



FILE NO: CH105968	COMPANY CAERUS OPERATING LLC
API NO: 05045226160000	WELL PUCKETT 14A-1
	FIELD GRAND VALLEY
	COUNTY GARFIELD
	STATE COLORADO

Ver. 4.06	LOCATION:	OTHER SERVICES
SEC 1 T 7S R 97W	SHL: 304 FEEL & 1095' FSL, 2 7S 97W	BOND LOG
PAD: MESA P2-797	BHL: 713 FEEL & 1235' FSL, 1 7S 97W	
RIG: H&P 330	SEC 1 TWP 7S RGE 97W	

PERMANENT DATUM	GL	ELEVATION	8423.8 FT
LOG MEASURED FROM	K.B.	30 FT	ABOVE P.D.
DRILL. MEAS. FROM	K.B.		
		ELEVATIONS:	
		KB	8453.8 FT
		DF	
		GL	8423.8 FT

DATE	02-Mar-2016
RUN	1
TRIP	1
SERVICE ORDER	US105968
DEPTH DRILLER	8824 FT
DEPTH LOGGER	8776 FT
BOTTOM LOGGED INTERVAL	8763 FT
TOP LOGGED INTERVAL	2500 FT
TIME STARTED	9:30
TIME FINISHED	15:30
OPERATOR RIG TIME	6 HOURS
TYPE OF FLUID IN HOLE	WATER
FLUID DENSITY	NA
FLUID SALINITY	NA
FLUID LEVEL	NA
LOGGED CEMENT TOP	SEE LOG
WELLHEAD PRESSURE	0 PSI
MAXIMUM HOLE DEVIATION	NA
NOMINAL LOGGING SPEED	10 FMIN
MAX. RECORDED TEMP.	224 DEGF
REFERENCE LOG	BAKER HUGHES BOND LOG
REFERENCE LOG DATE	02-Mar-2016
EQUIP. NO.	HL-6670
LOCATION	GRAND JCT
RECORDED BY	T. NEWELL
WITNESSED BY	MR. MLEIBOVITZ

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
8.75 IN	1200 FT	8887 FT

CASING RECORD				
SIZE	WEIGHT	GRADE	FROM	TO
4.5 IN	11.6 LB/F	P-110	0 FT	8858 FT

REMARKS
RUN 1 TRIP 1: ALL DATA ON THIS LOG IS DEPTH SHIFTED TO THE GAMMA-RAY CURVE ON THE BAKER HUGHES BOND LOG DATED 02-MAR-2016
LOGGED WITH 0 PSI AT SURFACE
SJ = 6211' - 6220'
BHT = 224 DEGF
THANKS FOR CHOOSING BAKER HUGHES WIRELINE

EQUIPMENT DATA				
RUN	TRIP	TOOL	SERIES NO.	SERIAL NO.
1	1	DCM	0205051	71208222

1	1	PCM	8250EA	Z166326	FREE
1	1	TEL/CCL	8248ED	10387150	FREE
1	1	GR	2812LA	10274382	FREE
1	1	RPM	8281EA	10423671	FREE
1	1	RPM	8283PA	10585555	FREE
1	1	RPM	8281FA	10460082	FREE
1	1	TEMP	8255XA	166341	FREE

## MAIN SECTION PNC-3D MODE

ECLIPS 6.2i ECLIPS General Release Rel 6.2i Wed Jun 12 12:21:40 CDT 2013

Updates: 1 Patches: 9

Plotted: Wed Mar 2 15:08:27 2016

### PARAMETER AND FILTER SUMMARY REPORT

FILE: /dat1a/CH105968/n354h02.prm  
 LOGGING MODE: DEPTH DIRECTION: UP  
 TOP DEPTH: 4251.750 ft BOTTOM DEPTH: 8782.478 ft

#### SYMMETRIC FILTER

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
GR	FILTER ( )	medium (1)		TOP	BOTTOM

#### RPM PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
PNC Parameters	BOREHOLE CONTENTS	FLUID		TOP	BOTTOM
	OPEN/CASED HOLE	CASED HOLE		"	"
	BOREHOLE SIZE	8.75	in	"	"
	CASING SIZE	4.50	in	"	"
	MATRIX	SANDSTONE		"	"
	CORRECTION BUFFER	11		"	"

### CURVE DESCRIPTION REPORT

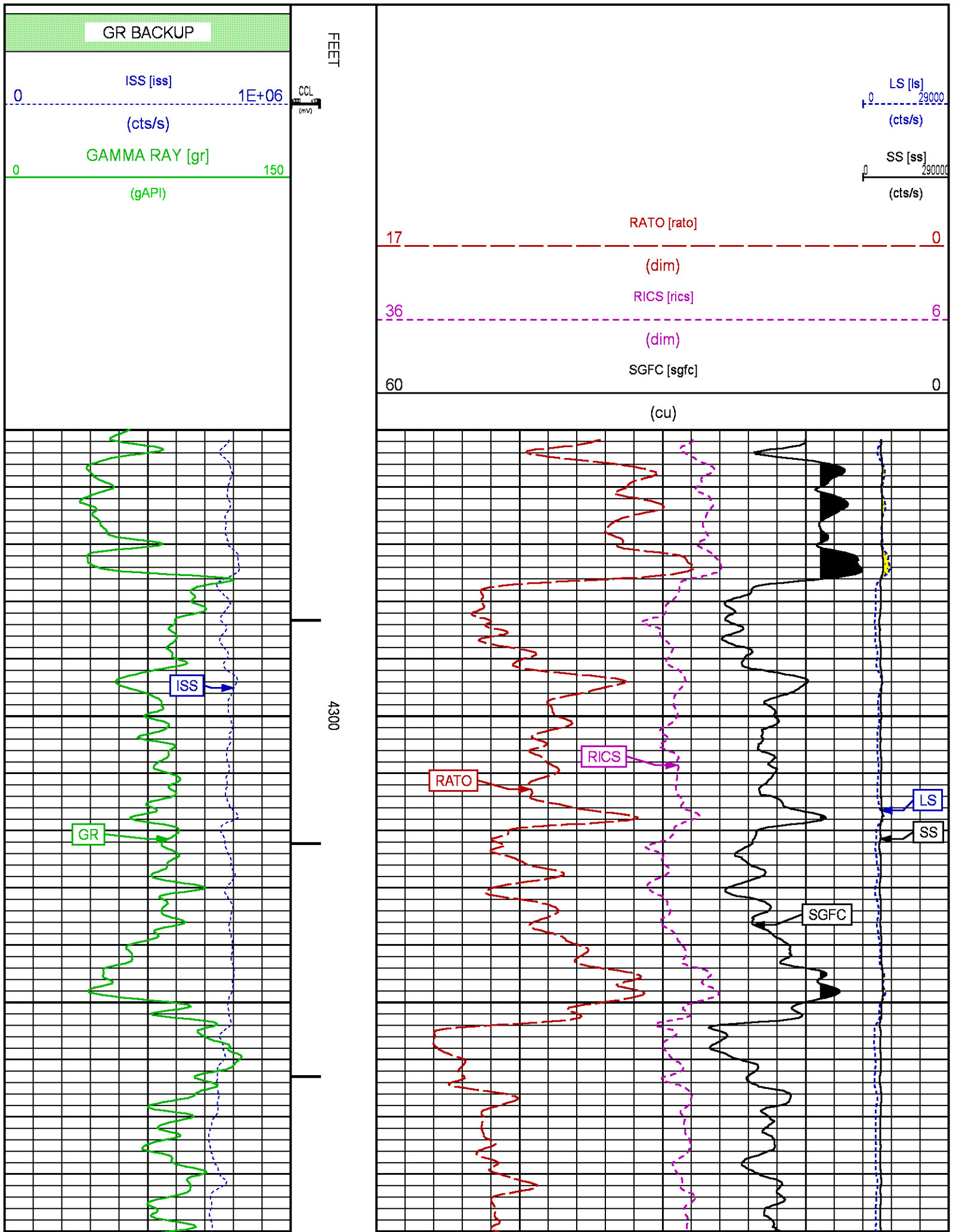
CURVE NAME	CREATION DATE	CURVE DESCRIPTION
F1:CCL	Mar 2 10:29:05 2016	CASING COLLAR LOCATOR
F1:GR	Mar 2 10:29:05 2016	GAMMA RAY
F1:ISS	Mar 2 10:29:05 2016	INELASTIC SHORT SPACE COUNT RATE
F1:LS	Mar 2 10:29:05 2016	LONG SPACE COUNT RATE
F1:RATO	Mar 2 10:29:05 2016	SHORT/LONG SPACE COUNT RATE RATIO
F1:RICS	Mar 2 10:29:05 2016	SHORT SPACE INELASTIC TO CAPTURE COUNT RATE RATIO (ISS/CSS)
F1:SGFC	Mar 2 10:29:05 2016	CORRECTED FORMATION SIGMA
F1:SS	Mar 2 10:29:05 2016	SHORT SPACE COUNT RATE

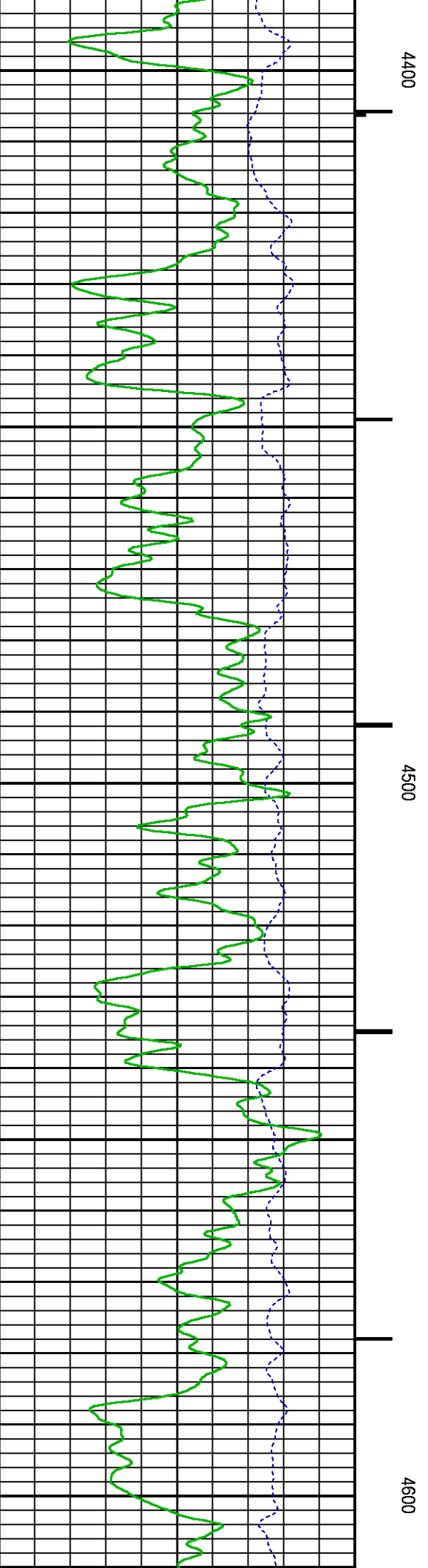
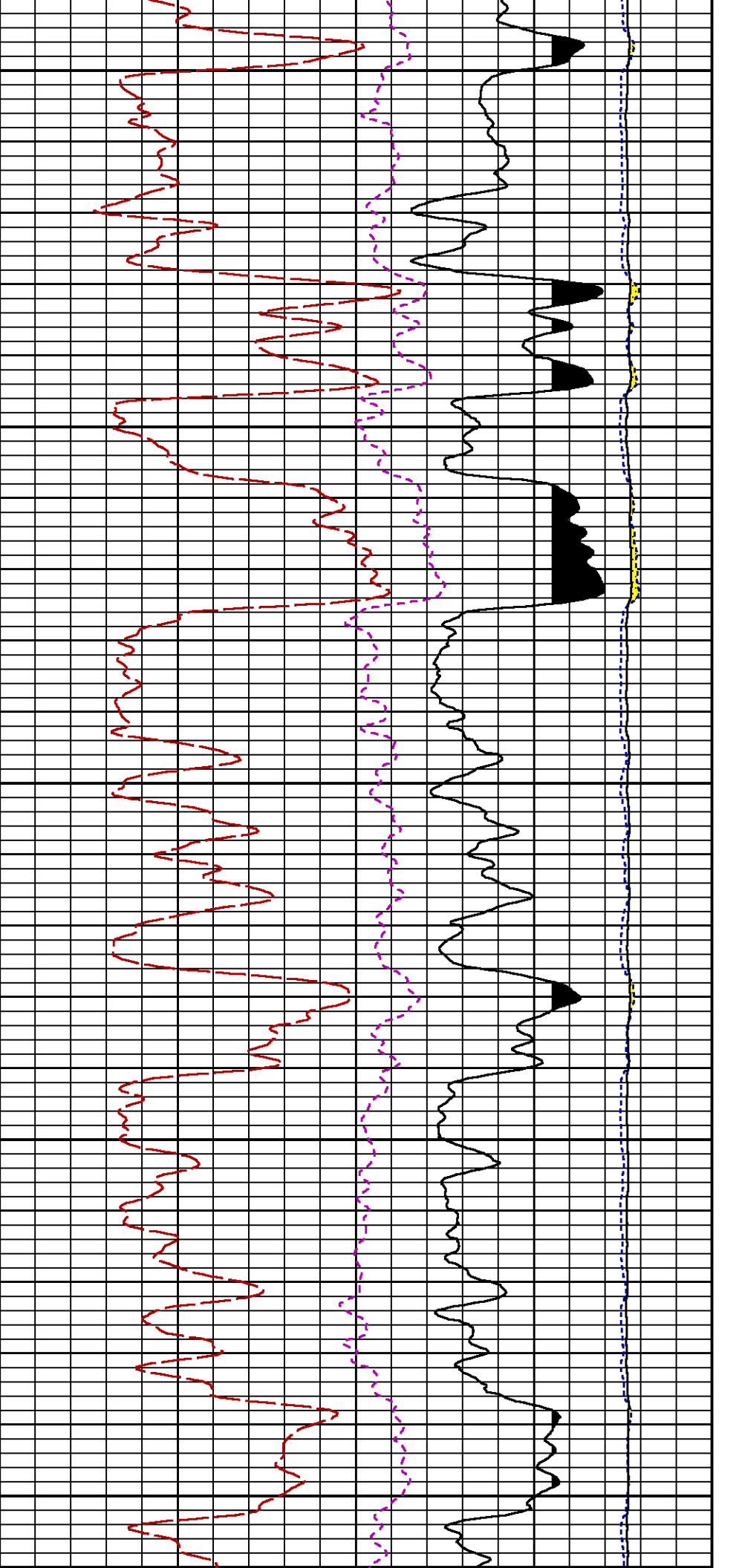
### CURVE MEASURE POINT OFFSET

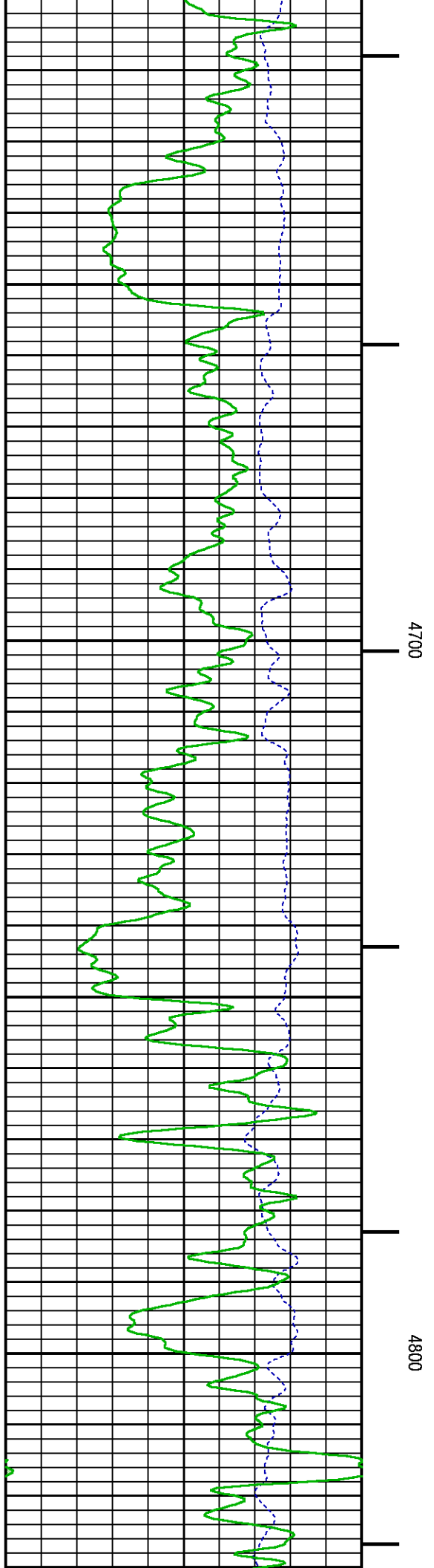
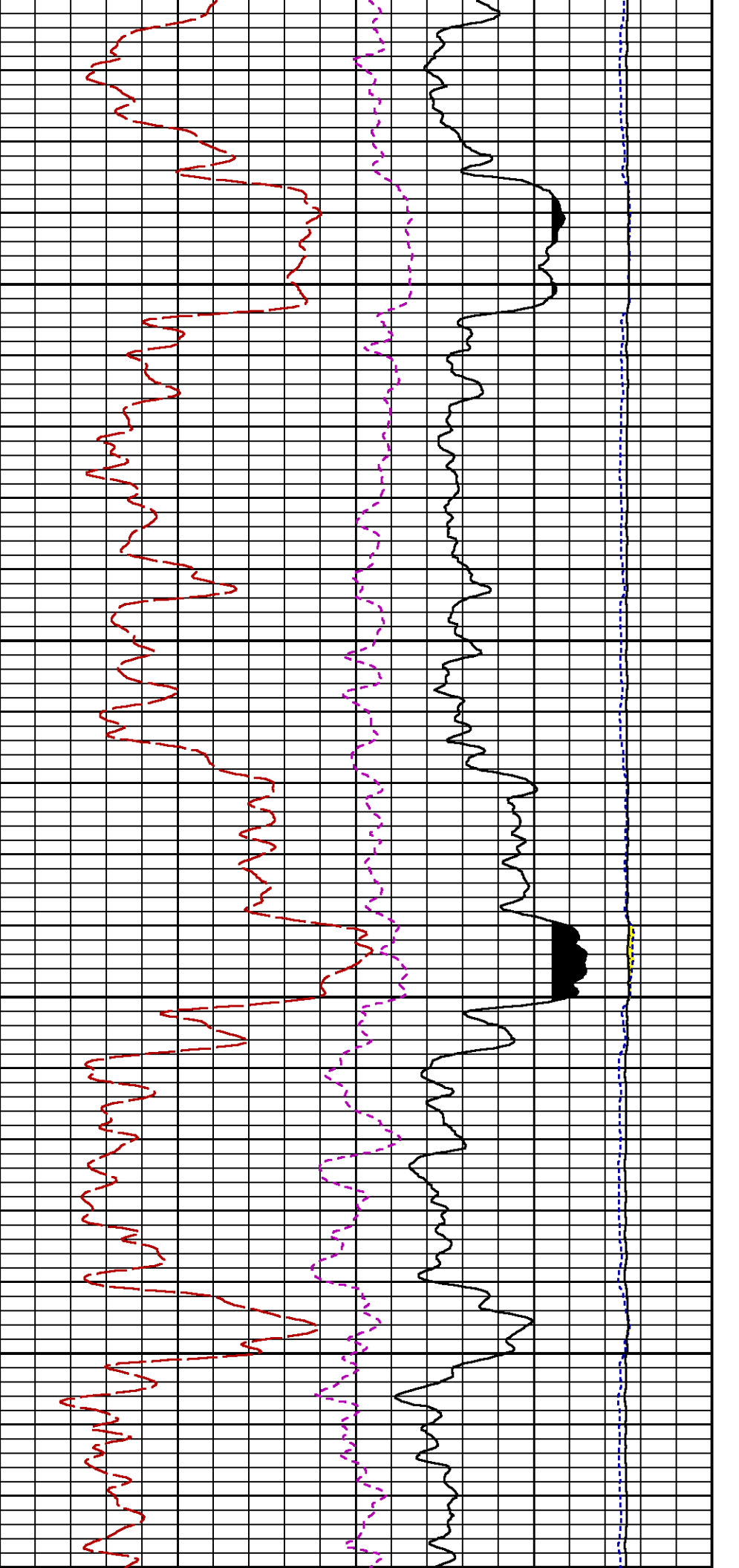
CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)
CCL	25.00	ISS	12.75	RATO	12.75	SGFC	12.75
GR	22.75	LS	12.75	RICS	12.75	SS	12.75

