



**BAKER  
HUGHES**

RESERVOIR  
PERFORMANCE  
MONITOR

Baker Atlas

File No: CH07263	Company Well Field County	WPX ENERGY YOUBERG RWF 444-23 RULISON GARFIELD	State COLORADO
API No: 05045182490000	Location 23 GS 94W RWF 33-23 PAD NABORS 577		Other Services BOND LOG
Permanent Datum Log Measured From Drill Measured From	GL KB KELLY BUSHING	Elevation 5601.5 ft 26 ft Above P. D.	Elevations KB 5627.5 ft DF GL 5601.5 ft

Date	29/MAY/13	
Run	ONE	
Service Order	575089	
Depth Driller	8632 ft	
Depth Logger	8496 ft	
Bottom Logged Interval	8493 ft	
Top Logged Interval	26 ft	
Time Started	0630	
Time Finished	1230	
Operator Rig Time	6 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	235 degF	
Reference Log	BAKER HUGHES BOND LOG	
Reference Log Date	28/MAY/13	
Equipment No.	4271	GRAND JCT
Recorded By	FLOYD RENEAU	
Witnessed By	JEFF DUGY	

- 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	2045 ft
8.75 in	2045 ft	8532 ft

Casing Record				
Size	Weight	Grade	From	To
9.625 in			0 ft	8532 ft
4.5 in	11.6 lbm/ft	I-80	0 ft	8532 ft

Remarks
All data on this log is shifted and depth matched using the Gamma Ray curve to the Baker Hughes bond log dated 5/28/2013 at the client's request.
The amount of linear shift is -2 feet.
Logged in PNC-3D mode.
BHT = 235°F
SJ = 5014'-5038'

Equipment Data					
Run	Trip	Tool	Series Number	Serial Number	Position
1	1	RPM	8281FA	10401926	FREE
1	1	RPM	8281PA	10203151	FREE
1	1	RPM	8281EA	10423671	FREE
1	1	GR	8262XA	10076055	FREE
1	1	TEL/CCL	8248ED	10296408	FREE
1	1	PCM	8250EA	10397894	FREE

MAIN SECTION  
PNC 3-D MODE

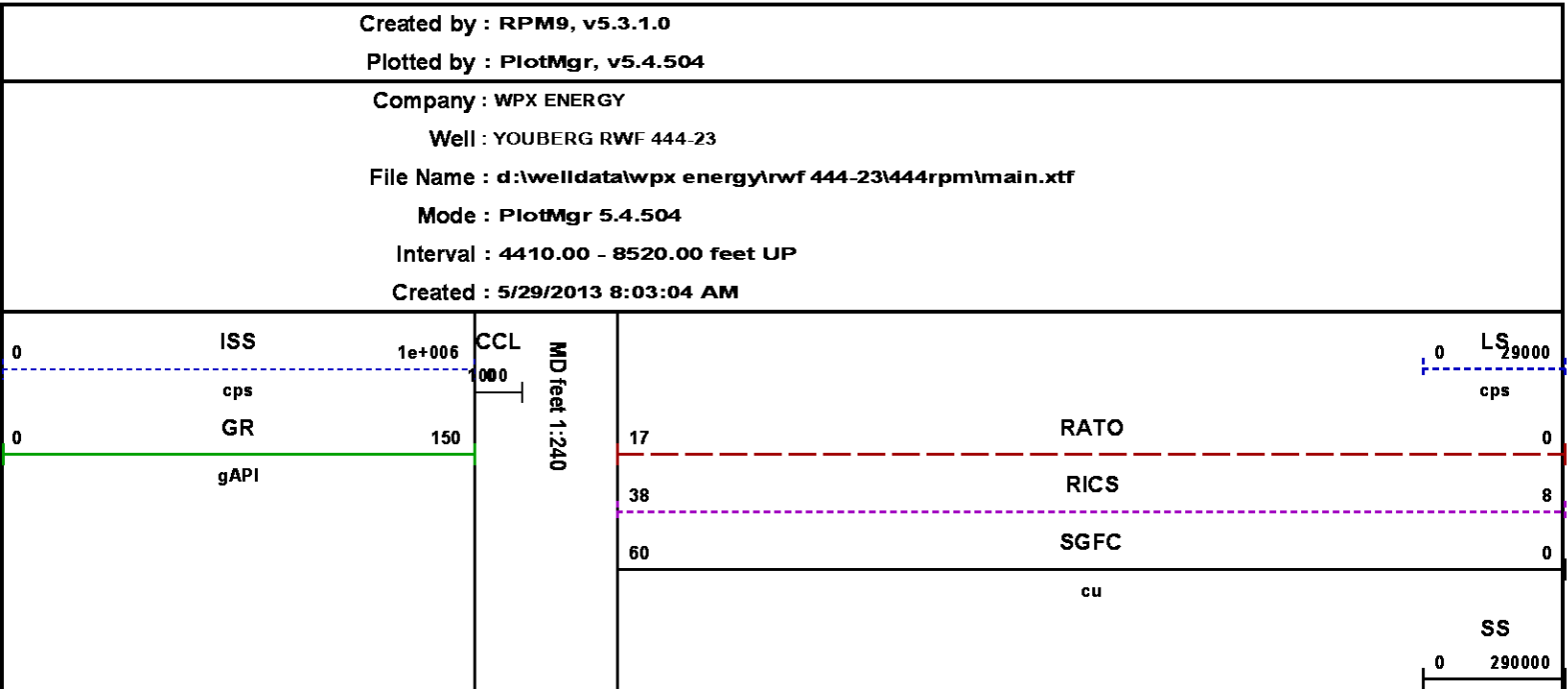
SPL PROCESSING

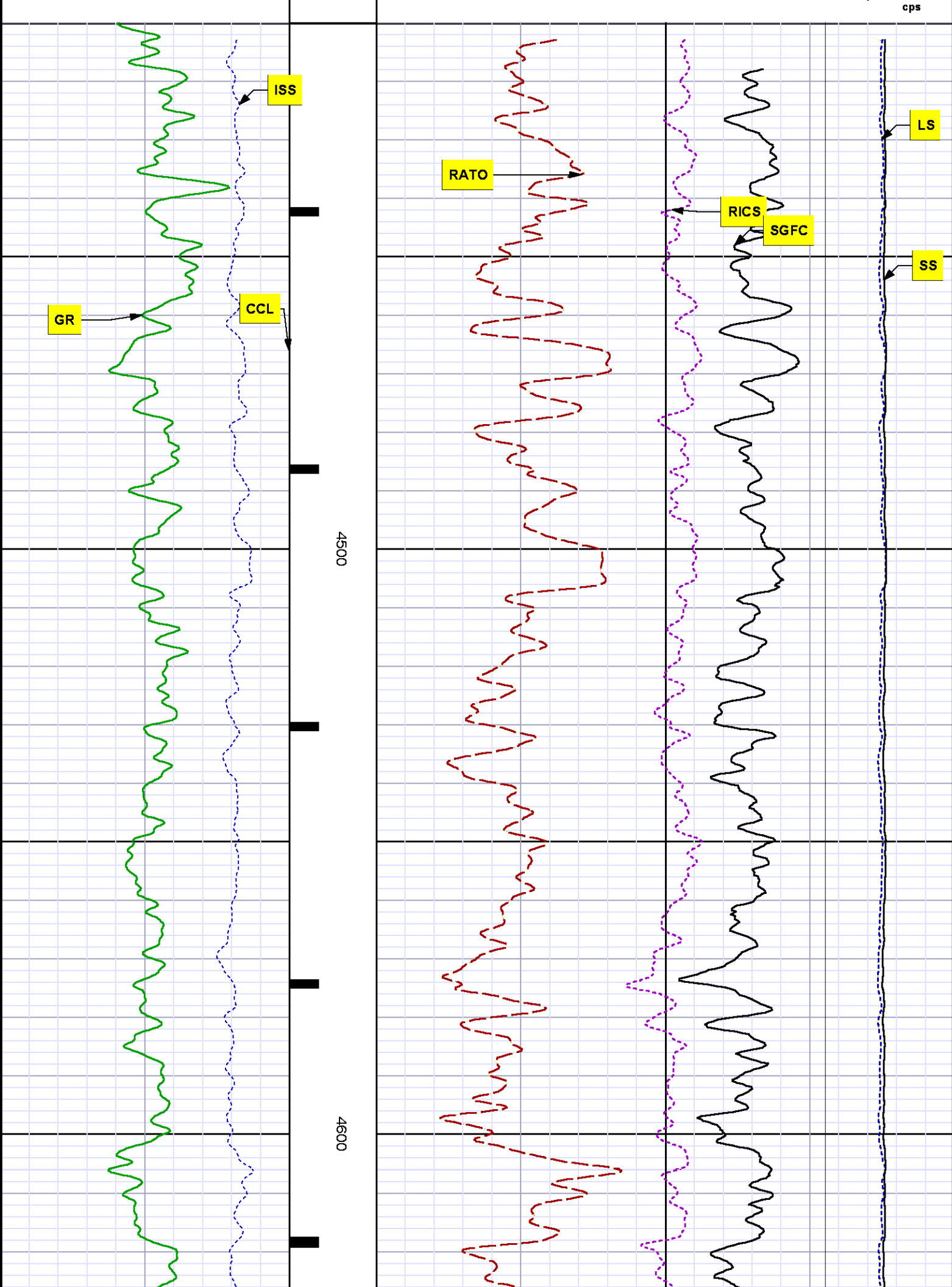
MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
PNC Porosity	Borehole	Cased		4399.500	8519.999
PNC Porosity	Borehole Size	7.875	inch	4399.500	8519.999
PNC Porosity	Casing Size	4.500	inch	4399.500	8519.999
PNC Porosity	Gas Filled	Non Gas Filled		4399.500	8519.999
PNC Porosity	Matrix	Sandstone		4399.500	8519.999

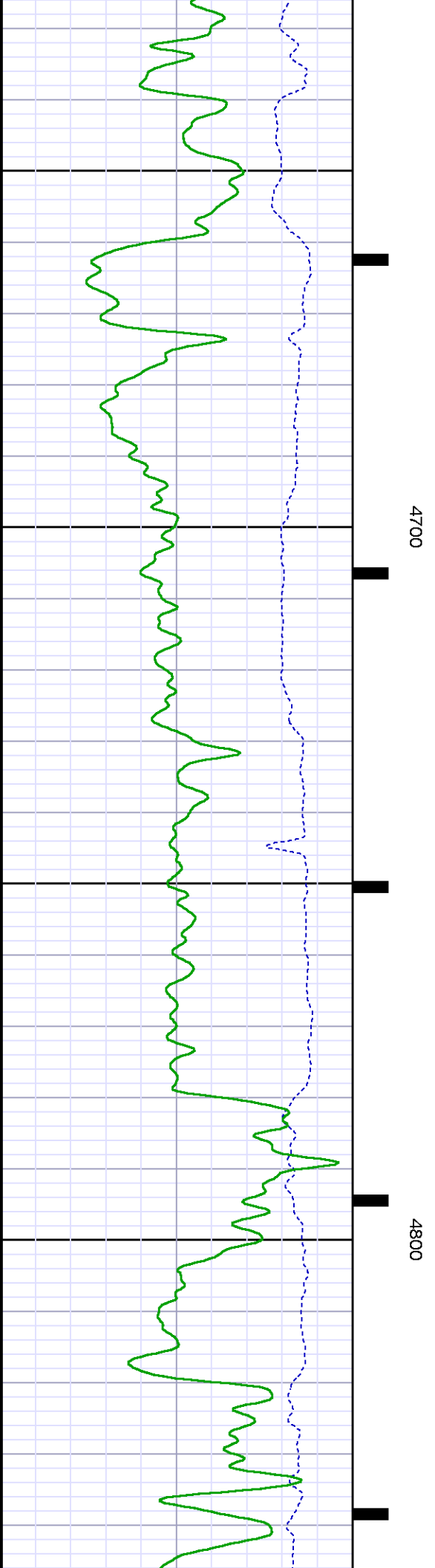
DEPTH OFFSETS  
(for Acquired Curves)

