



FILE NO: CH085724	COMPANY WELL FIELD COUNTY	WPX ENERGY C&C ENERGY GM 421-13 GRAND VALLEY GARFIELD	STATE CO
API NO: 05045222600000			

Ver. 3.87 S13 T7S R96W PAD: GM 24-12 H&P 318	LOCATION: SHL: 273 FSL 1039' FWL BHL: 736 FNL 2206' FWL SEC 13 TWP 7S RGE 96W	OTHER SERVICES RPM
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PERMANENT DATUM LOG MEASURED FROM DRILL. MEAS. FROM	GL KB KB KB	ELEVATION 5141 FT 24 FT ABOVE P.D.
		ELEVATIONS: KB 5165 FT DF GL 5141 FT

DATE	15-May-2014
RUN	1
SERVICE ORDER	US086724
DEPTH DRILLER	6282 FT
DEPTH LOGGER	6252 FT
BOTTOM LOGGED INTERVAL	6242 FT
TOP LOGGED INTERVAL	26 FT
TIME STARTED	0830
TIME FINISHED	1130
OPERATOR RIG TIME	3
TYPE OF FLUID IN HOLE	WATER
FLUID DENSITY	NA
FLUID SALINITY	NA
FLUID LEVEL	64 FT
LOGGED CEMENT TOP	NA
WELLHEAD PRESSURE	0 PSI
MAXIMUM HOLE DEVIATION	NA
NOMINAL LOGGING SPEED	65 FMIN
MAX. RECORDED TEMP.	202 DEGF
REFERENCE LOG	BAKER HUGHES OH LOG
REFERENCE LOG DATE	20-APR-2014
EQUIP. NO.	6670
LOCATION	GRAND JCT
RECORDED BY	D SMITH/T NEWELL
WITNESSED BY	JEFF BRADY

IN MAKING INTERPRETATIONS OF LOGS OUR EMPLOYEES WILL GIVE THE CUSTOMER THE BENEFIT OF THEIR BEST JUDGEMENT. BUT SINCE ALL INTERPRETATIONS ARE OPINIONS BASED ON INFERENCES FROM ELECTRICAL OR OTHER MEASUREMENTS, WE CANNOT, AND WE DO NOT GUARANTEE THE ACCURACY OR CORRECTNESS OF ANY INTERPRETATION. WE SHALL NOT BE LIABLE OR RESPONSIBLE FOR ANY LOSS, COST, DAMAGES, OR EXPENSES WHATSOEVER INCURRED OR SUSTAINED BY THE CUSTOMER RESULTING FROM ANY INTERPRETATION MADE BY ANY OF OUR EMPLOYEES.

BOREHOLE RECORD		
BIT SIZE	FROM	TO
13.5 IN	0 FT	1701 FT
8.75 IN	1701 FT	6325 FT

CASING RECORD				
SIZE	WEIGHT	GRADE	FROM	TO
9.625 IN	32.2 LB/F		0 FT	1701 FT
4.5 IN	11.6 LB/F	I-80	0 FT	6325 FT

REMARKS

RUN 1 TRIP 1: ALL DATA ON THIS LOG IS SHIFTED AND DEPTH MATCHED USING THE GAMMA RAY CURVE TO THE BAKER HUGHES HDIL/ZDL/CN/GR OPEN HOLE LOG DATED 20-APR-2014 AT THE CLIENT'S REQUEST

THE DEPTH MATCHING PROCESS CREATES POTENTIAL FOR COLLAR LENGTHS TO VARY FROM THOSE RECORDED ON OTHER CASED HOLE WIRELINE UNITS WITHOUT A GAMMA RAY REFERENCE

AMOUNT OF LINEAR SHIFT IS 6 FEET

LOGGED WITH 0 PSI AT WELLHEAD

BHT = 202 DEGF

SJ = 2854' - 2880'

THANK YOU FOR USING BAKER HUGHES WIRELINE SERVICES

CREW: SMITH/NEWELL/BAUGHMAN/COATE

EQUIPMENT DATA

RUN	TRIP	TOOL	SERIES NO.	SERIAL NO.	POSITION
1	1	CBL	1426XA	10154957	CENTRALIZED
1	1	GR/CCL	2459XA	10417457	CENTRALIZED

PRIMARY PRESENTATION 0 PSI

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

Plotted: Sun May 18 08:01:25 2014

PARAMETER AND FILTER SUMMARY REPORT

FILE: /dat1a/CH085724/n012e04.prm
LOGGING MODE: DEPTH DIRECTION: UP
TOP DEPTH: 27.000 ft BOTTOM DEPTH: 1043.250 ft

SYMMETRIC FILTER

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
GR	FILTER (i)	medium (1)		TOP	BOTTOM
AMPLITUDE	FILTER (j)	light (2a)		"	"
TRAVEL TIME	FILTER (j)	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*)	185	us	TOP	BOTTOM
	AMP WINDOW LENGTH	25	us	"	"
TRAVEL TIME WINDOW (NEAR)	TT WINDOW START (ttn*)	175	us	"	"
	TT WINDOW LENGTH	500	us	"	"
	FIRST BRK THRESHOLD (ttn*)	4	mV	"	"
RAL CASING PARAMETERS	PPT NEAR	215.678	us	"	"
RAL TOOL DELAY	TOOL DELAY (strn*)	-61	us	"	"
BASELINE NOISE (NEAR)	NOISE WINDOW START	133	us	"	"
	NOISE WINDOW LENGTH	25	us	"	"

CURVE DESCRIPTION REPORT

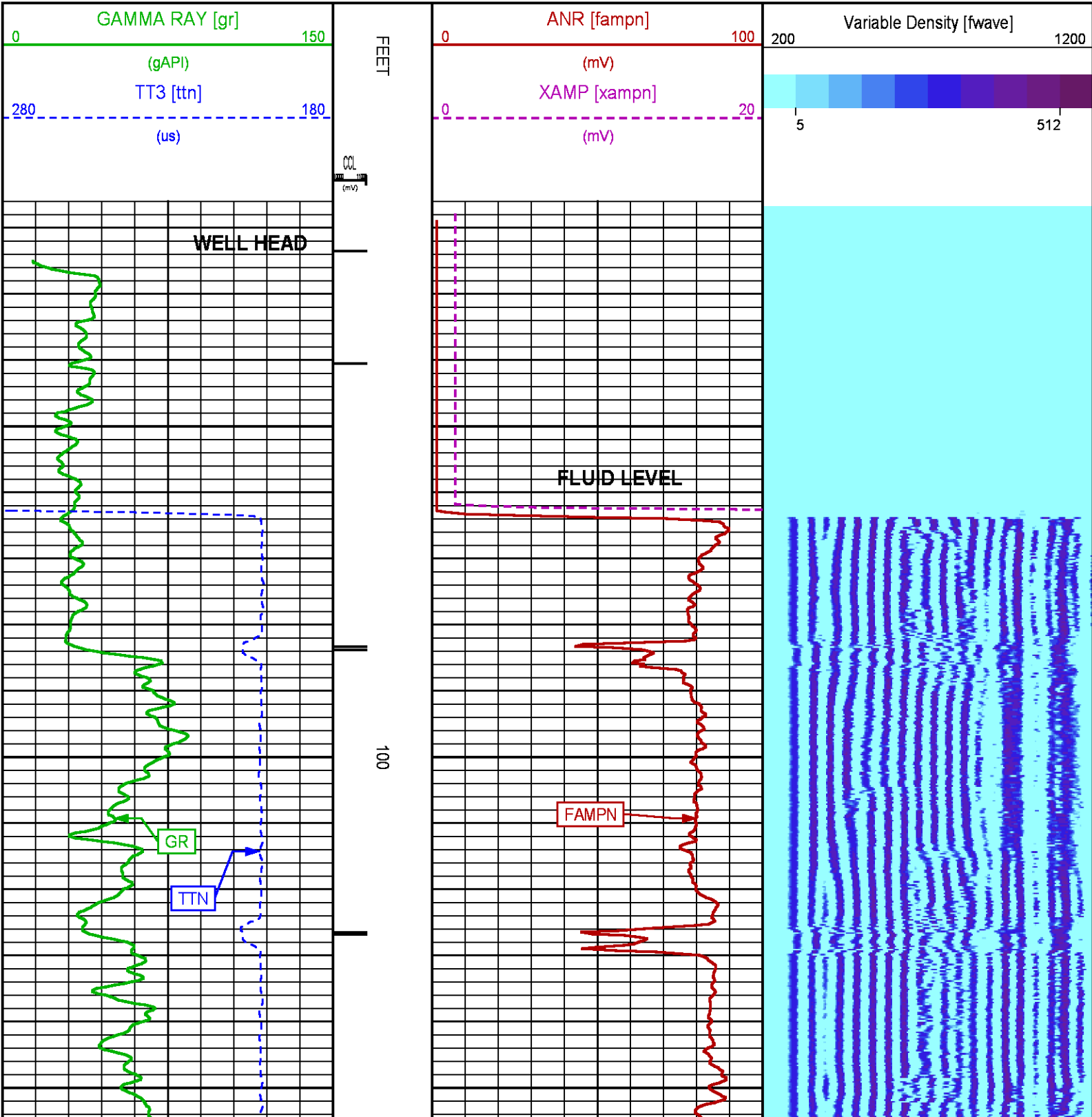
CURVE NAME	CREATION DATE	CURVE DESCRIPTION
F1:CCL	May 15 18:35:36 2014	CASING COLLAR LOCATOR
F1:FAMPN	May 15 18:35:55 2014	FIXED GATE AMPLITUDE NEAR RECEIVER
F1:FWAVE	May 15 18:36:04 2014	FAR WAVE FORM
F1:GR	May 15 18:36:04 2014	GAMMA RAY
F1:TTN	May 15 18:36:21 2014	TRAVELTIME FROM NEAR TRANSMITTER-RECEIVER
F1:XAMPN	May 15 18:36:22 2014	FIXED GATE AMPLITUDE NEAR RECEIVER TIMES FIVE

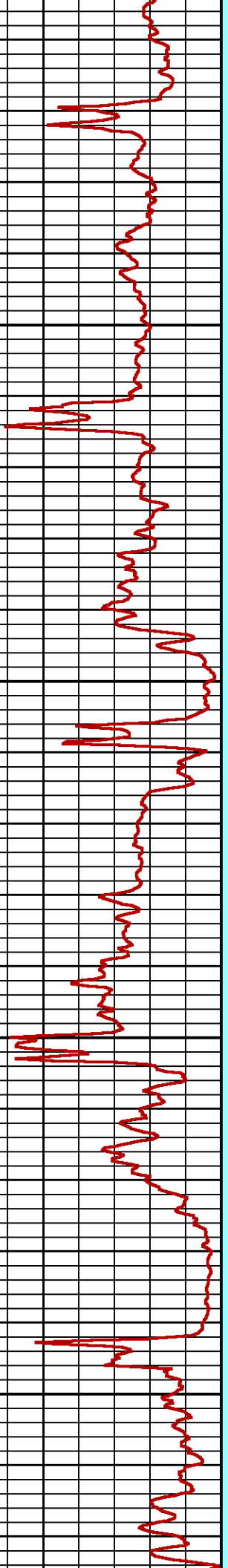
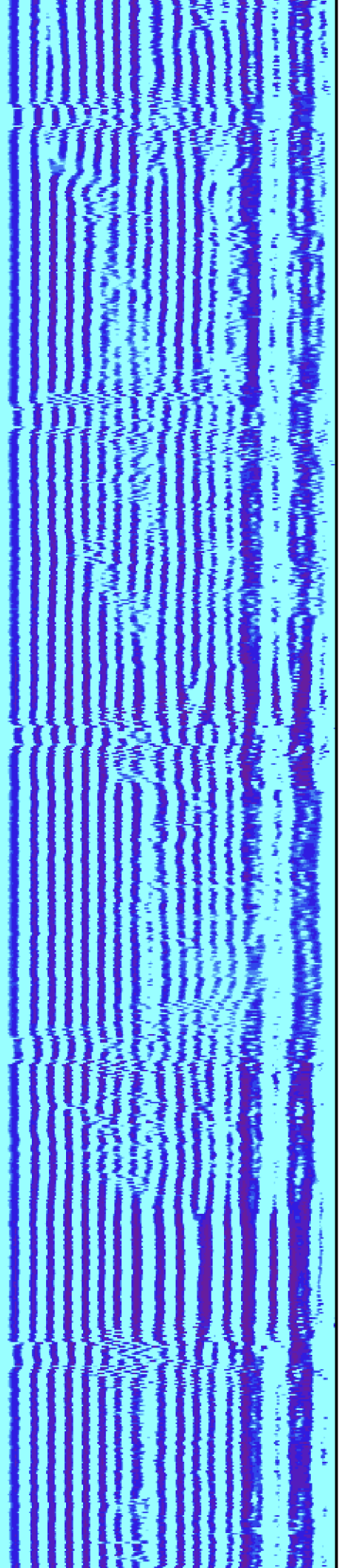
CURVE MEASURE POINT OFFSET

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:CBL_PRIMARY_FINAL_05_16.fvpdf [5"/100' Scale]
Plot Interval : 16.75 - 6266 Feet

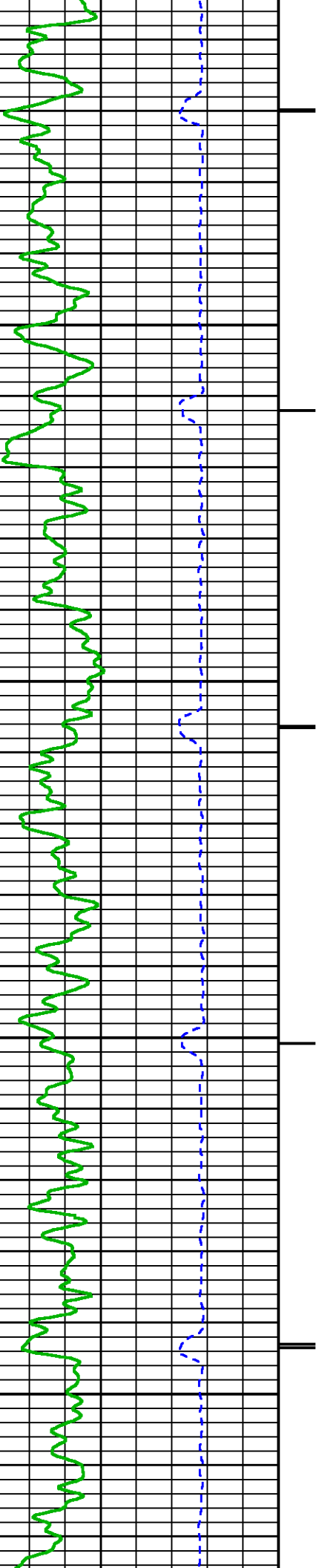
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Created On : May 15 18:35:36 2014
Company : WPX ENERGY
Well : C&C ENERGY GM 421-13
Field : GRAND VALLEY
File Interval : 16.75 - 6266 Feet
OCT : n012e

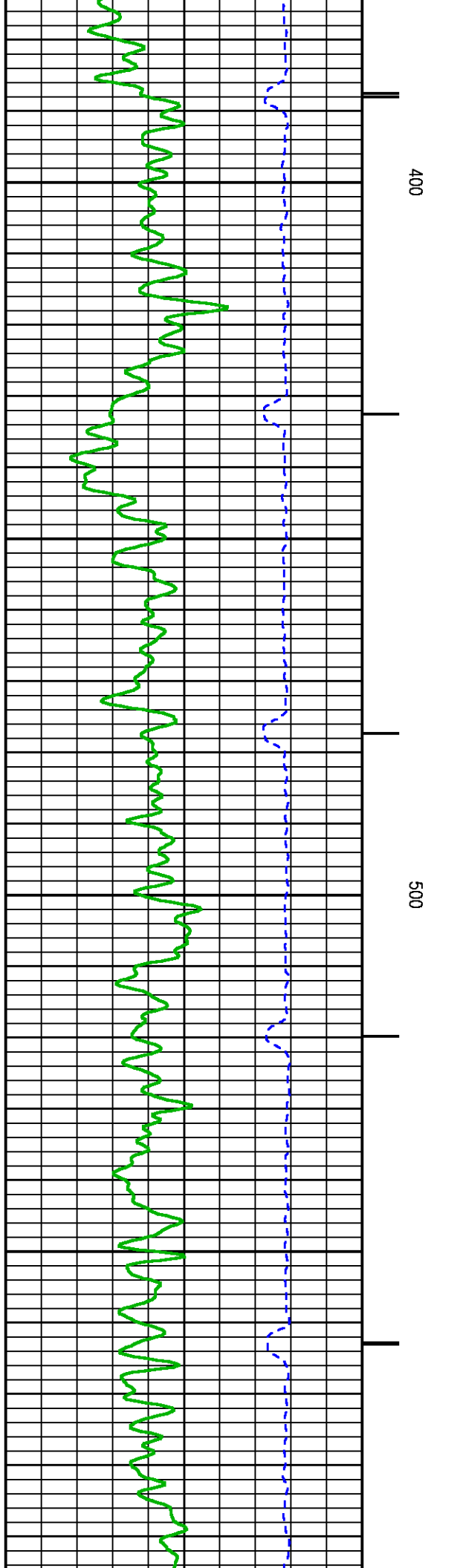
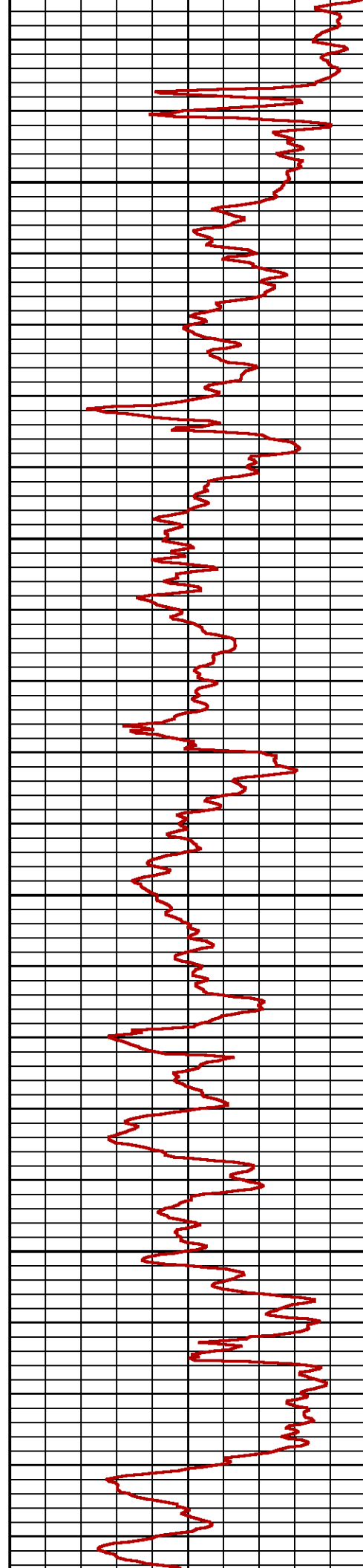
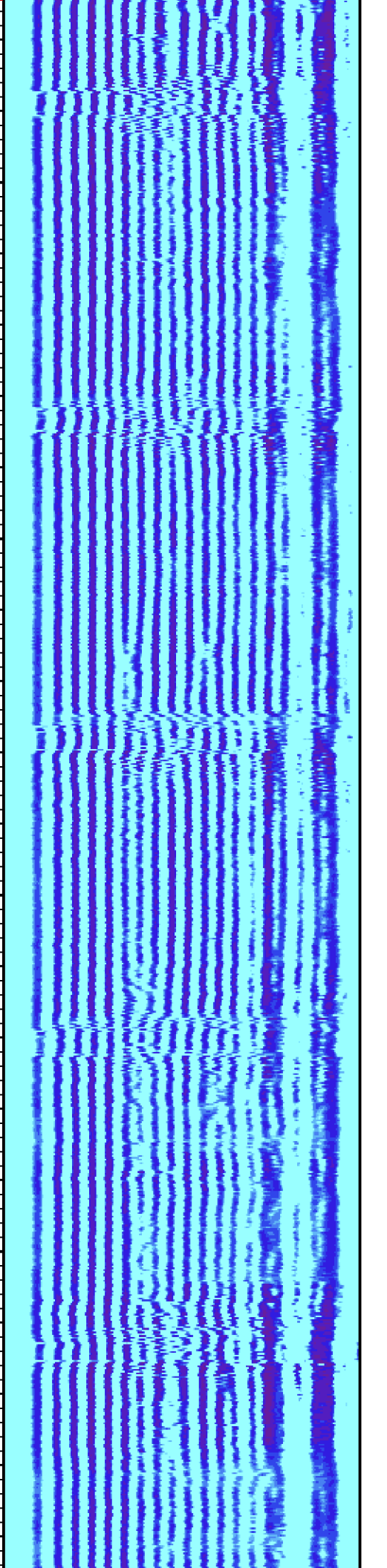


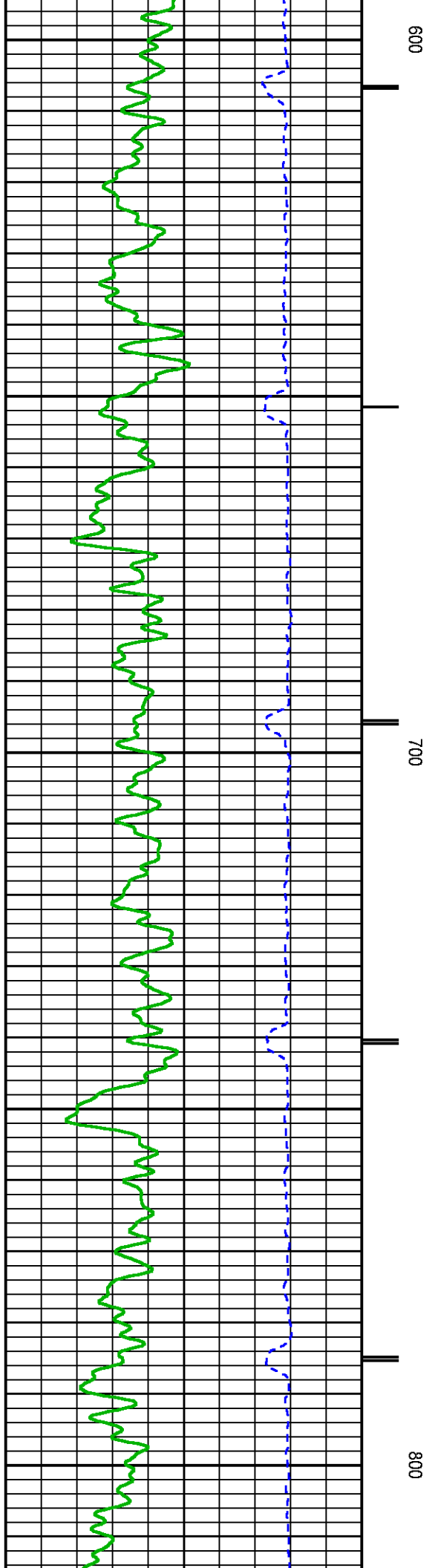
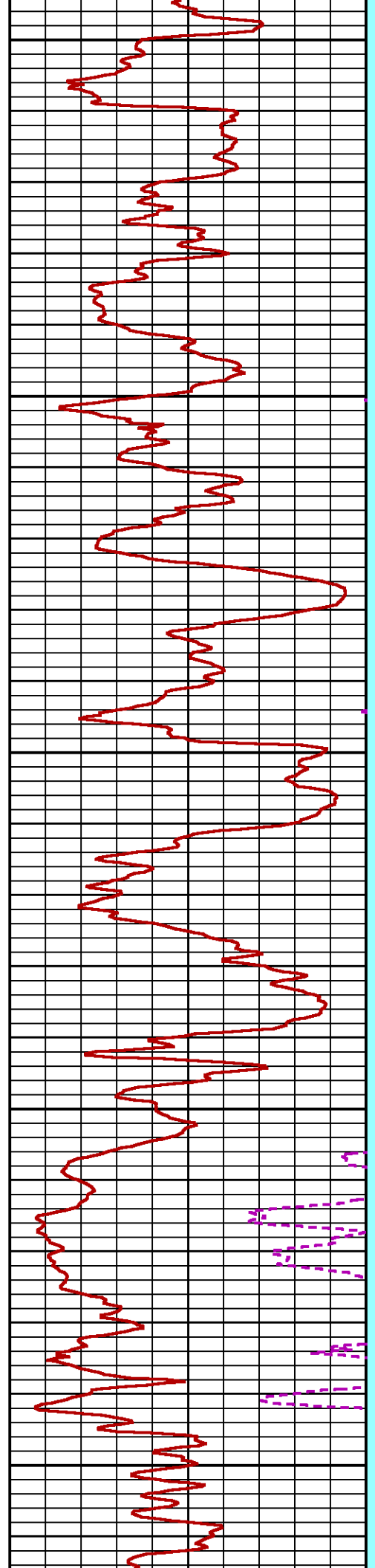
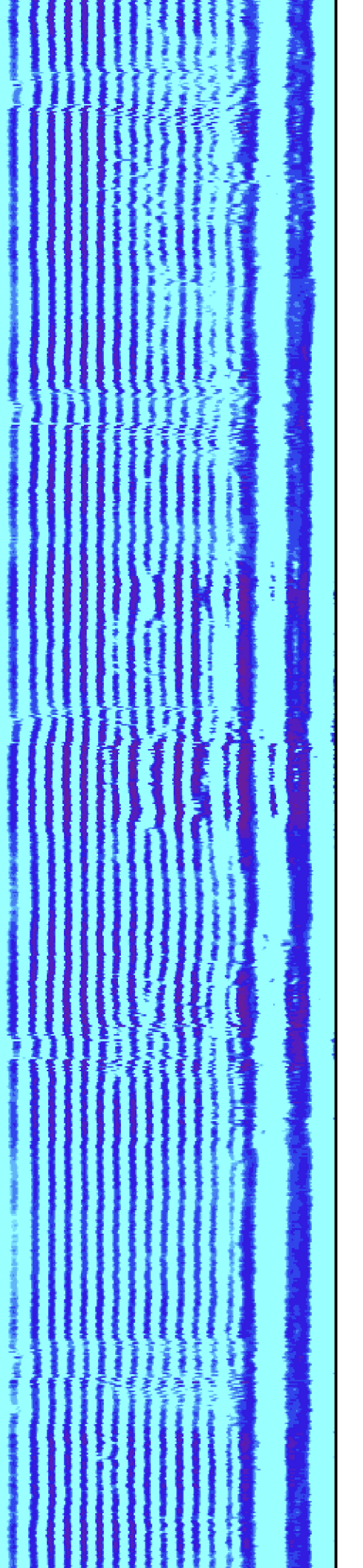


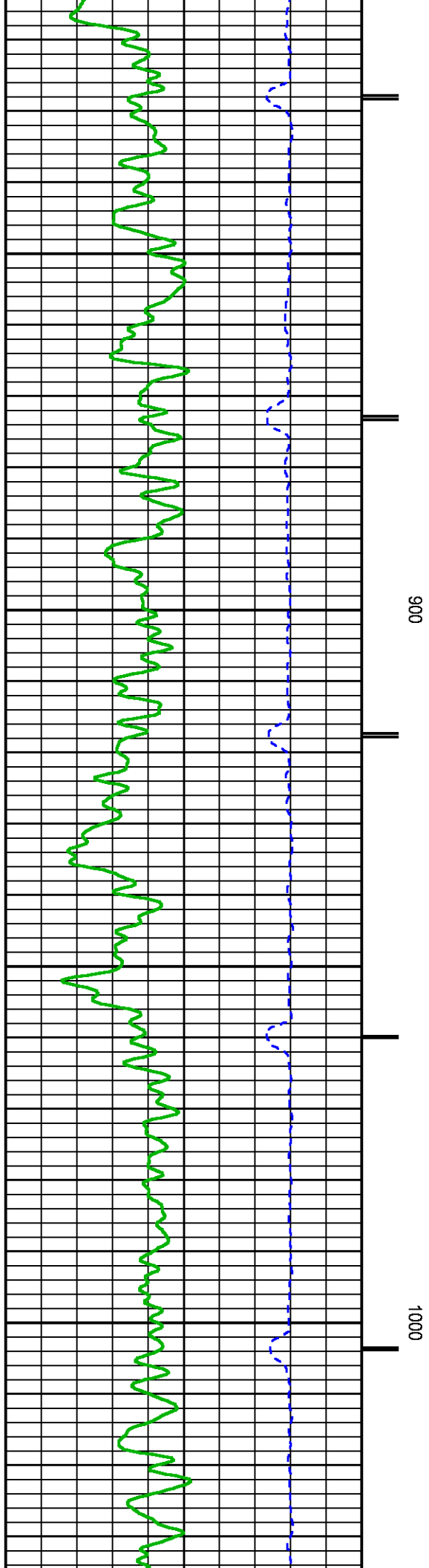
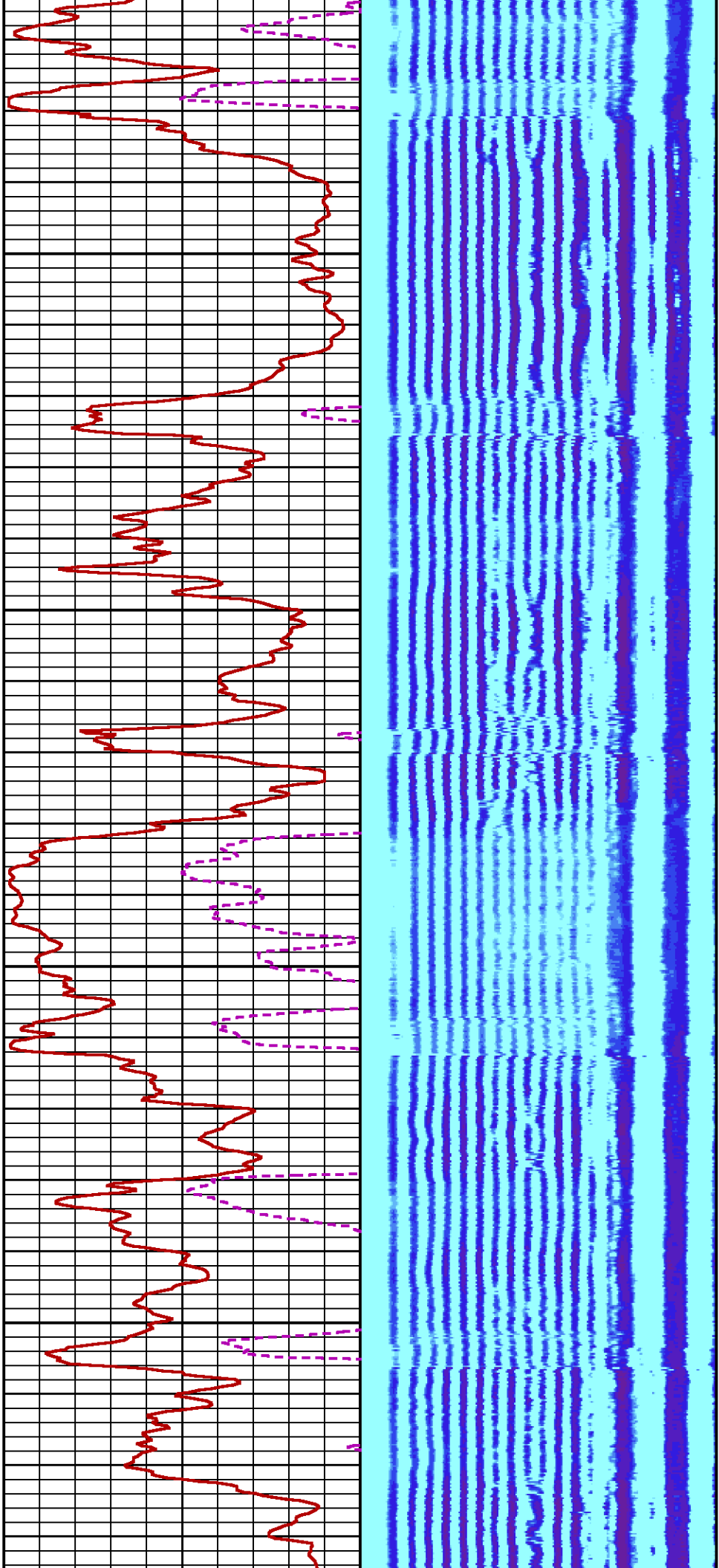
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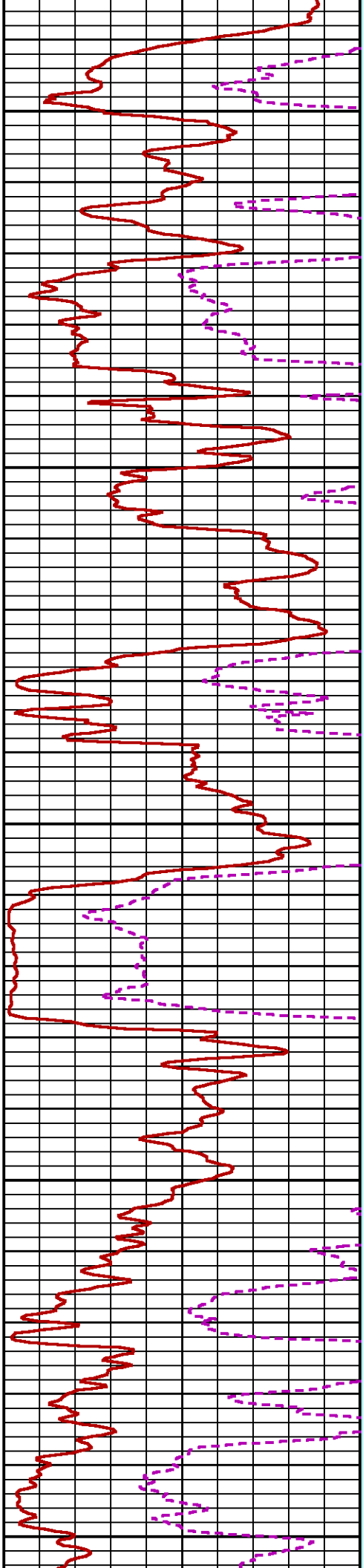
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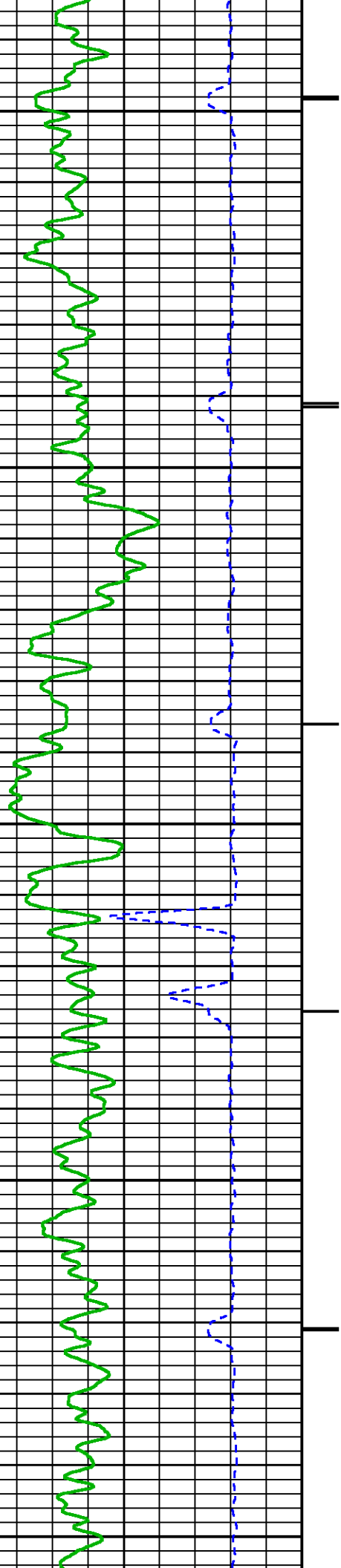


