



FILE NO: CH107928	COMPANY WELL FIELD COUNTY	WPX ENERGY FEDERAL GM 322-9 GRAND VALLEY GARFIELD STATE COLORADO
API NO: 05045225310000		

Ver. 4.06 SEC 9 T7S R96W PAD MV 16-9 RIG: H&P 319	LOCATION: SHL: 675' FNL & 558' FWL BHL: 1668' FNL & 1930' FWL SW/NW SEC 9 TWP 7S RGE 96W	OTHER SERVICES RAL
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PERMANENT DATUM LOG MEASURED FROM DRILL. MEAS. FROM	G.L. ELEVATION 6087 FT K.B. 24 FT ABOVE P.D. K.B.	ELEVATIONS: KB 6111 FT DF GL 6087 FT
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DATE	18-Jun-2016
RUN	1
SERVICE ORDER	US107928
DEPTH DRILLER	6926 FT
DEPTH LOGGER	6891 FT
BOTTOM LOGGED INTERVAL	6889 FT
TOP LOGGED INTERVAL	1044 FT
TIME STARTED	14:30
TIME FINISHED	22:00
OPERATOR RIG TIME	7.5 HOURS
TYPE OF FLUID IN HOLE	WATER
FLUID DENSITY	NA
FLUID SALINITY	NA
FLUID LEVEL	50 FT
LOGGED CEMENT TOP	SEE LOG
WELLHEAD PRESSURE	0 PSI
MAXIMUM HOLE DEVIATION	NA
NOMINAL LOGGING SPEED	10 FMIN
MAX. RECORDED TEMP.	202 DEGF
REFERENCE LOG	BAKER HUGHES HDLZDLGN
REFERENCE LOG DATE	11-JUN-2016
EQUIP. NO.	HL-6685
LOCATION	GRAND JCT.
RECORDED BY	SPENCER
WITNESSED BY	T.RAGSDALE

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	1044 FT
8.75 IN	1044 FT	6965 FT

CASING RECORD				
SIZE	WEIGHT	GRADE	FROM	TO
9.625 IN			24 FT	1044 FT
4.5 IN	11.6 LB/F		24 FT	6965 FT

REMARKS

RUN 1 TRIP 1: ALL DATA ON THIS LOG HAS BEEN DEPTH MATCHED WITH THE BAKER HUGHES OPEN HOLE LOG DATED 11-JUN-2016. DEPTH MATCHING MAY AFFECT COLLAR LENGTHS

LOGGED IN PNC - 3D MODE

SJ = 3856' - 3877'

BHT = 202 DEGF

THANKS FOR CHOOSING BAKER HUGHES WIRELINE CREW: QUIGLEY / COATE

EQUIPMENT DATA

RUN	TRIP	TOOL	SERIES NO.	SERIAL NO.	POSITION
1	1	PCM	8250EA	10408796	FREE
1	1	TEL/CCL	8248ED	10590814	FREE
1	1	GR	8262XA	10485470	FREE
1	1	RPM	8281EA	10273848	FREE
1	1	RPM	8281PA	10169251	FREE
1	1	RPM	8281FA	10401926	FREE
1	1	TEMP	8255XA	11774568	FREE

MAIN SECTION PNC-3D MODE

ECLIPS 6.2i ECLIPS General Release Rel 6.2i Wed Jun 12 12:21:40 CDT 2013
Updates: 1,36 Patches: 9

Plotted: Sat Jun 18 22:07:05 2016

PARAMETER AND FILTER SUMMARY REPORT					
FILE: /dat1a/CH107928/n353hx02.prm LOGGING MODE: DEPTH DIRECTION: UP TOP DEPTH: 1010.500 ft BOTTOM DEPTH: 6896.250 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	8.50	in	"	"
	CASING SIZE	7.00	in	"	"
	MATRIX	SANDSTONE		"	"
	CORRECTION BUFFER	11		"	"

CURVE DESCRIPTION REPORT		
CURVE NAME	CREATION DATE	CURVE DESCRIPTION
F1:CCL	Jun 18 15:56:03 2016	CASING COLLAR LOCATOR
F1:GR	Jun 18 15:56:03 2016	GAMMA RAY
F1:ISS	Jun 18 15:56:03 2016	INELASTIC SHORT SPACE COUNT RATE
F1:LS	Jun 18 15:56:03 2016	LONG SPACE COUNT RATE
F1:RATO	Jun 18 15:56:03 2016	SHORT/LONG SPACE COUNT RATE RATIO
F1:RICS	Jun 18 15:56:03 2016	SHORT SPACE INELASTIC TO CAPTURE COUNT RATE RATIO (ISS/CSS)
F1:SGFC	Jun 18 15:56:03 2016	CORRECTED FORMATION SIGMA
F1:SS	Jun 18 15:56:03 2016	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 : cas6685:/dat1a/CH107928/RPM_MAIN.fvpdf [5"/100' Scale]
Plot Interval : 980 - 6896.25 Feet

Data File 1 : F1 : cas6685:/dat1a/CH107928/main.xtf
Created On : Jun 18 15:56:03 2016
Company : WPX ENERGY
Well : FEDERAL GM 322-9
Field : GRAND VALLEY

Field : GRAND VALLEY
File Interval : 28 - 6896.25 Feet
OCT : n353hx

GR BACKUP

ISS [iss] 0 1E+06
(cts/s)
GAMMA RAY [gr] 0 150
(gAPI)

FEET

CCL
(mV)

1000

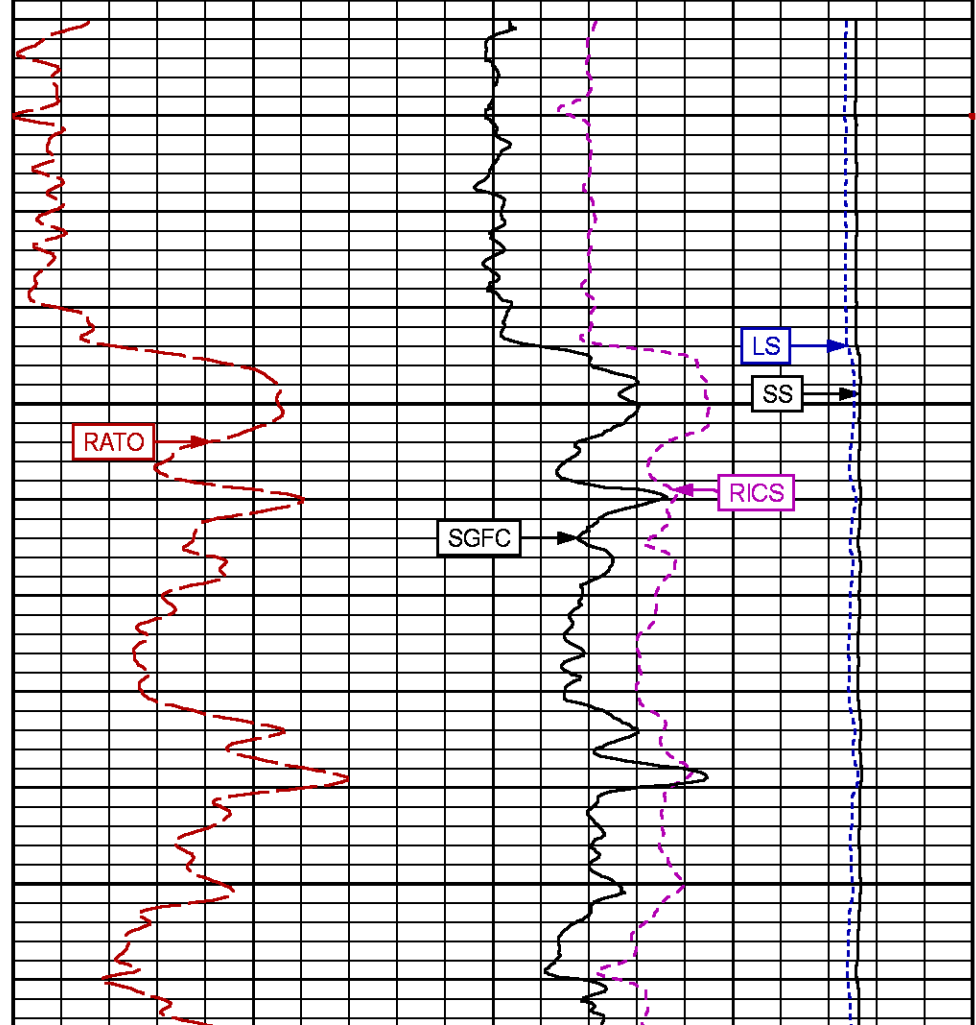
1100

GR

ISS

17
RATO [rato]
(dim)
39
RICS [rics]
(dim)
60
SGFC [sgfc]
0
(cu)

LS [ls] 0 29000
(cts/s)
SS [ss] 0 290000
(cts/s)



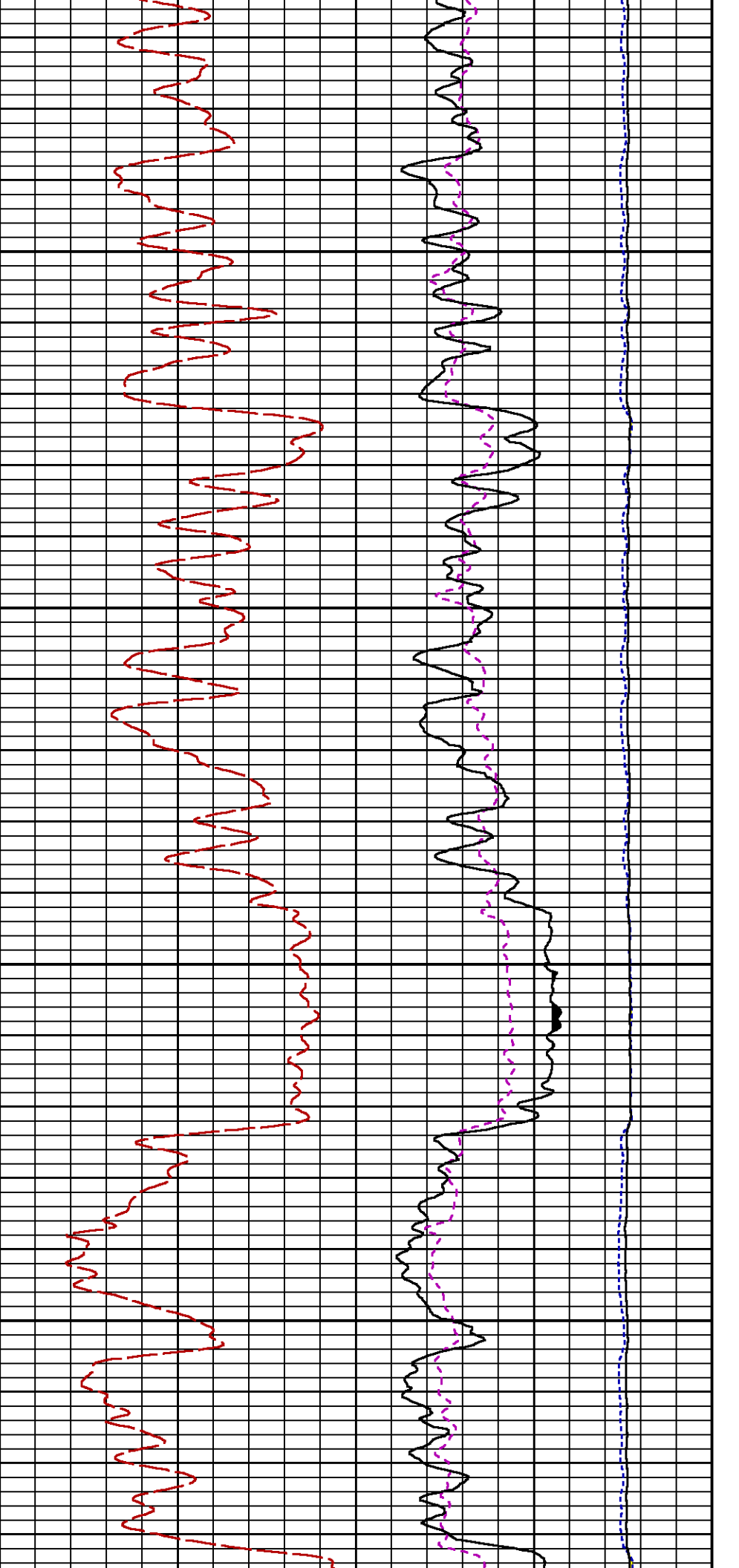
RATO

SGFC

RICS

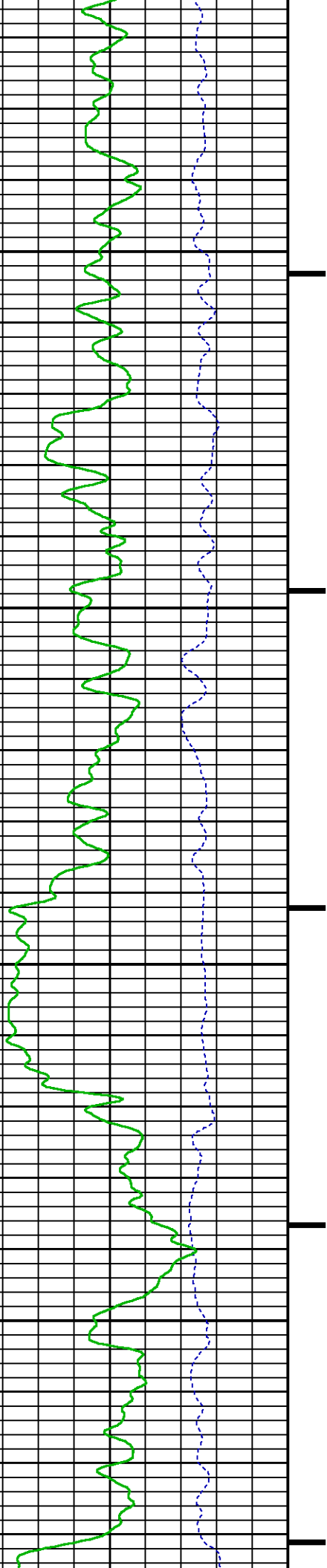
LS

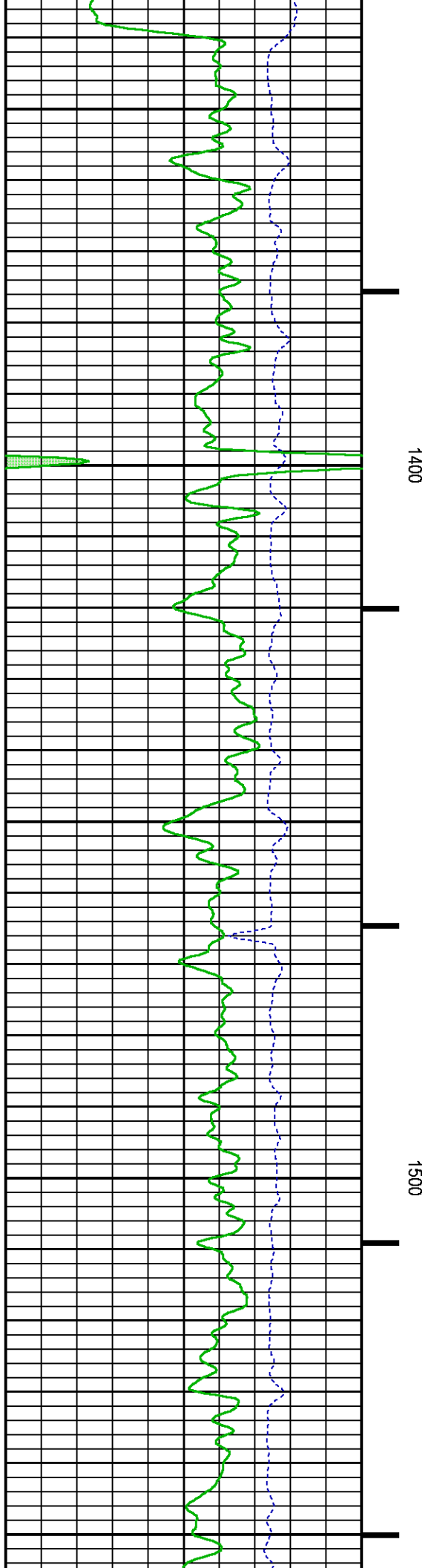
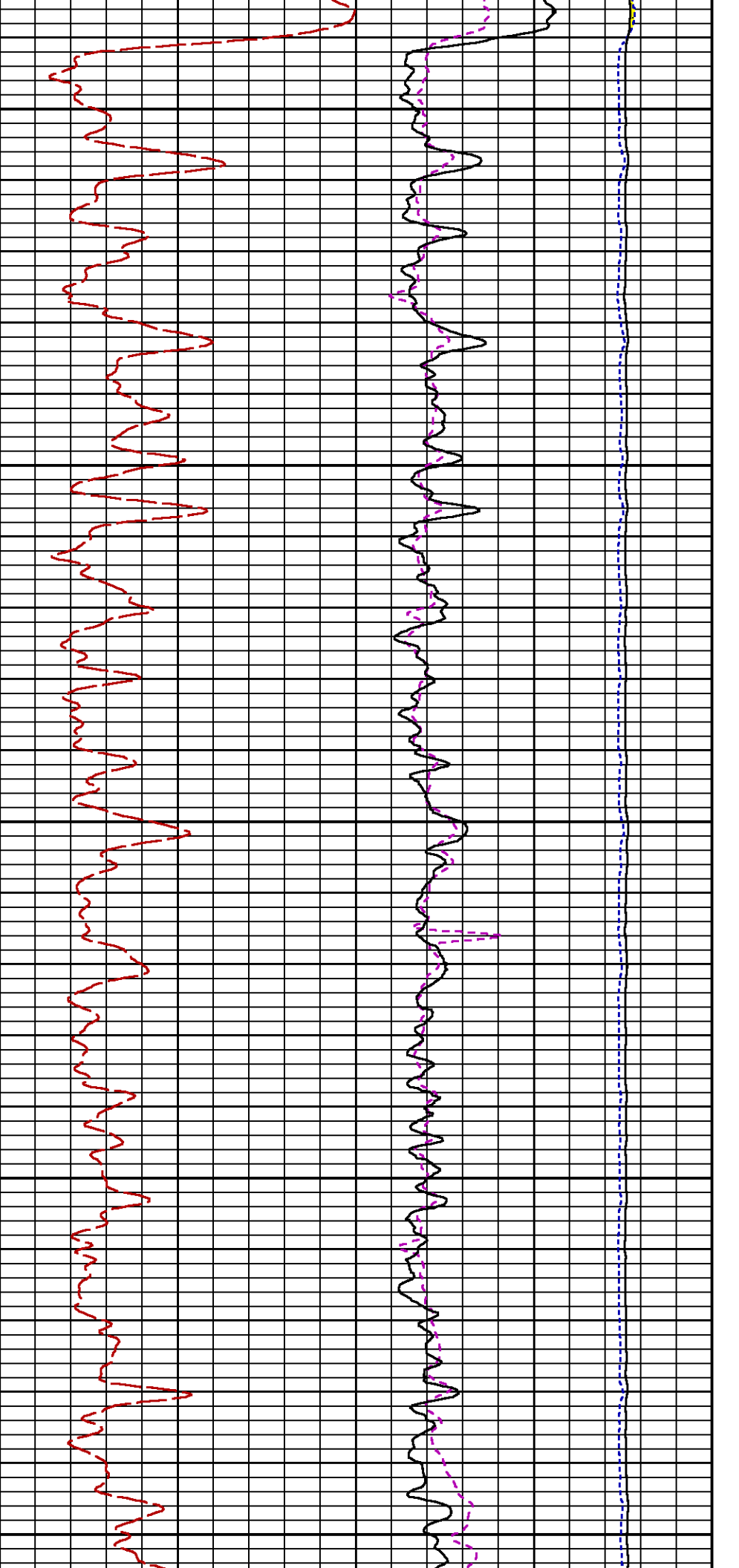
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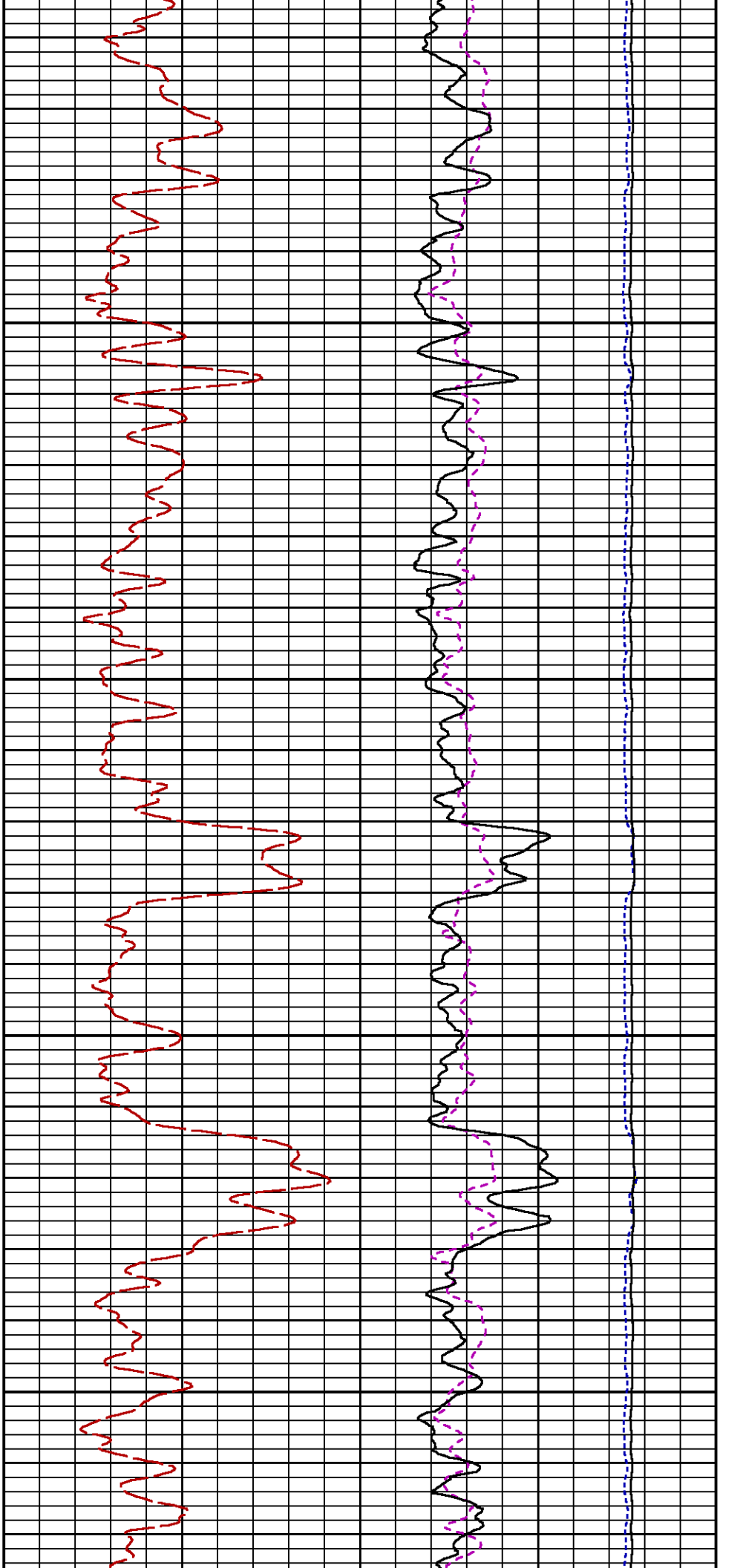


