



FILE NO: CH139390J	COMPANY LARAMIE ENERGY LLC
API NO: 05045238010000	WELL CC 0697-03-14E
	FIELD GRAND VALLEY
	COUNTY GARFIELD
	STATE COLORADO

Ver. 4.11	LOCATION: SHL: 3331.0' FNL & 1310.0' FEL SHL: 3331.0' FNL & 1310.0' FEL SEC 3 TWP 6S RGE 97W	OTHER SERVICES RAL
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PERMANENT DATUM LOG MEASURED FROM DRILL. MEAS. FROM	GL ELEVATION 8428 FT KB 30 FT ABOVE P.D. KB	ELEVATIONS: KB 8458 FT DF GL 8428 FT
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DATE	26-Aug-2018
RUN	2
TRIP	1
SERVICE ORDER	US139390J
DEPTH DRILLER	9716 FT
DEPTH LOGGER	9680 FT
BOTTOM LOGGED INTERVAL	9680 FT
TOP LOGGED INTERVAL	4590 FT
TIME STARTED	12:00
TIME FINISHED	17:30
OPERATOR RIG TIME	5.5 HOURS
TYPE OF FLUID IN HOLE	WATER
FLUID DENSITY	NA
FLUID SALINITY	NA
FLUID LEVEL	64 FT
LOGGED CEMENT TOP	1618 FT
WELLHEAD PRESSURE	0 PSI
MAXIMUM HOLE DEVIATION	NA
NOMINAL LOGGING SPEED	15 FMIN
MAX. RECORDED TEMP.	257 DEGF
REFERENCE LOG	BAKER HUGHES RAL
REFERENCE LOG DATE	26-Aug-2018
EQUIP. NO.	ML-4291
LOCATION	GRAND JCT.
RECORDED BY	M. BAUKA
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 2 TRIP 1: *2 OPERATIONS IN WELLBORE*

OPERATION 1: RAL/GR/CCL RUN CENTRALIZED

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

LOGGED WITH 0 PSI ON WELLHEAD

SJ: 7536' - 7558'

SJ: 9068' - 9088'

EQUIPMENT DATA

RUN	TRIP	TOOL	SERIES NO.	SERIAL NO.	POSITION
2	1	PCM	8250EA	Z166326	FREE
2	1	TEL/CCL	8248ED	10387150	FREE
2	1	GR	2812LA	11608516	FREE
2	1	RPM	8281EA	10190985	FREE
2	1	RPM	8283PA	10068031	FREE

2	1	RPM	8281FA	10076673	FREE
2	1	TEMP	8255XA	166341	FREE

RPM MAIN PASS G-SAND

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

Updates: 1

Plotted: Sun Aug 26 17:05:23 2018

PARAMETER AND FILTER SUMMARY REPORT

FILE: /dat1a/LARAMIE_CC_0697-03-14E/p354h03.prm
 LOGGING MODE: DEPTH DIRECTION: UP
 TOP DEPTH: 4560.193 ft BOTTOM DEPTH: 5220.729 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	Aug 26 16:16:11 2018	CASING COLLAR LOCATOR
F1:GR	Aug 26 16:16:11 2018	GAMMA RAY
F1:ISS	Aug 26 16:16:11 2018	INELASTIC SHORT SPACE COUNT RATE
F1:LS	Aug 26 16:16:11 2018	LONG SPACE COUNT RATE
F1:RATO	Aug 26 16:16:11 2018	SHORT/LONG SPACE COUNT RATE RATIO
F1:RICS	Aug 26 16:16:11 2018	SHORT SPACE INELASTIC TO CAPTURE COUNT RATE RATIO (ISS/CSS)
F1:SGFC	Aug 26 16:16:11 2018	BOREHOLE AND DIFFUSION CORRECTED SIGMA
F1:SS	Aug 26 16:16:11 2018	SHORT SPACE COUNT RATE

CURVE MEASURE POINT OFFSET

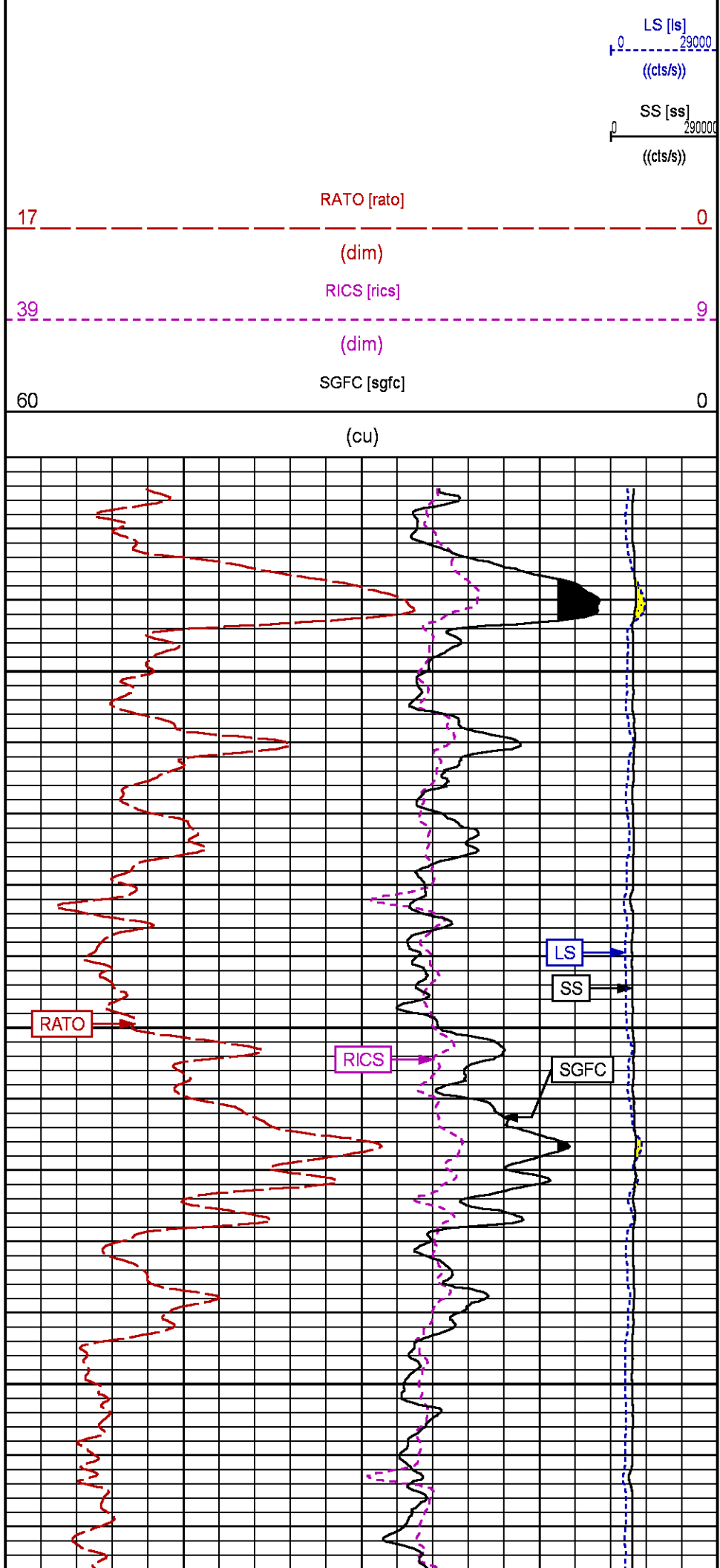
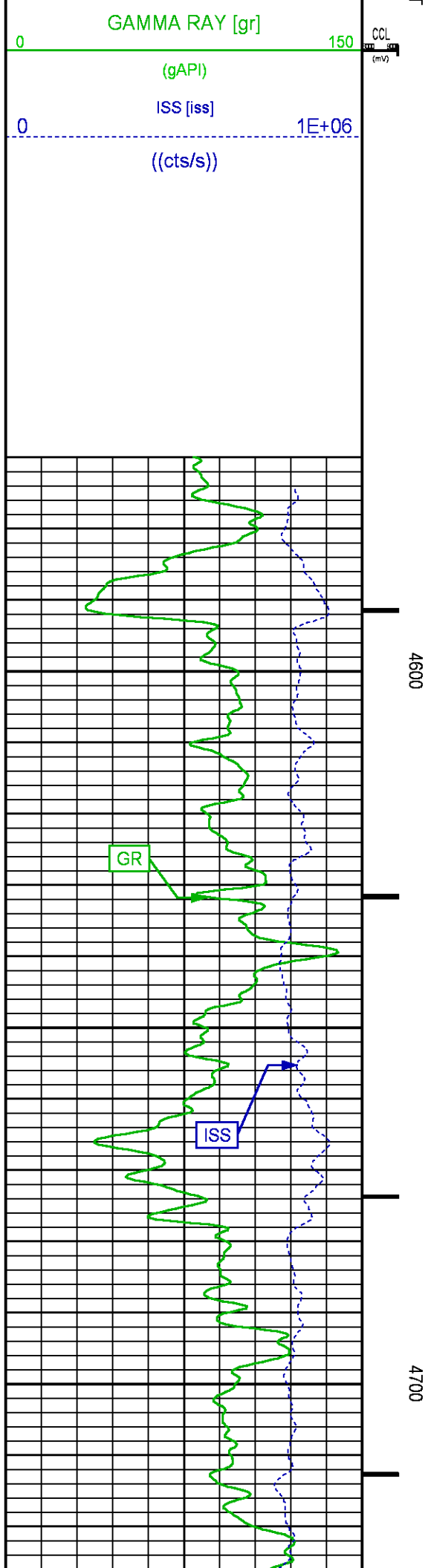
CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)
CCL	-25.00	ISS	-12.75	RATO	-12.75	SGFC	-12.75
GR	-22.75	LS	-12.75	RICS	-12.75	SS	-12.75

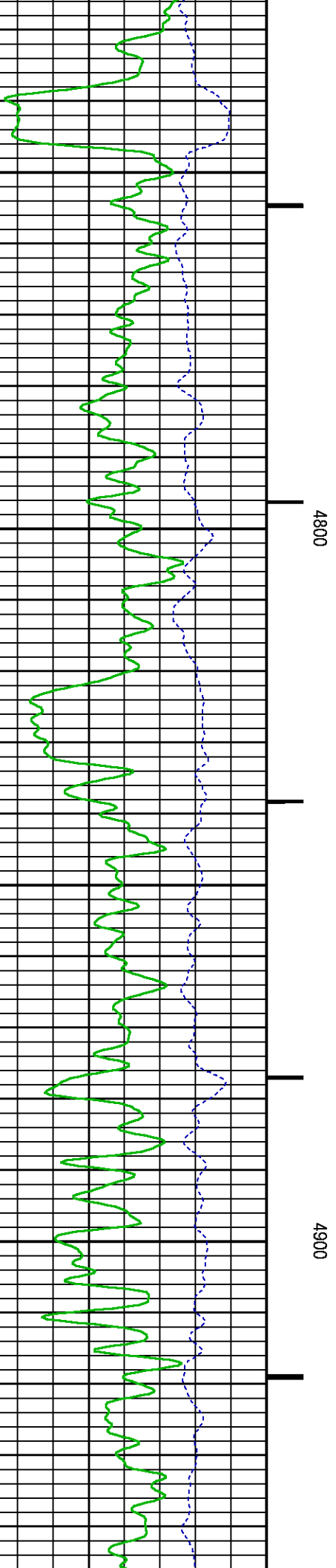
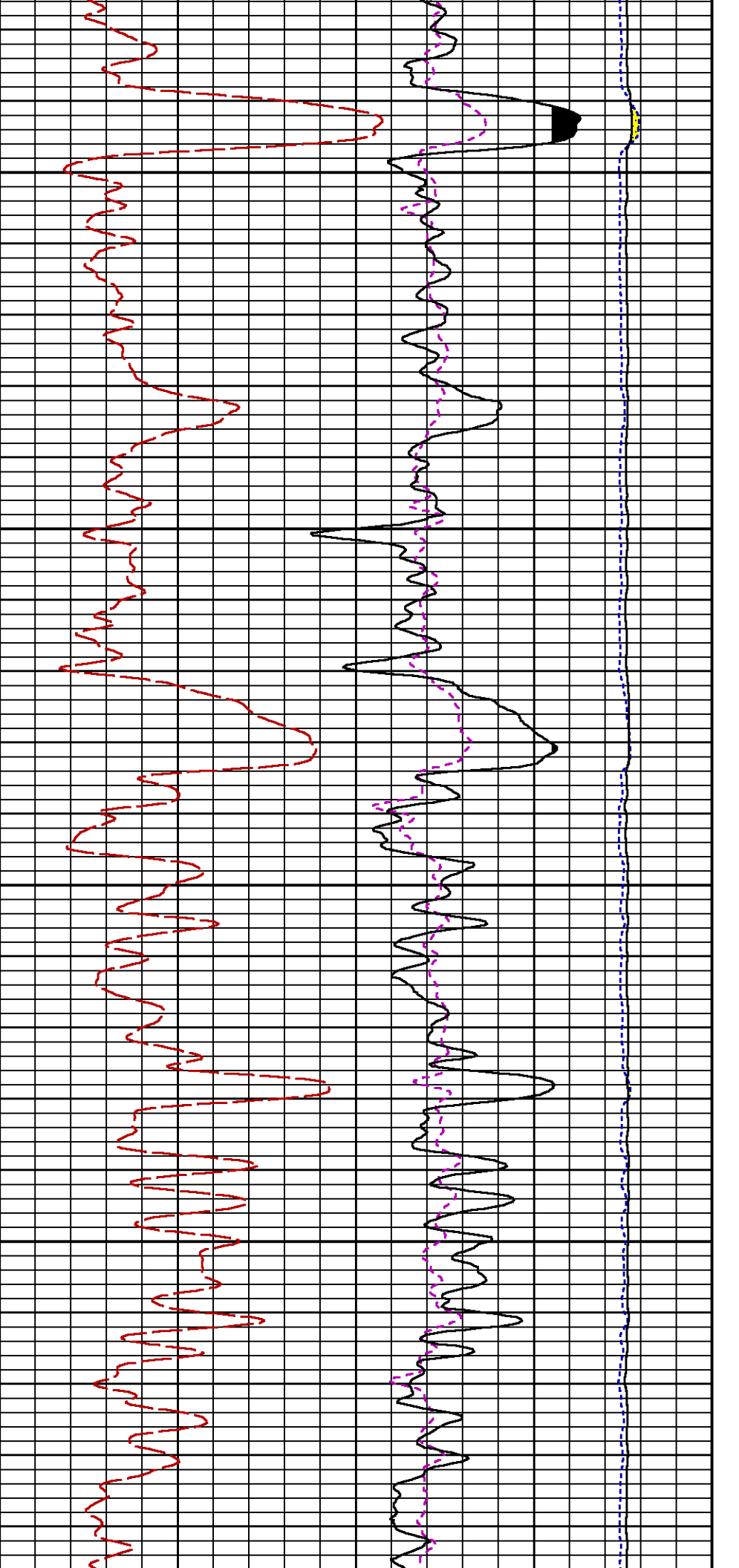
Presentation : SysA:/dat1a/LARAMIE_CC_0697-03-14E/CC_0697-03-14E_RPM_MAIN_GS.fvpd [5"/100' Scale]
Plot Interval : 4570 - 5232.5 Feet

