



FILE NO: COMPANY LARAMIE ENERGY

WELL GUNDERSON BCU 20-06E

API NO: FIELD VEGA

05077103440000 COUNTY MESA STATE COLORADO

Ver. 4.06 LOCATION: LAT:39.266864N;LONG:107.795281W OTHER SERVICES RPM

BHL: LAT:39.266459N;LONG:107.788396W
SEC 20 TWP 9S RGE 93W

PERMANENT DATUM GL ELEVATION 7144 FT
LOG MEASURED FROM KB 30 FT ABOVE P.D.
DRILL. MEAS. FROM KB ELEVATIONS:
KB 7176 FT
DF 7176 FT
GL 7146 FT

DATE	27-AUG-2017
RUN	1
TRIP	1
SERVICE ORDER	US125427
DEPTH DRILLER	7848 FT
DEPTH LOGGER	7783 FT
BOTTOM LOGGED INTERVAL	7783 FT
TOP LOGGED INTERVAL	30 FT
TIME STARTED	09:00
TIME FINISHED	11:30
OPERATOR RIG TIME	2.5 HOURS
TYPE OF FLUID IN HOLE	WATER
FLUID DENSITY	NA
FLUID SALINITY	NA
FLUID LEVEL	54 FT
LOGGED CEMENT TOP	1460 FT
WELLHEAD PRESSURE	0 PSI
MAXIMUM HOLE DEVIATION	NA
NOMINAL LOGGING SPEED	100 F/MN
MAX. RECORDED TEMP.	244 DEGF
REFERENCE LOG	NA
REFERENCE LOG DATE	NA
EQUIP. NO.	HL-6670
LOCATION	WOODWARD
RECORDED BY	S.YASSA
WITNESSED BY	MR. CHUCK MALLARY

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.

REMARKS

RUN 1 TRIP 1: *2 OPERATIONS IN WELL*

OPERATION 1: RAL/GR/CCL RUN CENTRALIZED

LOGGED WITH 0 PSI ON WELLHEAD

SJ: 5977' - 5996'
SJ: 6974' - 6994'

CREW: D.HUTCHINSON, G.SUAREZ

EQUIPMENT DATA

RUN	TRIP	TOOL	SERIES NO.	SERIAL NO.	POSITION
1	1	RAL	1426XA	10218496	CENTRALIZED
1	1	GAMMA RAY	1355XA	12670180	CENTRALIZED

MAIN PASS 0 PSI

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

Updates: 1 Patches: 9

Plotted: Sun Aug 27 12:47:59 2017

PARAMETER AND FILTER SUMMARY REPORT

FILE: /dat1a/LARAMIE_GUNDERSON_20_05E/n012g02.prm
 LOGGING MODE: DEPTH DIRECTION: UP
 TOP DEPTH: 10.000 ft BOTTOM DEPTH: 7808.307 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*)	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 (str1*)	-60	us	TOP	177.750
		-62	us		210.250
		-61	us		211.000
		-60	us		239.750
		-62	us		244.500
		-65	us		292.000
		-63	us		719.250
		-62	us		720.250
		-61	us		815.250
		-60	us		848.250
	TOOL DELAY (str2*)	-59	us		848.250
		-58	us		849.000
		-60	us		849.000
		-58	us		6528.250
		-60	us		6528.250
		-58	us		6733.250
		-59	us		6733.250
		-58	us		7579.500
		-59	us		7579.500
		-60	us	TOP	177.750
	TOOL DELAY (str3*)	-62	us		210.250
		-61	us		211.000
		-60	us		239.750
		-62	us		244.500
		-65	us		292.000
		-63	us		719.250
		-62	us		720.250
		-61	us		815.250
		-60	us		848.250
		-59	us		848.250
		-58	us		849.000
		-60	us		849.000
		-58	us		6528.250
		-60	us		6528.250
		-58	us		6733.250
		-59	us		6733.250
		-58	us		7579.500
		-59	us		7579.500
		-60	us	TOP	177.750
		-62	us		210.250

	-61	us	210.250	211.000
	-60	us	211.000	239.750
	-62	us	239.750	244.500
	-65	us	244.500	292.000
	-63	us	292.000	719.250
	-62	us	719.250	720.250
	-61	us	720.250	815.250
	-60	us	815.250	848.250
	-59	us	848.250	849.000
	-58	us	849.000	6528.250
	-60	us	6528.250	6733.250
	-58	us	6733.250	7579.500
	-59	us	7579.500	BOTTOM
TOOL DELAY (str4*)	-60	us	TOP	177.750
	-62	us	177.750	210.250
	-61	us	210.250	211.000
	-60	us	211.000	239.750
	-62	us	239.750	244.500
	-65	us	244.500	292.000
	-63	us	292.000	719.250
	-62	us	719.250	720.250
	-61	us	720.250	815.250
	-60	us	815.250	848.250
	-59	us	848.250	849.000
	-58	us	849.000	6528.250
	-60	us	6528.250	6733.250
	-58	us	6733.250	7579.500
	-59	us	7579.500	BOTTOM
TOOL DELAY (str5*)	-60	us	TOP	177.750
	-62	us	177.750	210.250
	-61	us	210.250	211.000
	-60	us	211.000	239.750
	-62	us	239.750	244.500
	-65	us	244.500	292.000
	-63	us	292.000	719.250
	-62	us	719.250	720.250
	-61	us	720.250	815.250
	-60	us	815.250	848.250
	-59	us	848.250	849.000
	-58	us	849.000	6528.250
	-60	us	6528.250	6733.250
	-58	us	6733.250	7579.500
	-59	us	7579.500	BOTTOM
TOOL DELAY (str6*)	-60	us	TOP	177.750
	-62	us	177.750	210.250
	-61	us	210.250	211.000
	-60	us	211.000	239.750
	-62	us	239.750	244.500
	-65	us	244.500	292.000
	-63	us	292.000	719.250
	-62	us	719.250	720.250
	-61	us	720.250	815.250
	-60	us	815.250	848.250
	-59	us	848.250	849.000
	-58	us	849.000	6528.250
	-60	us	6528.250	6733.250
	-58	us	6733.250	7579.500
	-59	us	7579.500	BOTTOM
TOOL DELAY (str7*)	-60	us	TOP	177.750
	-62	us	177.750	210.250
	-61	us	210.250	211.000
	-60	us	211.000	239.750
	-62	us	239.750	244.500
	-65	us	244.500	292.000
	-63	us	292.000	719.250
	-62	us	719.250	720.250
	-61	us	720.250	815.250
	-60	us	815.250	848.250
	-59	us	848.250	849.000
	-58	us	849.000	6528.250
	-60	us	6528.250	6733.250
	-58	us	6733.250	7579.500
	-59	us	7579.500	BOTTOM
TOOL DELAY (str8*)	-60	us	TOP	177.750
	-62	us	177.750	210.250
	-61	us	210.250	211.000
	-60	us	211.000	239.750
	-62	us	239.750	244.500
	-65	us	244.500	292.000
	-63	us	292.000	719.250
	-62	us	719.250	720.250
	-61	us	720.250	815.250
	-60	us	815.250	848.250
	-59	us	848.250	849.000
	-58	us	849.000	6528.250
	-60	us	6528.250	6733.250
	-58	us	6733.250	7579.500
	-59	us	7579.500	BOTTOM
TOOL DELAY (strn*)	-60	us	TOP	177.750
	-62	us	177.750	210.250
	-61	us	210.250	211.000
	-60	us	211.000	239.750
	-62	us	239.750	244.500
	-65	us	244.500	292.000
	-63	us	292.000	719.250
	-62	us	719.250	720.250
	-61	us	720.250	815.250
	-60	us	815.250	848.250
	-59	us	848.250	849.000
	-58	us	849.000	6528.250
	-60	us	6528.250	6733.250
	-58	us	6733.250	7579.500
	-59	us	7579.500	BOTTOM

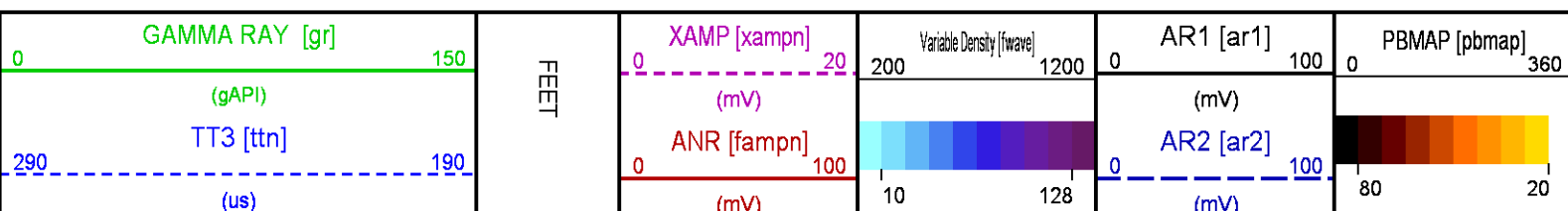
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		-60	us	815.250	848.250
		-59	us	848.250	849.000
		-58	us	849.000	6528.250
		-60	us	6528.250	6733.250
		-58	us	6733.250	7579.500
		-59	us	7579.500	BOTTOM
BASELINE NOISE (NEAR)	NOISE WINDOW START	125	us	TOP	BOTTOM
	NOISE WINDOW LENGTH	25	us	"	"

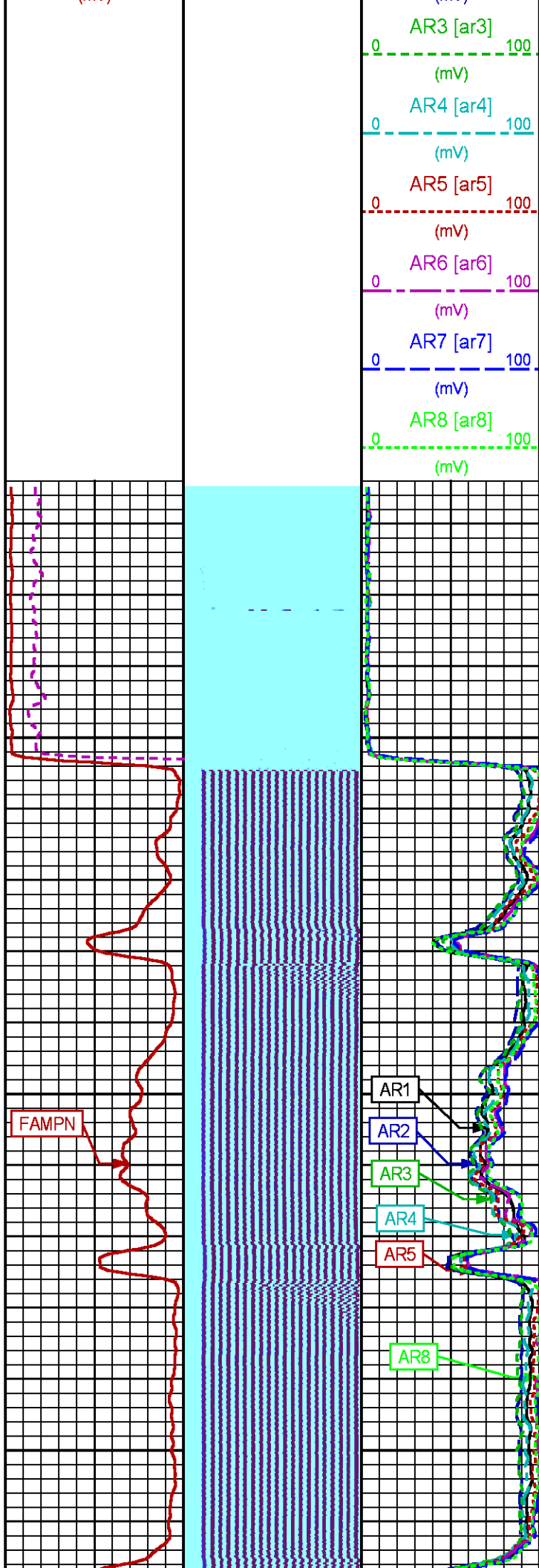
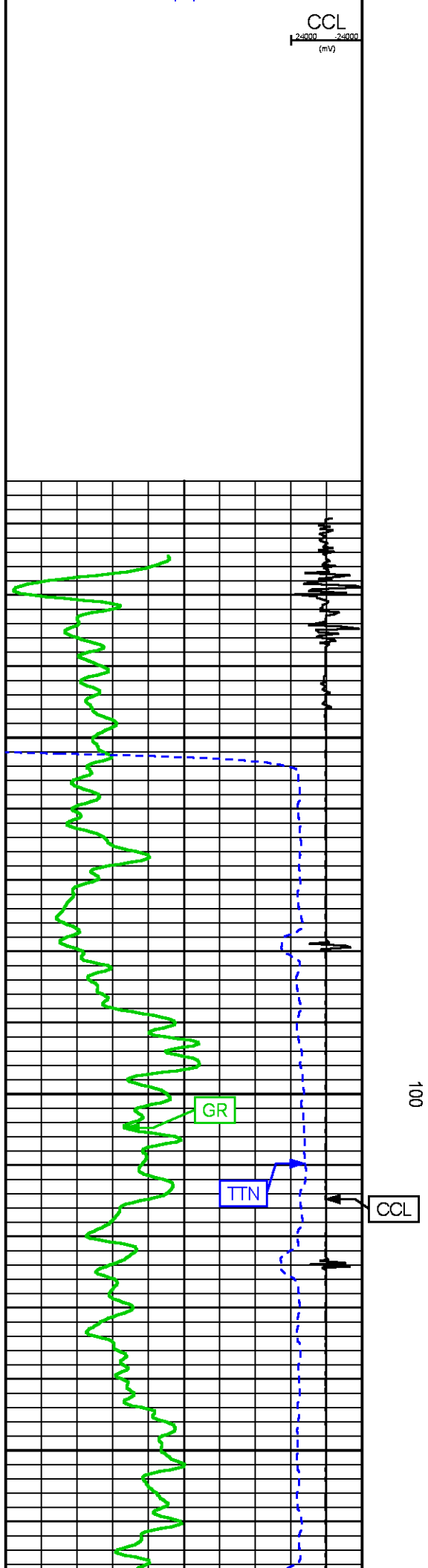
PERCENT BOND CEMENT MAP					
MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
RAL FREE PIPE AMPLITUDE	FREE AMP REC 1	80	mV	TOP	BOTTOM
	FREE AMP REC 2	80	mV	"	"
	FREE AMP REC 3	80	mV	"	"
	FREE AMP REC 4	80	mV	"	"
	FREE AMP REC 5	80	mV	"	"
	FREE AMP REC 6	80	mV	"	"
	FREE AMP REC 7	80	mV	"	"
	FREE AMP REC 8	80	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	"	"

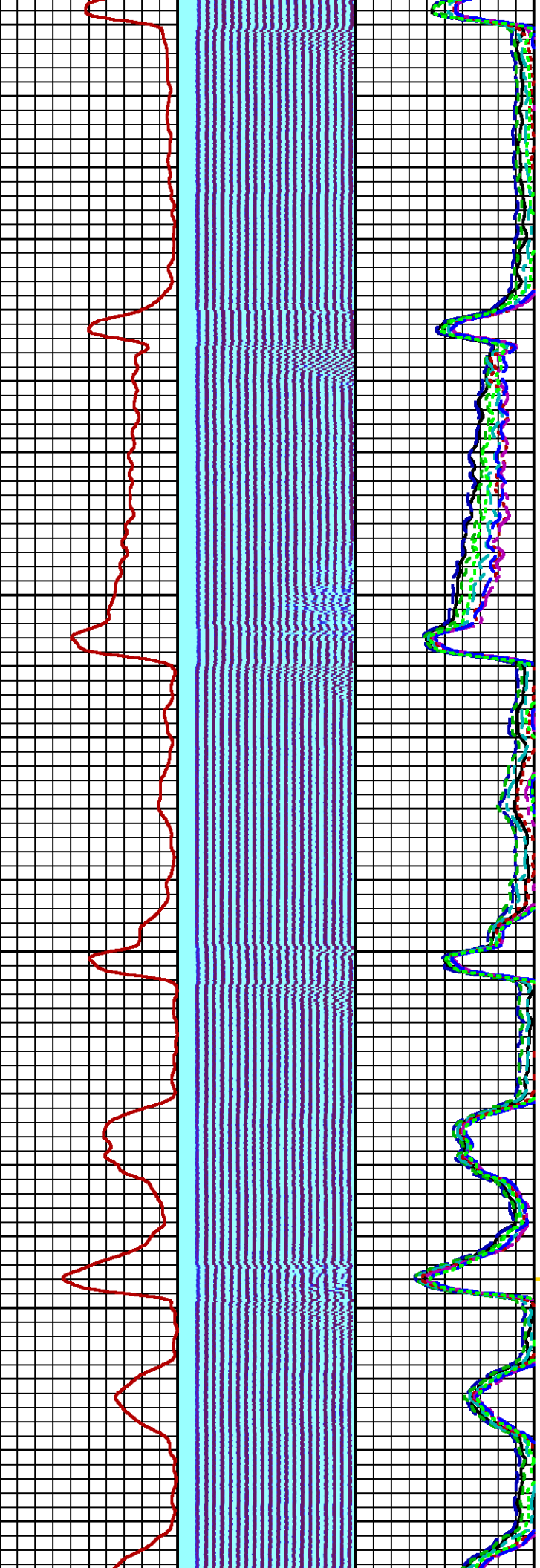
CURVE DESCRIPTION REPORT		
CURVE NAME	CREATION DATE	CURVE DESCRIPTION
F1:AR1	Aug 27 10:42:16 2017	FIXED GATE AMPLITUDE T-R1
F1:AR2	Aug 27 10:42:16 2017	FIXED GATE AMPLITUDE T-R2
F1:AR3	Aug 27 10:42:16 2017	FIXED GATE AMPLITUDE T-R3
F1:AR4	Aug 27 10:42:16 2017	FIXED GATE AMPLITUDE T-R4
F1:AR5	Aug 27 10:42:16 2017	FIXED GATE AMPLITUDE T-R5
F1:AR6	Aug 27 10:42:16 2017	FIXED GATE AMPLITUDE T-R6
F1:AR7	Aug 27 10:42:16 2017	FIXED GATE AMPLITUDE T-R7
F1:AR8	Aug 27 10:42:16 2017	FIXED GATE AMPLITUDE T-R8
F1:CCL	Aug 27 10:42:16 2017	CASING COLLAR LOCATOR
F1:FAMPN	Aug 27 10:42:16 2017	FIXED GATE AMPLITUDE NEAR RECEIVER
F1:FWAVE	Aug 27 10:42:16 2017	FAR WAVE FORM
F1:GR	Aug 27 10:42:16 2017	GAMMA RAY
F1:PBMAP	Aug 27 10:42:16 2017	PERCENT BOND CEMENT MAP
F1:TTN	Aug 27 10:42:16 2017	TRAVELTIME FROM NEAR TRANSMITTER-RECEIVER
F1:XAMPN	Aug 27 10:42:16 2017	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	: cpu100:GUNDERSON_20_05E_RAL_MAIN.fvpdf [5"/100' Scale]
Plot Interval	: 14.75 - 7818.75 Feet
Data File 1	: F1 : cpu100:/dat1a/LARAMIE_GUNDERSON_20_05E/GUNDERSON_20_05E_RAL_MAIN.xtf
Created On	: Aug 27 10:42:16 2017
Company	: LARAMIE ENERGY
Well	: GUNDERSON BCU 20-05E
Field	: VEGA
File Interval	: 13.75 - 7820 Feet
OCT	: n012g

