



Baker Atlas

RESERVOIR PERFORMANCE MONITOR

File No: CH070852	Company Well Field County	WPX ENERGY YOUBERG RMF 433-23 RULISON GARFIELD	State COLORADO
API No: 05045182420000			
23 GS 94W RMF: 33-23 PAD NABORS 577	Location SHL: 1392' FSL, 2320' FEL BHL: 1658' FSL, 1789' FEL SEC 23 TWP 6S RGE 94W	Other Services BOND LOG	
Permanent Datum Log Measured From Drill Measured From	GL KB KELLY BUSHING	Elevation 26 ft Above P. D.	Elevations KB 5527.5 ft DF GL 5501.5 ft

Date	23/APR/15	
Run	ONE	
Service Order	575108	
Depth Driller	8144 ft	
Depth Logger	8110 ft	
Bottom Logged Interval	8100 ft	
Top Logged Interval	3975 ft	
Time Started	0700	
Time Finished	1430	
Operator Rig Time	7.5 HRS	
Type of Fluid in Hole	WATER	
Fluid Density	NA	
Salinity	NA	
Fluid Level	68 ft	
Logged Cement Top	NA	
Wellhead Pressure	0 psi	
Maximum Hole Deviation	NA	
Nominal Logging Speed	10 fpm	
Maximum Recorded Temperature	235 degF	
Reference Log	BAKER HUGHES	
Reference Log Date	NA	
Equipment No.	4271	GRAND JCT
Recorded By	FLOYD RENEAU	
Witnessed By	JEFF DUCY	

- 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	0 ft	1108 ft
8.75 In	1108 ft	

Casing Record				
Size	Weight	Grade	From	To
9.625 In			0 ft	1108 ft
4.6 In	11.6 lbm/ft	I-80	0 ft	8144 ft

Remarks
All data on this log is shifted and depth matched using the Gamma Ray curve to the Baker Hughes bond log dated 4/21/2013 at the client's request.
The amount of linear shift is -14 feet.
Logged in PNC-3D mode.
BHT = 233°F
SJ = 4487'-4507'

Equipment Data					
Run	Trip	Tool	Series Number	Serial Number	Position
1	1	RPM	8281FA	10423689	FREE
1	1	RPM	8281PA	10414345	FREE
1	1	RPM	8281EA	10294755	FREE
1	1	GR	8262XA	10076055	FREE
1	1	TEL/CCL	8248ED	10296408	FREE
1	1	PCM	8250EA	10397894	FREE
1	2	RPM	8281FA	10307727	FREE
1	2	RPM	8283PA	10203151	FREE
1	2	RPM	8281EA	10303640	FREE
1	2	GR	8262XA	10076055	FREE
1	2	TEL/CCL	8248EA	10296408	FREE
1	2	PCM	8250EA	10397894	FREE

MAIN SECTION
PNC 3-D MODE

SPL PROCESSING					
MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
PNC Porosity	Borehole	Cased		3964.750	4670.000
PNC Porosity	Borehole Size	8.750	inch	3964.750	4670.000
PNC Porosity	Casing Size	4.500	inch	3964.750	4670.000
PNC Porosity	Gas Filled	Non Gas Filled		3964.750	4670.000
PNC Porosity	Matrix	Sandstone		3964.750	4670.000

DEPTH OFFSETS (for Acquired Curves)		
SERIES	DEPTH OFFSET	ACQUIRED CURVES
8248ED	-15.320	FLTM
8248ED	-15.320	FLTM

8248ED	-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
		RIXC	RIN13C	RIN23	RIN23C	SD3D	SG3D
		SGB3	SGF3	WDTH3	CXSR	IXSR	XSR
		RIXR					
8281XA	-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	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	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	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	TEN				

