



FILE NO:

COMPANY

LARAMIE ENERGY

WELL

BRUTON 19-16E

FIELD

VEGA

API NO:
05077103800000

COUNTY

MESA

STATE COLORADO

Ver. 4.06

LOCATION:

SHL: LAT:39.255232N; LONG:107.806537W

OTHER SERVICES
RPMBHL: LAT:39.259203N; LONG:107.807021W
SEC 19 TWP 9S RGE 93WPERMANENT DATUM GL ELEVATION 7425 FT
LOG MEASURED FROM KB 24 FT ABOVE P.D.
DRILL. MEAS. FROM KBELEVATIONS:
KB 7449 FT
DF 7448 FT
GL 7425 FT

DATE 23-AUG-2017

RUN TRIP

1 1

SERVICE ORDER US126727

DEPTH DRILLER 7827 FT

DEPTH LOGGER 7765 FT

BOTTOM LOGGED INTERVAL 7765 FT

TOP LOGGED INTERVAL 24 FT

TIME STARTED 07:00

TIME FINISHED 10:00

OPERATOR RIG TIME 3 HOURS

TYPE OF FLUID IN HOLE WATER

FLUID DENSITY NA

FLUID SALINITY NA

FLUID LEVEL 49 FT

LOGGED CEMENT TOP 1448 FT

WELLHEAD PRESSURE 0 PSI

MAXIMUM HOLE DEVIATION NA

NOMINAL LOGGING SPEED 100 F/MN

MAX. RECORDED TEMP. 239 DEGF

REFERENCE LOG NA

REFERENCE LOG DATE NA

EQUIP. NO. LOCATION HL-6670 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: 5896' - 5918'

SJ: 6902' - 7924'

CREW: D.HUTCHINSON, J.PENA

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: Wed Aug 23 10:45:16 2017

PARAMETER AND FILTER SUMMARY REPORT

FILE: /dat1a/LARAMIE_BRUTON_19_16E/n012g02.prm
 LOGGING MODE: DEPTH DIRECTION: UP
 TOP DEPTH: 8.750 ft BOTTOM DEPTH: 7782.000 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*)	-65	us	TOP	1275.750
		-64	us	1275.750	1299.250
		-63	us	1299.250	1321.500
		-62	us	1321.500	1335.000
		-60	us	1335.000	2290.000
		-61	us	2290.000	2416.000
		-60	us	2416.000	2603.500
		-61	us	2603.500	5637.750
		-62	us	5637.750	5714.000
		-61	us	5714.000	5725.500
		-60	us	5725.500	6013.250
		-59	us	6013.250	BOTTOM
		-65	us	TOP	1275.750
		-64	us	1275.750	1299.250
		-63	us	1299.250	1321.500
		-62	us	1321.500	1335.000
		-60	us	1335.000	2290.000
		-61	us	2290.000	2416.000
		-60	us	2416.000	2603.500
		-61	us	2603.500	5637.750
	TOOL DELAY (str2*)	-65	us	TOP	1275.750
		-64	us	1275.750	1299.250
		-63	us	1299.250	1321.500
		-62	us	1321.500	1335.000
		-60	us	1335.000	2290.000
		-61	us	2290.000	2416.000
		-60	us	2416.000	2603.500
		-61	us	2603.500	5637.750
		-62	us	5637.750	5714.000
		-61	us	5714.000	5725.500
	TOOL DELAY (str3*)	-60	us	5725.500	6013.250
		-59	us	6013.250	BOTTOM
		-65	us	TOP	1275.750
		-64	us	1275.750	1299.250
		-63	us	1299.250	1321.500
		-62	us	1321.500	1335.000
		-60	us	1335.000	2290.000
		-61	us	2290.000	2416.000
		-60	us	2416.000	2603.500
		-61	us	2603.500	5637.750

