



RESERVOIR PERFORMANCE MONITOR

Baker Atlas

File No: CH084680

Company Well WPX ENERGY BOSELY SG 414-22

API No: Field GRAND VALLEY

County GARFIELD State COLORADO

05045221260000

Location

SHL: 609' FSL & 1949' FWL

BHL: 208' FSL & 299' FWL (SWSW)

H&P 318 SEC 22 TWP 7S RGE 96W

Other Services

BOND LOG

Permanent Datum GL Elevation 5248 ft

Log Measured From KB 24 ft Above P. D.

Drill Measured From KELLY BUSHING

Elevations

KB 5872 ft

DF

GL 5248 ft

Date	09/APR/14	
Run	ONE	
Service Order	US628379	
Depth Driller	5580 ft	
Depth Logger	5557 ft	
Bottom Logged Interval	5547 ft	
Top Logged Interval	2479 ft	
Time Started	1300	
Time Finished	1900	
Operator Rig Time	6 HRS	
Type of Fluid in Hole	WATER	
Fluid Density	NA	
Salinity	NA	
Fluid Level	55 ft	
Logged Cement Top	NA	
Wellhead Pressure	0 psi	
Maximum Hole Deviation	NA	
Nominal Logging Speed	10 fpm	
Maximum Recorded Temperature	187 degF	
Reference Log	BAKER HUGHES BOND LOG	
Reference Log Date	07/APR/14	
Equipment No.	4271	GRAND JUNCTION
Recorded By	FLOYD 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	1172 ft
8.75 in	1172 ft	5580 ft

Casing Record				
Size	Weight	Grade	From	To
9.625 in			24 ft	1172 ft
4.5 in	11.6 lbm/ft	I-80	24 ft	5580 ft

Remarks
All data on this log is shifted and depth matched using the Gamma Ray curve to the Baker Hughes bond log dated 4/7/2014 at the client's request.
The amount of linear shift is 7 feet.
Logged in PNC-3D mode.
BHT = 187°F
SJ = 3029'-3053'

Equipment Data					
Run	Trip	Tool	Series Number	Serial Number	Position
1	1	TEMP	8255XA	11774568	FREE
1	1	RPM	8281FA	10460082	FREE
1	1	RPM	8281PA	10203151	FREE
1	1	RPM	8281EA	10294755	FREE
1	1	GR	2812LA	10274382	FREE
1	1	TEL/CCL	8248ED	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		2449.937	5547.656
PNC Porosity	Borehole Size	8.750	inch	2449.937	5547.656
PNC Porosity	Casing Size	4.500	inch	2449.937	5547.656
PNC Porosity	Gas Filled	Non Gas Filled		2449.937	5547.656
PNC Porosity	Matrix	Sandstone		2449.937	5547.656
TPS Pressure	Temperature Corr. Source	Fixed (72.00)	degF	2449.937	5547.656

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 : BOSELY SG 414-22

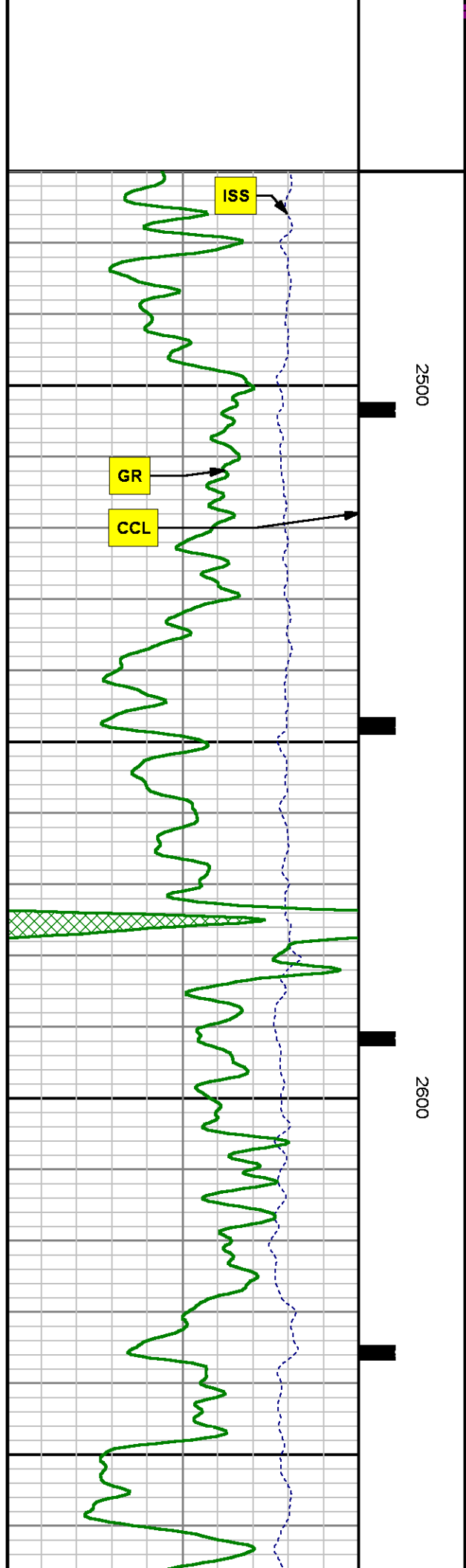
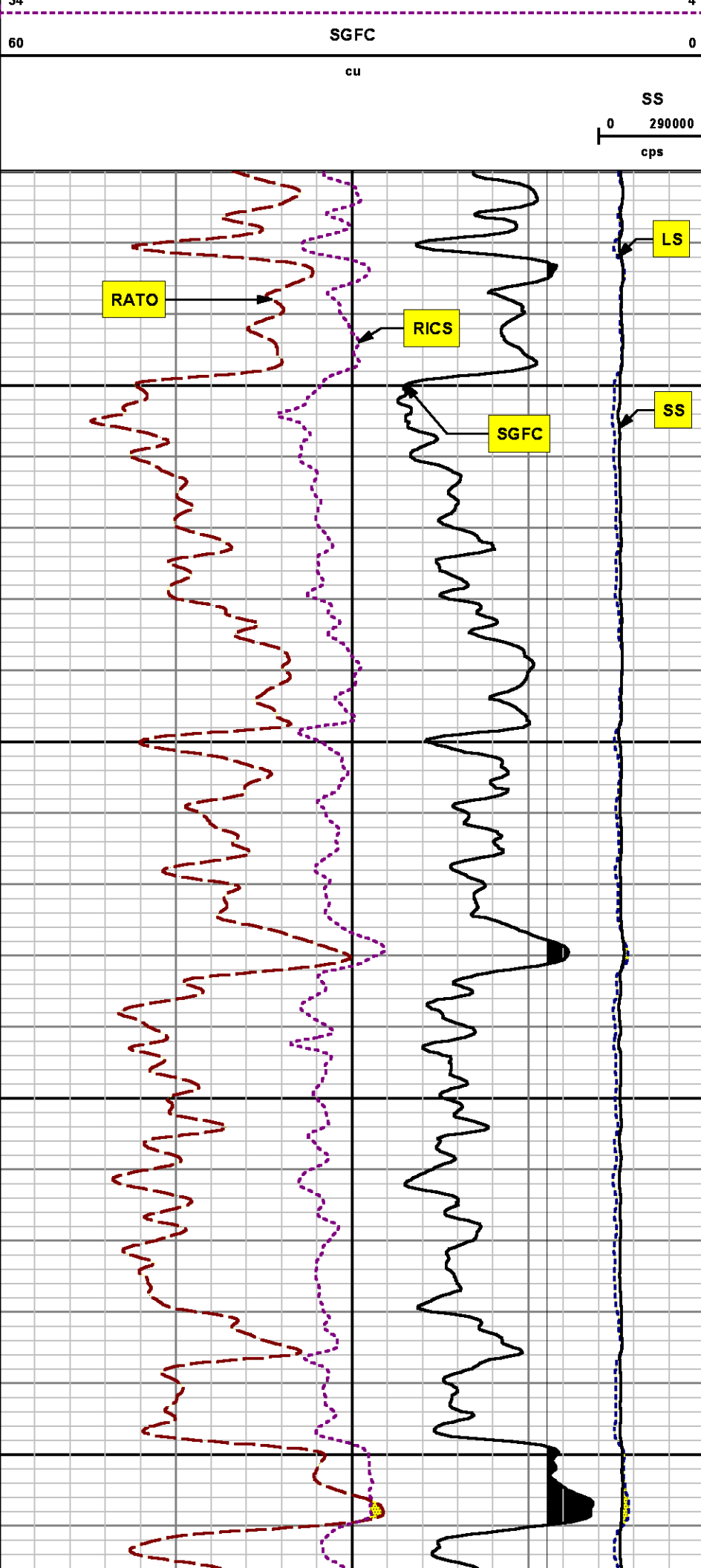
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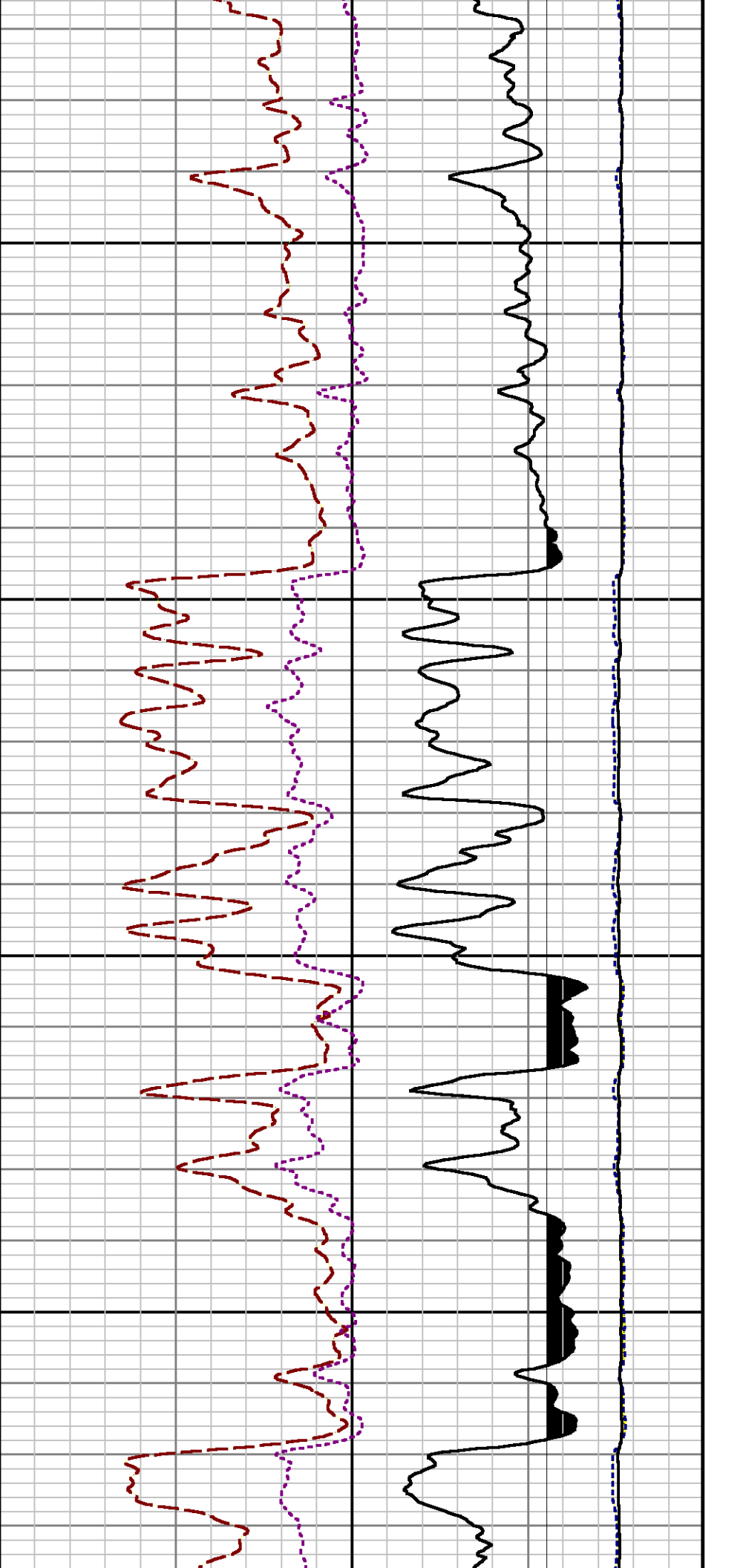
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Interval : 2470.00 - 5561.00 feet UP

