



FILE NO: CH130077	COMPANY LARAMIE ENERGY
API NO: 05077104640000	WELL BRUTON 30-10W
	FIELD VEGA
	COUNTY MESA STATE COLORADO

Ver. 4.10	LOCATION: SHL: 39.252592 N, 107.814328 W BHL: 39.248819 N, 107.816281 W SEC 30 TWP 9S RGE 93W	OTHER SERVICES RAL
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PERMANENT DATUM LOG MEASURED FROM DRILL. MEAS. FROM	GL ELEVATION 7504 FT 30 FT ABOVE P.D. KB 7504 FT	ELEVATIONS: KB 7534 FT DF GL 7504 FT
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DATE	10-Jan-2018
RUN	1
TRIP	1
SERVICE ORDER	US130077
DEPTH DRILLER	7773 FT
DEPTH LOGGER	7674 FT
BOTTOM LOGGED INTERVAL	7674 FT
TOP LOGGED INTERVAL	2333 FT
TIME STARTED	17:00
TIME FINISHED	22:30
OPERATOR RIG TIME	5.5 HOURS
TYPE OF FLUID IN HOLE	WATER
FLUID DENSITY	NA
FLUID SALINITY	NA
FLUID LEVEL	55 FT
LOGGED CEMENT TOP	540 FT
WELLHEAD PRESSURE	0 PSI
MAXIMUM HOLE DEVIATION	NA
NOMINAL LOGGING SPEED	10 FMIN
MAX. RECORDED TEMP.	235 DEGF
REFERENCE LOG	BAKER HUGHES RAL
REFERENCE LOG DATE	08-Jan-2018
EQUIP. NO.	4291
LOCATION	T. NEWELL
GRAND JCT.	
RECORDED BY	
WITNESSED BY	NA

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.

REMARKS

RUN 1 TRIP 1: *2 OPERATIONS IN WELLBORE*

OPERATION 2: RPM/GR/CCL RUN IN PNC-3D MODE

SJ: 5839' - 5861'
SJ: 6932' - 6954'

EQUIPMENT DATA

RUN	TRIP	TOOL	SERIES NO.	SERIAL NO.	POSITION
1	1	PCM	8250EA	11745584	FREE
1	1	TEL/CCL	8248ED	10183585	FREE
1	1	GR	8262XA	10485470	FREE
1	1	RPM	8281EA	10387162	FREE
1	1	RPM	8283PA	10184883	FREE
1	1	RPM	8281FA	10460082	FREE
1	1	TEMP	8255XA	120516	FREE

RPM MAIN PASS G-SAND

ECLIPS 7.0i ECLIPS General Release Rel 7.0i Thu Jun 08 20:36:10 CDT 2017

Patches: 2

Plotted: Wed Jan 10 23:01:17 2018

PARAMETER AND FILTER SUMMARY REPORT

FILE: /dat1a/LARAMIE_BRUTON_30_10W/p353h03.prm
LOGGING MODE: DEPTH DIRECTION: UP
TOP DEPTH: 2318.905 ft BOTTOM DEPTH: 2947.683 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	7.87	in	"	"
	LARGEST CASING OD	4.50	in	"	"
	MATRIX	SANDSTONE		"	"

CURVE DESCRIPTION REPORT

CURVE NAME	CREATION DATE	CURVE DESCRIPTION
F1:CCL	N/A	CASING COLLAR LOCATOR
F1:GR	N/A	GAMMA RAY
F1:ISS	N/A	INELASTIC SHORT SPACE COUNT RATE
F1:LS	N/A	LONG SPACE COUNT RATE
F1:RATO	N/A	SHORT/LONG SPACE COUNT RATE RATIO
F1:RICS	N/A	SHORT SPACE INELASTIC TO CAPTURE COUNT RATE RATIO (ISS/CSS)
F1:SGFC	N/A	BOREHOLE AND DIFFUSION CORRECTED SIGMA
F1:SS	N/A	SHORT SPACE COUNT RATE

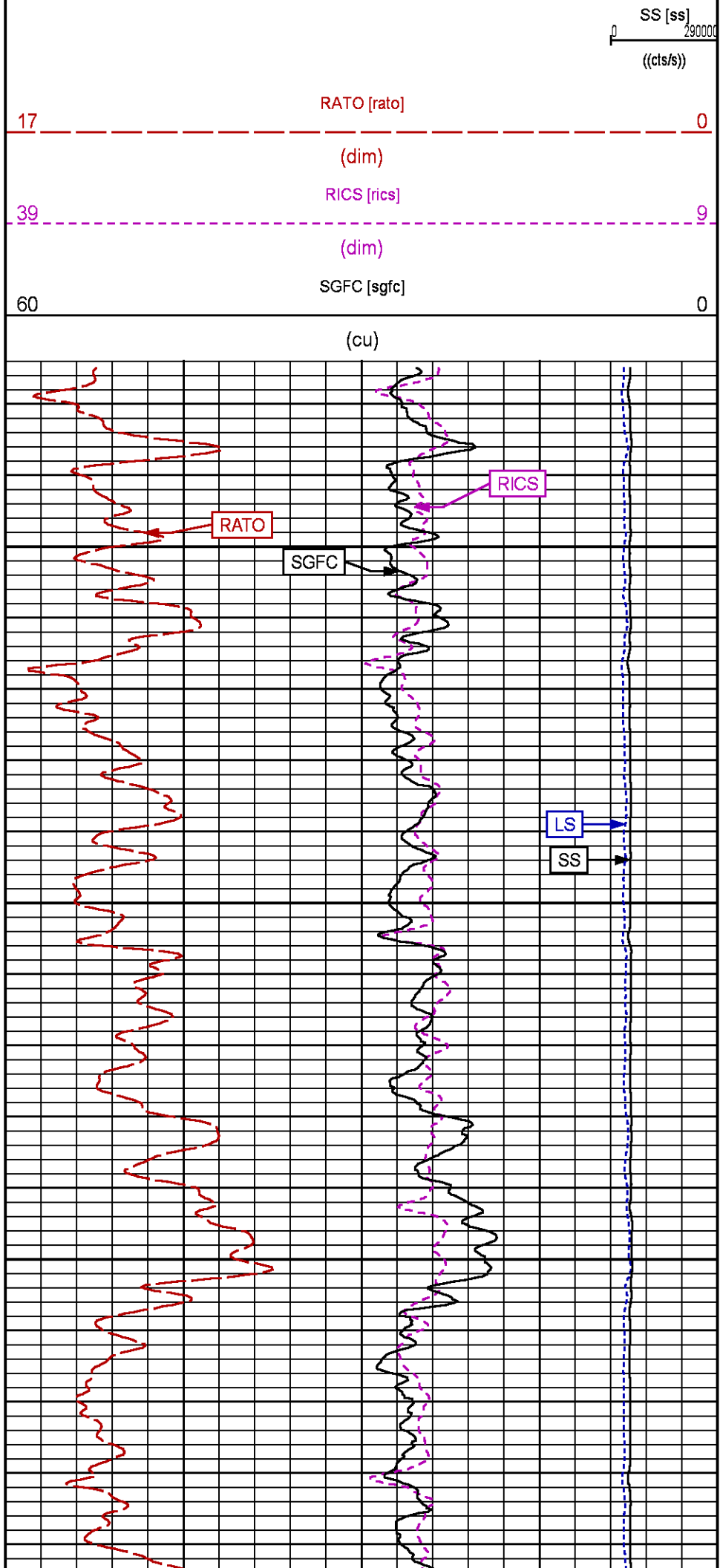
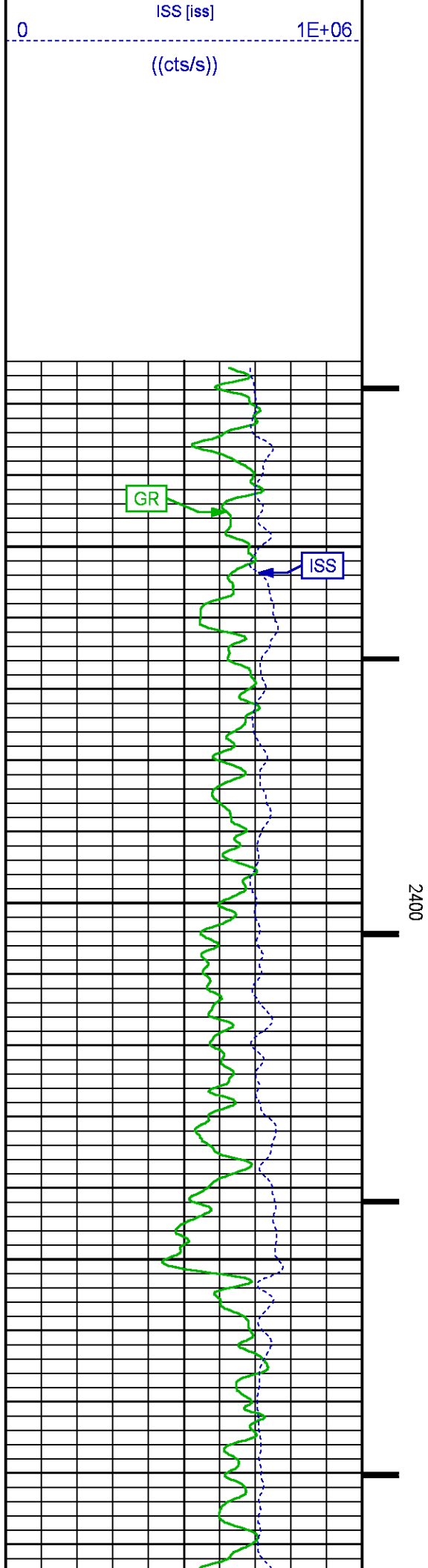
CURVE MEASURE POINT OFFSET

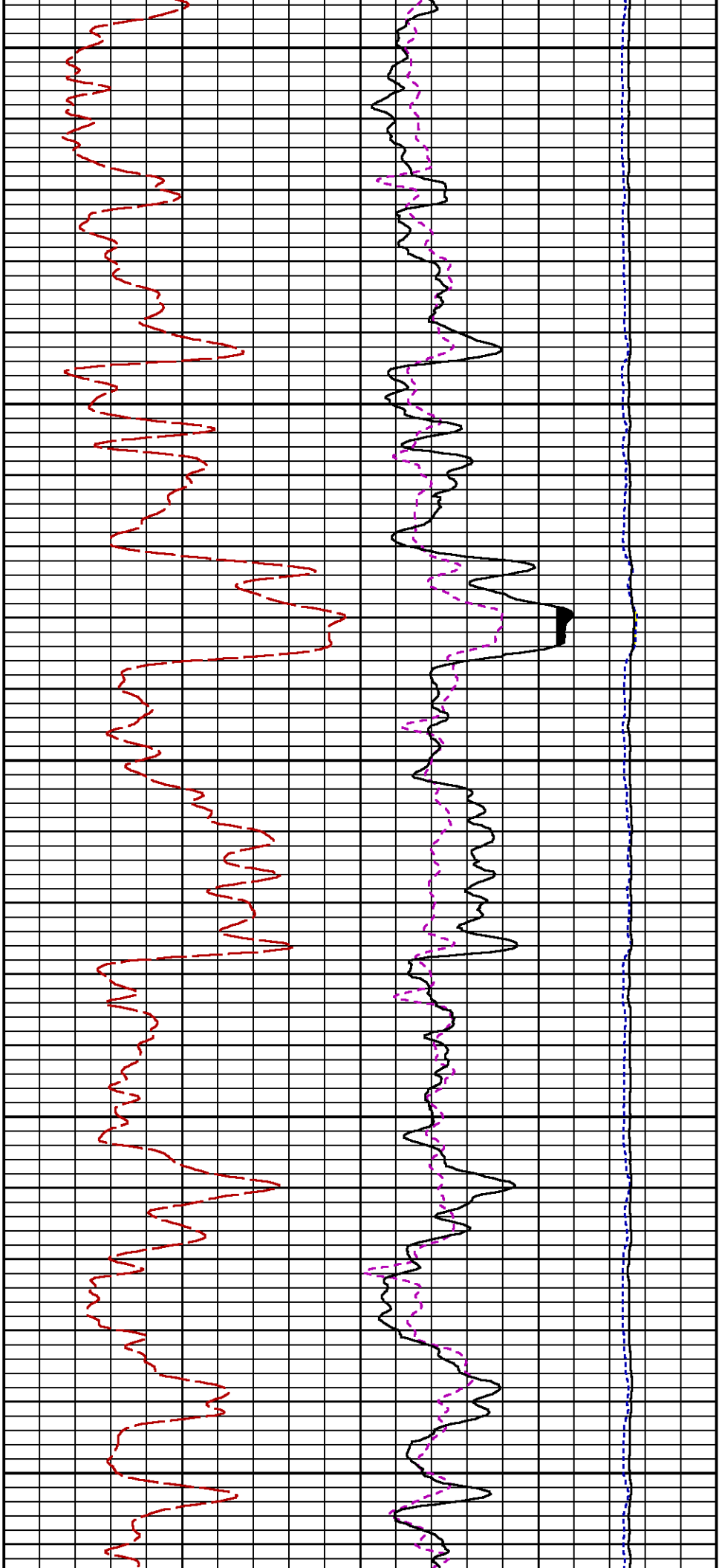
CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)
CCL	-26.00	ISS	-12.75	RATO	-12.75	SGFC	-12.75
GR	-23.00	LS	-12.75	RICS	-12.75	SS	-12.75

Presentation : SysA:/dat1a/LARAMIE_BRUTON_30_10W/30-10W_RPM_MAIN_GS.fvpdf [5"/100' Scale]
Plot Interval : 2325 - 2940 Feet

Data File 1 : F1 : SysA:/dat1a/LARAMIE_BRUTON_30_10W/30-10W_RPM_MAIN_GS.xtf
Created On : N/A
Company : LARAMIE ENERGY
Well : BRUTON 30-10W
Field : VEGA
File Interval : 2298.25 - 2951 Feet
OCT : p353h