		-62	us	5637.750	5714.000
		-61	us	5714.000	5725.500
		-60	us	5725.500	6013.250
		-59	us	6013.250	BOTTOM
TOOL DELAY (str4*)		-65	us	TOP	1275.750
		-64	us	1275.750	1299.250
		-63	us	1299.250	1321.500
		-62	us	1321.500	1335.000
		-60	us	1335.000	2290.000
		-61	us	2290.000	2416.000
		-60	us	2416.000	2603.500
		-61	us	2603.500	5637.750
		-62	us	5637.750	5714.000
		-61	us	5714.000	5725.500
		-60	us	5725.500	6013.250
		-59	us	6013.250	BOTTOM
TOOL DELAY (str5*)		-65	us	TOP	1275.750
		-64	us	1275.750	1299.250
		-63	us	1299.250	1321.500
		-62	us	1321.500	1335.000
		-60	us	1335.000	2290.000
		-61	us	2290.000	2416.000
		-60	us	2416.000	2603.500
		-61	us	2603.500	5637.750
		-62	us	5637.750	5714.000
		-61	us	5714.000	5725.500
		-60	us	5725.500	6013.250
		-59	us	6013.250	BOTTOM
TOOL DELAY (str6*)		-65	us	TOP	1275.750
		-64	us	1275.750	1299.250
		-63	us	1299.250	1321.500
		-62	us	1321.500	1335.000
		-60	us	1335.000	2290.000
		-61	us	2290.000	2416.000
		-60	us	2416.000	2603.500
		-61	us	2603.500	5637.750
		-62	us	5637.750	5714.000
		-61	us	5714.000	5725.500
		-60	us	5725.500	6013.250
		-59	us	6013.250	BOTTOM
TOOL DELAY (str7*)		-65	us	TOP	1275.750
		-64	us	1275.750	1299.250
		-63	us	1299.250	1321.500
		-62	us	1321.500	1335.000
		-60	us	1335.000	2290.000
		-61	us	2290.000	2416.000
		-60	us	2416.000	2603.500
		-61	us	2603.500	5637.750
		-62	us	5637.750	5714.000
		-61	us	5714.000	5725.500
		-60	us	5725.500	6013.250
		-59	us	6013.250	BOTTOM
TOOL DELAY (str8*)		-65	us	TOP	1275.750
		-64	us	1275.750	1299.250
		-63	us	1299.250	1321.500
		-62	us	1321.500	1335.000
		-60	us	1335.000	2290.000
		-61	us	2290.000	2416.000
		-60	us	2416.000	2603.500
		-61	us	2603.500	5637.750
		-62	us	5637.750	5714.000
		-61	us	5714.000	5725.500
		-60	us	5725.500	6013.250
		-59	us	6013.250	BOTTOM
TOOL DELAY (strn*)		-65	us	TOP	1275.750
		-64	us	1275.750	1299.250
		-63	us	1299.250	1321.500
		-62	us	1321.500	1335.000
		-60	us	1335.000	2290.000
		-61	us	2290.000	2416.000
		-60	us	2416.000	2603.500
		-61	us	2603.500	5637.750
		-62	us	5637.750	5714.000
		-61	us	5714.000	5725.500
		-60	us	5725.500	6013.250
		-59	us	6013.250	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 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

