



FILE NO: CH108494	COMPANY TERRA ENERGY PARTNERS LLC
API NO: 05045235320000	WELL FEDERAL GM 42-8
	FIELD GRAND VALLEY
	COUNTY GARFIELD
	STATE COLORADO

Ver. 4.06	LOCATION: S.8 T.7S R.96W PAD: MV 16-9 RIG: H&P 318	OTHER SERVICES RPM
	SEC 8 TWP 7S RGE 96W	

PERMANENT DATUM LOG MEASURED FROM DRILL. MEAS. FROM	GL ELEVATION 6087 FT K.B. 24 FT ABOVE P.D. K.B.	ELEVATIONS: KB 6111 FT DF GL 6087 FT
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DATE		26-Jul-2016	
RUN	TRIP	1	1
SERVICE ORDER	US108494		
DEPTH DRILLER	6701 FT		
DEPTH LOGGER	6625 FT		
BOTTOM LOGGED INTERVAL	6624 FT		
TOP LOGGED INTERVAL	24 FT		
TIME STARTED	08:00		
TIME FINISHED	10:30		
OPERATOR RIG TIME	2.5 HOURS		
TYPE OF FLUID IN HOLE	WATER		
FLUID DENSITY	NA		
FLUID SALINITY	NA		
FLUID LEVEL	48 FT		
LOGGED CEMENT TOP	SEE LOG		
WELLHEAD PRESSURE	0 PSI		
MAXIMUM HOLE DEVIATION	NA		
NOMINAL LOGGING SPEED	100 F/MIN		
MAX. RECORDED TEMP.	206 DEGF		
REFERENCE LOG	NA		
REFERENCE LOG DATE	NA		
EQUIP. NO.	LOCATION	HL-6685	
RECORDED BY	SPENCER		GRAND JCT.
WITNESSED BY	D.WELSH		

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	1147 FT
8.75 IN	1147 FT	6719 FT

CASING RECORD				
SIZE	WEIGHT	GRADE	FROM	TO
9.625 IN			0 FT	1147 FT
4.5 IN	11.6 LB/F		0 FT	6719 FT

REMARKS

RUN 1 TRIP 1: THIS IS THE FIRST RUN ON THIS WELL
ALL DATA ON THIS LOG HAS BEEN DEPTH SHIFTED TO PUT THE TOP CCL MARL (WELLHEAD)
ON DEPTH WITH GL WITH RESPECT TO KB AT CLIENT'S REQUEST.

AMOUNT OF LINEAR SHIFT = +6 FEET

LOGGED WITH 0 PSI AT SURFACE

BHT = 206 DEGF
SJ = 3702' - 3724'

THANKS FOR CHOOSING BAKER HUGHES WIRELINE
CREW: NEWELL / FAVORITE

MAIN PRESENTATION 0 PSI

Plotted: Tue Jul 26 10:57:25 2016

FILE:	/dat1a/CH108494/n012g02.prm		
LOGGING MODE:	DEPTH	DIRECTION:	UP
TOP DEPTH:	21.250 ft	BOTTOM DEPTH:	6617.500 ft

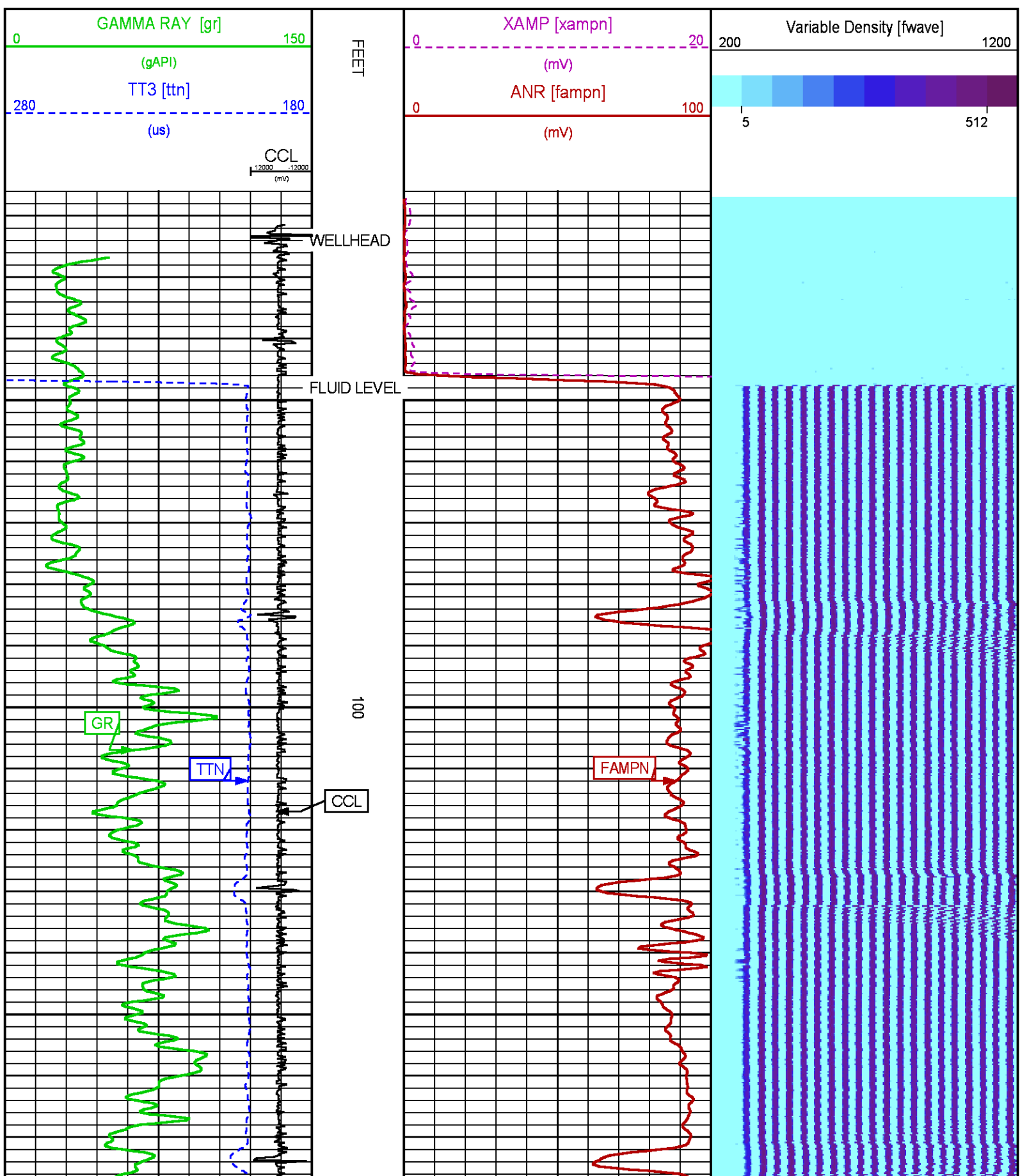
RAL CCL PROCESSING				
MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)
CCL FLOOR	CCL FLOOR	0		TOP BOTTOM

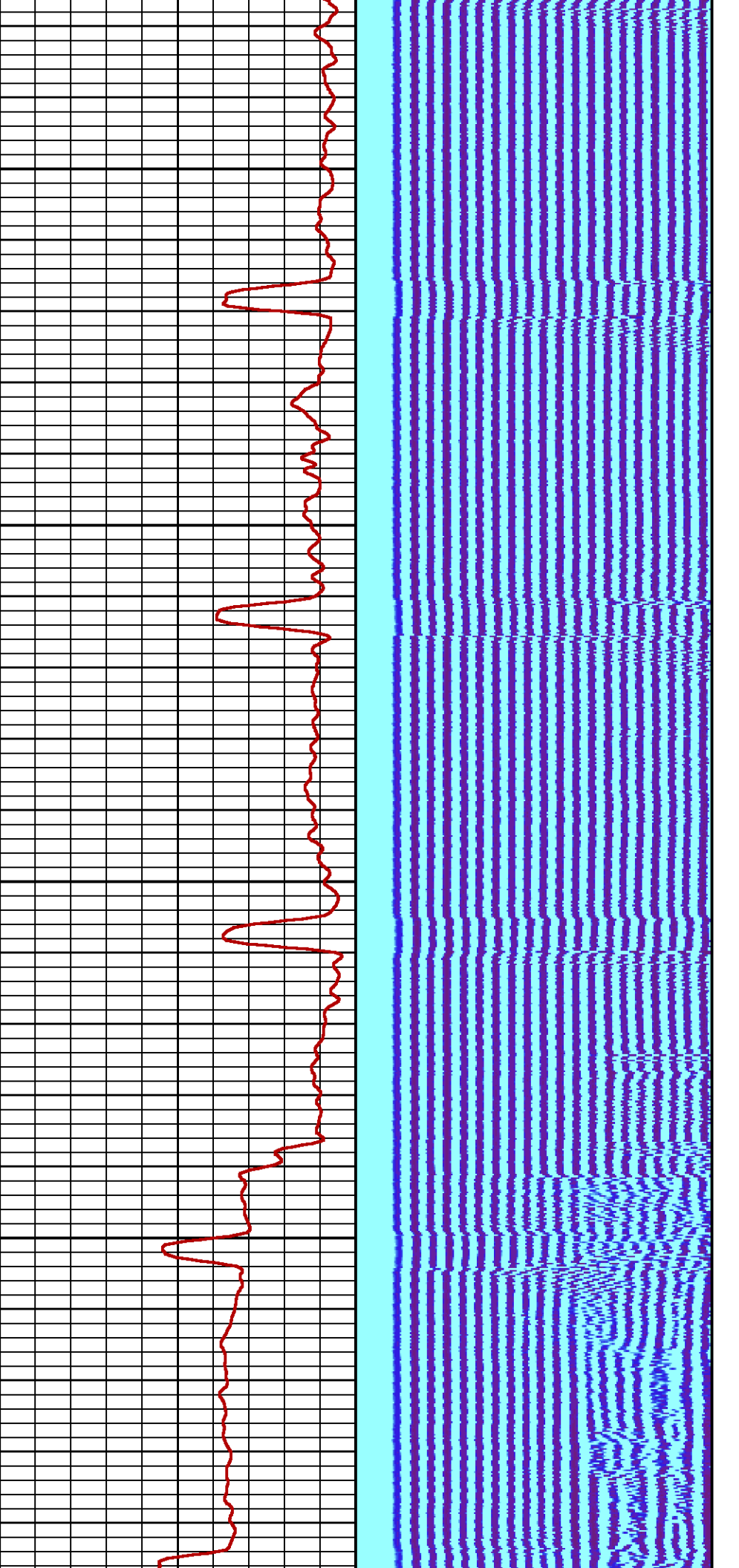
CURVE DESCRIPTION REPORT		
CURVE NAME	CREATION DATE	CURVE DESCRIPTION
F1:CCL	Jul 26 09:21:16 2016	CASING COLLAR LOCATOR
F1:FAMPN	Jul 26 09:21:16 2016	FIXED GATE AMPLITUDE NEAR RECEIVER
F1:FWAVE	Jul 26 09:21:16 2016	FAR WAVE FORM
F1:GR	Jul 26 09:21:16 2016	GAMMA RAY
F1:TTN	Jul 26 09:21:16 2016	TRAVELTIME FROM NEAR TRANSMITTER-RECEIVER
F1:XAMPN	Jul 26 09:21:16 2016	FIXED GATE AMPLITUDE NEAR RECEIVER TIMES FIVE

Presentation : cas6685:/dat1a/CH1084040/WPX ral.chl.MAIN.fundf [5"/100' Scale]

Presentation : cas6685\data\CH100494\WV X_ral_cbl-MAIN.vppl [5 / 100 Scale]
Plot Interval : 17 - 6622 Feet

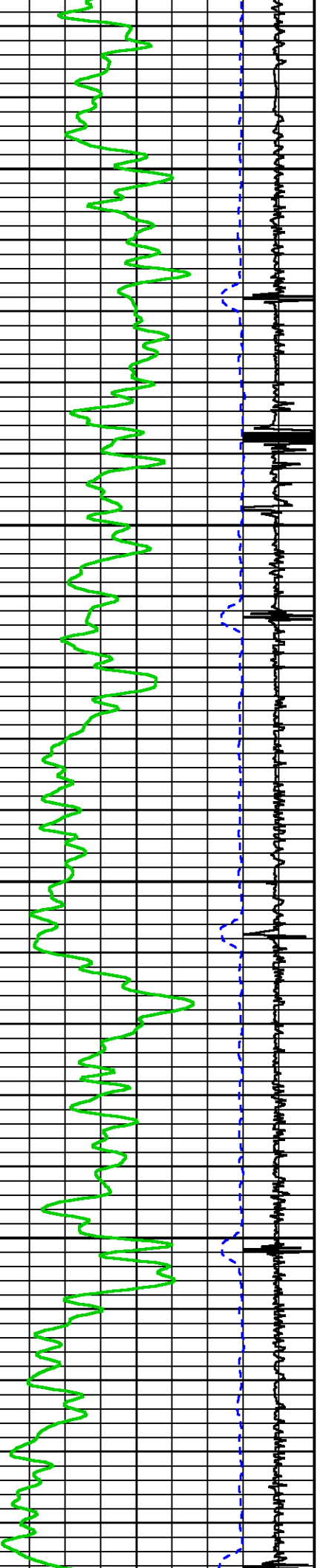
Data File 1 : F1 : cas6685\C:\Users\spenjosj\Documents\VDIS\Jobs\WPX\IGM42-8\CH108494
Created On : 01/26/2016 21:16 2016
Company : TERRA ENERGY PARTNERS
Well : FEDERAL GM 42-8
Field : GRAND VALLEY
File Interval : 10 - 6623.5 Feet
OCT : n012g

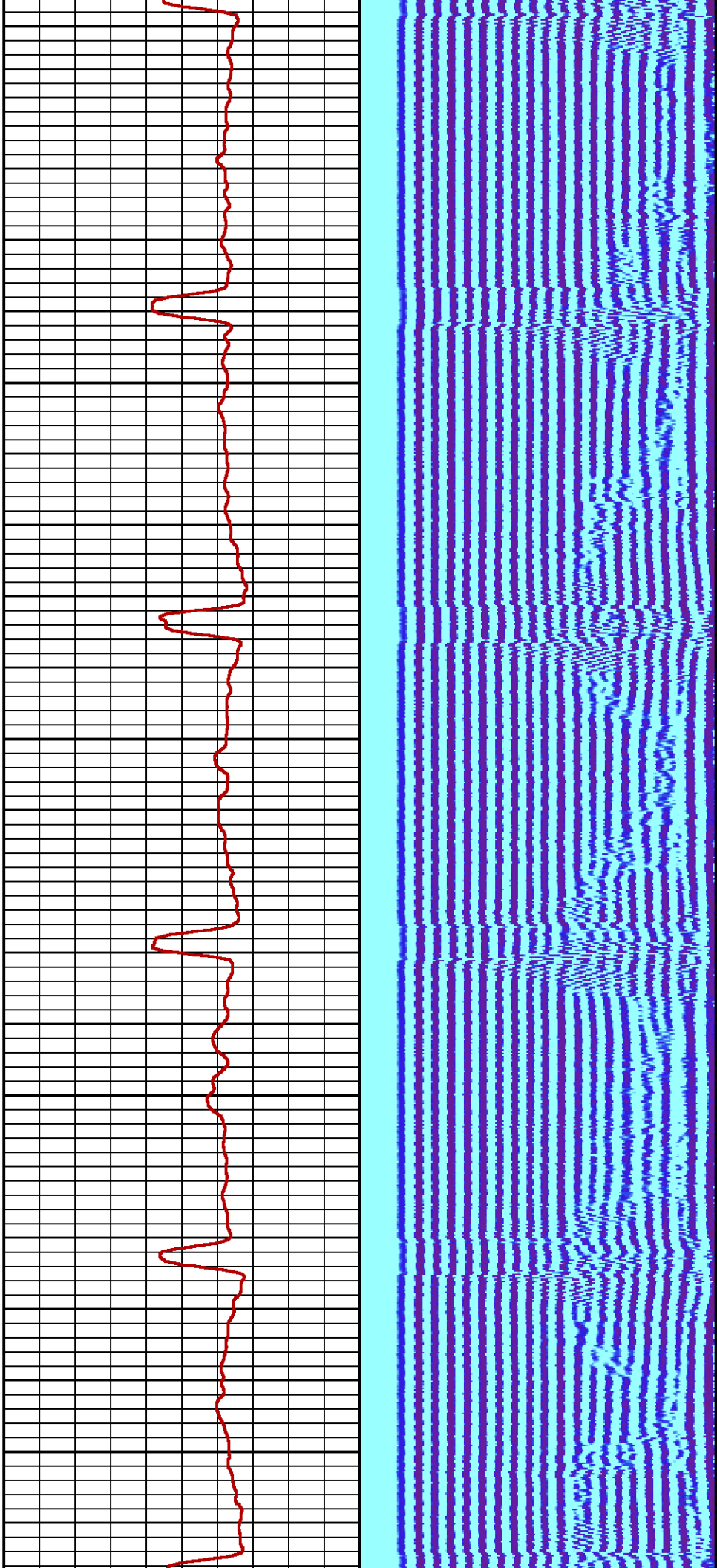




200

300

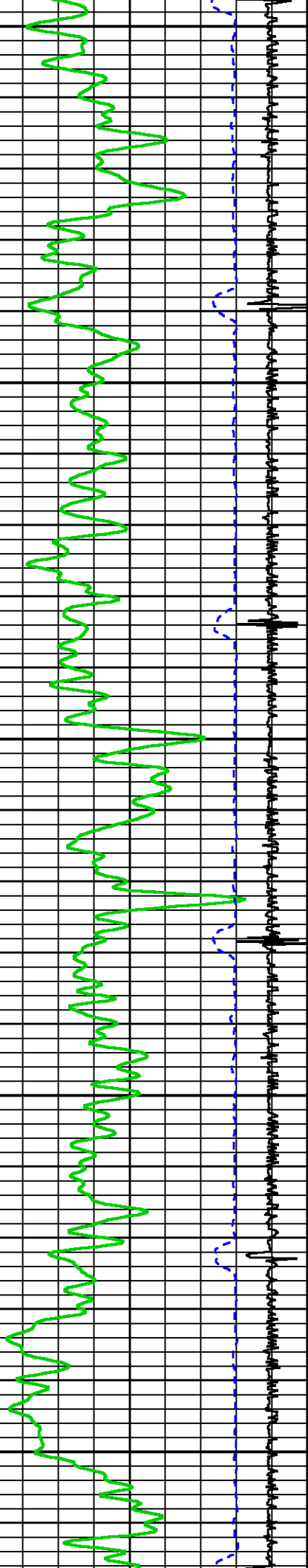


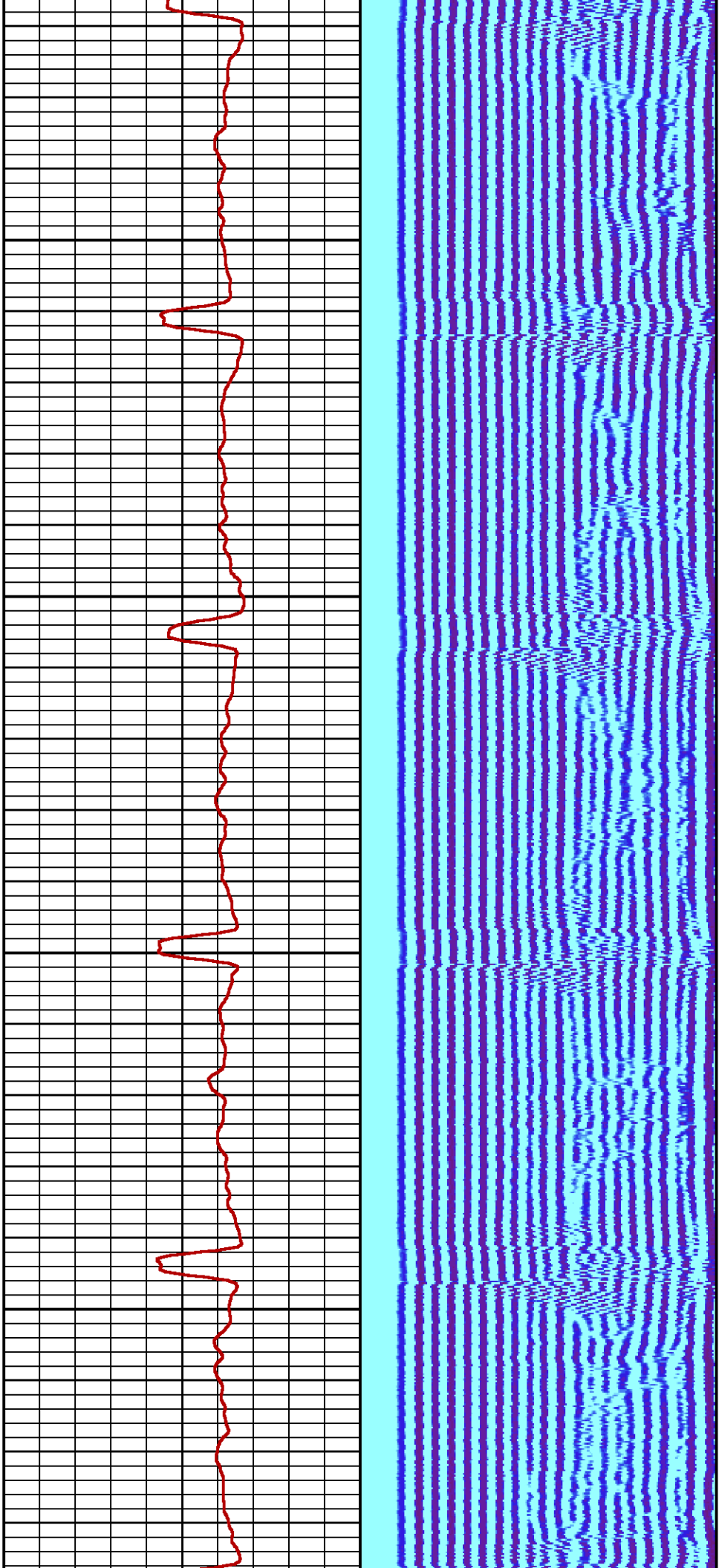


400

500

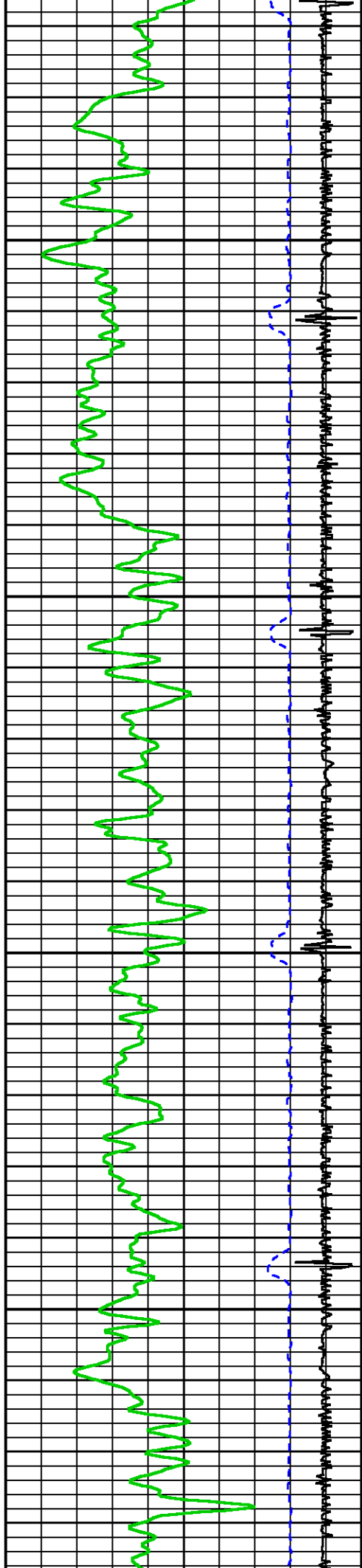
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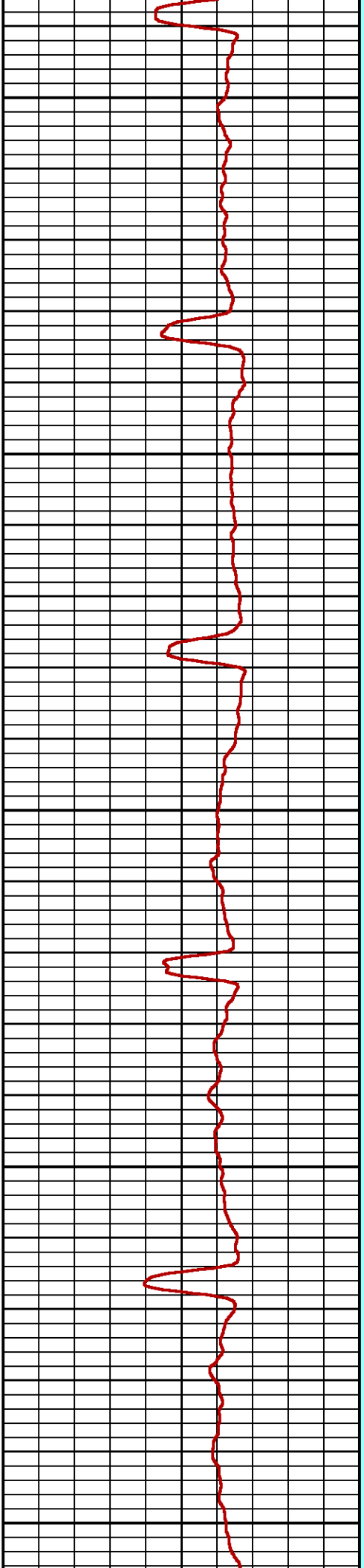
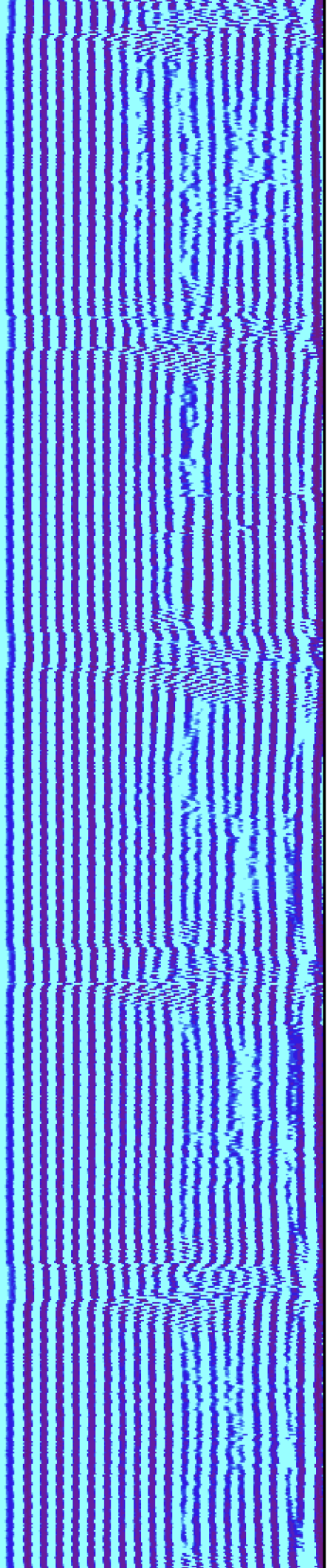




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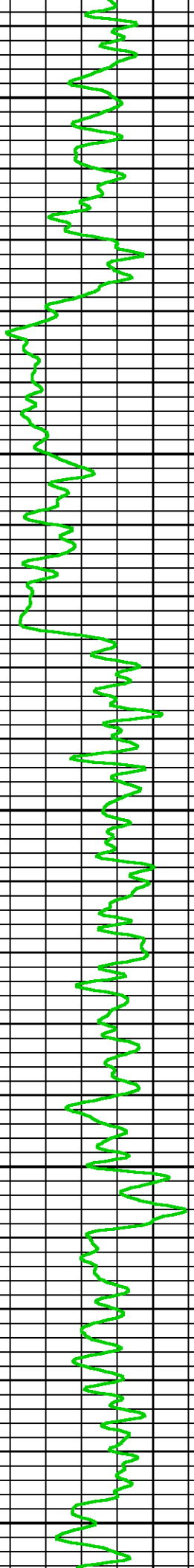
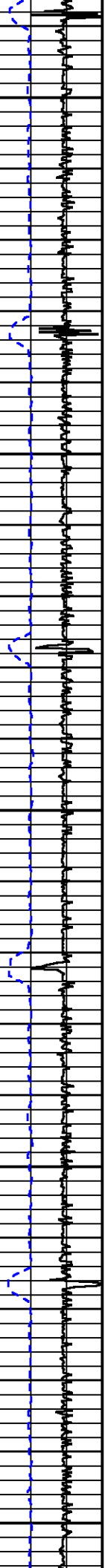
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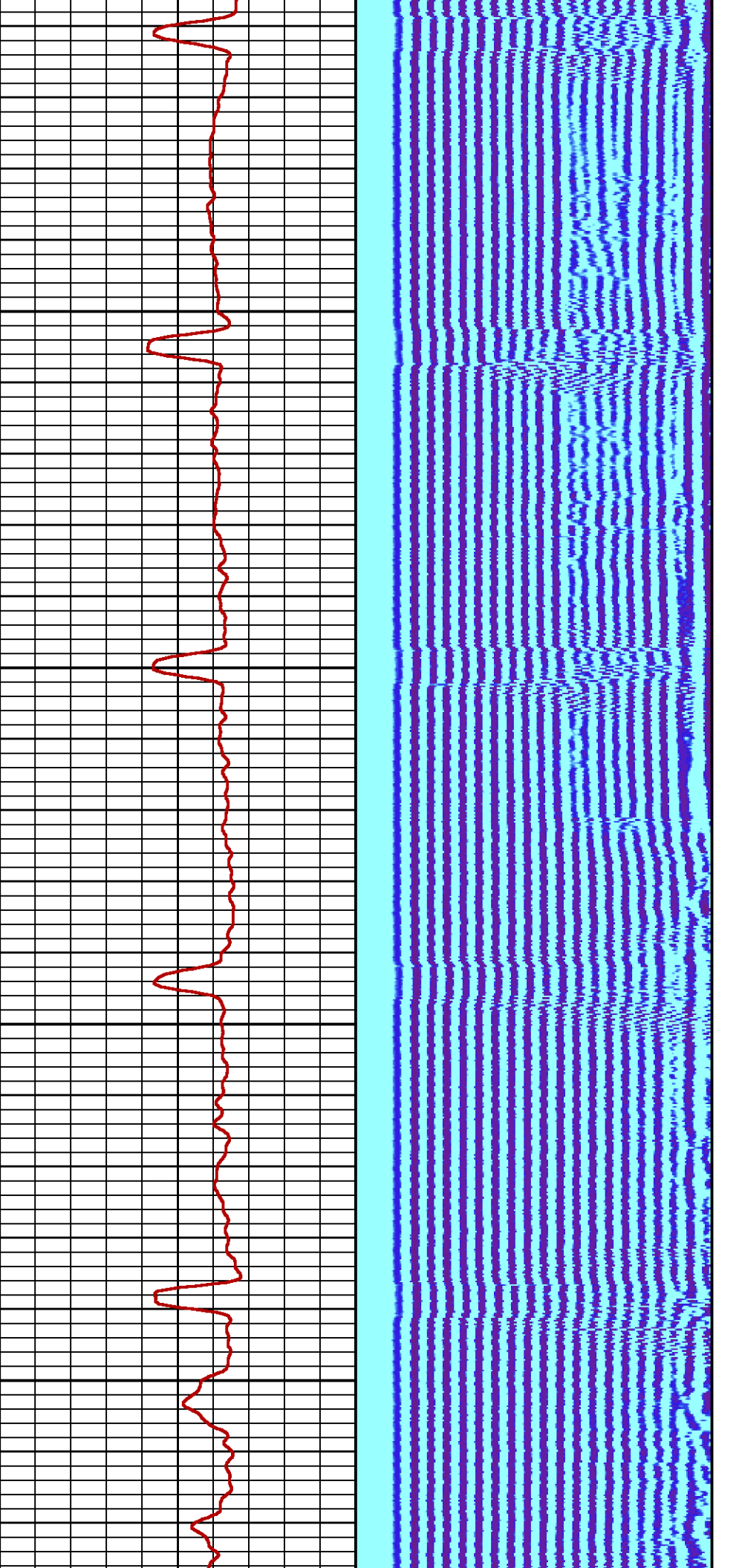




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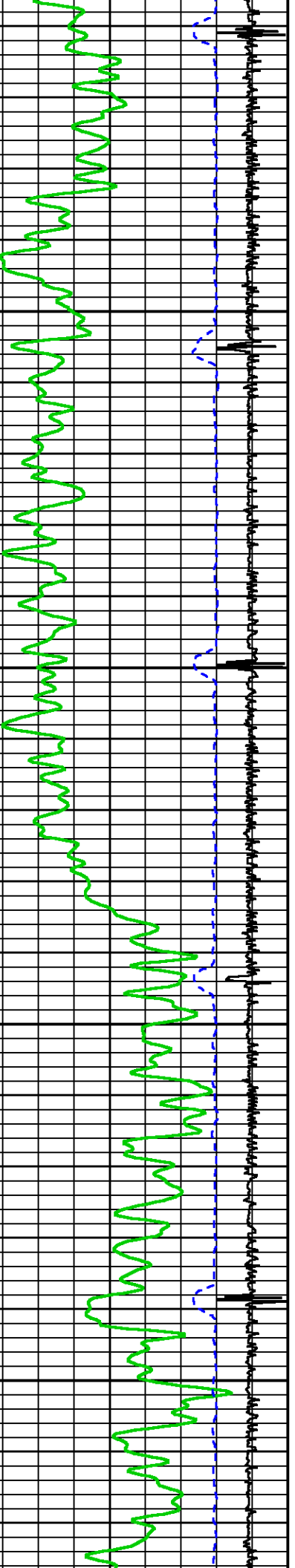
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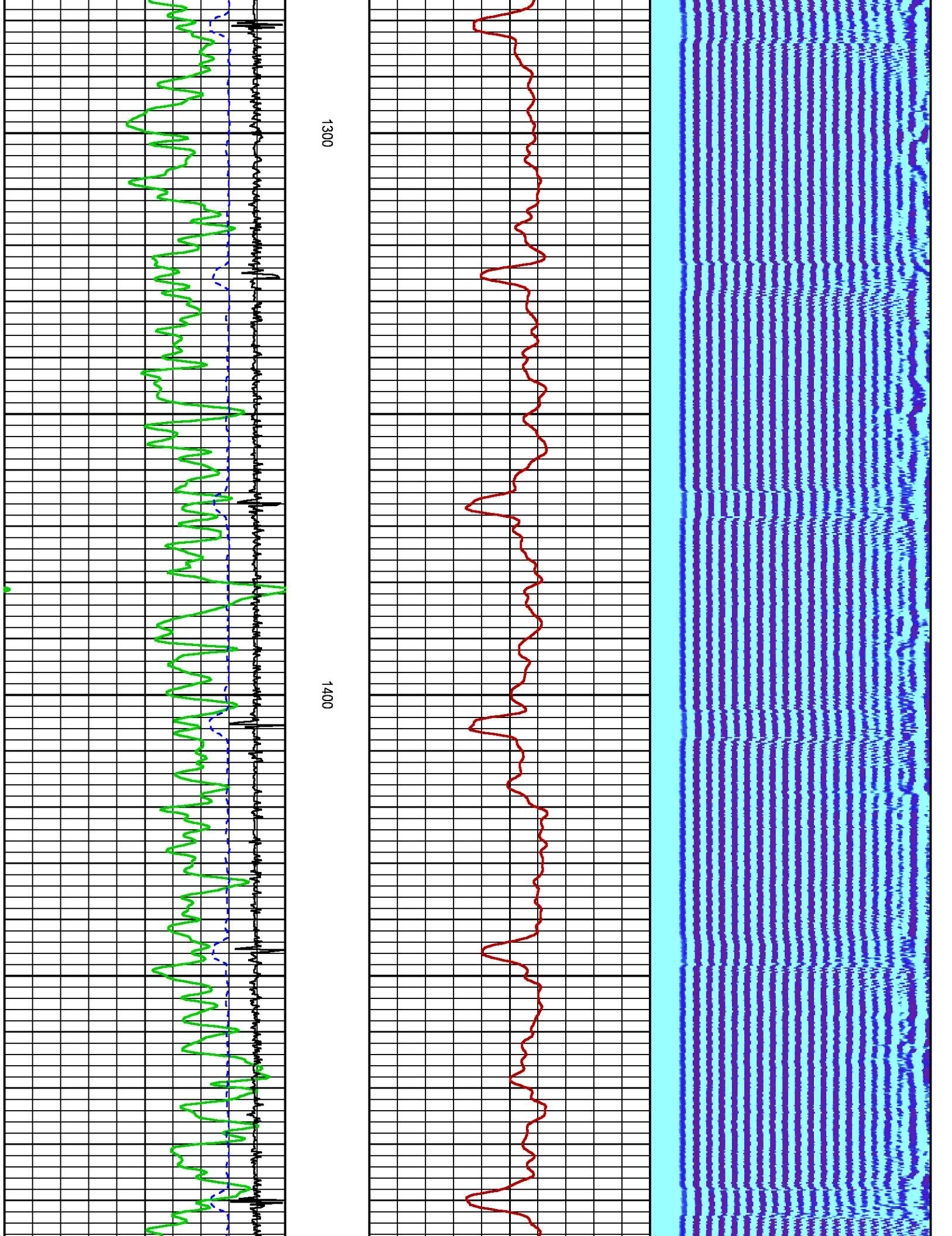


