



FILE NO: CH092544	COMPANY WPX ENERGY
API NO: 05045224660000	WELL GM 343-12
	FIELD GRAND VALLEY
	COUNTY GARFIELD
	STATE COLORADO

Ver. 3.87	LOCATION:	OTHER SERVICES
12 7S 96W	SHL: 1208' FNL & 1928' FWL	RPM
GM 21-12 PAD	BHL: 2057' FSL & 1341' FEL	
NABORS 573	SEC 12 TWP 7S RGE 96W	

PERMANENT DATUM	GL	ELEVATION	5125 FT	KB	5151 FT
LOG MEASURED FROM	KB	26 FT	ABOVE P.D.	DF	
DRILL. MEAS. FROM	KB			GL	5125 FT

DATE		19-Nov-2014	
RUN	TRIP	1	1
SERVICE ORDER	US092544		
DEPTH DRILLER	7275 FT		
DEPTH LOGGER	7260 FT		
BOTTOM LOGGED INTERVAL	7250 FT		
TOP LOGGED INTERVAL	26 FT		
TIME STARTED	1300		
TIME FINISHED	15:30		
OPERATOR RIG TIME	2.5 HOURS		
TYPE OF FLUID IN HOLE	WATER		
FLUID DENSITY	NA		
FLUID SALINITY	NA		
FLUID LEVEL	73 FT		
LOGGED CEMENT TOP	NA		
WELLHEAD PRESSURE	0 PSI		
MAXIMUM HOLE DEVIATION	NA		
NOMINAL LOGGING SPEED	65 F/MIN		
MAX. RECORDED TEMP.	SEE RPM LOG		
REFERENCE LOG	NA		
REFERENCE LOG DATE	NA		
EQUIP. NO.	LOCATION	HL-6670	GRAND JCT.
RECORDED BY	NEWELL / EDWARDS		
WITNESSED BY	ORAN JACOBS		

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	26 FT	1697 FT
8.75 IN	1697 FT	7276 FT

CASING RECORD				
SIZE	WEIGHT	GRADE	FROM	TO
9.625 IN			26 FT	1697 FT
4.5 IN	11.6 LB/F	I-80	26 FT	7276 FT

REMARKS

RUN 1 TRIP 1: All data on this log is shifted using the CCL curve to put the wellhead (top CCL mark) on depth with ground level elevation at the client's request.

The amount of linear shift is 1.5 feet.

Logged with zero PSI at wellhead.

SJ = 3770' - 3792'

EQUIPMENT DATA

RUN	TRIP	TOOL	SERIES NO.	SERIAL NO.	POSITION
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RUN	TRIP	TOOL	SERIES NO.	SERIAL NO.	POSITION
1	1	BOND TOOL	1426XA	10417452	CENTRALIZED
1	1	GR/CCL	2459XA	10218503	CENTRALIZED

PRIMARY PRESENTATION 0 PSI

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

Updates: 1 Patches: 4

Plotted: Wed Nov 19 16:14:32 2014

PARAMETER AND FILTER SUMMARY REPORT

FILE: /dat1a/CH092544/n012e02.prm
 LOGGING MODE: DEPTH DIRECTION: UP
 TOP DEPTH: 24.250 ft BOTTOM DEPTH: 7263.500 ft

SYMMETRIC FILTER

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
GR	FILTER ()	medium (1)		TOP	BOTTOM
AMPLITUDE	FILTER ()	medium (1)		"	"
TRAVEL TIME	FILTER ()	medium (1)		"	"

RAL CCL PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
CCL FLOOR	CCL FLOOR	0		TOP	BOTTOM

ANALOG RAL PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
AMPLITUDE WINDOW (NEAR)	AMP WINDOW START (fgpn*)	187	us	TOP	BOTTOM
	AMP WINDOW LENGTH	25	us	"	"
TRAVEL TIME WINDOW (NEAR)	TT WINDOW START (ttn*)	177	us	"	"
	TT WINDOW LENGTH	500	us	"	"
	FIRST BRK THRESHOLD (ttn*)	4	mV	"	"
RAL CASING PARAMETERS	PPT NEAR	200.391	us	"	"
RAL TOOL DELAY	TOOL DELAY (strn*)	-70	us	"	"
BASELINE NOISE (NEAR)	NOISE WINDOW START	133	us	"	"
	NOISE WINDOW LENGTH	25	us	"	"

CURVE DESCRIPTION REPORT

CURVE NAME	CREATION DATE	CURVE DESCRIPTION
F1:CCL	Nov 19 13:25:24 2014	CASING COLLAR LOCATOR
F1:FAMPN	Nov 19 13:25:24 2014	FIXED GATE AMPLITUDE NEAR RECEIVER
F1:FWAVE	Nov 19 13:25:24 2014	FAR WAVE FORM
F1:GR	Nov 19 13:25:24 2014	GAMMA RAY
F1:TTN	Nov 19 13:25:24 2014	TRAVELTIME FROM NEAR TRANSMITTER-RECEIVER
F1:XAMPN	Nov 19 13:25:24 2014	FIXED GATE AMPLITUDE NEAR RECEIVER TIMES FIVE

CURVE MEASURE POINT OFFSET

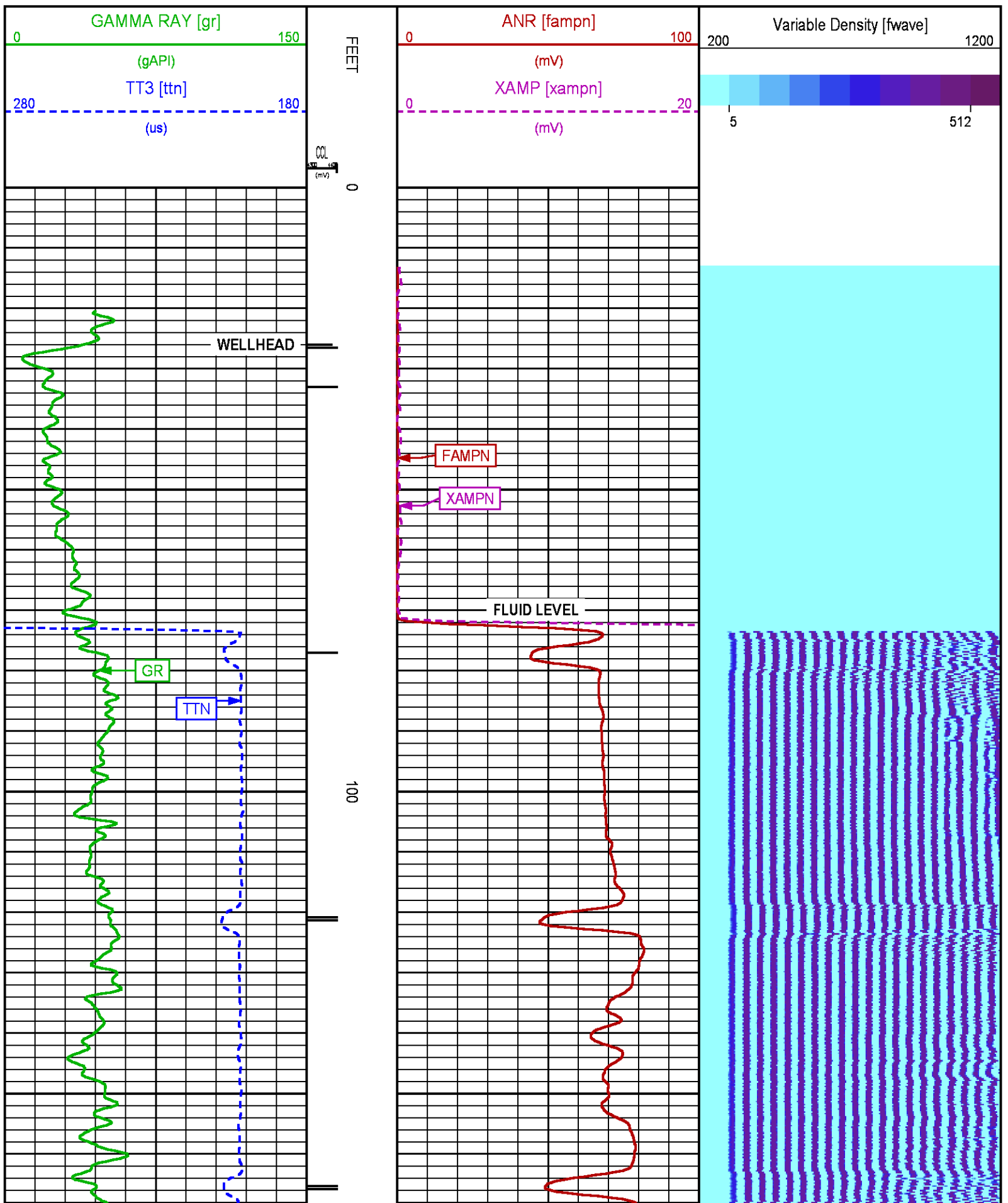
CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)
CCL	8.50	GR	6.50	XAMPN	13.75		
FAMPN	13.75	TTN	13.75				

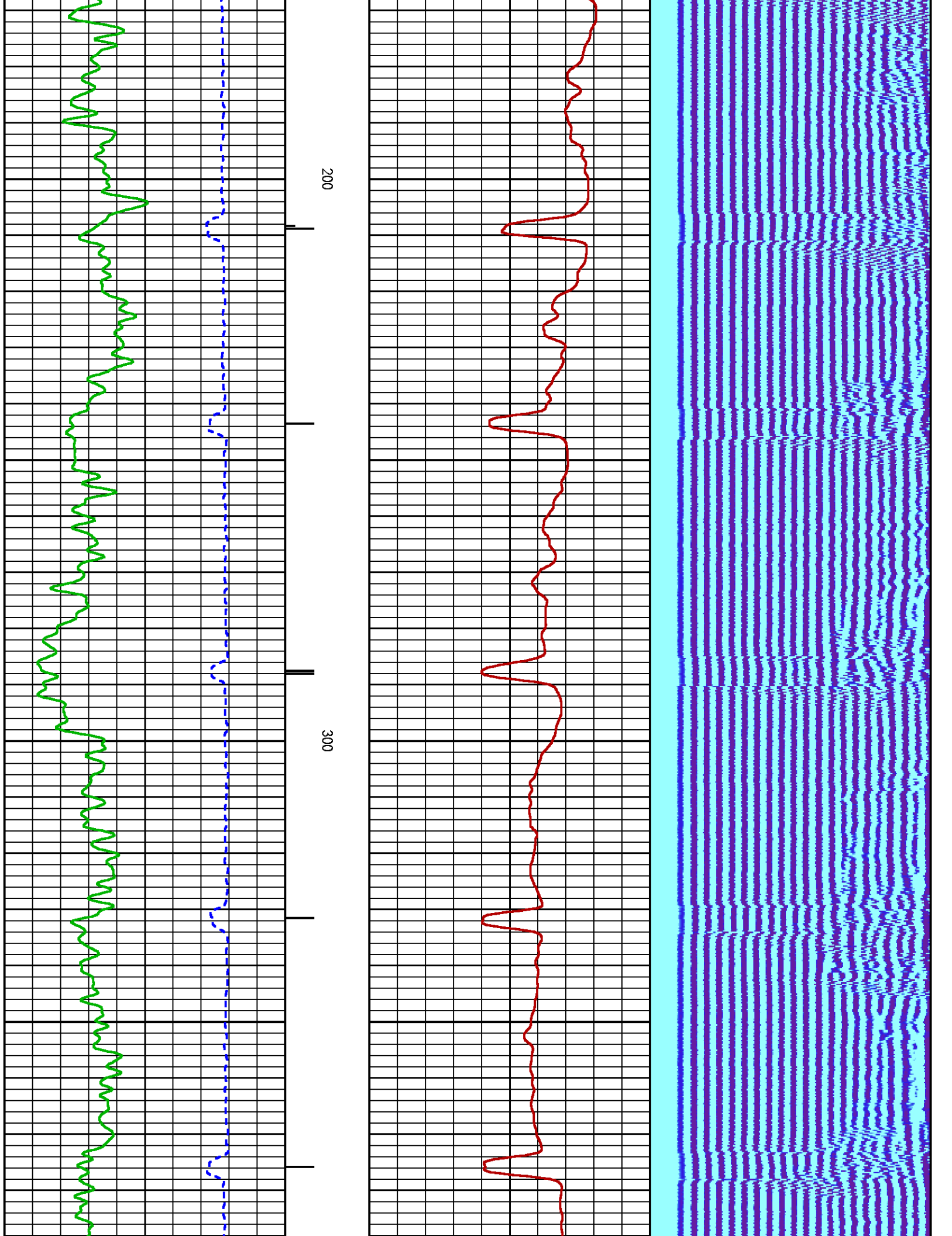
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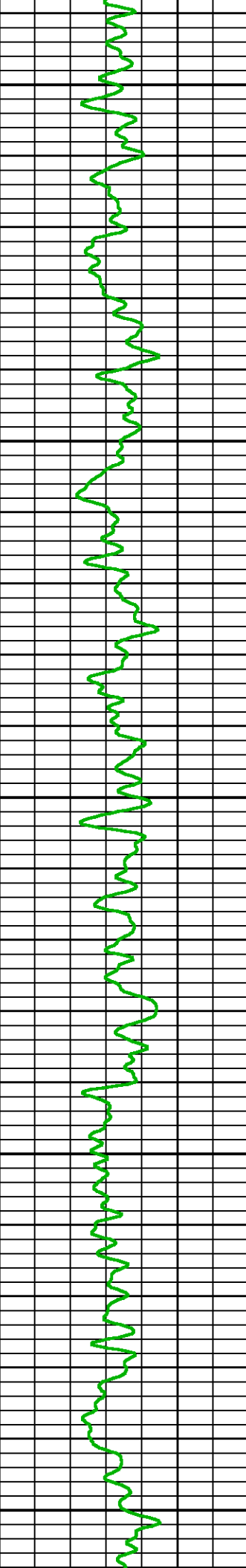
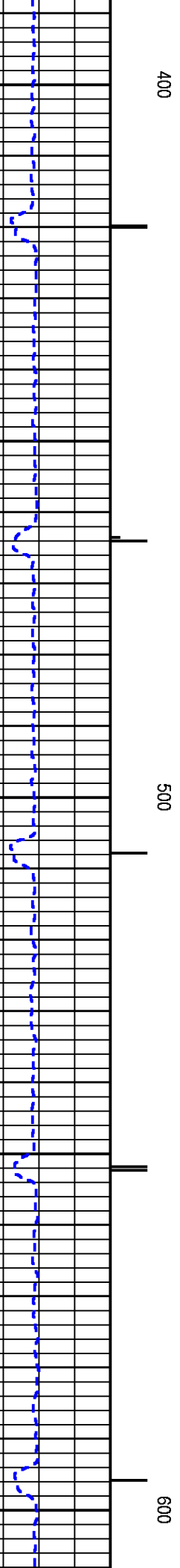
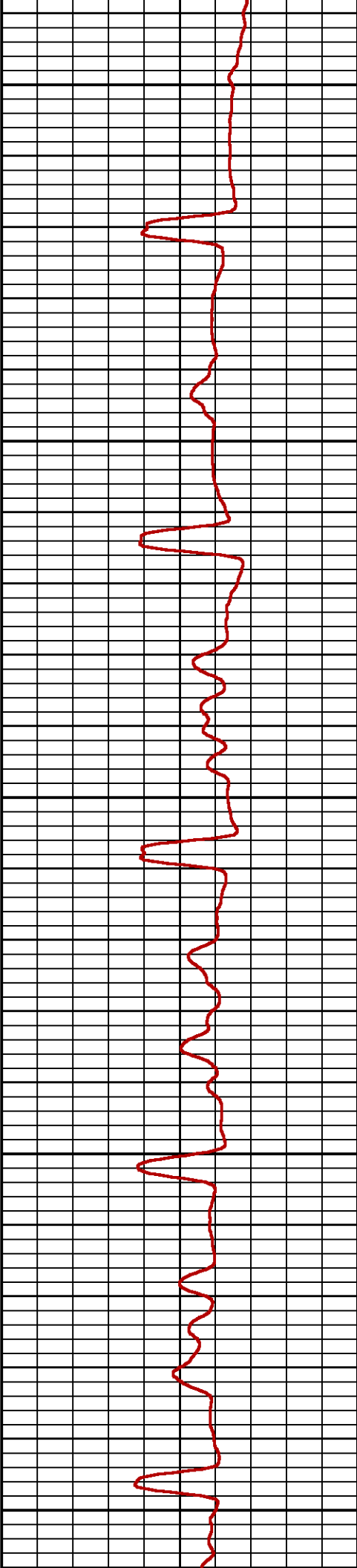
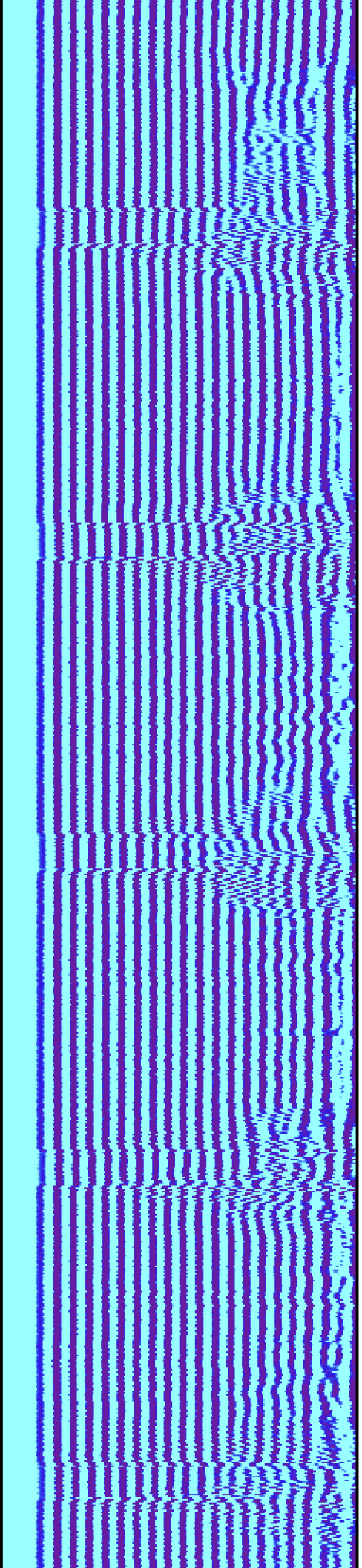
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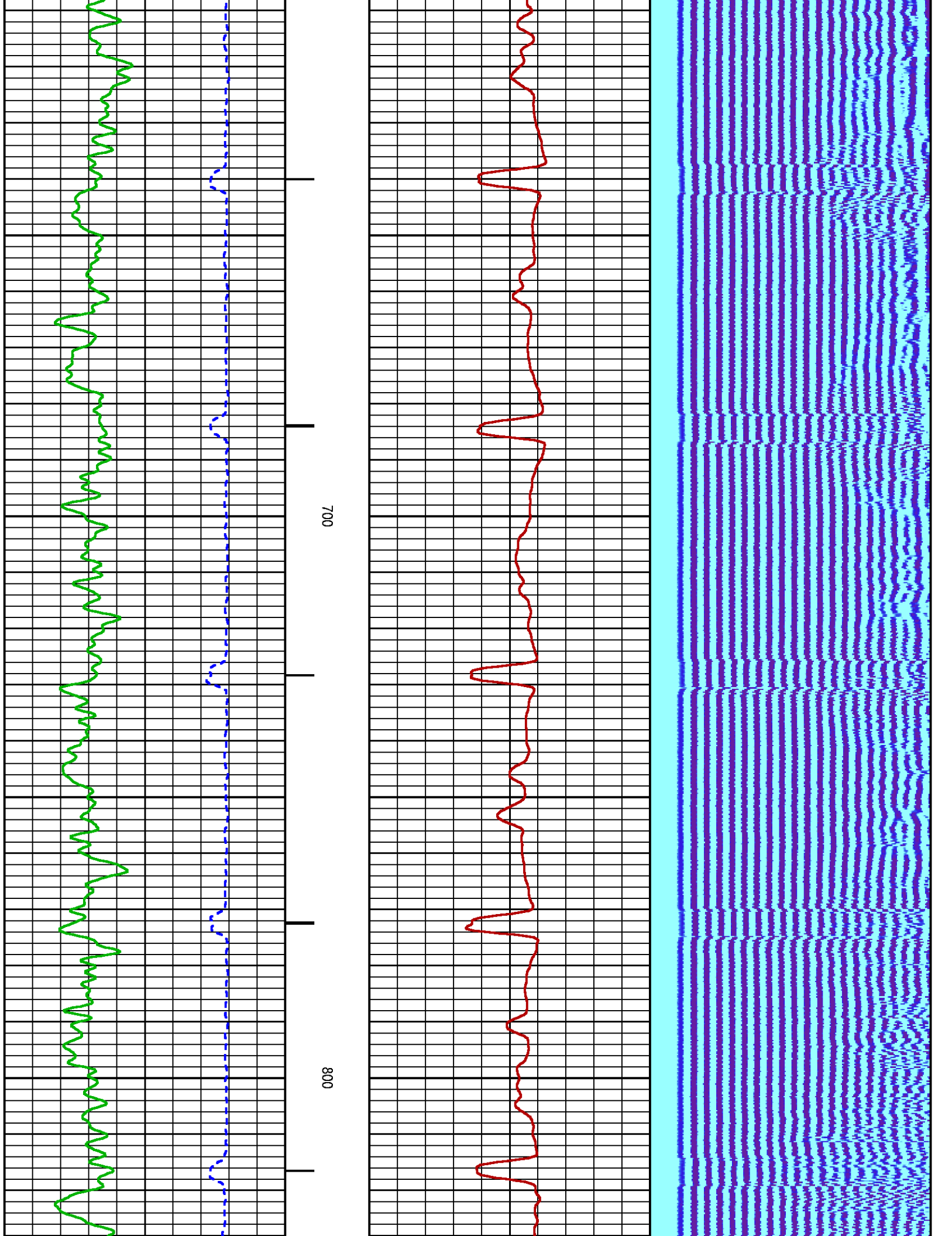
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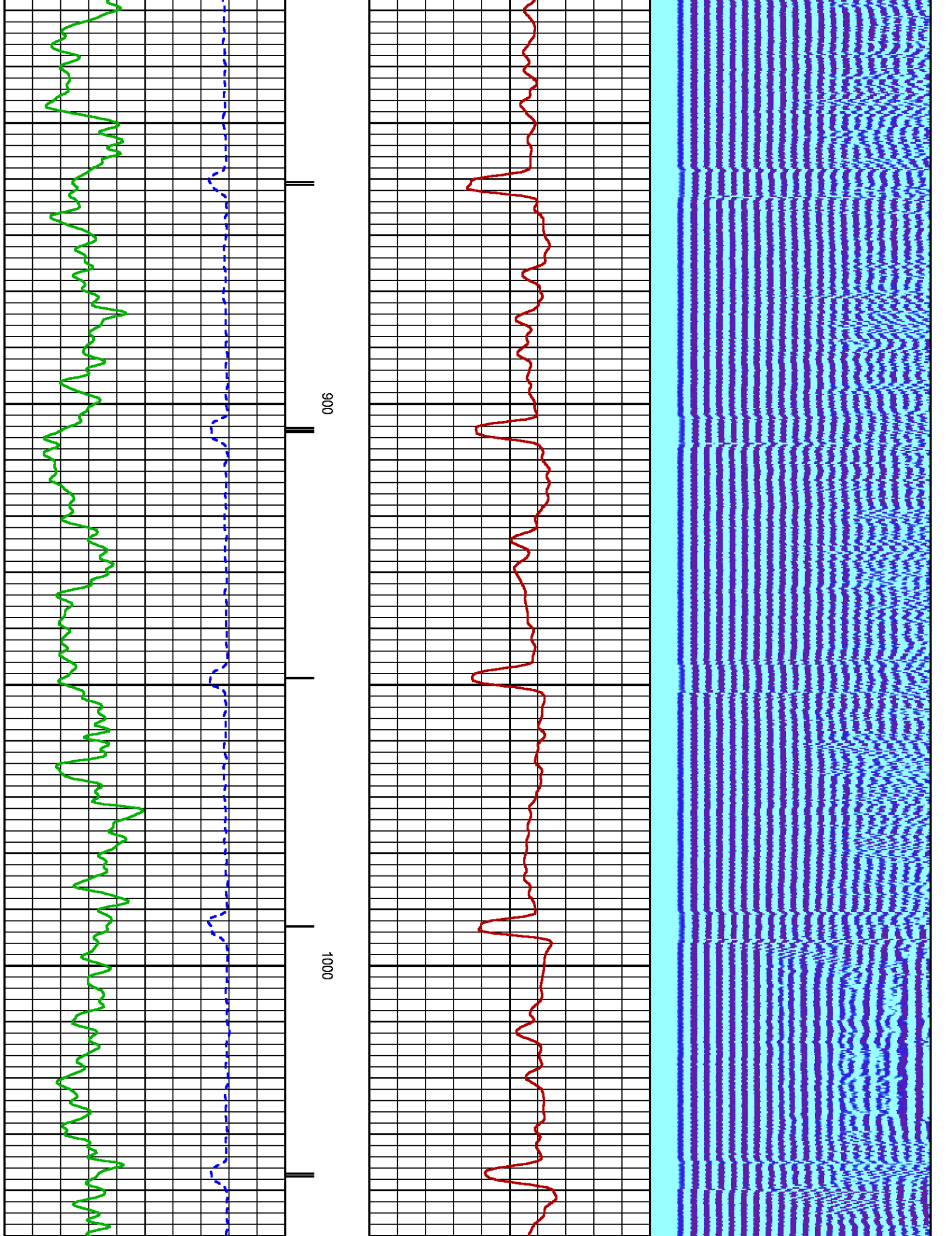
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Company : WPX ENERGY
Well : GM 343-12
Field : GRAND VALLEY
File Interval : 12 - 7265.25 Feet
OCT : n012e