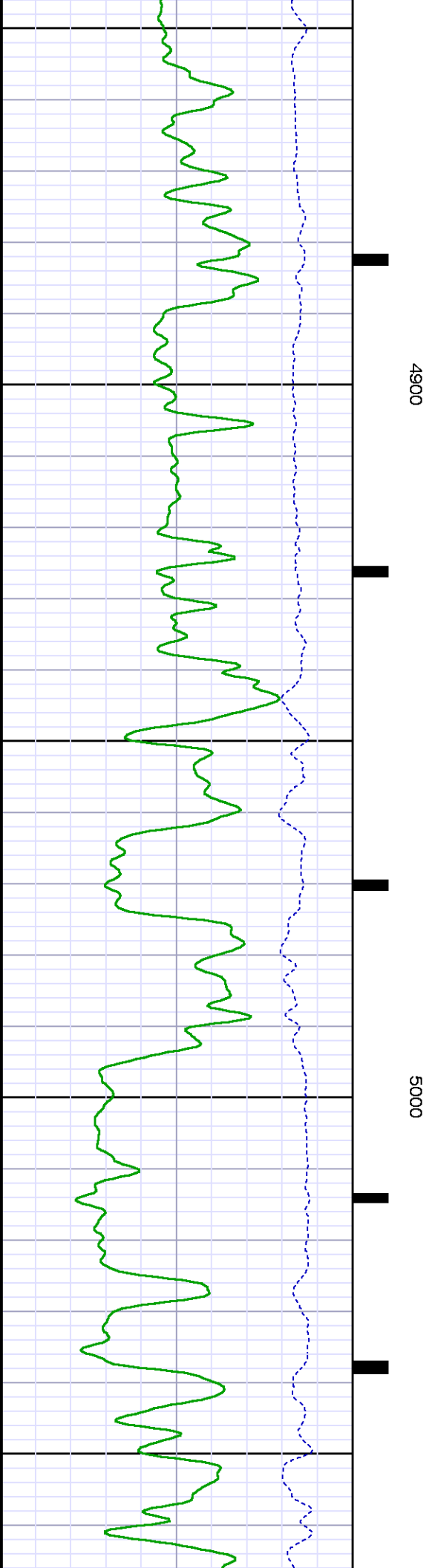
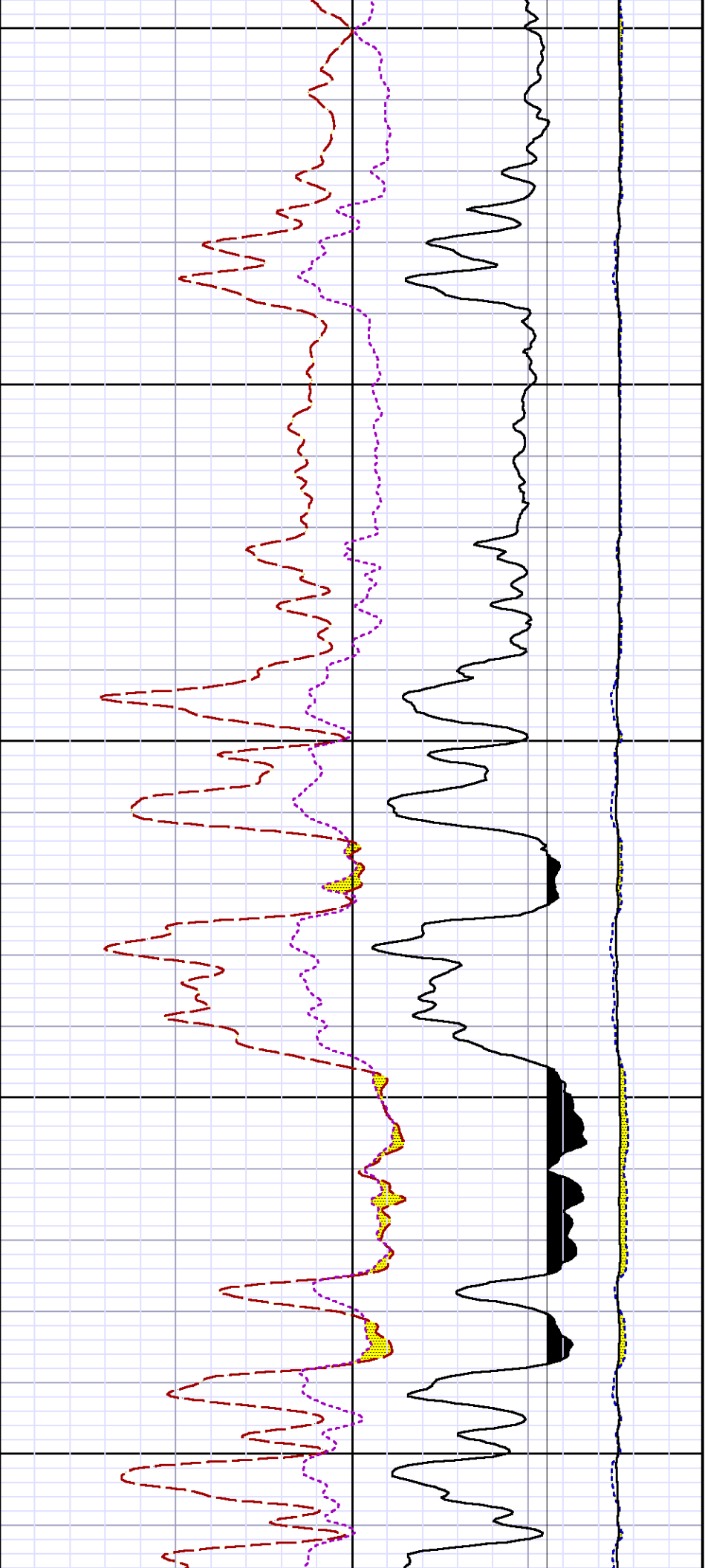
SERIES	DEPTH OFFSET	ACQUIRED CURVES
8248ED	-15.320	FLTM
8248ED	-13.320	CCL CHV
8262XA	-10.189	GR
8281XA	-0.662	HVC3Q0 SEQ3 AMA3 AML3 BKX CXS CPT3Q0 CPT3Q2 CPT3Q3 CPT3Q4 ET3 IXS MCS3 MCS3Q0 QCAL3 RGN3 RICX SDA3 SDL3 SGA3 SGL3 STA3 XS ASPEC3 AMB3 AMF3 CHF3 IXSC IXSN RATO23 FV3V0 FVW300 FVW301 FVW302 FVW303 FVW304

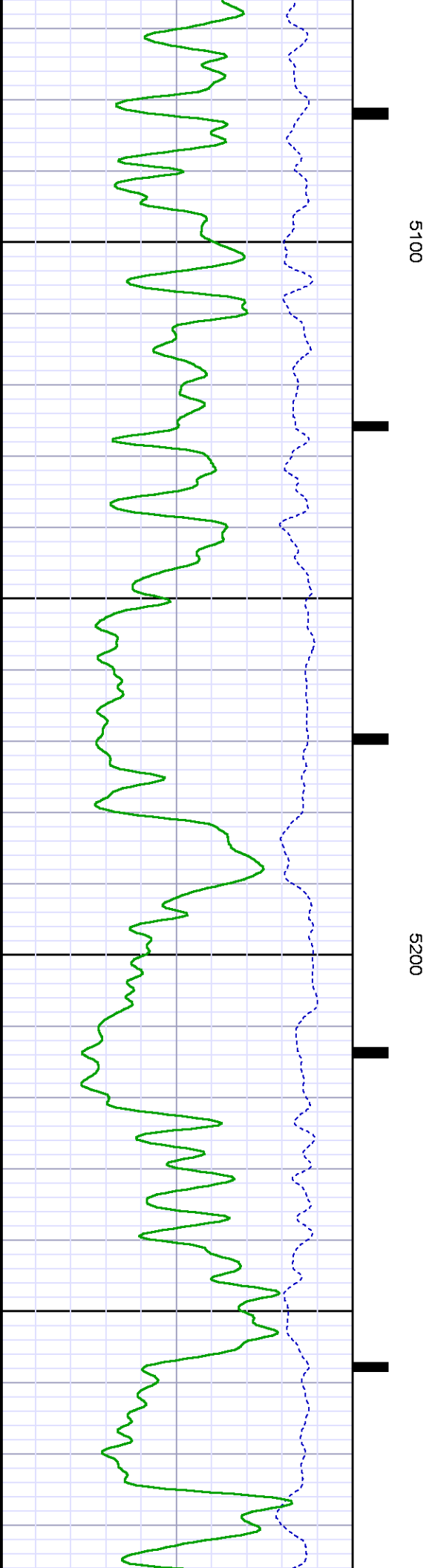
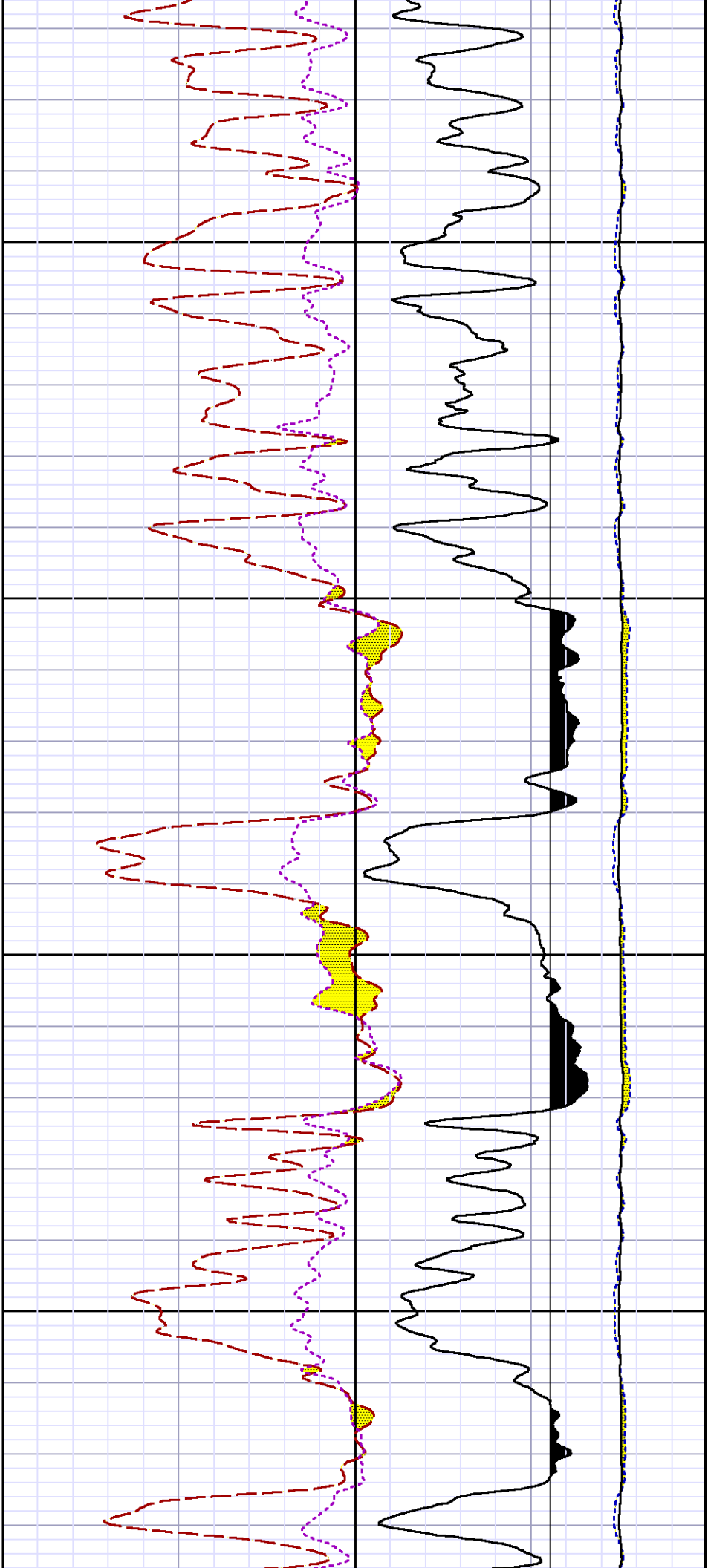
		RICXC	RIN13C	RIN23	RIN23C	SD3D	SG3D
		SGB3	SGF3	WDTH3	CXSR	IXSR	XSR
		RICXR					
8281XA	-0.250	HVC2Q0	SEQ2	AMA2	AMB2	AMF2	AML2
		BKL	CHF2	CLS	CPT2Q0	CPT2Q2	CPT2Q3
		CPT2Q4	ET2	ILS	LS	MCS2	MCS2Q0
		QCAL2	RGN2	RICL	RONE23	RTWO23	SDA2
		SDL2	SGA2	SGB2	SGF2	SGK2	SGL2
		STA2	ASPEC2	ILSC	ILSN	WDTH2	RICLC
		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
		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					
SYSTEM	0.000	TEN	TTEN				

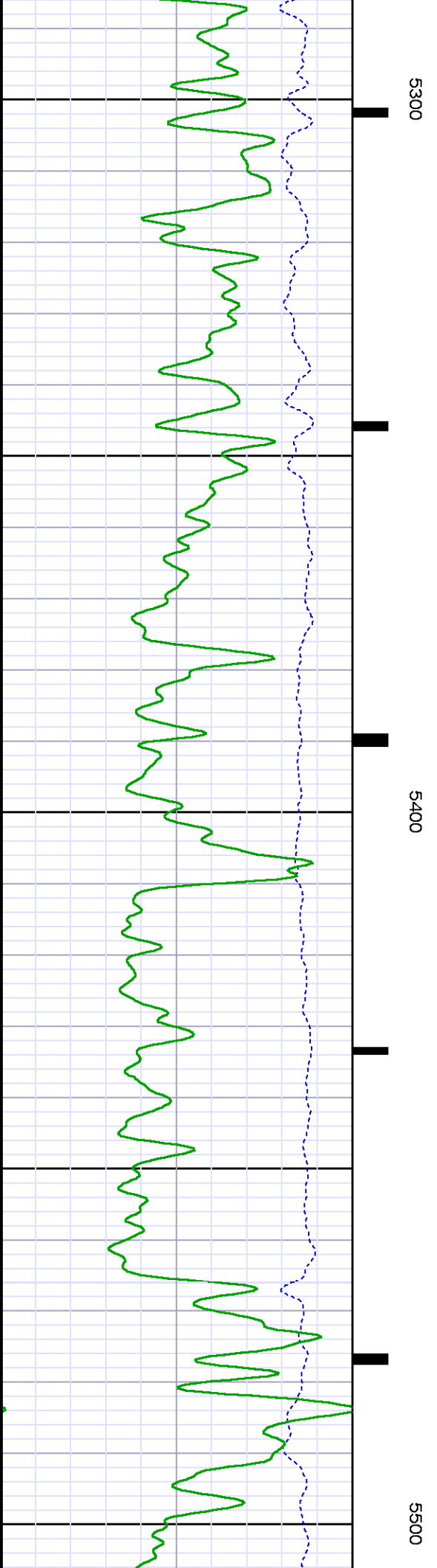
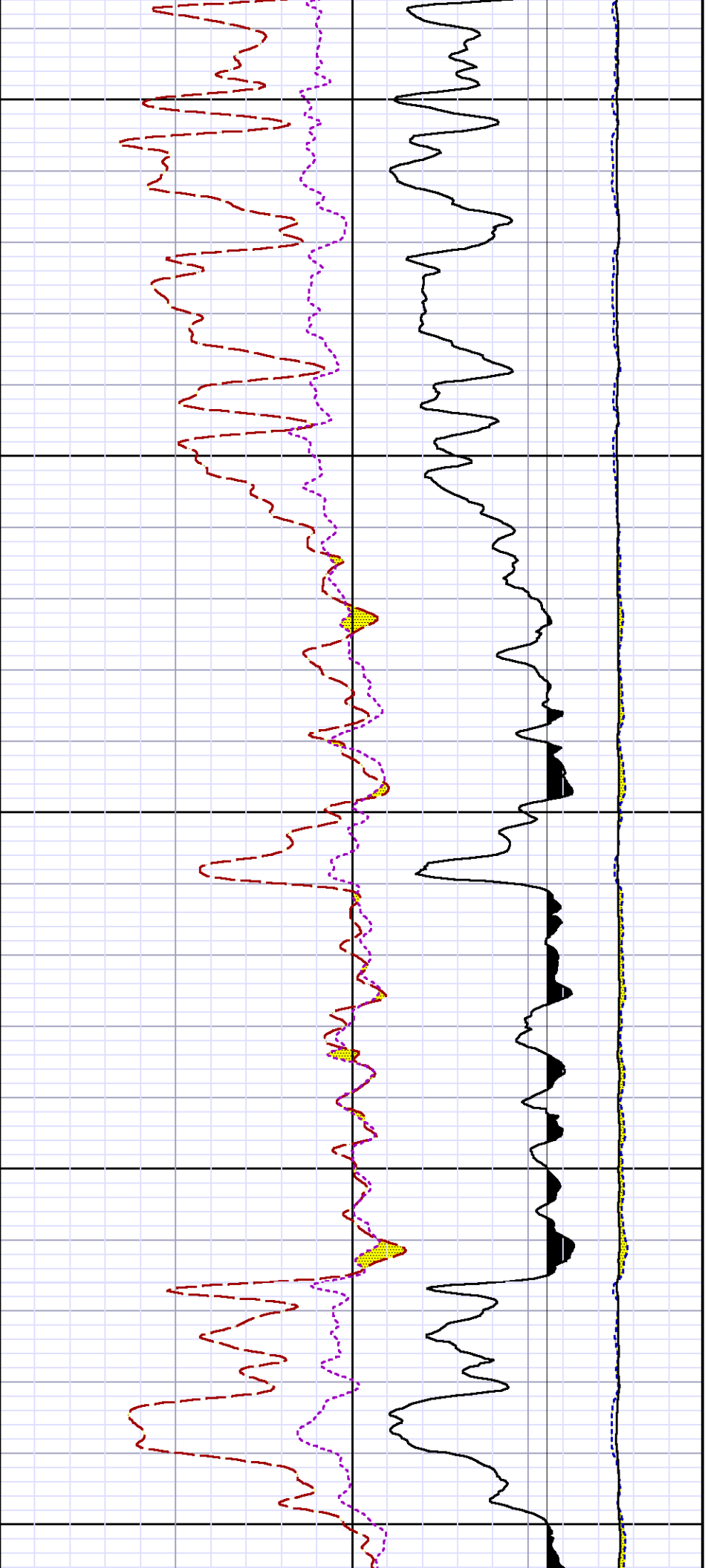


