



FILE NO: CH092537	COMPANY WELL FIELD COUNTY	WPX ENERGY WPX ENERGY GM 414-33 GRAND VALLEY GARFIELD STATE CO
API NO: 05045224900000		

Ver. 3.87 33 6S 96W GM 13-33 PAD CYCLONE 17	LOCATION: SHL: 2301' FSL & 1140' FWL BHL: 703' FSL & 938' FWL SEC 33 TWP 6S RGE 96W	OTHER SERVICES CBL
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PERMANENT DATUM LOG MEASURED FROM DRILL. MEAS. FROM	GL KB KB GL	ELEVATION 5743 FT 21 FT ABOVE P.D. 5743 FT
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DATE	16-Nov-2014
RUN	1
SERVICE ORDER	US092537
DEPTH DRILLER	6917 FT
DEPTH LOGGER	6902 FT
BOTTOM LOGGED INTERVAL	6892 FT
TOP LOGGED INTERVAL	3665 FT
TIME STARTED	11:00
TIME FINISHED	15:30
OPERATOR RIG TIME	4.5 HOURS
TYPE OF FLUID IN HOLE	WATER
FLUID DENSITY	NA
FLUID SALINITY	NA
FLUID LEVEL	67 FT
LOGGED CEMENT TOP	NA
WELLHEAD PRESSURE	0 PSI
MAXIMUM HOLE DEVIATION	NA
NOMINAL LOGGING SPEED	10 FMIN
MAX. RECORDED TEMP.	238 DEGF
REFERENCE LOG	BAKER HUGHES BOND LOG
REFERENCE LOG DATE	16-Nov-2014
EQUIP. NO.	HL-6670
LOCATION	GRAND JCT.
RECORDED BY	NEWELL
WITNESSED BY	COLE APPLGATE

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	1044 FT
8.75 IN	1044 FT	6966 FT

CASING RECORD				
SIZE	WEIGHT	GRADE	FROM	TO
9.625 IN			0 FT	1044 FT
4.5 IN	11.6 LB/F	I-80	0 FT	6966 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 16/NOV/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.

The amount of linear shift is 3 feet.

Logged in PNC-3D mode.

BHT = 238 degF

SJ = 3350' - 3371'

## 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	2812LA	11701636	FREE
1	1	RPM	8281EA	10190984	FREE
1	1	RPM	8283PA	10160383	FREE
1	1	RPM	8281FA	10307727	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 Patches: 4

Plotted: Sun Nov 16 15:12:29 2014

## PARAMETER AND FILTER SUMMARY REPORT

FILE: /dat1a/CH092537/n354h02.prm  
 LOGGING MODE: DEPTH DIRECTION: UP  
 TOP DEPTH: 3655.000 ft BOTTOM DEPTH: 6919.250 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	8.75	in	" "
	CASING SIZE	4.50	in	" "
	MATRIX	SANDSTONE		" "
	CORRECTION BUFFER	11		" "

## CURVE DESCRIPTION REPORT

CURVE NAME	CREATION DATE	CURVE DESCRIPTION
F1:CCL	Nov 16 11:45:11 2014	CASING COLLAR LOCATOR
F1:GR	Nov 16 11:45:11 2014	GAMMA RAY
F1:ISS	Nov 16 11:45:11 2014	INELASTIC SHORT SPACE COUNT RATE
F1:LS	Nov 16 11:45:11 2014	LONG SPACE COUNT RATE
F1:RATO	Nov 16 11:45:11 2014	SHORT/LONG SPACE COUNT RATE RATIO
F1:RICS	Nov 16 11:45:11 2014	SHORT SPACE INELASTIC TO CAPTURE COUNT RATE RATIO (ISS/CSS)
F1:SGFC	Nov 16 11:45:11 2014	CORRECTED FORMATION SIGMA
F1:SS	Nov 16 11:45:11 2014	SHORT SPACE COUNT RATE

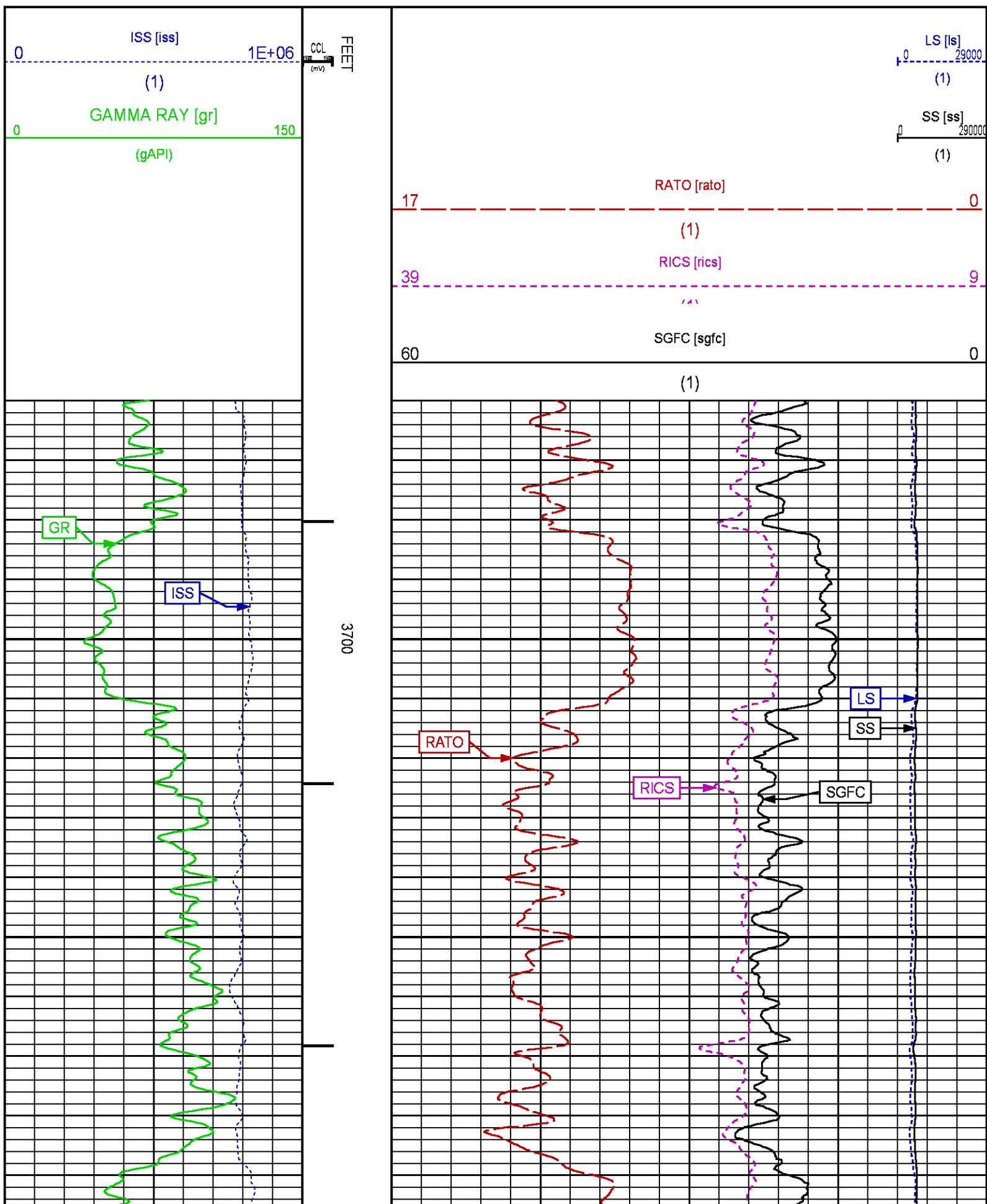
## CURVE MEASURE POINT OFFSET

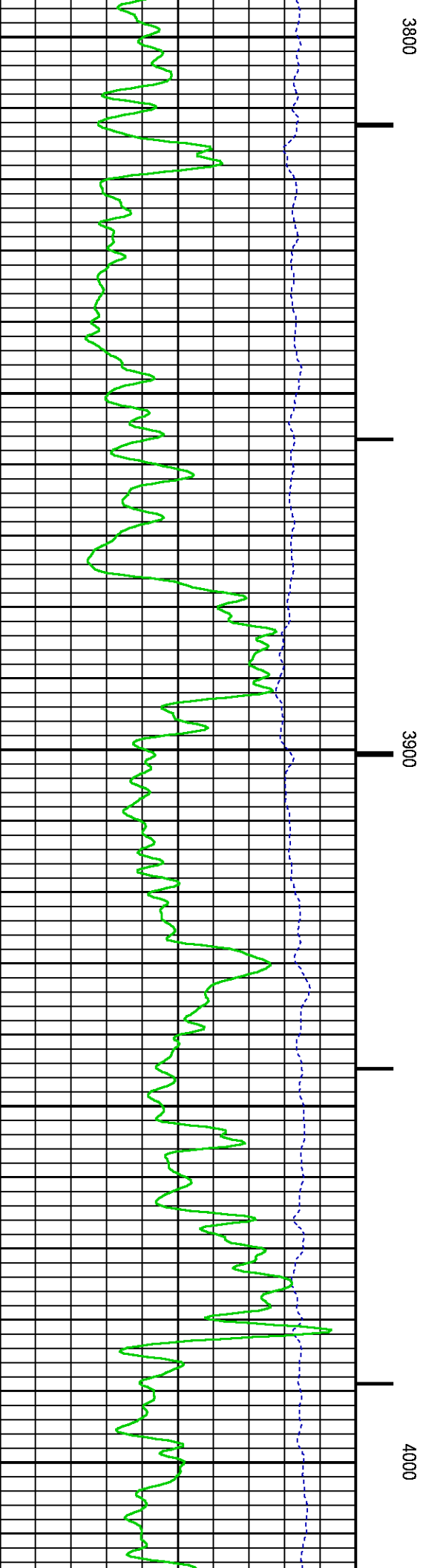
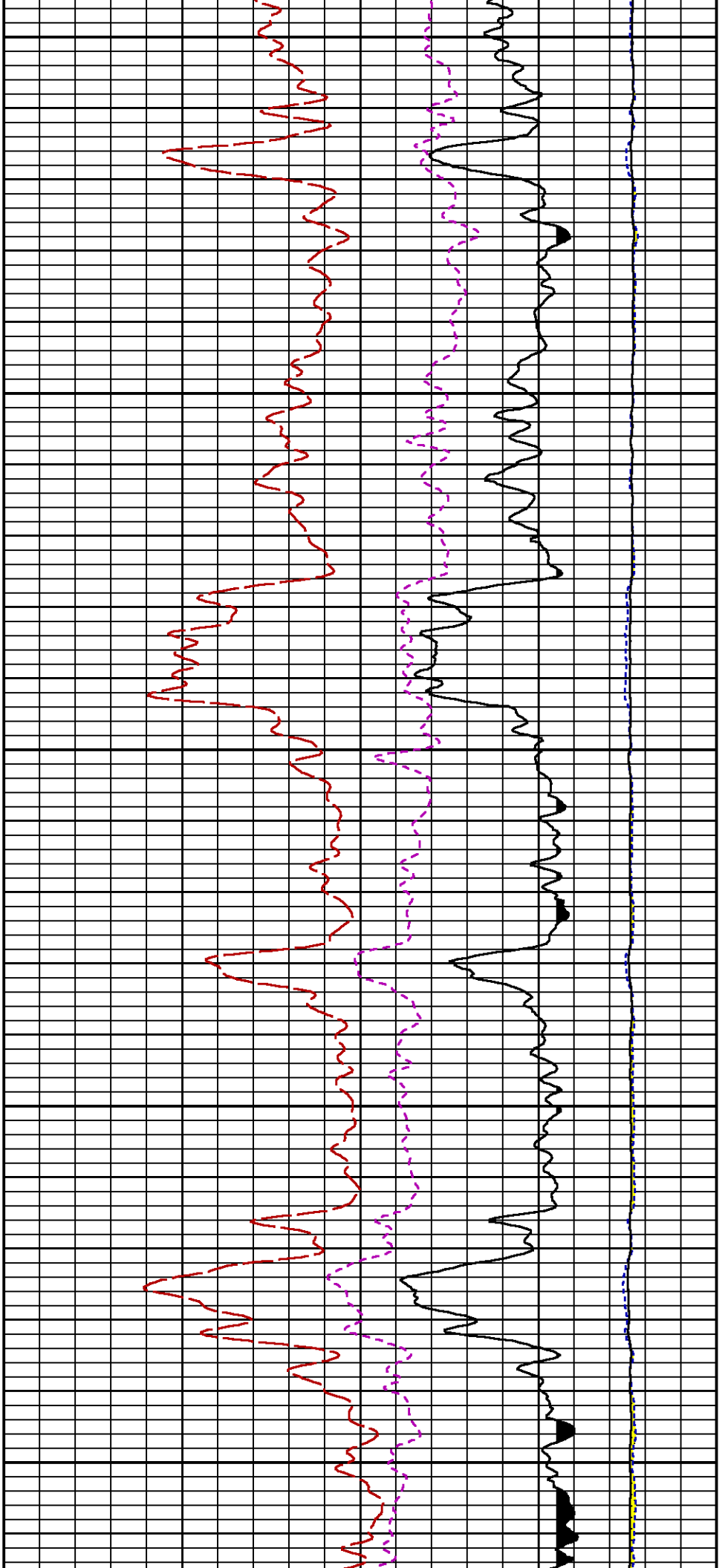
CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)
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GR	22.75	LS	12.75	RICS	12.75	SS	12.75