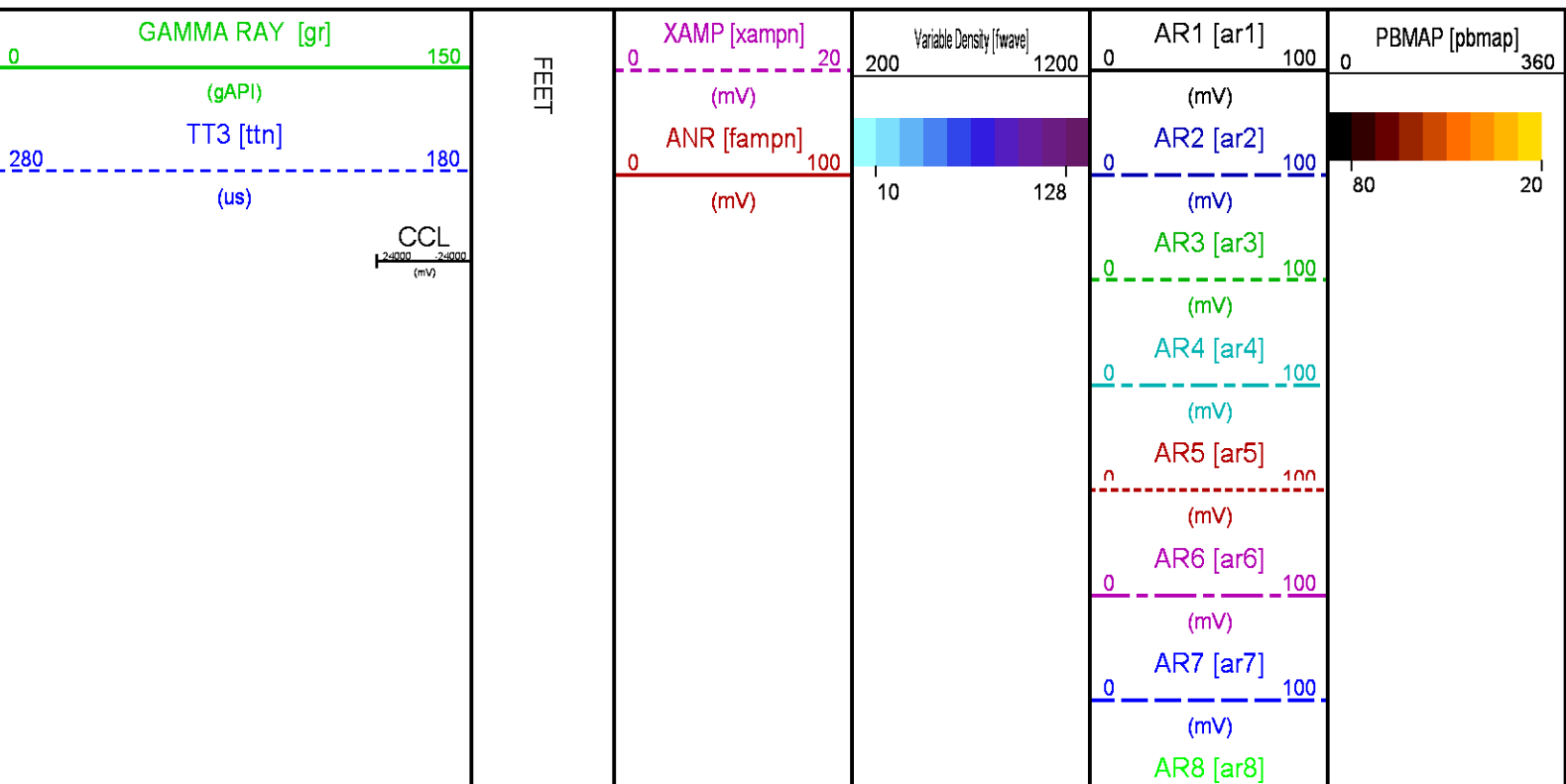
CURVE NAME	CREATION DATE	CURVE DESCRIPTION
F1:AR1	Aug 23 08:54:27 2017	FIXED GATE AMPLITUDE T-R1
F1:AR2	Aug 23 08:54:27 2017	FIXED GATE AMPLITUDE T-R2
F1:AR3	Aug 23 08:54:27 2017	FIXED GATE AMPLITUDE T-R3
F1:AR4	Aug 23 08:54:27 2017	FIXED GATE AMPLITUDE T-R4
F1:AR5	Aug 23 08:54:27 2017	FIXED GATE AMPLITUDE T-R5
F1:AR6	Aug 23 08:54:27 2017	FIXED GATE AMPLITUDE T-R6
F1:AR7	Aug 23 08:54:27 2017	FIXED GATE AMPLITUDE T-R7
F1:AR8	Aug 23 08:54:27 2017	FIXED GATE AMPLITUDE T-R8
F1:CCL	Aug 23 08:54:27 2017	CASING COLLAR LOCATOR
F1:FAMPN	Aug 23 08:54:27 2017	FIXED GATE AMPLITUDE NEAR RECEIVER
F1:FWAVE	Aug 23 08:54:27 2017	FAR WAVE FORM
F1:GR	Aug 23 08:54:27 2017	GAMMA RAY
F1:PBMAP	Aug 23 08:54:27 2017	PERCENT BOND CEMENT MAP
F1:TTN	Aug 23 08:54:27 2017	TRAVELTIME FROM NEAR TRANSMITTER-RECEIVER
F1:XAMPN	Aug 23 08:54:27 2017	FIXED GATE AMPLITUDE NEAR RECEIVER TIMES FIVE

