



FILE NO: CH095880	COMPANY WELL FIELD COUNTY	LARAMIE ENERGY PICEANCE 28-11W VEGA MESA	STATE COLORADO
API NO: 05077102200000			
Ver. 4.01 SEC 28 T9S R93W PAD 28-11 PATTERSON 306	LOCATION: SHL: 2515' FSL 1608' FWL BHL: 2627' FSL 878' FWL SEC 28 TWP 9S RGE 93W	OTHER SERVICES BOND LOG	
PERMANENT DATUM LOG MEASURED FROM DRILL. MEAS. FROM	GL KB ELEVATION 22 FT ABOVE P.D. KB	ELEVATIONS: KB 7602 FT DF GL 7580 FT	

DATE	13-Apr-2015
RUN	1
SERVICE ORDER	US095880
DEPTH DRILLER	7929 FT
DEPTH LOGGER	7908 FT
BOTTOM LOGGED INTERVAL	7898 FT
TOP LOGGED INTERVAL	2550 FT
TIME STARTED	7:30
TIME FINISHED	13:00
OPERATOR RIG TIME	5.5 HRS
TYPE OF FLUID IN HOLE	WATER
FLUID DENSITY	NA
FLUID SALINITY	NA
FLUID LEVEL	124 FT
LOGGED CEMENT TOP	NA
WELLHEAD PRESSURE	0 PSI
MAXIMUM HOLE DEVIATION	NA
NOMINAL LOGGING SPEED	10 FMIN
MAX. RECORDED TEMP.	249 DEGF
REFERENCE LOG	BAKER HUGHES BOND LOG
REFERENCE LOG DATE	12-APR-2015
EQUIP. NO.	6685
LOCATION	GRAND JCT
RECORDED BY	P. EDWARDS
WITNESSED BY	MR. JOHN GRUBICH

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
7.875 IN	0 FT	7929 FT

CASING RECORD				
SIZE	WEIGHT	GRADE	FROM	TO
4.5 IN	11.6 LB/F		0 FT	7929 FT

REMARKS
RUN 1 TRIP 1: LOG CORRELATED TO BAKER HUGHES BOND LOG DATED 12-APR-2015
LOGGED WITH ZERO PSI AT WELLHEAD
LOGGED IN PNC 3D-MODE
BHT = 249 degF
THANKS FOR USING BAKER HUGHES WIRELINE RIG: PATTERSON 306

EQUIPMENT DATA				
RUN	TRIP	TOOL	SERIES NO.	SERIAL NO.
1	1	DRILL	225051	7151282

1	1	PCM	8250EA	Z151000	FREE
1	1	TEL/CCL	8248EA	Z150623	FREE
1	1	GR	2812LA	10274385	FREE
1	1	RPM	8281EA	10169250	FREE
1	1	RPM	8283PA	10203151	FREE
1	1	RPM	8281FA	10238007	FREE
1	1	TEMP	8255XA	Z120516	FREE

GSAND SECTION PNC-3D MODE

ECLIPS 6.2i ECLIPS General Release Rel 6.2i Wed Jun 12 12:21:40 CDT 2013
 Updates: 1 Patches: 6

Plotted: Mon Apr 13 13:28:34 2015

PARAMETER AND FILTER SUMMARY REPORT

FILE: /dat1a/CH095880/n354h03.prm
 LOGGING MODE: DEPTH
 TOP DEPTH: 2548.000 ft

DIRECTION: UP
 BOTTOM DEPTH: 3098.182 ft

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

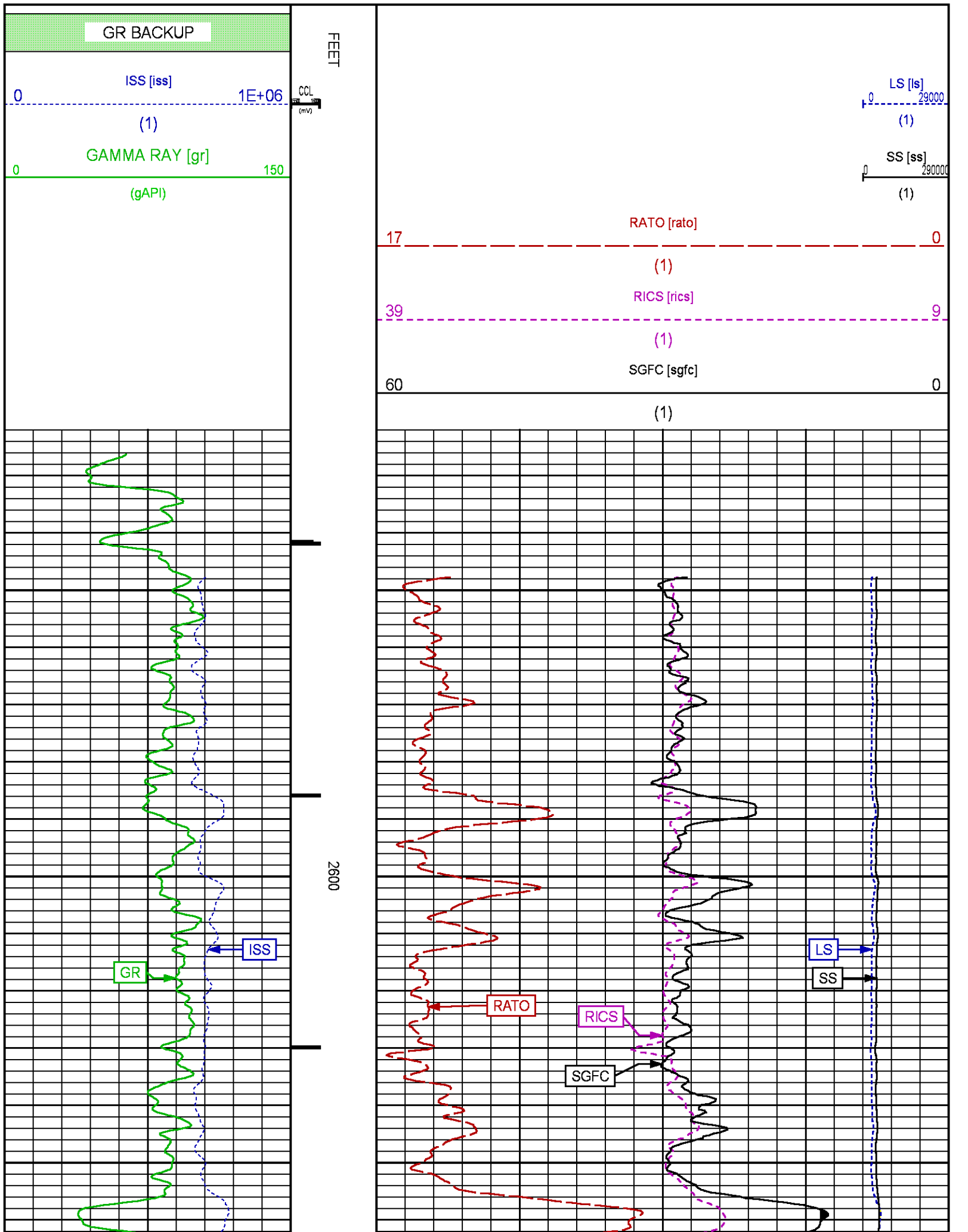
RPM PROCESSING				
MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)
PNC Parameters	BOREHOLE CONTENTS	FLUID		TOP BOTTOM
	OPEN/CASED HOLE	CASED HOLE		" "
	BOREHOLE SIZE	7.88	in	" "
	CASING SIZE	4.50	in	" "
	MATRIX	SANDSTONE		" "
	CORRECTION BUFFER	11		" "

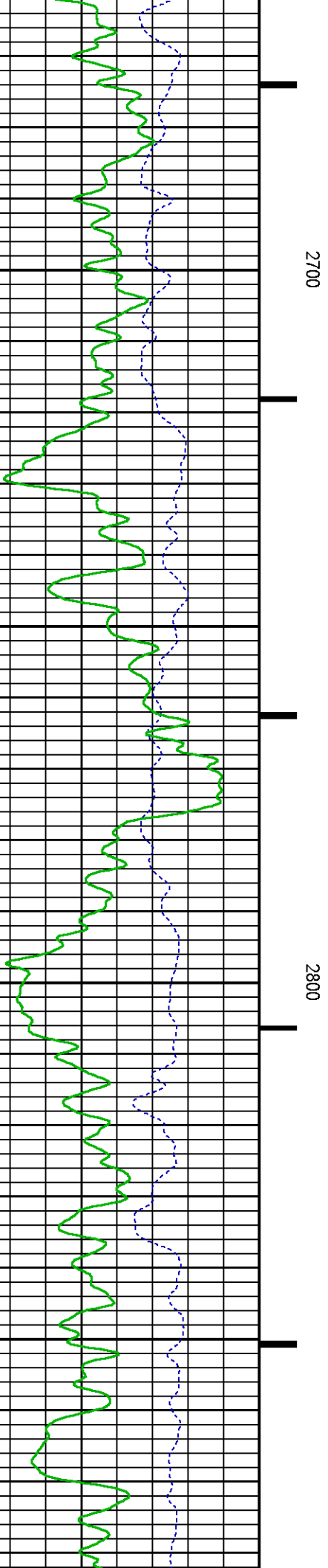
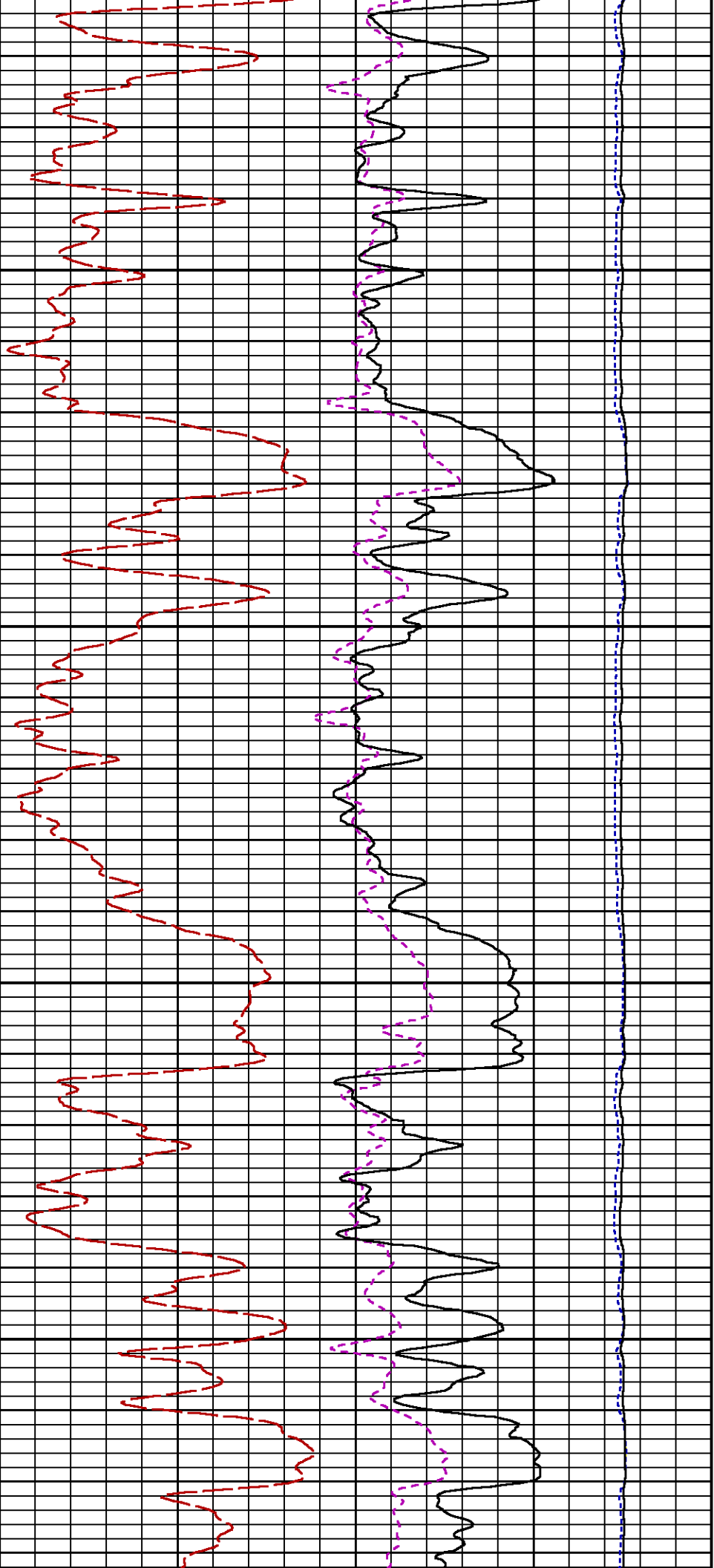
CURVE DESCRIPTION REPORT		
CURVE NAME	CREATION DATE	CURVE DESCRIPTION
F1:CCL	Apr 13 11:56:37 2015	CASING COLLAR LOCATOR
F1:GR	Apr 13 11:56:37 2015	GAMMA RAY
F1:ISS	Apr 13 11:56:37 2015	INELASTIC SHORT SPACE COUNT RATE
F1:LS	Apr 13 11:56:37 2015	LONG SPACE COUNT RATE
F1:RATO	Apr 13 11:56:37 2015	SHORT/LONG SPACE COUNT RATE RATIO
F1:RICS	Apr 13 11:56:37 2015	SHORT SPACE INELASTIC TO CAPTURE COUNT RATE RATIO (ISS/CSS)
F1:SGFC	Apr 13 11:56:37 2015	CORRECTED FORMATION SIGMA
F1:SS	Apr 13 11:56:37 2015	SHORT SPACE COUNT RATE

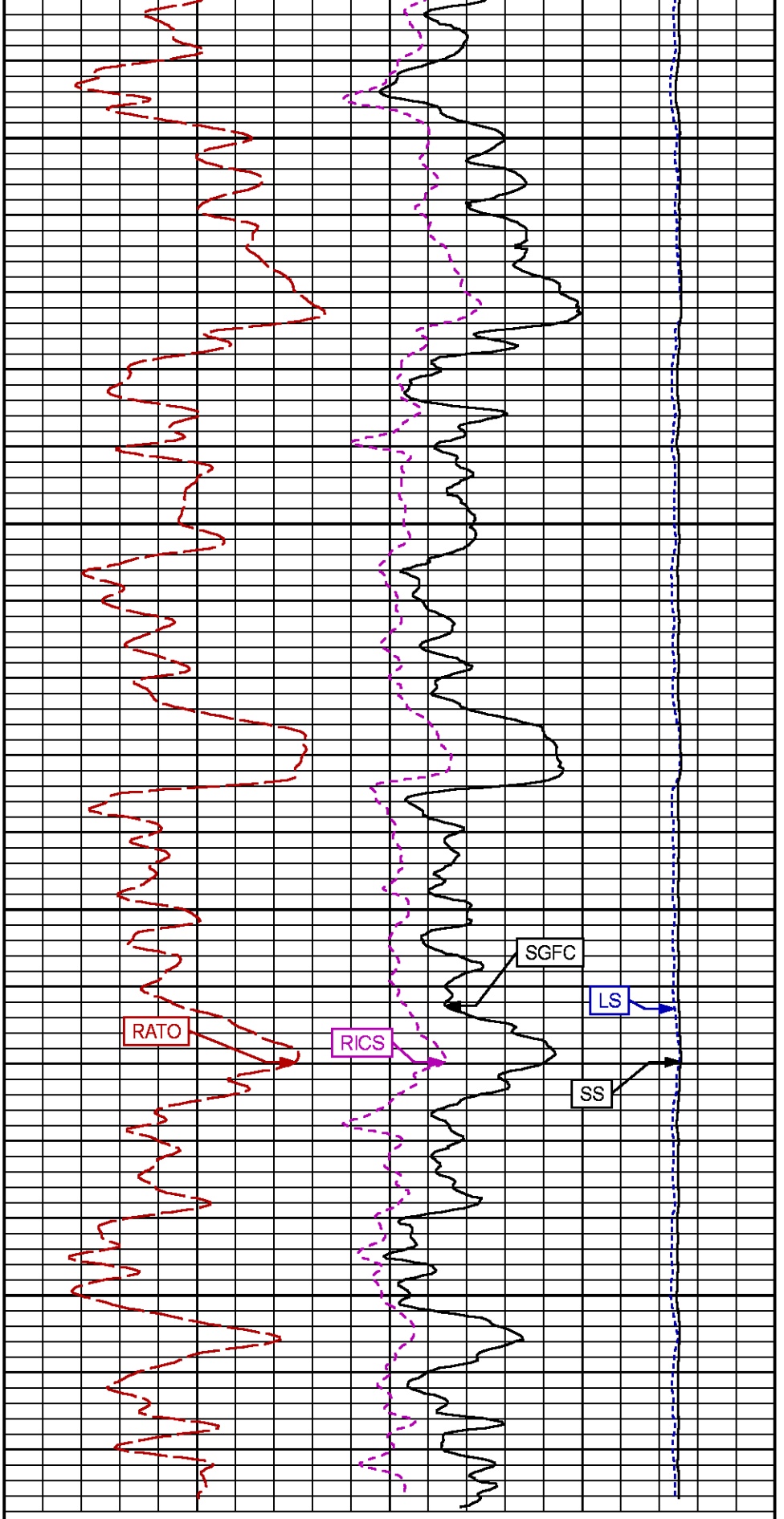
CURVE MEASURE POINT OFFSET							
CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)
CCL	25.00	ISS	12.75	RATO	12.75	SGFC	12.75
GR	22.75	LS	12.75	RICS	12.75	SS	12.75