Created by : RPM9, v5.3.1.0

Plotted by : PlotMgr, v5.4.504

Company : WPX ENERGY

Well : YOUNBERG RWF 433-23

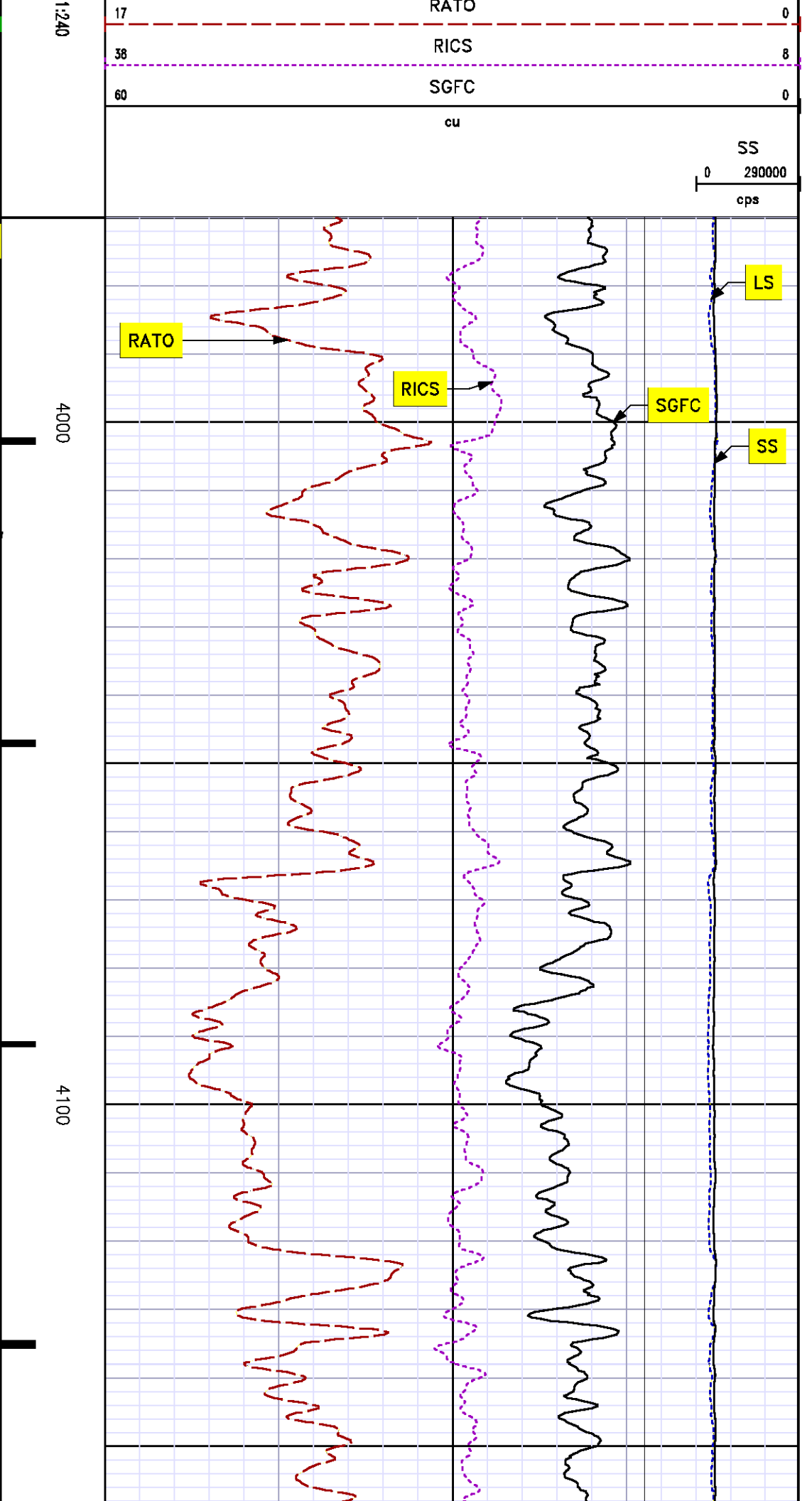
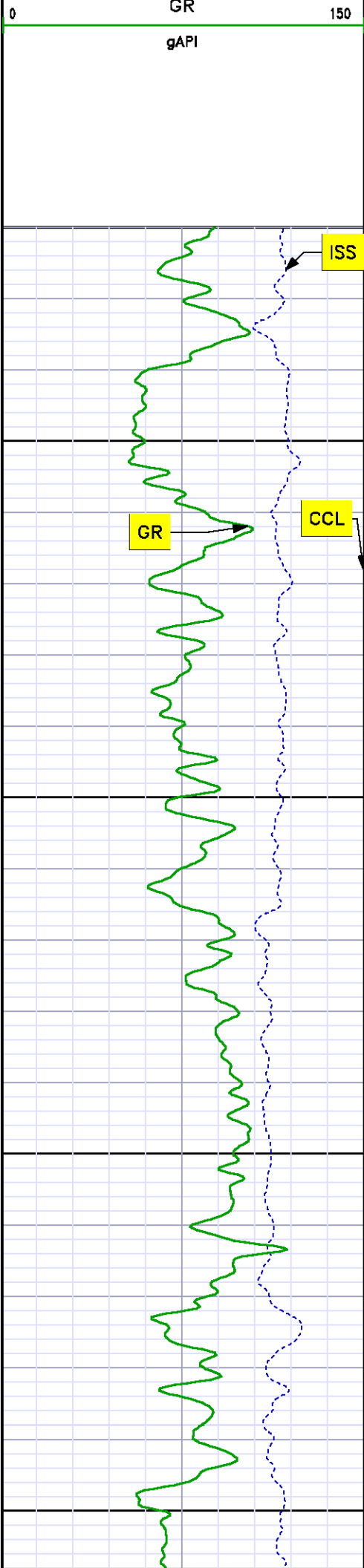
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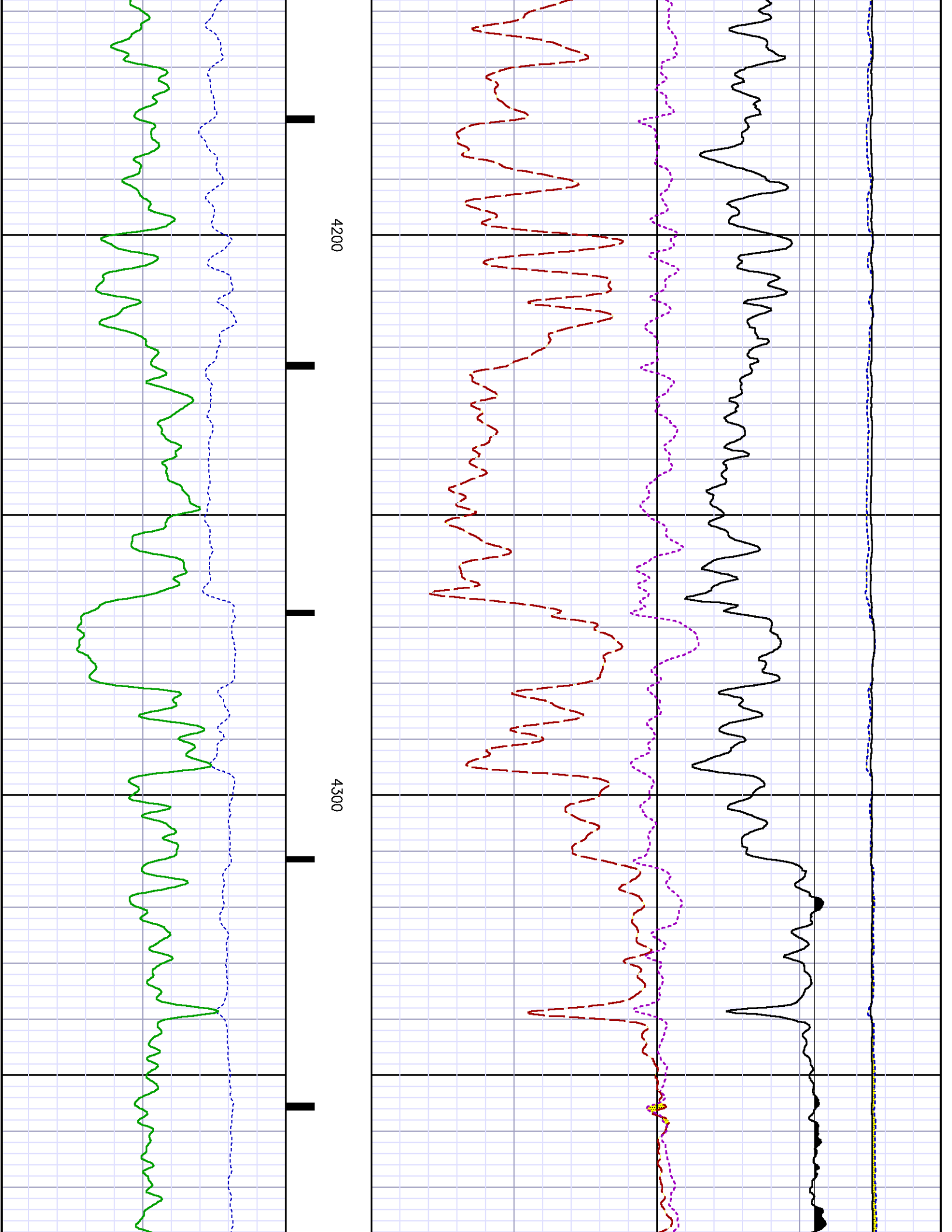
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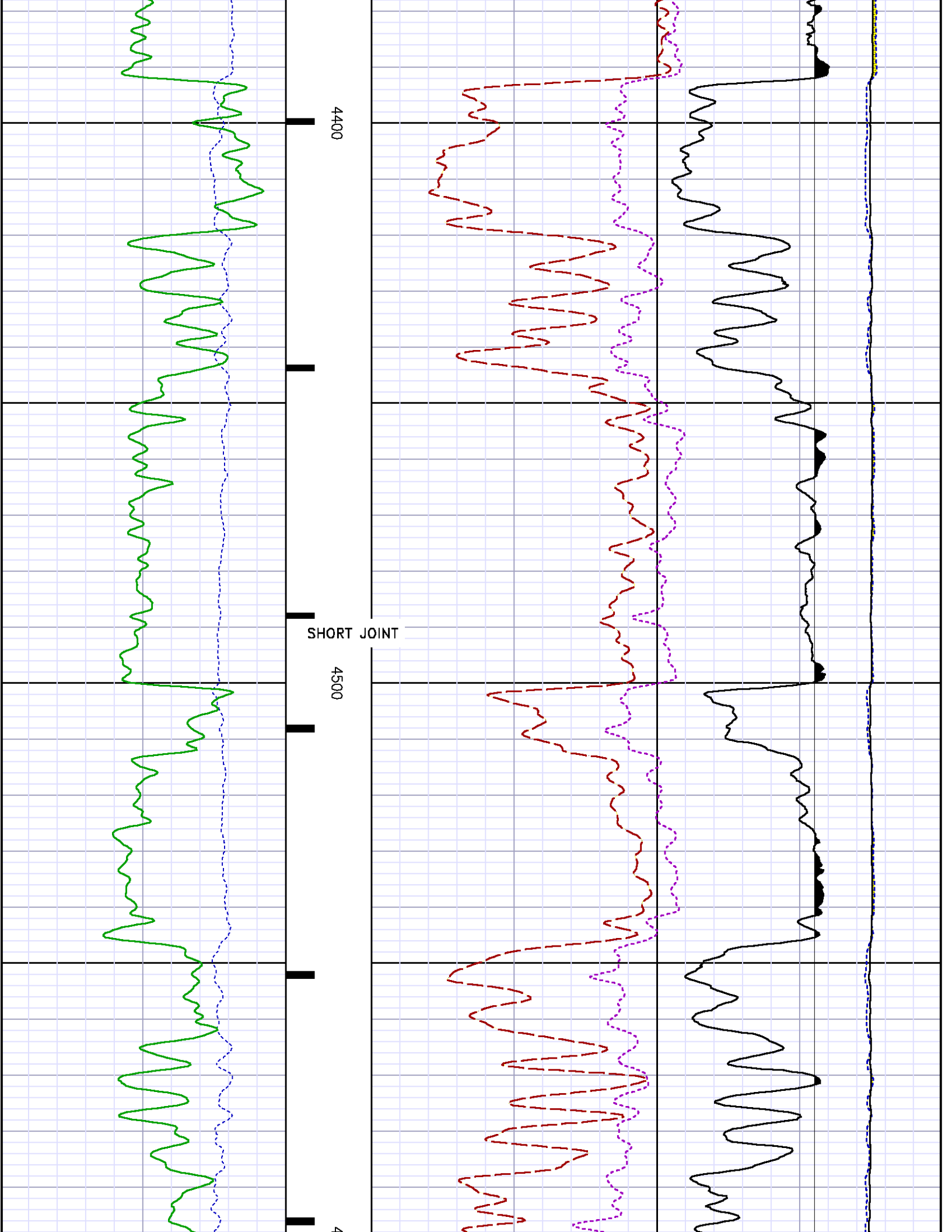
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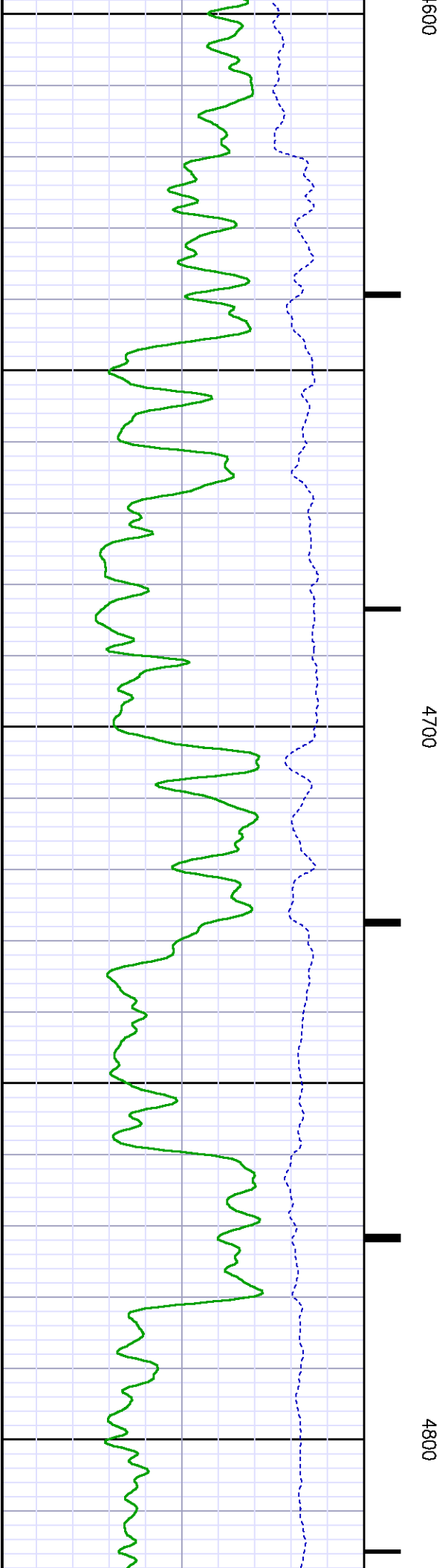
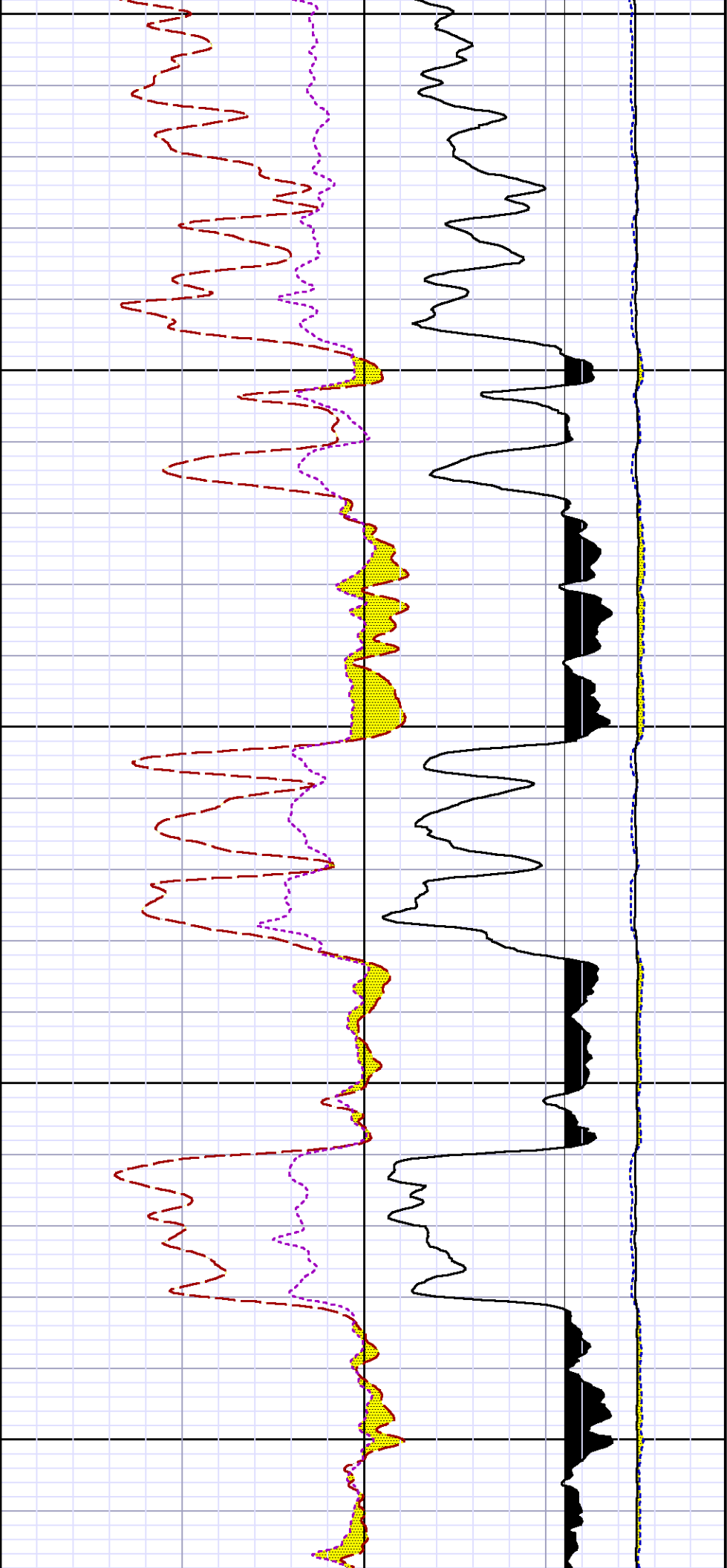
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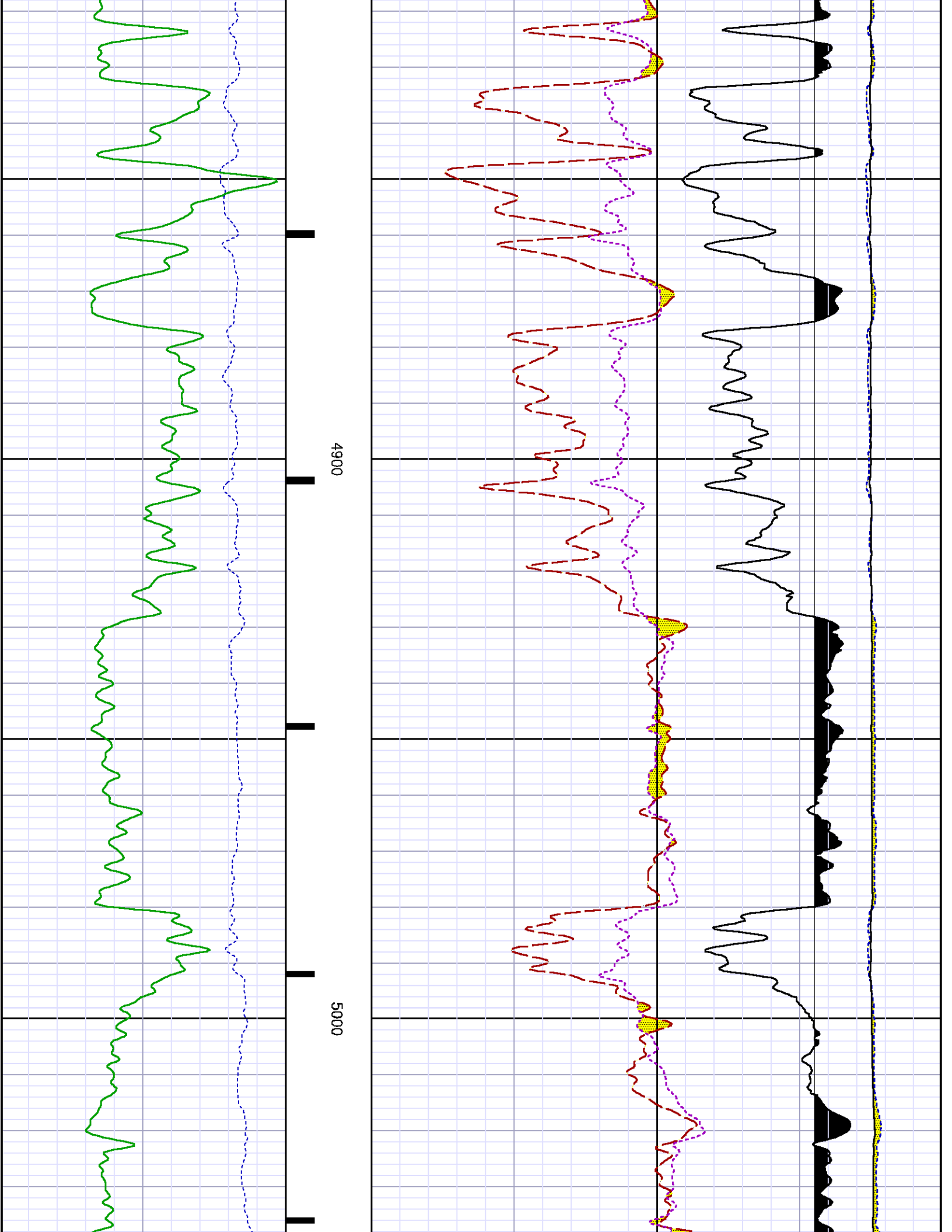