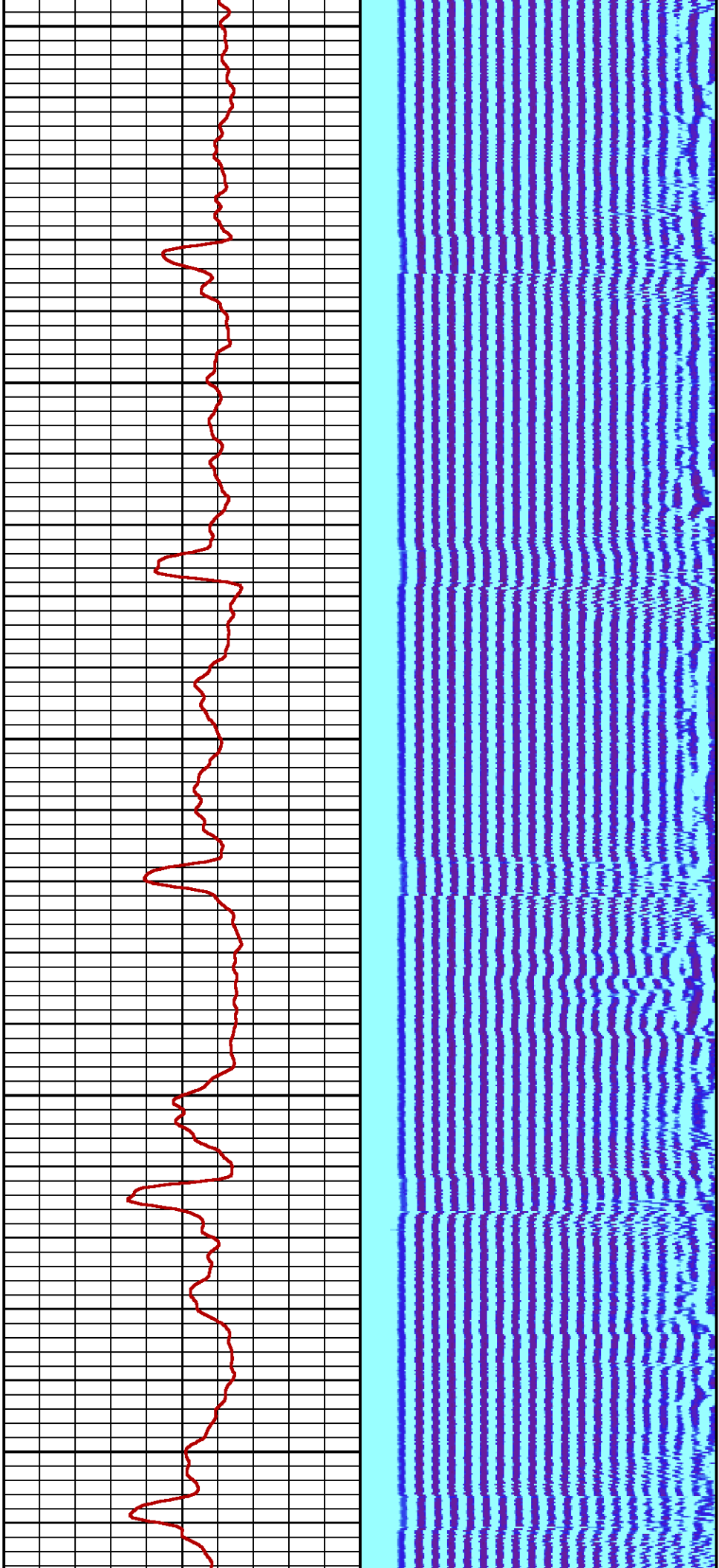


1100

1200



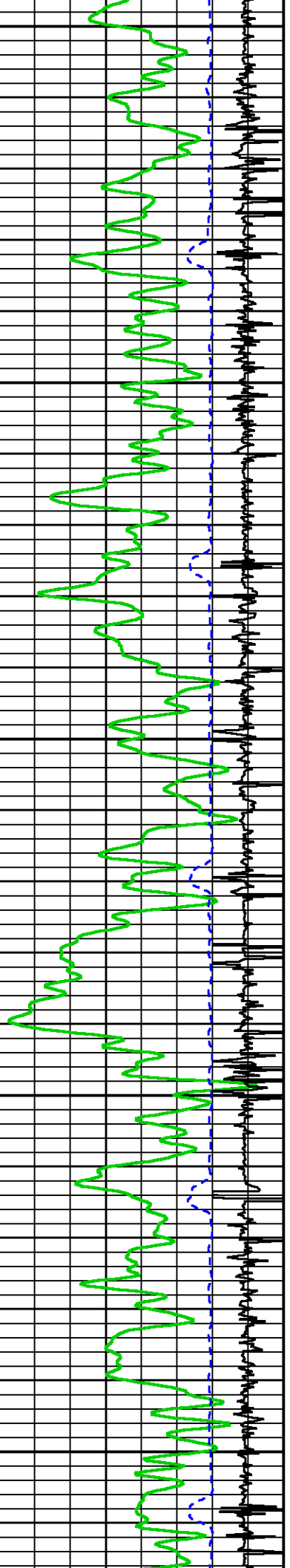


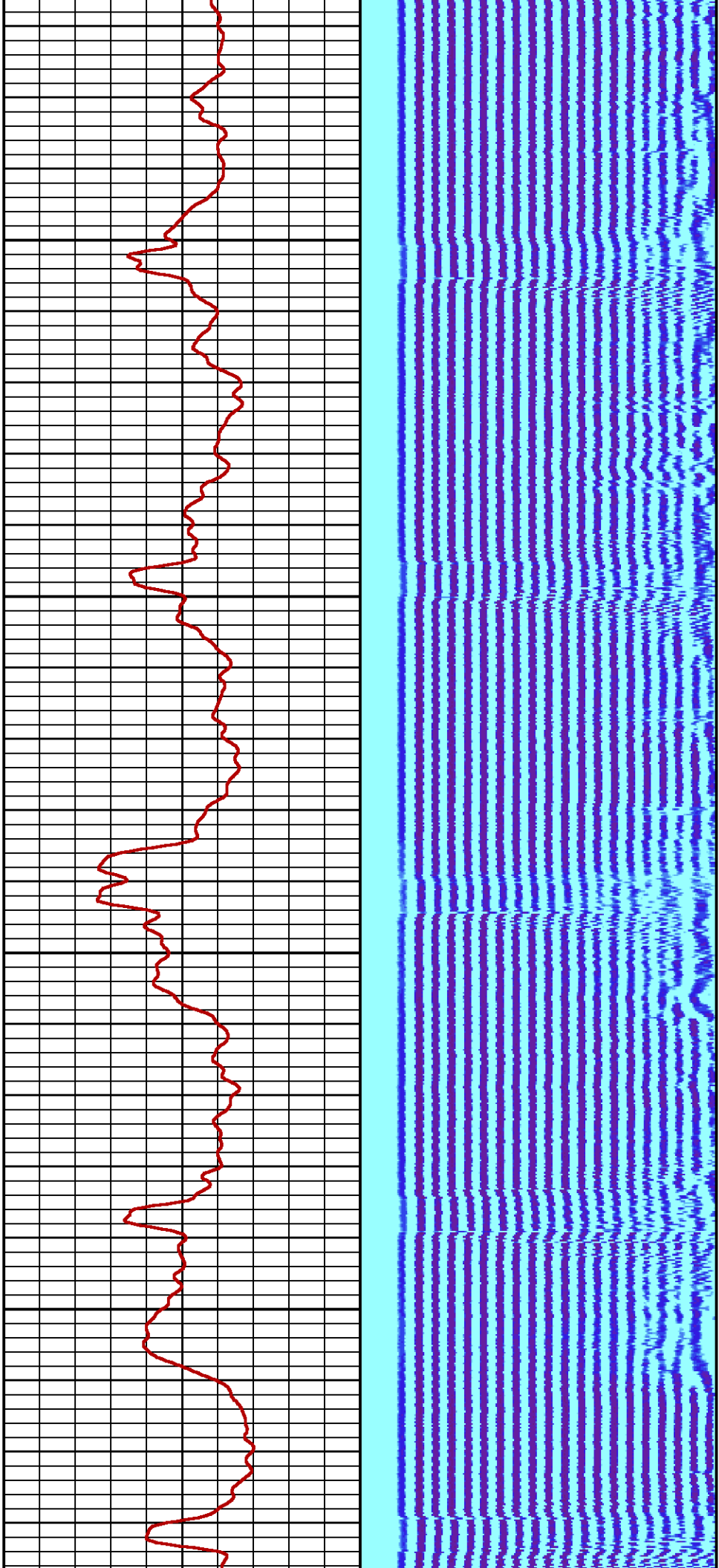


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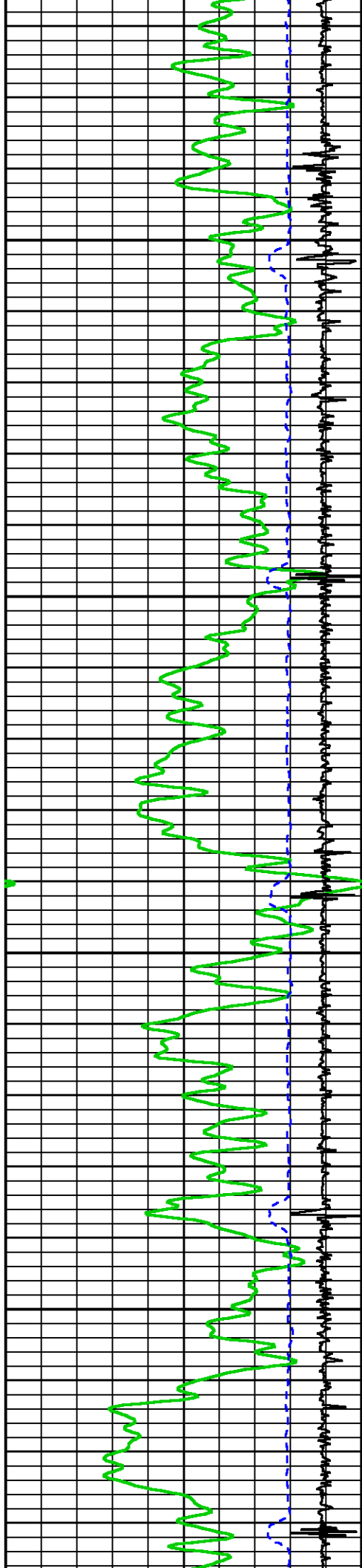
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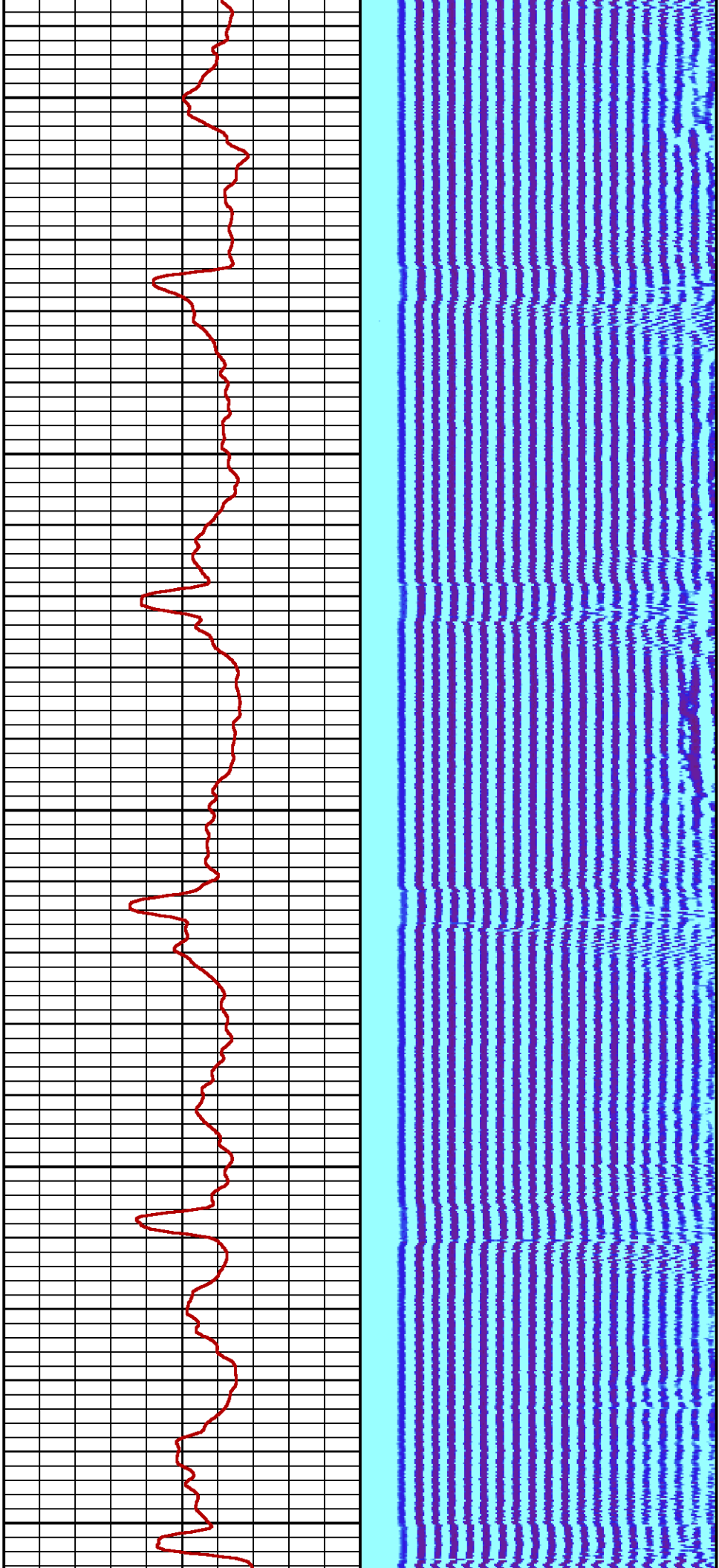




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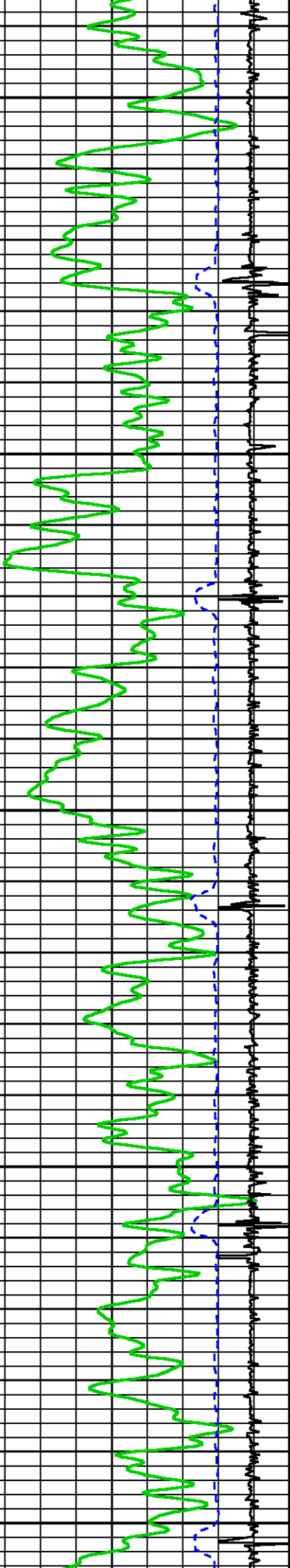
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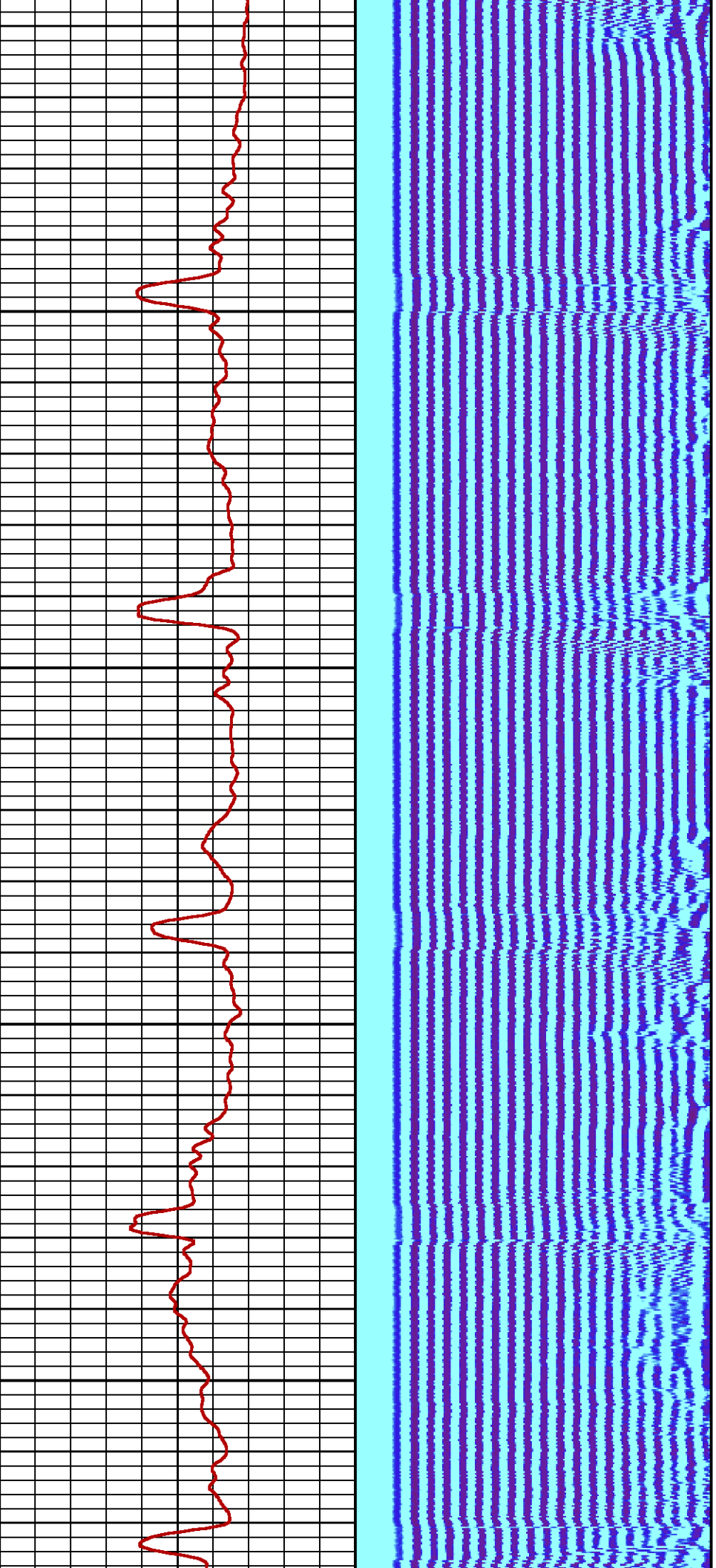




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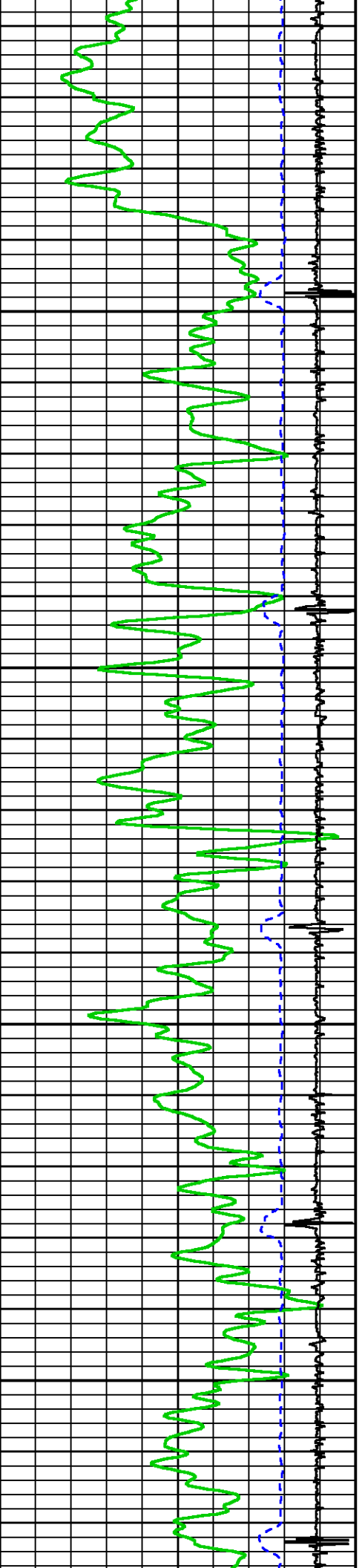
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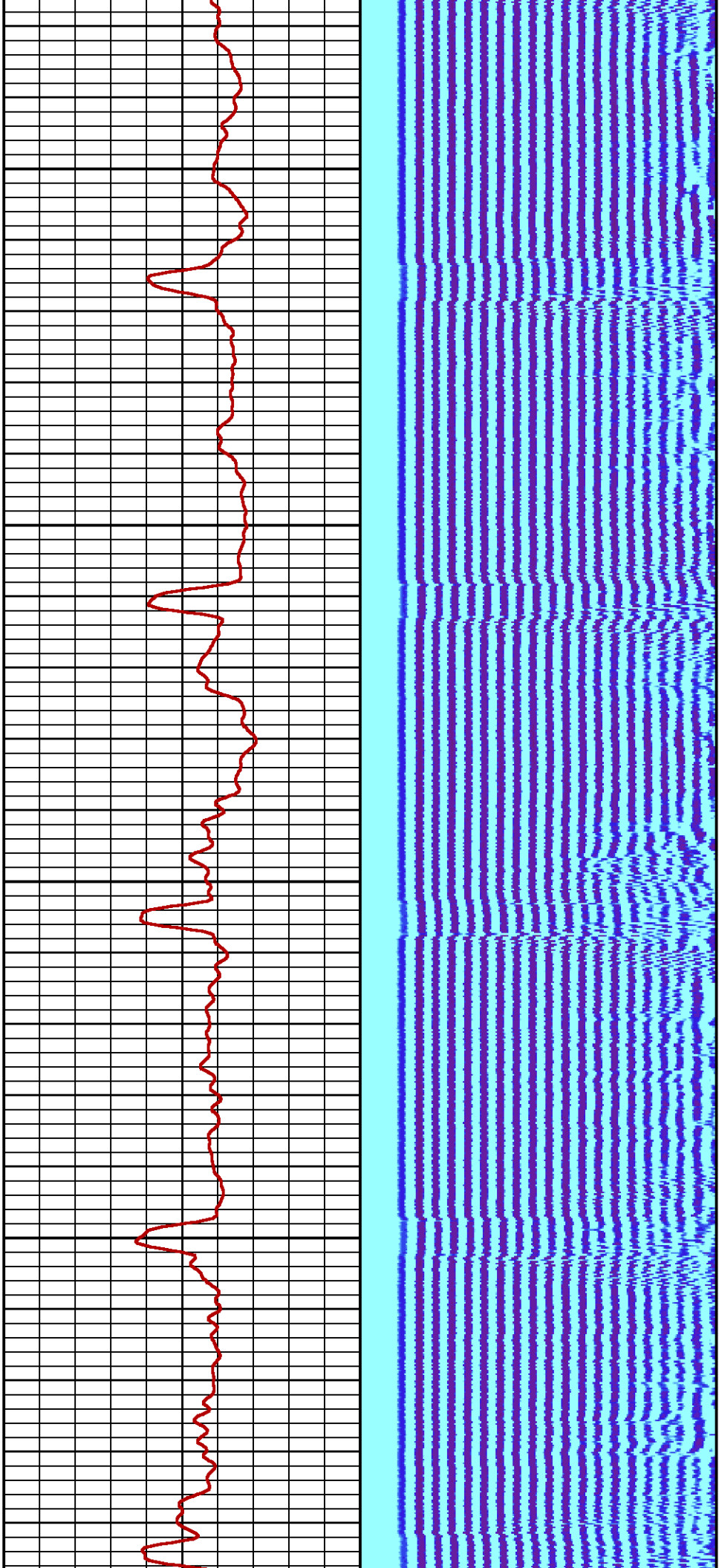




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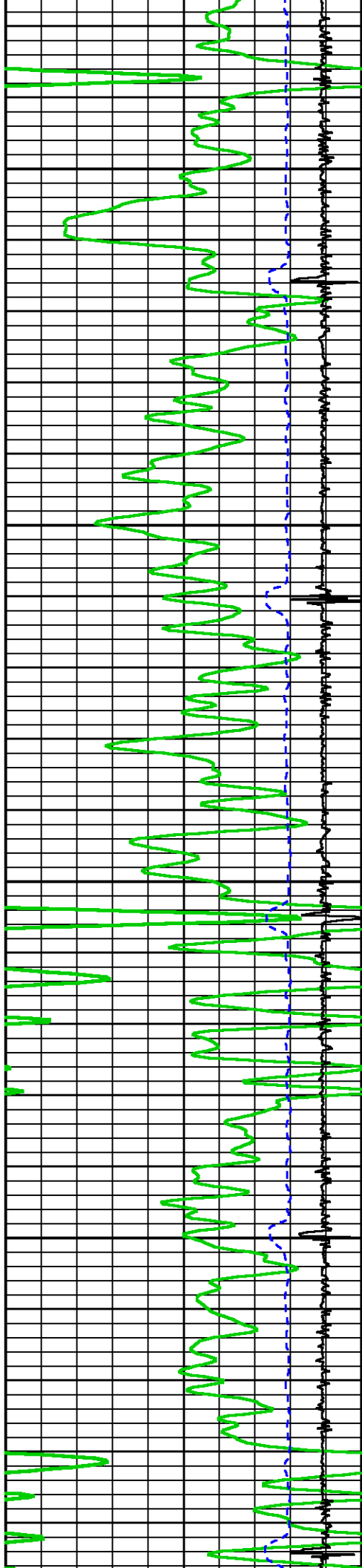
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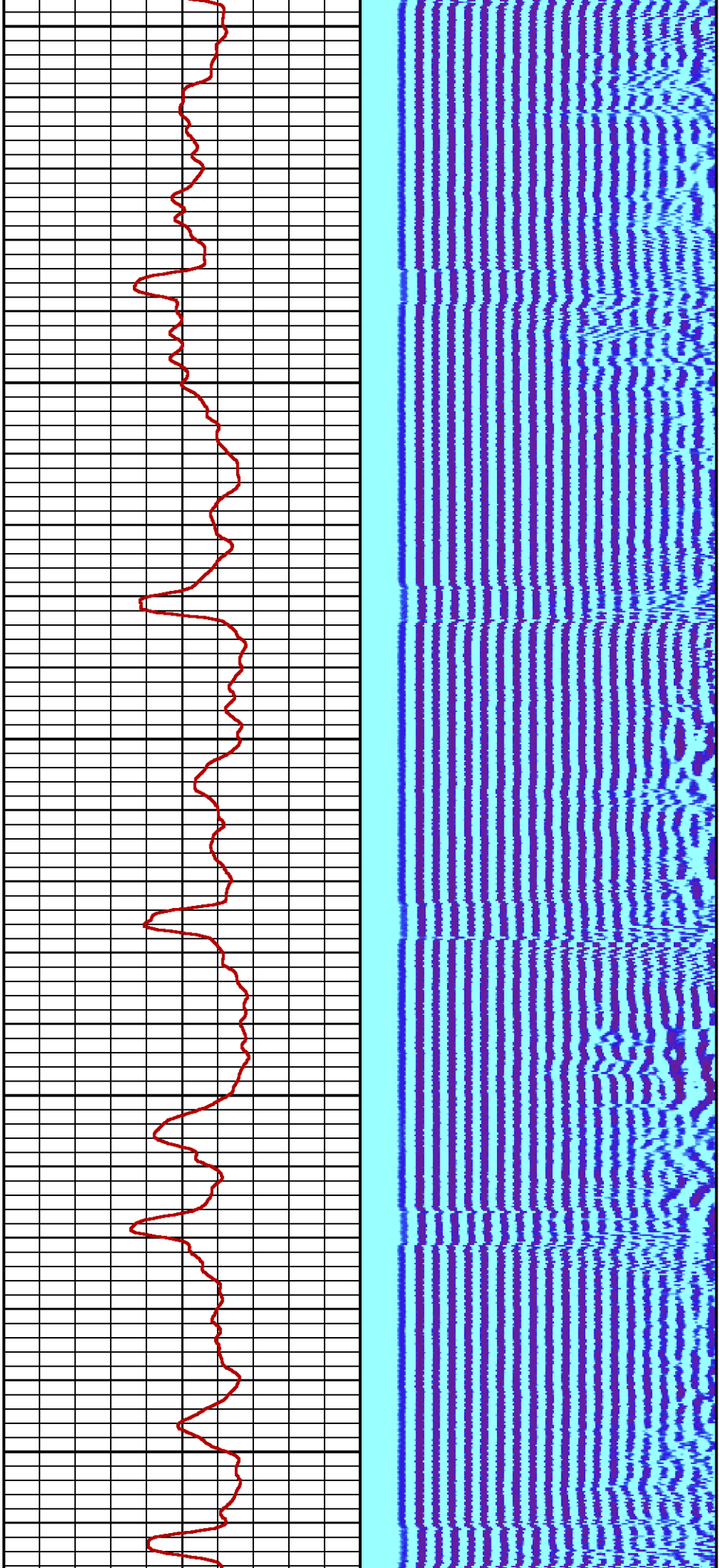




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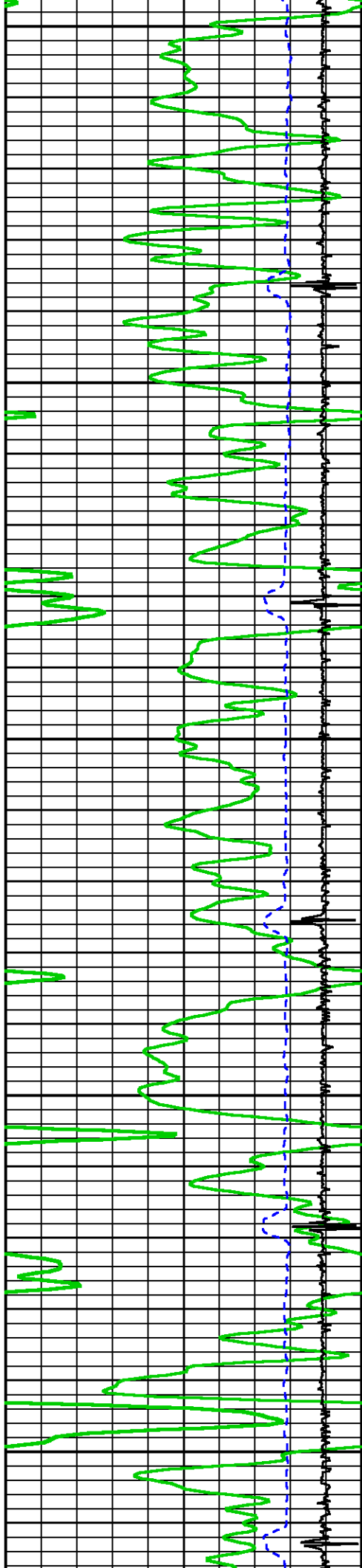