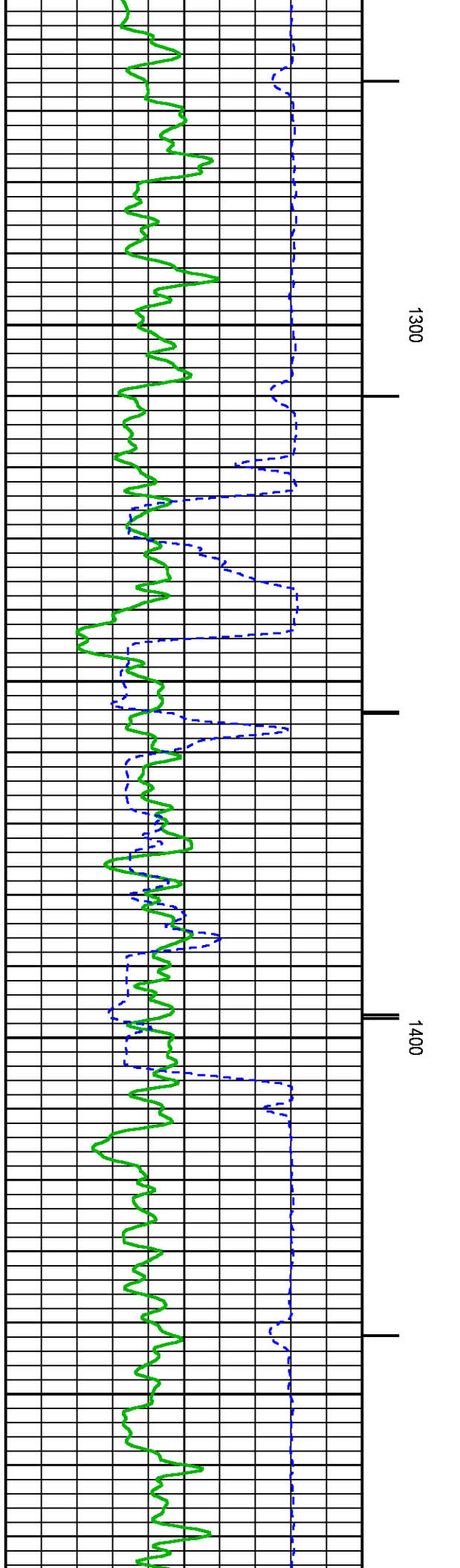
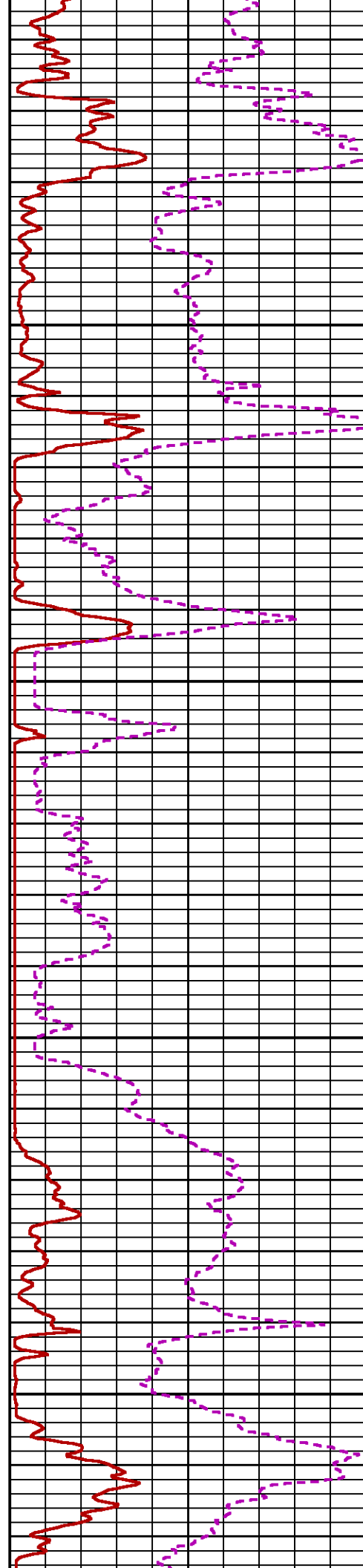
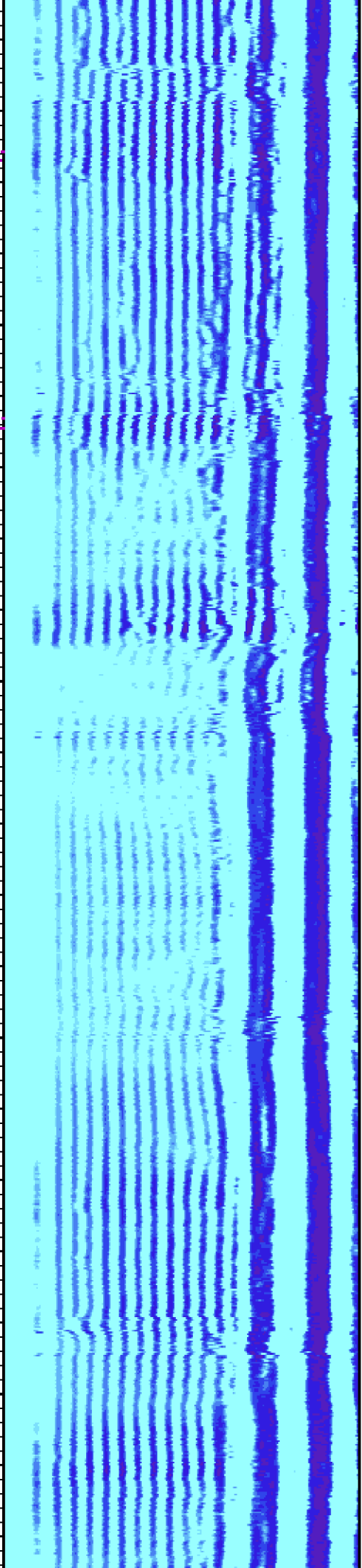


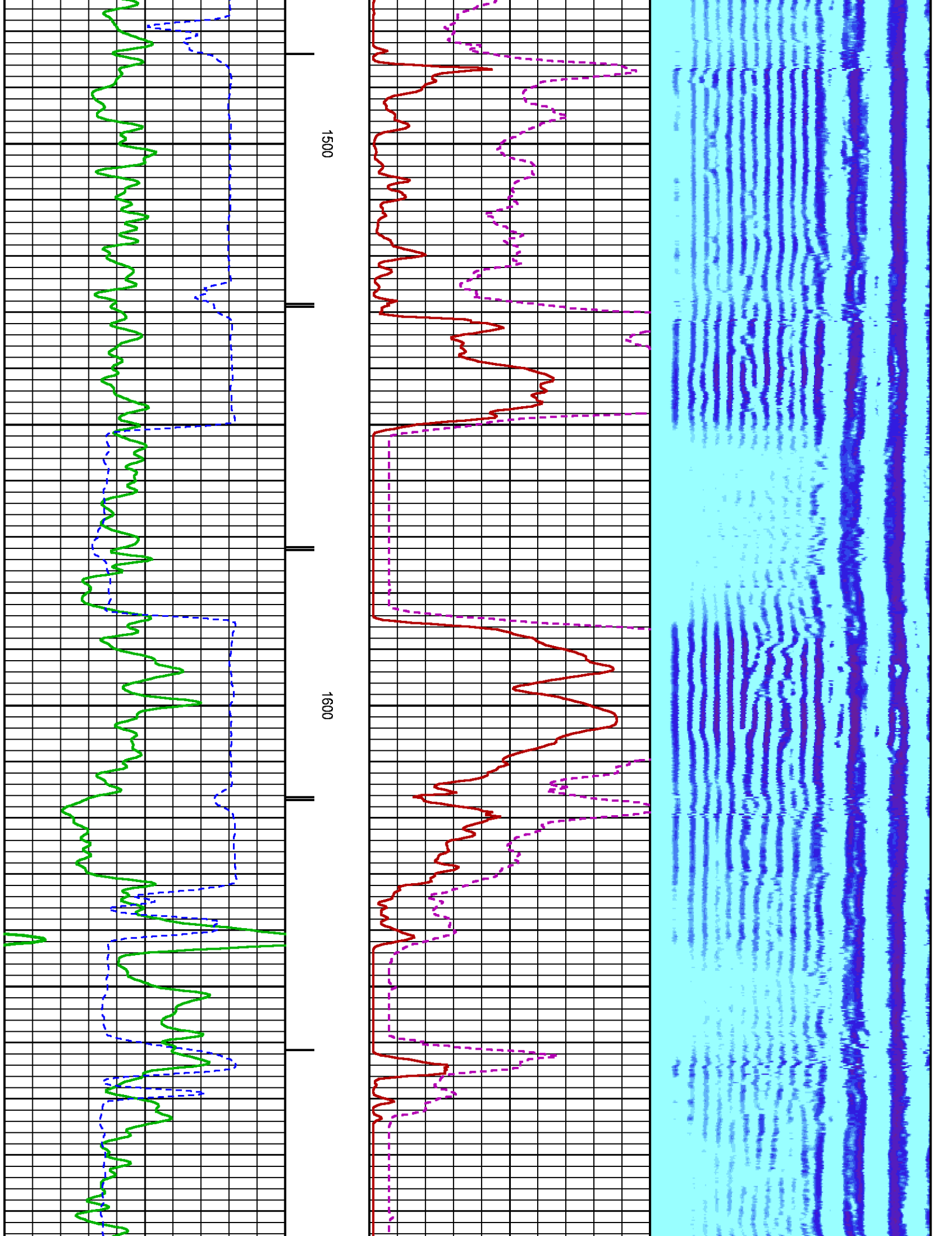


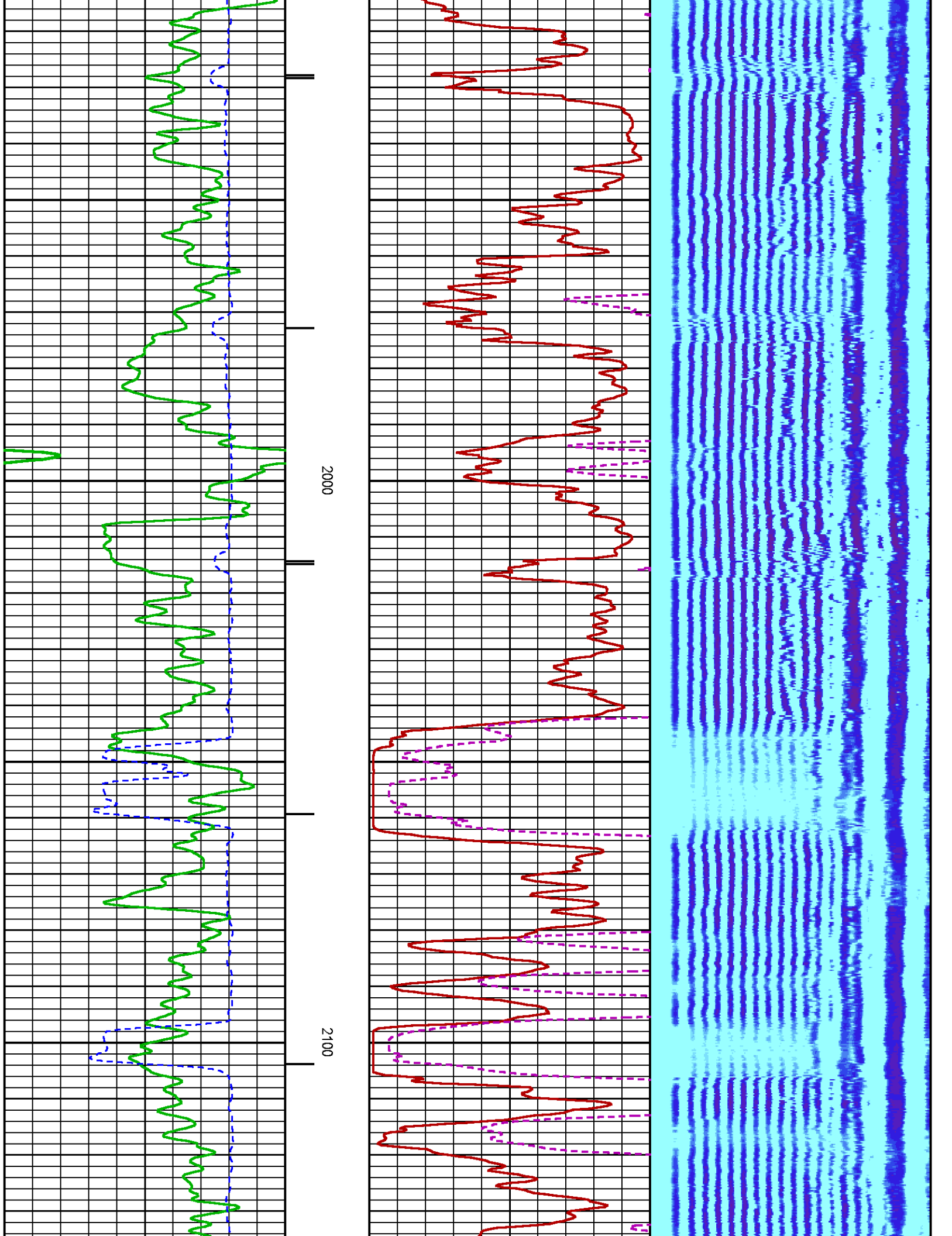
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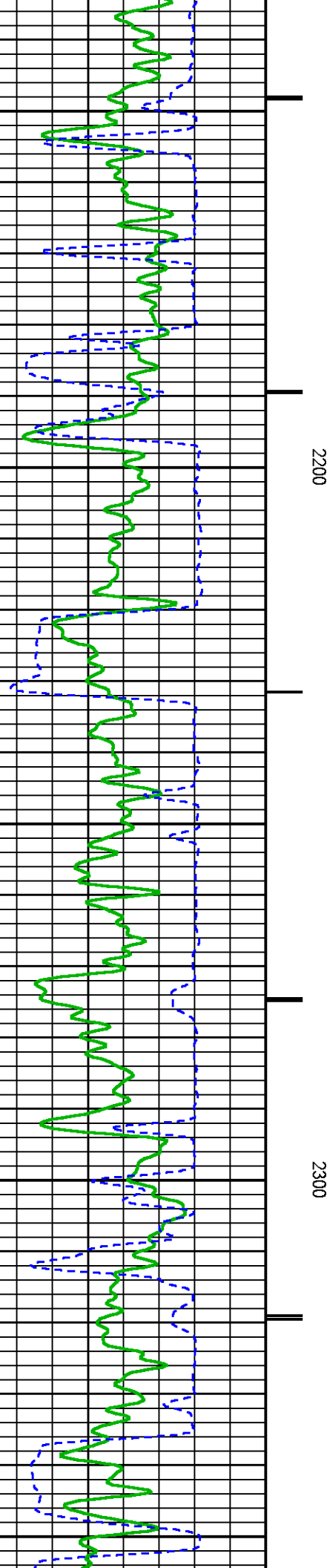
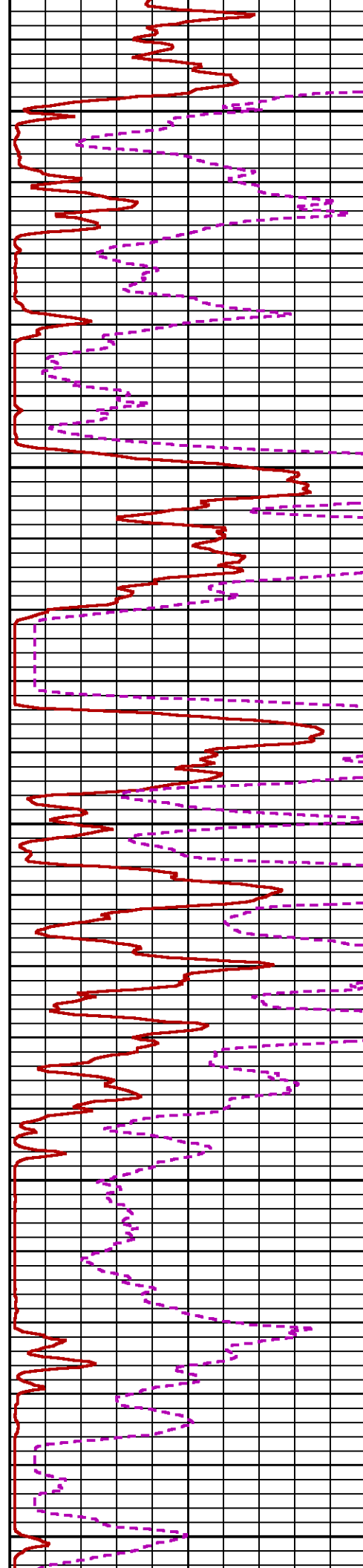
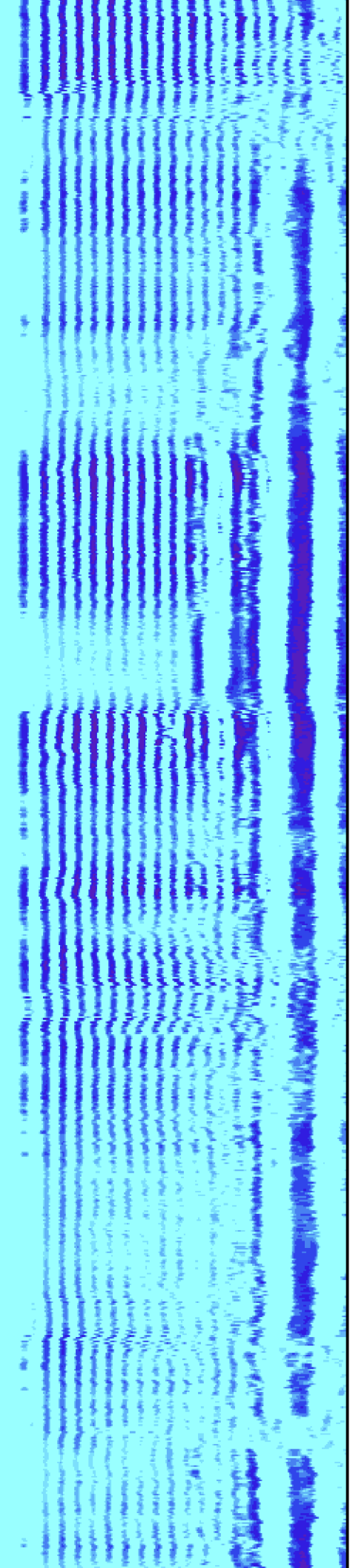
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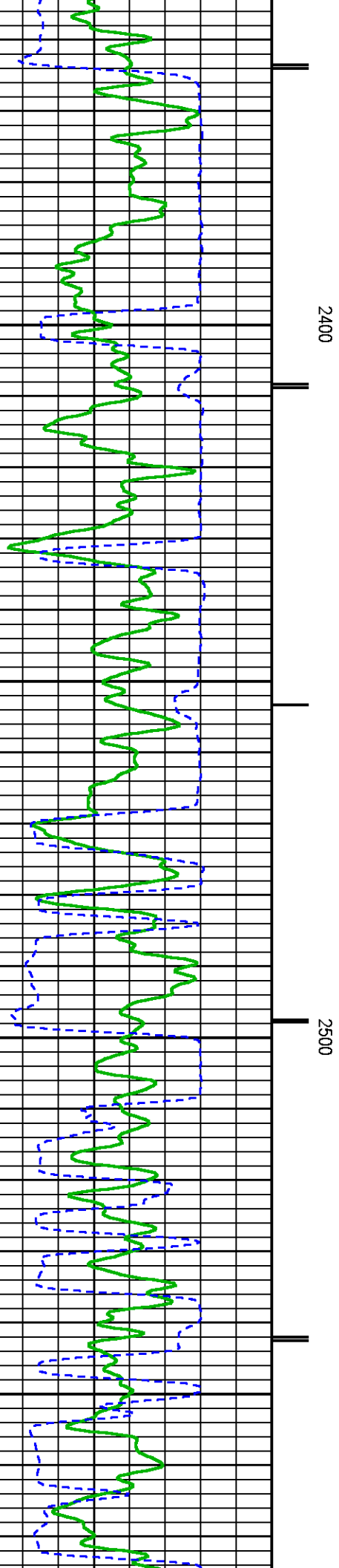
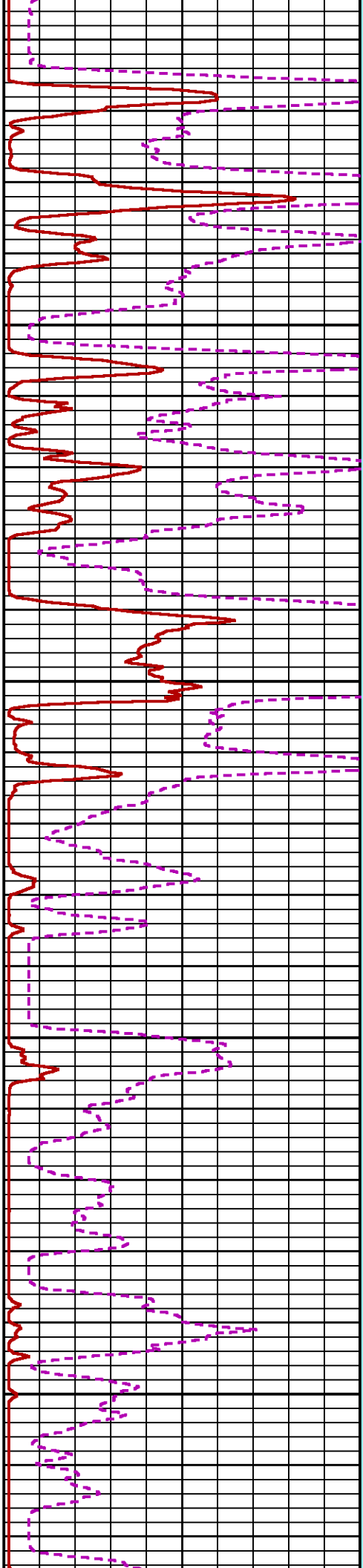
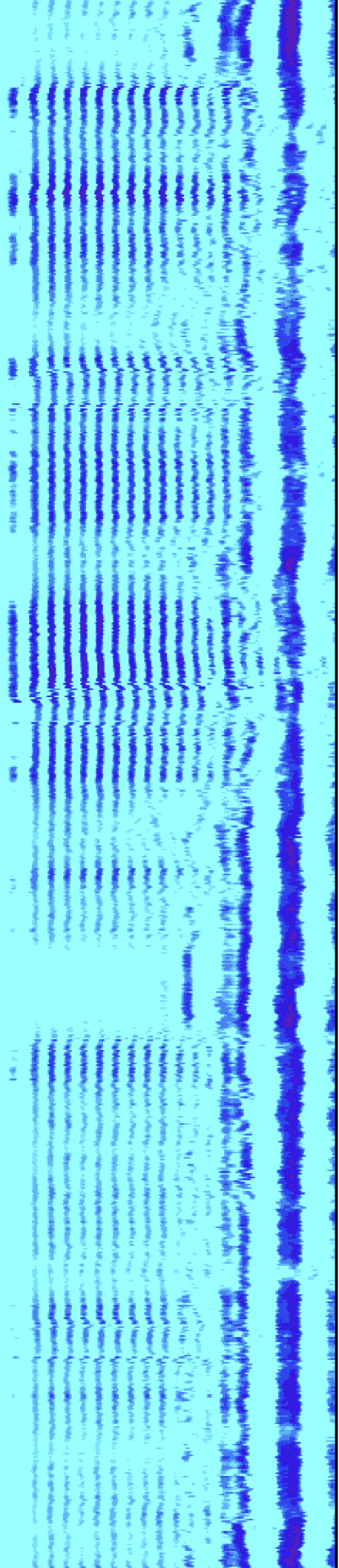


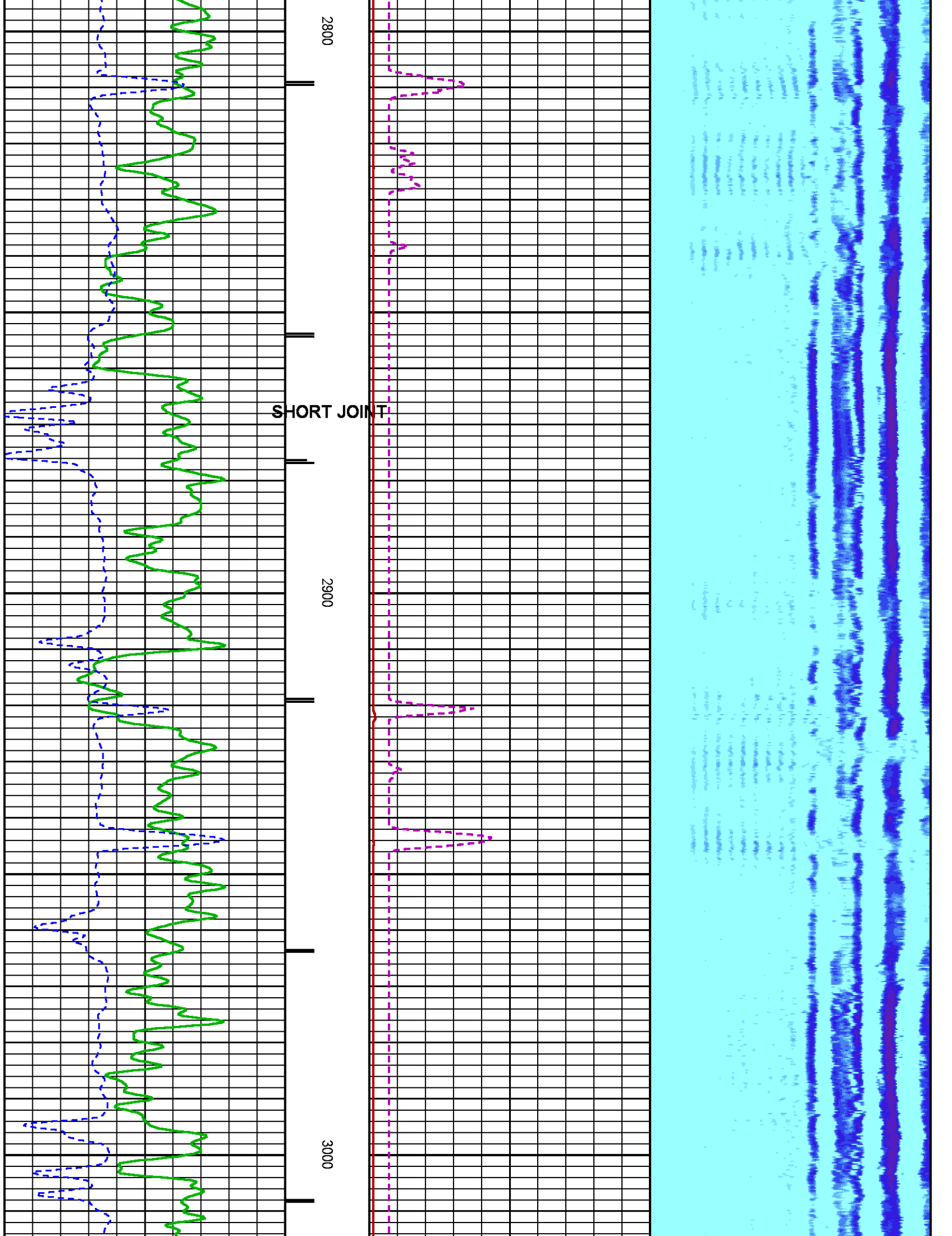


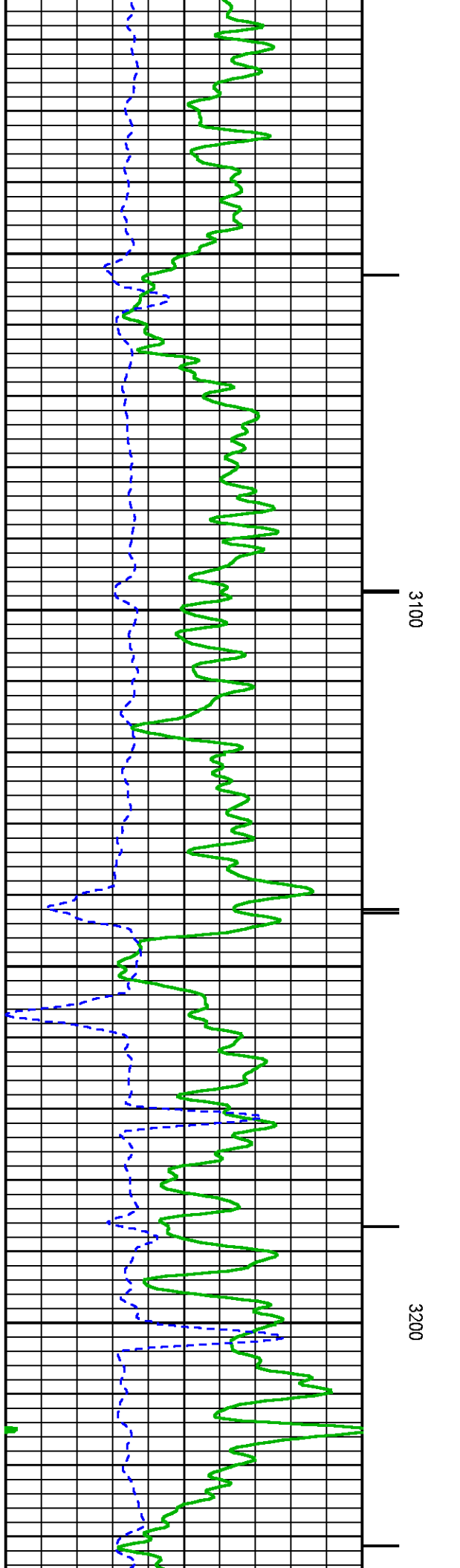
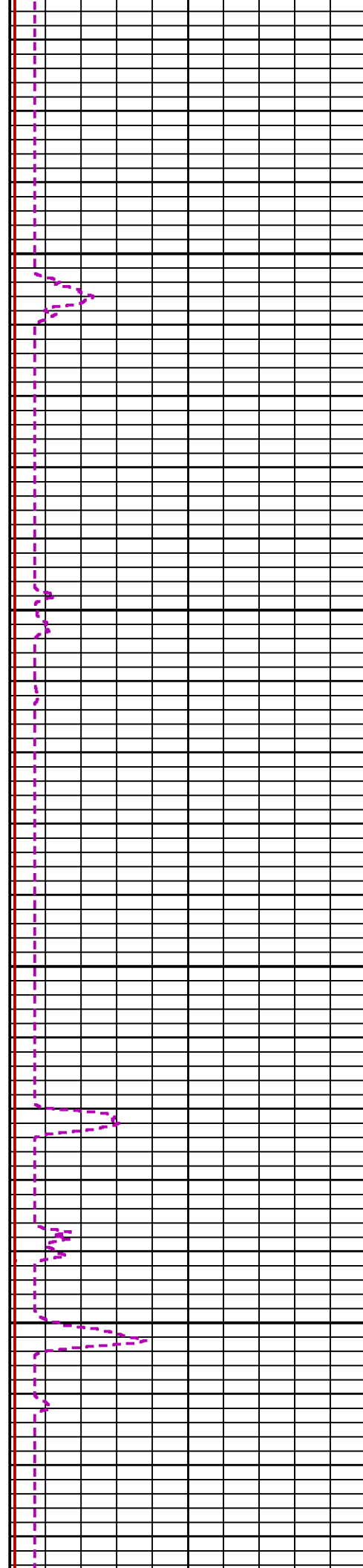
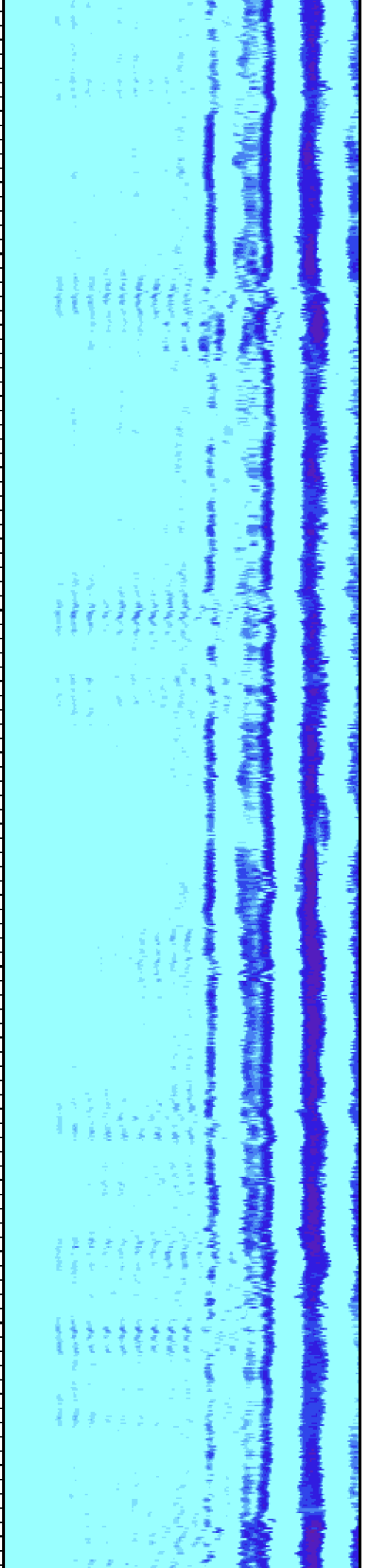


