



FILE NO: CH092533	COMPANY WELL FIELD COUNTY	WPX ENERGY WPM ENERGY GM 413-33 GRAND VALLEY GARFIELD STATE CO
API NO: 05045224910000		

Ver. 3.87 33 GS 96W GM 13-33 PAD CYCLONE 17	LOCATION: SHL: 2314' FSL & 1149' FWL BHL: 1476' FSL & 1565' FWL SEC 33 TWP 6S RGE 96W	OTHER SERVICES BOND LOG
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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	13-Nov-2014
RUN	1
SERVICE ORDER	US092533
DEPTH DRILLER	6748 FT
DEPTH LOGGER	6720 FT
BOTTOM LOGGED INTERVAL	6710 FT
TOP LOGGED INTERVAL	3480 FT
TIME STARTED	12:00
TIME FINISHED	17:00
OPERATOR RIG TIME	5 HOURS
TYPE OF FLUID IN HOLE	WATER
FLUID DENSITY	NA
FLUID SALINITY	NA
FLUID LEVEL	64 FT
LOGGED CEMENT TOP	NA
WELLHEAD PRESSURE	0 PSI
MAXIMUM HOLE DEVIATION	NA
NOMINAL LOGGING SPEED	10 FMIN
MAX. RECORDED TEMP.	217 DEGF
REFERENCE LOG	BAKER HUGHES BOND LOG
REFERENCE LOG DATE	13-Nov-2014
EQUIP. NO.	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	1012 FT
8.75 IN	1012 FT	6795 FT

CASING RECORD				
SIZE	WEIGHT	GRADE	FROM	TO
9.625 IN			0 FT	1012 FT
4.5 IN	11.6 LB/F	I-80	0 FT	6795 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 13/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 = 217 degF

SJ = 3395' - 3417'

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: Thu Nov 13 16:44:28 2014

PARAMETER AND FILTER SUMMARY REPORT

FILE: /dat1a/CH092531/n354h02.prm
 LOGGING MODE: DEPTH DIRECTION: UP
 TOP DEPTH: 3466.750 ft BOTTOM DEPTH: 6720.439 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 13 13:09:56 2014	CASING COLLAR LOCATOR
F1:GR	Nov 13 13:09:56 2014	GAMMA RAY
F1:ISS	Nov 13 13:09:56 2014	INELASTIC SHORT SPACE COUNT RATE
F1:LS	Nov 13 13:09:56 2014	LONG SPACE COUNT RATE
F1:RATO	Nov 13 13:09:56 2014	SHORT/LONG SPACE COUNT RATE RATIO
F1:RICS	Nov 13 13:09:56 2014	SHORT SPACE INELASTIC TO CAPTURE COUNT RATE RATIO (ISS/CSS)
F1:SGFC	Nov 13 13:09:56 2014	CORRECTED FORMATION SIGMA
F1:SS	Nov 13 13:09:56 2014	SHORT SPACE COUNT RATE

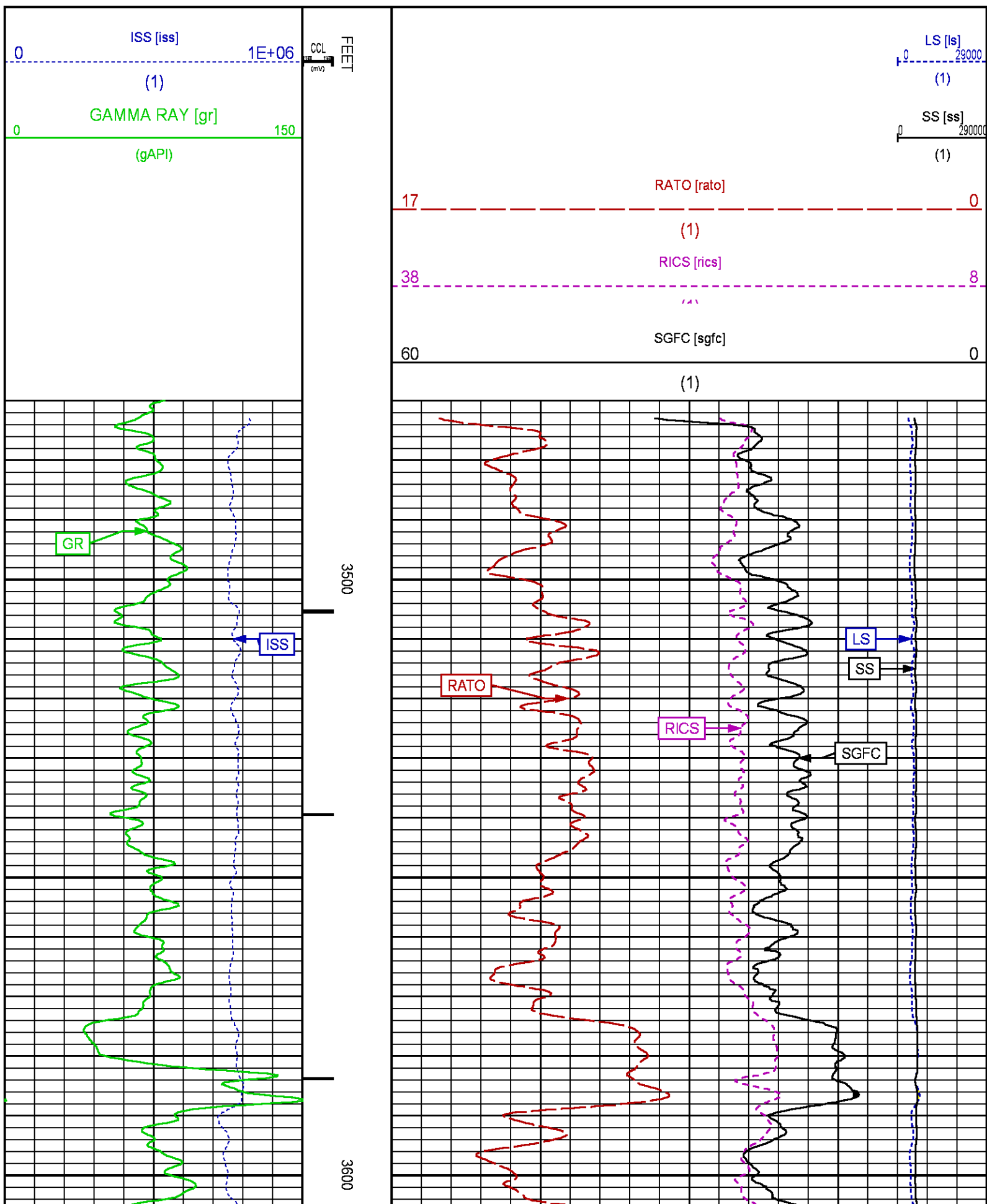
CURVE MEASURE POINT OFFSET

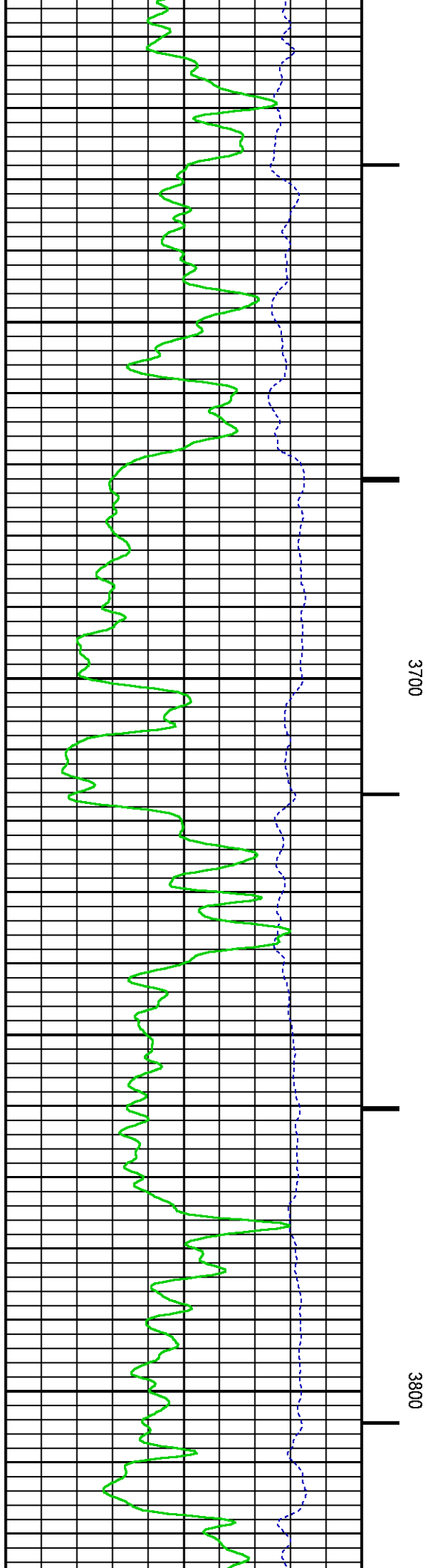
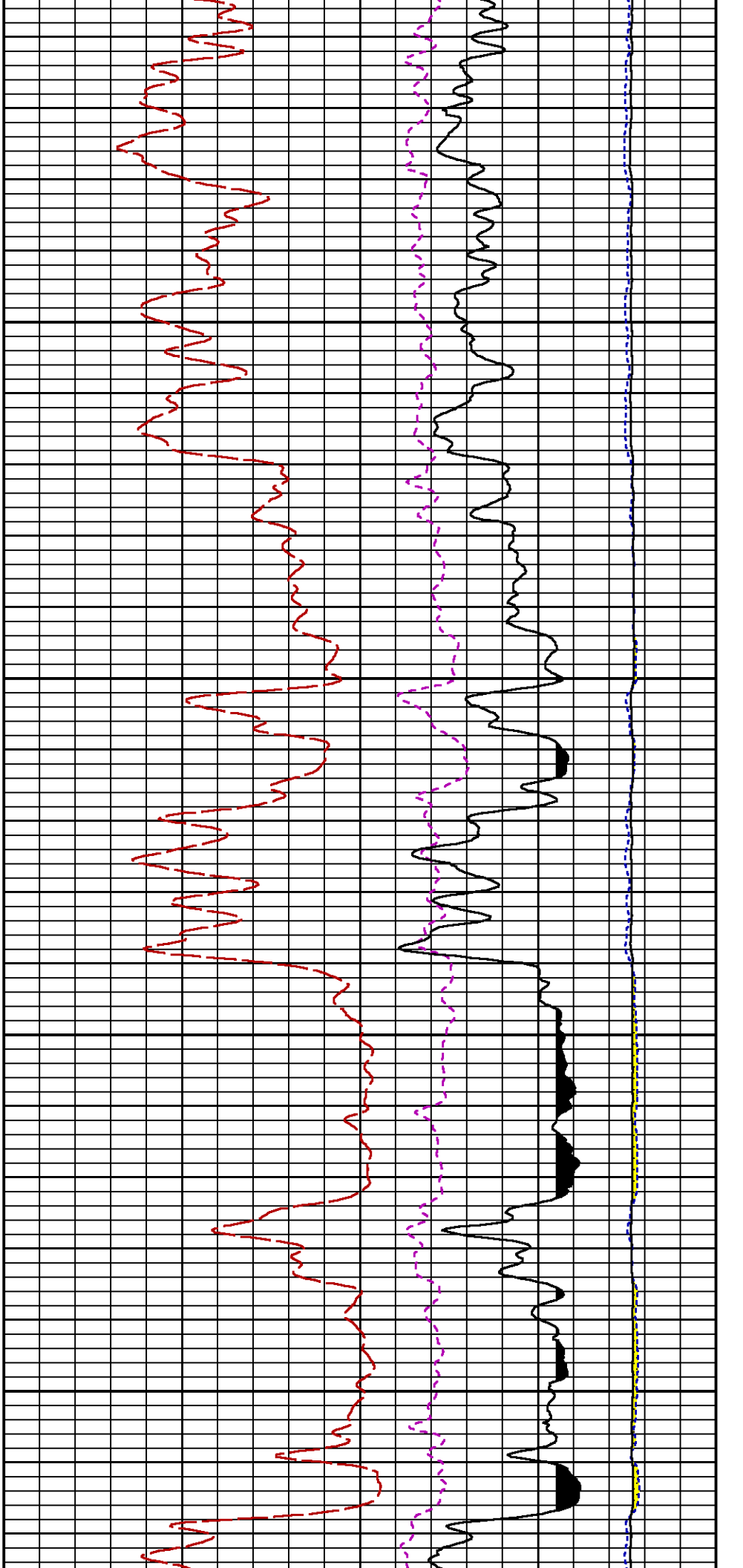
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GR	22.75	LS	12.75	RICS	12.75	SS	12.75

