



FILE NO: CH093575	COMPANY WPX ENERGY
API NO: 05045224670000	WELL GM 332-12
	FIELD GRAND VALLEY
	COUNTY GARFIELD
	STATE COLORADO

Version 12 7S 96W GM 21-12 PAD NABORS 573	LOCATION: SHL: 1189' FNL & 1905' FWL BHL: 2530' FNL & 2208' FEL (SWNE) SEC 12 TWP 7S RGE 96W	OTHER SERVICES BOND LOG
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PERMANENT DATUM LOG MEASURED FROM DRILL. MEAS. FROM	GL KB KB KB	ELEVATION 5125 FT 26 FT ABOVE P.D.
		ELEVATIONS: KB 5151 FT DF GL 5125 FT

DATE	29-Dec-2014	
RUN	1	TRIP
SERVICE ORDER	US093575	
DEPTH DRILLER	6697 FT	
DEPTH LOGGER	6642 FT	
BOTTOM LOGGED INTERVAL	6632 FT	
TOP LOGGED INTERVAL	3374 FT	
TIME STARTED	11:30	
TIME FINISHED	15:30	
OPERATOR RIG TIME	4 HOURS	
TYPE OF FLUID IN HOLE	WATER	
FLUID DENSITY	NA	
FLUID SALINITY	NA	
FLUID LEVEL	62 FT	
LOGGED CEMENT TOP	NA	
WELLHEAD PRESSURE	0 PSI	
MAXIMUM HOLE DEVIATION	NA	
NOMINAL LOGGING SPEED	10 F/MN	
MAX. RECORDED TEMP.	210 DEGF	
REFERENCE LOG	BAKER HUGHES BOND LOG	
REFERENCE LOG DATE	29-Dec-2014	
EQUIP. NO.	4271	LOCATION
RECORDED BY	P. EDWARDS	
WITNESSED BY	O. JACOBS	

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	0 FT	1616 FT
8.75 IN	1616 FT	6689 FT

CASING RECORD				
SIZE	WEIGHT	GRADE	FROM	TO
9.625 IN			0 FT	1616 FT
4.5 IN	11.6 LB/F	I-80	0 FT	6689 FT

REMARKS

RUN 1 TRIP 1: All data on this log is shifted and depth matched using the Gamma Ray curve to the Baker Hughes bond log dated 12/29/2014 at the client's request.

The depth matching process creates potential for collar lengths to vary from those recorded on other cased hole wireline units without a Gamma Ray reference.

Logged with Zero PSI at wellhead.

BHT = 210 degF

SJ = 3172' - 3195'

Thanks you for choosing Baker-Hughes.

EQUIPMENT DATA

RUN	TRIP	TOOL	SERIES NO.	SERIAL NO.	POSITION
1	1	PCM	8250EA	10397894	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	Z120516	FREE

MAIN SECTION PNC-3D MODE

ECLIPS 6.2wu1 PC-ECLIPS General Release Rel 6.2w Update 1 Fri Apr 25 10:54:53 Central Daylight Time 2014

Plotted: Mon Dec 29 20:02:50 2014

PARAMETER AND FILTER SUMMARY REPORT

FILE: D:\WELLDATA\WPX\GM 332-12\332h04.prm
LOGGING MODE: DEPTH DIRECTION: UP
TOP DEPTH: 3363.750 ft BOTTOM DEPTH: 6647.000 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	Dec 29 19:04:27 2014	CASING COLLAR LOCATOR
F1:GR	Dec 29 19:04:40 2014	GAMMA RAY
F1:ISS	Dec 29 19:04:40 2014	INELASTIC SHORT SPACE COUNT RATE
F1:LS	Dec 29 19:04:40 2014	LONG SPACE COUNT RATE
F1:RATO	Dec 29 19:04:43 2014	SHORT/LONG SPACE COUNT RATE RATIO
F1:RICS	Dec 29 19:04:44 2014	SHORT SPACE INELASTIC TO CAPTURE COUNT RATE RATIO (ISS/CSS)
F1:SGFC	Dec 29 19:04:44 2014	CORRECTED FORMATION SIGMA
F1:SS	Dec 29 19:04:44 2014	SHORT SPACE COUNT RATE

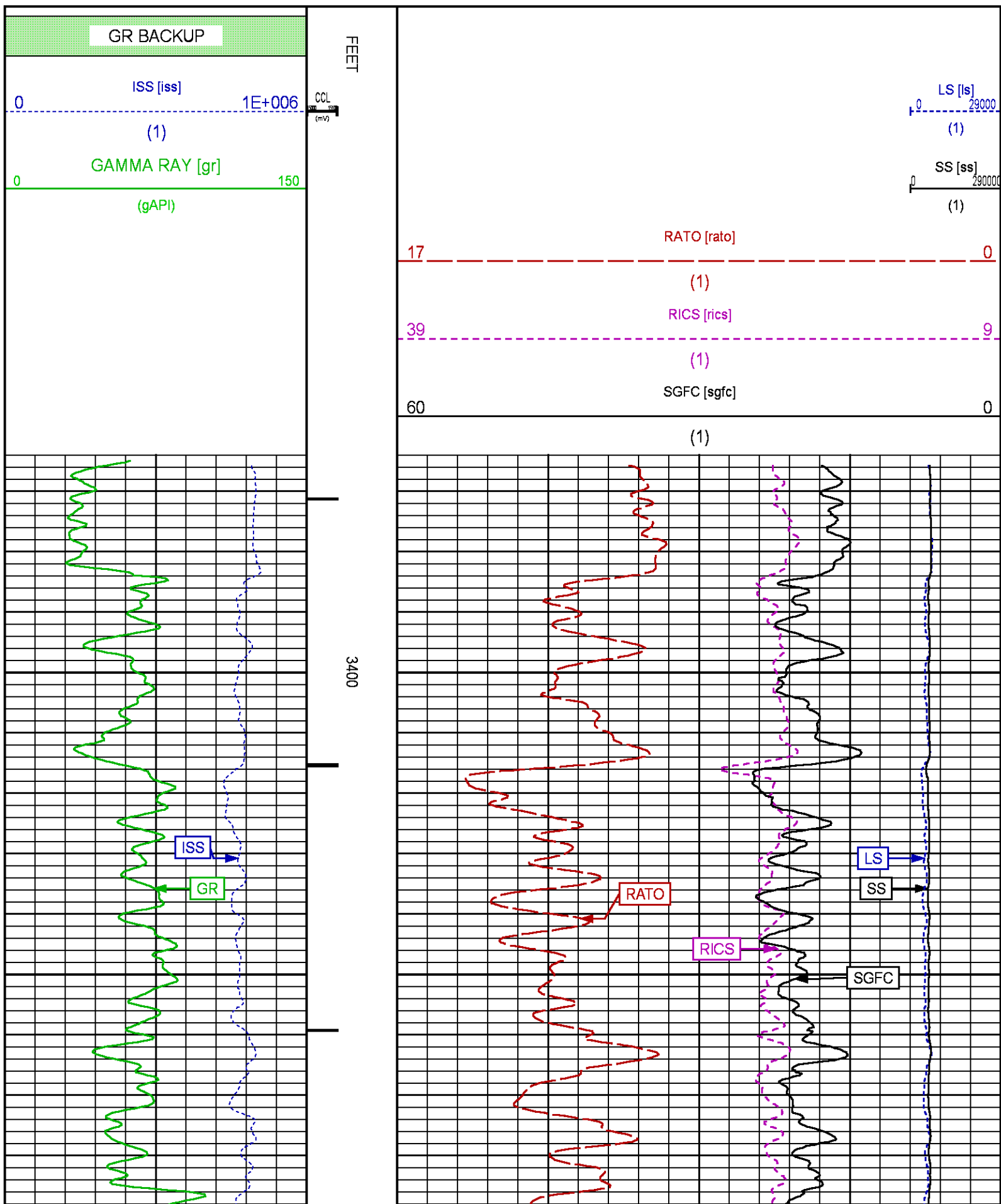
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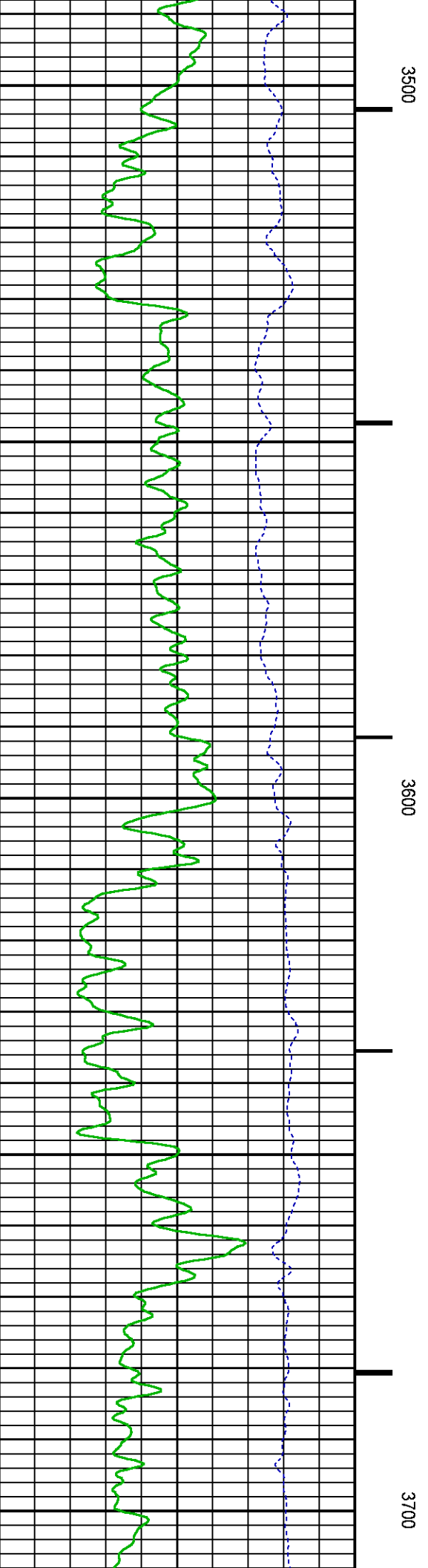
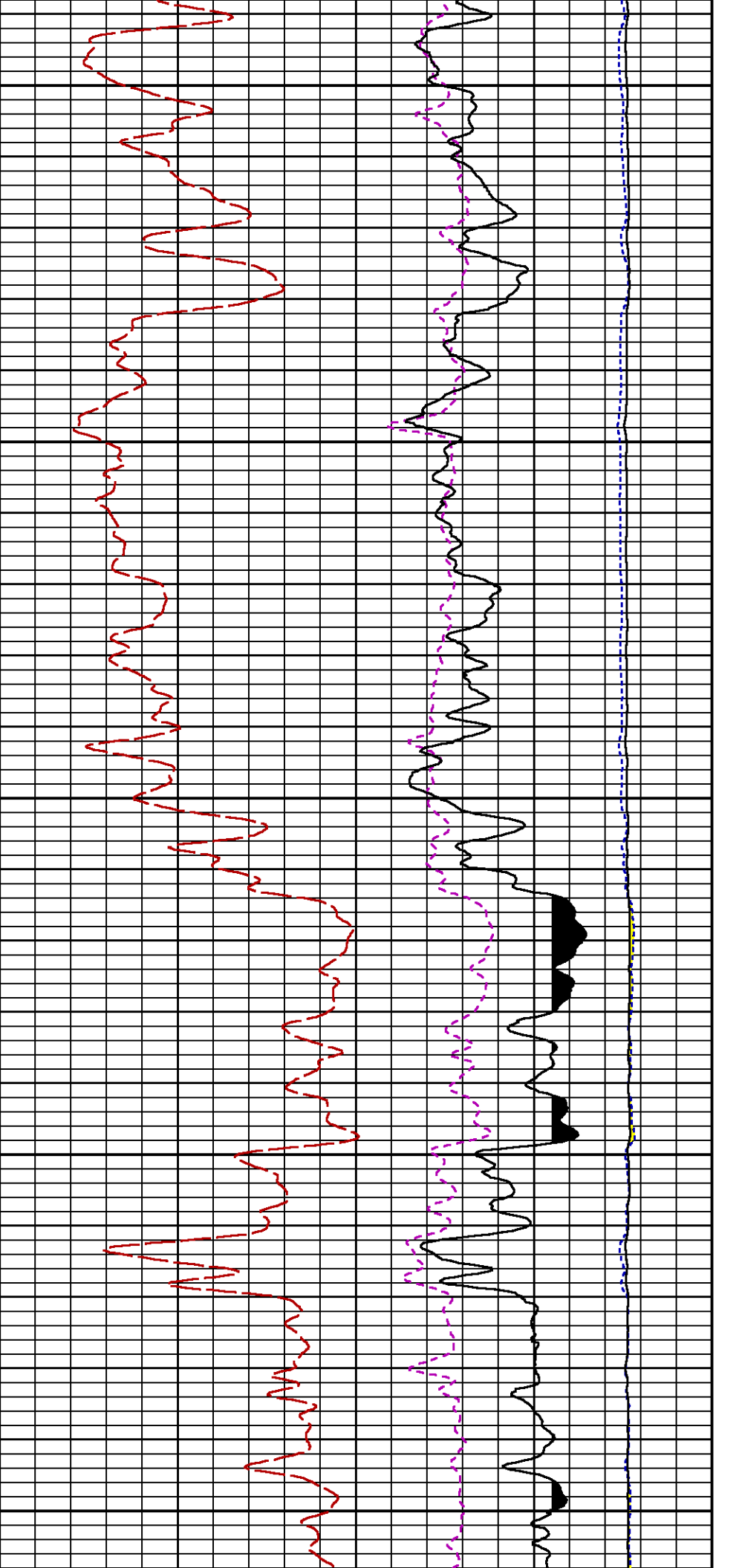
CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)
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GR	22.75	LS	12.75	RICS	12.75	SS	12.75