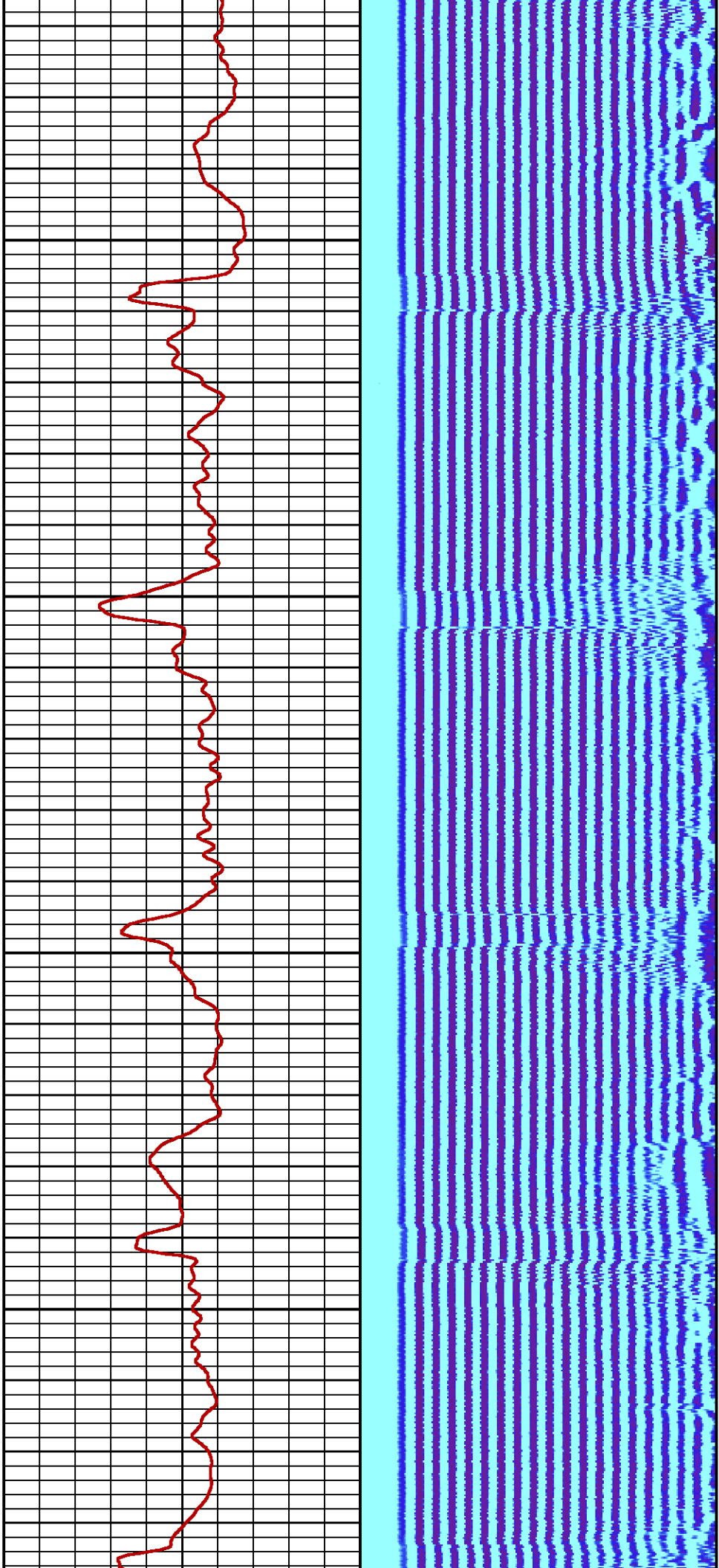


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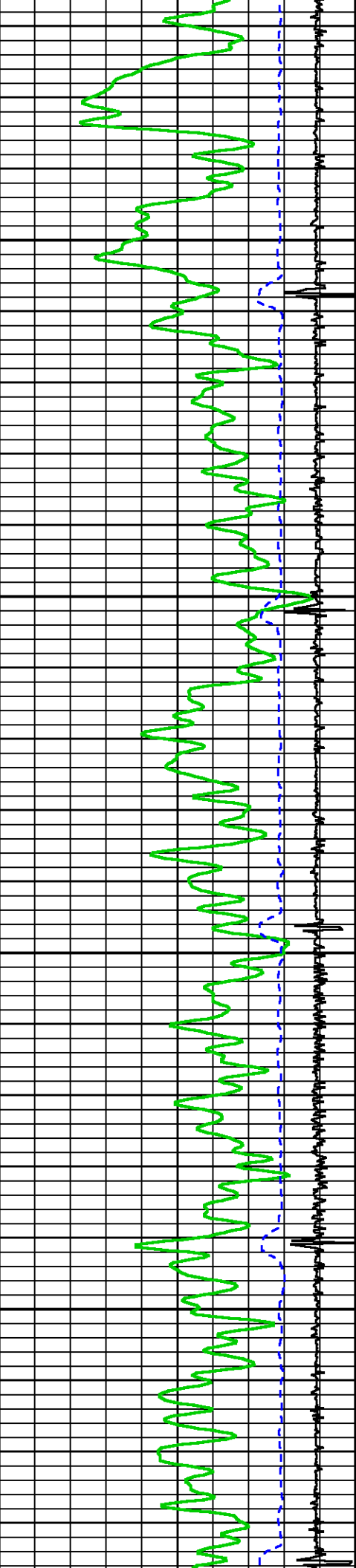
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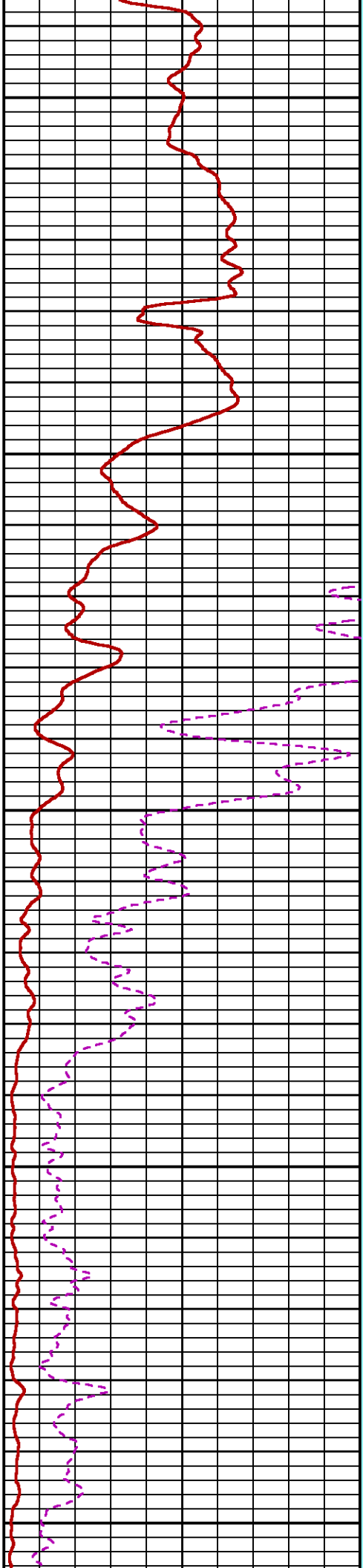
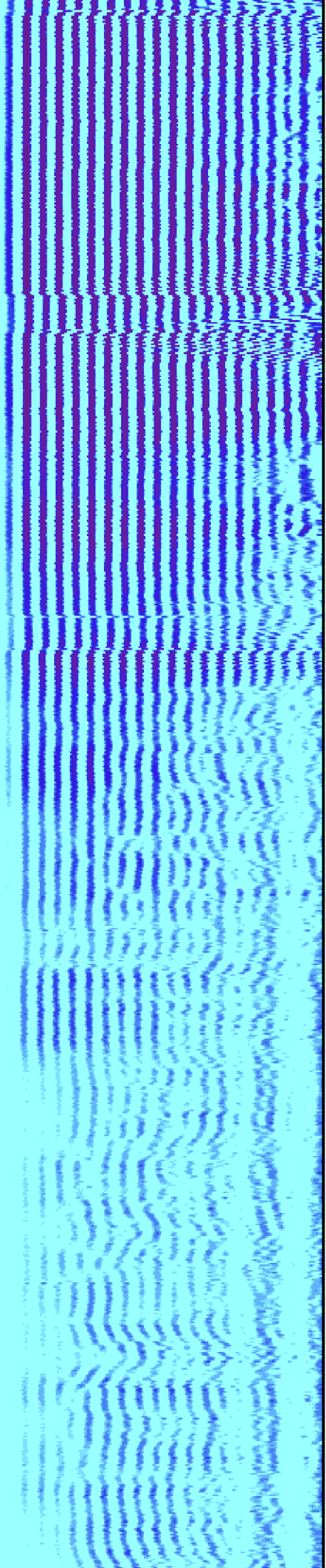




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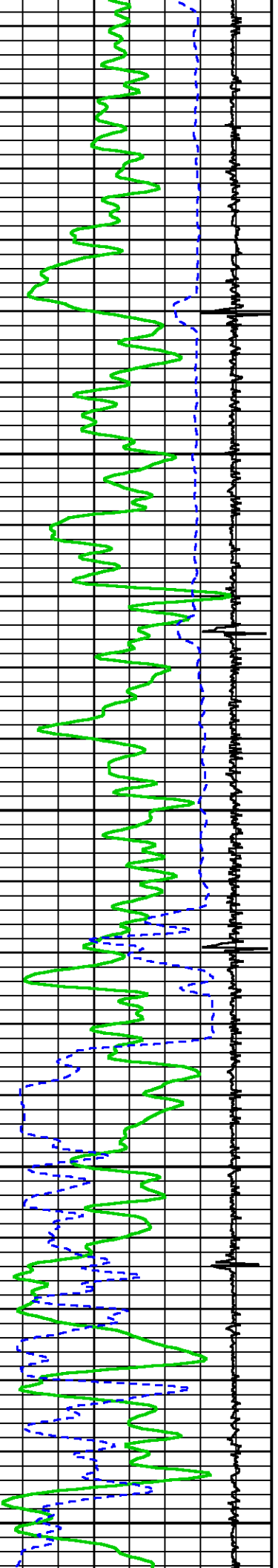
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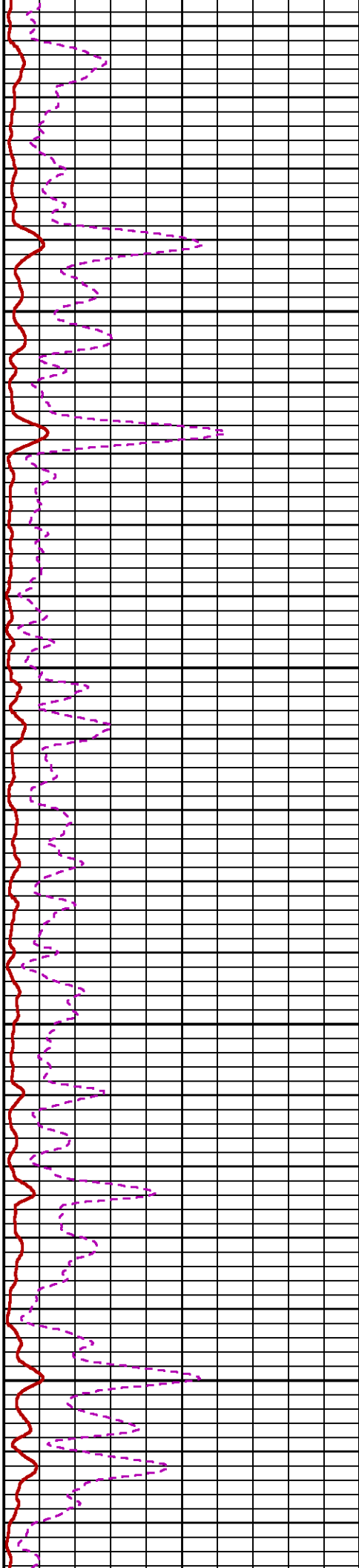
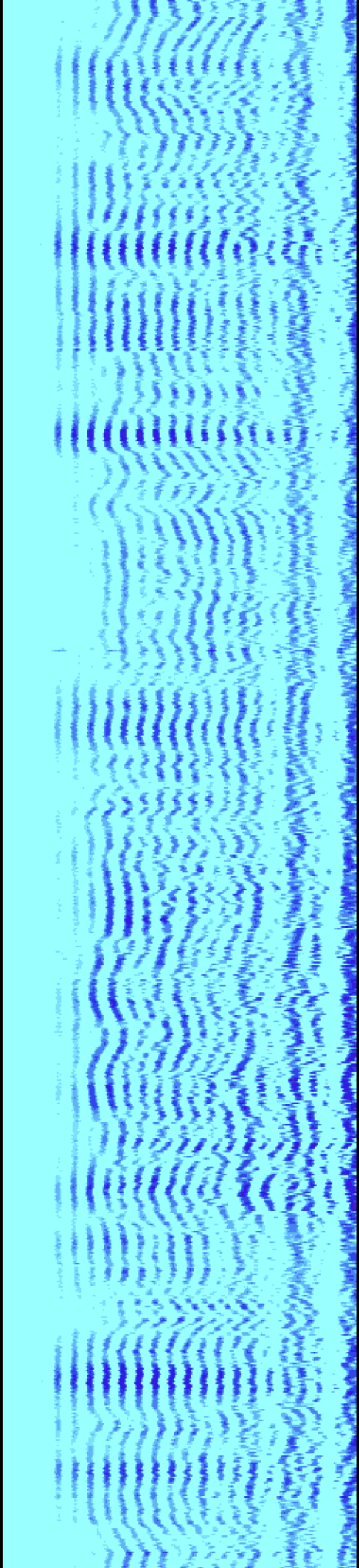




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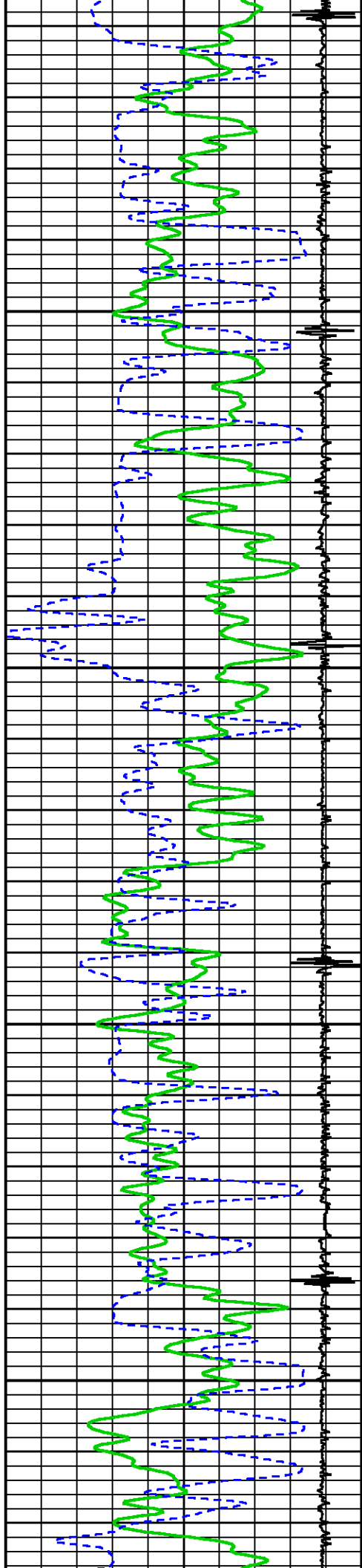
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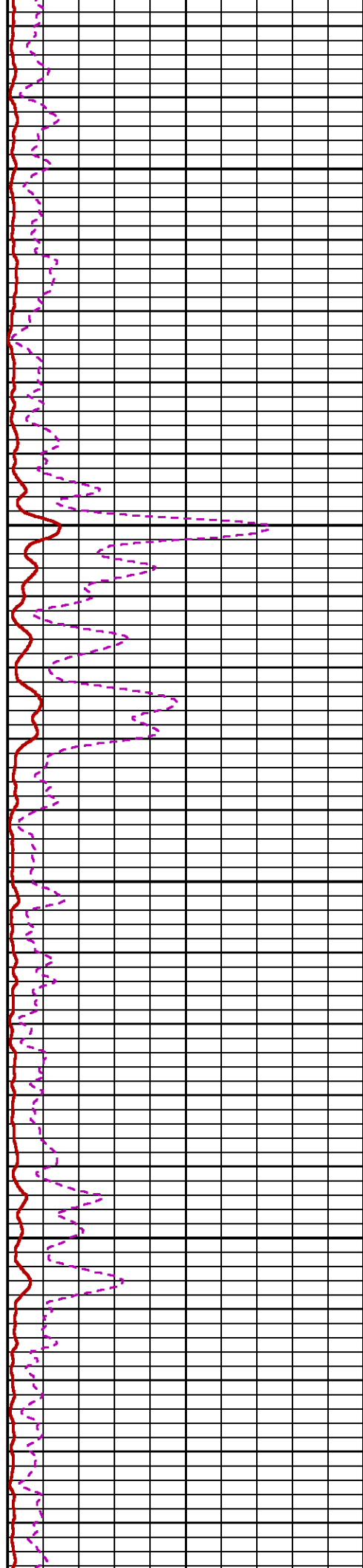
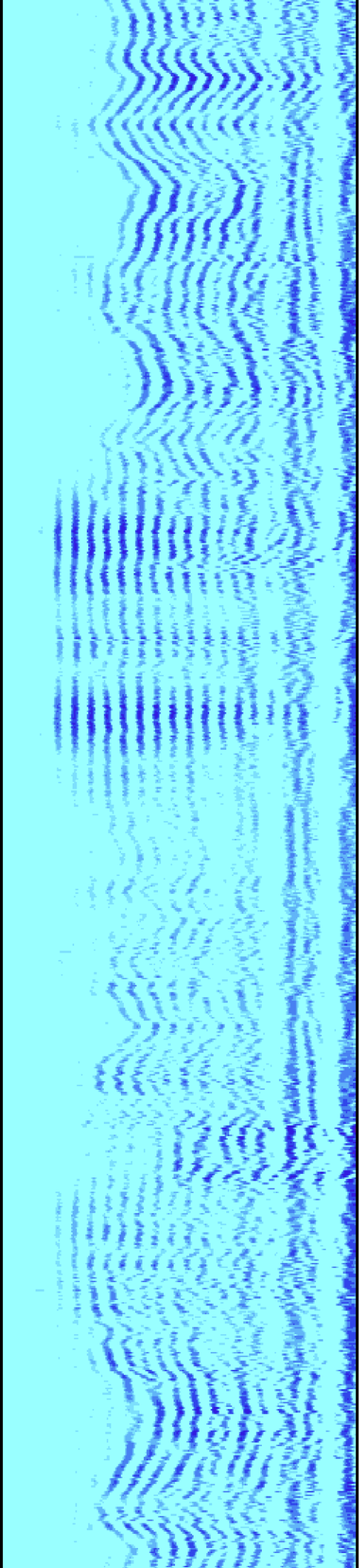




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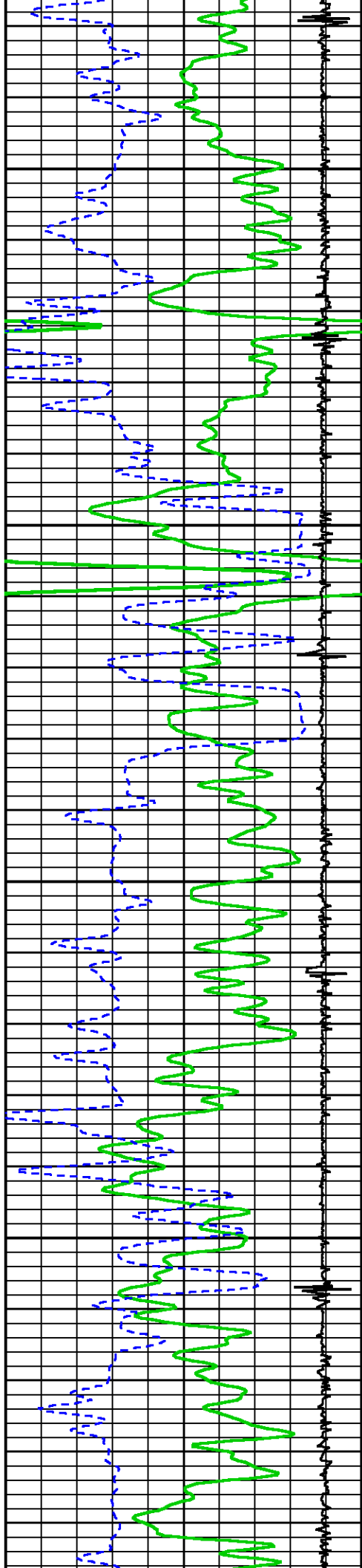
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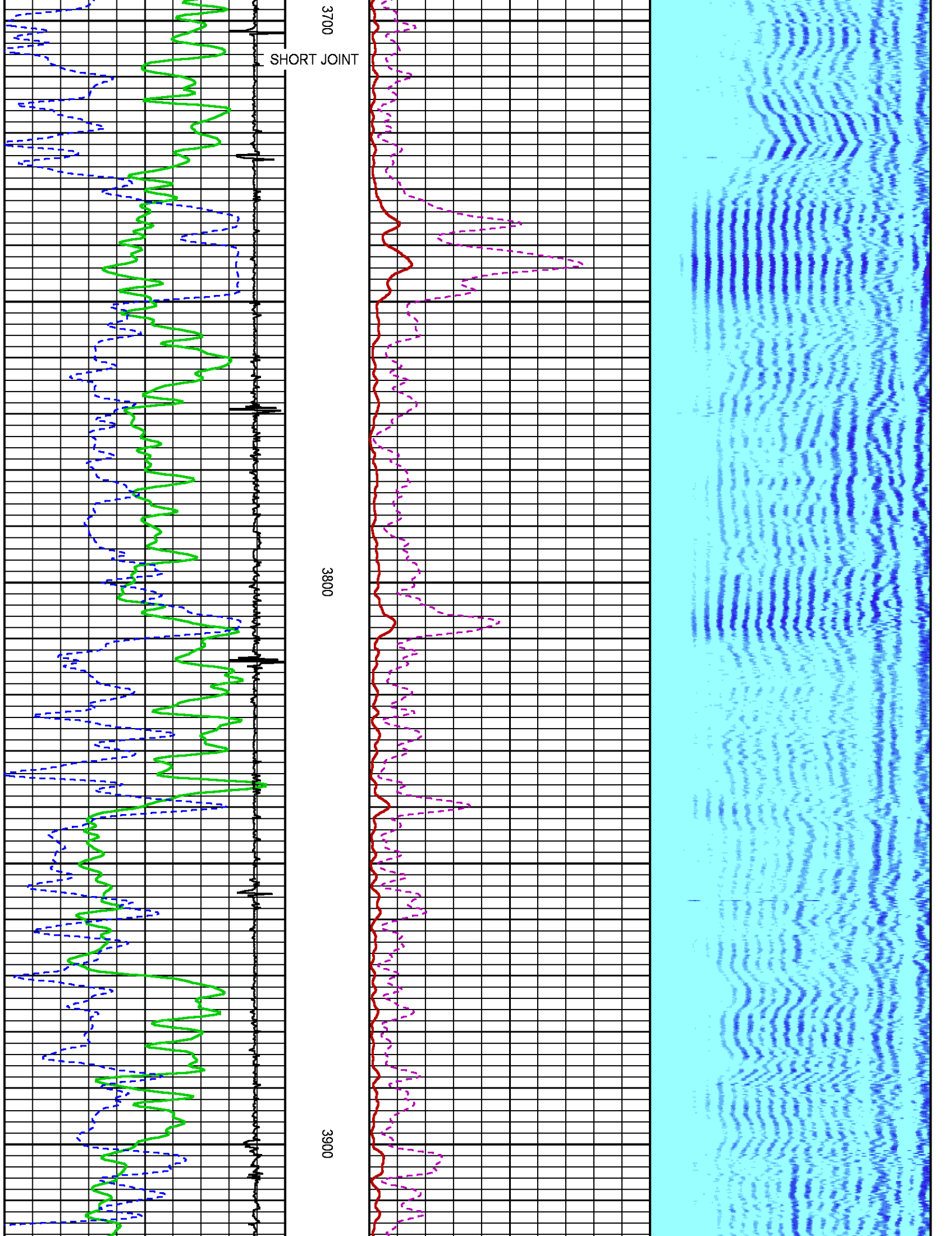


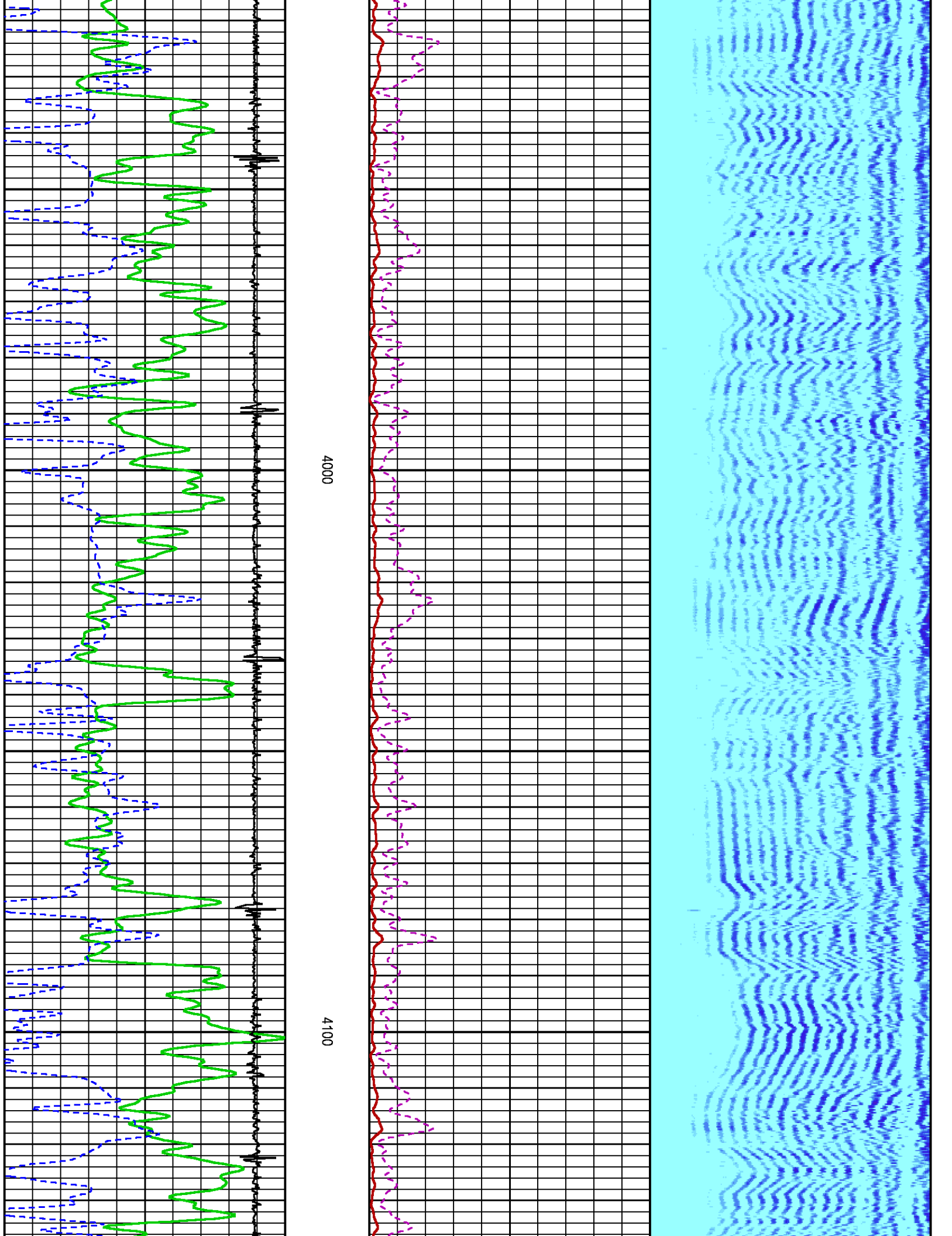


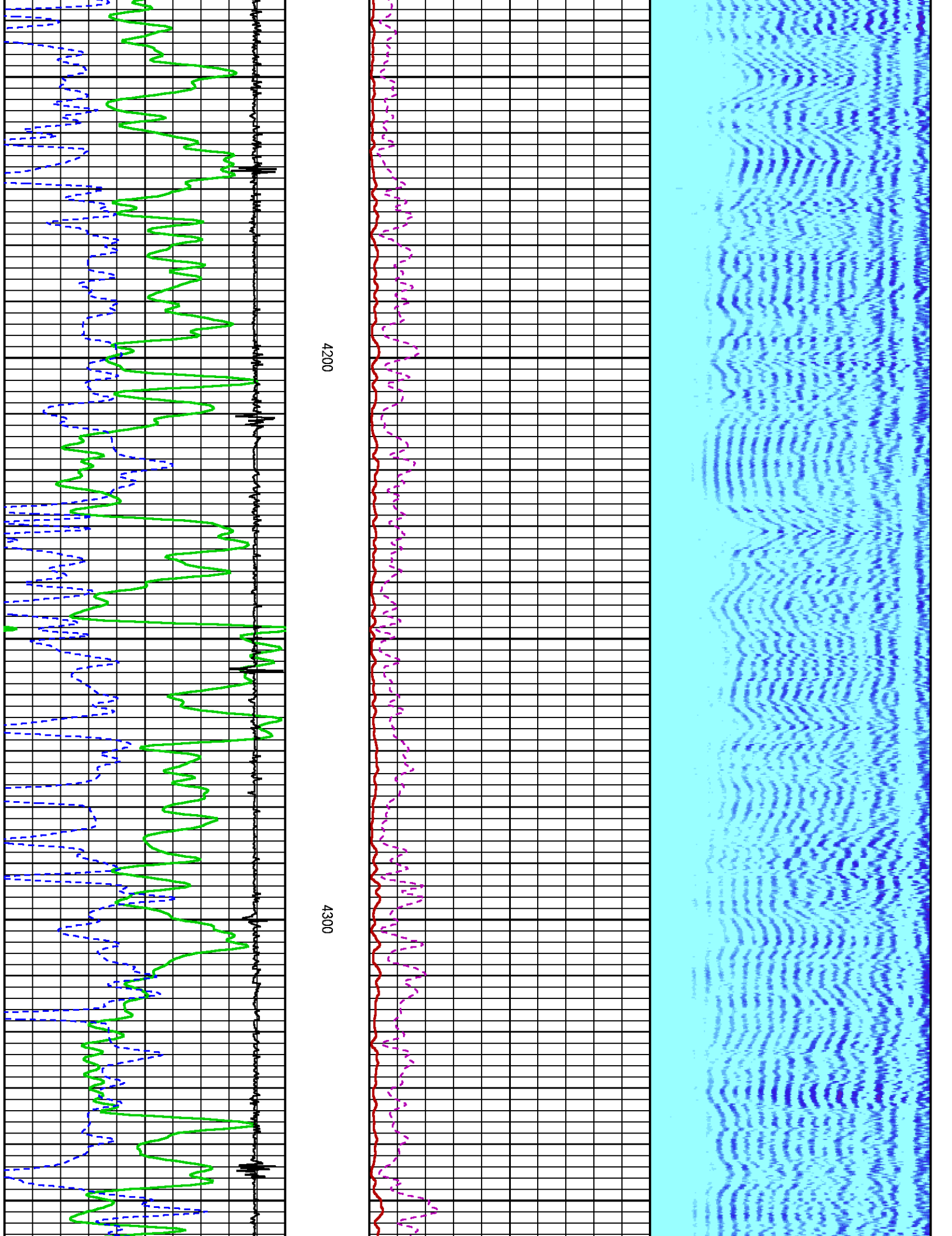
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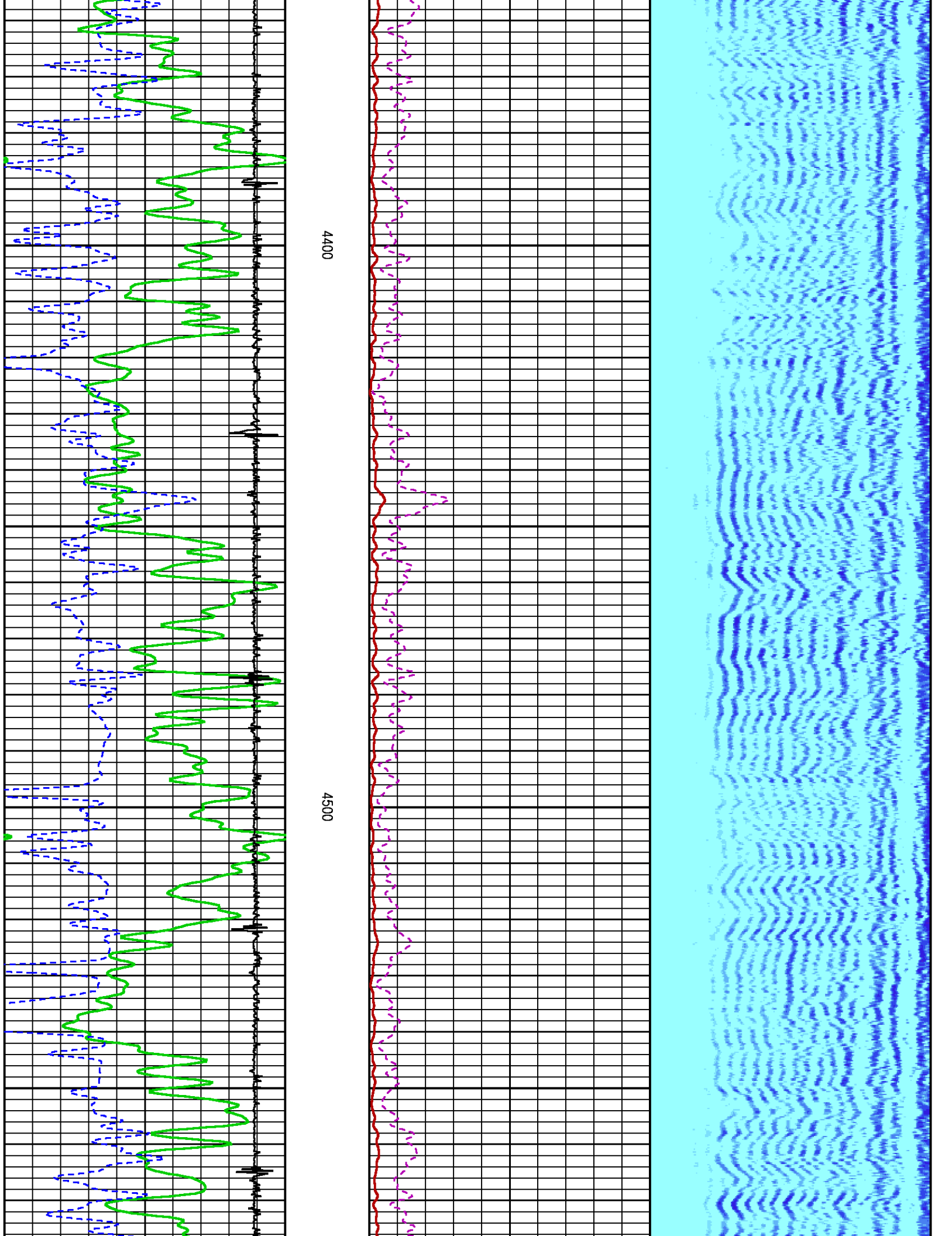
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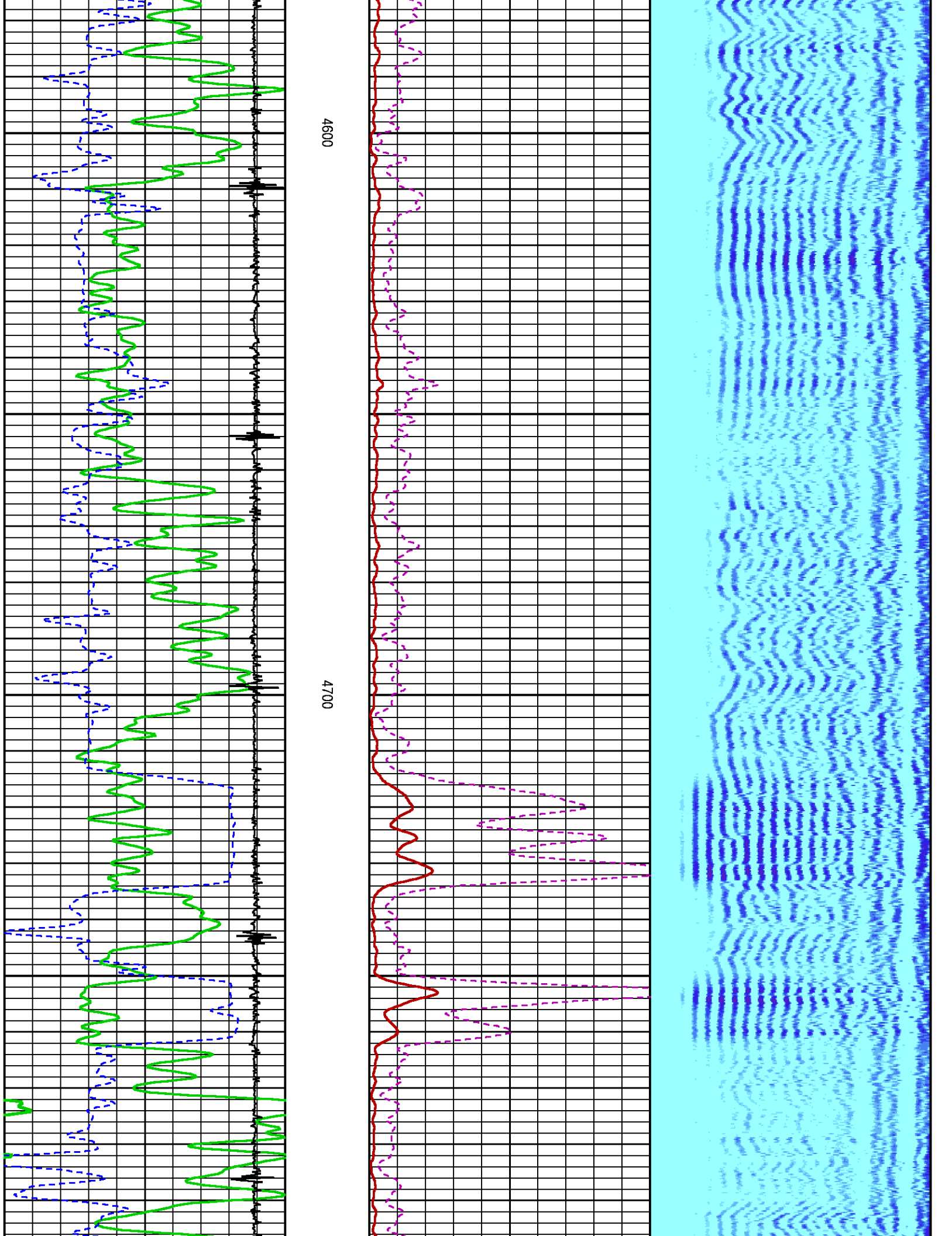