Presentation : cas6685:/dat1a/CH095880/RPM_11W_GSAND.fvpdf [5"/100' Scale]
 Plot Interval : 2522.75 - 3077.5 Feet

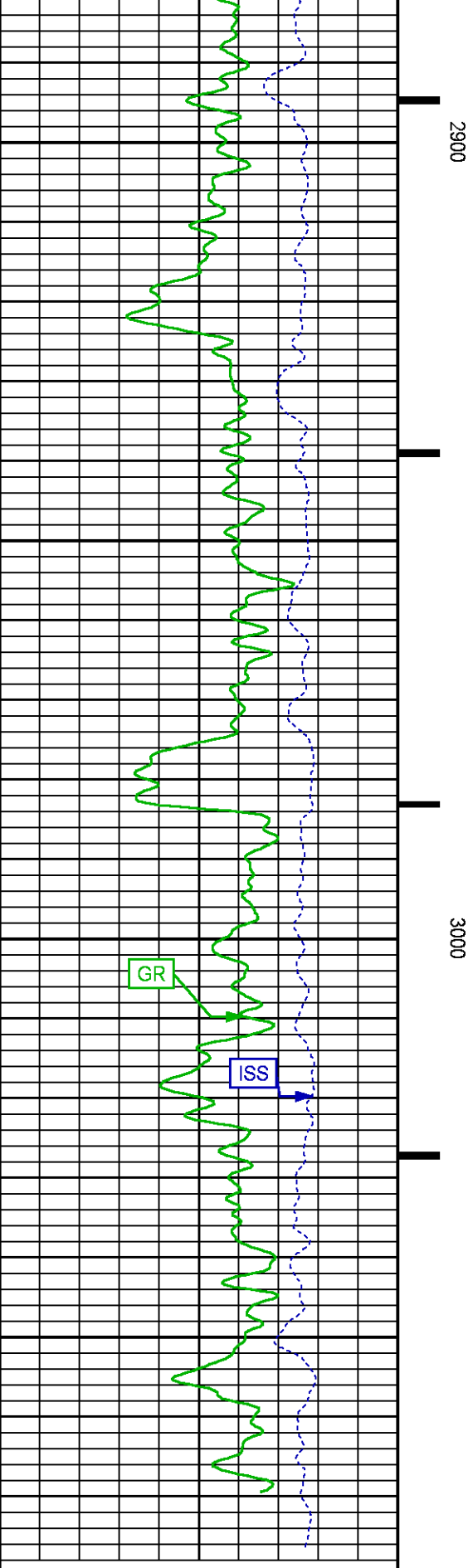
Data File 1 : F1 : cas6685:/dat1a/CH095880/ROM_GSAND_11W.xtf
 Created On : Apr 13 11:56:37 2015
 Company : LARAMIE ENERGY
 Well : PICEANCE 28-11W
 Field : VEGA
 File Interval : 2522 - 3093.75 Feet
 OCT : 2541







LS [s]
0 29000
(1)



GR BACKUP

ISS [iss]
0 1E+06
(1)

FEET

GAMMA RAY [gr]		SS [ss]
0	150	0290000
(gAPI)		(1)
17		RATO [rato]0
		(1)
39		RICS [rics]9
		(1)
60		SGFC [sgfc]0
		(1)

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: 6

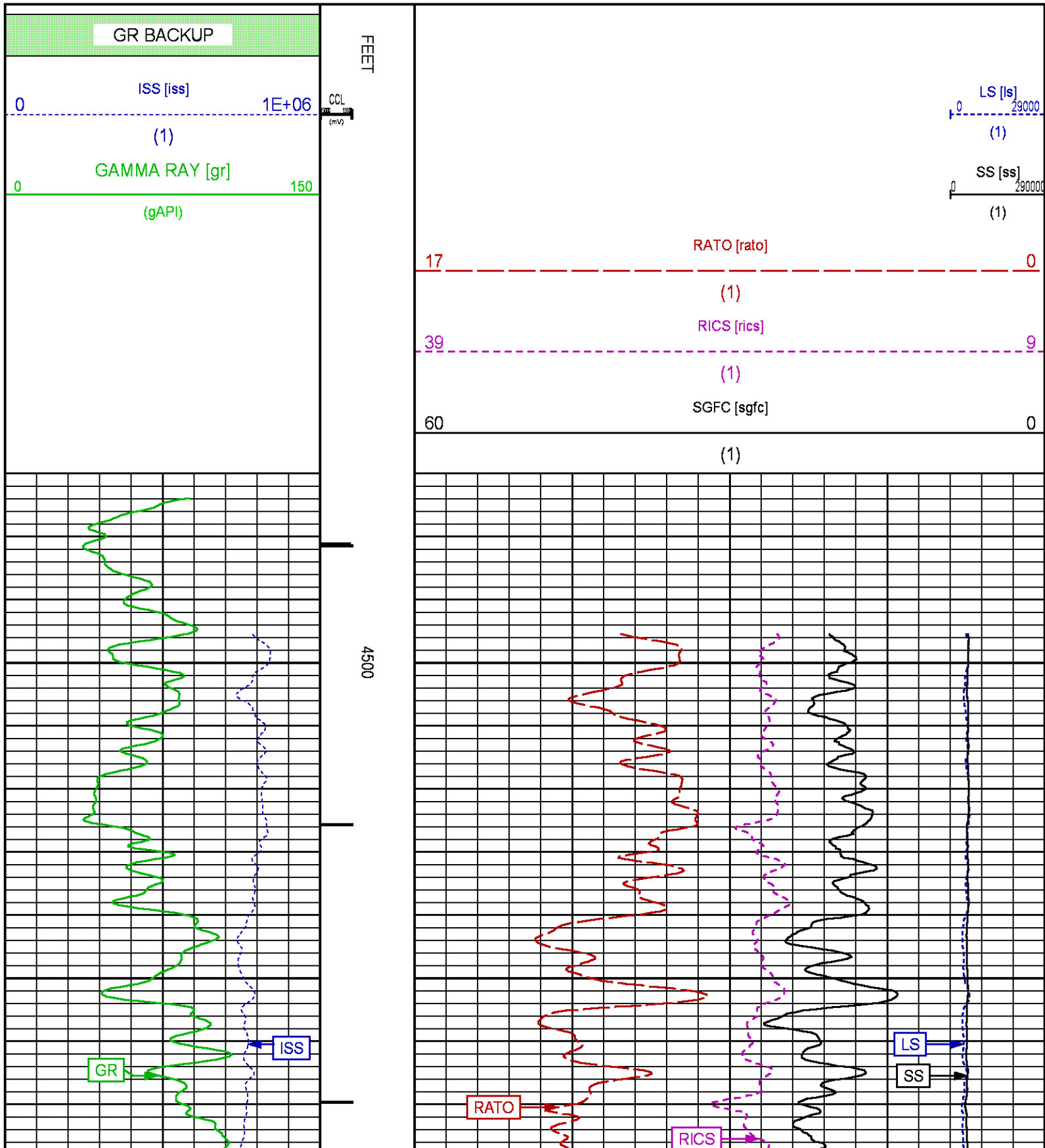
Plotted: Mon Apr 13 12:16:40 2015

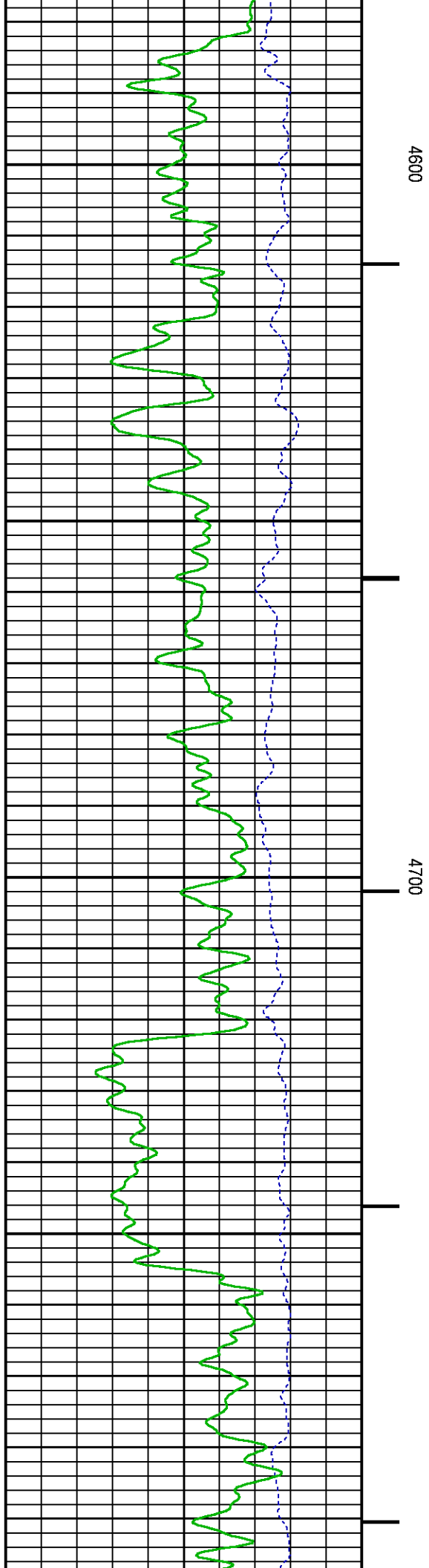
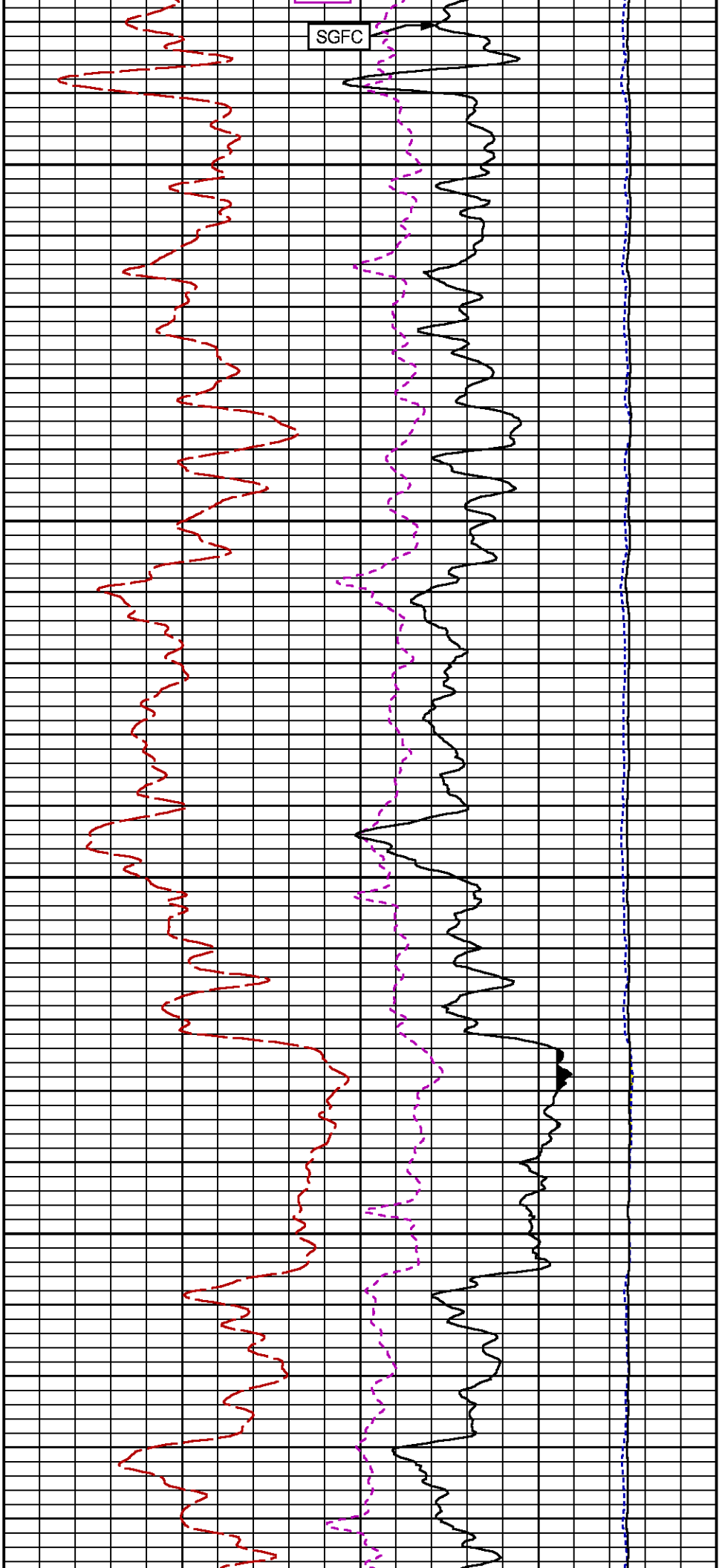
PARAMETER AND FILTER SUMMARY REPORT					
FILE: /dat1a/CH095880/n354h02.prm LOGGING MODE: DEPTH DIRECTION: UP TOP DEPTH: 4497.250 ft BOTTOM DEPTH: 7914.972 ft					
SYMMETRIC FILTER					
MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
GR	FILTER ()	medium (1)		TOP	BOTTOM
RPM PROCESSING					
MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
PNC Parameters	BOREHOLE CONTENTS	FLUID		TOP	BOTTOM
	OPEN/CASED HOLE	CASED HOLE		"	"
	BOREHOLE SIZE	7.88	in	"	"
	CASING SIZE	4.50	in	"	"
	MATRIX	SANDSTONE		"	"
	CORRECTION BUFFER	11		"	"