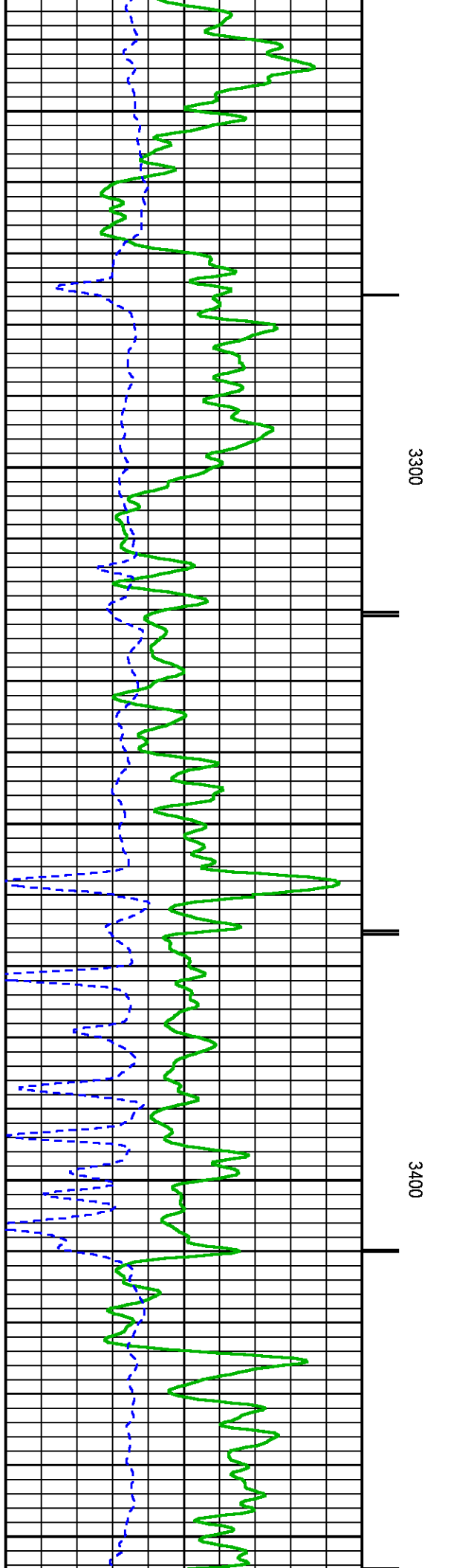
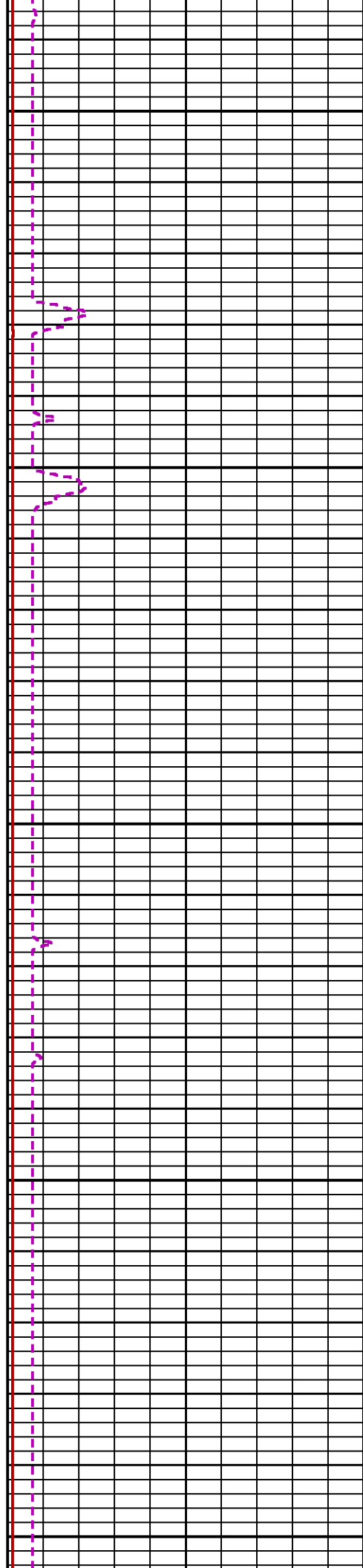
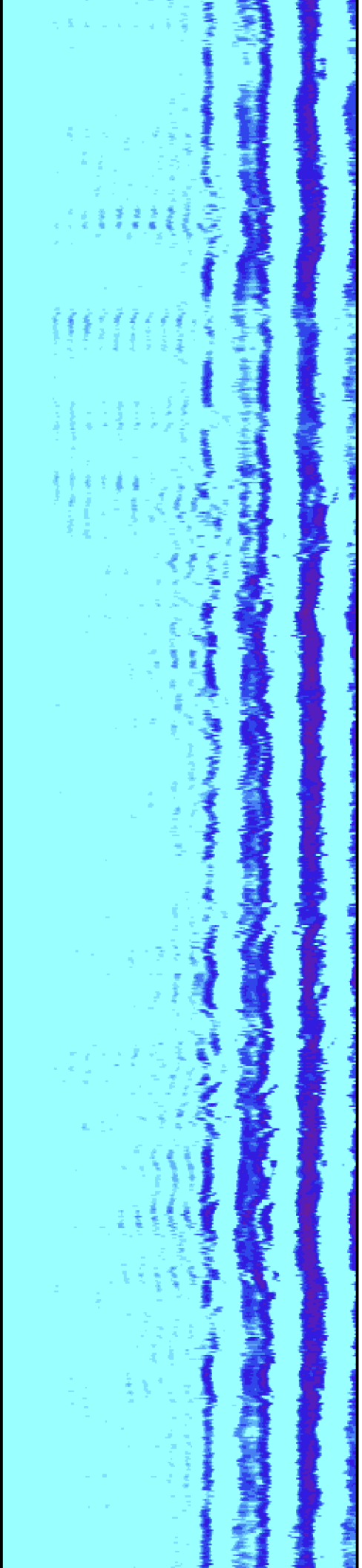


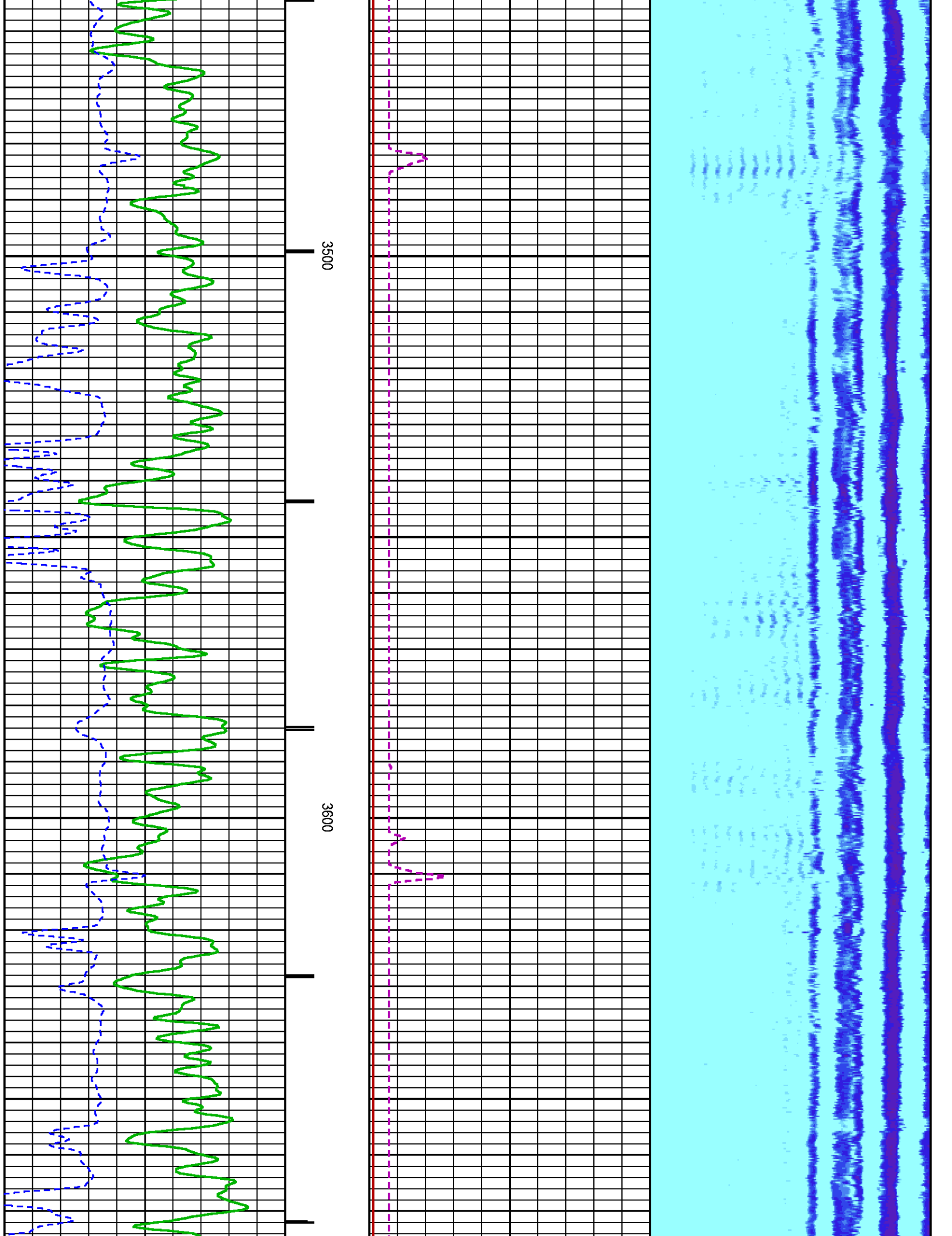


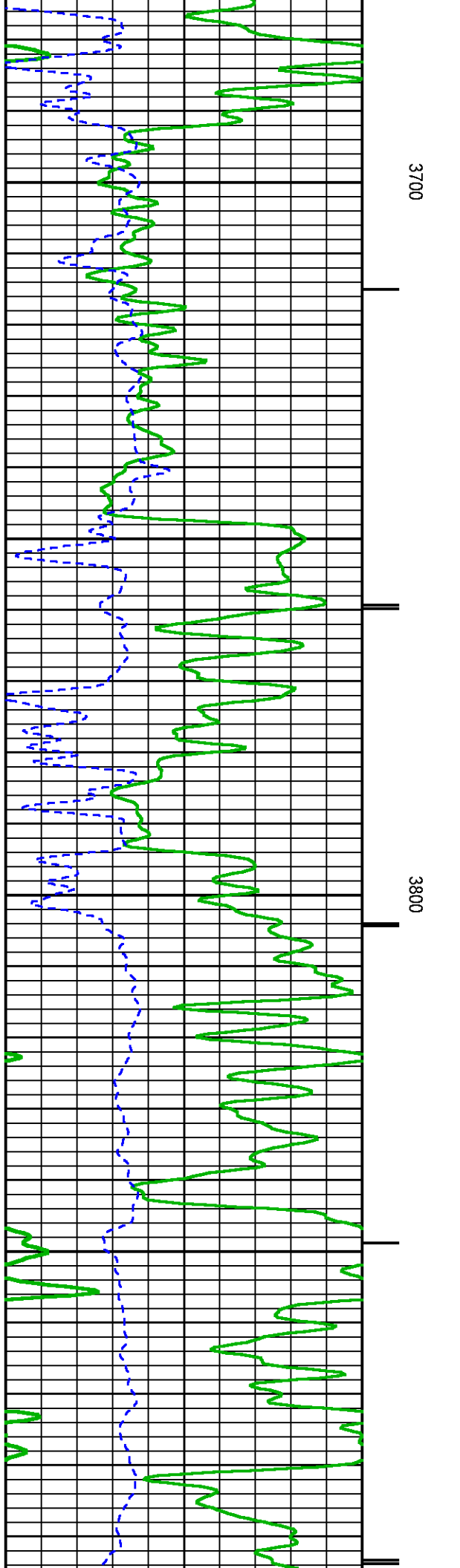
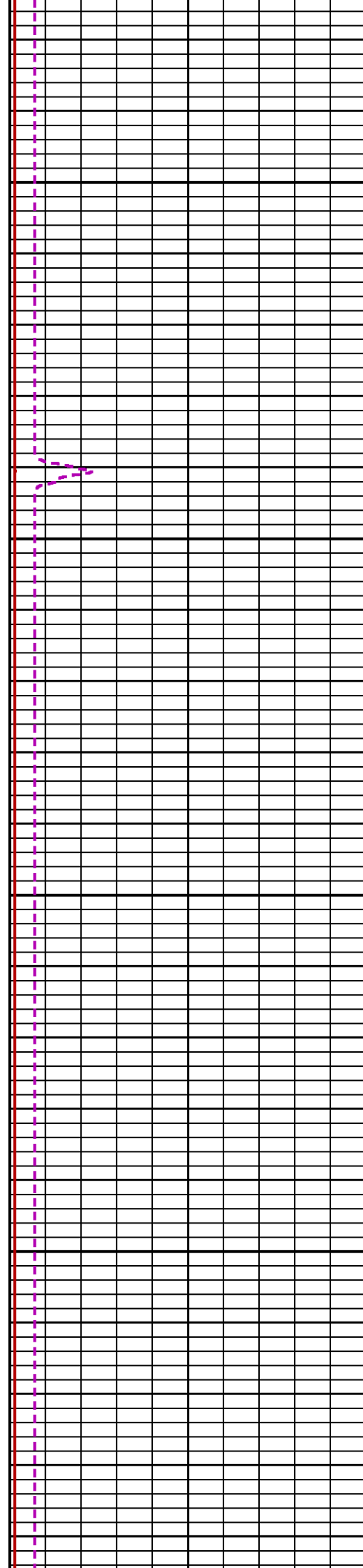
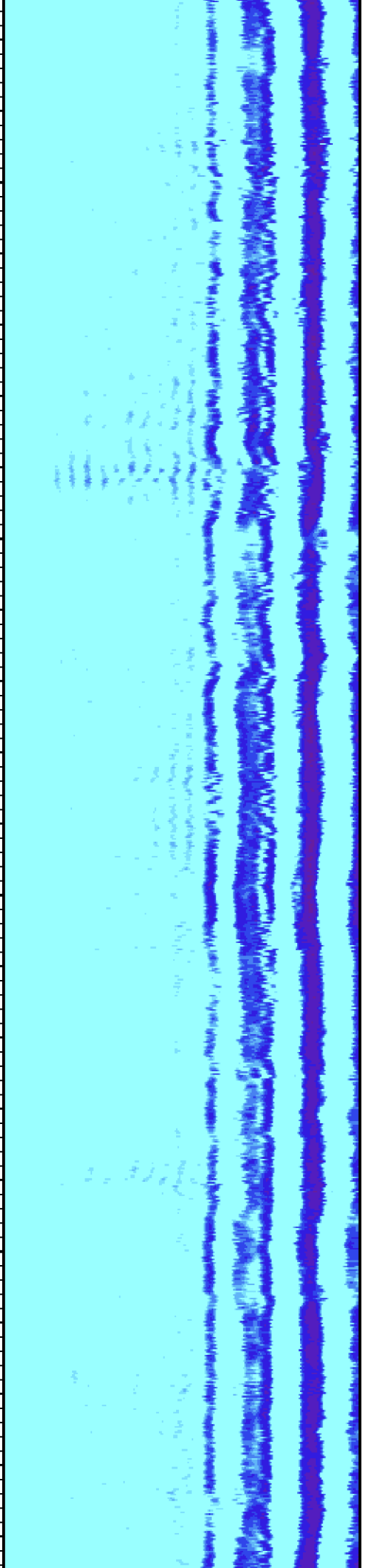


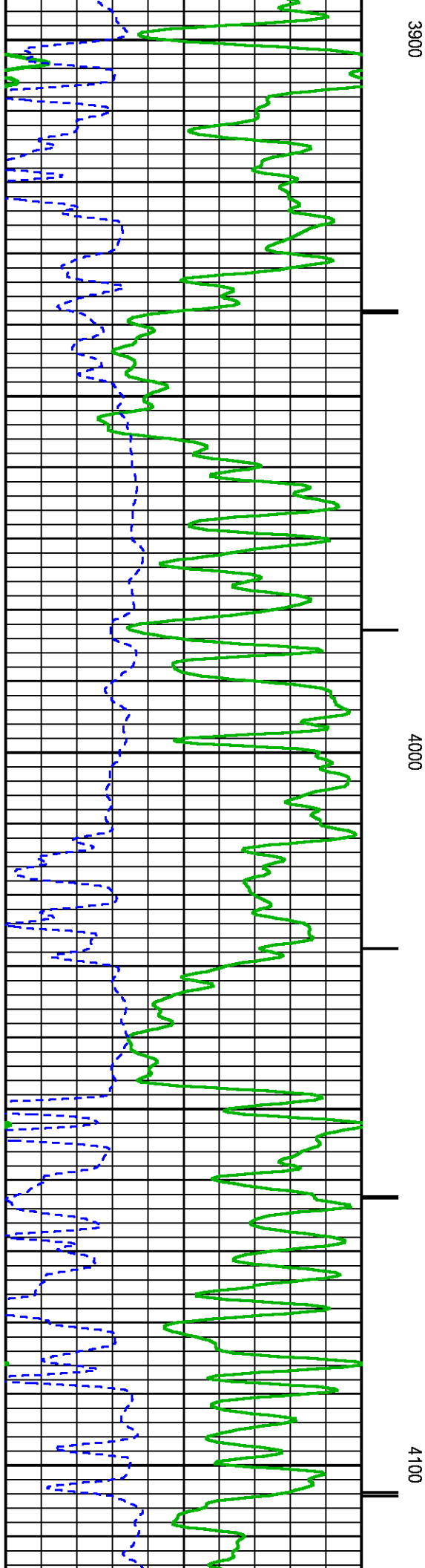
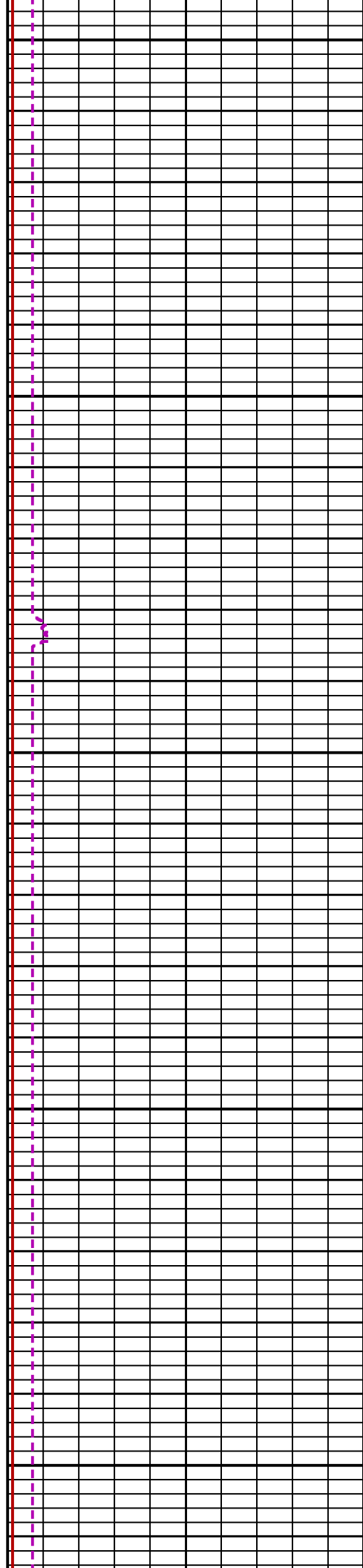
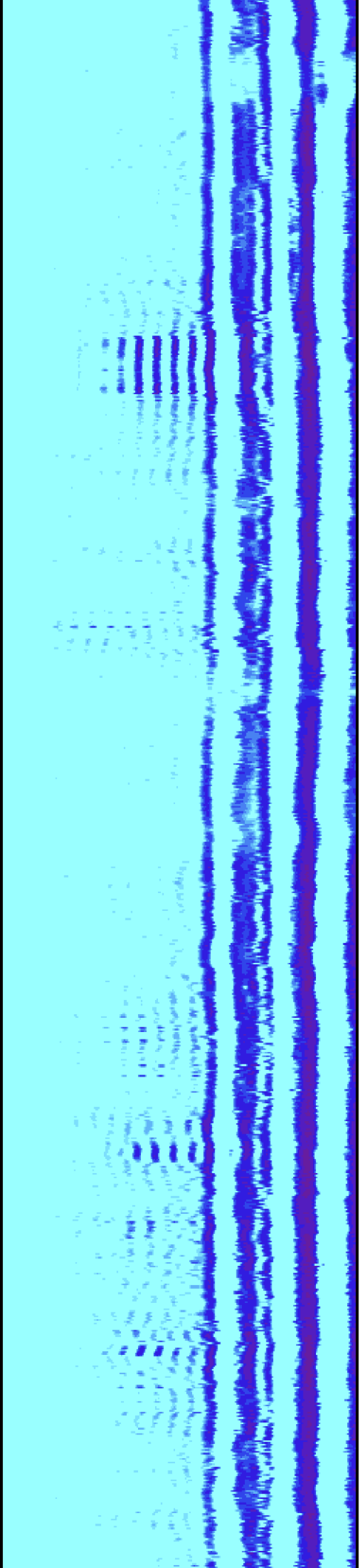


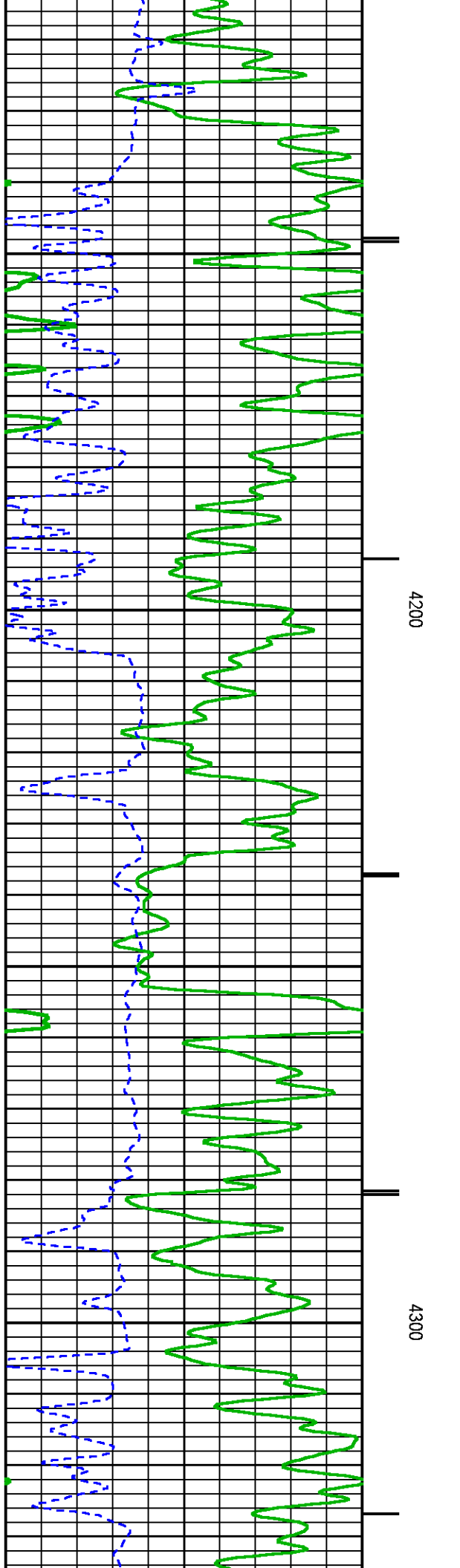
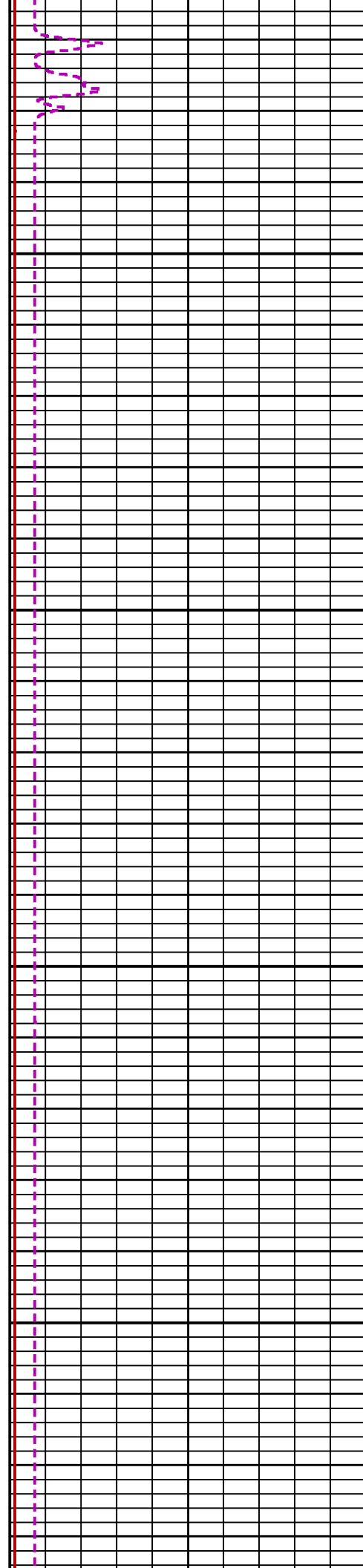
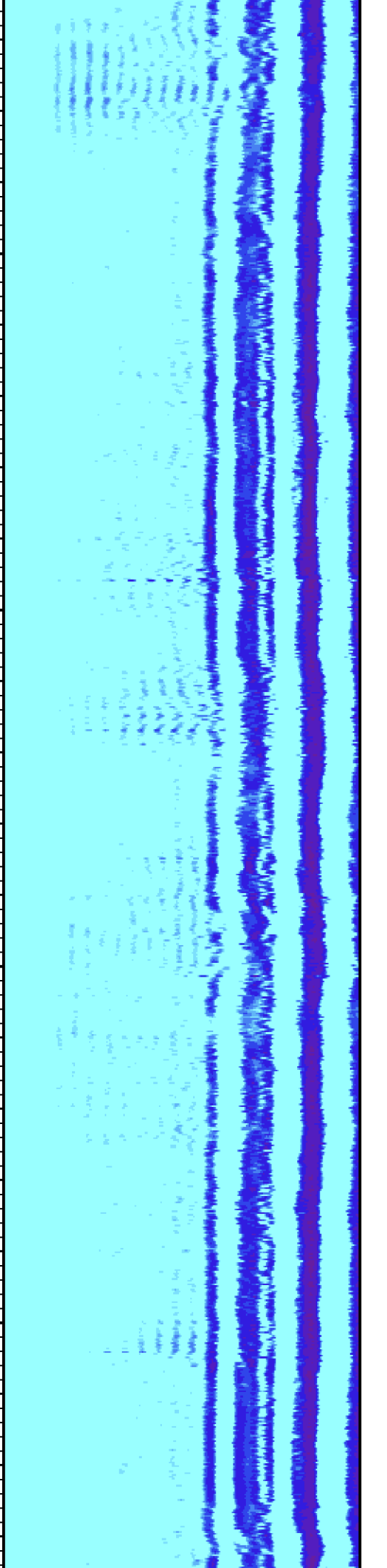


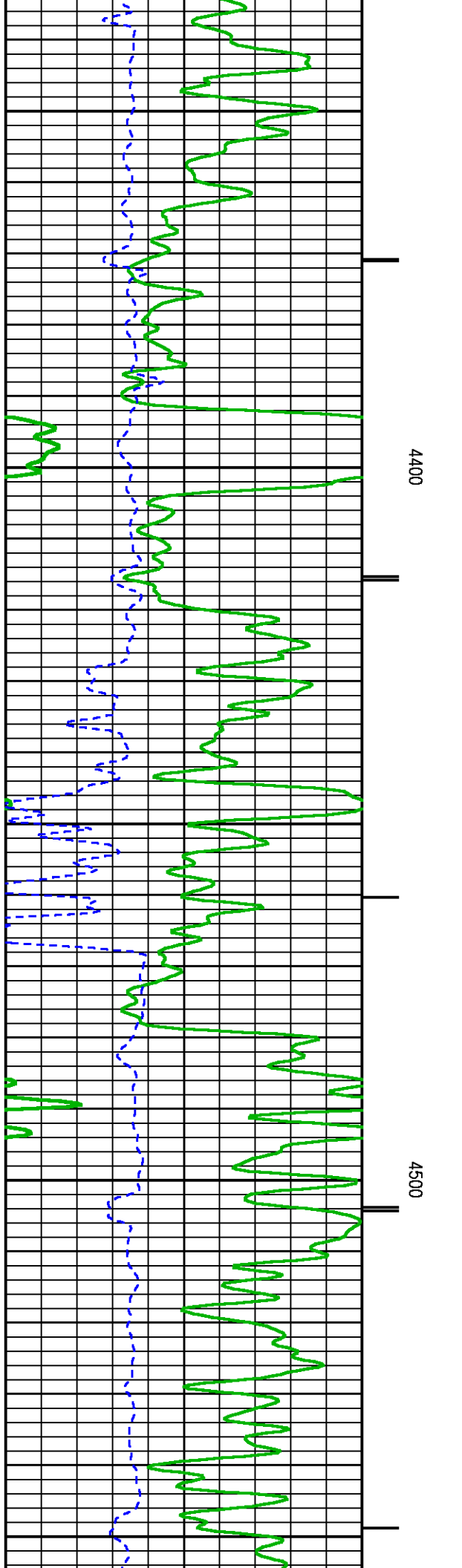
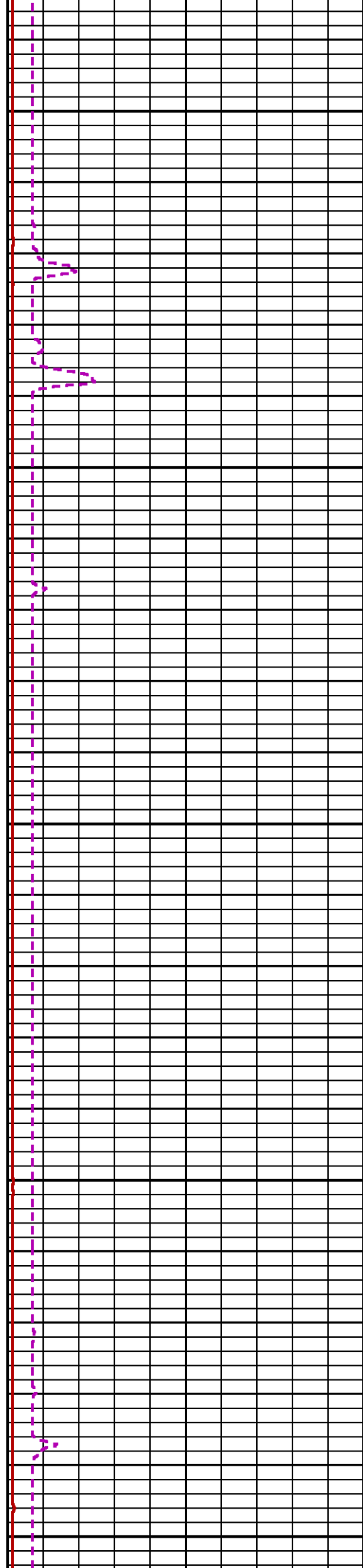
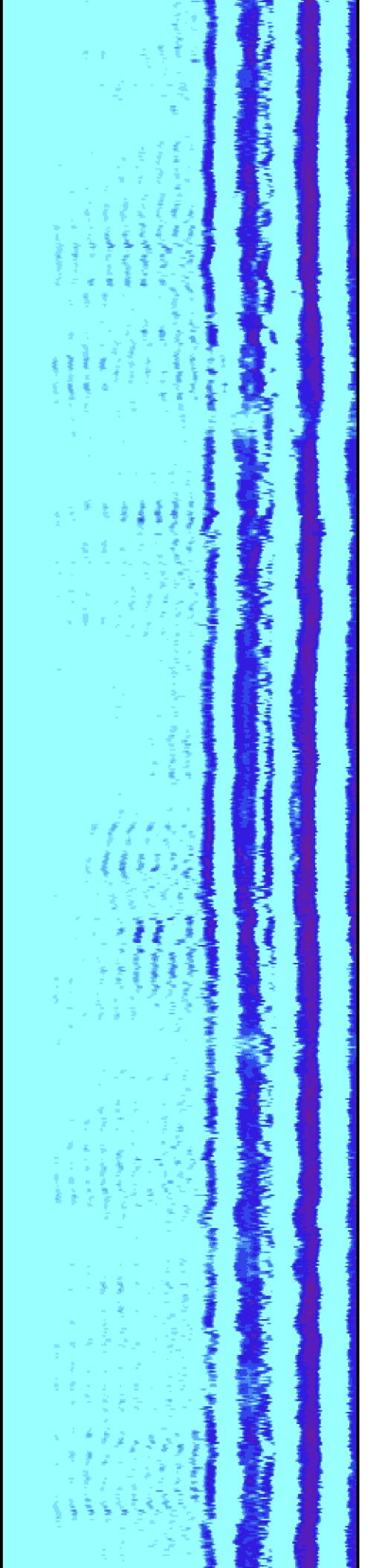


