



Baker Atlas

RESERVOIR
PERFORMANCE
MONITOR

File No:	Company	EXXONMOBIL PRODUCTION COMPANY
API No.	Well	FRU 197-2845
06103116330000	Field	FREEDOM UNIT
	Country	RIO BLANCO
	State	COLORADO
	Location:	Other Services
	2357' FSIL & 234' FILL	BOND
	SEC: 28 TWP: 15 RGE: 97W	
Permanent Datum	G.L.	Elevation
Log Measured From	K.B.	27 ft
Drill Measured From	KELLY BUSHING	Above P. D.
		Elevations
		KB 6108 ft
		DF 6108 ft
		GL 6092 ft

Date	08-SEPT-2010
Run	ONE
Service Order	576848
Depth Driller	12525 ft
Depth Logger	12386 ft
Bottom Logged Interval	12386 ft
Top Logged Interval	8992 ft
Time Started	05:00
Time Finished	14:00
Operator Rig Time	9 HRS
Type of Fluid in Hole	WATER
Fluid Density	N/A
Fluid 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	By/BOND
Reference Log Date	8-SEPT-10
Equipment	Location
Recorded By	4271
Witnessed By	TIM KAUTT
	GRAND JCT, CO
	MR. JIM JONES

- 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
8.125 in		

Casing Record				
Size	Weight	Grade	From	To
10.75 in	45.5 lbm/ft	J-55	SURFACE	3682 ft
4.5 in	15.1 lbm/ft	P-110	SURFACE	12525 ft

Remarks
THE CREW OF 4271 THANKS YOU.

Equipment Data					
Run	Trip	Tool	Series Number	Serial Number	Position
1	1	RPM	B2B1FA	1040B0D82	FREE

1	1	RPM	B2B1PA	10180383	FREE
1	1	RPM	B2B1EA	10273348	FREE
1	1	GAMMA RAY	B2B2XA	10191270	FREE
1	1	CCL	B248EA	10387150	FREE
1	1	PCN	B250EA	151000	FREE

MAIN SECTION IN PNC 3-D MODE

SPL PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
PNC Porosity	Borehole	Cased		6892.750	10221.422
PNC Porosity	Borehole Size	6.125	inch	6892.750	10221.422
PNC Porosity	Casing Size	4.500	inch	6892.750	10221.422
PNC Porosity	Gas Filled	Non Gas Filled		6892.750	10221.422
PNC Porosity	Matrix	Sandstone		6892.750	10221.422

DEPTH OFFSETS (for Acquired Curves)

SERIES	DEPTH OFFSET	ACQUIRED CURVES					
B248EA	-15.470	FLTM					
B248EA	-13.470	CCL	CHV				
B262XA	-10.189	GR					
B2B1XA	-0.662	HVC3Q0	SEQ3	AMA3	AML3	BKX	CXS
		CPT3Q0	CPT3Q2	CPT3Q3	CPT3Q4	ET3	IXS
		MCS3	MCS3Q0	QCAL3	RGN3	RICK	SDA3
		SDL3	SGA3	SGL3	STA3	XS	ASPEC3
		AMB3	AMF3	CHF3	IXSC	IXSN	RAT023
		RICKC	RIN13C	RIN23	RIN23C	SD3D	SG3D
		SGB3	SGF3	WDTH3	CXSR	IXSR	XSR
		RICKR					
B2B1XA	-0.250	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	SGL2	STA2	XS2	ASPEC2

8281XA

0.000

STA2	ASPEC2	ILSC	ILSN	WDTH2	RICLC
CLSR	ILSR	LSR	RICLR		
CPRS	HVC1Q0	WV	SEQ	SEQ1	AMA1
AMB1	AME1	AMF1	AML1	BKS	CHF1
GSS	CORB	QGRF	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	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 : MIXED

Plotted by : PlotMgr, v5.4.504

Company : EXXONMOBIL PRODUCTION COMPANY

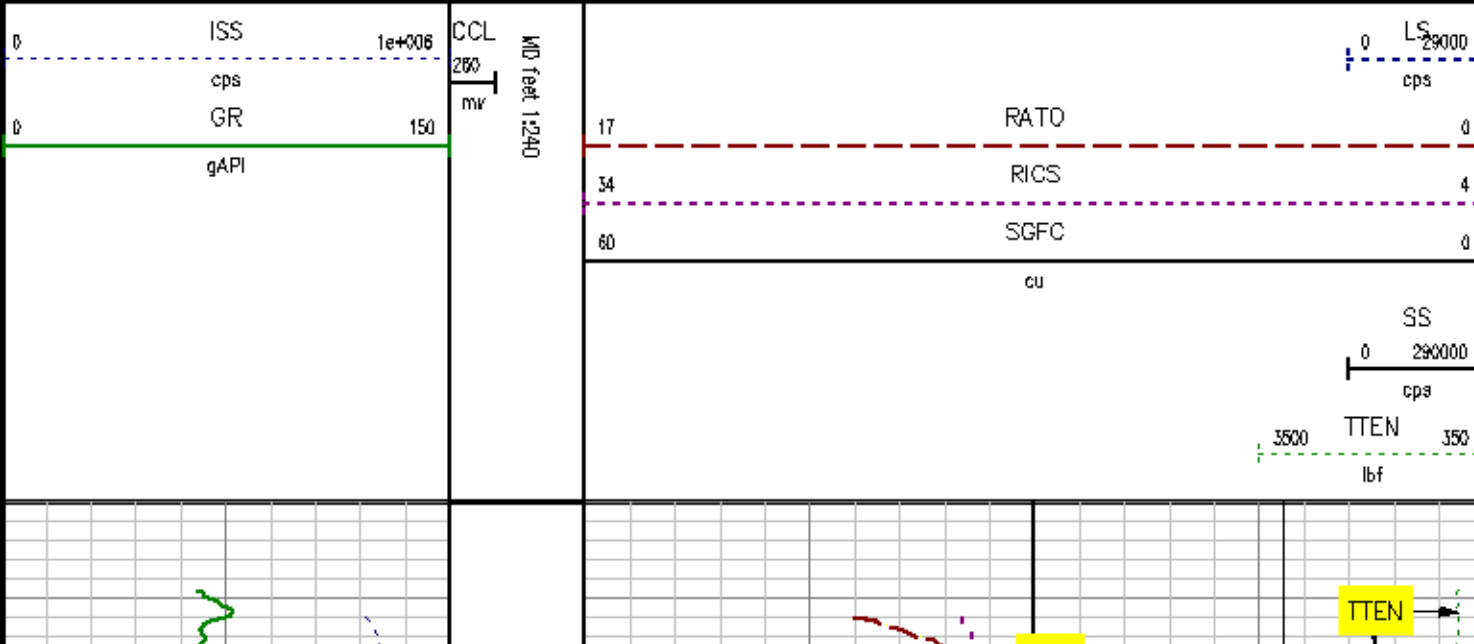
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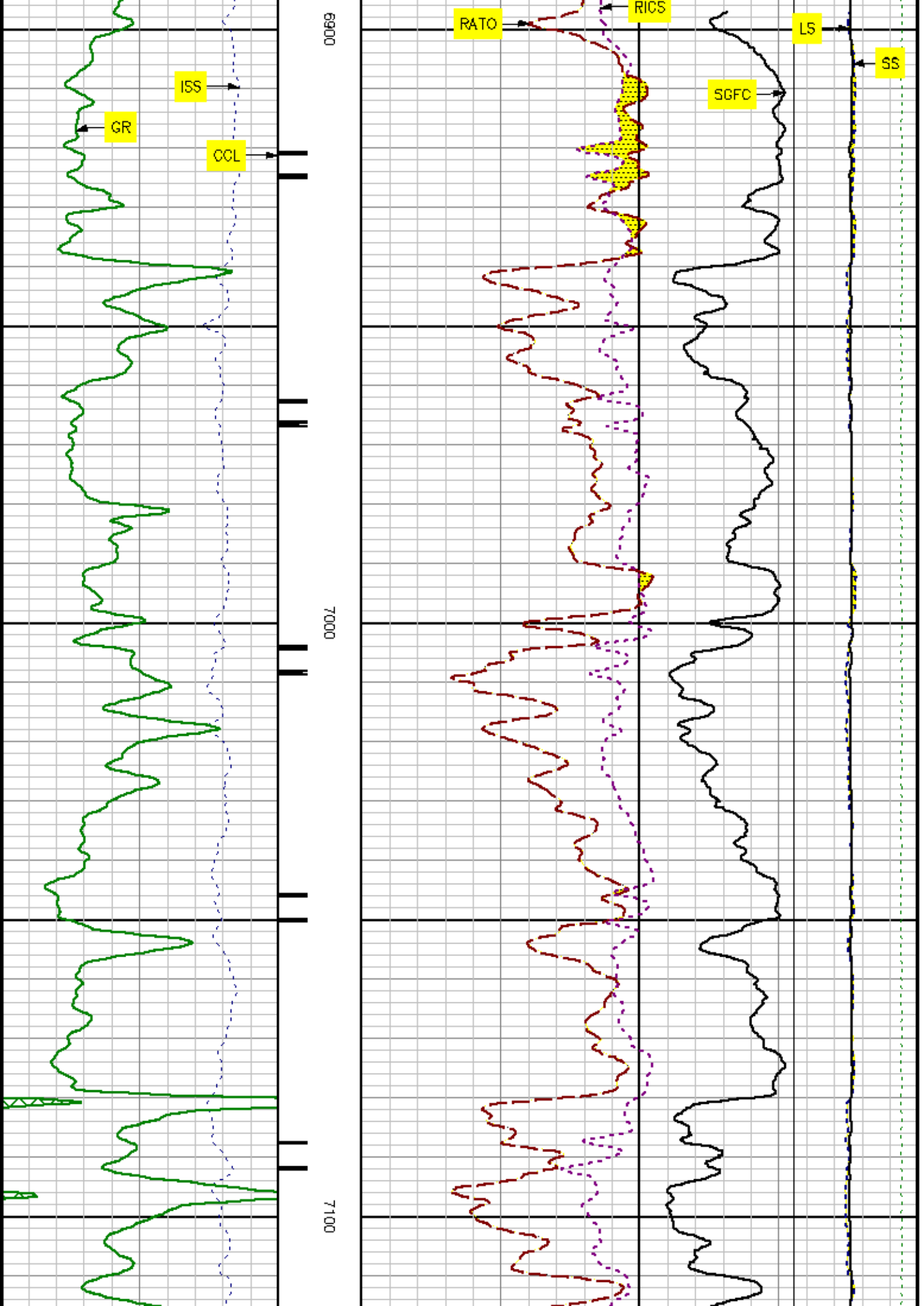
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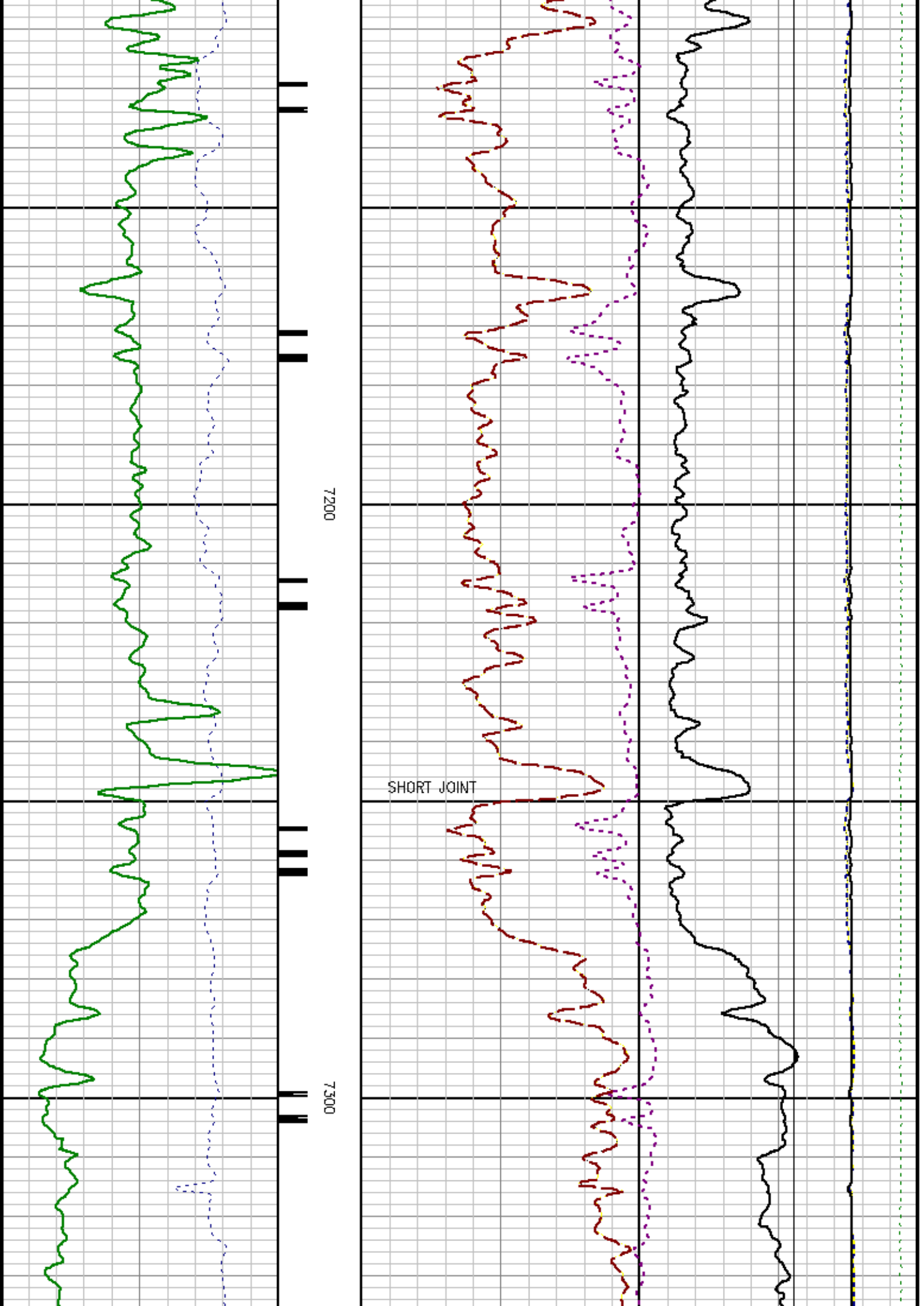
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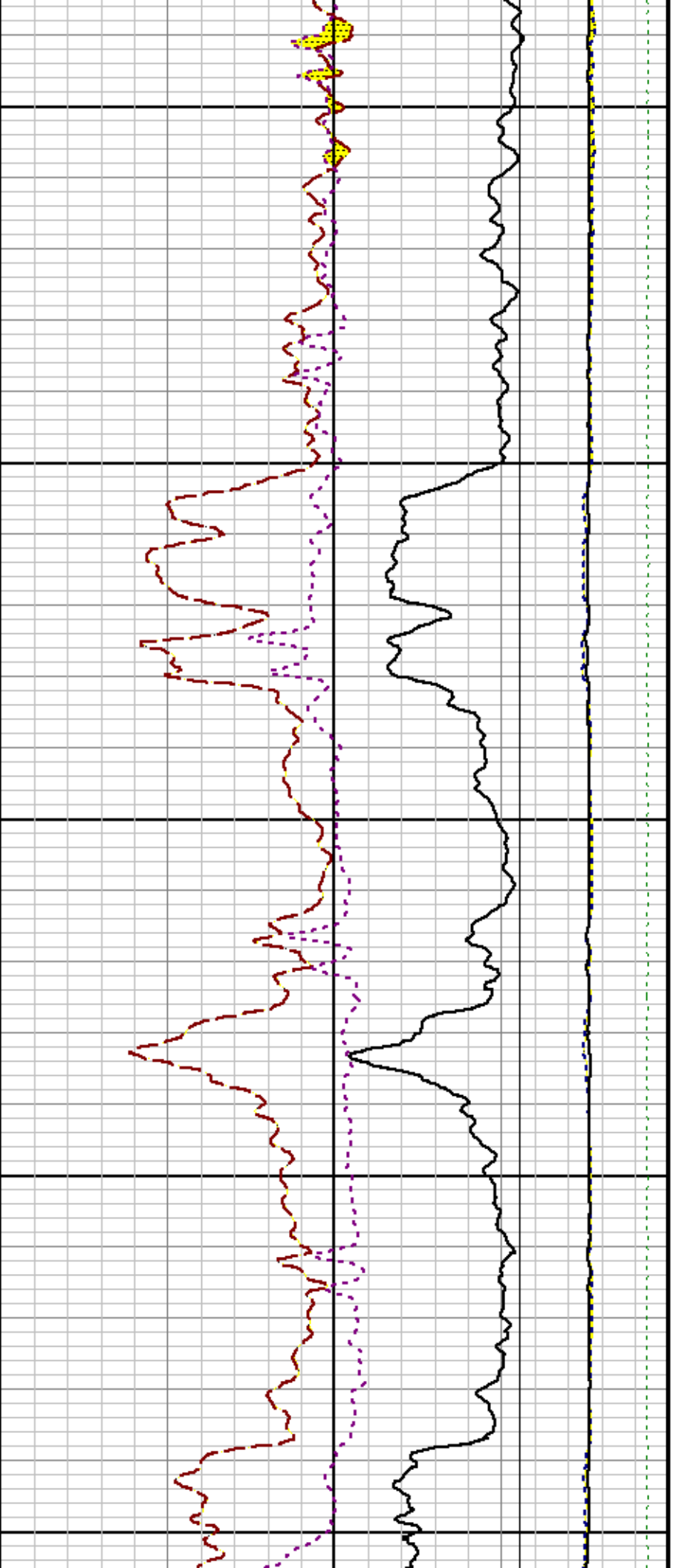
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Created : 8/8/2010 3:21:31 PM