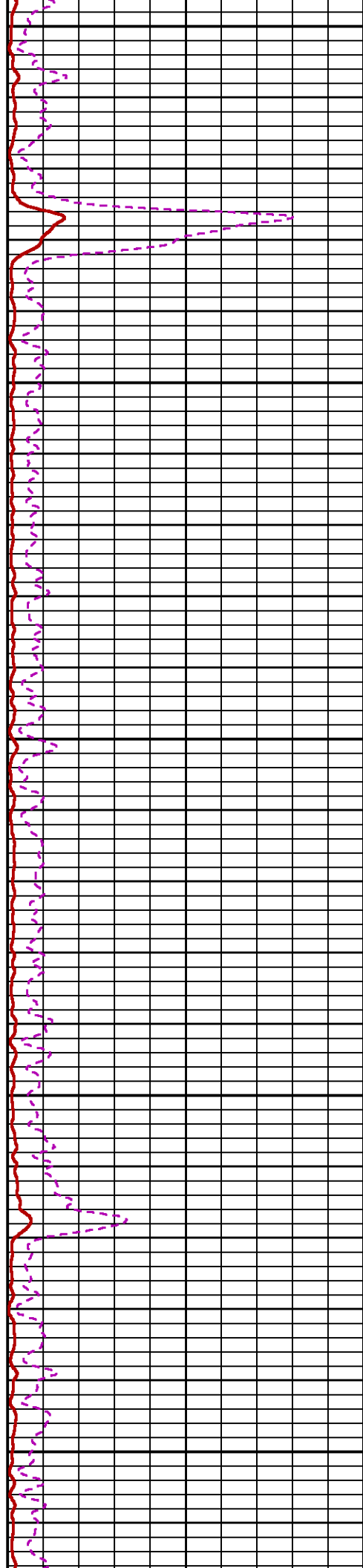
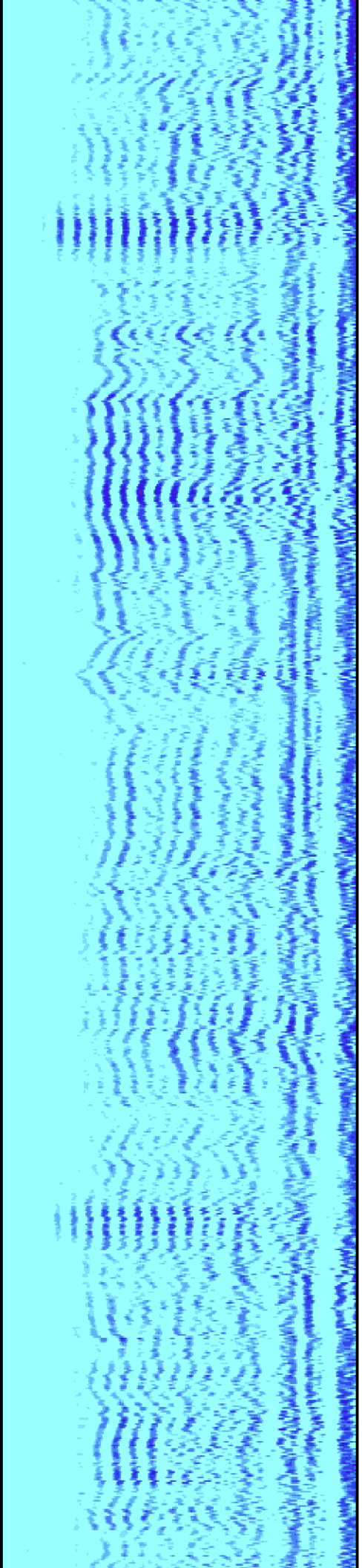








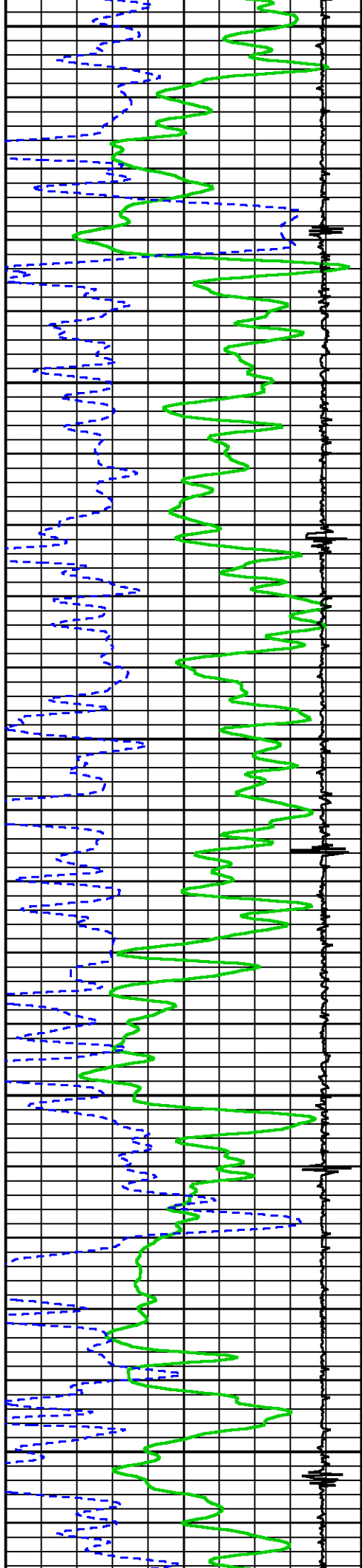


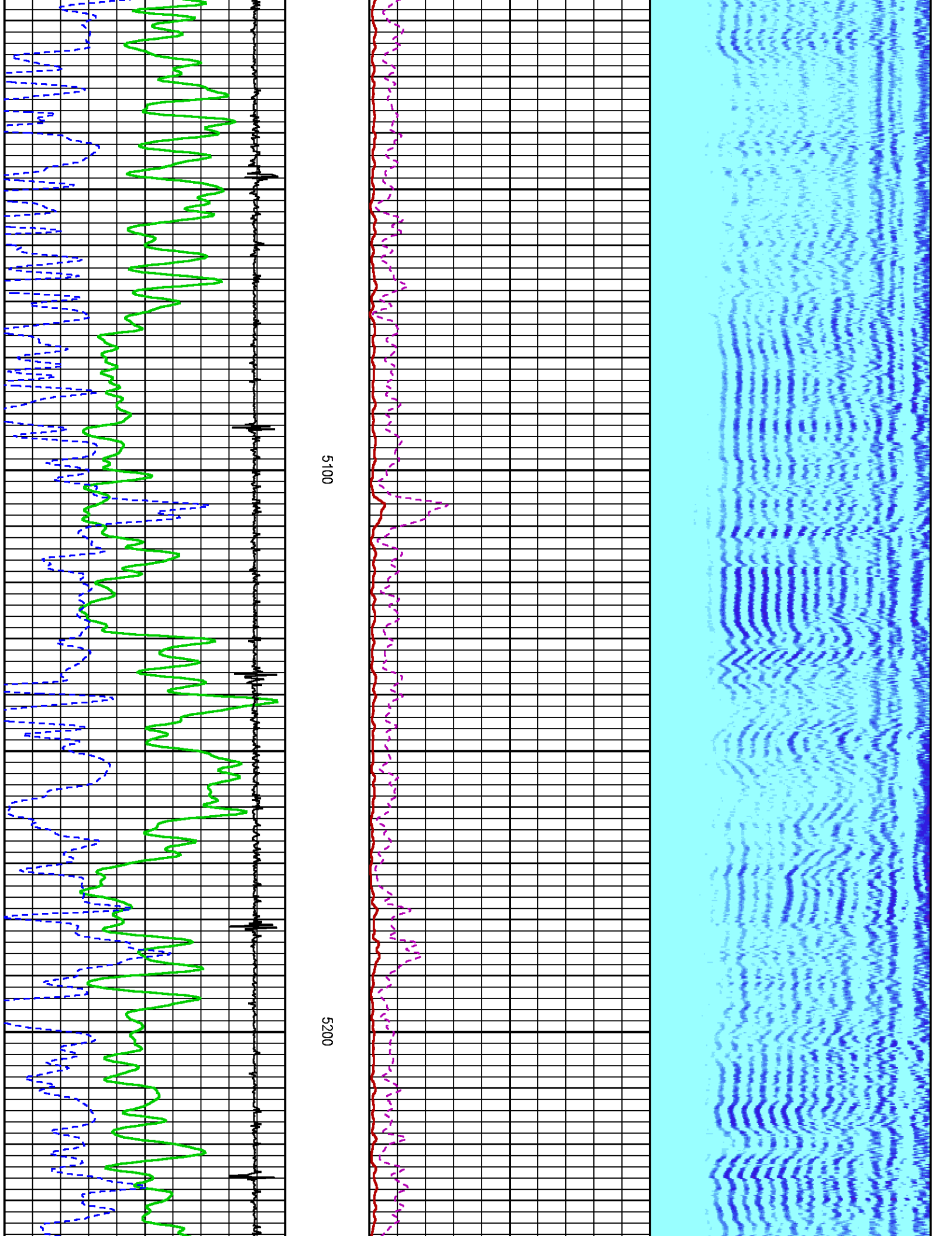


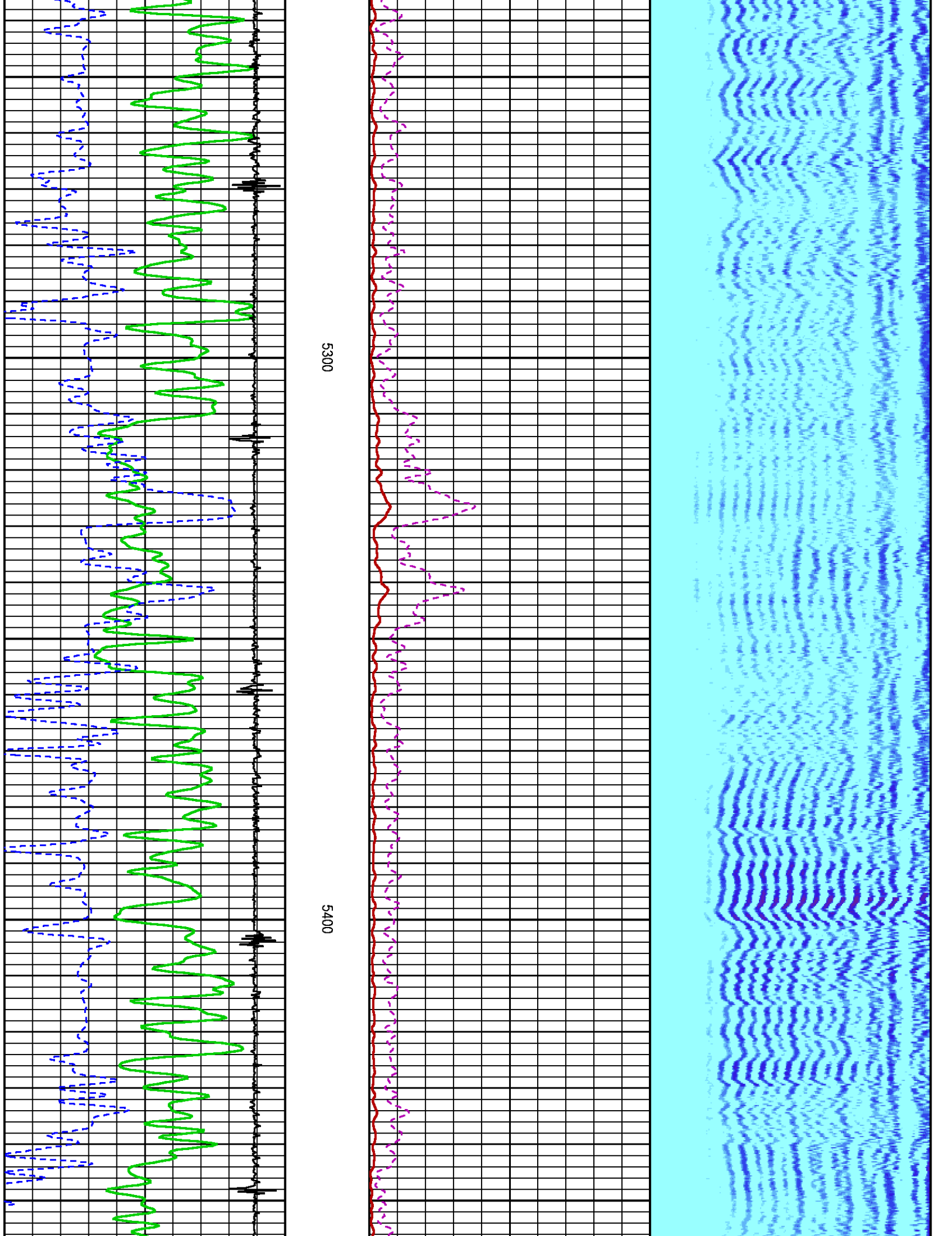
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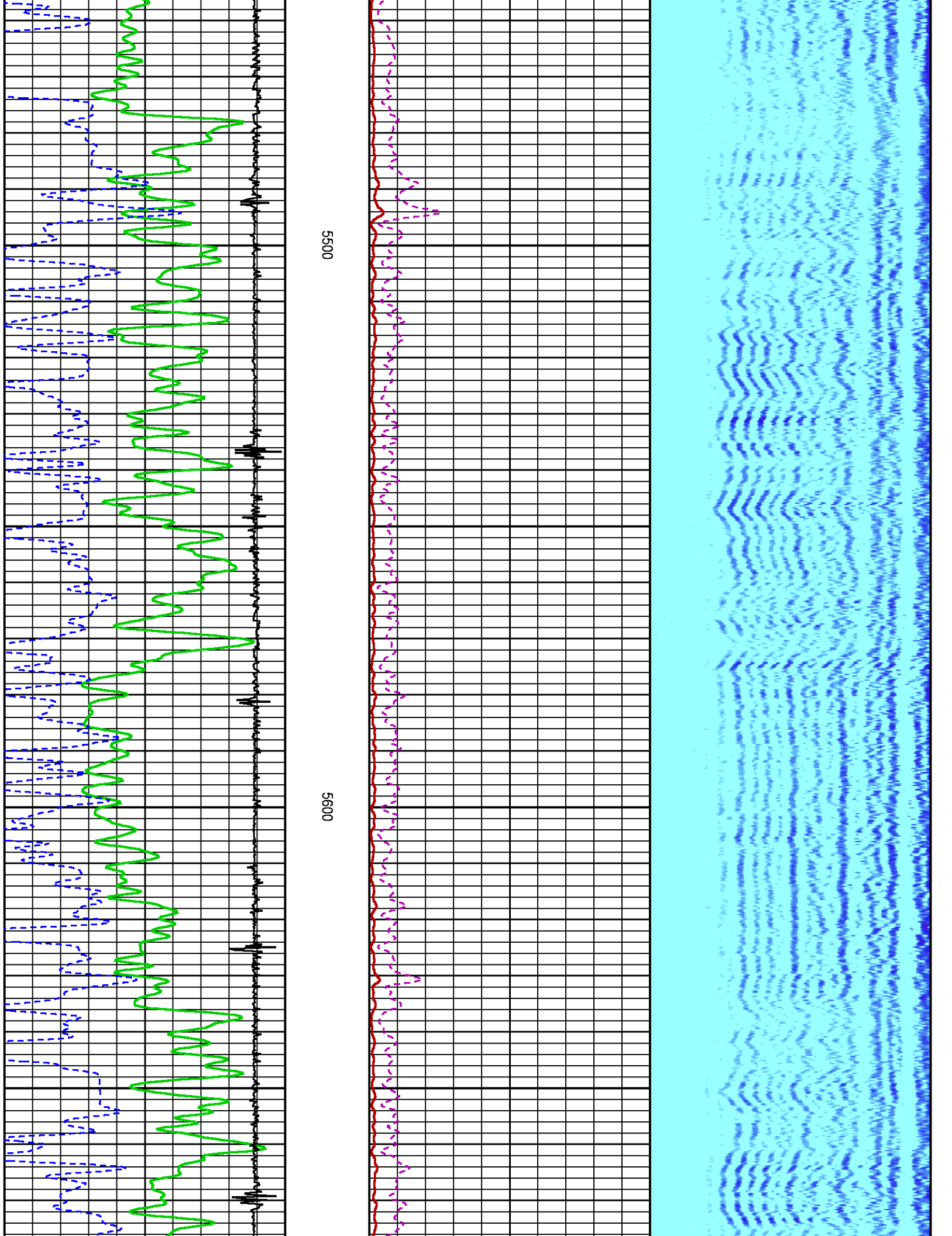
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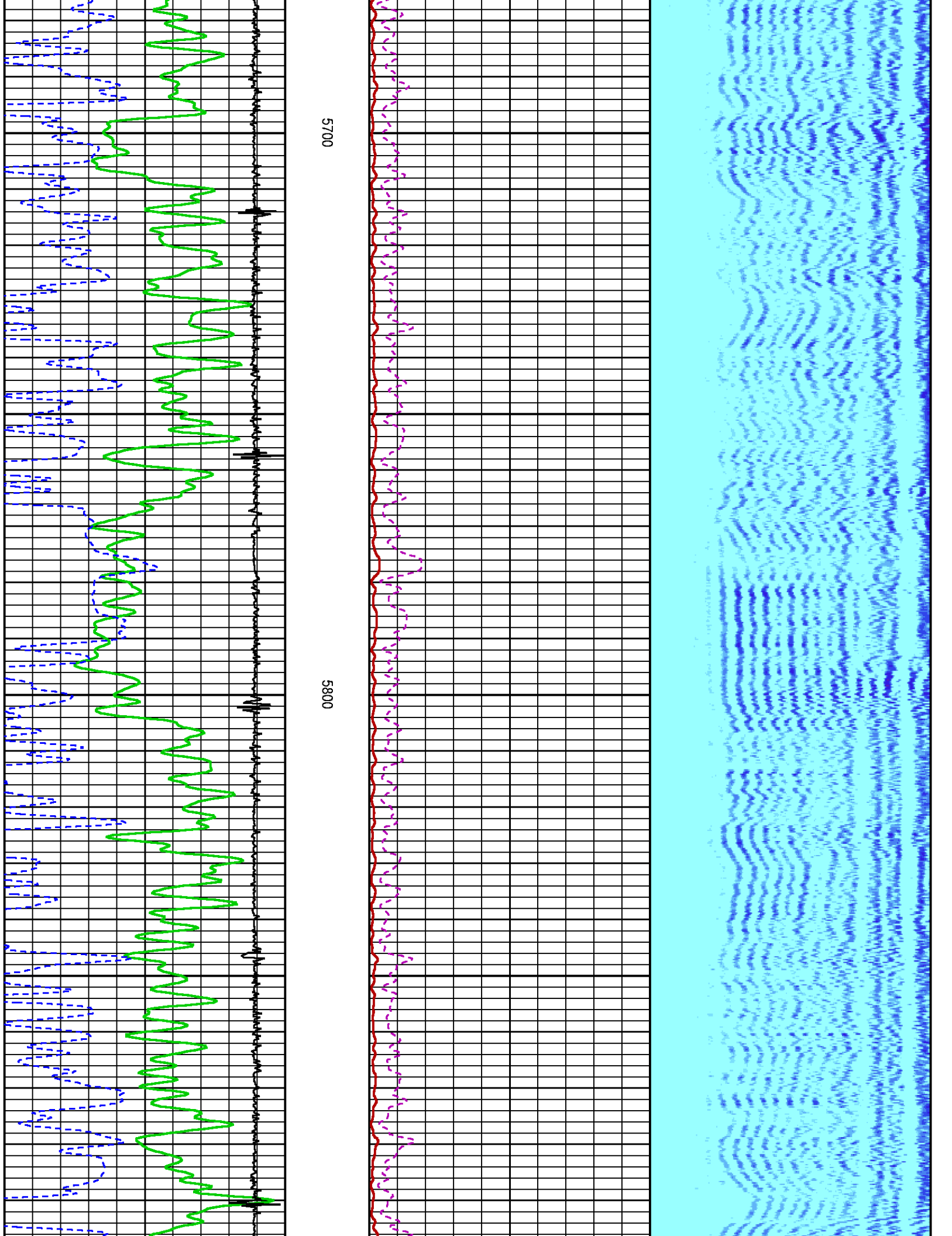
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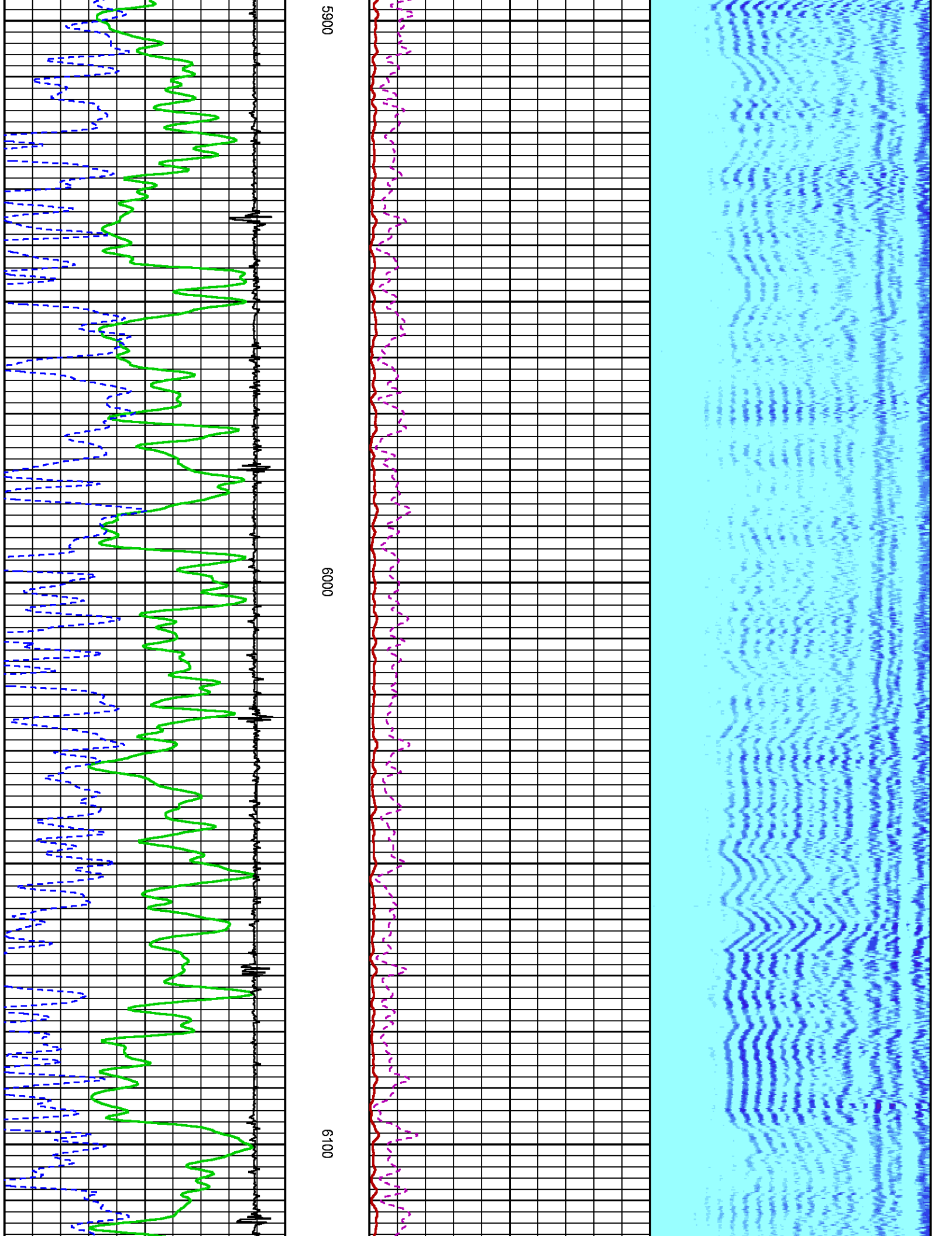


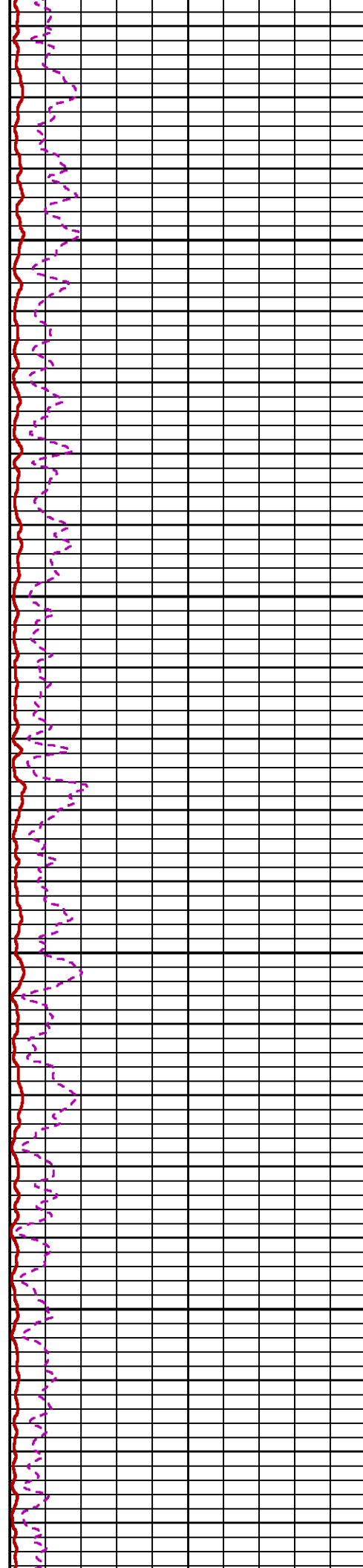
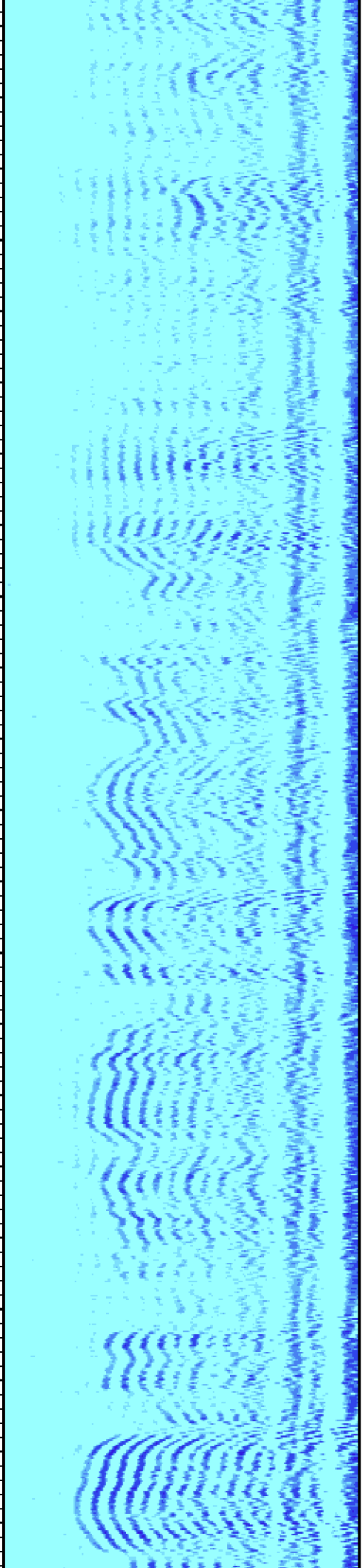






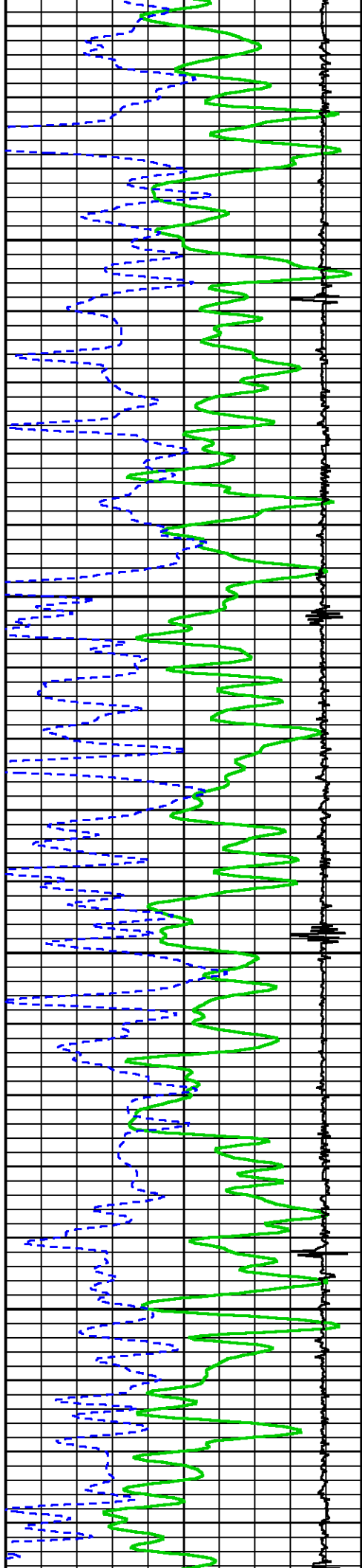


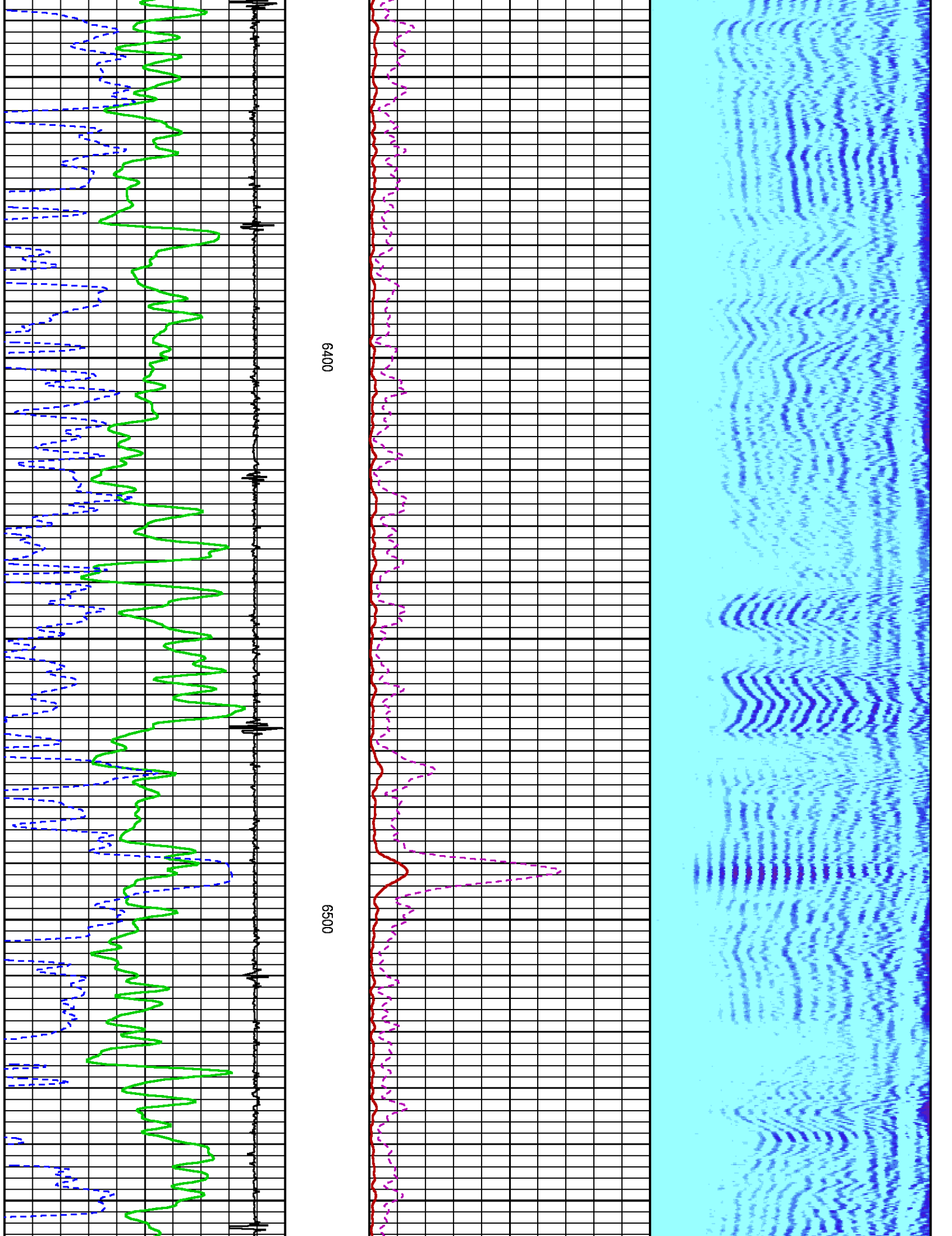




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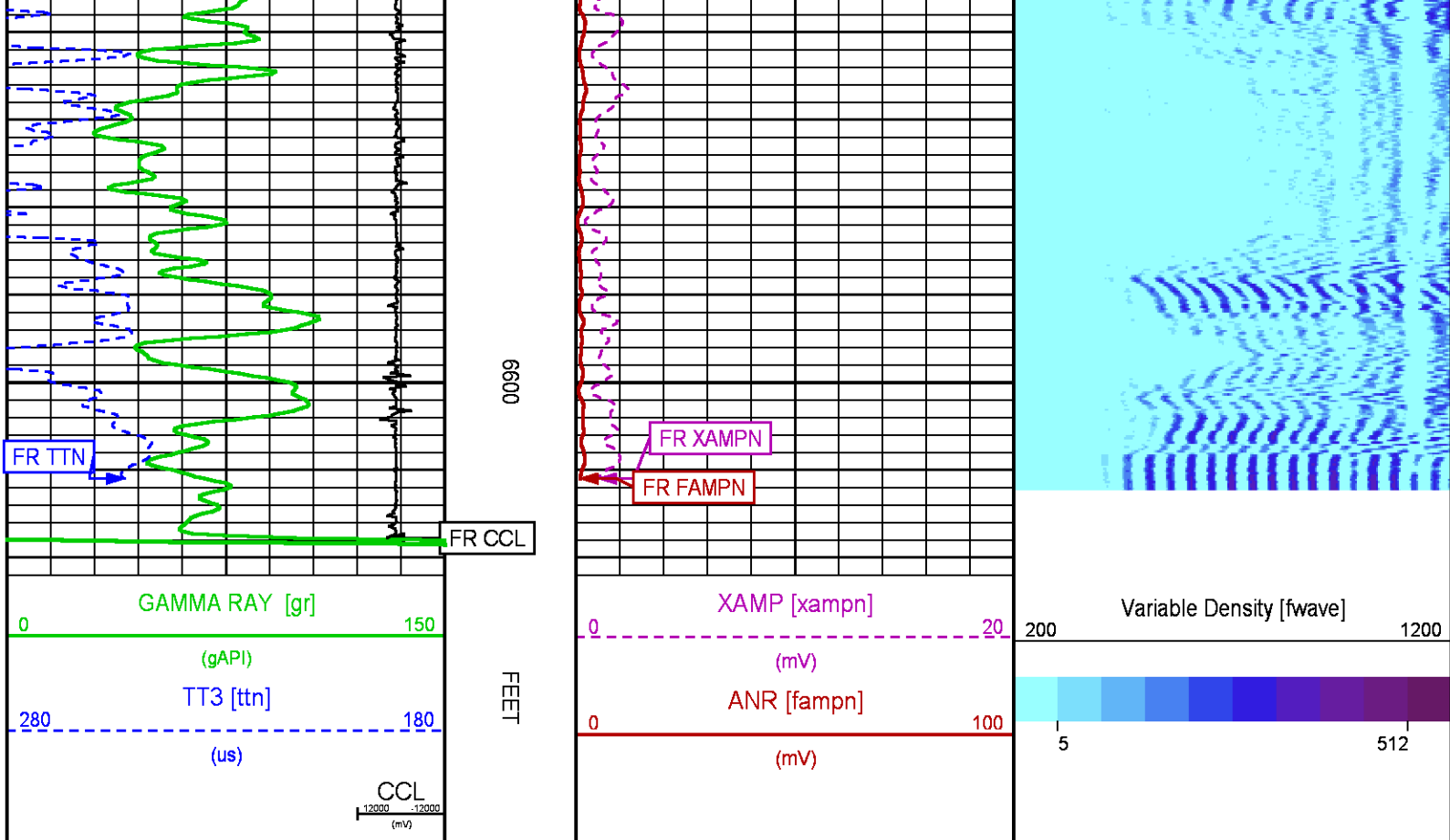
6300





6400

6500



REPEAT PRESENTATION 0 PSI

ECLIPS 6.2i ECLIPS General Release Rel 6.2i Wed Jun 12 12:21:40 CDT 2013
Updates: 1,36 Patches: 9

Plotted: Tue Jul 26 10:02:08 2016

PARAMETER AND FILTER SUMMARY REPORT

FILE: /dat1a/CH108494/n012g01.prm
LOGGING MODE: DEPTH
TOP DEPTH: 6299.500 ft
DIRECTION: UP
BOTTOM DEPTH: 6630.250 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*)	174	us	"	"
	TT WINDOW LENGTH	444	us	"	"
	FIRST BRK THRESHOLD (ttn*)	4	mV	"	"
RAL CASING PARAMETERS	PPT NEAR	200.391	us	"	"
RAL TOOL DELAY	TOOL DELAY (strn*)	-67	us	"	"
BASELINE NOISE (NEAR)	NOISE WINDOW START	118	us	"	"
	NOISE WINDOW LENGTH	25	us	"	"