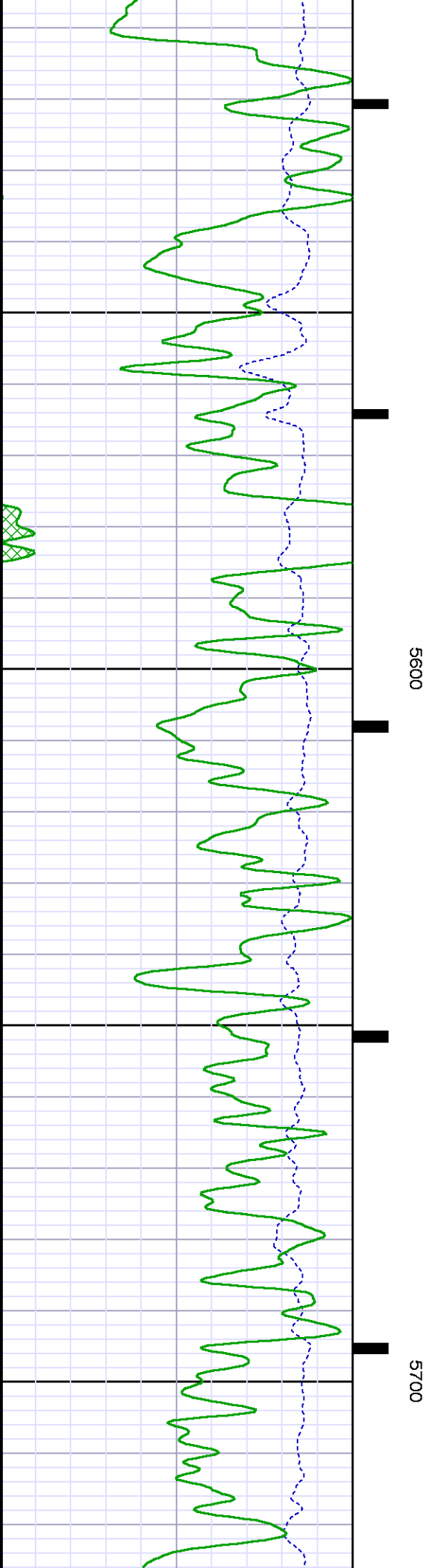
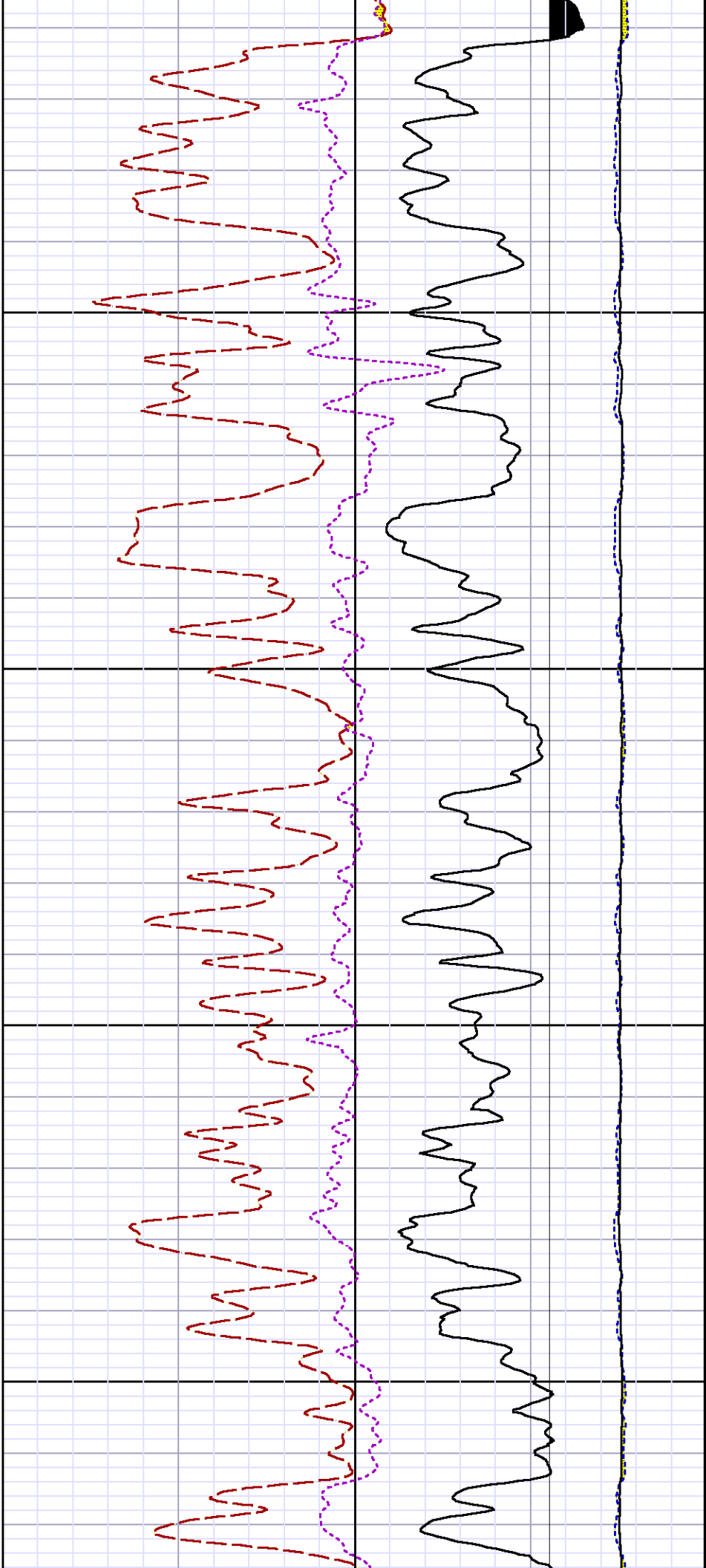


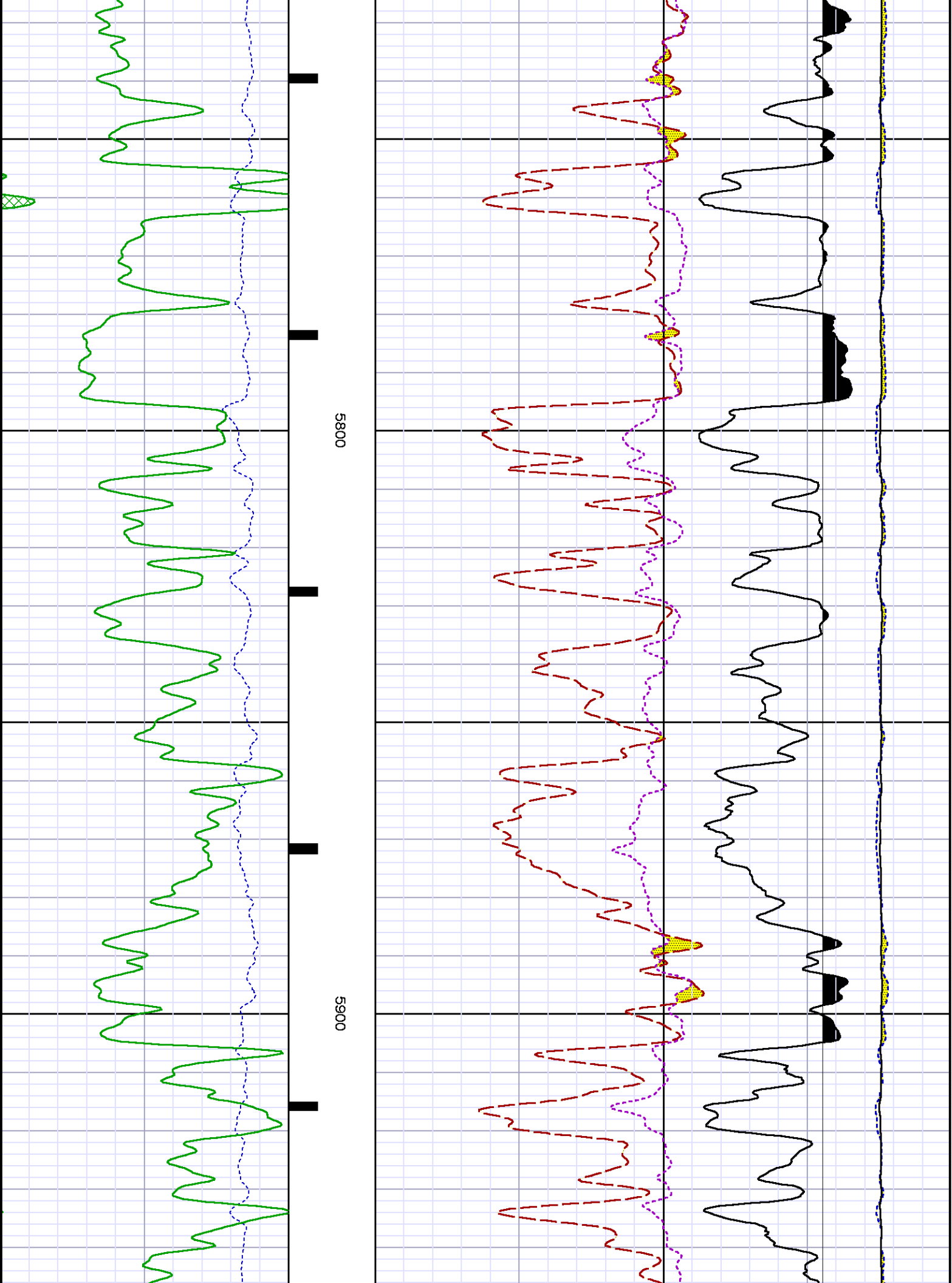


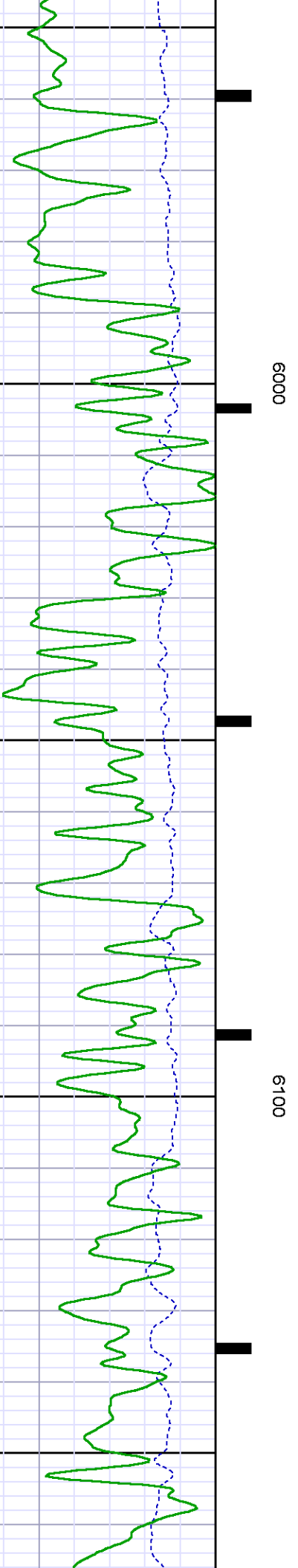
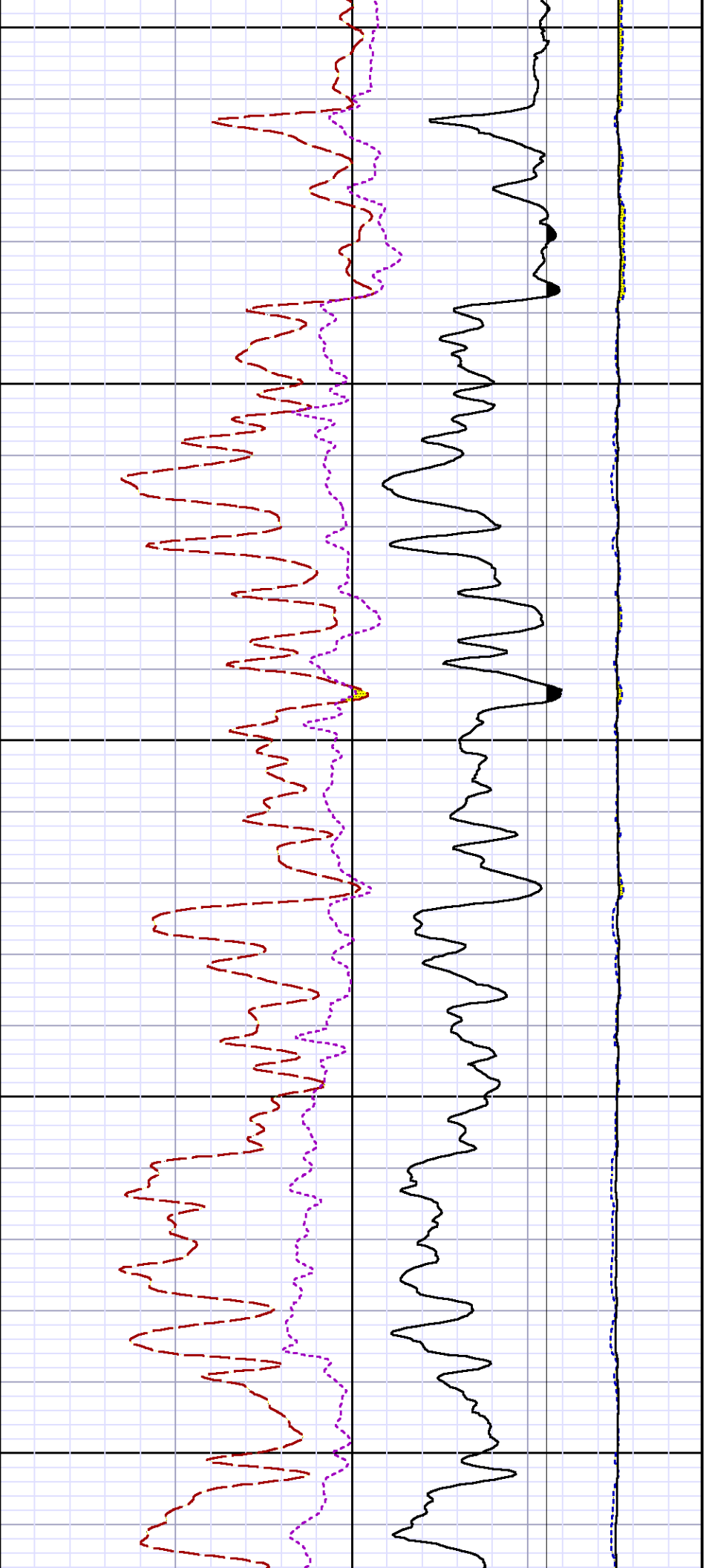


