



RESERVOIR PERFORMANCE MONITOR

Baker Atlas

File No: _____ Company **EXXONMOBIL PRODUCTION COMPANY**
 Well **PCU 197-36 A5**
 API No: _____ Field **PIGEANCE CREEK**
 05103111840000 County **RIO BLANCO** State **COLORADO**

Location **SHL: 1849' FSL & 2615' FWL**
 SEC **36** TWP **1S** RGE **9W**
 Other Services **3.70 GUAGE/JUNK BASKET BOND LOG**

Permanent Datum **GL 7114 ft** Elevations **KB 7144.2 ft**
 Log Measured From **KB 30.2 ft** Above P. D. **DF 7143.2 ft**
 Drill Measured From **KELLY BUSHING** **GL 7114 ft**

Date	25 SEP 2010	
Run	ONE	
Service Order	574368	
Depth Driller	13620 ft	
Depth Logger	13499 ft	
Bottom Logged Interval	13496 ft	
Top Logged Interval	7619 ft	
Time Started	18:30	
Time Finished	07:00	
Operator Rig Time	13.5 hrs	
Type of Fluid in Hole	WATER	
Fluid Density	N/A	
Salinity	N/A	
Fluid Level	FULL	
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	25 SEP 2010	
Equipment No.	Location	G.J., COLORADO
Recorded By	J. OSTLER	
Witnessed By	MR. MIKE SADLER	

- 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.

Bit Size	From	To
9.875 In	SURFACE	9208 ft
6.125 In	SURFACE	13620 ft

Size	Weight	Grade	From	To
7 In	26 lbm/ft	P-110	SURFACE	9208 ft
4.5 In	15.1 lbm/ft	P-110	SURFACE	13620 ft

Remarks

LOG WAS TIED INTO A BAKER ATLAS BOND LOG

WELL WAS LOGGED IN PNC 3-D MODE

SHORT JOINTS AT:

8323' TO 8331'

9391' TO 9399'

10401' TO 10409'

11519' TO 11526'

12595' TO 12602'

Equipment Data

Run	Trip	Tool	Series Number	Serial Number	Position
1	1	RPM	8281FA	10191667	FREE
1	1	RPM	8281PA	10455231	FREE
1	1	RPM	8281EA	10189250	FREE
1	1	GR	8262XA	10317216	FREE
1	1	TEL/CCL	8248EA	387150	FREE
1	1	PCM	8250EA	UNKWN	FREE

***MAIN SECTION
PNC 3-D MODE***

SPL PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
PNC Porosity	Borehole	Cased		7579.250	13511.468
PNC Porosity	Borehole Size	9.875	inch	7579.250	9208.000
PNC Porosity	Borehole Size	6.125	inch	9208.000	13511.468
PNC Porosity	Casing Size	7.000	inch	7579.250	9208.000
PNC Porosity	Casing Size	4.500	inch	9208.000	13511.468
PNC Porosity	Gas Filled	Non Gas Filled		7579.250	9208.000
PNC Porosity	Gas Filled	Non Gas Filled		9208.000	13511.468
PNC Porosity	Matrix	Sandstone		7579.250	13511.468

DEPTH OFFSETS

(for Acquired Curves)

SERIES	DEPTH OFFSET	ACQUIRED CURVES
8248EA	-15.320	FLTM
8248EA	-13.320	CCL CHV
8262XA	-10.189	GR
8281XA	-0.662	HVC3Q0 SEQ3 AMA3 AML3 BKX CXS CPT3Q0 CPT3Q2 CPT3Q3 CPT3Q4 ET3 IXS H227 H22700 00117 00117 00117 00117

8281XA -0.250

MCS3	MCS3Q0	QCAL3	RGN3	RTCX	SDA3
SDL3	SGA3	SGL3	STA3	XS	ASPEC3
AMB3	AMF3	CHF3	IXSC	IXSN	RAT023
RICXC	RIN13C	RIN23	RIN23C	SD3D	SG3D
SGB3	SGF3	WDTH3	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	RTW023	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	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	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	HOC	FE2XC	ISSC	RINC
ISSN	RDEN	WDTH1	RICSC	CSSR	G1R
G2R	ISSR	SSR	SS2R	RATOR	RAT013R
RBORR	RICSR	RINR	RIN13R	RONER	RPORR
RTWOR					

SYSTEM 0.000

TEN TTEN

Created by : RPM9, v5.3.1.0

Plotted by : PlotMgr, v5.4.504

Company : EXXON MOBIL PRODUCTION COMPANY

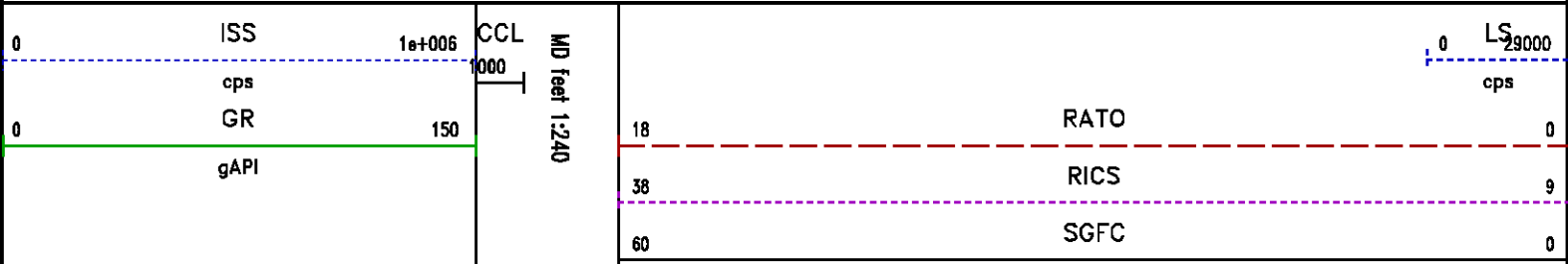
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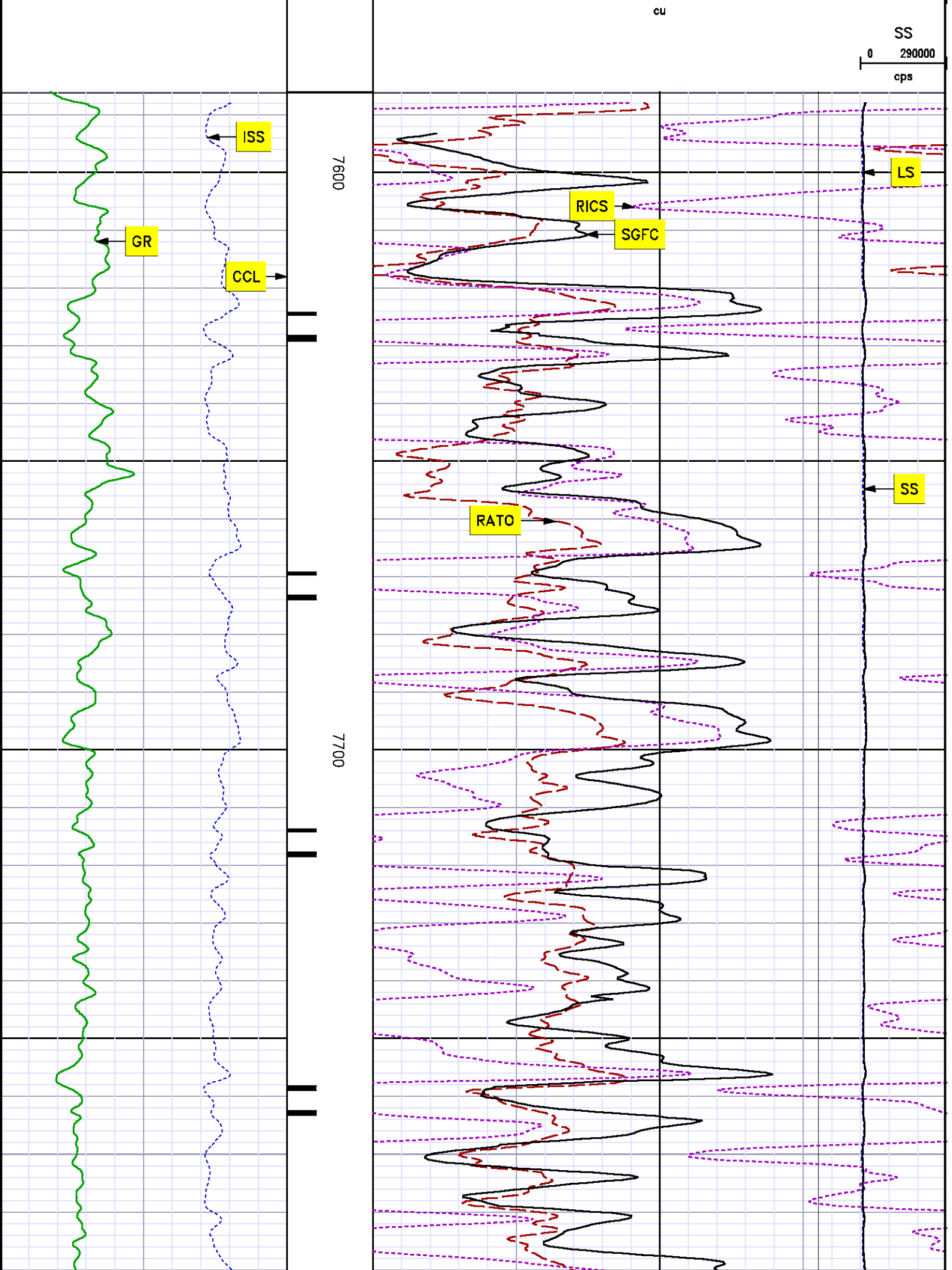
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Mode : PlotMgr 5.4.504