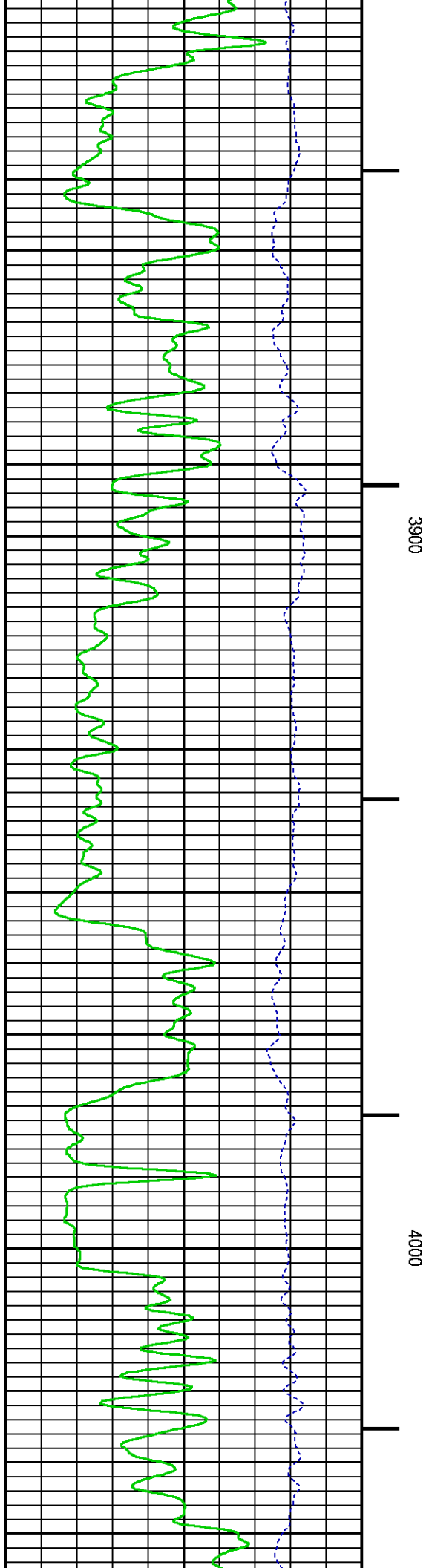
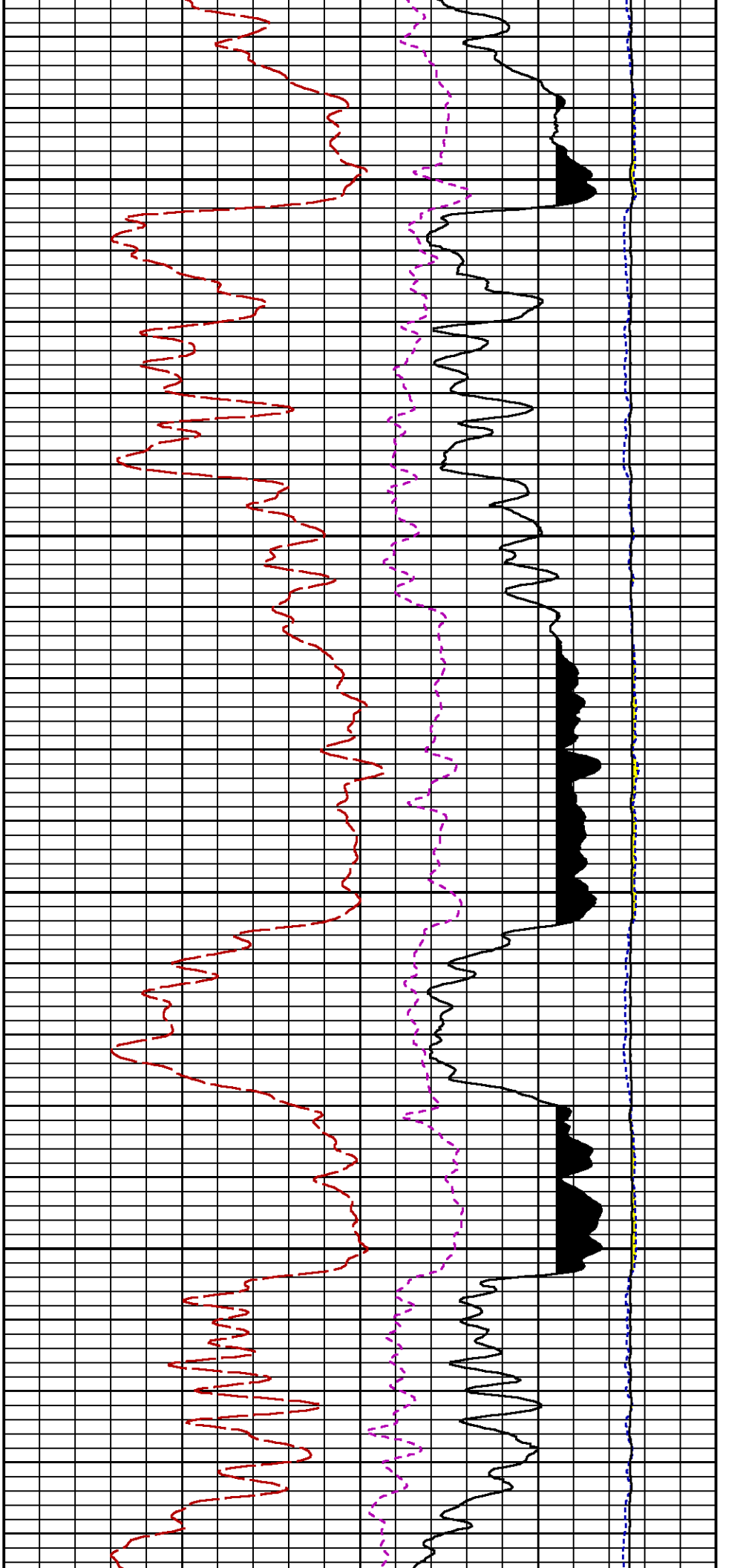
Presentation : HL6670:/dat1a/CH092531/413RPM_MAIN.fvpdf [5"/100' Scale]
 Plot Interval : 3470 - 6725 Feet

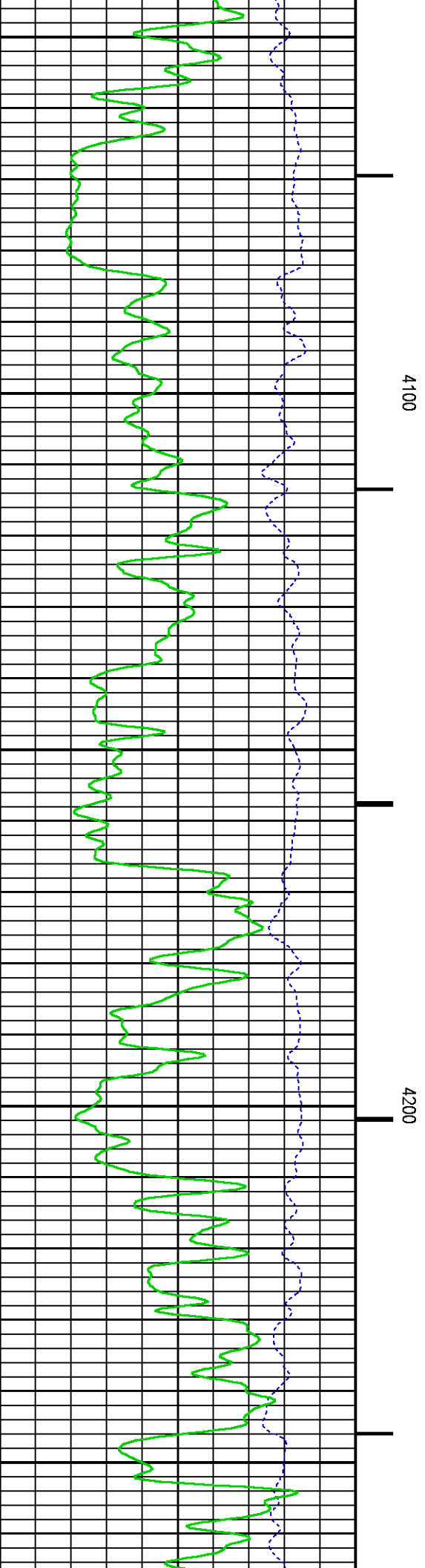
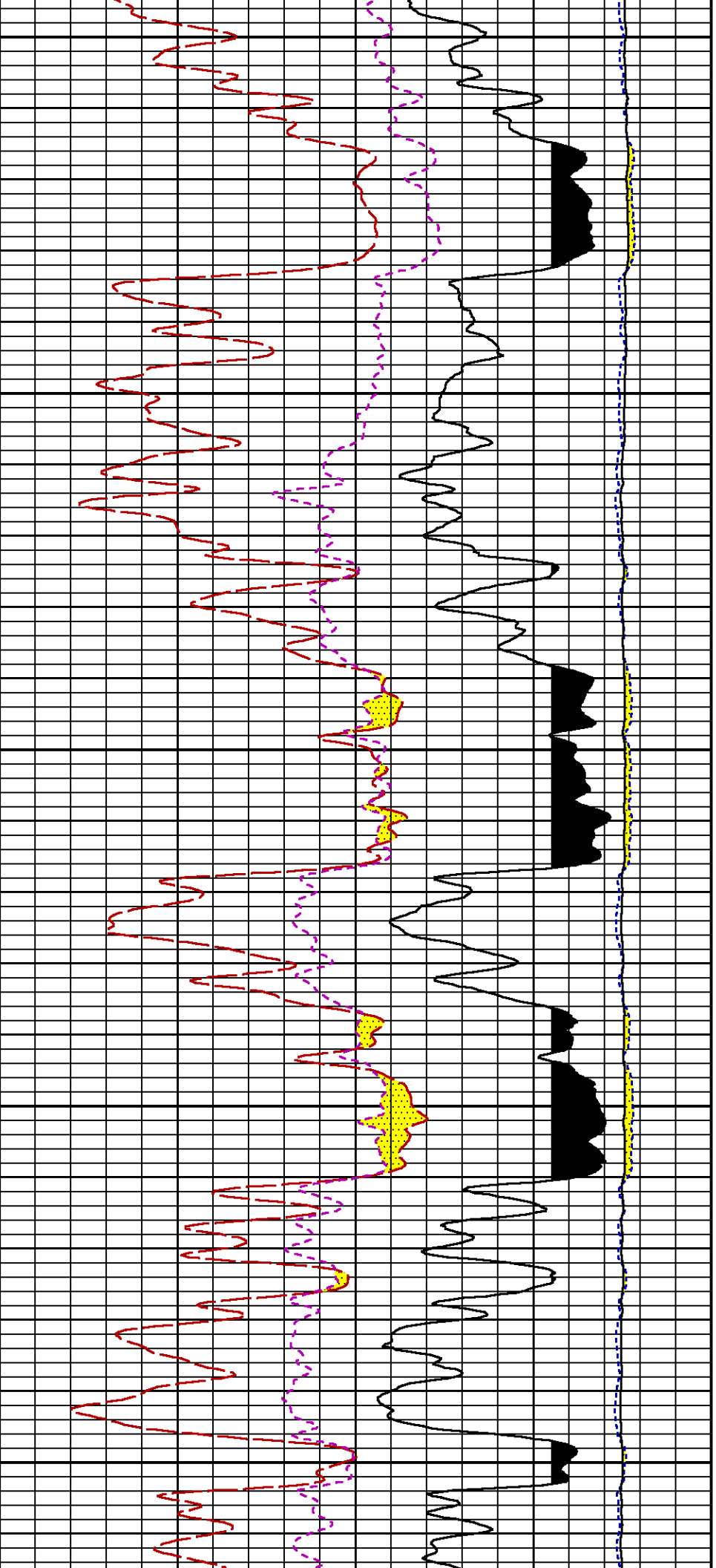
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 Created On : Nov 13 13:09:56 2014

