



RESERVOIR PERFORMANCE MONITOR

Baker Atlas

File No: WPX ENERGY

CH085860 FEDERAL PA 24-16

API No: PARACHUTE

05045220430000 GARFIELD State COLORADO

Location

SHL: 2610' FNL & 1396' FWL SEC 21

BHL: 128' FSL & 2271' FWL (SESW) SEC 16

SEC 16 TWP 6S RGE 9SW

Other Services

BOND LOG

Permanent Datum GL Elevation 6030 ft

Log Measured From KB 26 ft Above P. D.

Drill Measured From KELLY BUSHING

Elevations

KB 6056 ft

DF

GL 6030 ft

Date	20/MAY/14
Run	ONE
Service Order	US085860J
Depth Driller	9604 ft
Depth Logger	9653 ft
Bottom Logged Interval	9543 ft
Top Logged Interval	5660 ft
Time Started	1400
Time Finished	1930
Operator Rig Time	5.5 HRS
Type of Fluid in Hole	WATER
Fluid Density	NA
Salinity	NA
Fluid Level	77 ft
Logged Cement Top	NA
Wellhead Pressure	0 psi
Maximum Hole Deviation	NA
Nominal Logging Speed	10 fpm
Maximum Recorded Temperature	260 degF
Reference Log	BAKER HUGHES BOND LOG
Reference Log Date	20/MAY/14
Equipment No.	4271
Recorded By	FLORIO RENEAU
Witnessed By	GRAN JACOBS

- 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	26 ft	2448 ft
8.75 in	2448 ft	9604 ft

Casing Record				
Size	Weight	Grade	From	To
9.625 in			26 ft	2448 ft
4.5 in	11.6 lbm/ft	1-80	26 ft	9604 ft

Remarks
All data on this log is shifted and depth matched using the Gamma Ray curve to the Baker Hughes bond log dated 5/20/2014 at the client's request.
The amount of linear shift is 10 feet.
Logged in PNC-3D mode.
BHT = 260 °F
SJ = 6350'-6373'

Equipment Data					
Run	Trip	Tool	Series Number	Serial Number	Position
1	1	TEMP	8255XA	11774568	FREE
1	1	RPM	8281FA	10401926	FREE
1	1	RPM	8281PA	10585555	FREE
1	1	RPM	8281EA	10303640	FREE
1	1	GR	2812LA	10274382	FREE
1	1	TEL/CCL	824BED	10460262	FREE
1	1	PCM	8250EA	10586851	FREE

MAIN SECTION
PNC 3-D MODE

SPL PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
PNC Porosity	Borehole	Cased		5639.780	9546.750
PNC Porosity	Borehole Size	8.750	inch	5639.780	9546.750
PNC Porosity	Casing Size	4.500	inch	5639.780	9546.750
PNC Porosity	Gas Filled	Non Gas Filled		5639.780	9546.750
PNC Porosity	Matrix	Sandstone		5639.780	9546.750
TPS Pressure	Temperature Corr. Source	Fixed (72.00)	degF	5639.780	9546.750

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

8281XA -12.291

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

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 WDT1 RICSC CSSR G1R
G2R ISSR SSR SS2R RATOR RATO13R
RBORR RICSR RINR RIN13R RONE 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 : FEDERAL PA 24-16

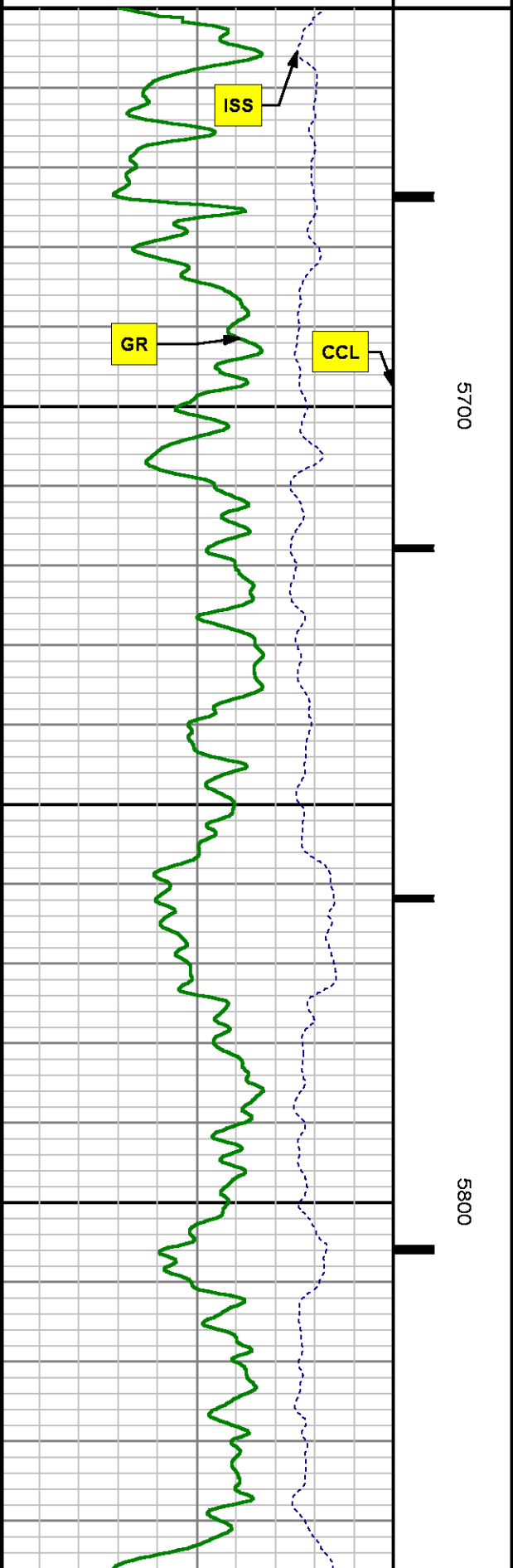
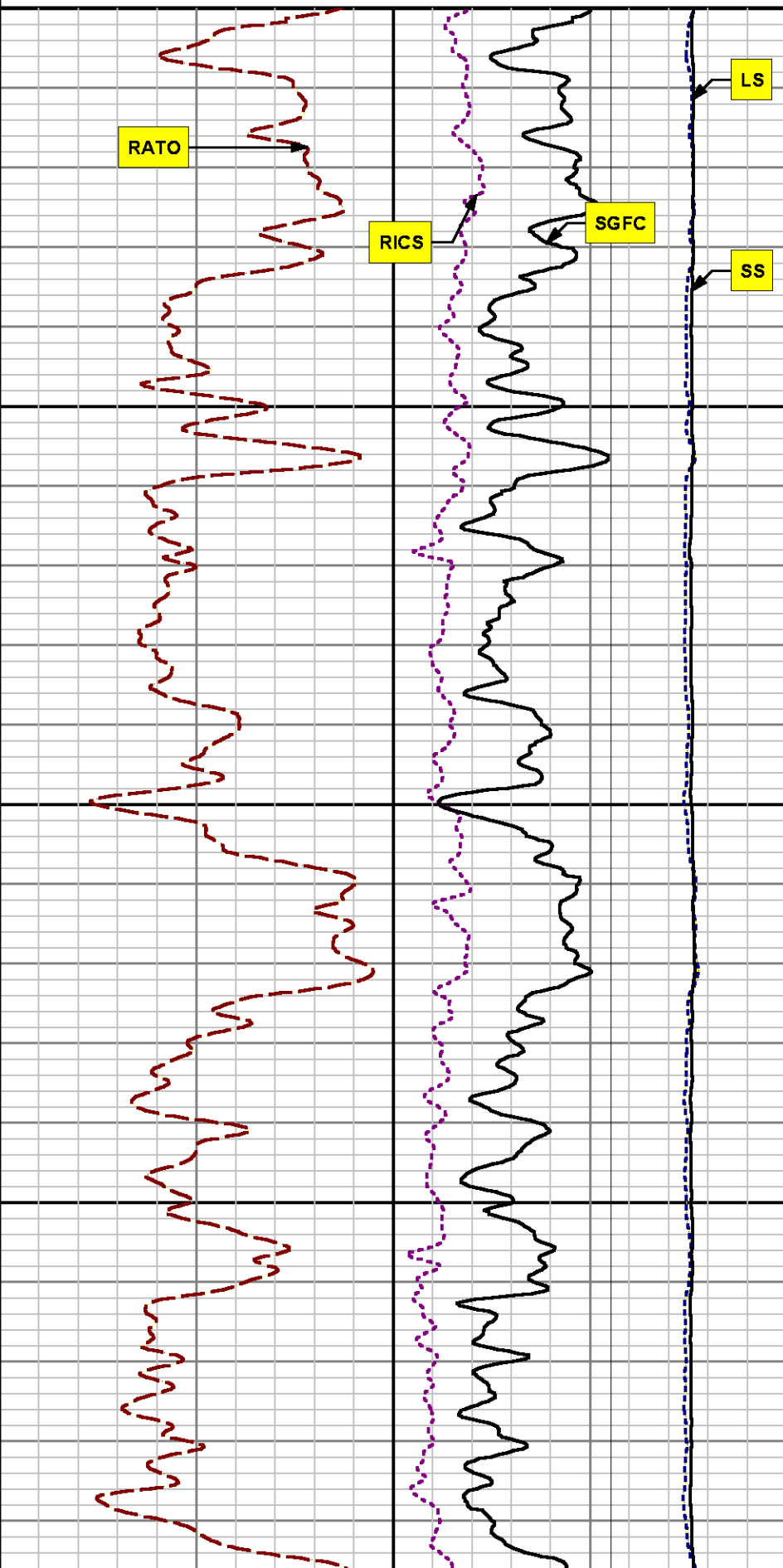
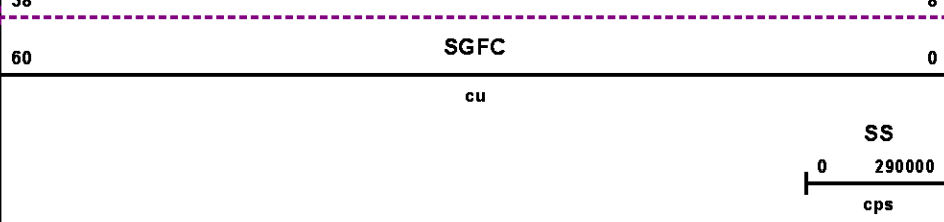
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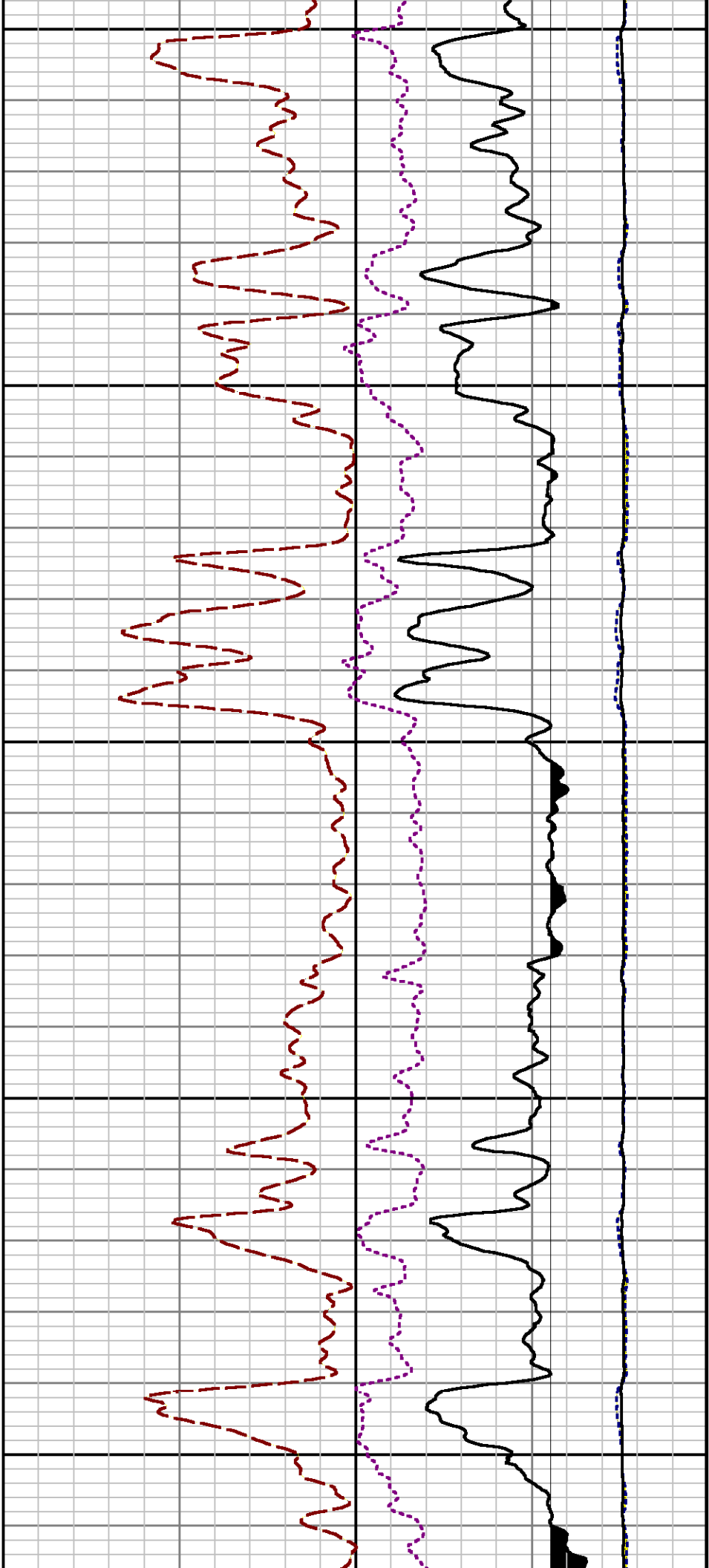
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Interval : 5650.00 - 9556.00 feet UP

