



RESERVOIR PERFORMANCE MONITOR

Baker Atlas

File No: CH069865
 API No: 05045216890000
 Company: WPX ENERGY
 Well: LANTZ SG 433-23
 Field: GRAND VALLEY
 County: GARFIELD
 State: COLORADO

Location: 23 7S 96W
 SHL: 1298' FSL, 900 FEL
 BHL: 1763' FSL, 1739' FEL
 CIRCLE 17
 SEC 23 TWP 7S RGE 96W
 Other Services: BOND LOG

Permanent Datum: 6L Elevation: 5030 ft
 Log Measured From: KB 22 ft Above P. D.
 Drill Measured From: KELLY BUSHING
 Elevations: KB 5052 ft, DF, GL 5030 ft

Date	25/MAR/15
Run	ONE
Service Order	US625518
Depth Driller	5460 ft
Depth Logger	5443 ft
Bottom Logged Interval	5433 ft
Top Logged Interval	2359 ft
Time Started	1015
Time Finished	1500
Operator Rig Time	4.75 HRS
Type of Fluid in Hole	WATER
Fluid Density	NA
Salinity	NA
Fluid Level	57 ft
Logged Cement Top	NA
Wellhead Pressure	0 psi
Maximum Hole Deviation	NA
Nominal Logging Speed	10 fpm
Maximum Recorded Temperature	186 degF
Reference Log	BAKER HUGHES BOND LOG
Reference Log Date	25/MAR/15
Equipment No.	4271
Recorded By	FLOYD RENEAU
Witnessed By	DUSTIN WELSH
Location	GRAND JCT

- 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
13.5 In	0 ft	972 ft
8.75 In	0 ft	5480 ft

Size	Weight	Grade	From	To
9.625 In			0 ft	972 ft
4.6 In	11.6 lbm/ft	I-80	0 ft	5480 ft

Remarks

All data on this log is shifted and depth matched using the Gamma Ray curve to the Baker Hughes bond log dated 3/25/2013 at the client's request.

The amount of linear shift is -5 feet.

Logged in PNC-3D mode.

BHT = 186°F

SJ = 2915'-2936'

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

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

SPL PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
PNC Porosity	Borehole	Cased		2334.440	5450.546
PNC Porosity	Borehole Size	7.875	inch	2334.440	5450.546
PNC Porosity	Casing Size	4.500	inch	2334.440	5450.546
PNC Porosity	Gas Filled	Non Gas Filled		2334.440	5450.546
PNC Porosity	Matrix	Sandstone		2334.440	5450.546

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 R1CX 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					
SYSTEM	0.000	TEN	TTEN				

