



Baker Atlas

RESERVOIR PERFORMANCE MONITOR

File No:	Company	EXXONMOBIL PRODUCTION COMPANY	
1724	Well	FRU 197-3346	
API No:	Field	PICEANCE CREEK	
00100115350000	County	RIO BLANCO	State
			COLORADO
Location		Other Services	
SHL: 816' PSL 42369' FEL		BOND LOG	
SEC 33 TWP 1S RGE 87W			
Permanent Datum	GL	Elevation	Elevations
Log Measured From	KB	29.4 ft	KB 6417.4 ft
Drill Measured From	KELLY BUSHING		DF 6416.4 ft
			GL 6388 ft

Date	22 APR 2010	
Run	ONE	
Service Order	578799	
Depth Driller	12507 ft	
Depth Logger	12123 ft	
Bottom Logged Interval	12123 ft	
Top Logged Interval	3375 ft	
Time Started	11:00	
Time Finished	01:00	
Operator Rig Time	14 hrs	
Type of Fluid in Hole	WATER	
Fluid Density	N/A	
Salinity	N/A	
Fluid Level	PULL	
Logged Cement Top	N/A	
Wellhead Pressure	0 psi	
Maximum Hole Deviation	N/A	
Nominal Logging Speed	10 fpm	
Maximum Recorded Temperature	N/A	
Reference Log	BAKER ATLAS BOND LOG	
Reference Log Date	21 APR 2010	
Equipment No.	4271	VERNAL, UT.
Recorded By	J. OSTLER	
Witnessed By	MR. MIKE ROBERSON	

- 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
9.875 in	SURFACE	8438 ft
8.125 in	8438 ft	12264 ft

Casing Record				
Size	Weight	Grade	From	To
7 in	28 lbm/ft	P-110	SURFACE	8438 ft
4.5 in	15.1 lbm/ft	P-110	SURFACE	12264 ft

Remarks
LOG WAS TIED INTO A BAKER ATLAS BOND LOG
WELL WAS LOGGED IN PNC 3-D MODE
SHORT JOINT TOPS AT 8197', 7200', 6205', 5206', 10211', 11171'

Equipment Data				
Run	Trip	Tool	Series Number	Serial Number

1	1	RPM	8281FA	UNKIN	FREE
1	1	RPM	8281PA	565	FREE
1	1	RPM	8281EA	640	FREE
1	1	GR	8262XA	270	FREE
1	1	TEL/OCL	8248EA	698	FREE
1	1	PCN	8250EA	851	FREE

MAIN SECTION

PNC 3-D MODE

SPL PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
PNC Porosity	Borehole	Cased		3351.399	12146.806
PNC Porosity	Borehole Size	6.125	Inch	3351.399	3824.000
PNC Porosity	Borehole Size	9.875	Inch	3824.000	8438.000
PNC Porosity	Borehole Size	6.125	Inch	8438.000	12146.806
PNC Porosity	Casing Size	4.500	inch	3351.399	3824.000
PNC Porosity	Casing Size	7.000	inch	3824.000	8438.000
PNC Porosity	Casing Size	4.500	inch	8438.000	12146.806
PNC Porosity	Gas Filled	Non Gas Filled		3351.399	3824.000
PNC Porosity	Gas Filled	Non Gas Filled		3824.000	8438.000
PNC Porosity	Gas Filled	Non Gas Filled		8438.000	12146.806
PNC Porosity	Matrix	Sandstone		3351.399	12146.806

DEPTH OFFSETS

(for Acquired Curves)

SERIES	DEPTH OFFSET	ACQUIRED CURVES					
8248EA	-15.470	FLTM					
8248EA	-13.470	OCL	CHV				
8262XA	-10.189	GR					
8281XA	-0.662	HVC300	SEQ3	AMA3	AML3	BKX	CXS
		CPT300	CPT302	CPT303	CPT304	ET3	IXS
		MCS3	MCS300	QCAL3	RGN3	RICK	SDA3
		SDL3	SGA3	SGL3	STA3	XS	ASPEC3
		AMB3	AMF3	CHF3	IXSC	IXSN	RAT023

8281XA -0.250

8281XA 0.000

SYSTEM 0.000

RTXC0	RTN13C	RTN23	RTN23C	SD3D	SG3D
SGB3	SGF3	WDTH3	CKSR	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	RTW023	SDA2
SDL2	SGA2	SGB2	SGF2	SGK2	SGL2
STA2	ASPEC2	ILSC	ILSN	WDTH2	RICLC
CLSR	ILSR	LSR	RICLR		
GPRS	HVC1Q0	WV	SEQ	SEQ1	AMA1
AMB1	AME1	AMF1	AML1	BKS	CHF1
CSS	COQB	COBF	CPT1Q0	CPT1Q2	CPT1Q2A
CPT1Q2B	CPT1Q2C	CPT1Q3	CPT1Q4	CPT1Q5	ET1
G1	G2	GE1S	GE2S	ISS	MCS1
MCS1Q0	QA1	QCAL1	QM1	RATO	RAT013
RBOR	RGN1	RICS	RIN	RONE	RPOR
RTW0	RIN13	RONE13	RTW013	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	WA	WVM	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	HOC	FE2XC	ISSC	RINC
ISSN	RDEN	WDTH1	RICSC	CSSR	G1R
G2R	ISSR	SSR	SS2R	RATOR	RAT013R
RBORR	RICSR	RINR	RIN13R	RONER	RPORR
RTWOR					
TEN	TTEN				

Created by : RPMB, v5.0.0.0

Plotted by : PlotMgr, v5.4.5D4

Company : EXXONMOBIL PRODUCTION COMPANY

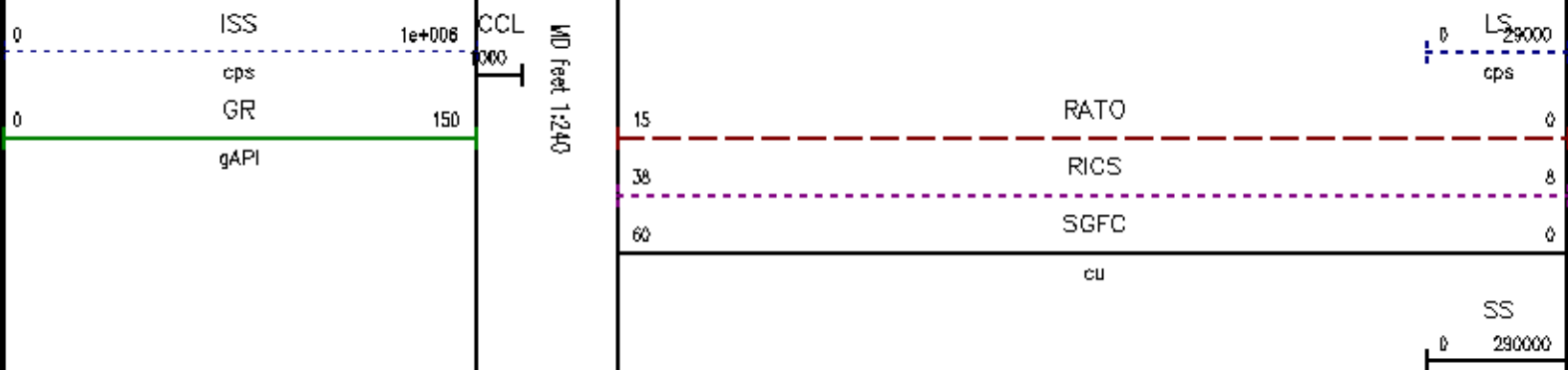
Well : FRU 107-33A6

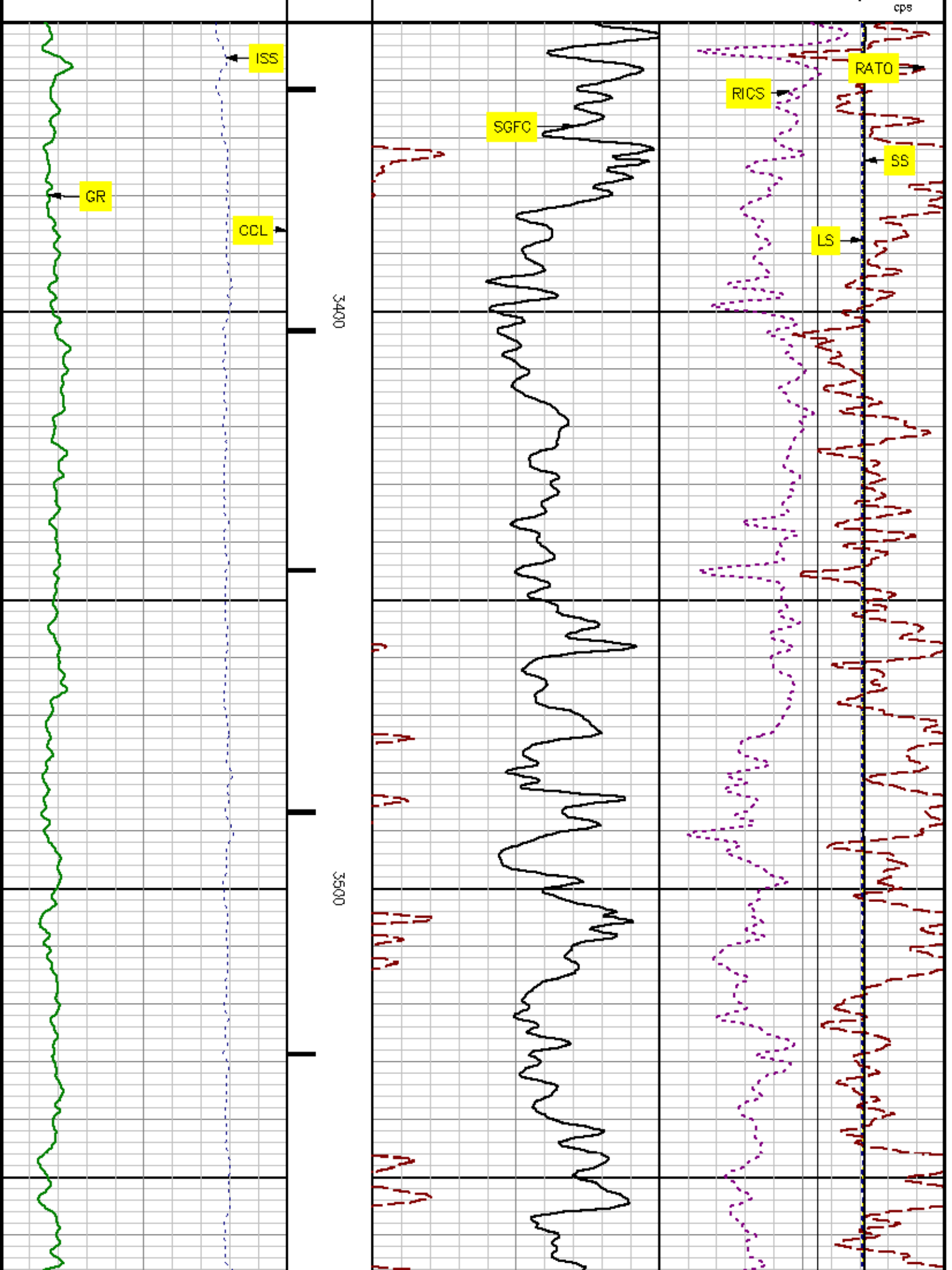
File Name : d:\well\data\rpmb\mainrdrn.txt

