



FILE NO: CH100238		COMPANY LARAMIE ENERGY	
API NO: 05077102440000		WELL PICEANCE FEDERAL 28-01M	
Ver. 4.05		FIELD VEGA	
28 9S 93W		COUNTY MESA	
05077102440000		STATE COLORADO	
PATTERSON 306		LOCATION: SHL: LAT 39.251103, LONG -107.779553 BHL: LAT 39.254956, LONG -107.774522	
SEC 28 TWP 9S RGE 93W		OTHER SERVICES RAL	
PERMANENT DATUM G.L. ELEVATION 7556 FT		ELEVATIONS: KB 7578 FT	
LOG MEASURED FROM K.B. 22 FT ABOVE P.D.		DF	
DRILL. MEAS. FROM K.B.		GL 7556 FT	
DATE	26-Oct-2015		
RUN	1	TRIP	1
SERVICE ORDER	US100238J		
DEPTH DRILLER	8202 FT		
DEPTH LOGGER	8194 FT		
BOTTOM LOGGED INTERVAL	8191 FT		
TOP LOGGED INTERVAL	2710 FT		
TIME STARTED	09:30		
TIME FINISHED	15:30		
OPERATOR RIG TIME	6 HOURS		
TYPE OF FLUID IN HOLE	WATER		
FLUID DENSITY	NA		
FLUID SALINITY	NA		
FLUID LEVEL	NA		
LOGGED CEMENT TOP	NA		
WELLHEAD PRESSURE	0 PSI		
MAXIMUM HOLE DEVIATION	NA		
NOMINAL LOGGING SPEED	10 FMIN		
MAX. RECORDED TEMP.	244 DEGF		
REFERENCE LOG	NA		
REFERENCE LOG DATE	NA		
EQUIP. NO.	HL-6685	LOCATION	GRAND JCT.
RECORDED BY	SPENCER		
WITNESSED BY	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	8312 FT

CASING RECORD				
SIZE	WEIGHT	GRADE	FROM	TO
4.5 IN	11.6 LB/F		0 FT	8202 FT

REMARKS

RUN 1 TRIP 1: ALL DATA ON THIS LOG HAS BEEN DEPTH MATCHED TO THE GAMMA RAY CURVE OF THE BAKER HUGHES BOND LOG DATED 25-OCT-2015 ON BOTTOM.

THE AMOUNT OF LINEAR SHIFT IS 19 FEET

LOGGED WITH 0 PSI AT SURFACE

BHT = 244 DEGF

SJ = 6294' - 6316'

SJ = 7371' - 7393'

THANKS FOR CHOOSING BAKER HUGHES...THE BEST CHOICE!
CREW: COATE / OLSON

EQUIPMENT DATA

RUN	TRIP	TOOL	SERIES NO.	SERIAL NO.	POSITION
1	1	PCM	8250EA	10586851	FREE
1	1	TEL / CCL	8248ED	10460262	FREE
1	1	GAMMA RAY	8262XA	10485470	FREE
1	1	RPM ELEC.	8281EA	10294755	FREE
1	1	RPM SOURCE	8283PA	10414345	FREE
1	1	RPM FA	8281FA	10460082	FREE
1	1	TEMP	8255XA	Z176973	FREE
1	1	RPM SOURCE	8283PA	10414345	FREE

G - SAND SECTION PNC-3D MODE

ECLIPS 6.2i ECLIPS General Release Rel 6.2i Wed Jun 12 12:21:40 CDT 2013

Updates: 1 Patches: 8

Plotted: Mon Oct 26 14:55:08 2015

PARAMETER AND FILTER SUMMARY REPORT

FILE: /dat1a/CH100238/n353h04.prm
 LOGGING MODE: DEPTH DIRECTION: UP
 TOP DEPTH: 2698.250 ft BOTTOM DEPTH: 3320.250 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	7.87	in	" "
	CASING SIZE	4.50	in	" "
	MATRIX	SANDSTONE		" "
	CORRECTION BUFFER	11		" "

CURVE DESCRIPTION REPORT

CURVE NAME	CREATION DATE	CURVE DESCRIPTION
F1:CCL	Oct 26 14:12:31 2015	CASING COLLAR LOCATOR
F1:GR	Oct 26 14:12:31 2015	GAMMA RAY
F1:ISS	Oct 26 14:12:31 2015	INELASTIC SHORT SPACE COUNT RATE
F1:LS	Oct 26 14:12:31 2015	LONG SPACE COUNT RATE
F1:RATO	Oct 26 14:12:31 2015	SHORT/LONG SPACE COUNT RATE RATIO
F1:RICS	Oct 26 14:12:31 2015	SHORT SPACE INELASTIC TO CAPTURE COUNT RATE RATIO (ISS/CSS)
F1:SGFC	Oct 26 14:12:31 2015	CORRECTED FORMATION SIGMA
F1:SS	Oct 26 14:12:31 2015	SHORT SPACE COUNT RATE

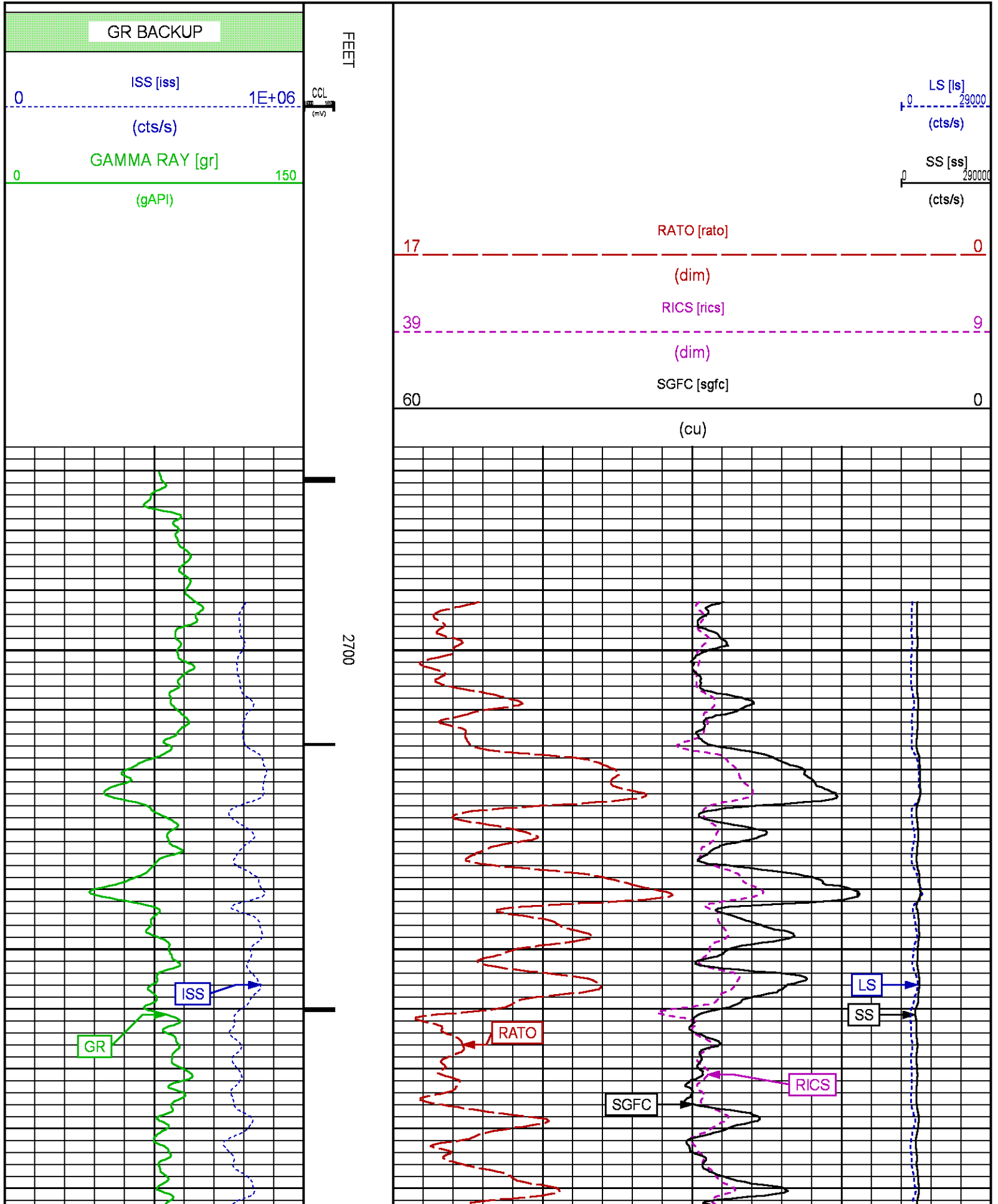
CURVE MEASURE POINT OFFSET

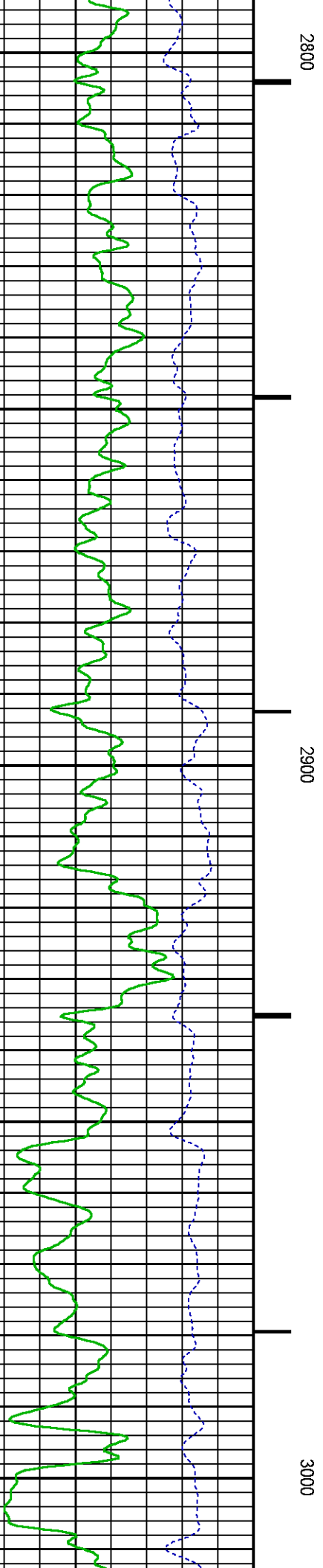
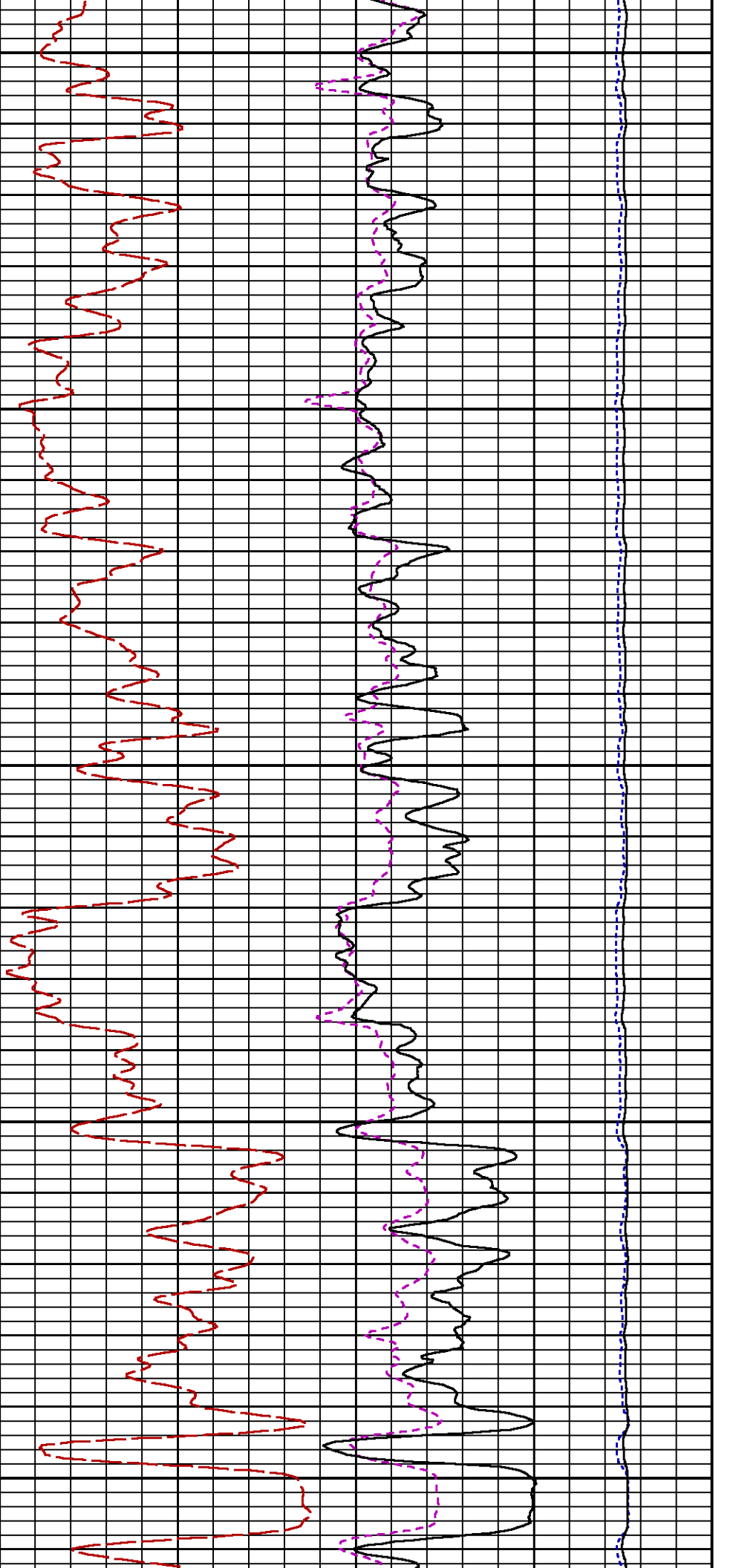
CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)
CCL	26.00	ISS	12.75	RATO	12.75	SGFC	12.75
GR	23.00	LS	12.75	RICS	12.75	SS	12.75

