



FILE NO: CH098427		COMPANY LARAMIE ENERGY	
WELL PICEANCE 28-01W		VEGA	
API NO: 05077102360000		COUNTY MESA STATE COLORADO	
Ver. 4.05		LOCATION:	
28 9S 93W		SHL: LAT 39.251125, LONG -107.779575	
28-05 PAD		BHL: LAT 39.255011, LONG -107.780733	
PATTERSON 306		SEC 28 TWP 9S RGE 93W	
PERMANENT DATUM		G.L. ELEVATION 7556 FT	
LOG MEASURED FROM		K.B. 22 FT ABOVE P.D.	
DRILL. MEAS. FROM		K.B.	
DATE		25-Oct-2015	
RUN		TRIP	
SERVICE ORDER		US098427J	
DEPTH DRILLER		8052 FT	
DEPTH LOGGER		8025 FT	
BOTTOM LOGGED INTERVAL		8022 FT	
TOP LOGGED INTERVAL		2617 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		SEE LOG	
WELLHEAD PRESSURE		0 PSI	
MAXIMUM HOLE DEVIATION		NA	
NOMINAL LOGGING SPEED		10 FMIN	
MAX. RECORDED TEMP.		242 DEGF	
REFERENCE LOG		NA	
REFERENCE LOG DATE		NA	
EQUIP. NO.		LOCATION	
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			CASING RECORD				
BIT SIZE	FROM	TO	SIZE	WEIGHT	GRADE	FROM	TO
7.875 IN	0 FT	8125 FT	4.5 IN	11.6 LB/F		0 FT	8139 FT

REMARKS
RUN 1 TRIP 1: ALL DATA ON THIS LOG HAS BEEN DEPTH MATCHED ON BOTTOM TO MATCH THE GAMMA RAY CURVE ON THE BAKER HUGHES BOND LOG DATED 25-OCT-2015.
THE AMOUNT OF LINEAR SHIFT IS 0 FEET.
LOGGED WITH 0 PSI AT SURFACE
BHT = 242 DEGF
SJ = 6328' - 6350'
SJ = 7175' - 7197'
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: Sun Oct 25 14:42:08 2015

PARAMETER AND FILTER SUMMARY REPORT

FILE: /dat1a/CH098427/n353h03.prm
 LOGGING MODE: DEPTH DIRECTION: UP
 TOP DEPTH: 2615.000 ft BOTTOM DEPTH: 3224.740 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	Oct 25 13:58:04 2015	CASING COLLAR LOCATOR
F1:GR	Oct 25 13:58:04 2015	GAMMA RAY
F1:ISS	Oct 25 13:58:04 2015	INELASTIC SHORT SPACE COUNT RATE
F1:LS	Oct 25 13:58:04 2015	LONG SPACE COUNT RATE
F1:RATO	Oct 25 13:58:04 2015	SHORT/LONG SPACE COUNT RATE RATIO
F1:RICS	Oct 25 13:58:04 2015	SHORT SPACE INELASTIC TO CAPTURE COUNT RATE RATIO (ISS/CSS)
F1:SGFC	Oct 25 13:58:04 2015	CORRECTED FORMATION SIGMA
F1:SS	Oct 25 13:58:04 2015	SHORT SPACE COUNT RATE

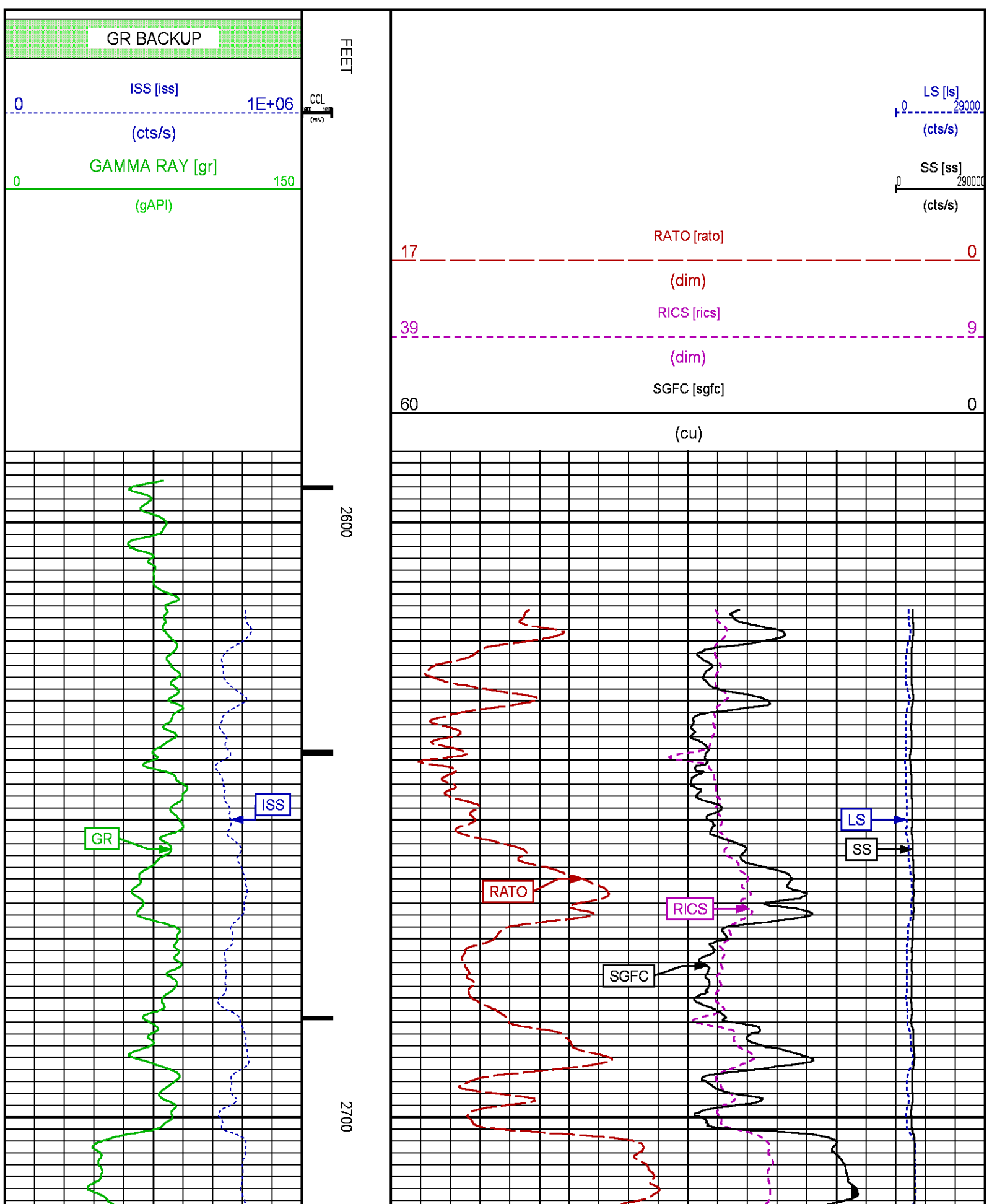
CURVE MEASURE POINT OFFSET

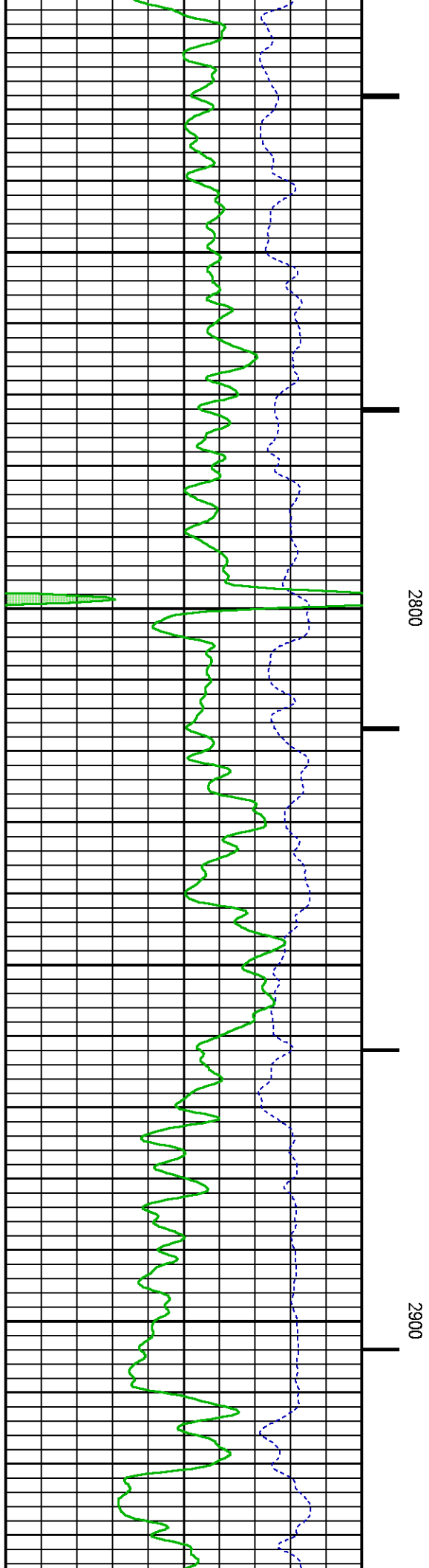
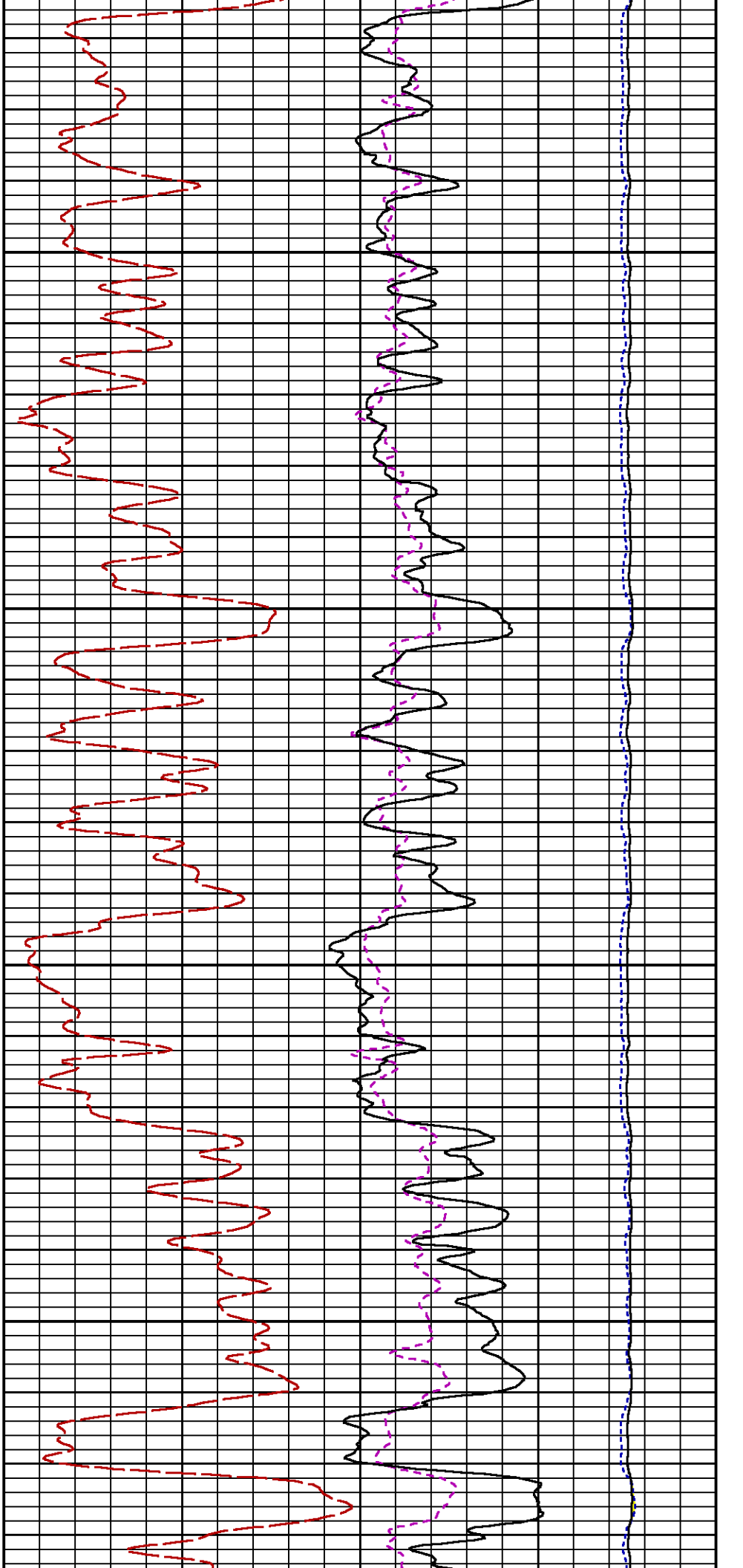
CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)
CCL	26.00	ISS	12.75	RATO	12.75	SGFC	12.75
GR	23.00	LS	12.75	RICS	12.75	SS	12.75

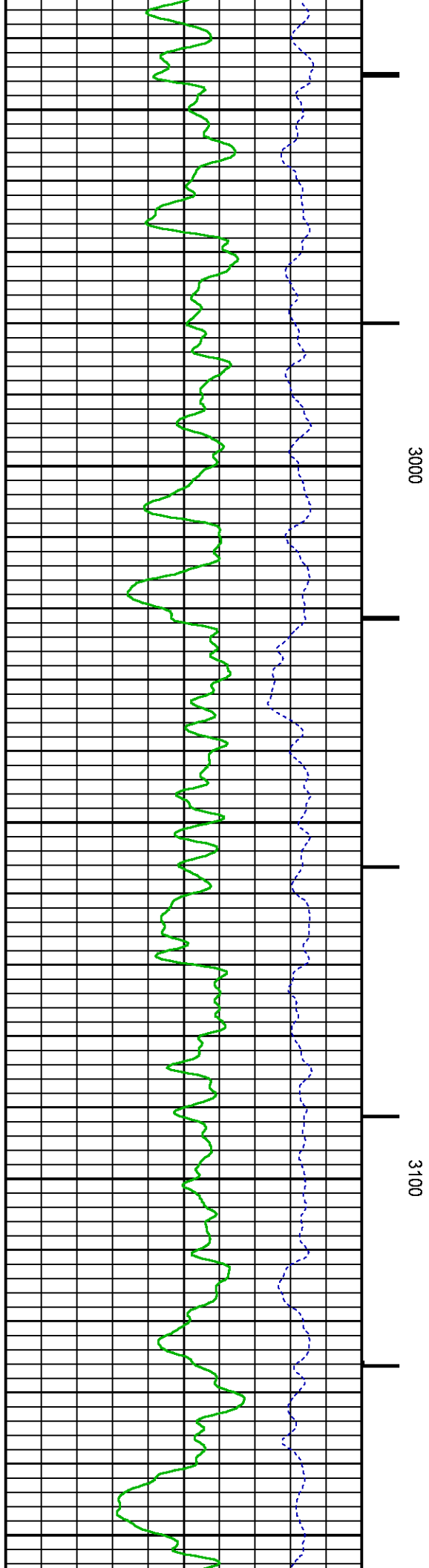
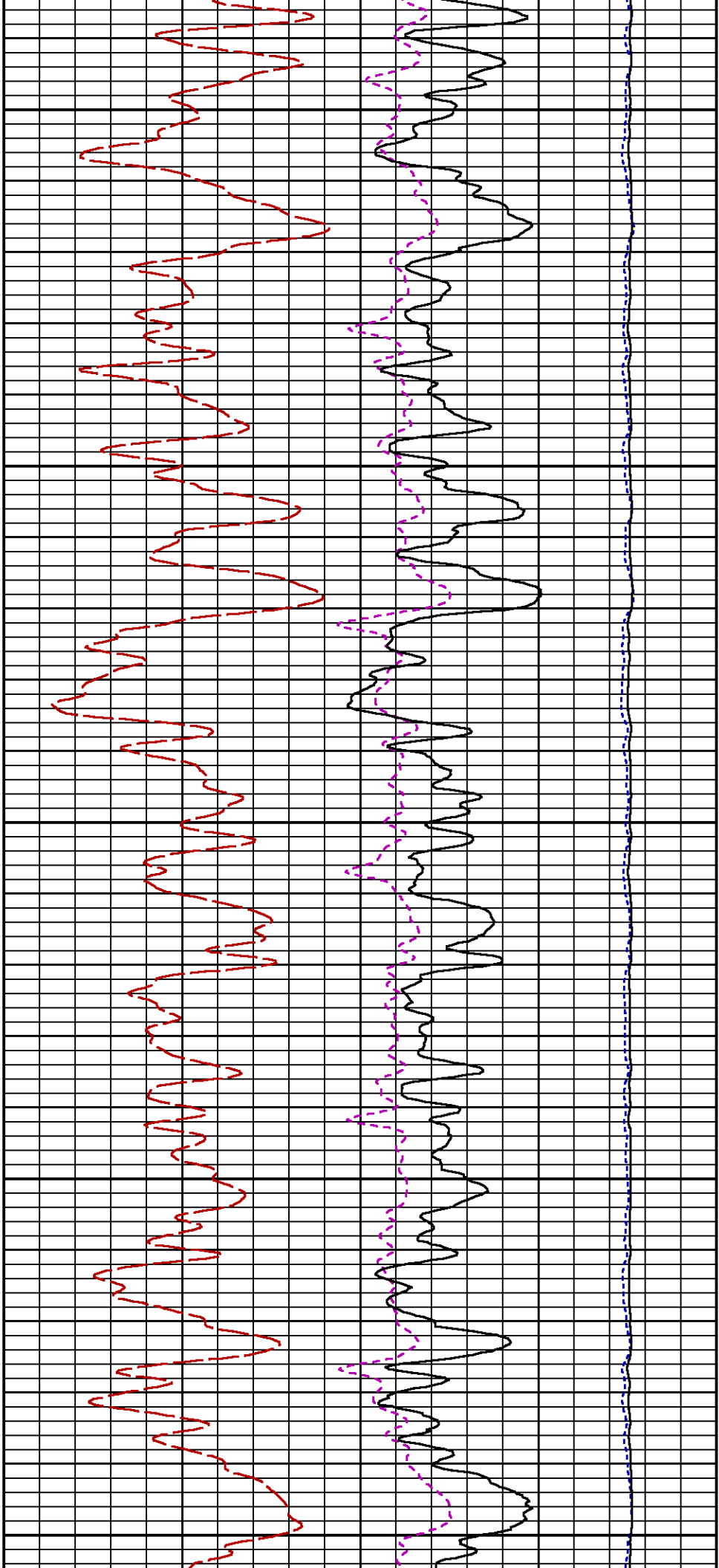
Presentation : cas6685:/dat1a/CH098427/RPM_GSAND.fvpdf [5"/100' Scale]
 Plot Interval : 2588.75 - 3205.5 Feet