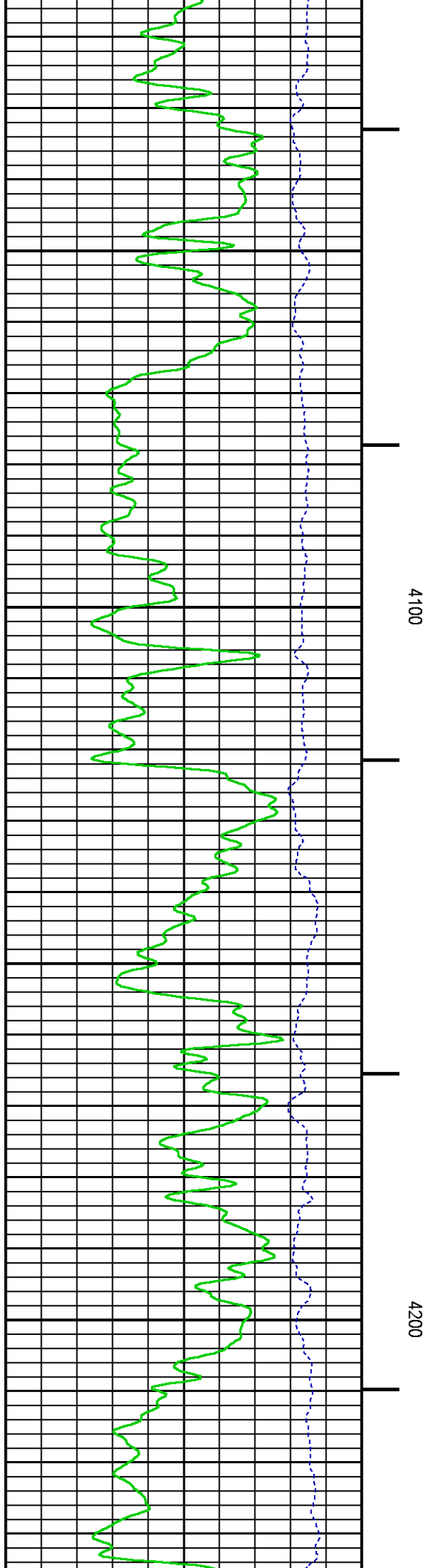
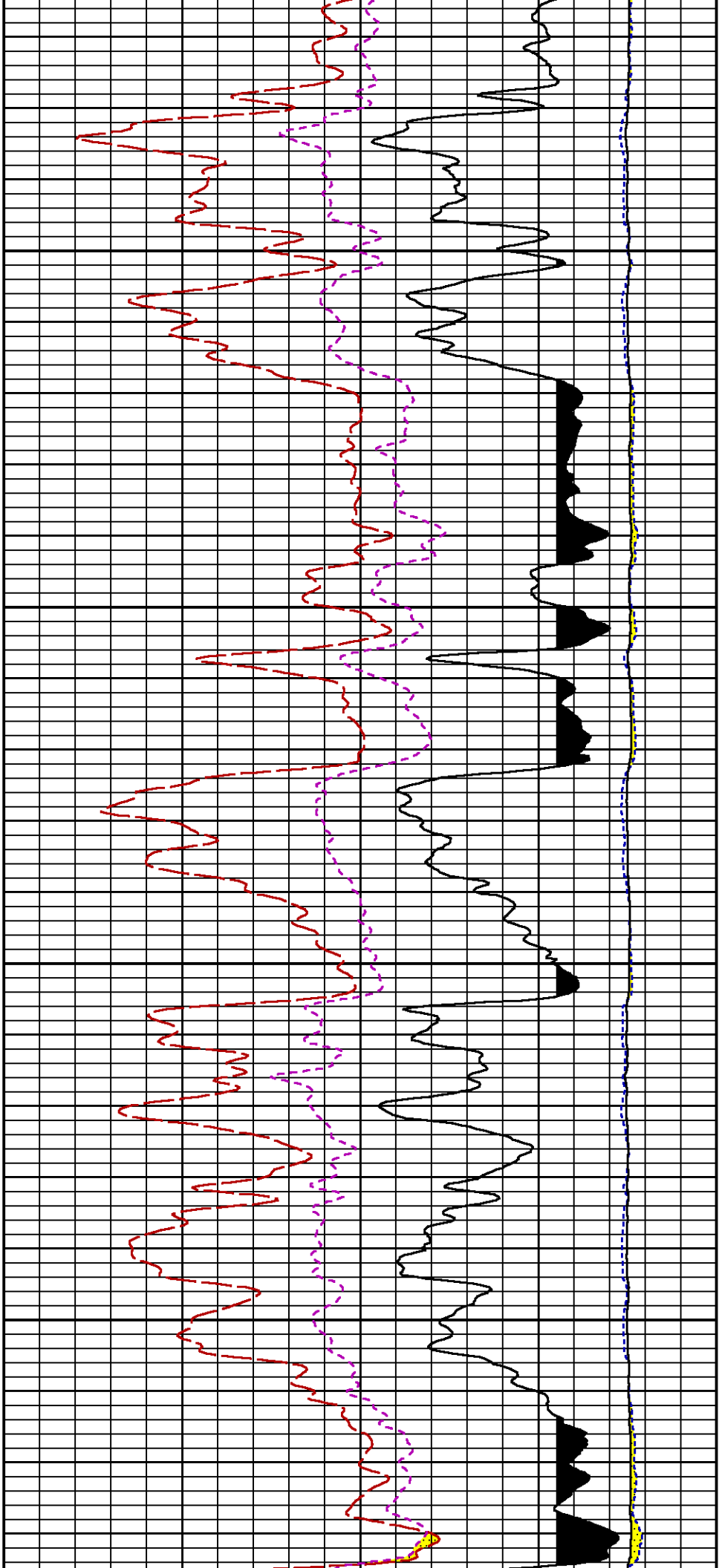
Presentation : HL6670:/dat1a/CH092537/414RPM\_MAIN.fvpdf [5"/100' Scale]  
 Plot Interval : 3660 - 6907 Feet

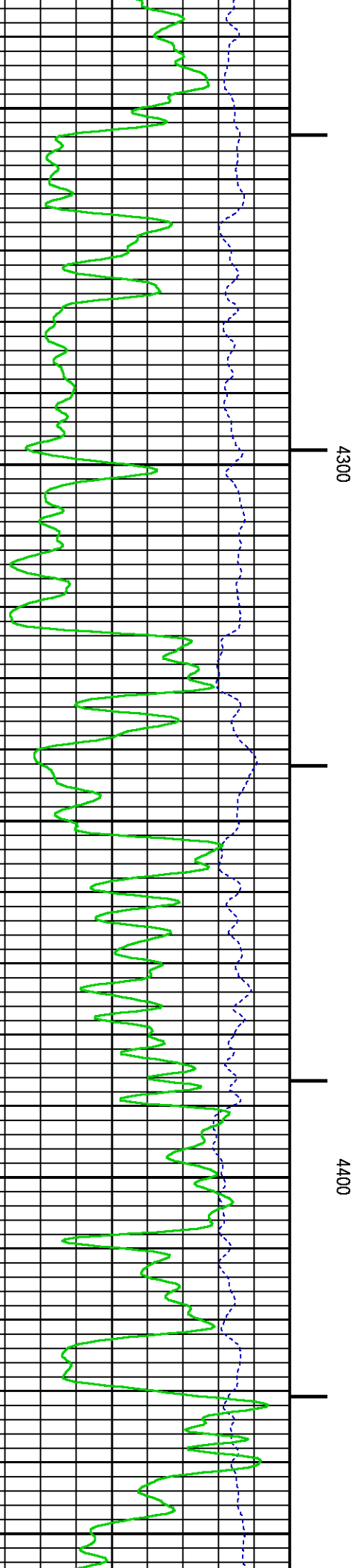
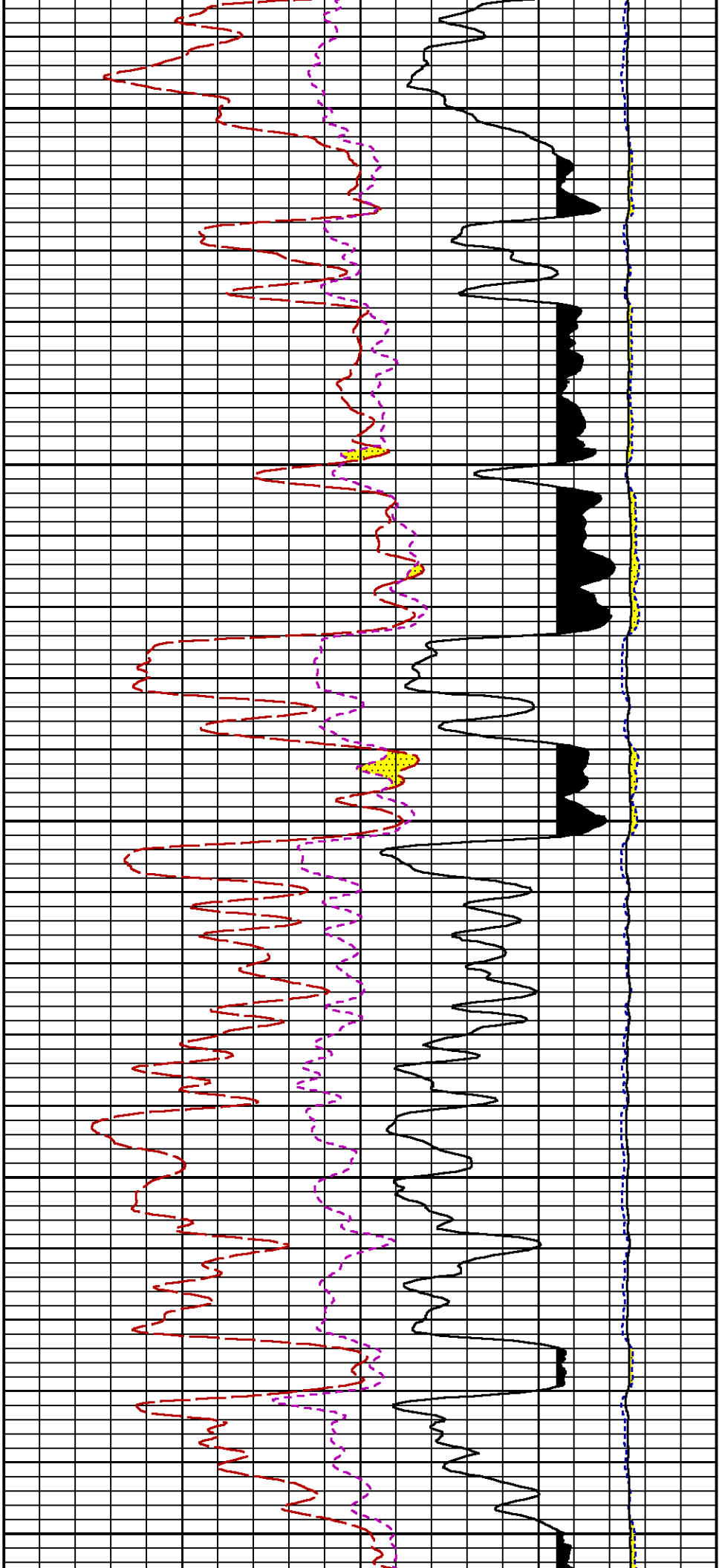
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 Created On : Nov 16 11:45:11 2014

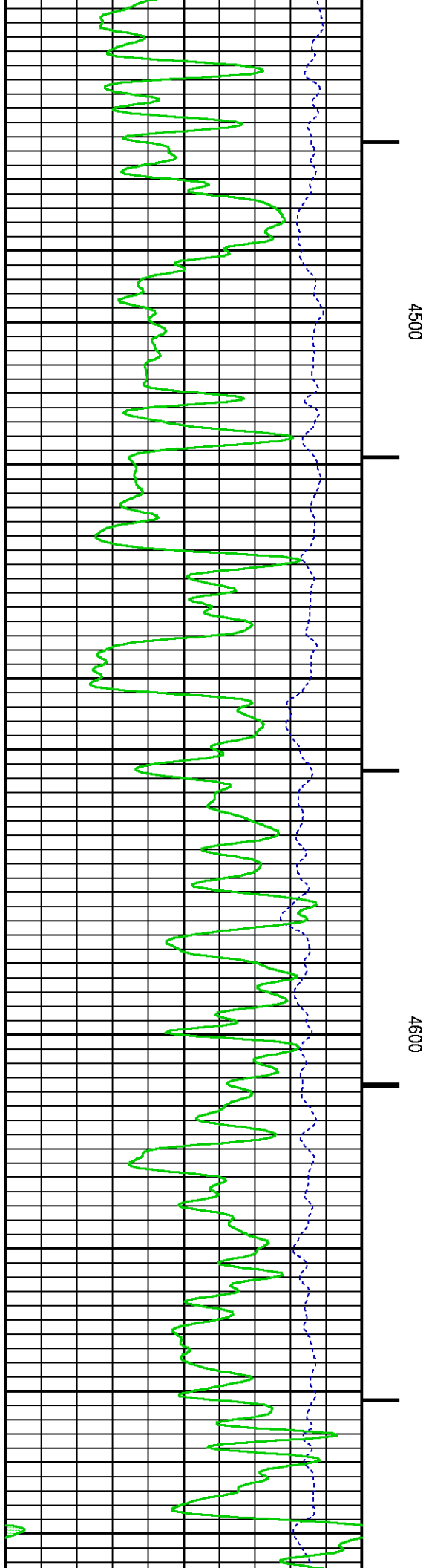
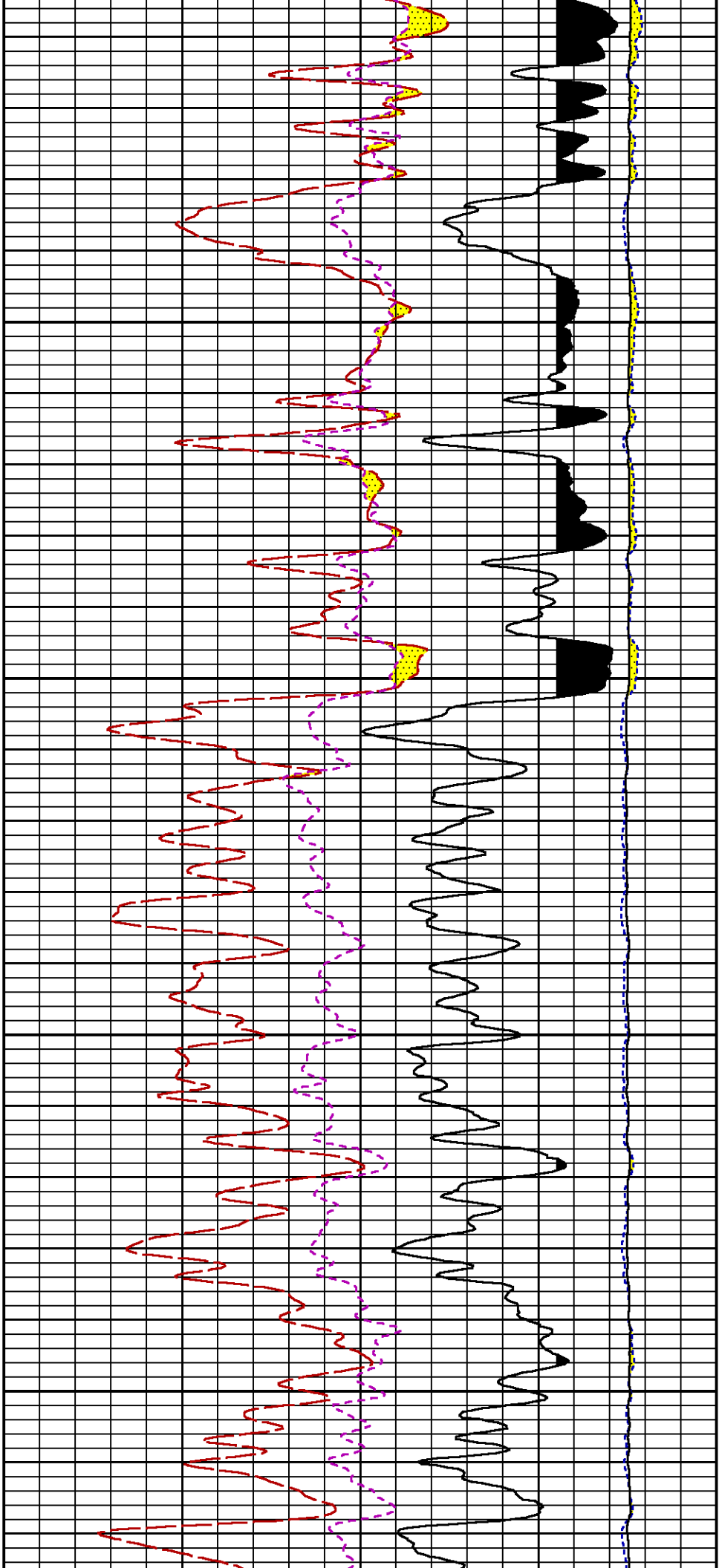
Created On : NOV 10 11:45:11 2014  
Company : WPX ENERGY  
Well : WPX ENERGY GM 414-33  
Field : GRAND VALLEY  
File Interval : 21 - 6919.25 Feet  
OCT : n354h