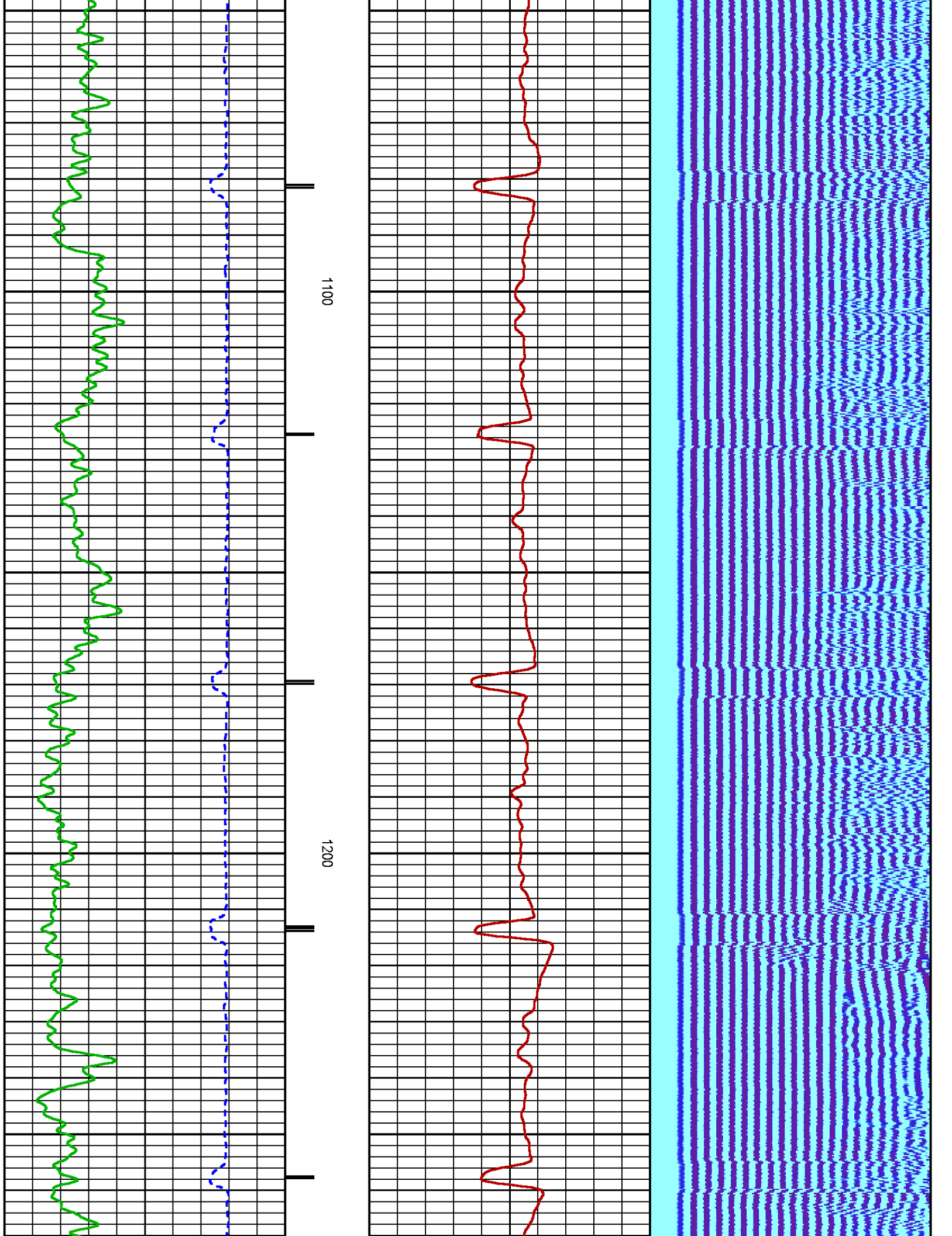


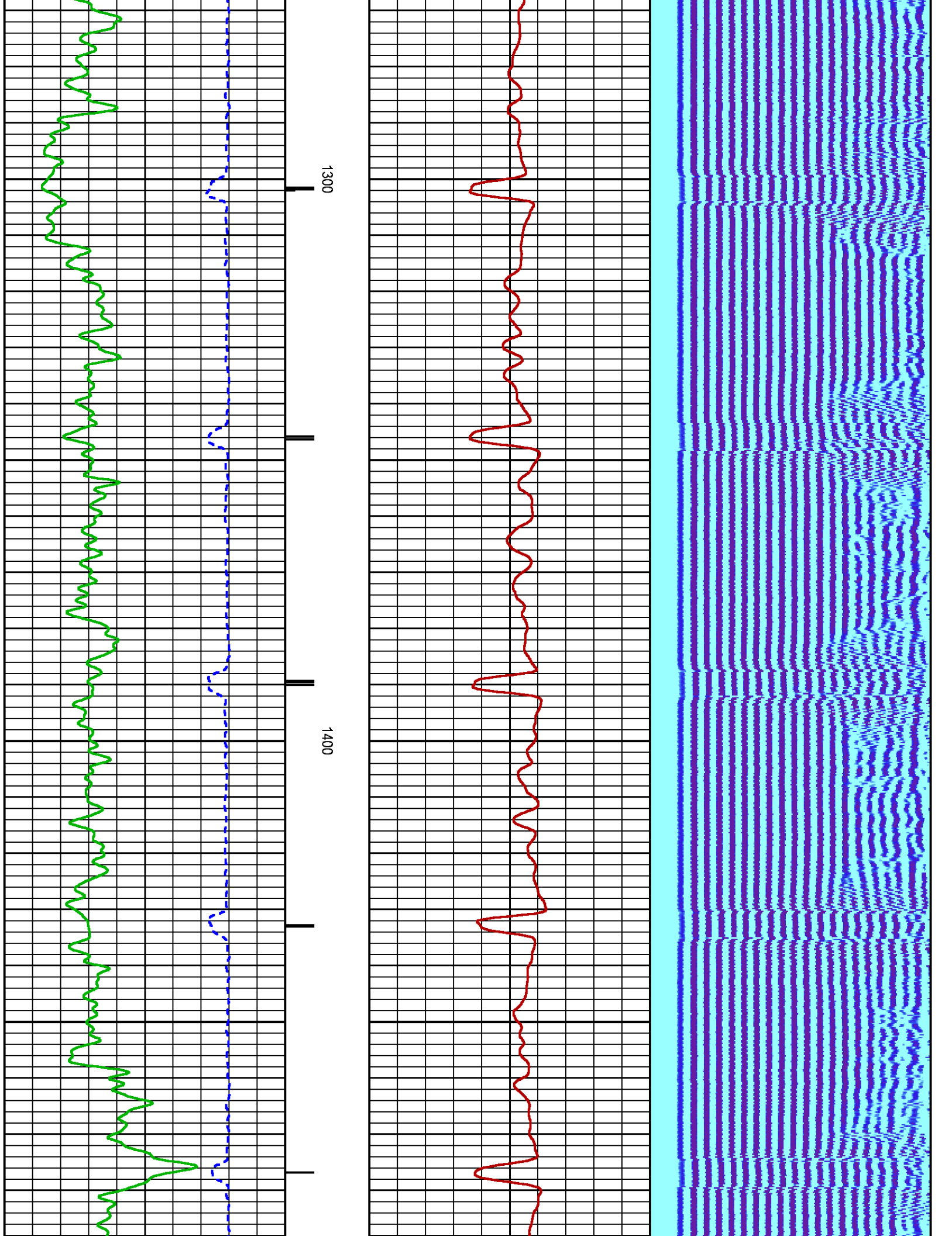


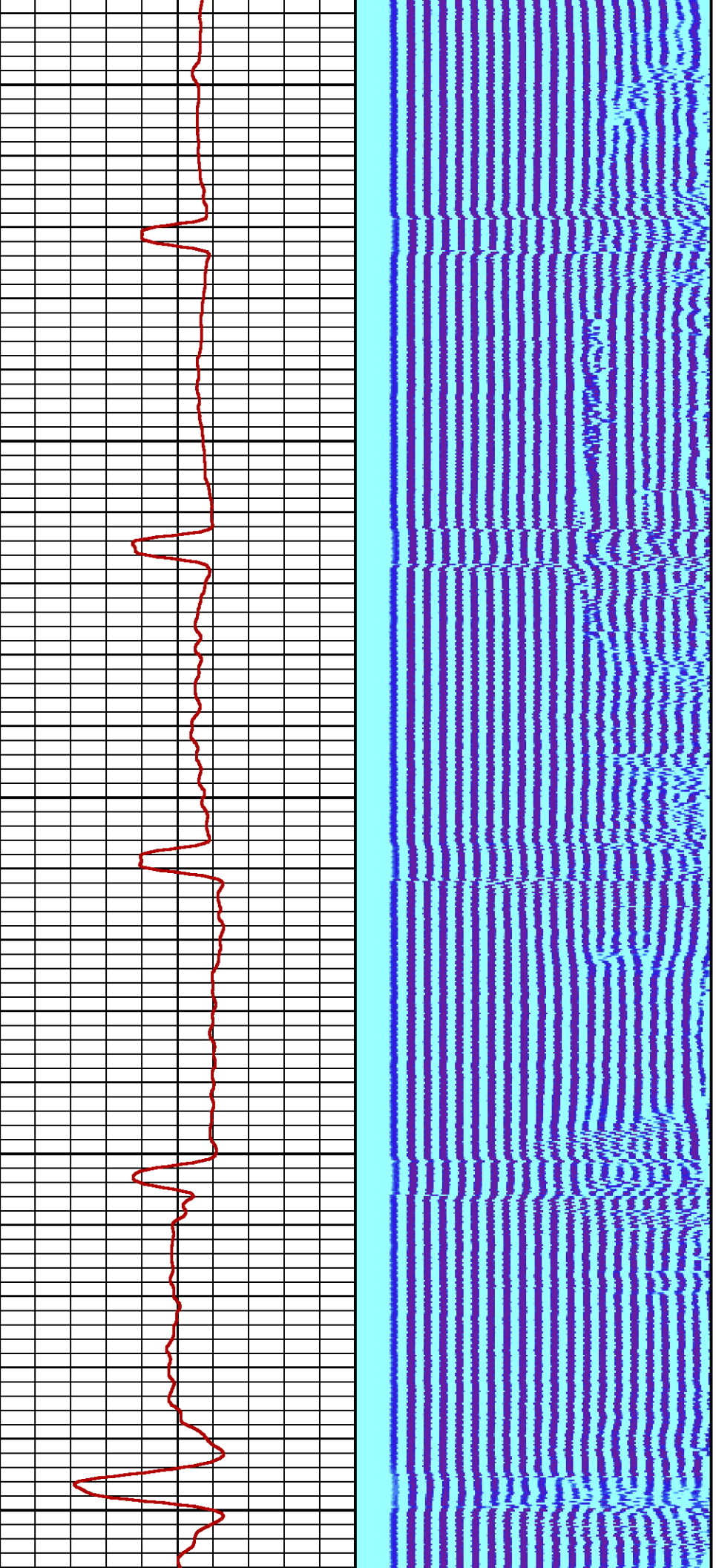








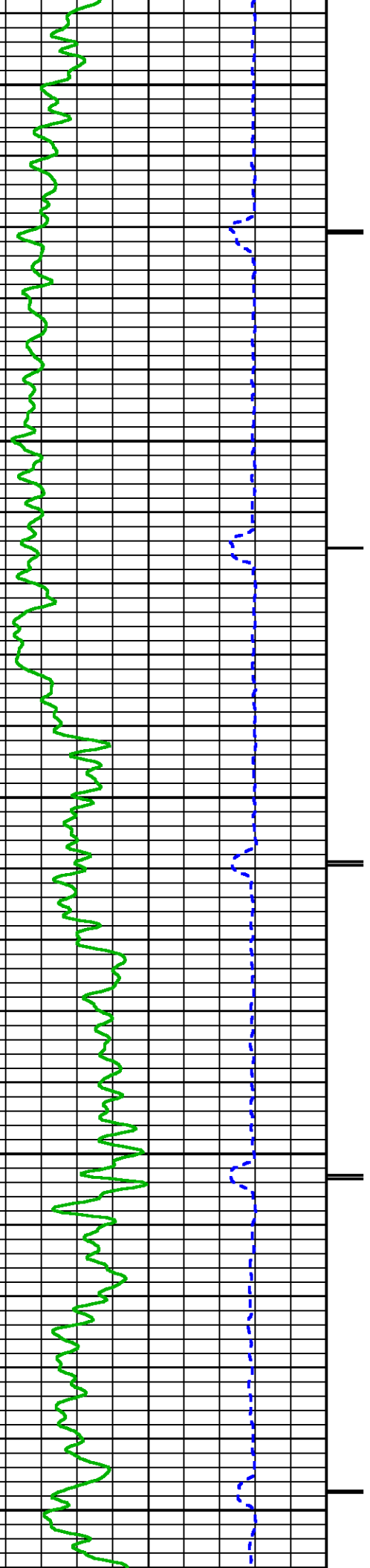


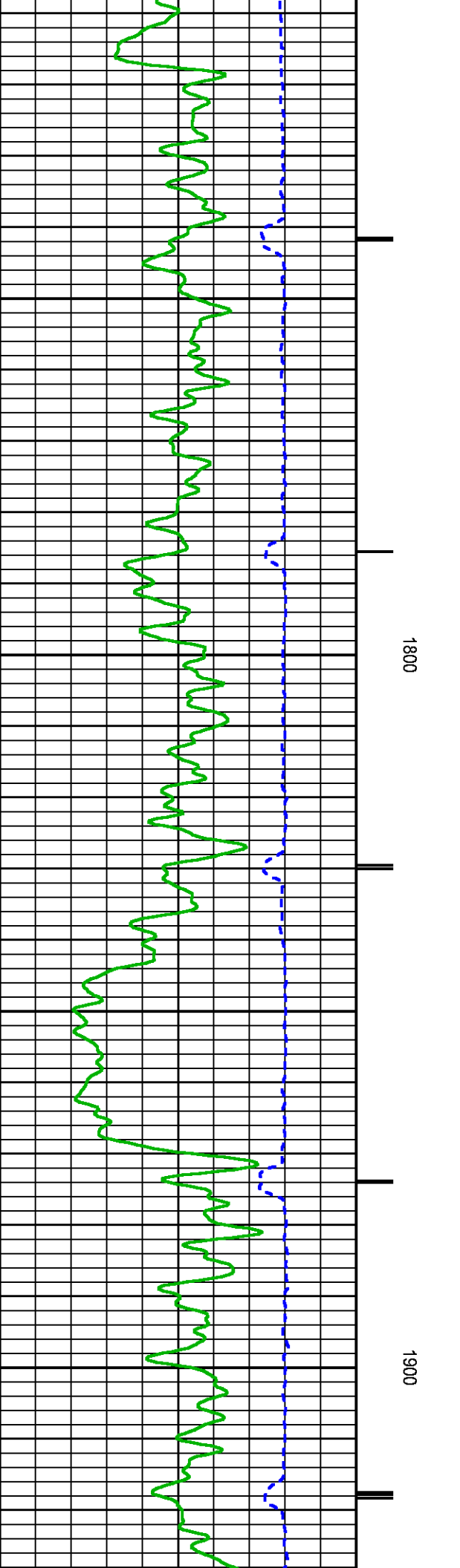
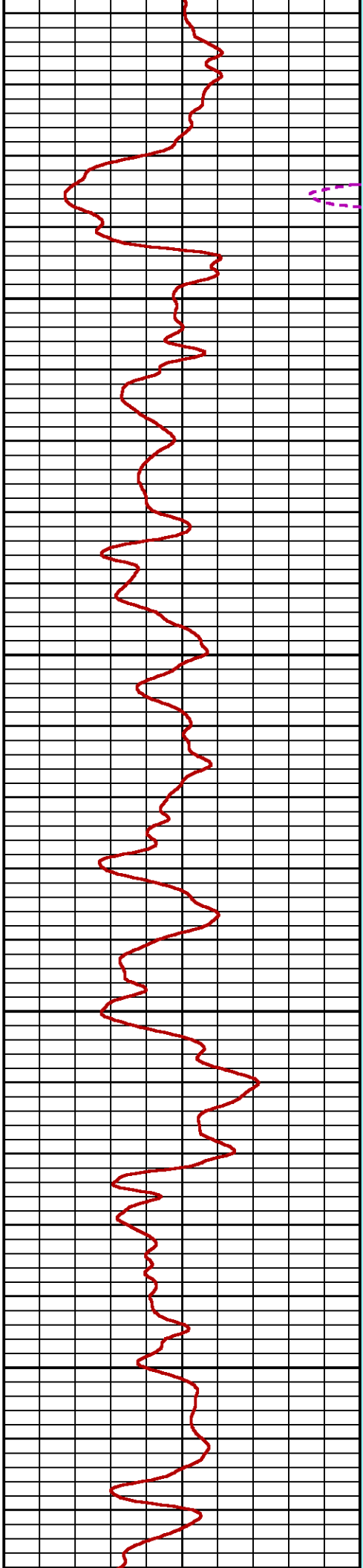
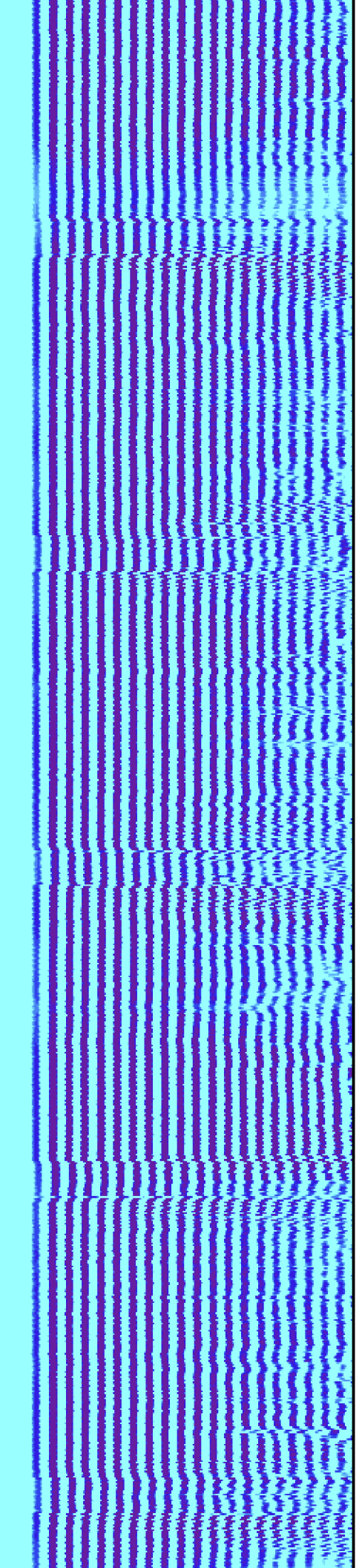


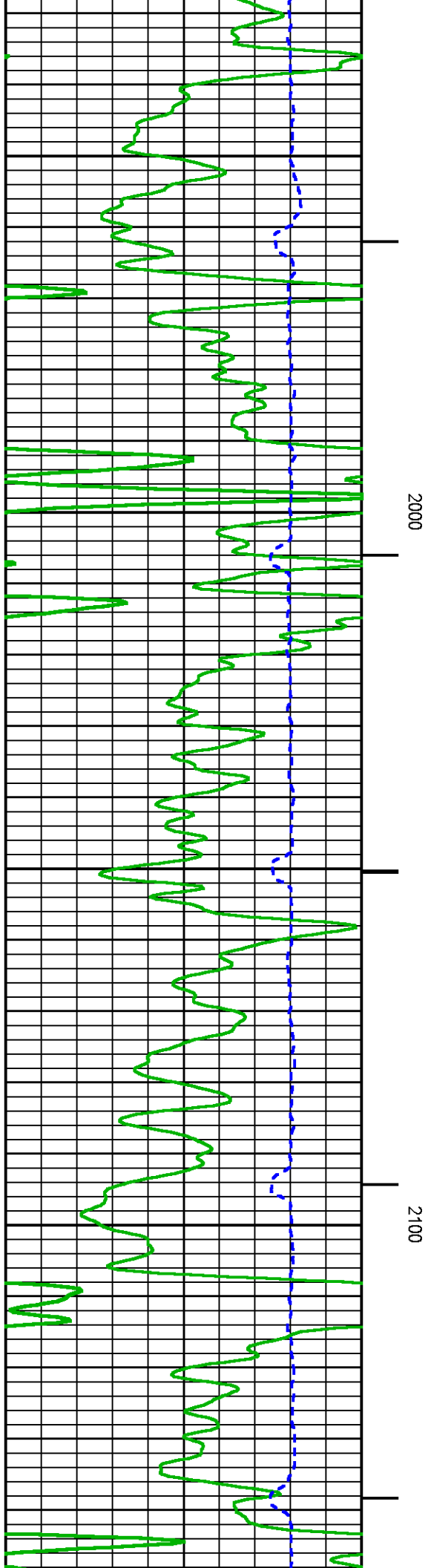
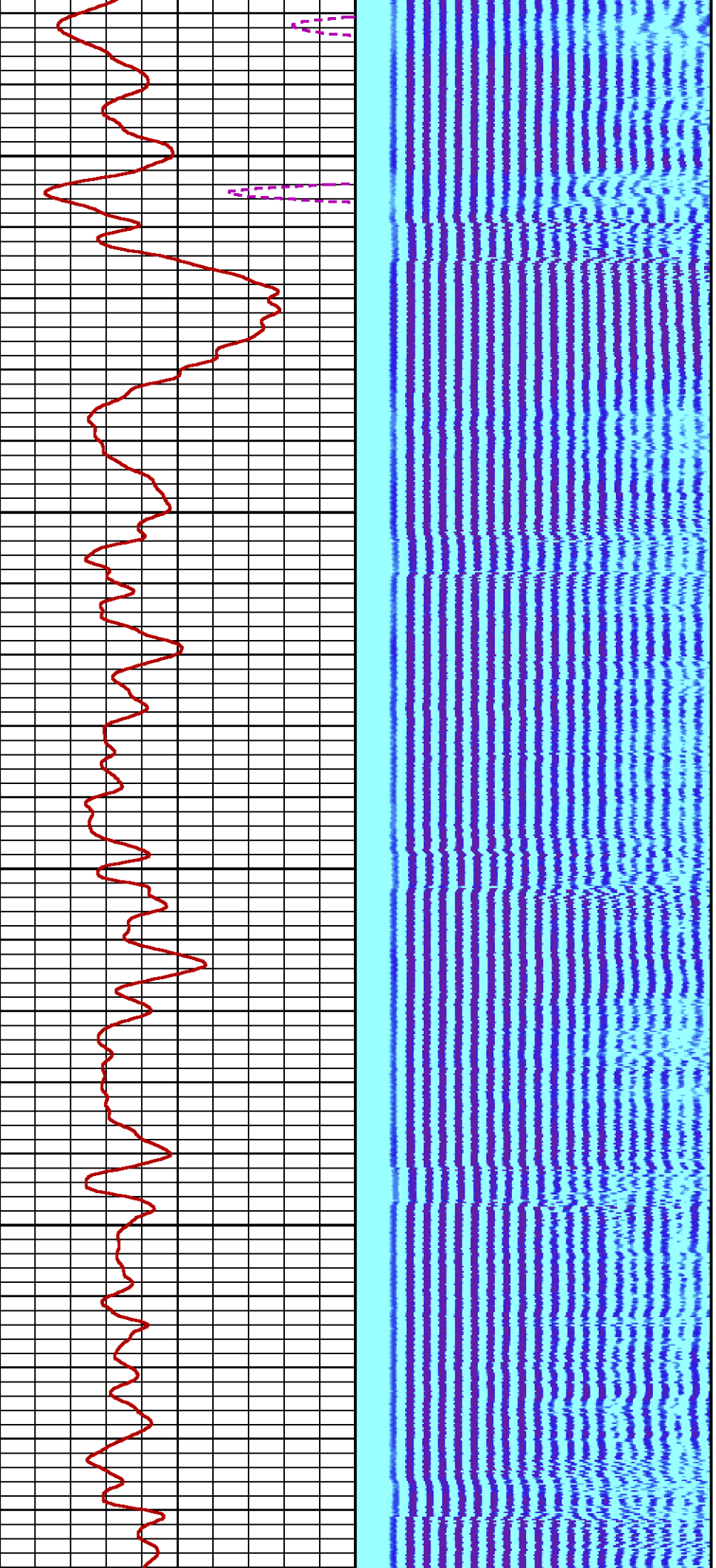
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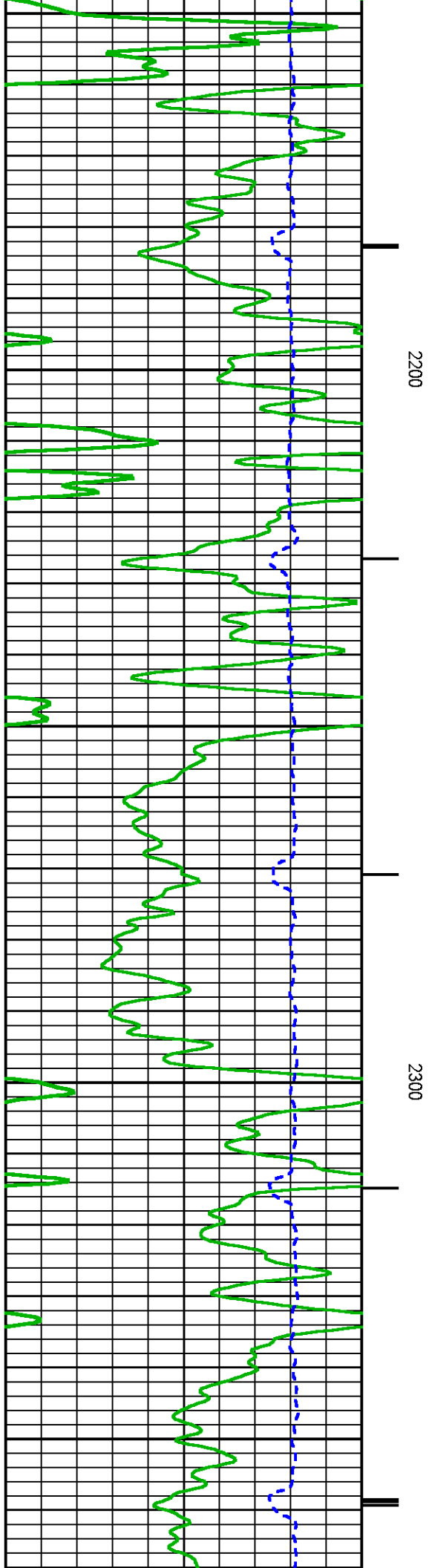
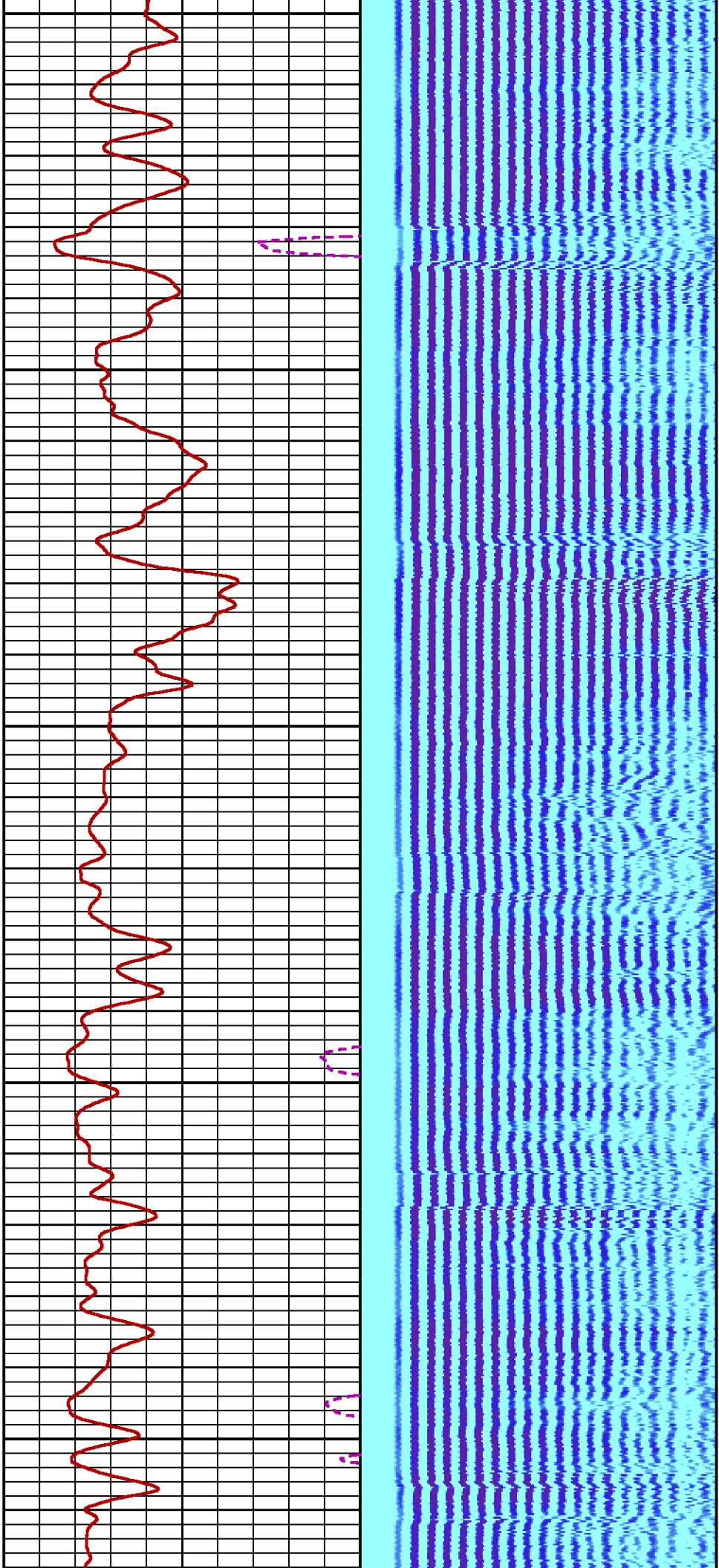
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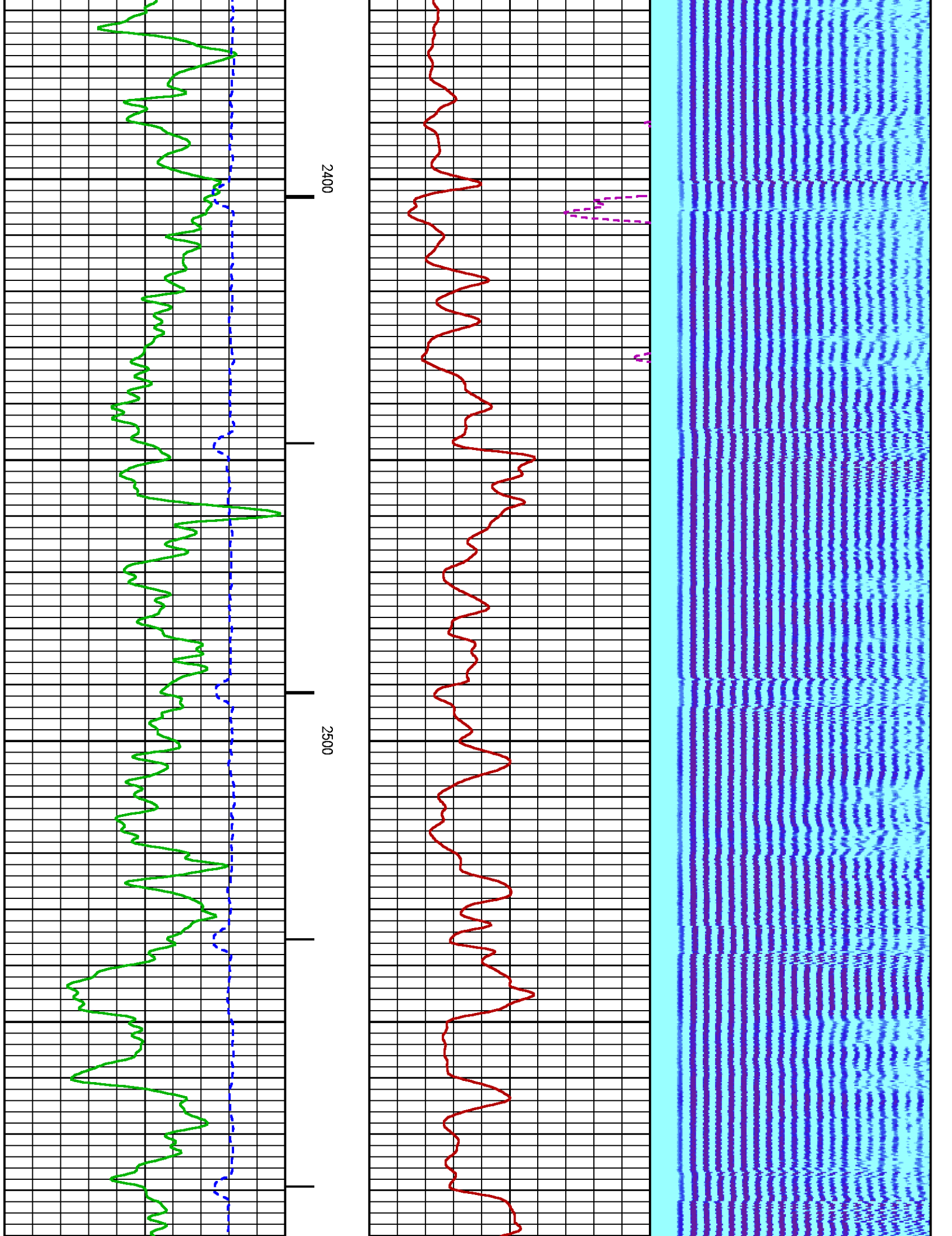
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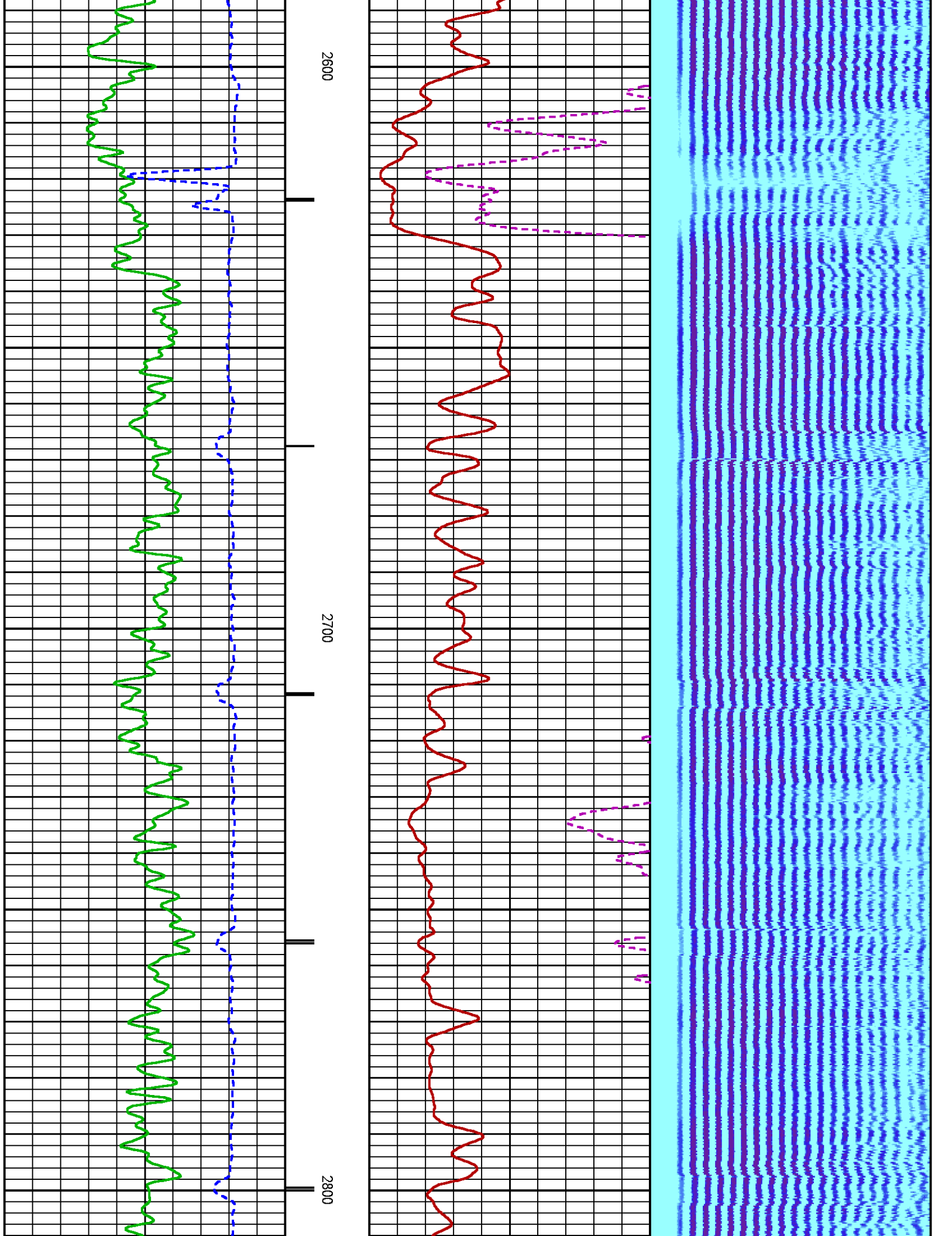


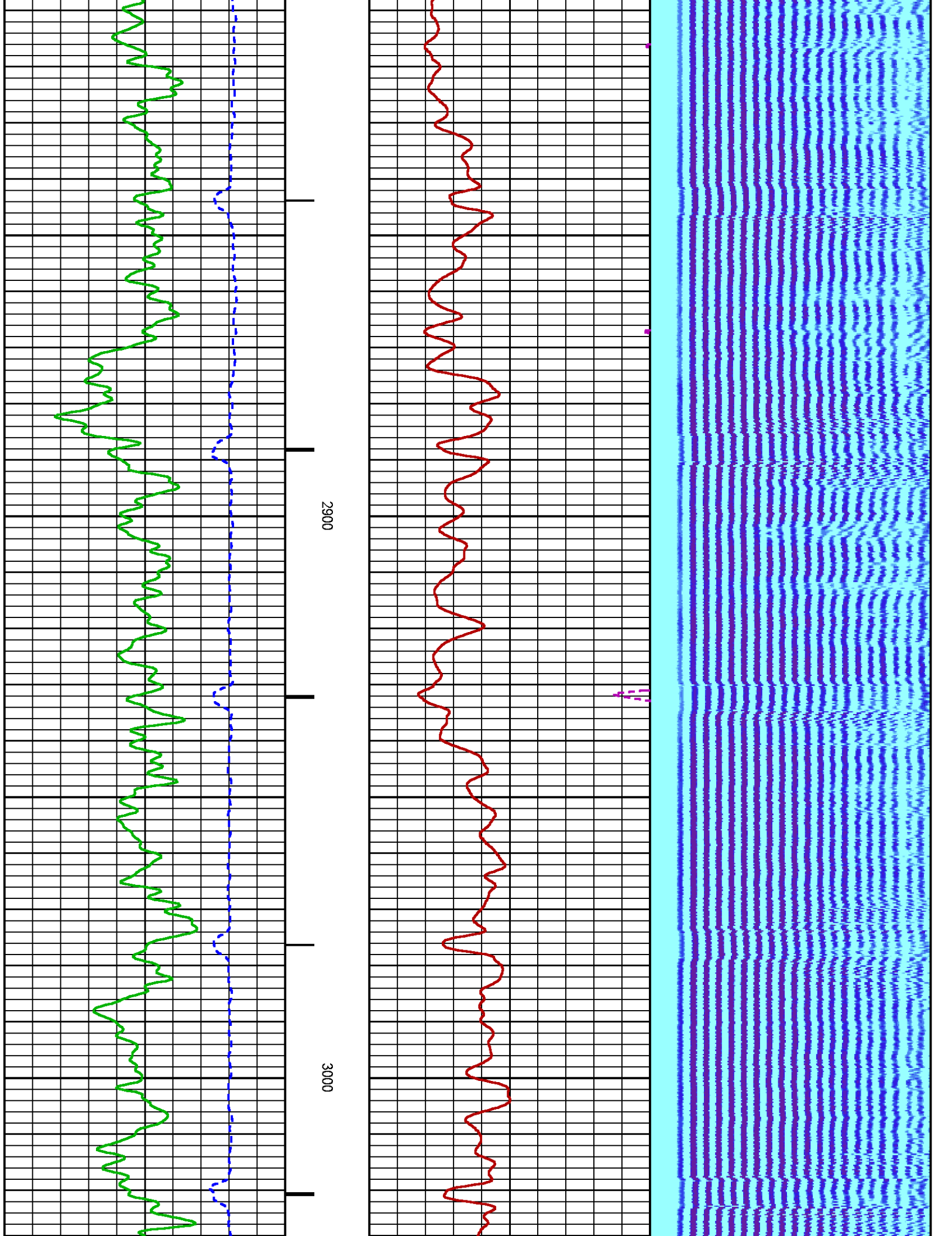


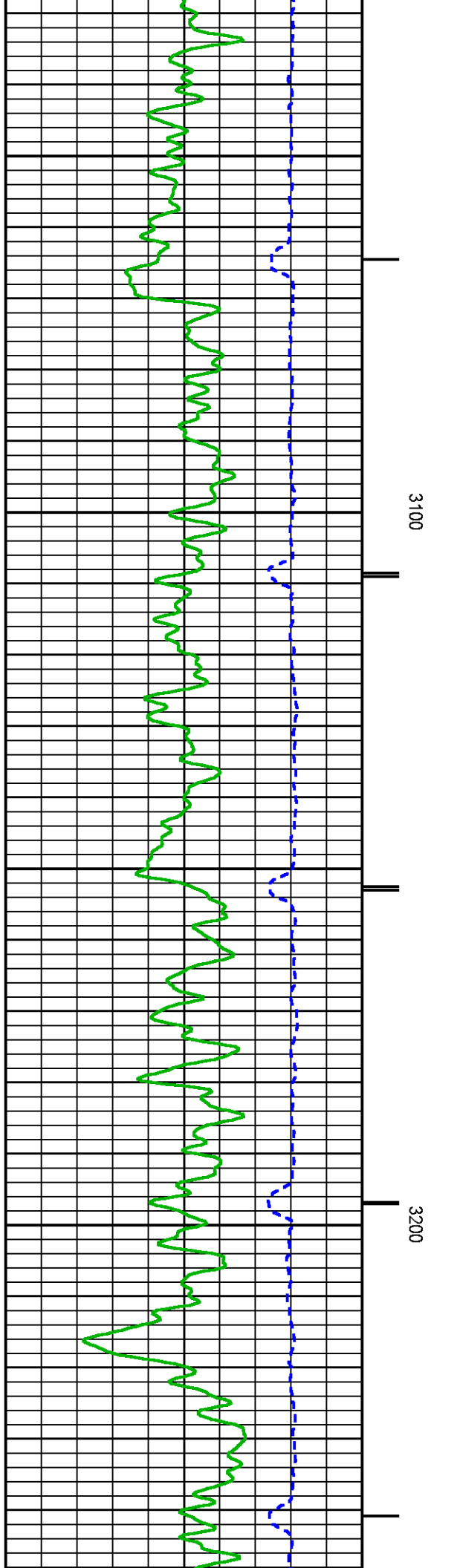
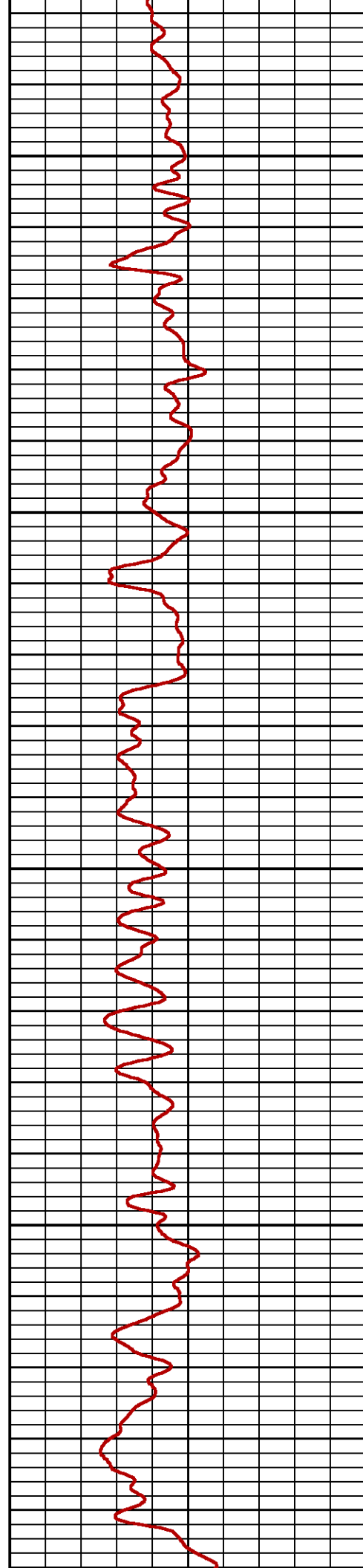
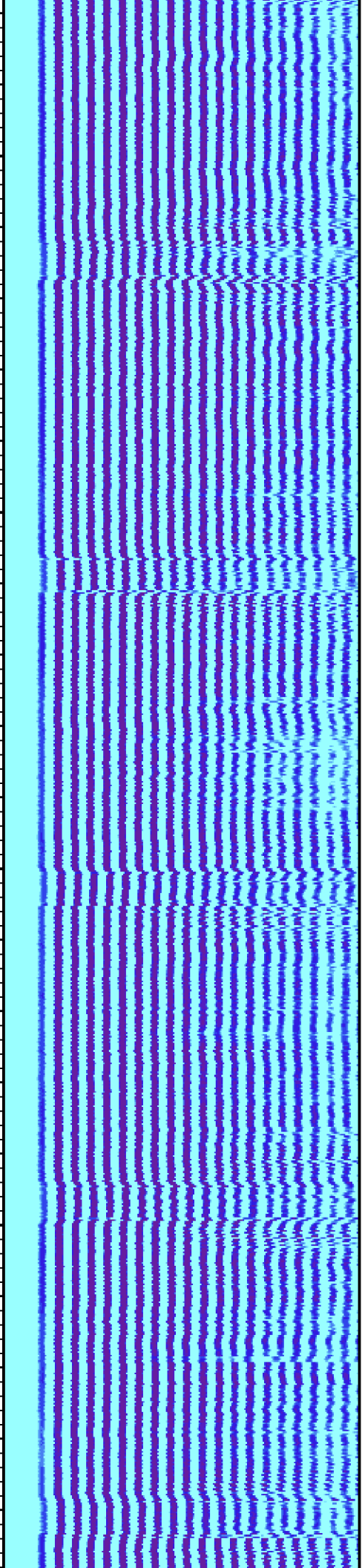