Interval : 7586.00 - 13504.00 feet UP

Created : 9/26/2010 6:16:55 AM





SS

0 290000

cps

7600

7700

ISS

GR

CCL

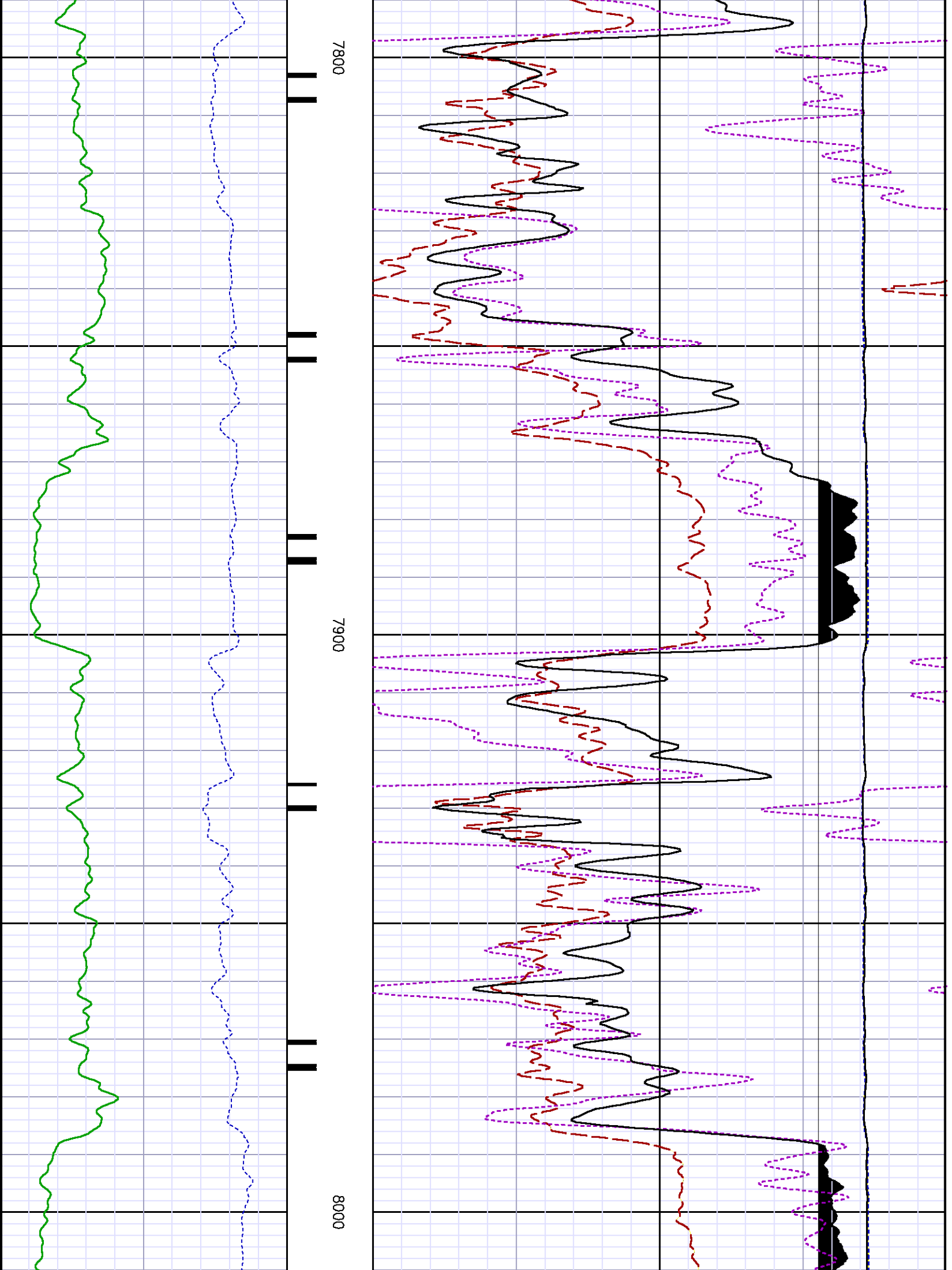
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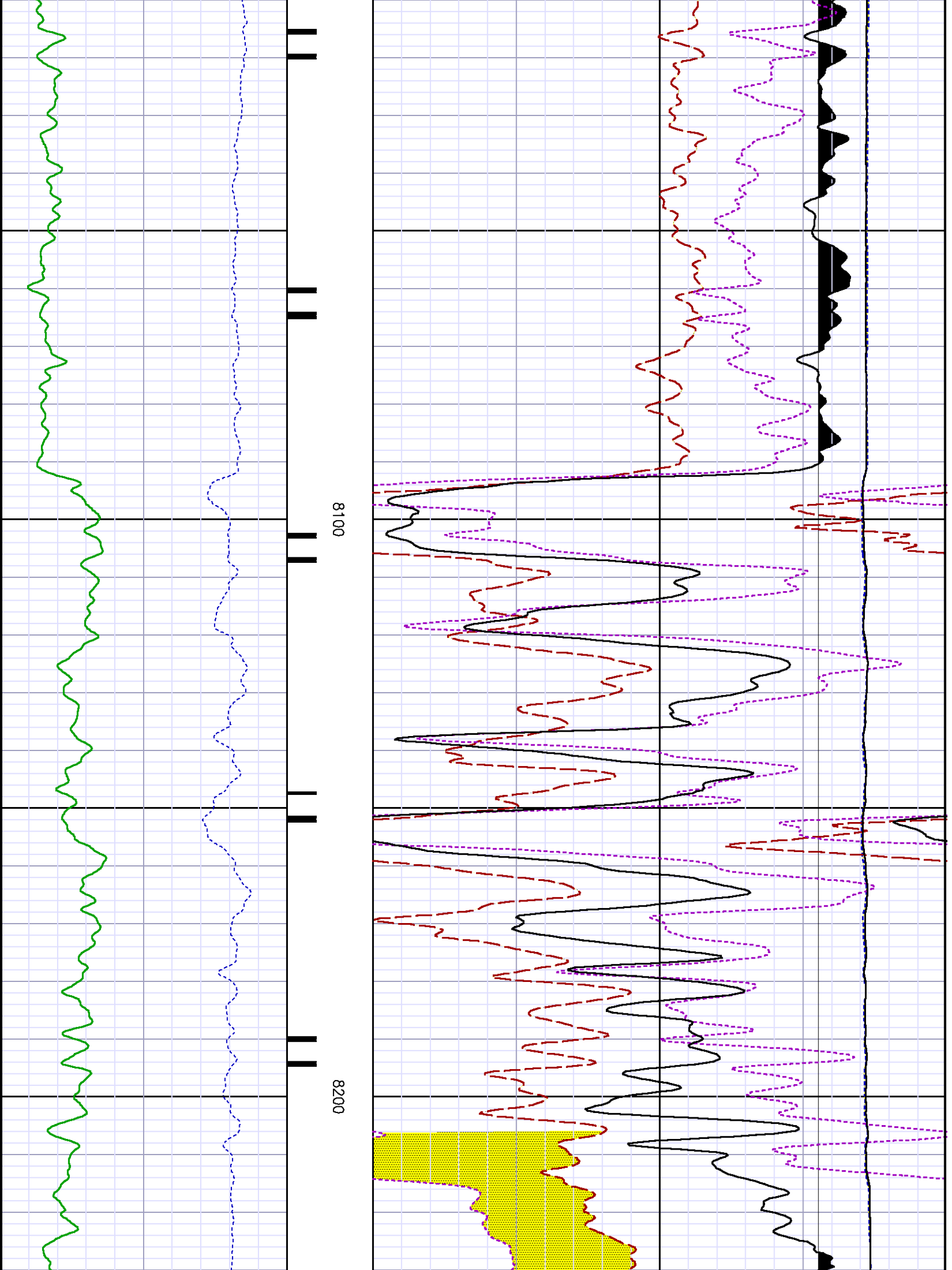
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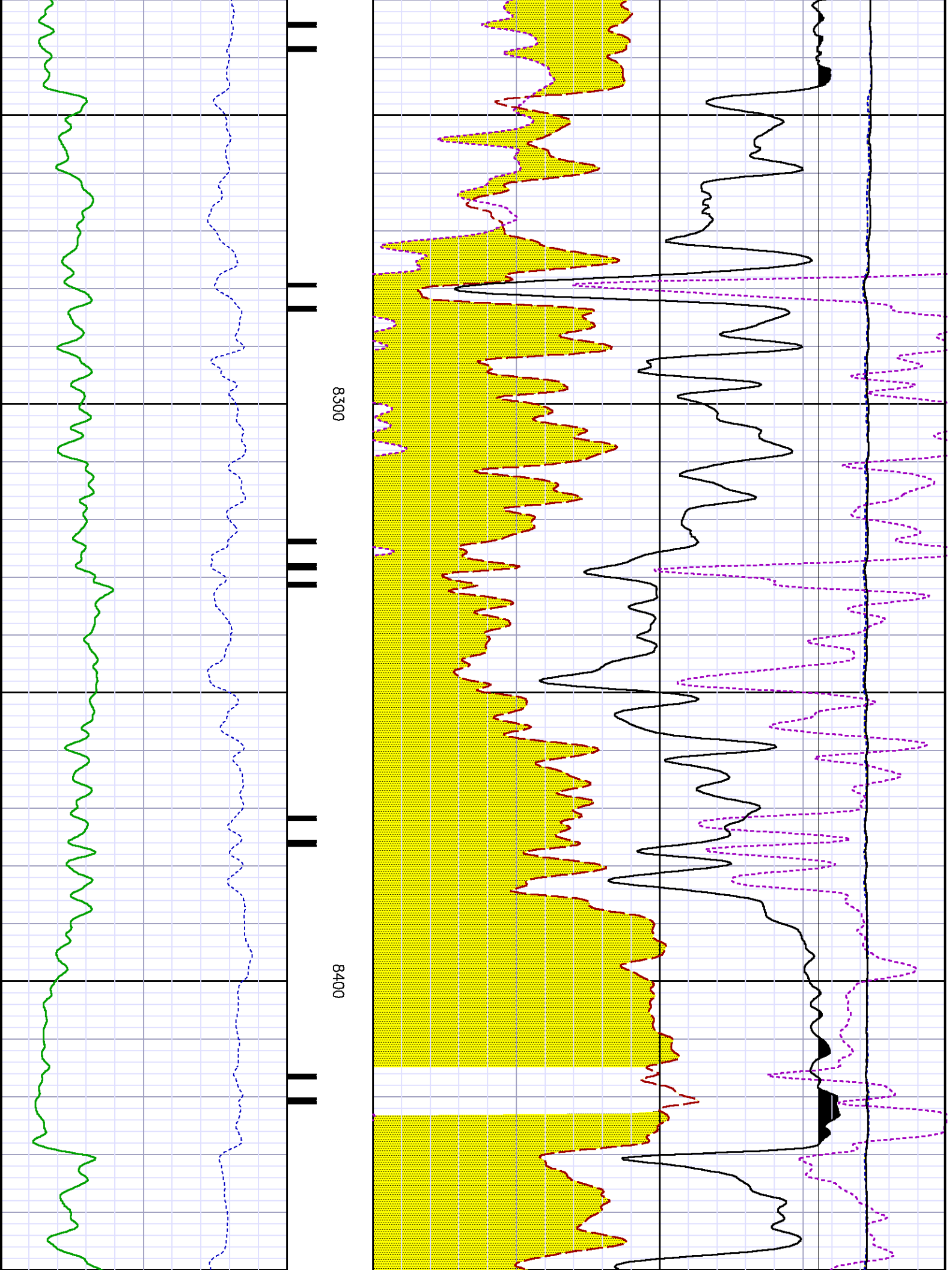
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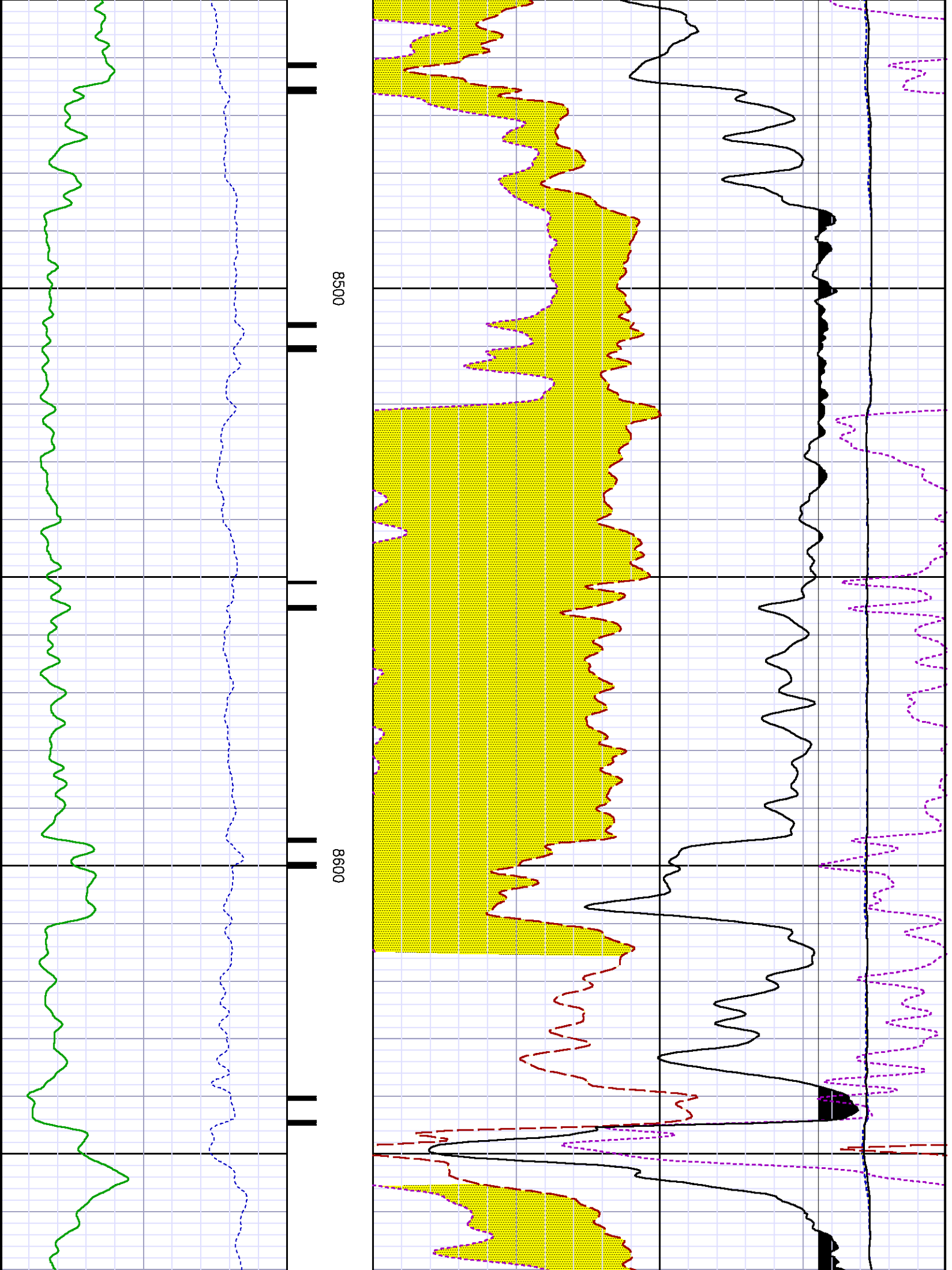
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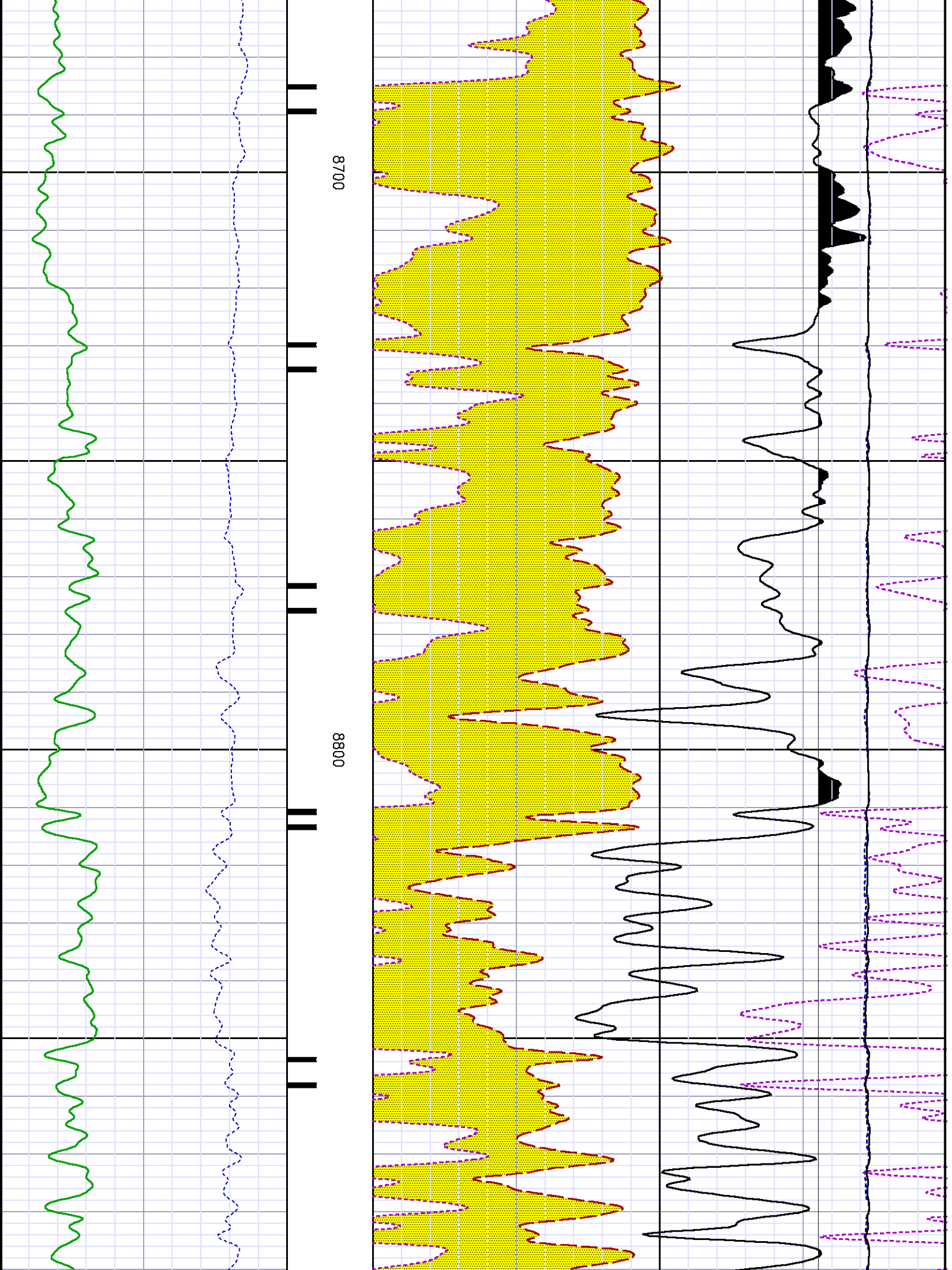
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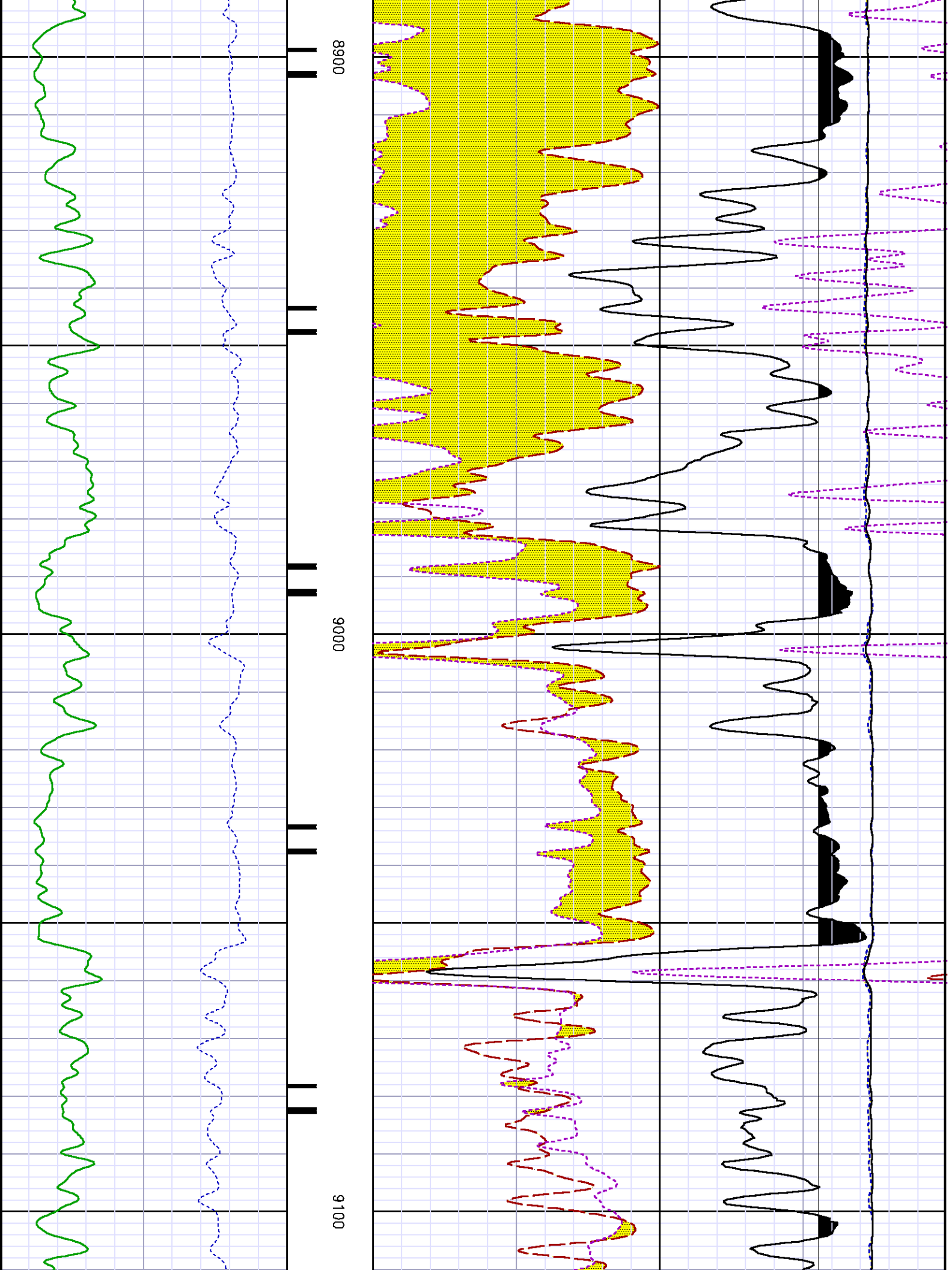