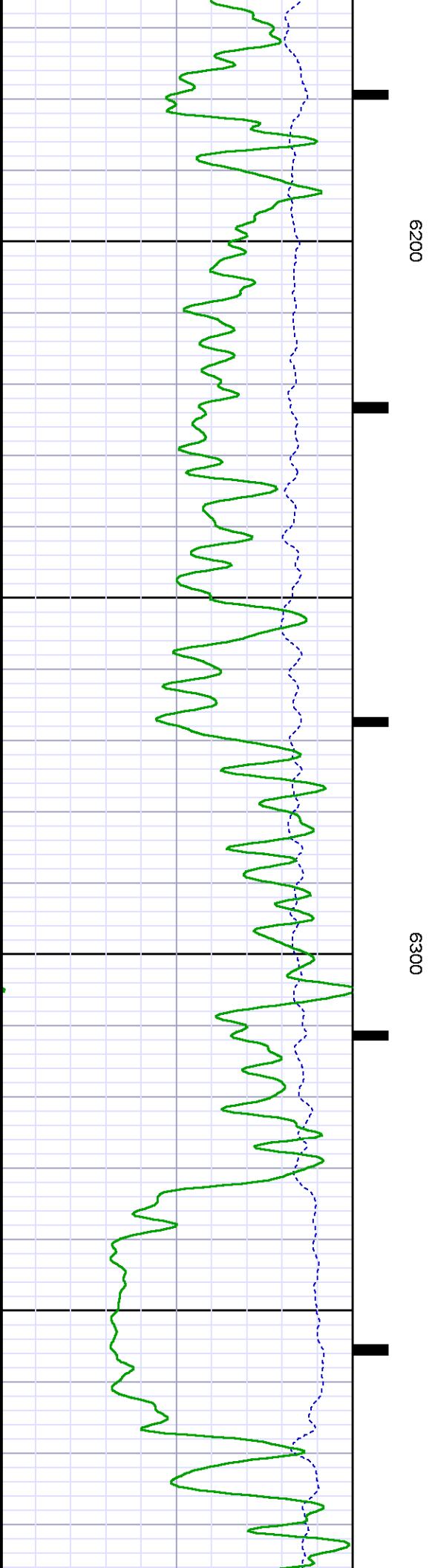
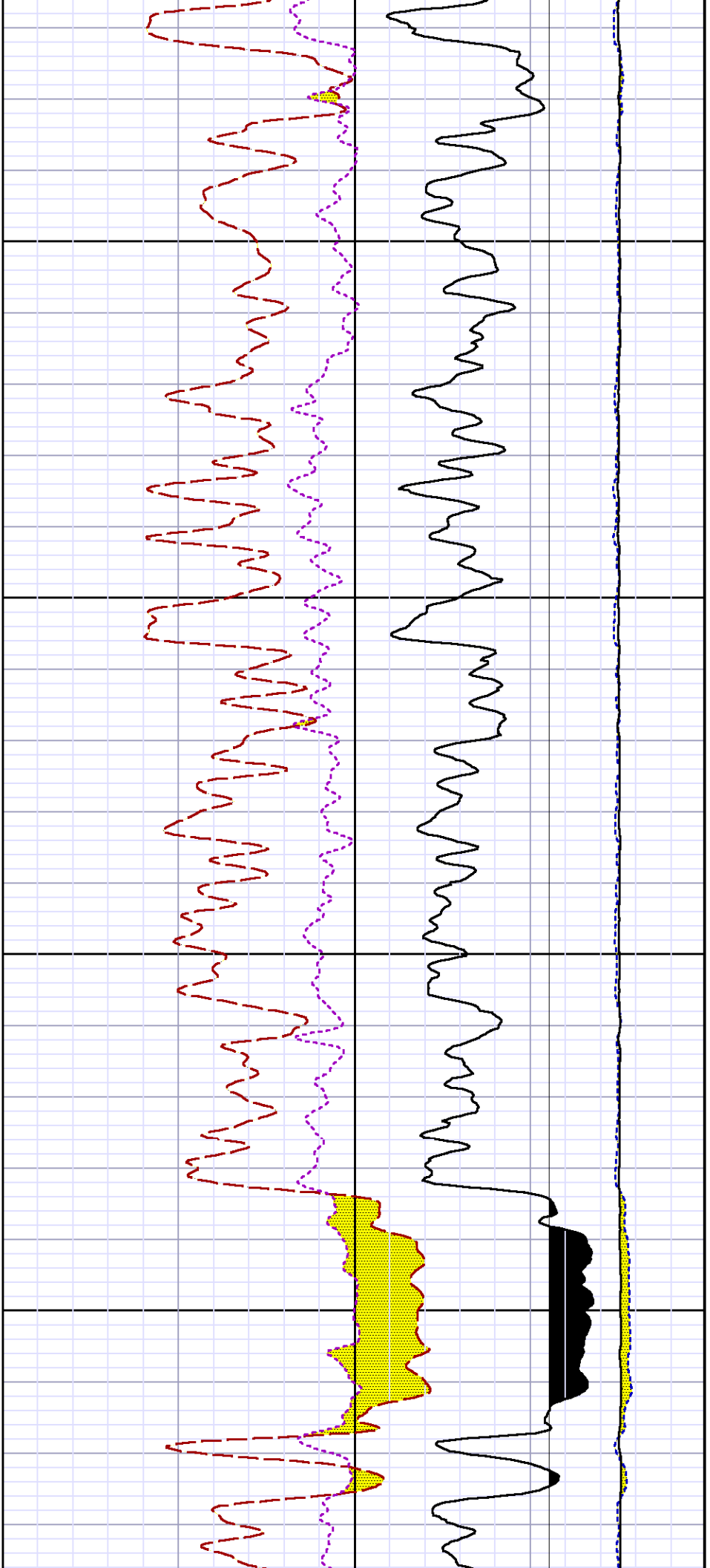


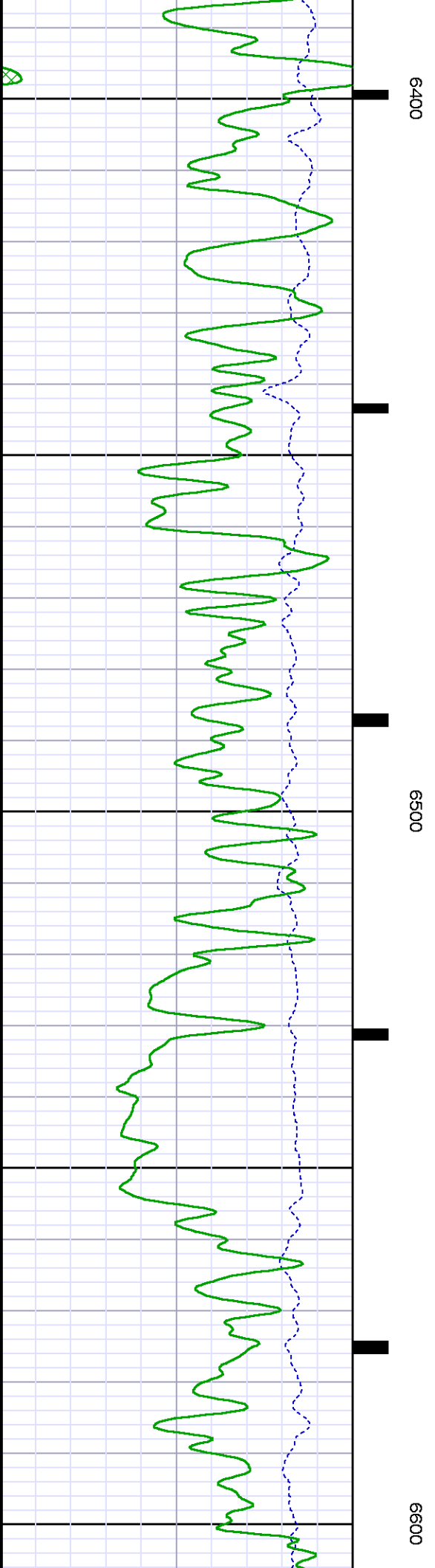
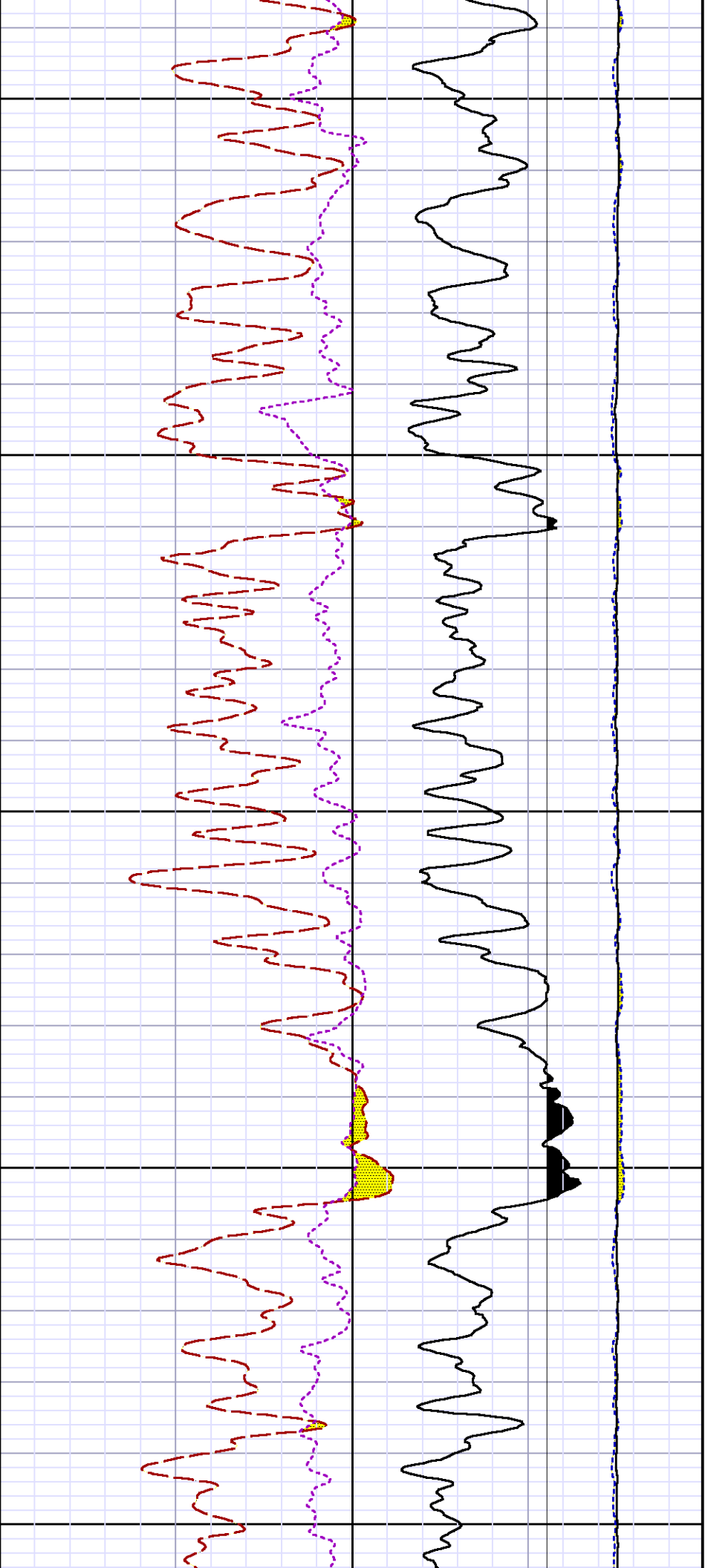