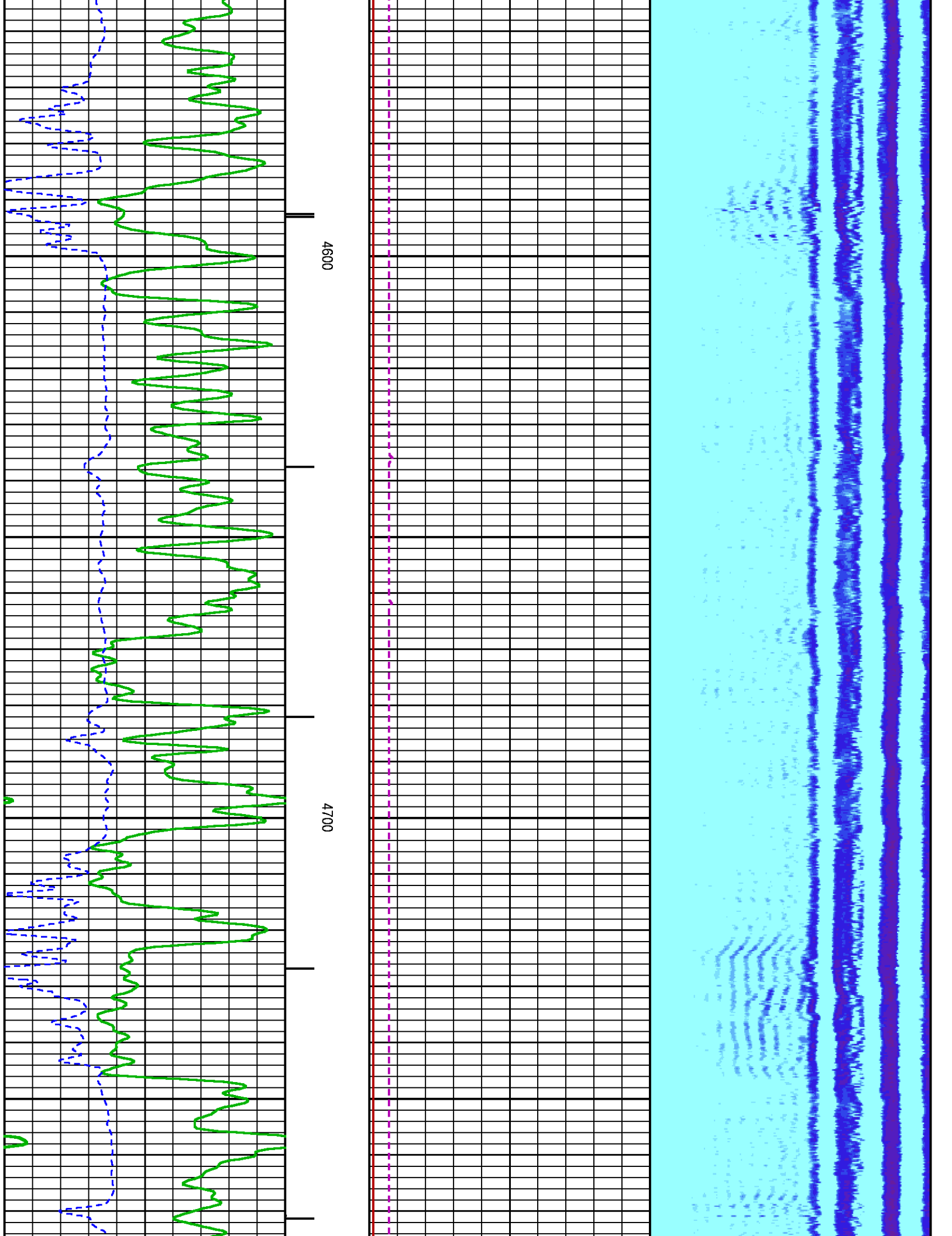


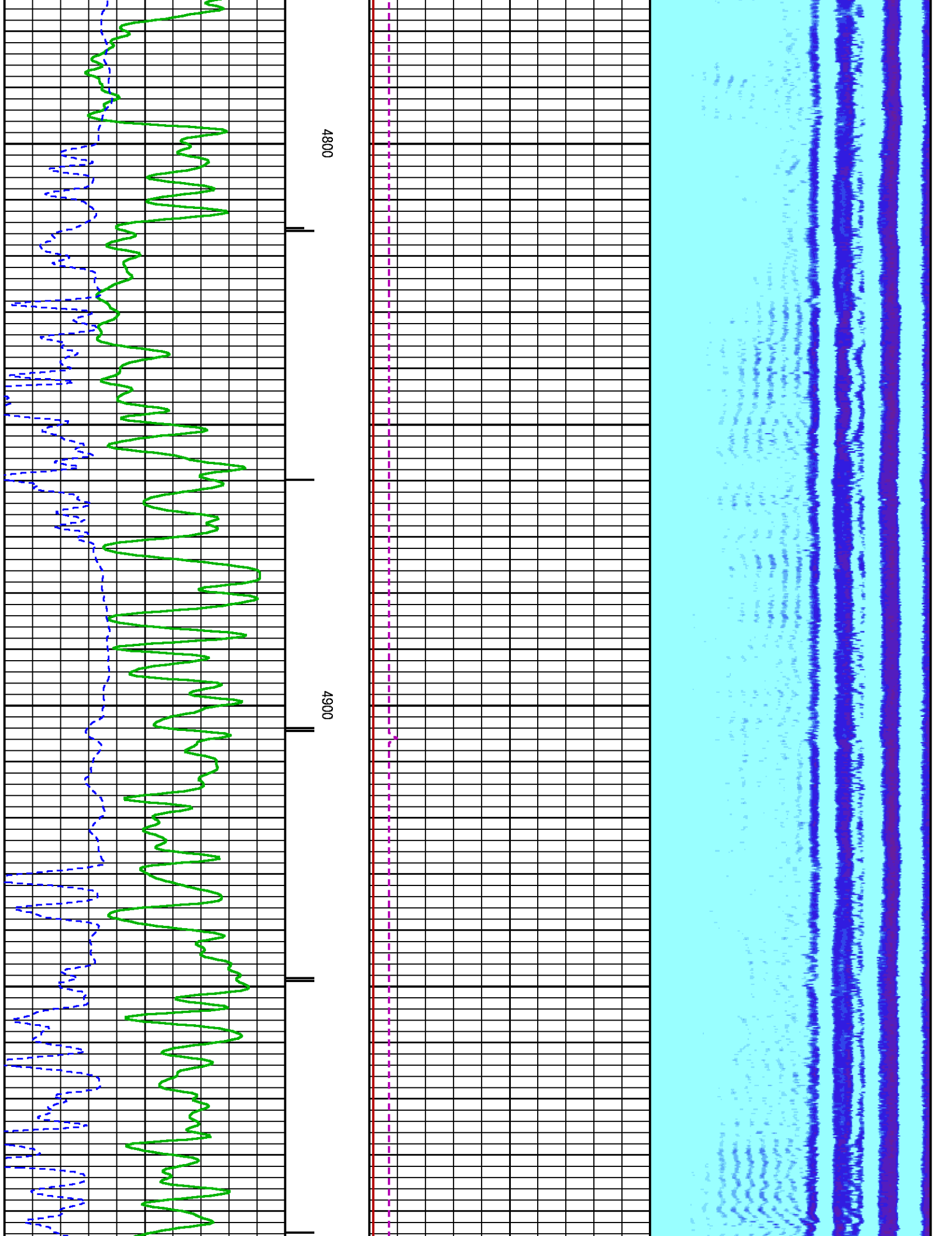


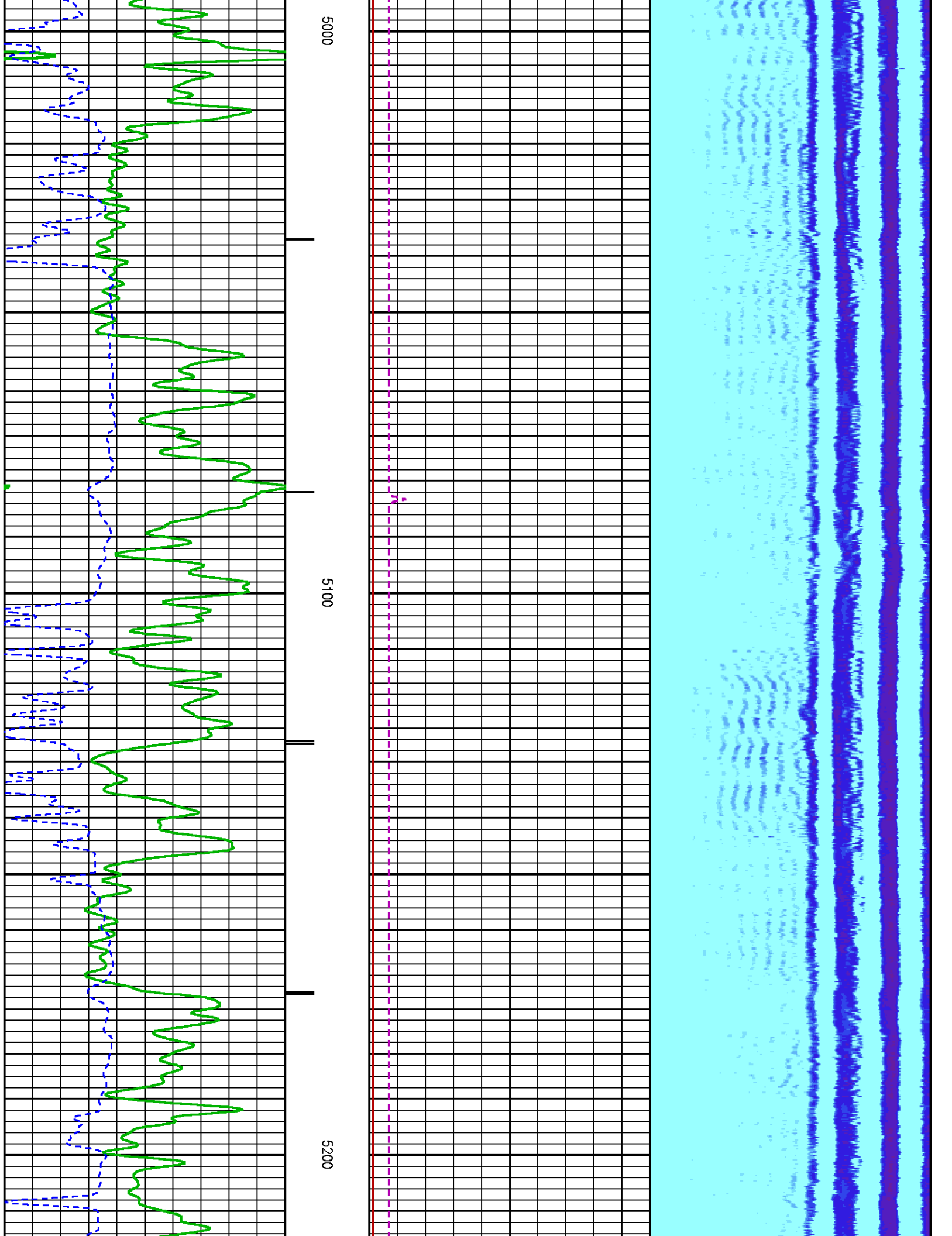


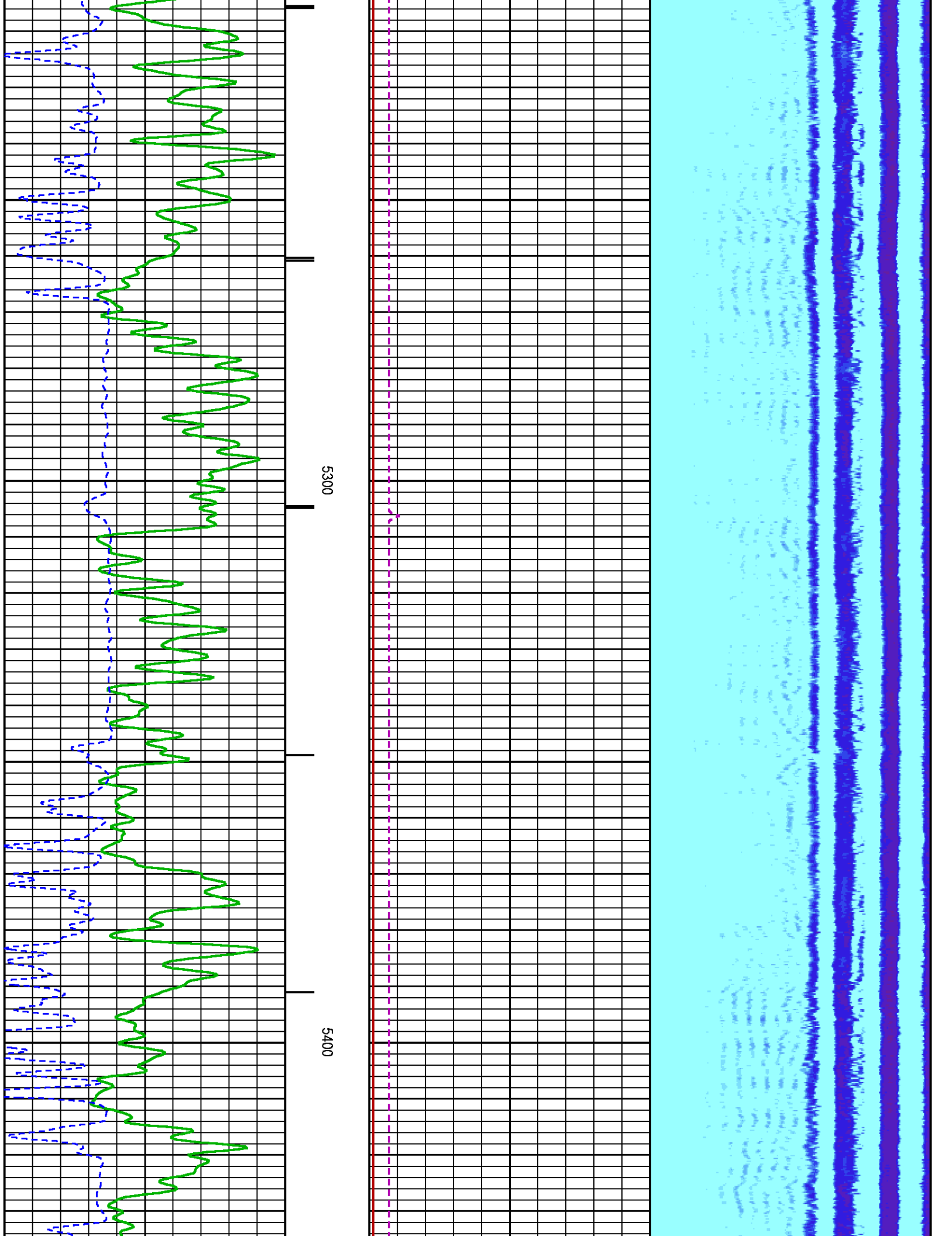


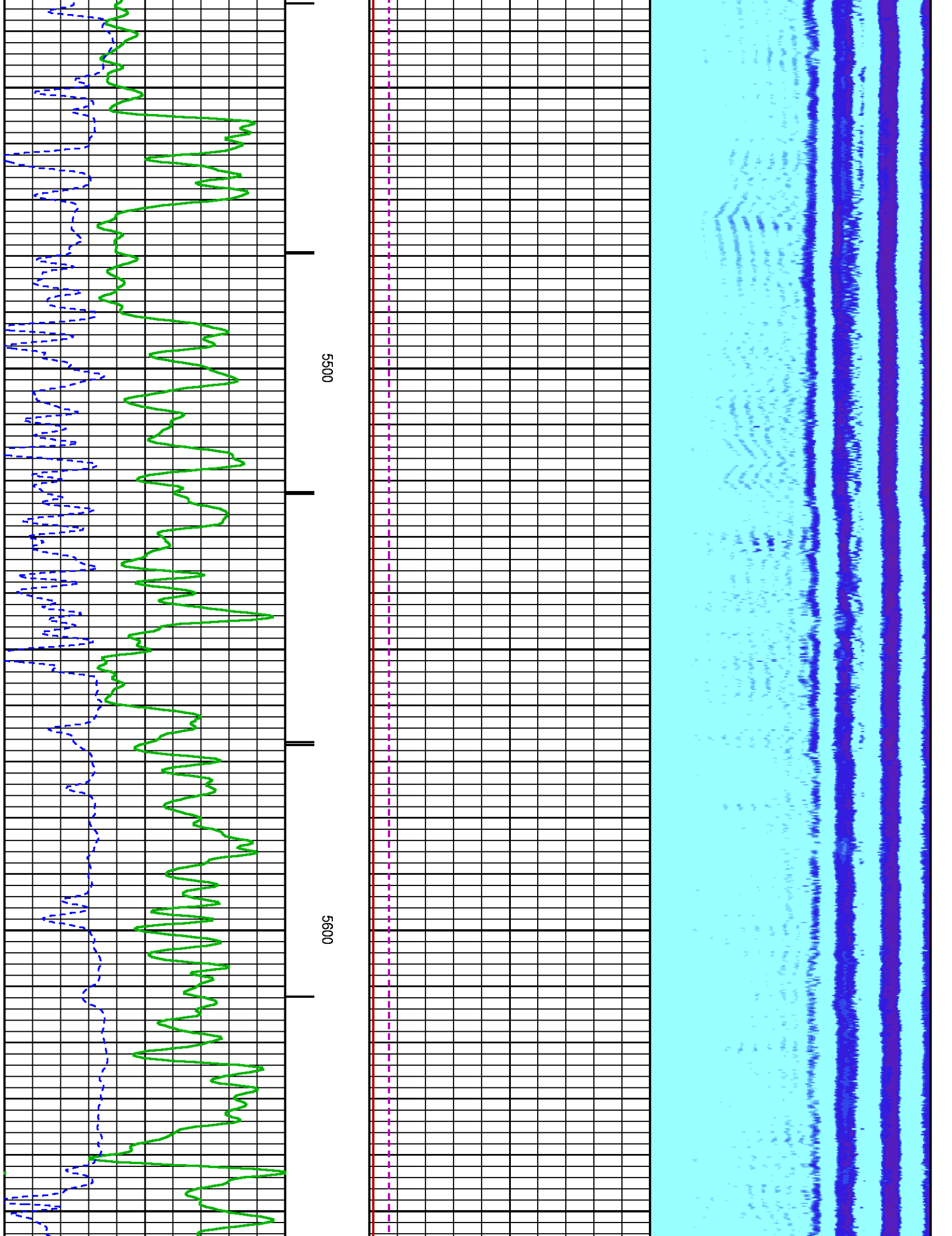


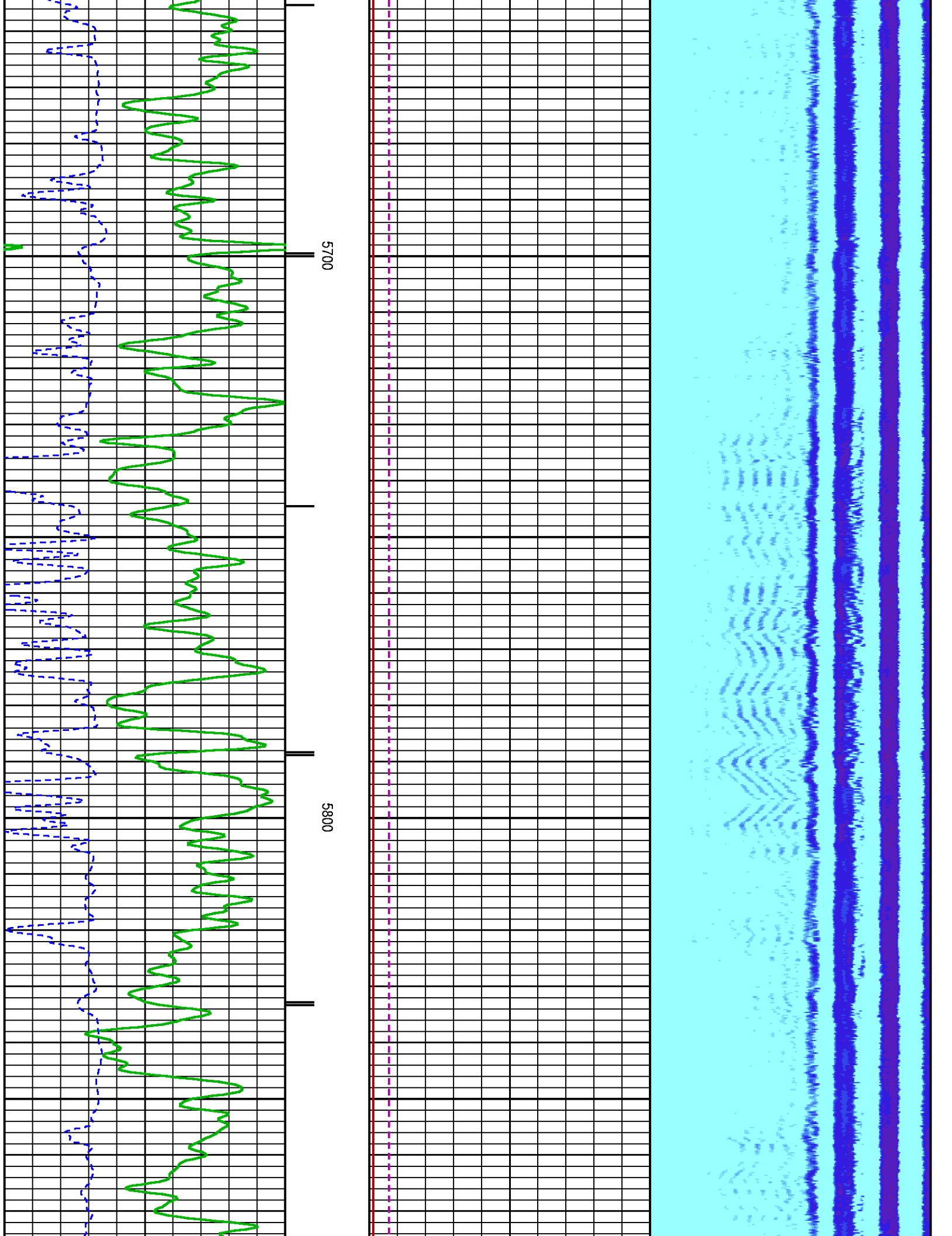


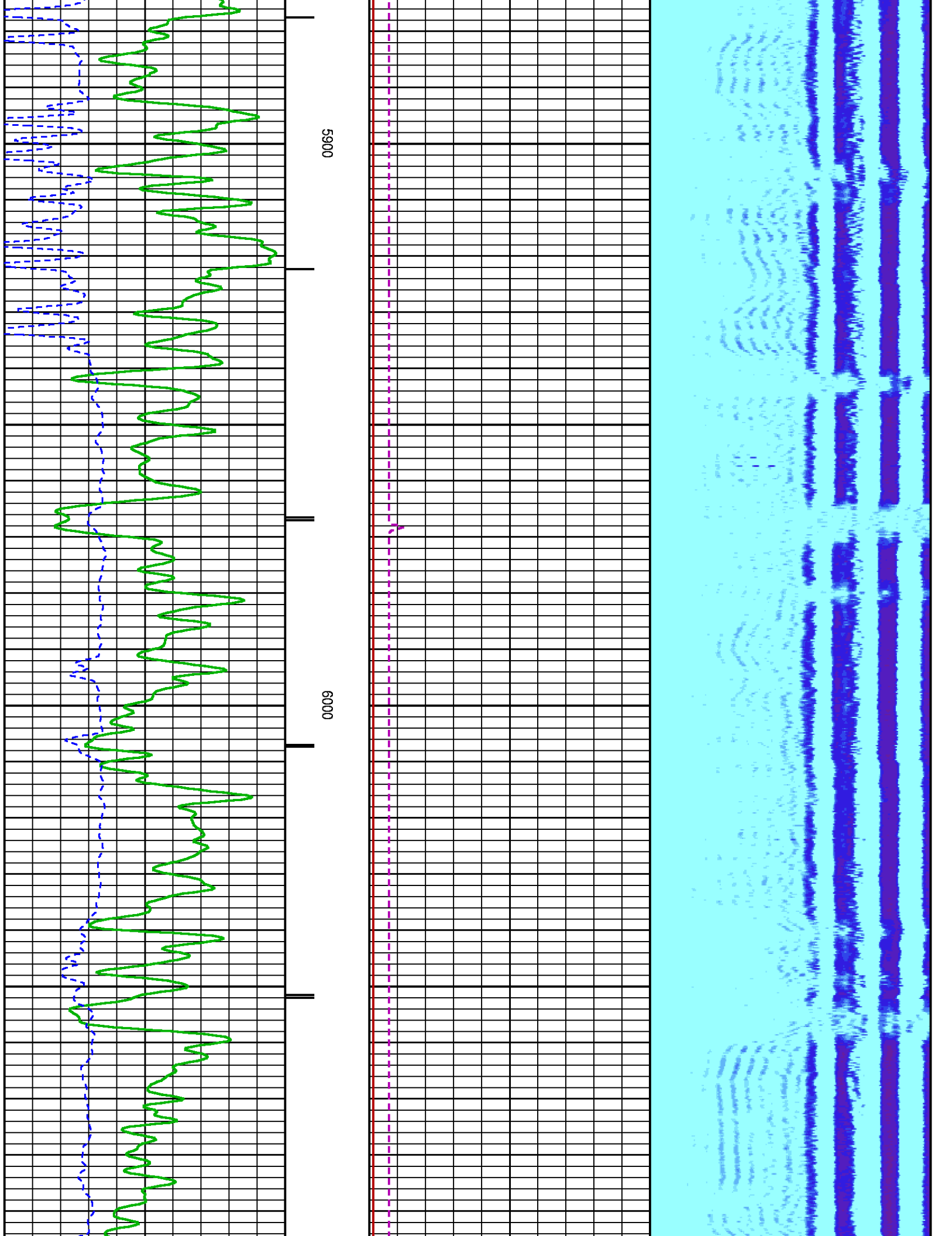


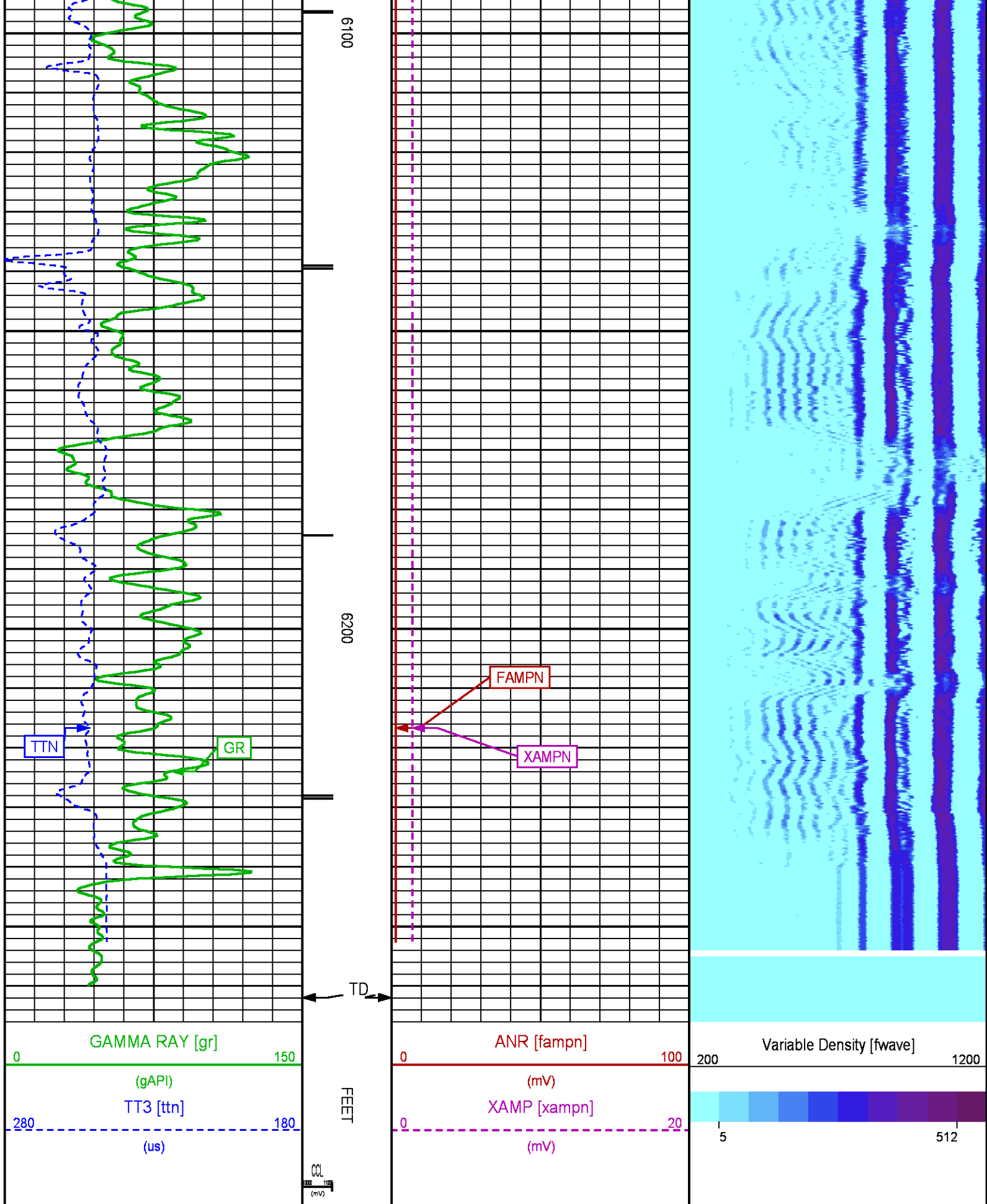












SECONDARY PRESENTATION 0 PSI

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

Updates: 1

Plotted: Sat May 17 15:44:39 2014

PARAMETER AND FILTER SUMMARY REPORT

FILE: /dat1a/CH085724/n012e04.prm
 LOGGING MODE: DEPTH DIRECTION: UP
 TOP DEPTH: 27.000 ft BOTTOM DEPTH: 1043.250 ft

SYMMETRIC FILTER

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
GR	FILTER ()	medium (1)		TOP	BOTTOM
AMPLITUDE	FILTER ()	light (2a)		"	"
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*)	185	us	TOP	BOTTOM
	AMP WINDOW START (fgp2*)	185	us	"	"
	AMP WINDOW START (fgp3*)	185	us	"	"
	AMP WINDOW START (fgp4*)	185	us	"	"
	AMP WINDOW START (fgp5*)	185	us	"	"
	AMP WINDOW START (fgp6*)	185	us	"	"
	AMP WINDOW START (fgp7*)	185	us	"	"
	AMP WINDOW START (fgp8*)	185	us	"	"
	AMP WINDOW START (fgpn*)	185	us	"	"
TRAVEL TIME WINDOW (NEAR)	AMP WINDOW LENGTH	25	us	"	"
	TT WINDOW START (ttn*)	175	us	"	"
	TT WINDOW LENGTH	500	us	"	"
	FIRST BRK THRESHOLD (ttn*)	4	mV	"	"
RAL CASING PARAMETERS	PPT NEAR	215.678	us	"	"
RAL TOOL DELAY	TOOL DELAY (str1*)	-61	us	"	"
	TOOL DELAY (str2*)	-61	us	"	"
	TOOL DELAY (str3*)	-61	us	"	"
	TOOL DELAY (str4*)	-61	us	"	"
	TOOL DELAY (str5*)	-61	us	"	"
	TOOL DELAY (str6*)	-61	us	"	"
	TOOL DELAY (str7*)	-61	us	"	"
	TOOL DELAY (str8*)	-61	us	"	"
BASELINE NOISE (NEAR)	TOOL DELAY (strn*)	-61	us	"	"
	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 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