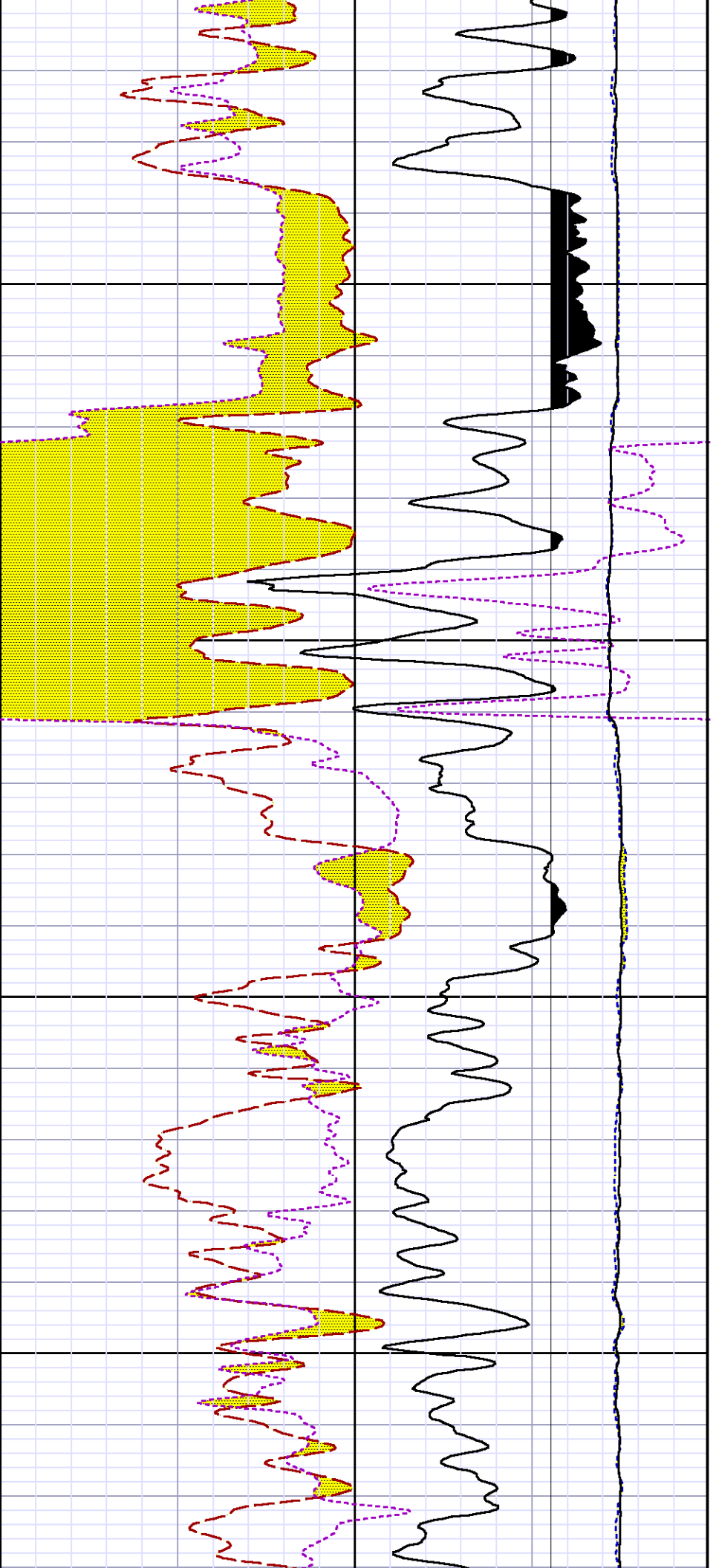






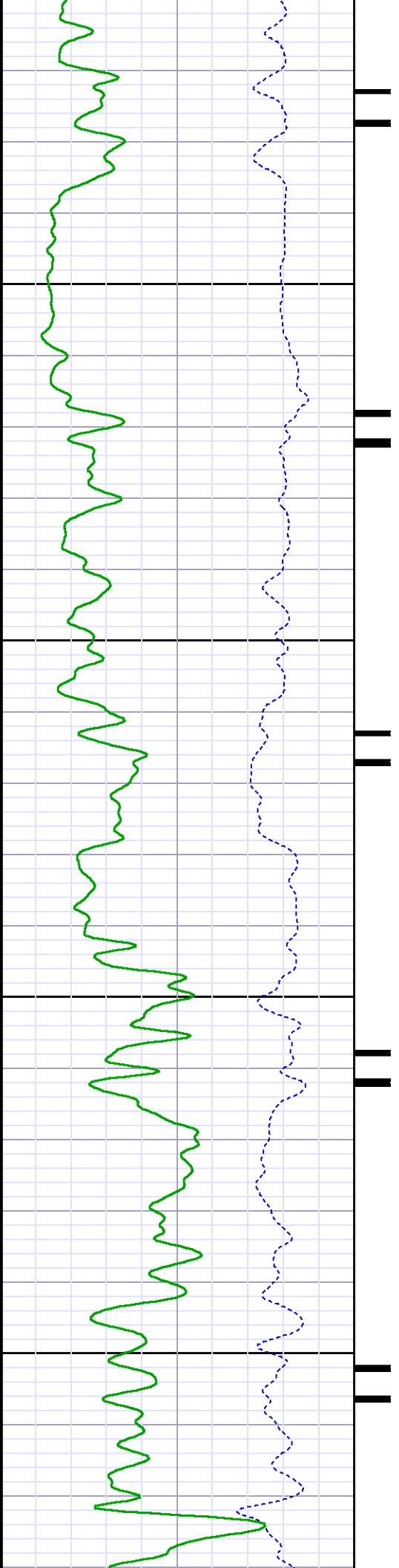


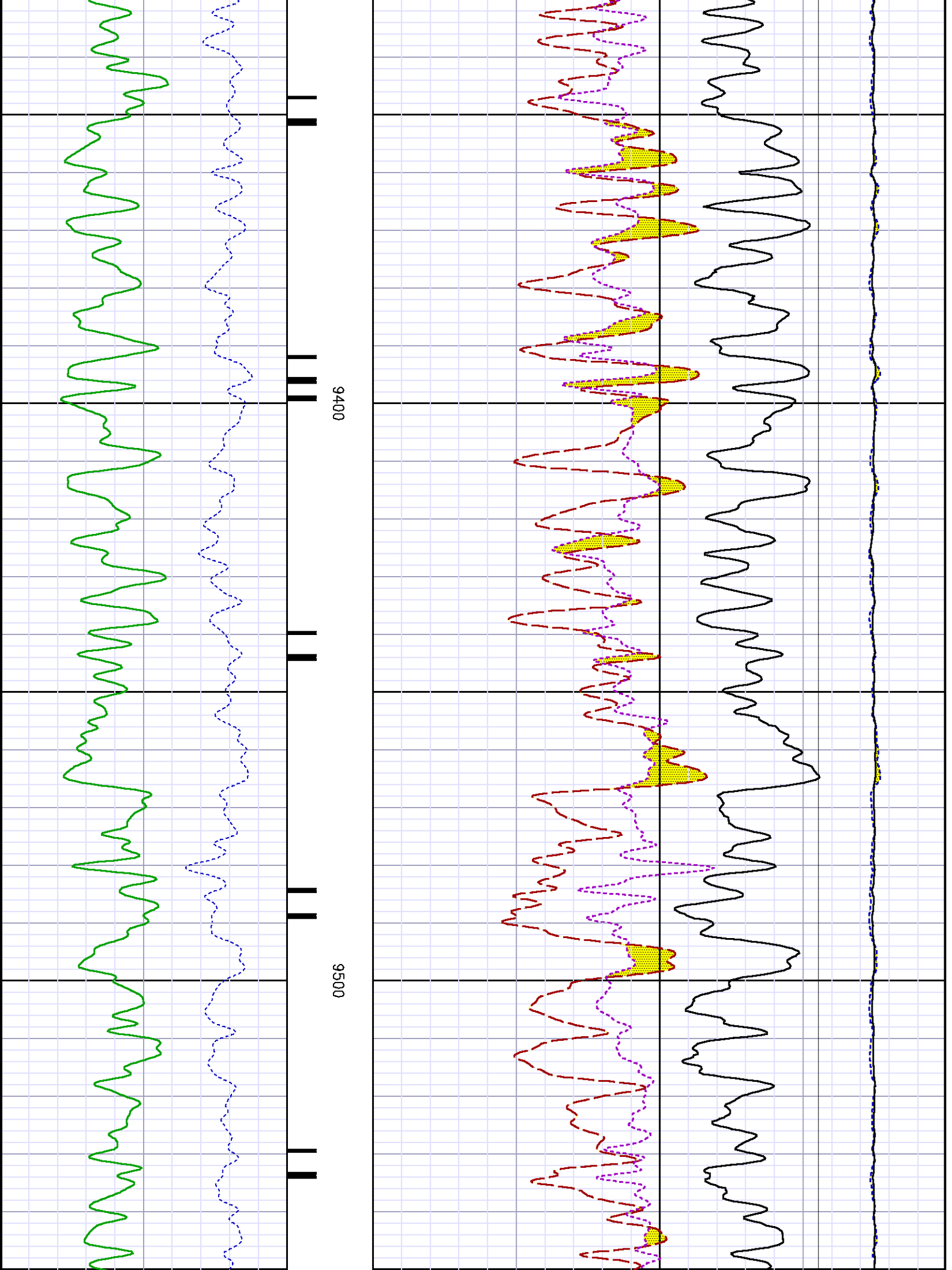


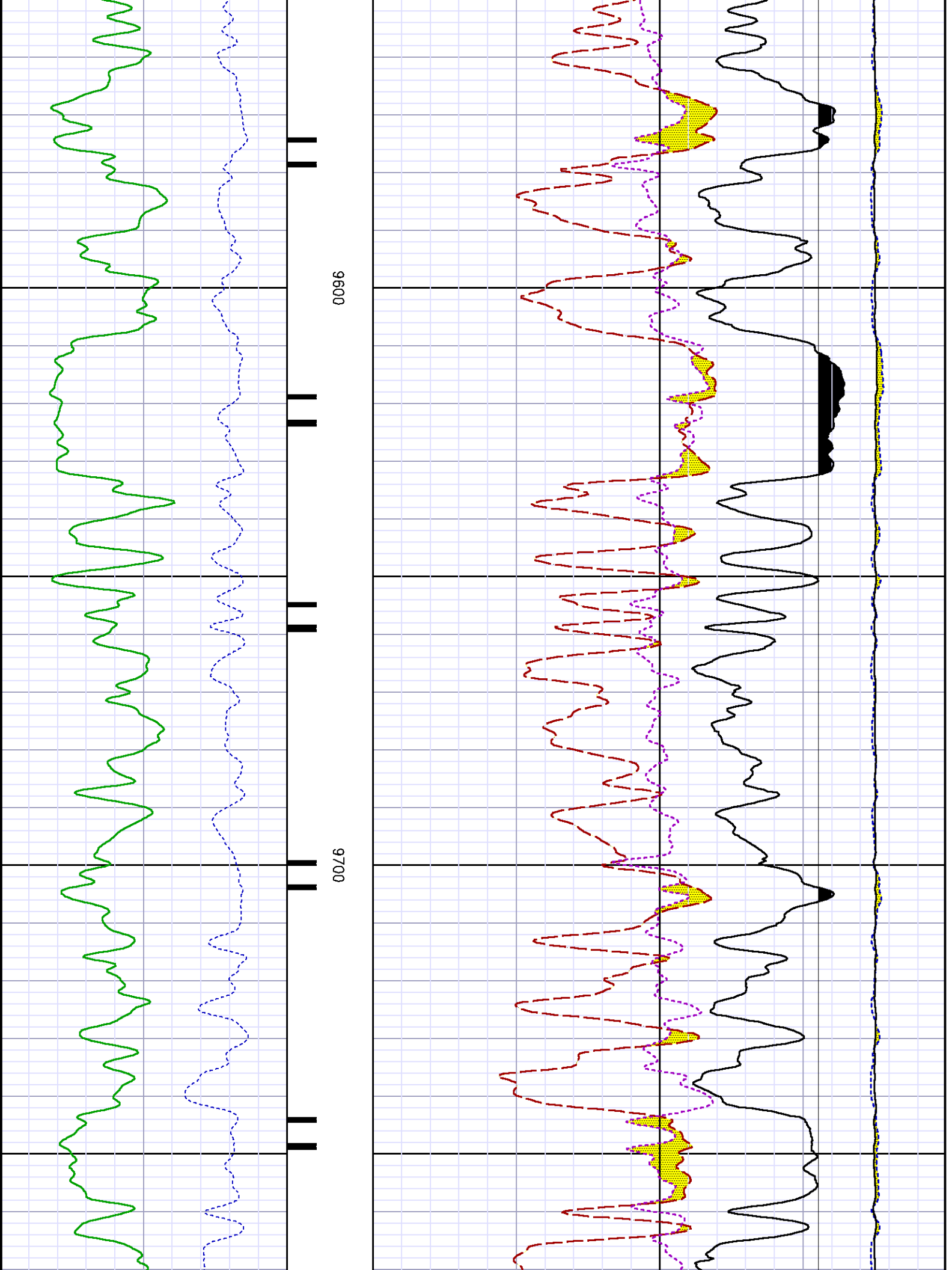


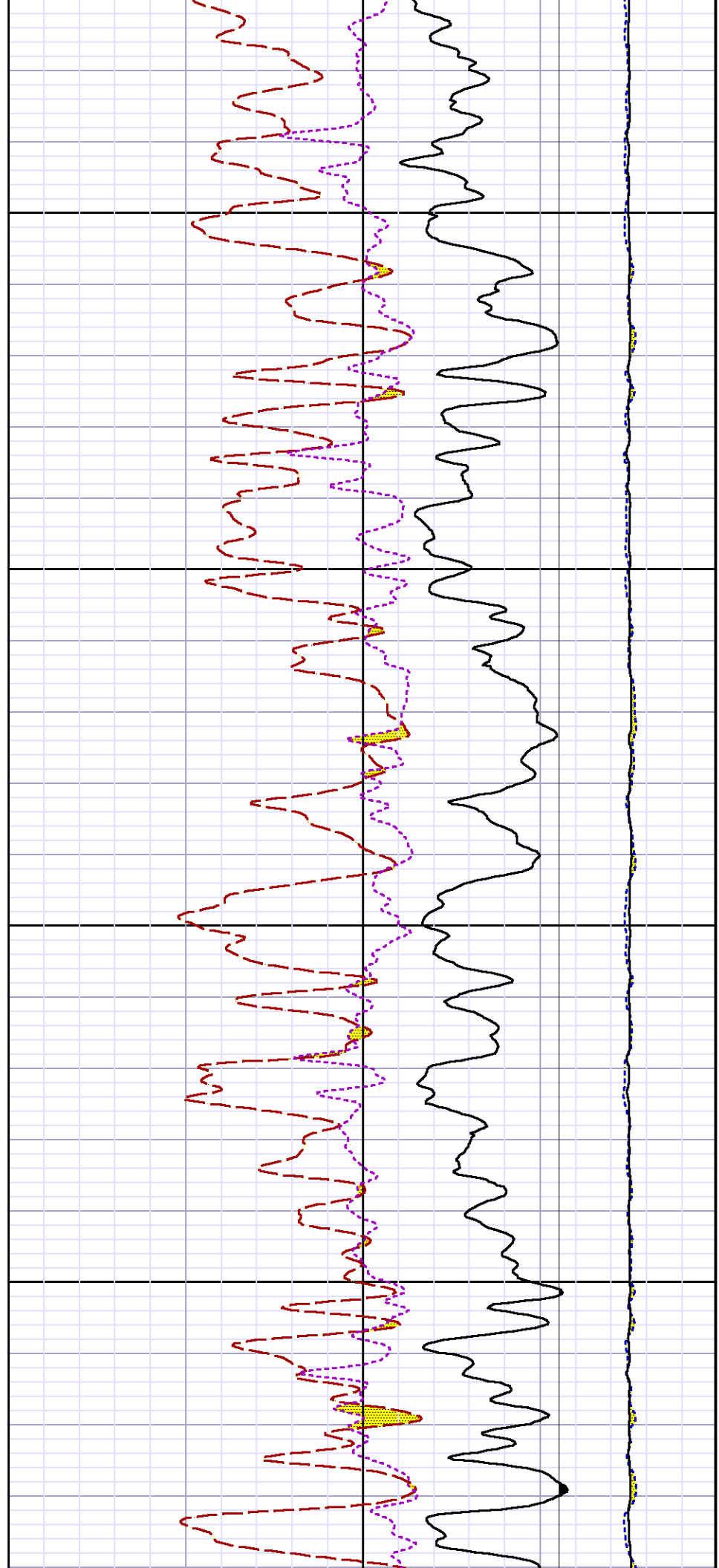
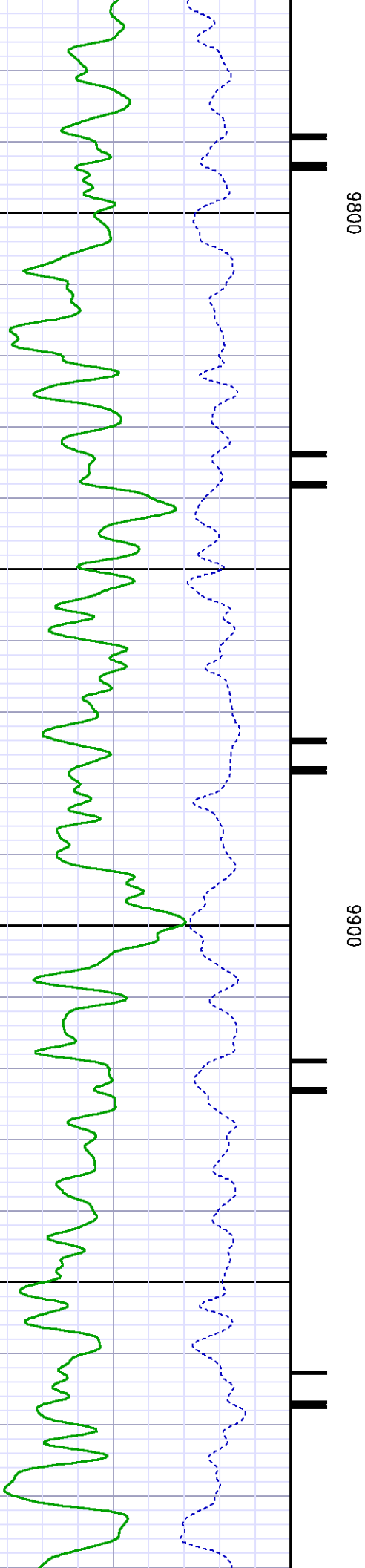