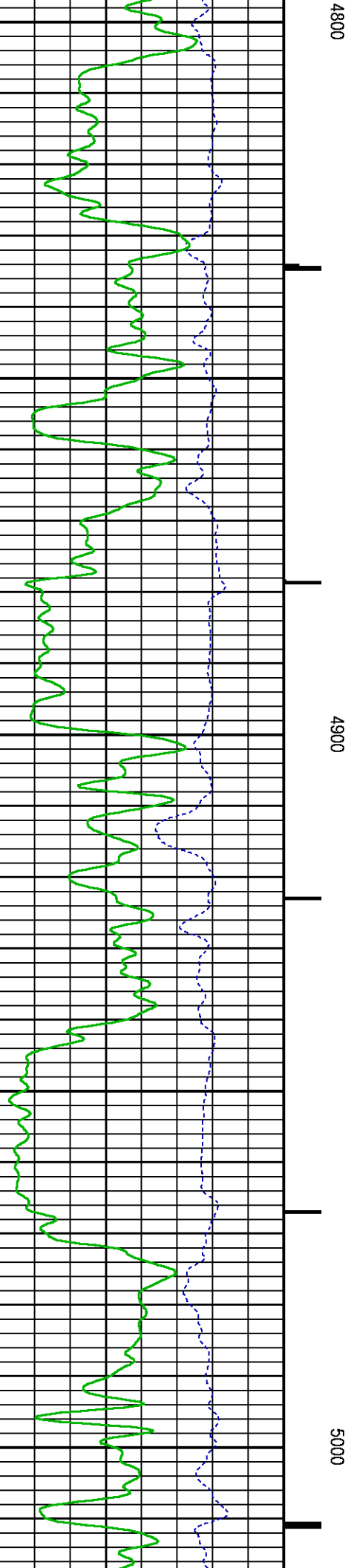
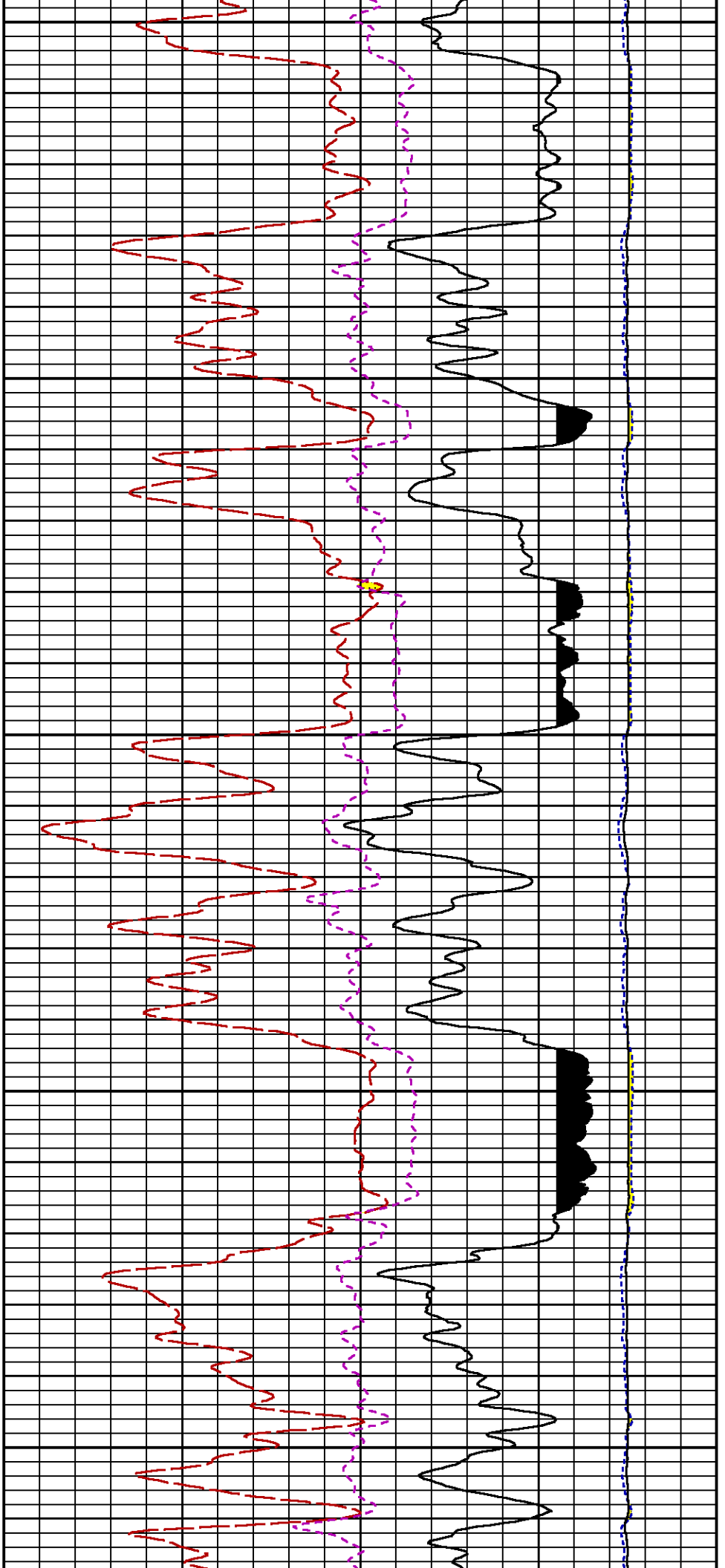
CURVE DESCRIPTION REPORT		
CURVE NAME	CREATION DATE	CURVE DESCRIPTION
F1:CCL	Apr 13 08:25:52 2015	CASING COLLAR LOCATOR
F1:GR	Apr 13 08:25:52 2015	GAMMA RAY
F1:ISS	Apr 13 08:25:52 2015	INELASTIC SHORT SPACE COUNT RATE
F1:LS	Apr 13 08:25:52 2015	LONG SPACE COUNT RATE
F1:RATO	Apr 13 08:25:52 2015	SHORT/LONG SPACE COUNT RATE RATIO
F1:RICS	Apr 13 08:25:52 2015	SHORT SPACE INELASTIC TO CAPTURE COUNT RATE RATIO (ISS/CSS)
F1:SGFC	Apr 13 08:25:52 2015	CORRECTED FORMATION SIGMA
F1:SS	Apr 13 08:25:52 2015	SHORT SPACE COUNT RATE

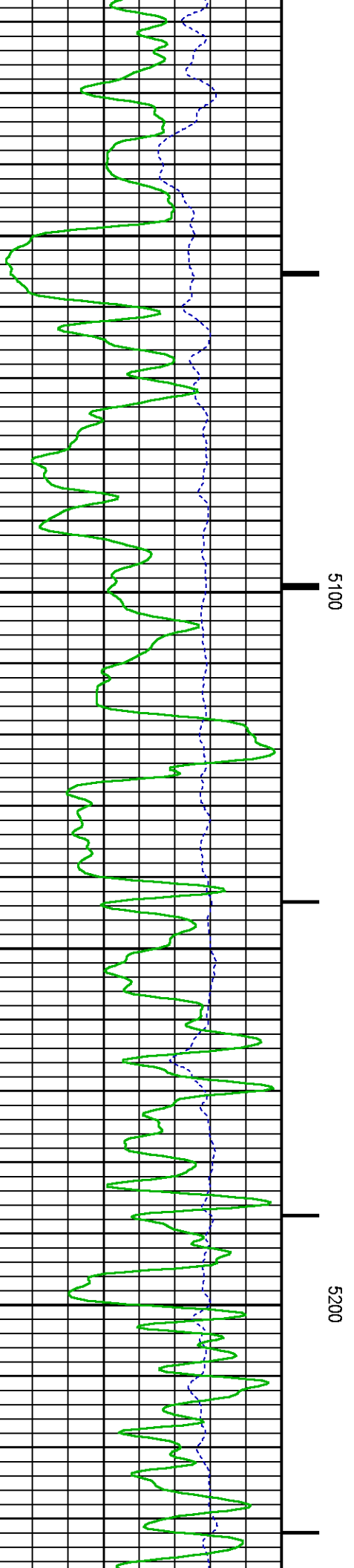
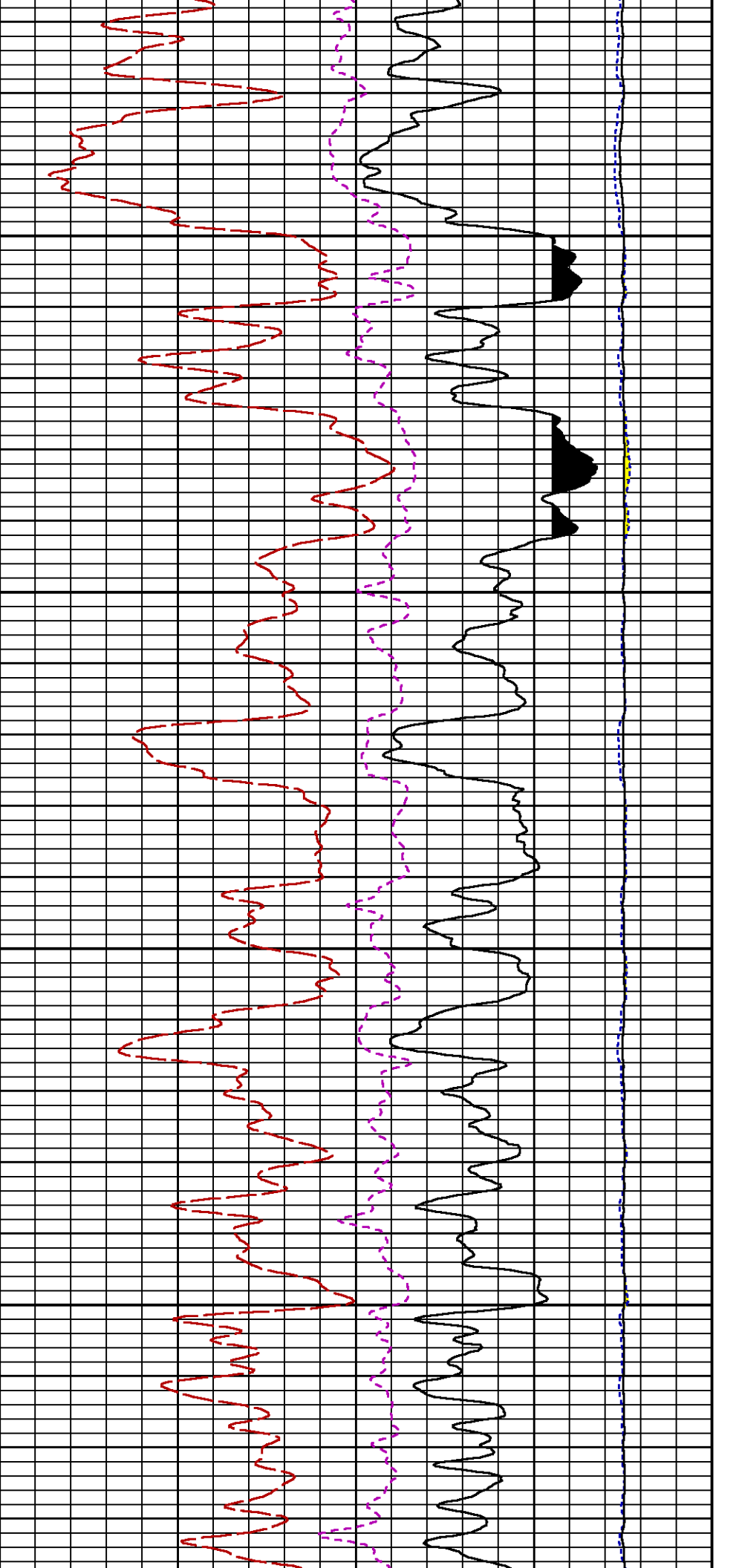
CURVE MEASURE POINT OFFSET							
CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)
CCL	25.00	ISS	12.75	RATO	12.75	SGFC	12.75

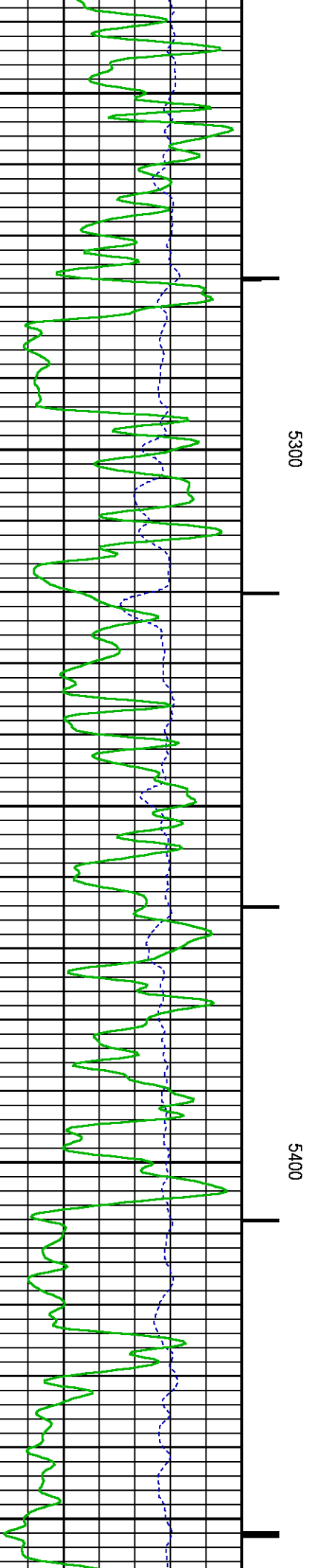
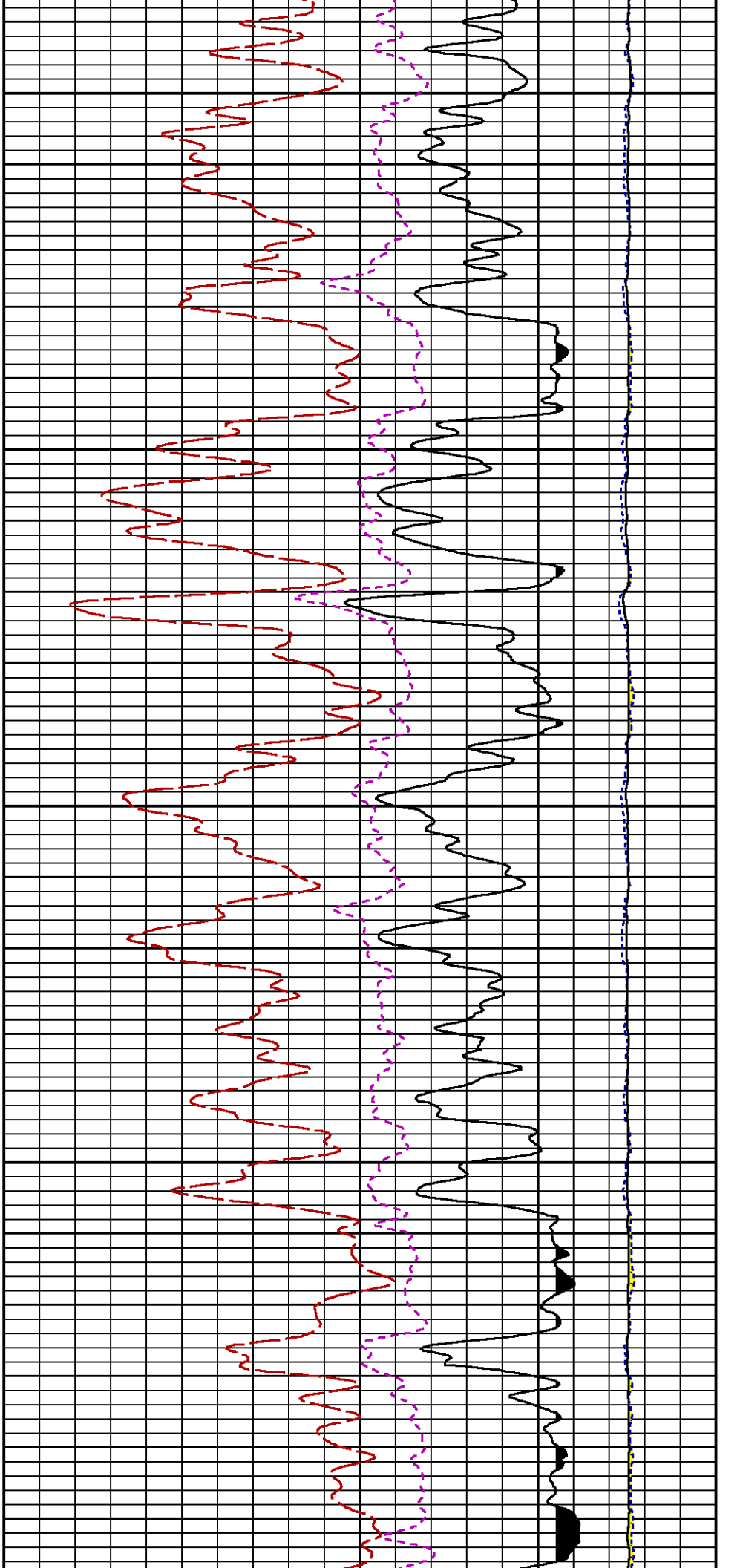
GR	22.75	LS	12.75	RICS	12.75	SS	12.75
Presentation : cas6685:/dat1a/CH095880/RPM_11W_MAIN.fvpdf [5"/100' Scale] Plot Interval : 4470.5 - 7913 Feet Data File 1 : F1 : cas6685:/dat1a/CH095880/RPM_MAIN_11W.xtf Created On : Apr 13 08:25:52 2015 Company : LARAMIE ENERGY Well : PICEANCE 28-11W Field : VEGA File Interval : 4469.75 - 7910.5 Feet OCT : n354h							