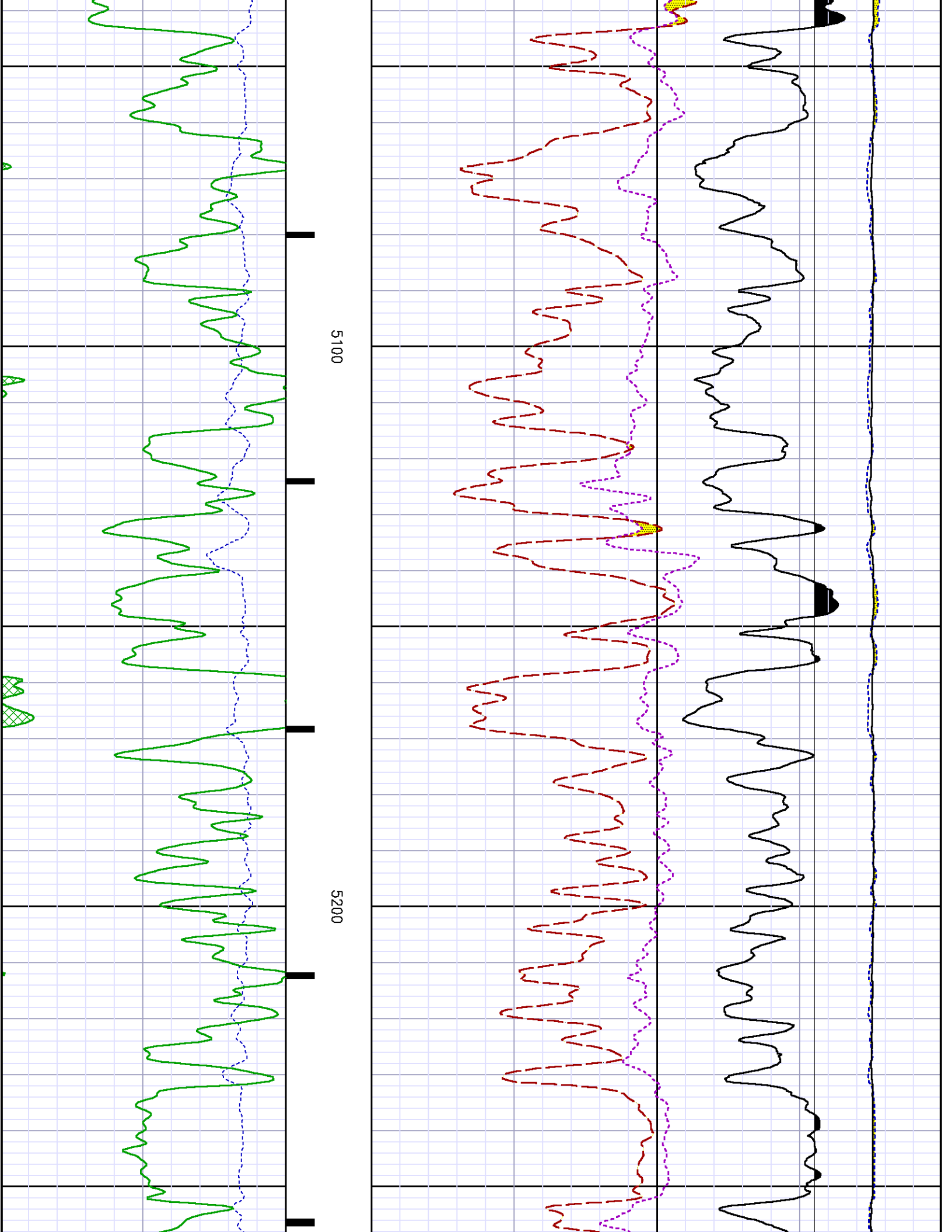


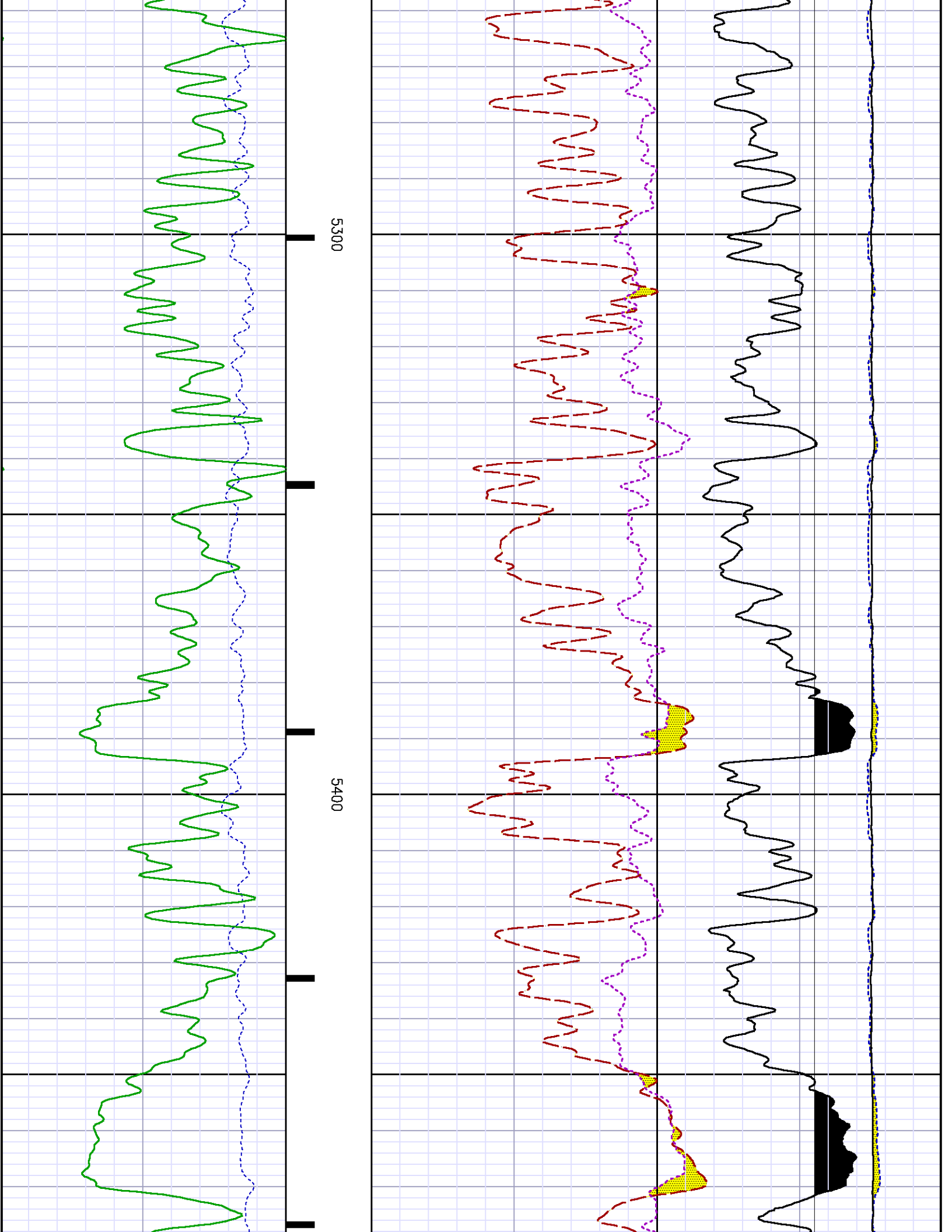


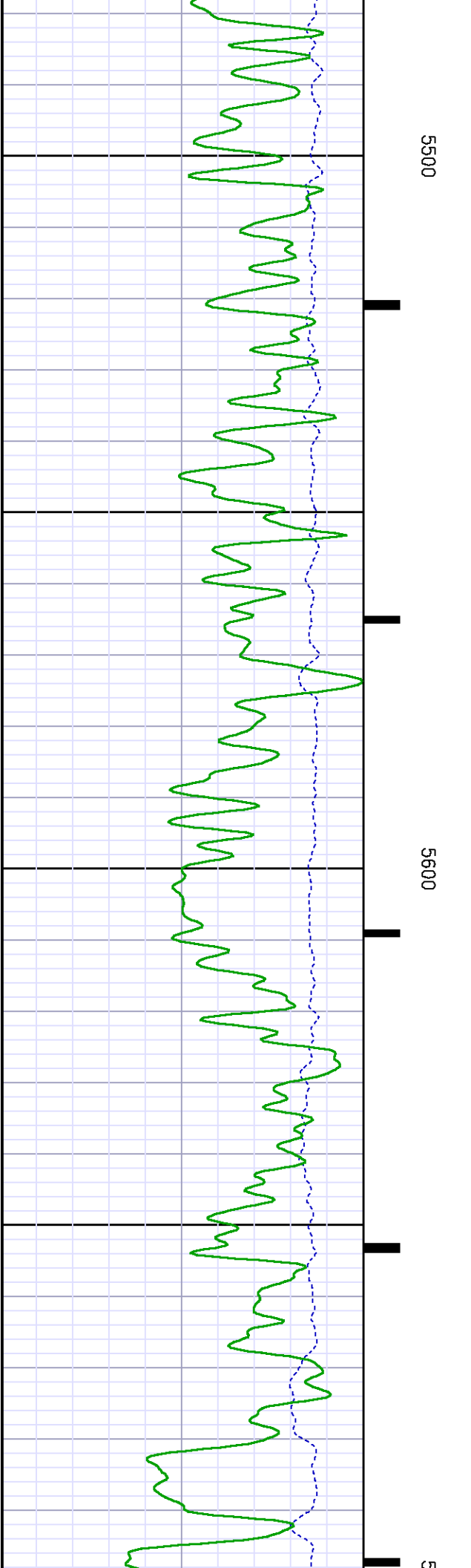
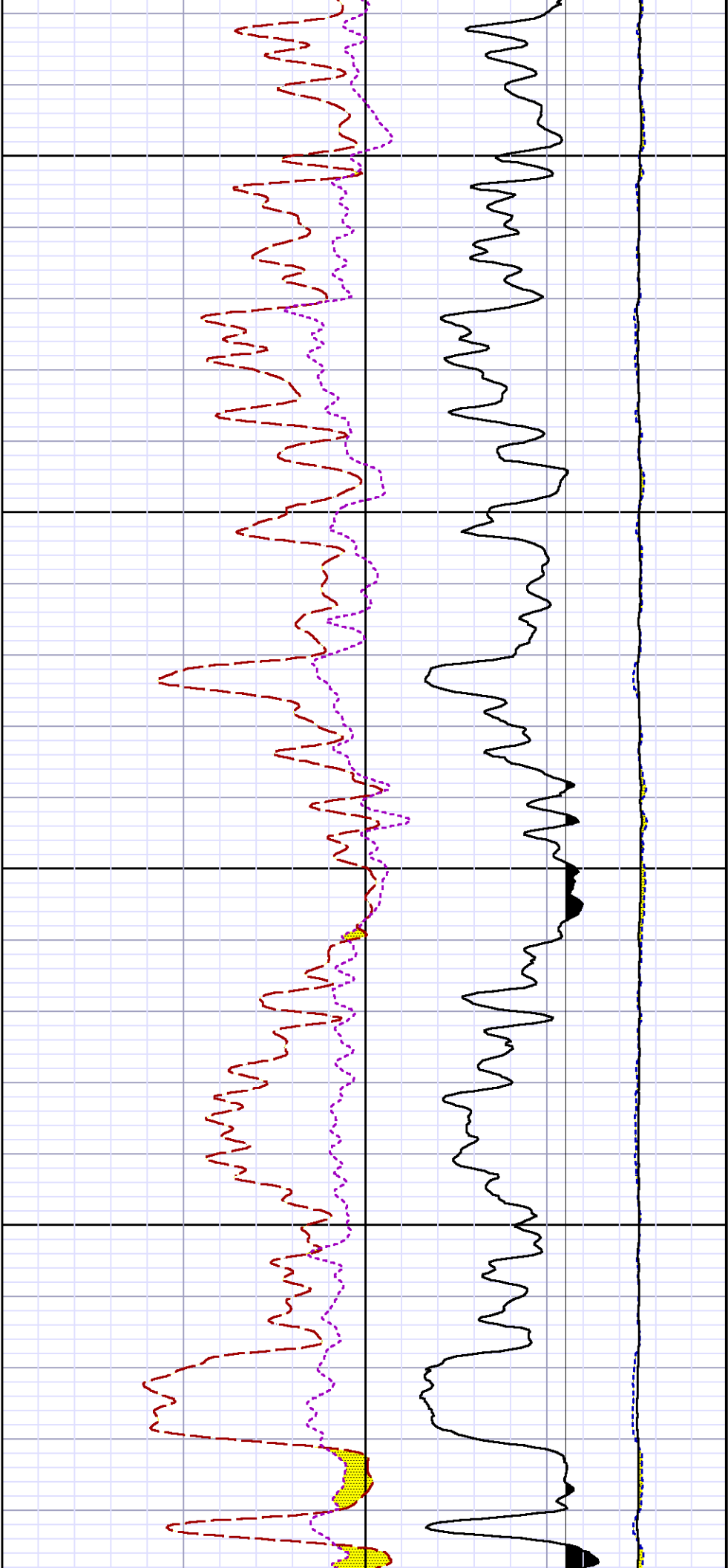