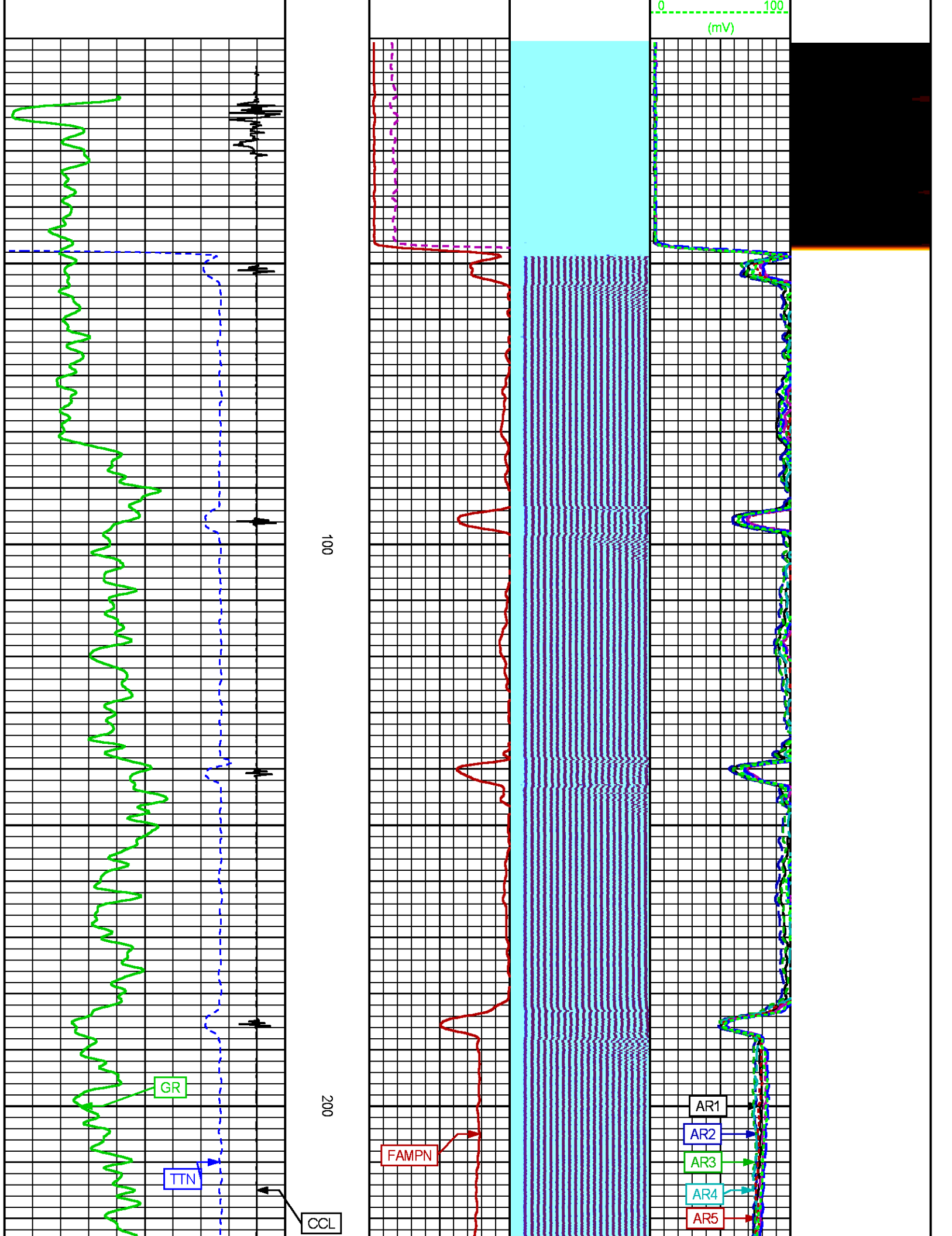
CURVE MEASURE POINT OFFSET

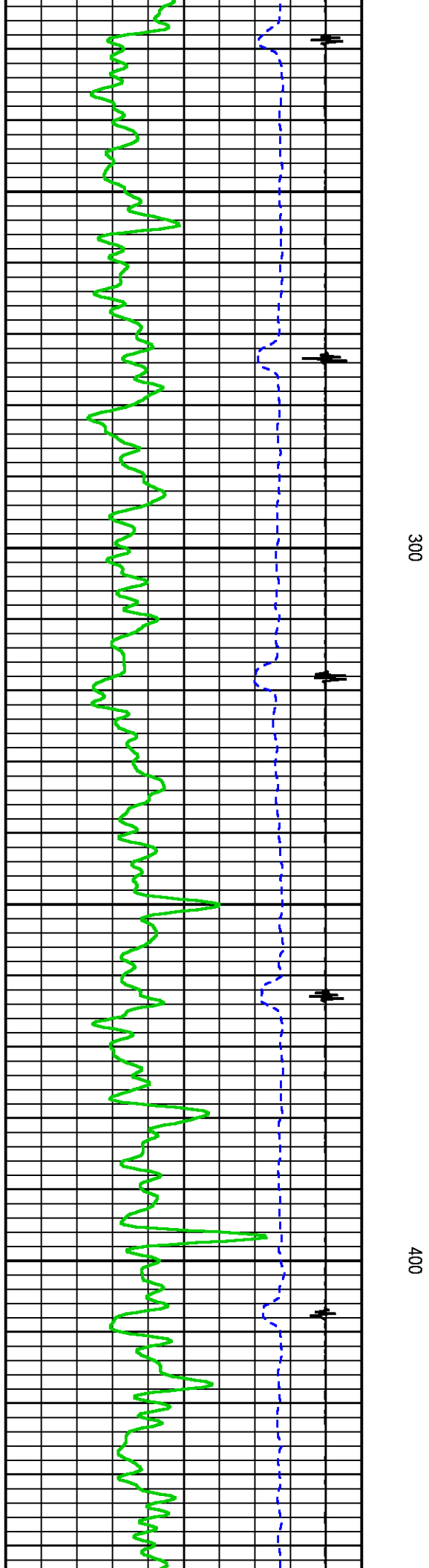
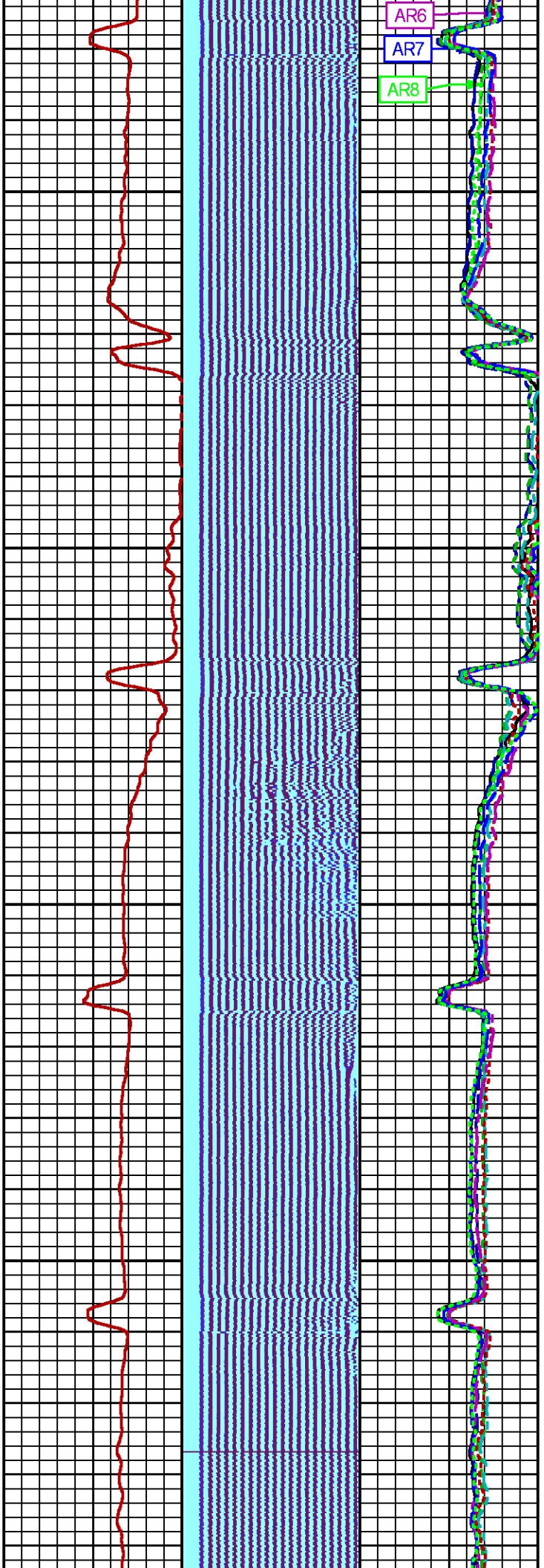
CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)
AR1	11.25	AR5	11.25	CCL	5.75	XAMPN	11.25
AR2	11.25	AR6	11.25	FAMPN	11.25		
AR3	11.25	AR7	11.25	GR	1.75		
AR4	11.25	AR8	11.25	TTN	11.25		