1200

1300

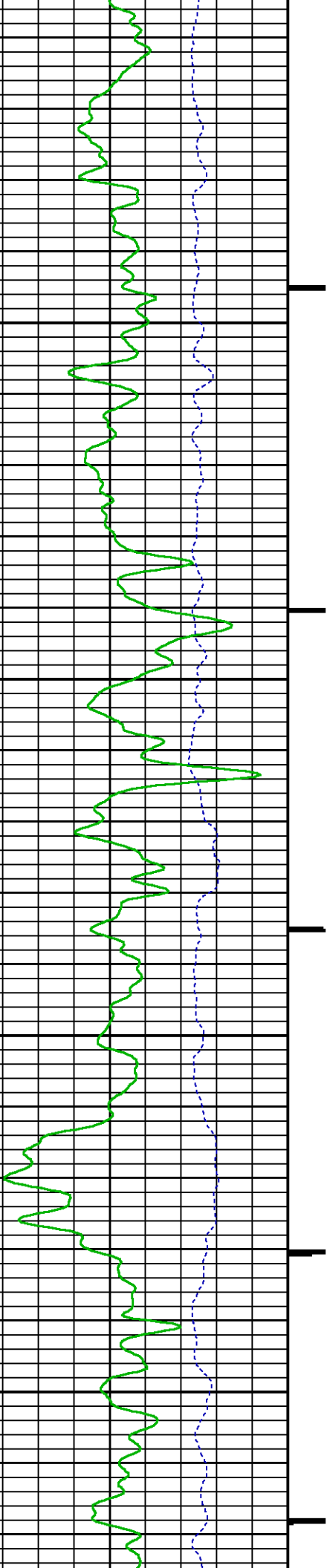


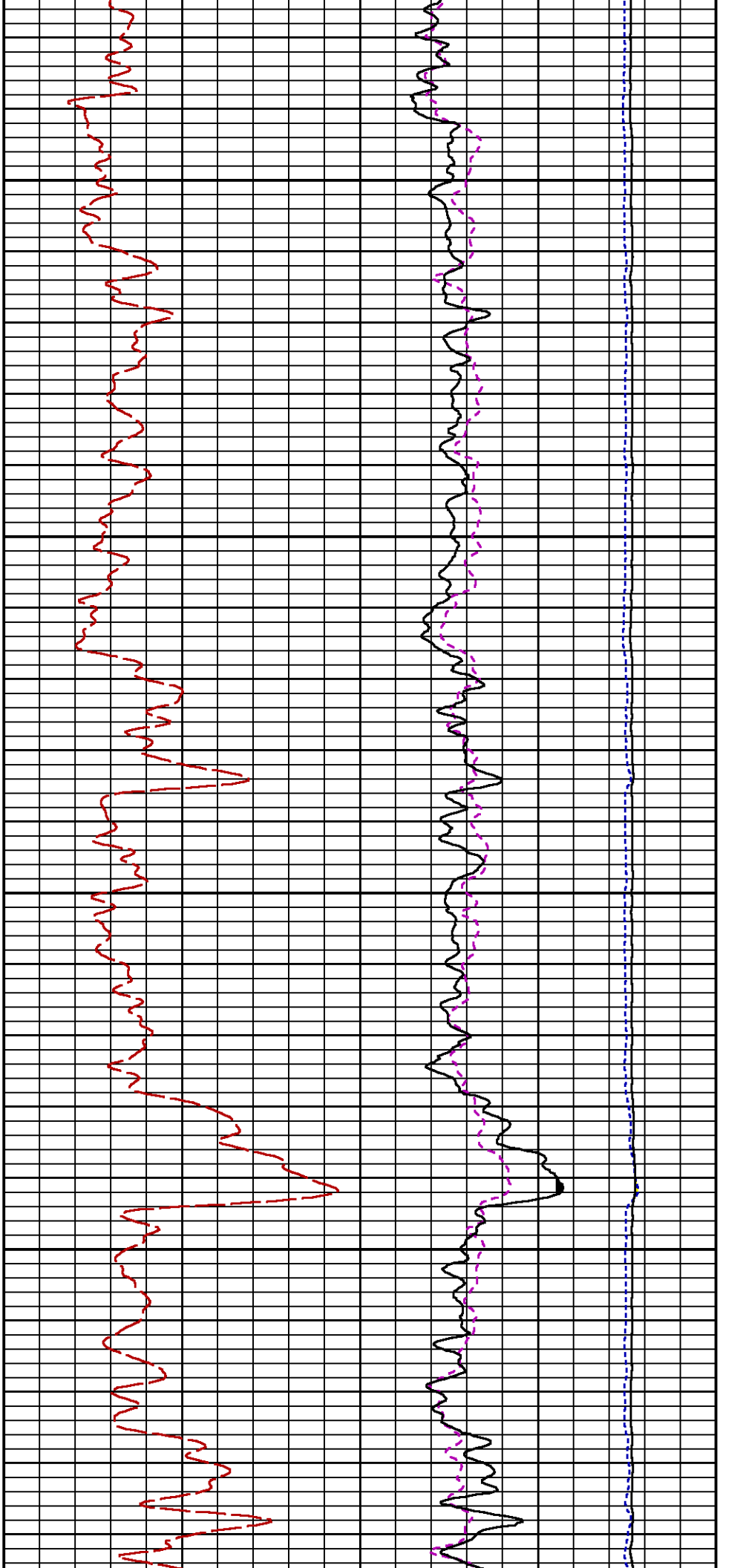




1600

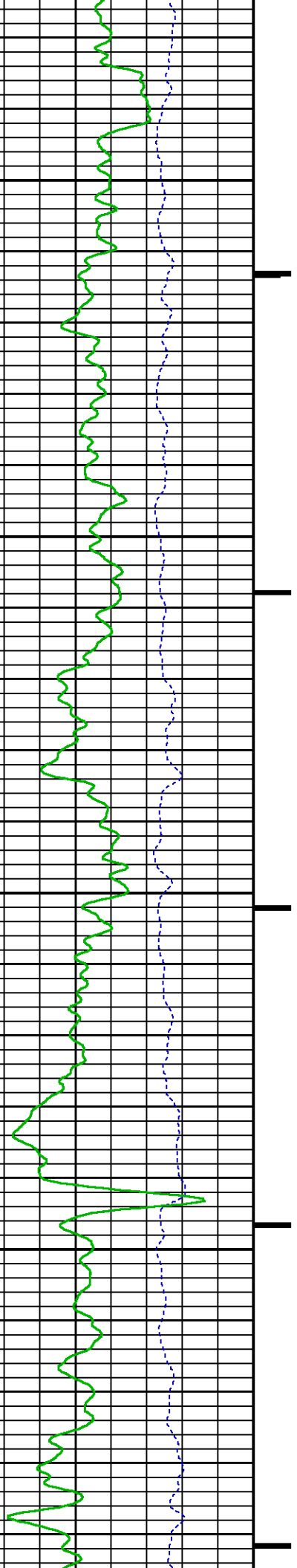
1700

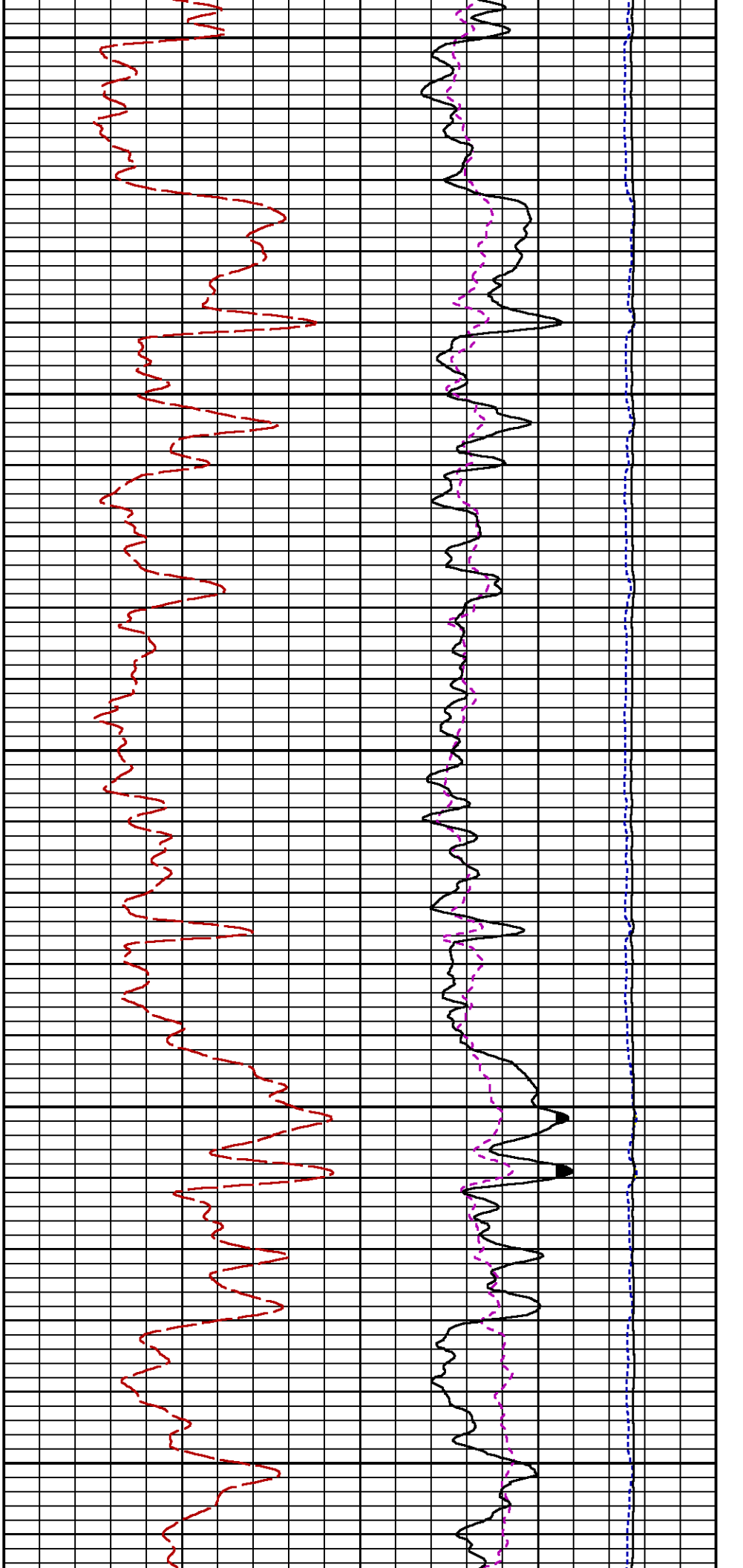




1800

1900

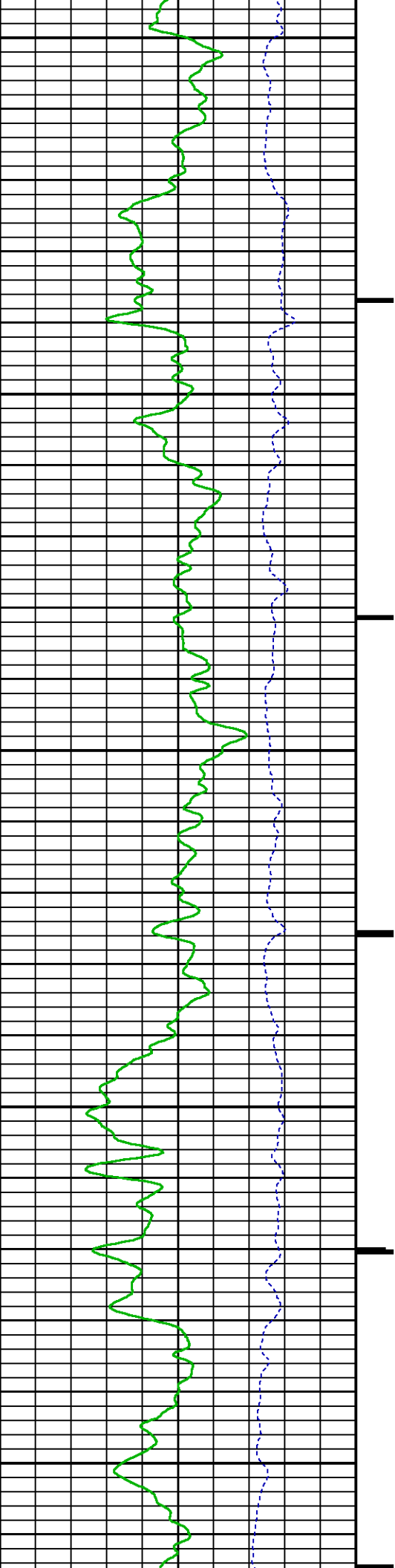


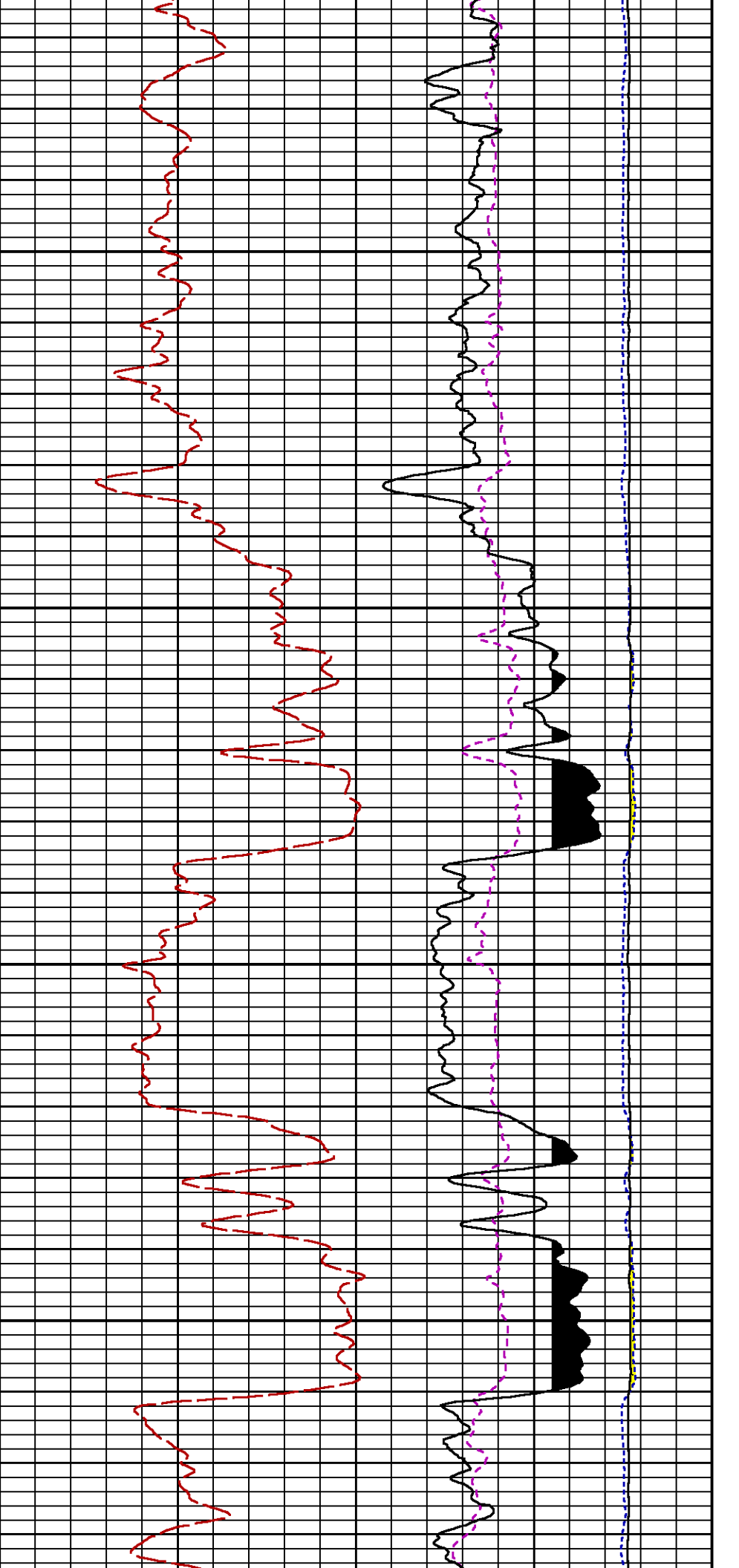


2000

2100

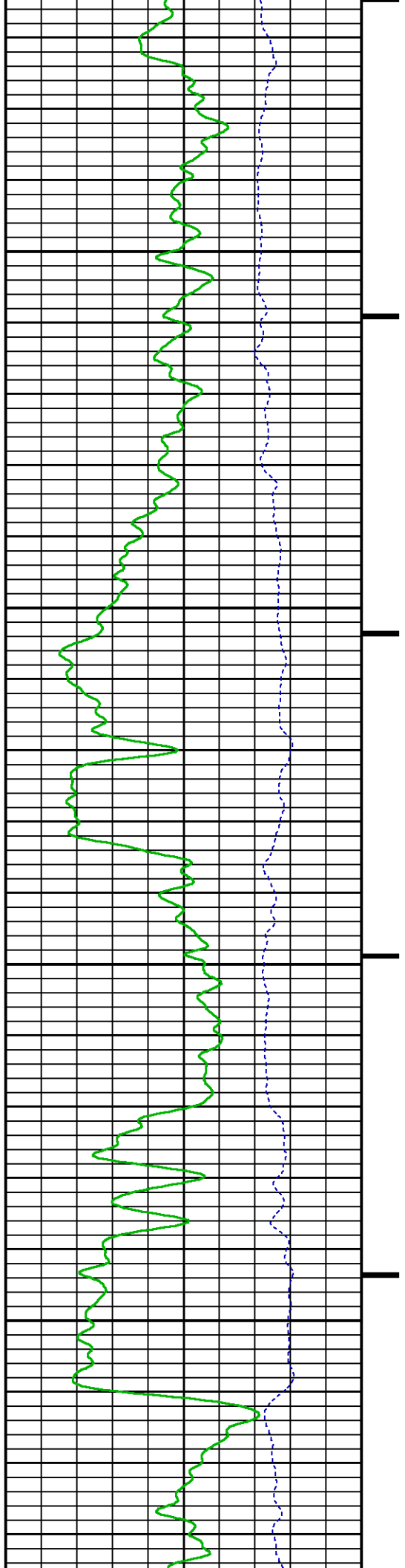
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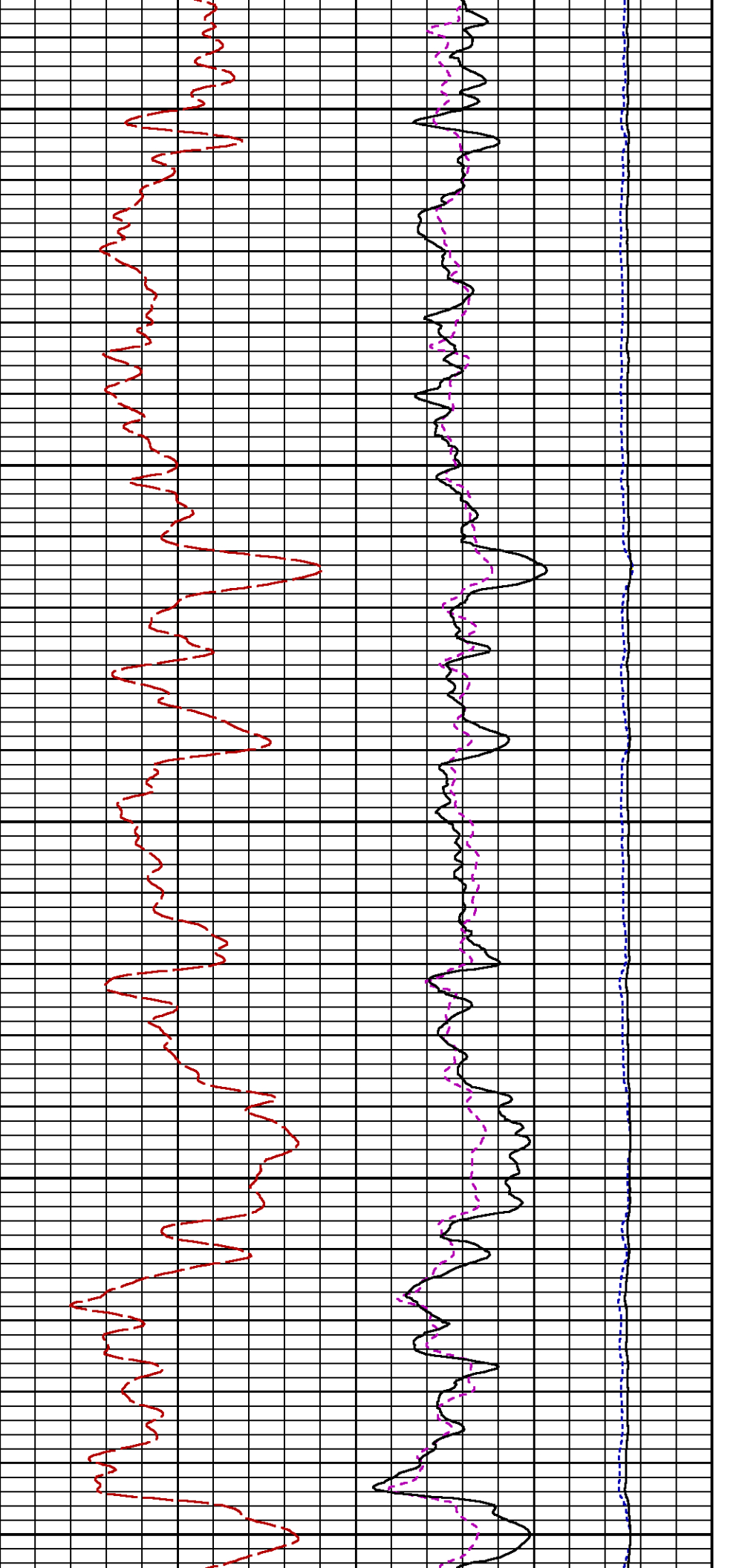