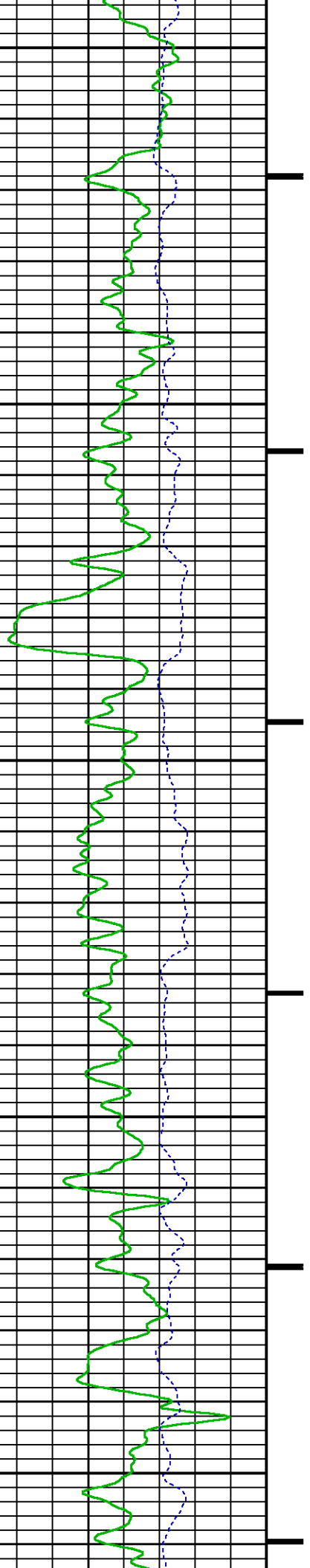


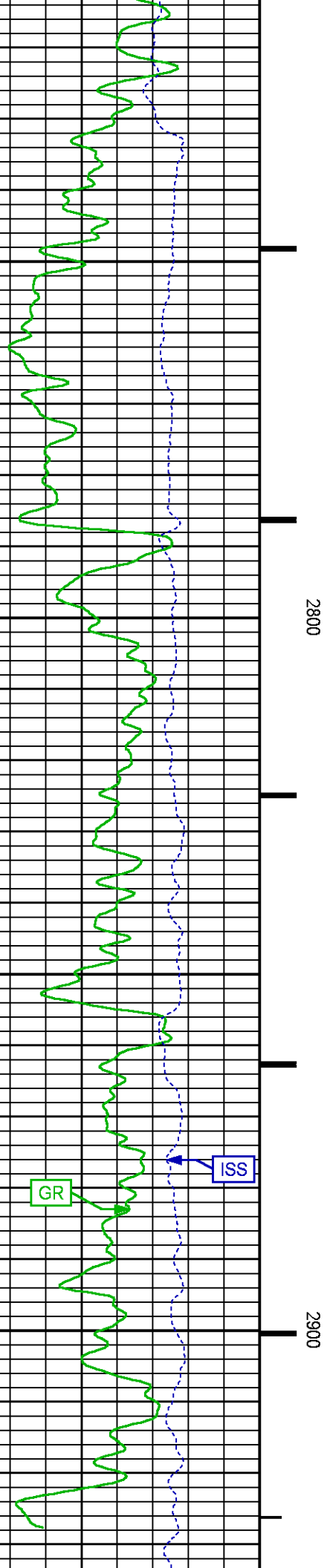
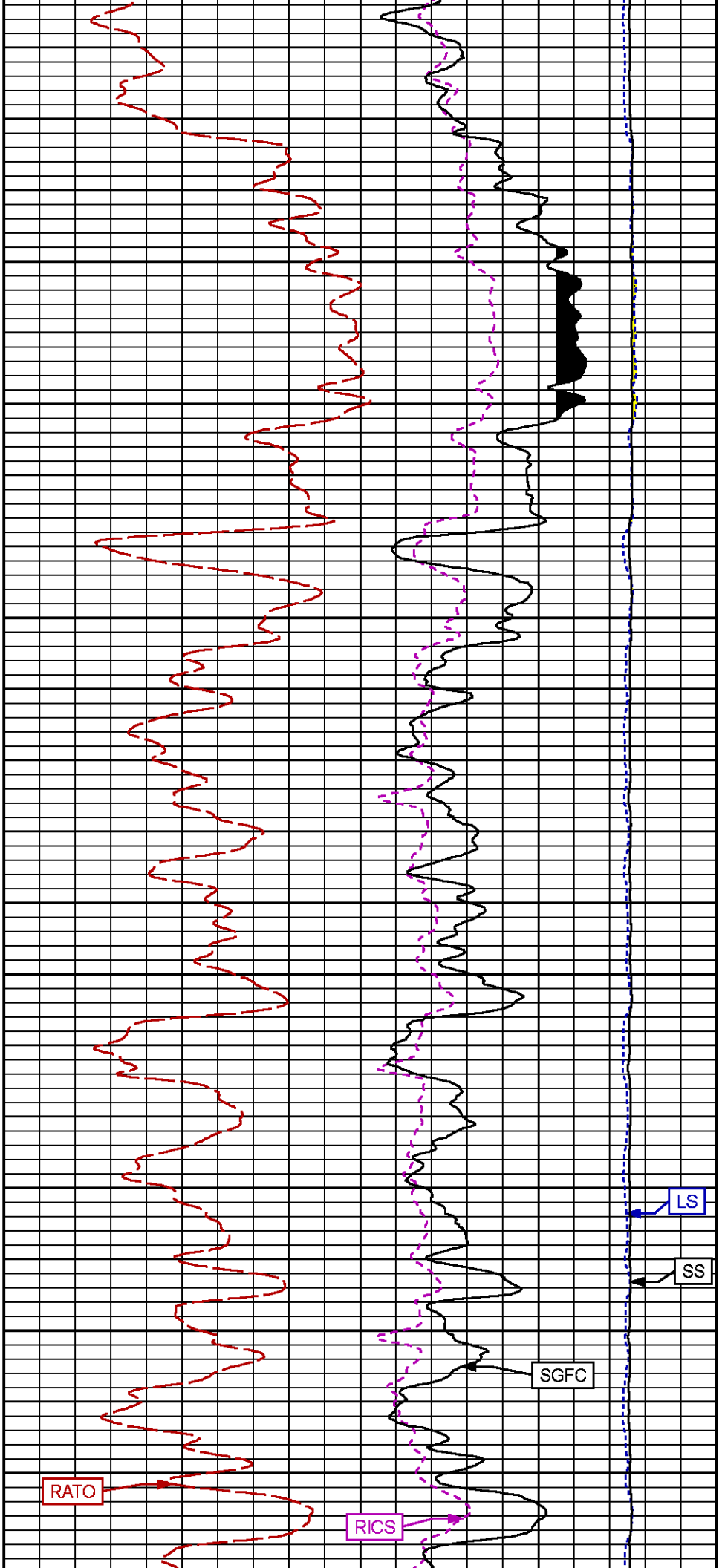


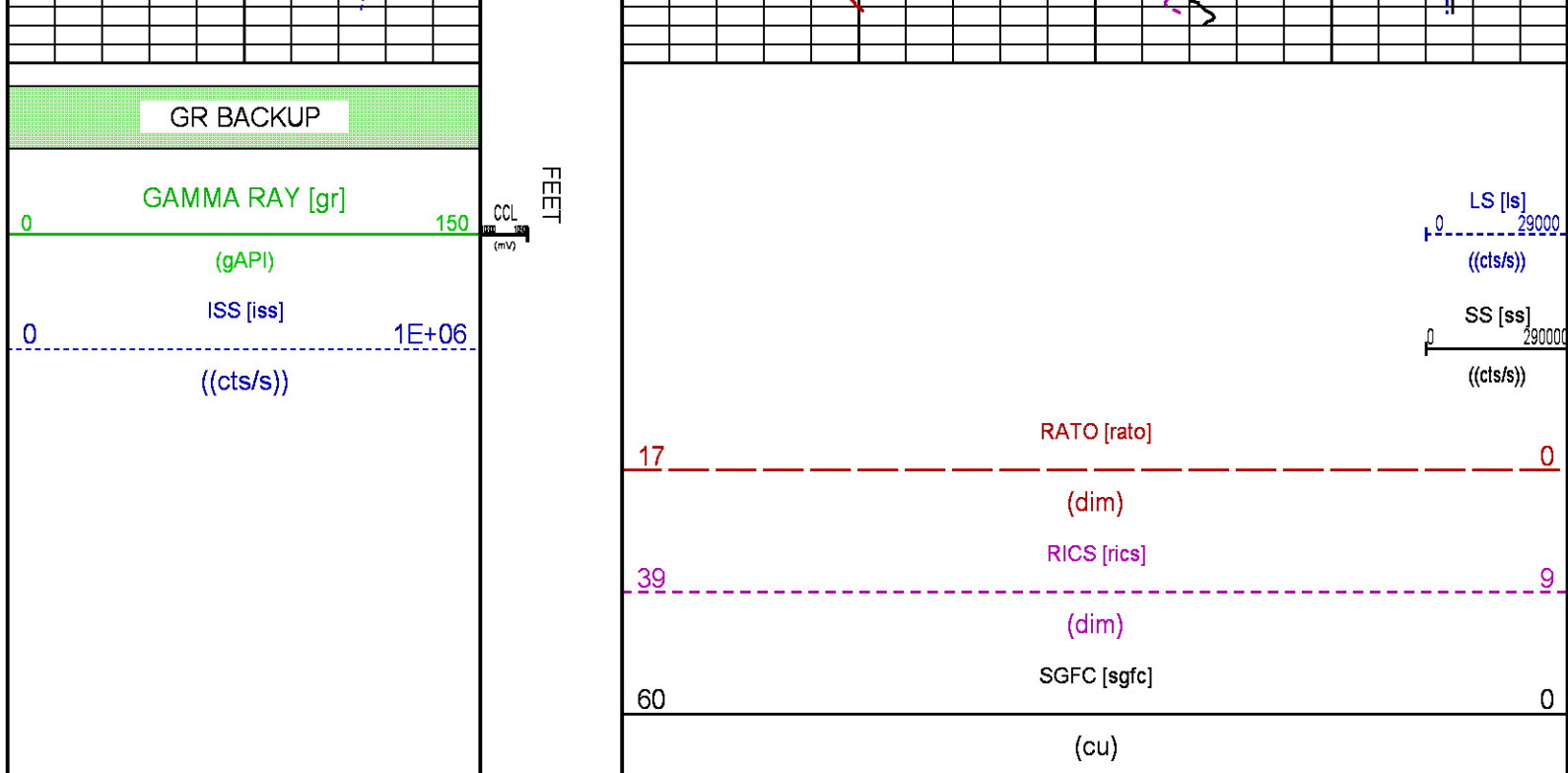
2500

2600

2700







RPM MAIN PASS WILLIAMS FORK

ECLIPS 7.0i ECLIPS General Release Rel 7.0i Thu Jun 08 20:36:10 CDT 2017

Patches: 2

Plotted: Wed Jan 10 22:33:54 2018

PARAMETER AND FILTER SUMMARY REPORT

FILE: /dat1a/LARAMIE_BRUTON_30_10W/p353h02.prm
LOGGING MODE: DEPTH DIRECTION: UP
TOP DEPTH: 4445.705 ft BOTTOM DEPTH: 7681.664 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	7.87	in	" "
	LARGEST CASING OD	4.50	in	" "
	MATRIX	SANDSTONE		" "

CURVE DESCRIPTION REPORT

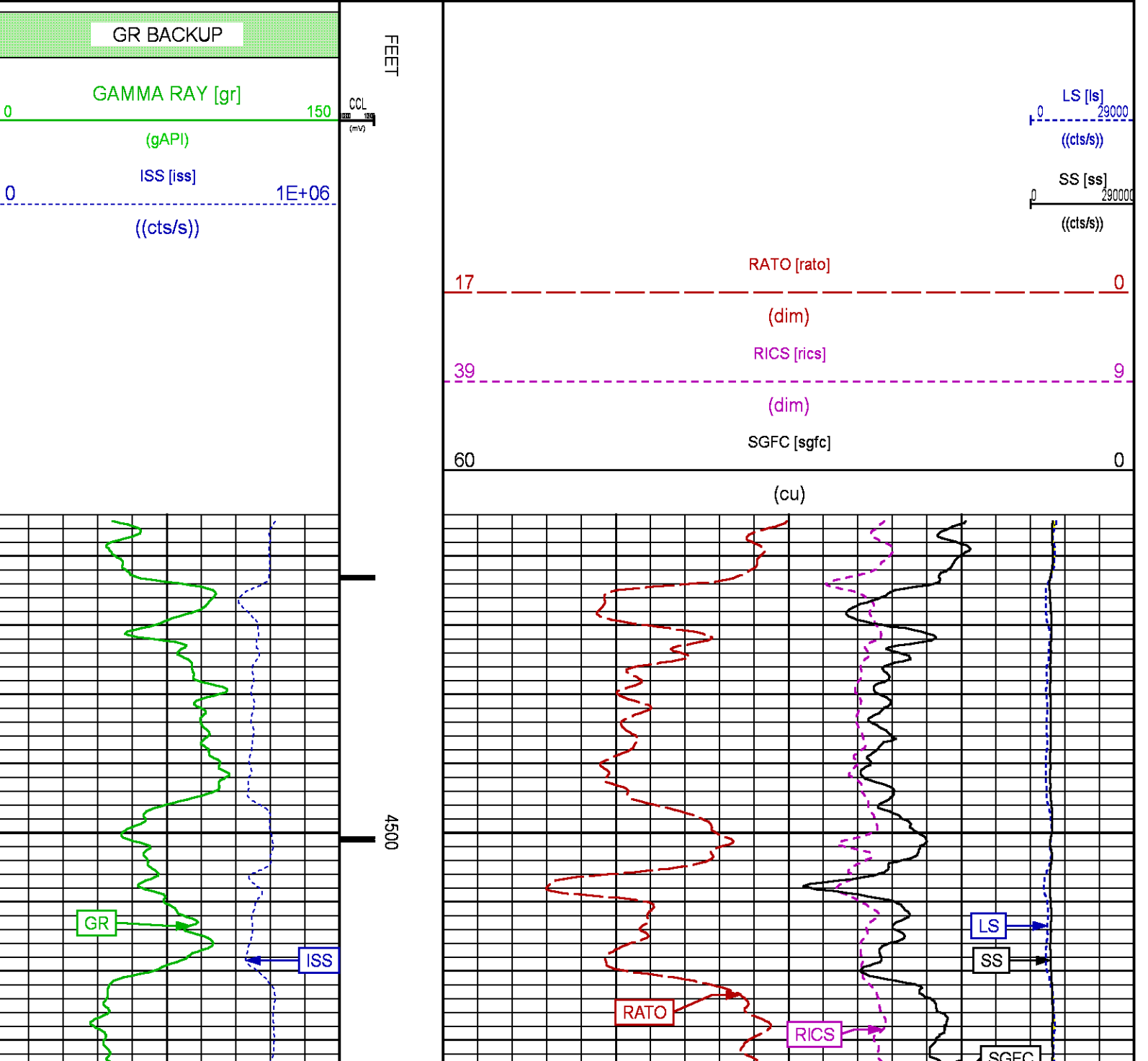
CURVE NAME	CREATION DATE	CURVE DESCRIPTION
F1:CCL	N/A	CASING COLLAR LOCATOR
F1:GR	N/A	GAMMA RAY
F1:ISS	N/A	INELASTIC SHORT SPACE COUNT RATE
F1:LS	N/A	LONG SPACE COUNT RATE