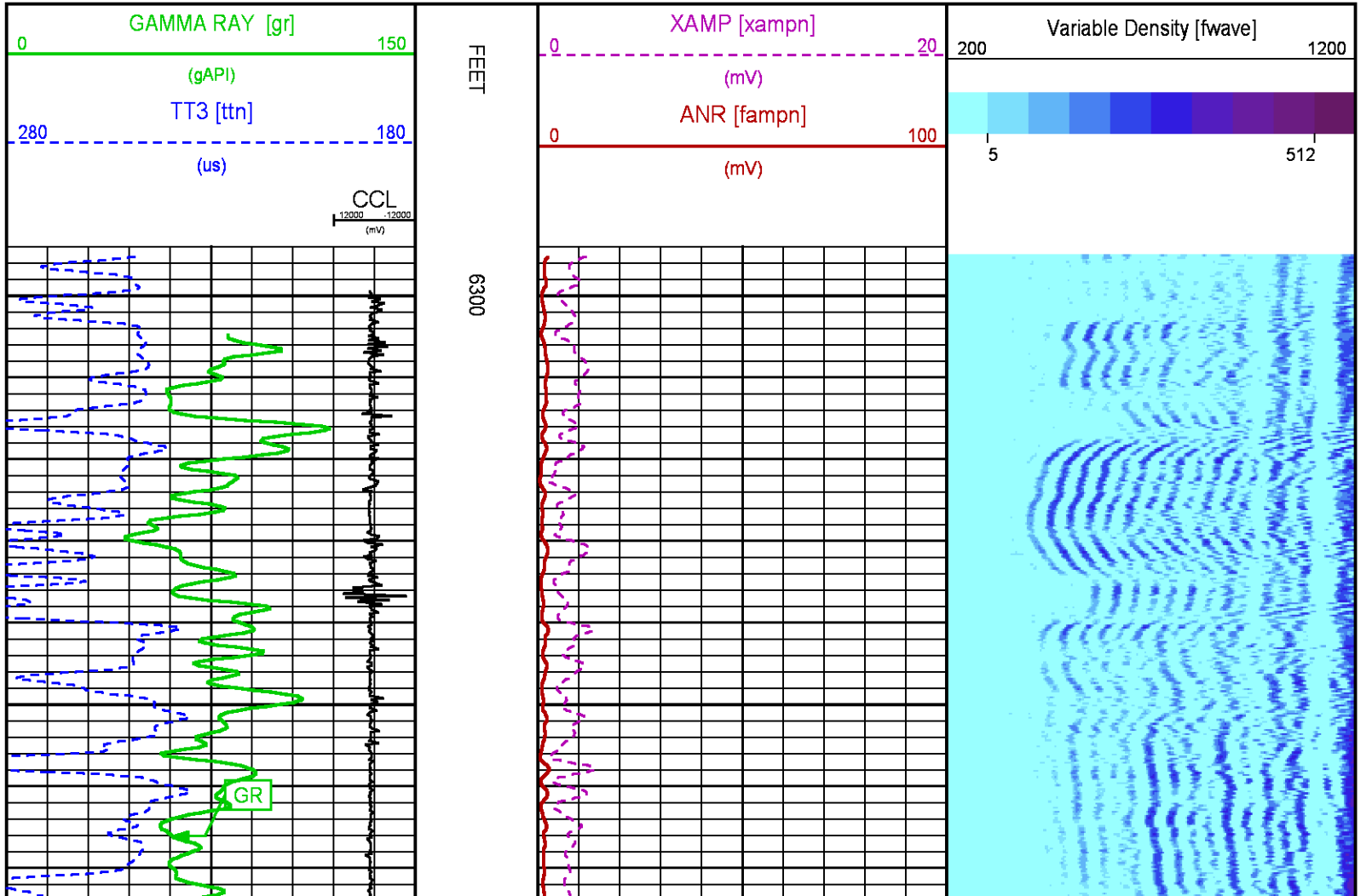
CURVE DESCRIPTION REPORT

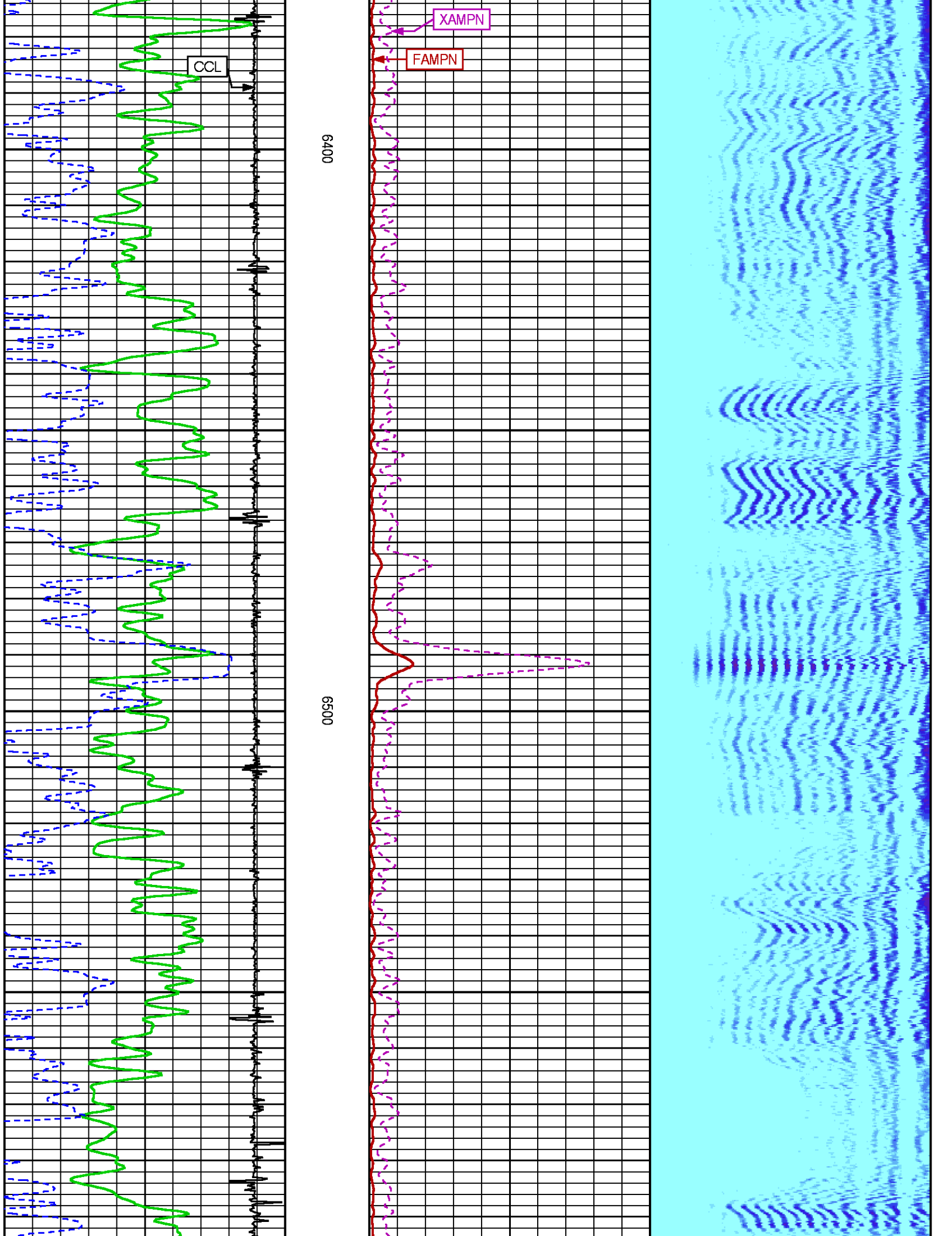
CURVE NAME	CREATION DATE	CURVE DESCRIPTION
F1:CCL	Jul 26 09:14:35 2016	CASING COLLAR LOCATOR
F1:FAMPN	Jul 26 09:14:35 2016	FIXED GATE AMPLITUDE NEAR RECEIVER
F1:FWAVE	Jul 26 09:14:35 2016	FAR WAVE FORM
F1:GR	Jul 26 09:14:35 2016	GAMMA RAY
F1:TTN	Jul 26 09:14:35 2016	TRAVELTIME FROM NEAR TRANSMITTER-RECEIVER
F1:XAMPN	Jul 26 09:14:35 2016	FIXED GATE AMPLITUDE NEAR RECEIVER TIMES FIVE

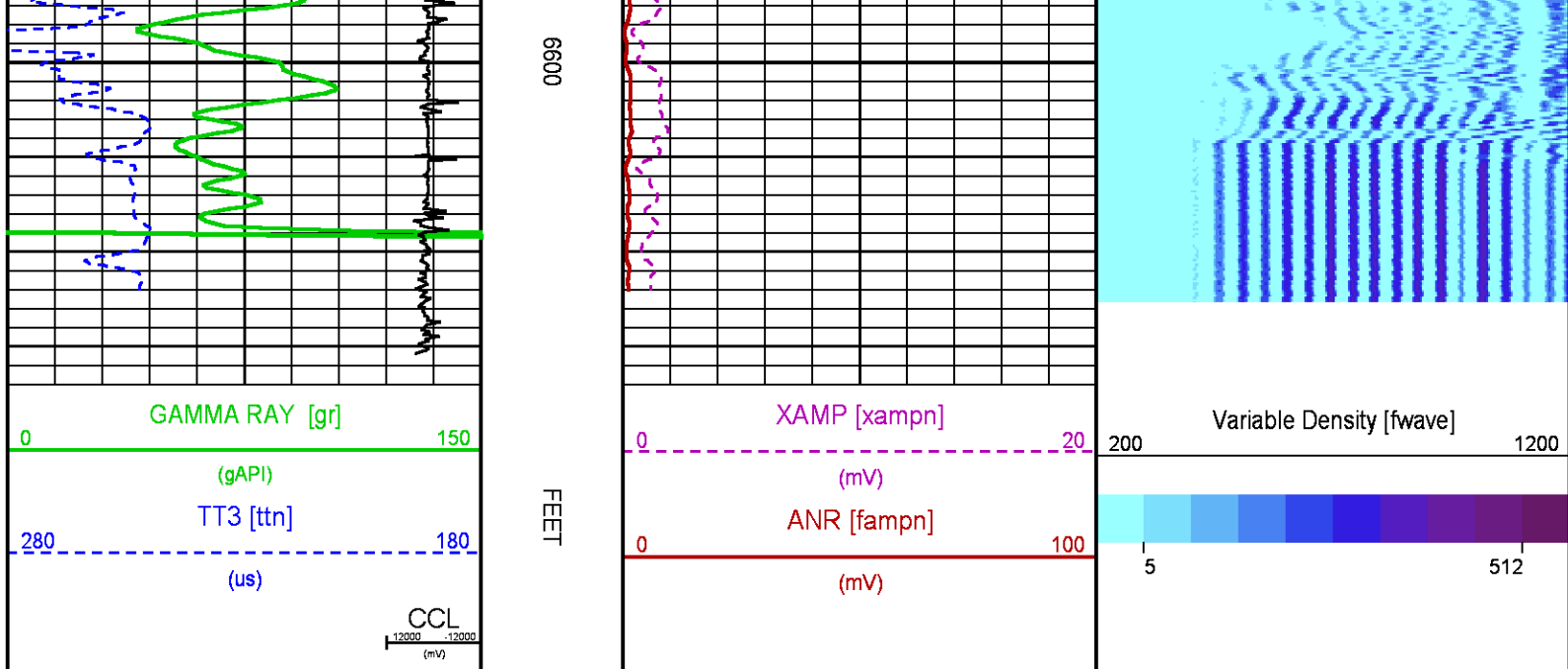
CURVE MEASURE POINT OFFSET

CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)
CCL	5.75	GR	1.75	XAMPN	11.25		
FAMPN	11.25	TTN	11.25				

Presentation	: cas6685:/dat1a/CH108494/WPX_ral_cbl-RPT.fvpdf [5"/100' Scale]
Plot Interval	: 6289 - 6629 Feet
Data File 1	: F1 : cas6685:C:\Users\spenj\Documents\VDIS\Jobs\WPX\GM42-8\CH108494
Created On	: 2016-07-26 09:14:35
Company	: TERRA ENERGY PARTNERS
Well	: FEDERAL GM 42-8
Field	: GRAND VALLEY
File Interval	: 6288 - 6630.5 Feet
OCT	: n012g







SECONDARY PRESENTATION 0 PSI

ECLIPS 6.2wu1 PC-ECLIPS General Release Rel 6.2w Update 1 Fri Apr 25 10:54:53 Central Daylight Time 2014
Patches: 9

Plotted: Wed Jul 27 15:04:31 2016

PARAMETER AND FILTER SUMMARY REPORT

FILE: C:\Users\spenj\Documents\VDIS\Jobs\WPX\GM42-8\CH108494\012g02.prm
LOGGING MODE: DEPTH DIRECTION: UP
TOP DEPTH: 21.250 ft BOTTOM DEPTH: 6617.500 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*)	174	us	"	"

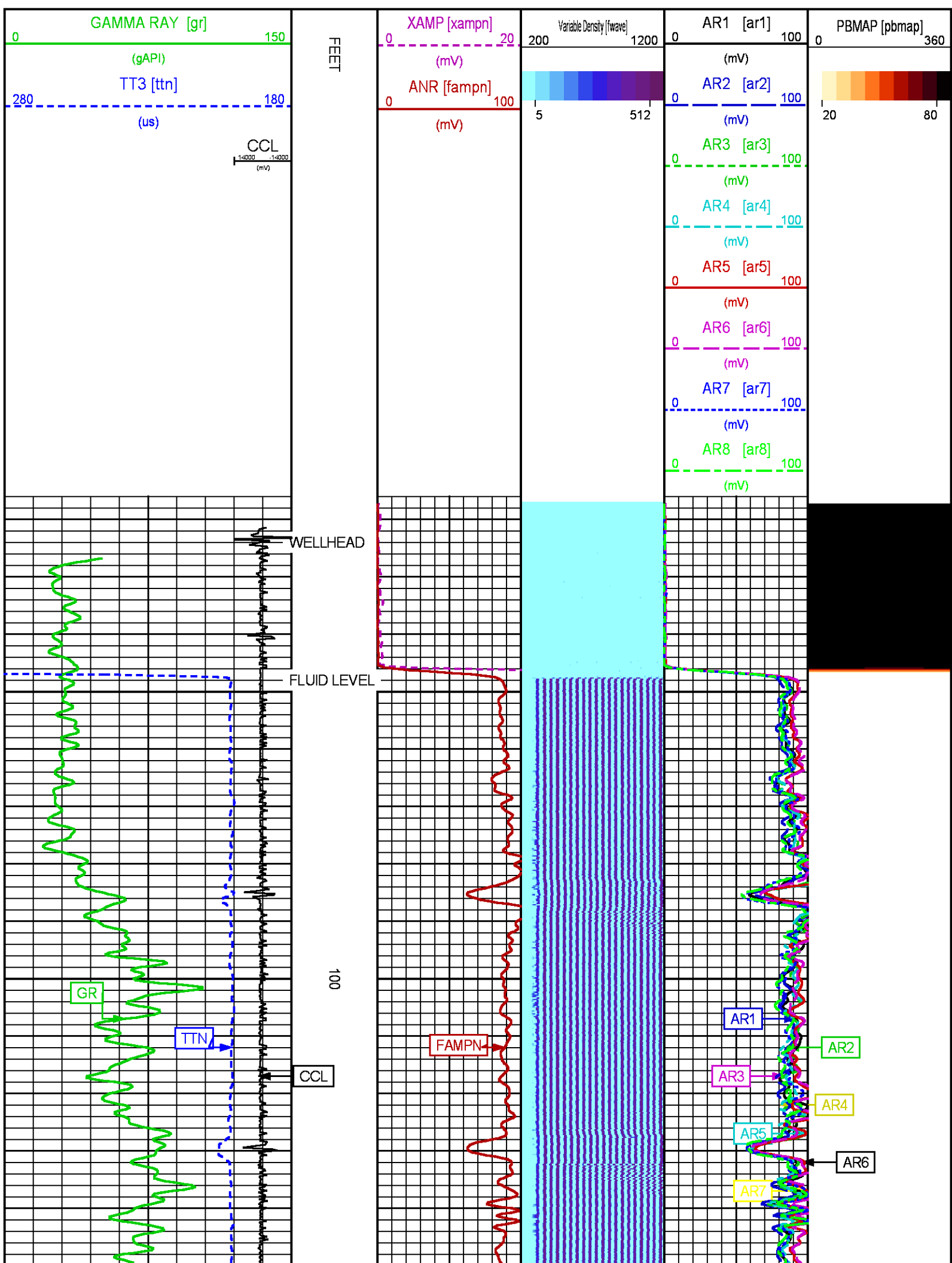
	TT WINDOW LENGTH	444	us	"	"
	FIRST BRK THRESHOLD (ttn*)	4	mV	"	"
RAL CASING PARAMETERS	PPT NEAR	200.391	us	"	"
RAL TOOL DELAY	TOOL DELAY (str1*)	-67	us	"	"
	TOOL DELAY (str2*)	-67	us	"	"
	TOOL DELAY (str3*)	-67	us	"	"
	TOOL DELAY (str4*)	-67	us	"	"
	TOOL DELAY (str5*)	-67	us	"	"
	TOOL DELAY (str6*)	-67	us	"	"
	TOOL DELAY (str7*)	-67	us	"	"
	TOOL DELAY (str8*)	-67	us	"	"
	TOOL DELAY (strn*)	-67	us	"	"
BASELINE NOISE (NEAR)	NOISE WINDOW START	118	us	"	"
	NOISE WINDOW LENGTH	25	us	"	"

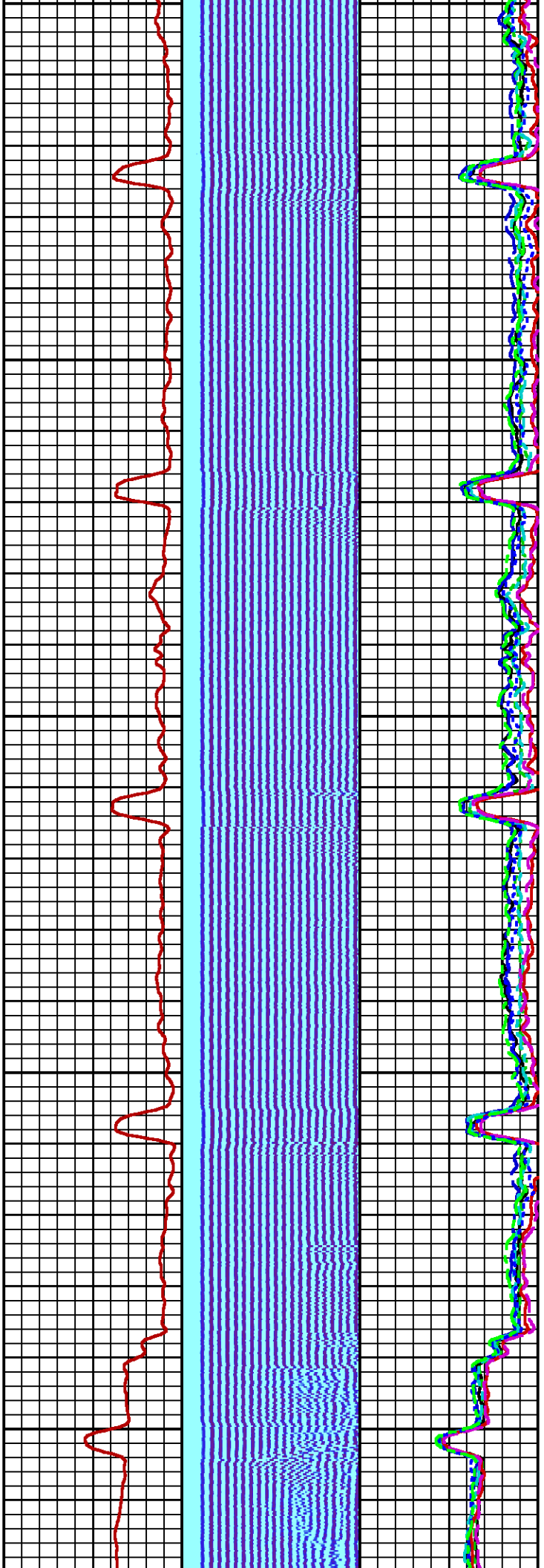
PERCENT BOND CEMENT MAP					
MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
RAL FREE PIPE AMPLITUDE	FREE AMP REC 1	81	mV	TOP	BOTTOM
	FREE AMP REC 2	81	mV	"	"
	FREE AMP REC 3	81	mV	"	"
	FREE AMP REC 4	81	mV	"	"
	FREE AMP REC 5	81	mV	"	"
	FREE AMP REC 6	81	mV	"	"
	FREE AMP REC 7	81	mV	"	"
	FREE 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	Jul 26 09:21:16 2016	FIXED GATE AMPLITUDE T-R1
F1:AR2	Jul 26 09:21:16 2016	FIXED GATE AMPLITUDE T-R2
F1:AR3	Jul 26 09:21:16 2016	FIXED GATE AMPLITUDE T-R3
F1:AR4	Jul 26 09:21:16 2016	FIXED GATE AMPLITUDE T-R4
F1:AR5	Jul 26 09:21:16 2016	FIXED GATE AMPLITUDE T-R5
F1:AR6	Jul 26 09:21:16 2016	FIXED GATE AMPLITUDE T-R6
F1:AR7	Jul 26 09:21:16 2016	FIXED GATE AMPLITUDE T-R7
F1:AR8	Jul 26 09:21:16 2016	FIXED GATE AMPLITUDE T-R8
F1:CCL	Jul 26 09:21:16 2016	CASING COLLAR LOCATOR
F1:FAMPN	Jul 26 09:21:16 2016	FIXED GATE AMPLITUDE NEAR RECEIVER
F1:FWAVE	Jul 26 09:21:16 2016	FAR WAVE FORM
F1:GR	Jul 26 09:21:16 2016	GAMMA RAY
F1:PBMAP	Jul 26 09:21:16 2016	PERCENT BOND CEMENT MAP
F1:TTN	Jul 26 09:21:16 2016	TRAVELTIME FROM NEAR TRANSMITTER-RECEIVER
F1:XAMPN	Jul 26 09:21:16 2016	FIXED GATE AMPLITUDE NEAR RECEIVER TIMES FIVE

CURVE MEASURE POINT OFFSET							
CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)
AR1	11.25	AR5	11.25	CCL	5.75	XAMPN	11.25
AR2	11.25	AR6	11.25	FAMPN	11.25		
AR3	11.25	AR7	11.25	GR	1.75		
AR4	11.25	AR8	11.25	TTN	11.25		

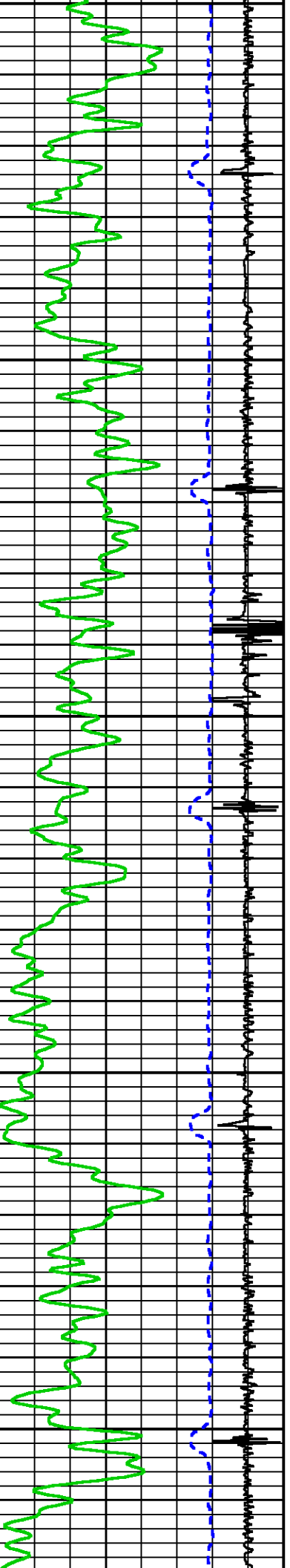
Presentation	: BHI3XZN3R1:C:\Users\spenjosj\Documents\VDIS\Jobs\WPX\GM42-8\CH108494\WPX_secondary-ral.fvpdf [5"/100' Scale]
Plot Interval	: 17 - 6622.25 Feet
Data File 1	: F1 : BHI3XZN3R1:C:\Users\spenjosj\Documents\VDIS\Jobs\WPX\GM42-8\CH108494\n012g02.xtf
Created On	: Jul 26 09:21:16 2016
Company	: TERRA ENERGY PARTNERS
Well	: FEDERAL GM 42-8
Field	: GRAND VALLEY
File Interval	: 16 - 6623.5 Feet
OCT	: n012g

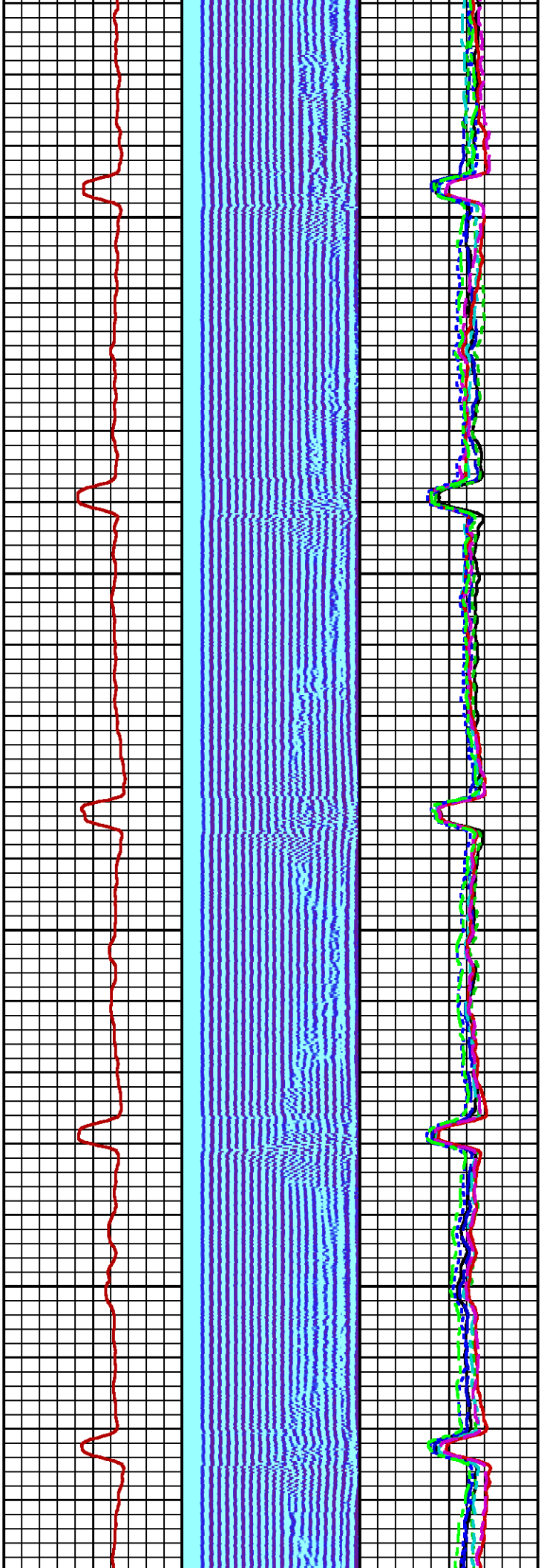




200

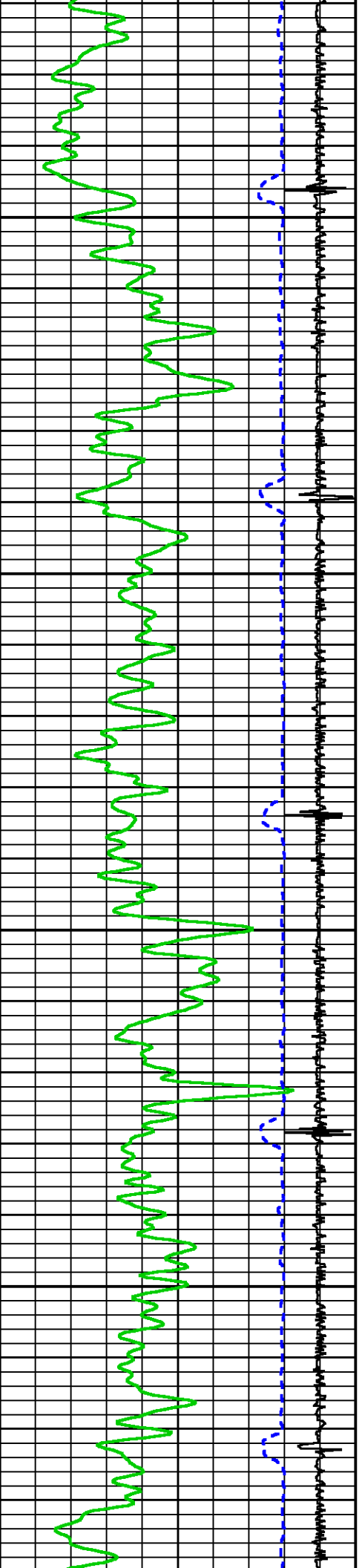
300

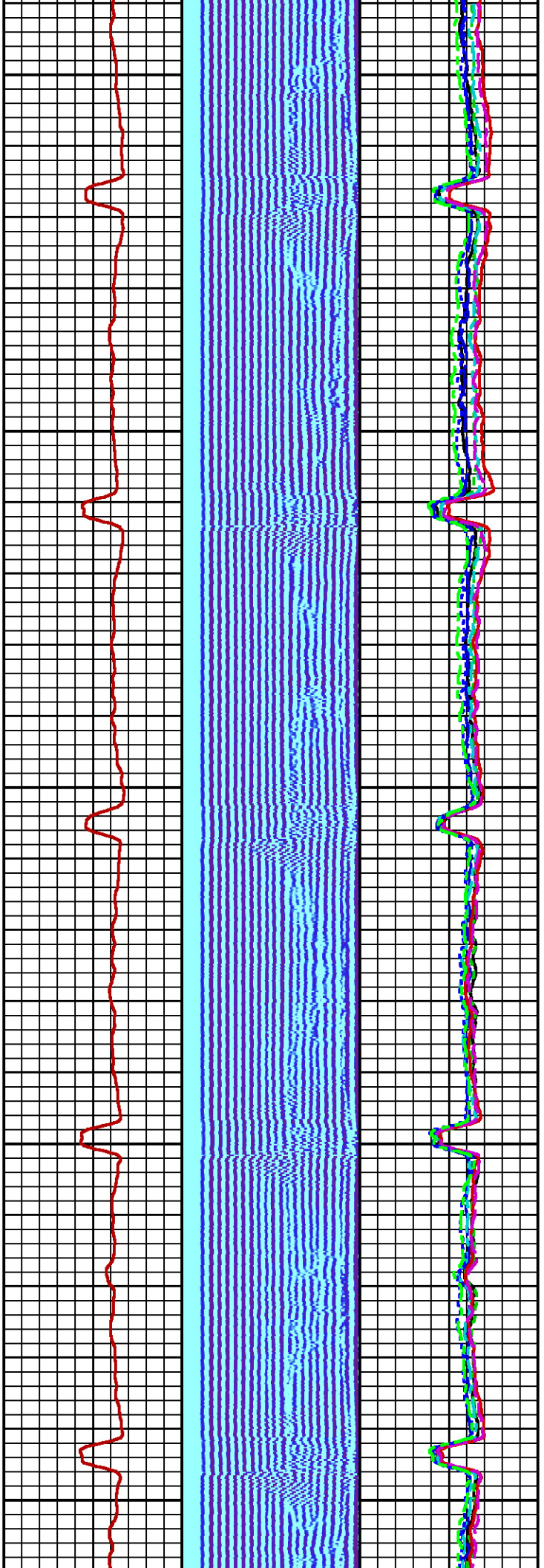




400

500

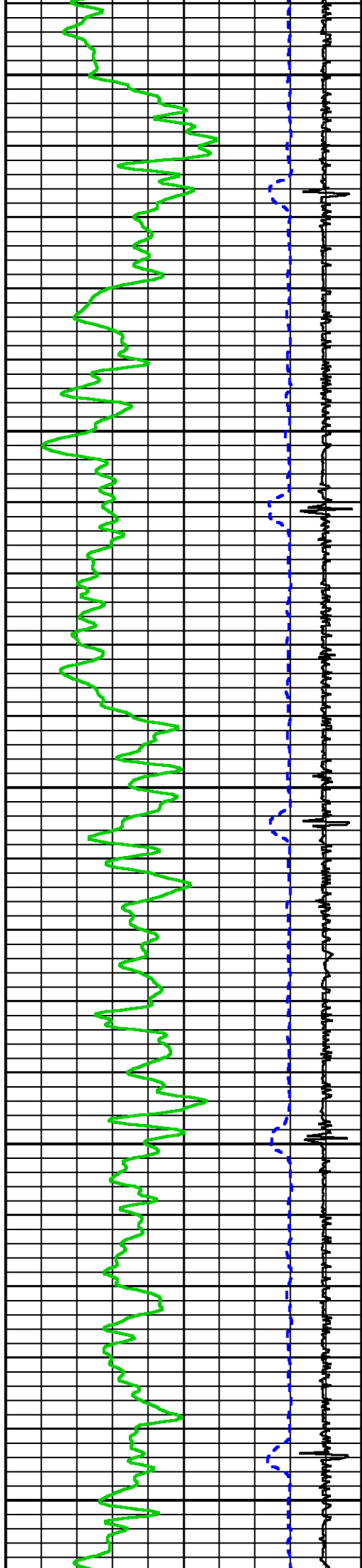


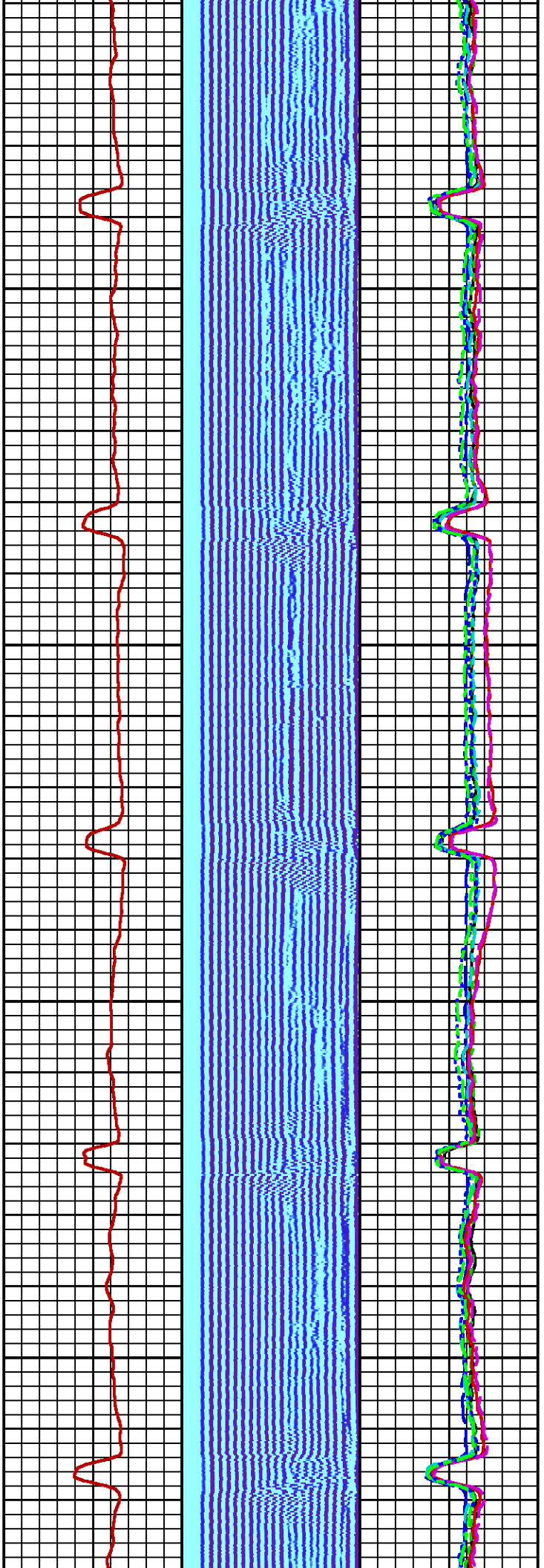


600

700

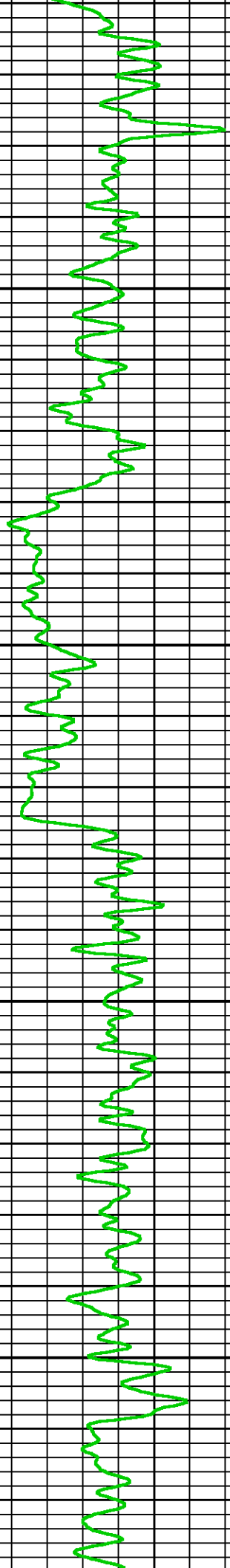
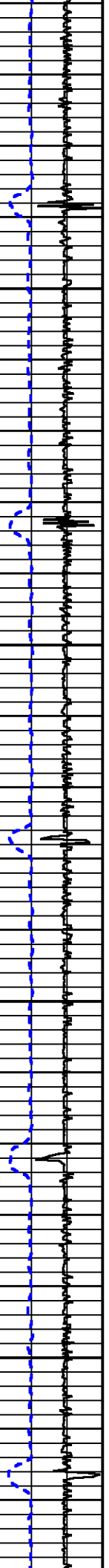
800