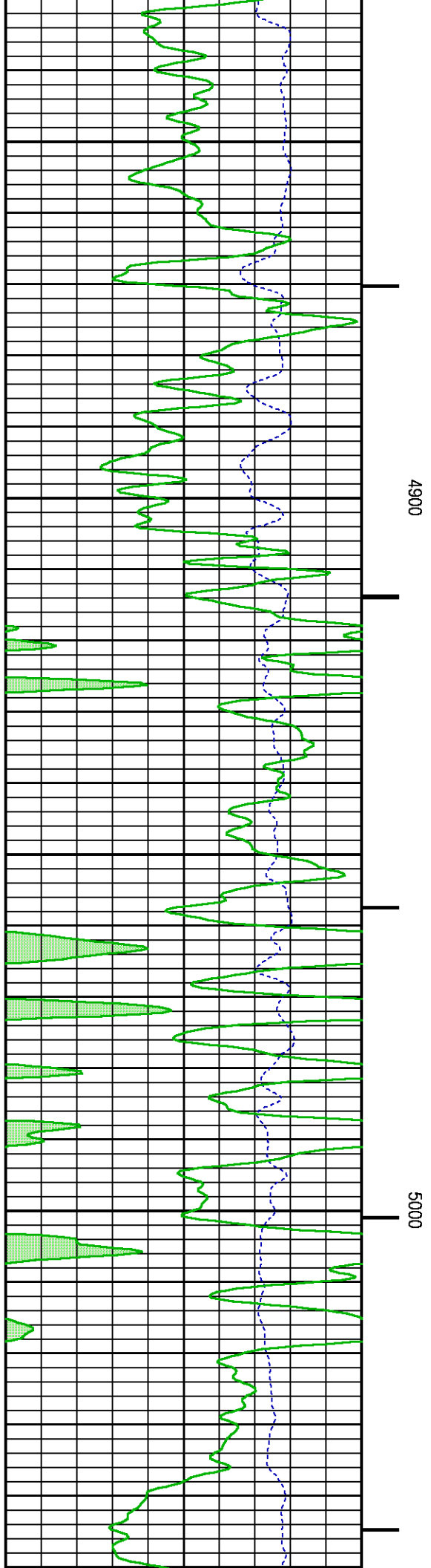
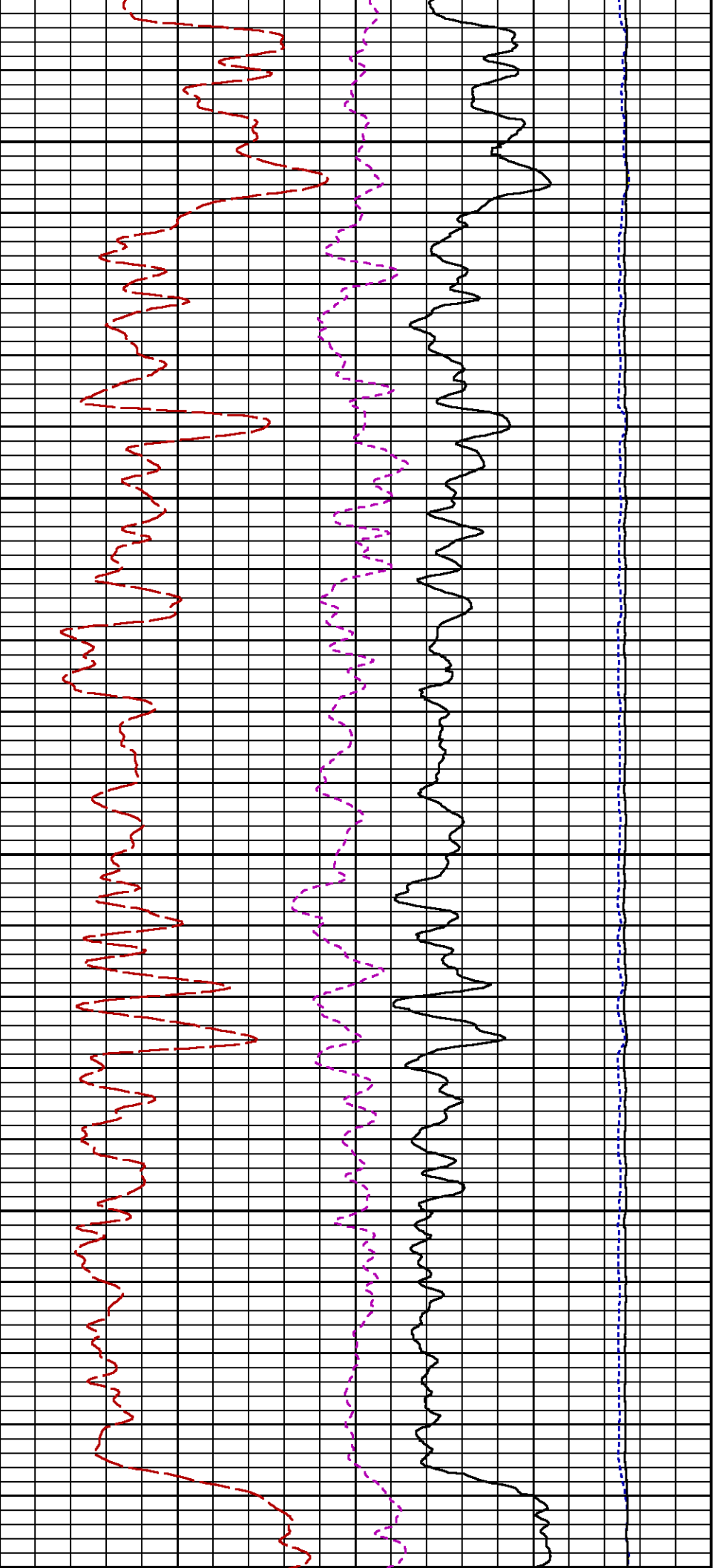
Presentation : cpu100:/dat1a/CH105968/14A1\_RPM\_MAIN.fvpdf [5"/100' Scale]  
 Plot Interval : 4250 - 8785 Feet

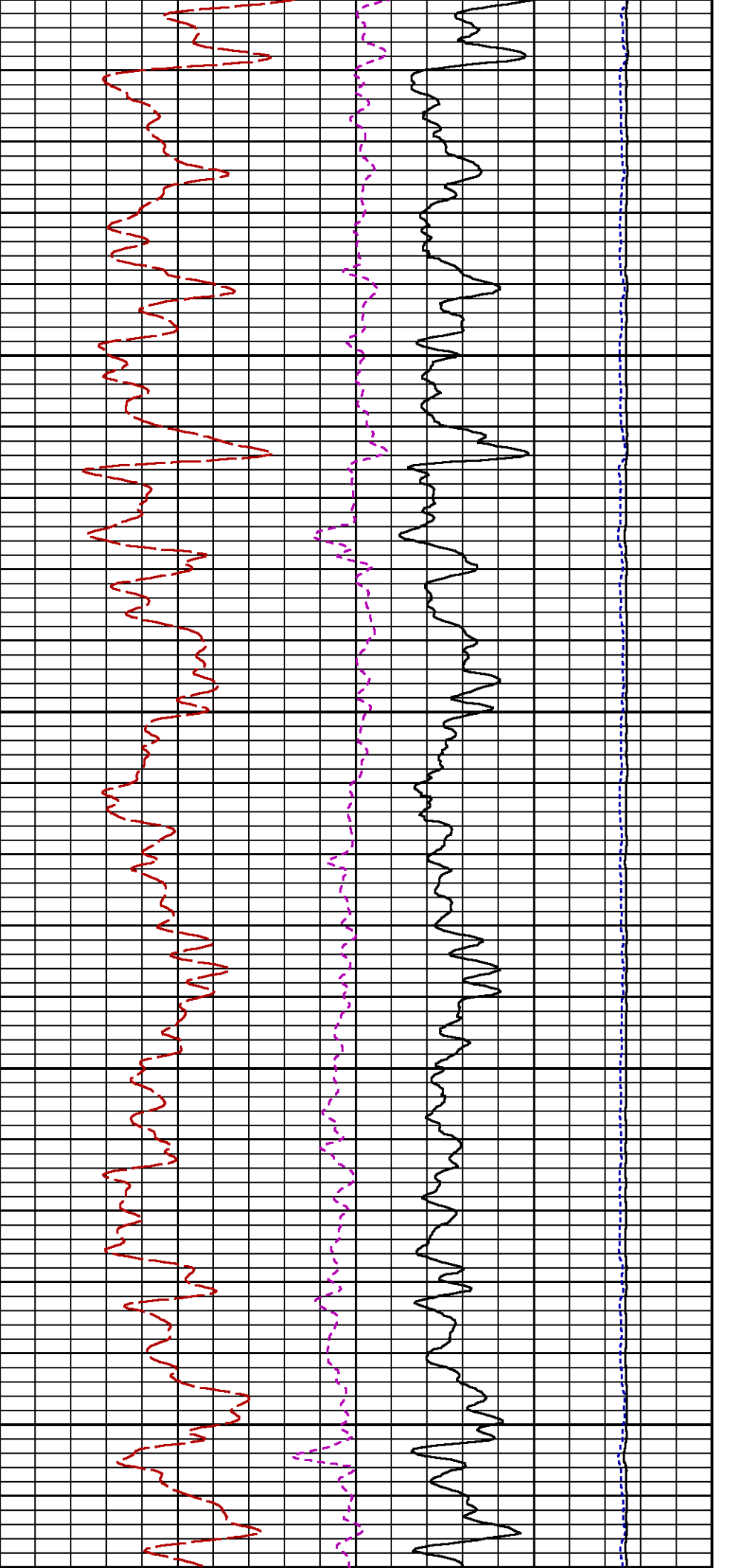
Data File 1 : F1 : cpu100:/dat1a/CH105968/14A1\_RPM\_MAIN.xtf  
 Created On : Mar 2 10:29:05 2016  
 Company : CAERUS OPERATING LLC  
 Well : PUCKETT 14A-1  
 Field : GRAND VALLEY  
 File Interval : 4226 - 8778.5 Feet  
 OCT : 2511





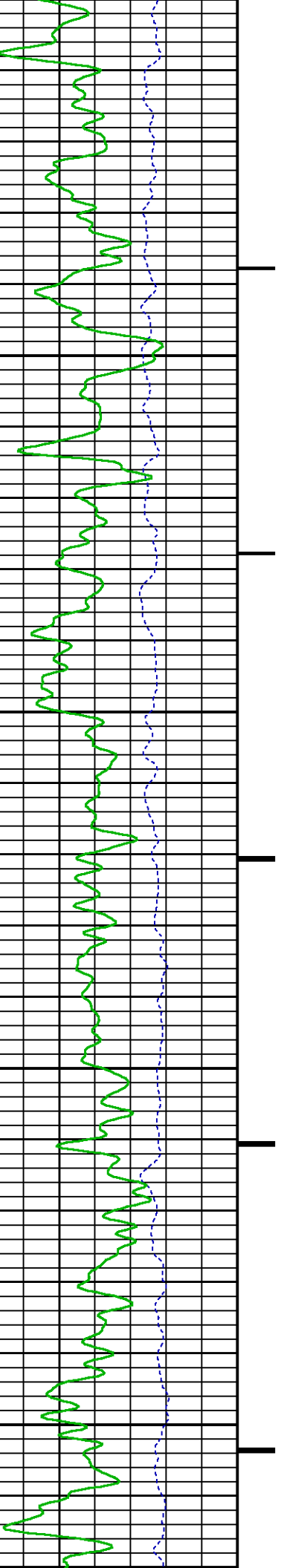


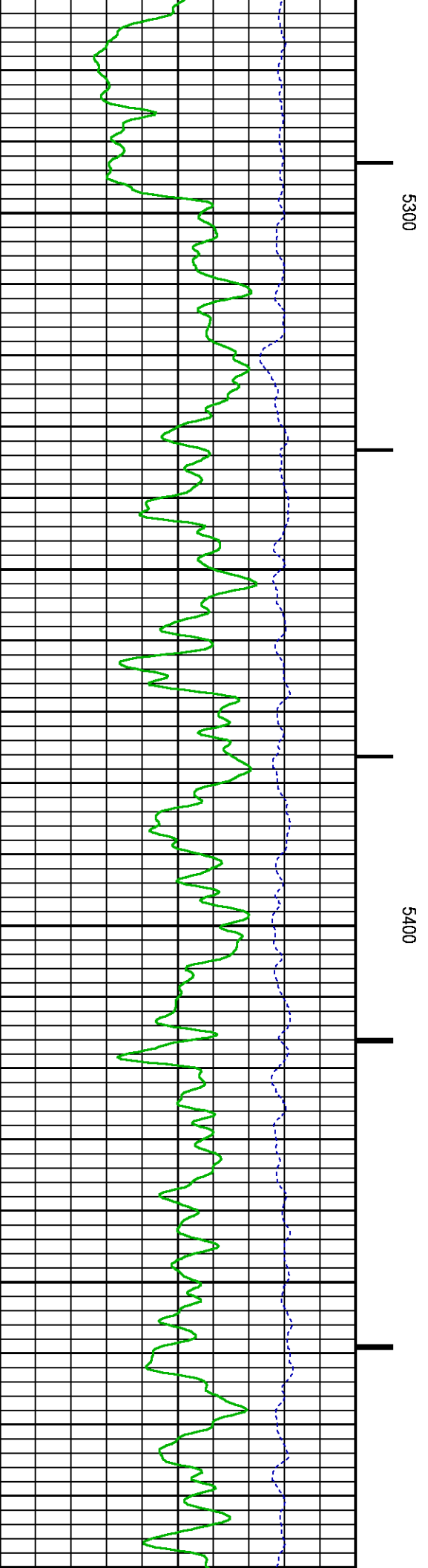
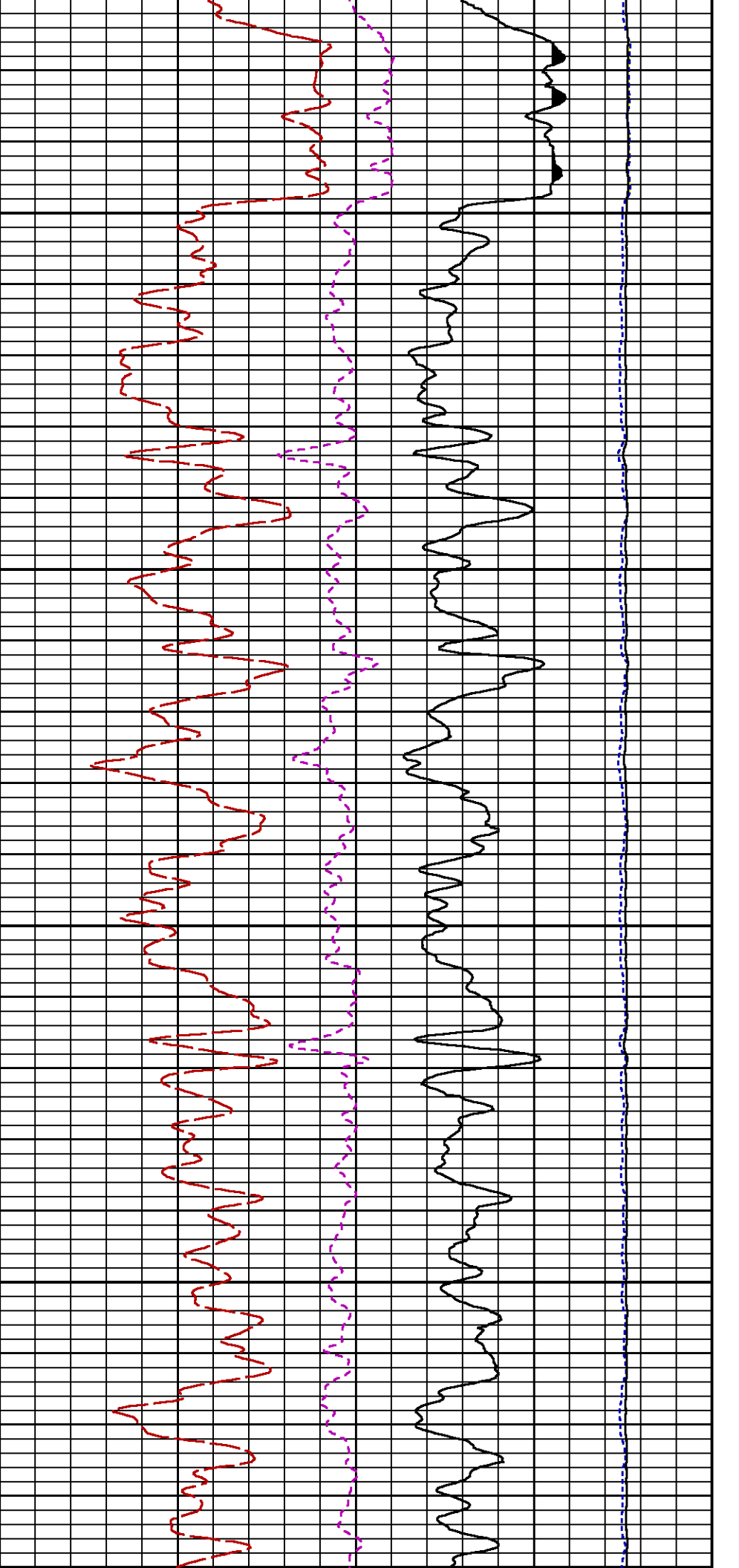