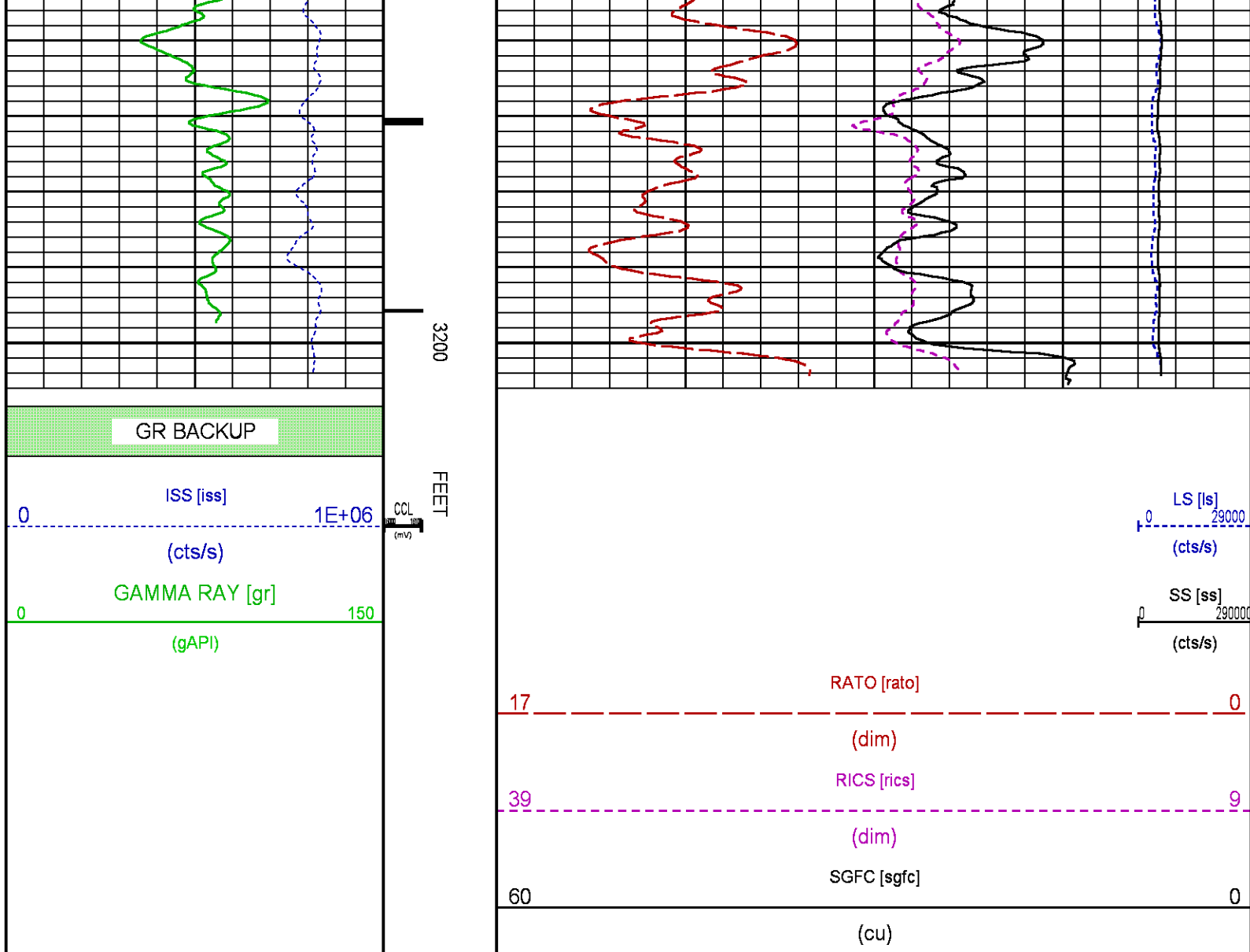
Data File 1 : F1 : cas6685:/dat1a/CH098427/n353h03.xtf
 Created On : Oct 25 13:58:04 2015

Created On : OCT 25 15:38:04 2013
Company : LARAMIE ENERGY
Well : PICEANCE 28-01W
Field : VEGA
File Interval : 2588 - 3221.75 Feet
OCT : n353h









MAIN LOG 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: Sun Oct 25 14:15:18 2015

PARAMETER AND FILTER SUMMARY REPORT

FILE: /dat1a/CH098427/n353h02.prm
LOGGING MODE: DEPTH DIRECTION: UP
TOP DEPTH: 4699.250 ft BOTTOM DEPTH: 8035.074 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)
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PNC Parameters	BOREHOLE CONTENTS	FLUID	TOP	BOTTOM
	OPEN/CASED HOLE	CASED HOLE	"	"
	BOREHOLE SIZE	7.88	"	"
	CASING SIZE	4.50	"	"
	MATRIX	SANDSTONE	"	"
	CORRECTION BUFFER	11	"	"

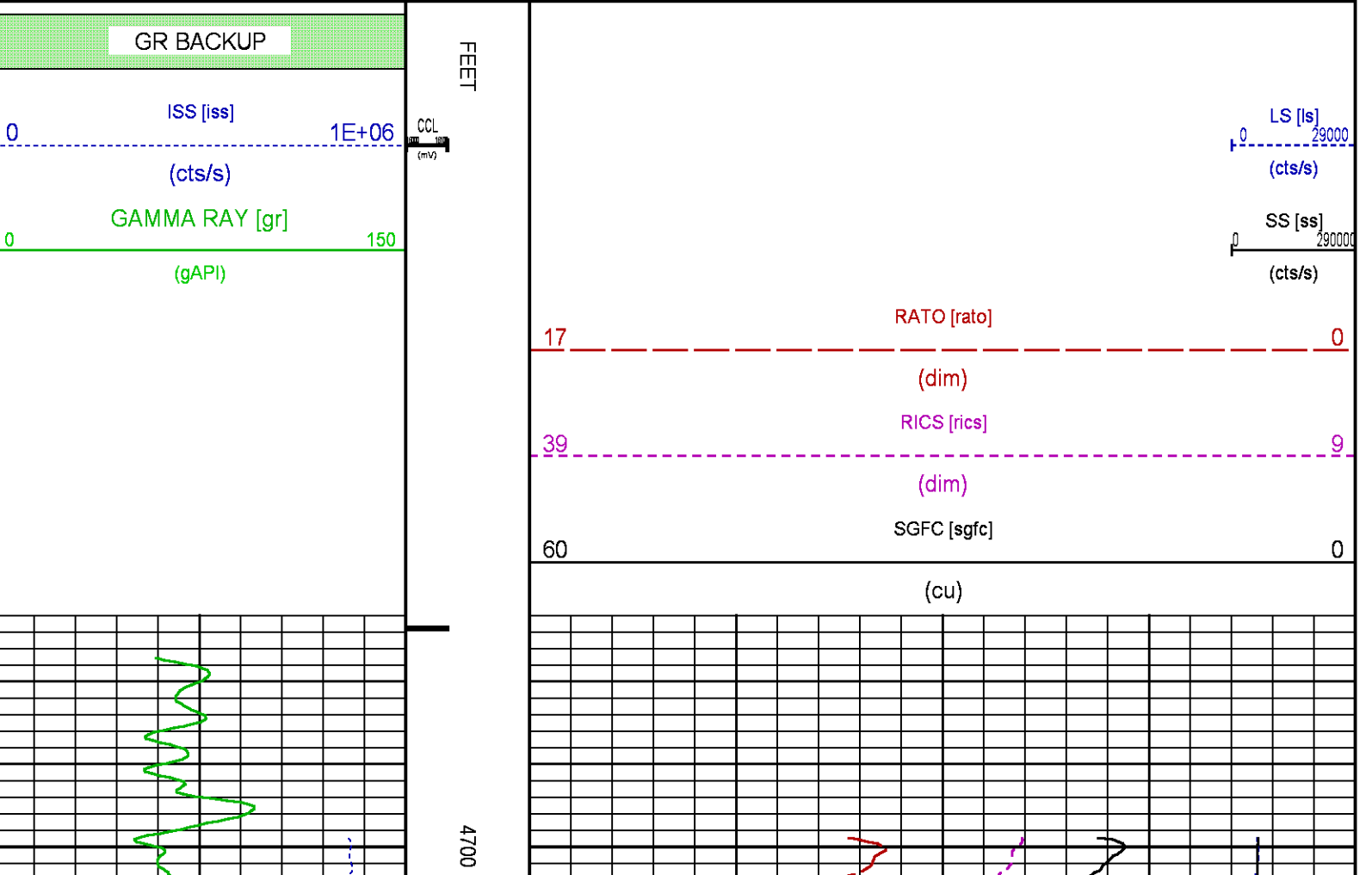
CURVE DESCRIPTION REPORT

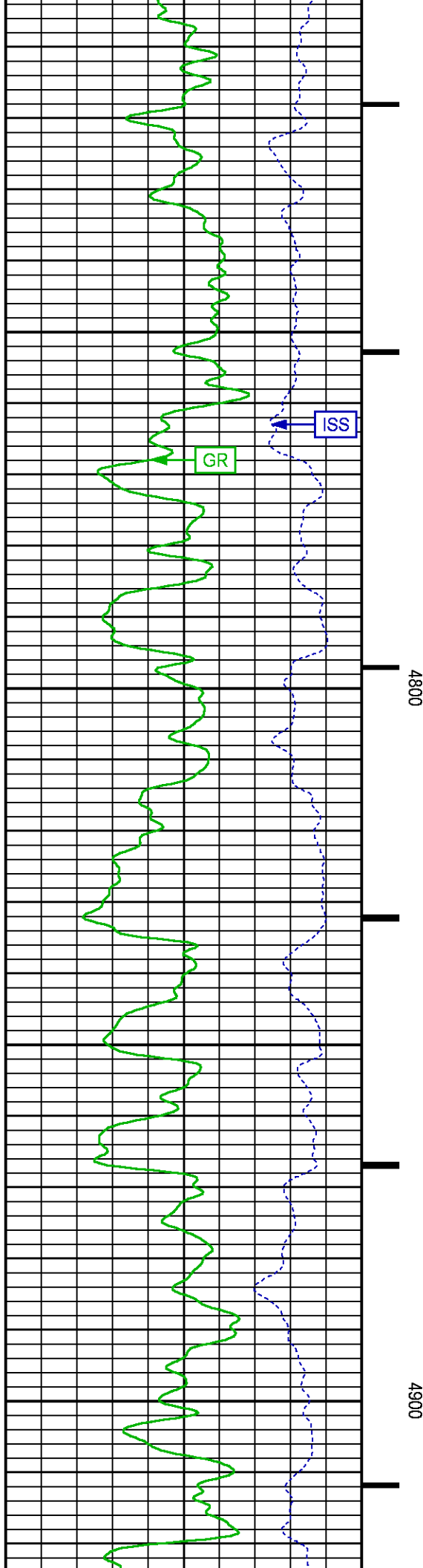
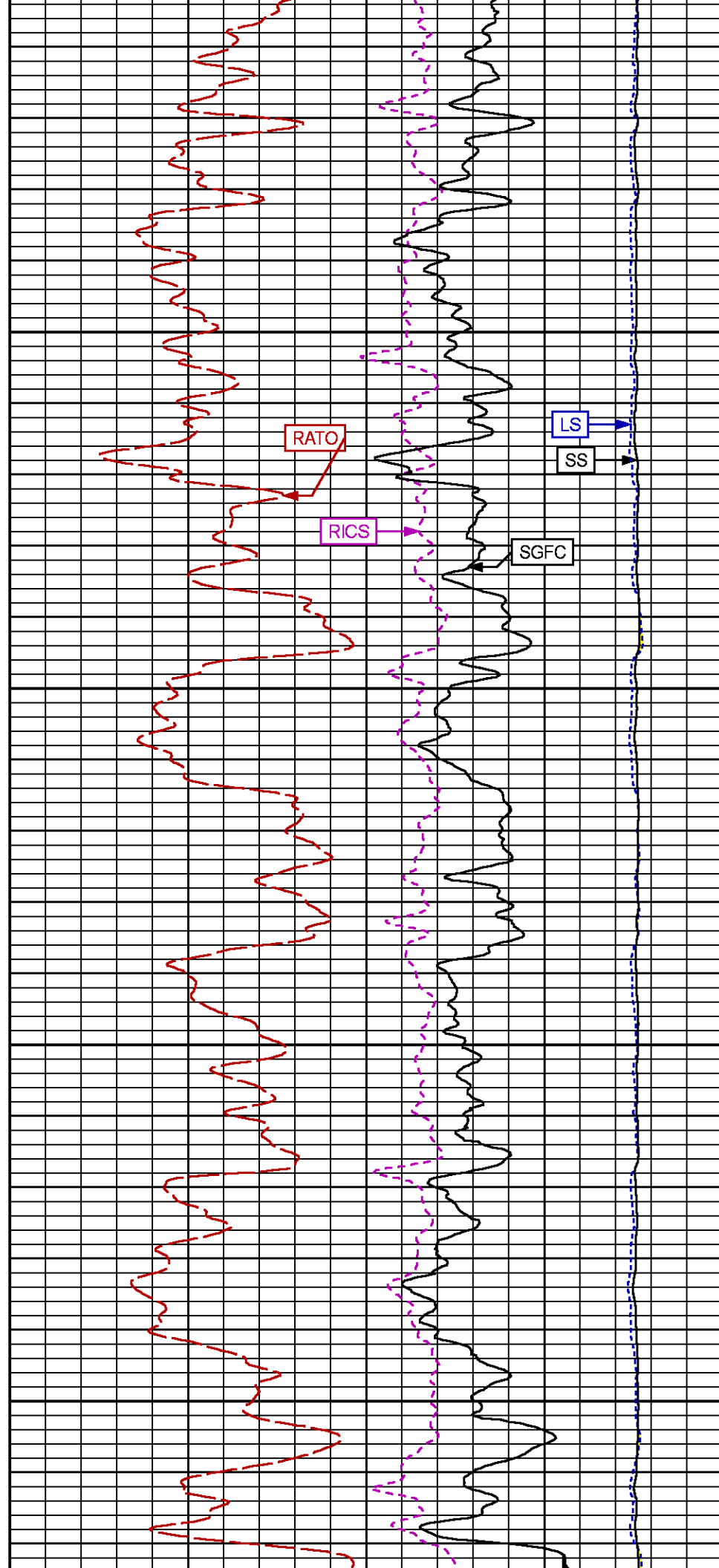
CURVE NAME	CREATION DATE	CURVE DESCRIPTION
F1:CCL	Oct 25 10:29:01 2015	CASING COLLAR LOCATOR
F1:GR	Oct 25 10:29:01 2015	GAMMA RAY
F1:ISS	Oct 25 10:29:01 2015	INELASTIC SHORT SPACE COUNT RATE
F1:LS	Oct 25 10:29:01 2015	LONG SPACE COUNT RATE
F1:RATO	Oct 25 10:29:01 2015	SHORT/LONG SPACE COUNT RATE RATIO
F1:RICS	Oct 25 10:29:01 2015	SHORT SPACE INELASTIC TO CAPTURE COUNT RATE RATIO (ISS/CSS)
F1:SGFC	Oct 25 10:29:01 2015	CORRECTED FORMATION SIGMA
F1:SS	Oct 25 10:29:01 2015	SHORT SPACE COUNT RATE

