



RESERVOIR PERFORMANCE MONITOR

Baker Atlas

File No: CH086887 Company WPX ENERGY

Well C & C ENERGY GM 22-13

API No: 0504522590000 Field GRAND VALLEY

County GARFIELD State COLORADO

Location

SHL: 271' FSL & 1015' FWL (SEC 12)

GM 24-12 PAD BHT: 1339' FNL & 2164' FWL (SEC 13)

H&P 318 SEC 13 TWP 7S RGE 96W

Other Services

BOND LOG

Permanent Datum GL Elevation 5141 ft

Log Measured From KB 24 ft Above P. D.

Drill Measured From KELLY BUSHING

Elevations

KB 5165 ft

DF

GL 5141 ft

Date	14/JUN/14	
Run	ONE	
Service Order	US086887J	
Depth Driller	6494 ft	
Depth Logger	6494 ft	
Bottom Logged Interval	6484 ft	
Top Logged Interval	24 ft	
Time Started	2200	
Time Finished	0300	
Operator Rig Time	5 HRS	
Type of Fluid in Hole	WATER	
Fluid Density	NA	
Salinity	NA	
Fluid Level	60 ft	
Logged Cement Top	NA	
Wellhead Pressure	0 psi	
Maximum Hole Deviation	NA	
Nominal Logging Speed	10 fpm	
Maximum Recorded Temperature	198 degF	
Reference Log	BAKER HUGHES BOND LOG	
Reference Log Date	14/JUN/14	
Equipment No.	4271	GRAND UCT
Recorded By	FLYOD RENEAU	
Witnessed By	JEFF BRADY	

- 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	24 ft	1661 ft
8.75 in	1661 ft	6494 ft

Casing Record				
Size	Weight	Grade	From	To
9.625 in			24 ft	1661 ft
4.5 in	11.6 lbm/ft	I-80	24 ft	6494 ft

Cement Data								
Job Type	From	To	Time	Date	Cement Type	Density	Volume	Additives

Remarks
All data on this log is shifted and depth matched using the Gamma Ray curve to the Baker Hughes bond log dated 6/14/2014 at the client's request.
The amount of linear shift is 6 feet

The amount of linear shift is 0 feet.

Logged in PNC-3D mode.

BHT = 198°F

SJ = 3159'-3181'

Equipment Data					
Run	Trip	Tool	Series Number	Serial Number	Position
1	1	TEMP	8255XA	Z176973	FREE
1	1	RPM	8281FA	10460082	FREE
1	1	RPM	8281PA	10205151	FREE
1	1	RPM	8281EA	10273848	FREE
1	1	GR	2812LA	10273385	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		3215.570	6492.820
PNC Porosity	Borehole Size	8.750	inch	3215.570	6492.820
PNC Porosity	Casing Size	4.500	inch	3215.570	6492.820
PNC Porosity	Gas Filled	Non Gas Filled		3215.570	6492.820
PNC Porosity	Matrix	Sandstone		3215.570	6492.820
TPS Pressure	Temperature Corr. Source	Fixed (72.00)	degF	3215.570	6492.820