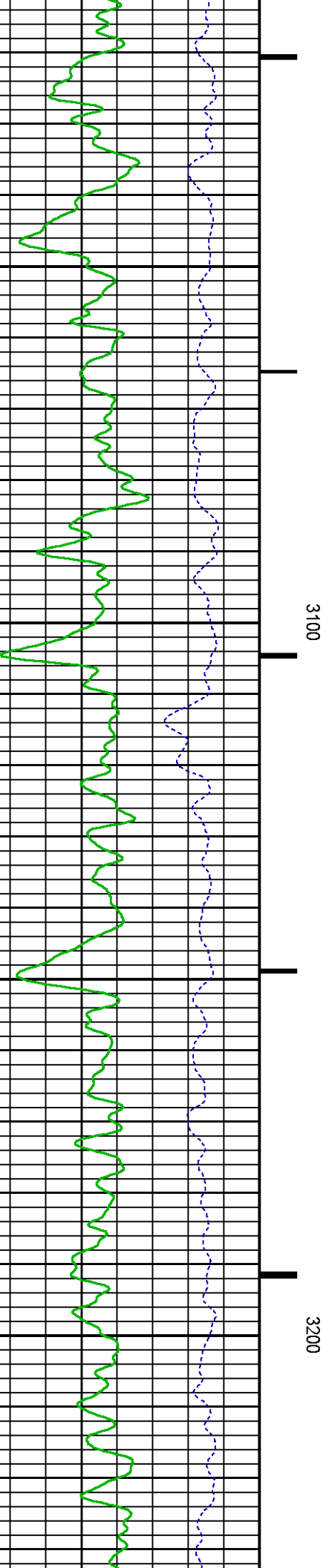
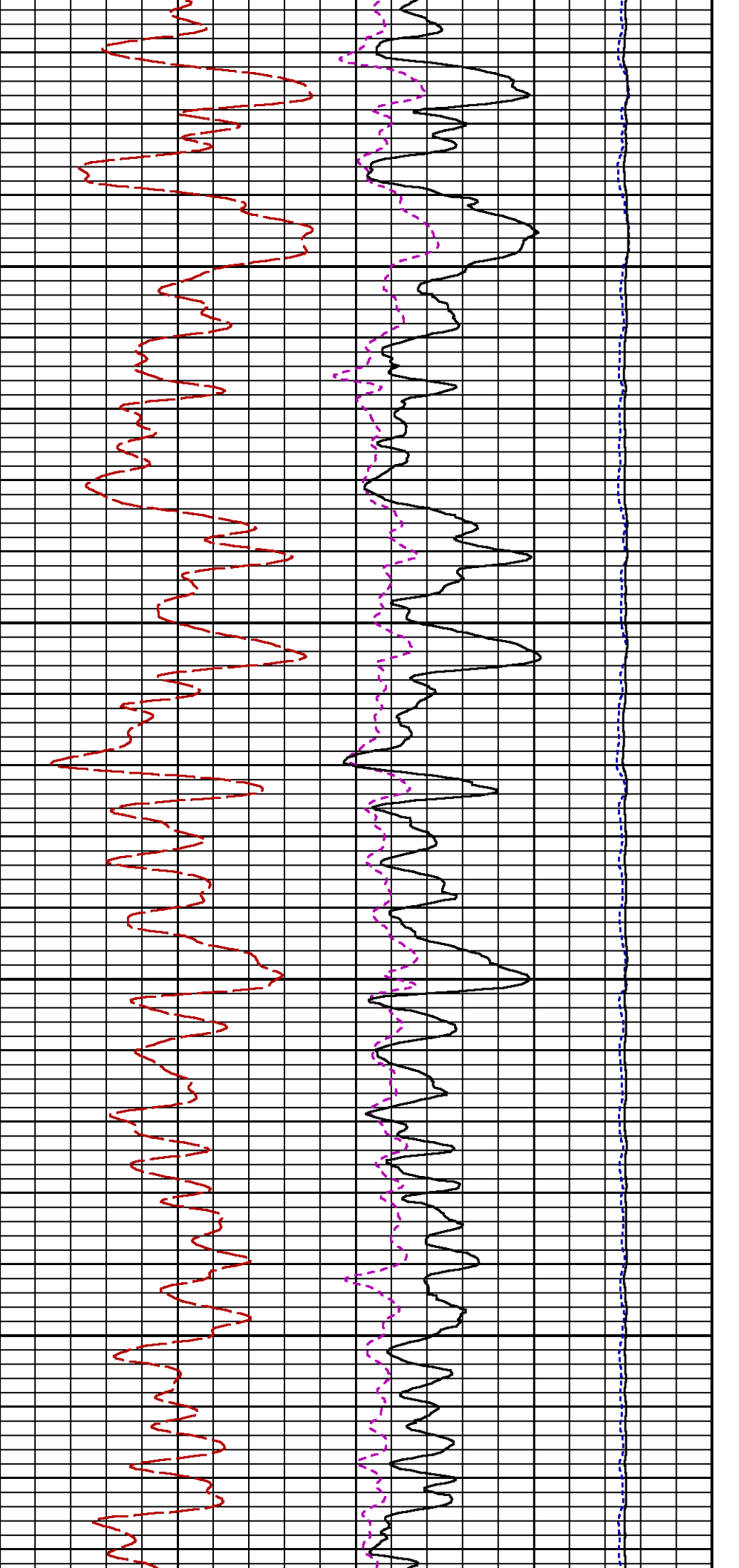
Presentation : cas6685:/dat1a/CH100238/RPM_GSAND.fvpdf [5"/100' Scale]
 Plot Interval : 2666 - 3298 Feet

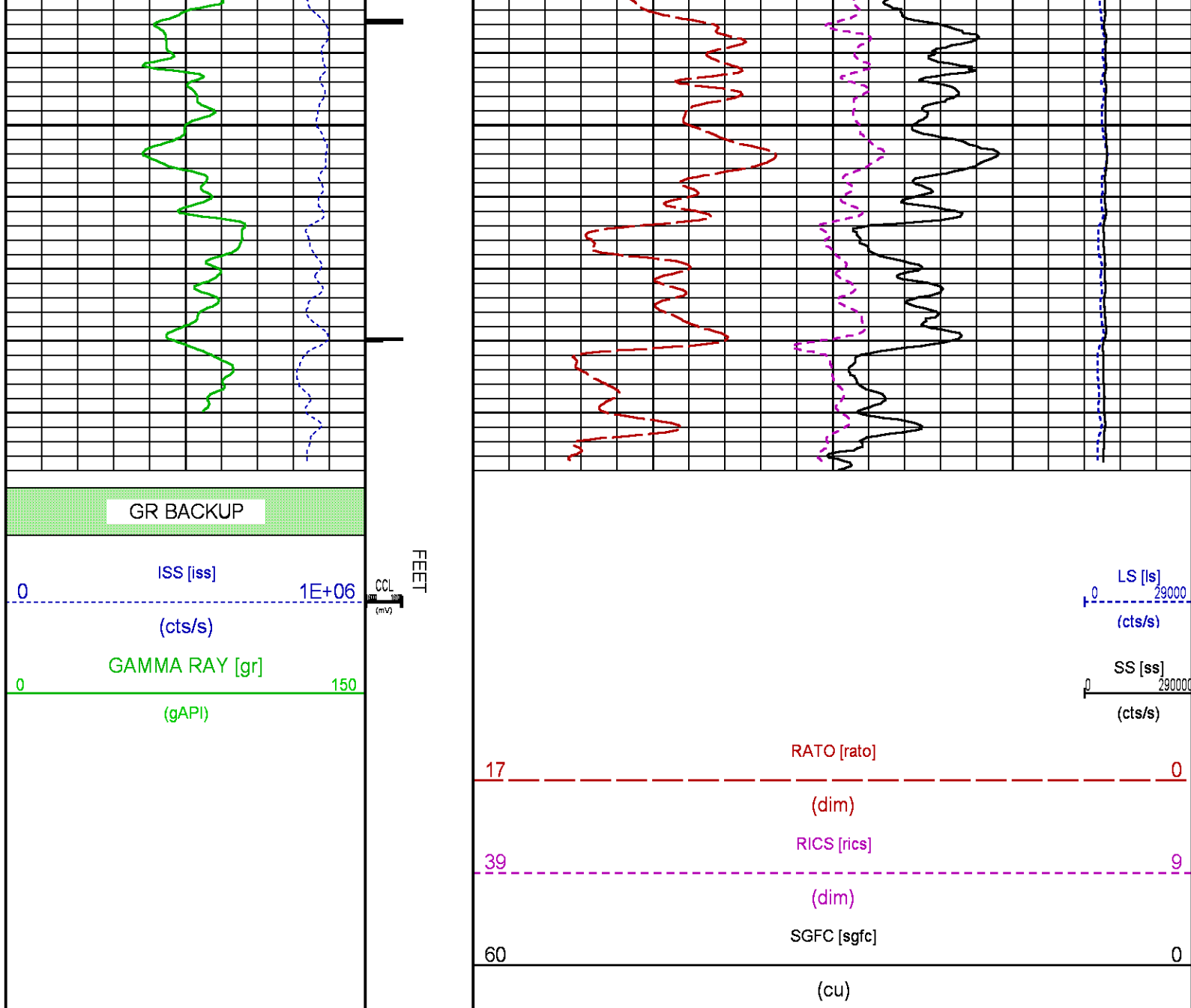
Data File 1 : F1 : cas6685:/dat1a/CH100238/n353h04.xtf
 Created On : Oct 26 14:12:31 2015

Created On : OCT 26 14:12:51 2013
Company : LARAMIE ENERGY
Well : PICEANCE 28-01M
Field : VEGA
File Interval : 2665.25 - 3320.25 Feet
OCT : n353h









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: 8

Plotted: Mon Oct 26 14:55:27 2015

PARAMETER AND FILTER SUMMARY REPORT

FILE: /dat1a/CH100238/n353h03.prm
LOGGING MODE: DEPTH DIRECTION: UP
TOP DEPTH: 4933.500 ft BOTTOM DEPTH: 8198.750 ft

SYMMETRIC FILTER

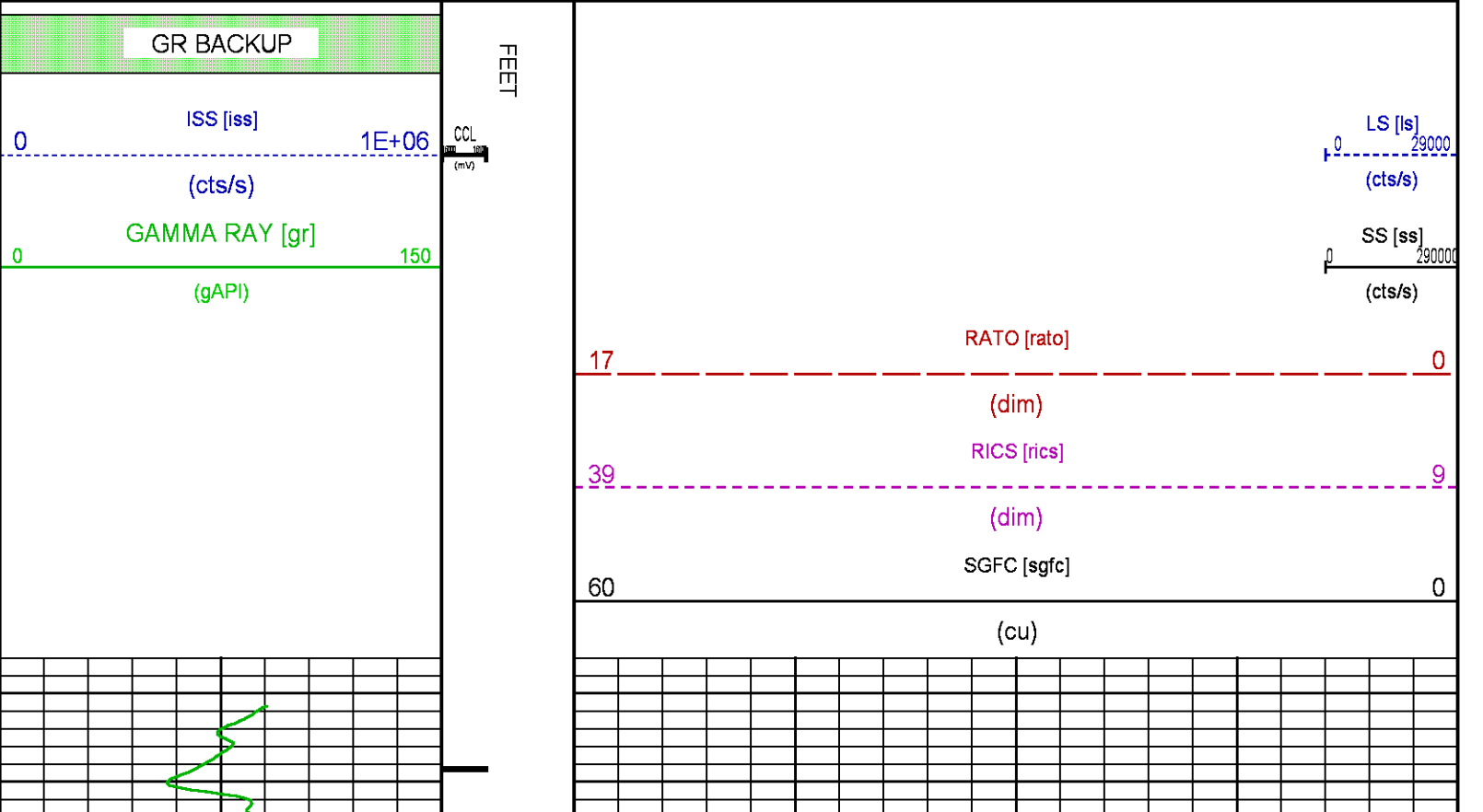
MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)
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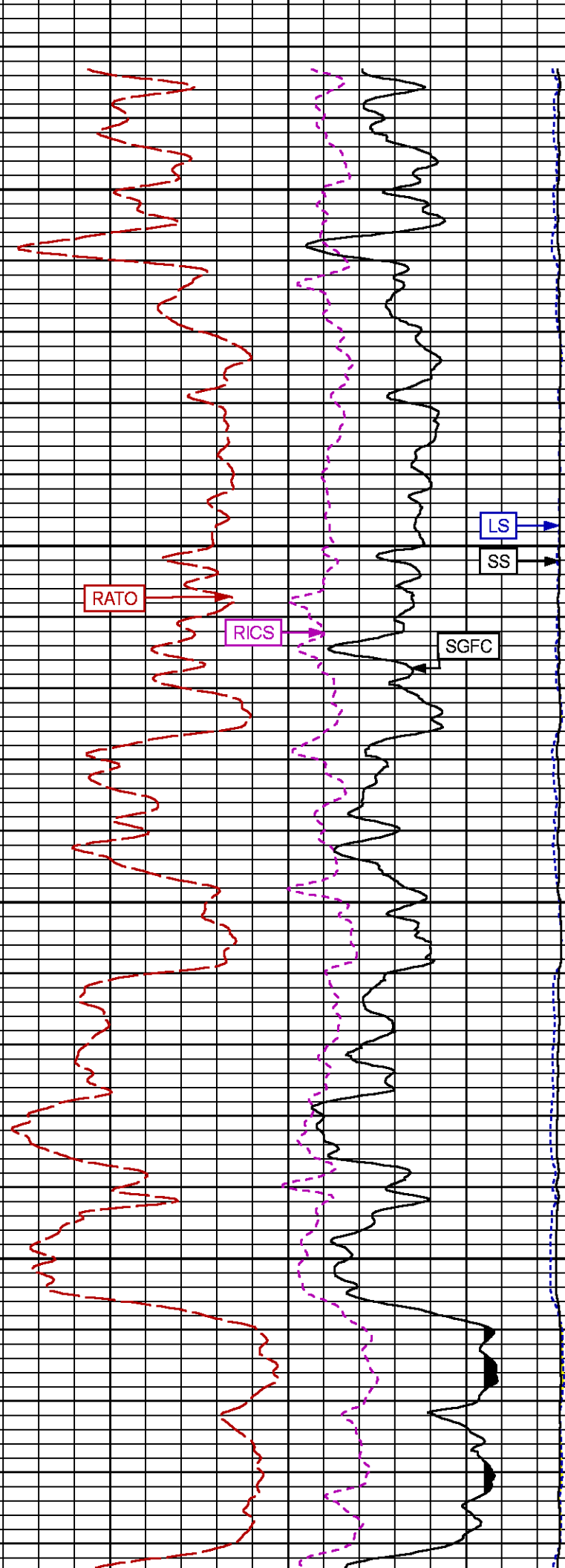
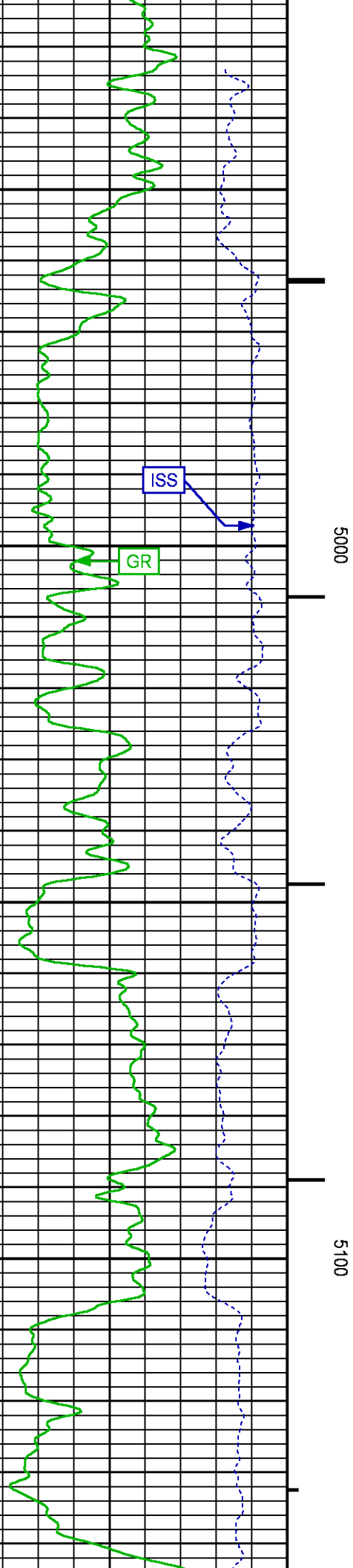
GR	FILTER ()	medium (1)	TOP	BOTTOM
RPM PROCESSING				
MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)
PNC Parameters	BOREHOLE CONTENTS	FLUID		TOP
	OPEN/CASED HOLE	CASED HOLE		BOTTOM
	BOREHOLE SIZE	7.87	in	"
	CASING SIZE	4.50	in	"
	MATRIX	SANDSTONE		"
	CORRECTION BUFFER	11		"