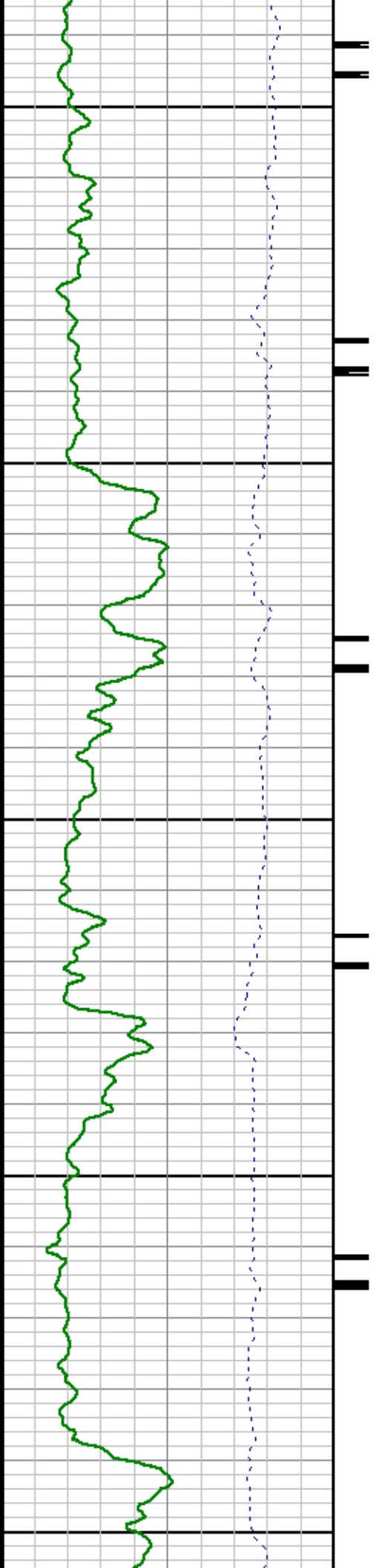


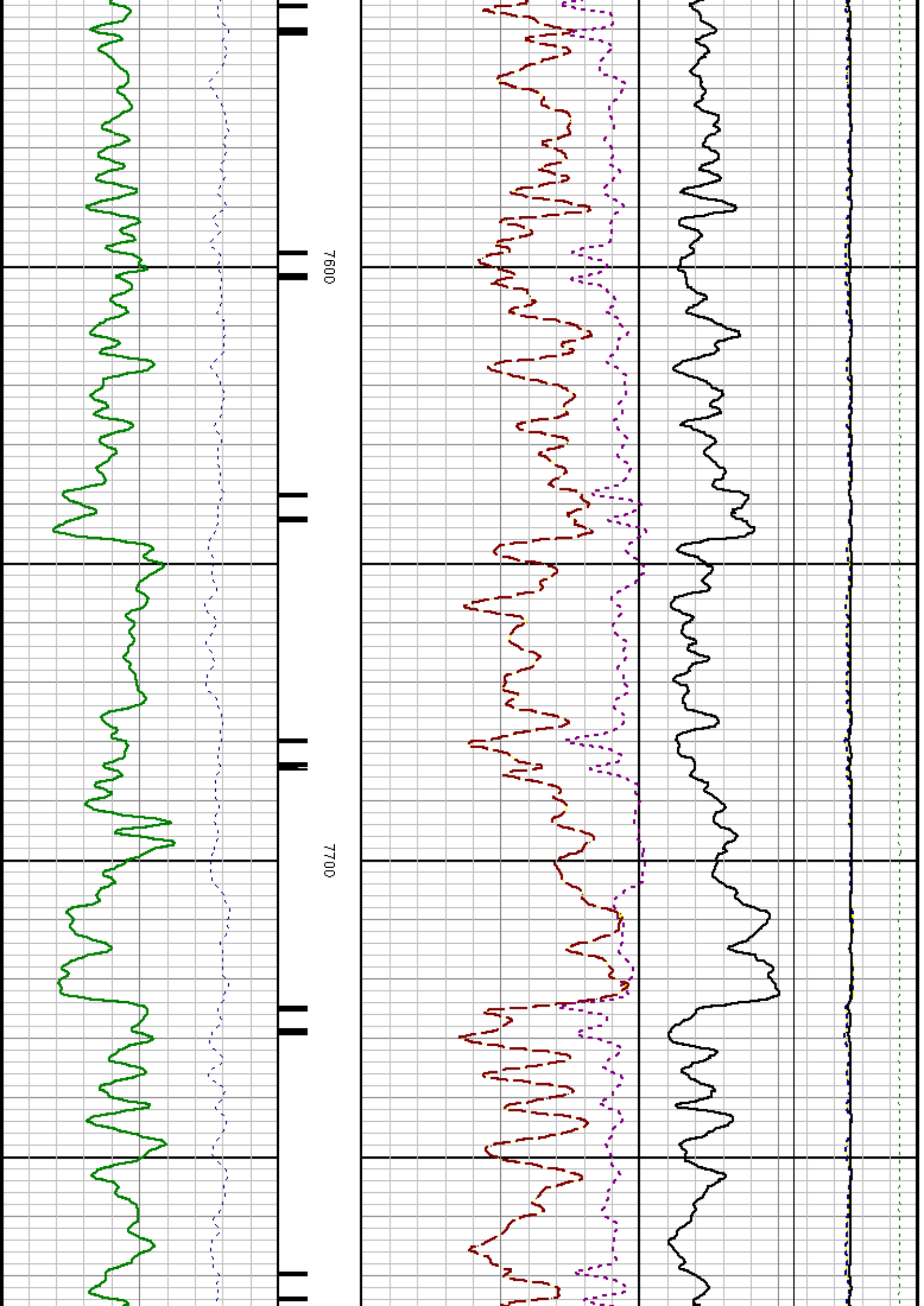


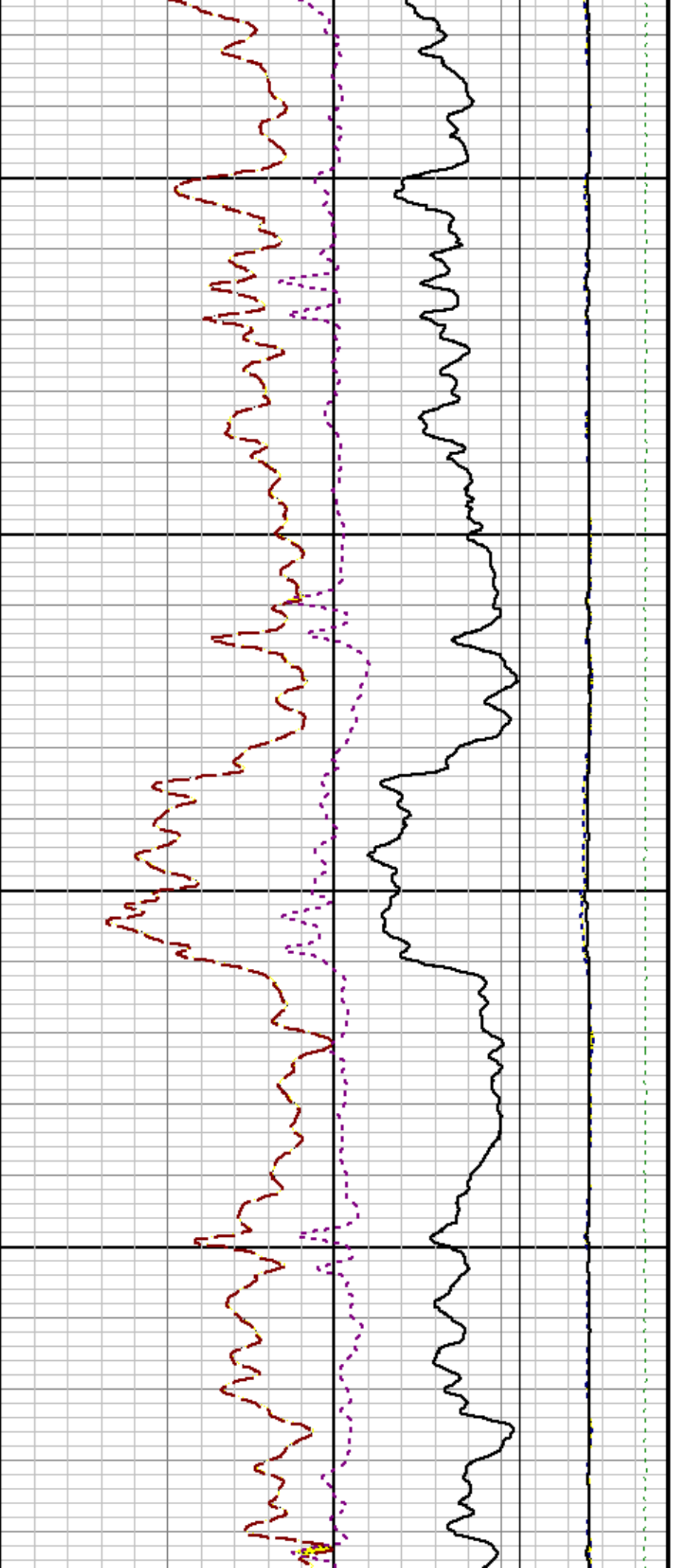


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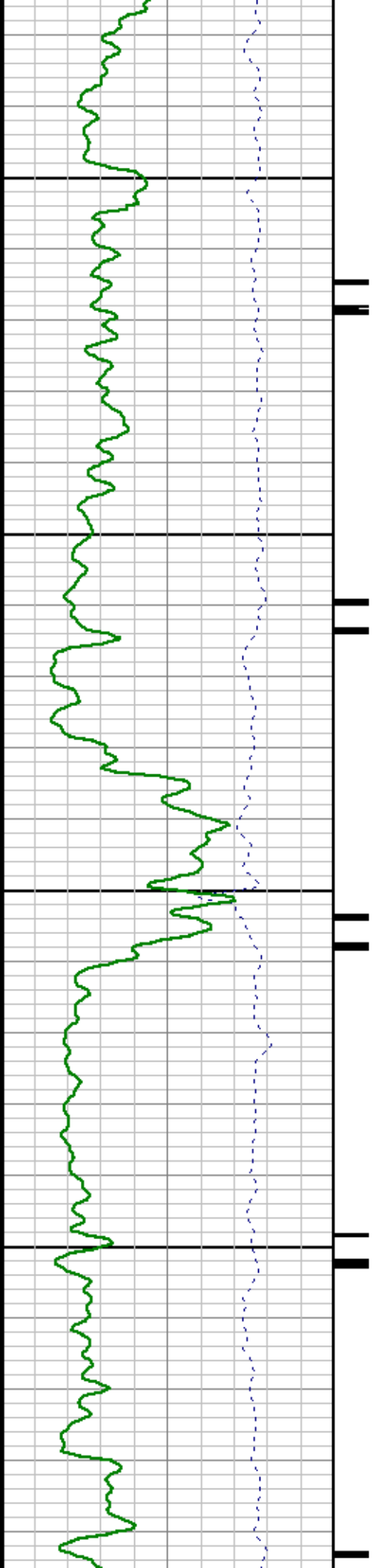


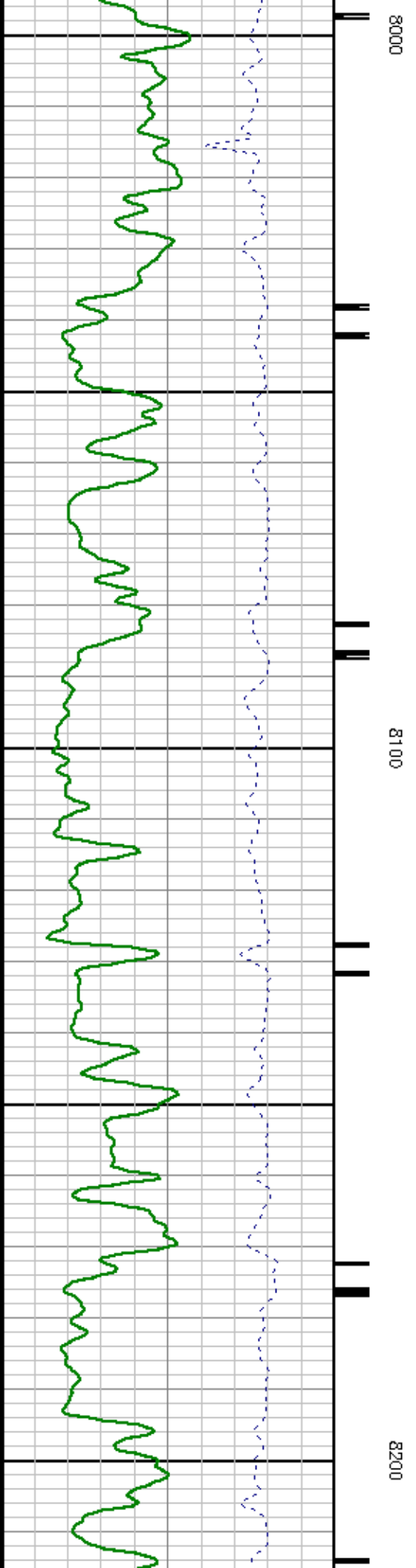
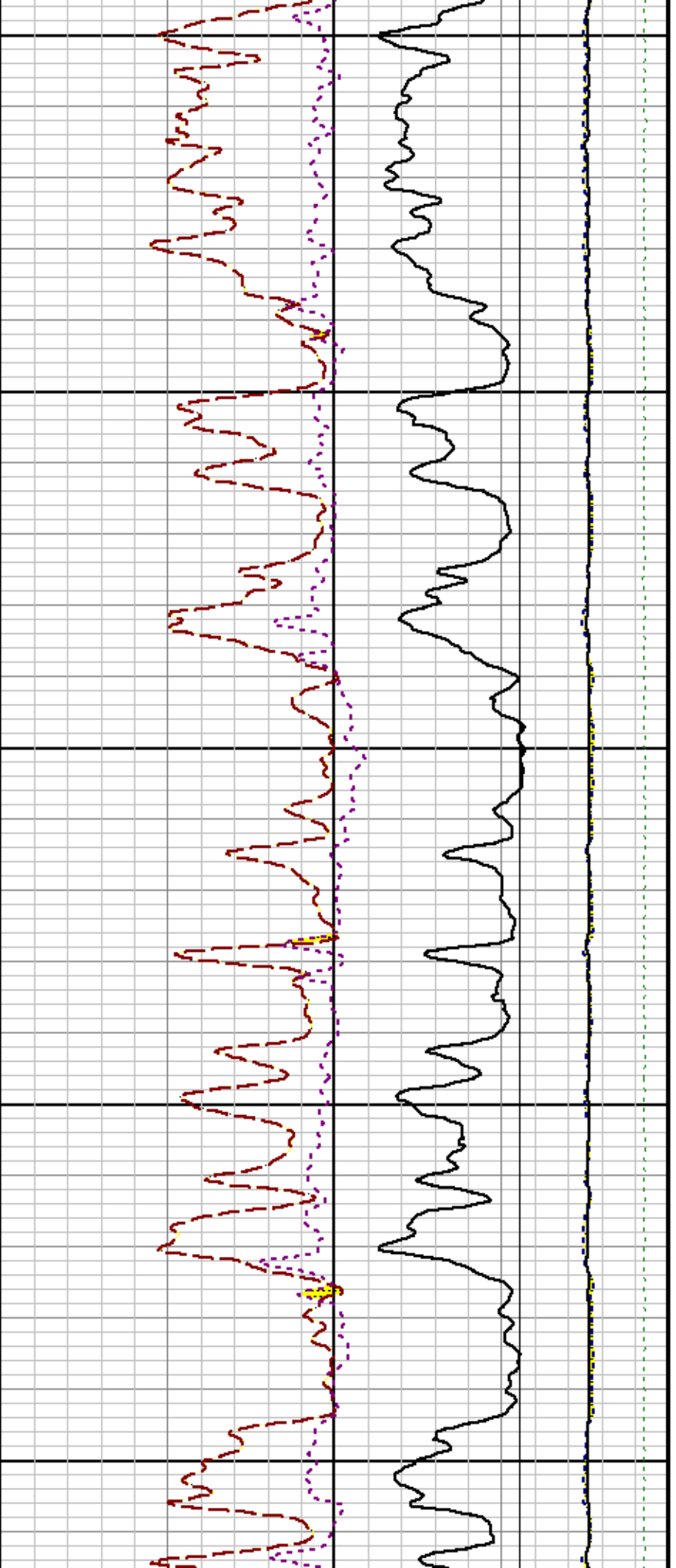


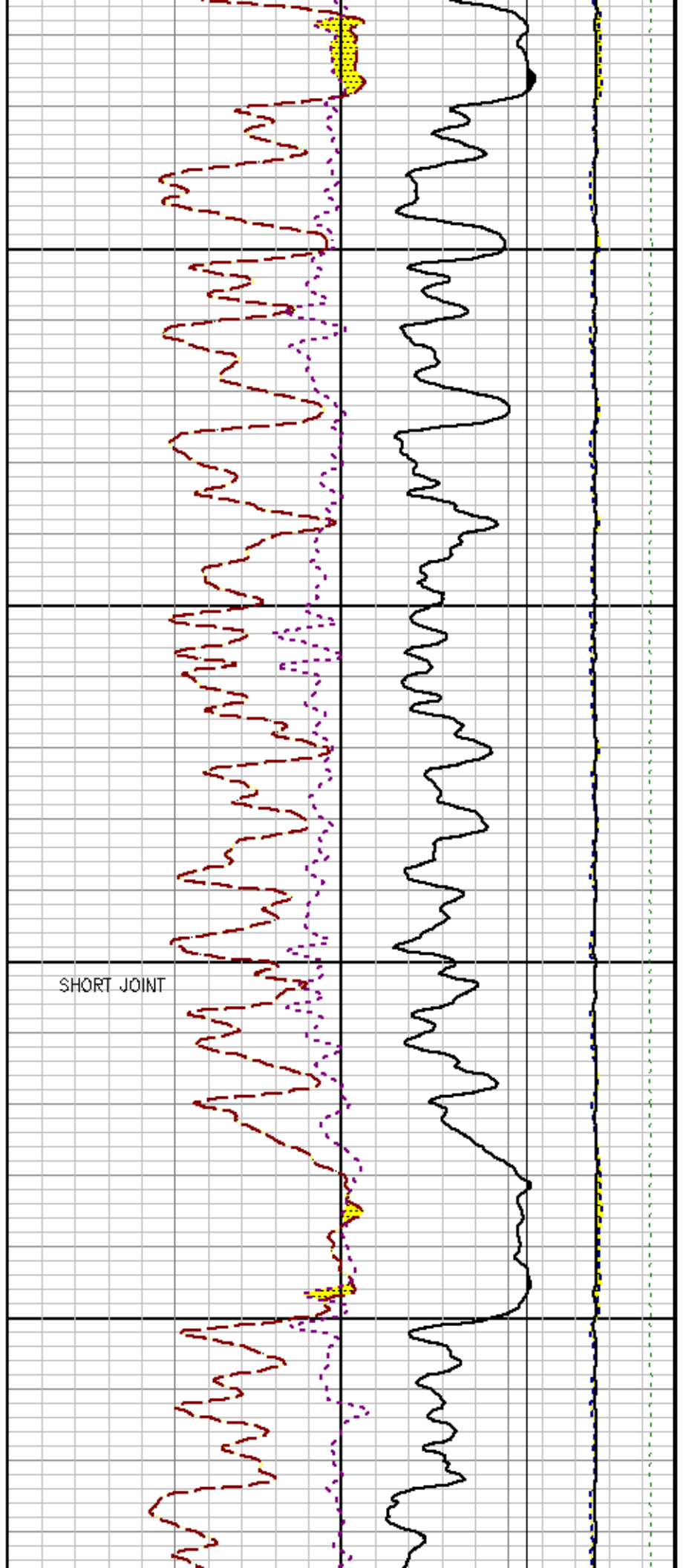


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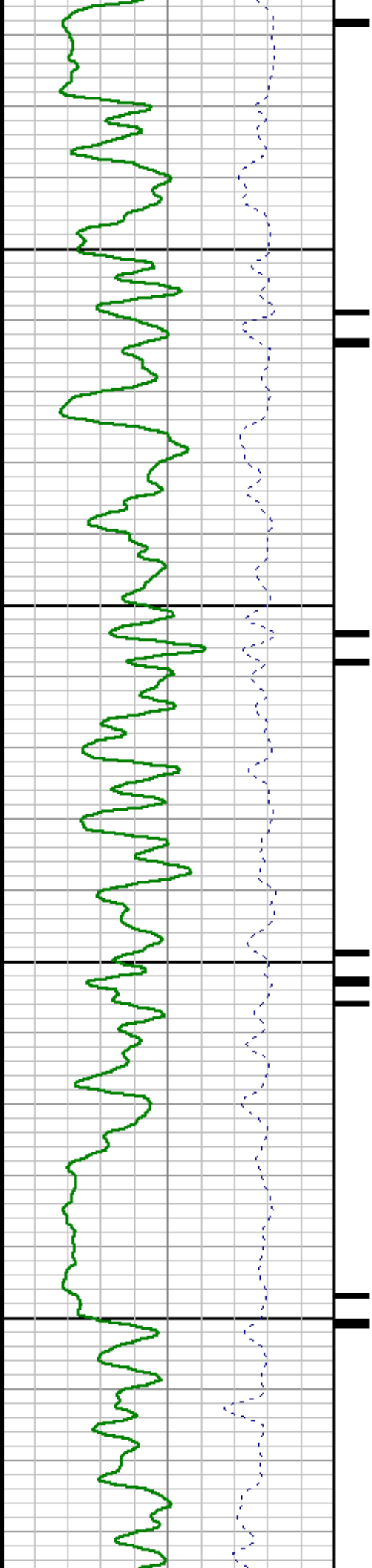