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

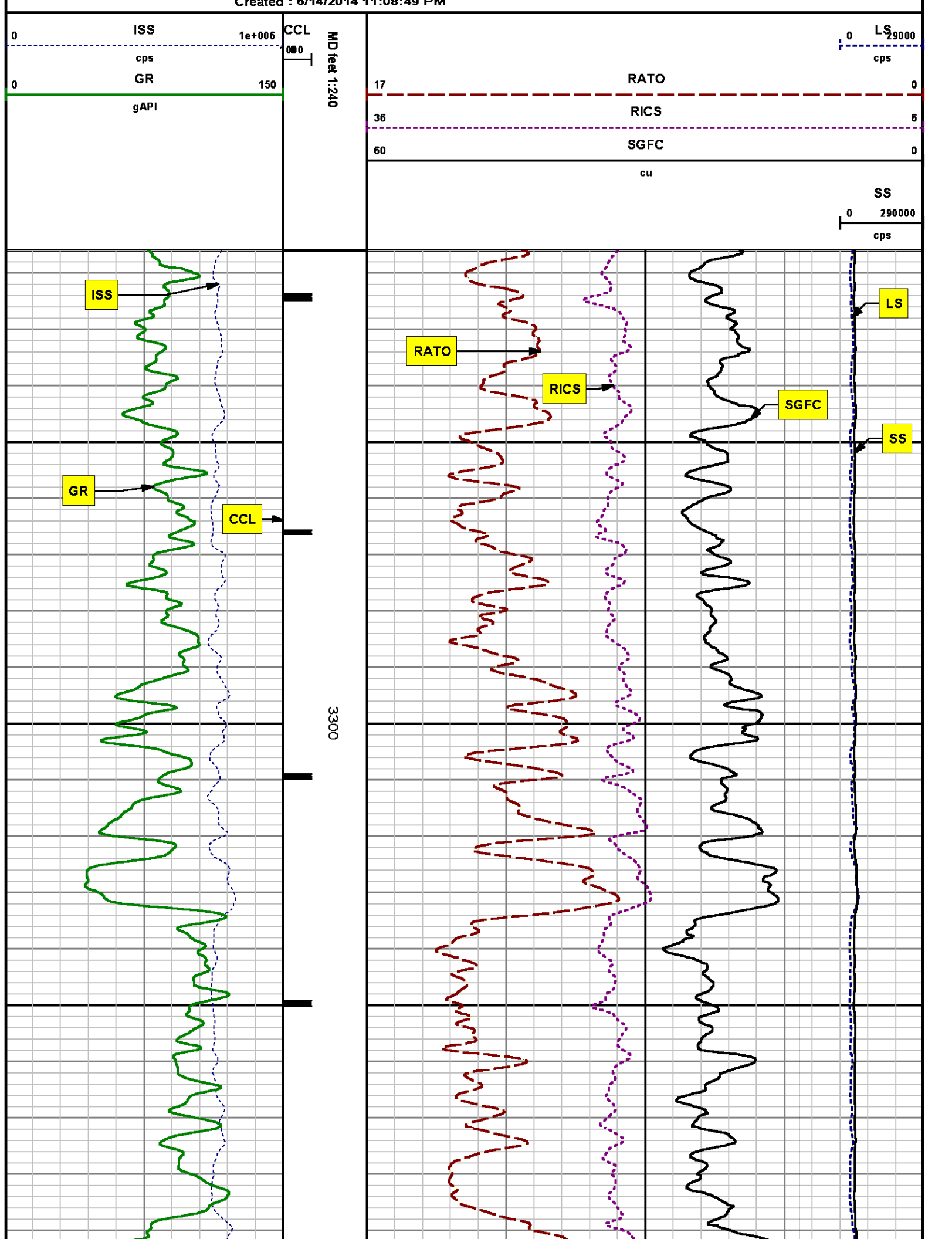
Well : C & C ENERGY GM 22-13

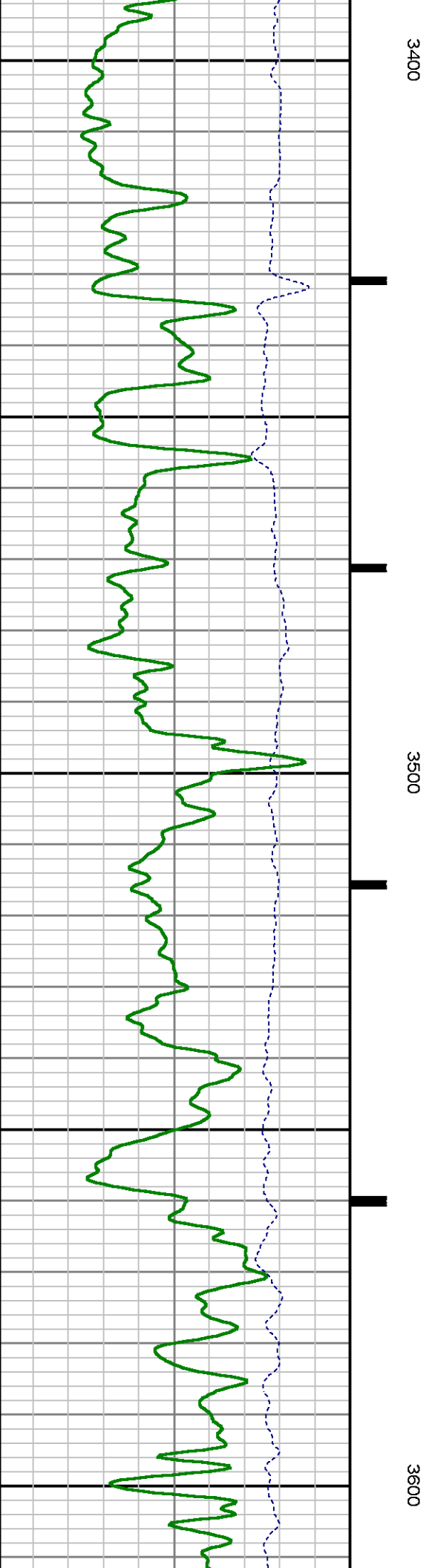
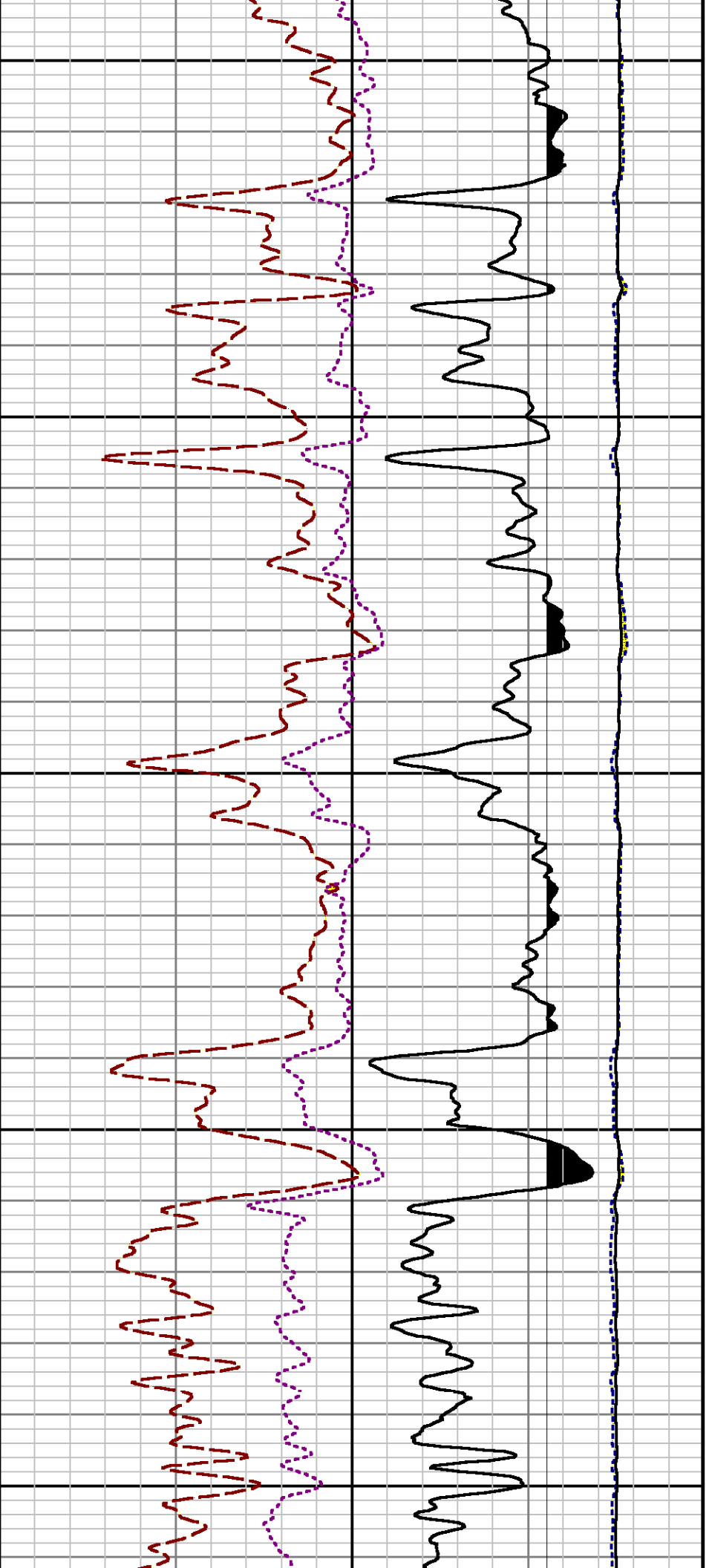
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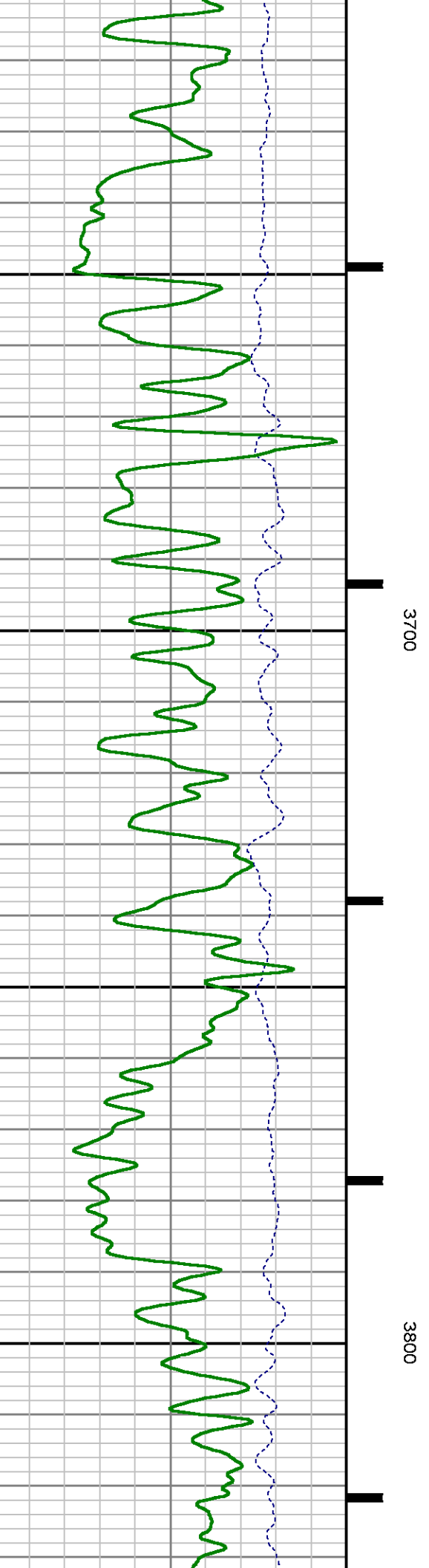
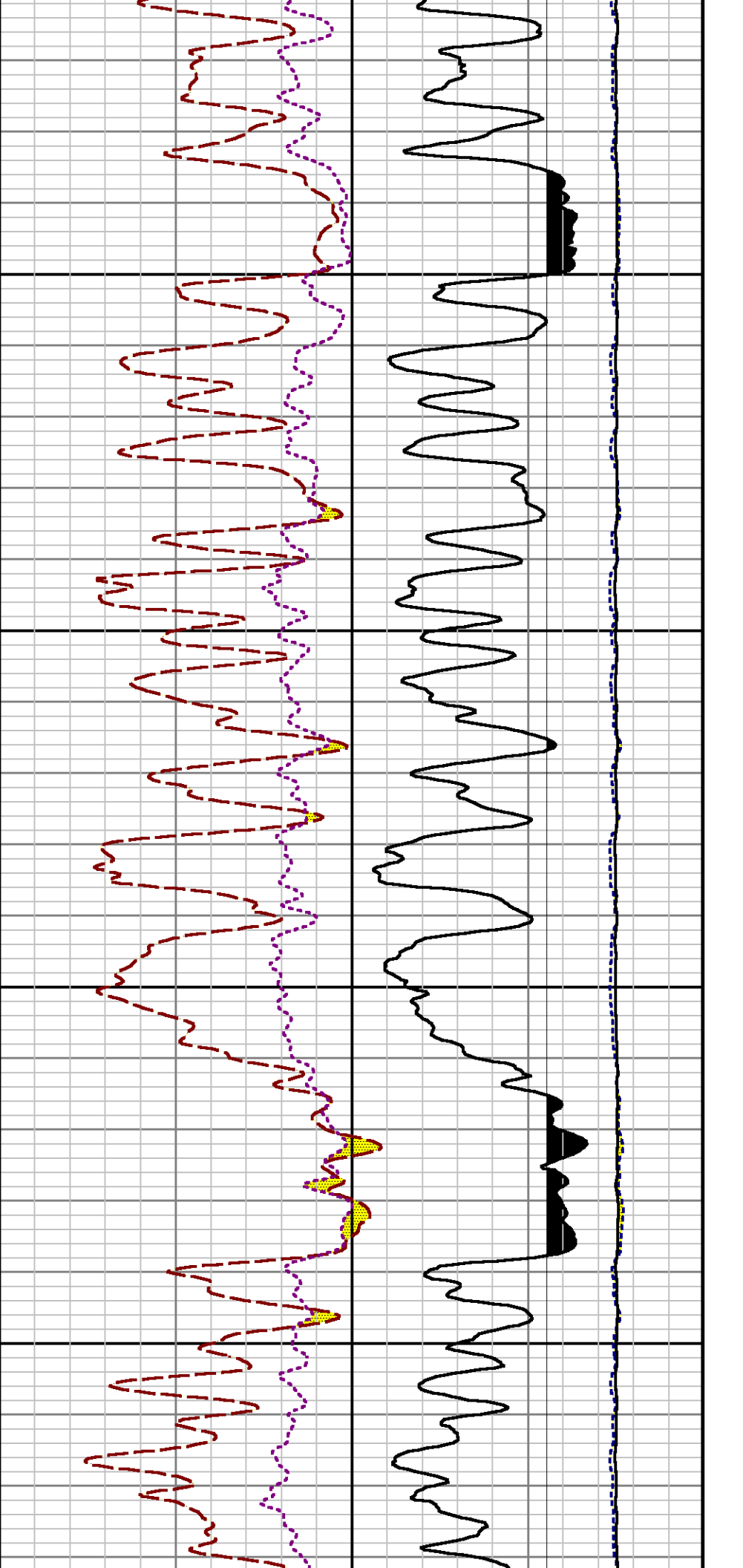
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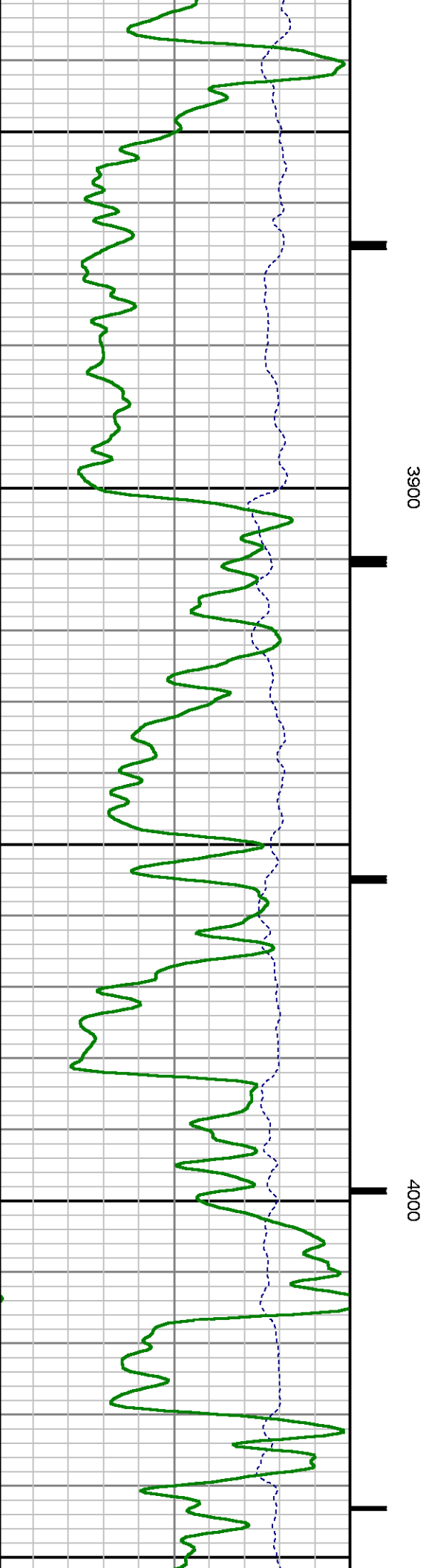
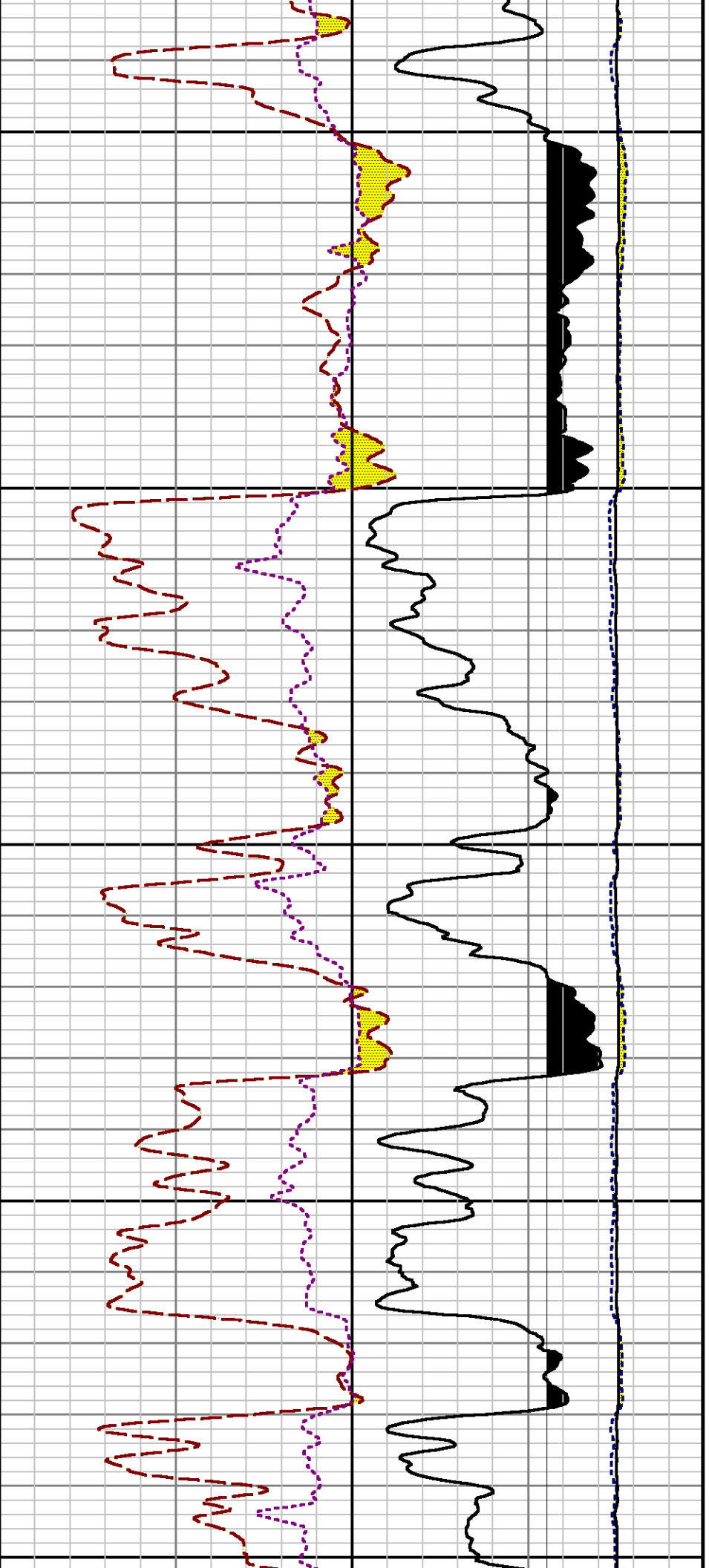
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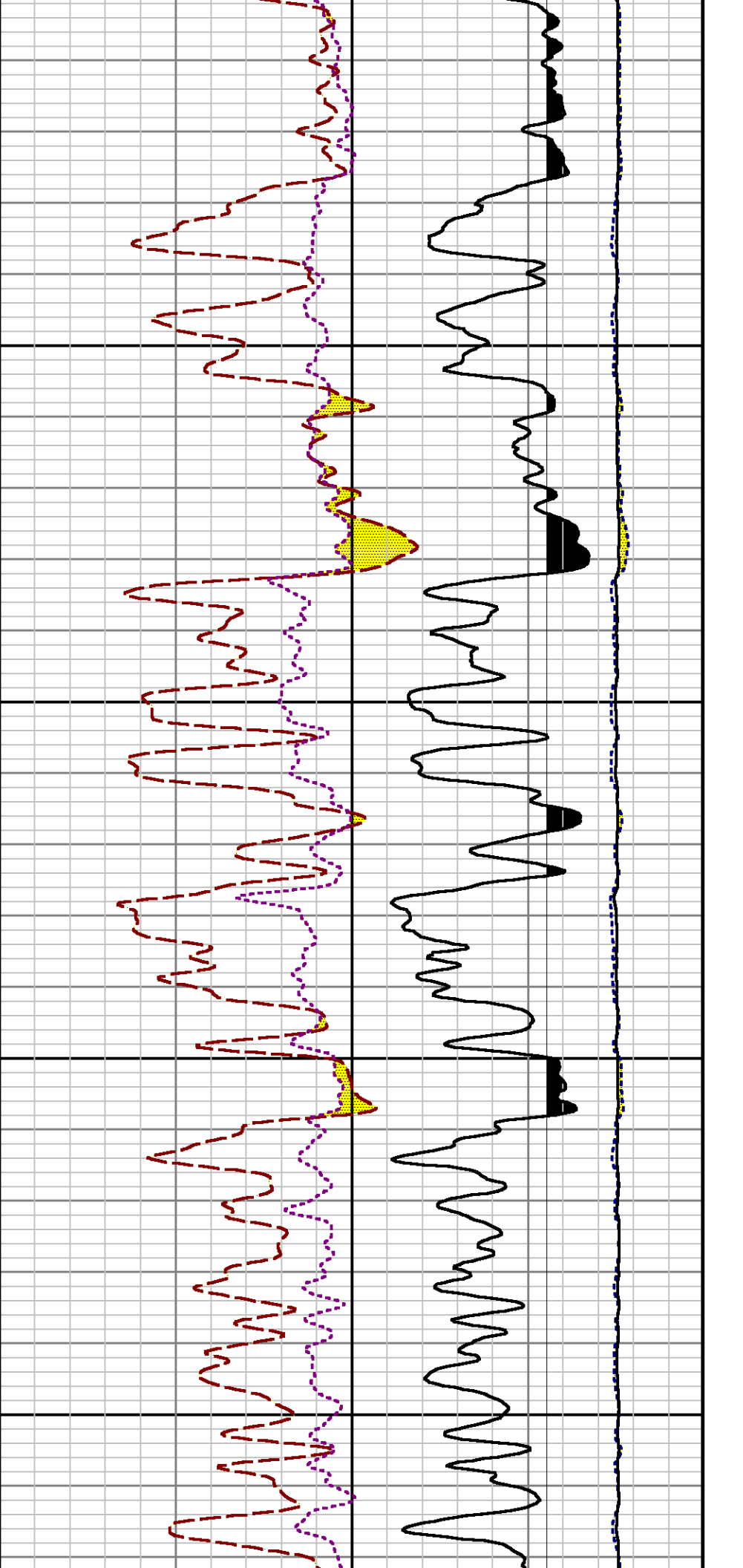
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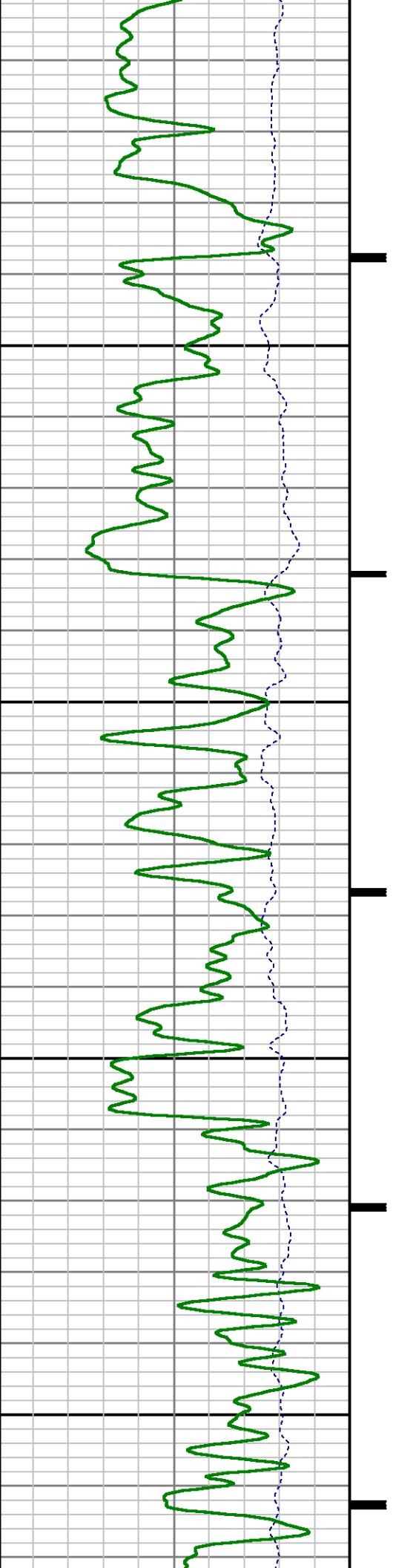