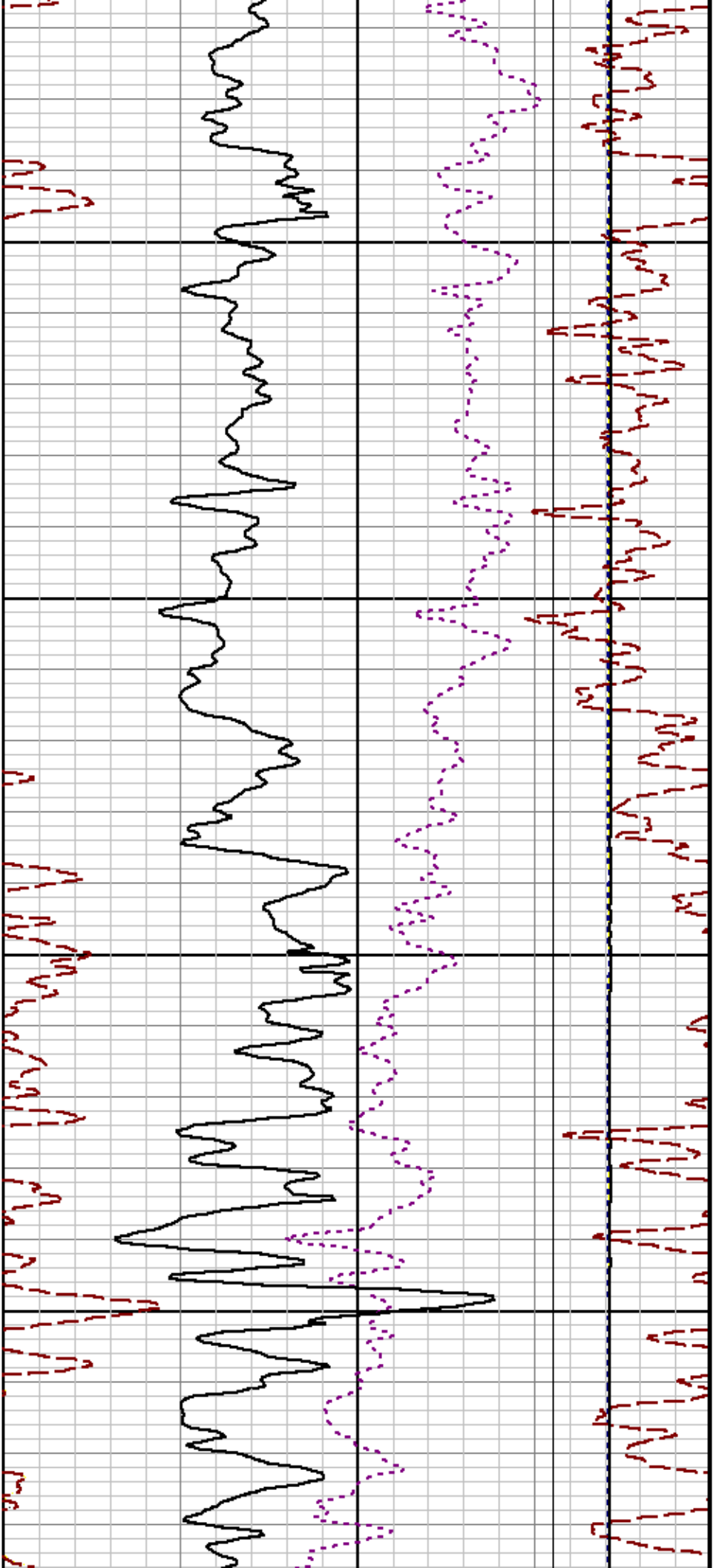
Mode : PlotMgr 5.4.5D4

Interval : 3350.00 - 12120.00 feet UP

Created : 4/22/2010 11:21:11 PM

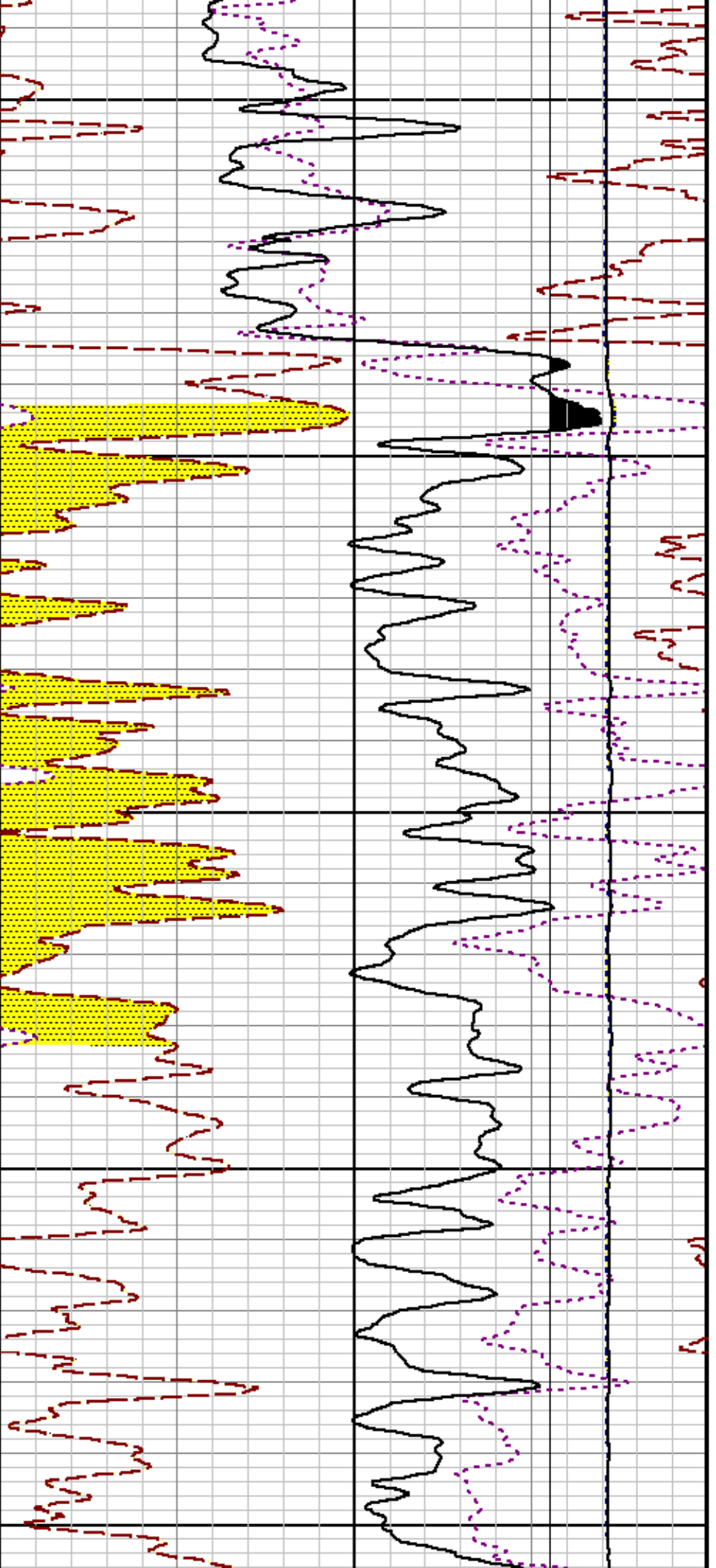






3600

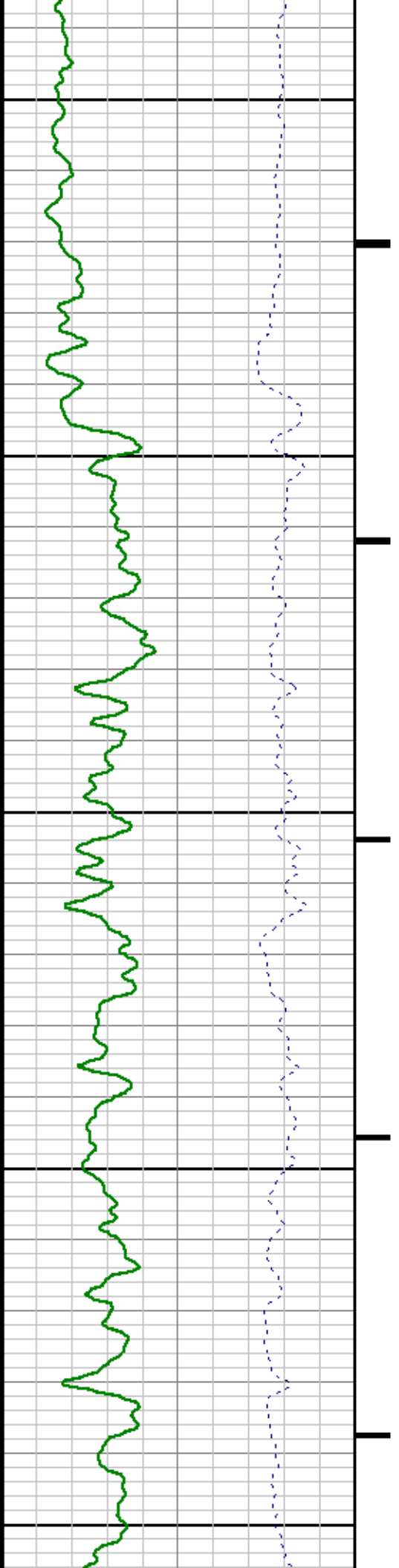
3700

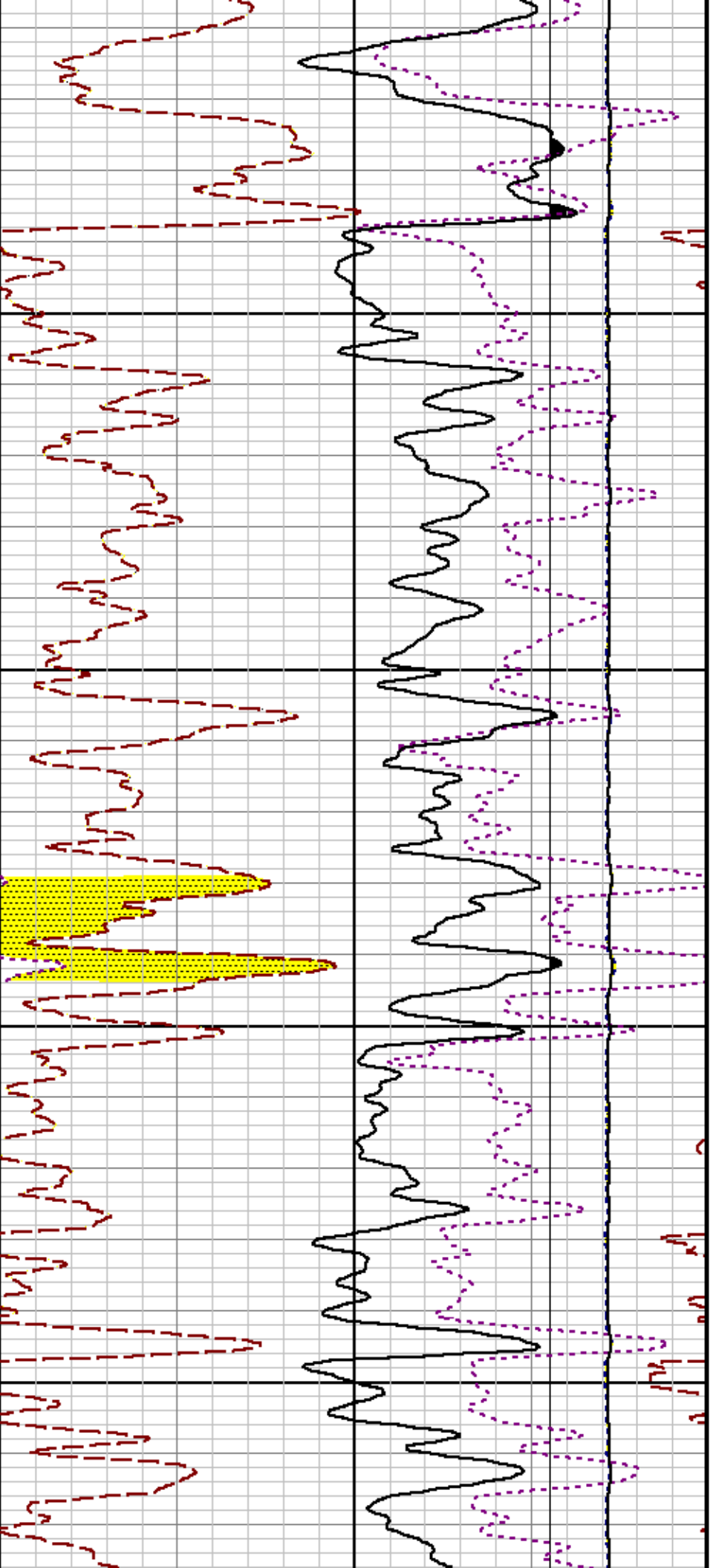


3800

3900

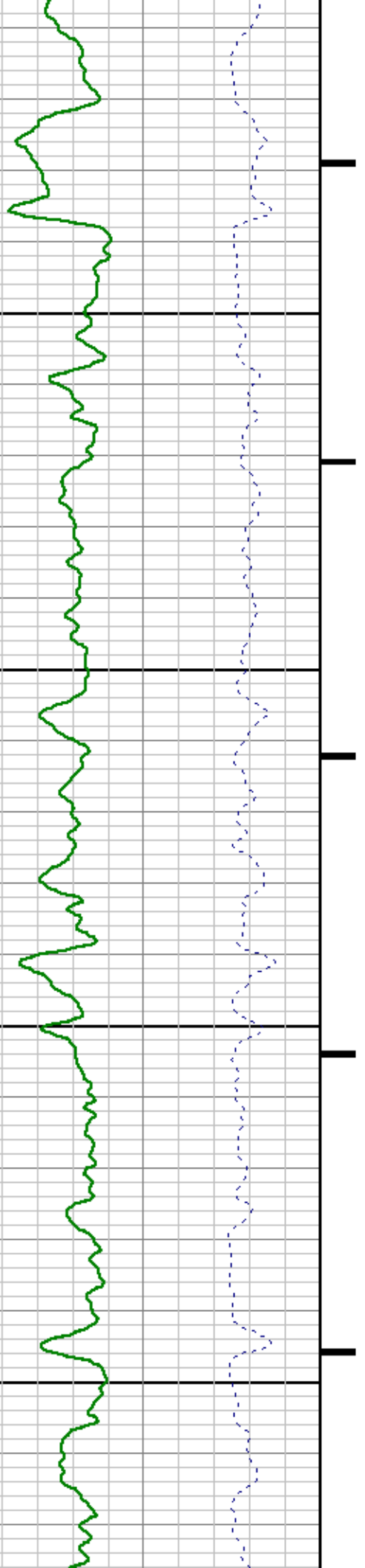
4000

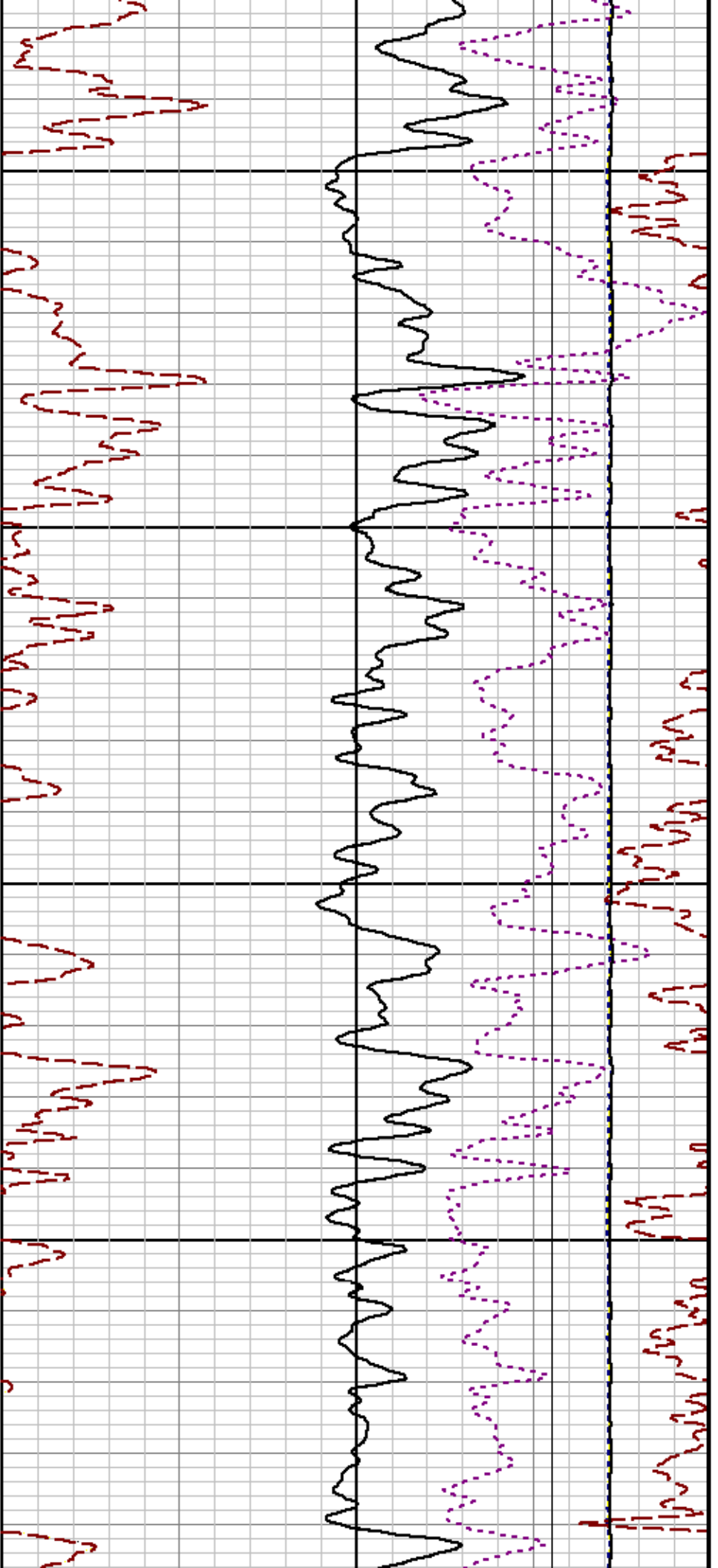




4100

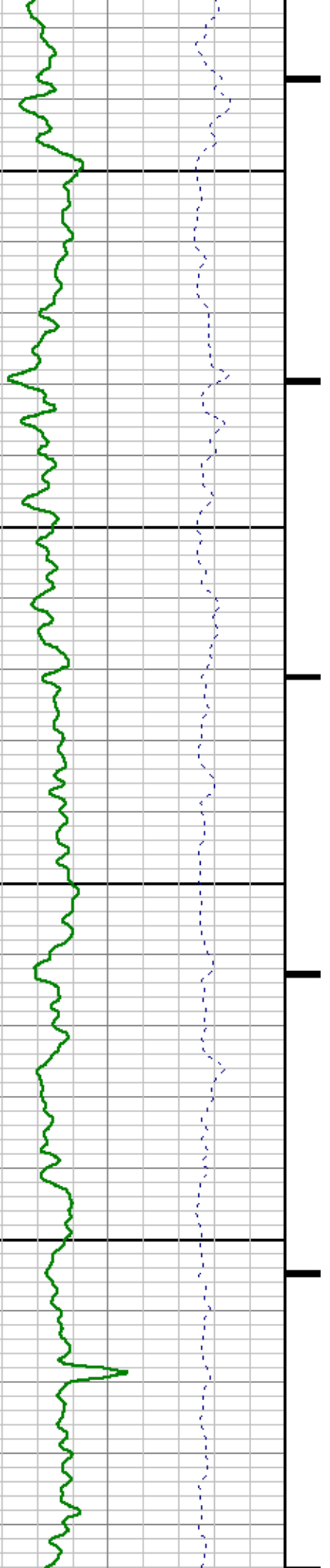
4200

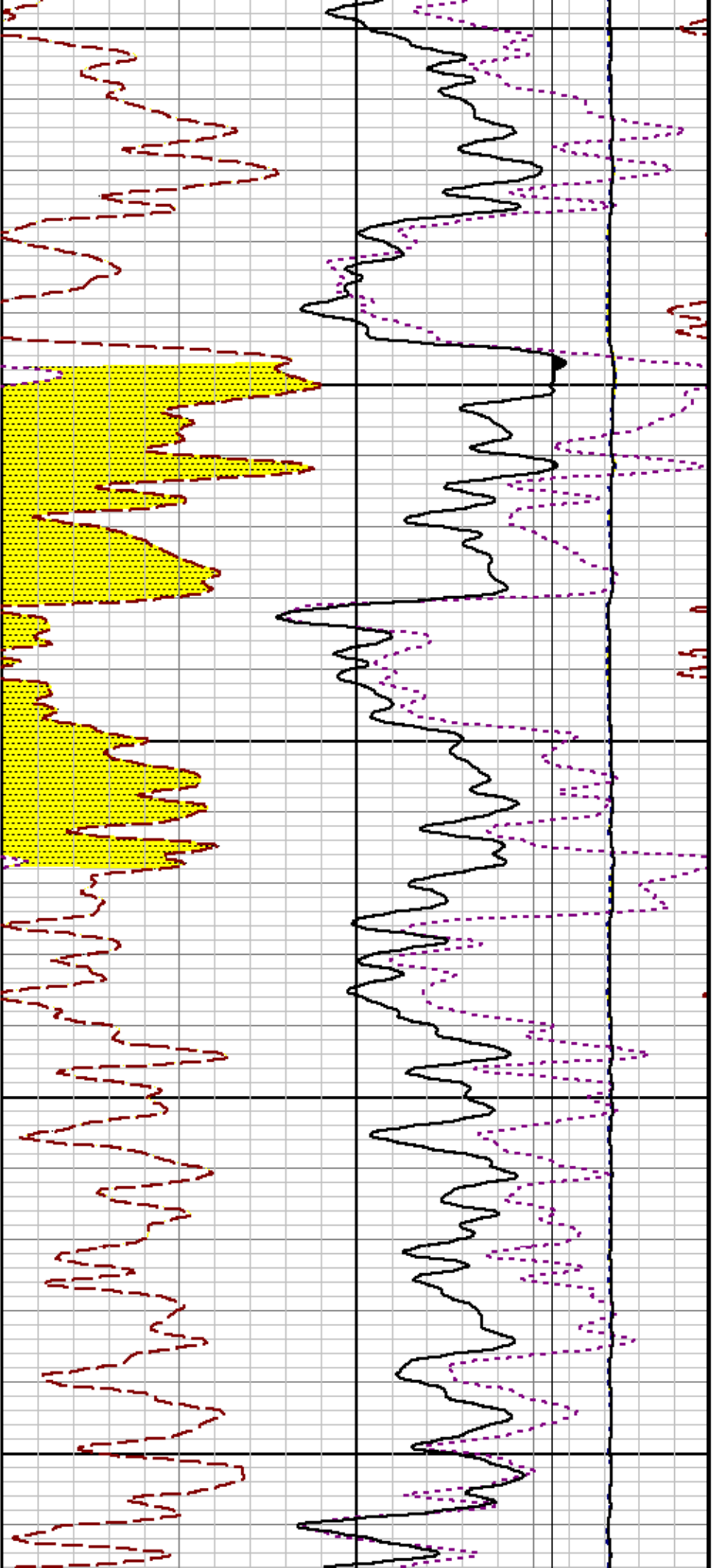




4300

4400

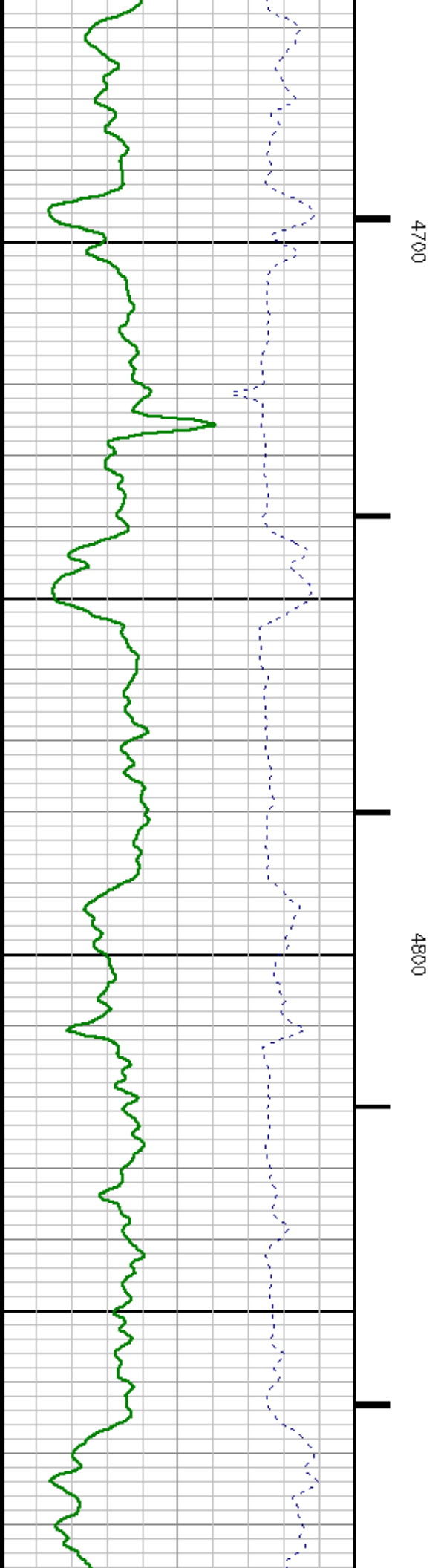
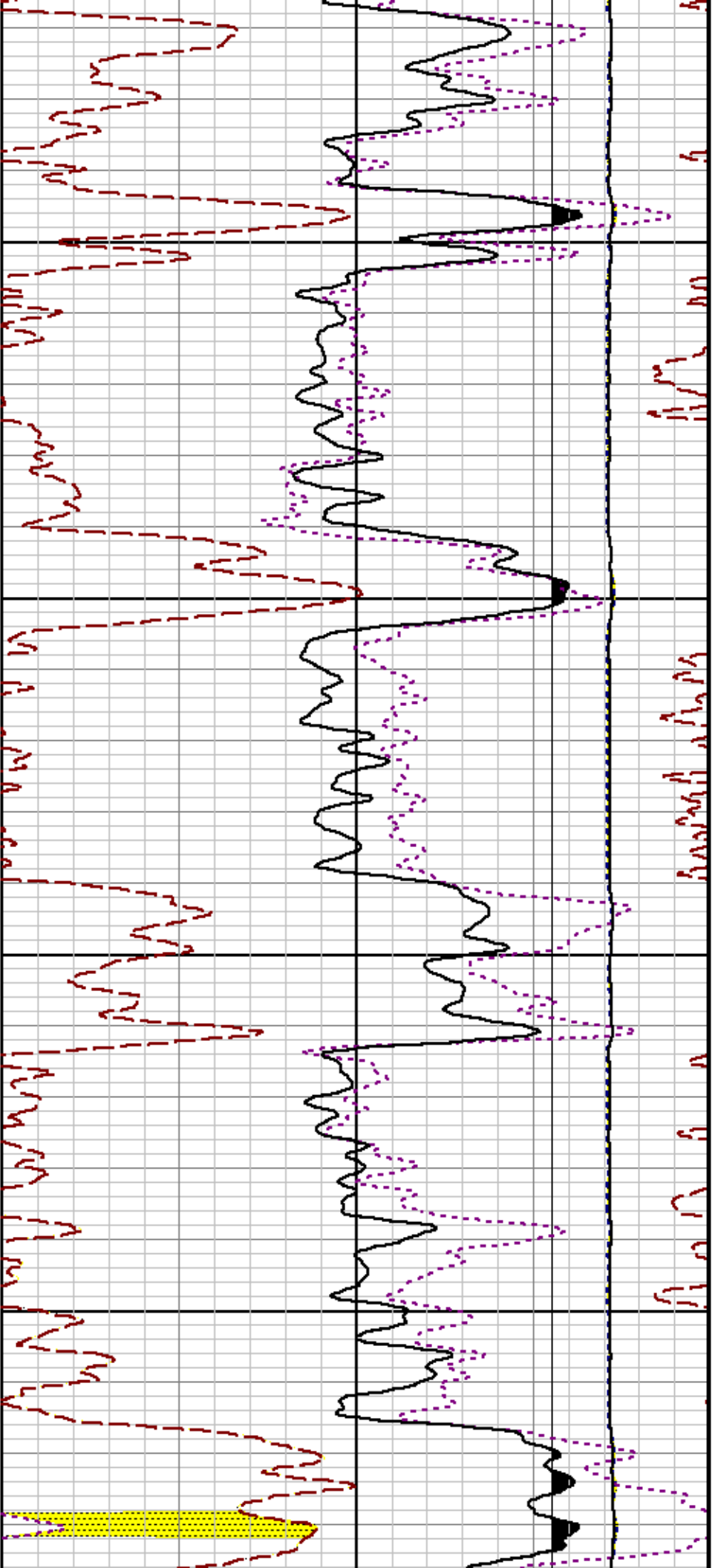


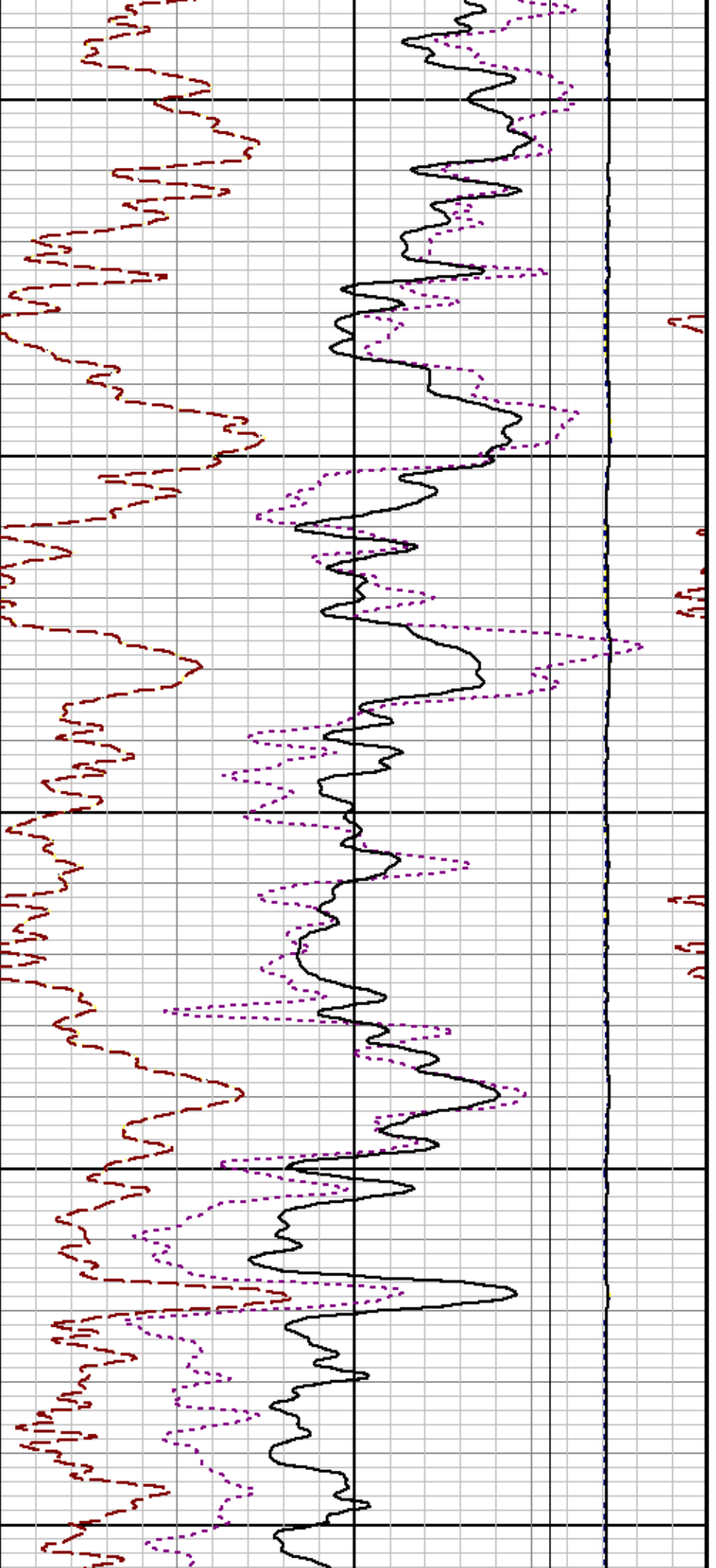


4500

4600



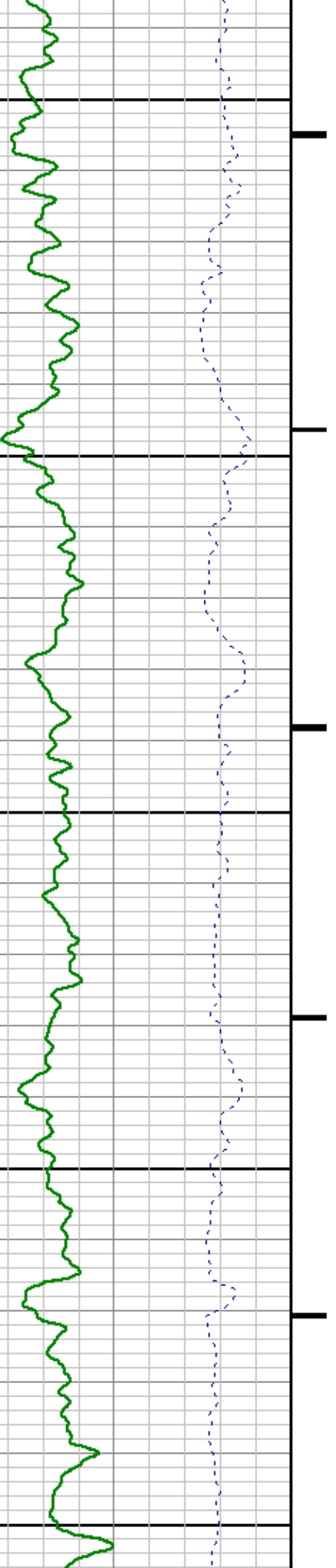


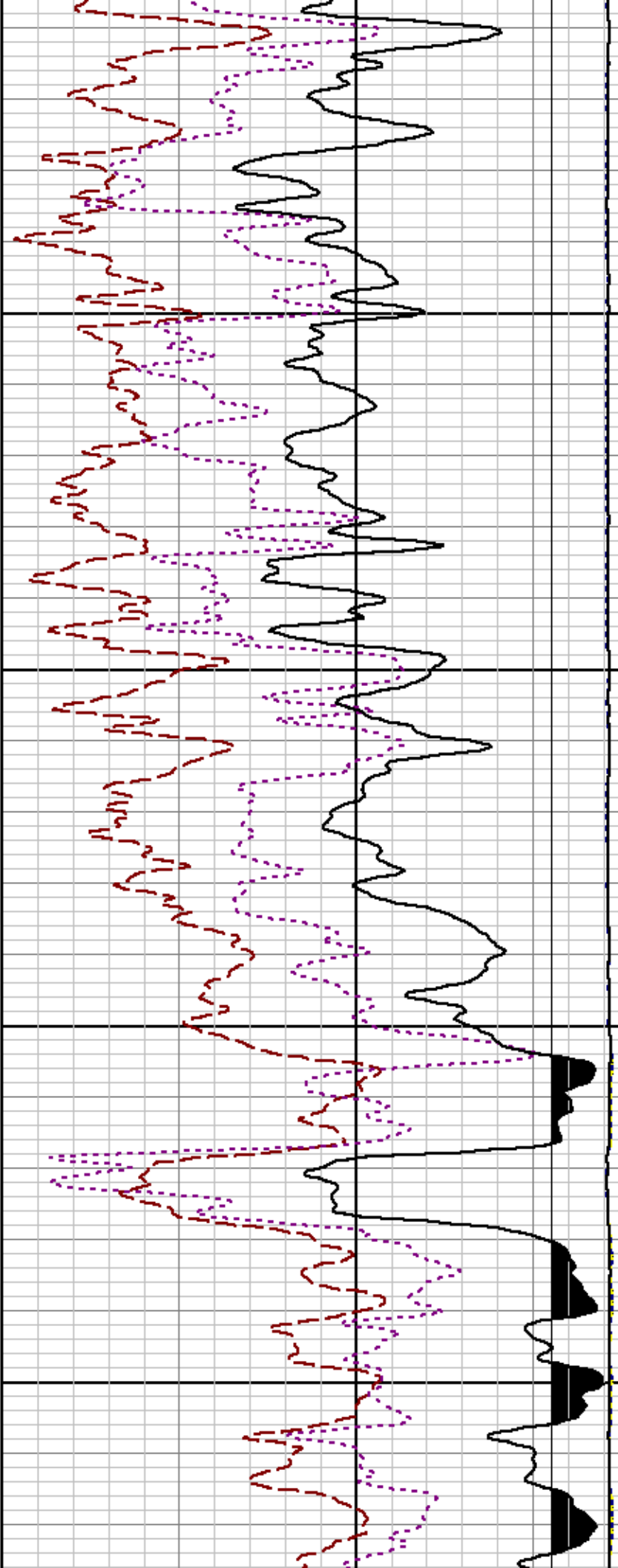


4900

5000

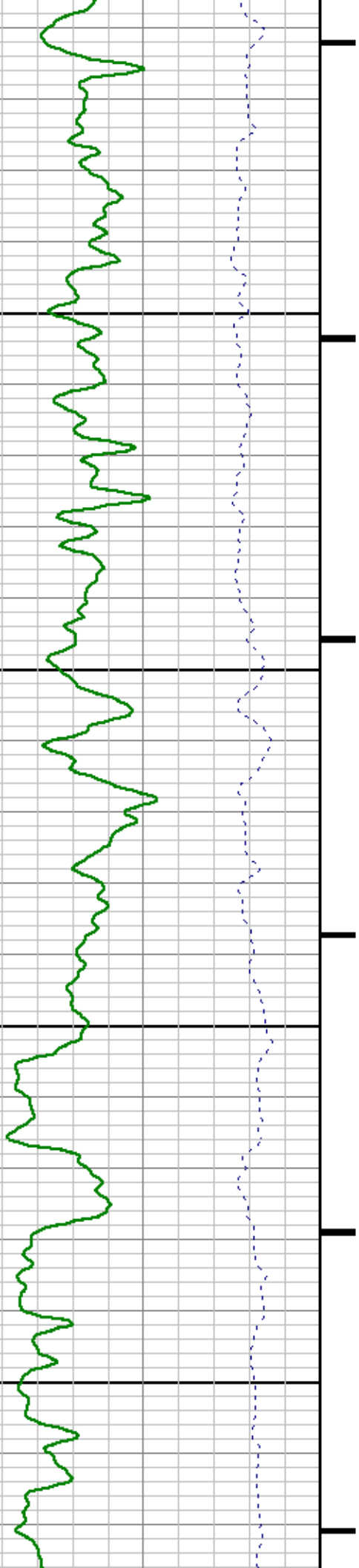
5100

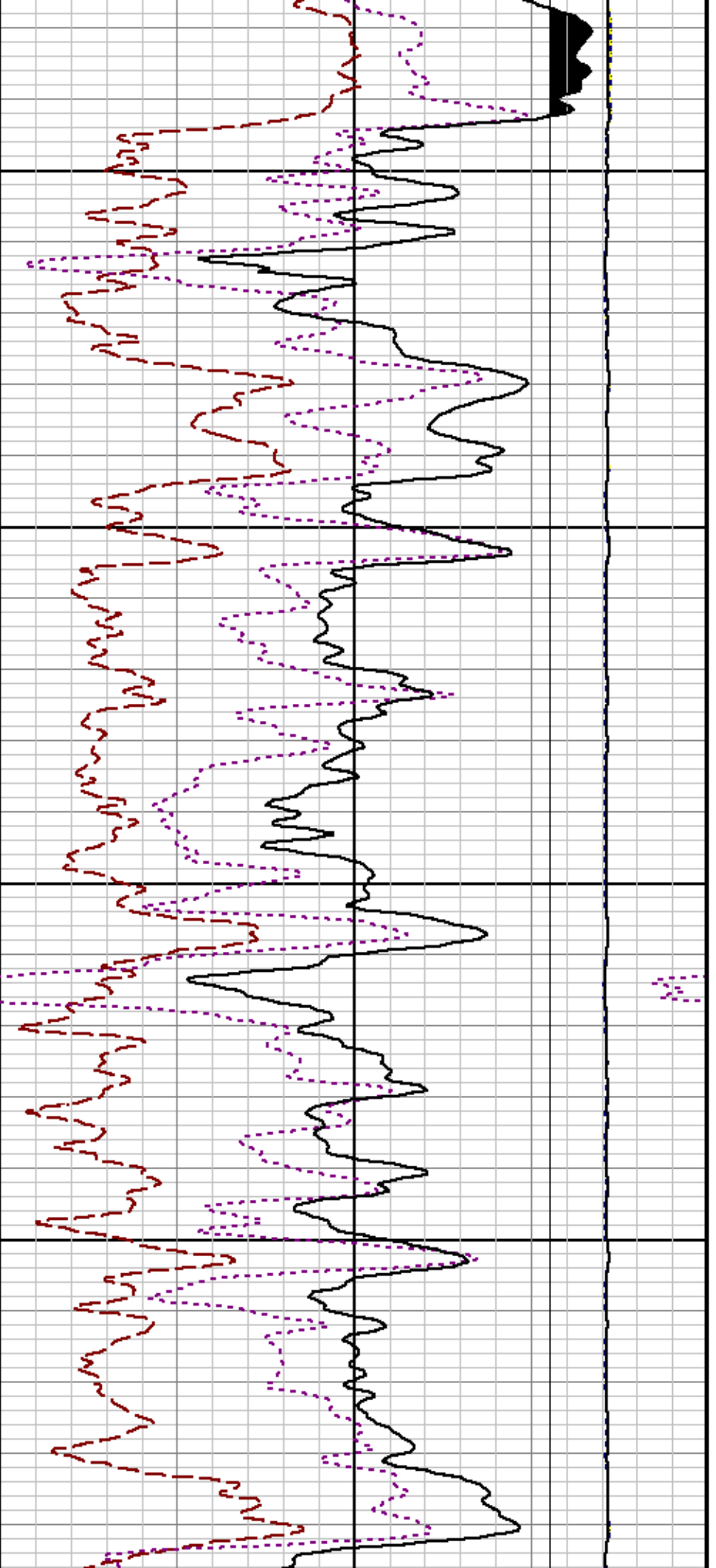




5200

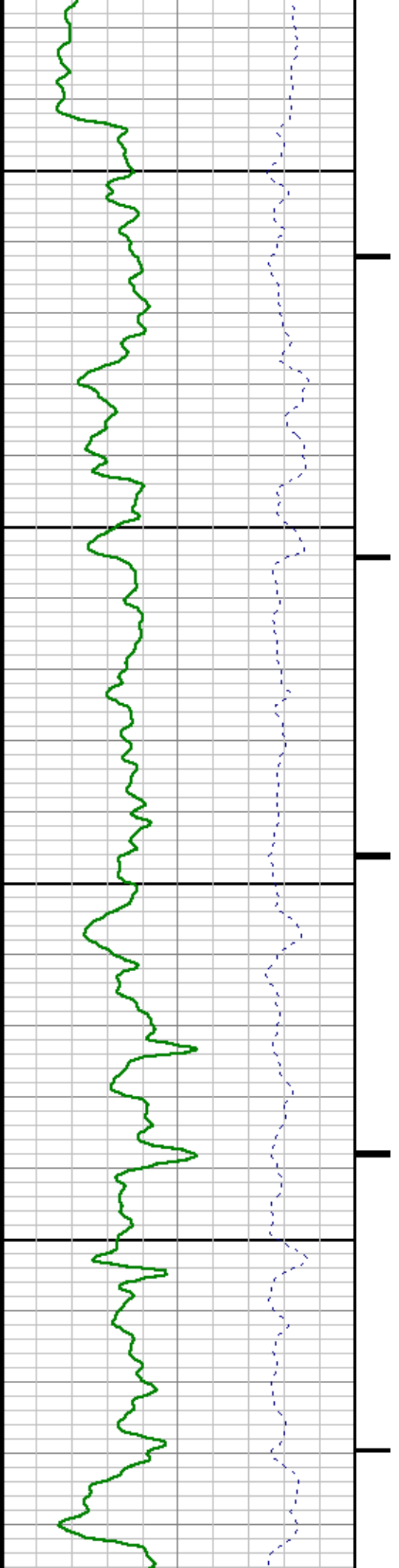
5300

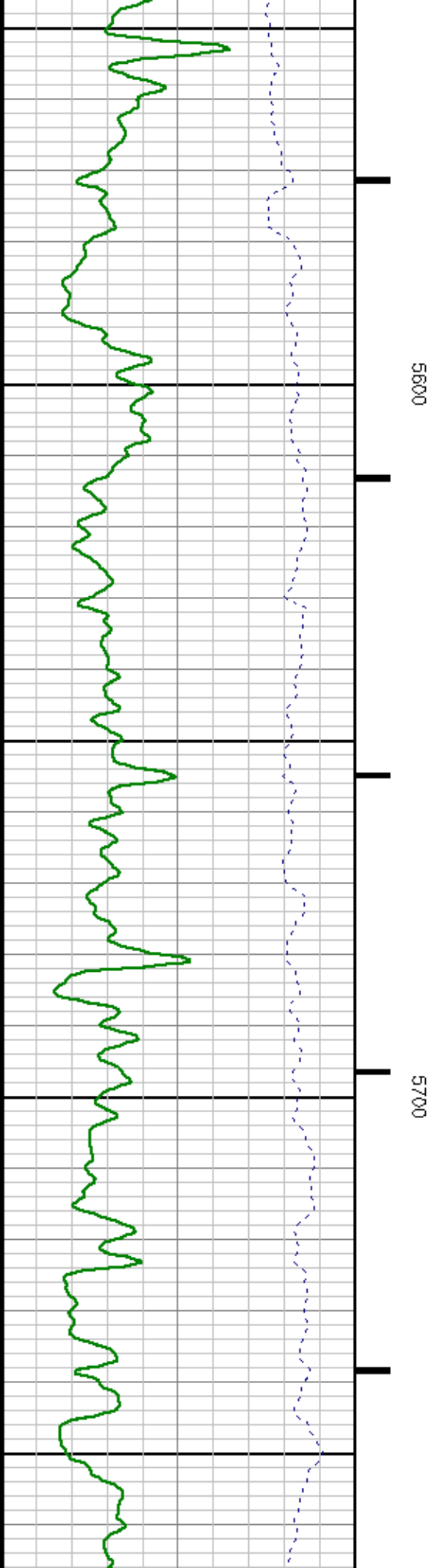
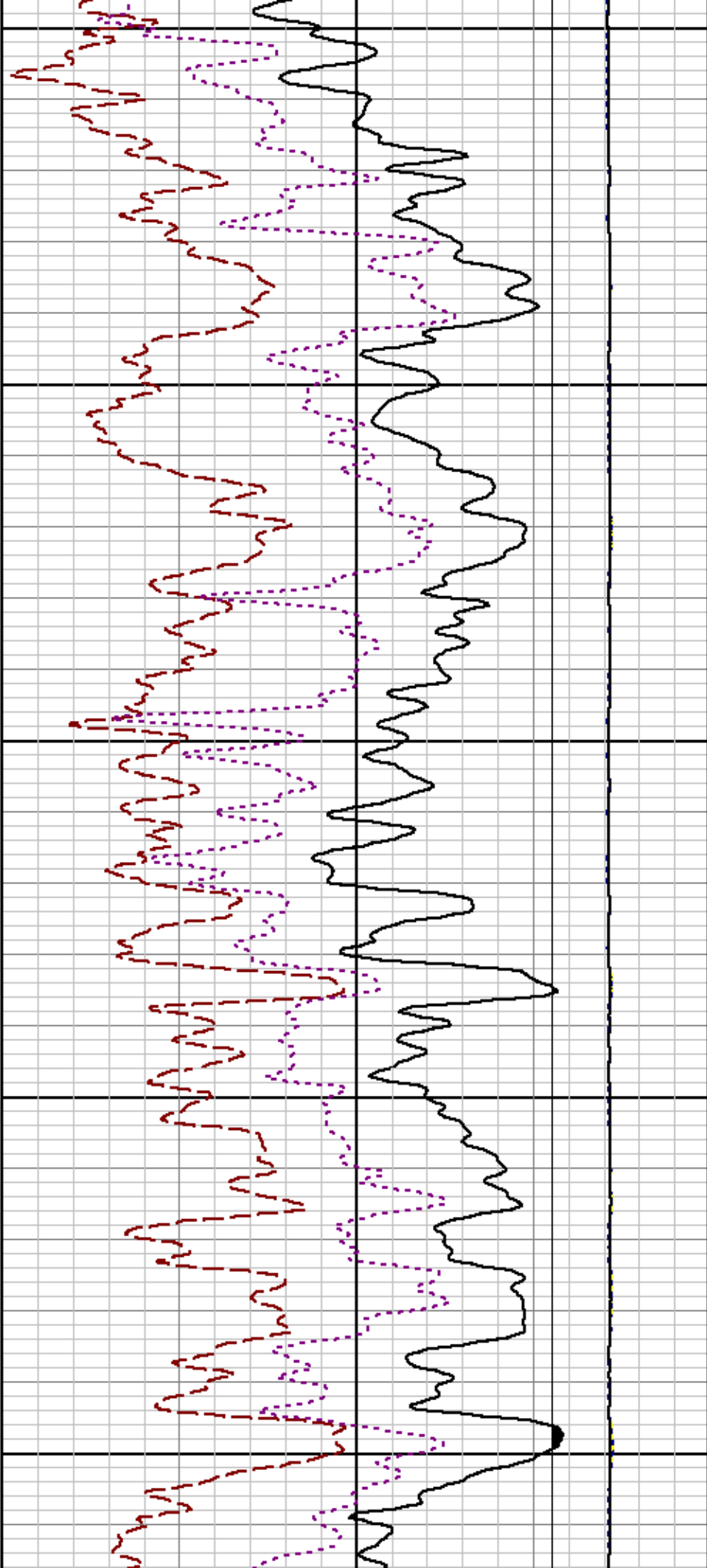