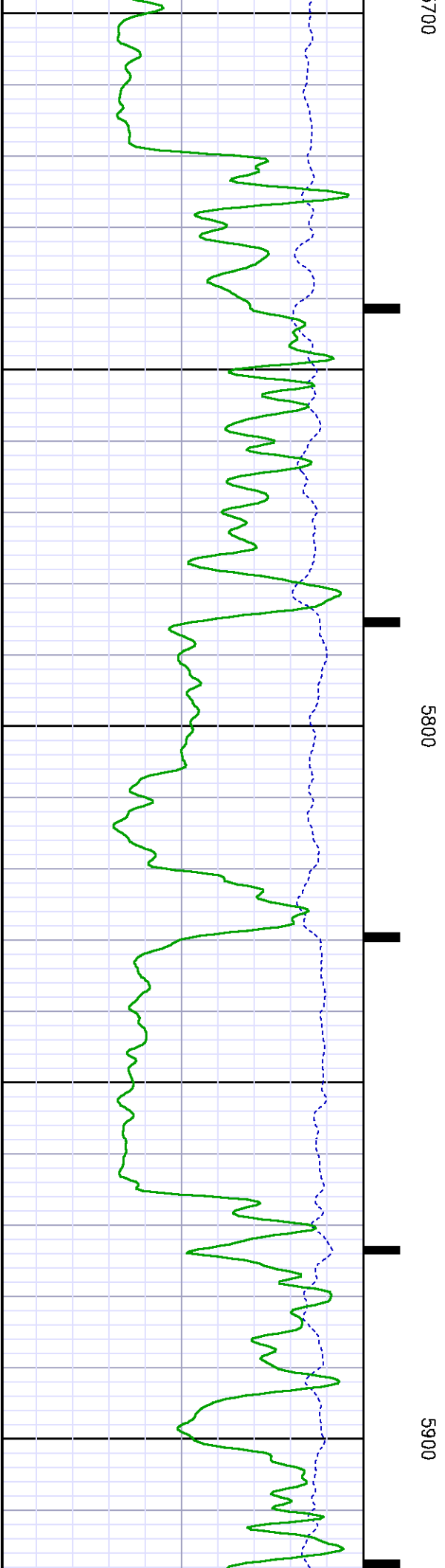
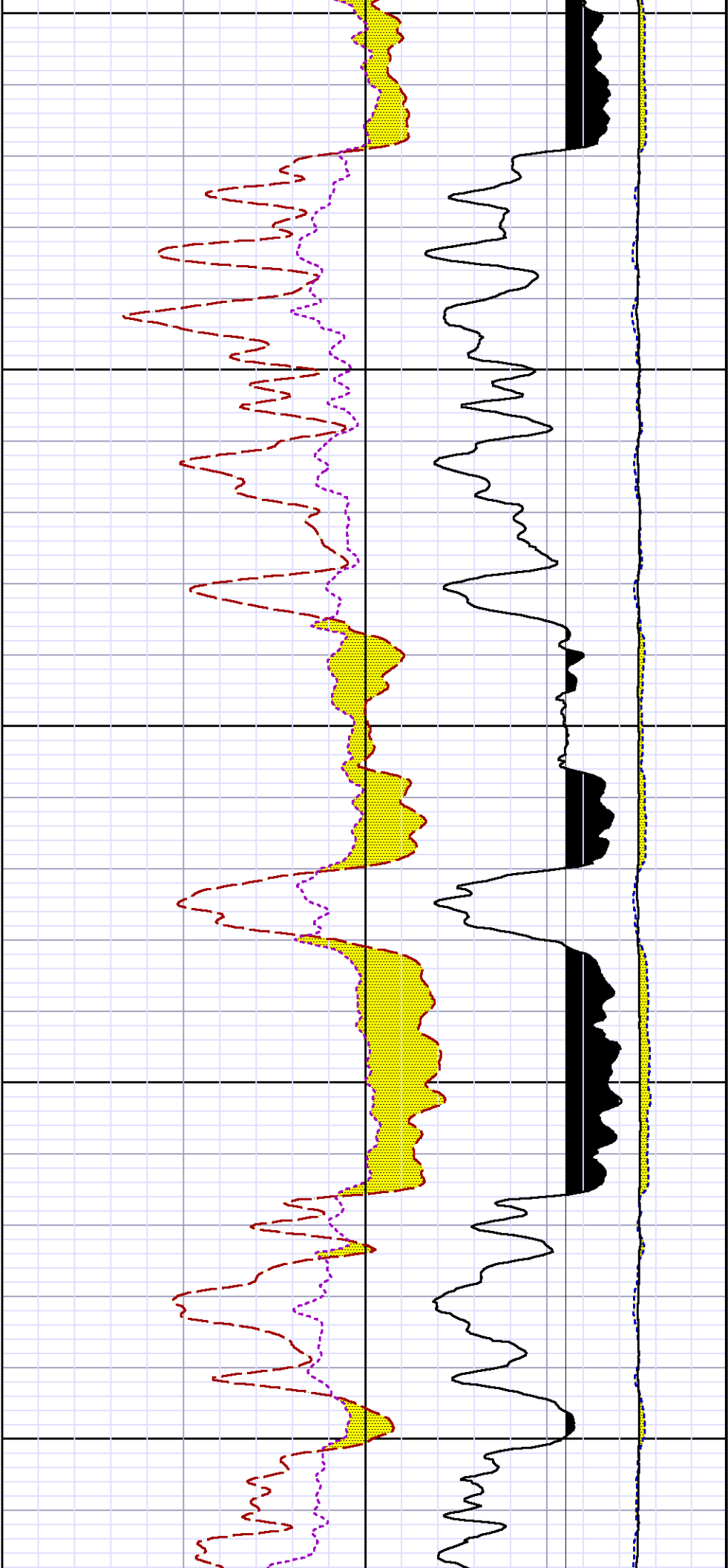