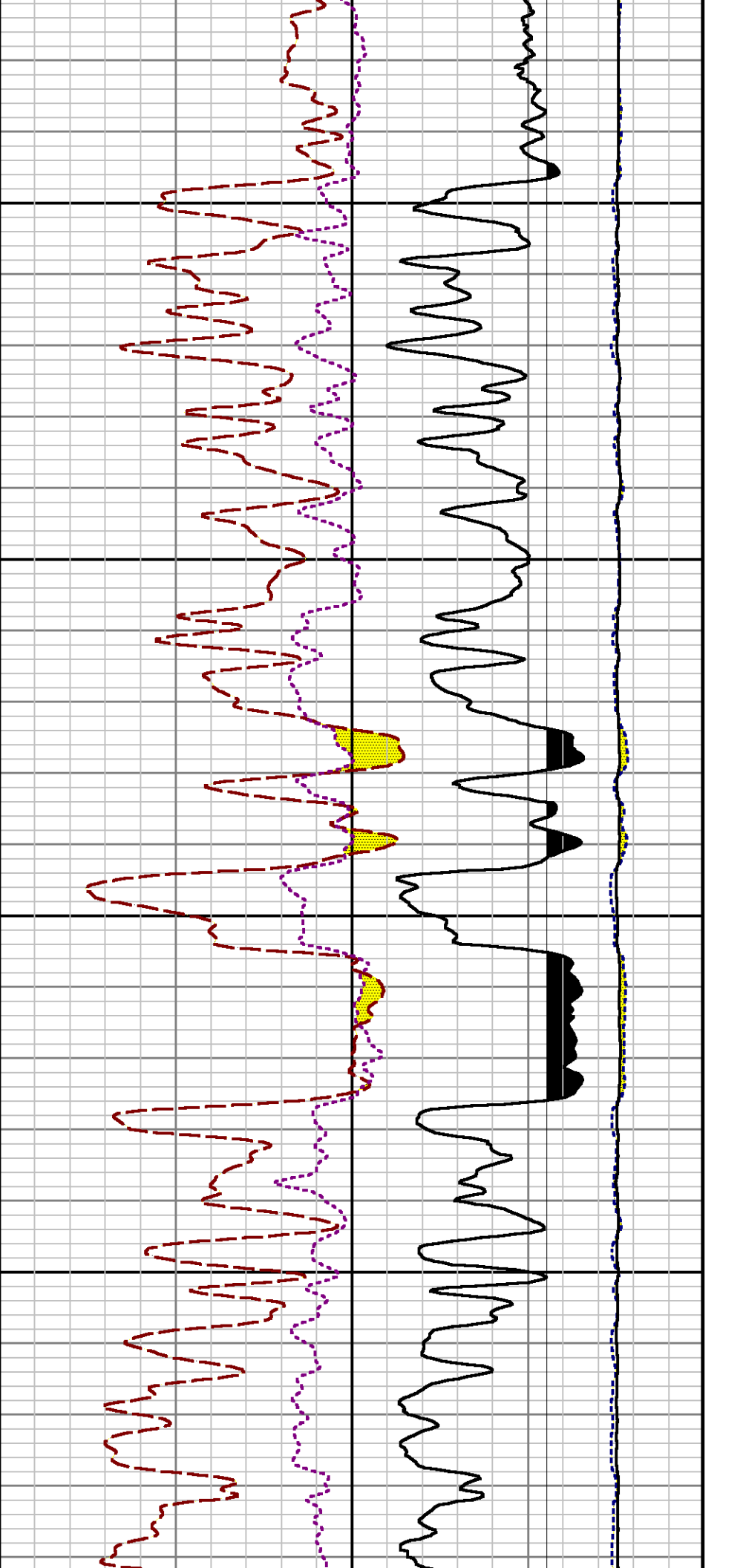




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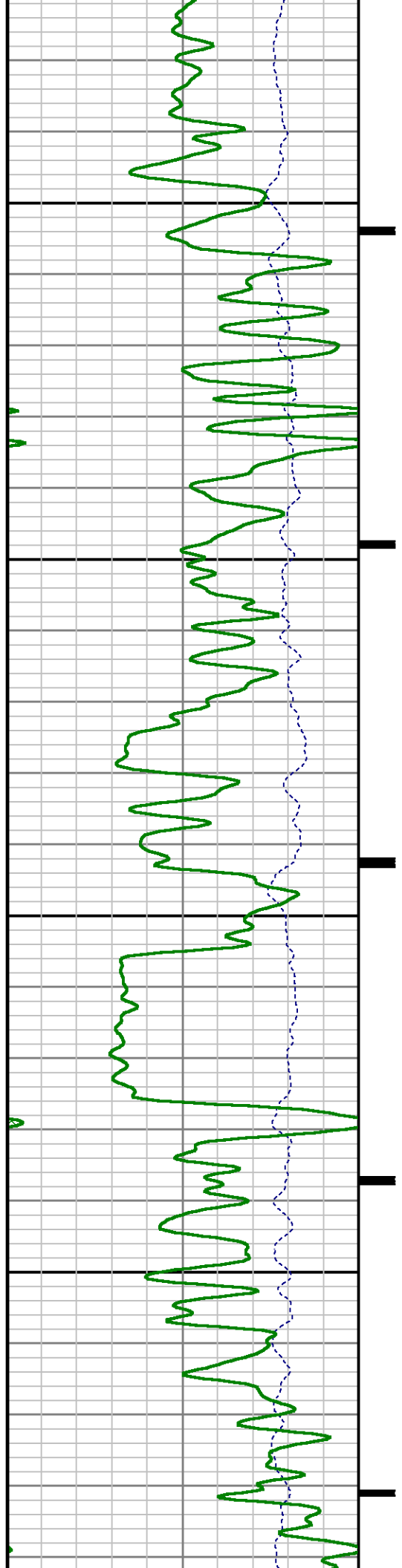
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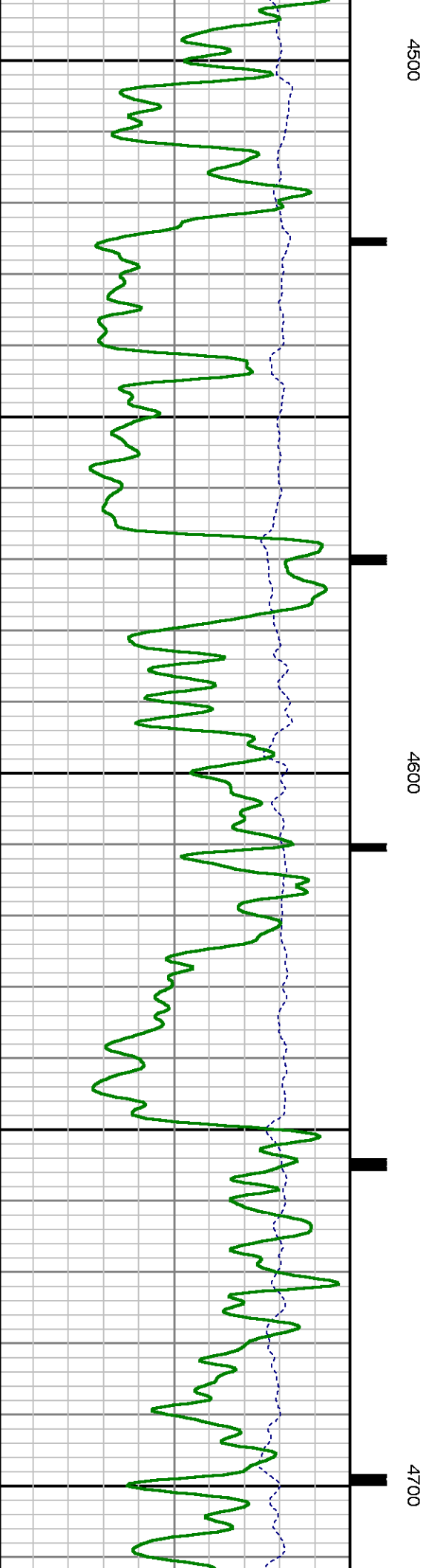
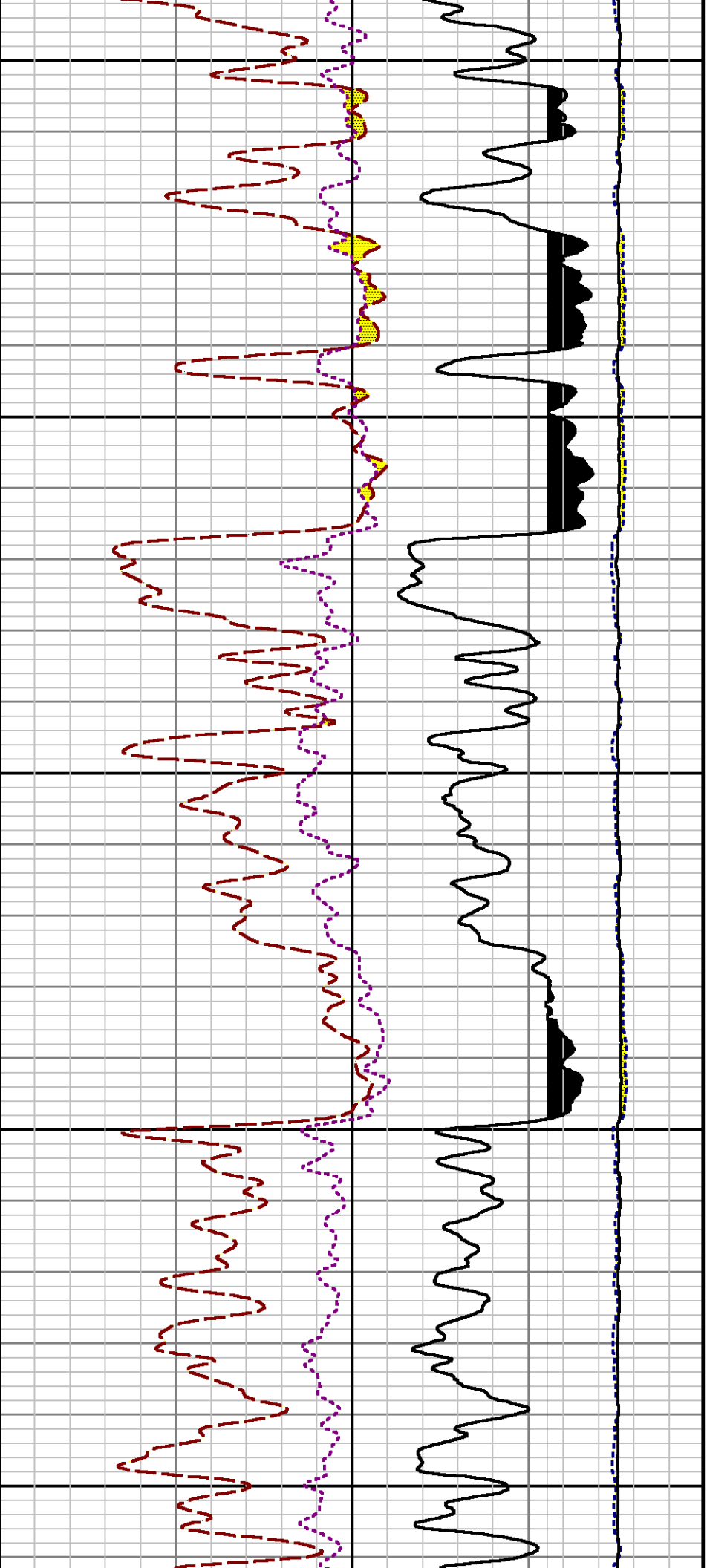