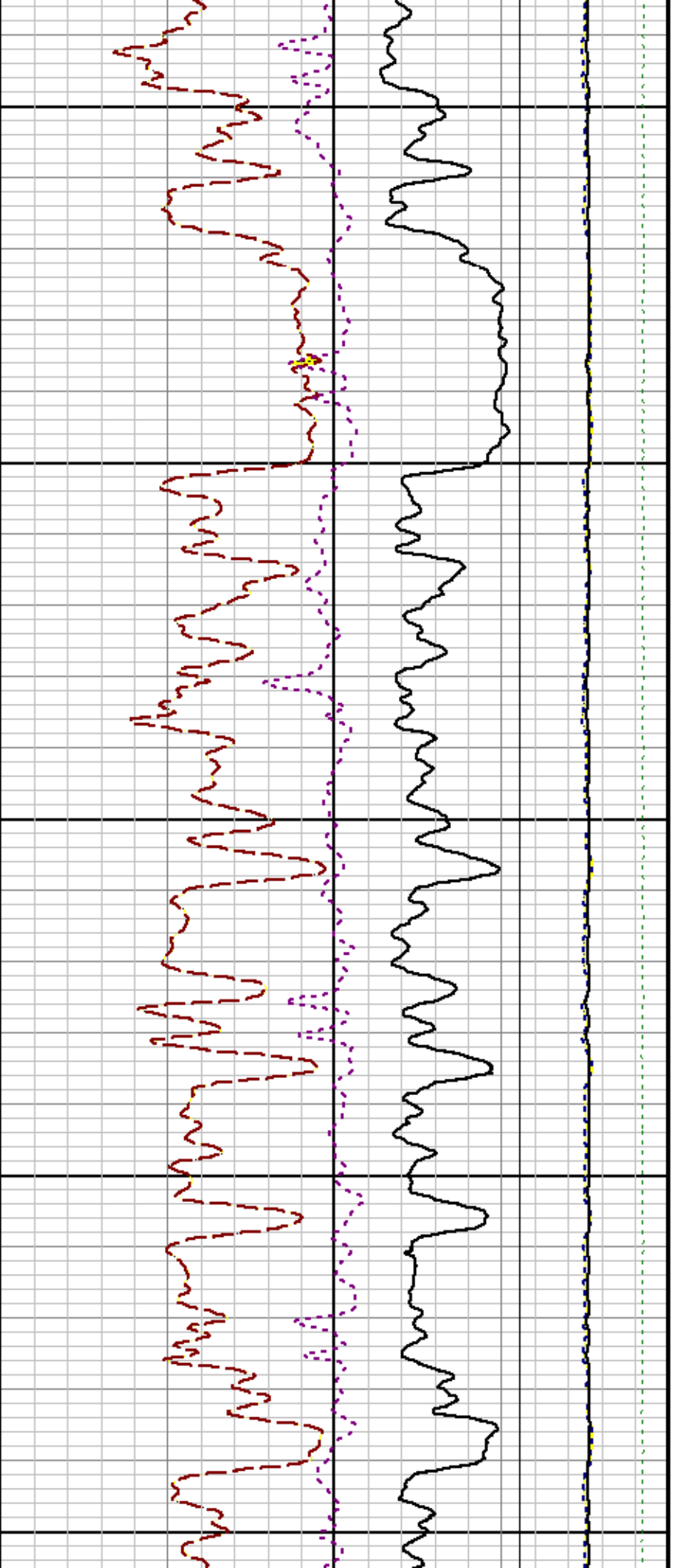




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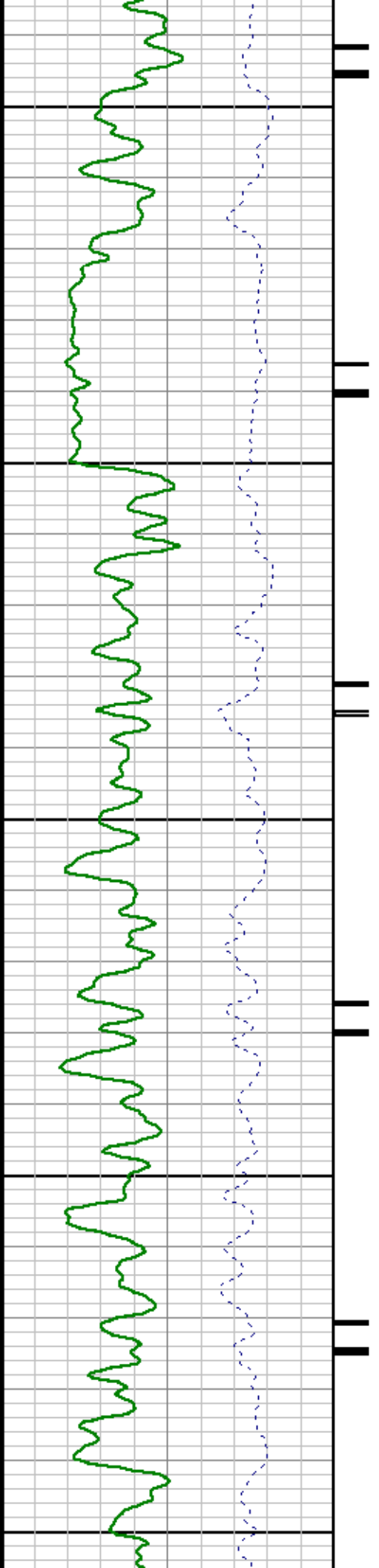
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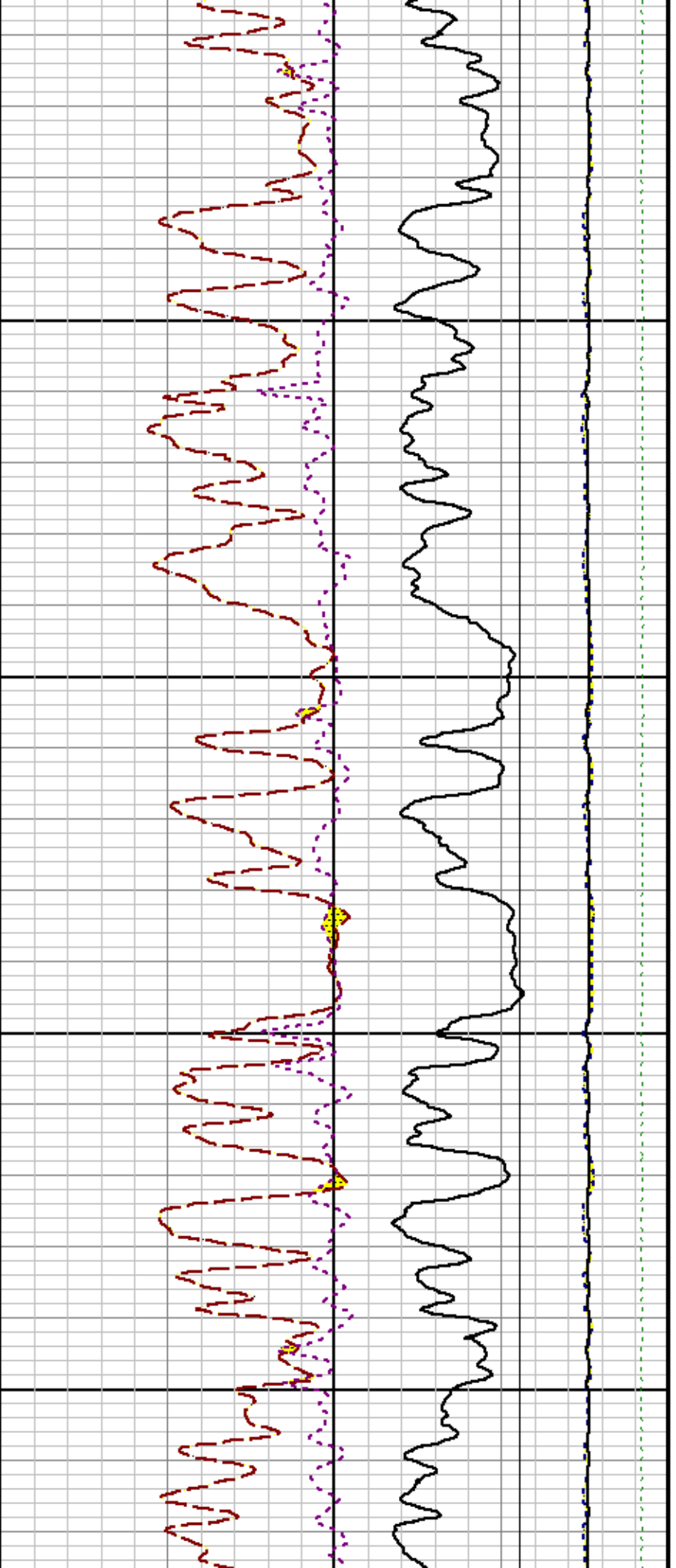




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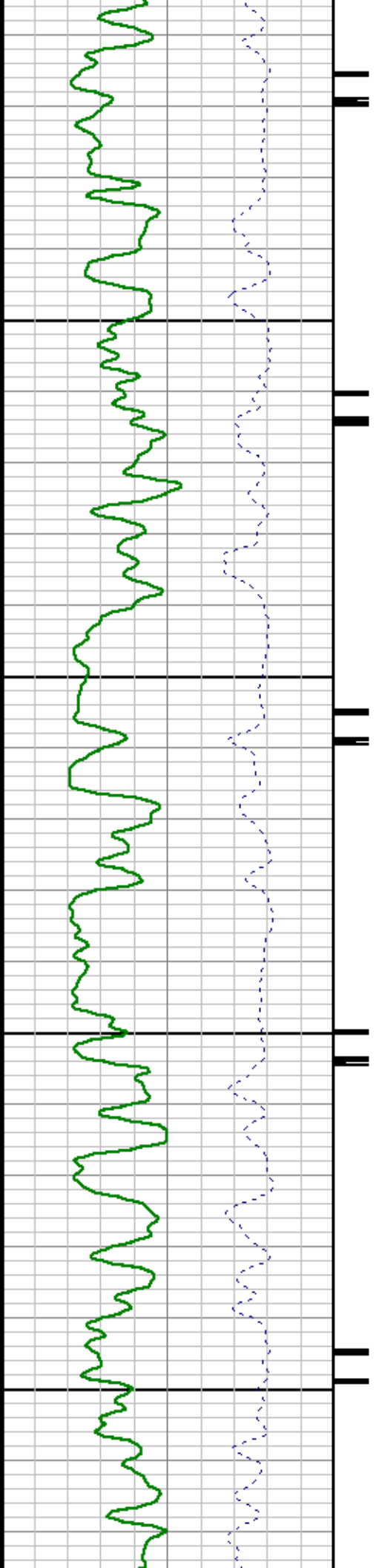
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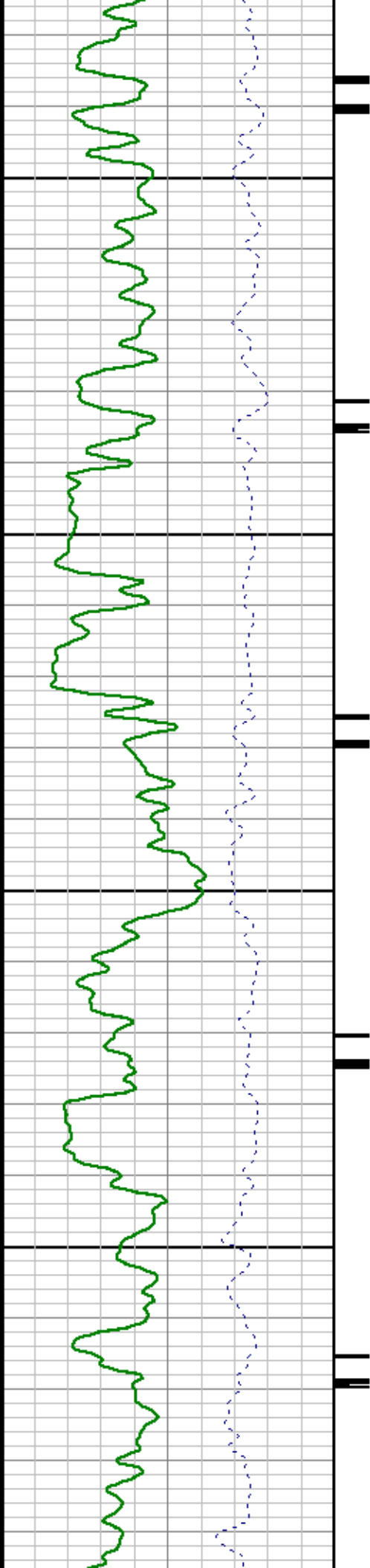