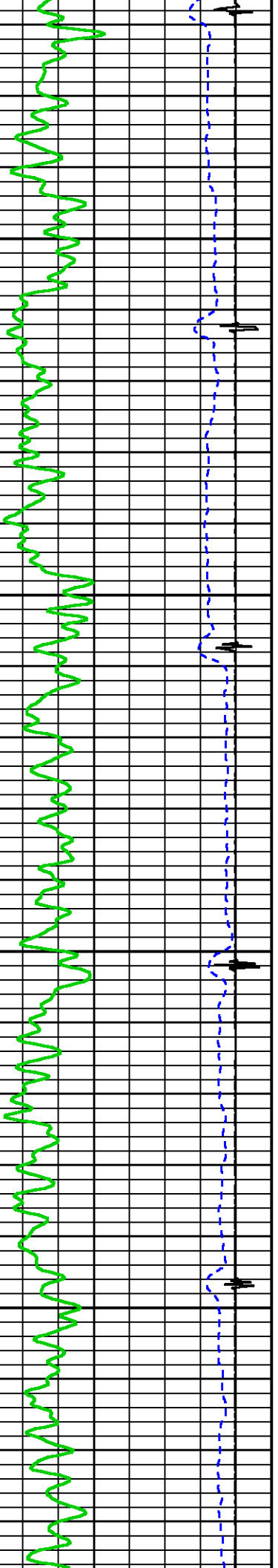


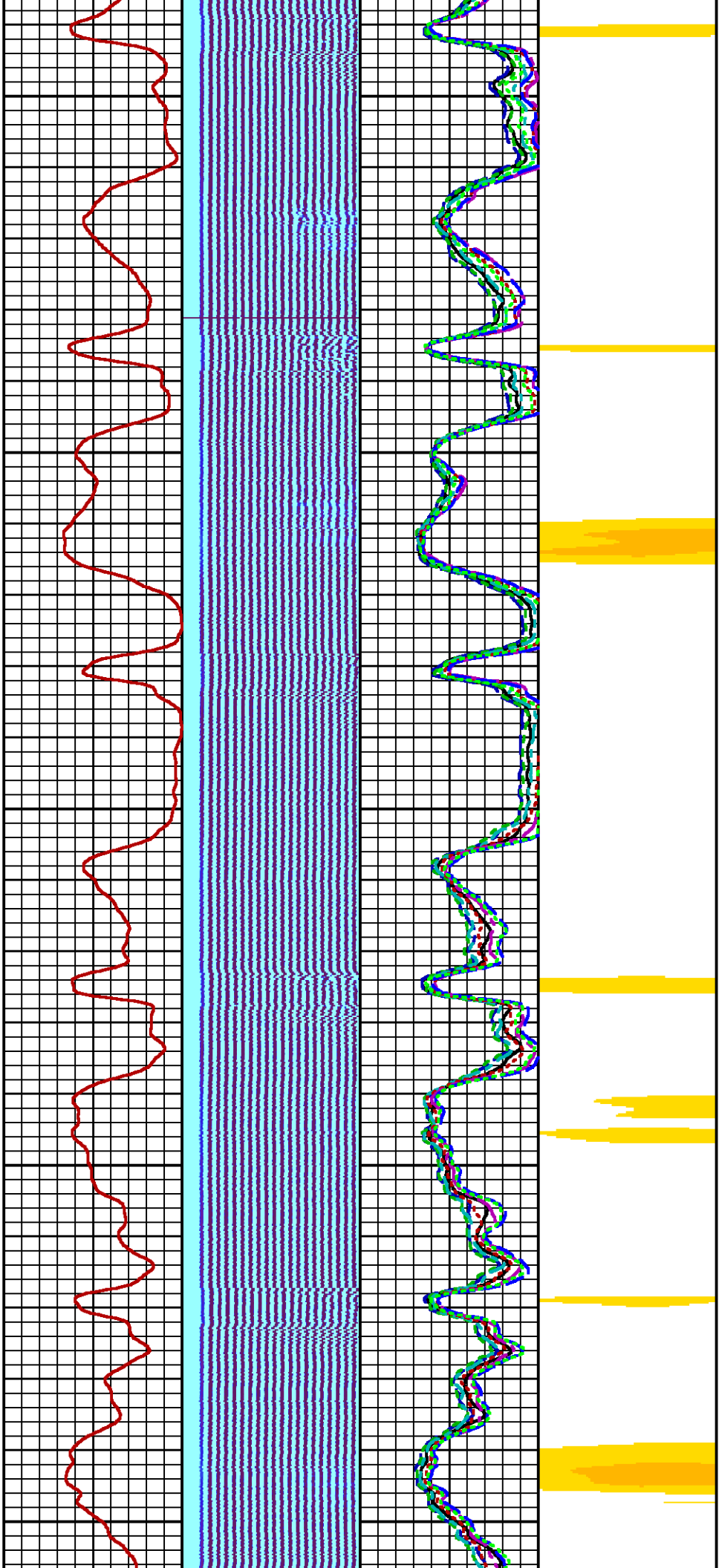




200

300

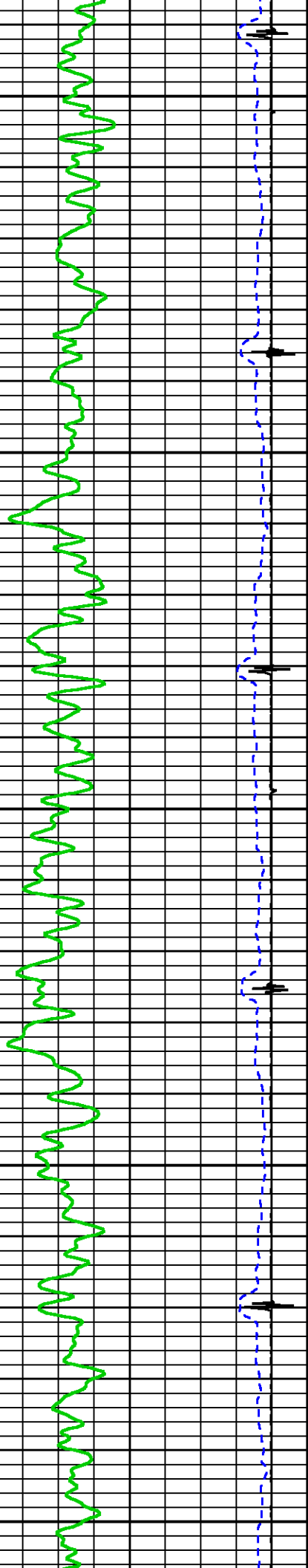


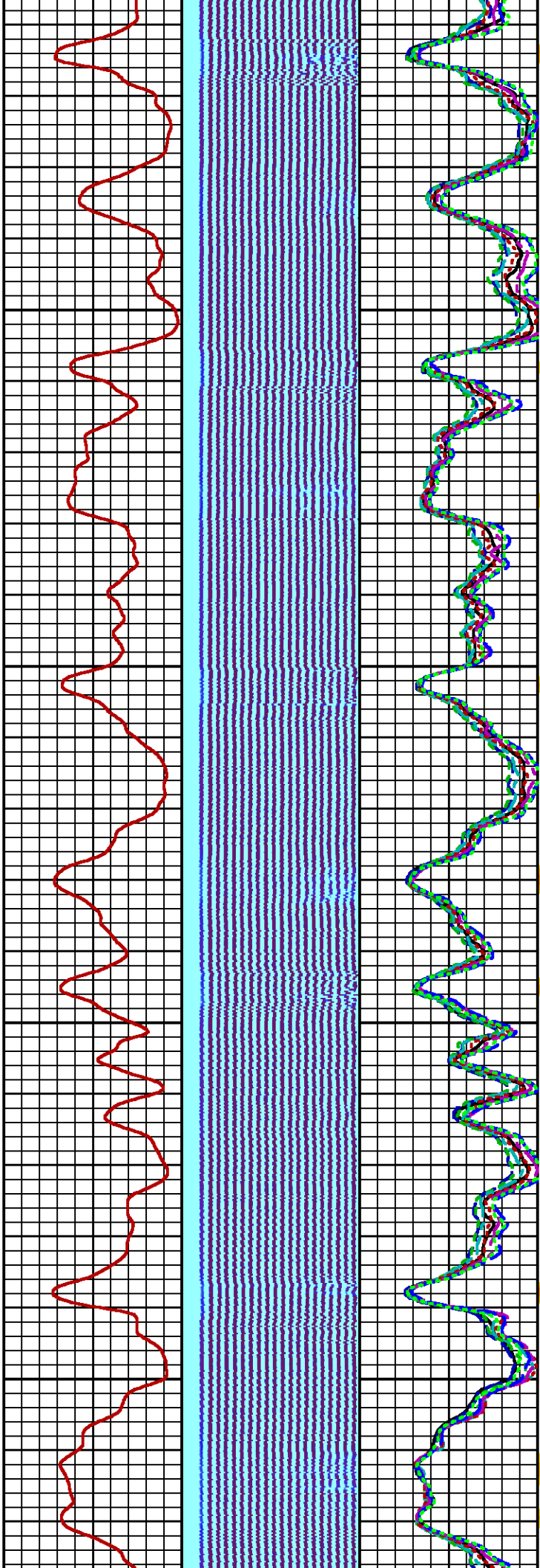


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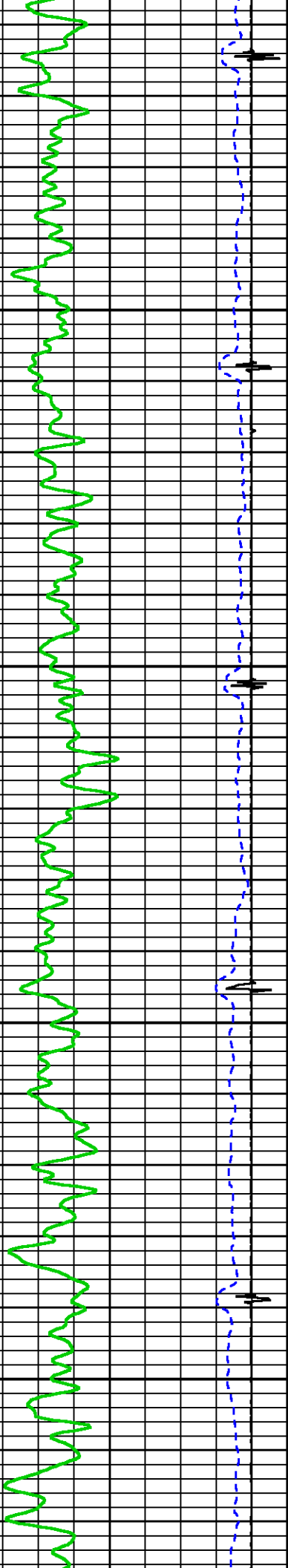
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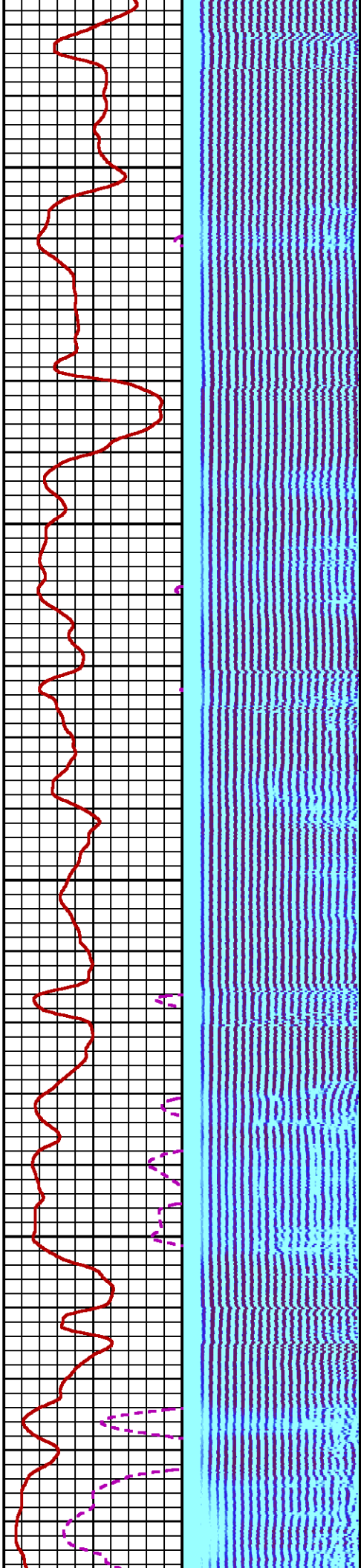
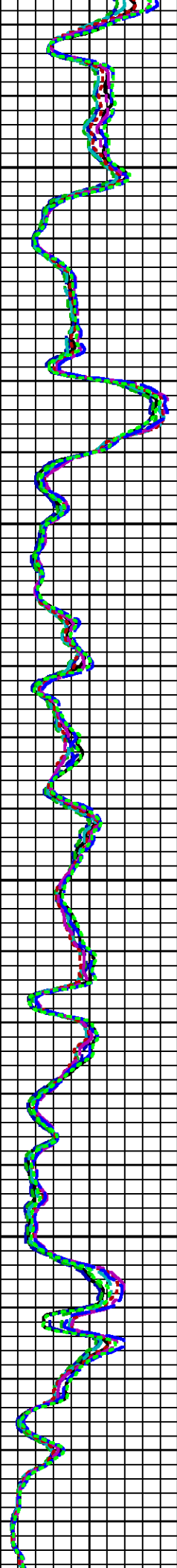




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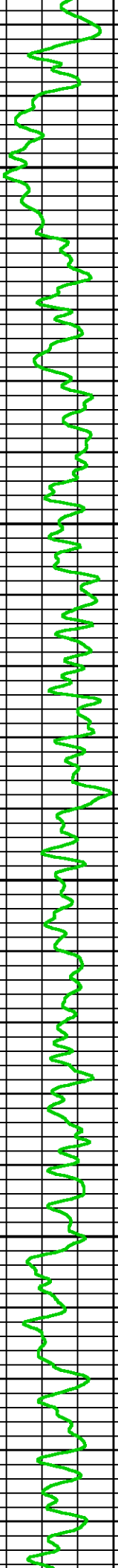
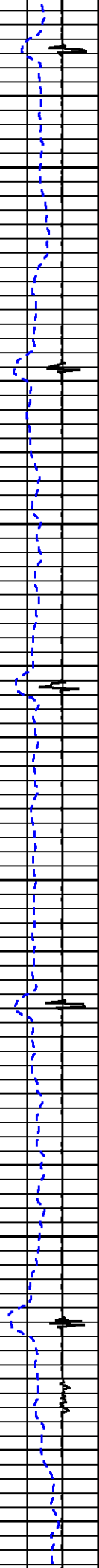
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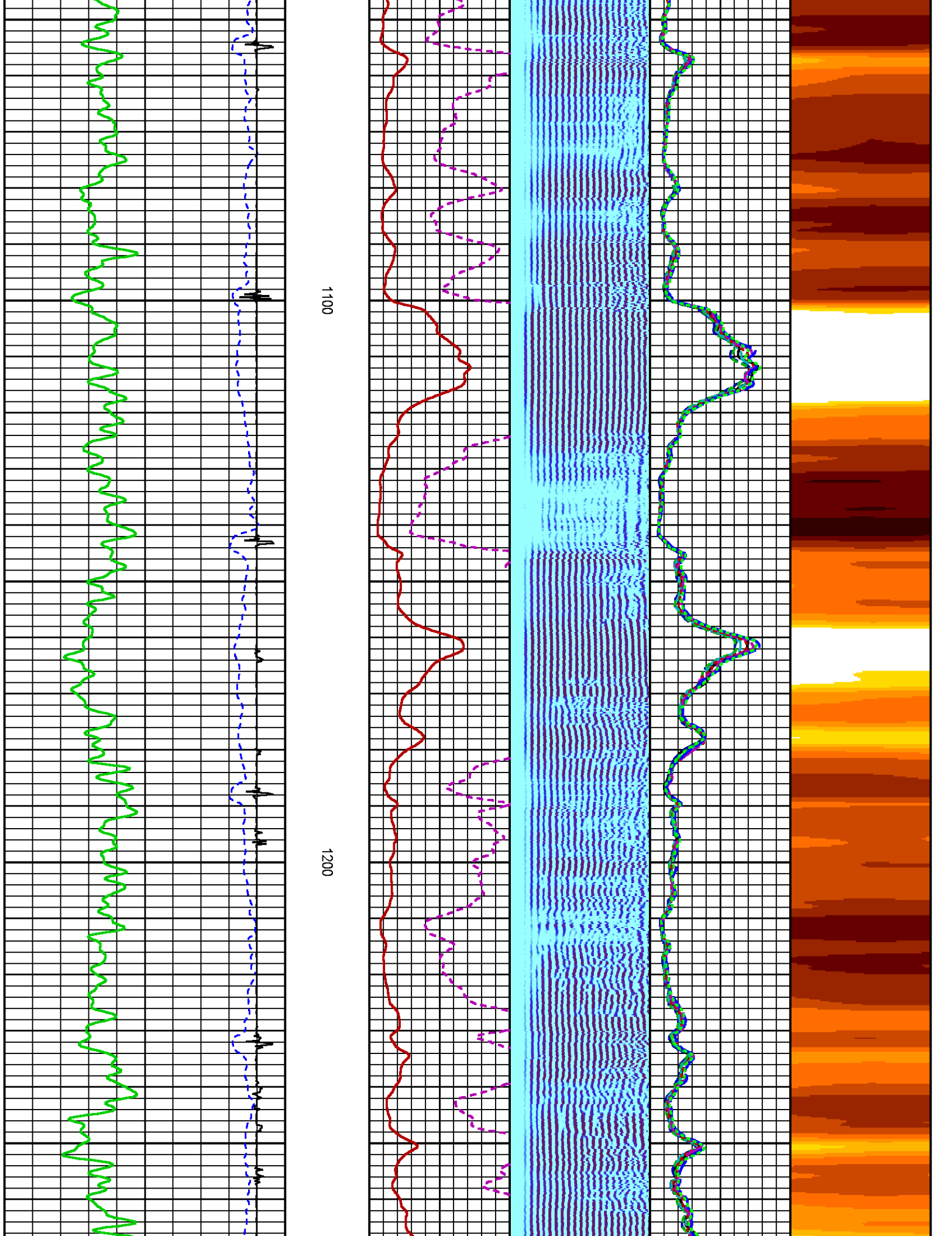


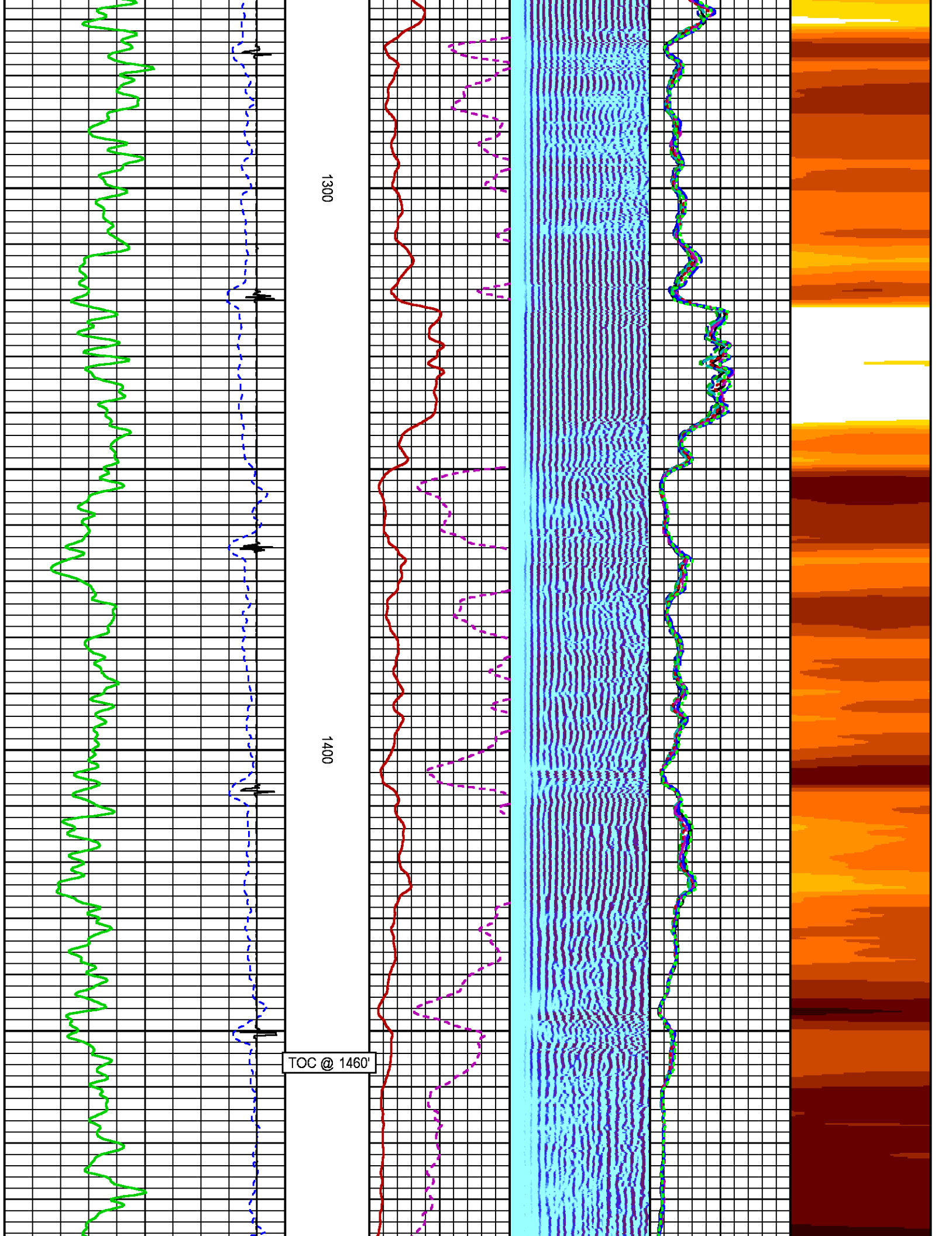


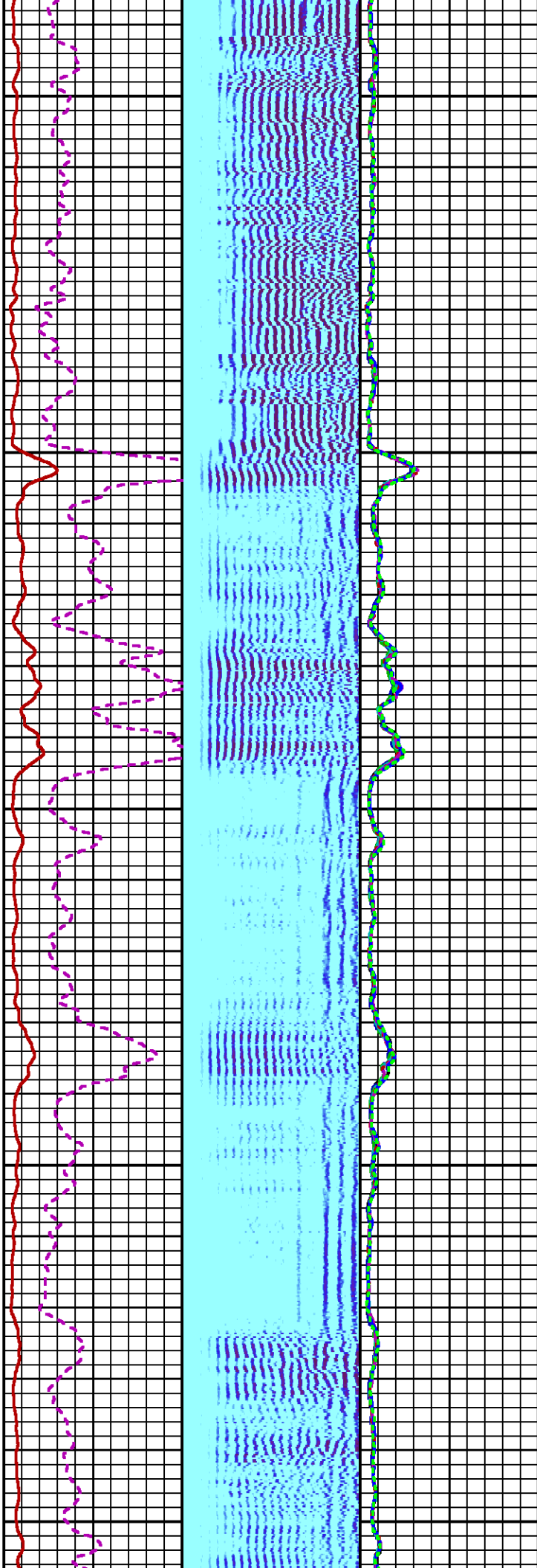
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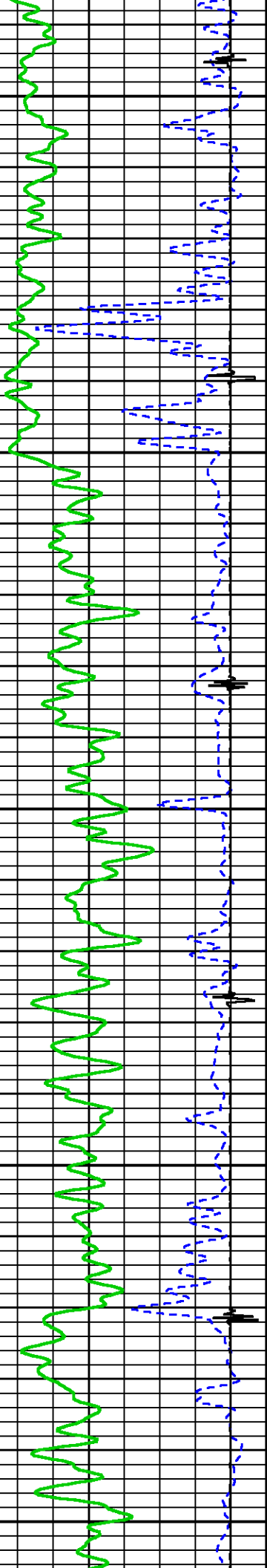


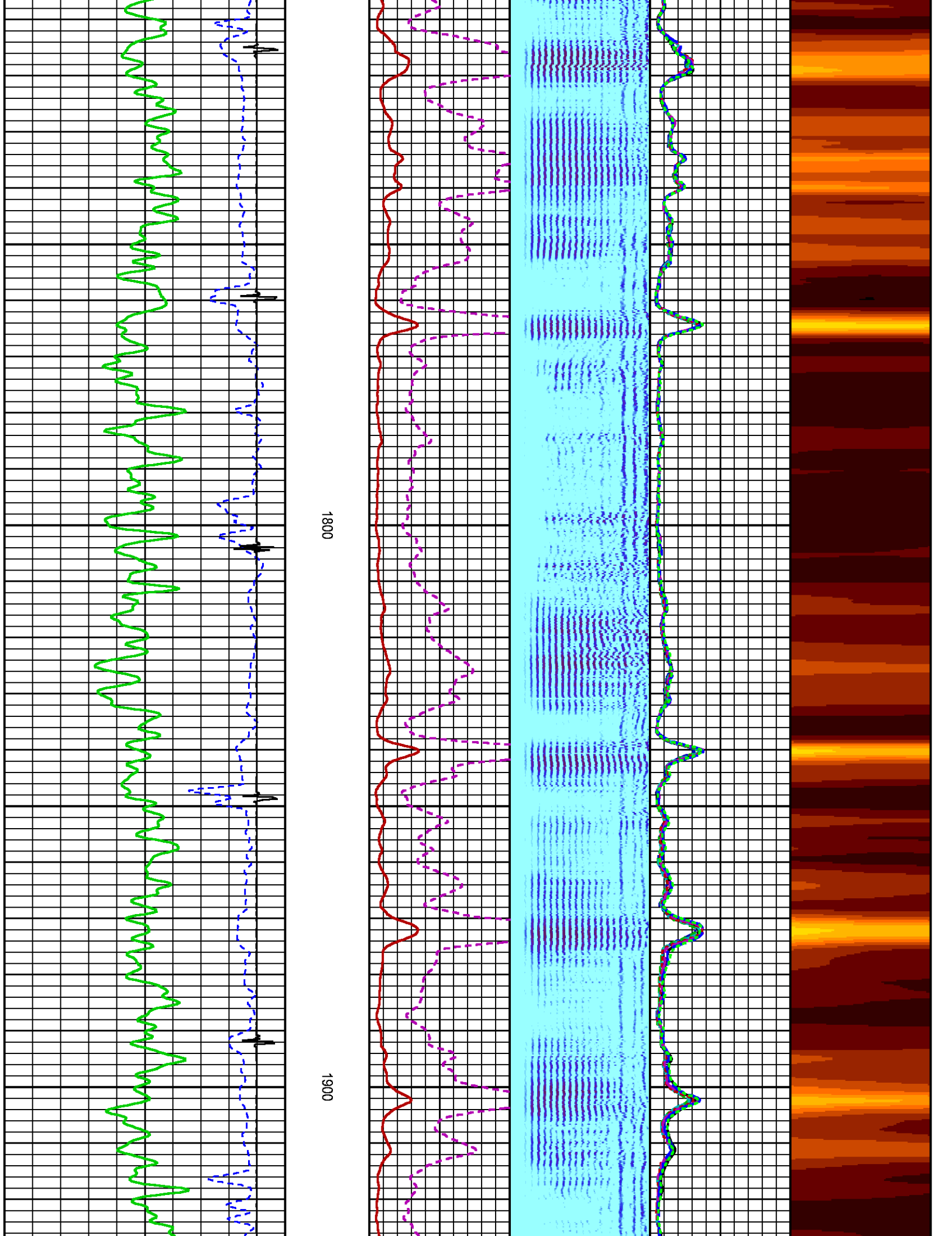


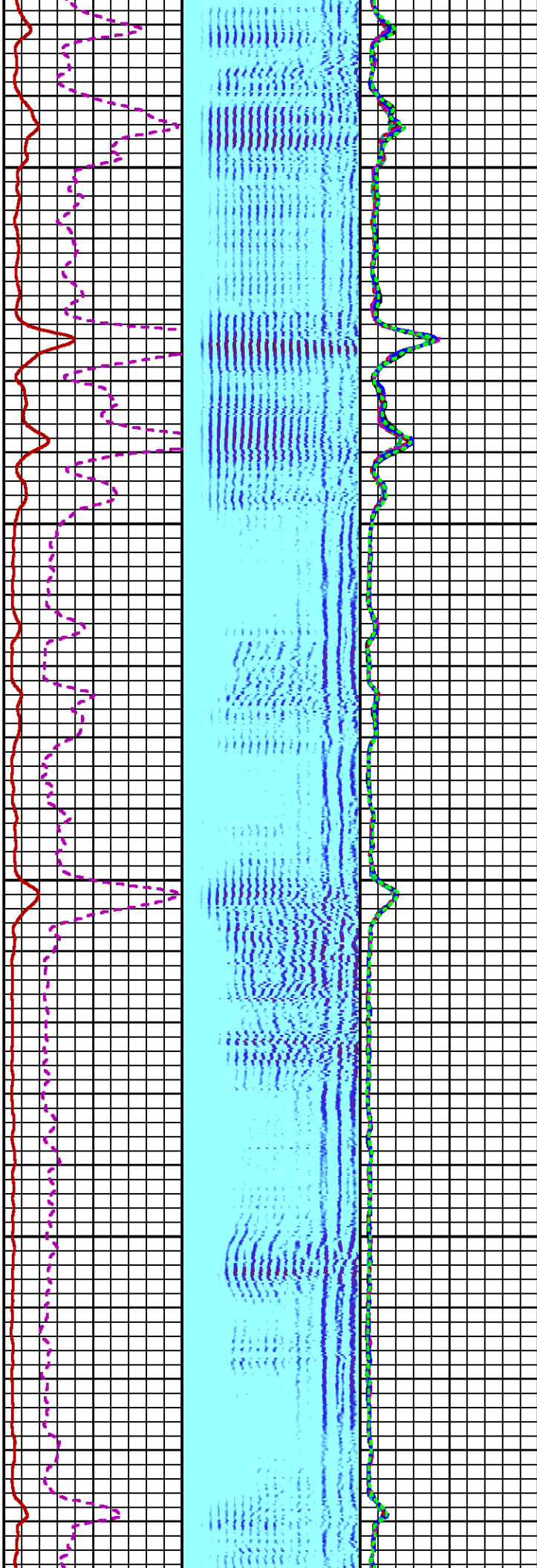
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1700