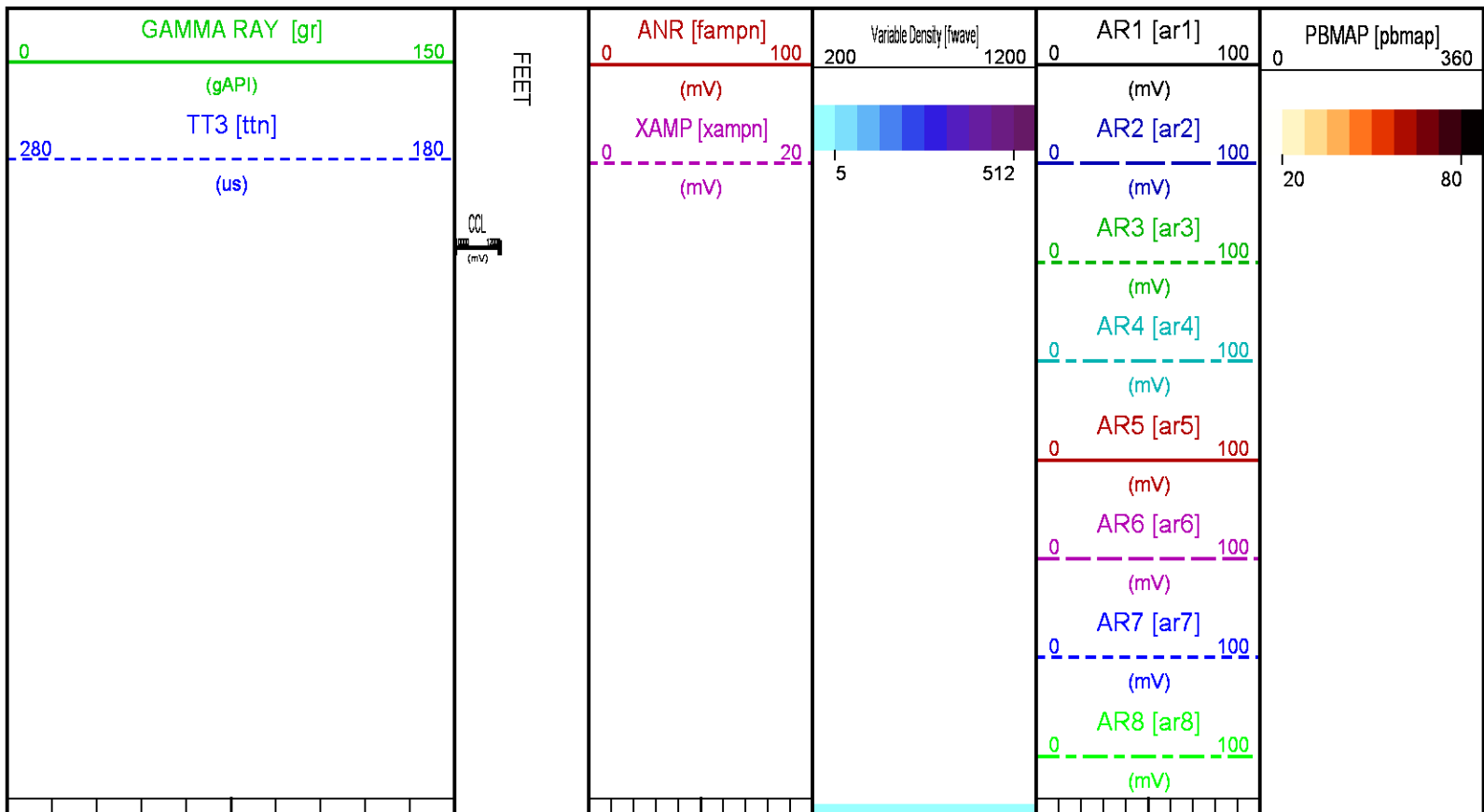
CURVE NAME	CREATION DATE	CURVE DESCRIPTION
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F1:AR2	May 15 18:35:36 2014	FIXED GATE AMPLITUDE T-R2
F1:AR3	May 15 18:35:36 2014	FIXED GATE AMPLITUDE T-R3
F1:AR4	May 15 18:35:36 2014	FIXED GATE AMPLITUDE T-R4
F1:AR5	May 15 18:35:36 2014	FIXED GATE AMPLITUDE T-R5
F1:AR6	May 15 18:35:36 2014	FIXED GATE AMPLITUDE T-R6
F1:AR7	May 15 18:35:36 2014	FIXED GATE AMPLITUDE T-R7
F1:AR8	May 15 18:35:36 2014	FIXED GATE AMPLITUDE T-R8
F1:CCL	May 15 18:35:36 2014	CASING COLLAR LOCATOR
F1:FAMPN	May 15 18:35:55 2014	FIXED GATE AMPLITUDE NEAR RECEIVER
F1:FWAVE	May 15 18:36:04 2014	FAR WAVE FORM
F1:GR	May 15 18:36:04 2014	GAMMA RAY
F1:PBMAP	May 15 18:36:19 2014	PERCENT BOND CEMENT MAP
F1:TTN	May 15 18:36:21 2014	TRAVELTIME FROM NEAR TRANSMITTER-RECEIVER
F1:XAMPN	May 15 18:36:22 2014	FIXED GATE AMPLITUDE NEAR RECEIVER TIMES FIVE

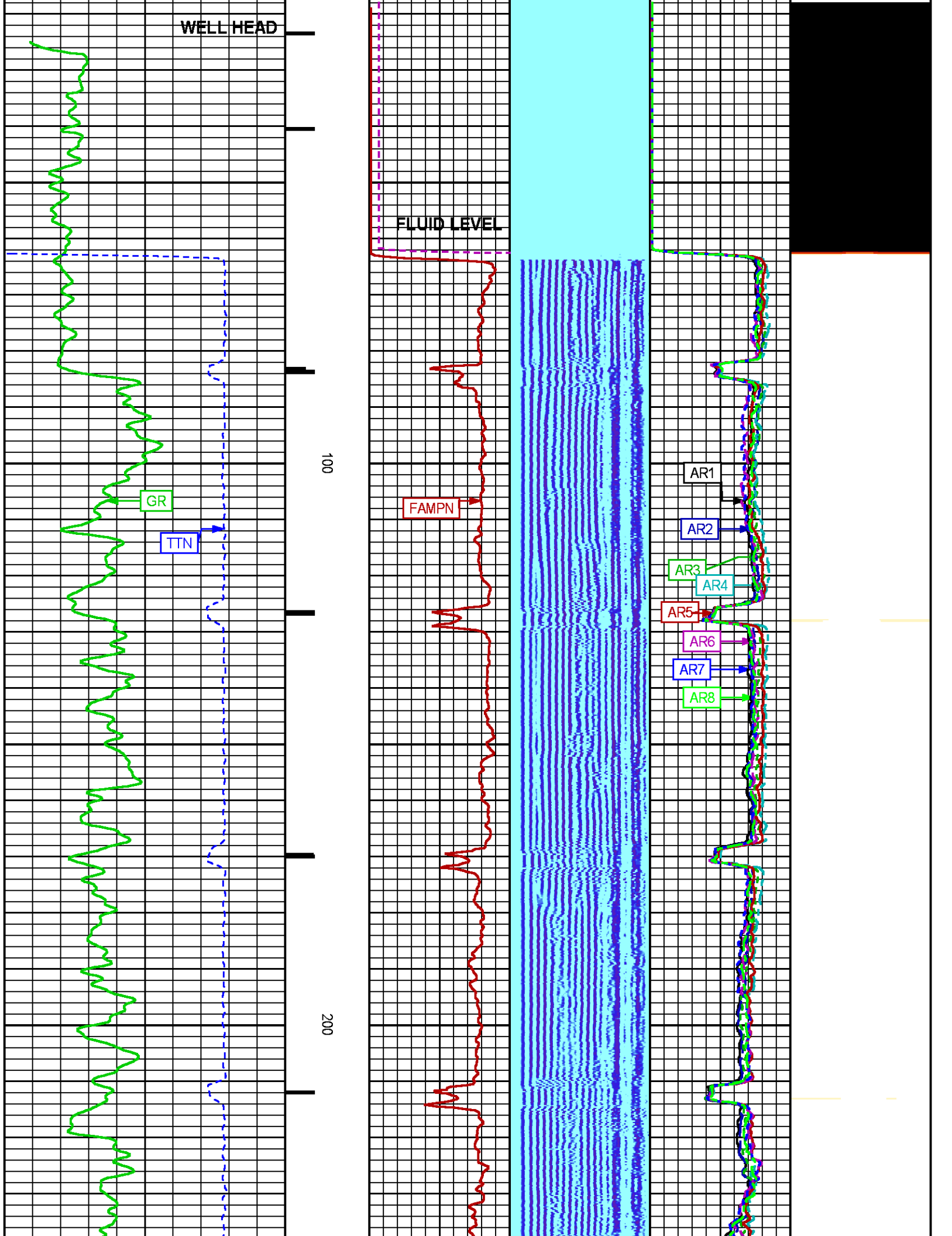
CURVE MEASURE POINT OFFSET

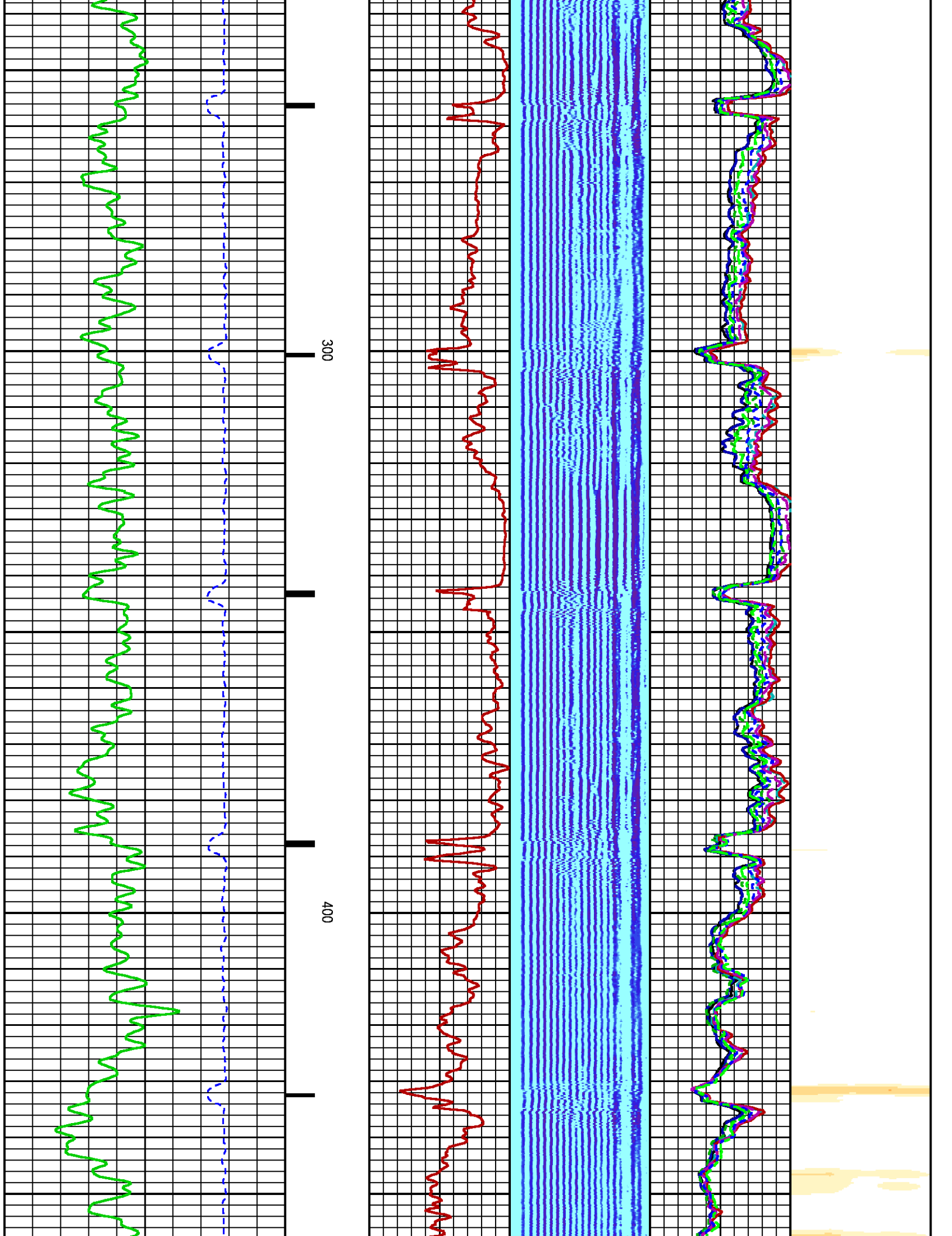
CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)
AR1	13.75	AR5	13.75	CCL	8.50	XAMPN	13.75
AR2	13.75	AR6	13.75	FAMPN	13.75		
AR3	13.75	AR7	13.75	GR	6.50		
AR4	13.75	AR8	13.75	TTN	13.75		

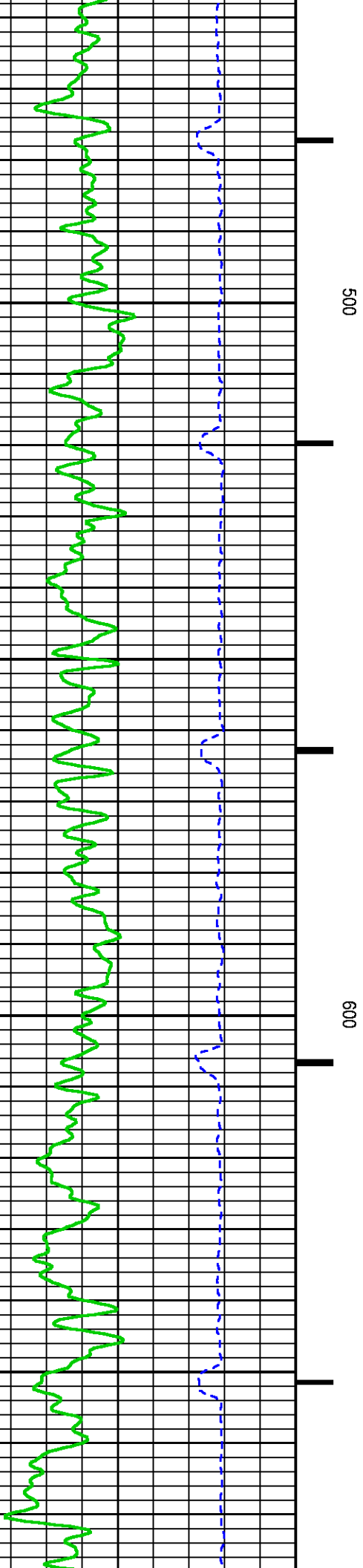
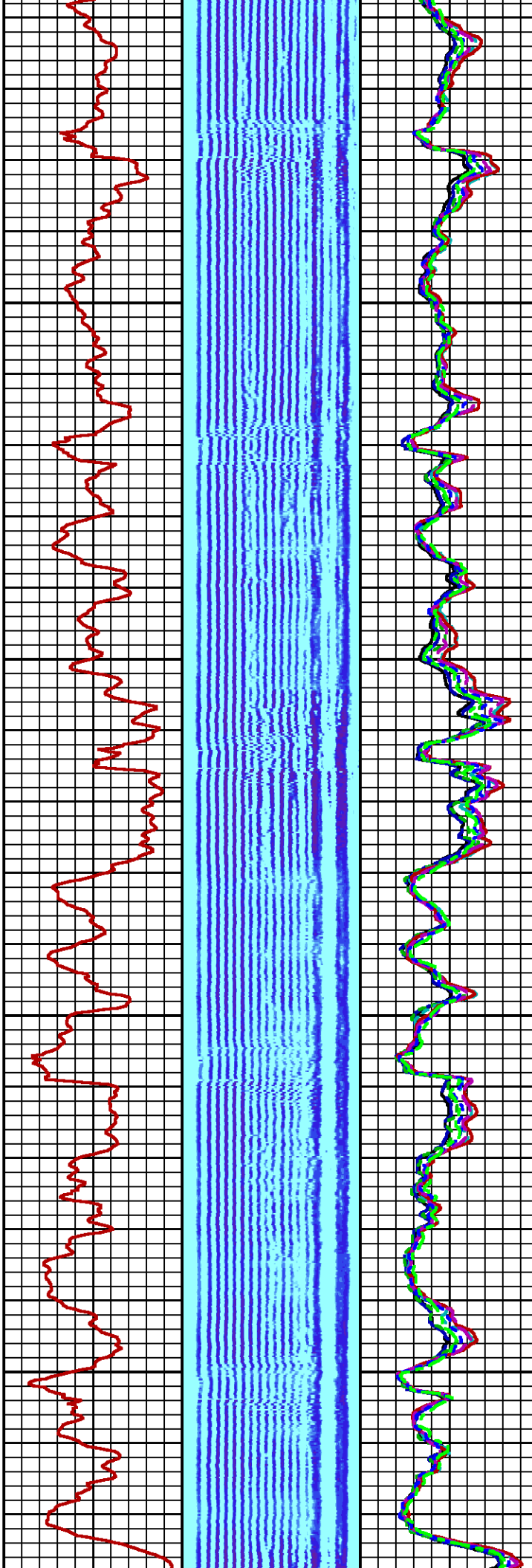
Presentation : HL6670:WPX_CBL_GM_421_13_SECONDARY_FINAL_05_16.fvpdf [5"/100' Scale]
Plot Interval : 16.75 - 6266 Feet

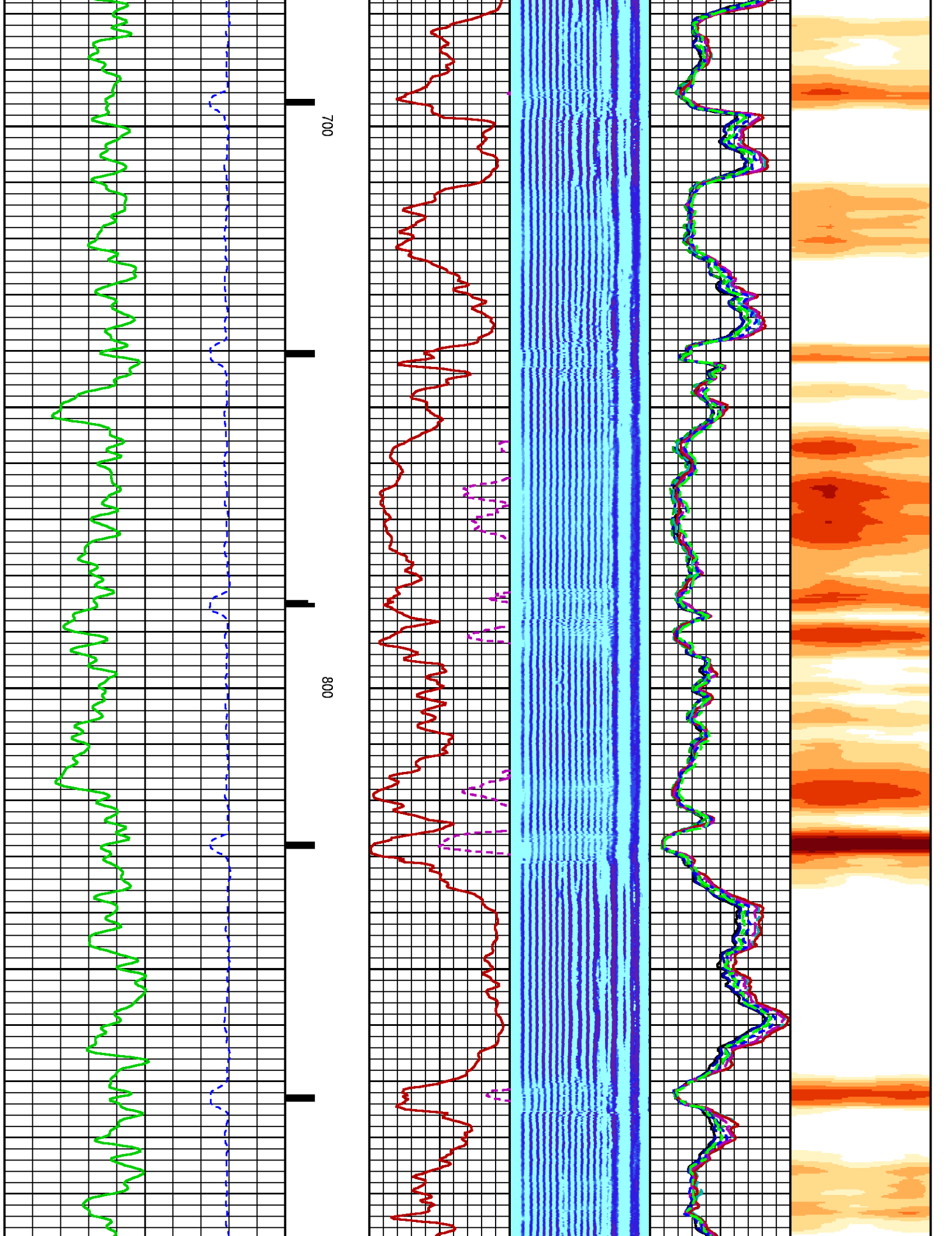
Data File 1 : F1 : HL6670:/dat1a/CH085724/n012esFINAL.xtf
Created On : May 15 18:35:36 2014
Company : WPX ENERGY
Well : C&C ENERGY GM 421-13
Field : GRAND VALLEY
File Interval : 16.75 - 6266 Feet
OCT : n012e