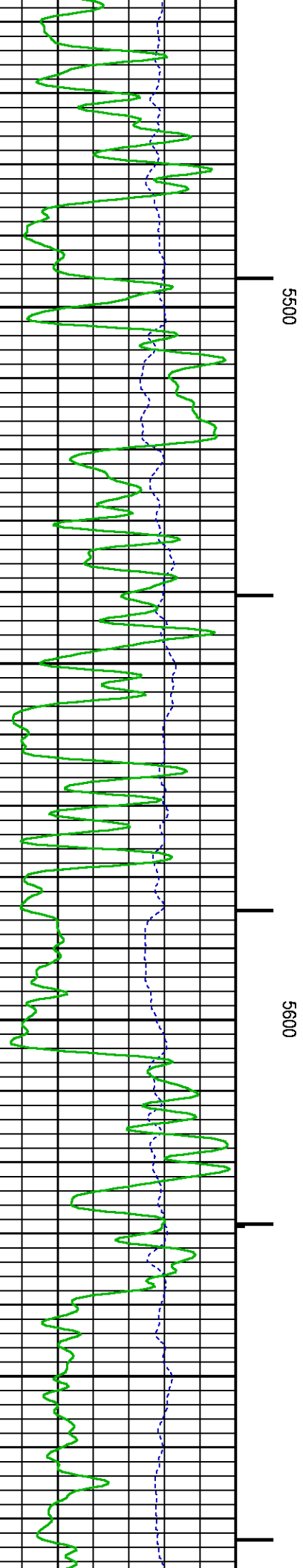
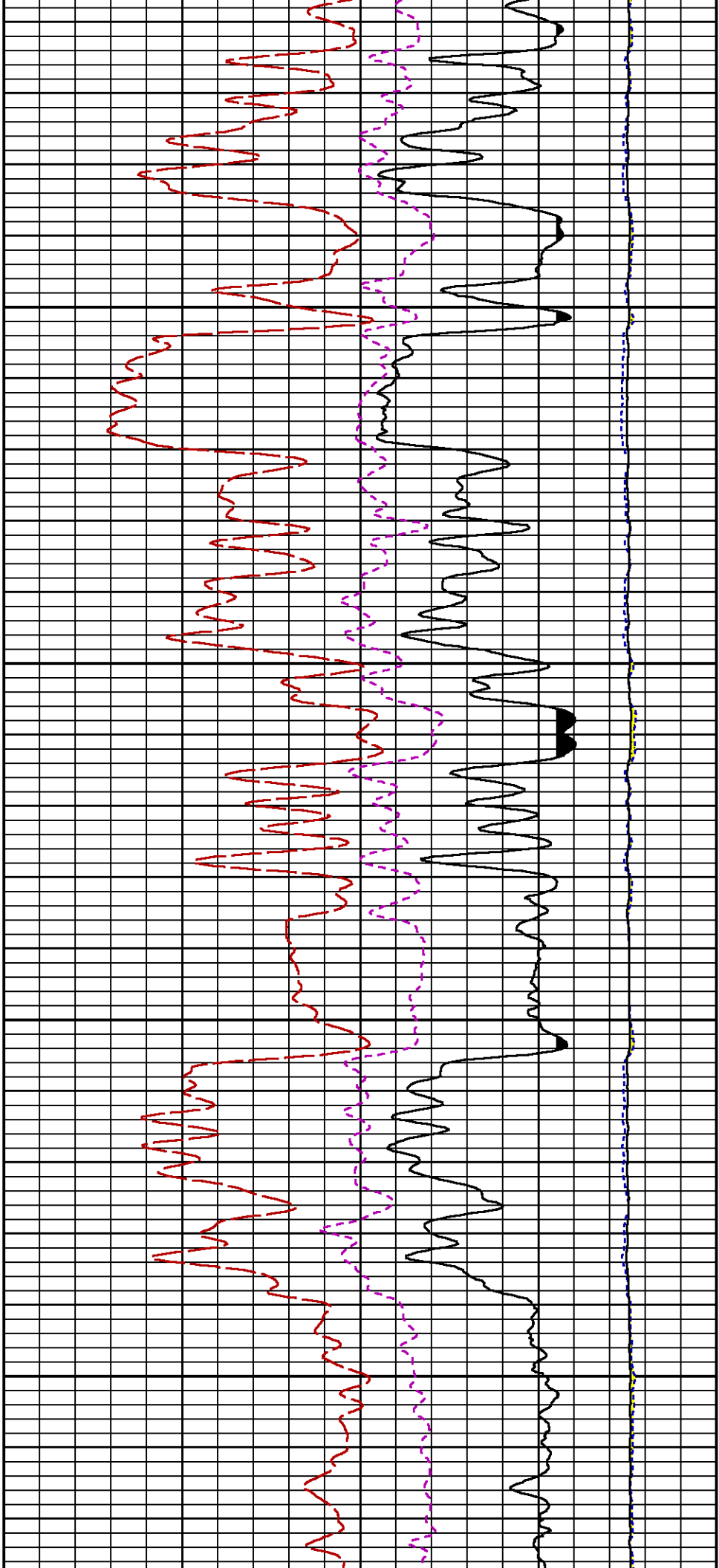


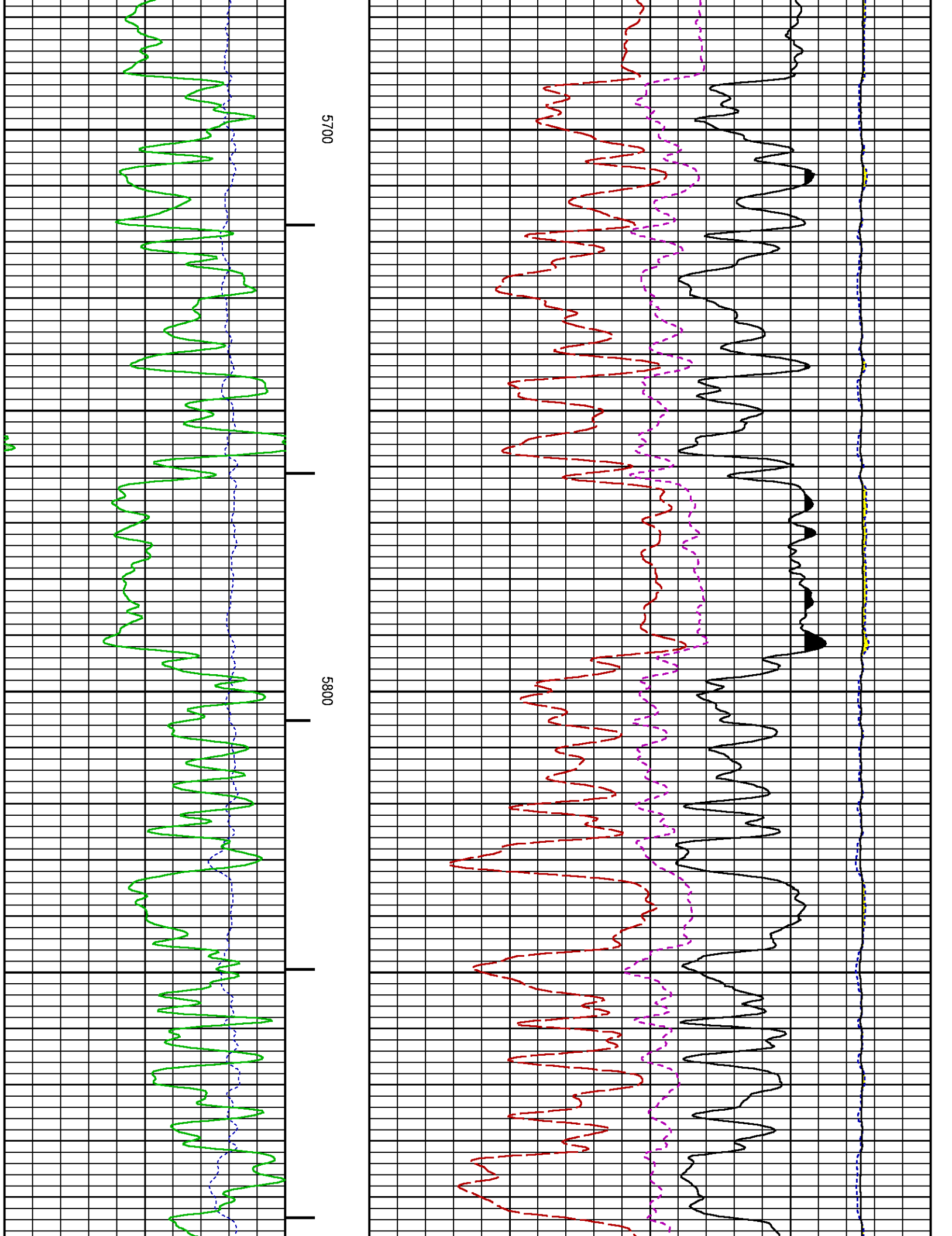


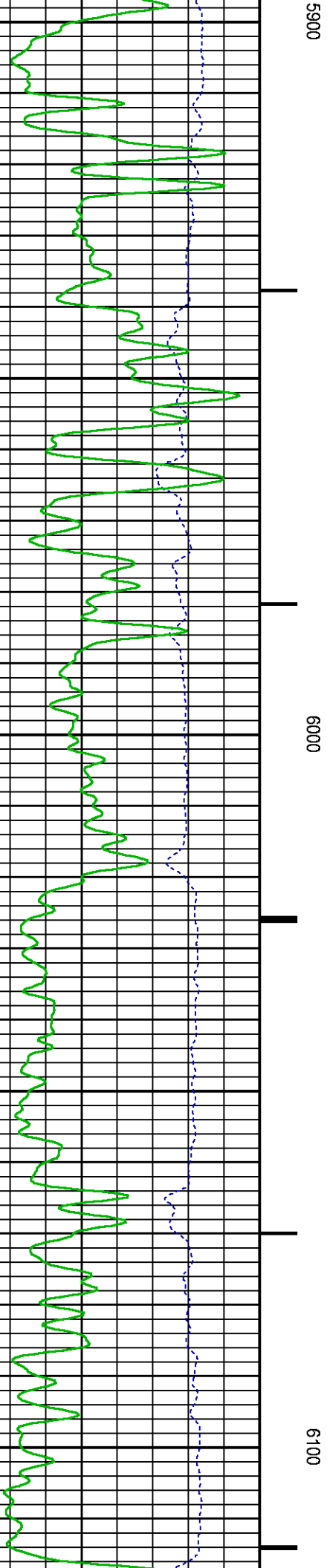
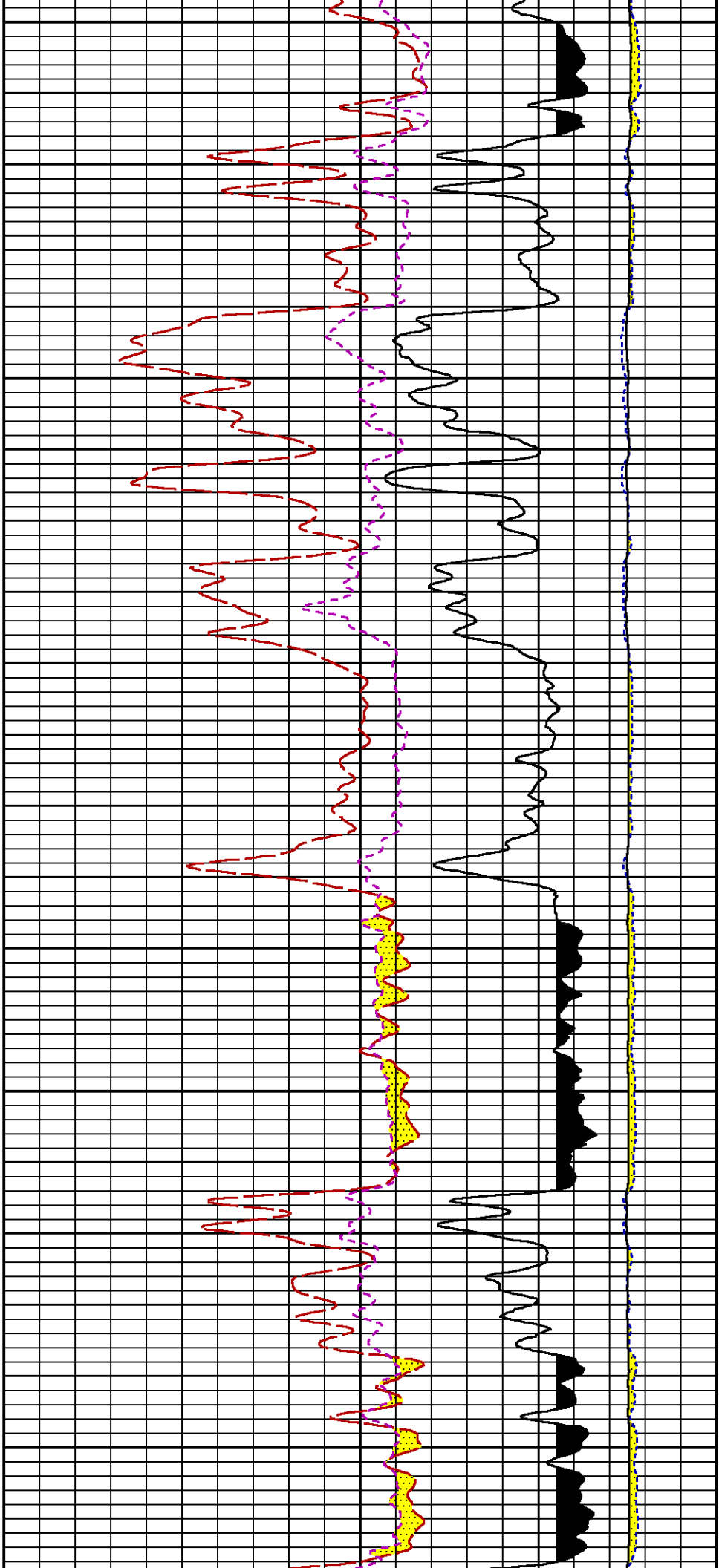