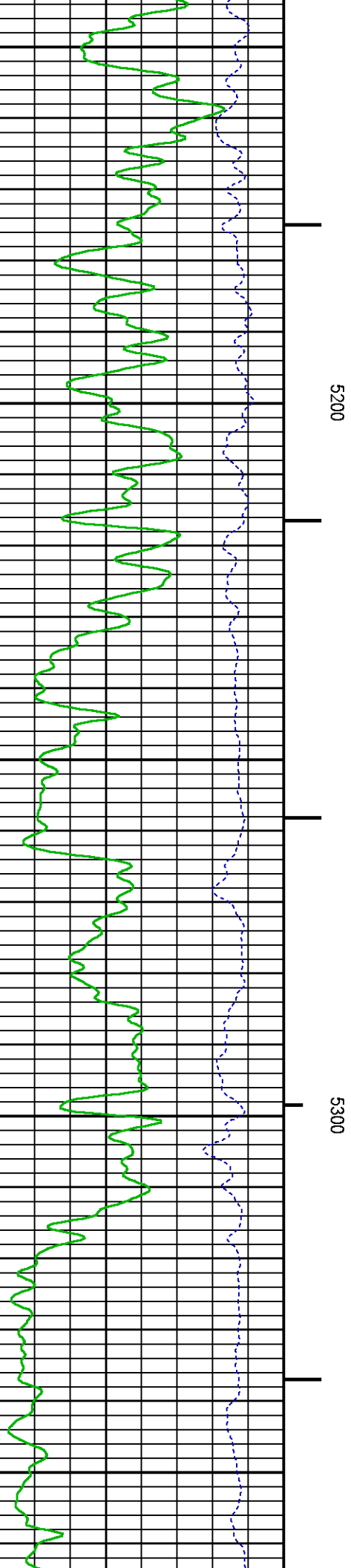
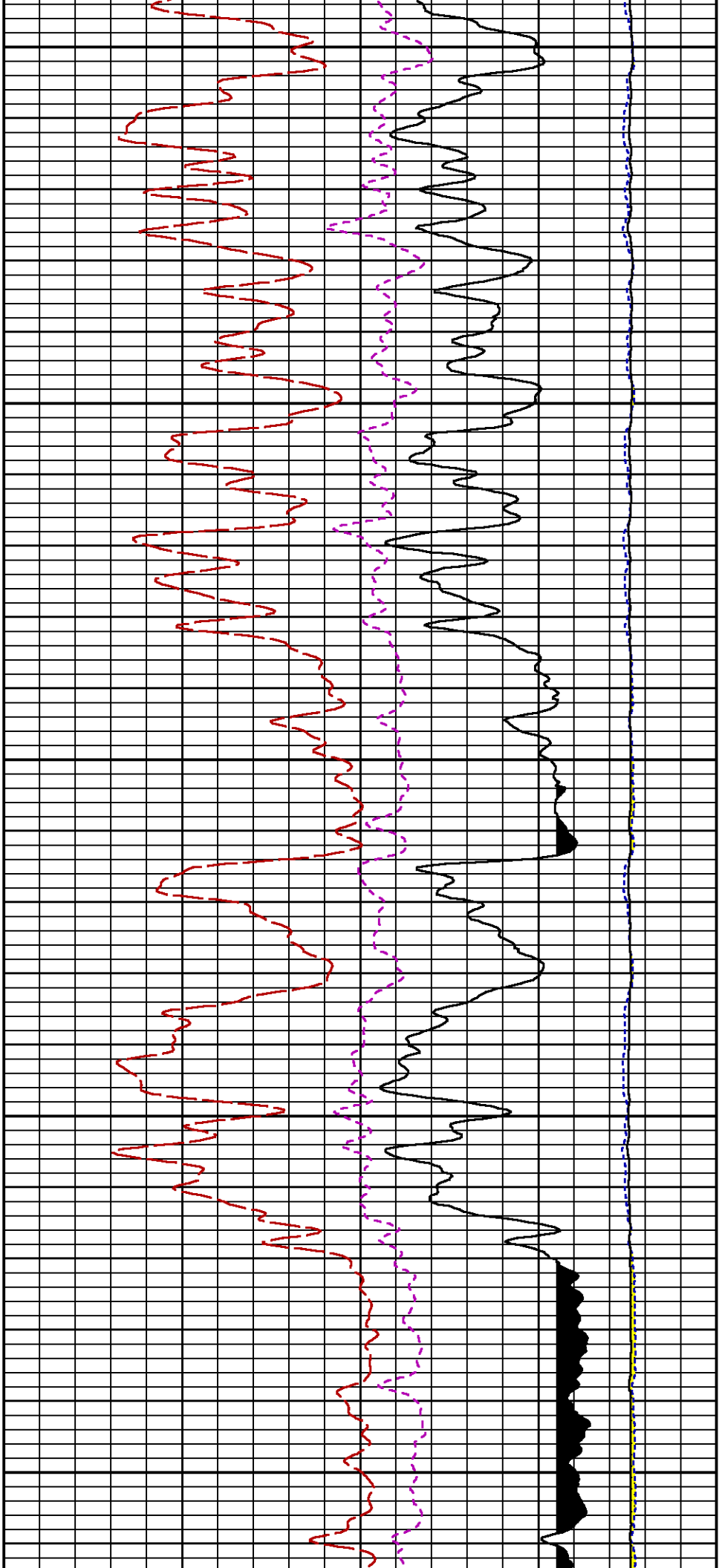
CURVE DESCRIPTION REPORT		
CURVE NAME	CREATION DATE	CURVE DESCRIPTION
F1:CCL	Oct 26 10:48:24 2015	CASING COLLAR LOCATOR
F1:GR	Oct 26 10:48:24 2015	GAMMA RAY
F1:ISS	Oct 26 10:48:24 2015	INELASTIC SHORT SPACE COUNT RATE
F1:LS	Oct 26 10:48:24 2015	LONG SPACE COUNT RATE
F1:RATO	Oct 26 10:48:24 2015	SHORT/LONG SPACE COUNT RATE RATIO
F1:RICS	Oct 26 10:48:24 2015	SHORT SPACE INELASTIC TO CAPTURE COUNT RATE RATIO (ISS/CSS)
F1:SGFC	Oct 26 10:48:24 2015	CORRECTED FORMATION SIGMA
F1:SS	Oct 26 10:48:24 2015	SHORT SPACE COUNT RATE

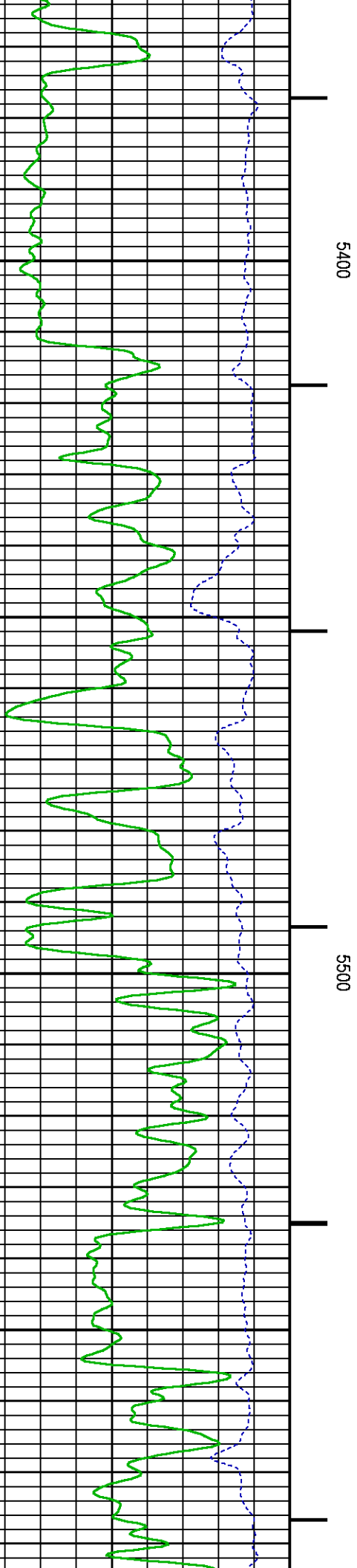
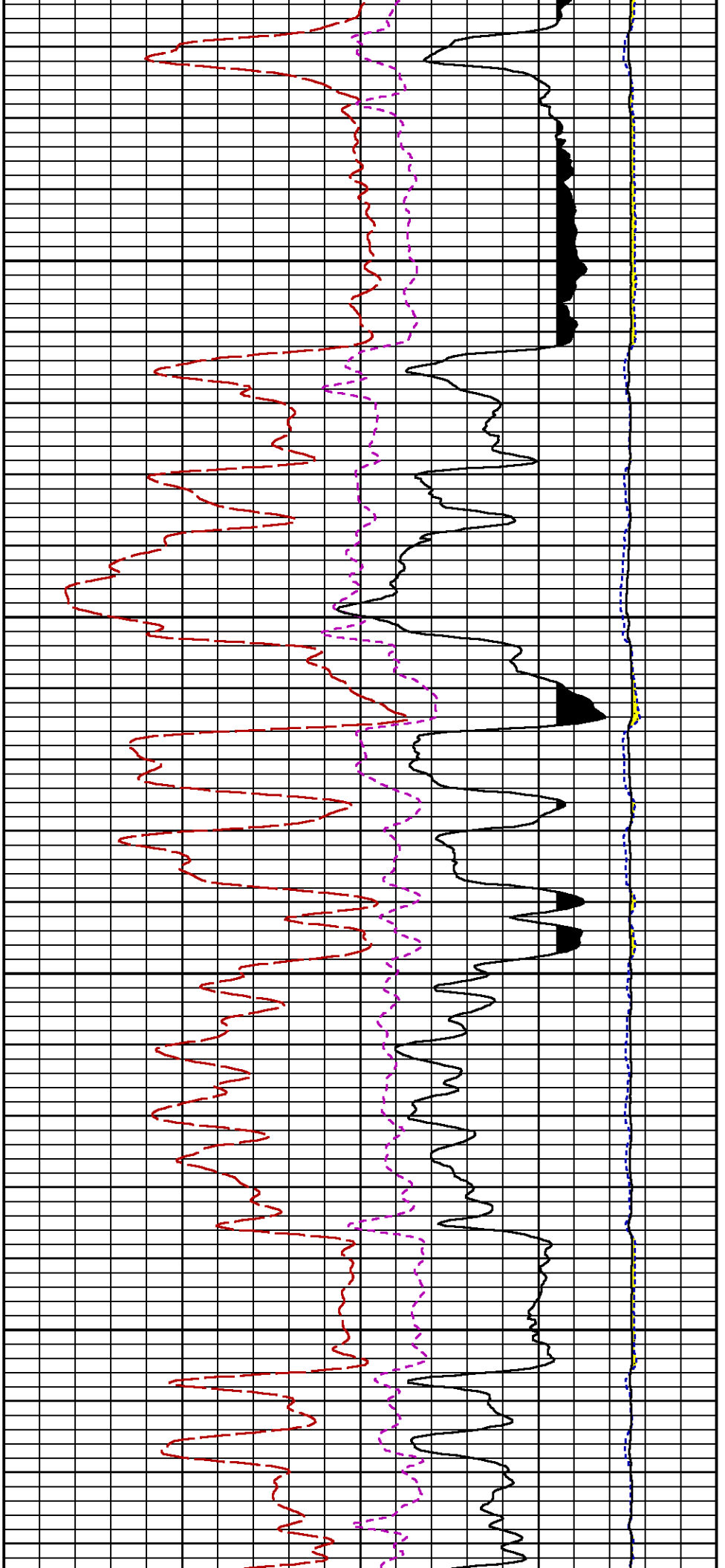
CURVE MEASURE POINT OFFSET							
CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)
CCL	26.00	ISS	12.75	RATO	12.75	SGFC	12.75
GR	23.00	LS	12.75	RICS	12.75	SS	12.75