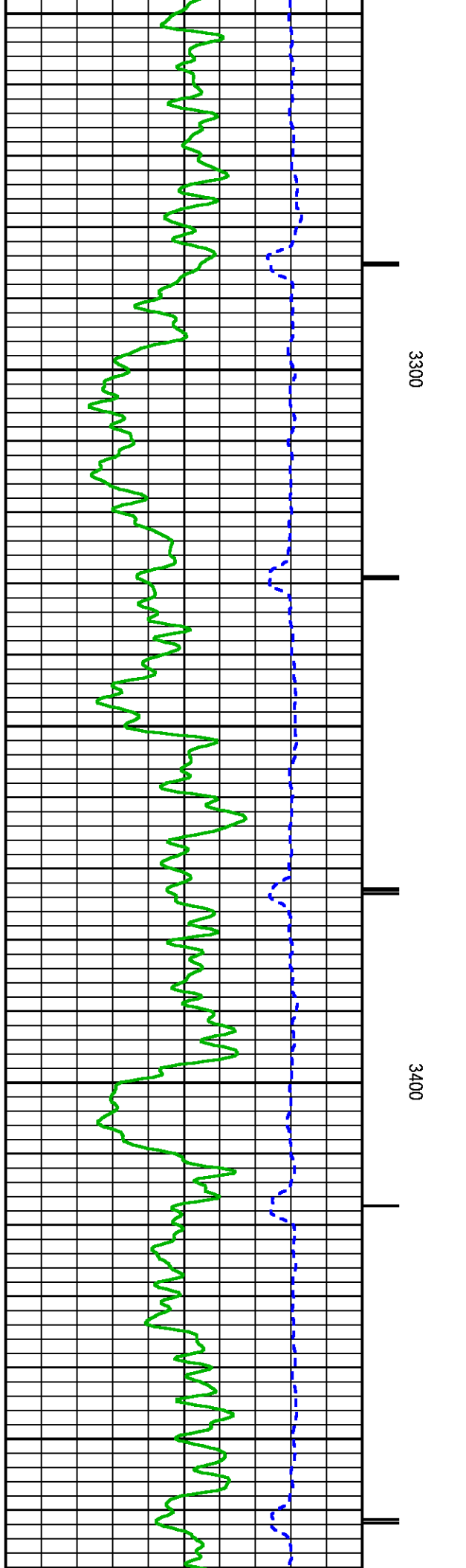
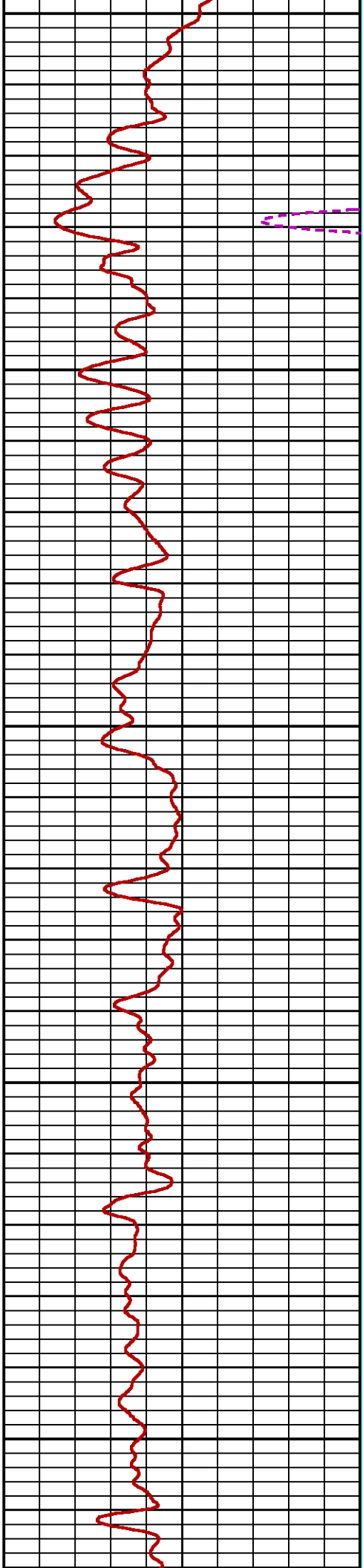
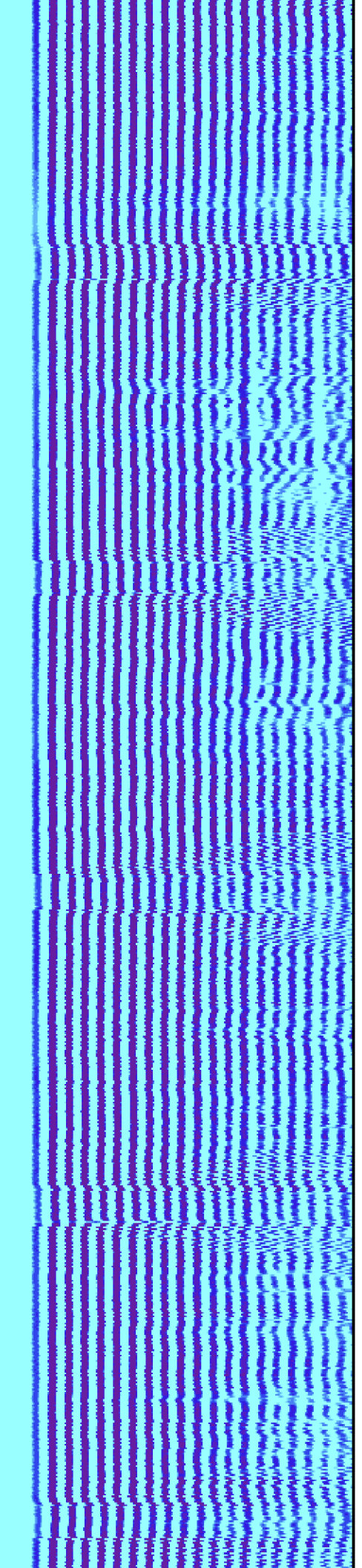


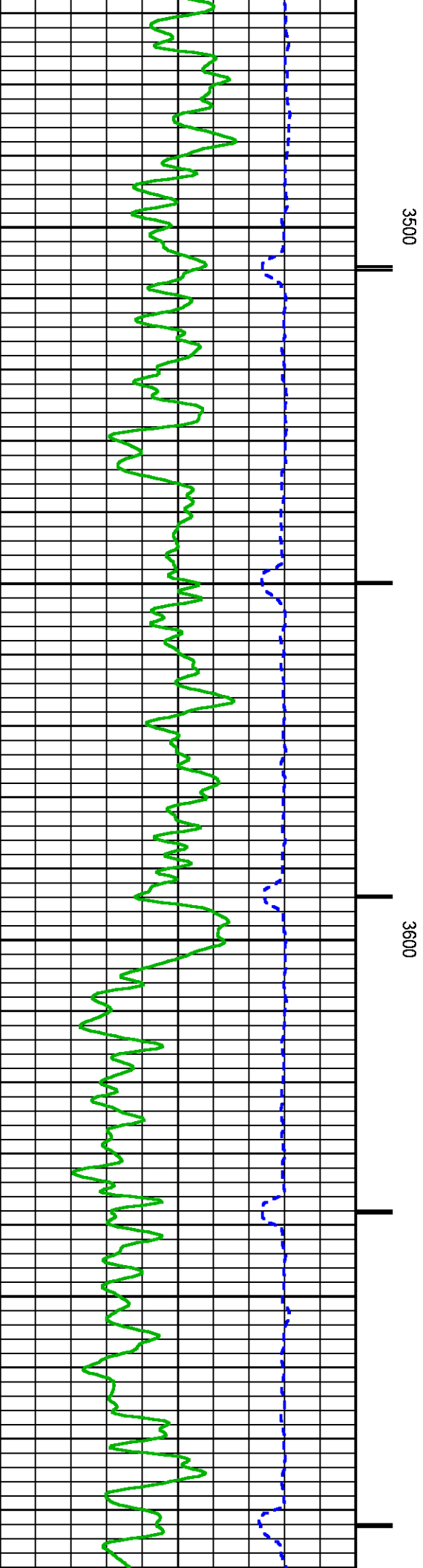
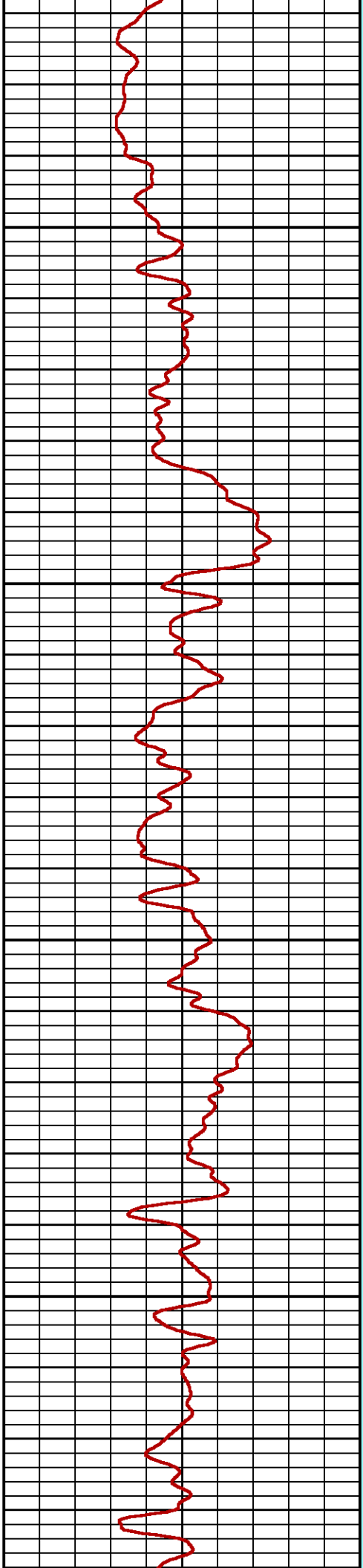
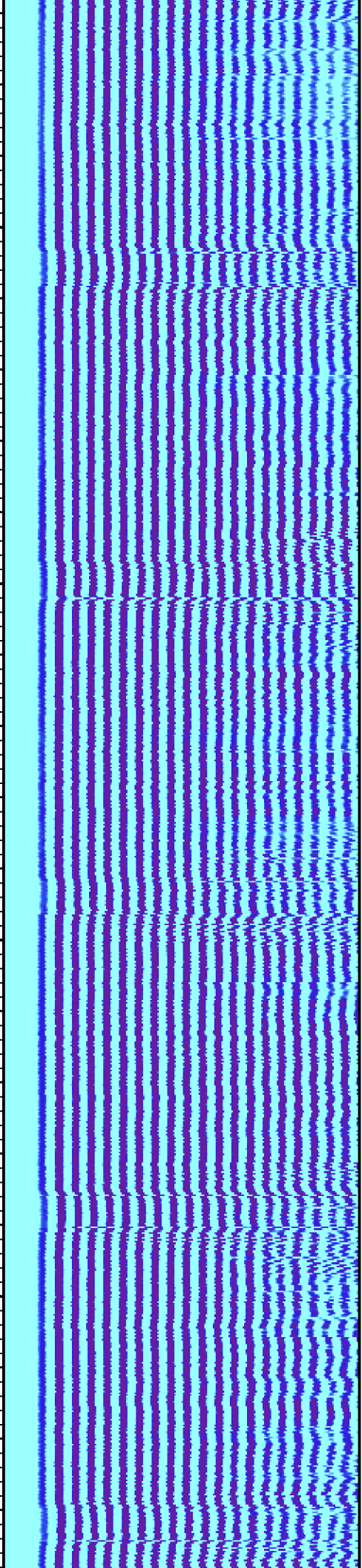


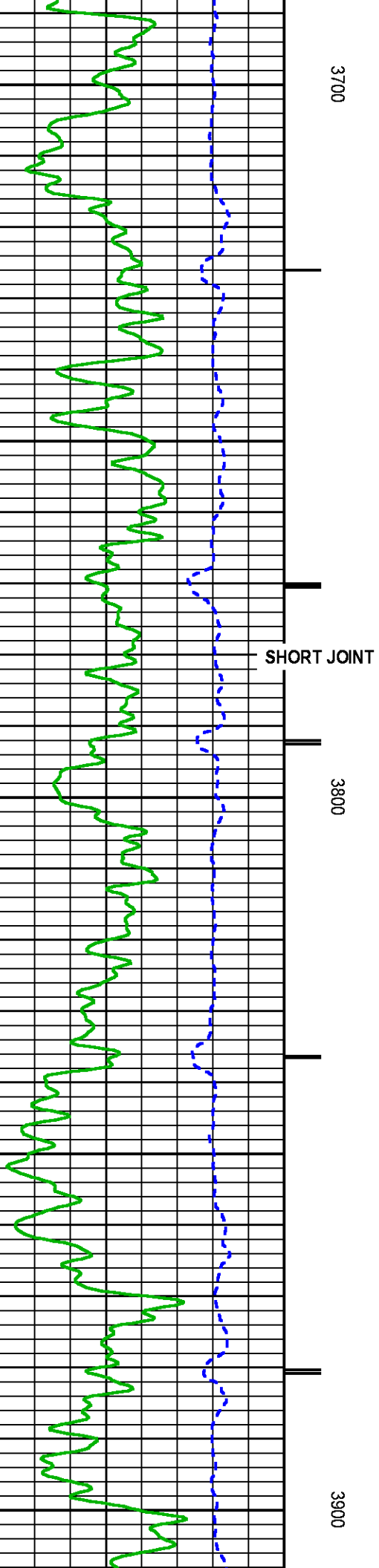
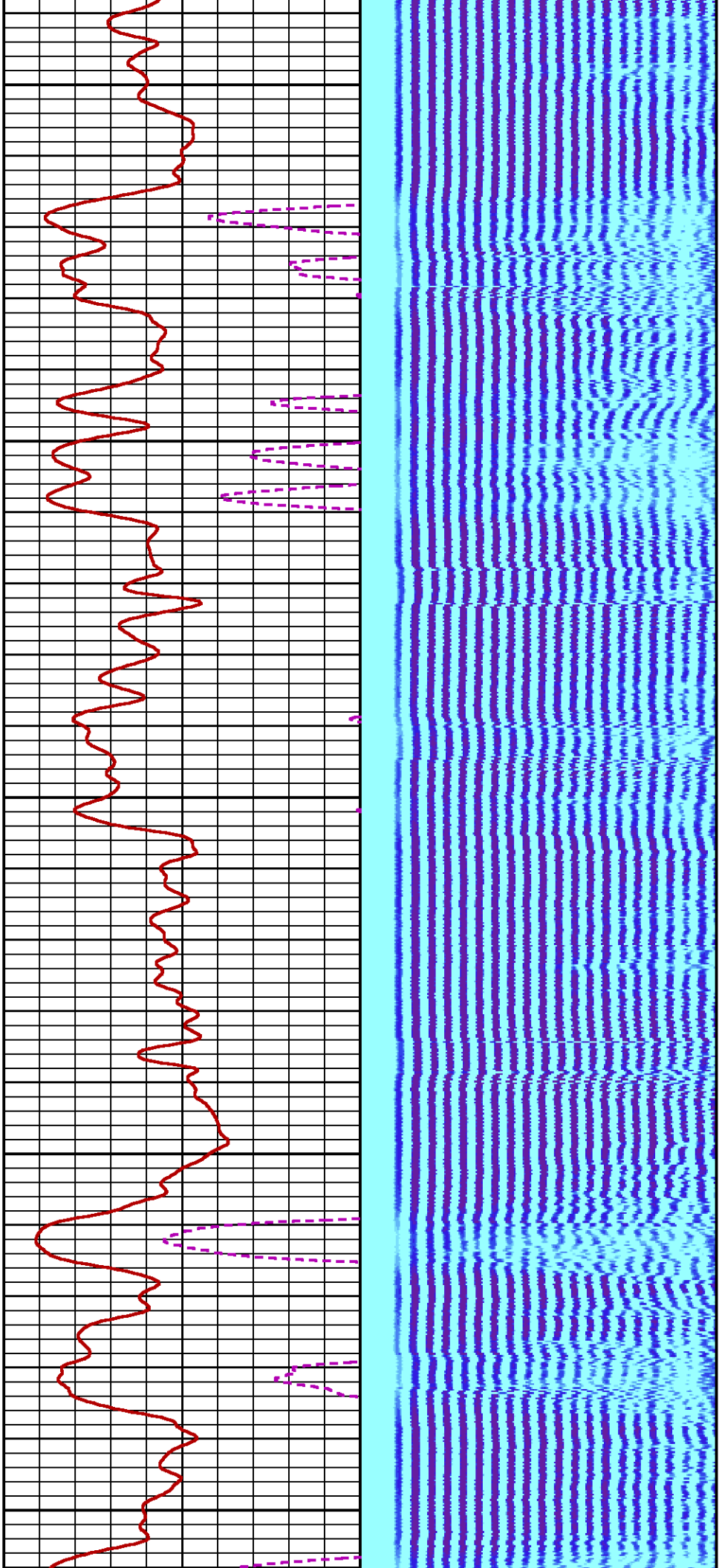