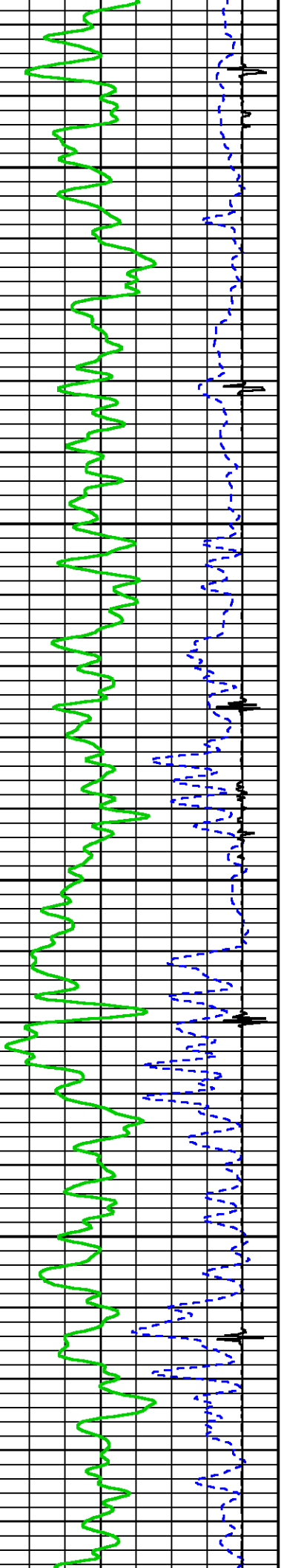


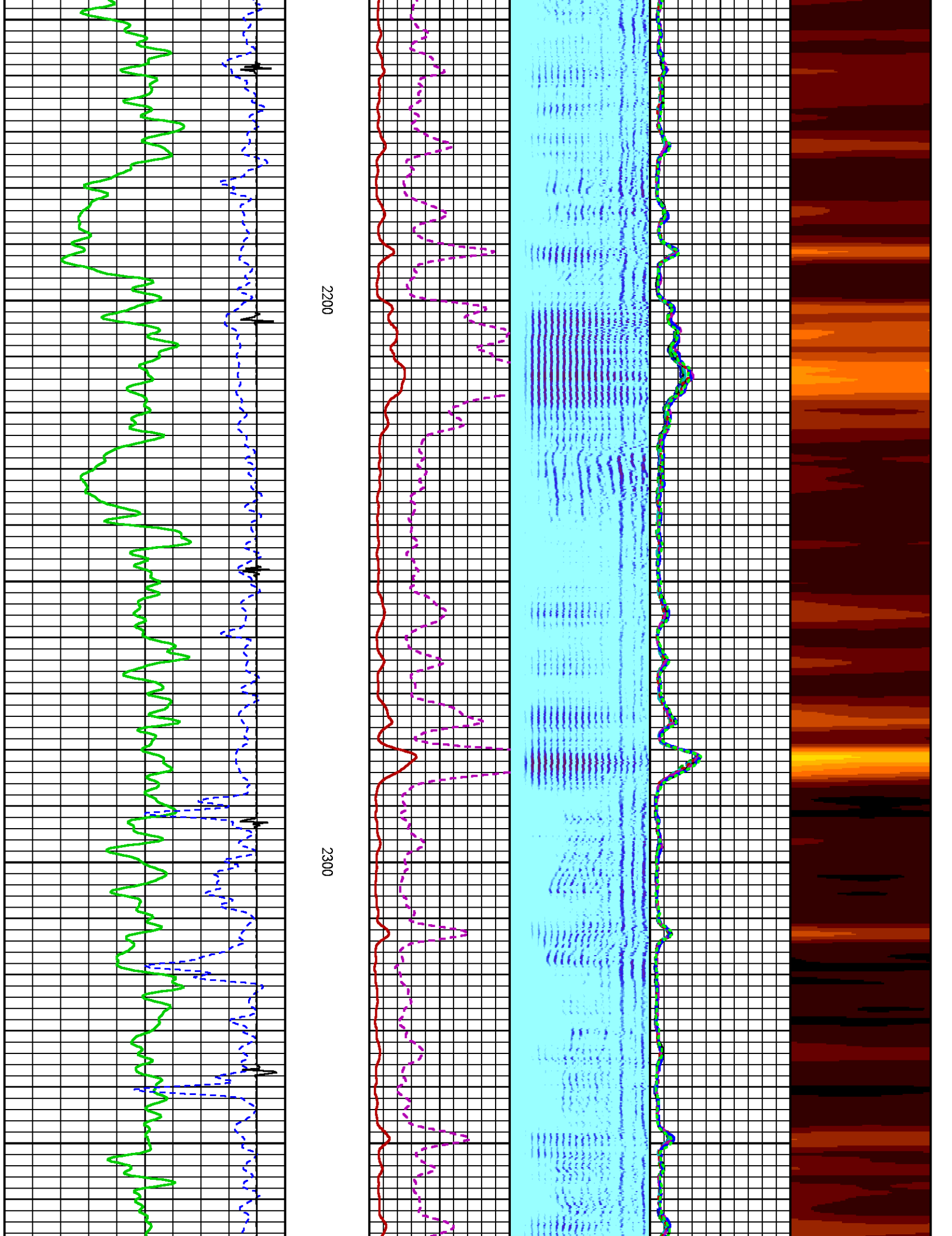


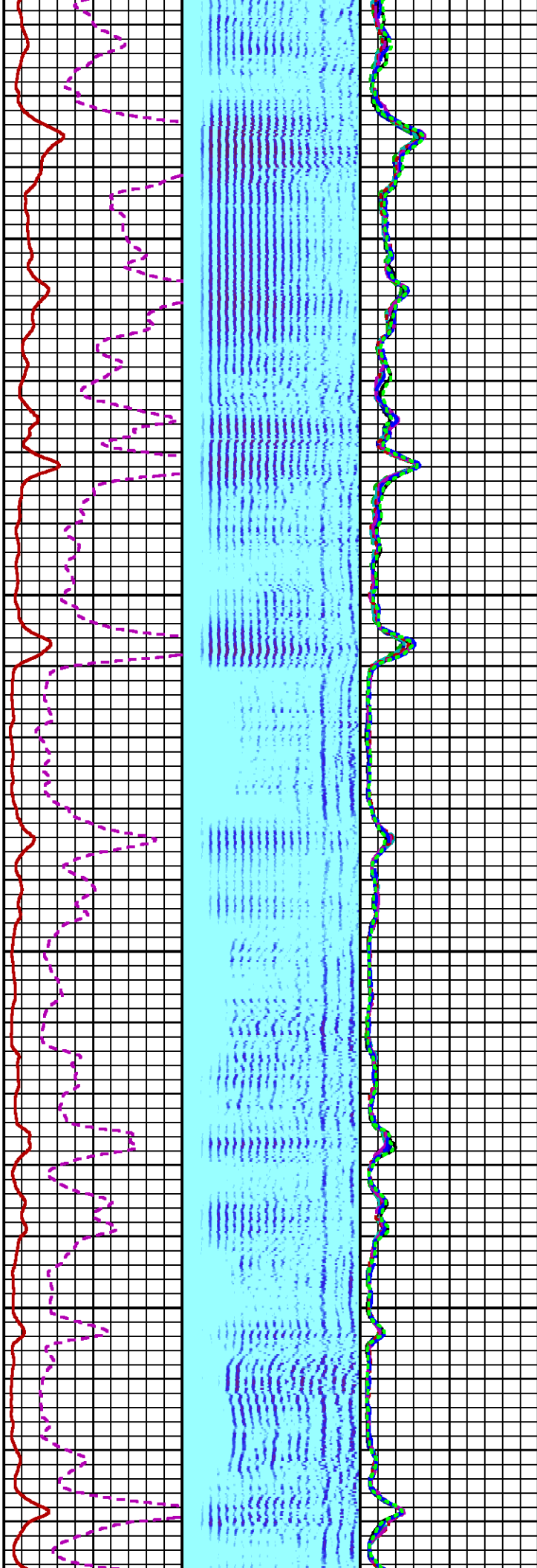


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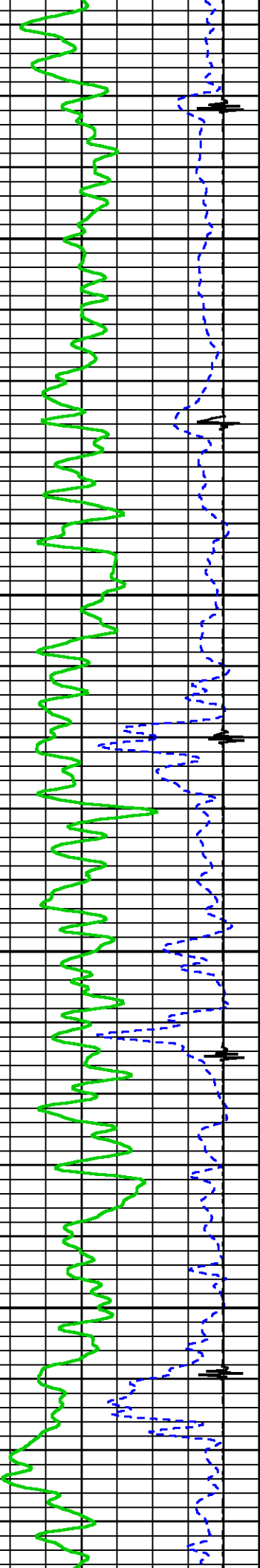


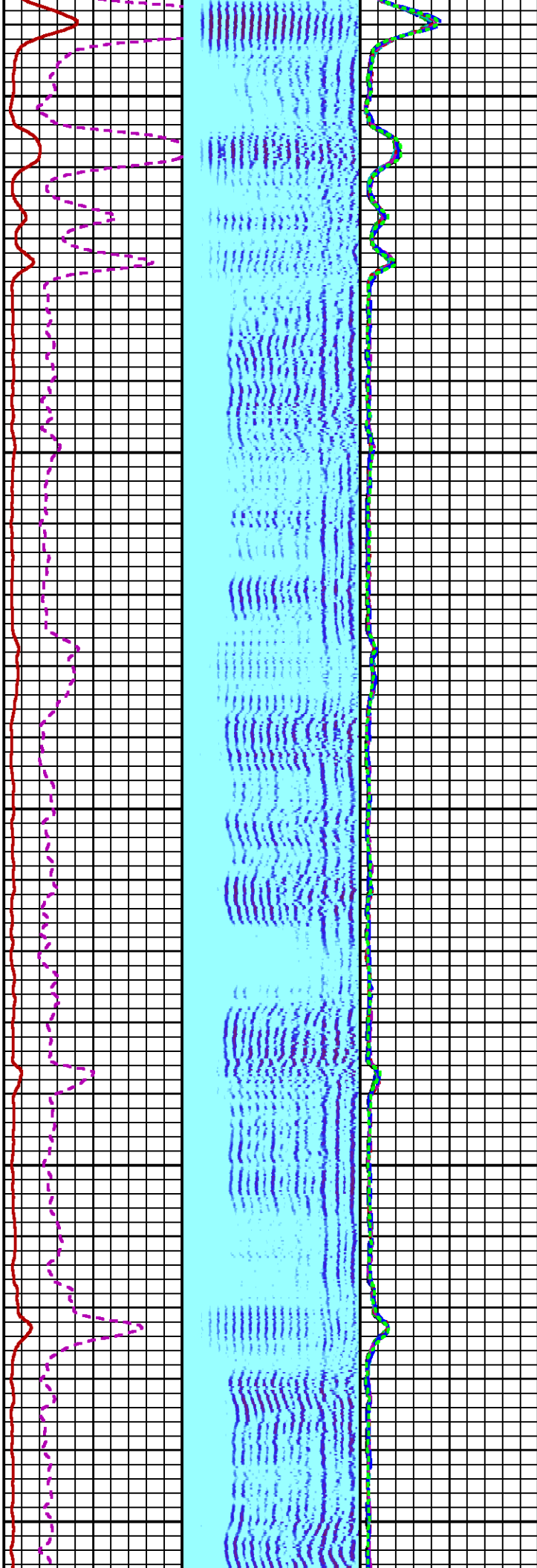




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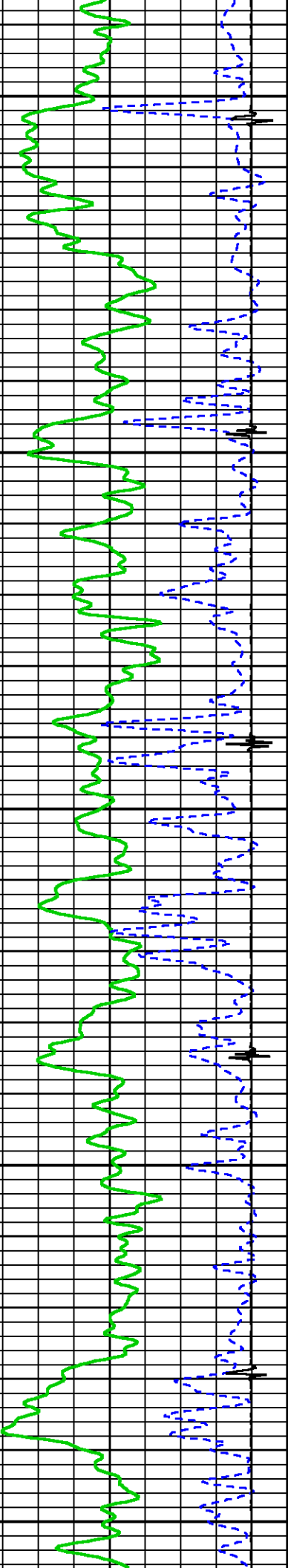


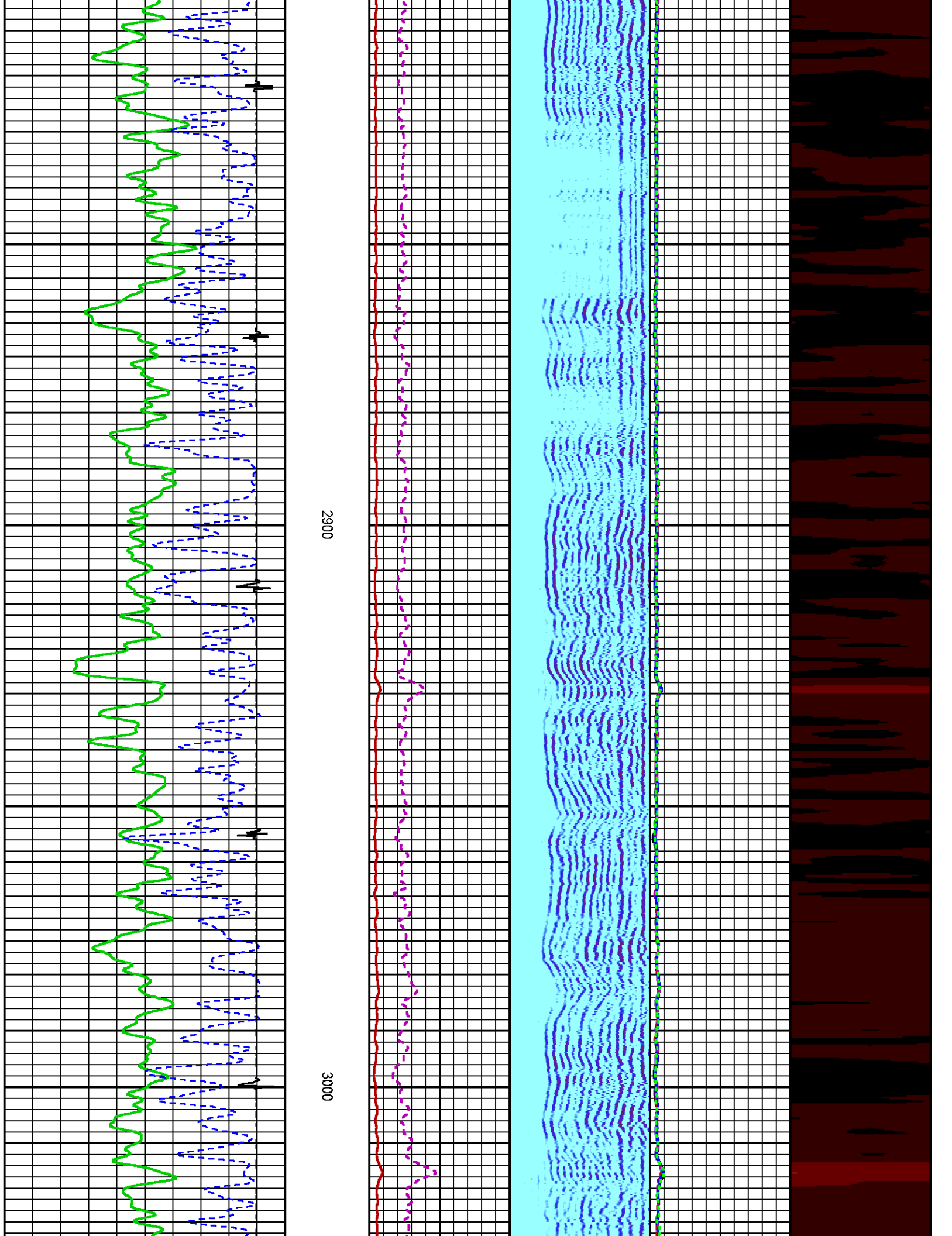


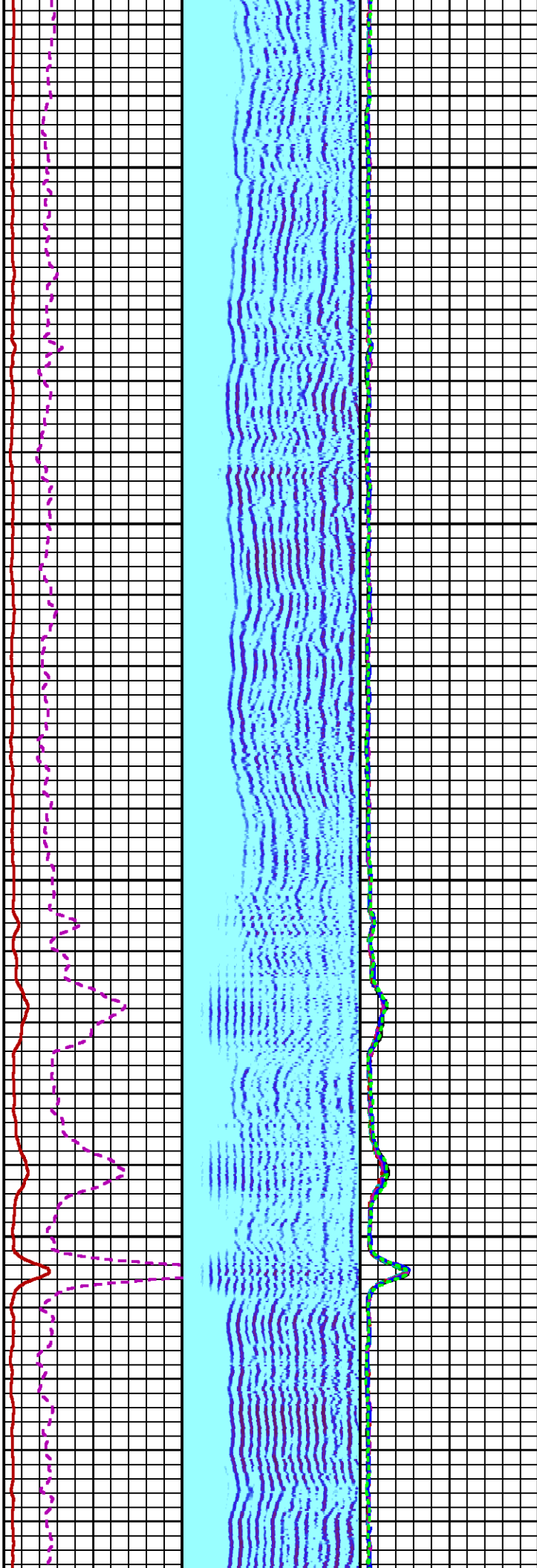
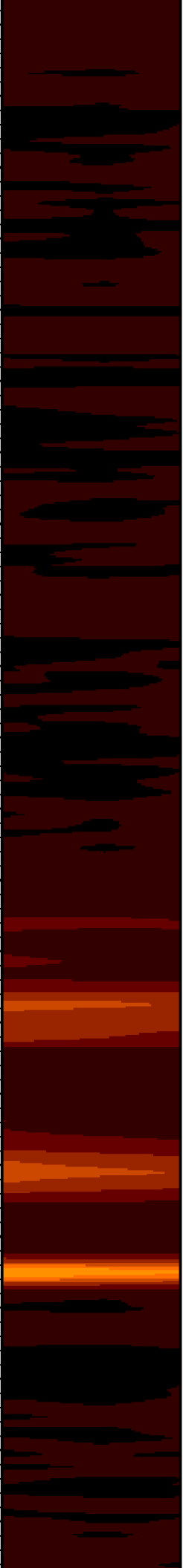
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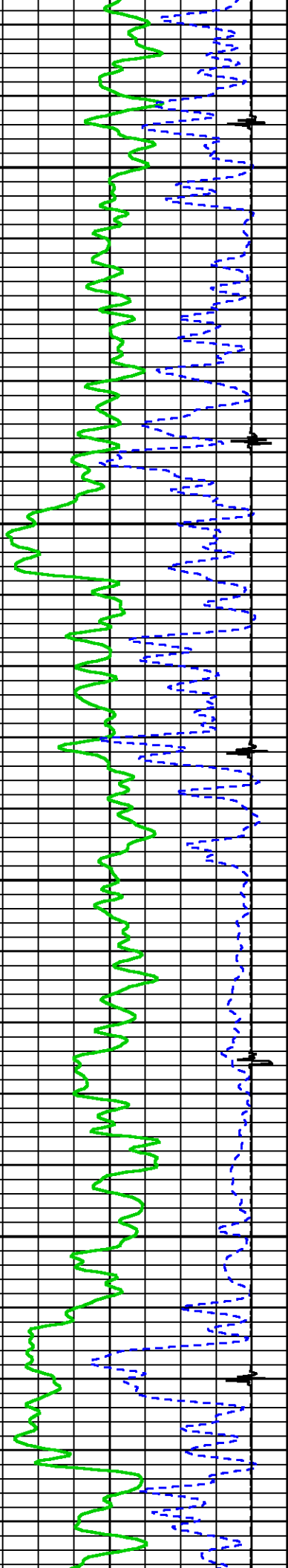