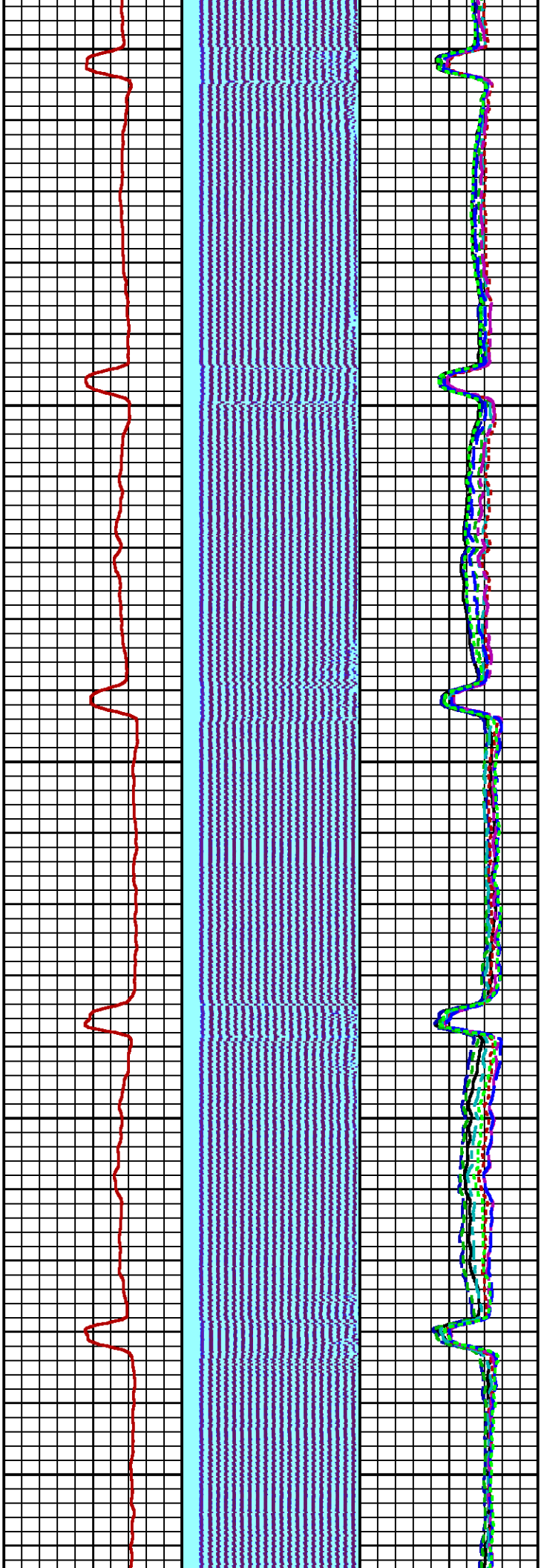
Presentation : cpu100:BRUTON_19_16E_RAL_MAIN.fvpdf [5"/100' Scale]
Plot Interval : 10.5 - 7793 Feet

Data File 1 : F1 : cpu100:/dat1a/LARAMIE_BRUTON_19_16E/BRUTON_19_16E_RAL_MAIN.xtf
Created On : Aug 23 08:54:27 2017
Company : LARAMIE ENERGY
Well : BRUTON 19-16E
Field : MESA
File Interval : 9.5 - 7794.25 Feet
OCT : n012g