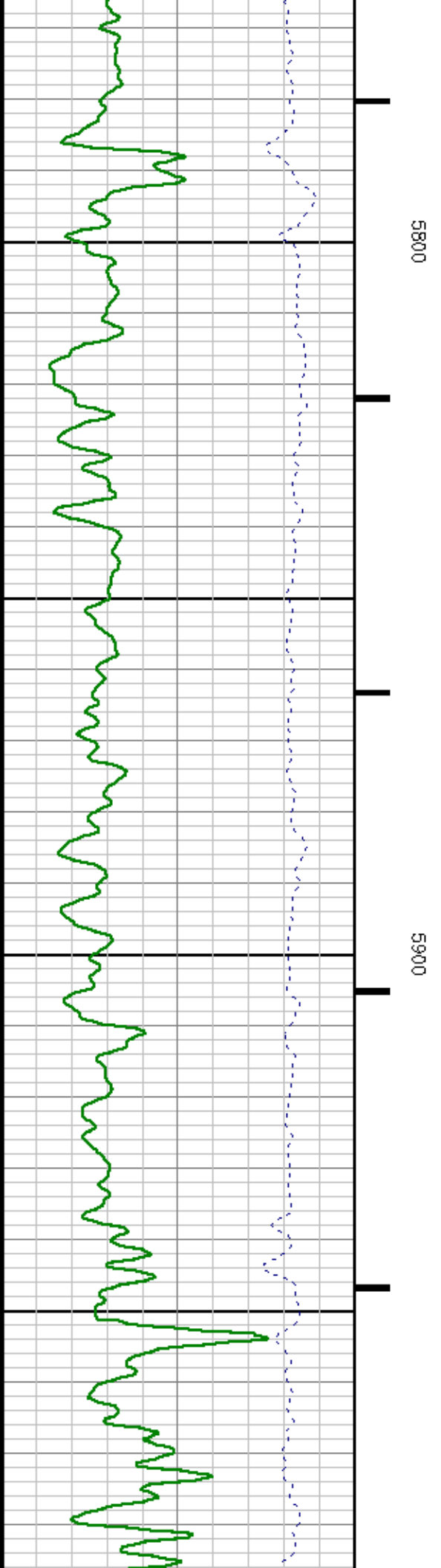
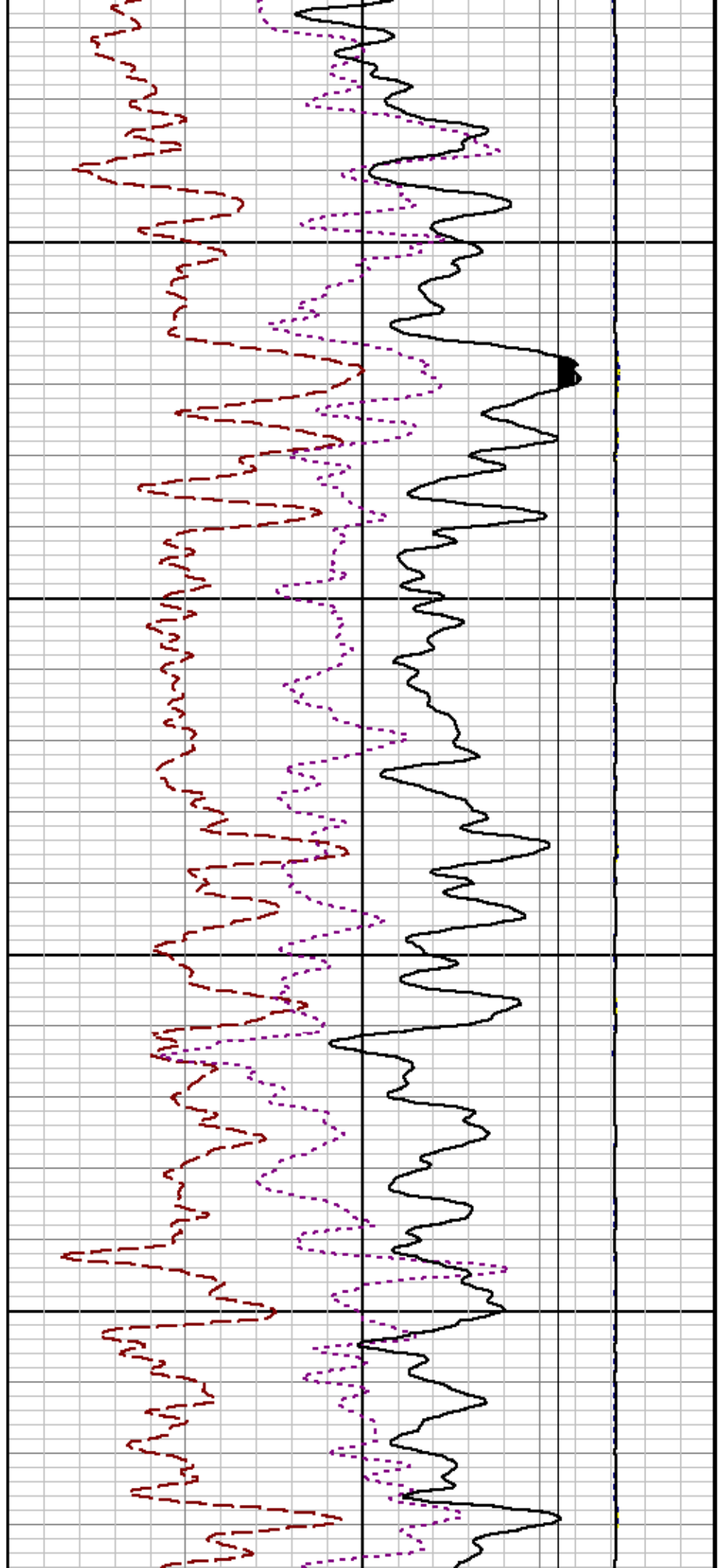


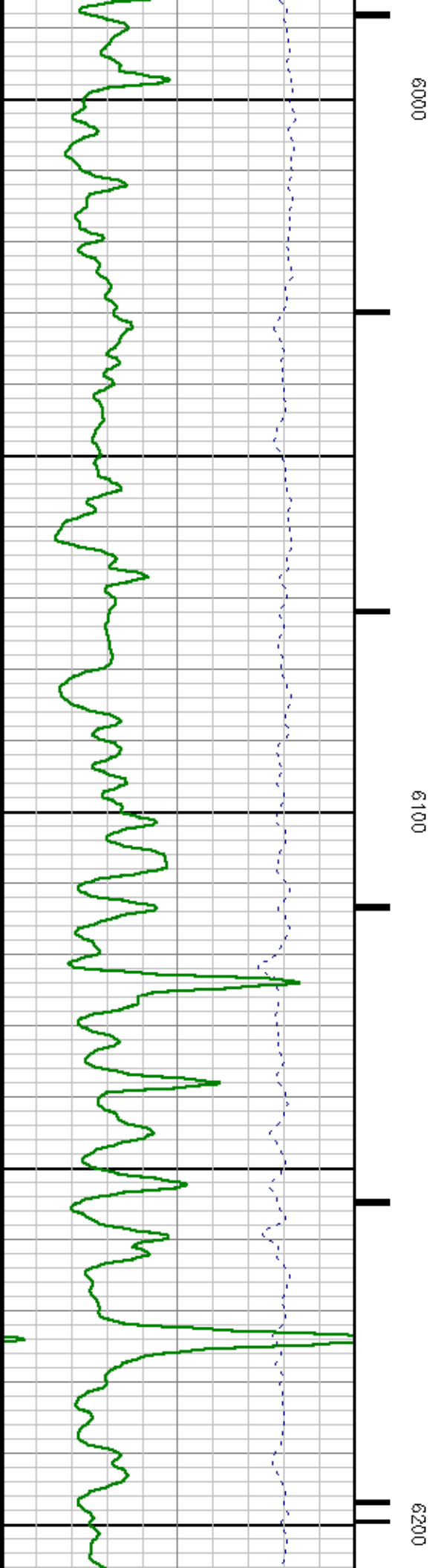
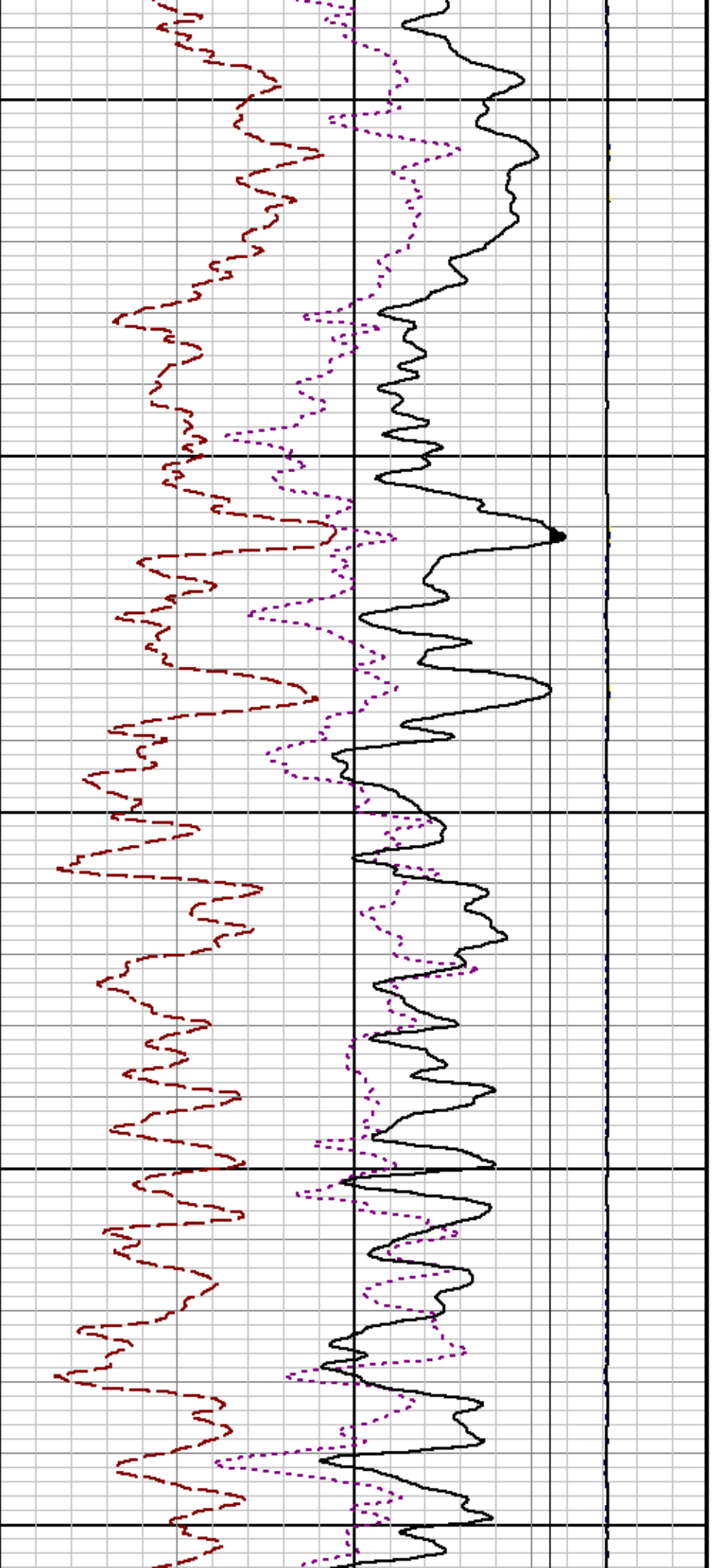
5400

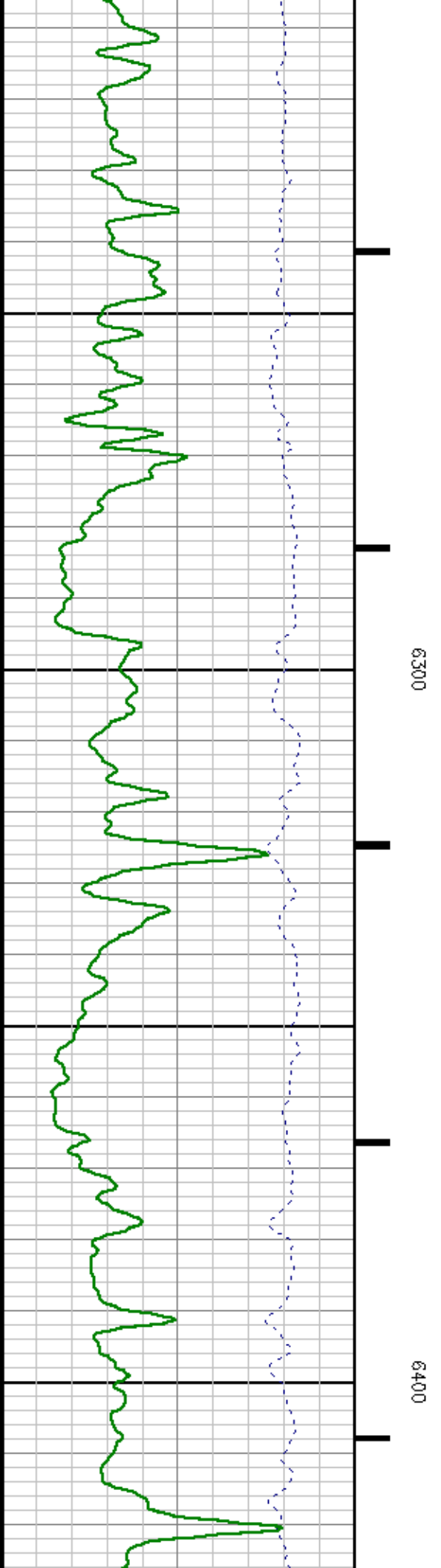
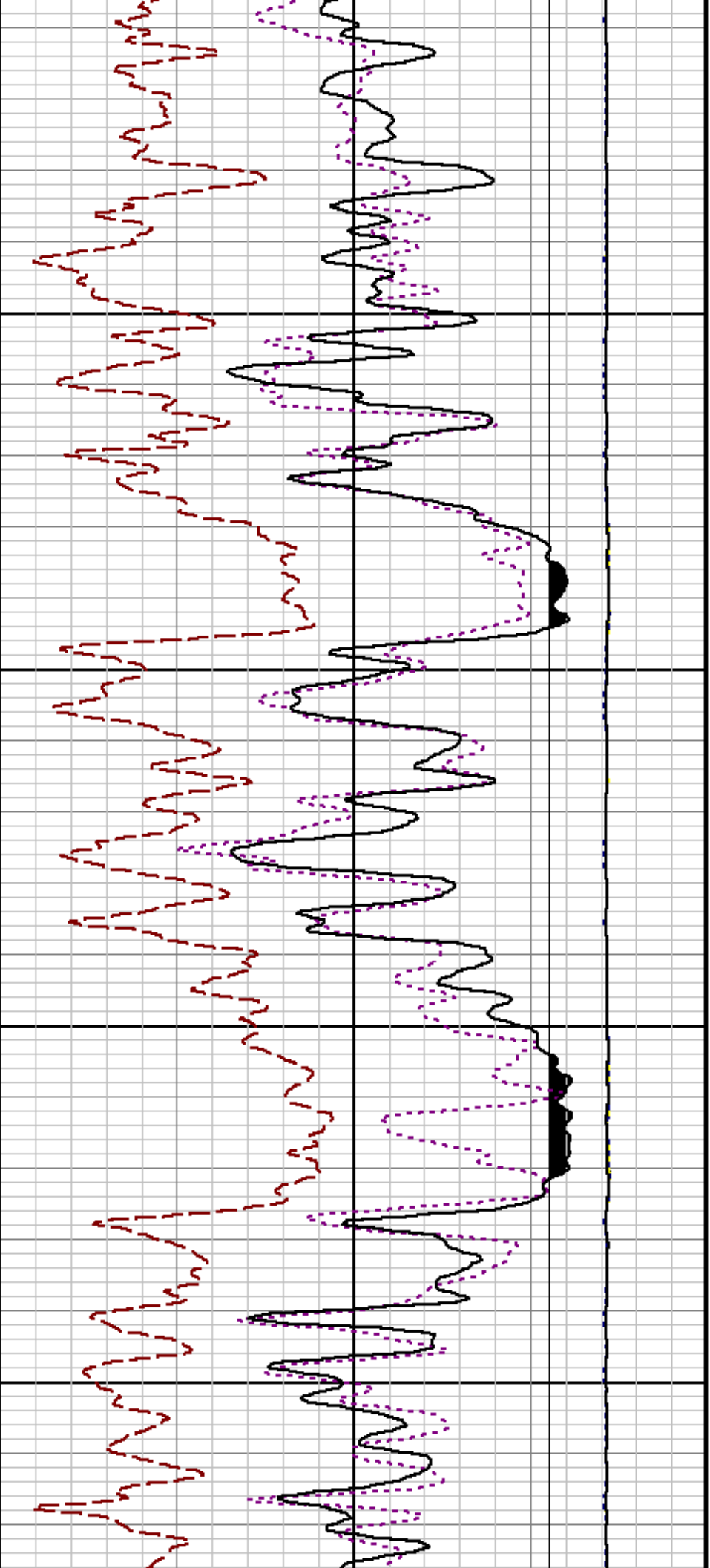
5500