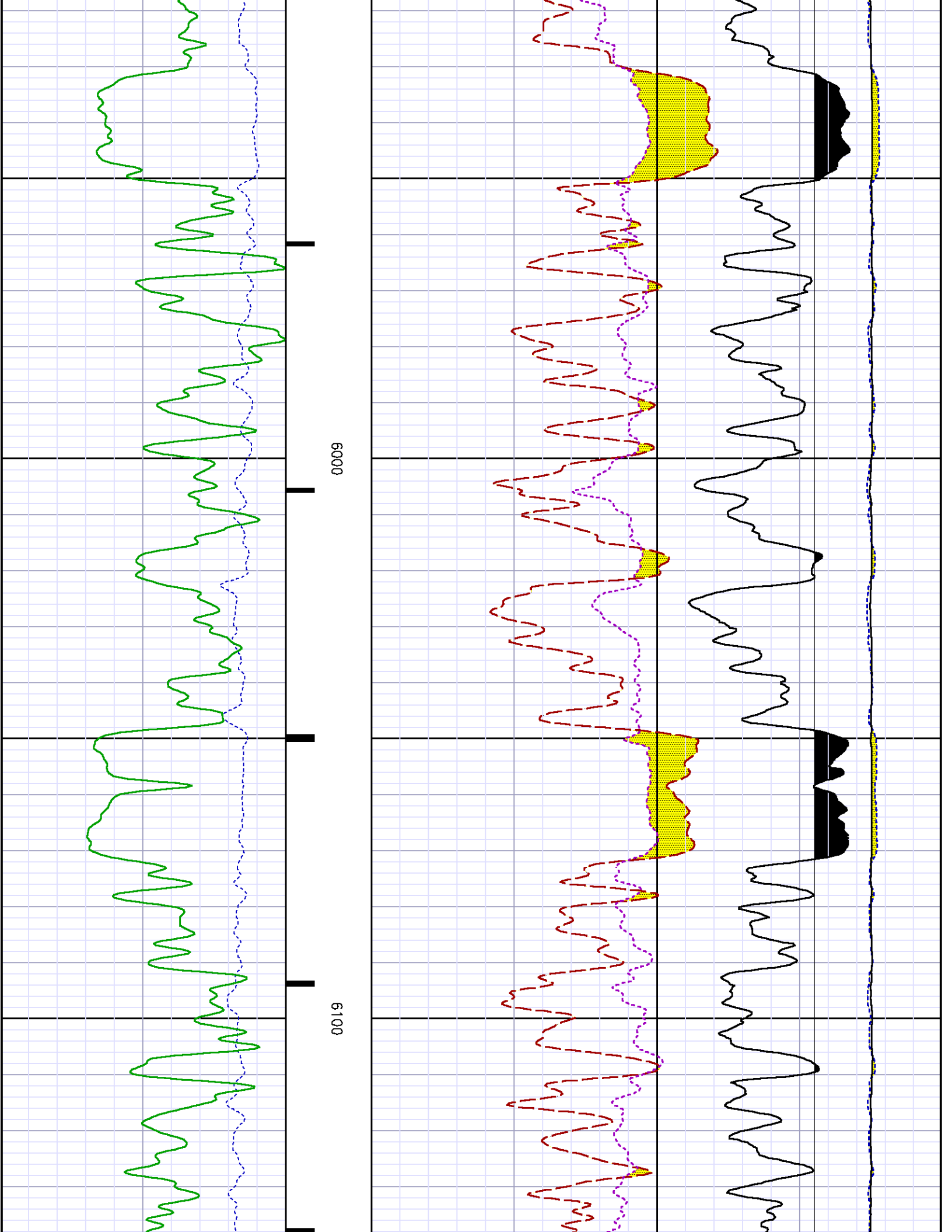


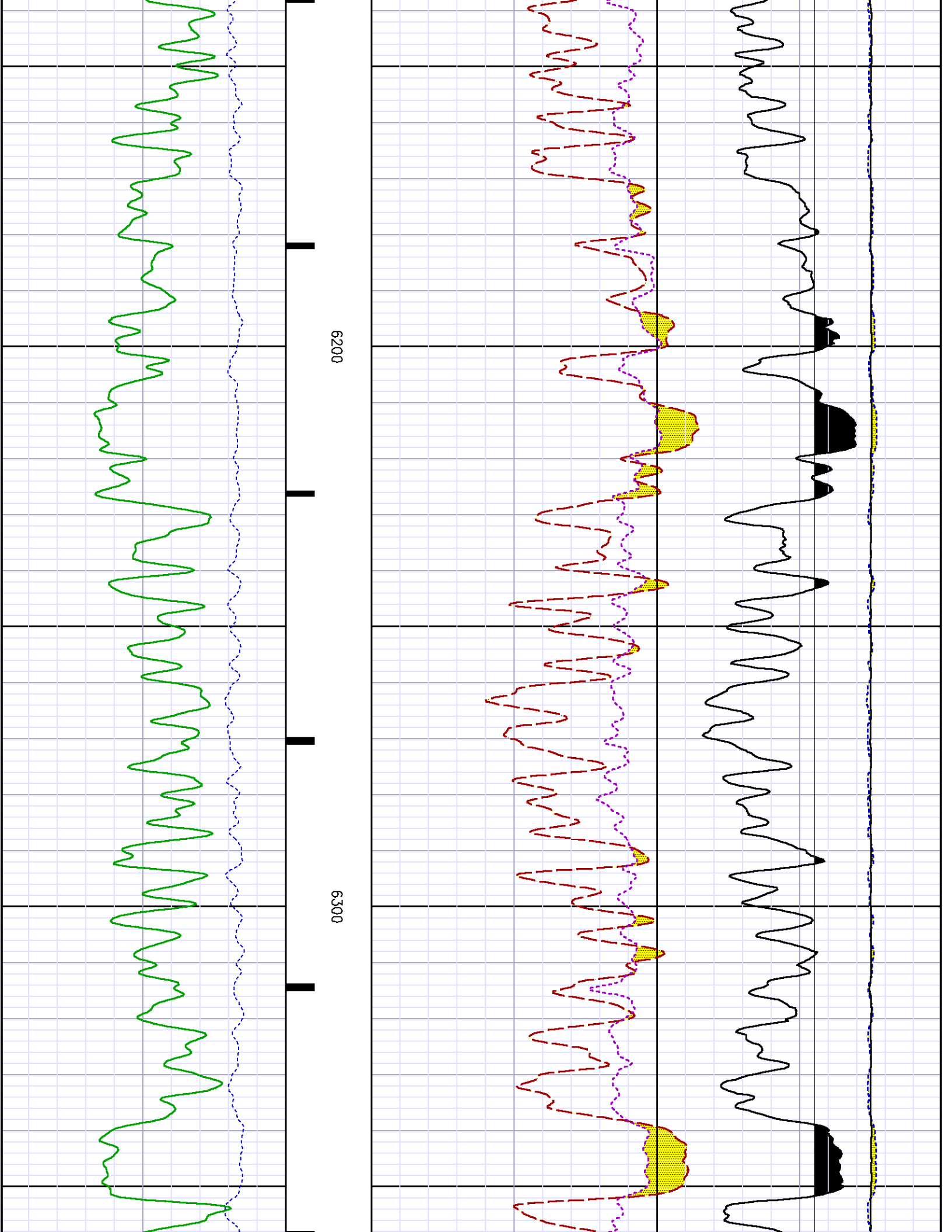


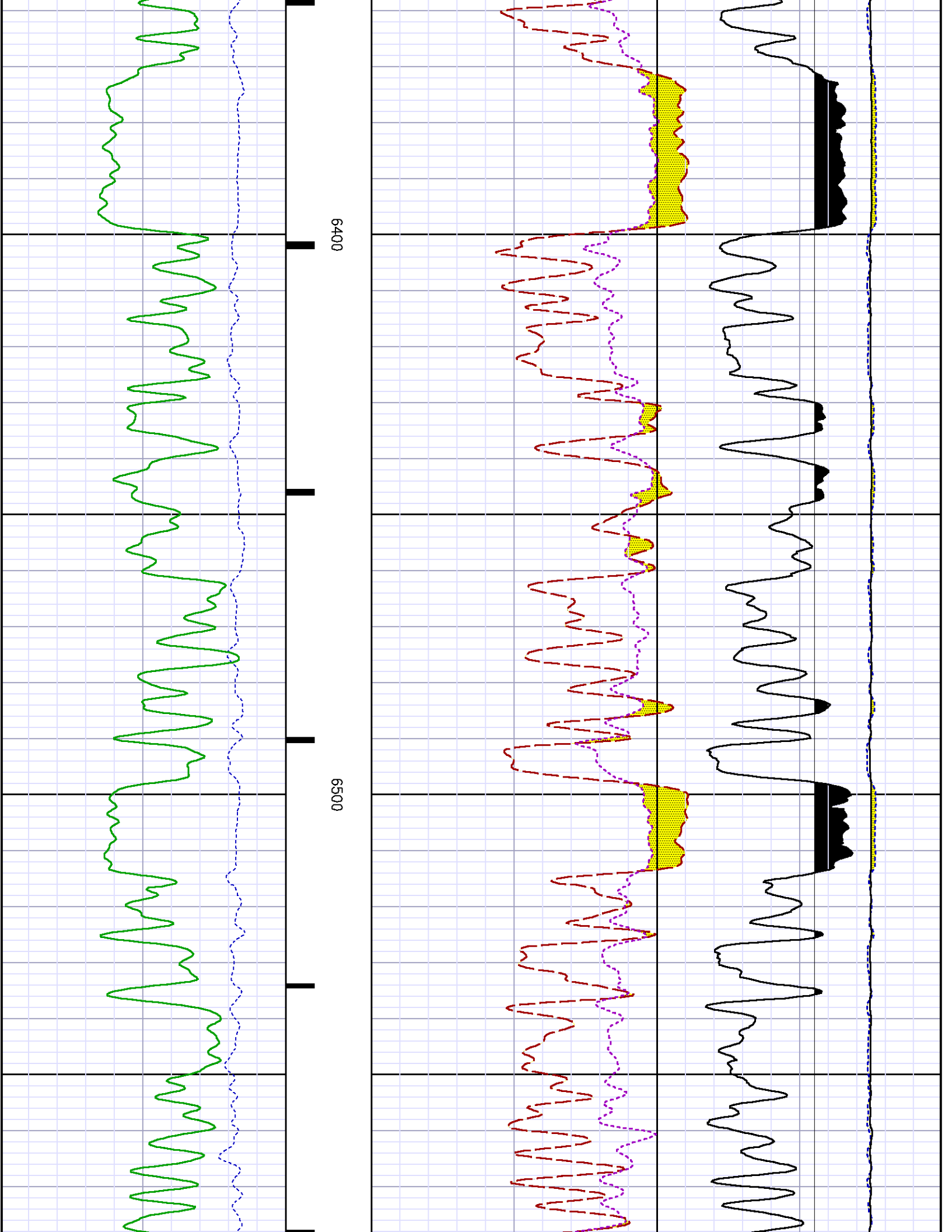


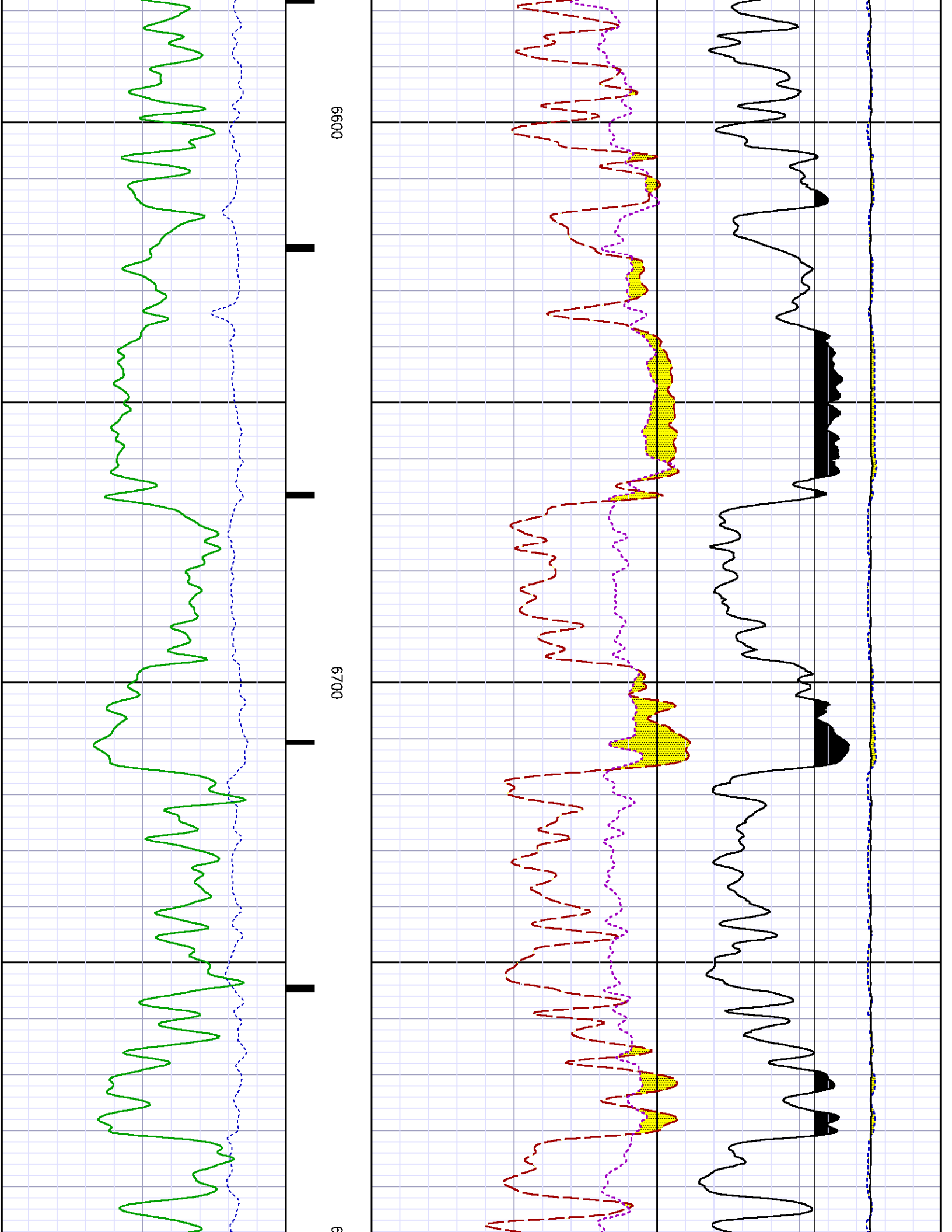


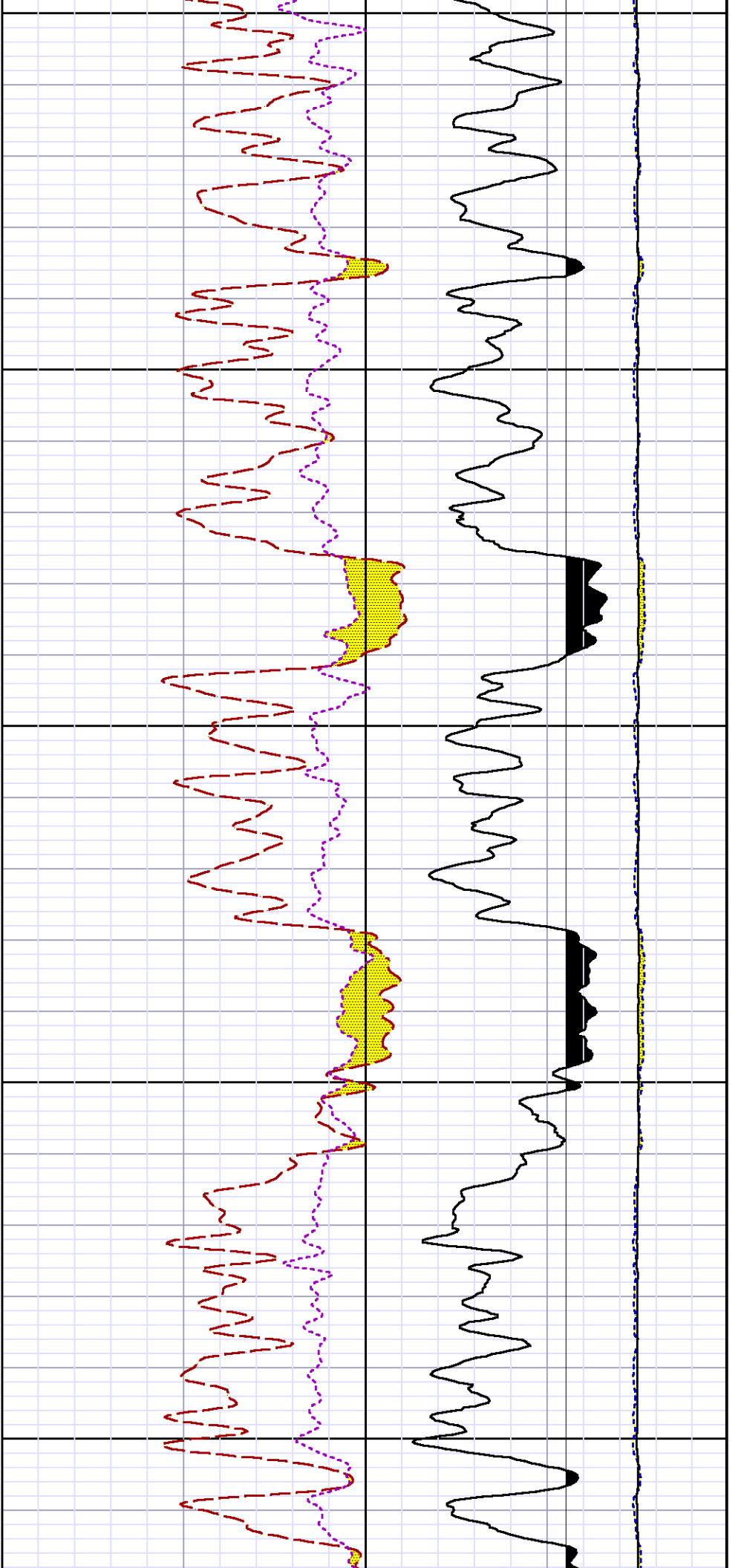








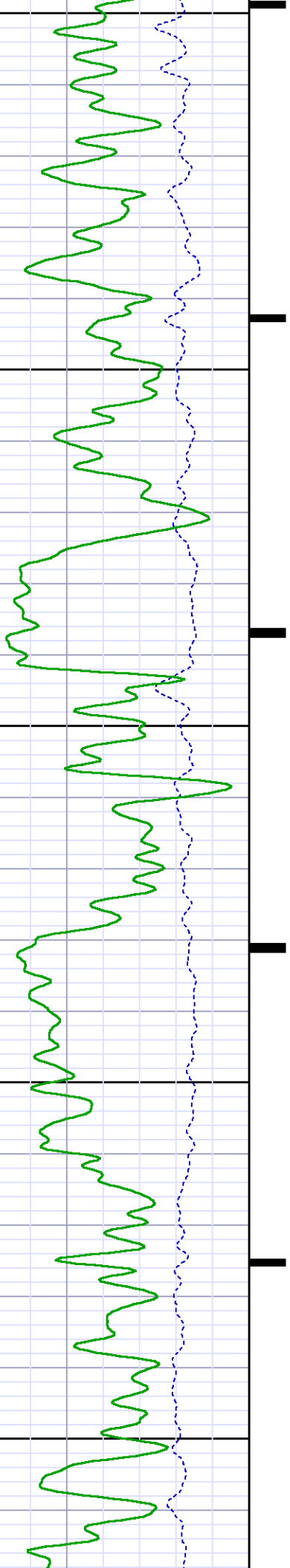


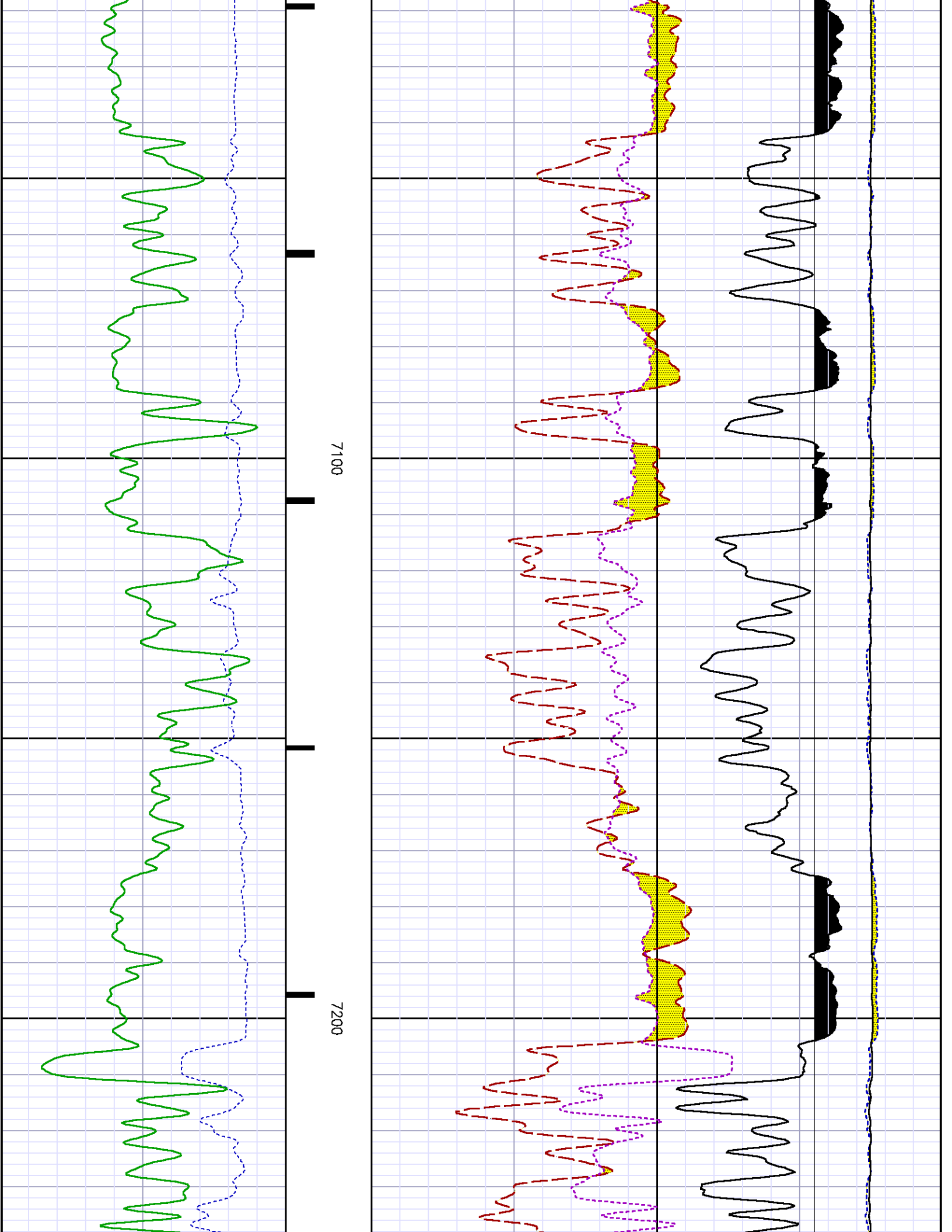


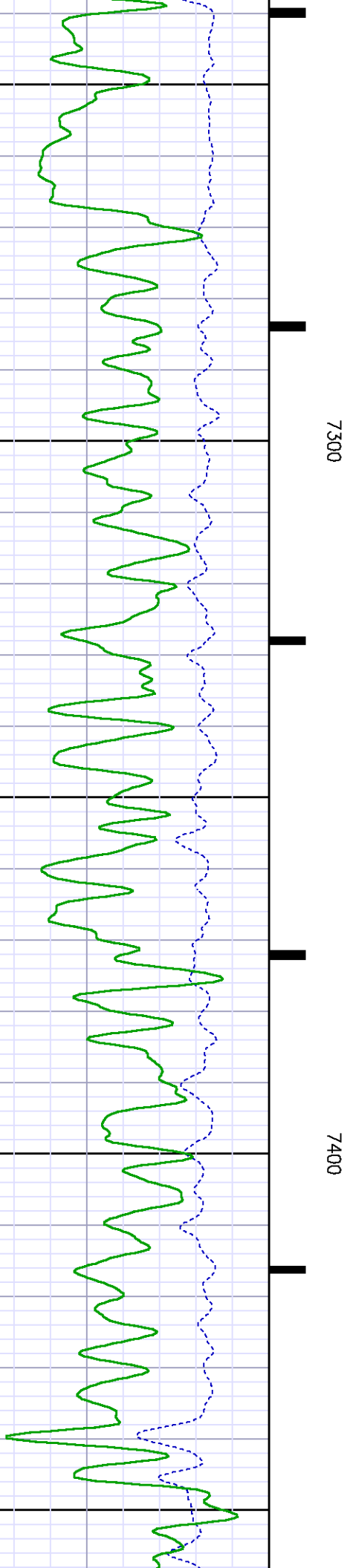
