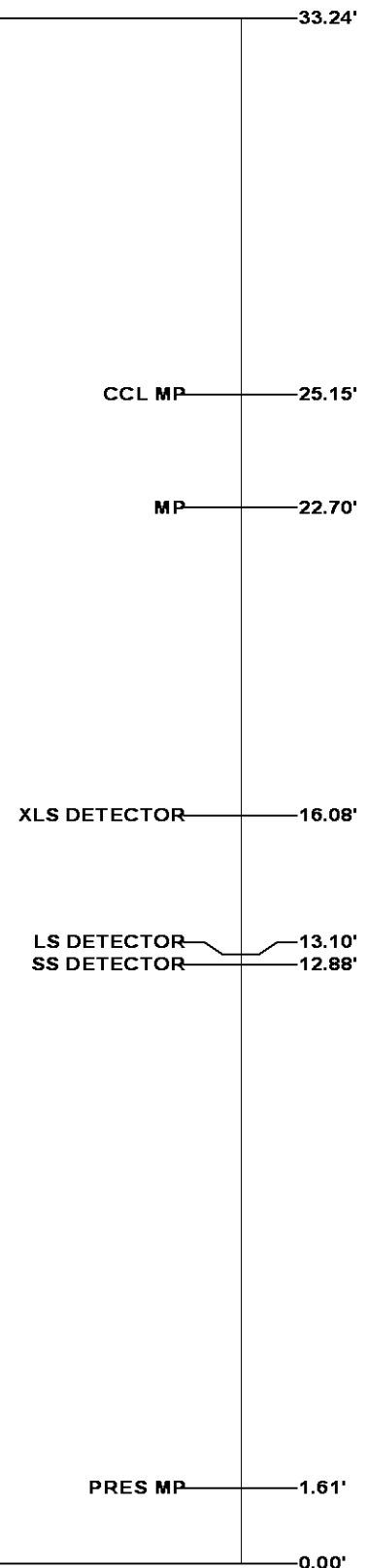
Series 2812LA
Mnemonic SNDX
Diameter 1.69"

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"



Baker Atlas

CASE

Company

WPX ENERGY

Well

FEDERAL PA 42-21

Field

PARACHUTE

County

GARFIELD

State

COLORADO

Location

SHL: 2610' FNL & 1441' FWL

BHL: 1610' FNL & 251' FEL (SENE)

SEC

21

TWP

6S

RGE

95W

Elevations

KB 6056 ft

DF

GL 6030 ft

File No:

CH083166

API No:

05045220370000

21 6S 95W

PA 22-21 PAD

NABORS 573