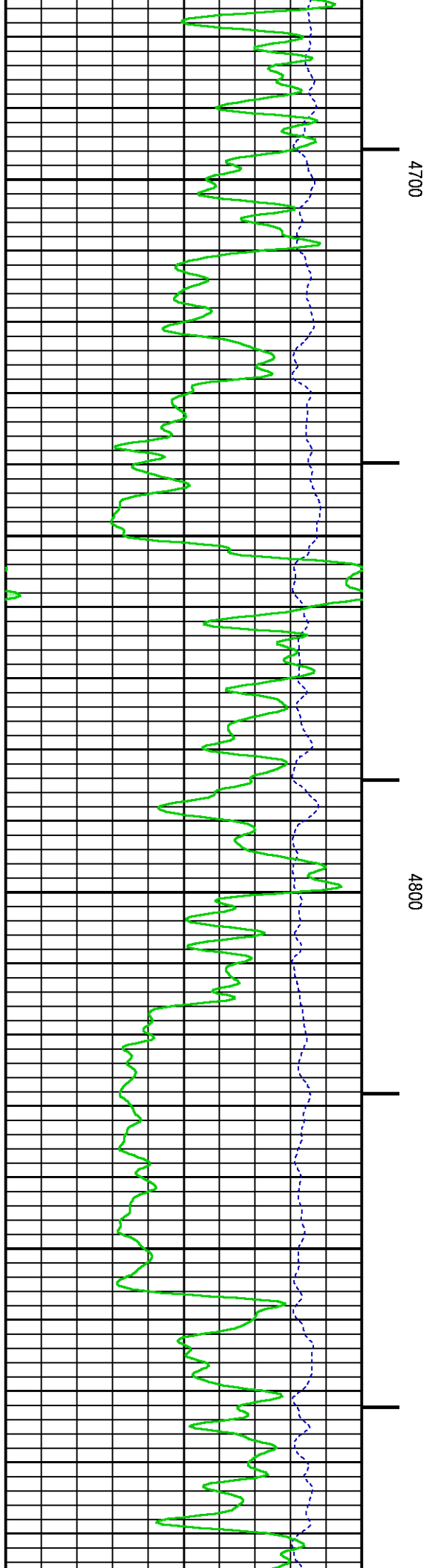
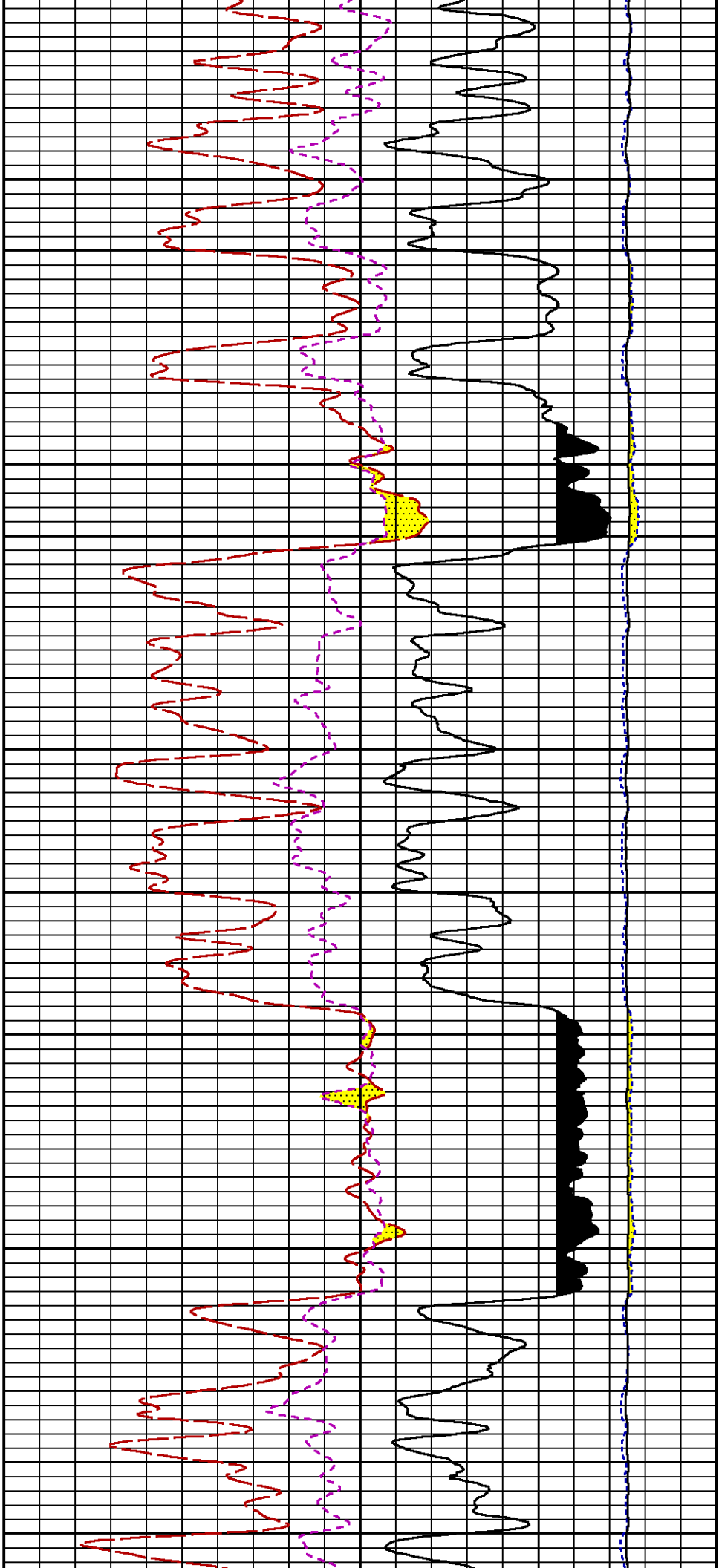