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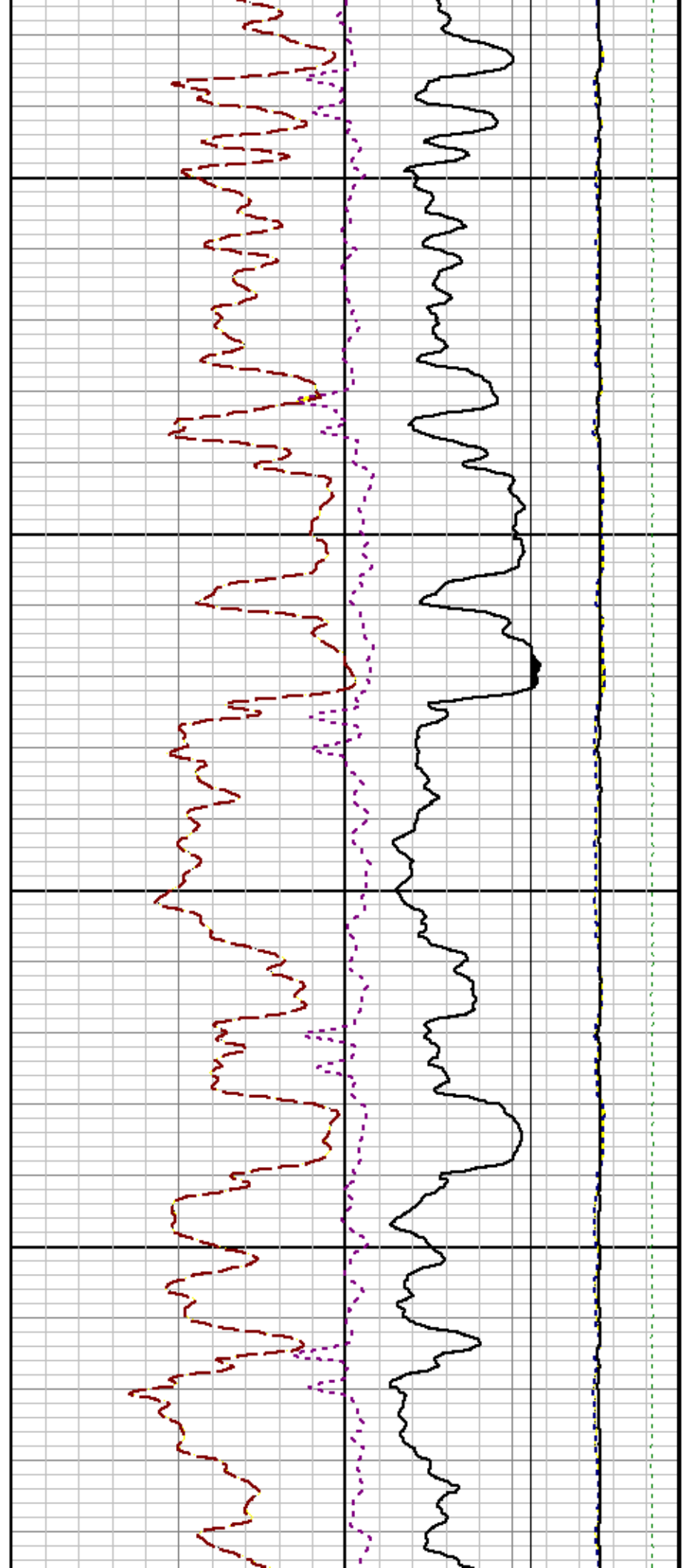
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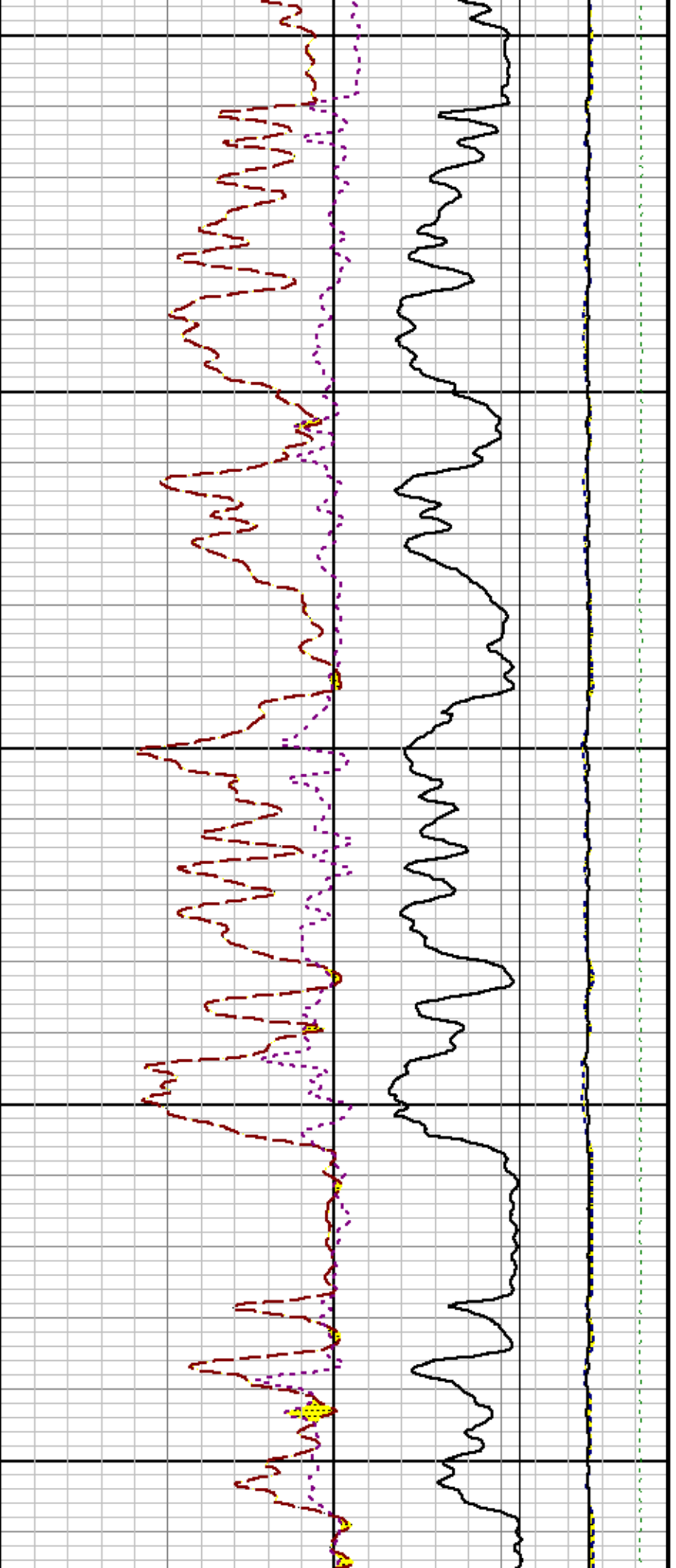




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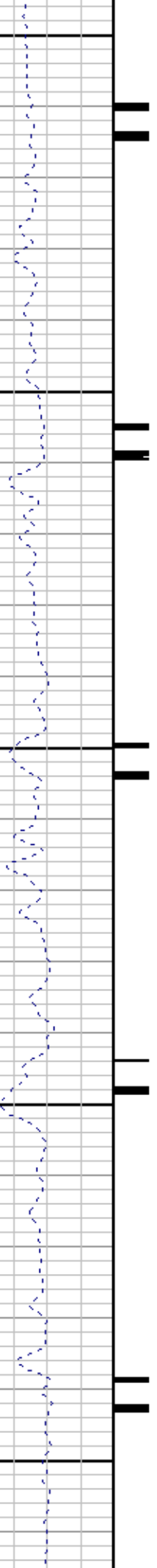


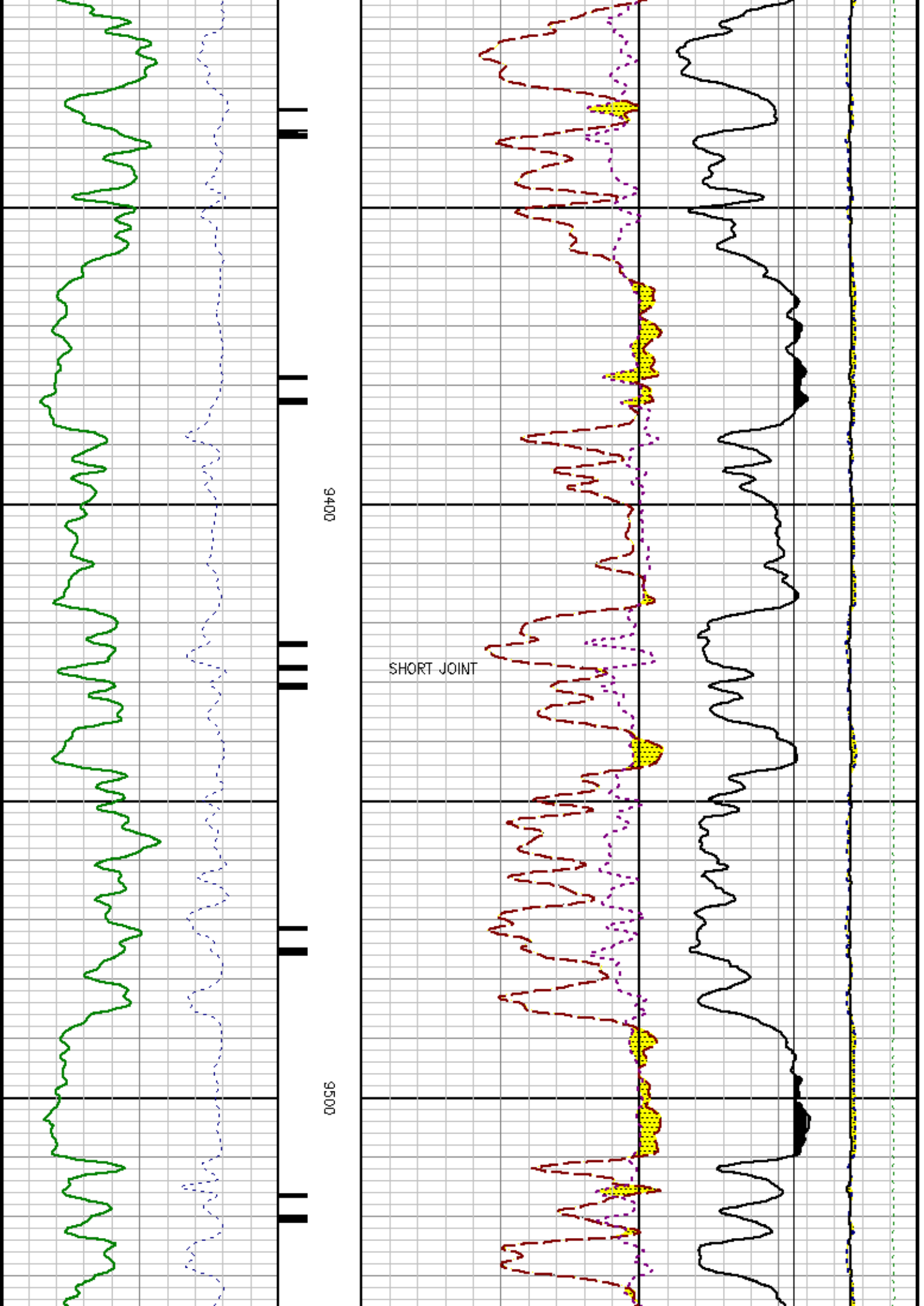


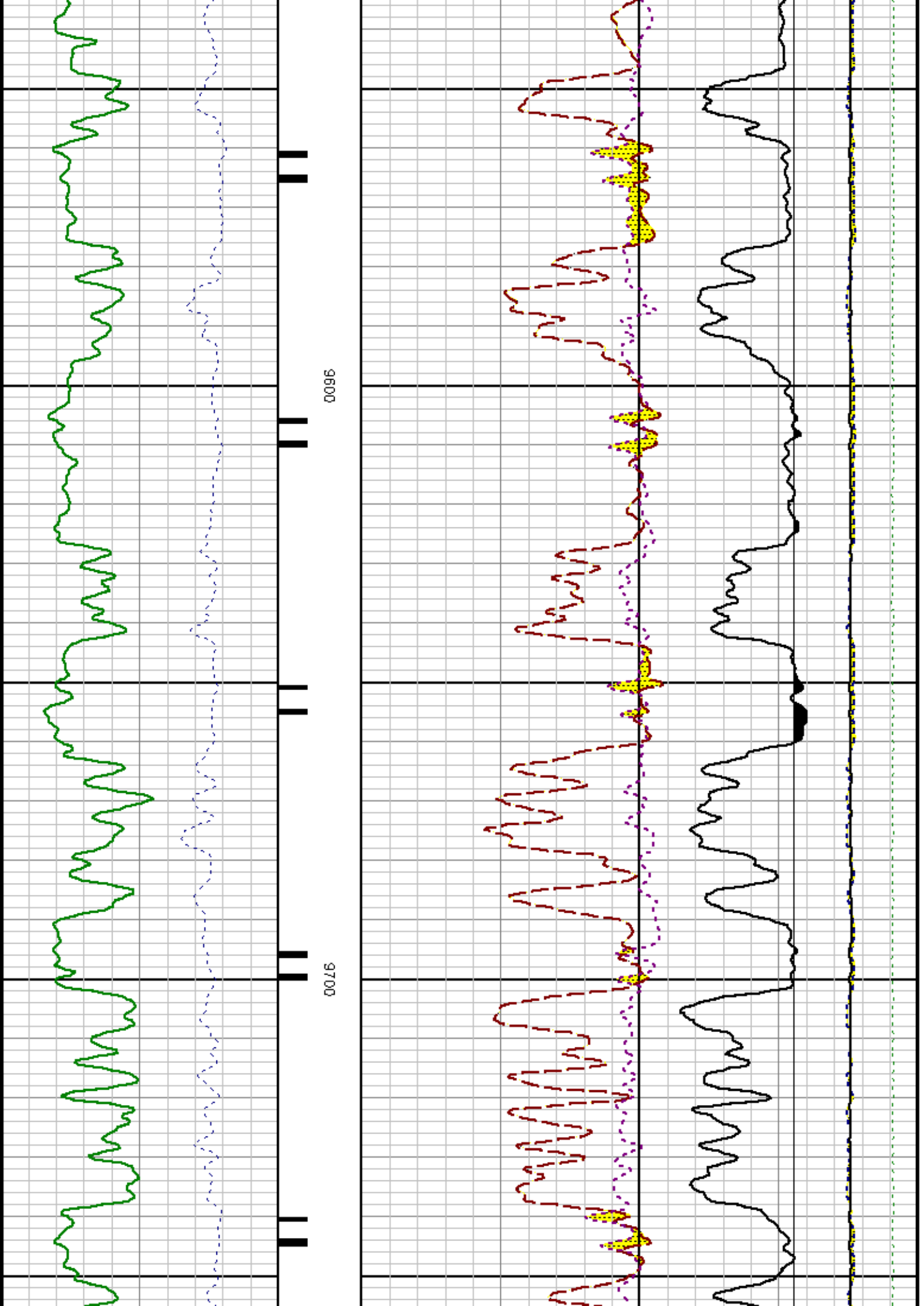
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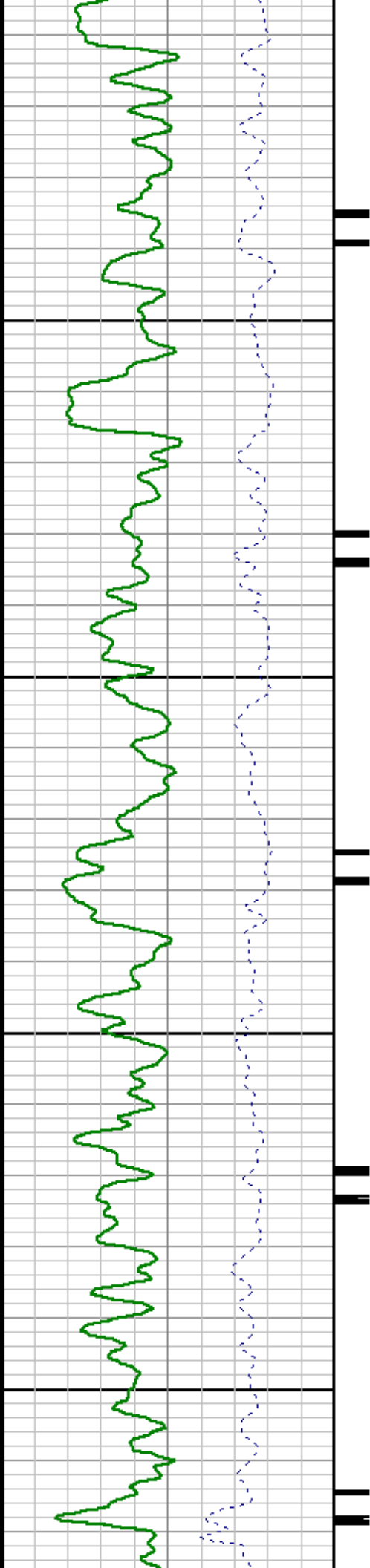
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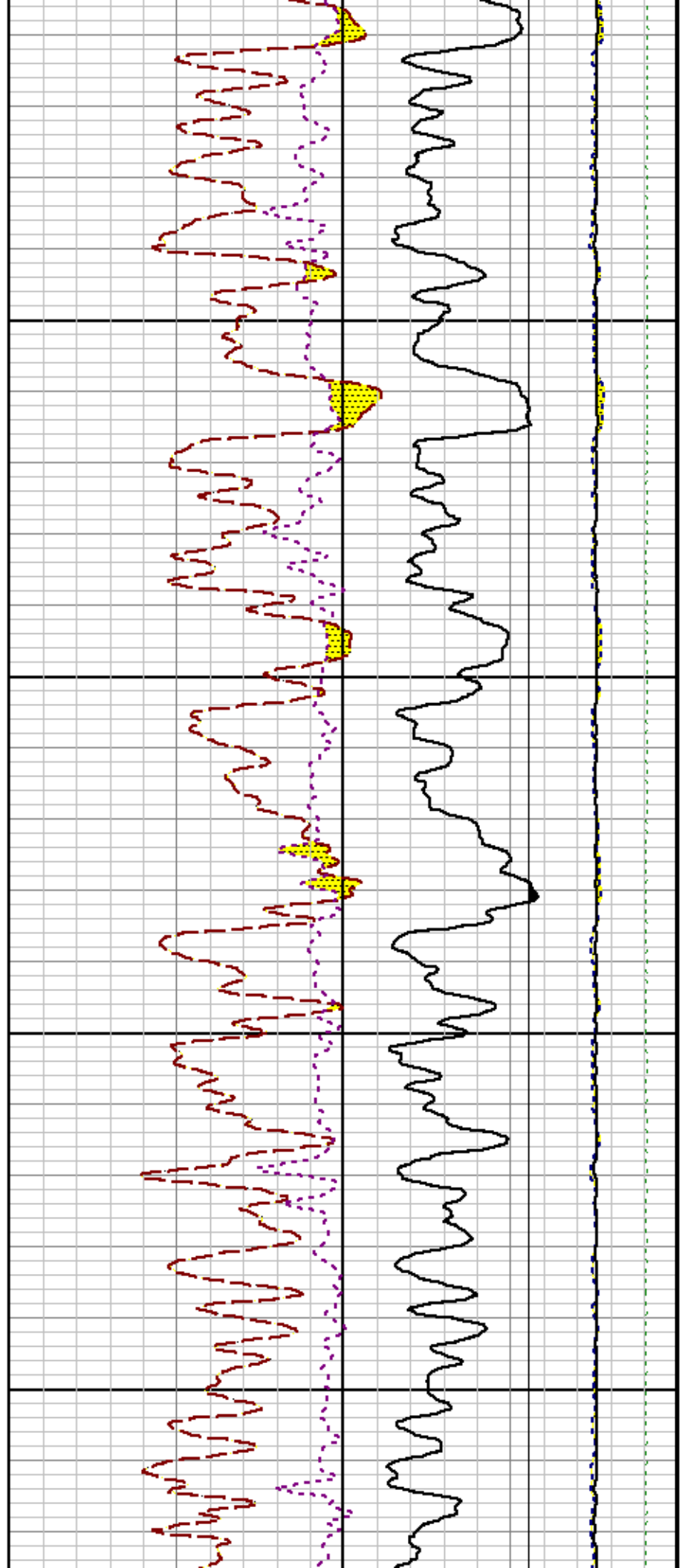