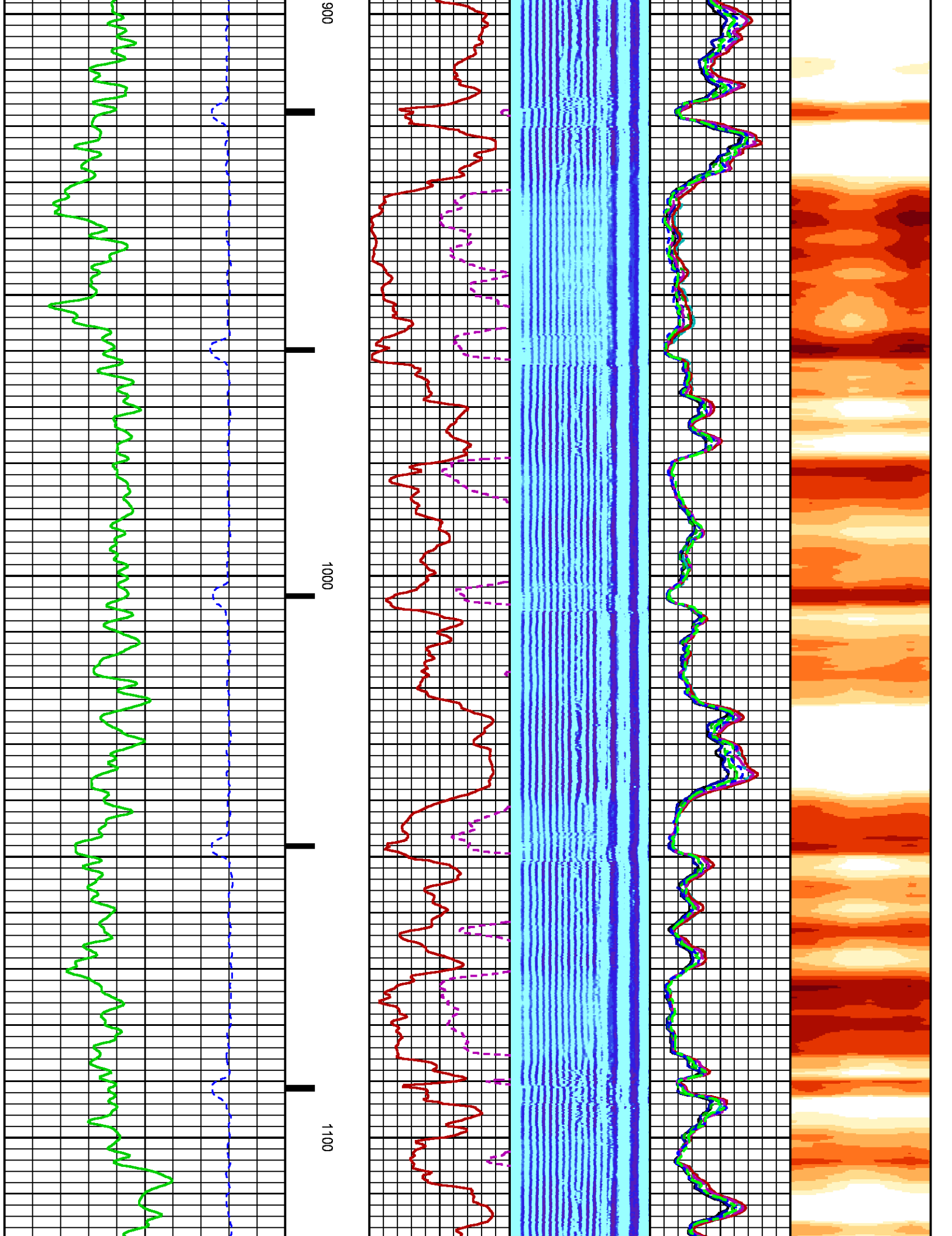


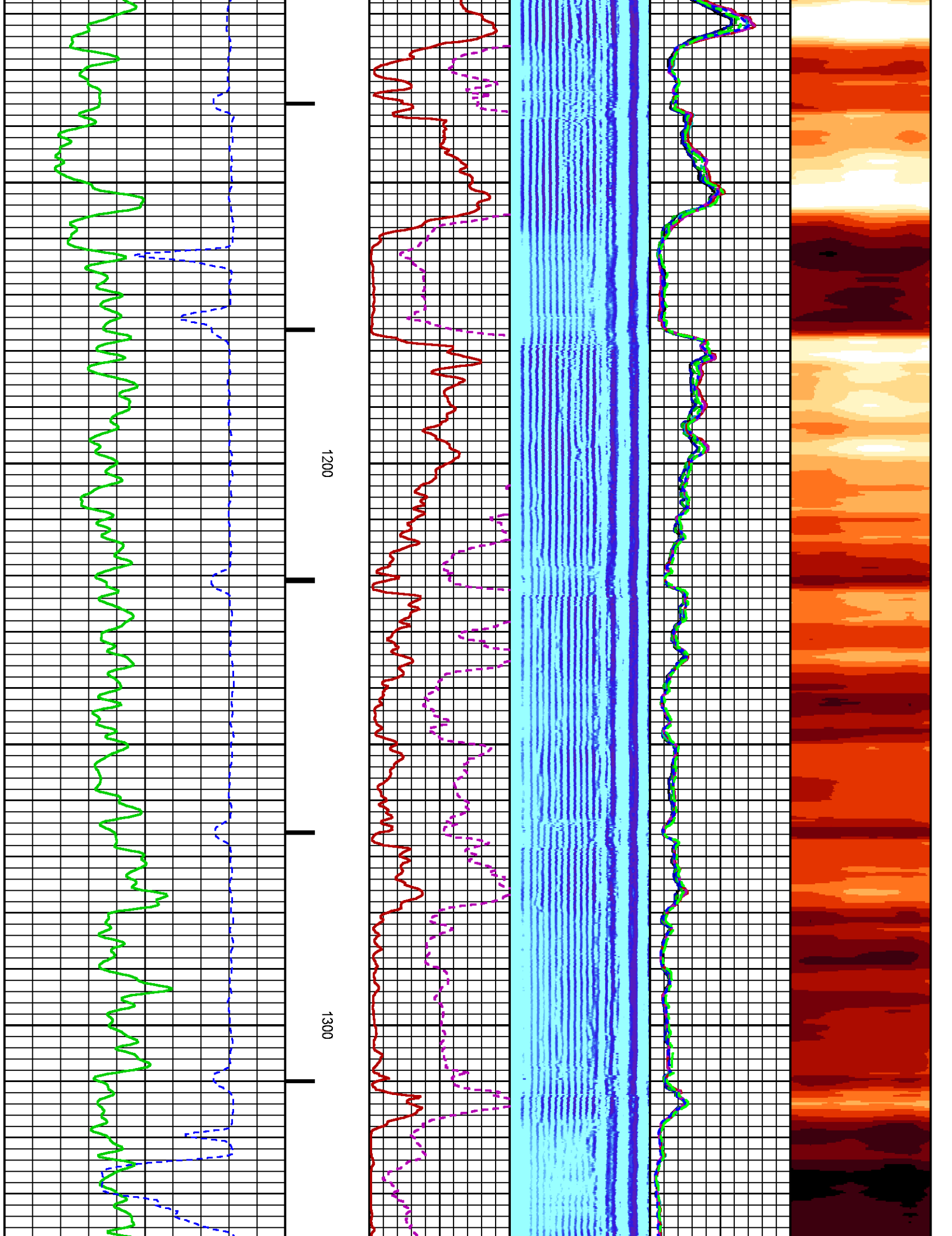


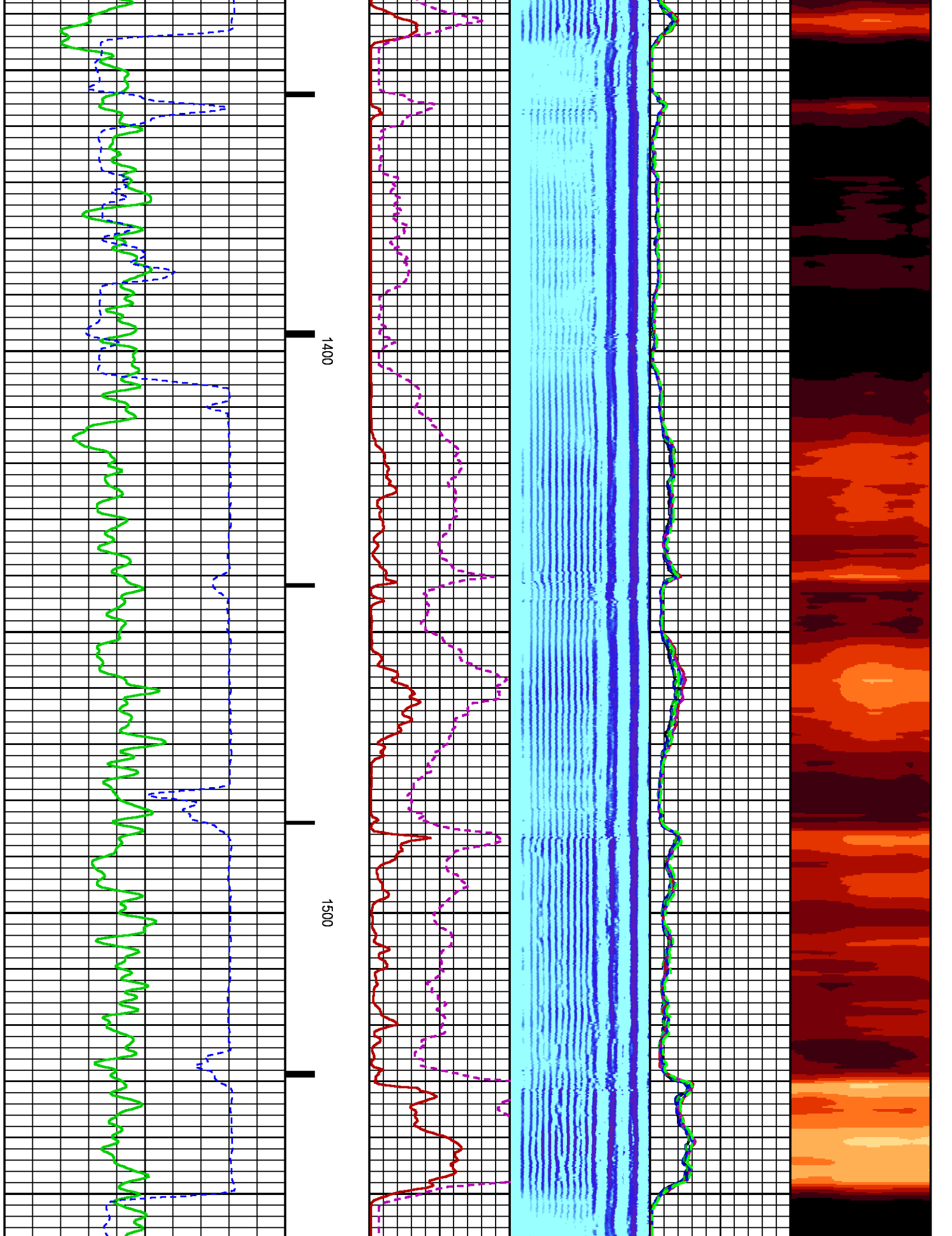


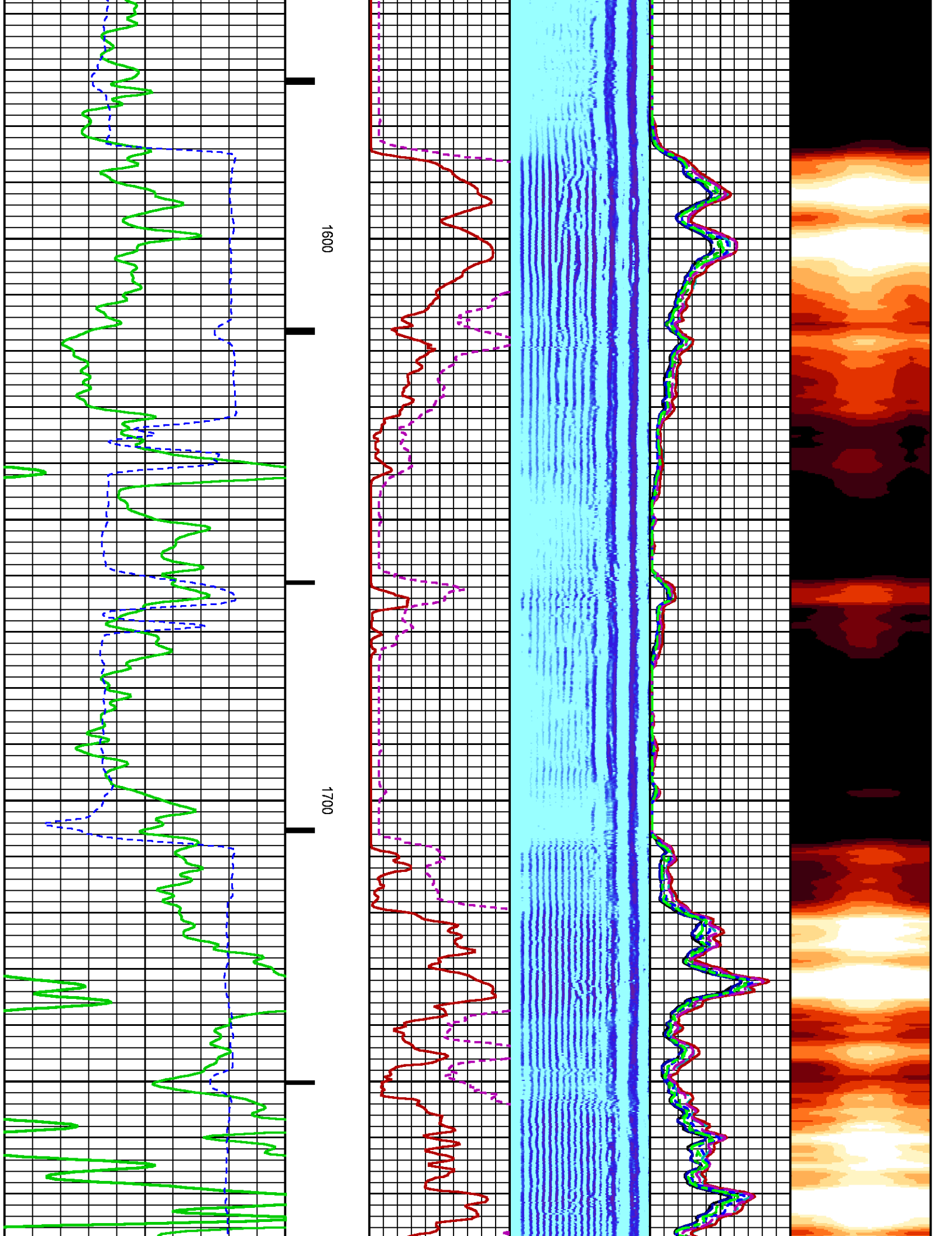


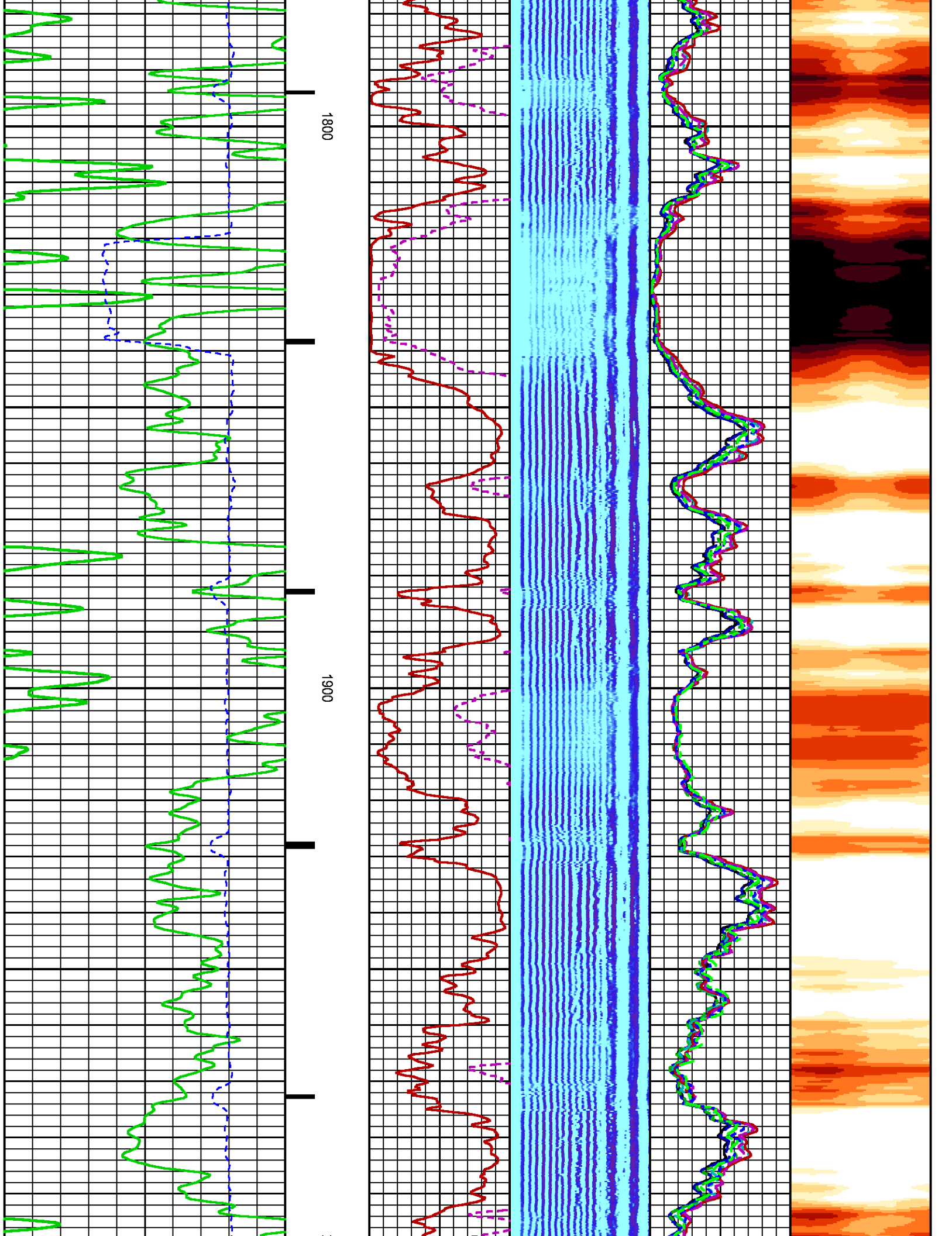


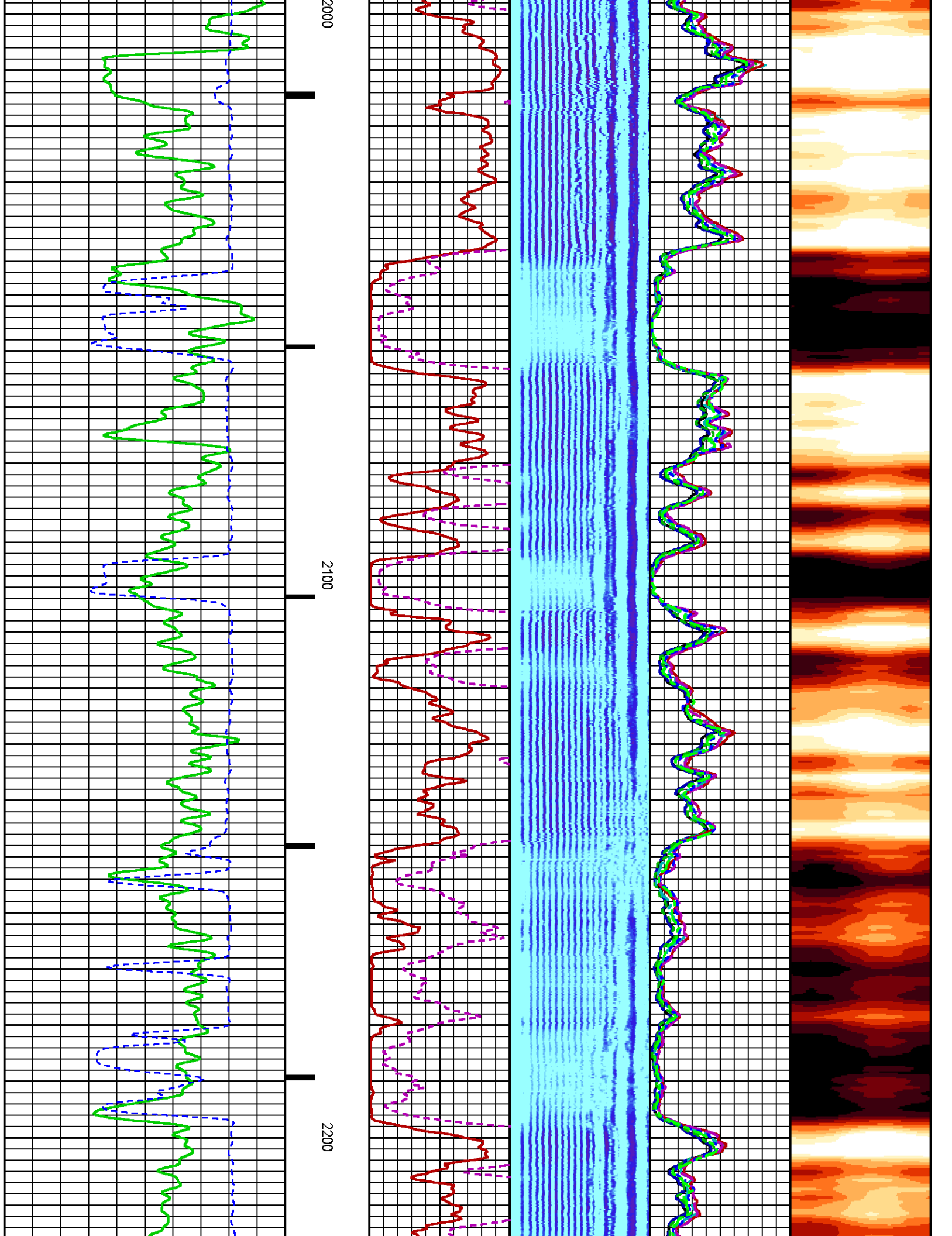


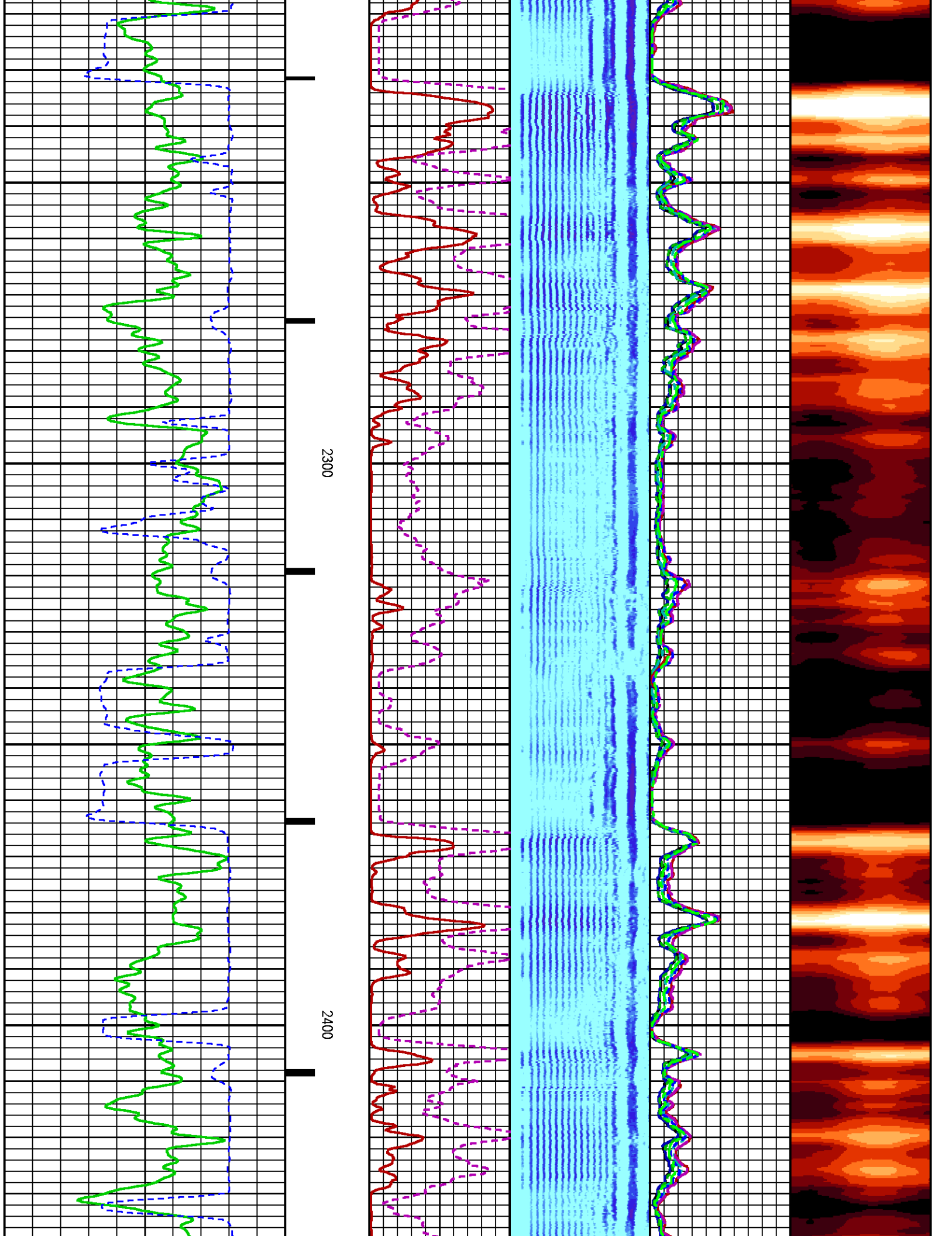


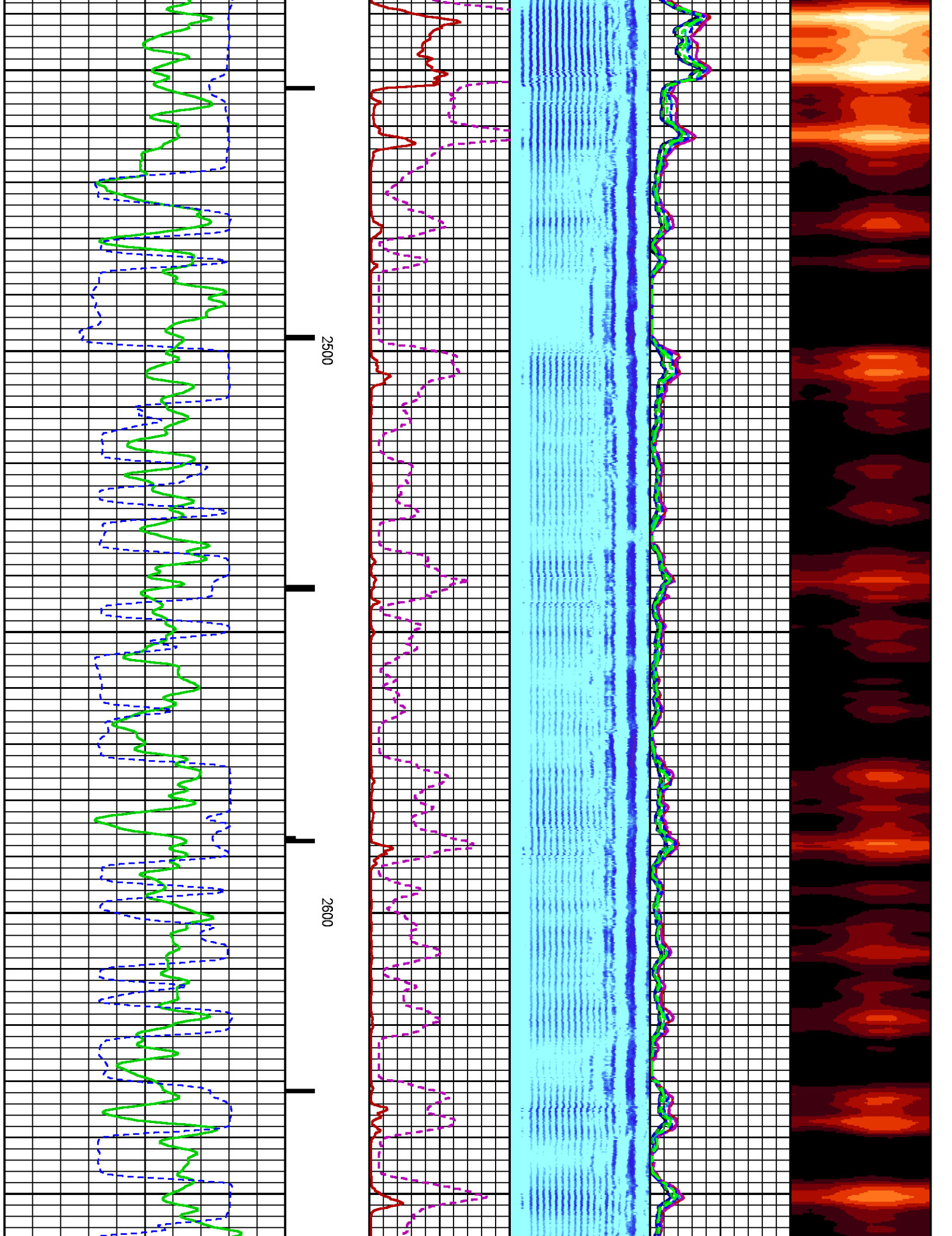


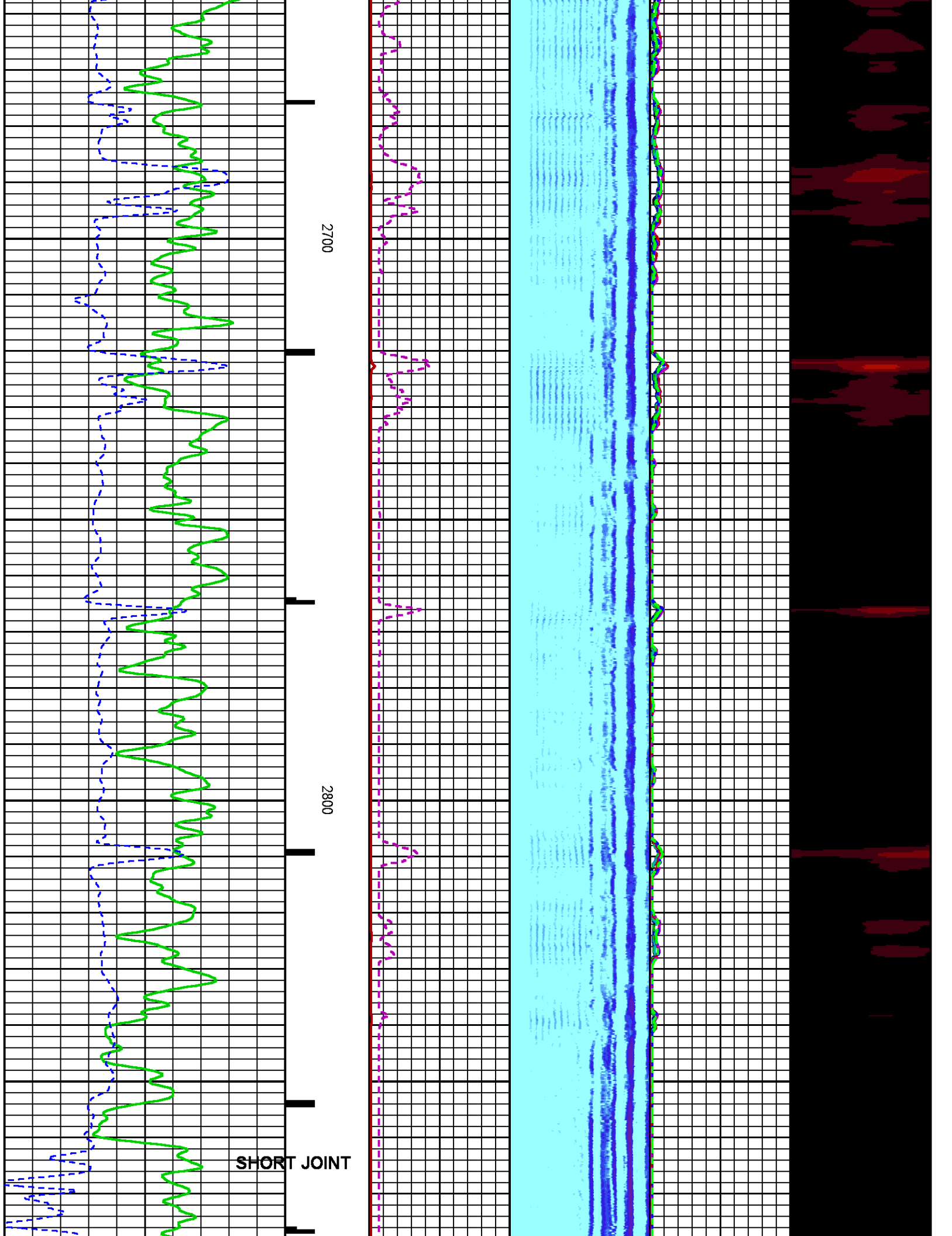


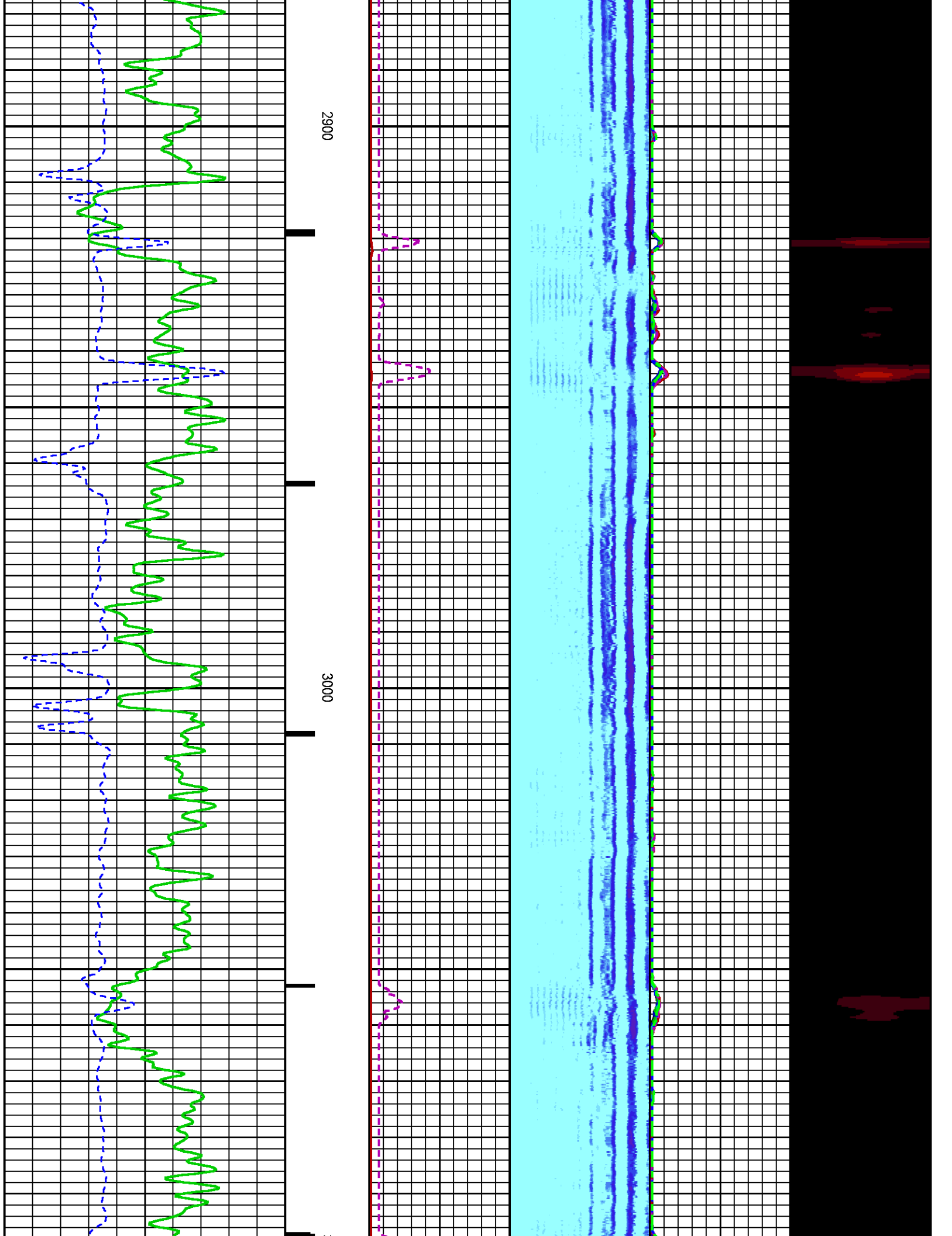


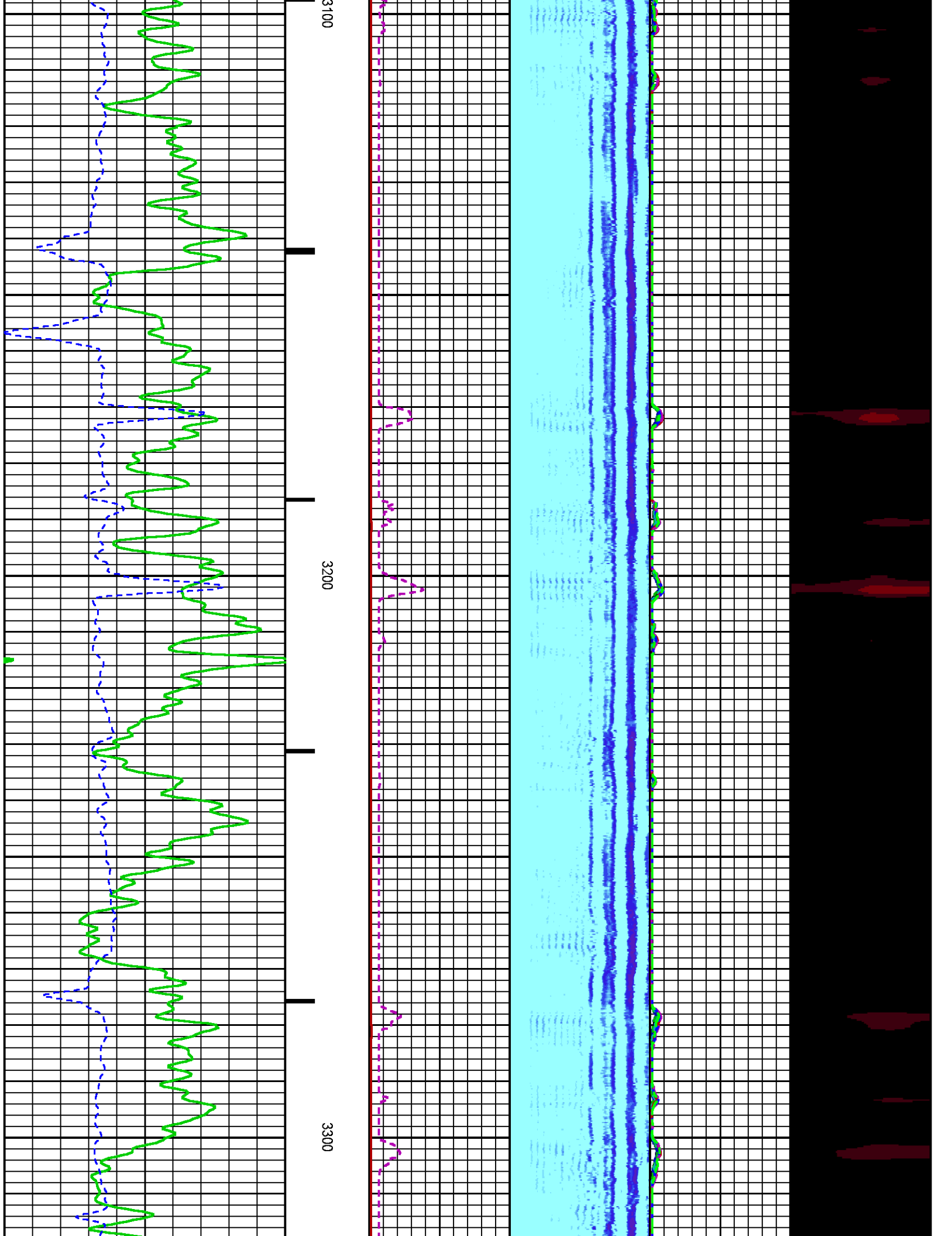


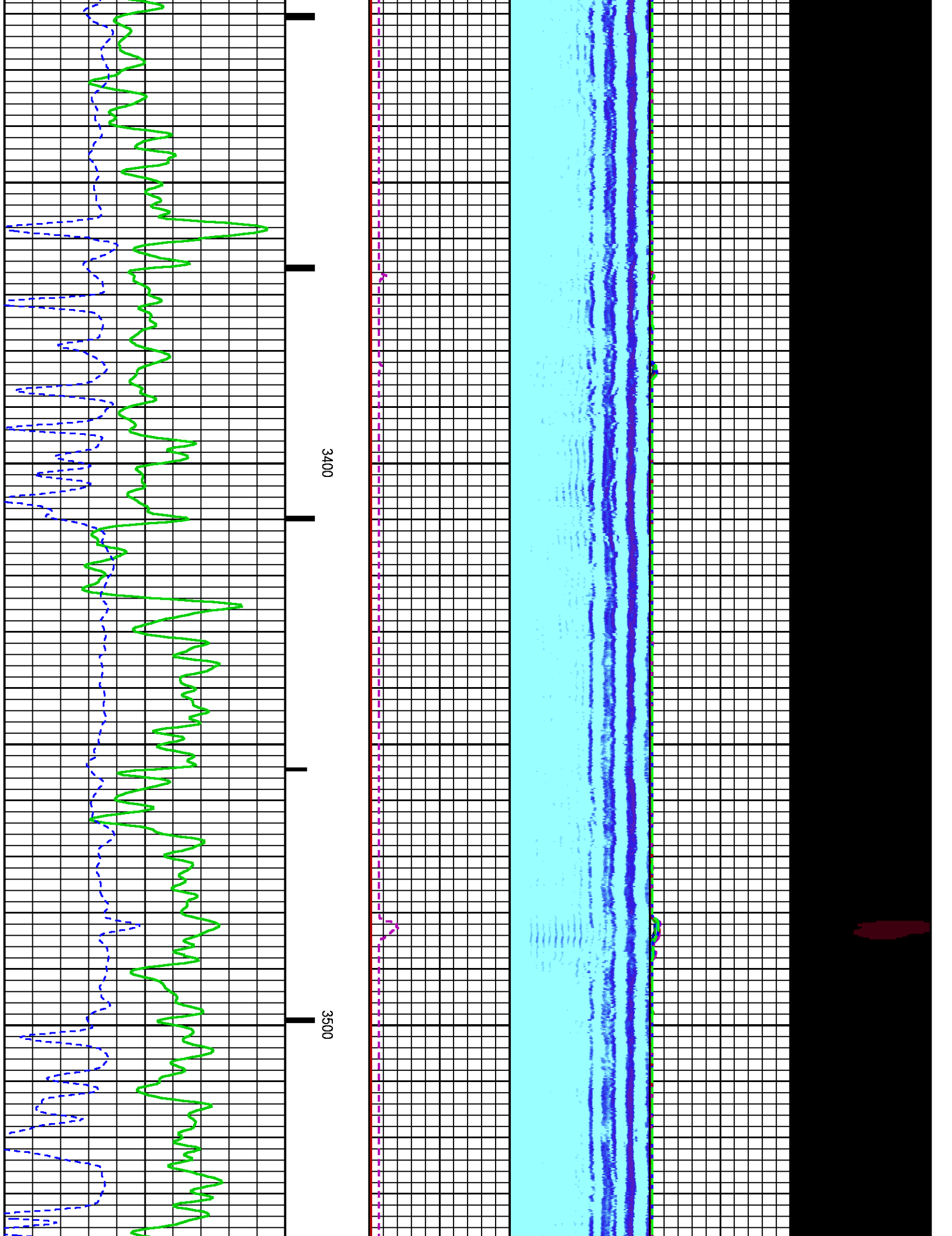


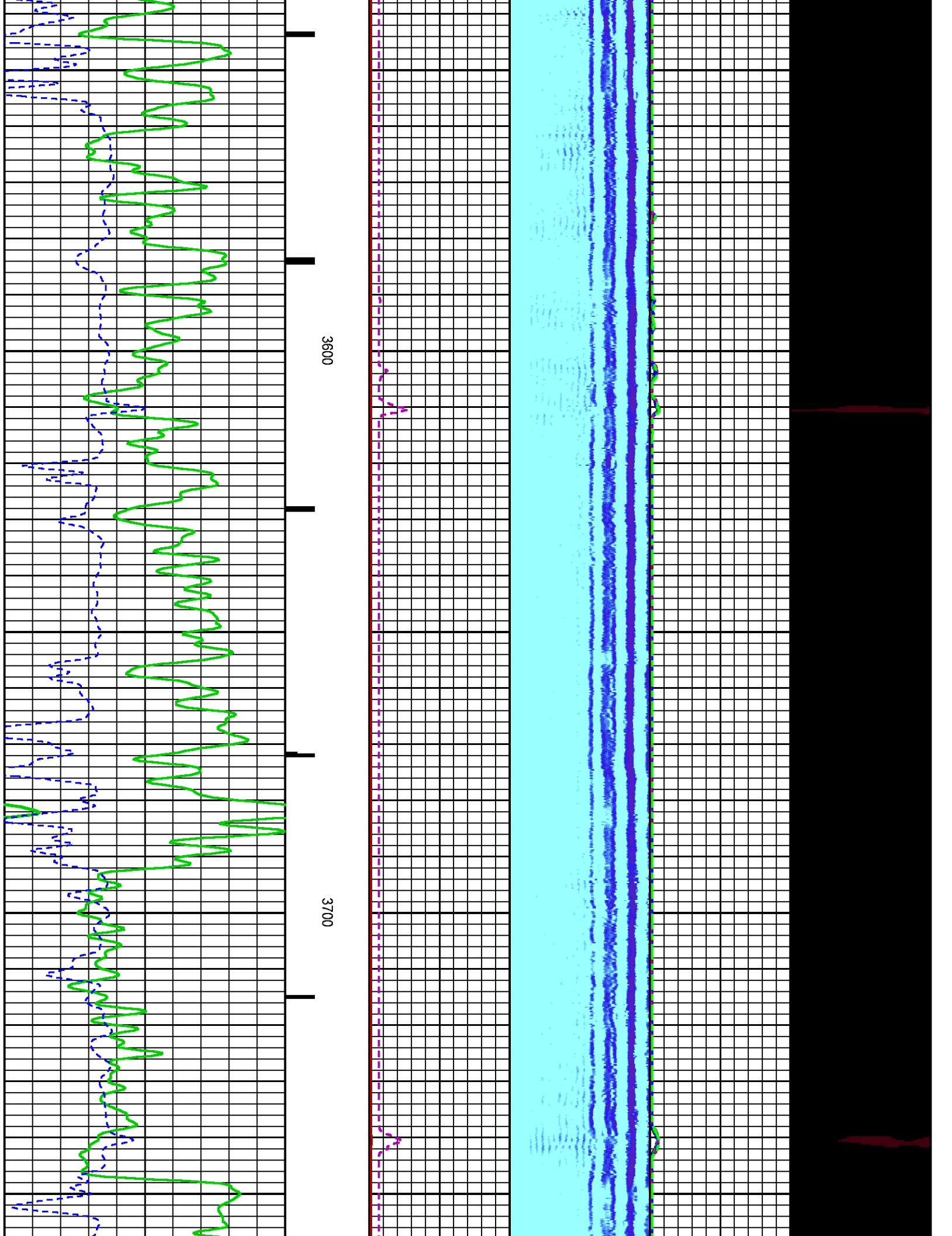


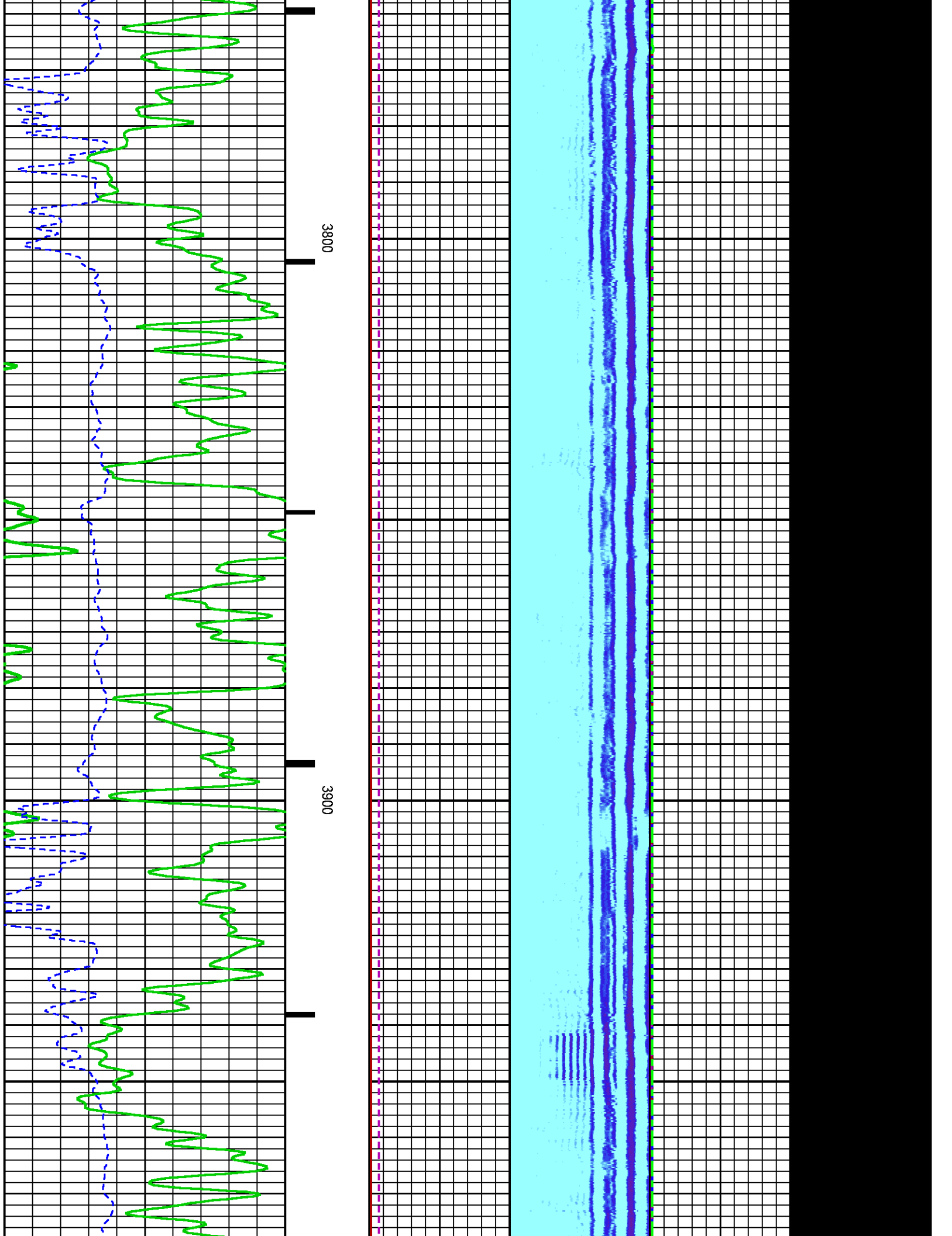


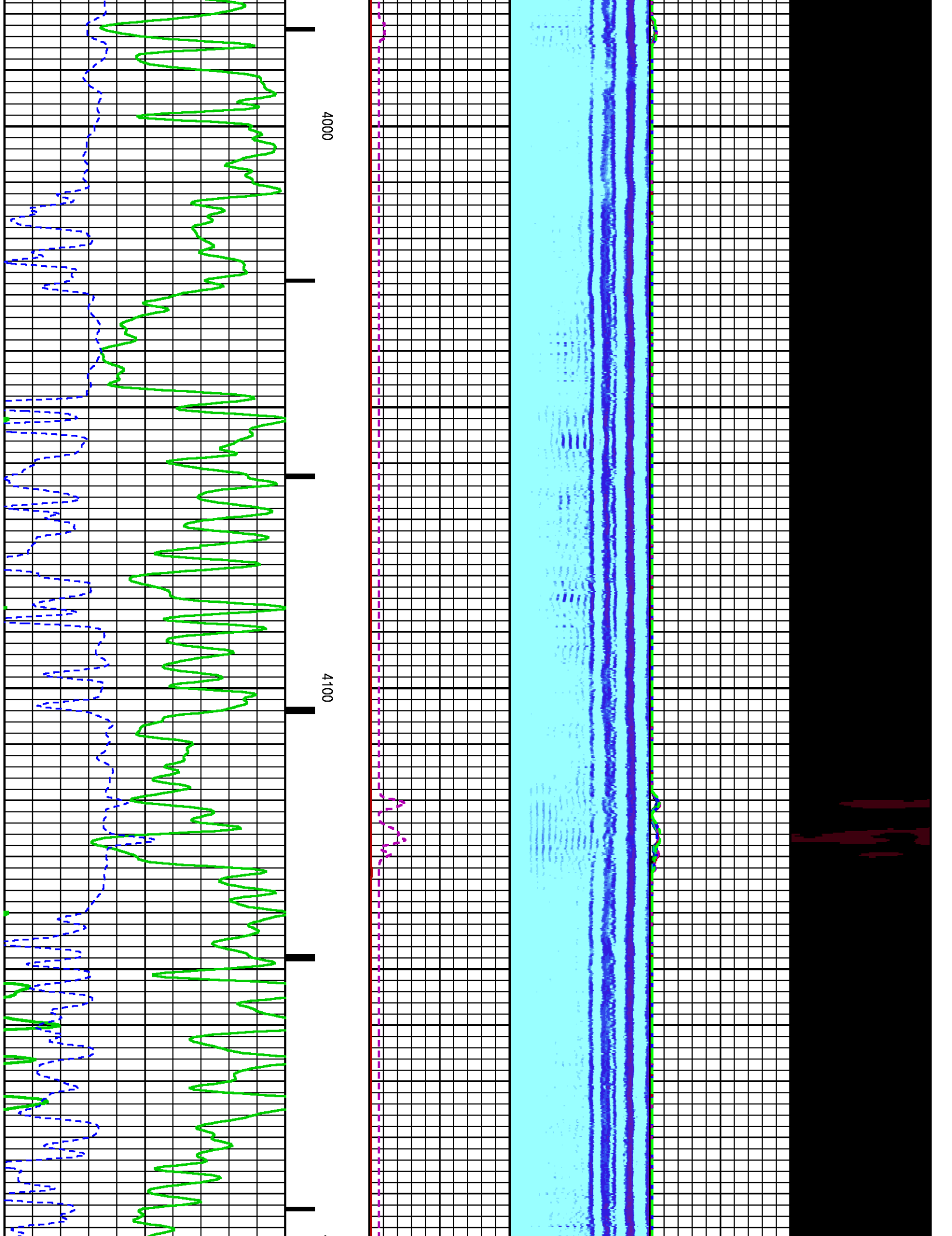


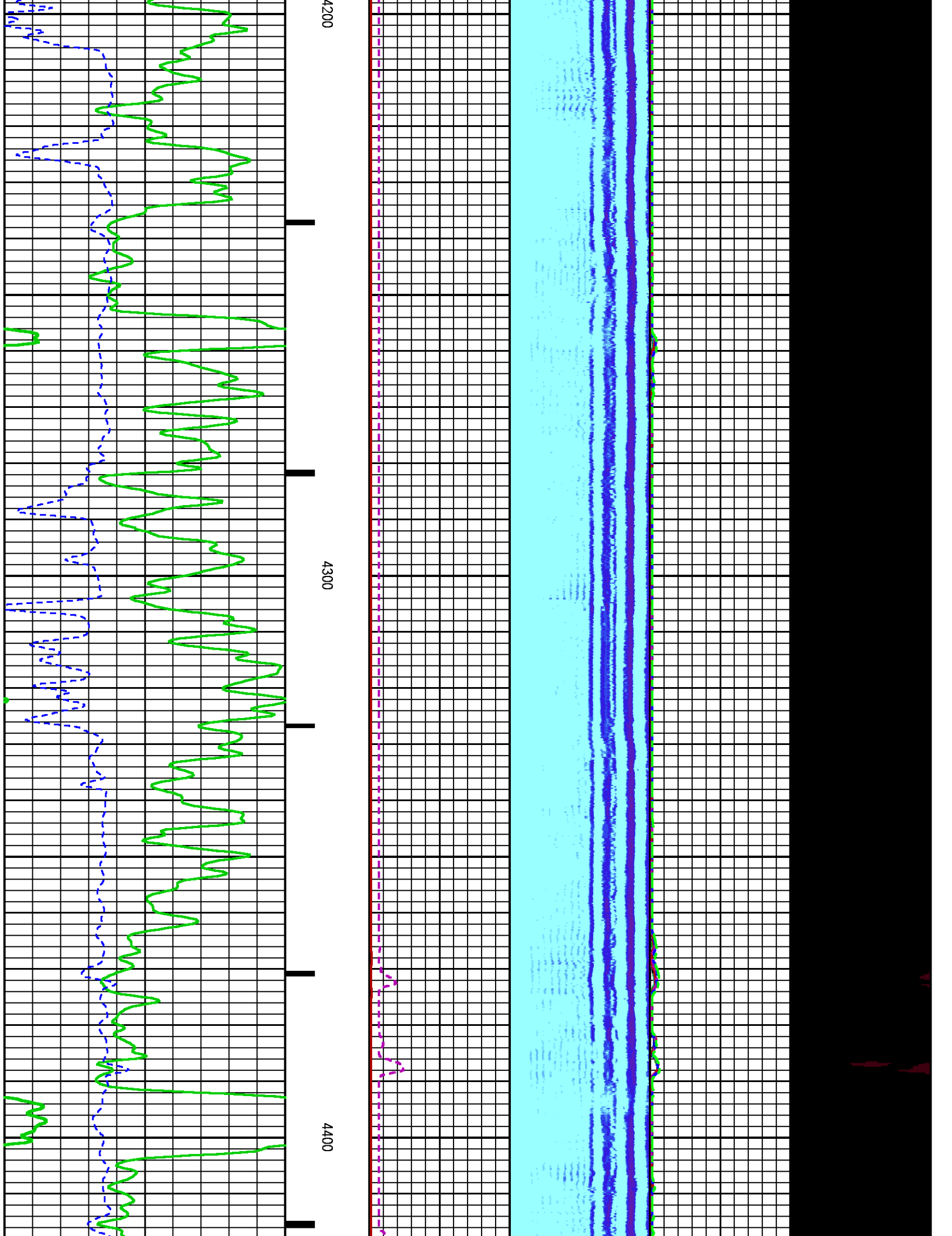


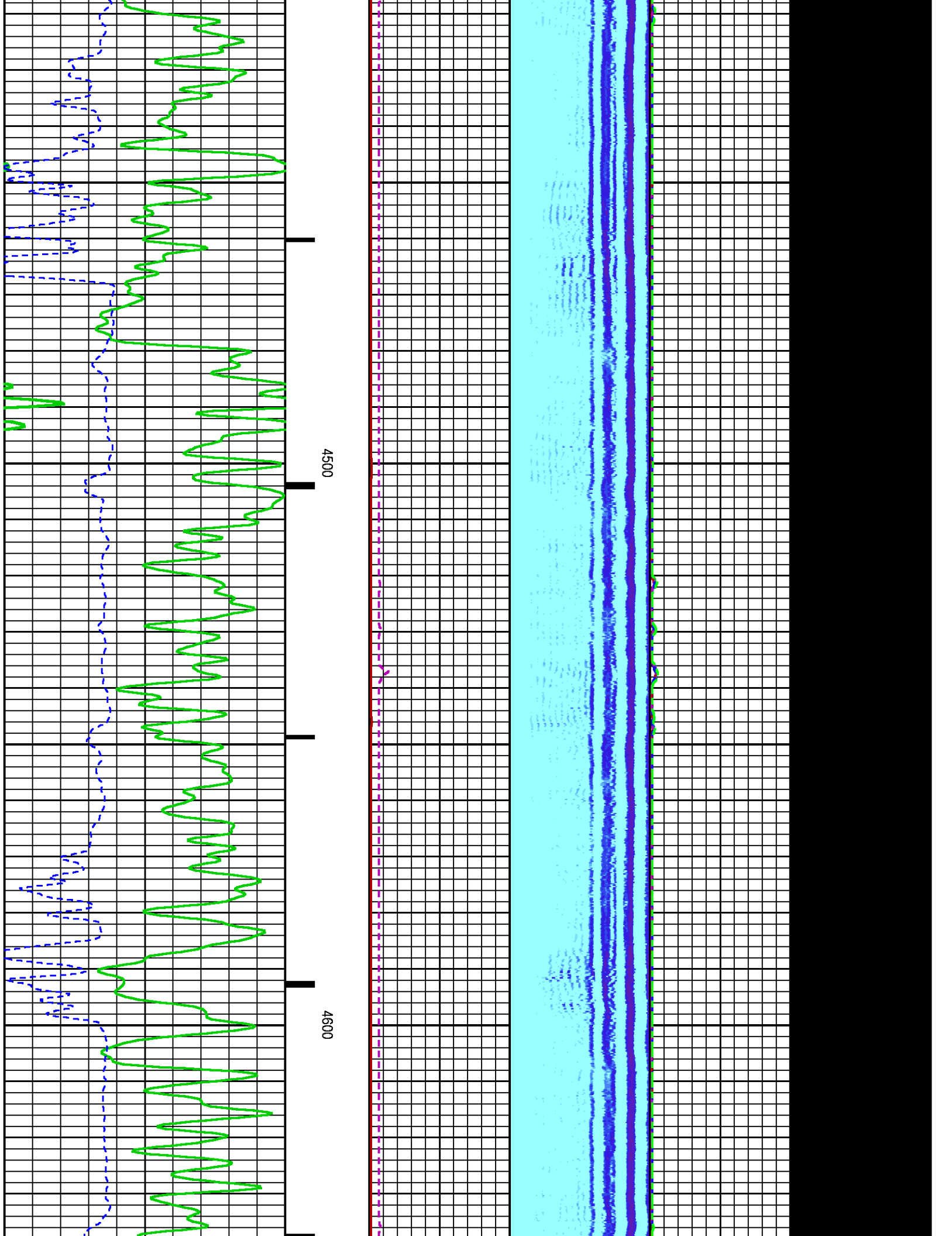


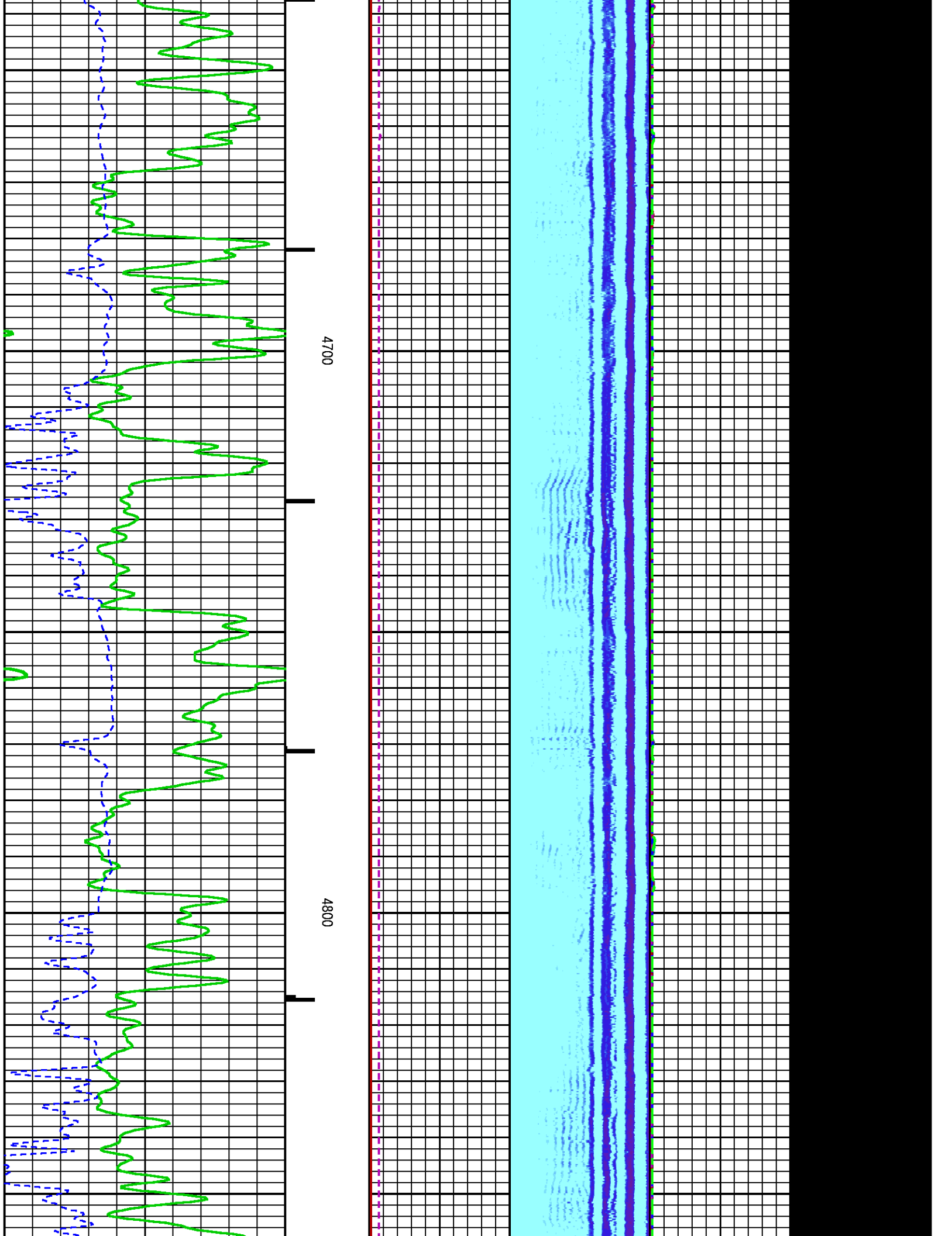


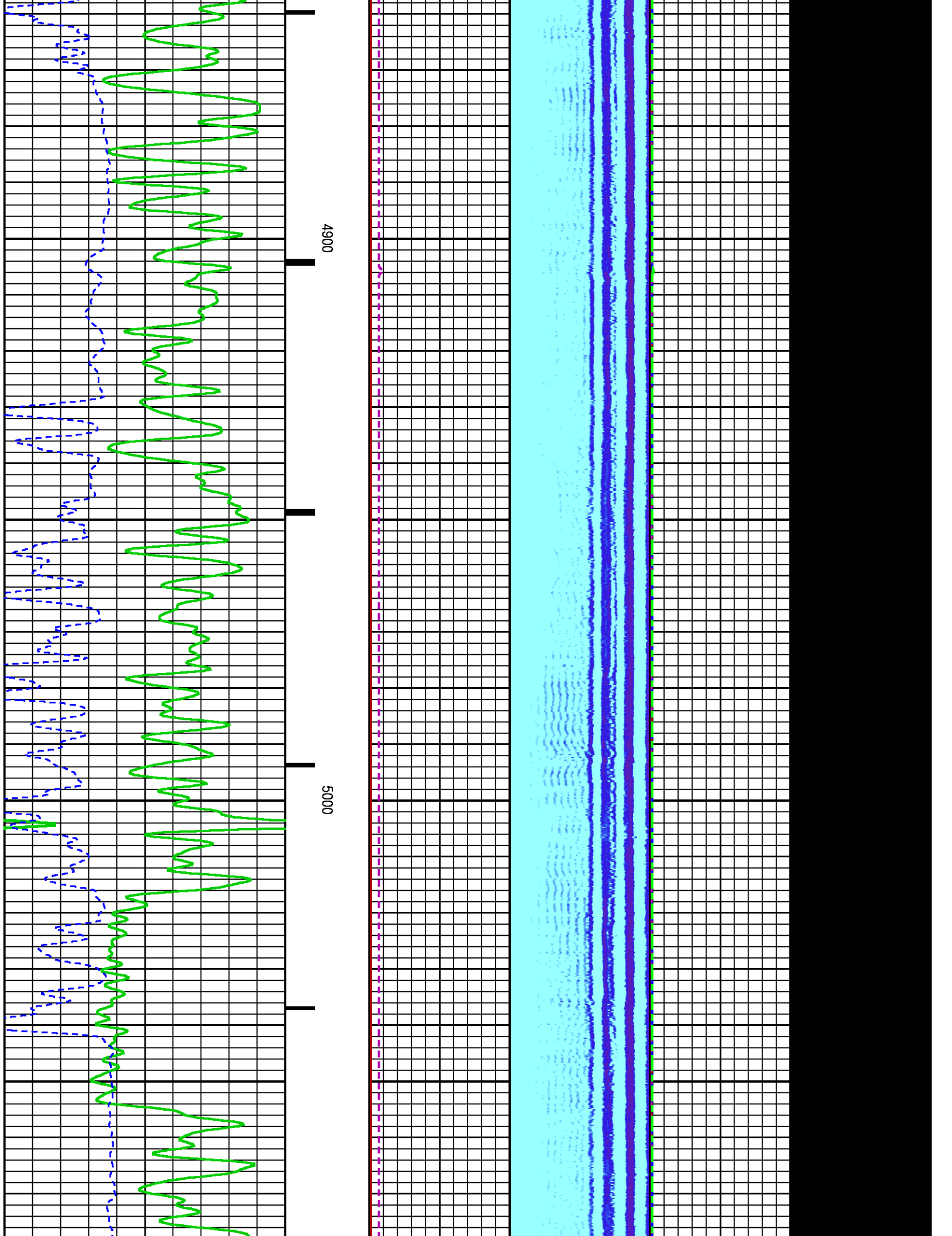


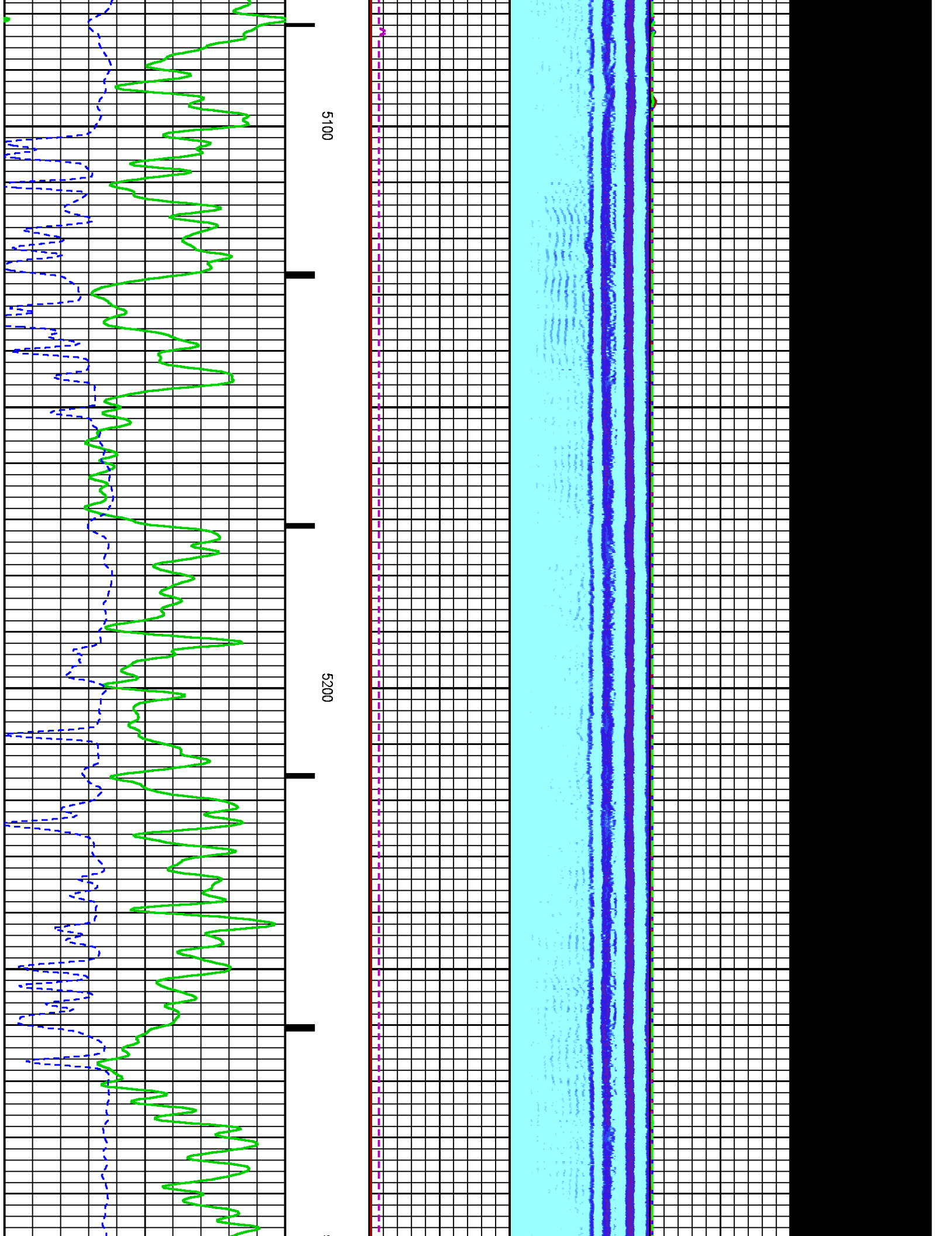


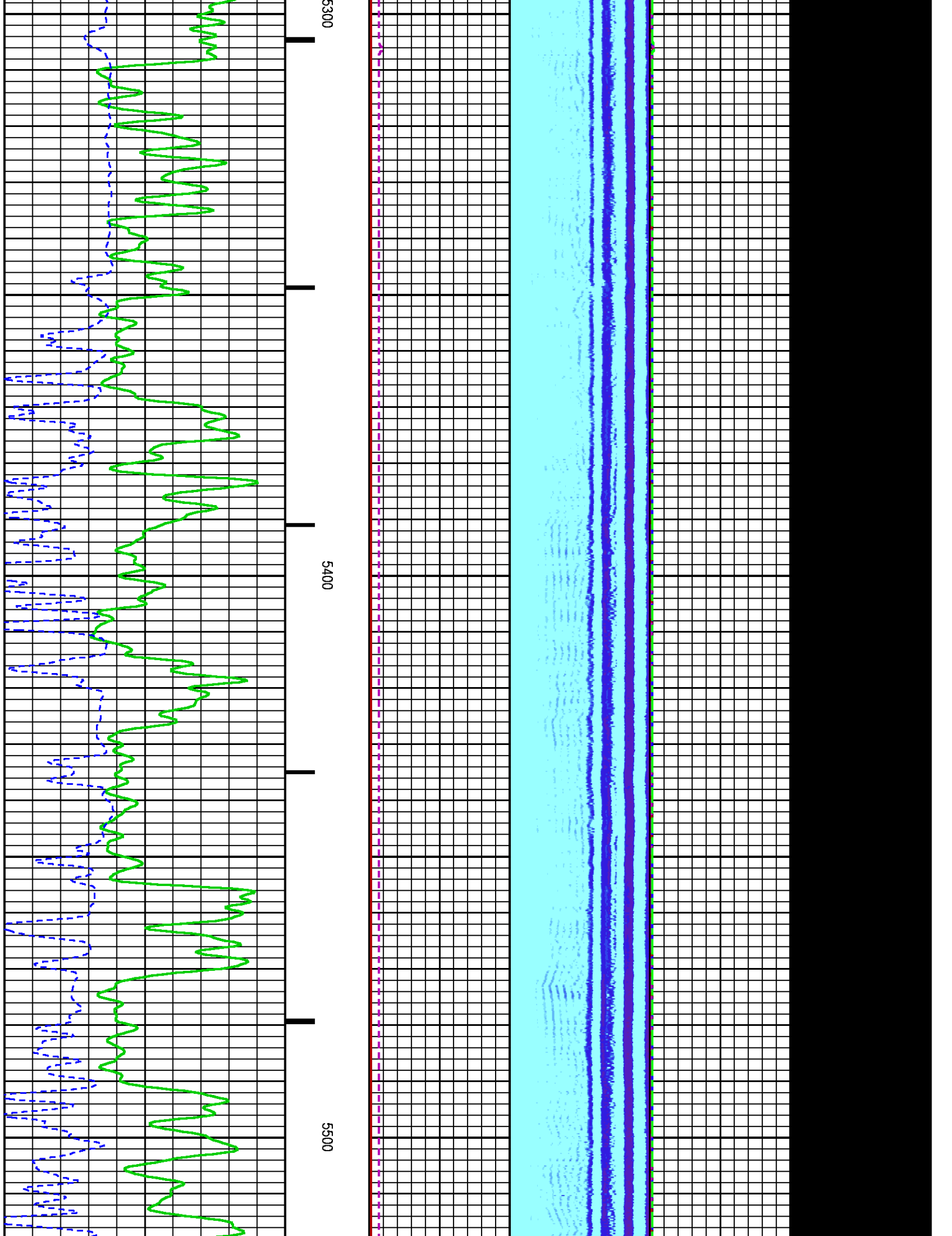


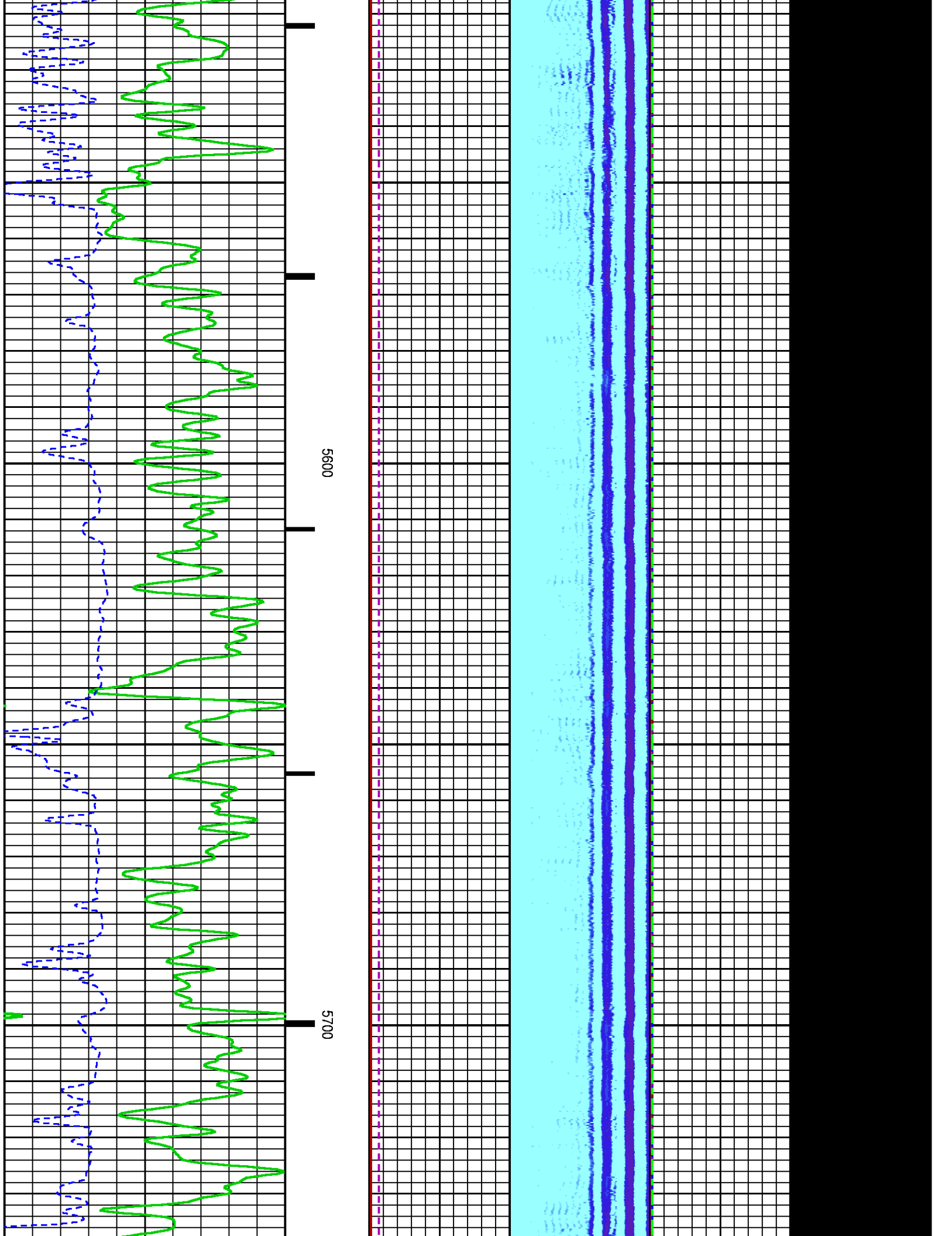


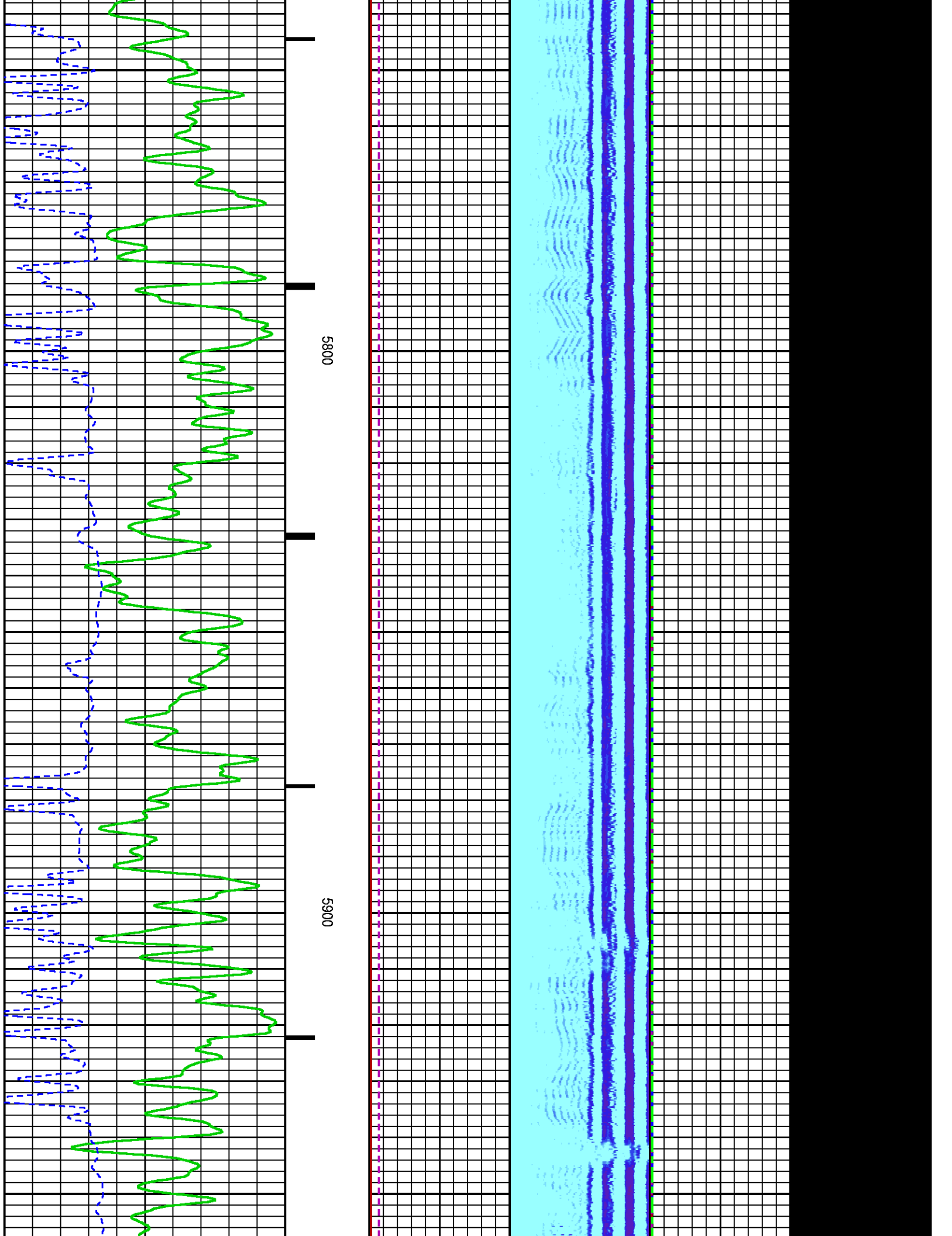


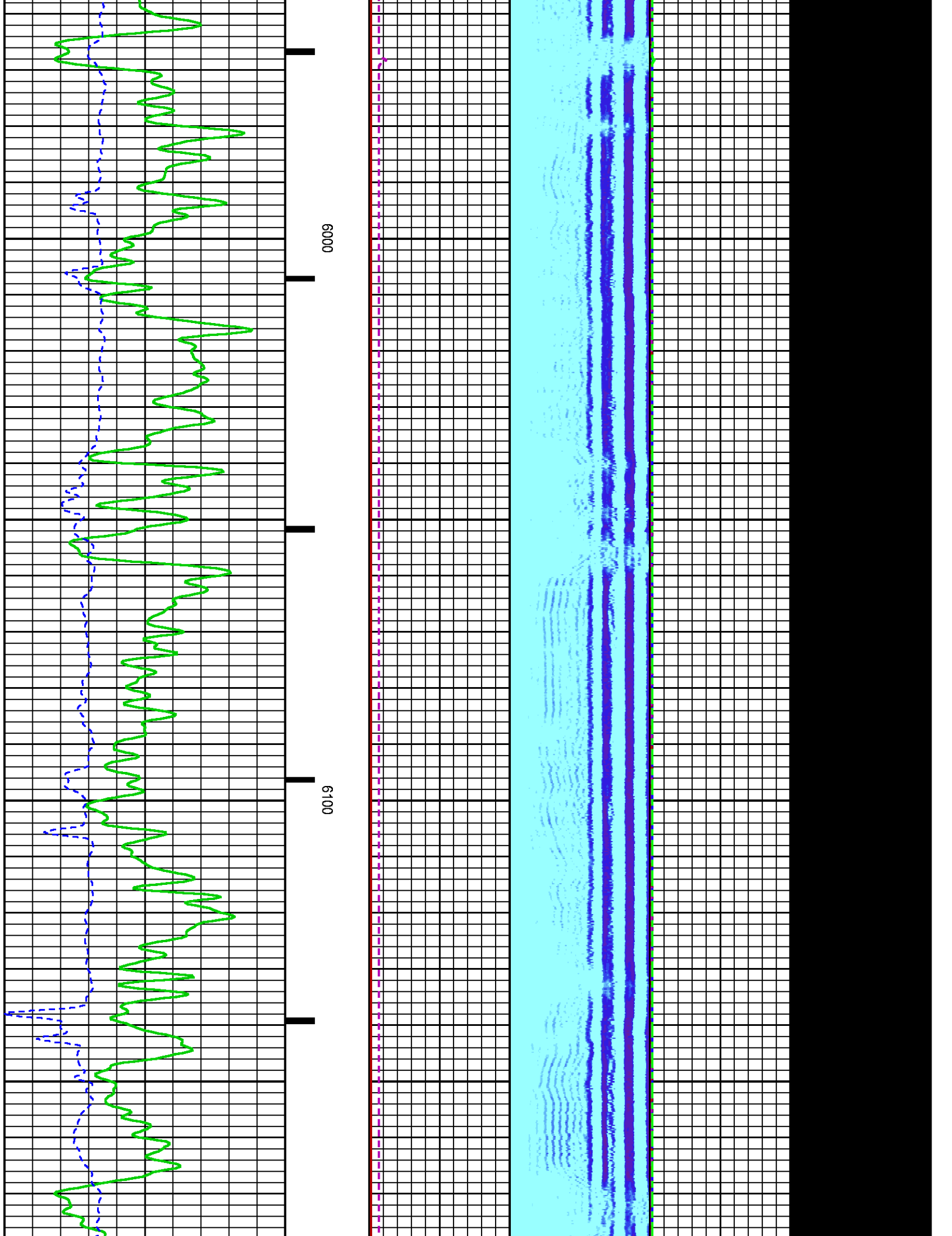


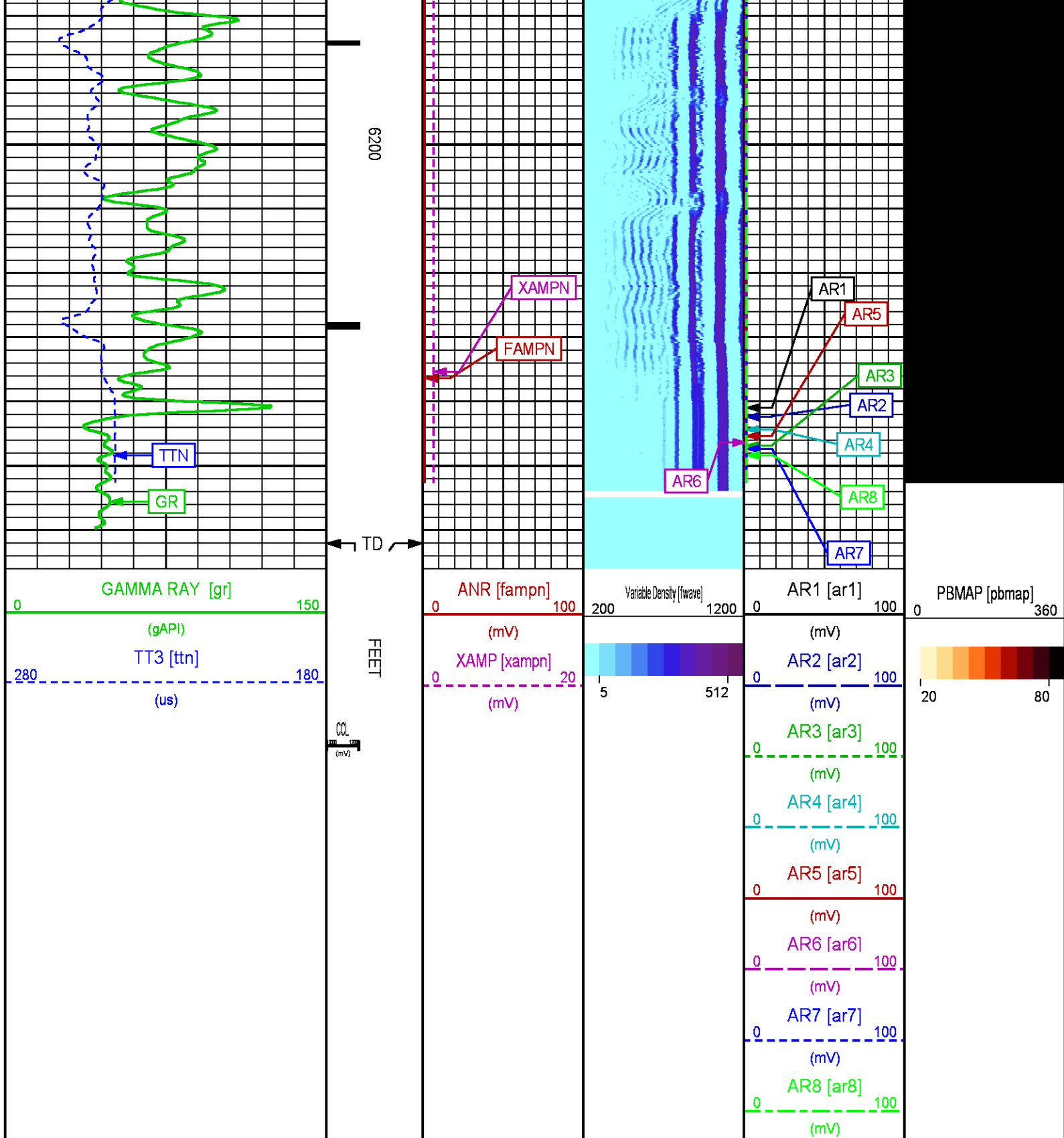












REPEAT PRESENTATION 0 PSI

PARAMETER AND FILTER SUMMARY REPORT

FILE: /dat1a/CH085724/n012e01.prm
LOGGING MODE: DEPTH DIRECTION: UP
TOP DEPTH: 5899.750 ft BOTTOM DEPTH: 6246.750 ft

SYMMETRIC FILTER				
MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)
GR	FILTER ()	medium (1)		TOP BOTTOM
AMPLITUDE	FILTER ()	light (2a)		" "
TRAVEL TIME	FILTER ()	medium (1)		" "

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

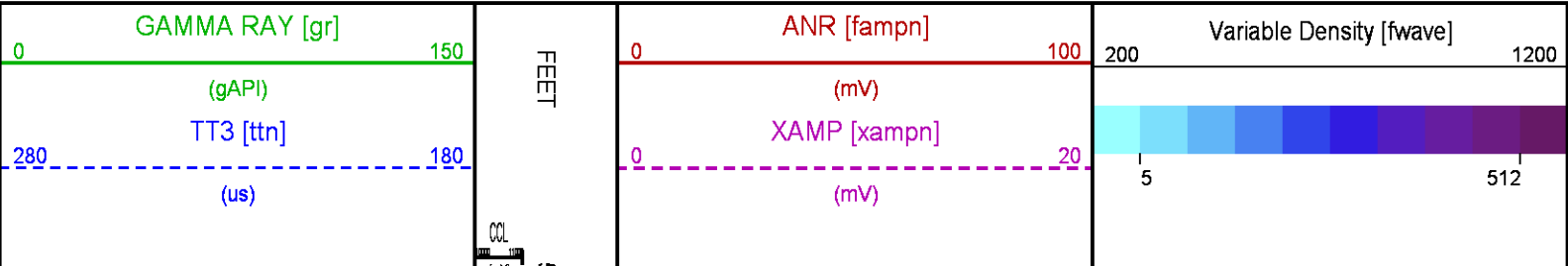
ANALOG RAL PROCESSING				
MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)
AMPLITUDE WINDOW (NEAR)	AMP WINDOW START (fgpn*)	187	us	TOP BOTTOM
	AMP WINDOW LENGTH	25	us	" "
TRAVEL TIME WINDOW (NEAR)	TT WINDOW START (ttn*)	160	us	" "