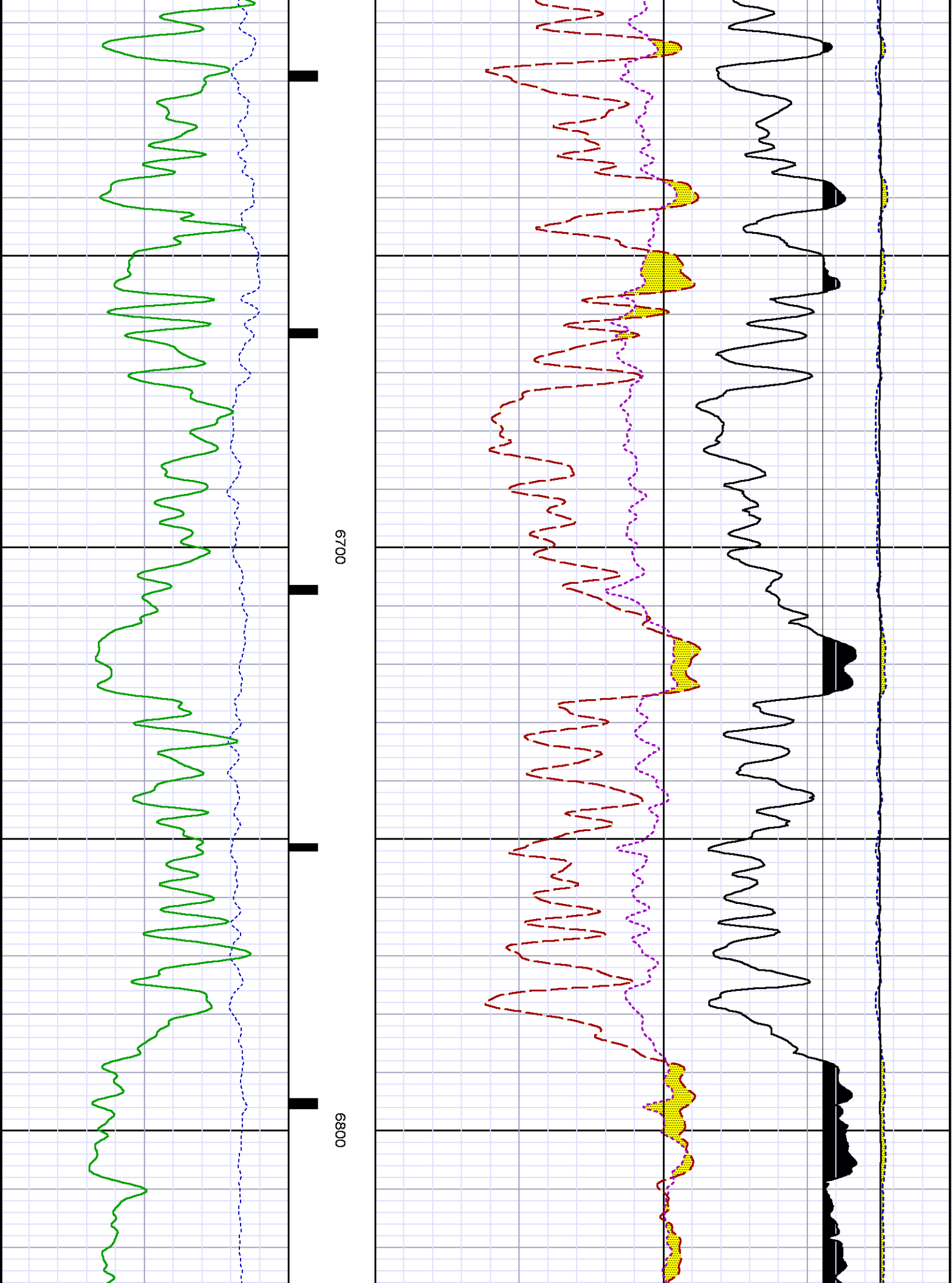


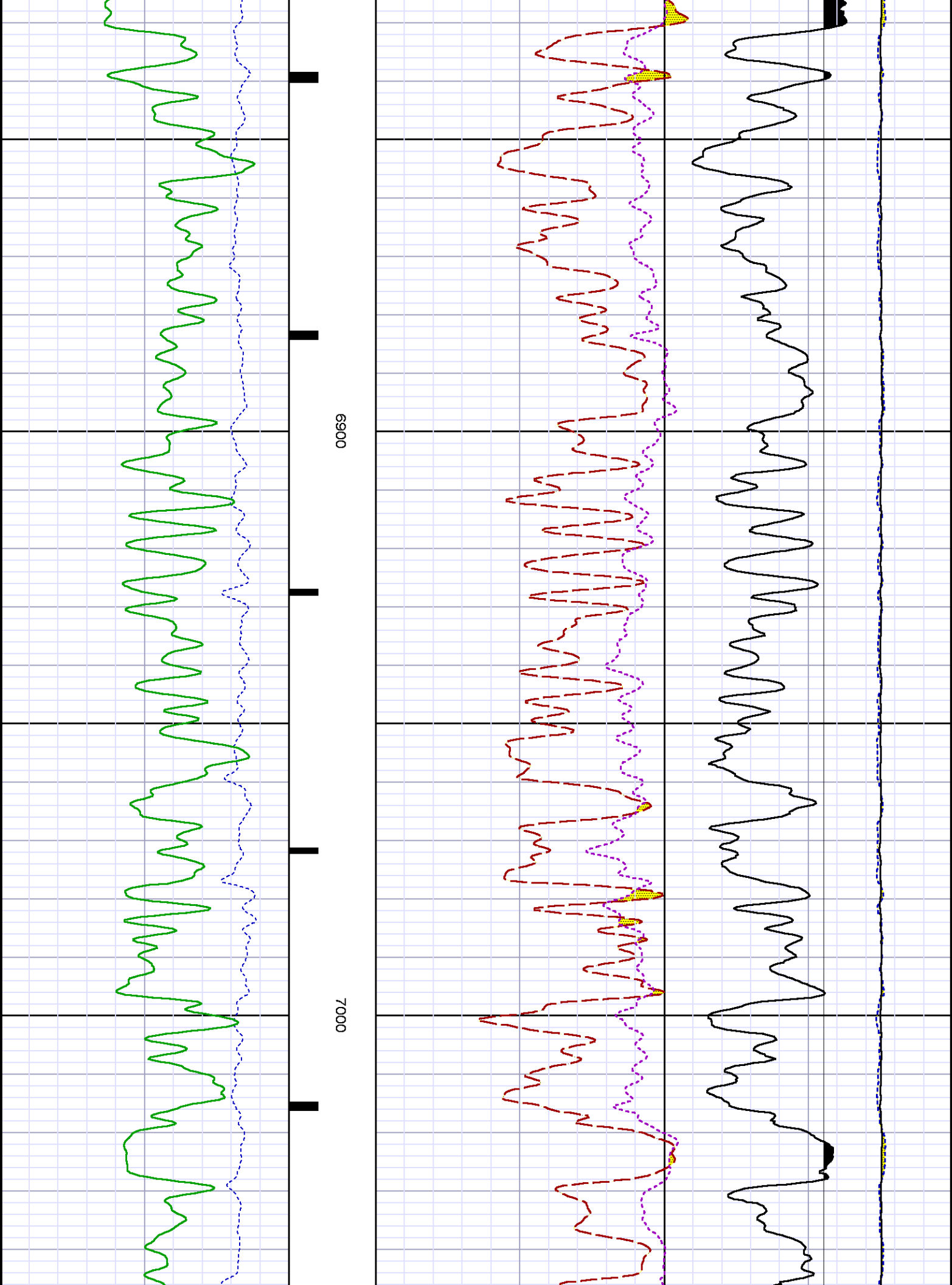


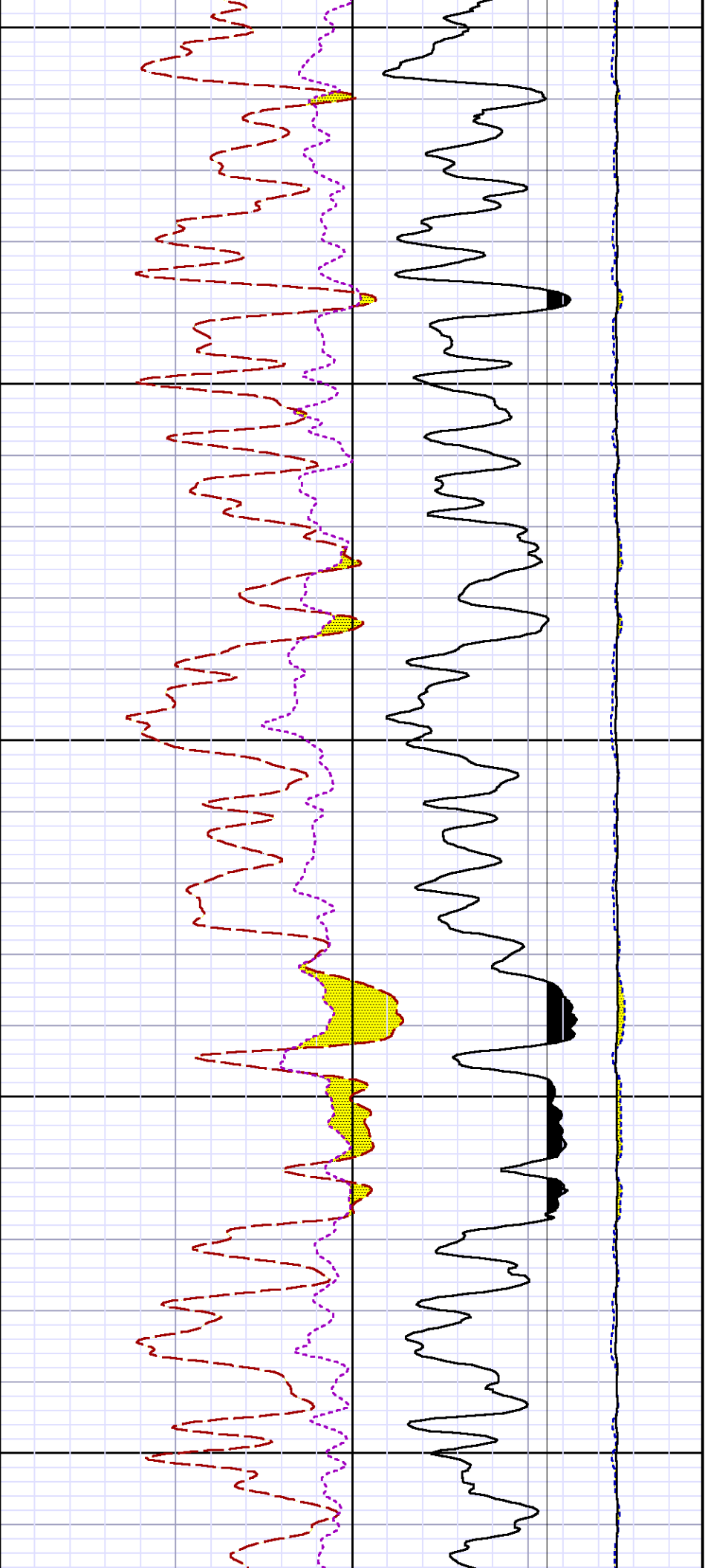










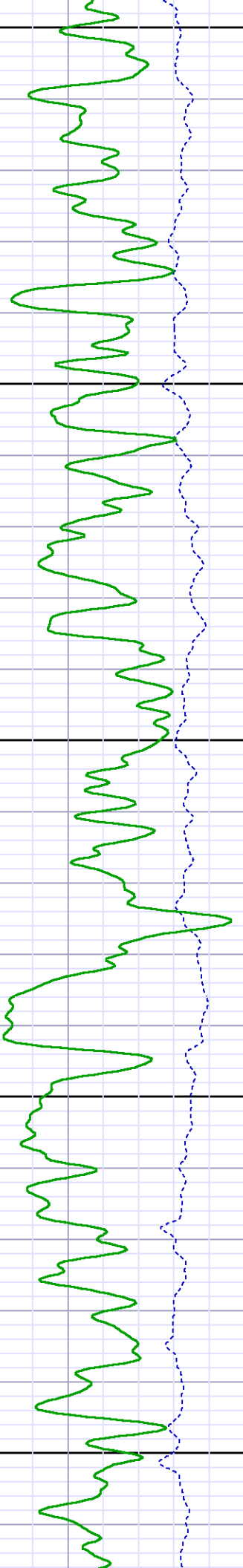


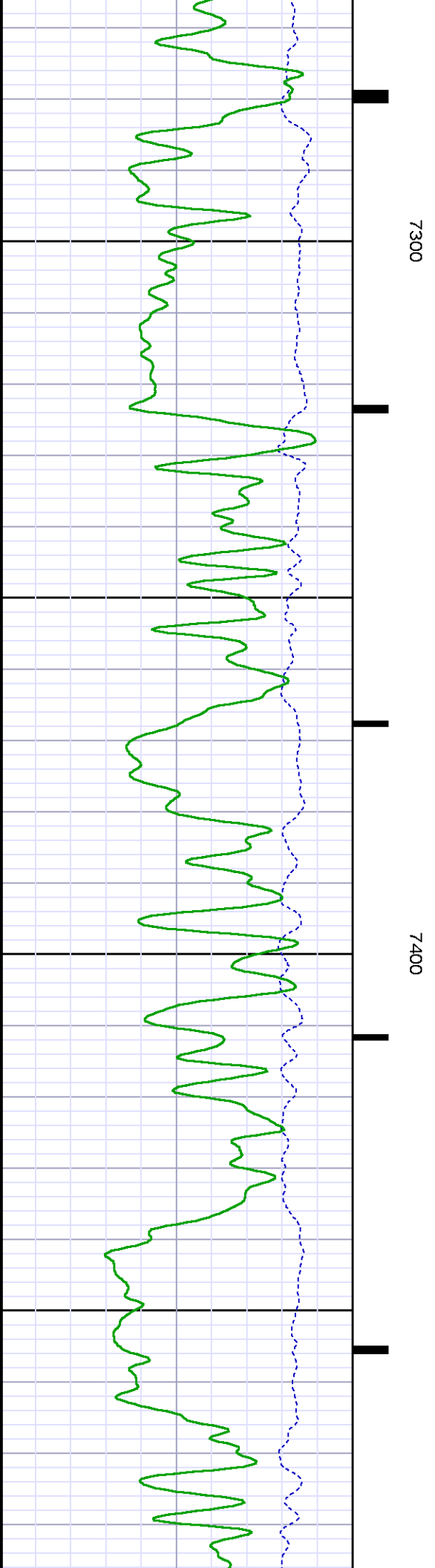
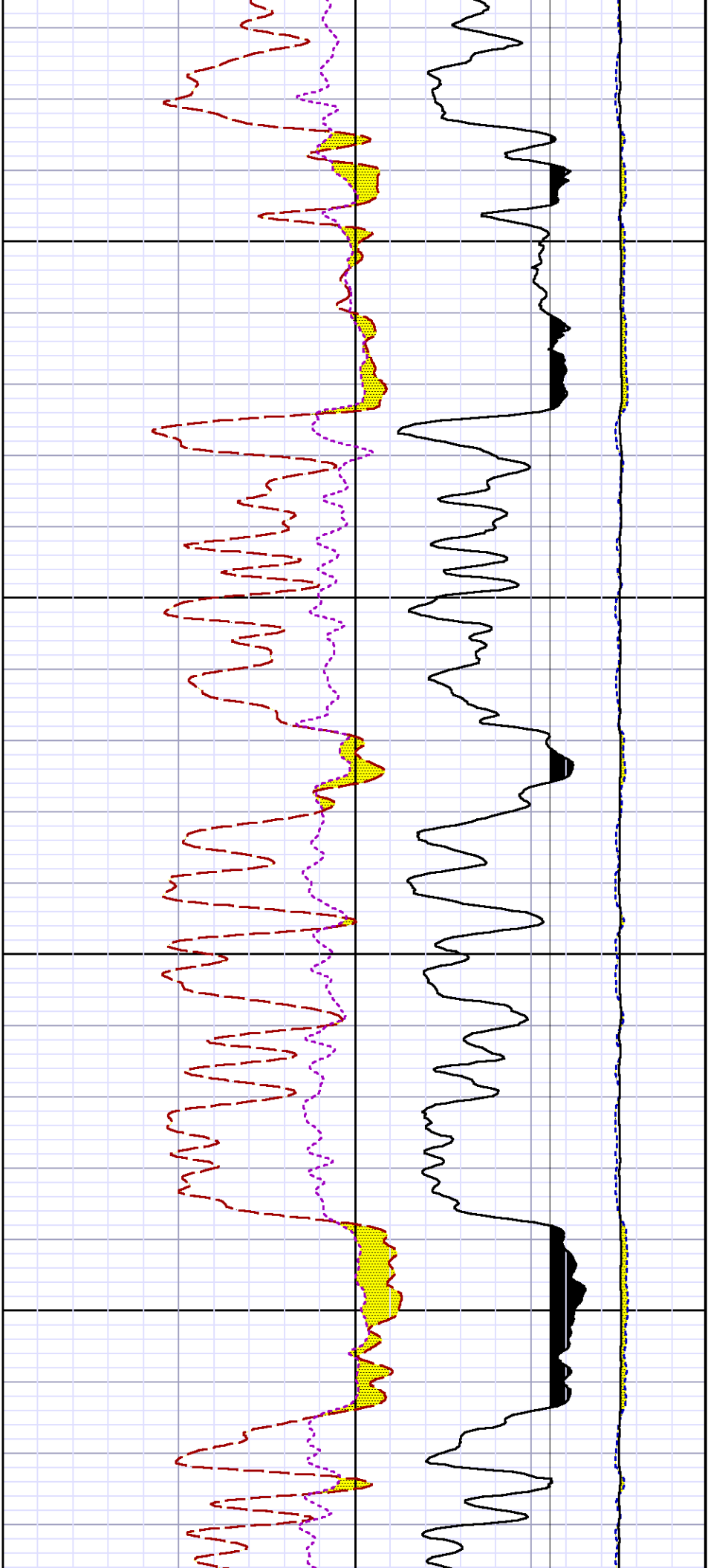
7100