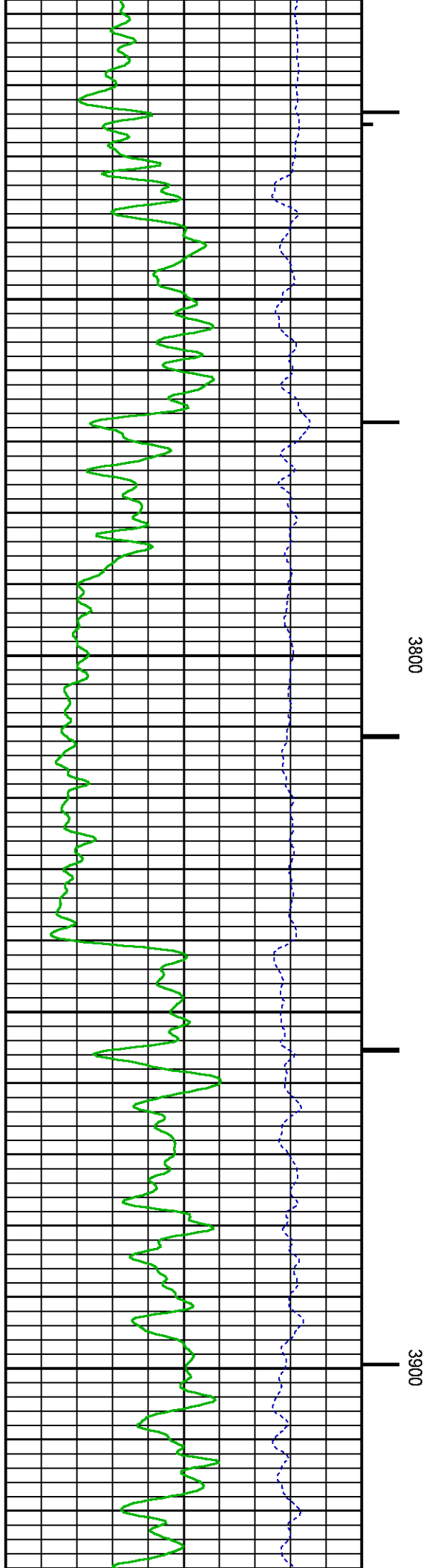
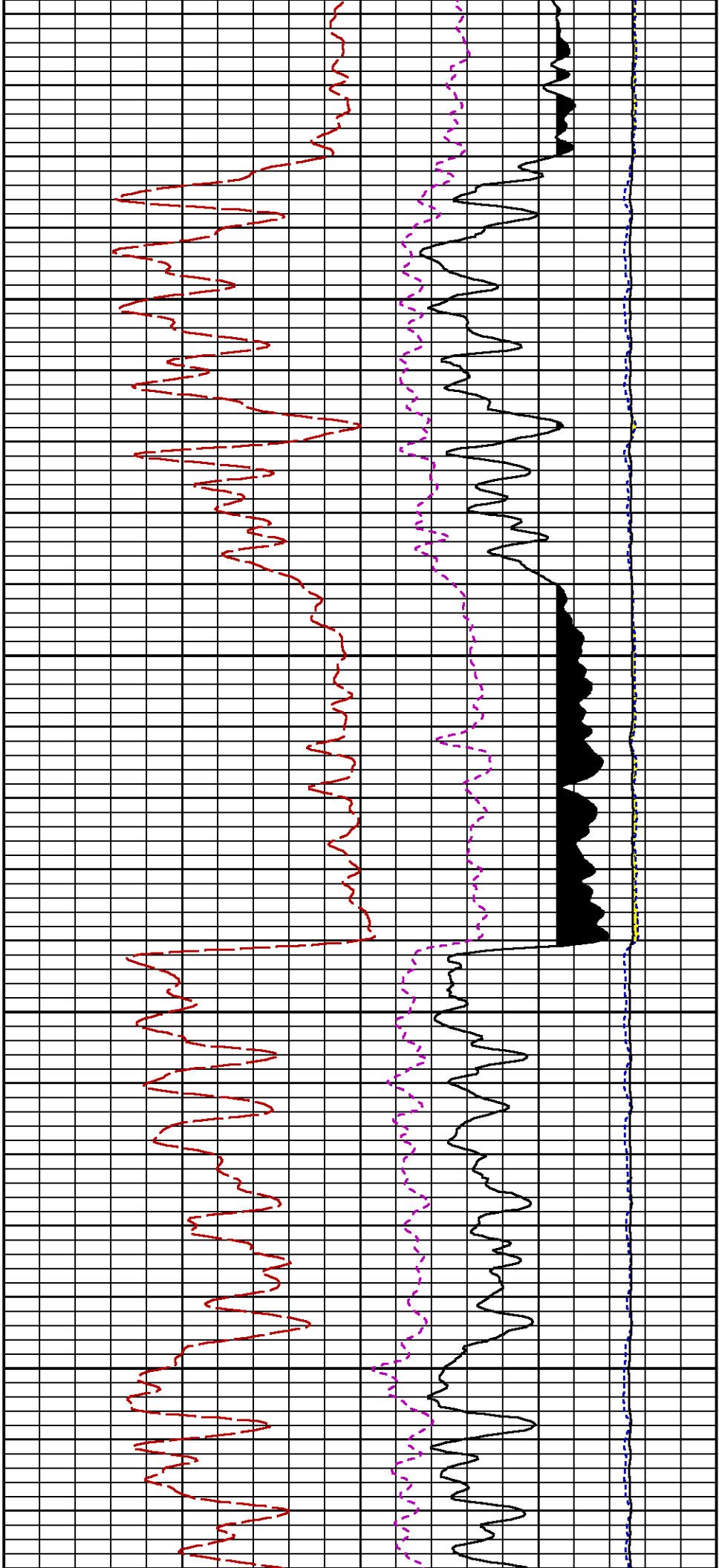
Presentation : BHI9G15WM1:D:\WELLDATA\WPX\GM 332-12\332RPM_MAIN.fvpdf [5"/100' Scale]
Plot Interval : 3365 - 6649 Feet

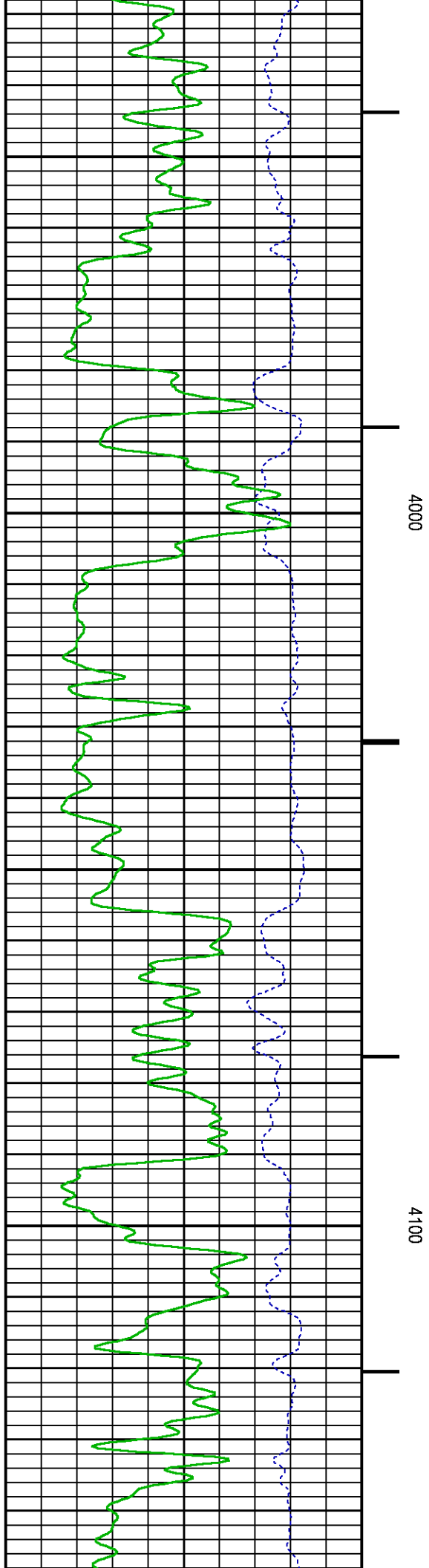
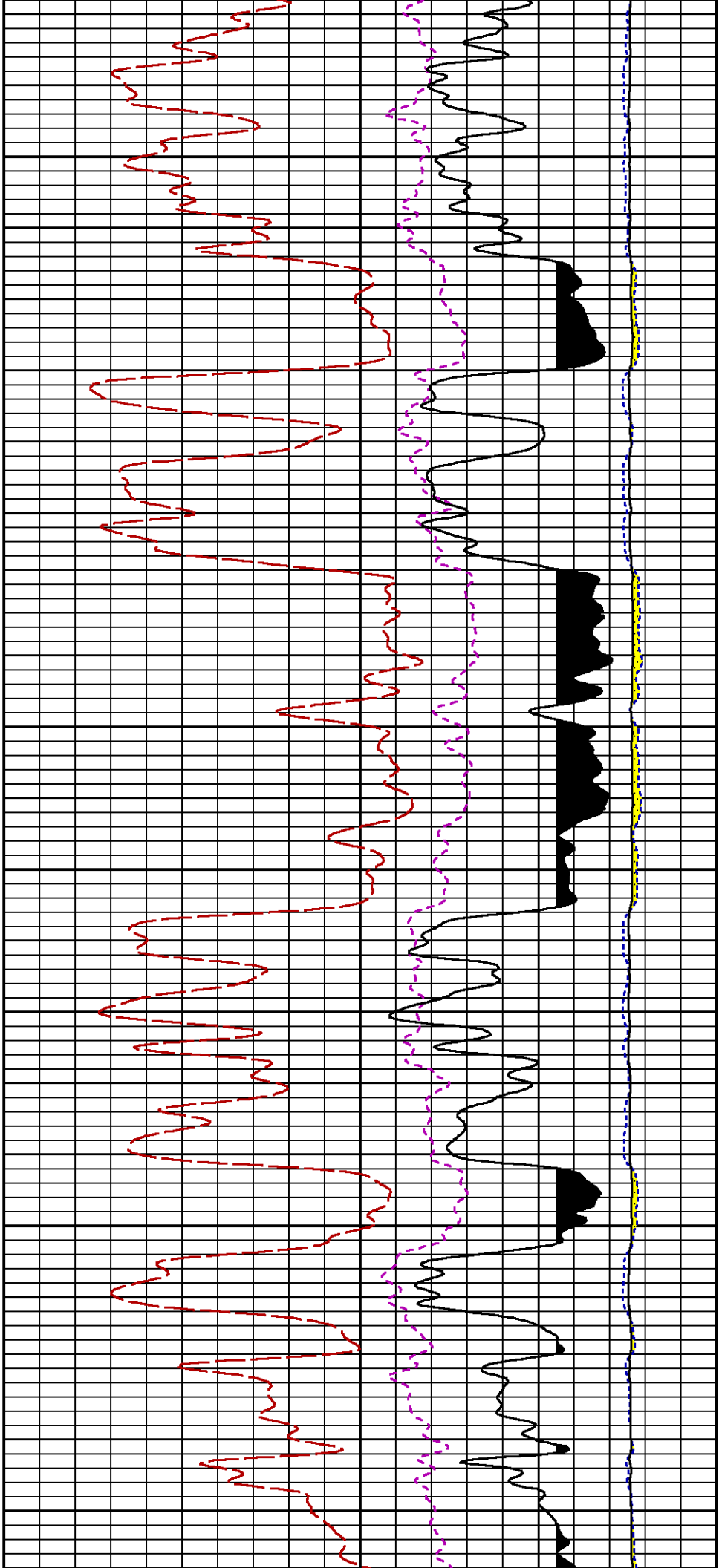
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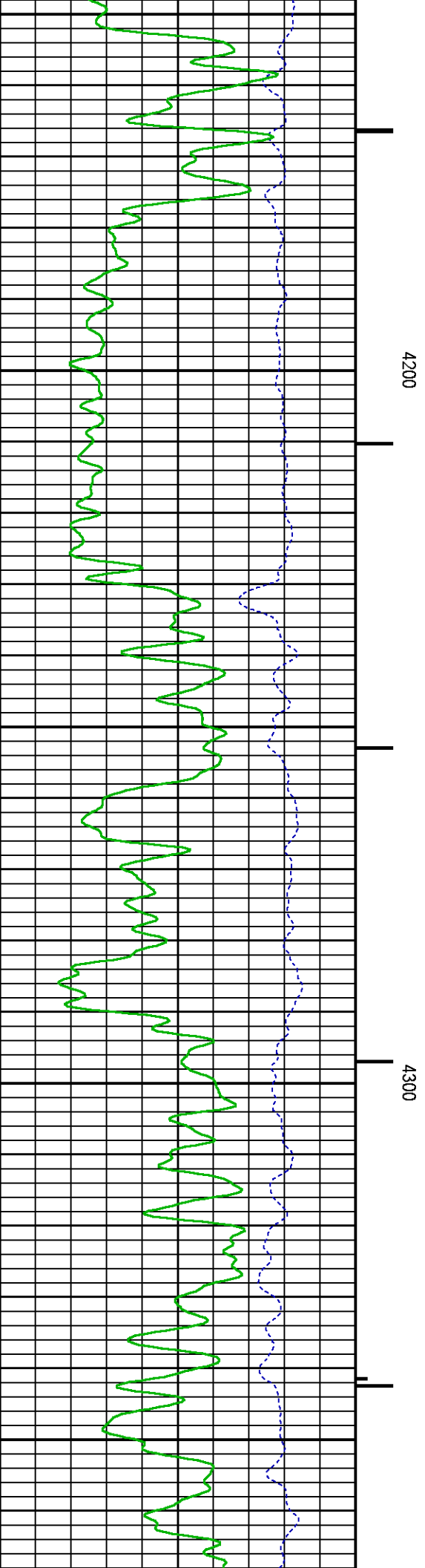
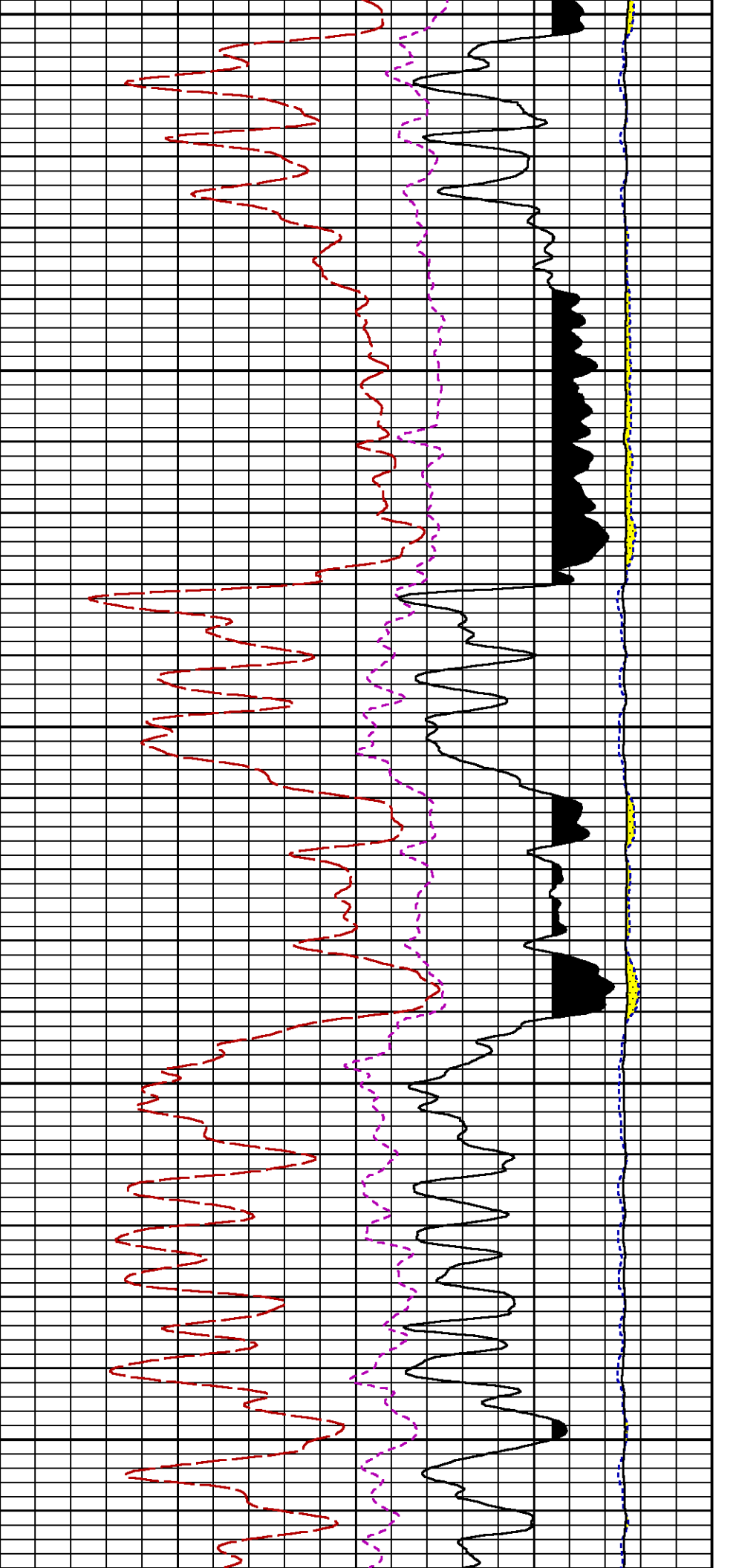
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Created On : Dec 29 19:04:24 2014
Company : WPX ENERGY
Well : GM 332-12
Field : GRAND VALLEY
File Interval : 30 - 6647.25 Feet
OCT : n354h