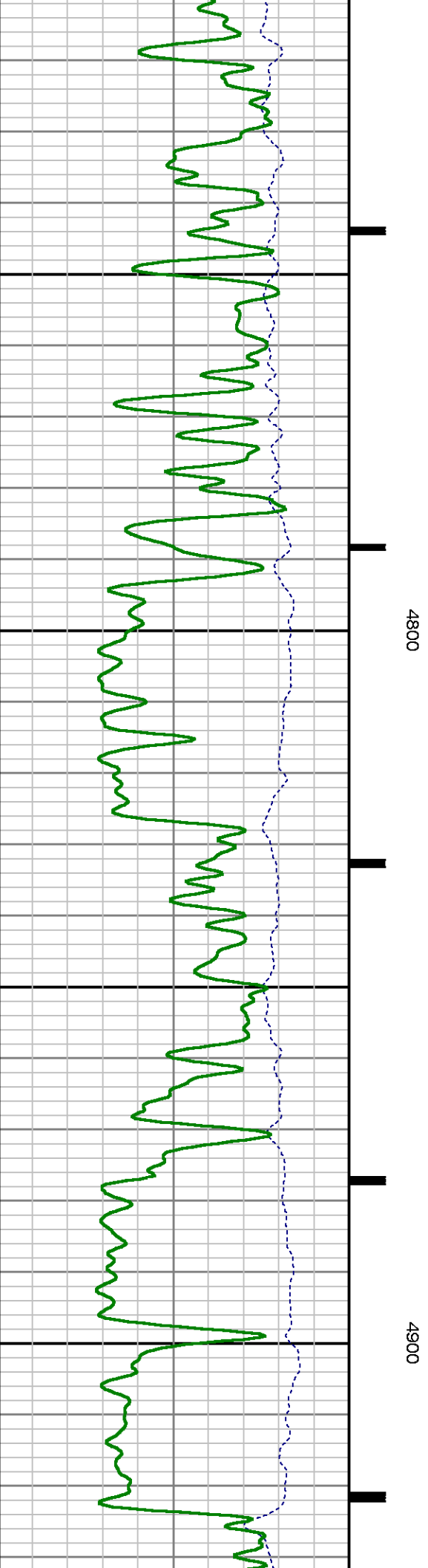
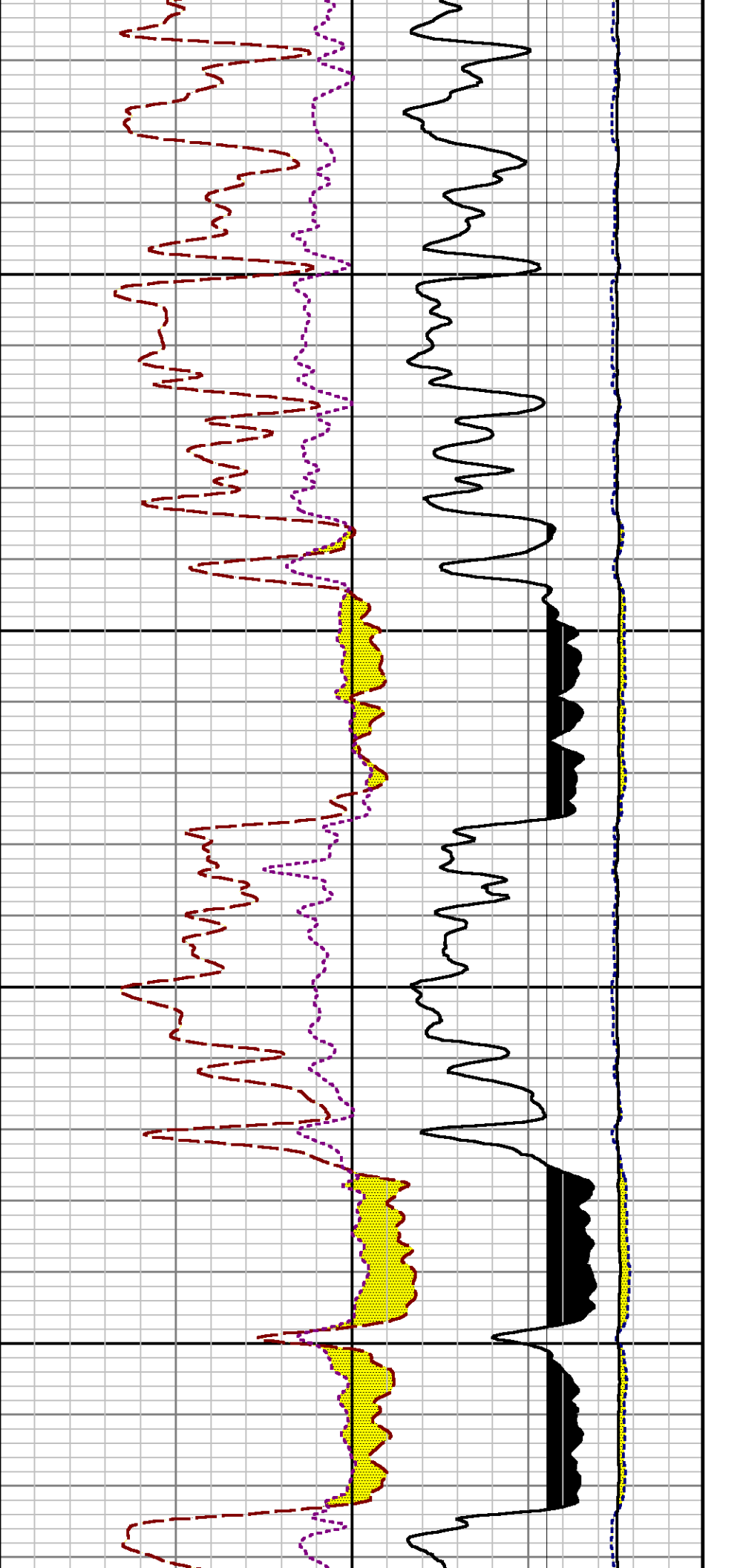