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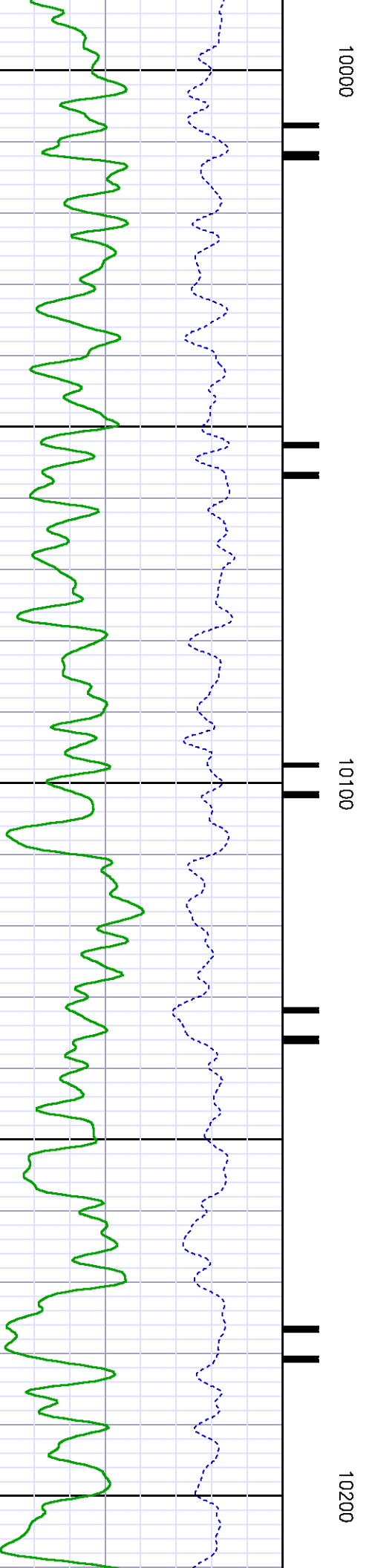
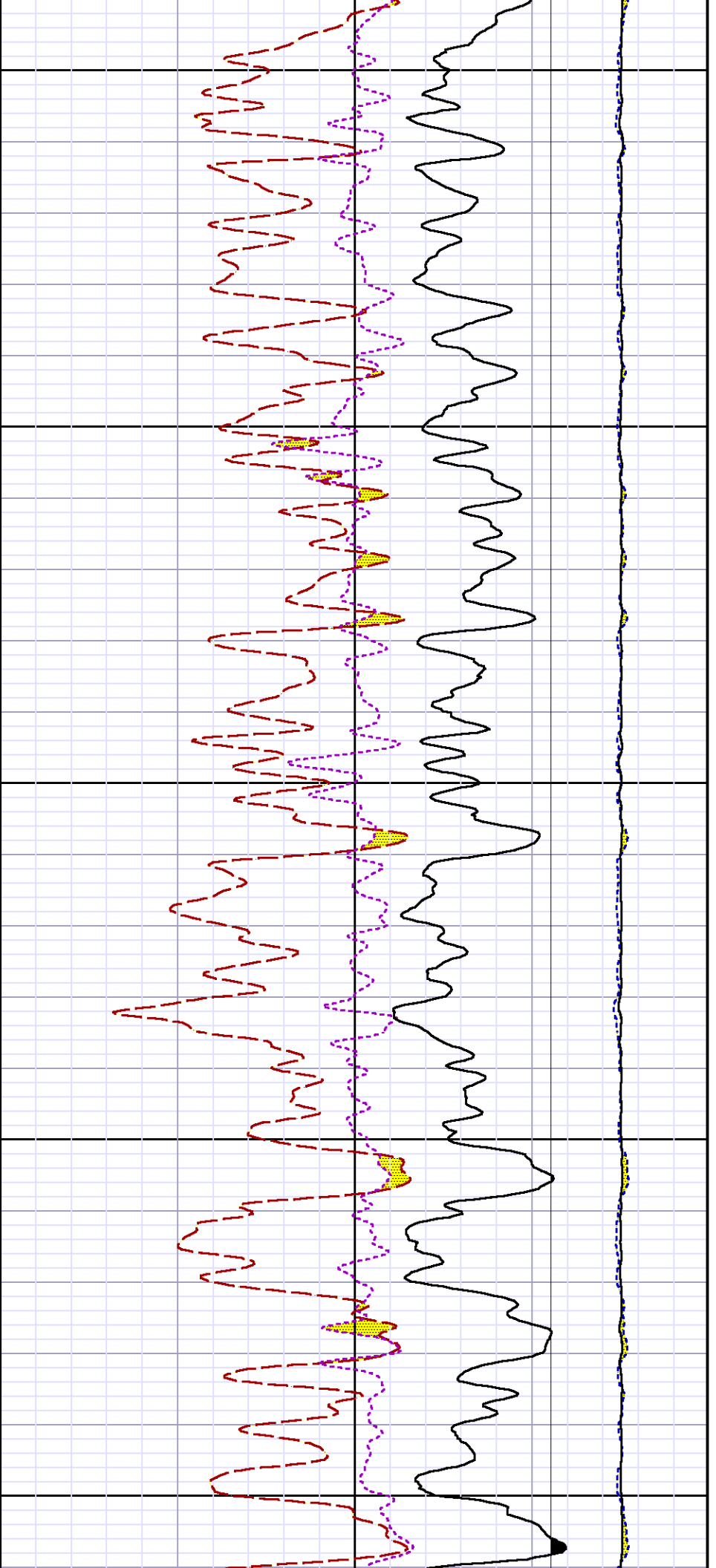
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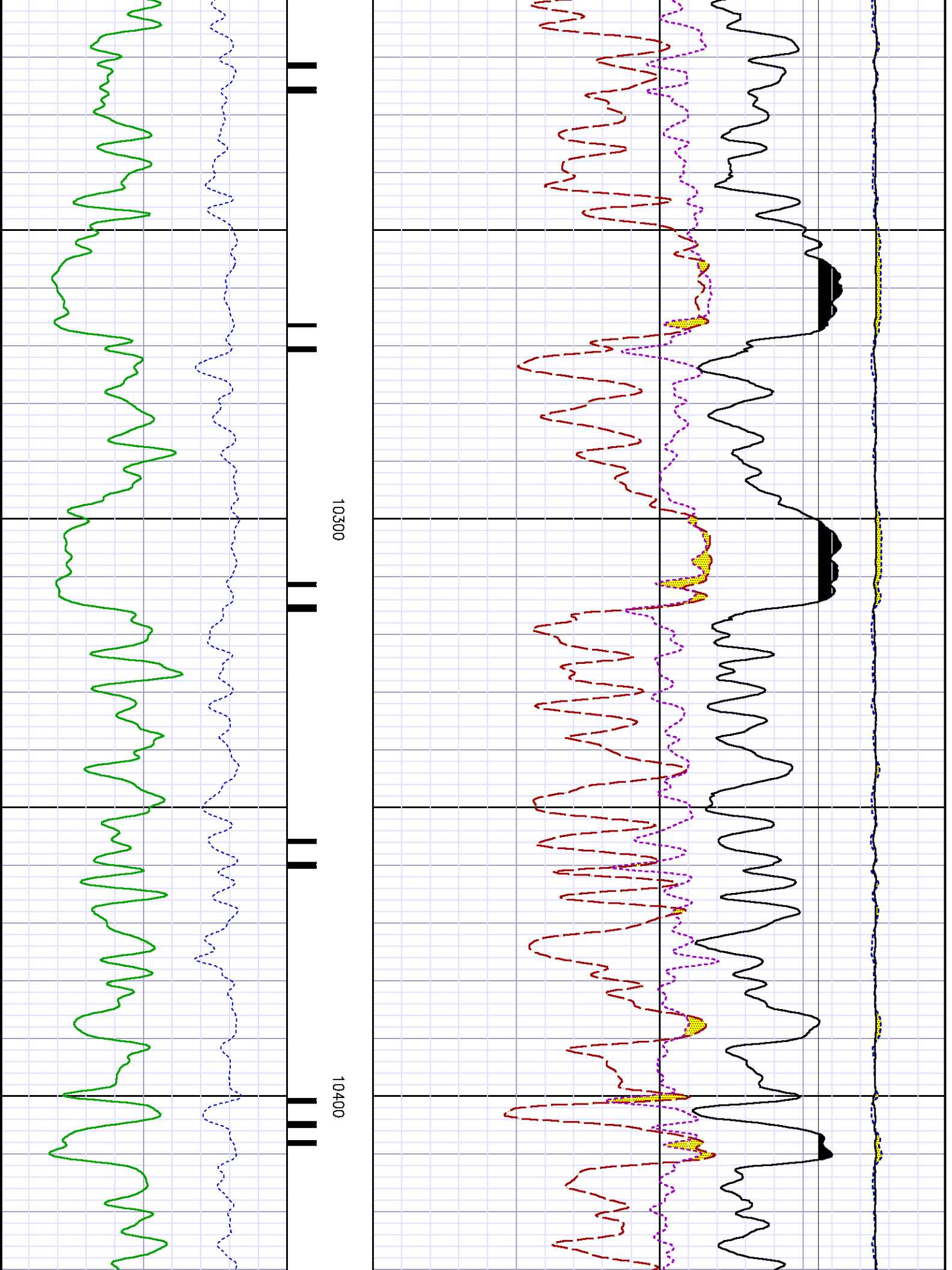