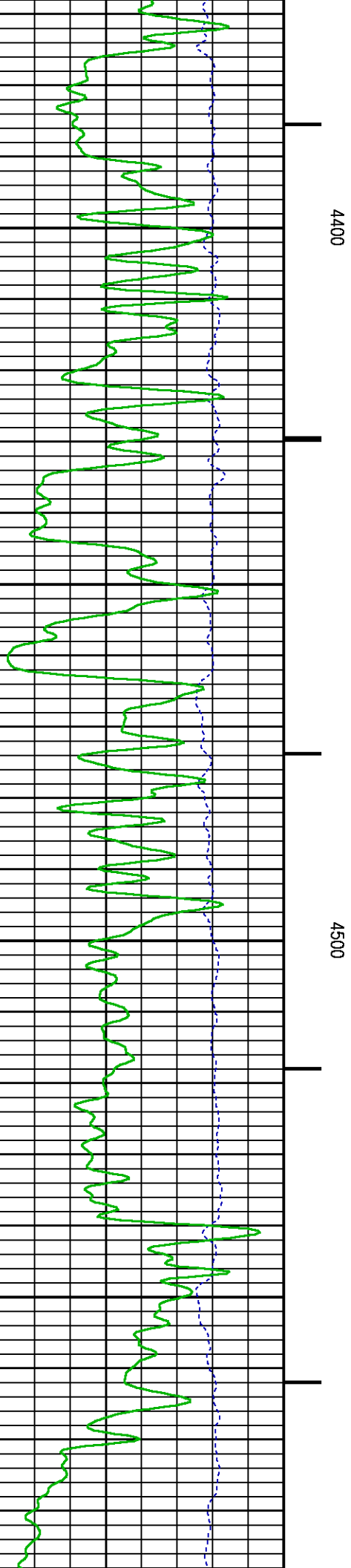
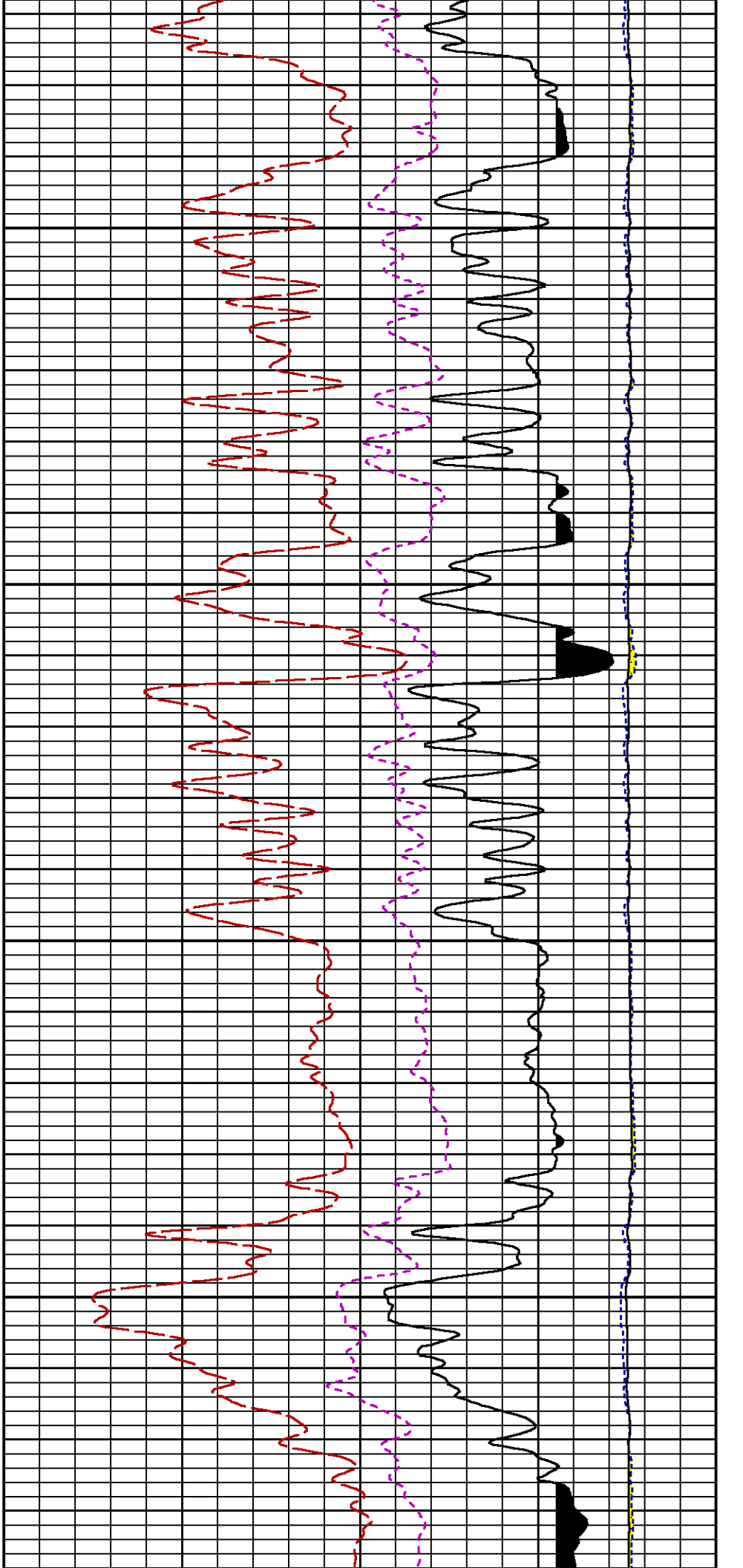


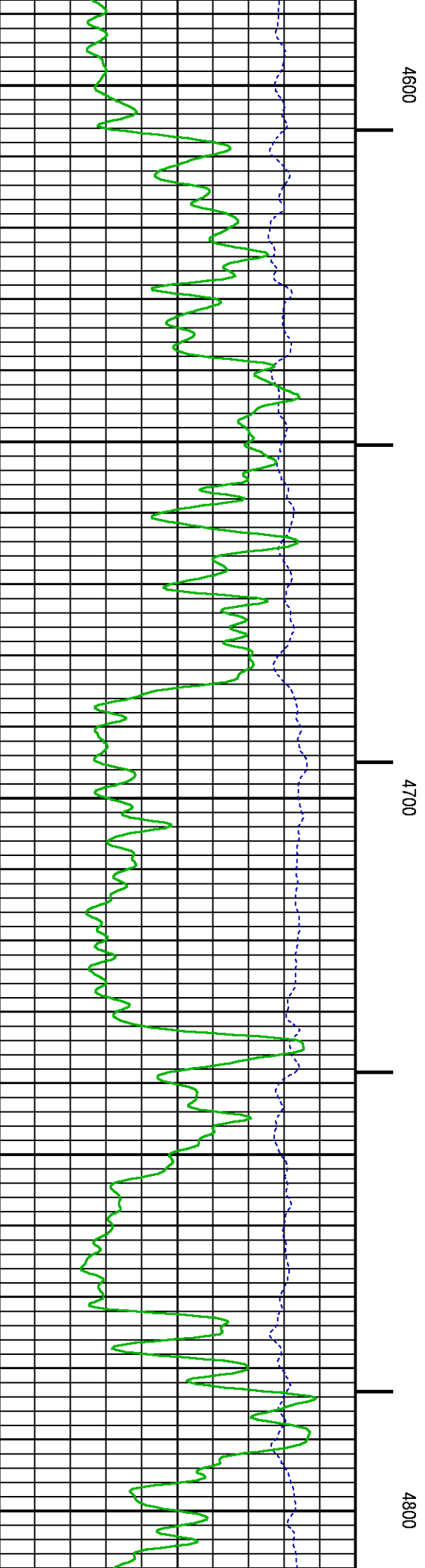
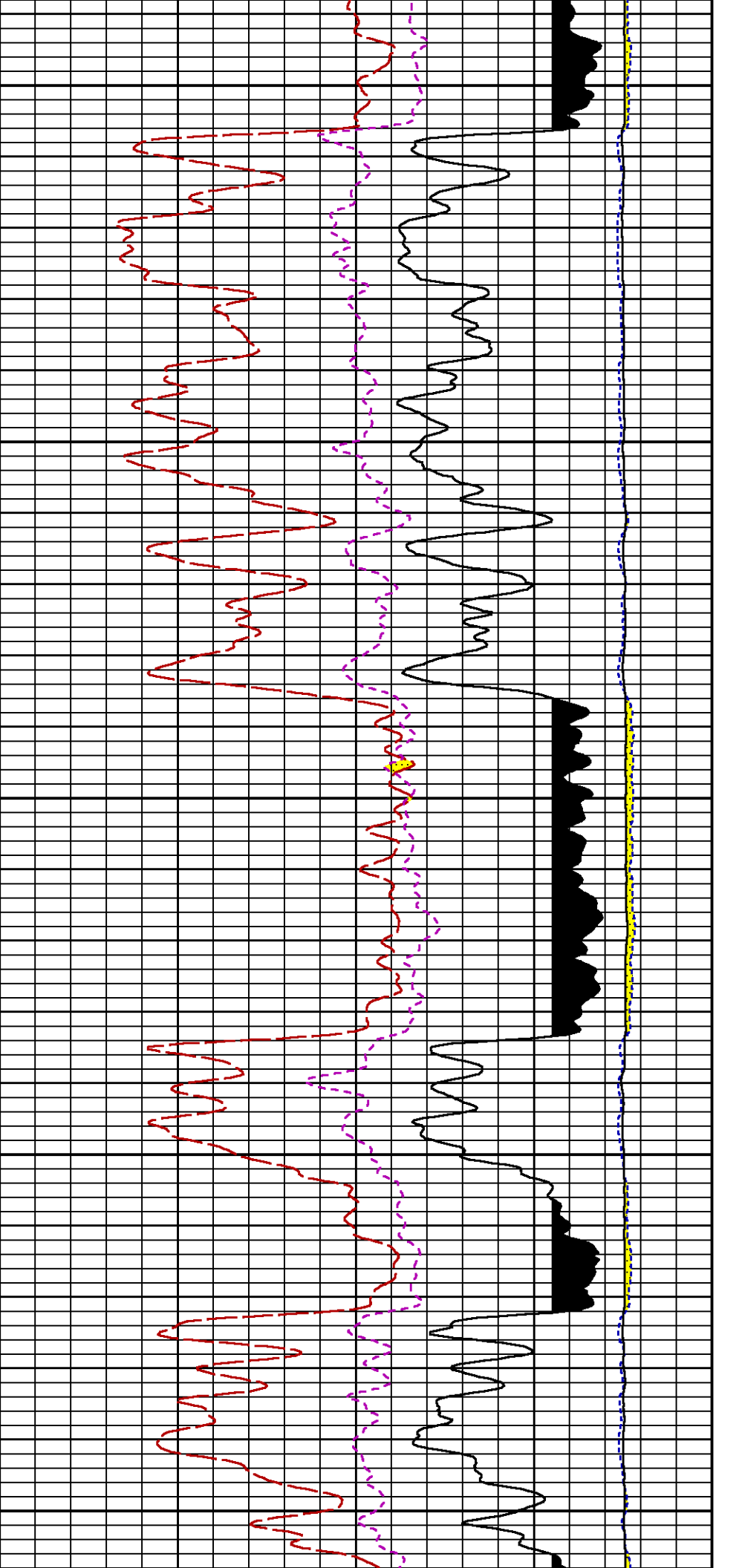