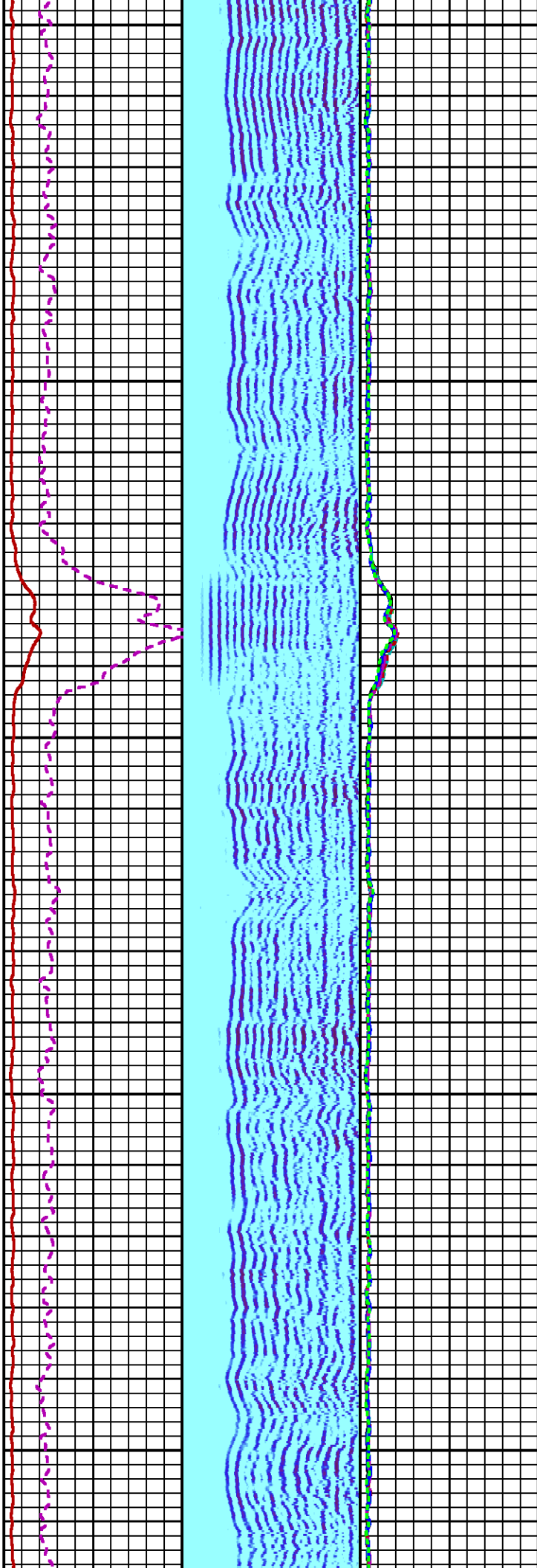
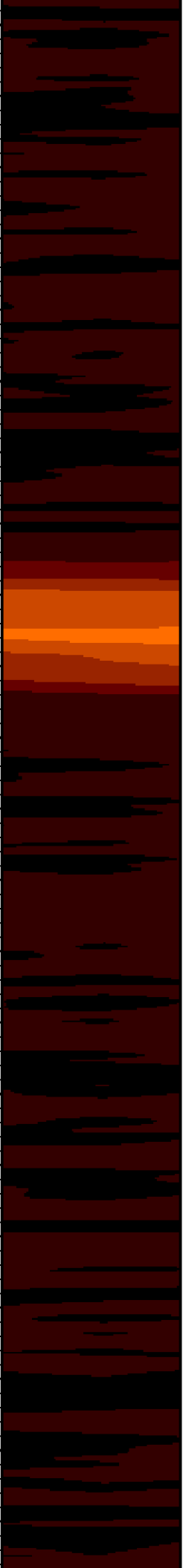




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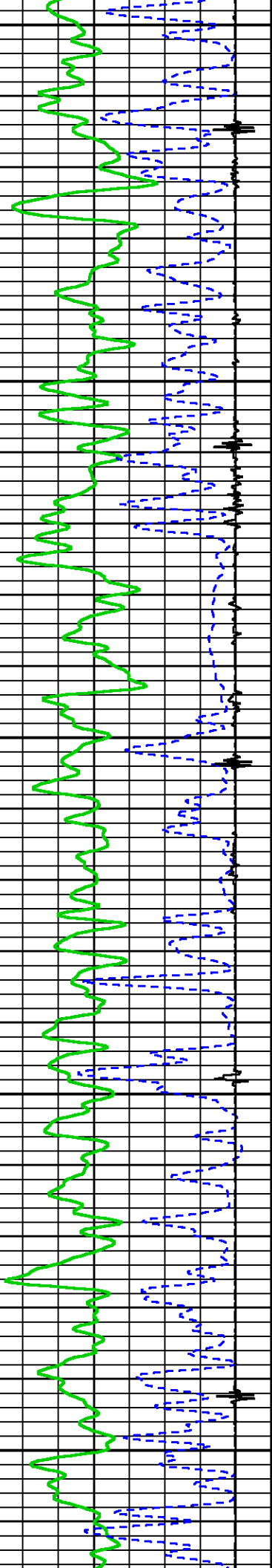
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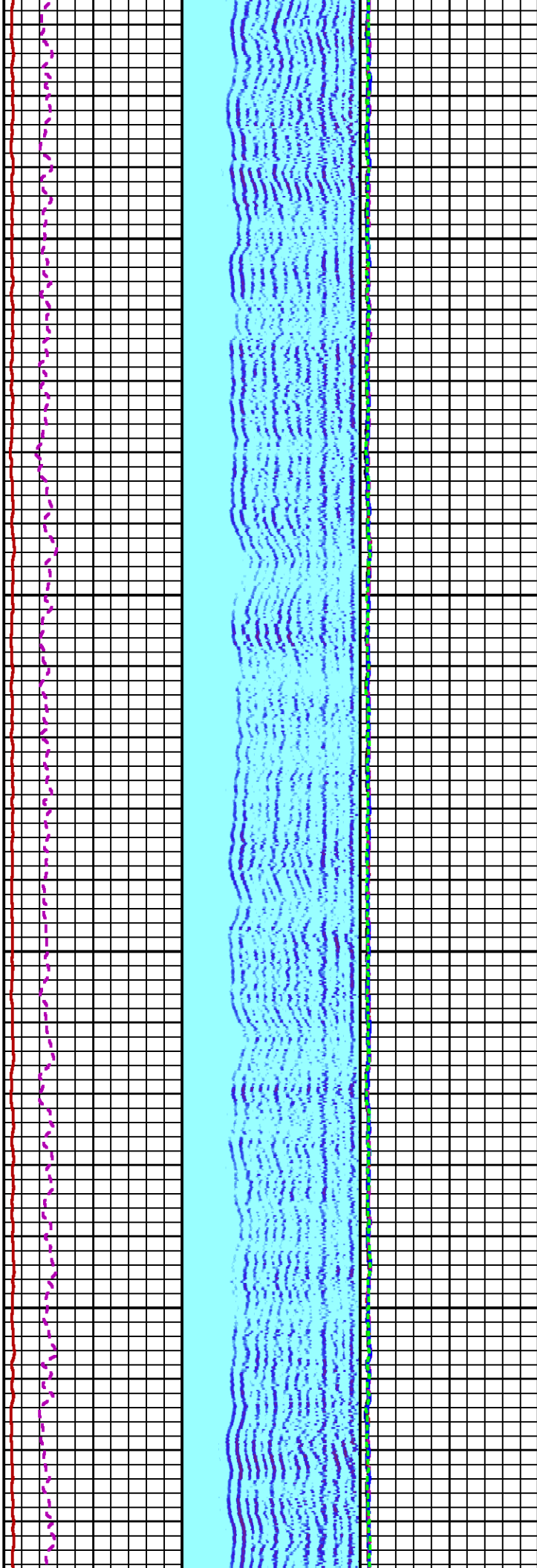
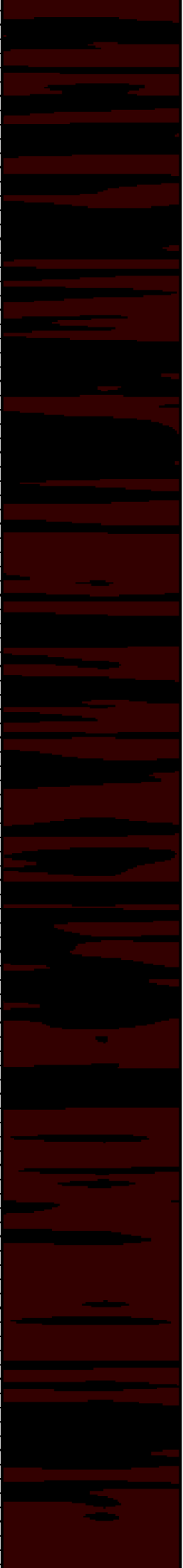




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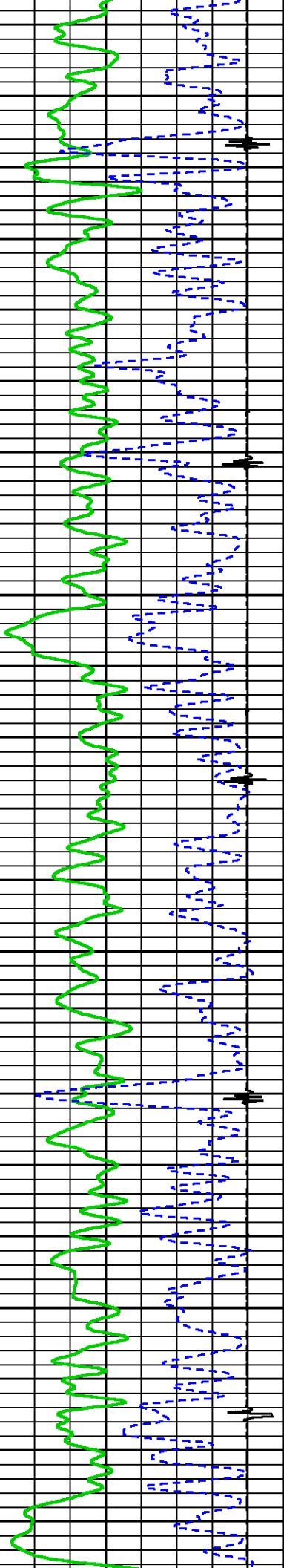
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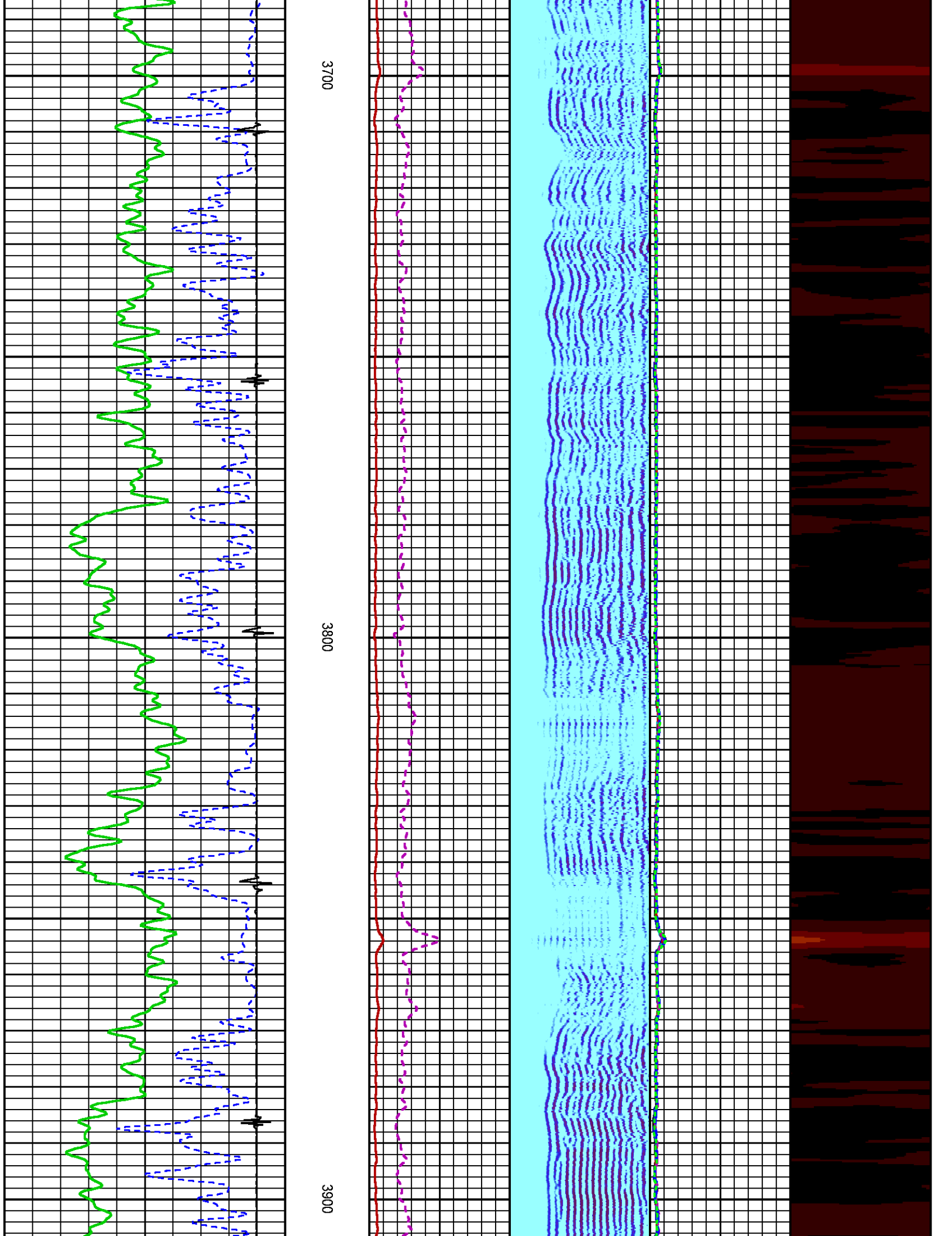


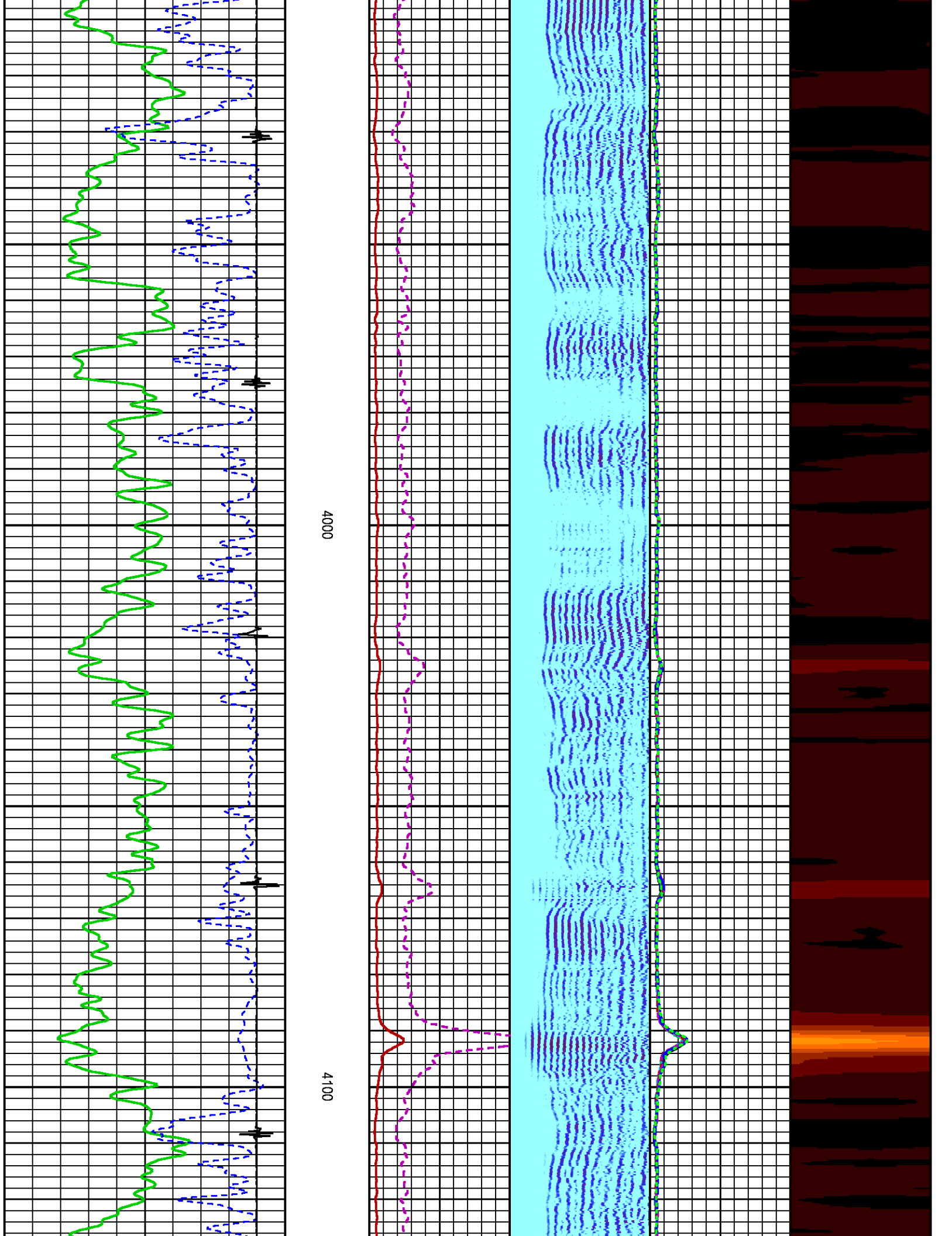


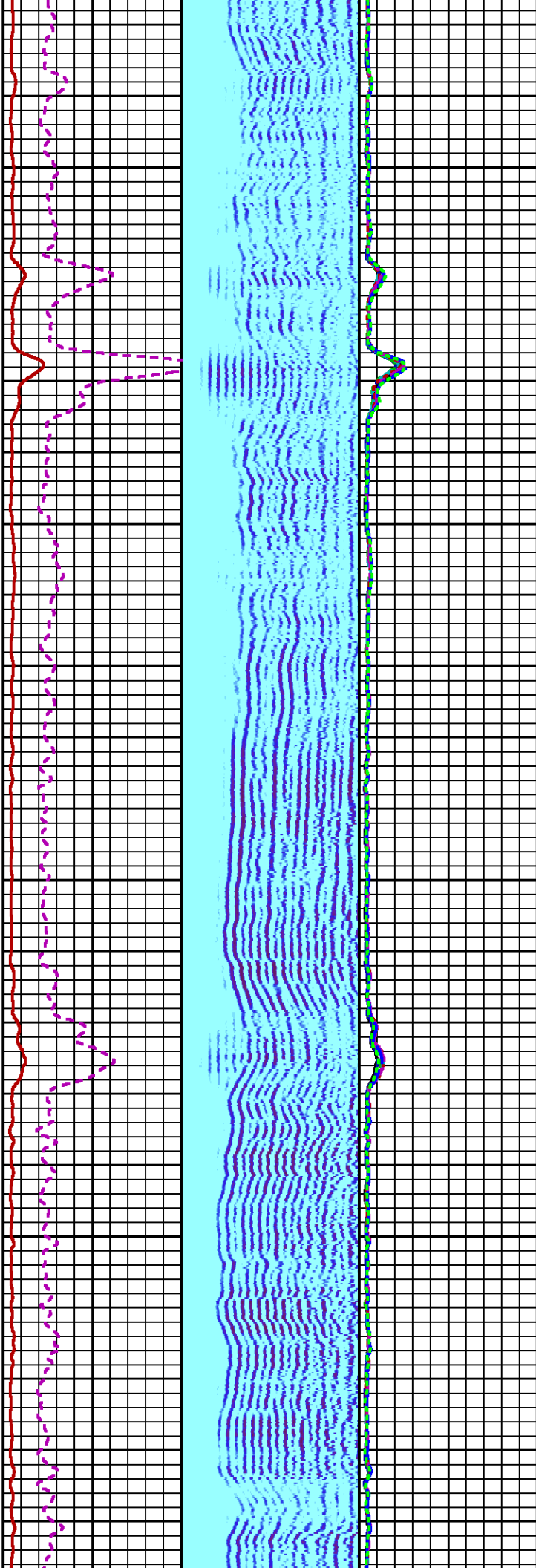
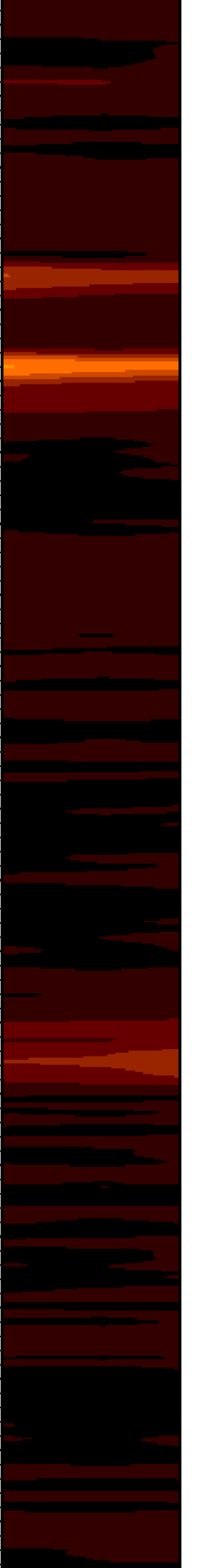
3500