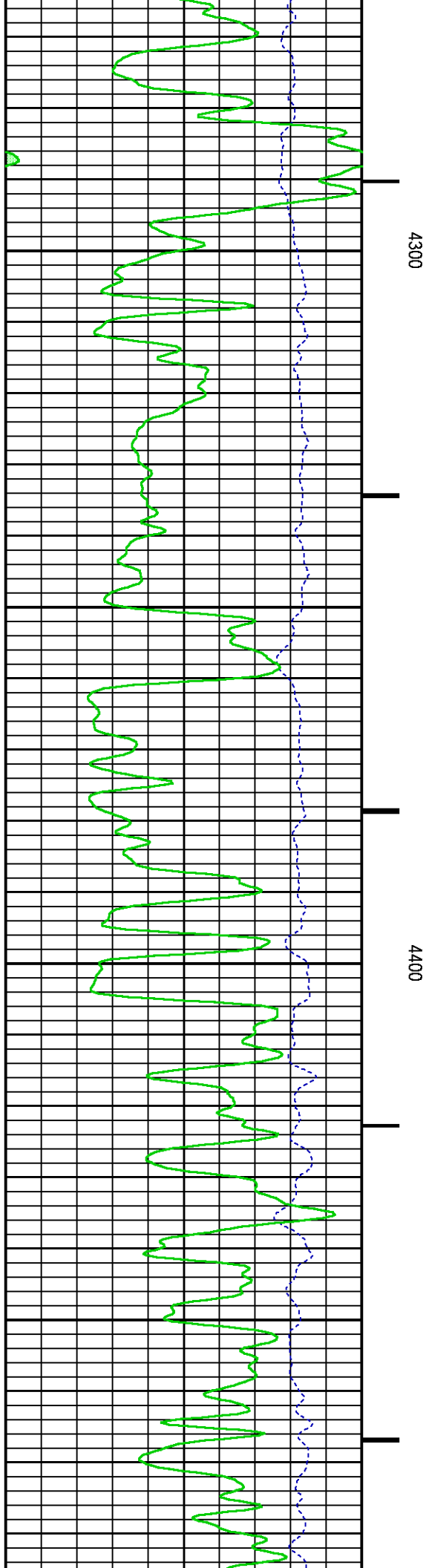
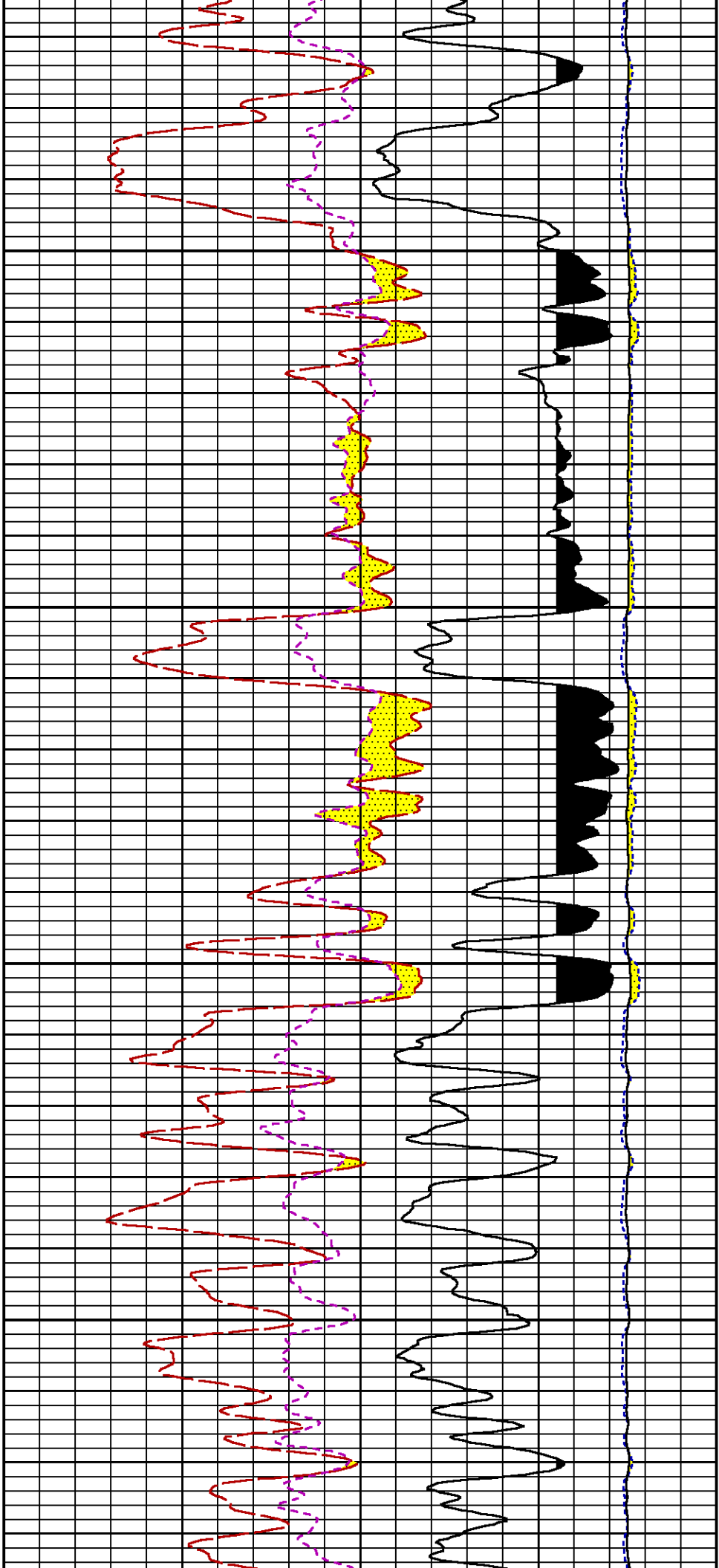
Created On : Nov 13 15:09:56 2014
Company : WPX ENERGY
Well : WPX ENERGY GM 413-33
Field : GRAND VALLEY
File Interval : 20 - 6725 Feet
OCT : n354h

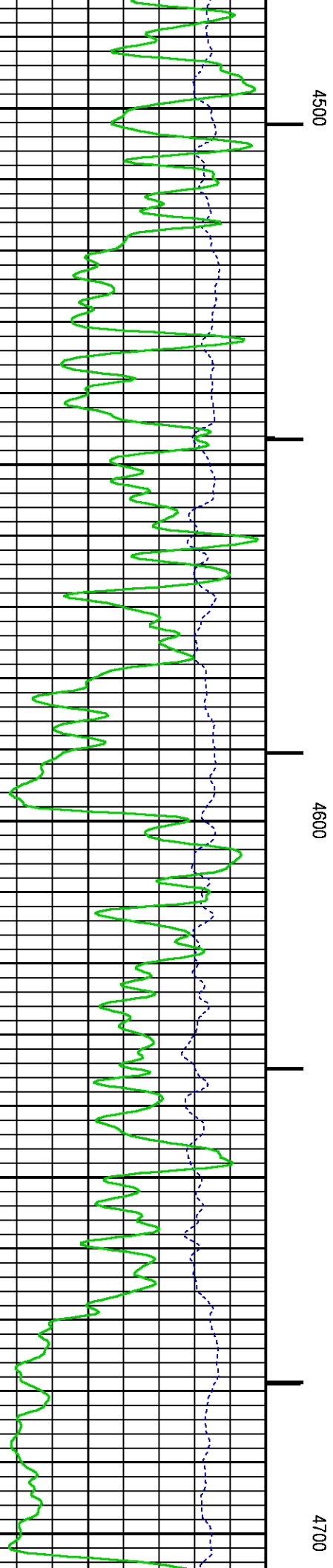
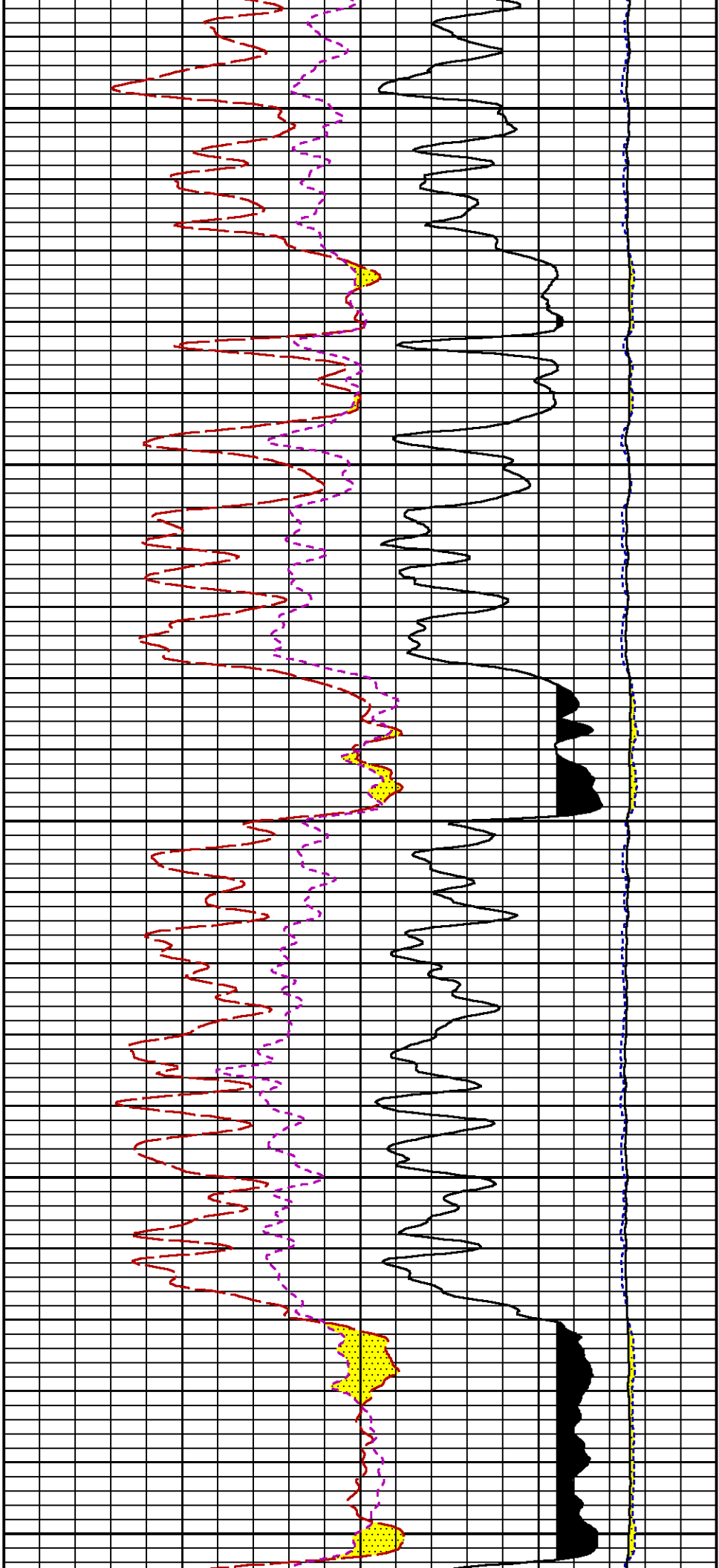


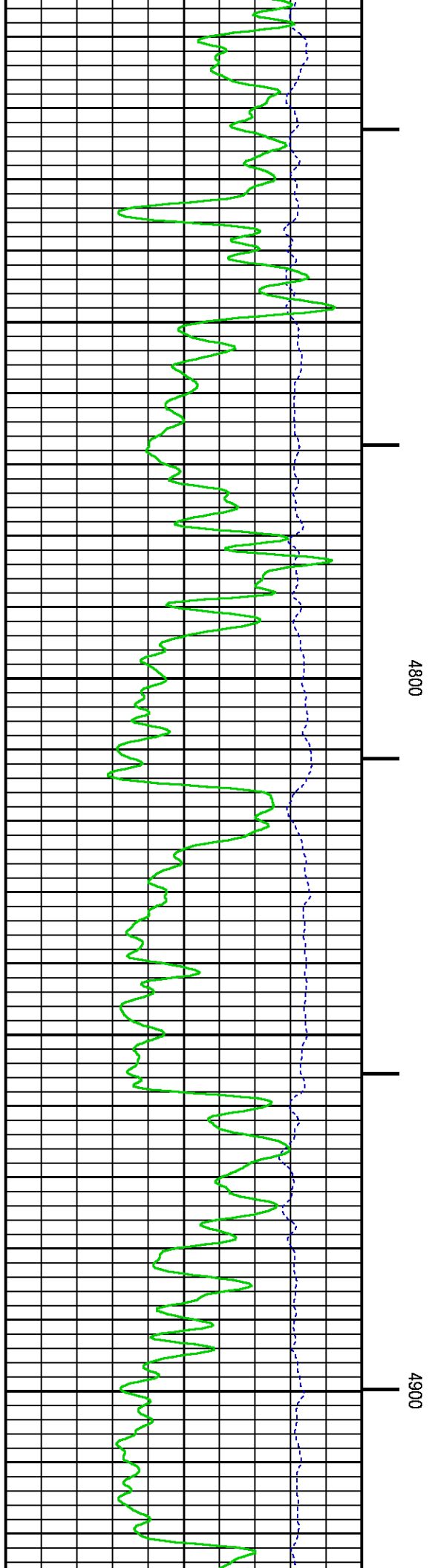
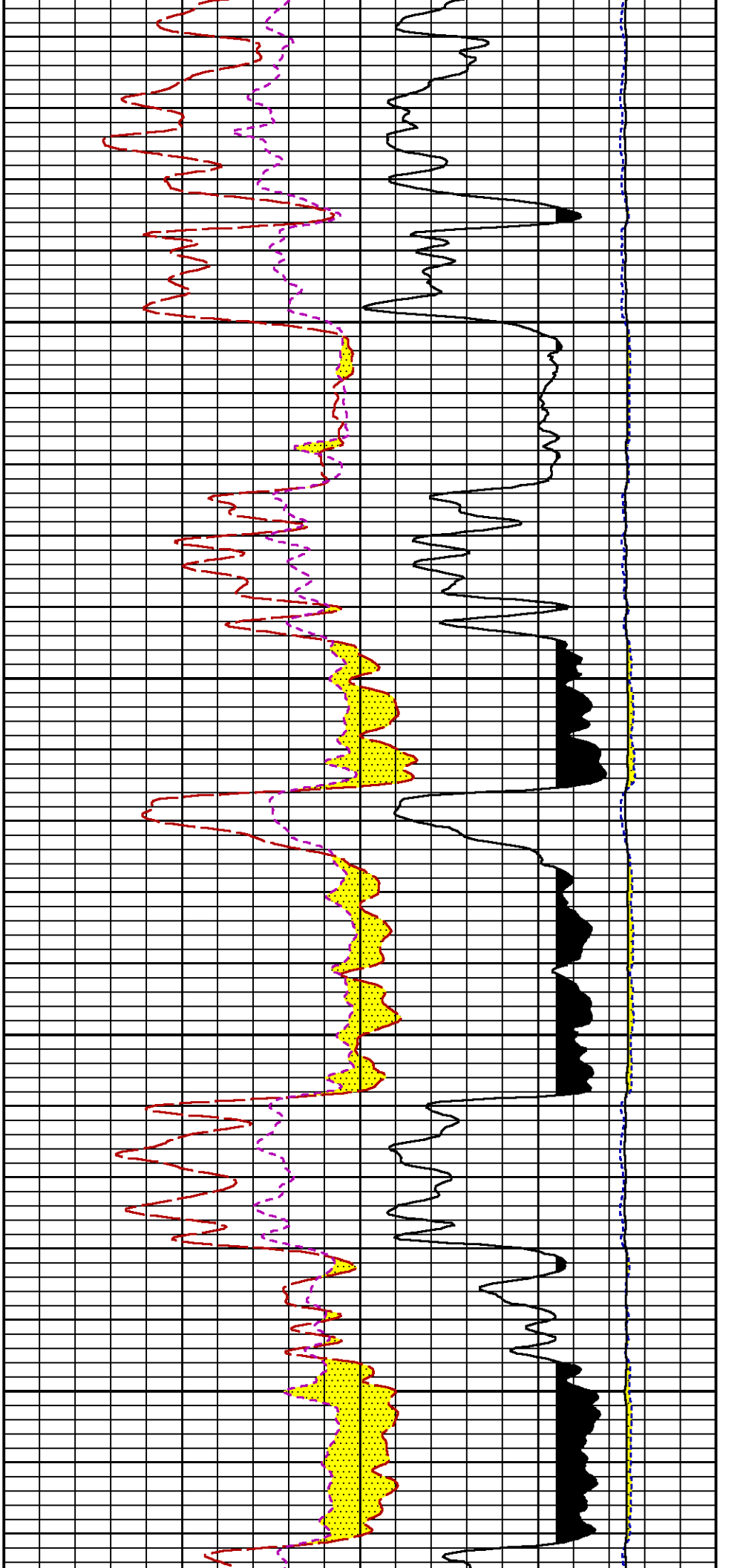