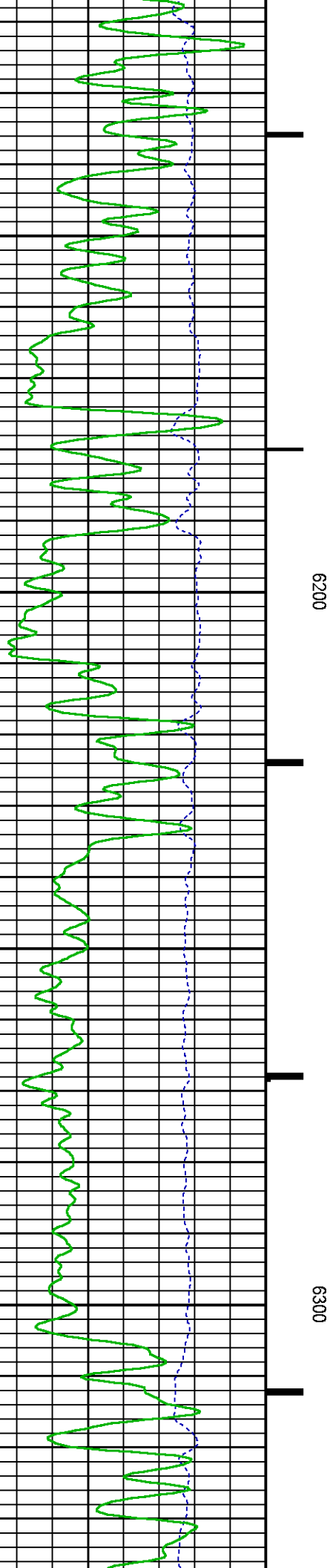
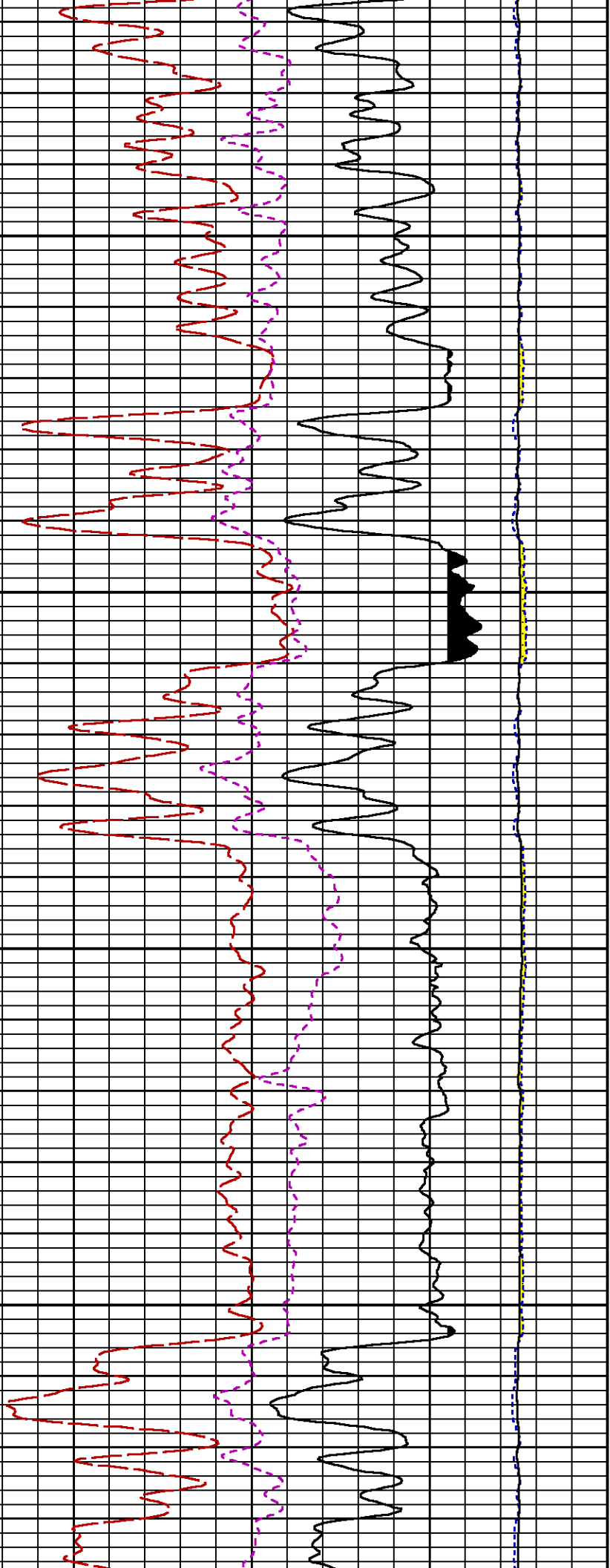


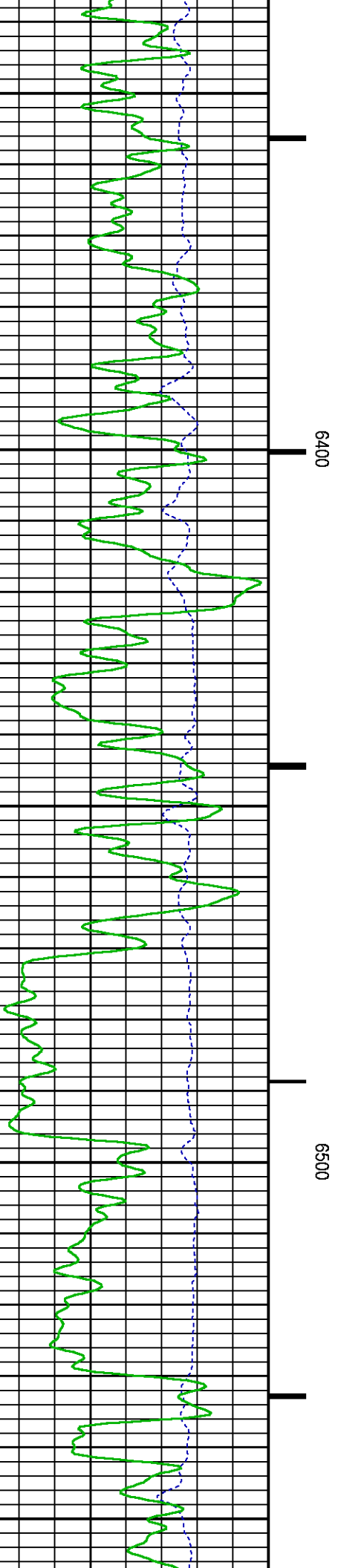
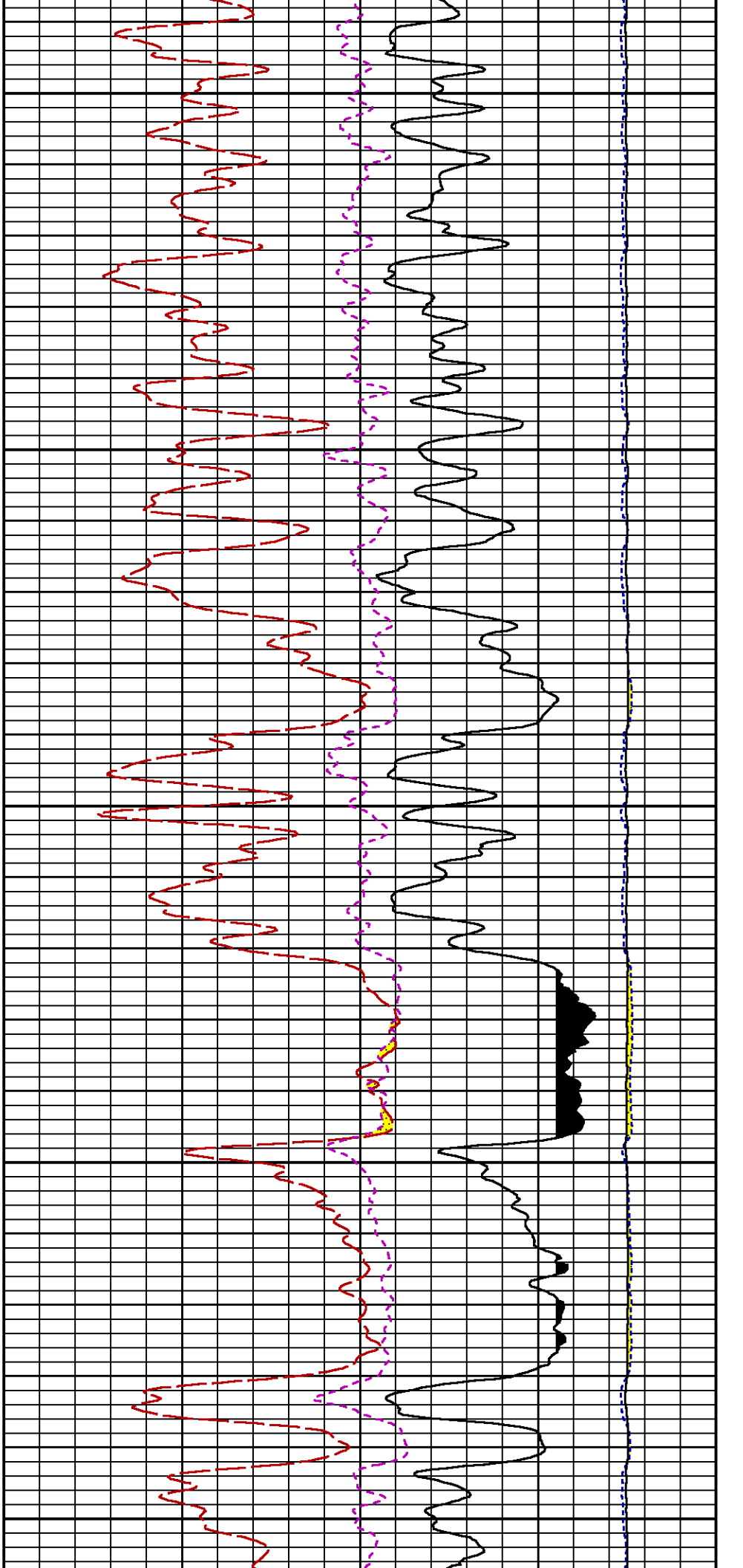


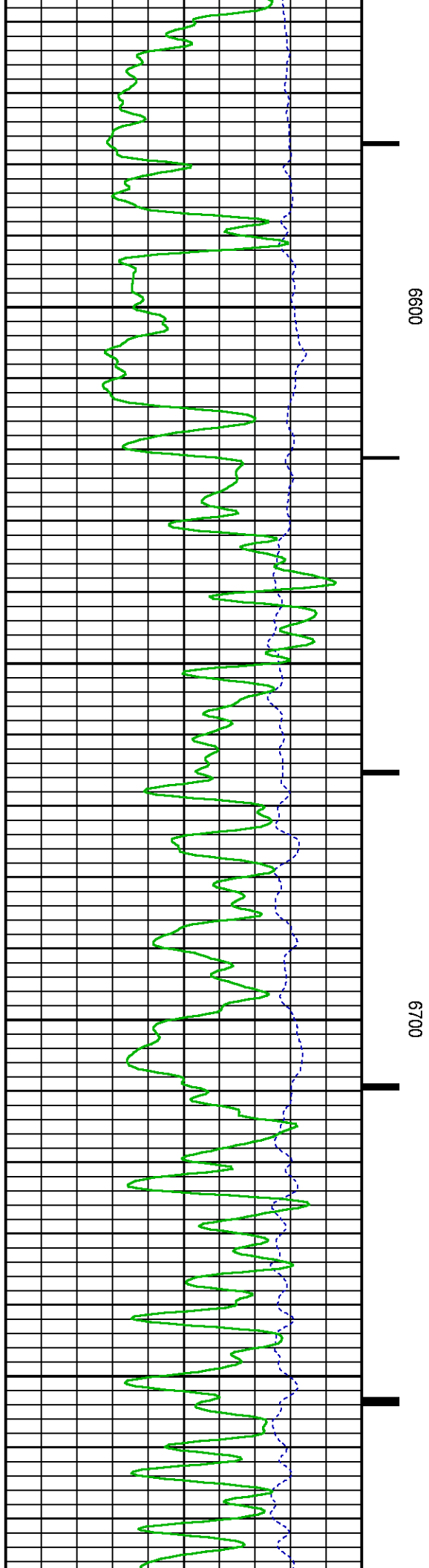
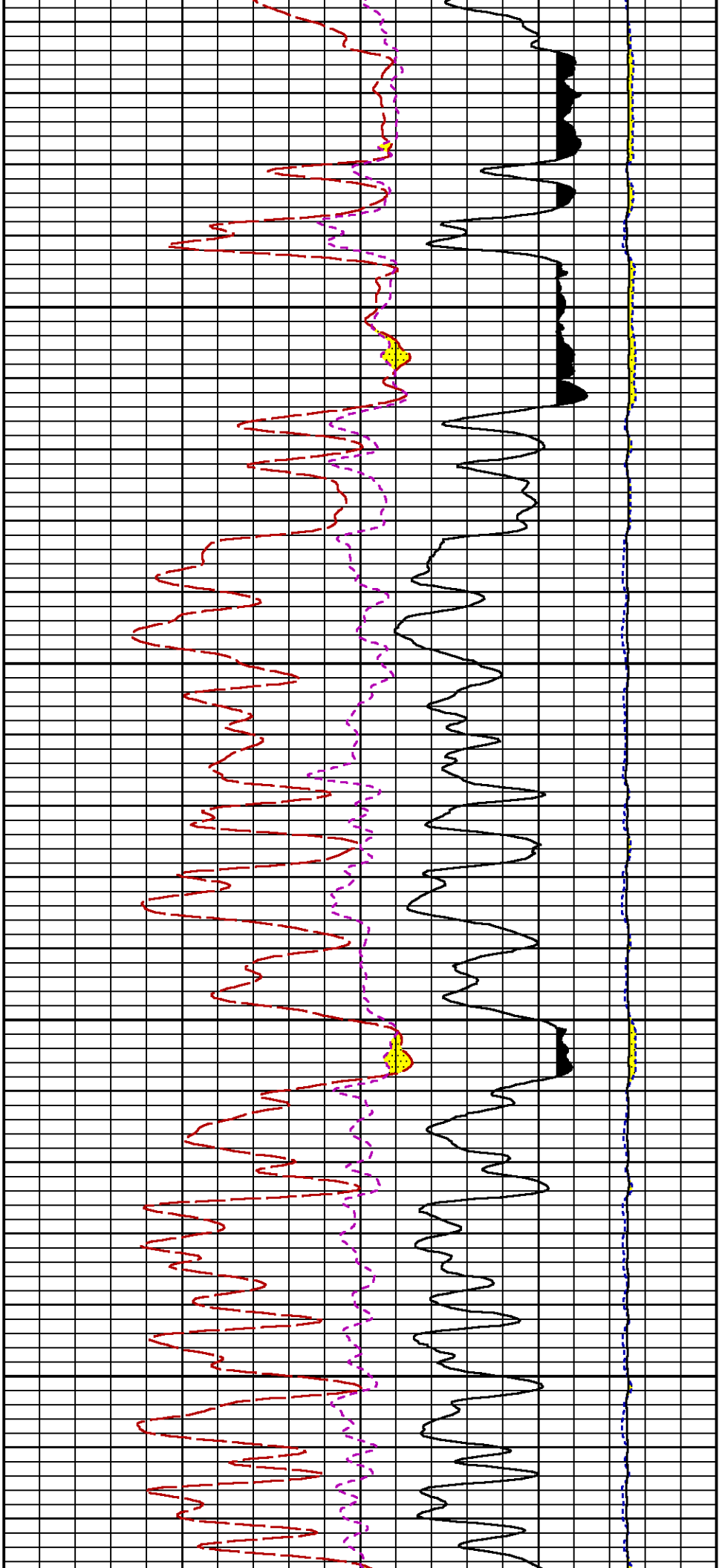