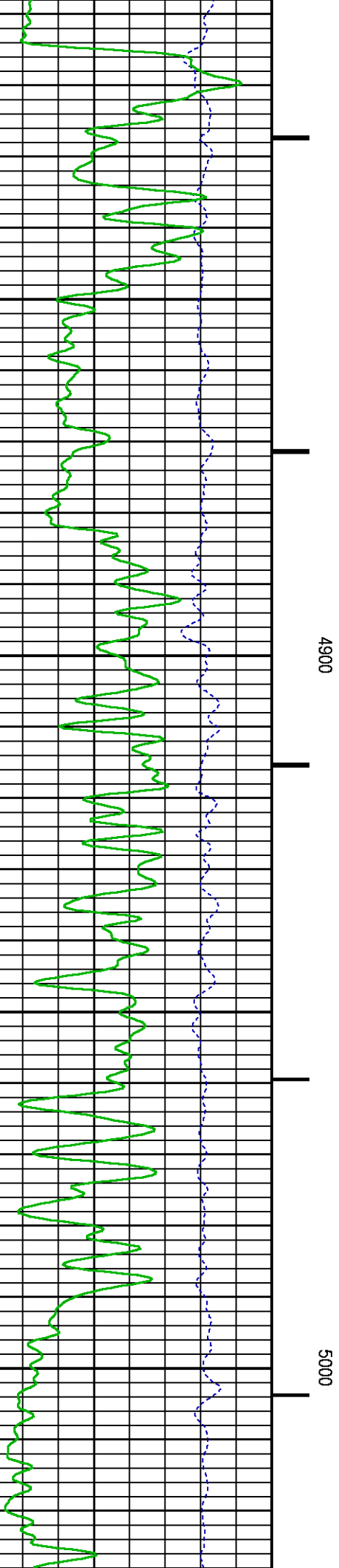
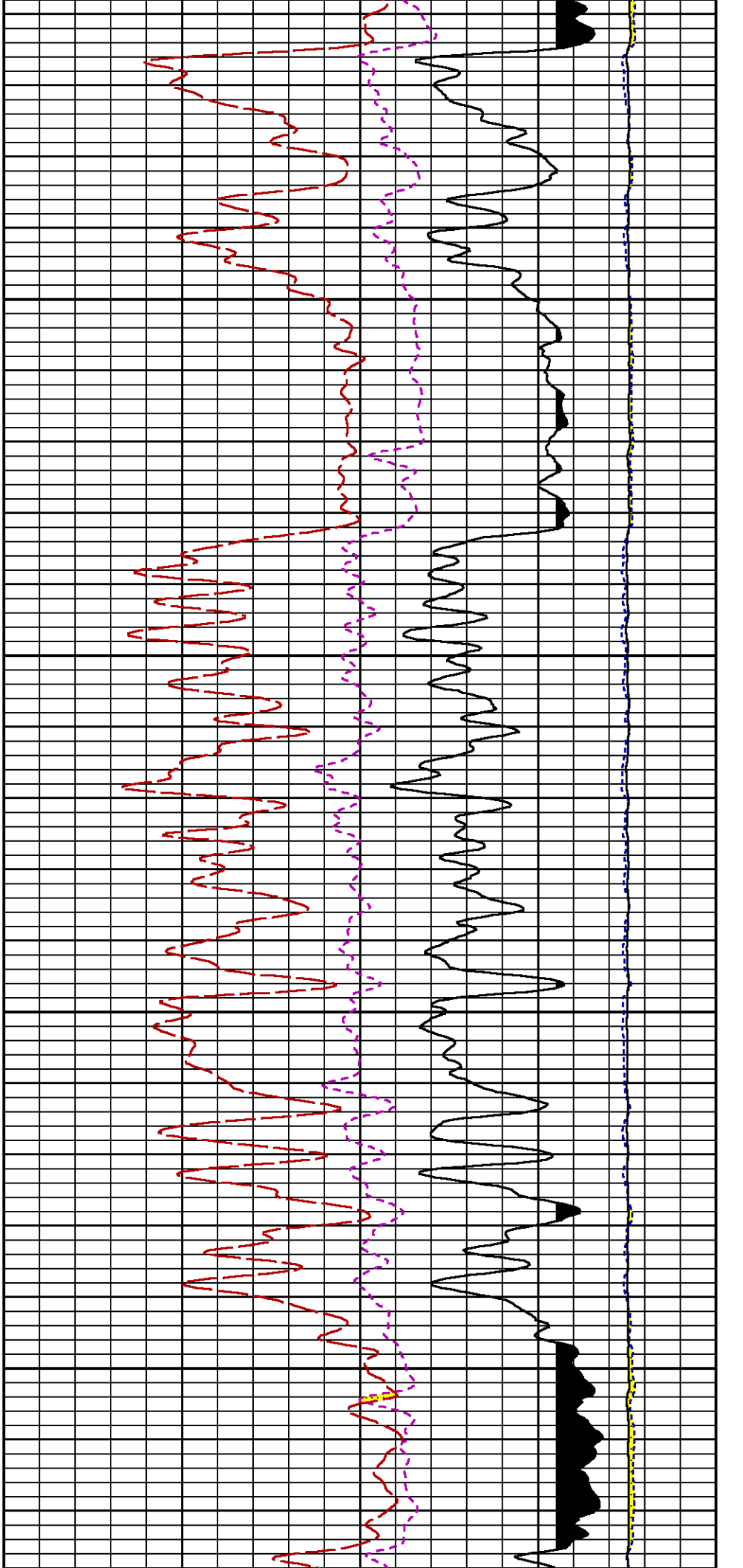


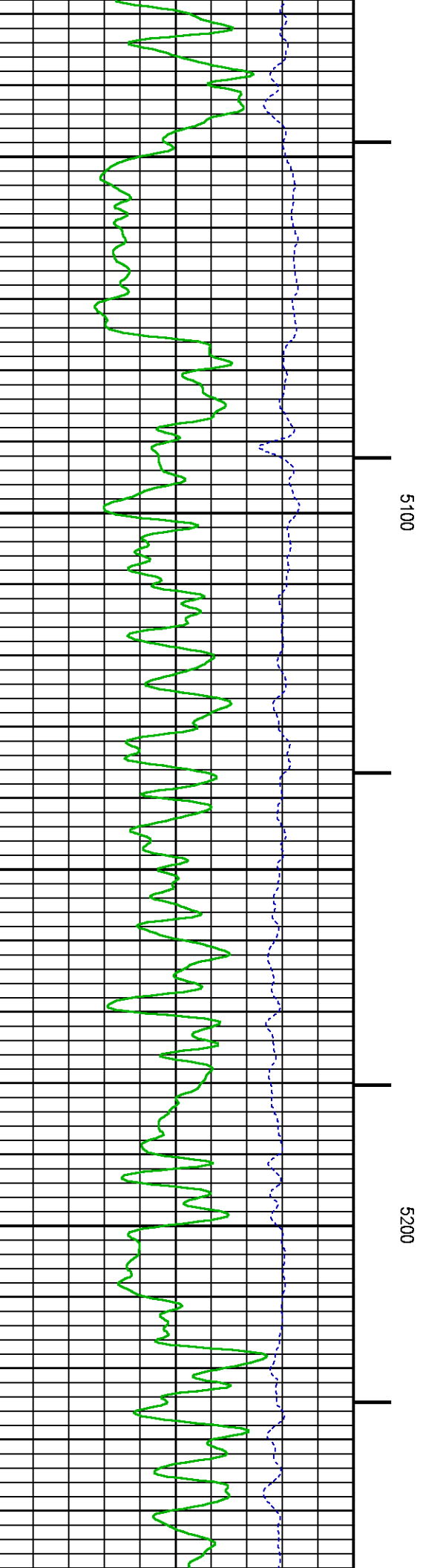
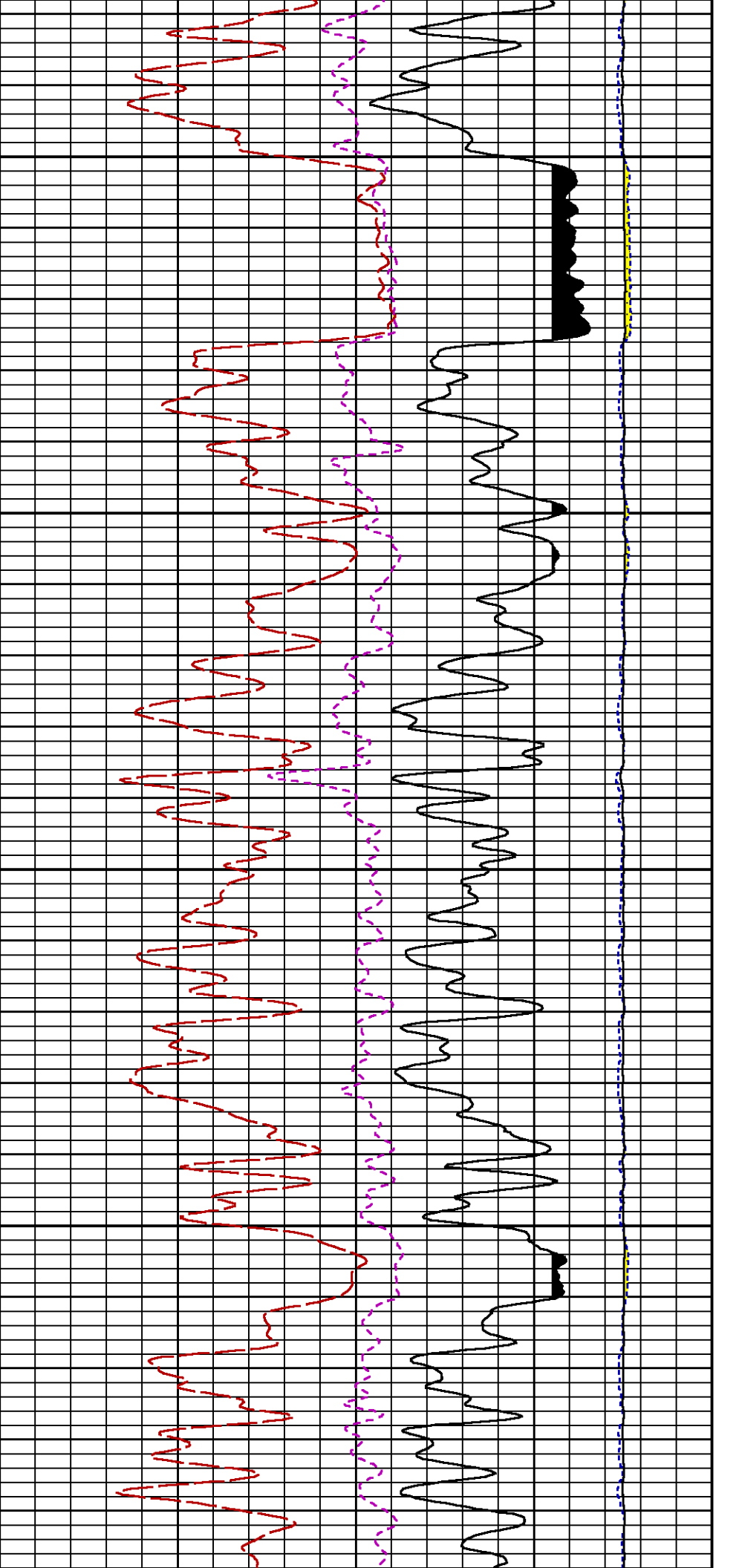