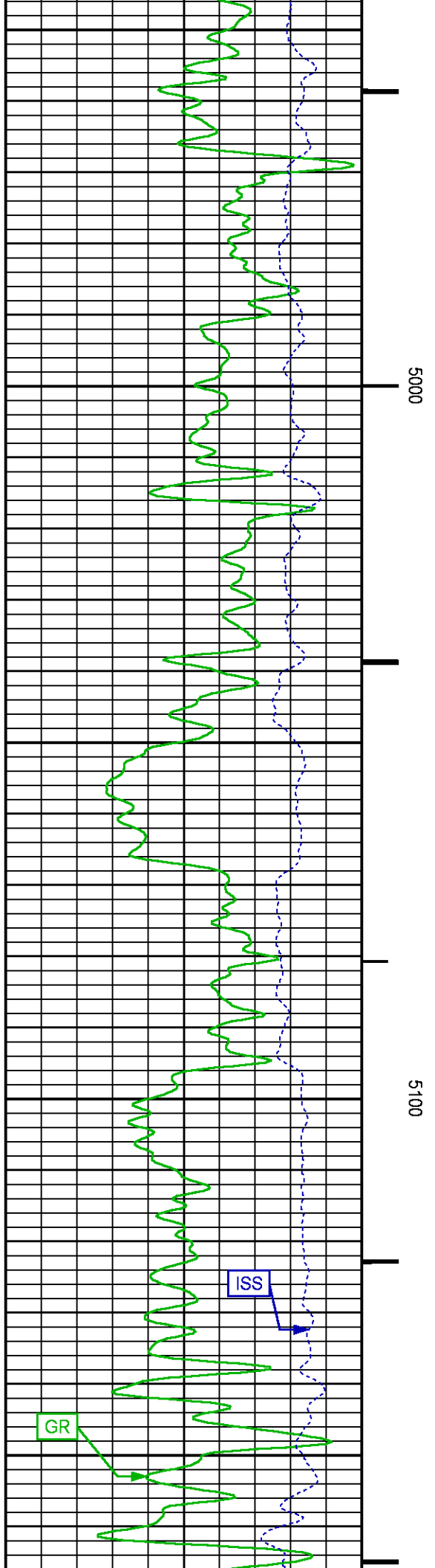
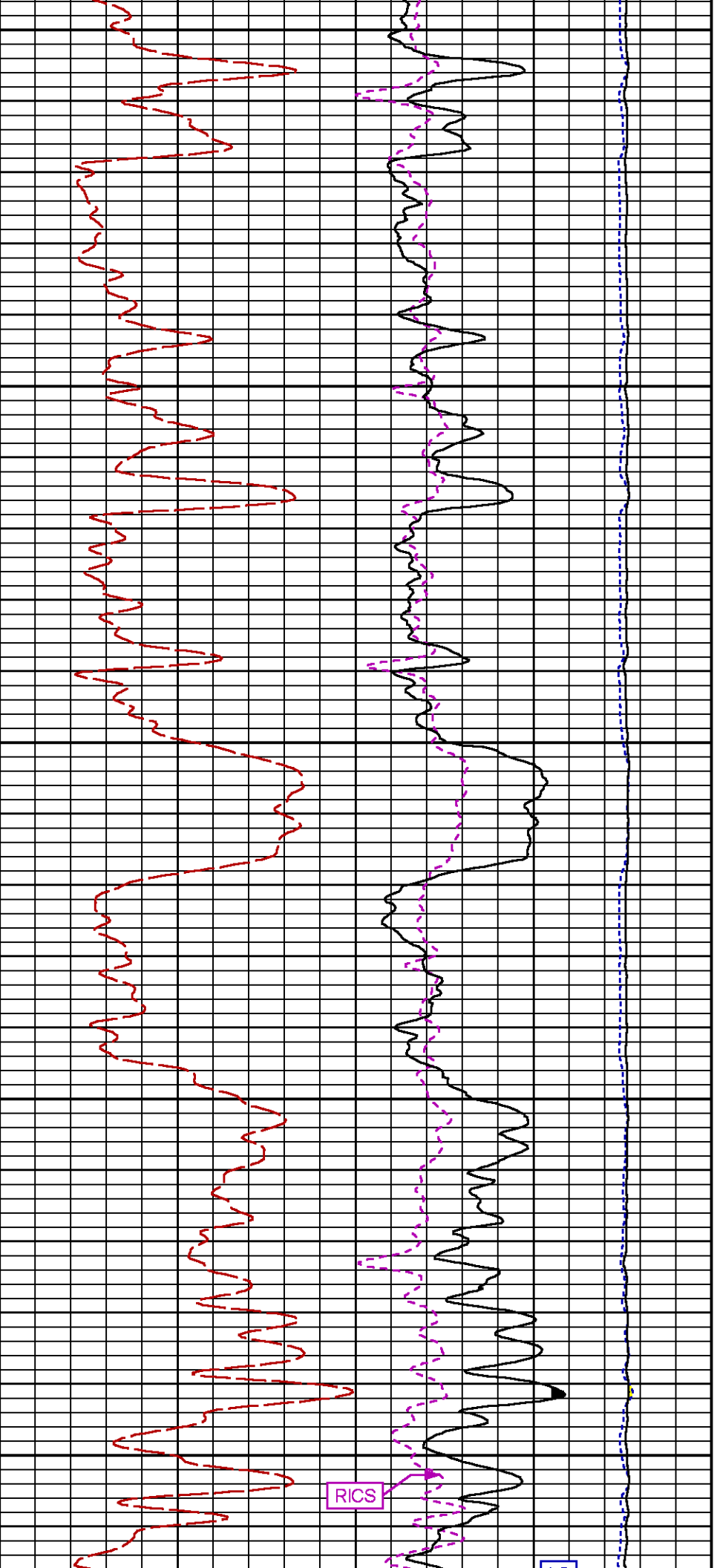
Data File 1 : F1 : SysA:/dat1a/LARAMIE_CC_0697-03-14E/45_LARAMIE_CC_0697-03-14E_RPM_MAIN_GS.xtf
Created On : Aug 26 16:16:11 2018
Company : LARAMIE ENERGY LLC
Well : CC 0697-03-14E
Field : GRAND VALLEY
File Interval : 4548.75 - 5232.75 Feet
OCT : p354h

GR BACKUP

FEET







MEASUREMENT TYPE	PARAMETER	VALUE	UNIT	INTERVAL (ft)
PNC Parameters	BOREHOLE CONTENTS	FLUID		TOP
	OPEN/CASED HOLE	CASED HOLE		BOTTOM
	BOREHOLE SIZE	7.87	in	"
	LARGEST CASING OD	4.50	in	"
	MATRIX	SANDSTONE		"

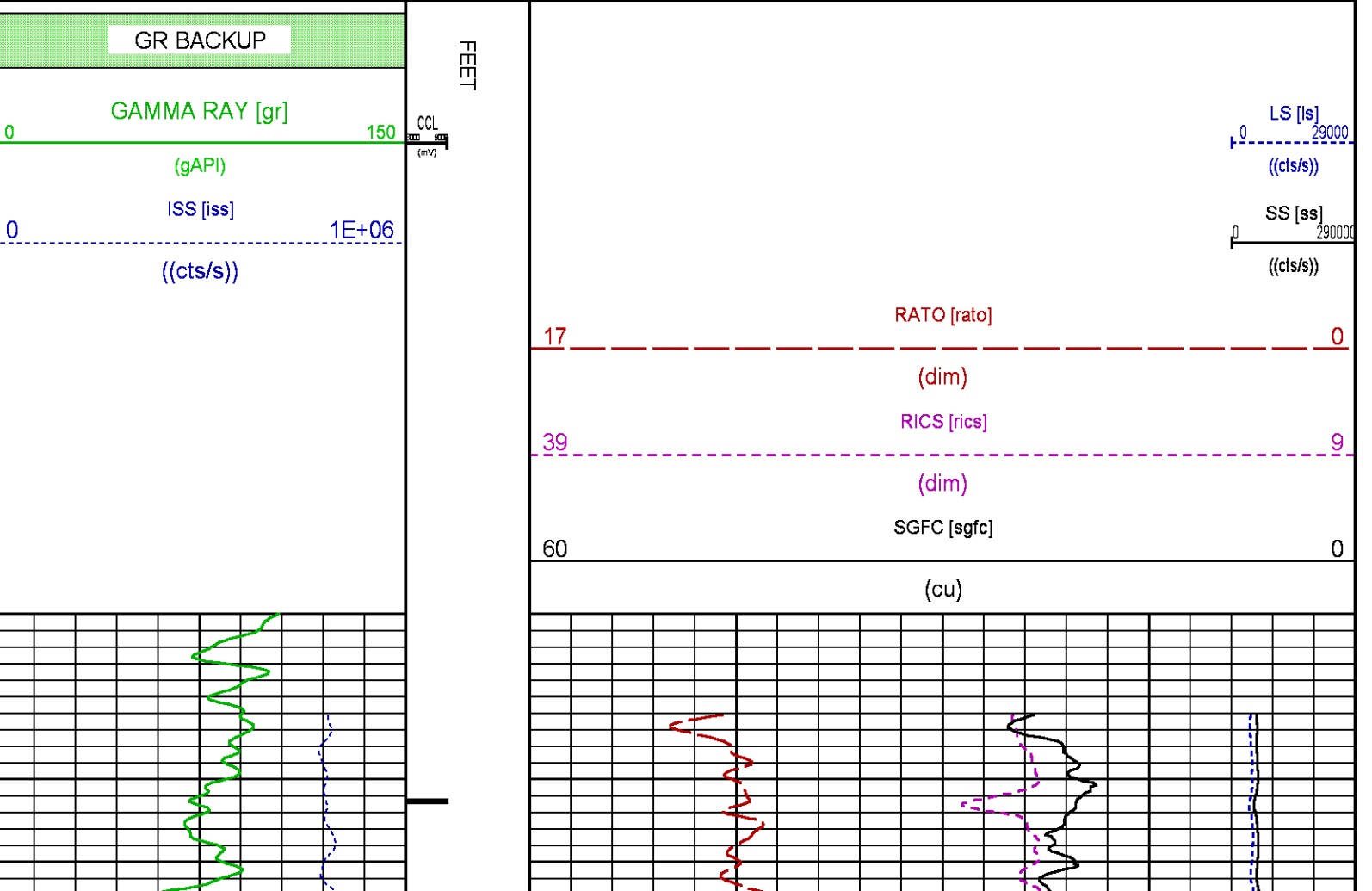
CURVE DESCRIPTION REPORT

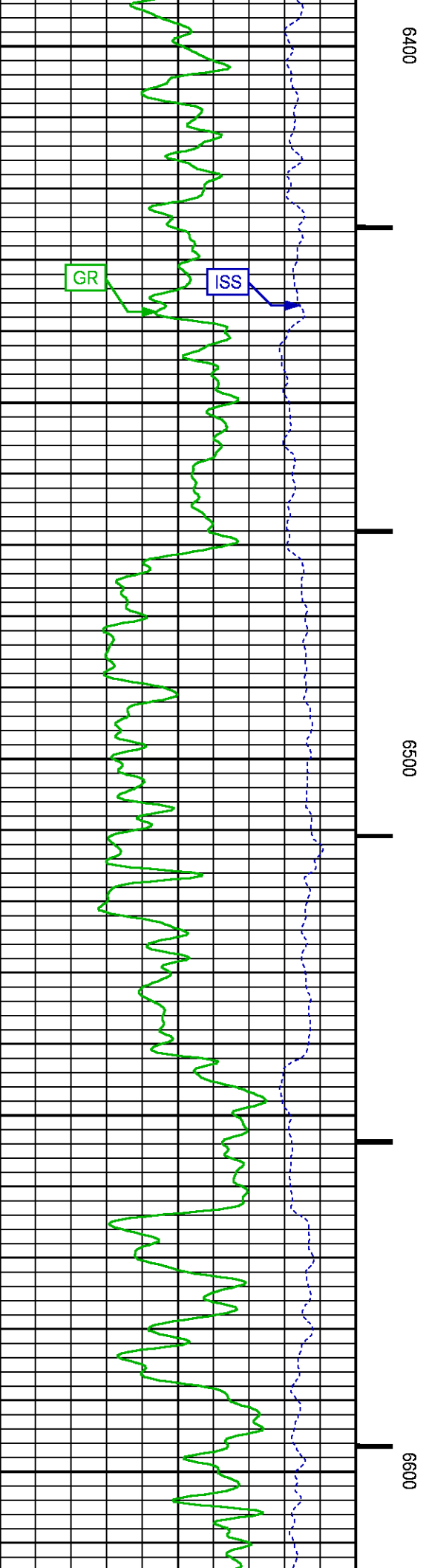
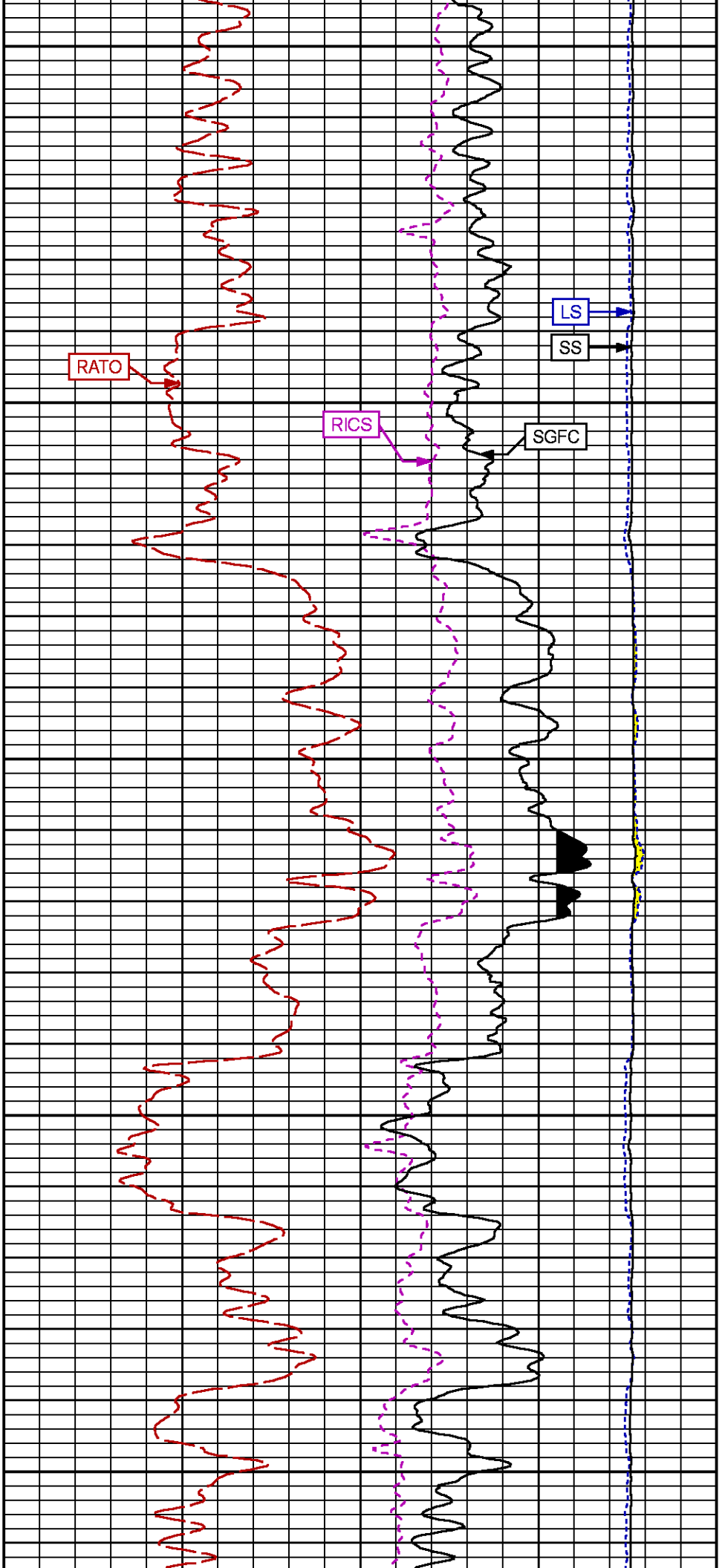
CURVE NAME	CREATION DATE	CURVE DESCRIPTION
F1:CCL	Aug 26 12:47:48 2018	CASING COLLAR LOCATOR
F1:GR	Aug 26 12:47:48 2018	GAMMA RAY
F1:ISS	Aug 26 12:47:48 2018	INELASTIC SHORT SPACE COUNT RATE
F1:LS	Aug 26 12:47:48 2018	LONG SPACE COUNT RATE
F1:RATO	Aug 26 12:47:48 2018	SHORT/LONG SPACE COUNT RATE RATIO
F1:RICS	Aug 26 12:47:48 2018	SHORT SPACE INELASTIC TO CAPTURE COUNT RATE RATIO (ISS/CSS)
F1:SGFC	Aug 26 12:47:48 2018	BOREHOLE AND DIFFUSION CORRECTED SIGMA
F1:SS	Aug 26 12:47:48 2018	SHORT SPACE COUNT RATE