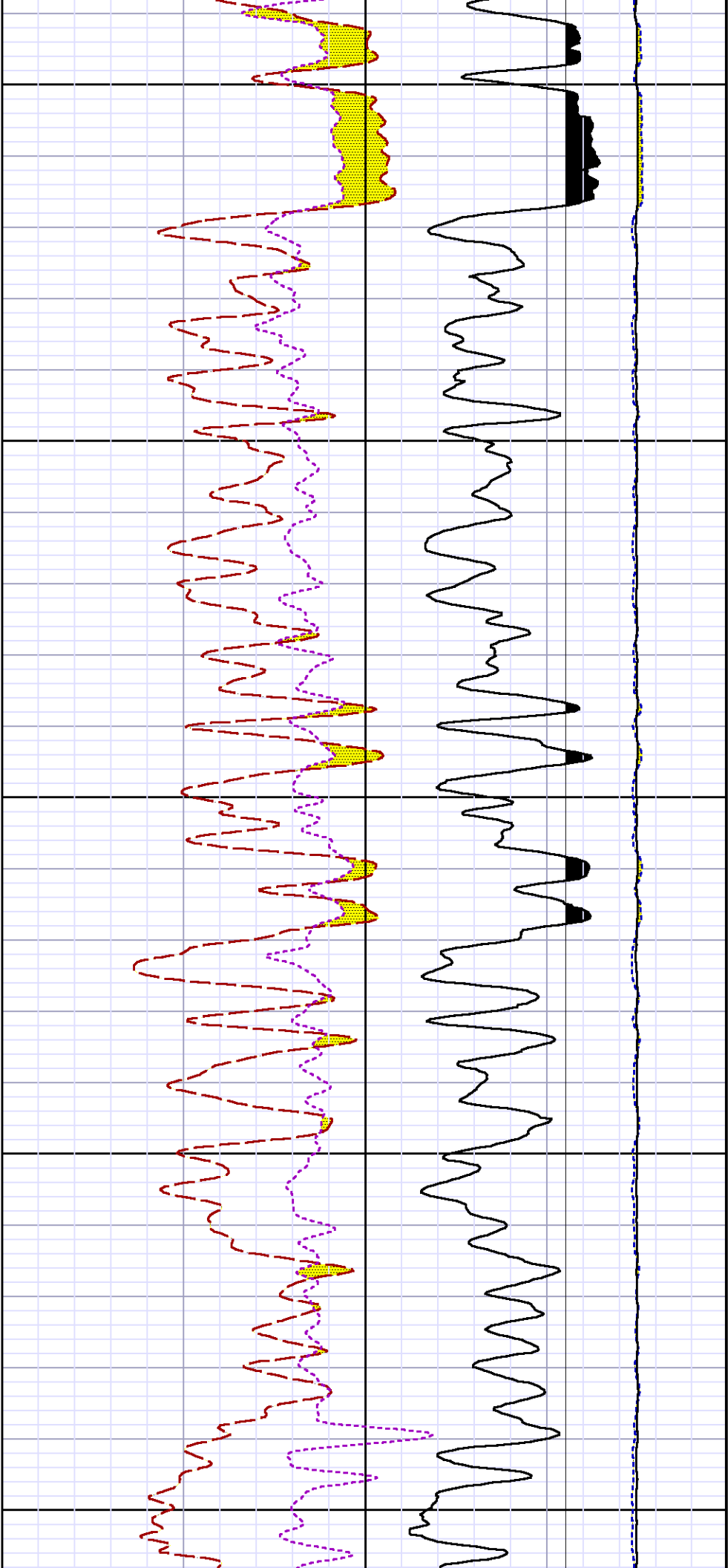
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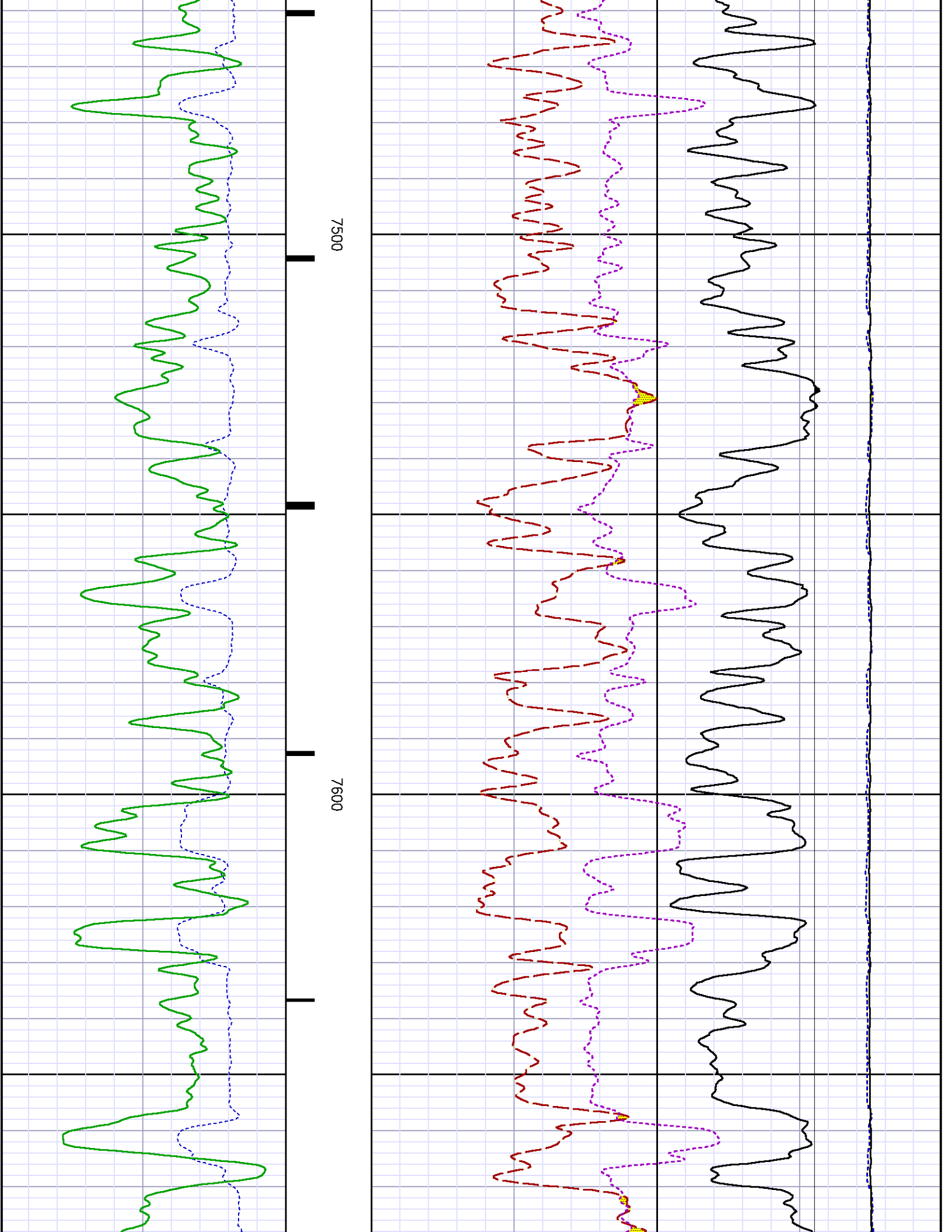
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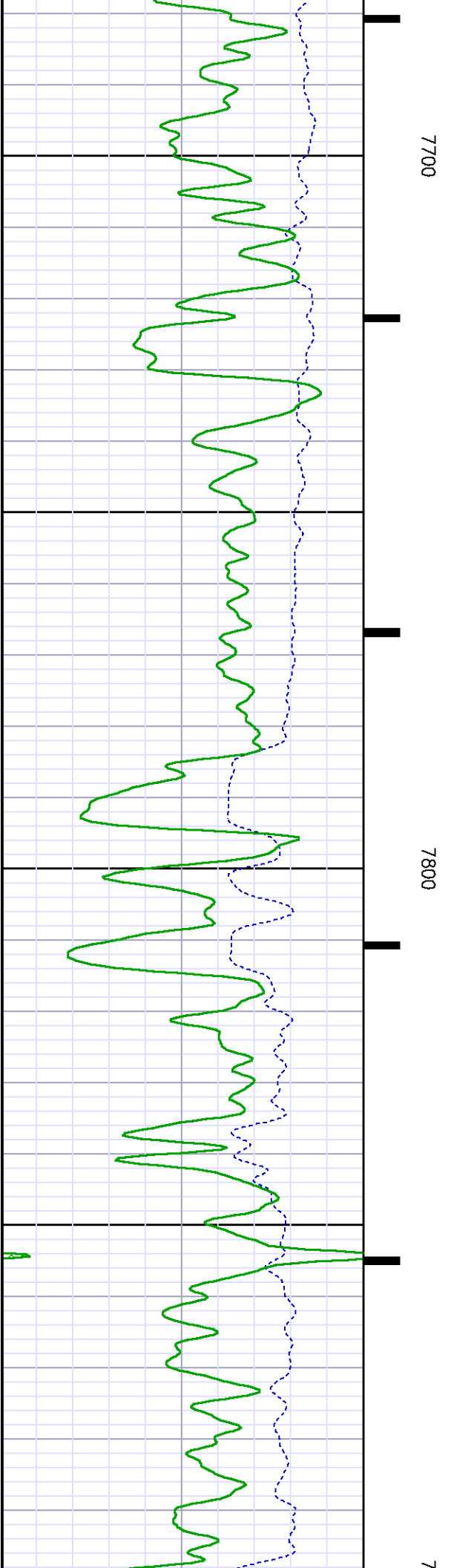
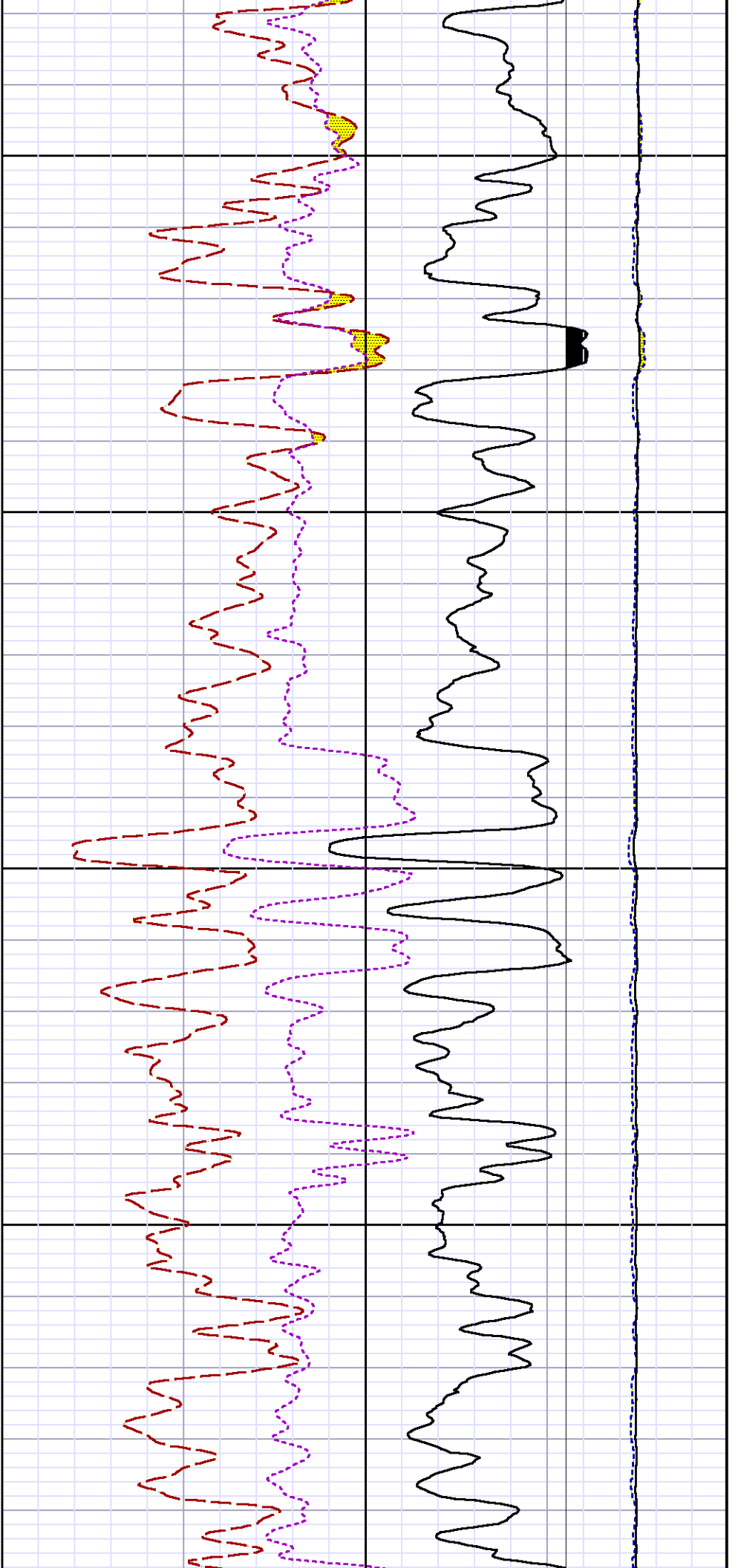
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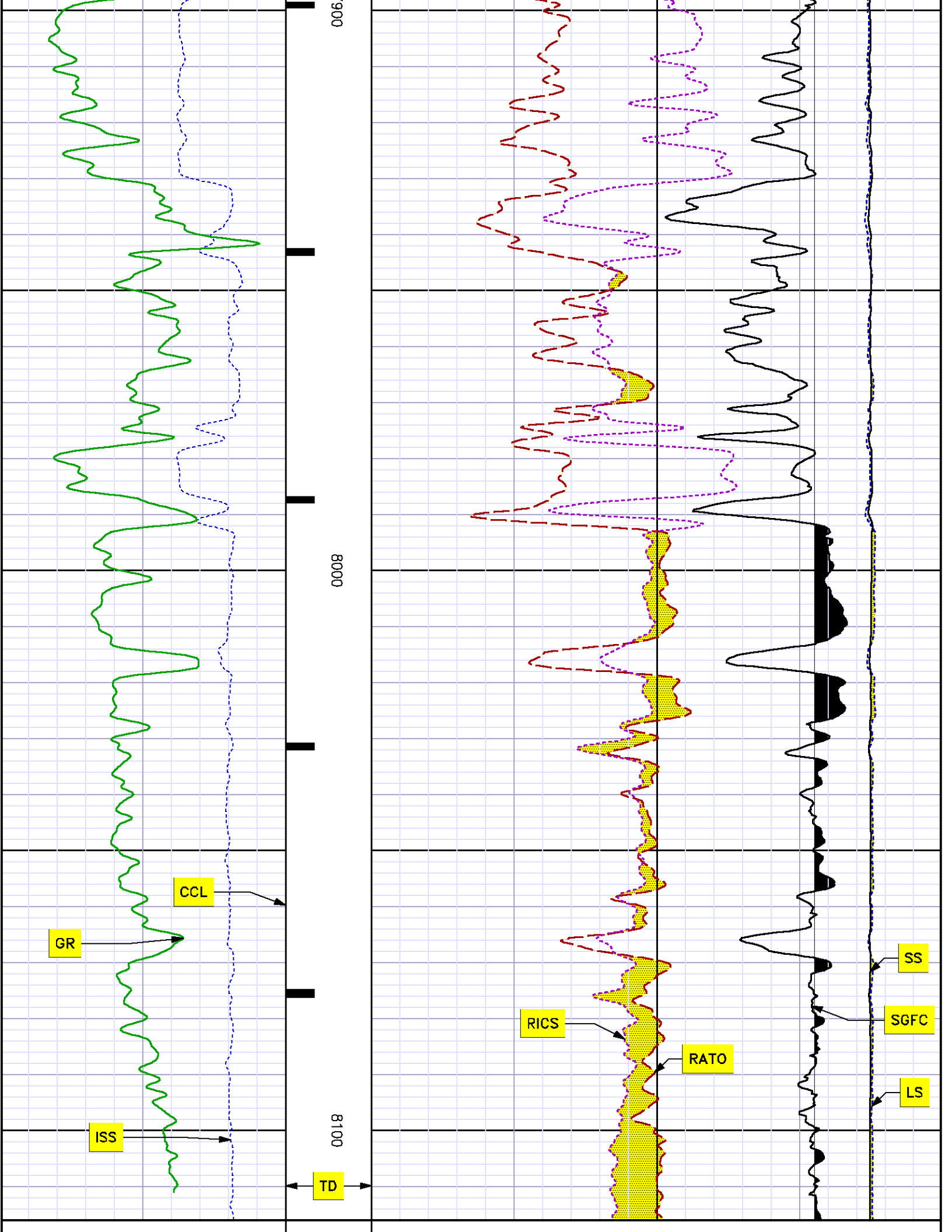