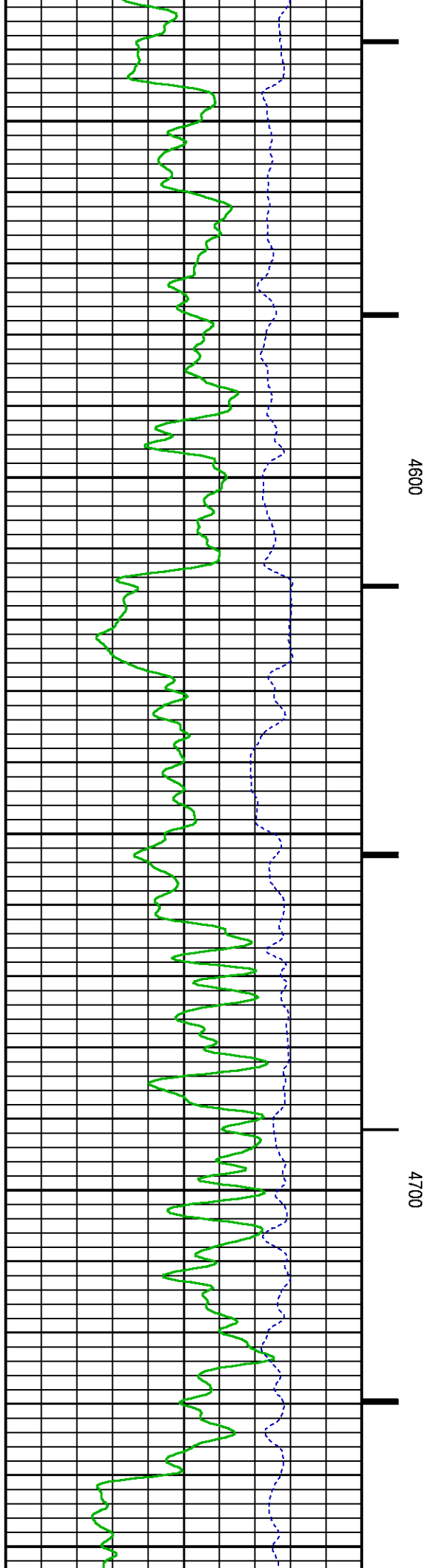
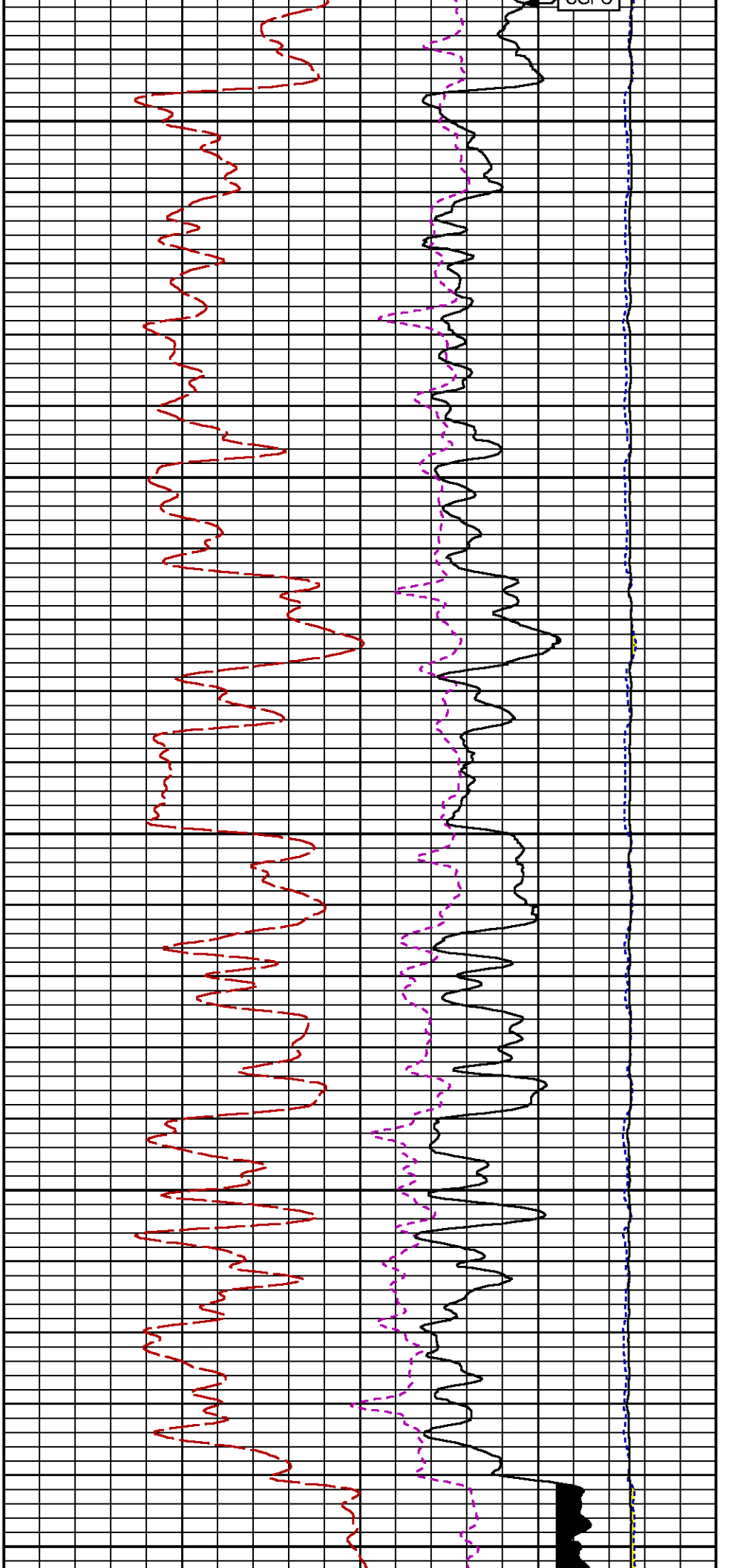
F1:RATO	N/A	SHORT/LONG SPACE COUNT RATE RATIO
F1:RICS	N/A	SHORT SPACE INELASTIC TO CAPTURE COUNT RATE RATIO (ISS/CSS)
F1:SGFC	N/A	BOREHOLE AND DIFFUSION CORRECTED SIGMA
F1:SS	N/A	SHORT SPACE COUNT RATE

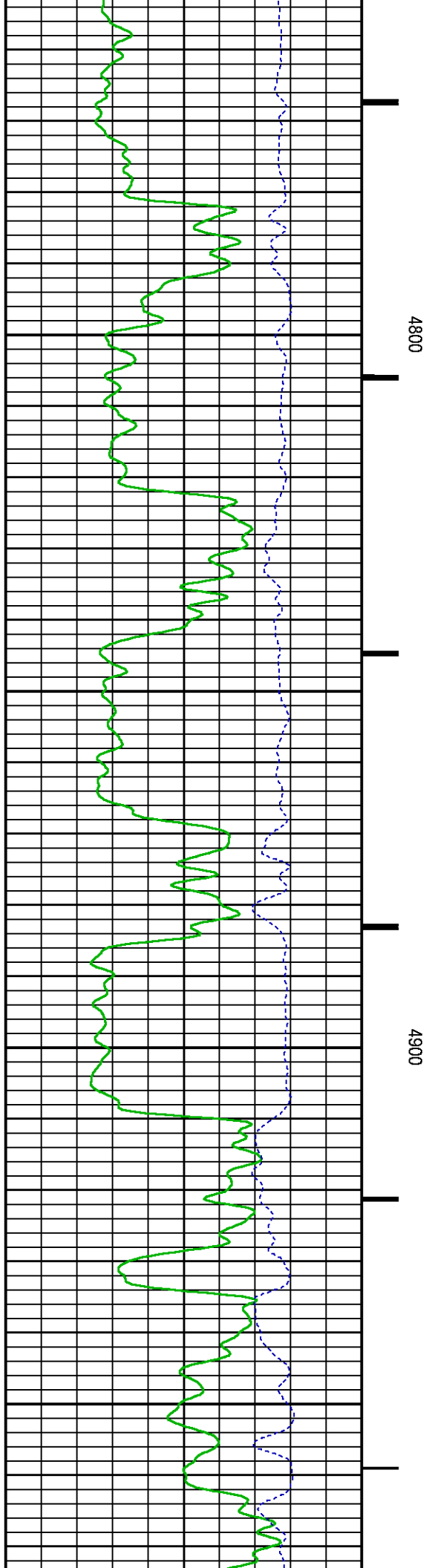
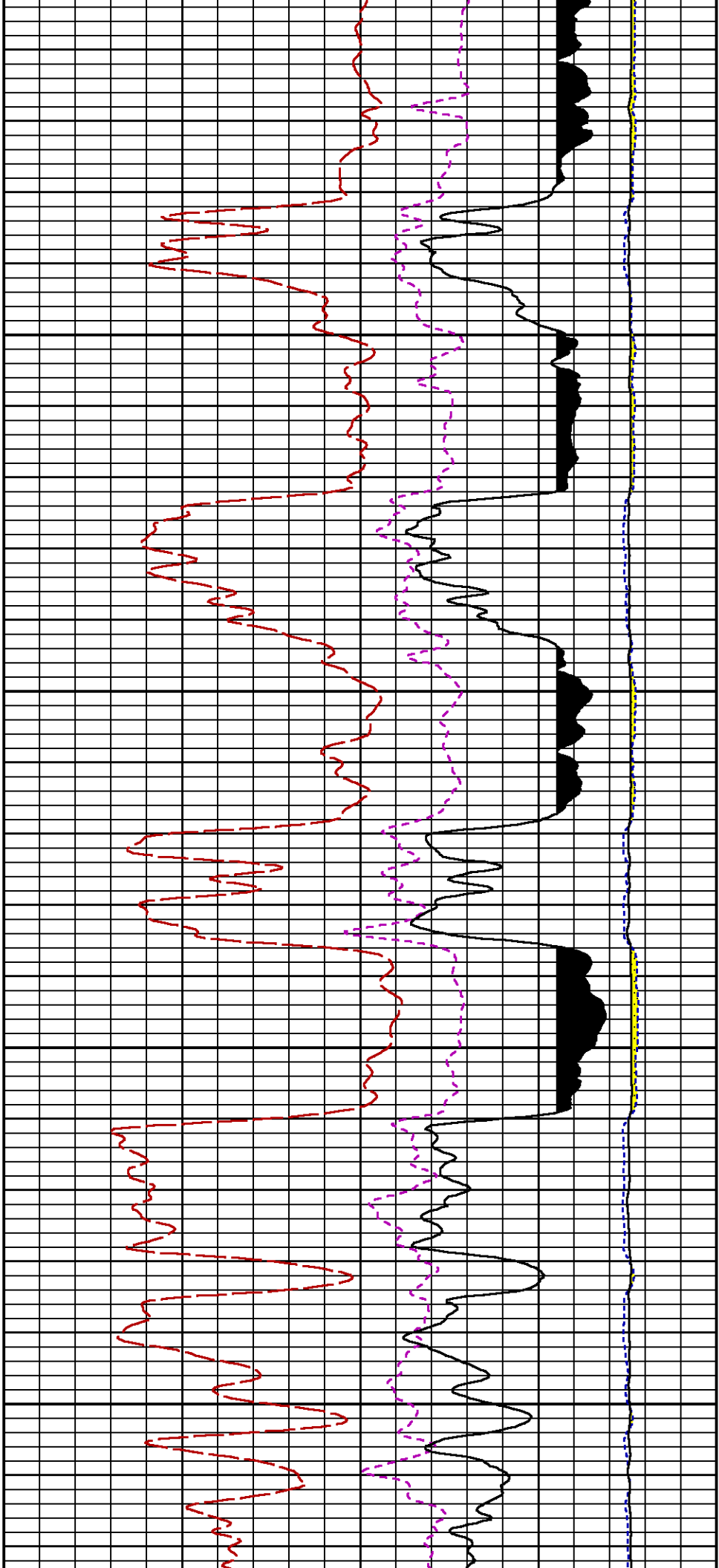
CURVE MEASURE POINT OFFSET

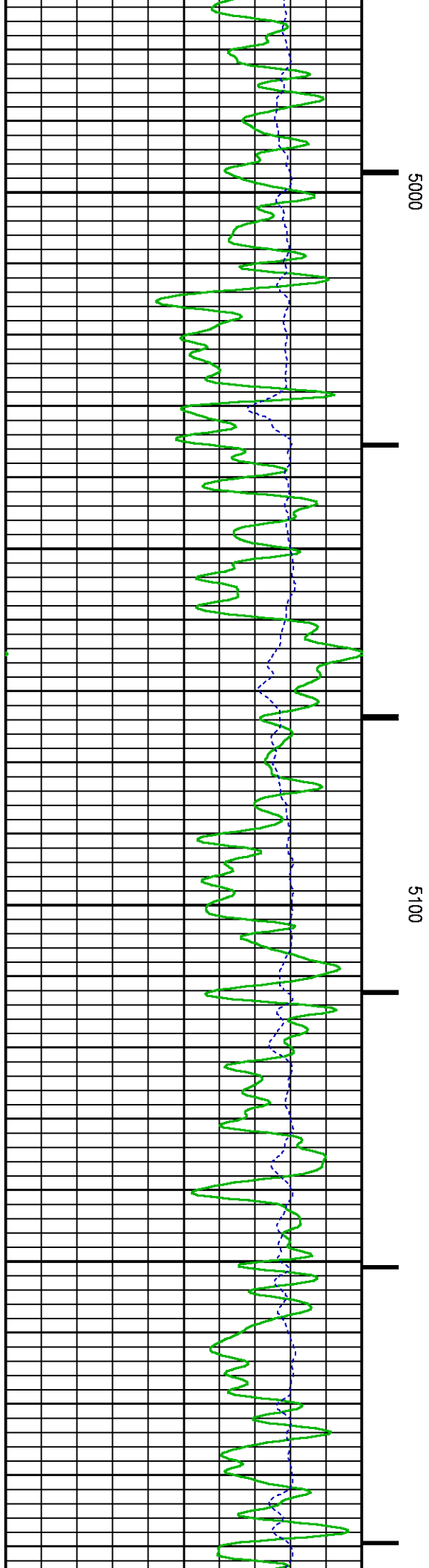
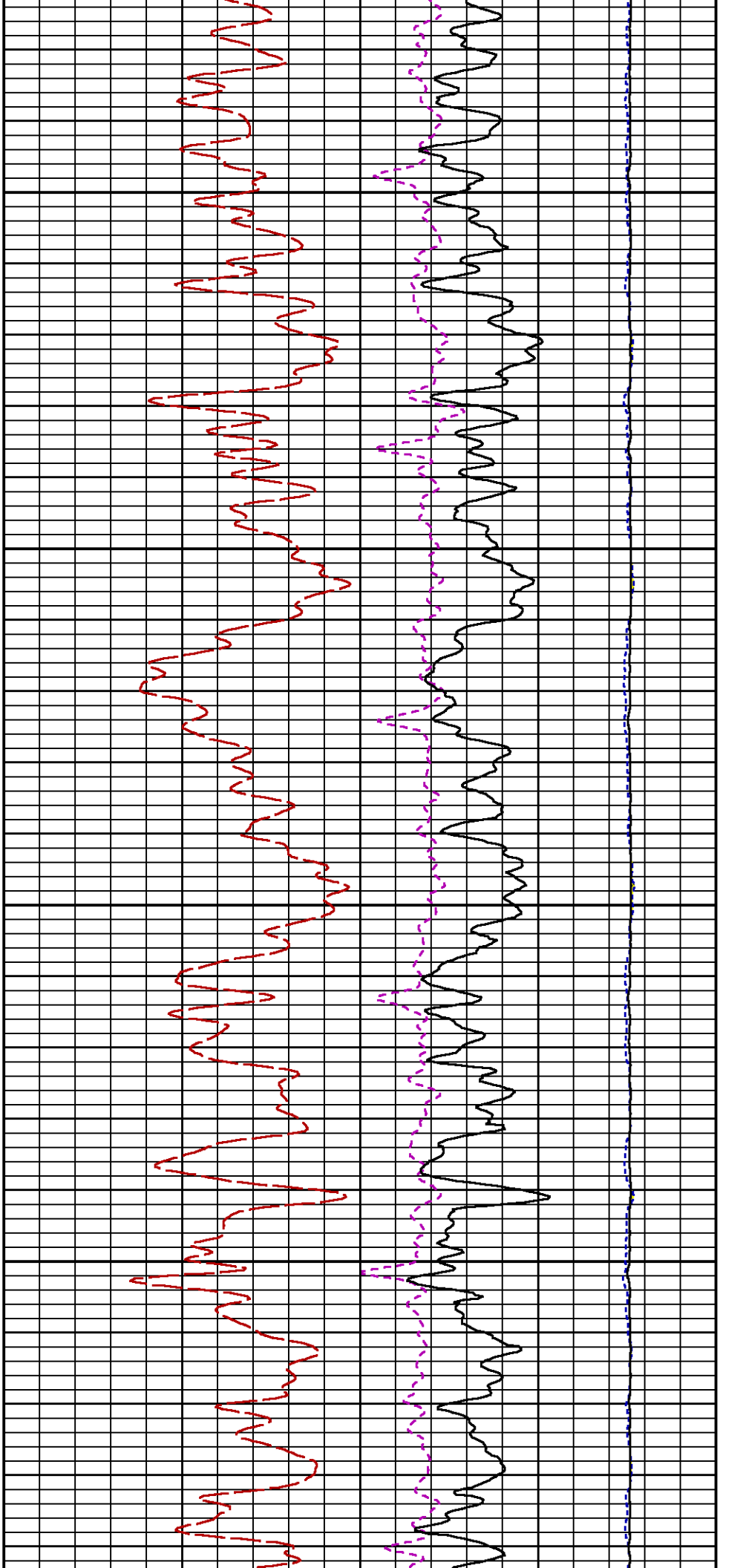
CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)
CCL	-26.00	ISS	-12.75	RATO	-12.75	SGFC	-12.75
GR	-23.00	LS	-12.75	RICS	-12.75	SS	-12.75