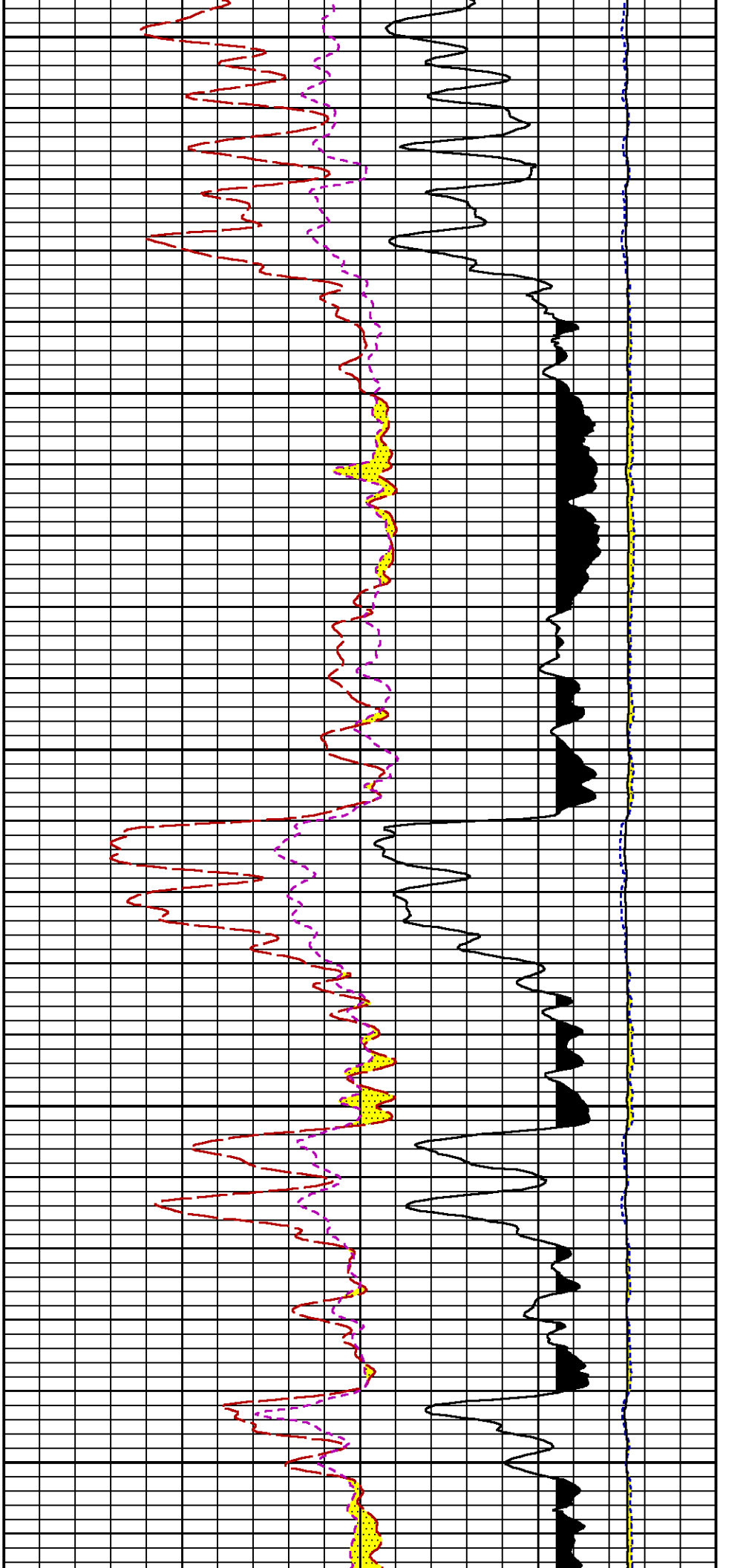








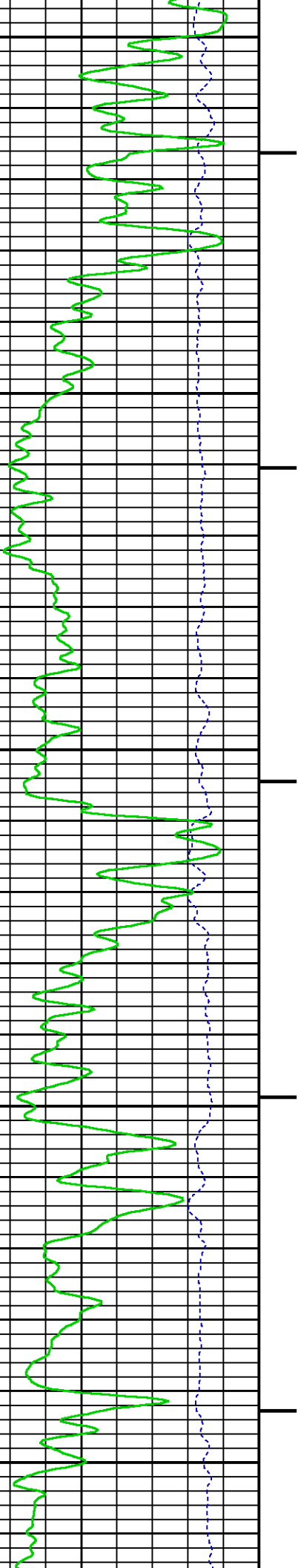


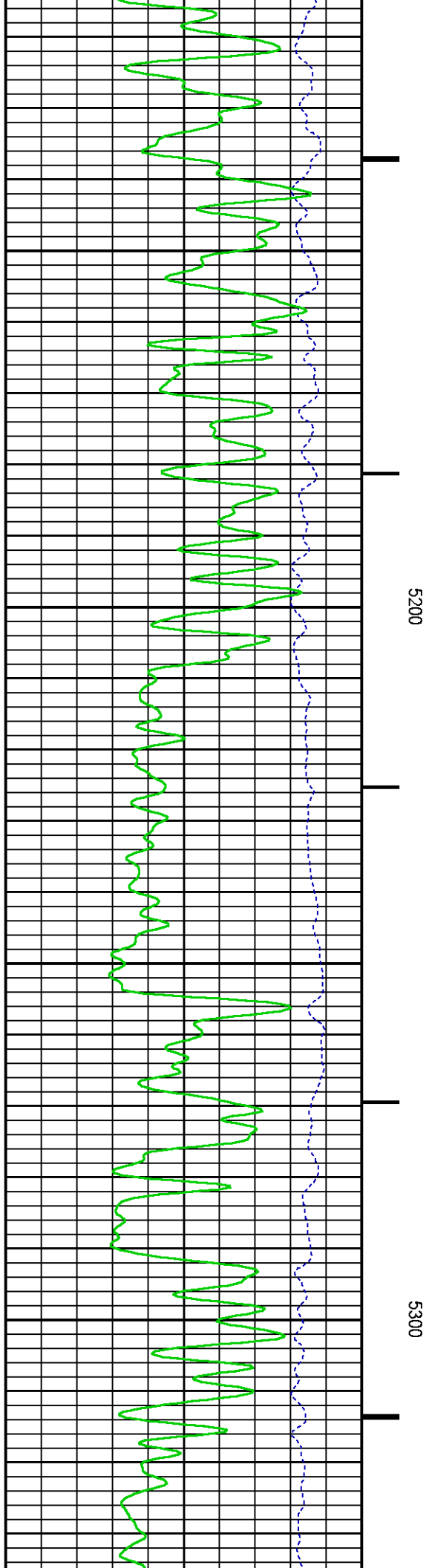
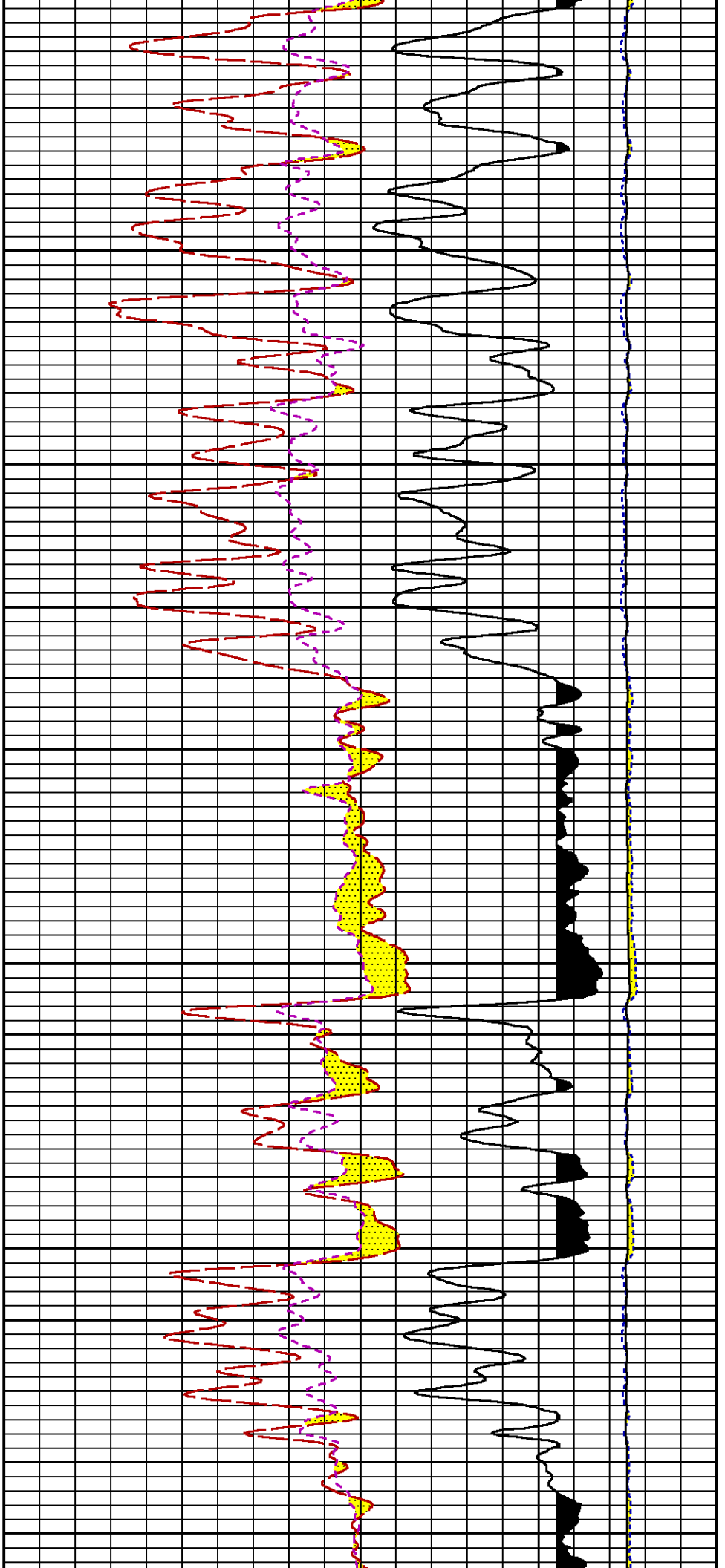