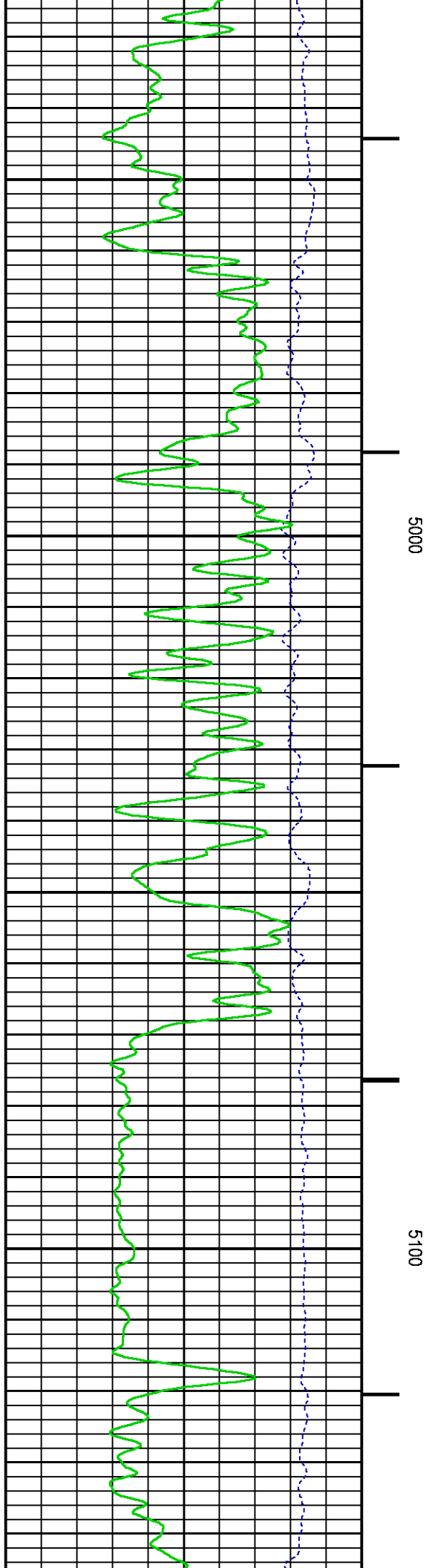
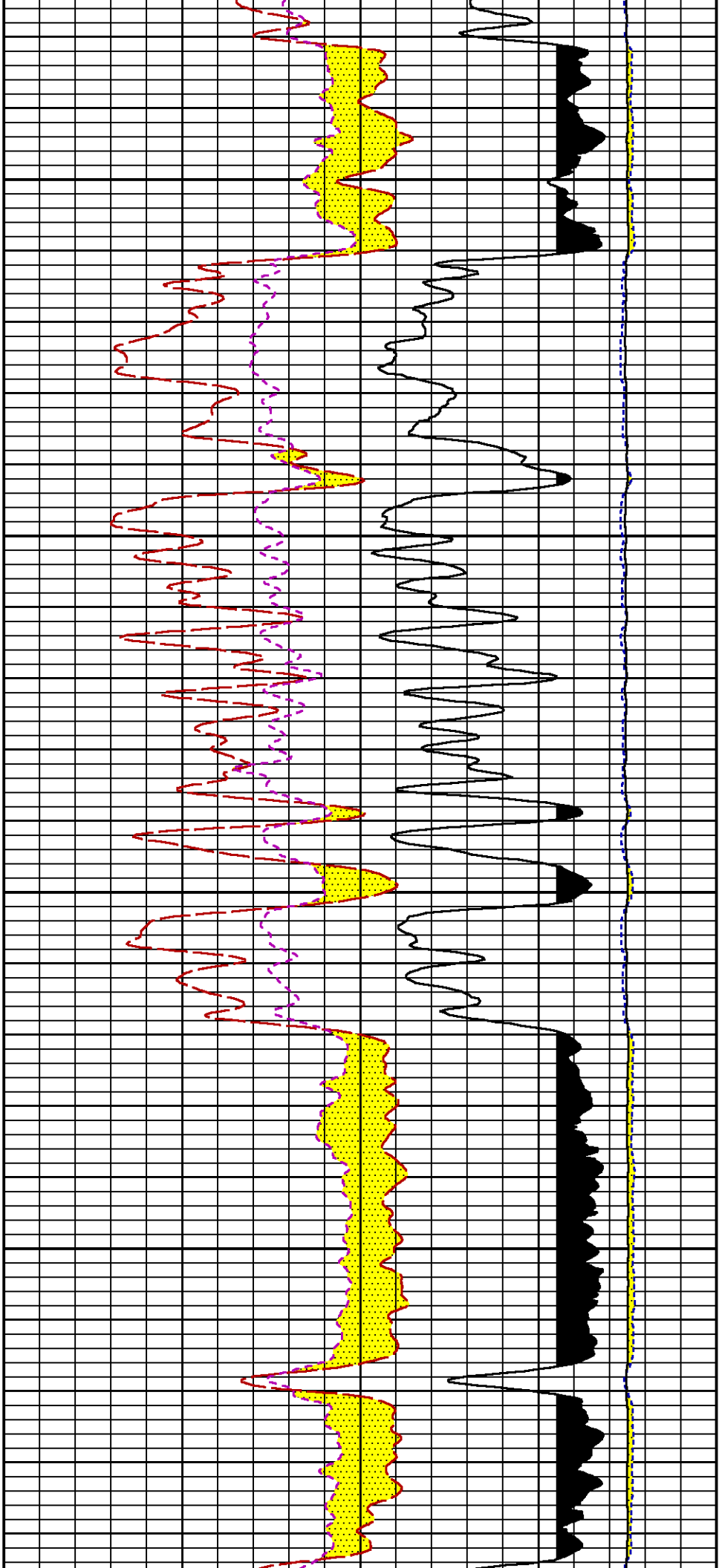


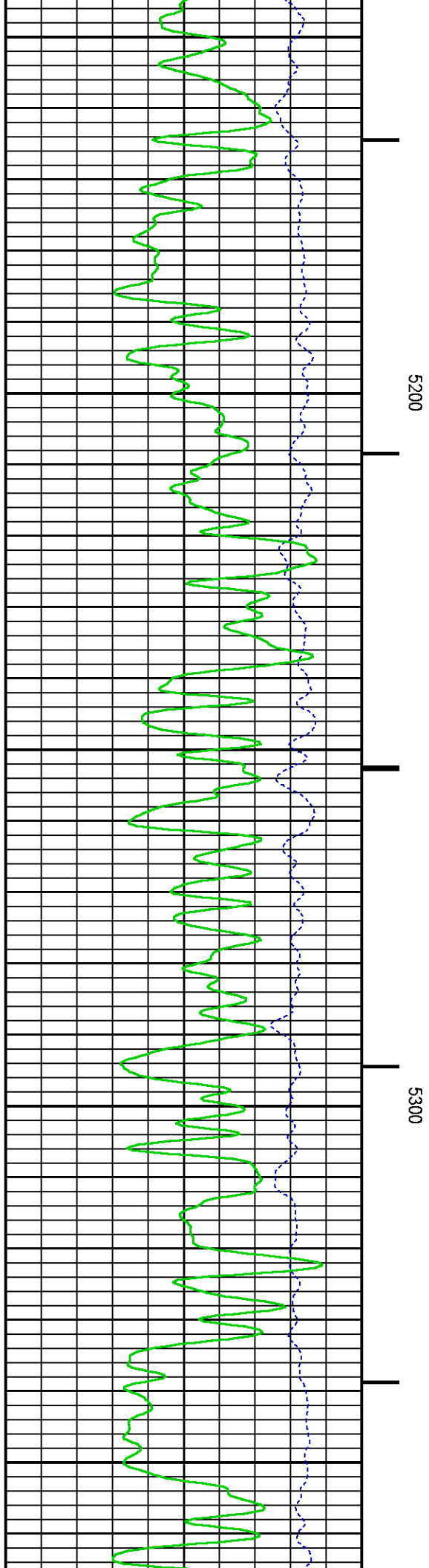
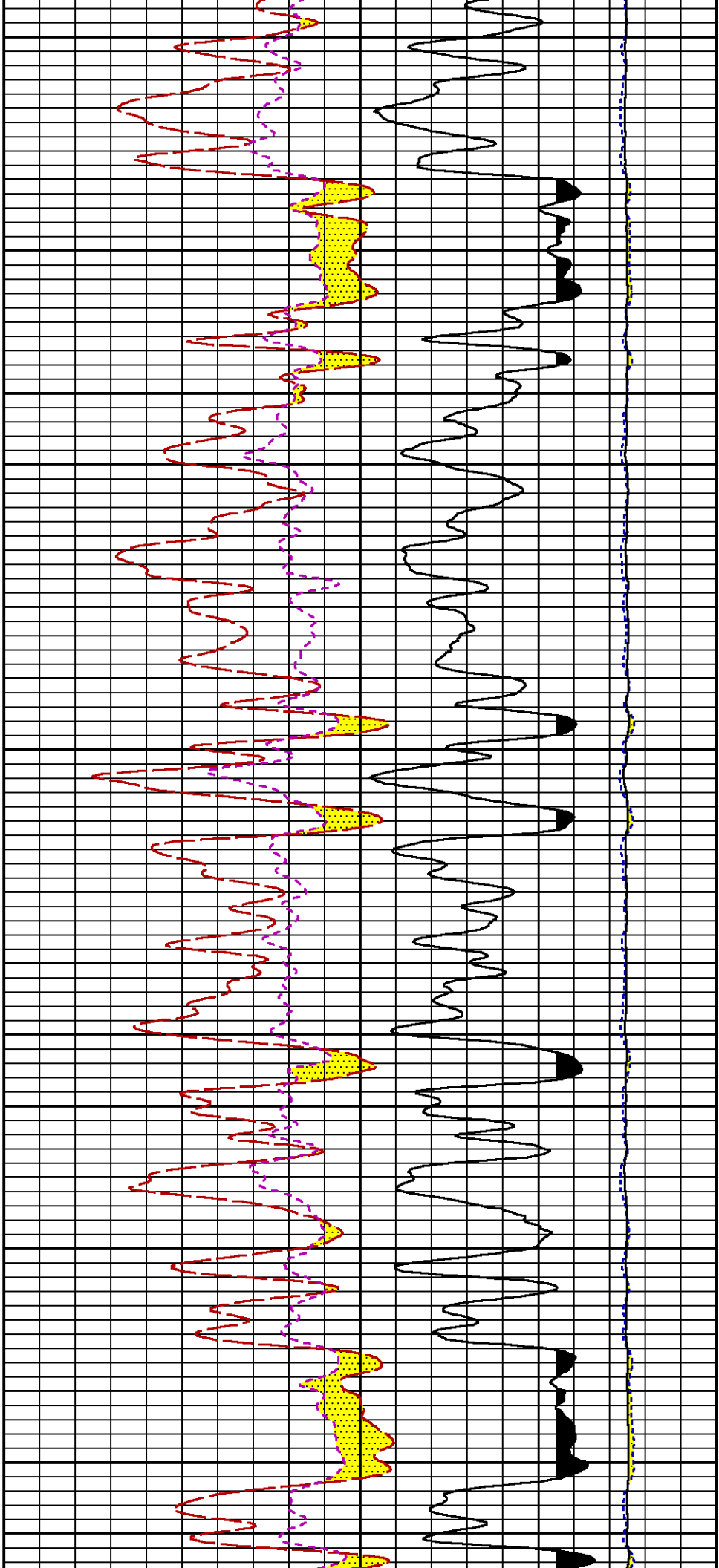