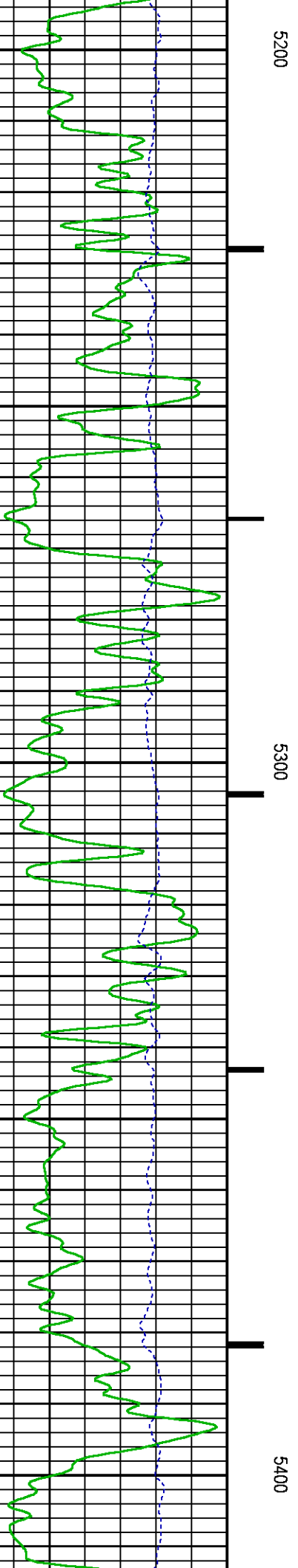
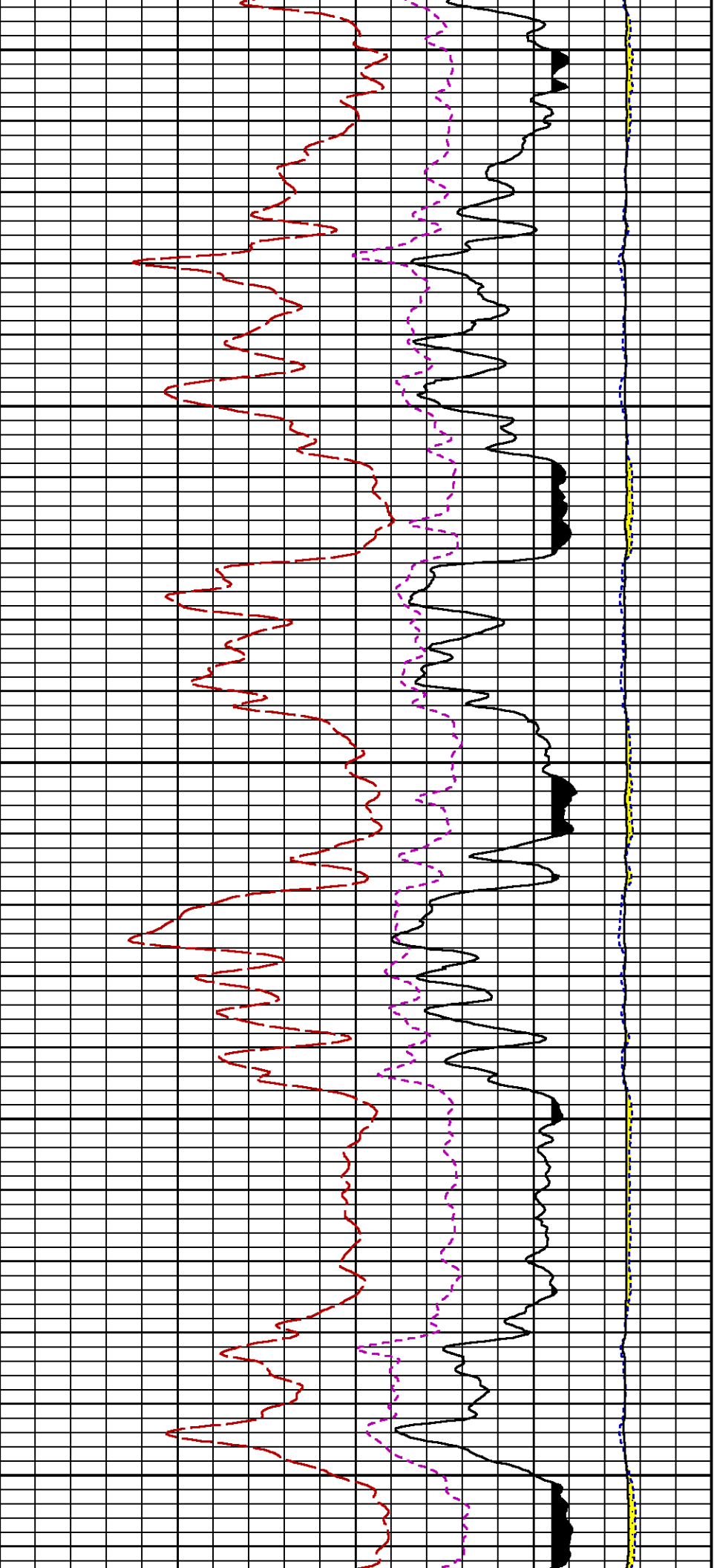
Presentation	: SysA:/dat1a/LARAMIE_BRUTON_30_10W/30-10W_RPM_MAIN_WF.fvpdf [5"/100" Scale]
Plot Interval	: 4455 - 7680 Feet
Data File 1	: F1 : SysA:/dat1a/LARAMIE_BRUTON_30_10W/30-10W_RPM_MAIN_WF_1.xtf
Created On	: N/A
Company	: LARAMIE ENERGY
Well	: BRUTON 30-10W
Field	: VEGA
File Interval	: 4422.75 - 7683 Feet
OCT	: p353h

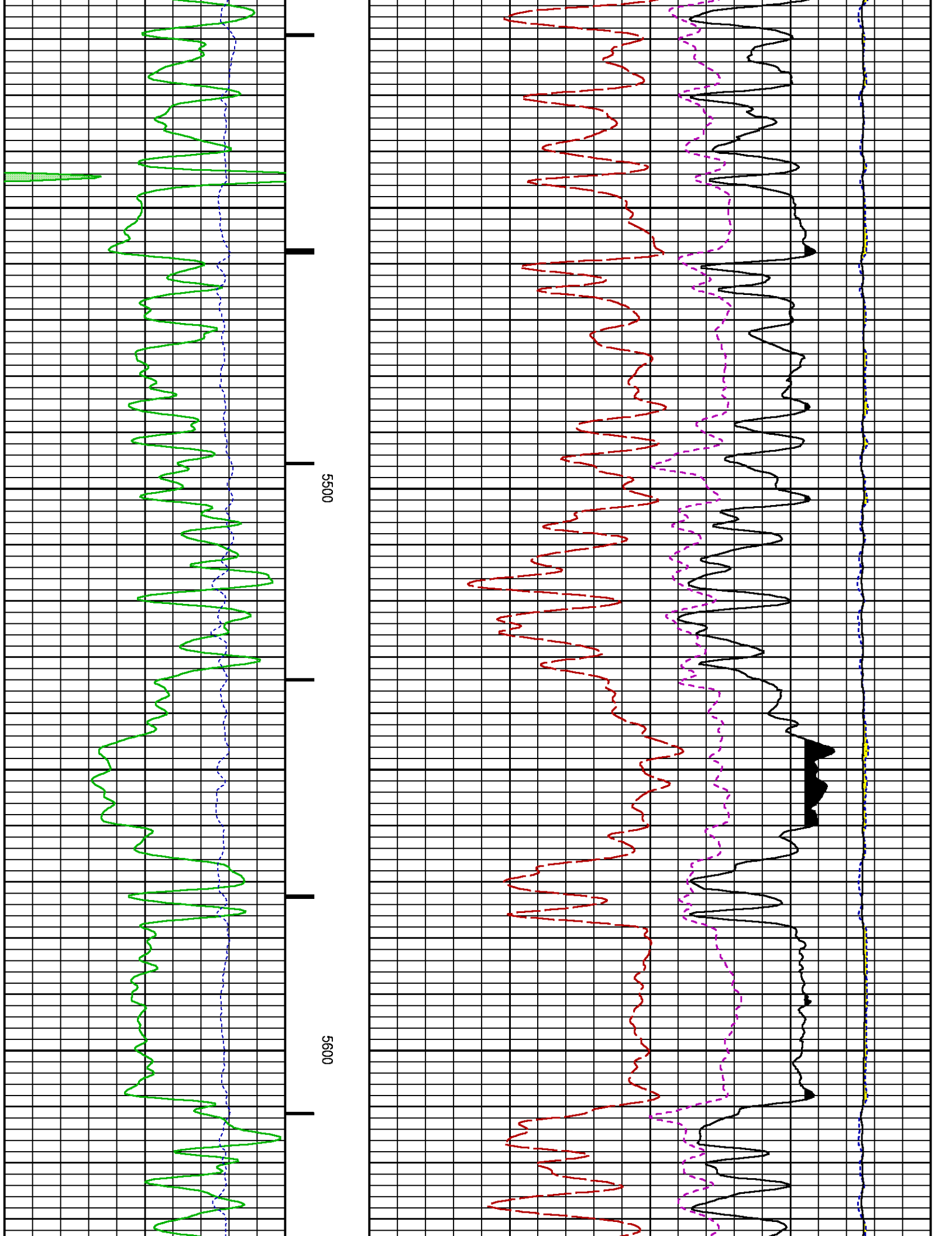


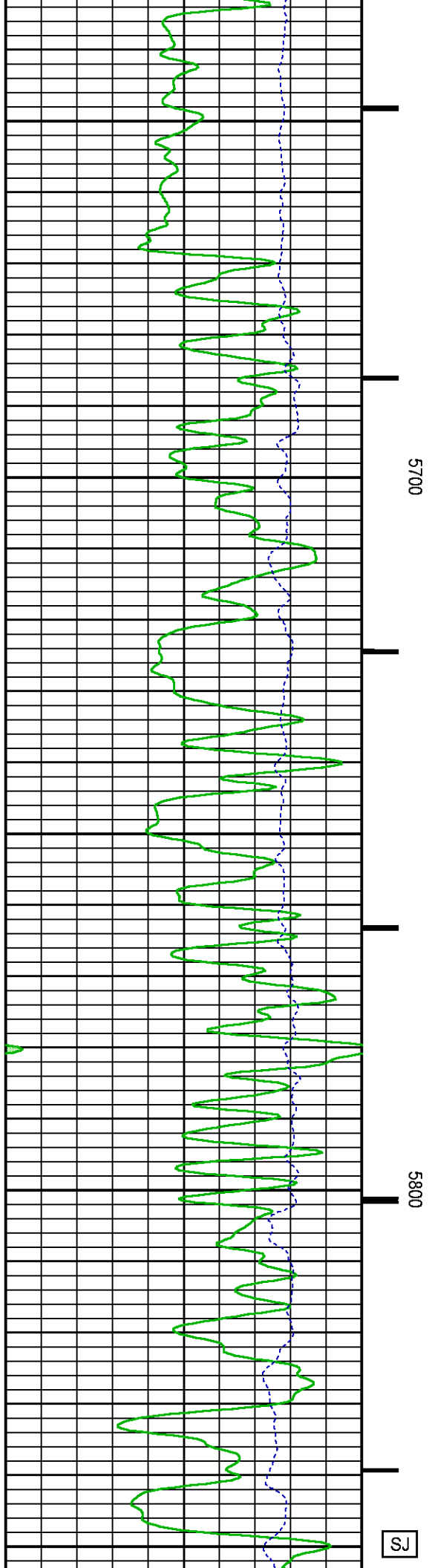
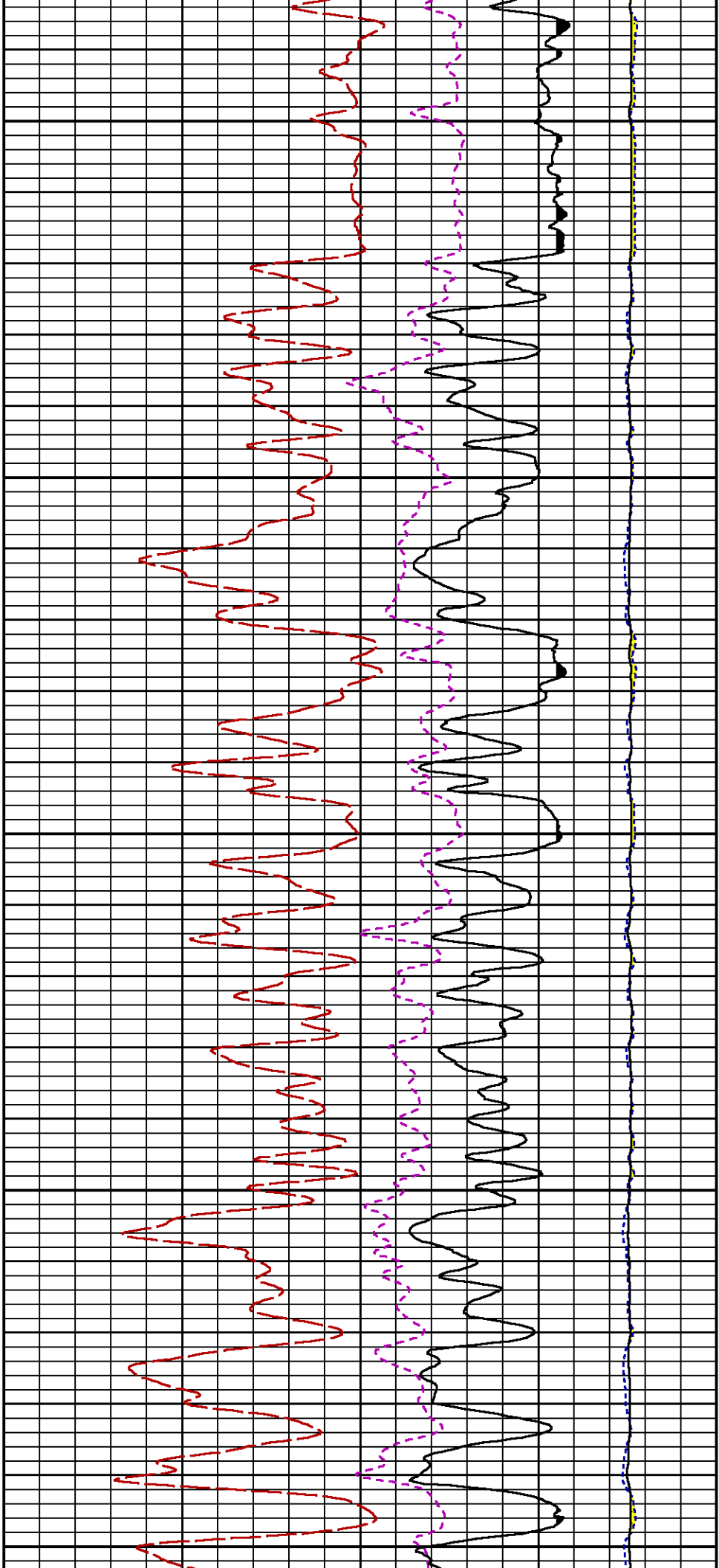