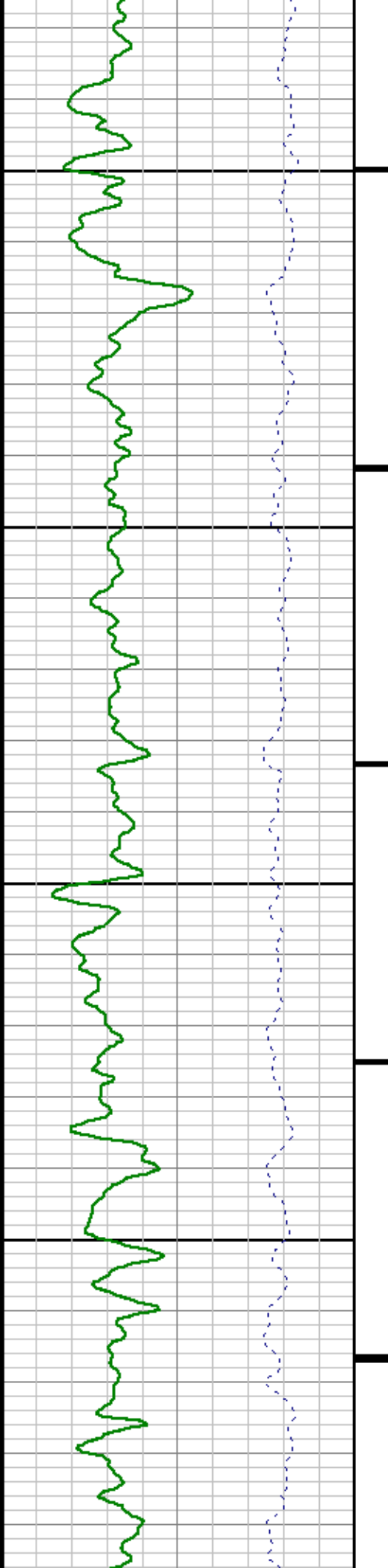






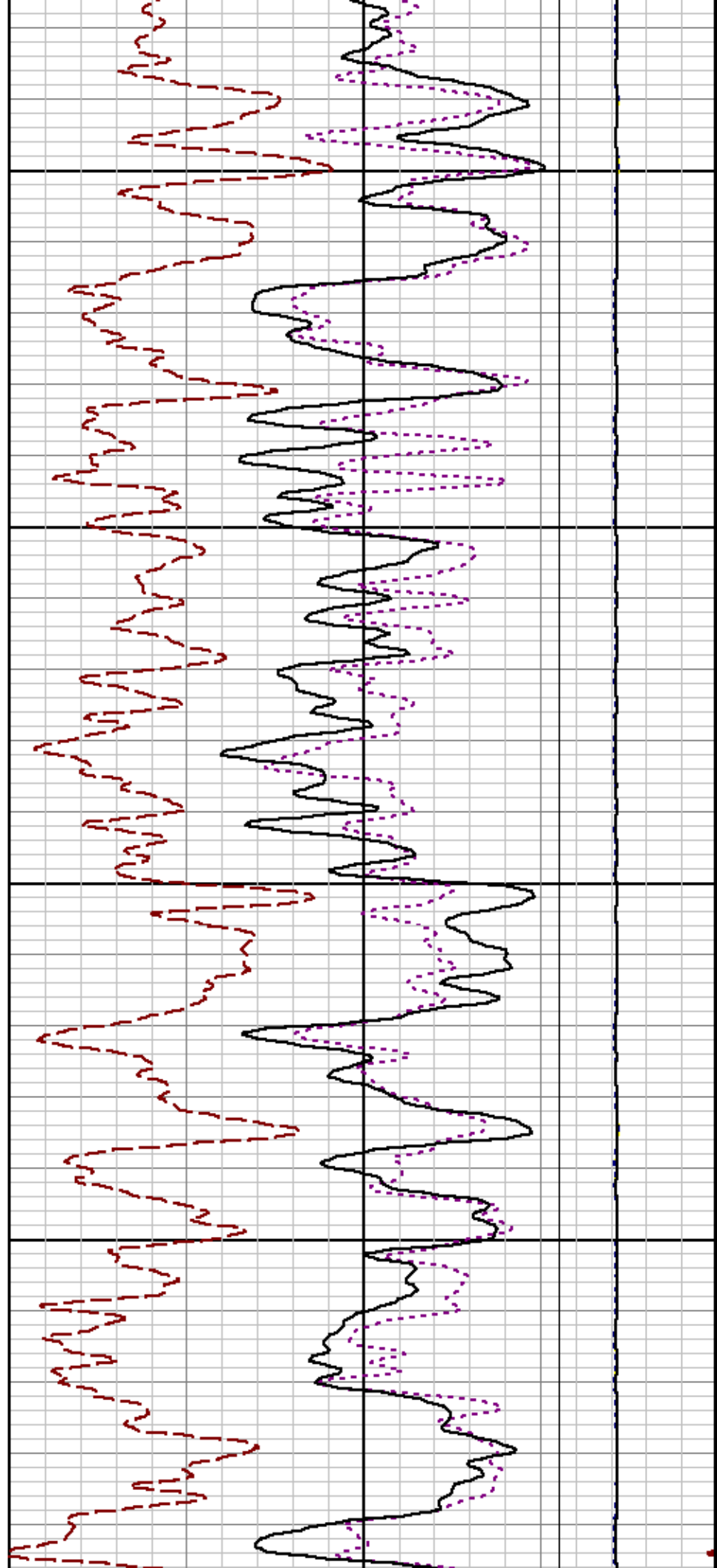


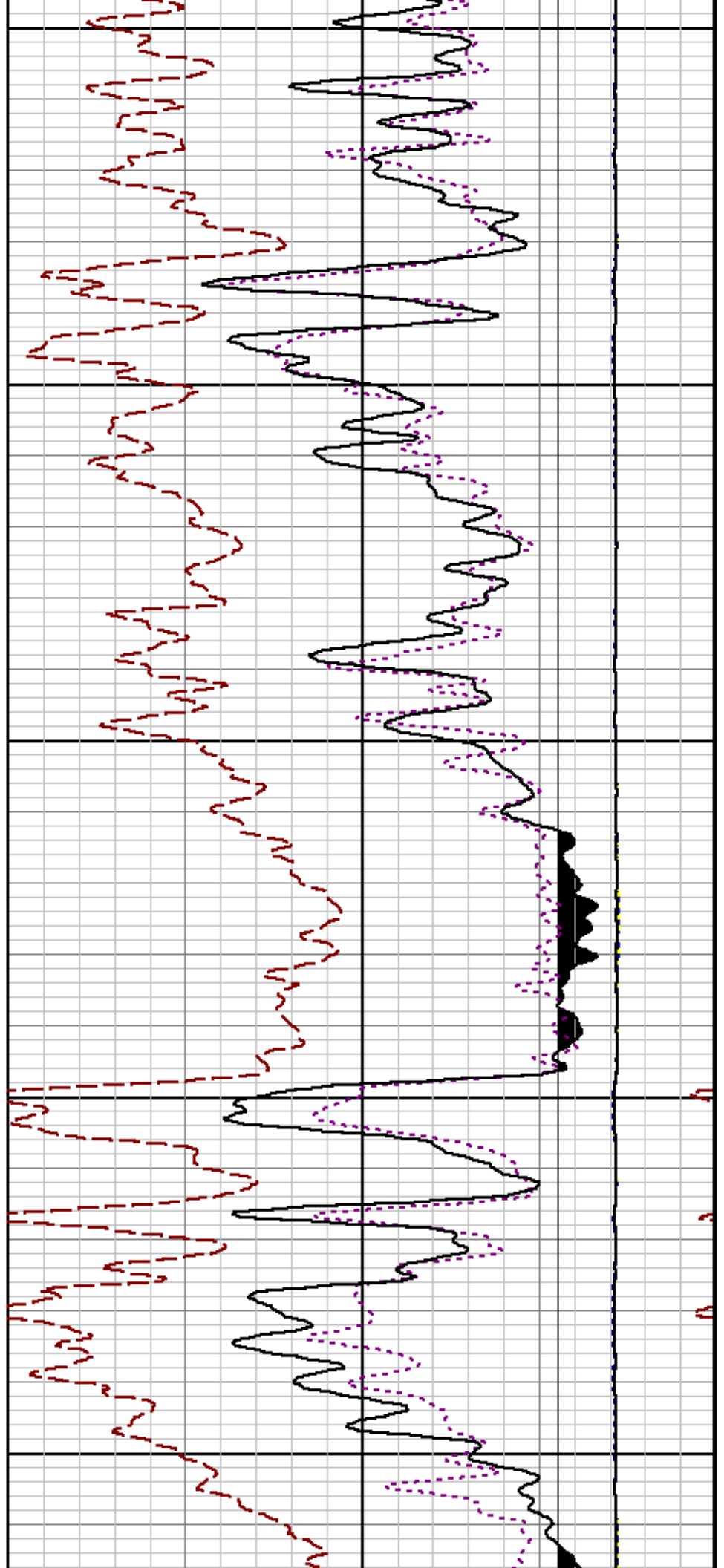




0099

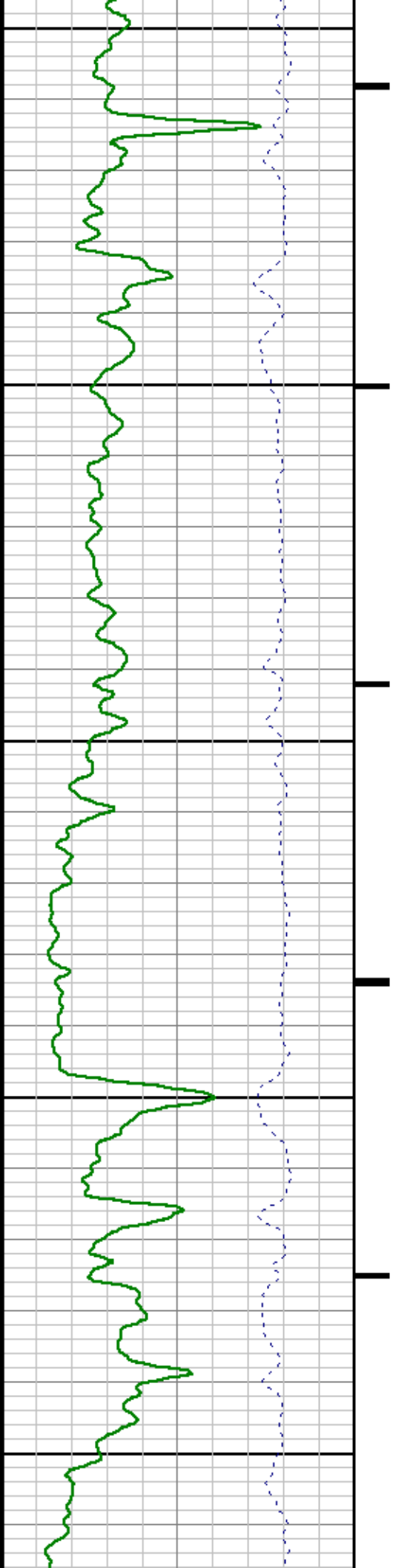
6500

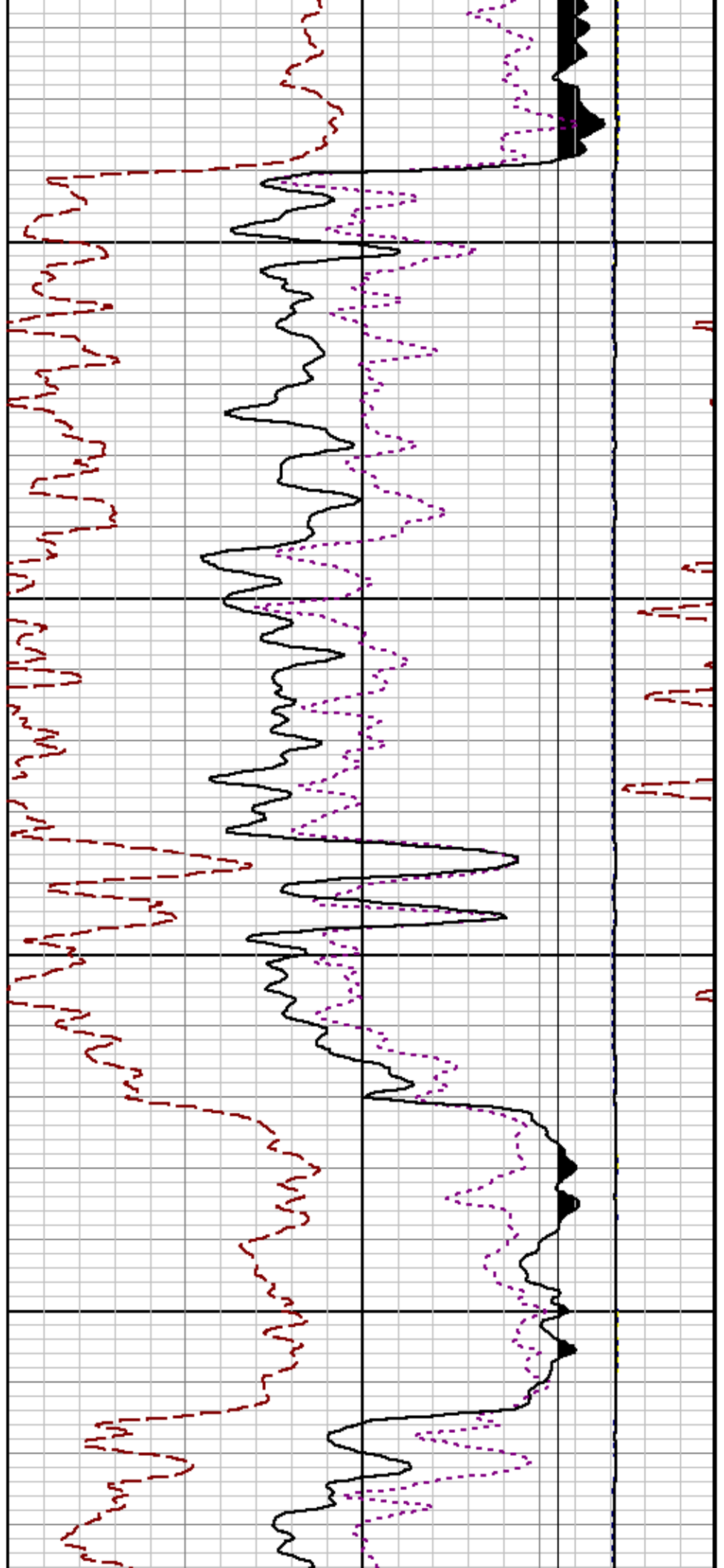




6700

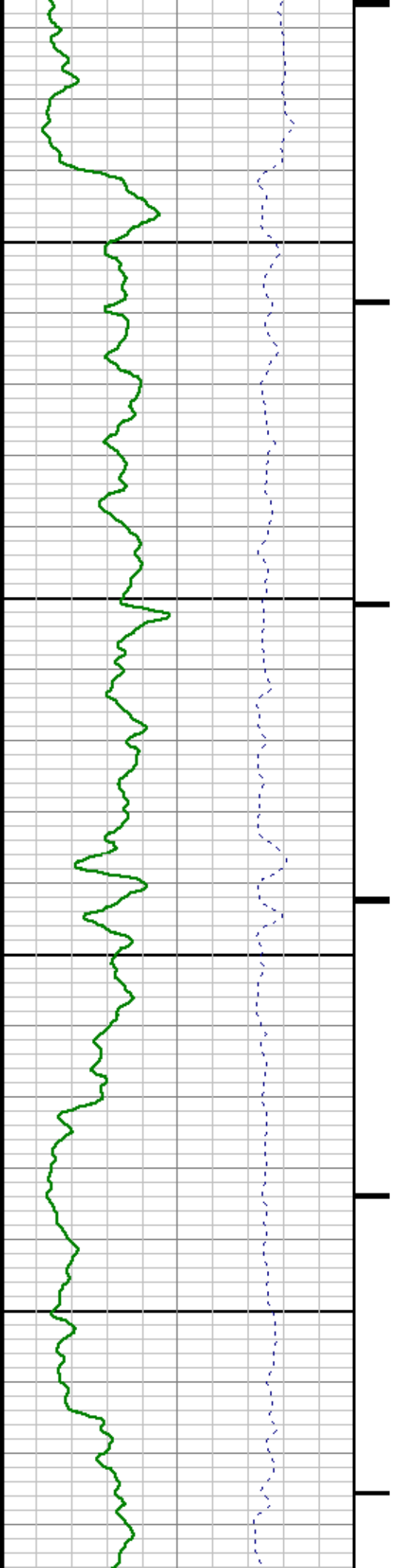
6800

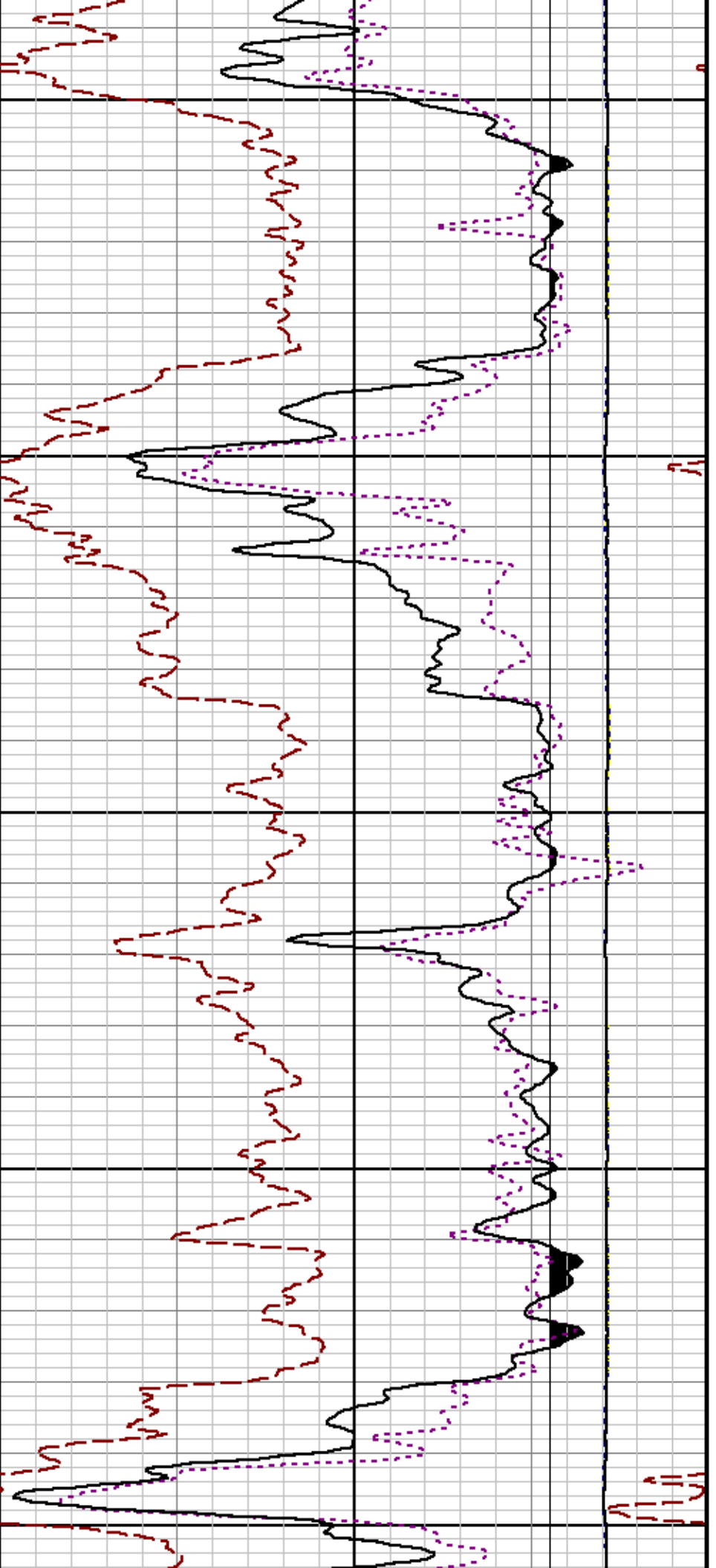




6900

7000

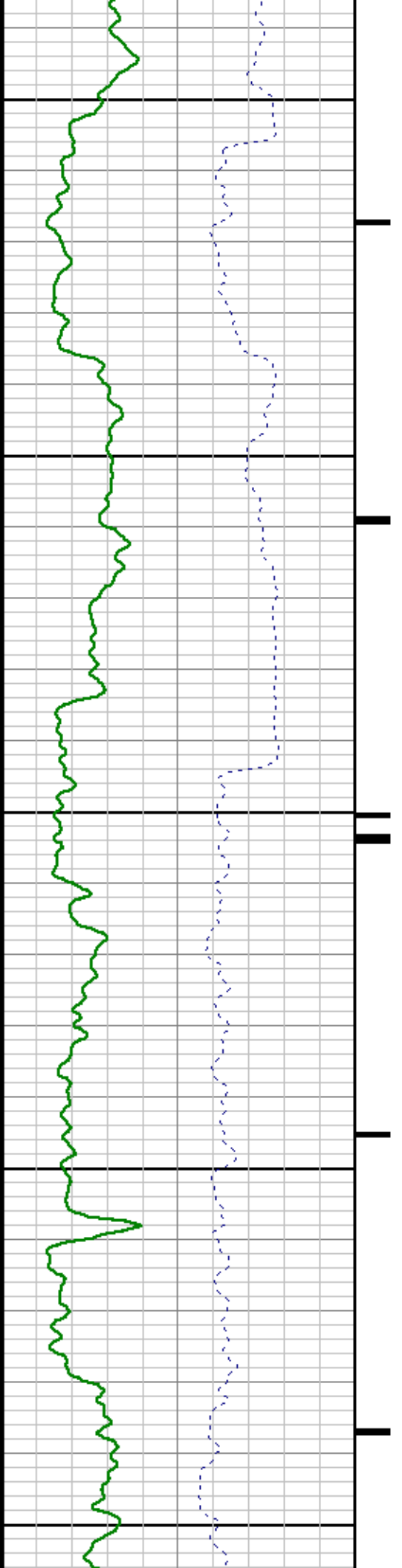


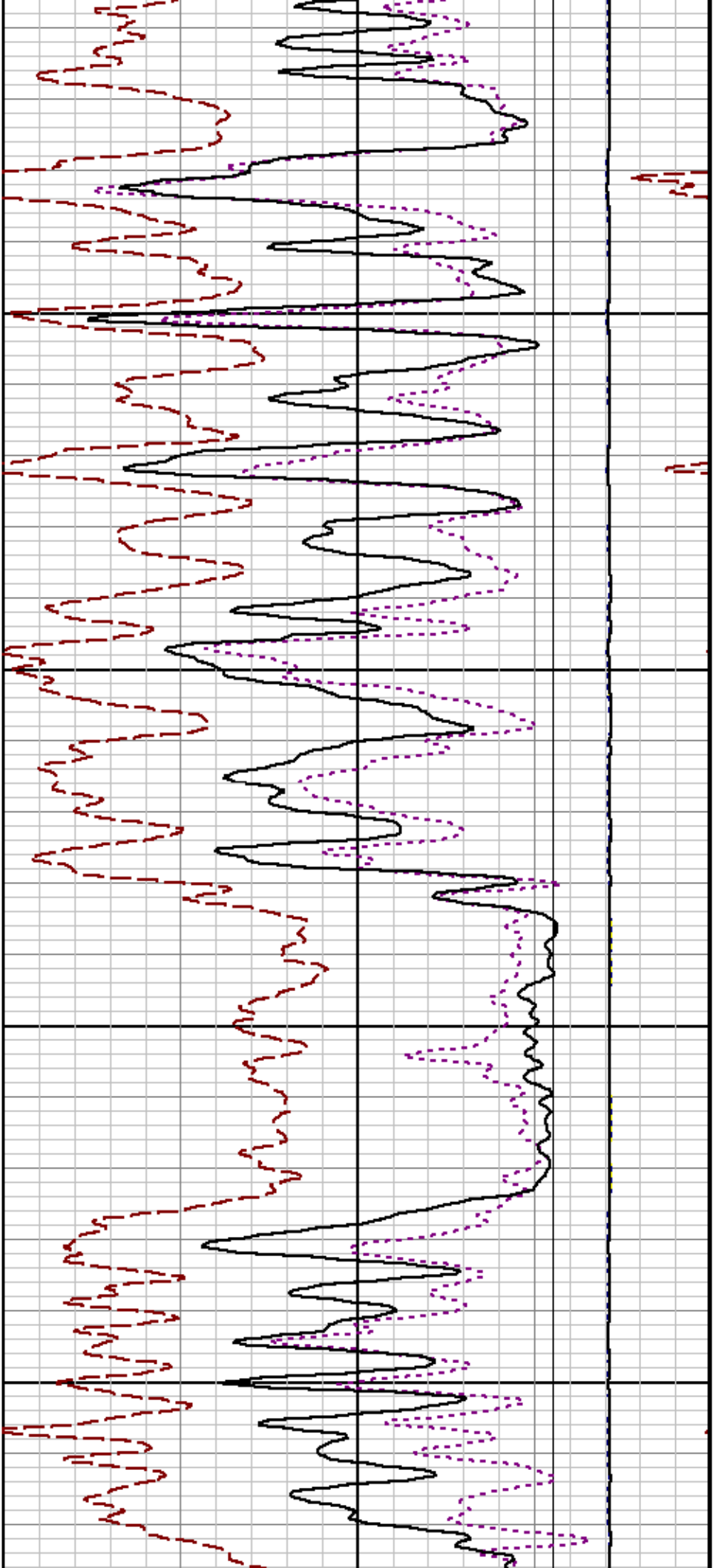


7100

7200

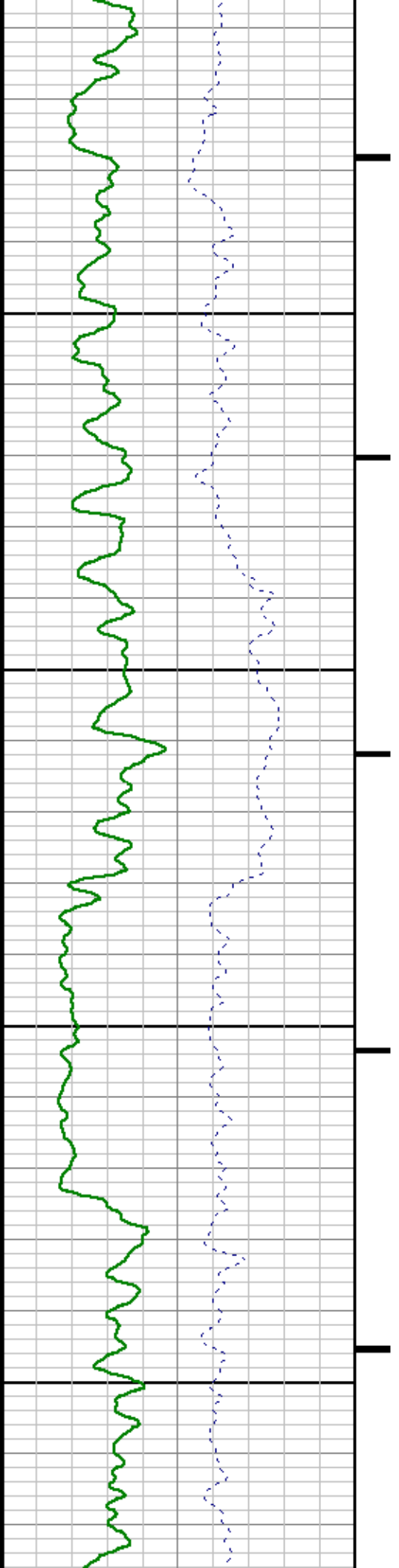
7300

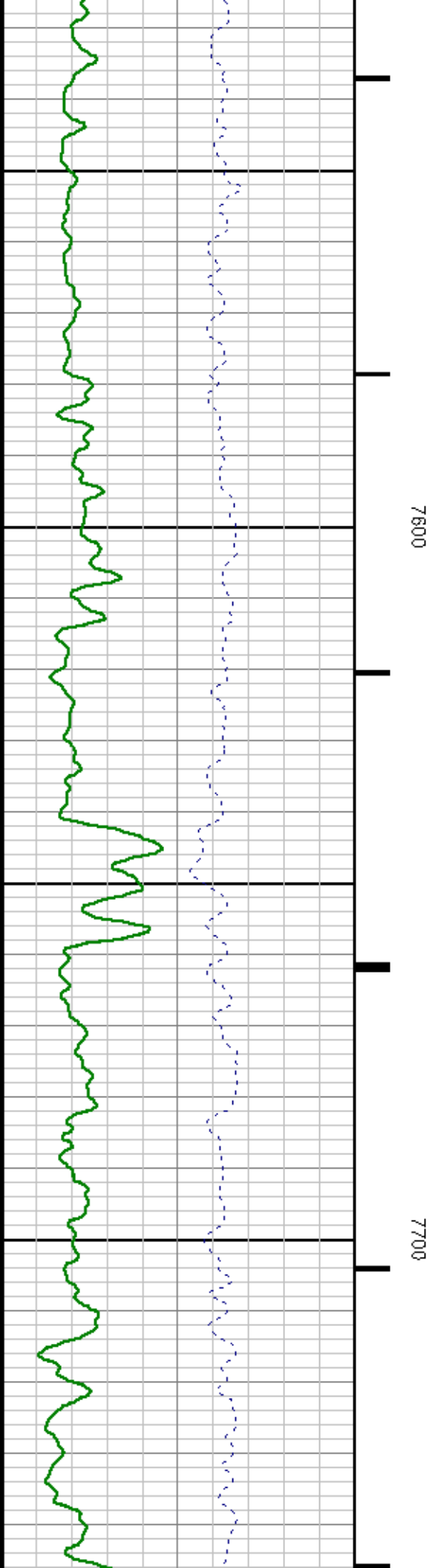
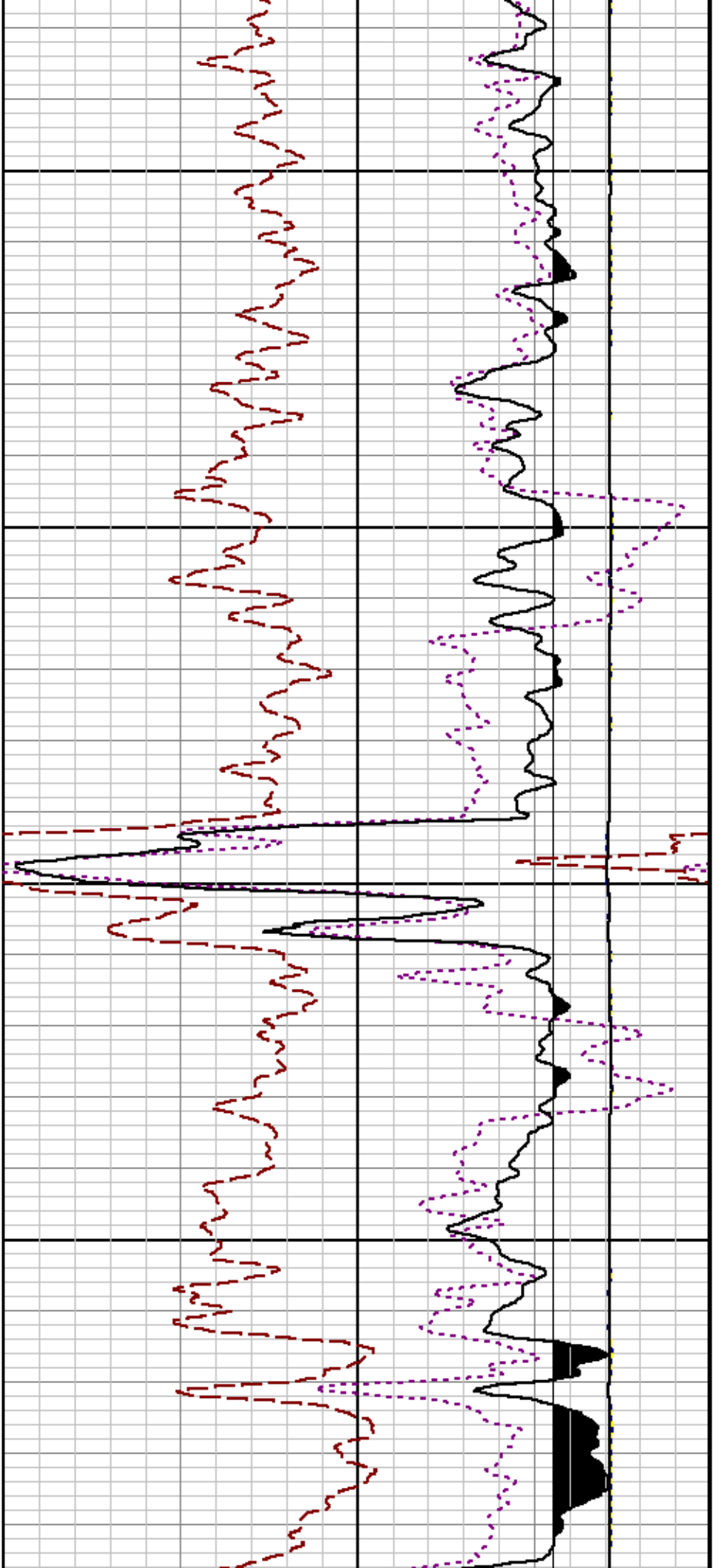