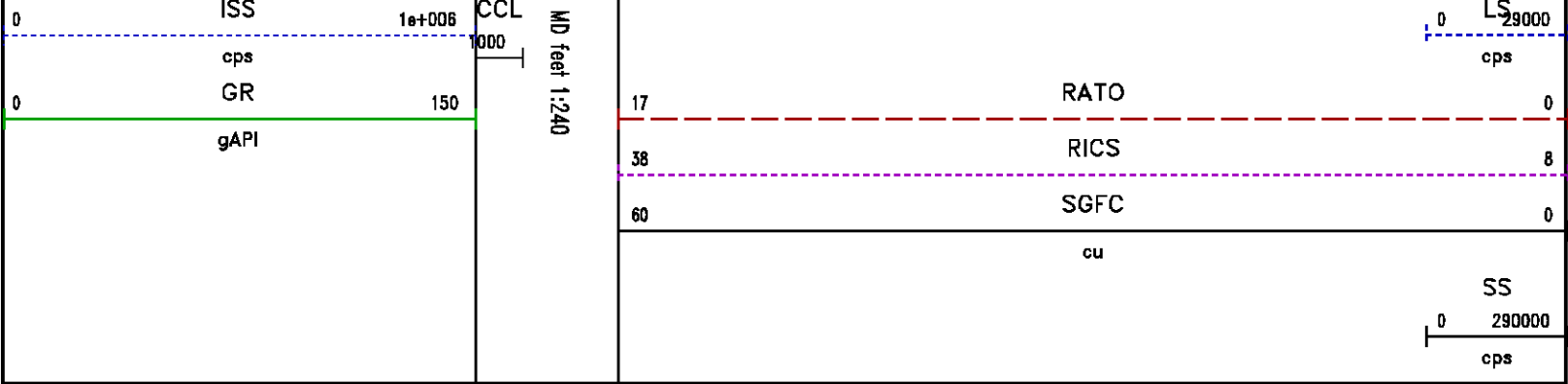












REPEAT SECTION
PNC 3-D MODE

SPL PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
PNC Porosity	Borehole	Cased		7386.880	7691.630
PNC Porosity	Borehole Size	8.750	inch	7386.880	7691.630
PNC Porosity	Casing Size	4.500	inch	7386.880	7691.630
PNC Porosity	Gas Filled	Non Gas Filled		7386.880	7691.630
PNC Porosity	Matrix	Sandstone		7386.880	7691.630

DEPTH OFFSETS

(for Acquired Curves)

SERIES	DEPTH OFFSET	ACQUIRED CURVES					
8248ED	-15.320	FLTM					
8248ED	-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	RICX	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					

8281XA -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	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	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					
TEN	TTEN				

SYSTEM 0.000

Created by : RPM9, v5.3.1.0

Plotted by : PlotMgr, v5.4.504

Company : WPX ENERGY

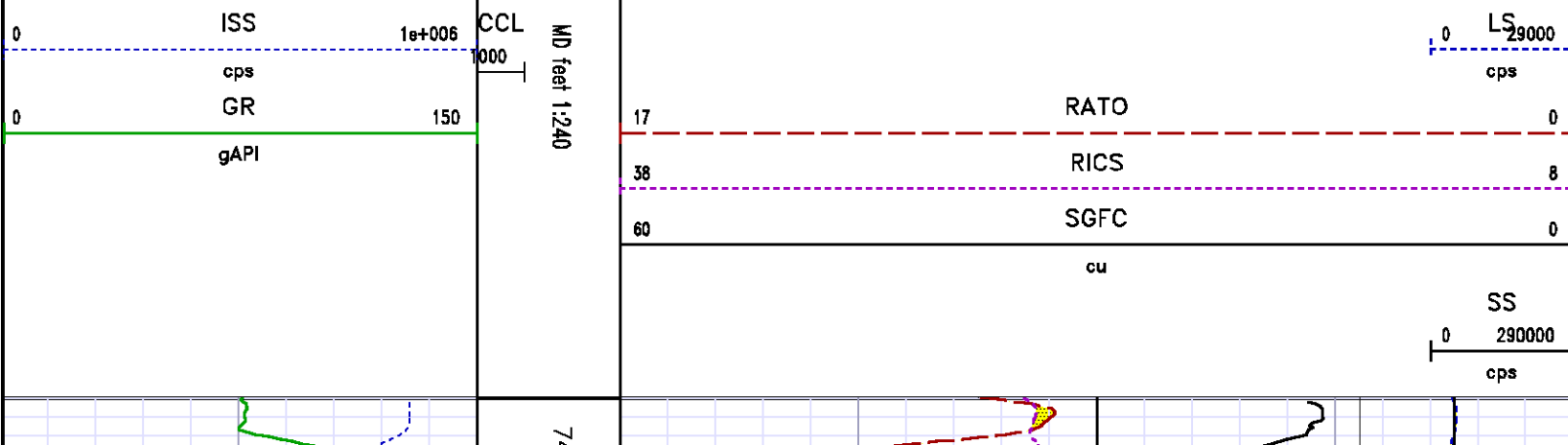
Well : YOUNBERG RWF 433-23

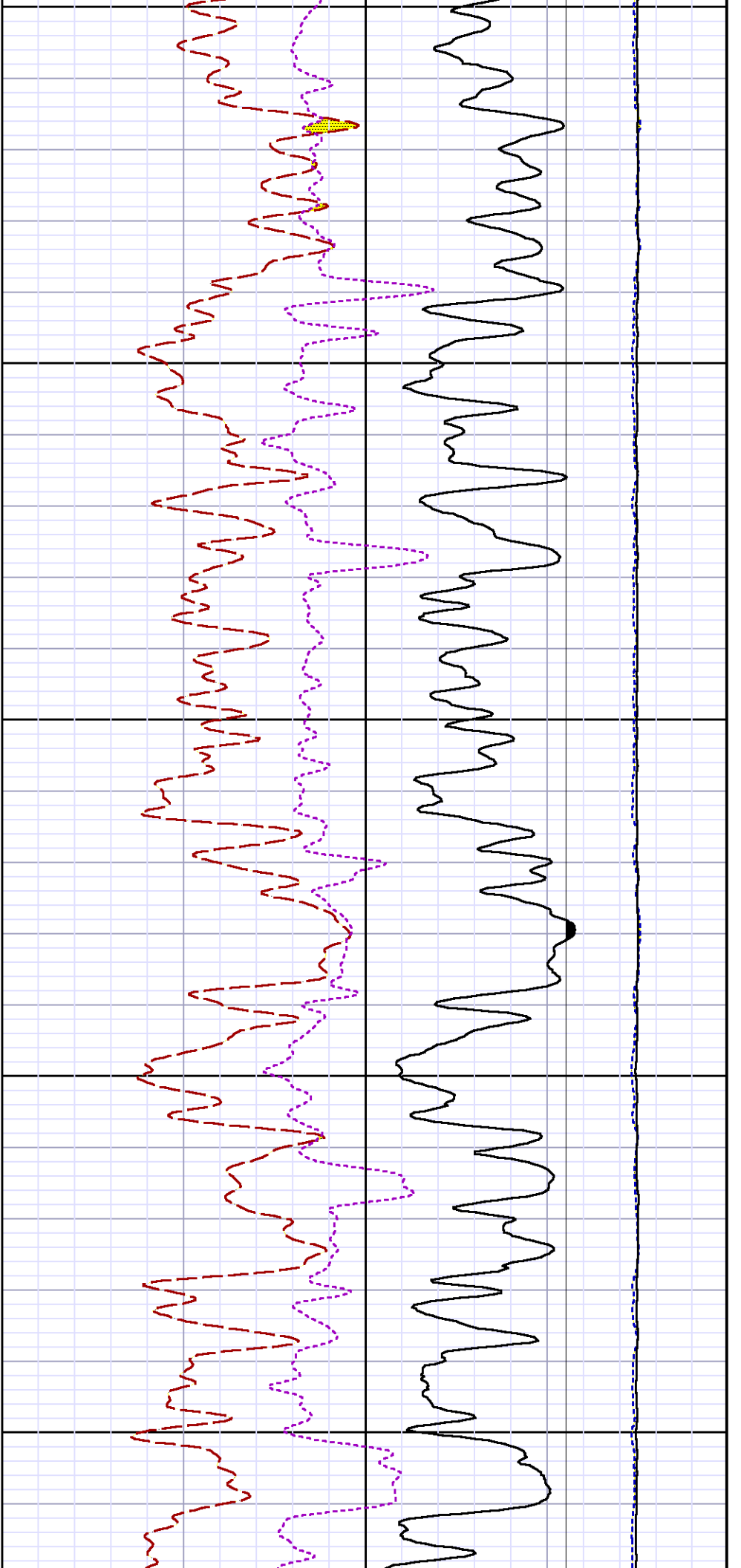
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Mode : PlotMgr 5.4.504