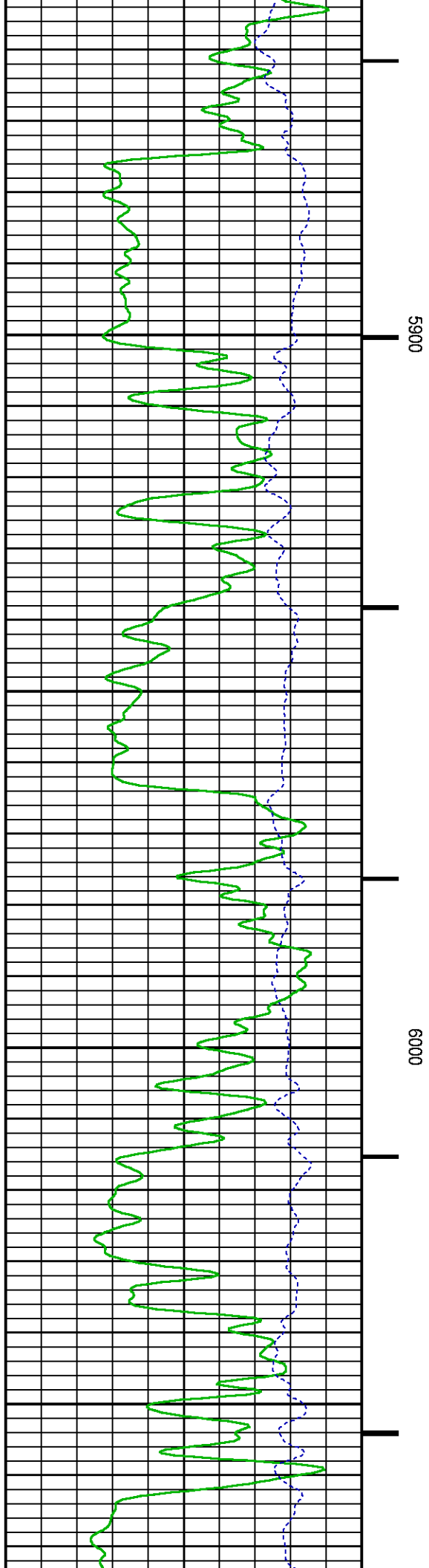
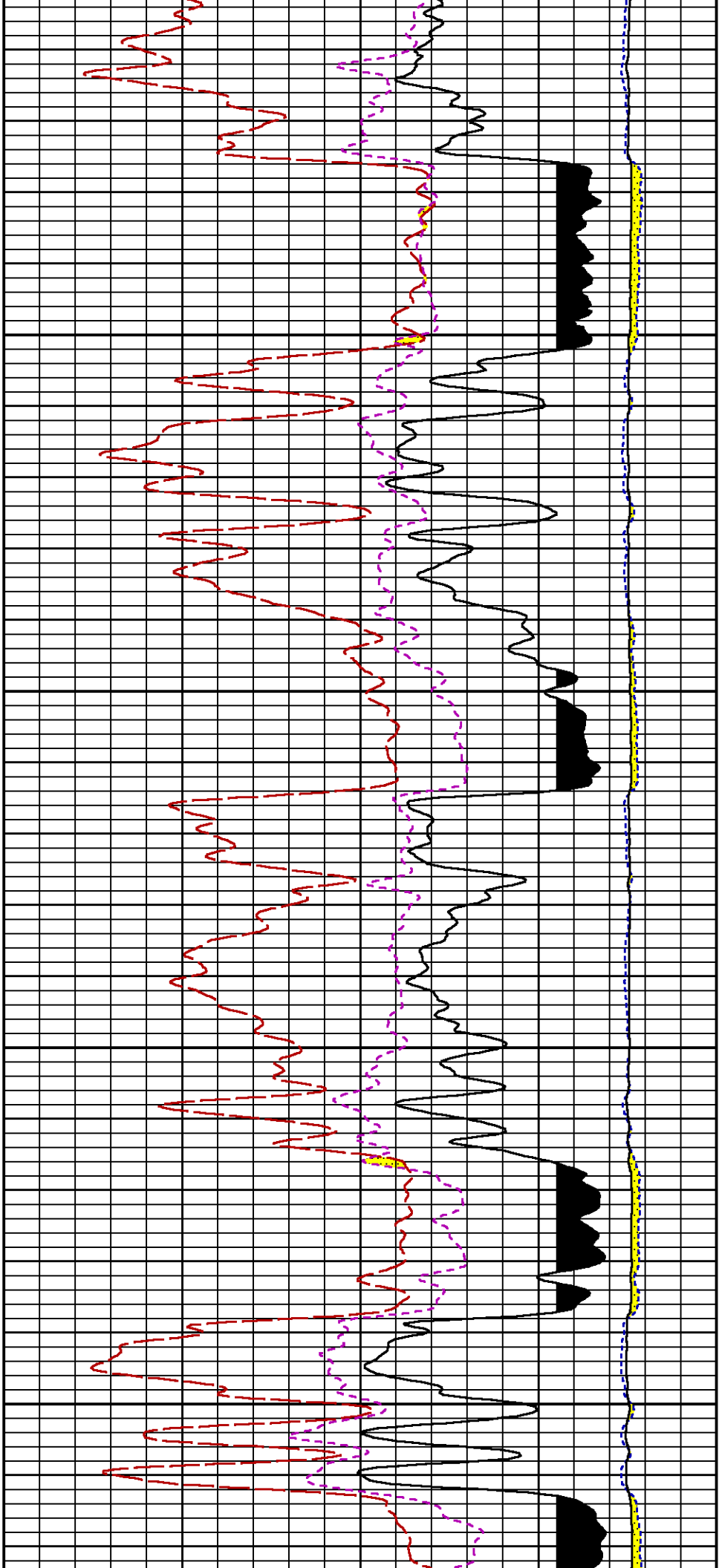


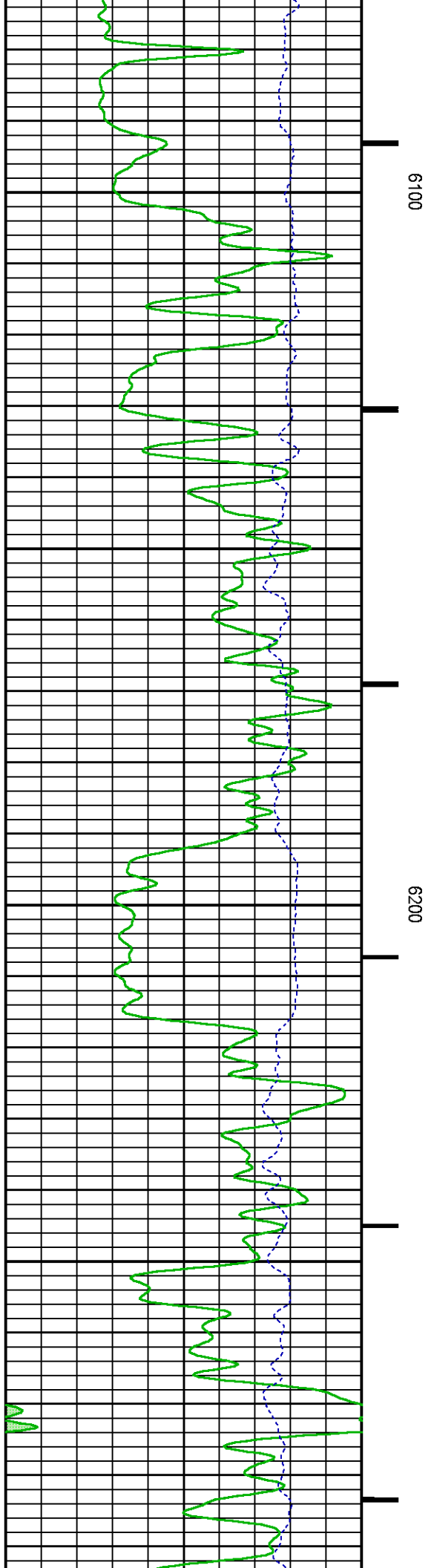
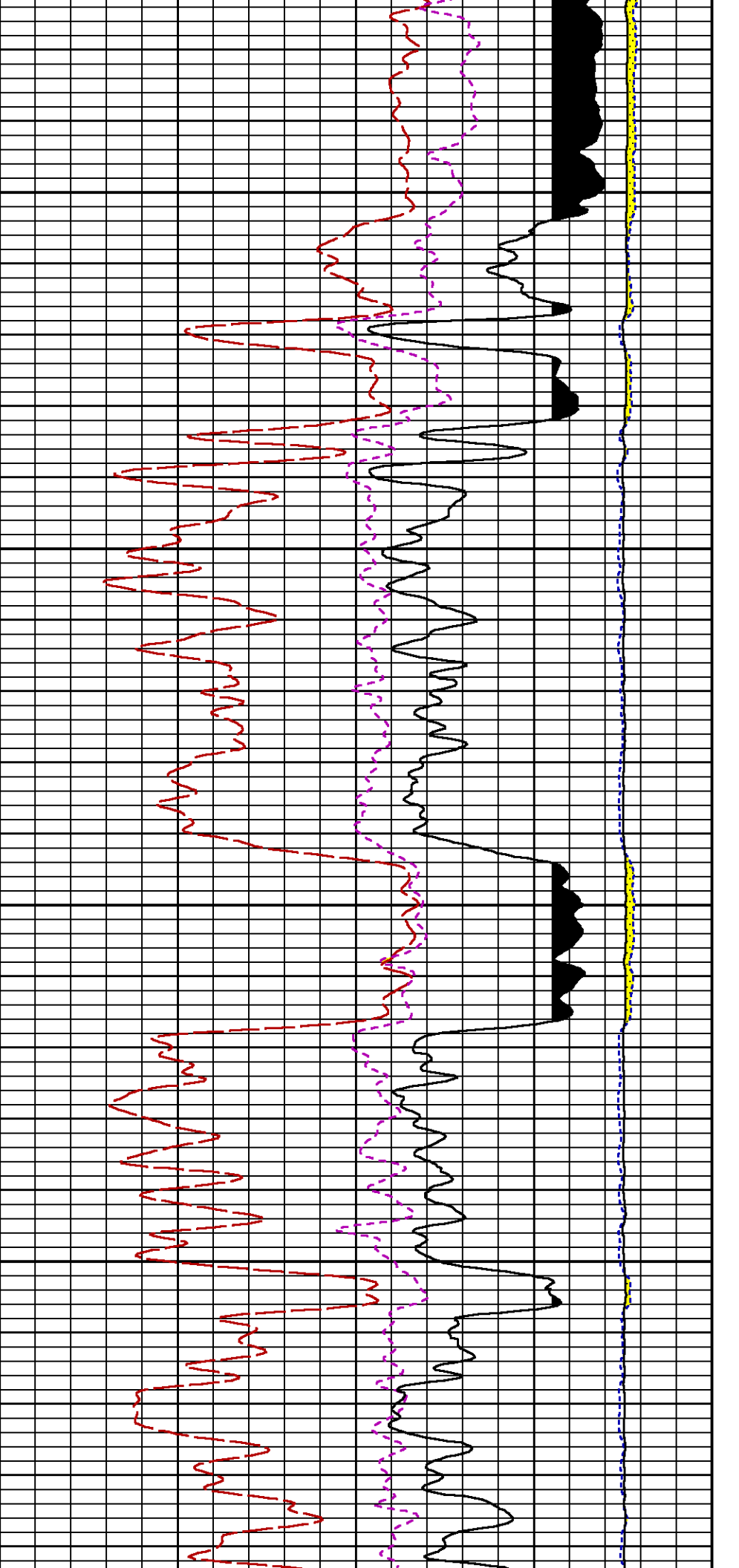


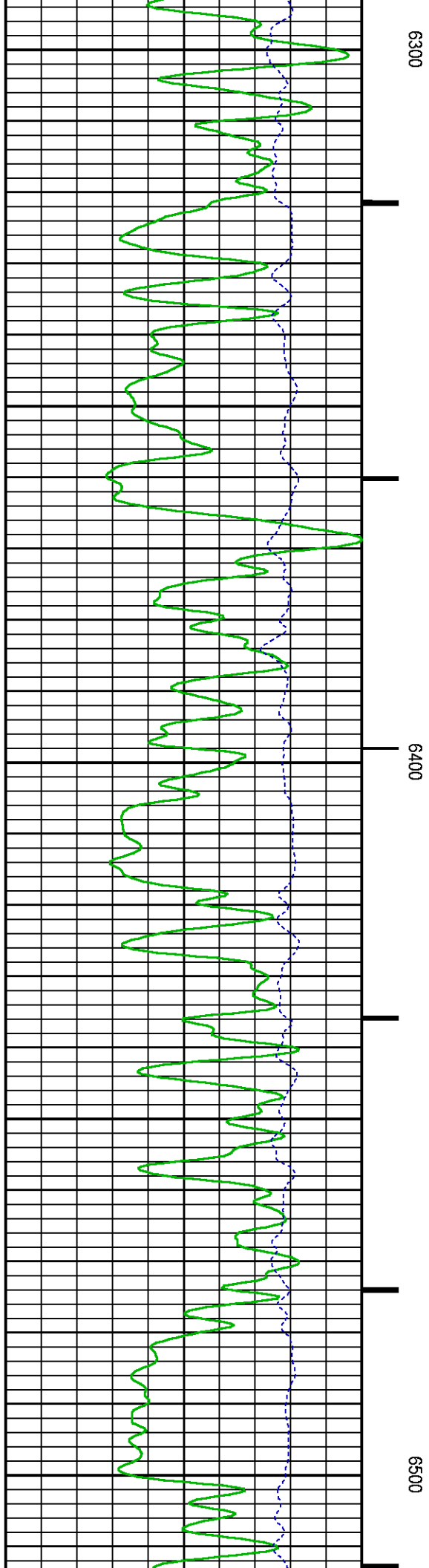
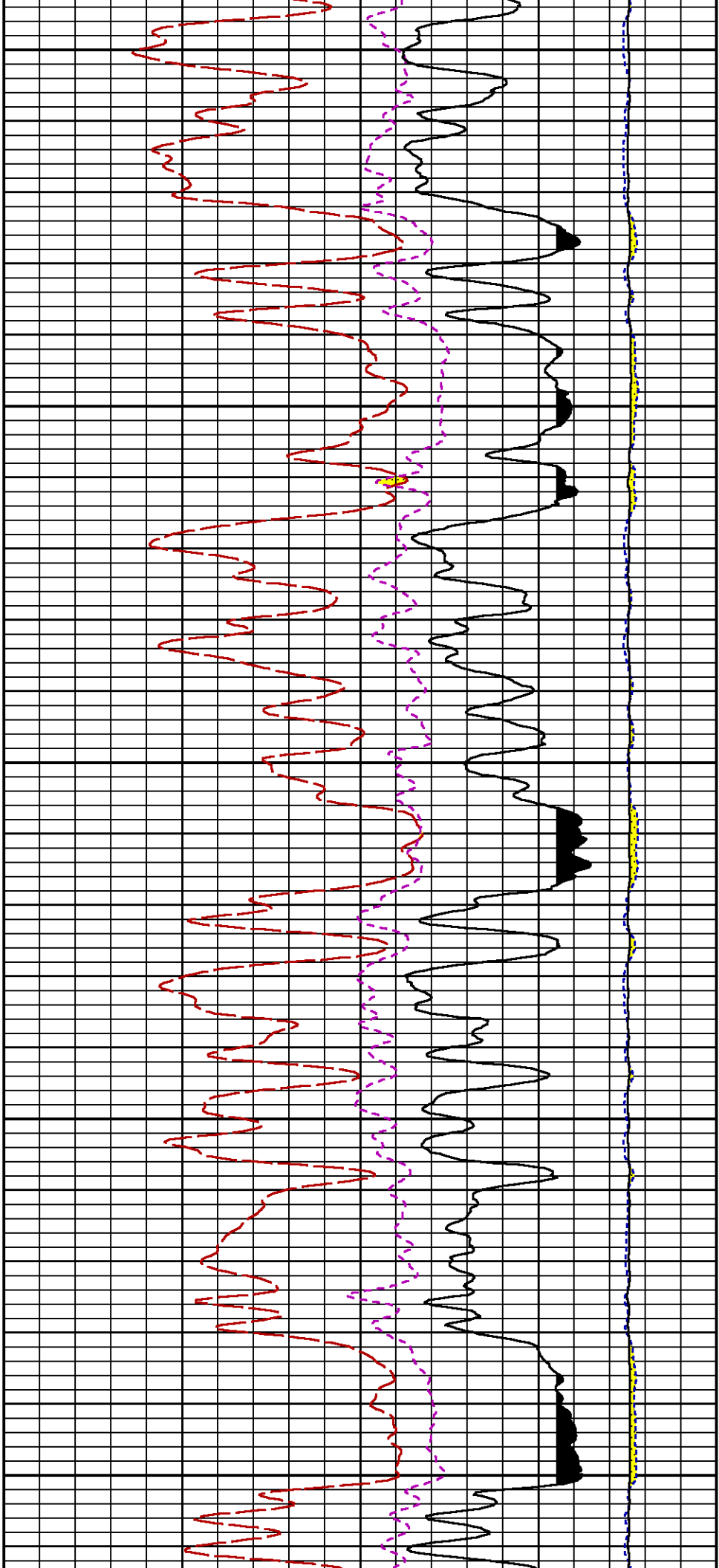


