



RESERVOIR PERFORMANCE MONITOR

Baker Atlas

File No: CH083783

Company Well WPX ENERGY SAVAGE RWF 414-25

API No: Field RULISON

County GARFIELD State CO

05045219840000

Location

S25 T6S R94W

RIG: NABORS 577

PAD: RWF 23-25

SHL: 1617' FSL 2294' FWL

BHL: 856' PBL 819' FWL (SWSW)

SEC 25 TWP 6S RGE 94W

GL KB Elevation 6096 ft

Log Measured From KB 26 ft Above P. D.

Drill Measured From KB

Other Services

BOND LOG

KB 6122 ft

DF

GL 6096 ft

Date 25/MAR/14

Run 1

Service Order 625365

Depth Driller 8731 ft

Depth Logger 8688 ft

Bottom Logged Interval 8678 ft

Top Logged Interval 4624 ft

Time Started 0800

Time Finished 1415

Operator Rig Time 6.3 HRS

Type of Fluid in Hole H2O

Fluid Density NA

Salinity NA

Fluid Level 72 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 Date 24/MAR/14

Equipment No. Location 4271 GRAND JCT

Recorded By D SMITH/JF RENEAU

Witnessed By 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
13.4 in	26 ft	1135 ft
8.75 in	1135 ft	8731 ft

Casing Record

Size	Weight	Grade	From	To
9.625 in	32 lbm/ft		26 ft	1135 ft
4.5 in	11.6 lbm/ft	180	1135 ft	8731 ft

Remarks

All data on this log is shifted and depth matched using the Gamma Ray curve to the Baker Hughes bond log dated 3/24/2014 at the client's request.

The amount of linear shift is 9 feet.

Logged in PNC-3D mode.

BHT = 236 °F

SJ = 5336'-5360'

Equipment Data					
Run	Trip	Tool	Series Number	Serial Number	Position
1	1	TEMP	8255XA	11774586	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		4599.772	8693.772
PNC Porosity	Borehole Size	8.750	inch	4599.772	8693.772
PNC Porosity	Casing Size	4.500	inch	4599.772	8693.772
PNC Porosity	Gas Filled	Non Gas Filled		4599.772	8693.772
PNC Porosity	Matrix	Sandstone		4599.772	8693.772
TPS Pressure	Temperature Corr. Source	Fixed (72.00)	degF	4599.772	8693.772

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 414-25

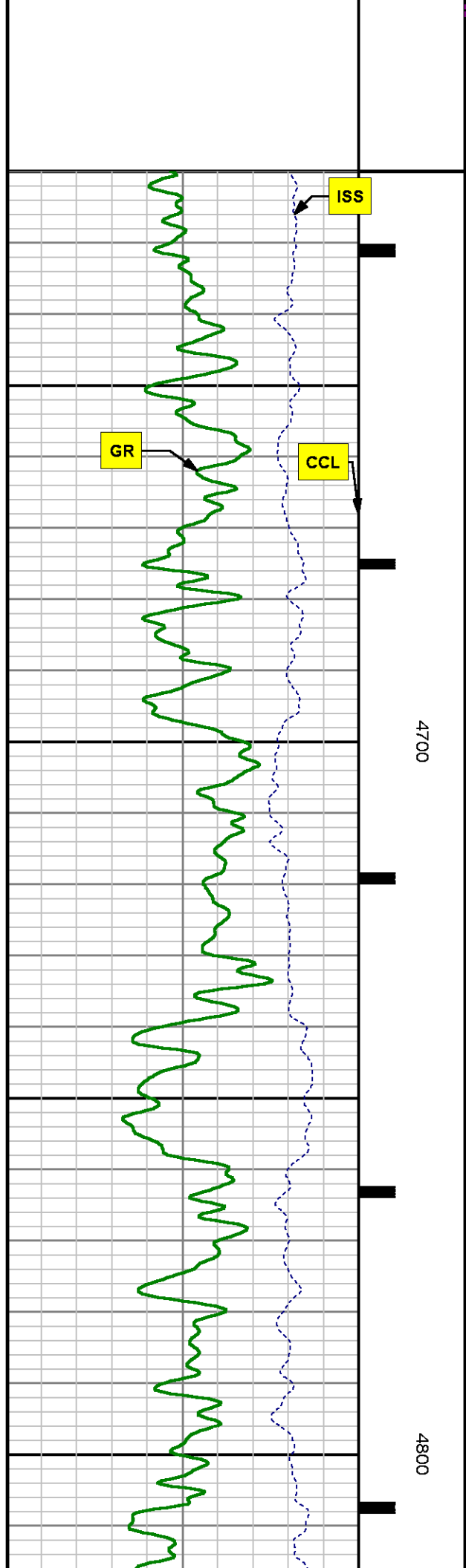
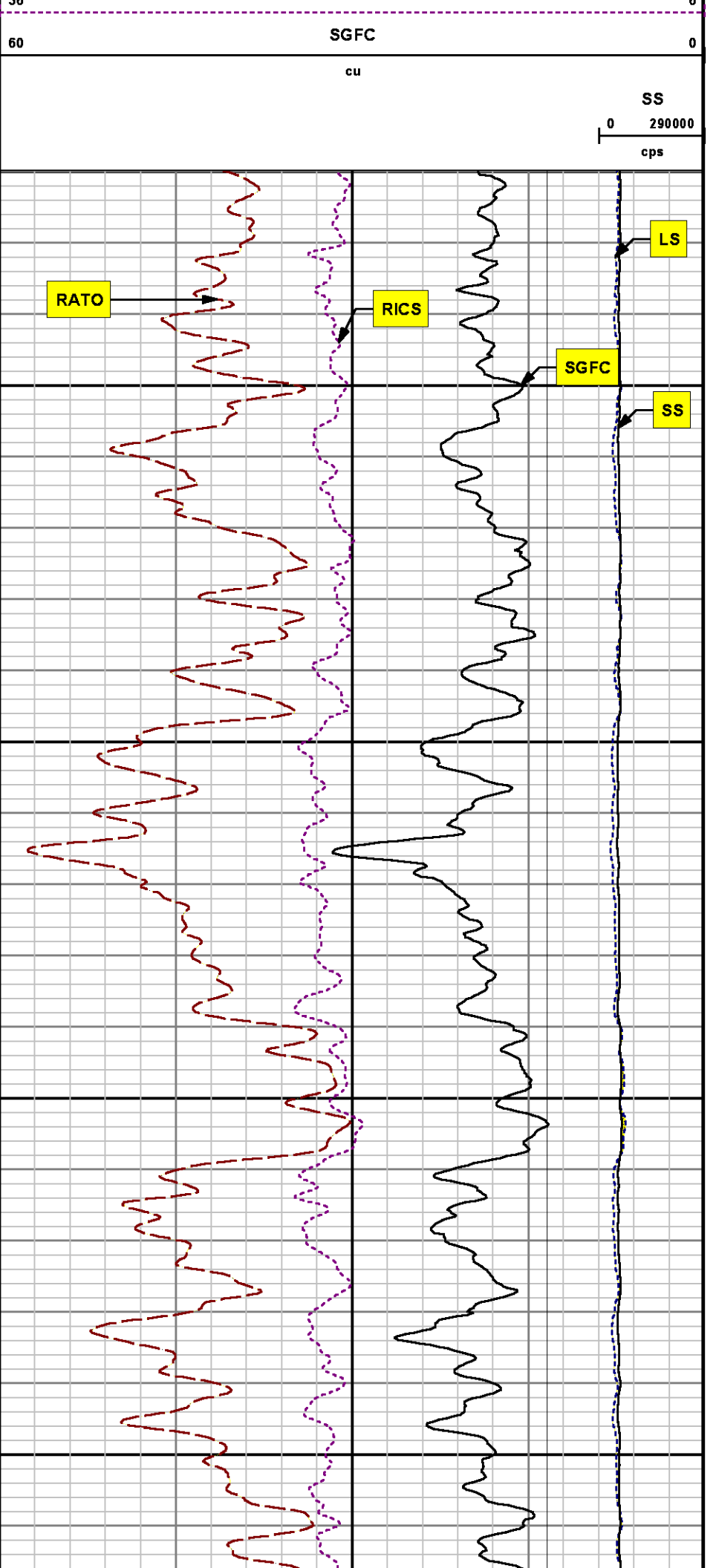
File Name : d:\welldata\wp\wrf 414-25\rpm414\main.xtf

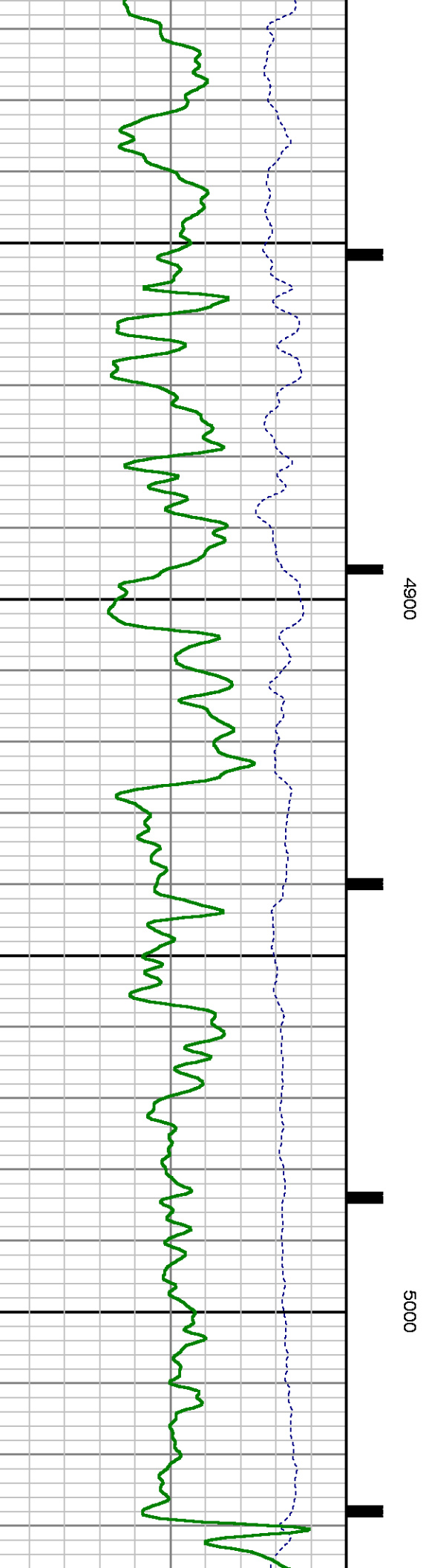
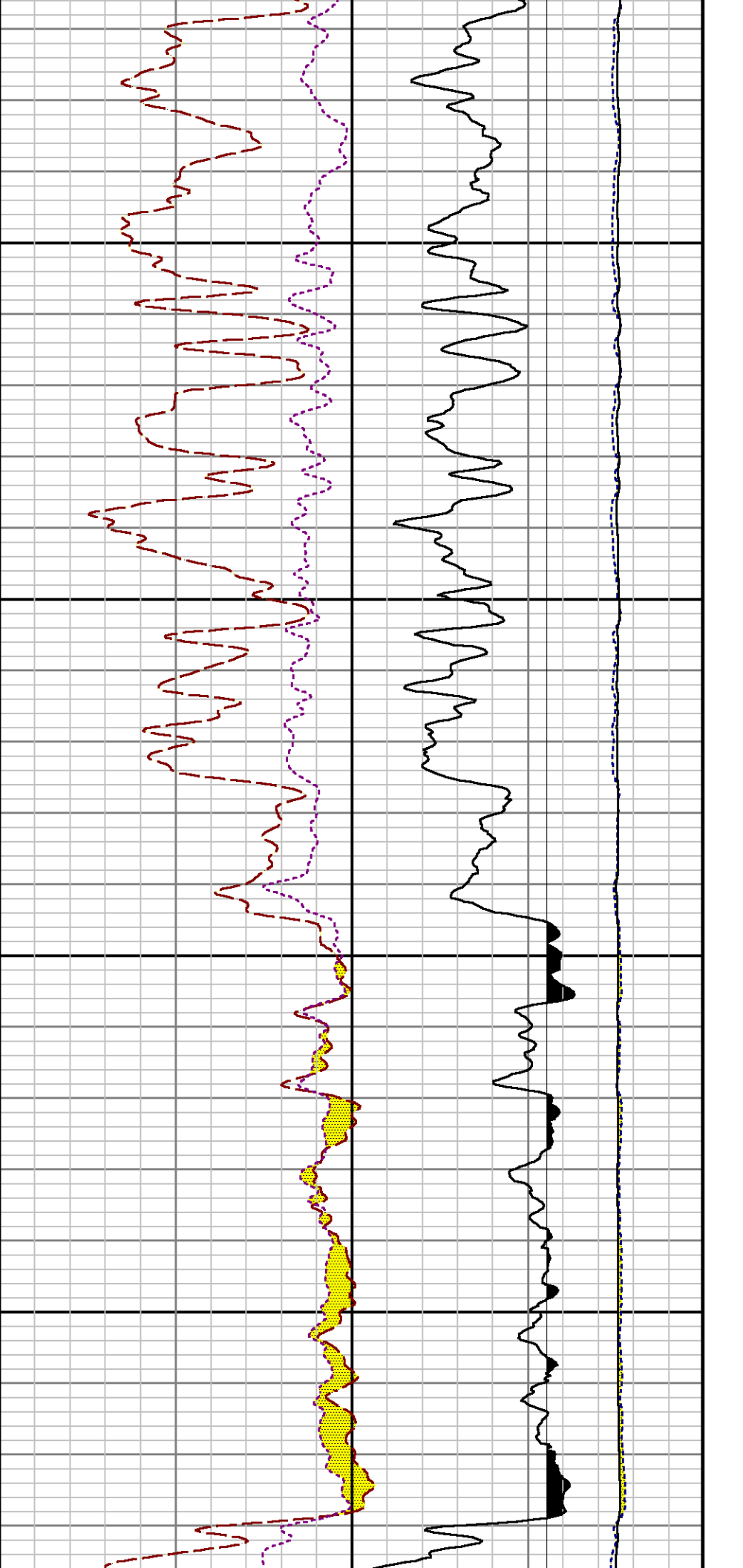
Mode : PlotMgr 5.4.504