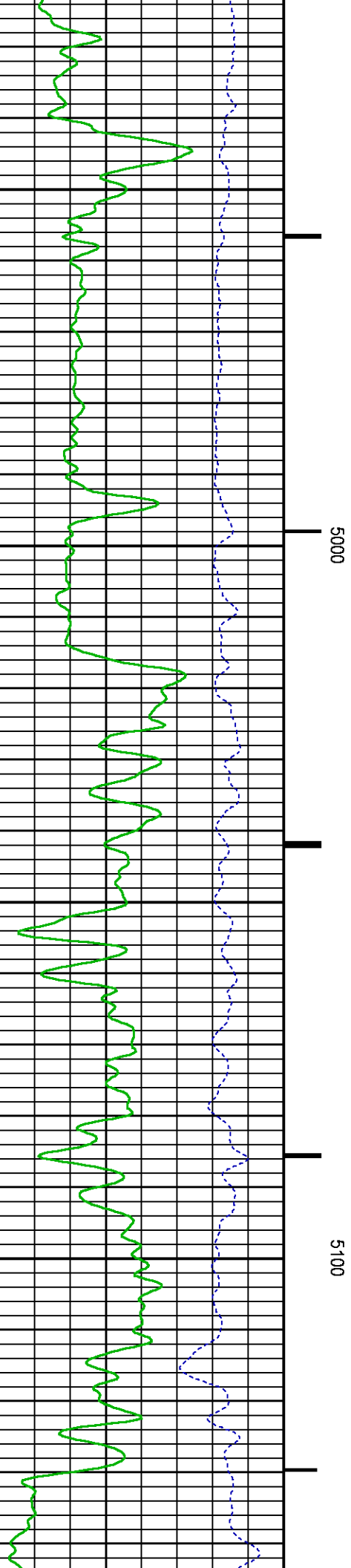
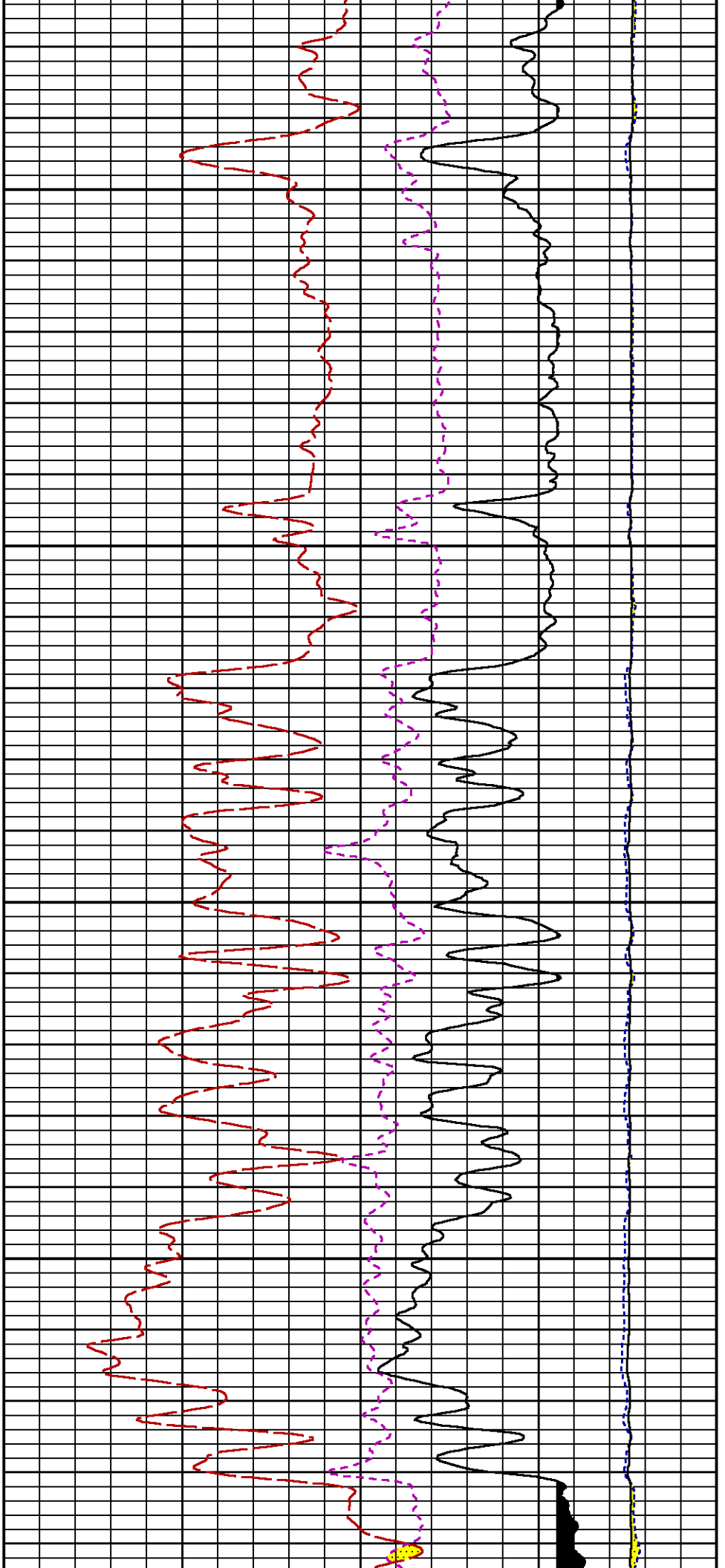
CURVE MEASURE POINT OFFSET

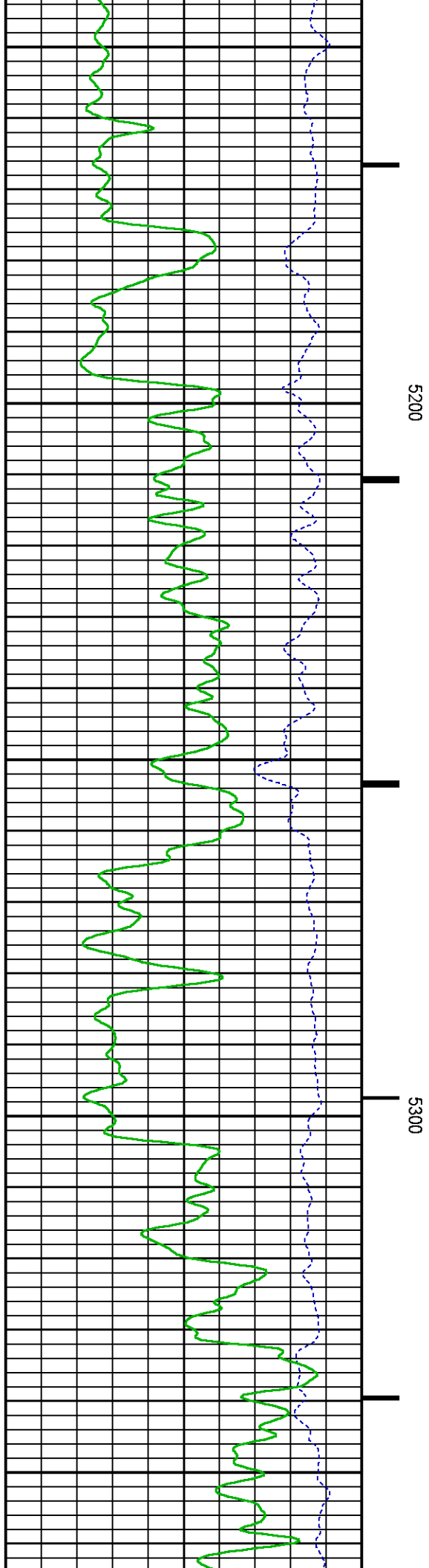
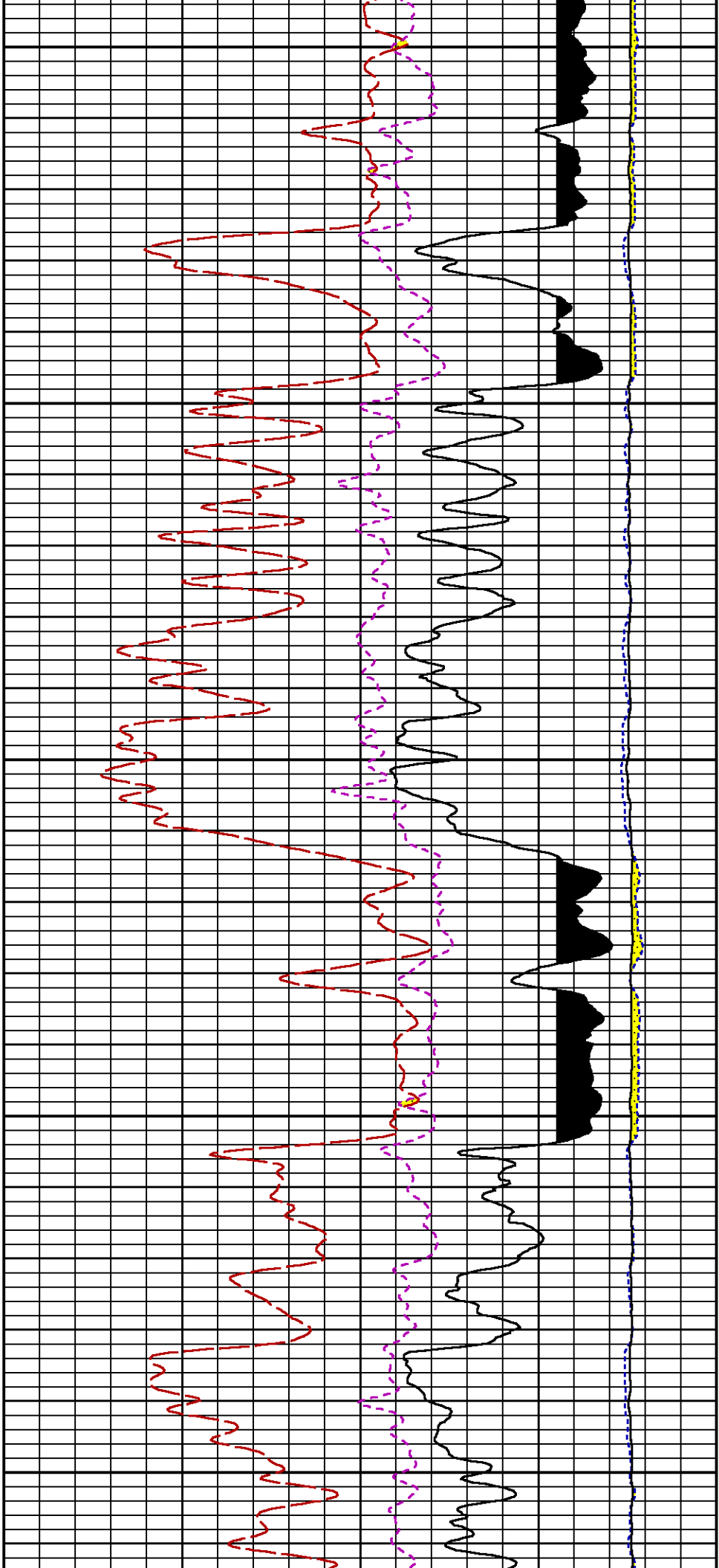
CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)
CCL	26.00	ISS	12.75	RATO	12.75	SGFC	12.75
GR	23.00	LS	12.75	RICS	12.75	SS	12.75

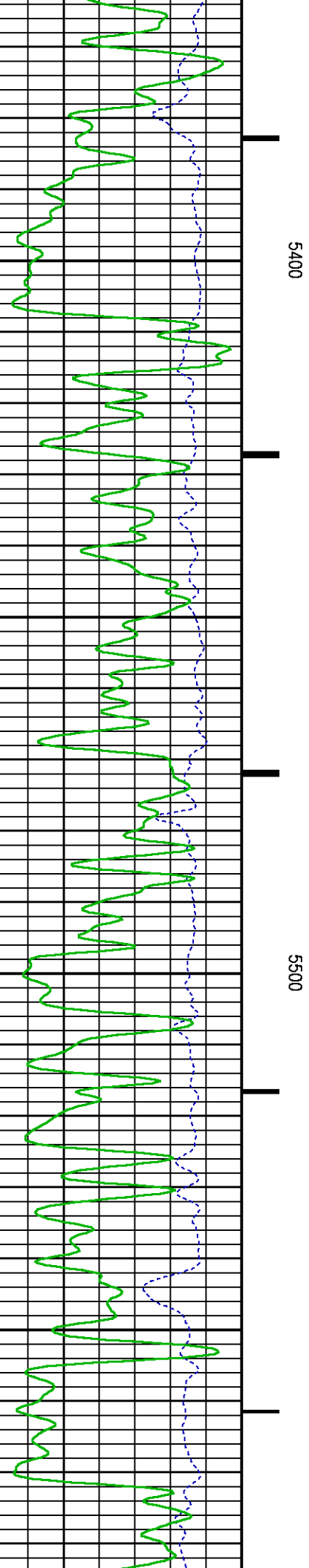
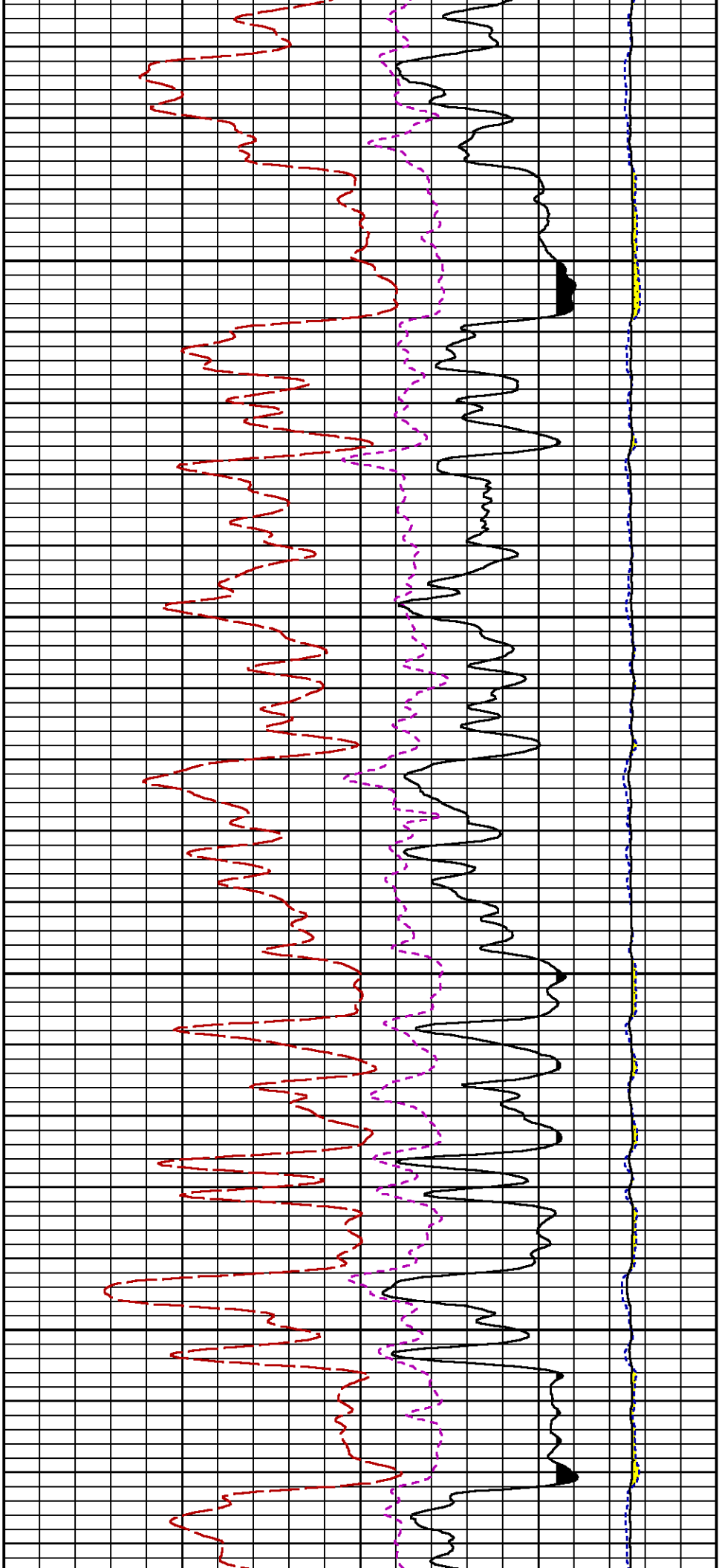
Presentation	: cas6685:/dat1a/CH098427/RPM_MAIN.fvpdf [5"/100' Scale]
Plot Interval	: 4673 - 8015.25 Feet
Data File 1	: F1 : cas6685:/dat1a/CH098427/n353h02.xtf
Created On	: Oct 25 10:29:01 2015
Company	: LARAMIE ENERGY
Well	: PICEANCE 28-01W
Field	: VEGA
File Interval	: 4672.25 - 8031.5 Feet
OCT	: n353h