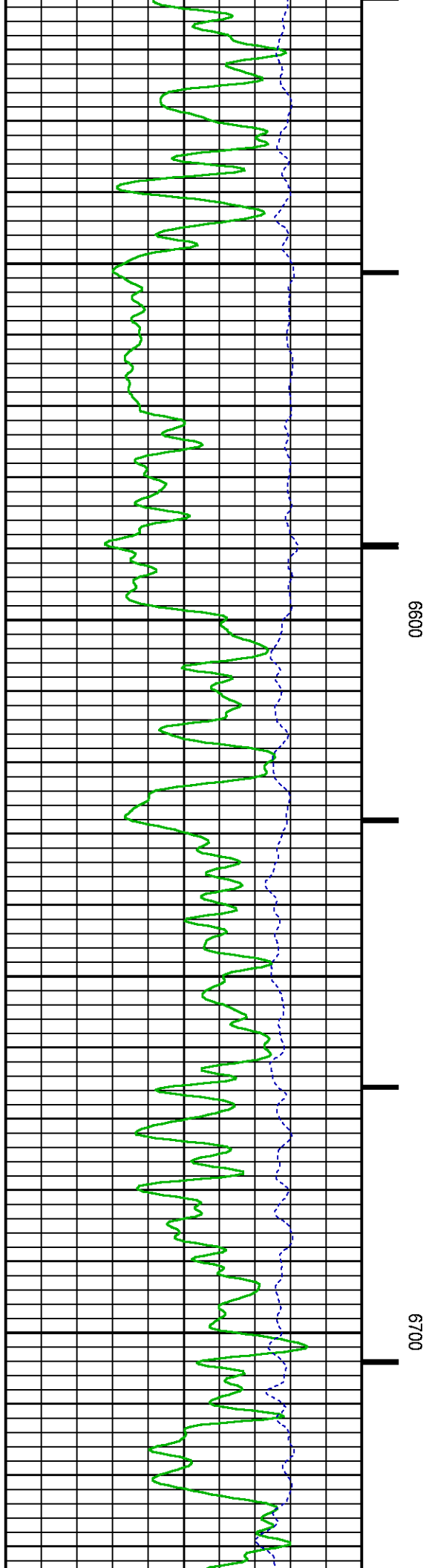
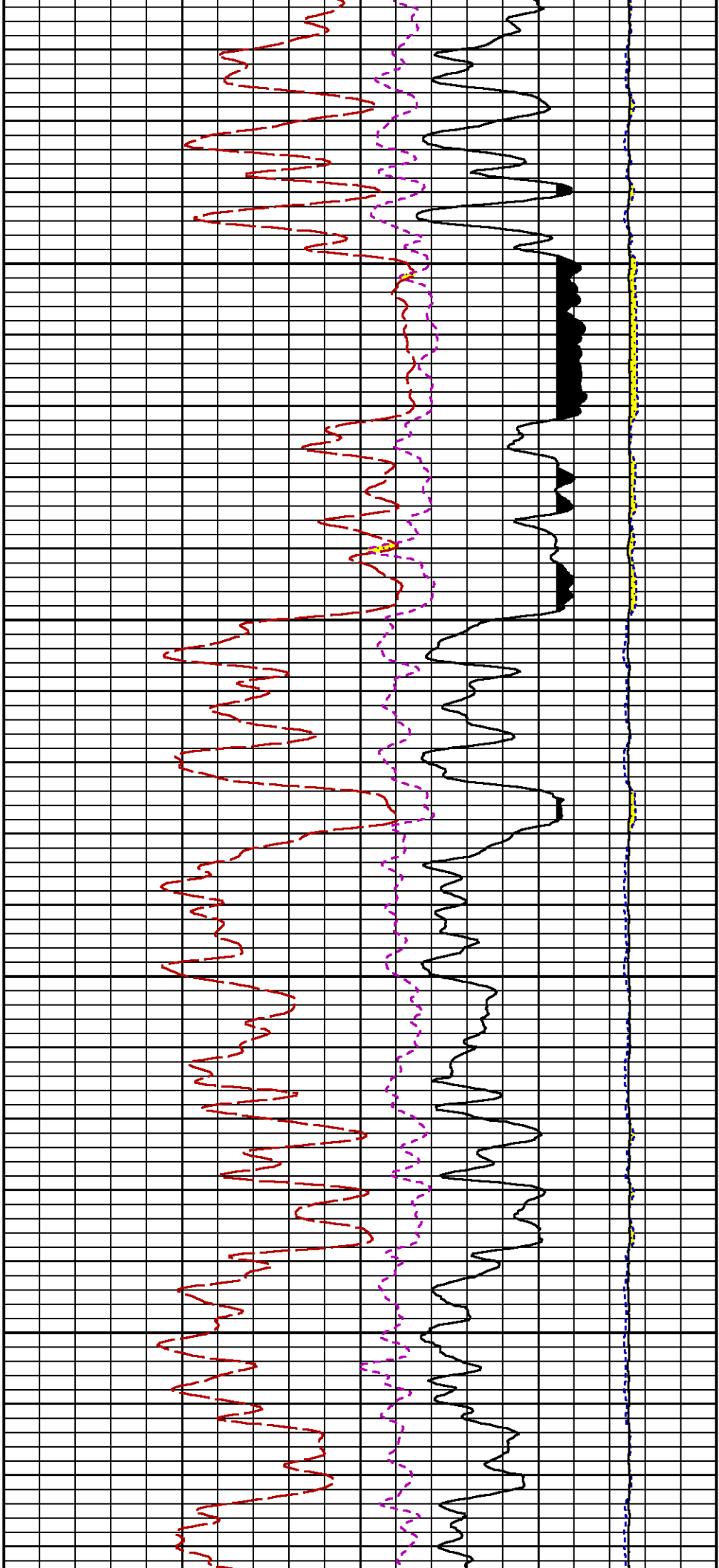


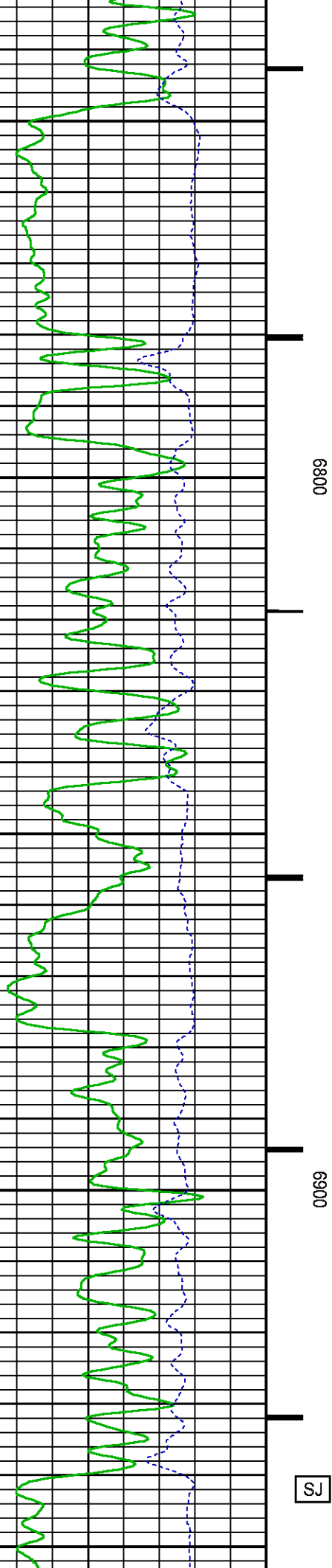
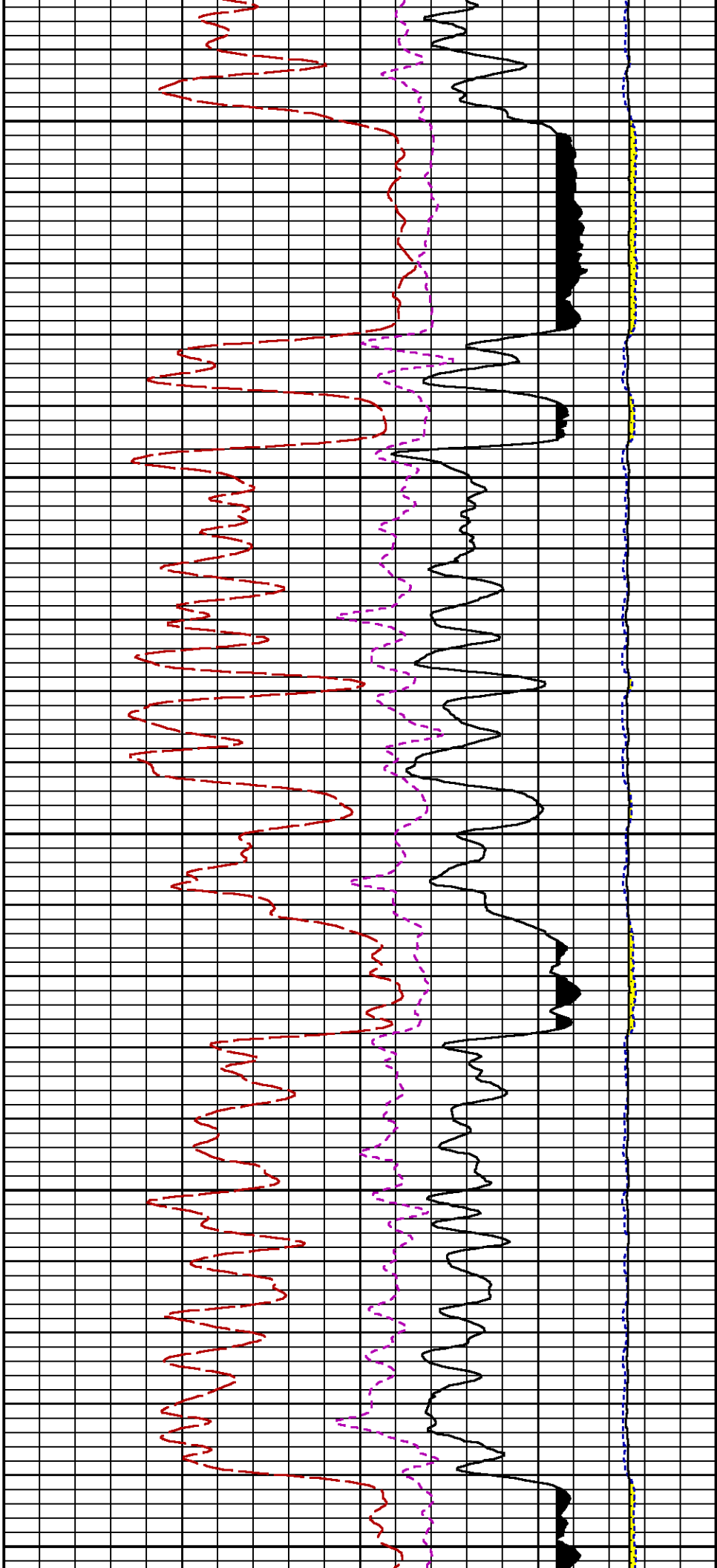


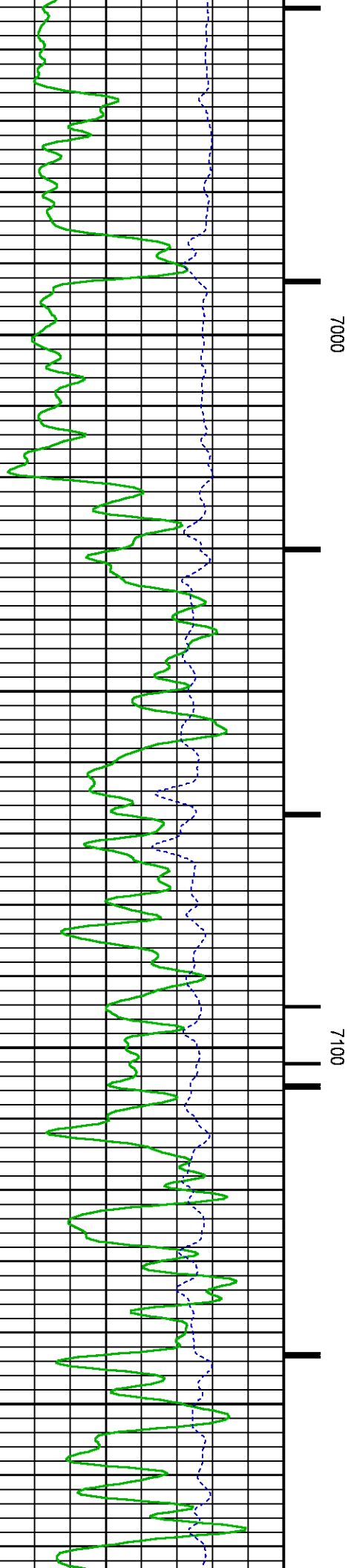
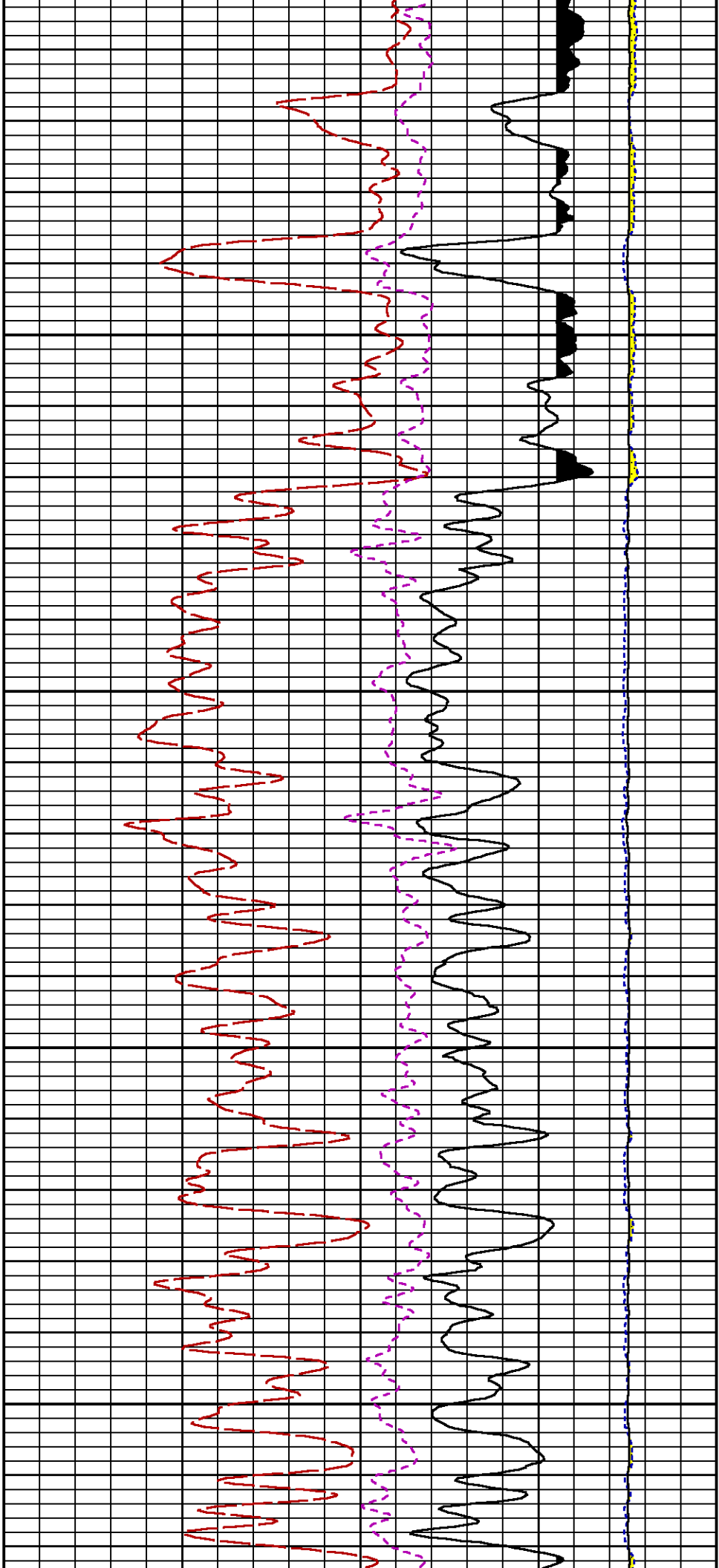