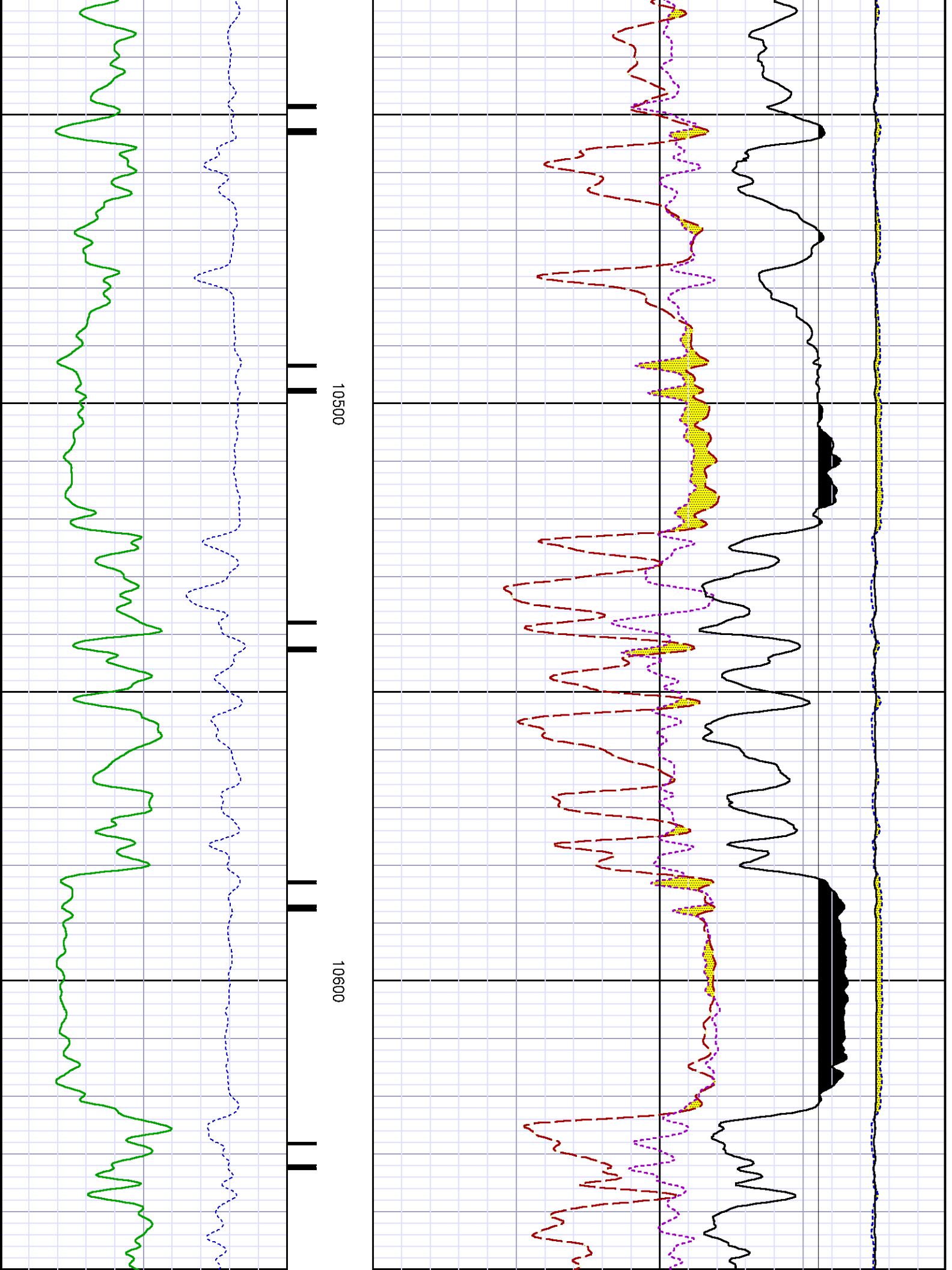


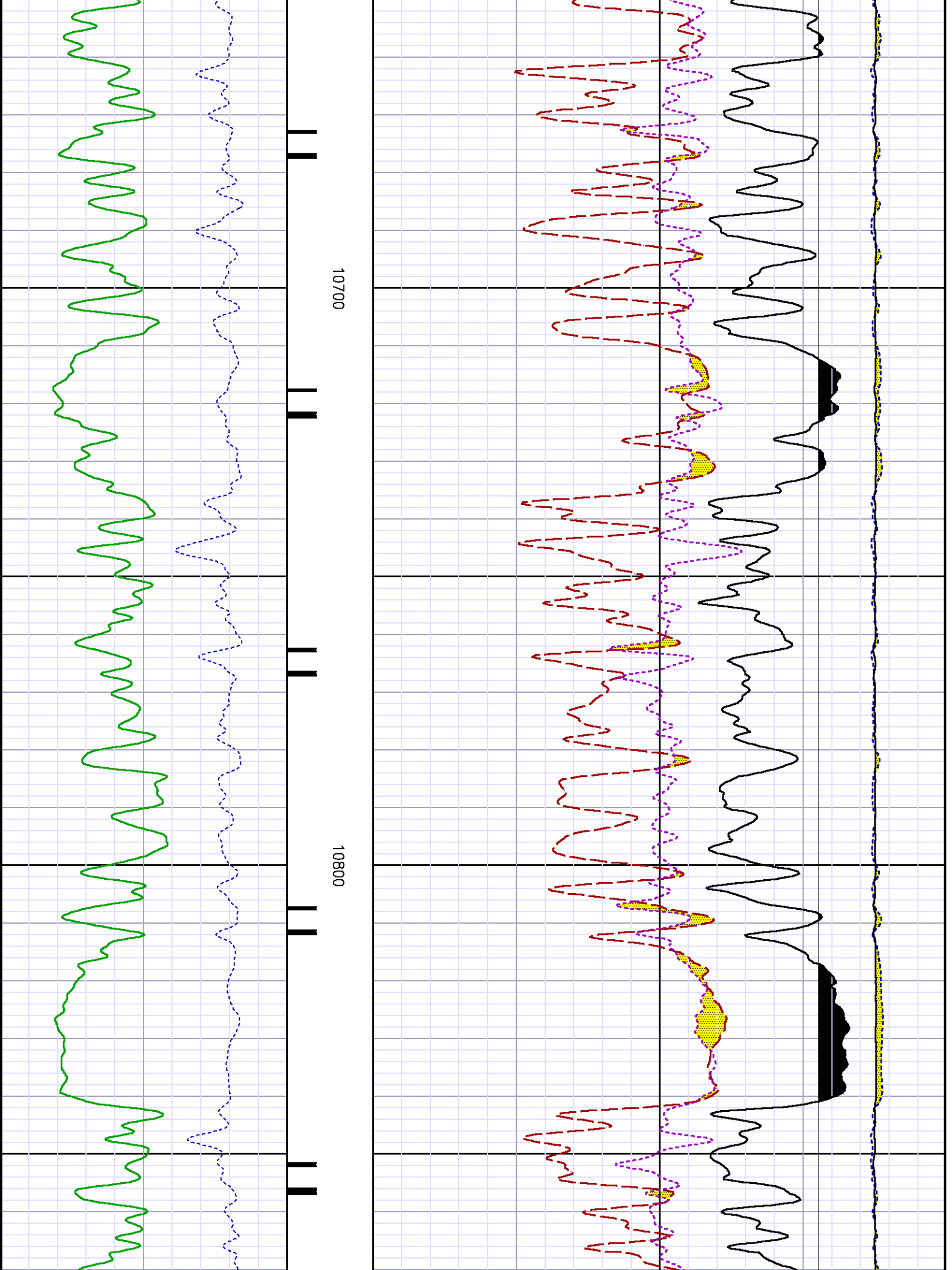


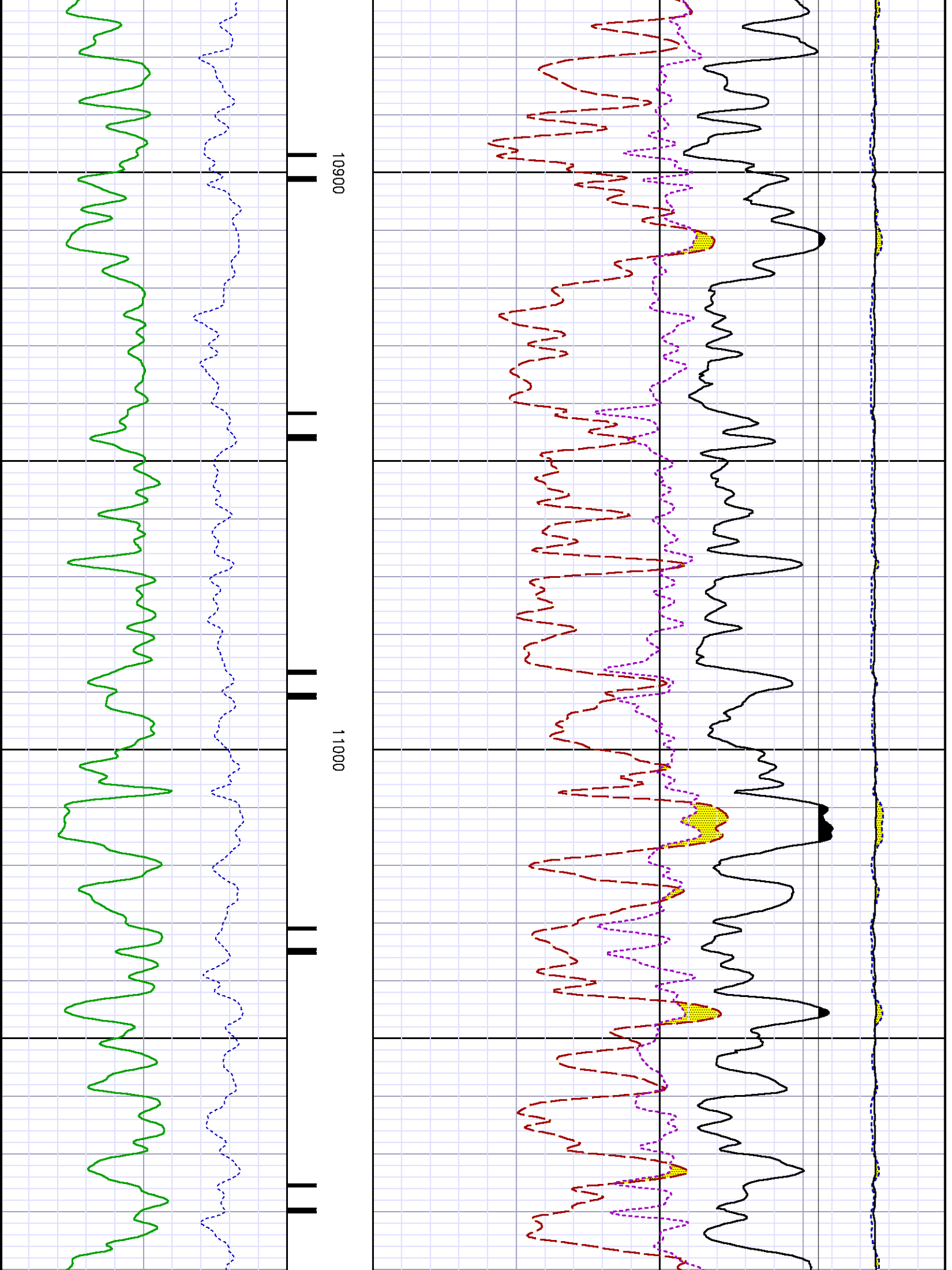


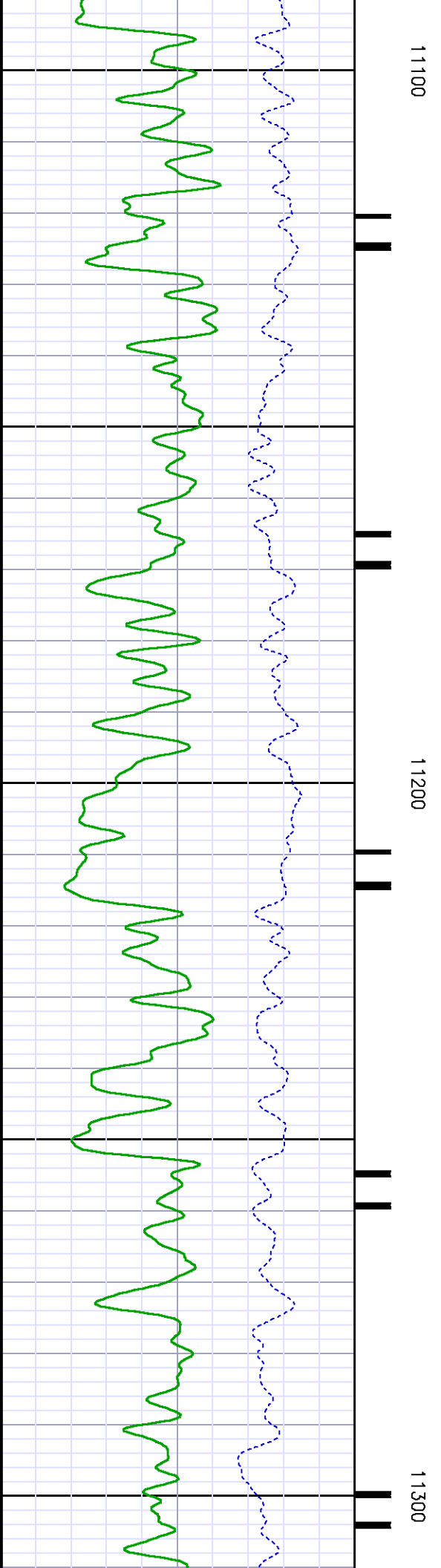
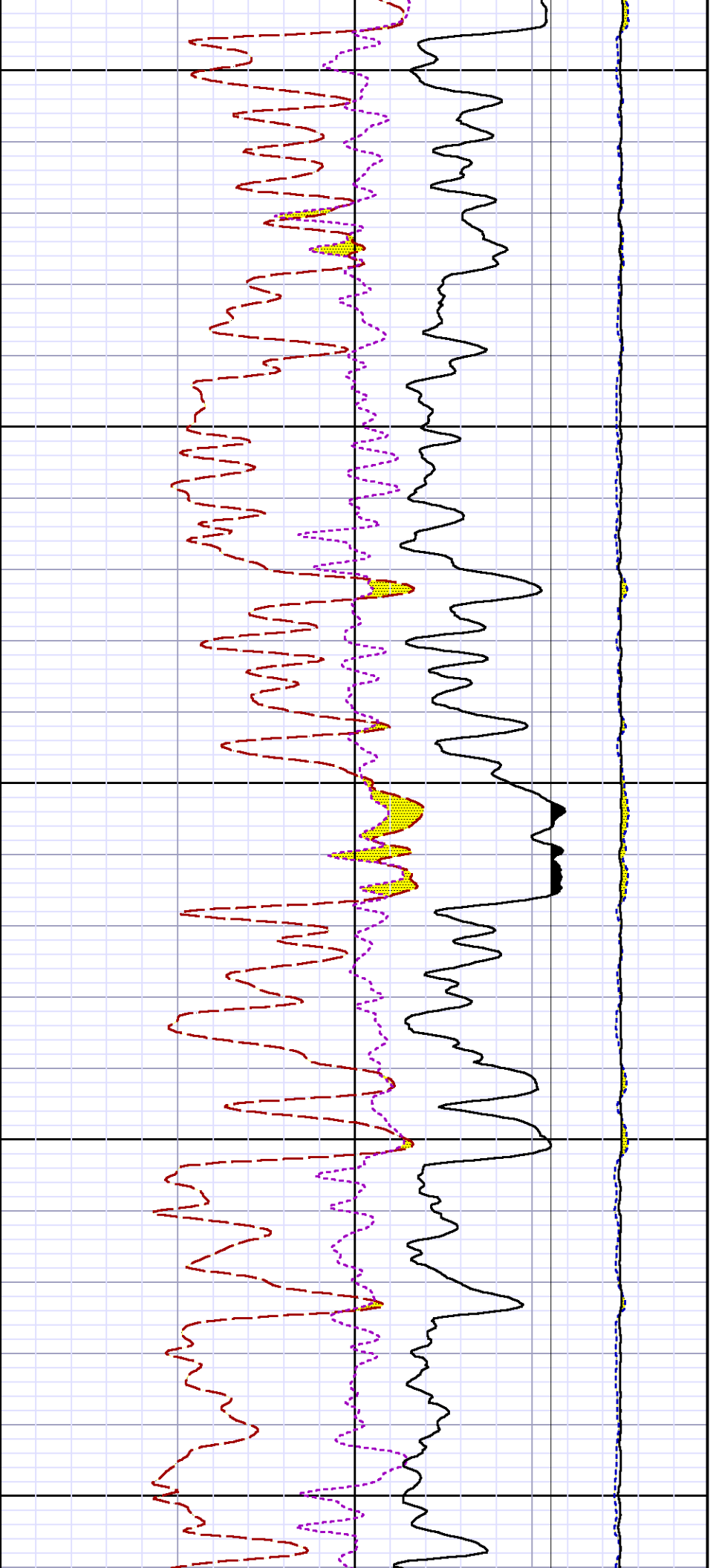