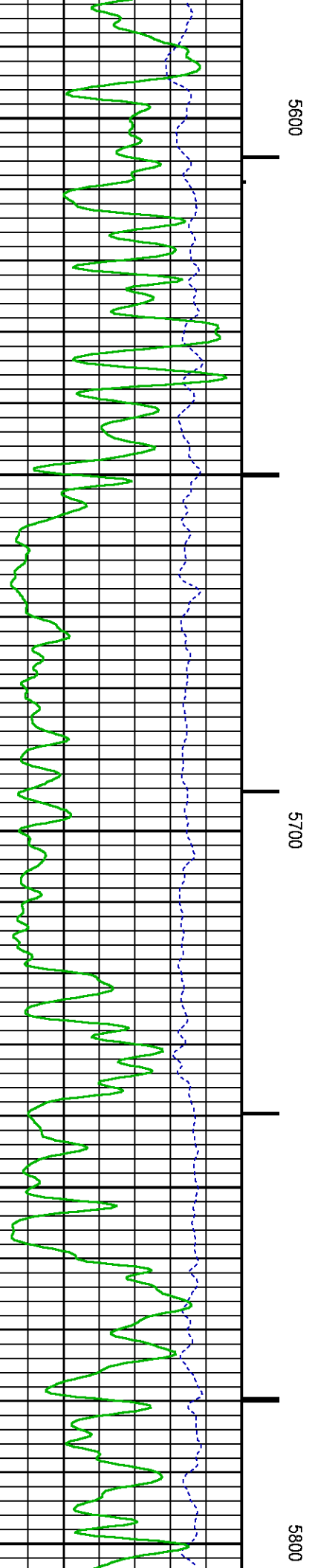
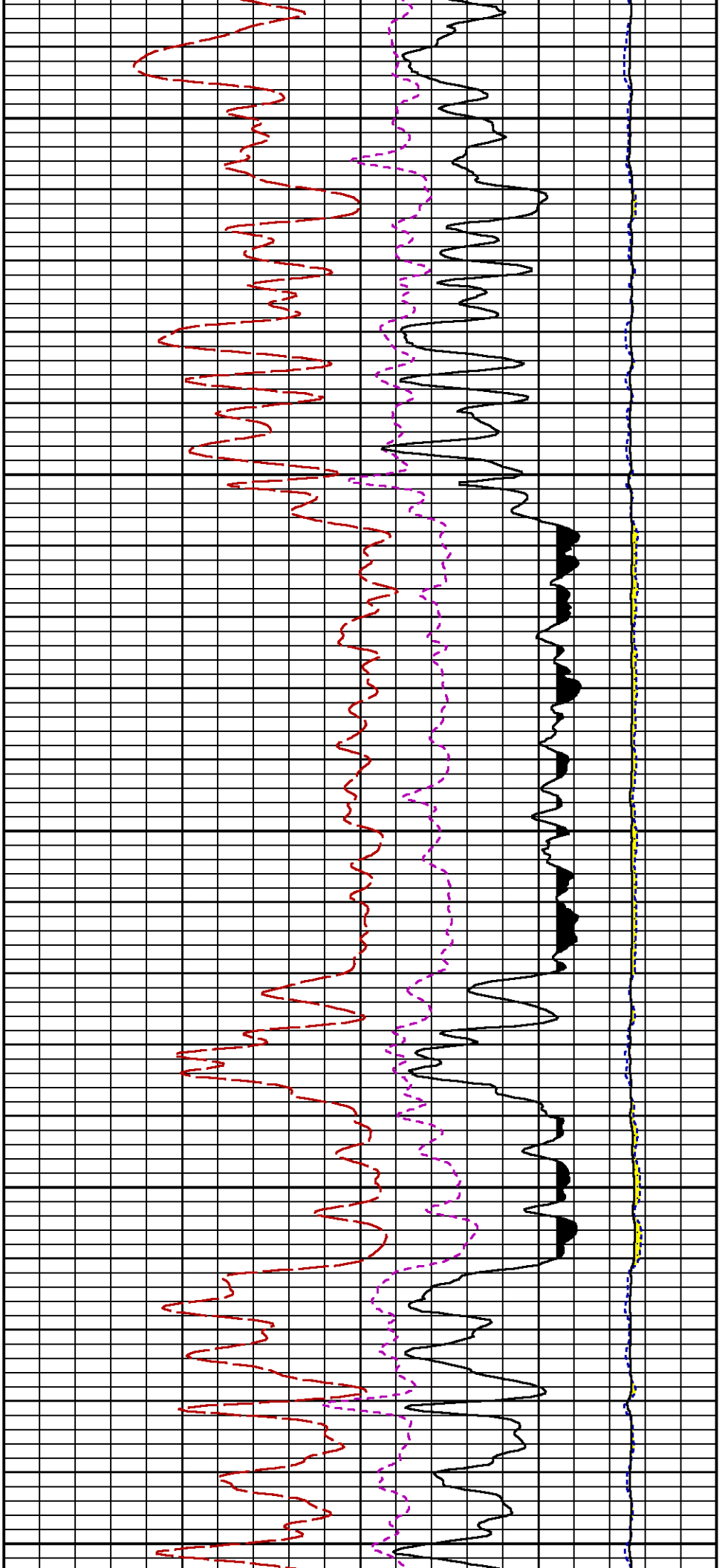


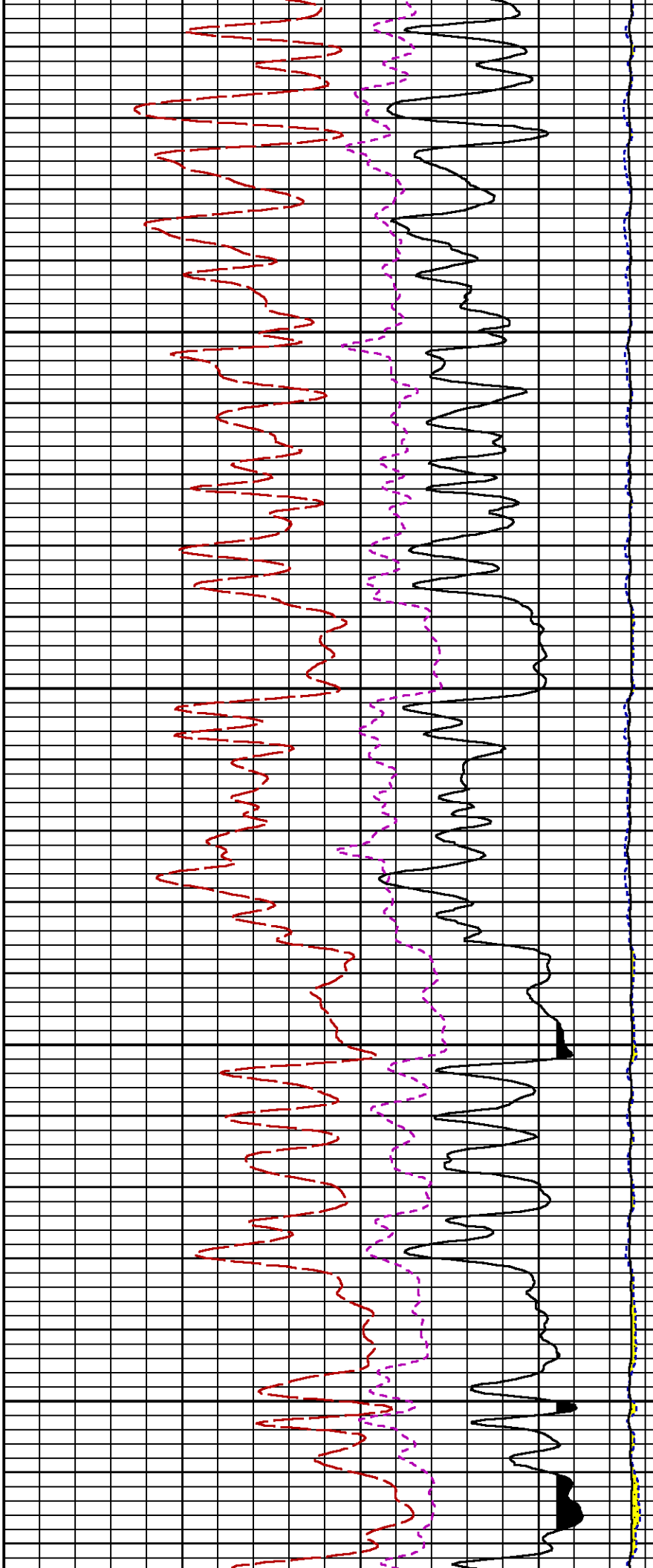
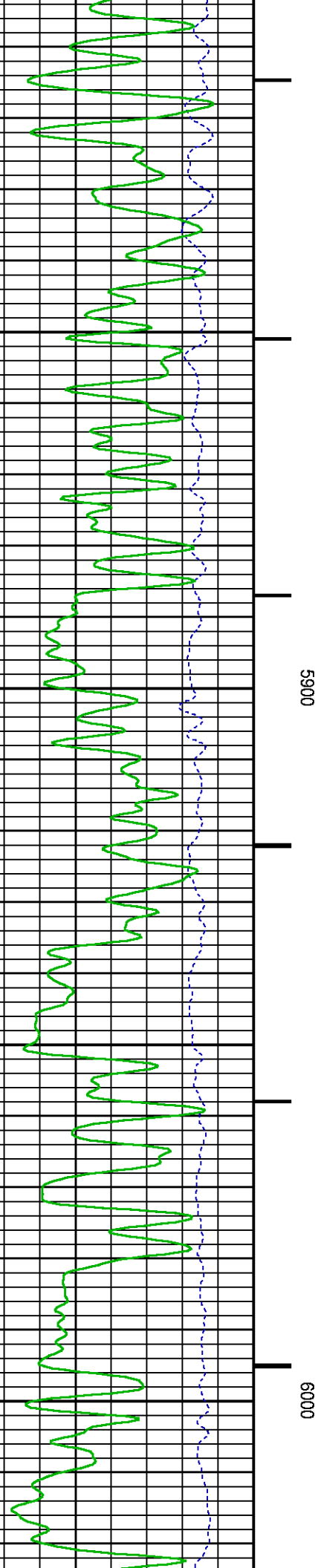


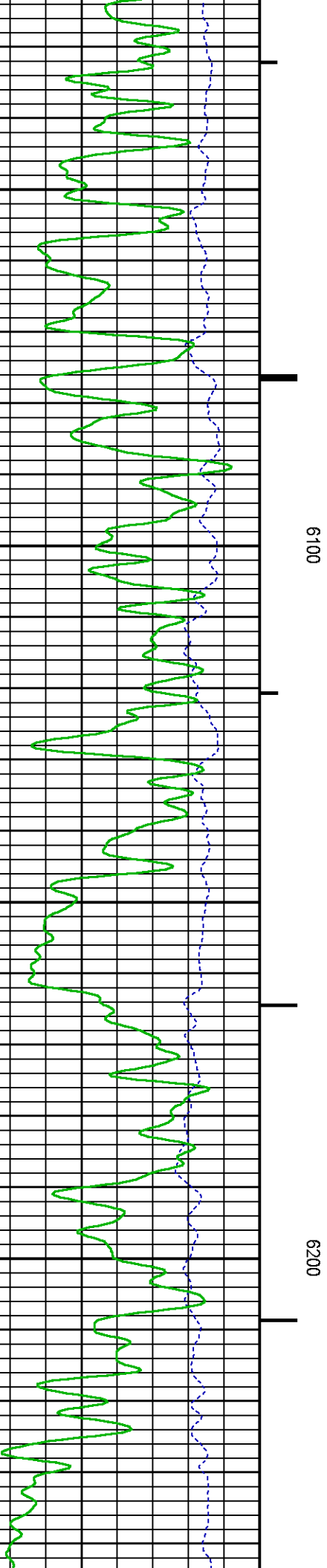
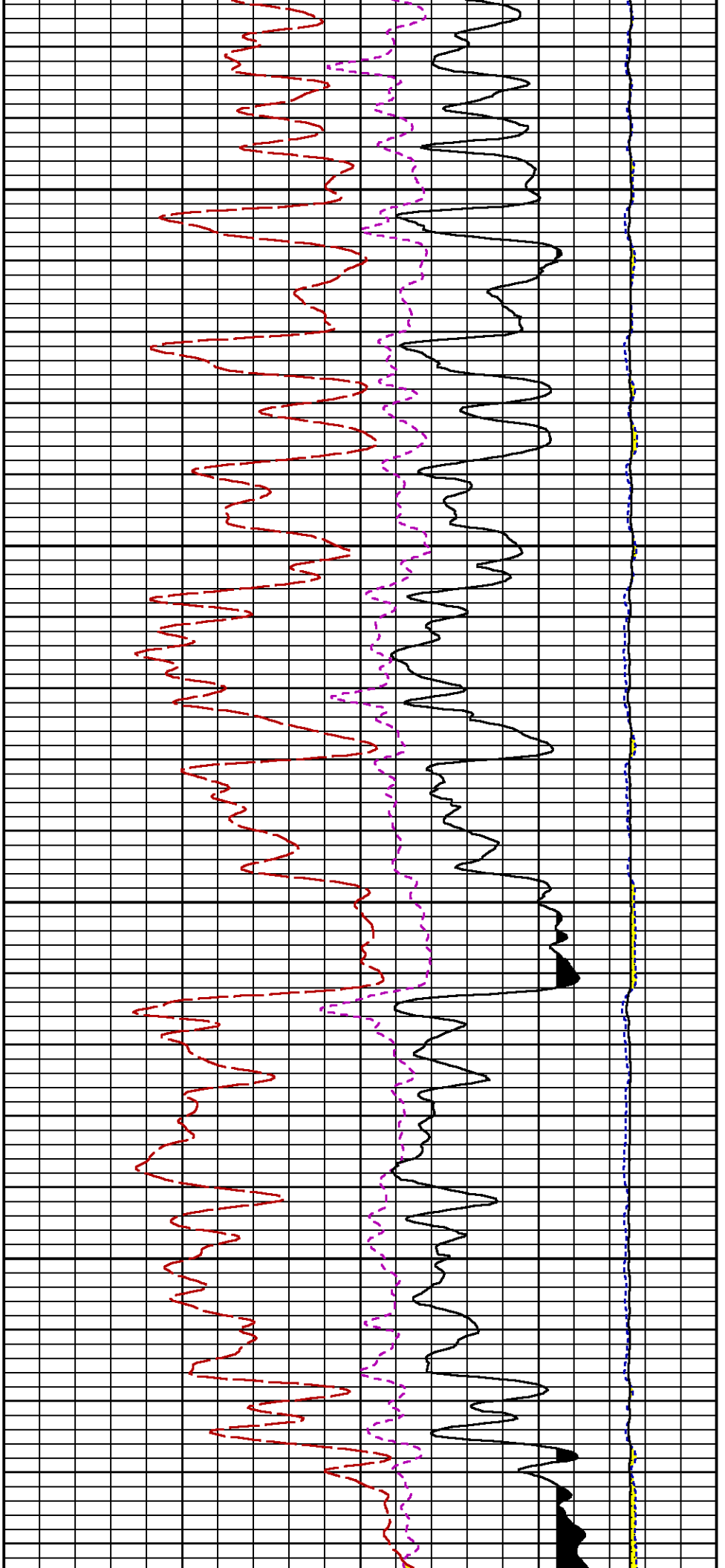