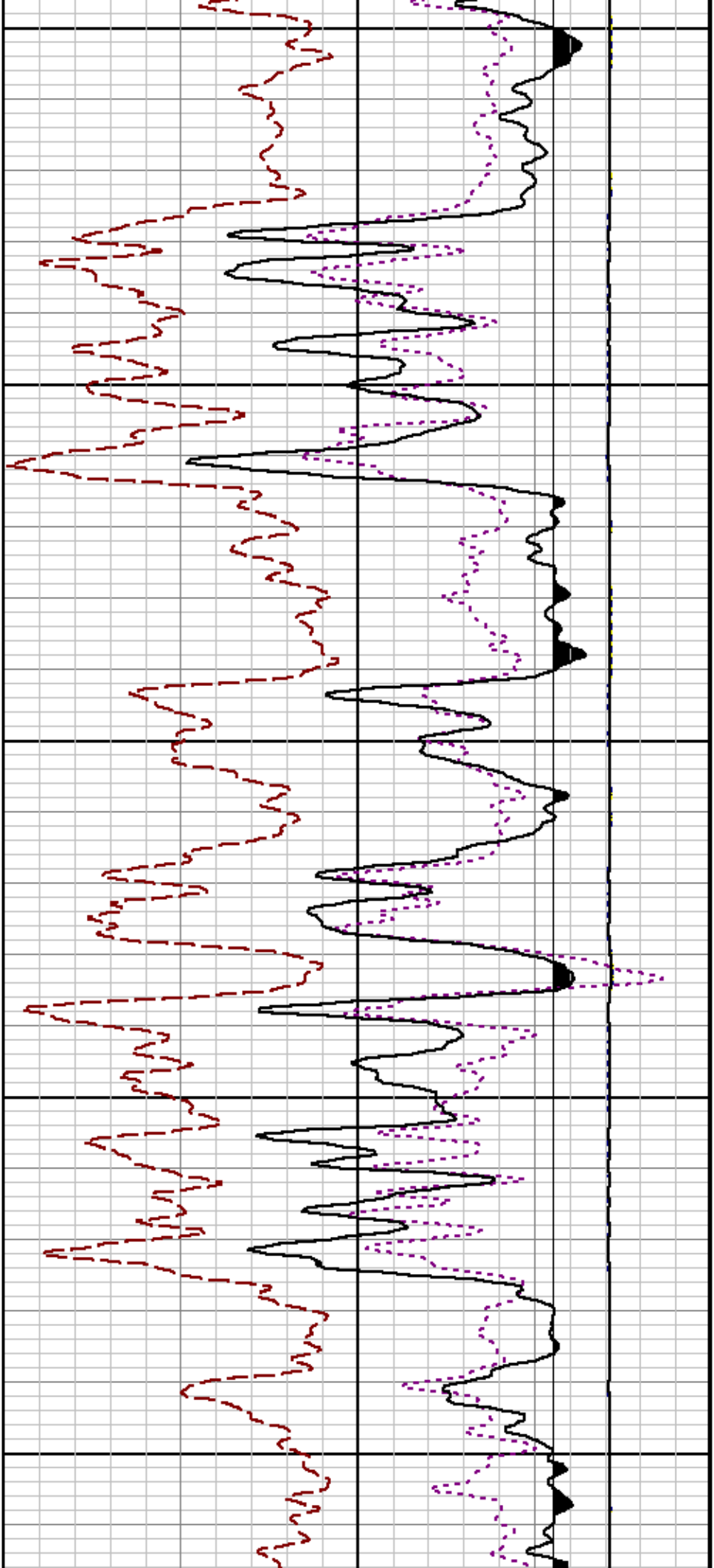


7400

7500

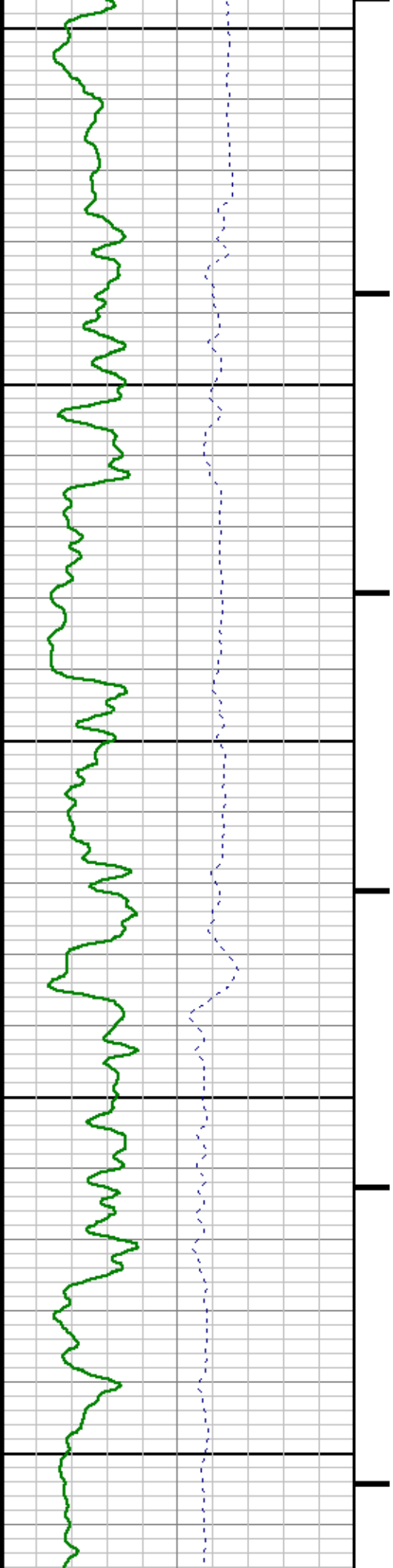


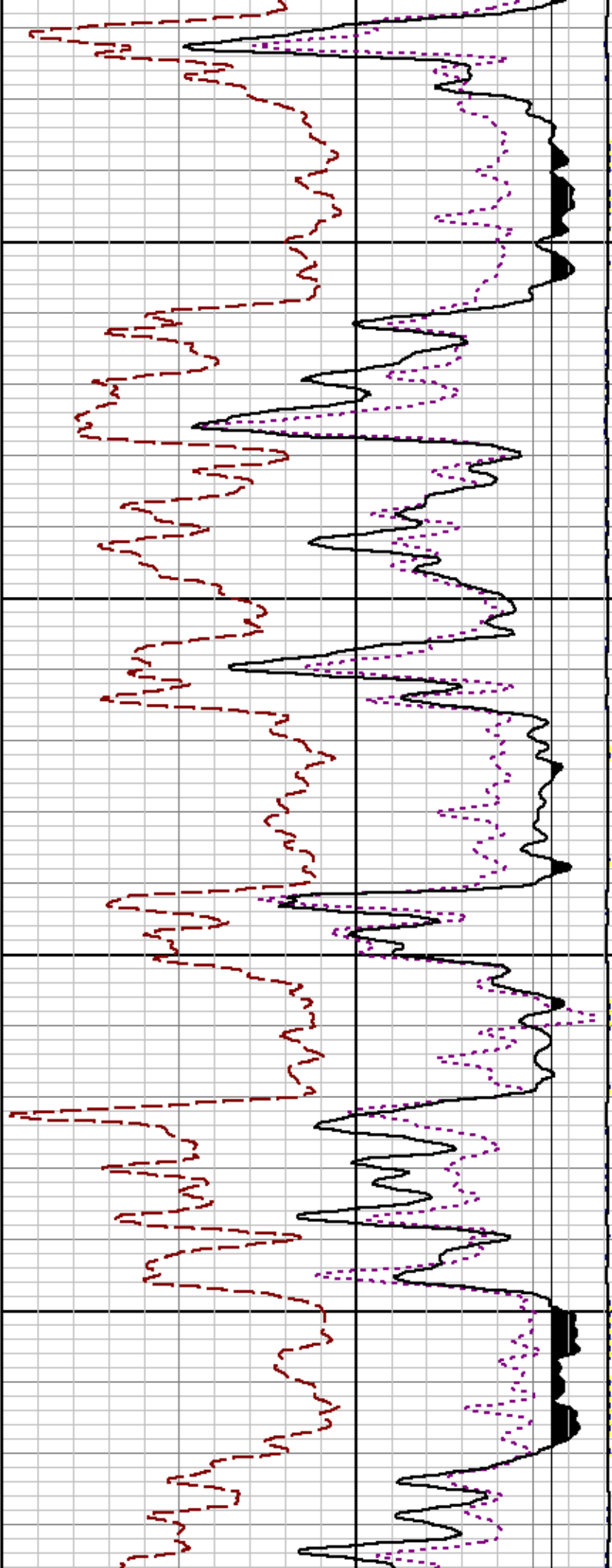




7800

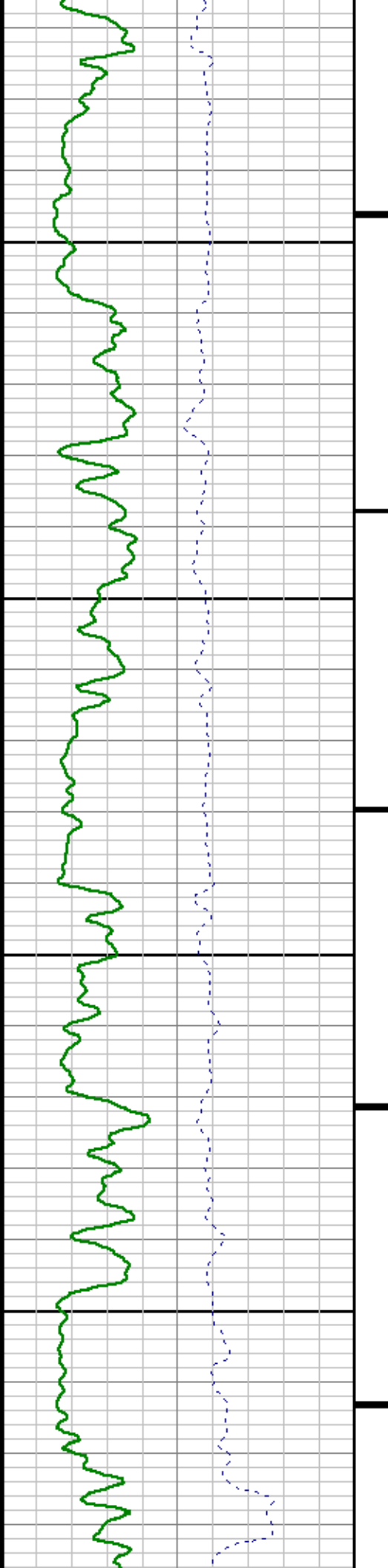
7900

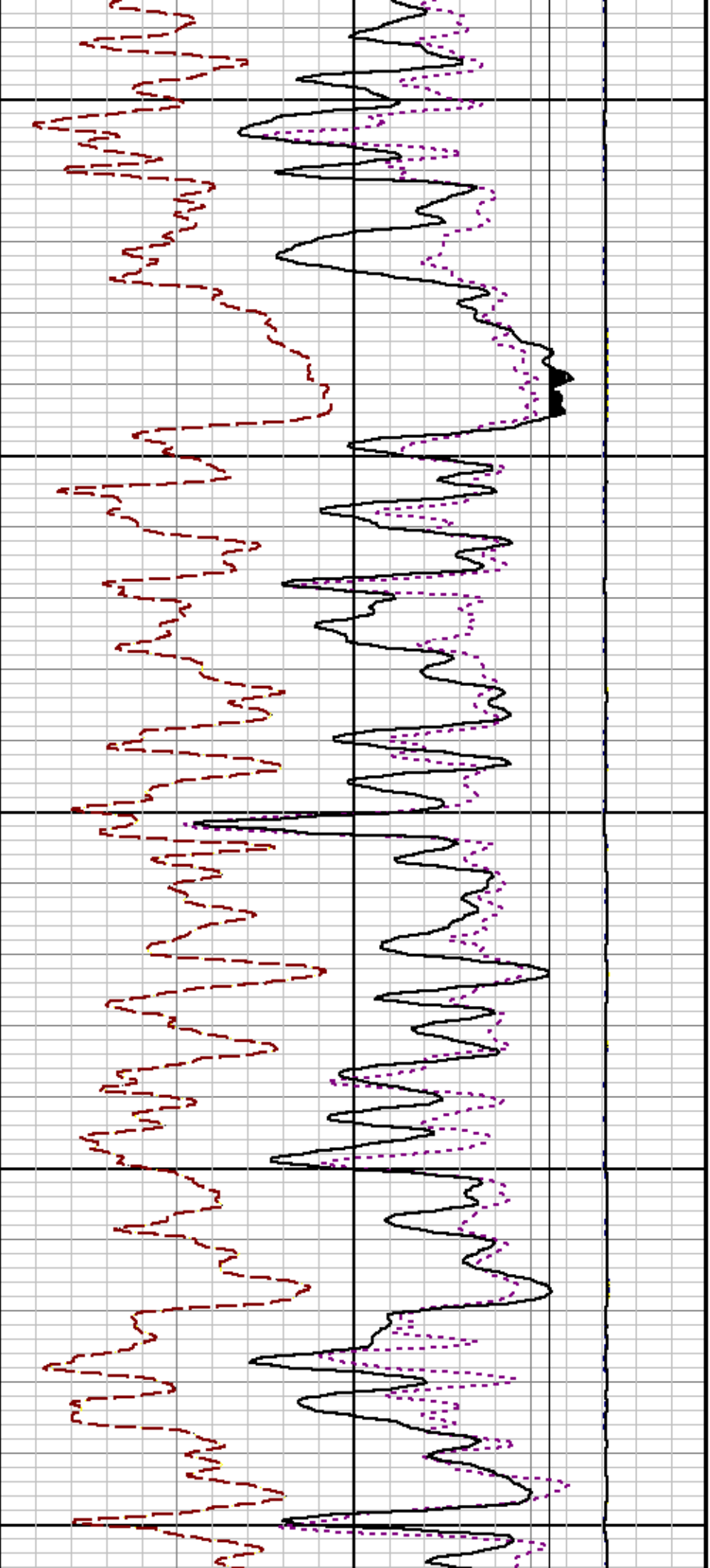




8000

8100

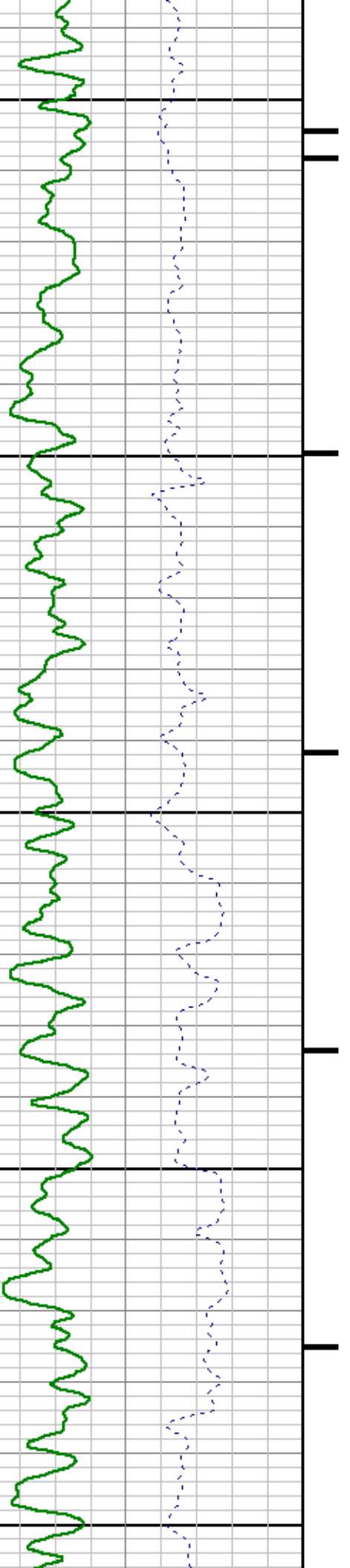


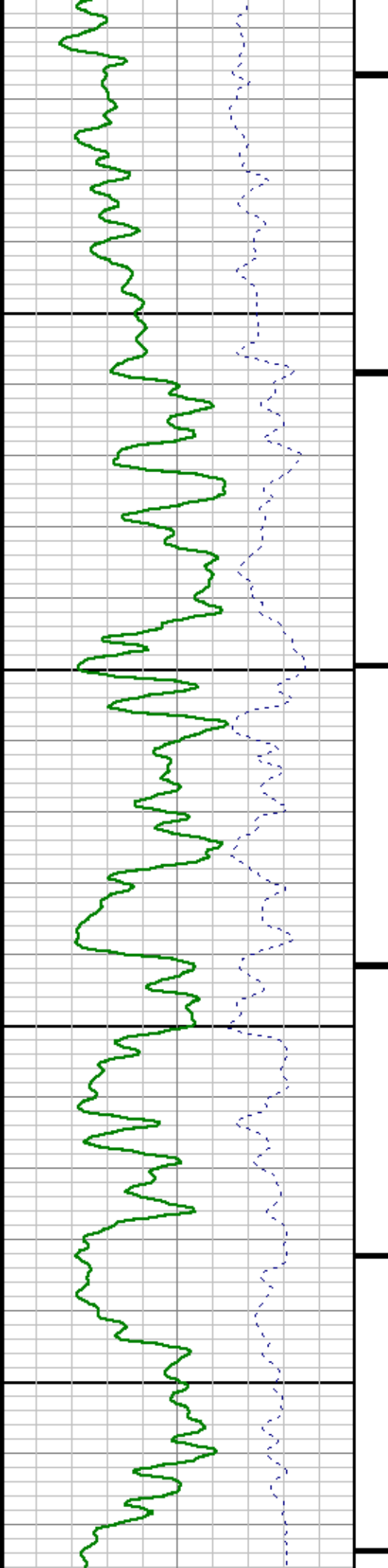


8200

8300

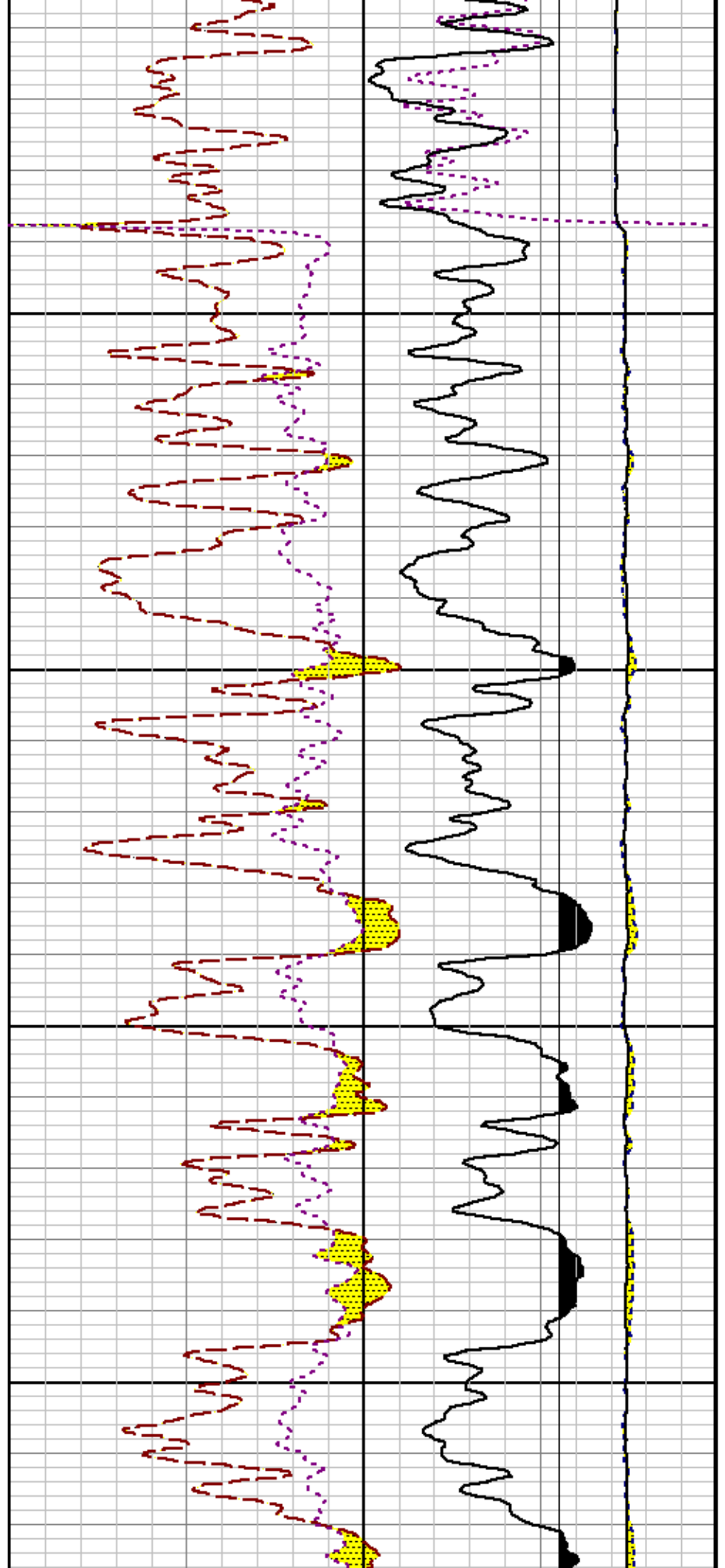
8400

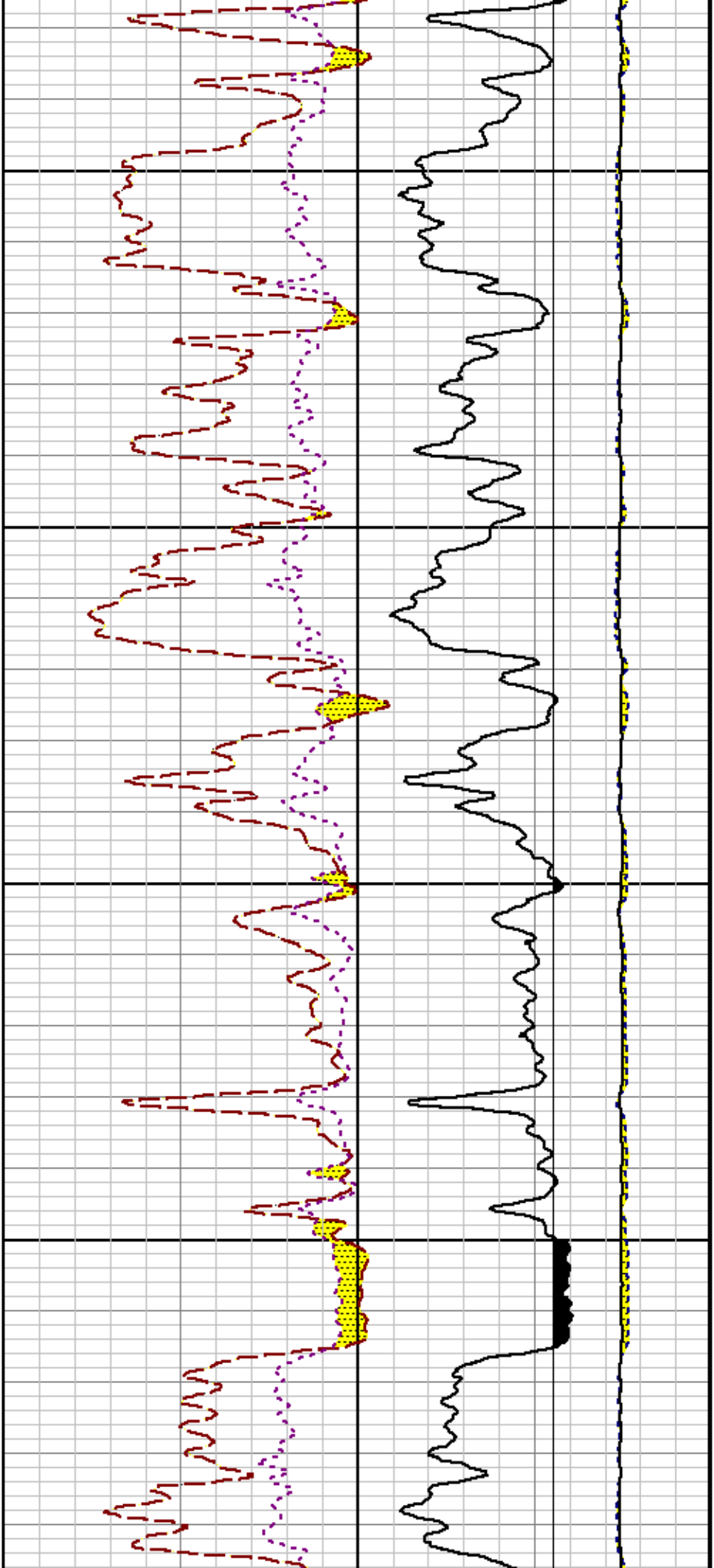




0098

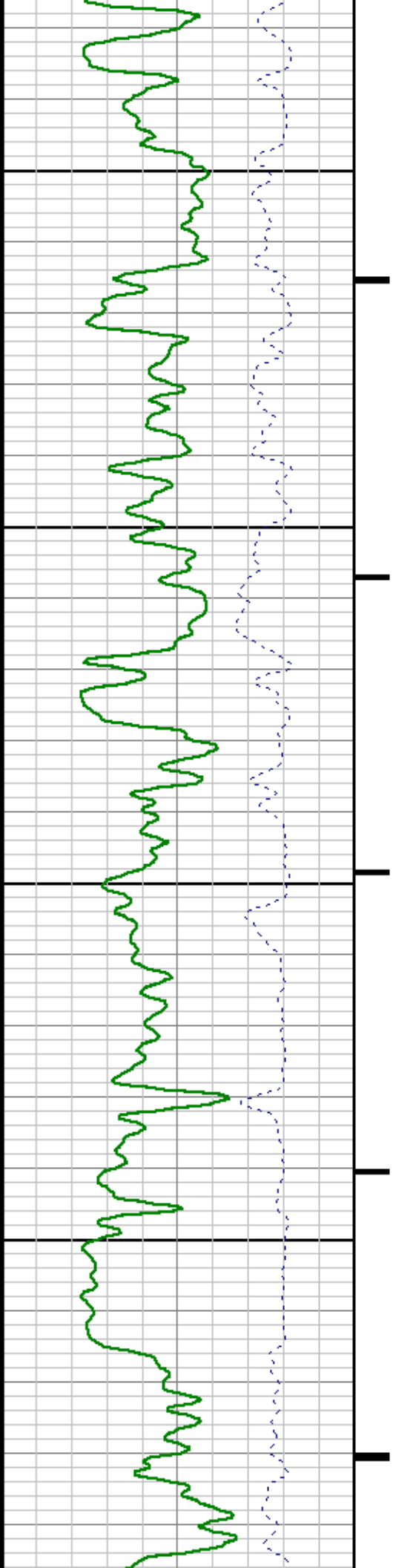
0099

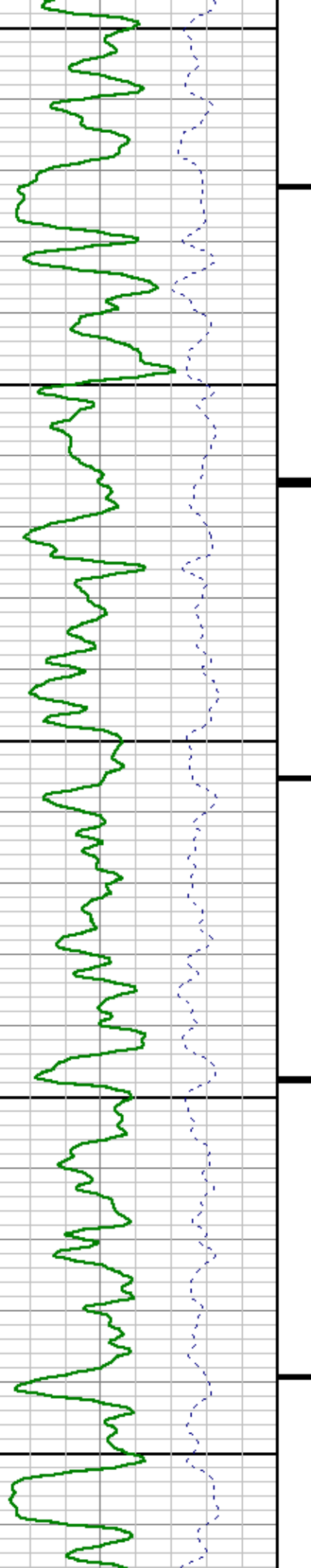




8700

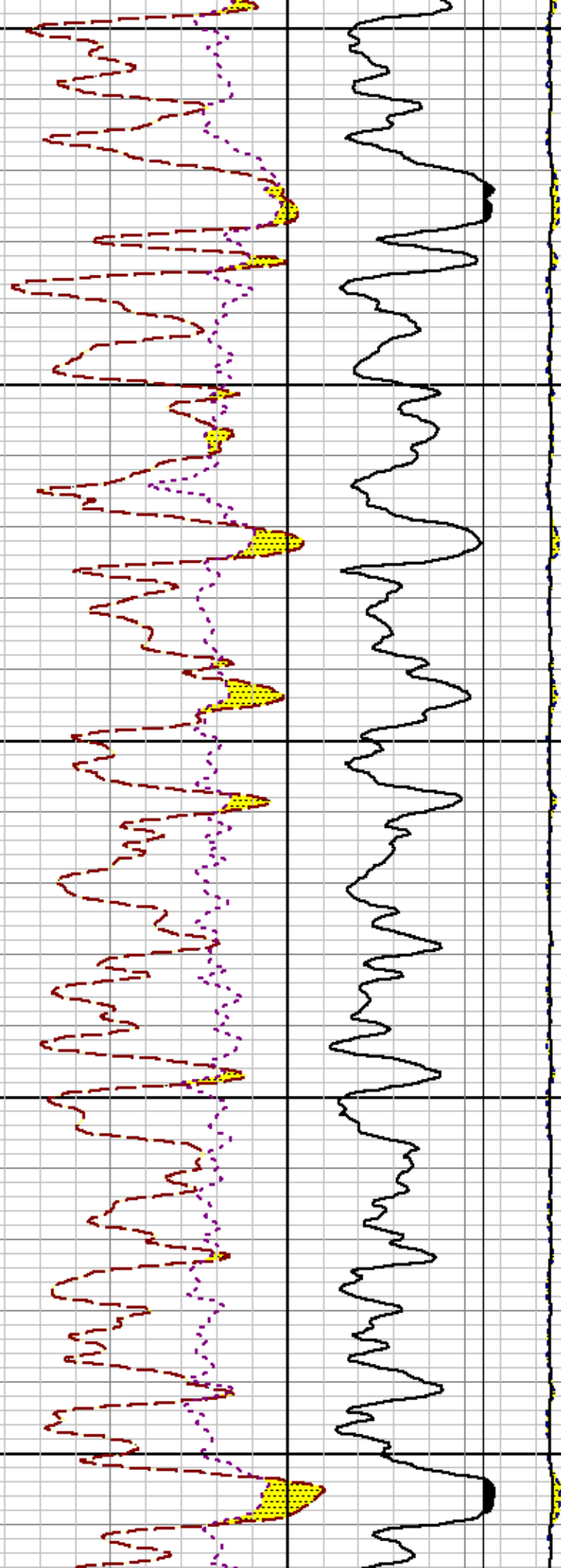
8800

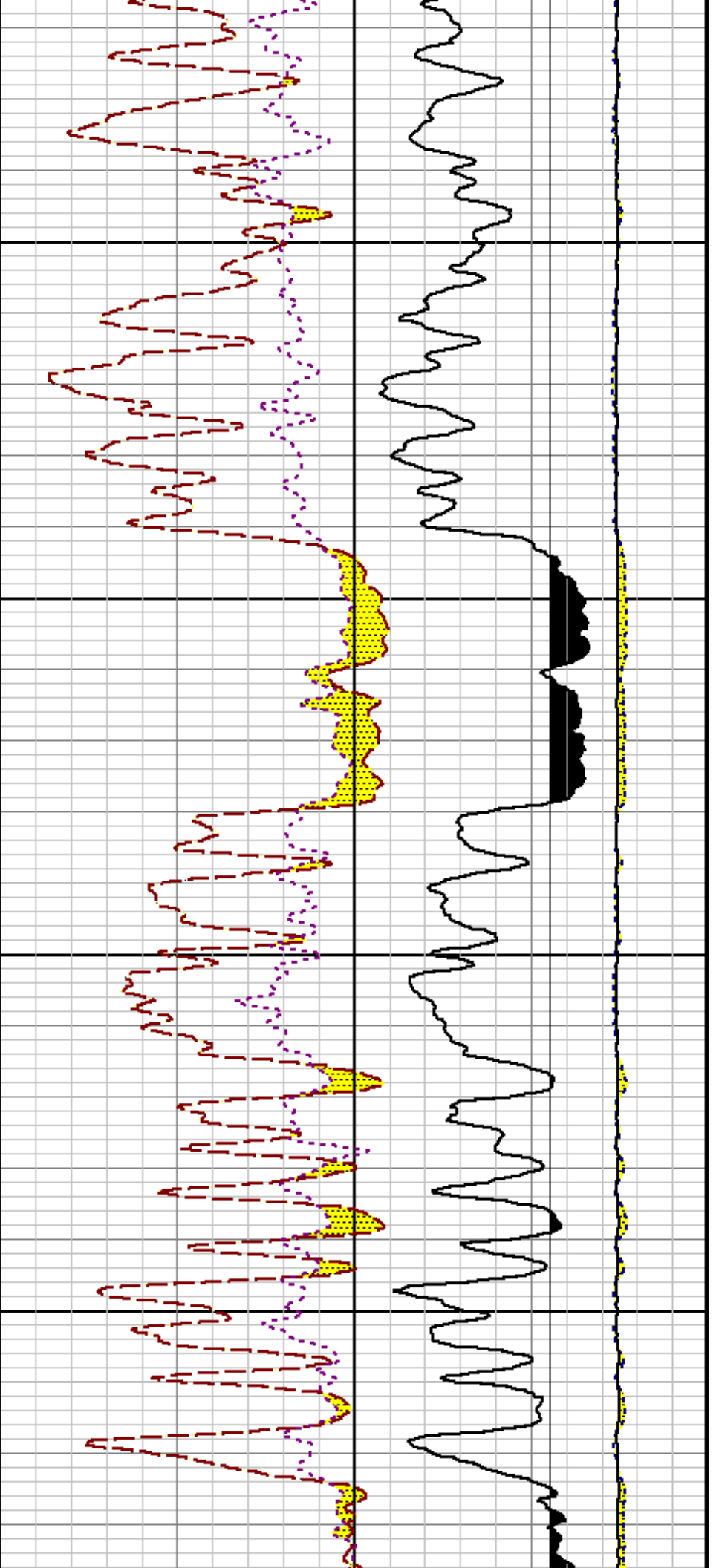




0005