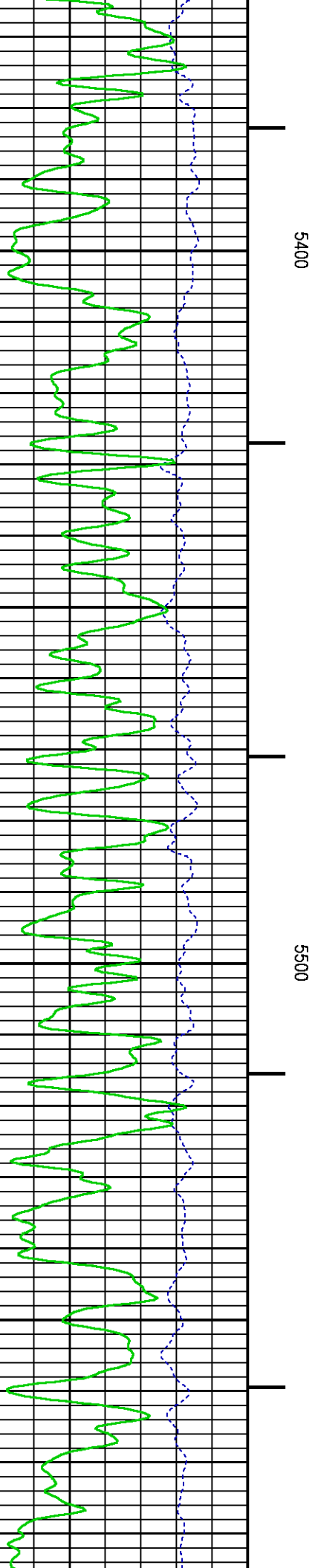
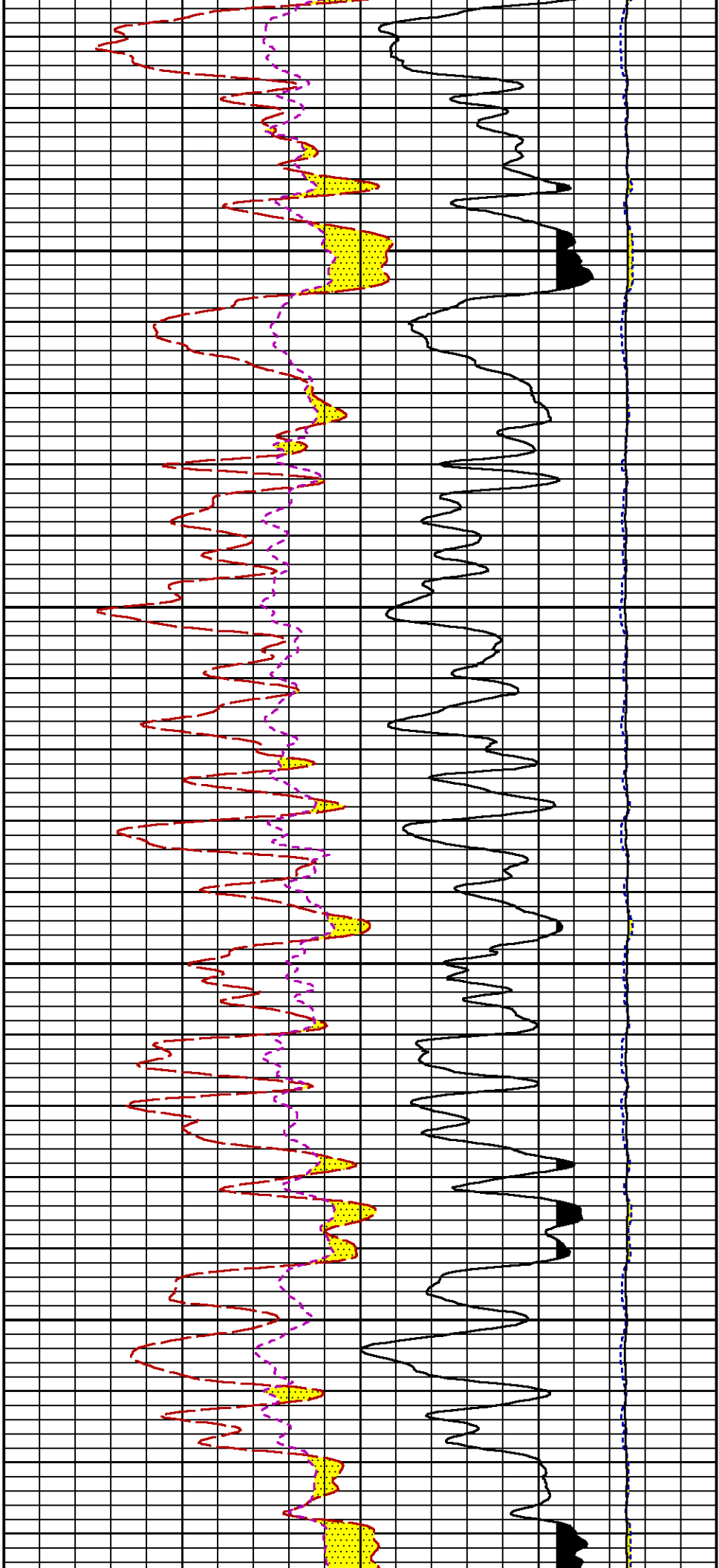


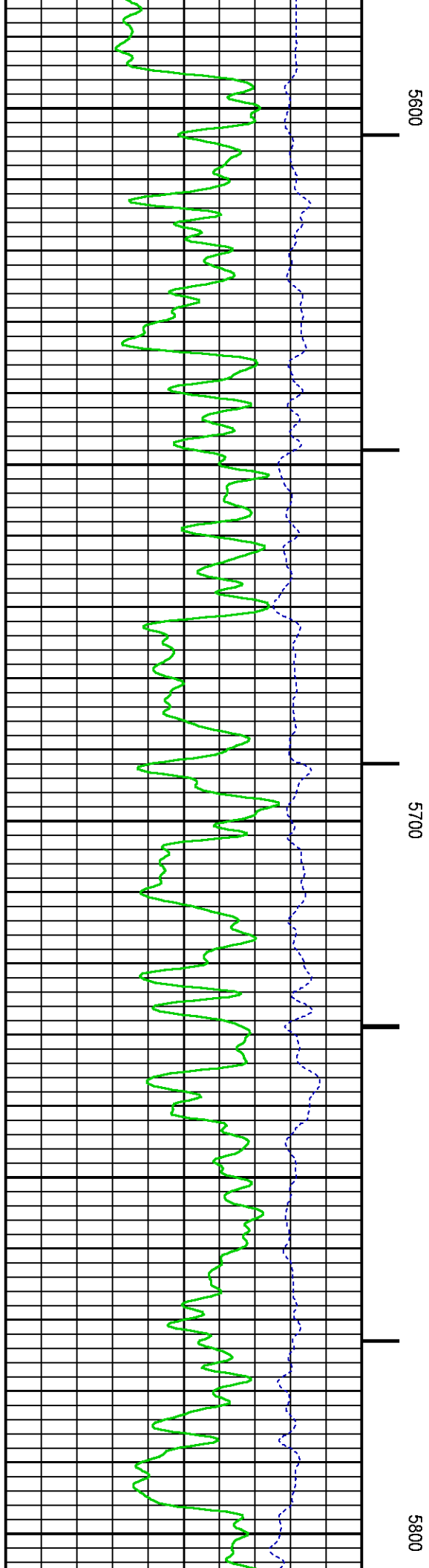
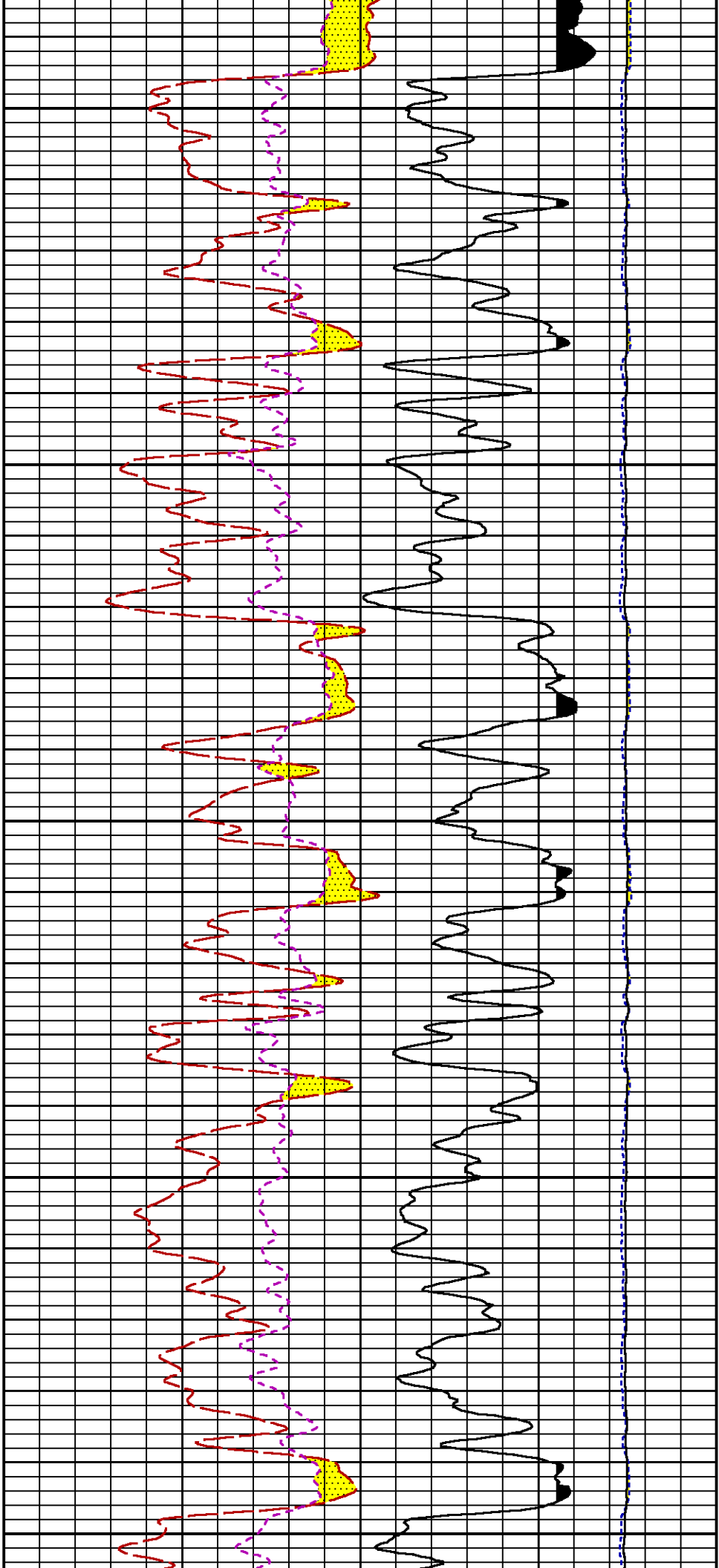


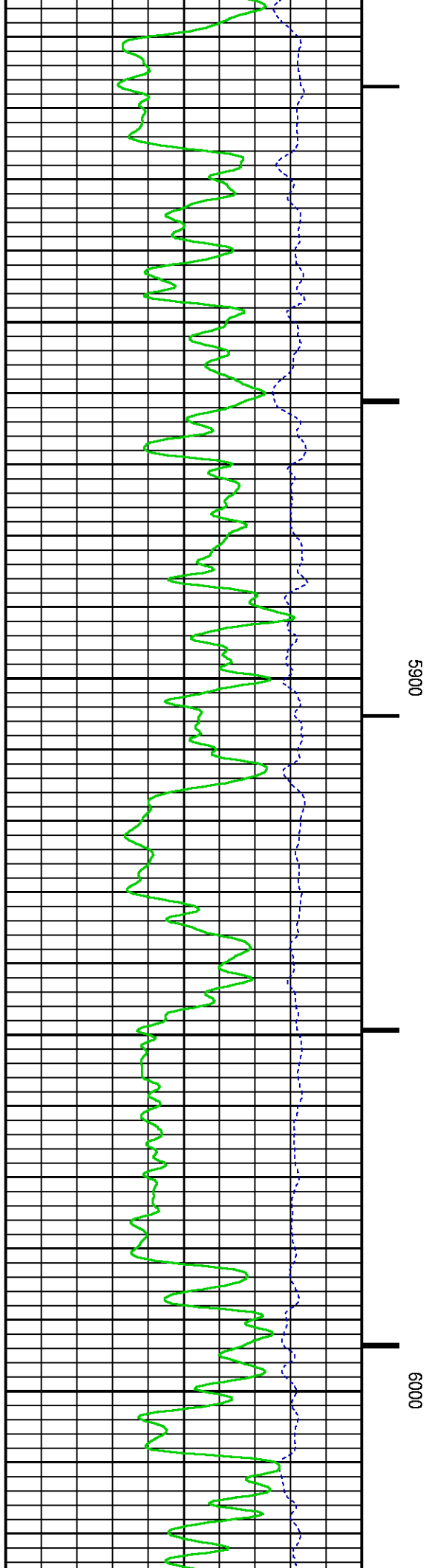
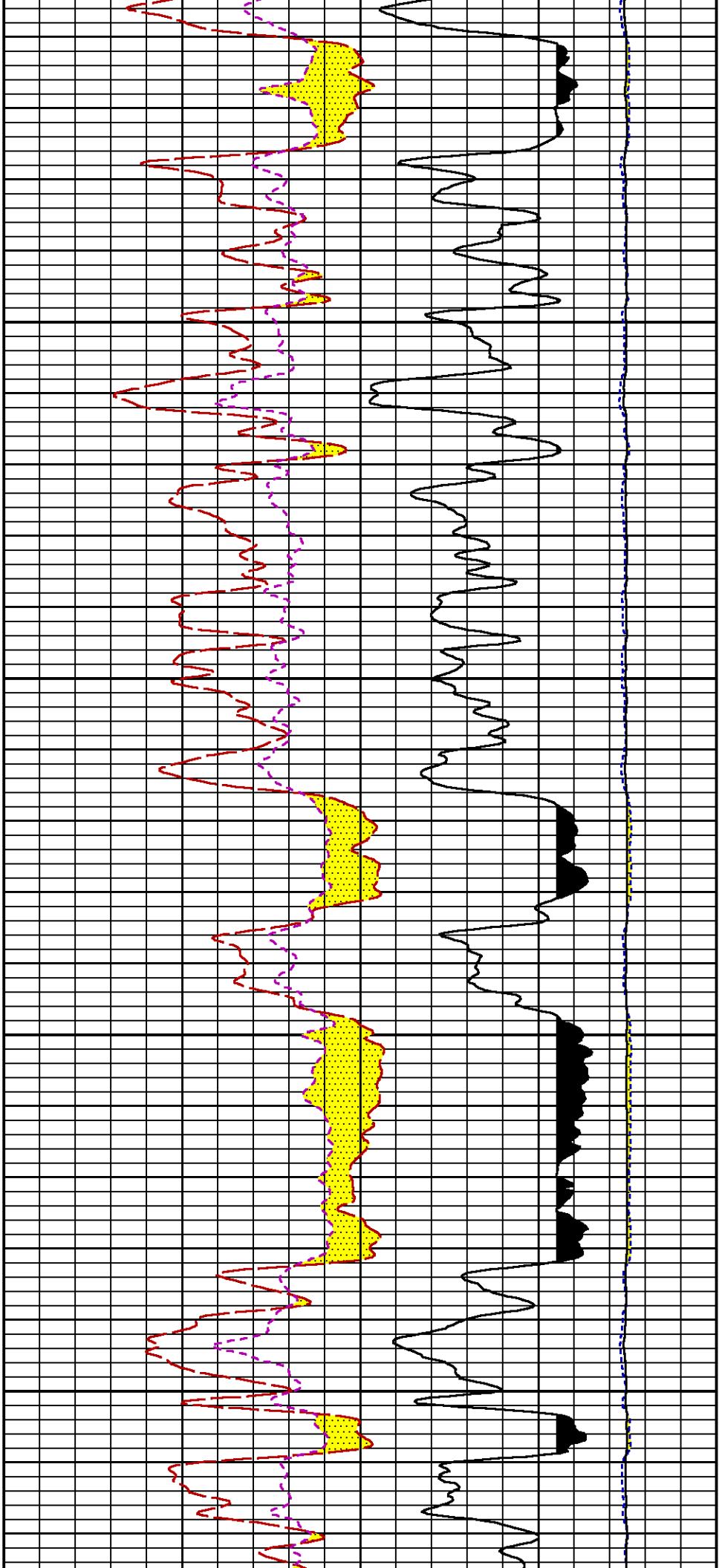