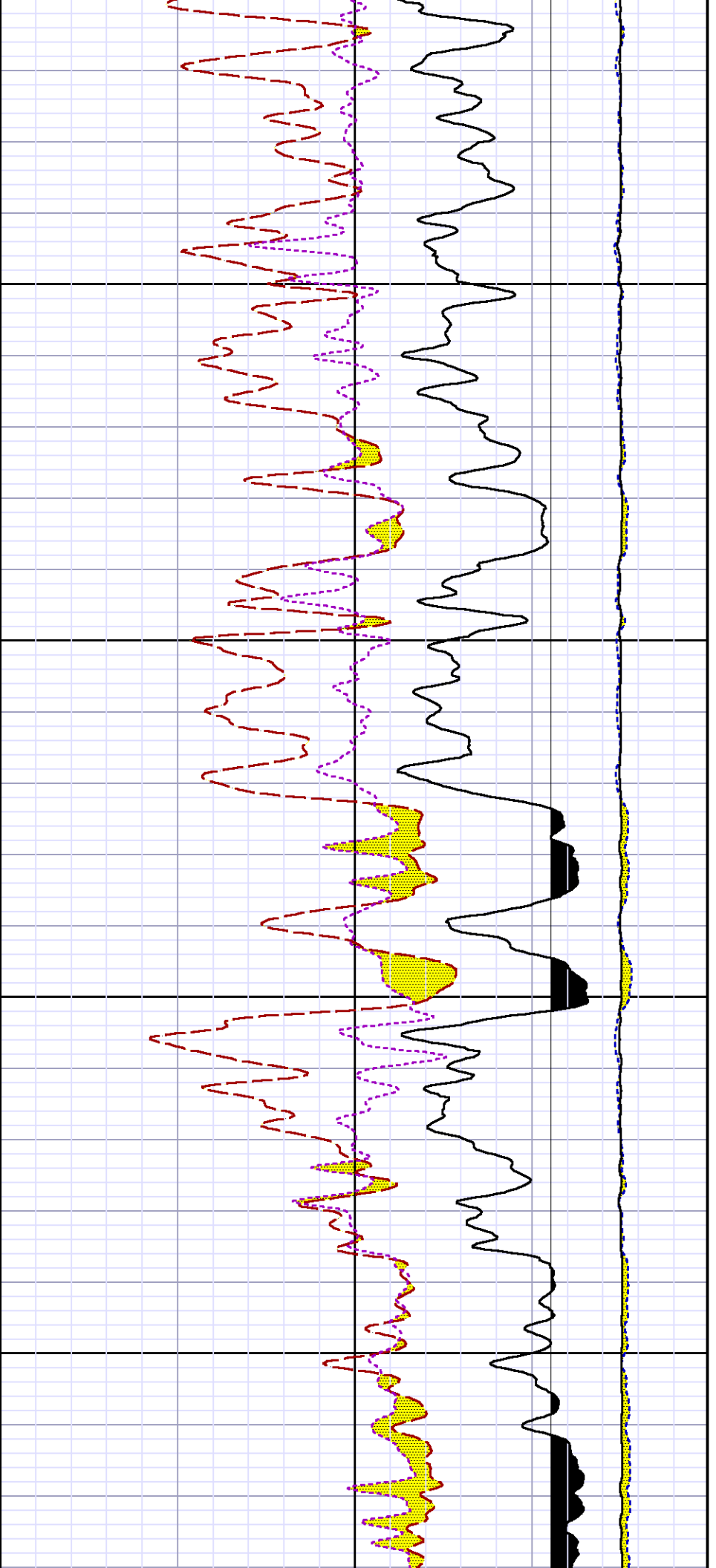






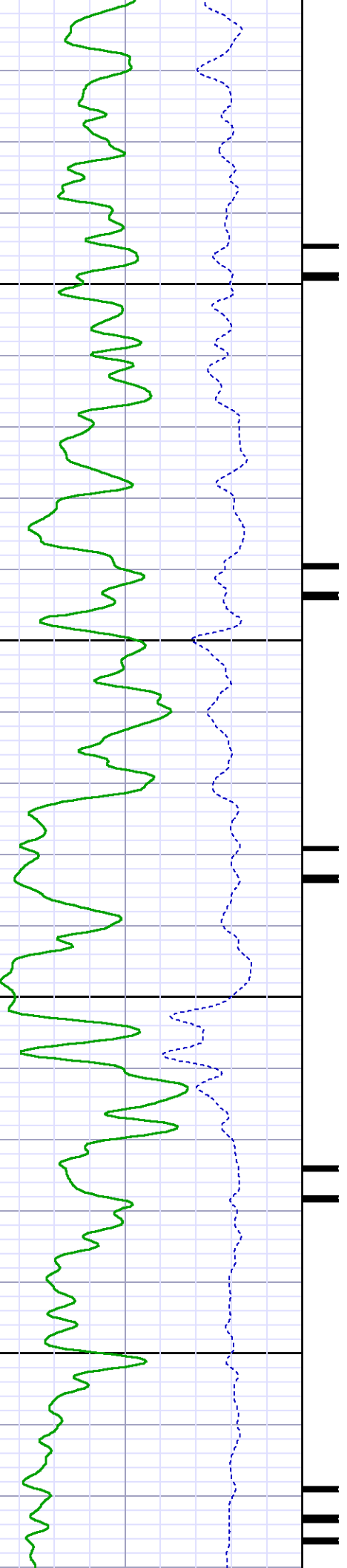


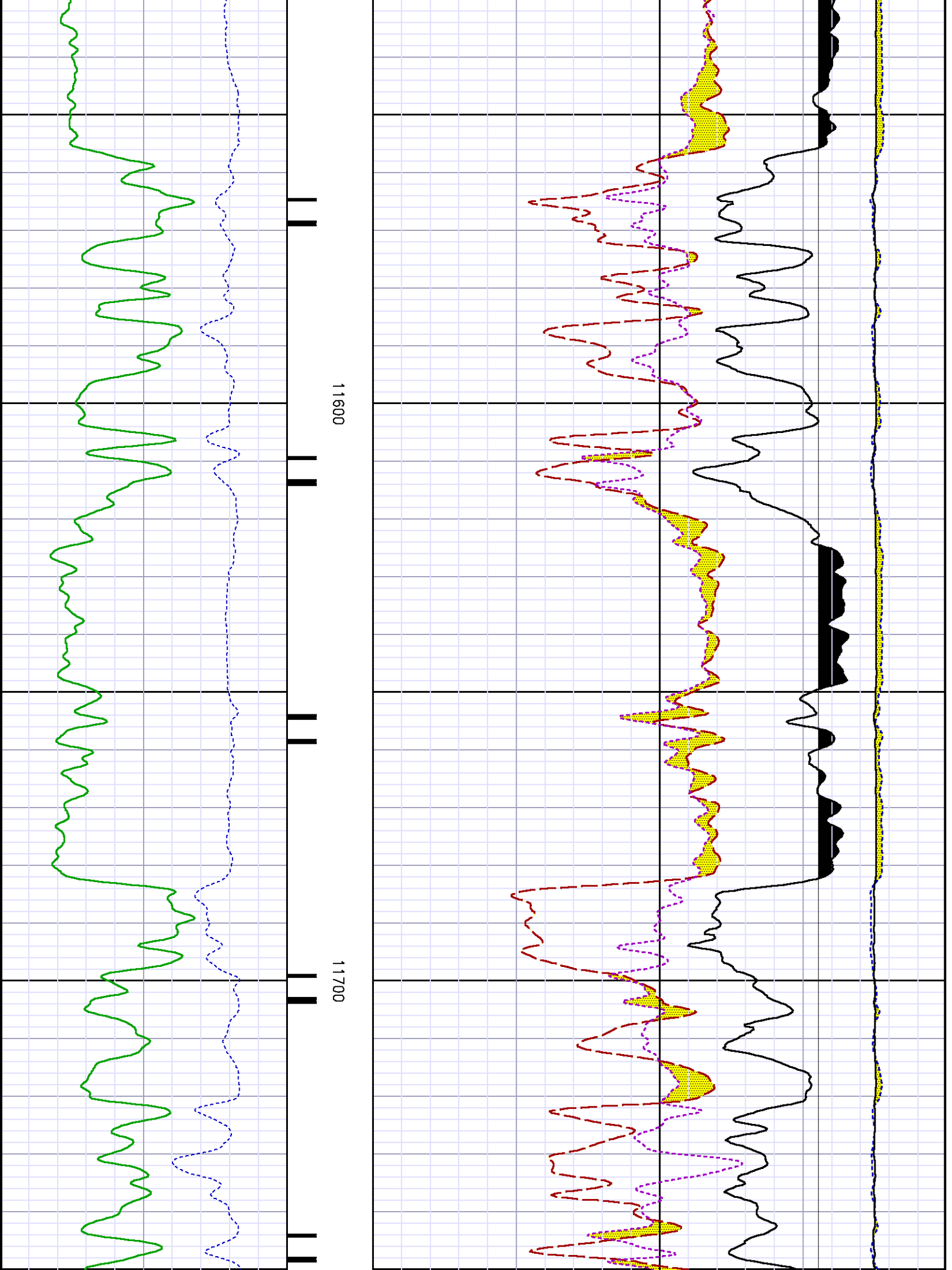


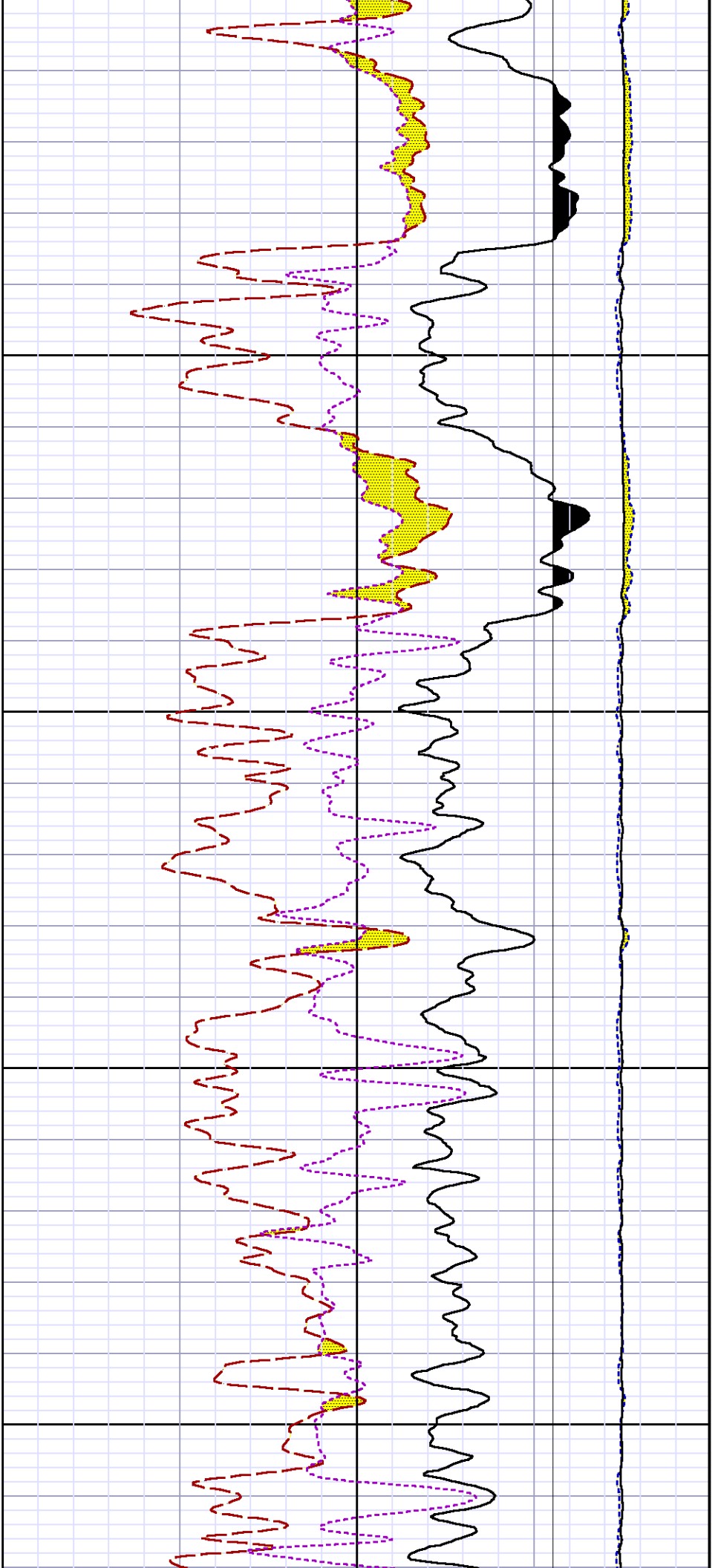


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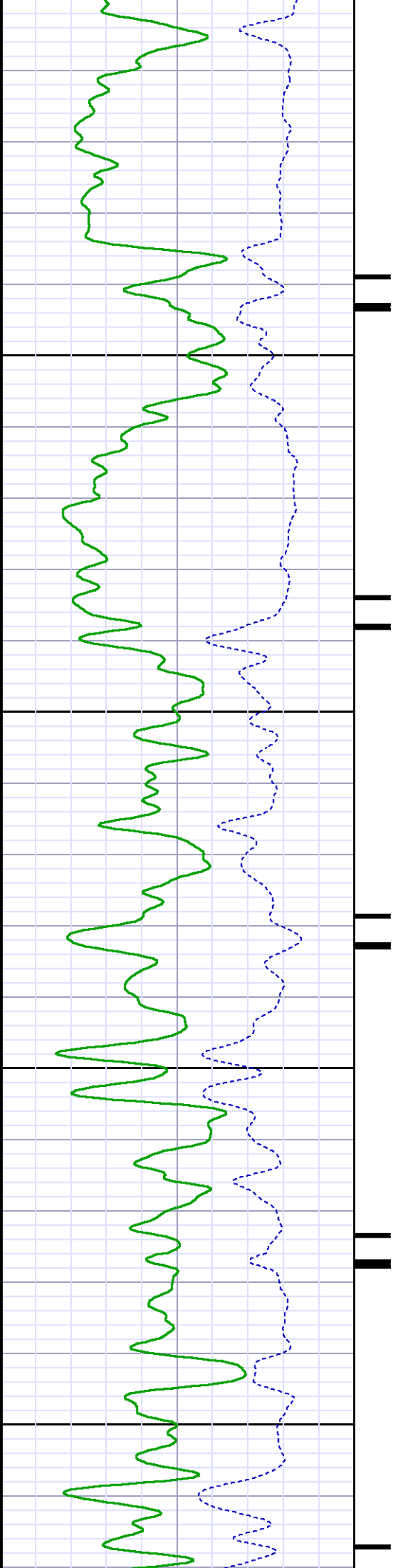


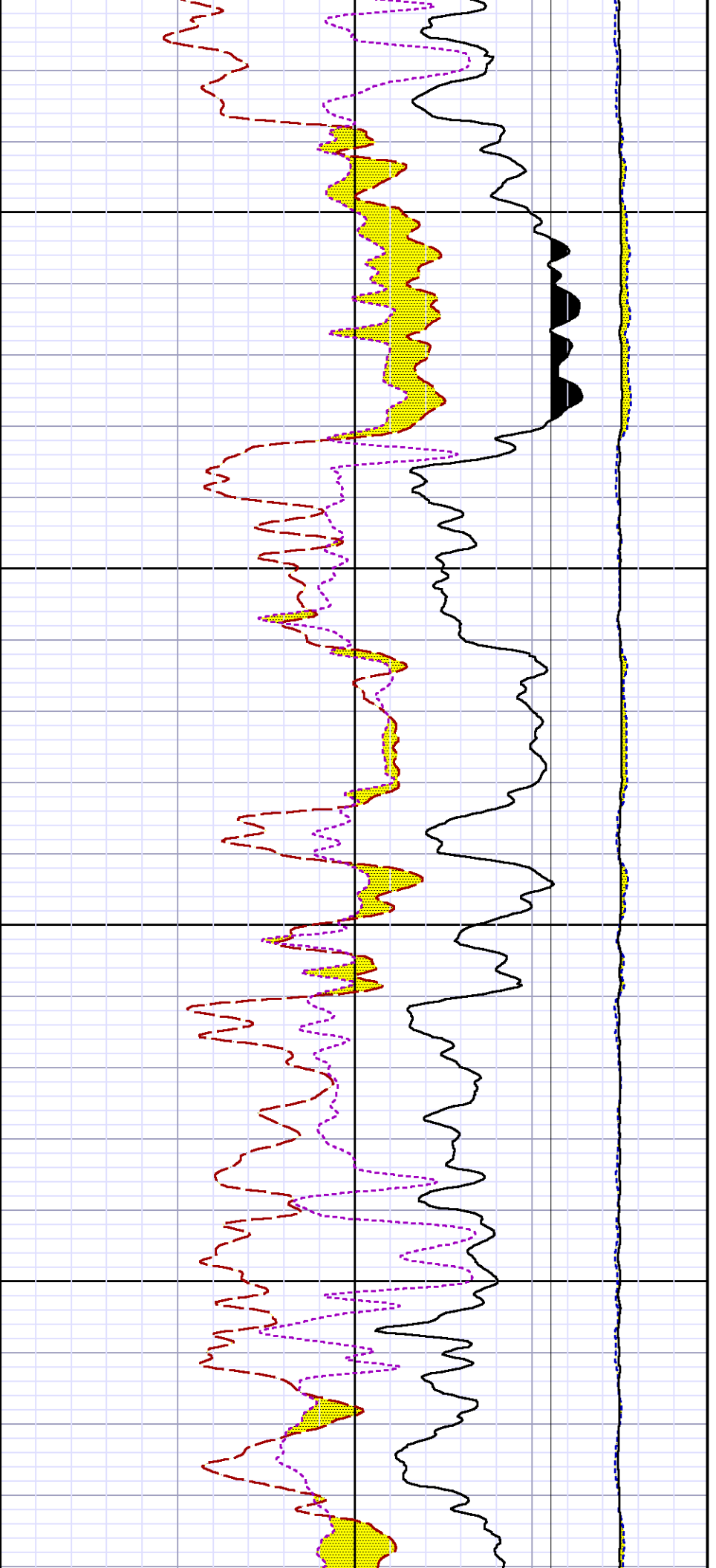




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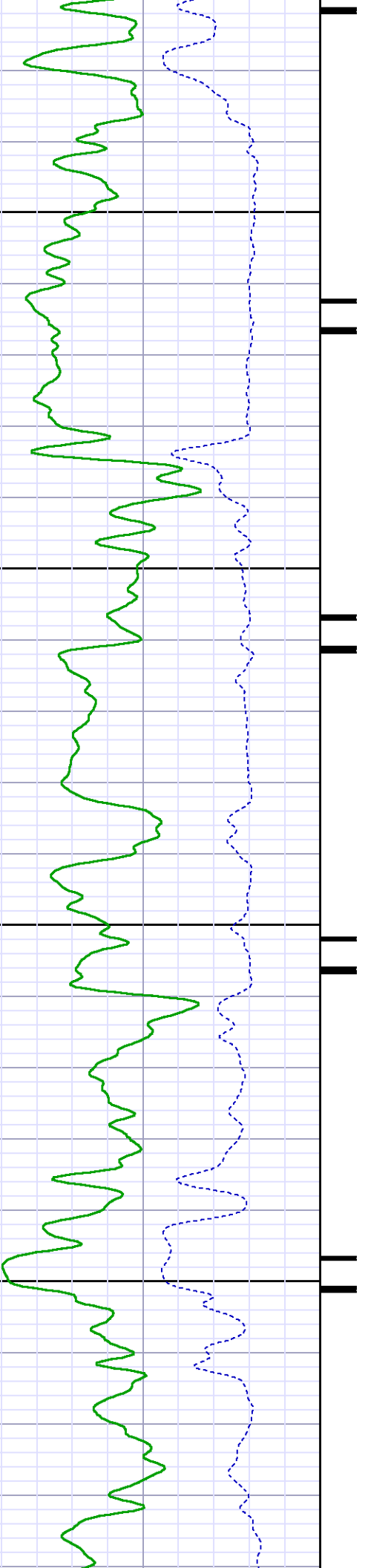
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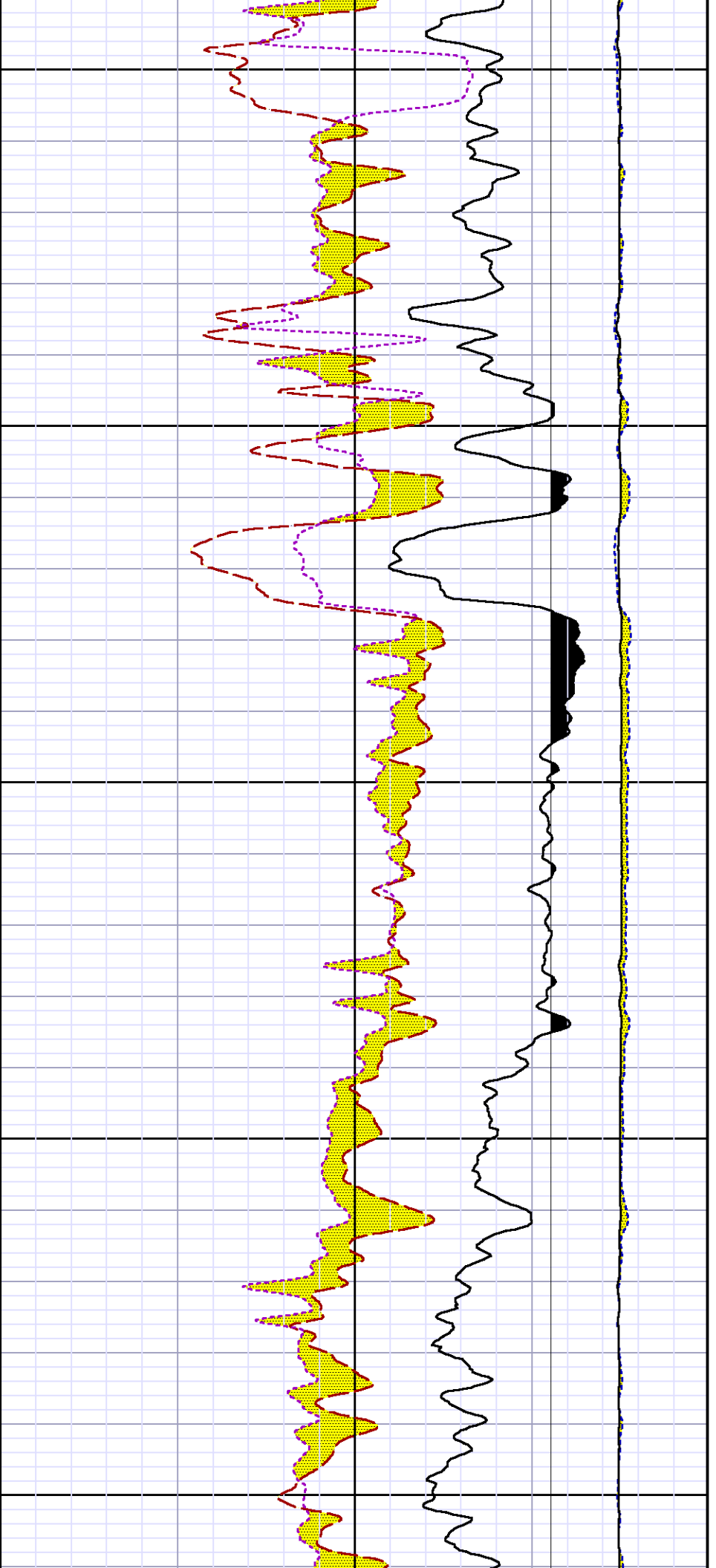




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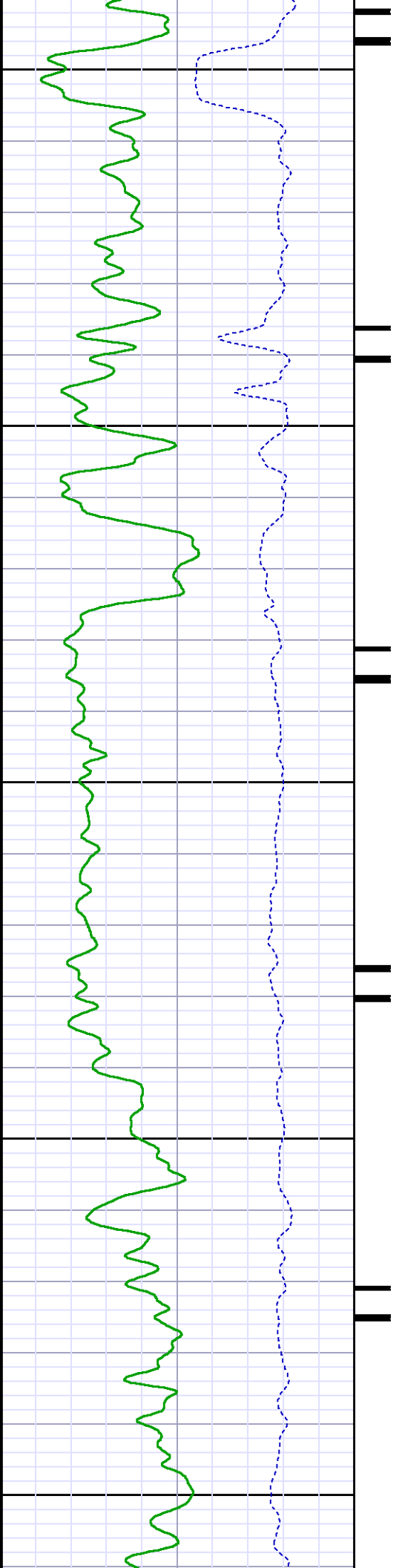