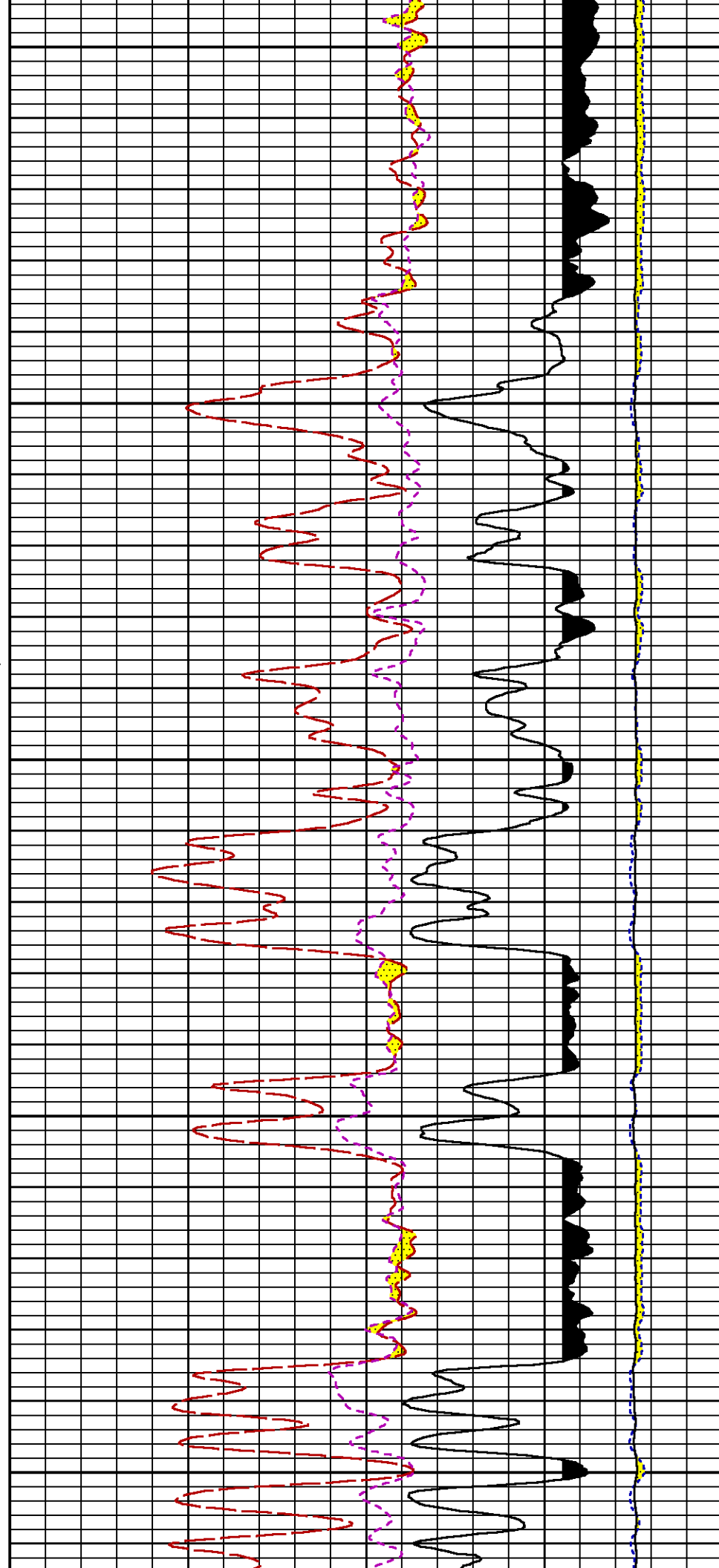








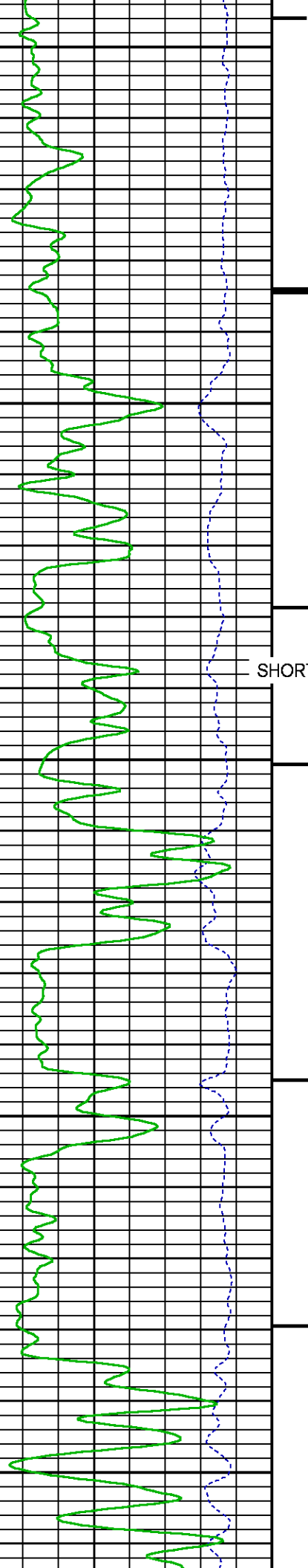


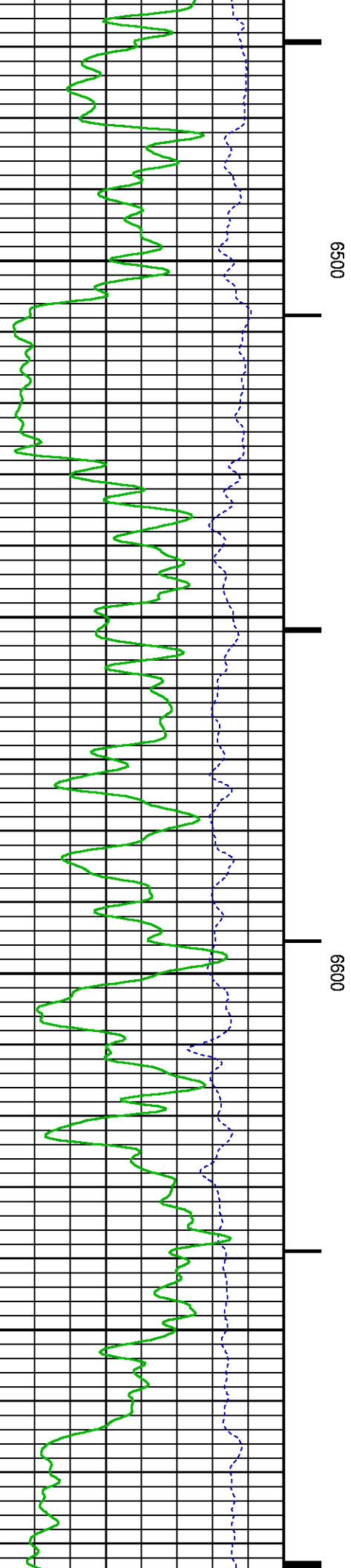
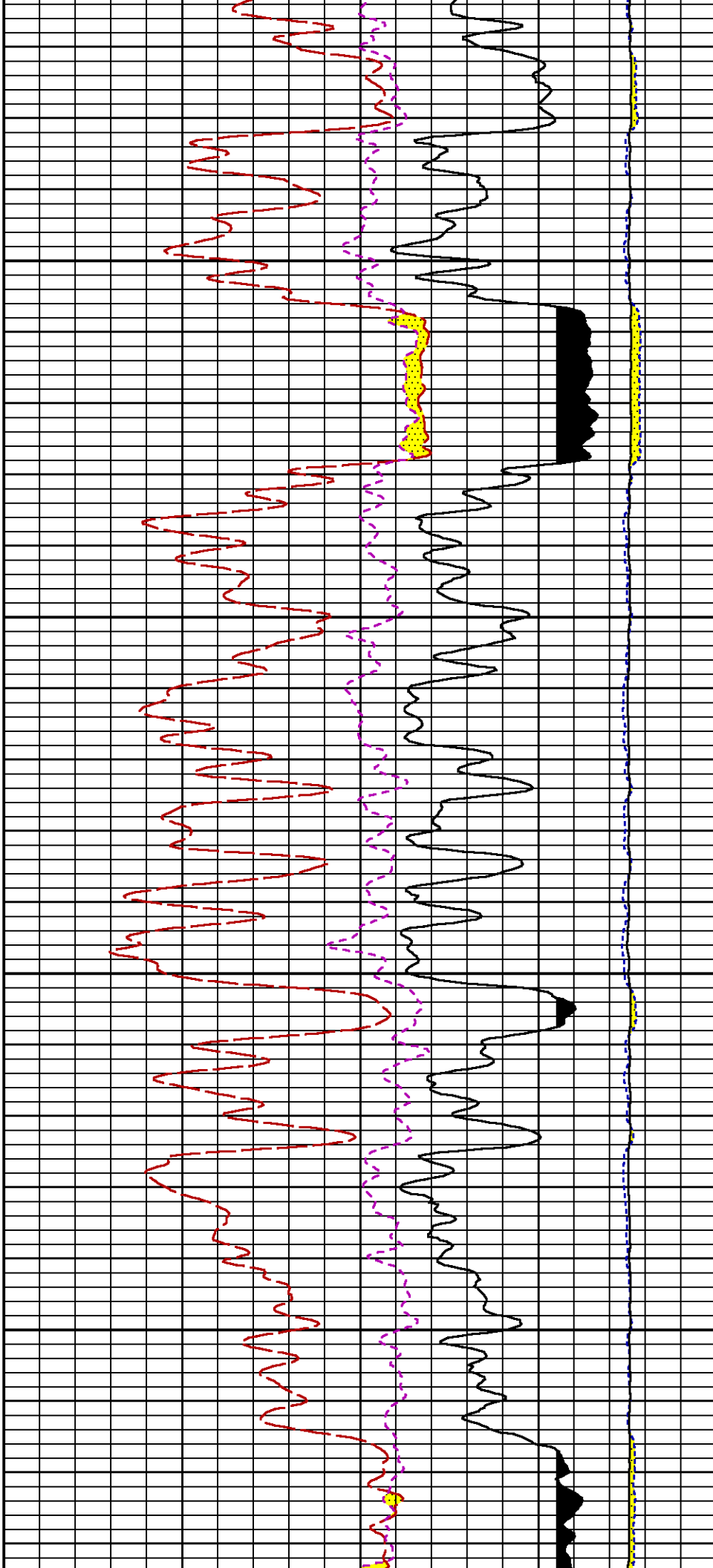


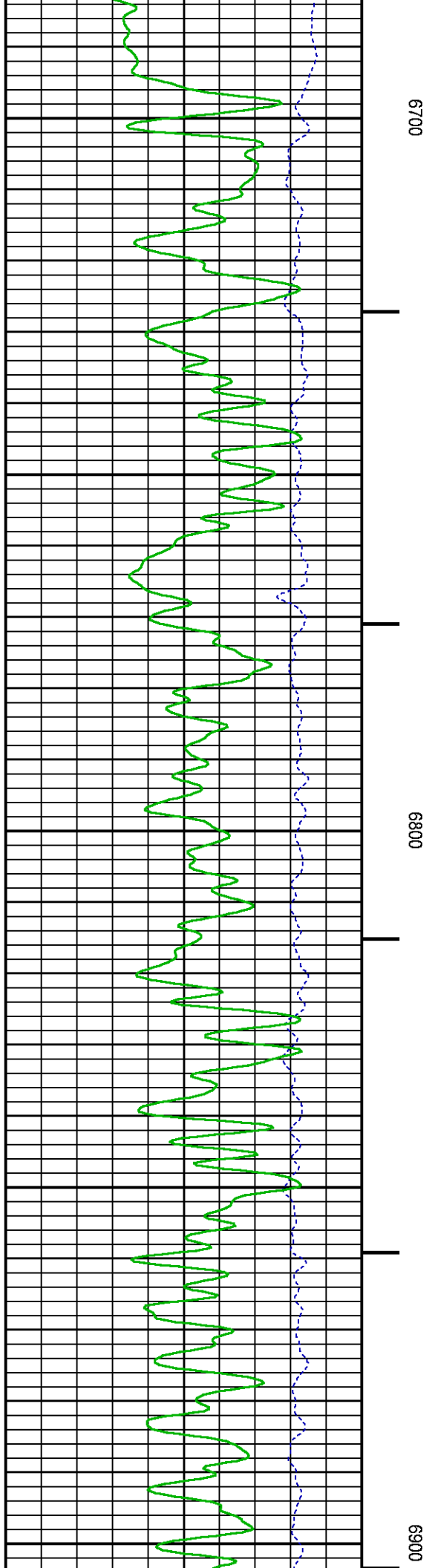
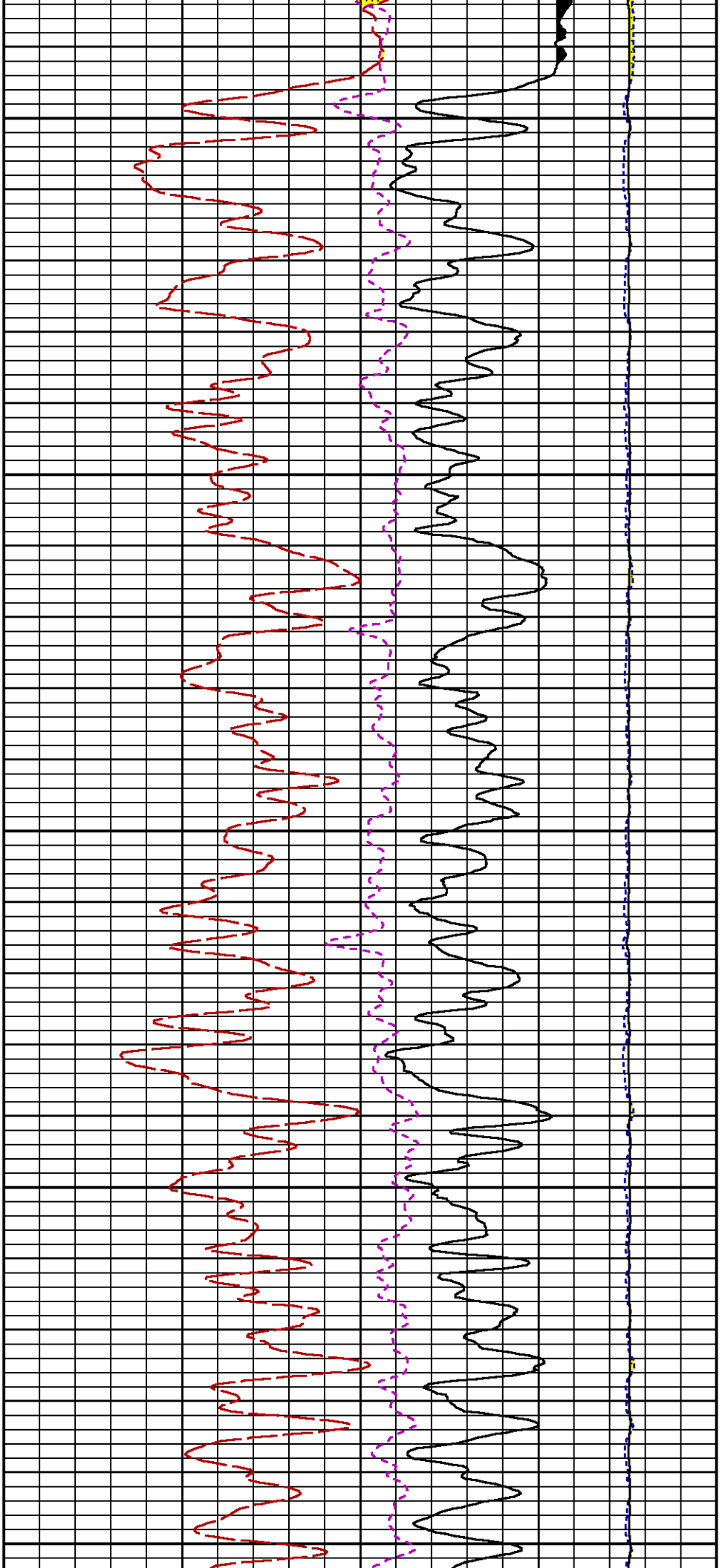
6300