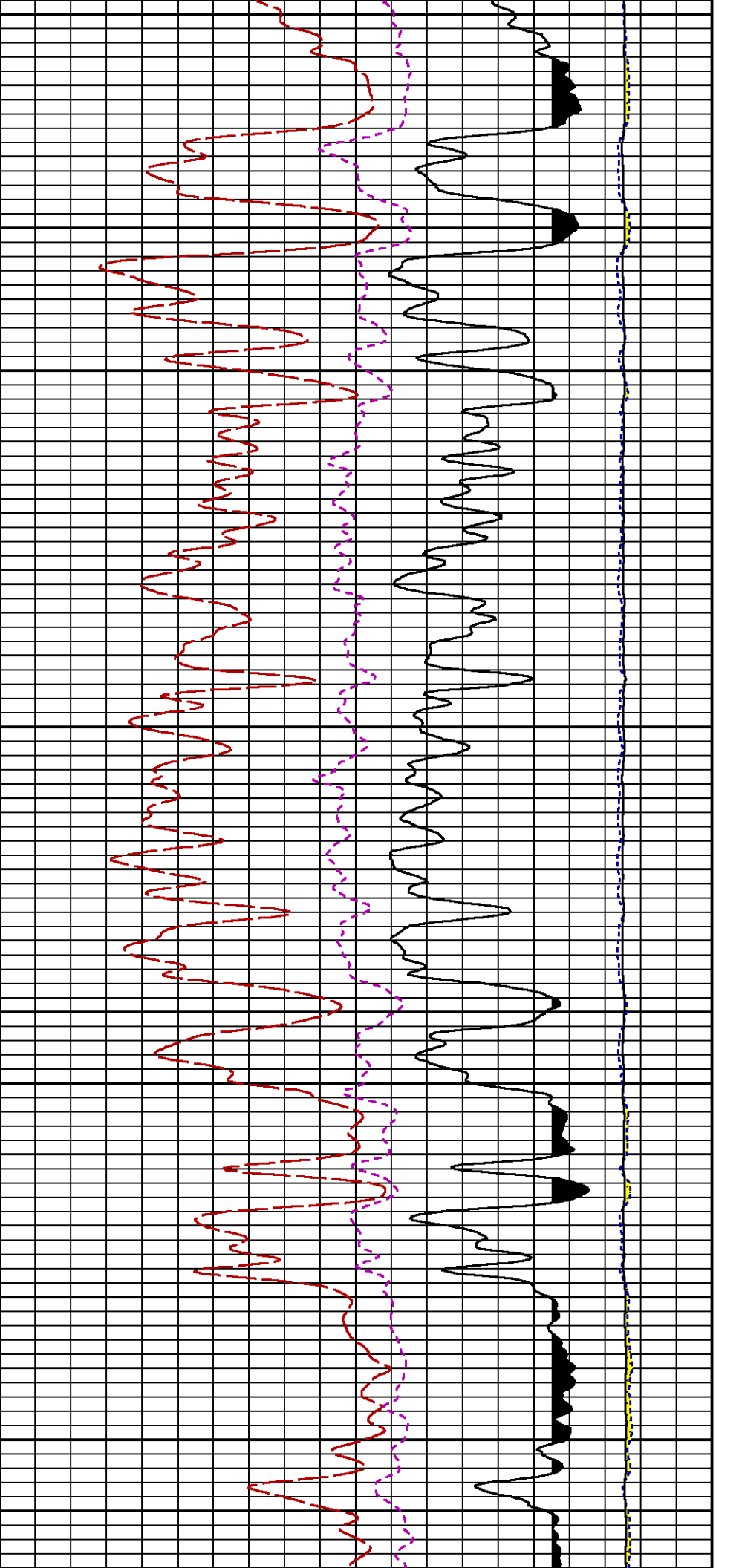






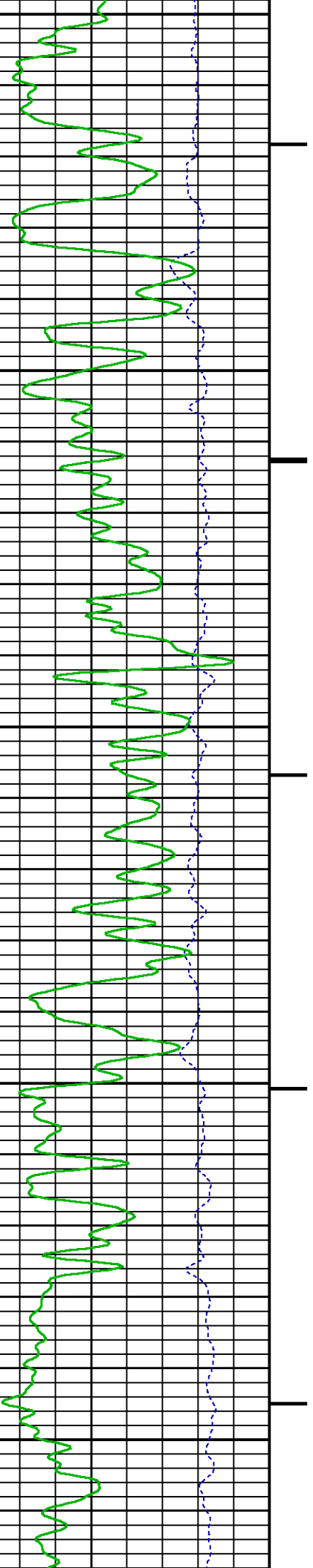


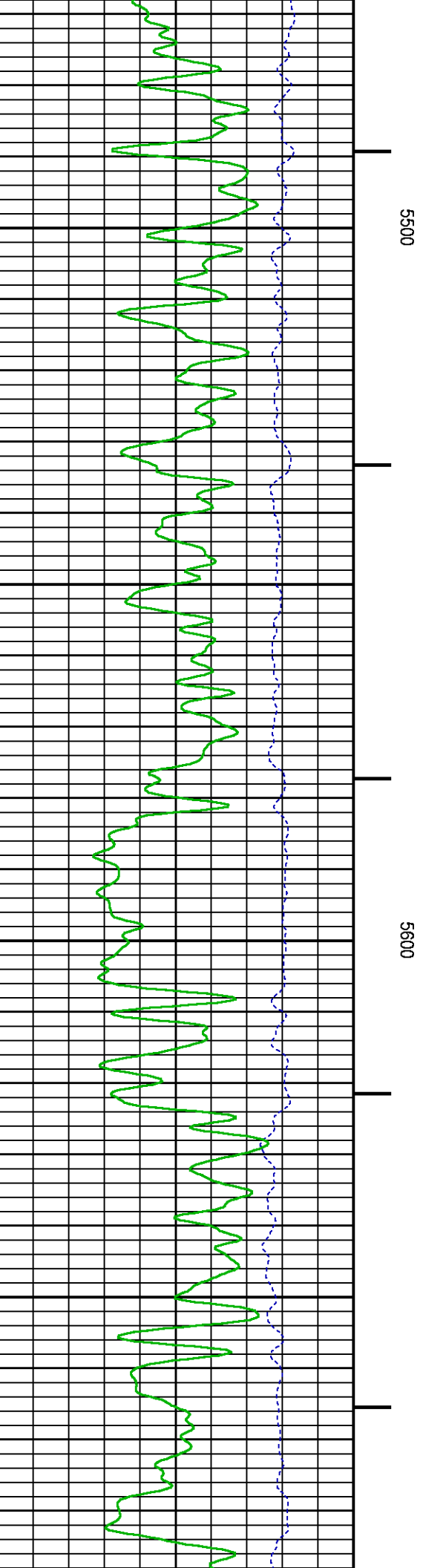
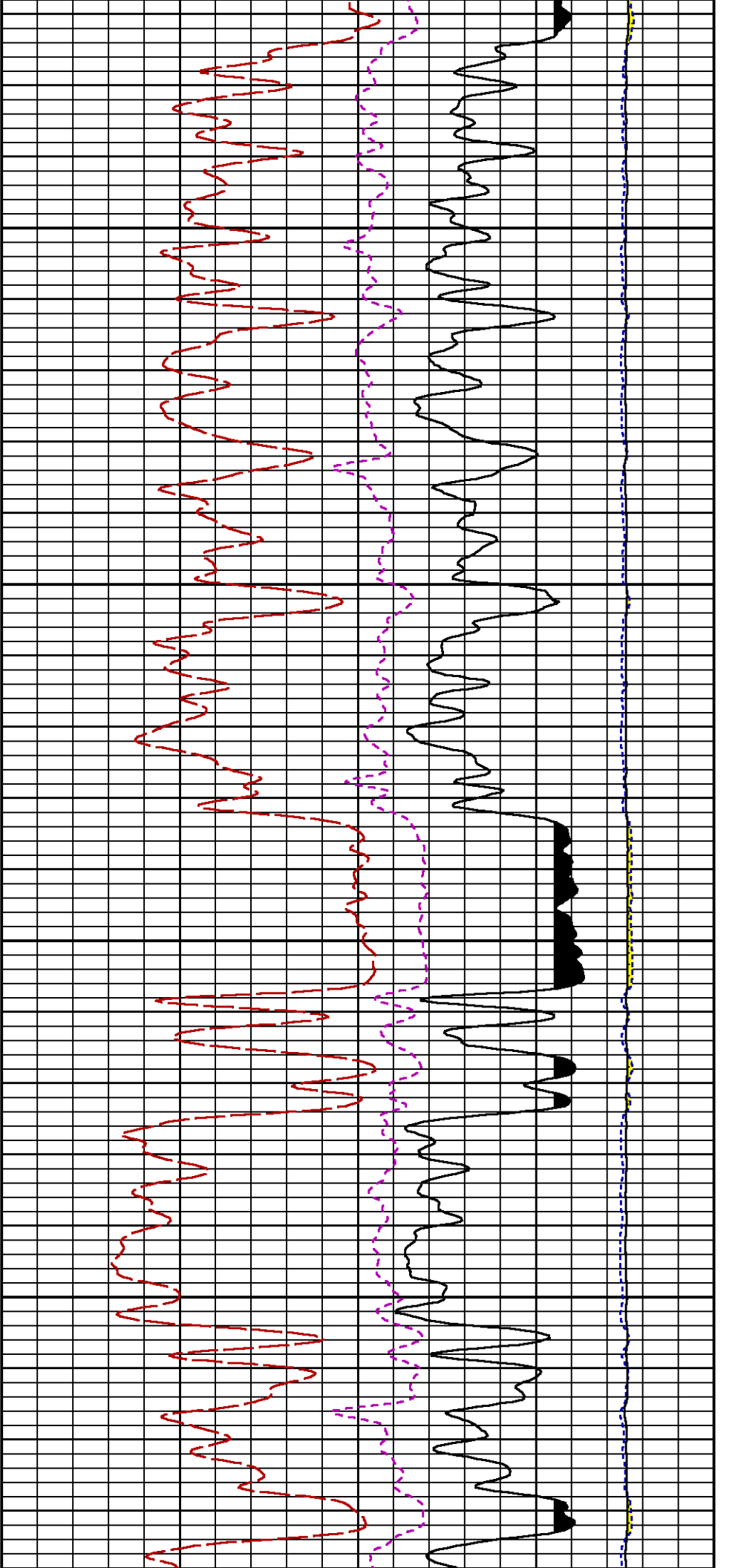