2300

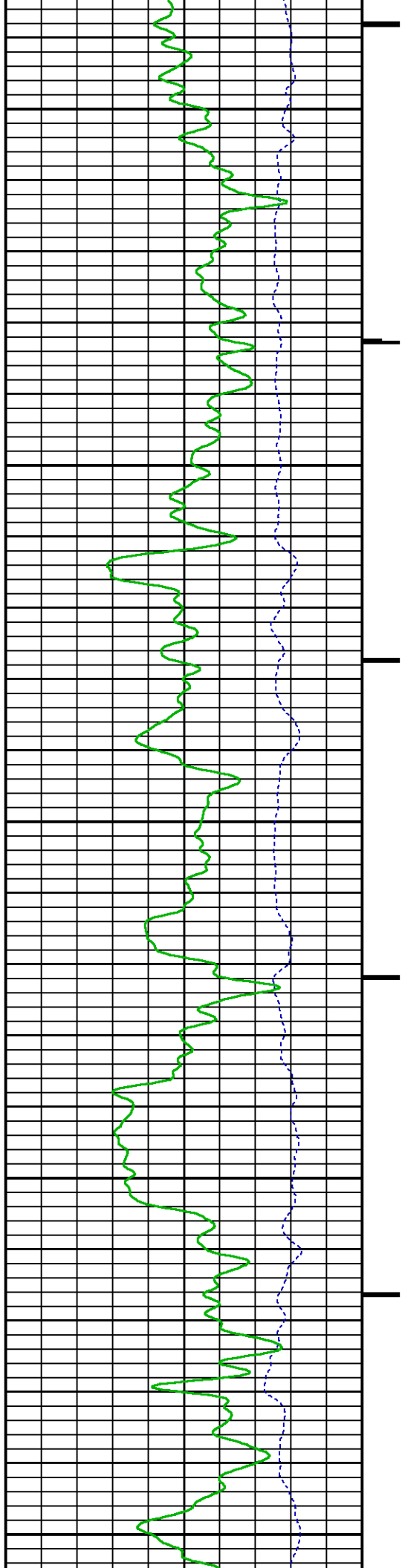
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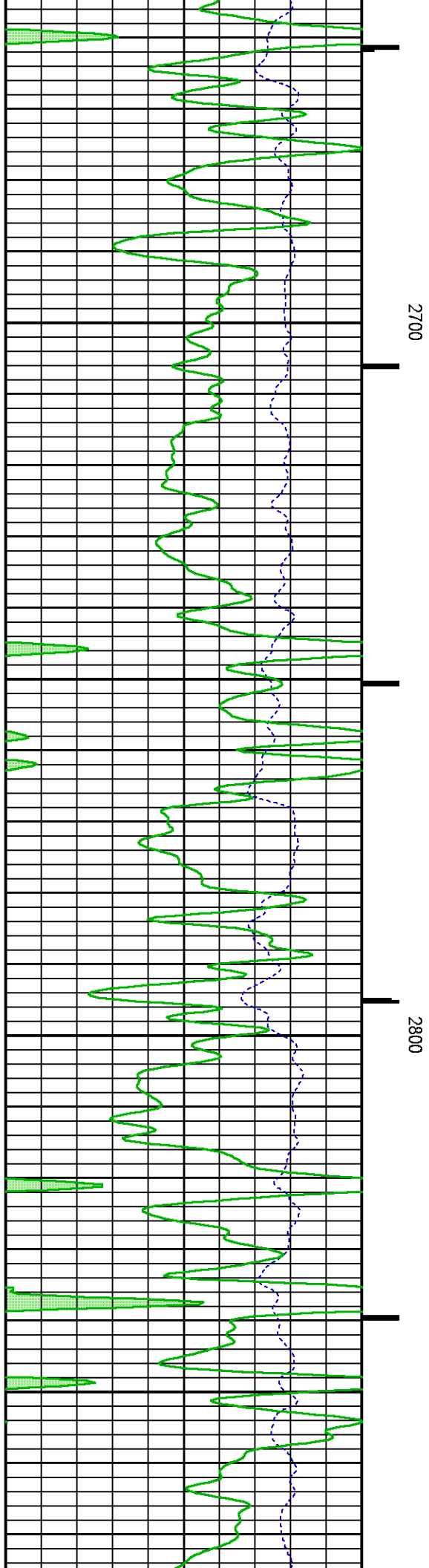
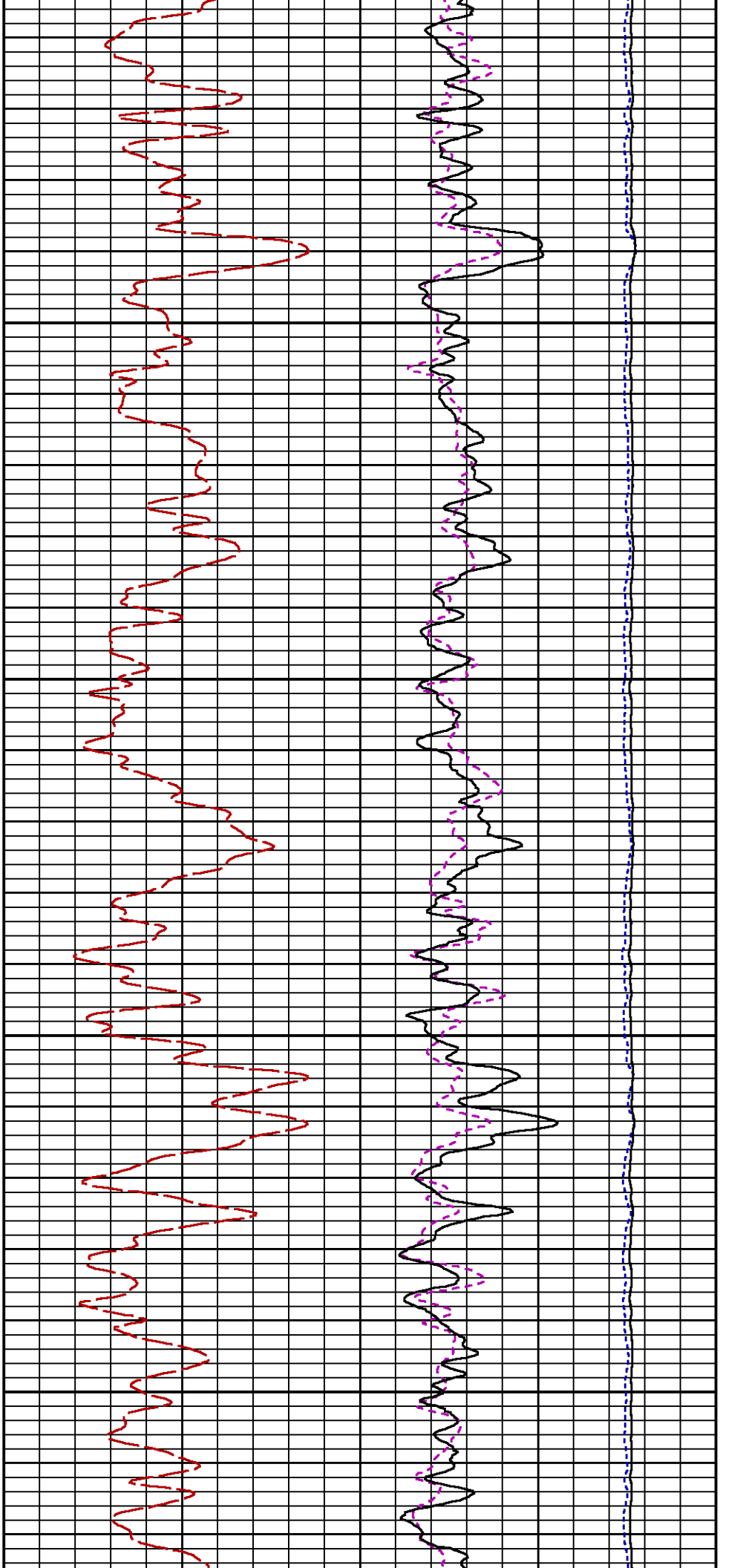


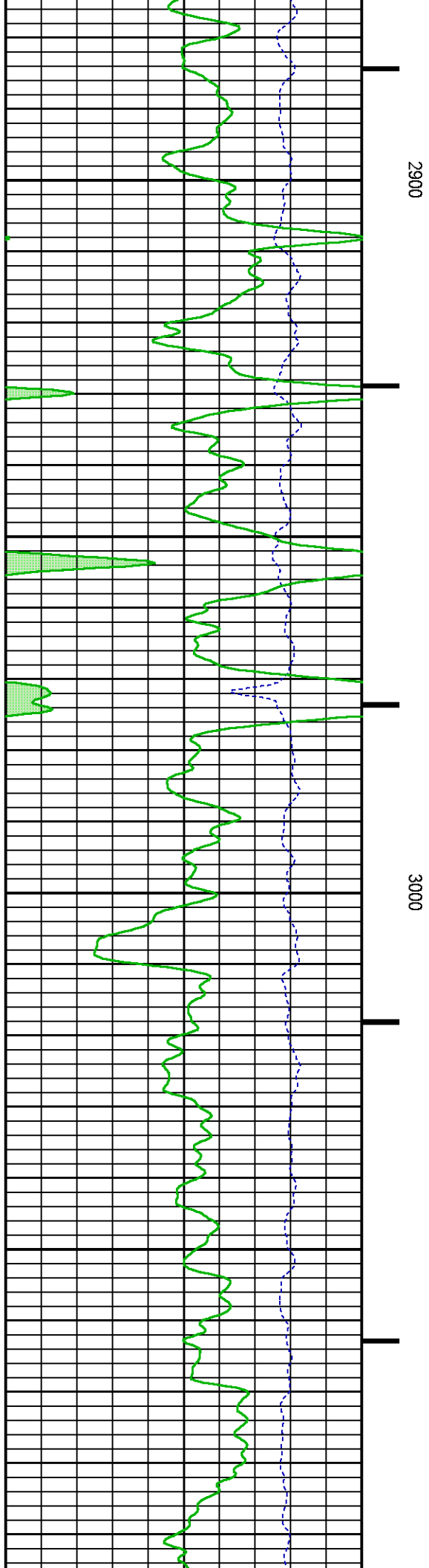
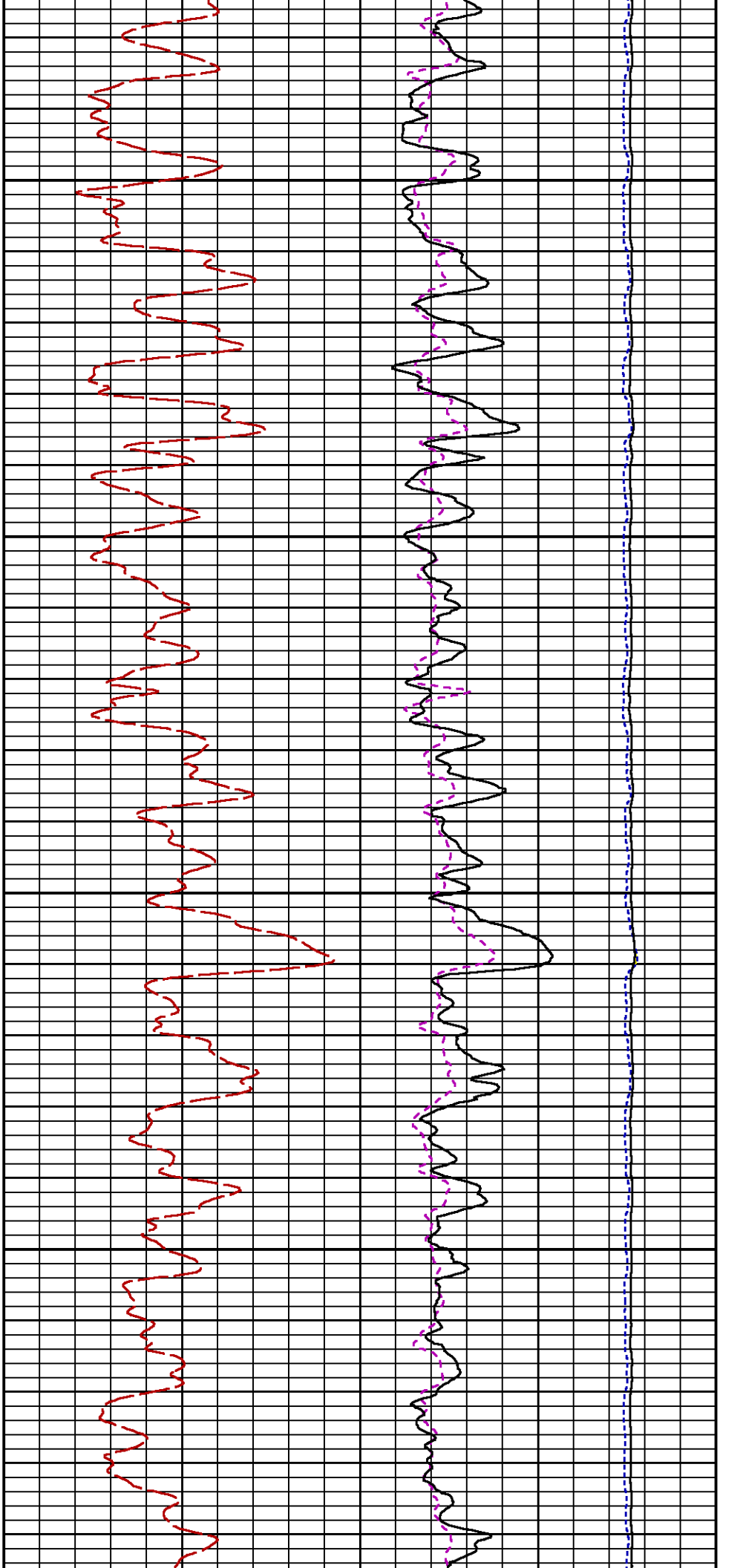


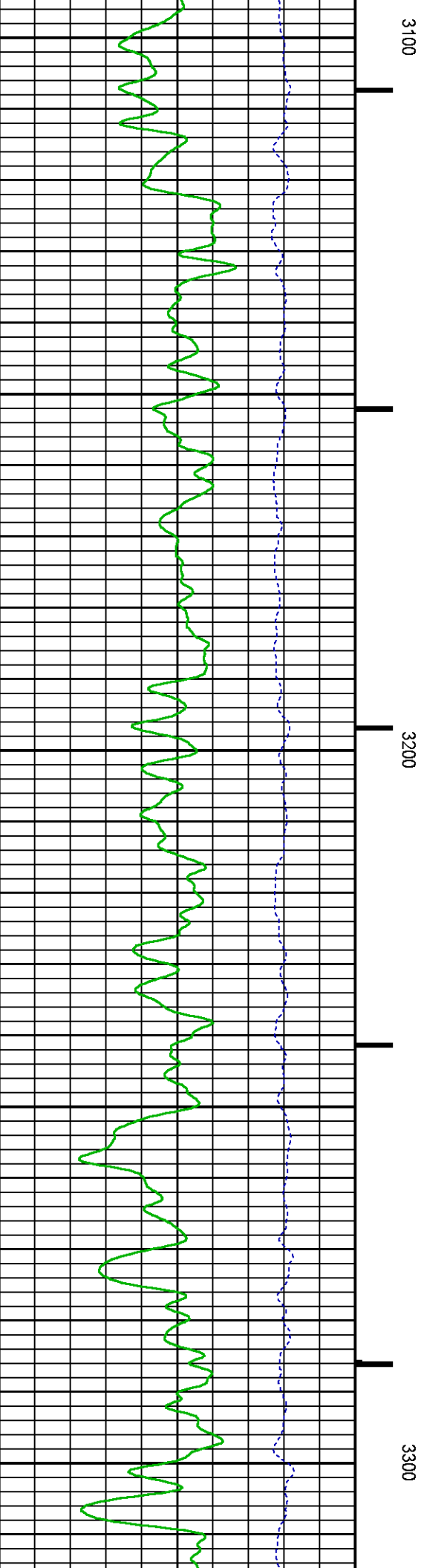
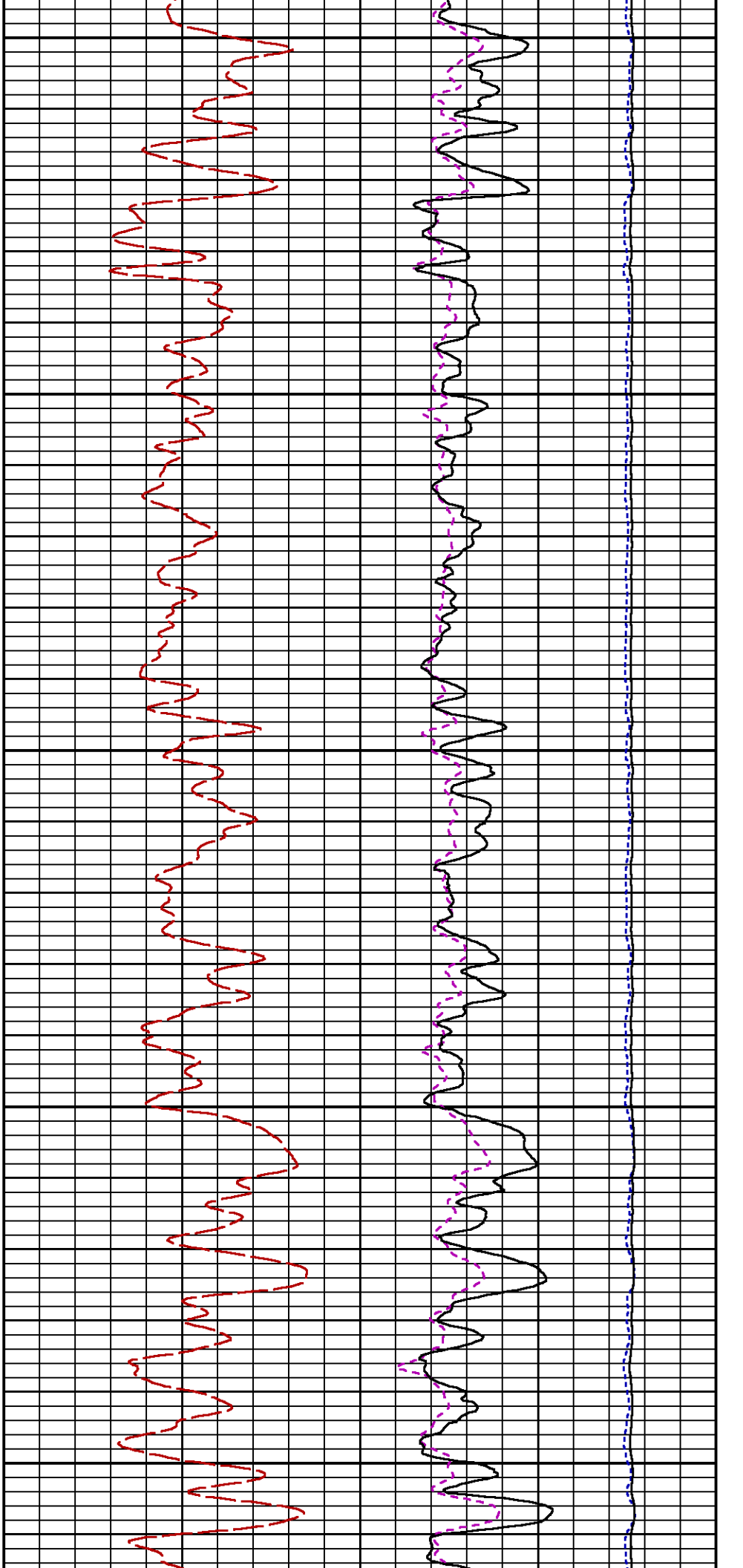
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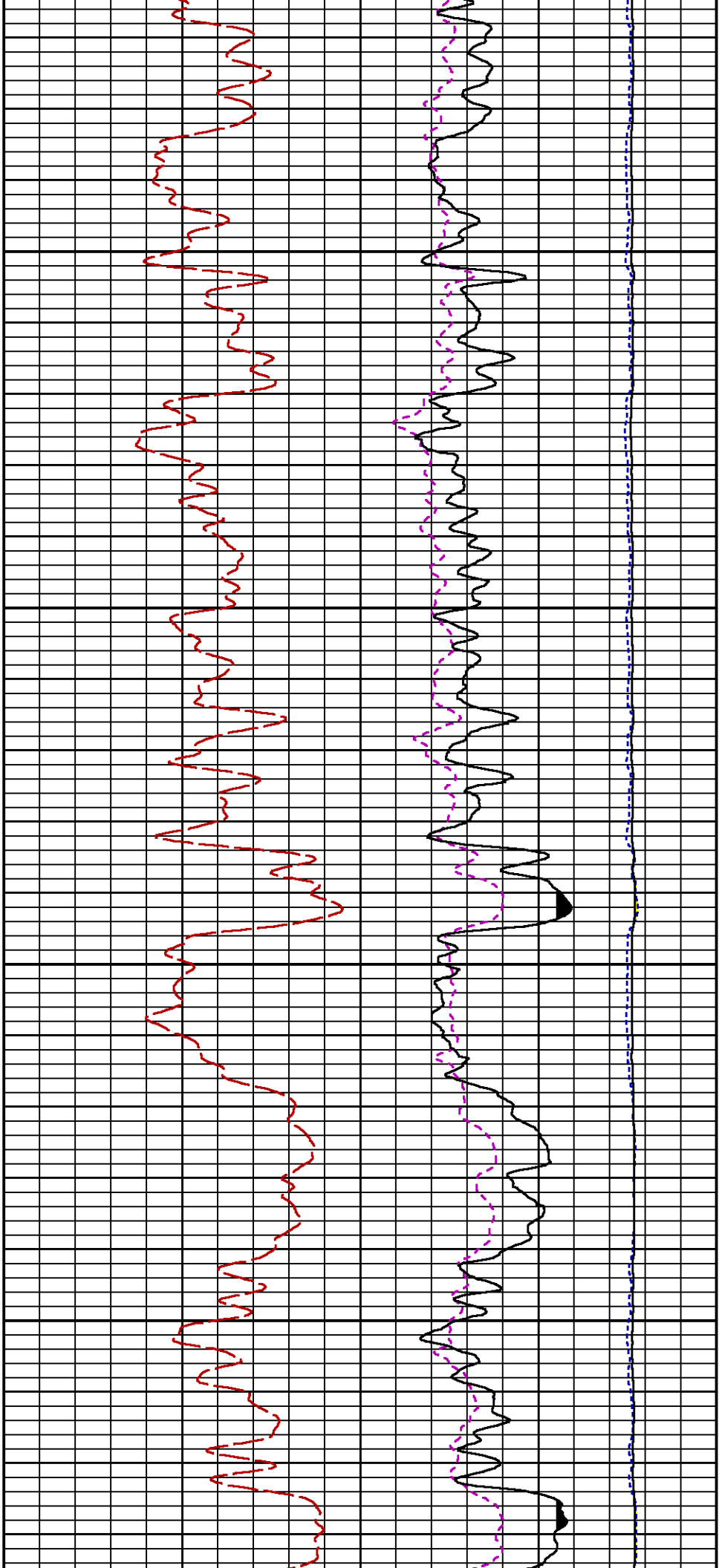
2600