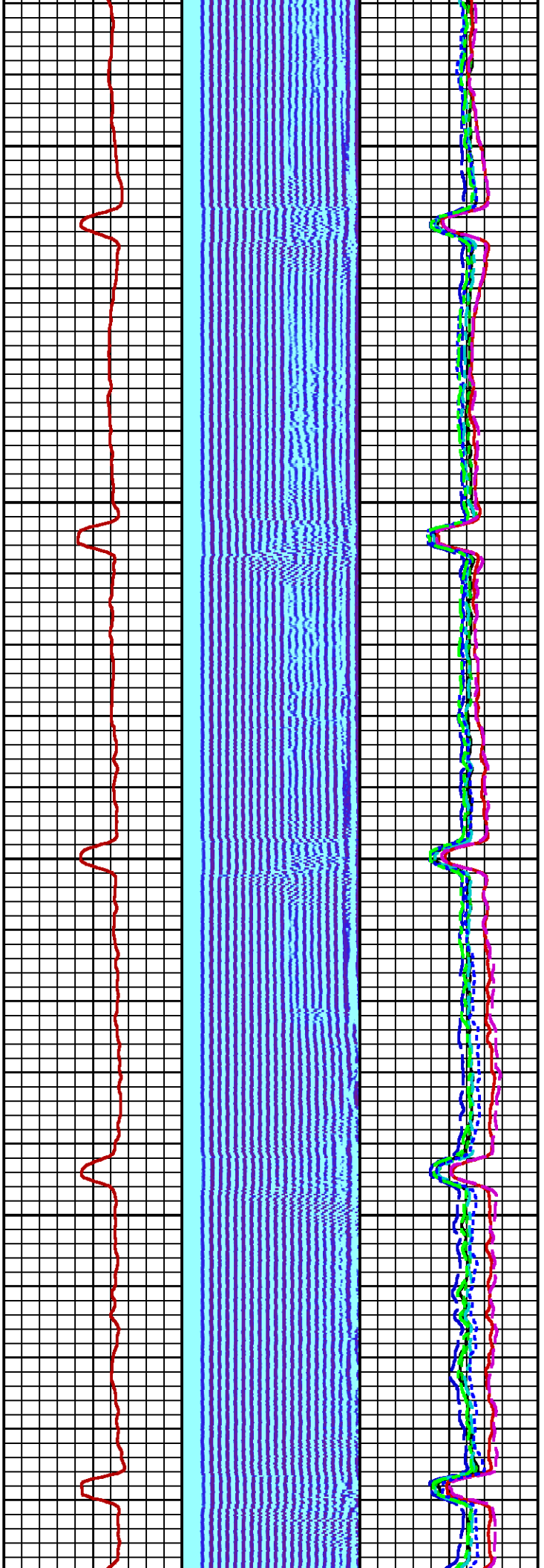




900

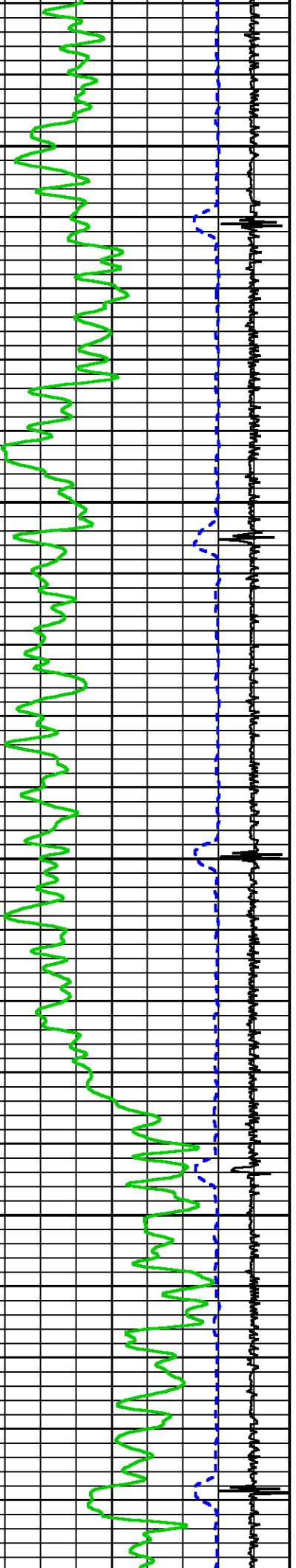
1000

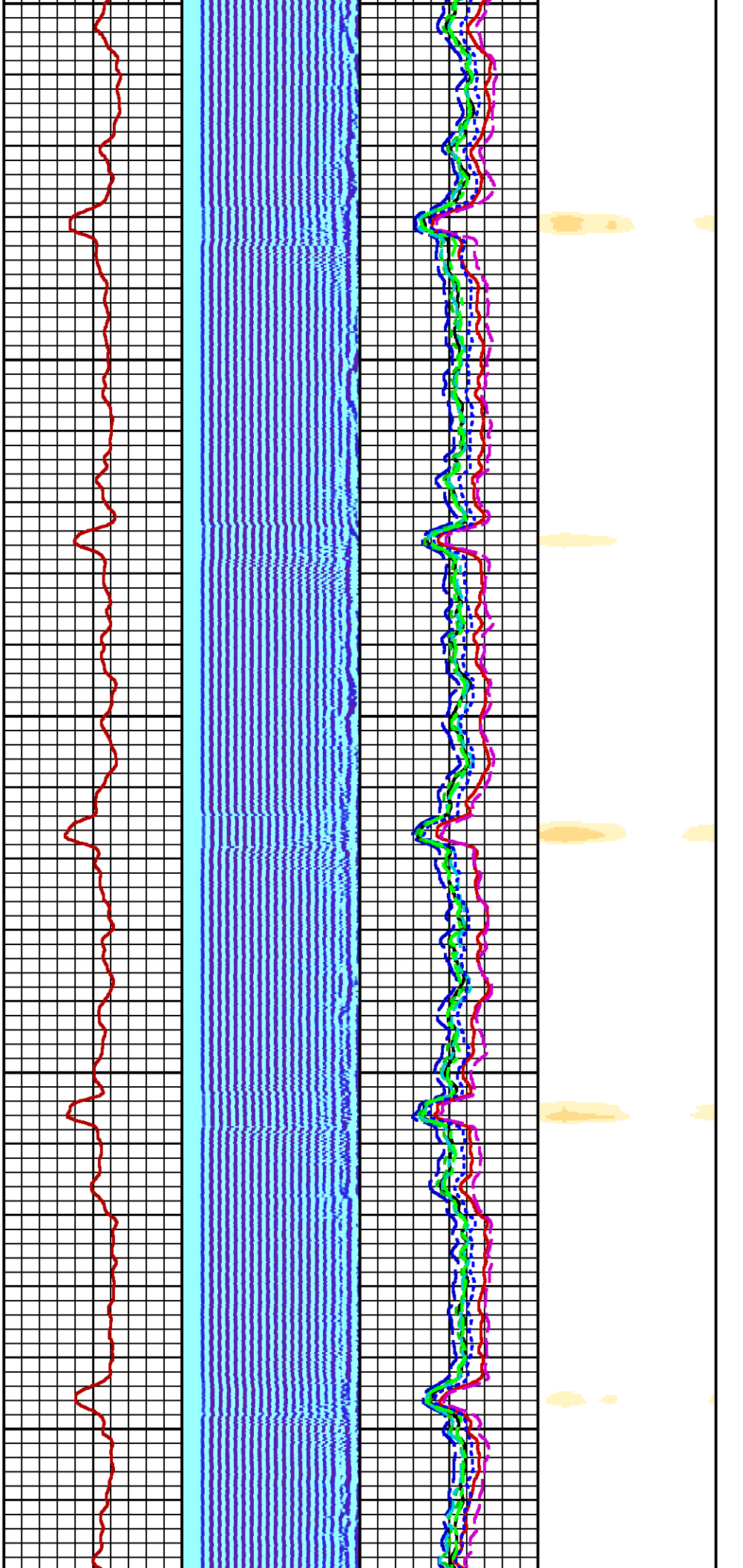




1100

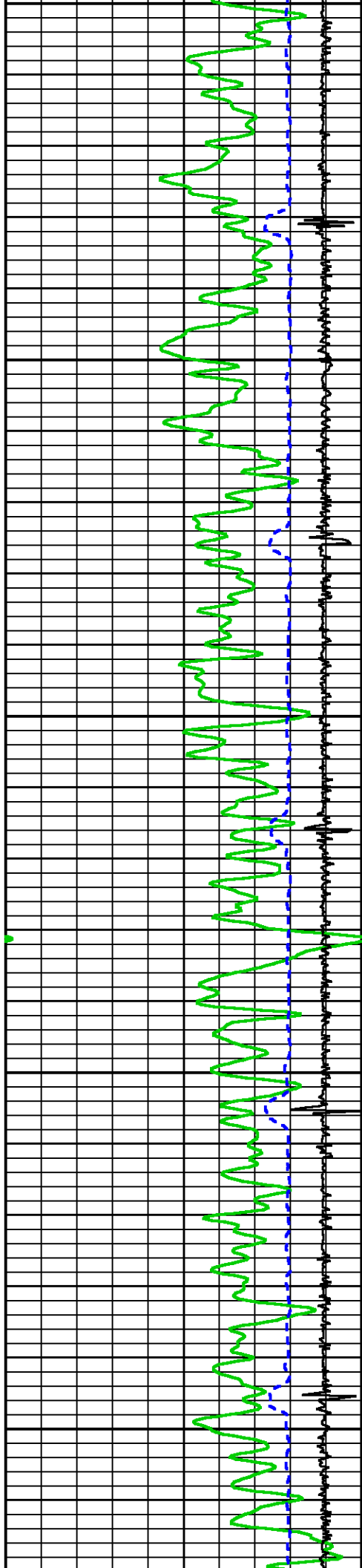
1200





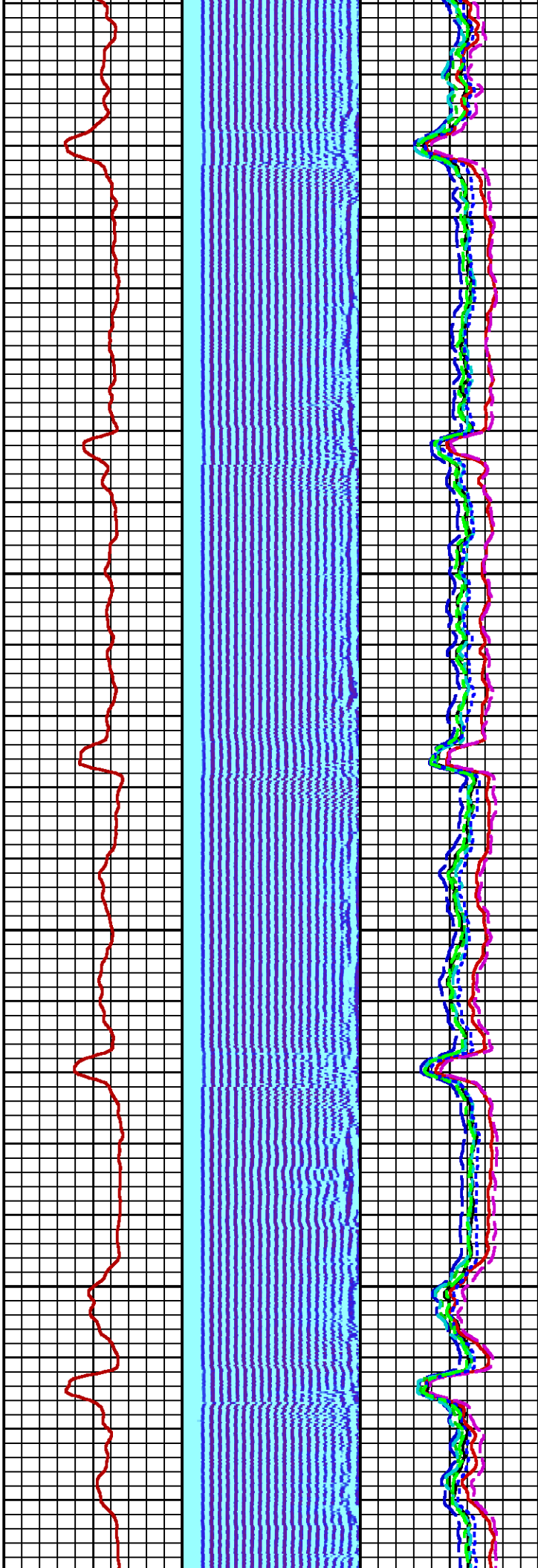
1300

1400



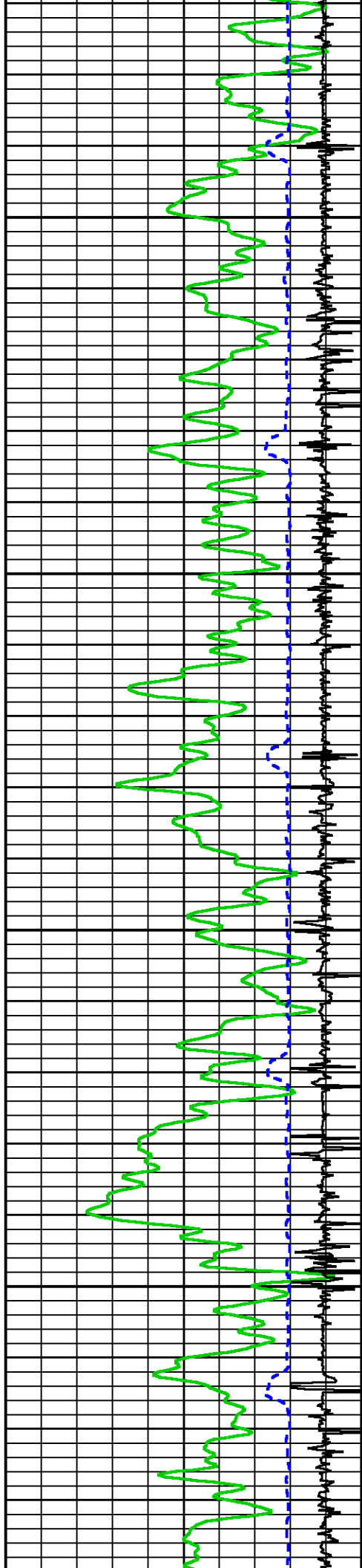
1500

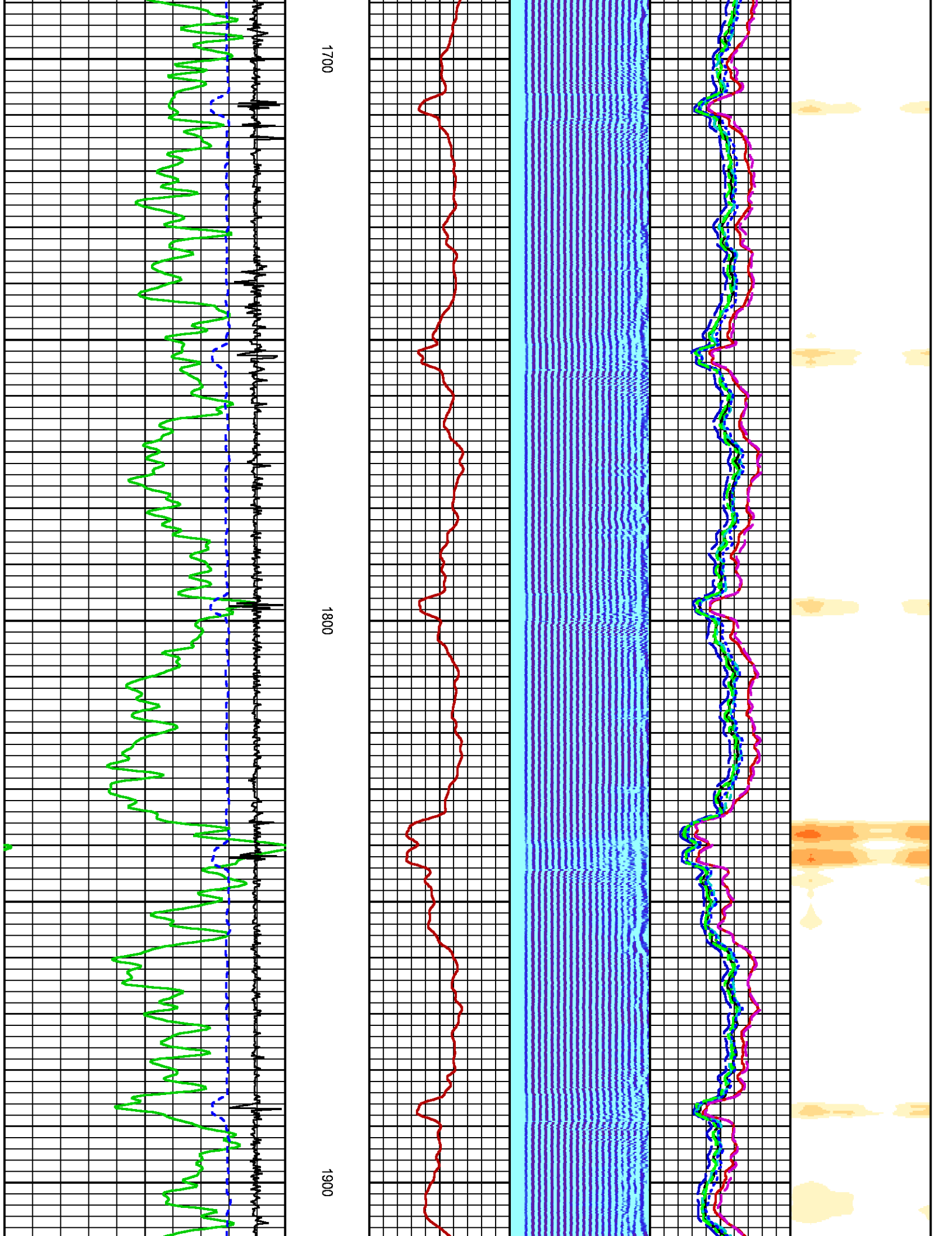
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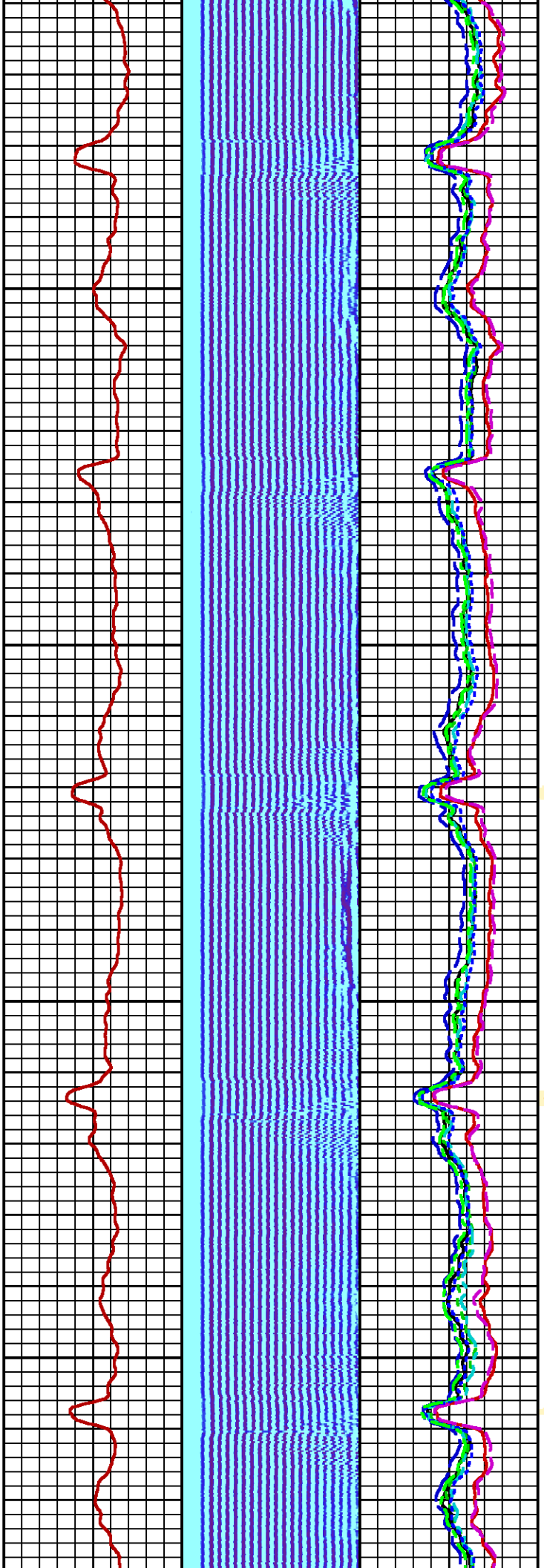