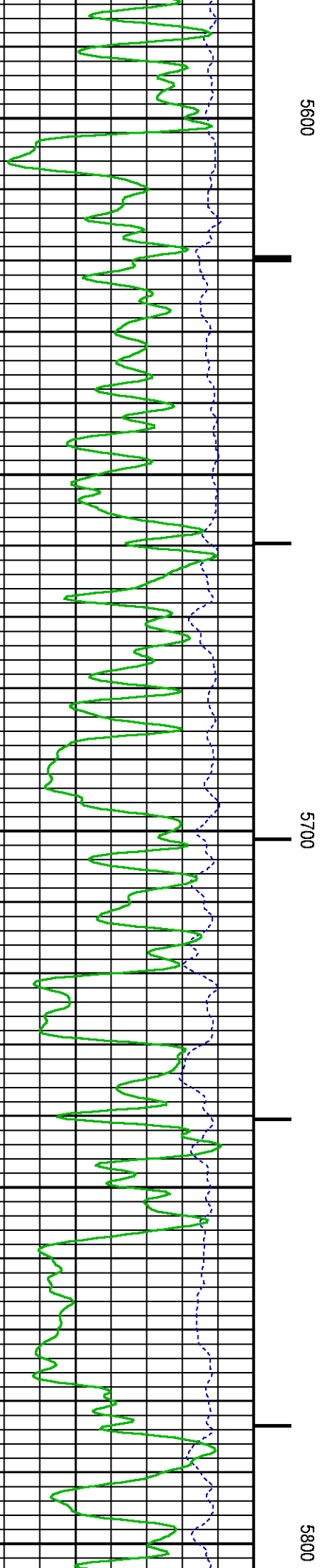
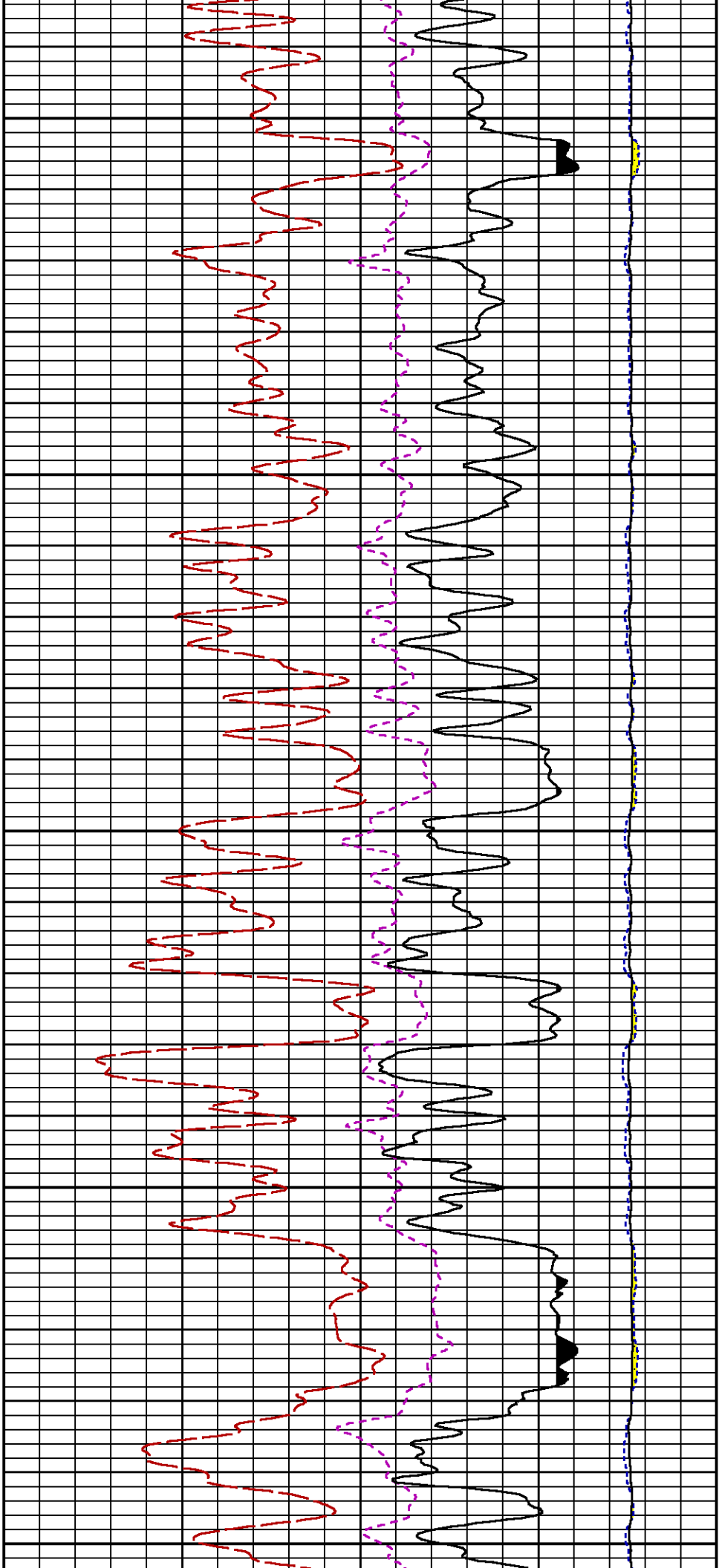
Presentation	: cas6685:/dat1a/CH100238/RPM_MAIN.fvpdf [5"/100' Scale]
Plot Interval	: 4907.25 - 8182.5 Feet
Data File 1	: F1 : cas6685:/dat1a/CH100238/n353h03.xtf
Created On	: Oct 26 10:48:24 2015
Company	: LARAMIE ENERGY
Well	: PICEANCE 28-01M
Field	: VEGA
File Interval	: 4906.5 - 8198.75 Feet
OCT	: n353h

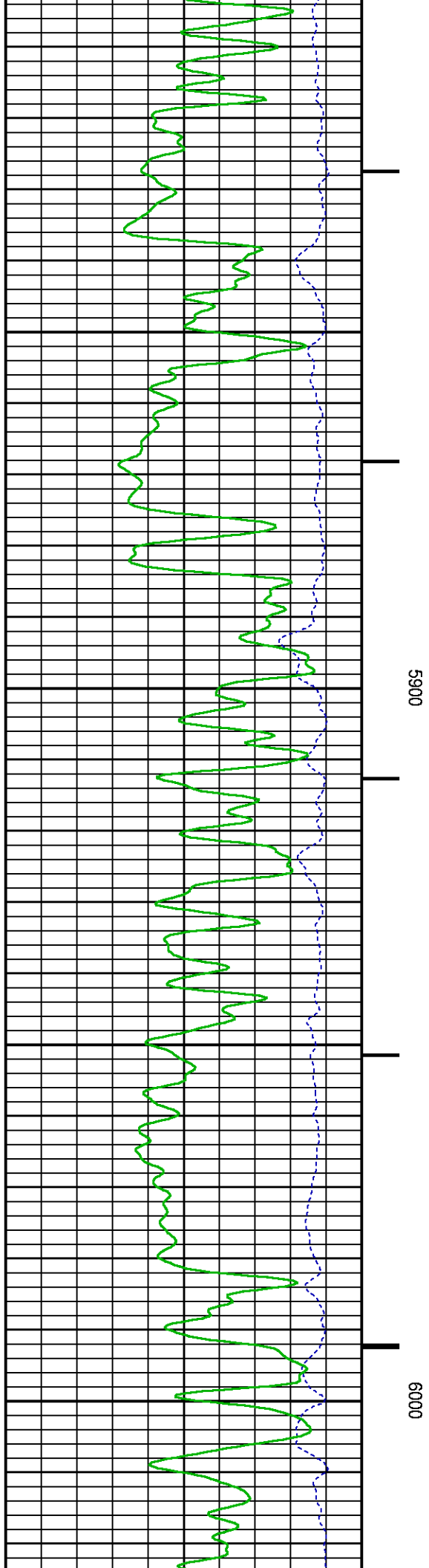
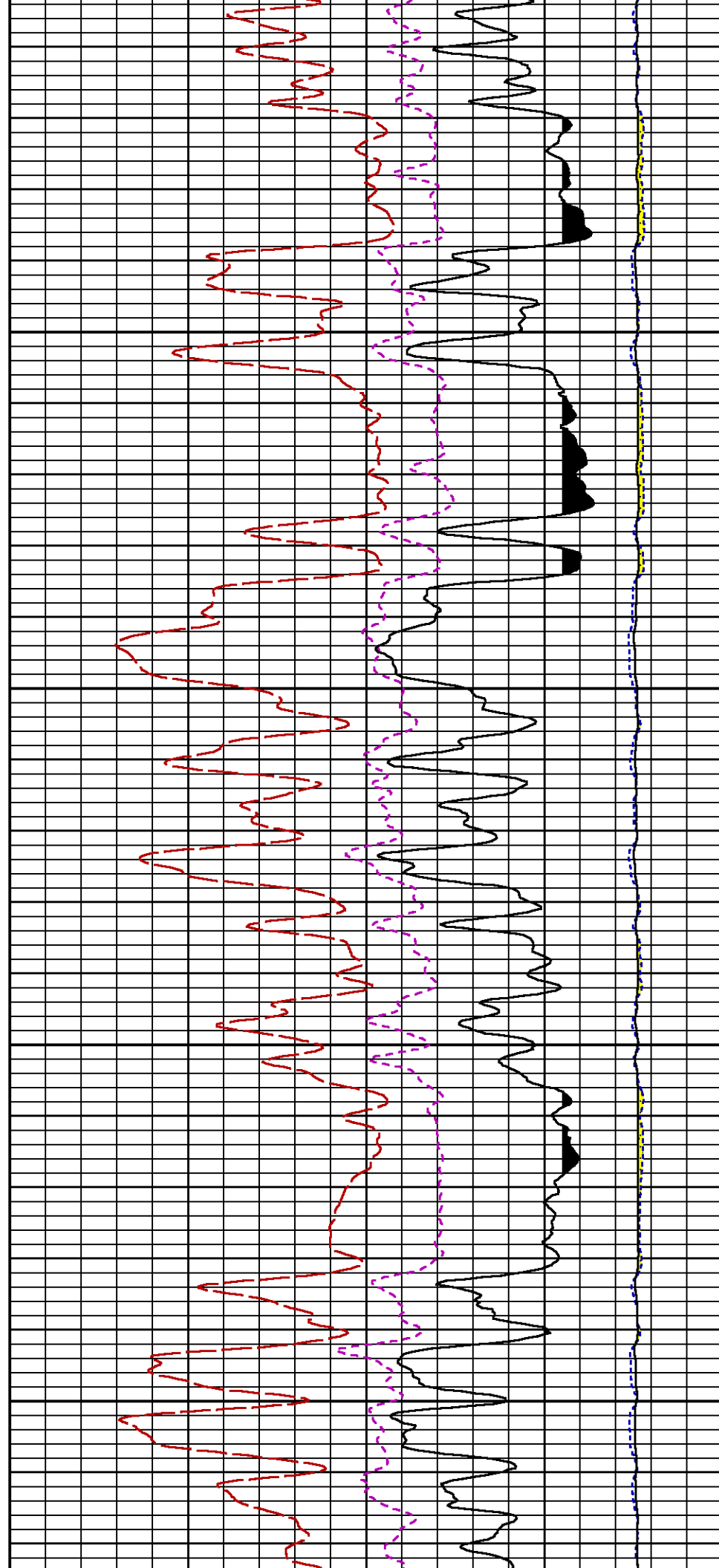


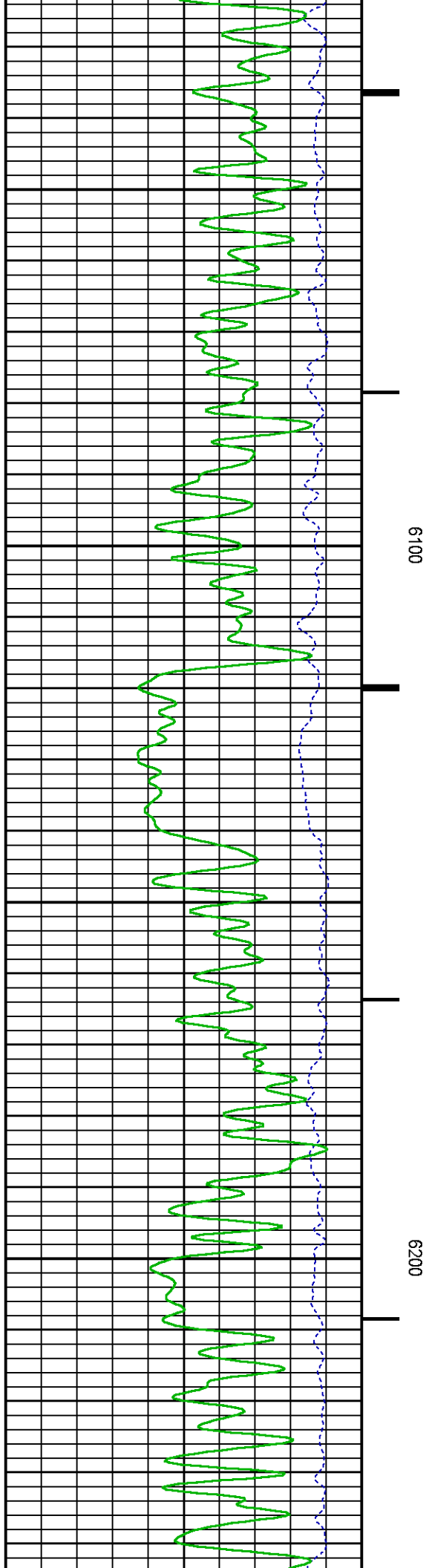
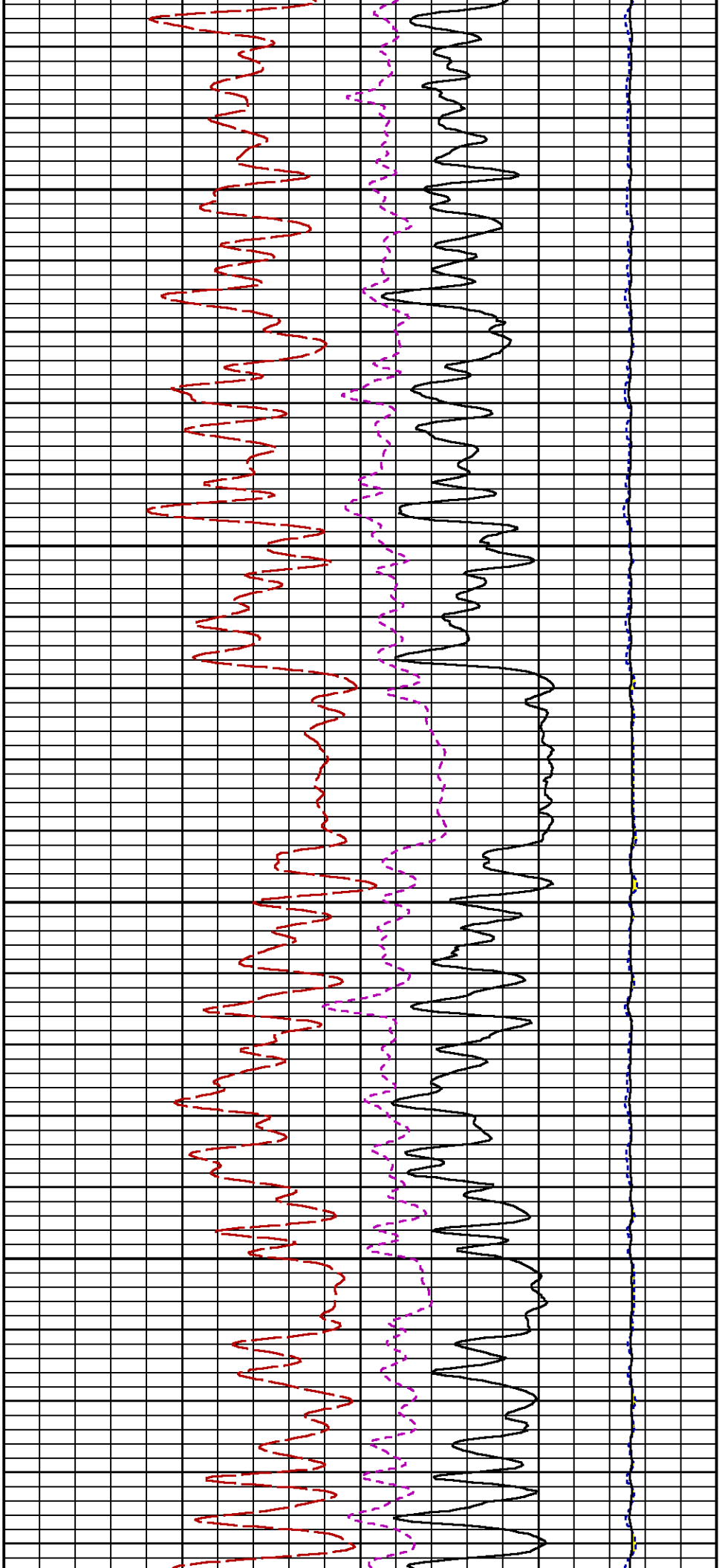