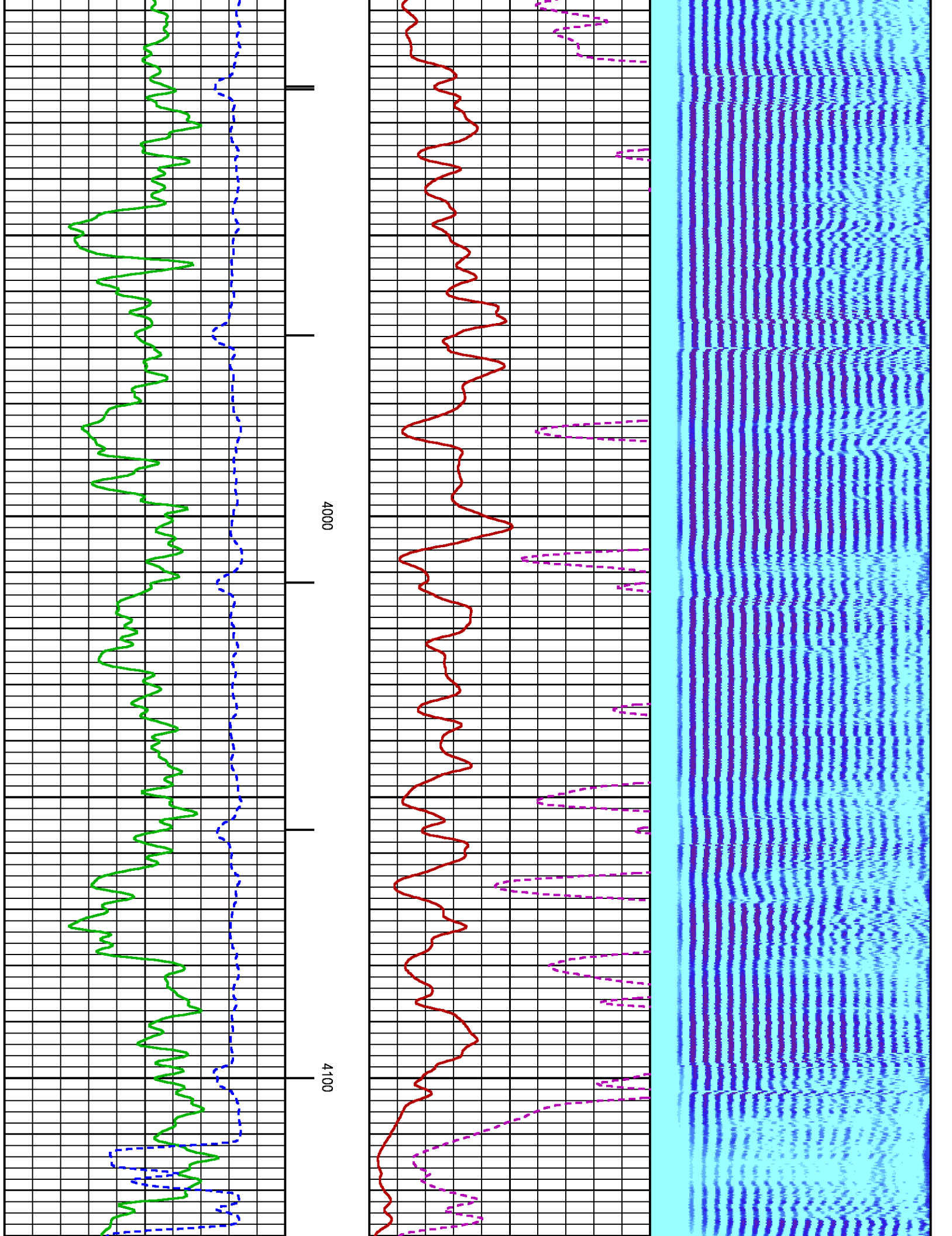


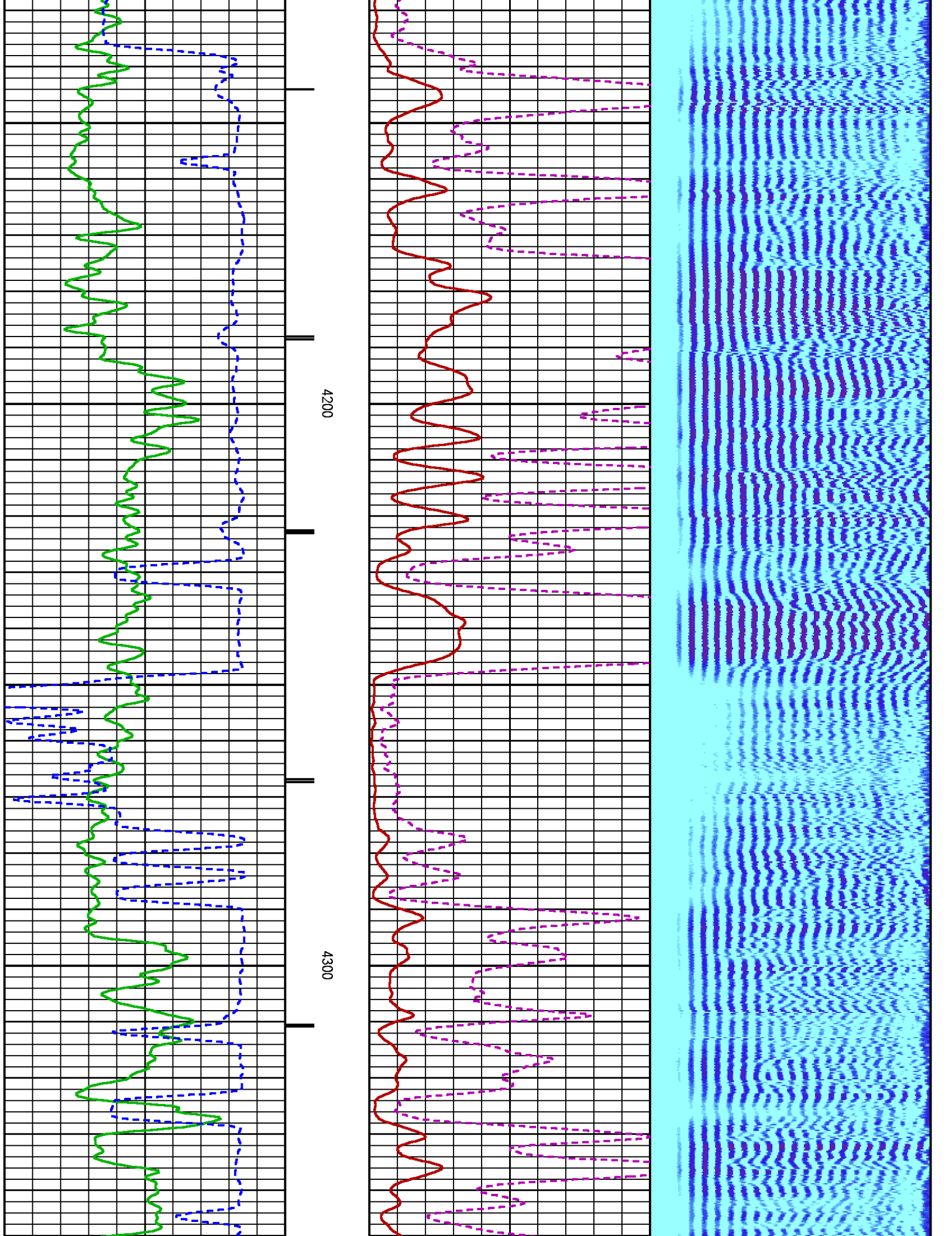


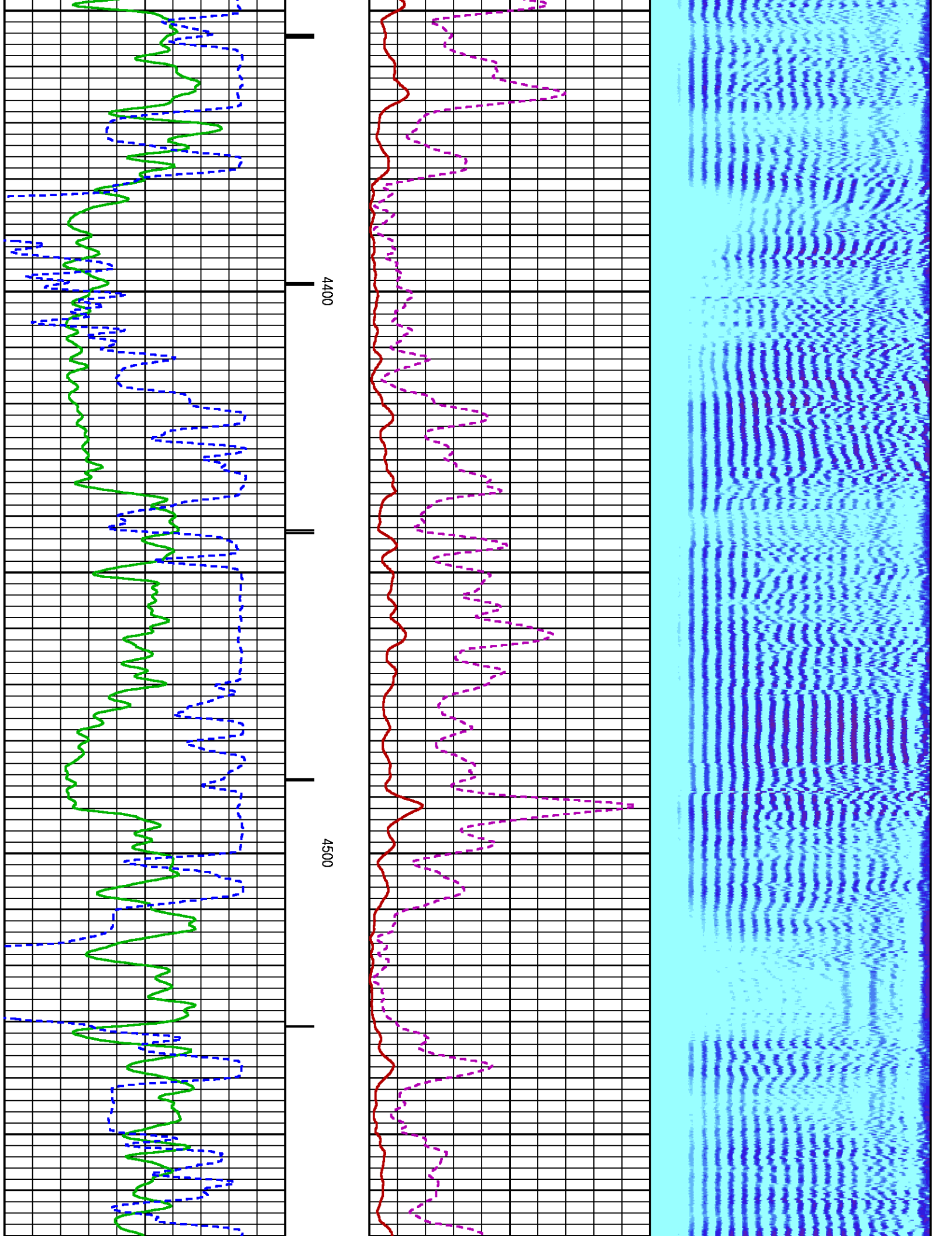


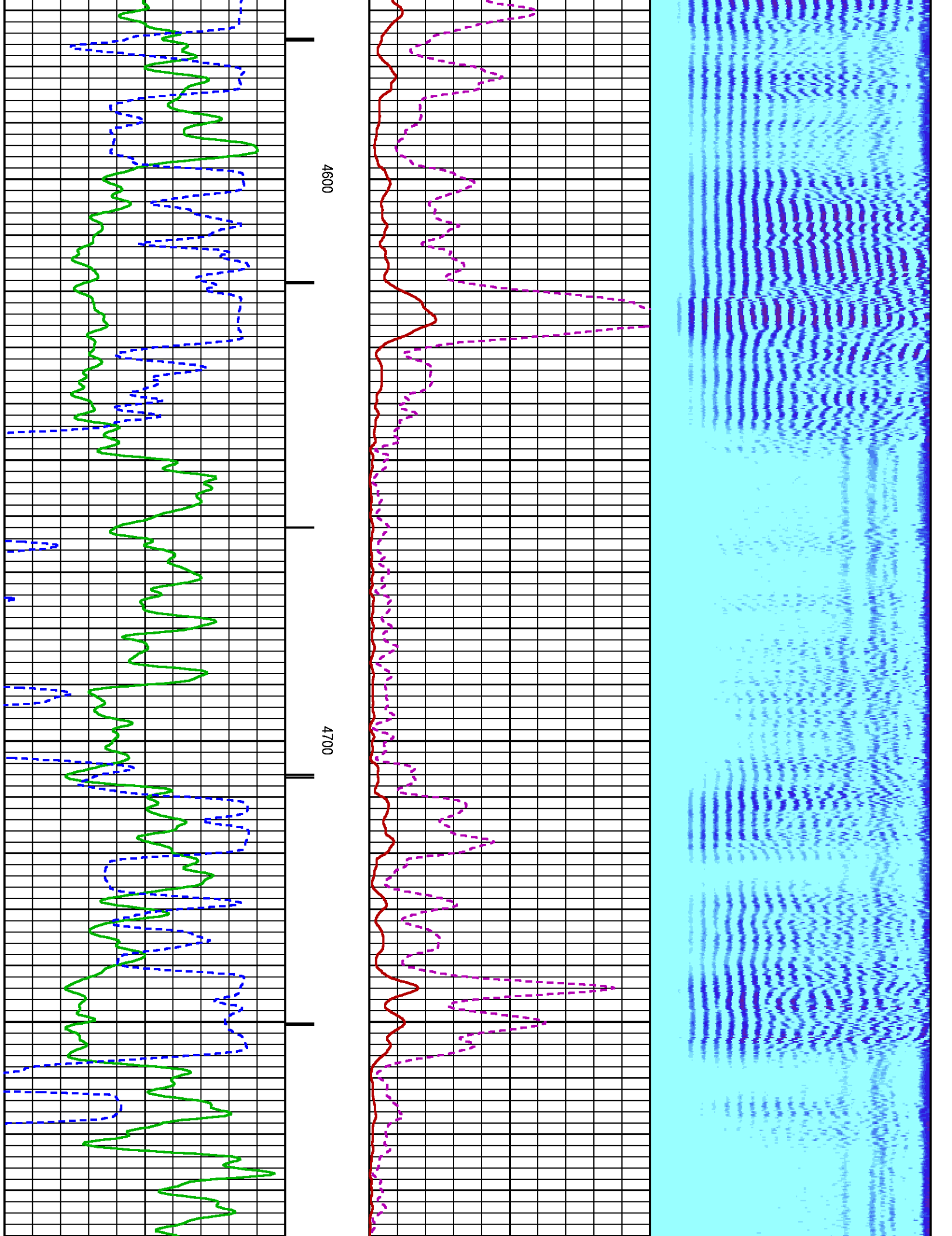


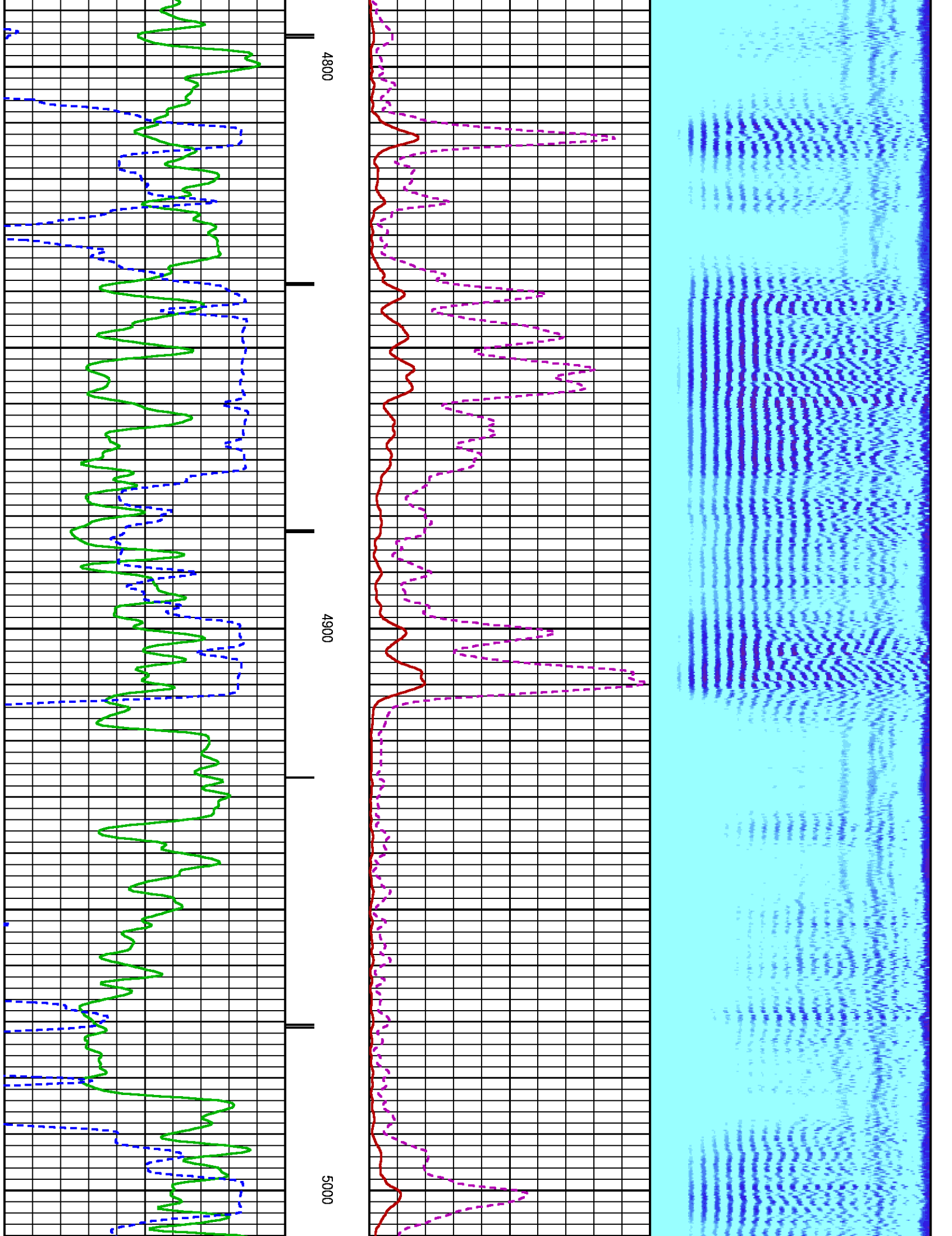


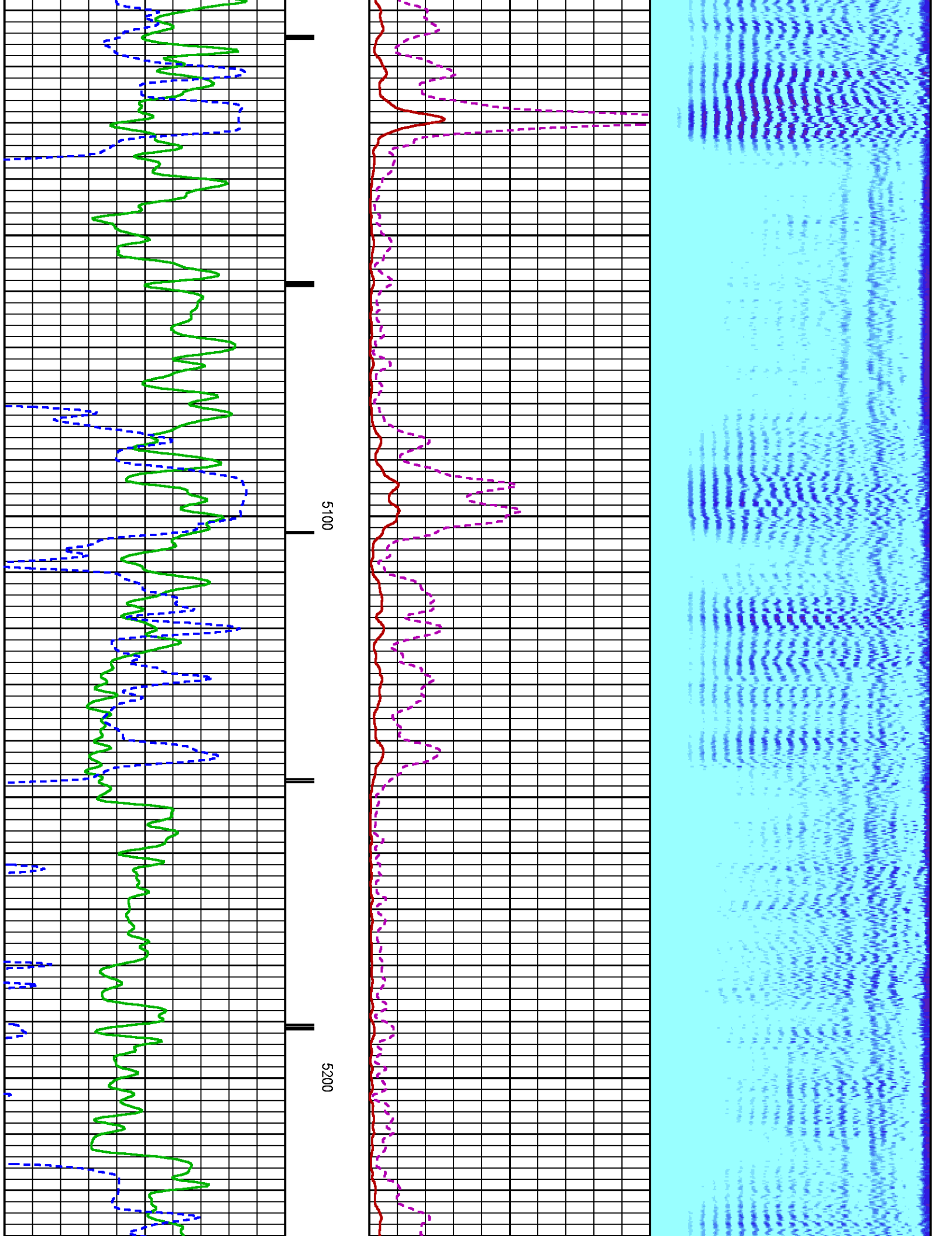


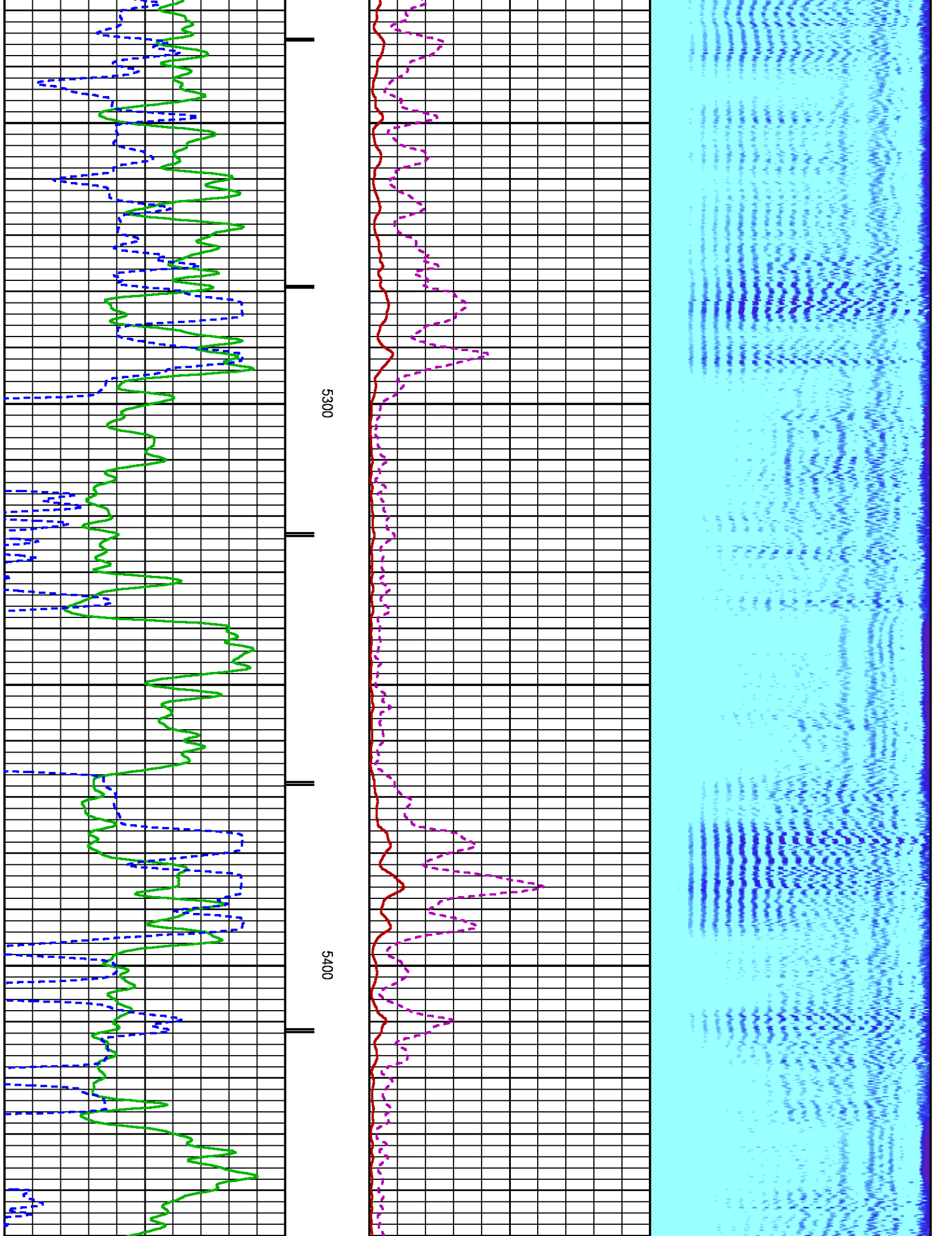


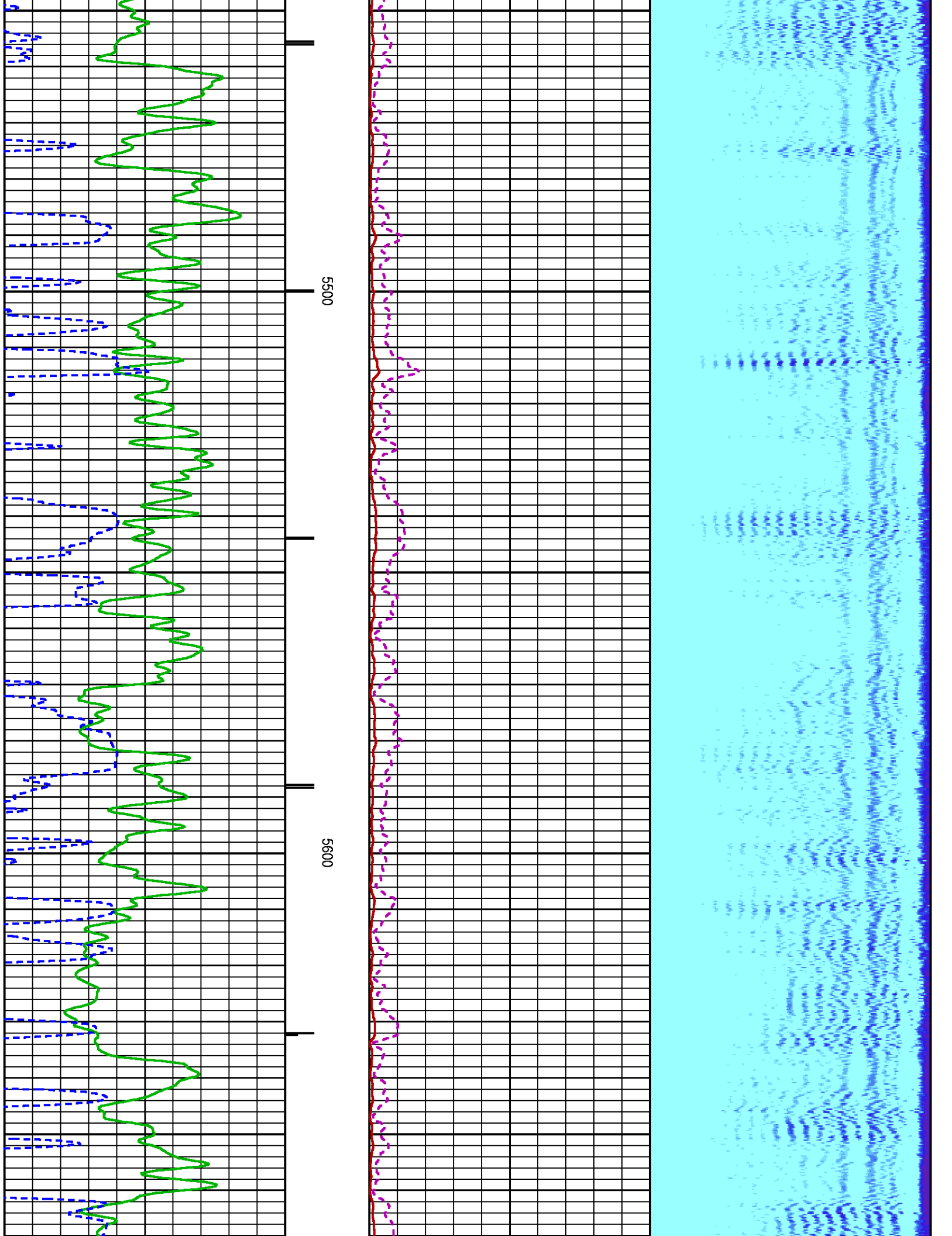


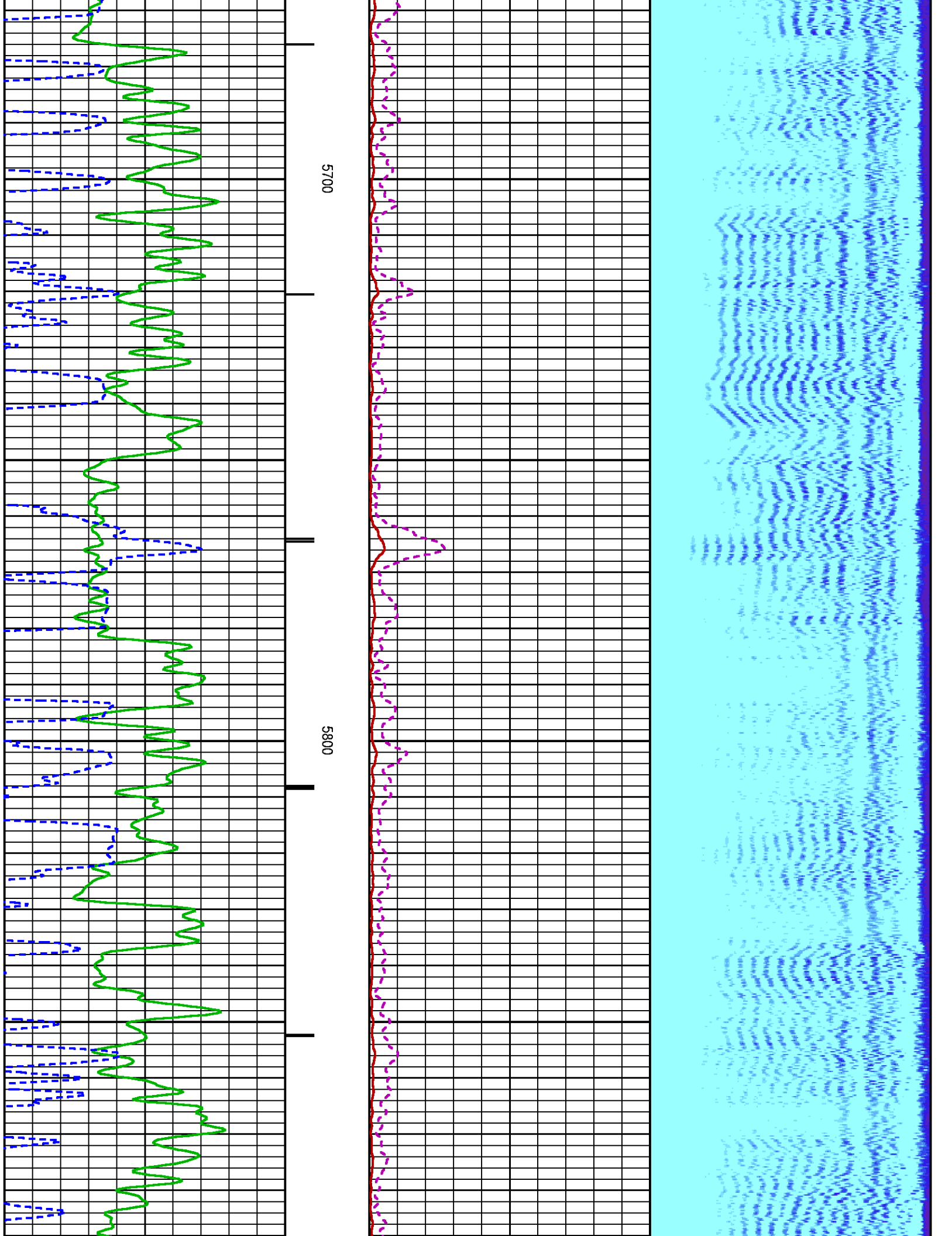


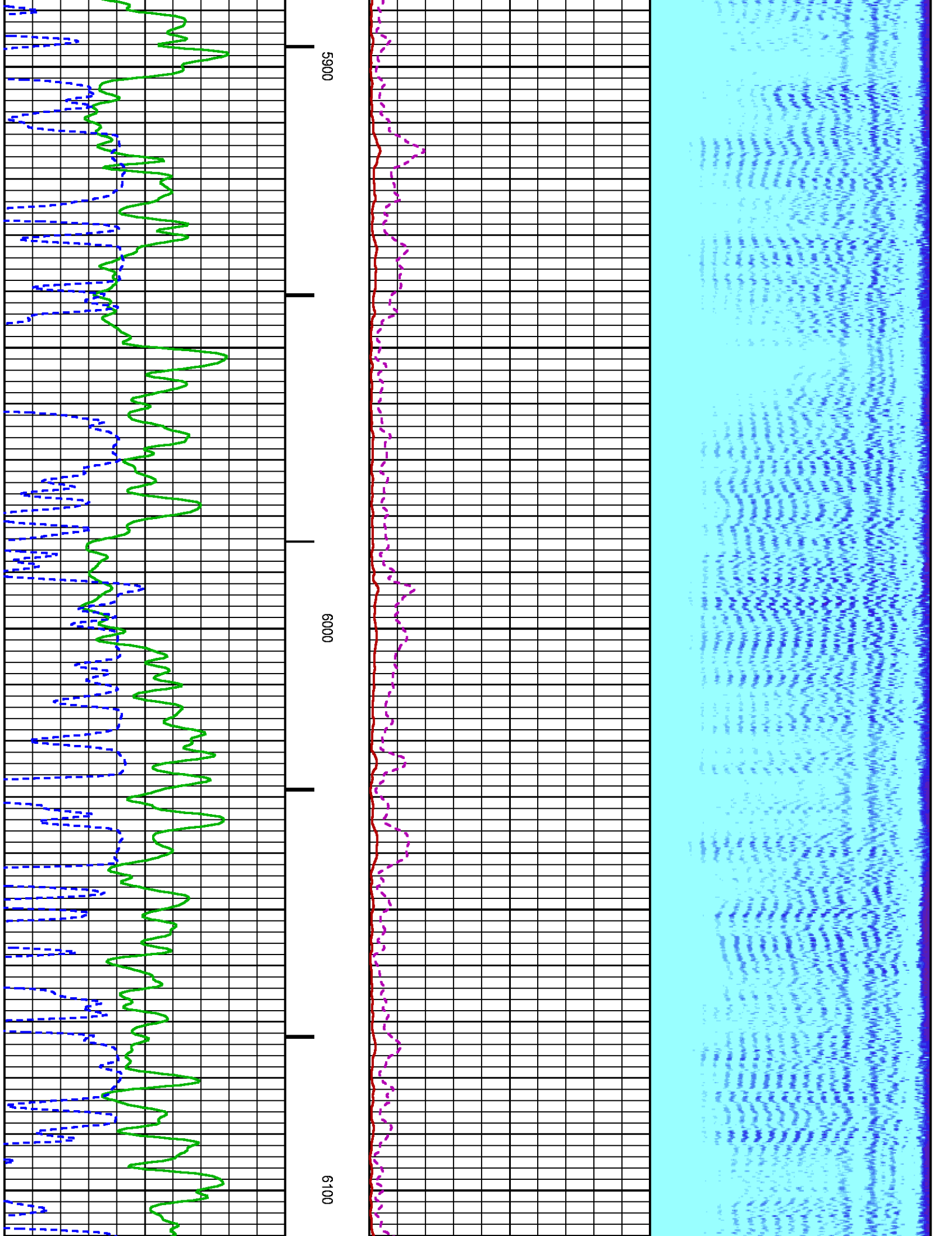


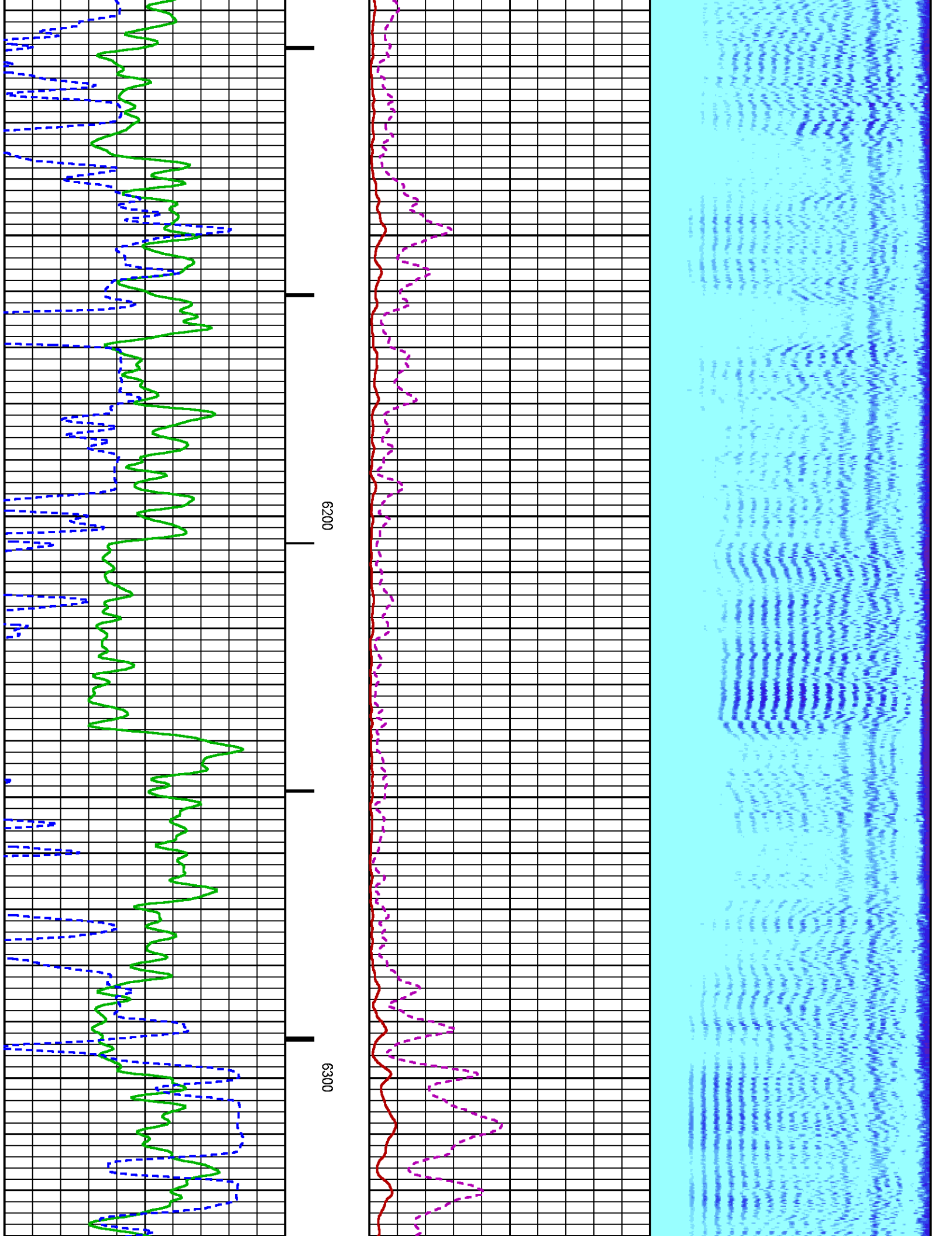


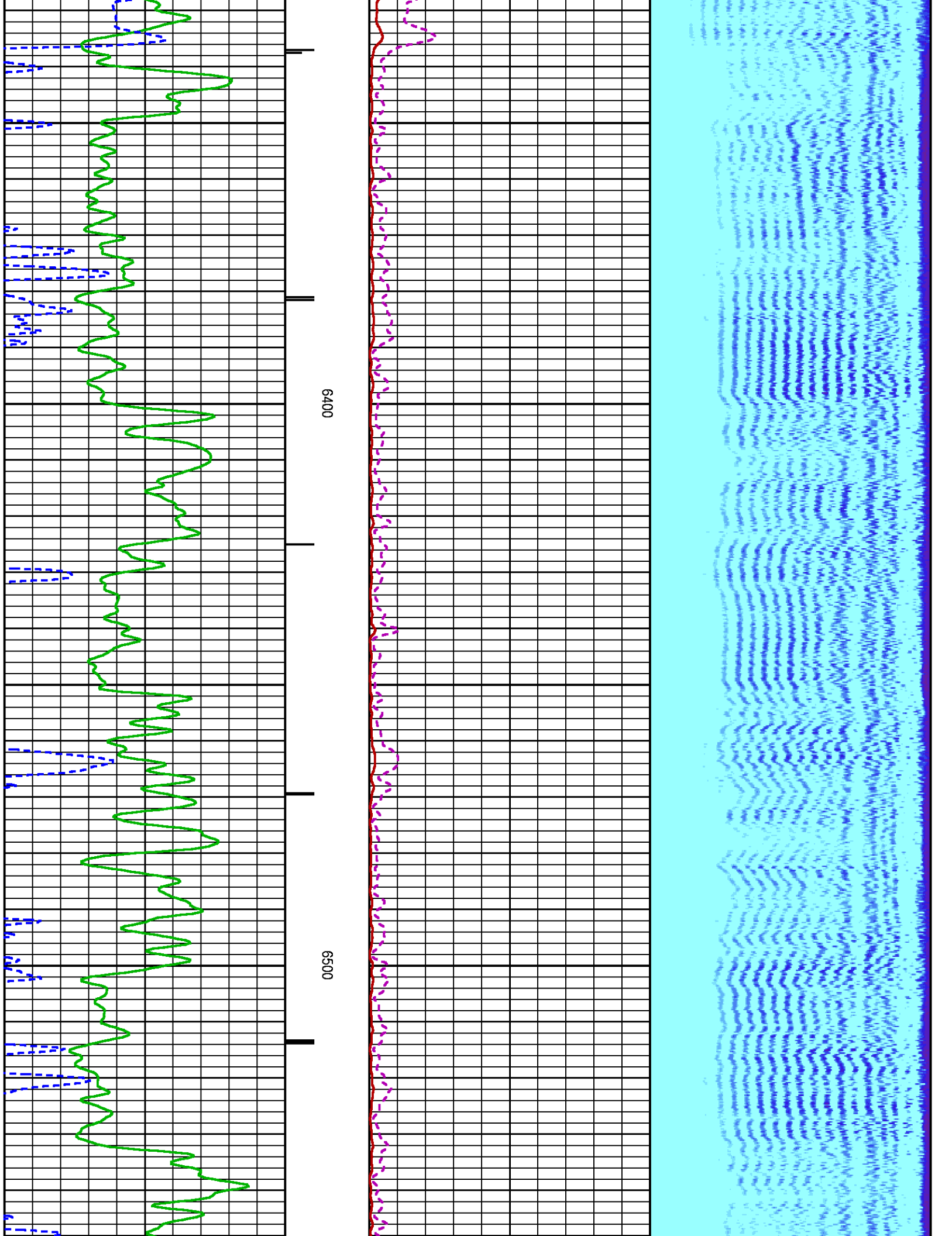


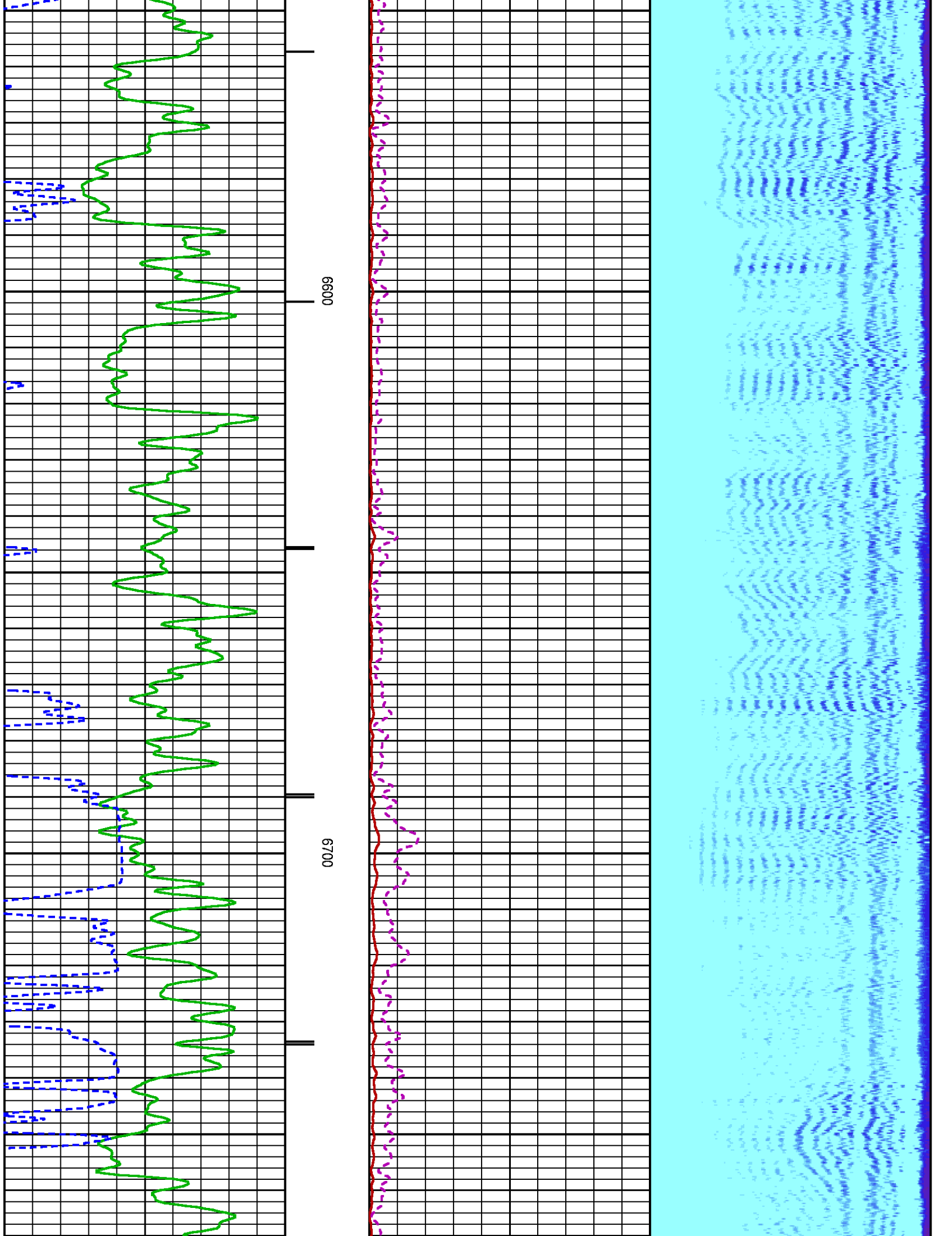


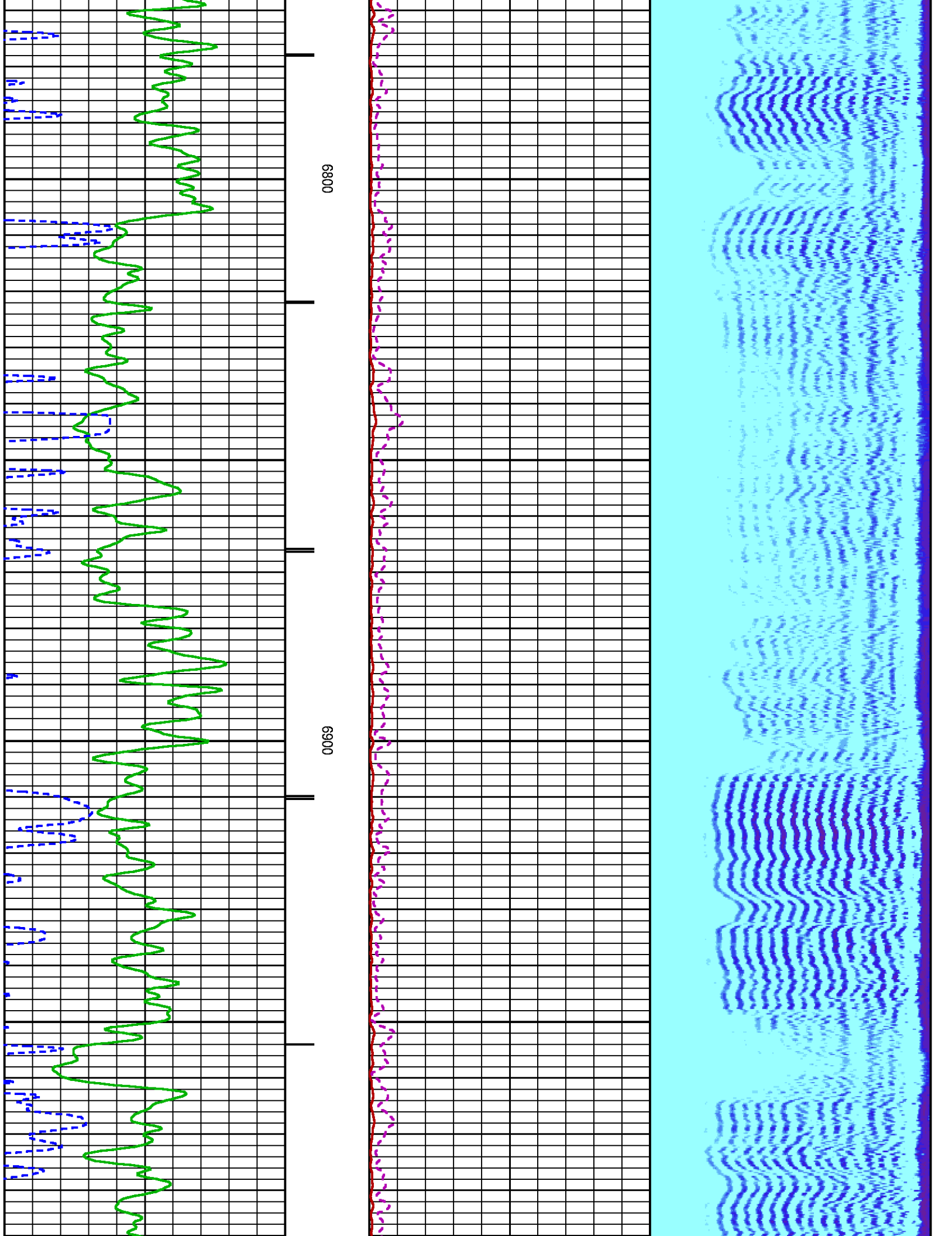


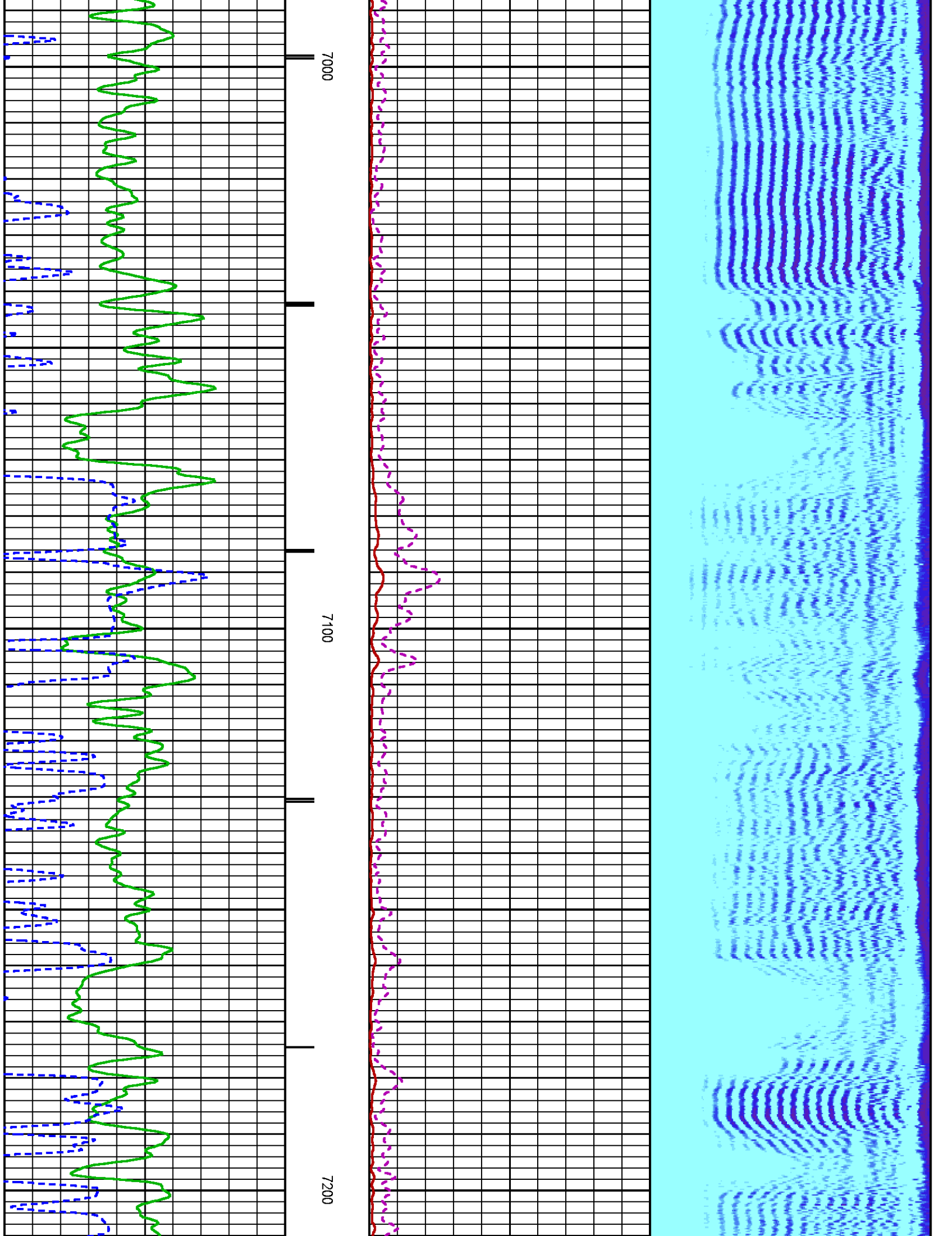


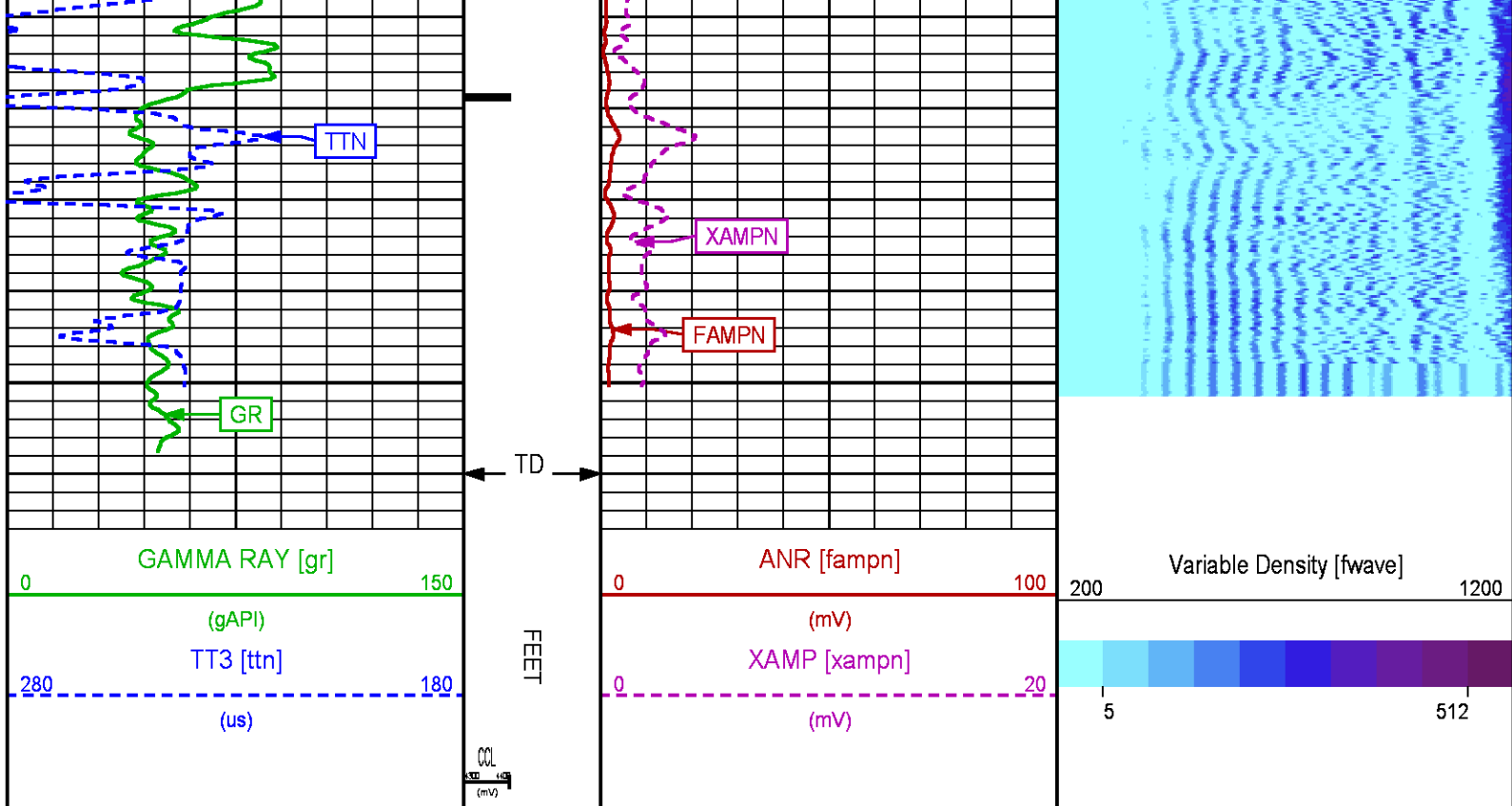












SECONDARY PRESENTATION 0 PSI

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

Updates: 1 Patches: 4

Plotted: Wed Nov 19 16:22:24 2014

PARAMETER AND FILTER SUMMARY REPORT

FILE: /dat1a/CH092544/n012e02.prm
 LOGGING MODE: DEPTH DIRECTION: UP
 TOP DEPTH: 24.250 ft BOTTOM DEPTH: 7263.500 ft