3600



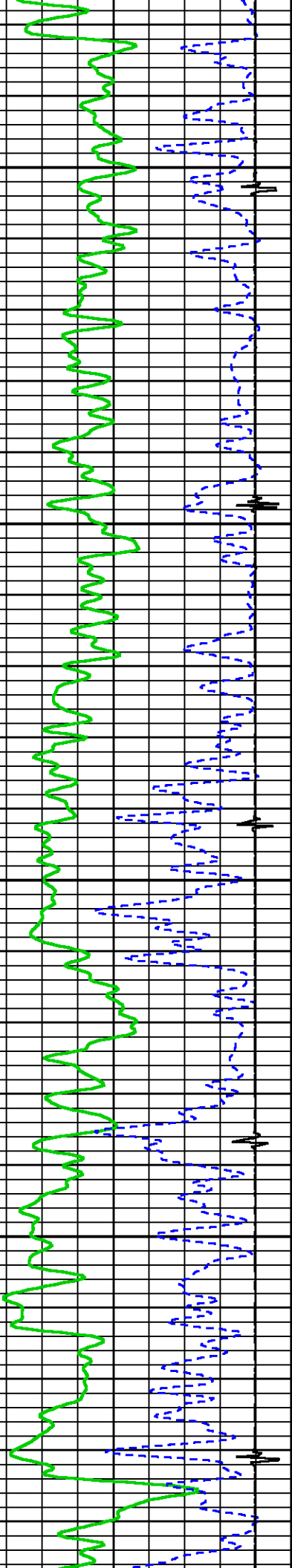


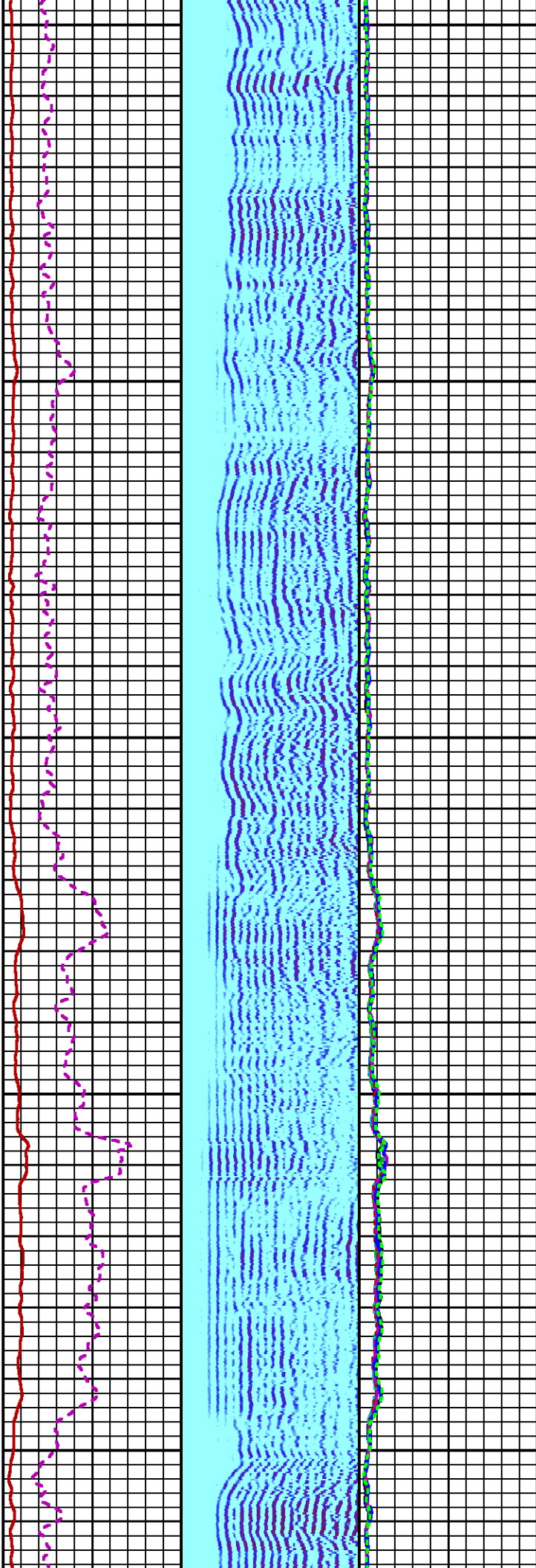




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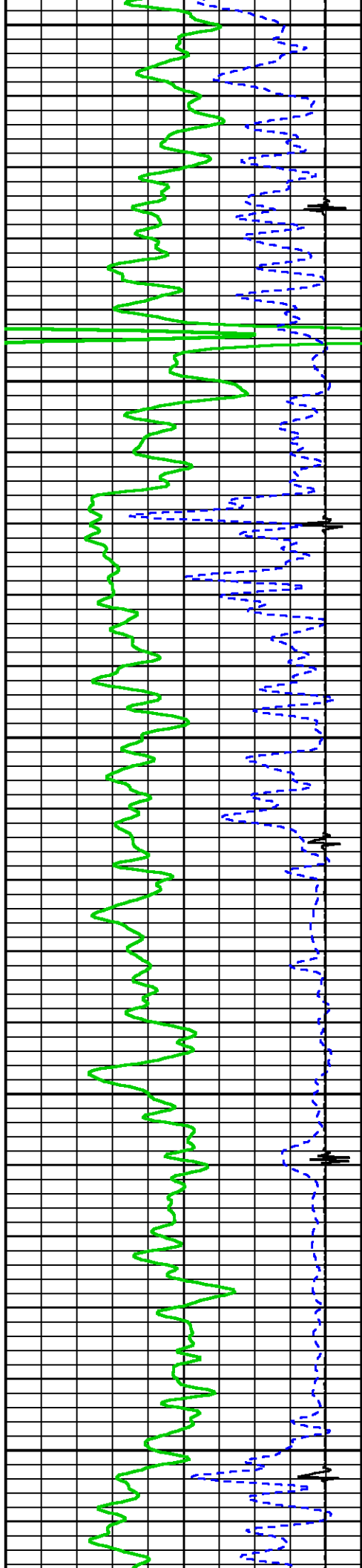
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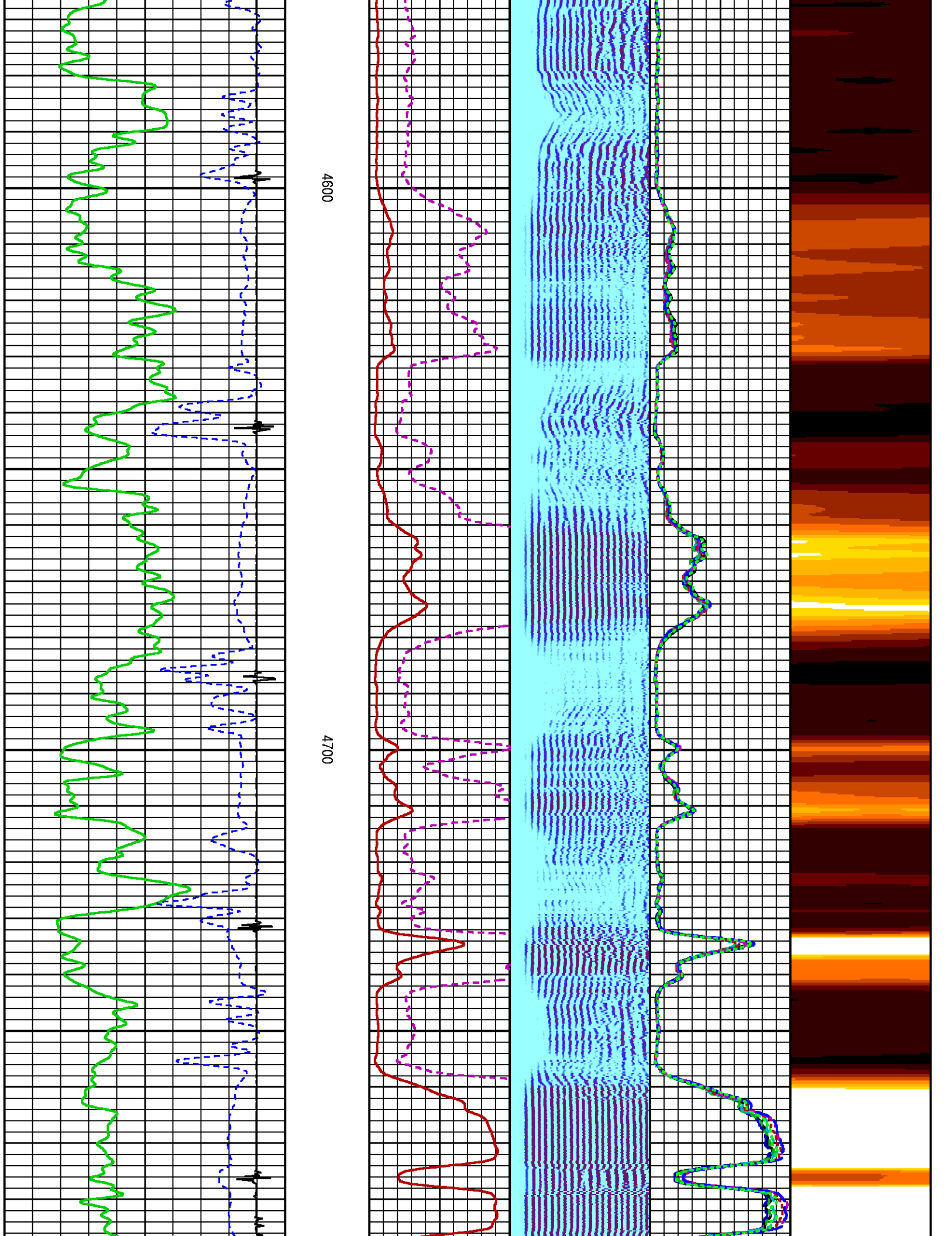


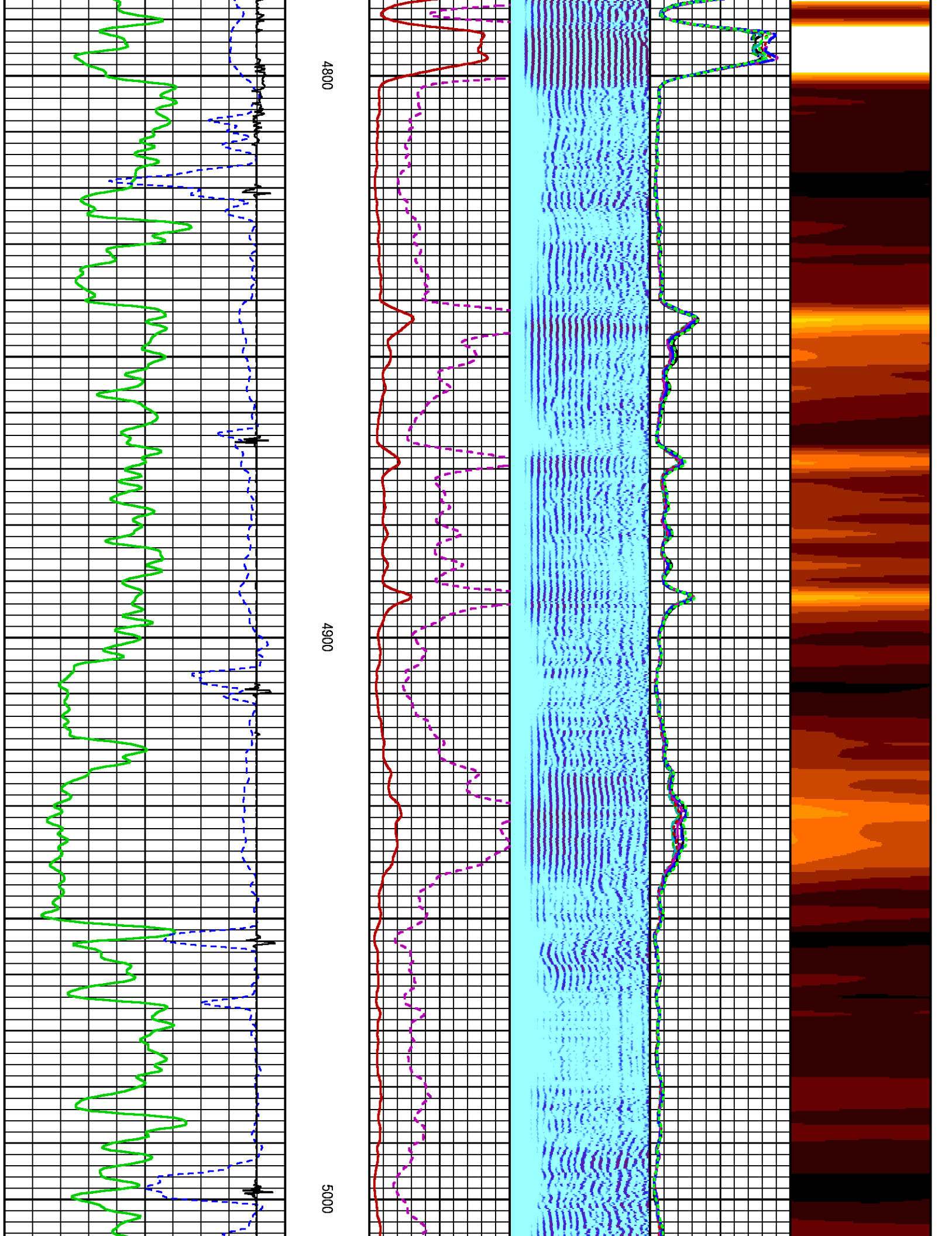


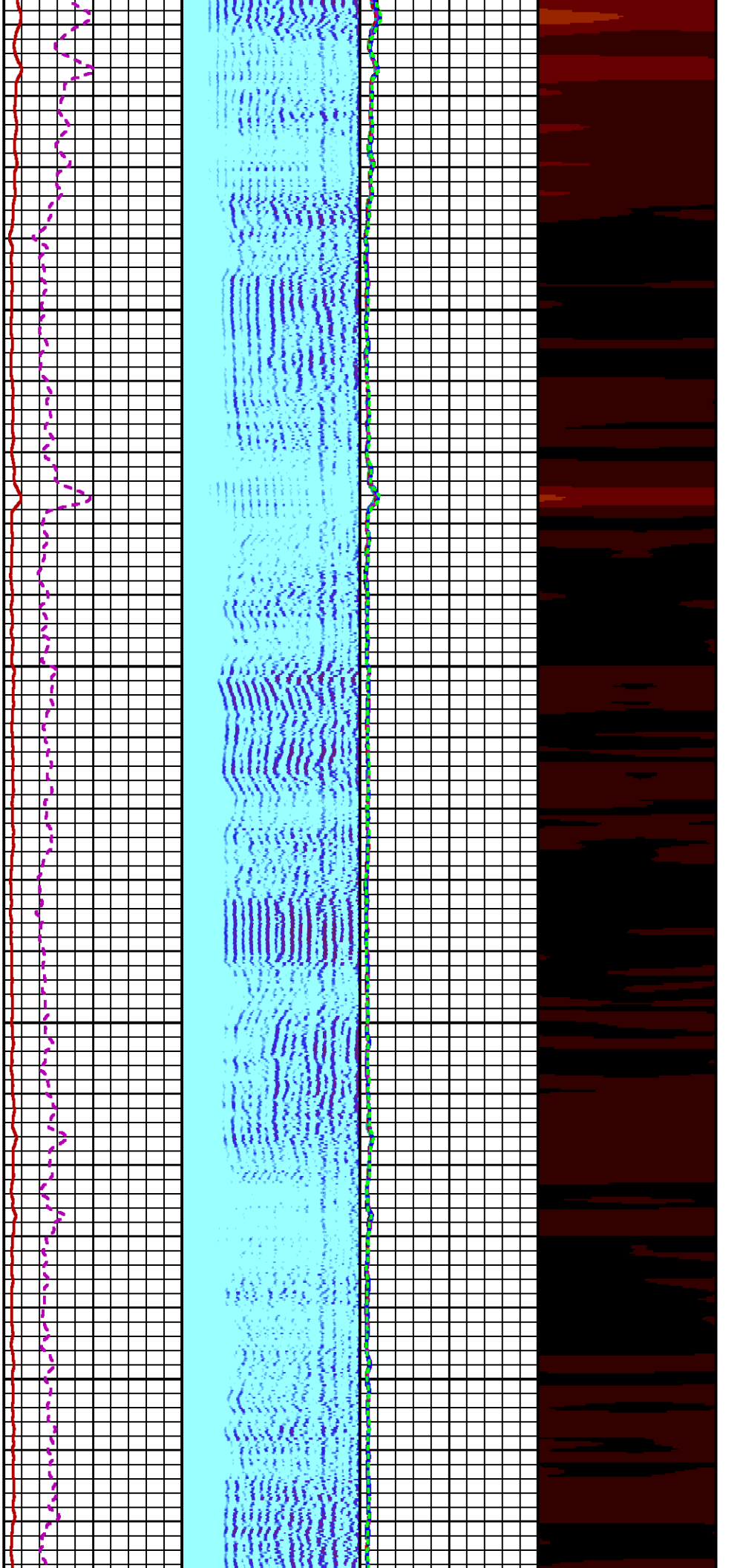
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4500



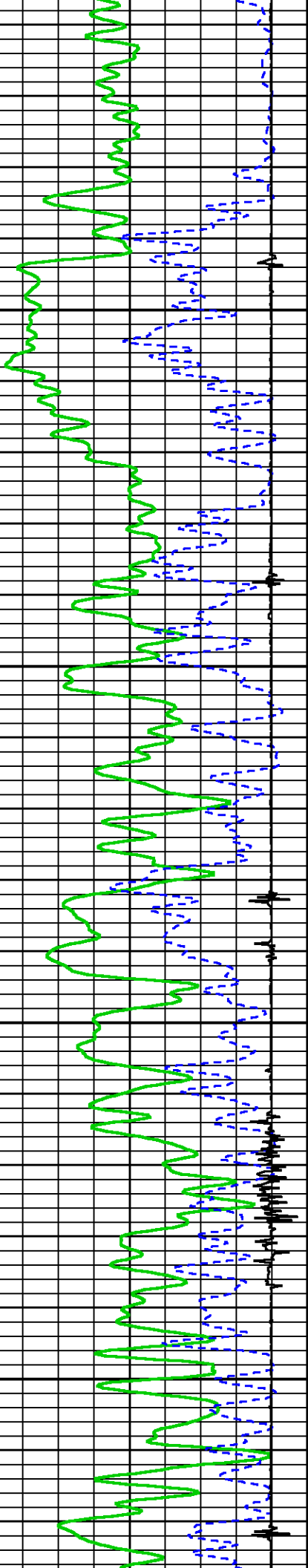


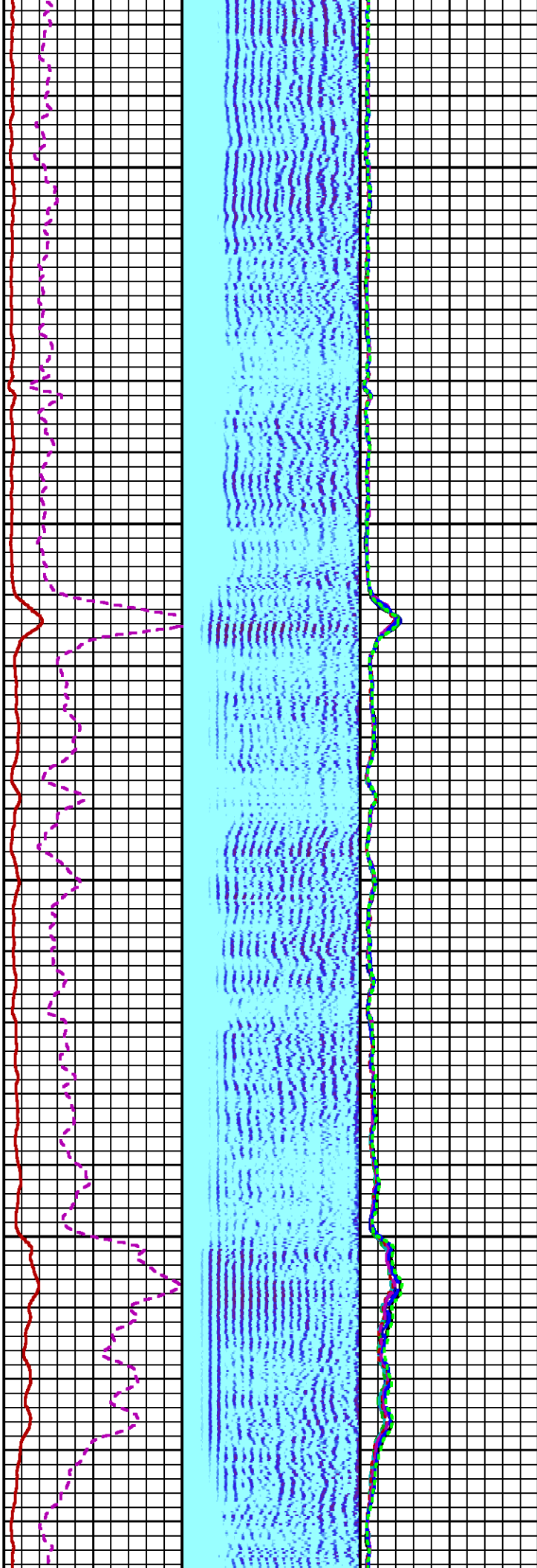




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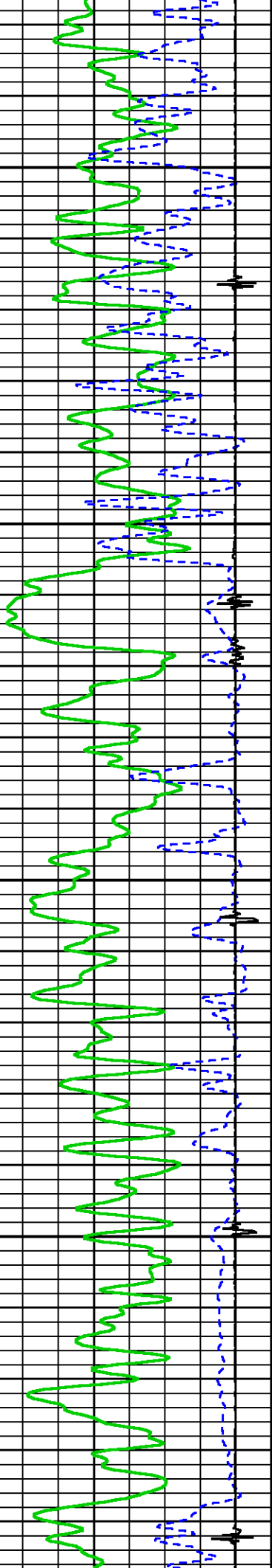
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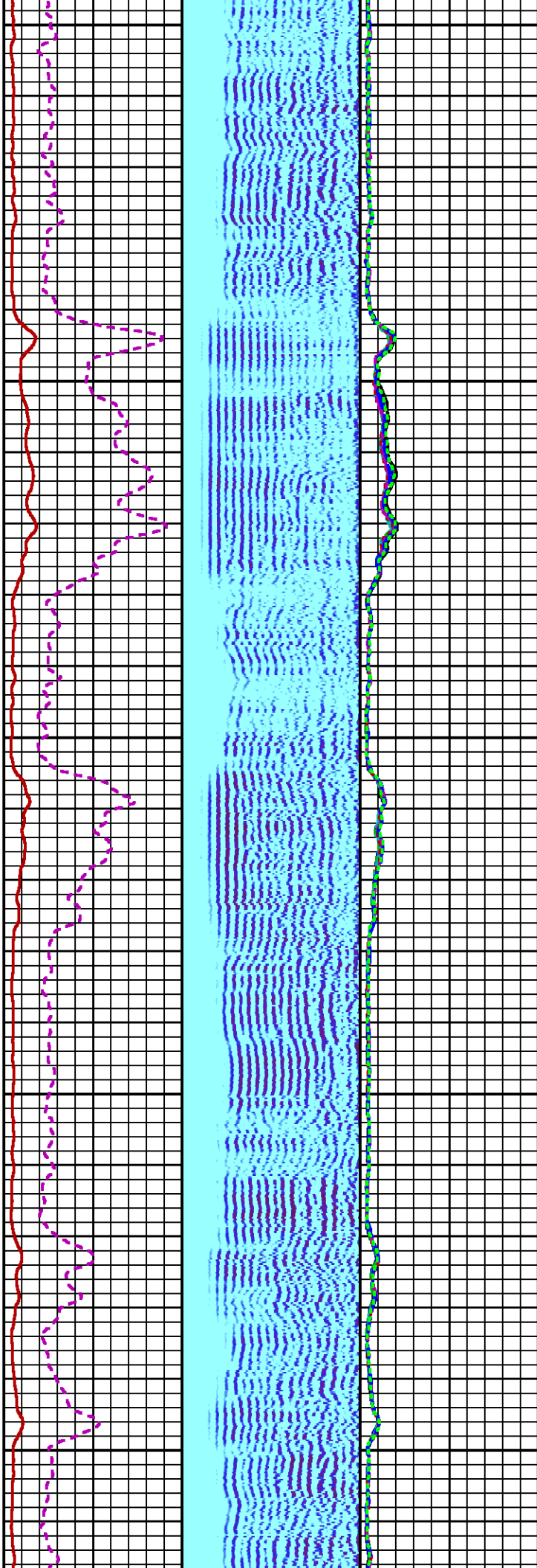