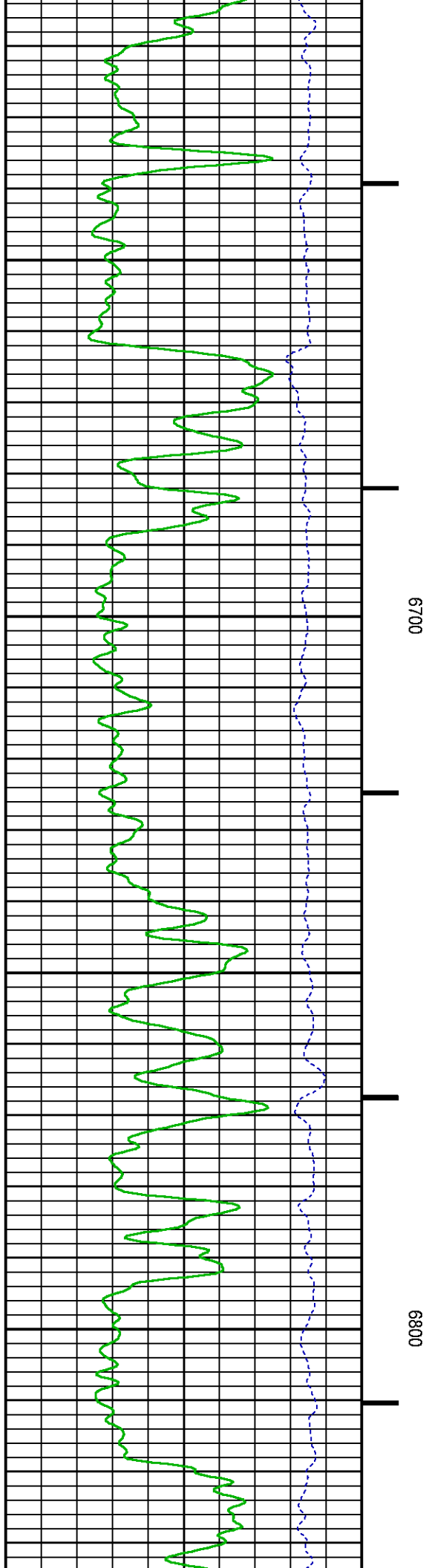
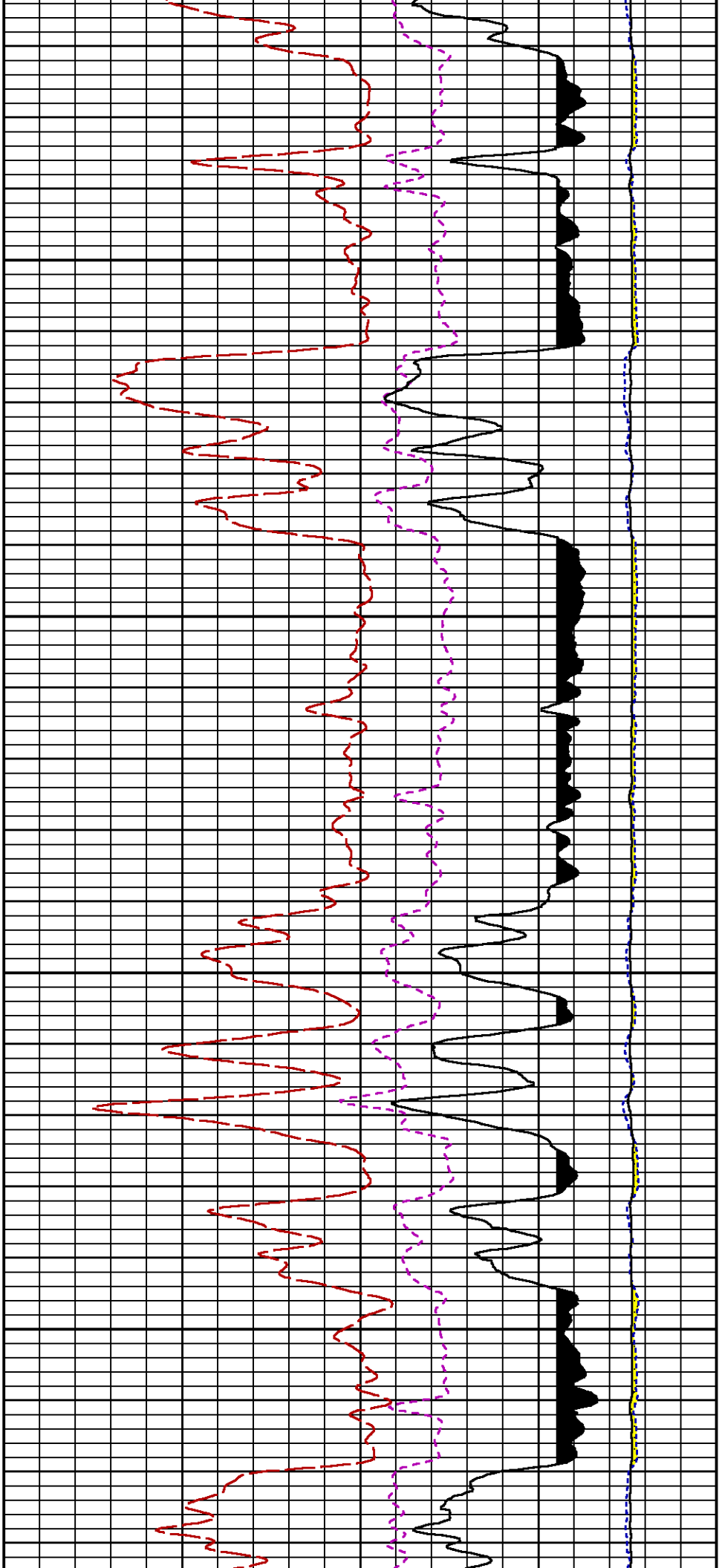
CURVE MEASURE POINT OFFSET

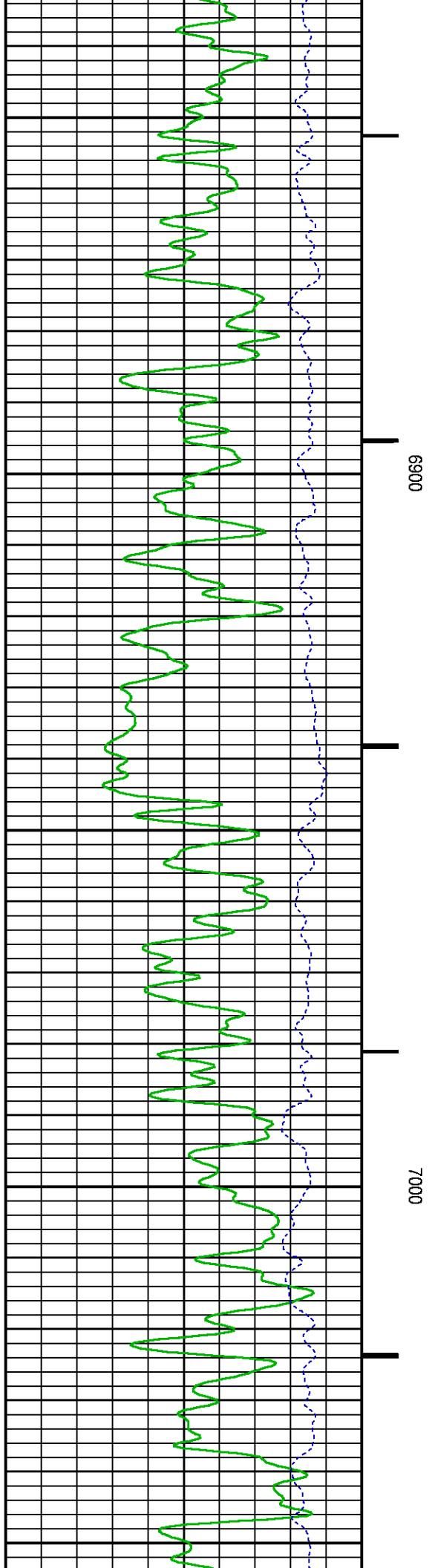
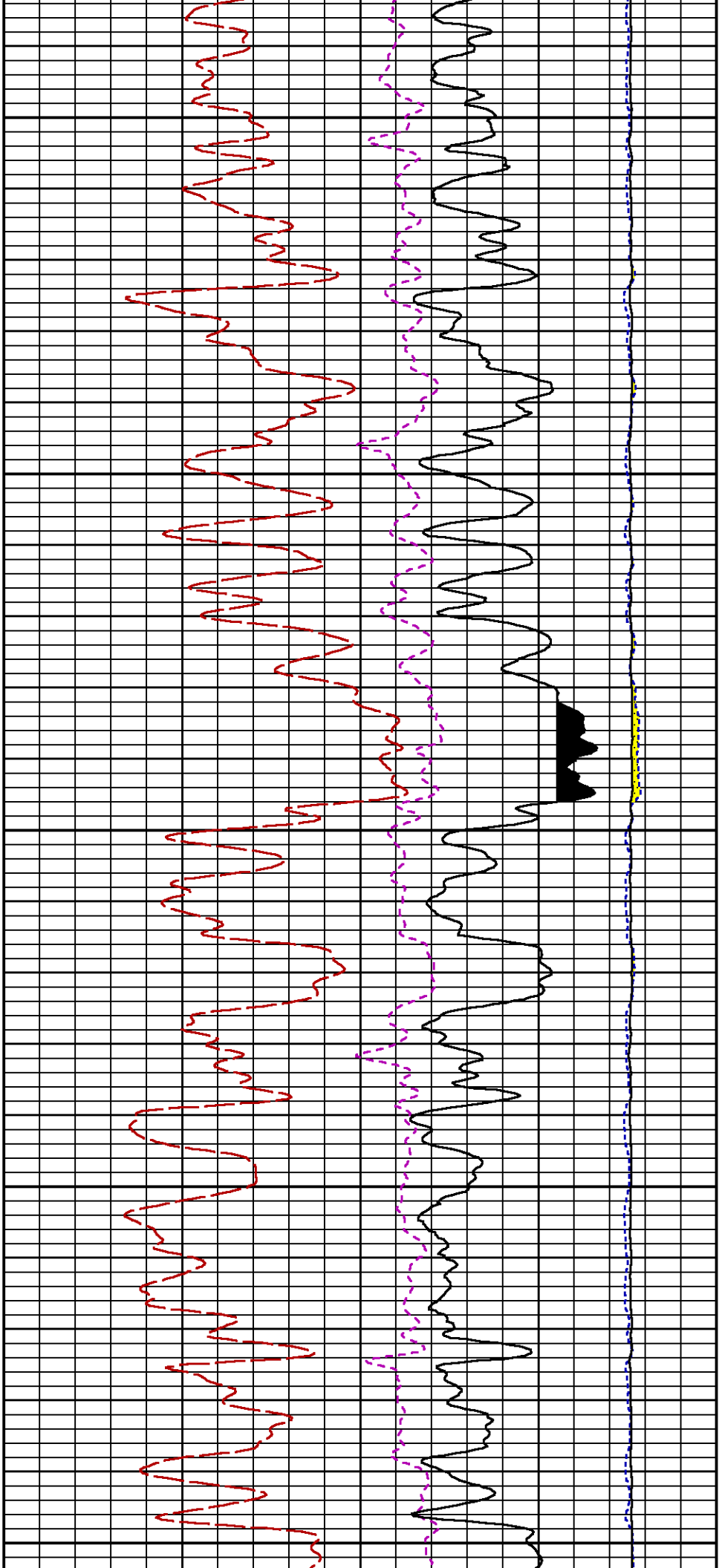
CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)
CCL	-25.00	ISS	-12.75	RATO	-12.75	SGFC	-12.75
GR	-22.75	LS	-12.75	RICS	-12.75	SS	-12.75

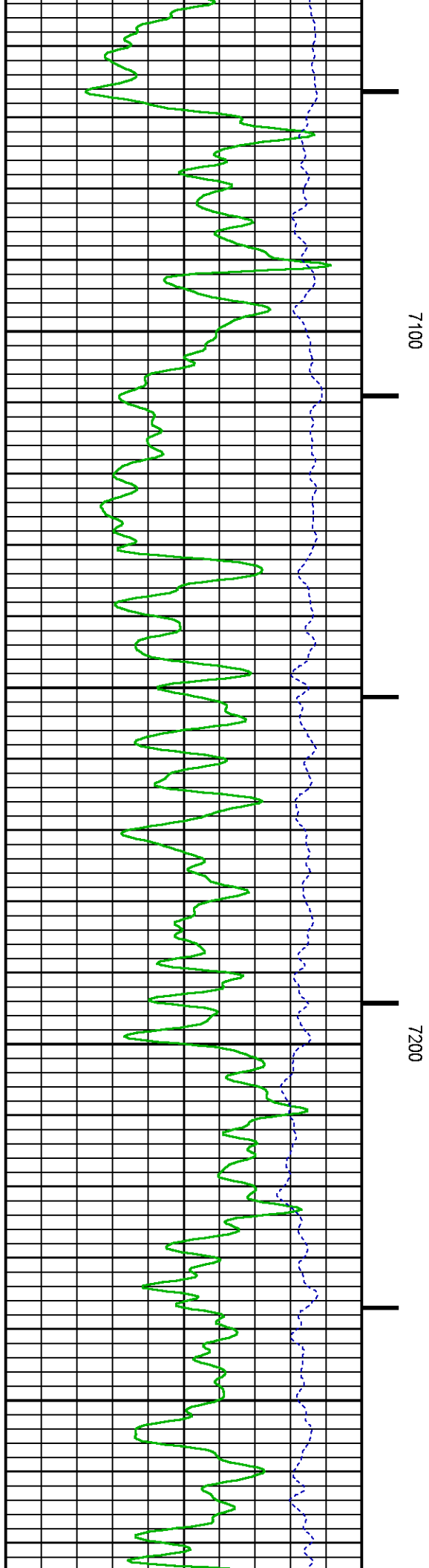
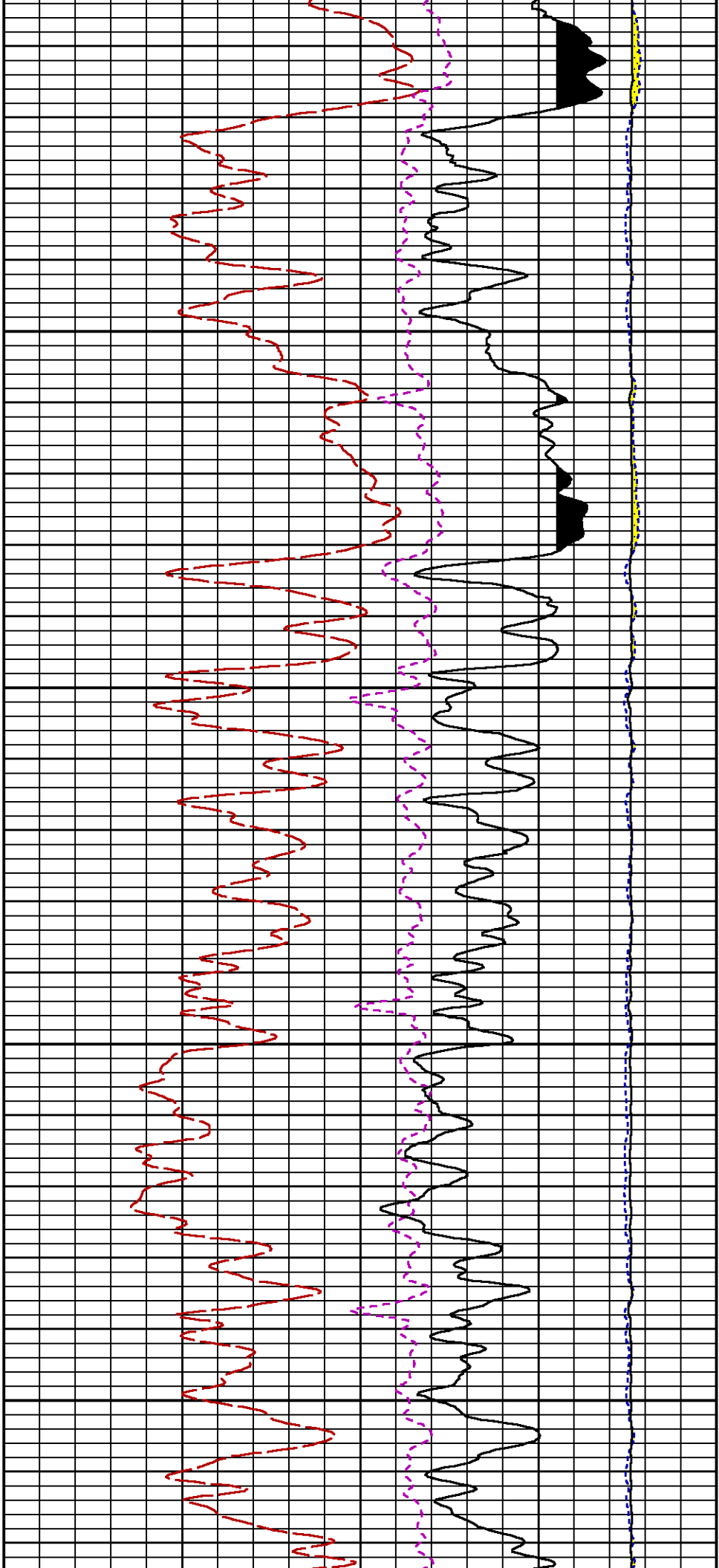
Presentation	: SysA:/dat1a/LARAMIE_CC_0697-03-14E/CC_0697-03-14E_RPM_MAIN_WF.fvpdf [5"/100' Scale]
Plot Interval	: 6360 - 9723.5 Feet
Data File 1	: F1 : SysA:/dat1a/LARAMIE_CC_0697-03-14E/45_LARAMIE_CC_0697-03-14E_RPM_MAIN_WF.xtf
Created On	: Aug 26 12:47:48 2018
Company	: LARAMIE ENERGY LLC
Well	: CC 0697-03-14E
Field	: GRAND VALLEY
File Interval	: 6346.5 - 9723.75 Feet
OCT	: p354h