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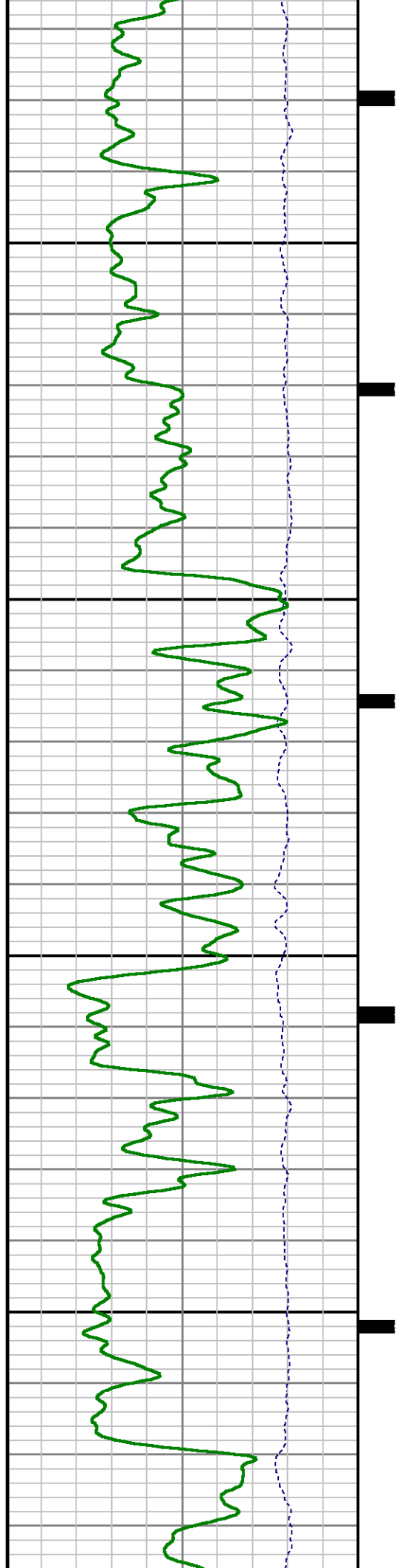


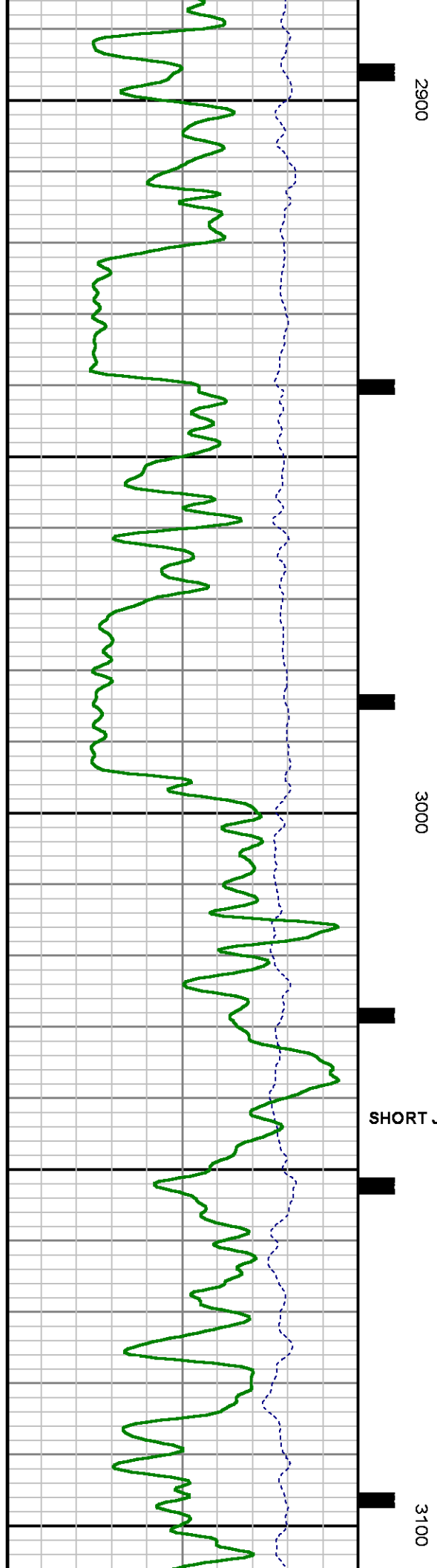
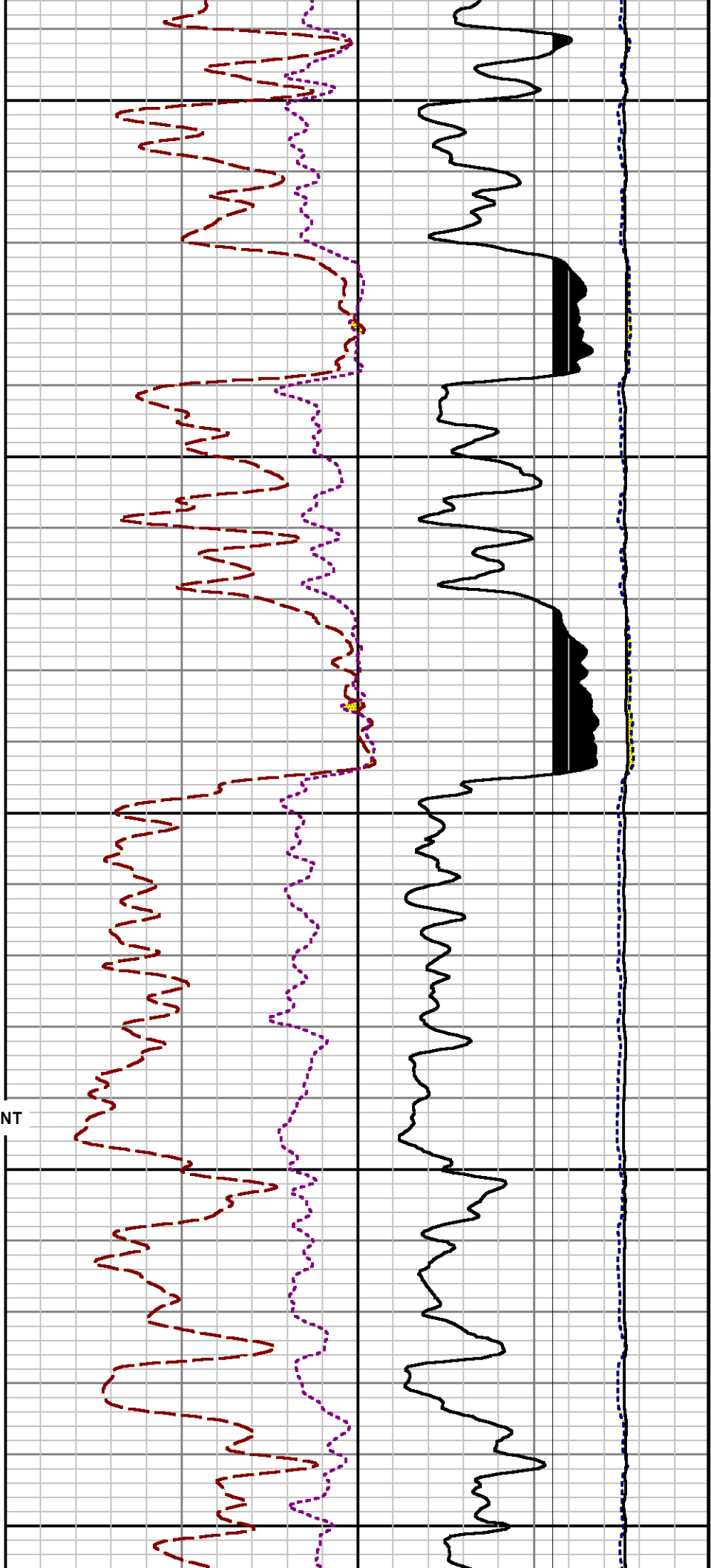


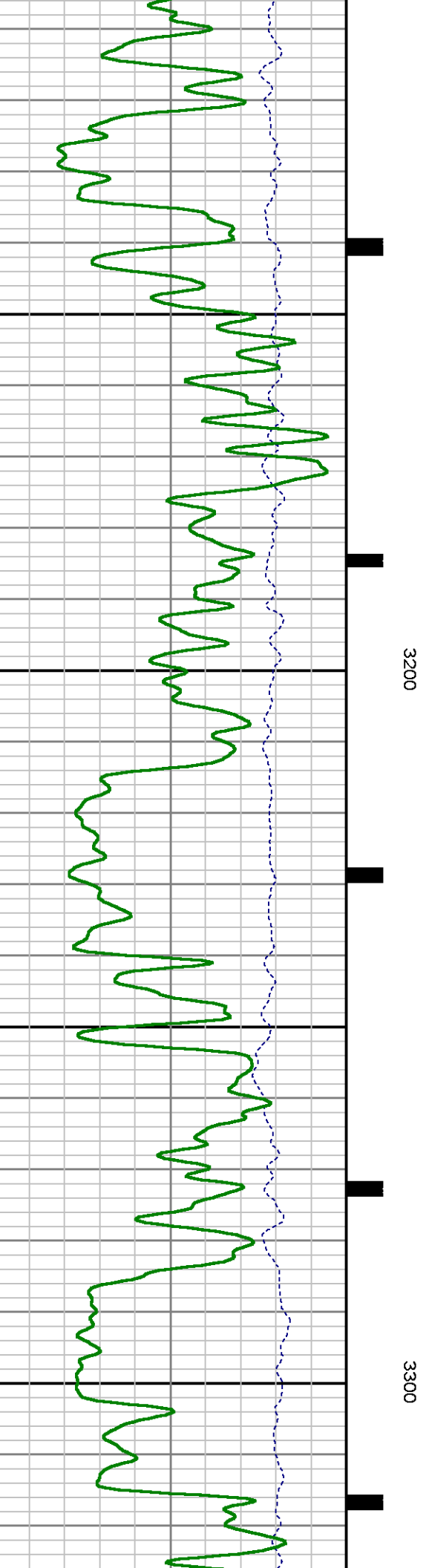
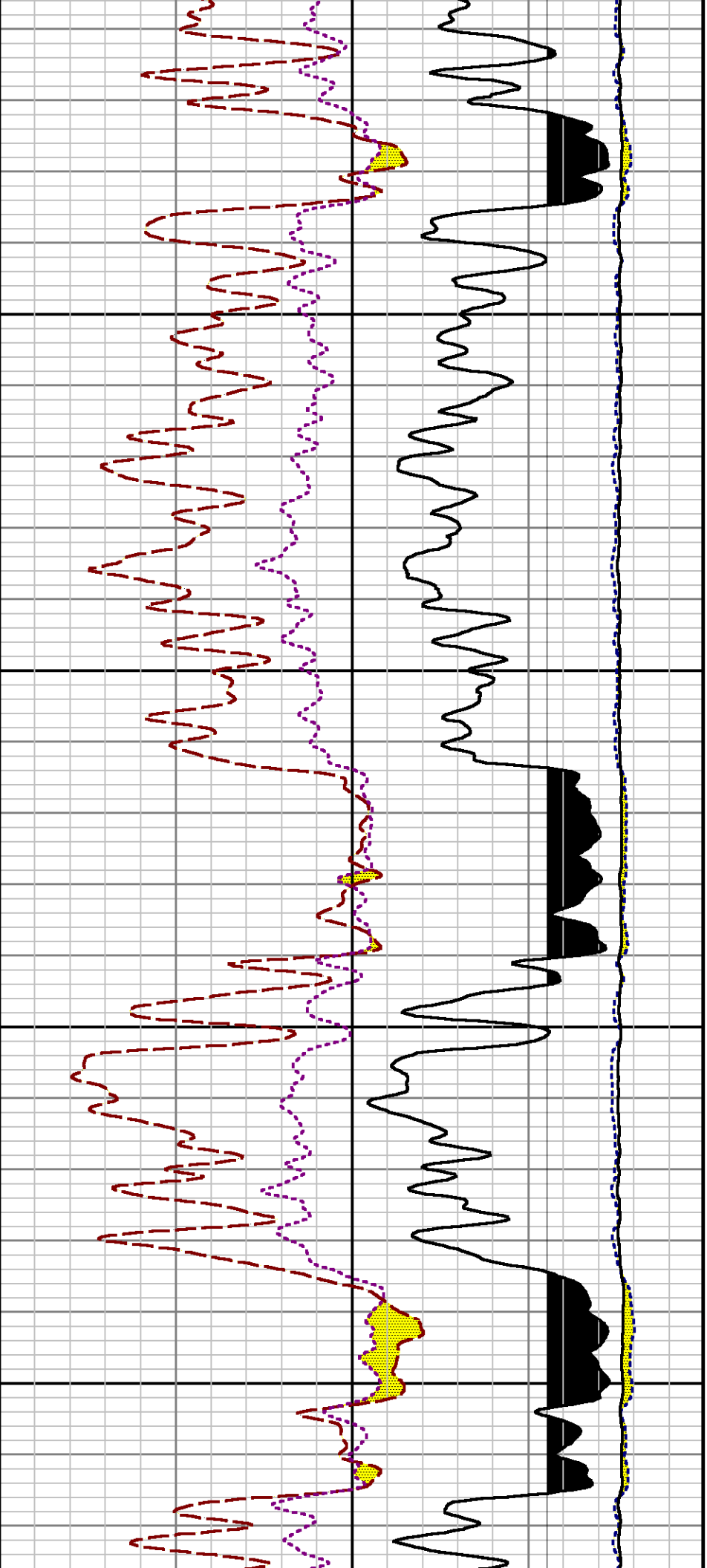