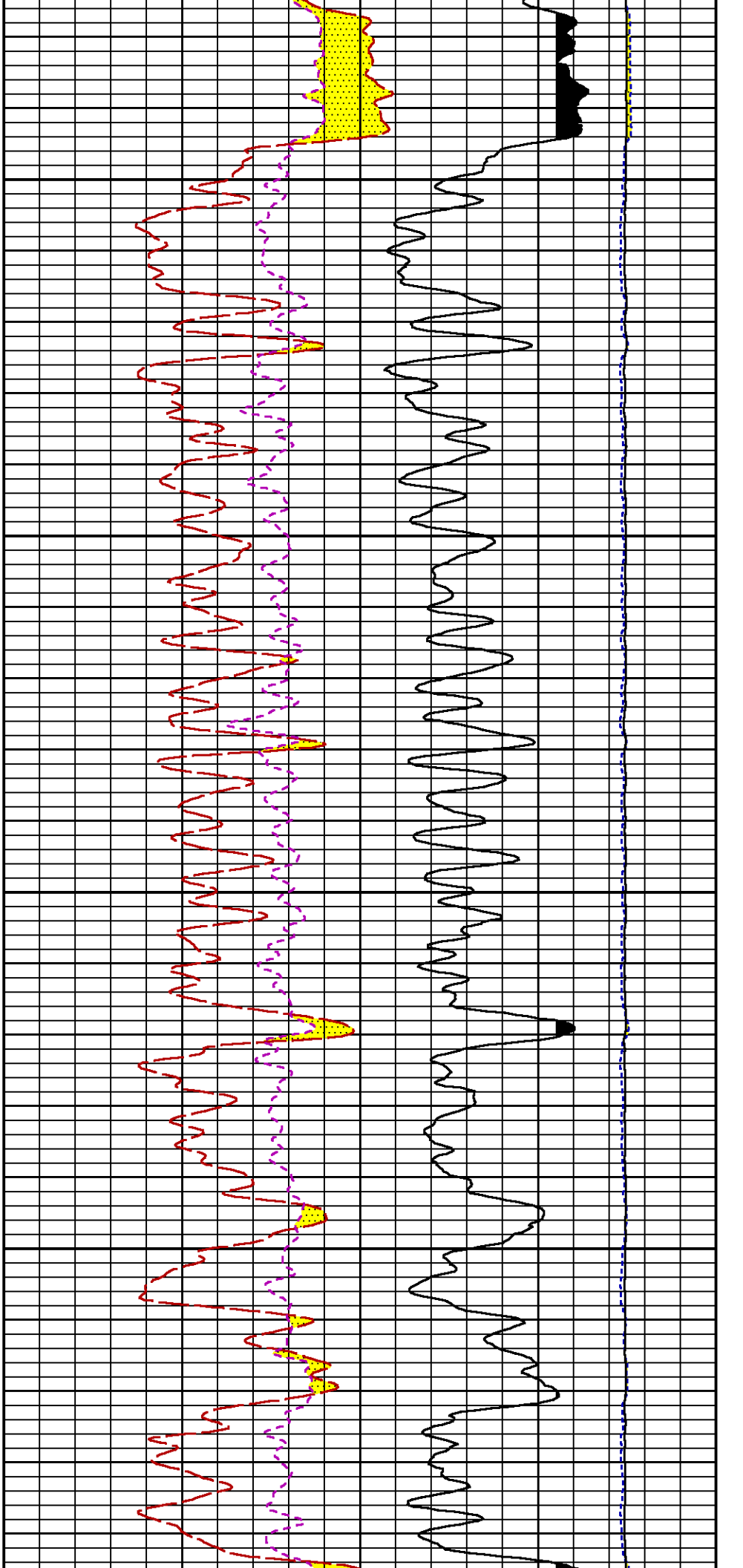






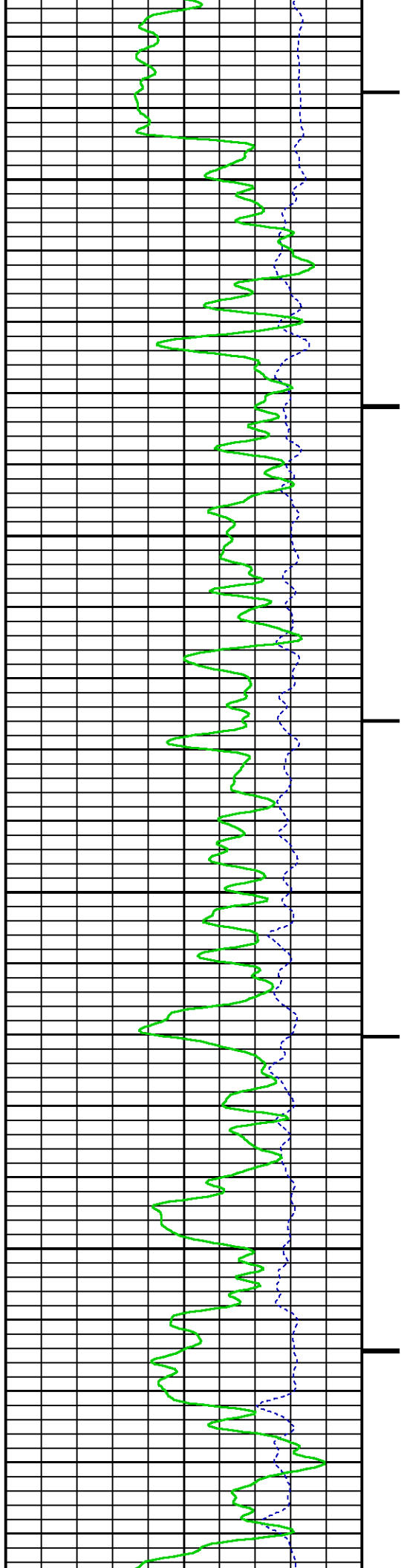


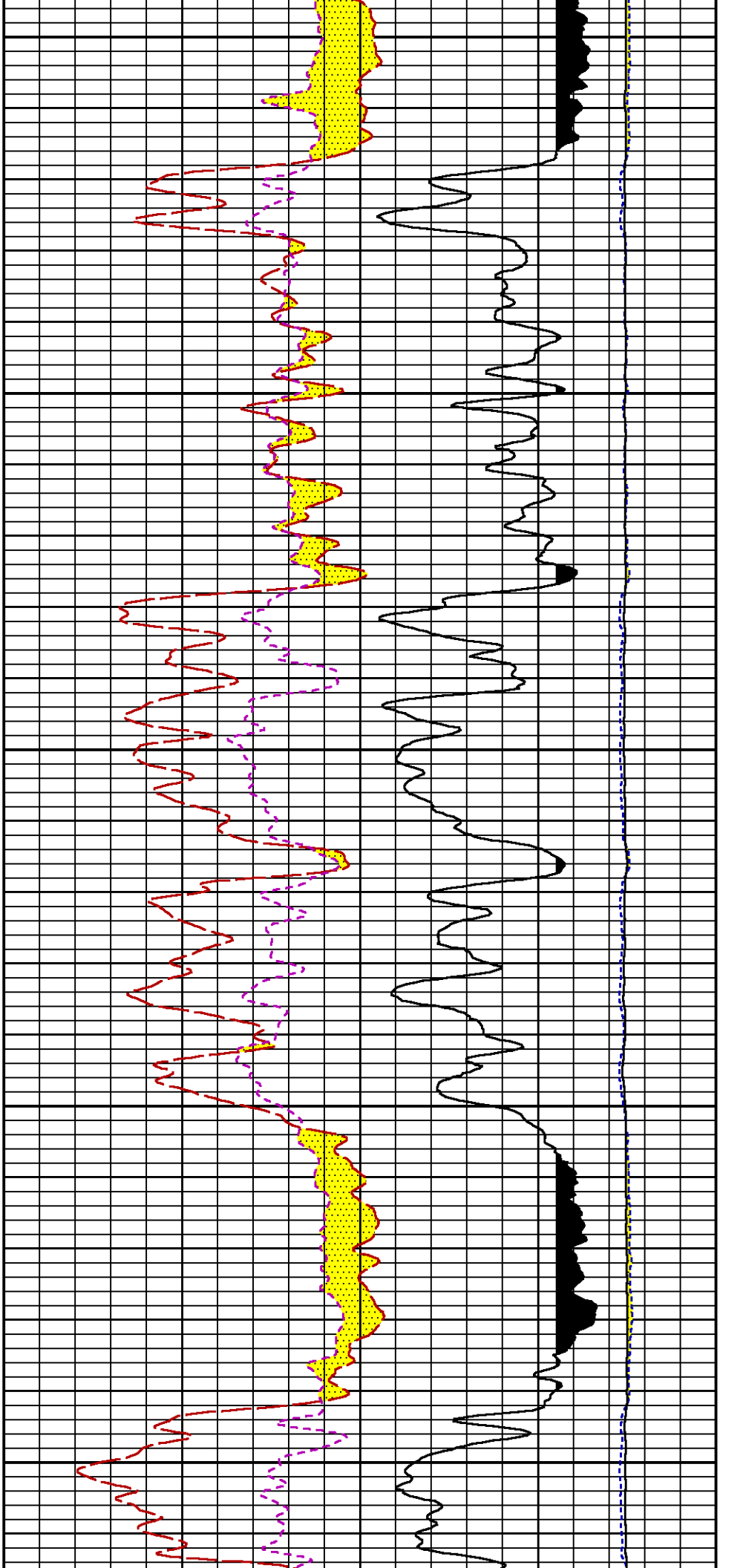




6100

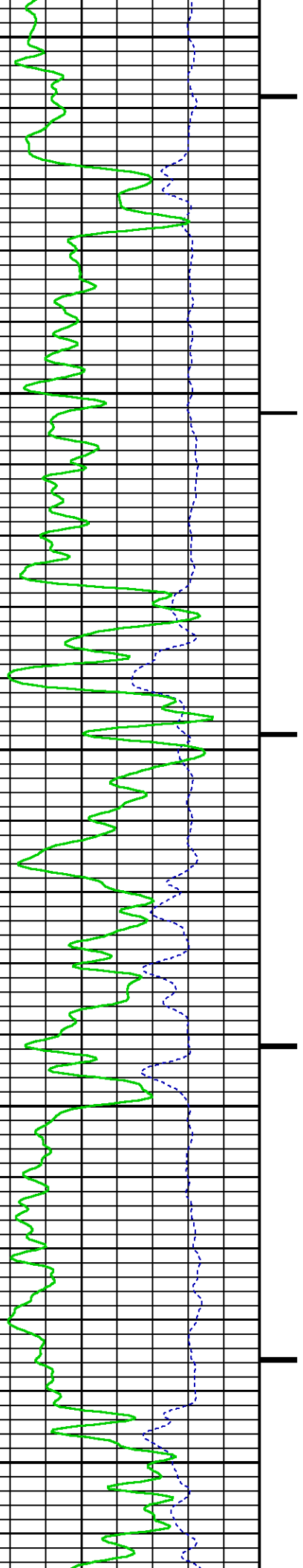
6200

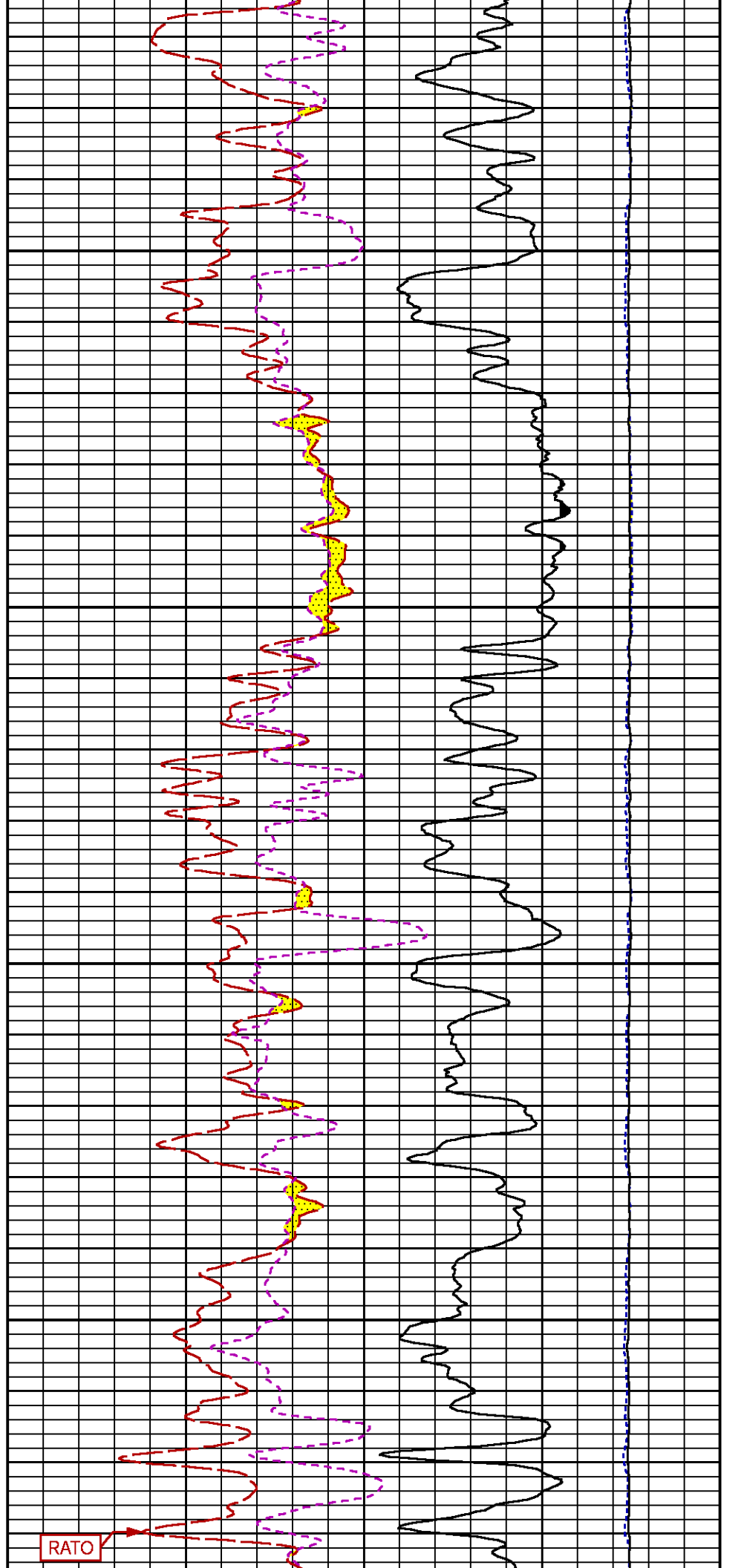
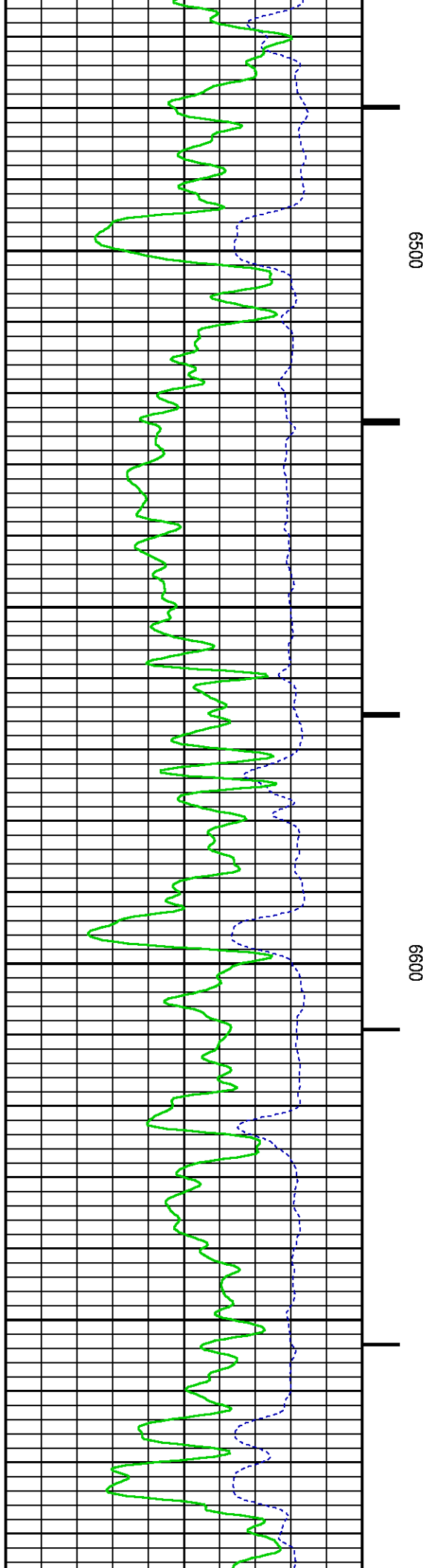


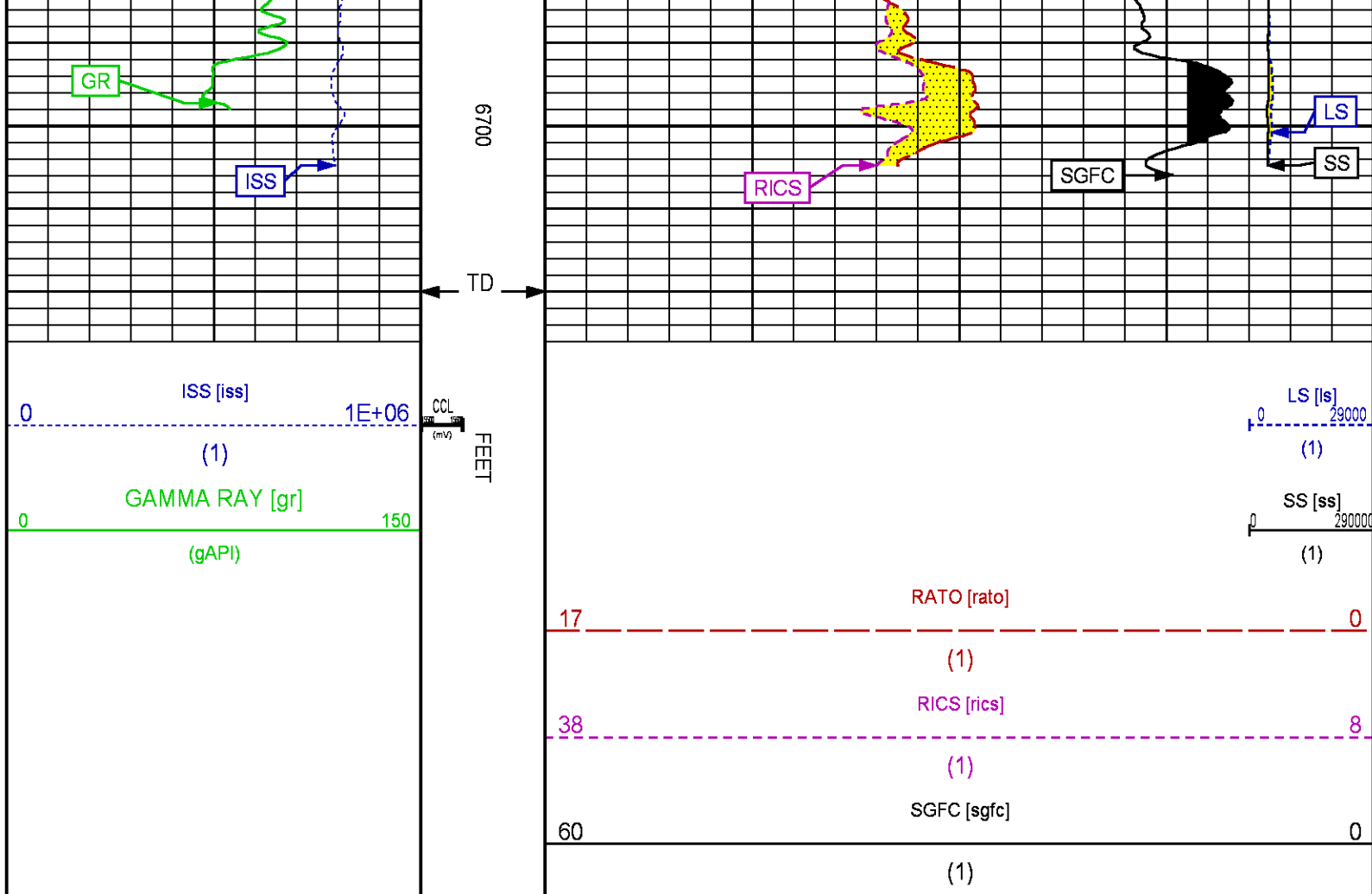


6300

6400







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: Thu Nov 13 15:51:29 2014

PARAMETER AND FILTER SUMMARY REPORT

FILE: /dat1a/CH092531/n354h01.prm
 LOGGING MODE: DEPTH DIRECTION: UP
 TOP DEPTH: 5939.500 ft BOTTOM DEPTH: 6266.250 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