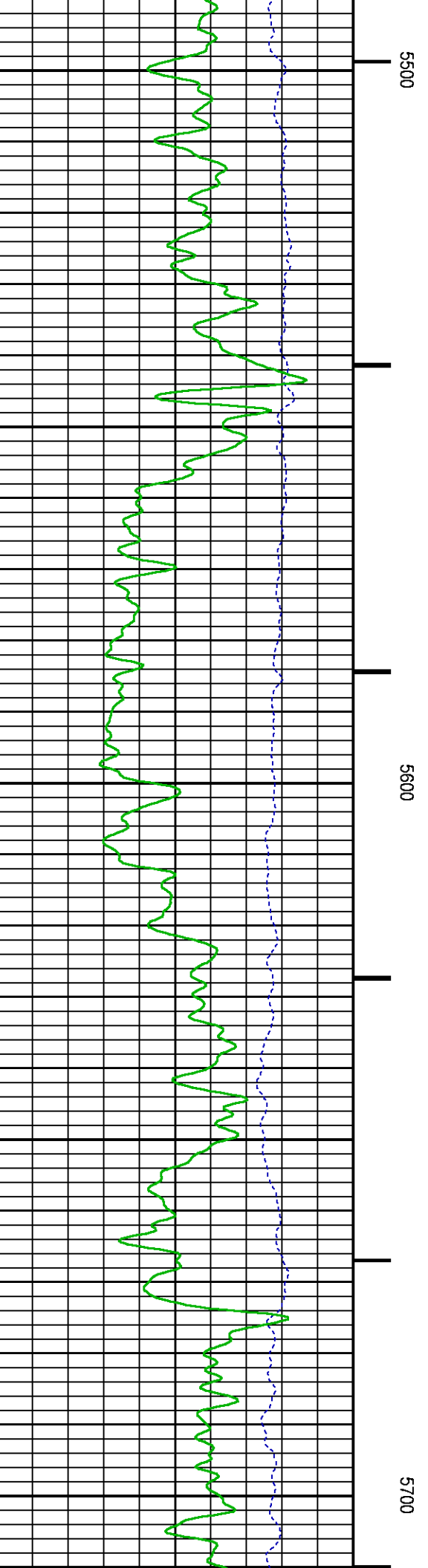
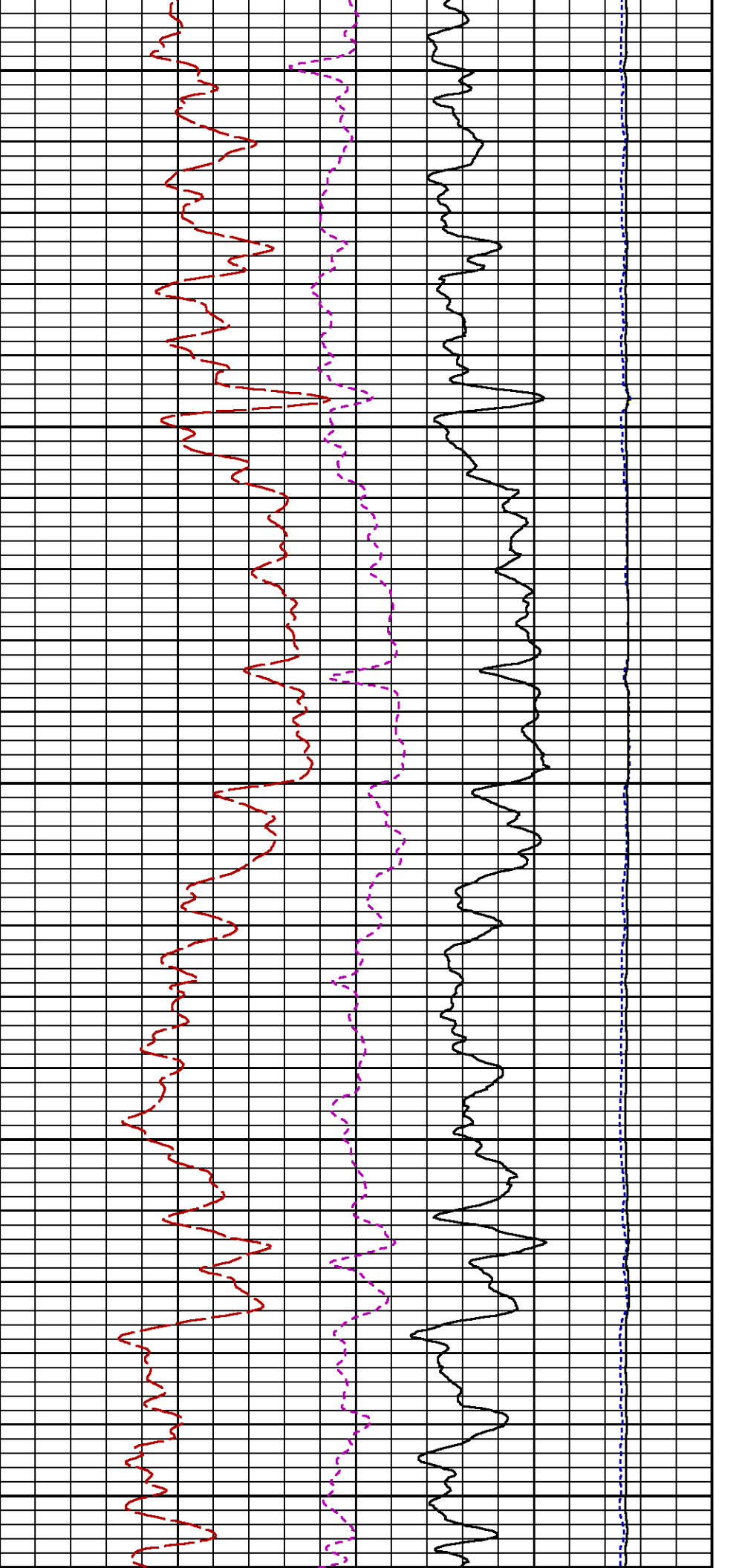
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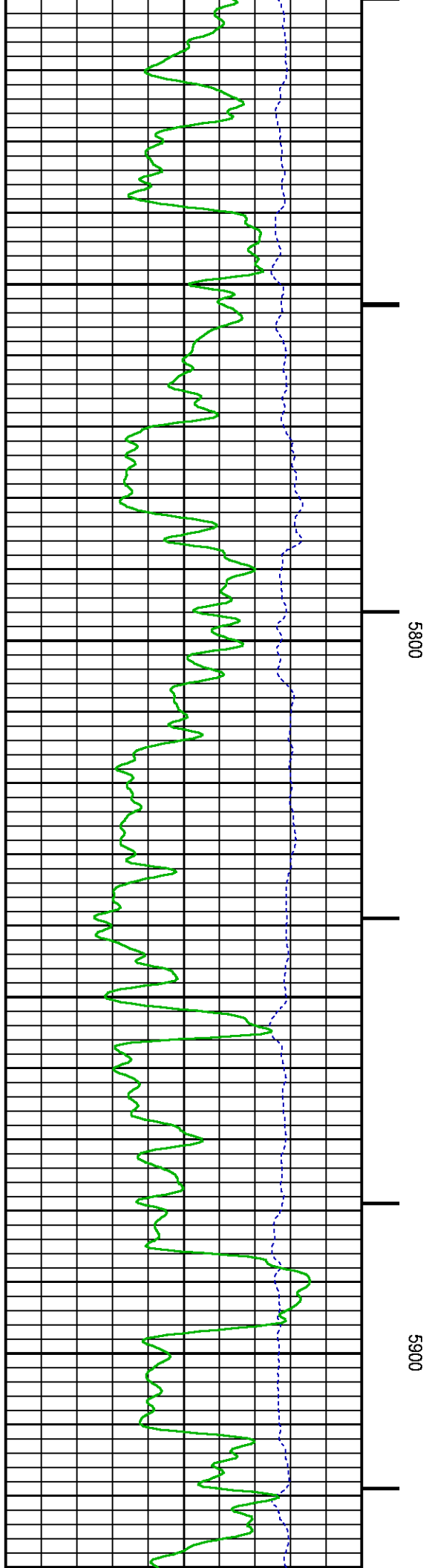
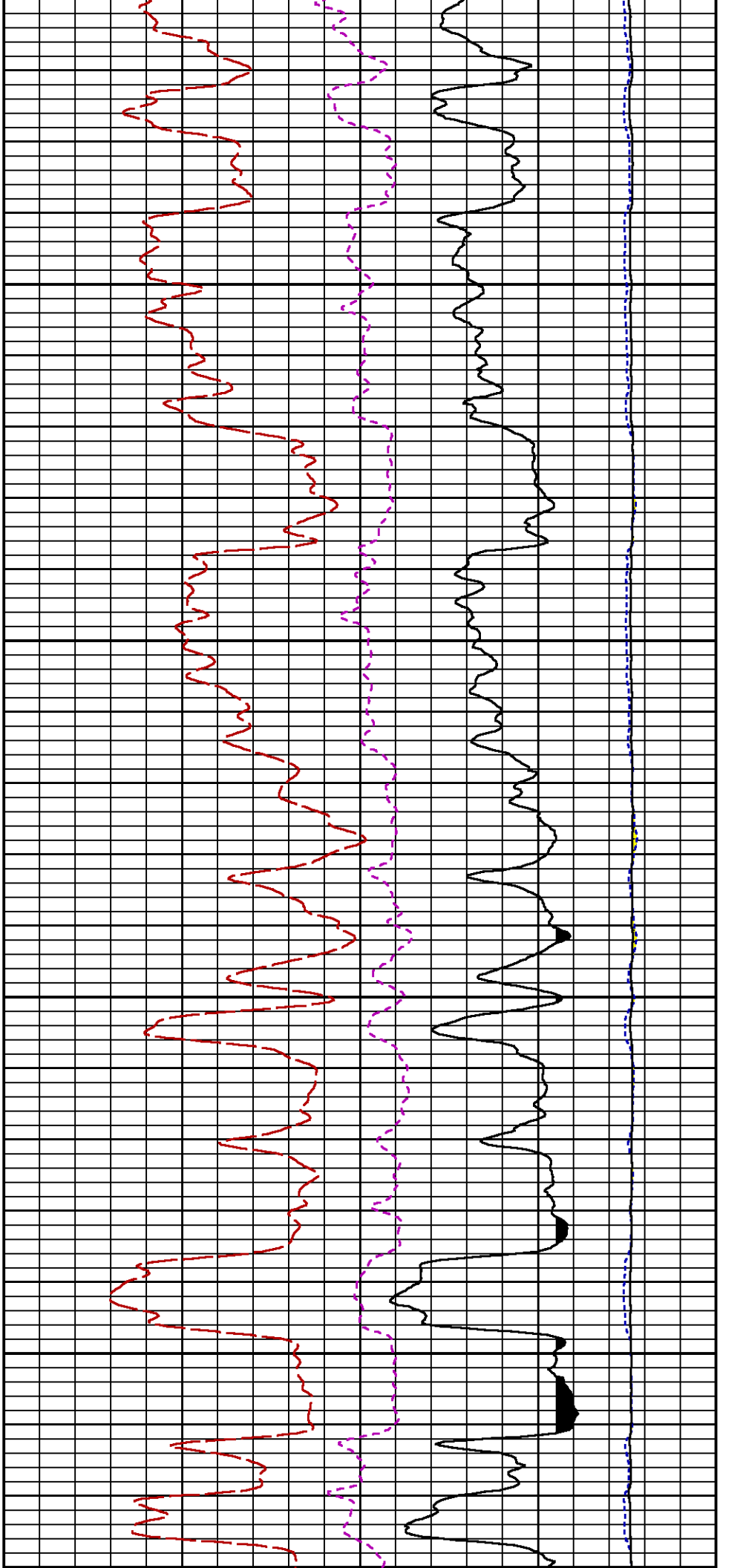
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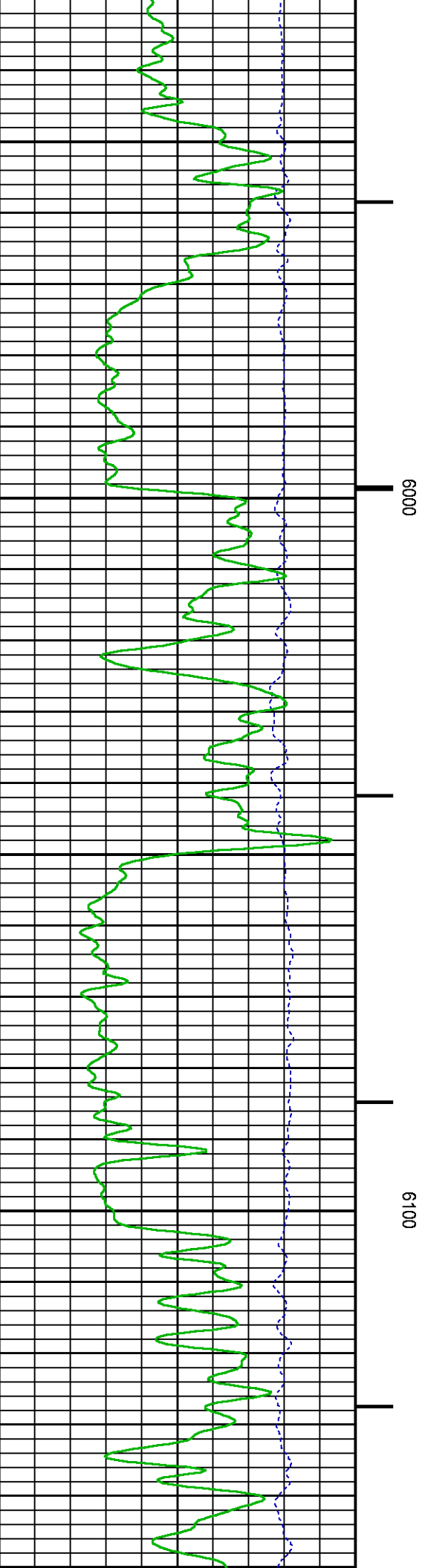
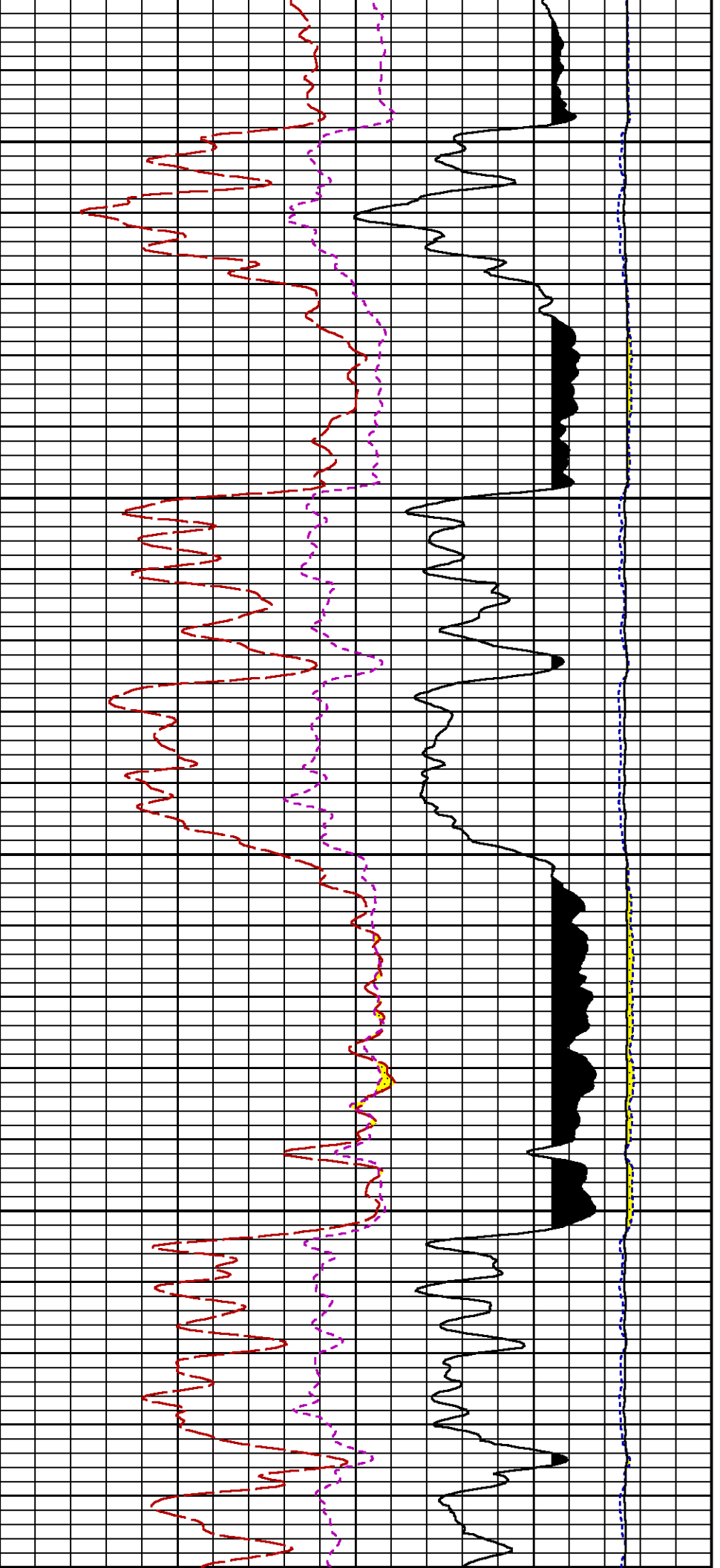