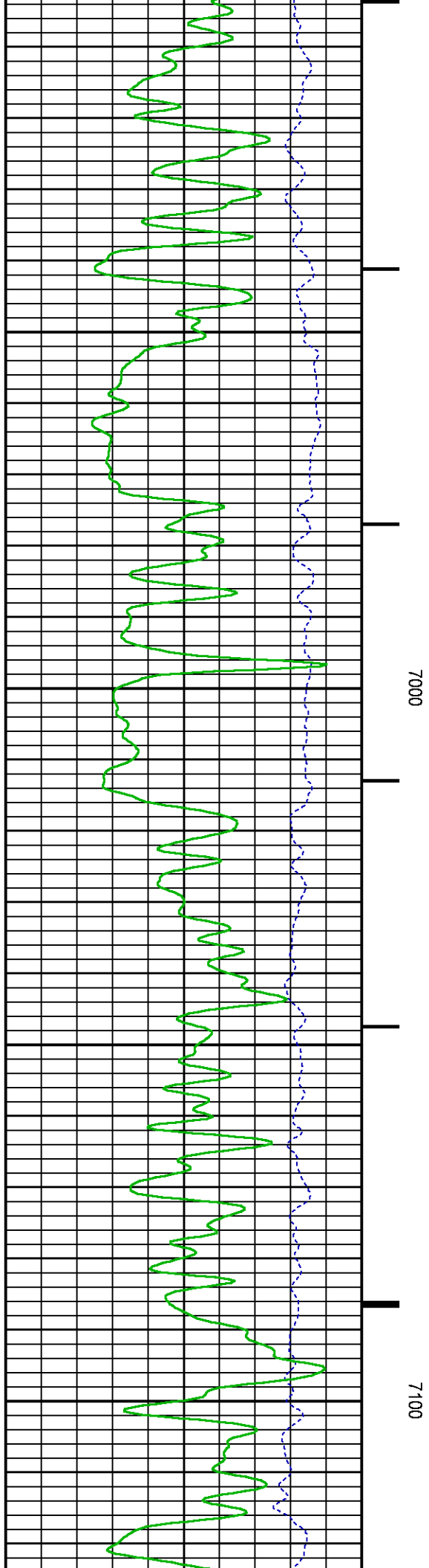
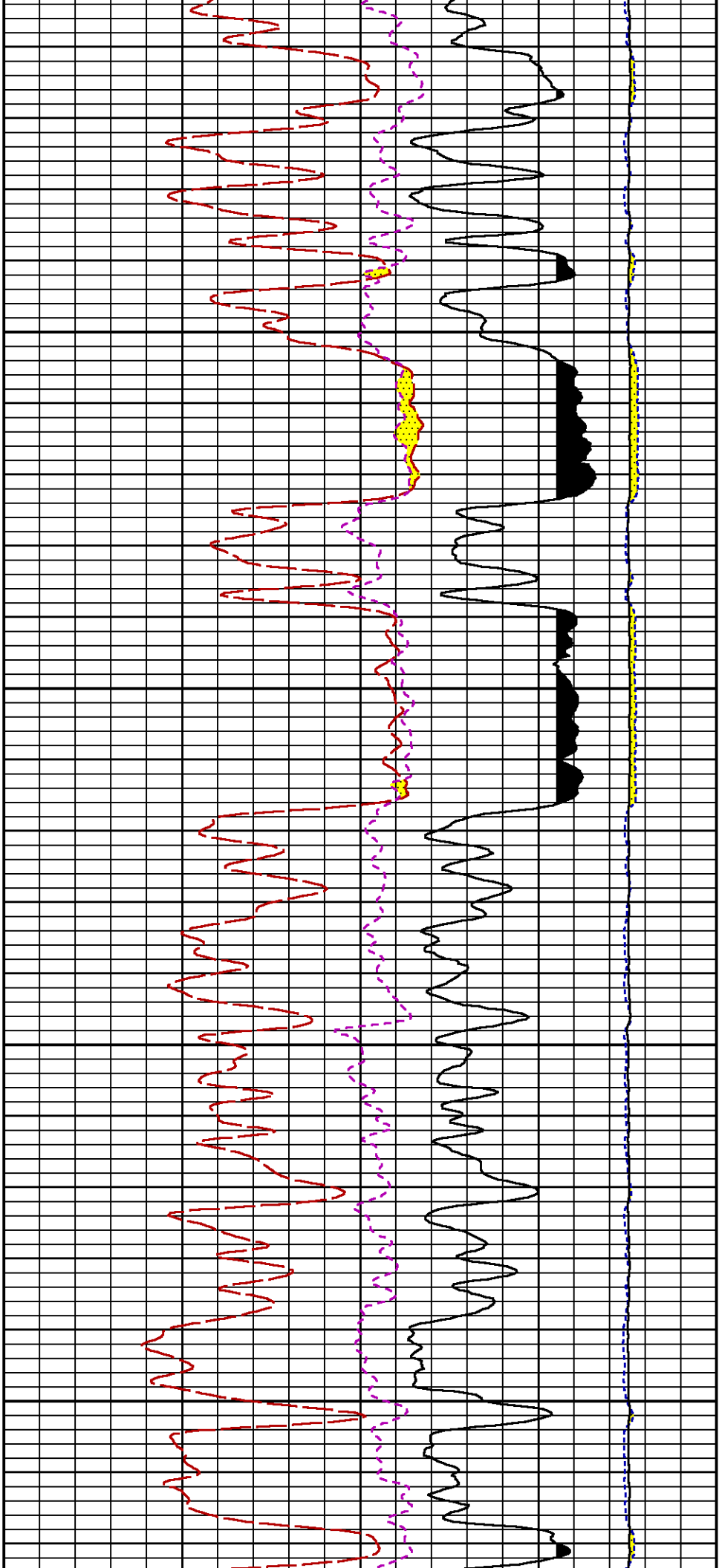
SHORT JOINT

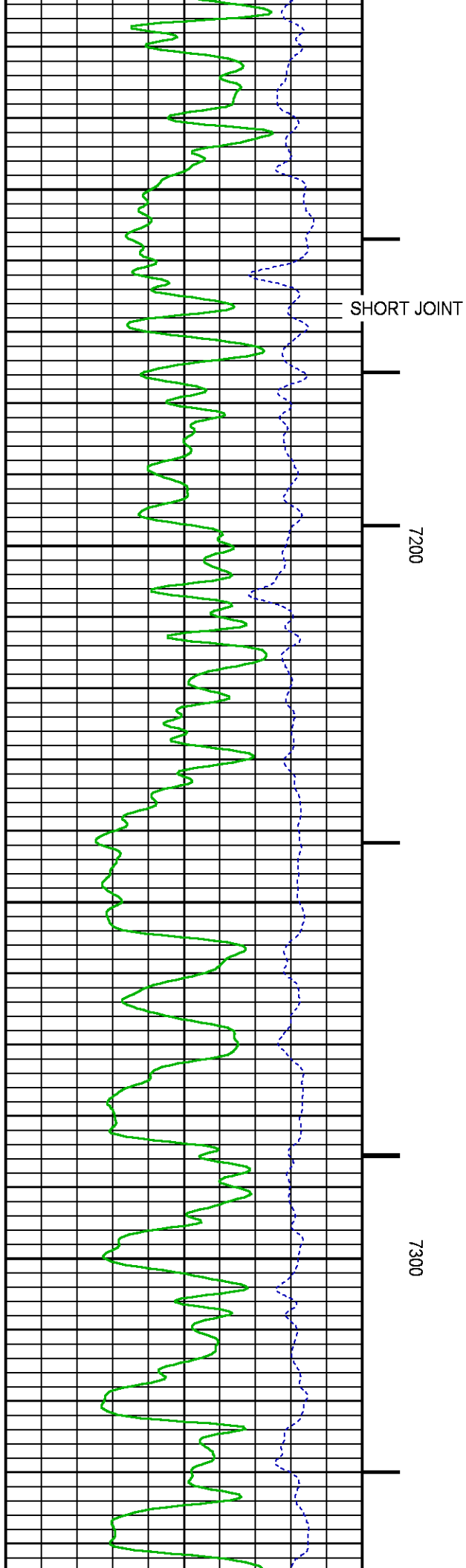
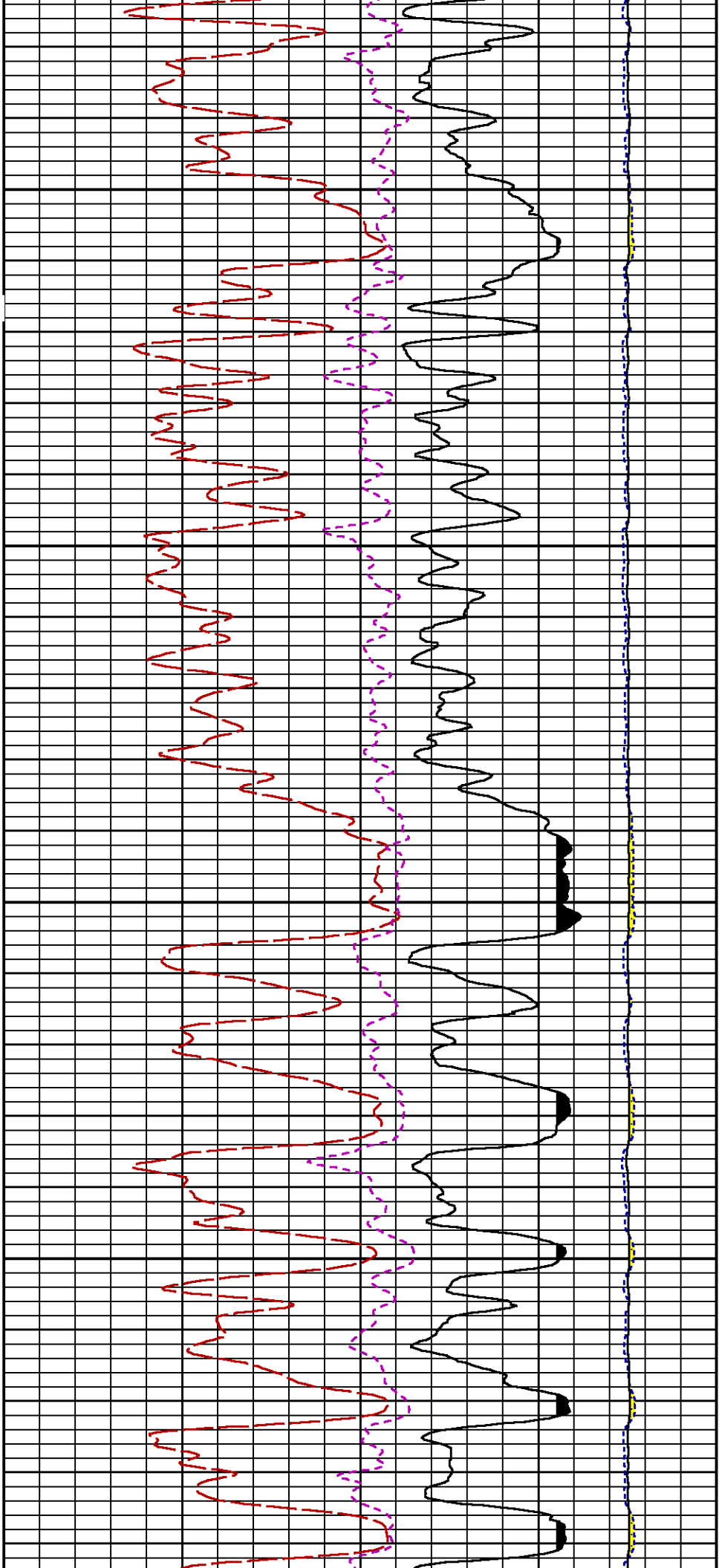
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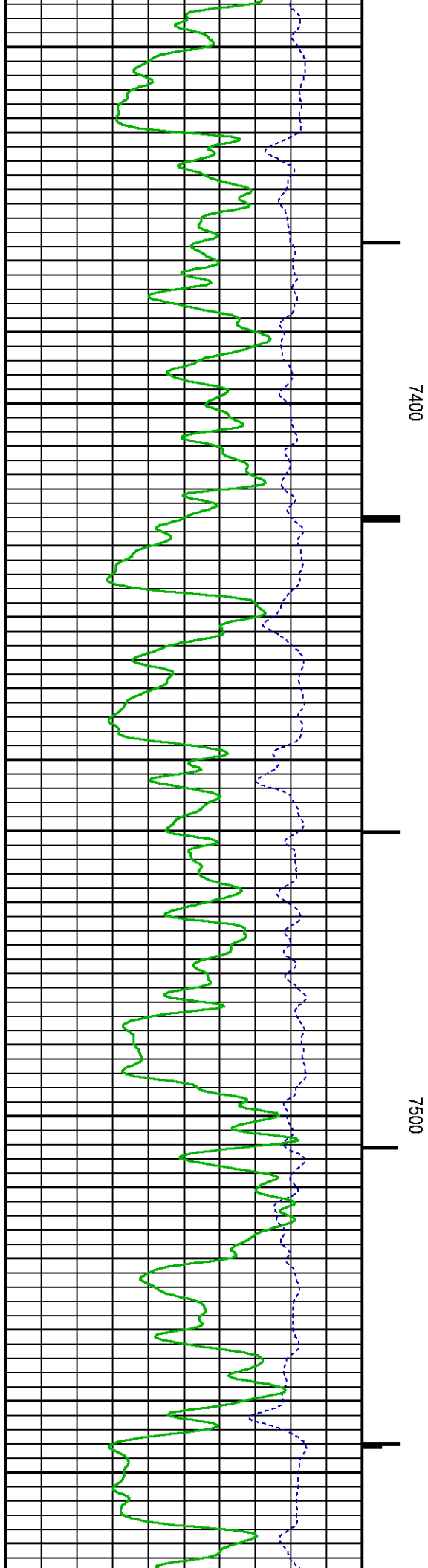
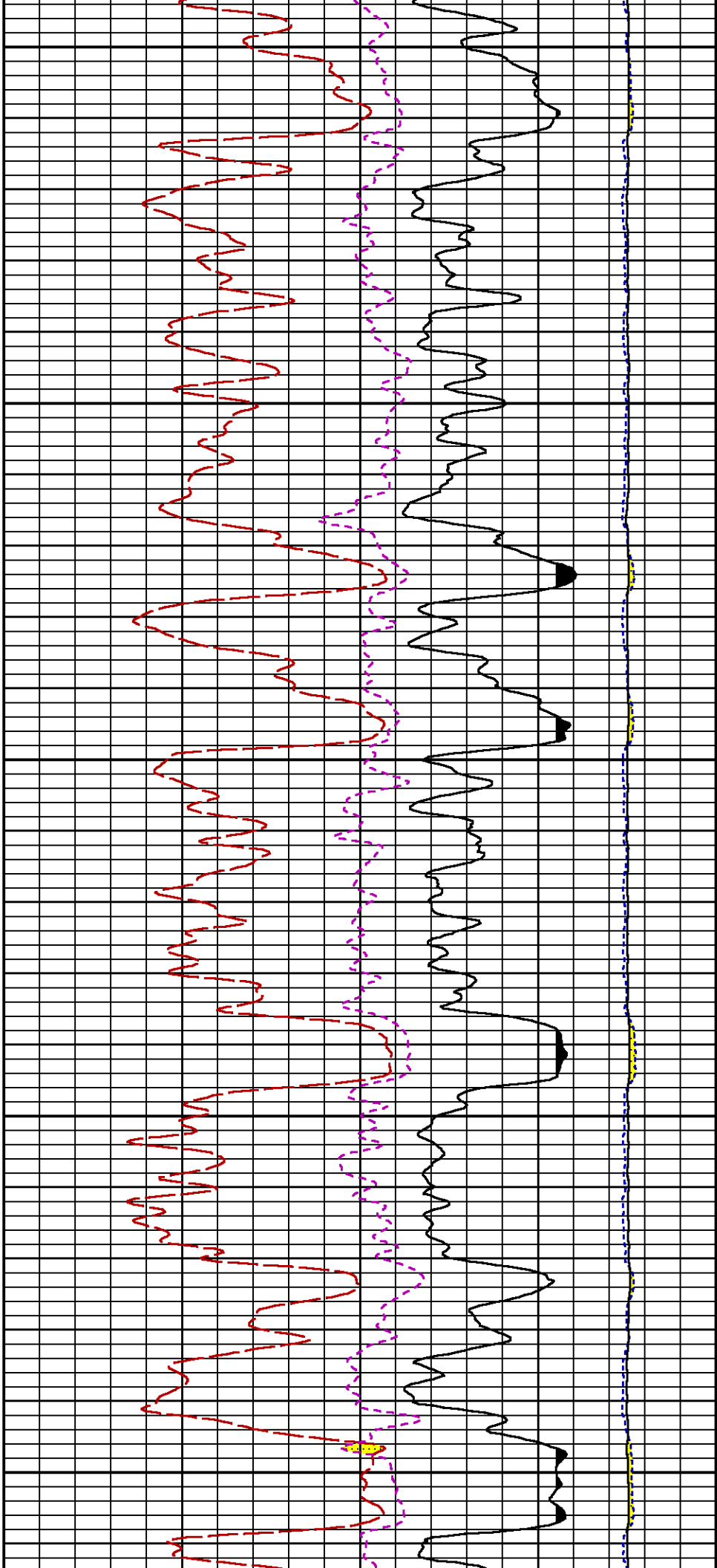