	TT WINDOW LENGTH	500	us	" "
	FIRST BRK THRESHOLD (ttn*)	4	mV	" "
RAL CASING PARAMETERS	PPT NEAR	200.391	us	" "
RAL TOOL DELAY	TOOL DELAY (strn*)	-65	us	" "
BASELINE NOISE (NEAR)	NOISE WINDOW START	125	us	" "
	NOISE WINDOW LENGTH	25	us	" "

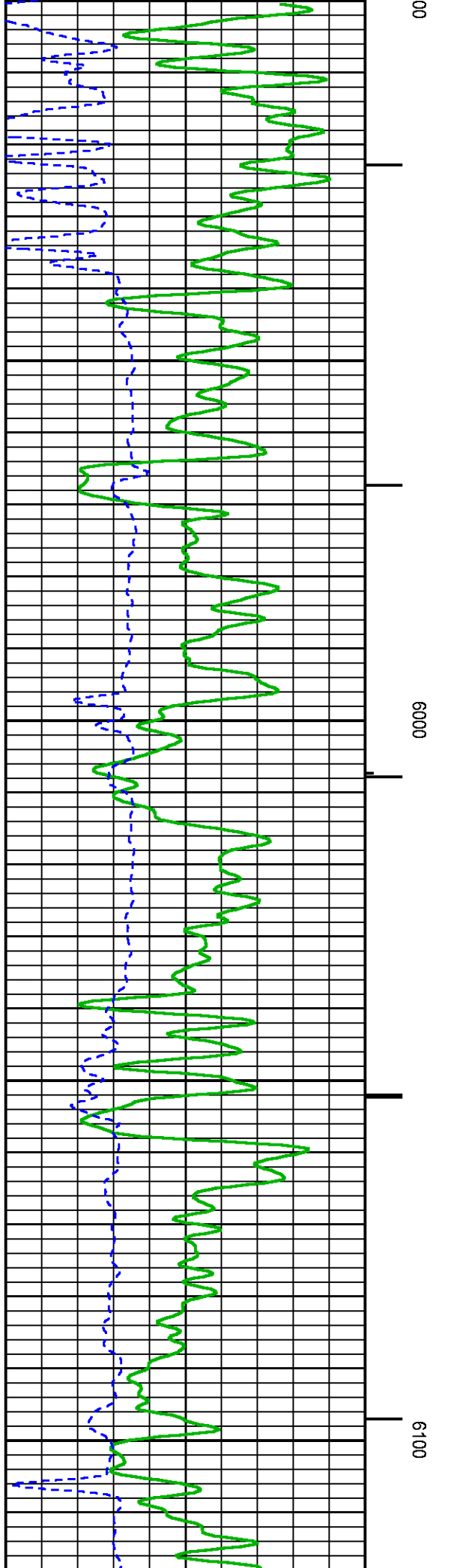
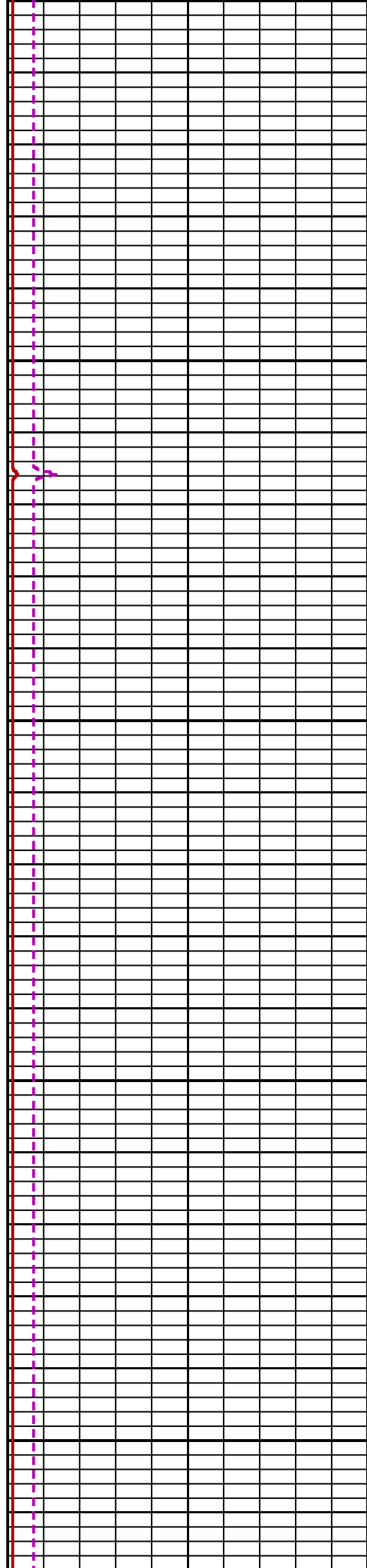
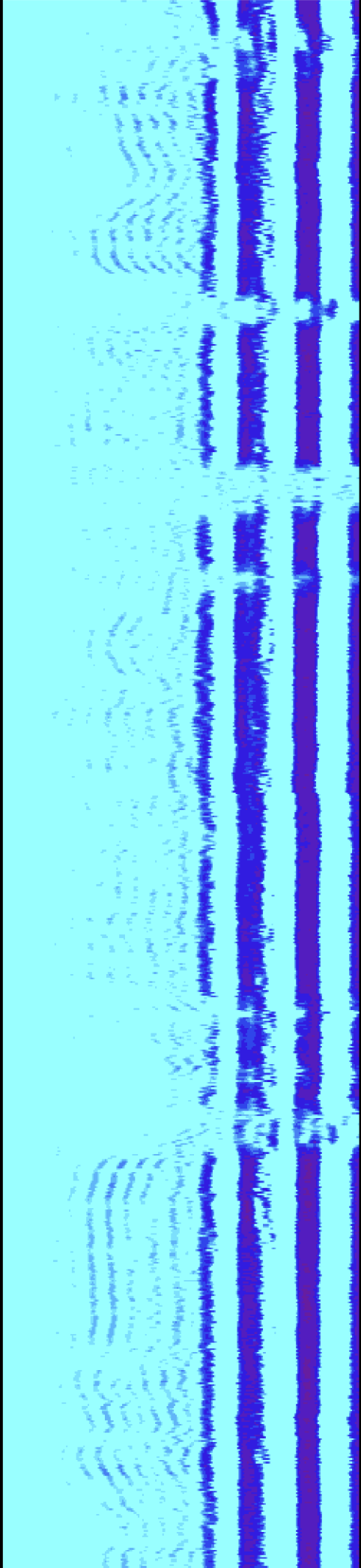
CURVE DESCRIPTION REPORT		
CURVE NAME	CREATION DATE	CURVE DESCRIPTION
F1:CCL	May 15 09:06:11 2014	CASING COLLAR LOCATOR
F1:FAMPN	May 15 09:06:11 2014	FIXED GATE AMPLITUDE NEAR RECEIVER
F1:FWAVE	May 15 09:06:11 2014	FAR WAVE FORM
F1:GR	May 15 09:06:11 2014	GAMMA RAY
F1:TTN	May 15 09:06:11 2014	TRAVELTIME FROM NEAR TRANSMITTER-RECEIVER
F1:XAMPN	May 15 09:06:11 2014	FIXED GATE AMPLITUDE NEAR RECEIVER TIMES FIVE

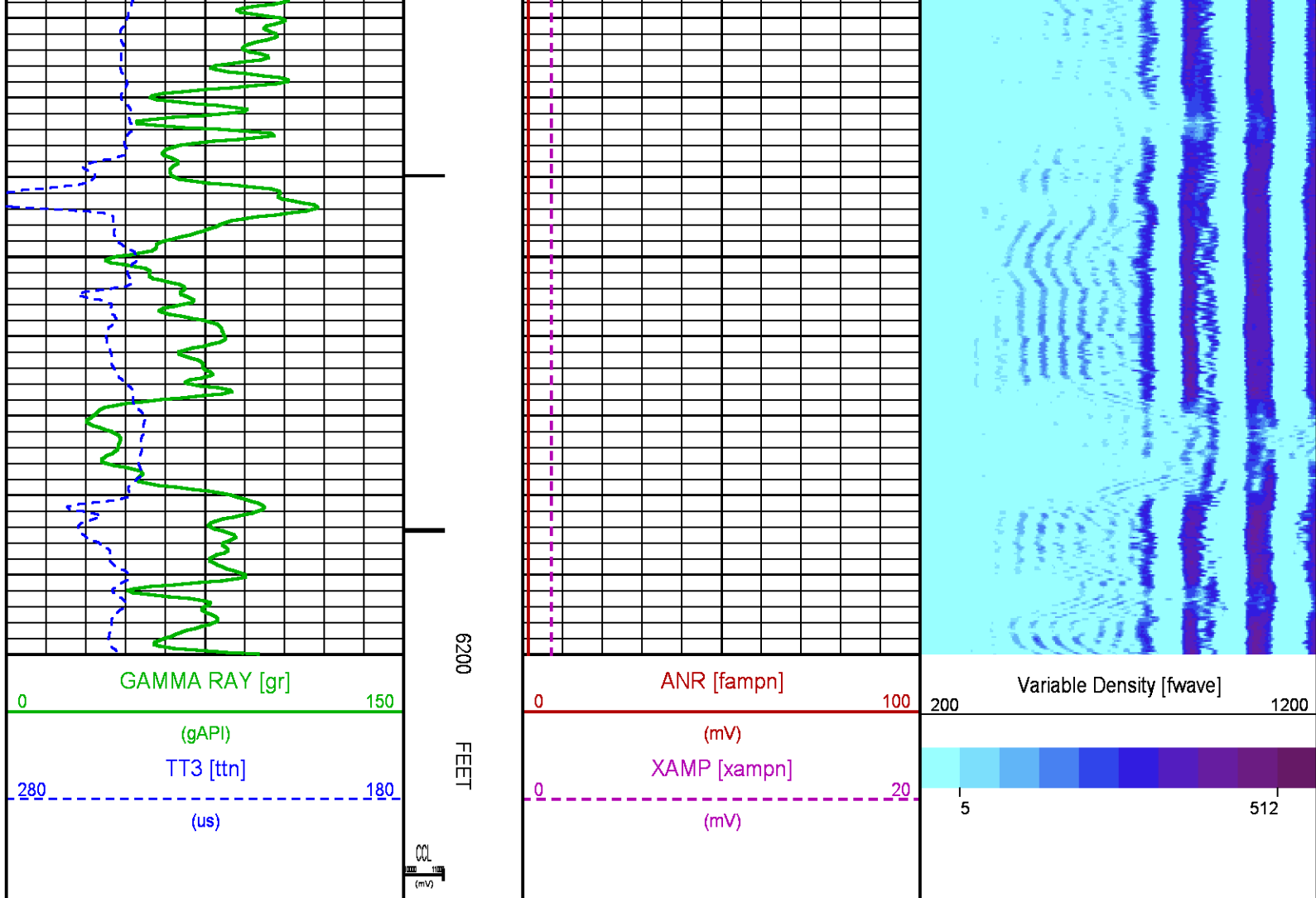
CURVE MEASURE POINT OFFSET					
CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)
CCL	8.50	GR	6.50	XAMPN	13.75
FAMPN	13.75	TTN	13.75		

Presentation : HL6670:CBL_PRIMARY_REPEAT_05_17.fvpdf [5"/100' Scale]
Plot Interval : 5900 - 6200 Feet

Data File 1 : F1 : HL6670:/dat1a/CH085724/REPEAT_RAL_FINAL.xtf
Created On : May 15 09:06:11 2014
Company : WPX ENERGY
Well : C&C ENERGY GM 421-13
Field : GRAND VALLEY
File Interval : 5892 - 6252.75 Feet
OCT : n012e







CALIBRATION / VERIFICATION SUMMARY

Source File: /dat1a/CH085724/RAL_CAL.tp1

RAL PRIMARY CALIBRATION SUMMARY

TOOL #: 1426XA 10154957

DATE/TIME PERFORMED: Thu May 15 08:24:27 2014

UNIT #: 3880TA HL6670

TARGETS

NEAR (mV)	RADIAL (mV)	FAR (mV)
100.00	100.00	150.00

	NEAR	R1	R2	R3	R4	R5	R6	R7	R8	FAR	CAL
ZERO (mV)	-0.17	-0.07	-0.05	-0.07	-0.05	-0.09	-0.11	-0.09	-0.09	-0.15	-0.01
AMP FLUID (mV)	219	214	211	211	213	210	213	214	212	401	203
TT (us)	216	218	217	217	216	215	215	215	217	317	217