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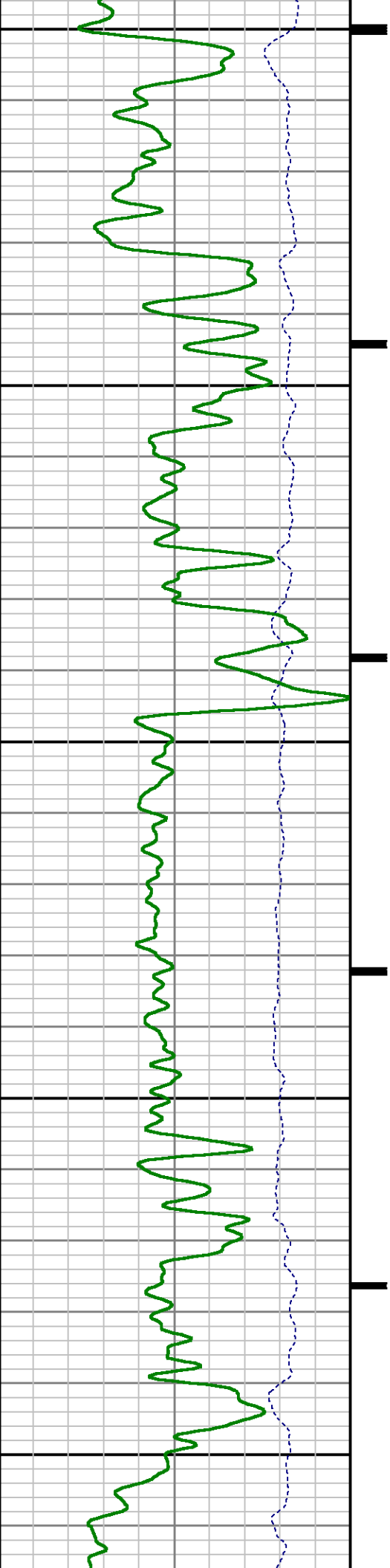


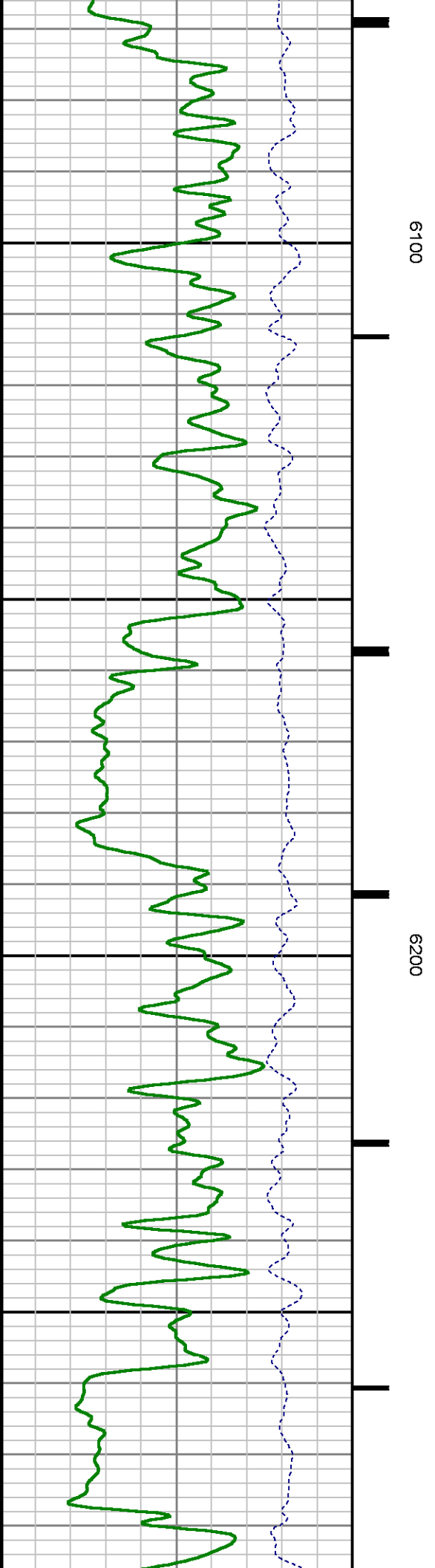
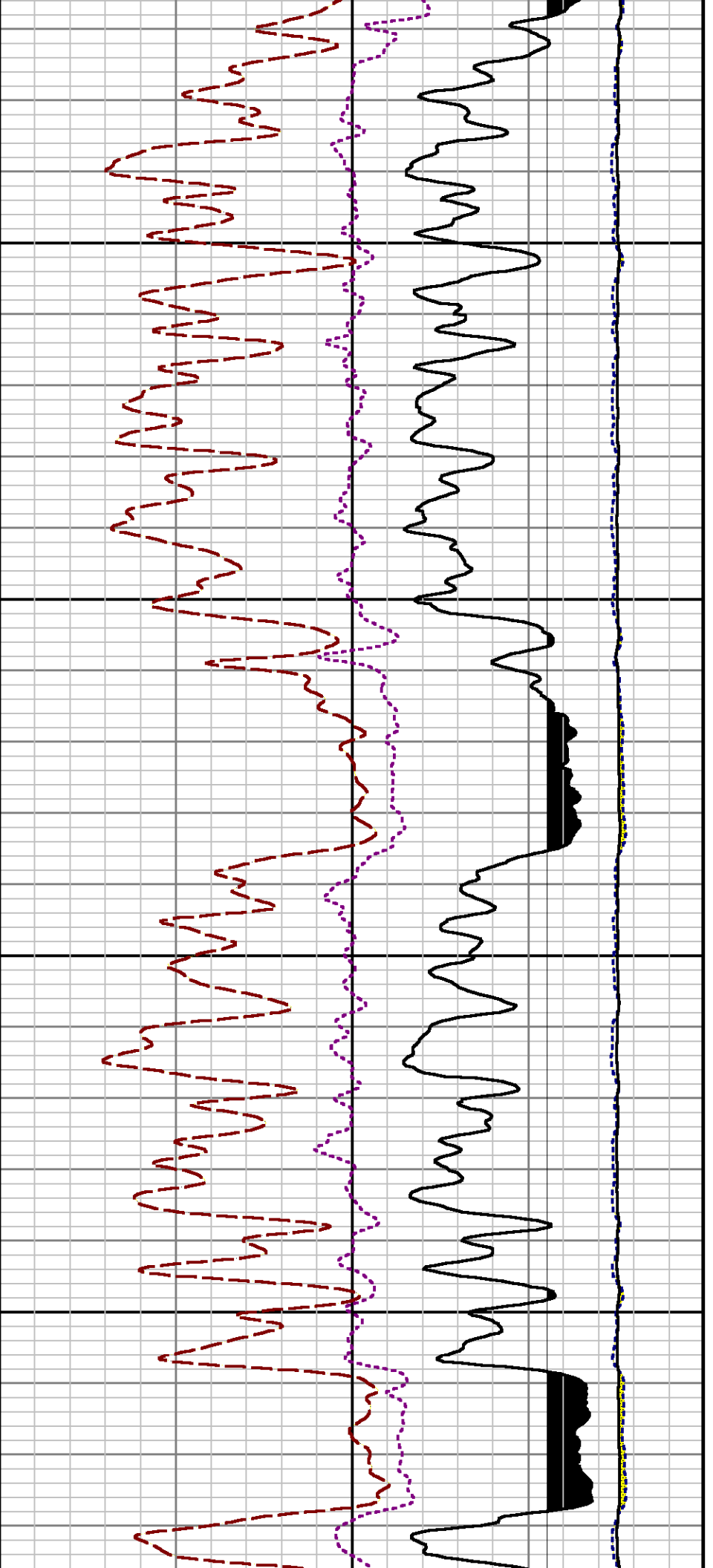