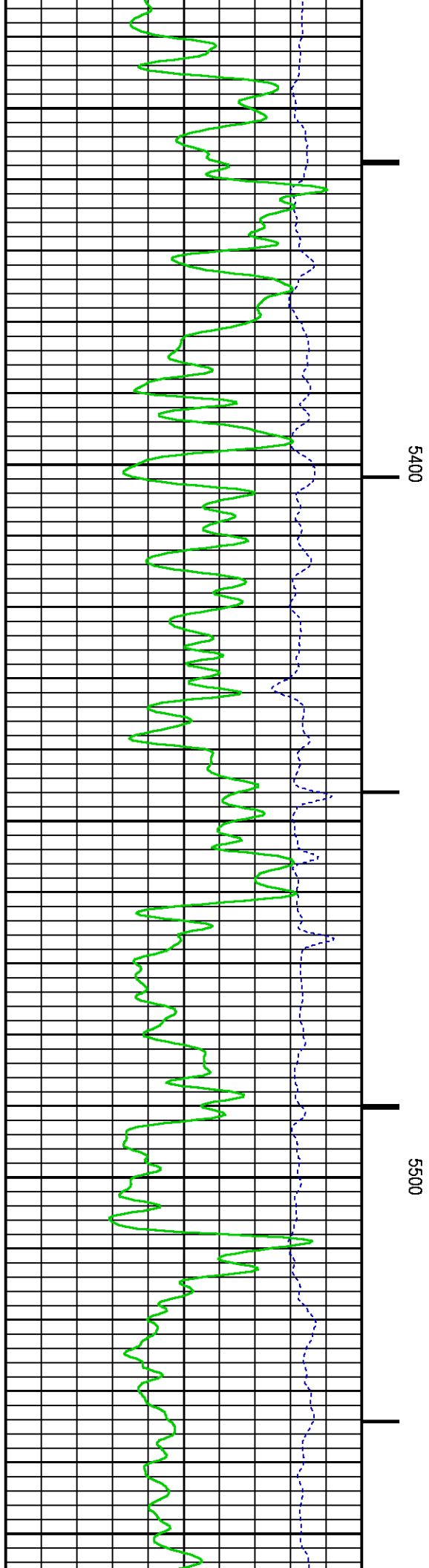
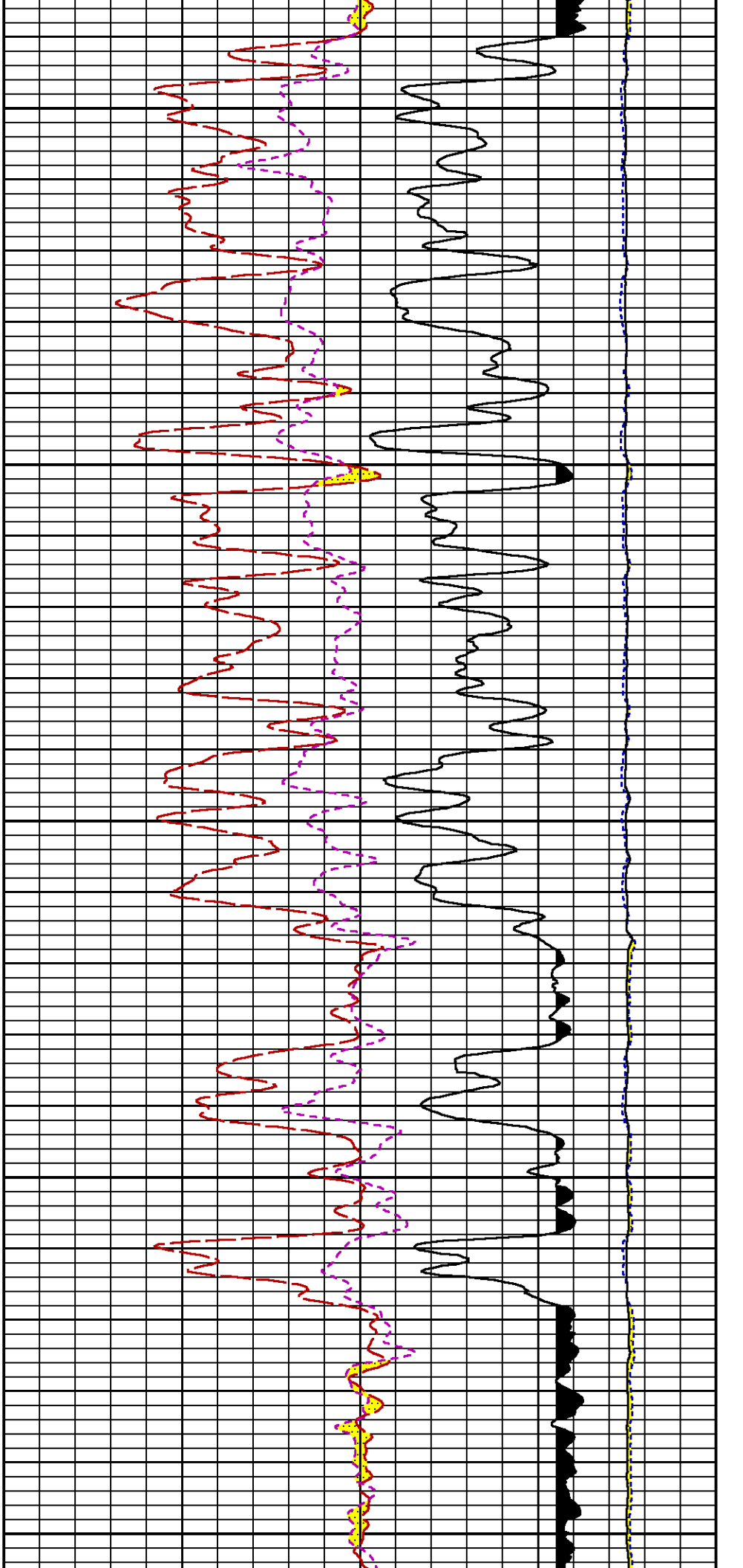
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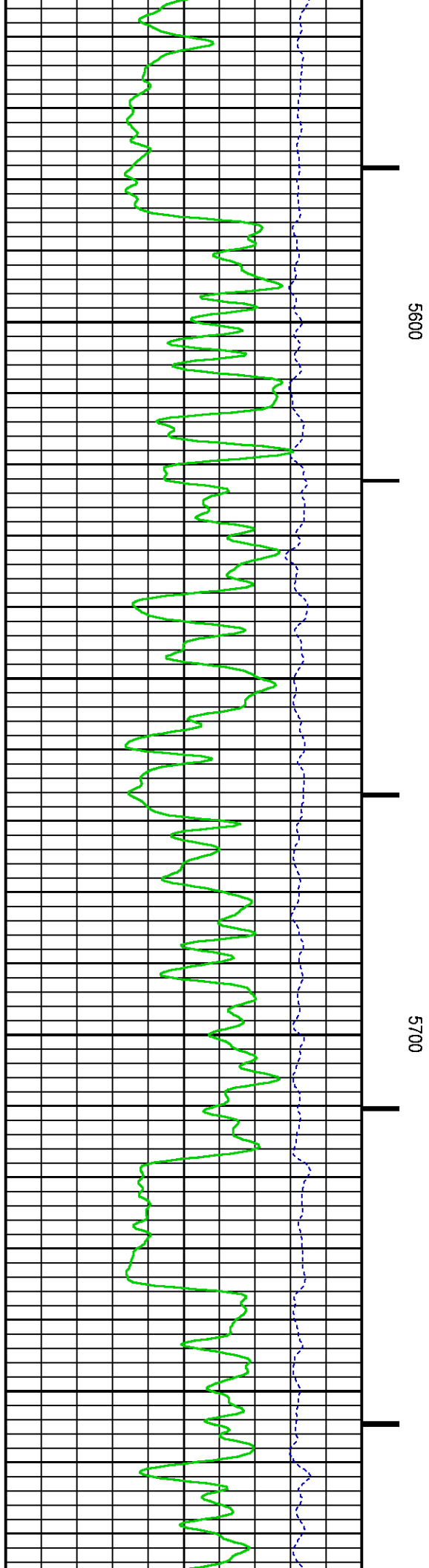
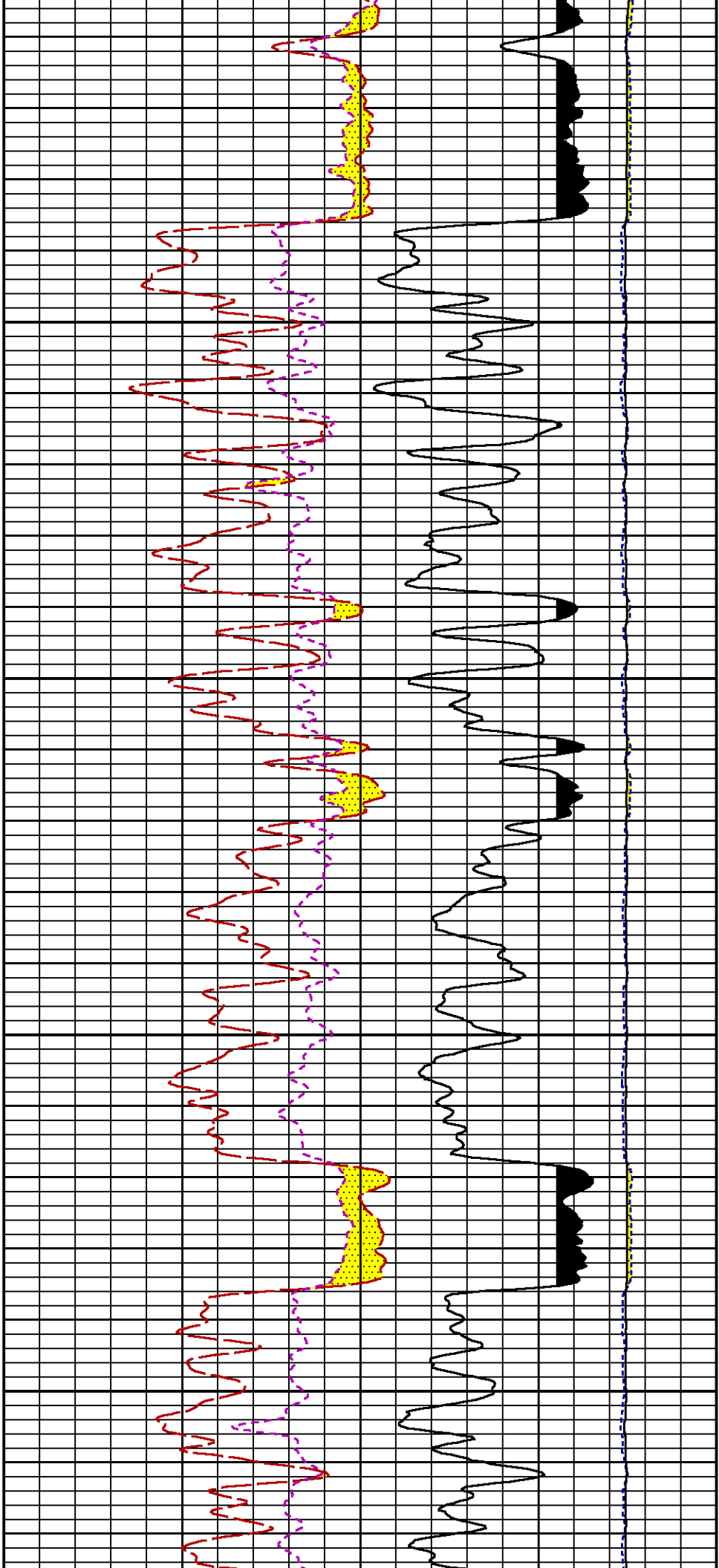
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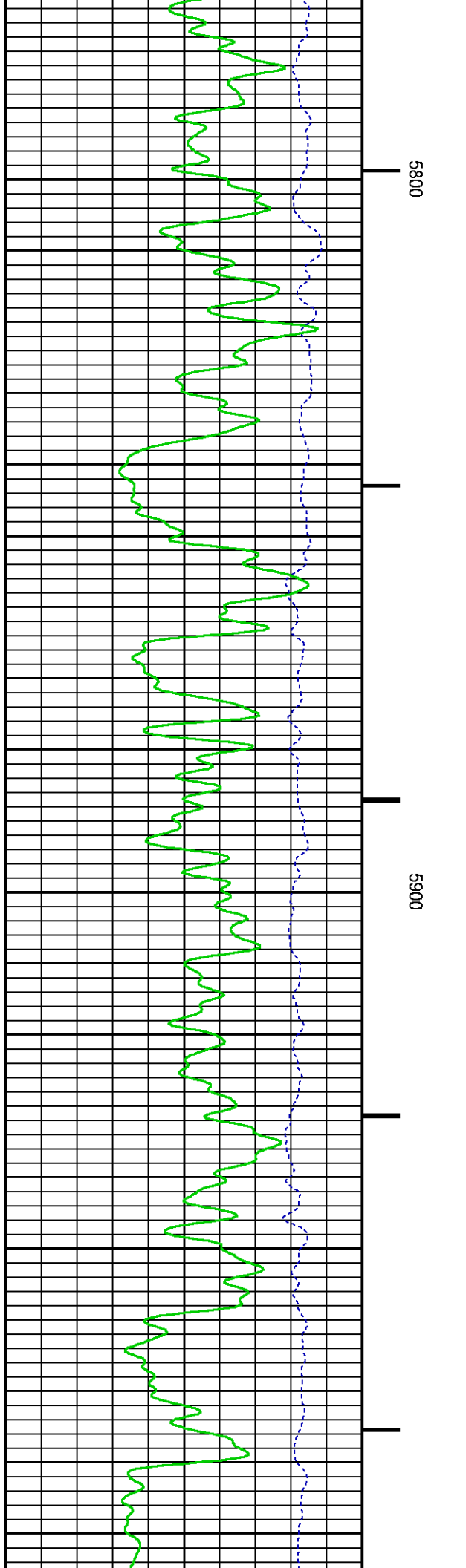
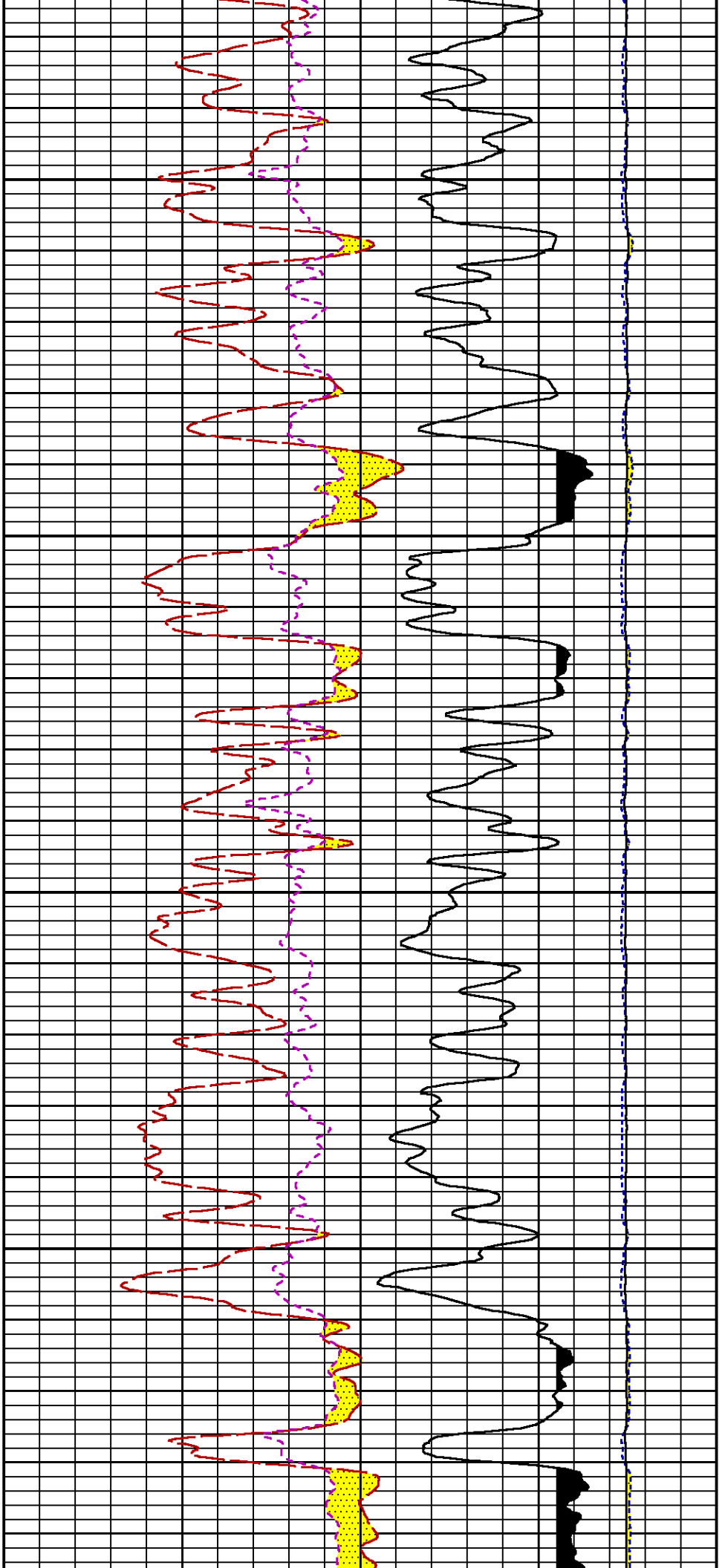
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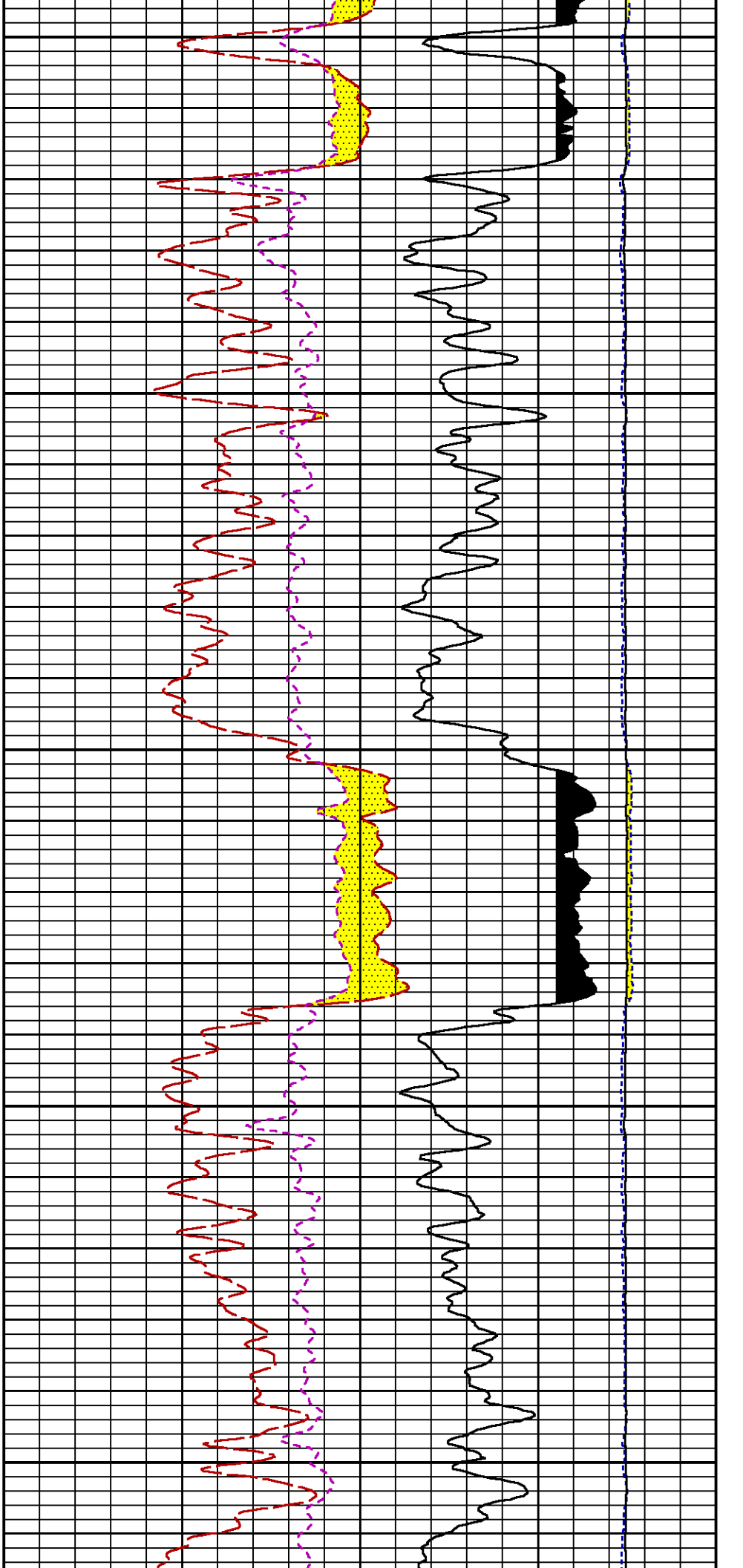