SYMMETRIC FILTER

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
GR	FILTER ()	medium (1)		TOP	BOTTOM
AMPLITUDE	FILTER ()	medium (1)		"	"
TRAVEL TIME	FILTER ()	medium (1)		"	"

RAL CCL PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
CCL FLOOR	CCL FLOOR	0		TOP	BOTTOM

ANALOG RAL PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
AMPLITUDE WINDOW (NEAR)	AMP WINDOW START (fgp1*)	187	us	TOP	BOTTOM
	AMP WINDOW START (fgp2*)	187	us	"	"
	AMP WINDOW START (fgp3*)	187	us	"	"
	AMP WINDOW START (fgp4*)	187	us	"	"
	AMP WINDOW START (fgp5*)	187	us	"	"

	AMP WINDOW START (fgp6*)	187	us	"	"
	AMP WINDOW START (fgp7*)	187	us	"	"
	AMP WINDOW START (fgp8*)	187	us	"	"
	AMP WINDOW START (fgpn*)	187	us	"	"
	AMP WINDOW LENGTH	25	us	"	"
TRAVEL TIME WINDOW (NEAR)	TT WINDOW START (ttn*)	177	us	"	"
	TT WINDOW LENGTH	500	us	"	"
	FIRST BRK THRESHOLD (ttn*)	4	mV	"	"
RAL CASING PARAMETERS	PPT NEAR	200.391	us	"	"
RAL TOOL DELAY	TOOL DELAY (str1*)	-70	us	"	"
	TOOL DELAY (str2*)	-70	us	"	"
	TOOL DELAY (str3*)	-70	us	"	"
	TOOL DELAY (str4*)	-70	us	"	"
	TOOL DELAY (str5*)	-70	us	"	"
	TOOL DELAY (str6*)	-70	us	"	"
	TOOL DELAY (str7*)	-70	us	"	"
	TOOL DELAY (str8*)	-70	us	"	"
	TOOL DELAY (strn*)	-70	us	"	"
BASELINE NOISE (NEAR)	NOISE WINDOW START	133	us	"	"
	NOISE WINDOW LENGTH	25	us	"	"

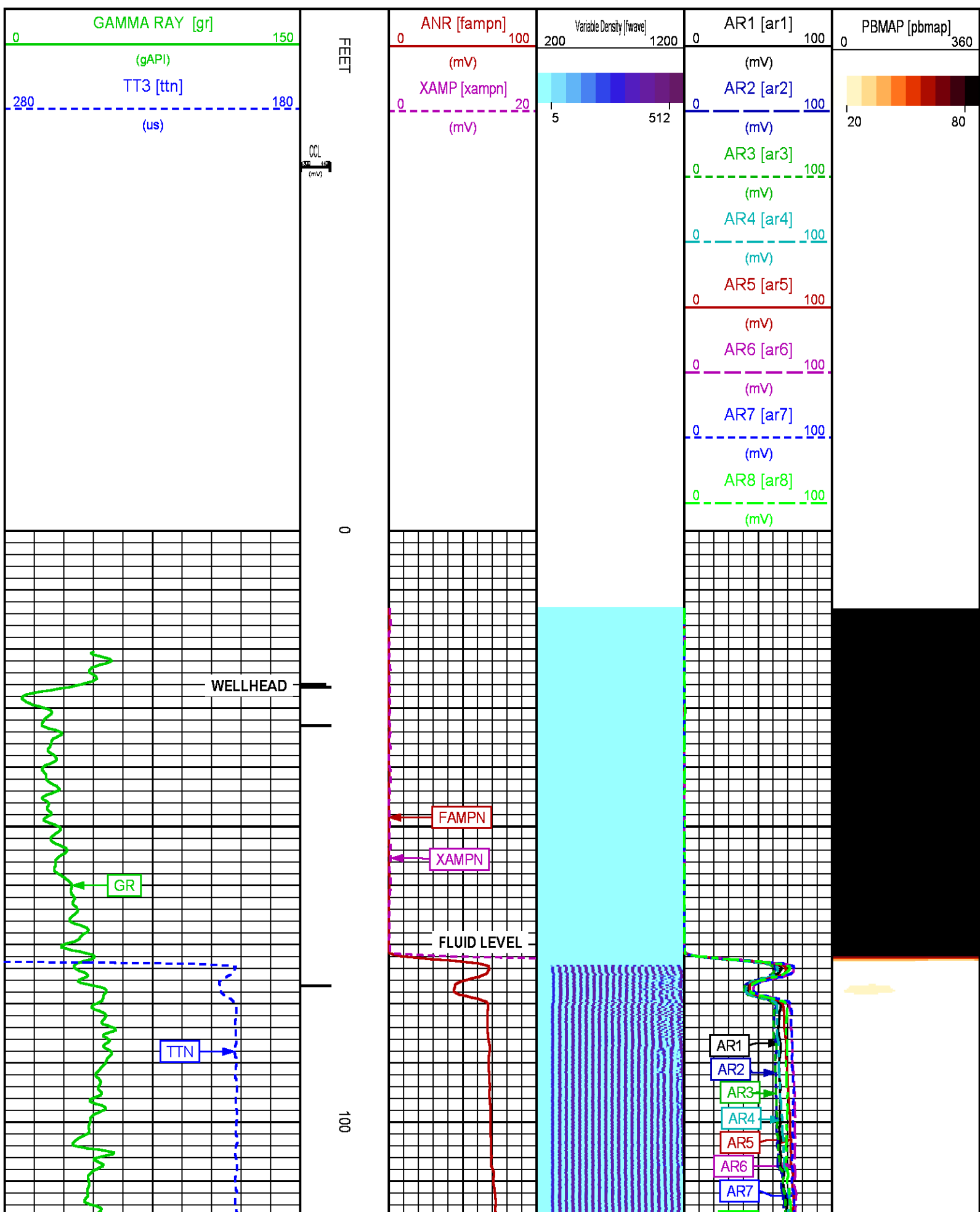
PERCENT BOND CEMENT MAP					
MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
RAL FREE PIPE AMPLITUDE	FREE AMP REC 1	81	mV	TOP	BOTTOM
	FREE AMP REC 2	81	mV	"	"
	FREE AMP REC 3	81	mV	"	"
	FREE AMP REC 4	81	mV	"	"
	FREE AMP REC 5	81	mV	"	"
	FREE AMP REC 6	81	mV	"	"
	FREE AMP REC 7	81	mV	"	"
	FREE AMP REC 8	81	mV	"	"
RAL FULL BOND AMPLITUDE	FULL BOND AMP REC 1	2	mV	"	"
	FULL BOND AMP REC 2	2	mV	"	"
	FULL BOND AMP REC 3	2	mV	"	"
	FULL BOND AMP REC 4	2	mV	"	"
	FULL BOND AMP REC 5	2	mV	"	"
	FULL BOND AMP REC 6	2	mV	"	"
	FULL BOND AMP REC 7	2	mV	"	"
	FULL BOND AMP REC 8	2	mV	"	"

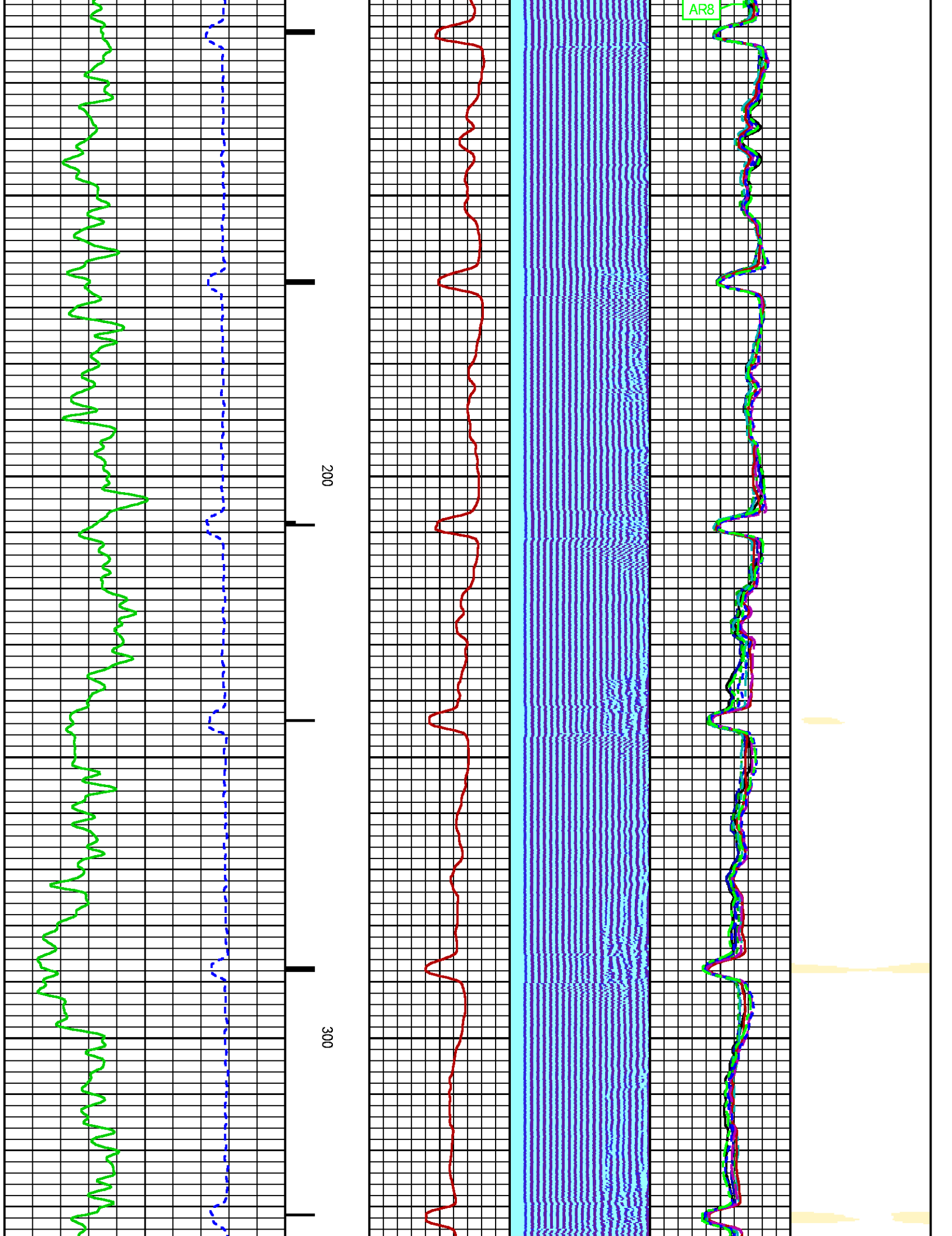
CURVE DESCRIPTION REPORT		
CURVE NAME	CREATION DATE	CURVE DESCRIPTION
F1:AR1	Nov 19 13:25:24 2014	FIXED GATE AMPLITUDE T-R1
F1:AR2	Nov 19 13:25:24 2014	FIXED GATE AMPLITUDE T-R2
F1:AR3	Nov 19 13:25:24 2014	FIXED GATE AMPLITUDE T-R3
F1:AR4	Nov 19 13:25:24 2014	FIXED GATE AMPLITUDE T-R4
F1:AR5	Nov 19 13:25:24 2014	FIXED GATE AMPLITUDE T-R5
F1:AR6	Nov 19 13:25:24 2014	FIXED GATE AMPLITUDE T-R6
F1:AR7	Nov 19 13:25:24 2014	FIXED GATE AMPLITUDE T-R7
F1:AR8	Nov 19 13:25:24 2014	FIXED GATE AMPLITUDE T-R8
F1:CCL	Nov 19 13:25:24 2014	CASING COLLAR LOCATOR
F1:FAMPN	Nov 19 13:25:24 2014	FIXED GATE AMPLITUDE NEAR RECEIVER
F1:FWAVE	Nov 19 13:25:24 2014	FAR WAVE FORM
F1:GR	Nov 19 13:25:24 2014	GAMMA RAY
F1:PBMAP	Nov 19 13:25:24 2014	PERCENT BOND CEMENT MAP
F1:TTN	Nov 19 13:25:24 2014	TRAVELTIME FROM NEAR TRANSMITTER-RECEIVER
F1:XAMPN	Nov 19 13:25:24 2014	FIXED GATE AMPLITUDE NEAR RECEIVER TIMES FIVE

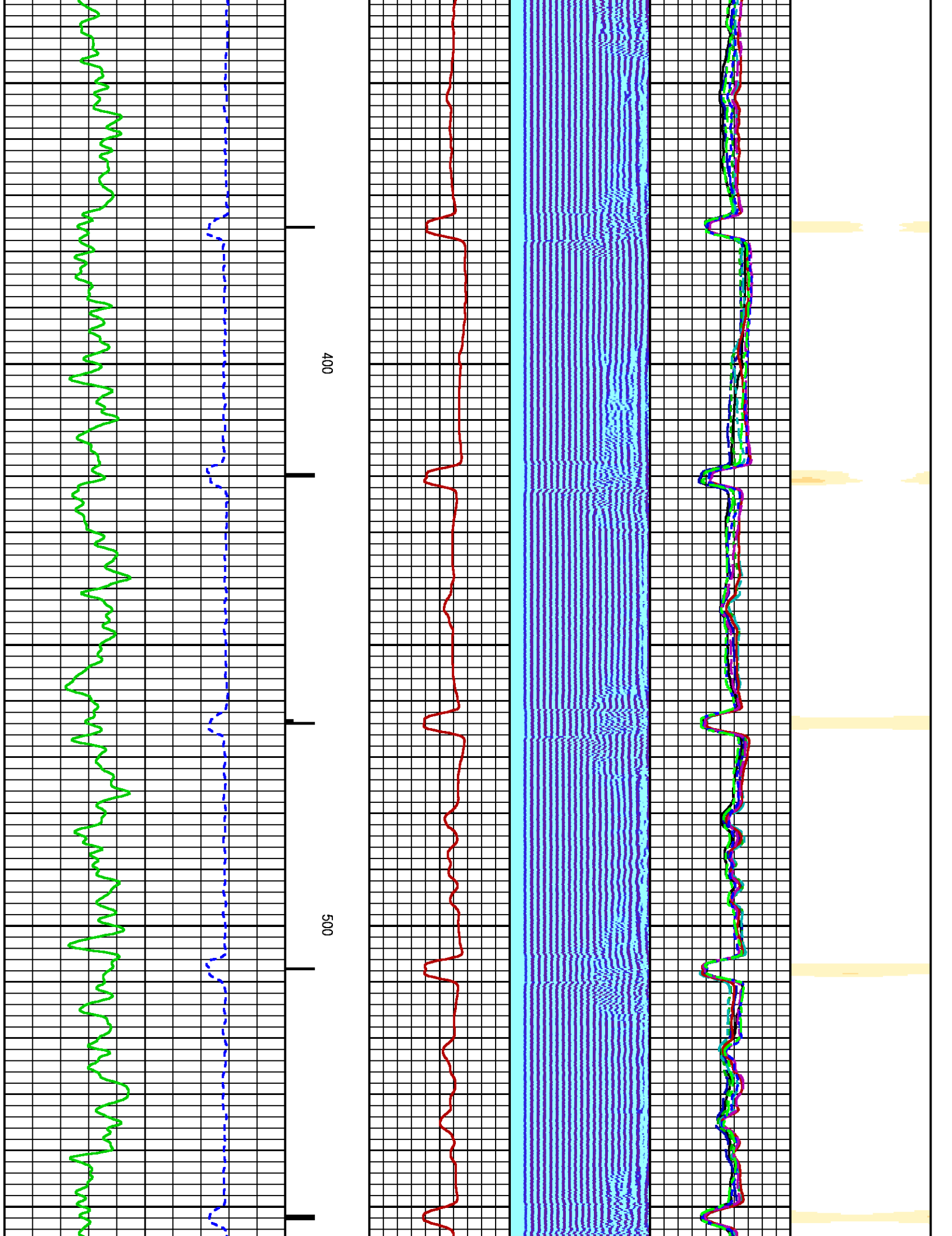
CURVE MEASURE POINT OFFSET							
CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)
AR1	13.75	AR5	13.75	CCL	8.50	XAMPN	13.75
AR2	13.75	AR6	13.75	FAMPN	13.75		
AR3	13.75	AR7	13.75	GR	6.50		
AR4	13.75	AR8	13.75	TTN	13.75		

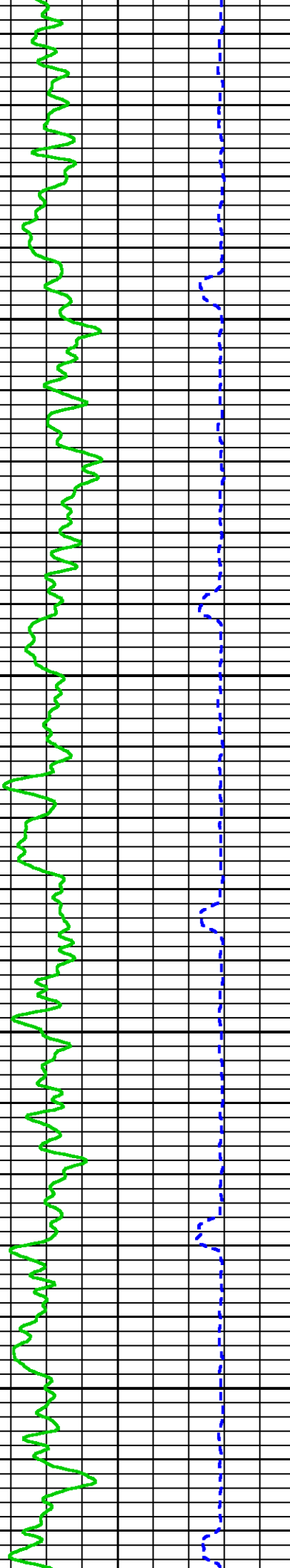
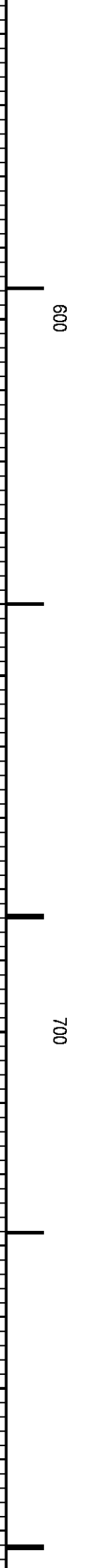
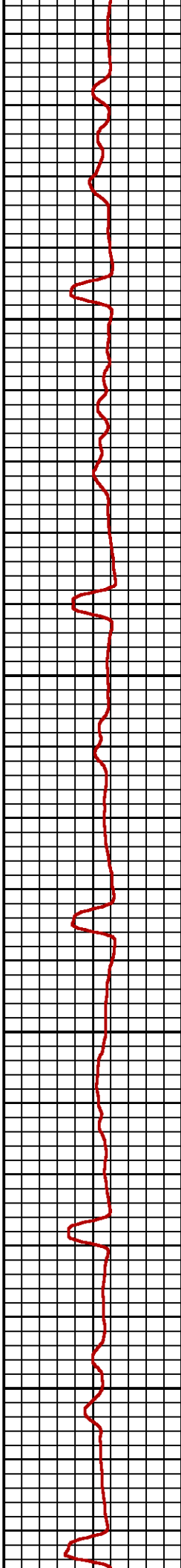
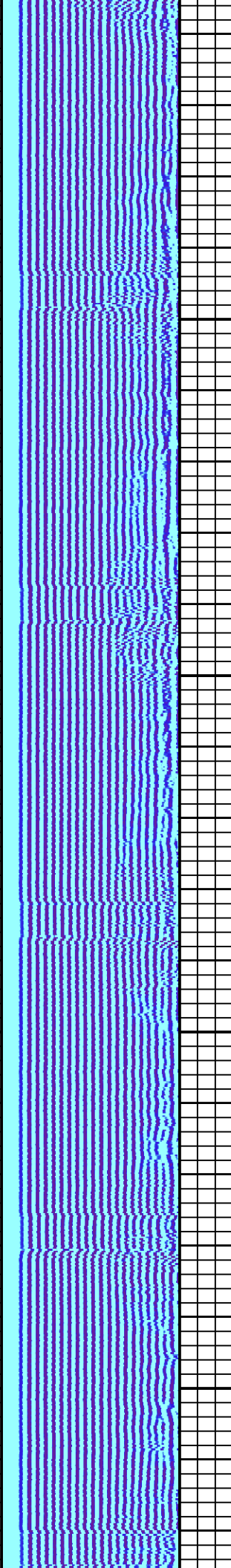
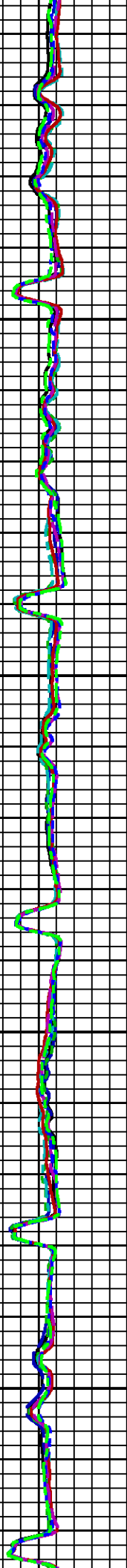
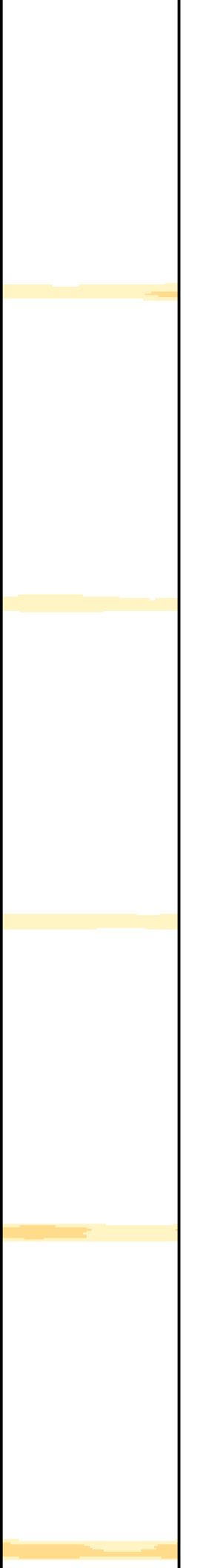
Presentation	: HL6670:/dat1a/CH092544/343CBL_MAIN_SECONDARY.fvpdf [5"/100' Scale]
Plot Interval	: 0 - 7265 Feet
Data File 1	: F1 : HL6670:/dat1a/CH092544/343CBL_MAIN.xtf
Created On	: Nov 19 13:25:24 2014
Company	: WDX ENERGY

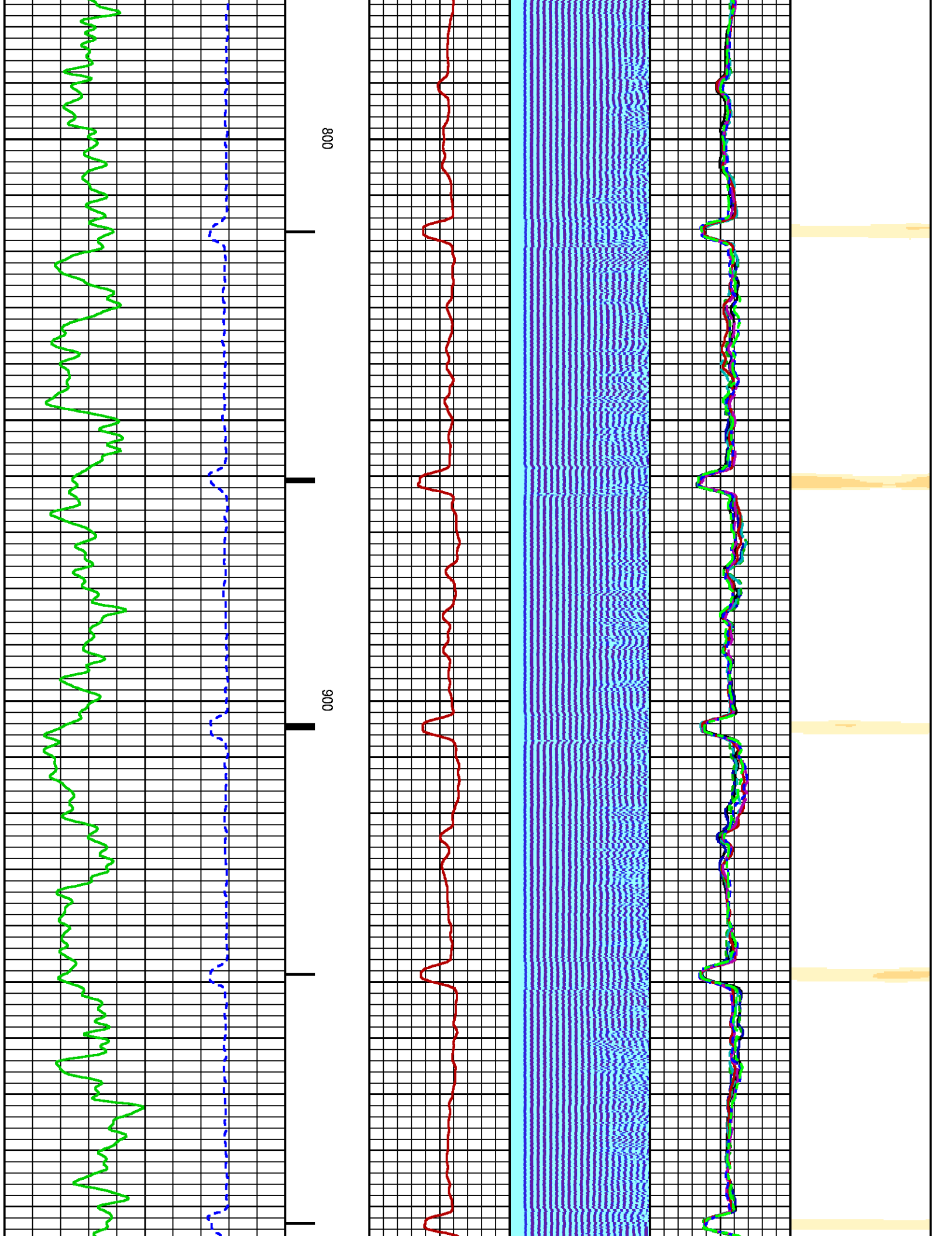
Company : WPA ENERGY
Well : GM 343-12
Field : GRAND VALLEY
File Interval : 12 - 7265.25 Feet
OCT : n012e