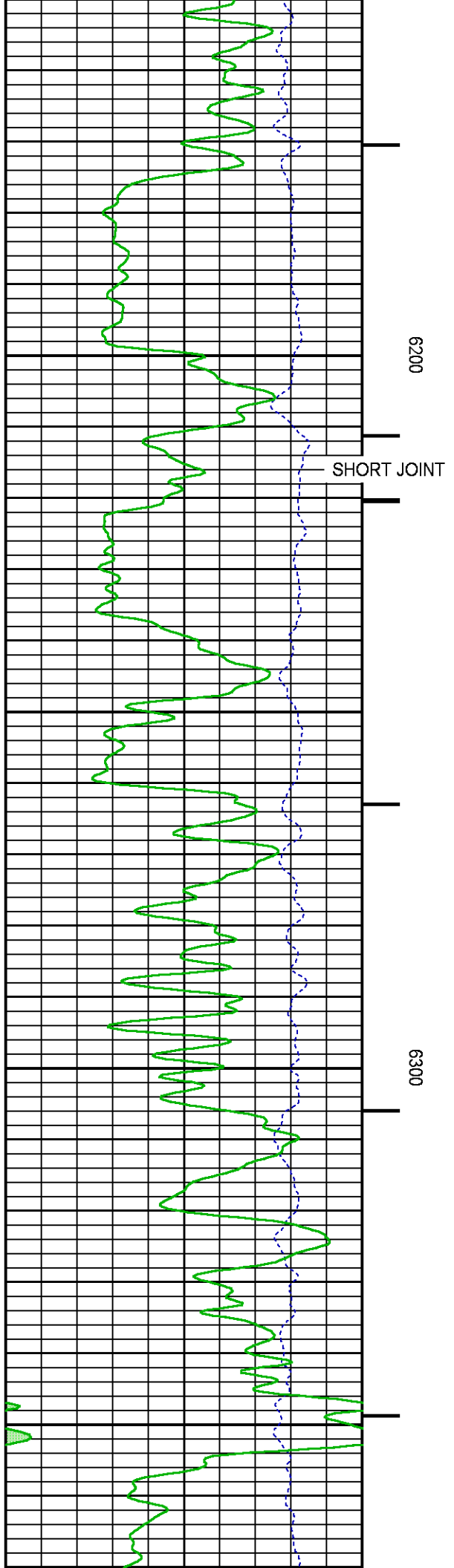
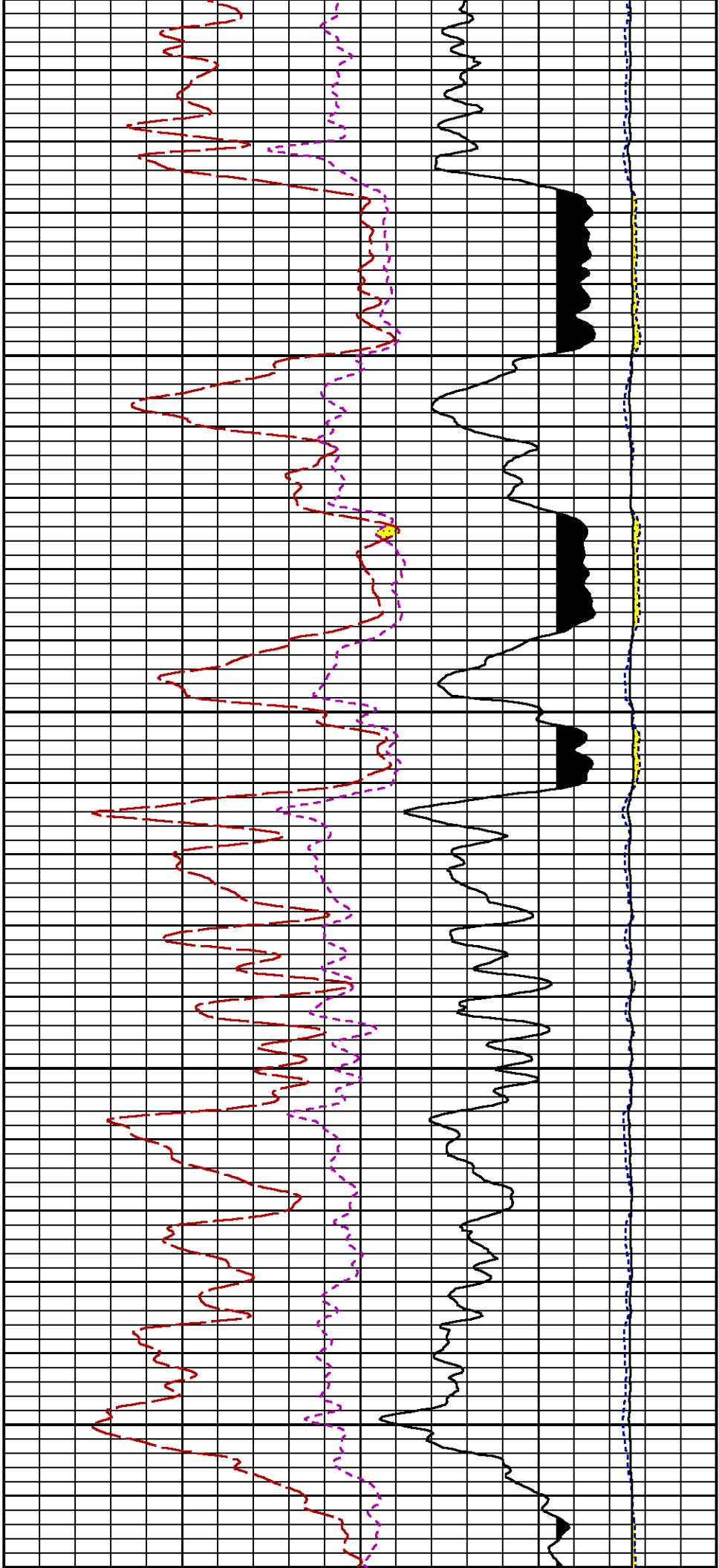


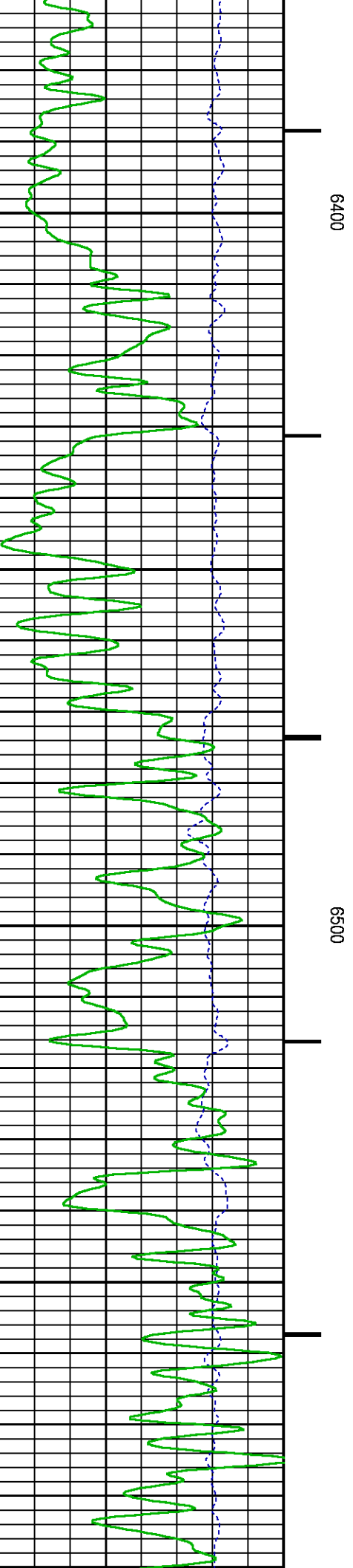
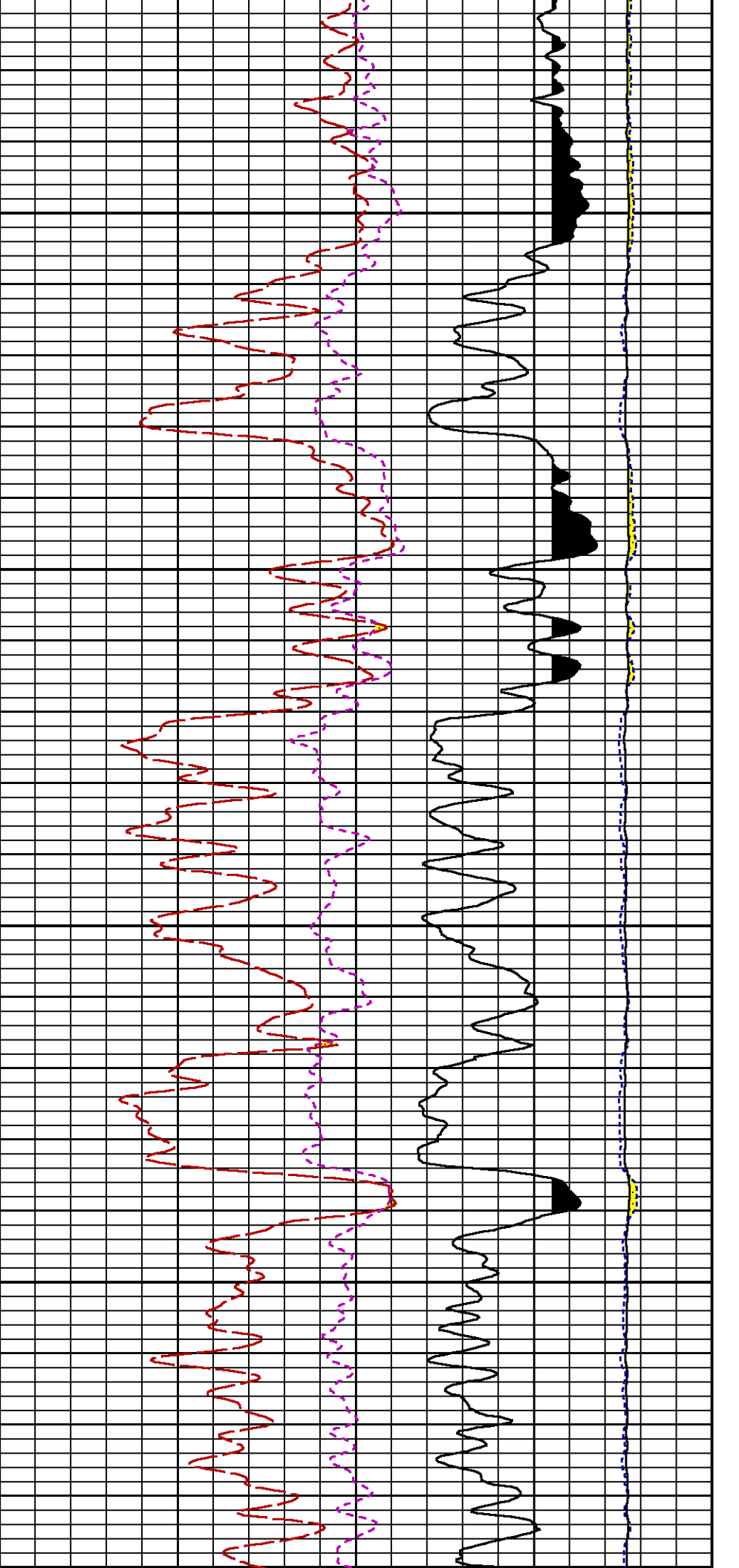


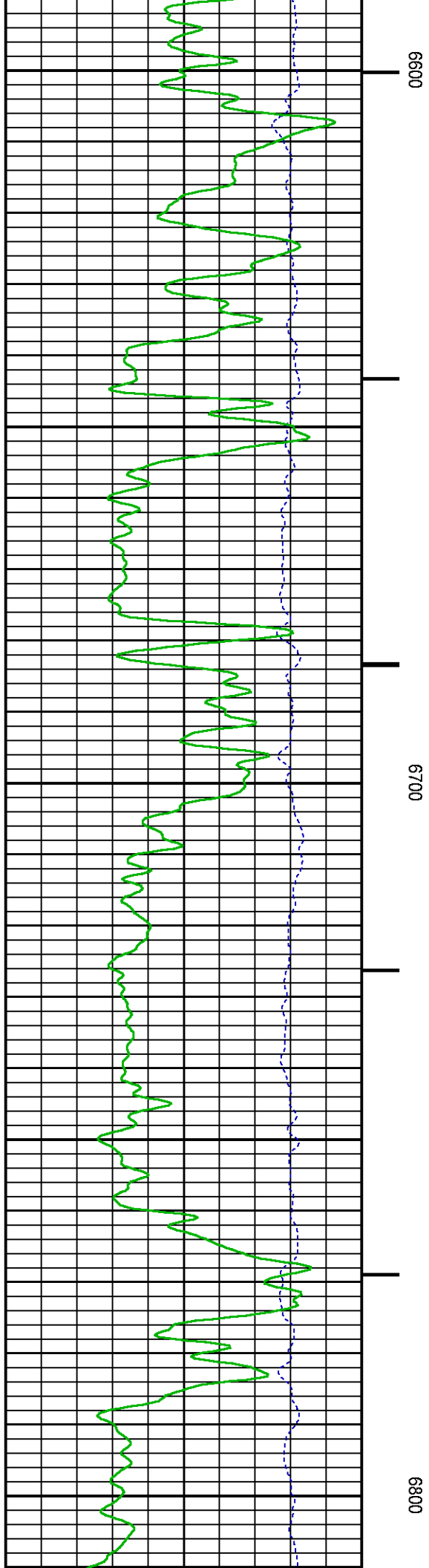
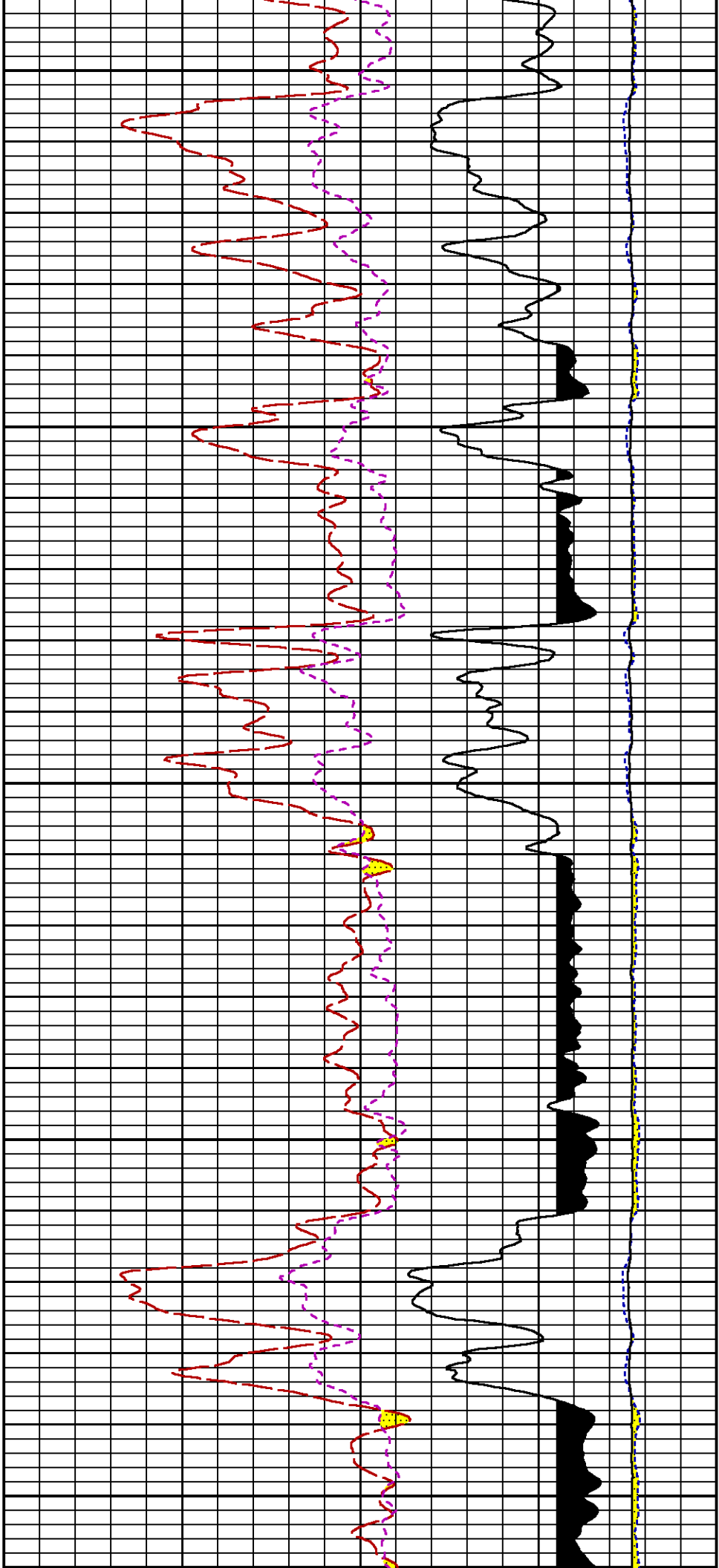