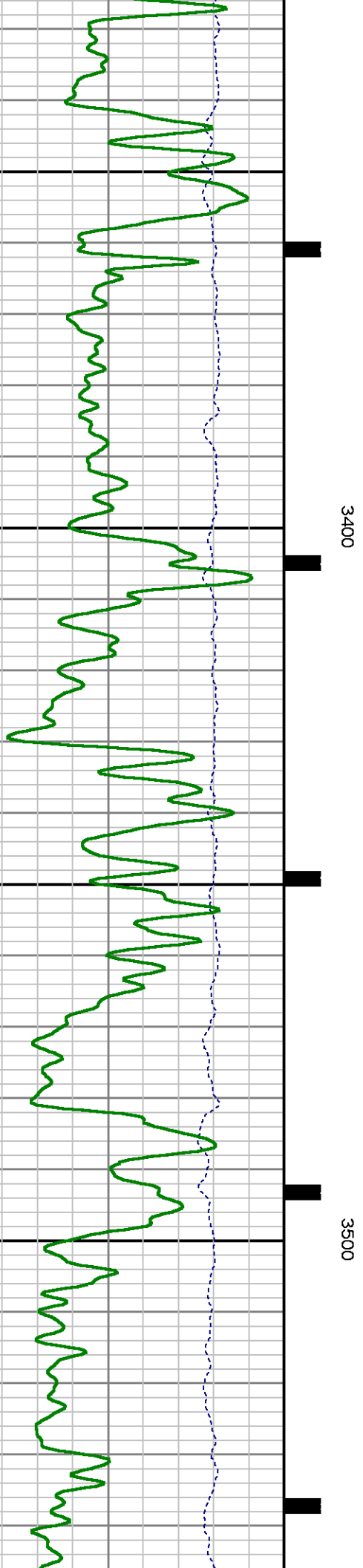
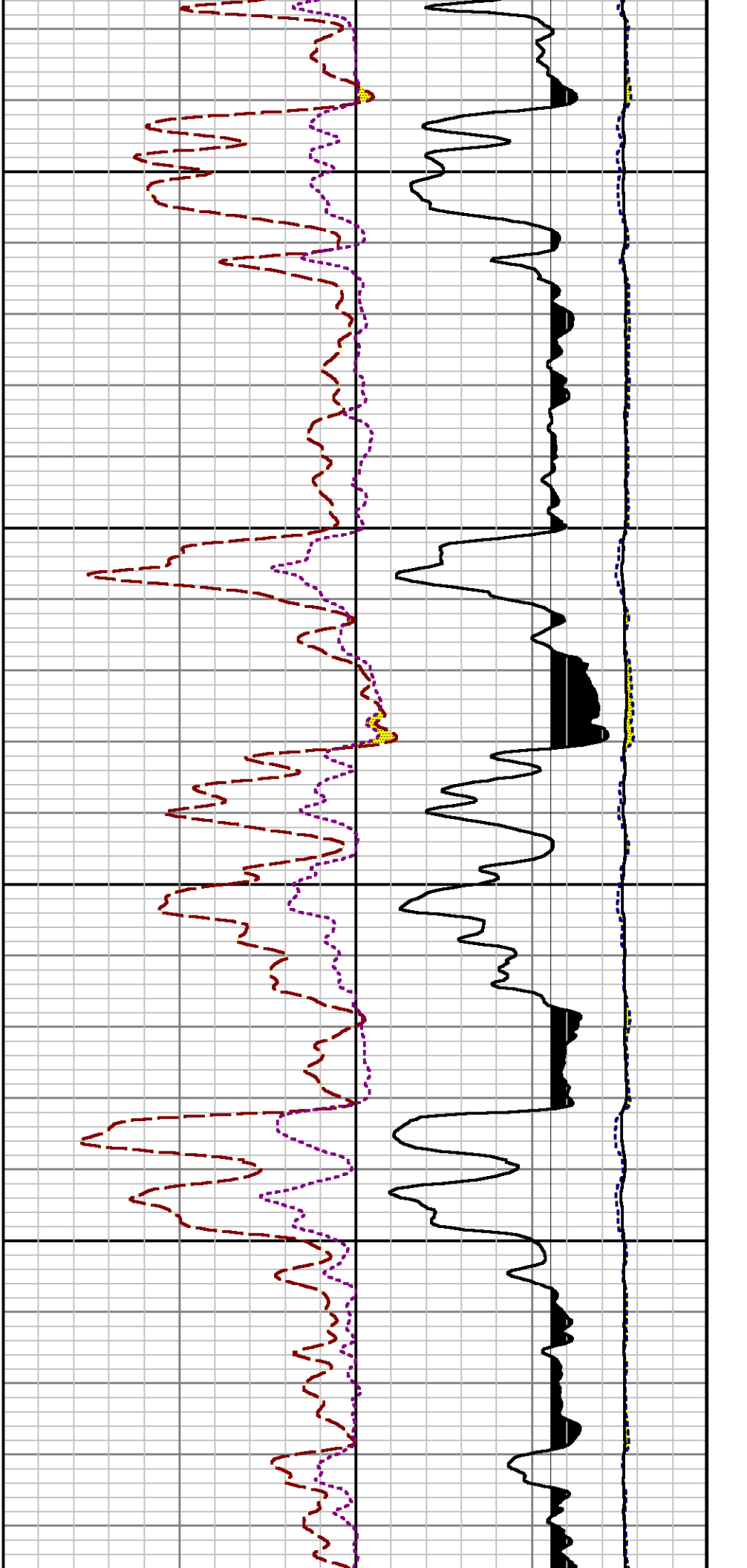
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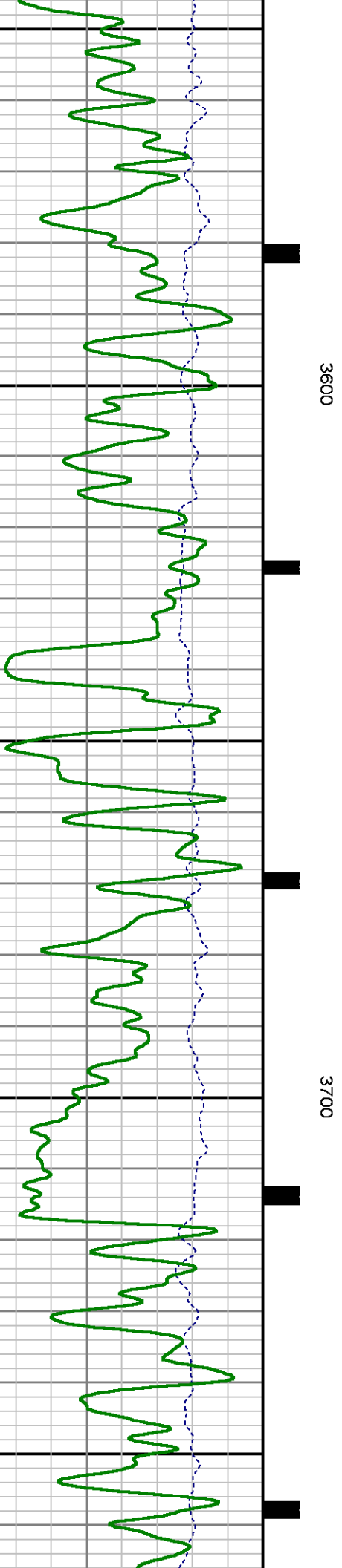
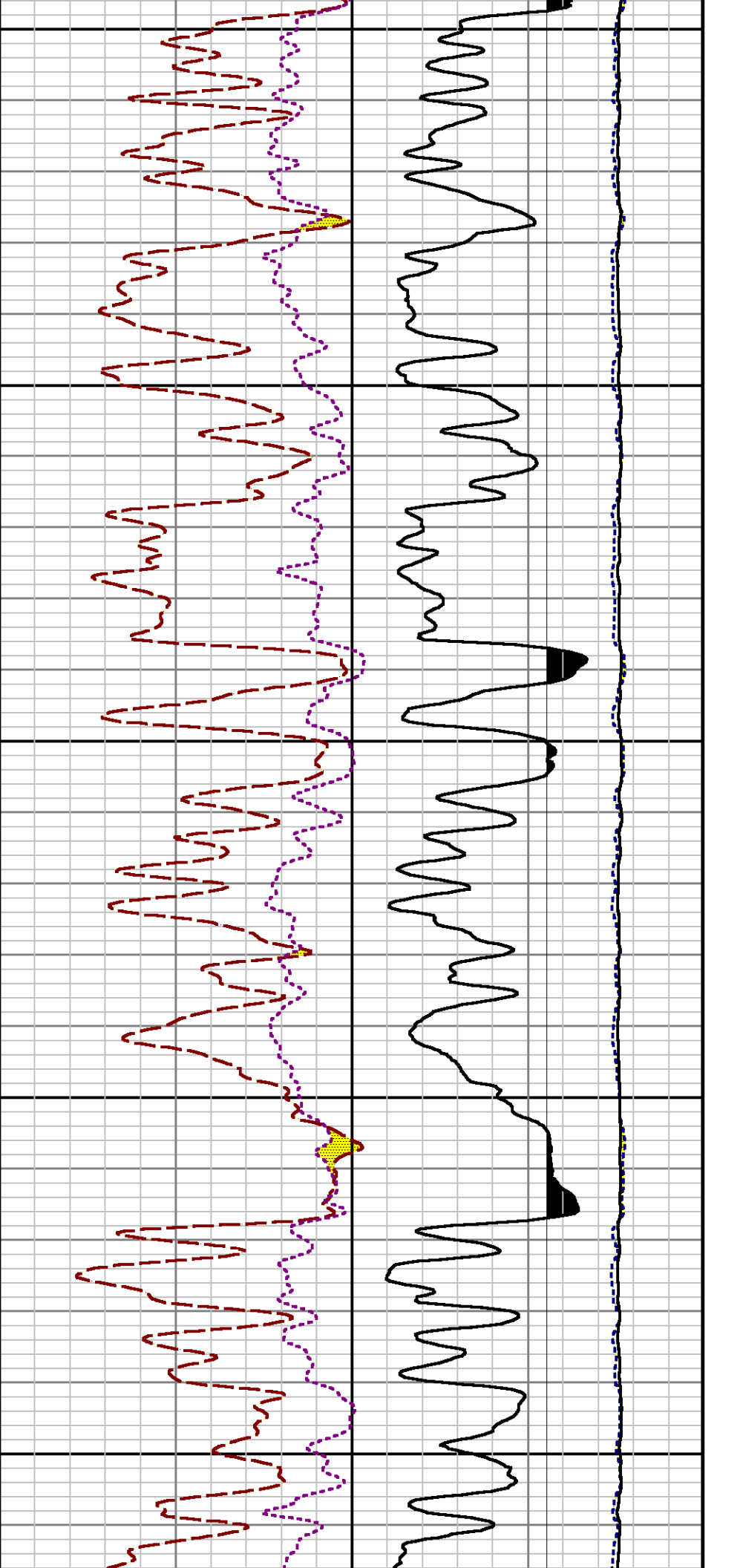
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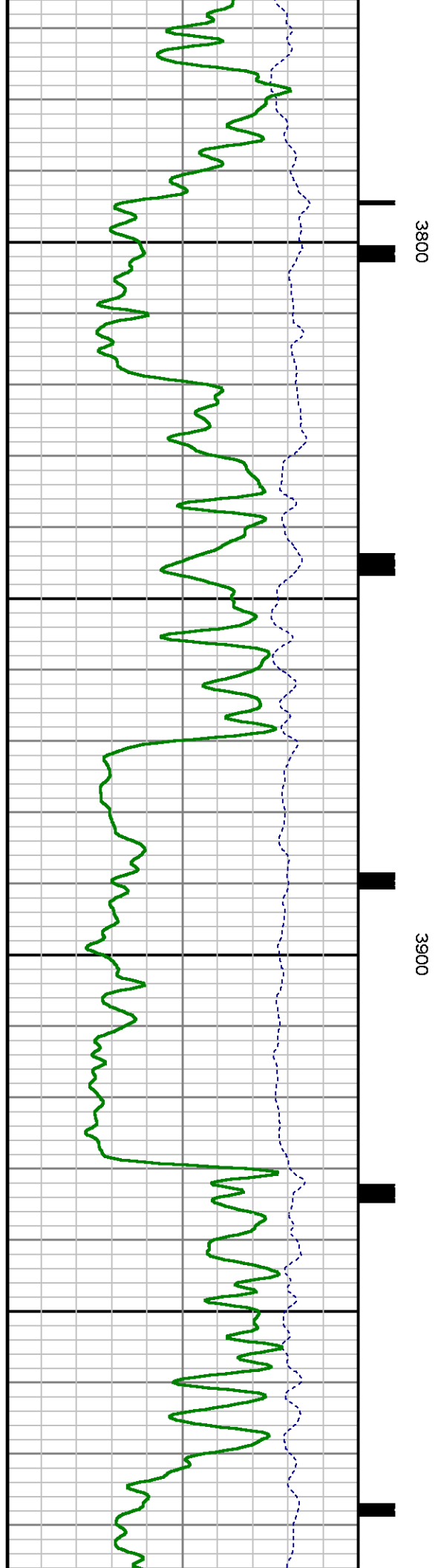
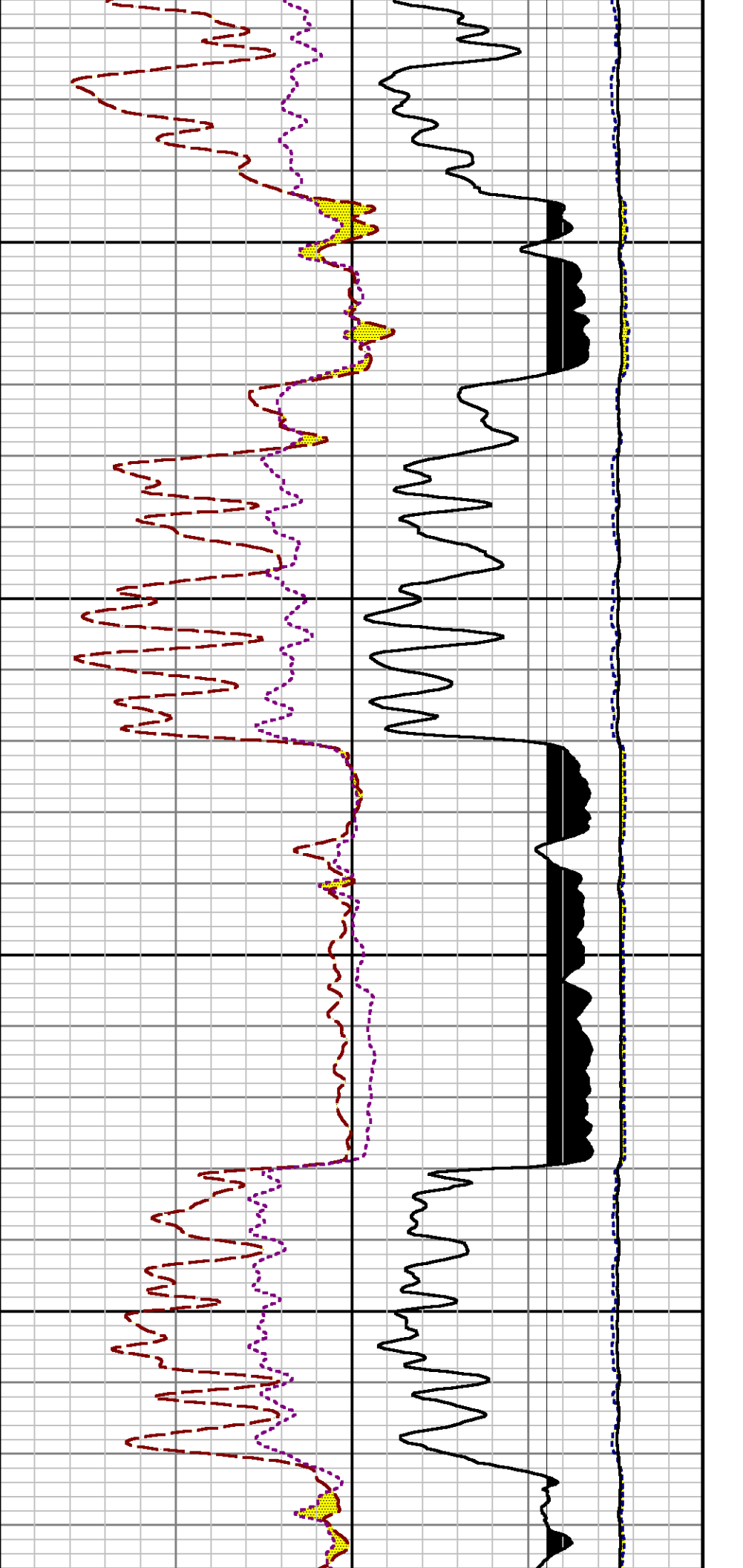