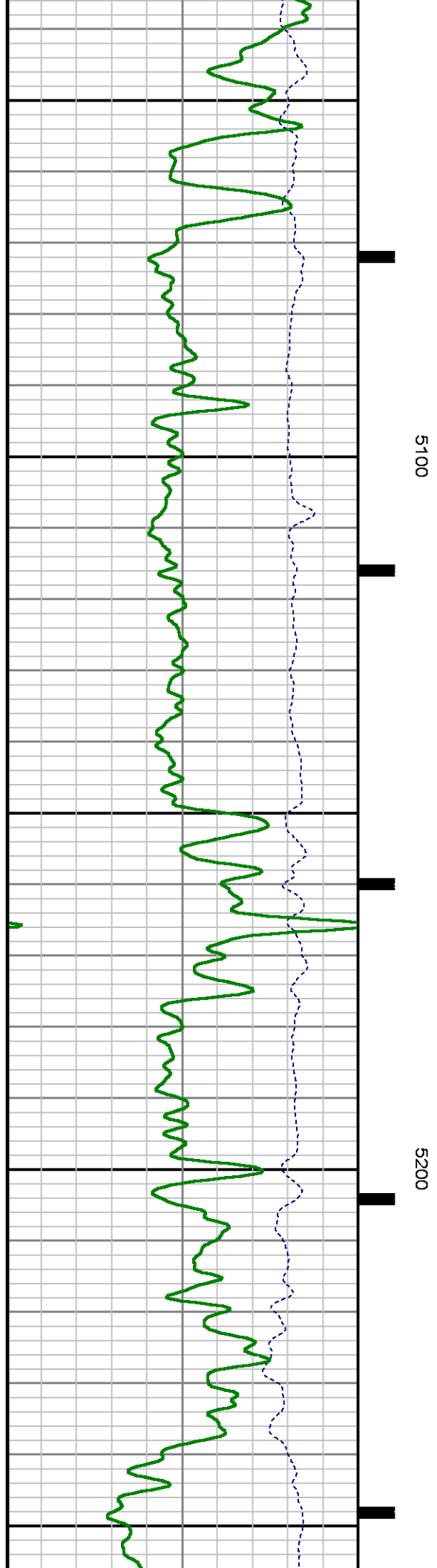
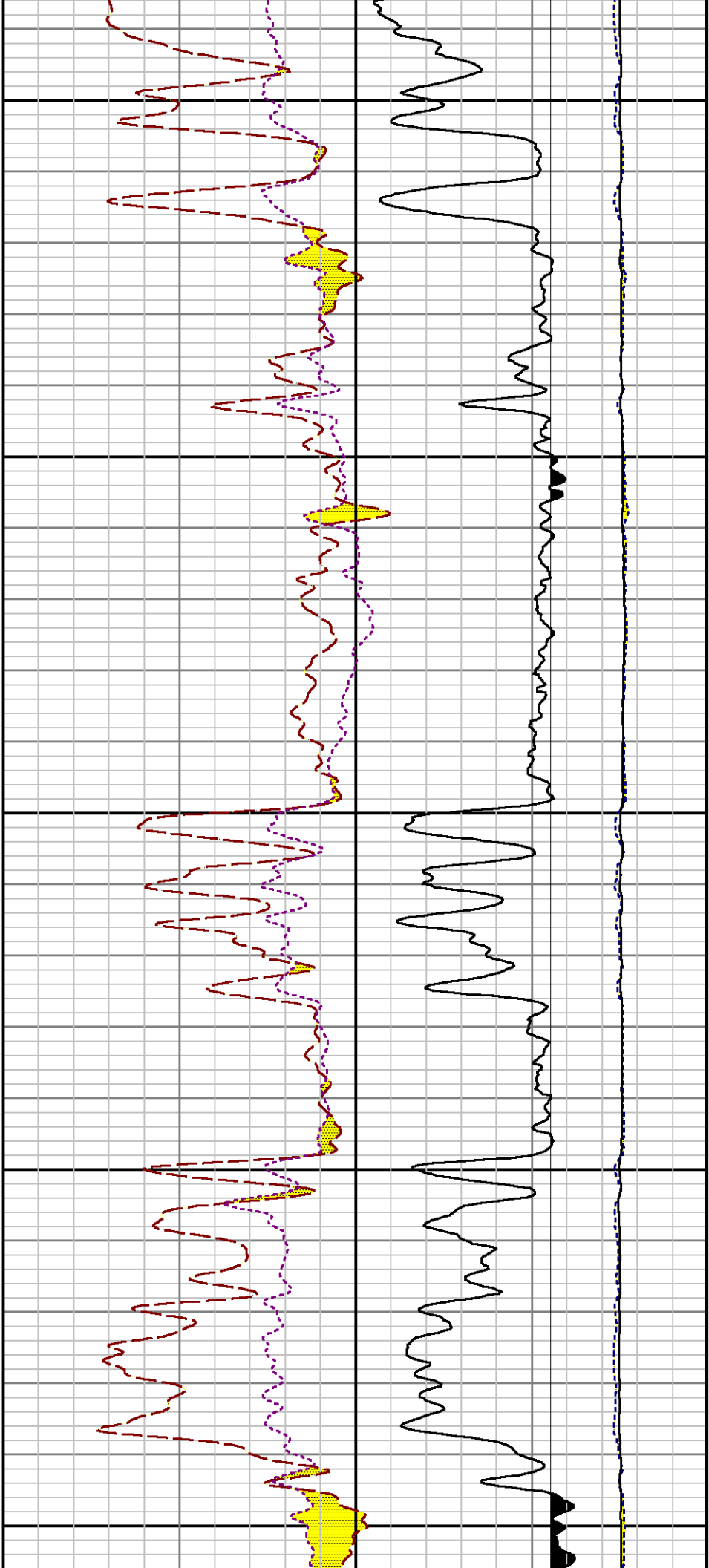
Interval : 4620.00 - 8694.00 feet UP

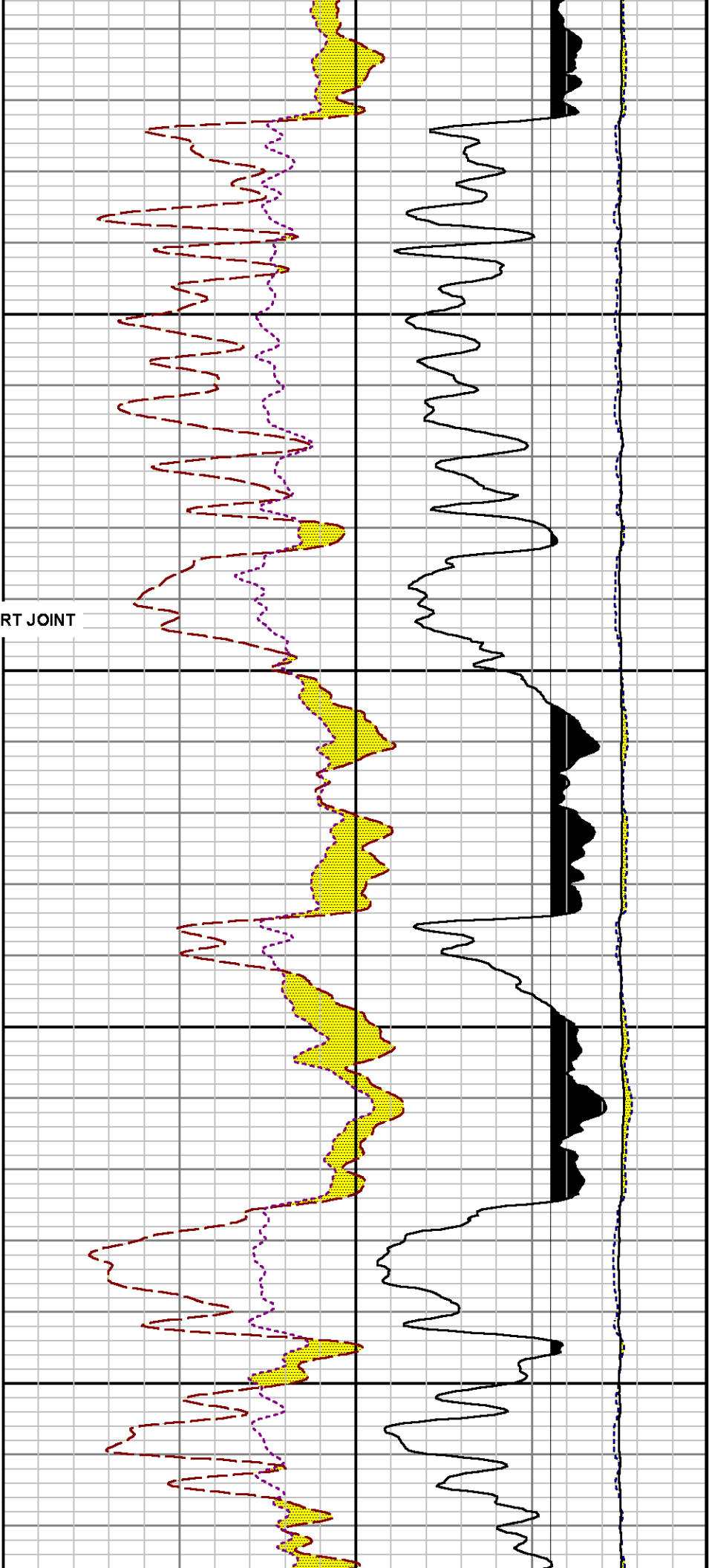
Created : 3/25/2014 9:14:29 AM







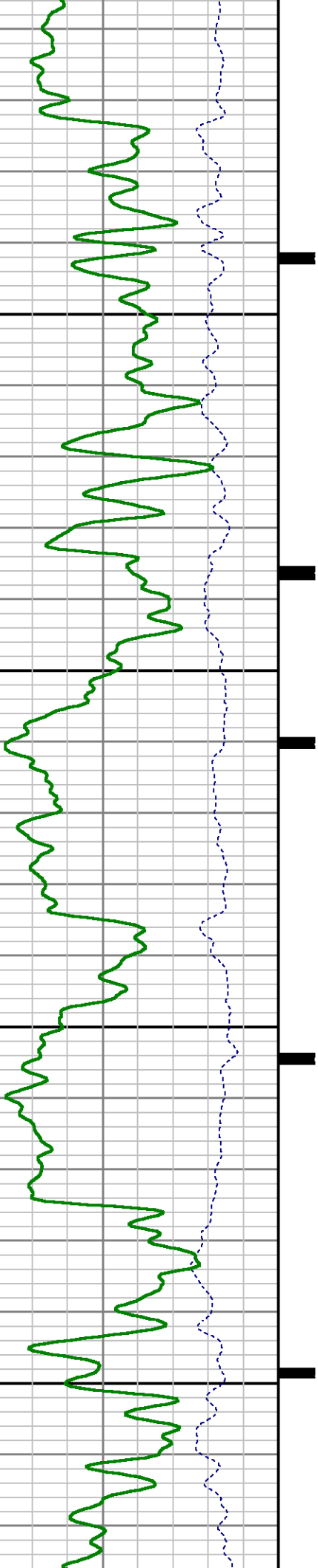


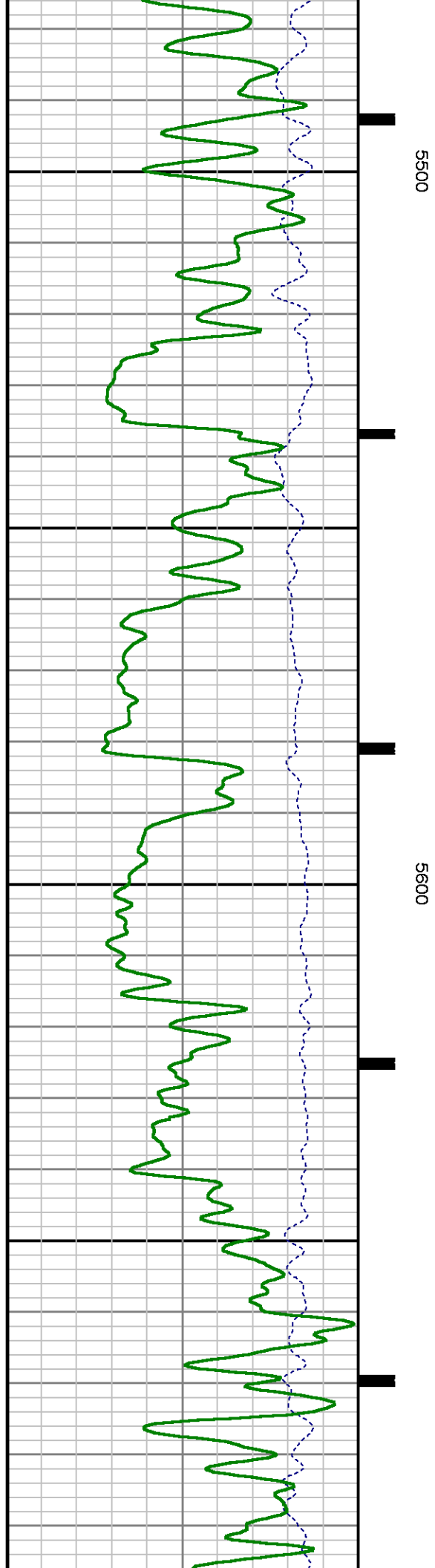
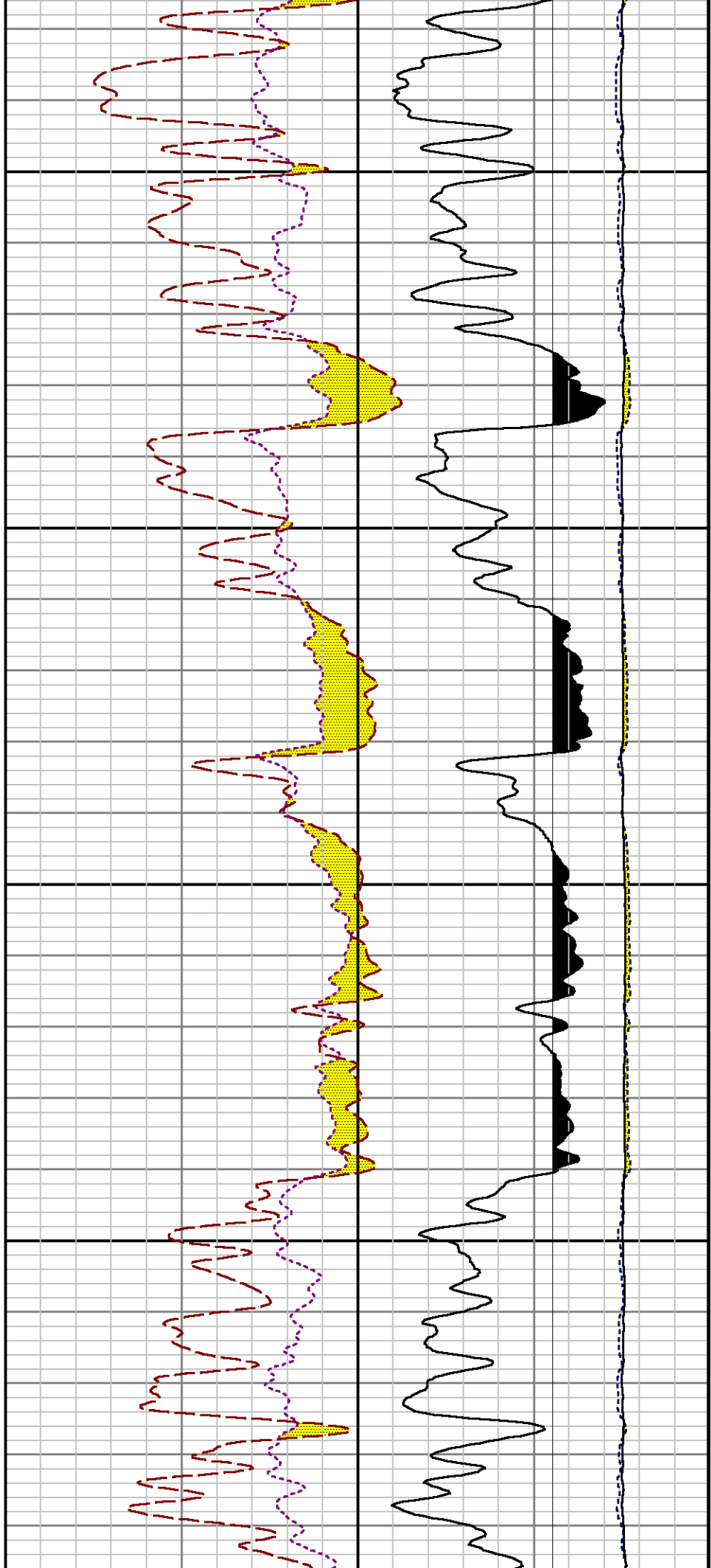