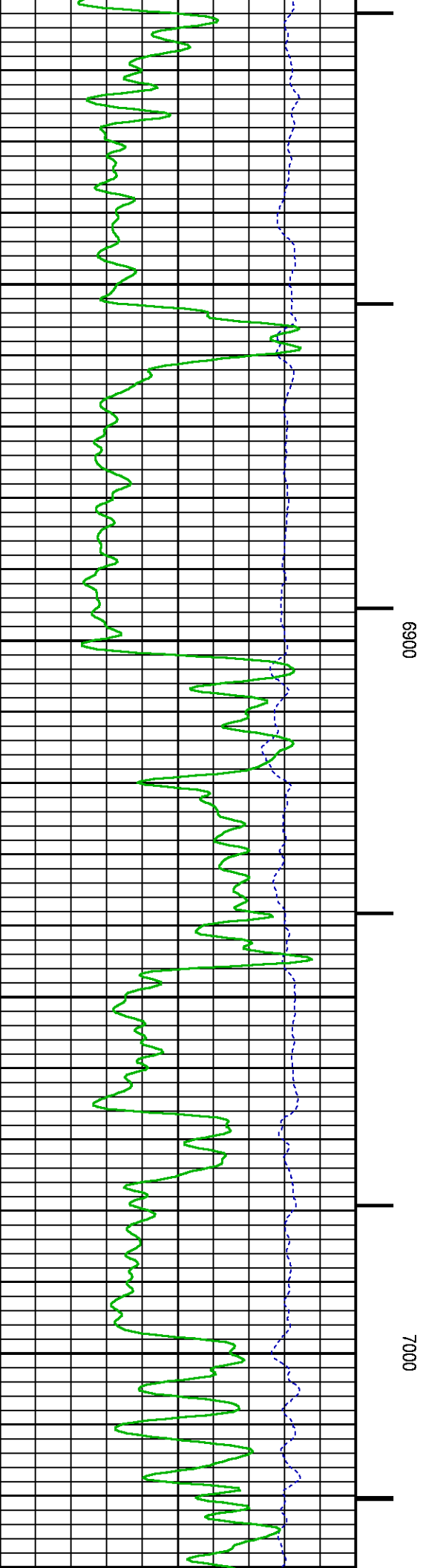
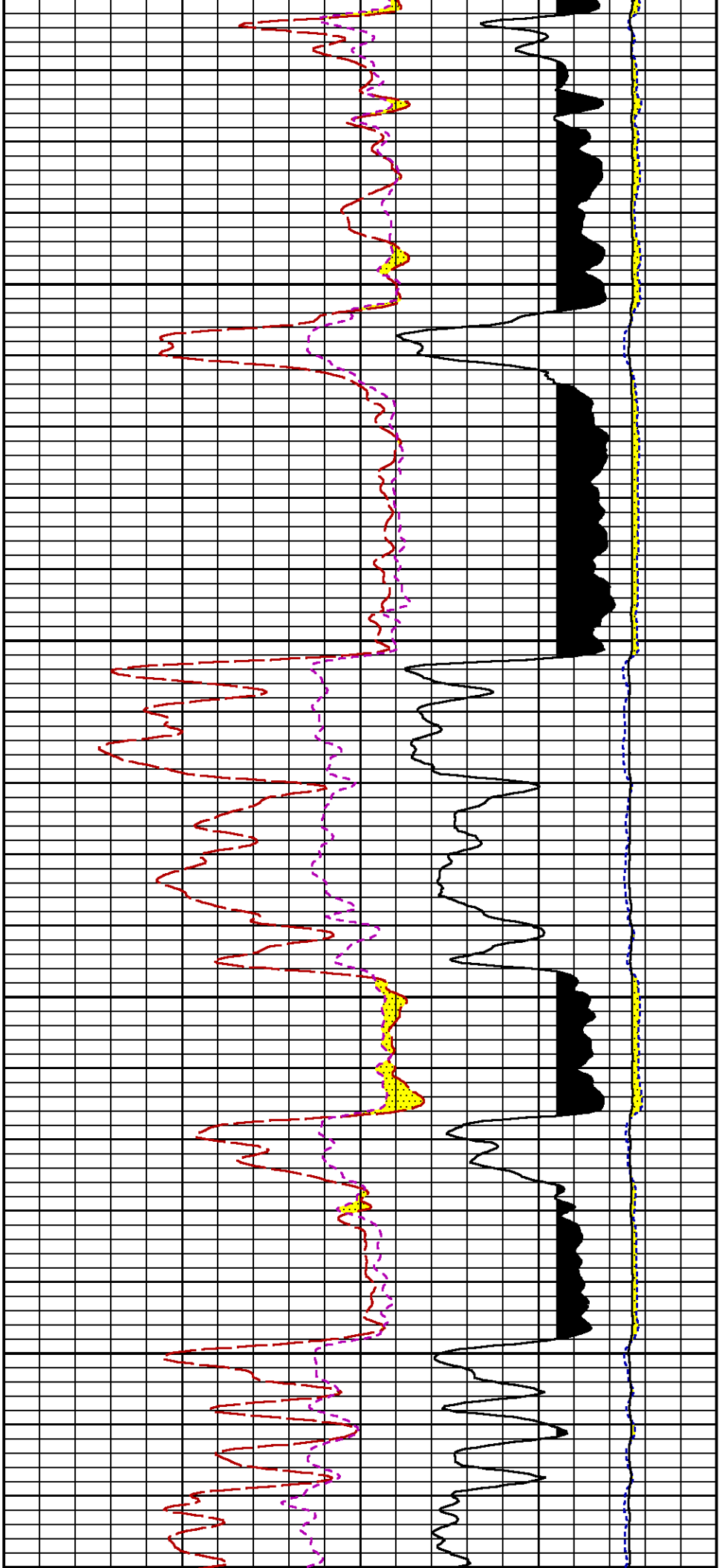


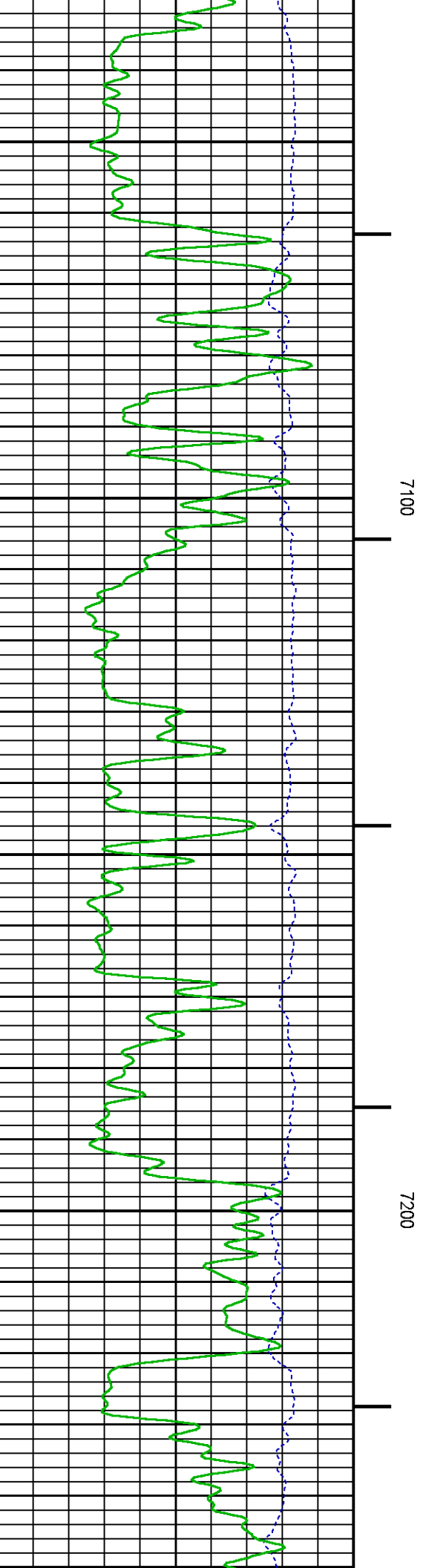
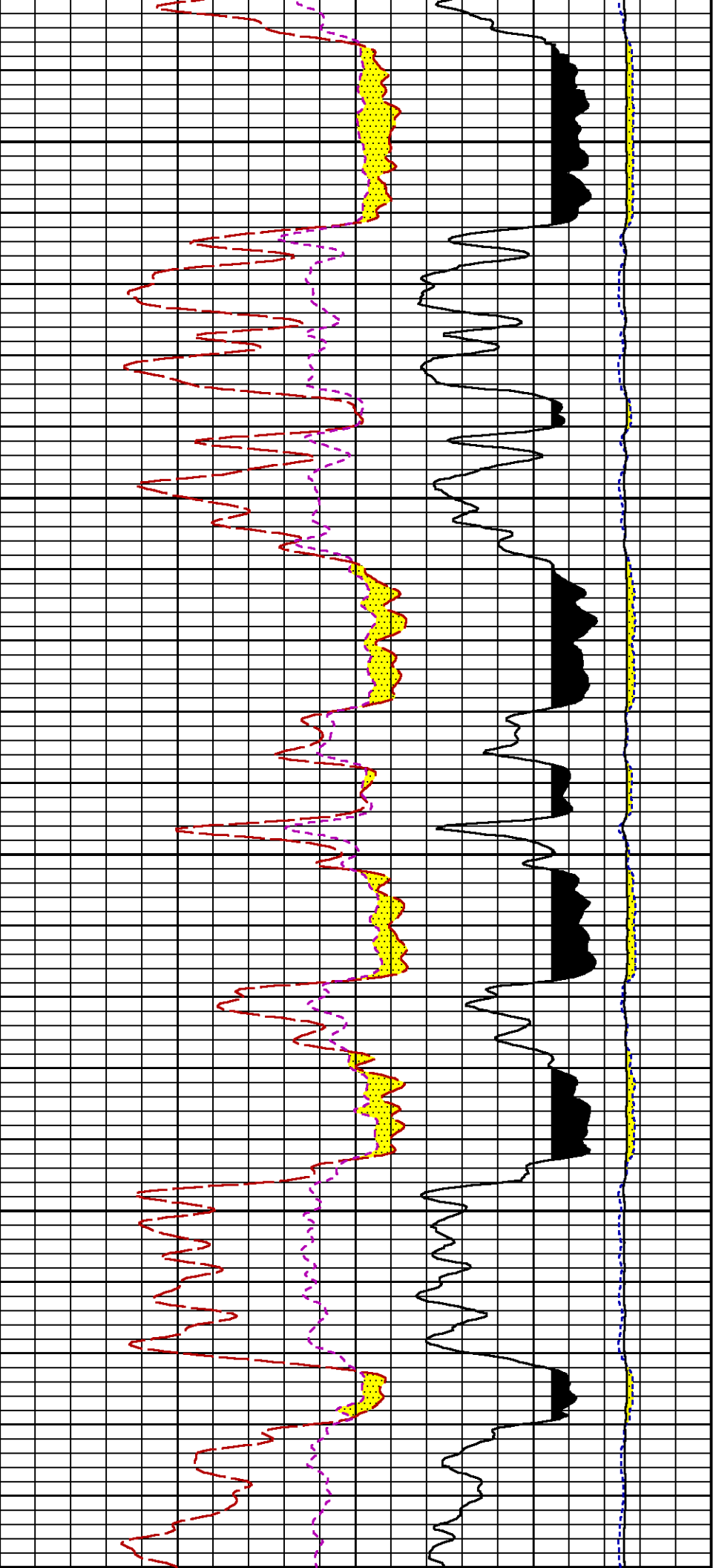




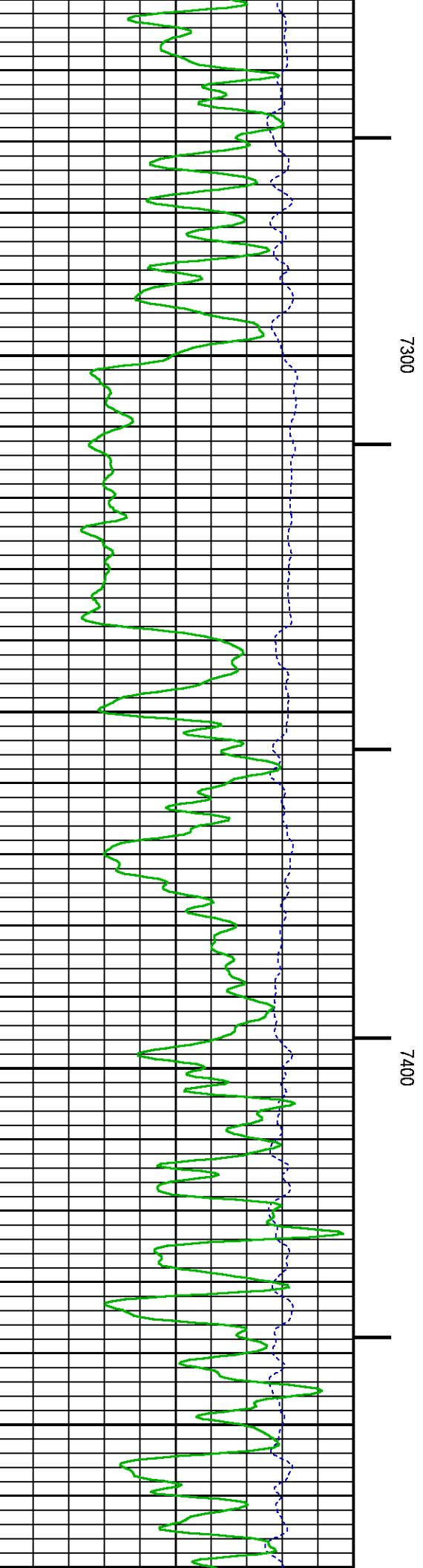
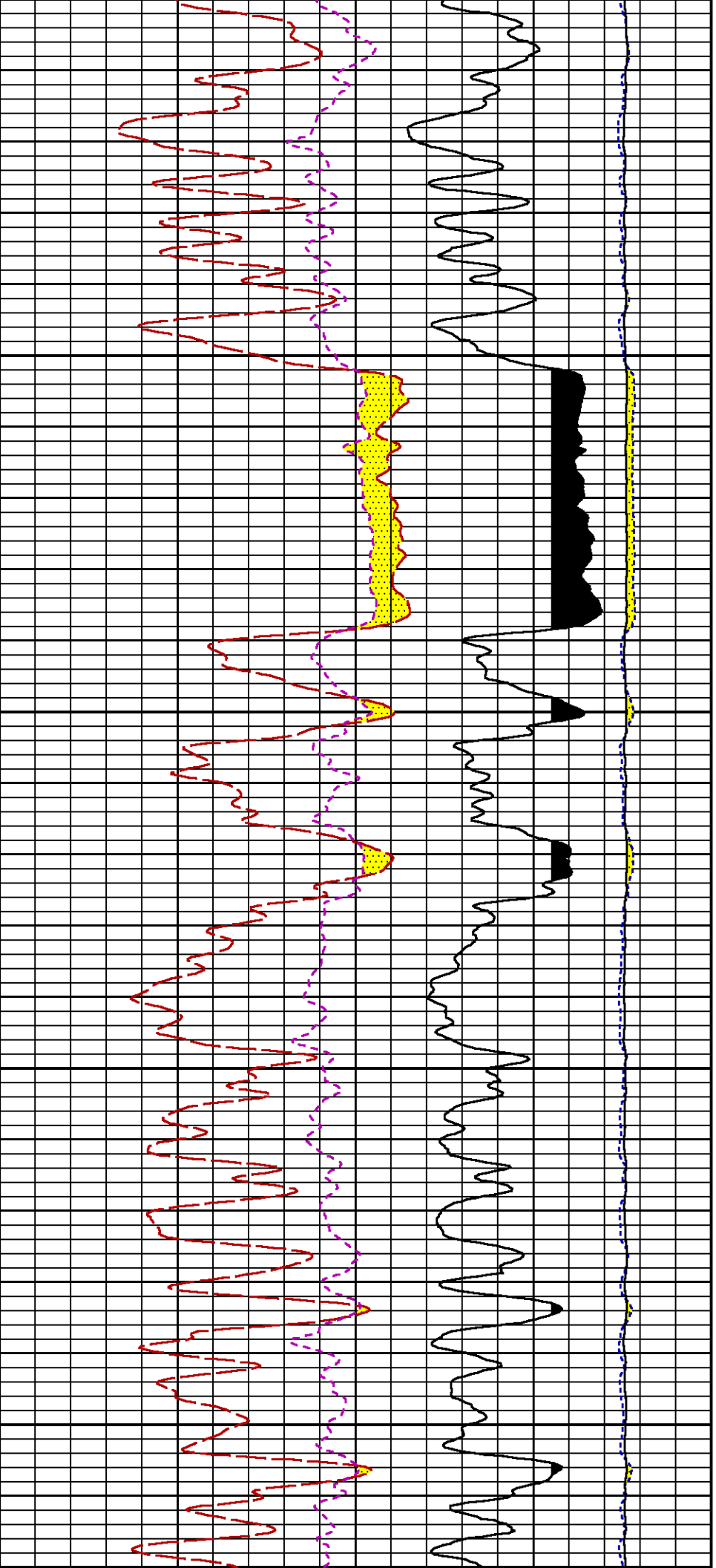