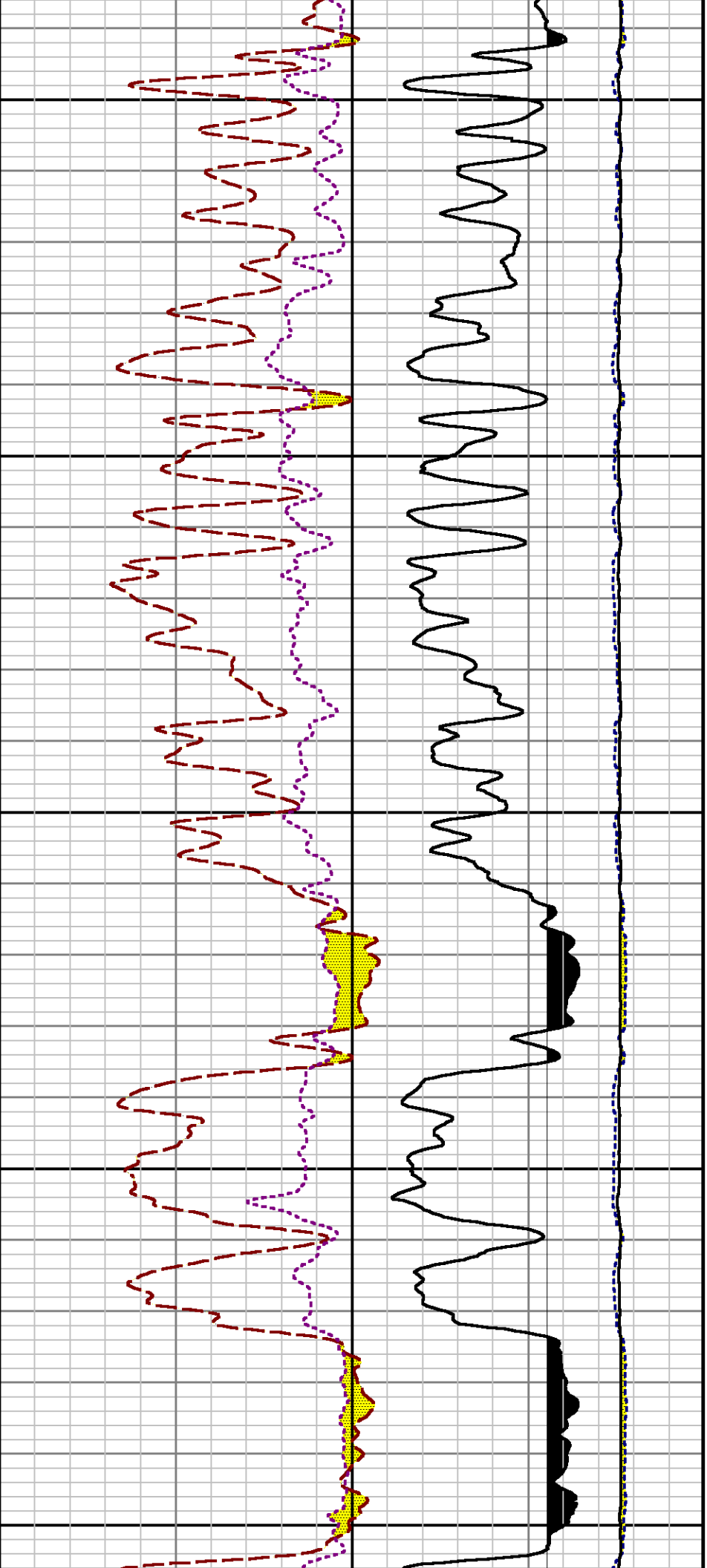








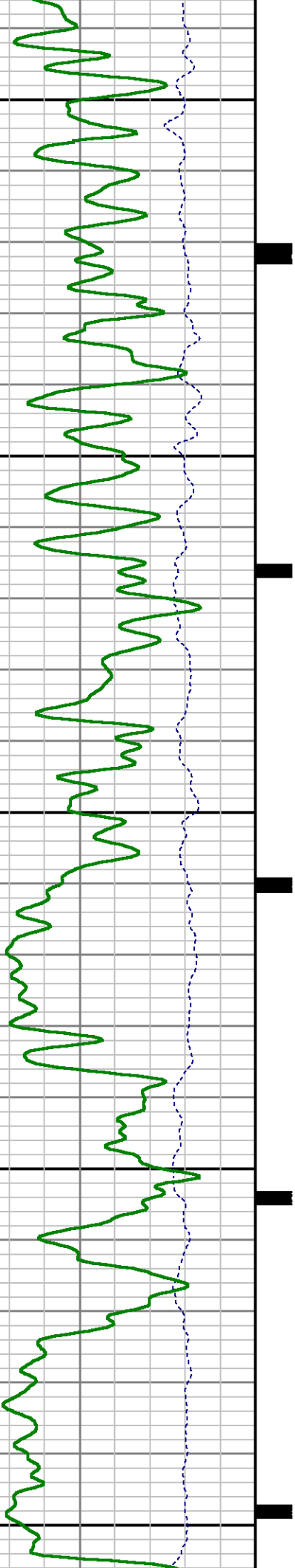


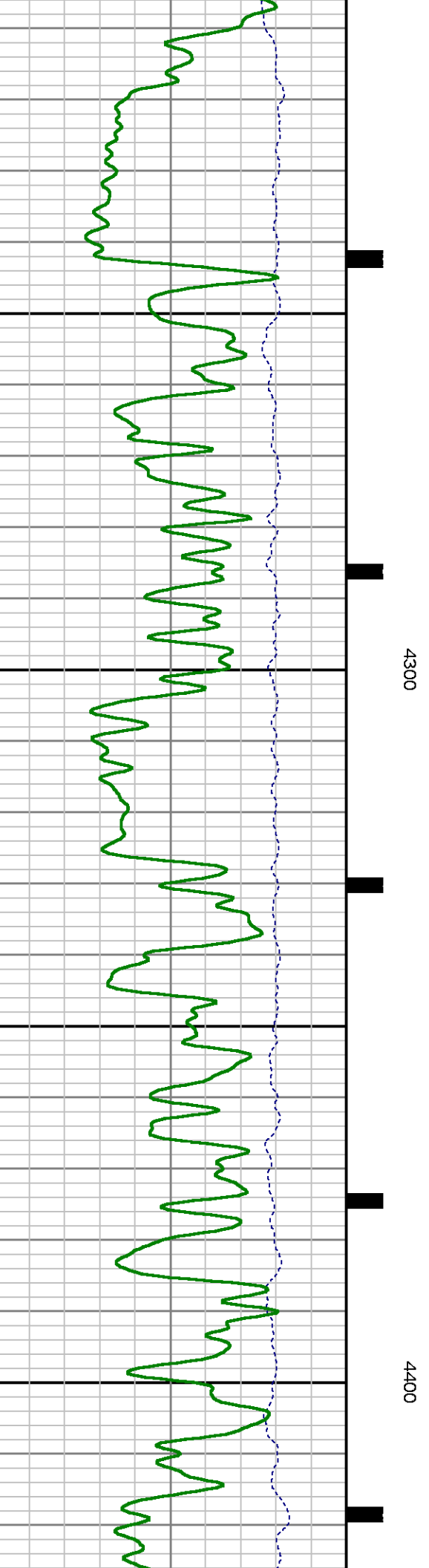
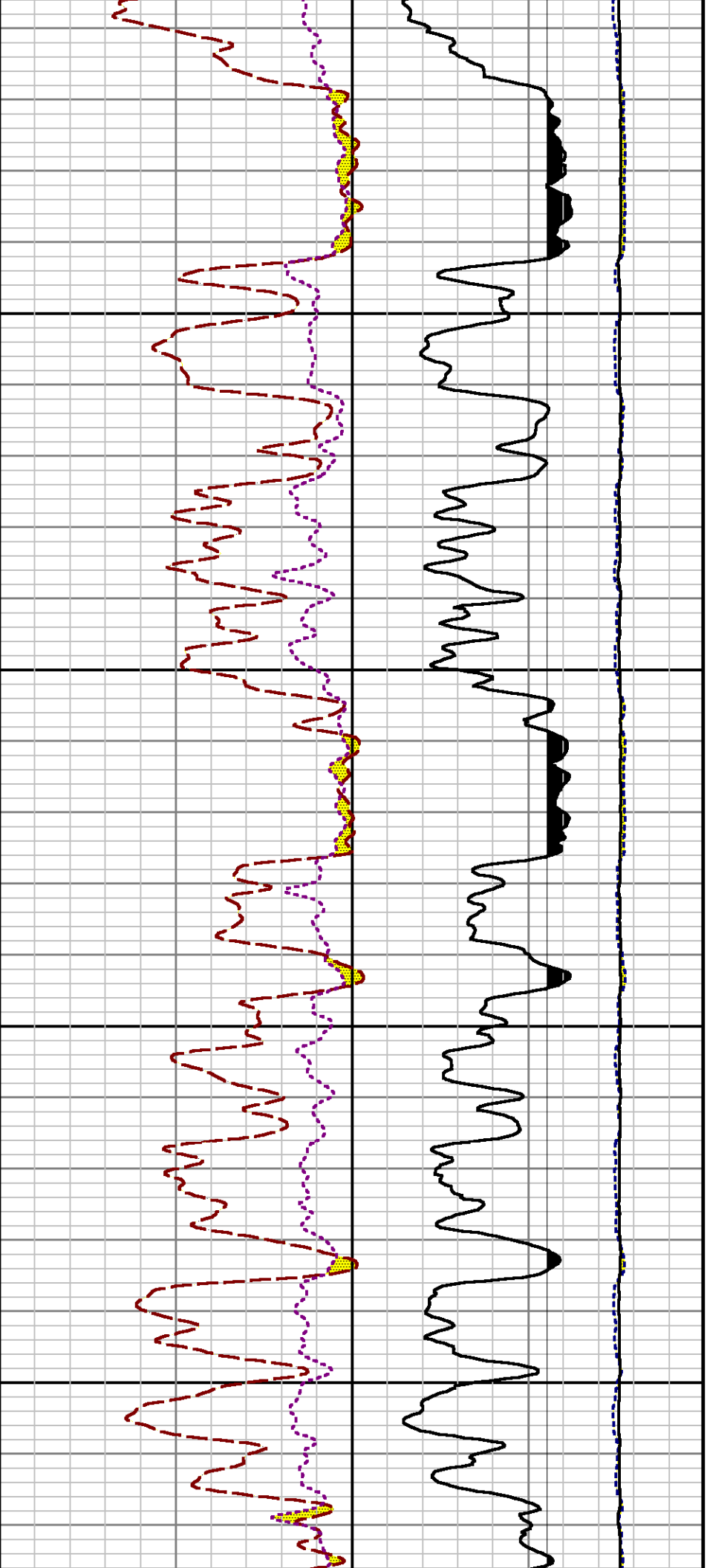


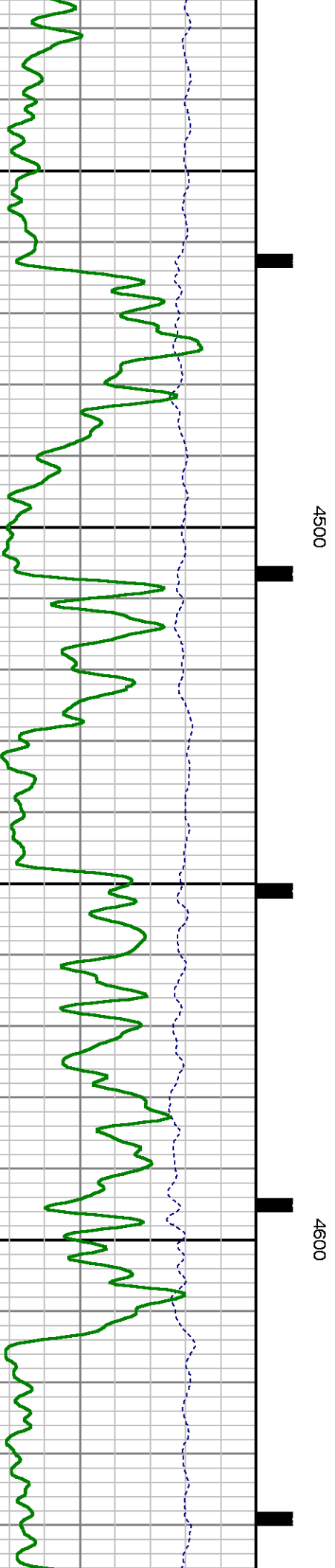