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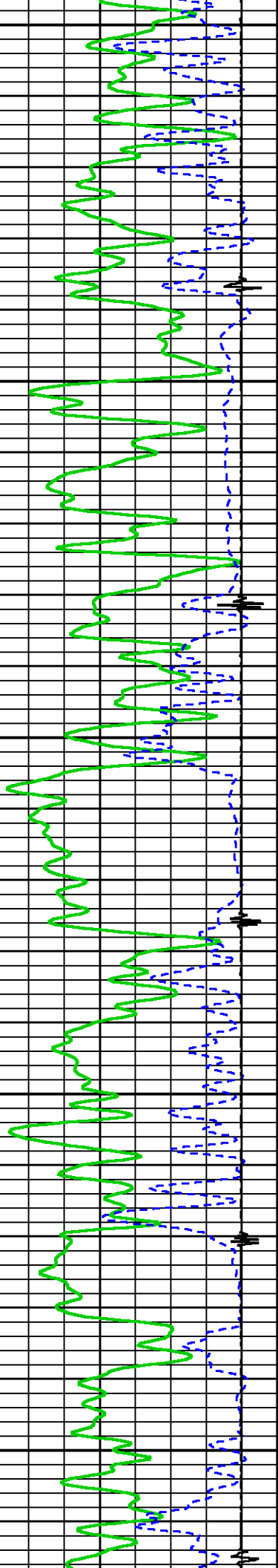
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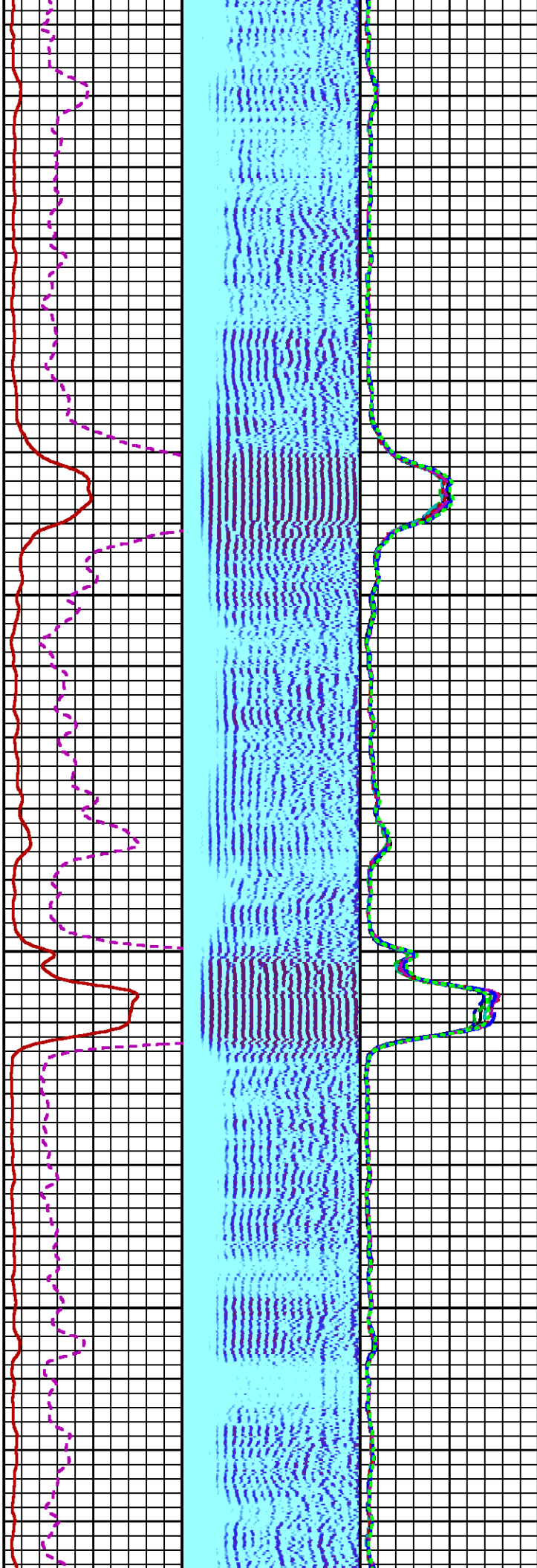
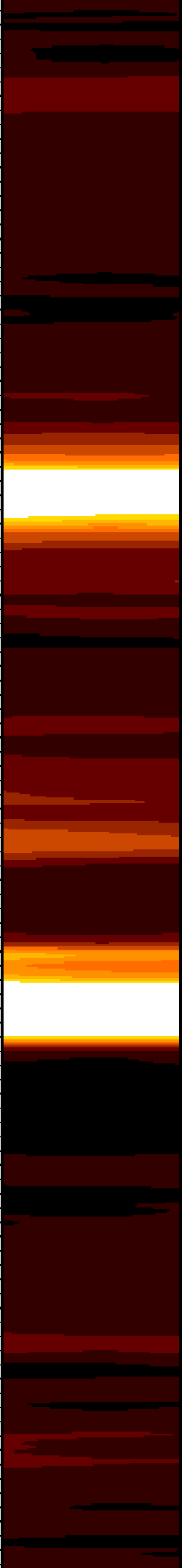




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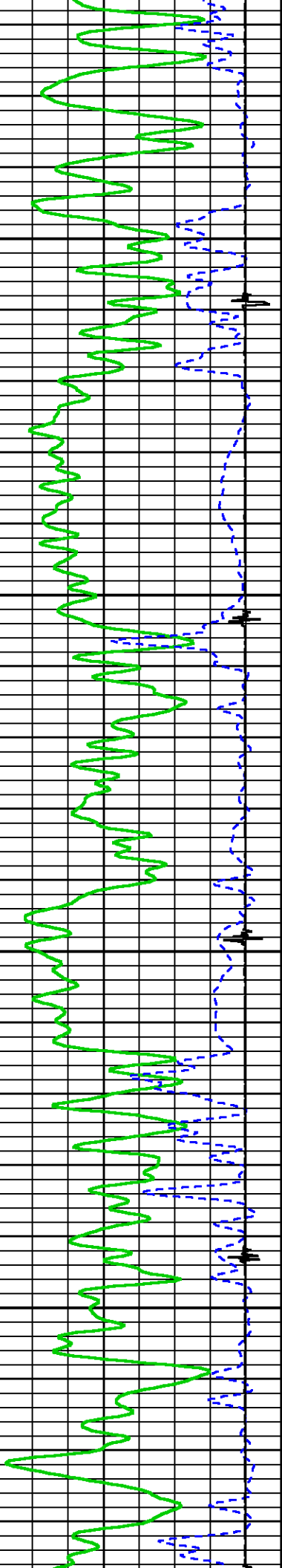
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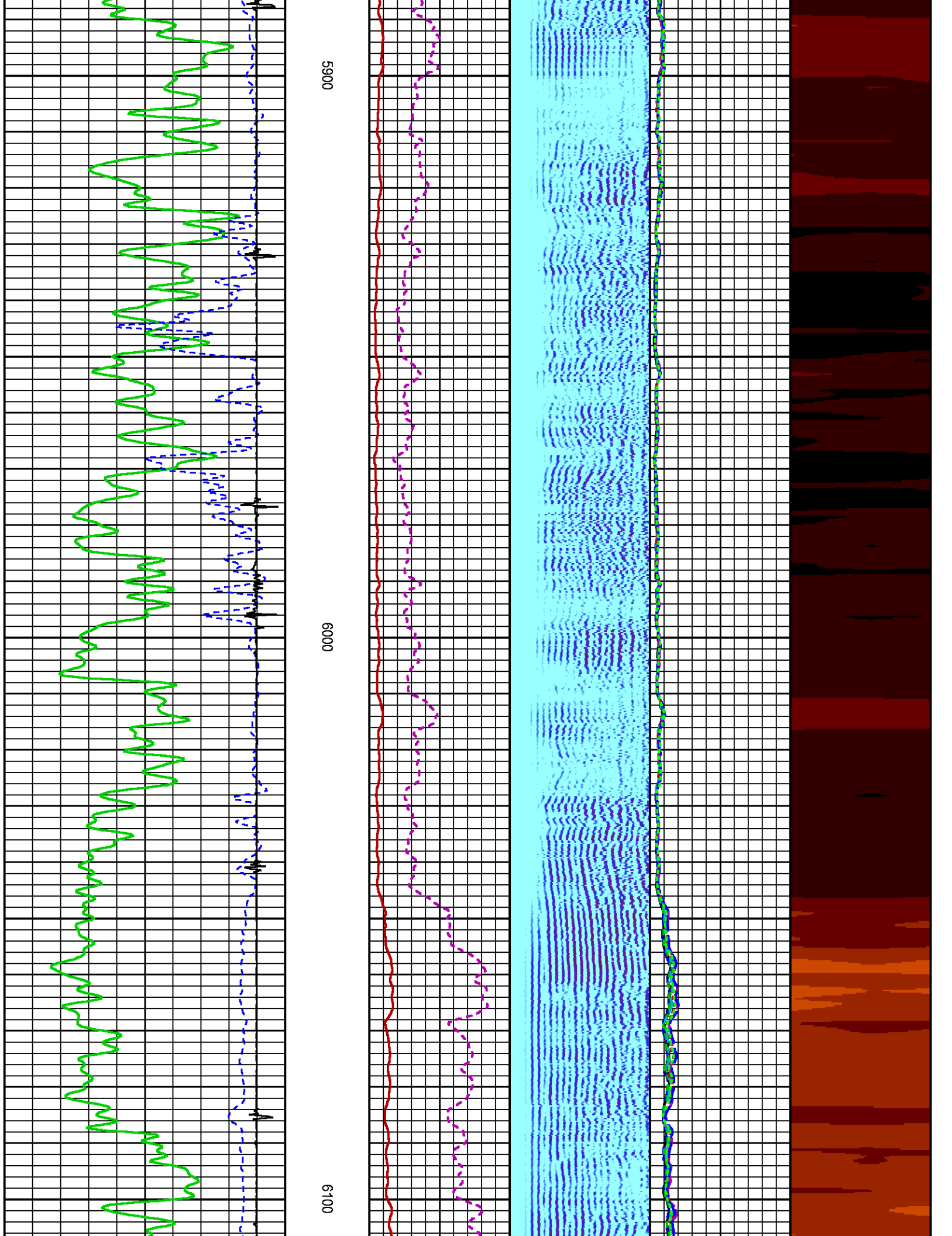


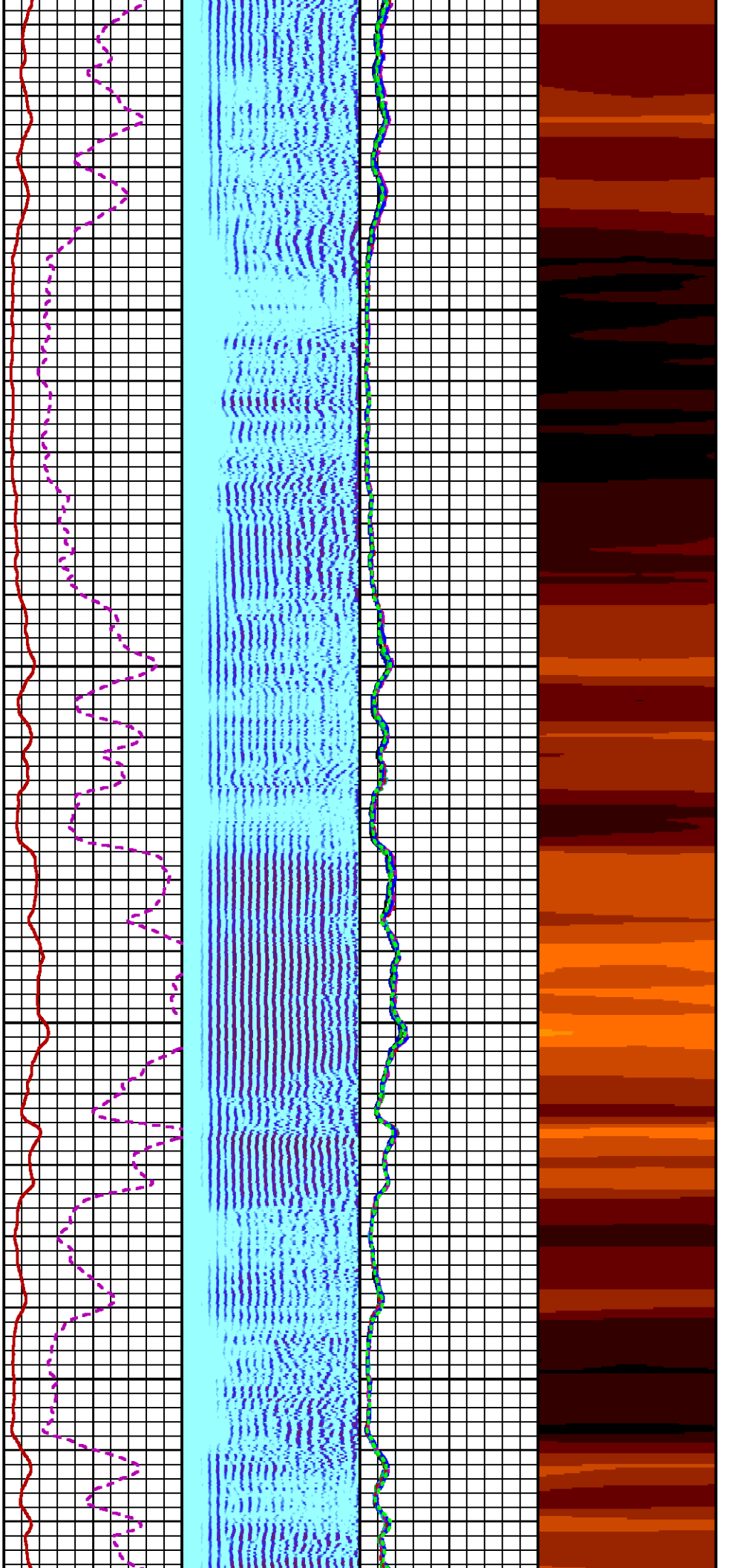


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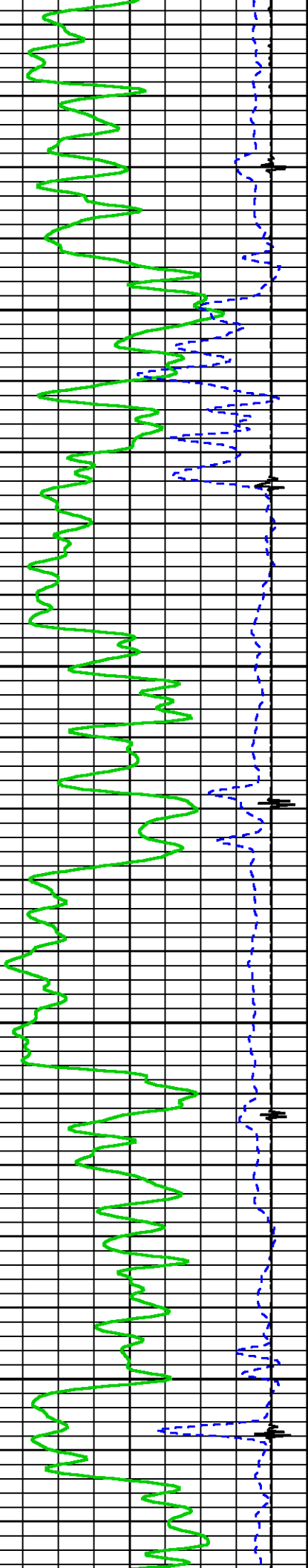


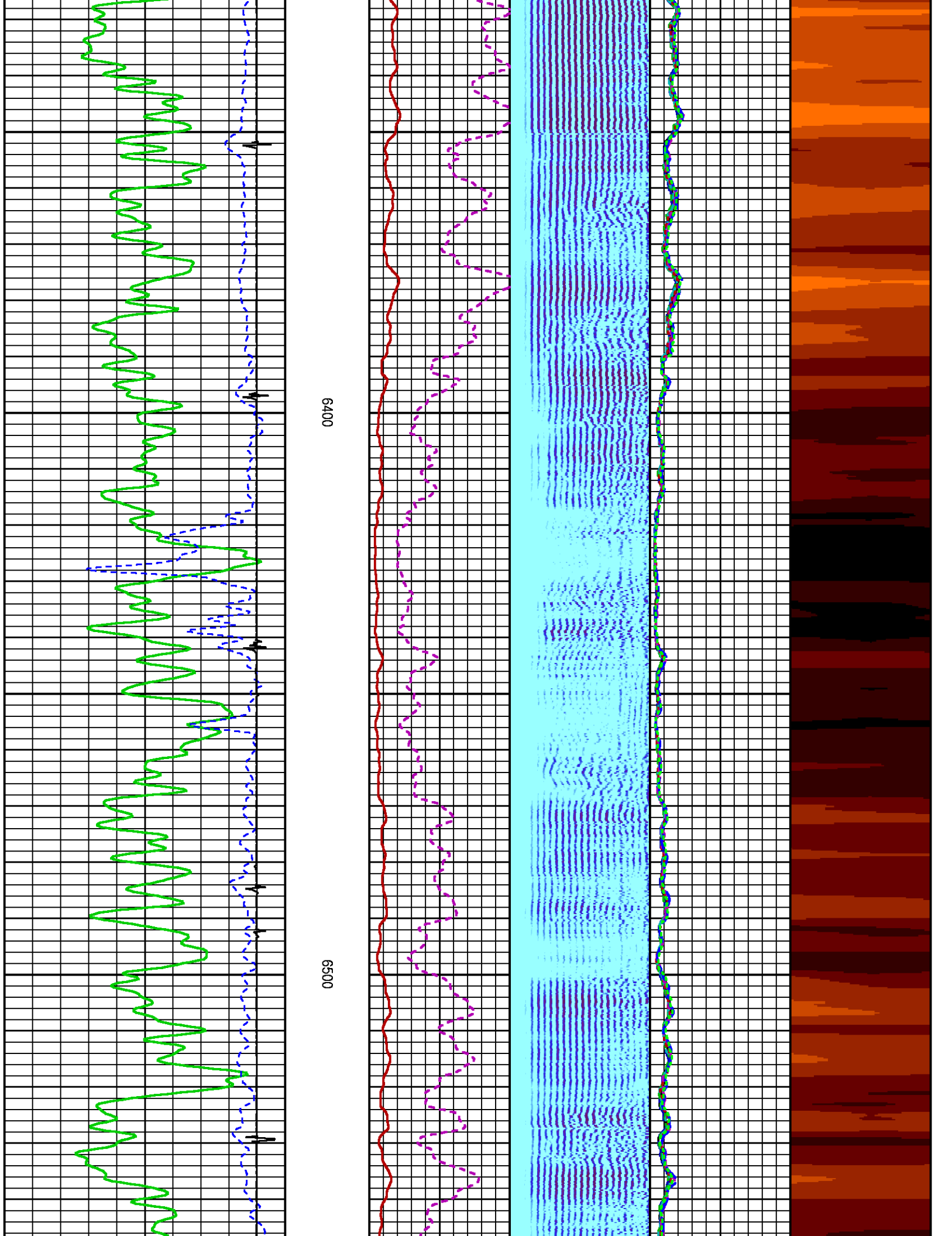


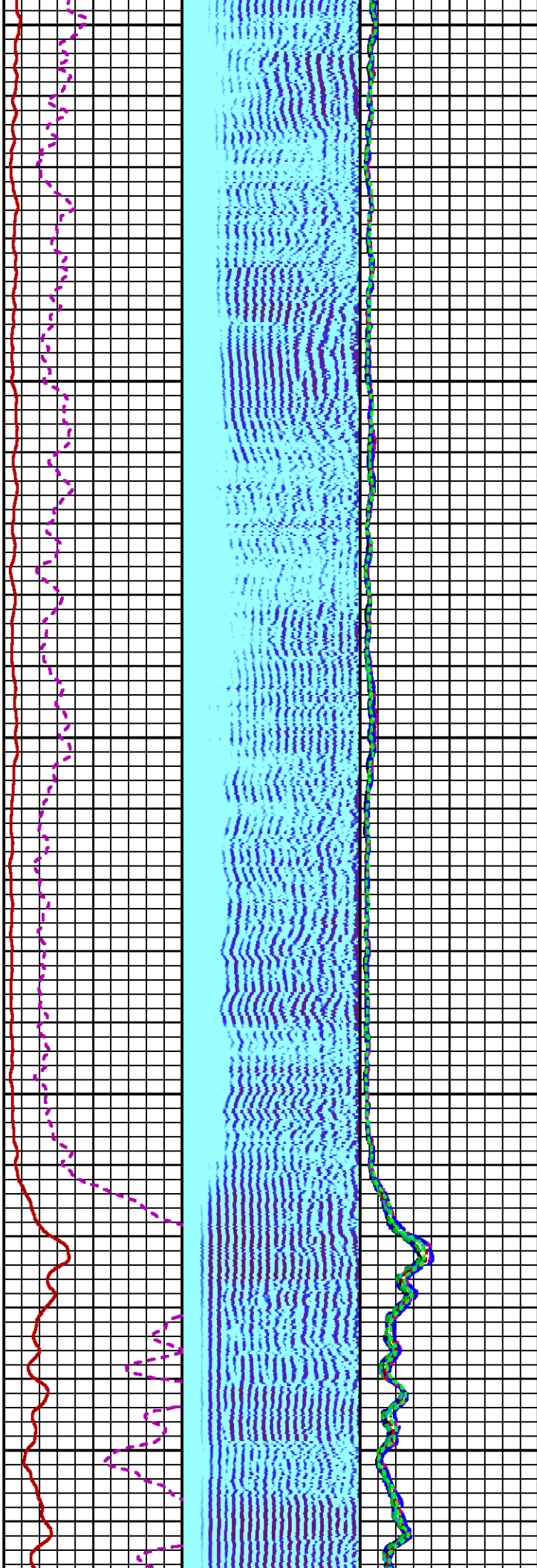


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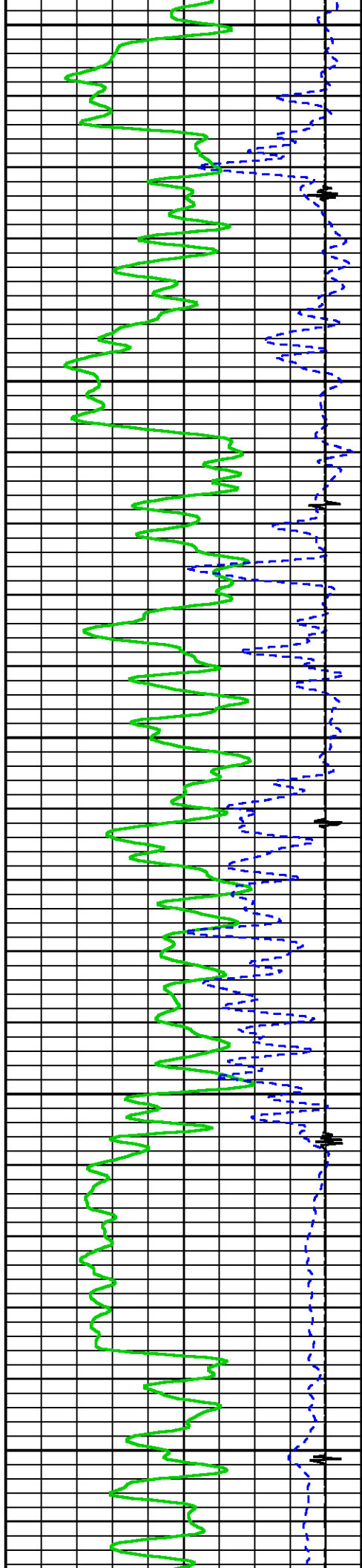