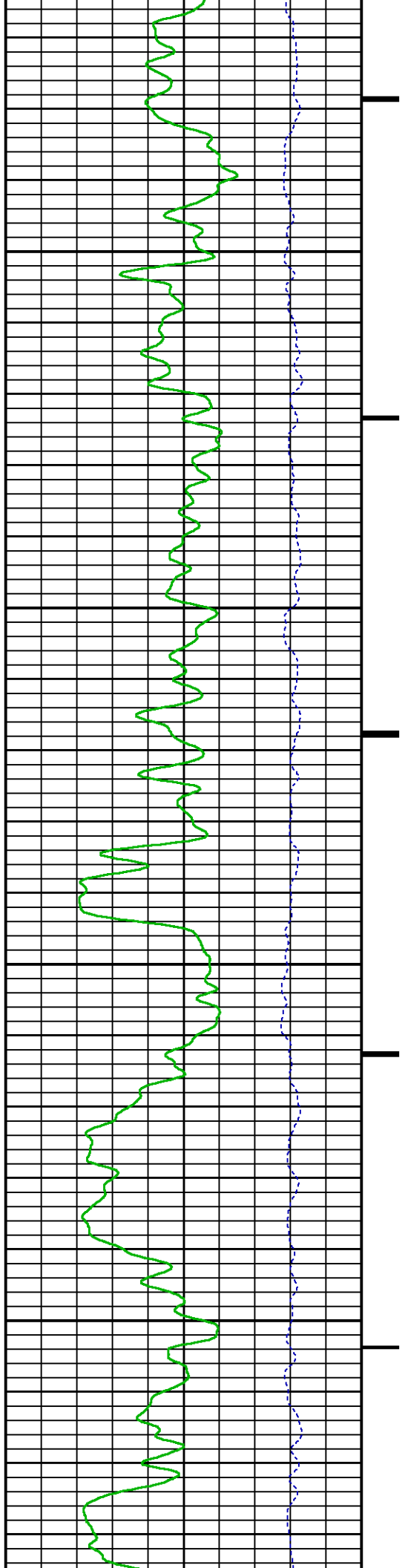


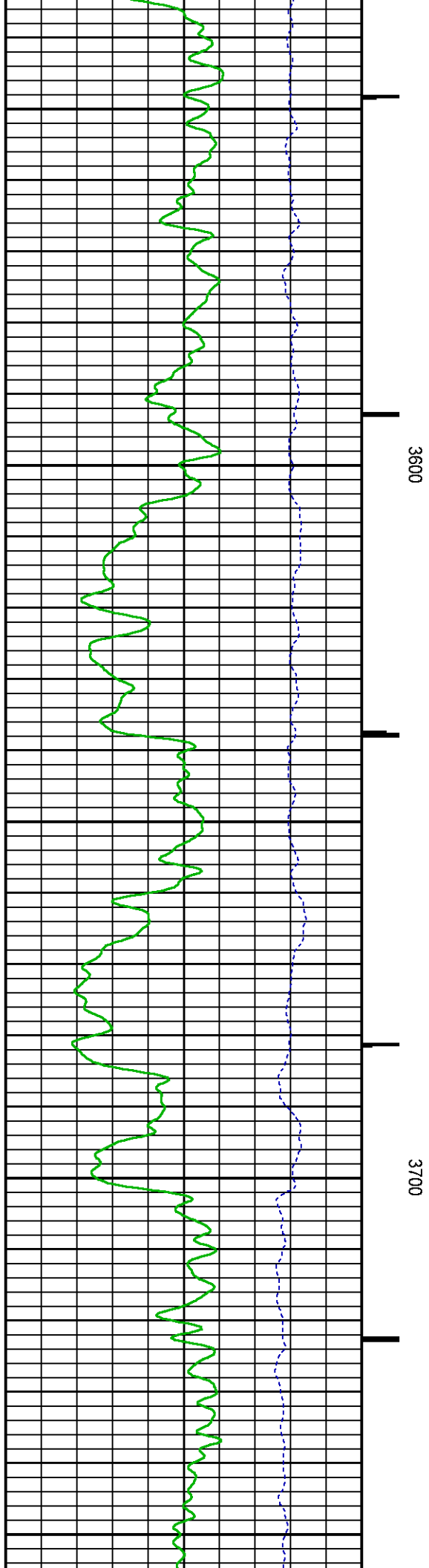
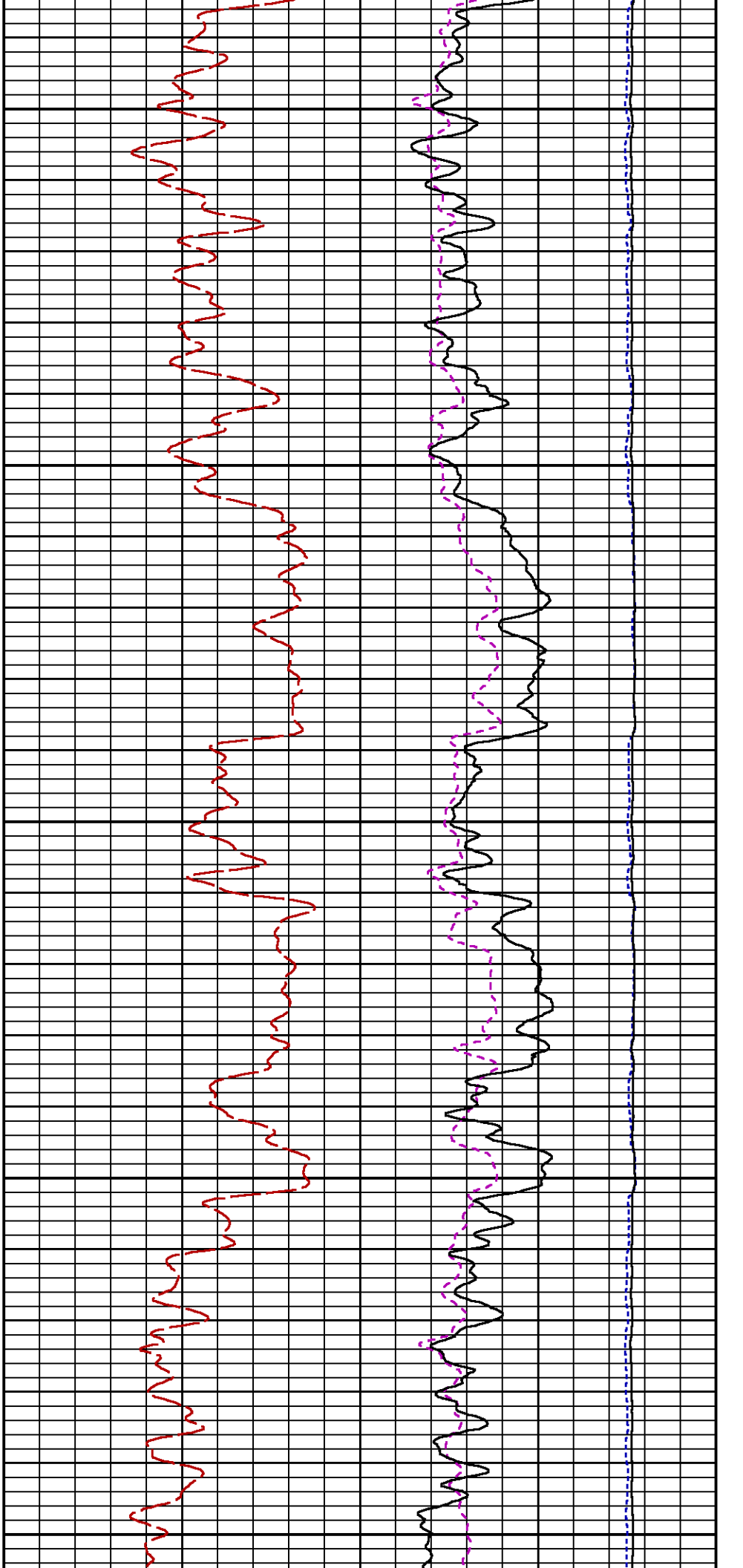


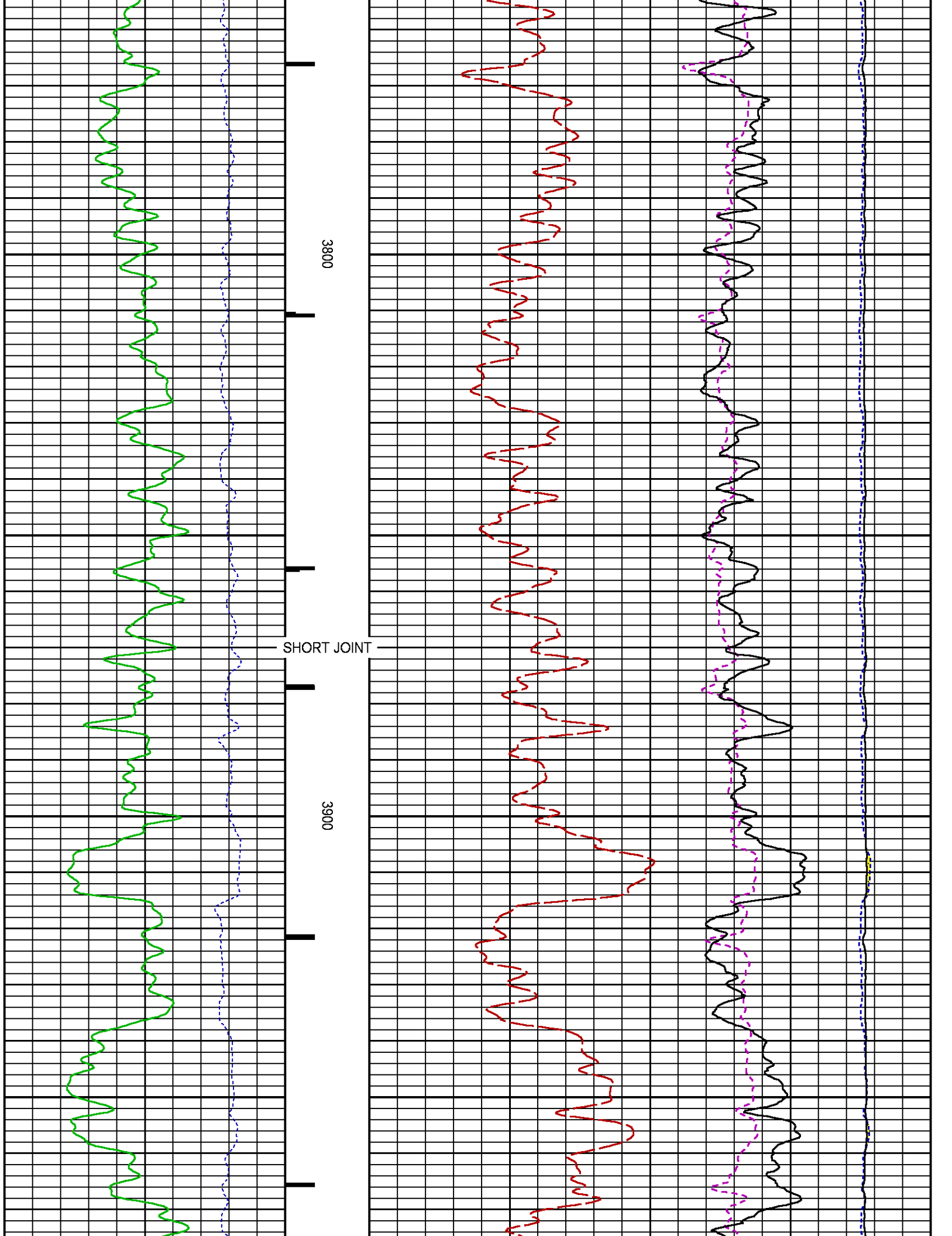


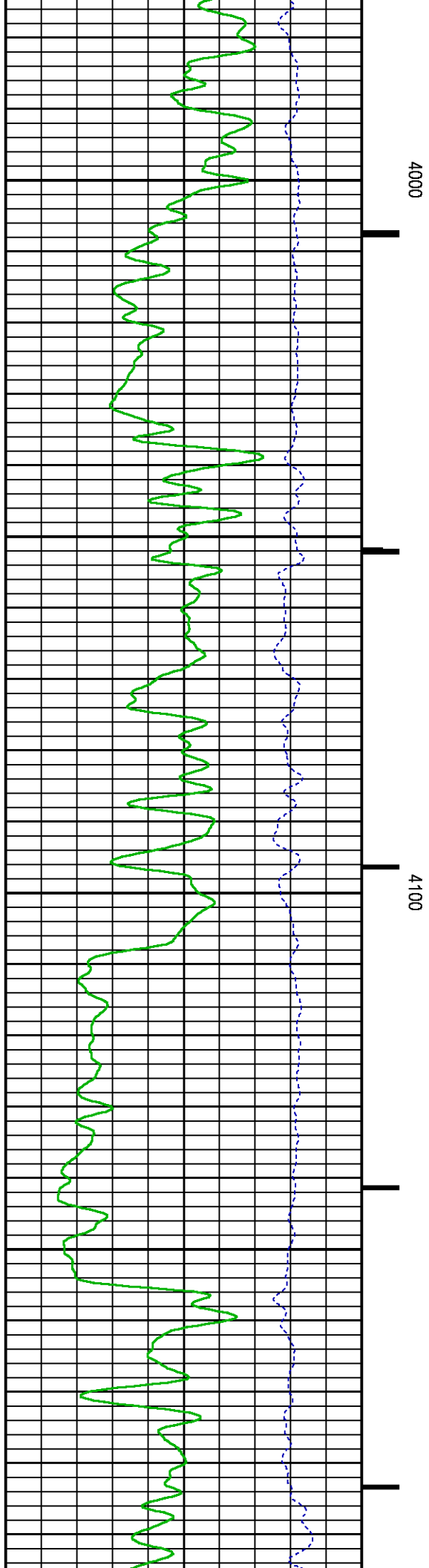
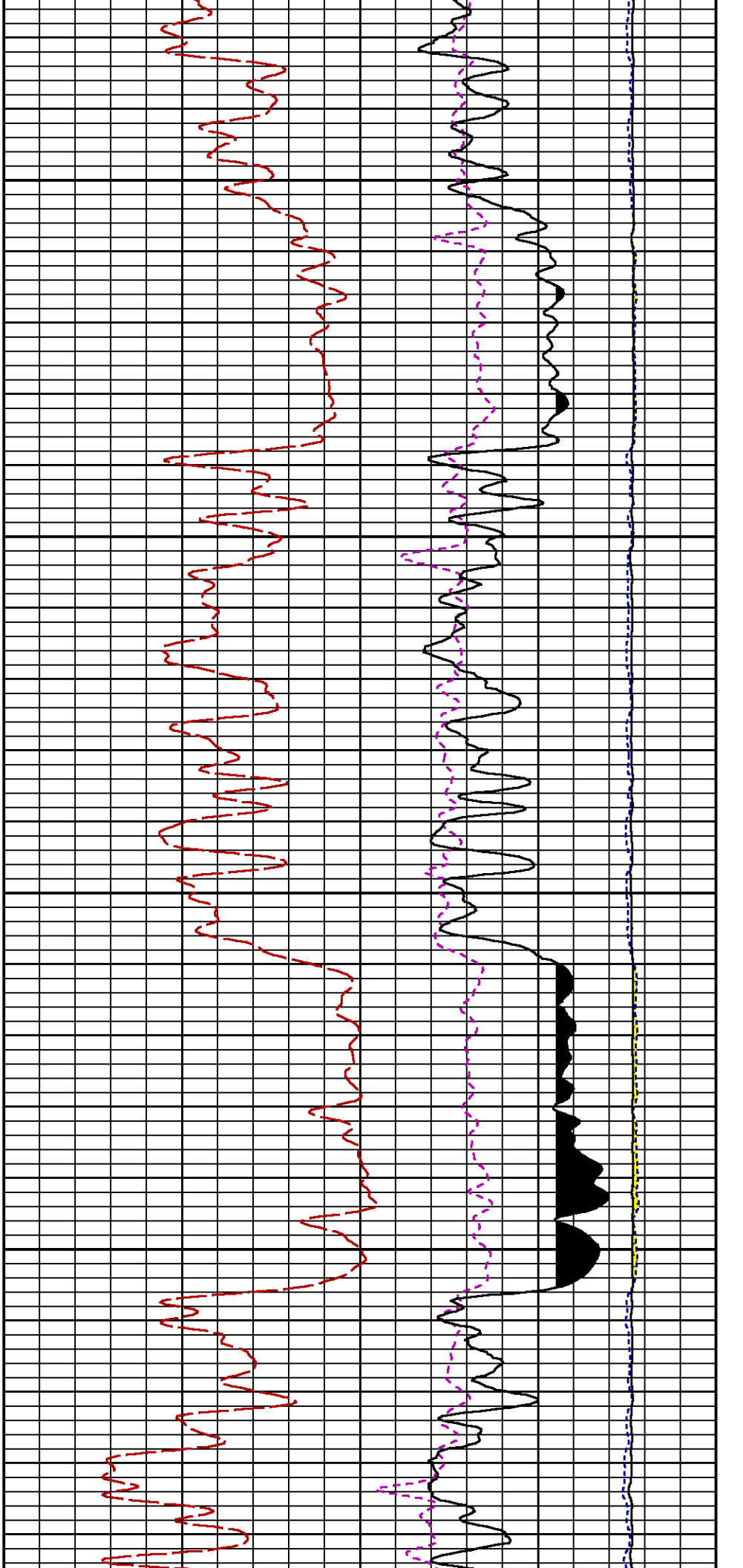
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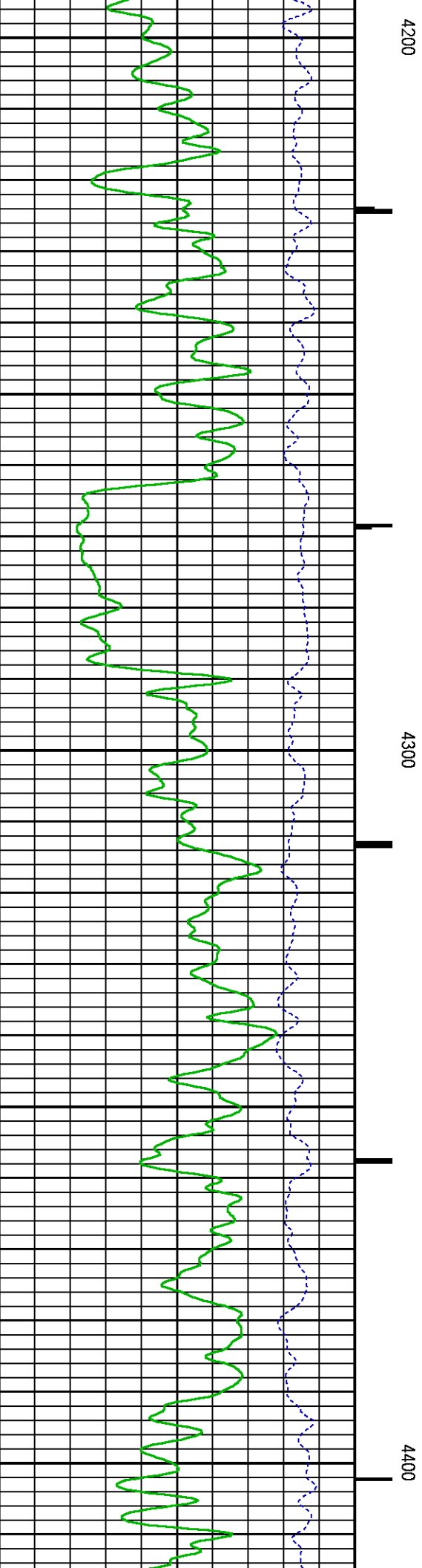
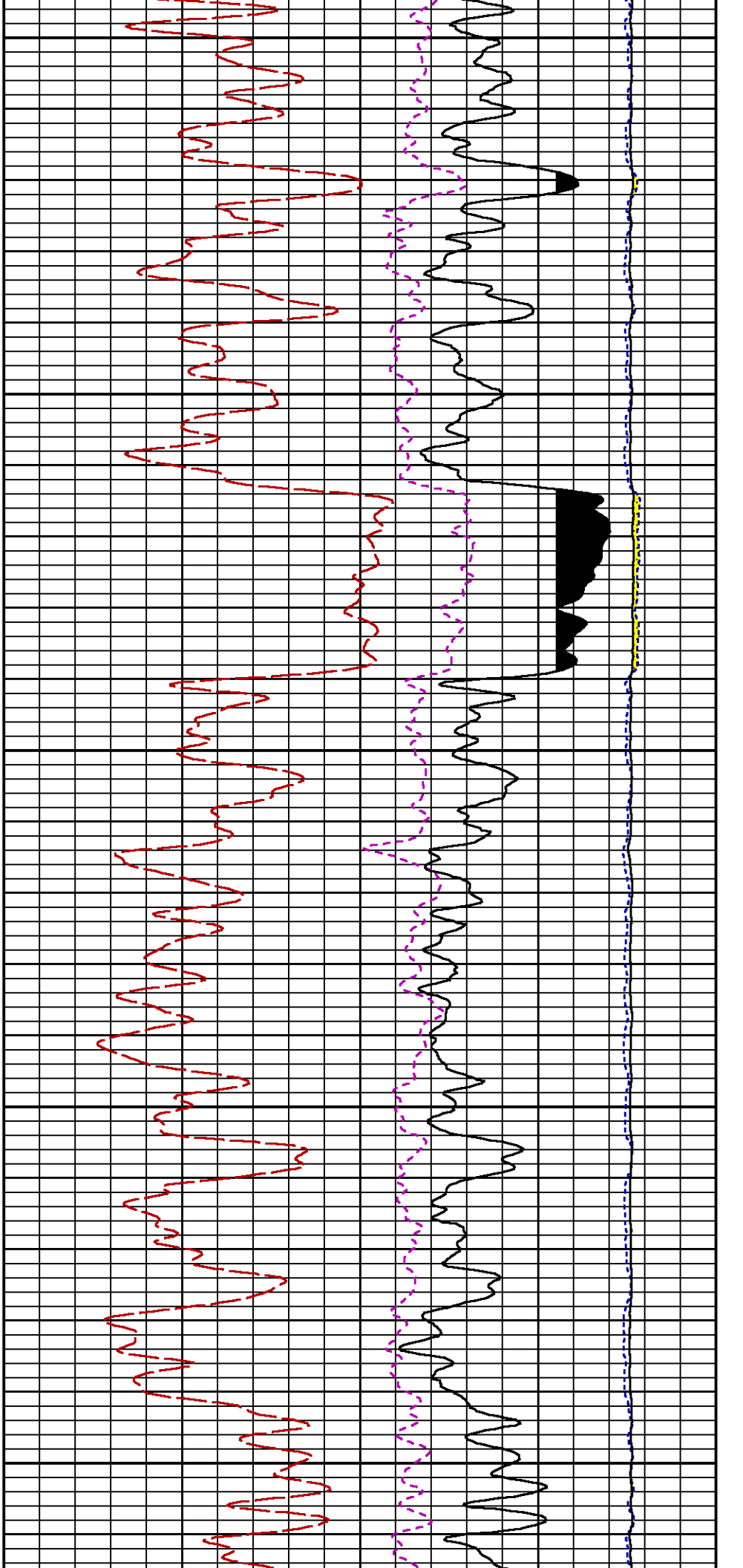
3500