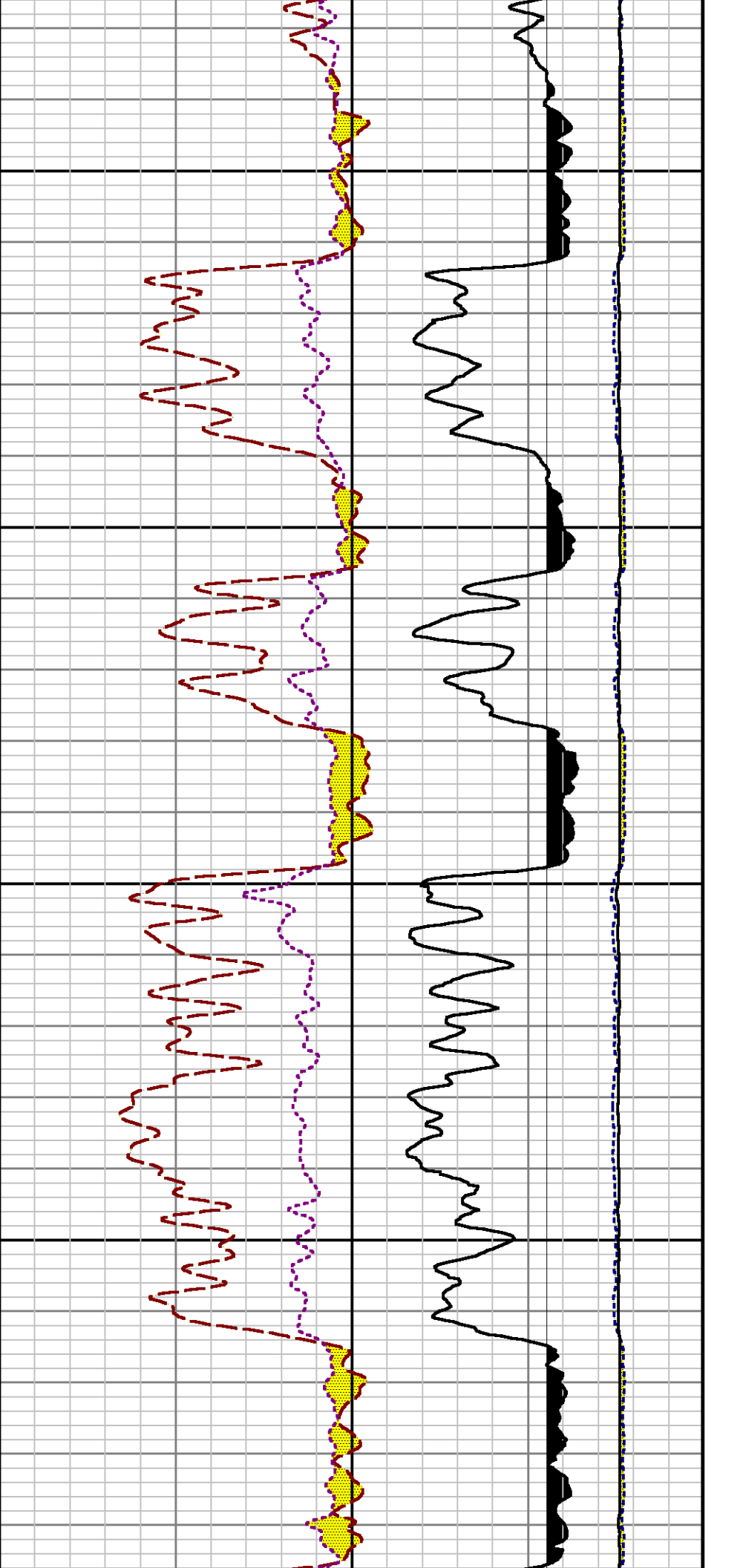
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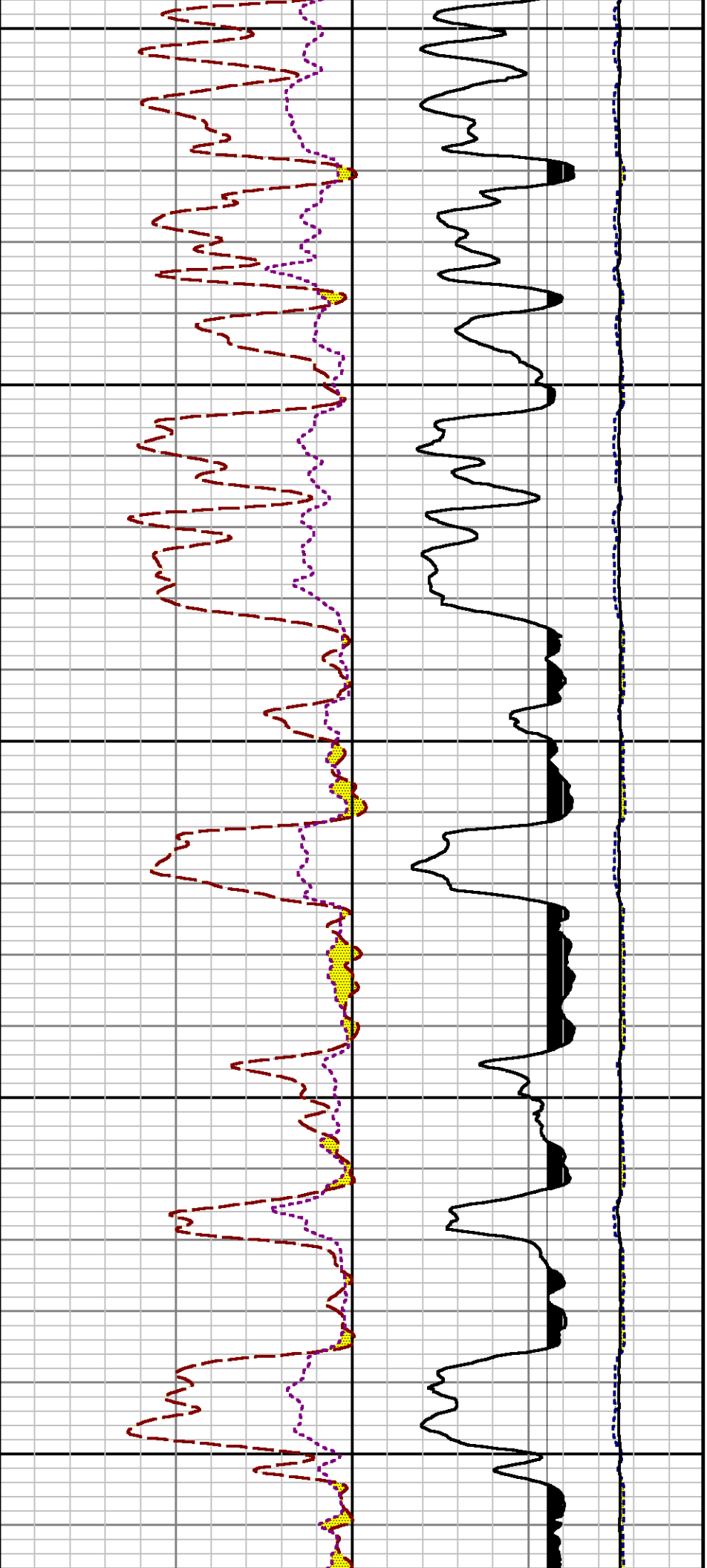
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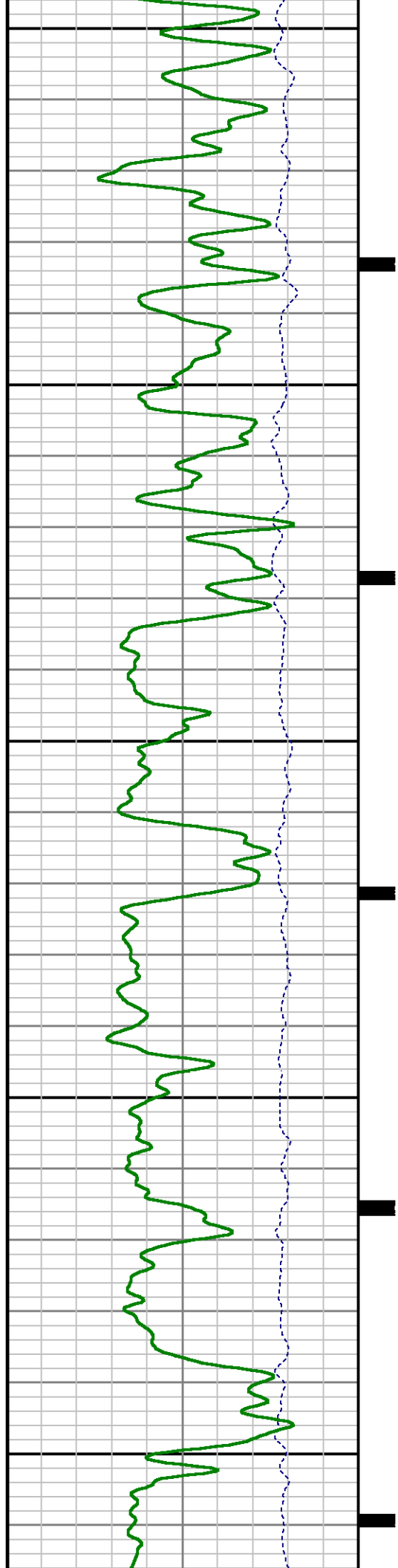