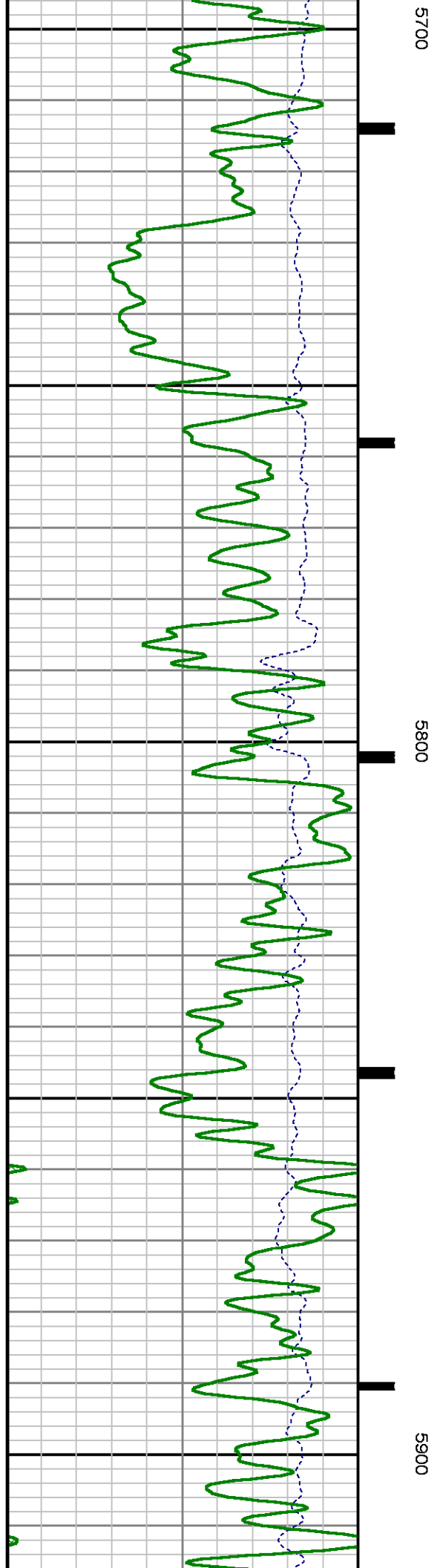
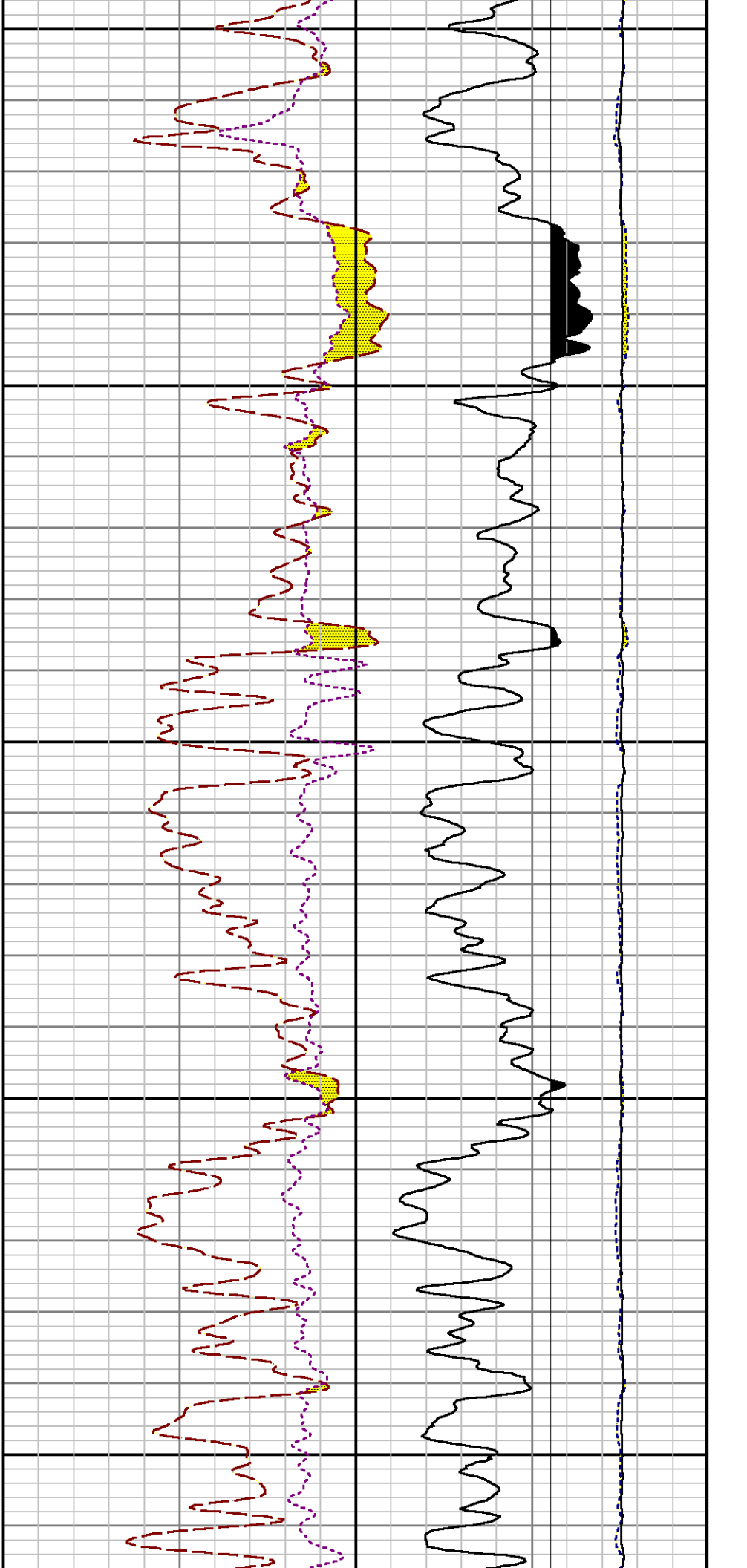
5300

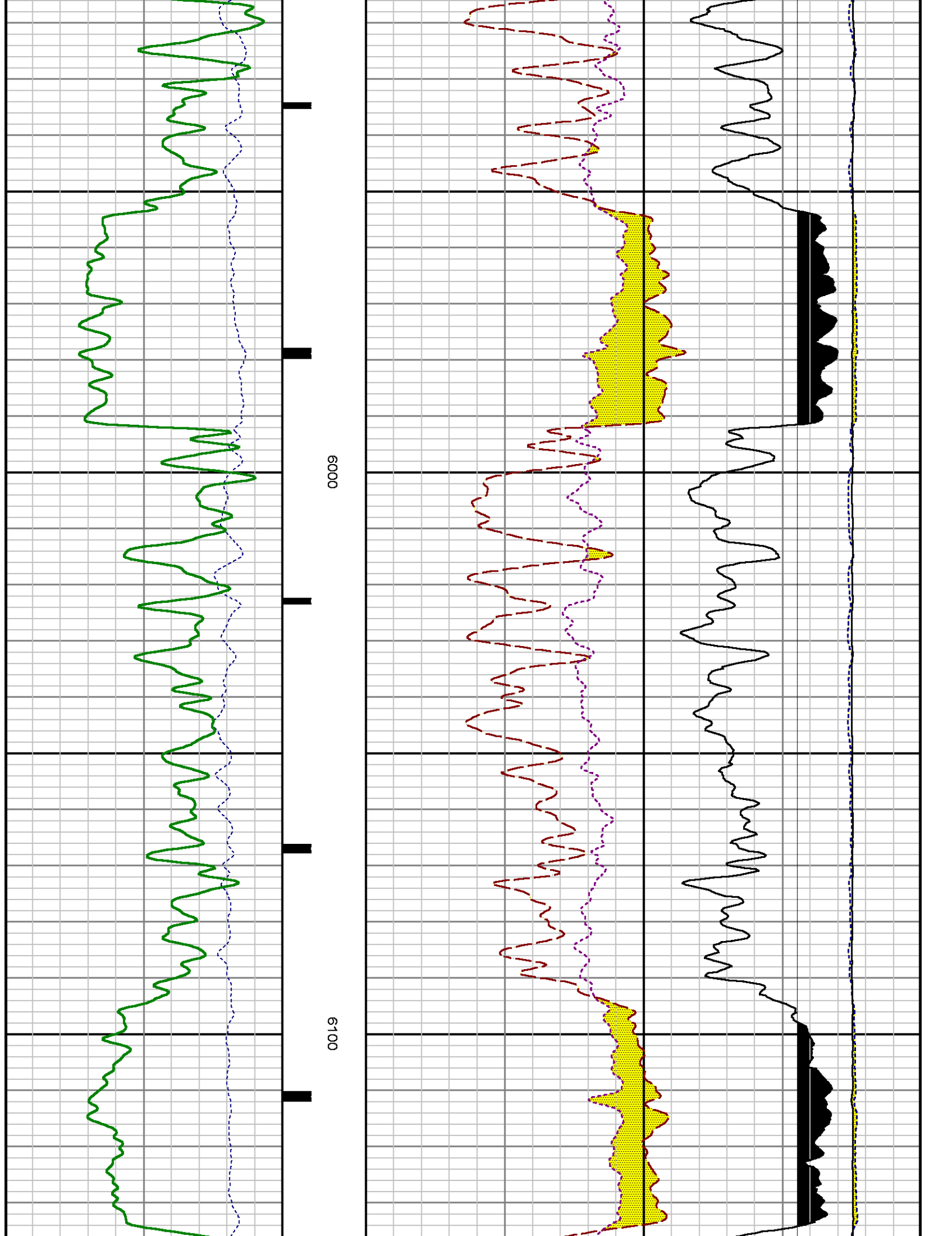
SHORT JOINT

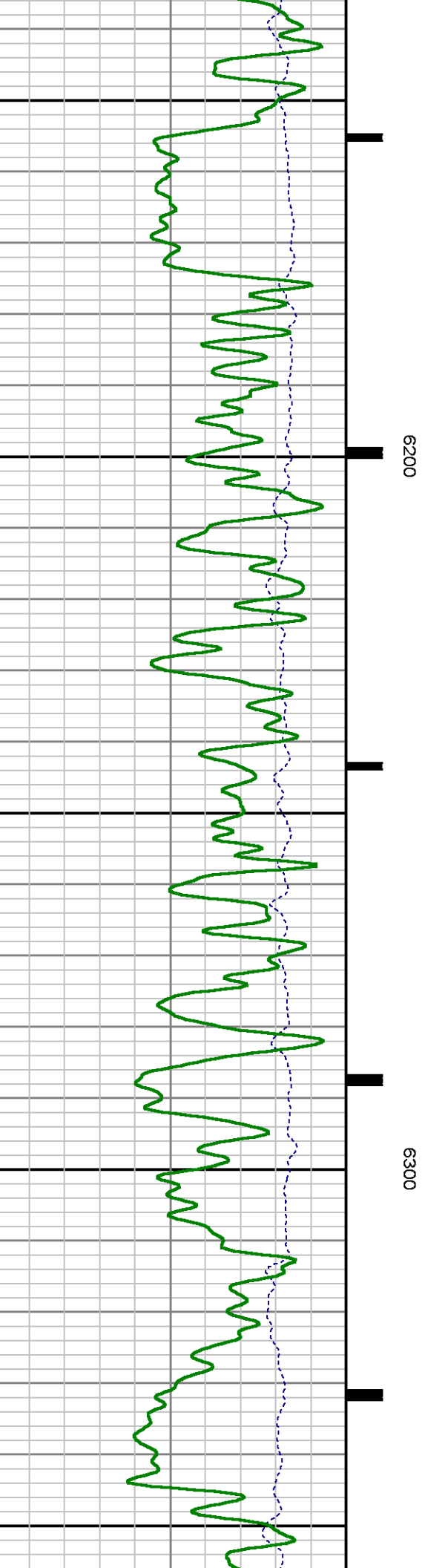
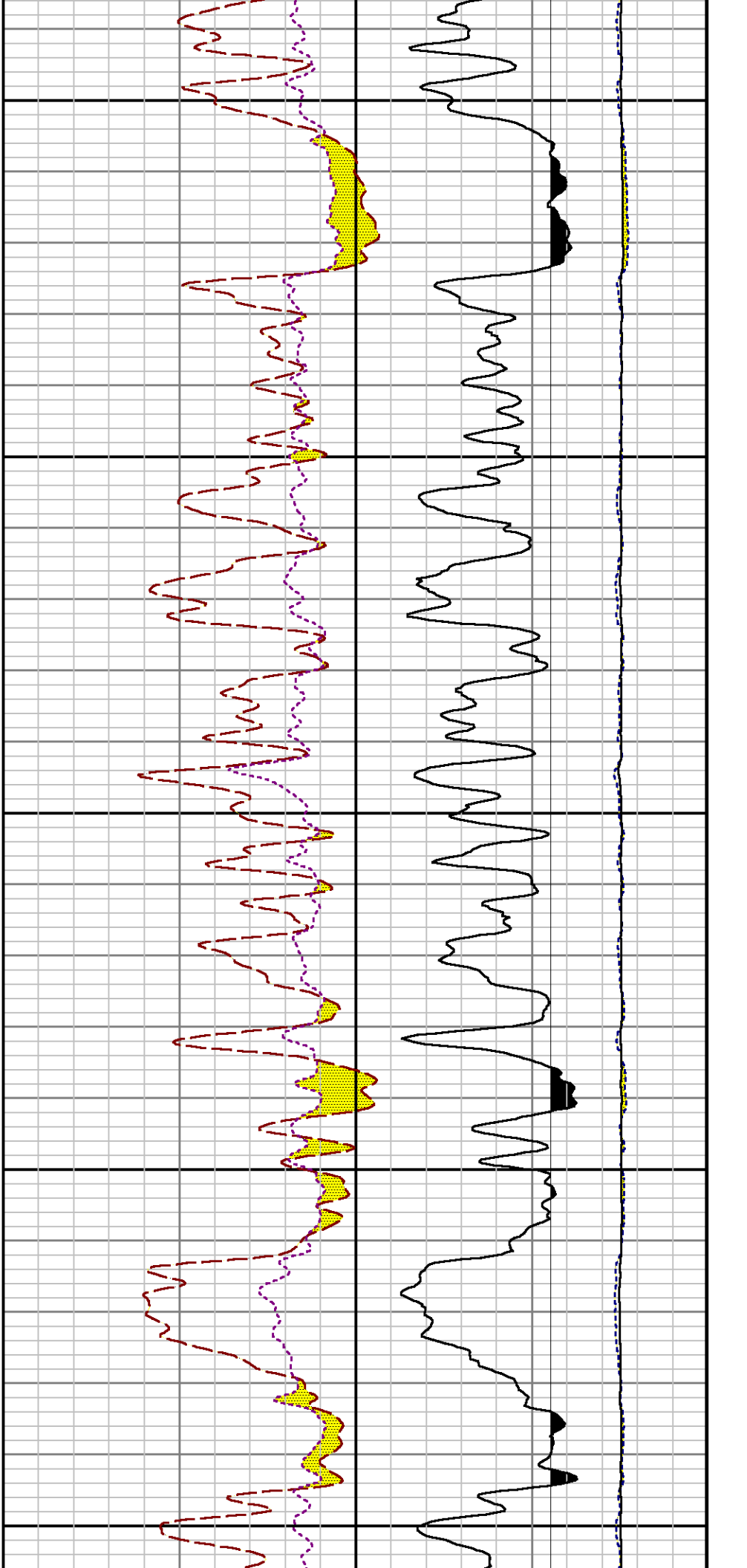
5400