Created by : RPM9, v5.3.1.0

Plotted by : PlotMgr, v5.4.504

Company : WPX ENERGY

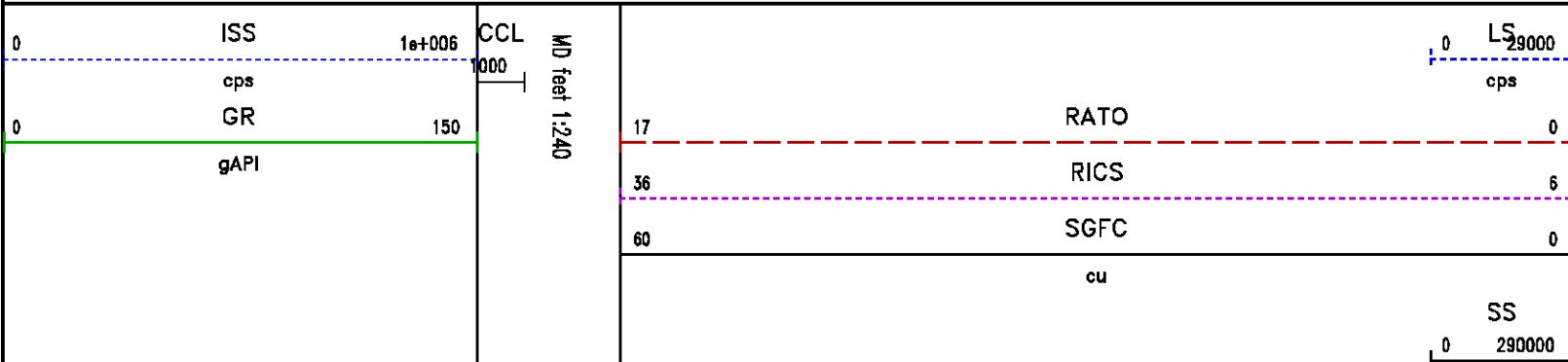
Well : LANTZ SG 433-23

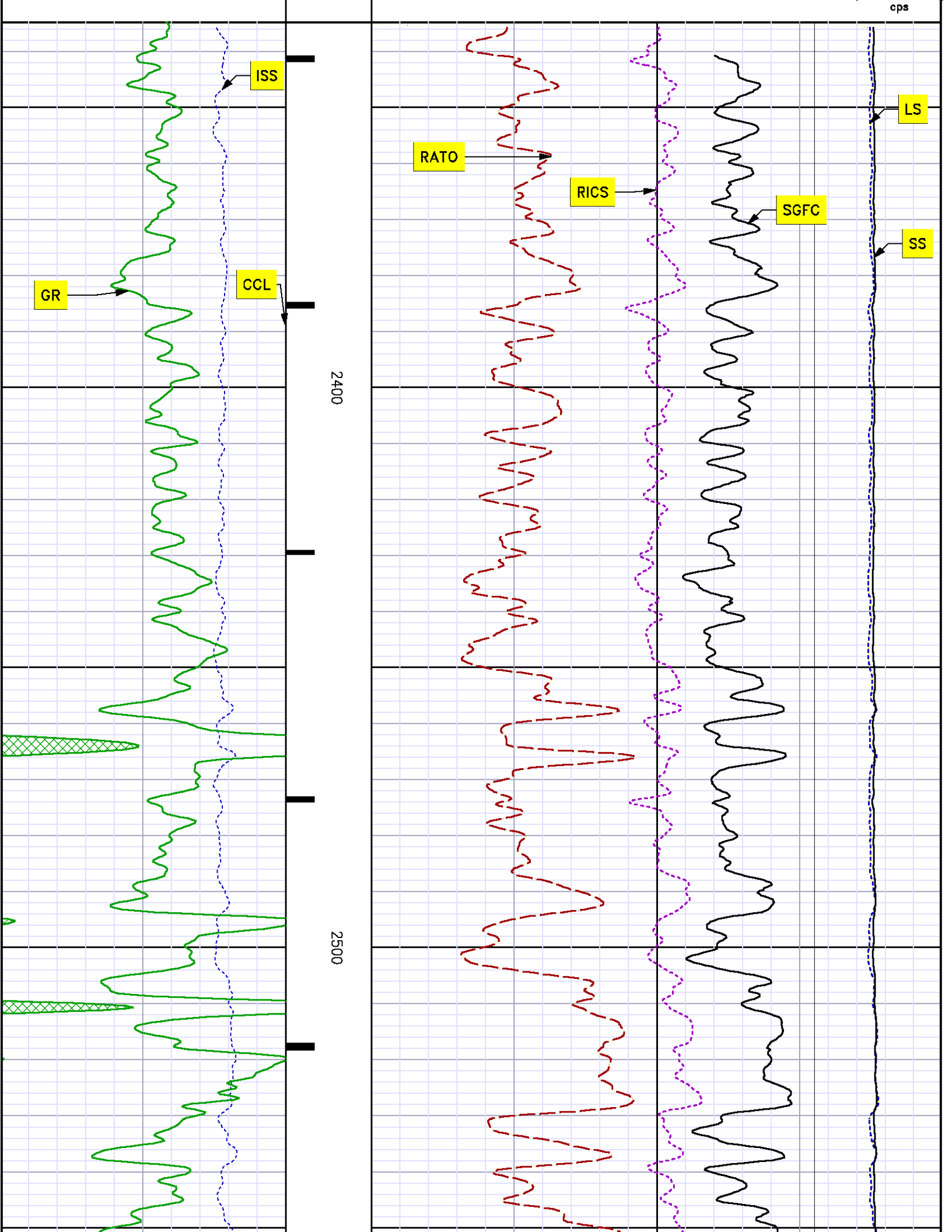
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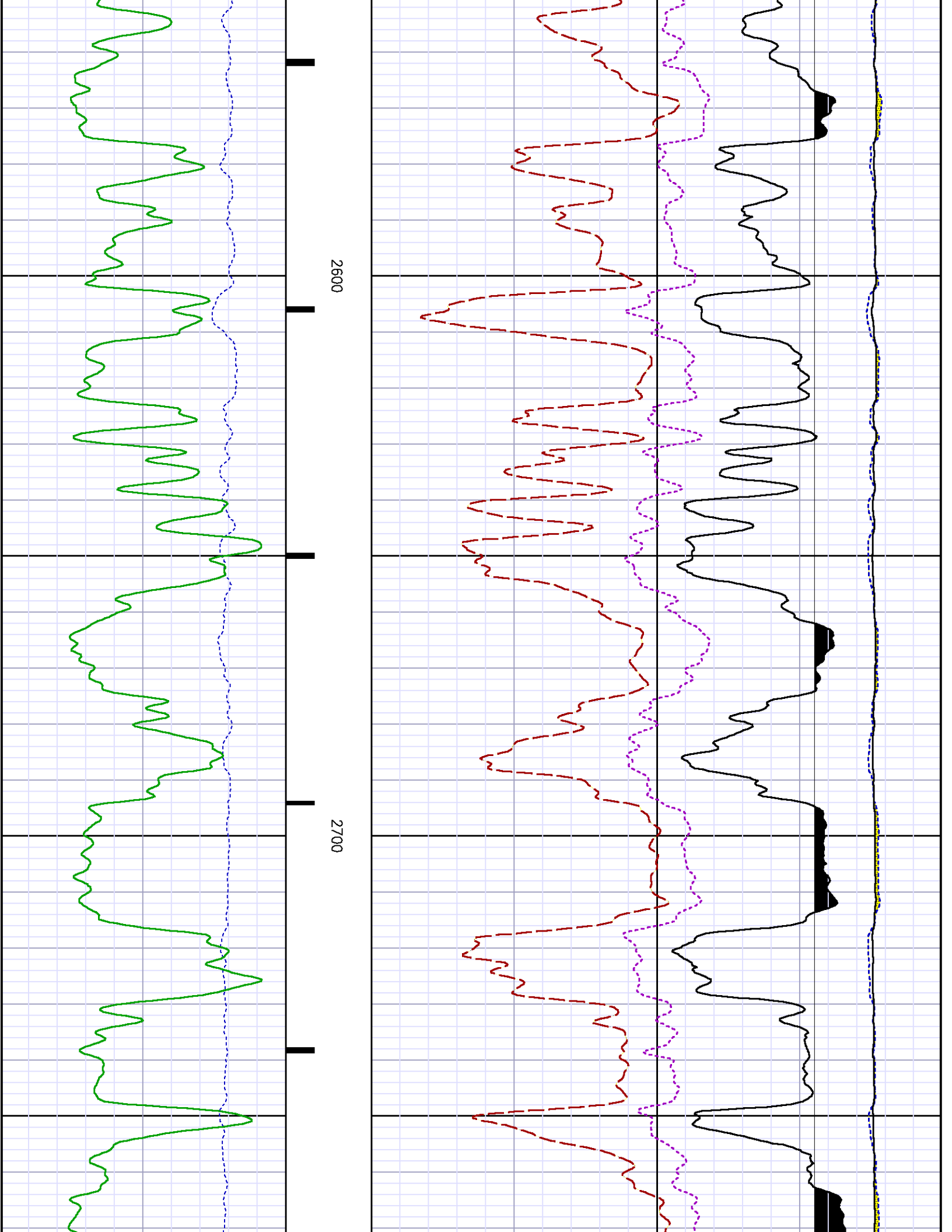