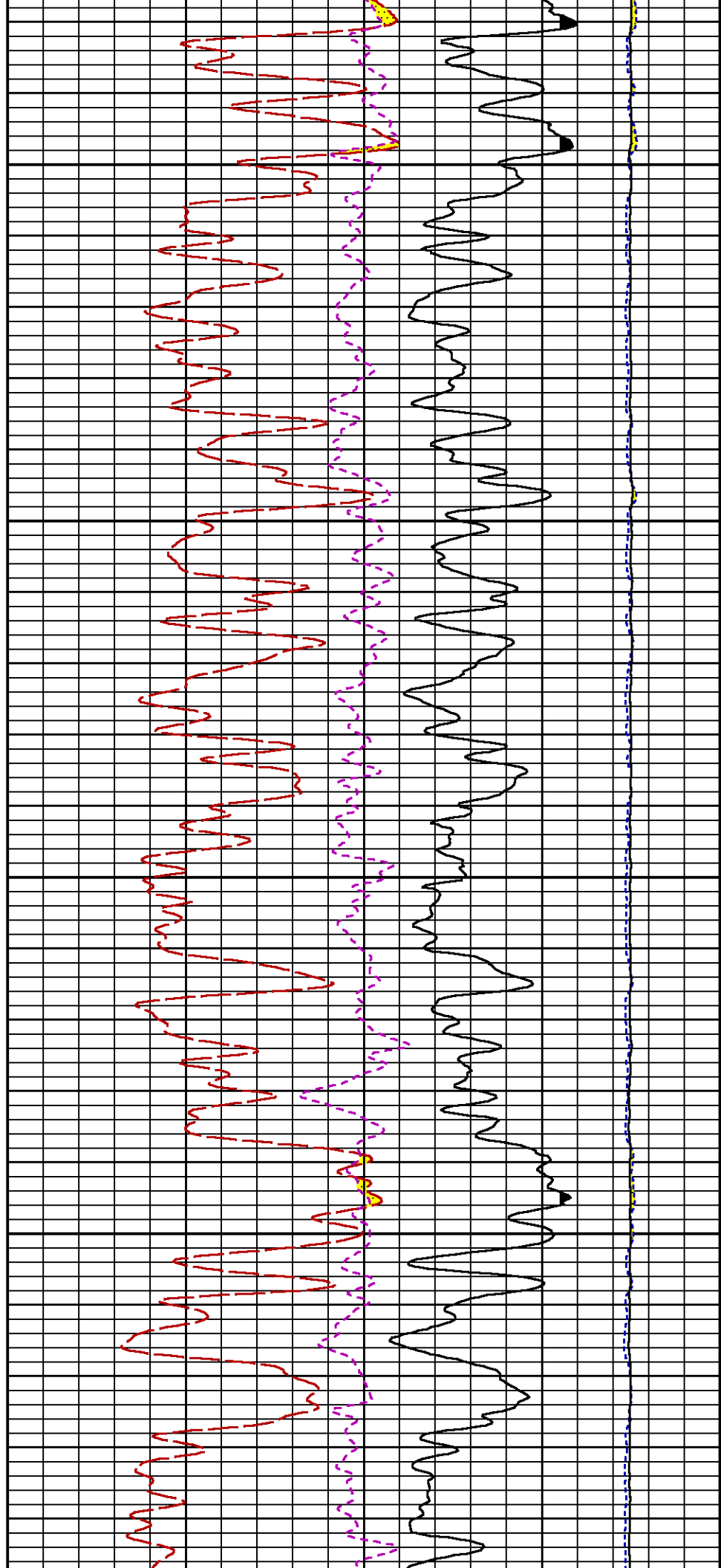
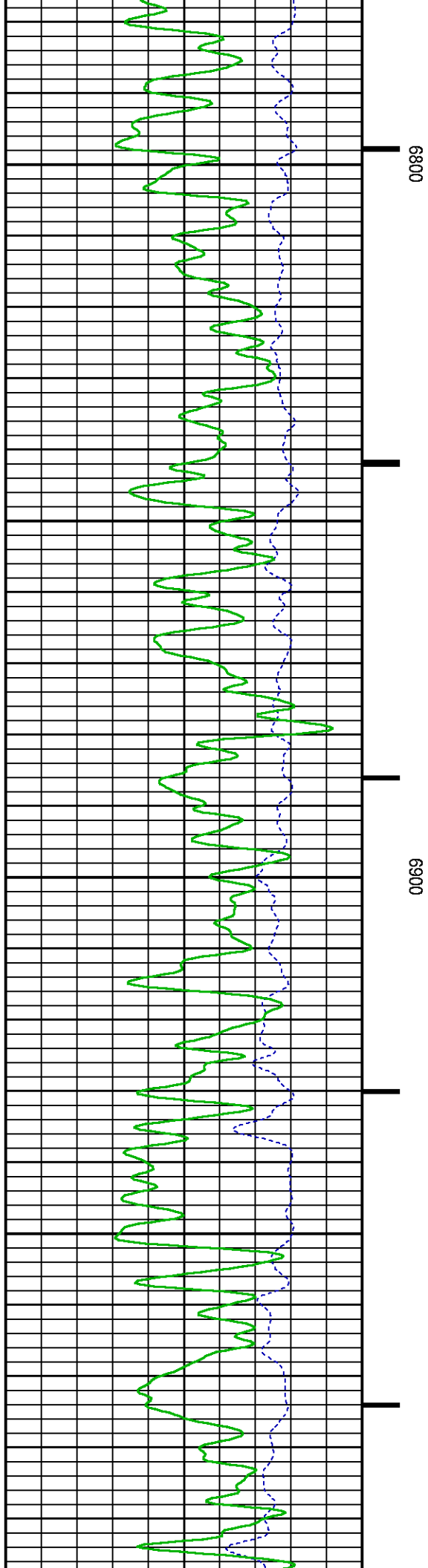


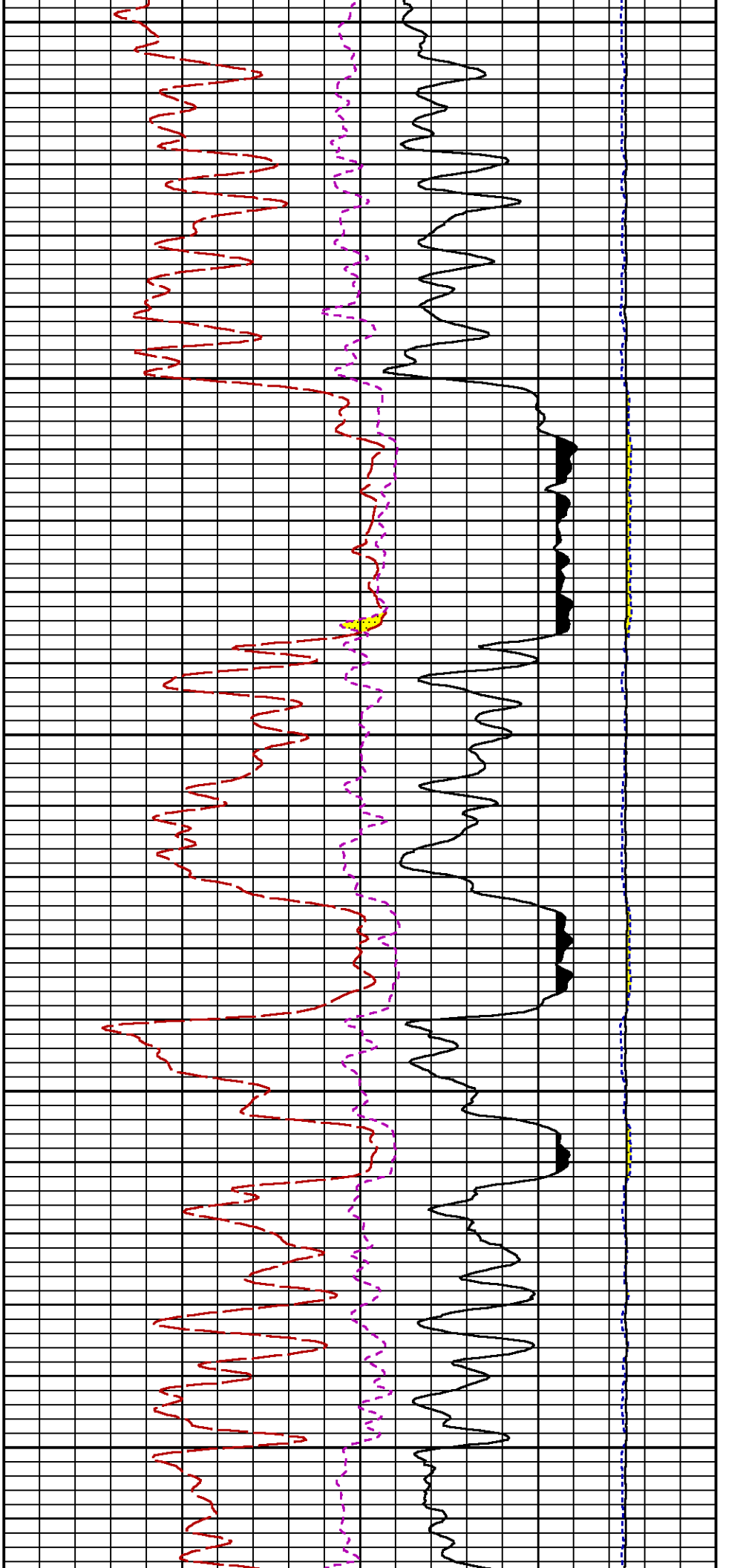








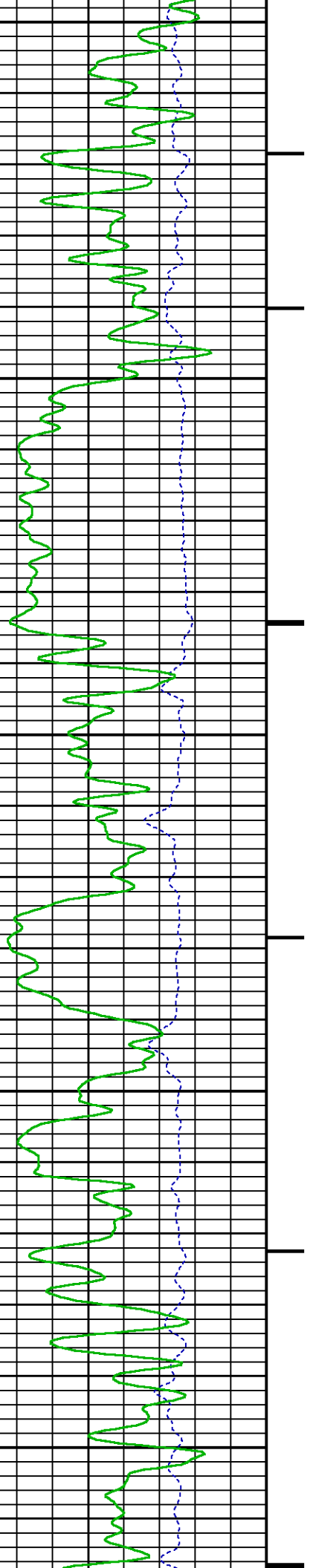


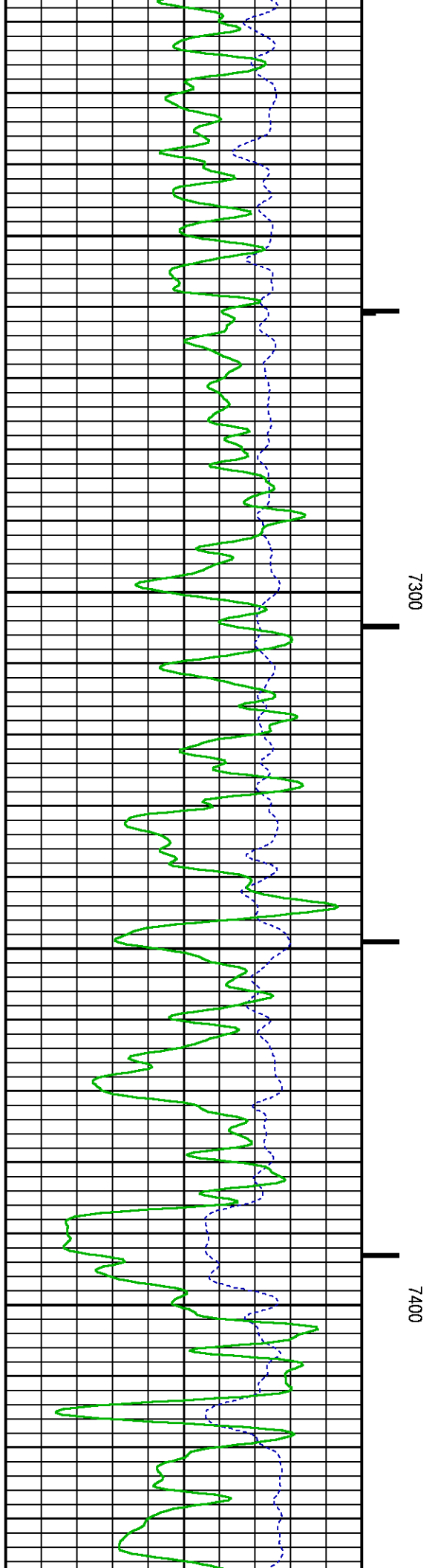
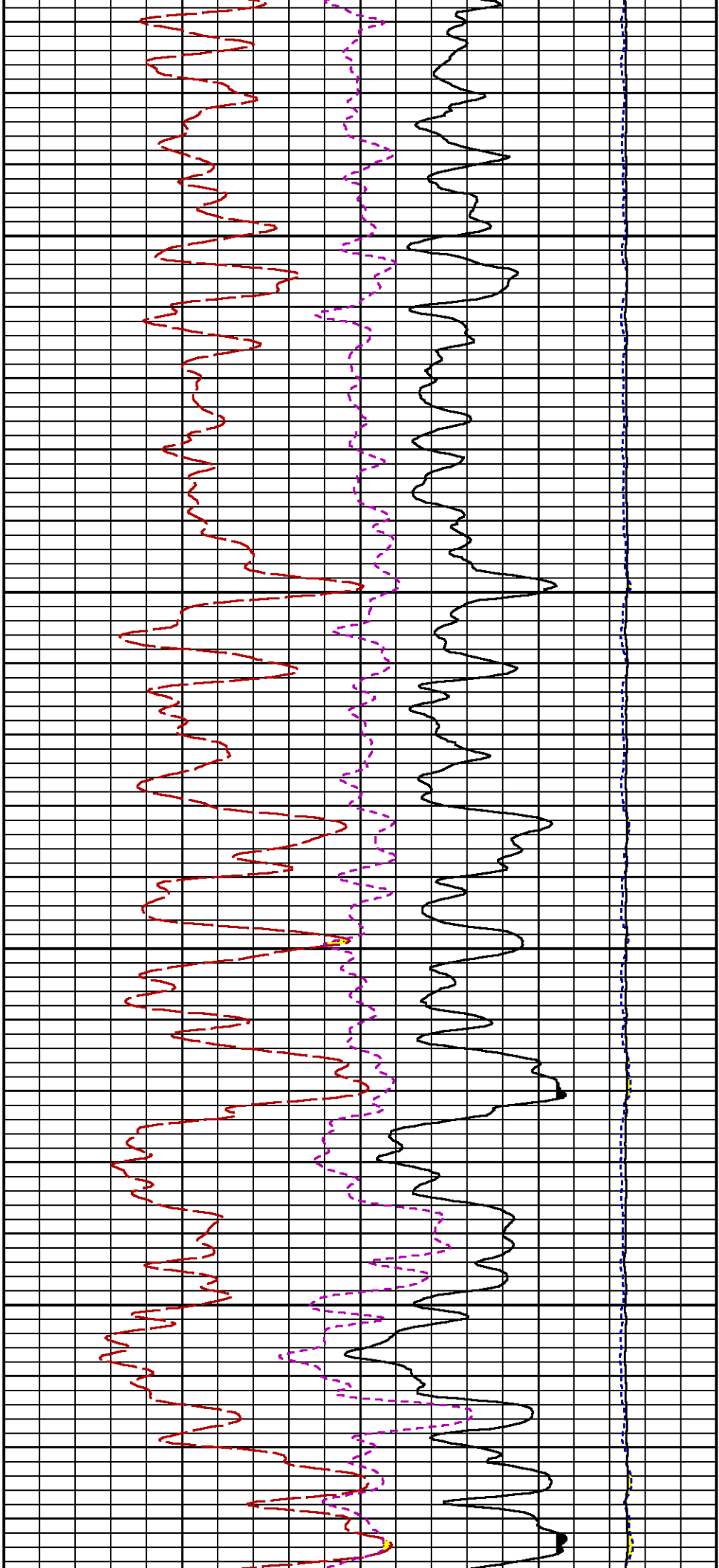