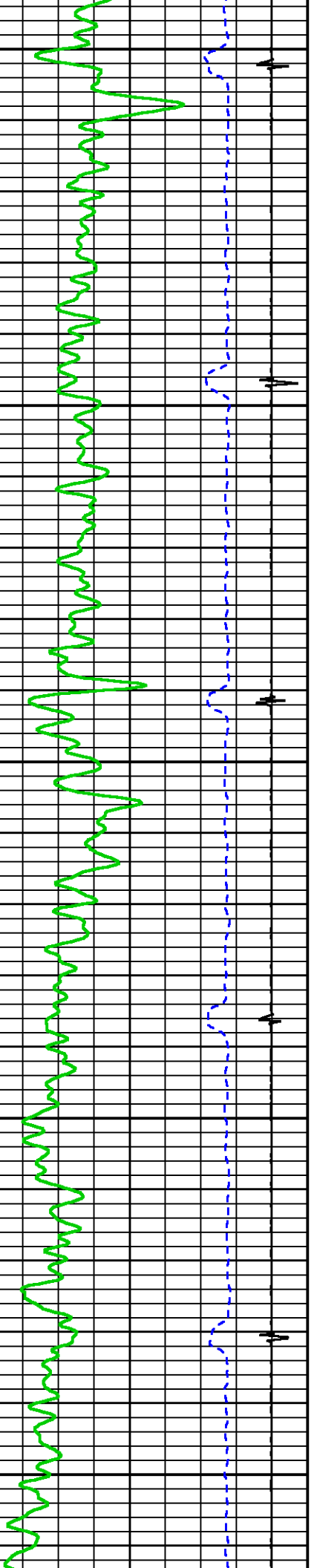


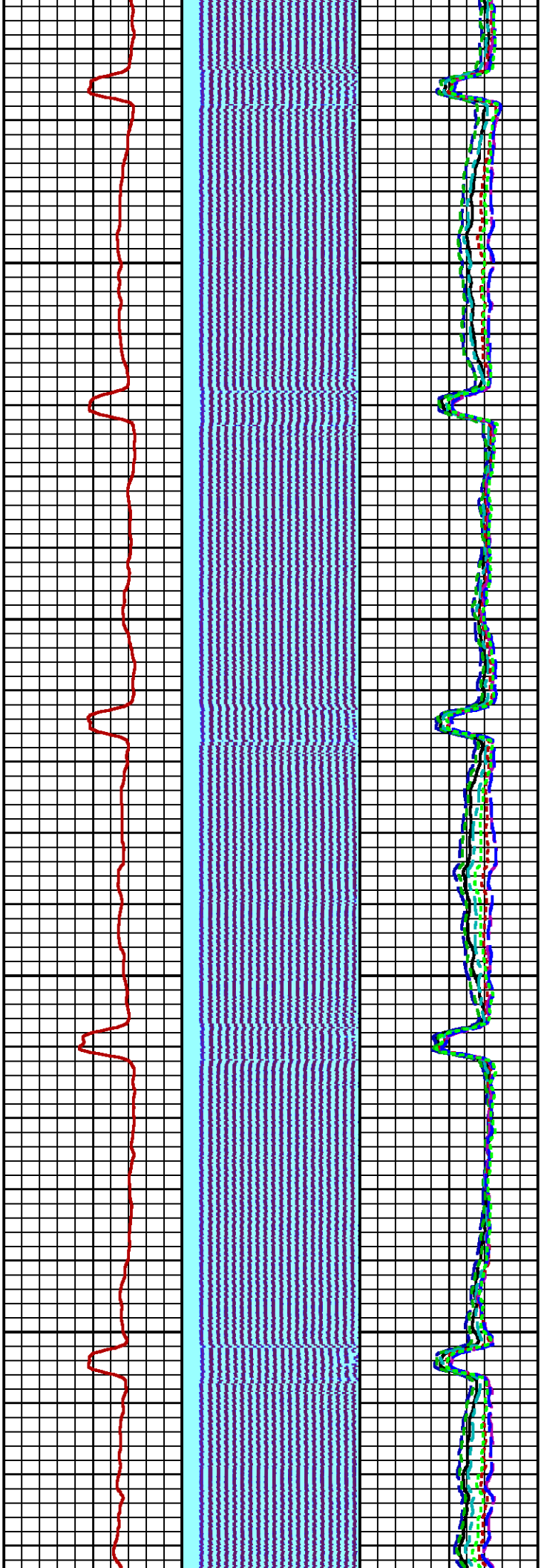




500

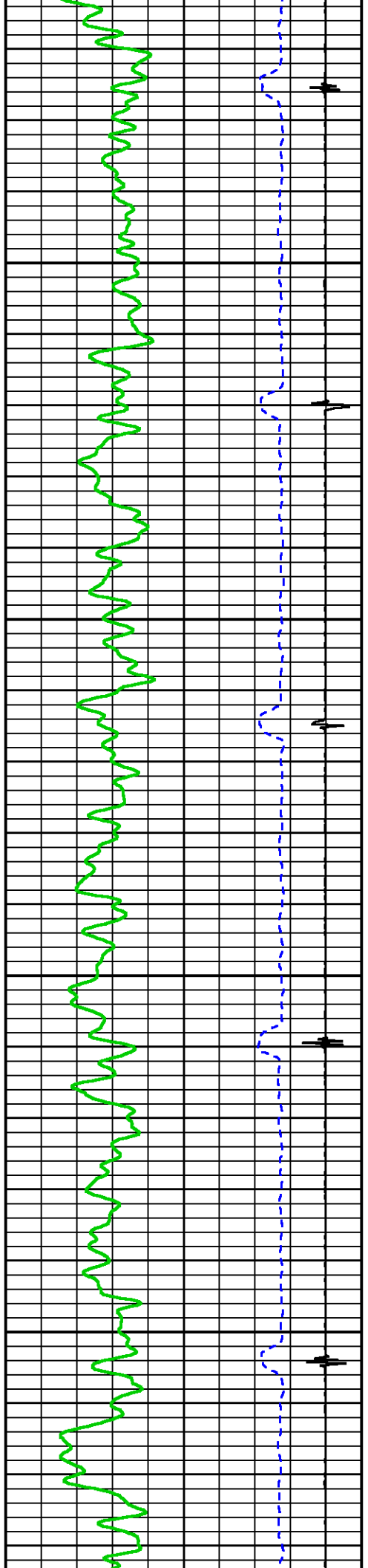