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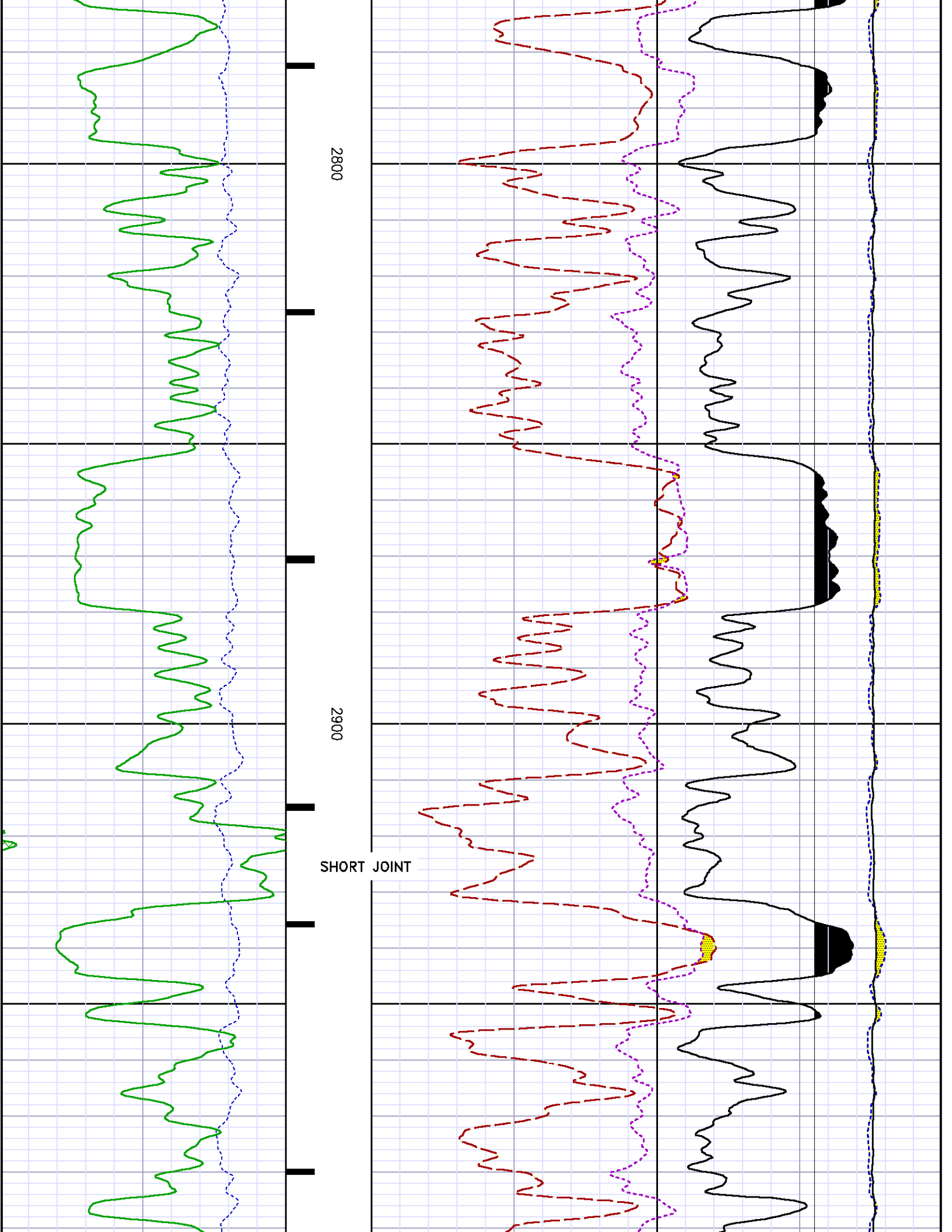
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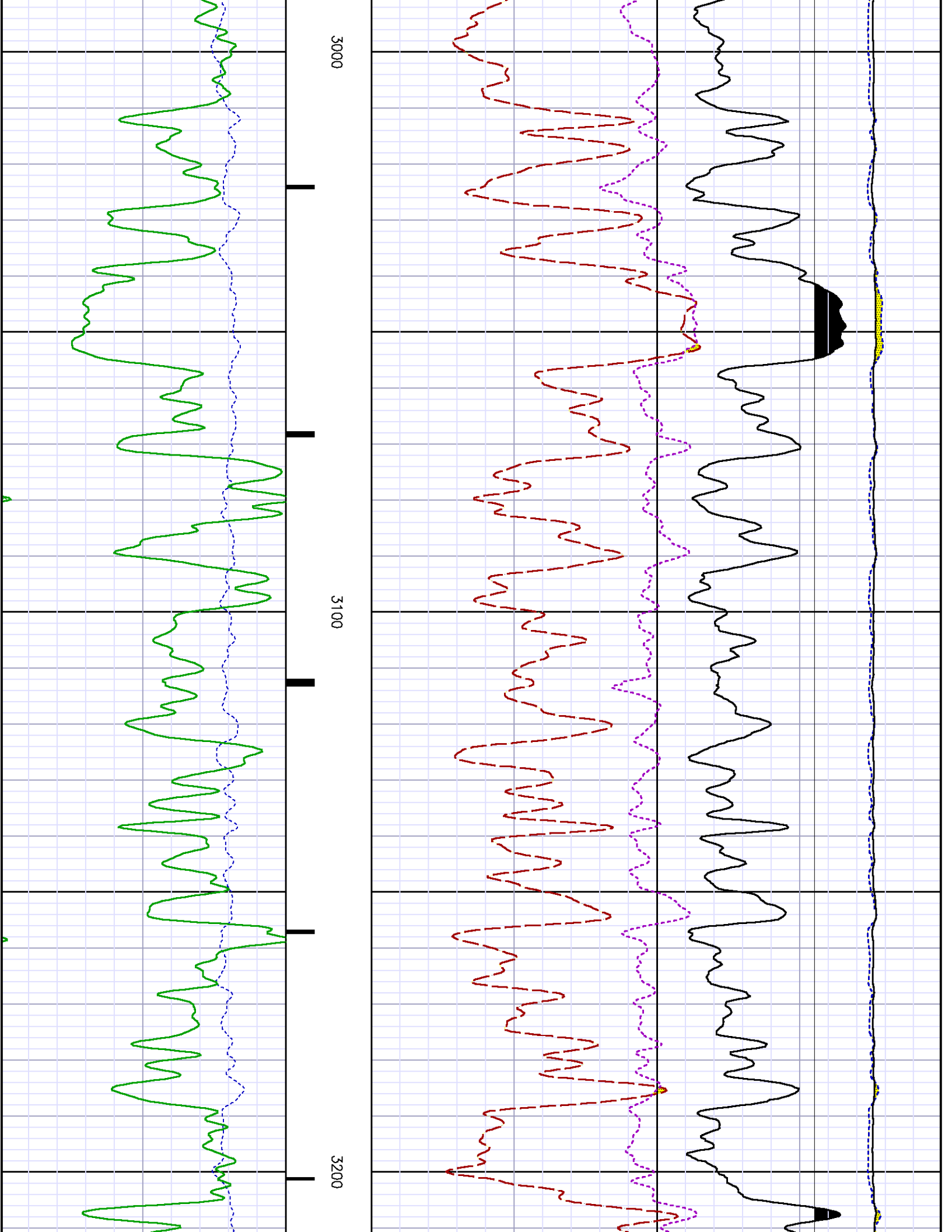
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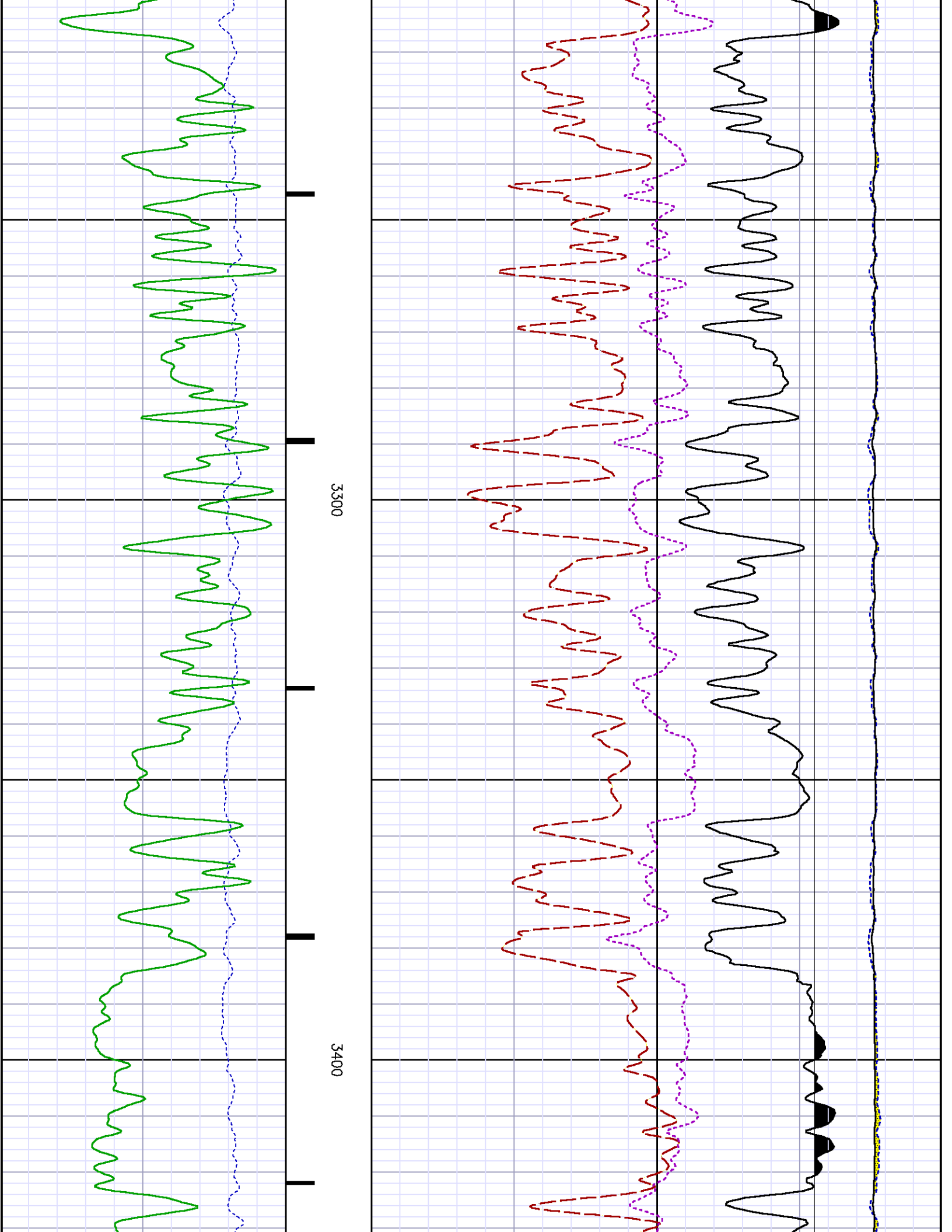