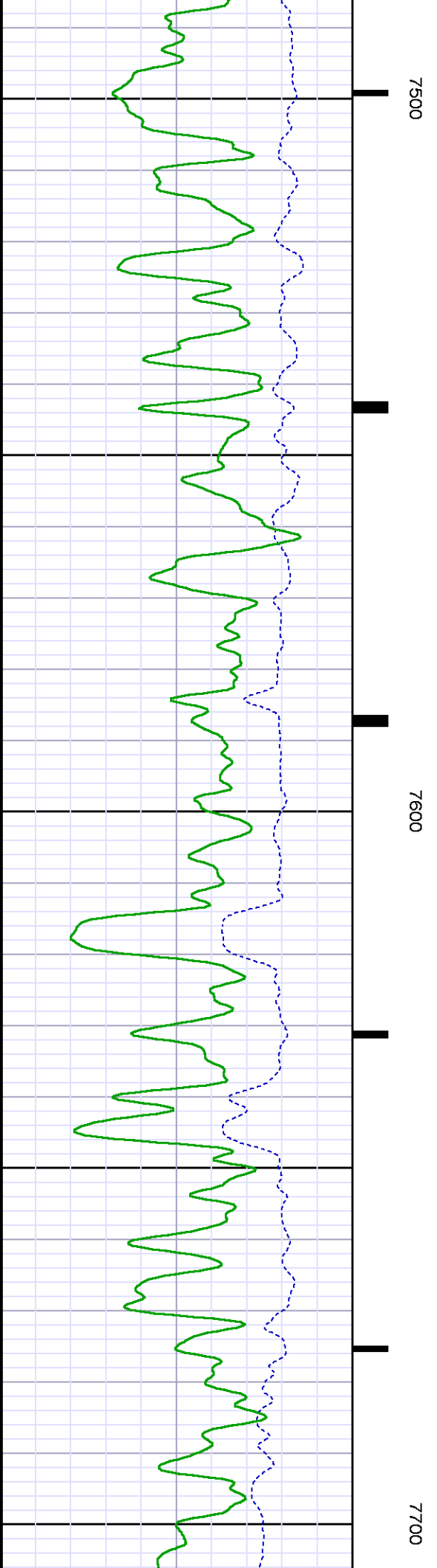
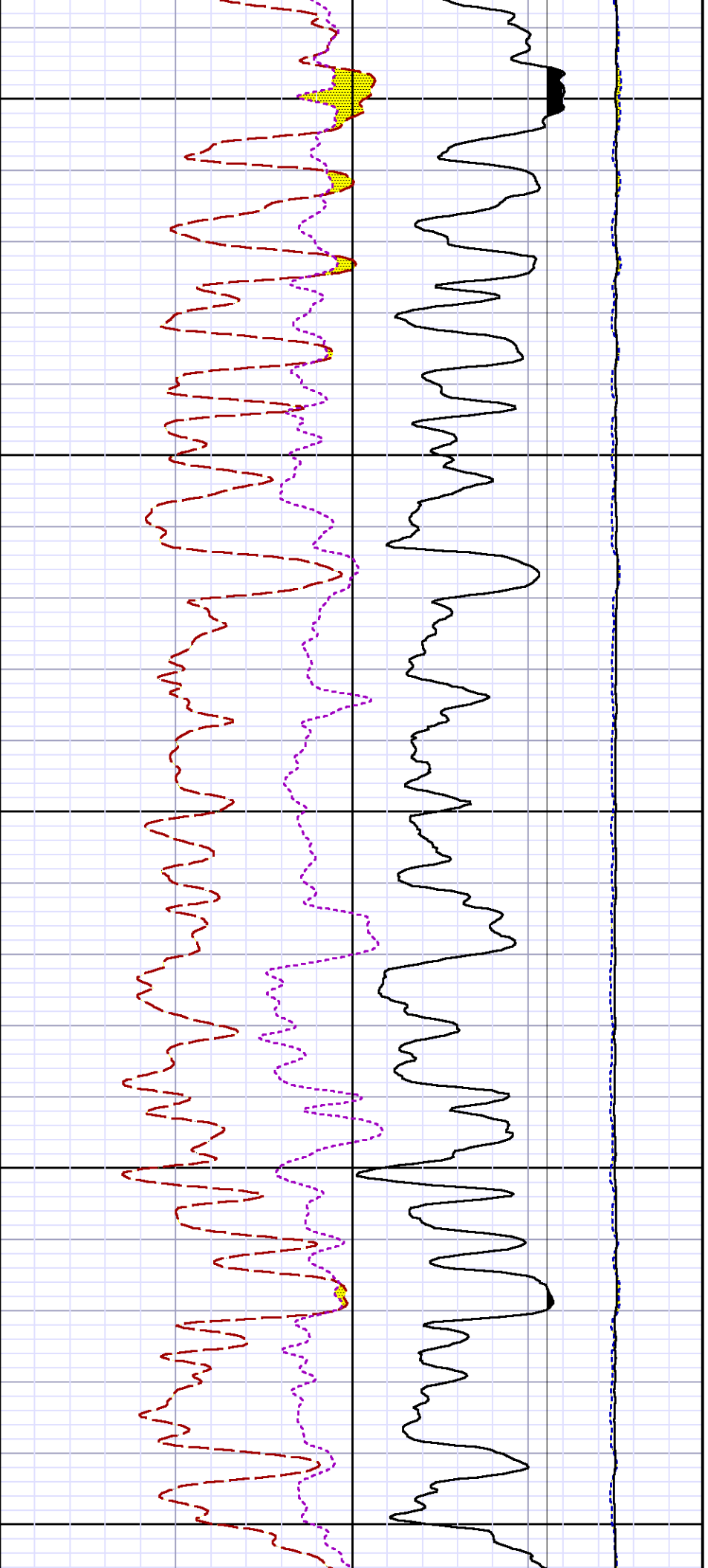
7100

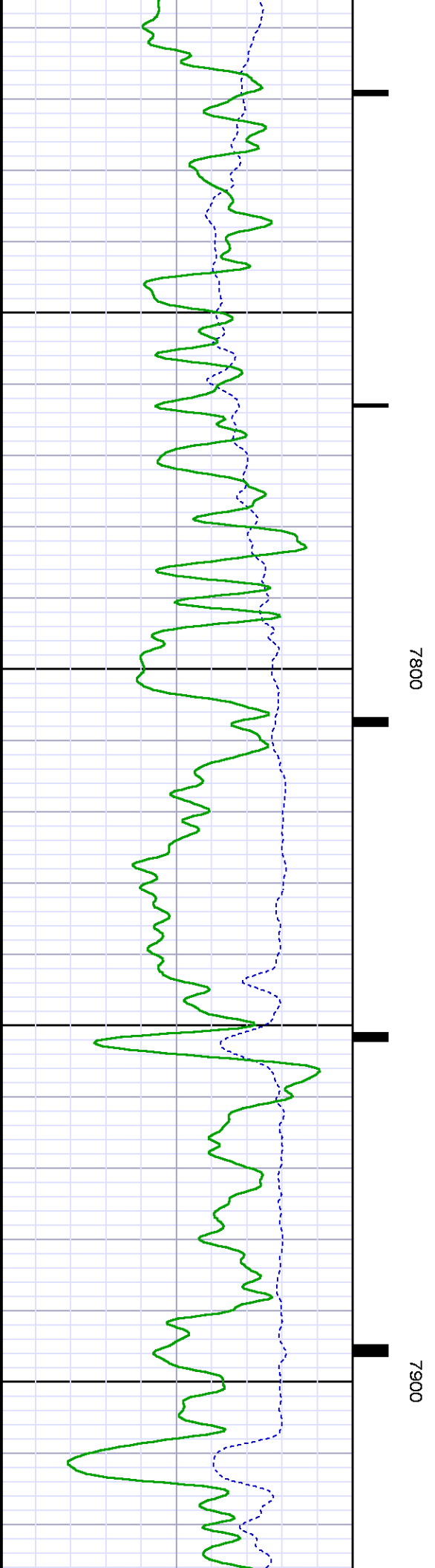
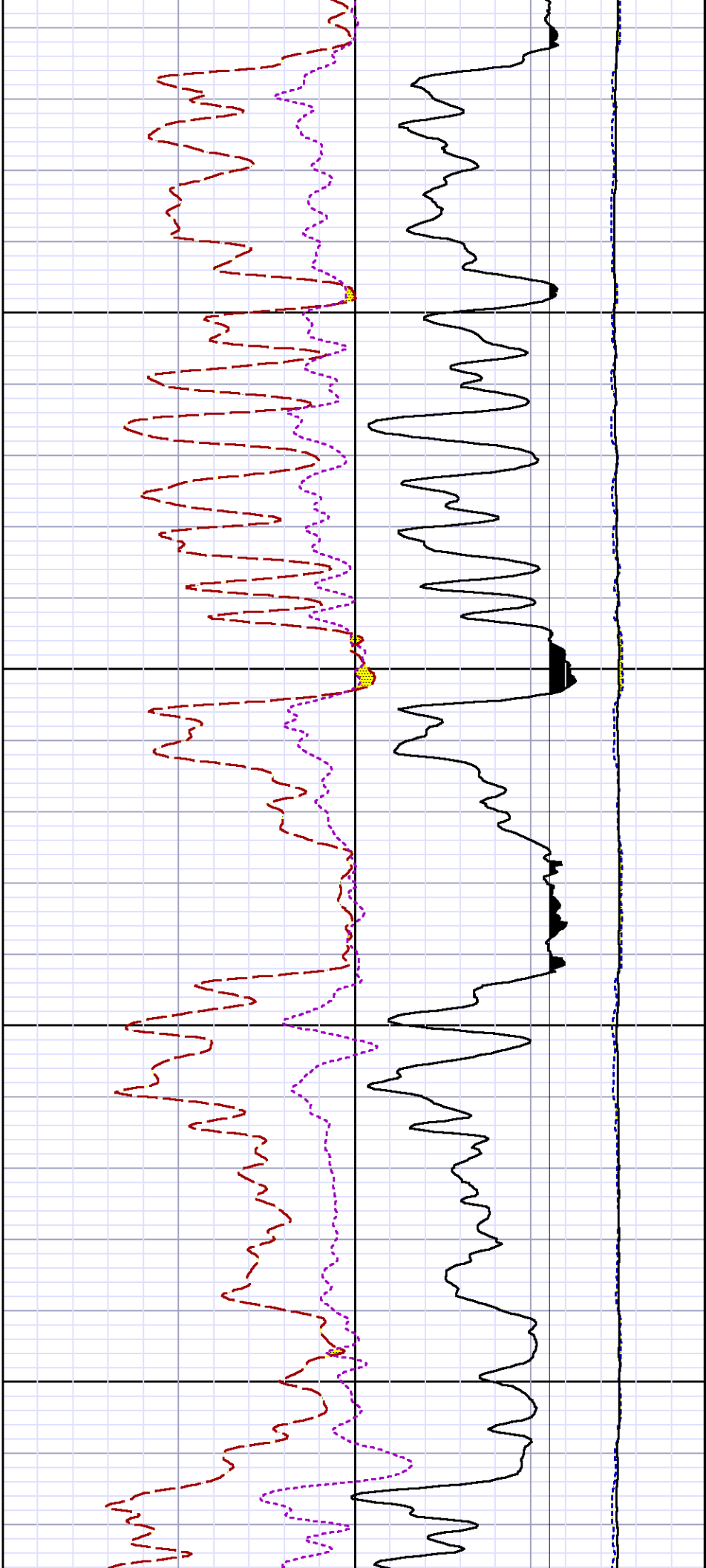
7200

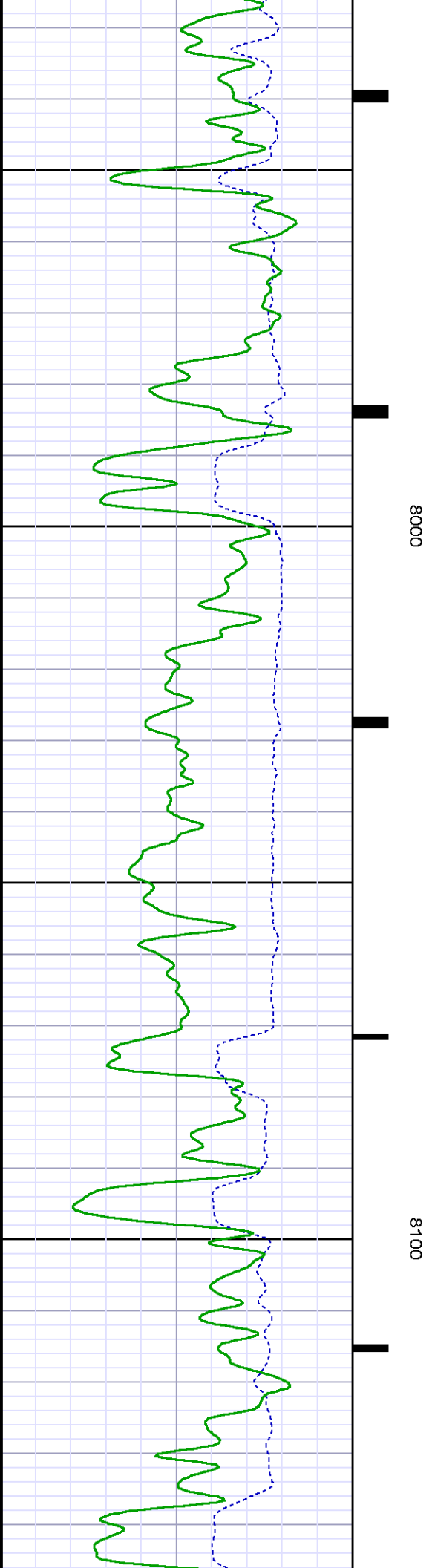
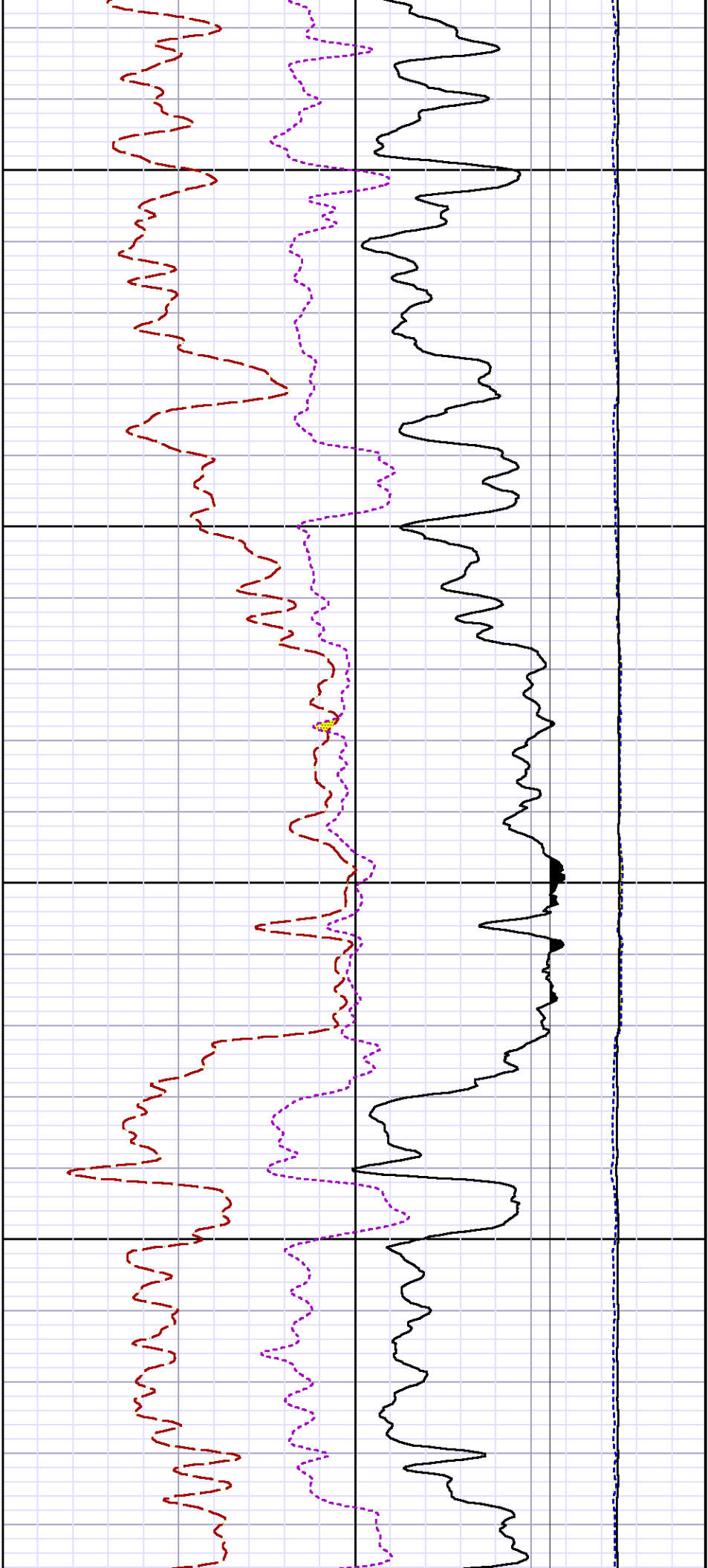
7200