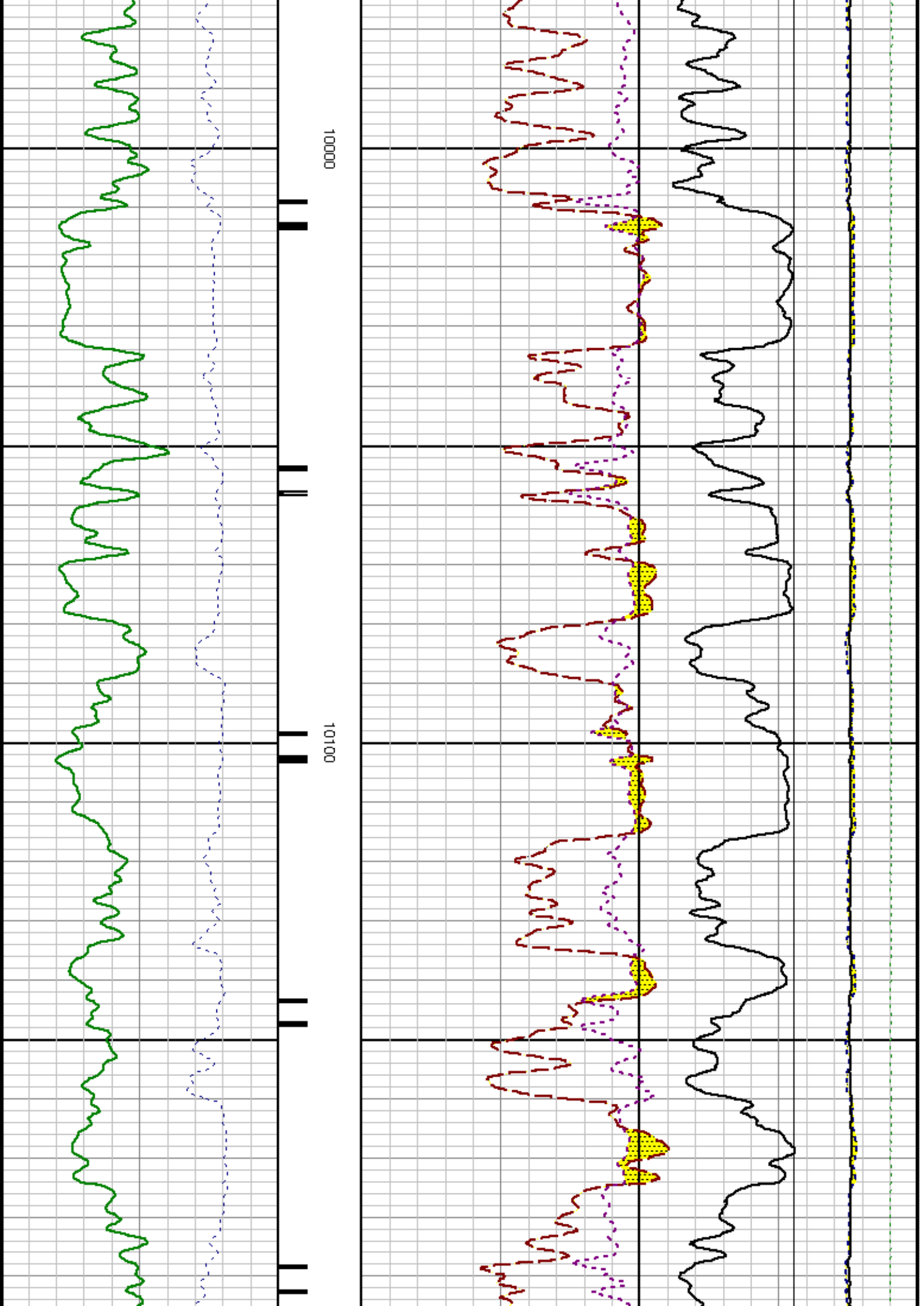


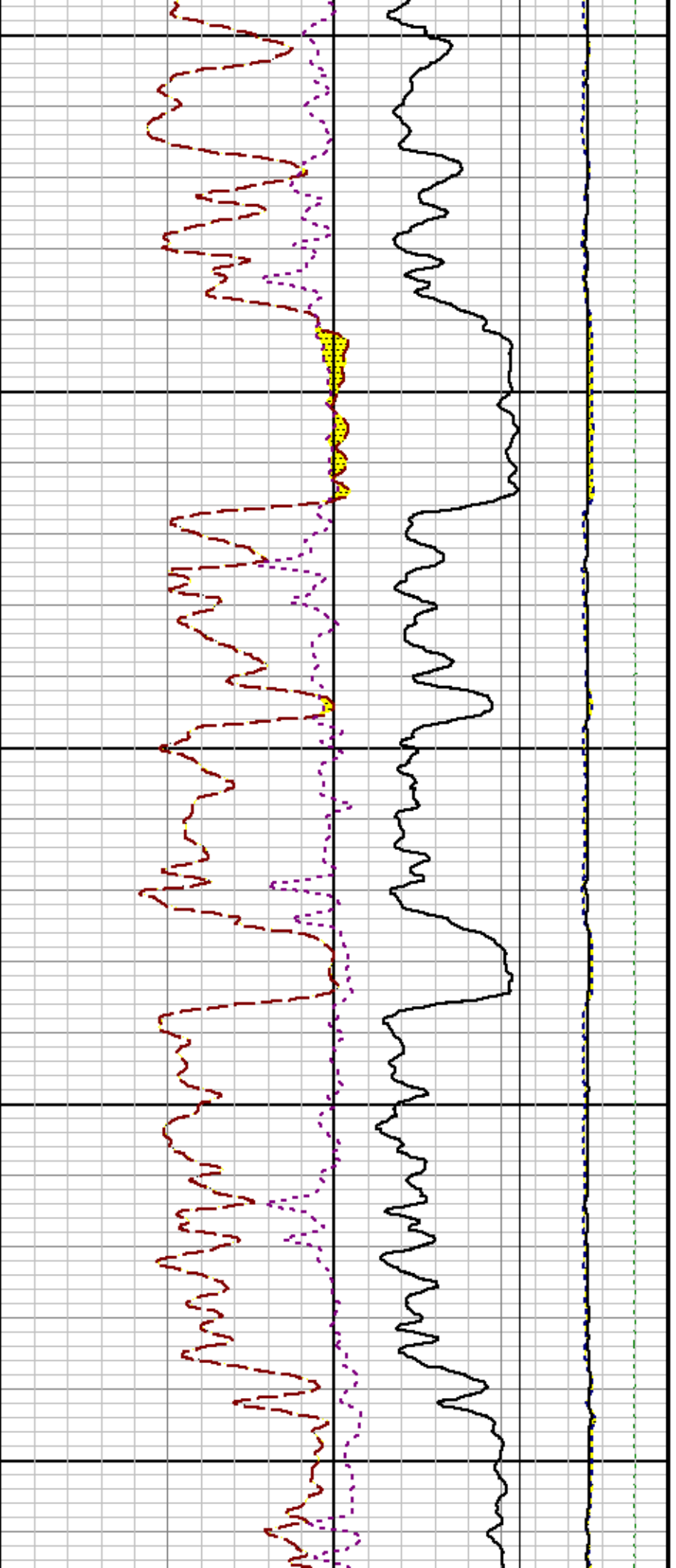


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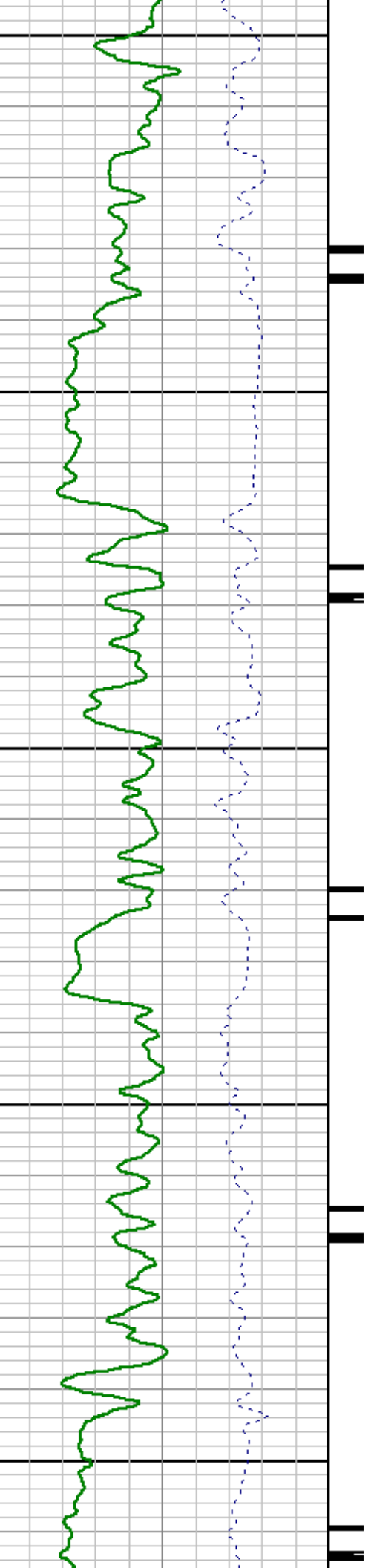


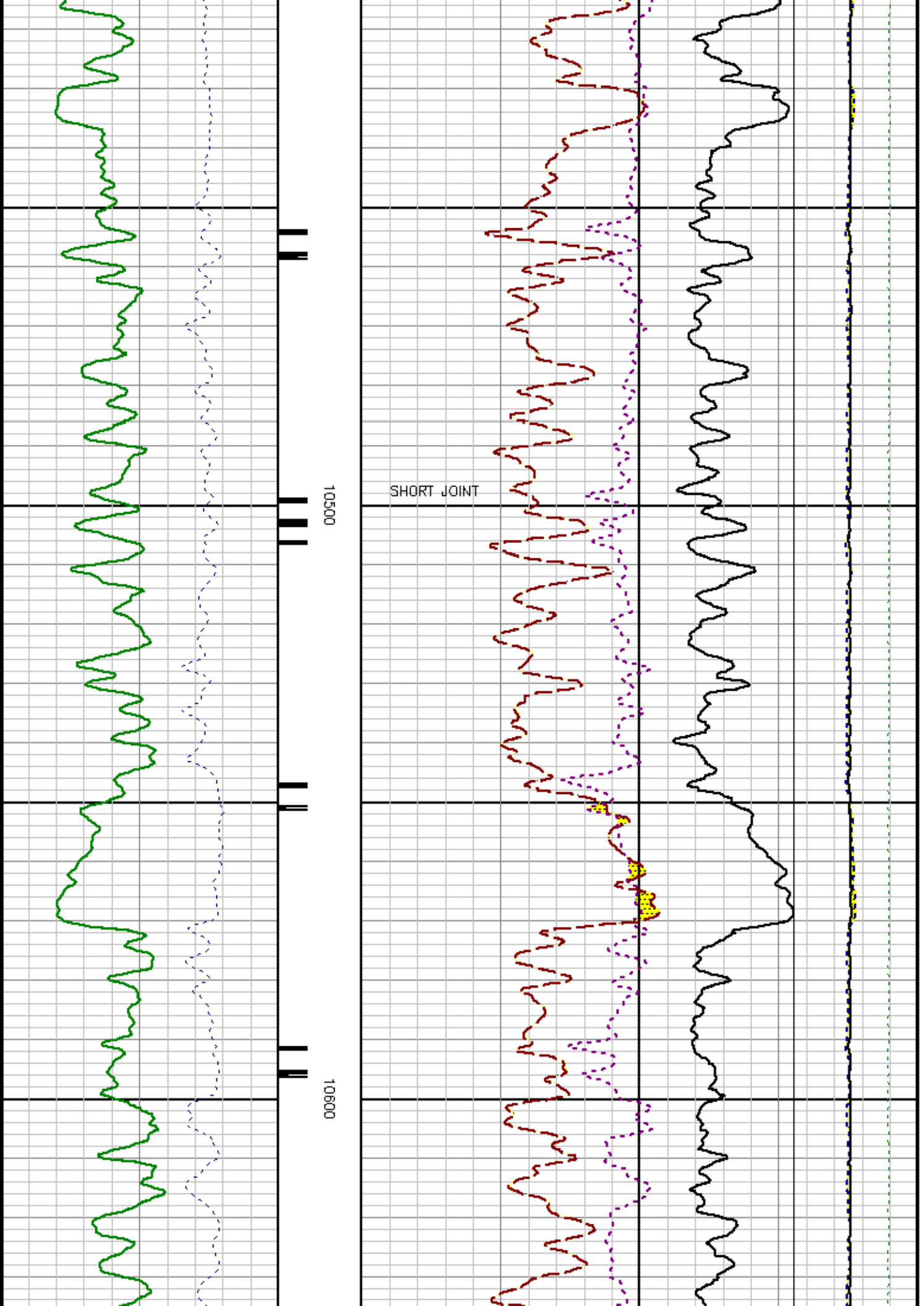


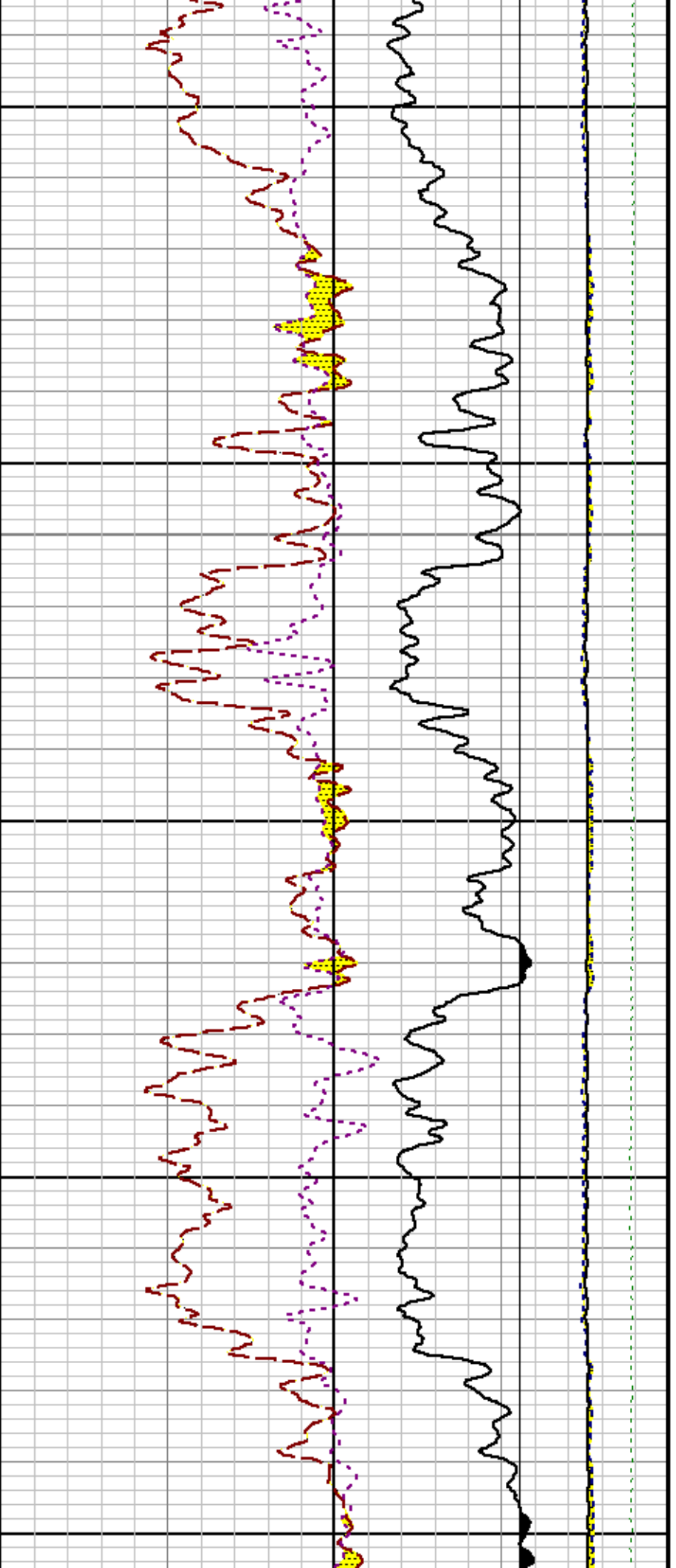
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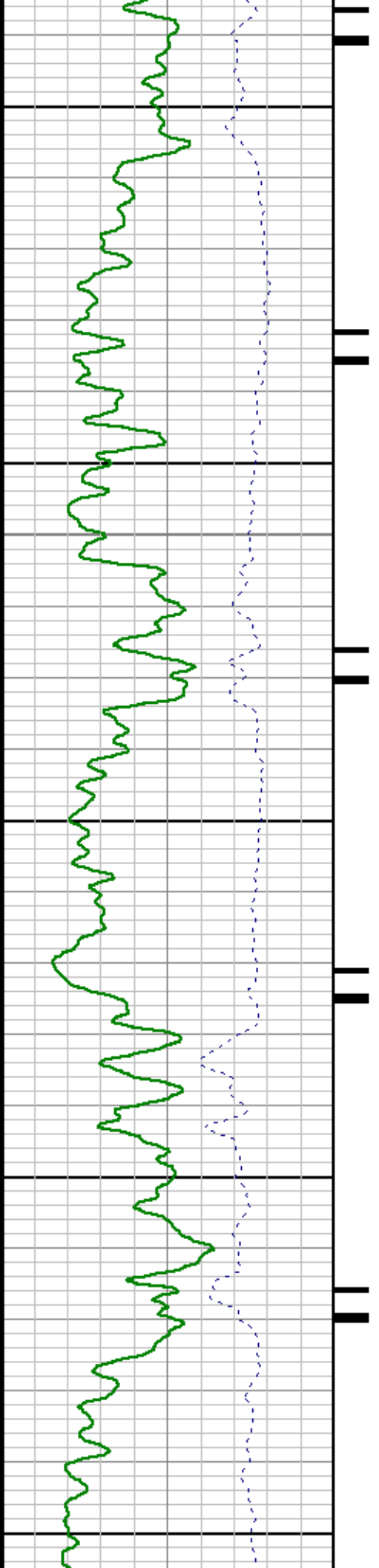