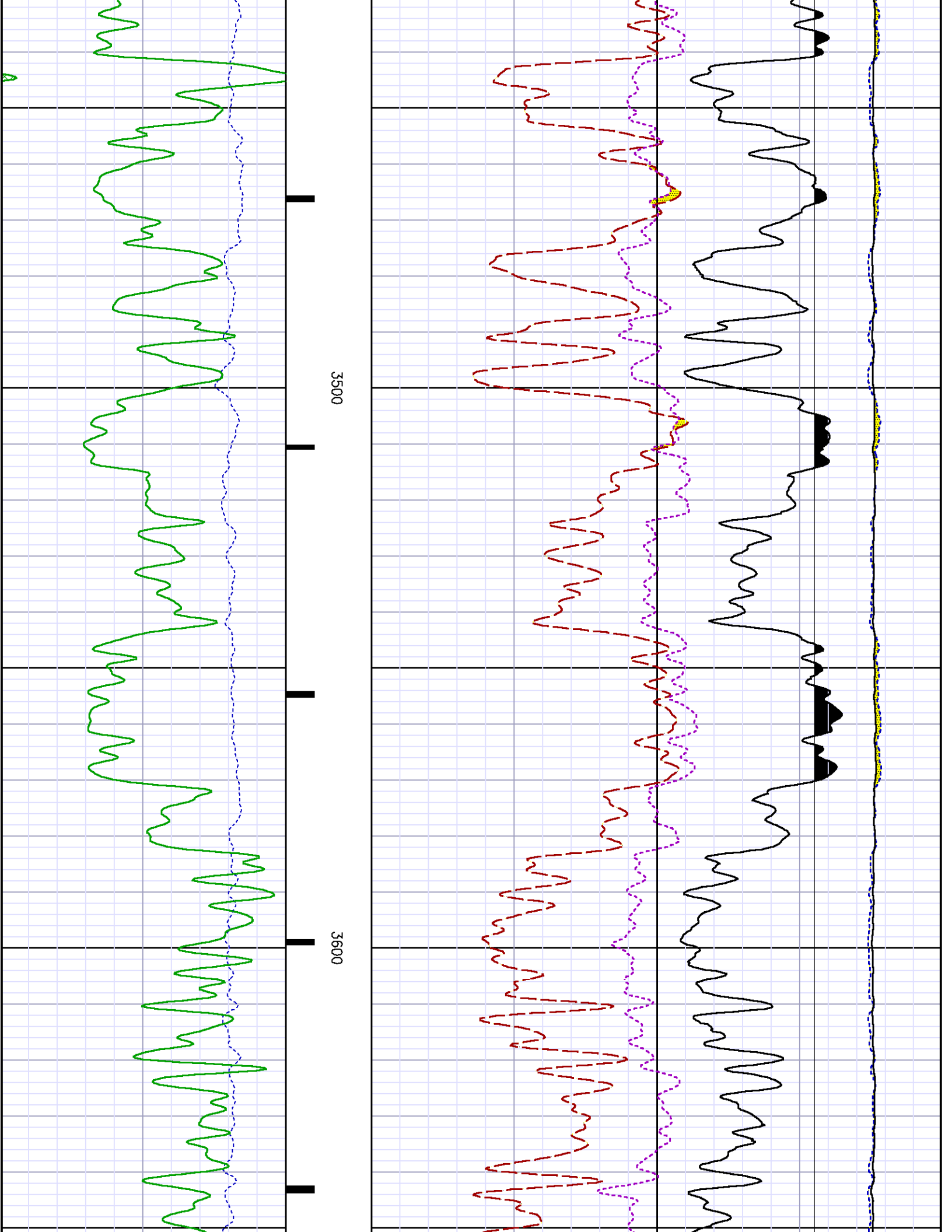


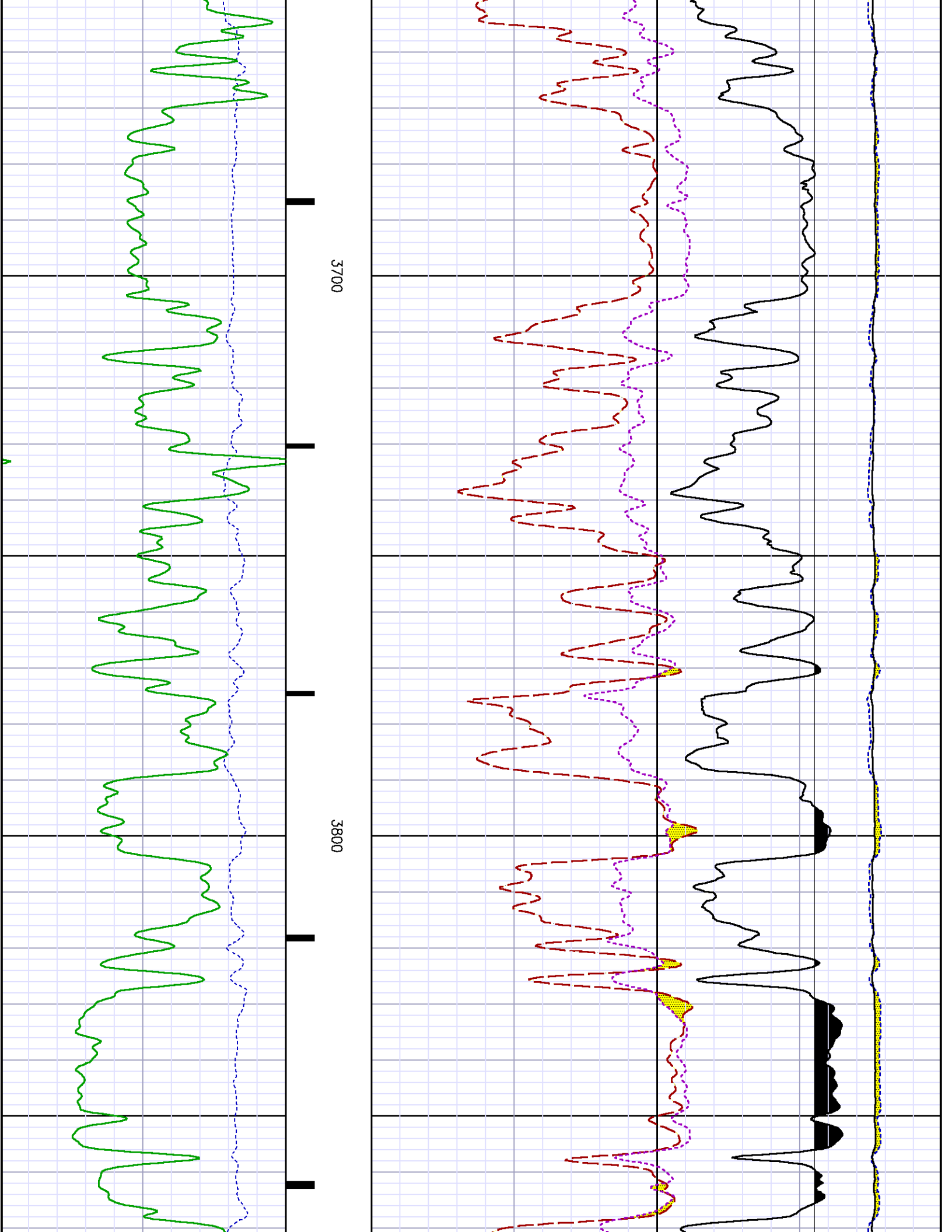


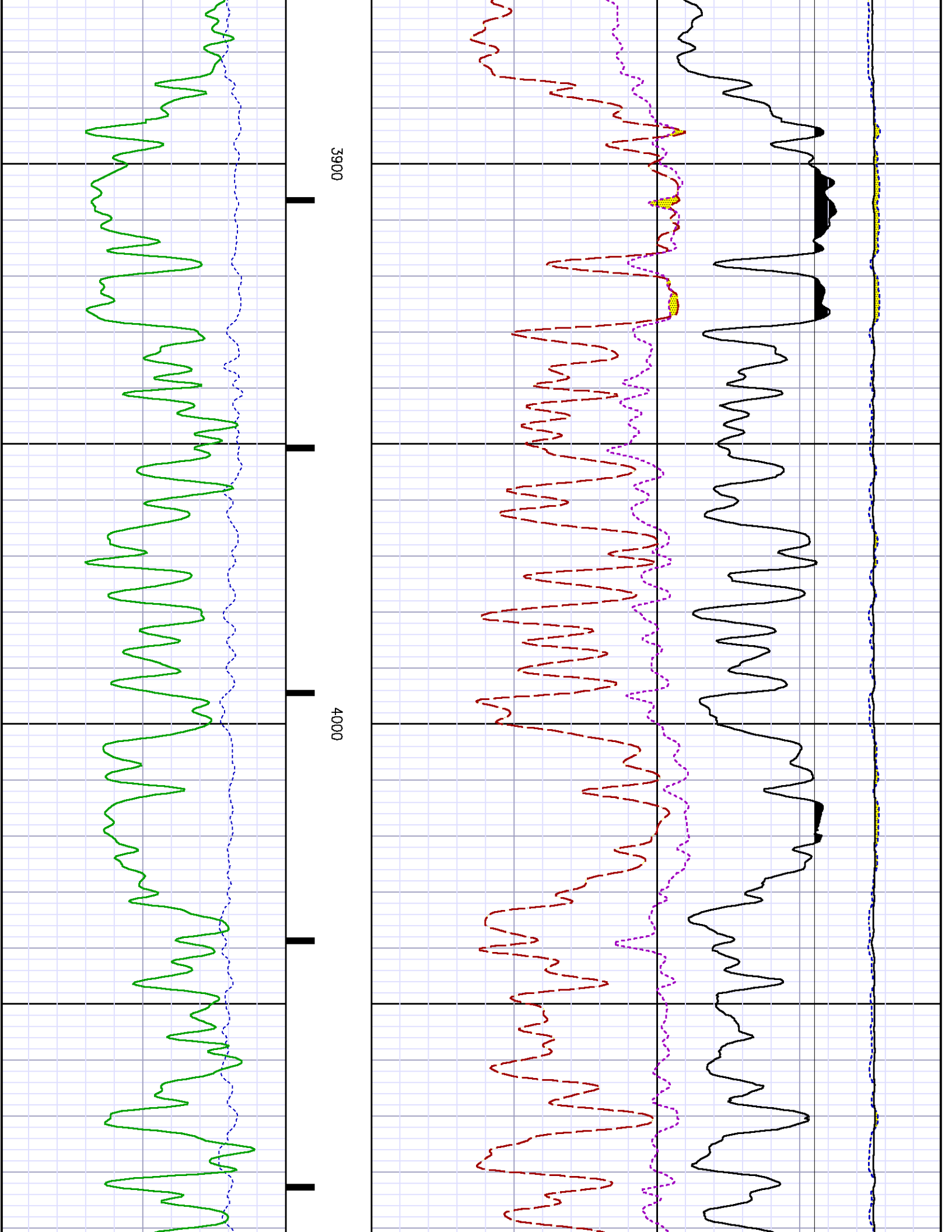


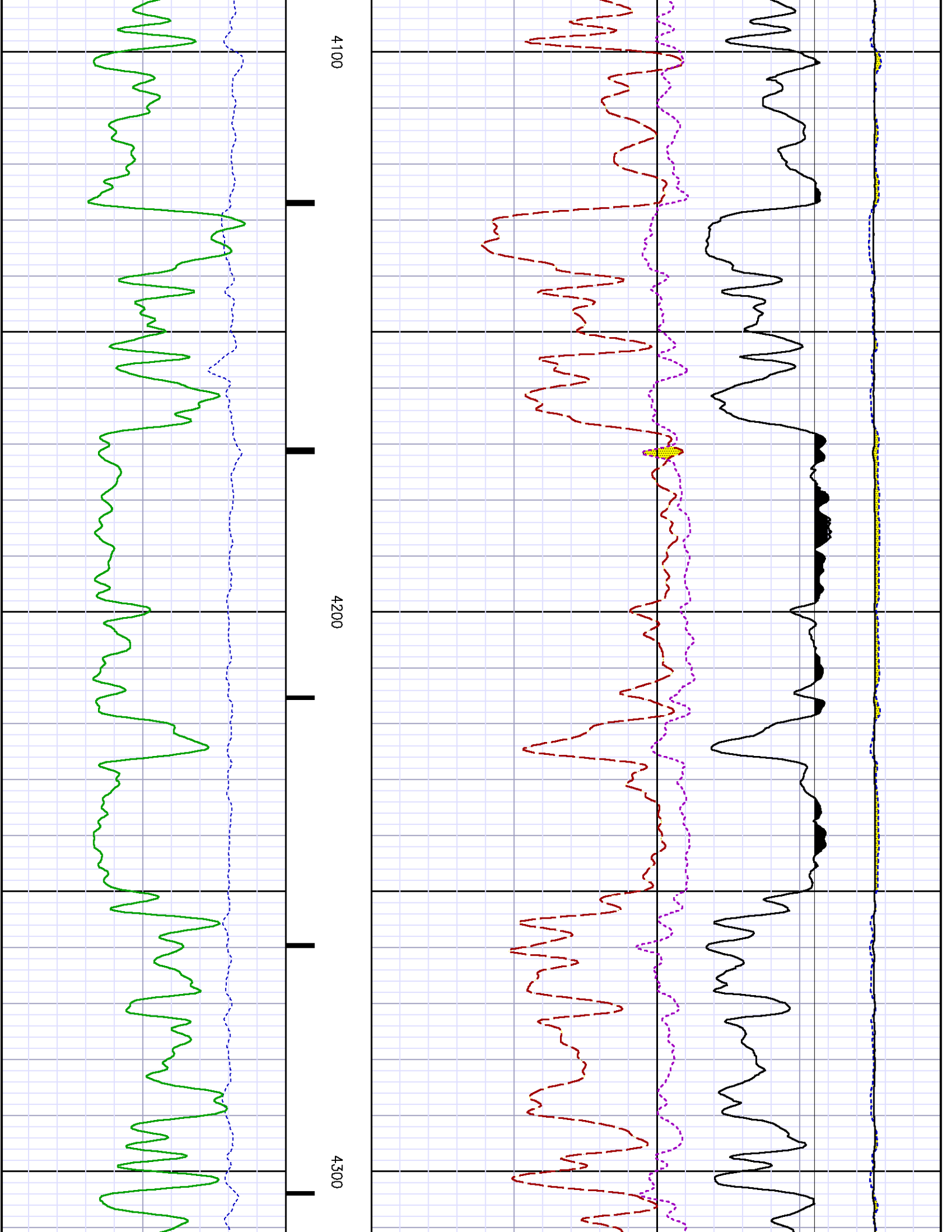


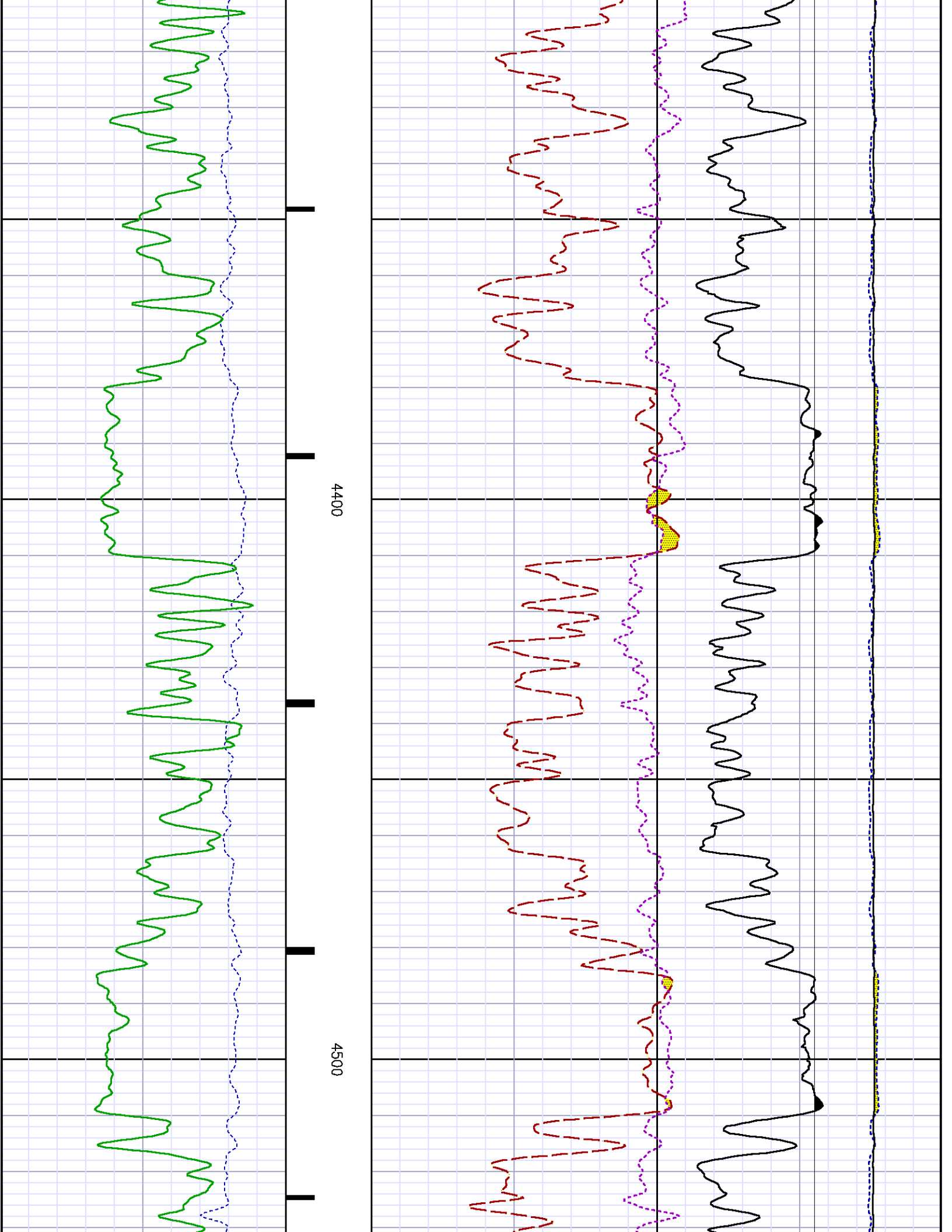


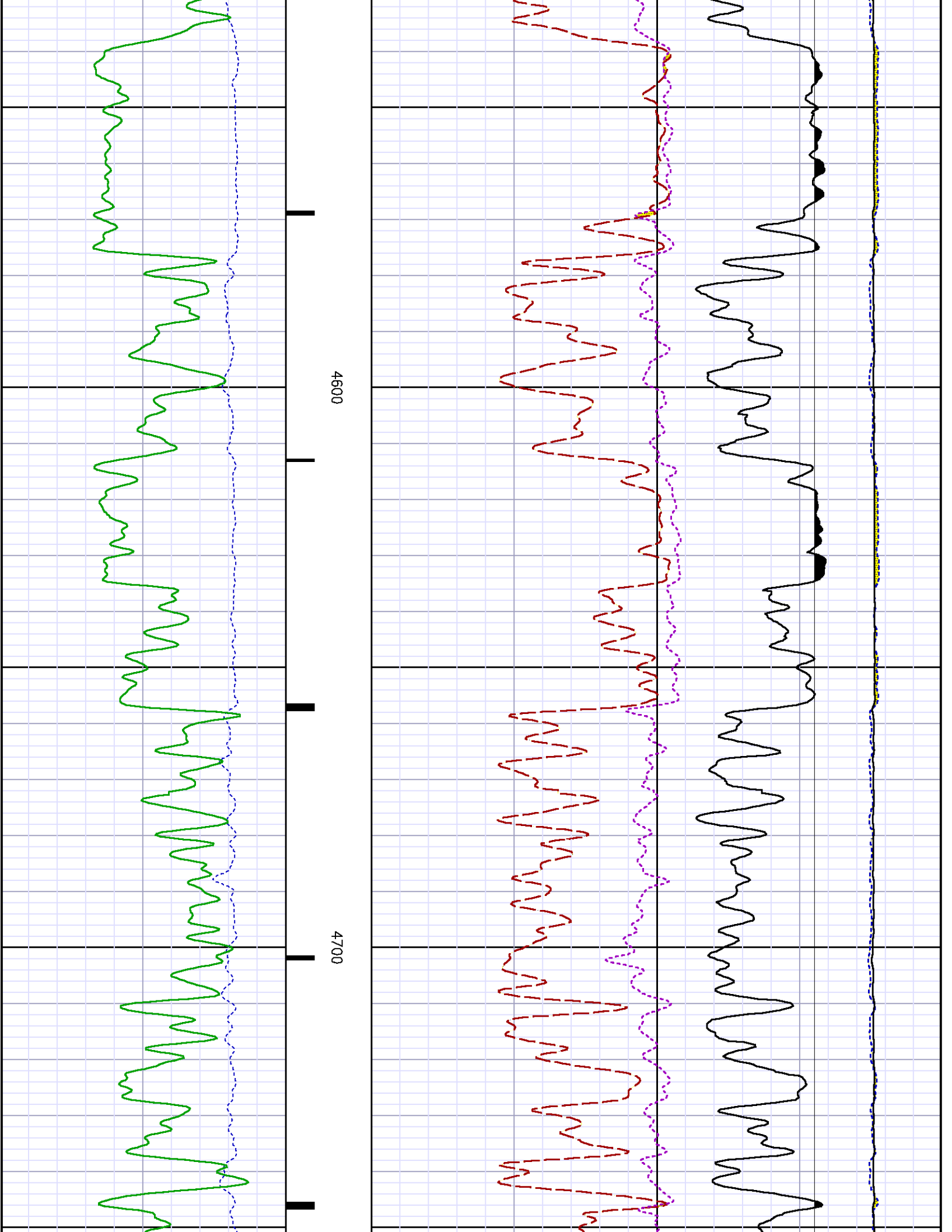


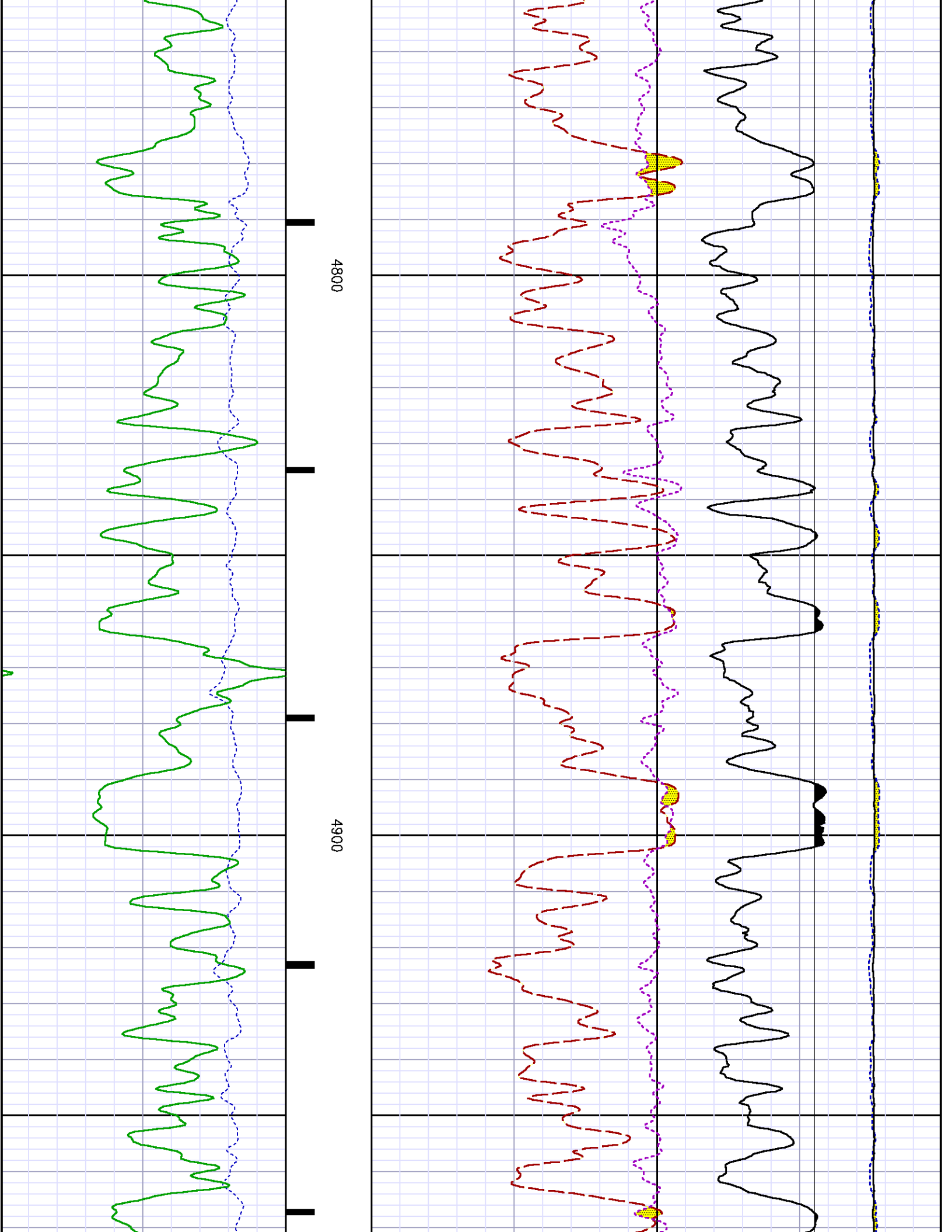


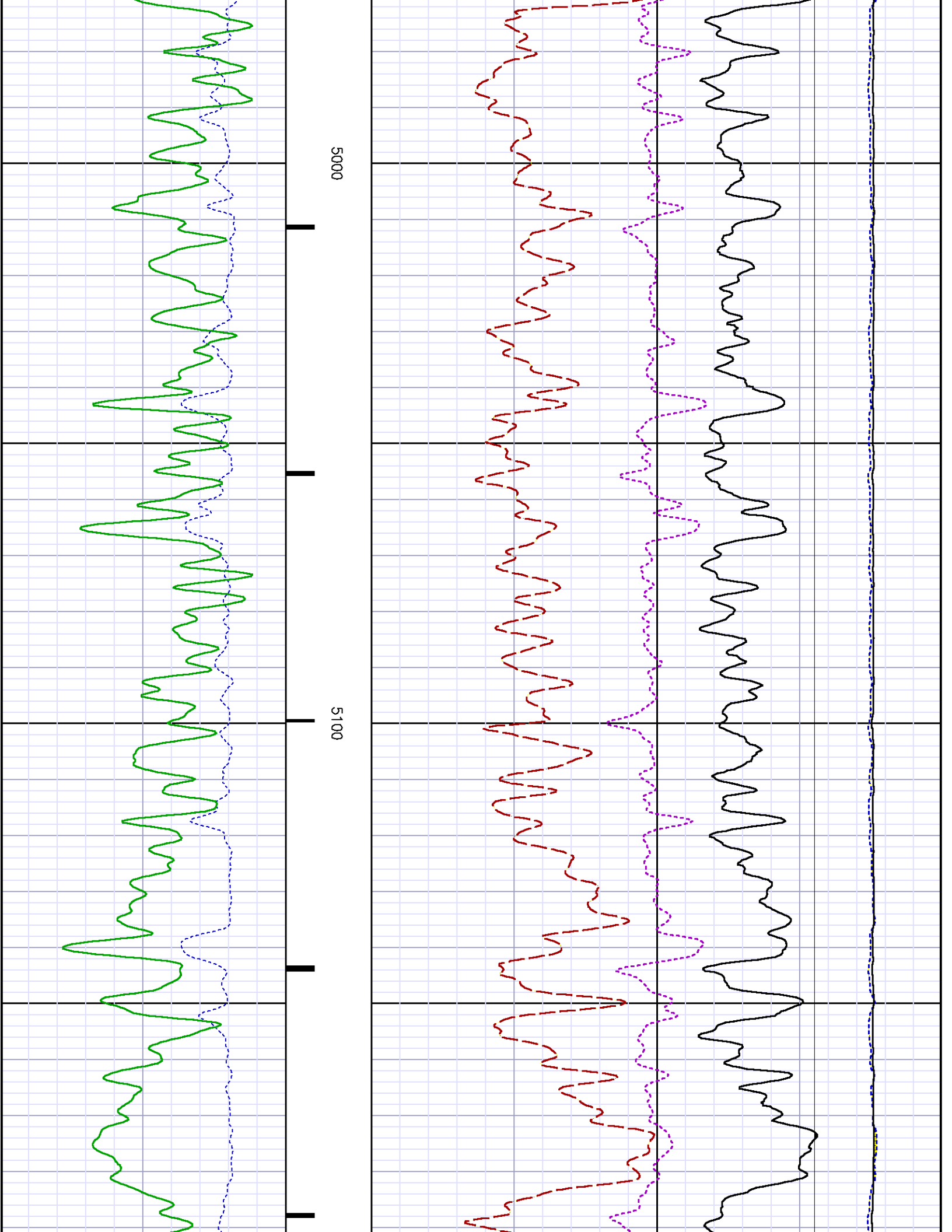


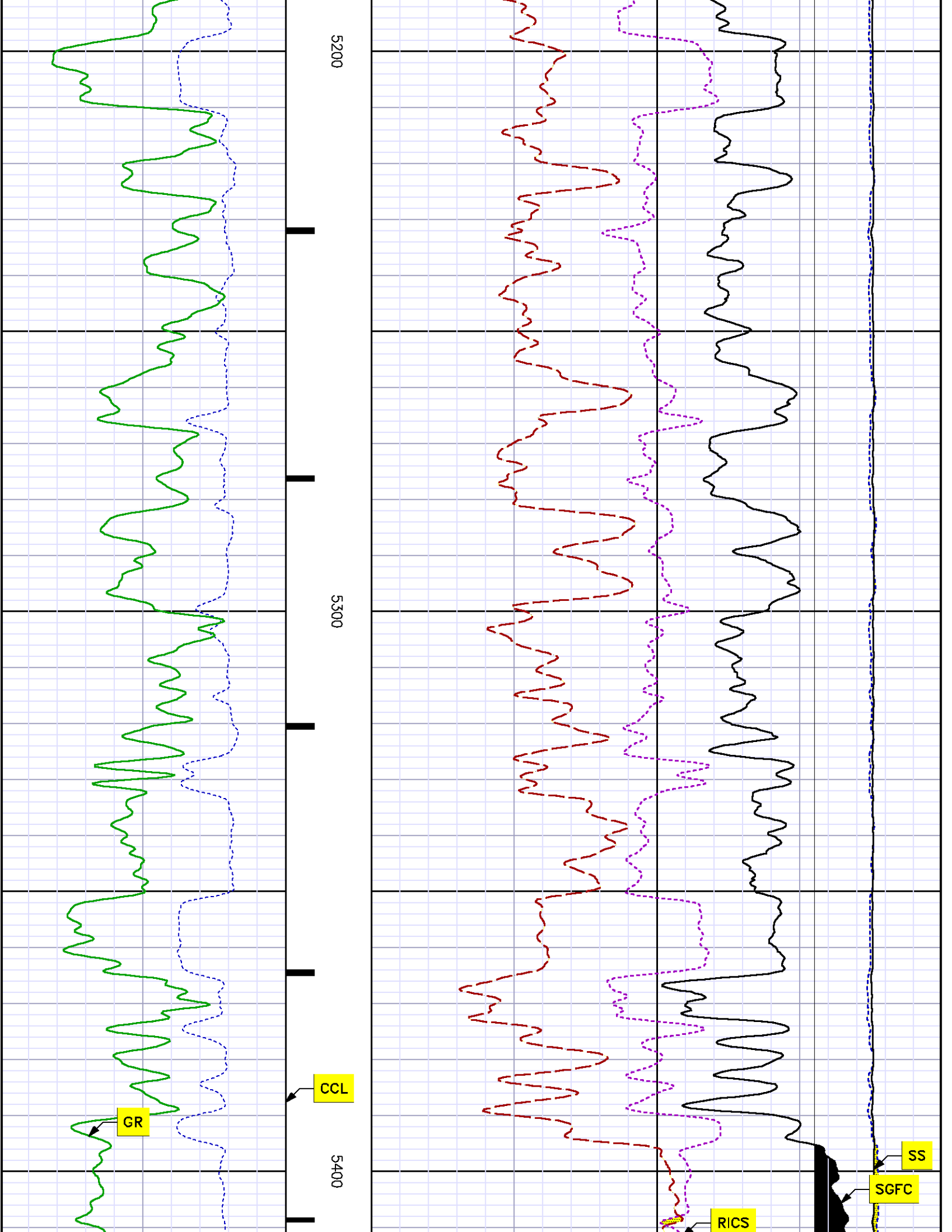