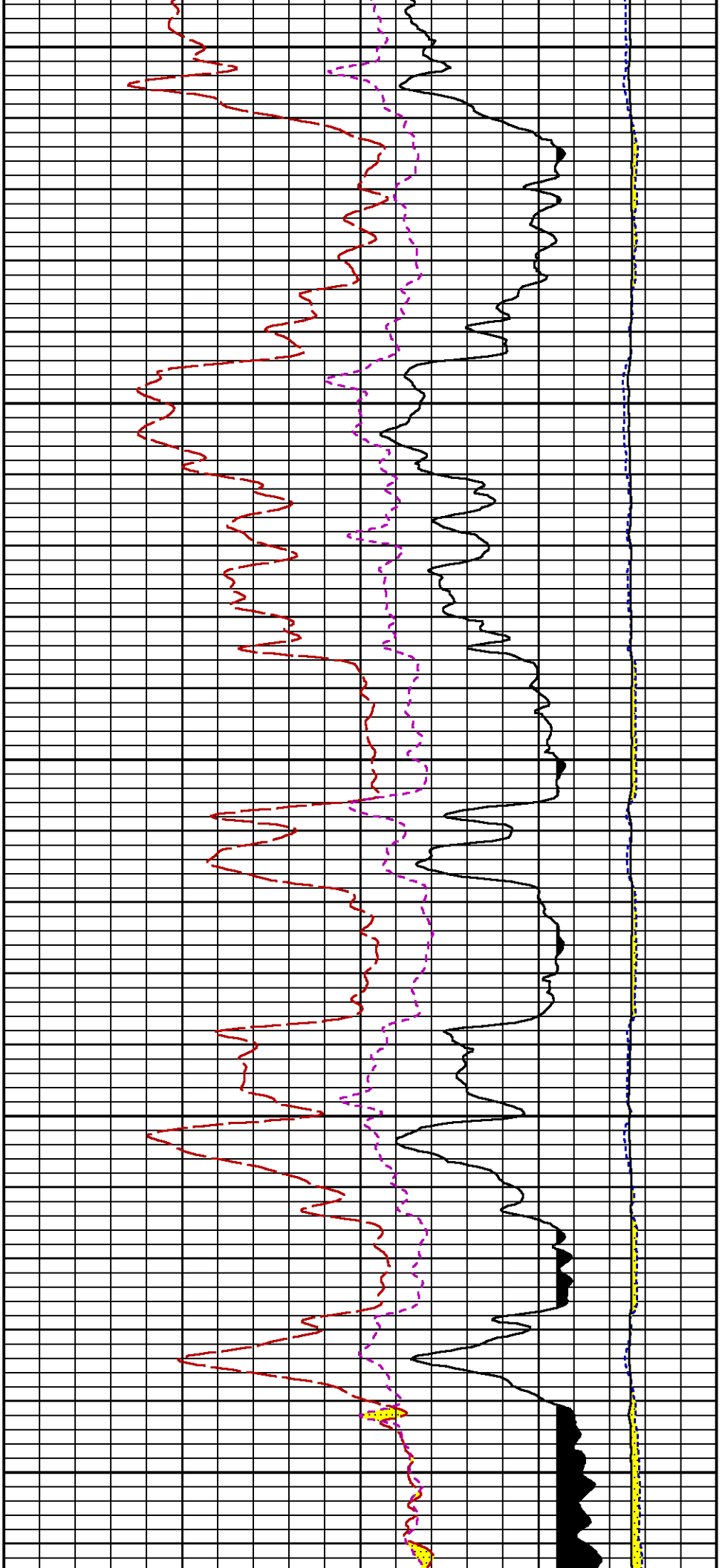








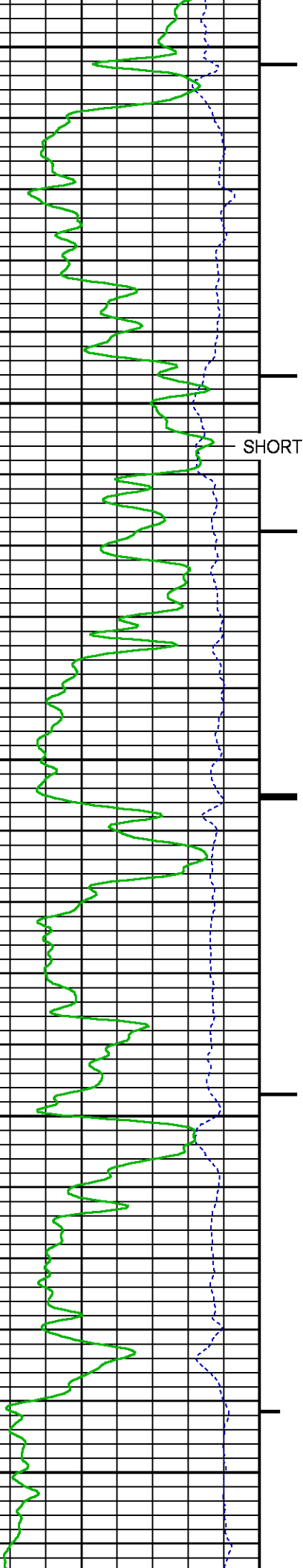


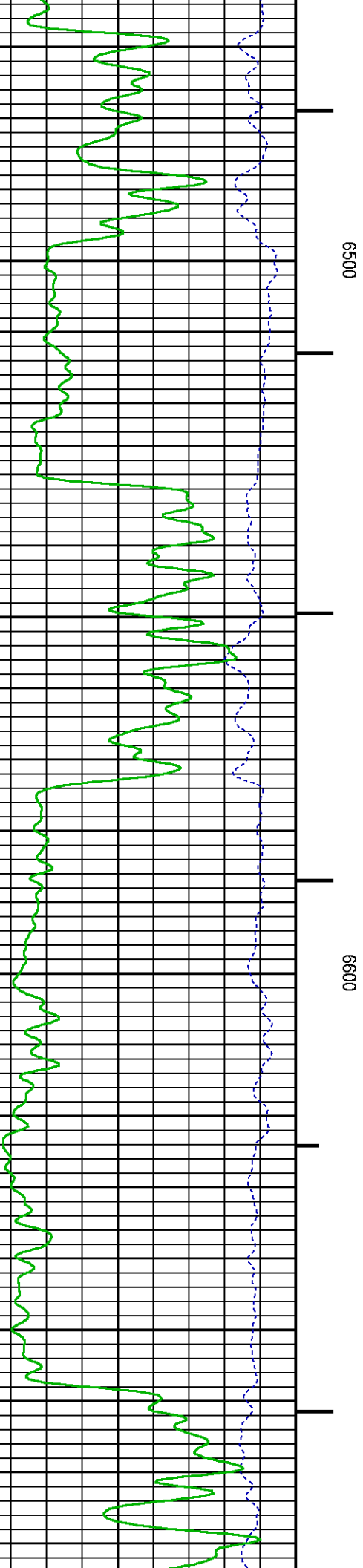
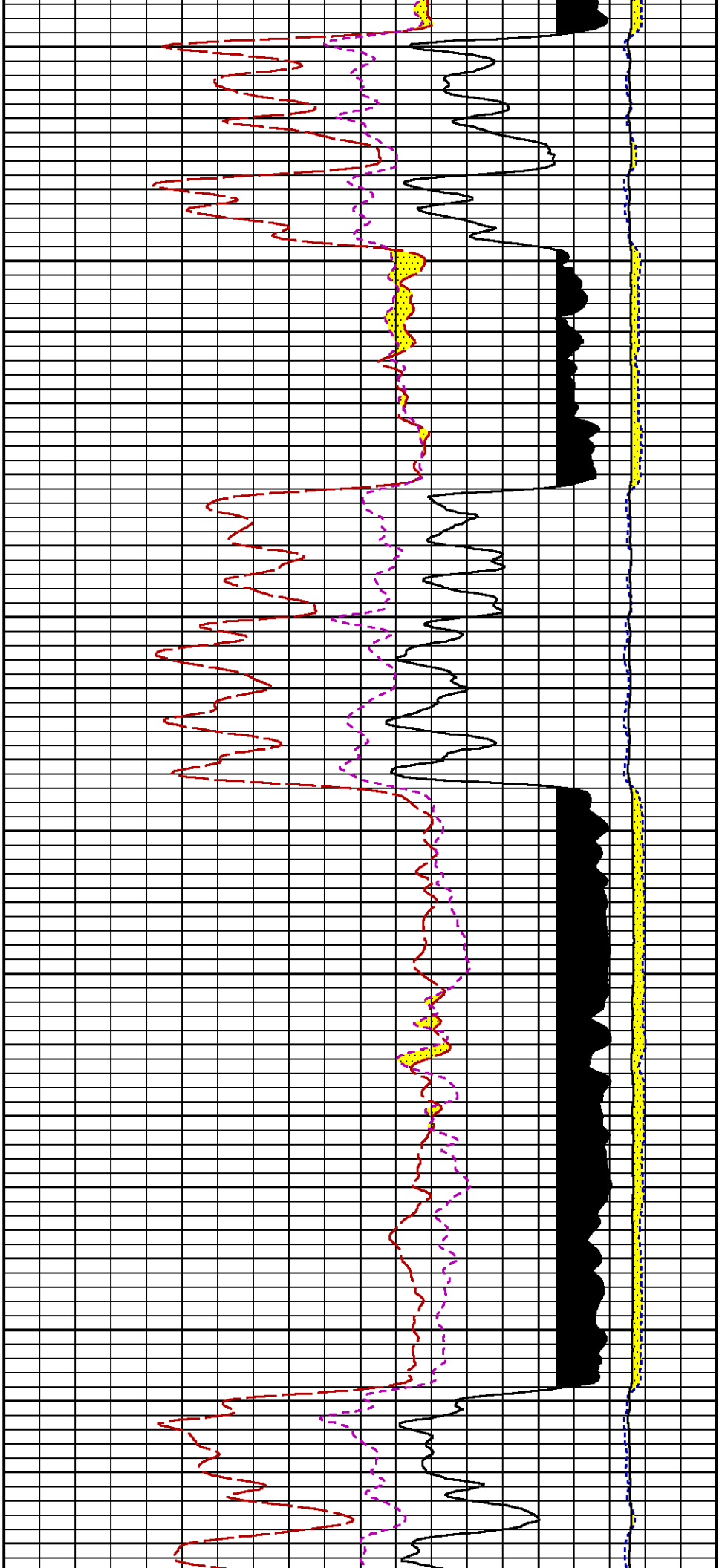


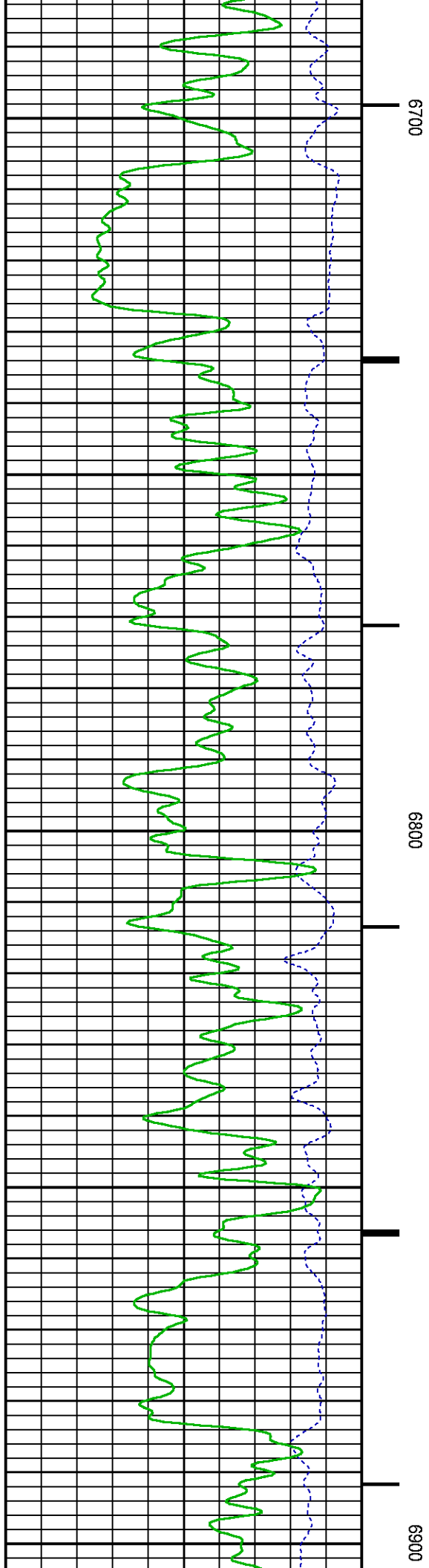
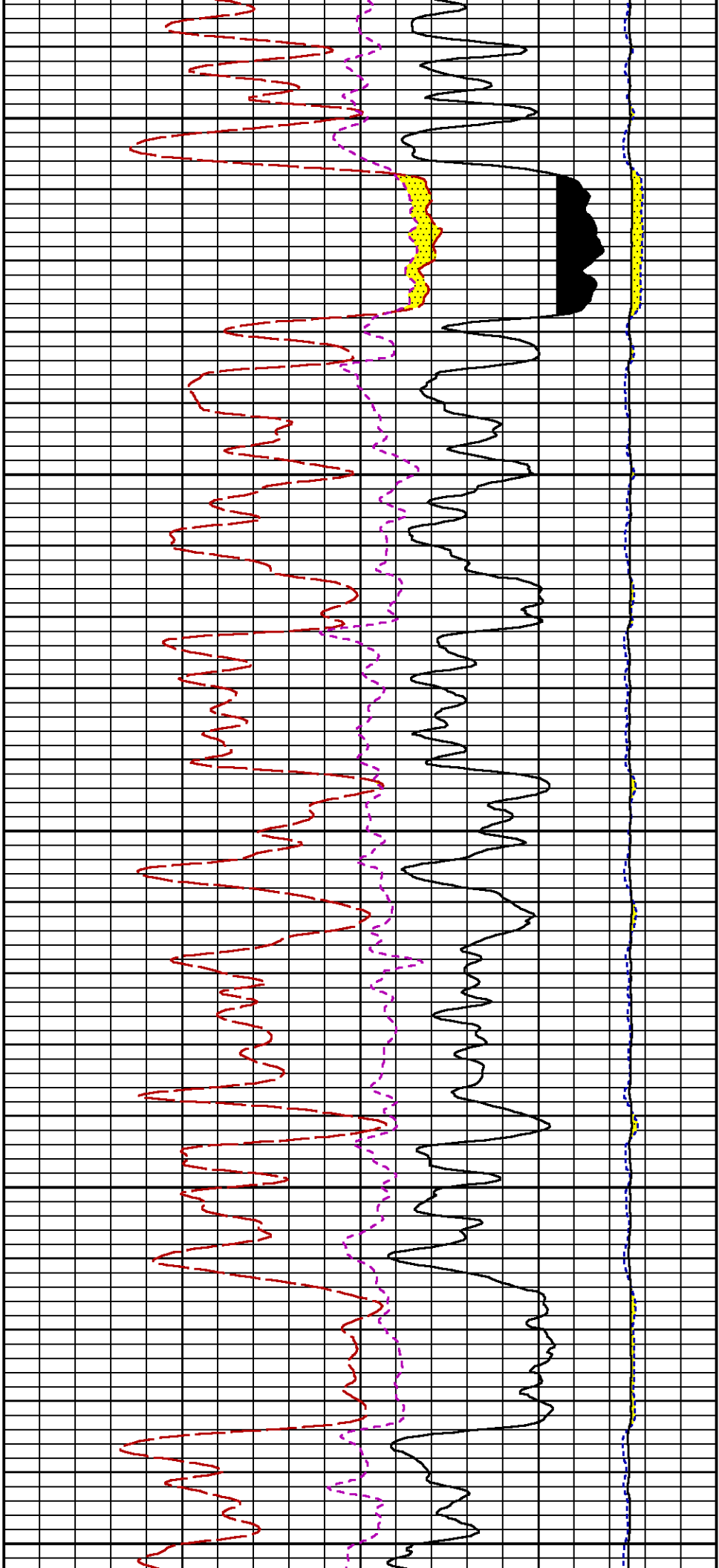
SHORT JOINT