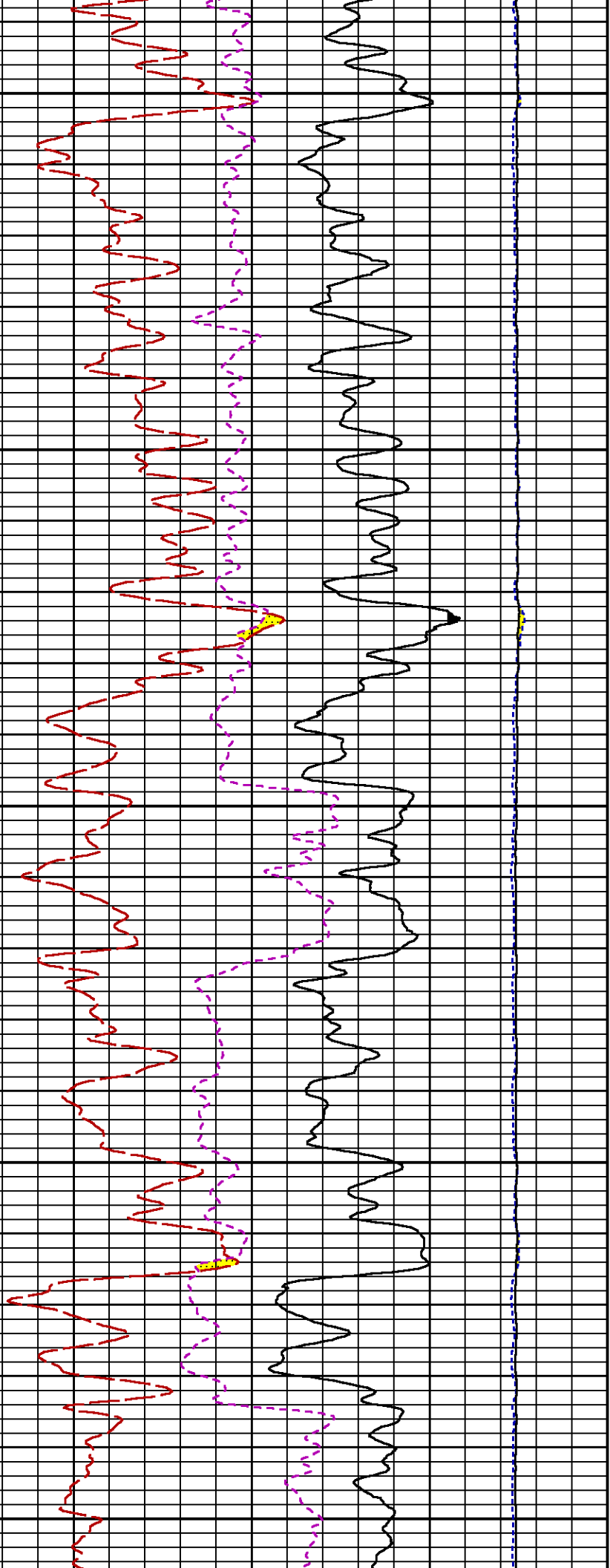
7000

7100

7200

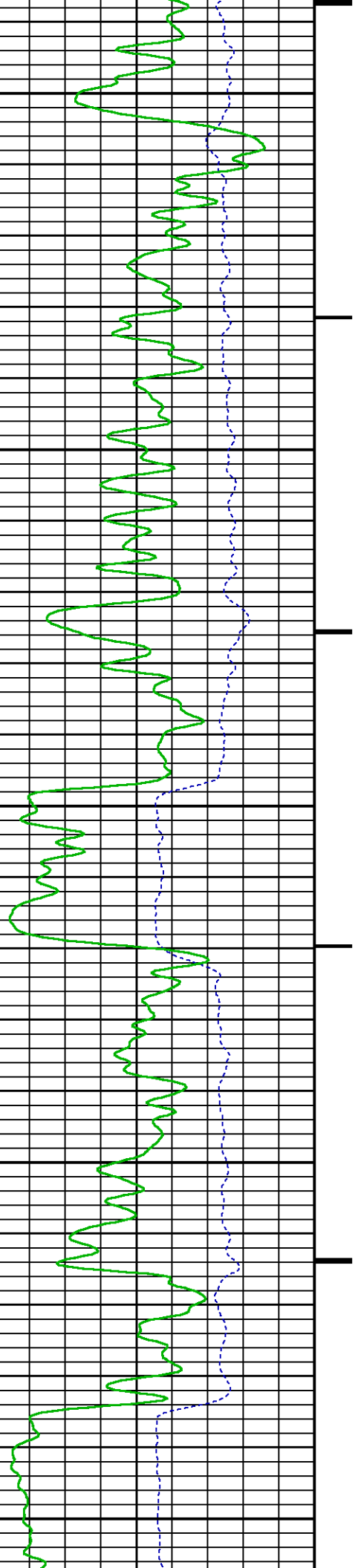


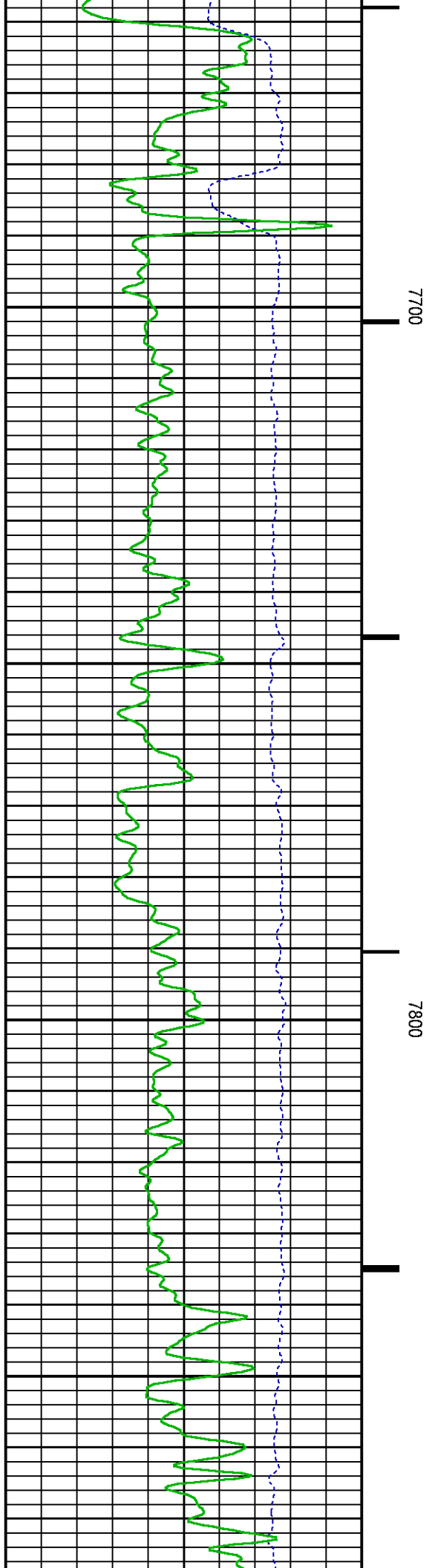
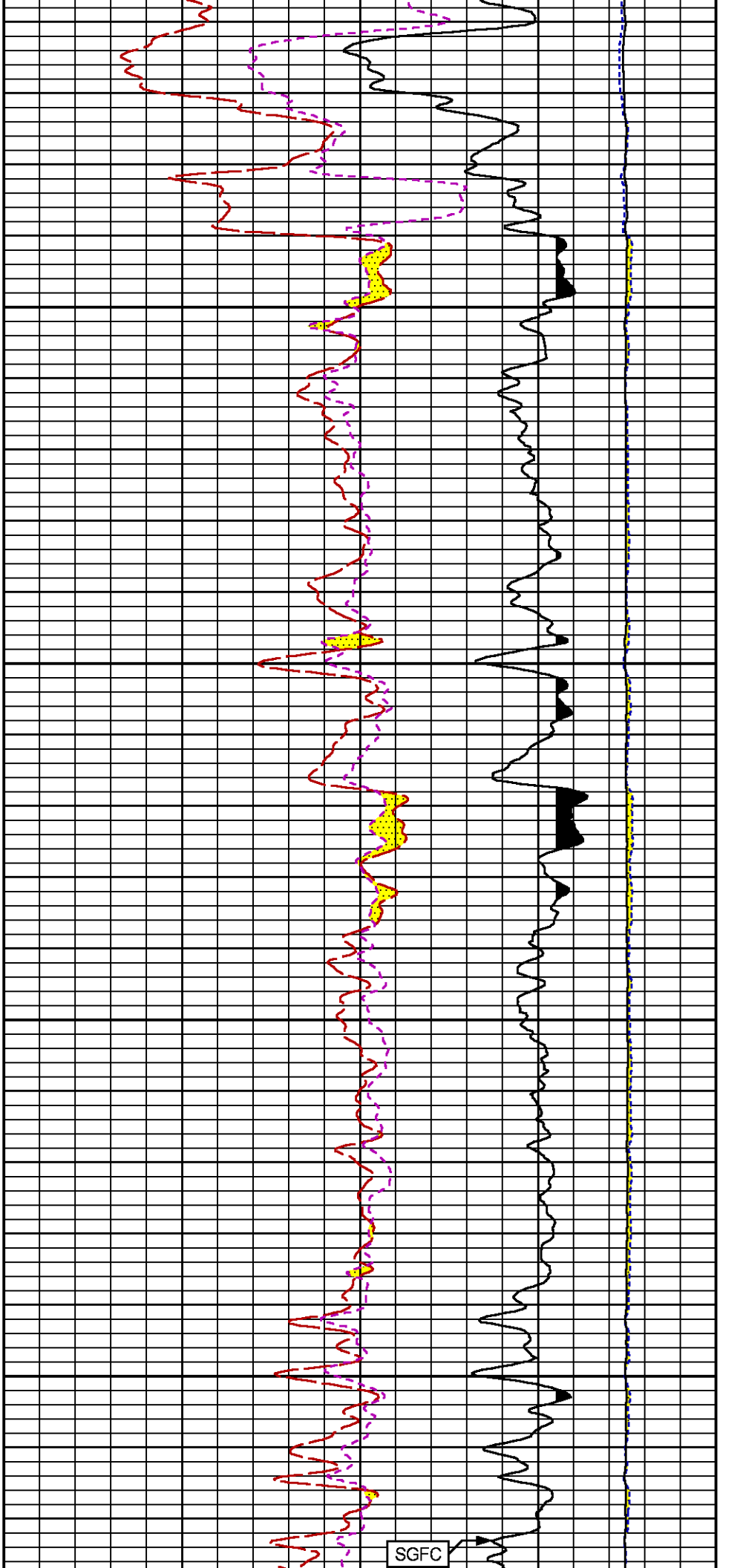


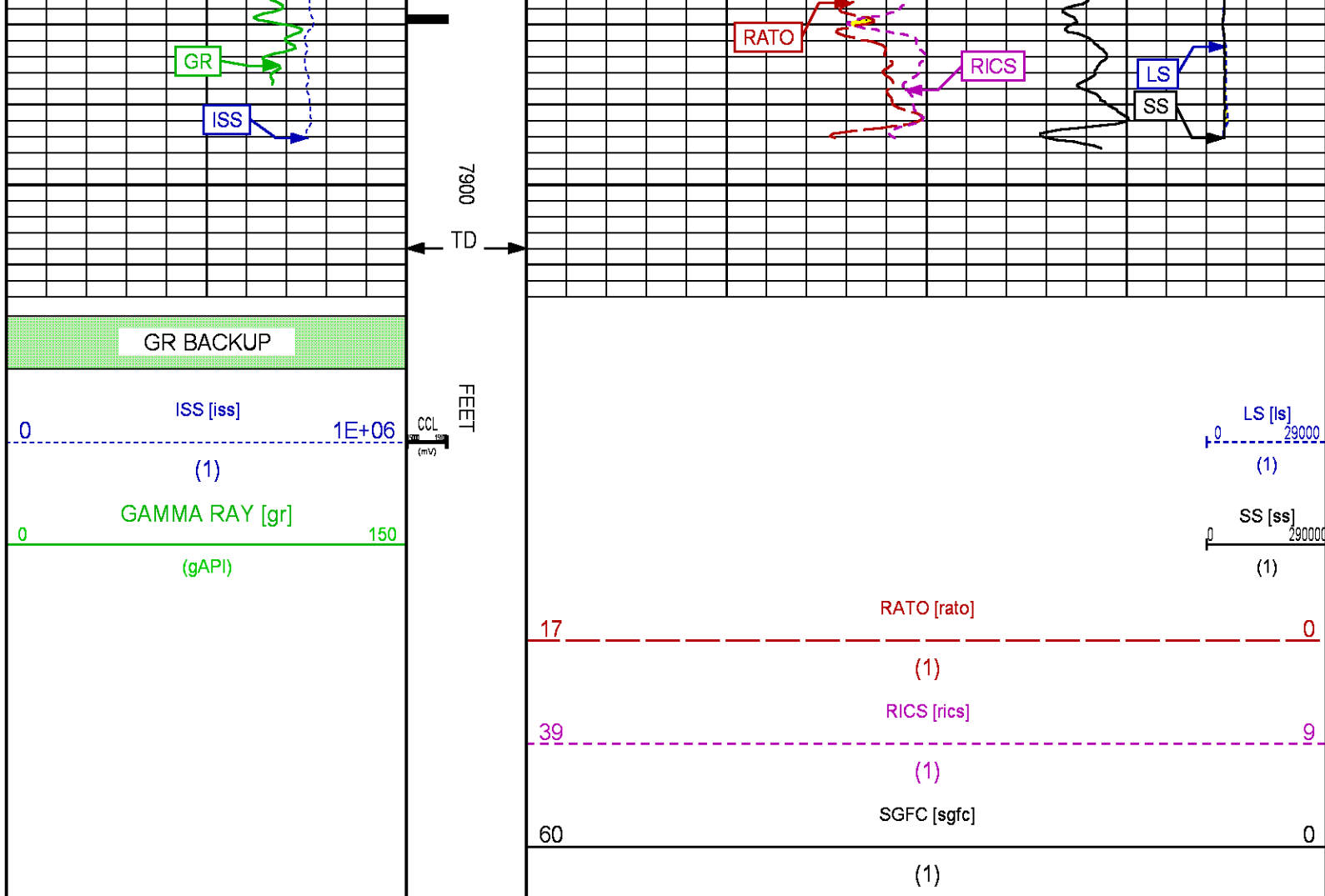


7500

7600







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: 6

Plotted: Mon Apr 13 09:40:28 2015

PARAMETER AND FILTER SUMMARY REPORT

FILE: /dat1a/CH095880/n354h01.prm
 LOGGING MODE: DEPTH DIRECTION: UP
 TOP DEPTH: 7685.250 ft BOTTOM DEPTH: 7916.802 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	7.88	in	" "
	CASING SIZE	4.50	in	" "
	CASING	SAFETY		" "