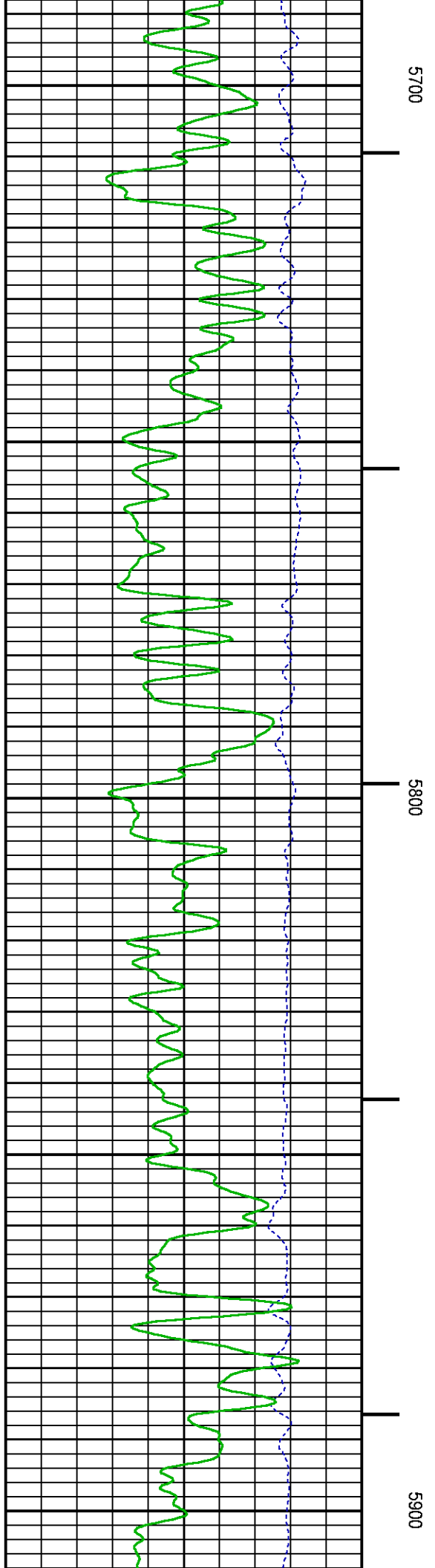
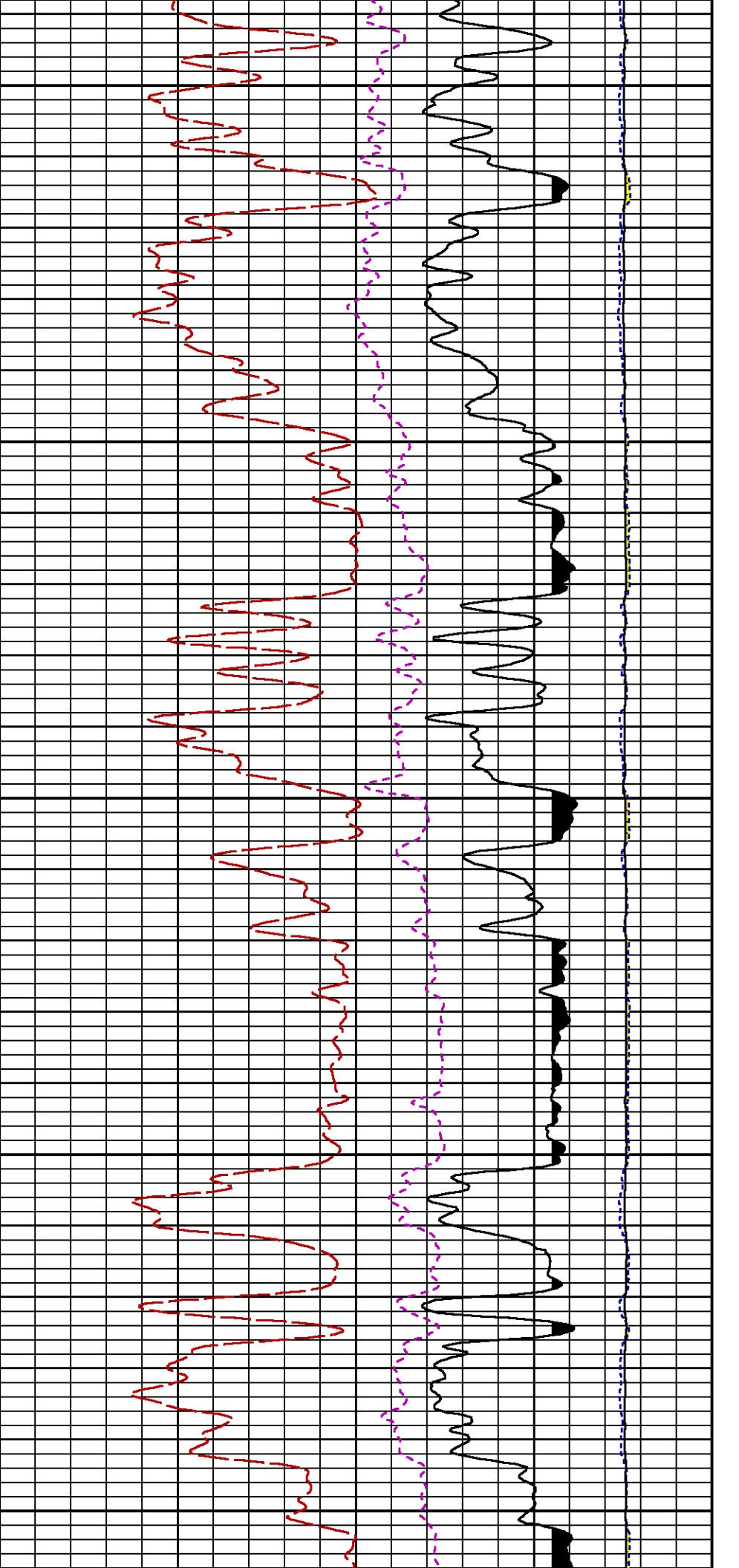


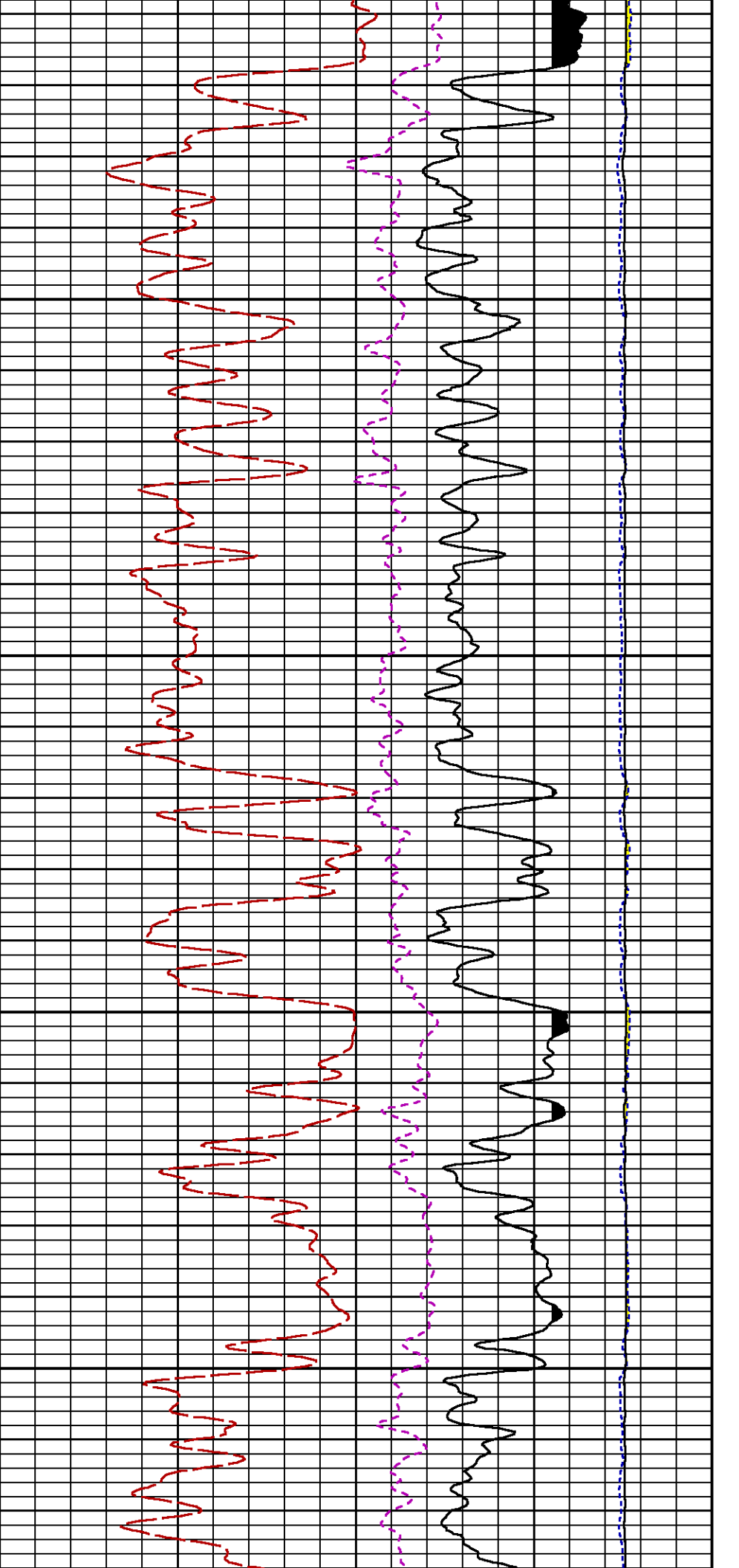
5300

5400



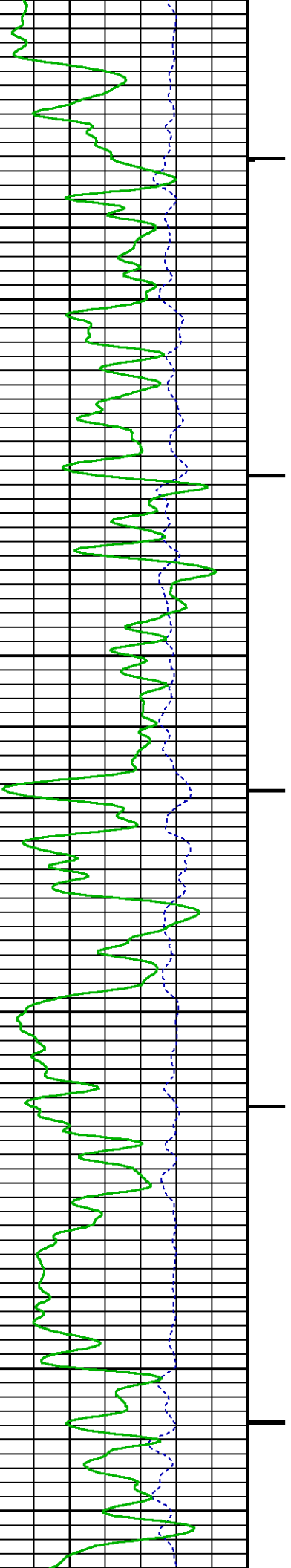


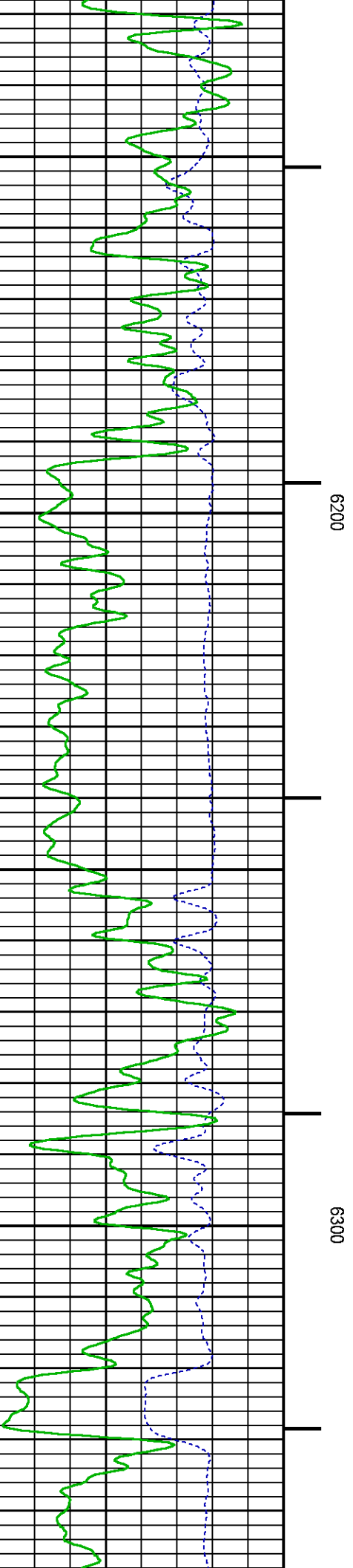
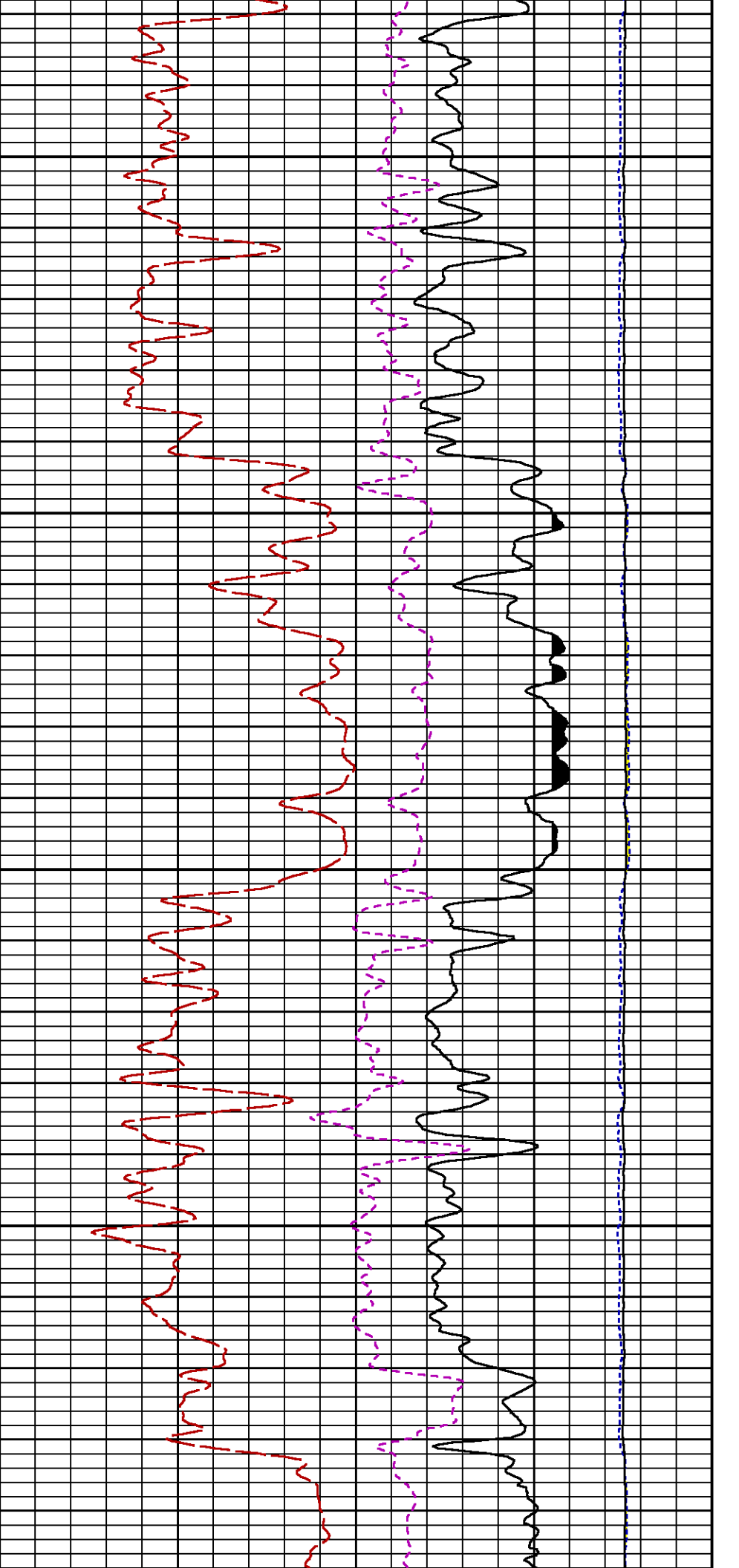