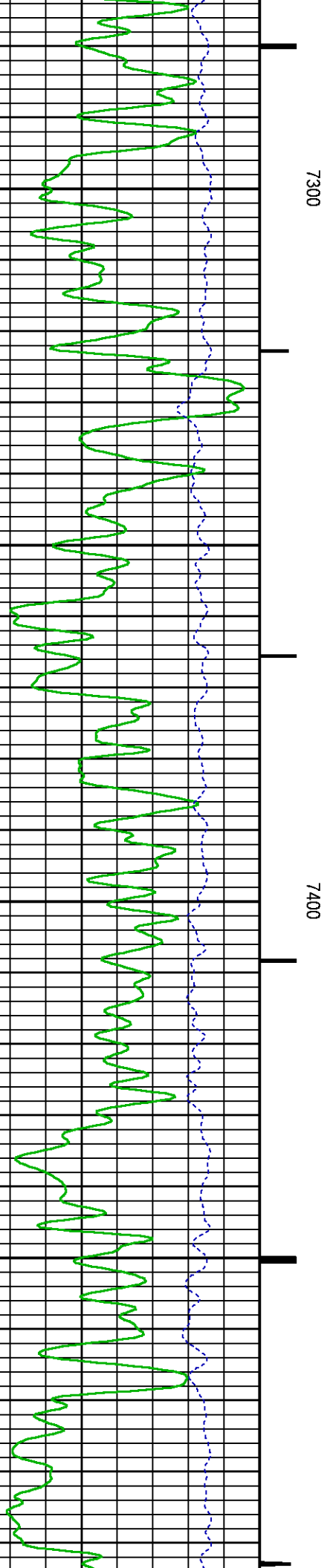
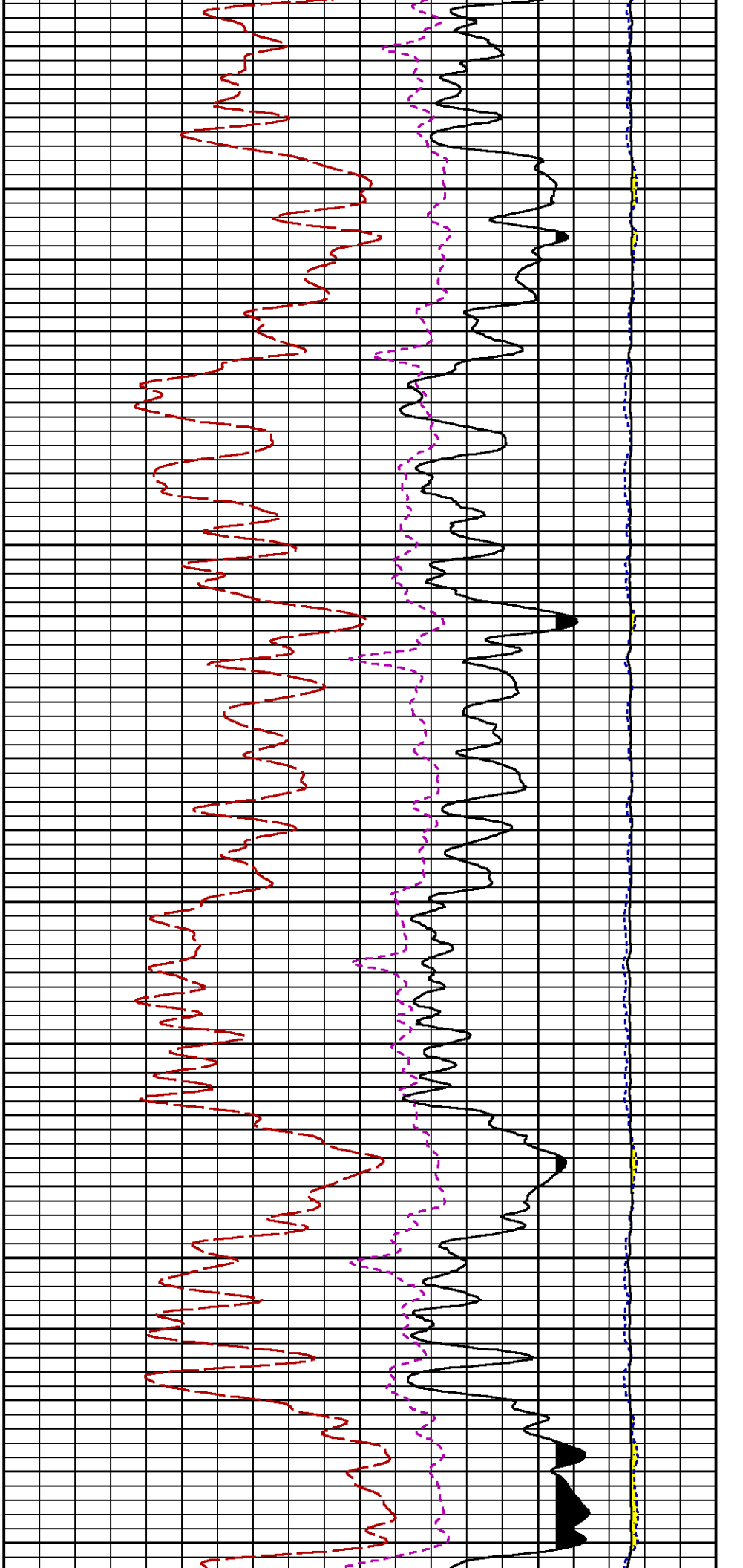


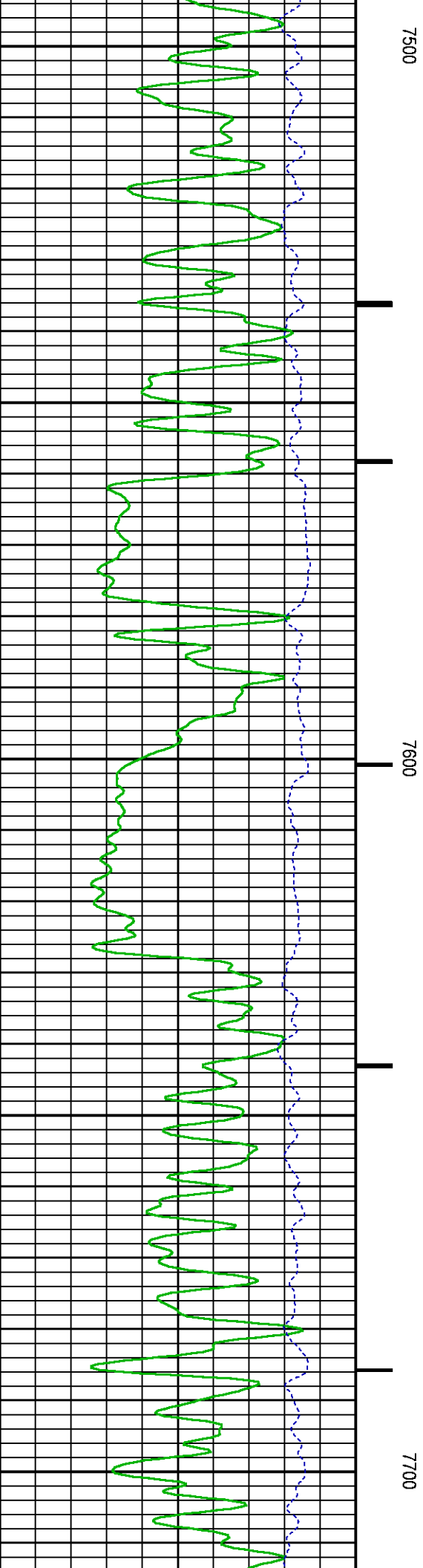
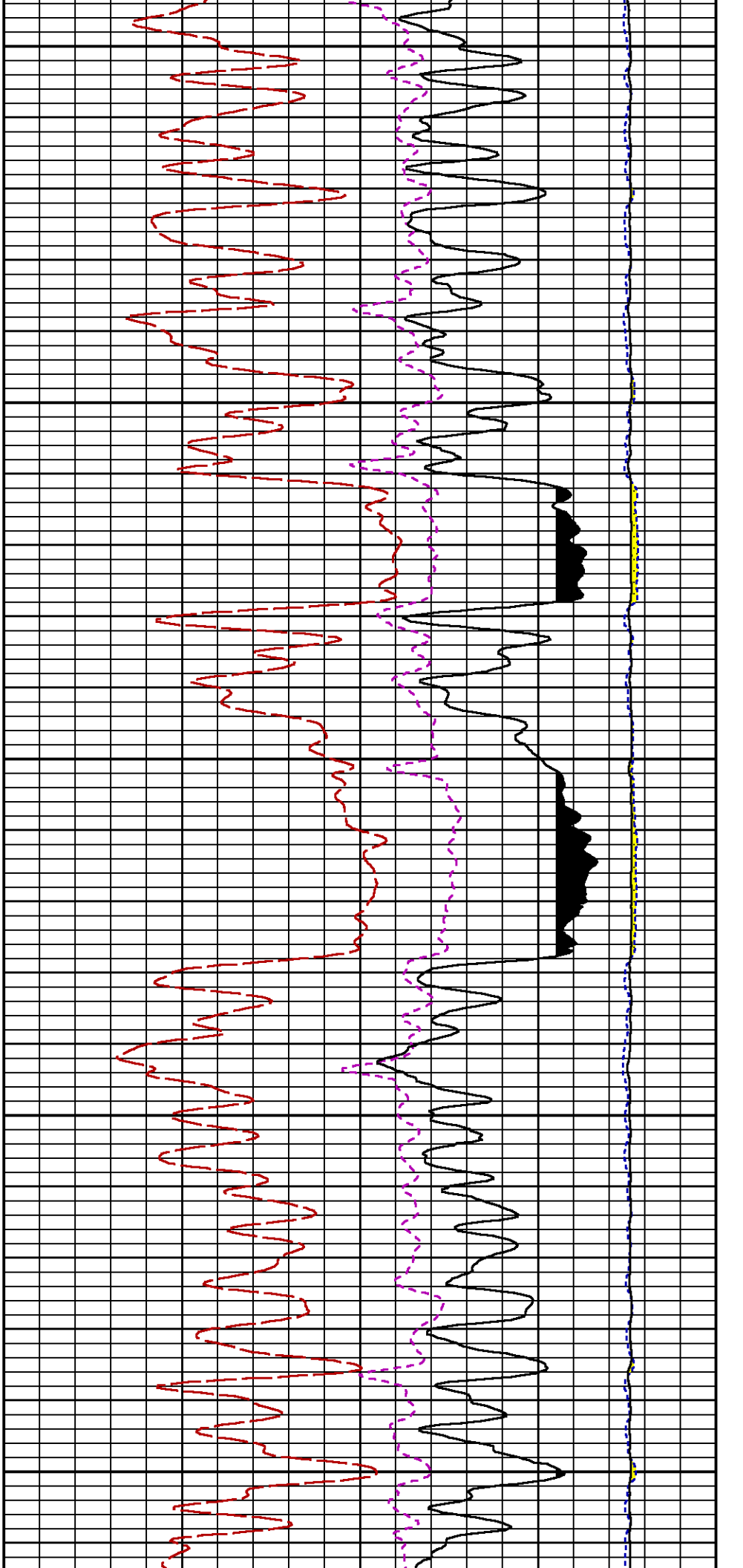


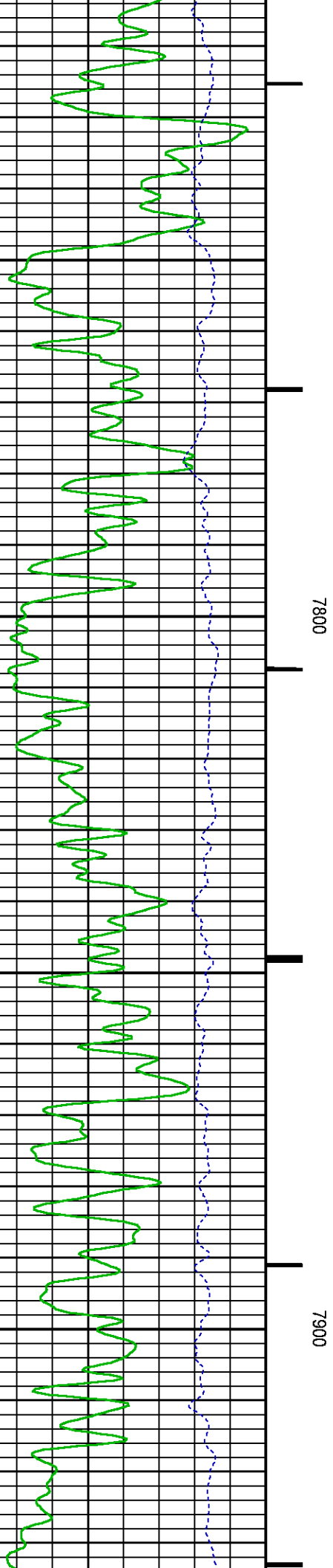
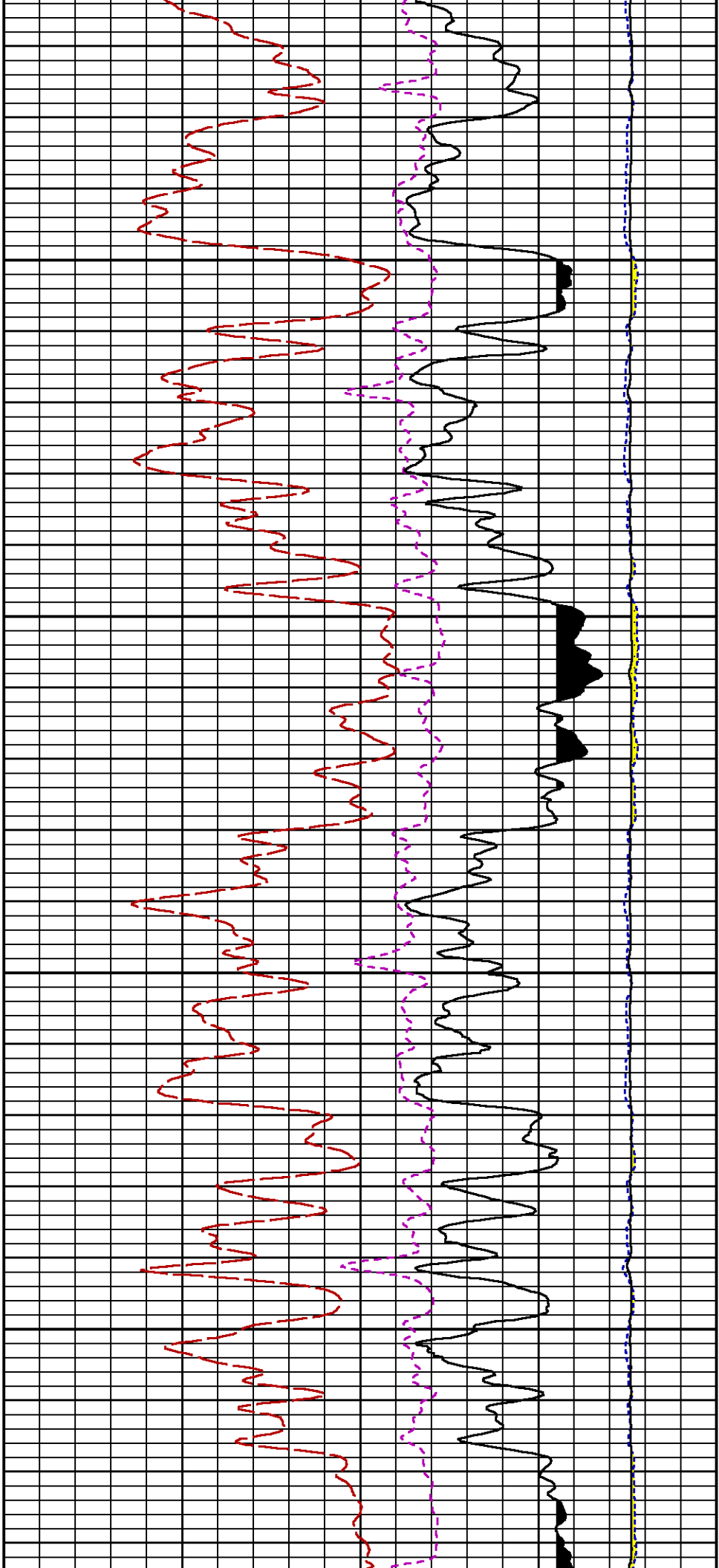