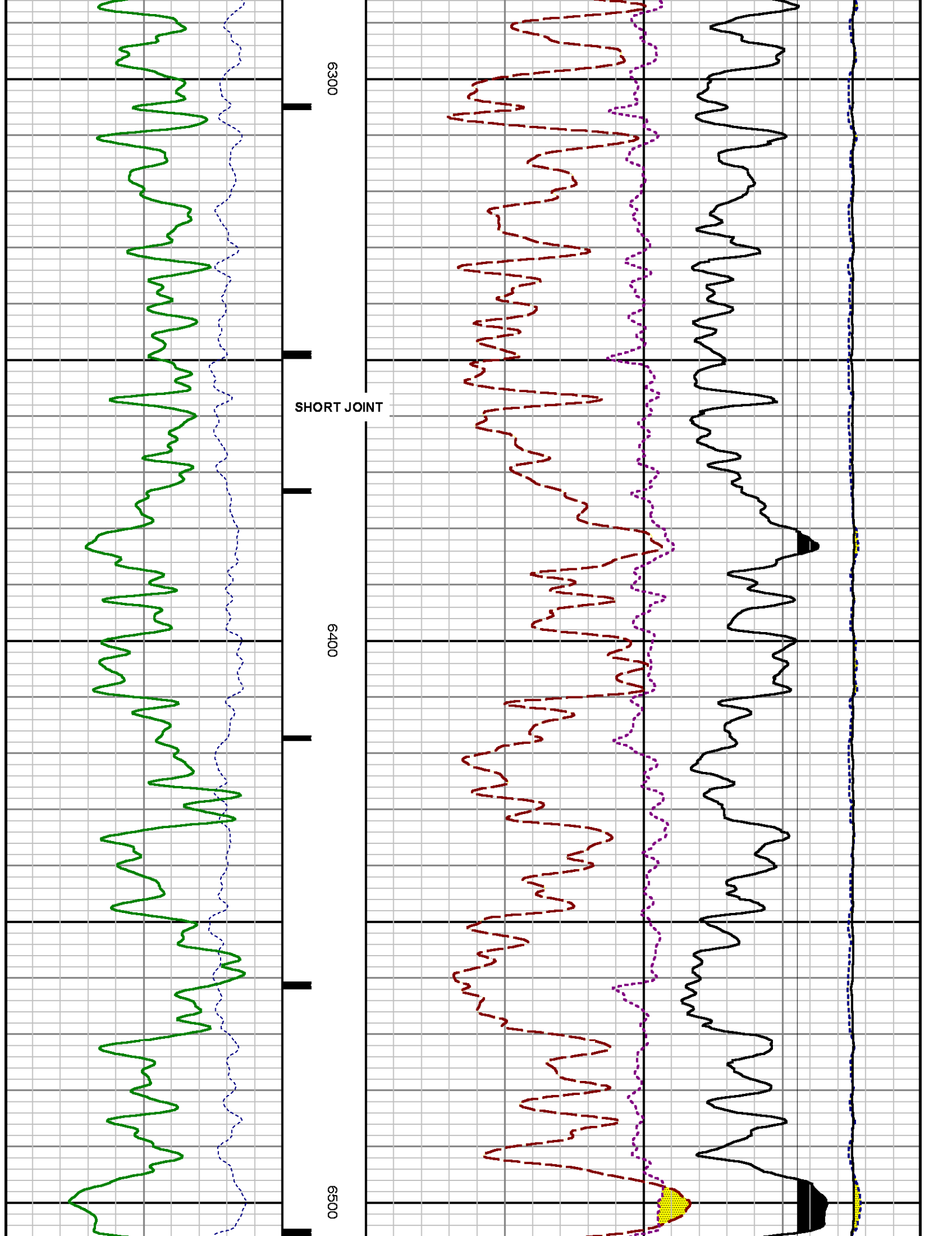


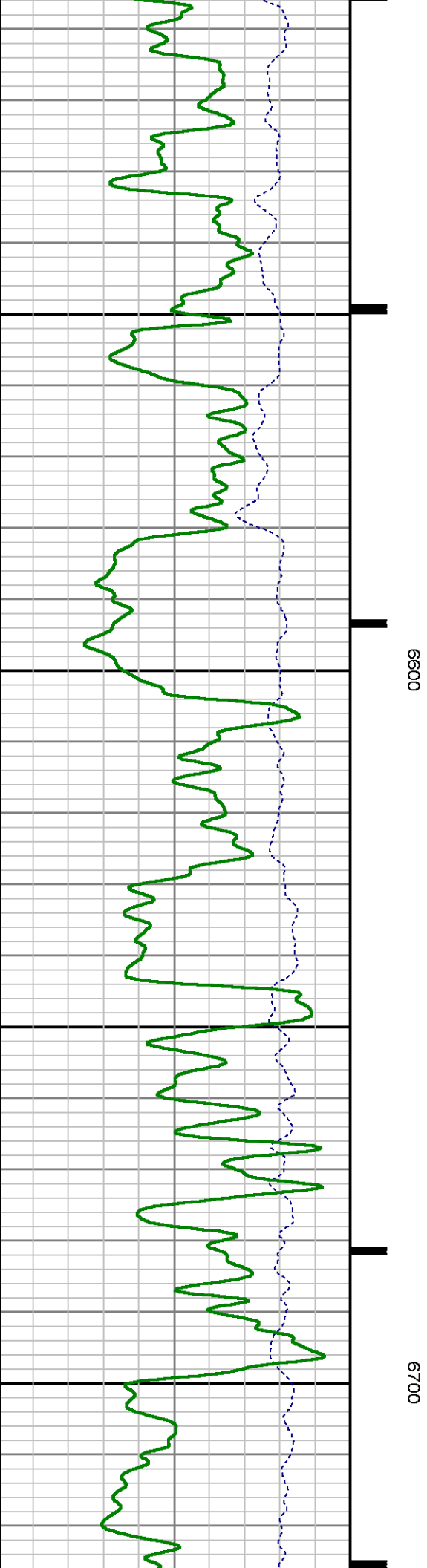
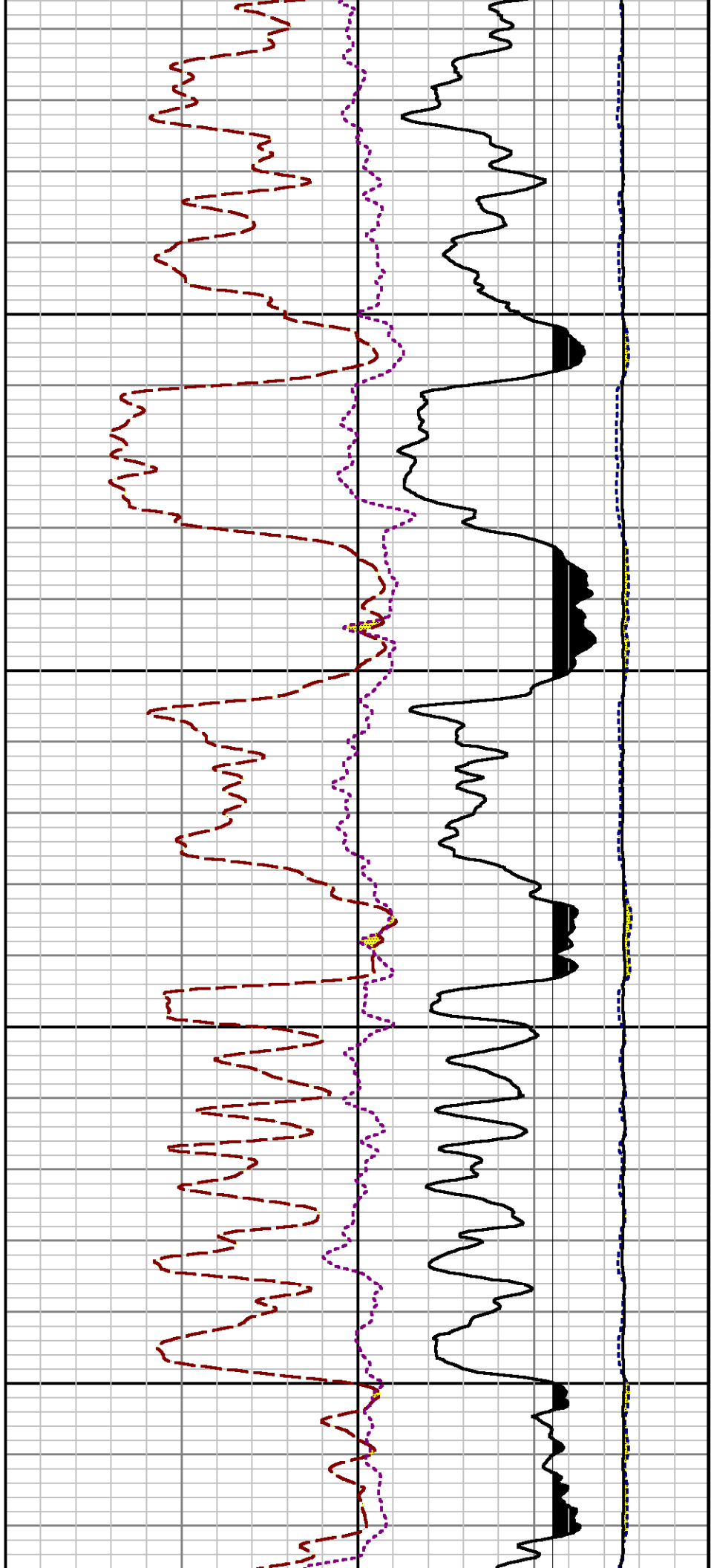
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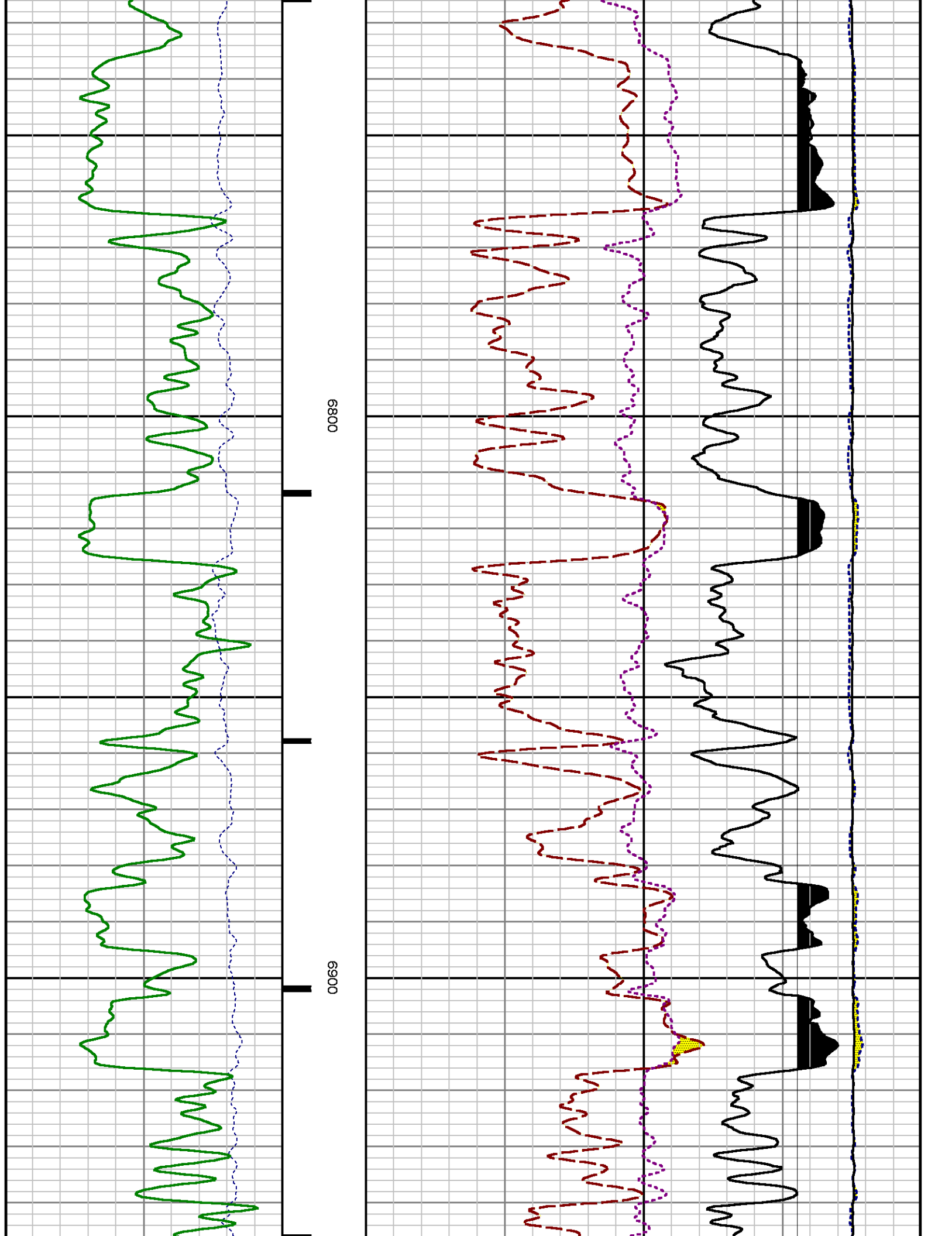
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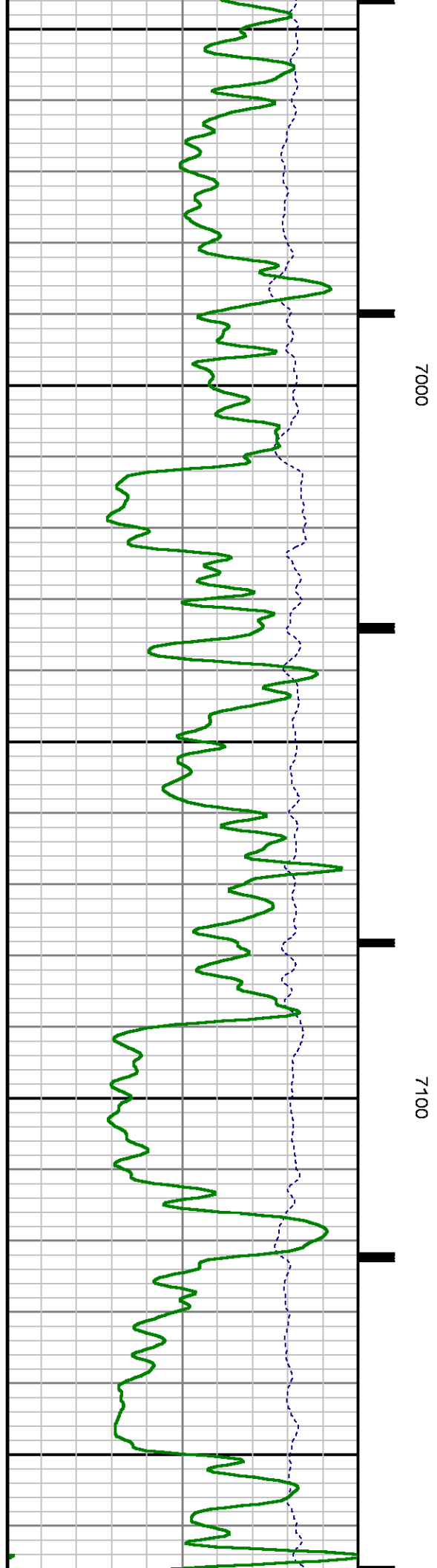
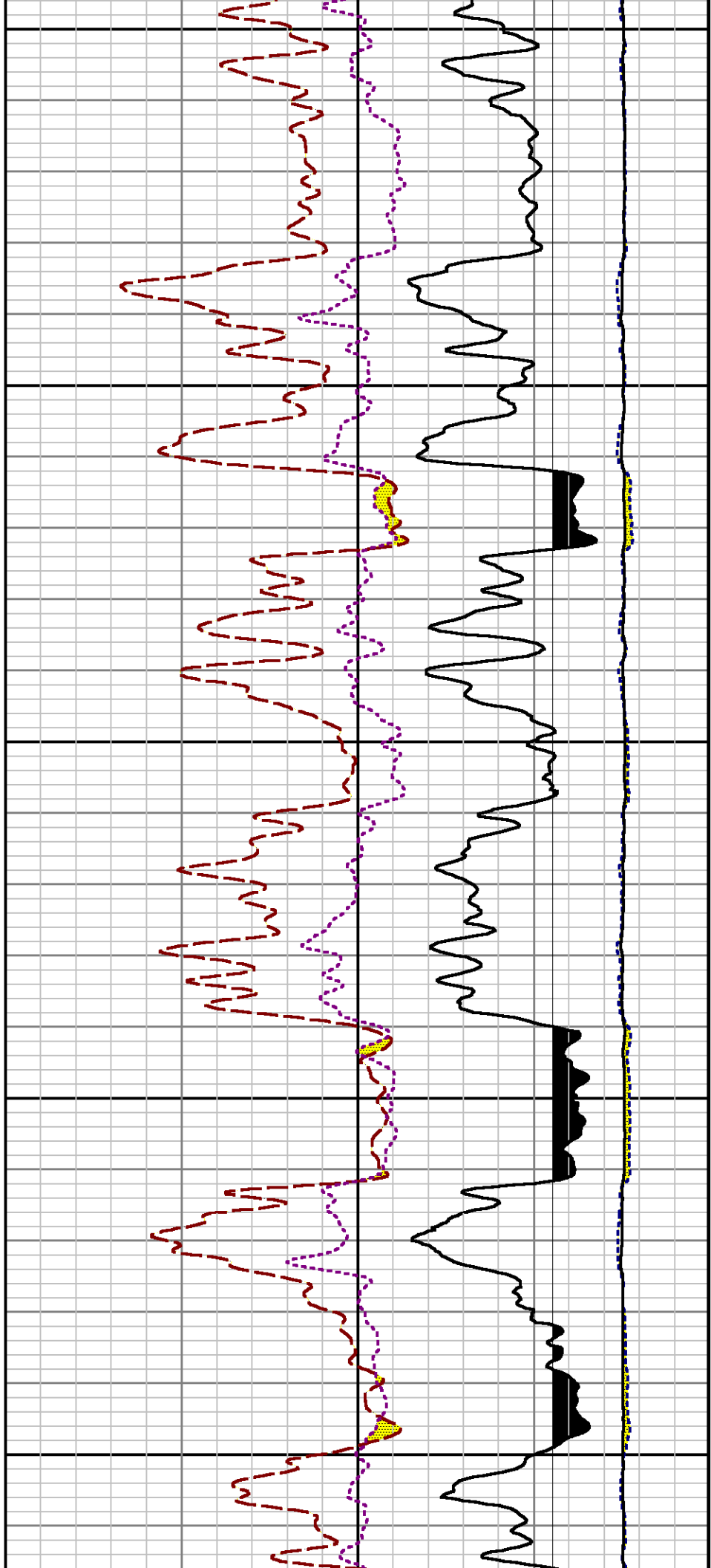