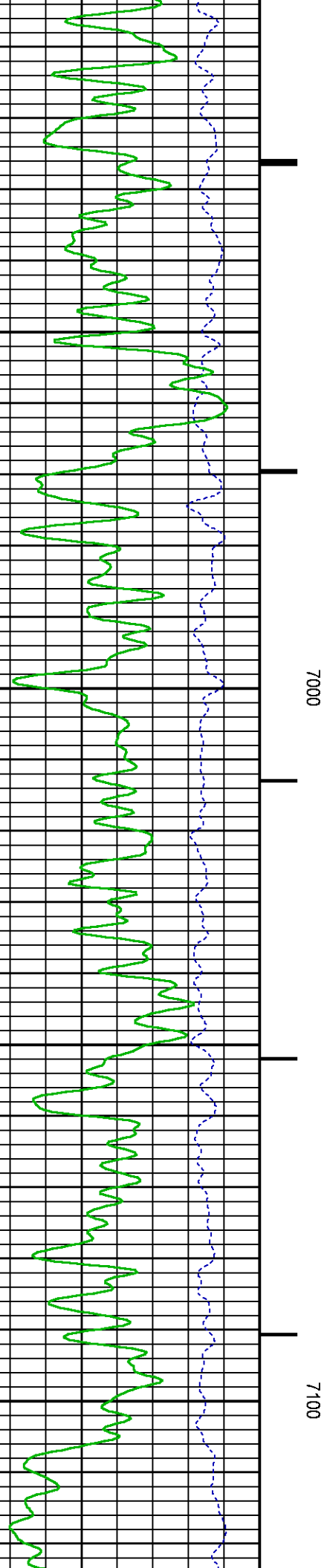
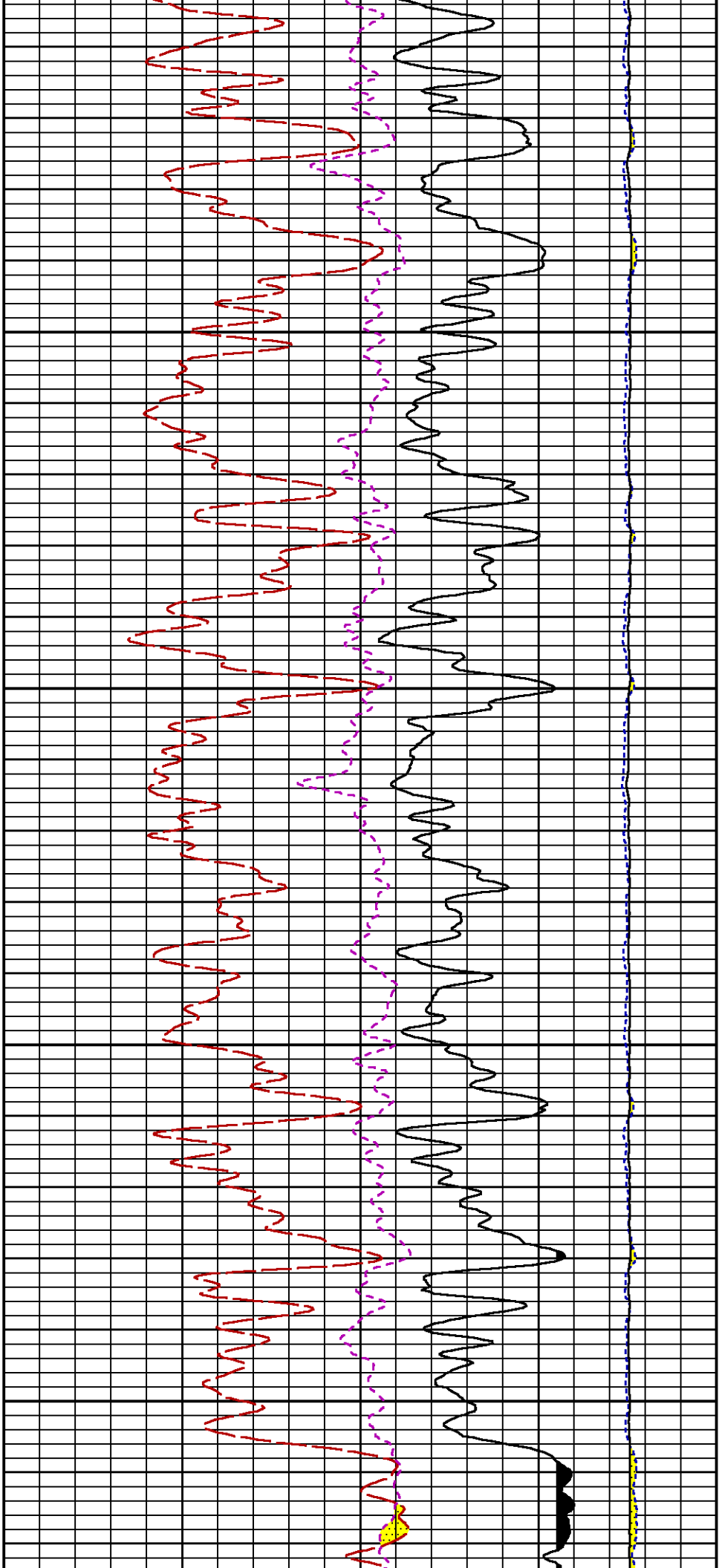
6300

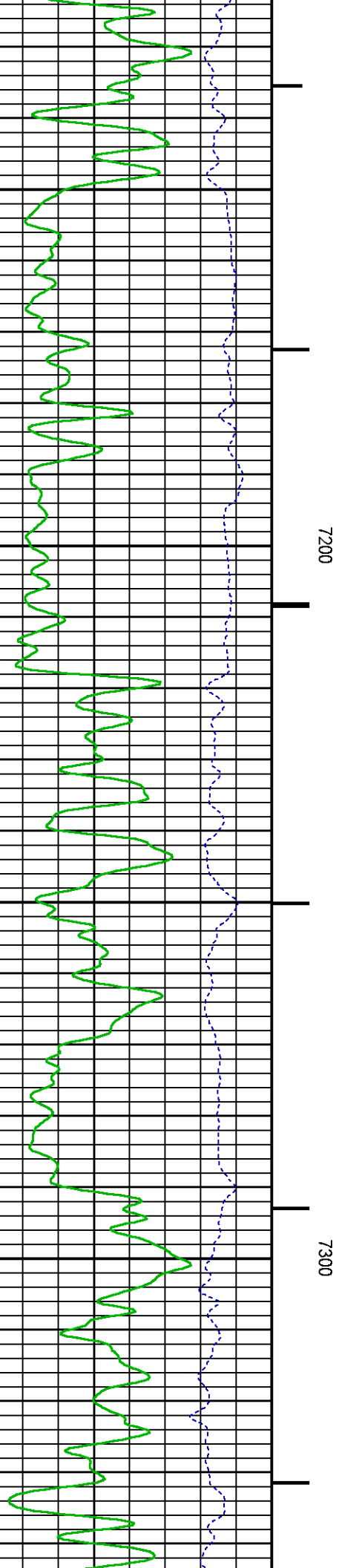
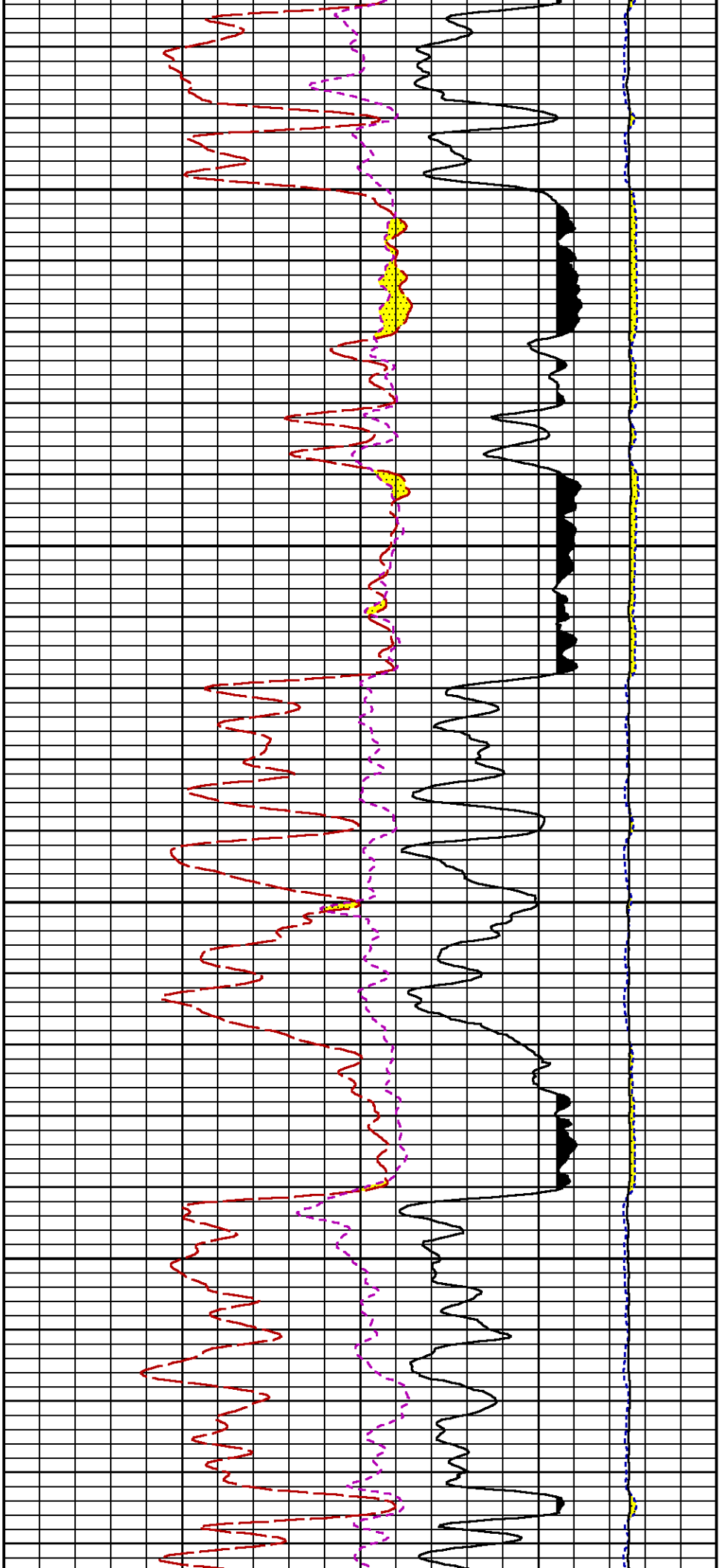
6400