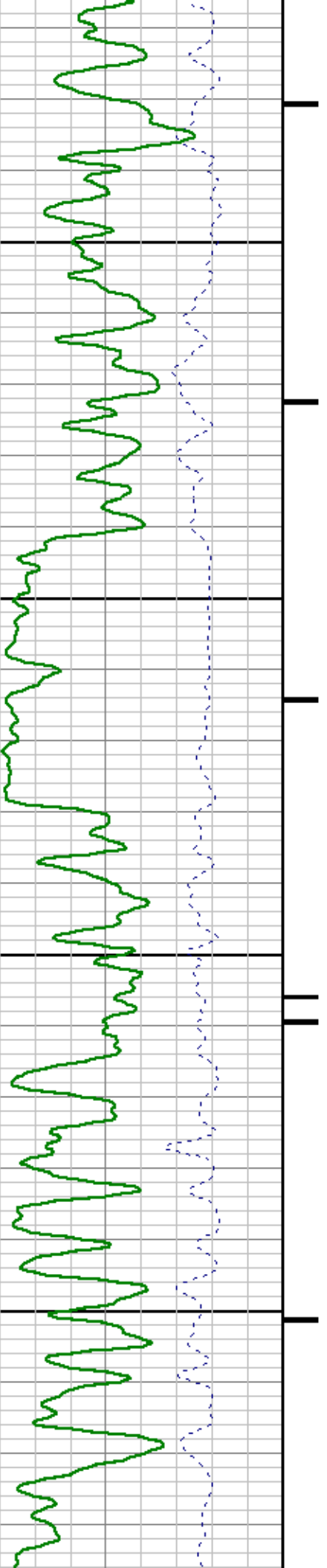
0068

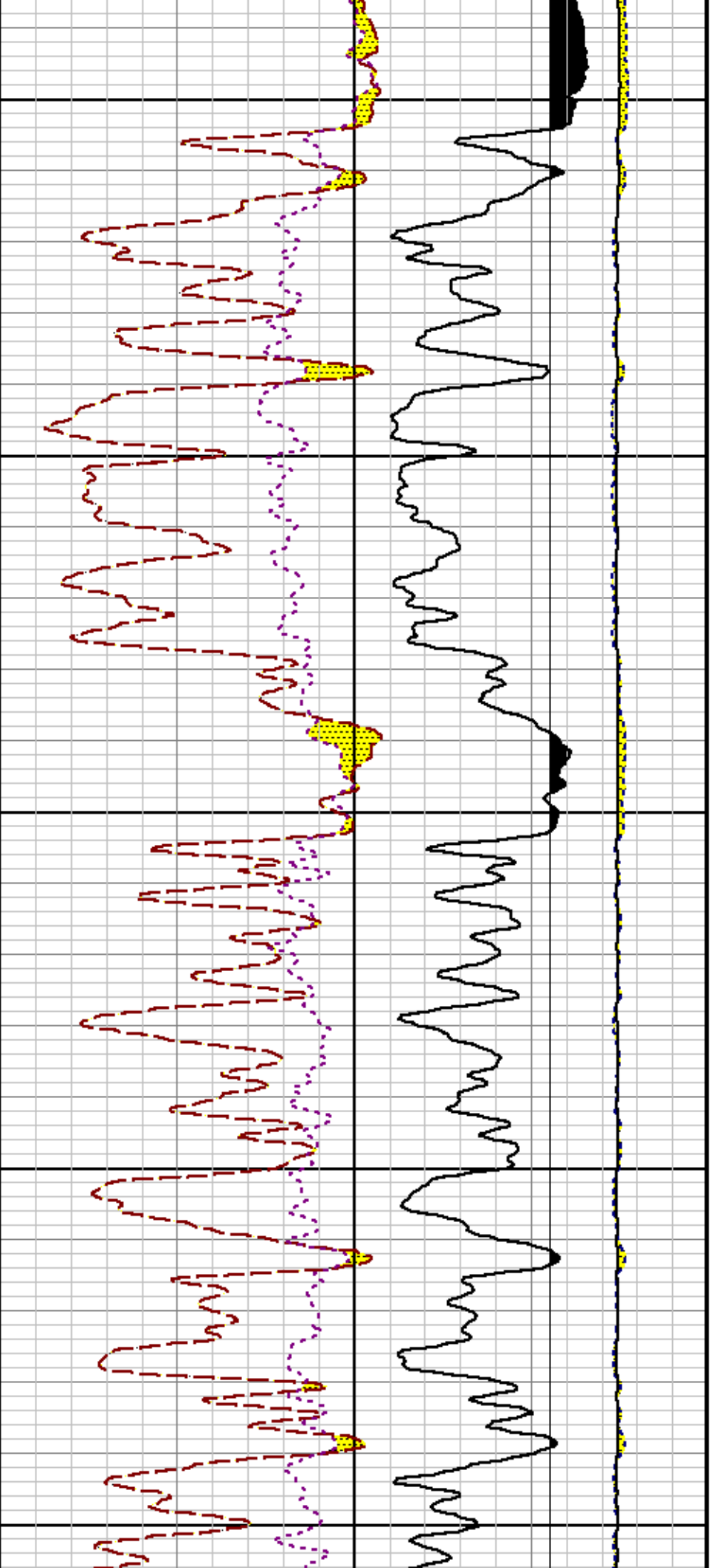




9100

9200

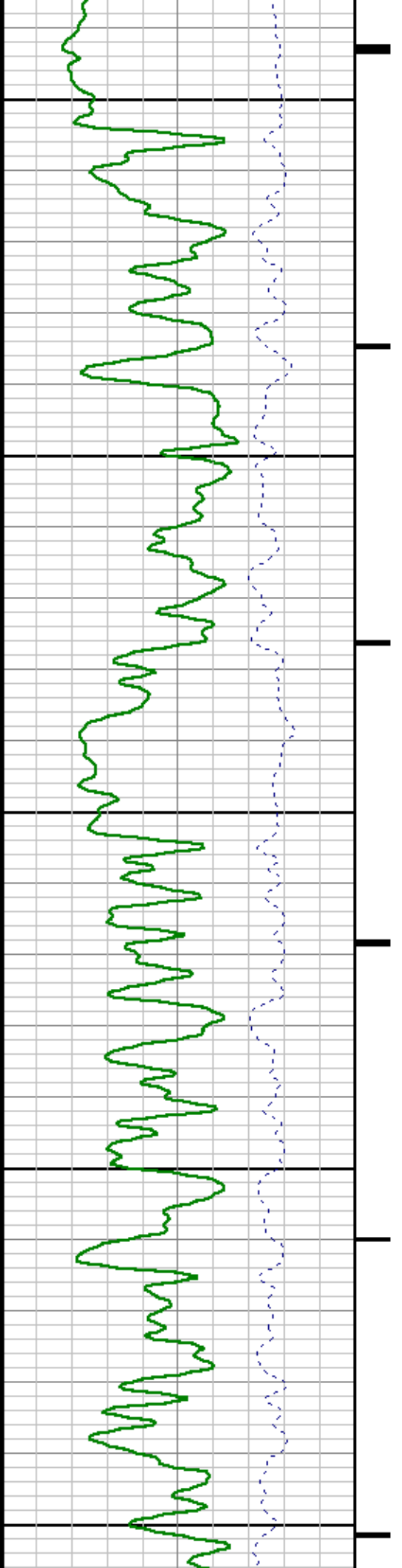


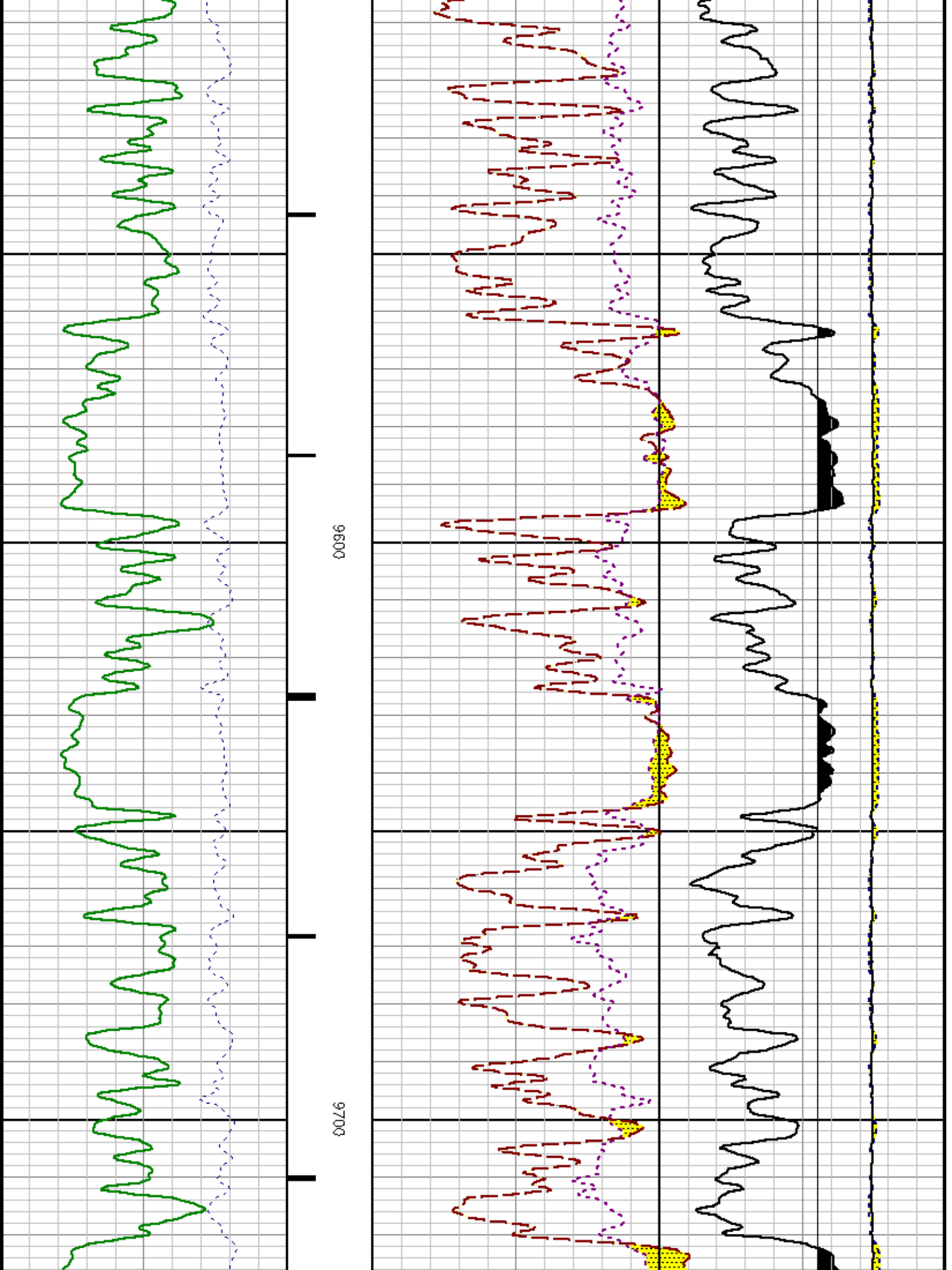


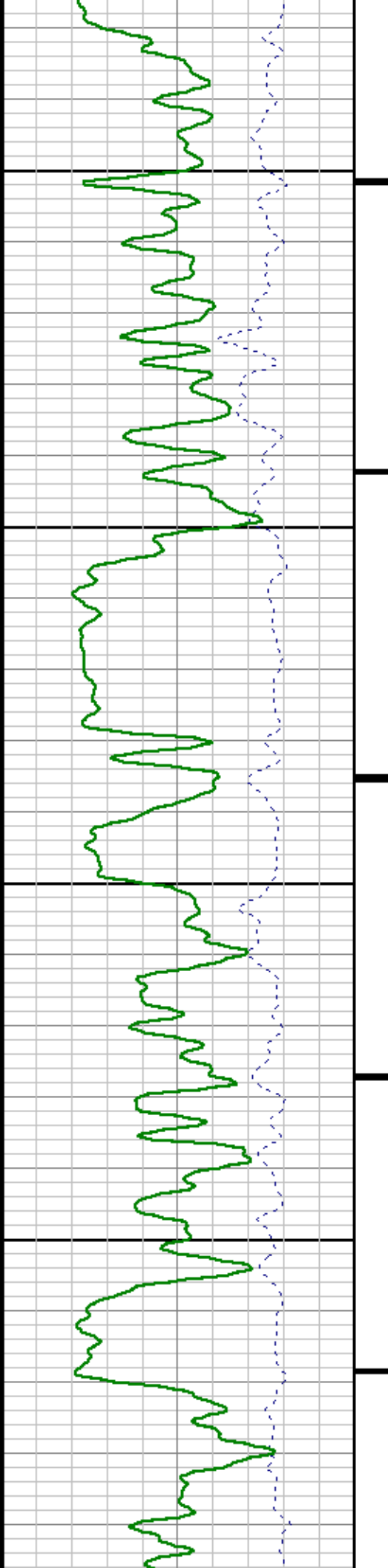
9300

9400

9500

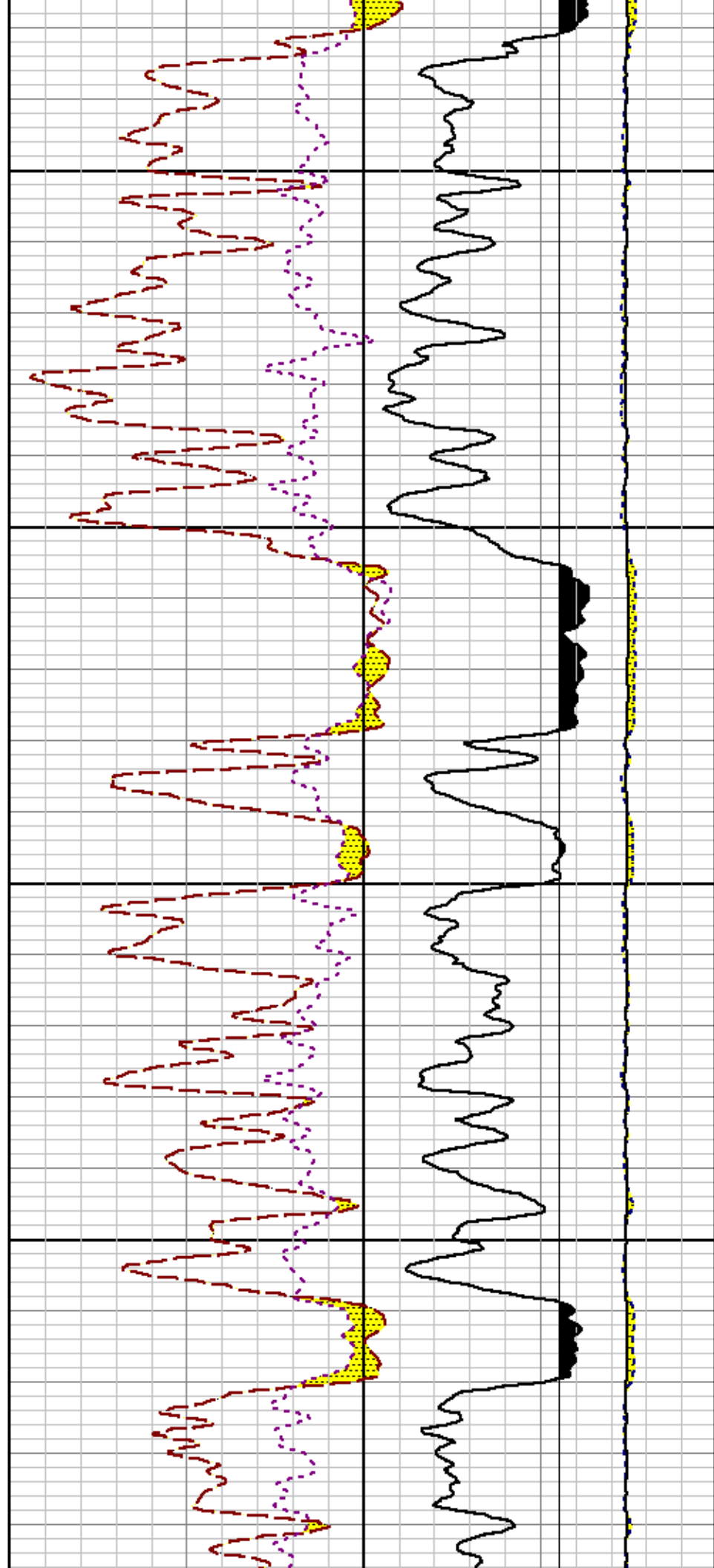


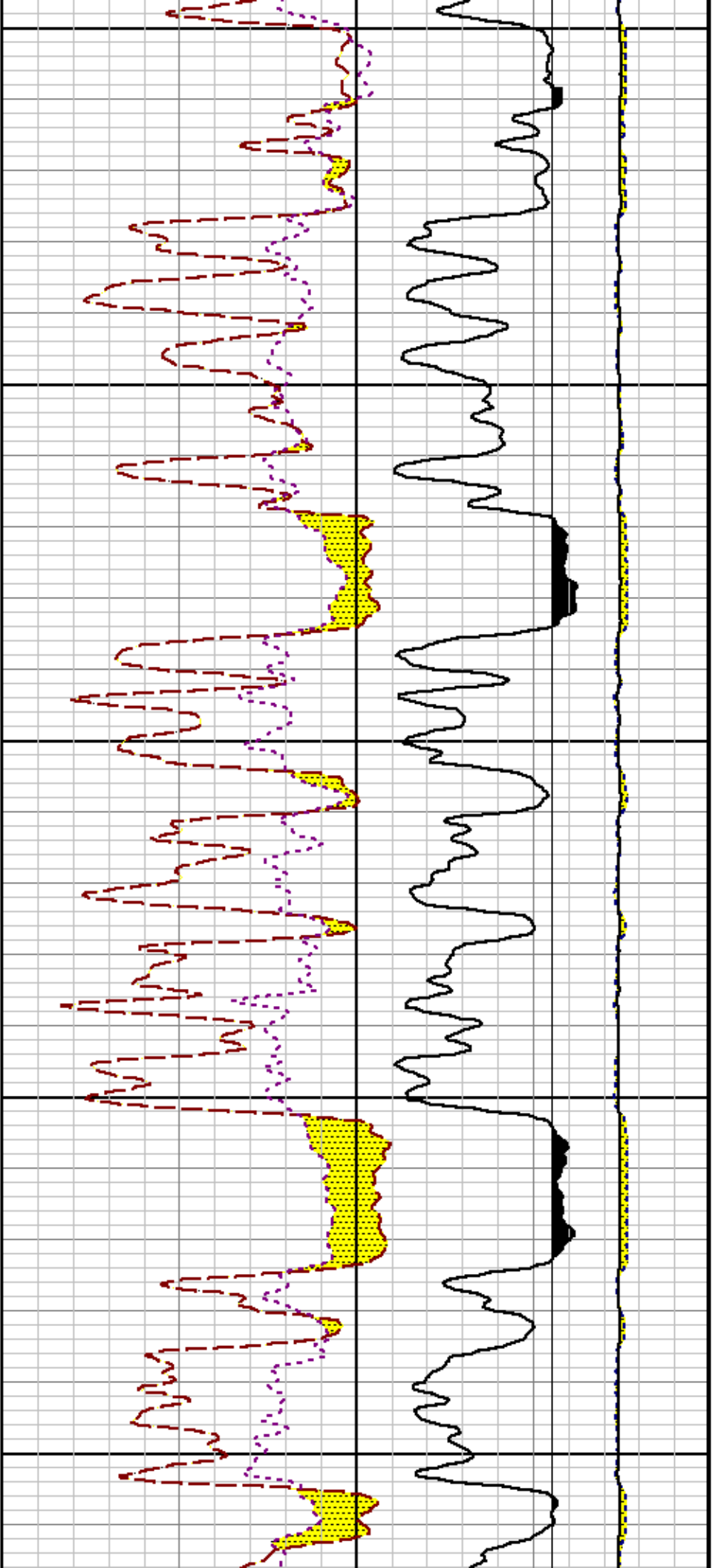




0086

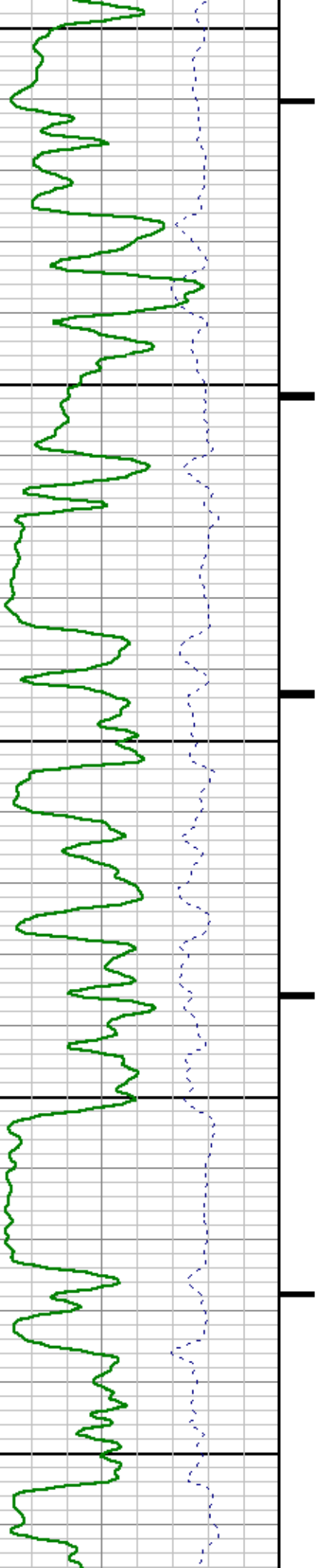
0066

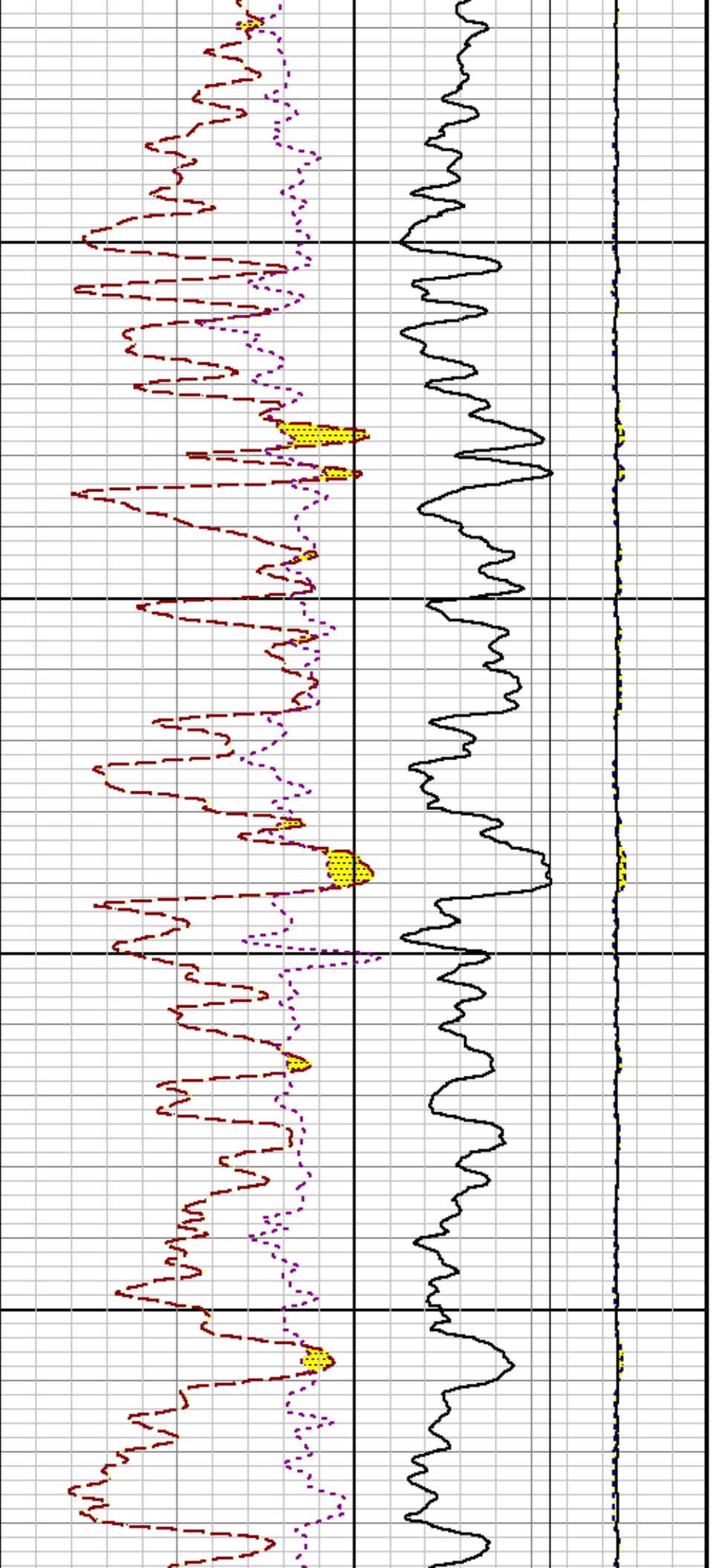




10000

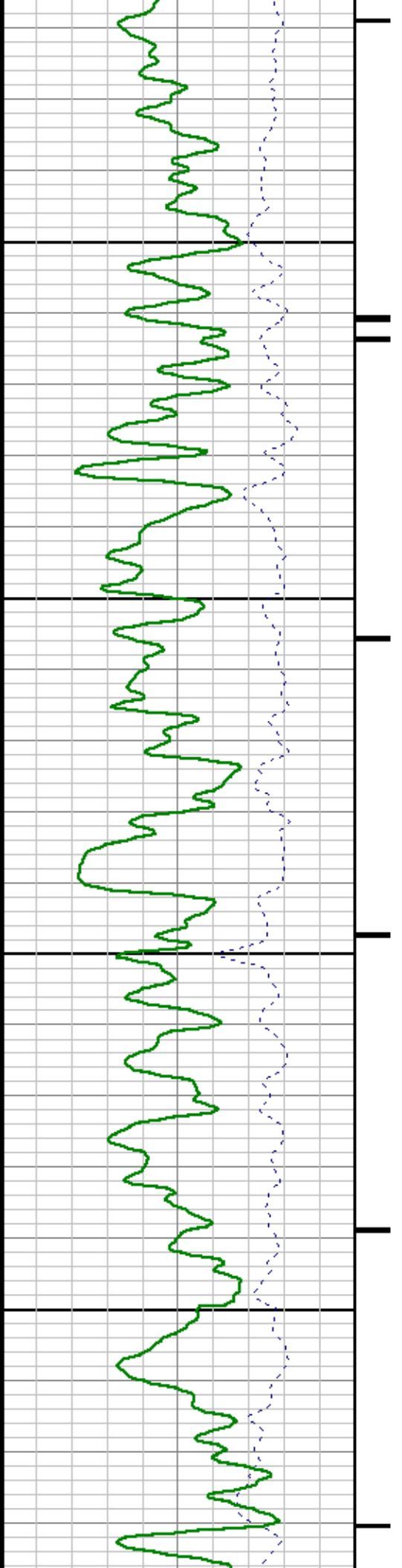
10100

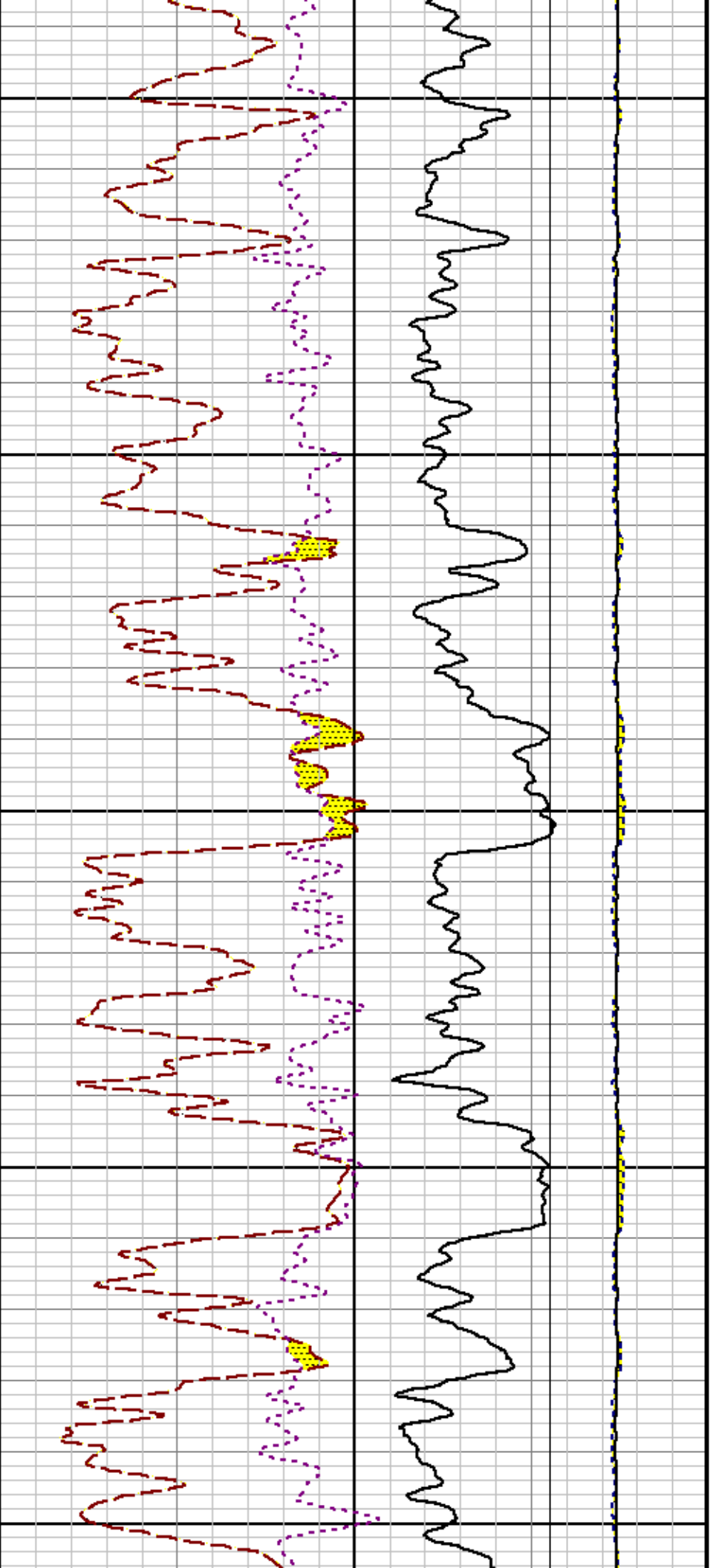




10200

10300

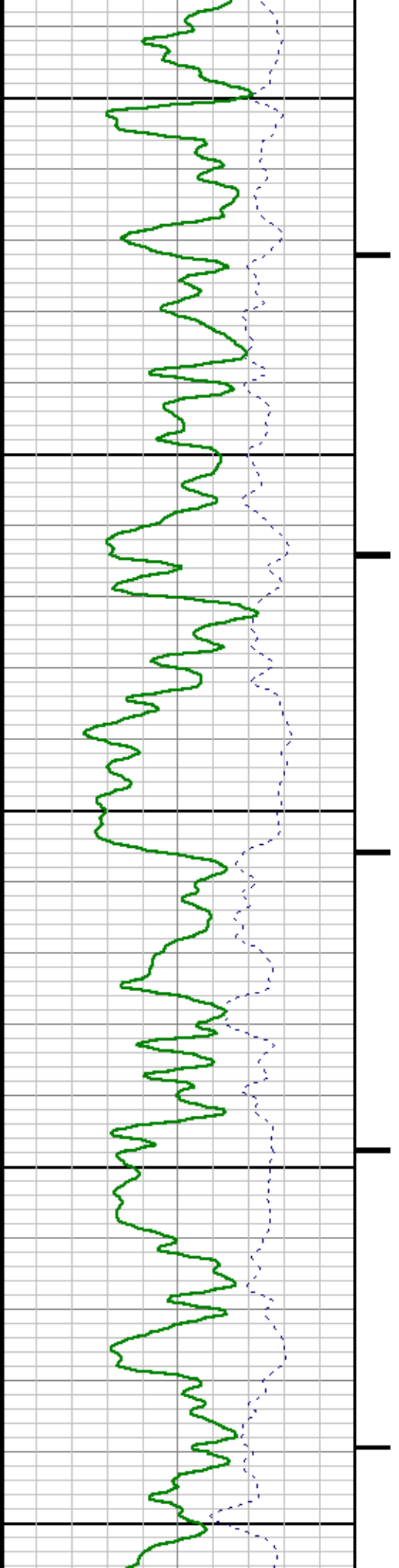


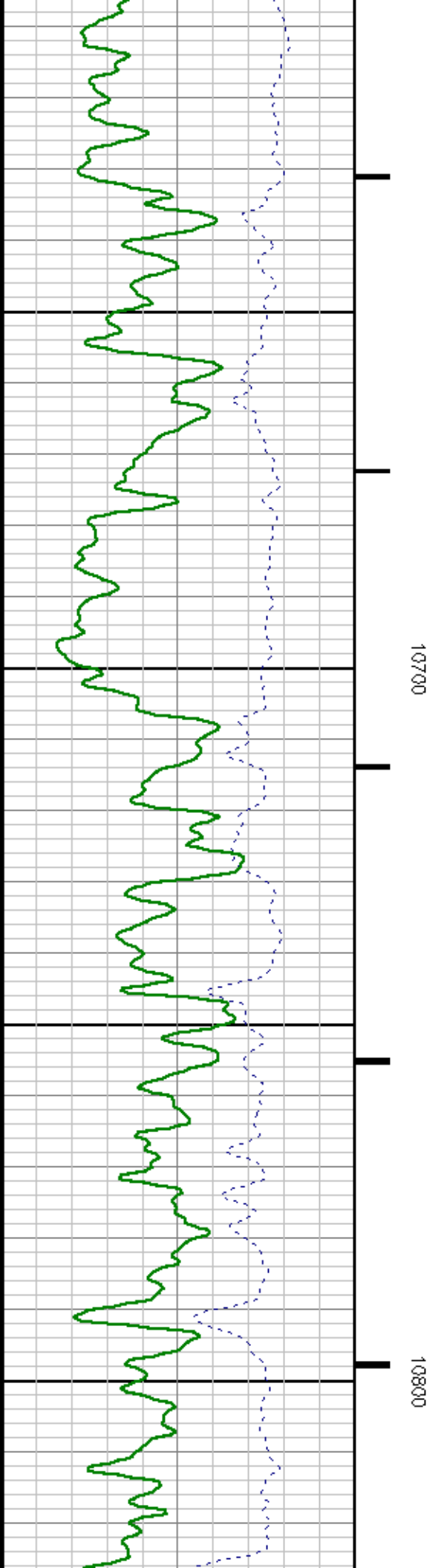
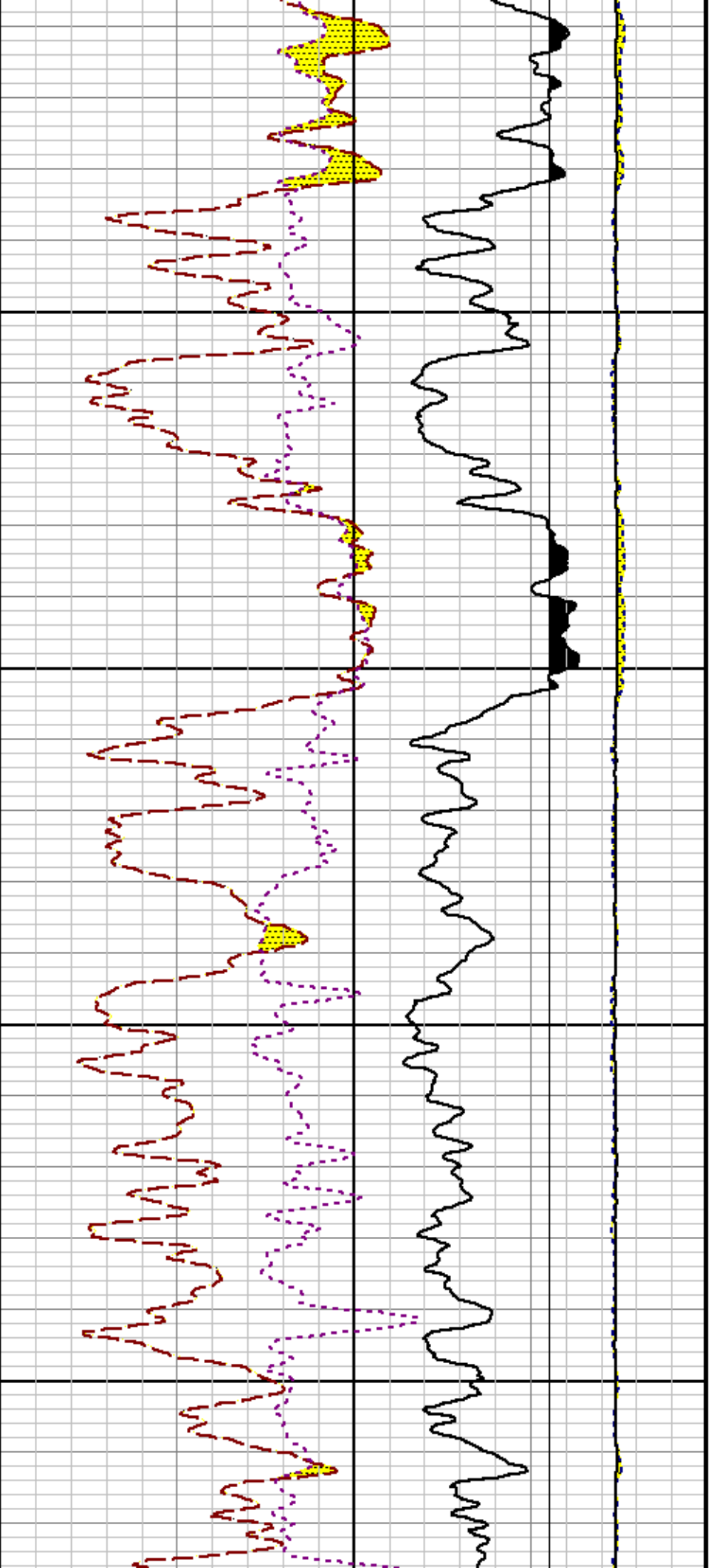