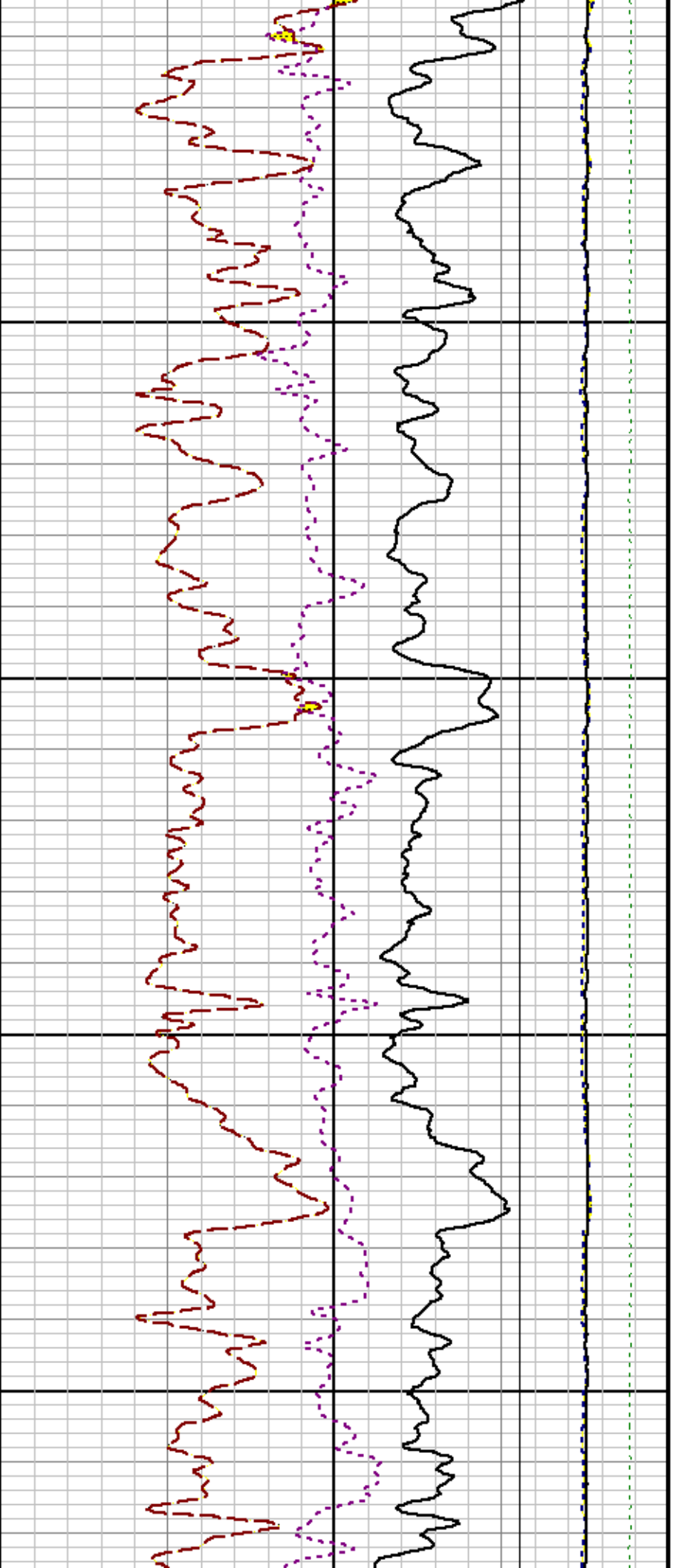




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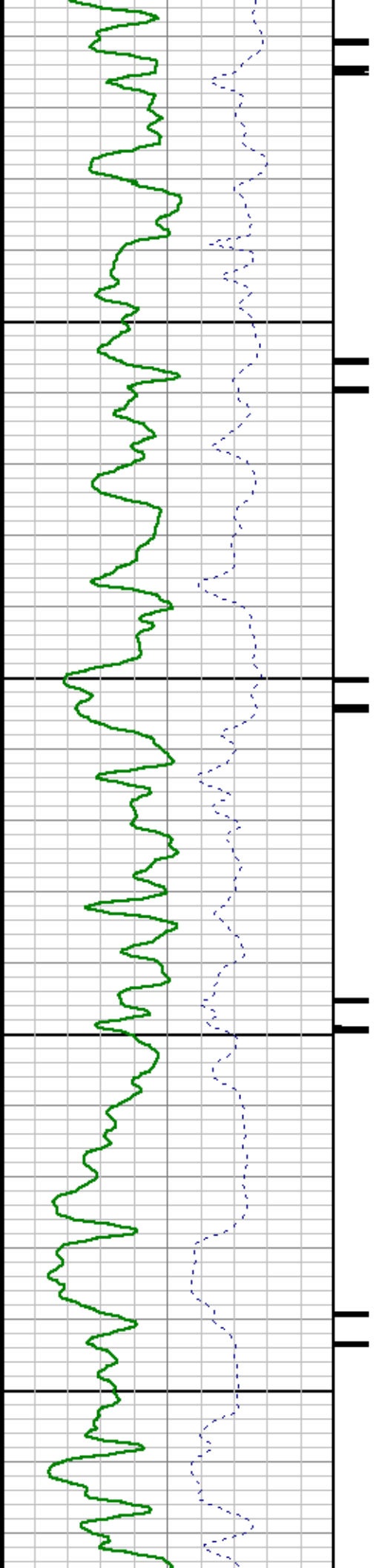
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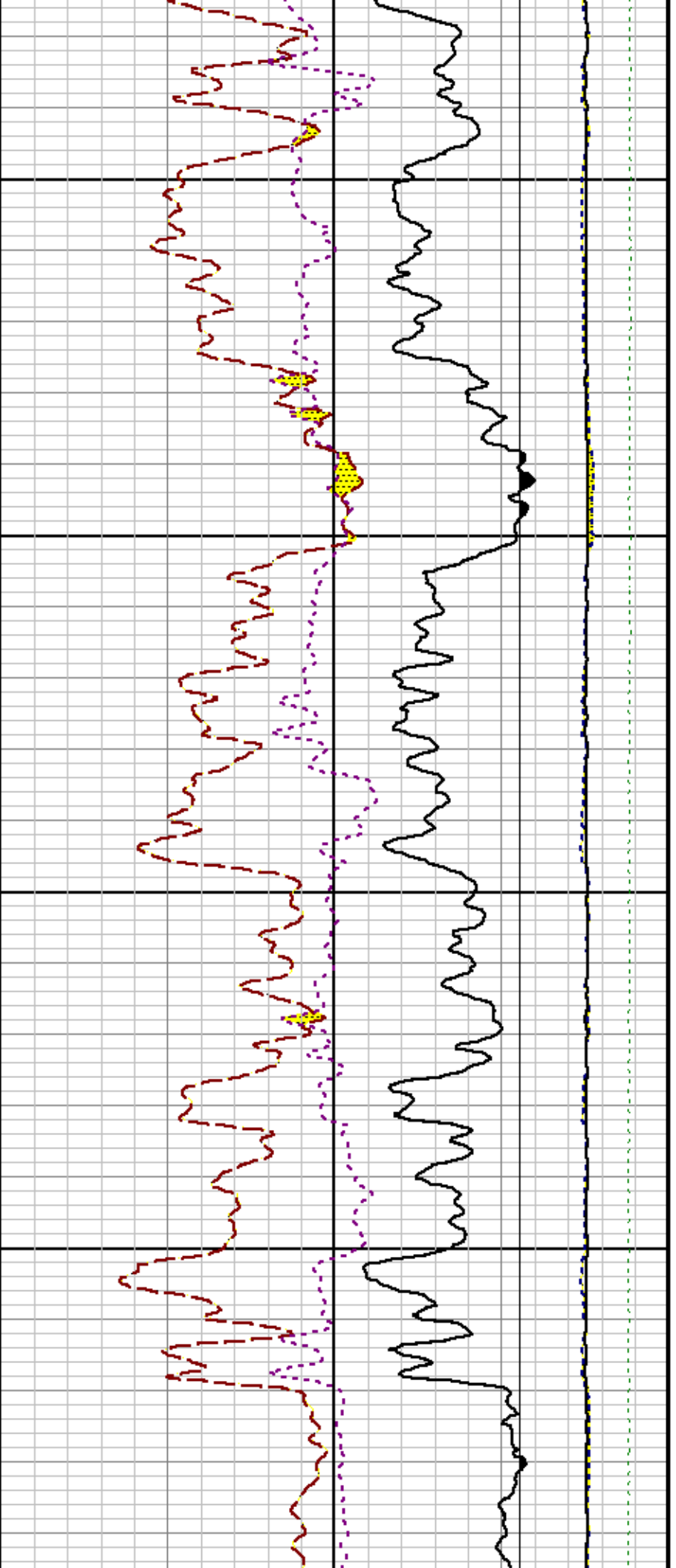




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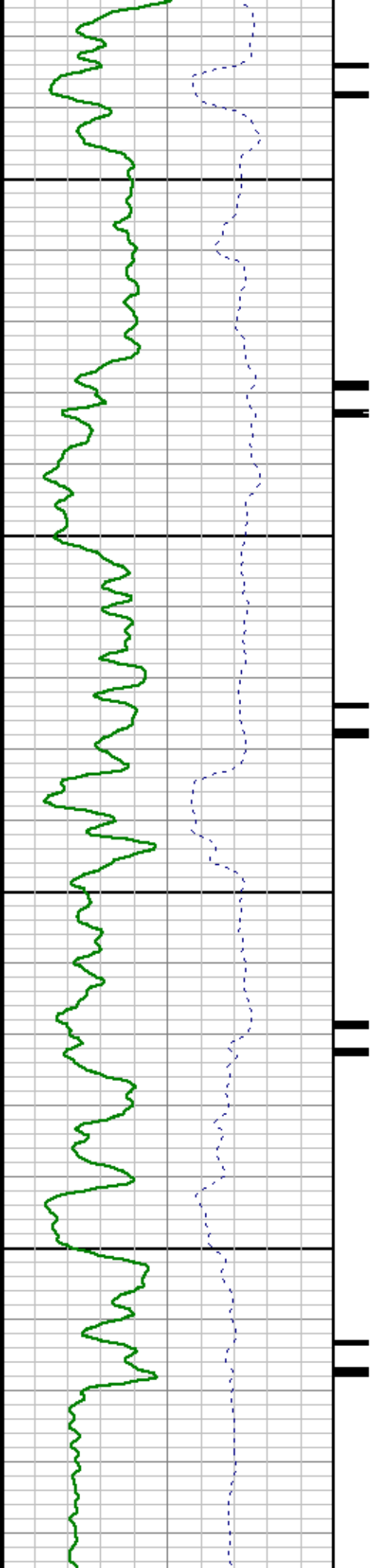
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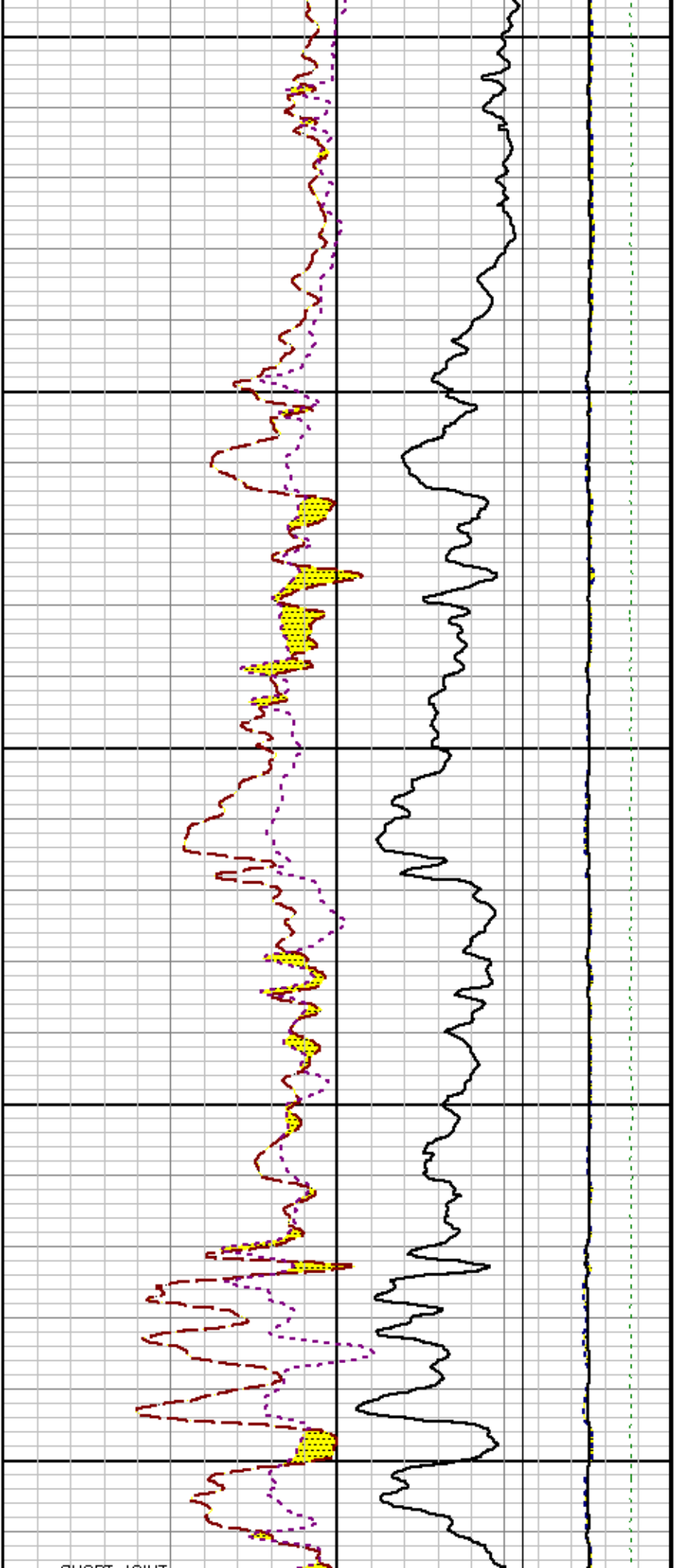




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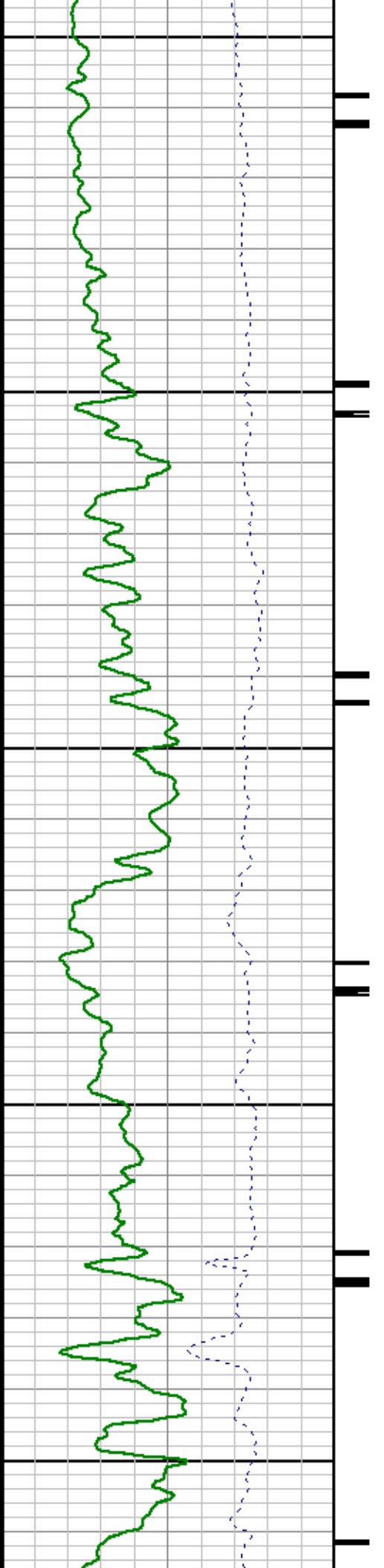




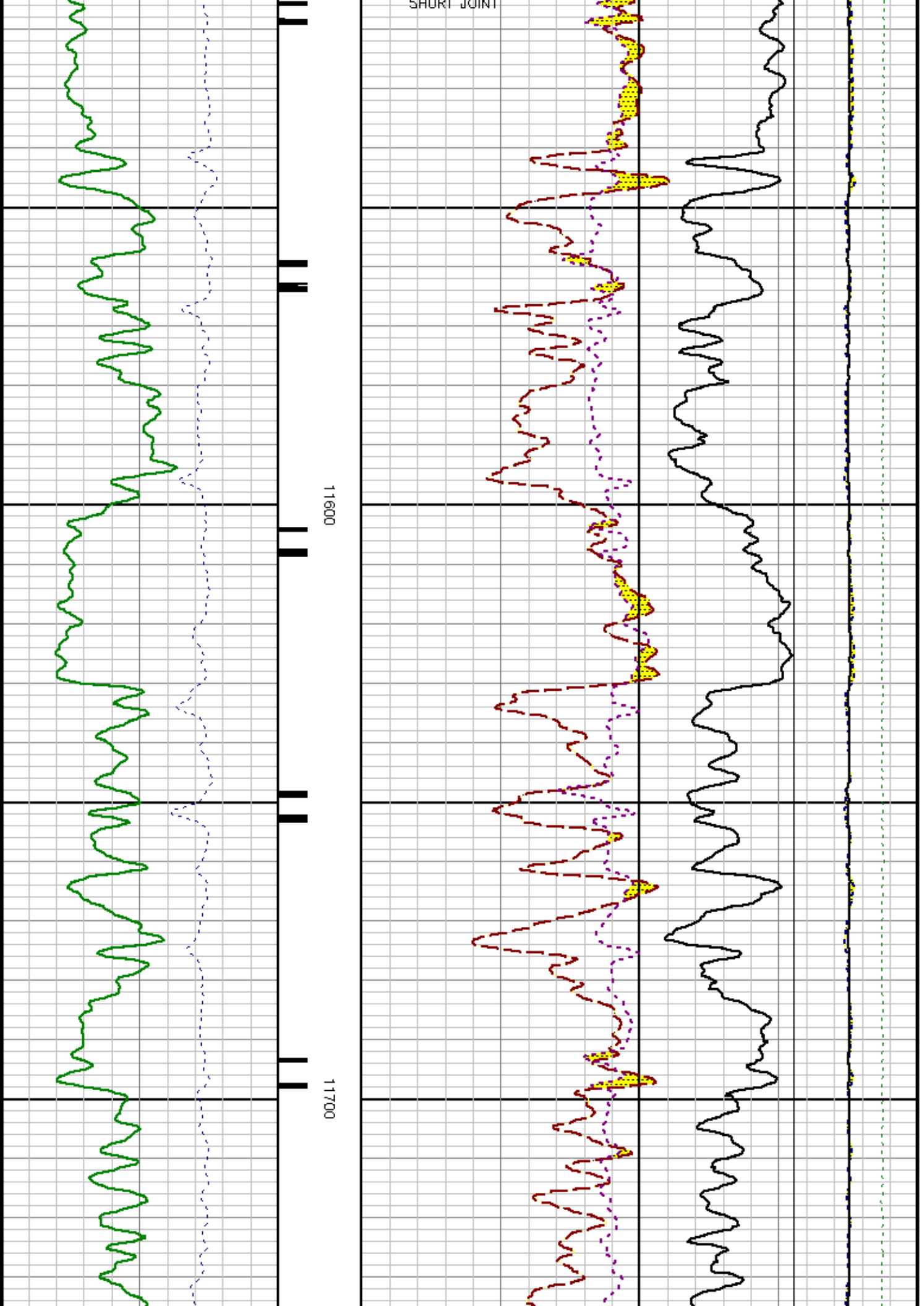
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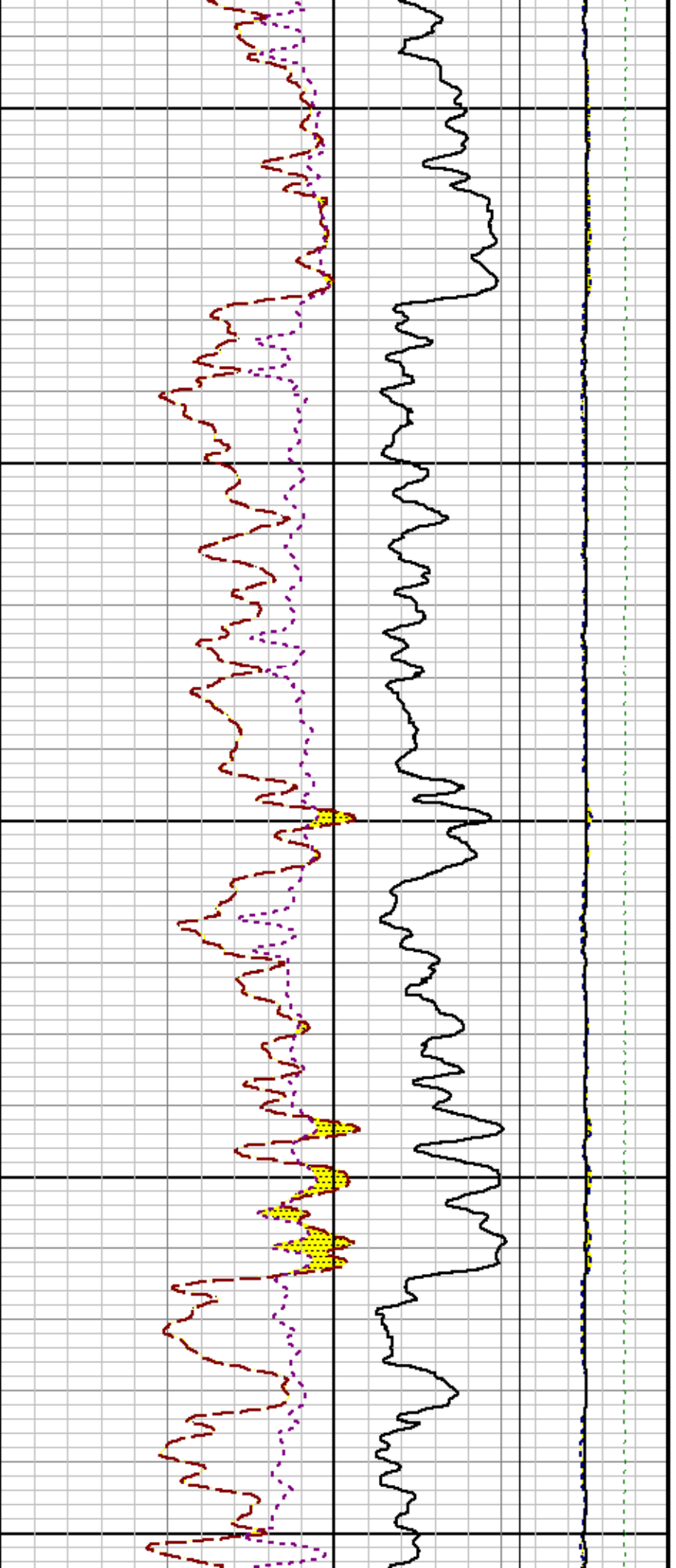
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11500