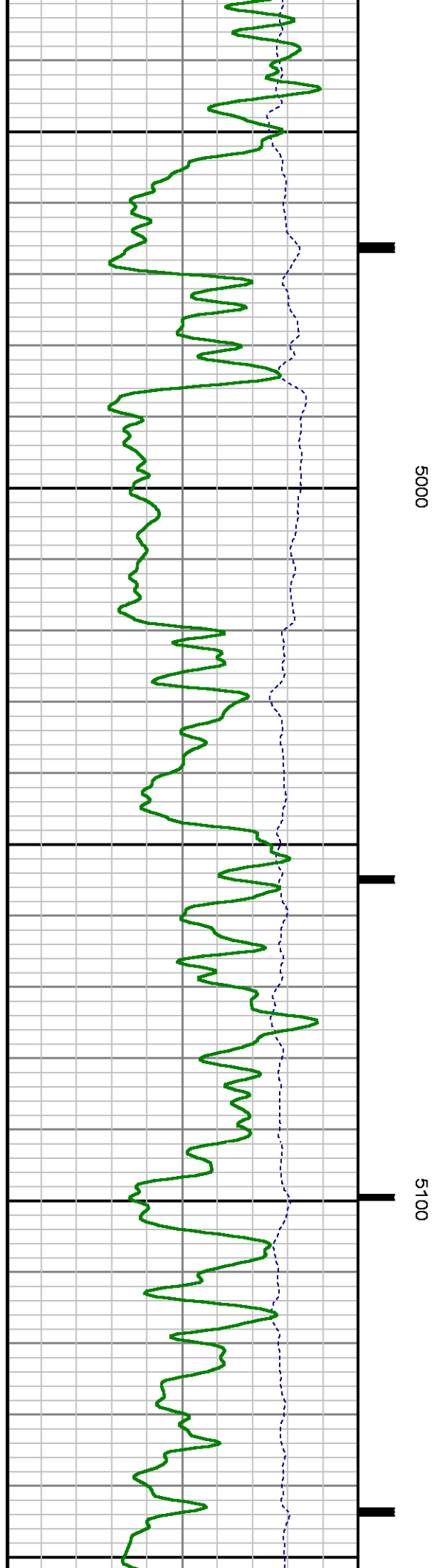
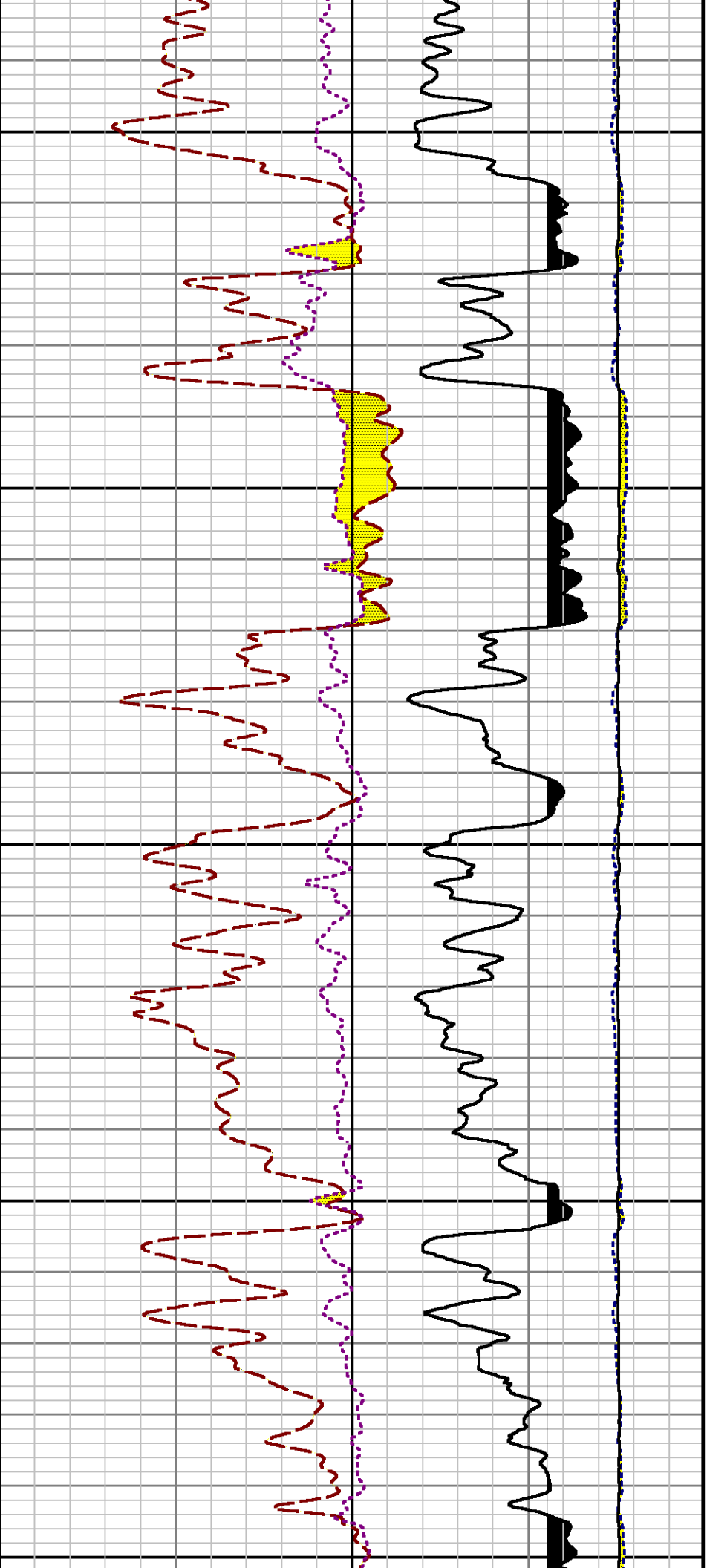
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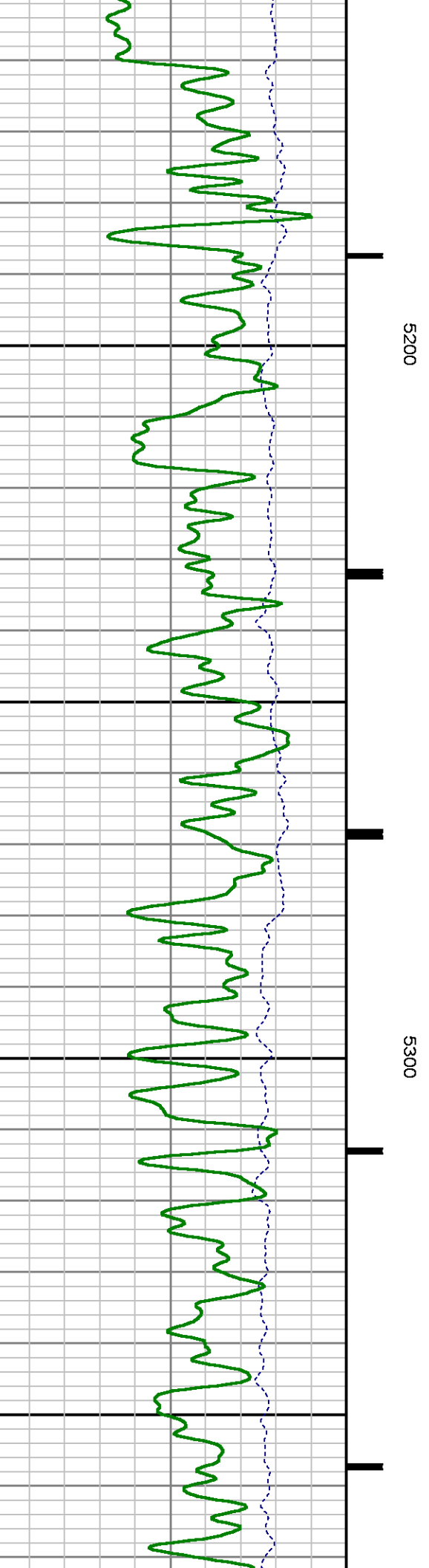
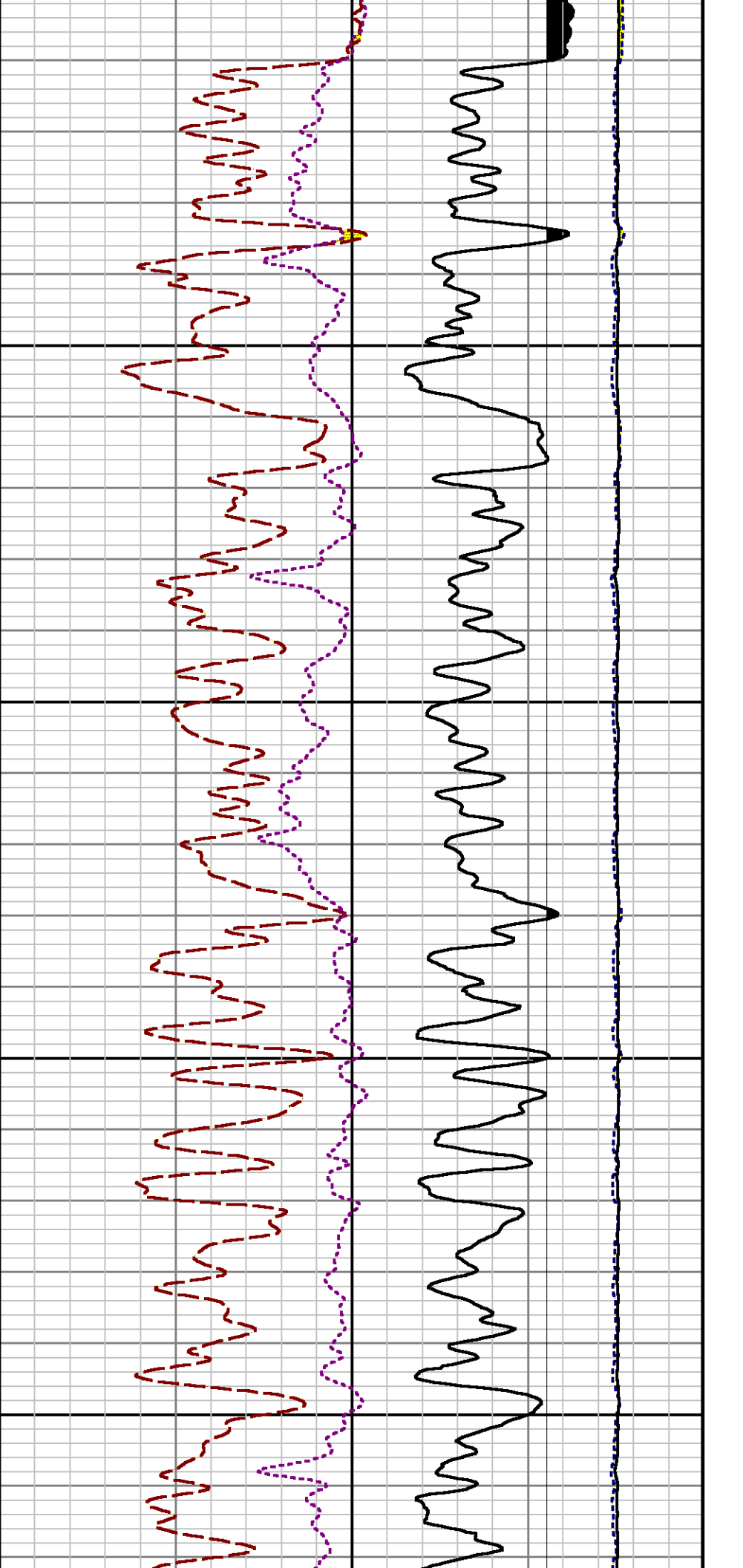
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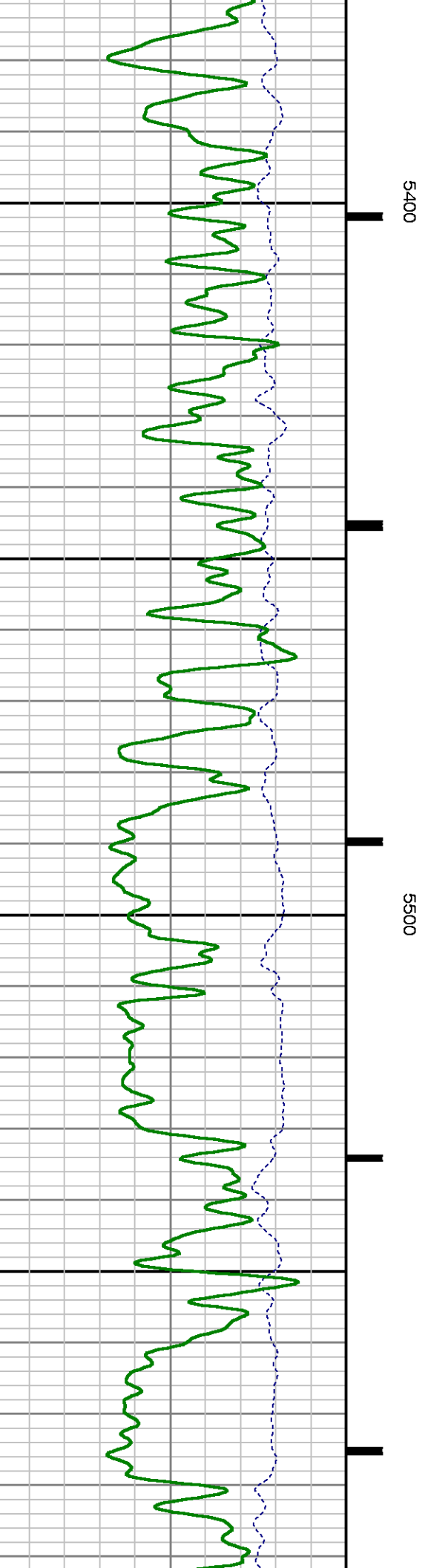
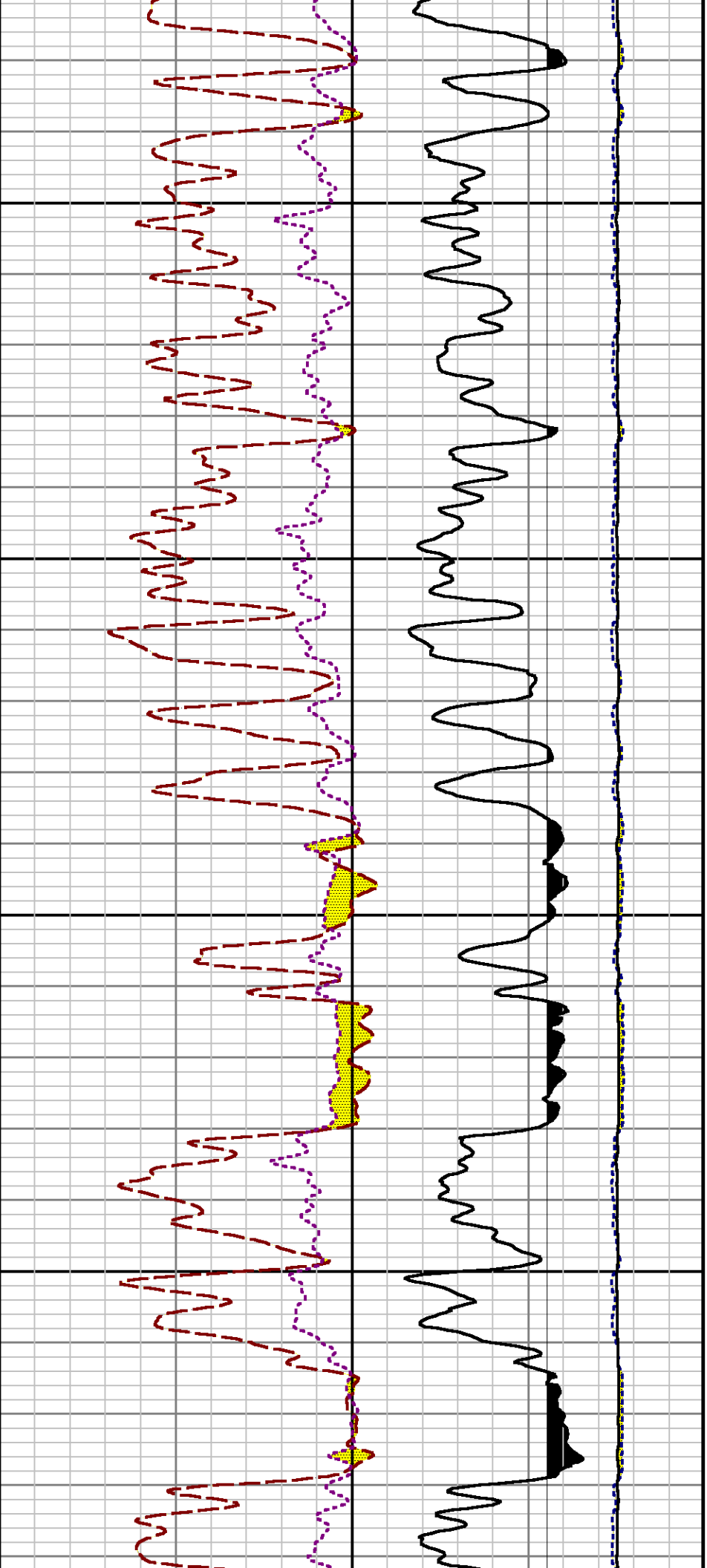