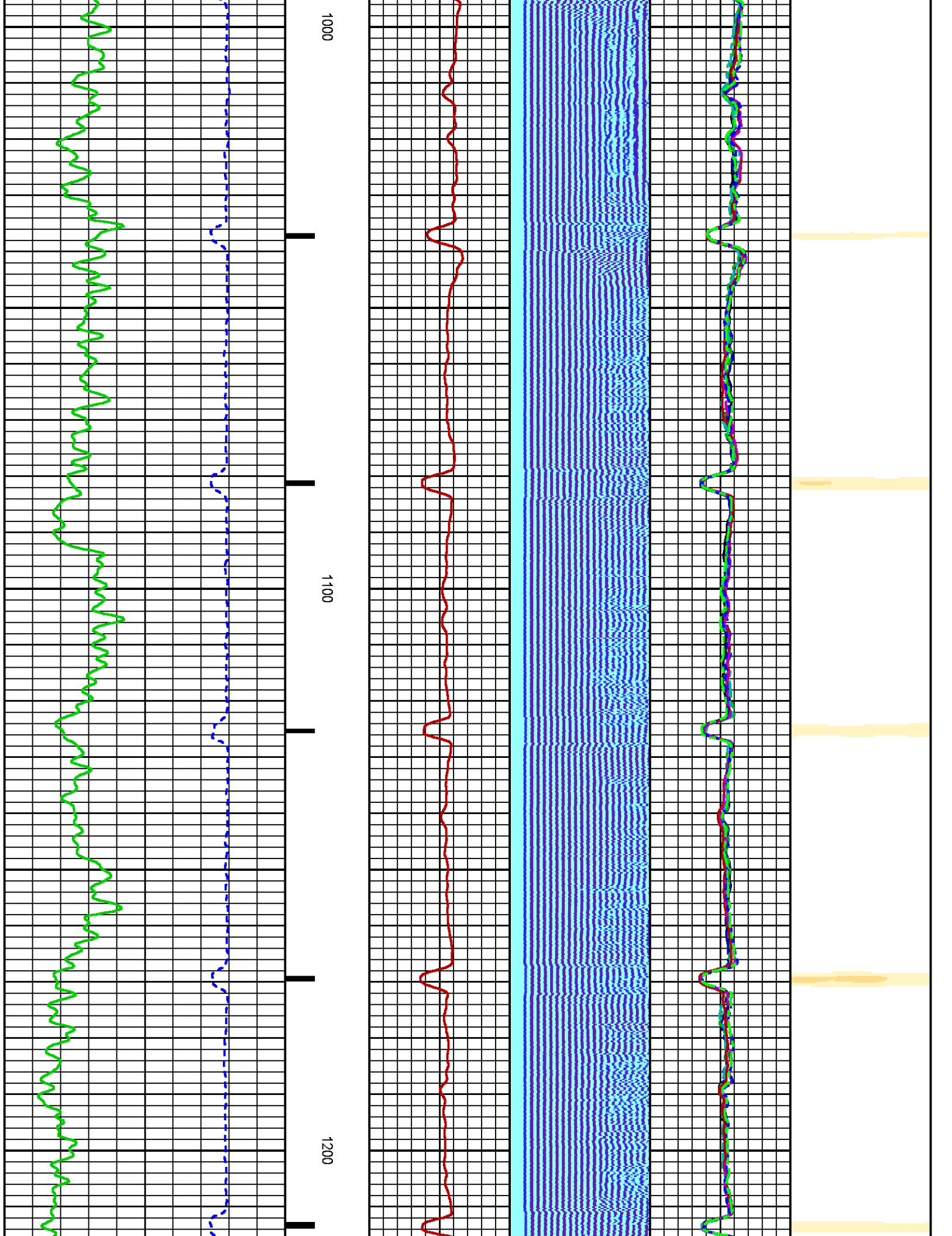


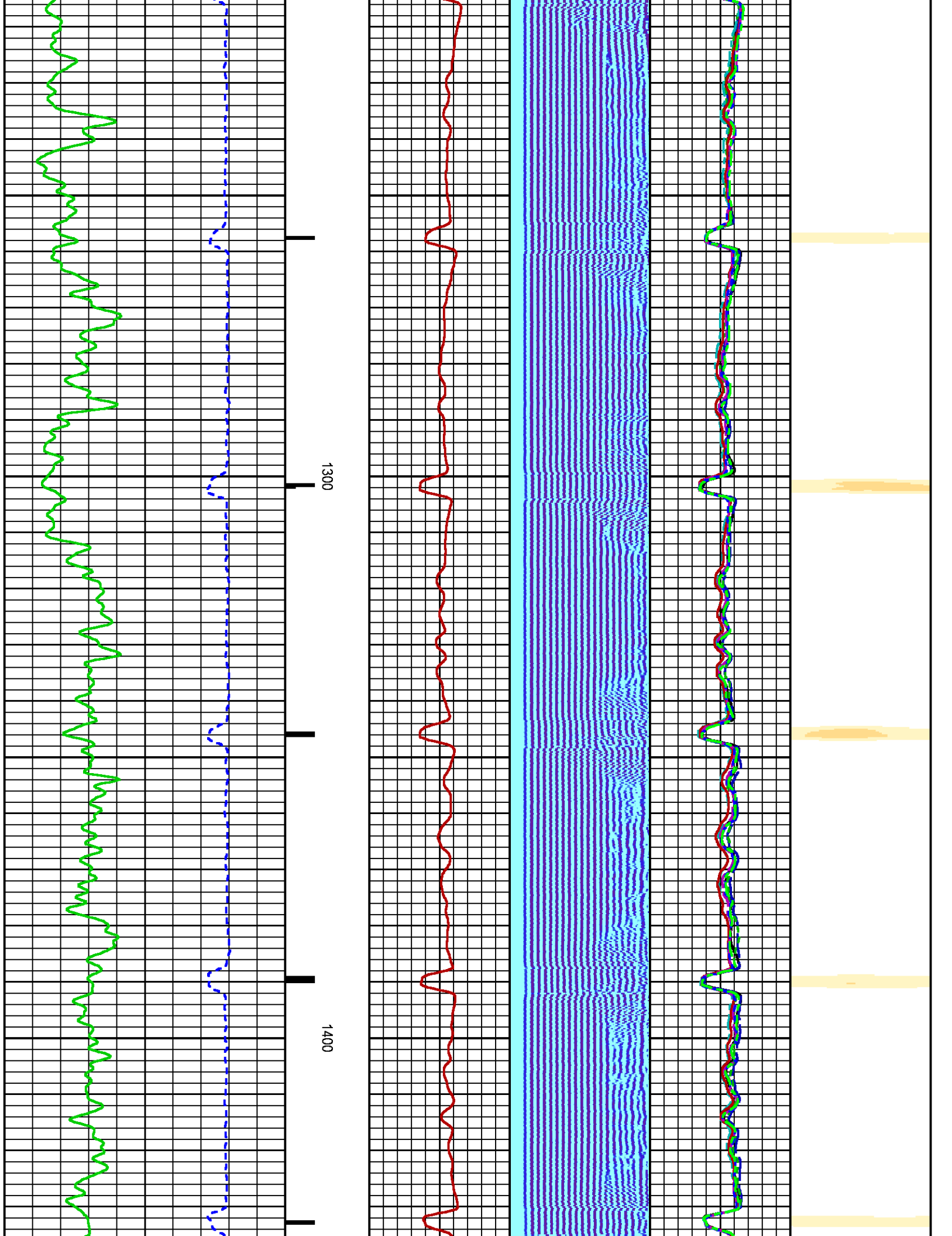


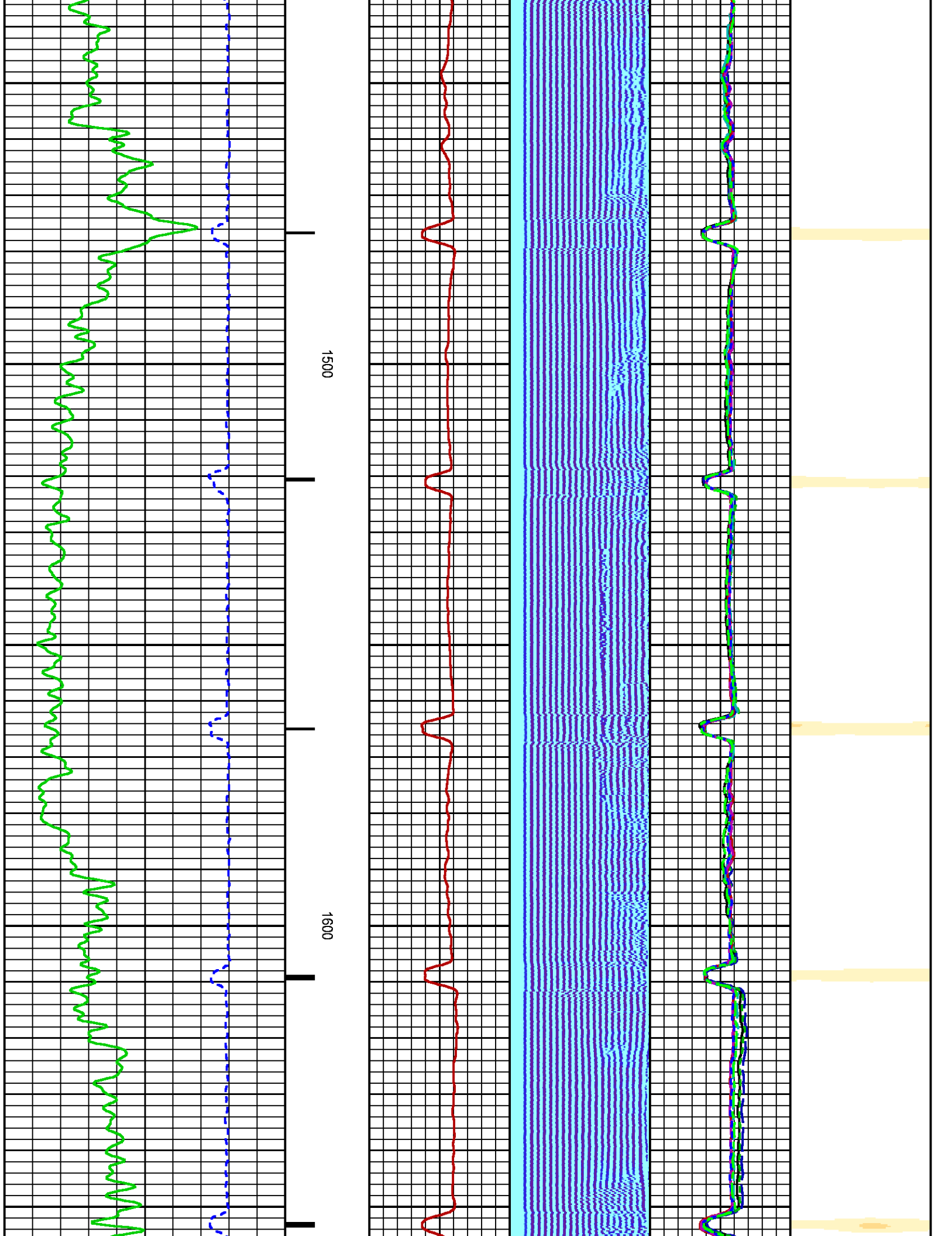


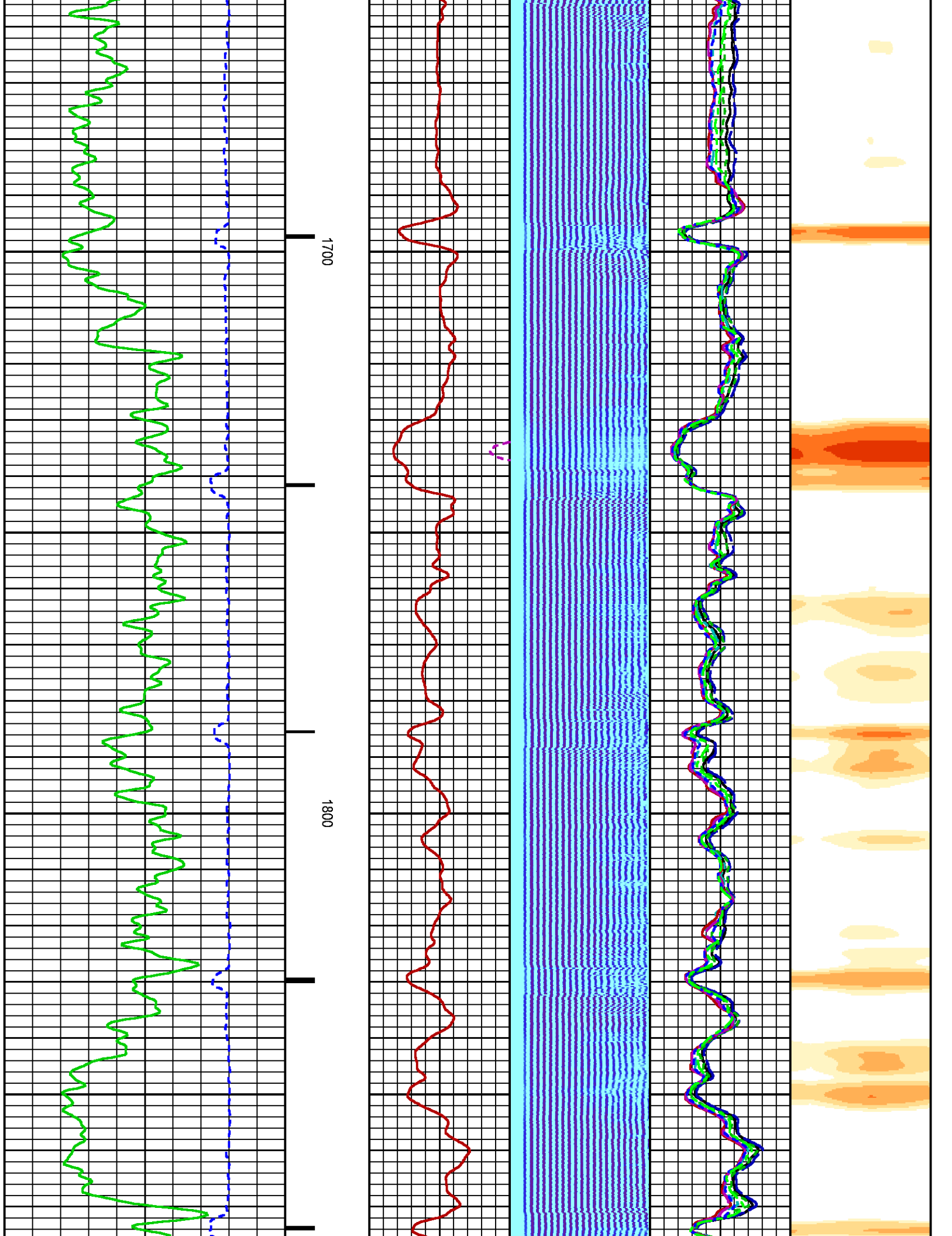


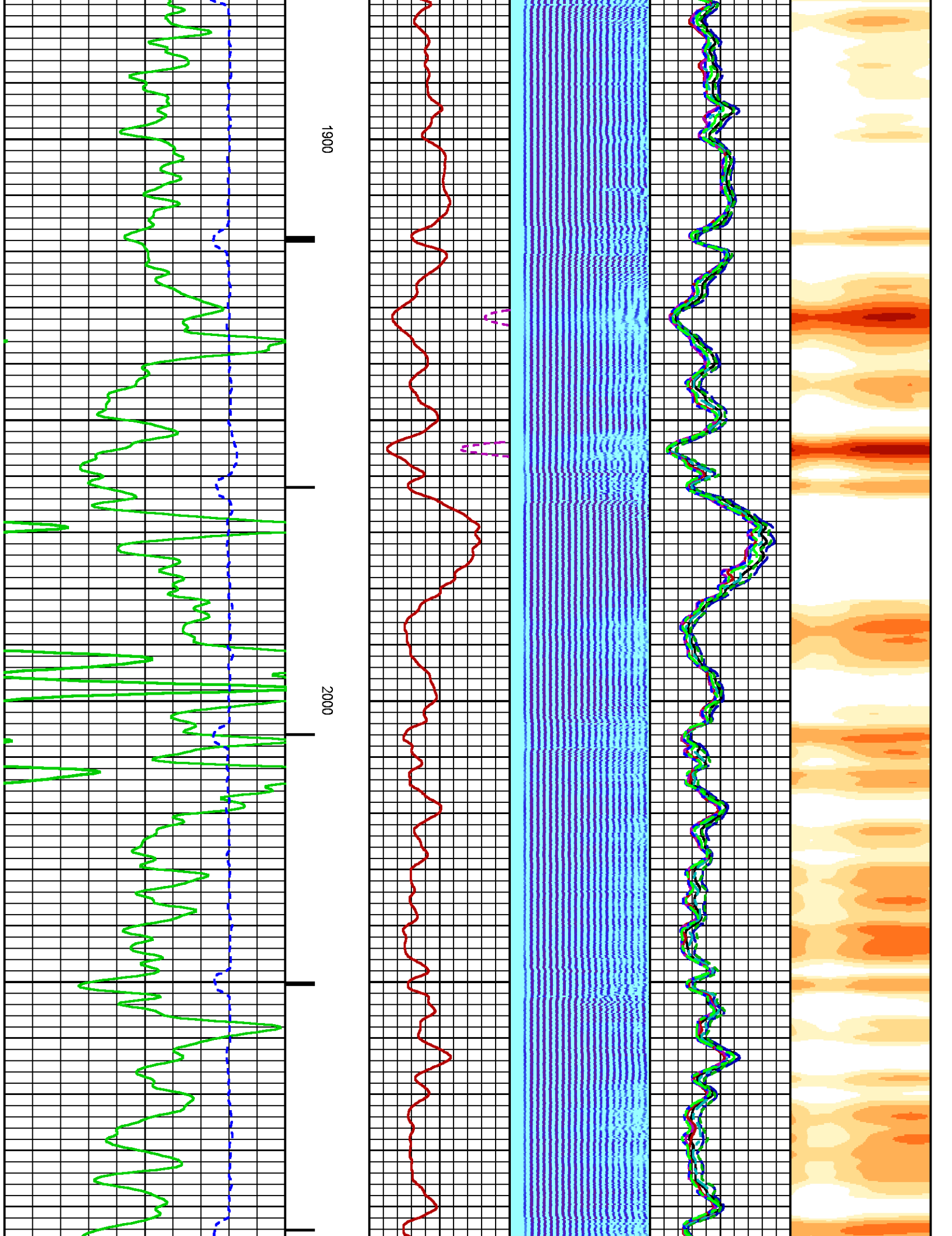


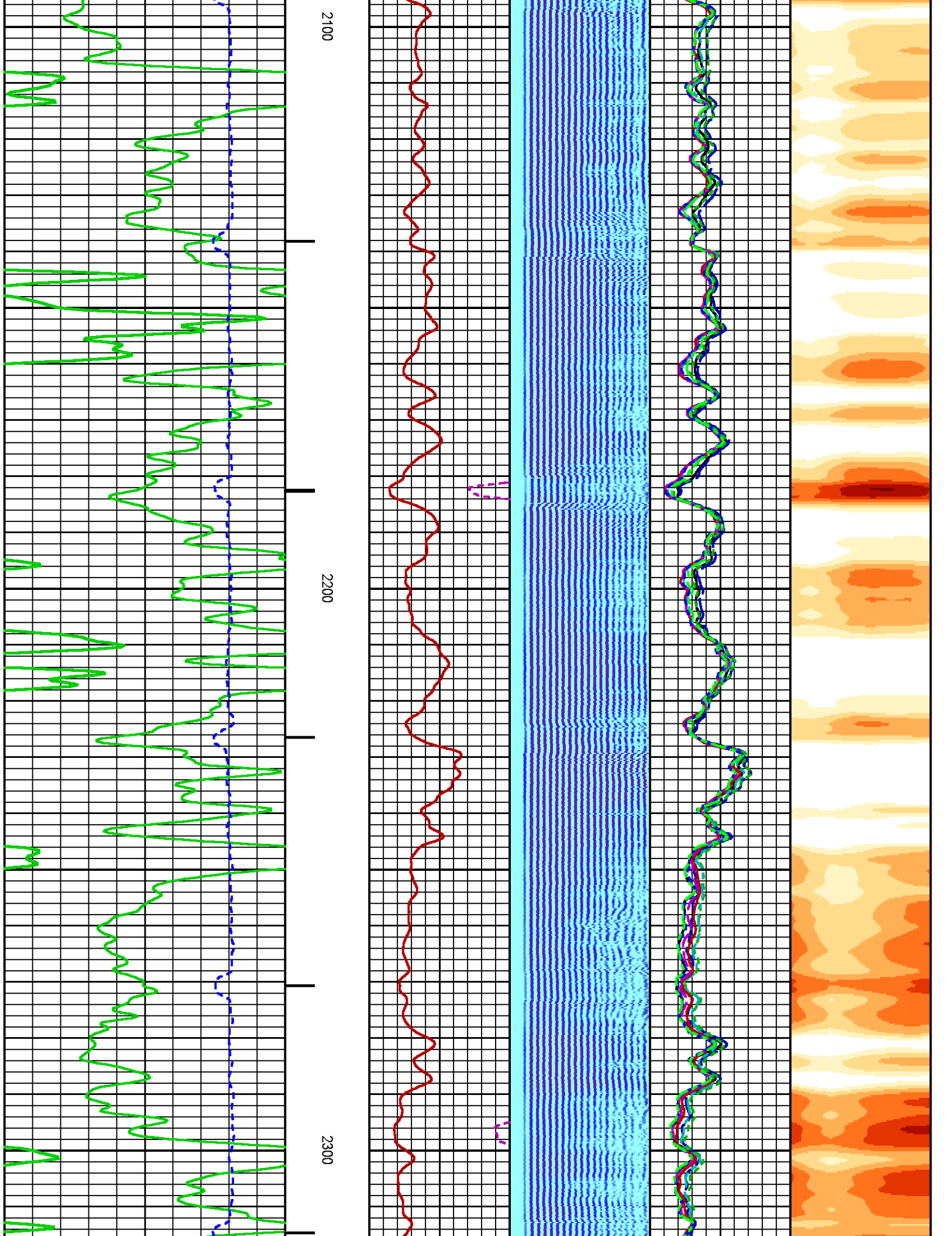


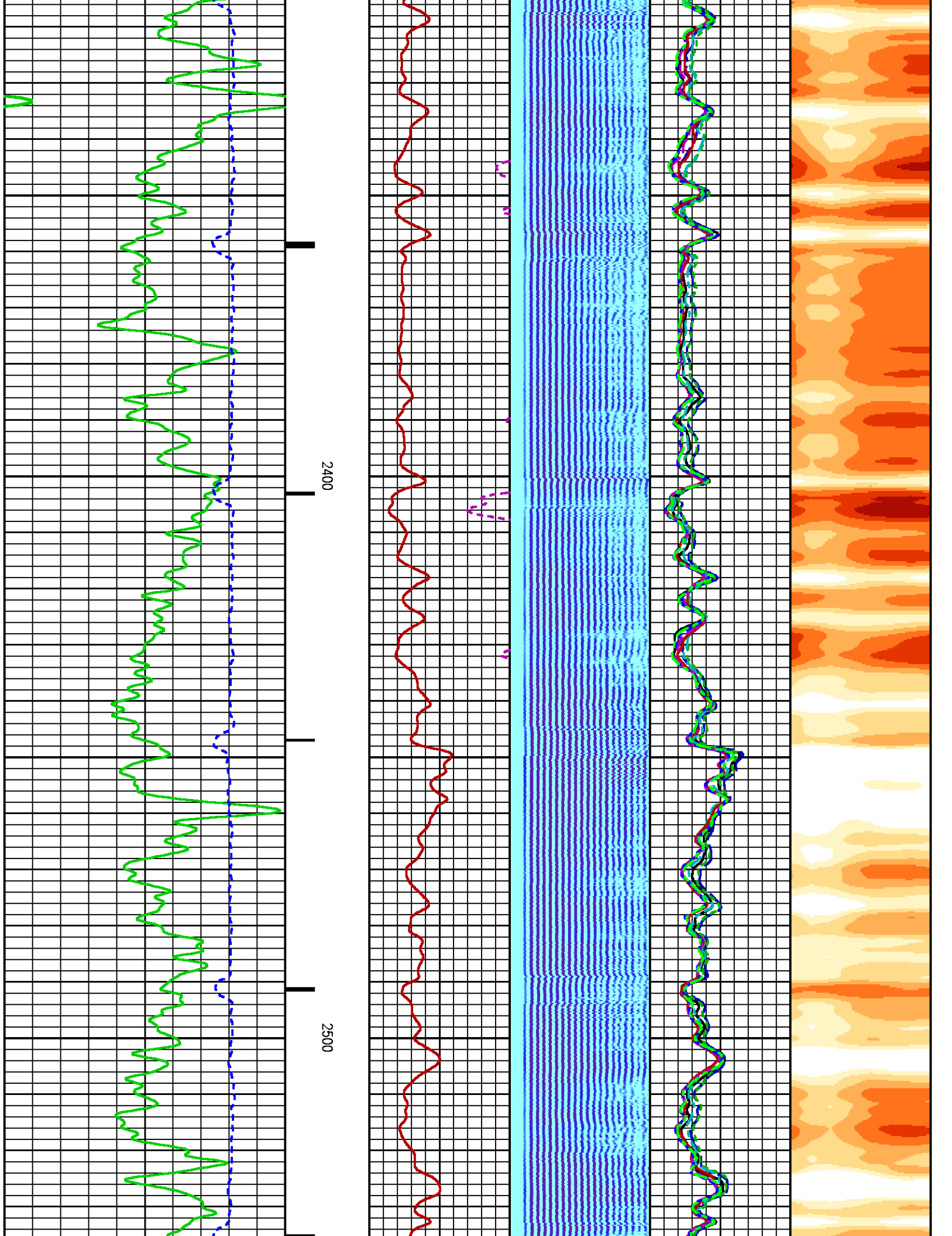


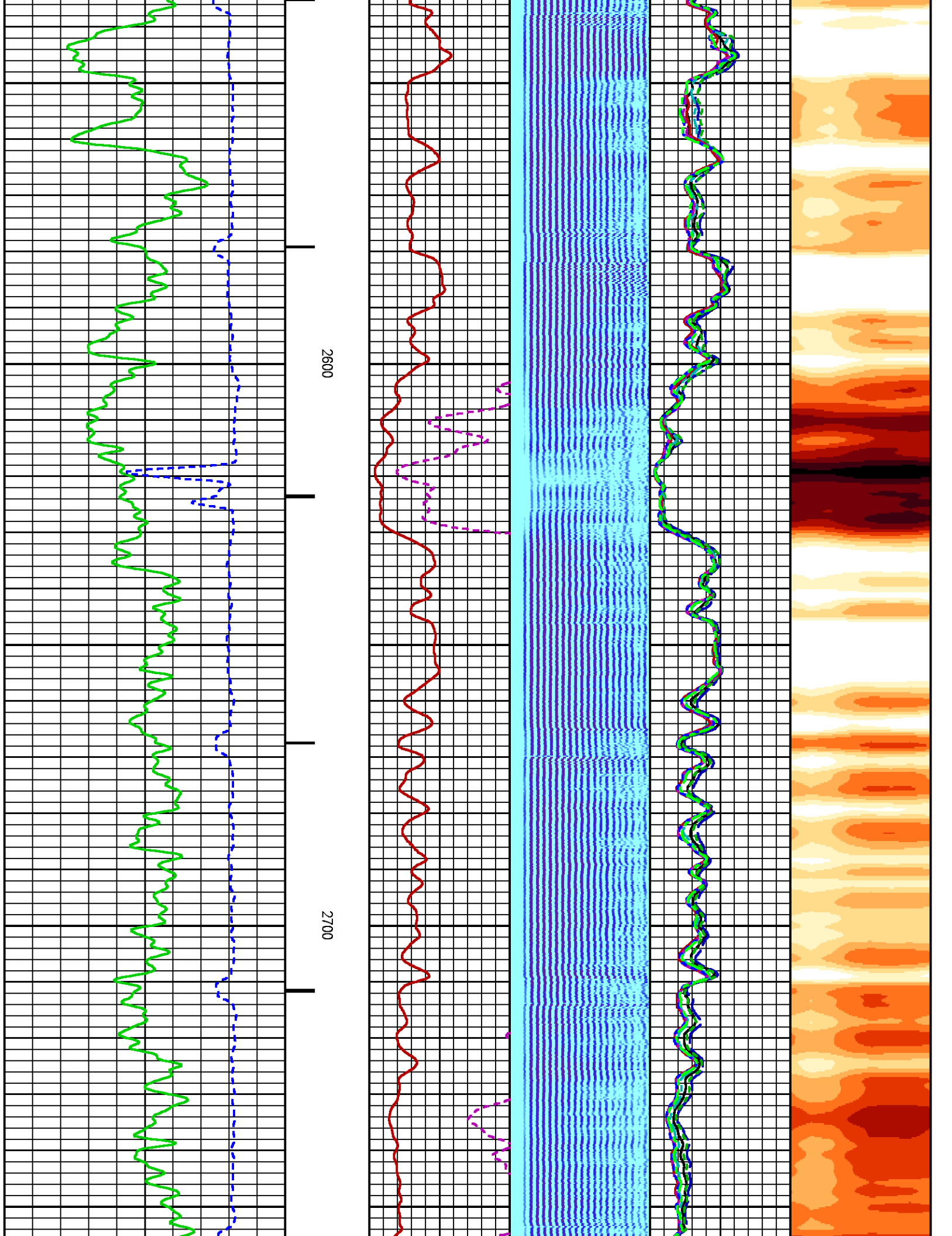


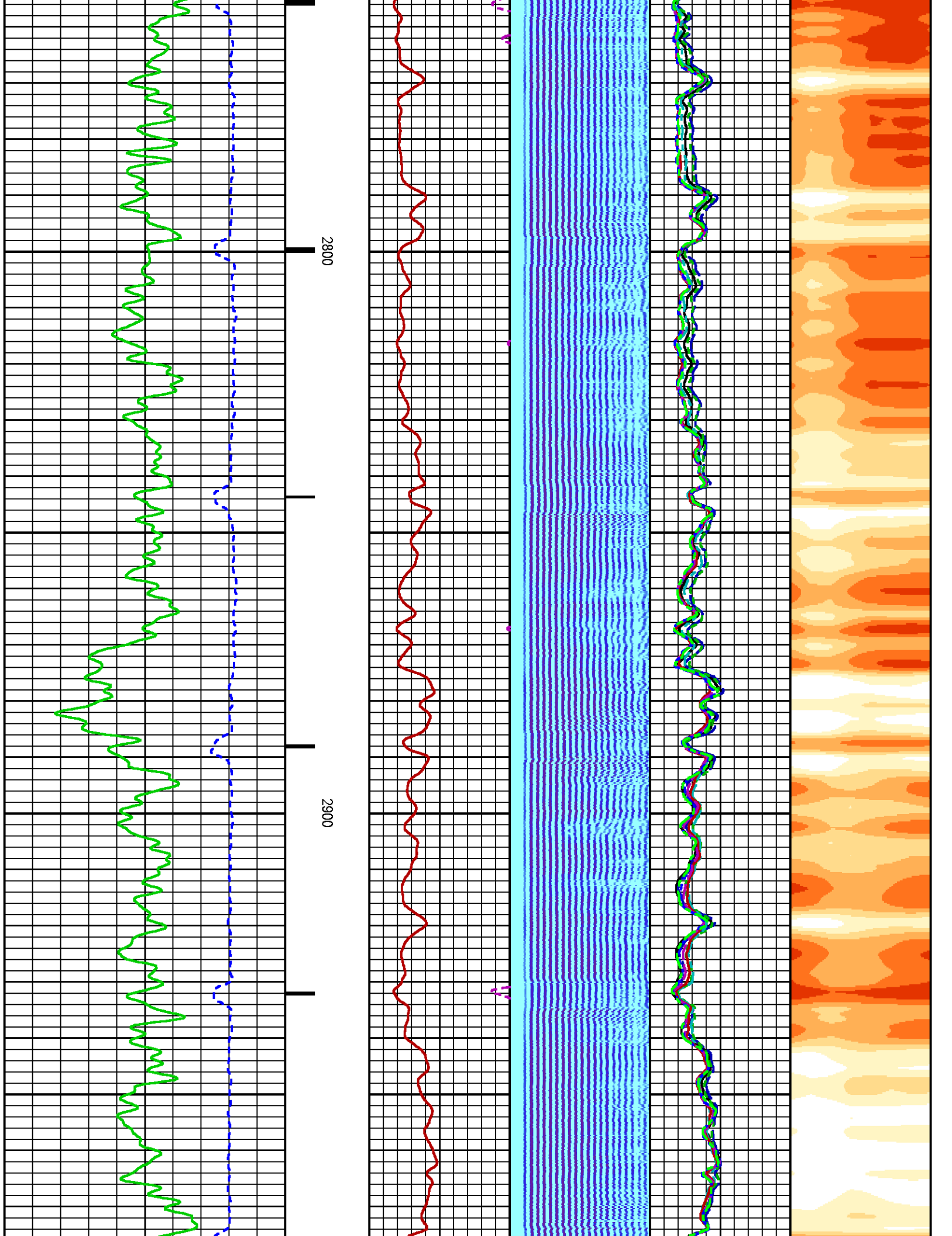


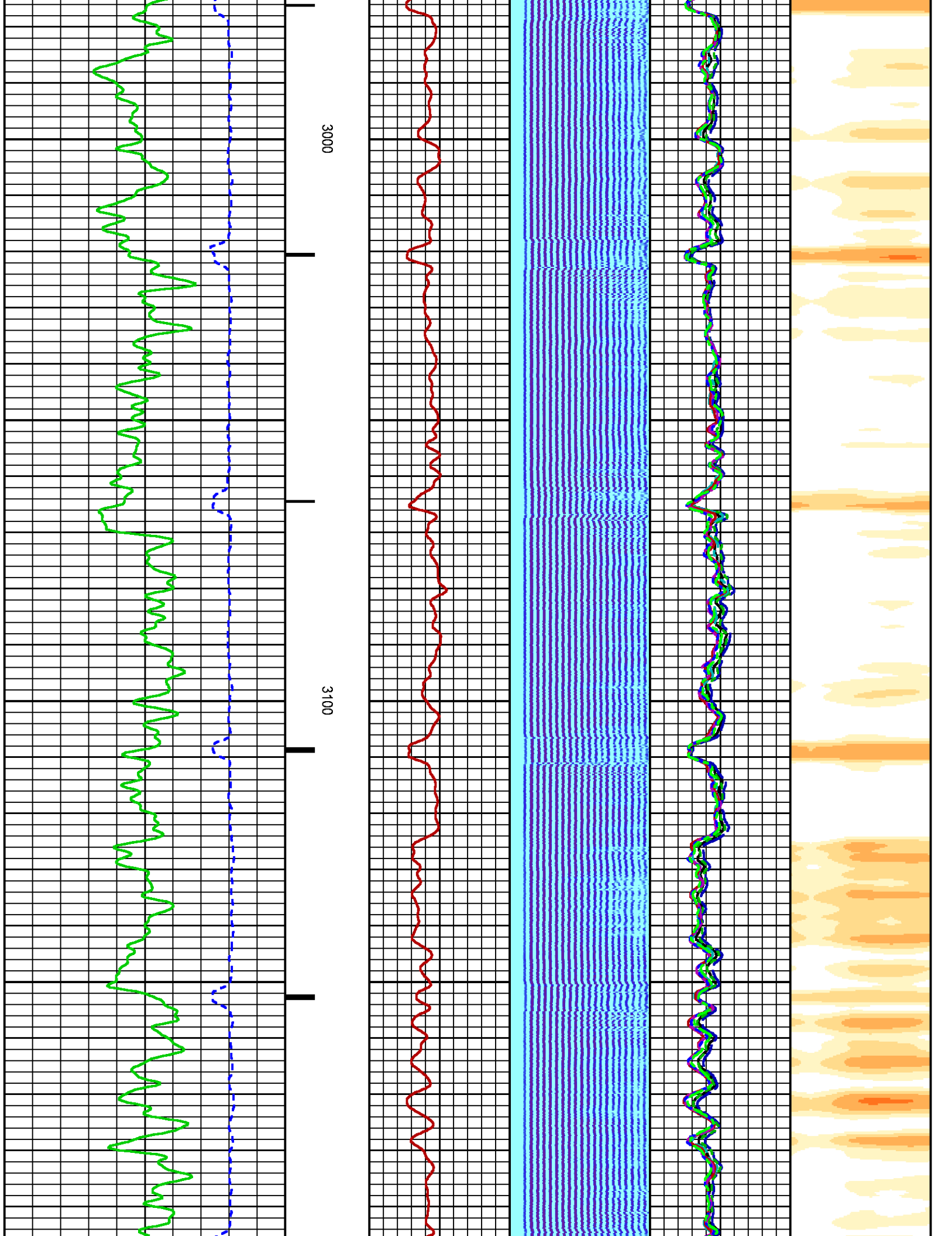


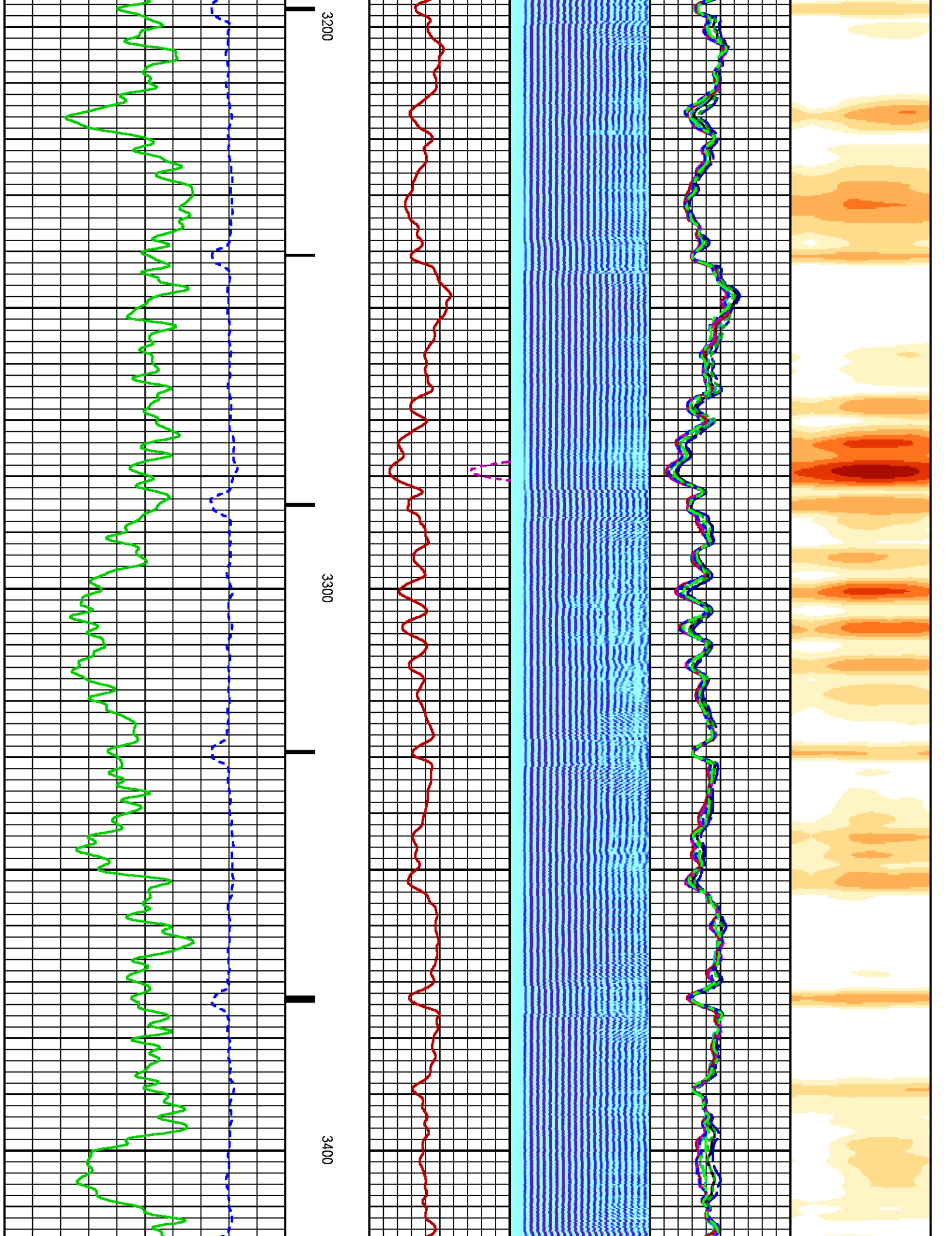


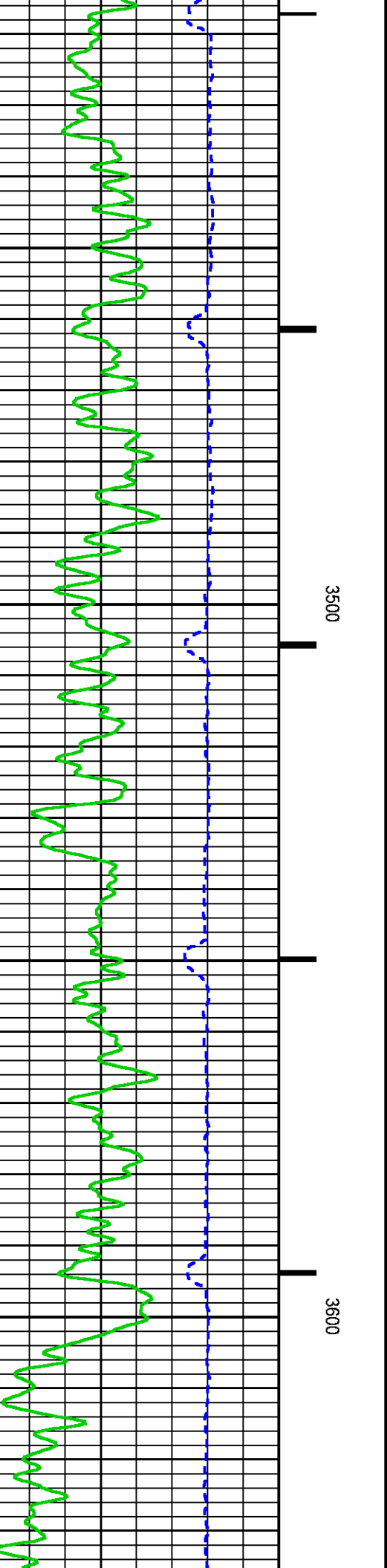
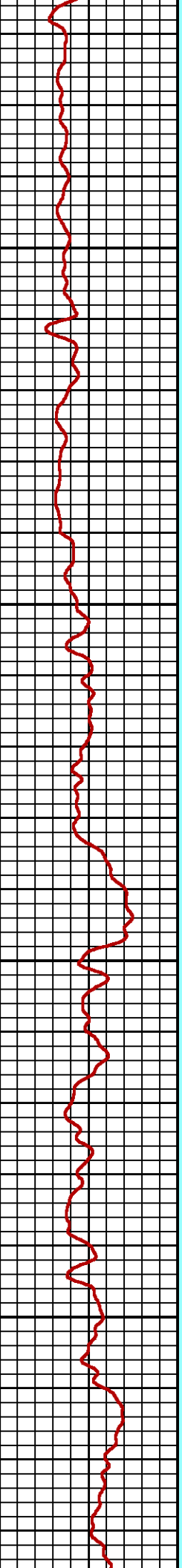
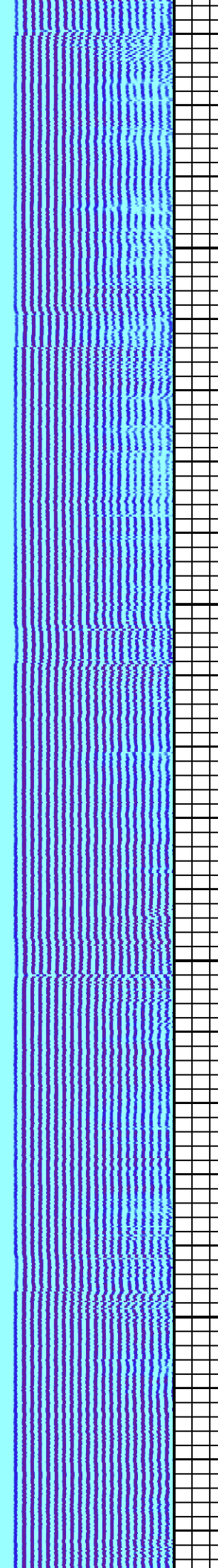
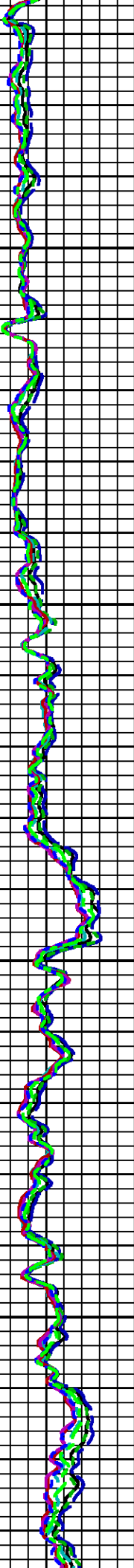