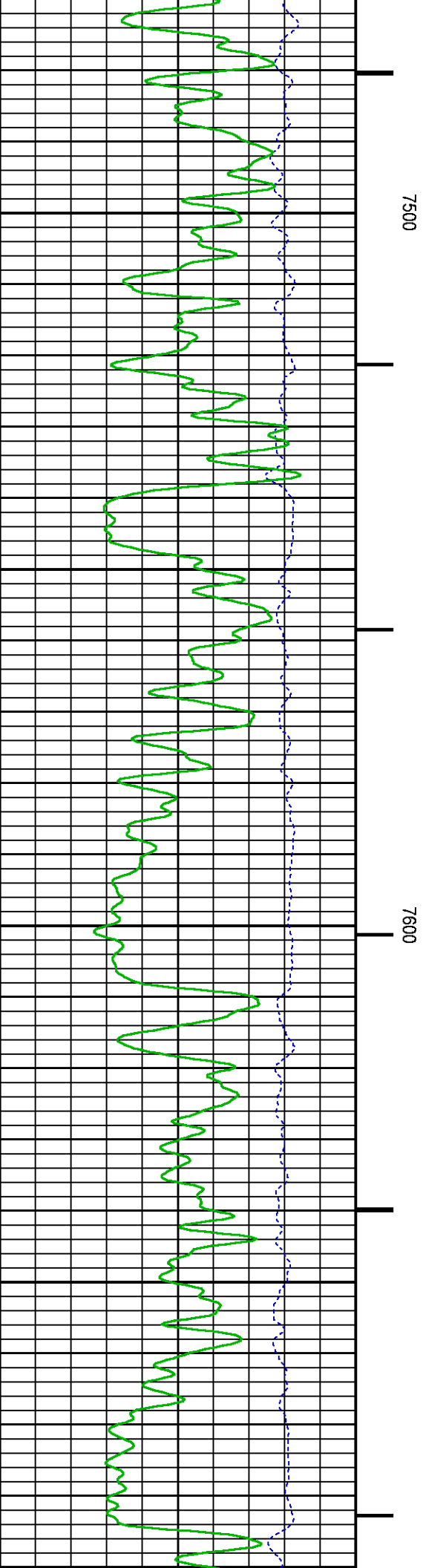
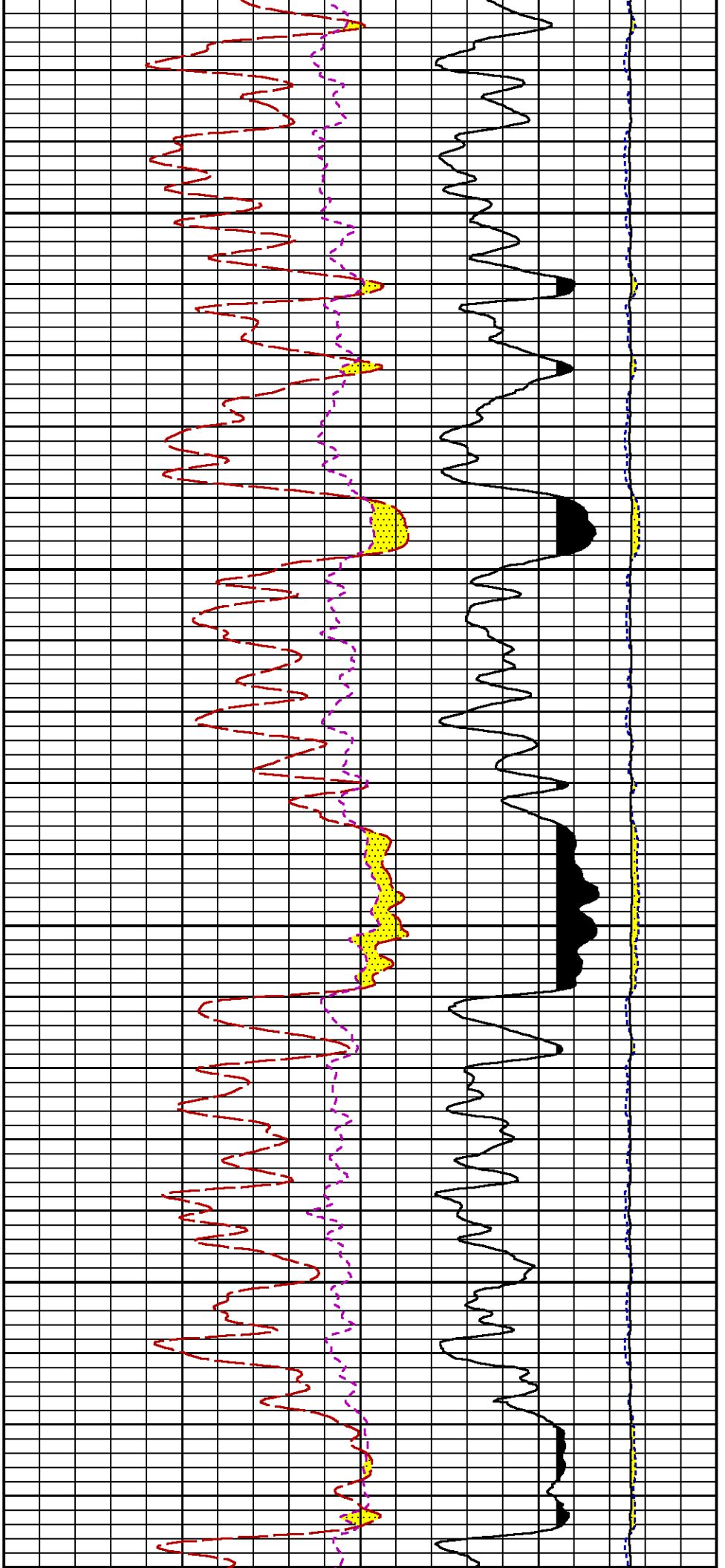


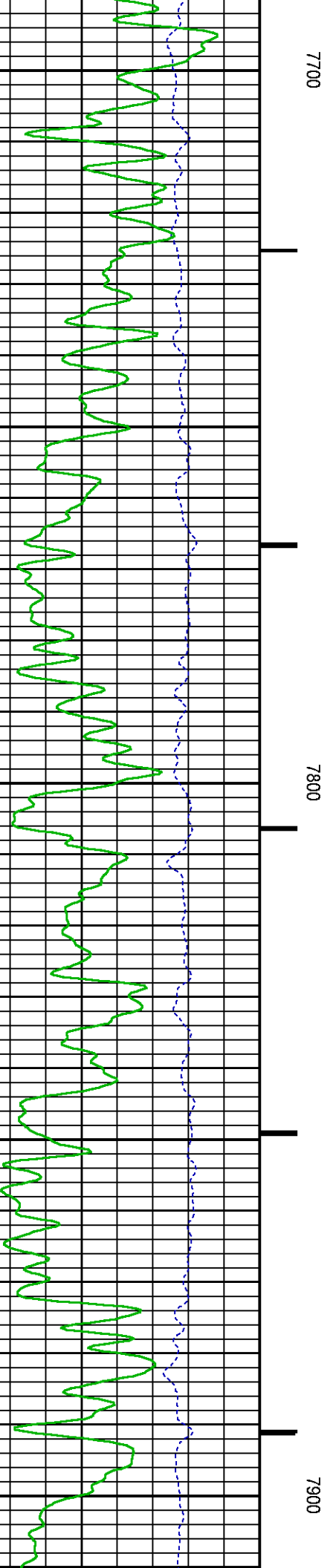
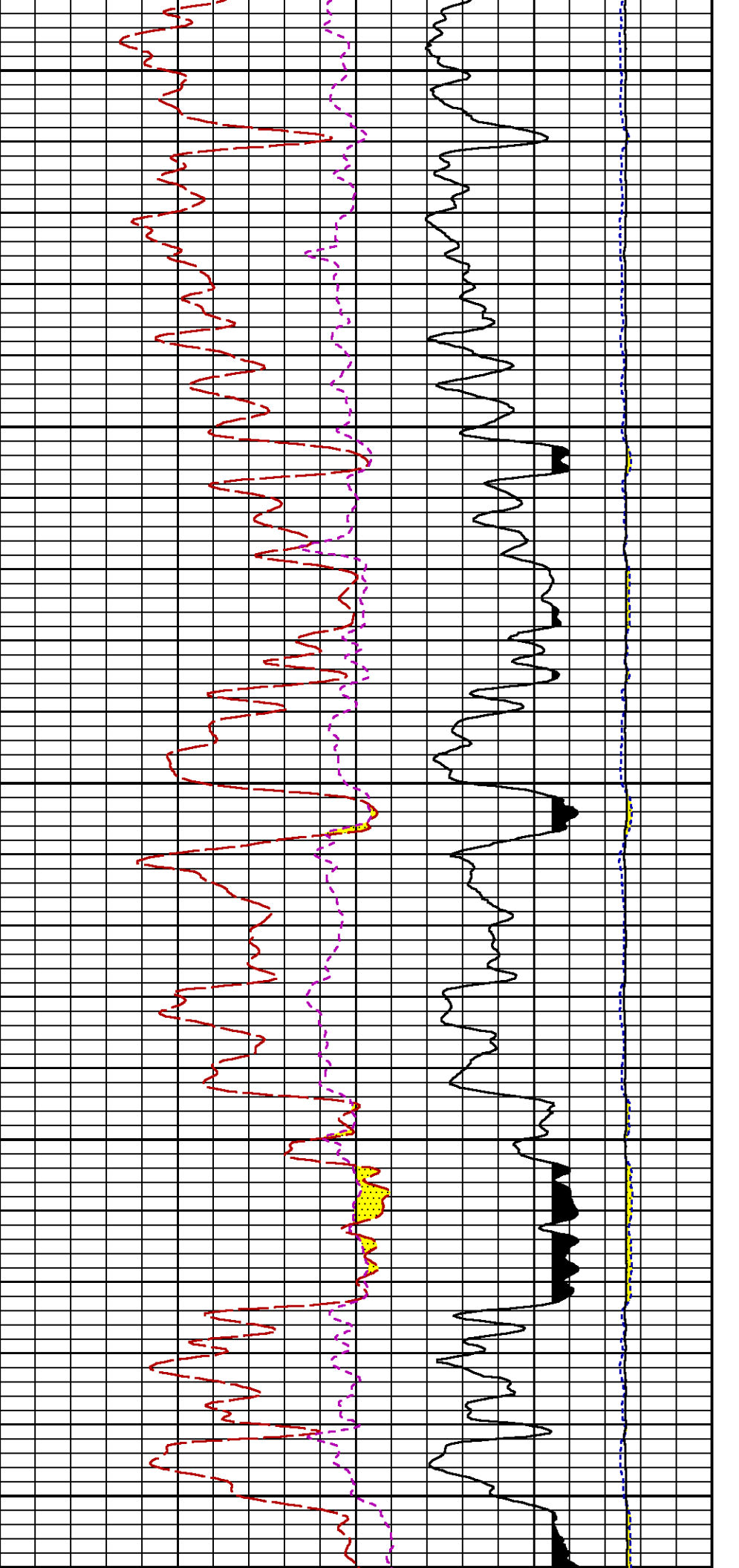


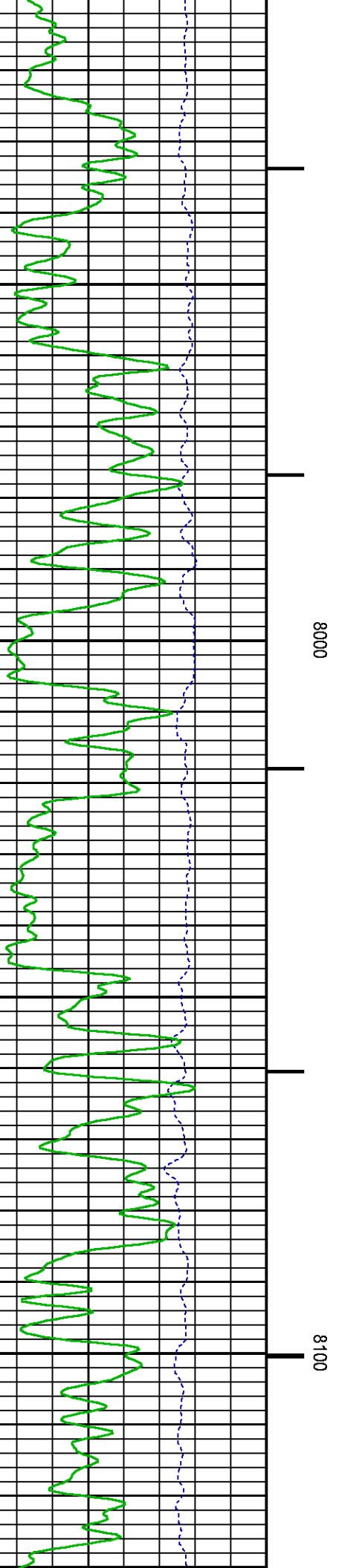
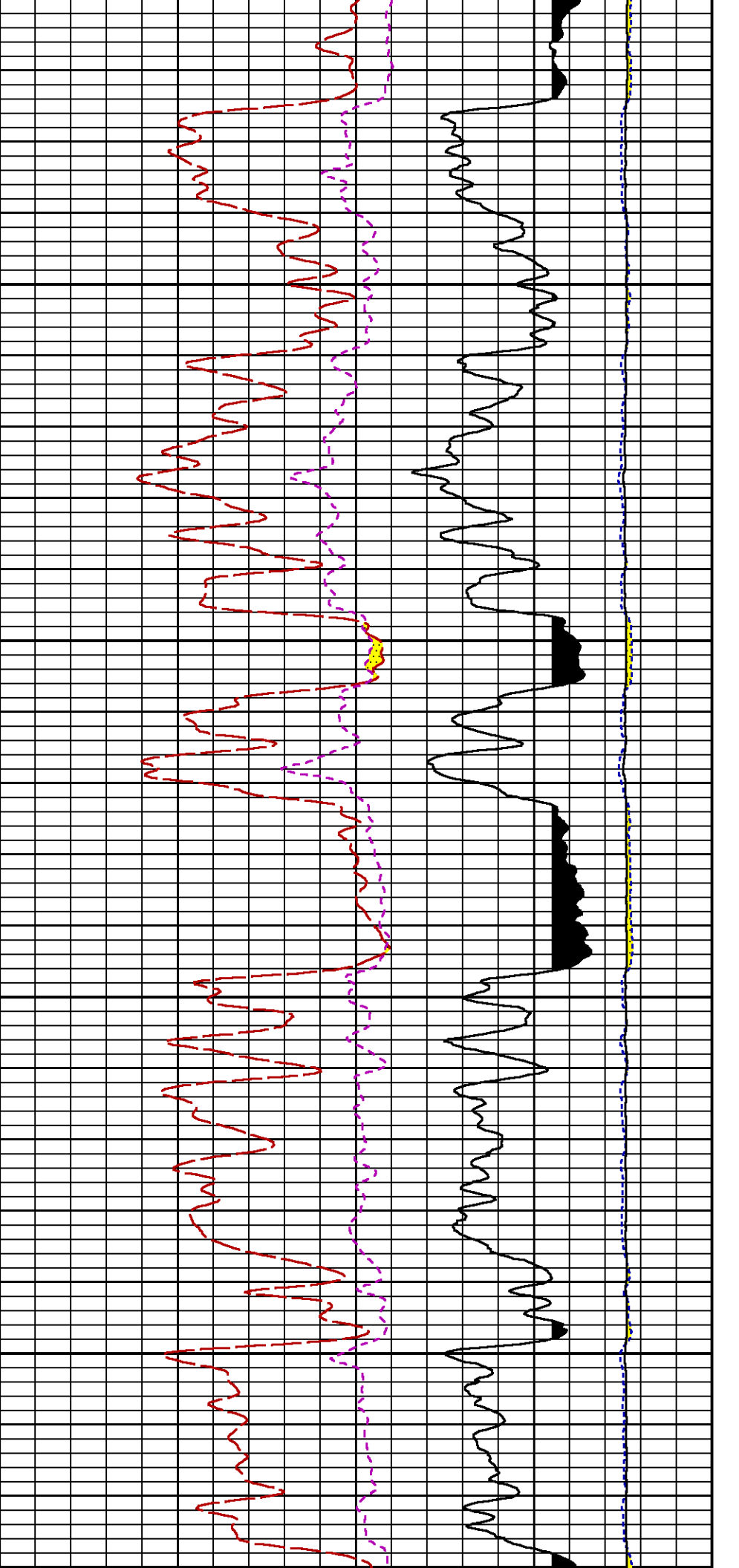


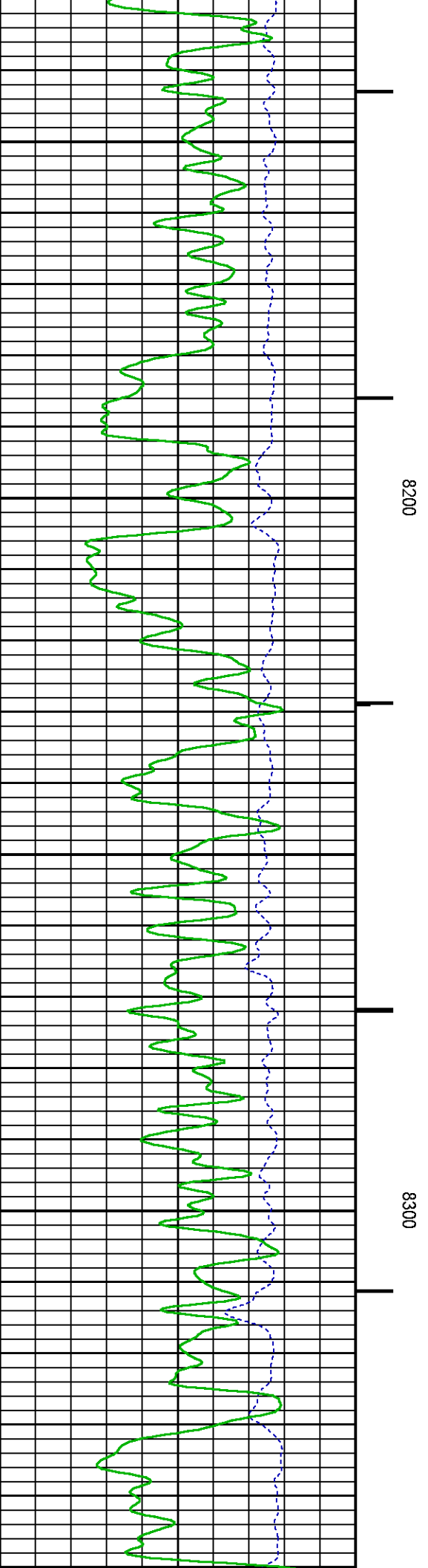
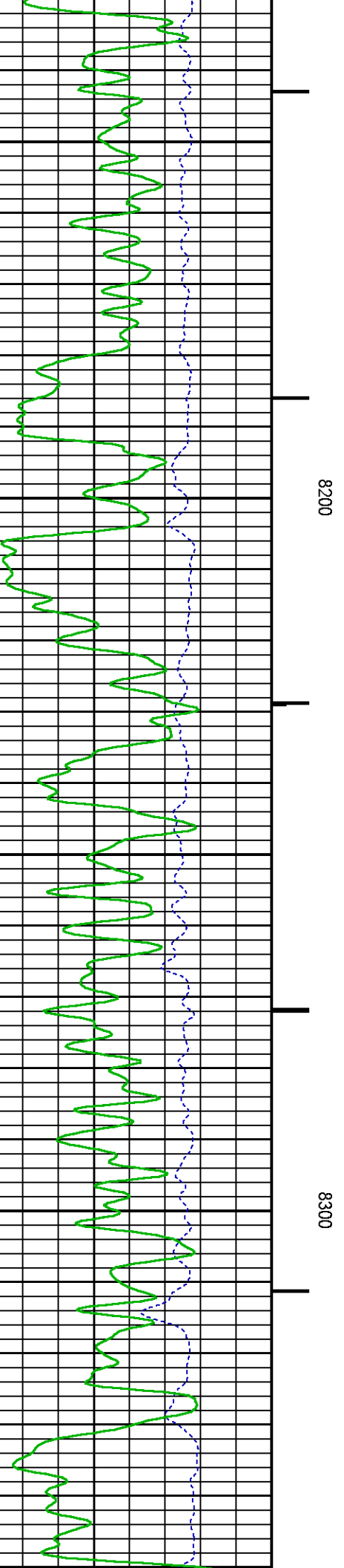
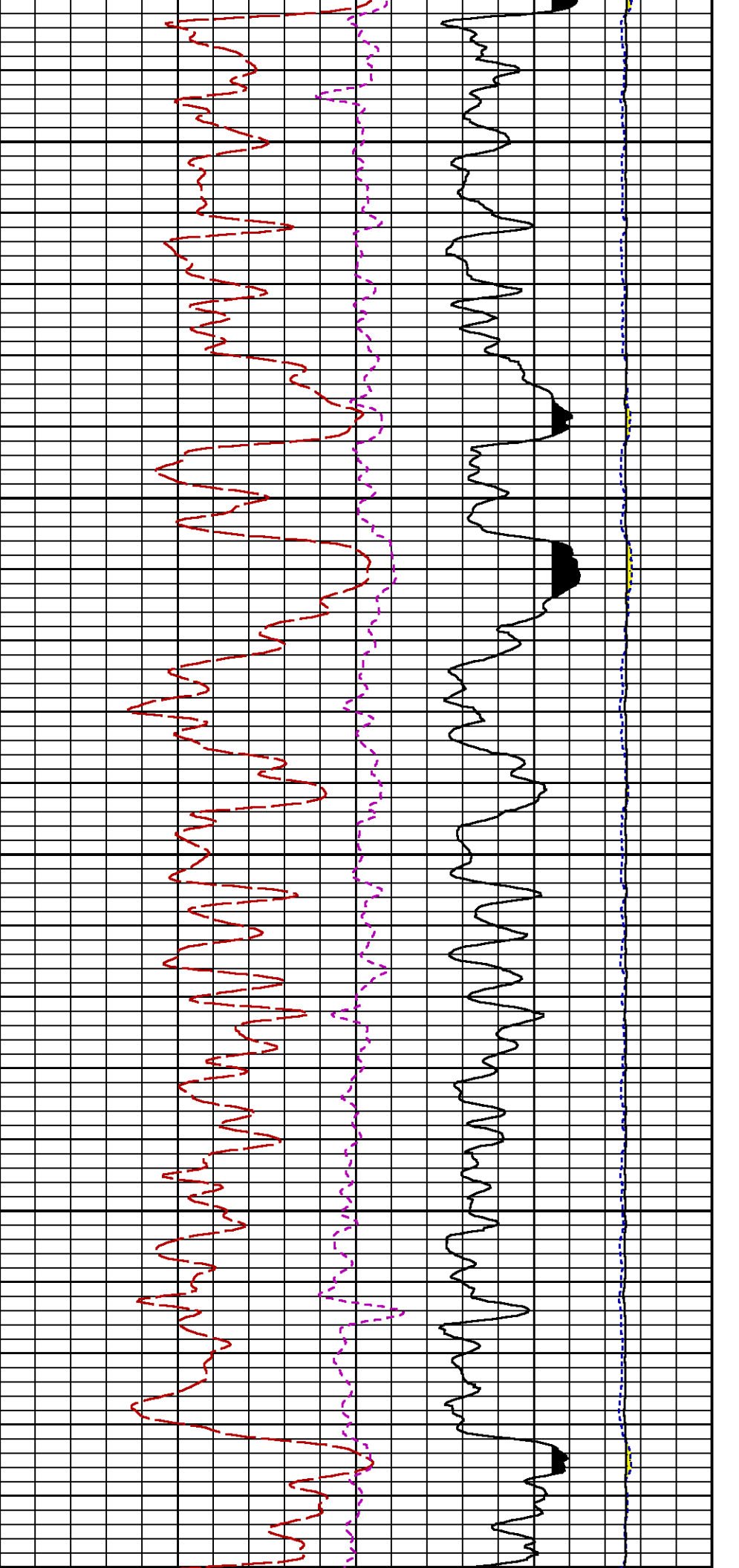