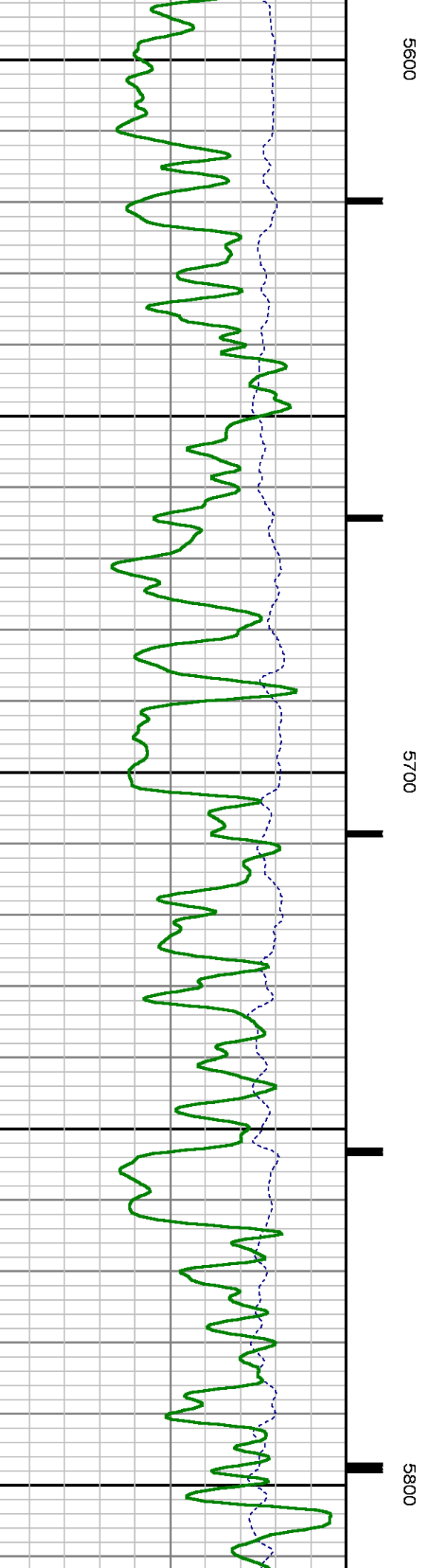
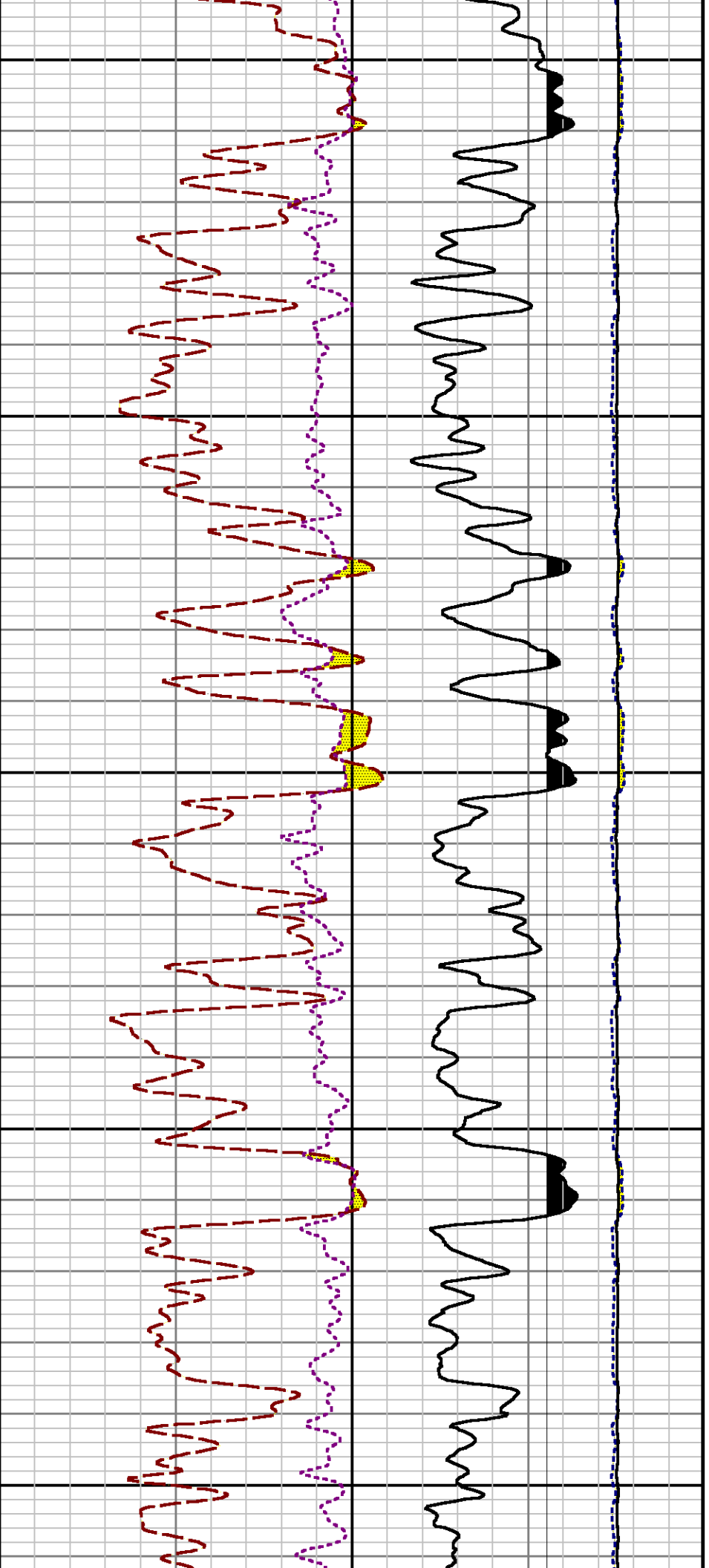


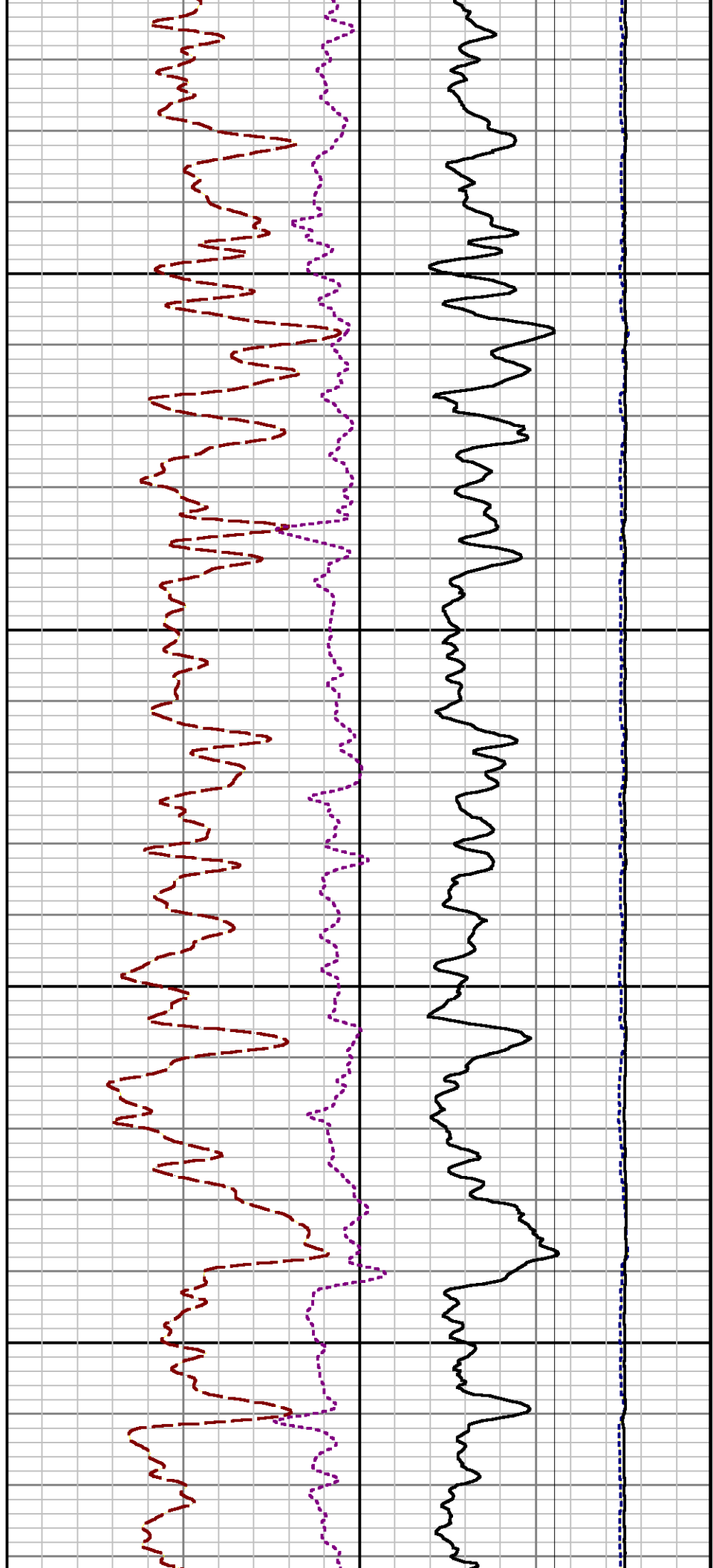
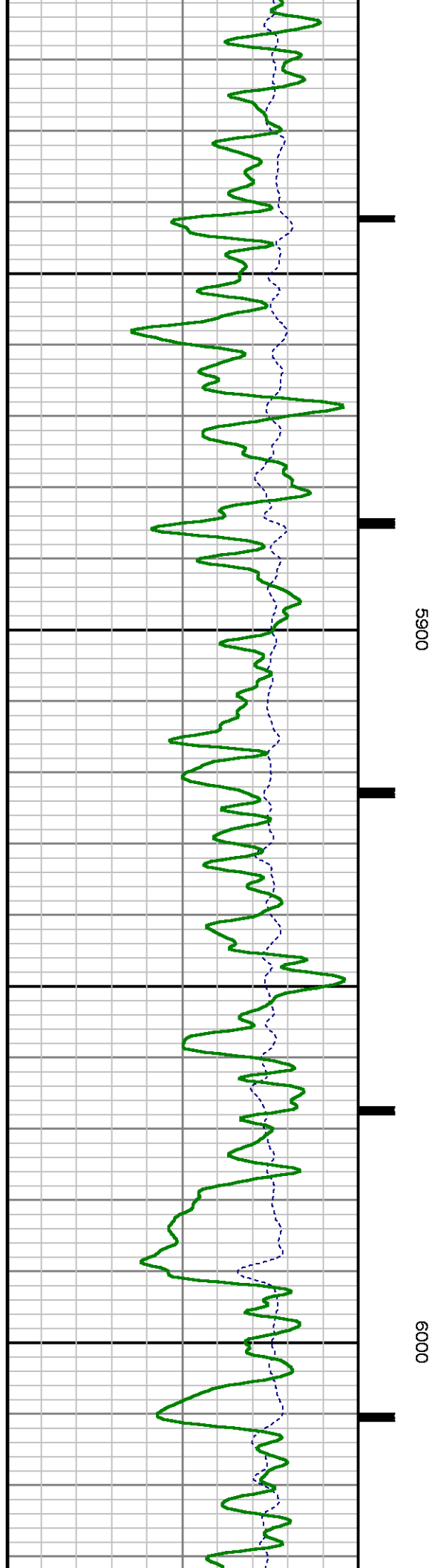