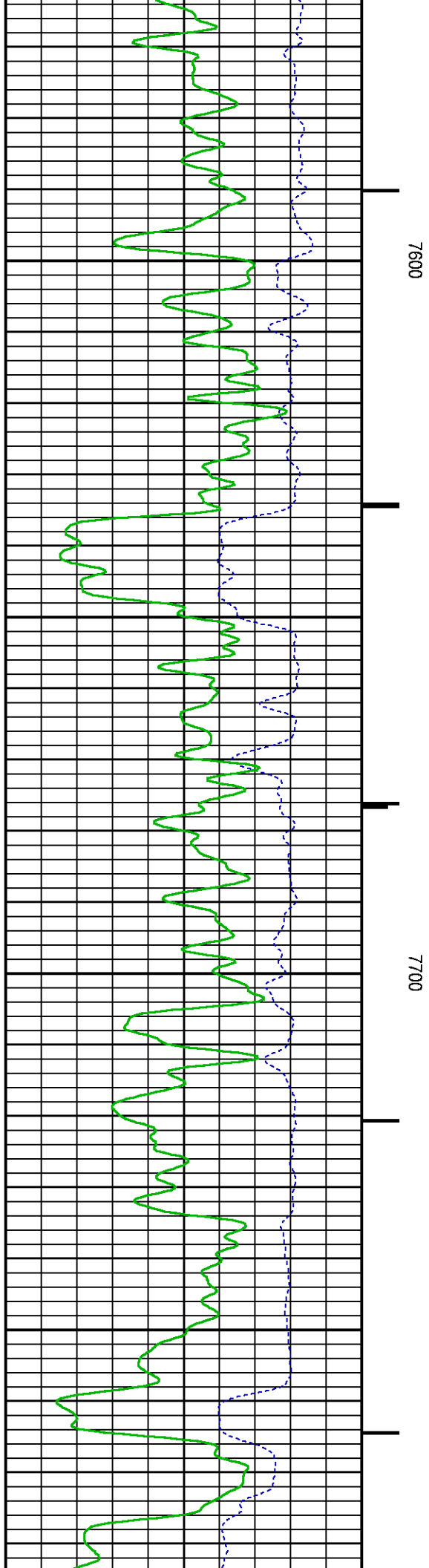
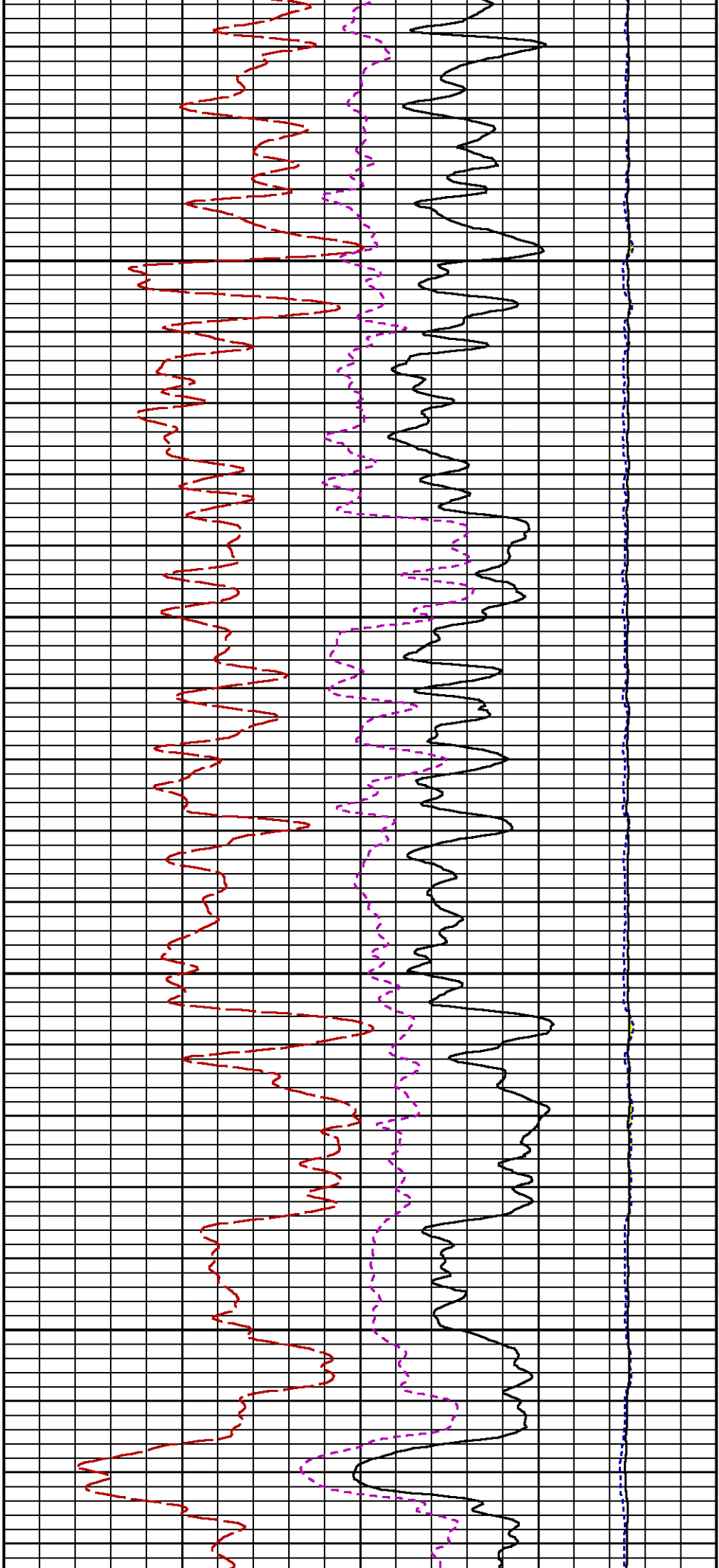


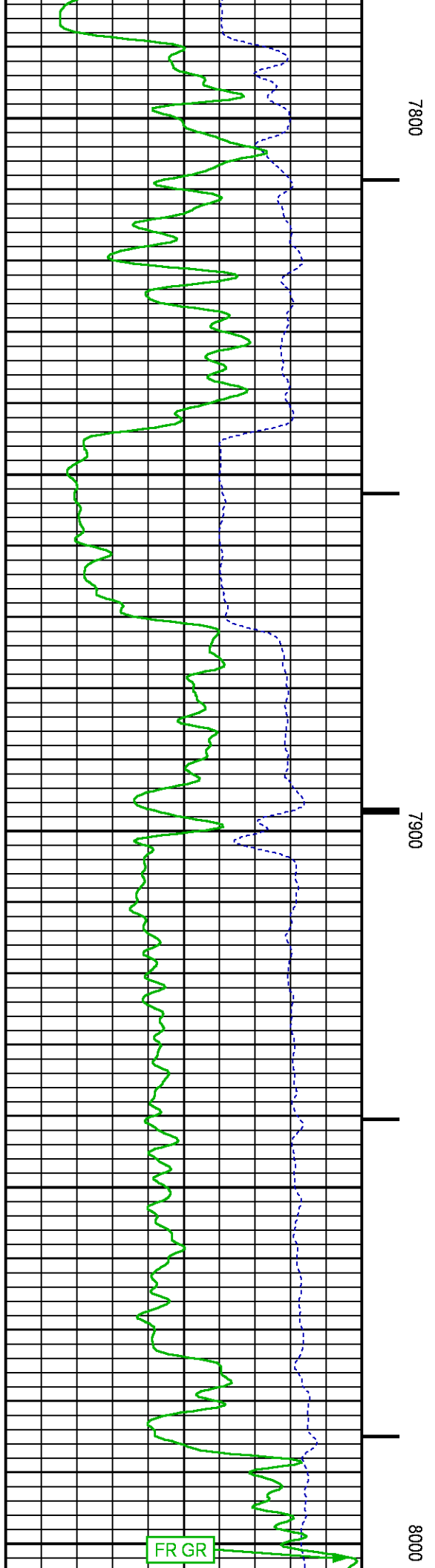
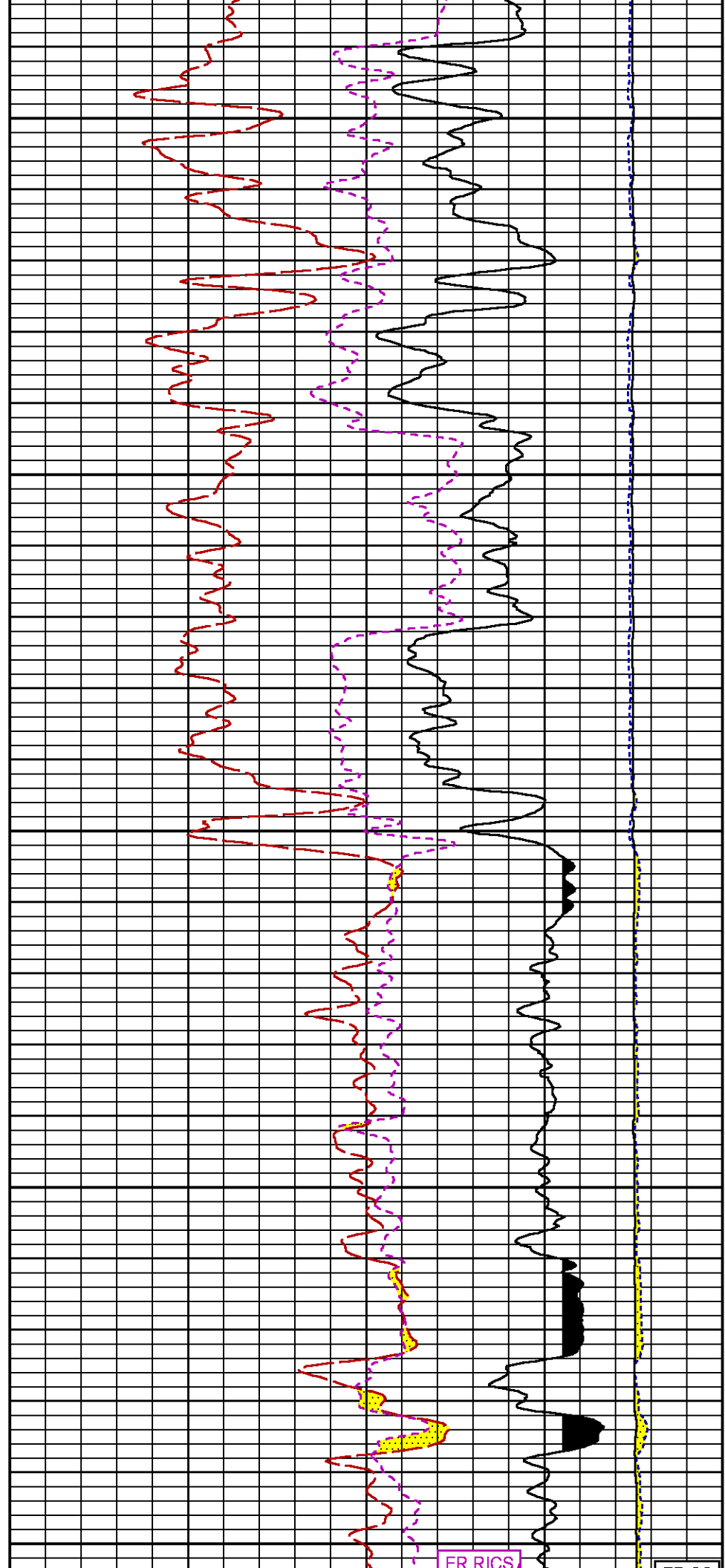


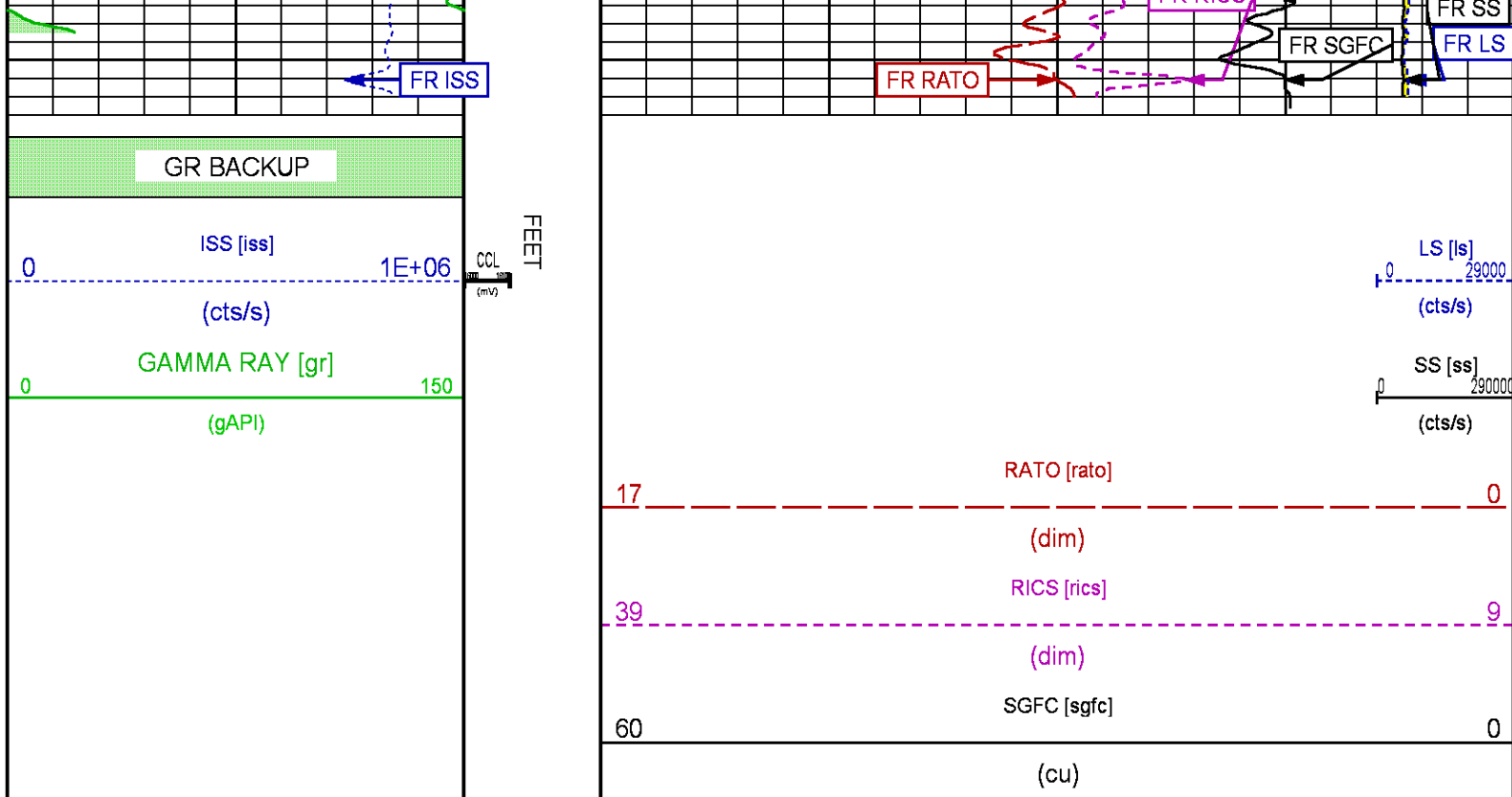












REPEAT SECTION PNC-3D MODE

ECLIPS 6.2i ECLIPS General Release Rel 6.2i Wed Jun 12 12:21:40 CDT 2013
Updates: 1 Patches: 8

Plotted: Sun Oct 25 10:35:37 2015

PARAMETER AND FILTER SUMMARY REPORT

FILE: /dat1a/CH098427/n353h01.prm
LOGGING MODE: DEPTH DIRECTION: UP
TOP DEPTH: 7811.500 ft BOTTOM DEPTH: 8034.750 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	7.88	in	" "
	CASING SIZE	4.50	in	" "
	MATRIX	SANDSTONE		" "
	CORRECTION BUFFER	11		" "