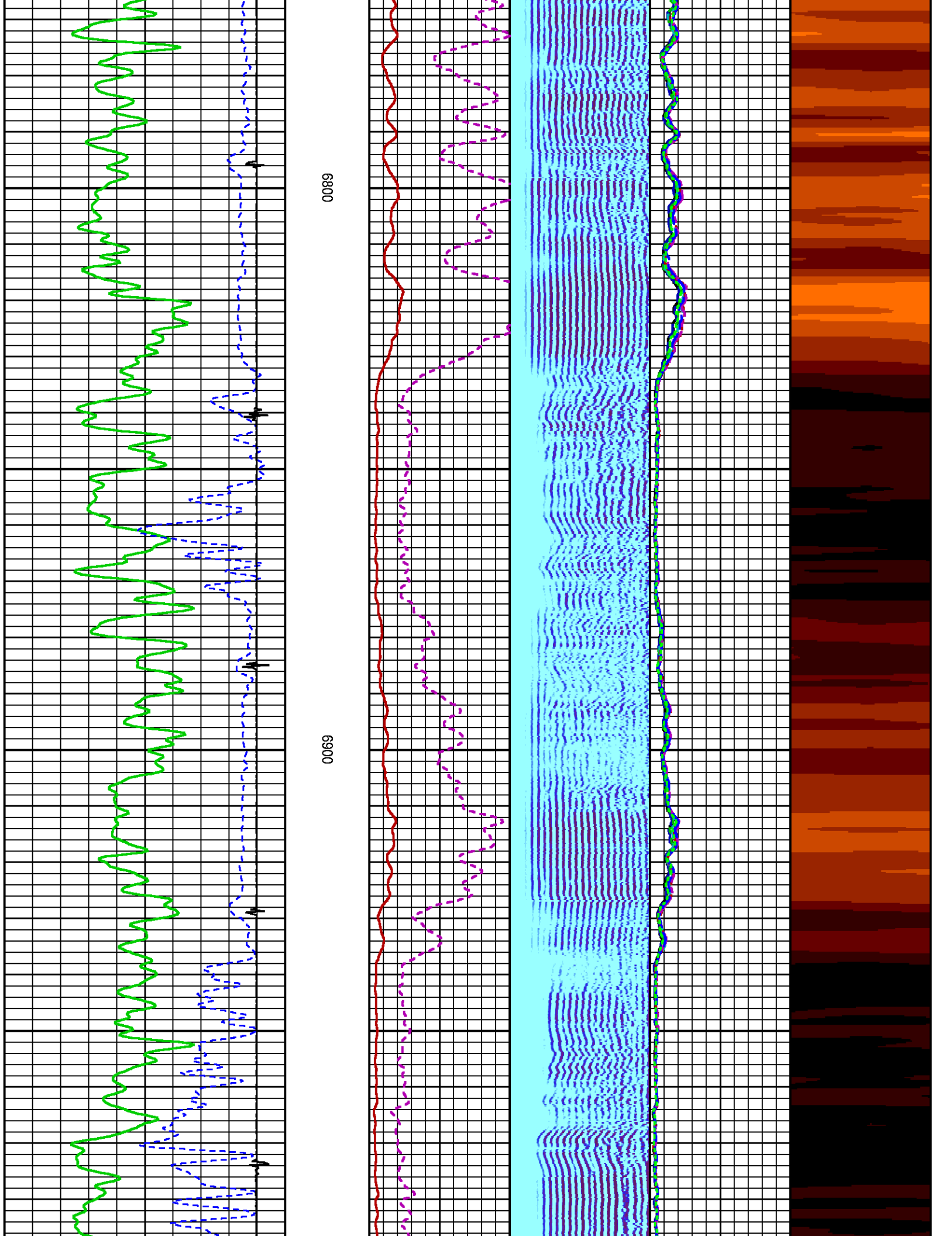


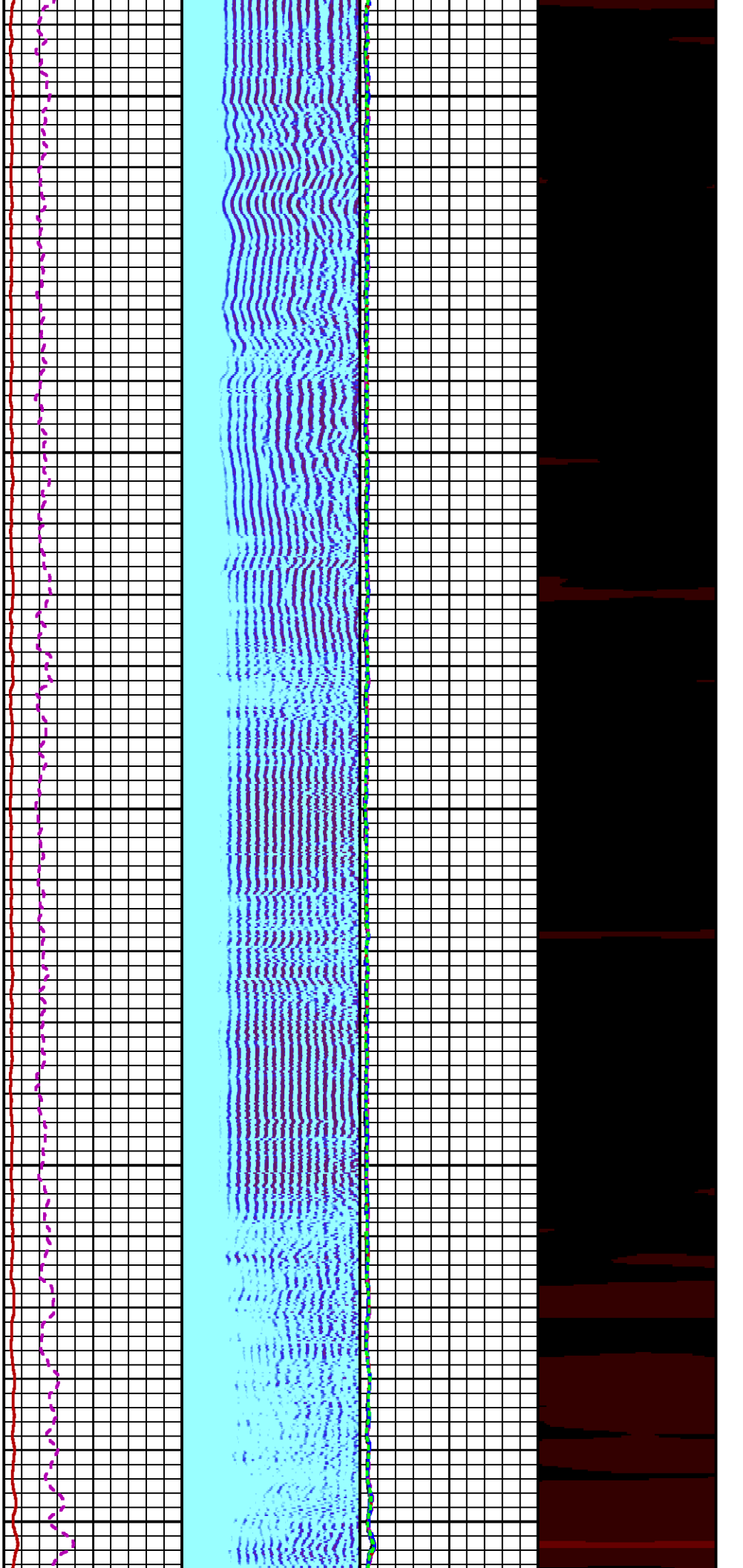


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6700



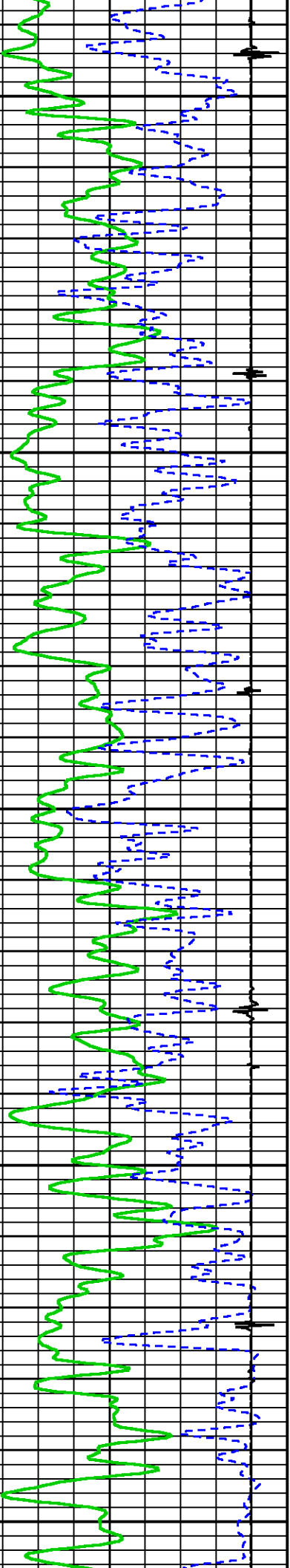


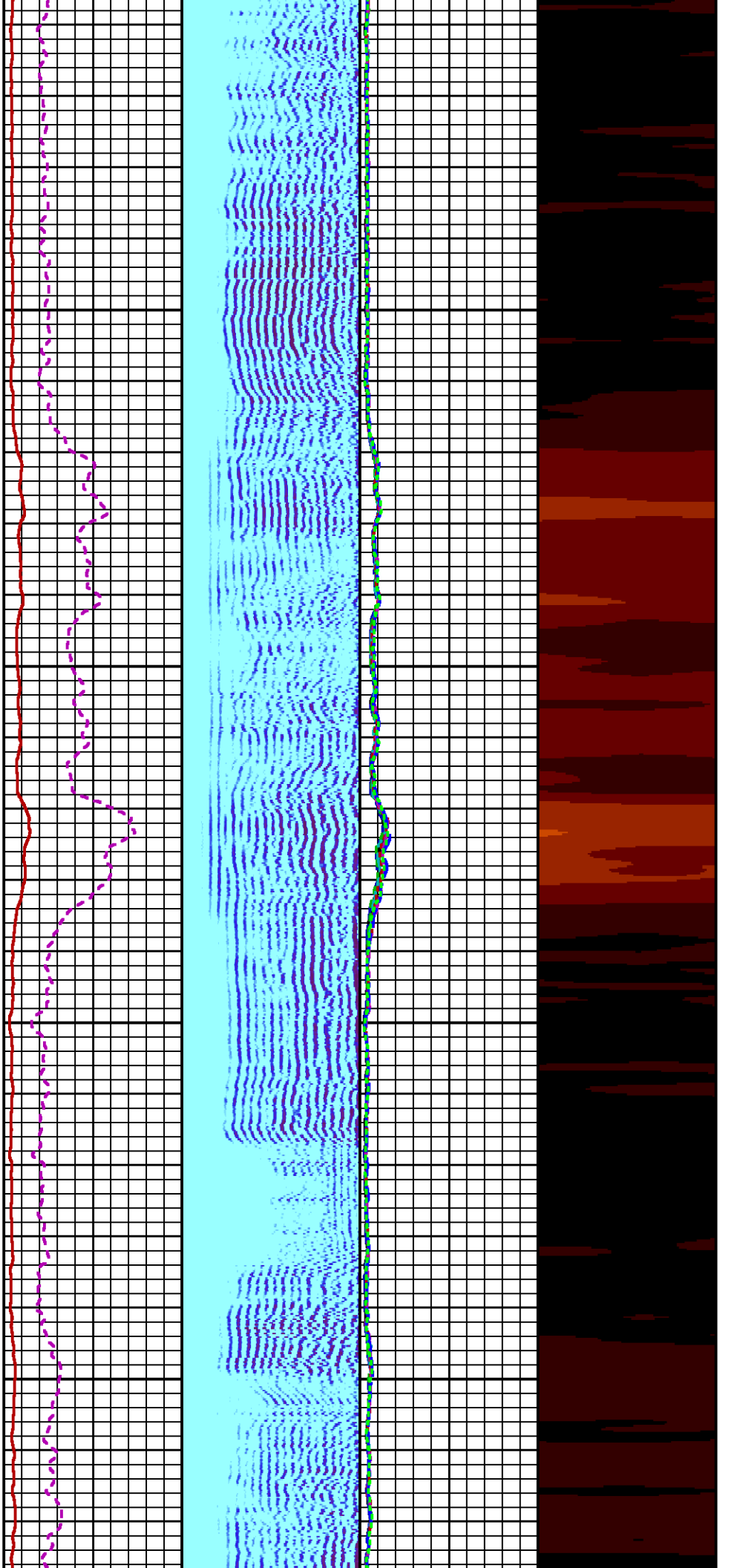


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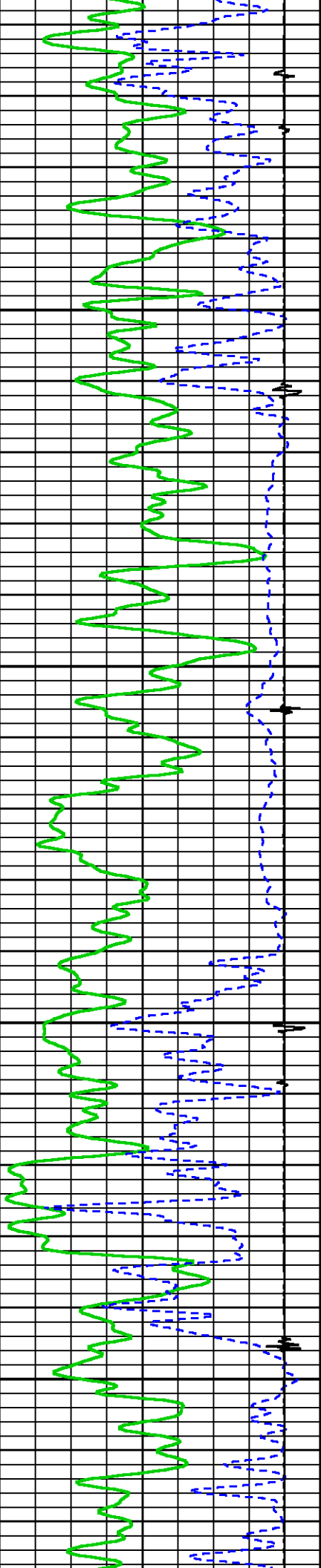
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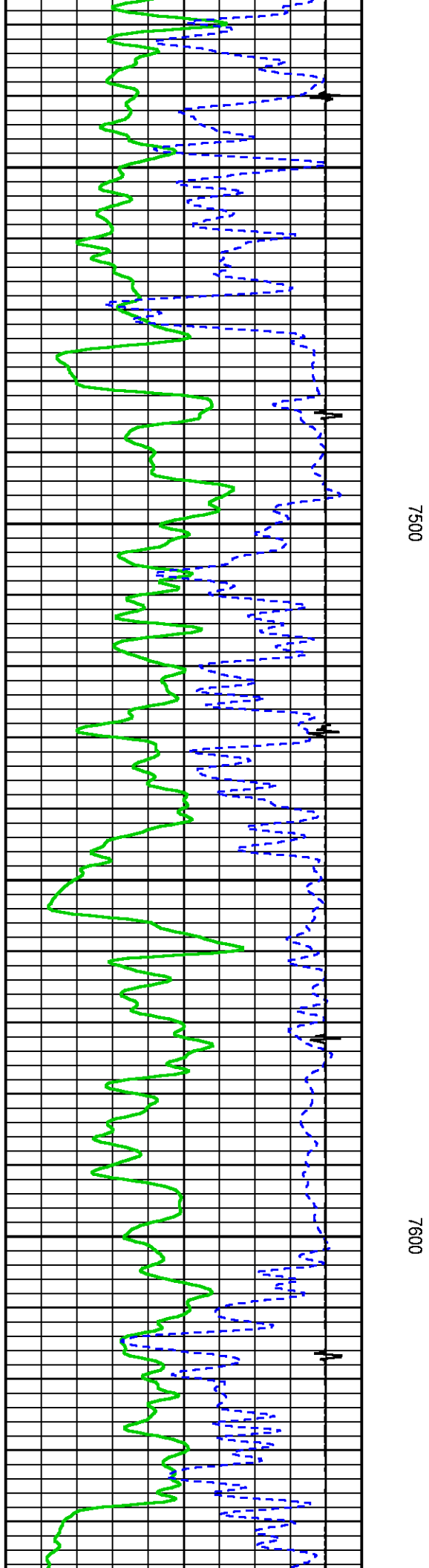
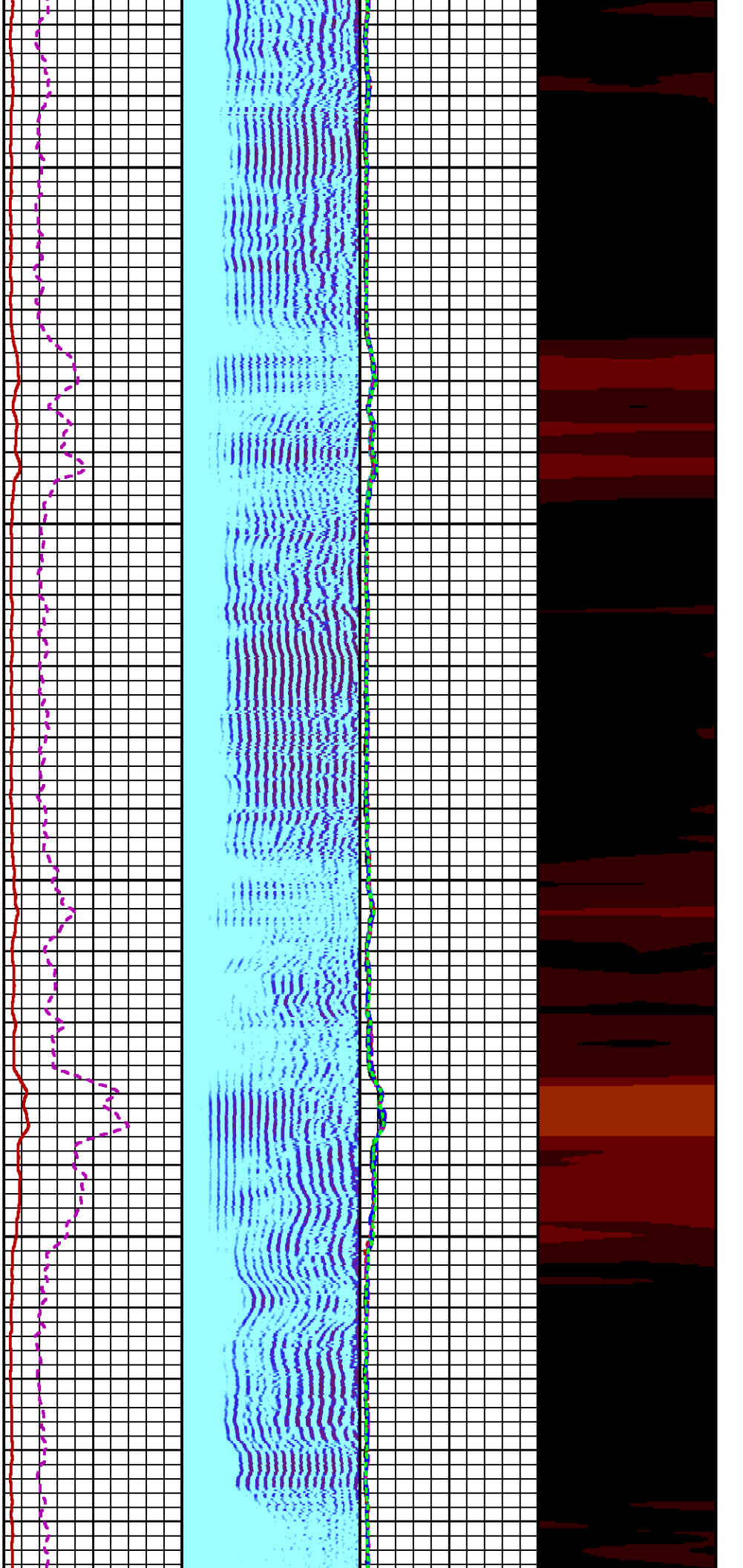


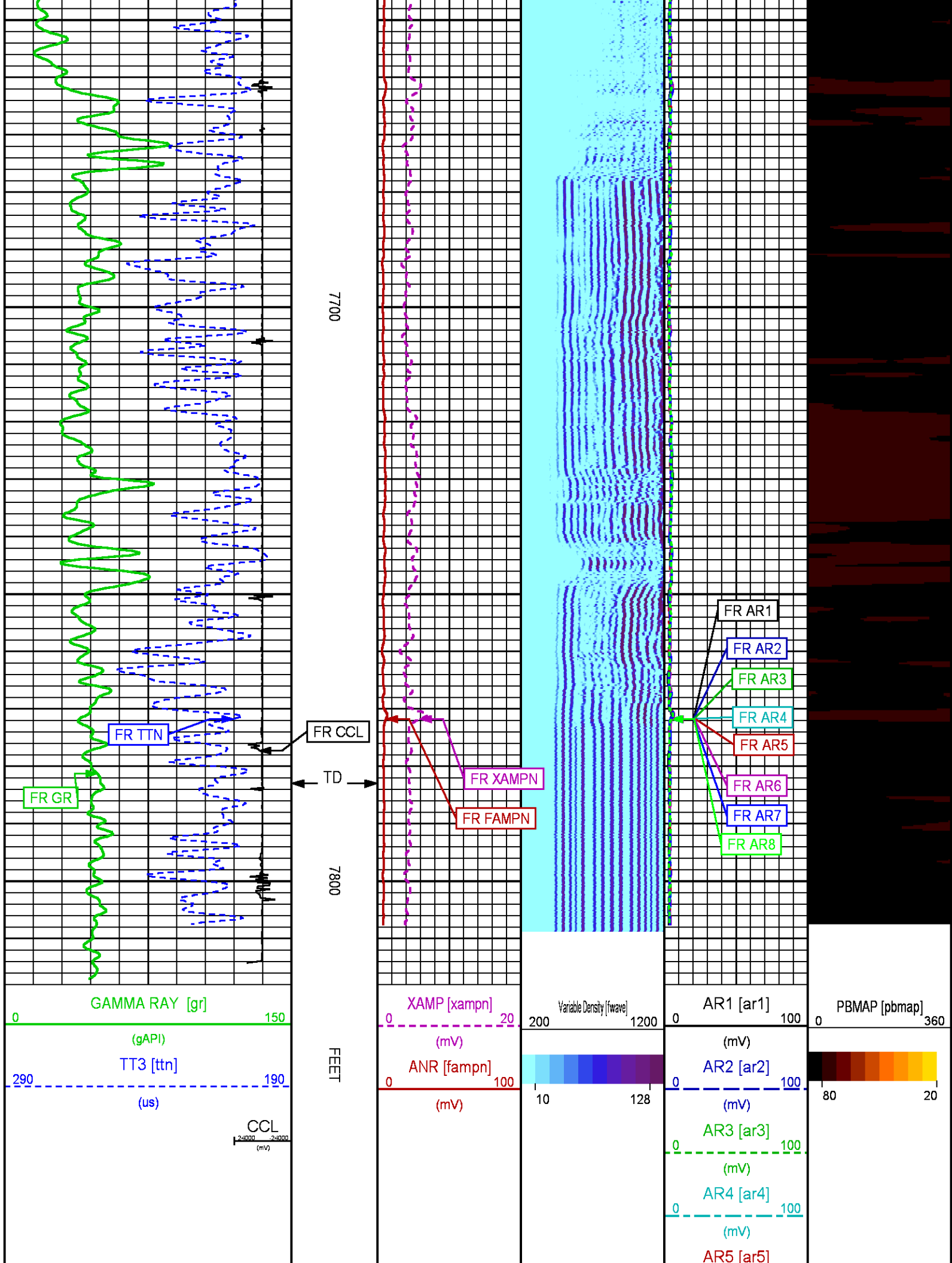


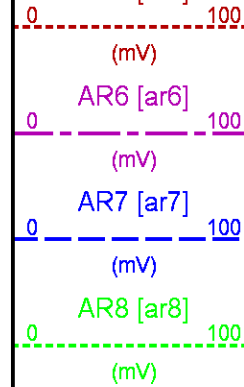
7300

7400









REPEAT PASS 0 PSI

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

Plotted: Sun Aug 27 10:41:49 2017

PARAMETER AND FILTER SUMMARY REPORT

FILE: /dat1a/LARAMIE_GUNDERSON_20_05E/n012g01.prm
LOGGING MODE: DEPTH DIRECTION: UP
TOP DEPTH: 7351.750 ft BOTTOM DEPTH: 7785.500 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*)	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 (str1*)	-59	us	TOP	7463.000
		-60	us	7463.000	7536.500
		-59	us	7536.500	7539.750
		-61	us	7539.750	7668.750
		-60	us	7668.750	BOTTOM
	TOOL DELAY (str2*)	-59	us	TOP	7463.000
		-60	us	7463.000	7536.500
		-59	us	7536.500	7539.750
		-61	us	7539.750	7668.750
		-60	us	7668.750	BOTTOM

		-60	us	7668.750	BOTTOM
	TOOL DELAY (str3*)	-59	us	TOP	7463.000
		-60	us	7463.000	7536.500
		-59	us	7536.500	7539.750
		-61	us	7539.750	7668.750
		-60	us	7668.750	BOTTOM
	TOOL DELAY (str4*)	-59	us	TOP	7463.000
		-60	us	7463.000	7536.500
		-59	us	7536.500	7539.750
		-61	us	7539.750	7668.750
		-60	us	7668.750	BOTTOM
	TOOL DELAY (str5*)	-59	us	TOP	7463.000
		-60	us	7463.000	7536.500
		-59	us	7536.500	7539.750
		-61	us	7539.750	7668.750
		-60	us	7668.750	BOTTOM
	TOOL DELAY (str6*)	-59	us	TOP	7463.000
		-60	us	7463.000	7536.500
		-59	us	7536.500	7539.750
		-61	us	7539.750	7668.750
		-60	us	7668.750	BOTTOM
	TOOL DELAY (str7*)	-59	us	TOP	7463.000
		-60	us	7463.000	7536.500
		-59	us	7536.500	7539.750
		-61	us	7539.750	7668.750
		-60	us	7668.750	BOTTOM
	TOOL DELAY (str8*)	-59	us	TOP	7463.000
		-60	us	7463.000	7536.500
		-59	us	7536.500	7539.750
		-61	us	7539.750	7668.750
		-60	us	7668.750	BOTTOM
	TOOL DELAY (strn*)	-59	us	TOP	7463.000
		-60	us	7463.000	7536.500
		-59	us	7536.500	7539.750
		-61	us	7539.750	7668.750
		-60	us	7668.750	BOTTOM
BASELINE NOISE (NEAR)	NOISE WINDOW START	125	us	TOP	BOTTOM
	NOISE WINDOW LENGTH	25	us	"	"

PERCENT BOND CEMENT MAP					
MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
RAL FREE PIPE AMPLITUDE	FREE AMP REC 1	80	mV	TOP	BOTTOM
	FREE AMP REC 2	80	mV	"	"
	FREE AMP REC 3	80	mV	"	"
	FREE AMP REC 4	80	mV	"	"
	FREE AMP REC 5	80	mV	"	"
	FREE AMP REC 6	80	mV	"	"
	FREE AMP REC 7	80	mV	"	"
	FREE AMP REC 8	80	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	Aug 27 10:34:21 2017	FIXED GATE AMPLITUDE T-R1
F1:AR2	Aug 27 10:34:21 2017	FIXED GATE AMPLITUDE T-R2
F1:AR3	Aug 27 10:34:21 2017	FIXED GATE AMPLITUDE T-R3
F1:AR4	Aug 27 10:34:21 2017	FIXED GATE AMPLITUDE T-R4
F1:AR5	Aug 27 10:34:21 2017	FIXED GATE AMPLITUDE T-R5
F1:AR6	Aug 27 10:34:21 2017	FIXED GATE AMPLITUDE T-R6
F1:AR7	Aug 27 10:34:21 2017	FIXED GATE AMPLITUDE T-R7
F1:AR8	Aug 27 10:34:21 2017	FIXED GATE AMPLITUDE T-R8
F1:CCL	Aug 27 10:34:21 2017	CASING COLLAR LOCATOR
F1:FAMPN	Aug 27 10:34:21 2017	FIXED GATE AMPLITUDE NEAR RECEIVER
F1:FWAVE	Aug 27 10:34:21 2017	FAR WAVE FORM
F1:GR	Aug 27 10:34:21 2017	GAMMA RAY
F1:PBMAP	Aug 27 10:34:21 2017	PERCENT BOND CEMENT MAP
F1:TTN	Aug 27 10:34:21 2017	TRAVELTIME FROM NEAR TRANSMITTER-RECEIVER
F1:XAMPN	Aug 27 10:34:21 2017	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
: cpu100:GUNDERSON_20_05E_RAL_REPEAT.fvpdf [5"/100' Scale]