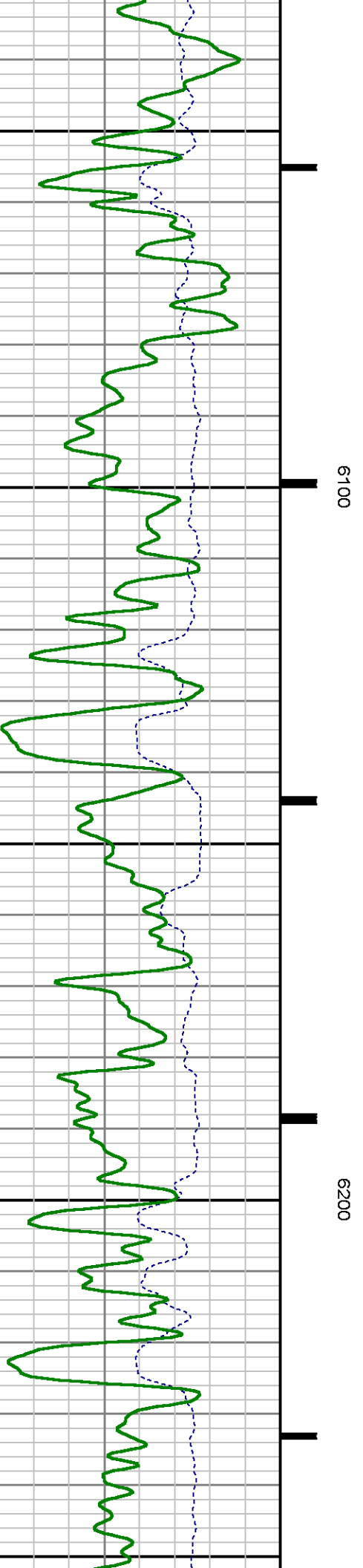
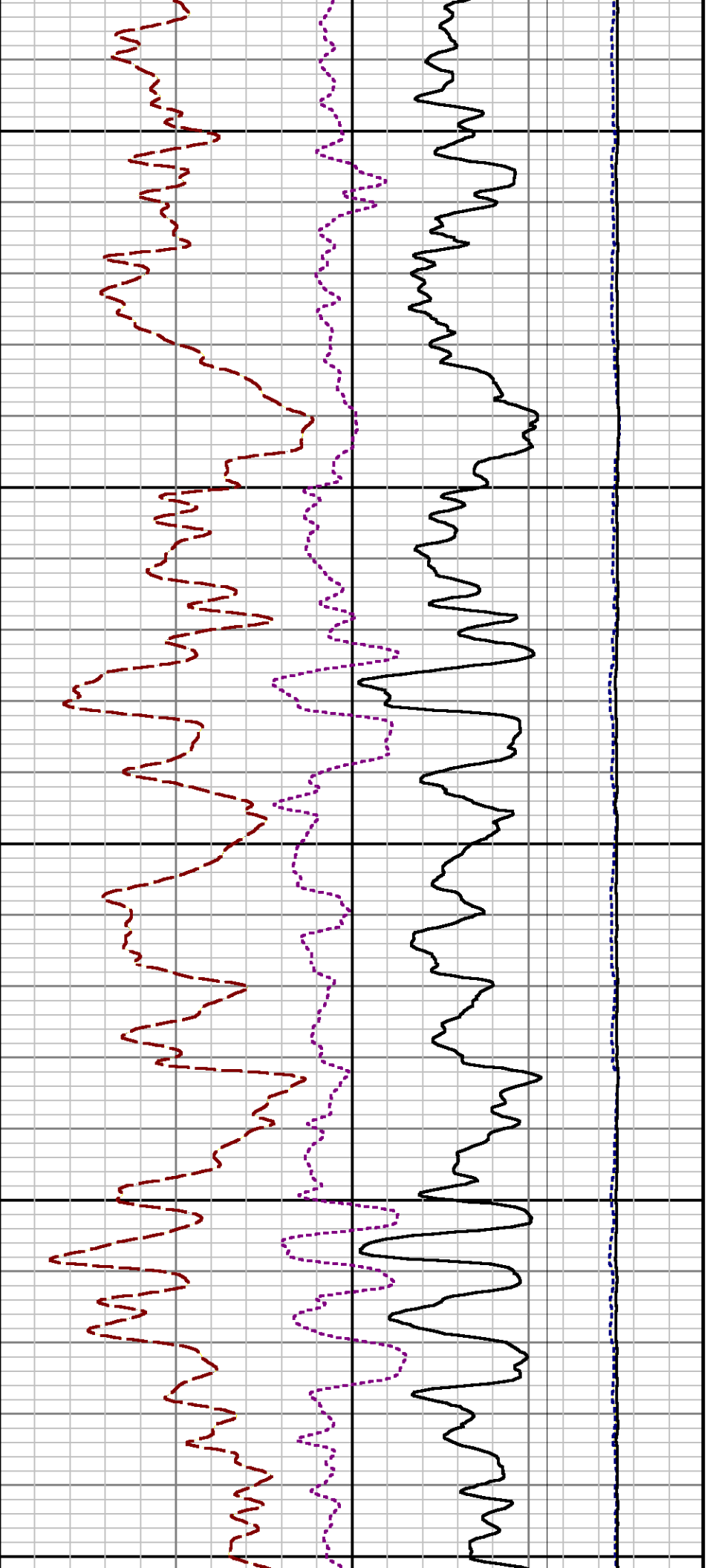


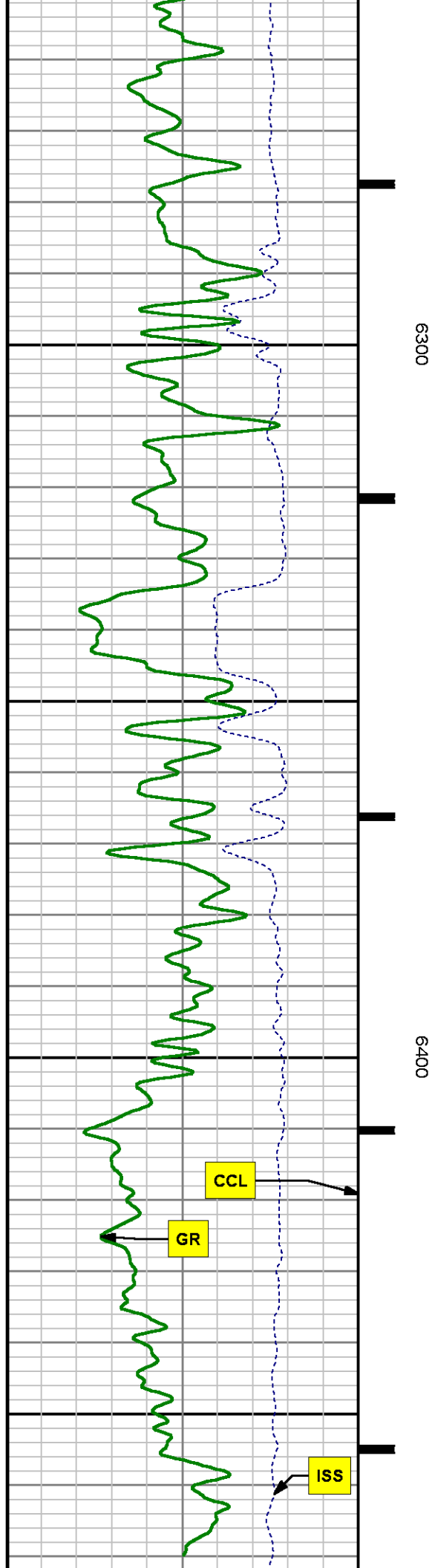
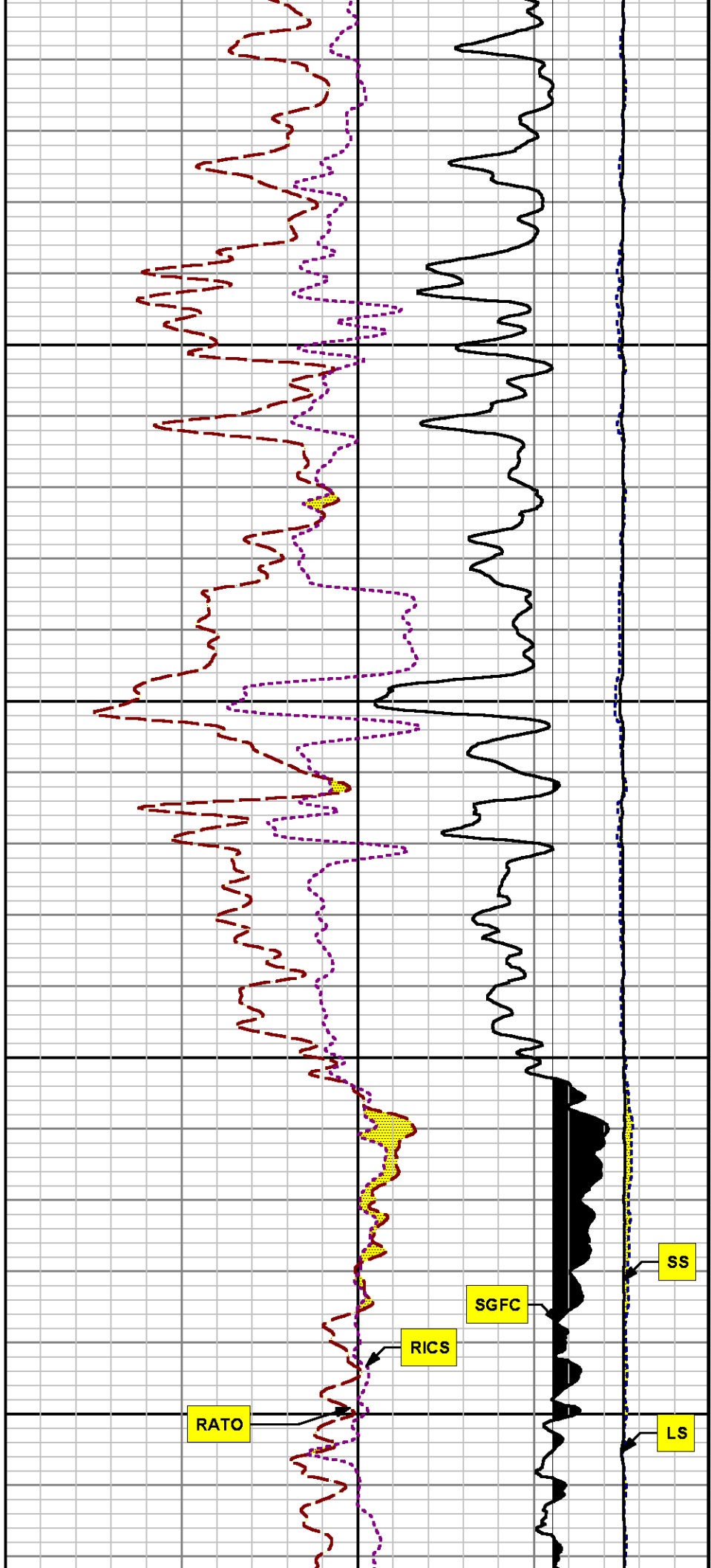


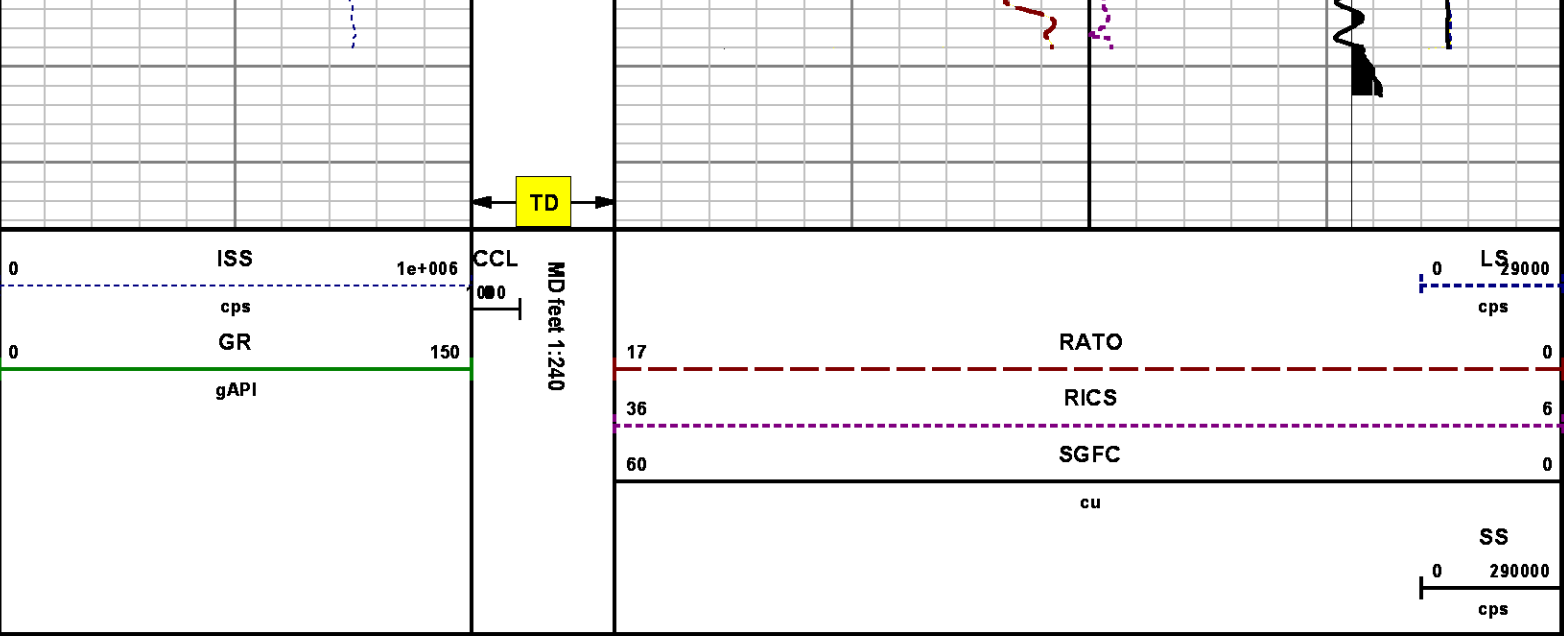












REPEAT SECTION
PNC 3-D MODE

SPL PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
PNC Porosity	Borehole	Cased		5654.710	5986.960
PNC Porosity	Borehole Size	8.750	inch	5654.710	5986.960
PNC Porosity	Casing Size	4.500	inch	5654.710	5986.960
PNC Porosity	Gas Filled	Non Gas Filled		5654.710	5986.960
PNC Porosity	Matrix	Sandstone		5654.710	5986.960
TPS Pressure	Temperature Corr. Source	Fixed (72.00)	degF	5654.710	5986.960