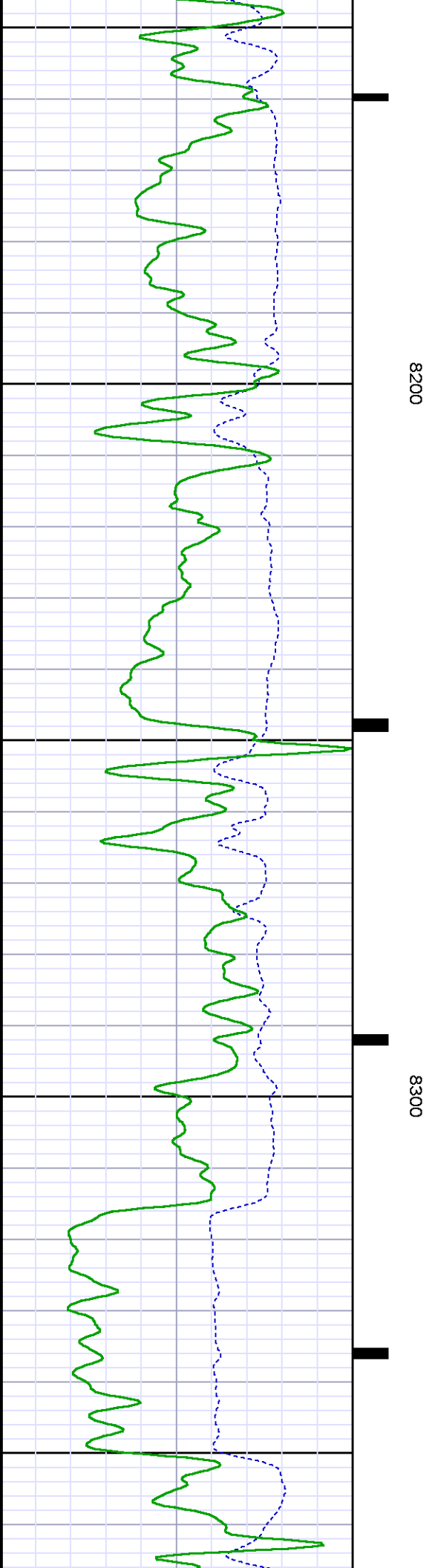
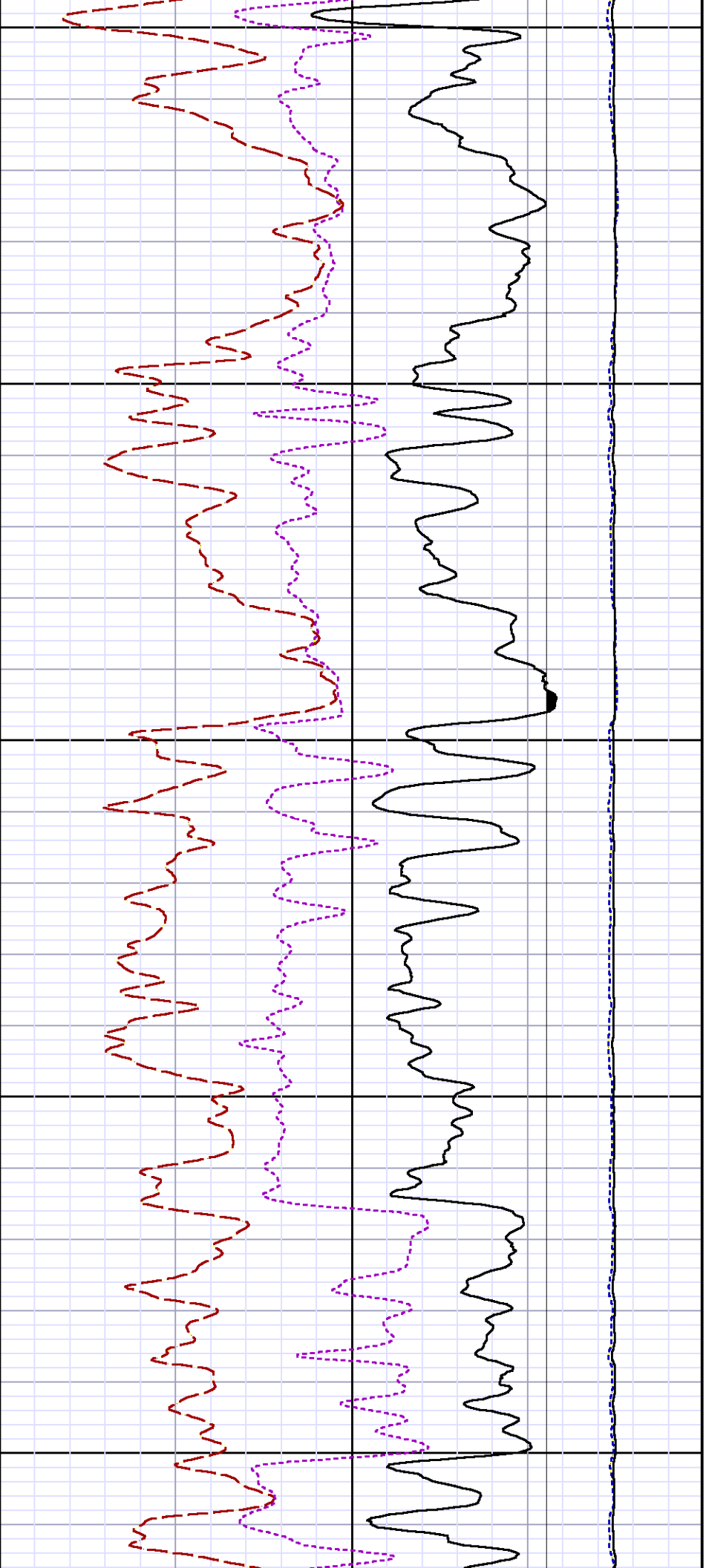


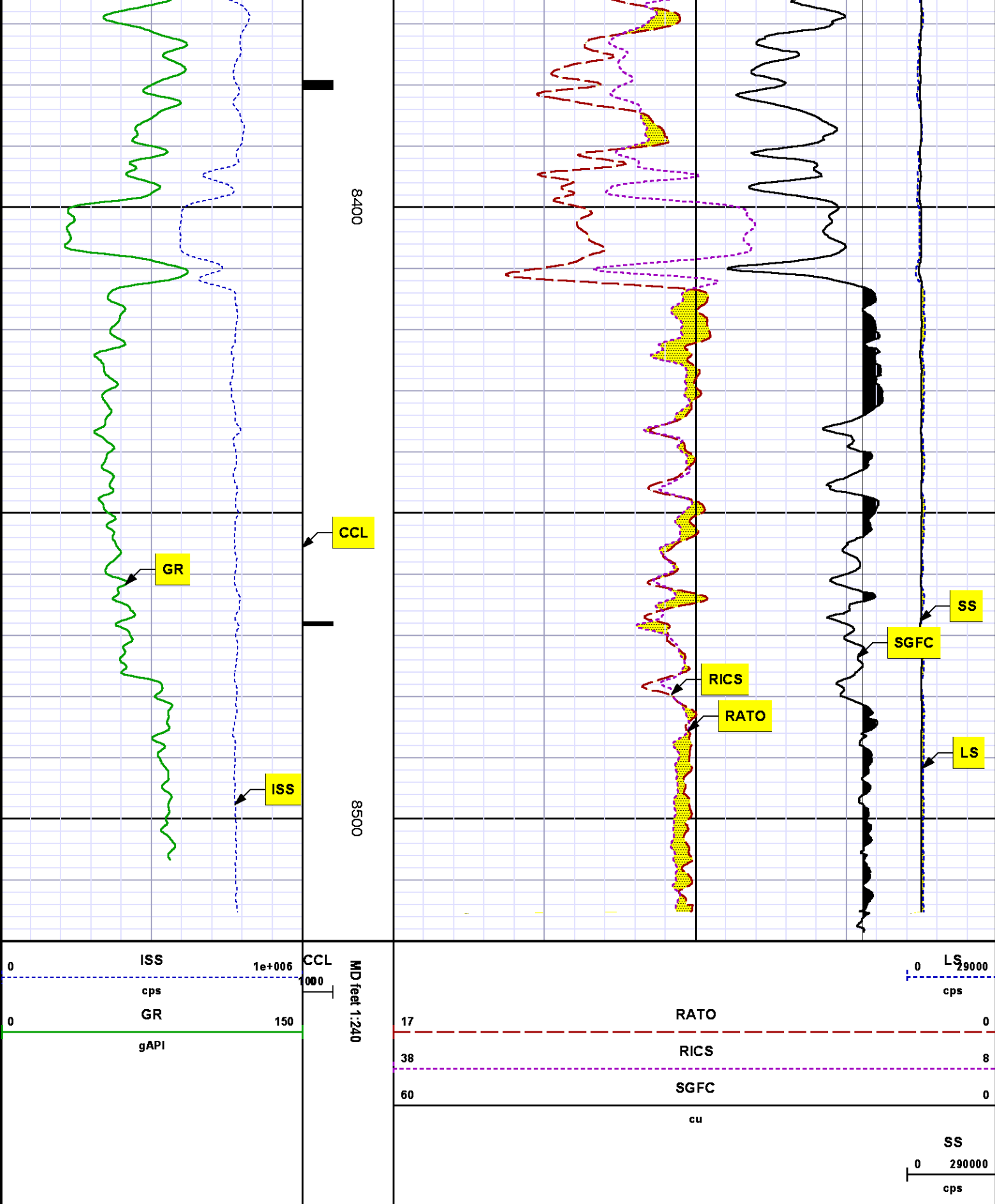












REPEAT SECTION

RELAY SECTION

PNC 3-D MODE

SPL PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
PNC Porosity	Borehole	Cased		7747.830	8060.111
PNC Porosity	Borehole Size	7.875	inch	7747.830	8060.111
PNC Porosity	Casing Size	4.500	inch	7747.830	8060.111
PNC Porosity	Gas Filled	Non Gas Filled		7747.830	8060.111
PNC Porosity	Matrix	Sandstone		7747.830	8060.111

DEPTH OFFSETS

(for Acquired Curves)

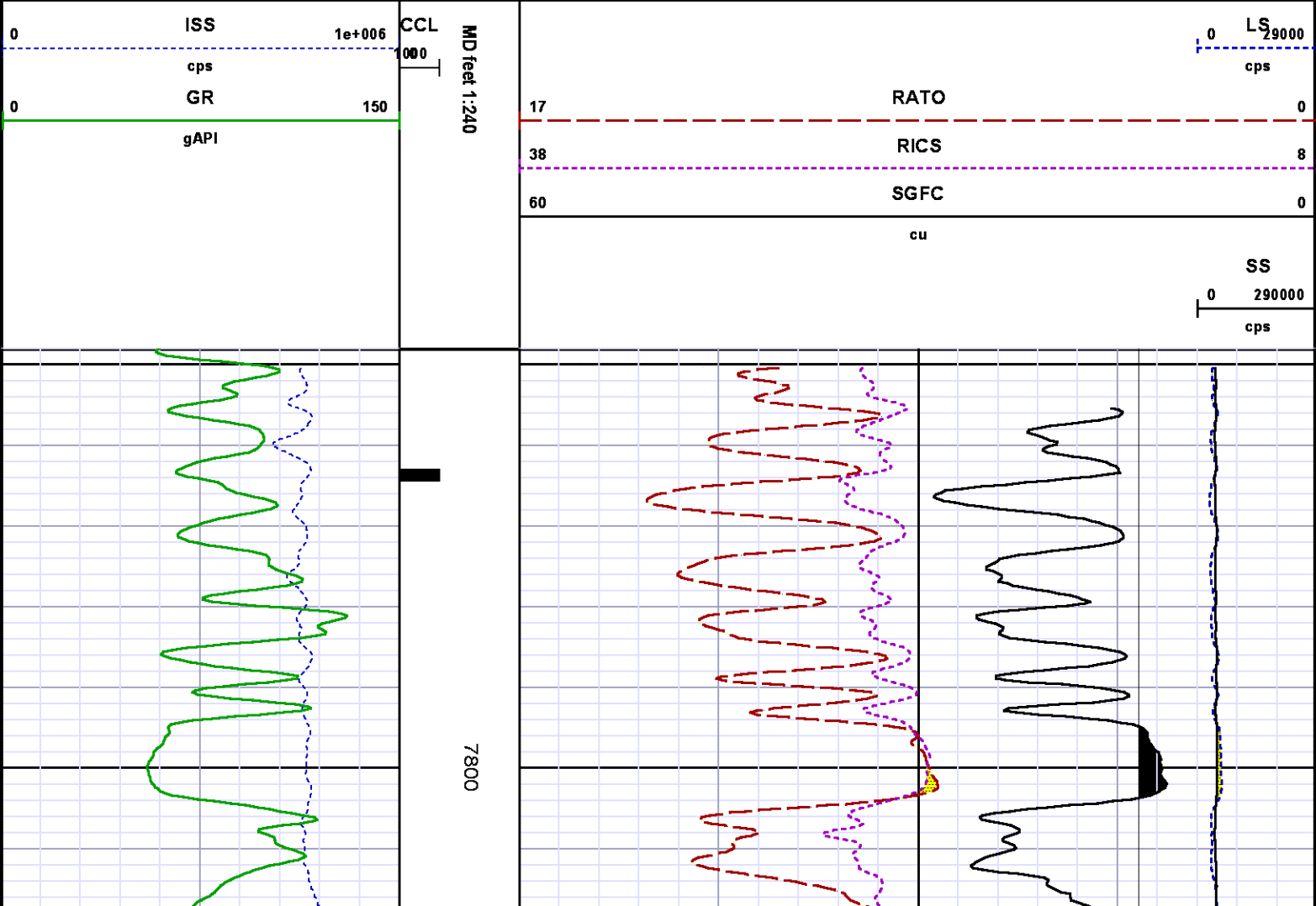
SERIES	DEPTH OFFSET	ACQUIRED CURVES
8248ED	-15.320	FLTM
8248ED	-13.320	CCL    CHV
8262XA	-10.189	GR
8281XA	-0.662	HVC3Q0   SEQ3   AMA3   AML3   BKX   CXS CPT3Q0   CPT3Q2   CPT3Q3   CPT3Q4   ET3   IXS MCS3   MCS3Q0   QCAL3   RGN3   RICX   SDA3 SDL3   SGA3   SGL3   STA3   XS   ASPEC3 AMB3   AMF3   CHF3   IXSC   IXSN   RATO23 RICXC   RIN13C   RIN23   RIN23C   SD3D   SG3D SGB3   SGF3   WDT3   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   RTWO23   SDA2 SDL2   SGA2   SGB2   SGF2   SGK2   SGL2 STA2   ASPEC2   ILSC   ILSN   WDT2   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 RTWO   RIN13   RONE13   RTWO13   SALB   SC1 SDA1   SDL1   SGA1   SGB1   SGBC   SGE1