Interval : 7394.00 - 7680.00 feet UP

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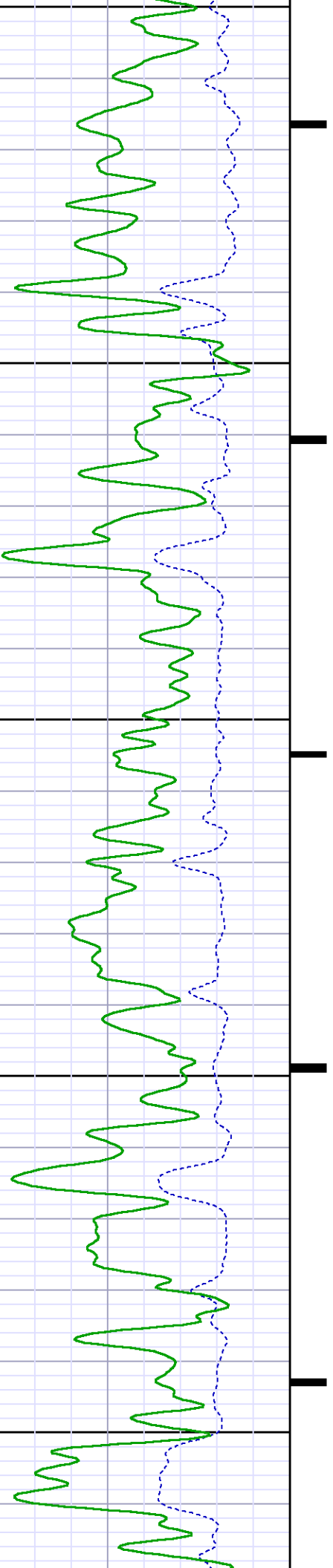


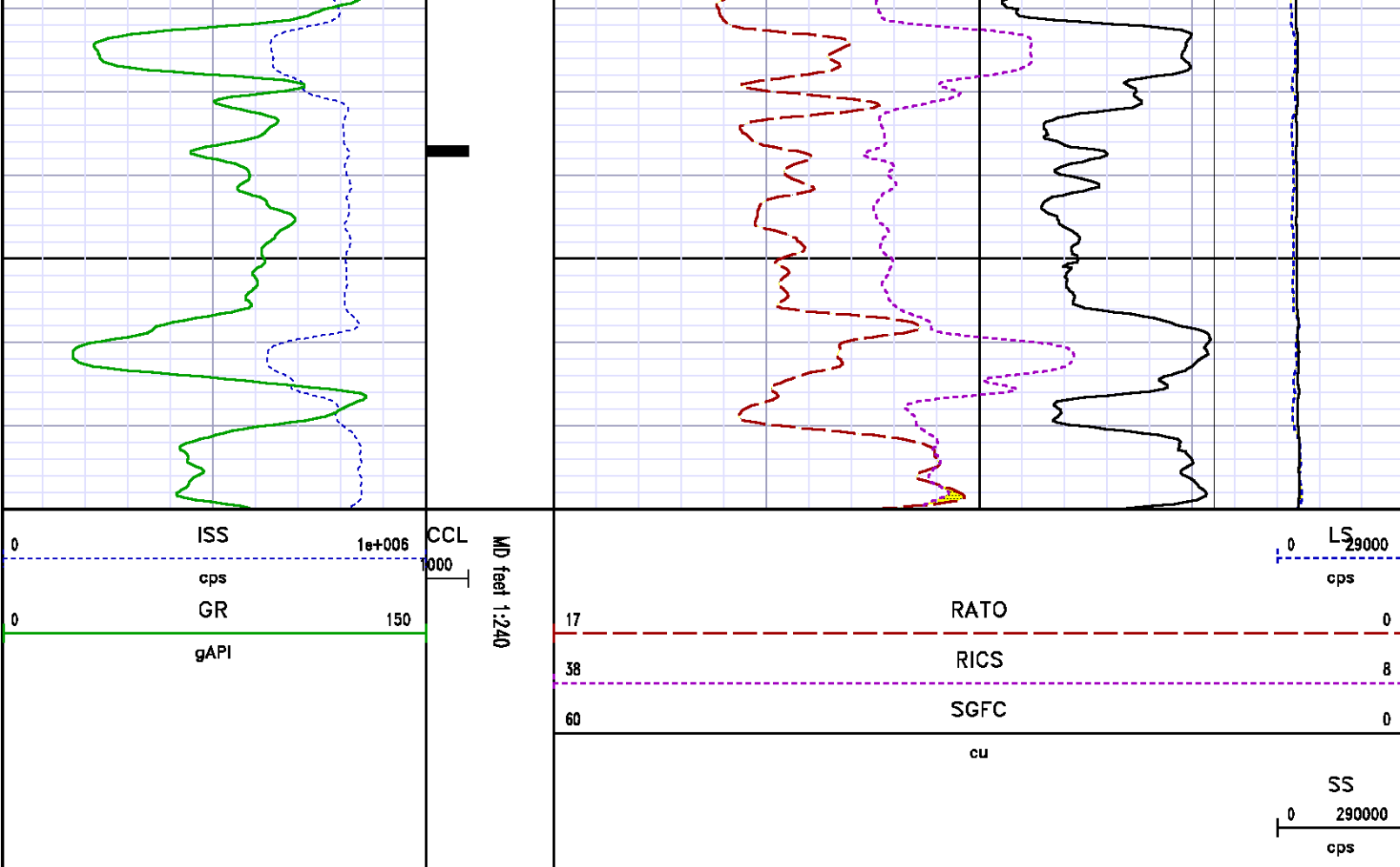


400

7500

7600





CALIBRATION SUMMARY

GAMMA RAY

Calibration File: C:\case\calver\GR\055A2.cal

CALIBRATION SUMMARY

DATE/TIME PERFORMED: Tue Apr 23 13:10:16 2013

TOOL SERIES: 8262XA ASSET: 055 SEQ: A2

Calibrator # Background Calibrator On
[cps] [cps]

Multiplicative Background Calibrator On Differential
[api] [api] [api]

S2K WA612 80.31 374.84

0.611 49.08 229.08 180.00

Verification File: C:\case\calver\GR\055A2.VP

PRIMARY VERIFICATION

DATE/TIME PERFORMED: Tue Apr 23 13:12:19 2013

TOOL SERIES: 8262XA ASSET: 055 SEQ: A2

Calibrator # Background Calibrator On

Multiplicative Background Calibrator On Differential

		[cps]		[cps]		[api]		[api]		[api]
S2K	WA612	80.38	363.24	0.611	49.12	221.99	172.87			

PNC

Calibration File: C:\case\calver\PNC\345A1.cal

PNC 3D CALIBRATION SUMMARY

DATE/TIME PERFORMED: Thu Apr 11 13:13:27 2013 TOOL SERIES: 8281XA ASSET: 345 SEQ: A1

Calibrator #

GJ SHOP

Source #

8281AA 10148476

	ISS	Mtr VIts (V)	SS Gain	LS Gain	XLS Gain	EA Temp (degF)	Sync Delay (usec)	RCAL
Raw Data	819781	120.00	2266.00	2256.00	2263.00	104.57	7.00	1.0020
Interpolated	1300000	139.82	2252.58	2250.54	2259.49			

	ISS	BKS	BKL	BKX	SGA1	SDA1	SGA2	SDA2
Raw Data	819781	6413.62	1027.31	151.47	25.81	0.14	24.20	0.27
					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	819781	177449.06	27584.03	91479.44	32556.03	8662.85	55318.64	13870.90
Fit Quality %		0.39	0.29	0.47	0.44	0.44	0.43	0.48

	ISS	RBOR	RIN ISS/ILS	RIN13 ISS/IXS	RICS ISS/CSS	RATO SS/LS	RTWO SS2/LS	RONE CSS/CLS
Raw Data	819781	1.43	4.62	29.72	14.82	10.56	3.76	3.99
		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 %		0.02	0.51	0.50	0.48	0.16	0.15	0.14
Reduced	1405428	1.43	4.65	29.85	14.91	10.55	3.75	3.99
		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

PNC #2

Calibration File: C:\case\calver\PNC\151A5.cal

PNC 3D CALIBRATION SUMMARY

DATE/TIME PERFORMED: Mon Apr 15 14:56:54 2013 TOOL SERIES: 8281XA ASSET: 151 SEQ: A5

Calibrator #

SHOP BARREL

Source #

8281AA 11765055

	ISS	Mtr Vltz (V)	SS Gain	LS Gain	XLS Gain	EA Temp (degF)	Sync Delay (usec)	RCAL
Raw Data	817644	131.00	2260.00	2361.00	2439.00	105.74	8.00	0.9649
Interpolated	1300000	154.27	2246.64	2357.92	2425.40			

	ISS	BKS	BKL	BKX	SGA1	SDA1	SGA2	SDA2
Raw Data	817644	6800.04	1052.78	145.31	25.86	0.14	24.24	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	817644	168063.84	26013.26	90652.30	32248.90	8276.82	54856.68	13245.76
Fit Quality %		0.92	0.89	1.08	1.06	0.97	0.98	0.94

	ISS	RBOR	RIN ISS/ILS	RIN13 ISS/IXS	RICS ISS/CSS	RATO SS/LS	RTWO SS2/LS	RONE CSS/CLS
Raw Data	817644	1.43	4.87	31.43	14.91	10.95	3.90	4.14
		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 %		0.05	0.19	0.20	0.10	0.10	0.11	0.09
Reduced	1413216	1.43	4.87	31.48	14.95	10.94	3.89	4.14
		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 3.88'
 Temp Rating 350.00 °F

TELEMETRY / CCL

Series 8248EA
 Mnemonic PCM
 Diameter 1.70"
 Weight 20.00 lb
 Length 4.48'
 Measure Point 1.00' CCL MP
 Temp Rating 350.00 °F

34.35'

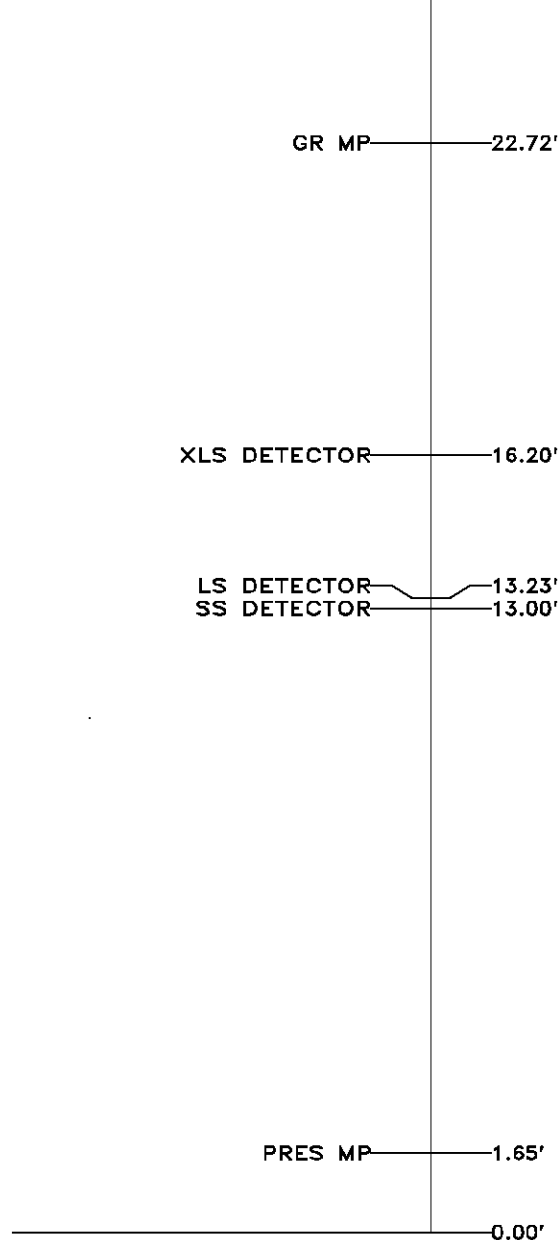
CCL MP 26.26'



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"
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

TEMPERATURE / PRESSURE	
Series	8255XA
Mnemonic	SRPL
Diameter	1.70"
Weight	13.00 lb
Length	3.30'

Total Length: 34.35'
Total Weight: Not Available
Max Diameter: 0' 1.70"



 Baker Atlas 	Company WPX ENERGY		File No: CH070852	
	Well YOUBERG RWF 433-23		API No: 05045182420000	
	Field RULISON			
	County GARFIELD	State COLORADO		
Location		Elevations		
SHL: 1392' FSL, 2320' FEL		KB 5527.5 ft		23 6S 94W
BHL: 1658' FSL, 1769' FEL		DF		RWF 33-23 PAD
		GL 5501.5 ft		NABORS 577
SEC 23		TWP 6S	RGE 94W	