CURVE DESCRIPTION REPORT

CURVE NAME	CREATION DATE	CURVE DESCRIPTION
F1:CCL	Oct 25 10:12:31 2015	CASING COLLAR LOCATOR

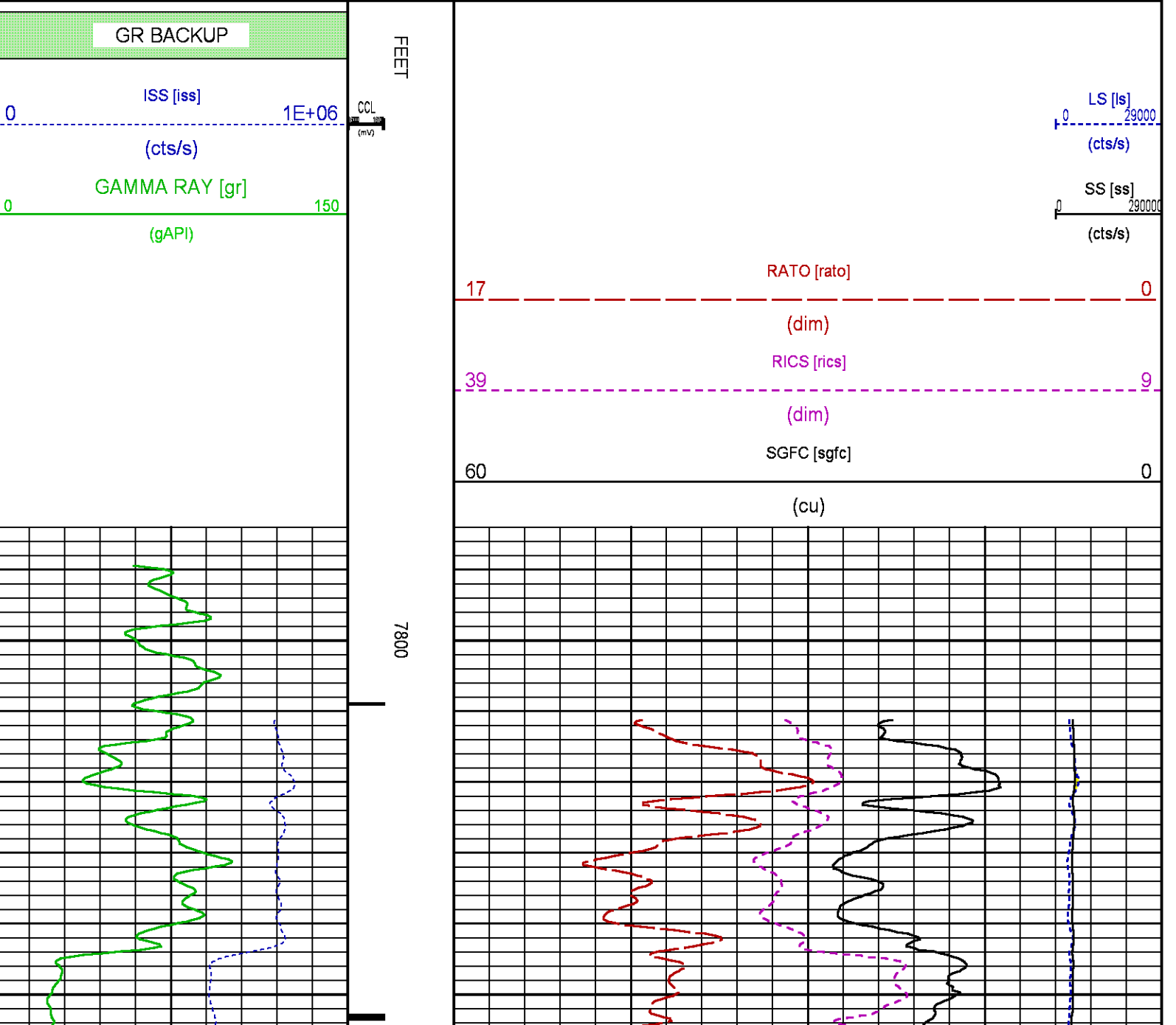
F1:GR	Oct 25 10:12:31 2015	GAMMA RAY
F1:ISS	Oct 25 10:12:31 2015	INELASTIC SHORT SPACE COUNT RATE
F1:LS	Oct 25 10:12:31 2015	LONG SPACE COUNT RATE
F1:RATO	Oct 25 10:12:31 2015	SHORT/LONG SPACE COUNT RATE RATIO
F1:RICS	Oct 25 10:12:31 2015	SHORT SPACE INELASTIC TO CAPTURE COUNT RATE RATIO (ISS/CSS)
F1:SGFC	Oct 25 10:12:31 2015	CORRECTED FORMATION SIGMA
F1:SS	Oct 25 10:12:31 2015	SHORT SPACE COUNT RATE

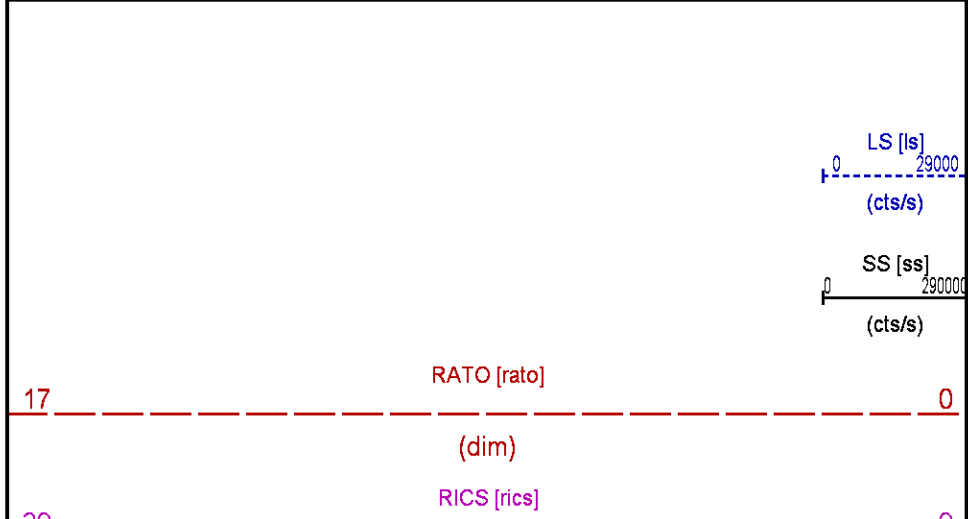
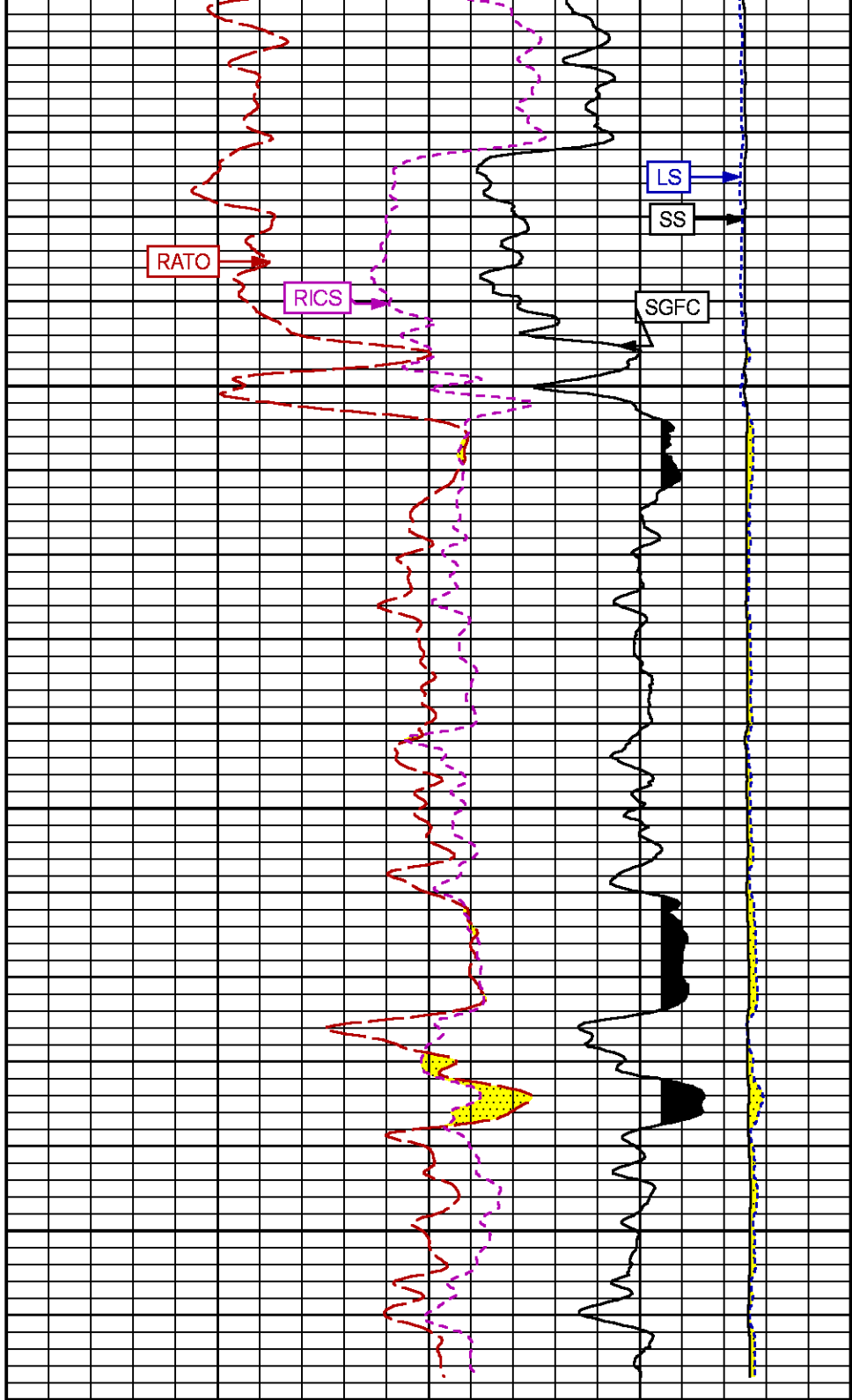
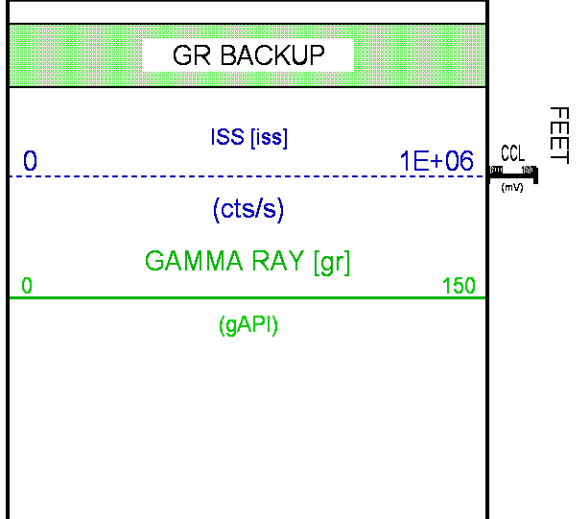
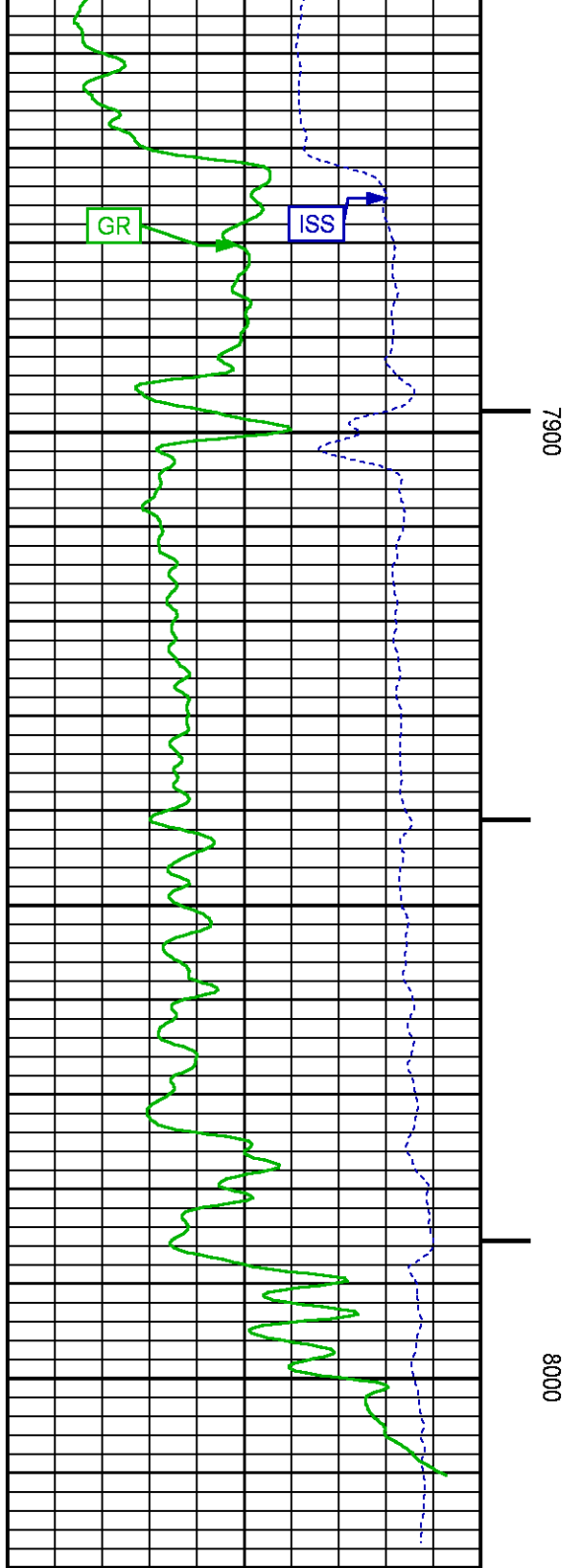
CURVE MEASURE POINT OFFSET

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/CH098427/RPM_RPT.fvpdf [5"/100' Scale]
Plot Interval : 7785.25 - 8018.5 Feet

Data File 1 : F1 : cas6685:/dat1a/CH098427/n353h01.xtf
Created On : Oct 25 10:12:31 2015
Company : LARAMIE ENERGY
Well : PICEANCE 28-01W
Field : VEGA
File Interval : 7784.5 - 8034.75 Feet
OCT : n353h





		39	(dim)	
		60	SGFC [sgfc]	0
			(cu)	

CALIBRATION / VERIFICATION SUMMARY

Source File: /dat1a/CH098427/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)	CALBRTR ON (cts/s)	CR DIFF (cts/s)	MULT	BACKGROUND (gAPI)	CALBRTR ON (gAPI)	CALBRTR (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

	ISS	RBOR	RIN ISS/ILS	RIN13 ISS/IXS	RICS ISS/CSS	RATO SS/LS	RTWO SS2/LS	RONE CSS/CLS
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

TPSETEMP PRIMARY CALIBRATION SUMMARY

TOOL #: 8255XA Z176973

DATE/TIME PERFORMED: Wed Oct 21 14:27:55 2015

UNIT #: 3885TC 6685

	T(0)	T(1)	T(2)	T(3)
Corr Coeff for Temp	-1.889935E+01	1.004280E-01	1.215976E-06	-1.293045E-10

INSTRUMENT CONFIGURATION

Source File: /dat1a/CH098427/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

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

XLS DETECTOR : 13.58'
LS DETECTOR : 13.16'
SS DETECTOR : 12.01'

34.08'

CCL MP 26.03'

GR MP 22.90'

Weight : 4.1 lbs
Series : 8283PA
Mnemonic : RPM
Measure Point: 5.45': XLS DETECTOR
Measure Point: 5.04': LS DETECTOR
Measure Point: 4.79': SS DETECTOR

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

0.00'

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

	COMPANY <u>LARAMIE ENERGY</u>		FILE NO:
	WELL <u>PICEANCE 28-01W</u>		<u>CH098427</u>
	FIELD <u>VEGA</u>		API NO:
	COUNTY <u>MESA</u>	STATE <u>COLORADO</u>	<u>05077102360000</u>
LOCATION:		ELEVATIONS:	28 9S 93W 28-05 PAD PATTERSON 306
SHL: LAT 39.251125, LONG -107.779575 BHL: LAT 39.255011, LONG -107.780733		KB 7578 FT DF GL 7556 FT	
SEC <u>28</u>	TWP <u>9S</u>	RGE <u>93W</u>	DATE <u>25-Oct-2015</u>