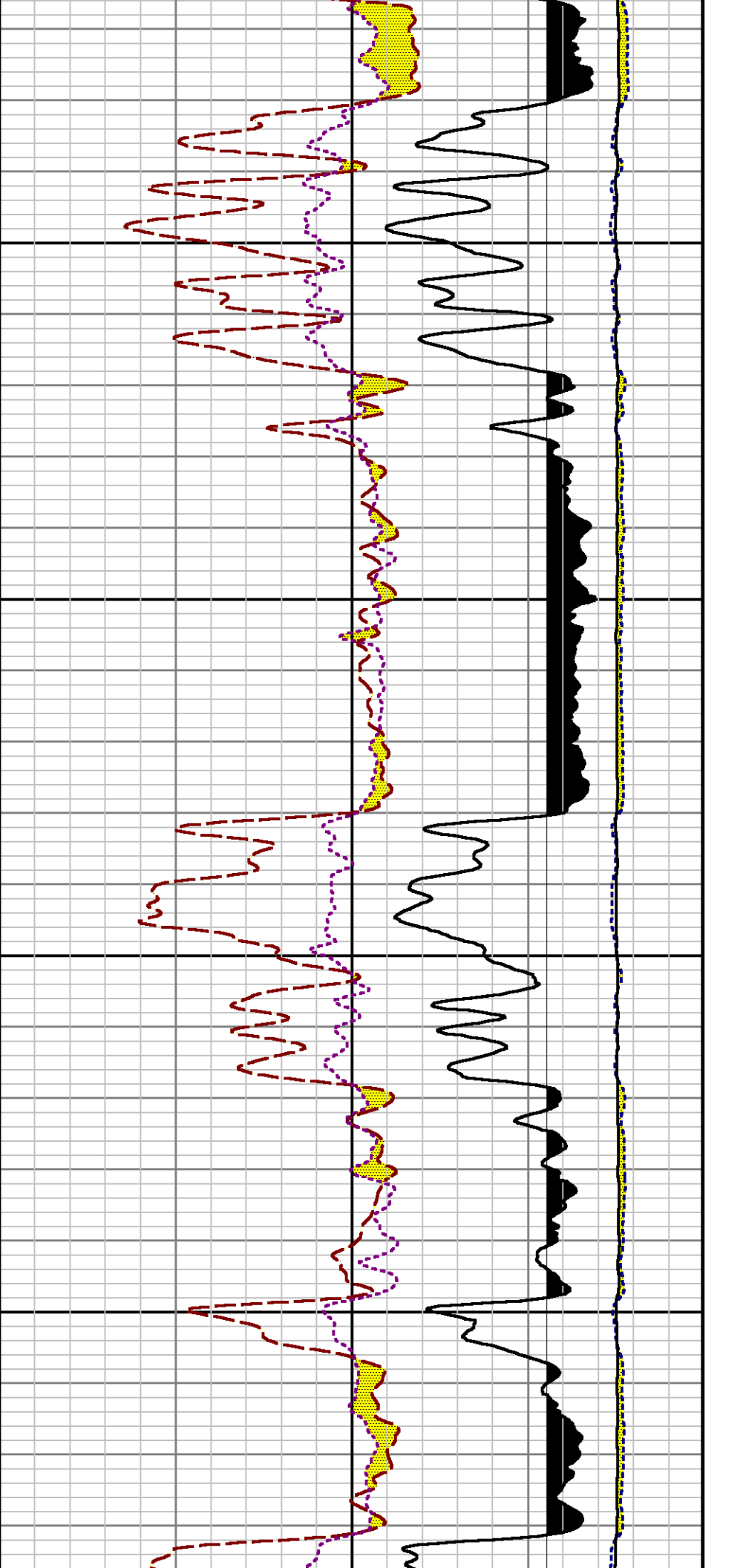






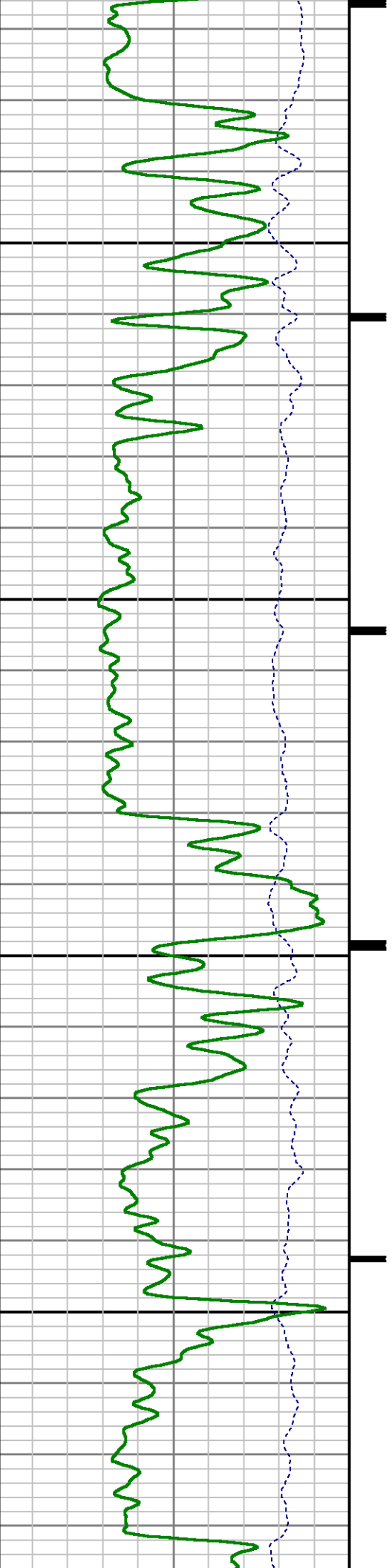


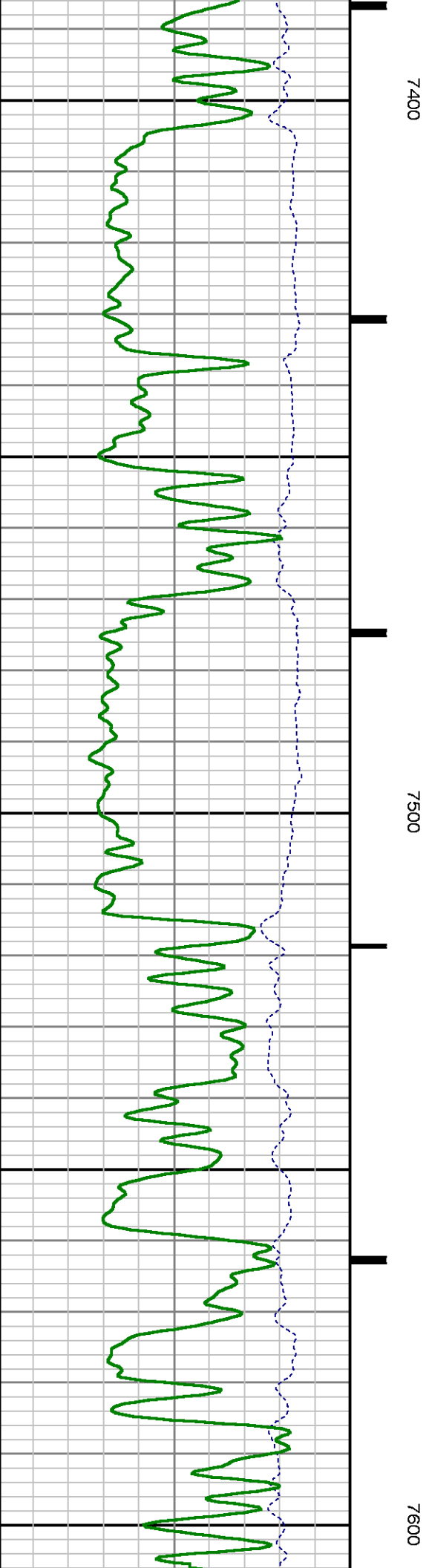
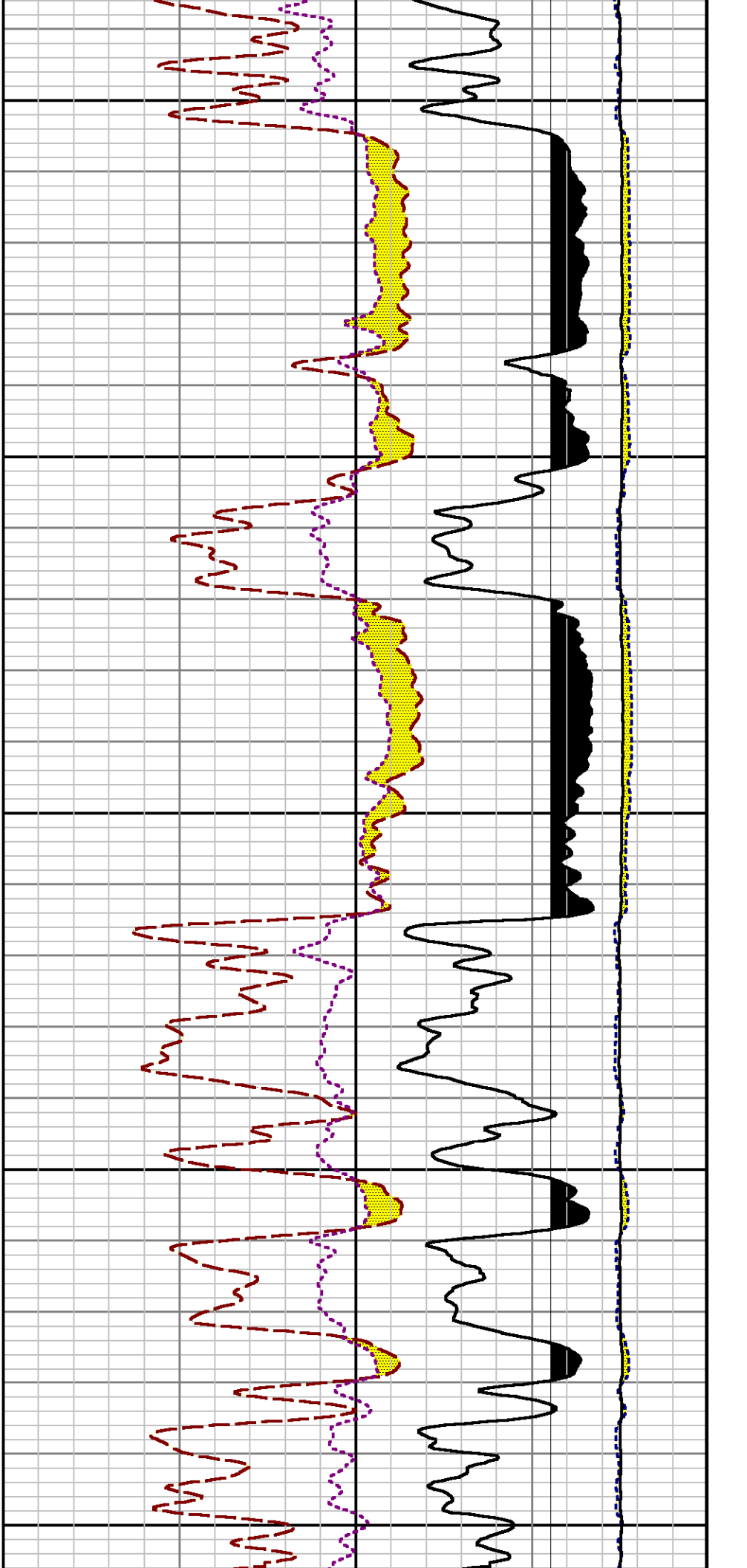


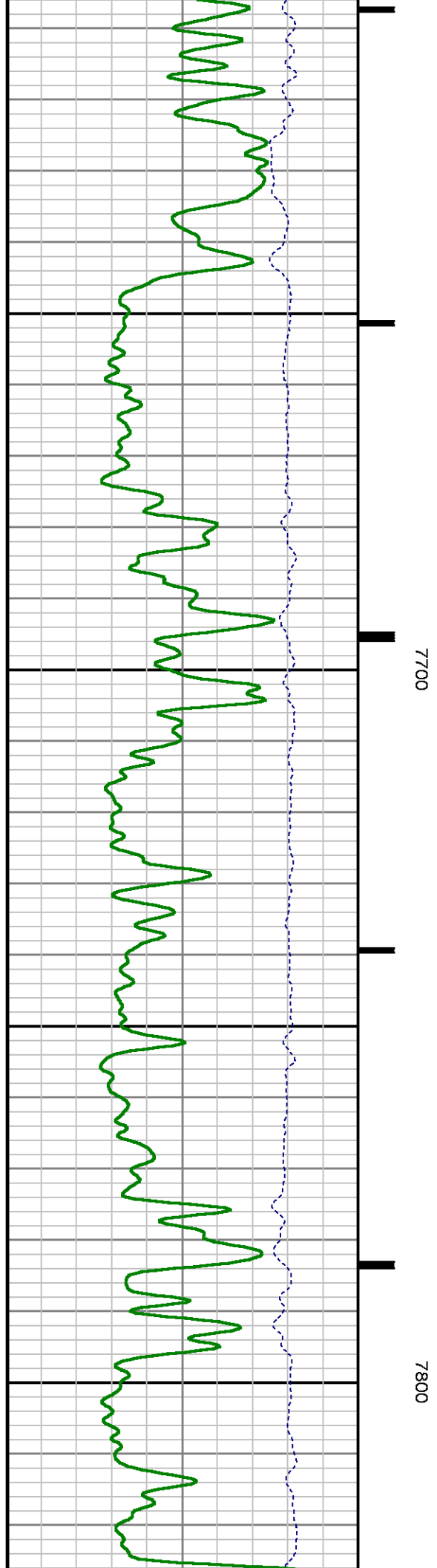
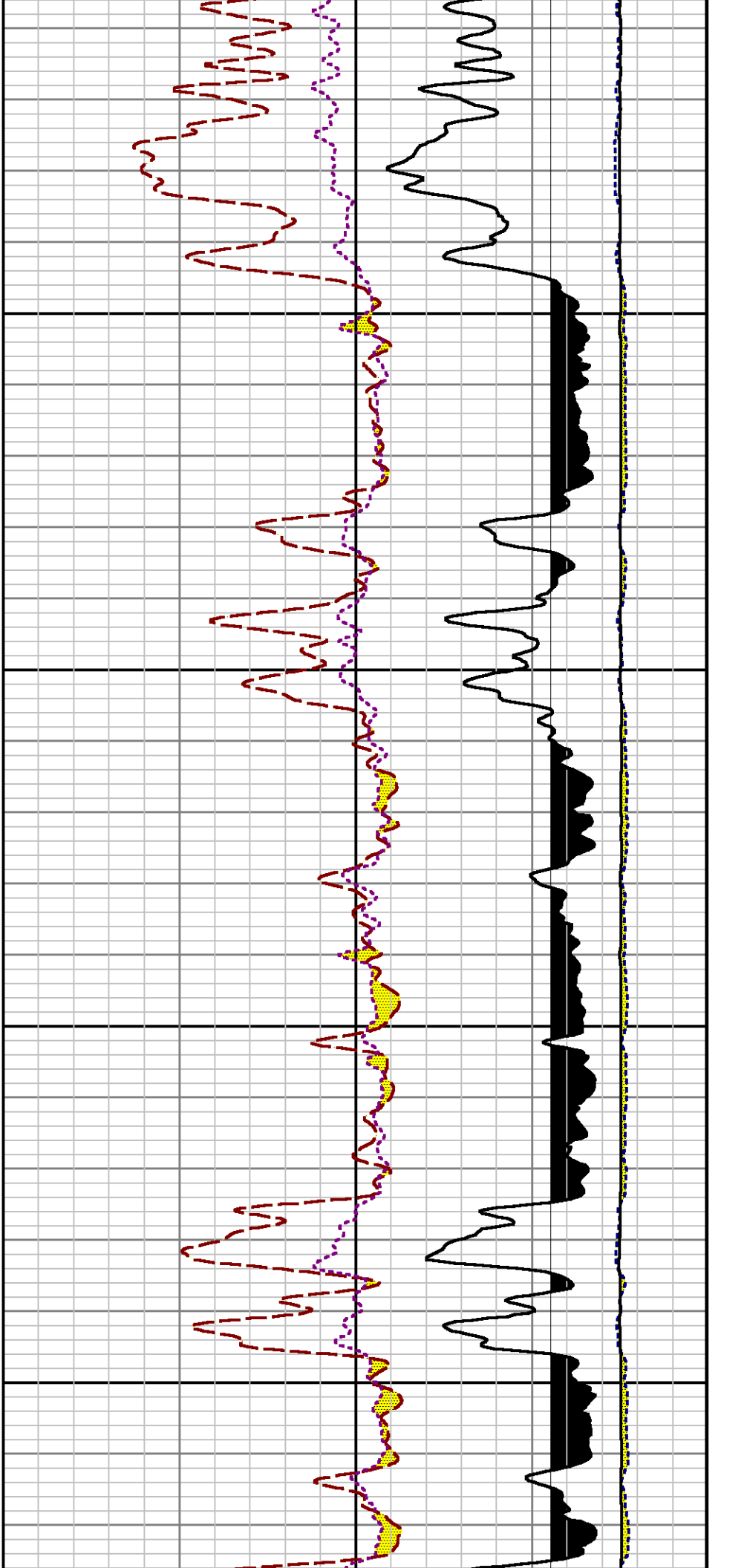