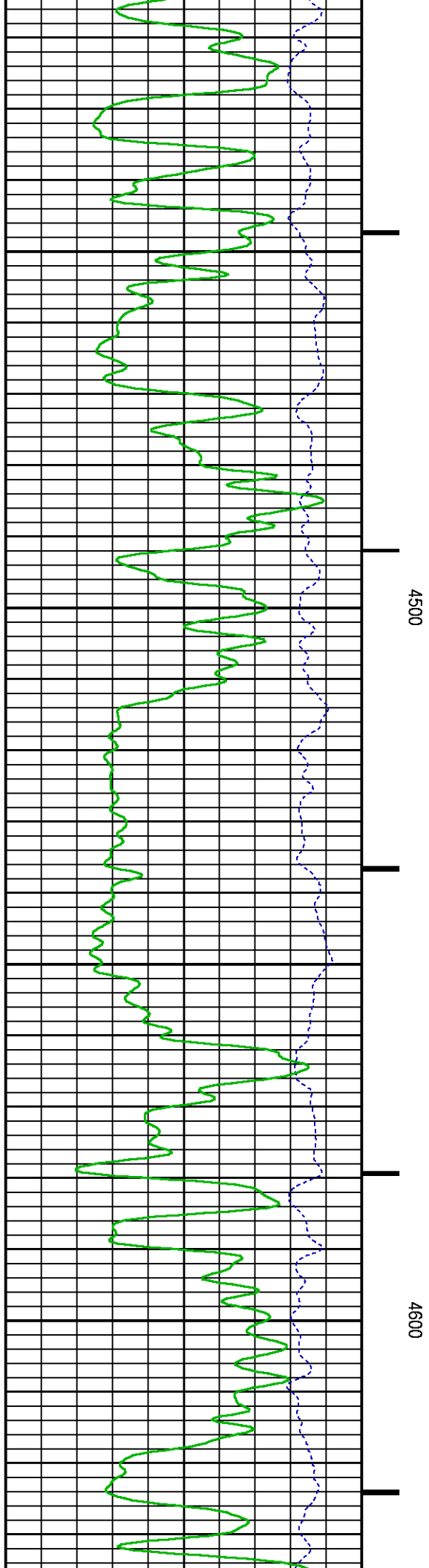
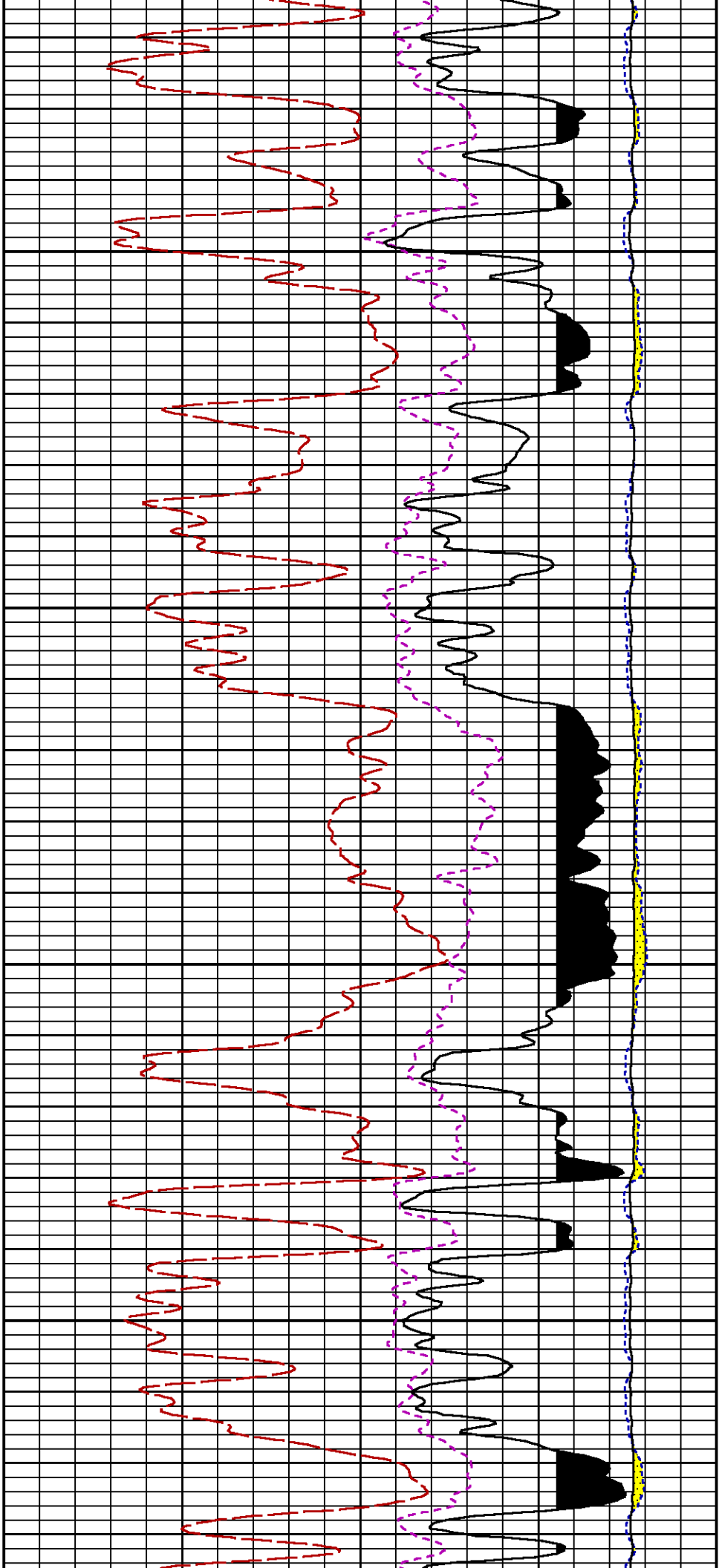


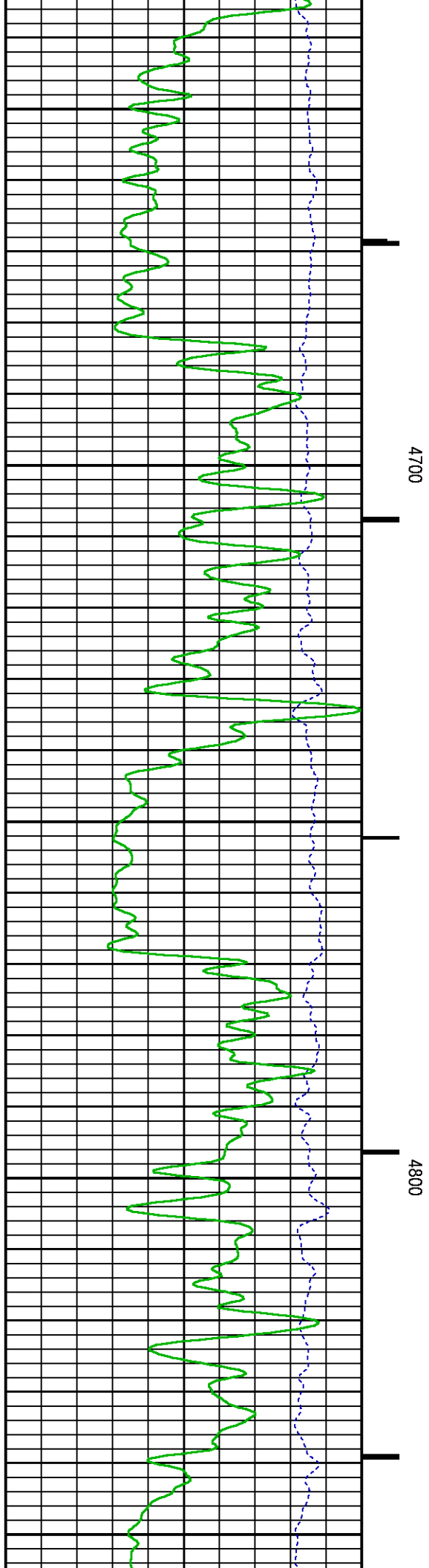
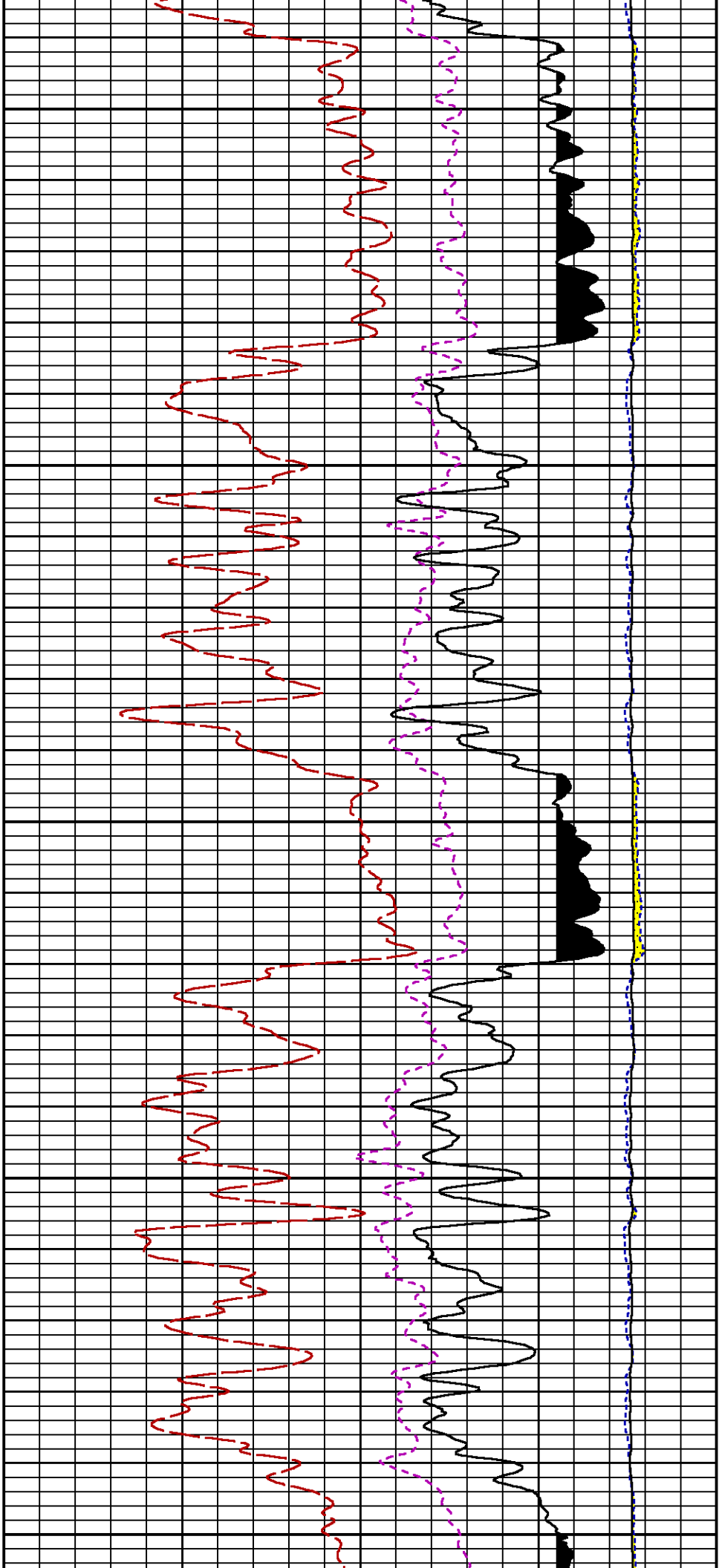


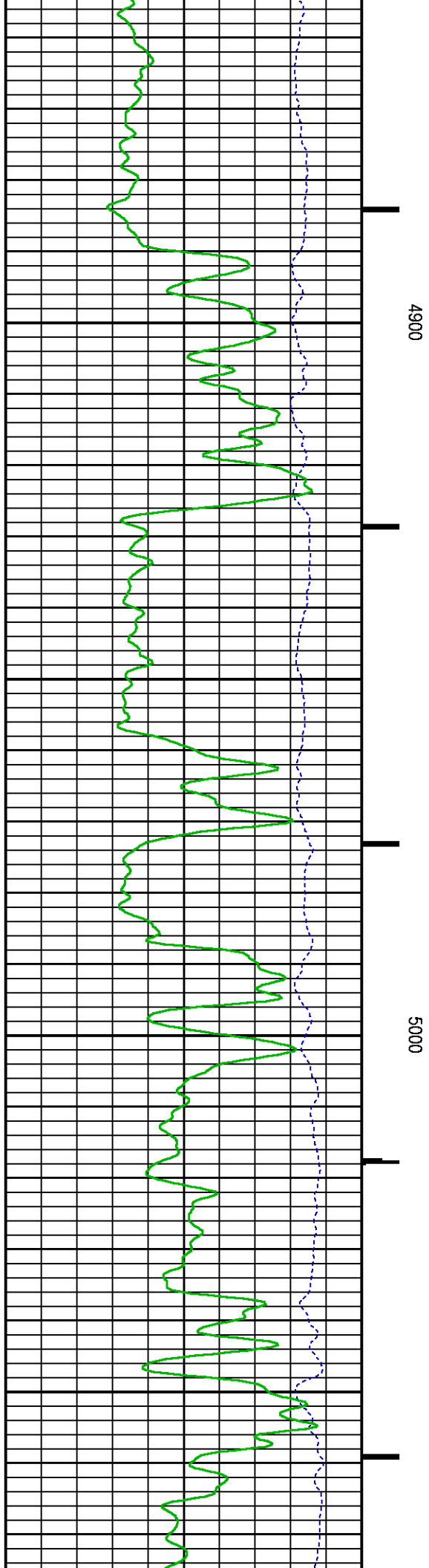
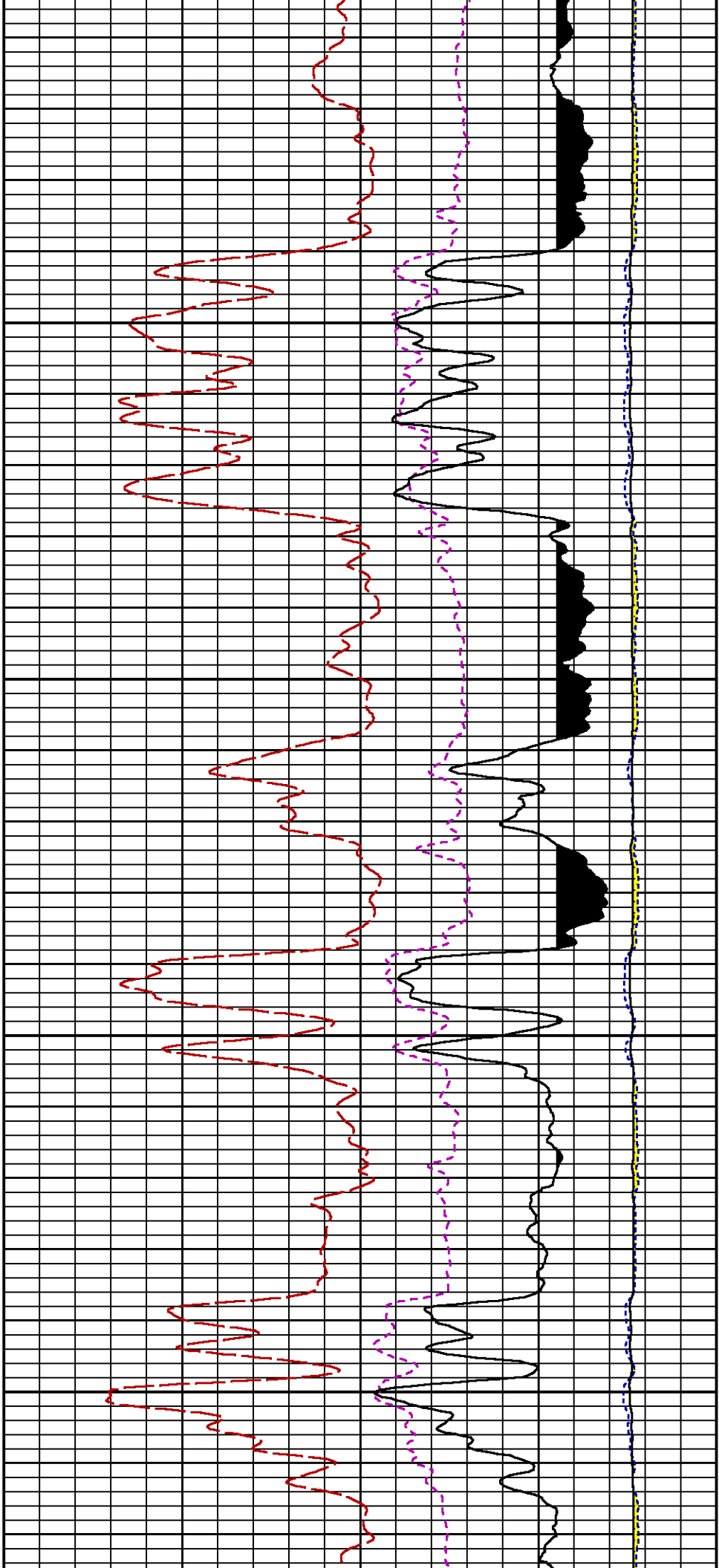