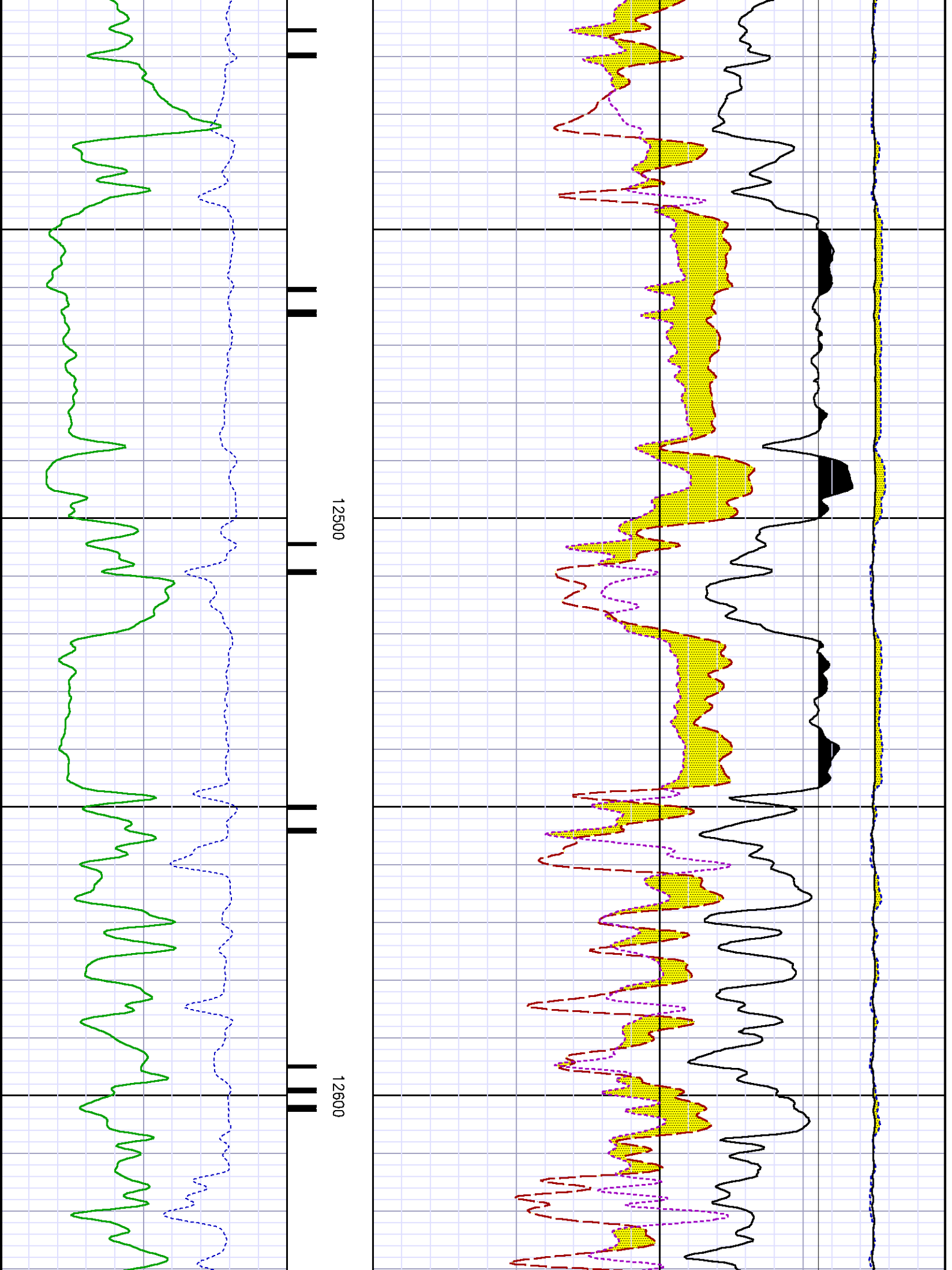


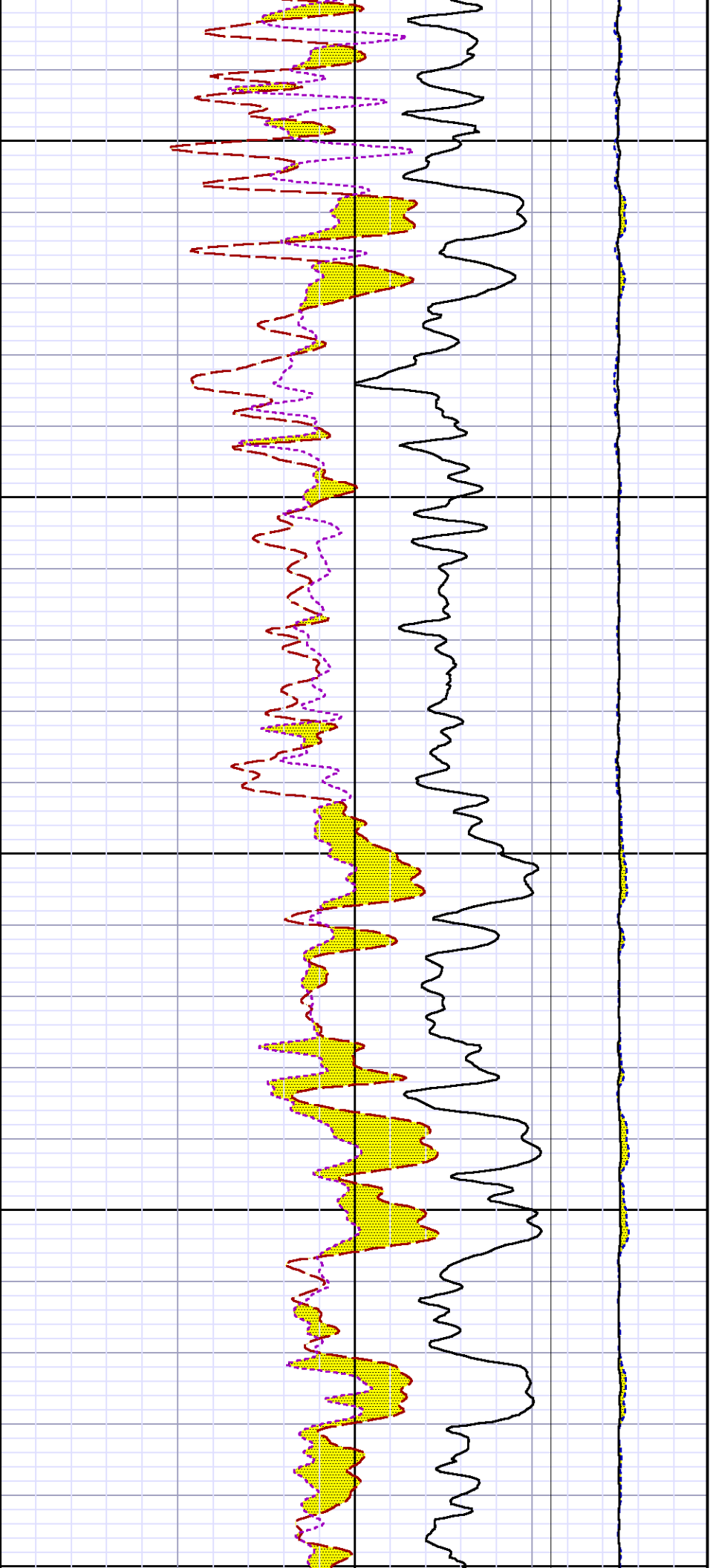
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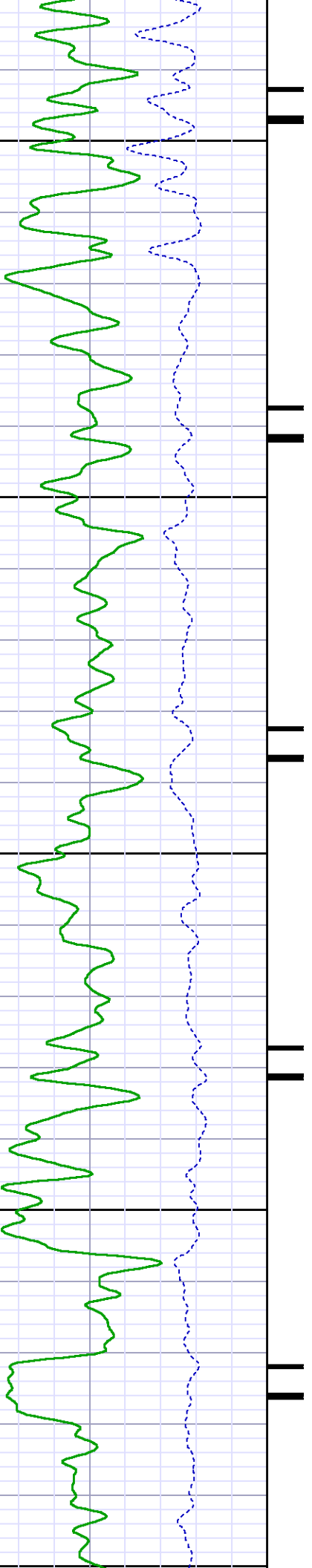


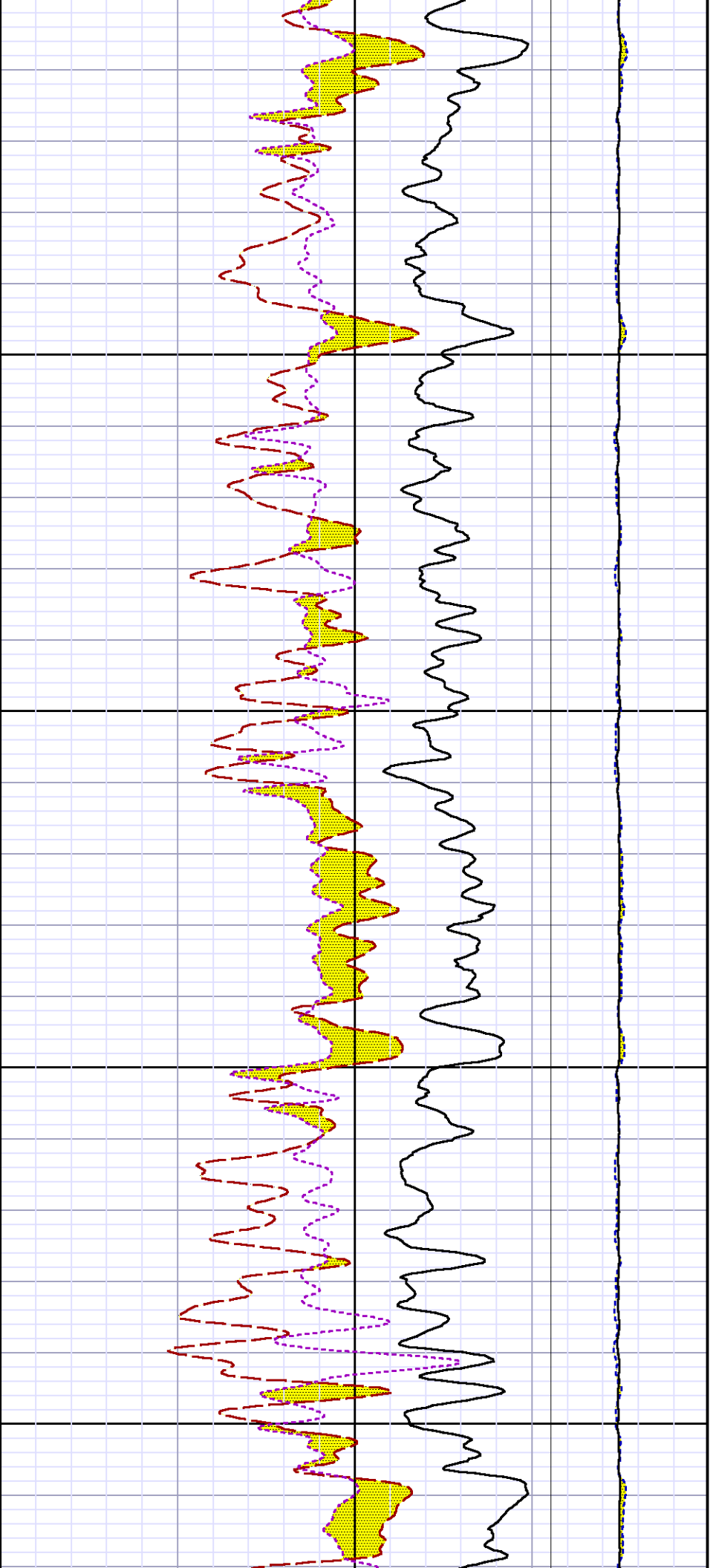




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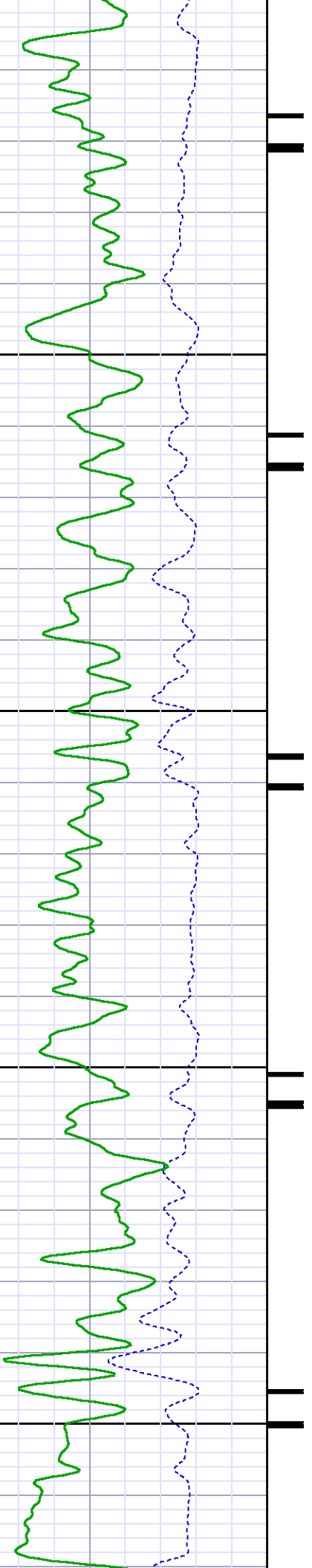
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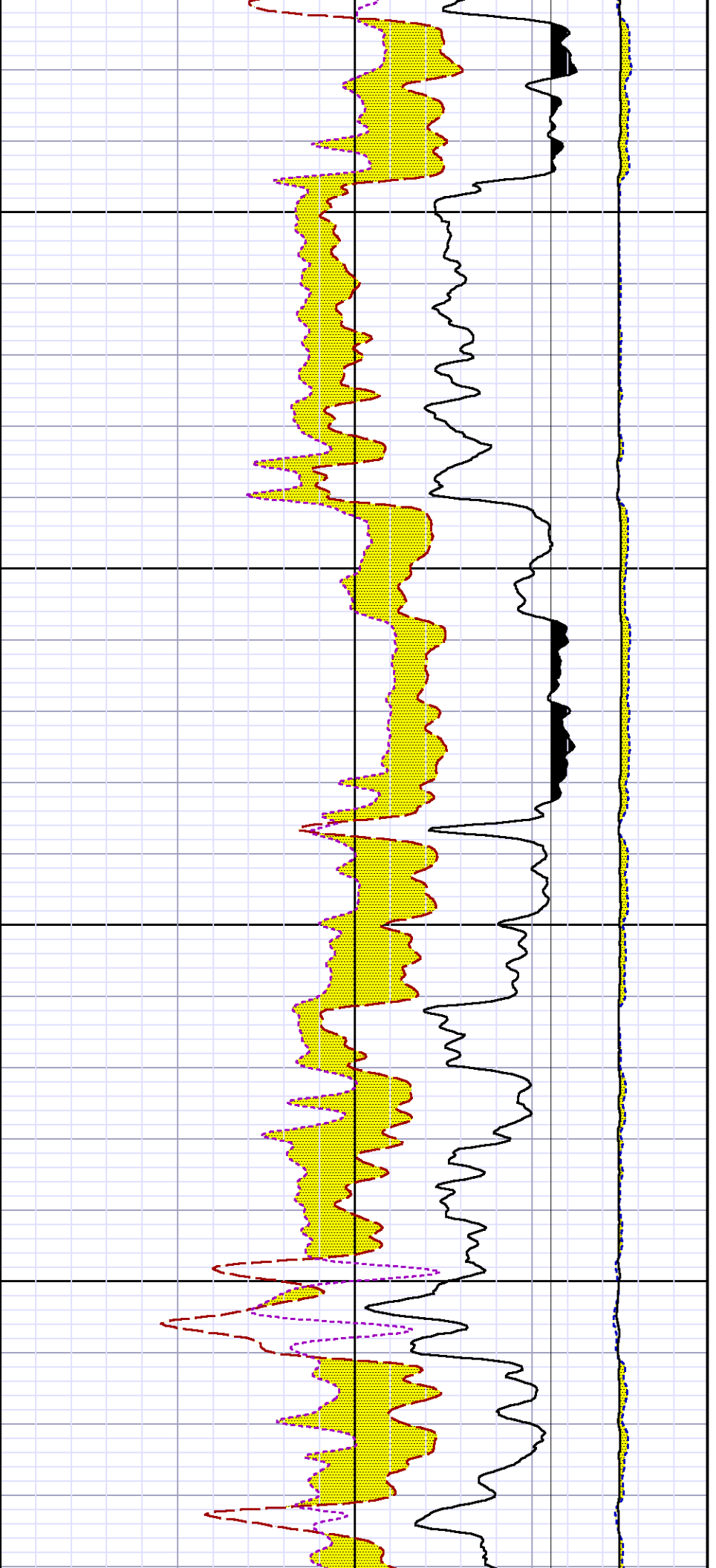




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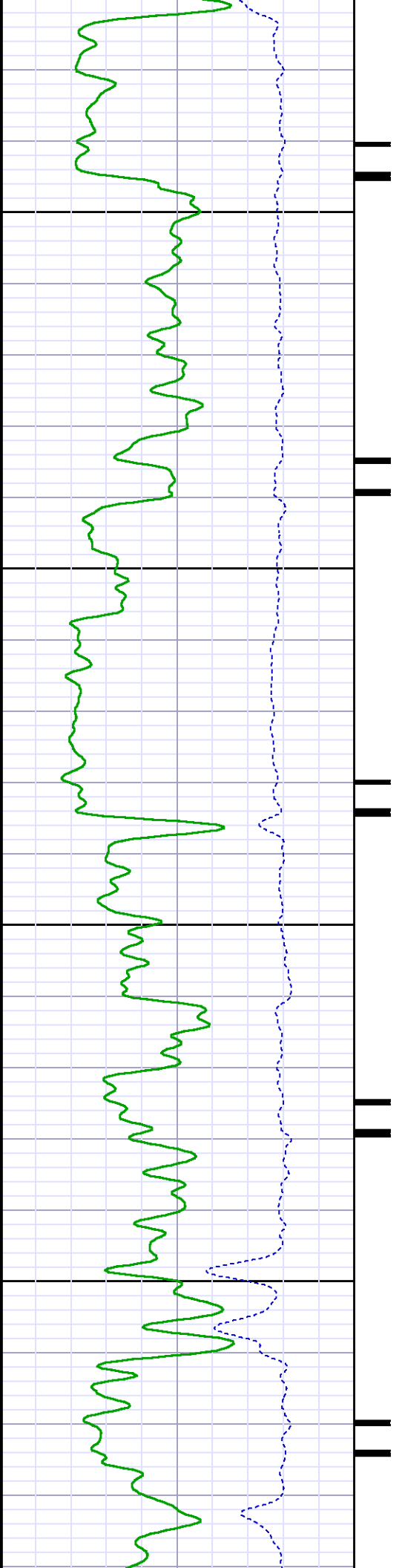
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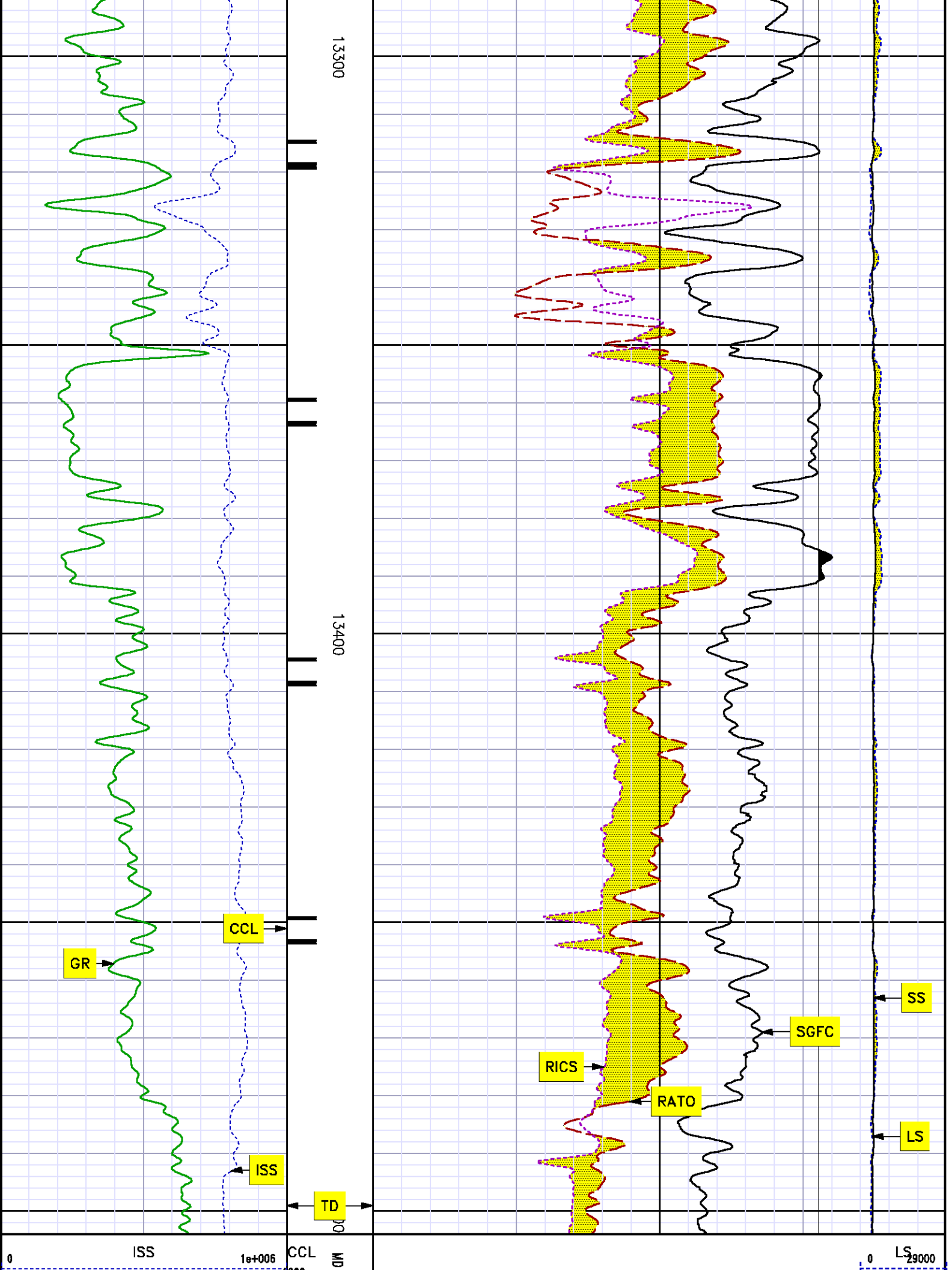