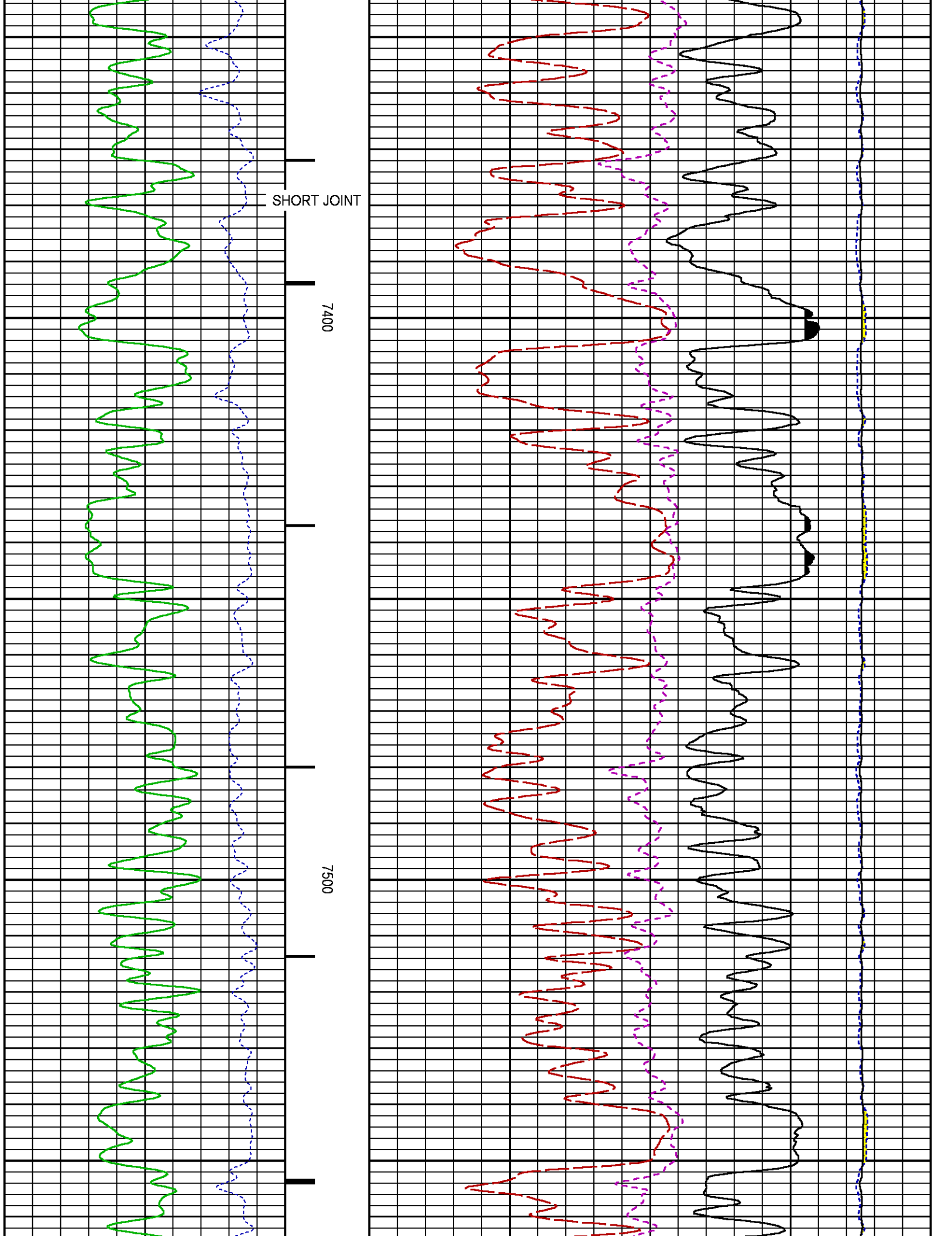


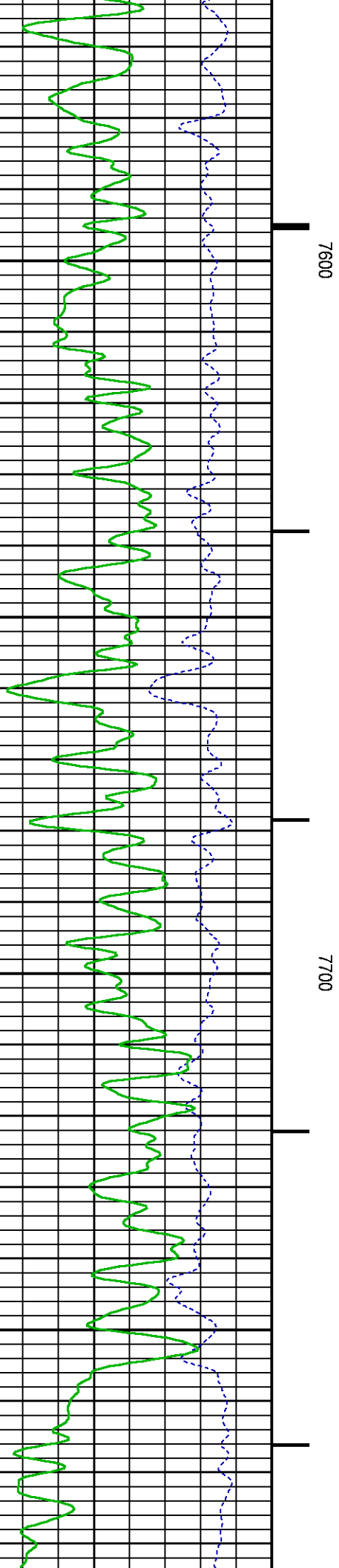
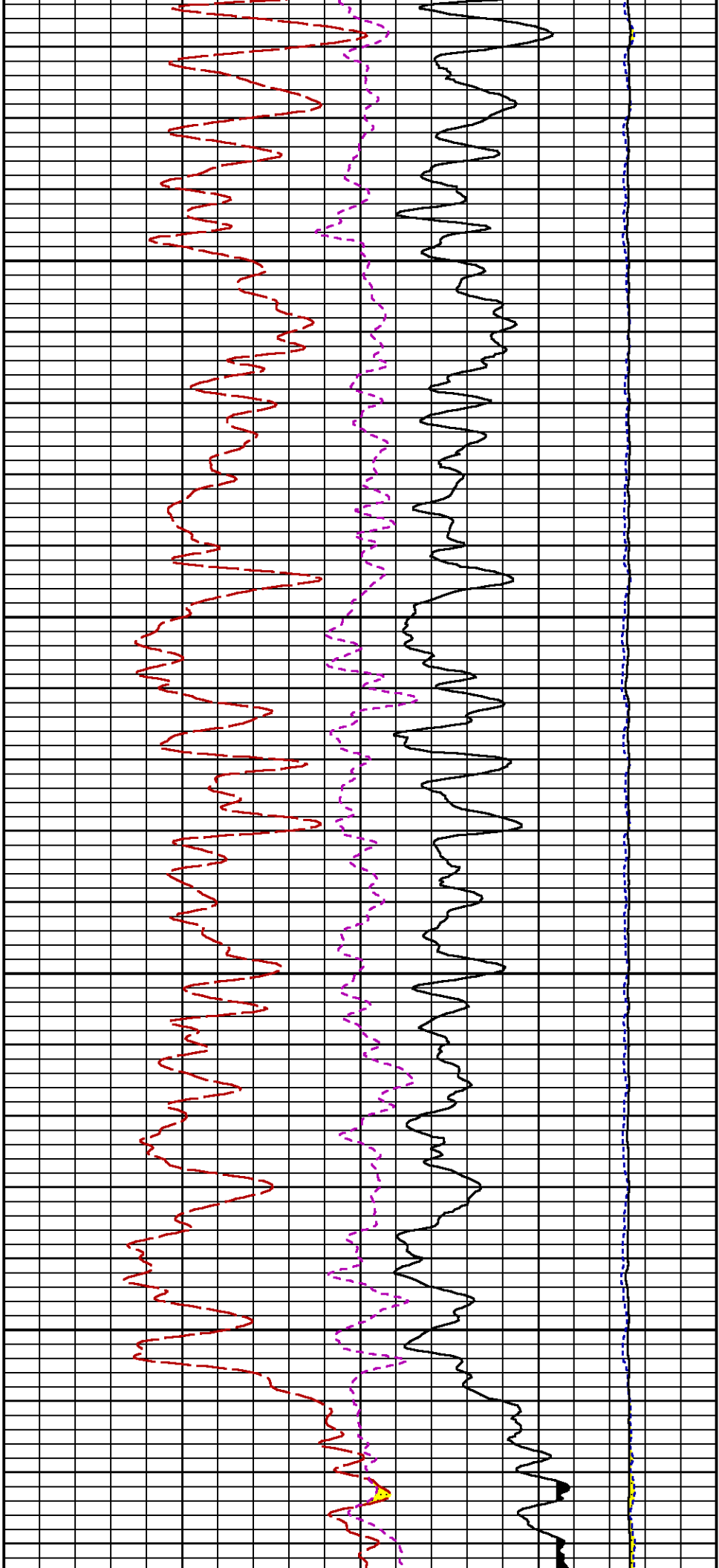


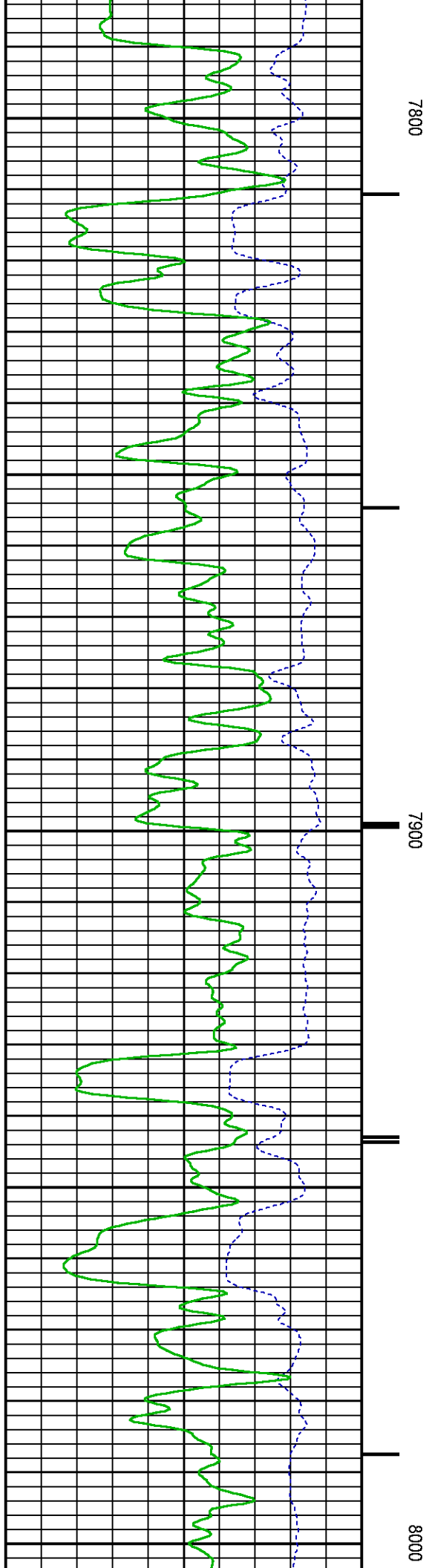
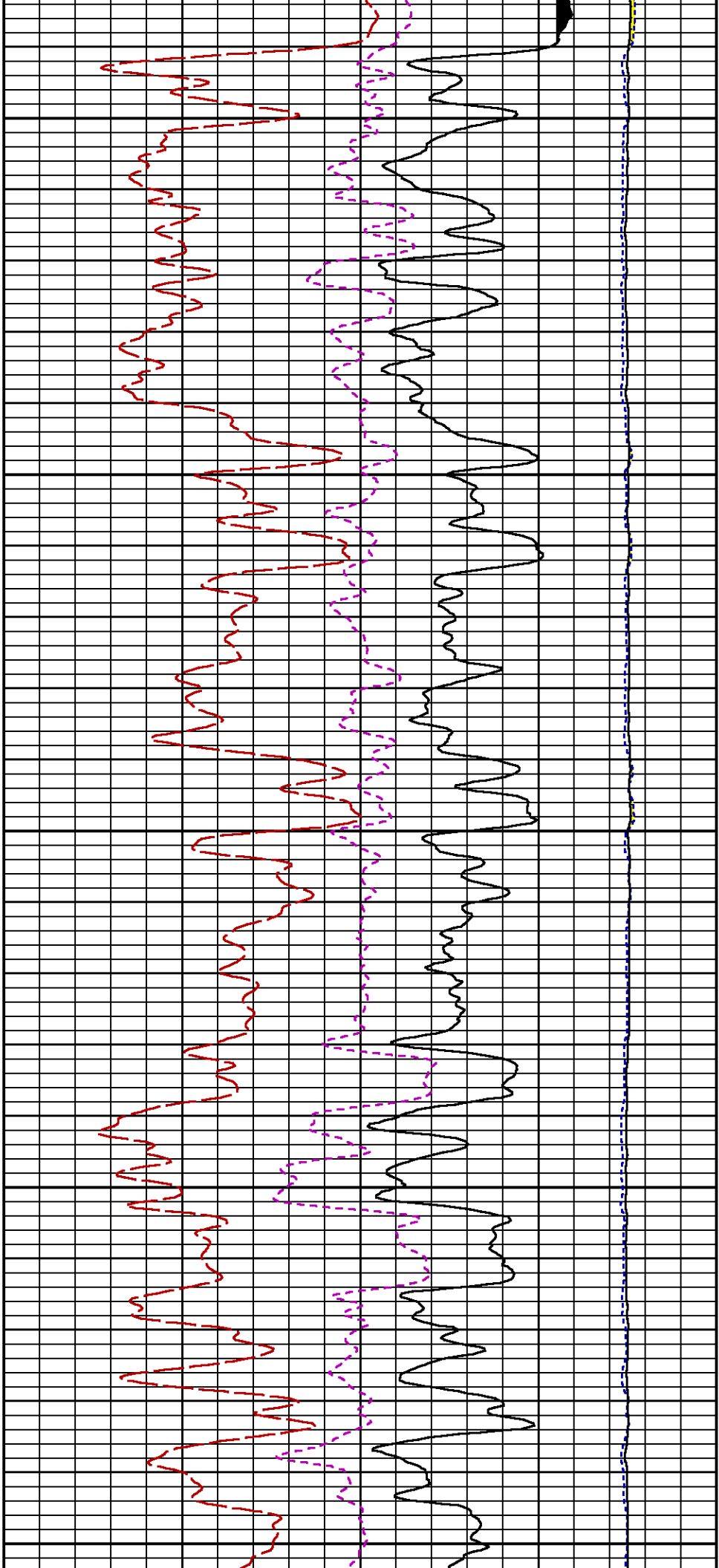


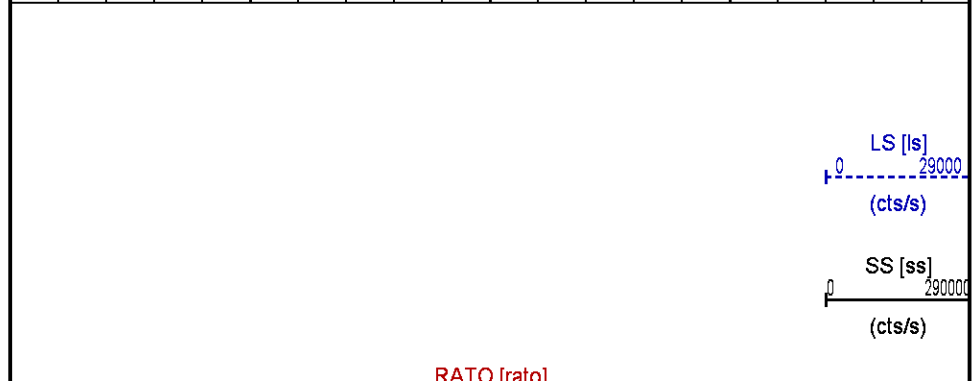
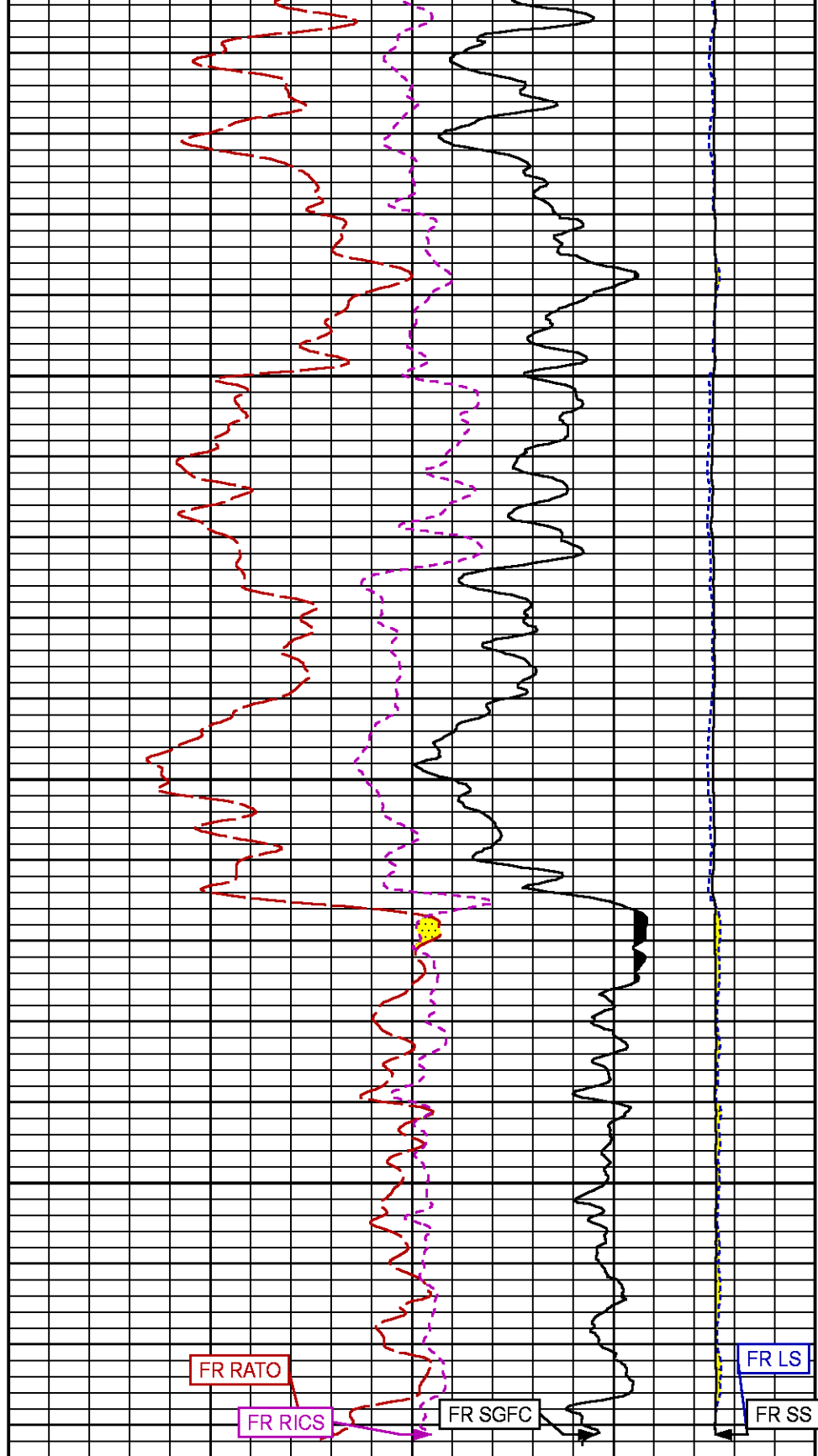
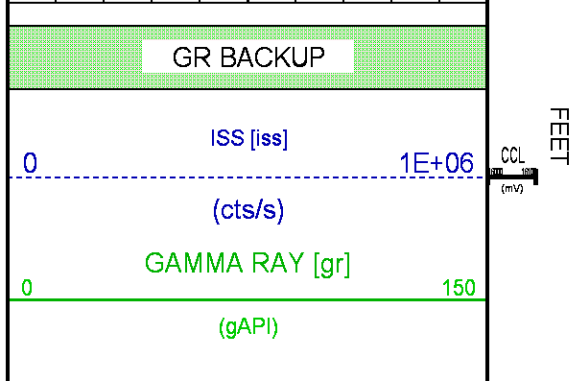
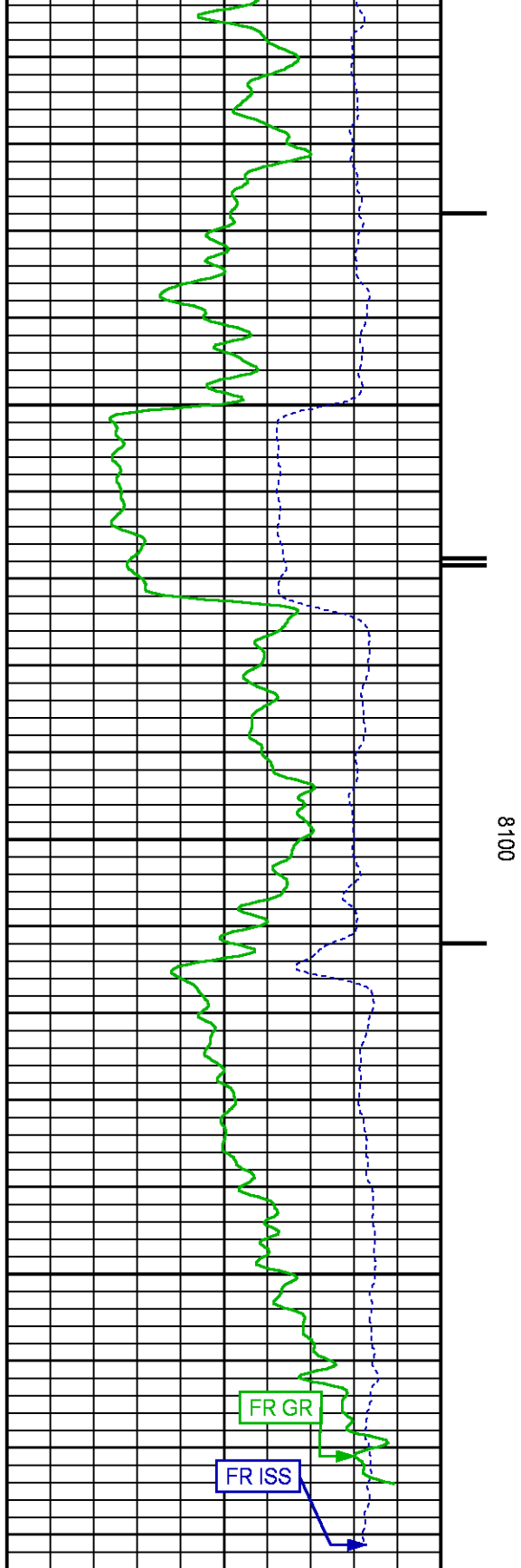