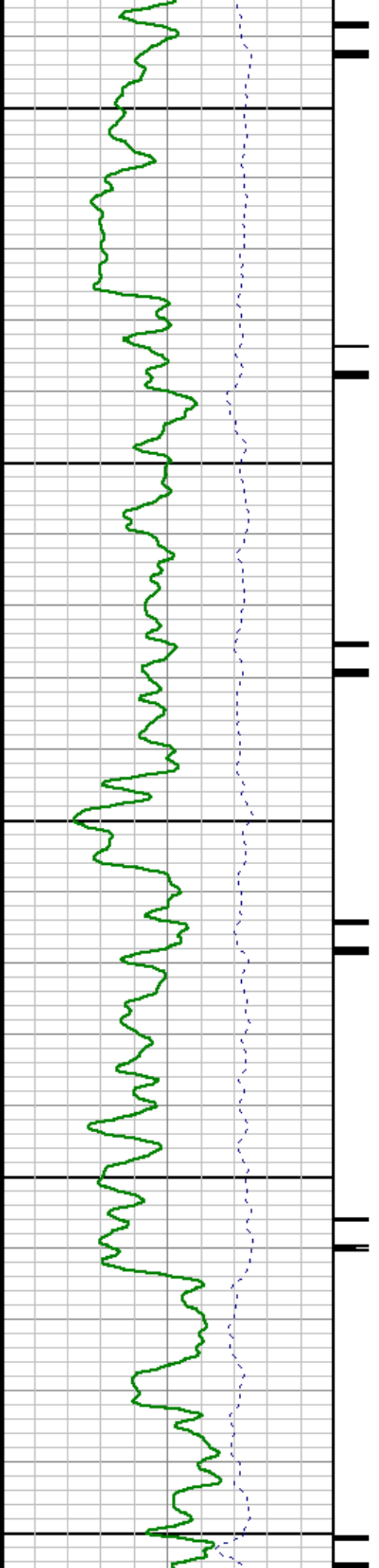
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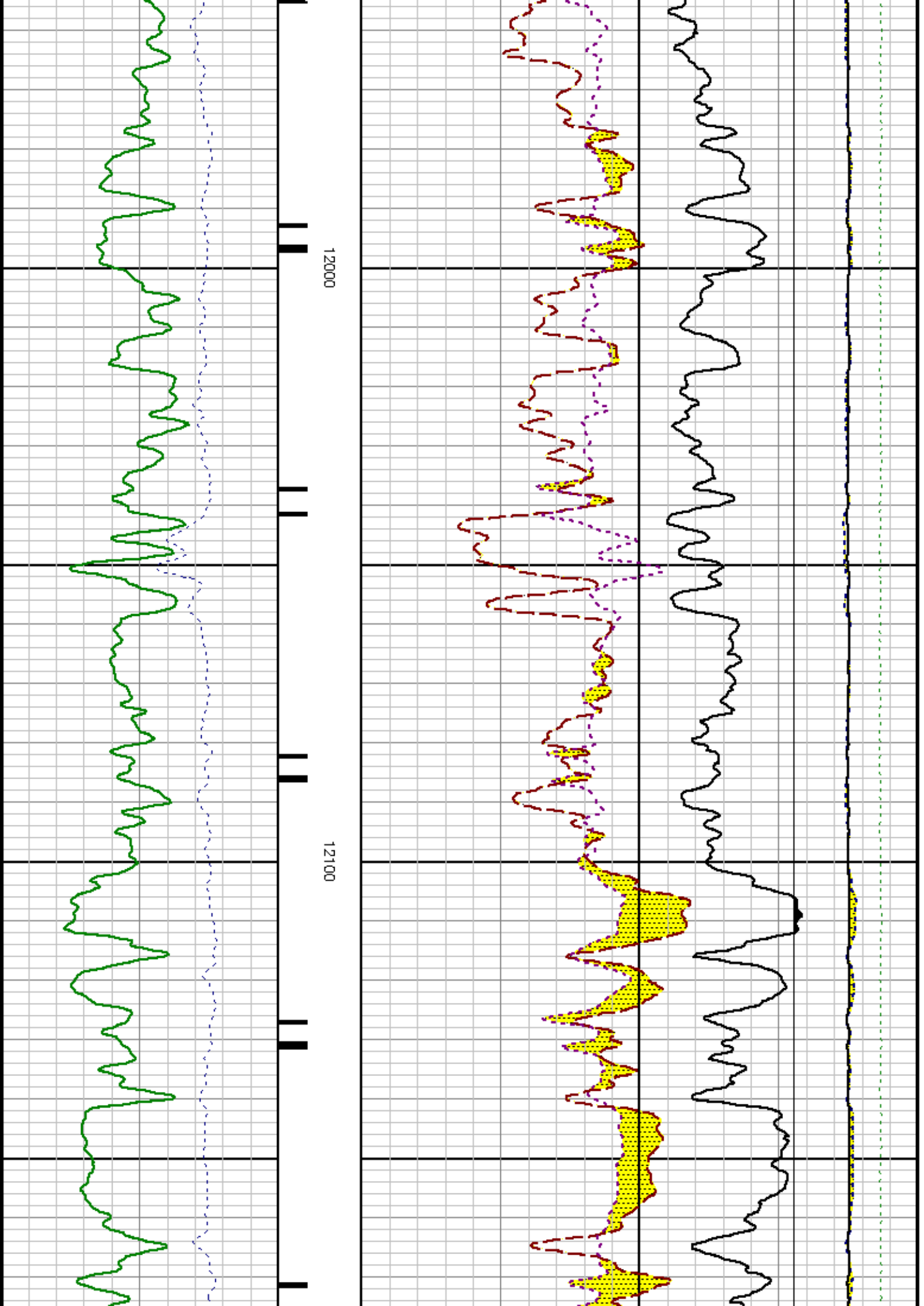


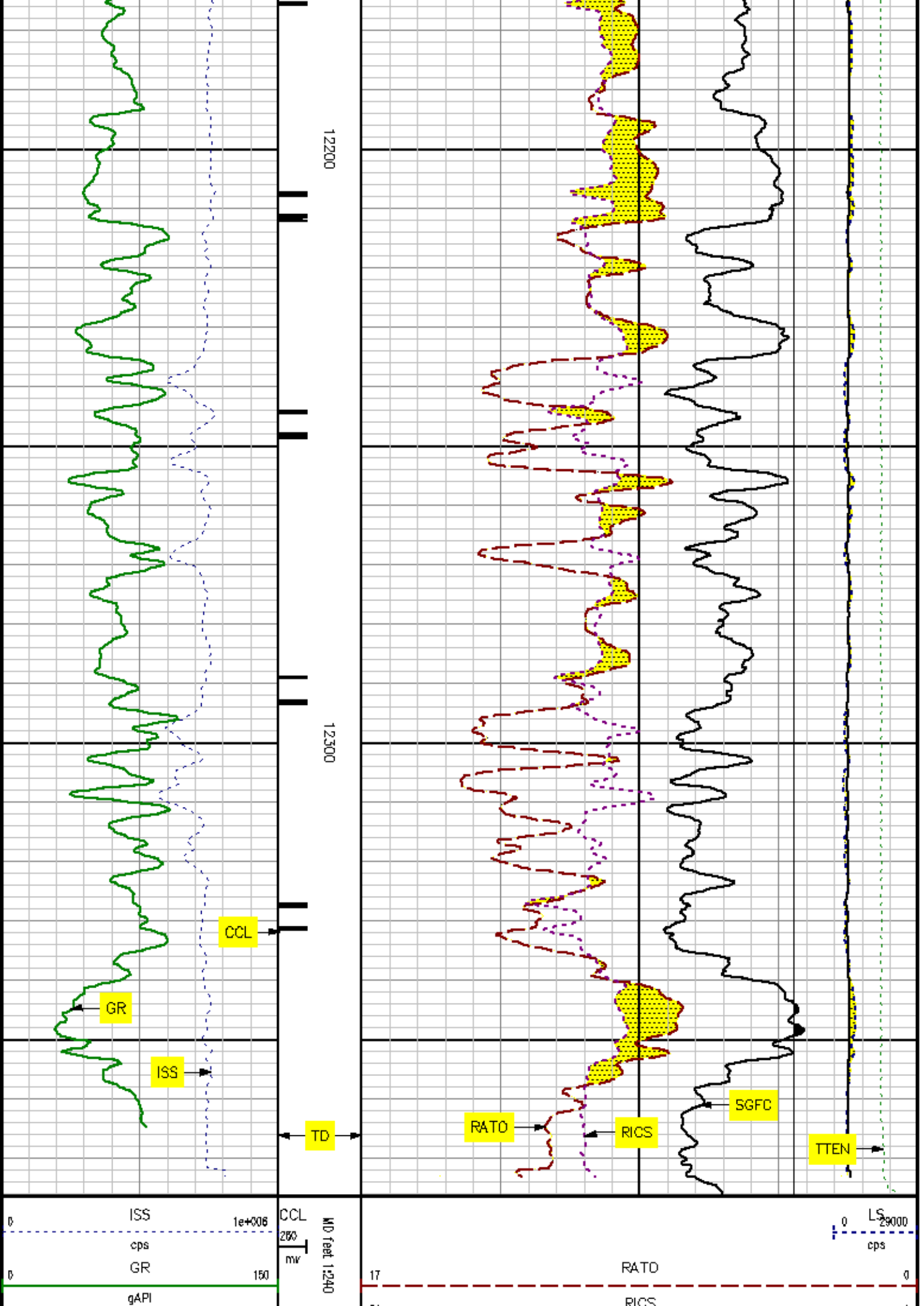


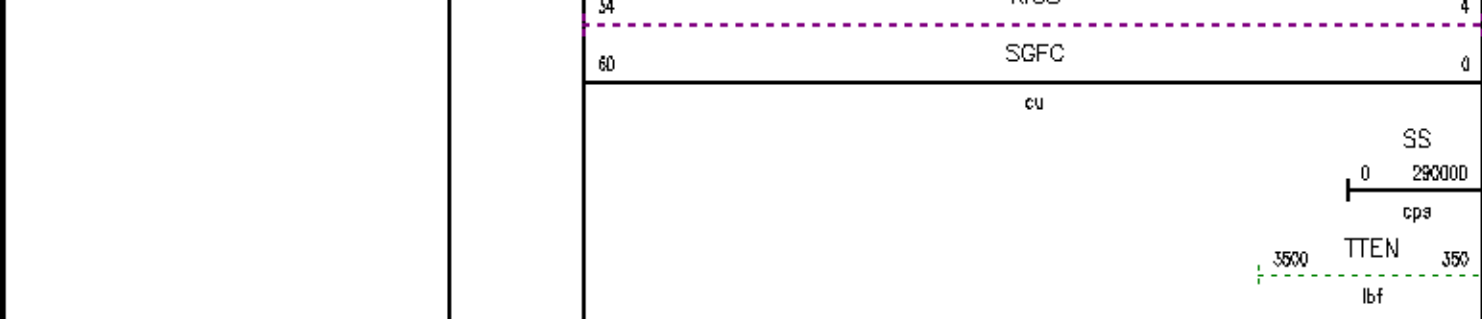
11800

11900









REPEAT SECTION

SPL PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
PNC Porosity	Borehole	Cased		11862.234	12383.797
PNC Porosity	Borehole Size	6.125	inch	11862.234	12383.797
PNC Porosity	Casing Size	4.500	inch	11862.234	12383.797
PNC Porosity	Gas Filled	Non Gas Filled		11862.234	12383.797
PNC Porosity	Matrix	Sandstone		11862.234	12383.797

DEPTH OFFSETS

(for Acquired Curves)

SERIES	DEPTH OFFSET	ACQUIRED CURVES					
8248EA	-15.470	FLTM					
8248EA	-13.470	CCL 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
		RICKC	RIN13C	RIN23	RIN23C	SD3D	SG3D
		SGB3	SGF3	WDTH3	CXSR	IXSR	XSR
		RICKR					
8281XA	-0.250	HVC200	SEQ2	AMA2	AMB2	AMF2	AML2
		BKL	CHF2	CLS	CPT200	CPT202	CPT203
		CPT204	ET2	ILS	LS	MCS2	MCS200
		QCAL2	RGN2	RIGL	RONE23	RTW023	SDA2

8281XA

0.000

SDL2	SGA2	SGB2	SGF2	SGK2	SGL2
STA2	ASPEC2	ILSC	ILSN	WIDTH2	RICLC
CLSR	ILSR	LSR	RICLR		
CPRS	HVC100	MV	SEQ	SEQ1	AMA1
AMB1	AME1	AMF1	AML1	BKS	CHF1
CSS	CORB	CORF	CPT100	CPT102	CPT102A
CPT102B	CPT102C	CPT103	CPT104	CPT105	ET1
G1	G2	GE1S	GE2S	ISS	MCS1
MCS100	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	WIDTH1	RICSC	CSSR	G1R
G2R	ISSR	SSR	SS2R	RATOR	RAT013R
RBORR	RICSR	RINR	RIN13R	RONER	RPORR
RTWOR					
SYSTEM	0.000	TEN	TTEN		