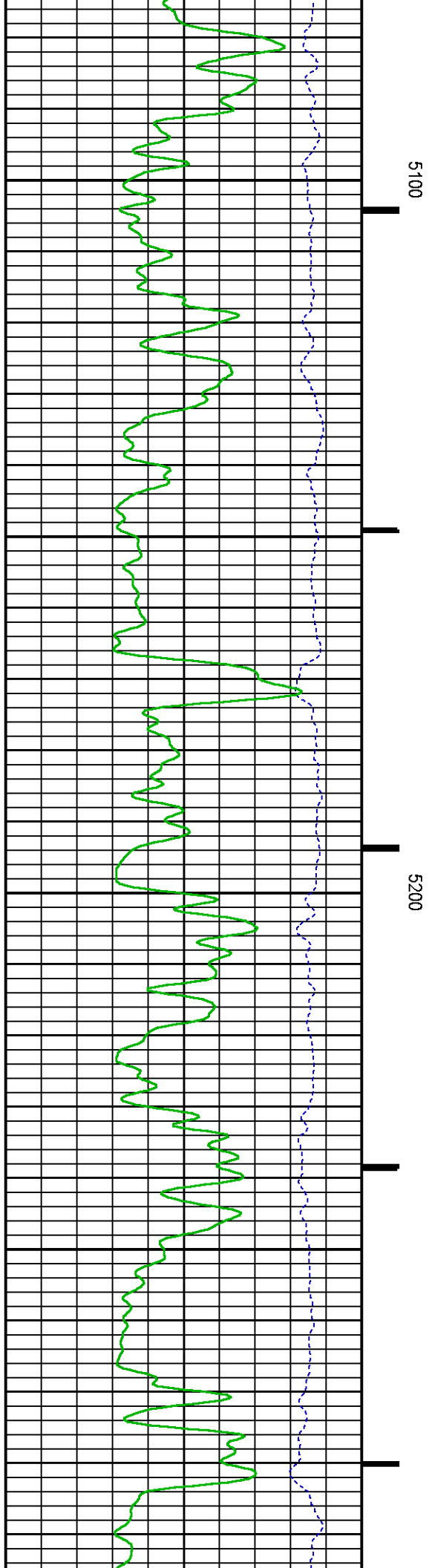
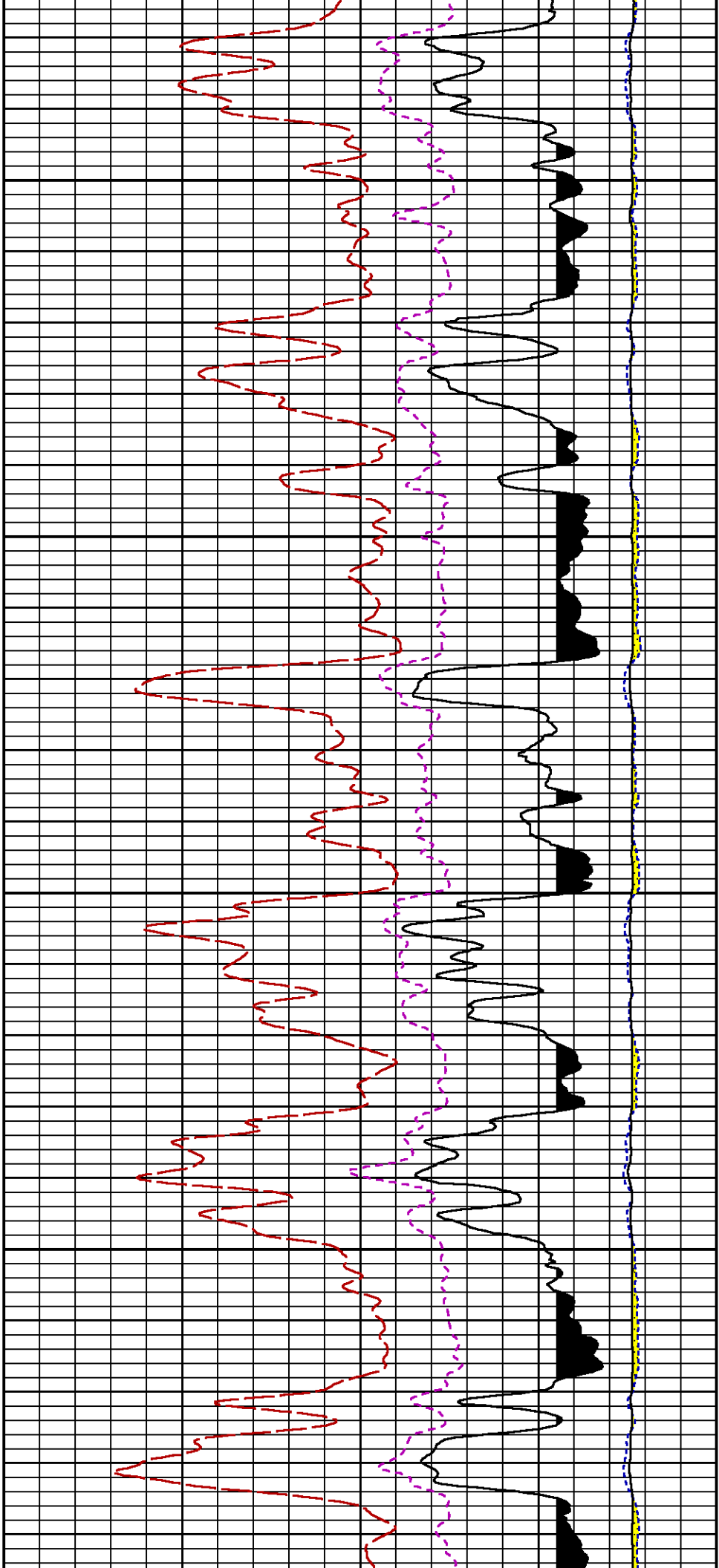


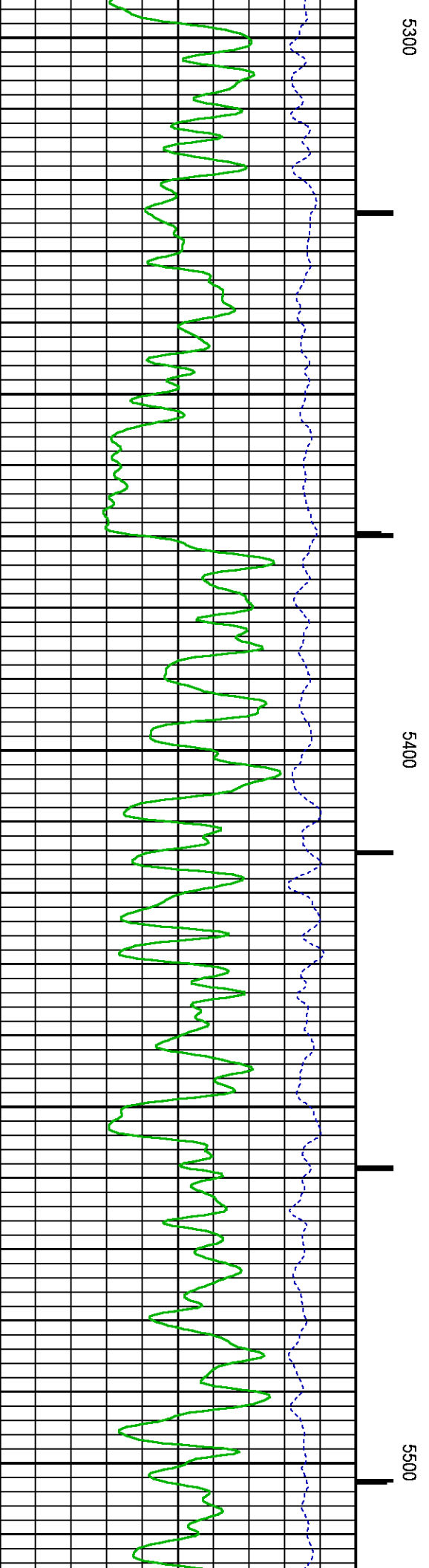
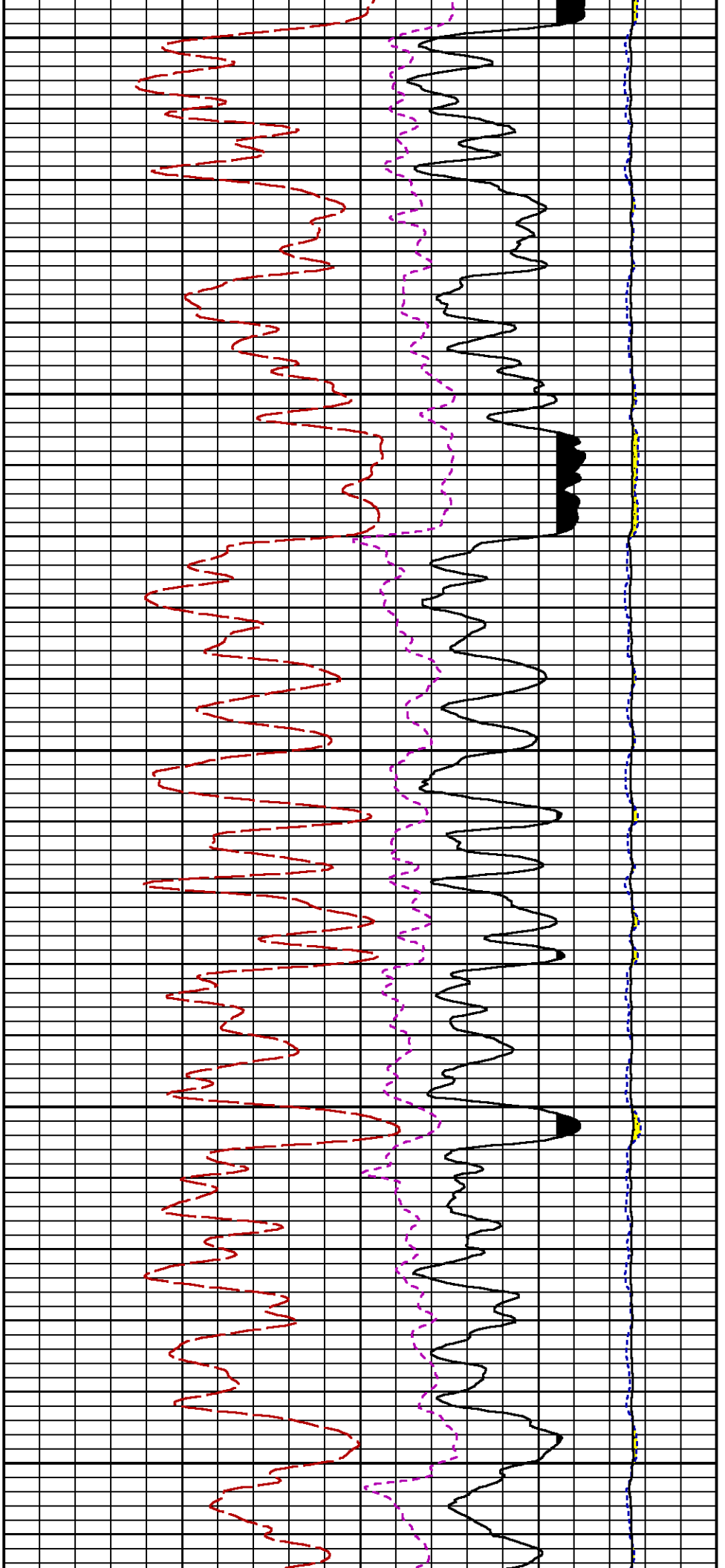


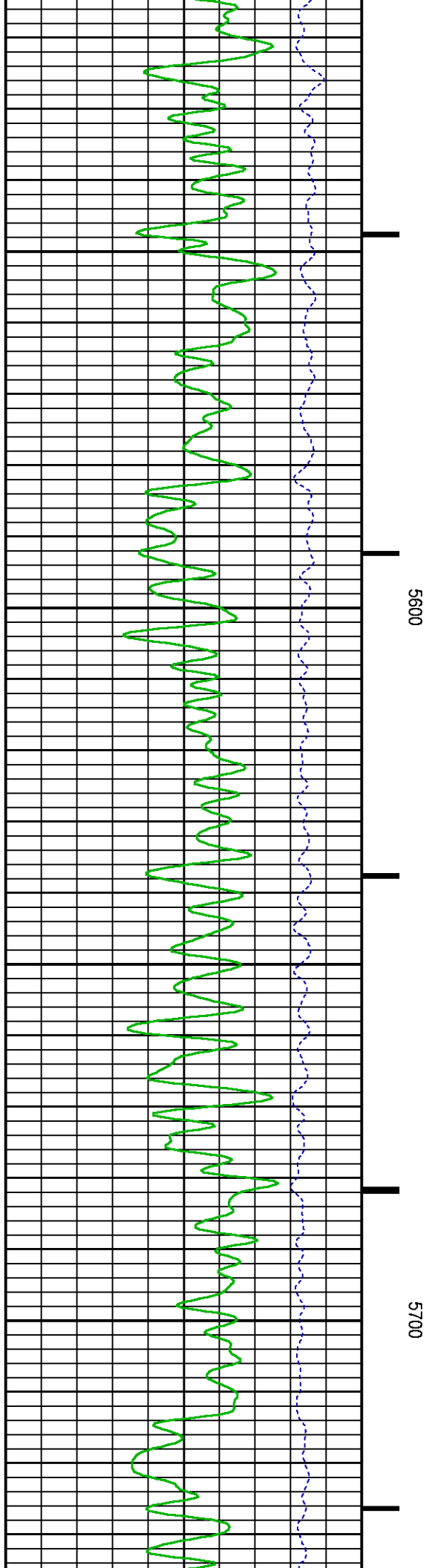
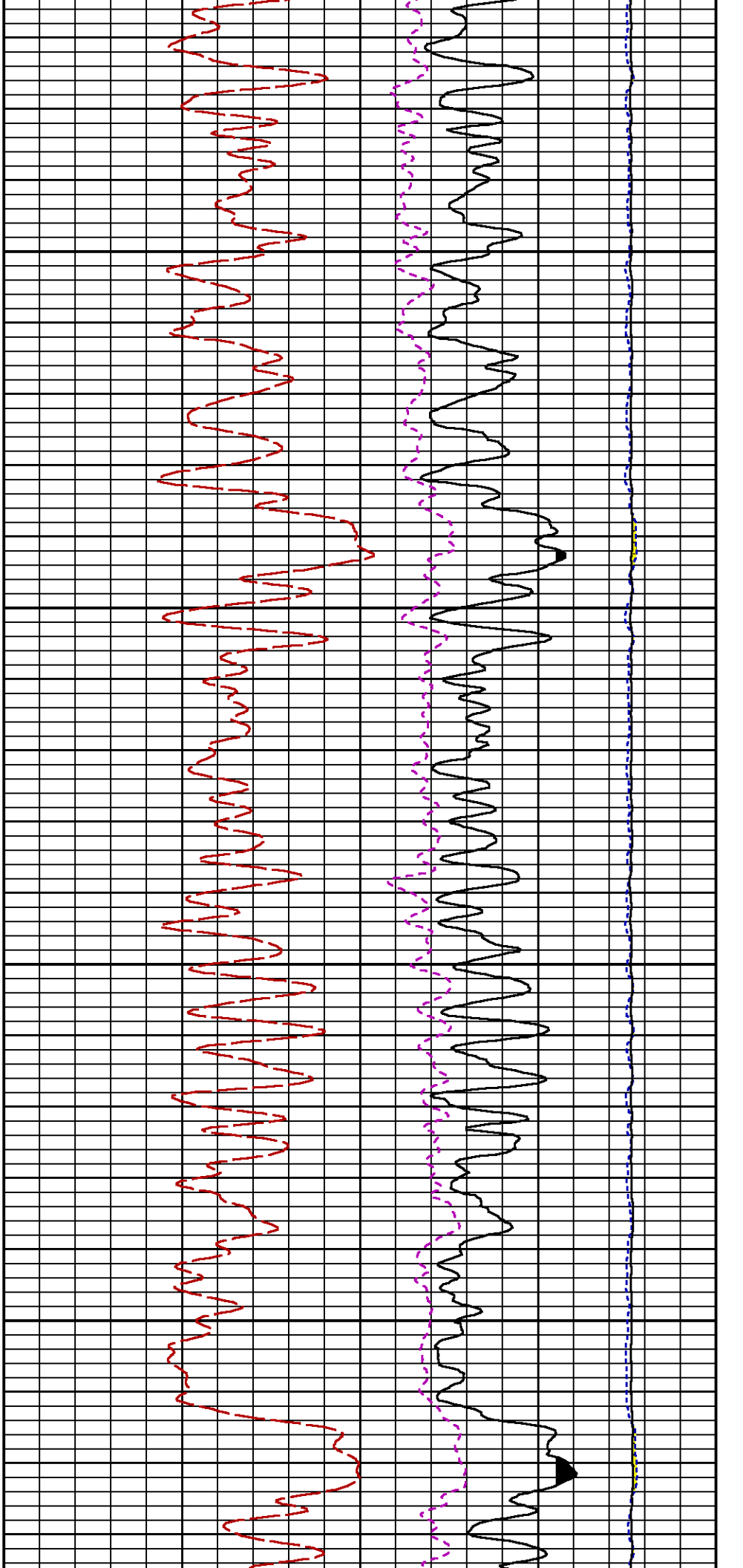


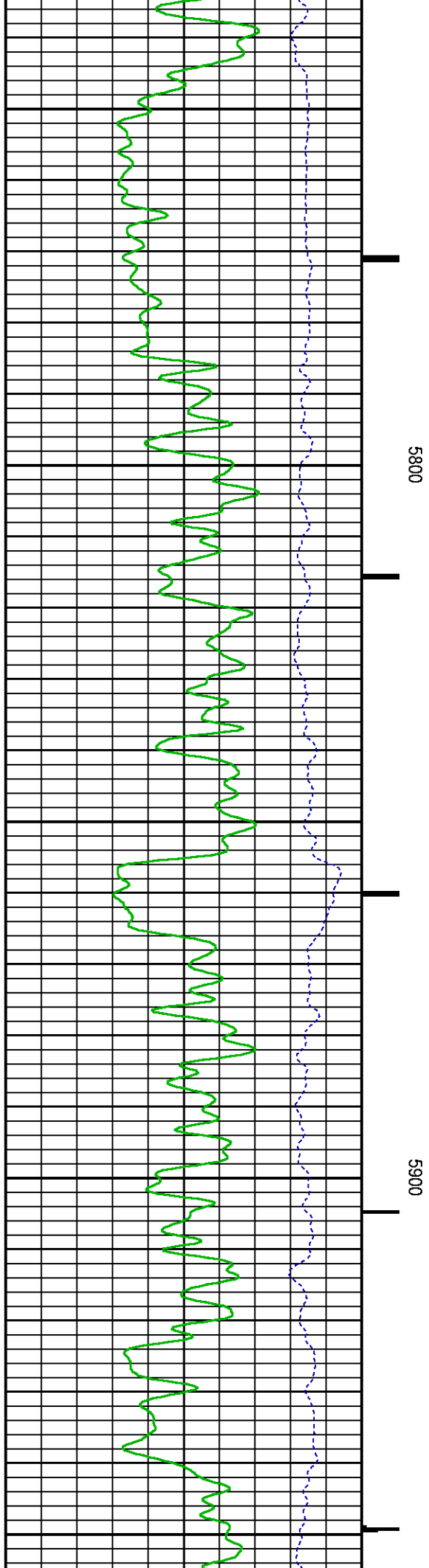
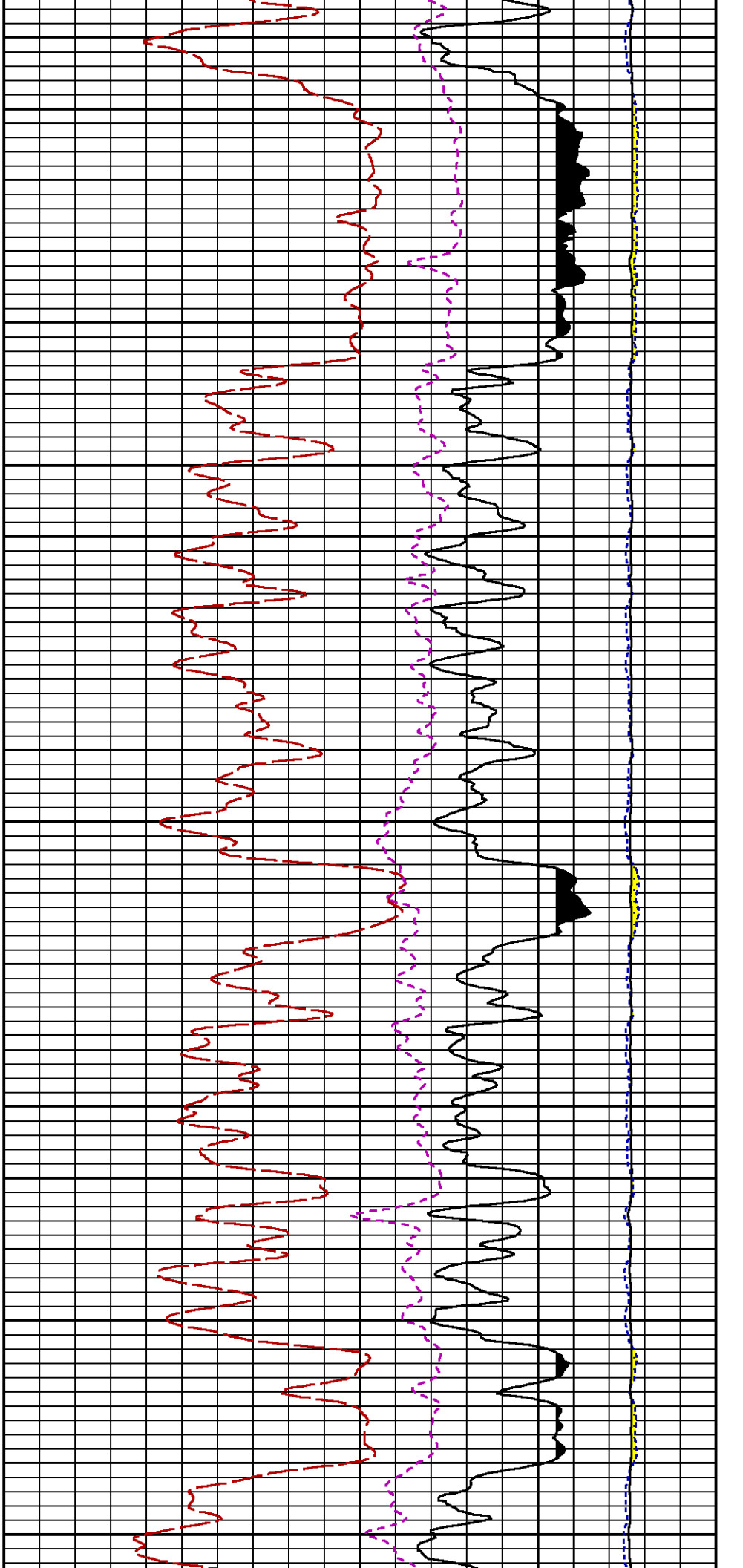