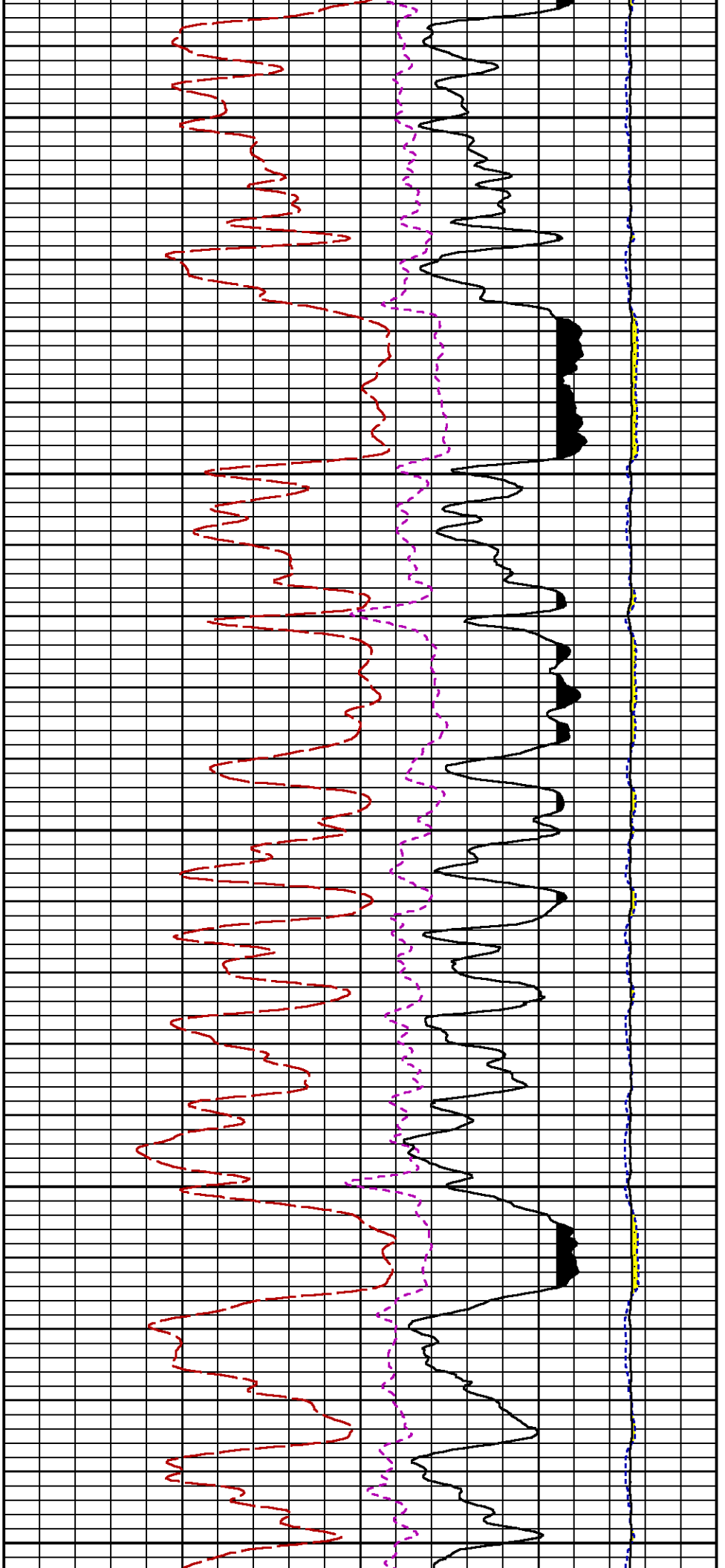






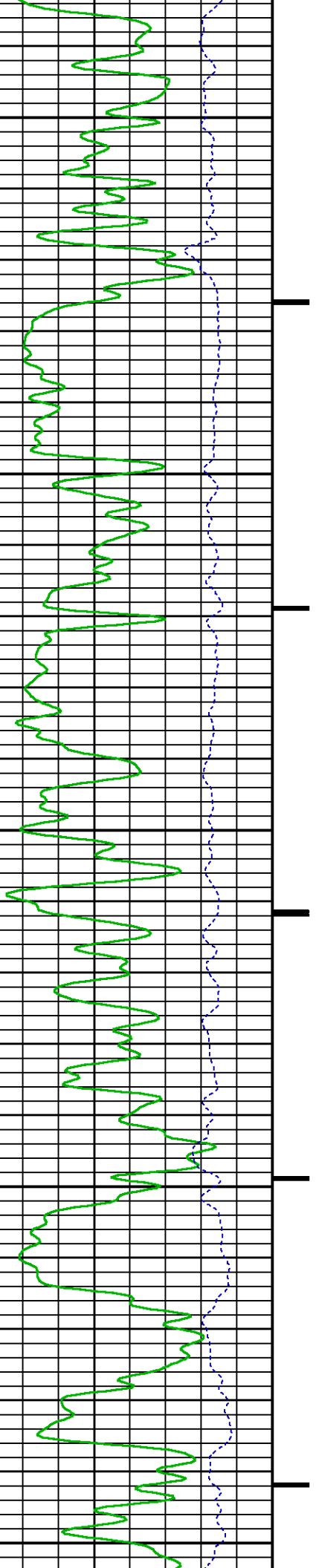


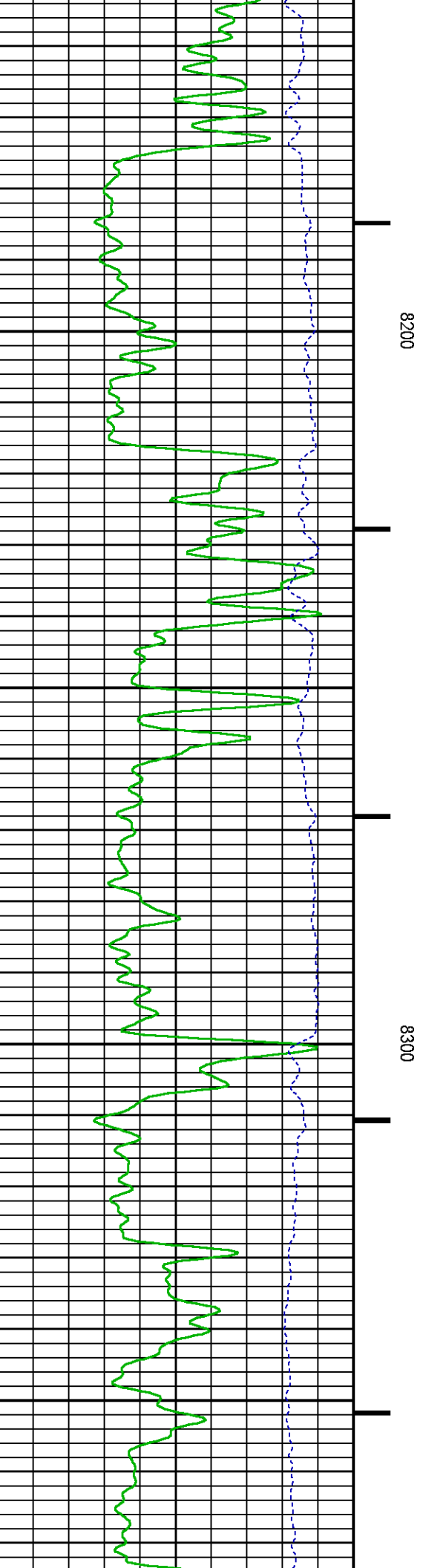
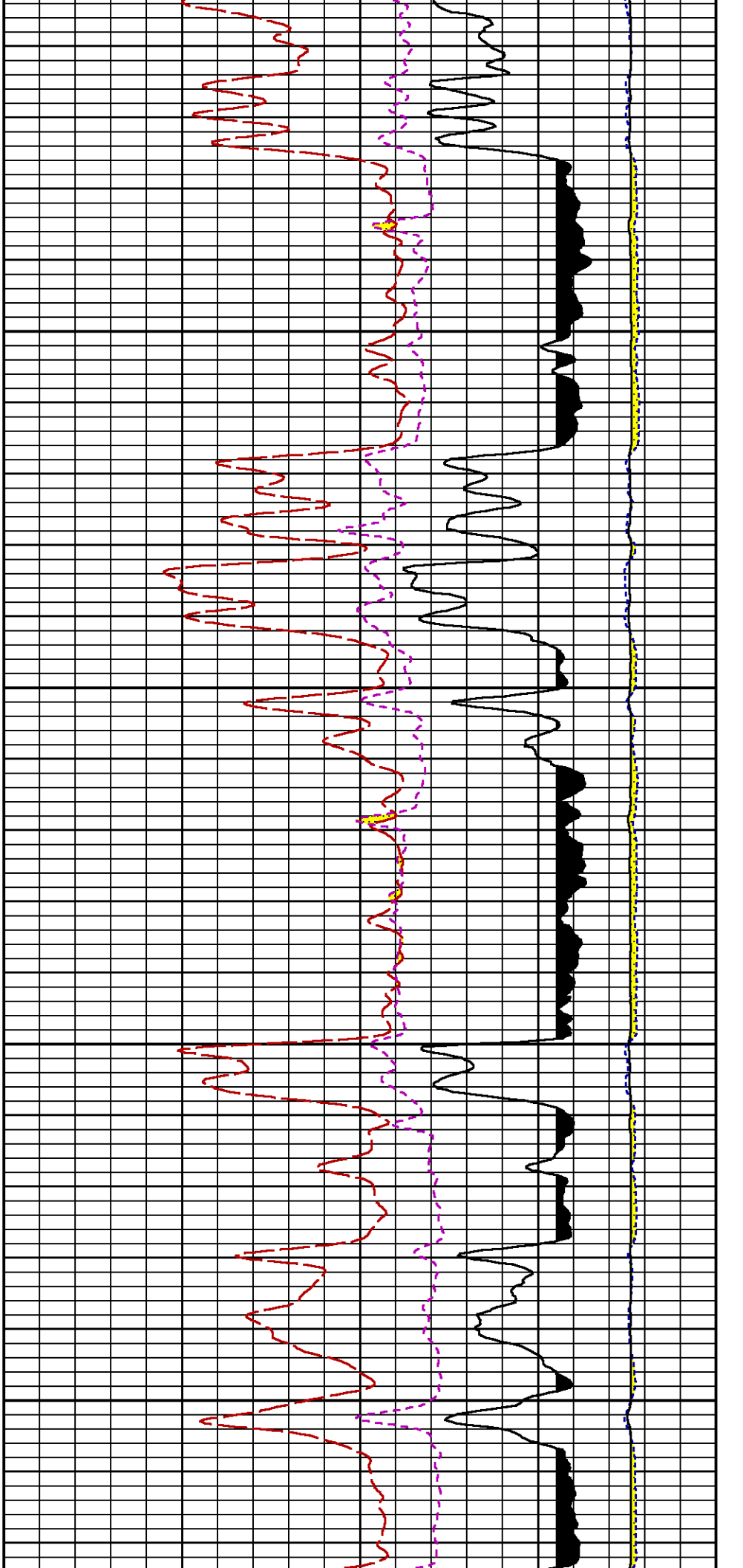


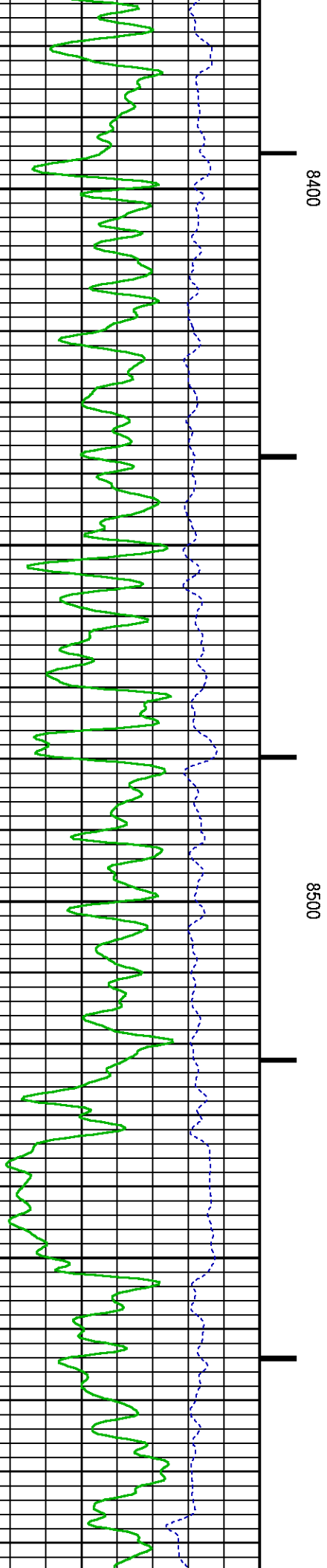
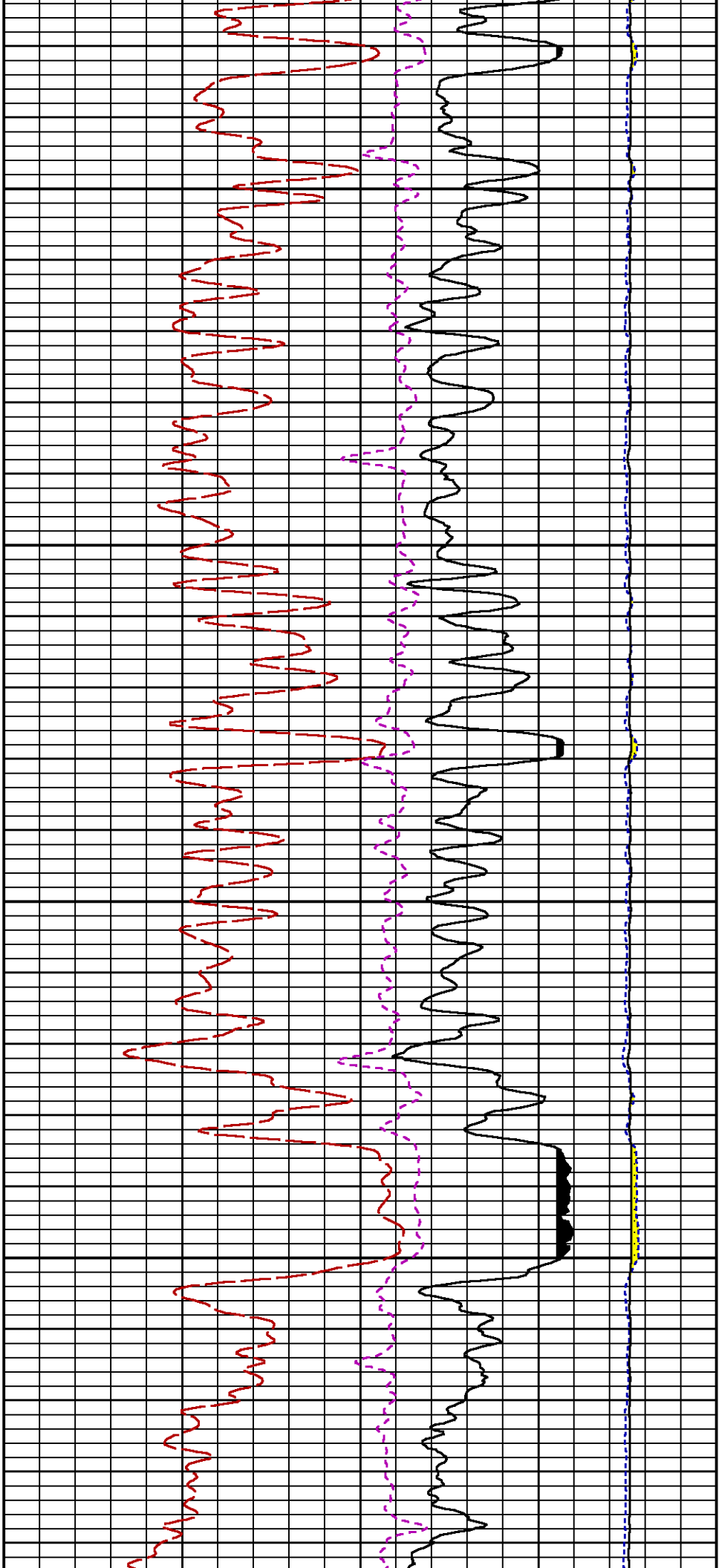