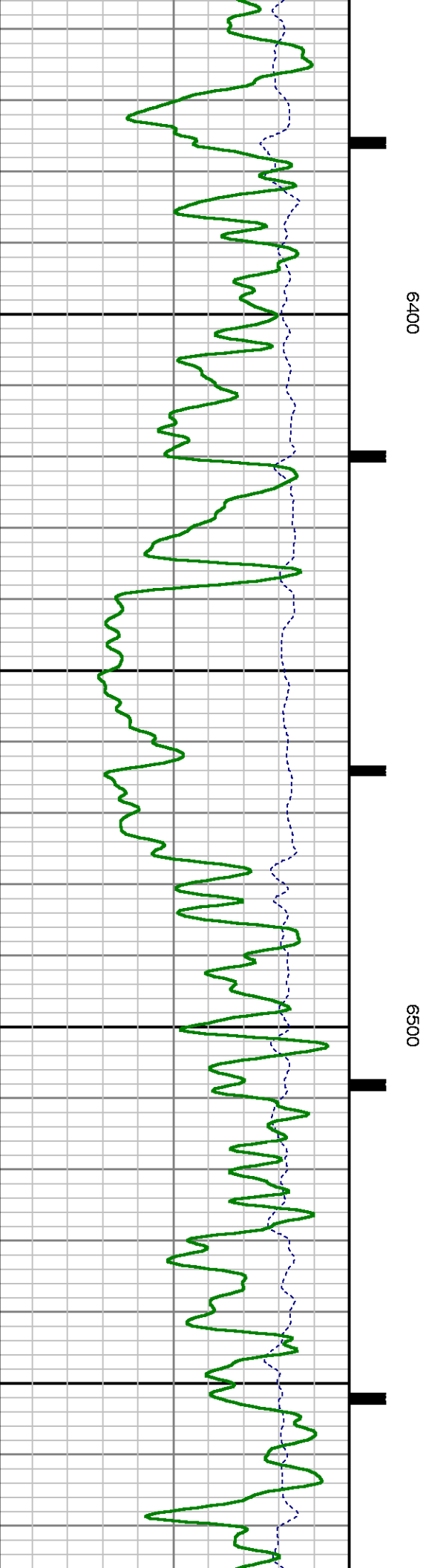
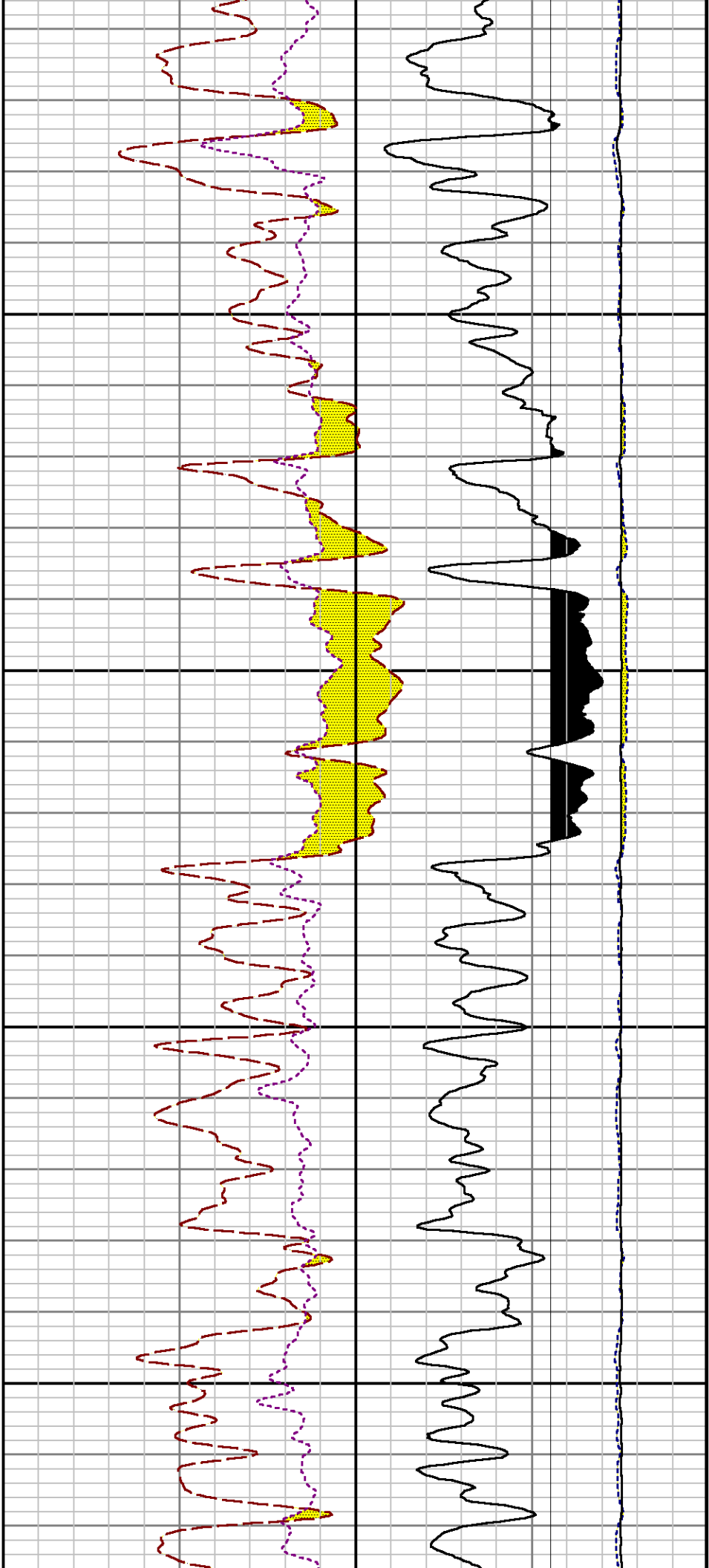


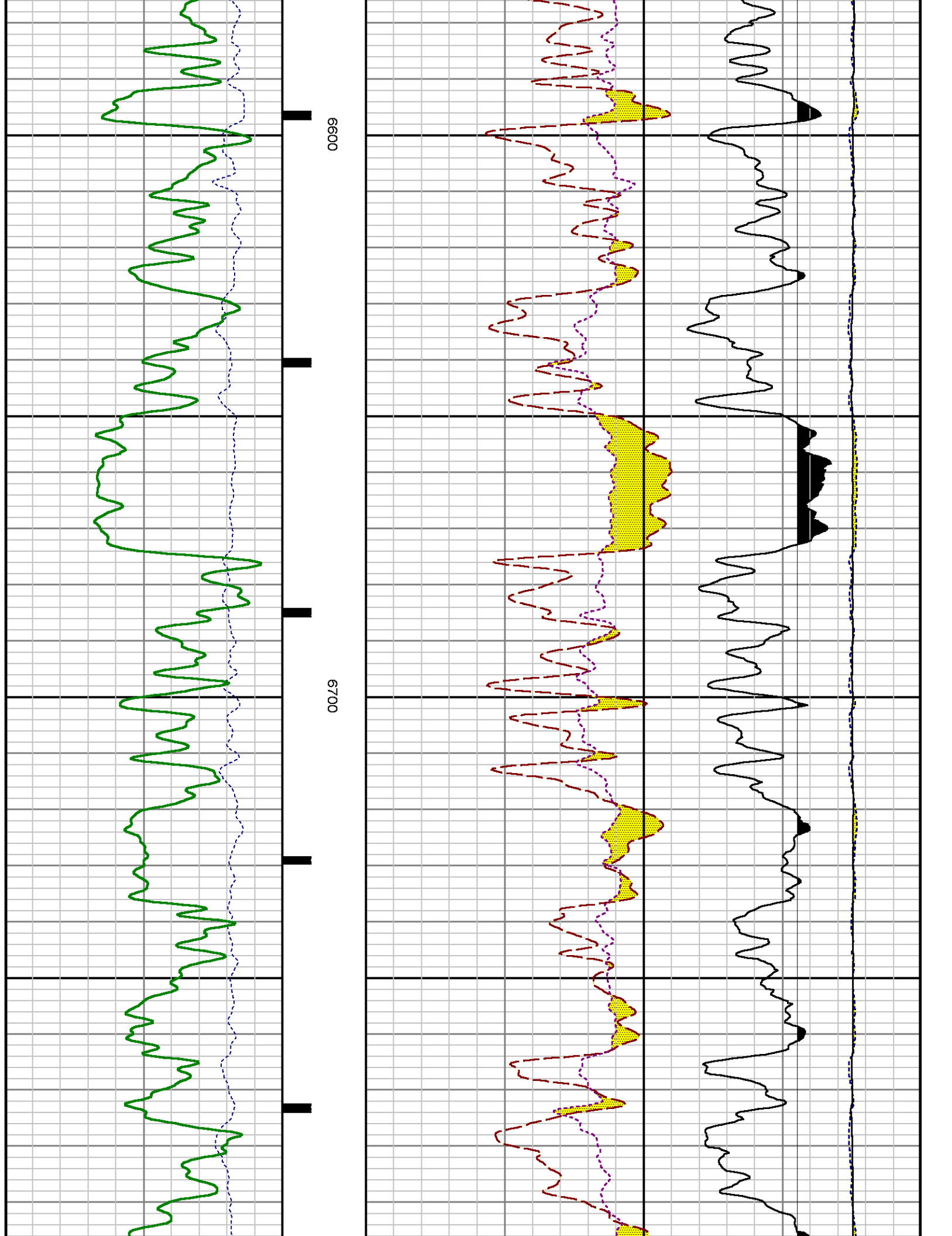


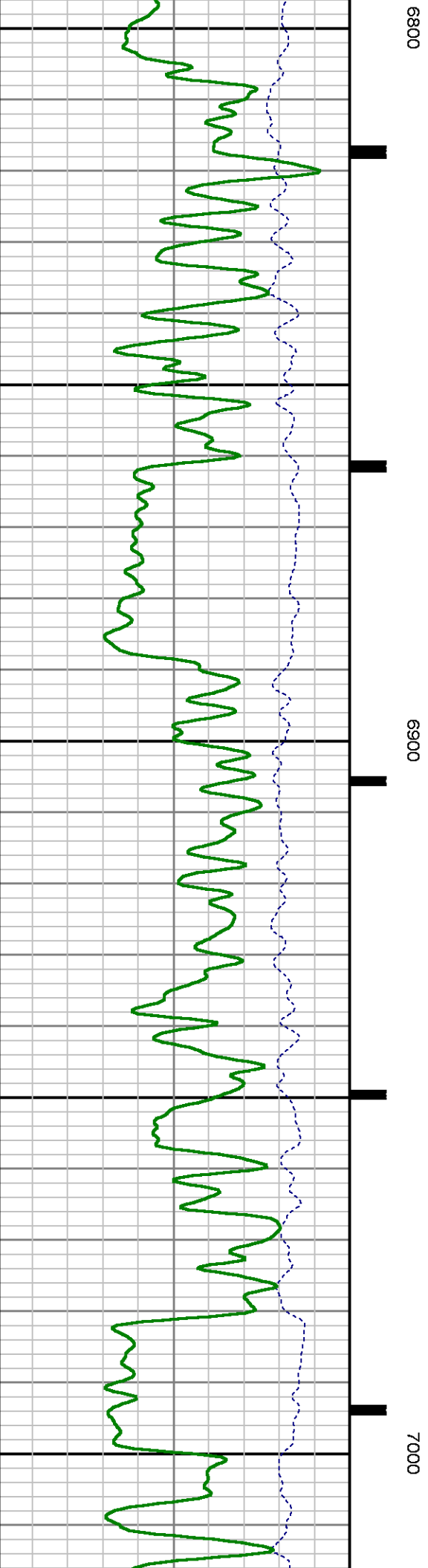
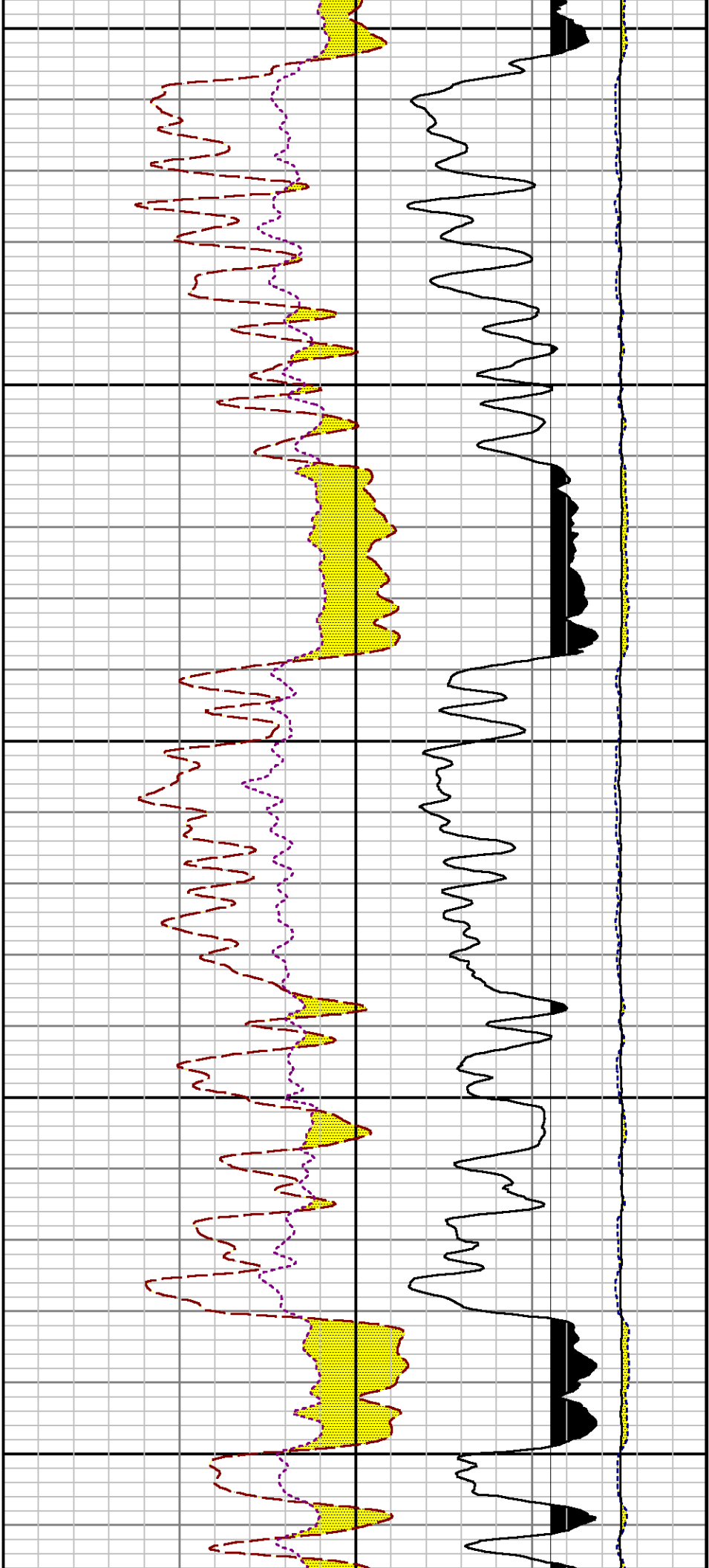