1500

1600

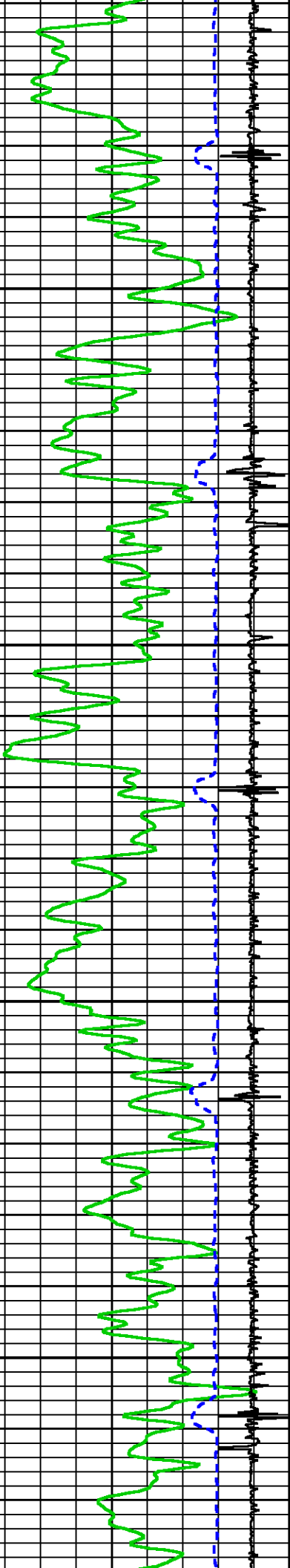


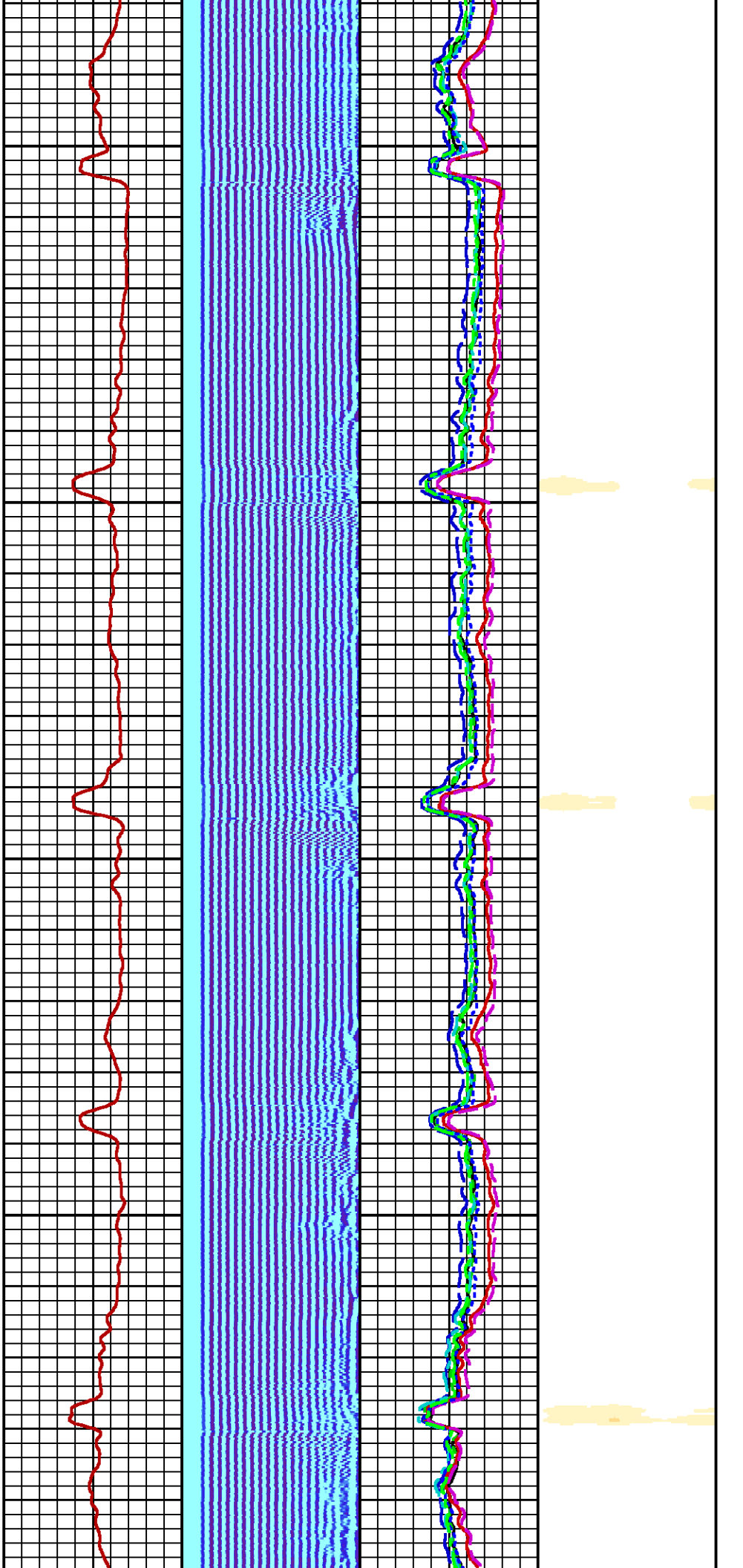




2000

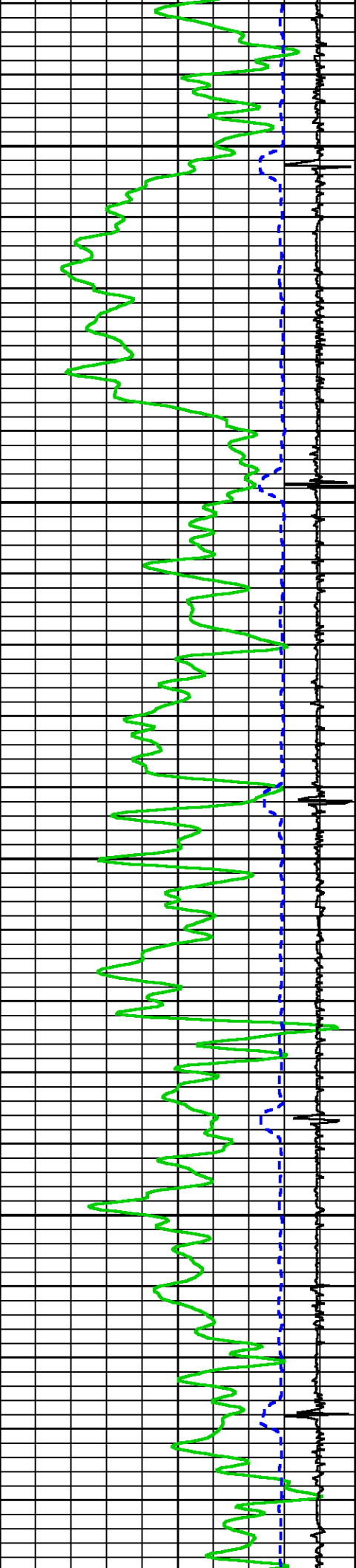
2100

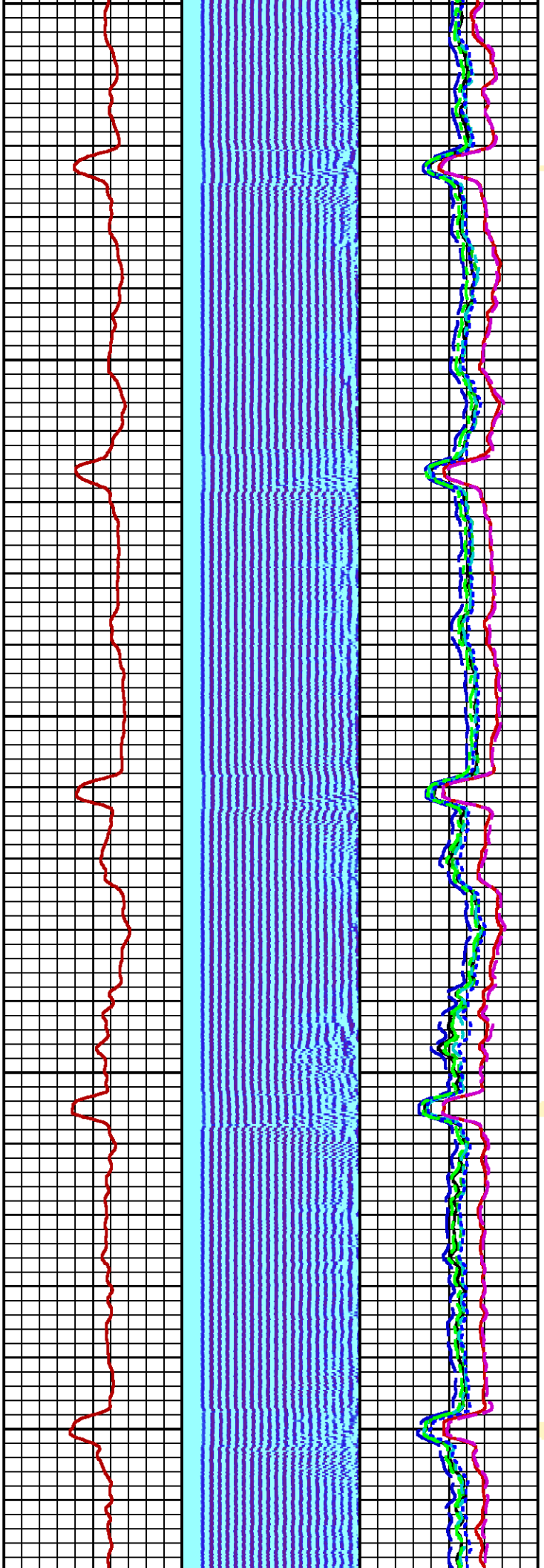




2200

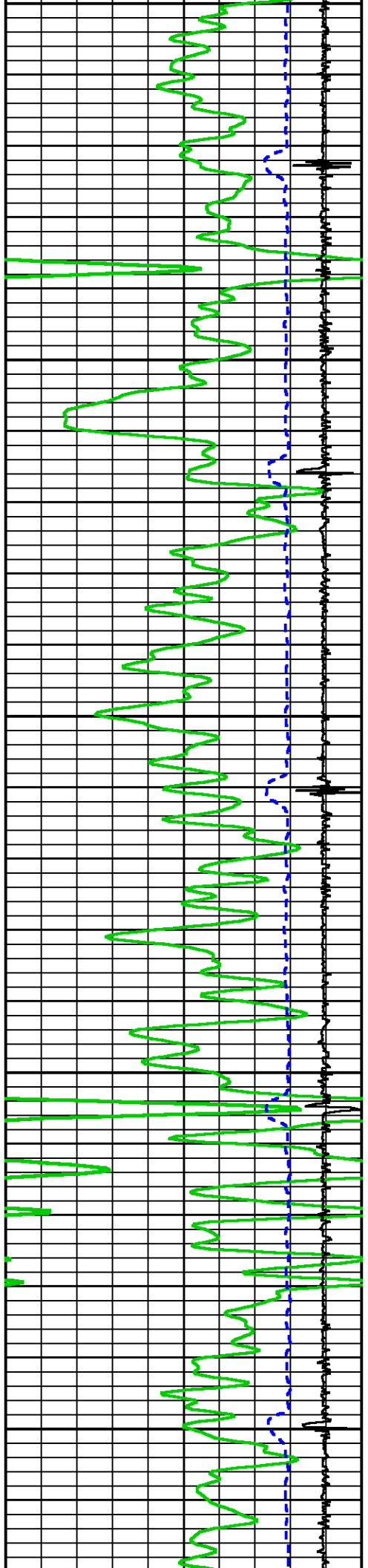
2300

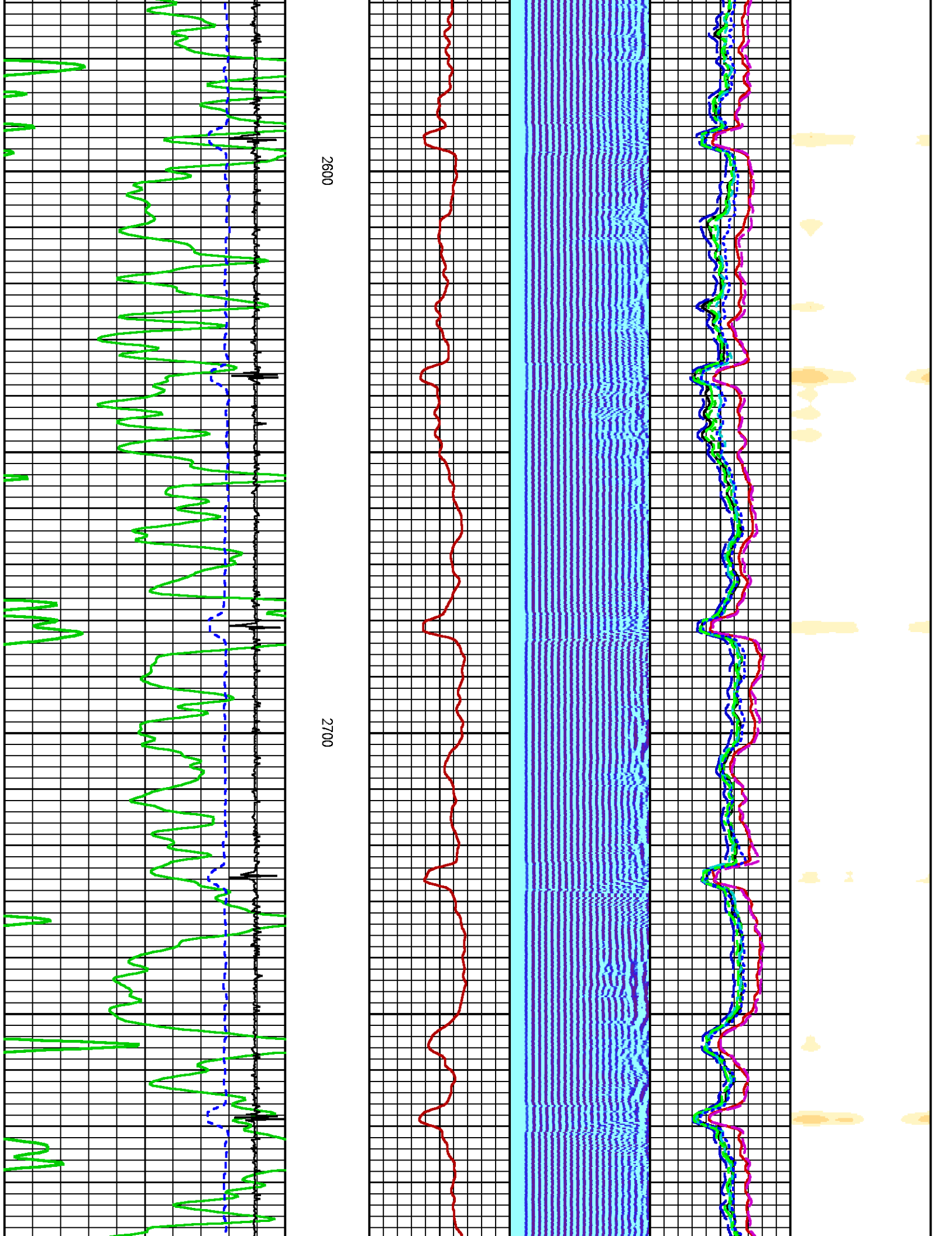


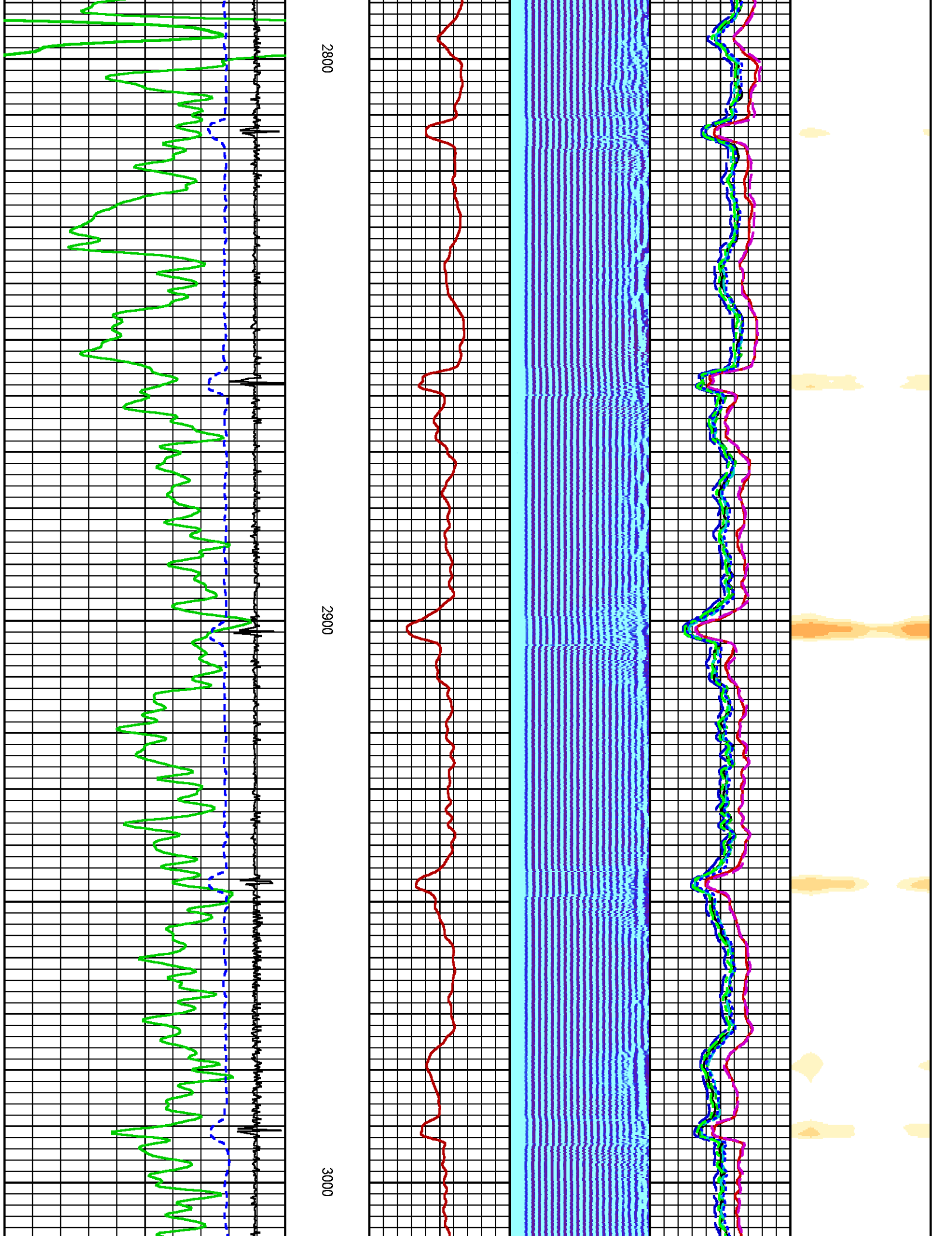


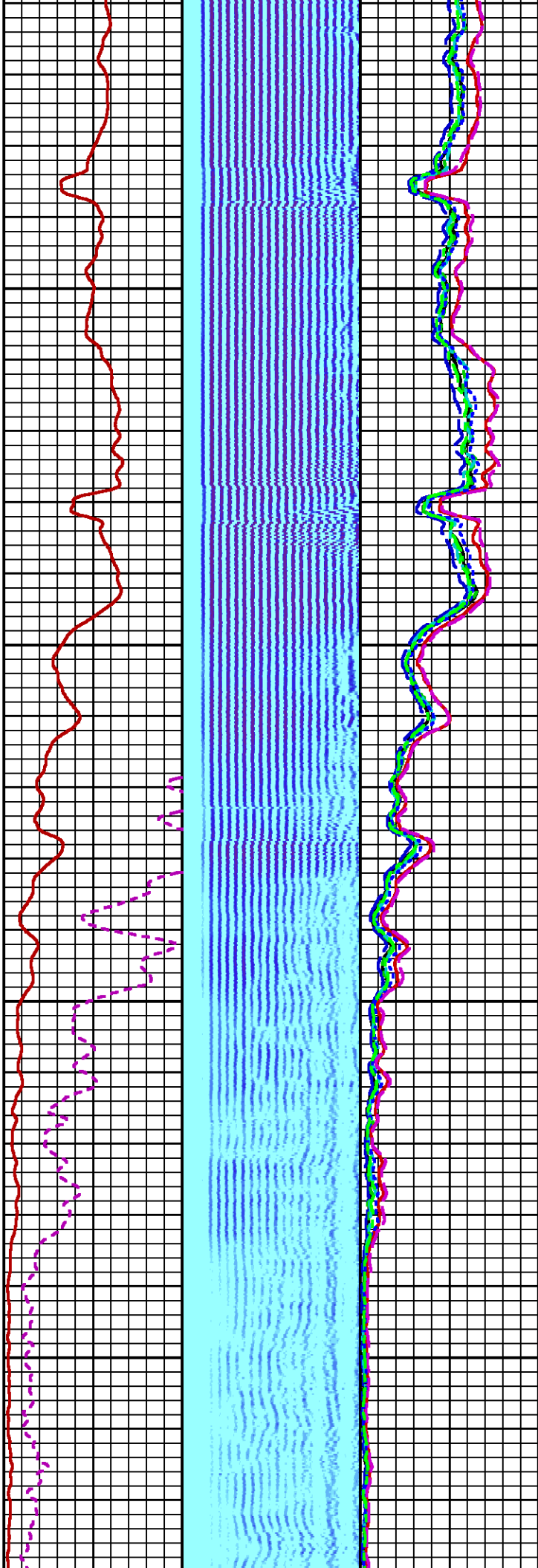
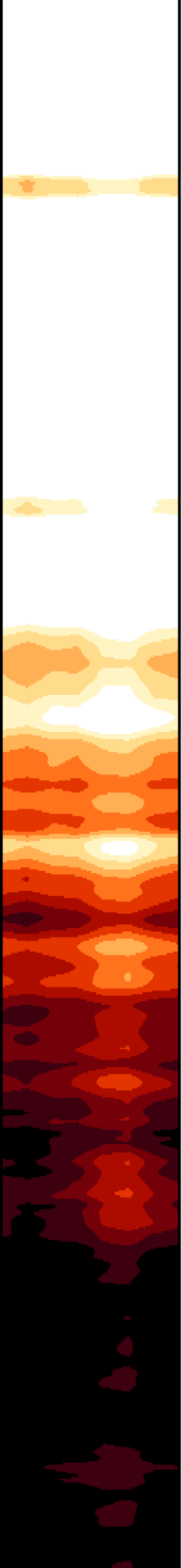
2400

2500



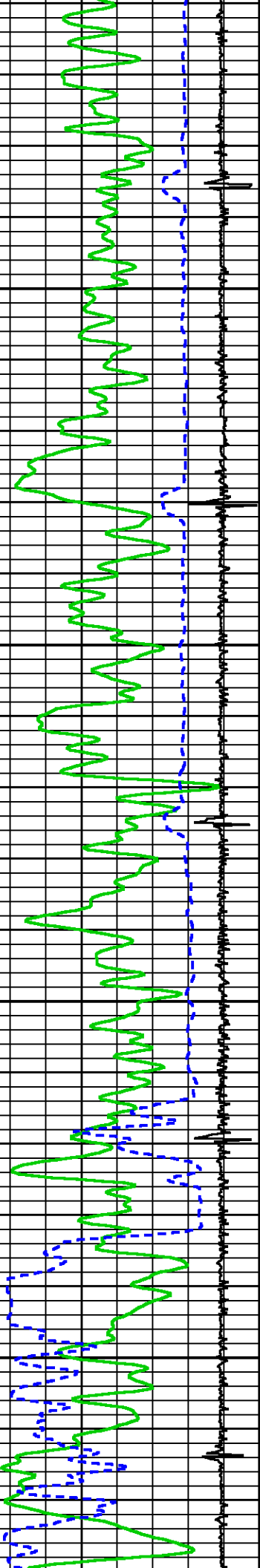


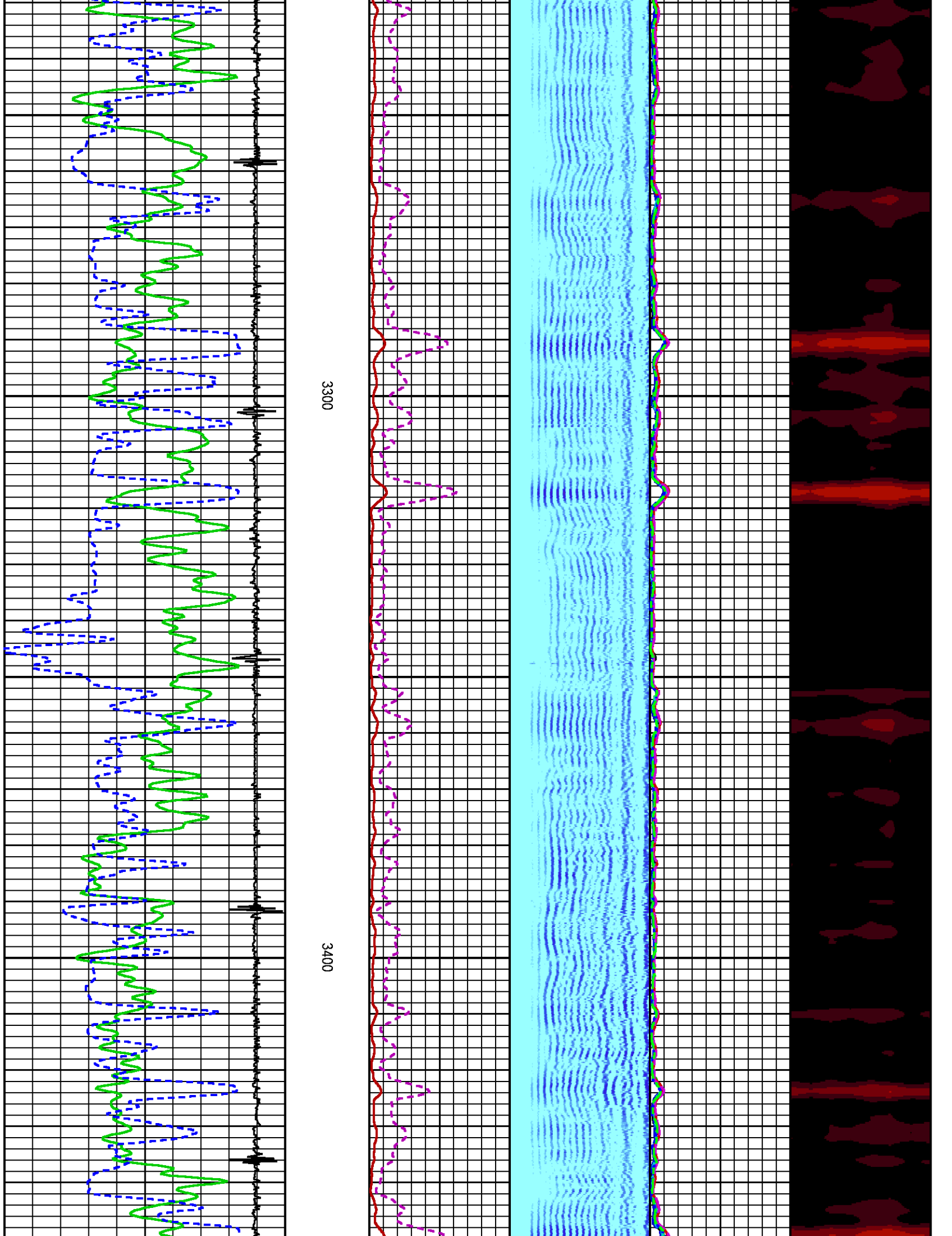


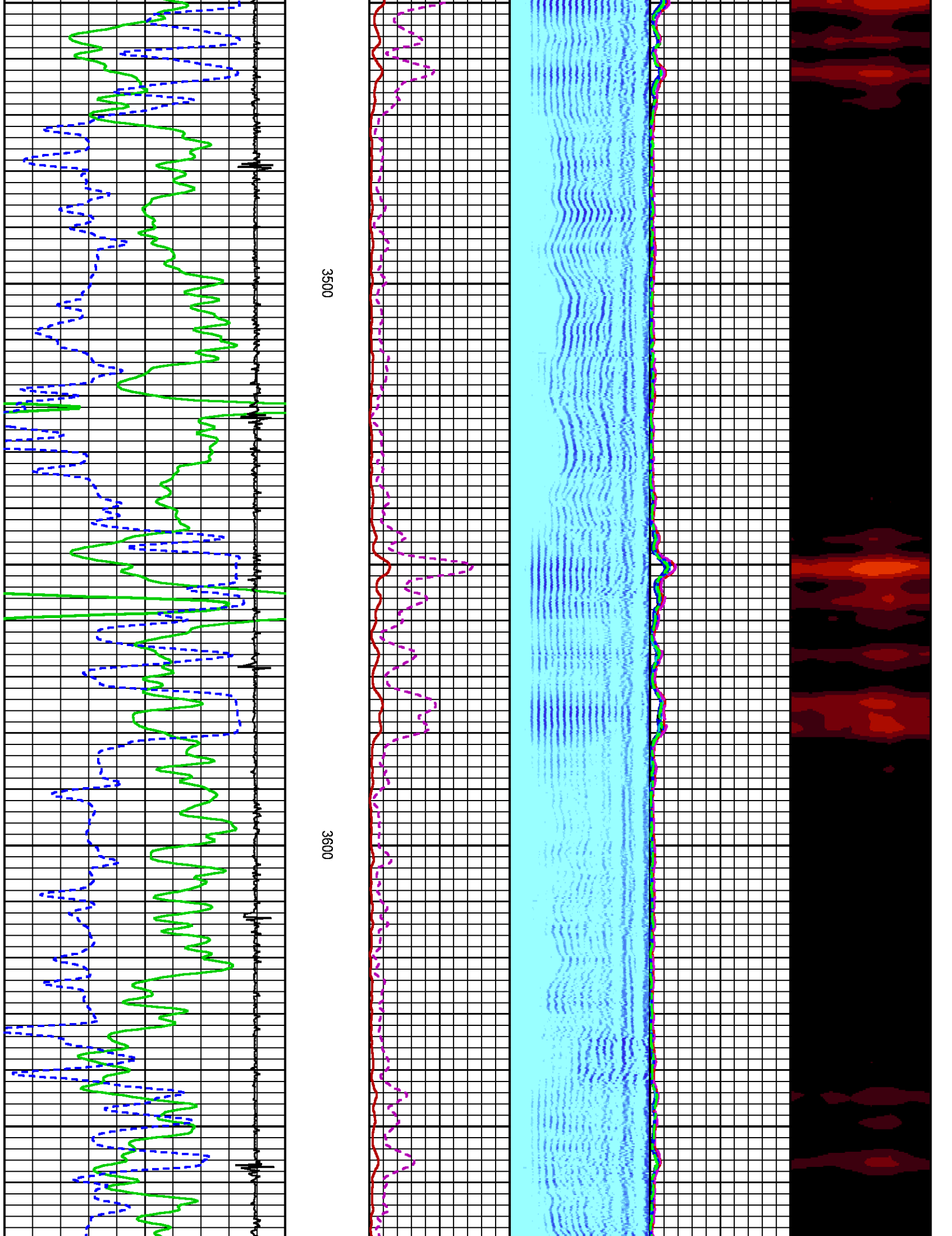


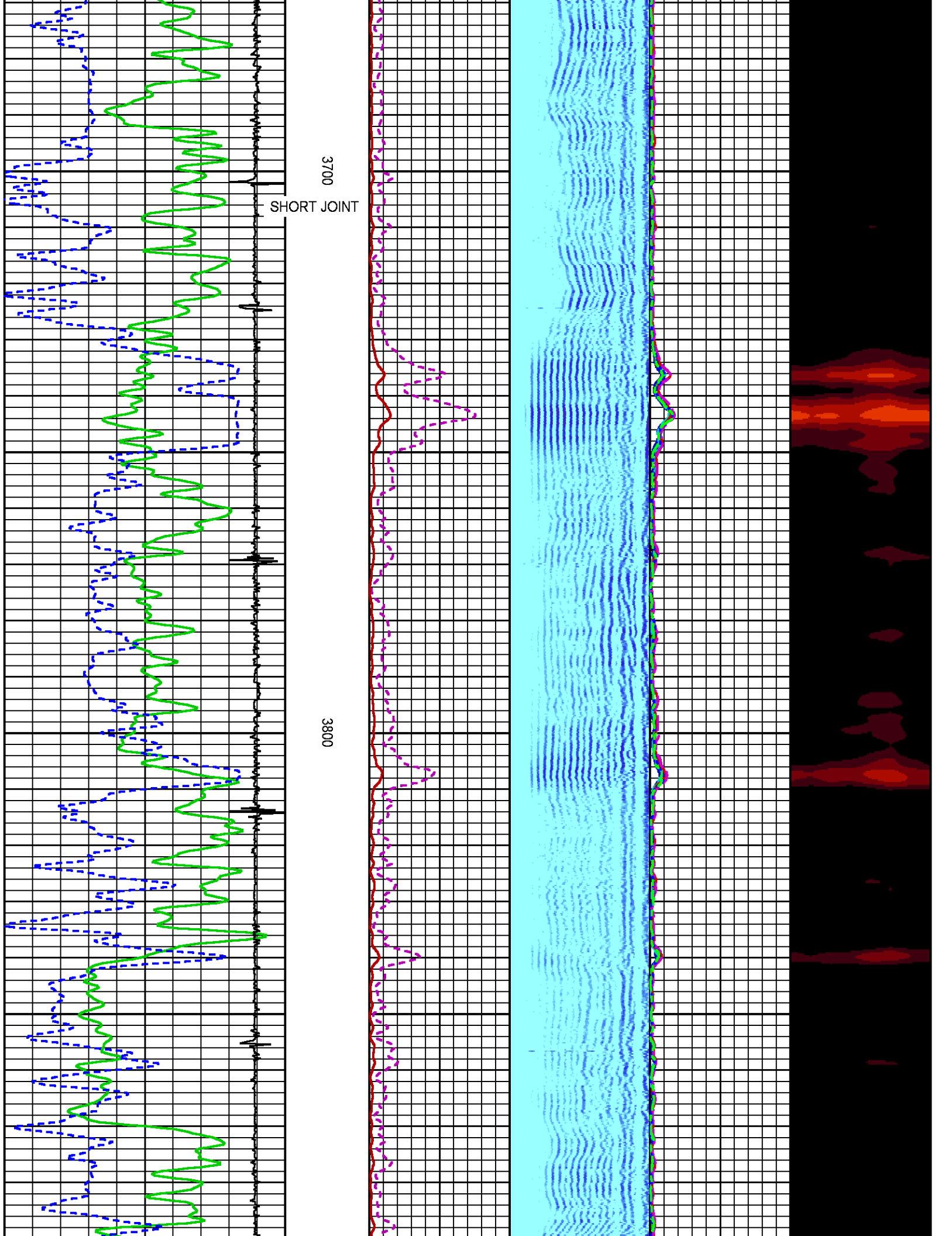
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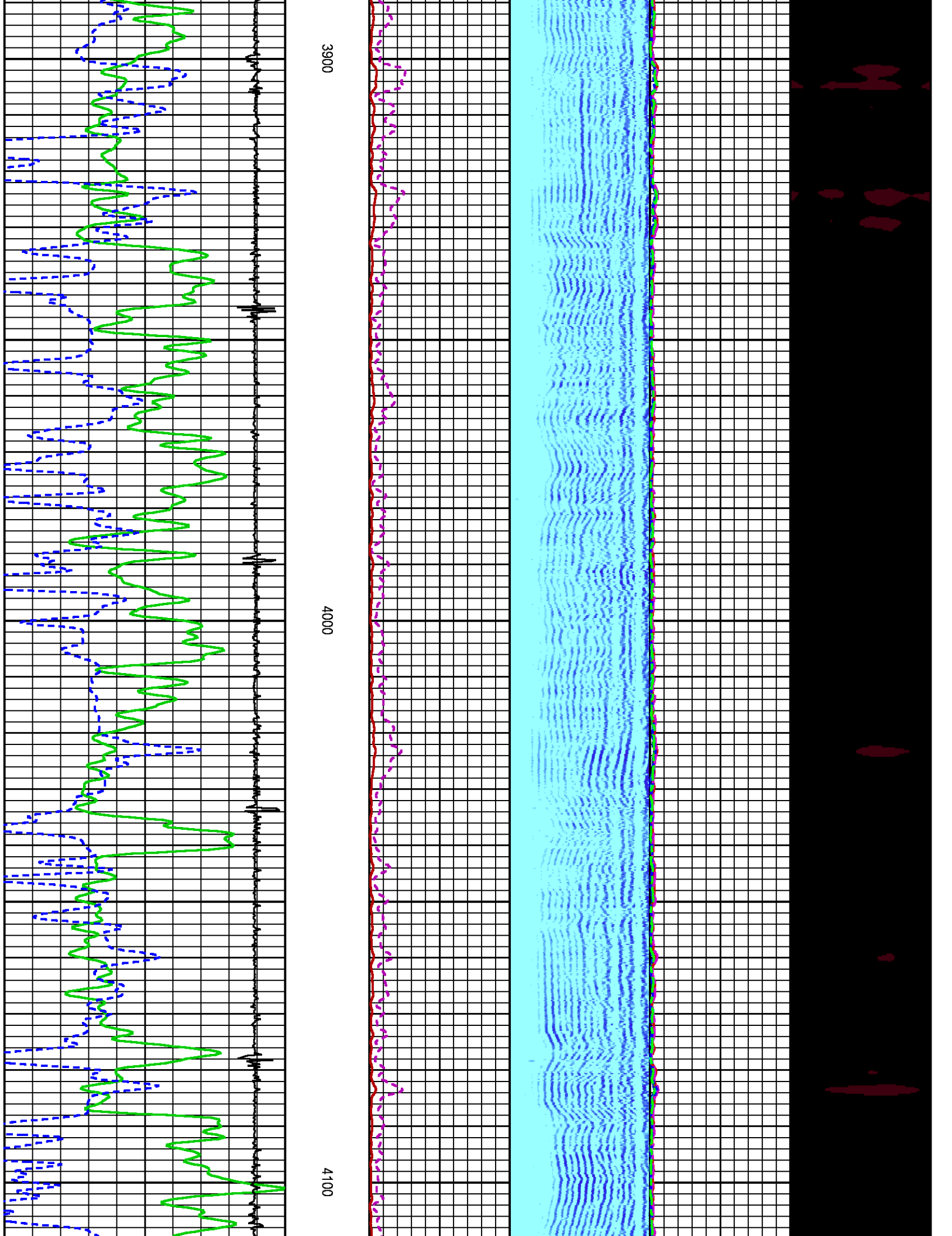
3200