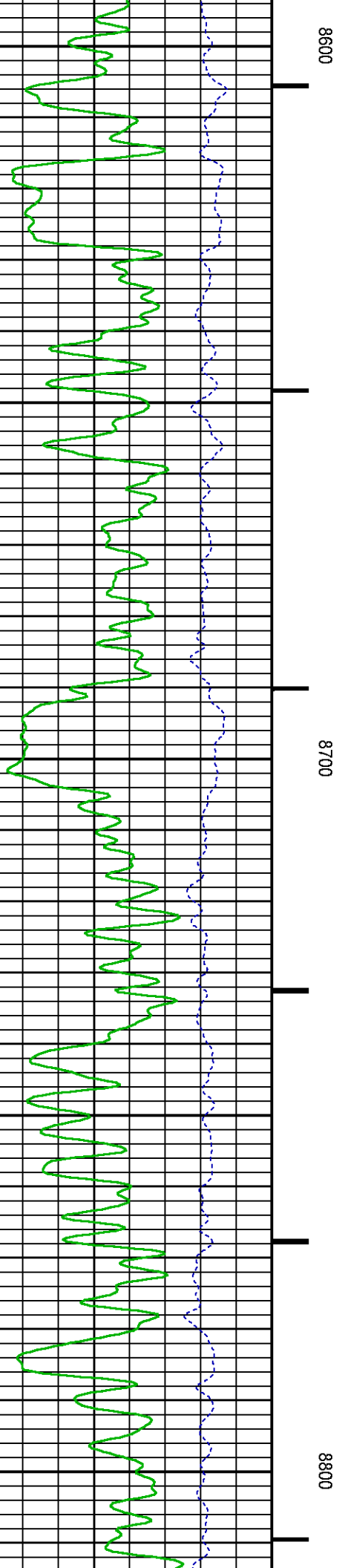
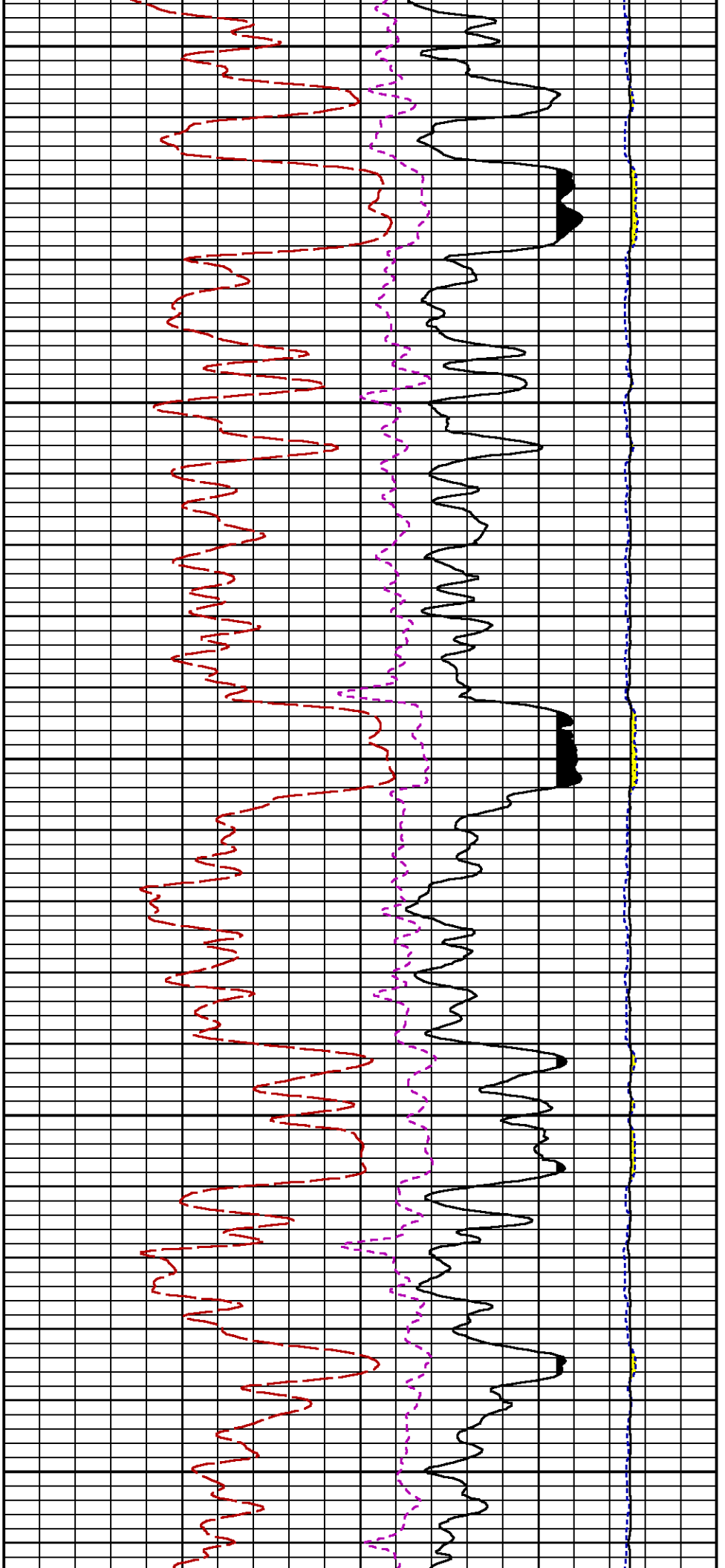
8000

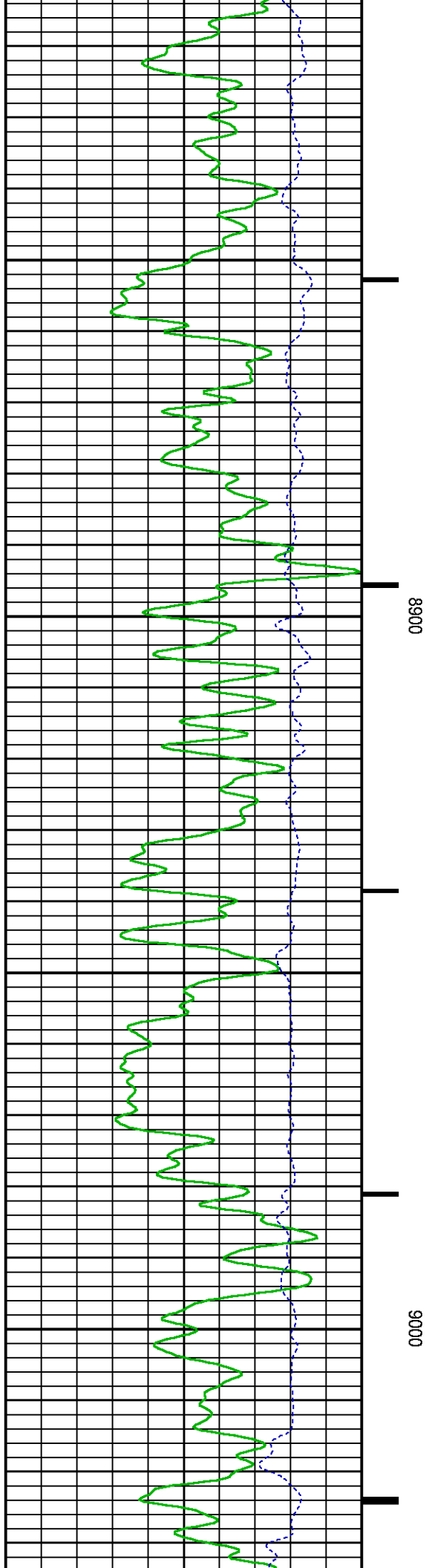
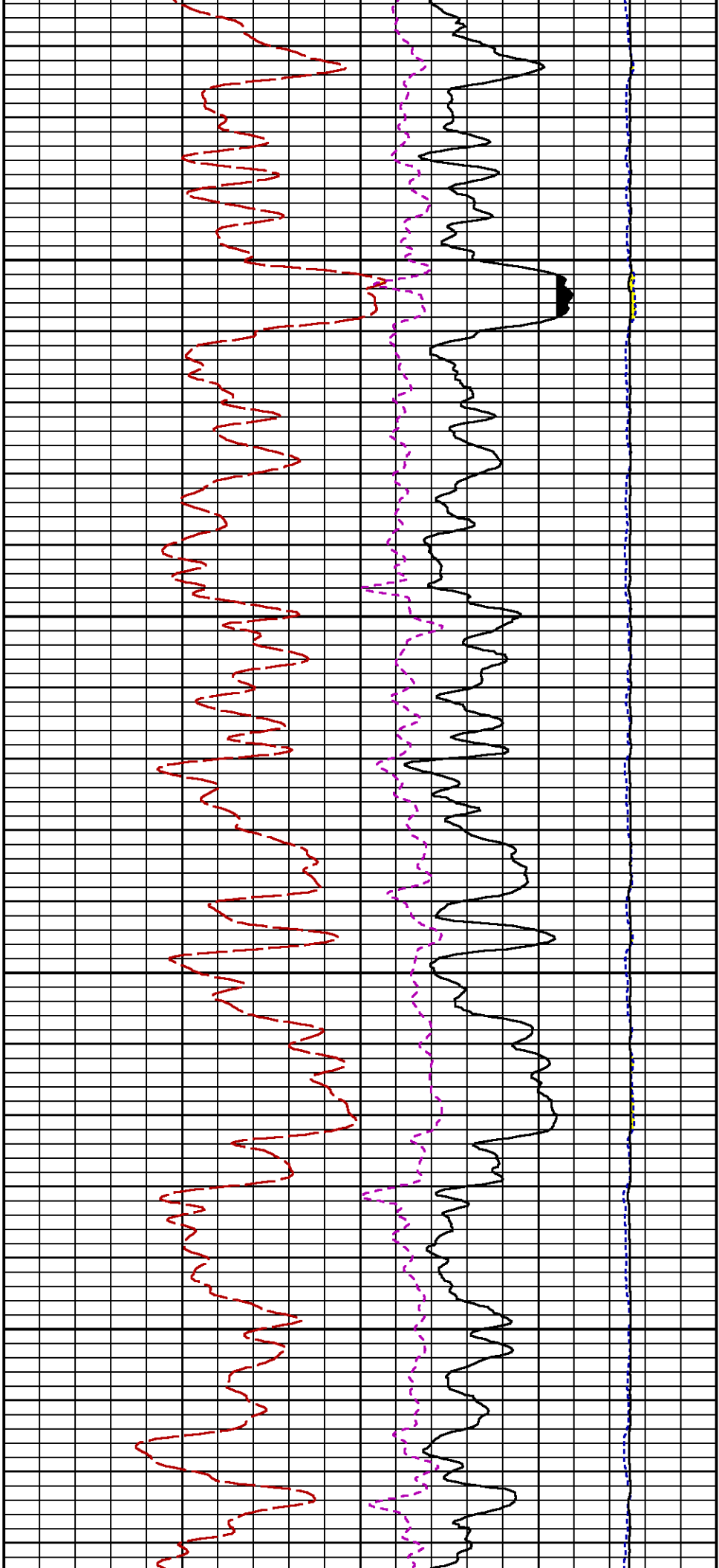
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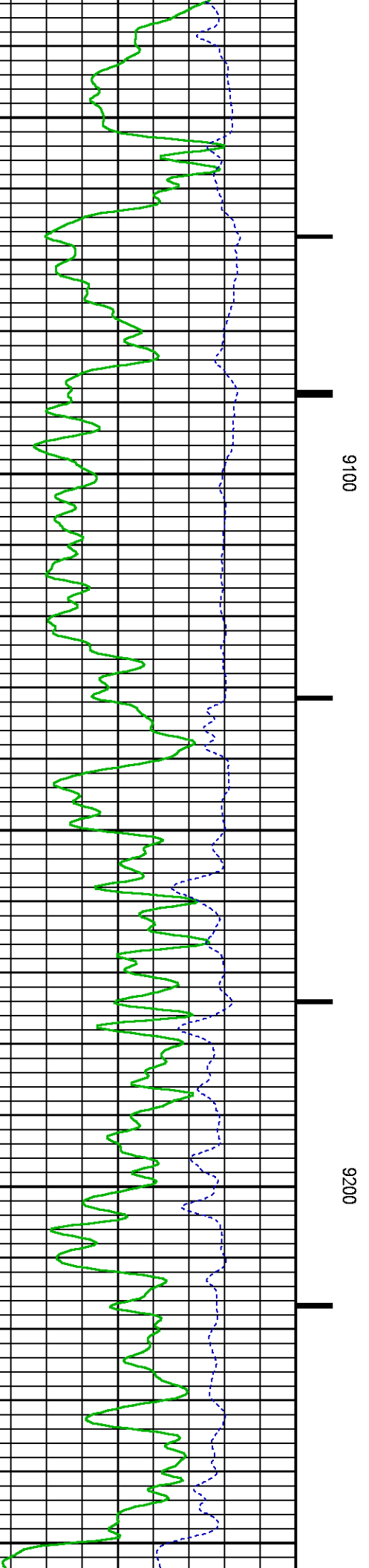
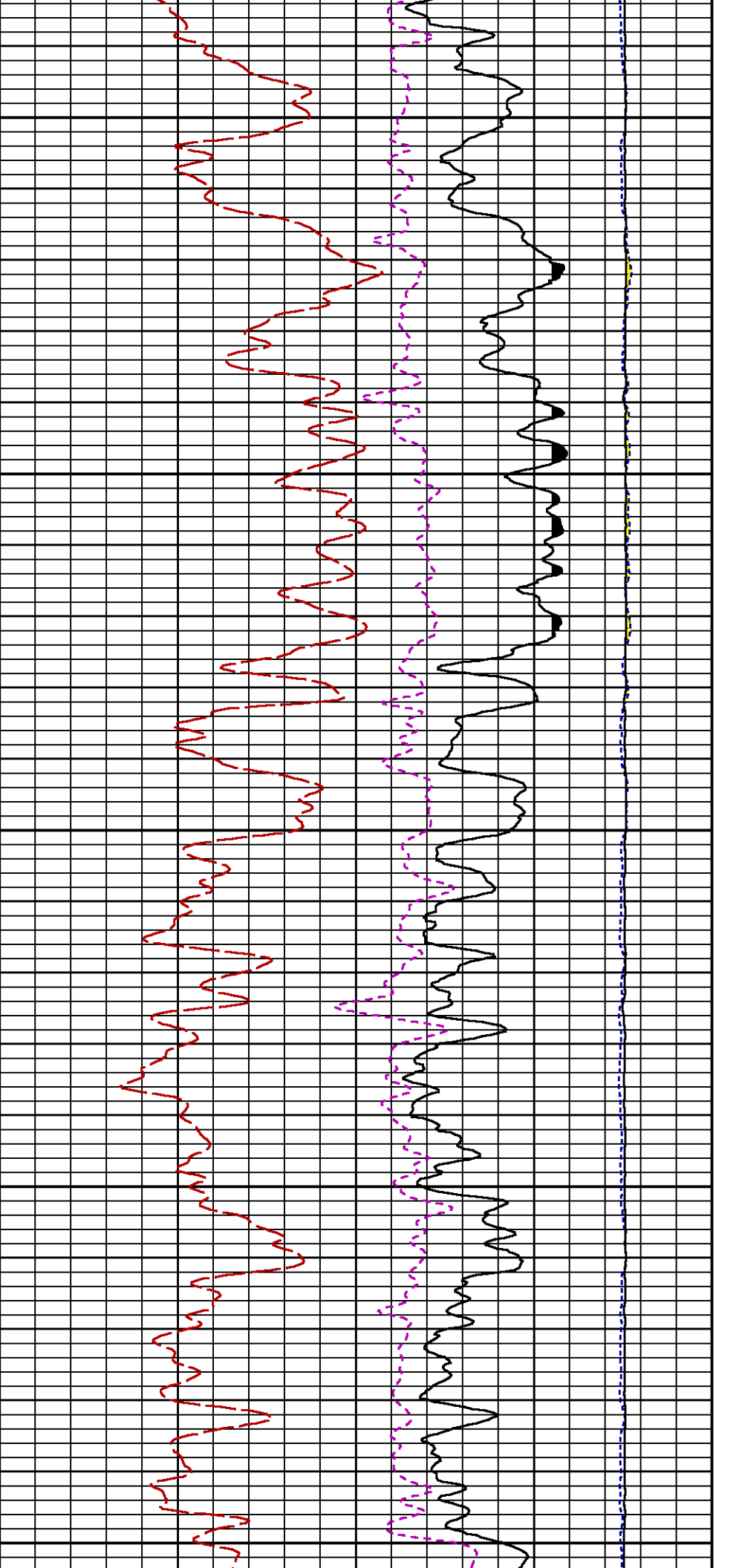