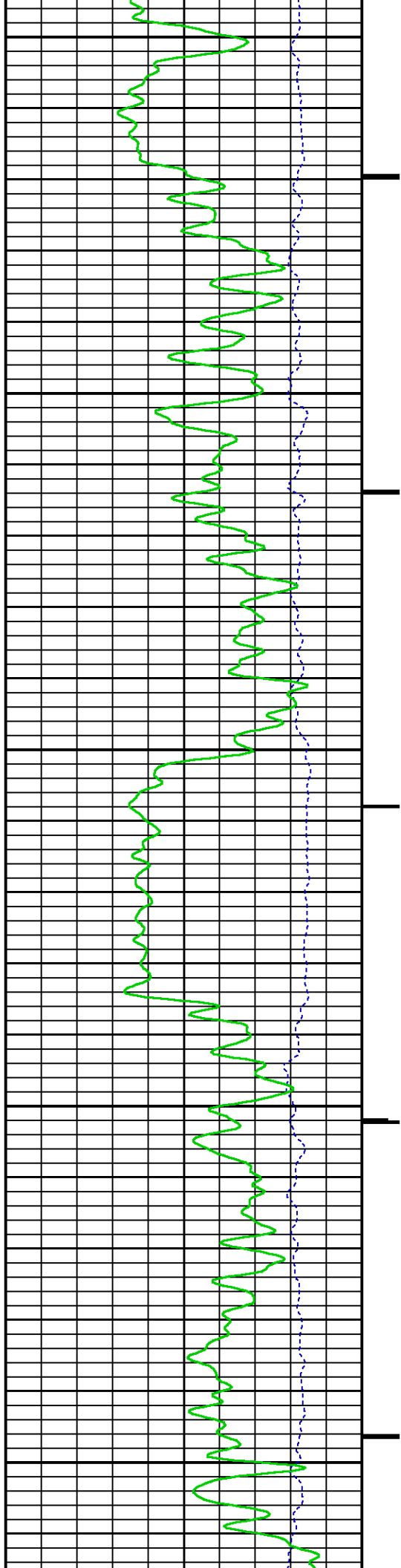


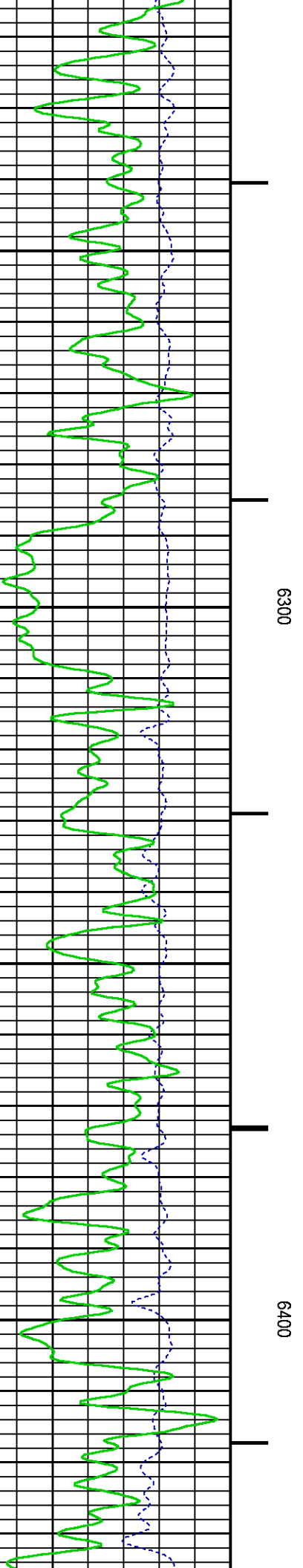
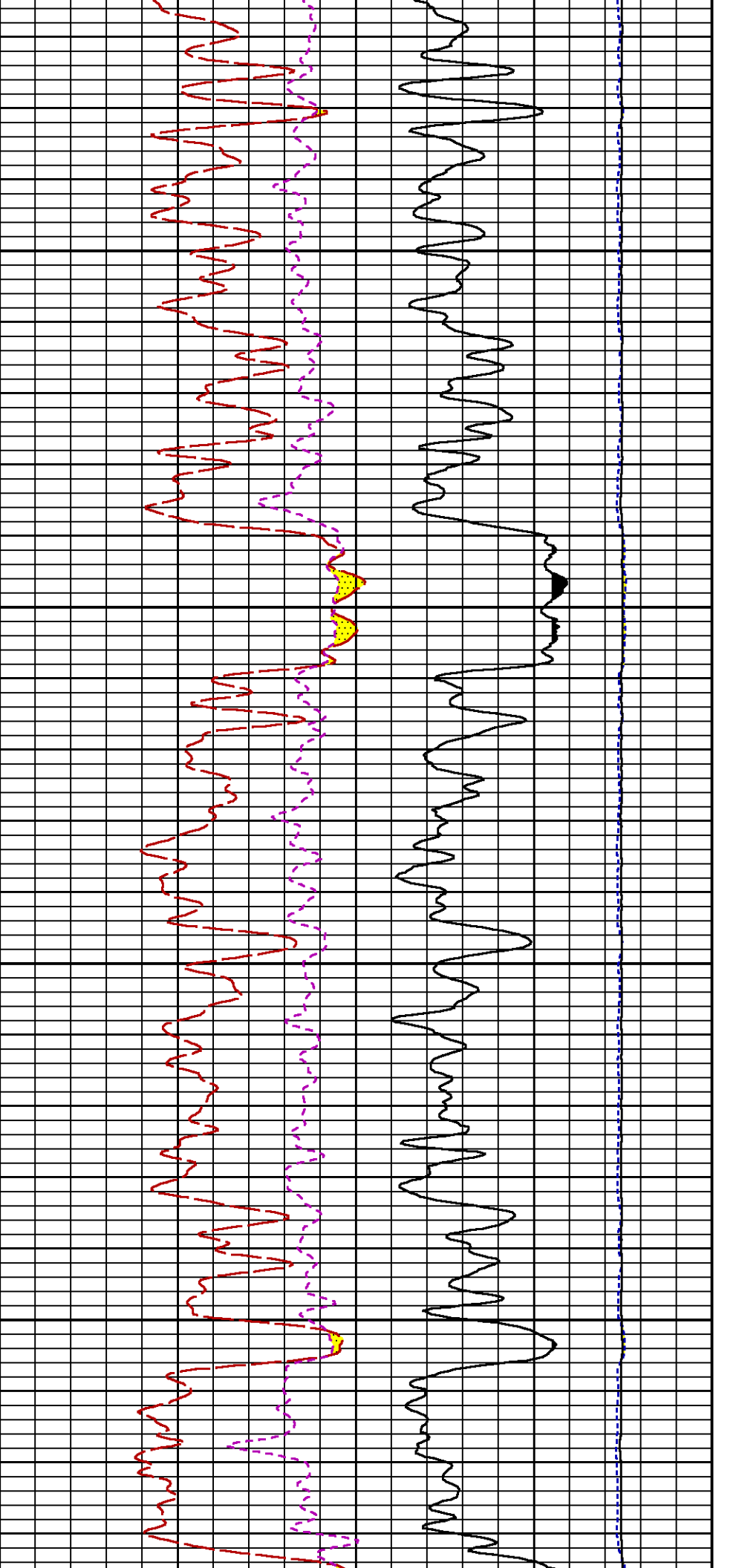


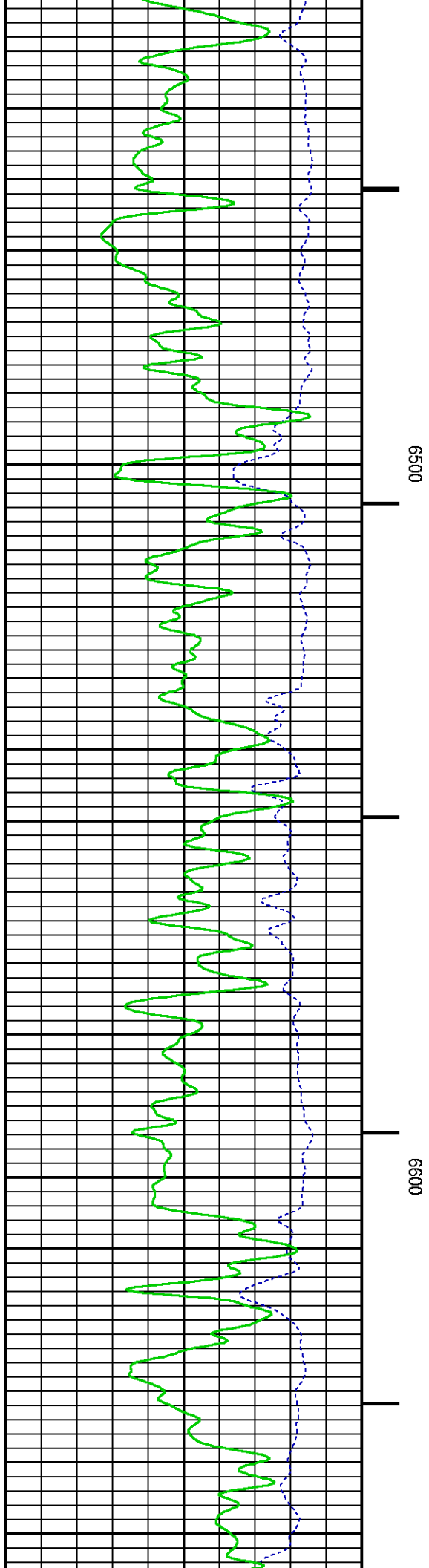
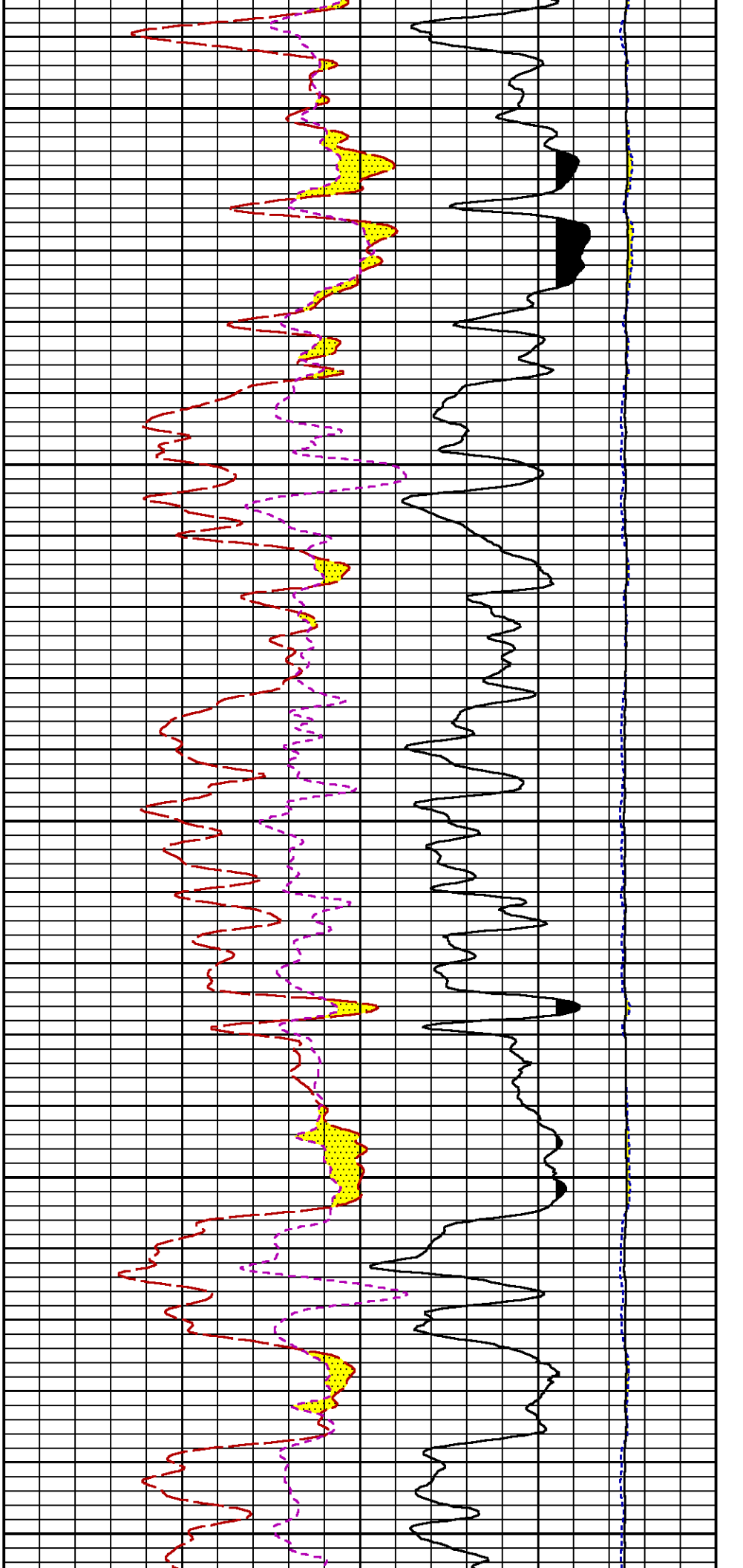