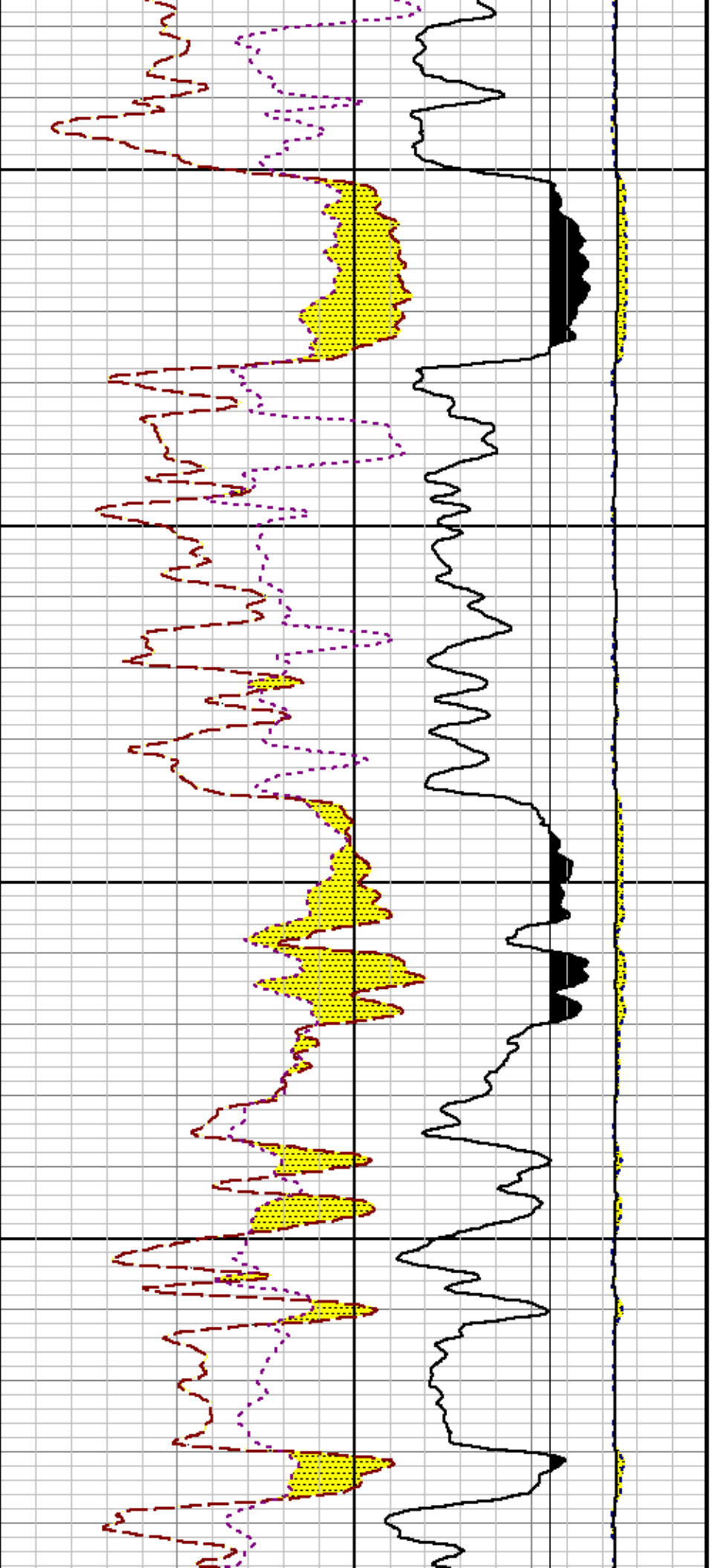
10400

10500

10600

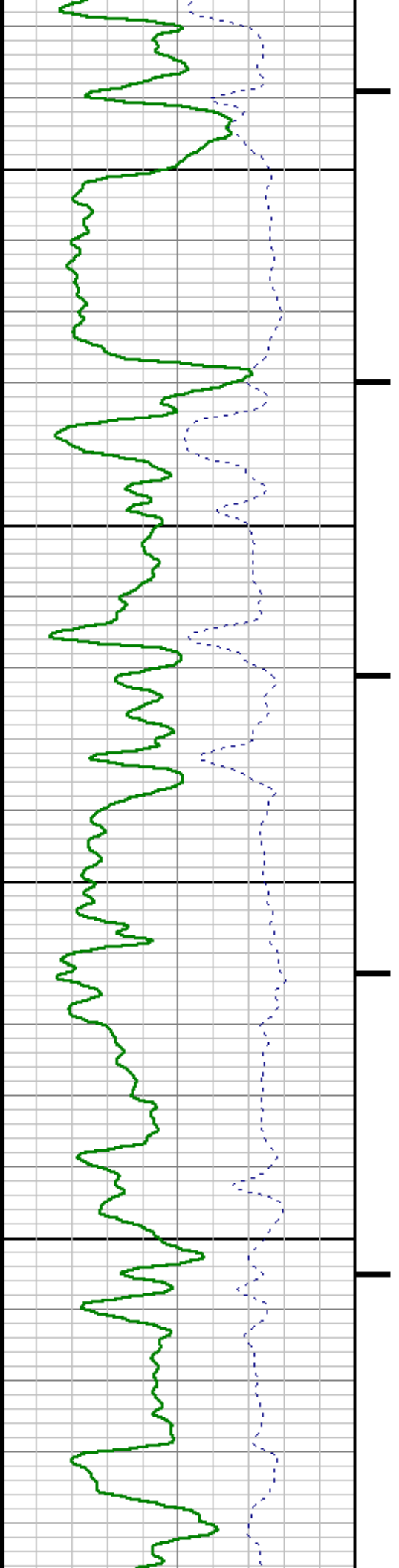


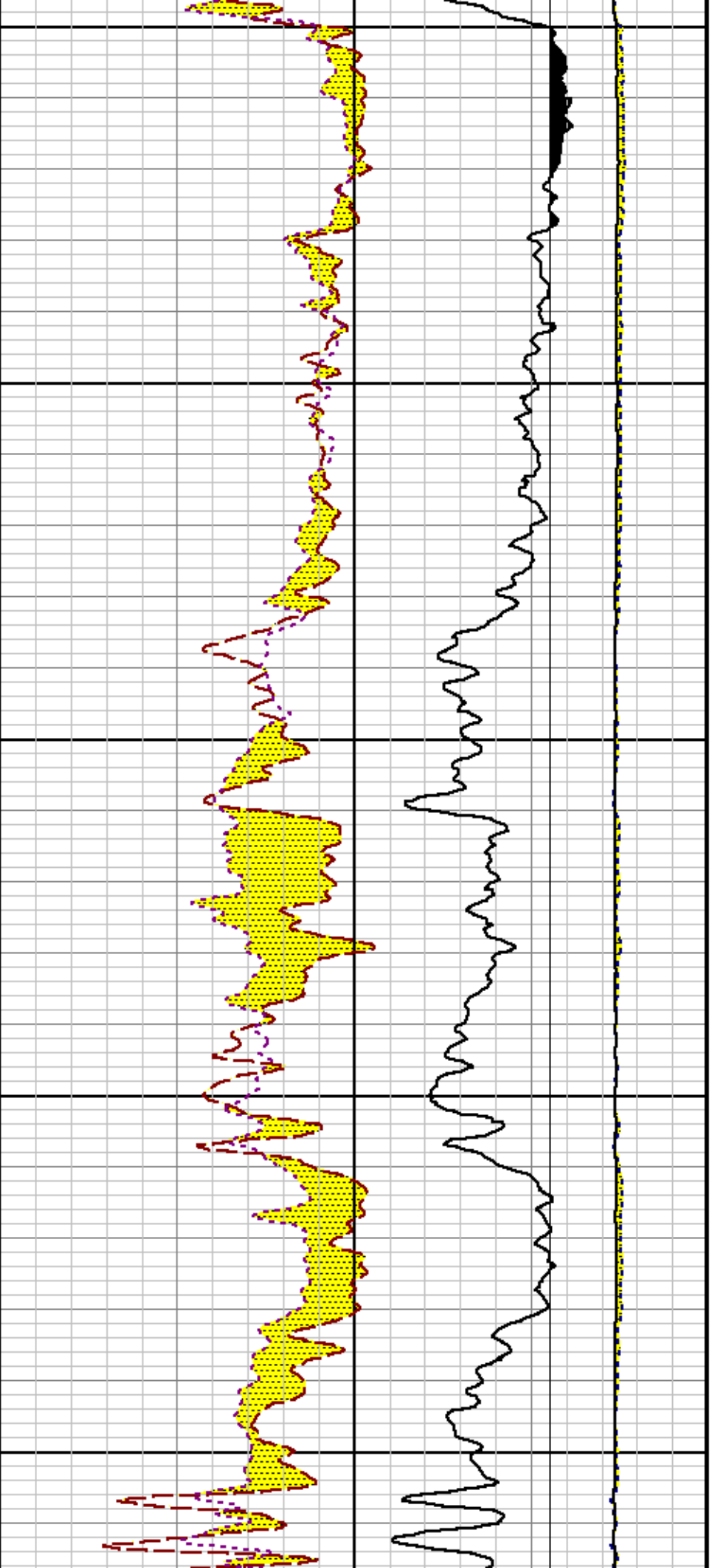




10900

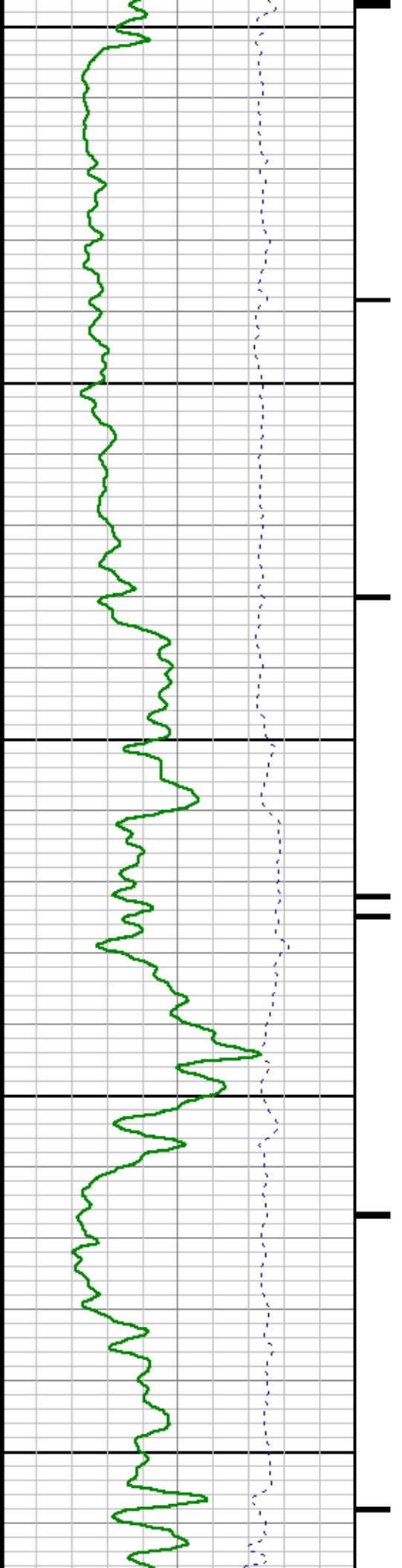
11000

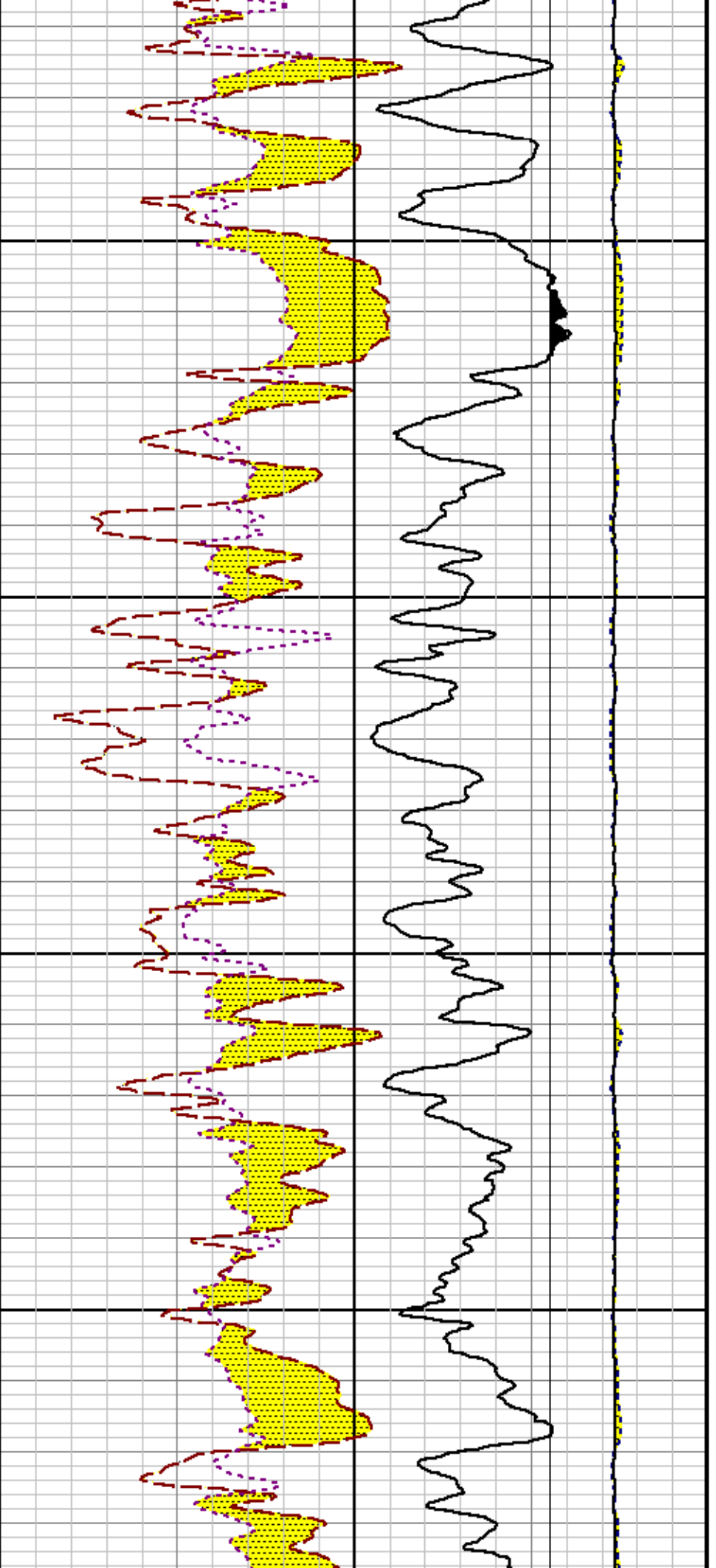




11100

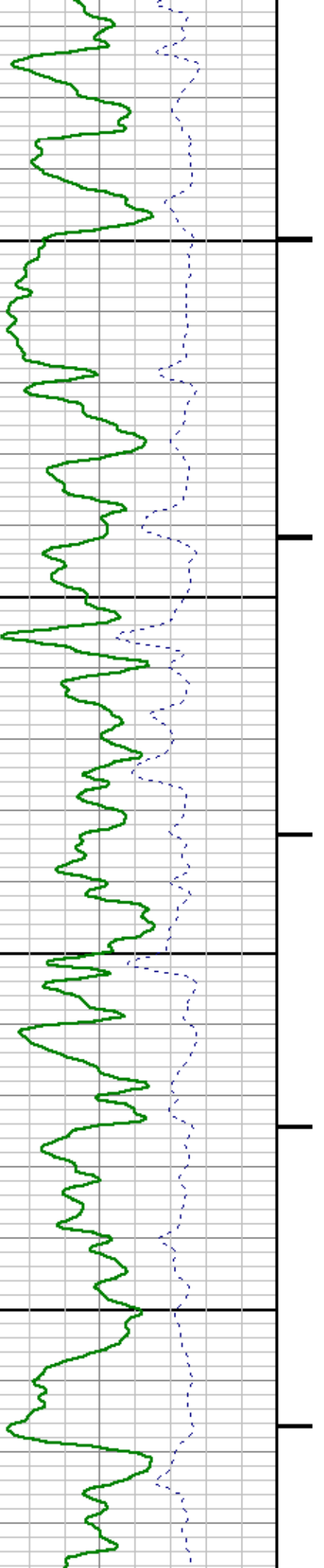
11200

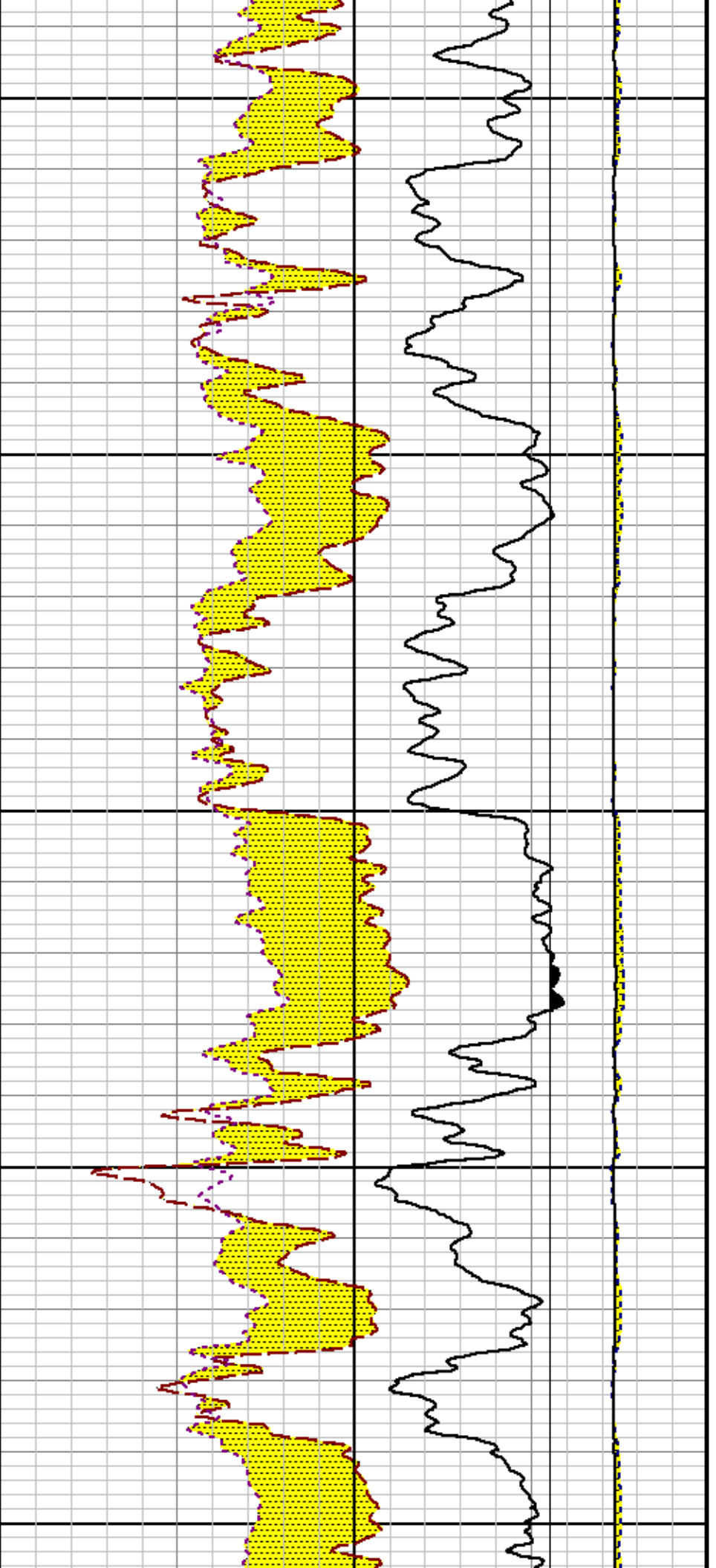




11300

11400

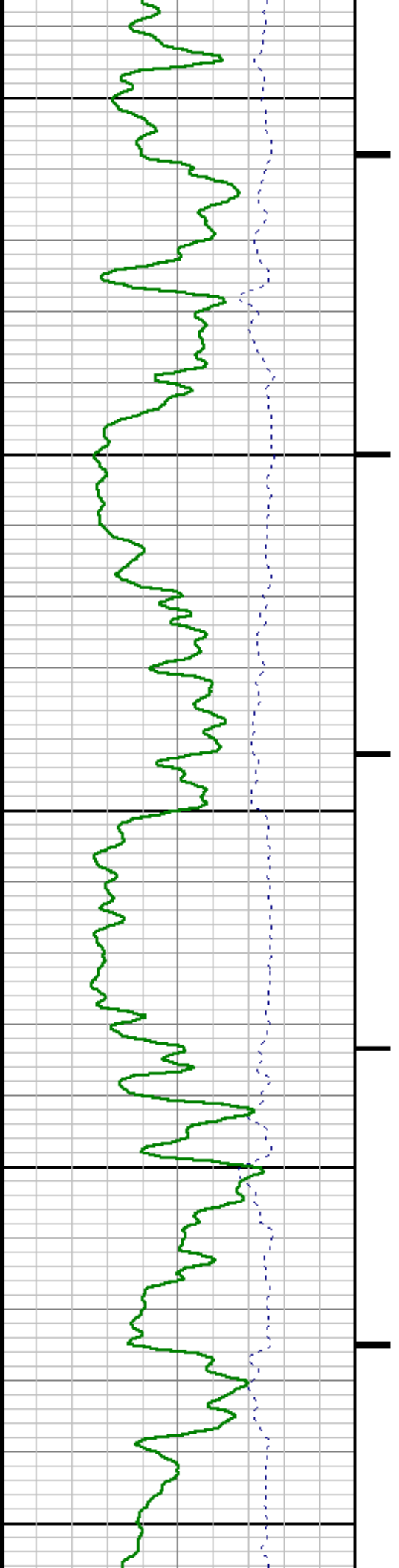


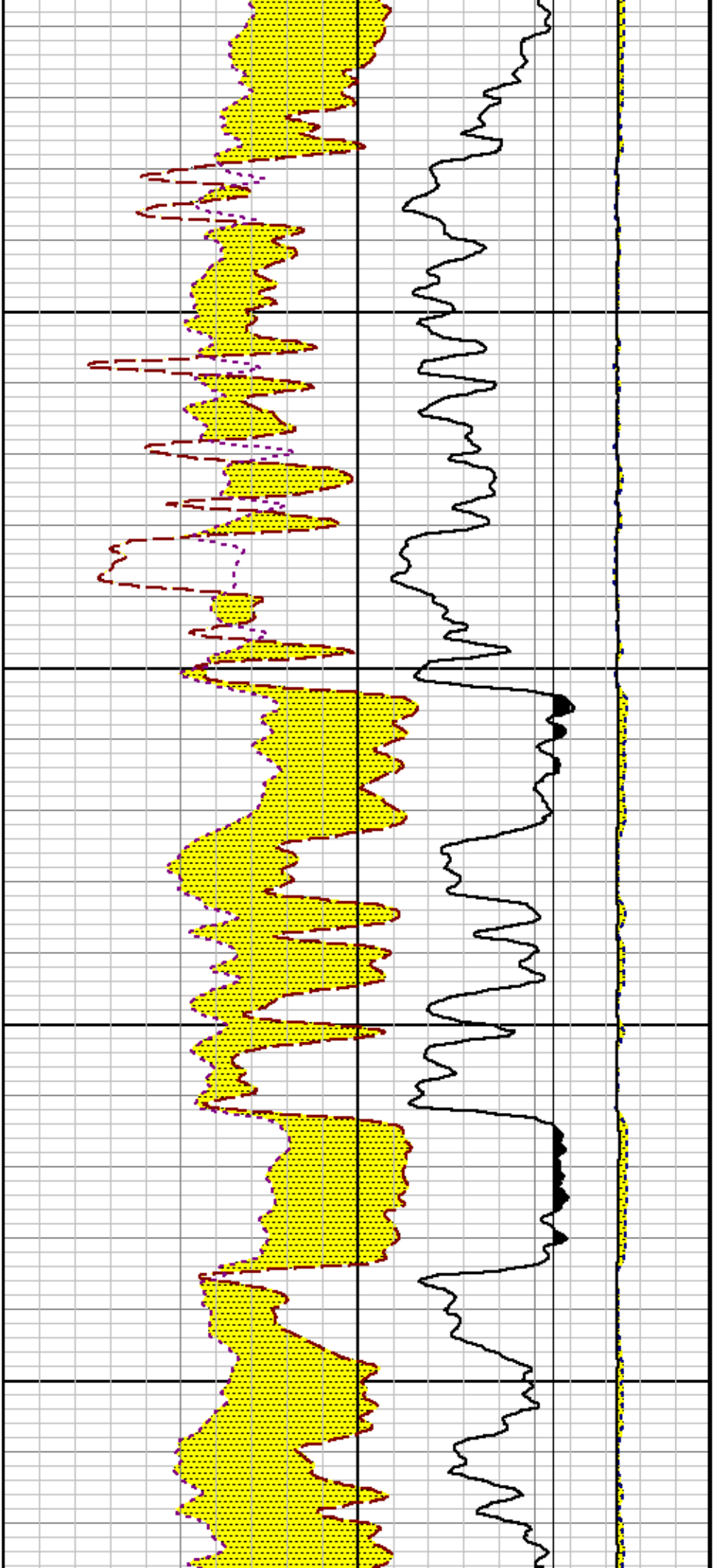


11500

11600

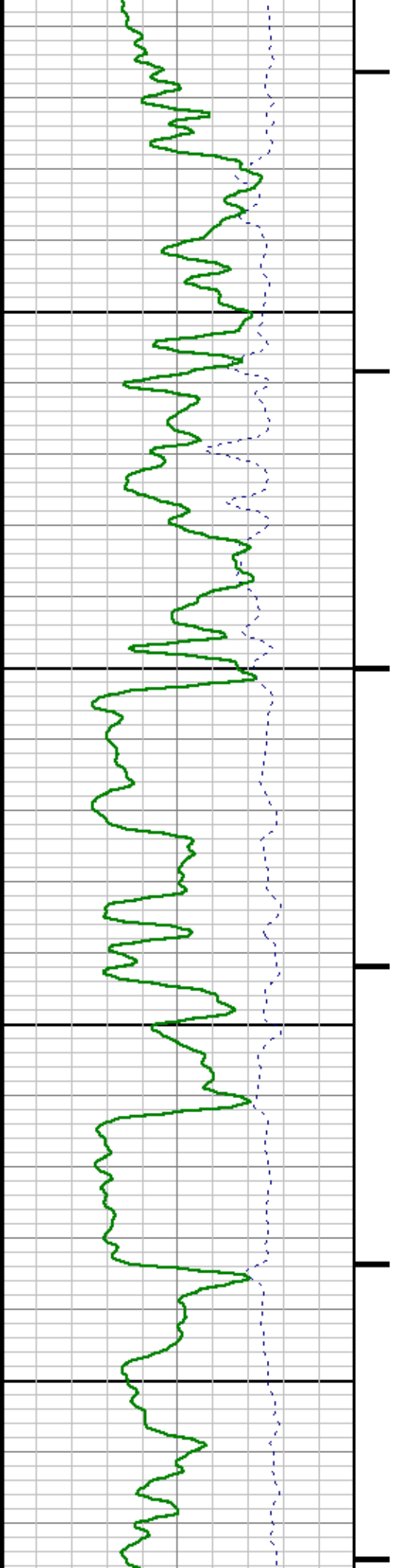
11700

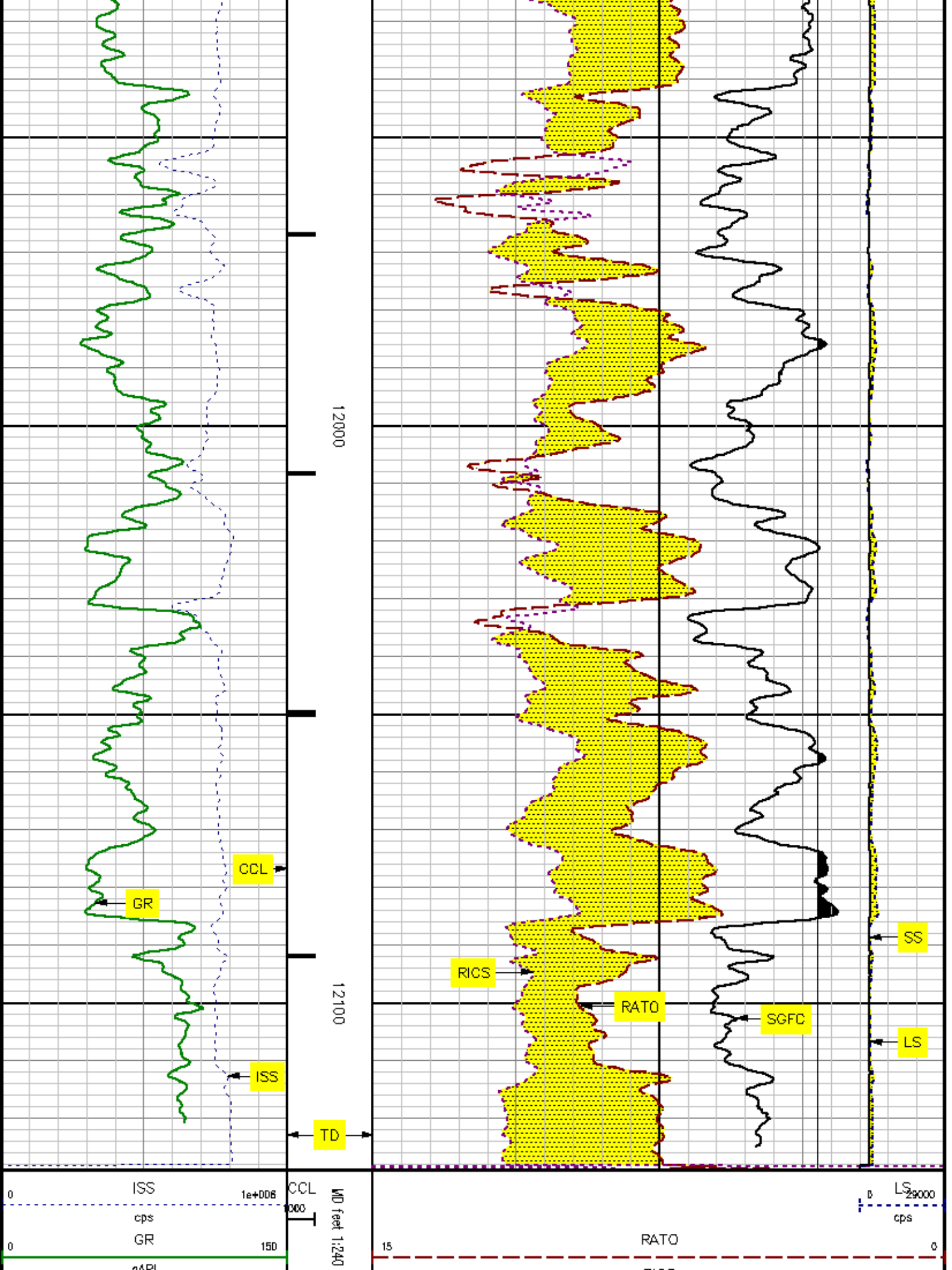




11800

11900





REPEAT SECTION
PNC 3-D MODE

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
PNC Porosity	Borehole	Cased		11649.750	12145.806
PNC Porosity	Borehole Size	6.125	inch	11649.750	12145.806
PNC Porosity	Casing Size	4.500	inch	11649.750	12145.806
PNC Porosity	Gas Filled	Non Gas Filled		11649.750	12145.806
PNC Porosity	Matrix	Sandstone		11649.750	12145.806

SERIES	DEPTH OFFSET	ACQUIRED CURVES
B248EA	-15.470	FLTM
B248EA	-13.470	OCL CHV
B262XA	-10.189	GR
B281XA	-0.662	HVC3Q0 SEQ3 AMA3 AML3 BKX GXS
		CPT3Q0 CPT3Q2 CPT3Q3 CPT3Q4 ET3 IXS
		MCS3 MCS3Q0 QCAL3 RGN3 RICK SDA3
		SDL3 SGA3 SGL3 STA3 XS ASPEC3
		AMB3 AMF3 CHF3 IXSC IXSN RATQ23
		RICKC RIN13C RIN23 RIN23C SD3D SG3D
		SGB3 SGF3 WIDTH3 CXSR IXSR XSR
		RICKR
B281XA	-0.250	HVC2Q0 SEQ2 AMA2 AMB2 AMF2 AML2
		BKL CHF2 CLS CPT2Q0 CPT2Q2 CPT2Q3
		CPT2Q4 ET2 ILS LS MCS2 MCS2Q0
		QCAL2 RGN2 RIN2 RIN2C SD3C SG3C
		SGB2 SGF2 WIDTH2 CXSR IXSR XSR
		RICKR

B2B1XA

0.000

QCAL2	RGN2	RTCL	RONE23	RTW023	SDA2
SDL2	SGA2	SGB2	SGF2	SGK2	SGL2
STA2	ASPEC2	ILSC	ILSN	WIDTH2	RICLC
CLSR	ILSR	LSR	RICLR		
CPR5	HVC1Q0	WV	SEQ	SEQ1	AMA1
AMB1	AME1	AMF1	AML1	BKS	CHF1
GSS	GORB	CORF	CPT1Q0	CPT1Q2	CPT1Q2A
CPT1Q2B	CPT1Q2C	CPT1Q3	CPT1Q4	CPT1Q5	ET1
G1	G2	GE1S	GE2S	ISS	MCS1
MCS1Q0	QA1	QCAL1	QM1	RAT0	RAT013
RBOR	RGN1	RICS	RIN	RONE	RPOR
RTW0	RIN13	RONE13	RTW013	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	WA	WVM	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	HOC	FE2XC	ISSC	RINC
ISSN	RDEN	WIDTH1	RICSC	CSSR	G1R
G2R	ISSR	SSR	SS2R	RATOR	RAT013R
RBORR	RICSR	RINR	RIN13R	RONER	RPORR
RTWOR					
SYSTEM		TEN	TTEN		

SYSTEM

0.000

Created by : RPM9, v5.0.0.0

Plotted by : PlotMgr, v5.4.504

Company : EXXONMOBIL PRODUCTION COMPANY

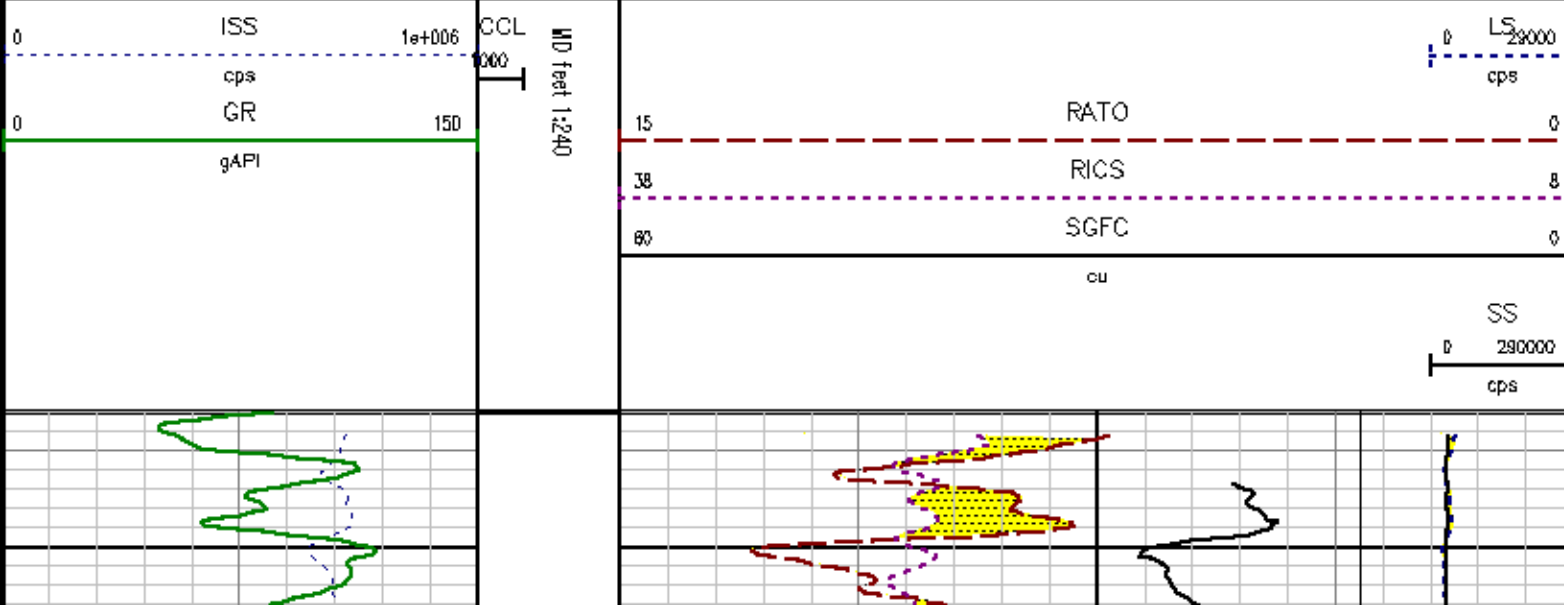
Well : FRU 197-33A6

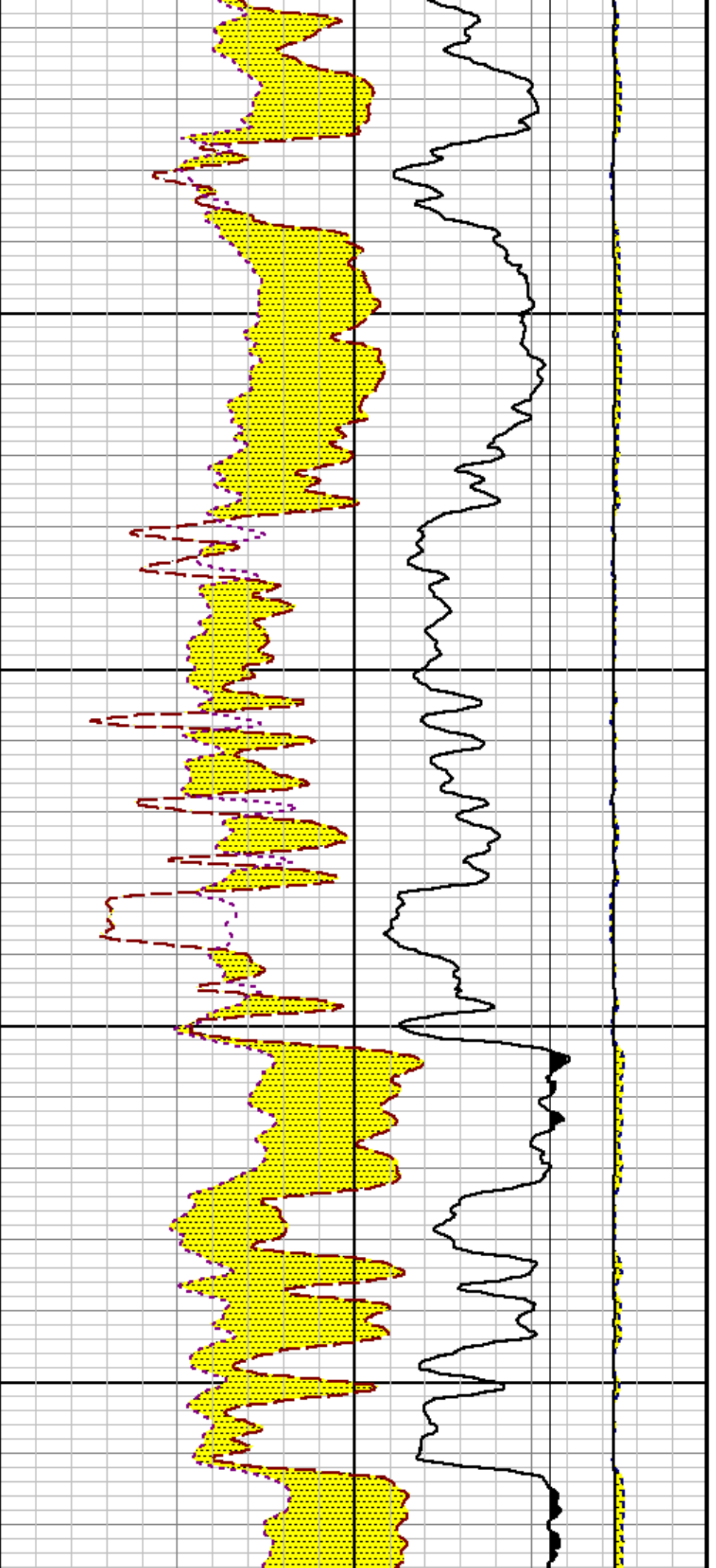
File Name : d:\well\data\rpma6\repeat.xtf

Mode : PlotMgr 5.4.504

Interval : 11636.00 - 12129.00 feet UP

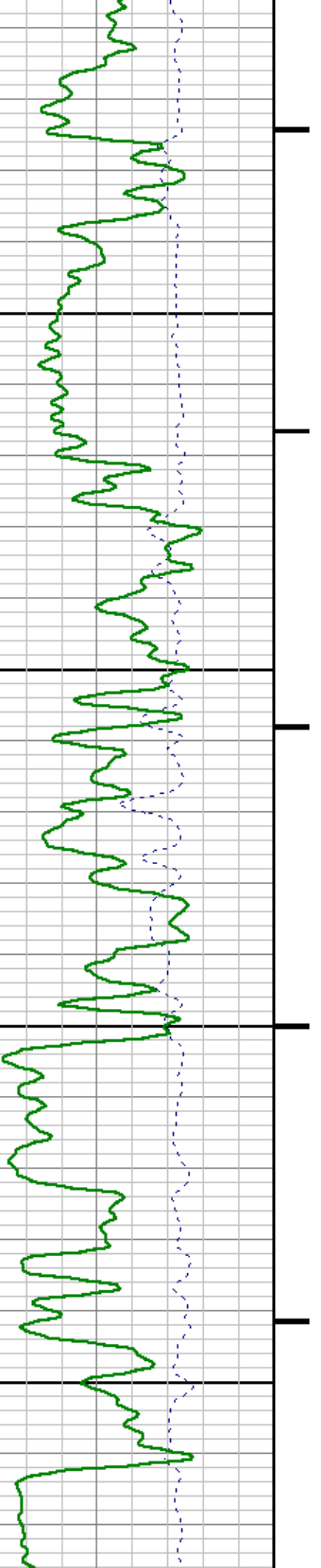
Created : 4/22/2010 12:02:22 PM

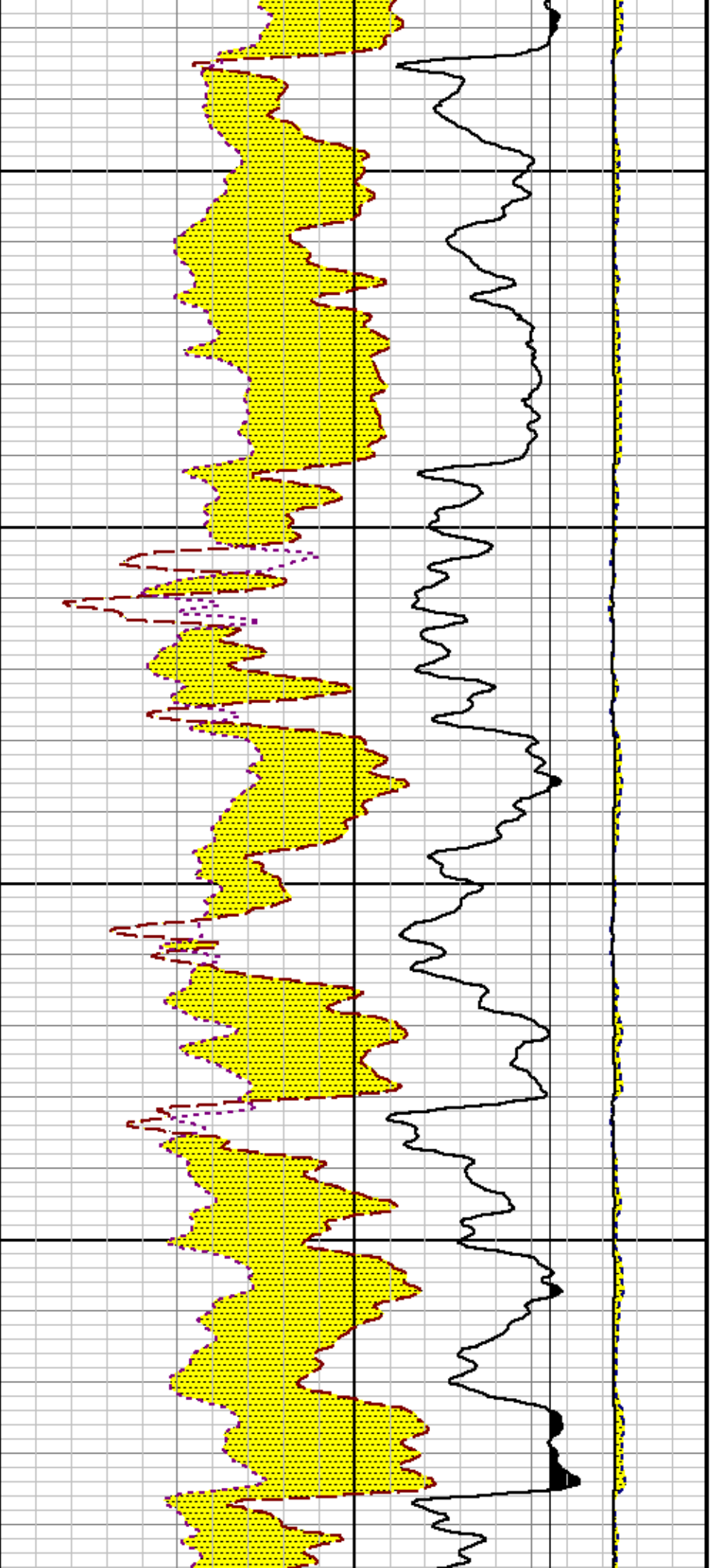




11700