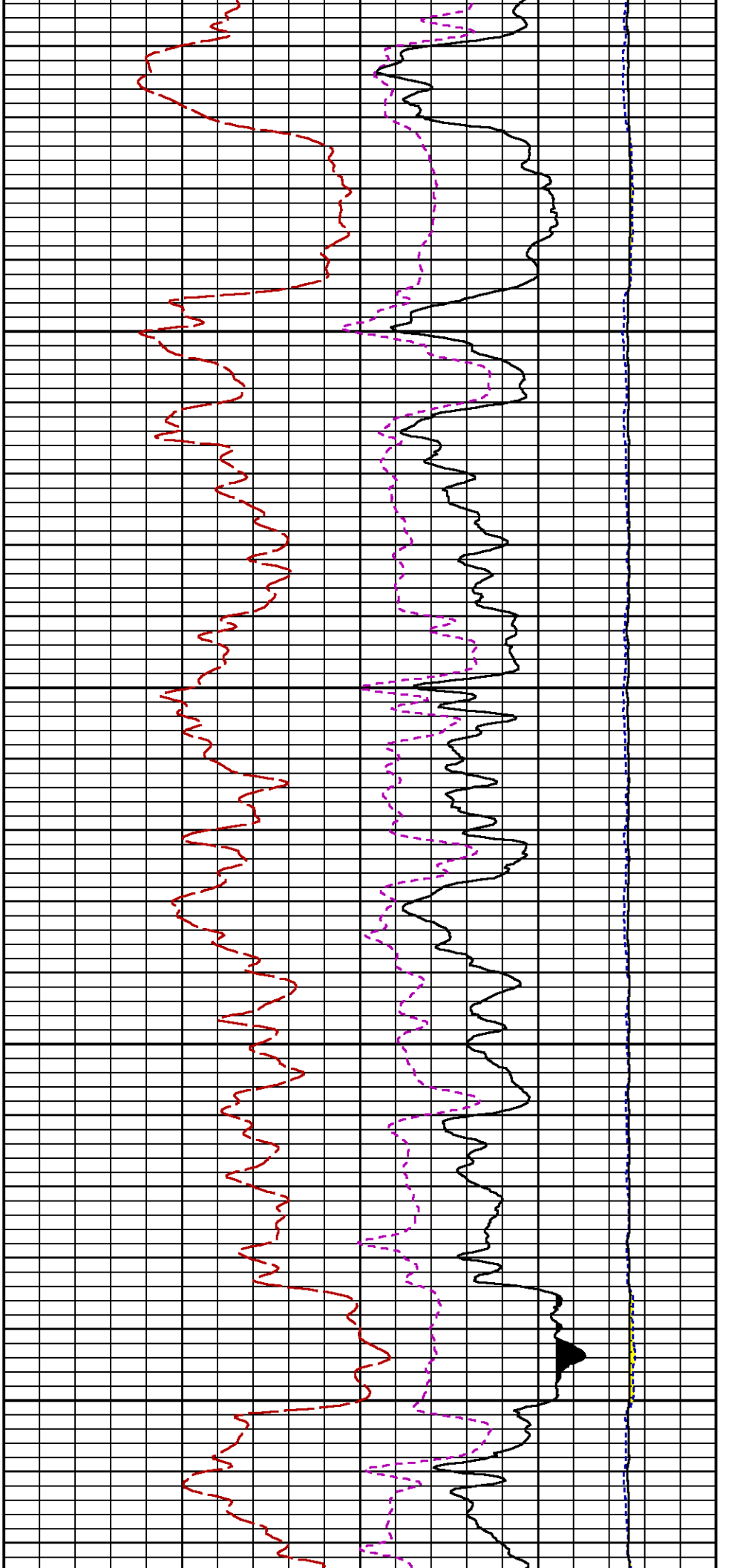






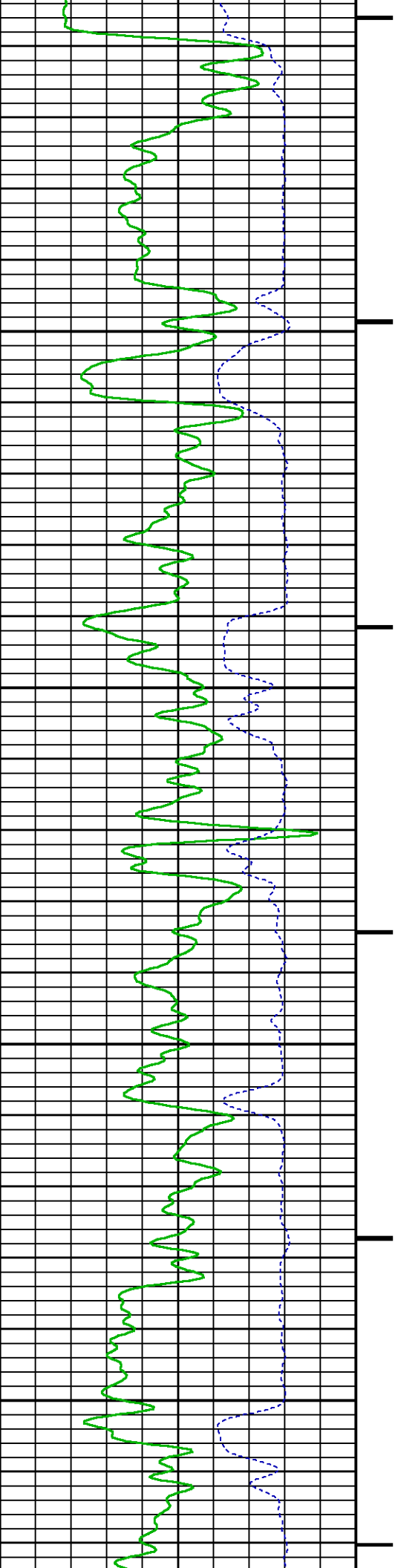


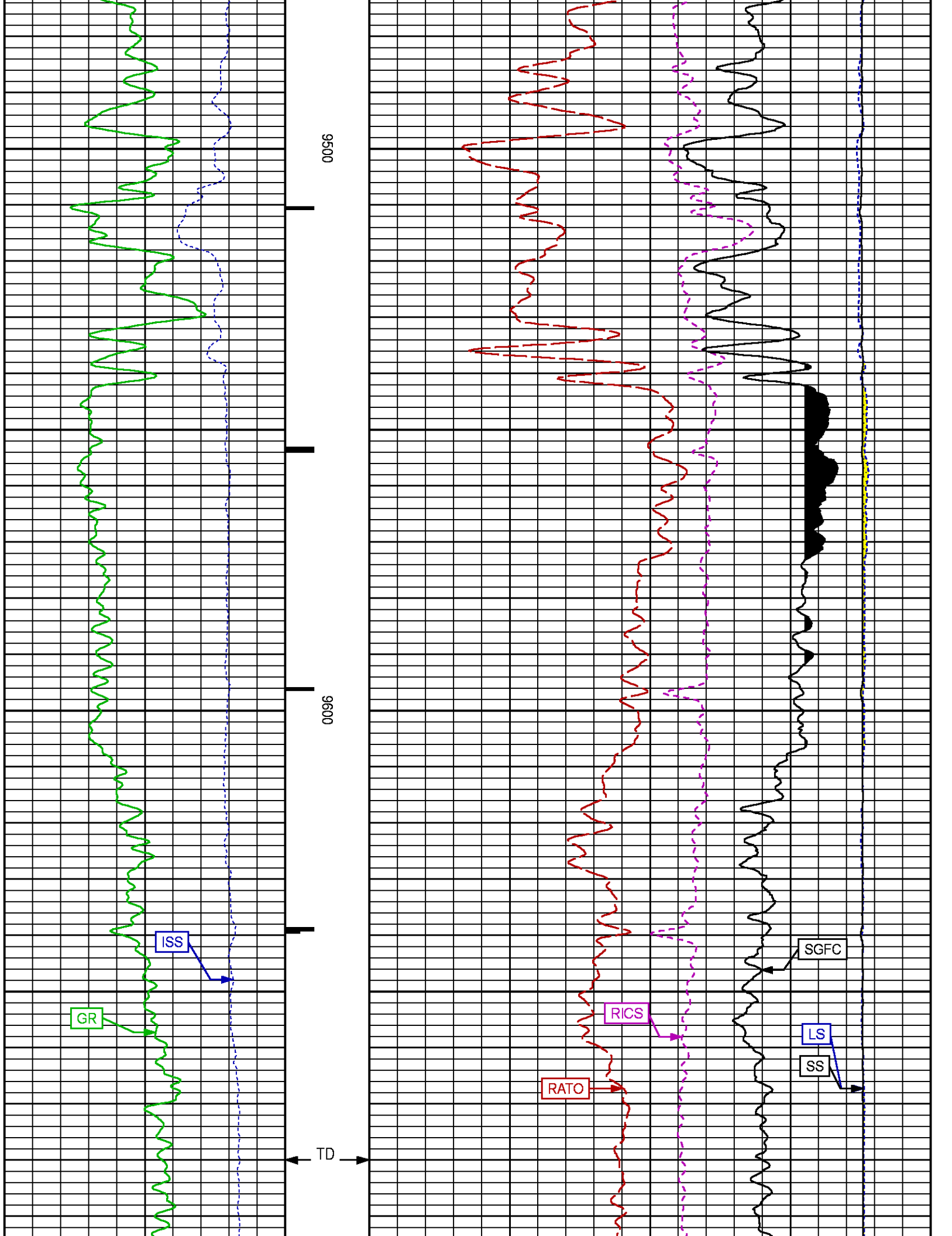


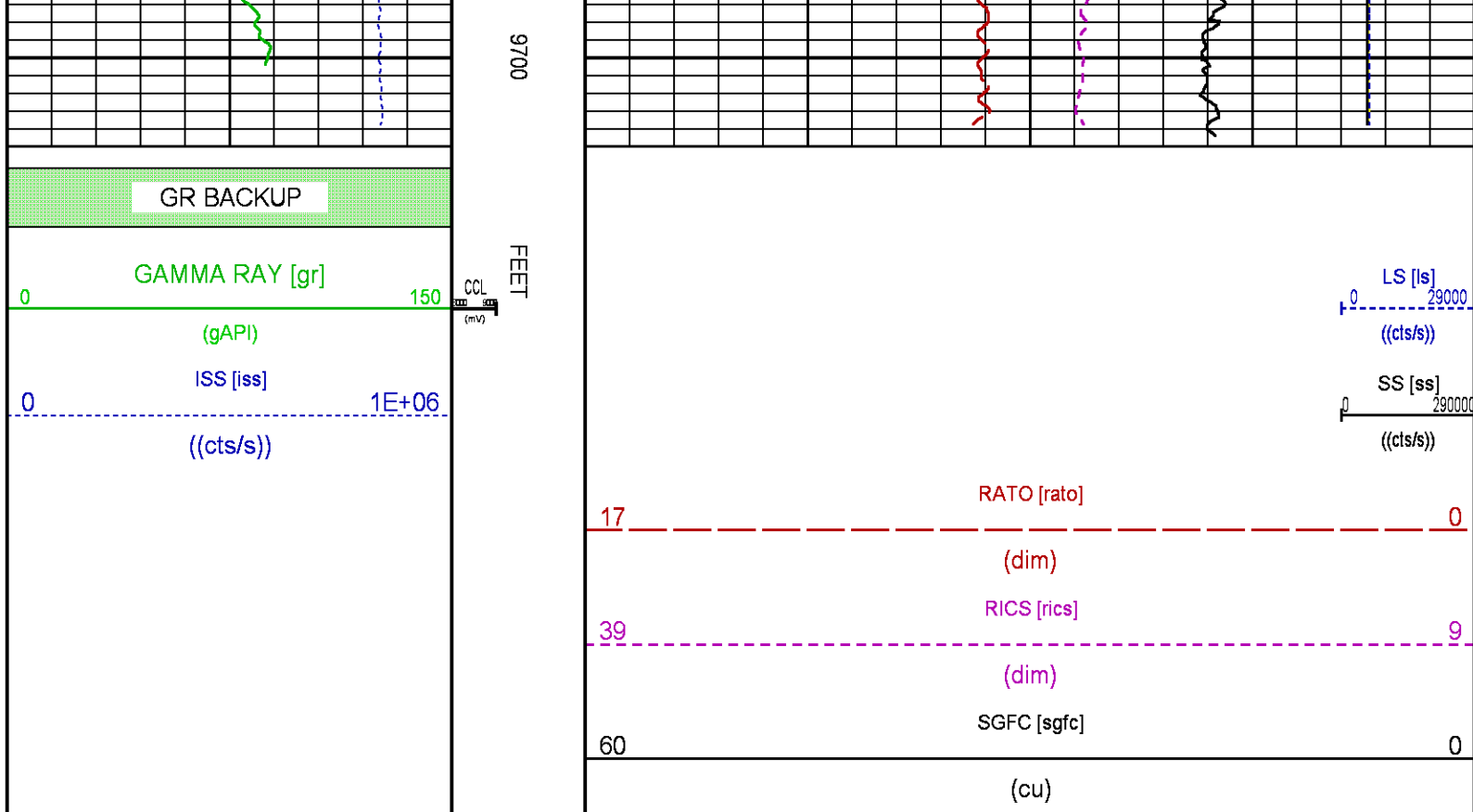


9300

9400







REPEAT PASS

ECLIPS 7.0i ECLIPS General Release Rel 7.0i Thu Jun 08 20:36:10 CDT 2017
Updates: 1

Plotted: Sun Aug 26 13:06:16 2018

PARAMETER AND FILTER SUMMARY REPORT

FILE: /dat1a/LARAMIE_CC_0697-03-14E/p354h01.prm
LOGGING MODE: DEPTH DIRECTION: UP
TOP DEPTH: 6849.722 ft BOTTOM DEPTH: 7095.783 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		" "