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 : C & C ENERGY GM 22-13

File Name : d:\well\data\wp\x\gm 22-13\22rpm\repeat.xtf

Mode : PlotMgr 5.4.504

Interval : 5654.96 - 5991.96 feet UP

Created : 6/14/2014 10:43:16 PM

ISS

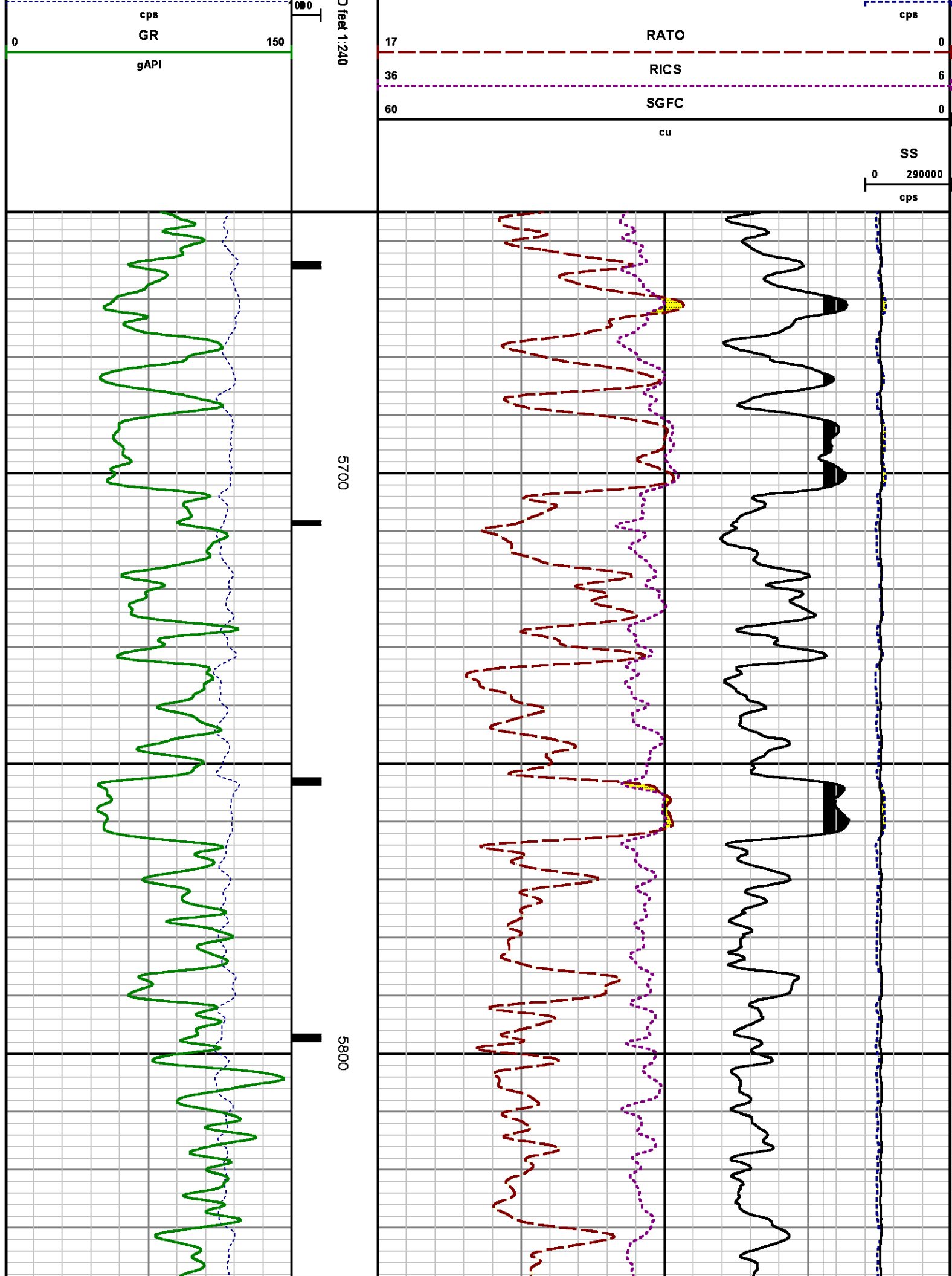
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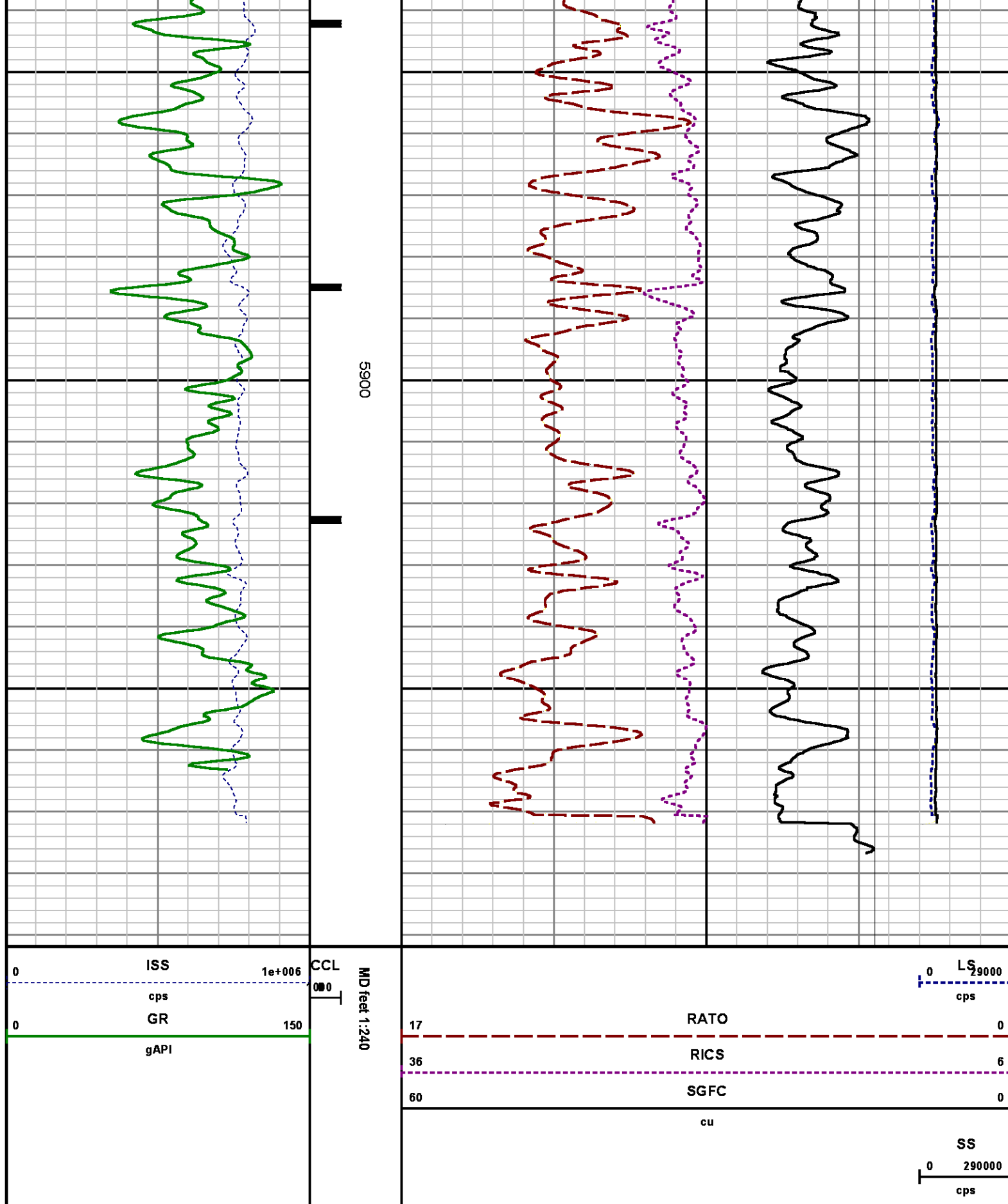
CCL

M

0

LS 29000





CALIBRATION SUMMARY

GAMMA RAY

Calibration File: C:\case\calver\GR\38528.cal

CALIBRATION SUMMARY

DATE/TIME PERFORMED: Wed May 28 15:33:48 2014 TOOL SERIES: 2812LA ASSET: 385 SEQ: 28

Calibrator #	Background [cps]	Calibrator On [cps]	Multiplicative	Background [api]	Calibrator On [api]	Differential [api]
S2K DA041	60.46	271.39	0.996	60.19	270.19	210.00

Verification File: C:\case\calver\GR\38528.VP

PRIMARY VERIFICATION

DATE/TIME PERFORMED: Wed May 28 15:39:33 2014 TOOL SERIES: 2812LA ASSET: 385 SEQ: 28

Calibrator #	Background [cps]	Calibrator On [cps]	Multiplicative	Background [api]	Calibrator On [api]	Differential [api]
S2K DA041	60.84	272.11	0.996	60.58	270.91	210.33

PNC

Calibration File: C:\case\calver\PNC\151JU.cal

PNC 3D CALIBRATION SUMMARY

DATE/TIME PERFORMED: Fri Jun 06 14:55:38 2014 TOOL SERIES: 8281XA ASSET: 151 SEQ: JU

Calibrator #

GJ SHOP

Source #

8281AA11803641

	ISS	Mtr Vlt (V)	SS Gain	LS Gain	XLS Gain	EA Temp (degF)	Sync Delay (usec)	RCAL
Raw Data	803672	120.00	2268.00	2356.00	2439.00	113.00	7.00	0.9675
Interpolated	1300000	139.07	2252.43	2347.52	2423.43			

	ISS	BKS	BKL	BKX	SGA1	SDA1	SGA2	SDA2
Raw Data	803672	5897.36	921.53	133.62	25.74	0.14	24.21	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	803672	159048.34	24583.94	84285.95	30037.95	7763.17	51080.38	12387.14
Fit Quality %		0.22	0.42	0.52	0.52	0.22	0.42	0.22

Fit Quality %

0.39

0.46

0.50

0.50

0.38

0.49

0.38

ISS

RBOR

RIN

RIN13

RICS

RATO

RTWO

RONE

ISS/ILS

ISS/IXS

ISS/CSS

SS/LS

SS2/LS

CSS/CLS

Raw Data

803672

1.44

5.05

32.69

15.73

10.86

3.87

4.12

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 %

0.06

0.15

0.16

0.07

0.12

0.14

0.13

Reduced

1379407

1.44

5.06

32.64

15.73

10.86

3.87

4.13

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

TEMPERATURE

Calibration File: C:\case\calver\TEMP\176973_JU.cal

CALIBRATION SUMMARY

DATE/TIME PERFORMED: 02 JULY 2014

TOOL SERIES: 8255XA ASSET: 176973 SEQ: JU

	T(0)	T(1)	T(2)	T(3)	T(4)	T(5)
Coefficients	-1.889935e+001	1.004280e-001	1.215976e-006	-1.293045e-010	0.000000e+000	0.000000e+000

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"

29.93'

CCL MP 21.84'

MP 19.40'

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

XLS DETECTOR 12.78'

LS DETECTOR 9.80'
SS DETECTOR 9.58'

0.00'

Total Length: 29.93'
Total Weight: Not Available
Max Diameter: 0' 1.70"

**Baker Atlas***CASE***Company**

WPX ENERGY

Well

C & C ENERGY GM 22-13

Field

GRAND VALLEY

County

GARFIELD

State

COLORADO

Location

SHL: 271' FSL & 1015' FWL (SEC 12)

BHT: 1339' FNL & 2164' FWL (SEC 13)

SEC 13 TWP 7S RGE 96W

Elevations

KB 5165 ft

DF

GL 5141 ft

File No:

CH086887

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