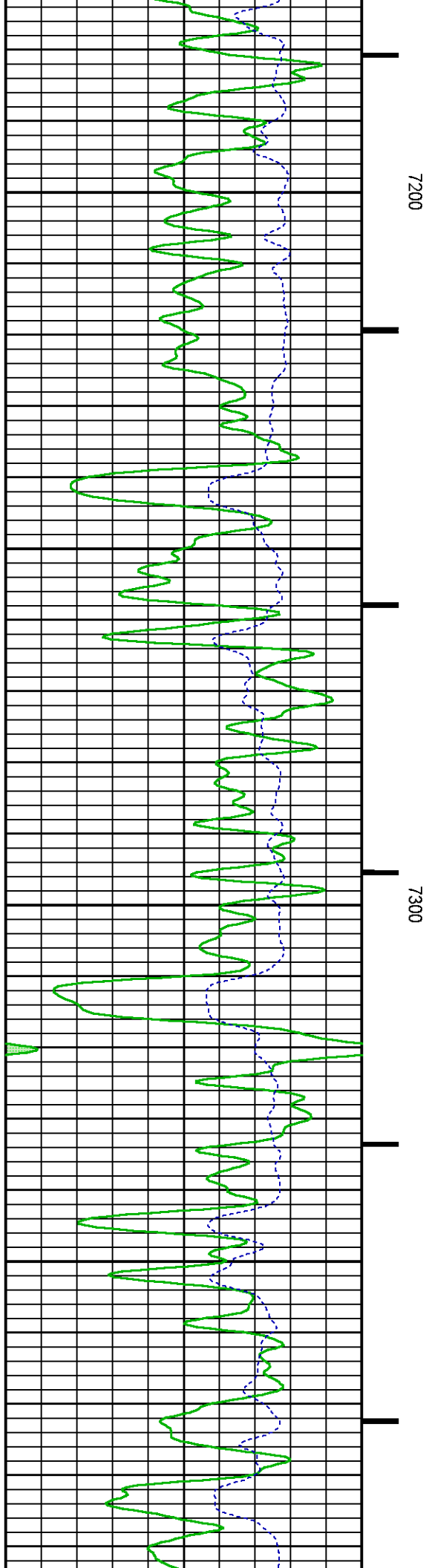
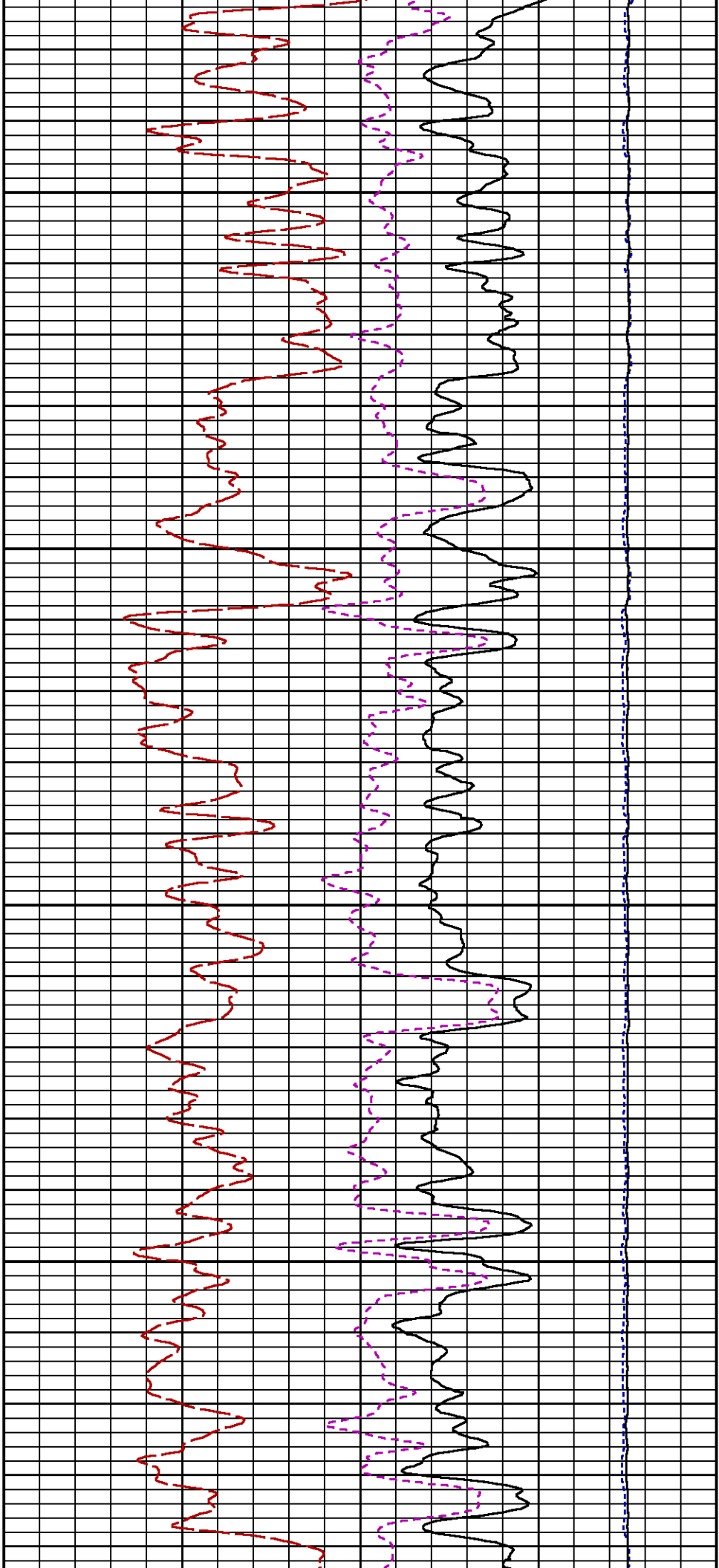


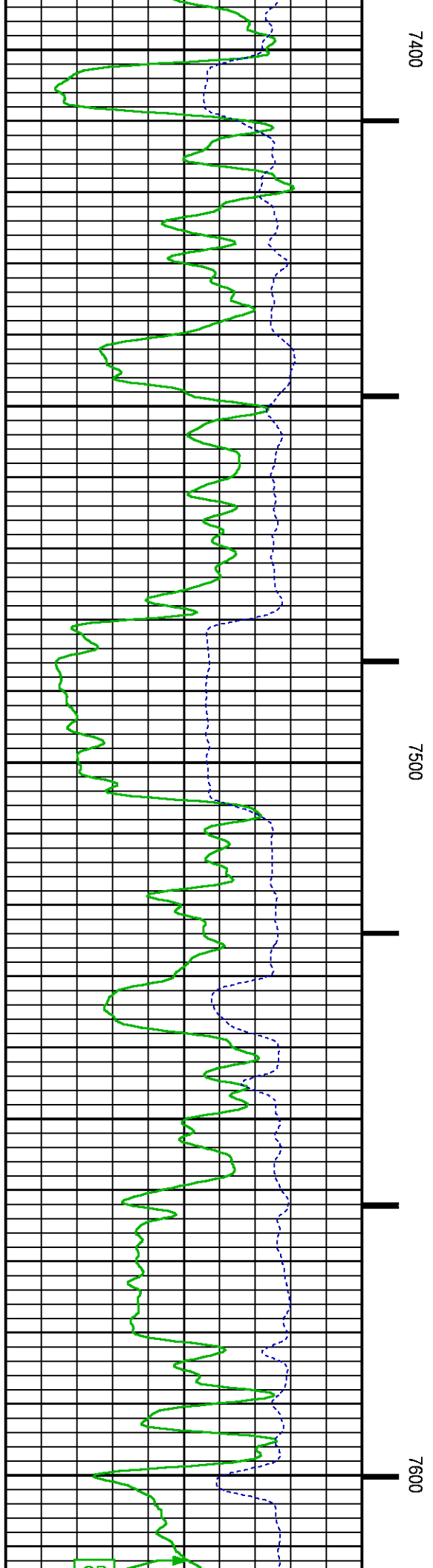
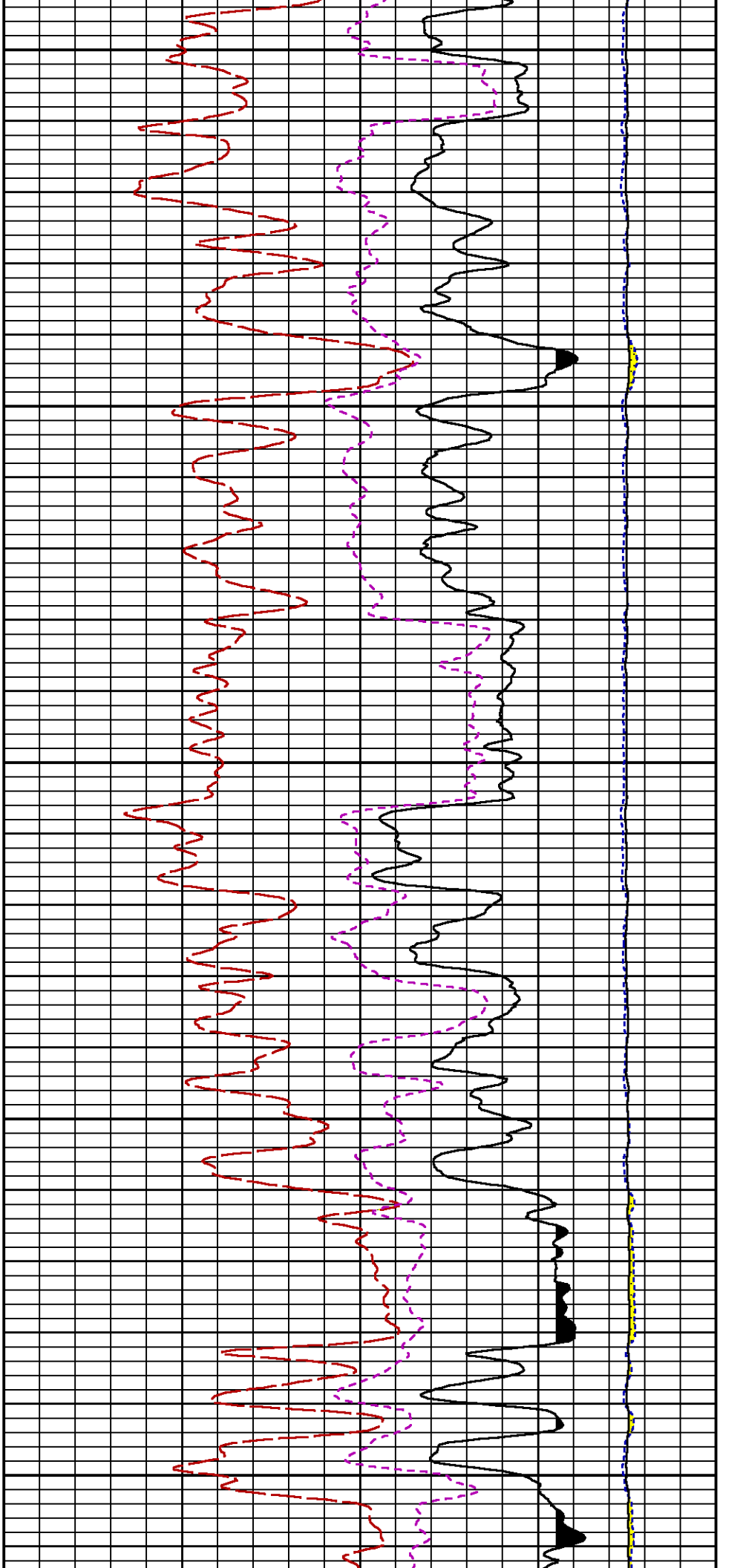


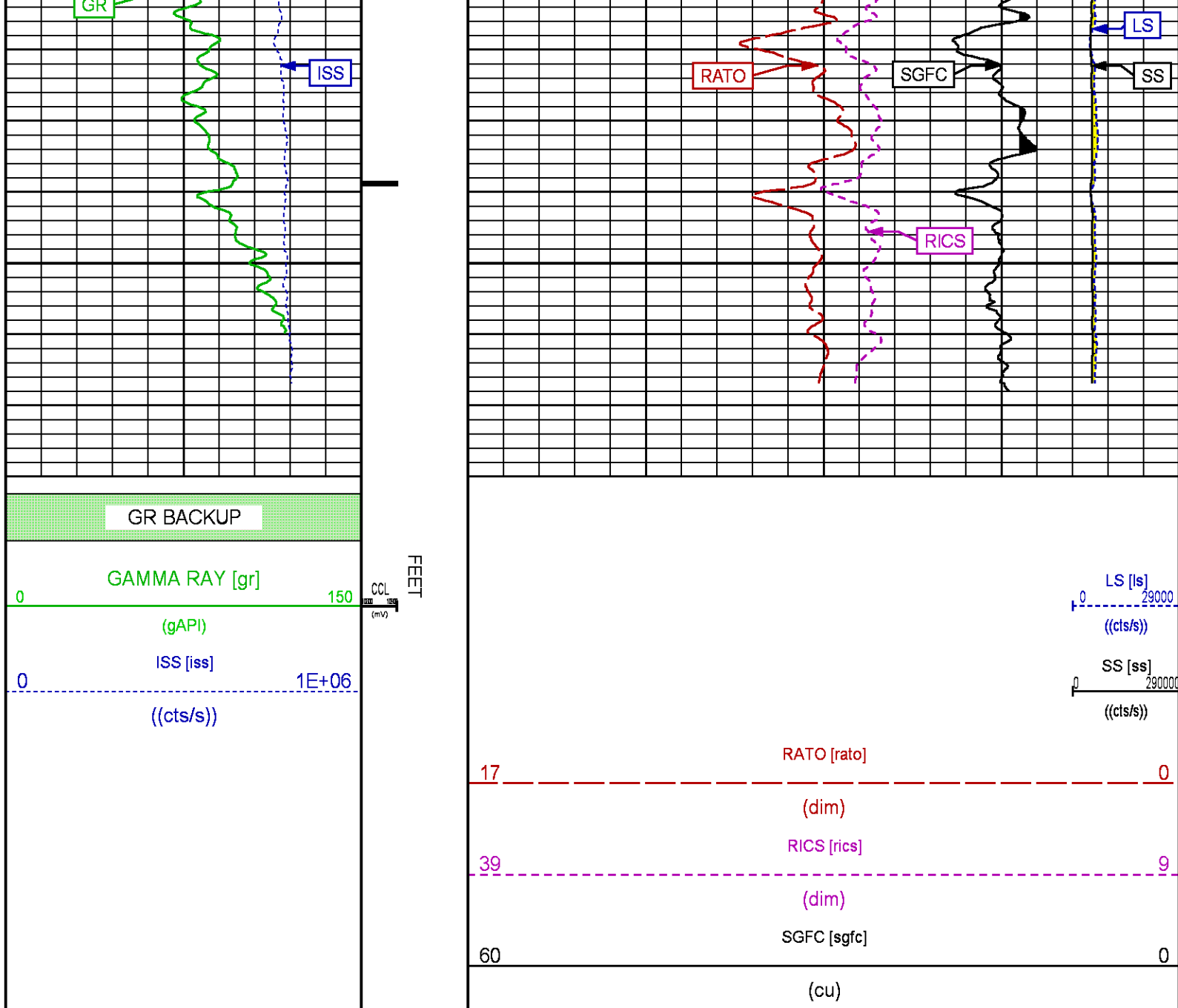












REPEAT PASS

ECLIPS 7.0i ECLIPS General Release Rel 7.0i Thu Jun 08 20:36:10 CDT 2017
Patches: 2