Plot Interval
: 7341.5 - 7784.25 Feet

Data File 1
: F1 : cpu100:/dat1a/LARAMIE_GUNDERSON_20_05E/GUNDERSON_20_05E_RAL_RPT.xtf

Created On
: Aug 27 10:34:21 2017

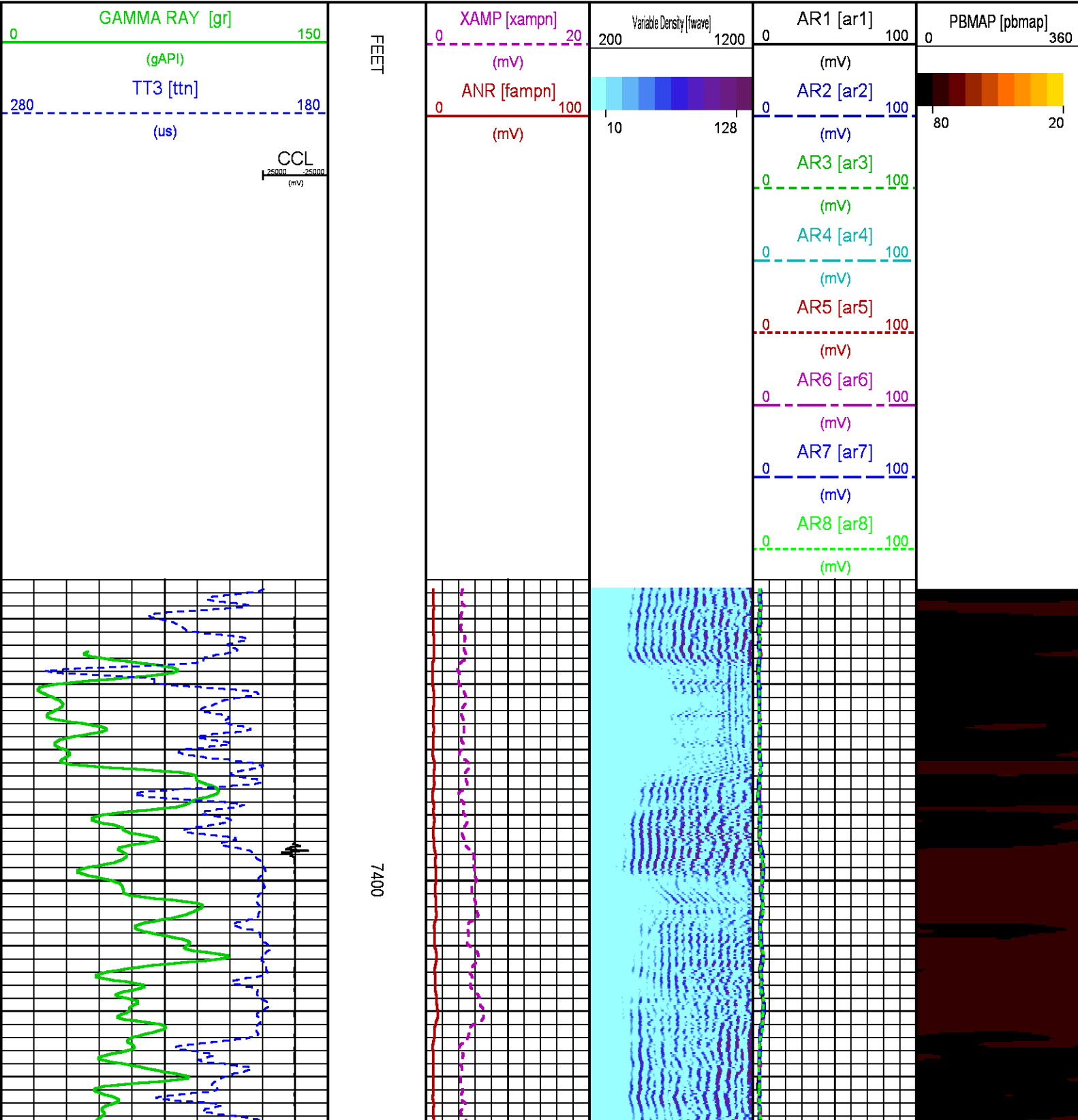
Company
: LARAMIE ENERGY

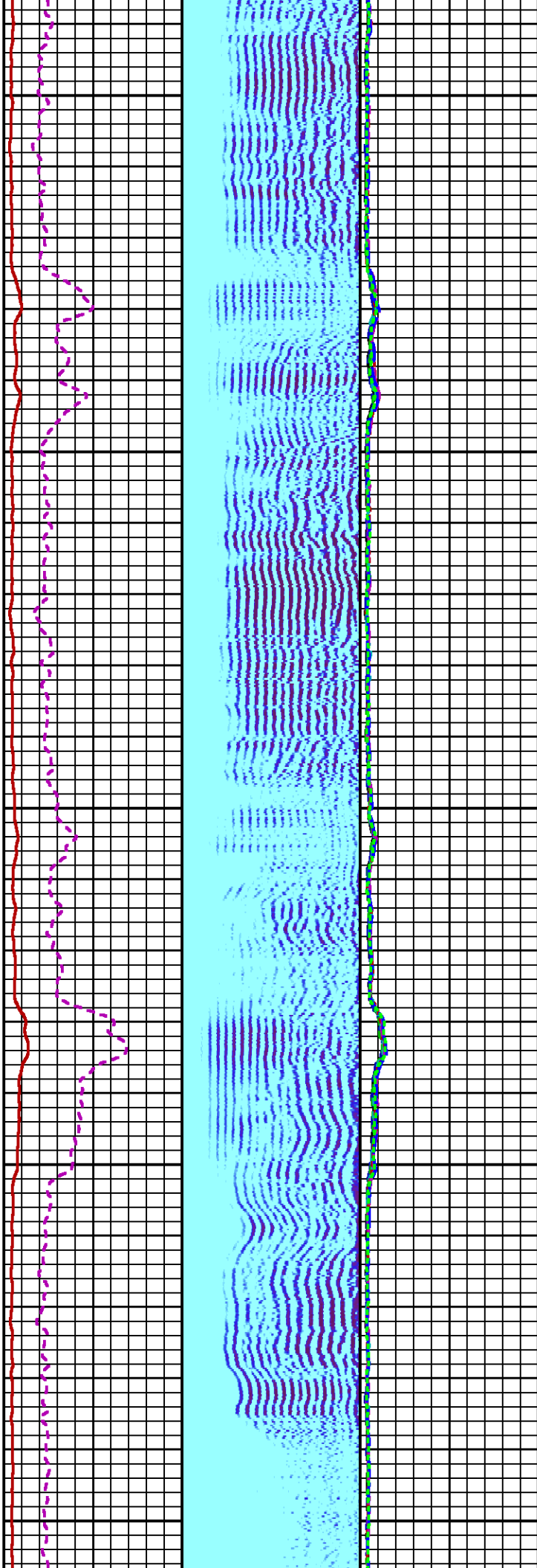
Well
: GUNDERSON BCU 20-05E

Field
: VEGA

File Interval
: 7340.5 - 7785.5 Feet

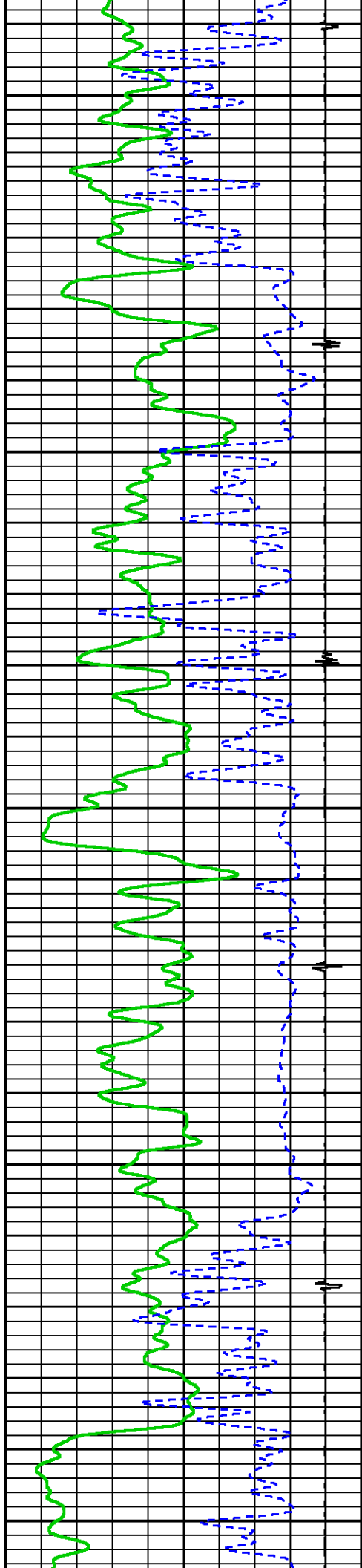
OCT
: n012g

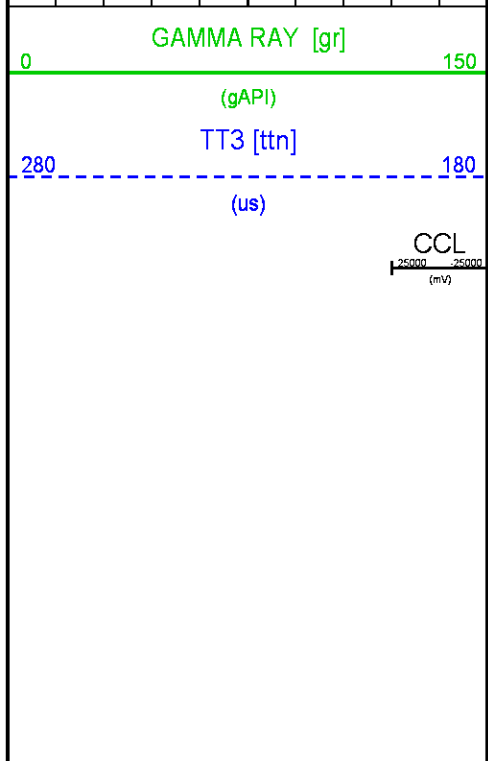
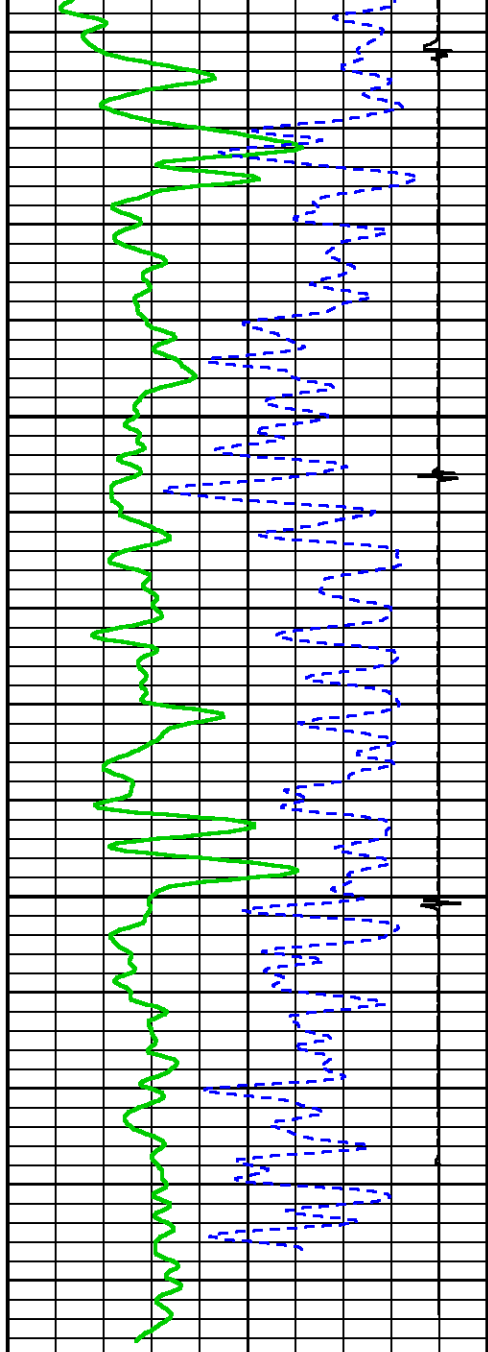




7500

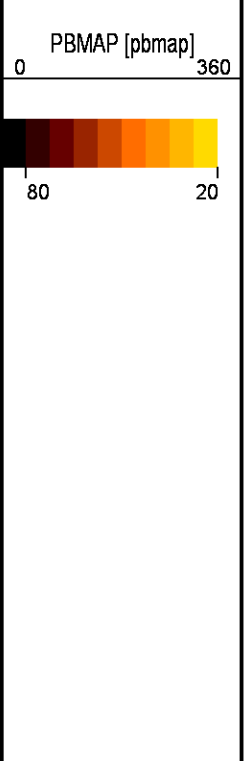
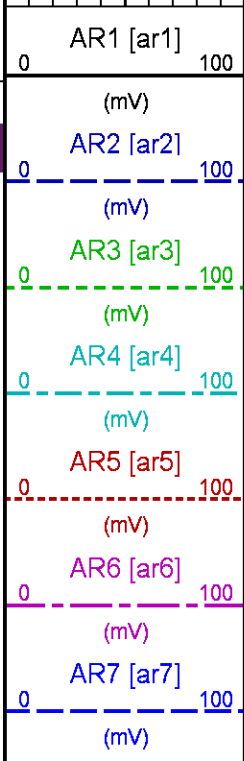
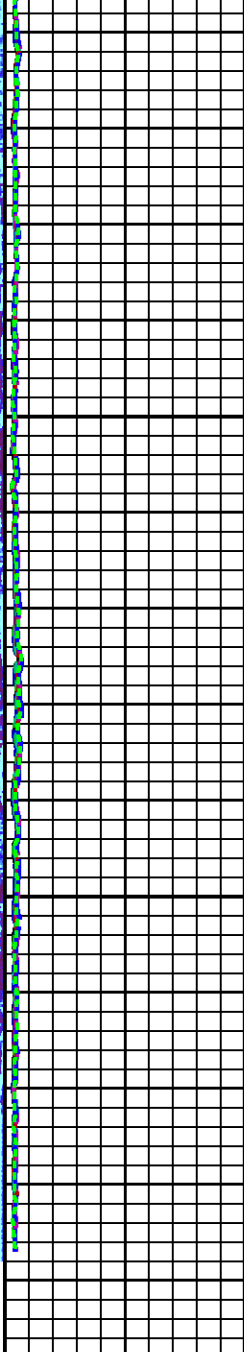
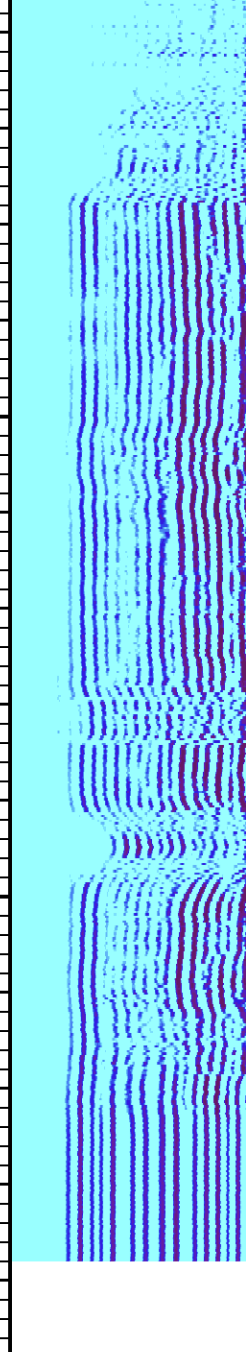
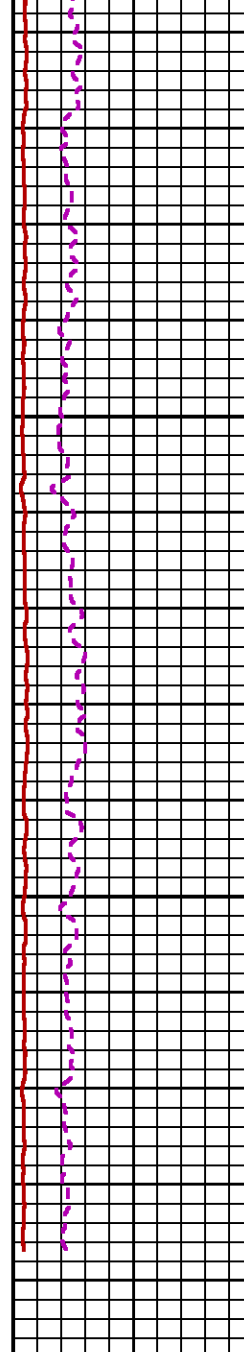
7600





7700

FEET



CALIBRATION / VERIFICATION SUMMARY

Source File: /data/LARAMIE_GUNDERSON_20_05E/RPM3D.tp1

GR PRIMARY CALIBRATION SUMMARY

TOOL #:		8262XA 10485470		DATE/TIME PERFORMED:		Tue Jan 17 13:32:11 2017	
UNIT #:		3882ML ML4352		CALB JIG #:		4702NK DA_228	
BACKGROUND		CALBRTR ON	CR DIFF	MULT	BACKGROUND	CALBRTR ON	CALBRTR
(cts/s)		(cts/s)	(cts/s)		(gAPI)	(gAPI)	(gAPI)
GR	63.76	399.13	335.4	0.552	35.17	220.17	185

GR PRIMARY VERIFICATION SUMMARY

TOOL #:		8262XA 10485470		DATE/TIME PERFORMED:		Tue Jan 17 13:34:45 2017	
UNIT #:		3882ML ML4352		VERI JIG #:		4702NK DA_228	
BACKGROUND CALBRTR ON		MULT		BACKGROUND CALBRTR ON		DIFF.	
(cts/s)		(cts/s)		(gAPI)		(gAPI)	
GR	63.44	394.18	0.552	35.00	217.44	182.44	
						175.00	195.00

RPM_PNC_3D PRIMARY CALIBRATION SUMMARY

TOOL: 8283PA 10184883

DATE/TIME PERFORMED: Thu Jul 13 15:06:49 2017

UNIT: 3882TD HL6728

CALIBRATOR: 2437XB 120057

SOURCE: 8281AA 10160595

HOURS: 8281AA 228

	ISS	Mtr Vlt (V)	SS Gain	LS Gain	XLS Gain	EA Temp (degF)	Sync Delay (usec)	RCAL
Raw Data	807240	123	2232	2259	2285	137	9.0	0.9874
Interpolated	1300000	146	2216	2251	2283			

	ISS	BKS	BKL	BKX	SGA1	SDA1	SGA2	SDA2
Raw Data	807240	6543	1352	236	25.88	0.15	24.03	0.34
					25.95 26.40	0.00 0.20	23.90 24.30	0.00 0.40

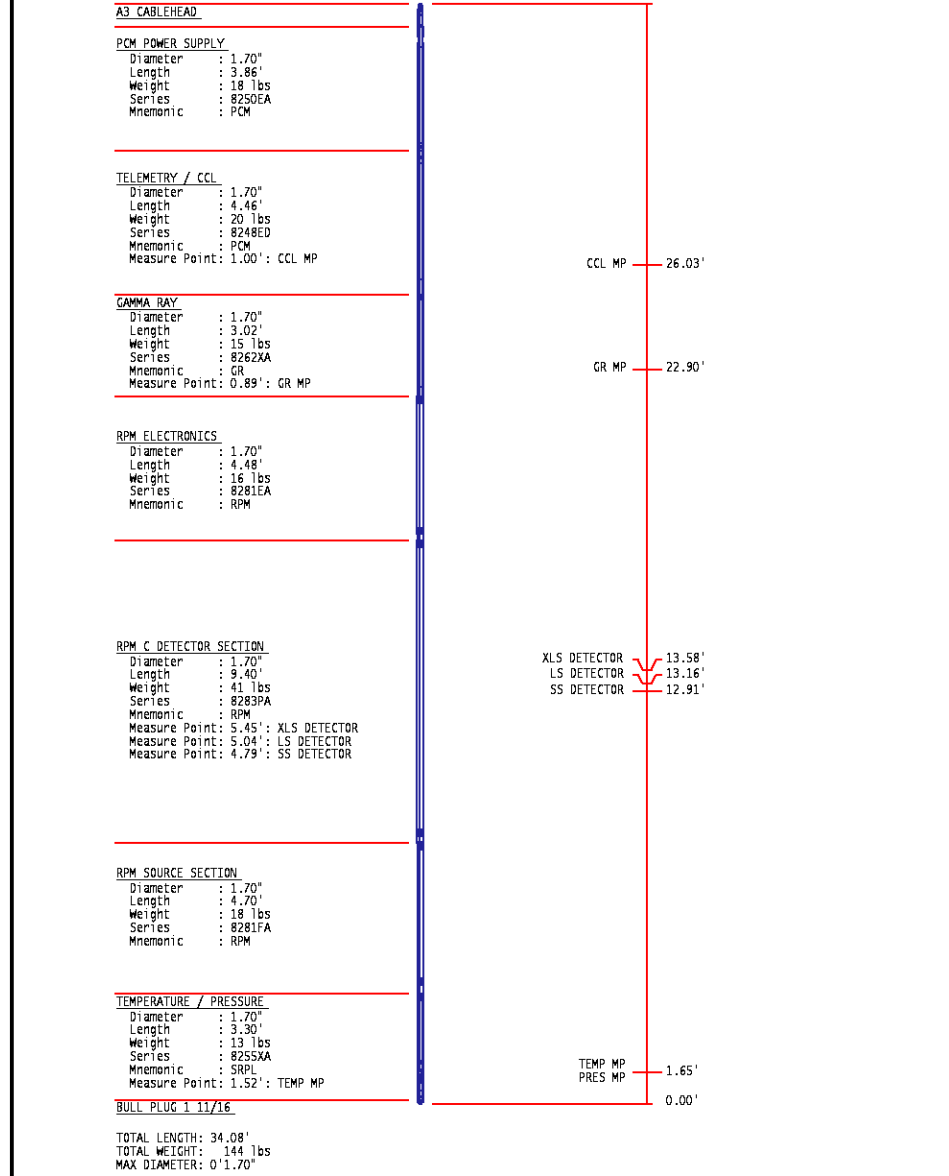
	ISS	ILS	IXS	SS	SS2	LS	CSS	CLS
Raw Data	807240	164687	25336	86104	30690	8086	52299	12945
Fit Quality %		0.492	0.443	0.487	0.490	0.506	0.462	0.494


	ISS	RBOR	RIN ISS/LS	RIN13 ISS/IXS	RICS ISS/CSS	RATO SS/LS	RTWO SS2/LS	RONE CSS/CLS
Raw Data	807240	1.44	4.90	31.88	15.44	10.65	3.80	4.04
		1.42 1.46	4.95 5.52	32.30 32.70	10.90 16.34	10.08 11.10	3.57 3.95	3.78 4.32
Fit Quality %		0.052	0.128	0.117	0.144	0.021	0.011	0.031

Reduced	1232260	1.44	4.91	31.91	15.45	10.65	3.80	4.04
		1.42 1.46	4.93 5.52	32.00 32.70	13.70 16.34	10.08 11.10	3.57 3.95	3.78 4.32

INSTRUMENT CONFIGURATION

Source File: /data/LARAMIE_GUNDERSON_20_05E/RPM-1dg



	COMPANY <u>LARAMIE ENERGY</u> WELL <u>GUNDERSON BCU 20-05E</u> FIELD <u>VEGA</u> COUNTY <u>MESA</u> STATE <u>COLORADO</u>	FILE NO: _____ API NO: <u>05077103440000</u>	
	LOCATION: LAT:39.266864N;LONG:107.795281W BHL: LAT:39.266459N;LONG:107.788396W SEC <u>20</u> TWP <u>9S</u> RGE <u>93W</u>	ELEVATIONS: KB 7176 FT DF 7176 FT GL 7146 FT	
	DATE <u>27-AUG-2017</u>		