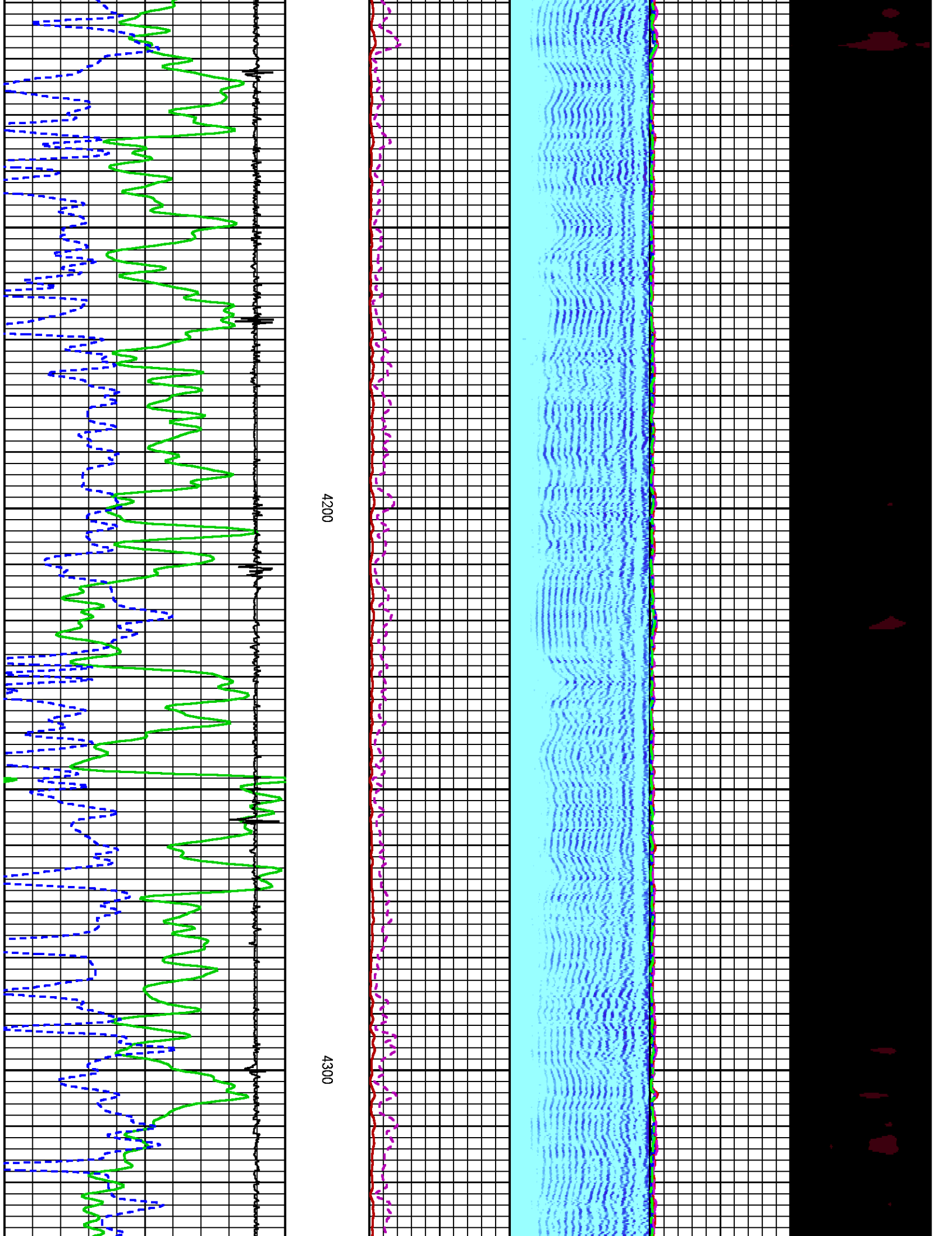


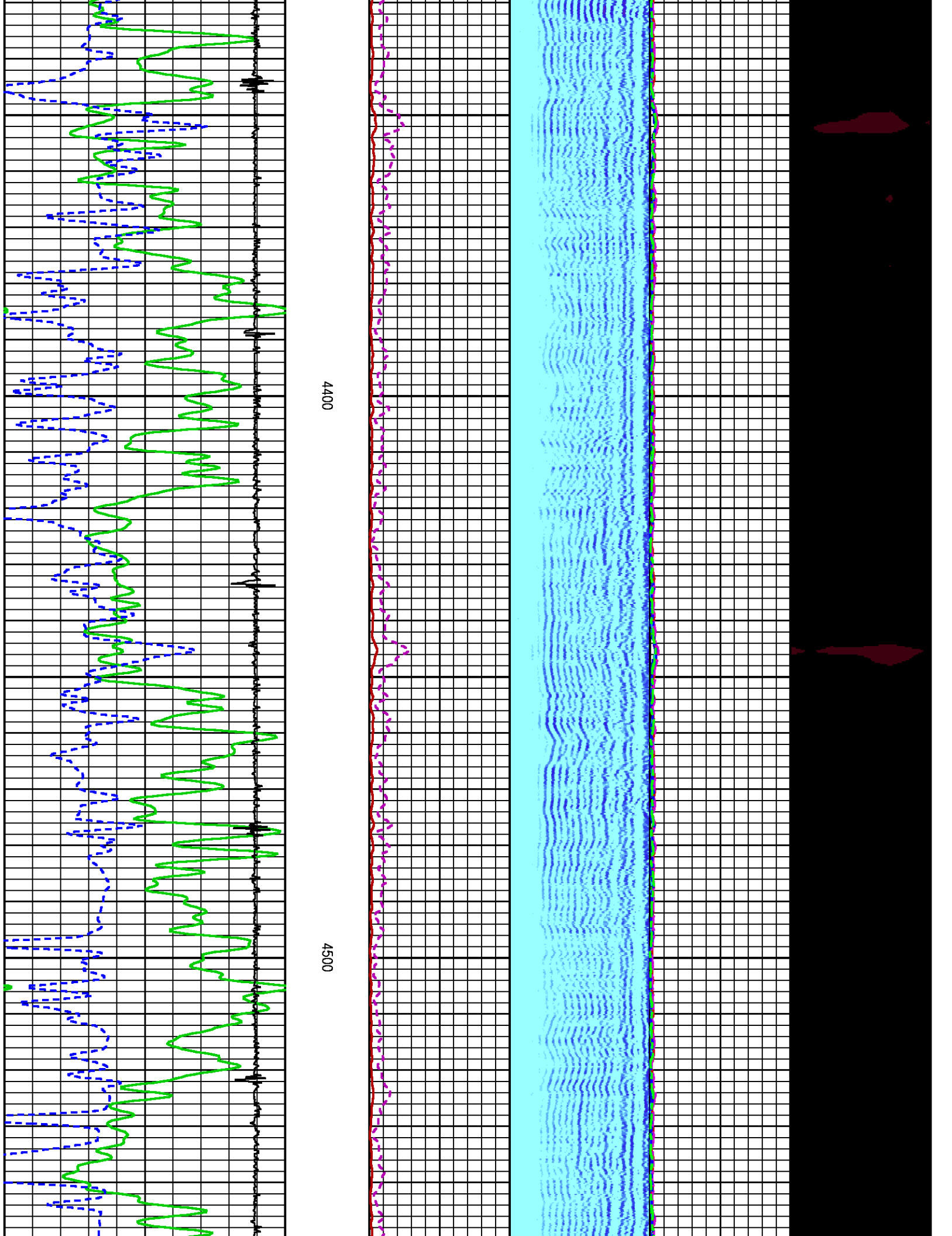


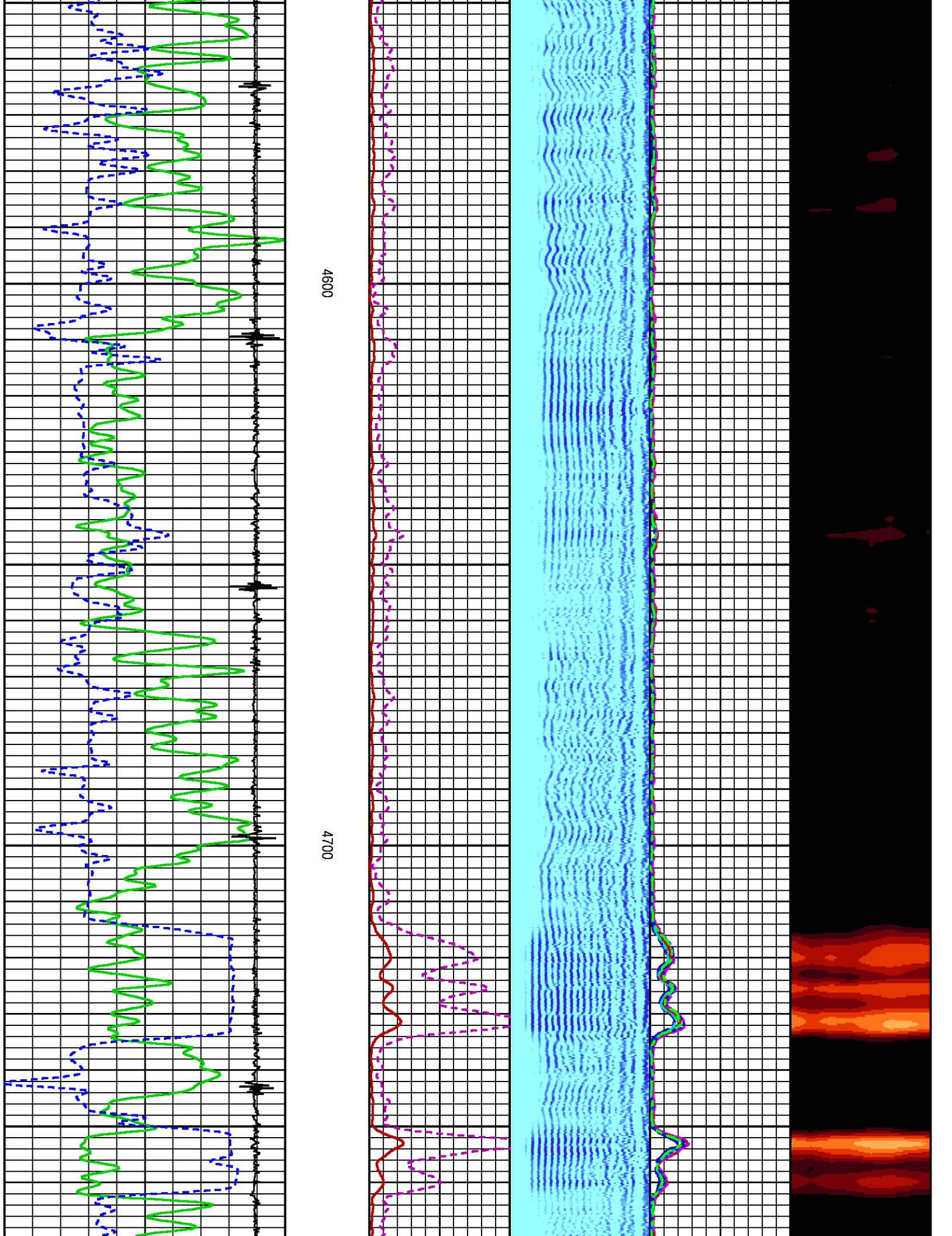


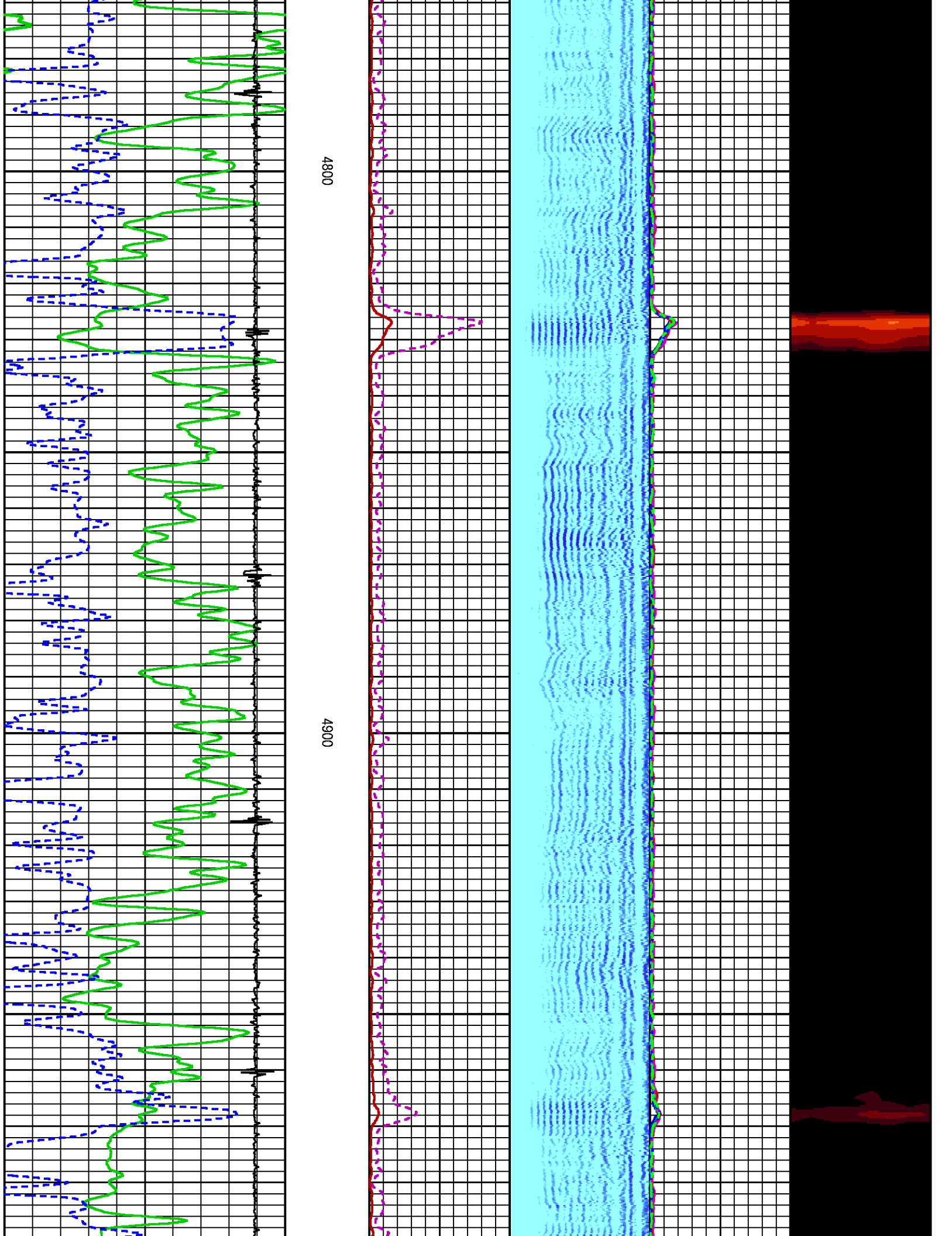


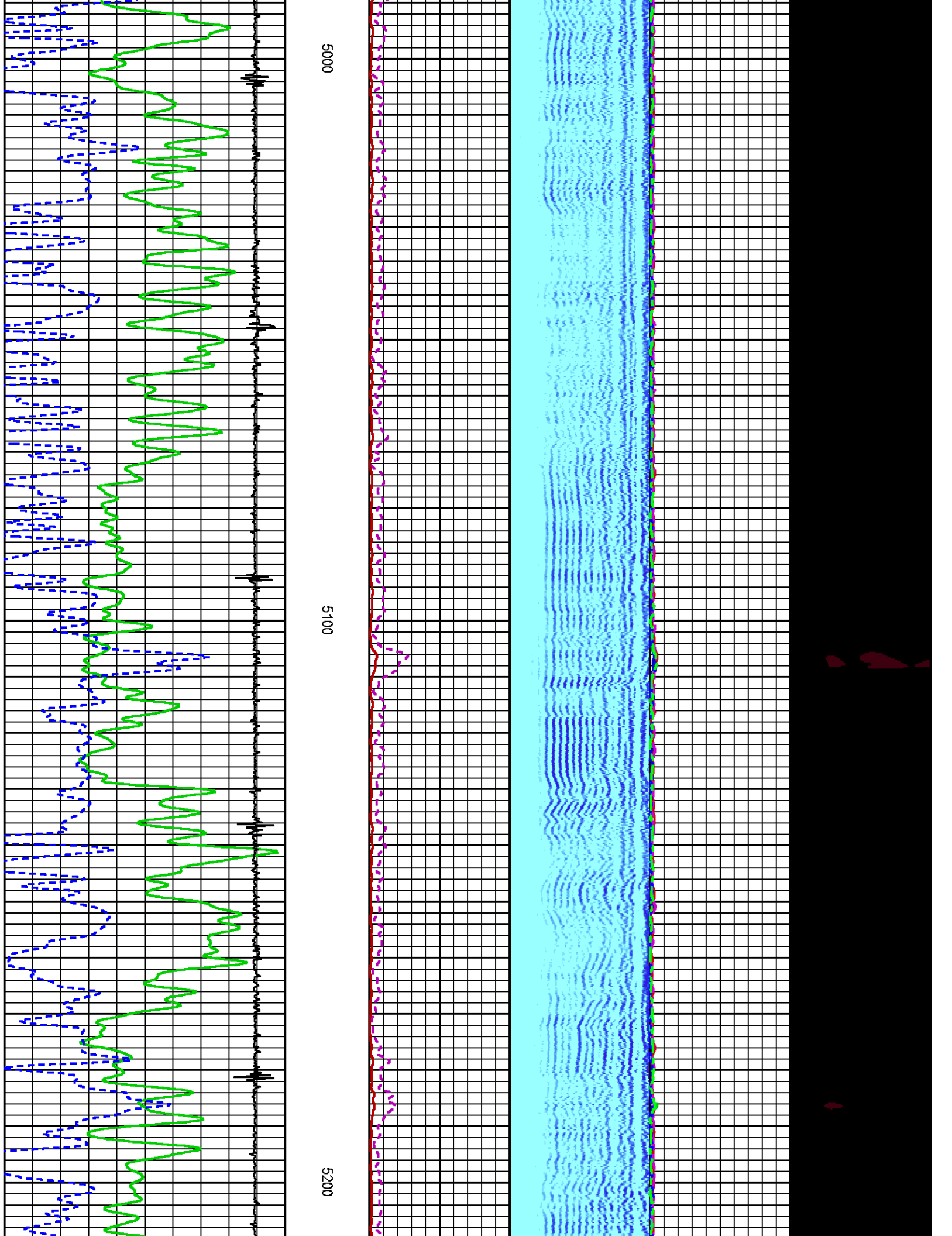


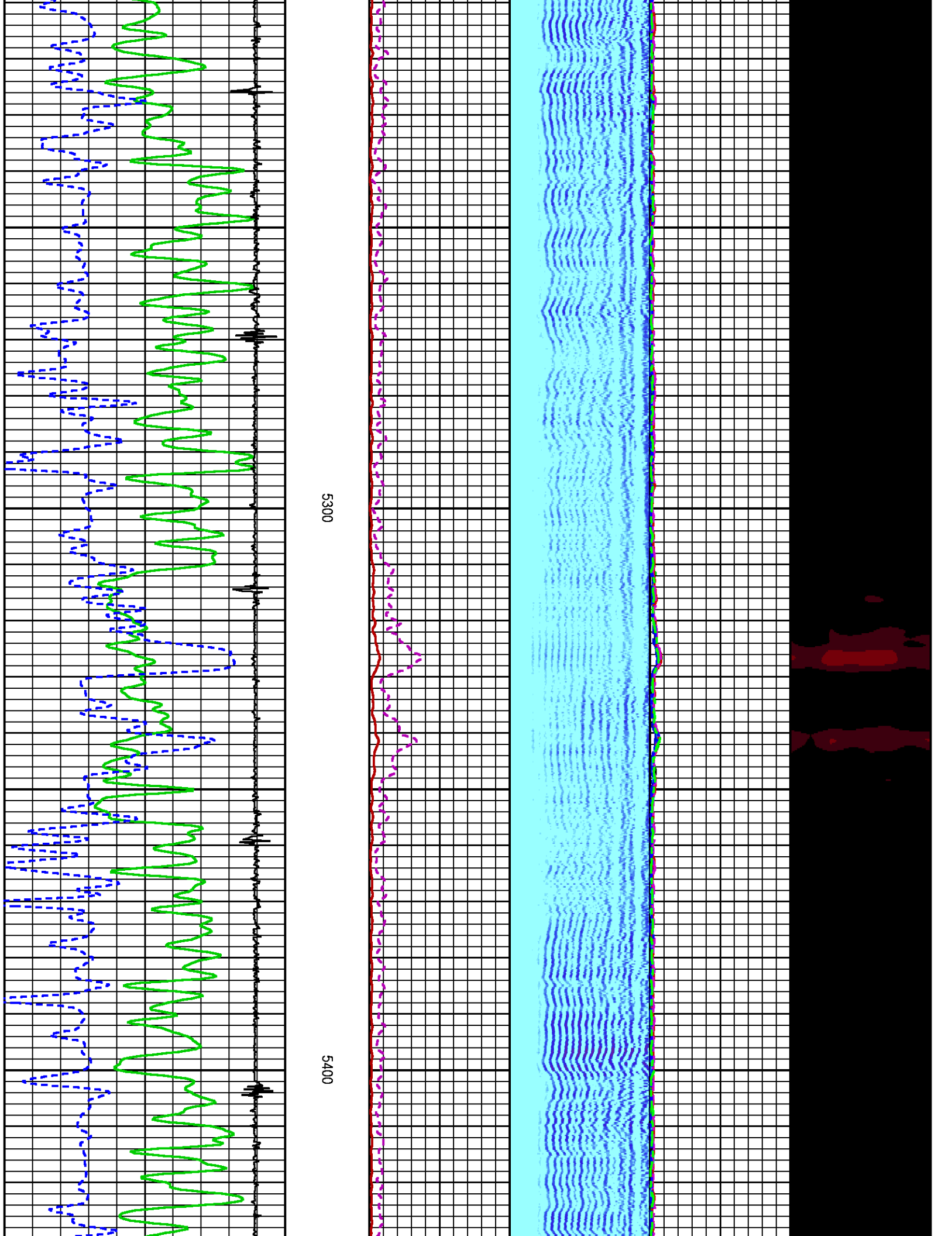


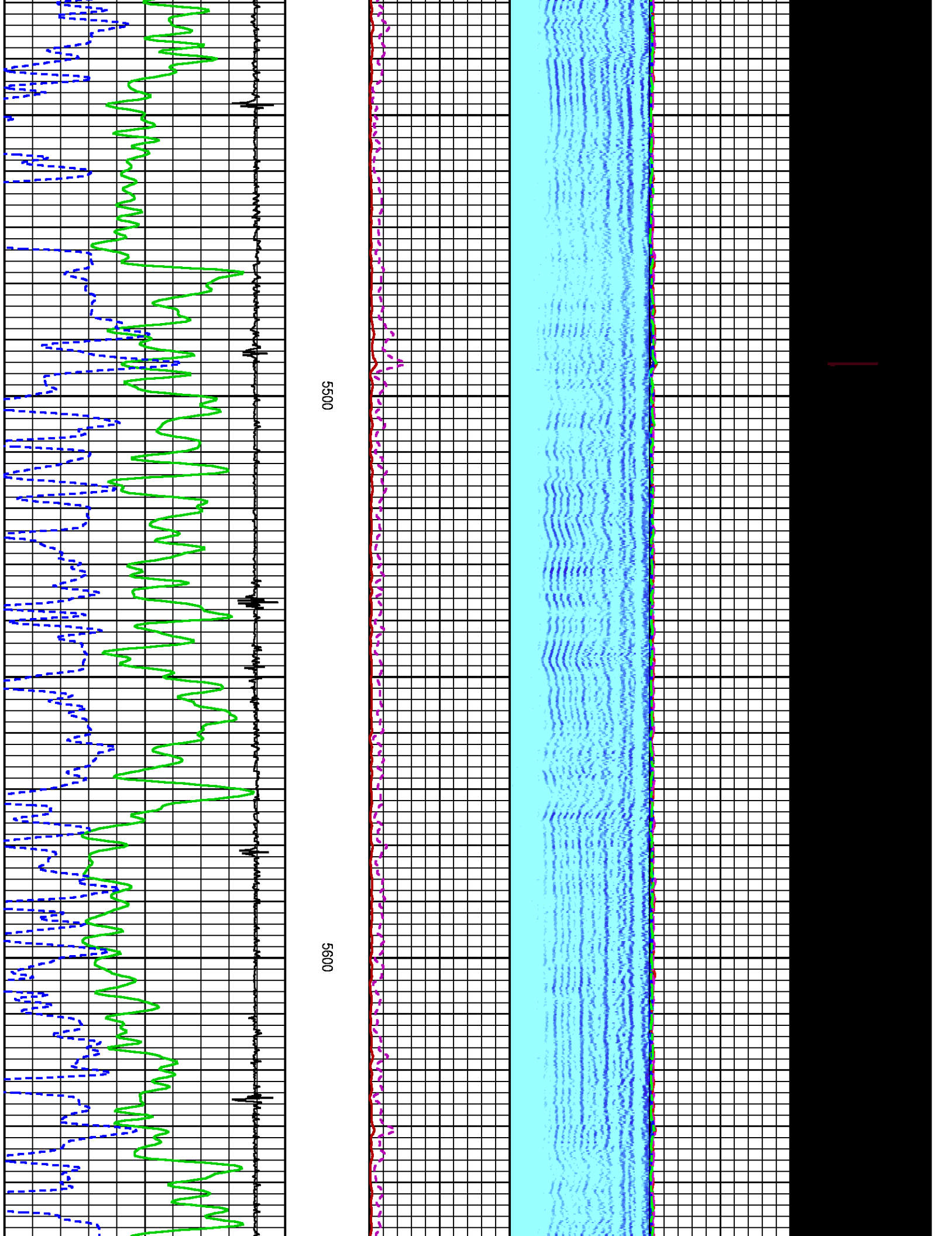


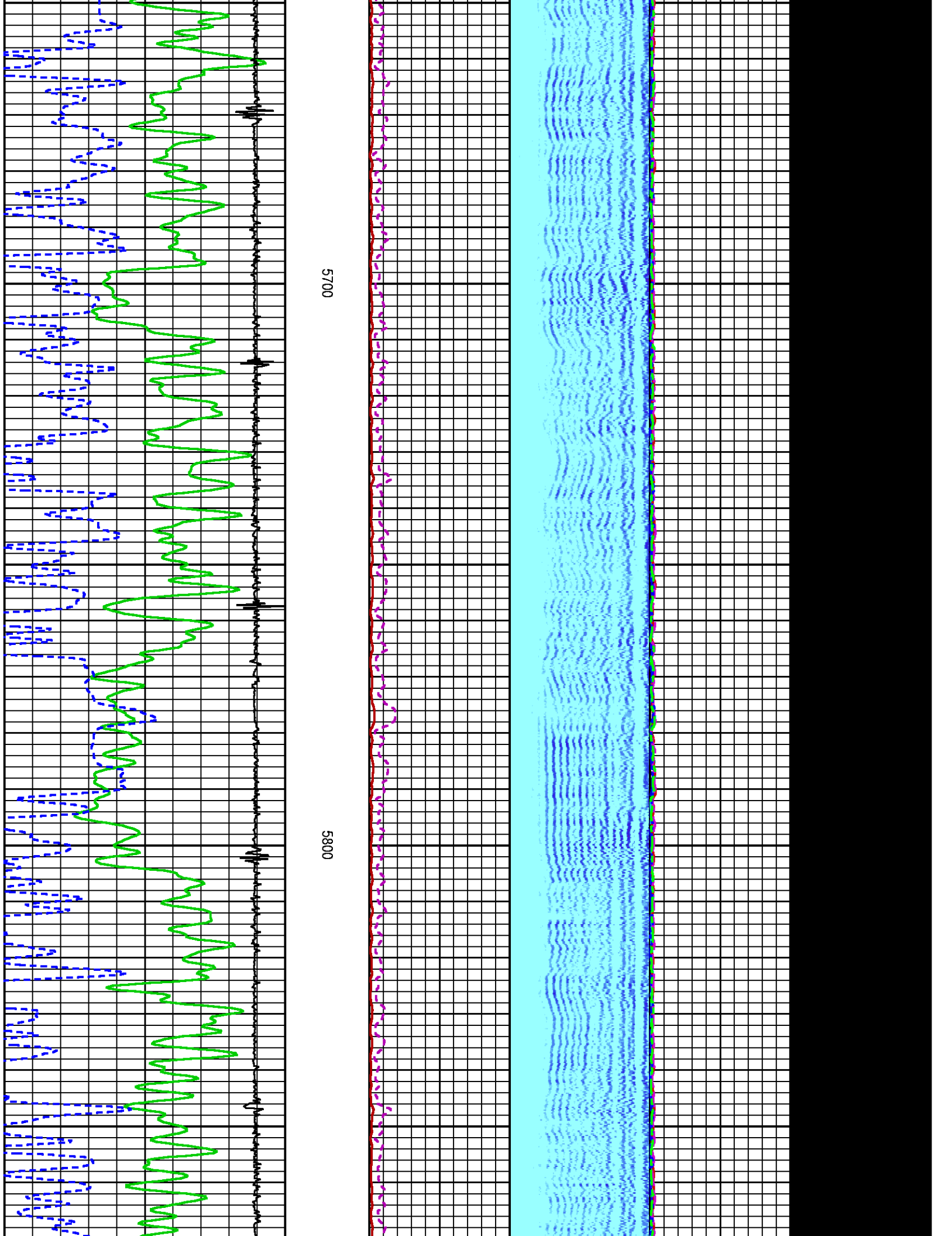


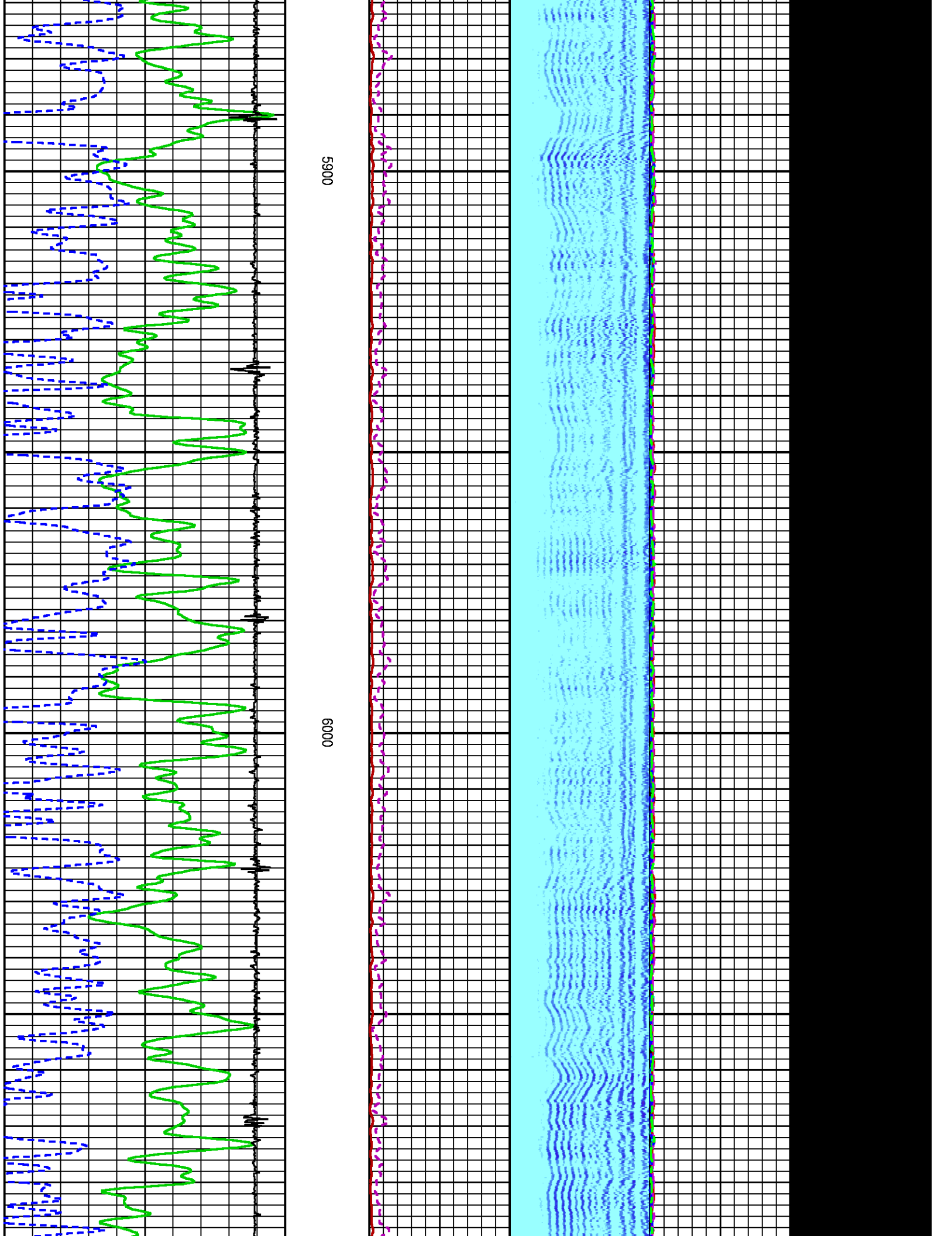






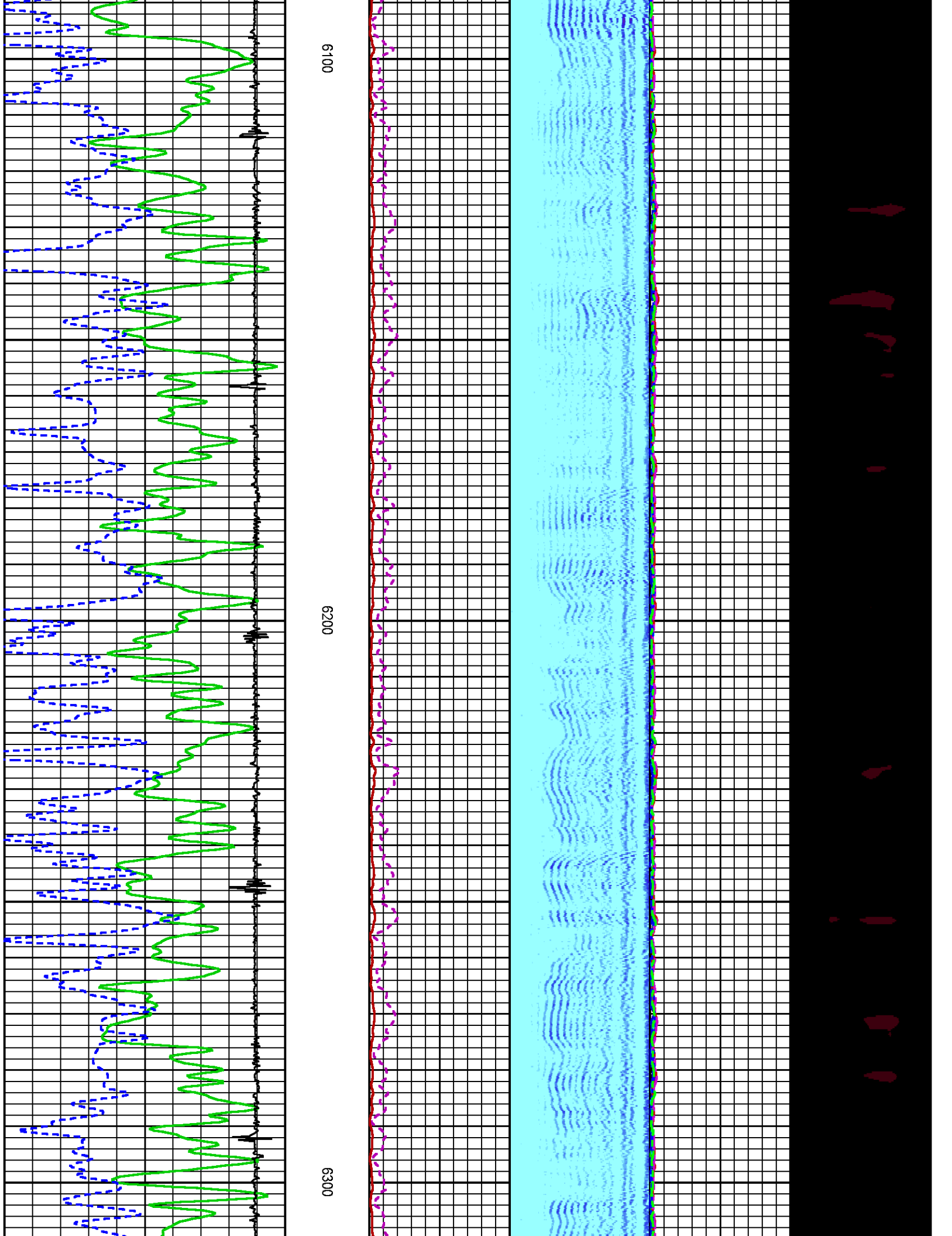


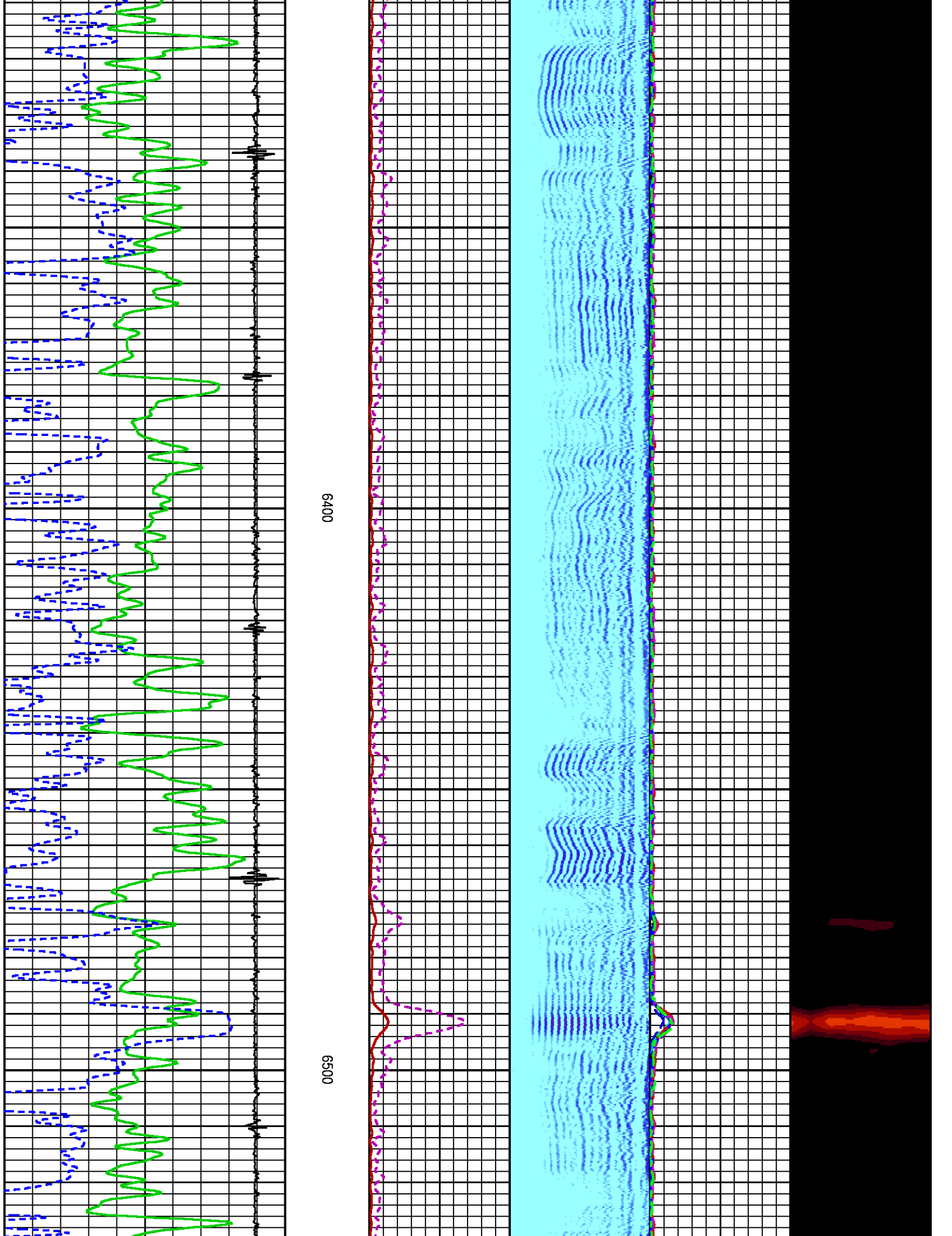


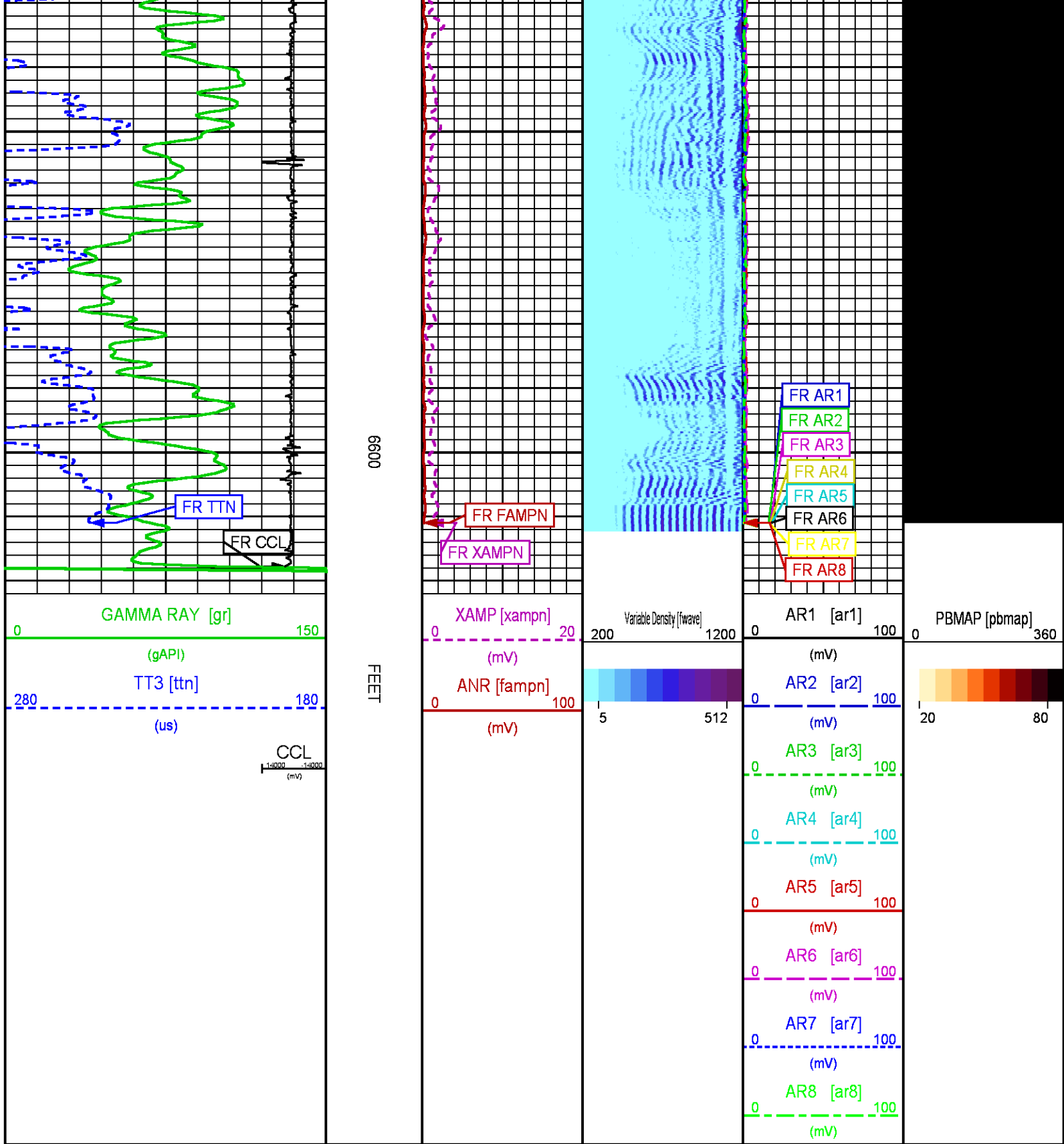


5900

6000







CALIBRATION / VERIFICATION SUMMARY

Source File: C:\Users\spenj\Documents\VDIS\Jobs\WPX\GM42-8\CH108494\012g.tp1

RAL PRIMARY CALIBRATION SUMMARY

TOOL #: 1426XA 10417452

DATE/TIME PERFORMED: Mon Jul 25 09:04:19 2016

UNIT #: 3885TC 6685

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

	NEAR	R1	R2	R3	R4	R5	R6	R7	R8	FAR	CAL
ZERO (mV)	0.02	0.07	0.04	0.01	0.06	0.03	-0.06	-0.03	-0.02	0.27	-0.08
AMP FLUID (mV)	110	111	110	110	110	109	110	109	110	146	109
TT (us)	215	214	215	215	215	215	214	213	215	330	214
M FACTOR	0.91	0.90	0.91	0.91	0.91	0.91	0.91	0.91	0.91	1.03	0.91

RAL BEFORE LOG VERIFICATION SUMMARY

TOOL #: 1426XA 10417452 DATE/TIME PERFORMED: Tue Jul 26 08:17:15 2016 DAYS SINCE CAL: 0

UNIT #: 3885TC 6685 CABLE #: HL-668 SMALL1

	NEAR (mV)	R1 (mV)	R2 (mV)	R3 (mV)	R4 (mV)	R5 (mV)	R6 (mV)	R7 (mV)	R8 (mV)	FAR (mV)	CAL (mV)
ZERO	0.04	-0.00	0.02	-0.00	-0.05	-0.02	0.01	-0.04	0.00	0.05	0.00
AMP AIR	-0.06	-0.35	-0.70	0.11	-0.01	0.34	0.46	-0.26	-0.05	-0.58	97.91

SHOP M FACTOR	SHOP A FACTOR	WIRELINE FACTOR
0.91	0.00	1.02

GR PRIMARY CALIBRATION SUMMARY

TOOL #: 1355XA 11871508 DATE/TIME PERFORMED: Mon Jul 25 09:27:32 2016

UNIT #: 3885TC 6685 CALB JIG #: 4702NK BA-905

	BACKGROUND (cts)	CALBRTR ON (cts)	CR DIFF (cts/s)	MULT	BACKGROUND (gAPI)	CALBRTR ON (gAPI)	CALBRTR (gAPI)
GR	54.76	202.27	147.5	1.017	55.68	205.68	150

INSTRUMENT CONFIGURATION

Source File: C:\Users\spenjsoj\Documents\VDIS\Jobs\WPX\IGM42-8\CH108494\012g~tdg.meta

INSTRUMENT CONFIGURATION

CABLEHEAD

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

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

RAL GR/TEMP/CCL/CHV DETECTOR

Diameter : 2.75"
 Length : 6.96'
 Weight : 85 lbs
 Series : 1355XA
 Mnemonic : RAL
 Measure Point: 5.79': CCL
 Measure Point: 1.67': GR
 Measure Point: 0.17': TEMP

20.38'

NEAR RCVR 11.17'

FAR RCVR 10.21'

CCL 5.79'

GR 1.67'

TEMP 0.17'

TOTAL LENGTH: 20.38'
 TOTAL WEIGHT: 235 lbs
 MAX DIAMETER: 0'4.00"



COMPANY
WELL
FIELD
COUNTY

TERRA ENERGY PARTNERS LLC
FEDERAL GM 42-8
GRAND VALLEY
GARFIELD STATE **COLORADO**

FILE NO:

[CH108494](#)

API NO:

[05045225320000](#)

LOCATION:

SHL:632'FNL&574'FWL, S.9 T.7S R.96W
 BHL:1399'FNL&328'FEL, S.8 T.7S R.96W

SEC 8 TWP 7S RGE 96W

ELEVATIONS:

KB 6111 FT
 DF
 GL 6087 FT

DATE

[26-Jul-2016](#)

S.8 T.7S R.96W
 PAD: MV 16-9
 RIG: H&P 318