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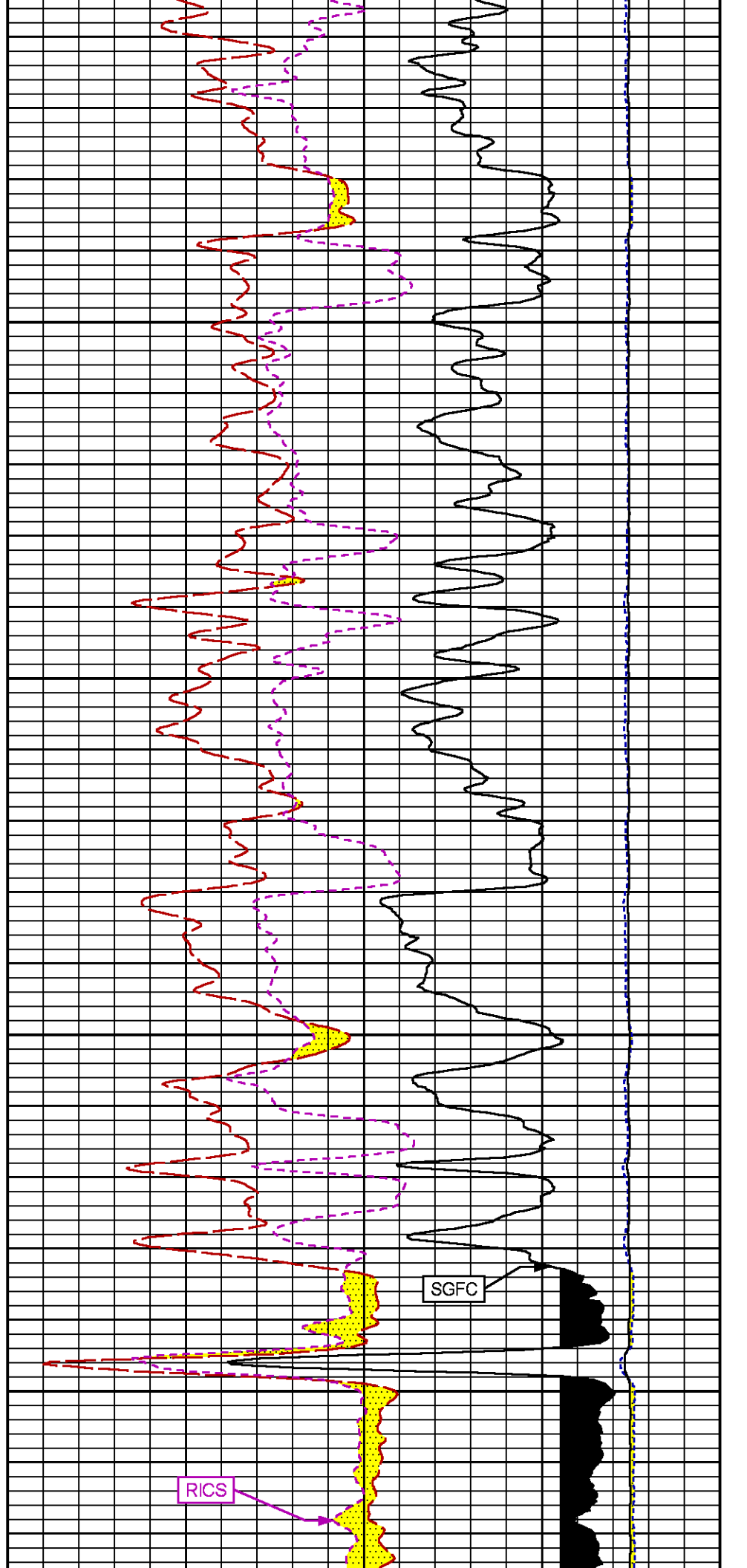
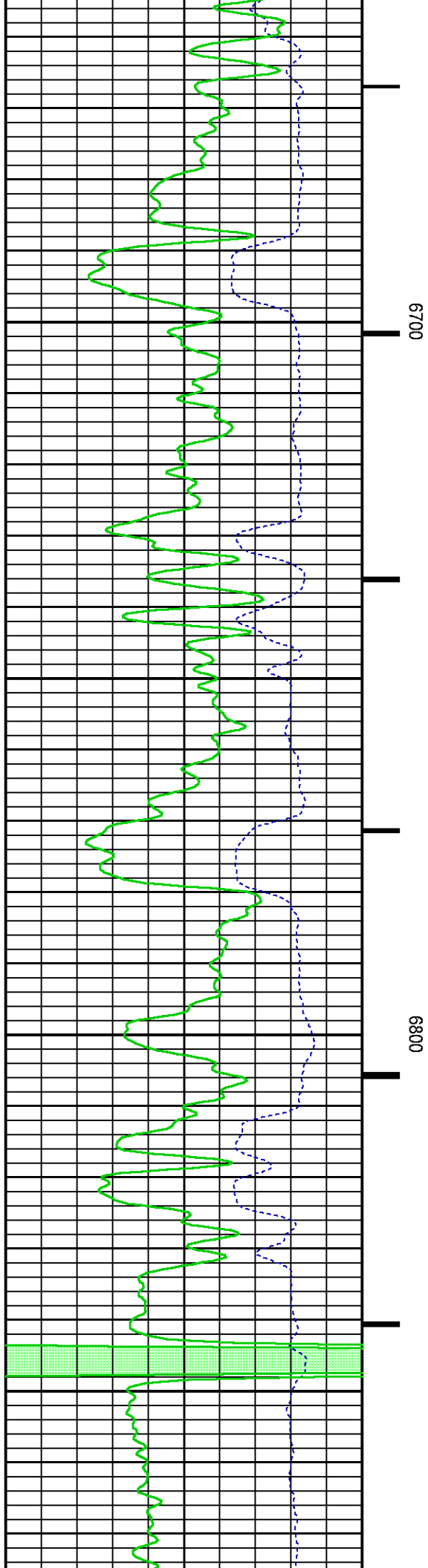
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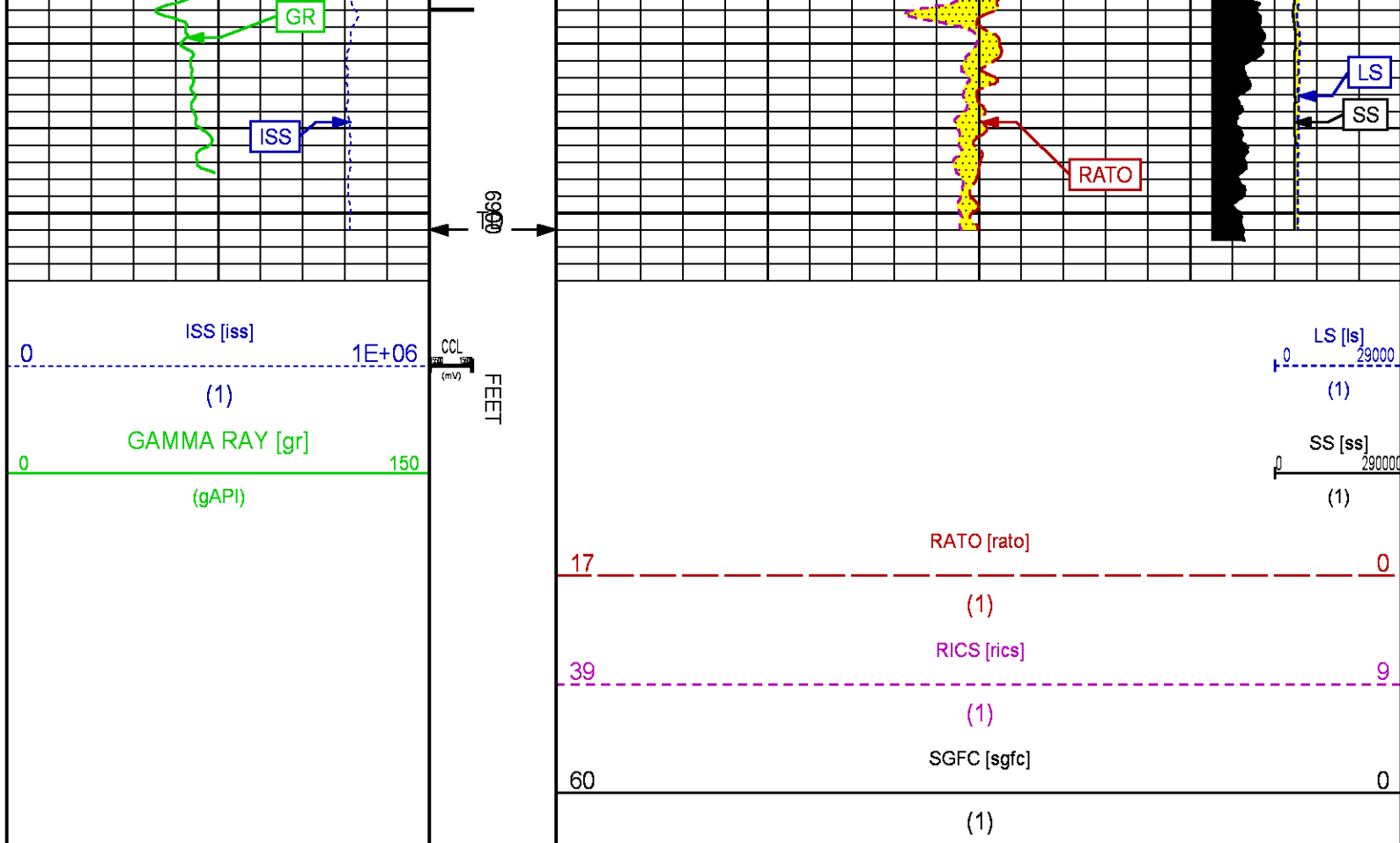