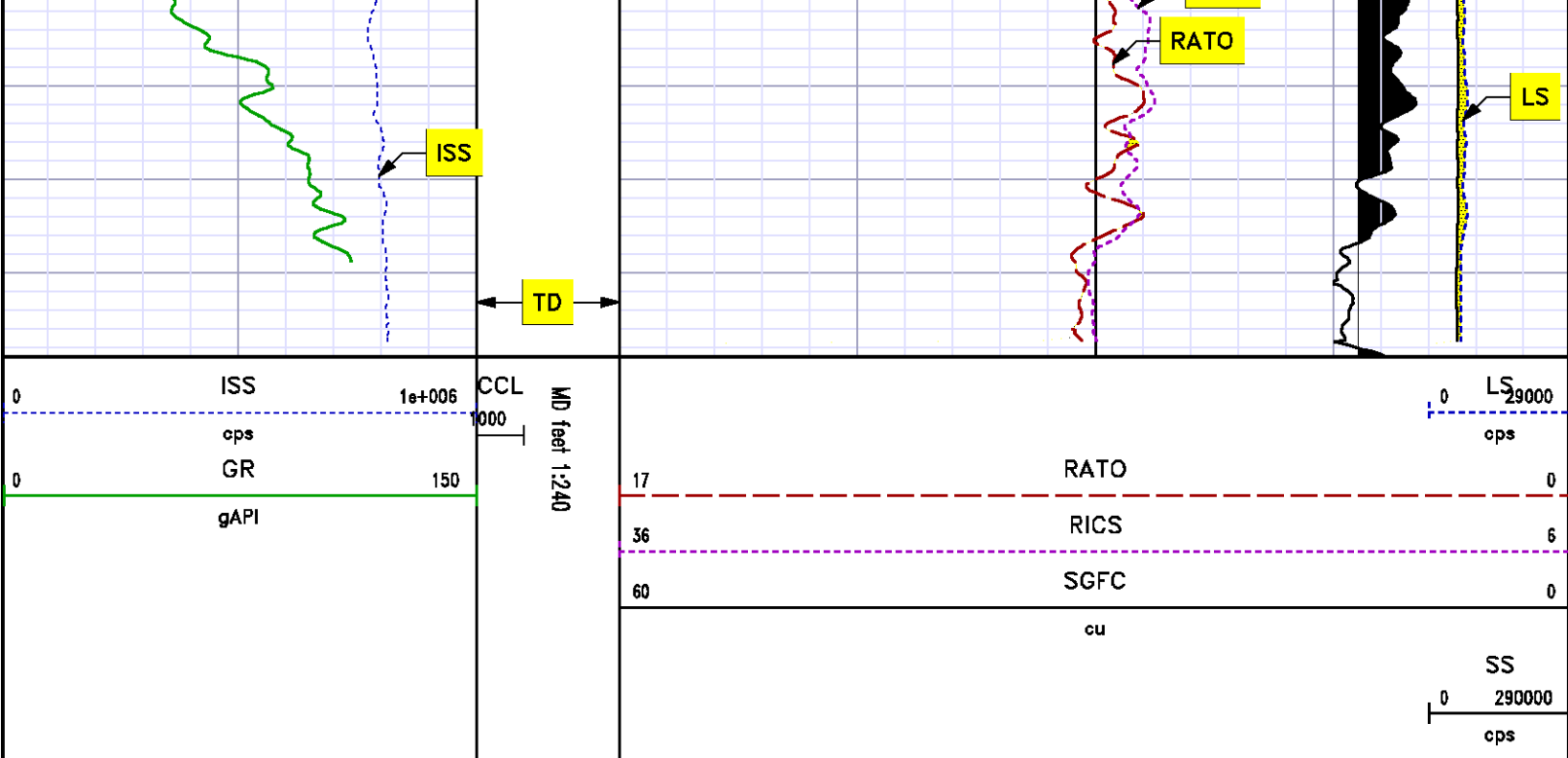












REPEAT SECTION PNC 3-D MODE

SPL PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
PNC Porosity	Borehole	Cased		4624.590	4939.340
PNC Porosity	Borehole Size	7.875	inch	4624.590	4939.340
PNC Porosity	Casing Size	4.500	inch	4624.590	4939.340
PNC Porosity	Gas Filled	Non Gas Filled		4624.590	4939.340