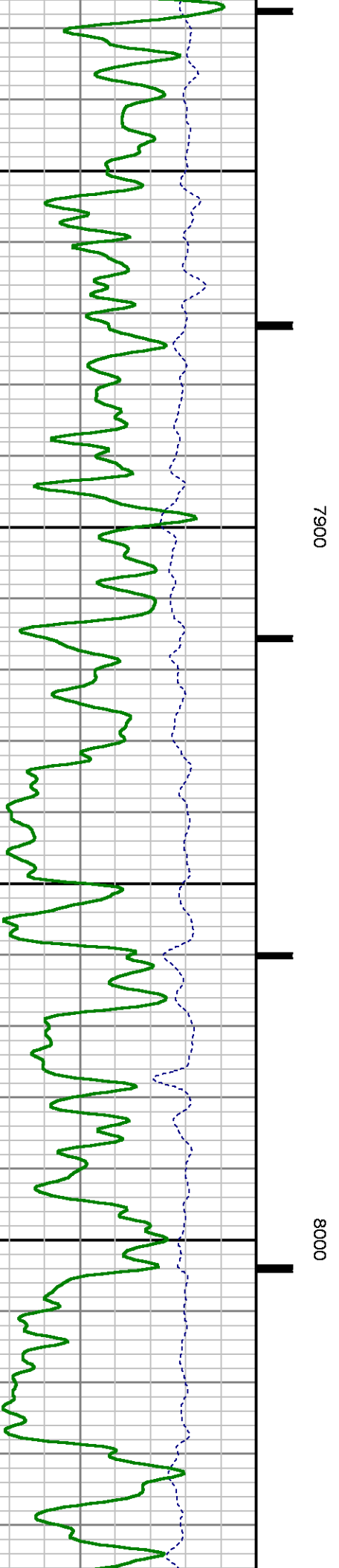
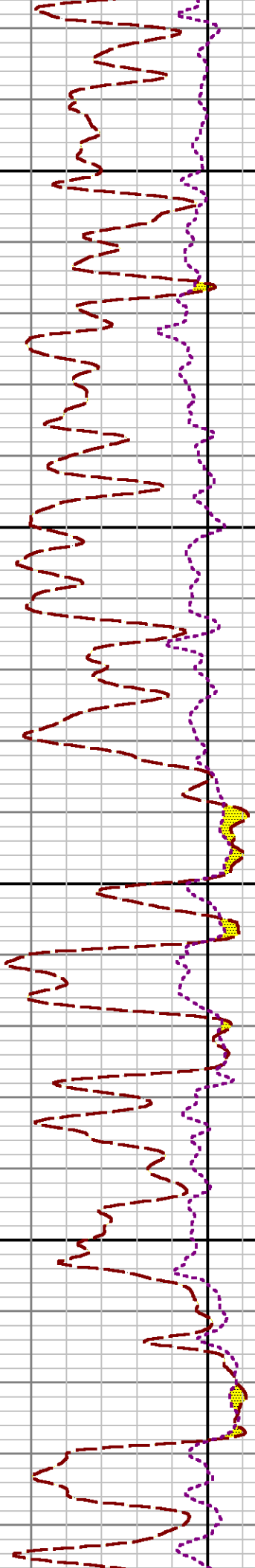
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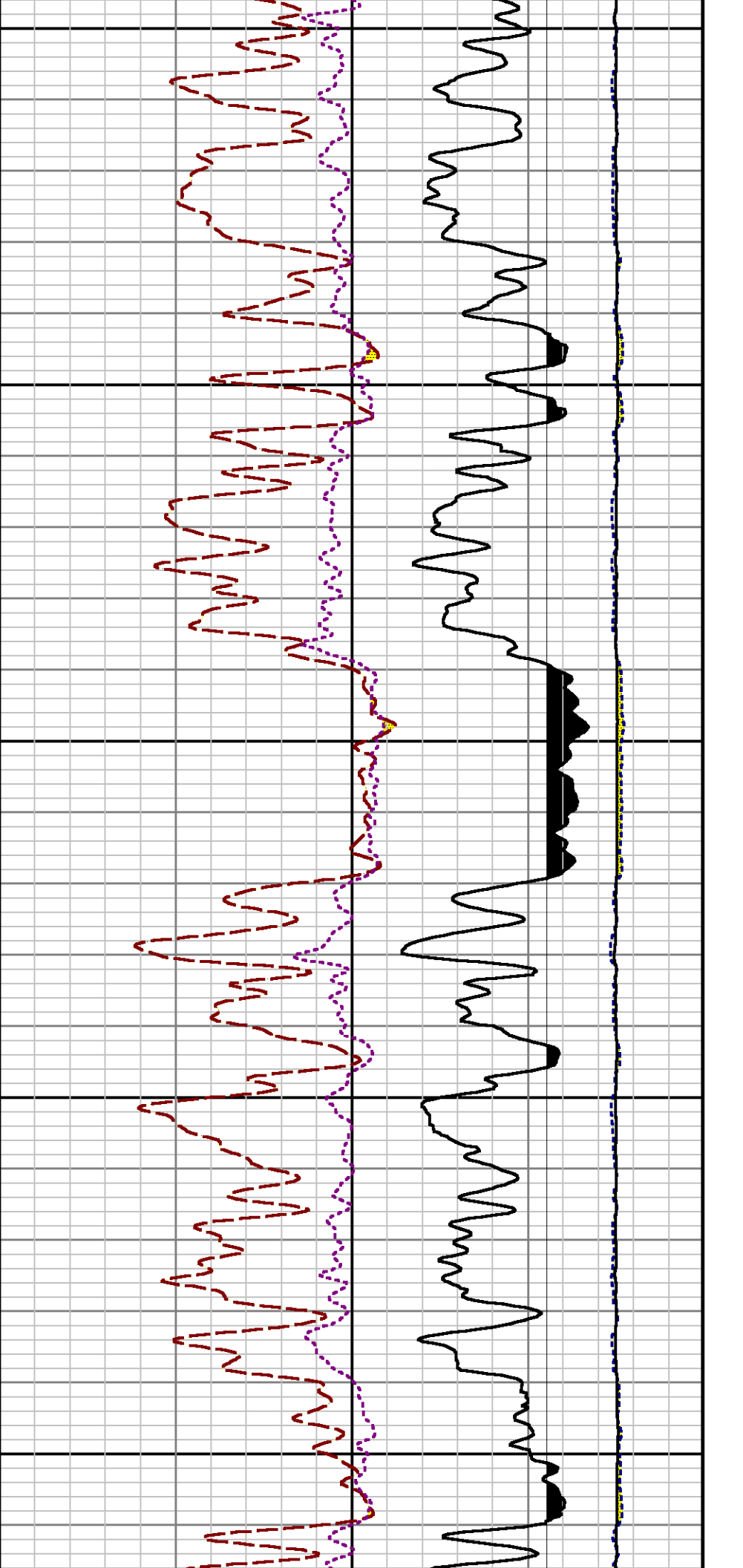
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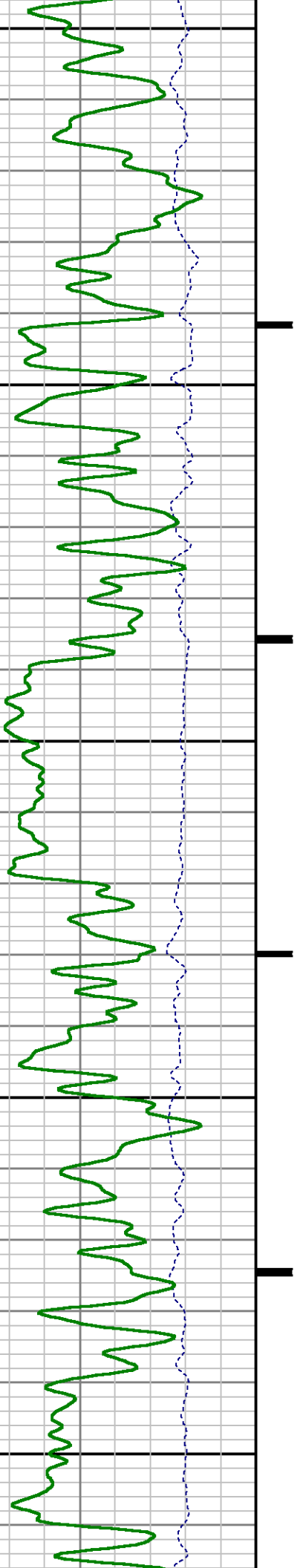


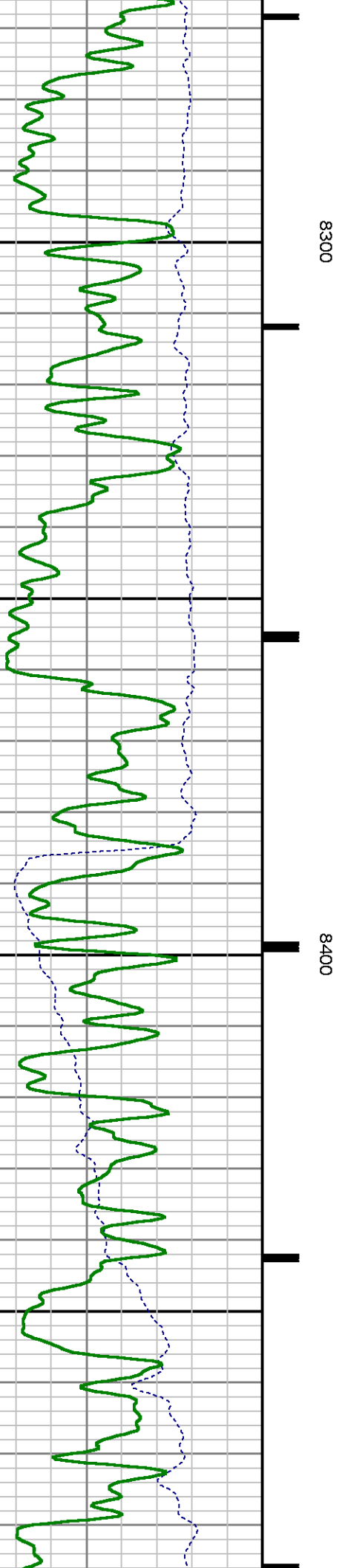
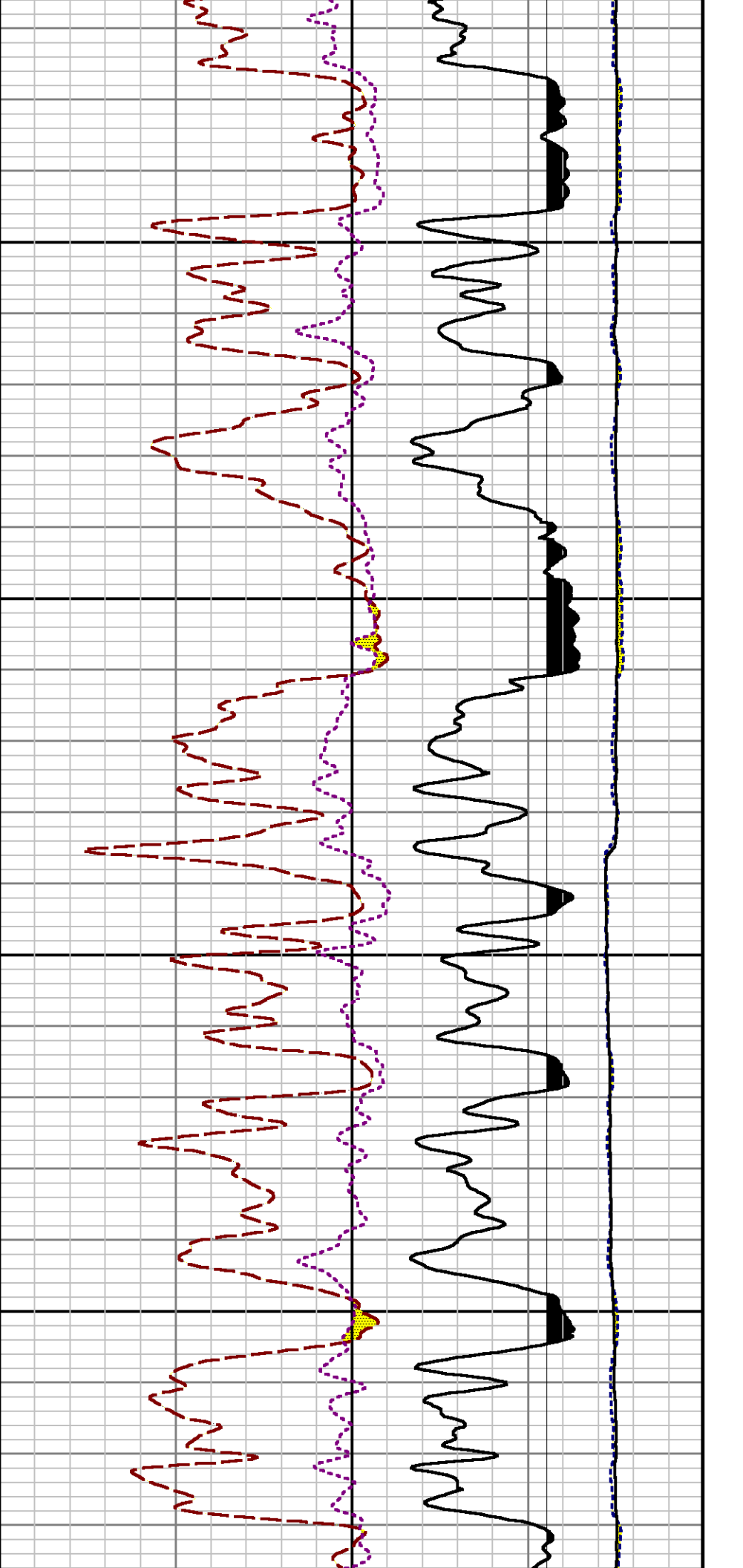