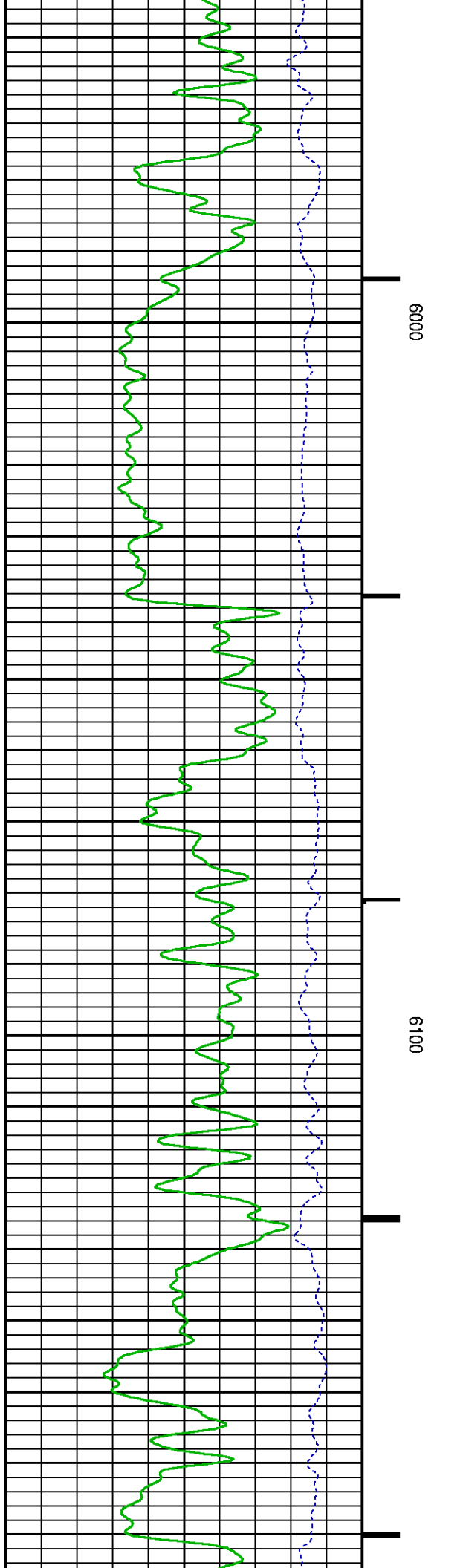
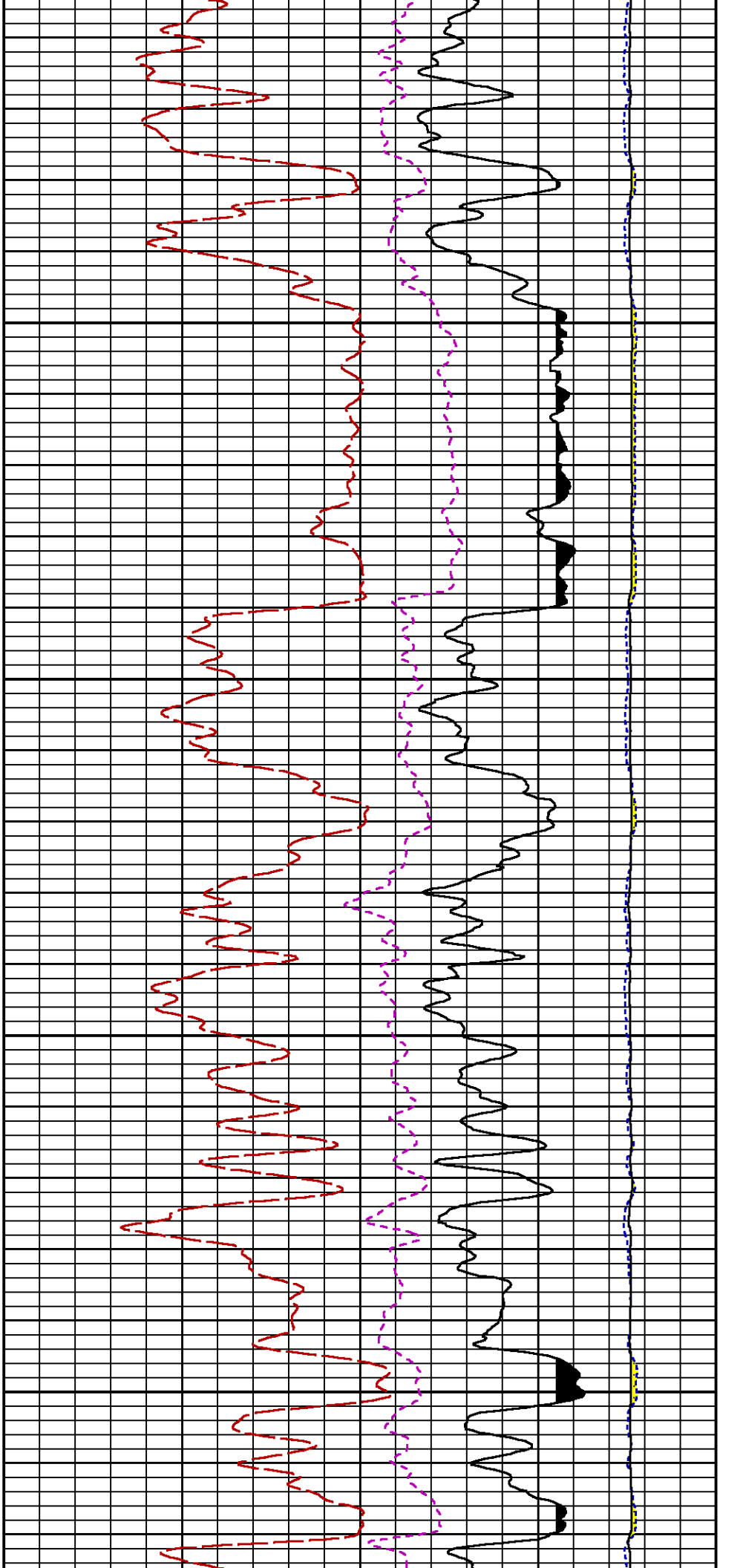


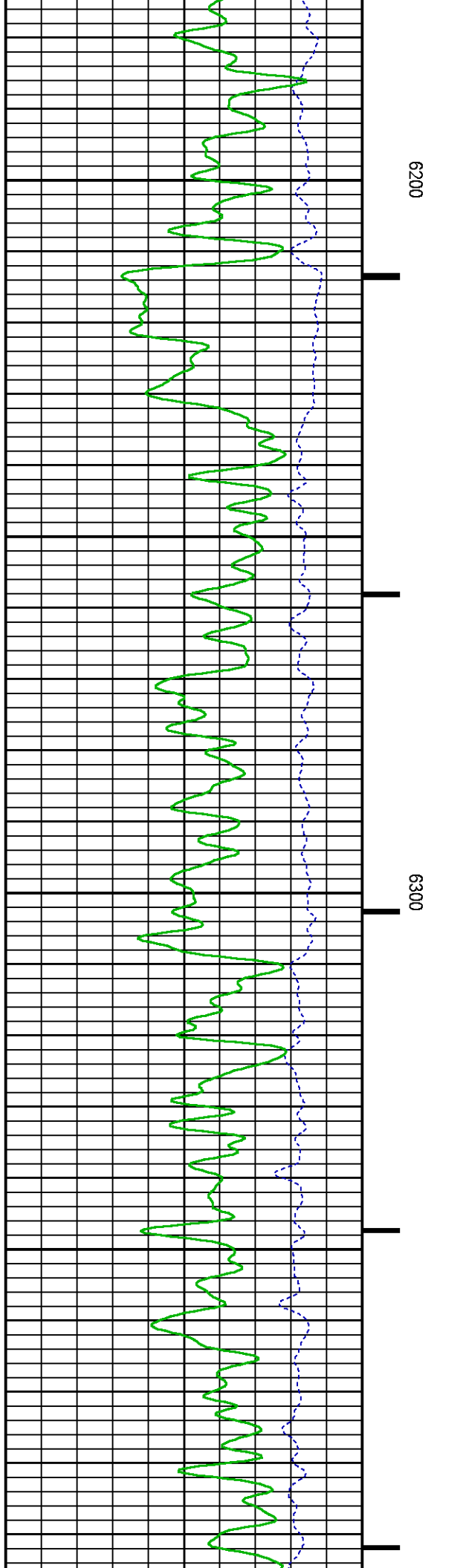
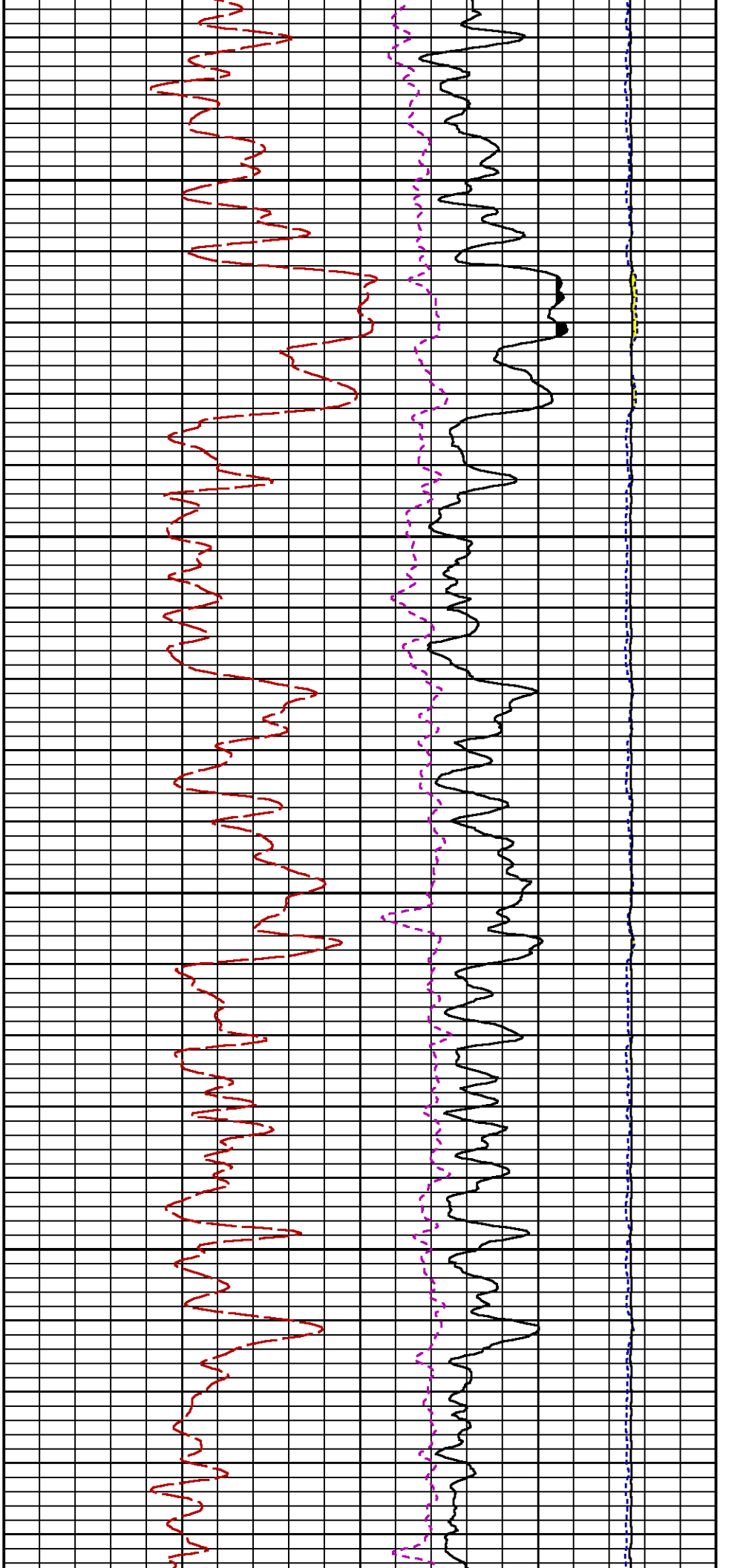


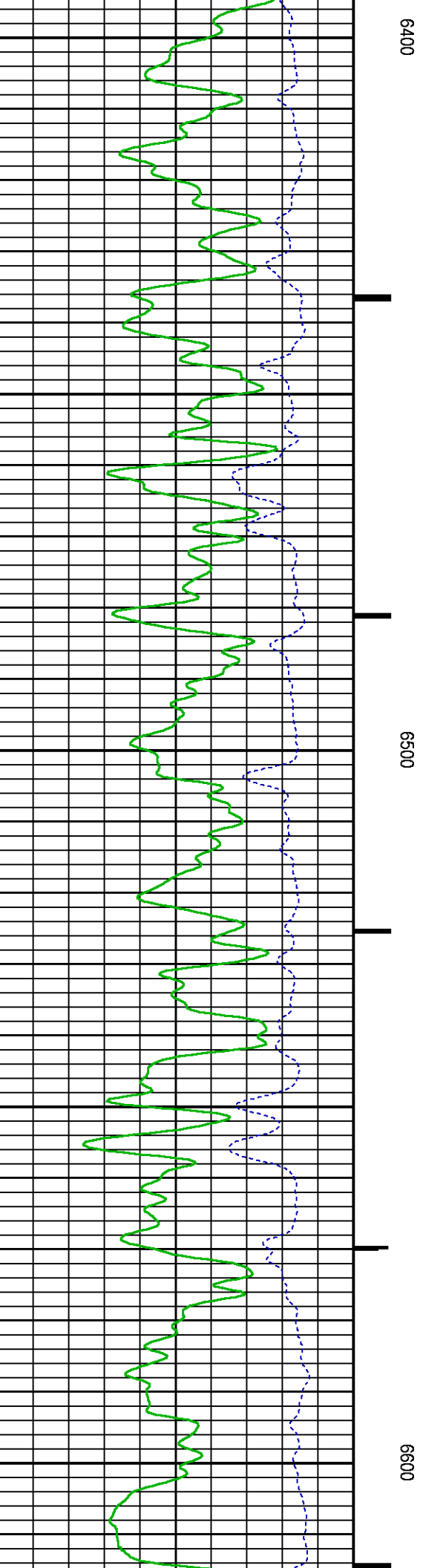
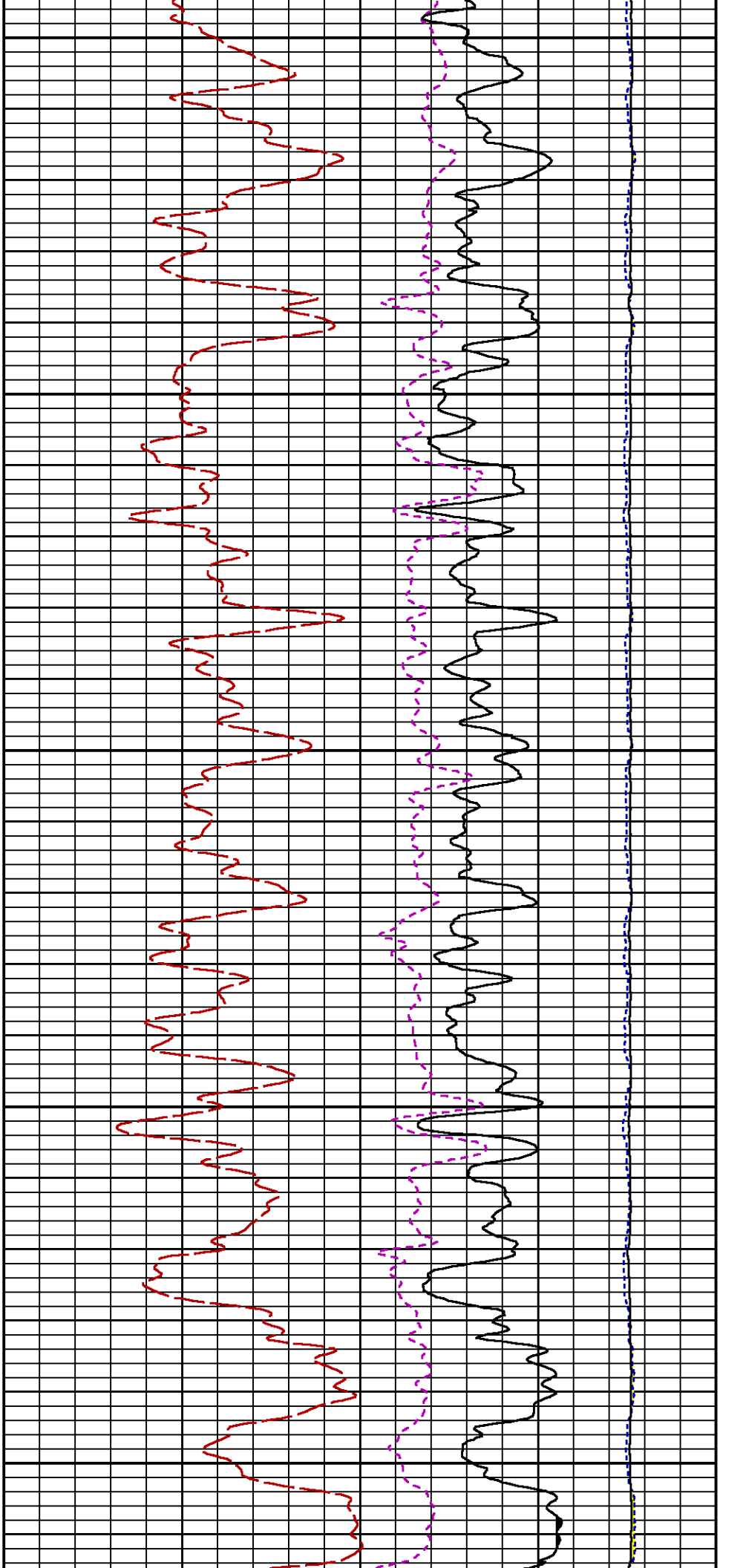


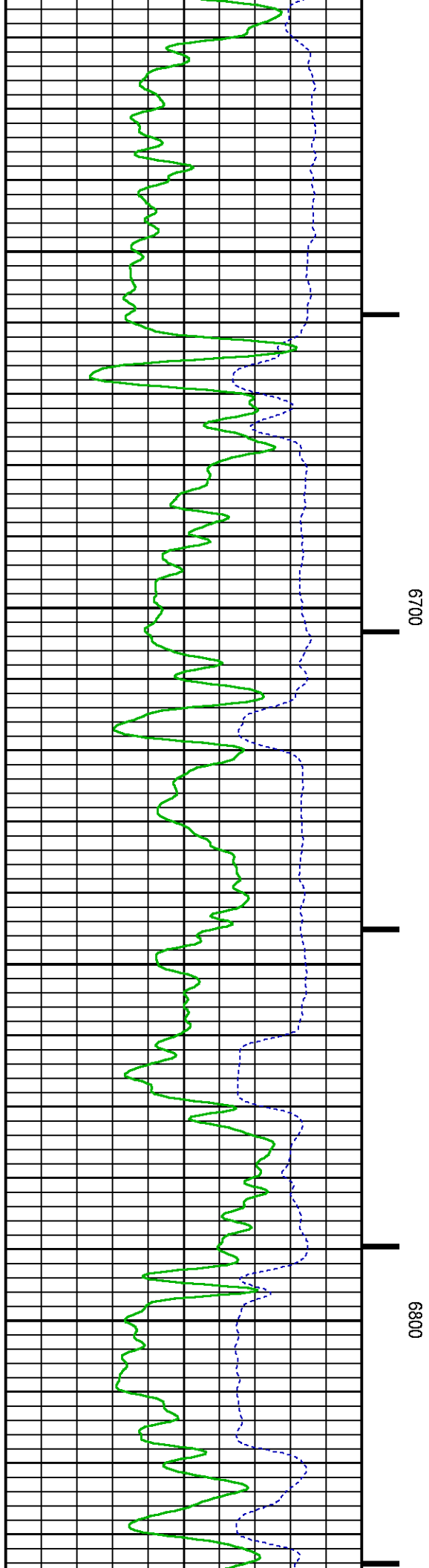
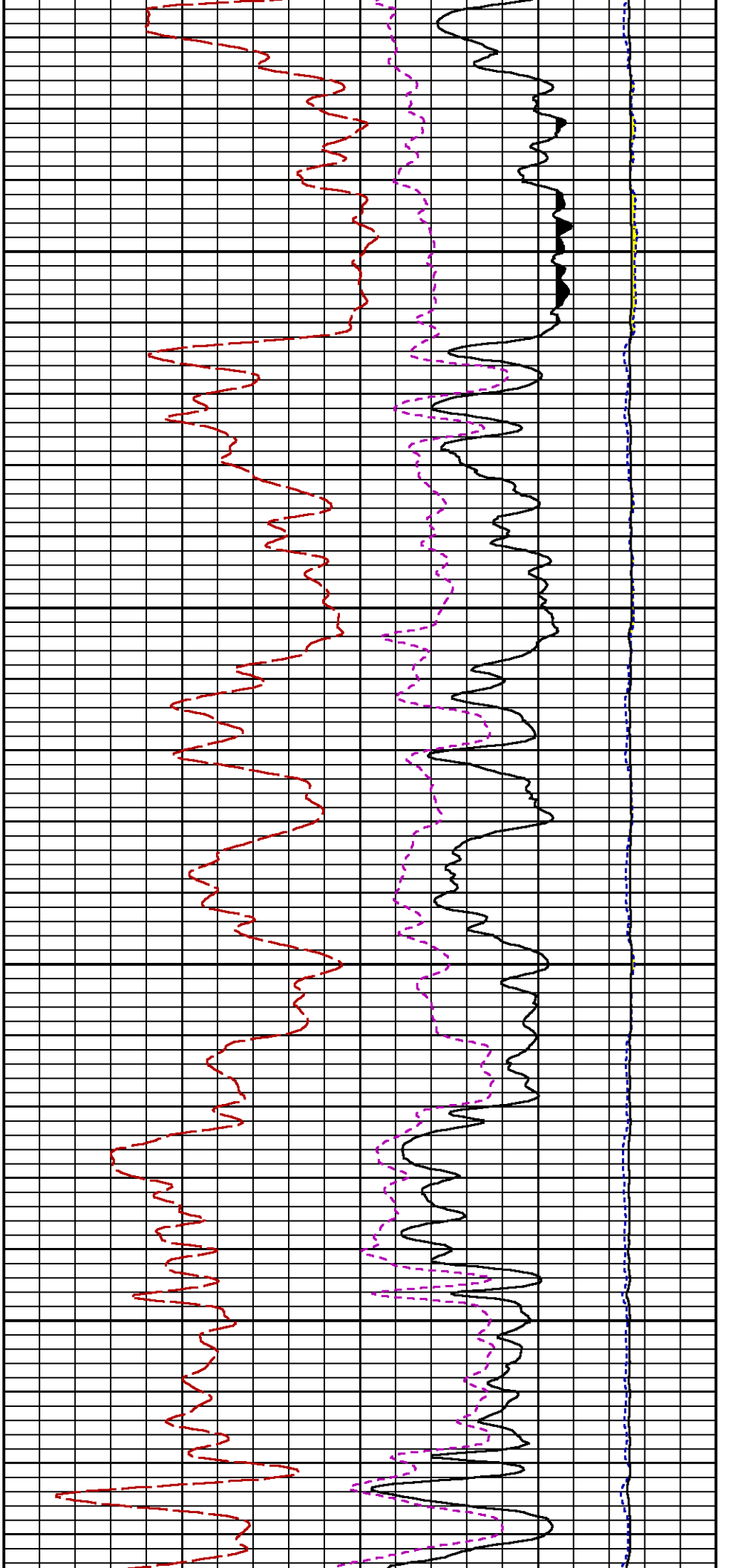