M FACTOR	0.46	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.37	0.49

RAL BEFORE LOG VERIFICATION SUMMARY

TOOL #: 1426XA 10154957

DATE/TIME PERFORMED: Thu May 15 08:37:59 2014

DAYS SINCE CAL: 0

UNIT #: 3880TA HL6670

CABLE #: S0159C SMALL1

NEAR (mV)	R1 (mV)	R2 (mV)	R3 (mV)	R4 (mV)	R5 (mV)	R6 (mV)	R7 (mV)	R8 (mV)	FAR (mV)	CAL (mV)
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ZERO	-0.01	-0.00	0.01	-0.01	0.00	0.00	0.00	0.00	0.00	-0.03	-0.00
AMP AIR	-3.29	-2.66	-2.31	-2.25	-2.34	-2.25	-2.24	-2.12	-1.93	0.10	100.34

SHOP M FACTOR	SHOP A FACTOR	WIRELINE FACTOR
0.49	0.00	1.00

GR PRIMARY CALIBRATION SUMMARY

TOOL #: 2459XA 10417457 DATE/TIME PERFORMED: Thu May 15 08:17:39 2014
UNIT #: 3880TA HL6670 CALB JIG #: 4702NK DA-041

	BACKGROUND (cts)	CALBRTR ON (cts)	CR DIFF (cts/s)	MULT	BACKGROUND (gAPI)	CALBRTR ON (gAPI)	CALBRTR (gAPI)
GR	44.62	286.62	242.0	0.764	34.11	219.11	185

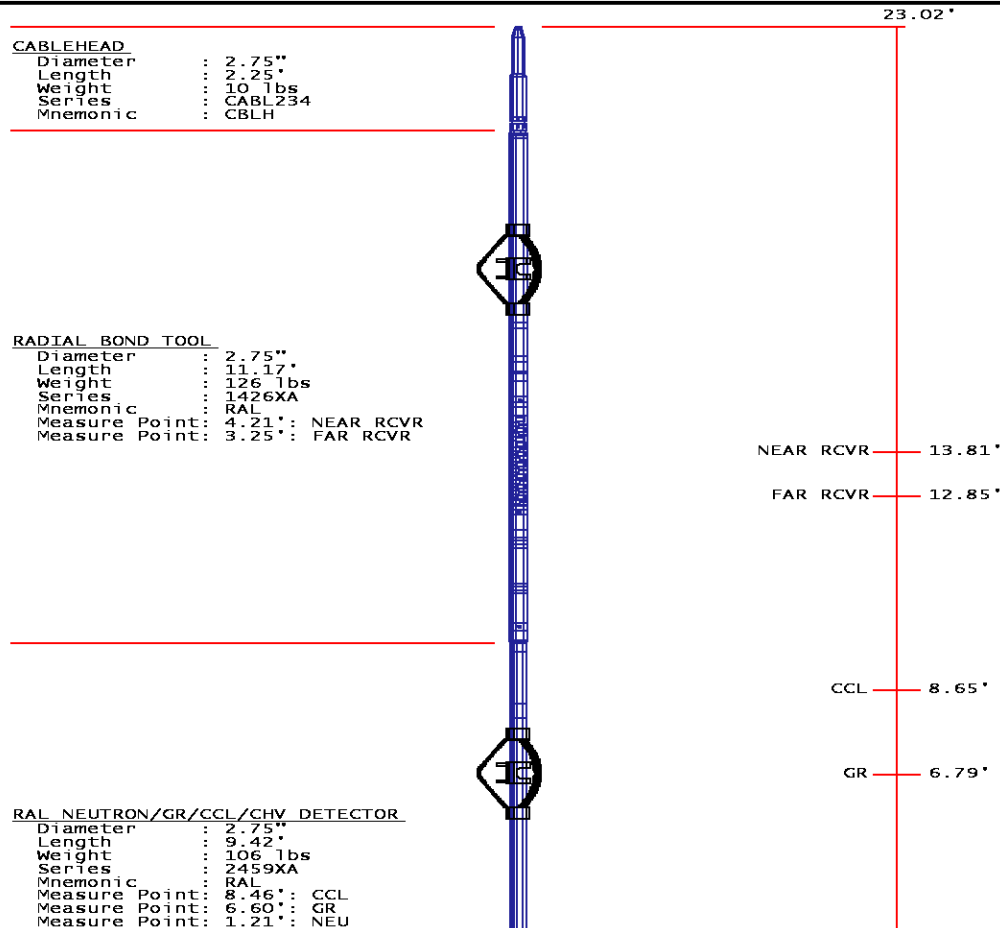
GR PRIMARY VERIFICATION SUMMARY

TOOL #: 2459XA 10417457 DATE/TIME PERFORMED: Thu May 15 08:19:13 2014
UNIT #: 3880TA HL6670 VERI JIG #: 4702NK DA-041

	BACKGROUND (cts)	CALBRTR ON (cts)	MULT	BACKGROUND (gAPI)	CALBRTR ON (gAPI)	DIFF. (gAPI)
GR	42.62	281.82	0.764	32.58	215.44	182.86
						176.00 195.00

INSTRUMENT CONFIGURATION

Source File: /dat1a/CH085724/WPX_RAL_2.tdg




NEU 1.40'

BULL PLUG 2 3/4

0.00'

TOTAL LENGTH: 23.02'
TOTAL WEIGHT: 258 lbs
MAX DIAMETER: 0.4.00"

	COMPANY <u>WPX ENERGY</u>		FILE NO: <u>CH085724</u>
	WELL <u>C&C ENERGY GM 421-13</u>		API NO: <u>05045222600000</u>
	FIELD <u>GRAND VALLEY</u>		
	COUNTY <u>GARFIELD</u>	STATE <u>CO</u>	
LOCATION: SHL: 273' FSL 1039' FWL BHL: 736' FNL 2206' FWL		ELEVATIONS: KB 5165 FT DF GL 5141 FT	S13 T7S R96W PAD: GM 24-12 H&P 318
SEC <u>13</u> TWP <u>7S</u> RGE <u>96W</u>		DATE <u>15-May-2014</u>	