Created by : MIXED

Plotted by : PlotMgr, v5.4.504

Company : EXXONMOBIL PRODUCTION COMPANY

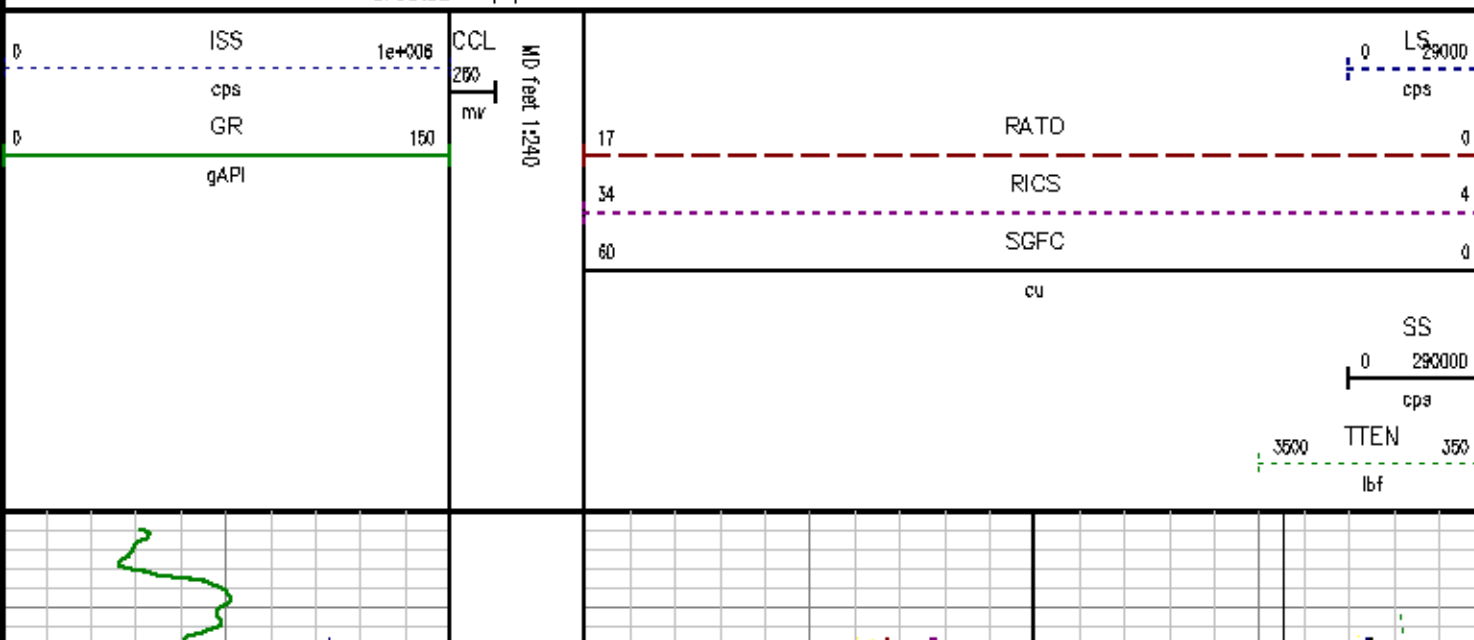
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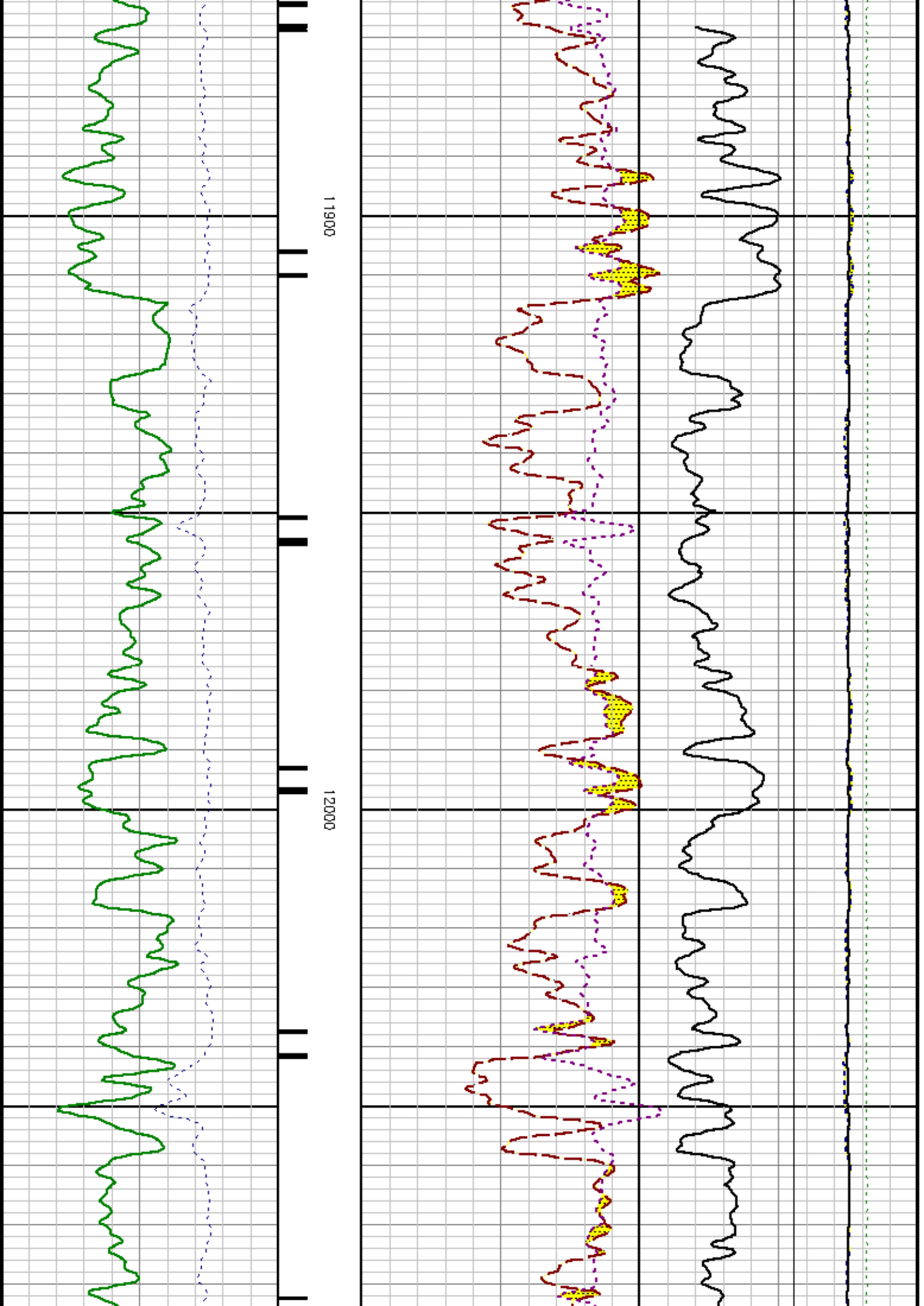
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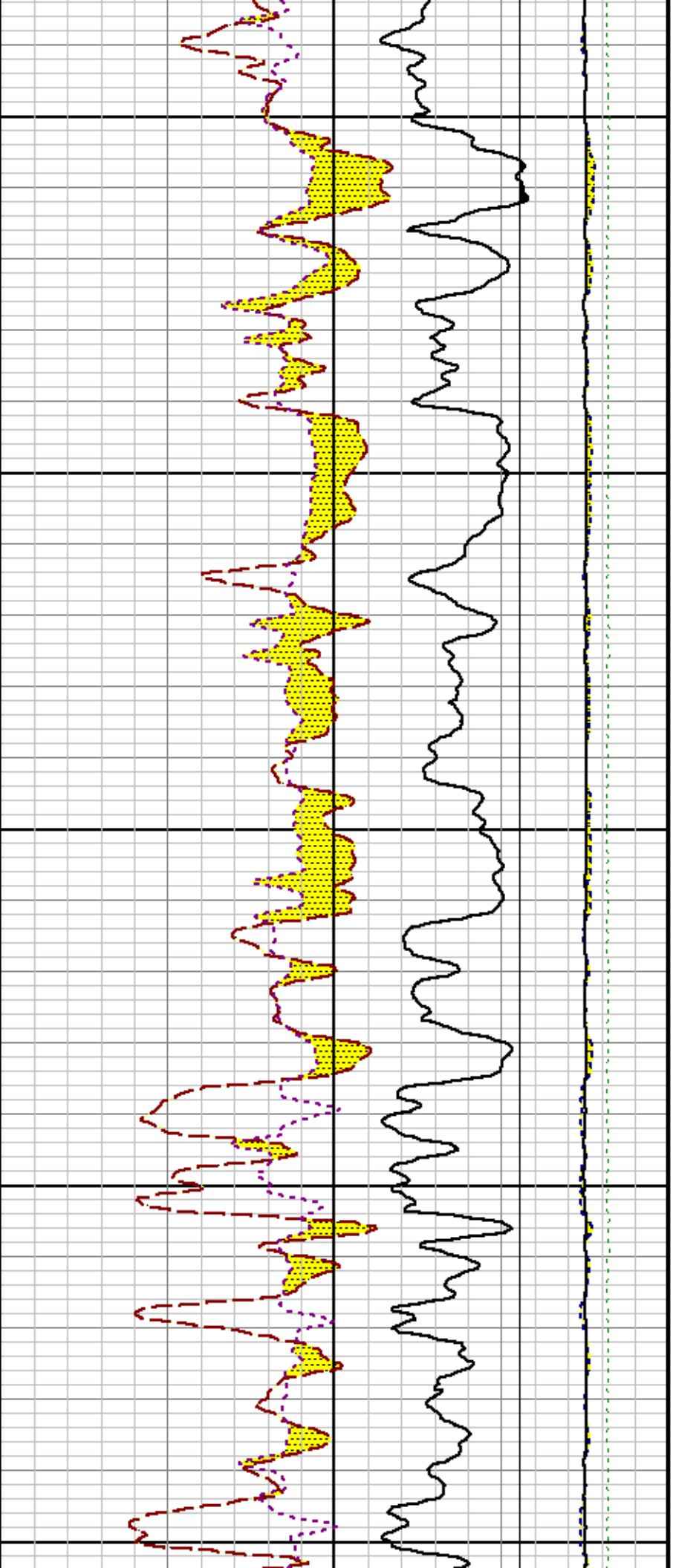
Mode : PlotMgr 5.4.504

Interval : 11850.00 - 12384.00 feet UP

Created : 9/9/2010 8:16:26 AM



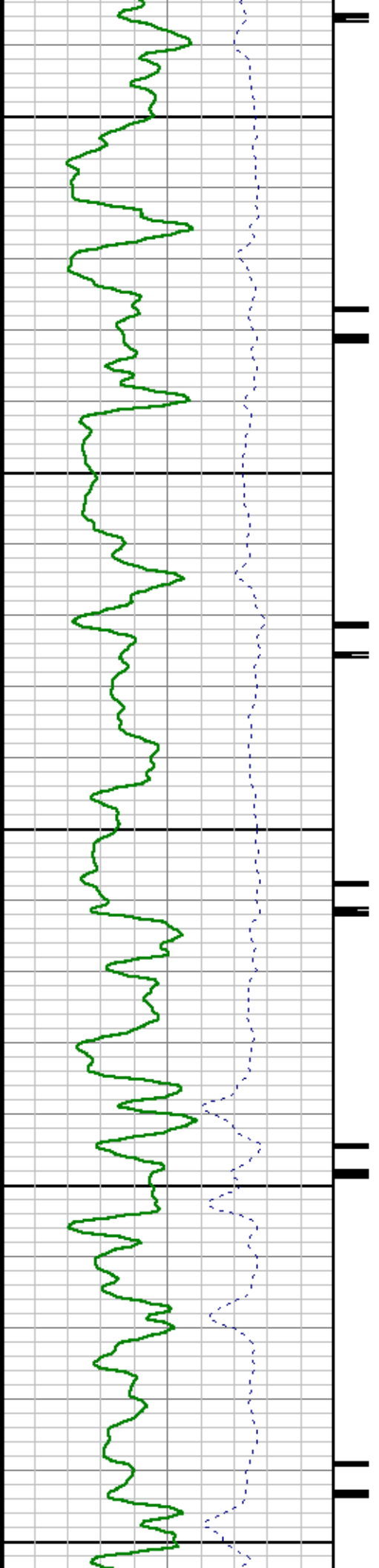


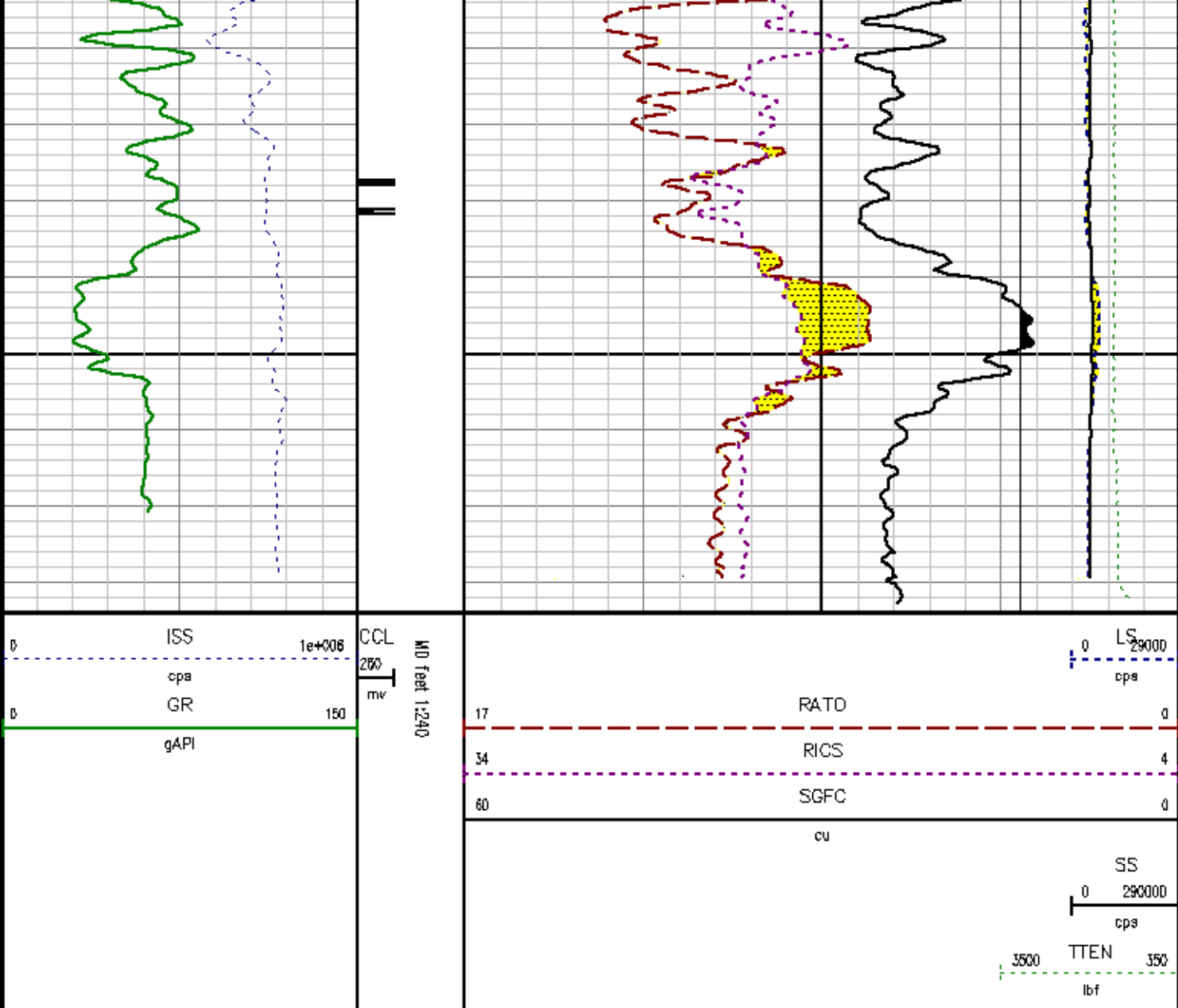


12100

12200

12300





CALIBRATION SUMMARY

GAMMA RAY

Calibration File: C:\case\calver\GR\270AU.cal

CALIBRATION SUMMARY

DATE/TIME PERFORMED: Sun Aug 22 10:58:13 2010

TOOL SERIES: 8262XA

ASSET: 270

SEQ: AU

Calibrator #	Background [cps]	Calibrator On [cps]	Multiplicative	Background [api]	Calibrator On [api]	Differential [api]
S2K DA612	119.58	452.58	0.541	64.64	244.64	180.00

Verification File: C:\cass\calver\GR\270AU.VP

PRIMARY VERIFICATION

DATE/TIME PERFORMED: Sun Aug 22 11:02:59 2010 TOOL SERIES: 8262XA ASSET: 270 SEQ: AU

Calibrator #	Background [cps]	Calibrator On [cps]	Multiplicative	Background [api]	Calibrator On [api]	Differential [api]
S2K DA612	119.36	456.04	0.541	64.52	246.51	161.99

PNC

Calibration File: C:\cass\calver\PNC\383S1.cal

PNC 3D CALIBRATION SUMMARY

DATE/TIME PERFORMED: Tue Aug 31 13:17:29 2010 TOOL SERIES: 8261XA ASSET: 383 SEQ: S1

Calibrator #

SHOP SHOP

Source #

B2B1AA 1D180599

	ISS	Mtr Vits (v)	SS Gain	LS Gain	XLS Gain	EA Temp (degF)	Sync Delay (usec)	RCAL
Raw Data	783893	124.00	2185.00	2258.00	2210.00	115.94	15.00	1.0316
Interpolated	1300000	146.62	2204.66	2253.50	2211.05			

	ISS	BKS	BKL	BKX	SGA1	SDA1	SGA2	SDA2
Raw Data	783893	7768.96	1244.84	197.93	25.78	0.13	24.24	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	783893	180098.41	27748.60	97377.18	34692.79	9547.22	59013.95	15298.28
Fit Quality %		1.92	1.99	1.46	1.45	1.95	1.31	1.96

	ISS	RBOR	RIN ISS/ILS	RIN13 ISS/IXS	RICS ISS/CSS	RATO SS/LS	RTWO SS2/LS	RONE CSS/CLS
Raw Data	783893	1.43	4.35	28.25	13.28	10.20	3.63	3.86
		1.42 1.45	3.55 5.21	22.20 32.10	10.99 16.34	10.08 11.10	3.57 3.95	3.78 4.22
Fit Quality %		0.07	0.36	0.40	0.09	0.30	0.30	0.37
Reduced	1407689	1.43	4.32	28.06	13.21	10.21	3.64	3.86
		1.42 1.45	4.33 5.52	27.60 32.70	13.70 16.34	10.08 11.10	3.57 3.95	3.78 4.22

TOOL DIAGRAM

OTA SHORT CABLE HEAD

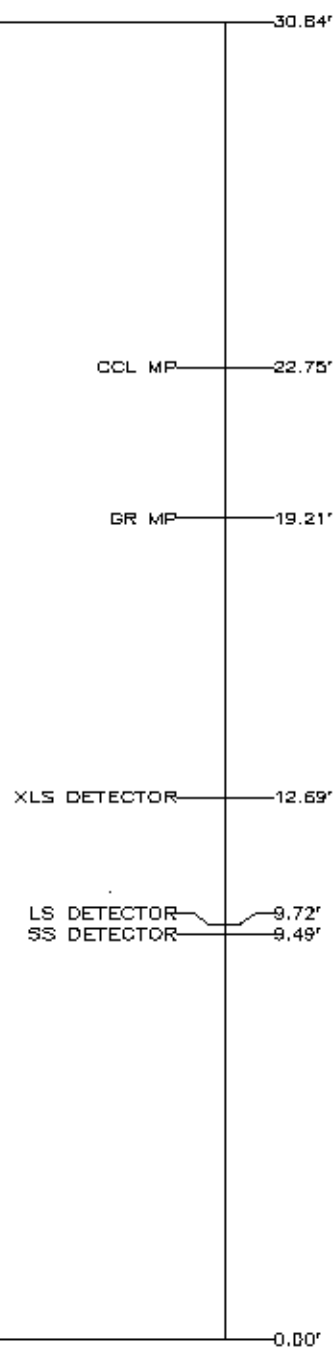
PCM POWER SUPPLY (8250EA)

TELEMETRY / CCL (8248EA)

GAMMA RAY (8262XA)

RESERVOIR PERFORMANCE MONITOR (8281XA)

Total Length: 30.84'
Total Weight: Not Available
Max Diameter: 0' 1.70"





Company	EXXONMOBIL PRODUCTION COMPANY		
Well	FRU 197-2BA5		
Field	FREEDOM UNIT		
County	RIO BLANCO	State	COLORADO

File No:

API No:

05103118330000

Location:

2357' FSL & 234' FWL

Elevations

KB 8109 ft

DF 8108 ft

GL 8082 ft

SEC: 28 TWP: 1S RGE: 97W

Baker Atlas

CASE