PNC Porosity	Matrix	Sandstone		4624.590	4939.340

DEPTH OFFSETS (for Acquired Curves)

SERIES	DEPTH OFFSET	ACQUIRED CURVES
8218ED	-15.320	ELTM

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	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	TTEN						

Created by : RPM9, v5.3.1.0

Plotted by : PlotMgr, v5.4.504

Company : WPX ENERGY

Well : LANTZ SG 433-23

File Name : d:\welldata\wpx energy\sg 433-23\433rpm\repeat.xtf

Mode : PlotMgr 5.4.504

Interval : 4630.00 - 4930.00 feet UP

Created : 3/25/2013 5:32:27 PM

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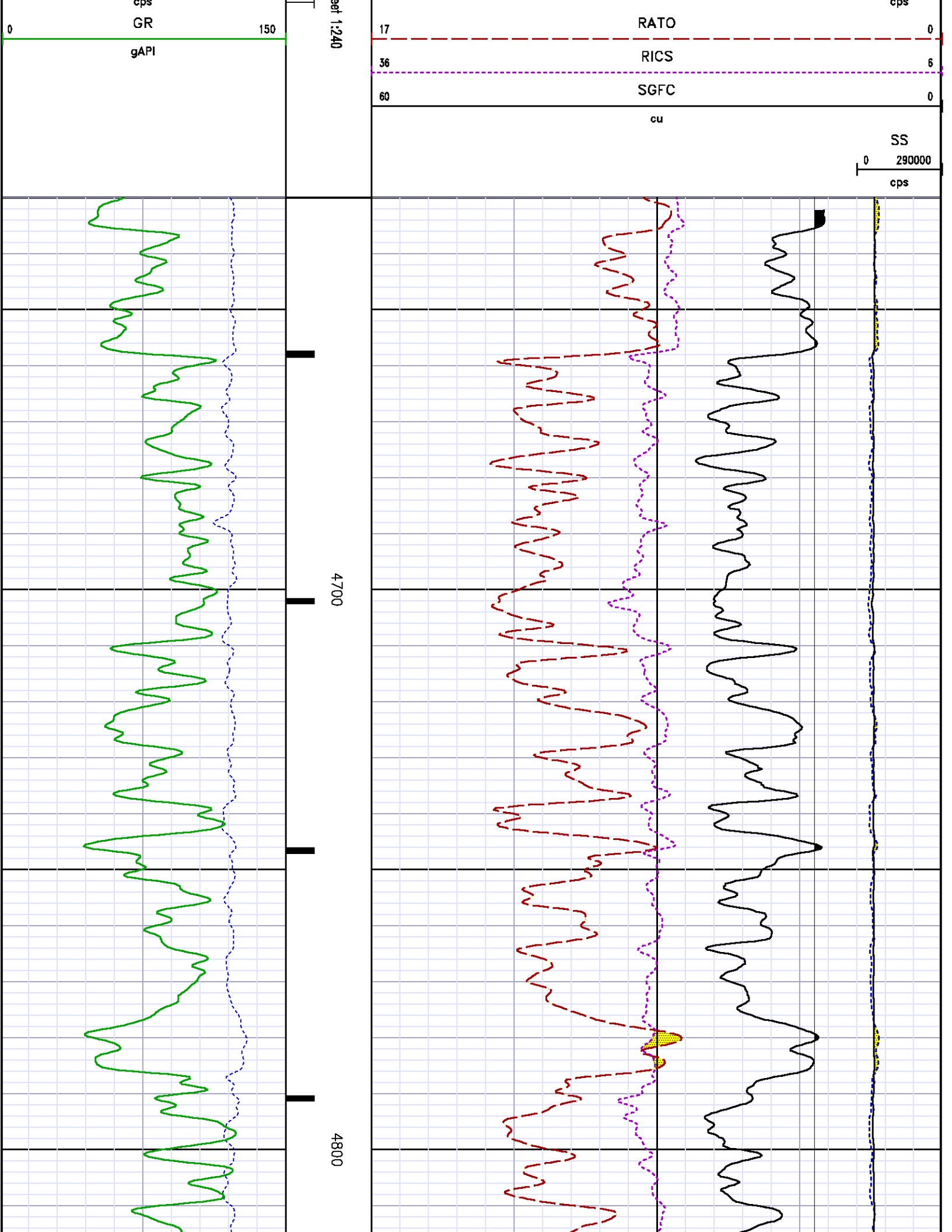
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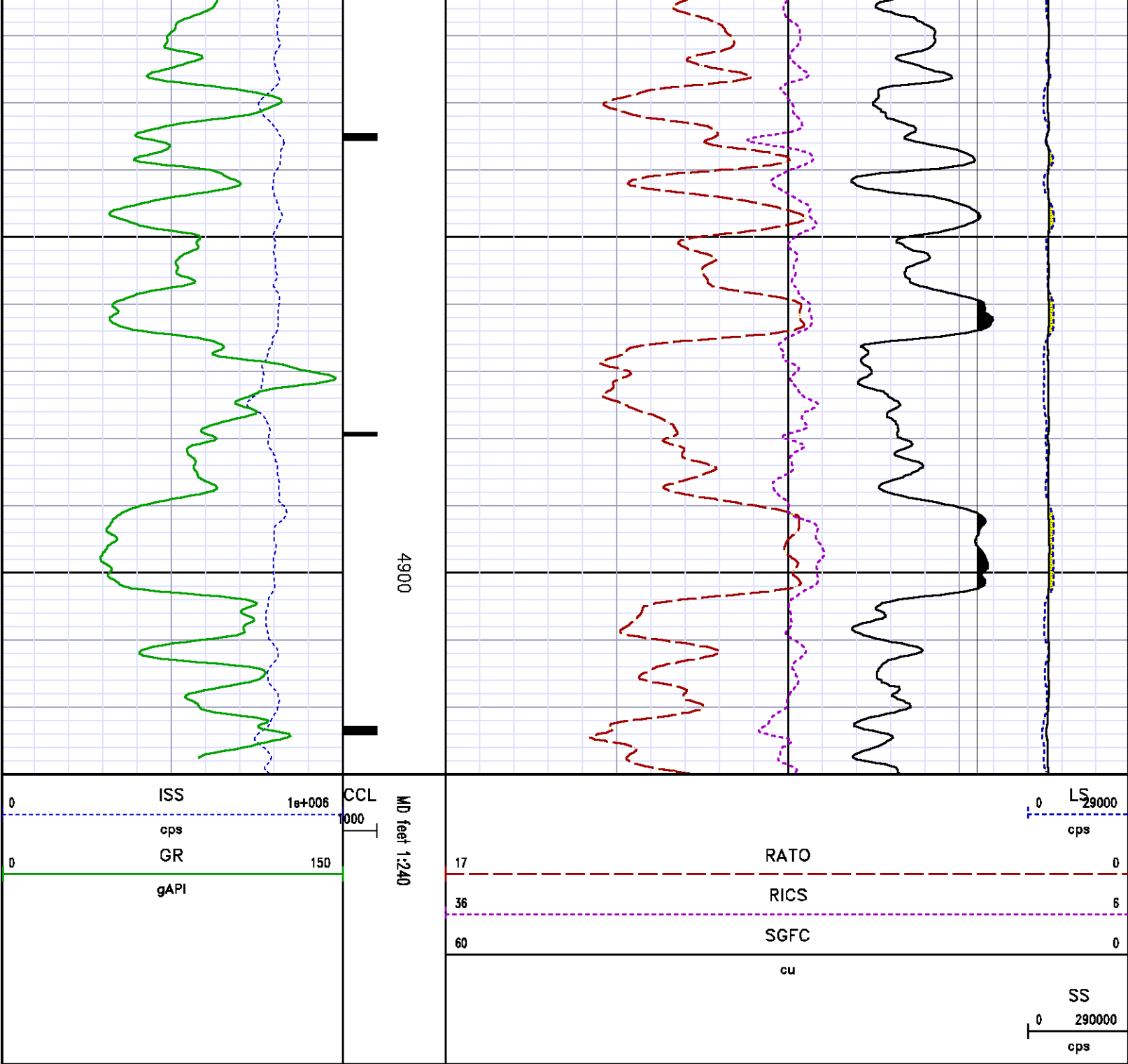
CCL