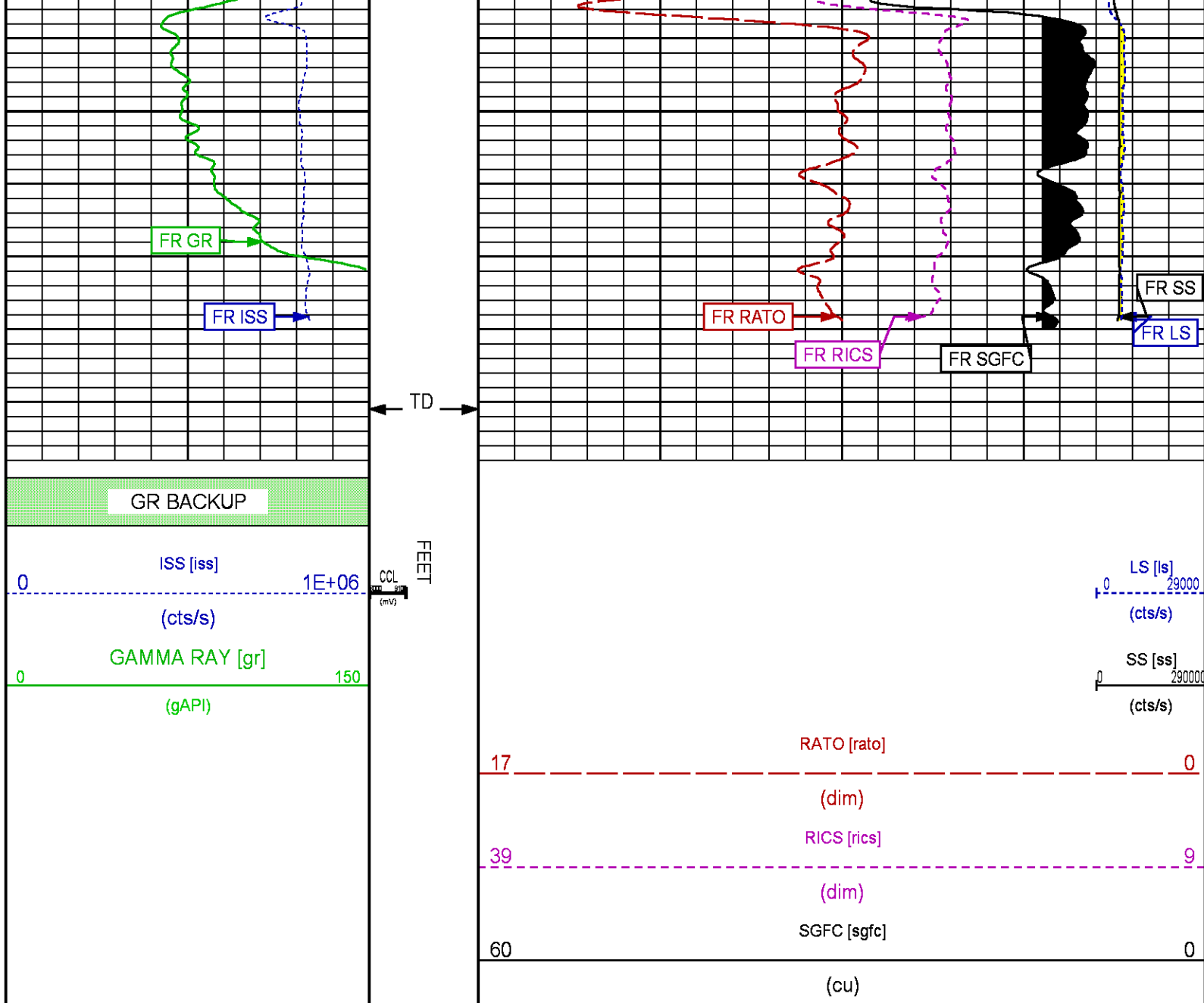












REPEAT SECTION PNC-3D MODE

ECLIPS 6.2i ECLIPS General Release Rel 6.2i Wed Jun 12 12:21:40 CDT 2013
Updates: 1,36 Patches: 9

Plotted: Sat Jun 18 15:55:51 2016

PARAMETER AND FILTER SUMMARY REPORT

FILE: /dat1a/CH107928/n353hx01.prm
LOGGING MODE: DEPTH DIRECTION: UP
TOP DEPTH: 6675.500 ft BOTTOM DEPTH: 6901.229 ft

SYMMETRIC FILTER

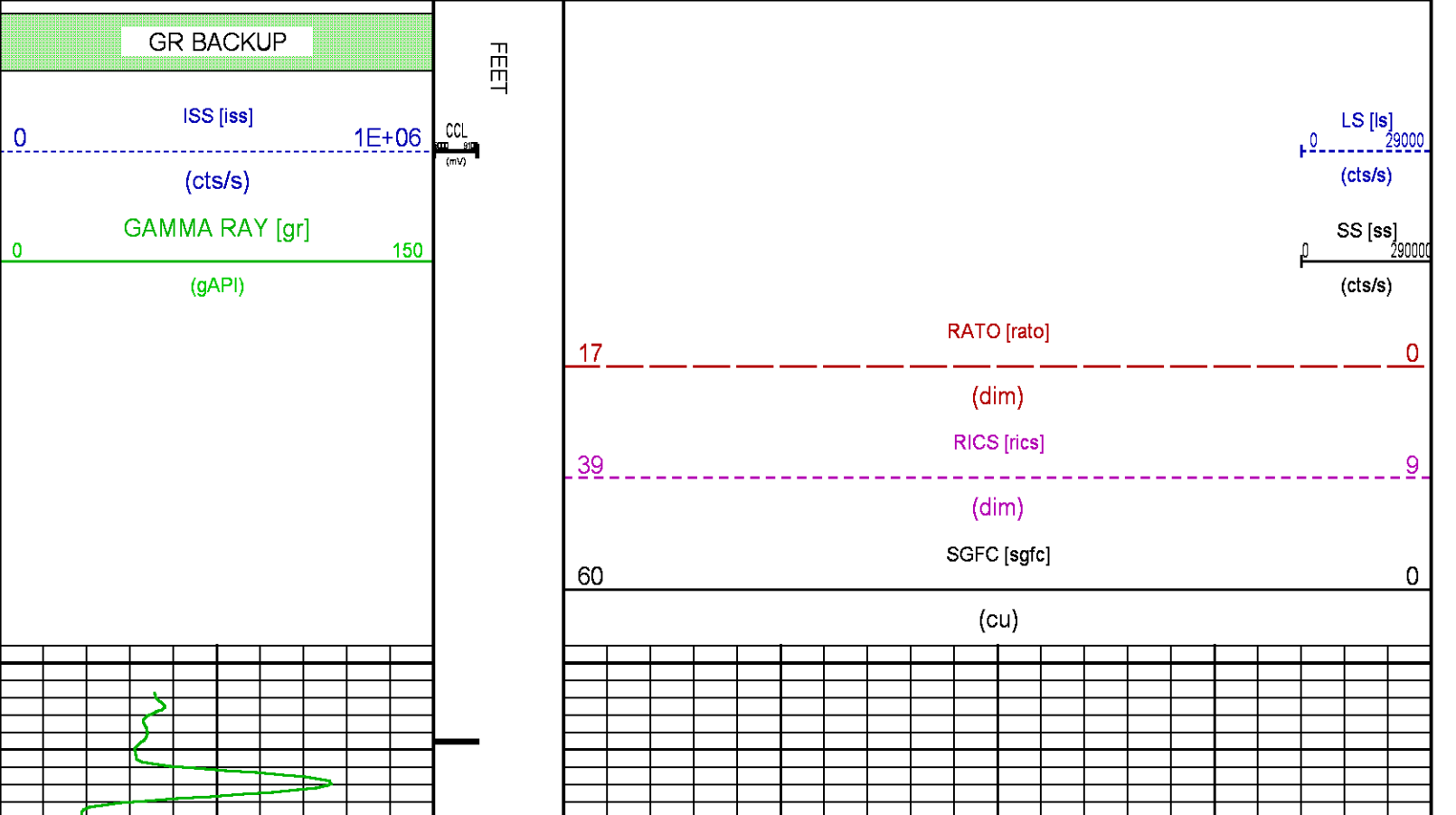
MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)
GR	FILTER A	medium (1)		TOP BOTTOM

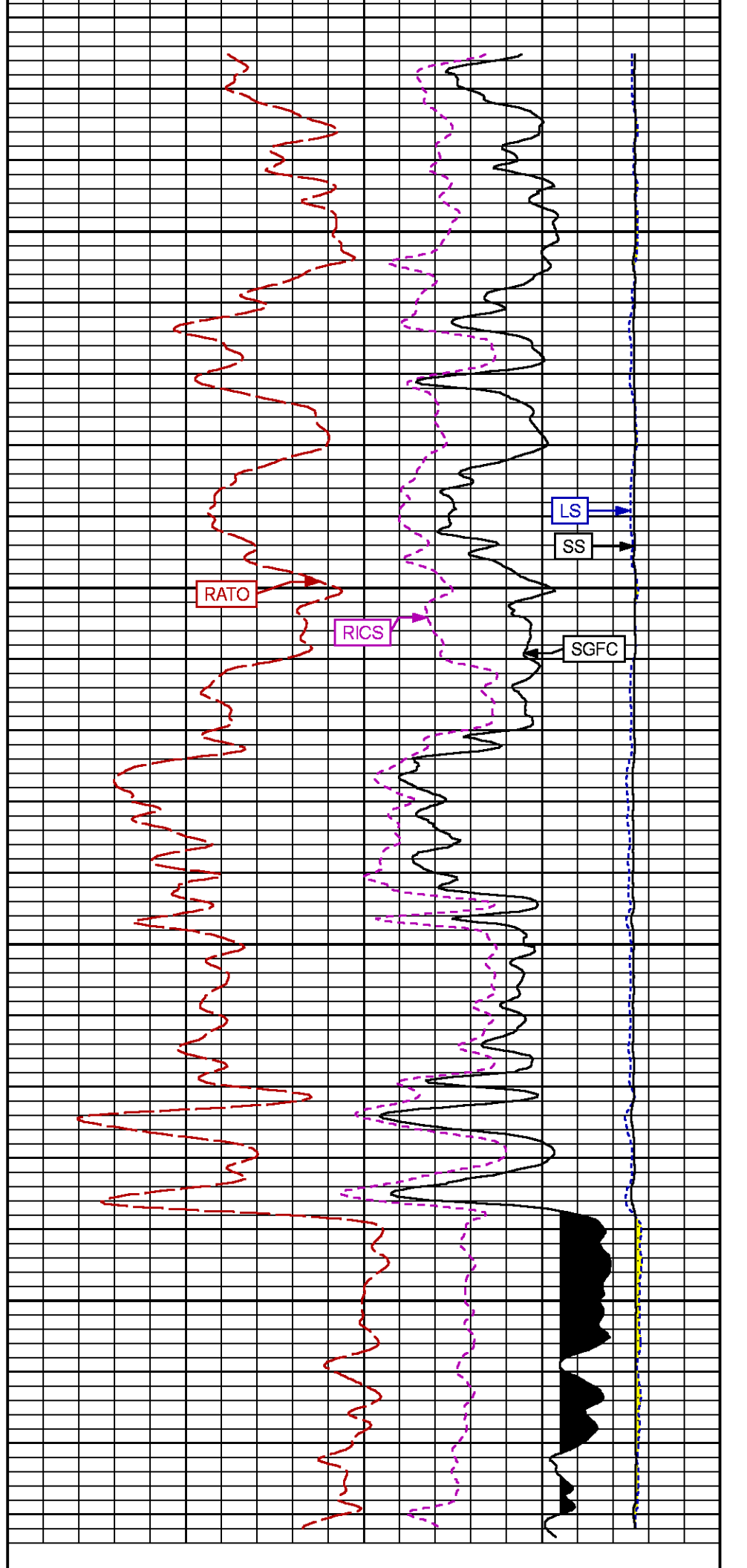
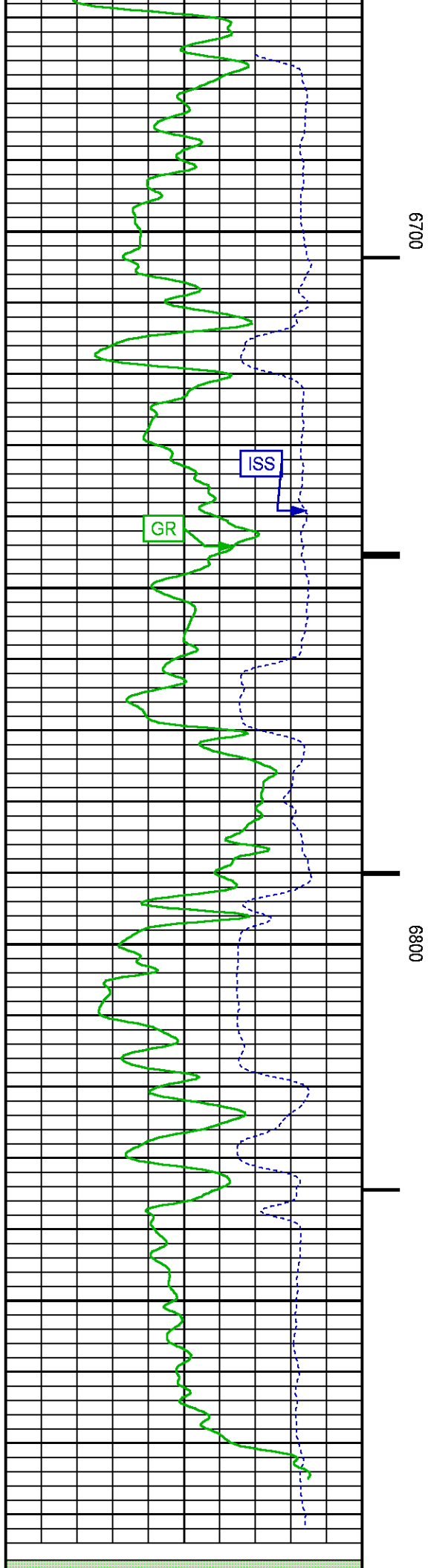
GR	FILTER ()	medium ()	TOP	BOTTOM
RPM PROCESSING				
MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)
PNC Parameters	BOREHOLE CONTENTS	FLUID		TOP
	OPEN/CASED HOLE	CASED HOLE		BOTTOM
	BOREHOLE SIZE	8.50	in	"
	CASING SIZE	7.00	in	"
	MATRIX	SANDSTONE		"
	CORRECTION BUFFER	11		"

CURVE DESCRIPTION REPORT		
CURVE NAME	CREATION DATE	CURVE DESCRIPTION
F1:CCL	Jun 18 15:38:54 2016	CASING COLLAR LOCATOR
F1:GR	Jun 18 15:38:54 2016	GAMMA RAY
F1:ISS	Jun 18 15:38:54 2016	INELASTIC SHORT SPACE COUNT RATE
F1:LS	Jun 18 15:38:54 2016	LONG SPACE COUNT RATE
F1:RATO	Jun 18 15:38:54 2016	SHORT/LONG SPACE COUNT RATE RATIO
F1:RICS	Jun 18 15:38:54 2016	SHORT SPACE INELASTIC TO CAPTURE COUNT RATE RATIO (ISS/CSS)
F1:SGFC	Jun 18 15:38:54 2016	CORRECTED FORMATION SIGMA
F1:SS	Jun 18 15:38:54 2016	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	: cas6685:/dat1a/CH107928/RPM_RPT.fvpdf [5"/100' Scale]
Plot Interval	: 6649.25 - 6883.25 Feet
Data File 1	: F1 : cas6685:/dat1a/CH107928/n353hx01.aff
Created On	: Jun 18 15:38:54 2016
Company	: WPX ENERGY
Well	: FEDERAL GM 322-9
Field	: GRAND VALLEY
File Interval	: 6647.25 - 6899.5 Feet
OCT	: n353hx





GR BACKUP

ISS [iss]

1E+06

(cts/s)

GAMMA RAY [gr]

(gAPI)

FEET

CCL
(mV)

LS [ls]

(cts/s)

SS [ss]

(cts/s)

RATO [rato]

17

0

(dim)

RICS [rics]

39

9

(dim)

SGFC [sgfc]

60

0

(cu)

CALIBRATION / VERIFICATION SUMMARY

Source File: /dat1a/CH107928/n353hx.tp1

GR PRIMARY CALIBRATION SUMMARY

TOOL #: 8262XA 10485470

DATE/TIME PERFORMED: Fri Jun 17 11:22:43 2016

UNIT #: 3885TC 6685

CALB JIG #: 4702NK BA-905

	BACKGROUND (cts/s)	CALBRTR ON (cts/s)	CR DIFF (cts/s)	MULT	BACKGROUND (gAPI)	CALBRTR ON (gAPI)	CALBRTR (gAPI)
GR	106.31	456.42	350.1	0.514	54.66	234.66	180

GR PRIMARY VERIFICATION SUMMARY

TOOL #: 8262XA 10485470

DATE/TIME PERFORMED: Fri Jun 17 11:24:51 2016

UNIT #: 3885TC 6685

VERI JIG #: 4702NK BA-905

	BACKGROUND (cts/s)	CALBRTR ON (cts/s)	MULT	BACKGROUND (gAPI)	CALBRTR ON (gAPI)	DIFF. (gAPI)
GR	104.33	455.69	0.514	53.64	234.28	180.64
						170.00 190.00

RPM_PNC_3D PRIMARY CALIBRATION SUMMARY

TOOL: 8283PA 10169251

DATE/TIME PERFORMED: Fri Jun 17 11:17:30 2016

UNIT: 3885TC 6685

CALIBRATOR: 2437XB GJ_SHOP

SOURCE: 8281AA 11765055

HOURS: 8281AA 202

	ISS	Mtr Vits (V)	SS Gain	LS Gain	XLS Gain	EA Temp (degF)	Sync Delay (usec)	RCAL
Raw Data	809107	120	2330	2299	2351	132	7.0	0.9797
Interpolated	1300000	140	2308	2293	2348			

ISS

BKS

BKL

BKX

SGA1

SDA1

SGA2

SDA2

Raw Data	809107	7256	1203	154	25.99 25.35 26.40	0.15 0.00 0.20	24.02 23.60 24.80	0.34 0.00 0.40
	ISS	ILS	IXS	SS	SS2	LS	CSS	CLS
Raw Data	809107	166665	26353	87355	31074	8120	52945	13003
Fit Quality %		0.718	0.914	0.858	0.879	0.823	0.834	0.791
	ISS	RBOR	RIN ISS/ILS	RIN13 ISS/IXS	RICS ISS/CSS	RATO SS/LS	RTWO SS2/LS	RONE CSS/CLS
Raw Data	809107	1.43 1.42 1.45	4.86 3.55 5.52	30.72 22.20 32.70	15.28 10.99 16.34	10.76 10.06 11.10	3.83 3.57 3.95	4.07 3.76 4.22
Fit Quality %		0.093	0.239	0.137	0.092	0.055	0.061	0.073
Reduced	1386218	1.43 1.42 1.45	4.86 4.33 5.52	30.72 27.60 32.70	15.30 13.70 16.34	10.75 10.06 11.10	3.83 3.57 3.95	4.07 3.76 4.22

TPSETEMP PRIMARY CALIBRATION SUMMARY

TOOL #: 8255XA 11774568

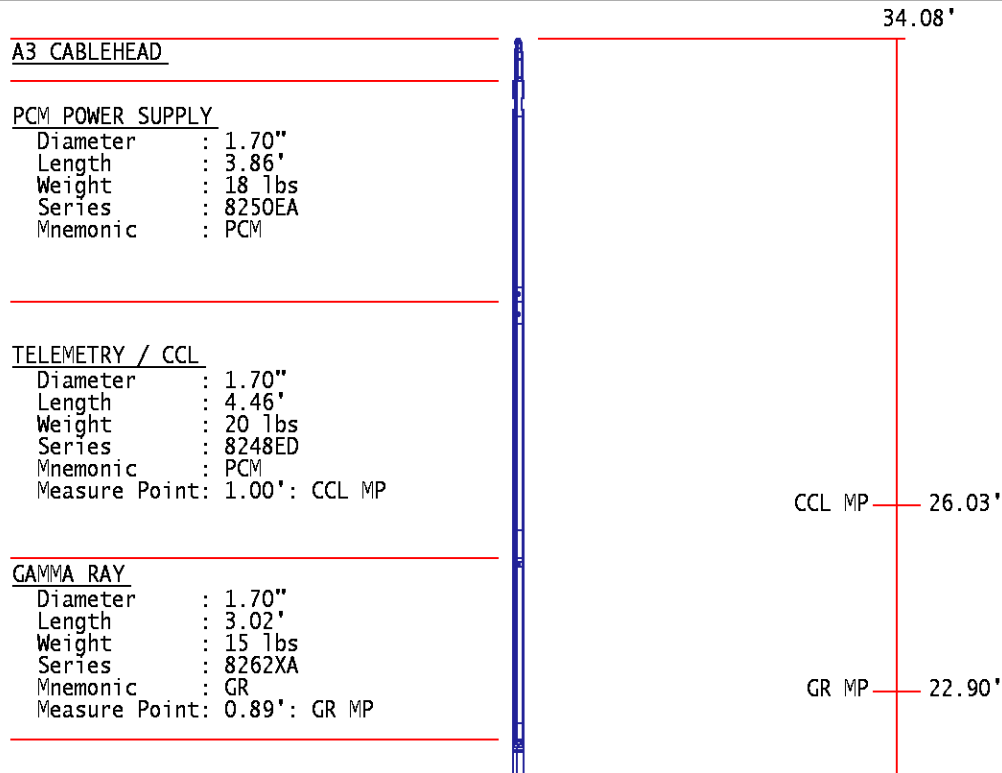
DATE/TIME PERFORMED: Wed May 14 12:39:45 2014

UNIT #: 3880TA HL6670

	T(0)	T(1)	T(2)	T(3)
Corr Coeff for Temp	-9.274653E+00	1.055639E-01	2.143764E-06	-2.782846E-10

INSTRUMENT CONFIGURATION

Source File: /dat1a/CH107928/n353hx~joe-tdg



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

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

BULL PLUG 1 11/16

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

0.00'



COMPANY
WELL
FIELD
COUNTY

WPX ENERGY
FEDERAL GM 322-9
GRAND VALLEY
GARFIELD **STATE** **COLORADO**

FILE NO:
CH107928
API NO:
05045225310000

LOCATION:

SHL: 675' FNL & 558' FWL
 BHL: 1668' FNL & 1930' FWL
 SW/NW

SEC 9 TWP 7S RGE 96W

ELEVATIONS:

KB 6111 FT
 DF
 GL 6087 FT

SEC 9 T7S R96W
 PAD MV 16-9
 RIG: H&P 319

DATE 18-Jun-2016