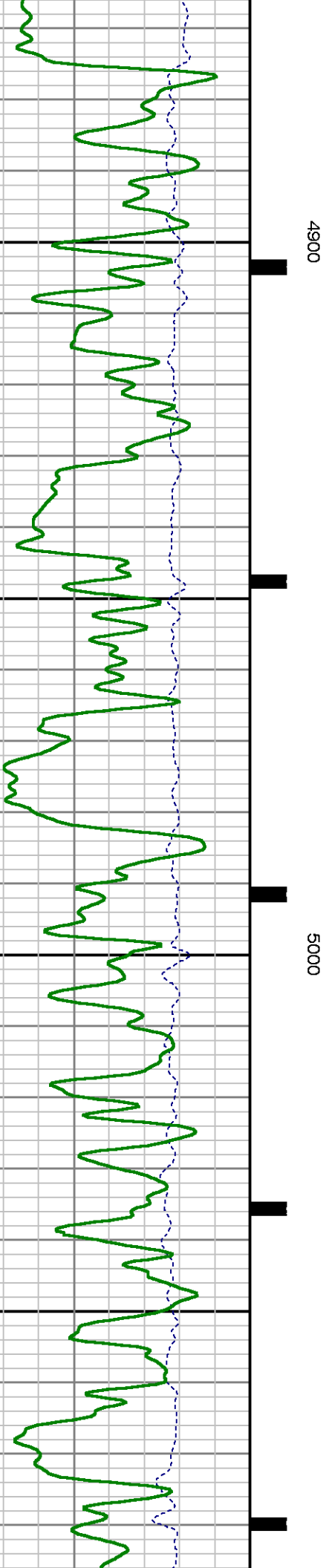
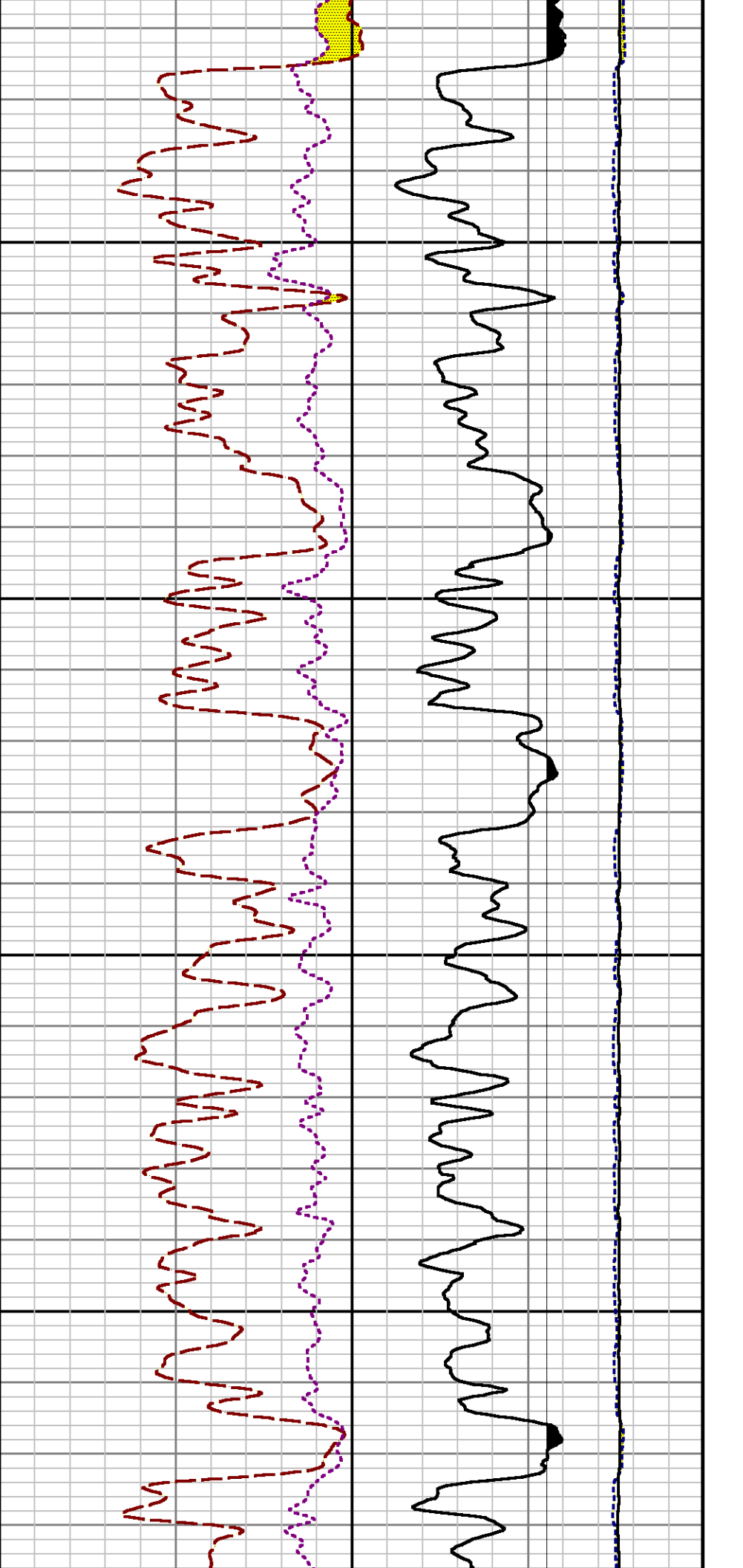


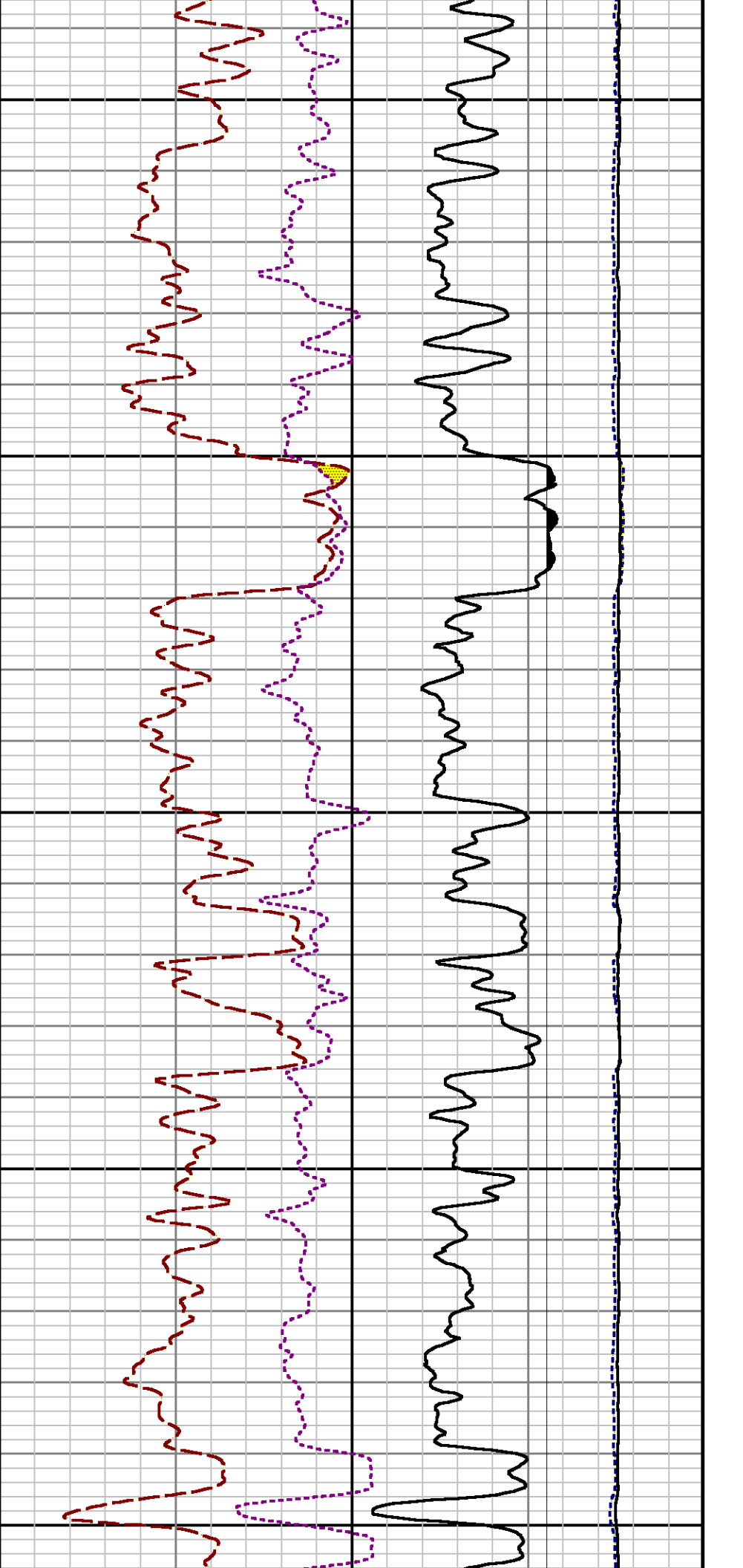


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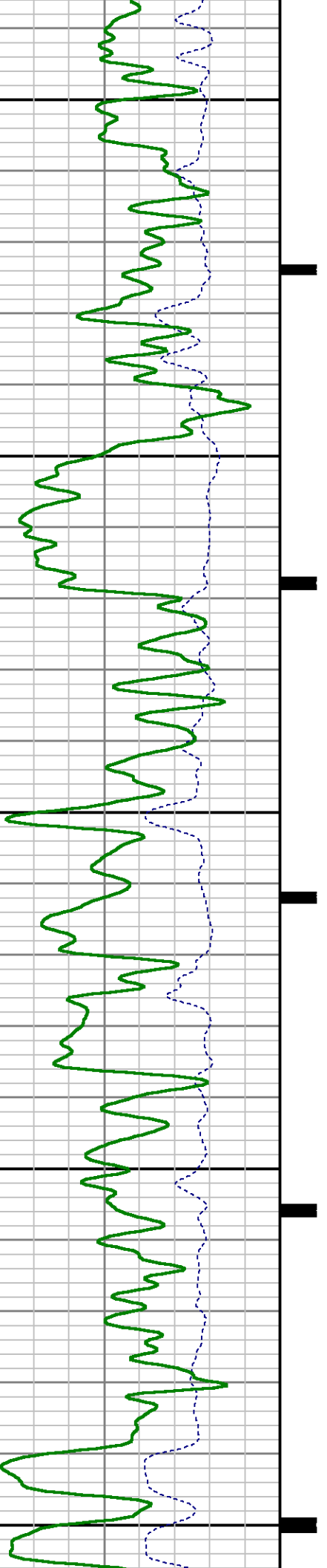