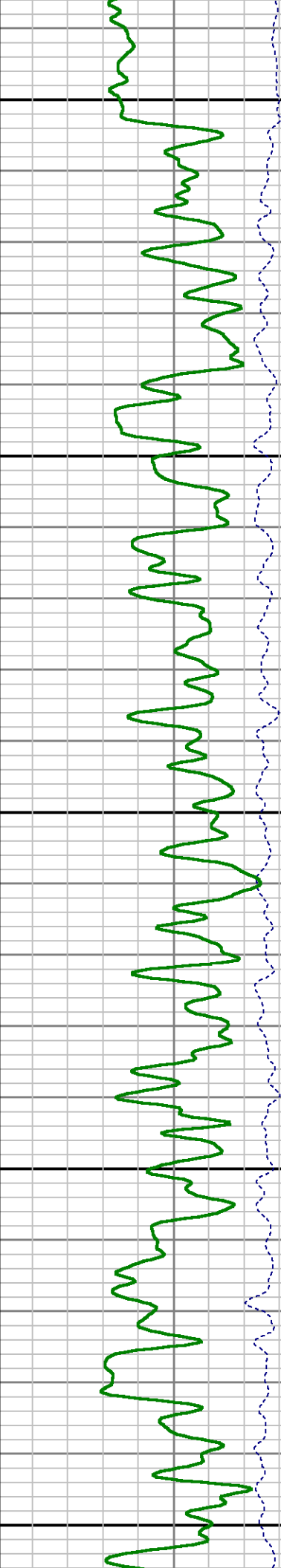
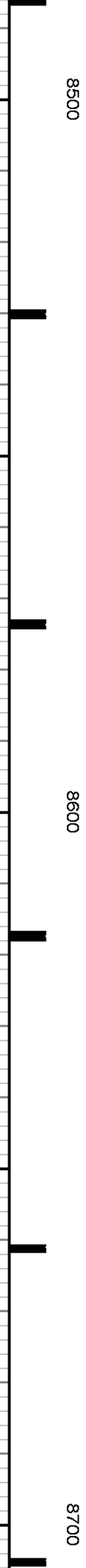
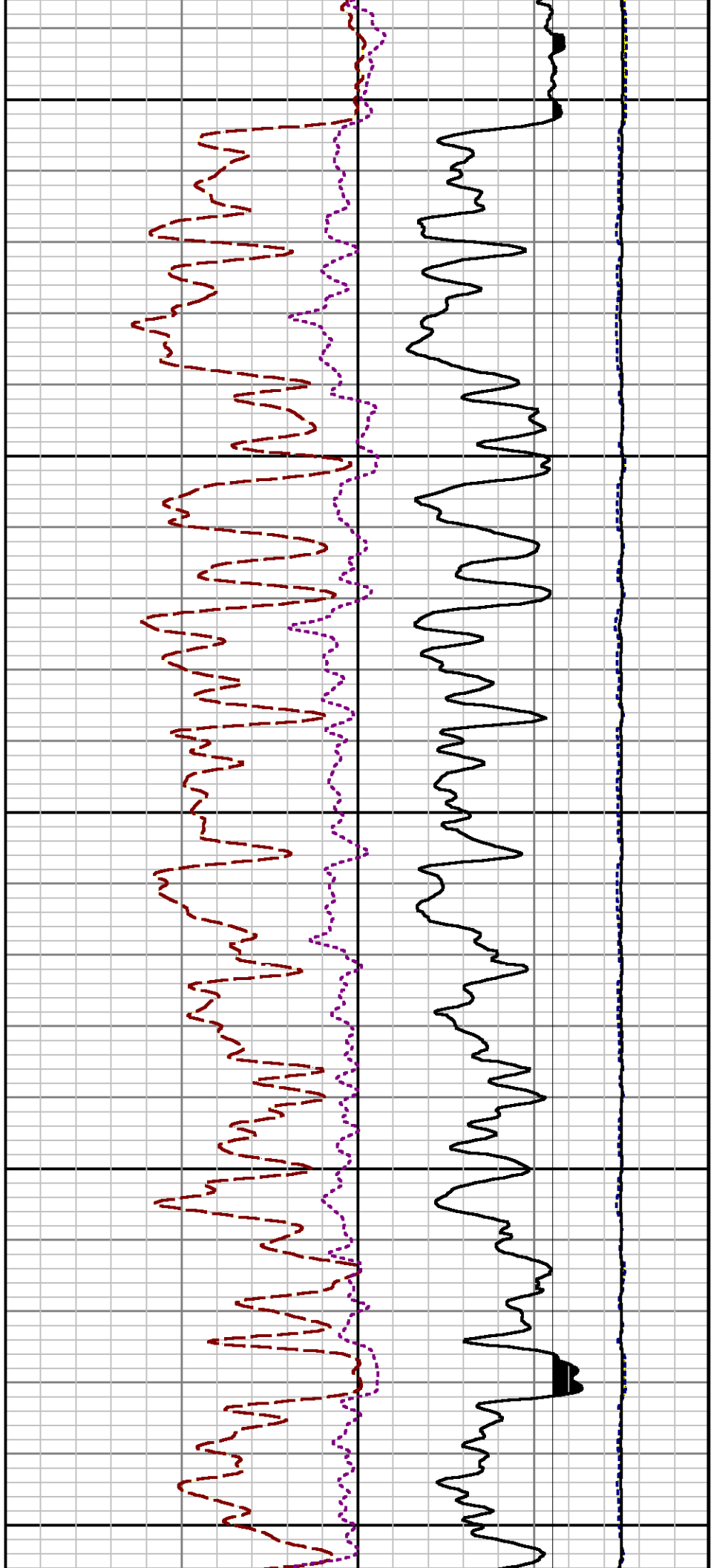


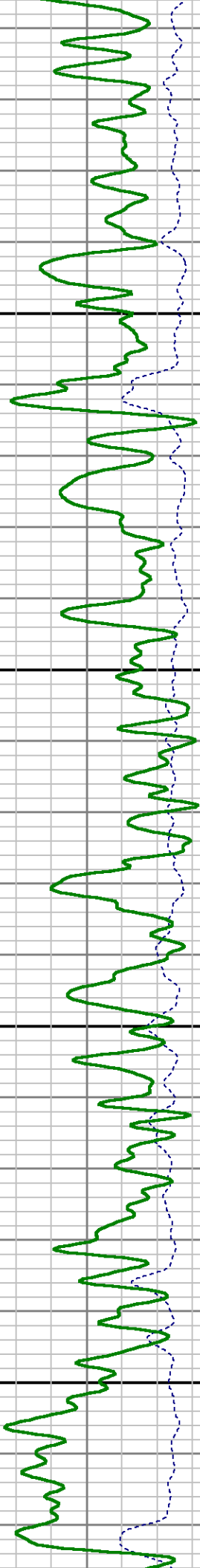
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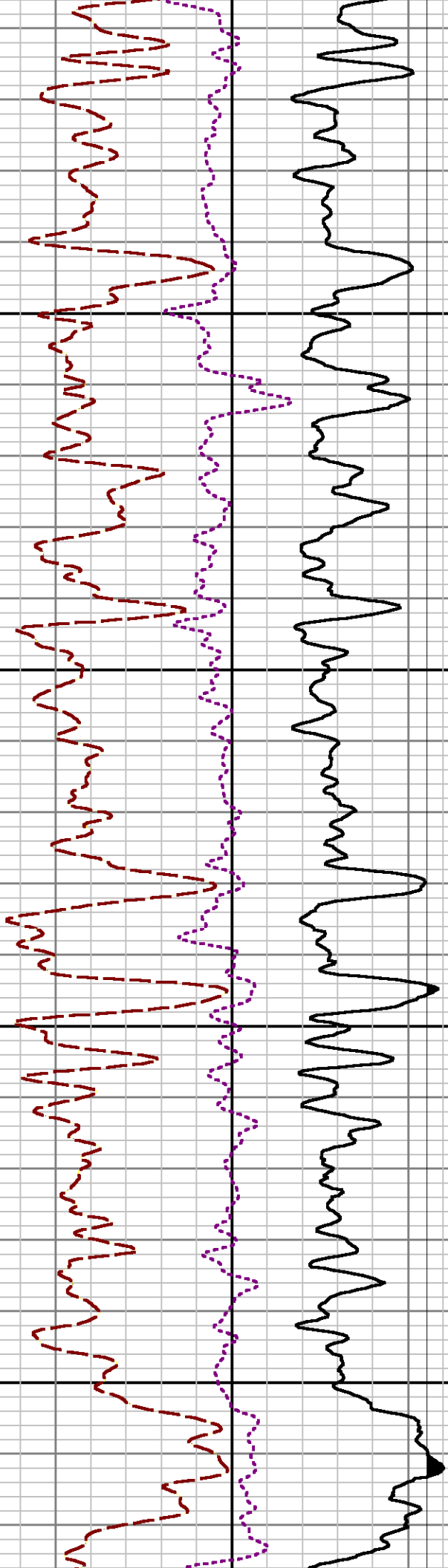


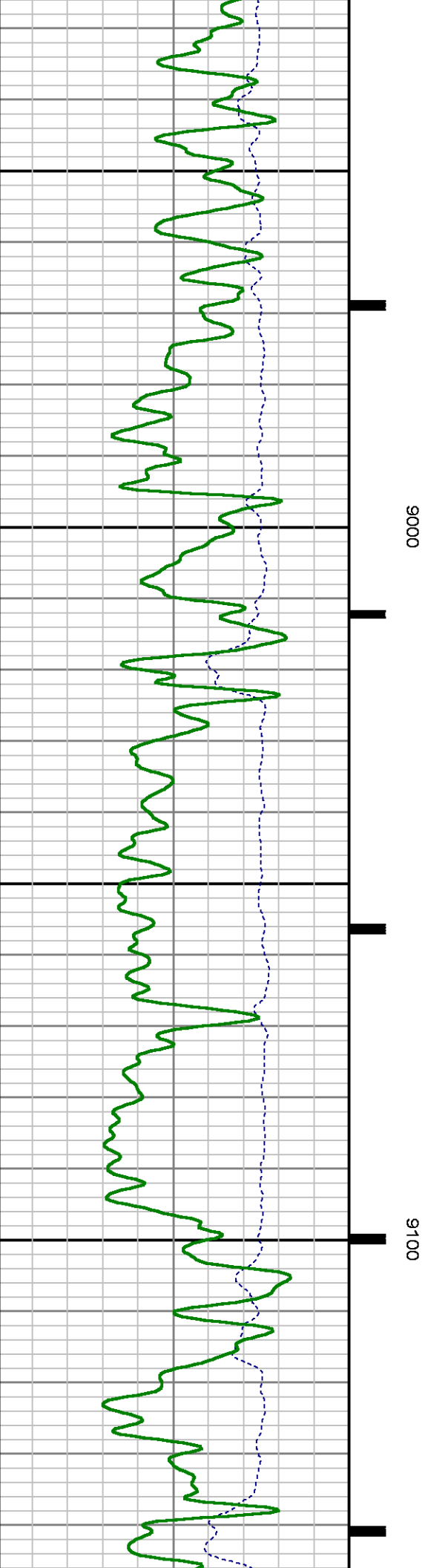
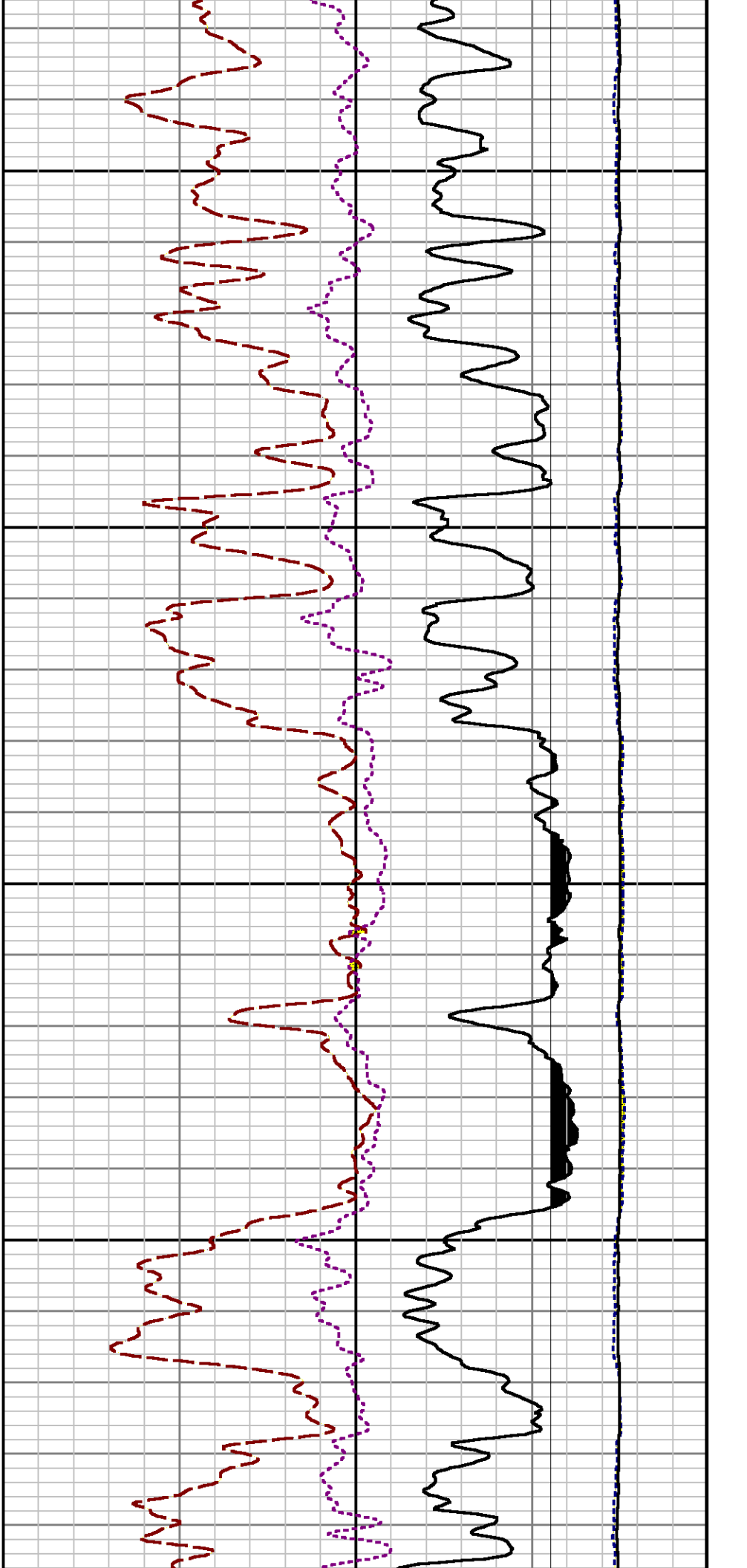