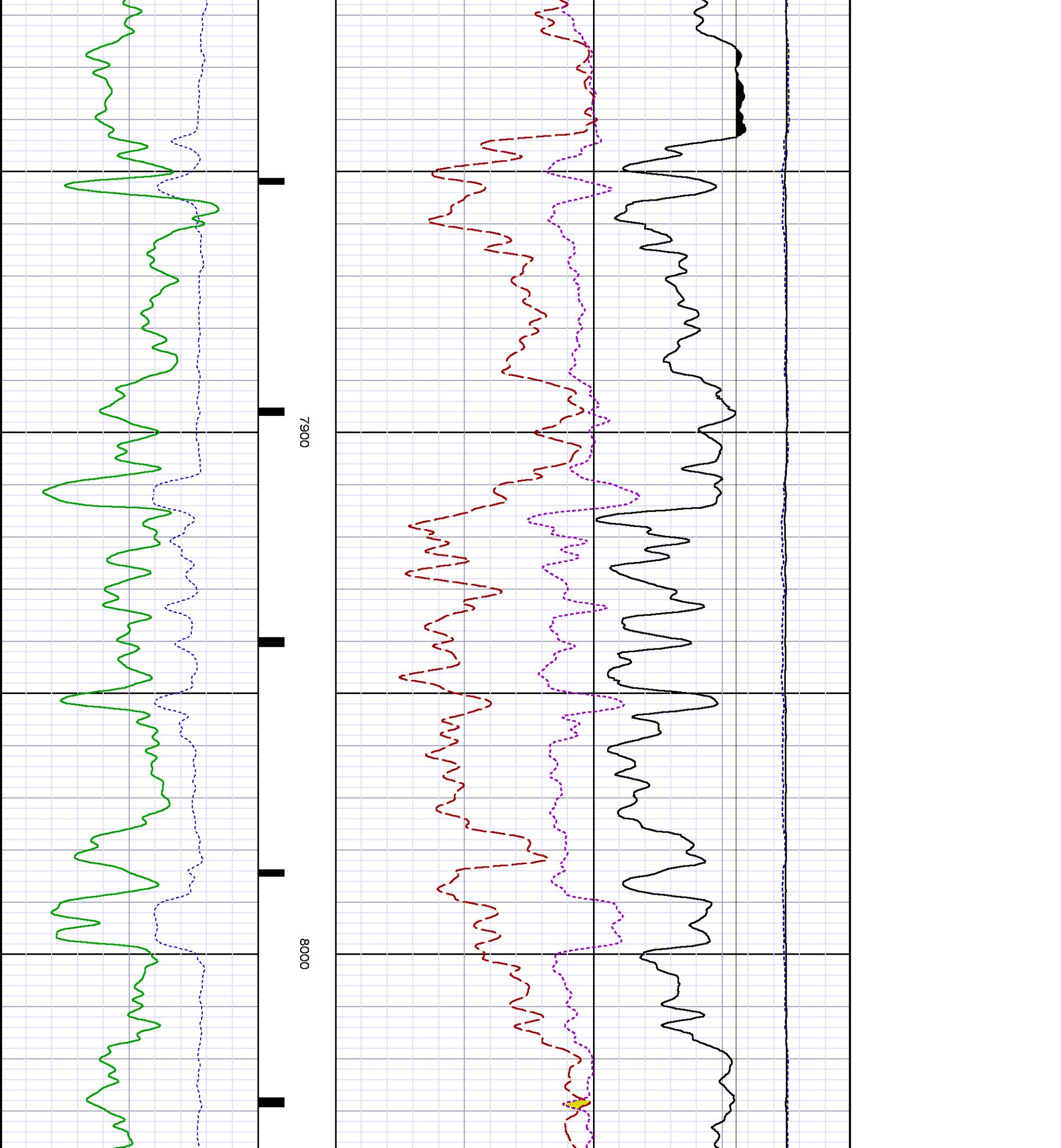
SGF1SGFCSGK1SGL1SSSS2STA1PD1SPD2SPD3SMD1SMD2SMD3SDG1SDG2SDG3SPD1MPD2MPD3MMD1MMD2MMD3MDG1MDG2MDG3MMVSMAMVMFILVIAMTAPVMPVSIASSSATQPD1QPD2QPD3QMD1QMD2QMD3QDG1QDG2QDG3QMAQTAQFILVQMVQPVQIADERRDCNTQPK1QSA1PKS1ASPEC1H0CFE2XCISSCRINCRDENWDTH1RICSCSSRG1RG2RISRSSRSS2RRATORRATO13RRBORRRICSRRINRRIN13RRONERRPORRRTWORTENTTEN

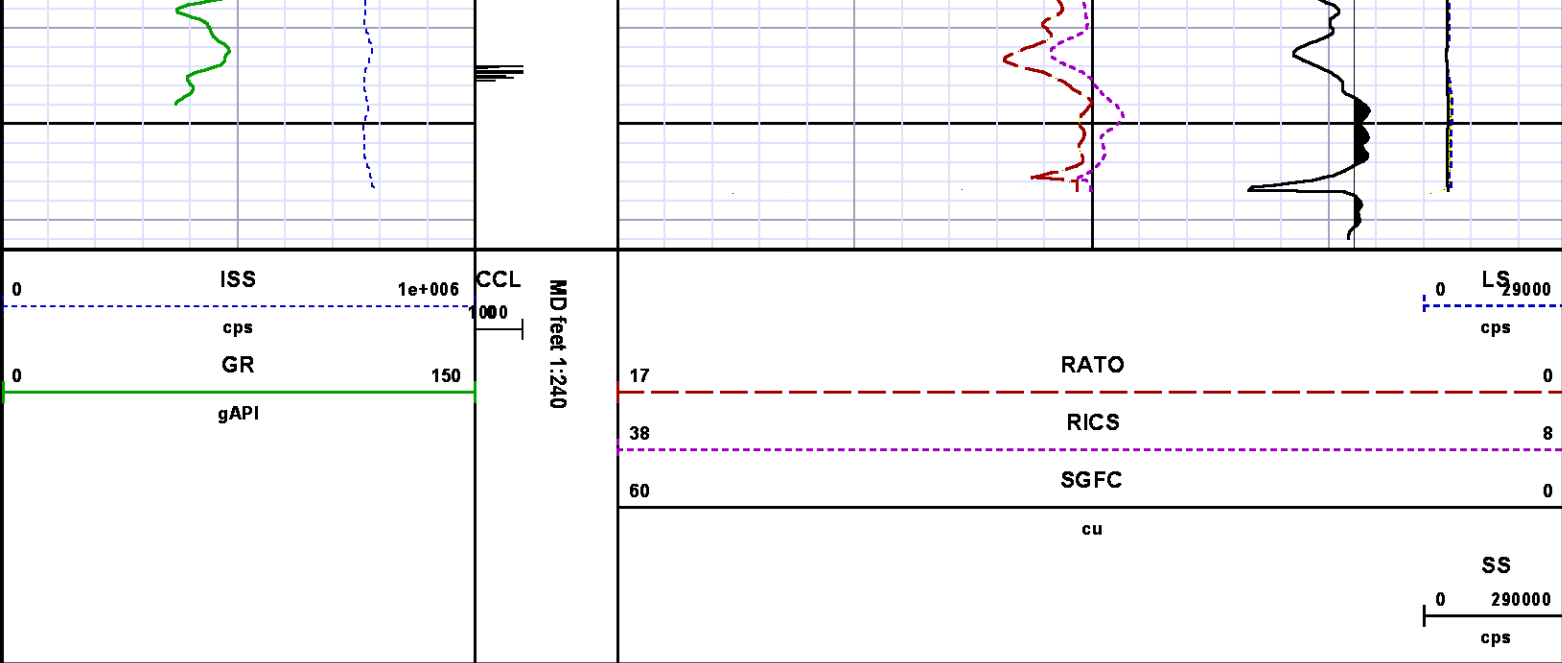
SYSTEM

0.000

Created by : MIXED  
Plotted by : PlotMgr, v5.4.504  
Company : WPX ENERGY  
Well : YOUBERG RWF 444-23  
File Name : D:\WELLDATA\WPX Energy\RWF 444-23\444rpm\REPEAT.XTF  
Mode : PlotMgr 5.4.504  
Interval : 7748.08 - 8063.08 feet UP  
Created : 5/29/2013 7:27:31 AM







# CALIBRATION SUMMARY

# GAMMA RAY

Calibration File: C:\case\calver\GR\055M3.cal

## CALIBRATION SUMMARY

DATE/TIME PERFORMED:		Thu May 23 15:50:01 2013		TOOL SERIES:	8262XA	ASSET:	055	SEQ:	M3
Calibrator #	Background [cps]	Calibrator On [cps]	Multiplicative	Background [api]	Calibrator On [api]	Differential [api]			
JIG WA612	81.82	380.87	0.602	49.25	229.25	180.00			

Verification File: C:\case\calver\GR\055M3.VP

## PRIMARY VERIFICATION

DATE/TIME PERFORMED:		Thu May 23 15:52:39 2013		TOOL SERIES:	8262XA	ASSET:	055	SEQ:	M3
Calibrator #	Background [cps]	Calibrator On [cps]	Multiplicative	Background [api]	Calibrator On [api]	Differential [api]			
JIG WA612	83.76	386.09	0.602	50.41	232.39	181.98			

# PNC

## PNC 3D CALIBRATION SUMMARY

DATE/TIME PERFORMED: Sat May 18 22:08:31 2013 TOOL SERIES: 8281XA ASSET: 151 SEQ: M8

## Calibrator #

SHOP BARREL

## Source #

8281AA 11765055

	ISS	Mtr VIts (V)	SS Gain	LS Gain	XLS Gain	EA Temp (degF)	Sync Delay (usec)	RCAL
Raw Data	808654	131.00	2277.00	2368.00	2444.00	103.38	7.00	0.9655
Interpolated	1300000	154.83	2268.54	2367.73	2435.35			

	ISS	BKS	BKL	BKX	SGA1	SDA1	SGA2	SDA2
Raw Data	808654	6654.28	1021.75	147.72	25.84	0.14	24.35	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	808654	163648.69	25271.68	87594.75	31179.34	8008.51	53072.60	12804.65
Fit Quality %		0.66	0.79	0.96	0.97	0.57	0.94	0.56

	ISS	RBOR	RIN ISS/ILS	RIN13 ISS/IXS	RICS ISS/CSS	RATO SS/LS	RTWO SS2/LS	RONE CSS/CLS
Raw Data	808654	1.44	4.94	32.00	15.24	10.94	3.89	4.14
		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 %		0.04	0.20	0.21	0.03	0.25	0.26	0.25
Reduced	1400653	1.43	4.94	32.00	15.26	10.94	3.89	4.14
		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

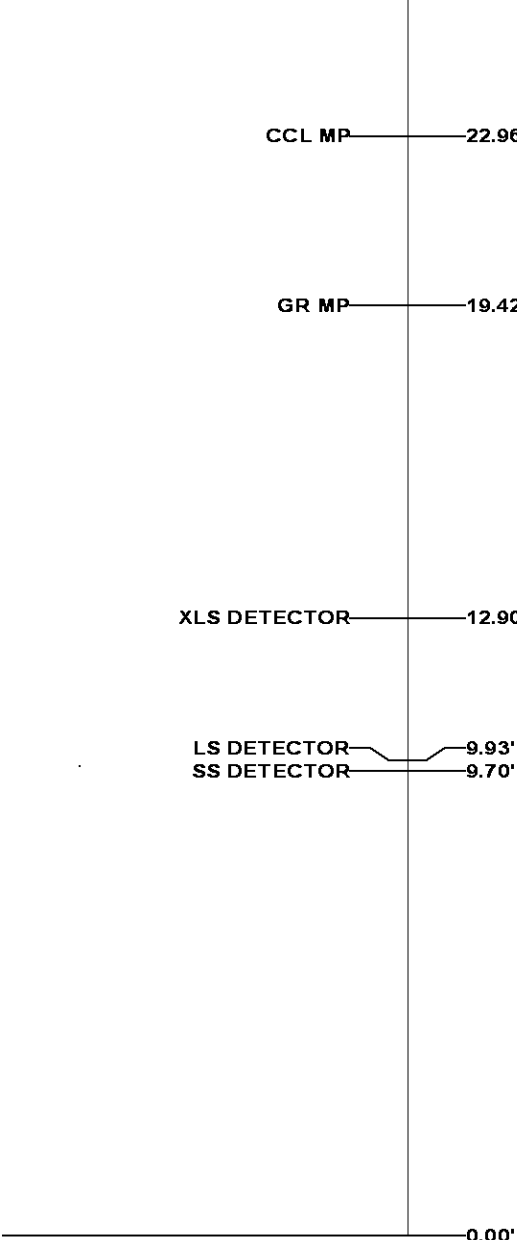
Series	8250EA
Mnemonic	PCM
Diameter	1.70"
Weight	18.00 lb
Length	3.86'
Temp Rating	350.00 °F

## TELEMETRY / CCL



31.05'

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
<b>GAMMA RAY</b>	
Series	8262XA
Mnemonic	GR
Diameter	1.70"
Weight	15.00 lb
Length	3.17'

<b>RESERVOIR PERFORMANCE MONITOR</b>	
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: 31.05'  
Total Weight: Not Available  
Max Diameter: 0' 1.70"

<div> <b>BAKER HUGHES</b></div> <div>Baker Atlas</div> <div></div>	Company WPX ENERGY		File No: CH07263	
	Well YOUBERG RWF 444-23		API No: 05045182490000	
	Field RULISON			
	County GARFIELD	State COLORADO		
Location		Elevations		
SHL: 1352' FSL, 2297' FEL		KB 5527.5 ft		23 6S 94W
BHL: 220' FSL, 463' FEL		DF		RWF 33-23 PAD
		GL 5501.5 ft		NABORS 577
SEC 23	TWP 6S	RGE 94W		