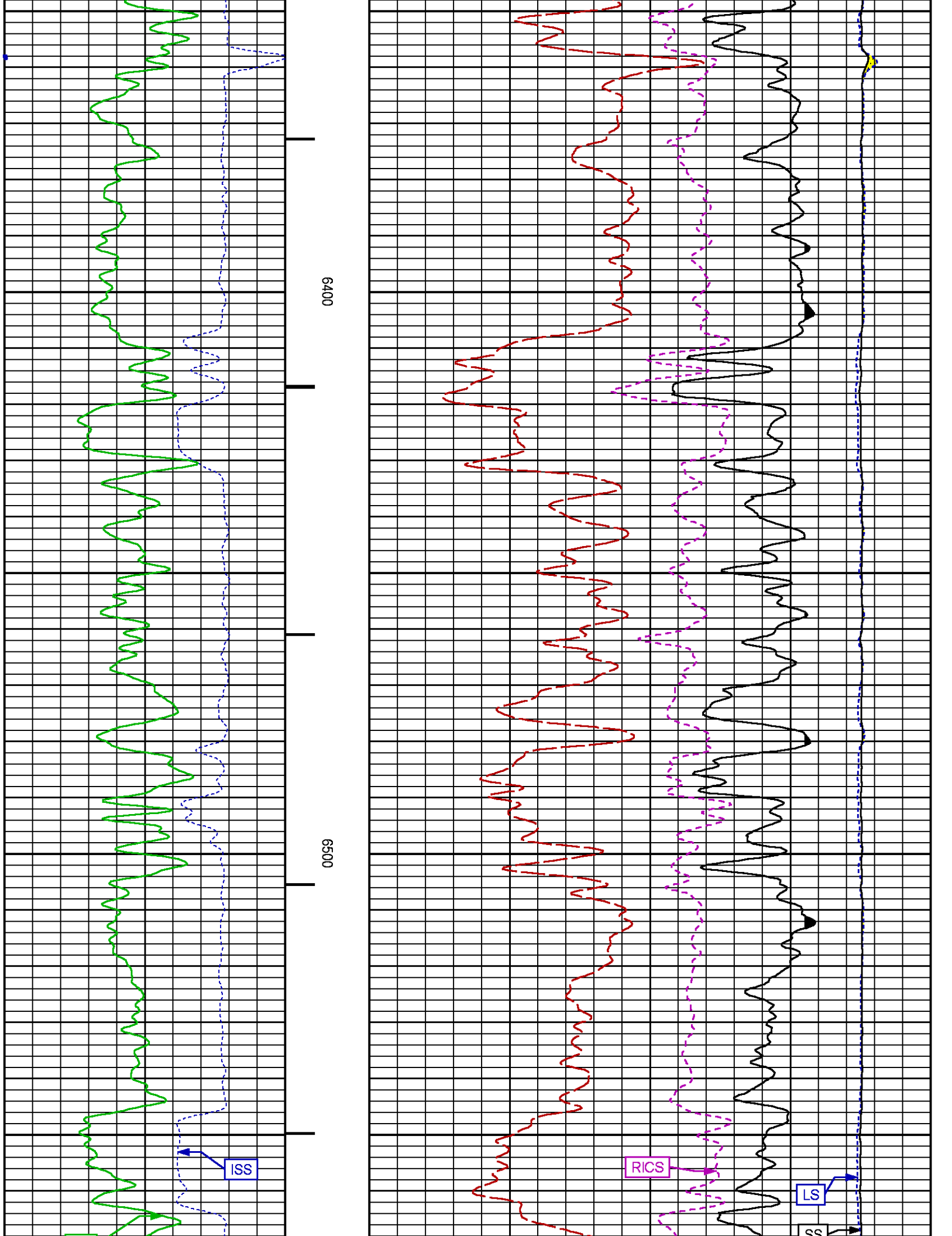


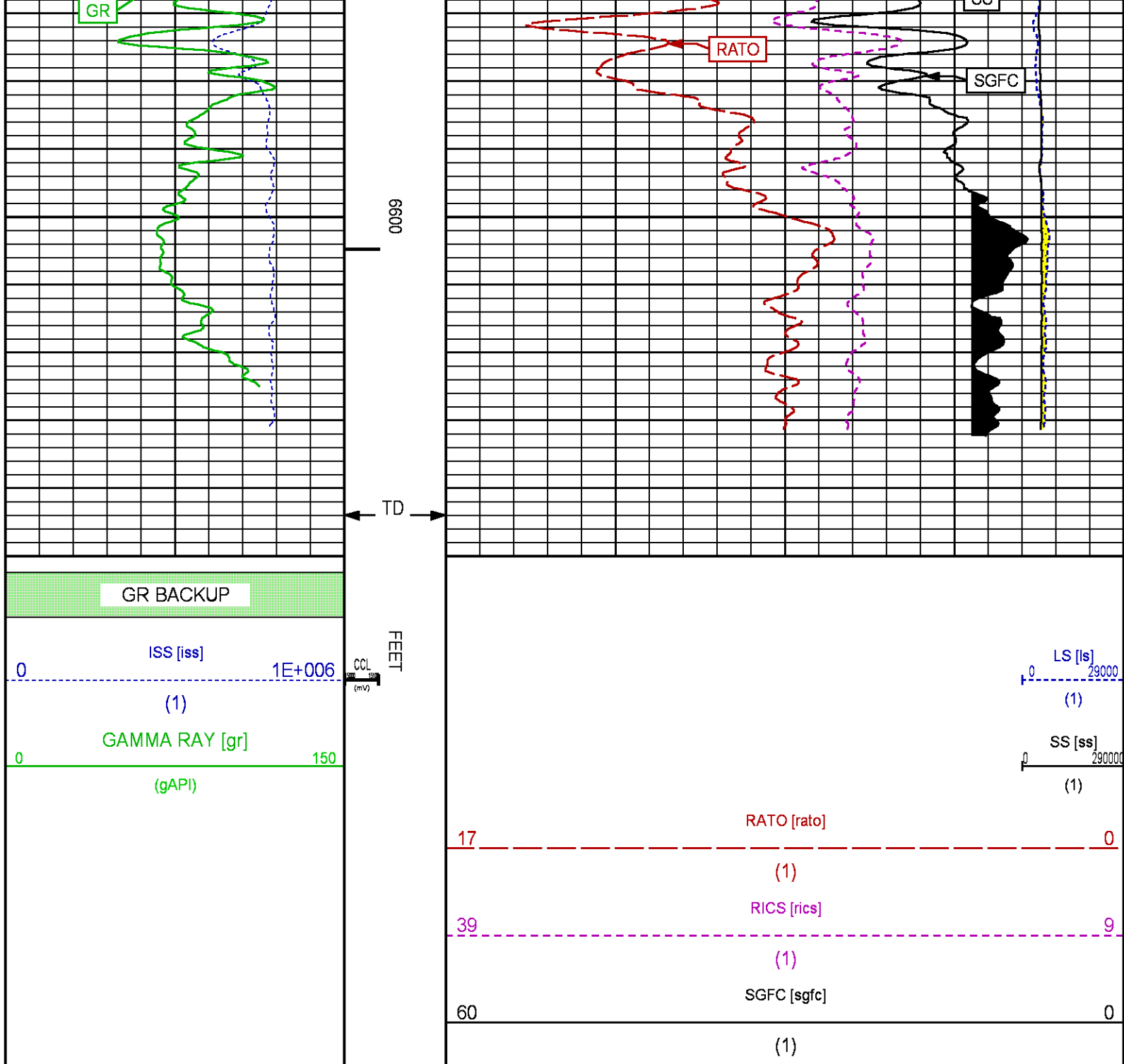
6000

6100









REPEAT SECTION PNC-3D MODE

ECLIPS 6.2wu1 PC-ECLIPS General Release Rel 6.2w Update 1 Fri Apr 25 10:54:53 Central Daylight Time 2014
Updates: 46 Patches: 5

Plotted: Mon Dec 29 14:38:59 2014

PARAMETER AND FILTER SUMMARY REPORT

FILE: C:\dat1a\093575\354h01.prm

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	Dec 29 11:54:23 2014	CASING COLLAR LOCATOR
F1:GR	Dec 29 11:54:23 2014	GAMMA RAY
F1:ISS	Dec 29 11:54:23 2014	INELASTIC SHORT SPACE COUNT RATE
F1:LS	Dec 29 11:54:23 2014	LONG SPACE COUNT RATE
F1:RATO	Dec 29 11:54:23 2014	SHORT/LONG SPACE COUNT RATE RATIO
F1:RICS	Dec 29 11:54:23 2014	SHORT SPACE INELASTIC TO CAPTURE COUNT RATE RATIO (ISS/CSS)
F1:SGFC	Dec 29 11:54:23 2014	CORRECTED FORMATION SIGMA
F1:SS	Dec 29 11:54:23 2014	SHORT SPACE COUNT RATE

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

Presentation

Plot Interval

:

BHUGHES-06627:C:\dat1a\093575\332RPM_REPEAT.fvpdf [5"/100' Scale]

5815 - 6119.75 Feet

Data File 1

Created On

Company

Well

Field

File Interval

OCT

:

F1 : BHUGHES-06627:C:\dat1a\093575\332_RPM_REPEAT.xtf

: Dec 29 11:54:23 2014

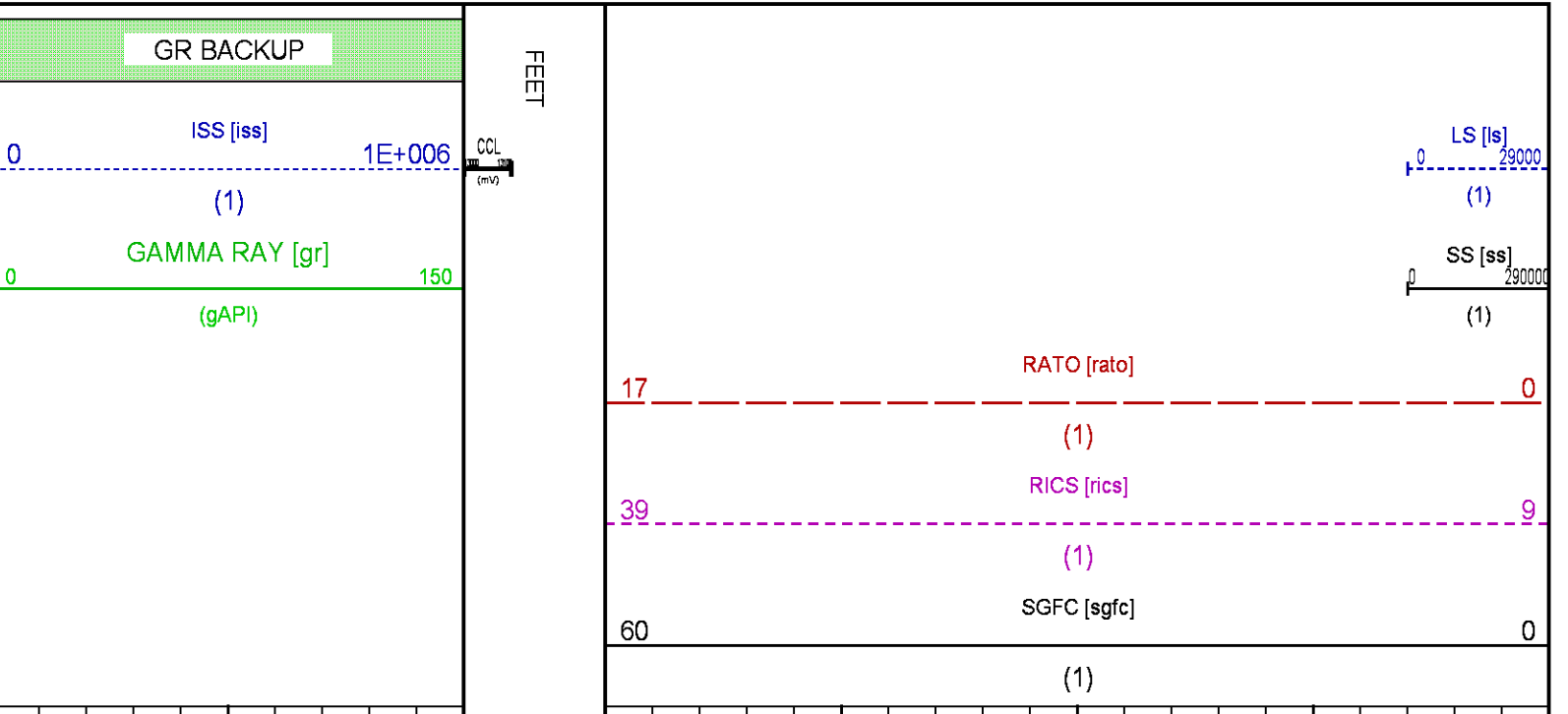
: WPX ENERGY

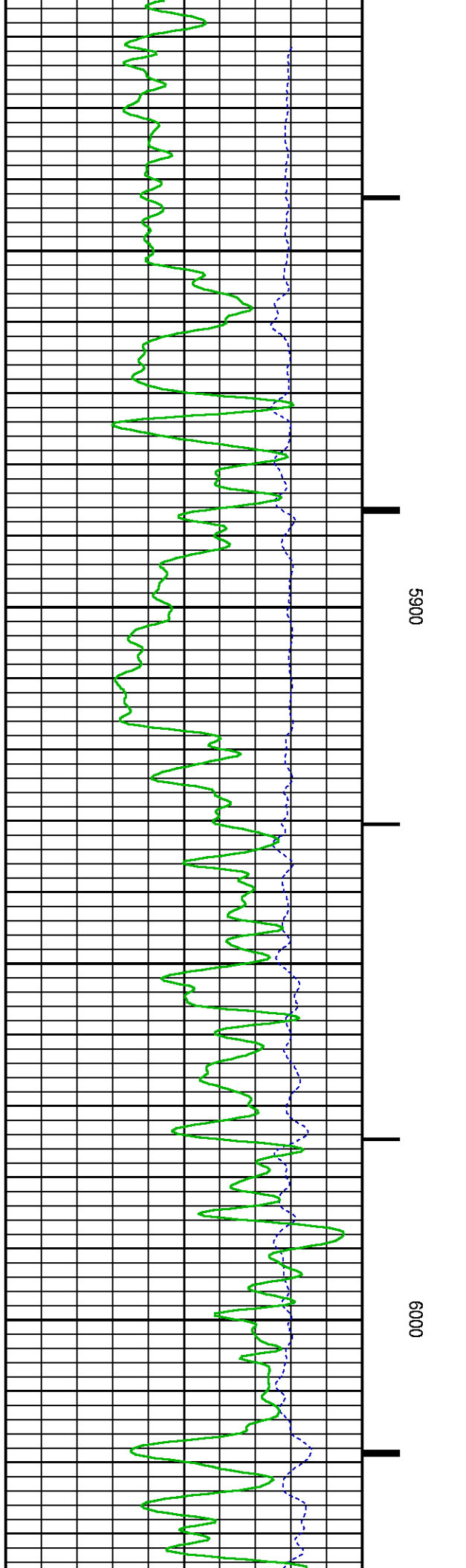
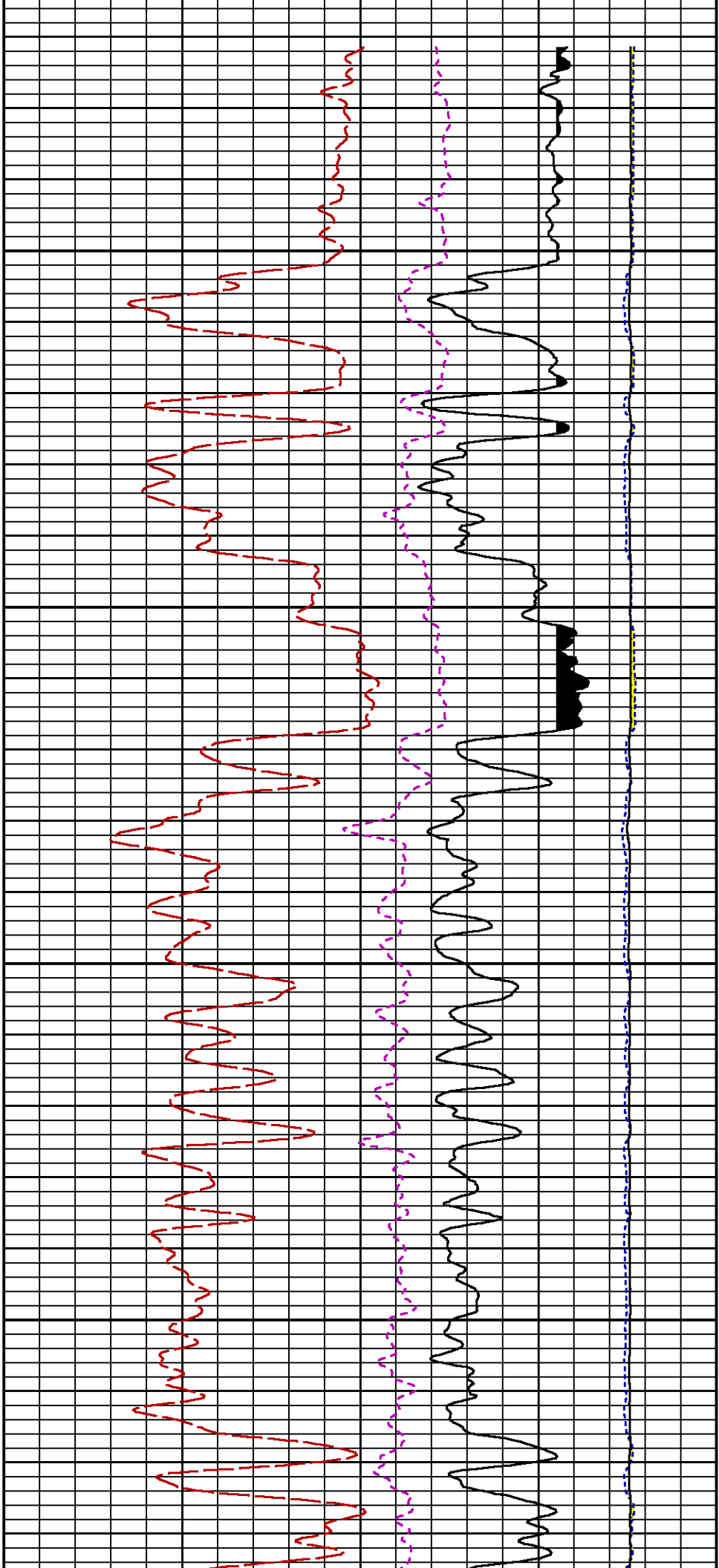
: GM 332-12

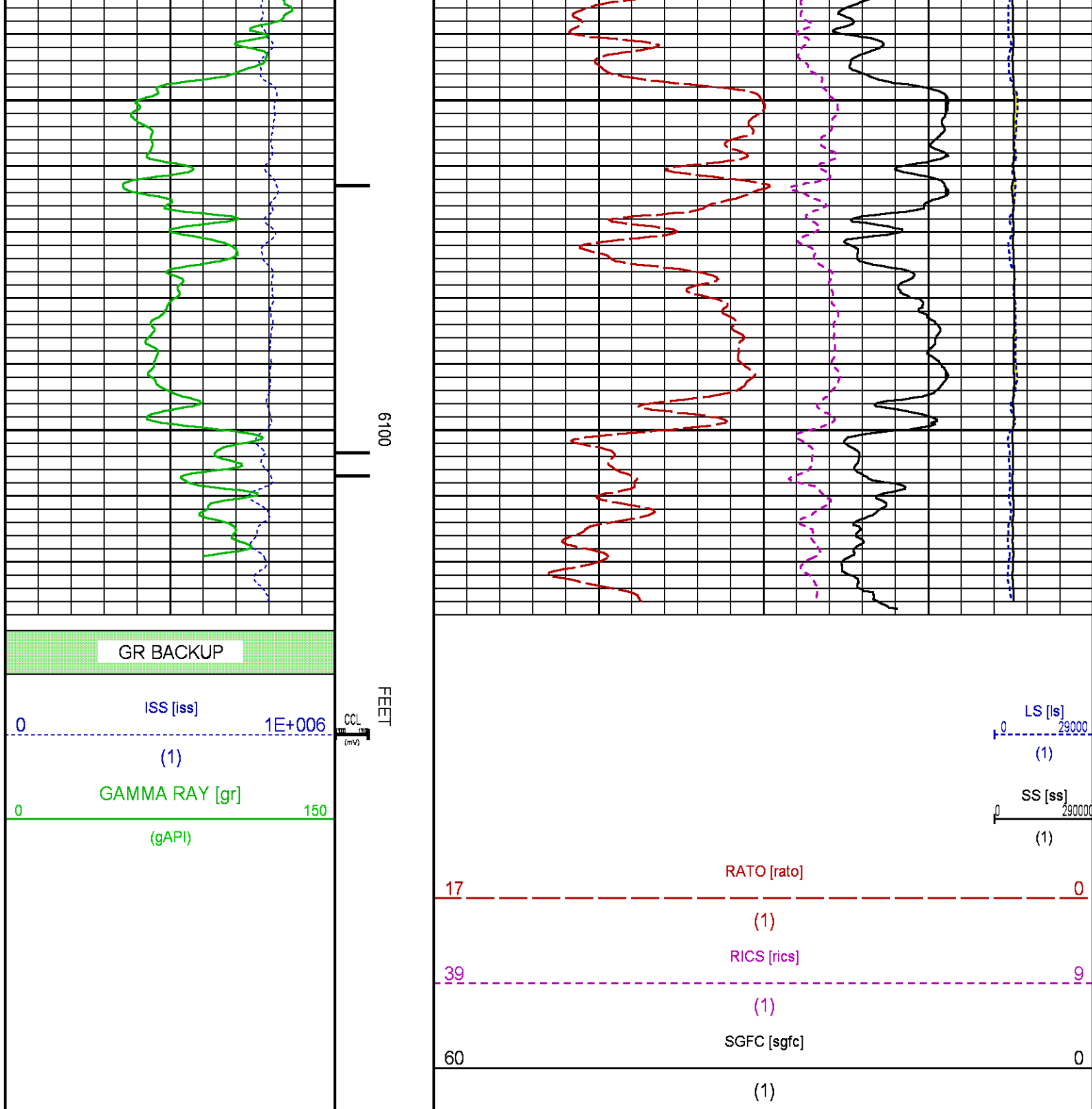
: GRAND VALLEY

: 5788.25 - 6136 Feet

: n354h







CALIBRATION / VERIFICATION SUMMARY

Source File: D:\WELLDATA\WPX\GM 332-12\354h.tp1

GR PRIMARY CALIBRATION SUMMARY

TOOL #: 2812LA 10274382

DATE/TIME PERFORMED: Tue Dec 09 14:04:49 2014

UNIT #: 3885TD Z004271

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	61.18	268.02	206.8	1.015	62.11	272.11	210

GR PRIMARY VERIFICATION SUMMARY

TOOL #: 2812LA 10274382 DATE/TIME PERFORMED: Tue Dec 09 14:07:05 2014

UNIT #: 3885TD Z004271 VERI JIG #: 4702NK WA-612

	BACKGROUND (cts/s)	CALBRTR ON (cts/s)	MULT	BACKGROUND (gAPI)	CALBRTR ON (gAPI)	DIFF. (gAPI)
GR	63.11	273.93	1.015	64.07	278.11	214.04
						200.00 220.00

RPM_PNC_3D PRIMARY CALIBRATION SUMMARY

TOOL: 8283PA 10585555 DATE/TIME PERFORMED: Tue Dec 09 13:08:21 2014

UNIT: 3885TD Z004271 CALIBRATOR: 2437XB 112674 SOURCE: 8281AA 11765054 HOURS: 8281AA 670

	ISS	Mtr Vits (V)	SS Gain	LS Gain	XLS Gain	EA Temp (degF)	Sync Delay (usec)	RCAL
Raw Data	801712	124	2342	2286	2235	111	7	0.9721

Interpolated	1300000	147	2317	2281	2228
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	ISS	BKS	BKL	BKX	SGA1	SDA1	SGA2	SDA2
Raw Data	801712	6404	989	140	26.08	0.15	24.23	0.33
					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	801712	170477	26574	89502	31836	8242	54189	13205
Fit Quality %		0.952	0.776	0.752	0.741	1.017	0.683	0.990

	ISS	RBOR	RIN ISS/ILS	RIN13 ISS/IXS	RICS ISS/CSS	RATO SS/LS	RTWO SS2/LS	RONE CSS/CLS
Raw Data	801712	1.43	4.70	30.18	14.80	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 %		0.051	0.164	0.223	0.184	0.174	0.189	0.168
Reduced	1392560	1.43	4.71	30.20	14.80	10.88	3.87	4.11
		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 120516 DATE/TIME PERFORMED: Tue Nov 18 15:59:55 2014

UNIT #: 2570LE 4271

	T(0)	T(1)	T(2)	T(3)
Corr Coeff for Temp	-8.673169E+00	9.576065E-02	6.395448E-06	-9.461013E-10

INSTRUMENT CONFIGURATION

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

SONDEX GAMMA RAY

Diameter : 1.69"
Length : 2.17'
Weight : 11 lbs
Series : 2812LA
Mnemonic : GR
Measure Point: 0.63': 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
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
 PRES MP

1.65'

BULL PLUG 1 11/16

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

0.00'

	COMPANY <u>WPX ENERGY</u>		FILE NO: <u>CH093575</u>
	WELL <u>GM 332-12</u>		API NO: <u>05045224670000</u>
	FIELD <u>GRAND VALLEY</u>		
	COUNTY <u>GARFIELD</u>	STATE <u>COLORADO</u>	
LOCATION: SHL: 1189' FNL & 1905' FWL BHL: 2530' FNL & 2208' FEL (SWNE)		ELEVATIONS: KB 5151 FT DF GL 5125 FT	12 7S 96W GM 21-12 PAD NABORS 573
SEC <u>12</u> TWP <u>7S</u> RGE <u>96W</u>		DATE <u>29-Dec-2014</u>	