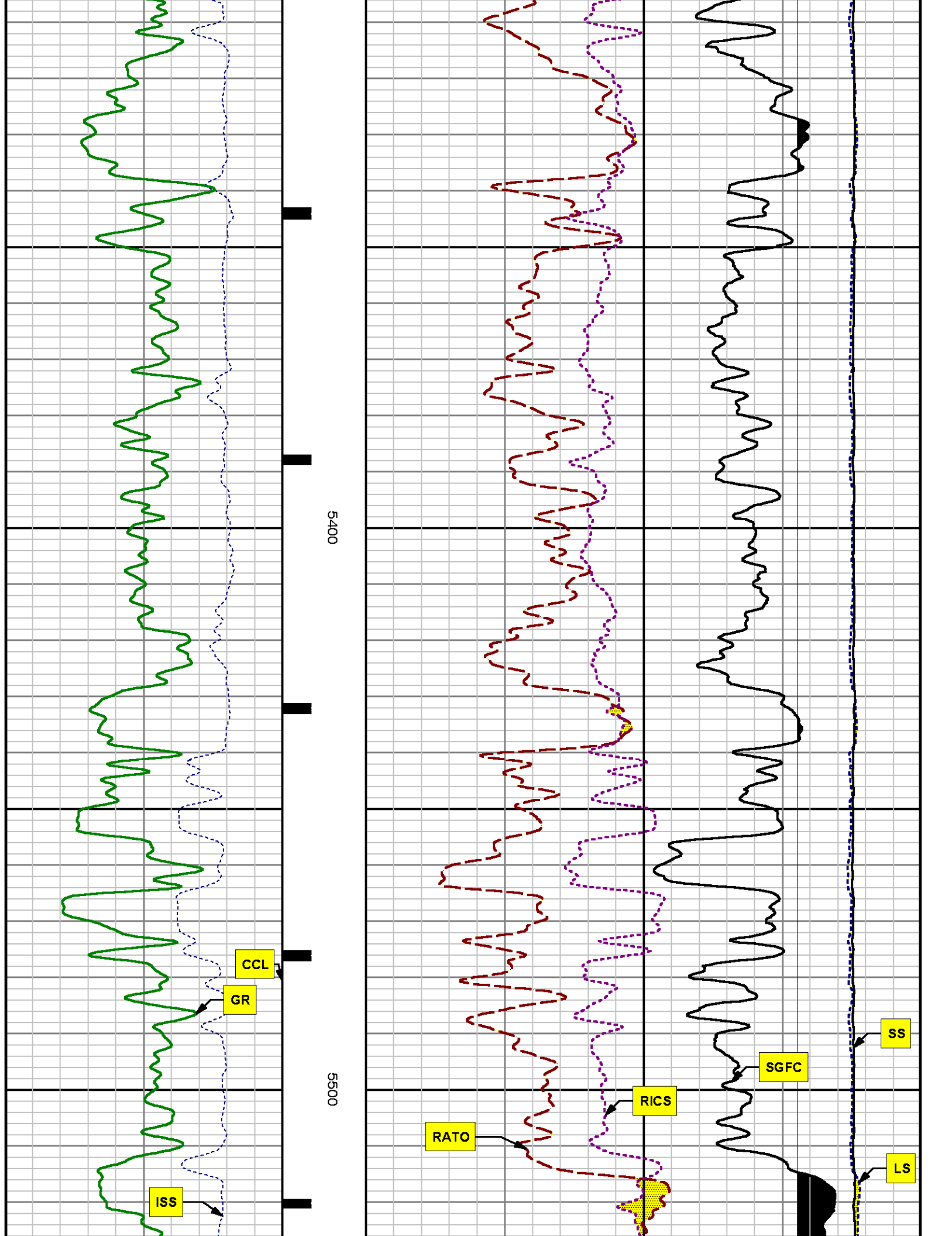


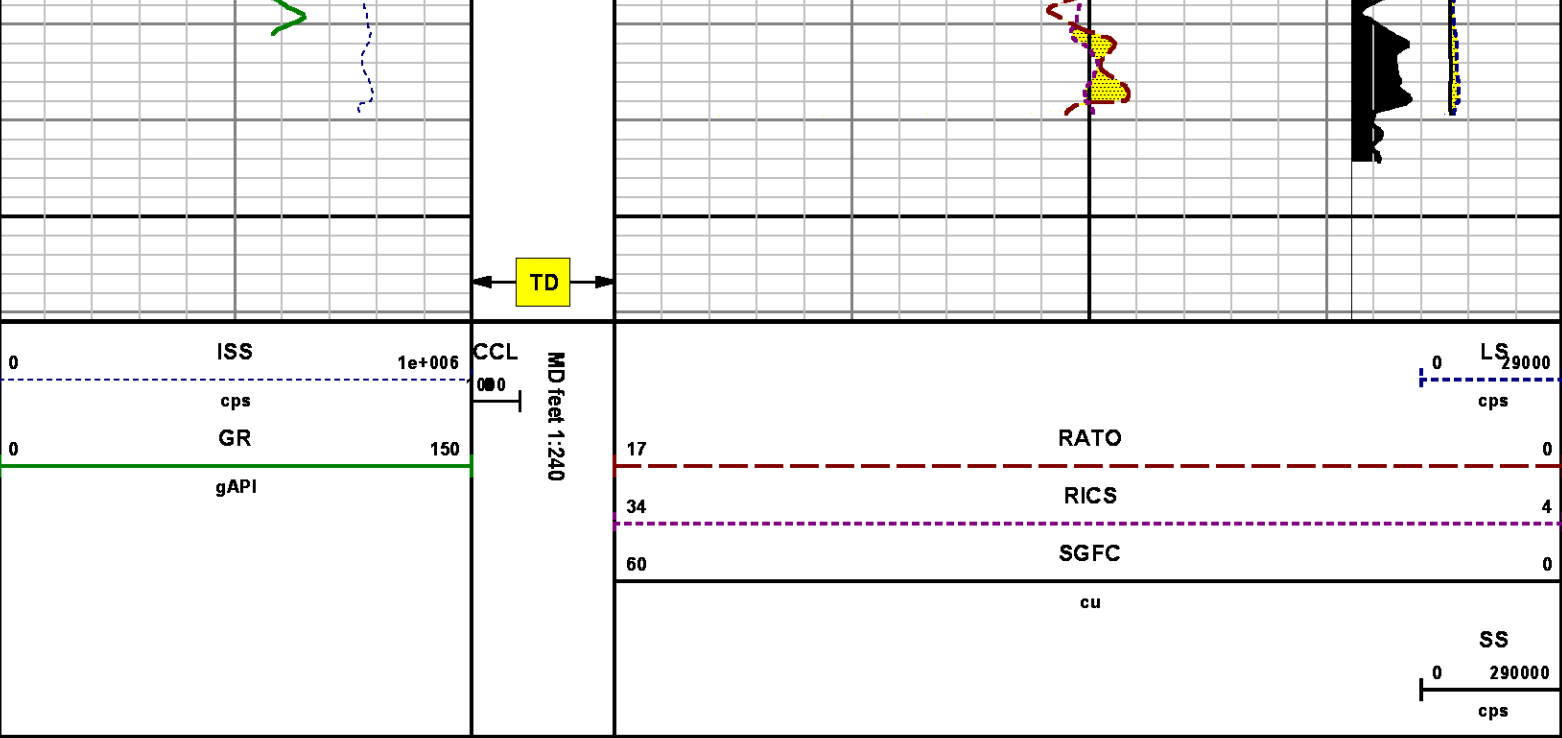
5100

5200

5300







*REPEAT SECTION
PNC 3-D MODE*

SPL PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
PNC Porosity	Borehole	Cased		4755.680	5074.523
PNC Porosity	Borehole Size	8.750	inch	4755.680	5074.523
PNC Porosity	Casing Size	4.500	inch	4755.680	5074.523
PNC Porosity	Gas Filled	Non Gas Filled		4755.680	5074.523
PNC Porosity	Matrix	Sandstone		4755.680	5074.523
TPS Pressure	Temperature Corr. Source	Fixed (72.00)	degF	4755.680	5074.523

DEPTH OFFSETS
(for Acquired Curves)

SERIES **DEPTH OFFSET** **ACQUIRED CURVES**

8248ED	-26.519	FLIM
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 WDT3 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 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 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