CURVE DESCRIPTION REPORT

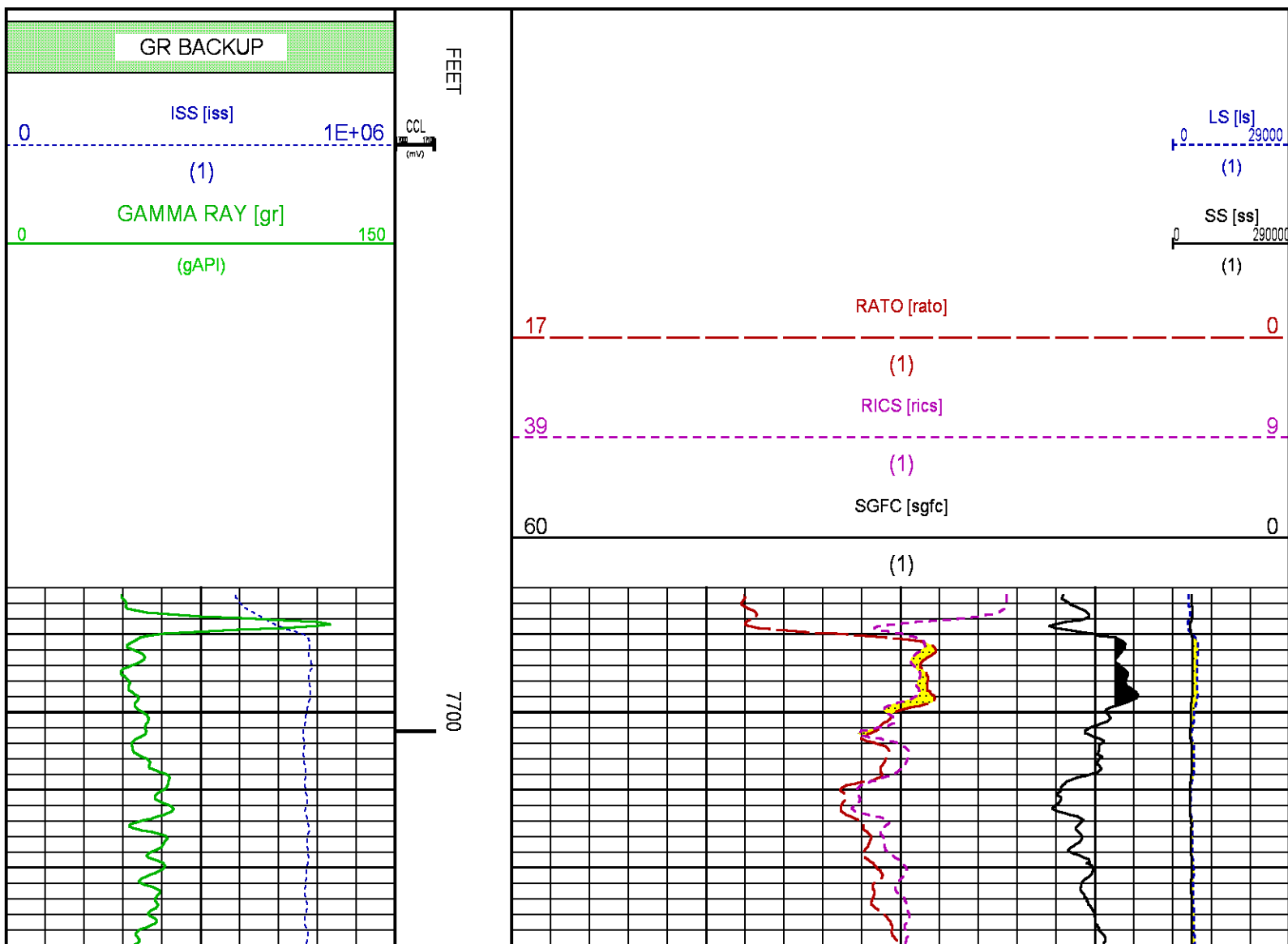
CURVE NAME	CREATION DATE	CURVE DESCRIPTION
F1:CCL	Apr 13 08:06:17 2015	CASING COLLAR LOCATOR
F1:GR	Apr 13 08:06:17 2015	GAMMA RAY
F1:ISS	Apr 13 08:06:17 2015	INELASTIC SHORT SPACE COUNT RATE
F1:LS	Apr 13 08:06:17 2015	LONG SPACE COUNT RATE
F1:RATO	Apr 13 08:06:17 2015	SHORT/LONG SPACE COUNT RATE RATIO
F1:RICS	Apr 13 08:06:17 2015	SHORT SPACE INELASTIC TO CAPTURE COUNT RATE RATIO (ISS/CSS)
F1:SGFC	Apr 13 08:06:17 2015	CORRECTED FORMATION SIGMA
F1:SS	Apr 13 08:06:17 2015	SHORT SPACE COUNT RATE

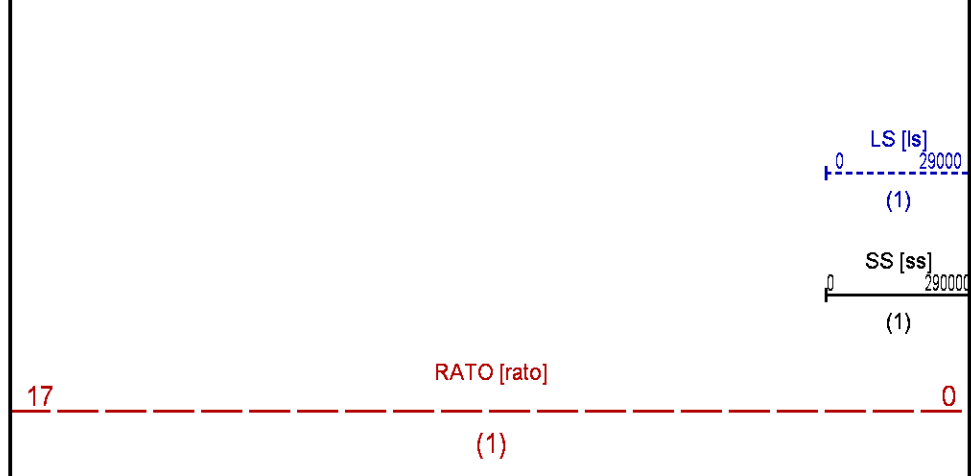
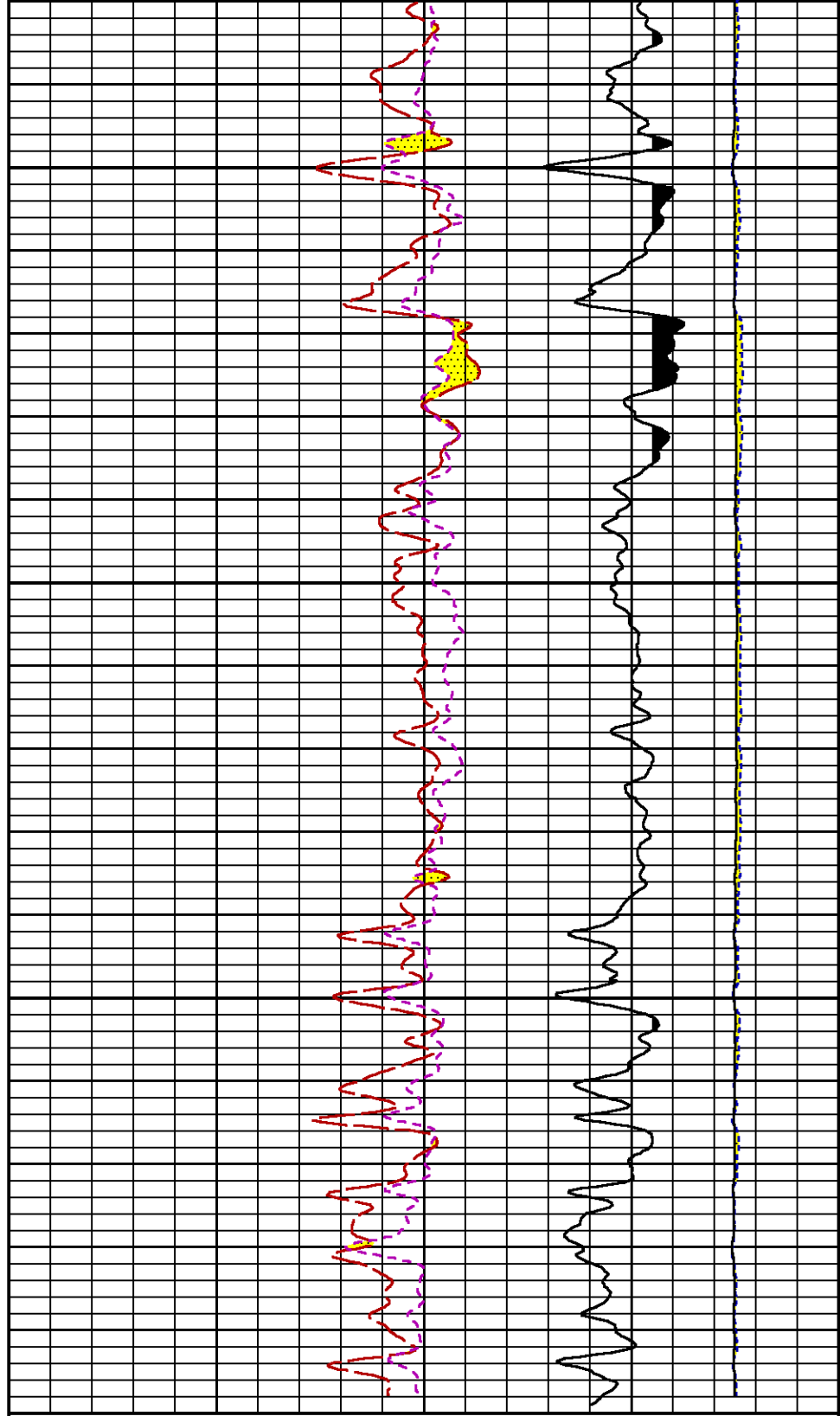
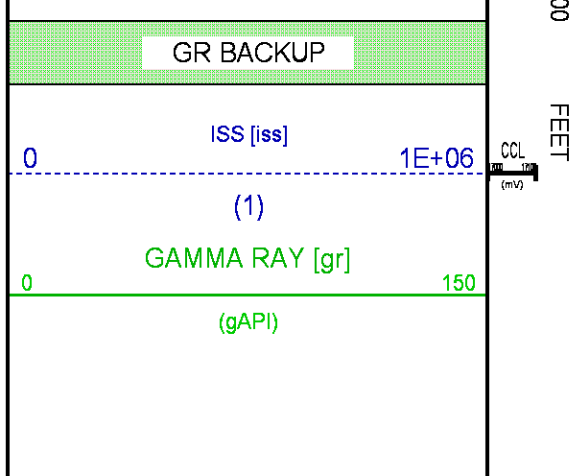
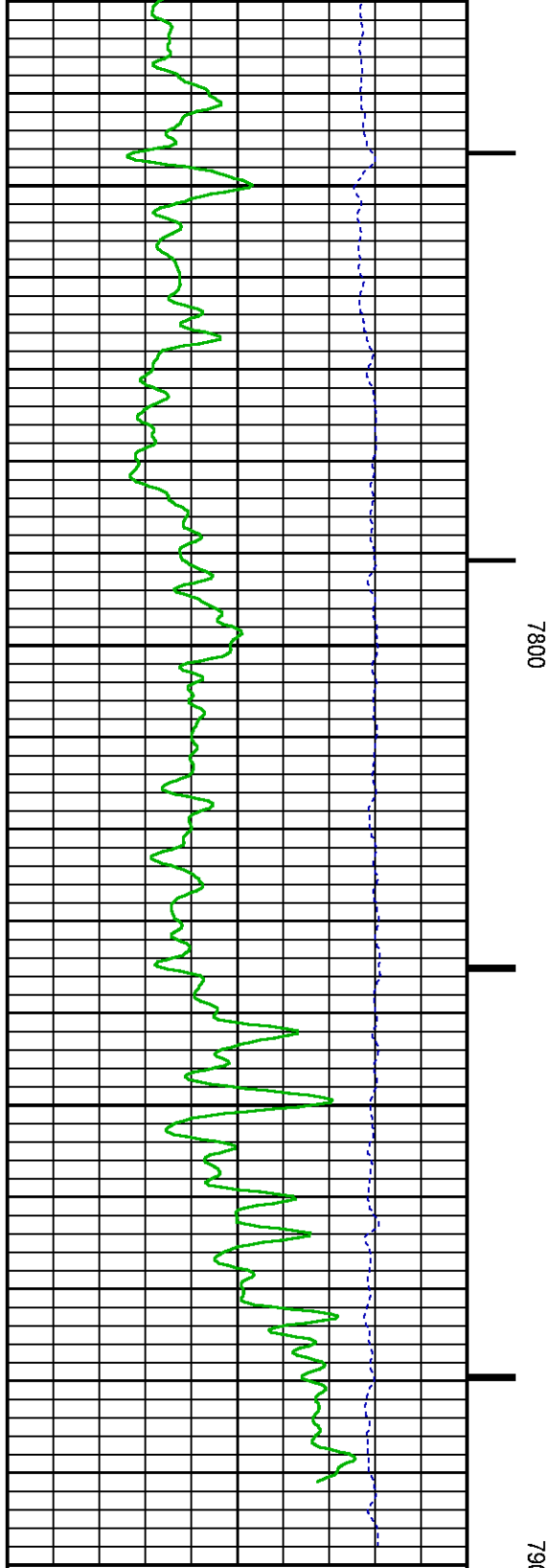
CURVE MEASURE POINT OFFSET

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 : cas6685:/dat1a/CH095880/RPM_11W_REPEAT.fvpdf [5"/100' Scale]
Plot Interval : 7685 - 7899 Feet

Data File 1 : F1 : cas6685:/dat1a/CH095880/RPM_REPEAT_11W.xtf
Created On : Apr 13 08:06:17 2015
Company : LARAMIE ENERGY
Well : PICEANCE 28-11W
Field : VEGA
File Interval : 7658 - 7914 Feet
OCT : n354h





		RICS [rics]	9
		(1)	
60		SGFC [sgfc]	0
		(1)	

CALIBRATION / VERIFICATION SUMMARY

Source File: /dat1a/CH095880/n354h.tp1

GR PRIMARY CALIBRATION SUMMARY

TOOL #:

2812LA 10274385

DATE/TIME PERFORMED:

Wed Apr 1 10:54:22 2015

UNIT #:

3885TC 6685

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	62.04	281.09	219.0	0.959	59.48	269.48	210

GR PRIMARY VERIFICATION SUMMARY

TOOL #:

2812LA 10274385

DATE/TIME PERFORMED:

Wed Apr 1 10:56:34 2015

UNIT #:

3885TC 6685

VERI JIG #:

4702NK WA-612

	BACKGROUND (cts/s)	CALBRTR ON (cts/s)	MULT	BACKGROUND (gAPI)	CALBRTR ON (gAPI)	DIFF. (gAPI)
GR	62.31	285.53	0.959	59.74	273.74	214.01
						200.00 220.00

RPM_PNC_3D PRIMARY CALIBRATION SUMMARY

TOOL:

8283PA 10203151

DATE/TIME PERFORMED:

Mon Mar 30 16:05:27 2015

UNIT:

3880TA HL6670

CALIBRATOR:

2437XB 112674

SOURCE:

8281AA 11803641

HOURS:

8281AA 297

	ISS	Mtr Vlt (V)	SS Gain	LS Gain	XLS Gain	EA Temp (degF)	Sync Delay (usec)	RCAL
Raw Data	811784	124	2255	2360	2442	106	7	0.9596
Interpolated	1300000	147	2238	2354	2428			

	ISS	BKS	BKL	BKX	SGA1	SDA1	SGA2	SDA2
Raw Data	811784	6339	984	138	26.00	0.15	24.14	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	811784	164989	25810	88393	31468	8049	53510	12871
File Quality OK	1.812	2.015	2.702	2.772	2.012	2.702	2.072	

Fit Quality %

1.010

0.915

0.786

0.776

0.943

0.726

0.970

	ISS	RBOR	RIN	RIN13	RICS	RATO	RTWO	RONE
			ISS/ILS	ISS/IXS	ISS/CSS	SS/LS	SS2/LS	CSS/CLS
Raw Data	811784	1.43	4.92	31.47	15.17	10.99	3.91	4.16
		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 %		0.057	0.044	0.149	0.128	0.128	0.126	0.140
Reduced	1406391	1.43	4.93	31.49	15.21	10.98	3.91	4.16
		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

Source File: /dat1a/CH095880/RPM-tdg

A3 CABLEHEAD

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 : 10 lbs
Series : 2812LA

RPM ELECTRONICS

Diameter : 1.70"
Length : 4.48'
Weight : 16 lbs
Series : 8281EA
Mnemonic : RPM

33.24'

CCL MP 25.19'

GR MP 22.64'

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 0.00'

BULL PLUG 1 11/16

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



COMPANY LARAMIE ENERGY
WELL PICEANCE 28-11W
FIELD VEGA
COUNTY MESA **STATE** COLORADO

FILE NO:
CH095880
API NO:
05077102200000

LOCATION:

SHL: 2515' FSL 1608' FWL
BHL: 2627' FSL 878' FWL

ELEVATIONS:

KB 7602 FT
DF
GL 7580 FT

SEC 28 T9S R93W
PAD 28-11
PATTERSON 306

SEC 28 TWP 9S RGE 93W

DATE 13-Apr-2015