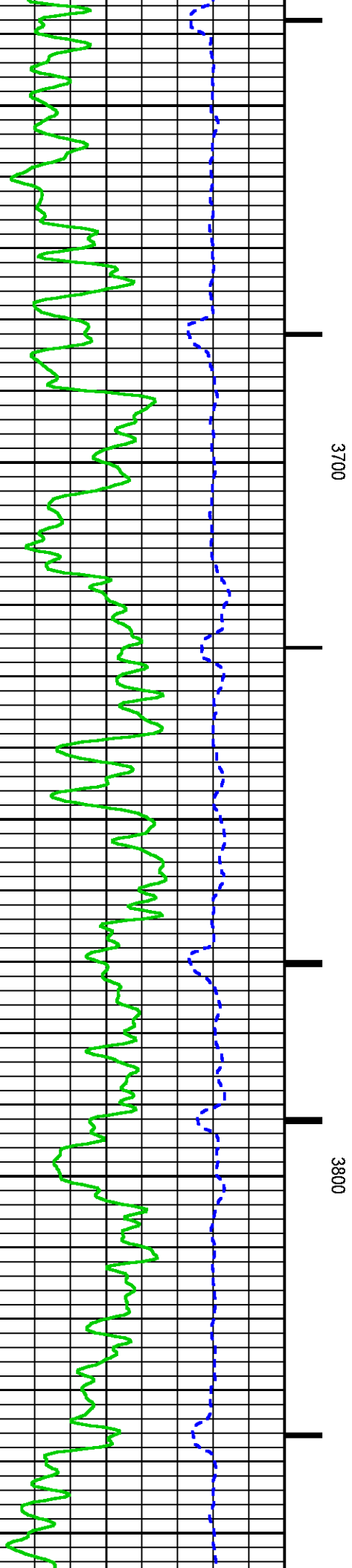
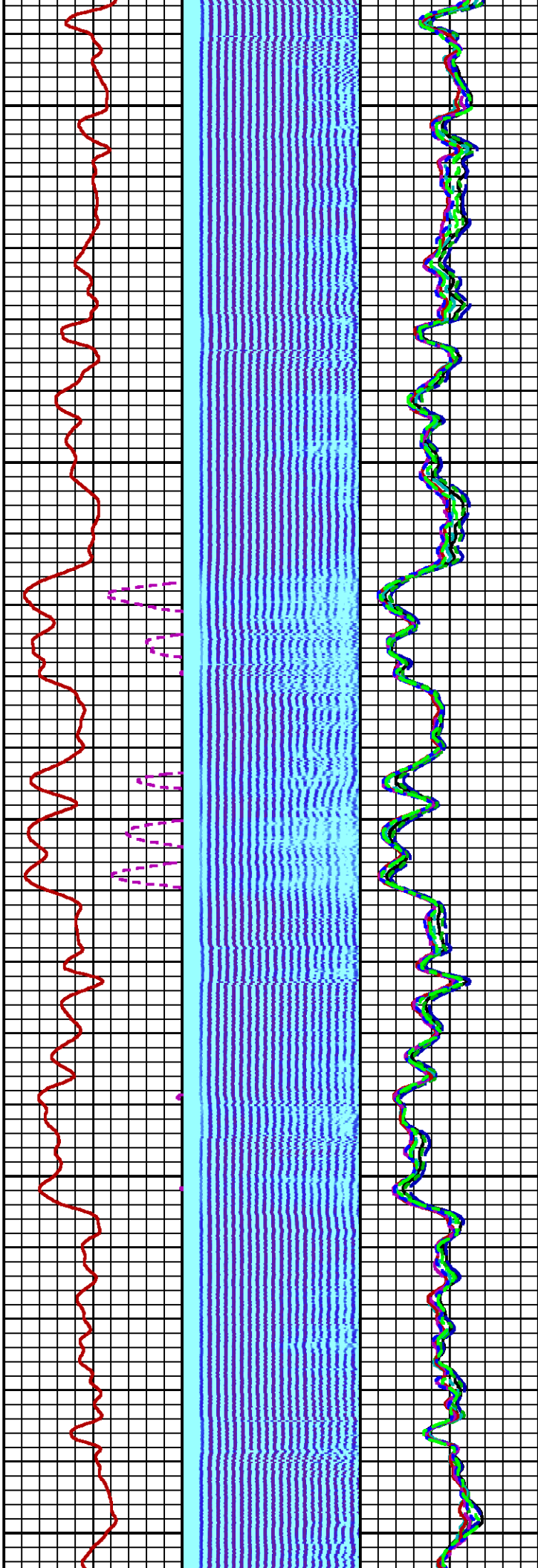
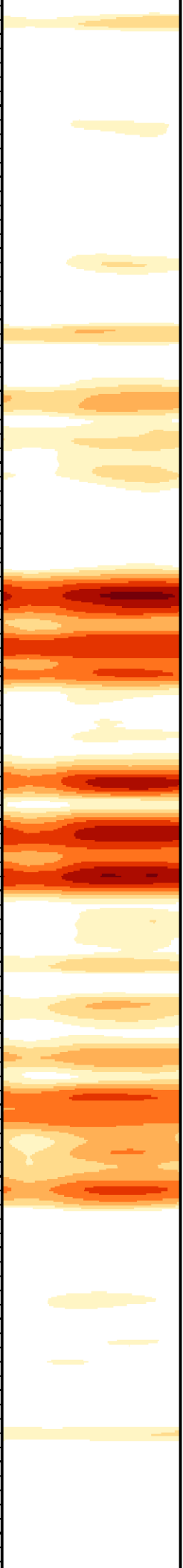