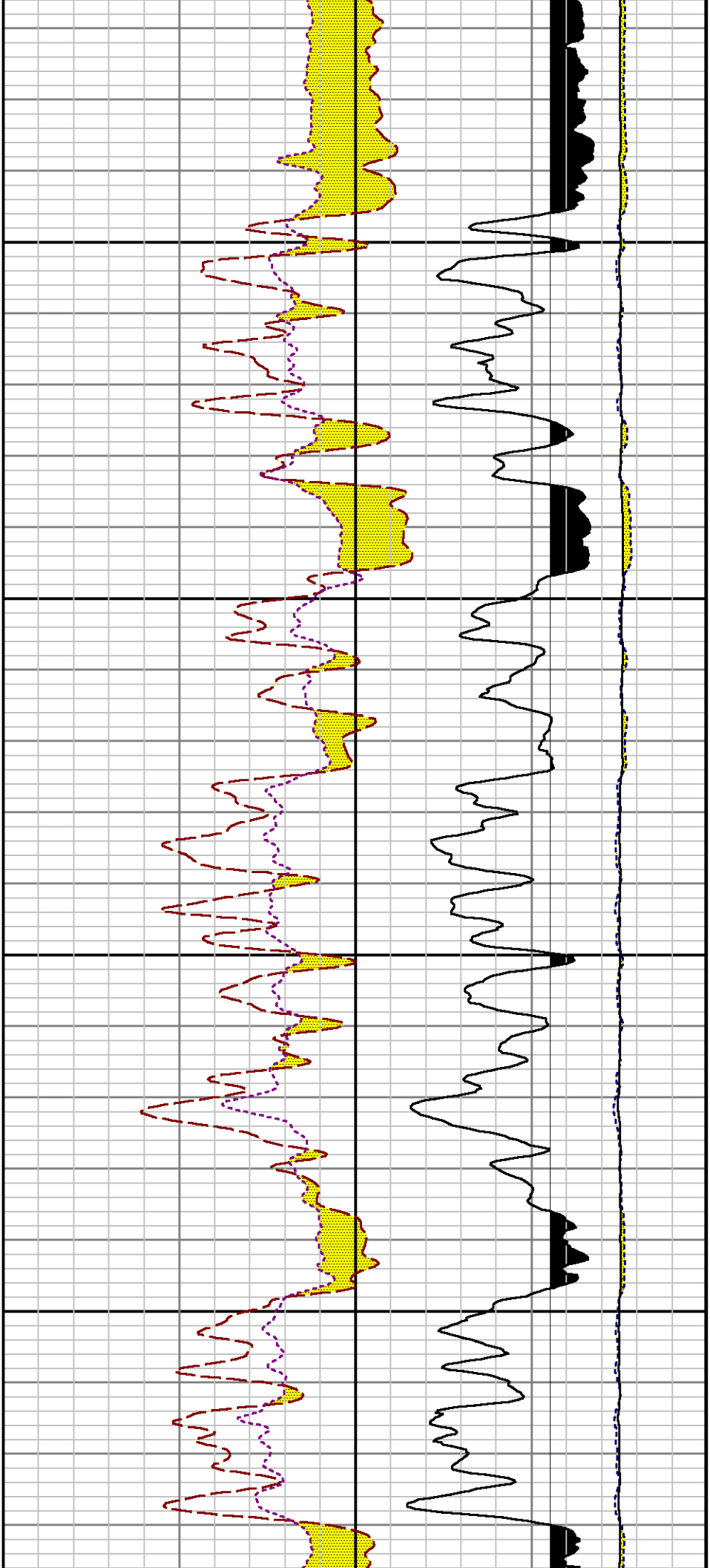






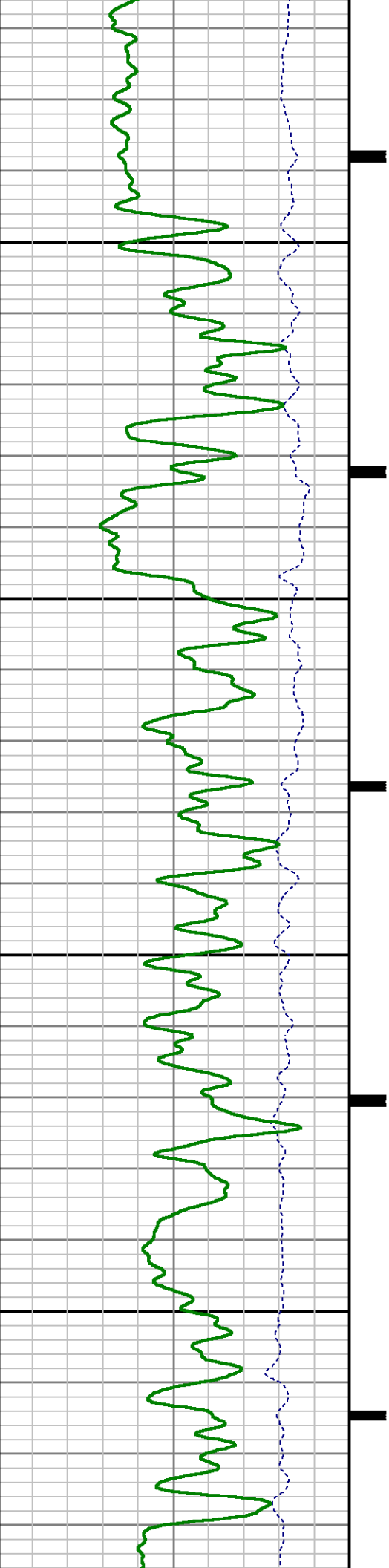


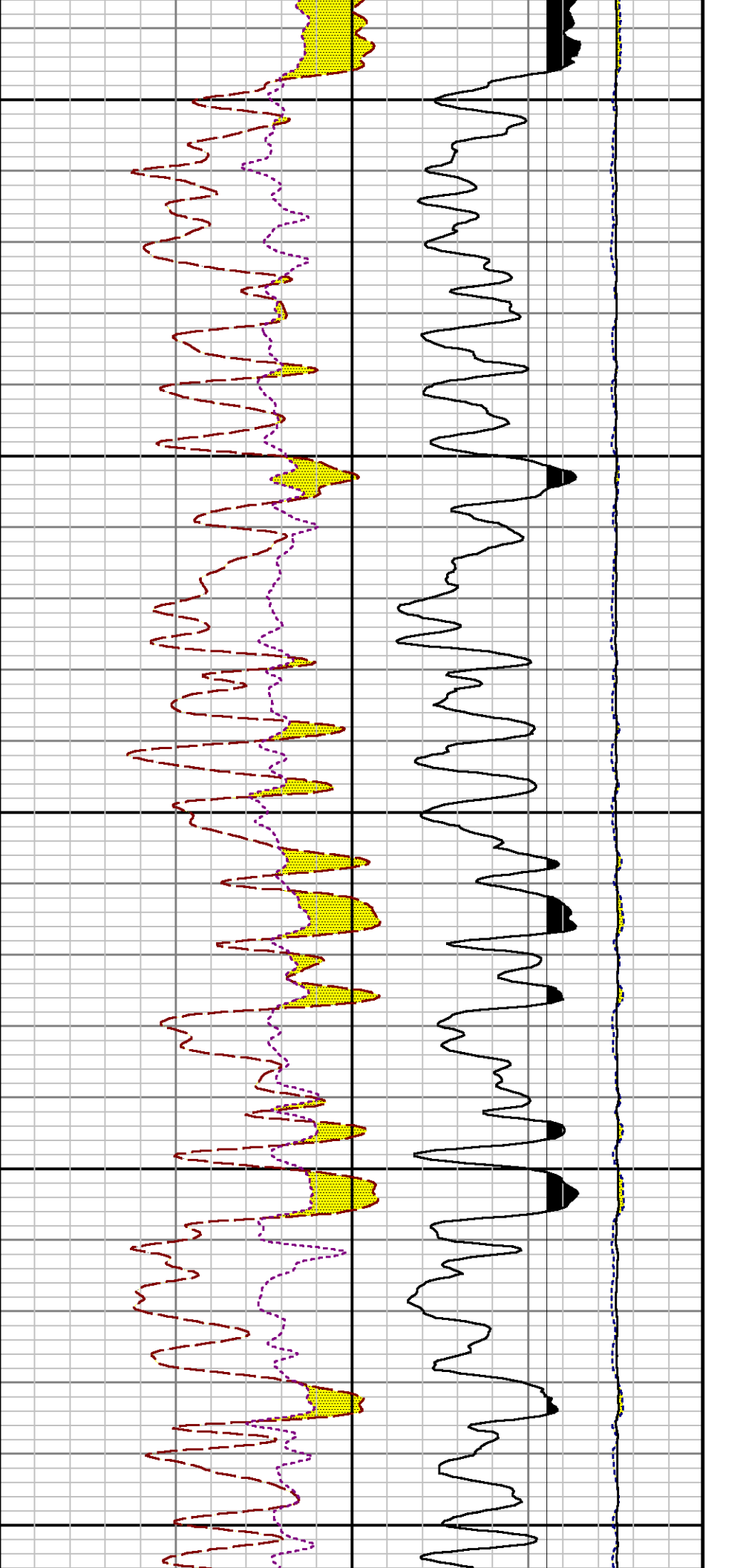




7100

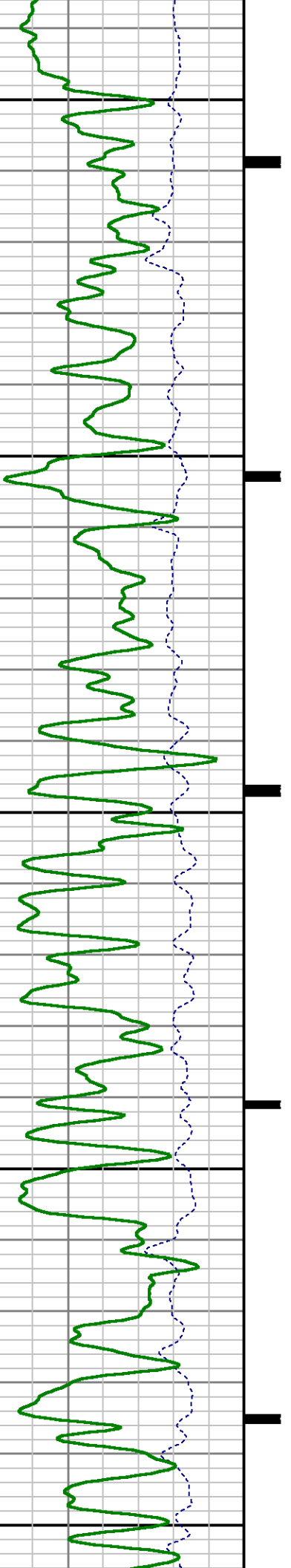
7200

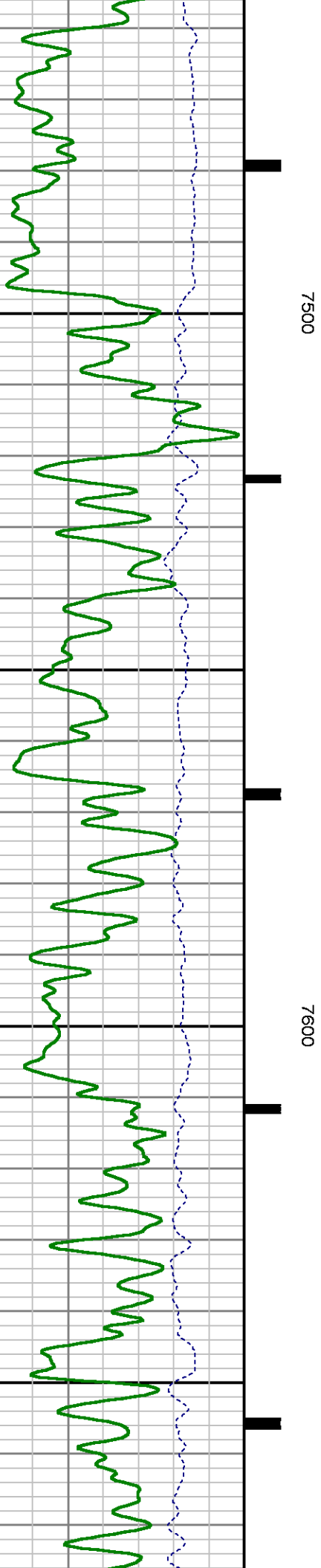
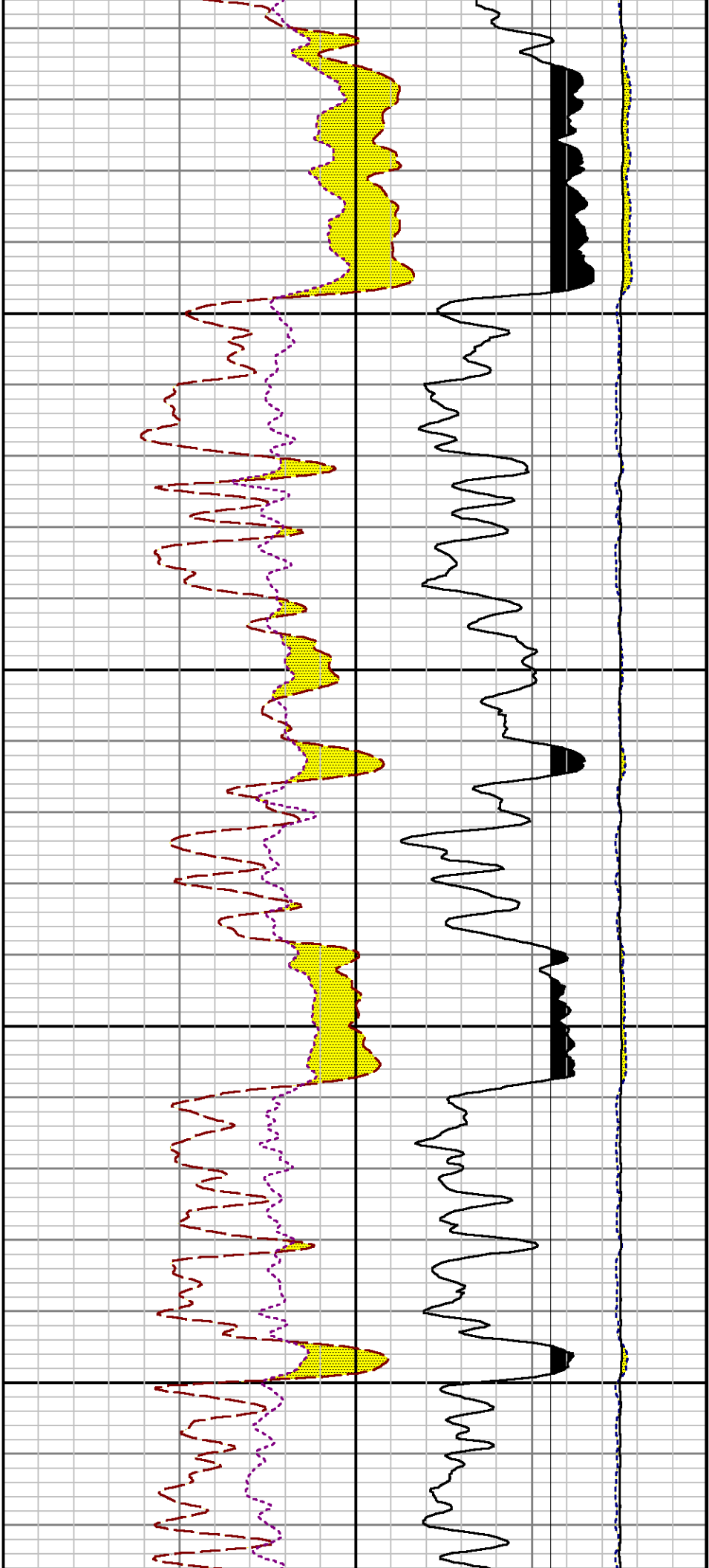