## REPEAT SECTION PNC-3D MODE

ECLIPS 6.2i ECLIPS General Release Rel 6.2i Wed Jun 12 12:21:40 CDT 2013  
Updates: 1 Patches: 4

Plotted: Sun Nov 16 15:13:08 2014

### PARAMETER AND FILTER SUMMARY REPORT

FILE: /dat1a/CH092537/n354h01.prm  
LOGGING MODE: DEPTH DIRECTION: UP  
TOP DEPTH: 6077.750 ft BOTTOM DEPTH: 6410.750 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

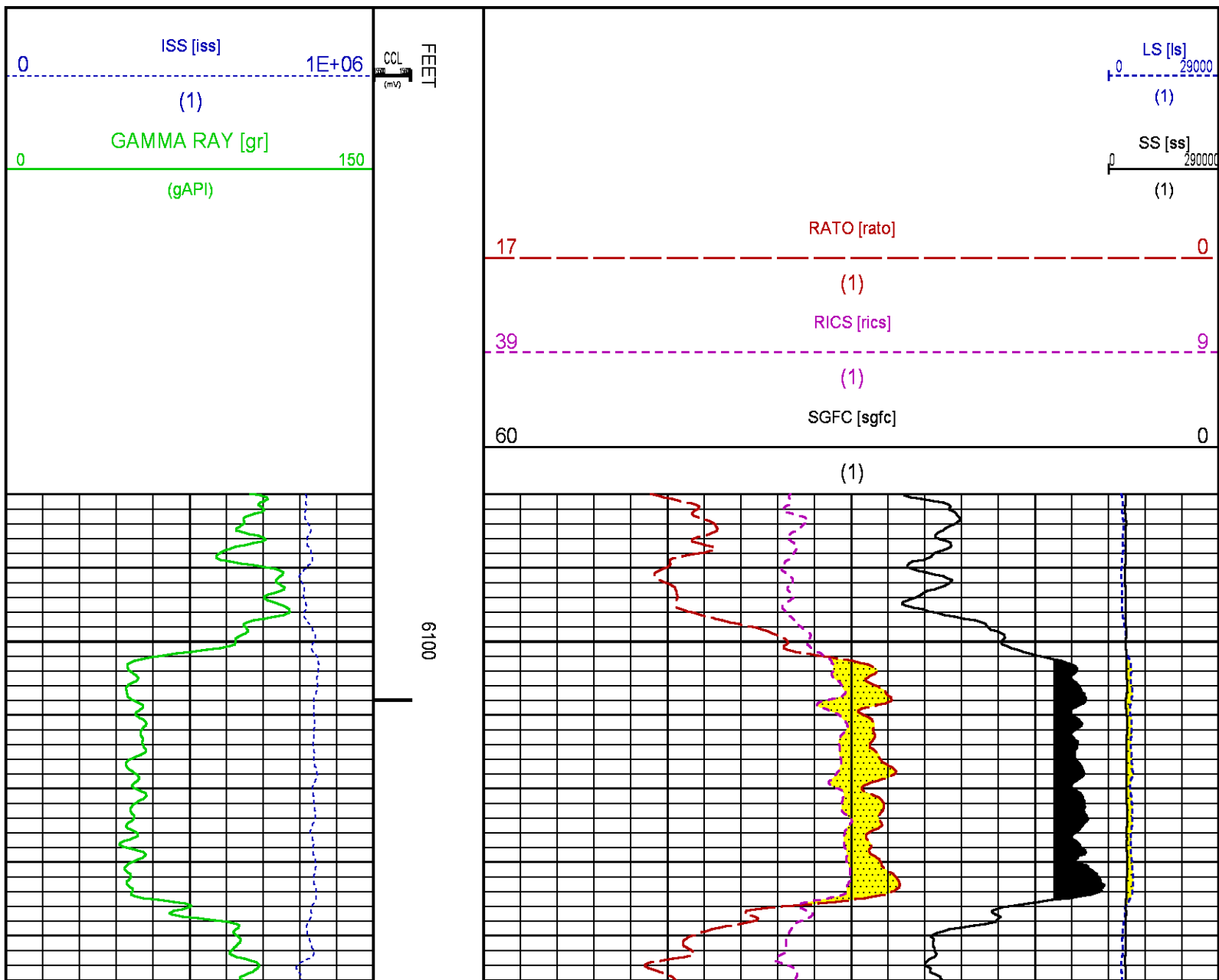
# CURVE DESCRIPTION REPORT

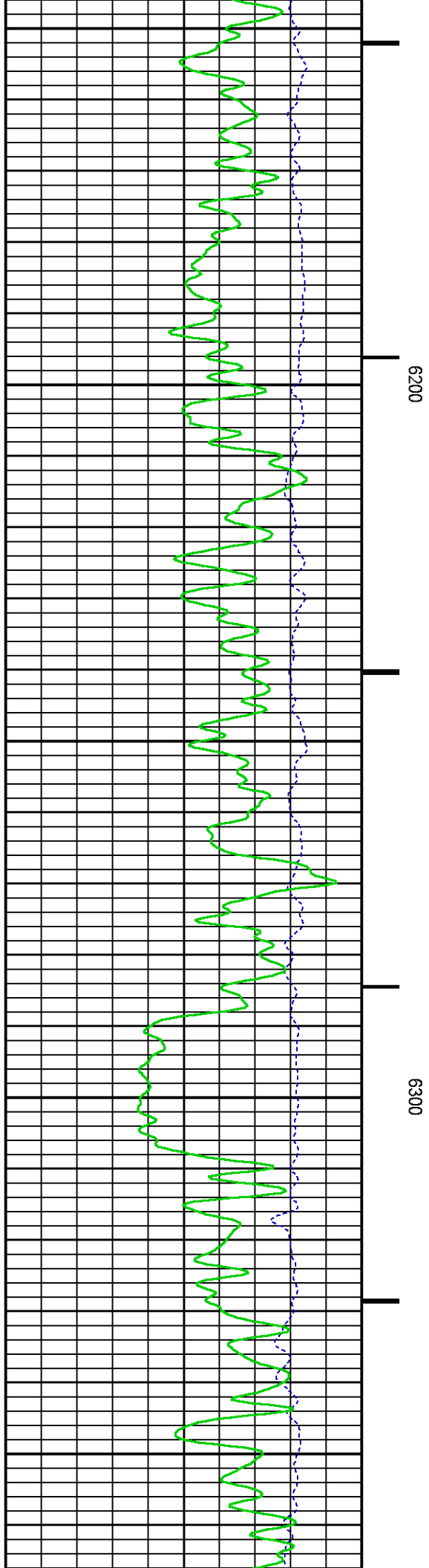
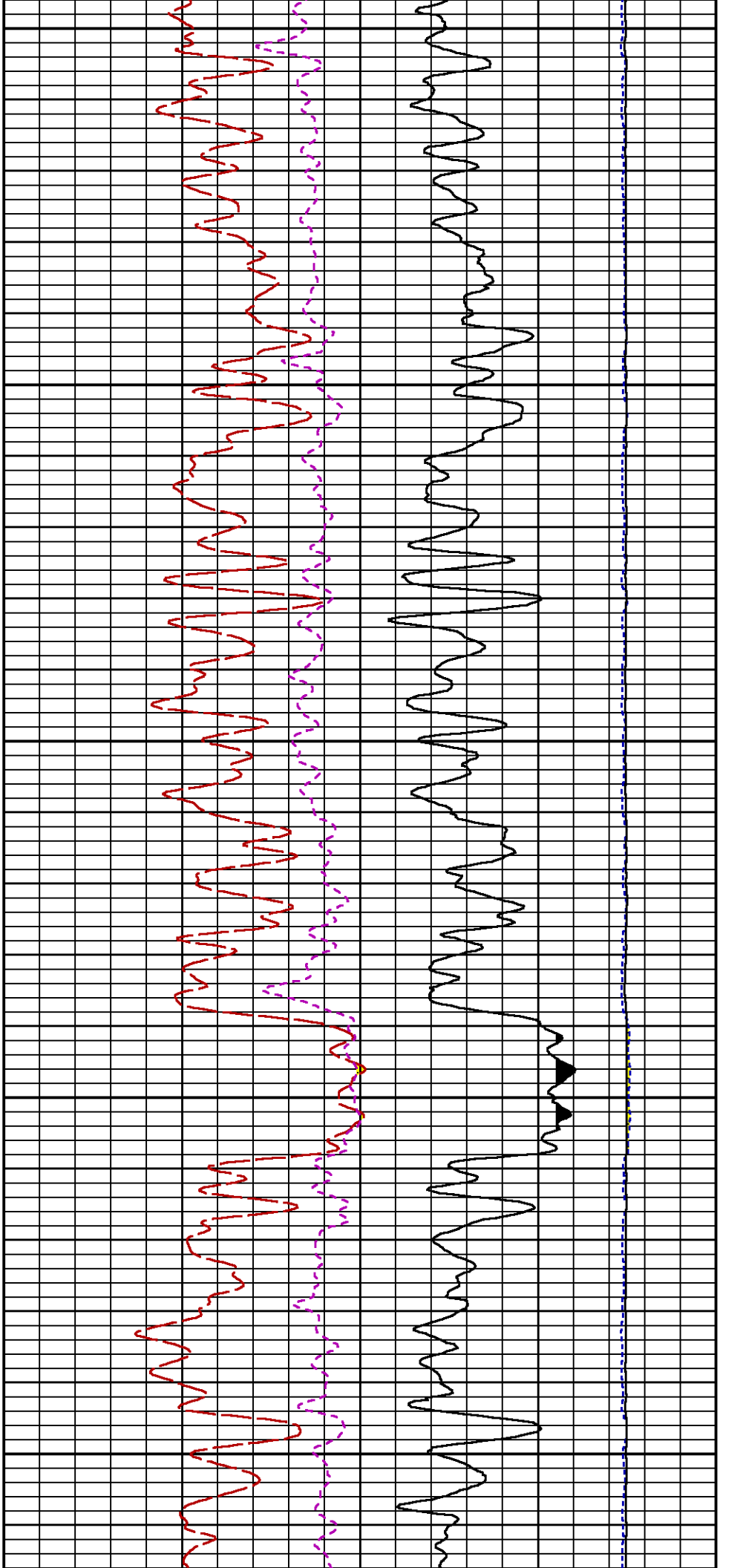
CURVE NAME	CREATION DATE	CURVE DESCRIPTION
F1:CCL	Nov 16 11:17:44 2014	CASING COLLAR LOCATOR
F1:GR	Nov 16 11:17:44 2014	GAMMA RAY
F1:ISS	Nov 16 11:17:44 2014	INELASTIC SHORT SPACE COUNT RATE
F1:LS	Nov 16 11:17:44 2014	LONG SPACE COUNT RATE
F1:RATO	Nov 16 11:17:44 2014	SHORT/LONG SPACE COUNT RATE RATIO
F1:RICS	Nov 16 11:17:44 2014	SHORT SPACE INELASTIC TO CAPTURE COUNT RATE RATIO (ISS/CSS)
F1:SGFC	Nov 16 11:17:44 2014	CORRECTED FORMATION SIGMA
F1:SS	Nov 16 11:17:44 2014	SHORT SPACE COUNT RATE

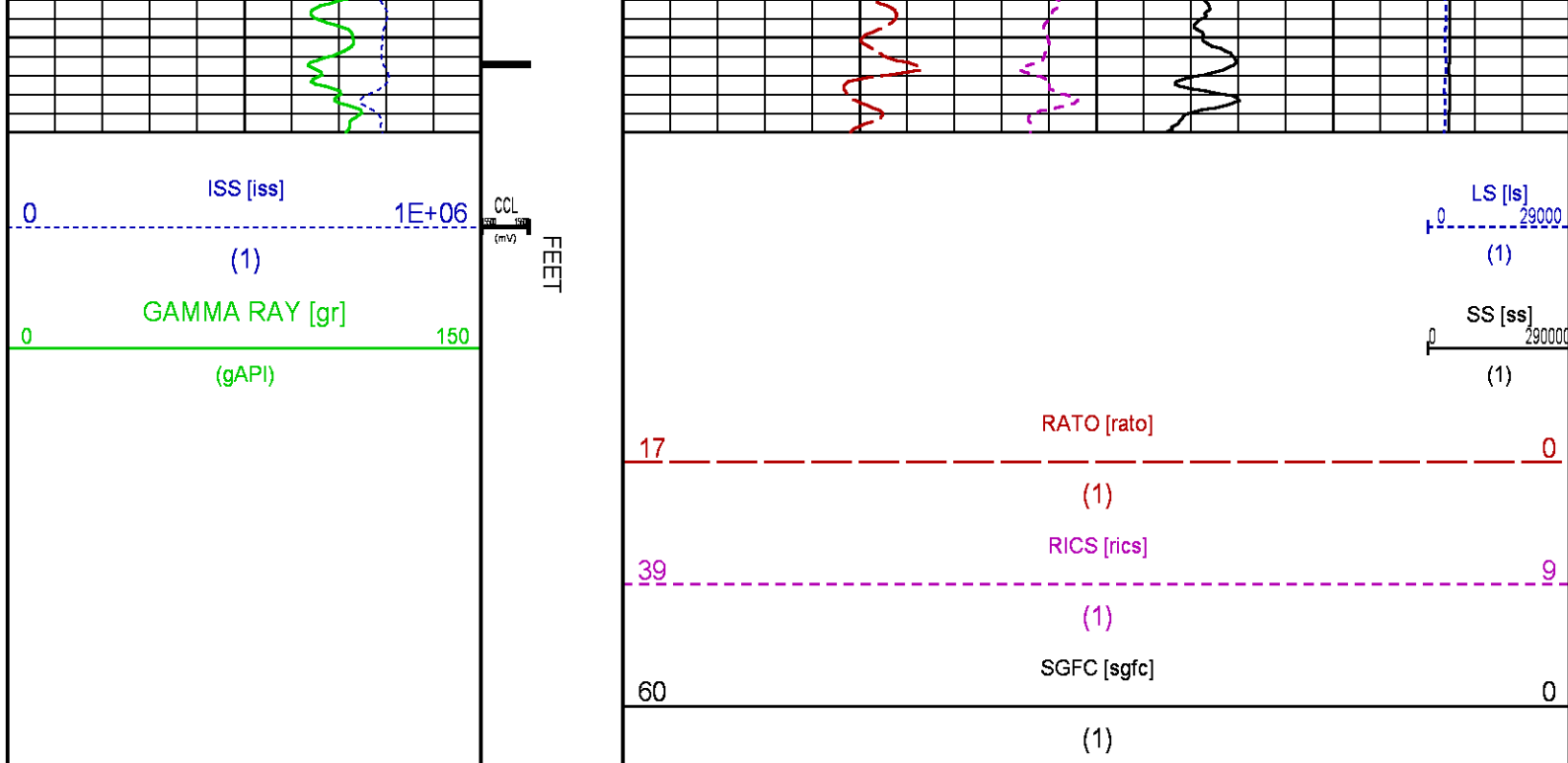
## CURVE MEASURE POINT OFFSET

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

<b>Presentation</b>	: HL6670:/dat1a/CH092537/414RPM_REPEAT.fvpdf [5"/100' Scale]
<b>Plot Interval</b>	: 6080 - 6380 Feet
<b>Data File 1</b>	: F1 : HL6670:/dat1a/CH092537/414RPM_REPEAT.xtf
<b>Created On</b>	: Nov 16 11:17:44 2014
<b>Company</b>	: WPX ENERGY
<b>Well</b>	: WPX ENERGY GM 414-33
<b>Field</b>	: GRAND VALLEY
<b>File Interval</b>	: 6050.25 - 6408 Feet
<b>OCT</b>	: n354h







## CALIBRATION / VERIFICATION SUMMARY

Source File: /dat1a/CH092537/n354h.tp1

### GR PRIMARY CALIBRATION SUMMARY

TOOL #: 2812LA 11701636 DATE/TIME PERFORMED: Wed Nov 12 13:41:56 2014  
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	59.84	276.27	216.4	0.970	58.07	268.07	210

### GR PRIMARY VERIFICATION SUMMARY

TOOL #: 2812LA 11701636 DATE/TIME PERFORMED: Wed Nov 12 13:44:33 2014  
UNIT #: 3880TA HL6670 VERI JIG #: 4702NK WA-612

	BACKGROUND (cts/s)	CALBRTR ON (cts/s)	MULT	BACKGROUND (gAPI)	CALBRTR ON (gAPI)	DIFF. (gAPI)
GR	56.98	275.16	0.970	55.29	266.99	211.70
						200.00 220.00

### RPM\_PNC\_3D PRIMARY CALIBRATION SUMMARY

TOOL: 8283PA 10160383 DATE/TIME PERFORMED: Wed Nov 12 12:22:40 2014

UNIT: 3880TA HL6670 CALIBRATOR: 2437XB 112674 SOURCE: 8281AA 11765055 HOURS: 8281AA 36

	ISS	Mtr Vits (V)	SS Gain	LS Gain	XLS Gain	EA Temp (degF)	Sync Delay (usec)	RCAL
Raw Data	799301	125	2276	2258	2216	100	7	0.9764
Interpolated	1300000	148	2255	2251	2211			

Interpolated	799301	6536	1023	136	26.07	0.15	24.33	0.33
					25.35 26.40	0.00 0.20	23.60 24.80	0.00 0.40
	ISS	BKS	BKL	BKX	SGA1	SDA1	SGA2	SDA2
Raw Data	799301	171372	25970	89191	31734	8236	53881	13187
Fit Quality %		0.646	0.555	0.505	0.529	0.631	0.451	0.602
	ISS	ILS	IXS	SS	SS2	LS	CSS	CLS
Raw Data	799301	1.43	4.66	30.79	14.84	10.83	3.85	4.09
		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 %		0.058	0.340	0.278	0.287	0.114	0.083	0.098
Reduced	1373098	1.43	4.65	30.73	14.80	10.82	3.85	4.08
		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
	ISS	RBOR	RIN ISS/LS	RIN13 ISS/IXS	RICS ISS/CSS	RATO SS/LS	RTWO SS2/LS	RONE CSS/CLS

## TPSETEMP PRIMARY CALIBRATION SUMMARY

TOOL #: 8255XA 11774568

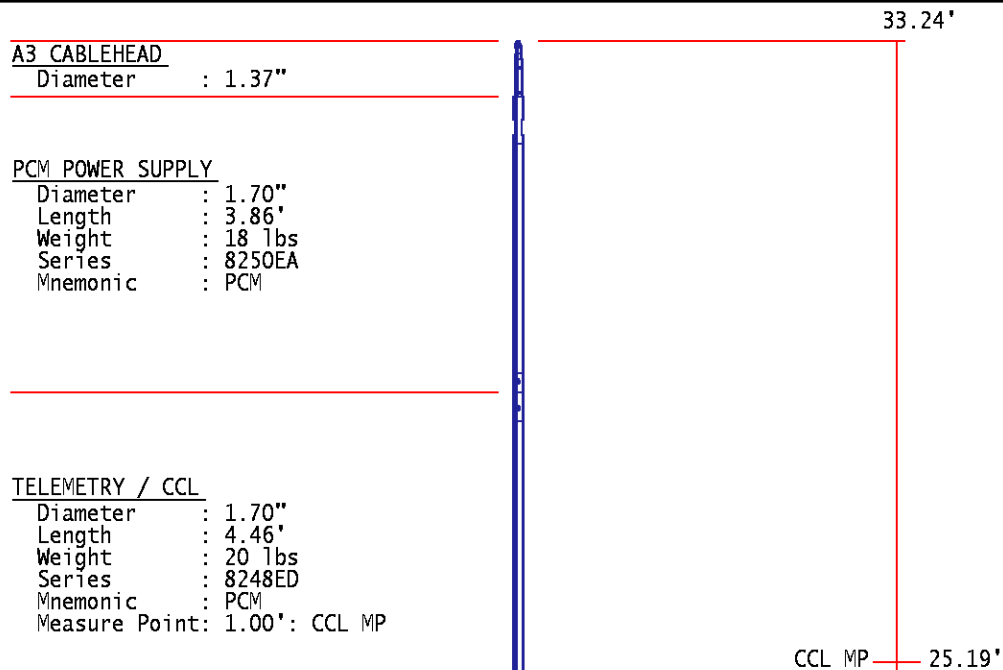
DATE/TIME PERFORMED: Wed May 14 12:39:45 2014

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/CH092537/RPM-tdg



#### SONDEX GAMMA RAY

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

GR MP — 22.64'

#### 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

0.00'

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

	<b>COMPANY</b> <u>WPX ENERGY</u>		<b>FILE NO:</b> <u>CH092537</u>
	<b>WELL</b> <u>WPX ENERGY GM 414-33</u>		<b>API NO:</b> <u>05045224900000</u>
	<b>FIELD</b> <u>GRAND VALLEY</u>	<b>COUNTY</b> <u>GARFIELD</u> <b>STATE</b> <u>CO</u>	
<b>LOCATION:</b> SHL: 2301' FSL & 1140' FWL BHL: 703' FSL & 938' FWL		<b>ELEVATIONS:</b> KB 5764 FT DF GL 5743 FT	33 6S 96W GM 13-33 PAD CYCLONE 17
<b>SEC</b> <u>33</u> <b>TWP</b> <u>6S</u> <b>RGE</b> <u>96W</u>		<b>DATE</b> <u>16-Nov-2014</u>	