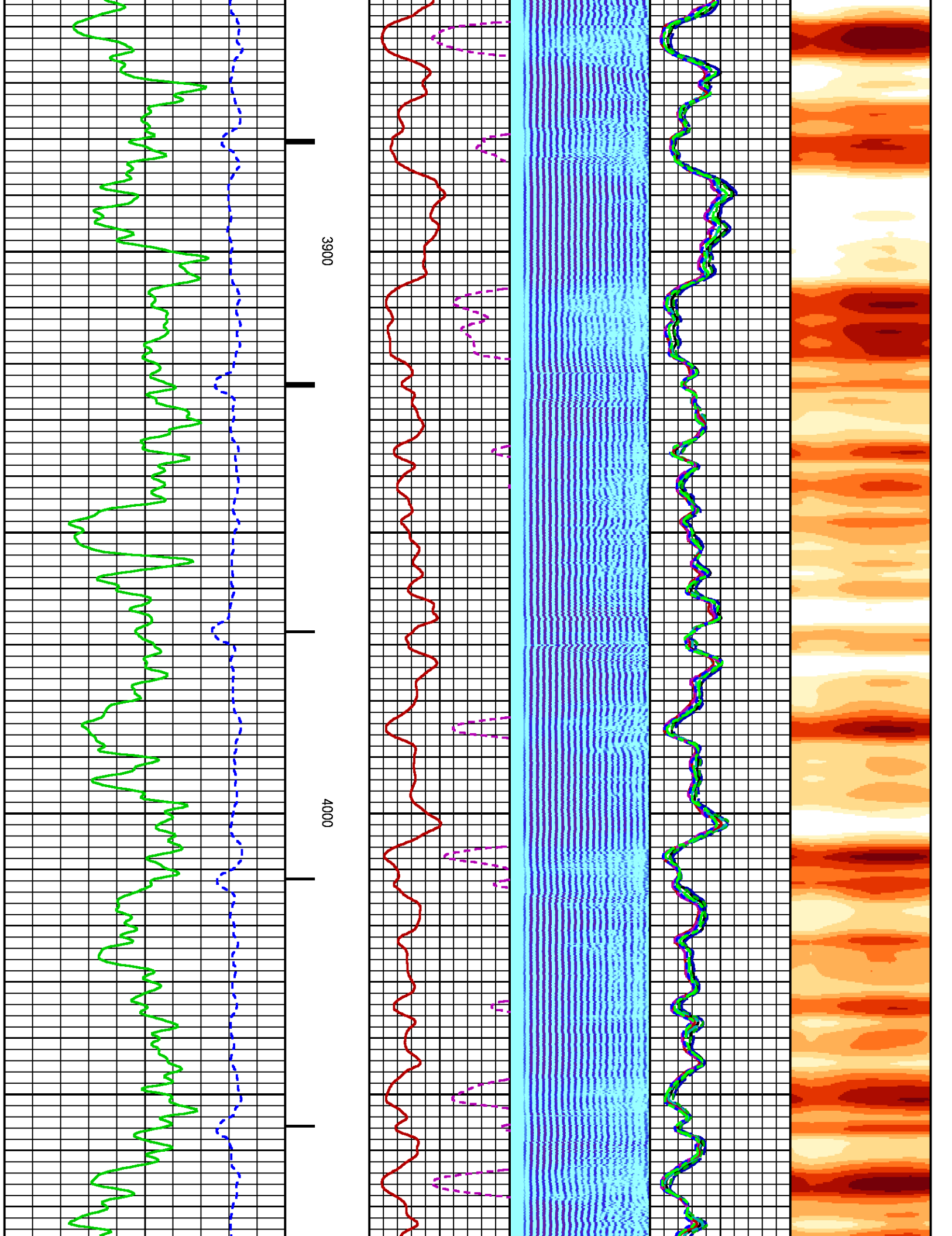


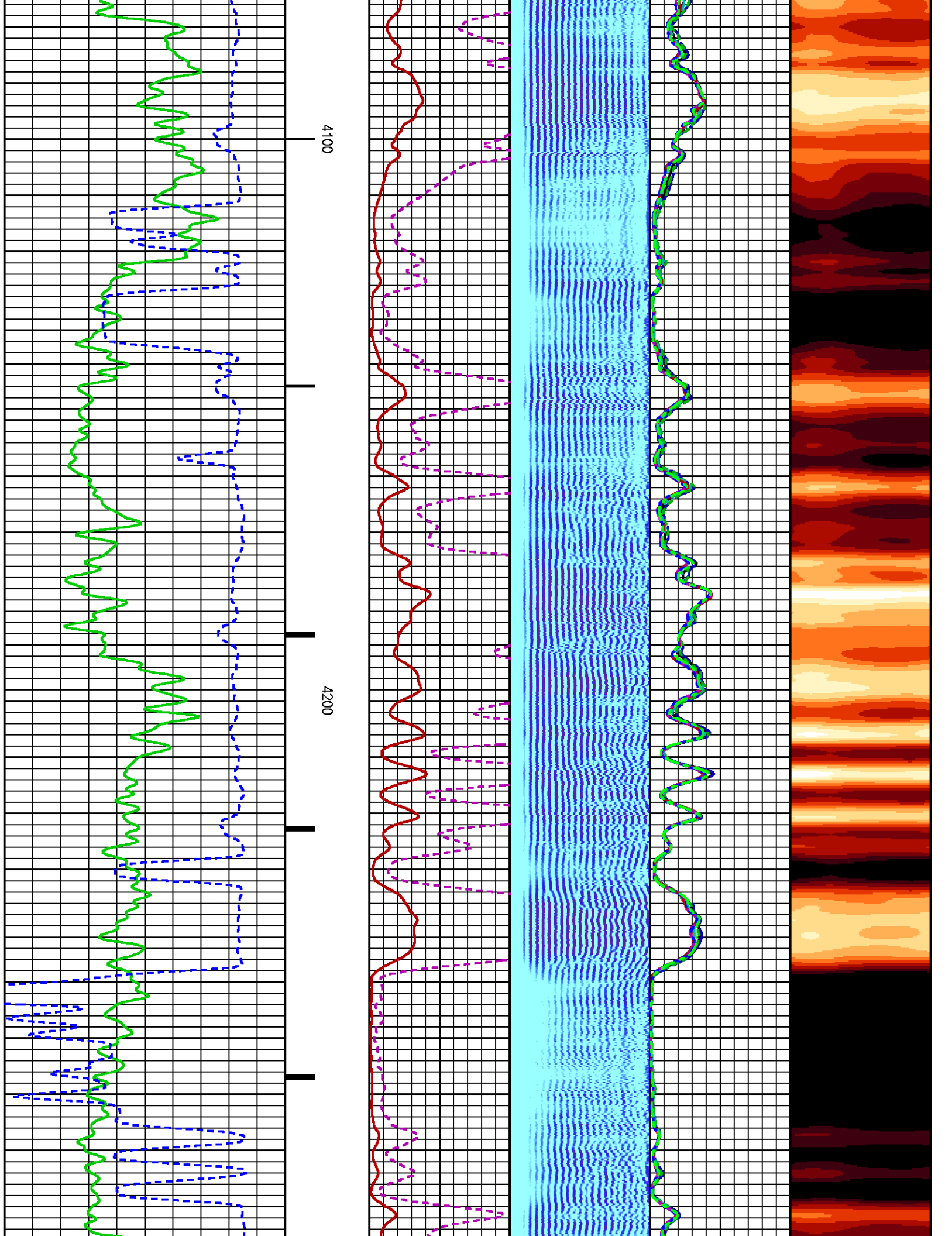


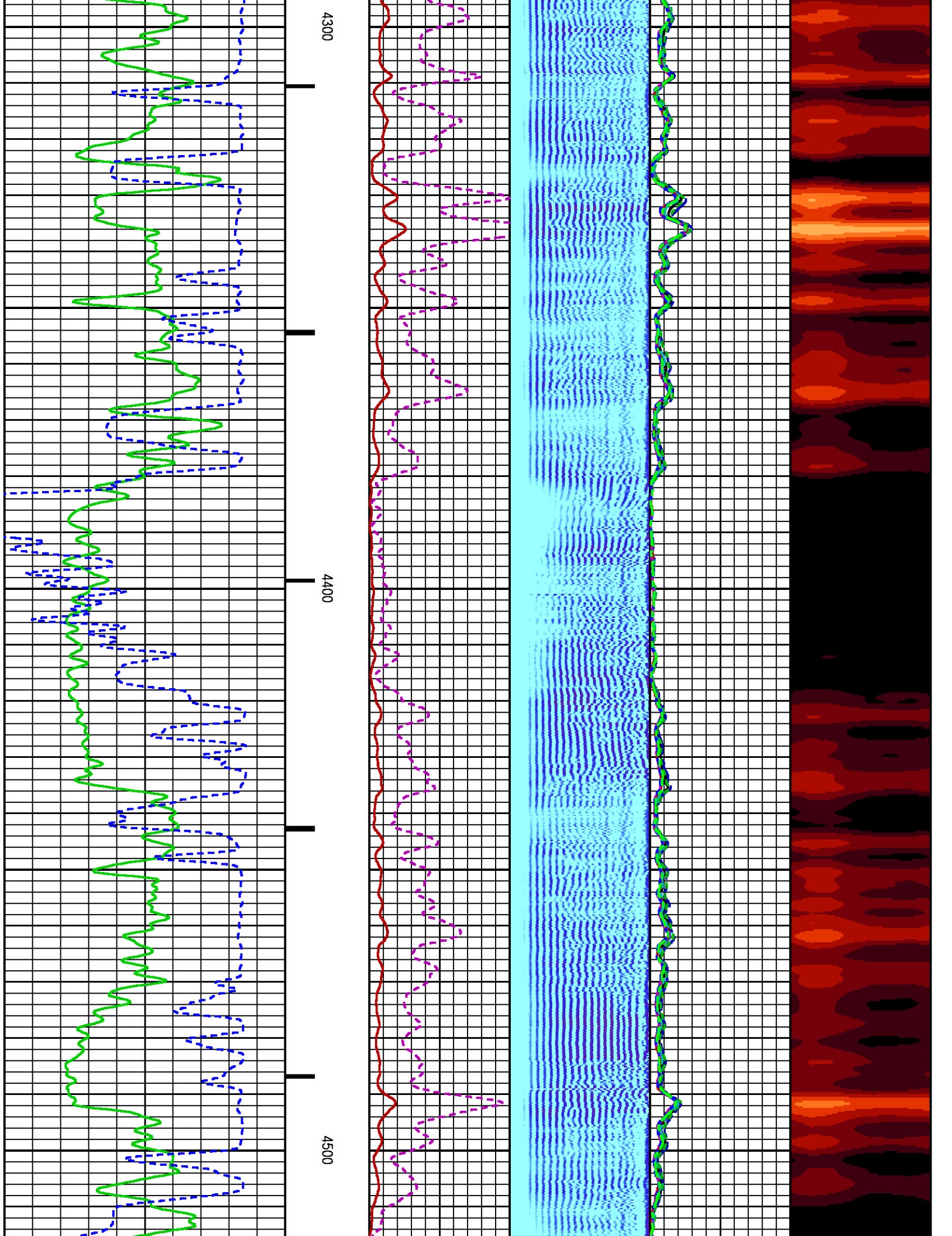


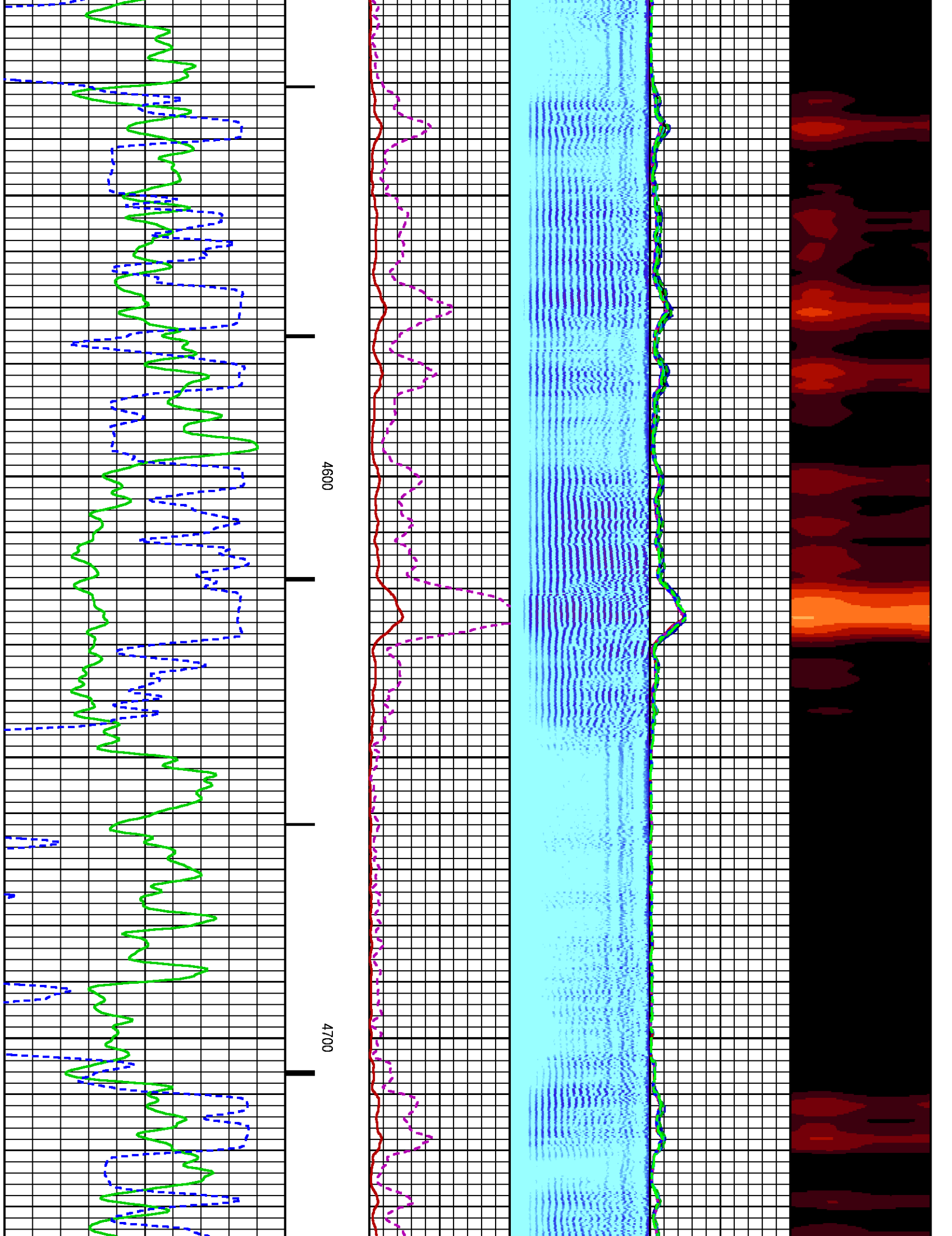


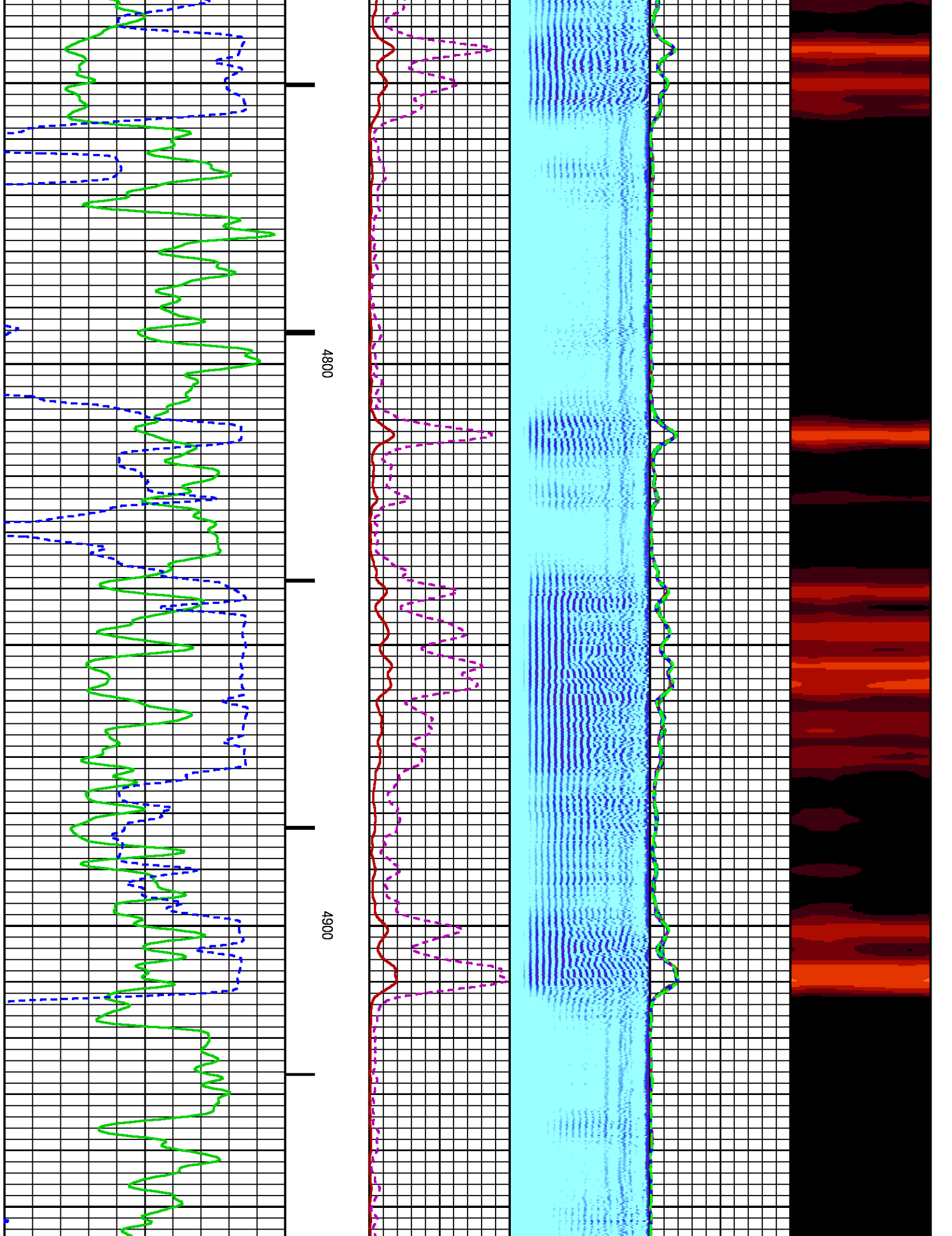


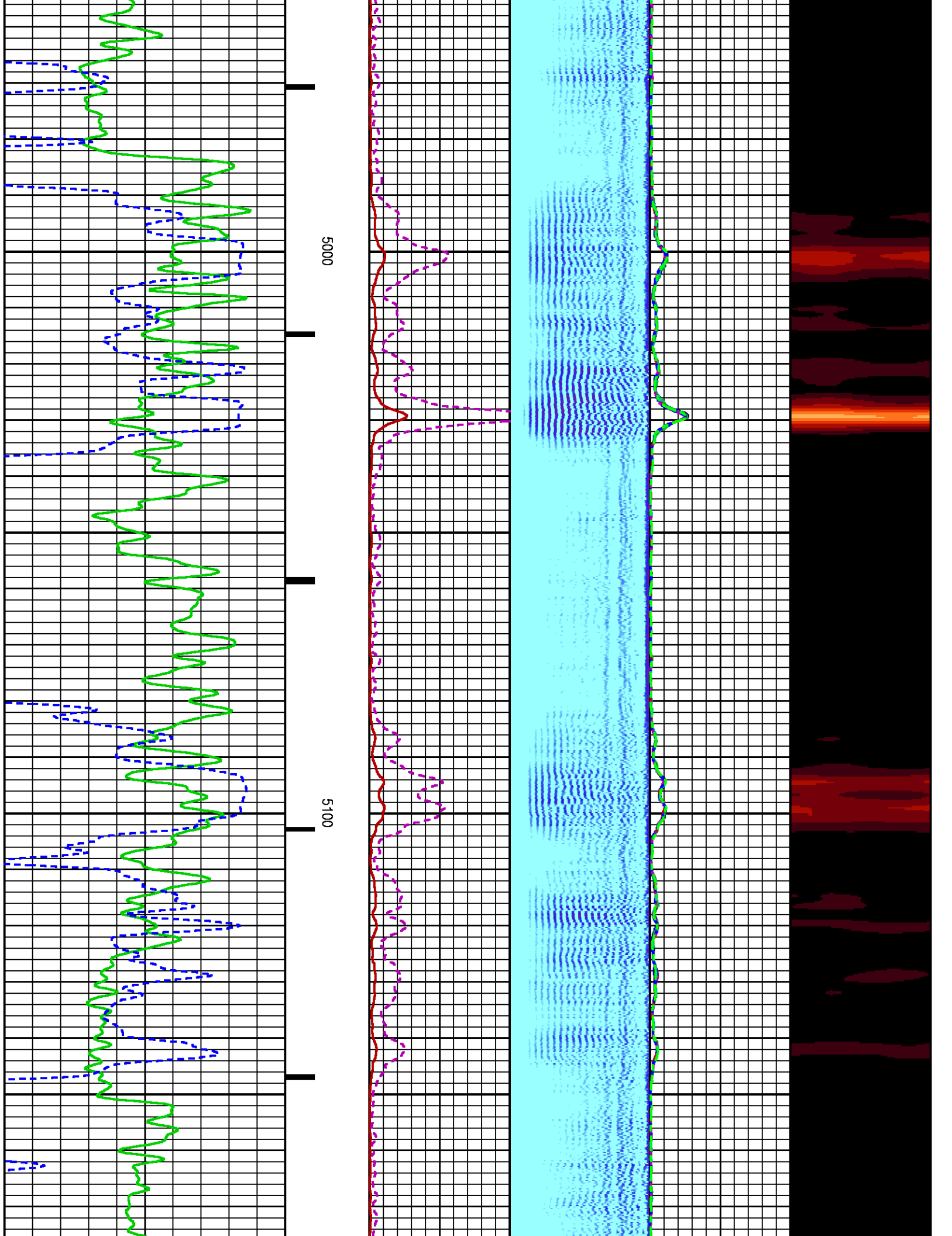


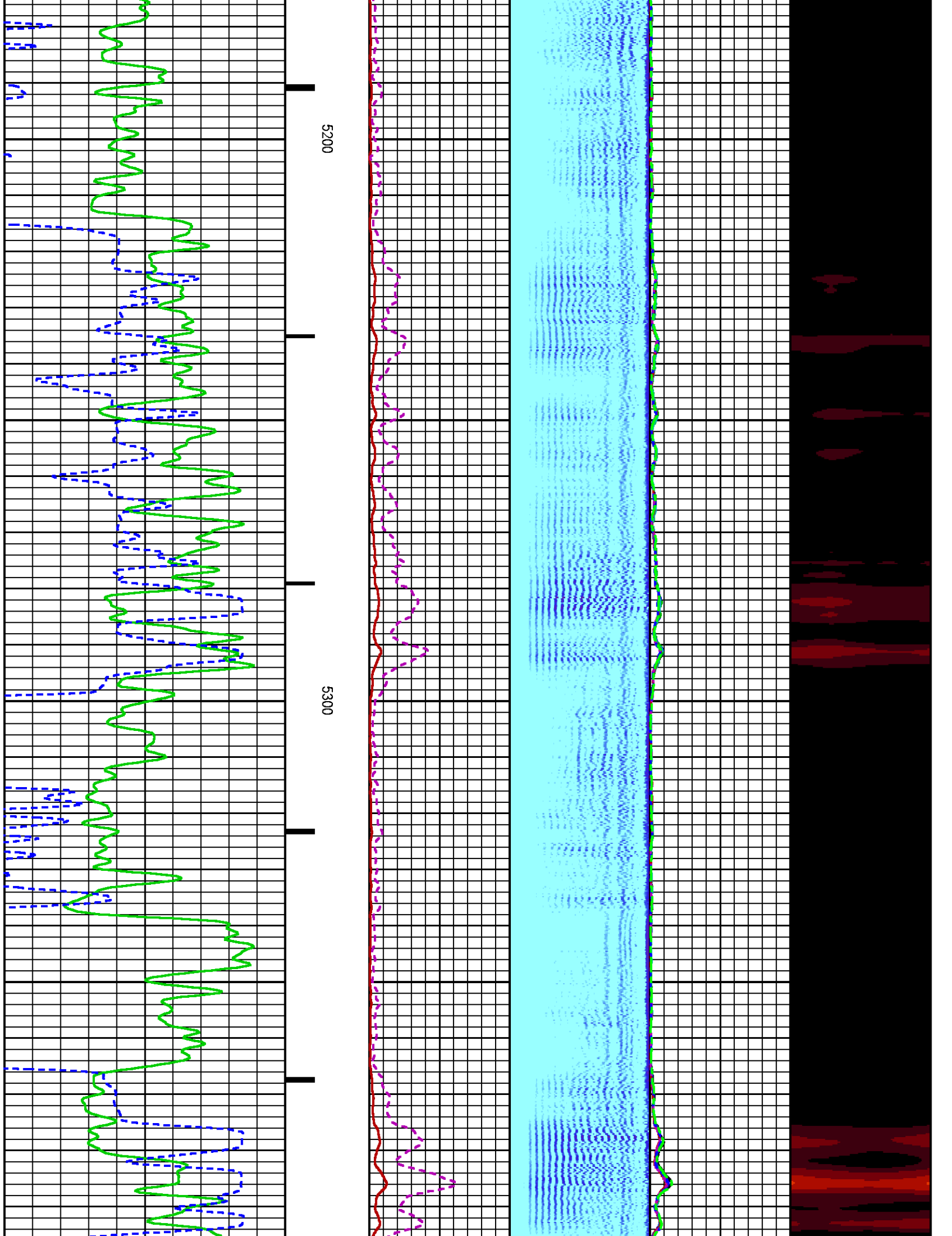


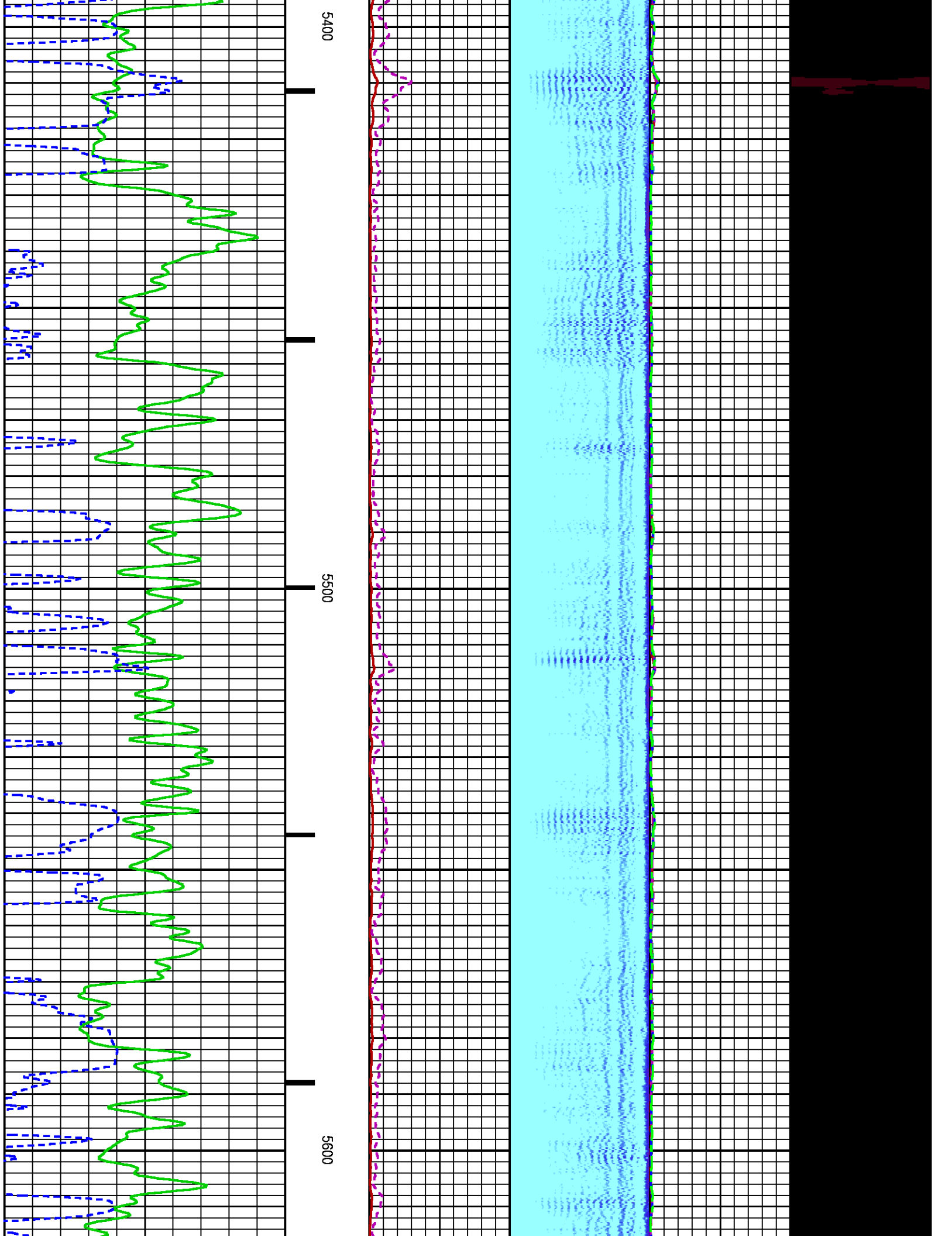


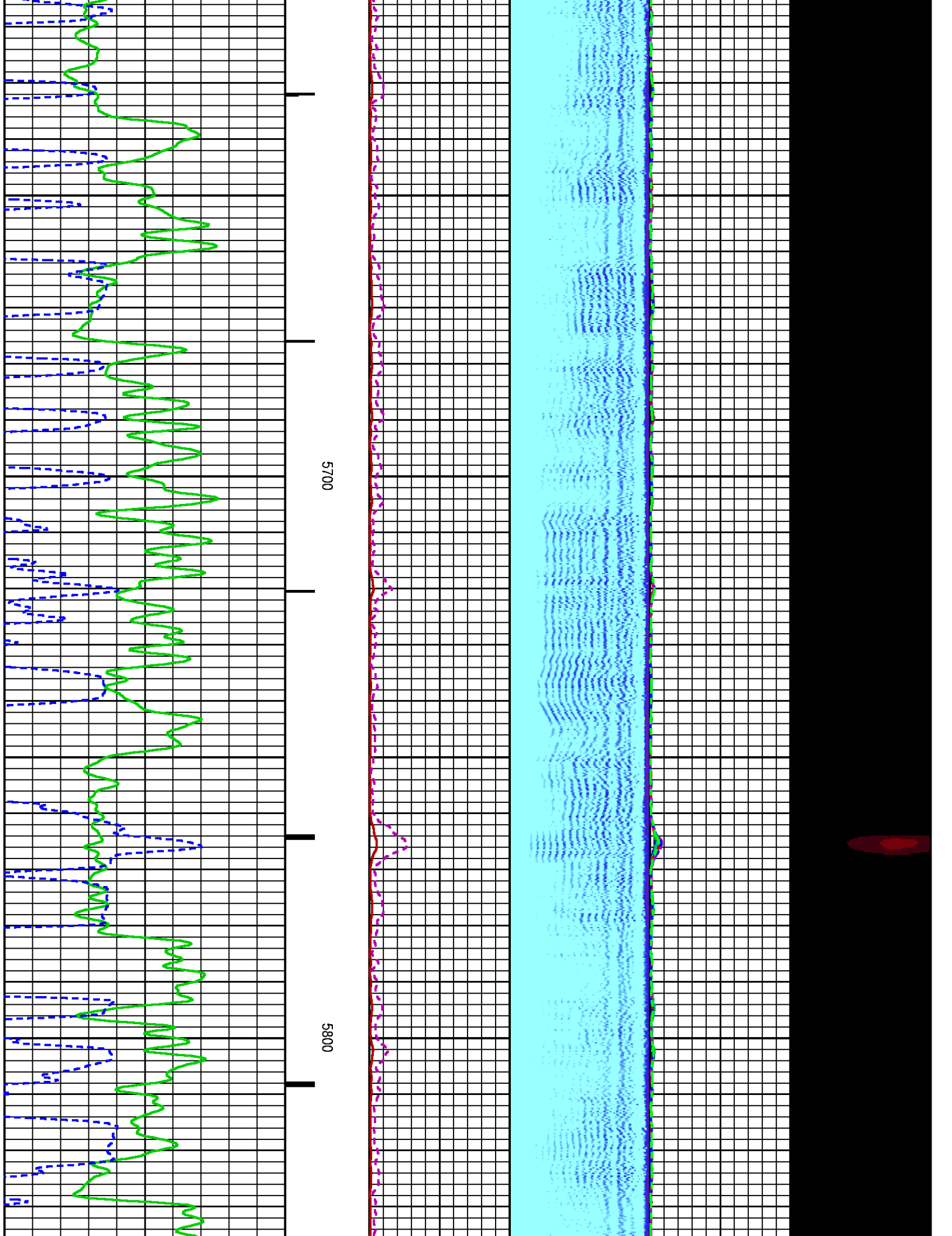


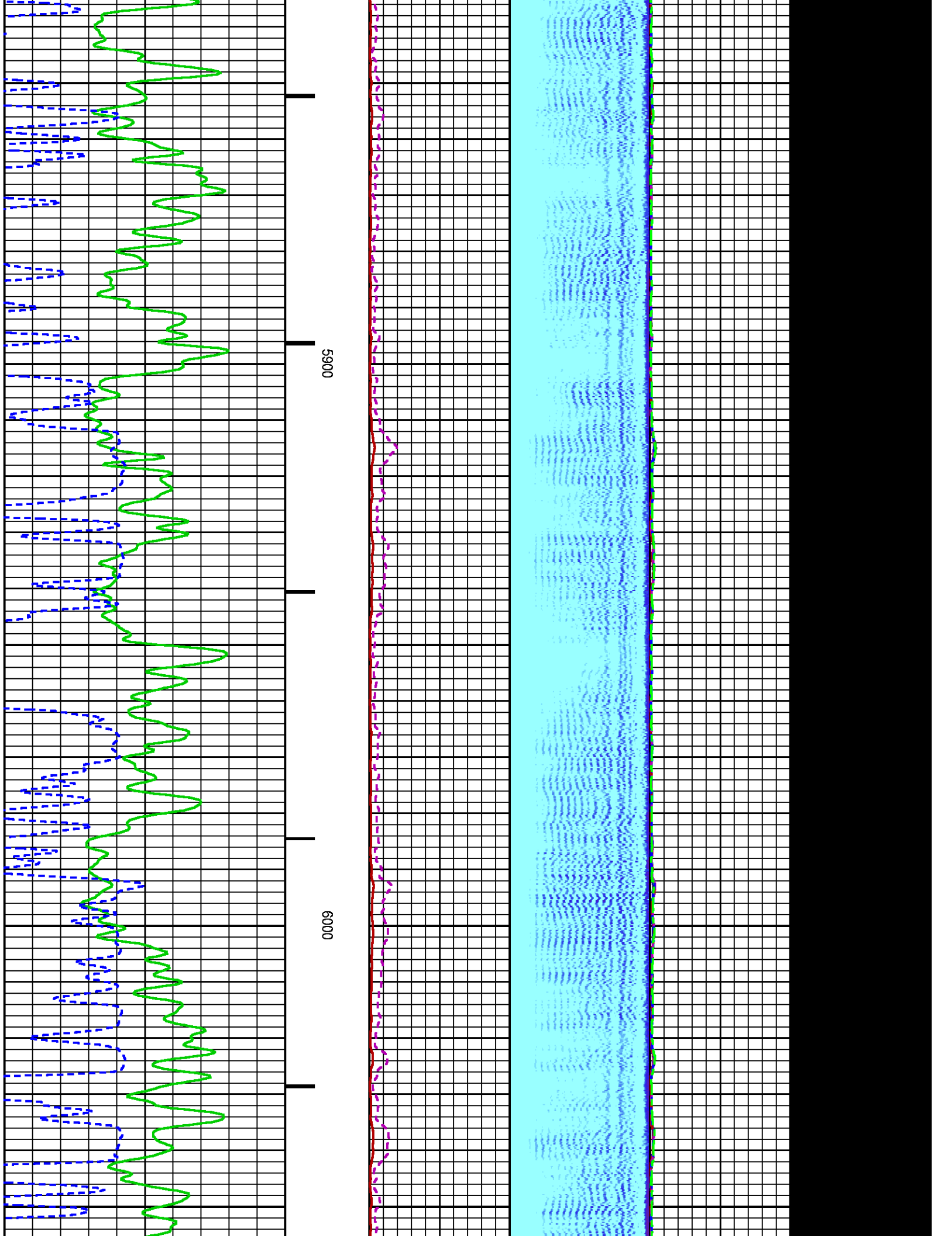


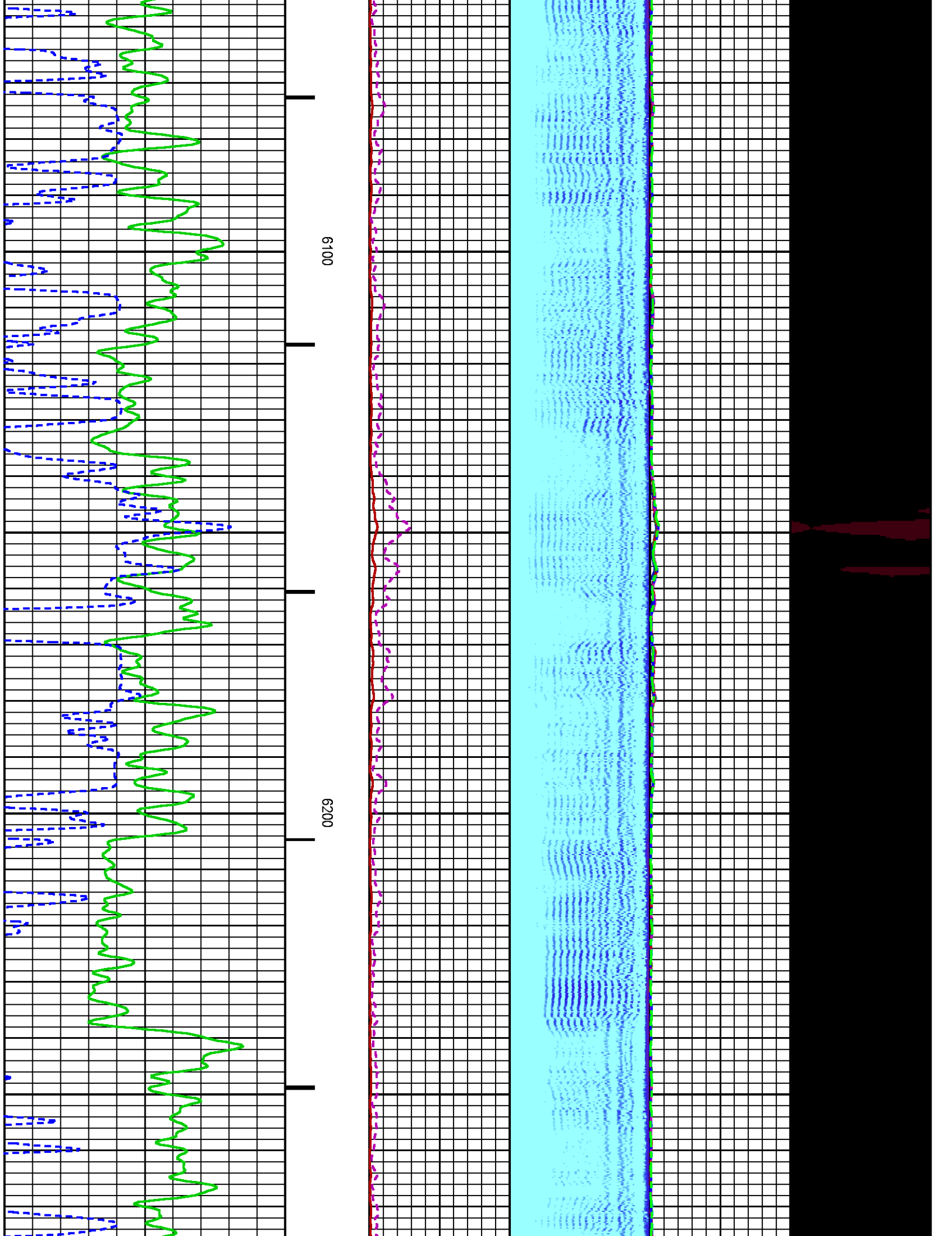


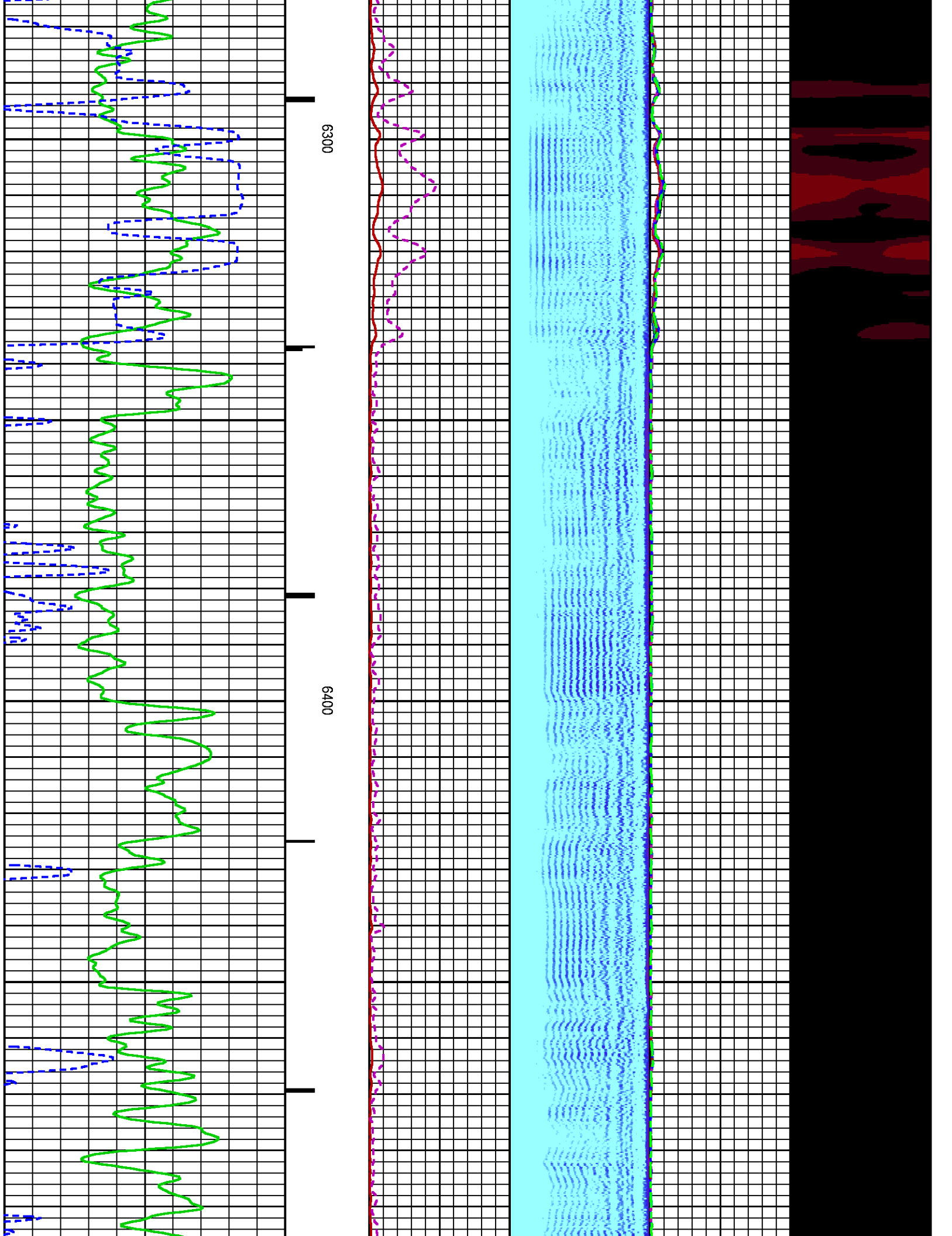


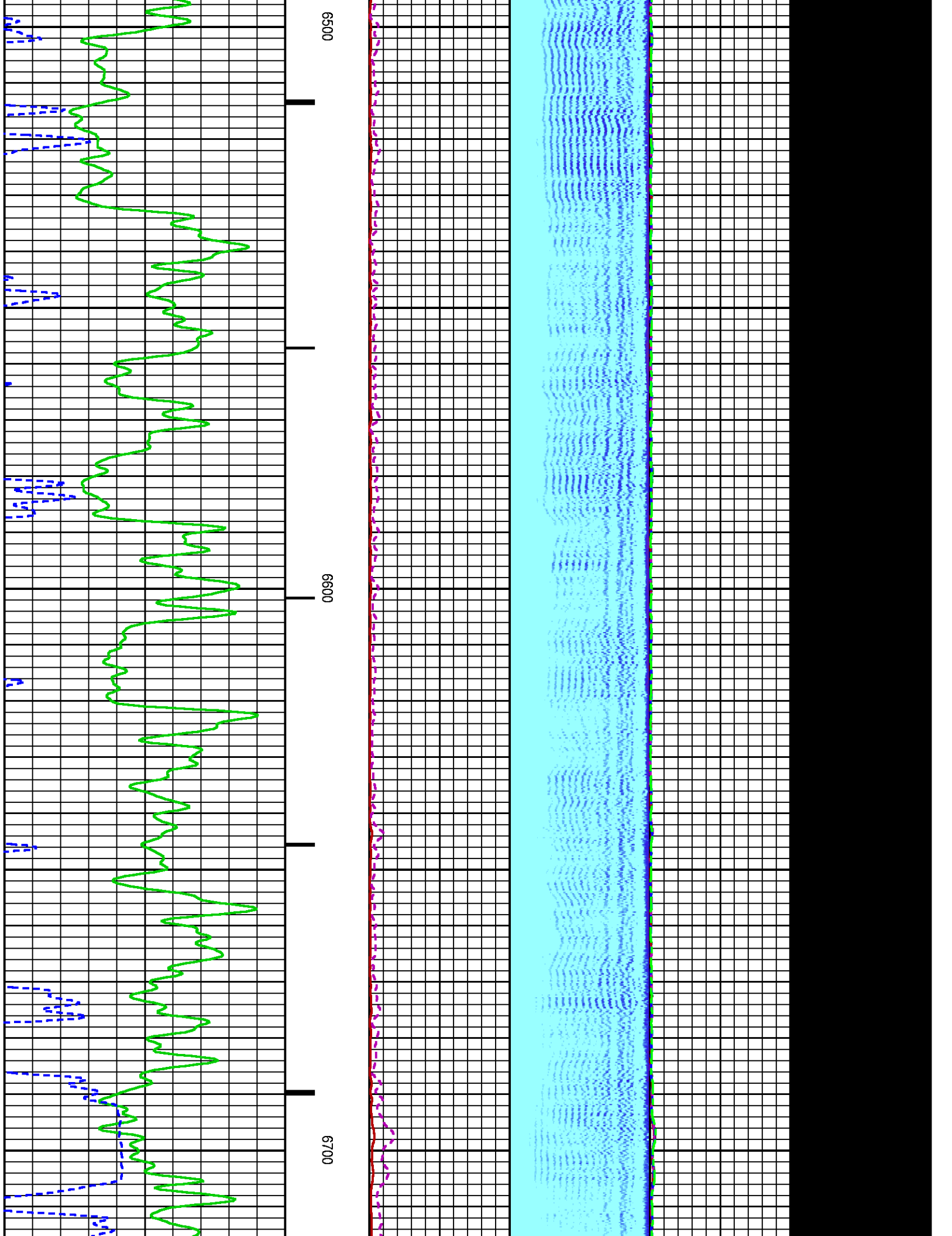


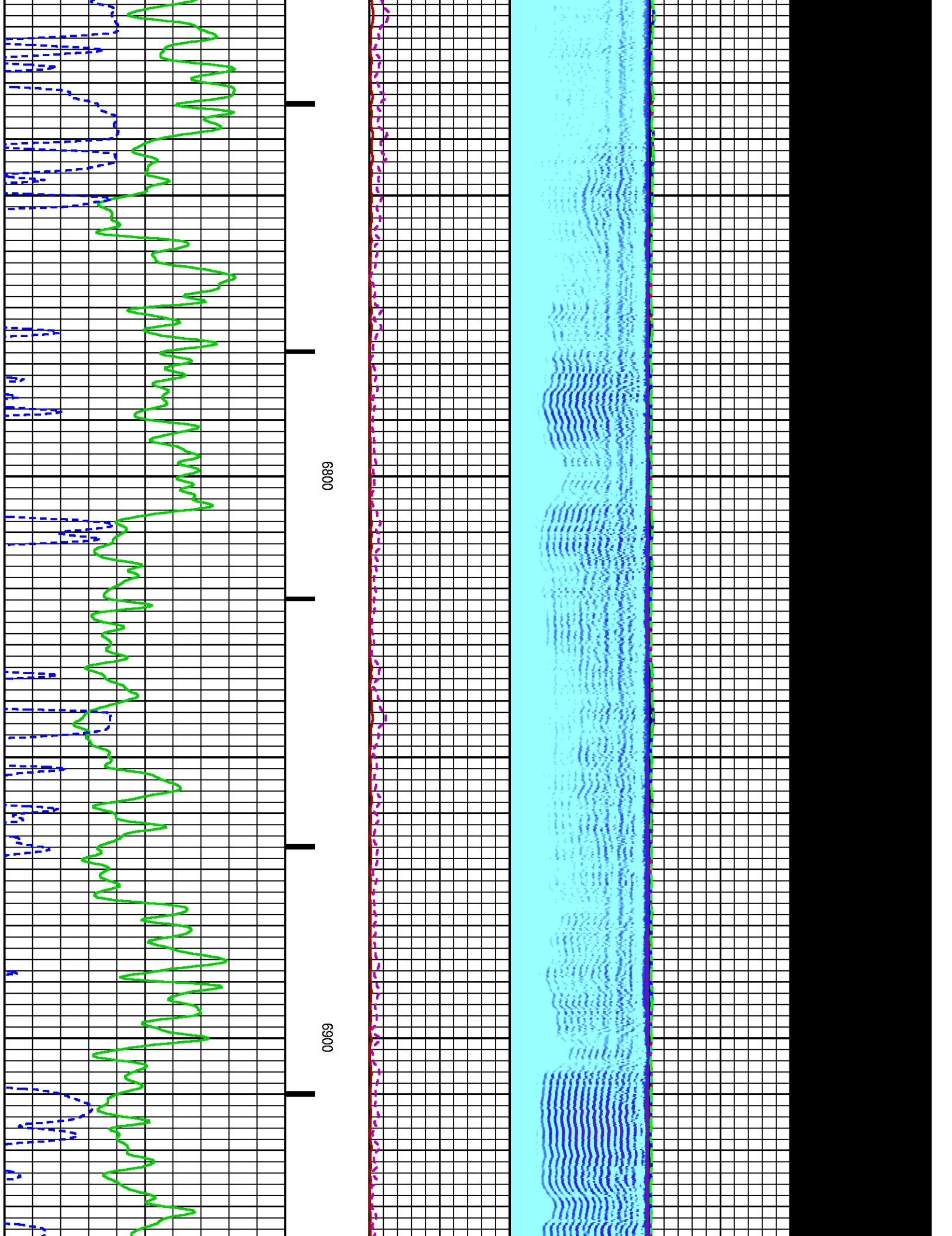


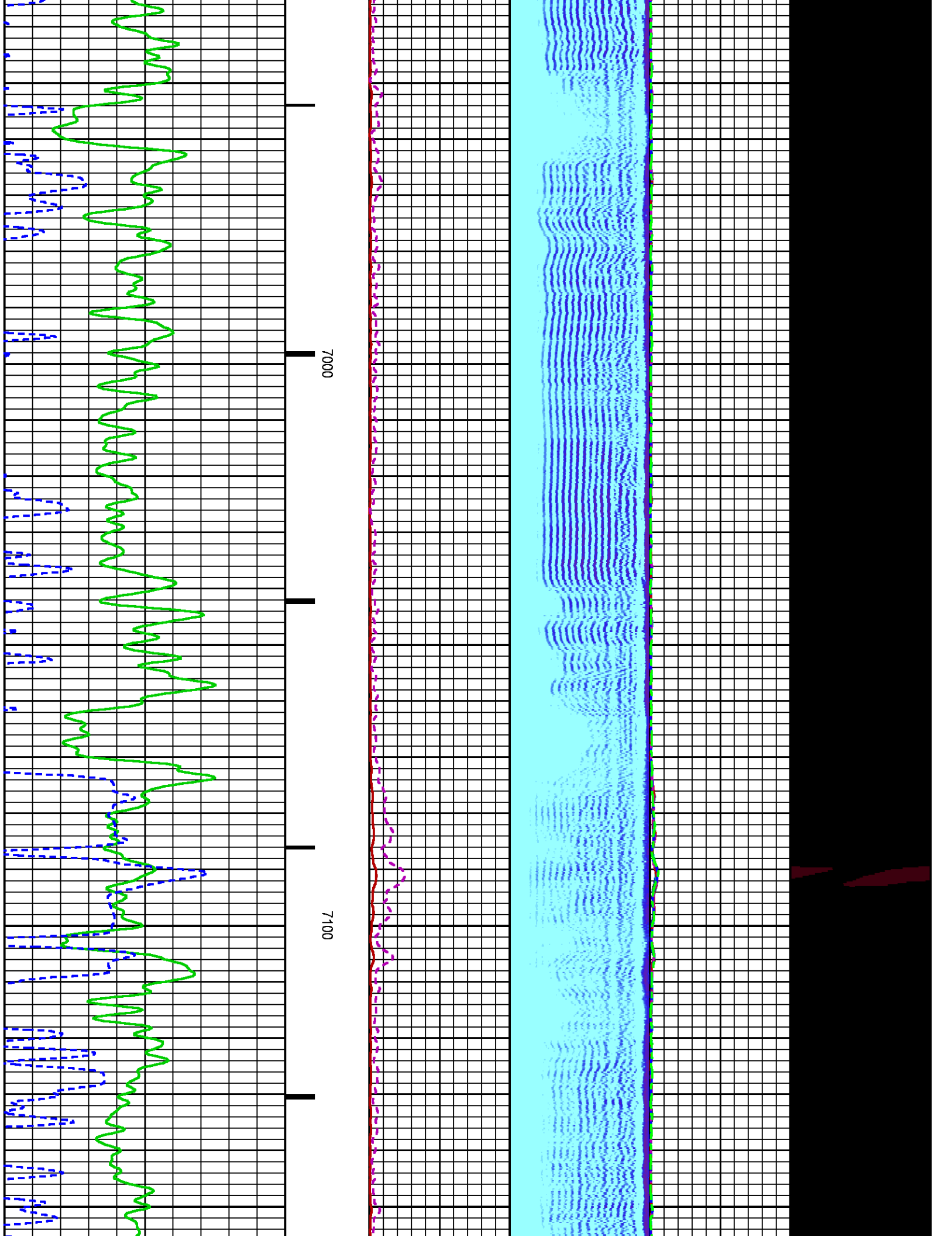


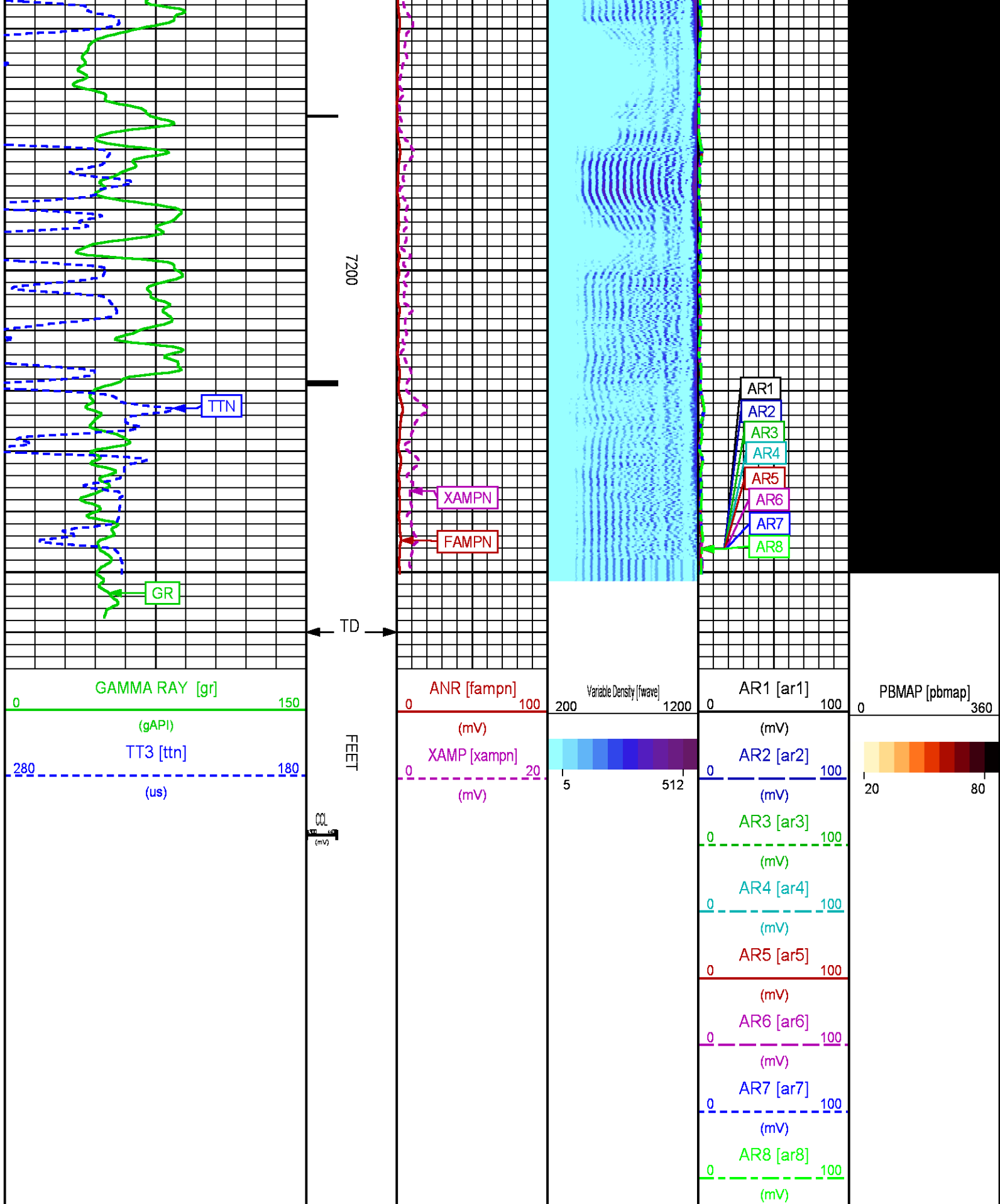












REPEAT PRESENTATION 0 PSI

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

Updates: 1 Patches: 4

Plotted: Wed Nov 19 14:19:34 2014

PARAMETER AND FILTER SUMMARY REPORT

FILE: /dat1a/CH092544/n012e01.prm
 LOGGING MODE: DEPTH DIRECTION: UP
 TOP DEPTH: 6927.000 ft BOTTOM DEPTH: 7263.750 ft

SYMMETRIC FILTER

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
GR	FILTER ()	medium (1)		TOP	BOTTOM
AMPLITUDE	FILTER ()	medium (1)		"	"
TRAVEL TIME	FILTER ()	medium (1)		"	"

RAL CCL PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
CCL FLOOR	CCL FLOOR	0		TOP	BOTTOM

ANALOG RAL PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
AMPLITUDE WINDOW (NEAR)	AMP WINDOW START (fgpn*)	187	us	TOP	BOTTOM
	AMP WINDOW LENGTH	25	us	"	"
TRAVEL TIME WINDOW (NEAR)	TT WINDOW START (ttn*)	177	us	"	"
	TT WINDOW LENGTH	500	us	"	"
	FIRST BRK THRESHOLD (ttn*)	4	mV	"	"
RAL CASING PARAMETERS	PPT NEAR	200.391	us	"	"
RAL TOOL DELAY	TOOL DELAY (strn*)	-70	us	"	"
BASELINE NOISE (NEAR)	NOISE WINDOW START	133	us	"	"
	NOISE WINDOW LENGTH	25	us	"	"

CURVE DESCRIPTION REPORT

CURVE NAME	CREATION DATE	CURVE DESCRIPTION
F1:CCL	Nov 19 13:18:07 2014	CASING COLLAR LOCATOR
F1:FAMPN	Nov 19 13:18:07 2014	FIXED GATE AMPLITUDE NEAR RECEIVER
F1:FWAVE	Nov 19 13:18:07 2014	FAR WAVE FORM
F1:GR	Nov 19 13:18:07 2014	GAMMA RAY
F1:TTN	Nov 19 13:18:07 2014	TRAVELTIME FROM NEAR TRANSMITTER-RECEIVER
F1:XAMPN	Nov 19 13:18:07 2014	FIXED GATE AMPLITUDE NEAR RECEIVER TIMES FIVE

CURVE MEASURE POINT OFFSET

CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)
CCL	8.50	GR	6.50	XAMPN	13.75		
FAMPN	13.75	TTN	13.75				

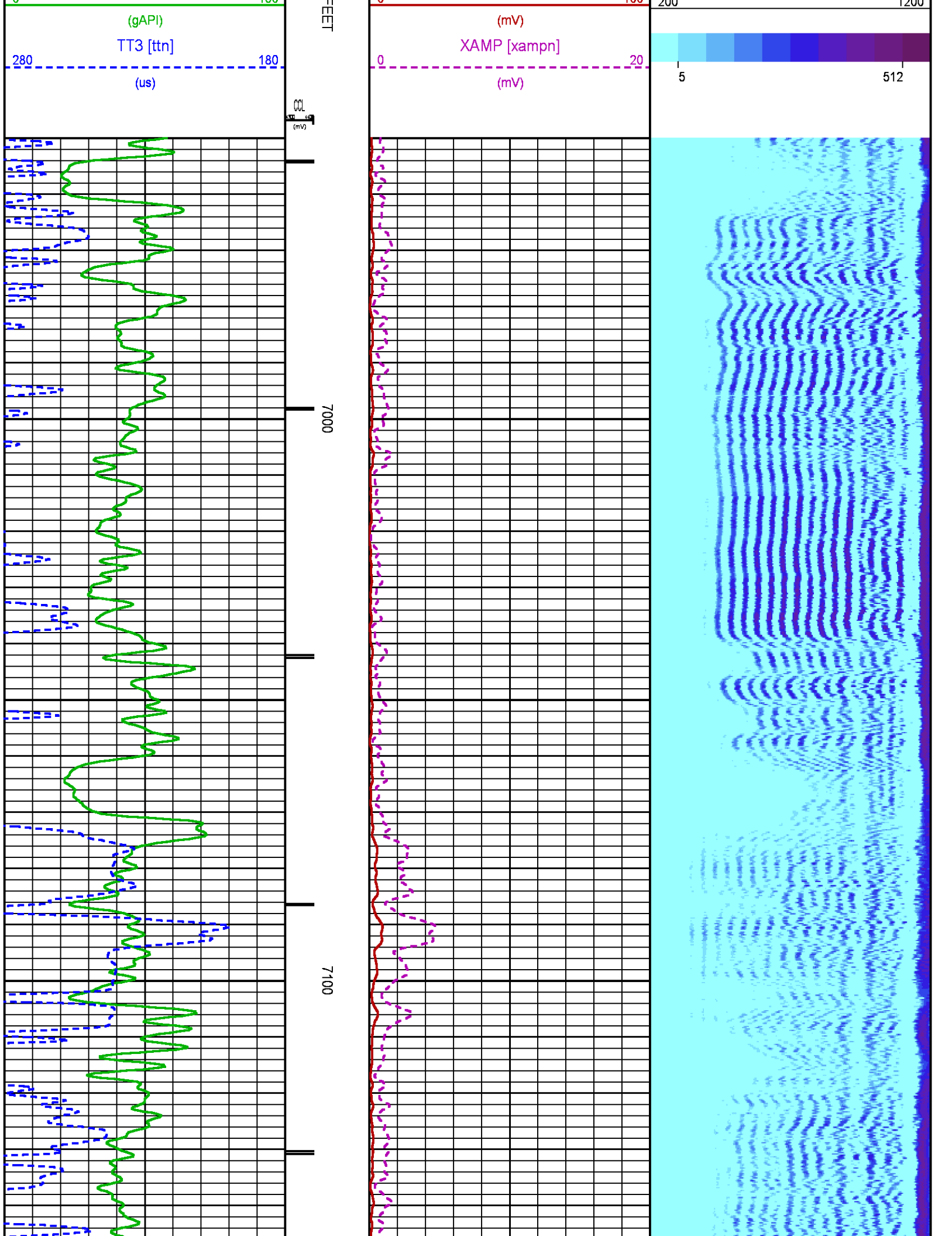
Presentation : HL6670:/dat1a/CH092544/343CBL_REPEAT_PRIMARY.fvpdf [5"/100' Scale]
 Plot Interval : 6950 - 7250 Feet

Data File 1 : F1 : HL6670:/dat1a/CH092544/343CBL_REPEAT.xtf
 Created On : Nov 19 13:18:07 2014
 Company : WPX ENERGY
 Well : GM 343-12
 Field : GRAND VALLEY
 File Interval : 6913.25 - 7263.75 Feet
 OCT : n012e

GAMMA RAY [gr]

ANR [fampn]

Variable Density [fwave]



11 (us)	218	218	218	190	183	218	217	218	328	218
M FACTOR	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.36	0.30

RAL BEFORE LOG VERIFICATION SUMMARY

TOOL #: 1426XA 10417452
 DATE/TIME PERFORMED: Wed Nov 19 15:08:17 2014
 DAYS SINCE CAL: 0

UNIT #: 3880TA HL6670
 CABLE #: 6670sm SMALL1

	NEAR (mV)	R1 (mV)	R2 (mV)	R3 (mV)	R4 (mV)	R5 (mV)	R6 (mV)	R7 (mV)	R8 (mV)	FAR (mV)	CAL (mV)
ZERO	-0.01	0.01	-0.01	-0.00	0.00	-0.01	0.00	0.00	0.00	0.03	0.01
AMP AIR	0.02	-0.05	-0.24	0.19	0.18	-0.07	0.06	-0.10	0.04	-0.07	100.22

SHOP M FACTOR	SHOP A FACTOR	WIRELINE FACTOR
0.30	0.00	1.00

GR PRIMARY CALIBRATION SUMMARY

TOOL #: 2459XA 10218503
 DATE/TIME PERFORMED: Thu Nov 13 08:54:47 2014

UNIT #: 3880TA HL6670
 CALB JIG #: 4702NK WA-612

	BACKGROUND (cts)	CALBRTR ON (cts)	CR DIFF (cts/s)	MULT	BACKGROUND (gAPI)	CALBRTR ON (gAPI)	CALBRTR (gAPI)
GR	102.04	385.73	283.7	0.652	66.55	251.55	185

GR PRIMARY VERIFICATION SUMMARY

TOOL #: 2459XA 10218503
 DATE/TIME PERFORMED: Thu Nov 13 08:56:37 2014

UNIT #: 3880TA HL6670
 VERI JIG #: 4702NK WA-612

	BACKGROUND (cts)	CALBRTR ON (cts)	MULT	BACKGROUND (gAPI)	CALBRTR ON (gAPI)	DIFF. (gAPI)
GR	108.58	381.73	0.652	70.81	248.94	178.13
						175.00 195.00

INSTRUMENT CONFIGURATION

Source File: /dat1a/CH092541/CBL-tdg

CABLEHEAD
 Diameter : 2.75"
 Length : 2.25'
 Weight : 10 lbs
 Series : CABL234
 Mnemonic : CBLH



23.02'

RADIAL BOND TOOL

Diameter : 2.75"
Length : 11.17'
Weight : 126 lbs
Series : 1426XA
Mnemonic : RAL
Measure Point: 4.21': NEAR RCVR
Measure Point: 3.25': FAR RCVR

NEAR RCVR — 13.81'

FAR RCVR — 12.85'

CCL — 8.65'

GR — 6.79'

RAL NEUTRON/GR/CCL/CHV DETECTOR


Diameter : 2.75"
Length : 9.42'
Weight : 106 lbs
Series : 2459XA
Mnemonic : RAL
Measure Point: 8.46': CCL
Measure Point: 6.60': GR
Measure Point: 1.21': NEU

NEU — 1.40'

BULL PLUG 2 3/4

0.00'

TOTAL LENGTH: 23.02'
TOTAL WEIGHT: 258 lbs
MAX DIAMETER: 0'4.00"

	COMPANY	WPX ENERGY		FILE NO:	
	WELL	GM 343-12			CH092544
	FIELD	GRAND VALLEY		API NO:	
	COUNTY	GARFIELD	STATE	COLORADO	05045224660000
LOCATION:		ELEVATIONS:		12 7S 96W	
SHL: 1208' FNL & 1928' FWL		KB 5151 FT		GM 21-12 PAD	
BHL: 2057' FSL & 1341' FEL		DF		NABORS 573	
GL 5125 FT		DATE		19-Nov-2014	
SEC 12 TWP 7S RGE 96W					