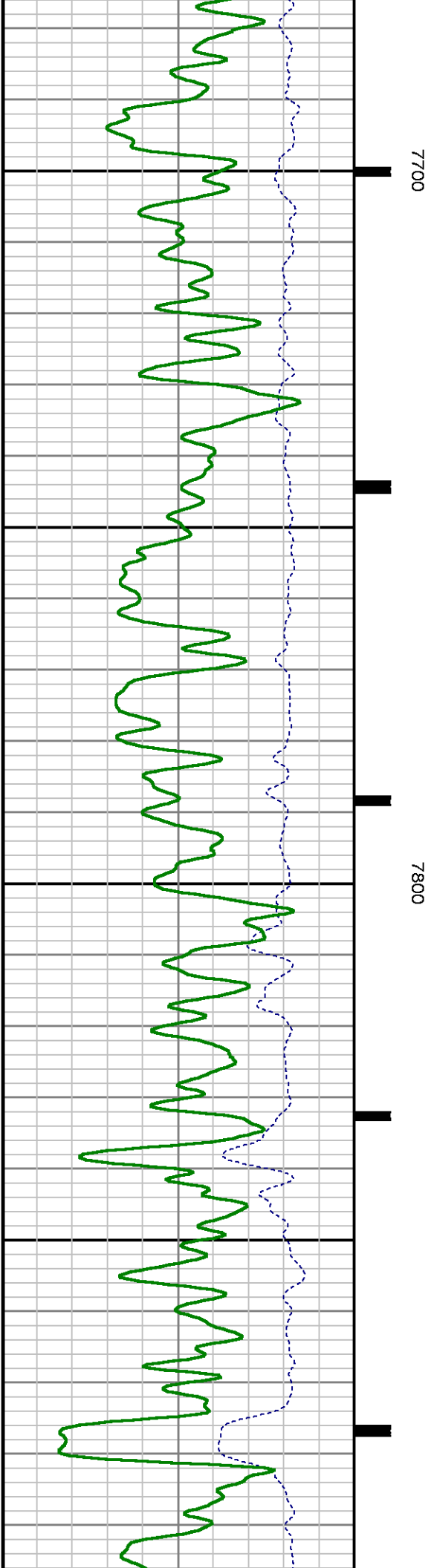
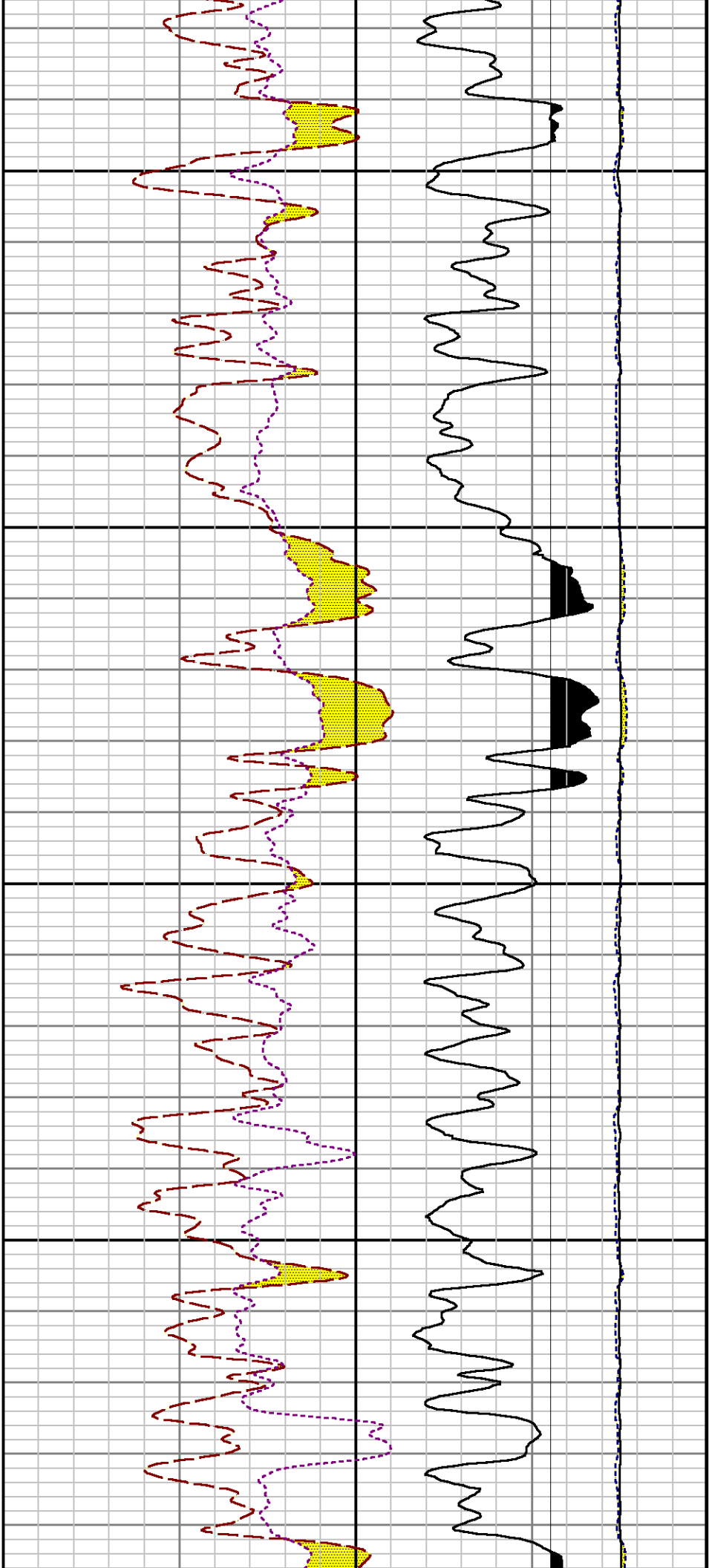