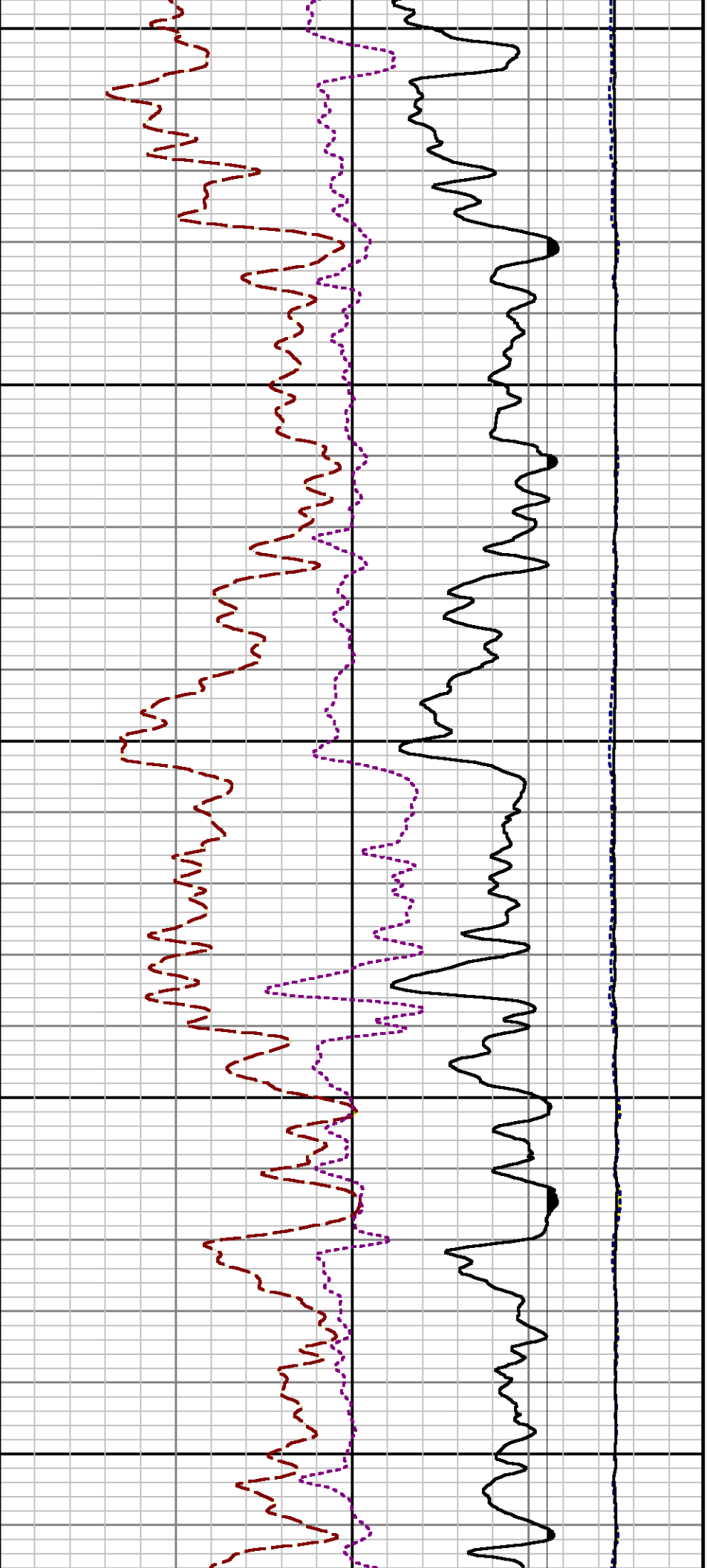


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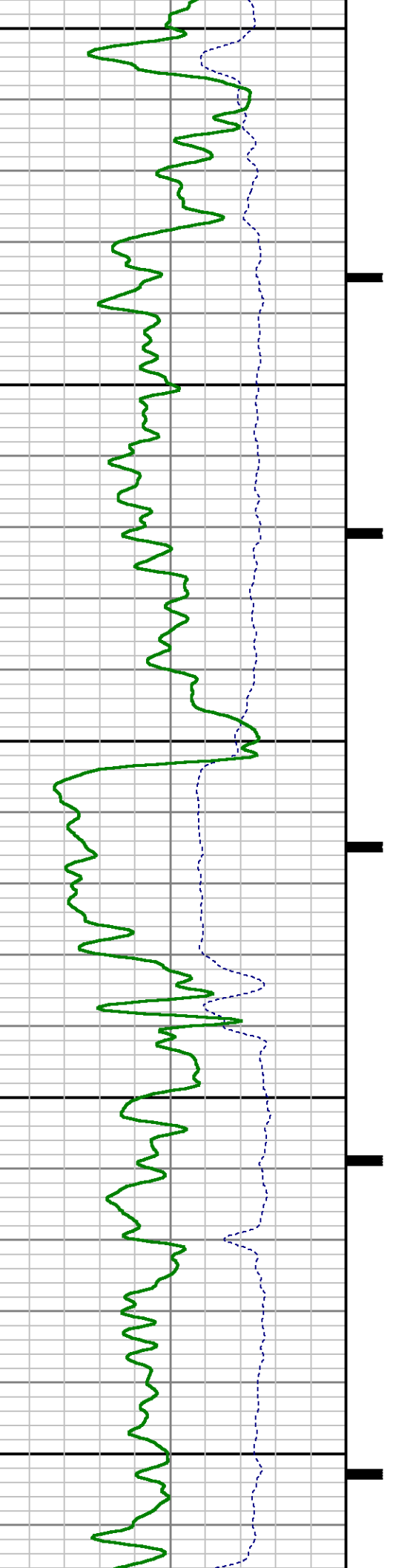


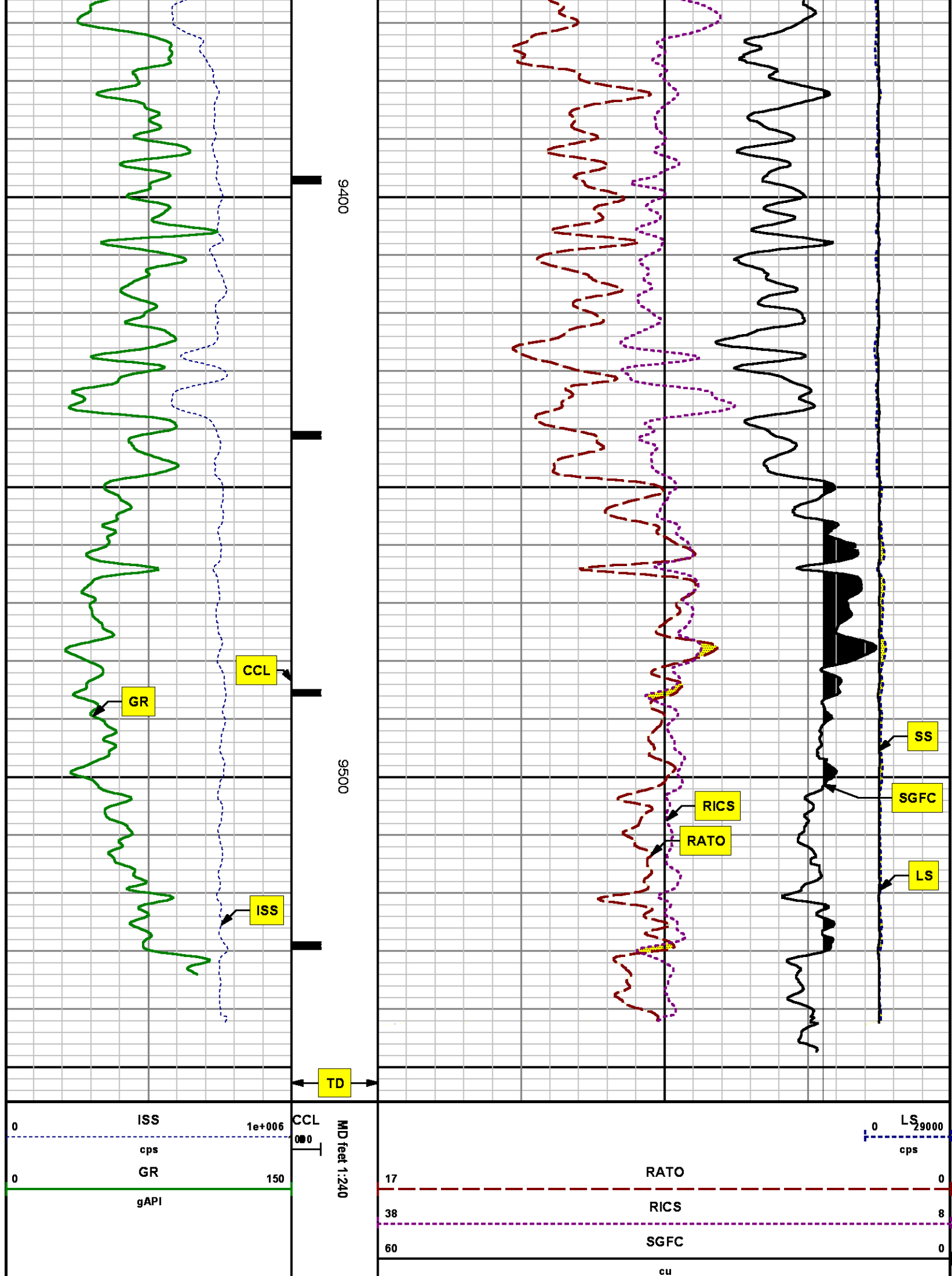




9200

9300





REPEAT SECTION
PNC 3-D MODE

SPL PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
PNC Porosity	Borehole	Cased		8739.487	9059.520
PNC Porosity	Borehole Size	8.750	inch	8739.487	9059.520
PNC Porosity	Casing Size	4.500	inch	8739.487	9059.520
PNC Porosity	Gas Filled	Non Gas Filled		8739.487	9059.520
PNC Porosity	Matrix	Sandstone		8739.487	9059.520
TPS Pressure	Temperature Corr. Source	Fixed (72.00)	degF	8739.487	9059.520

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

8281XA

-12.041

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
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