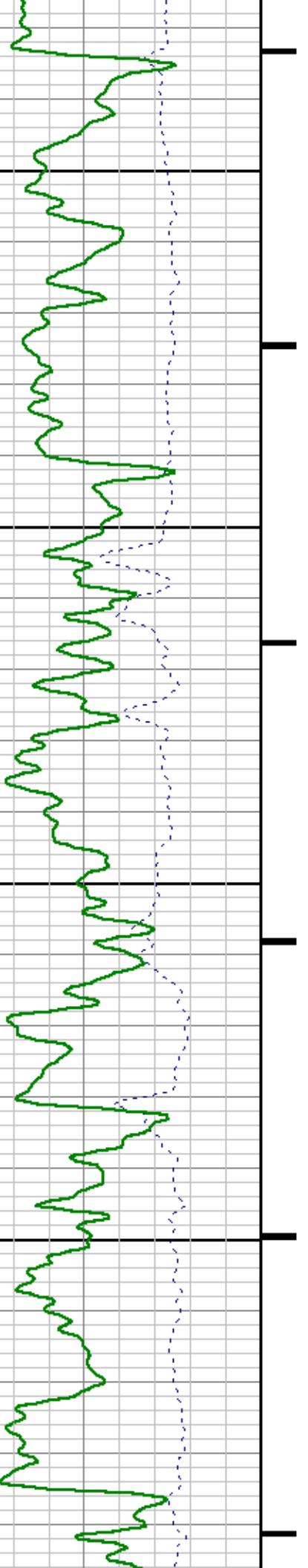
11800

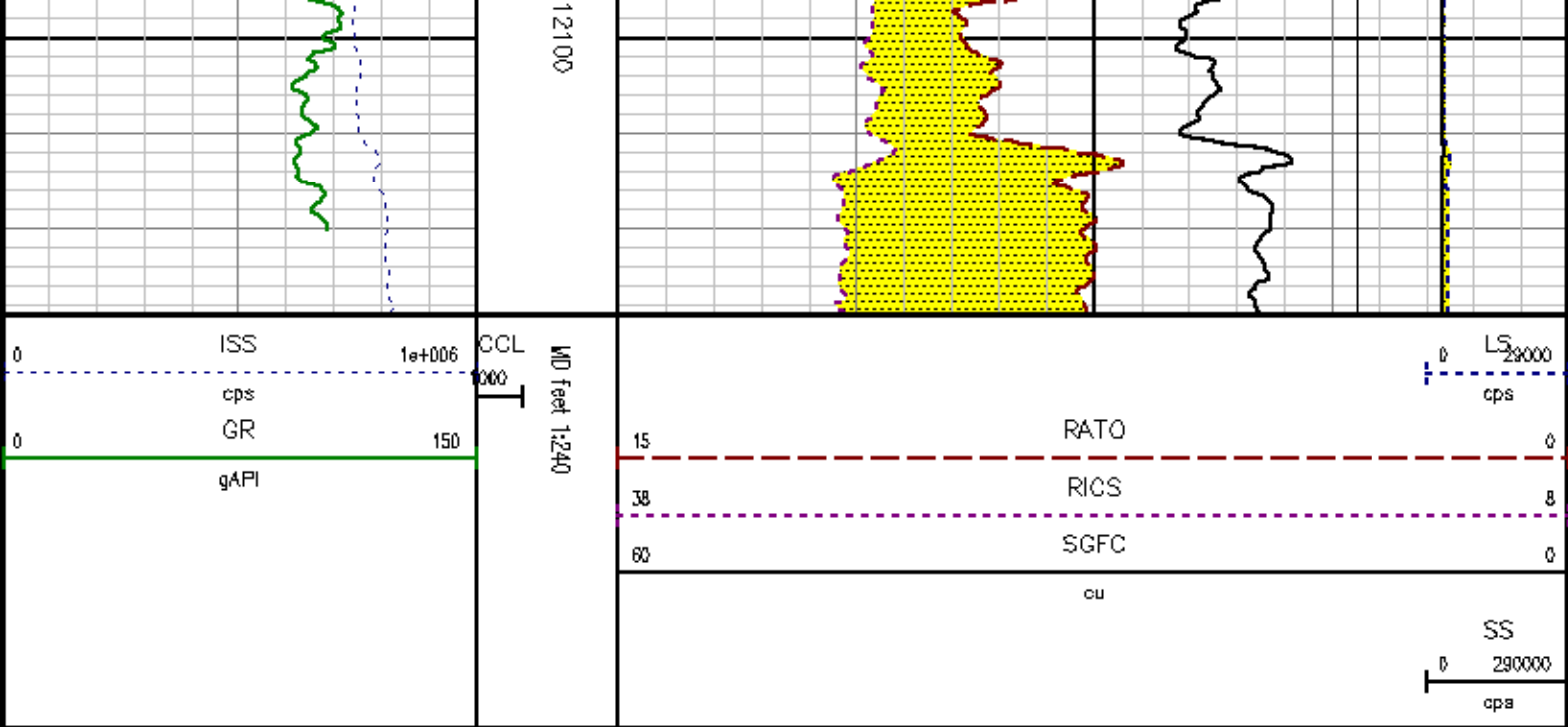




11900

12000





CALIBRATION SUMMARY

GAMMA RAY

Calibration File: C:\case\calver\GR\27064.cal

CALIBRATION SUMMARY

DATE/TIME PERFORMED:		Thu Apr 08 14:25:09 2010		TOOL SERIES:		B262XA		ASSET:		270		SEQ:		A4	
Calibrator #	Background [cps]	Calibrator On [cps]	Multiplicative	Background [api]	Calibrator On [api]	Differential [api]									
S2K DA905	65.22	402.31	0.534	34.83	214.83	180.00									

Verification File: C:\case\calver\GR\27064.VP

PRIMARY VERIFICATION

DATE/TIME PERFORMED:		Thu Apr 08 14:27:22 2010		TOOL SERIES:		B262XA		ASSET:		270		SEQ:		A4	
Calibrator #	Background [cps]	Calibrator On [cps]	Multiplicative	Background [api]	Calibrator On [api]	Differential [api]									
S2K DA905	67.73	399.91	0.534	36.17	213.55	177.38									

PNC

PNC 3D CALIBRATION SUMMARY

DATE/TIME PERFORMED: Fri Mar 26 11:57:30 2010 TOOL SERIES: B281XA ASSET: 555 SEQ: A1

Calibrator #

SHOP SHOP

Source #

B281AA 10591909

	ISS	Mtr Vlt (V)	SS Gain	LS Gain	XLS Gain	EA Temp (degF)	Sync Delay (usec)	RCAL
Raw Data	807340	124.00	2269.00	2267.00	2226.00	105.35	15.00	0.9681
Interpolated	1300000	147.47	2253.45	2260.87	2228.17			

	ISS	BKS	BKL	BKX	SGA1	SDA1	SGA2	SDA2
Raw Data	807340	8469.70	1336.32	561.38	26.00	0.13	24.47	0.26
					25.35 26.15	0.00 0.20	23.60 24.80	0.00 0.40

	ISS	ILS	IXS	SS	SS2	LS	CSS	CLS
Raw Data	807340	176708.13	27093.06	100158.80	35550.57	9177.70	60695.15	14758.51
Fit Quality %		1.34	1.10	1.21	1.23	1.24	1.15	1.30

	ISS	RBOR	RIN ISS/ILS	RIN13 ISS/IXS	RICS ISS/CSS	RATO SS/LS	RTWO SS2/LS	RONE CSS/CLS
Raw Data	807340	1.43	4.57	29.80	13.30	10.91	3.87	4.11
		1.42 1.45	3.55 5.21	22.20 32.10	10.99 16.34	10.06 11.10	3.57 3.95	3.76 4.22
Fit Quality %		0.02	0.06	0.17	0.13	0.08	0.11	0.14
Reduced	1405557	1.43	4.58	29.89	13.31	10.92	3.88	4.12
		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'

30.81'

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

GAMMA RAY

Series 8262XA
Mnemonic GR
Diameter 1.70"
Weight 15.00 lb
Length 3.02'

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

CCL MP 22.72'

GR MP 19.59'

XLS DETECTOR 12.82'

LS DETECTOR 9.84'

SS DETECTOR 9.62'

0.00'

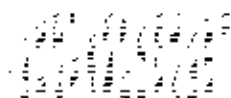
Total Length: 30.81'

Total Weight: Not Available

Max Diameter: 0' 1.70"



Baker Atlas



Company EXXONMOBIL PRODUCTION COMPANY

Well FRU 197-33A6

Field PICEANCE CREEK

County RIO BLANCO State COLORADO

Location

SHL: 816' FSL 82368' FEL

Elevations

KB 6417.4 ft

DF 6416.4 ft

GL 6388 ft

SEC 33 TWP 1S RGE 97W

File No:

1724

API No:

06103115360000