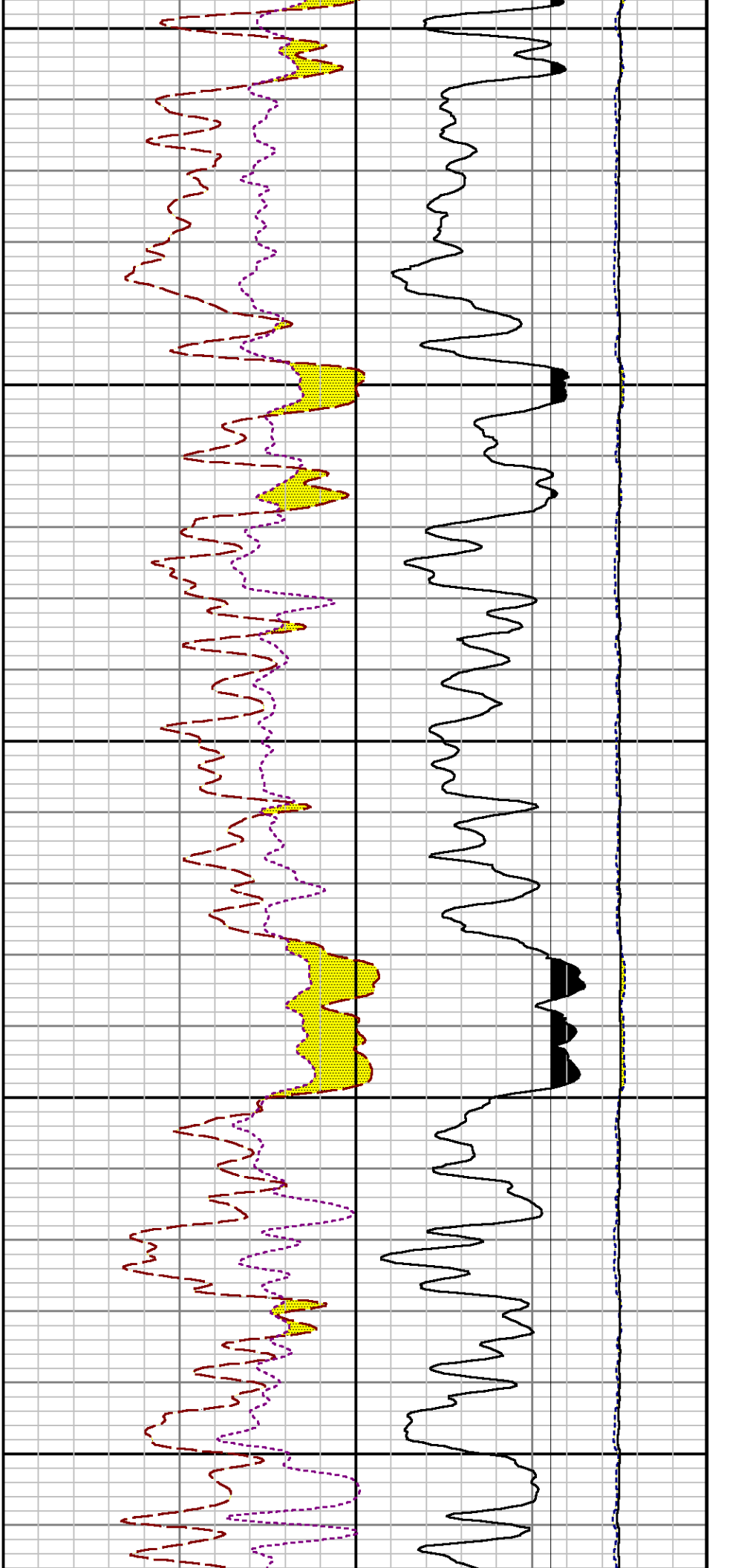
7300

7400





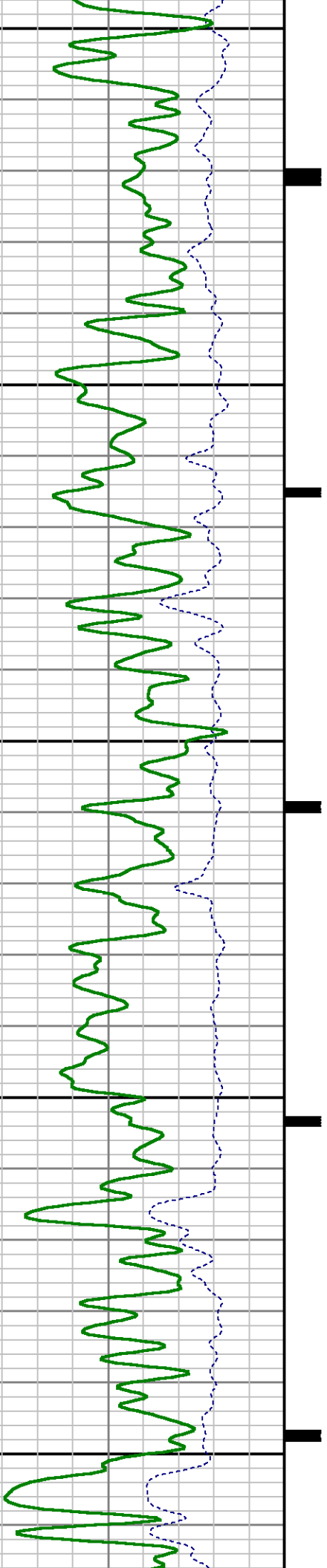


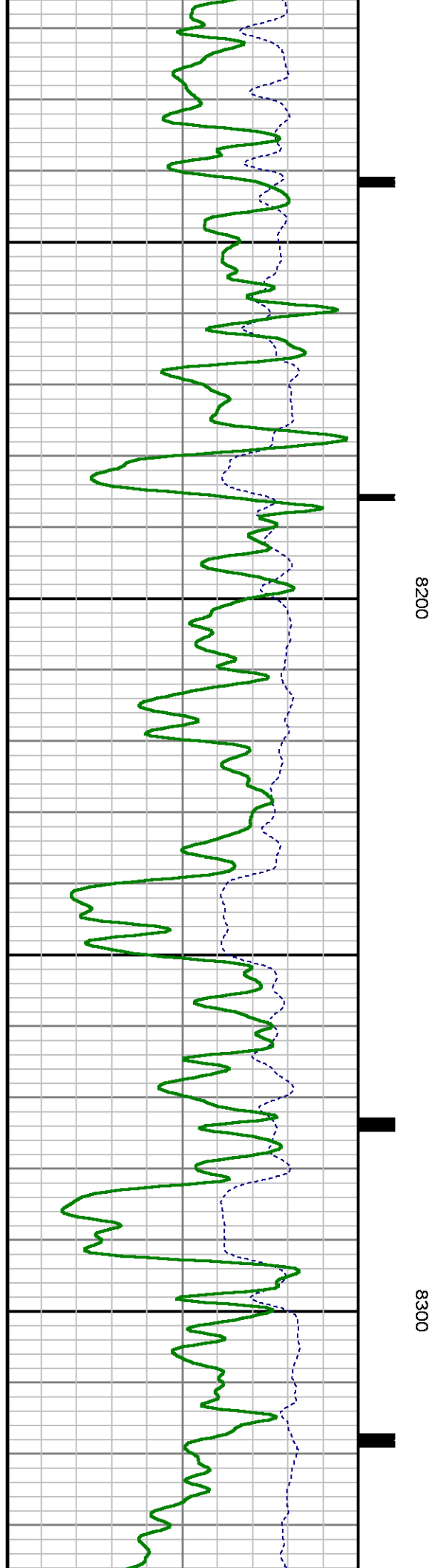
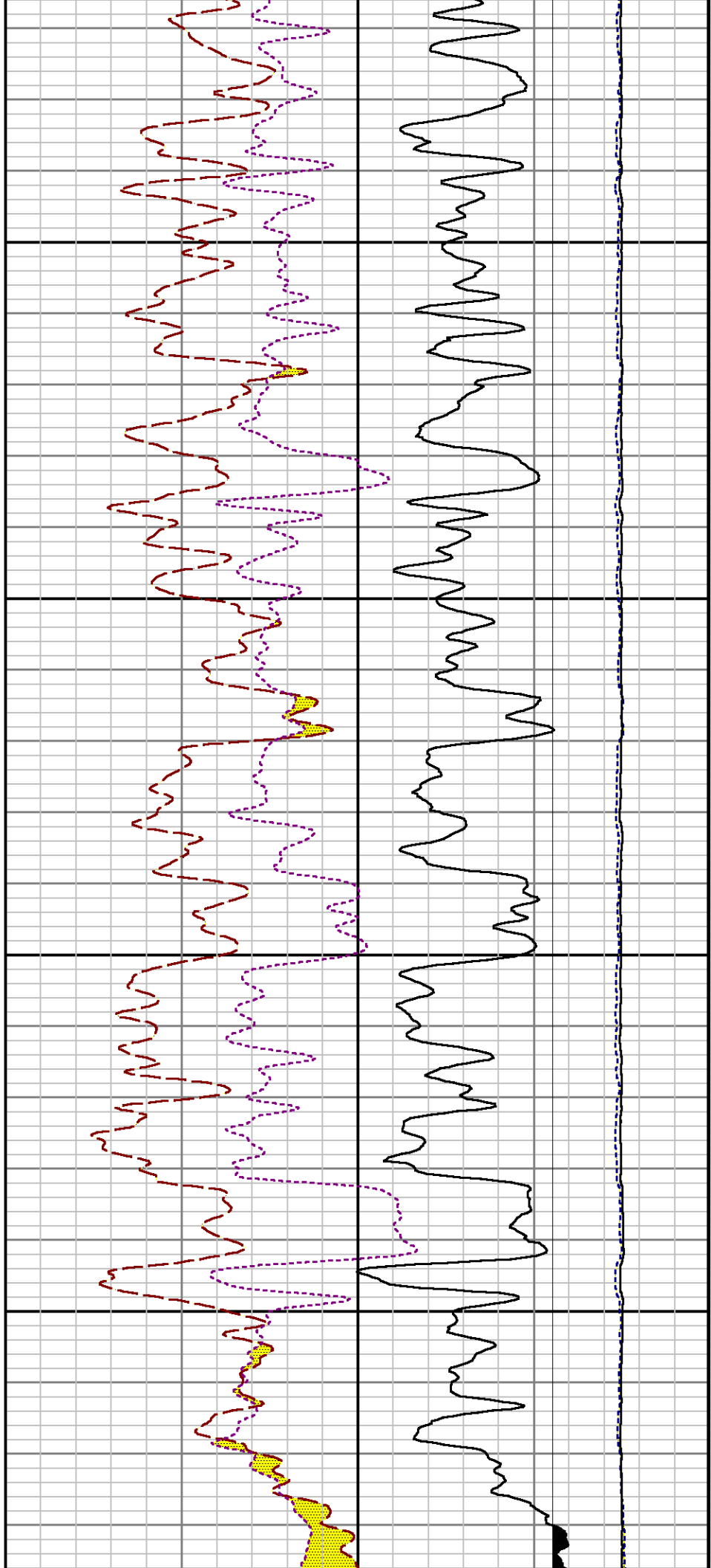


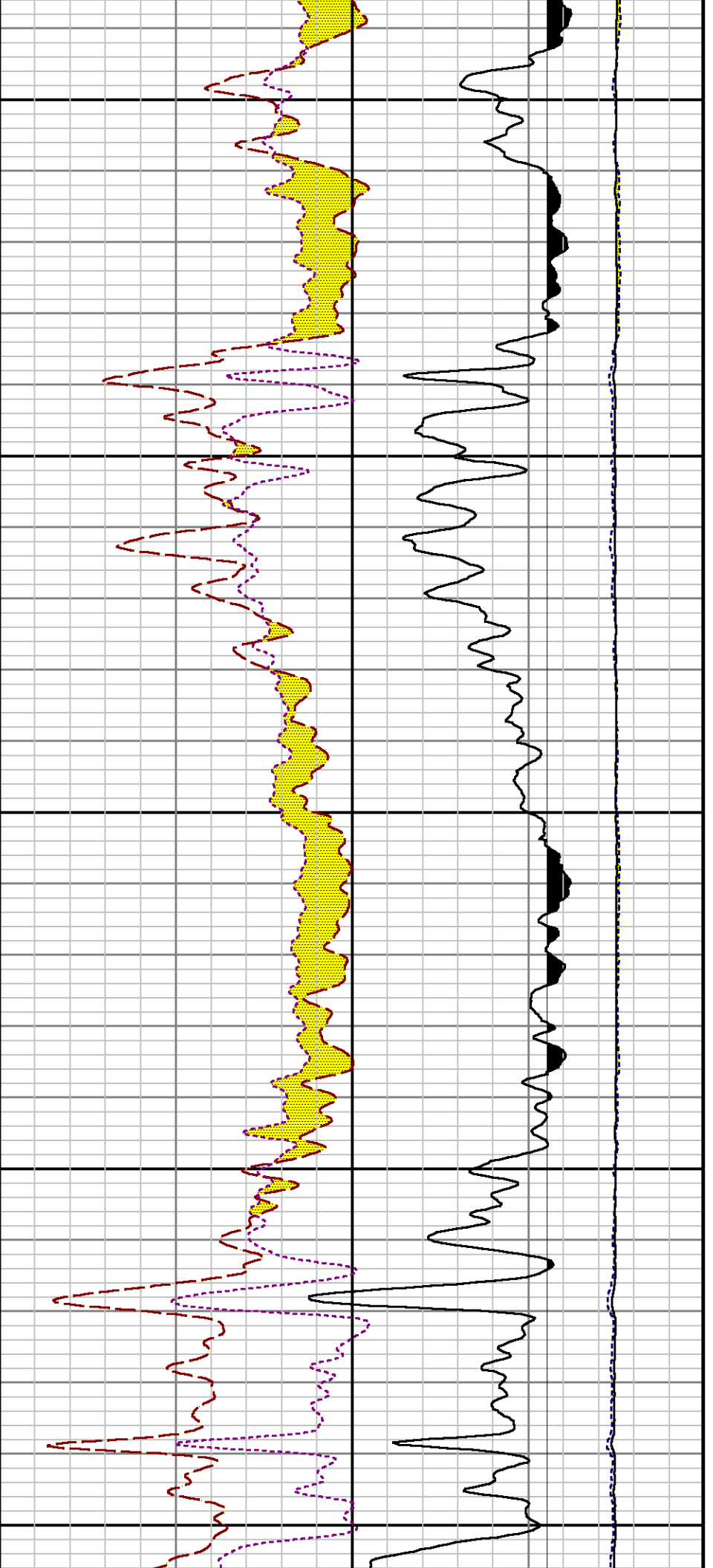
7900

8000

8100

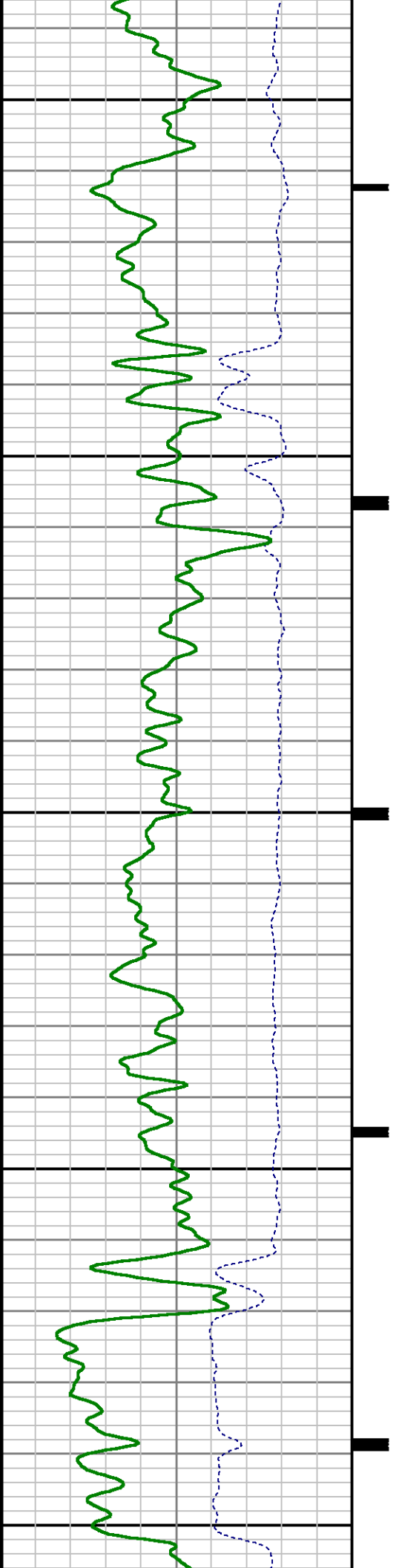


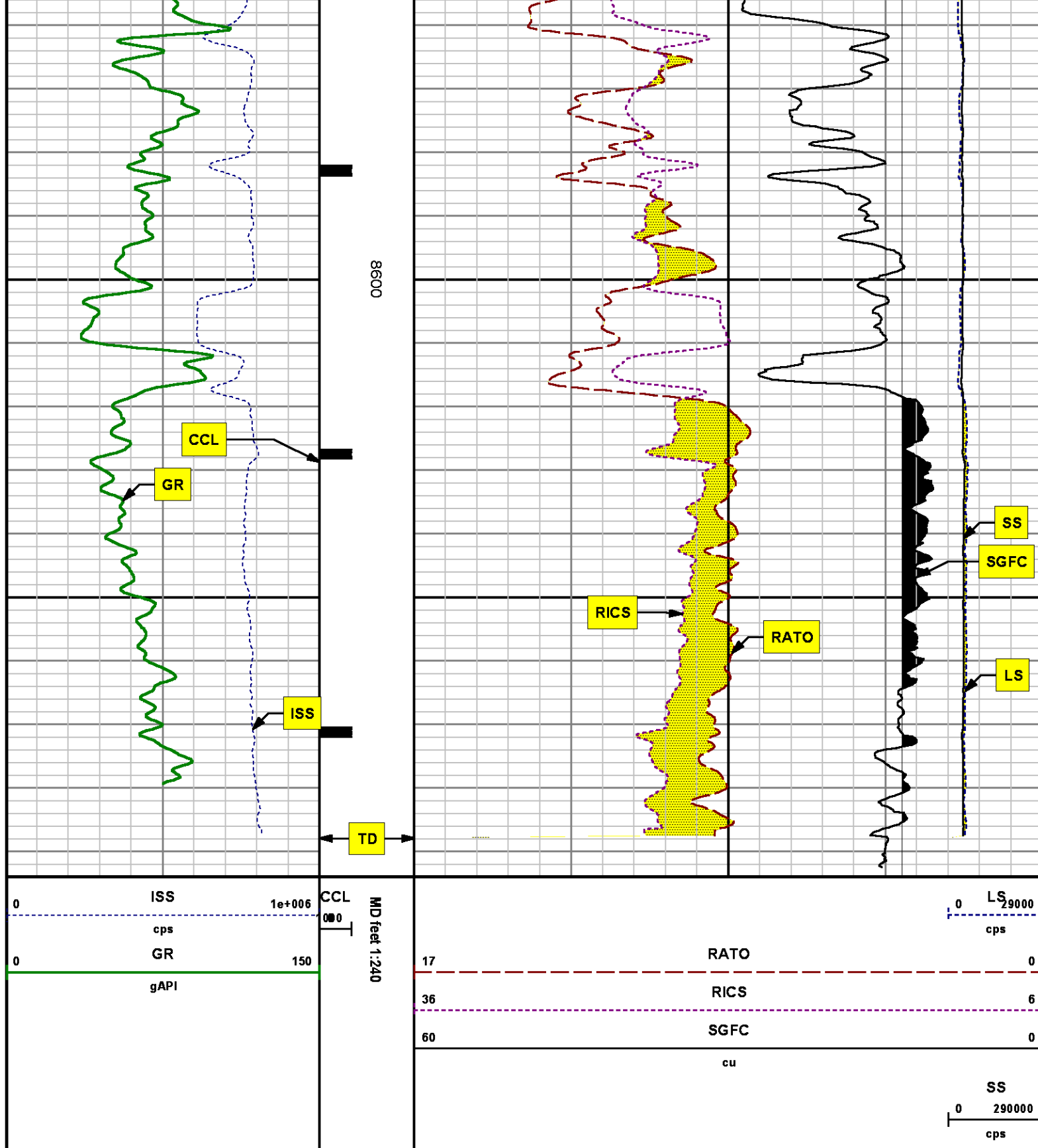




8400

8500





REPEAT SECTION
PNC 3-D MODE

SPL PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
PNC Porosity	Borehole	Cased		7907.870	8209.370
PNC Porosity	Borehole Size	8.750	inch	7907.870	8209.370
PNC Porosity	Casing Size	4.500	inch	7907.870	8209.370
PNC Porosity	Gas Filled	Non Gas Filled		7907.870	8209.370
PNC Porosity	Matrix	Sandstone		7907.870	8209.370
TPS Pressure	Temperature Corr. Source	Fixed (72.00)	degF	7907.870	8209.370

DEPTH OFFSETS

(for Acquired Curves)