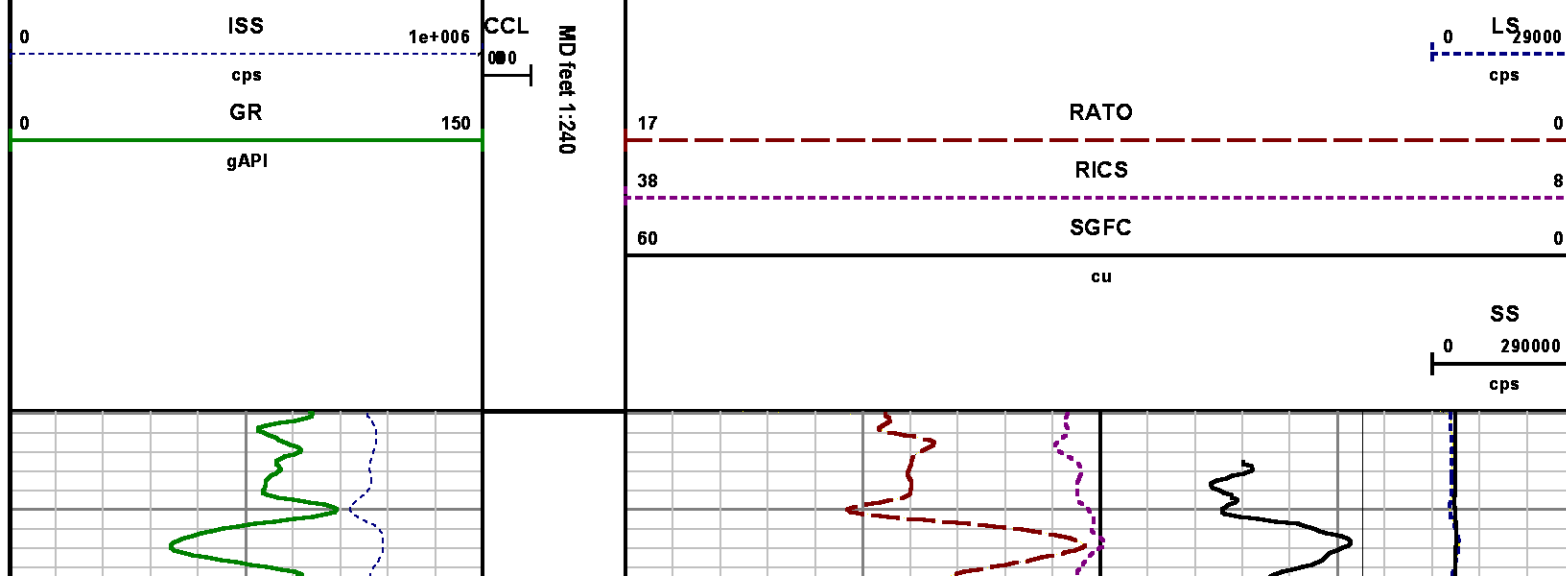
Well : FEDERAL PA 24-16

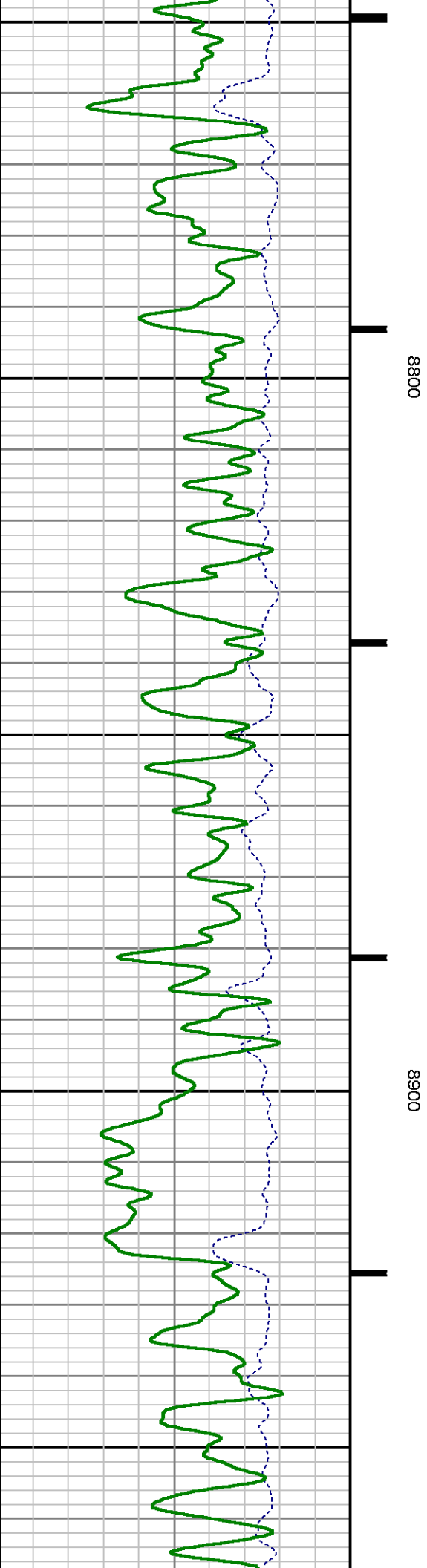
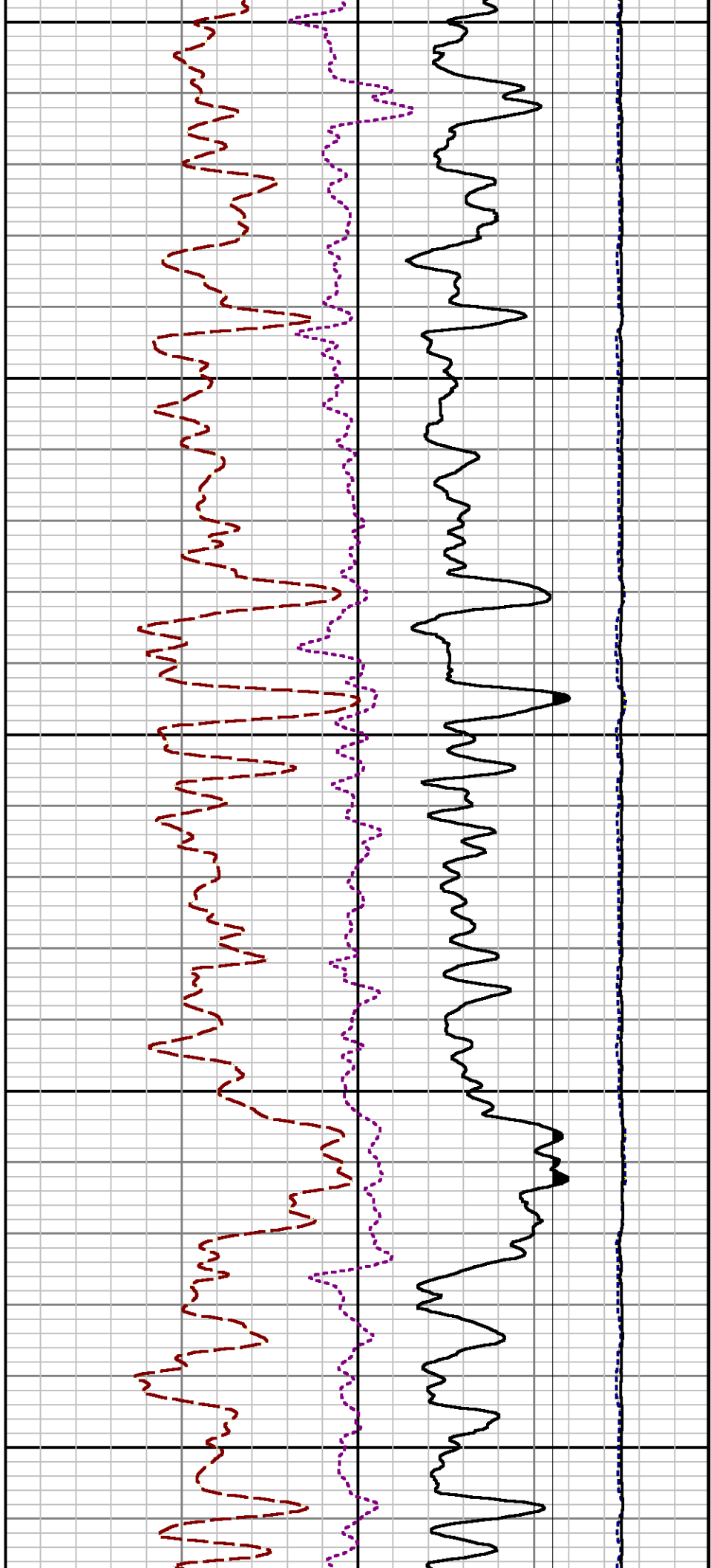
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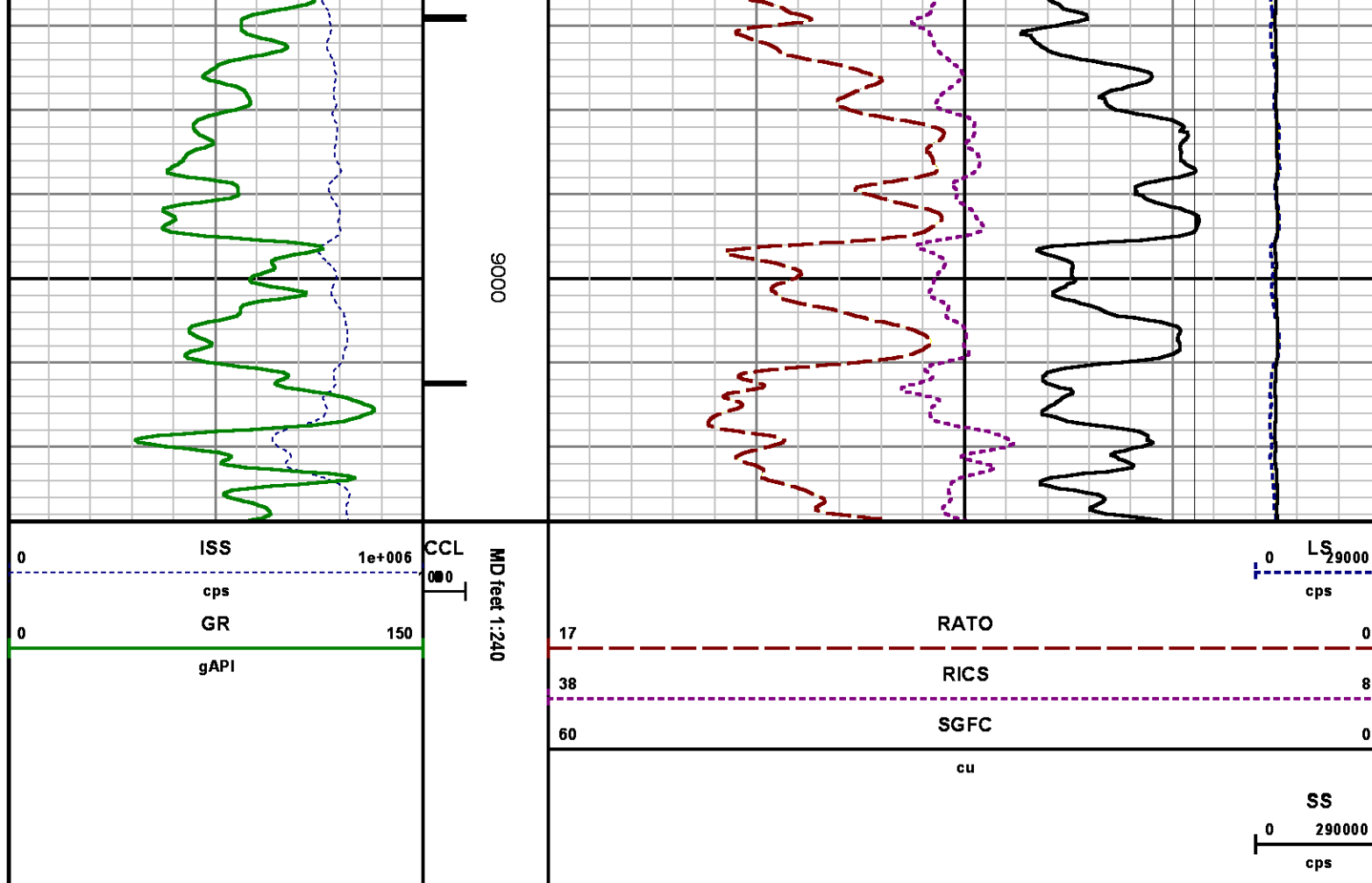
Mode : PlotMgr 5.4.504

Interval : 8729.77 - 9029.00 feet UP

Created : 5/20/2014 2:39:08 PM







CALIBRATION SUMMARY

GAMMA RAY

Calibration File: C:\case\calver\GR\38219.cal

CALIBRATION SUMMARY

DATE/TIME PERFORMED: Sat Apr 19 16:31:28 2014 TOOL SERIES: 2812LA ASSET: 382 SEQ: 19

Calibrator #	Background [cps]	Calibrator On [cps]	Multiplicative	Background [api]	Calibrator On [api]	Differential [api]
S2K	51.88	260.02	1.009	52.34	262.34	210.00

Verification File: C:\case\calver\GR\38219.VP

PRIMARY VERIFICATION

DATE/TIME PERFORMED: Sat Apr 19 16:38:08 2014 TOOL SERIES: 2812LA ASSET: 382 SEQ: 19

Calibrator #	Background	Calibrator On	Multiplicative	Background	Calibrator On	Differential
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Calibrator #	Background	Calibrator On	Multiplicative	Background	Calibrator On	Differential
S2K	WA612	[cps]		[api]		[api]
		51.54		52.00	265.95	213.95
		263.60	1.009			

PNC

Calibration File: C:\case\calver\PNC\55528.cal

PNC 3D CALIBRATION SUMMARY

DATE/TIME PERFORMED: Mon Apr 28 09:59:59 2014 TOOL SERIES: 8281XA ASSET: 555 SEQ: 28

Calibrator #

2437XB GJSHOP

Source #

8281AA 11765054

	ISS	Mtr Vlt (V)	SS Gain	LS Gain	XLS Gain	EA Temp (degF)	Sync Delay (usec)	RCAL
Raw Data	811508	121.00	2347.00	2278.00	2241.00	110.62	7.00	0.9846
Interpolated	1300000	143.31	2318.28	2276.39	2237.74			

	ISS	BKS	BKL	BKX	SGA1	SDA1	SGA2	SDA2
Raw Data	811508	6877.25	1084.60	148.19	25.74	0.14	24.34	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	811508	173131.64	27245.19	91206.62	32486.00	8514.36	55168.79	13602.94
Fit Quality %		1.06	1.20	1.11	1.05	1.06	0.97	1.04

	ISS	RBOR	RIN ISS/ILS	RIN13 ISS/IXS	RICS ISS/CSS	RATO SS/LS	RTWO SS2/LS	RONE CSS/CLS
Raw Data	811508	1.43	4.69	29.79	14.71	10.71	3.82	4.06
		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 %		0.11	0.28	0.24	0.17	0.06	0.03	0.05
Reduced	1414078	1.43	4.70	29.86	14.75	10.71	3.82	4.05
		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\77456813.cal

CALIBRATION SUMMARY

DATE/TIME PERFORMED: FEB 13 2014 TOOL SERIES: 8255XA ASSET: 774568 SEQ: 13

	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

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

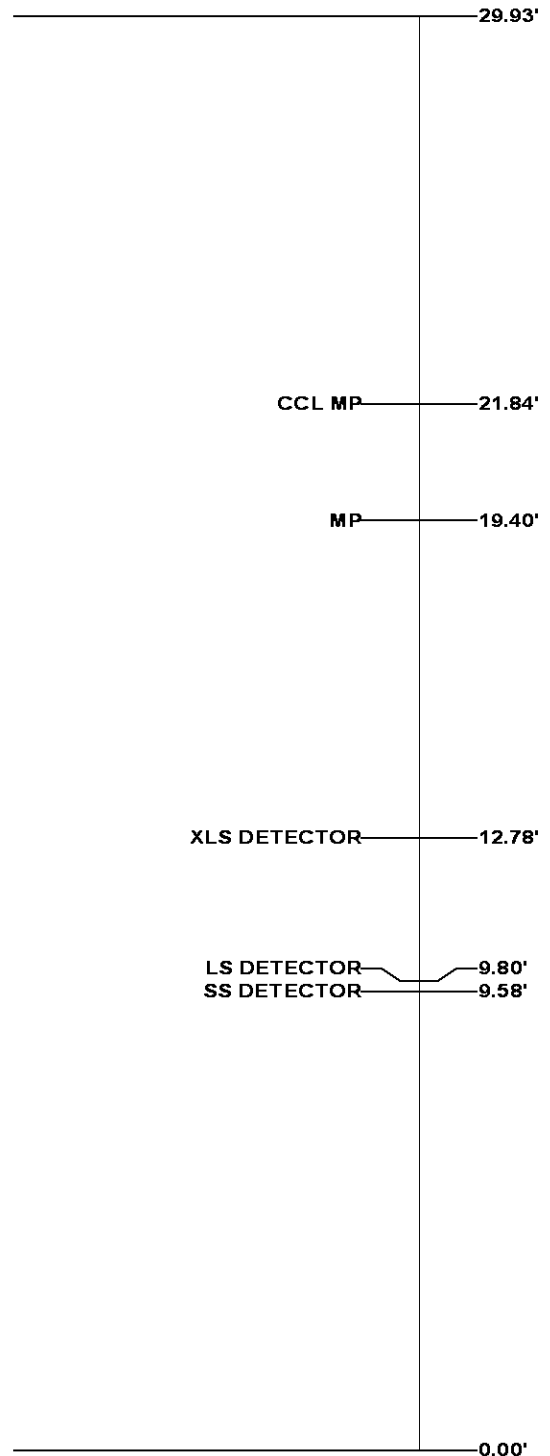
Series	8248EA
Mnemonic	PCM
Diameter	1.70"
Weight	20.00 lb
Length	4.46'
Measure Point	1.00' CCL MP
Temp Rating	350.00 °F
Press Rating	15000.00 PSI

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



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



Baker Atlas

CASE

Company	WPX ENERGY			File No:	
Well	FEDERAL PA 24-16			CH085860	
Field	PARACHUTE			API No:	
County	GARFIELD	State	COLORADO	05045220430000	
Location				Elevations	
SHL: 2610' FNL & 1396' FWL SEC 21				KB	6056 ft
BHL: 128' FSL & 2271' FWL (SESW) SEC 16				DF	
				GL	6030 ft
SEC	16	TWP	6S	RGE	95W
				16 6S 95W	
				PA 22-21 PAD	
				NABORS 573	