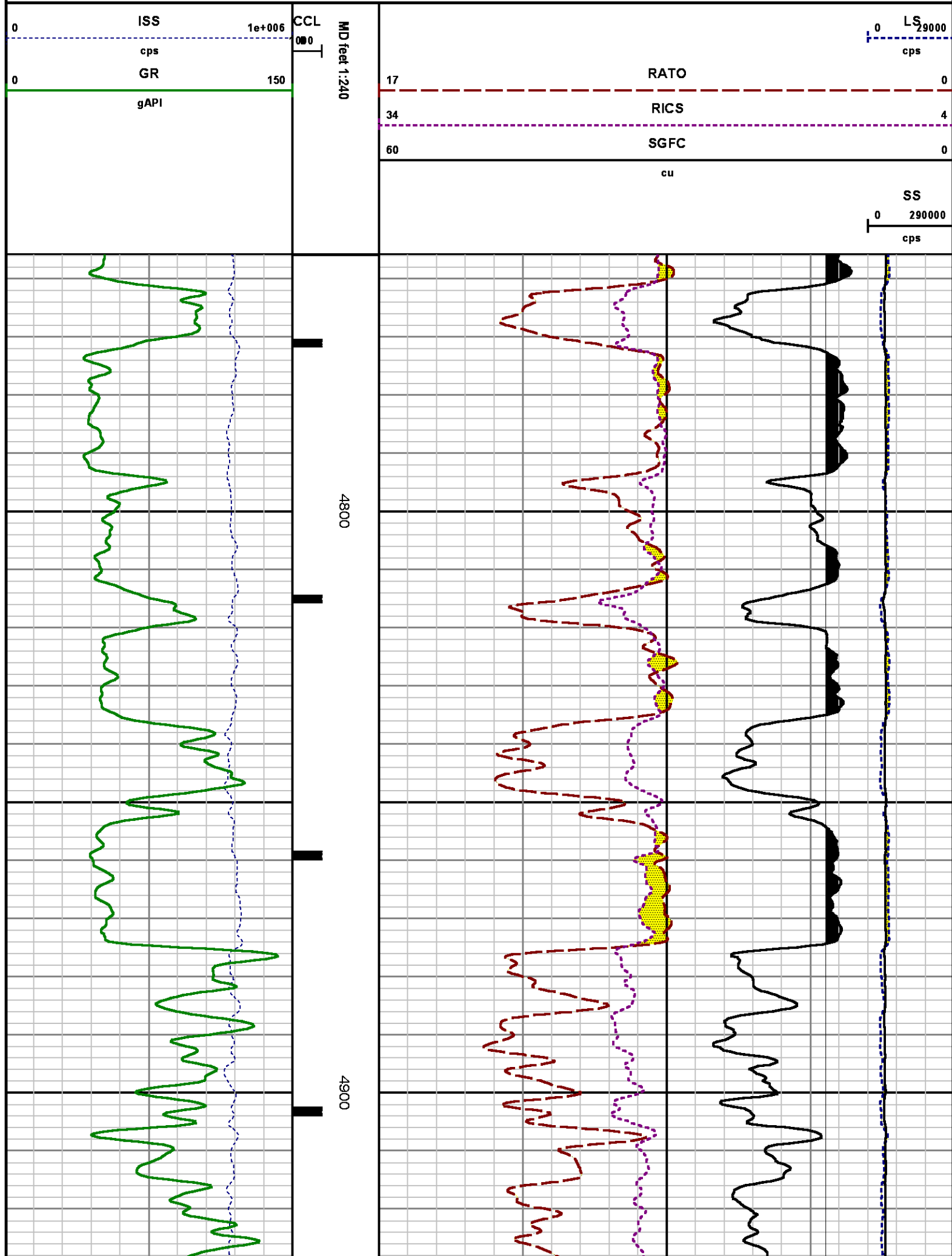
Company : WPX ENERGY

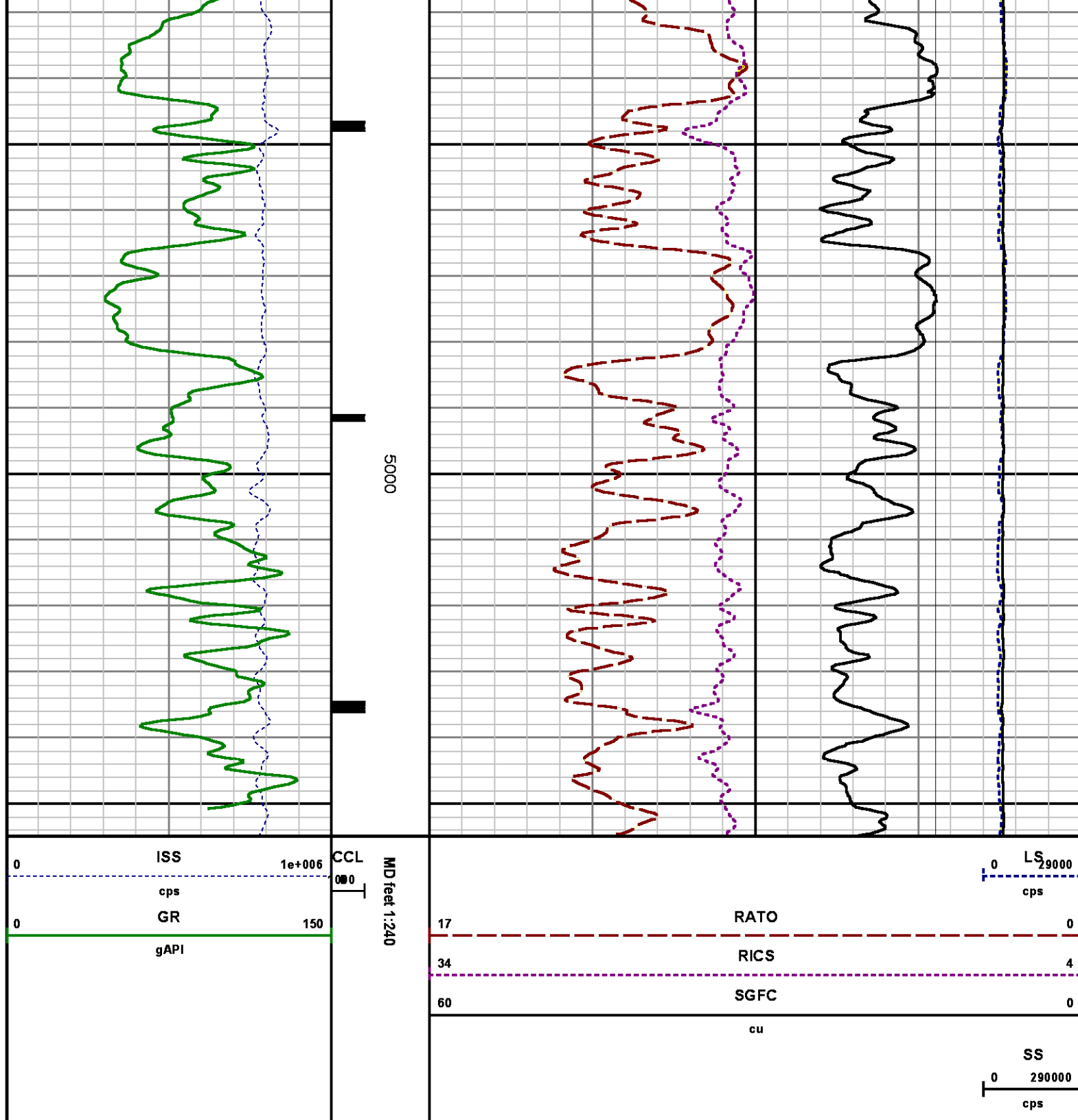
Well : BOSELY SG 414-22

File Name : d:\welldata\wp\sg 414-22\414rpm\repeat.xtf

Mode : PlotMgr 5.4.504

Interval : 4755.93 - 5055.00 feet UP





CALIBRATION SUMMARY

GAMMA RAY

GR\38209

Calibration File: C:\case\calver\GR\38209.cal

CALIBRATION SUMMARY

DATE/TIME PERFORMED: Sun Mar 09 17:06:22 2014 TOOL SERIES: 2812LA ASSET: 382 SEQ: 09

Calibrator #	Background [cps]	Calibrator On [cps]	Multiplicative	Background [api]	Calibrator On [api]	Differential [api]
S2K WA-612	34.21	244.93	0.997	34.09	244.09	210.00

Verification File: C:\case\calver\GR\38209.VP

PRIMARY VERIFICATION

DATE/TIME PERFORMED: Sun Mar 09 17:10:55 2014 TOOL SERIES: 2812LA ASSET: 382 SEQ: 09

Calibrator #	Background [cps]	Calibrator On [cps]	Multiplicative	Background [api]	Calibrator On [api]	Differential [api]
S2K WA-612	34.68	245.32	0.997	34.56	244.48	209.92

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

PNC

Calibration File: C:\case\calver\PNC\15101.cal

PNC 3D CALIBRATION SUMMARY

DATE/TIME PERFORMED: Thu Mar 13 11:19:00 2014 TOOL SERIES: 8281XA ASSET: 151 SEQ: 01

Calibrator #

GJSHOP GJSHOP

Source #

8281AA 11803641

	ISS	Mtr VIts (V)	SS Gain	LS Gain	XLS Gain	EA Temp (degF)	Sync Delay (usec)	RCAL
Raw Data	810340	123.00	2257.00	2367.00	2445.00	129.32	7.00	0.9756
Interpolated	1300000	145.86	2243.13	2363.87	2432.93			

ISS

PKS

PKI

PKY

SCA1

SCA4

SCA8

SCA9

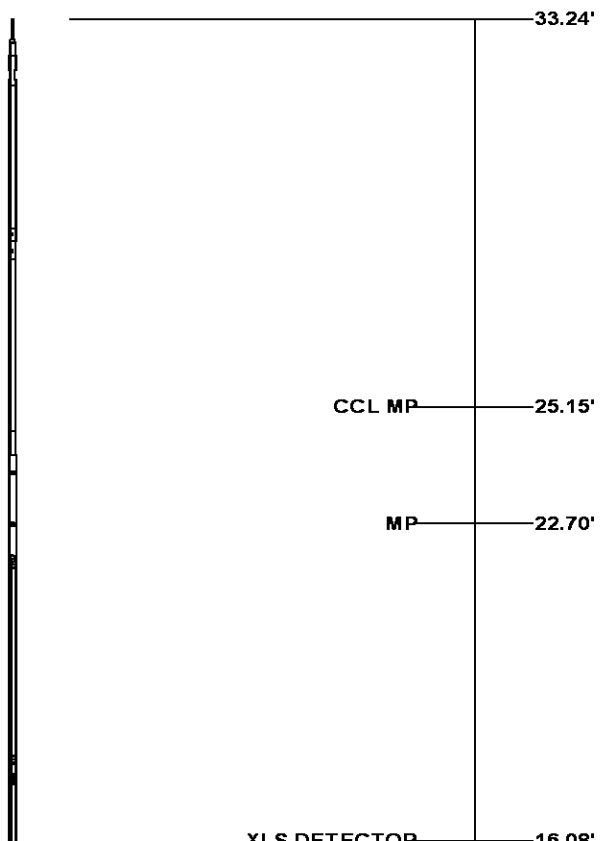
	ISS	BKS	BKL	BKA	SGA1	SDA1	SGA2	SDA2
Raw Data	810340	7214.64	1147.29	161.86	25.90	0.14	24.30	0.28
					25.35 26.40	0.00 0.20	23.60 24.80	0.00 0.40

	ISS	ILS	IXS	SS	SS2	LS	CSS	CLS
Raw Data	810340	171384.47	27041.66	92717.02	32972.12	8538.32	56167.03	13698.52
Fit Quality %		1.07	1.39	1.33	1.32	1.16	1.27	1.18

	ISS	RBOR	RIN ISS/ILS	RIN13 ISS/IXS	RICS ISS/CSS	RATO SS/LS	RTWO SS2/LS	RONE CSS/CLS
Raw Data	810340	1.43	4.73	29.97	14.43	10.86	3.86	4.10
		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 %		0.07	0.21	0.17	0.05	0.14	0.13	0.15
Reduced	1399970	1.43	4.73	29.98	14.47	10.84	3.85	4.09
		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

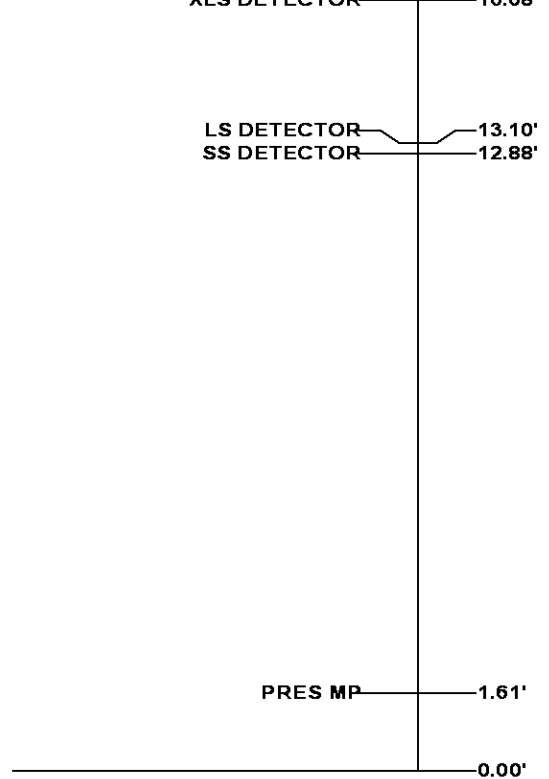
OTA SHORT CABLE HEAD	
PCM POWER SUPPLY	
Series	8250EA
Mnemonic	PCM
Diameter	1.70"
Weight	18.00 lb
Length	3.86'
Temp Rating	350.00 °F
TELEMETRY / CCL	
Series	8248EA
Mnemonic	PCM
Diameter	1.70"
Weight	20.00 lb
Length	4.46'
Measure Point	1.00' CCL MP
Temp Rating	350.00 °F
Press Rating	15000.00 PSI
SONDEX 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

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

Total Length: 33.24'
Total Weight: Not Available
Max Diameter: 0' 1.70"



 Baker Atlas 	Company WPX ENERGY	File No: CH084680
	Well BOSELY SG 414-22	API No: 05045221260000
	Field GRAND VALLEY	
	County GARFIELD State COLORADO	
Location SHL: 609' FSL & 1545' FWL BHL: 208' FSL & 299' FWL (SWSW)		Elevations KB 5872 ft DF GL 5248 ft
SEC 22 TWP 7S RGE 96W		22 7S 96W SG 24-22 PAD H&P 318