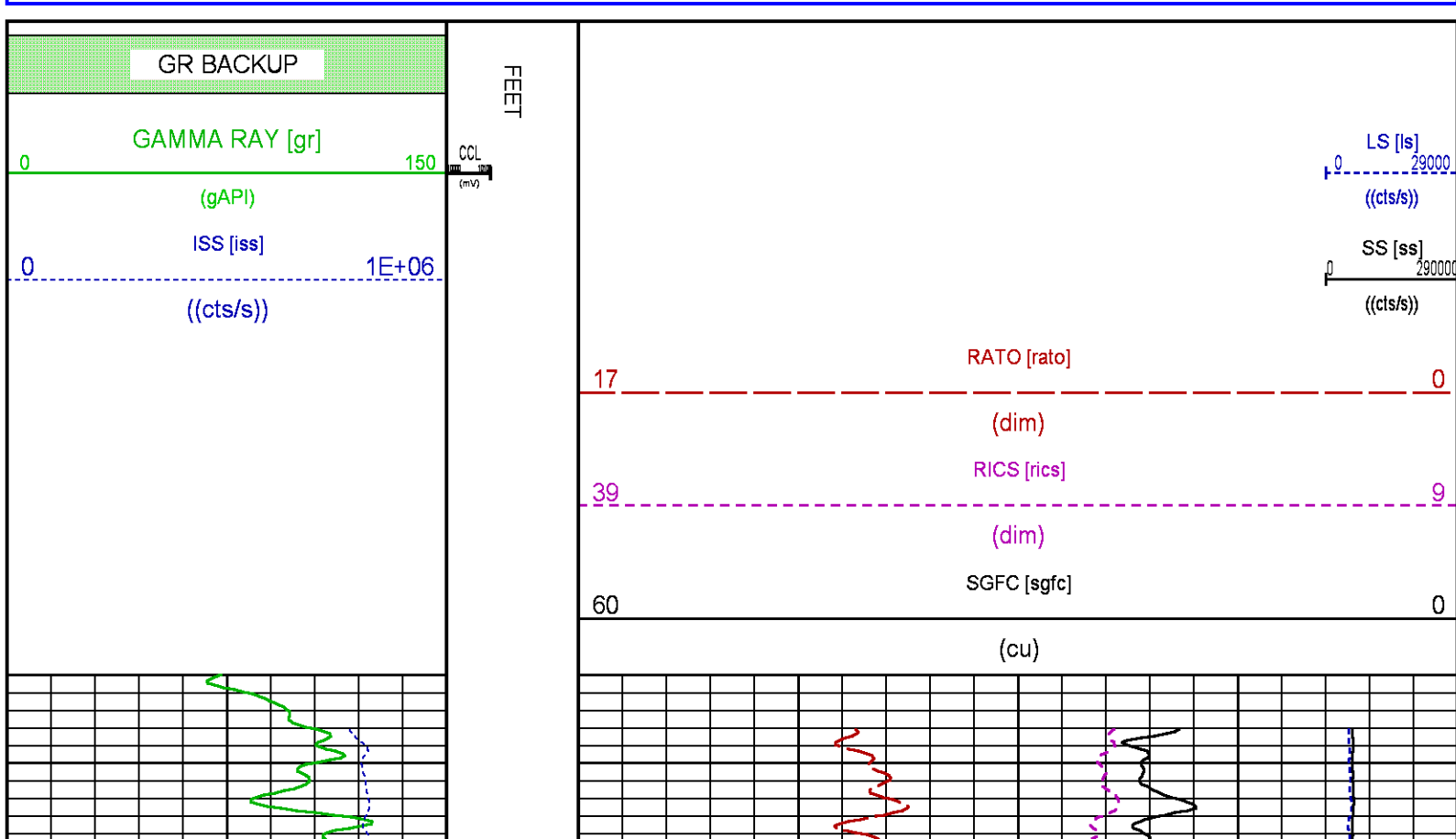
Plotted: Wed Jan 10 19:32:17 2018

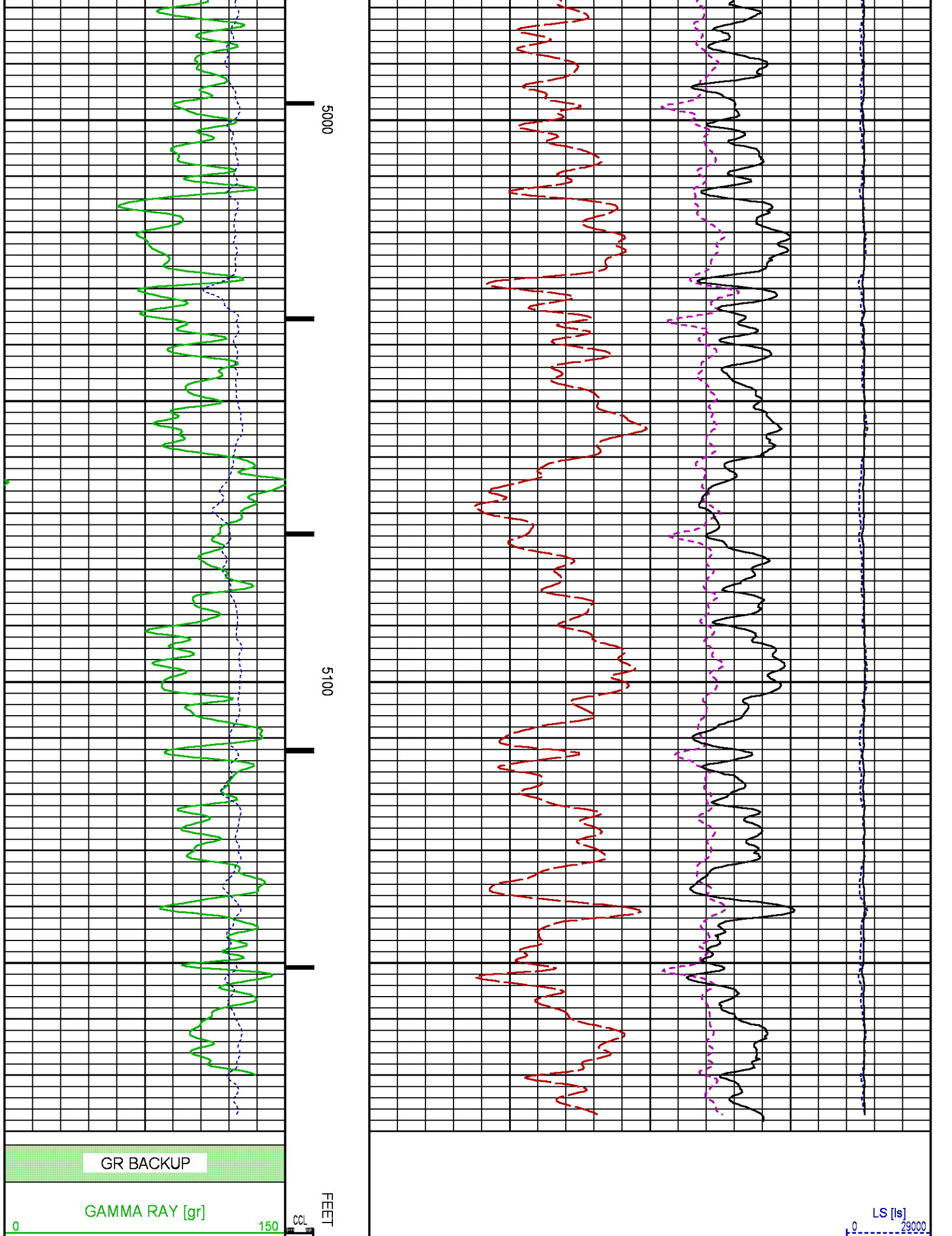
PARAMETER AND FILTER SUMMARY REPORT

FILE: /dat1a/LARAMIE_BRUTON_30_10W/p353h01.prm
LOGGING MODE: DEPTH DIRECTION: UP
TOP DEPTH: 4965.379 ft BOTTOM DEPTH: 5194.674 ft

SYMMETRIC FILTER

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)
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GR BACKUP

GAMMA RAY [gr]

150

FEET

LS [ls]

29000

CALIBRATION / VERIFICATION SUMMARY

GR PRIMARY CALIBRATION SUMMARY

TOOL #:		8262XA 10485470		DATE/TIME PERFORMED:		Fri Nov 17 17:07:45 2017	
UNIT #:		3882TD HL6728		CALB JIG #:		4702NK DA_228	
	BACKGROUND (cts/s)	CALBRTR ON (cts/s)	CR DIFF (cts/s)	MULT	BACKGROUND (gAPI)	CALBRTR ON (gAPI)	CALBRTR (gAPI)
GR	77.51	403.02	325.5	0.568	44.05	229.05	185

GR PRIMARY VERIFICATION SUMMARY

TOOL #:		8262XA 10485470		DATE/TIME PERFORMED:		Fri Nov 17 17:13:21 2017	
UNIT #:		3882TD HL6728		VERI JIG #:		4702NK DA_228	
	BACKGROUND	CALBRTR ON	MULT	BACKGROUND	CALBRTR ON	DIFF.	
	(cts/s)	(cts/s)		(gAPI)	(gAPI)	(gAPI)	
GR	78.38	398.71	0.568	44.54	226.60	182.06	
						175.00	195.00

RPM_PNC_3D PRIMARY CALIBRATION SUMMARY

TOOL:		8283PA 10184883		DATE/TIME PERFORMED:		Thu Dec 28 16:06:32 2017	
UNIT:		5753XD 111111		CALIBRATOR:		2437XB 112674	
				SOURCE:		8281AA 10160595	
				HOURS:		8281AA 495	

	ISS	Mtr Vlt (V)	SS Gain	LS Gain	XLS Gain	EA Temp (degF)	Sync Delay (usec)	RCAL
Raw Data	801542	129	2259	2283	2296	101	7.5	0.9861
Interpolated	1300000	153	2239	2269	2287			

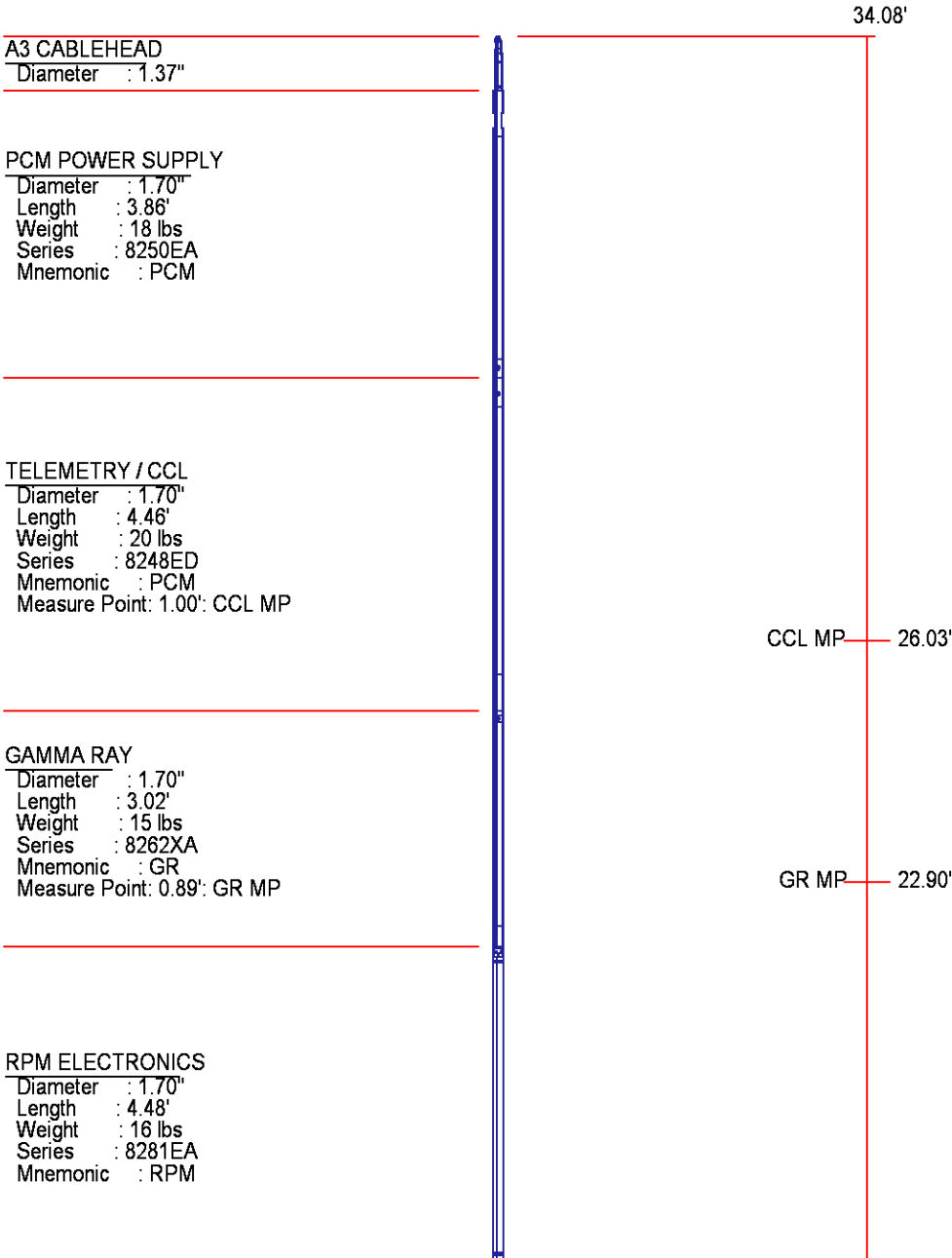
	ISS	BKS	BKL	BKX	SGA1	SDA1	SGA2	SDA2
Raw Data	801542	7010	1133	147	26.10	0.15	24.22	0.32
					25.35 26.40	0.00 0.20	23.60 24.80	0.00 0.40

	ISS	ILS	IXS	SS	SS2	LS	CSS	CLS
Raw Data	801542	1133	147	2283	2296	101	7.5	0.9861
Interpolated	1300000	153	2239	2269	2287			

Raw Data	801542	173203	26774	88480	31440	8243	53586	13246
Fit Quality %		0.758	0.949	0.821	0.831	0.824	0.790	0.824
	ISS	RBOR	RIN	RIN13	RICS	RATO	RTWO	RONE
			ISS/ILS	ISS/IXS	ISS/CSS	SS/LS	SS2/LS	CSS/CLS
Raw Data	801542	1.43	4.63	29.95	14.96	10.74	3.82	4.05
		1.42 1.45	3.55 5.52	22.20 32.70	10.89 16.34	10.06 11.10	3.57 3.95	3.76 4.22
Fit Quality %		0.055	0.140	0.158	0.082	0.013	0.026	0.049
Reduced	1392301	1.43	4.62	30.03	14.96	10.74	3.81	4.04
		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

INSTRUMENT CONFIGURATION

Source File: /dat1a/LARAMIE_BRUTON_30_10W/RPM-tdg



RPM C DETECTOR SECTION

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

XLS MP 13.58'
 LS MP 13.16'
 SS MP 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

BULL PLUG 1 11/16

TOTAL LENGTH: 34.08'
 TOTAL WEIGHT: 144 lbs
 MAX DIAMETER: 0'1.70"

0.00'

**BAKER
HUGHES**
a GE company



COMPANY

LARAMIE ENERGY

WELL

BRUTON 30-10W

FIELD

VEGA

COUNTY

MESA

STATE COLORADO

FILE NO:

CH130077

API NO:

05077104640000

LOCATION:

SHL: 39.252592 N, 107.814328 W

BHL: 39.248819 N, 107.816281 W

ELEVATIONS:

KB 7534 FT

DF

GL 7504 FT

SEC **30** TWP **9S** RGE **93W**

DATE **10-Jan-2018**