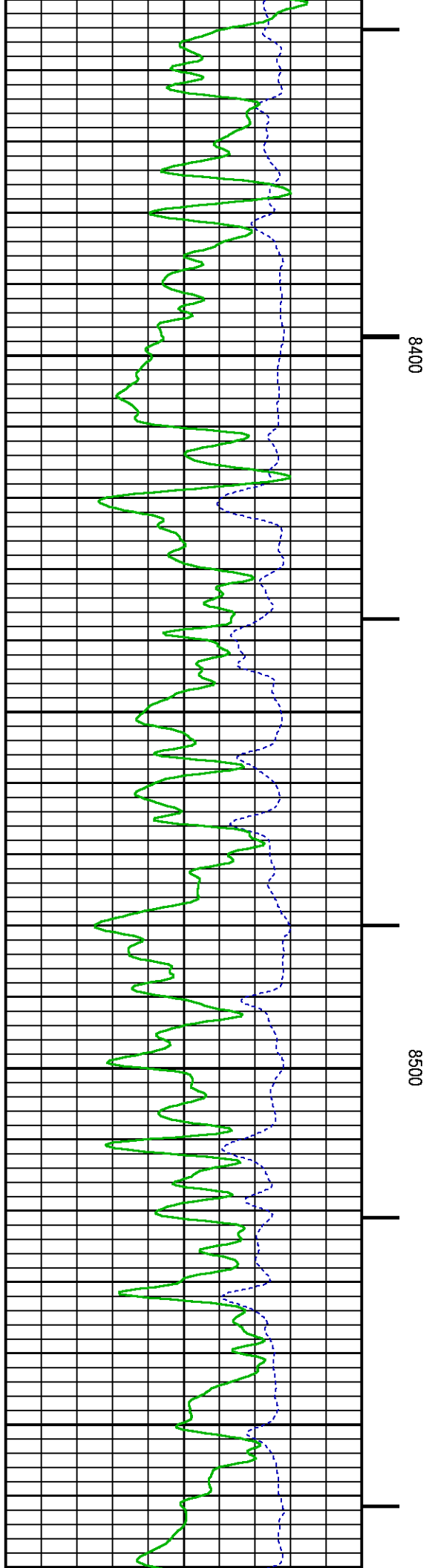
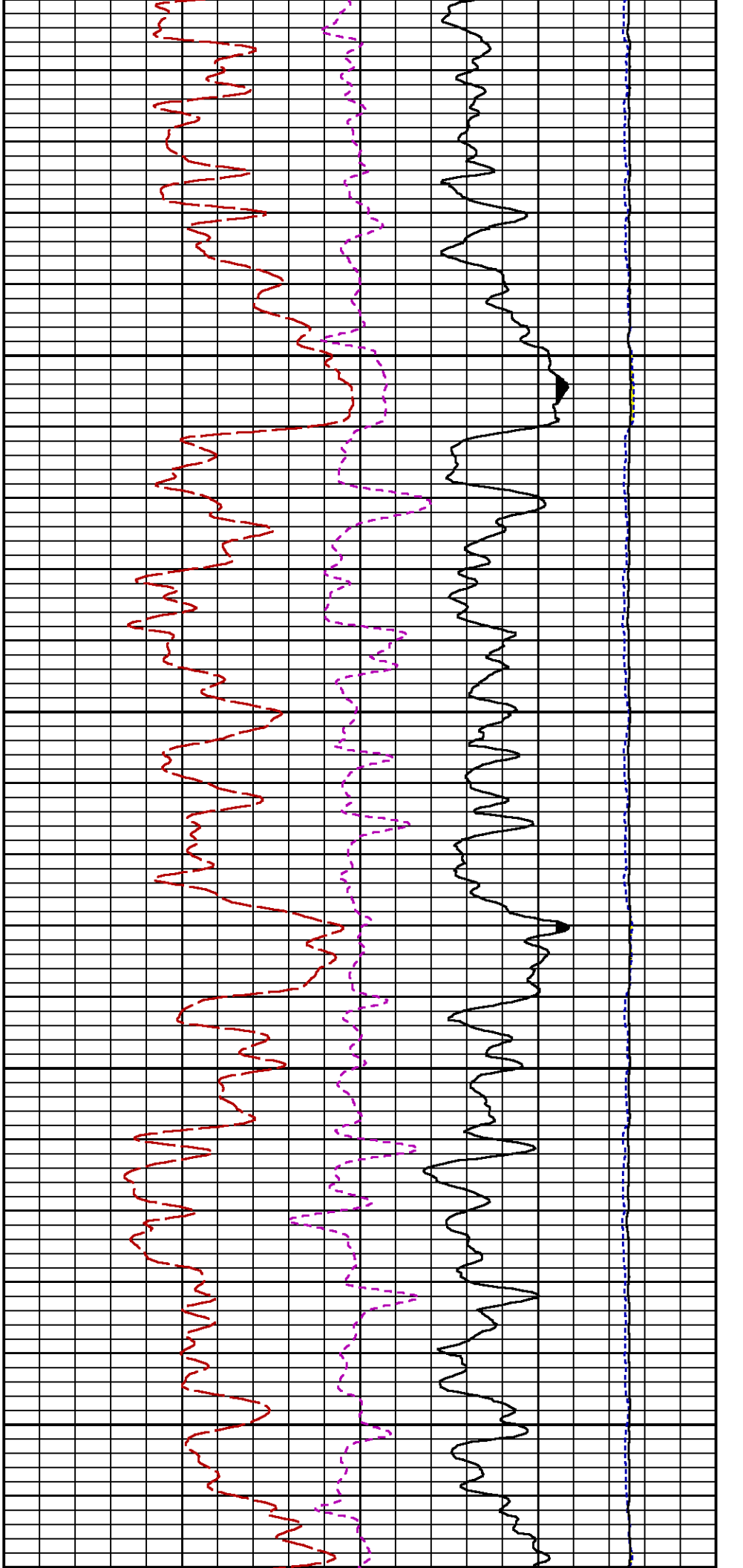


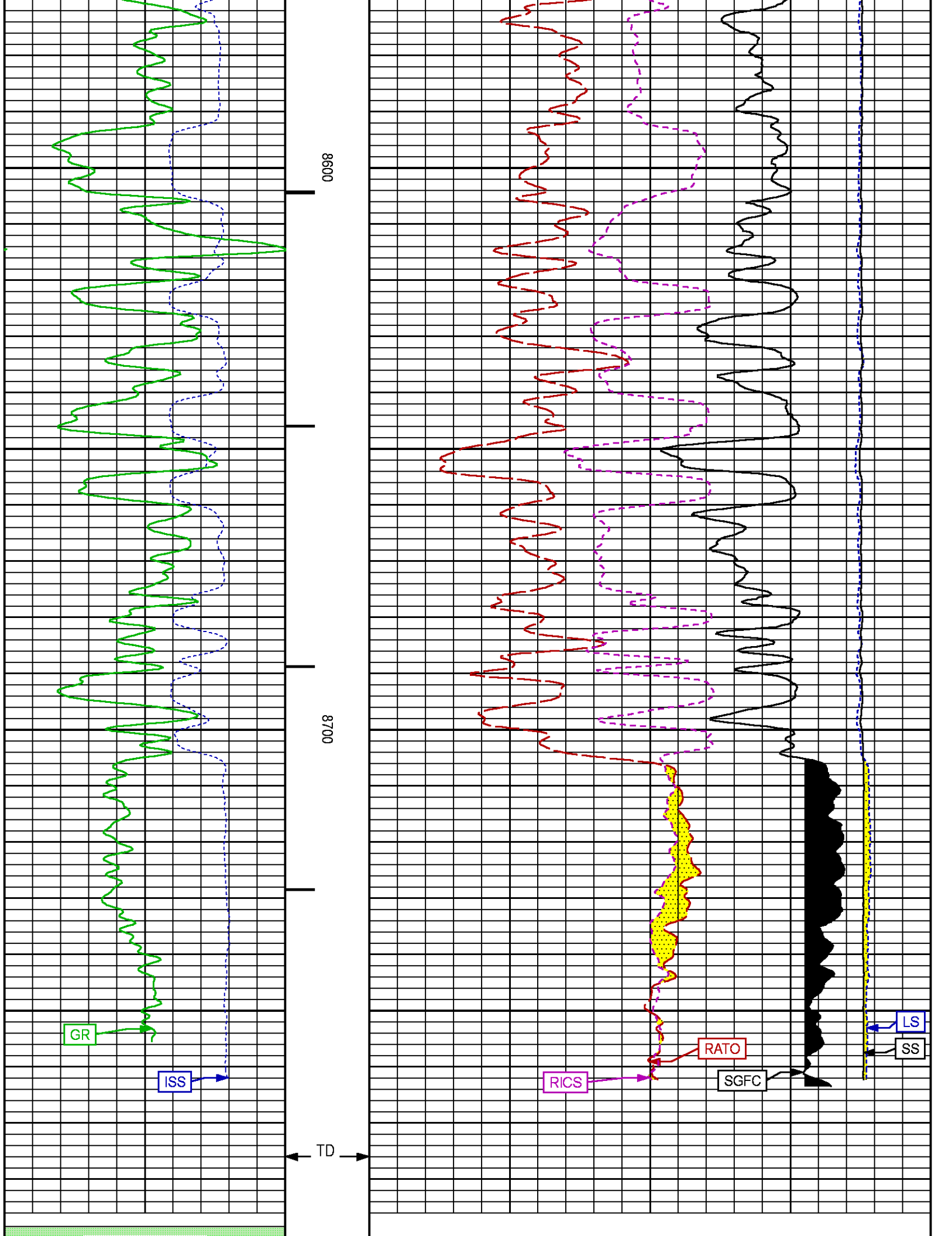


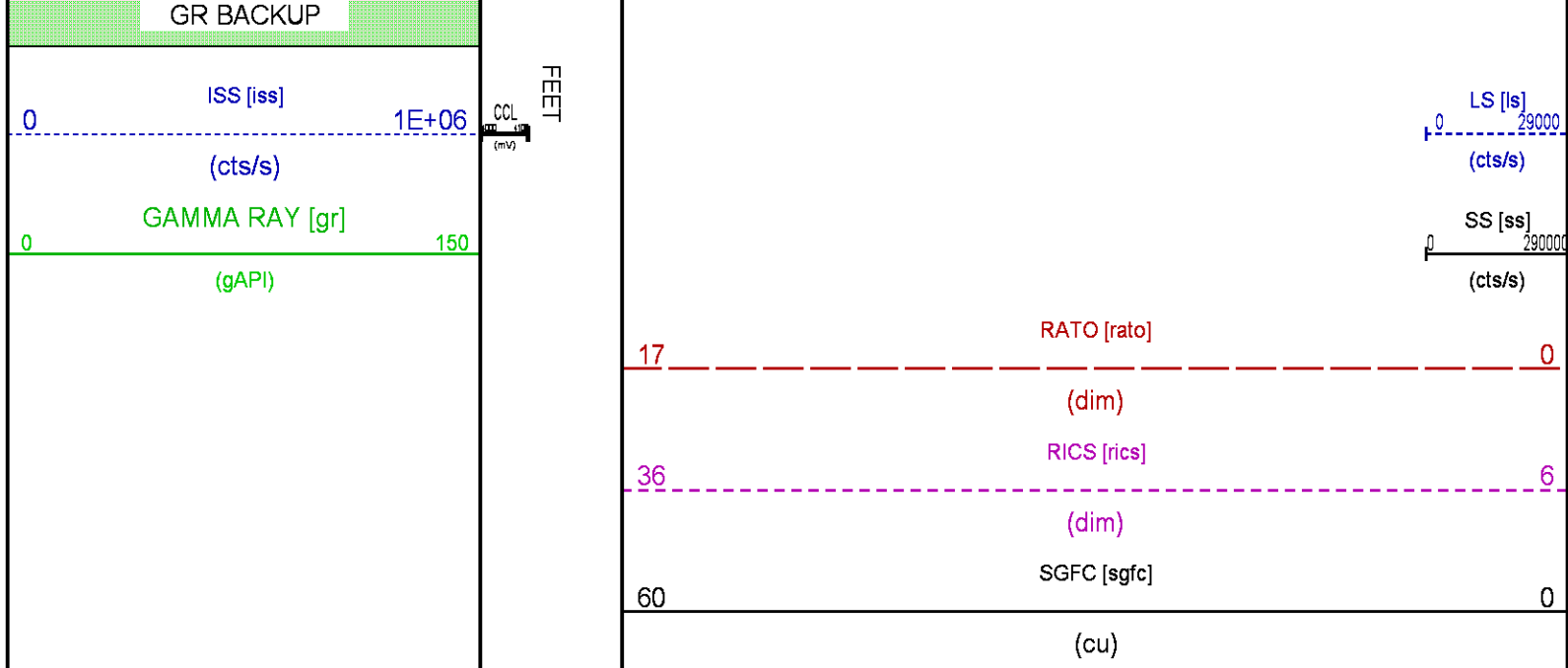












REPEAT SECTION PNC-3D MODE

ECLIPS 6.2i ECLIPS General Release Rel 6.2i Wed Jun 12 12:21:40 CDT 2013

Updates: 1 Patches: 9

Plotted: Wed Mar 2 10:35:07 2016

PARAMETER AND FILTER SUMMARY REPORT

FILE: /dat1a/CH105968/n354h01.prm  
LOGGING MODE: DEPTH DIRECTION: UP  
TOP DEPTH: 8550.250 ft BOTTOM DEPTH: 8799.994 ft

SYMMETRIC FILTER

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)
GR	FILTER ()	medium (1)		TOP BOTTOM

RPM PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)
PNC Parameters	BOREHOLE CONTENTS	FLUID		TOP BOTTOM
	OPEN/CASED HOLE	CASED HOLE		" "
	BOREHOLE SIZE	8.75	in	" "
	CASING SIZE	4.50	in	" "
	MATRIX	SANDSTONE		" "
	CORRECTION BUFFER	11		" "

CURVE DESCRIPTION REPORT

CURVE NAME	CREATION DATE	CURVE DESCRIPTION
F1:CCL	Mar 2 10:09:14 2016	CASING COLLAR LOCATOR
F1:GR	Mar 2 10:09:14 2016	GAMMA RAY
F1:ISS	Mar 2 10:09:14 2016	INELASTIC SHORT SPACE COUNT RATE
F1:LS	Mar 2 10:09:14 2016	LONG SPACE COUNT RATE
F1:RATO	Mar 2 10:09:14 2016	SHORT/LONG SPACE COUNT RATE RATIO
F1:RICS	Mar 2 10:09:14 2016	SHORT SPACE INELASTIC TO CAPTURE COUNT RATE RATIO (ISS/CSS)
F1:SGFC	Mar 2 10:09:14 2016	CORRECTED FORMATION SIGMA