MD

0

LS 29000





CALIBRATION SUMMARY

GAMMA RAY

CALIBRATION SUMMARY

DATE/TIME PERFORMED: Fri Mar 22 14:22:28 2013 TOOL SERIES: 8262XA ASSET: 055 SEQ: M2

Calibrator #	Background [cps]	Calibrator On [cps]	Multiplicative	Background [api]	Calibrator On [api]	Differential [api]
SHOP JIG	86.47	378.60	0.616	53.28	233.28	180.00

Verification File: C:\case\calver\GR\055M2.VP

PRIMARY VERIFICATION

DATE/TIME PERFORMED: Fri Mar 22 14:25:34 2013 TOOL SERIES: 8262XA ASSET: 055 SEQ: M2

Calibrator #	Background [cps]	Calibrator On [cps]	Multiplicative	Background [api]	Calibrator On [api]	Differential [api]
SHOP JIG	84.73	385.29	0.616	52.21	237.40	185.19

PNC

Calibration File: C:\case\calver\PNC\345m8.cal

PNC 3D CALIBRATION SUMMARY

DATE/TIME PERFORMED: Fri Mar 08 12:33:57 2013 TOOL SERIES: 8281XA ASSET: 345 SEQ: m8

Calibrator #

gj shop

Source #

8281AA 10148476

	ISS	Mtr Vlt (V)	SS Gain	LS Gain	XLS Gain	EA Temp (degF)	Sync Delay (usec)	RCAL
Raw Data	812419	121.00	2266.00	2256.00	2266.00	111.88	7.00	0.9947
Interpolated	1300000	140.55	2255.96	2250.44	2260.25			

	ISS	BKS	BKL	BKX	SGA1	SDA1	SGA2	SDA2
Raw Data	812419	6494.56	1309.73	462.68	25.74	0.14	24.38	0.28
					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	812419	171835.45	26516.91	89804.85	32009.73	8450.74	54333.68	13515.78
Fit Quality %		0.39	0.44	0.65	0.64	0.35	0.61	0.32

	ISS	RBOR	RIN ISS/ILS	RIN13 ISS/IXS	RICS ISS/CSS	RATO SS/LS	RTWO SS2/LS	RONE CSS/CLS
Raw Data	812419	1.43	4.73	30.64	14.95	10.63	3.79	4.02
		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 %		0.10	0.19	0.14	0.12	0.17	0.17	0.15

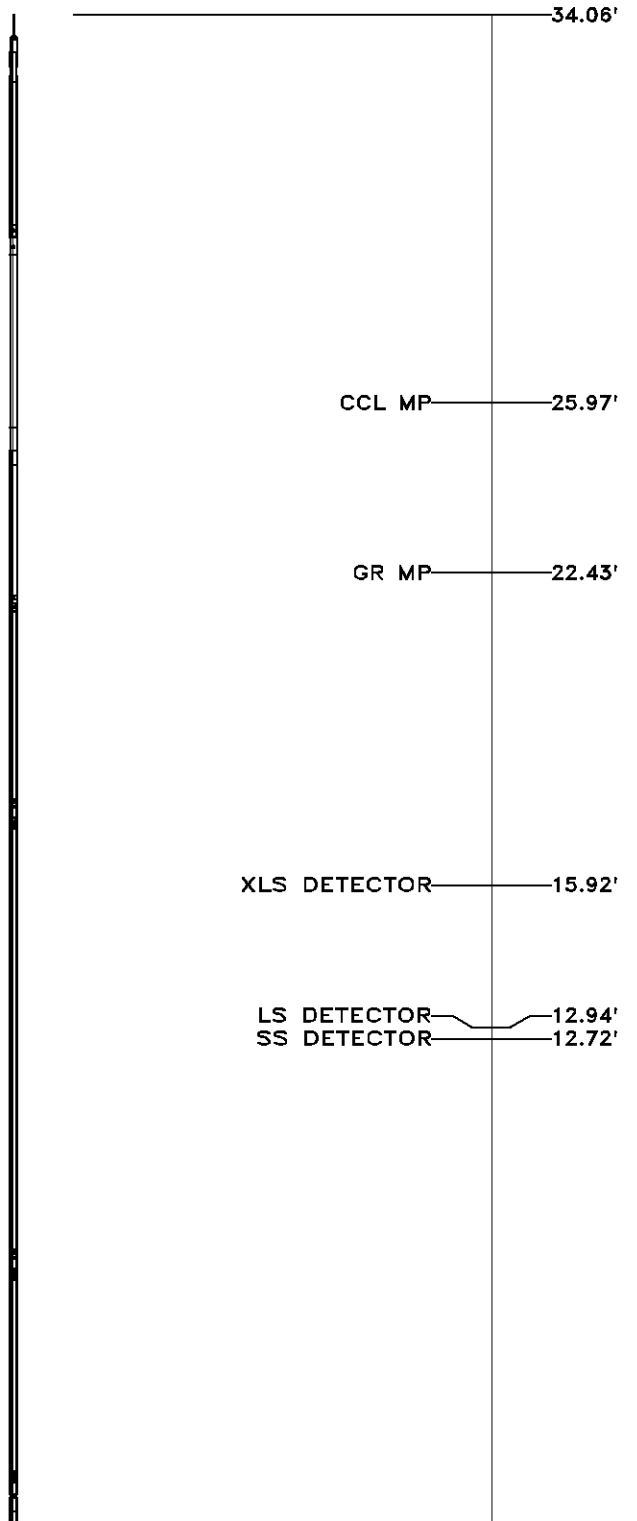
1388272	1.43	4.74	30.71	14.98	10.61	3.78	4.02
1.42	1.45	4.33	5.52	27.60	32.70	13.70	15.70
						10.60	11.00
						3.78	3.92
						4.01	4.17

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"
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

GAMMA RAY



Series	8262XX
Mnemonic	GR
Diameter	1.70"
Weight	15.00 lb
Length	3.02'

GR MP	1.01'
	0.00'

Total Length: 34.06'
 Total Weight: Not Available
 Max Diameter: 0' 1.70"



Company	WPX ENERGY		
Well	LANTZ SG 433-23		
Field	GRAND VALLEY		
County	GARFIELD	State	COLORADO

File No:	CH069865
API No:	05045216890000

Baker Atlas



Location
SHL: 1298' FSL, 900 FEL
BHL: 1763' FSL, 1739' FEL
SEC 23 TWP 7S RGE 96W

Elevations
KB 5052 ft
DF
GL 5030 ft

23 7S 96W
SG 44-23 PAD
CYCLONE 17