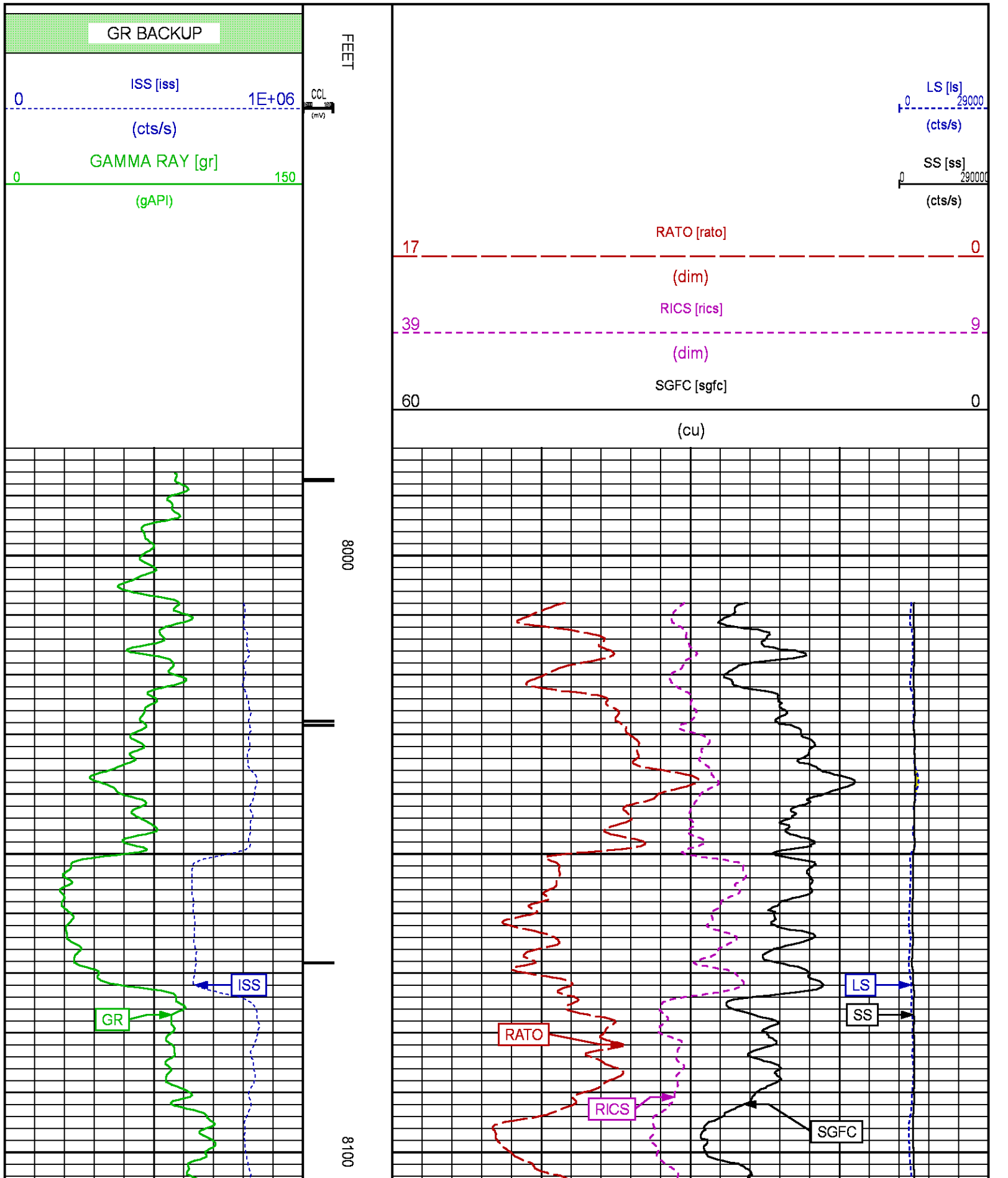


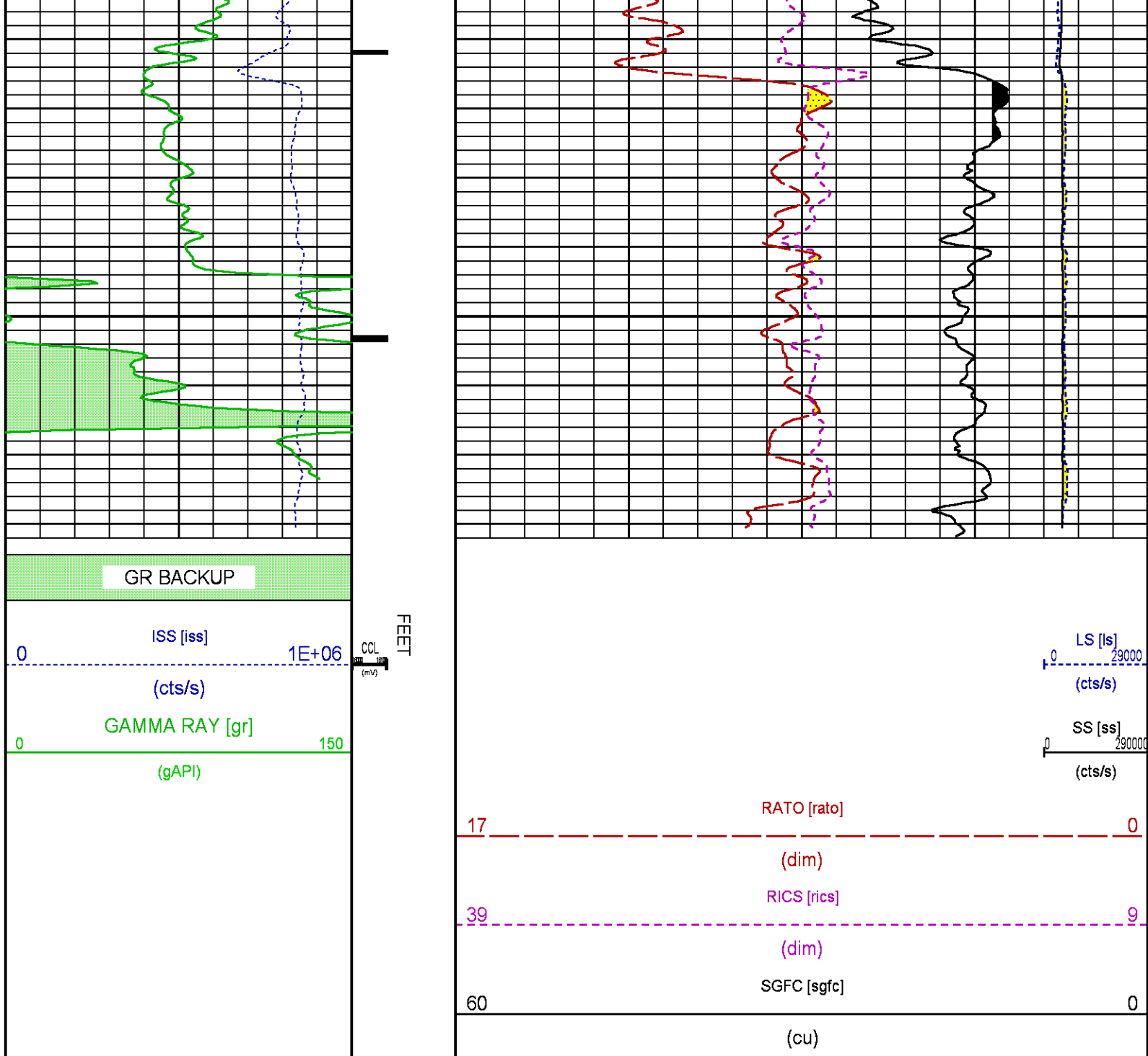


REPEAT SECTION PNC-3D MODE

Presentation : cas6685:/dat1a/CH100238/RPM_RPT.fvpdf [5"/100' Scale]
Plot Interval : 7982 - 8181.75 Feet

Data File 1 : F1 : cas6685:/dat1a/CH100238/n353h02.xtf
Created On : Oct 26 10:34:13 2015
Company : LARAMIE ENERGY
Well : PICEANCE 28-01M
Field : VEGA
File Interval : 7962.25 - 8198 Feet
OCT : n353h





CALIBRATION / VERIFICATION SUMMARY

Source File: /dat1a/CH100238/n353h.tp1

GR PRIMARY CALIBRATION SUMMARY

TOOL #: 8262XA 10485470

DATE/TIME PERFORMED: Fri Oct 23 10:03:02 2015

UNIT #: 3885TC 6685

CALB JIG #: 4702NK VBA-905

	BACKGROUND (cts/s)	CALBTR ON (cts/s)	CR DIFF (cts/s)	MULT	BACKGROUND (gAPI)	CALBTR ON (gAPI)	CALBTR (gAPI)
GR	106.22	450.31	344.1	0.523	55.57	235.57	180

GR PRIMARY VERIFICATION SUMMARY

TOOL #: 8262XA 10485470

DATE/TIME PERFORMED: Fri Oct 23 10:05:04 2015

UNIT #: 3885TC 6685

VERI JIG #: 4702NK VBA-905

	BACKGROUND (cts/s)	CALBRTR ON (cts/s)	MULT	BACKGROUND (gAPI)	CALBRTR ON (gAPI)	DIFF. (gAPI)
GR	107.36	458.00	0.523	56.16	239.59	183.43
						170.00 190.00

RPM_PNC_3D PRIMARY CALIBRATION SUMMARY

TOOL: 8283PA 10414345

DATE/TIME PERFORMED: Wed Oct 7 10:51:29 2015

UNIT: 3885TC 6685

CALIBRATOR: 2437XB 112674

SOURCE: 8281AA 10160601

HOURS: 8281AA 173

	ISS	Mtr Vits (V)	SS Gain	LS Gain	XLS Gain	EA Temp (degF)	Sync Delay (usec)	RCAL
Raw Data	801603	121	2314	2275	2268	107	7.0	0.9797
Interpolated	1300000	142	2301	2270	2264			

	ISS	BKS	BKL	BKX	SGA1	SDA1	SGA2	SDA2
Raw Data	801603	7188	1125	148	25.95	0.15	24.16	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	801603	167903	25988	88575	31568	8240	53636	13173
Fit Quality %		0.898	1.042	0.778	0.769	0.808	0.724	0.842

	ISS	RBOR	RIN ISS/ILS	RIN13 ISS/IXS	RICS ISS/CSS	RATO SS/LS	RTWO SS2/LS	RONE CSS/CLS
Raw Data	801603	1.43	4.77	30.86	14.95	10.75	3.83	4.07
		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 %		0.017	0.117	0.240	0.156	0.045	0.054	0.102
Reduced	1408581	1.43	4.78	30.98	14.95	10.76	3.84	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

INSTRUMENT CONFIGURATION

Source File: /dat1a/CH100238/RPM-tdg

A3 CABLEHEAD

PCM POWER SUPPLY

Diameter : 1.70"
Length : 3.86"
Weight : 18 lbs
Series : 8250EA
Mnemonic : PCM

TELEMETRY / CCL

34.08'

Diameter : 1.70"
Length : 4.46'
Weight : 20 lbs
Series : 8248ED
Mnemonic : PCM
Measure Point: 1.00': CCL MP

GAMMA RAY

Diameter : 1.70"
Length : 3.02'
Weight : 15 lbs
Series : 8262XA
Mnemonic : GR
Measure Point: 0.89': 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

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

BULL PLUG 1 11/16

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

CCL MP 26.03'

GR MP 22.90'

XLS DETECTOR 13.58'
LS DETECTOR 13.16'
SS DETECTOR 12.91'

TEMP MP 1.65'
PRES MP

0.00'



COMPANY
WELL
FIELD
COUNTY

LARAMIE ENERGY

PICEANCE FEDERAL 28-01M

VEGA

MESA

STATE COLORADO

LOCATION:

SHI : I AT 39 251103 | ONG -107 779553

ELEVATIONS:

KB 7578 FT

FILE NO:

CH100238

API NO:

05077102440000

28 9S 93W

05077102440000



SHE: LAT 39.254956, LONG -107.774522
BHL: LAT 39.254956, LONG -107.774522

DF
GL 7556 FT

PATTERSON 306

SEC 28 TWP 9S RGE 93W

DATE 26-Oct-2015