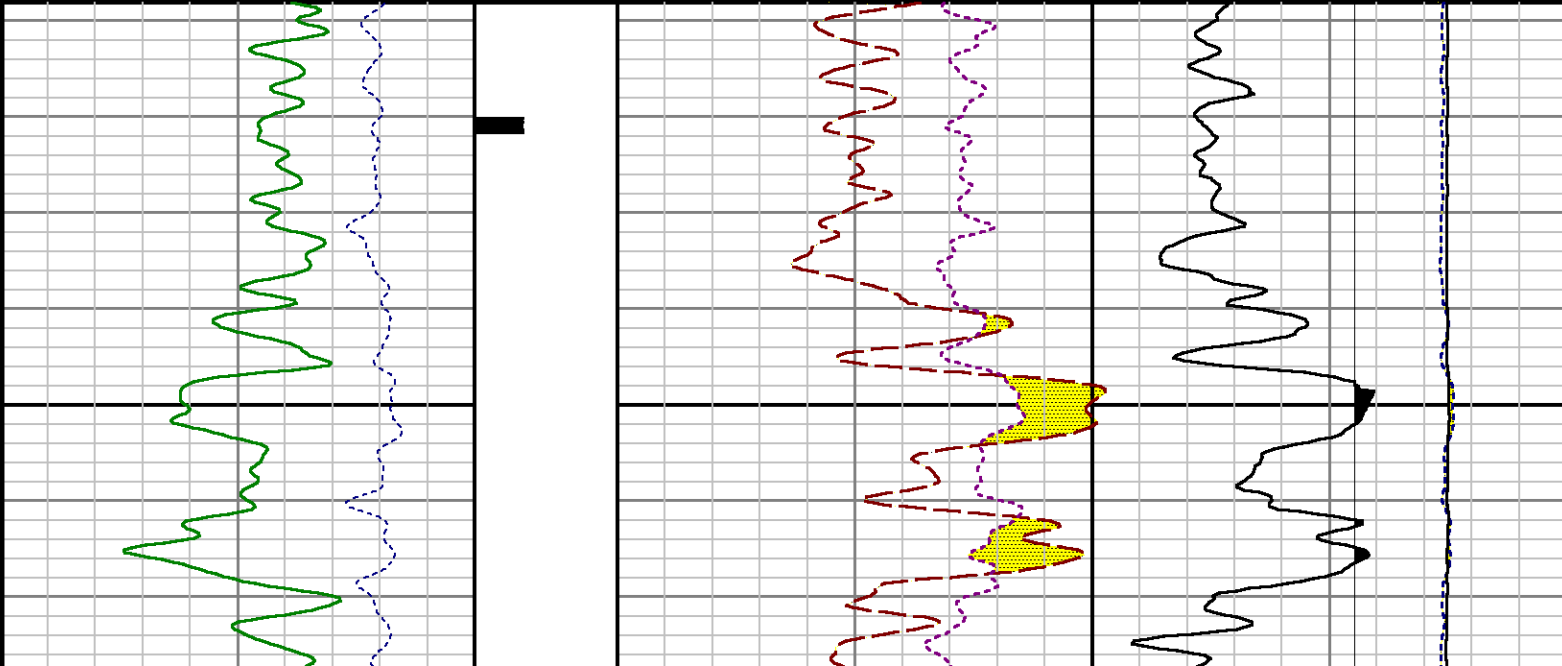
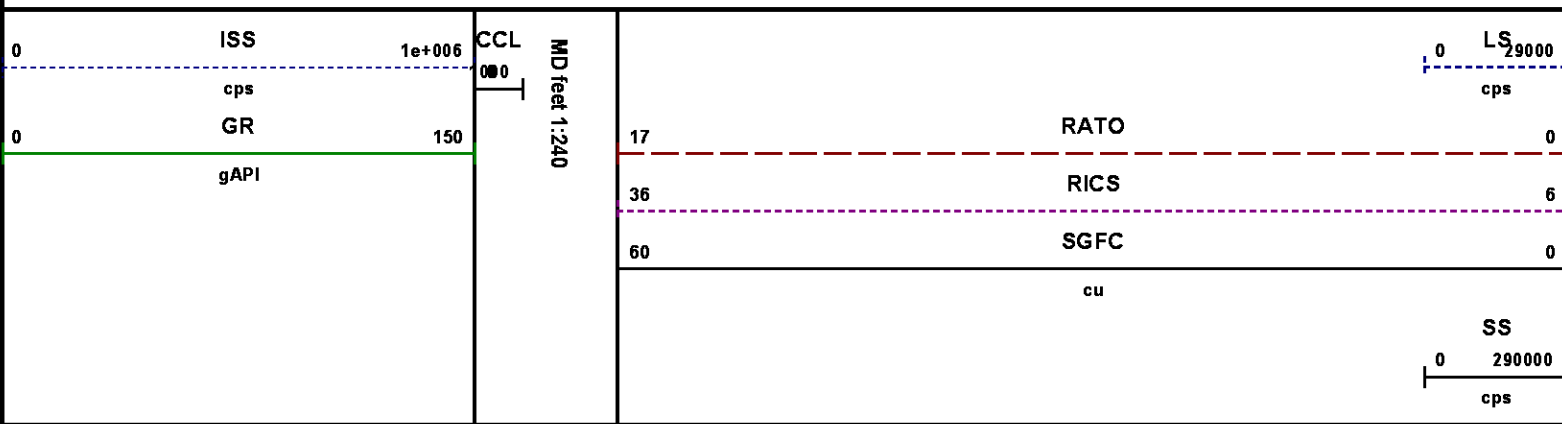
SERIES	DEPTH OFFSET	ACQUIRED CURVES
8248ED	-26.519	FLTM
8248ED	-24.519	CCL CHV
2812LA	-21.969	GR
8281XA	-12.702	HVC3Q0 SEQ3 AMA3 AML3 BKX CXS CPT3Q0 CPT3Q2 CPT3Q3 CPT3Q4 ET3 IXS MCS3 MCS3Q0 QCAL3 RGN3 RICX SDA3 SDL3 SGA3 SGL3 STA3 XS ASPEC3 AMB3 AMF3 CHF3 IXSC IXSN RATO23 RICXC RIN13C RIN23 RIN23C SD3D 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 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

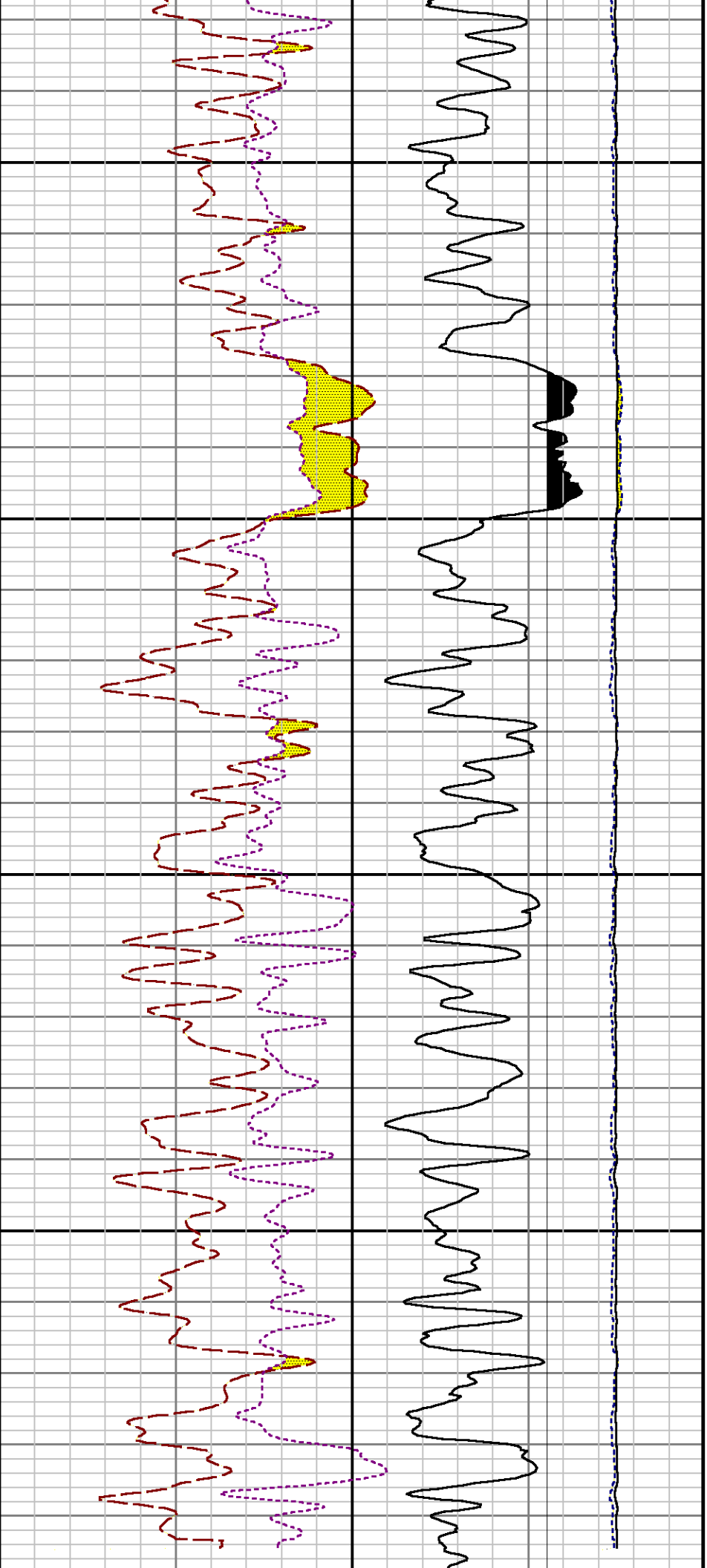
PD3M	MD1M	MD2M	MD3M	DG1M	DG2M
DG3M	MVS	MA	MVM	FILV	IAM
TA	PVM	PVS	IAS	SSTAT	QPD1
QPD2	QPD3	QMD1	QMD2	QMD3	QDG1
QDG2	QDG3	QMA	QTA	QFILV	QMV
QPV	QIA	DERR	DCNT	QPK1	QSA1
PKS1	ASPEC1	H0C	FE2XC	ISSC	RINC
ISSN	RDEN	WDTH1	RICSC	CSSR	G1R
G2R	ISSR	SSR	SS2R	RATOR	RATO13R
RBORR	RICSR	RINR	RIN13R	RONER	RPORR
RTWOR					
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

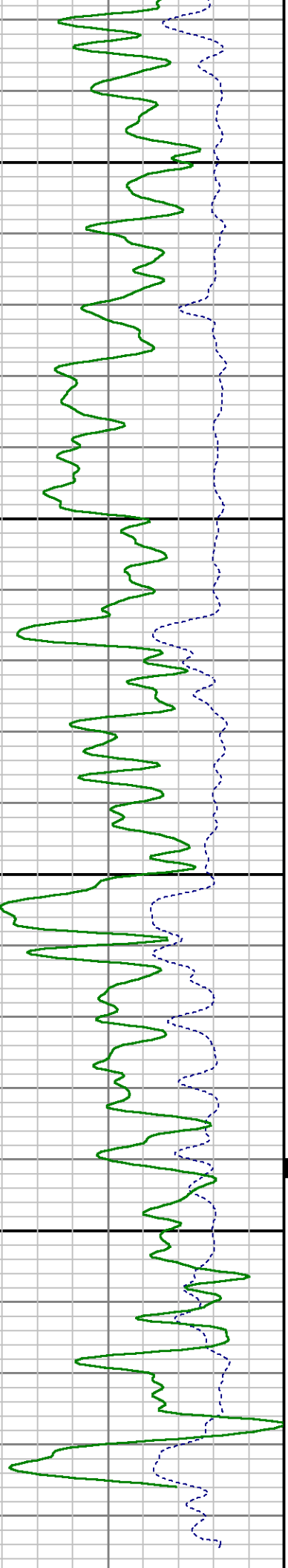
Company : WPX ENERGY
 Well : SAVAGE RWF 414-25
 File Name : d:\welldata\wpx\rwf 414-25\rpm414\repeat.xtf
 Mode : PlotMgr 5.4.504
 Interval : 7908.12 - 8215.12 feet UP
 Created : 3/25/2014 8:48:19 AM





8000

8100



CALIBRATION SUMMARY

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]
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		
26		
27		
28		
29		
30		
31		
32		
33		
34		
35		
36		
37		
38		
39		
40		
41		
42		
43		
44		
45		
46		
47		
48		
49		
50		
51		
52		
53		
54		
55		
56		
57		
58		
59		
60		
61		
62		
63		
64		
65		
66		
67		
68		
69		
70		
71		
72		
73		
74		
75		
76		
77		
78		
79		
80		
81		
82		
83		
84		
85		
86		
87		
88		
89		
90		
91		
92		
93		
94		
95		
96		
97		
98		
99		
100		

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

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\PNPNC\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 Vits (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

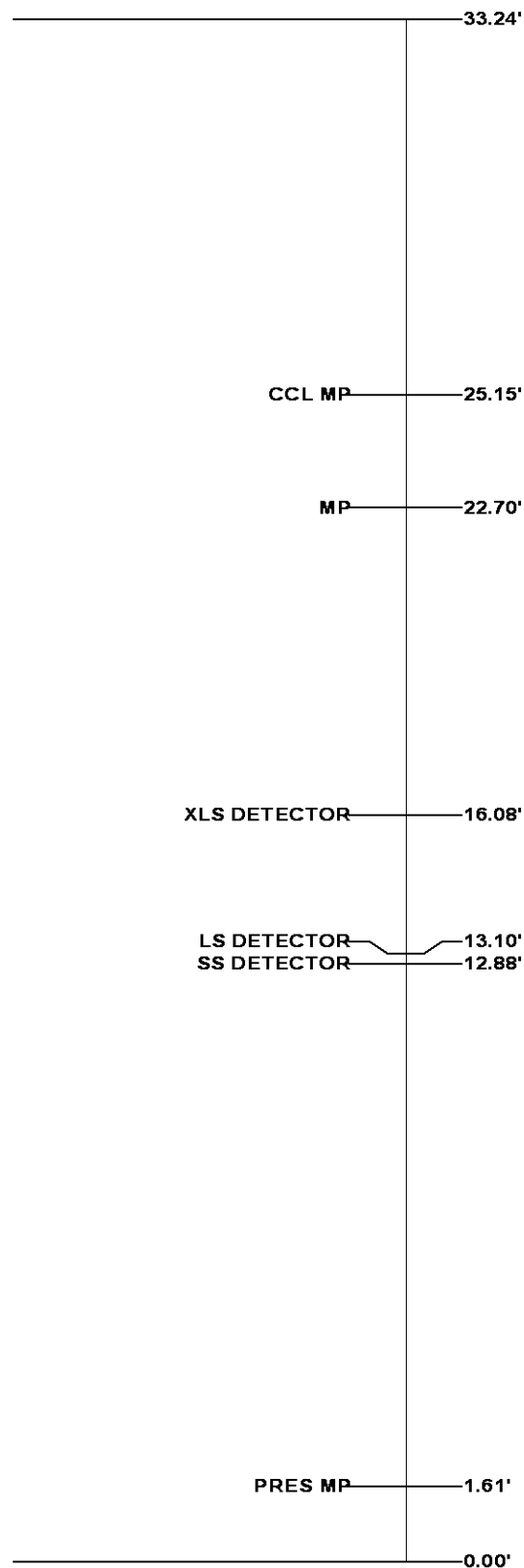
	ISS	RBOR	RIN ISS/ILS	RIN13 ISS/IXS	RICS ISS/CSS	RATO SS/LS	RTWO SS2/LS	RONE CSS/CLS
Raw Data	814019	1.43	4.74	30.03	14.76	10.77	3.83	4.07
		1.42 1.45	3.55 5.52	22.20 32.70	10.99 16.34	10.06 11.10	3.57 3.95	3.76 4.22
Fit Quality %		0.03	0.25	0.16	0.19	0.07	0.05	0.05
Reduced	1378500	1.43	4.75	30.10	14.80	10.76	3.83	4.07
		1.42 1.45	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	
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"

<div></div> <div>Baker Atlas</div> <div></div>	Company	WPX ENERGY			File No:	CH083783
	Well	SAVAGE RWF 414-25			API No:	05045219840000
	Field	RULISON				
	County	GARFIELD	State	CO		
Location		Elevations				
SHL: 1617' FSL 2294' FWL		KB 6122 ft		S25 T6S R94W		
BHL: 856' FSL 819' FWL (SWSW)		DF		RIG: NABORS 577		
SEC 25 TWP 6S RGE 94W		GL 6096 ft		PAD: RWF 23-25		