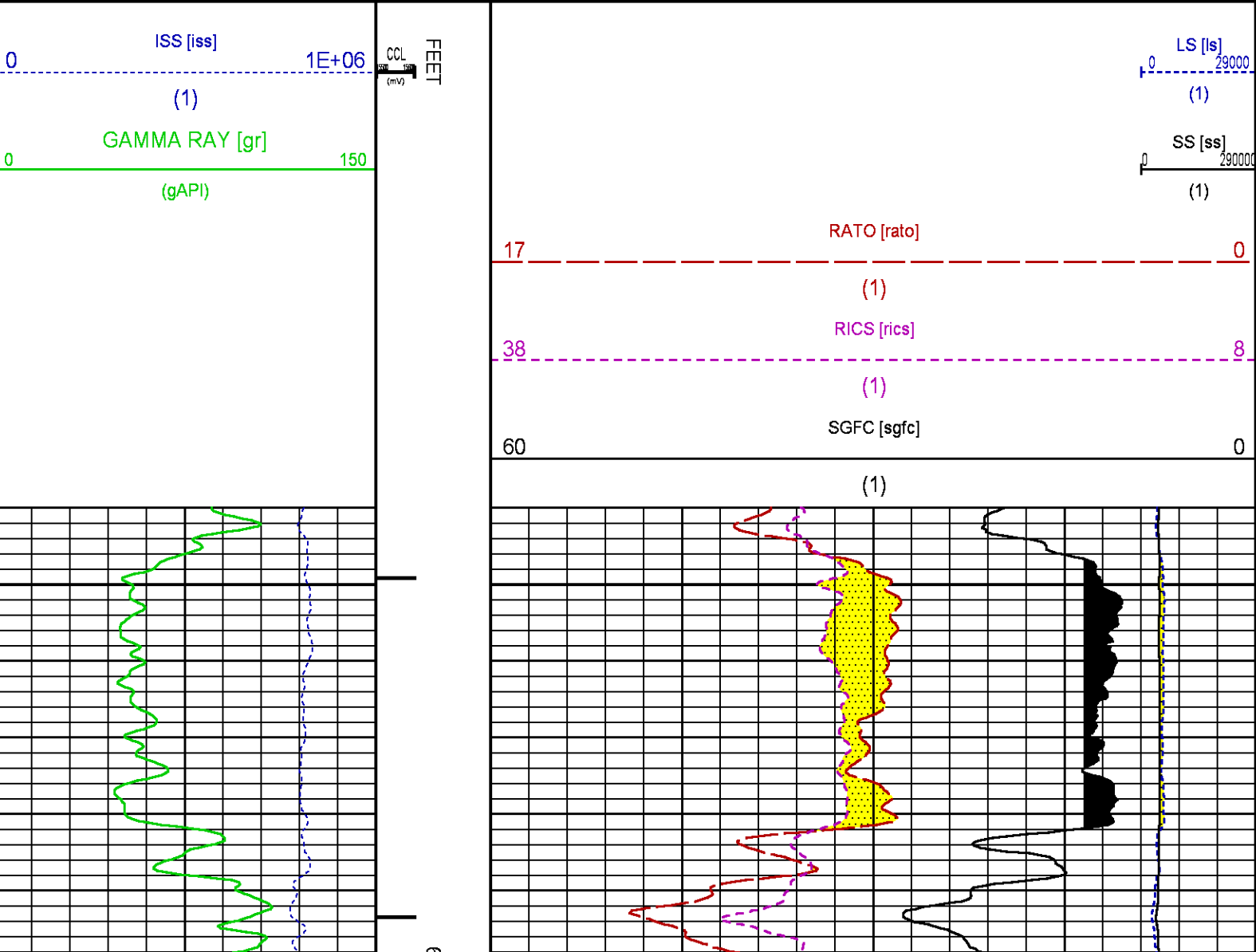
CURVE NAME	CREATION DATE	CURVE DESCRIPTION
F1:CCL	Nov 13 12:42:49 2014	CASING COLLAR LOCATOR
F1:GR	Nov 13 12:42:49 2014	GAMMA RAY
F1:ISS	Nov 13 12:42:49 2014	INELASTIC SHORT SPACE COUNT RATE
F1:LS	Nov 13 12:42:49 2014	LONG SPACE COUNT RATE
F1:RATO	Nov 13 12:42:49 2014	SHORT/LONG SPACE COUNT RATE RATIO
F1:RICS	Nov 13 12:42:49 2014	SHORT SPACE INELASTIC TO CAPTURE COUNT RATE RATIO (ISS/CSS)
F1:SGFC	Nov 13 12:42:49 2014	CORRECTED FORMATION SIGMA
F1:SS	Nov 13 12:42:49 2014	SHORT SPACE COUNT RATE