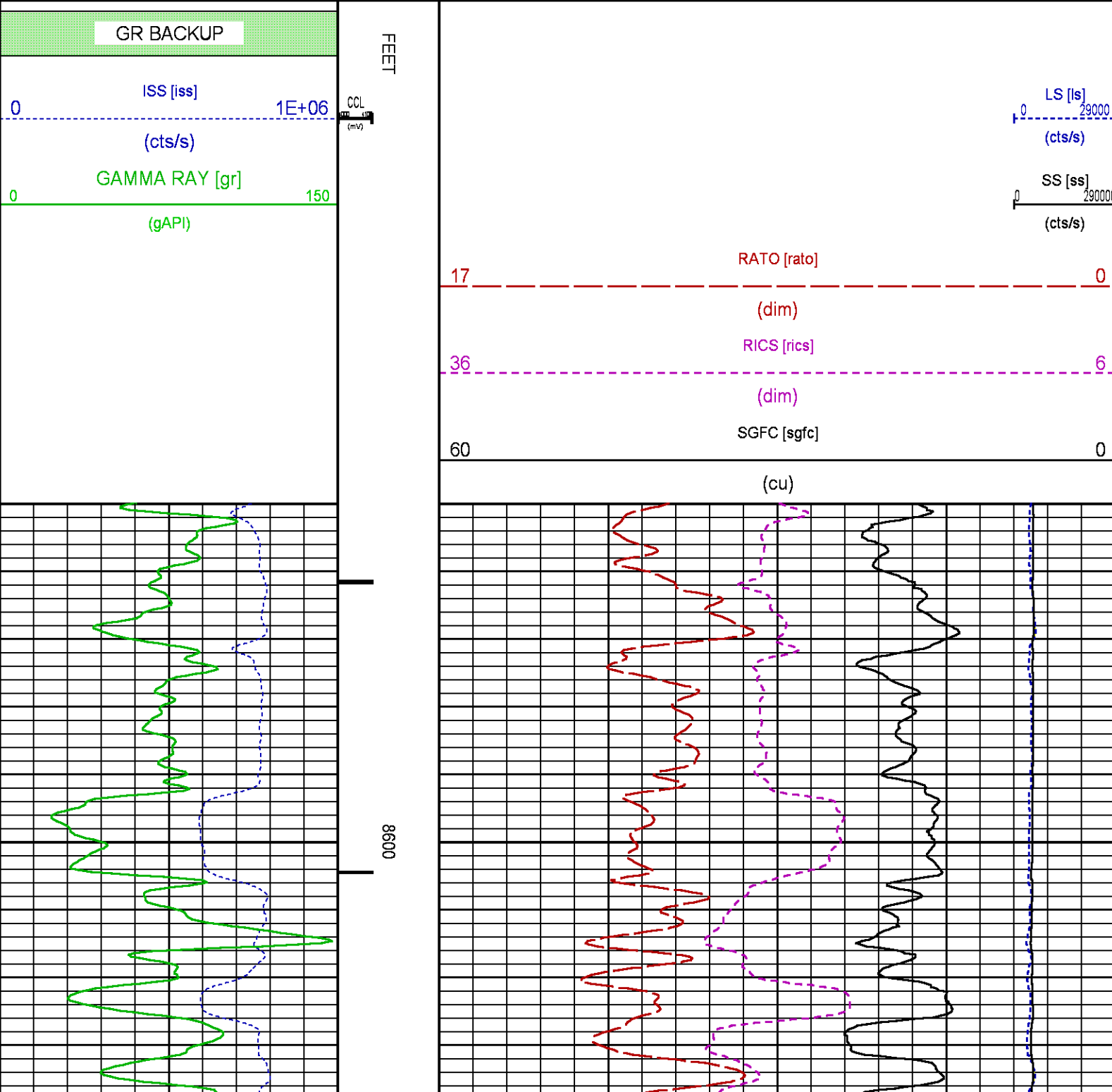


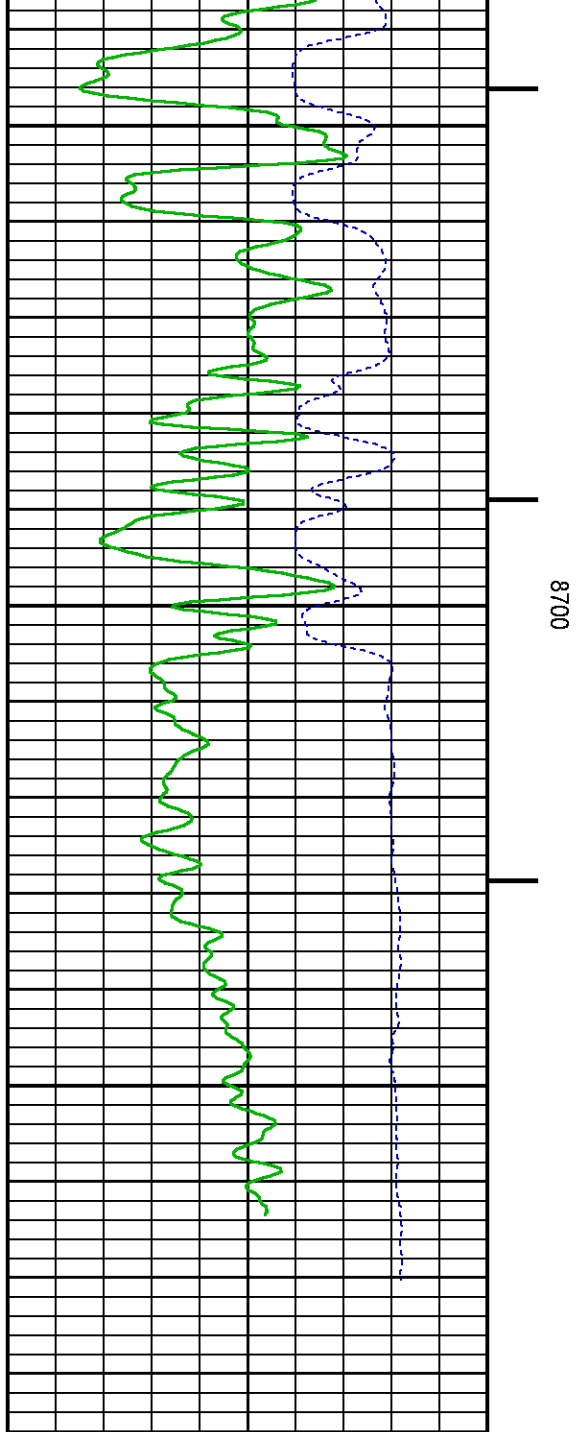
CURVE MEASURE POINT OFFSET

CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)
CCL	25.00	ISS	12.75	RATO	12.75	SGFC	12.75
GR	22.75	LS	12.75	RICS	12.75	SS	12.75

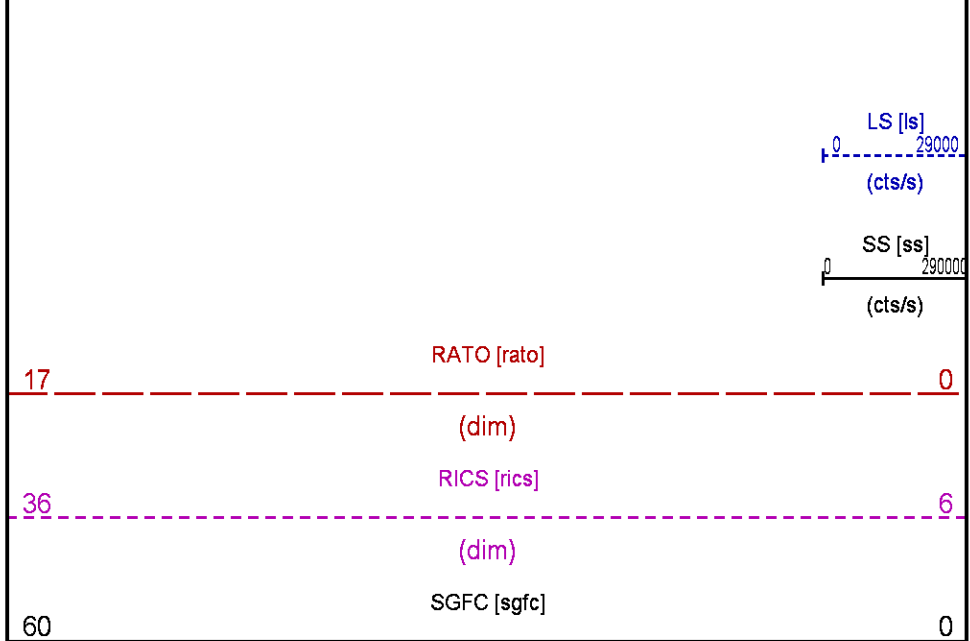
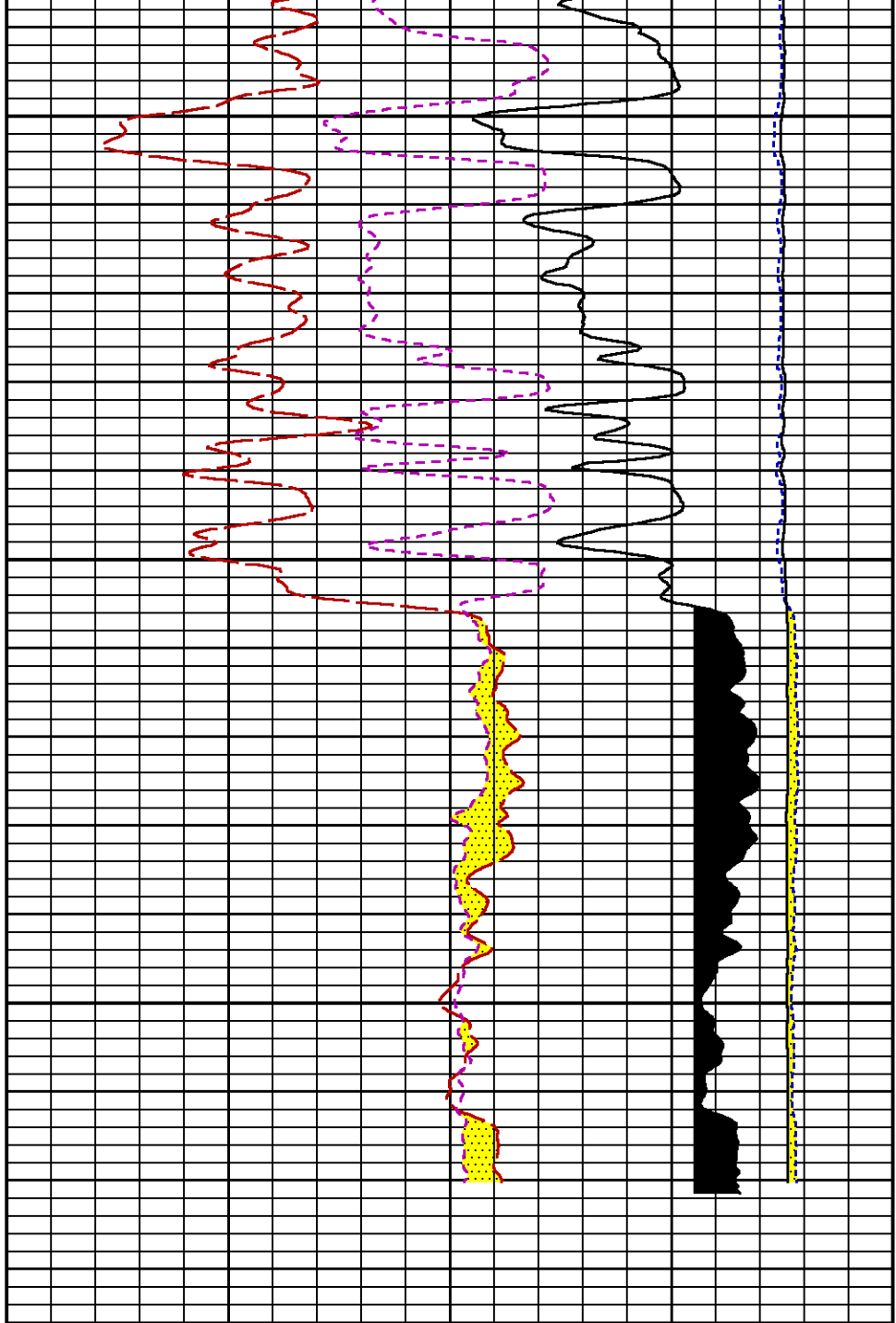
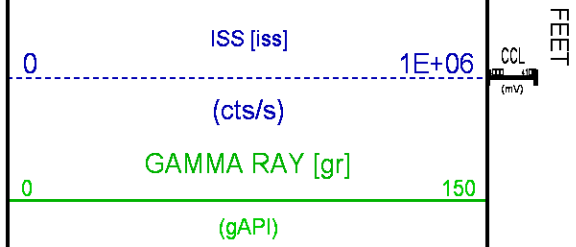
Presentation : cpu100:/dat1a/CH105968/14A1\_RPM\_REPEAT.fvpdf [5"/100' Scale]  
Plot Interval : 8550 - 8785 Feet

Data File 1 : F1 : cpu100:/dat1a/CH105968/14A1\_RPM\_REPEAT.xtf  
Created On : Mar 2 10:09:14 2016  
Company : CAERUS OPERATING LLC  
Well : PUCKETT 14A-1  
Field : GRAND VALLEY  
File Interval : 8516.5 - 8786.5 Feet  
OCT : n354h





# GR BACKUP



# CALIBRATION / VERIFICATION SUMMARY

Source File: /dat1a/CH105968/n354h.tp1

## GR PRIMARY CALIBRATION SUMMARY

TOOL #: 2812LA 10274382

DATE/TIME PERFORMED: Fri Feb 5 10:10:44 2016

UNIT #: 3880TA HL6670

CALB JIG #: 4702NK WA-612

	BACKGROUND (cts/s)	CALBRTR ON (cts/s)	CR DIFF (cts/s)	MULT	BACKGROUND (gAPI)	CALBRTR ON (gAPI)	CALBRTR (gAPI)
GR	54.09	241.76	187.7	1.119	60.53	270.53	210

## GR PRIMARY VERIFICATION SUMMARY

TOOL #: 2812LA 10274382

DATE/TIME PERFORMED: Fri Feb 5 10:13:40 2016

UNIT #: 3880TA HL6670

VERI JIG #: 4702NK WA-612

	BACKGROUND (cts/s)	CALBRTR ON (cts/s)	MULT	BACKGROUND (gAPI)	CALBRTR ON (gAPI)	DIFF. (gAPI)
GR	52.56	237.64	1.119	58.81	265.93	207.12
						200.00 220.00

## RPM\_PNC\_3D PRIMARY CALIBRATION SUMMARY

TOOL: 8283PA 10585555

DATE/TIME PERFORMED: Fri Feb 5 08:07:53 2016

UNIT: 3880TA HL6670

CALIBRATOR: 2437XB 112674

SOURCE: 8281AA 11724361

HOURS: 8281AA 112

	ISS	Mtr Vits (V)	SS Gain	LS Gain	XLS Gain	EA Temp (degF)	Sync Delay (usec)	RCAL
Raw Data	798993	122	2237	2204	2234	99	8.0	0.9816
Interpolated	1300000	146	2213	2188	2228			

	ISS	BKS	BKL	BKX	SGA1	SDA1	SGA2	SDA2
Raw Data	798993	6538	1028	140	26.21	0.14	24.32	0.32
					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	798993	172892	26613	89842	31919	8334	54311	13363
Fit Quality %		1.280	1.281	1.181	1.159	1.270	1.030	1.309

	ISS	RBOR	RIN ISS/LS	RIN13 ISS/IXS	RICS ISS/CSS	RATO SS/LS	RTWO SS2/LS	RONE CSS/CLS
Raw Data	798993	1.43	4.62	30.04	14.71	10.79	3.83	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 %		0.029	0.123	0.144	0.166	0.079	0.095	0.141
Reduced	1418643	1.43	4.61	29.99	14.70	10.79	3.83	4.07
		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

## TPSETEMP PRIMARY CALIBRATION SUMMARY

TOOL #: 8255XA 166341

DATE/TIME PERFORMED: Fri Feb 12 08:01:19 2016

UNIT #: 3880TA HL6670

	T(0)	T(1)	T(2)	T(3)
Corr Coeff for Temp	-1.828341E+01	9.988427E-02	8.122243E-07	-3.138442E-11

## INSTRUMENT CONFIGURATION

Source File: /dat1a/CH105968/RPM-tdg

### A3 CABLEHEAD

#### PCM POWER SUPPLY

Diameter : 1.70"  
Length : 3.86'  
Weight : 18 lbs  
Series : 8250EA  
Mnemonic : PCM

#### TELEMETRY / CCL

Diameter : 1.70"  
Length : 4.46'  
Weight : 20 lbs  
Series : 8248ED  
Mnemonic : PCM  
Measure Point: 1.00': CCL MP

### SONDEX GAMMA RAY

Diameter : 1.69"  
Length : 2.17'  
Weight : 10 lbs  
Series : 2812LA

#### RPM ELECTRONICS

Diameter : 1.70"  
Length : 4.48'  
Weight : 16 lbs  
Series : 8281EA  
Mnemonic : RPM

### RPM C DETECTOR SECTION

Diameter : 1.70"  
Length : 9.40'  
Weight : 41 lbs  
Series : 8283PA  
Mnemonic : RPM  
Measure Point: 5.45': XLS DETECTOR  
Measure Point: 5.04': LS DETECTOR  
Measure Point: 4.79': SS DETECTOR

33.24'

CCL MP 25.19'

GR MP 22.64'

XLS DETECTOR 13.58'  
LS DETECTOR 13.16'  
SS DETECTOR 12.91'

## RPM SOURCE SECTION

Diameter : 1.70"  
 Length : 4.70'  
 Weight : 18 lbs  
 Series : 8281FA  
 Mnemonic : RPM


## TEMPERATURE / PRESSURE

Diameter : 1.70"  
 Length : 3.30'  
 Weight : 13 lbs  
 Series : 8255XA  
 Mnemonic : SRPL  
 Measure Point: 1.52': TEMP MP

TEMP MP 1.65'  
 PRES MP 0.00'

## BULL PLUG 1 11/16

TOTAL LENGTH: 33.24'  
 TOTAL WEIGHT: 140 lbs  
 MAX DIAMETER: 0'1.70"

	<b>COMPANY</b> <u>CAERUS OPERATING LLC</u>		<b>FILE NO:</b> <u>CH105968</u>
	<b>WELL</b> <u>PUCKETT 14A-1</u>		<b>API NO:</b> <u>05045226160000</u>
	<b>FIELD</b> <u>GRAND VALLEY</u>		
	<b>COUNTY</b> <u>GARFIELD</u>	<b>STATE</b> <u>COLORADO</u>	
<b>LOCATION:</b> SHL: 304' FEL & 1095' FSL, 2 7S 97W BHL: 713' FEL & 1235' FSL, 1 7S 97W		<b>ELEVATIONS:</b> KB 8453.8 FT DF GL 8423.8 FT	SEC 1 T 7S R 97W PAD: MESA P2-797 RIG: H&P 330
SEC <u>1</u> TWP <u>7S</u> RGE <u>97W</u>		DATE <u>02-Mar-2016</u>	