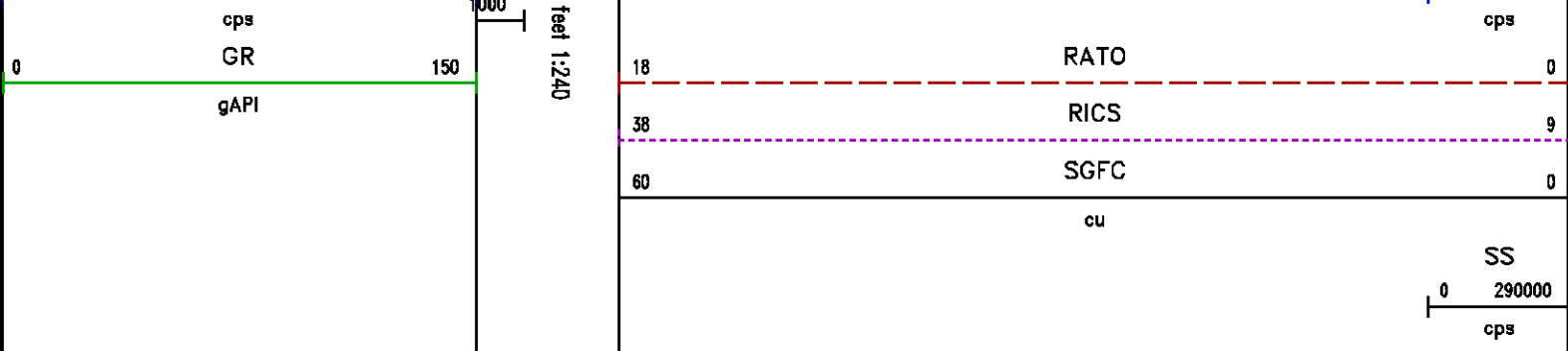


13100

13200







***REPEAT SECTION
PNC 3-D MODE***

SPL PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
PNC Porosity	Borehole	Cased		10459.750	10860.000
PNC Porosity	Borehole Size	6.125	inch	10459.750	10860.000
PNC Porosity	Casing Size	4.500	inch	10459.750	10860.000
PNC Porosity	Gas Filled	Non Gas Filled		10459.750	10860.000
PNC Porosity	Matrix	Sandstone		10459.750	10860.000

DEPTH OFFSETS

(for Acquired Curves)

SERIES	DEPTH OFFSET	ACQUIRED CURVES
8248EA	-15.320	FLTM
8248EA	-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 RIX SDA3 SDL3 SGA3 SGL3 STA3 XS ASPEC3 AMB3 AMF3 CHF3 IXSC IXSN RAT023 RXCX RIN13C RIN23 RIN23C SD3D SG3D SGB3 SGF3 WDT3 CXSR IXSR XSR RXCX
8281XA	-0.250	HVC2Q0 SFQ2 AMA2 AMB2 AMF2 AMI 2

8281XA

0.000

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		
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
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	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	HOC	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		

Created by : RPM9, v5.3.1.0

Plotted by : PlotMgr, v5.4.504

Company : EXXON MOBIL PRODUCTION COMPANY

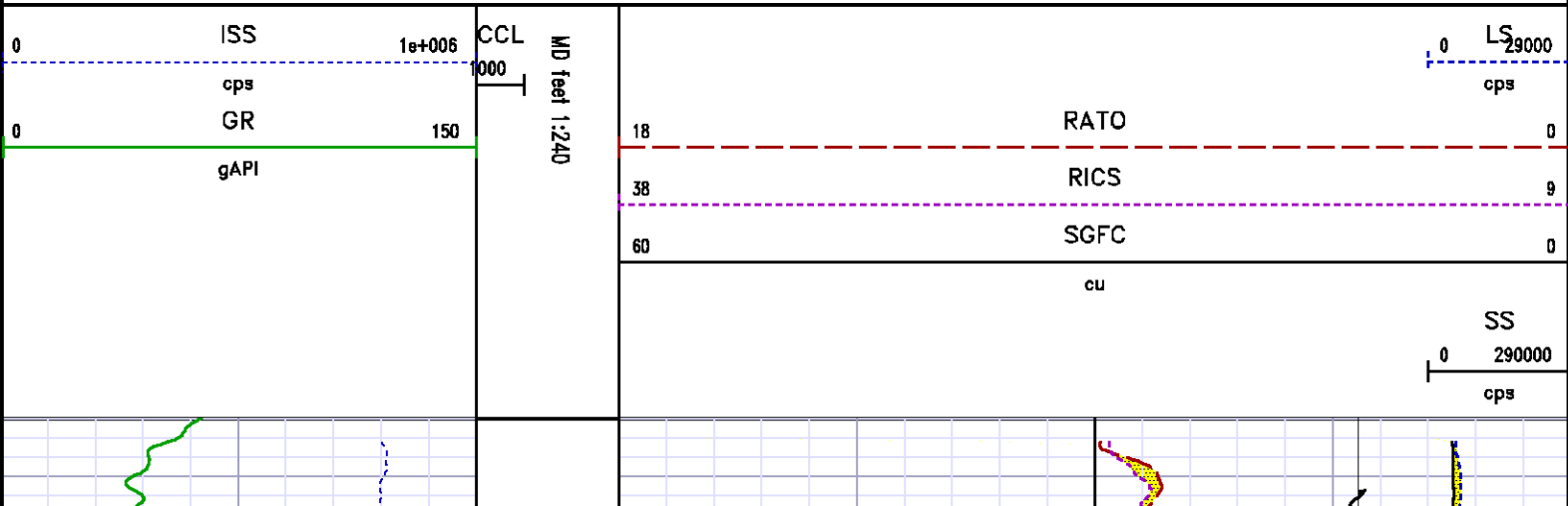
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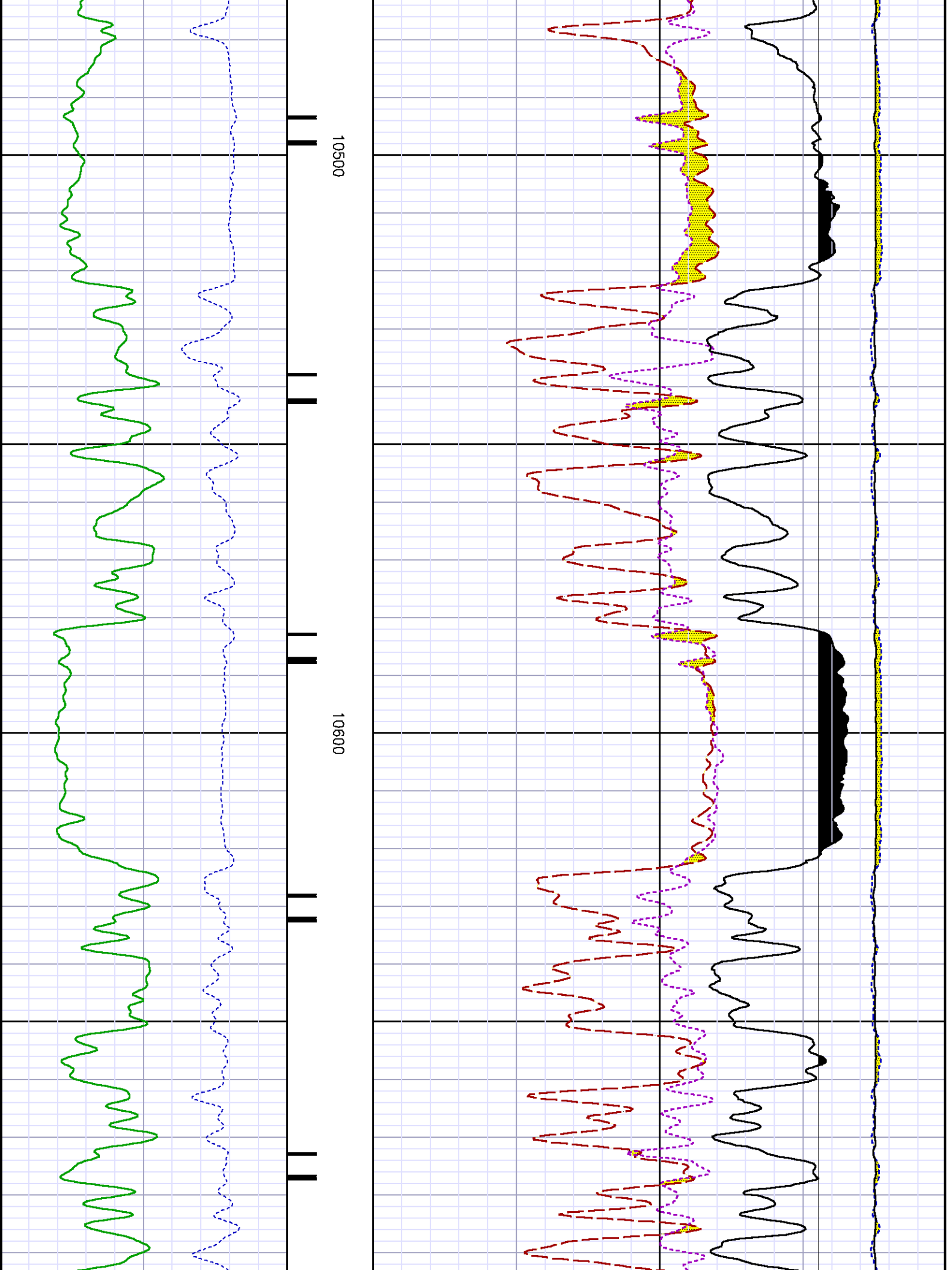
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Mode : PlotMgr 5.4.504

Interval : 10464.00 - 10864.00 feet UP

Created : 9/25/2010 7:57:17 PM





CALIBRATION SUMMARY

GAMMA RAY

Calibration File: C:\case\calver\GR\216S2.cal

CALIBRATION SUMMARY

DATE/TIME PERFORMED: Sat Sep 11 15:49:37 2010 TOOL SERIES: 8262XA ASSET: 216 SEQ: S2

Calibrator #	Background [cps]	Calibrator On [cps]	Multiplicative	Background [api]	Calibrator On [api]	Differential [api]
S2K WA-612	111.29	467.78	0.505	56.19	236.19	180.00

Verification File: C:\case\calver\GR\216S2.VP

PRIMARY VERIFICATION

DATE/TIME PERFORMED: Sat Sep 11 15:52:52 2010 TOOL SERIES: 8262XA ASSET: 216 SEQ: S2

Calibrator #	Background [cps]	Calibrator On [cps]	Multiplicative	Background [api]	Calibrator On [api]	Differential [api]
S2K WA-612	109.56	470.56	0.505	55.32	237.60	182.28

PNC

Calibration File: C:\case\calver\PNC\231SS.cal

PNC 3D CALIBRATION SUMMARY

DATE/TIME PERFORMED: Tue Sep 21 11:01:24 2010 TOOL SERIES: 8281XA ASSET: 231 SEQ: SS

Calibrator #

SHOP BARREL

Source #

8281AA 10220684

	ISS	Mtr VIts (V)	SS Gain	LS Gain	XLS Gain	EA Temp (degF)	Sync Delay (usec)	RCAL
Raw Data	818387	131.00	2260.00	2268.00	2282.00	116.13	8.00	0.9839
Interpolated	1300000	154.89	2249.70	2262.95	2278.64			

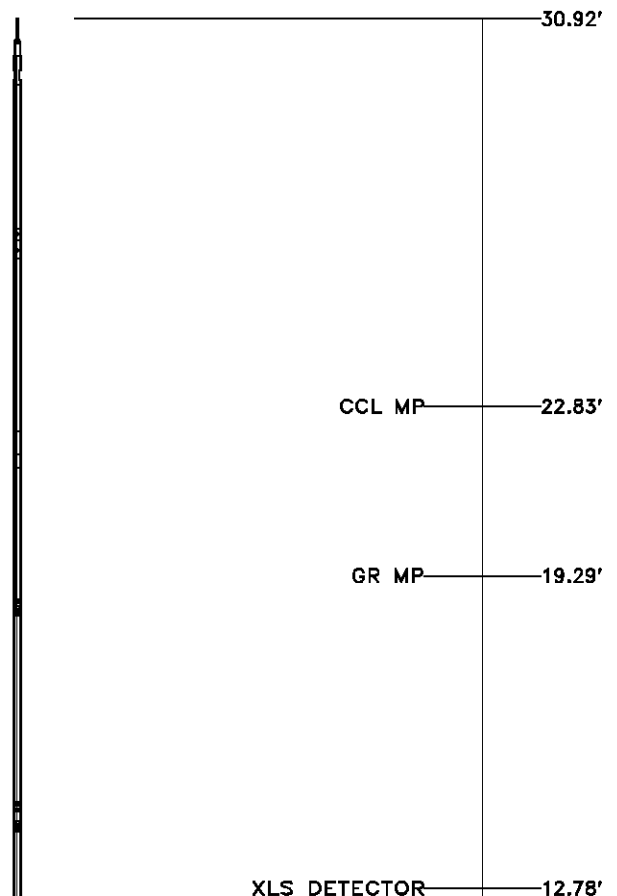
	ISS	BKS	BKL	BKX	SGA1	SDA1	SGA2	SDA2
Raw Data	818387	6880.21	1078.12	179.80	25.83	0.14	24.36	0.27
					25.35 26.15	0.00 0.20	23.60 24.80	0.00 0.40

	ISS	ILS	IXS	SS	SS2	LS	CSS	CLS
Raw Data	818387	176435.08	27367.00	92918.75	33071.84	8642.56	56234.22	13852.08
Fit Quality %		0.82	0.90	0.99	0.97	0.87	0.89	0.87

	ISS	RBOR	RIN ISS/ILS	RIN13 ISS/IXS	RICS ISS/CSS	RATO SS/LS	RTWO SS2/LS	RONE CSS/CLS
Raw Data	818387	1.43	4.64	29.91	14.55	10.75	3.83	4.06
		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 %		0.06	0.16	0.12	0.12	0.08	0.08	0.05
Reduced	1397144	1.43	4.66	30.02	14.62	10.74	3.82	4.06
		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
GAMMA RAY	
Series	8262XA
Mnemonic	GR
Diameter	1.70"
Weight	15.00 lb
Length	3.17'



RESERVOIR PERFORMANCE MONITOR	
Series	8281XA
Mnemonic	RPM
Diameter	1.70"

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

LS DETECTOR 9.80'
 SS DETECTOR 9.58'

0.00'

Total Length: 30.92'
 Total Weight: Not Available
 Max Diameter: 0' 1.70"



Company EXXONMOBIL PRODUCTION COMPANY
Well PCU 197-36 A5
Field PICEANCE CREEK
County RIO BLANCO **State** COLORADO

File No:

API No:

05103111840000

Baker Atlas



Location
 SHL: 1849' FSL & 2613' FWL
 SEC 36 TWP 1S RGE 97W

Elevations
 KB 7144.2 ft
 DF 7143.2 ft
 GL 7114 ft