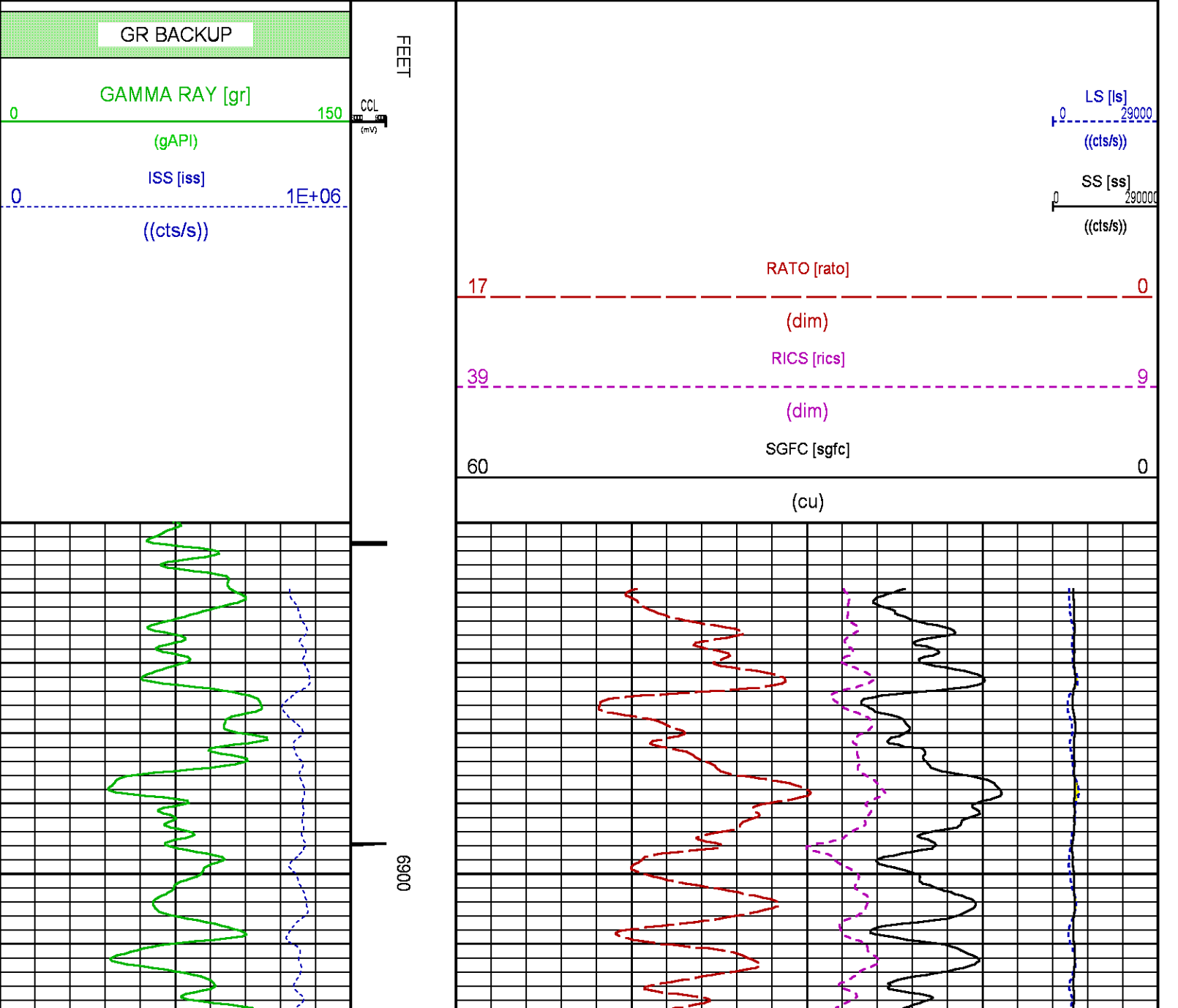
CURVE DESCRIPTION REPORT

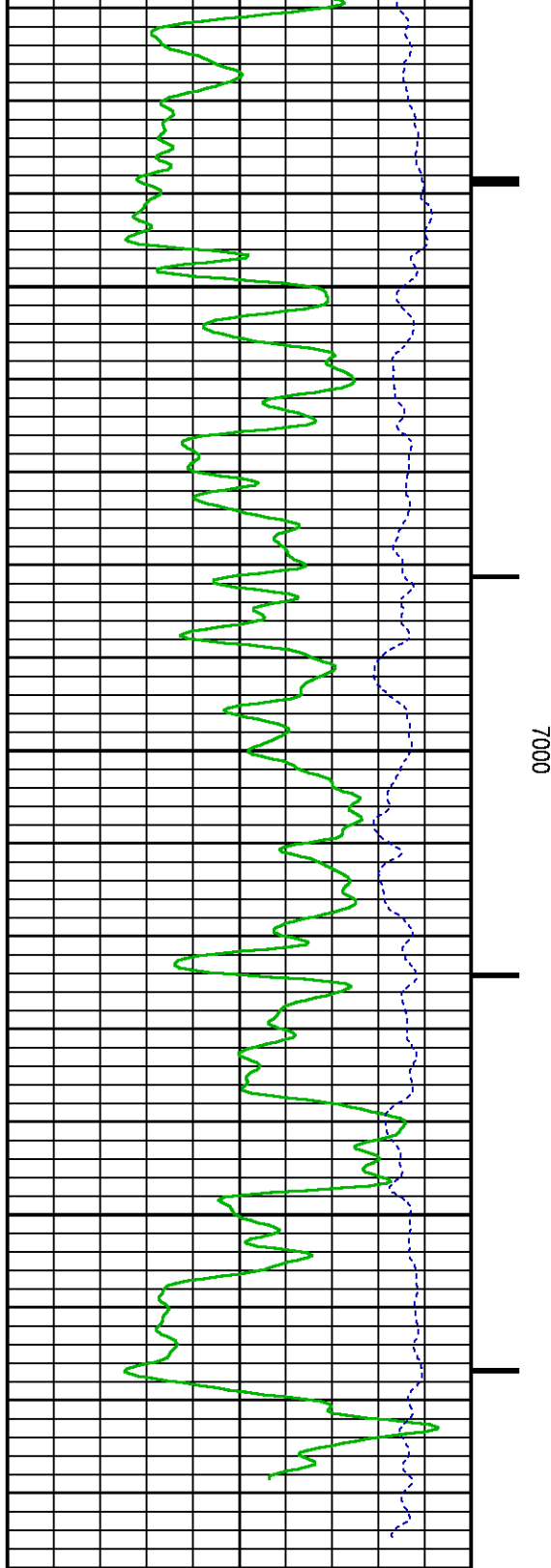
CURVE NAME	CREATION DATE	CURVE DESCRIPTION
F1 CCL	Aug 26 12:21:23 2018	CASING COLLAR LOCATOR

F1:GR	Aug 26 12:21:23 2018	GAMMA RAY
F1:ISS	Aug 26 12:21:23 2018	INELASTIC SHORT SPACE COUNT RATE
F1:LS	Aug 26 12:21:23 2018	LONG SPACE COUNT RATE
F1:RATO	Aug 26 12:21:23 2018	SHORT/LONG SPACE COUNT RATE RATIO
F1:RICS	Aug 26 12:21:23 2018	SHORT SPACE INELASTIC TO CAPTURE COUNT RATE RATIO (ISS/CSS)
F1:SGFC	Aug 26 12:21:23 2018	BOREHOLE AND DIFFUSION CORRECTED SIGMA
F1:SS	Aug 26 12:21:23 2018	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

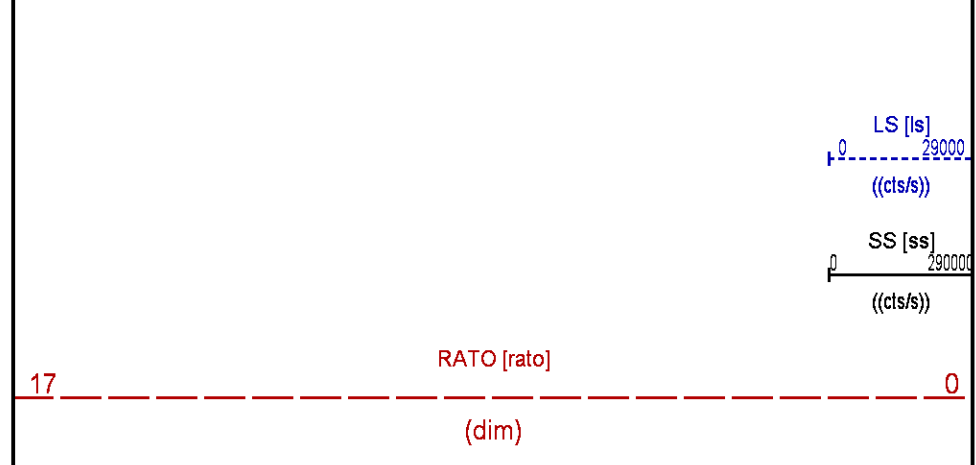
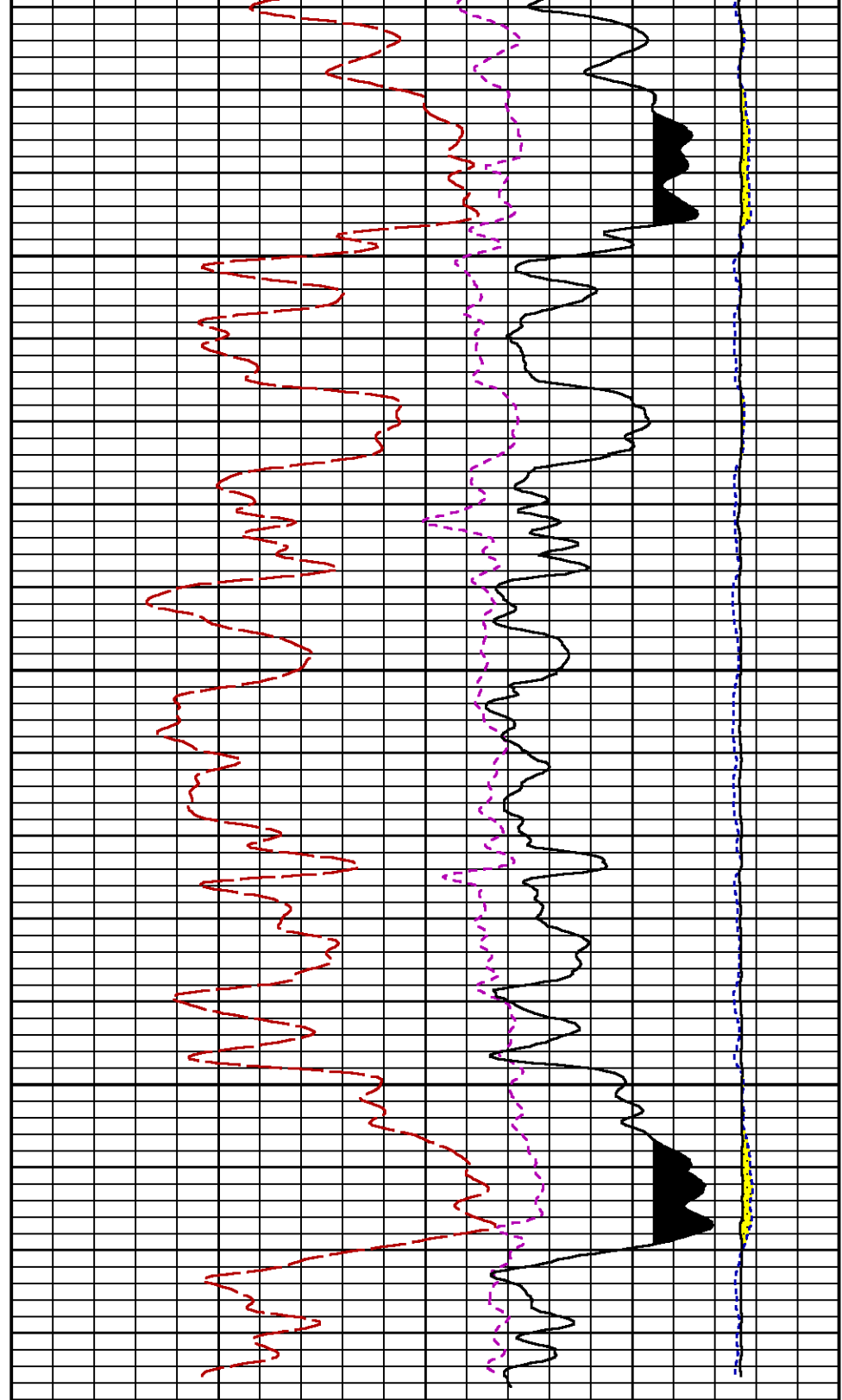
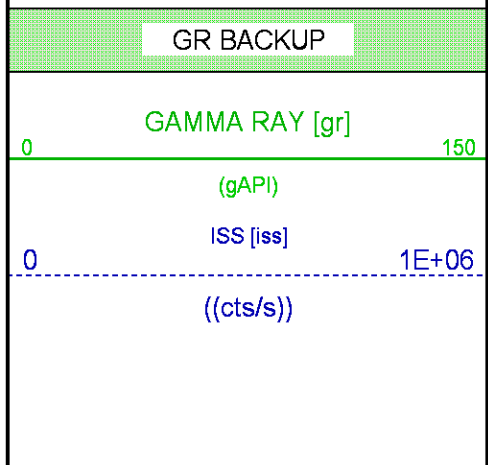
Presentation	: SysA:/dat1a/LARAMIE_CC_0697-03-14E/CC_0697-03-14E_RPM_REPEAT.fvpdf [5"/100" Scale]
Plot Interval	: 6850 - 7101.25 Feet
Data File 1	: F1 : SysA:/dat1a/LARAMIE_CC_0697-03-14E/45_LARAMIE_CC_0697-03-14E_RPM_REPEAT.xtf
Created On	: Aug 26 12:21:23 2018
Company	: LARAMIE ENERGY LLC
Well	: CC 0697-03-14E
Field	: GRAND VALLEY
File Interval	: 6833.75 - 7101.5 Feet
OCT	: p354h





7000

FEET



		39	RICS [ncs]	9
			(dim)	
		60	SGFC [sgfc]	0
			(cu)	

CALIBRATION / VERIFICATION SUMMARY

Source File: /dat1a/LARAMIE_CC_0697-03-14E/p354h.tp1

GR PRIMARY CALIBRATION SUMMARY

TOOL #: 2812LA 11608516

DATE/TIME PERFORMED: Fri Jul 27 12:13:28 2018

UNIT #: 5753XD 10412898

CALB JIG #: 4702NK BA_820

	BACKGROUND (cts/s)	CALBRTR ON (cts/s)	CR DIFF (cts/s)	MULT	BACKGROUND (gAPI)	CALBRTR ON (gAPI)	CALBRTR (gAPI)
GR	108.60	317.69	209.1	1.004	109.07	319.07	210

GR PRIMARY VERIFICATION SUMMARY

TOOL #: 2812LA 11608516

DATE/TIME PERFORMED: Fri Jul 27 12:15:52 2018

UNIT #: 5753XD 10412898

VERI JIG #: 4702NK BA_820

	BACKGROUND (cts/s)	CALBRTR ON (cts/s)	MULT	BACKGROUND (gAPI)	CALBRTR ON (gAPI)	DIFF. (gAPI)
GR	105.58	315.67	1.004	106.04	317.04	211.00
						200.00 220.00

RPM_PNC_3D PRIMARY CALIBRATION SUMMARY

TOOL: 8283PA 10068031

DATE/TIME PERFORMED: Fri Jul 20 13:10:46 2018

UNIT: 5753XD 10412898

CALIBRATOR: 2437XB 112674

SOURCE: 8281AA 10047980

HOURS: 8281AA 113

	ISS	Mtr VIts (V)	SS Gain	LS Gain	XLS Gain	EA Temp (degF)	Sync Delay (usec)	RCAL
Raw Data	790366	118	2168	2162	2249	117	7.0	0.9778
Interpolated	1300000	138	2150	2155	2241			

	ISS	BKS	BKL	BKX	SGA1	SDA1	SGA2	SDA2
Raw Data	790366	5846	959	130	25.92	0.15	24.08	0.34
					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	790366	164656	25413	85377	30385	7913	51786	12693
Fit Quality %		0.660	0.561	0.640	0.651	0.713	0.642	0.721

	ISS	RBOR	RIN ISS/ILS	RIN13 ISS/IXS	RICS ISS/CSS	RATO SS/LS	RTWO SS2/LS	RONE CSS/CLS
Raw Data	790366	1.43	4.80	31.11	15.26	10.79	3.84	4.08
		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 %		0.041	0.070	0.118	0.054	0.071	0.063	0.062

INSTRUMENT CONFIGURATION

Source File: /dat1a/LARAMIE_CC_0697-03-14E/p354h~GR_SONDEX-tdg

A3 CABLEHEAD

Diameter : 1.37"

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 : 8248EA
Mnemonic : PCM
Measure Point: 1.00': CCL MP

GAMMA RAY, 1 11/16"

Diameter : 1.69"
Length : 2.17'
Weight : 10 lbs
Series : 2812LA
Mnemonic : GR
Measure Point: 0.62': GR MP

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

33.24'

CCL MP 25.19'

GR MP 22.64'

XLS MP 13.58'

IS MP 13.16'

SS MP 12.91'

Series : 8283PA
Mnemonic : RPM
Measure Point: 5.45': XLS MP
Measure Point: 5.04': LS MP
Measure Point: 4.79': SS MP

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
PRES MP

1.65'

BULL PLUG 1 11/16

0.00'

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

**BAKER
HUGHES**
a GE company



ECLIPS

COMPANY

LARAMIE ENERGY LLC

WELL

CC 0697-03-14E

FIELD

GRAND VALLEY

COUNTY

GARFIELD

STATE COLORADO

FILE NO:

CH139390J

API NO:

05045238010000

LOCATION:

SHL: 3331.0' FNL & 1310.0' FEL

SHL: 3331.0' FNL & 1310.0' FEL

ELEVATIONS:

KB 8458 FT

DF

GL 8428 FT

SEC 3 TWP 6S RGE 97W

DATE 26-Aug-2018