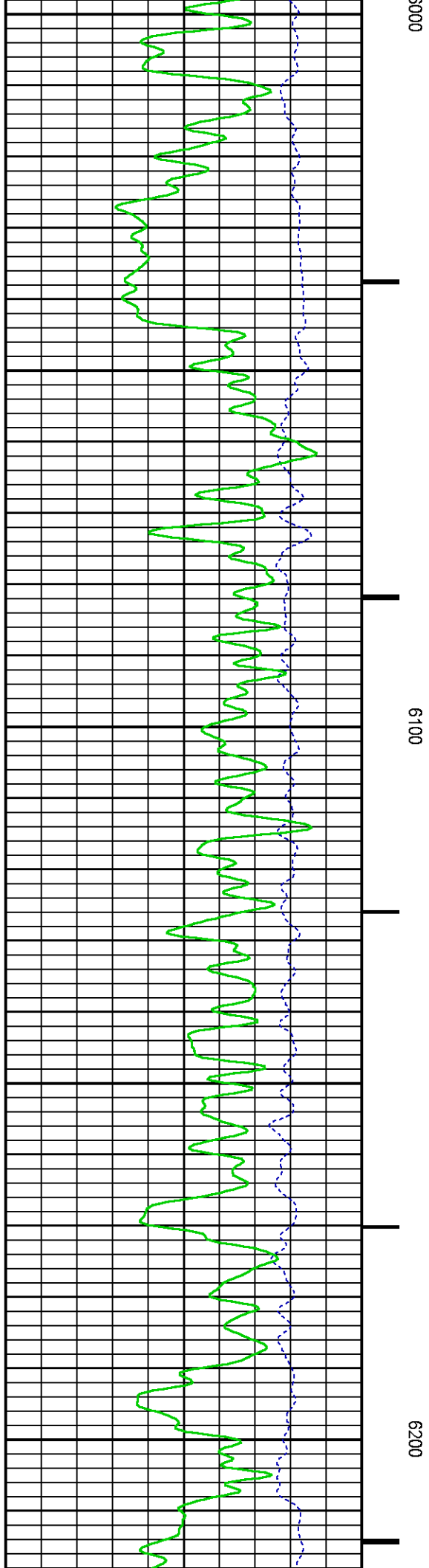
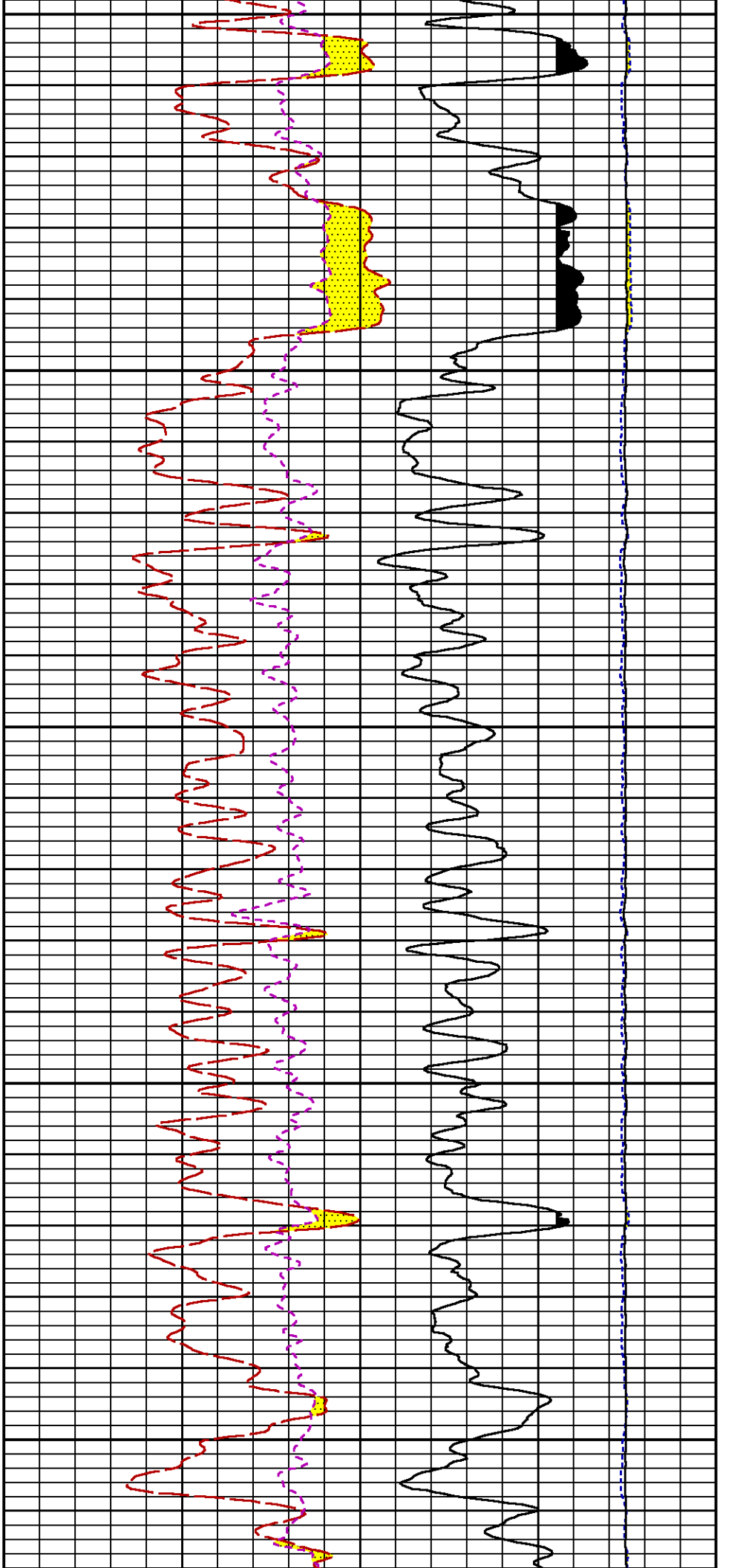
CURVE MEASURE POINT OFFSET

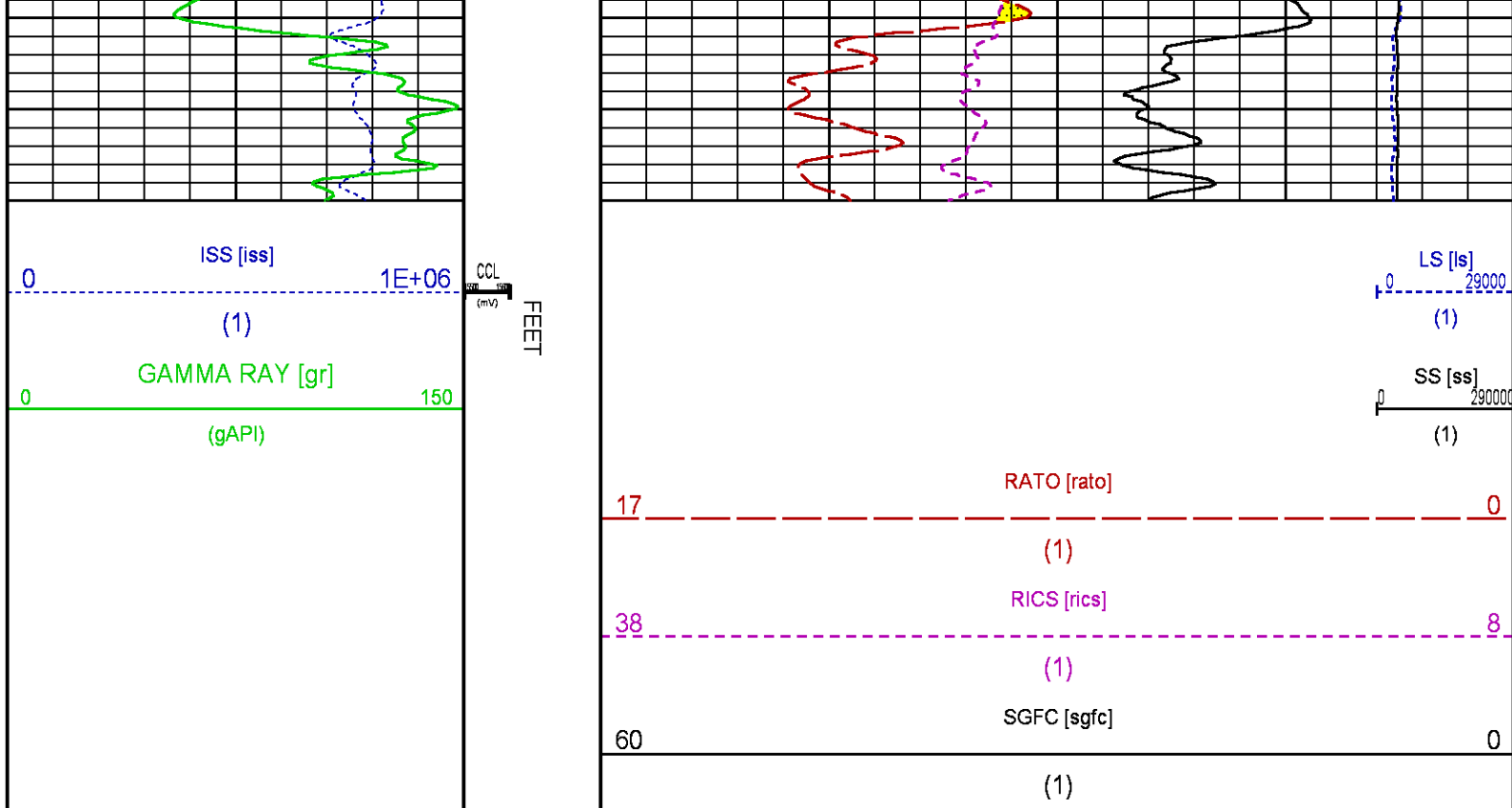
CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)
CCL	25.00	ISS	12.75	RATO	12.75	SGFC	12.75
GR	22.75	LS	12.75	RICS	12.75	SS	12.75

Presentation : HL6670:/dat1a/CH092531/413RPM_REPEAT.fvpdf [5"/100' Scale]
Plot Interval : 5940 - 6240 Feet

Data File 1 : F1 : HL6670:/dat1a/CH092531/413RPM_REPEAT.xtf
Created On : Nov 13 12:42:49 2014
Company : WPX ENERGY
Well : WPX ENERGY GM 413-33
Field : GRAND VALLEY
File Interval : 5913 - 6264.5 Feet
OCT : n354h







CALIBRATION / VERIFICATION SUMMARY

Source File: /dat1a/CH092531/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	CALBRTR ON	CR DIFF	MULT	BACKGROUND	CALBRTR ON	CALBRTR
	(cts/s)	(cts/s)	(cts/s)		(gAPI)	(gAPI)	(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	CALBRTR ON	MULT	BACKGROUND	CALBRTR ON	DIFF.	
	(cts/s)	(cts/s)		(gAPI)	(gAPI)	(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			
	ISS	BKS	BKL	BKX	SGA1	SDA1	SGA2	SDA2
Raw Data	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	ILS	IXS	SS	SS2	LS	CSS	CLS
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	RBOR	RIN	RIN13	RICS	RATO	RTWO	RONE
			ISS/ILS	ISS/IXS	ISS/CSS	SS/LS	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

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/CH092531/RPM-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 : 8248ED
Mnemonic : PCM

33.24'

Measure Point: 1.00': CCL MP

CCL MP 25.19'

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"

	COMPANY	WPX ENERGY		FILE NO:	
	WELL	WPX ENERGY GM 413-33			CH092533
	FIELD	GRAND VALLEY		API NO:	
	COUNTY	GARFIELD	STATE	CO	05045224910000
LOCATION:		ELEVATIONS:		33 6S 96W	
SHL: 2314' FSL & 1149' FWL		KB 5764 FT		GM 13-33 PAD	
BHL: 1476' FSL & 1565' FWL		DF		CYCLONE 17	
GL 5743 FT		DATE		13-Nov-2014	
SEC	33	TWP	6S	RGE	96W