600

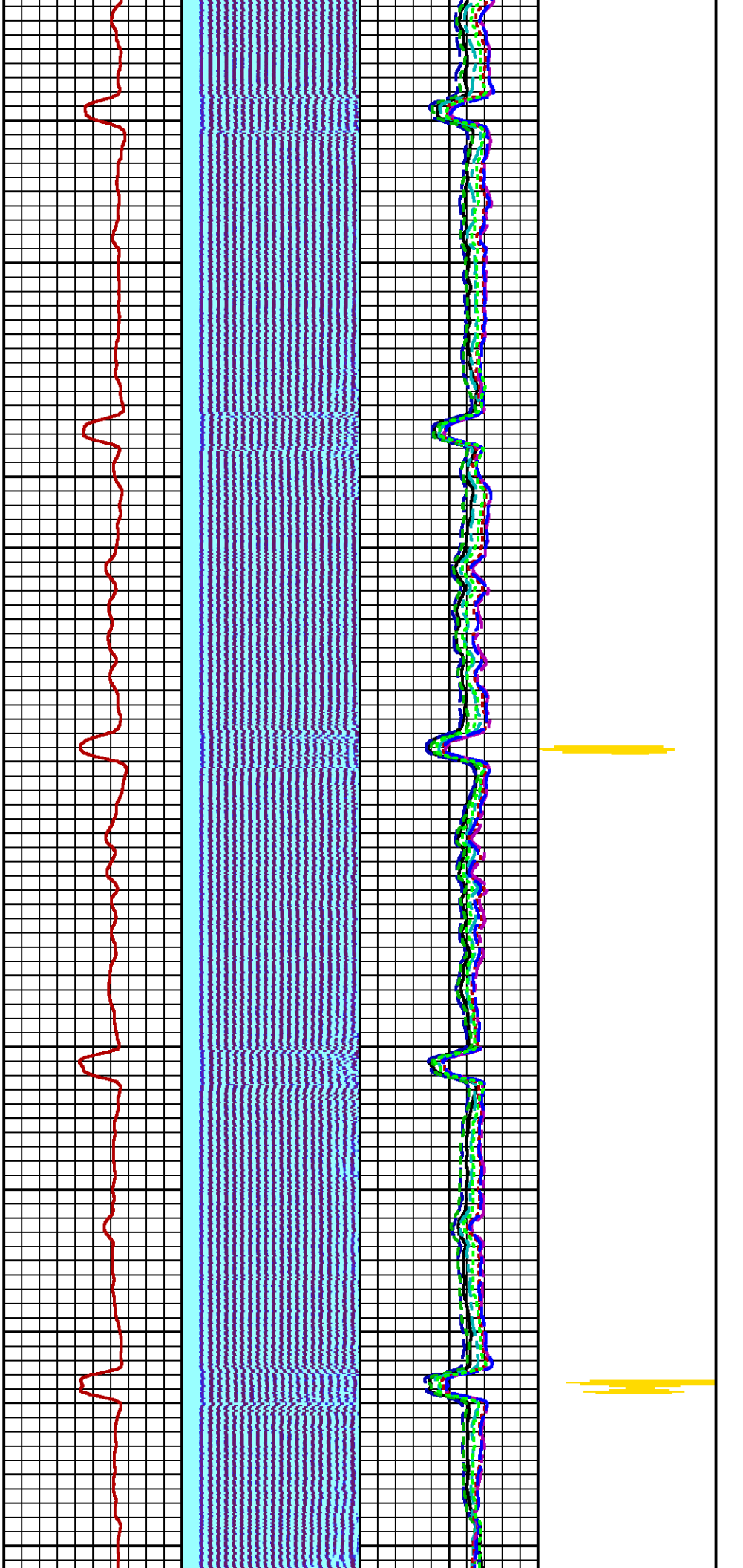




700

800

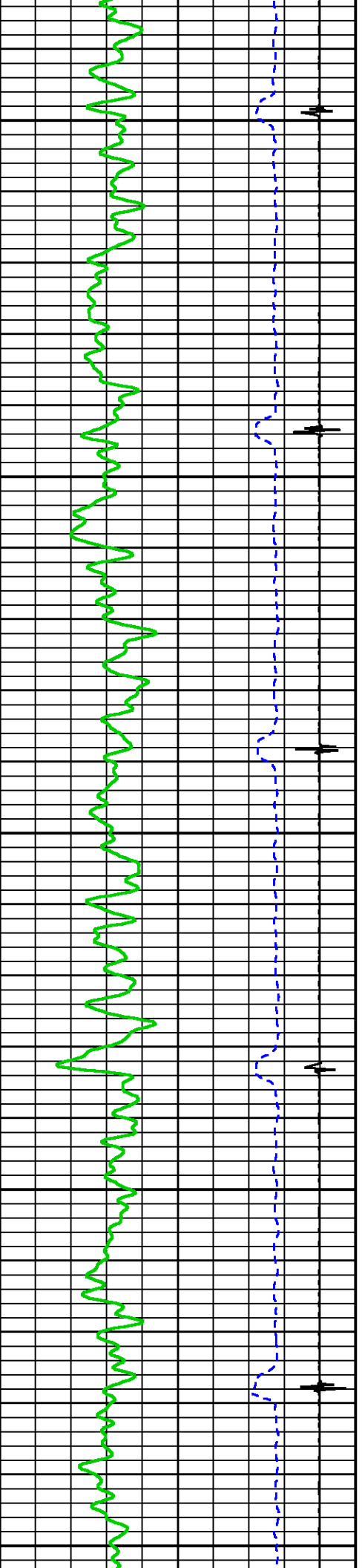


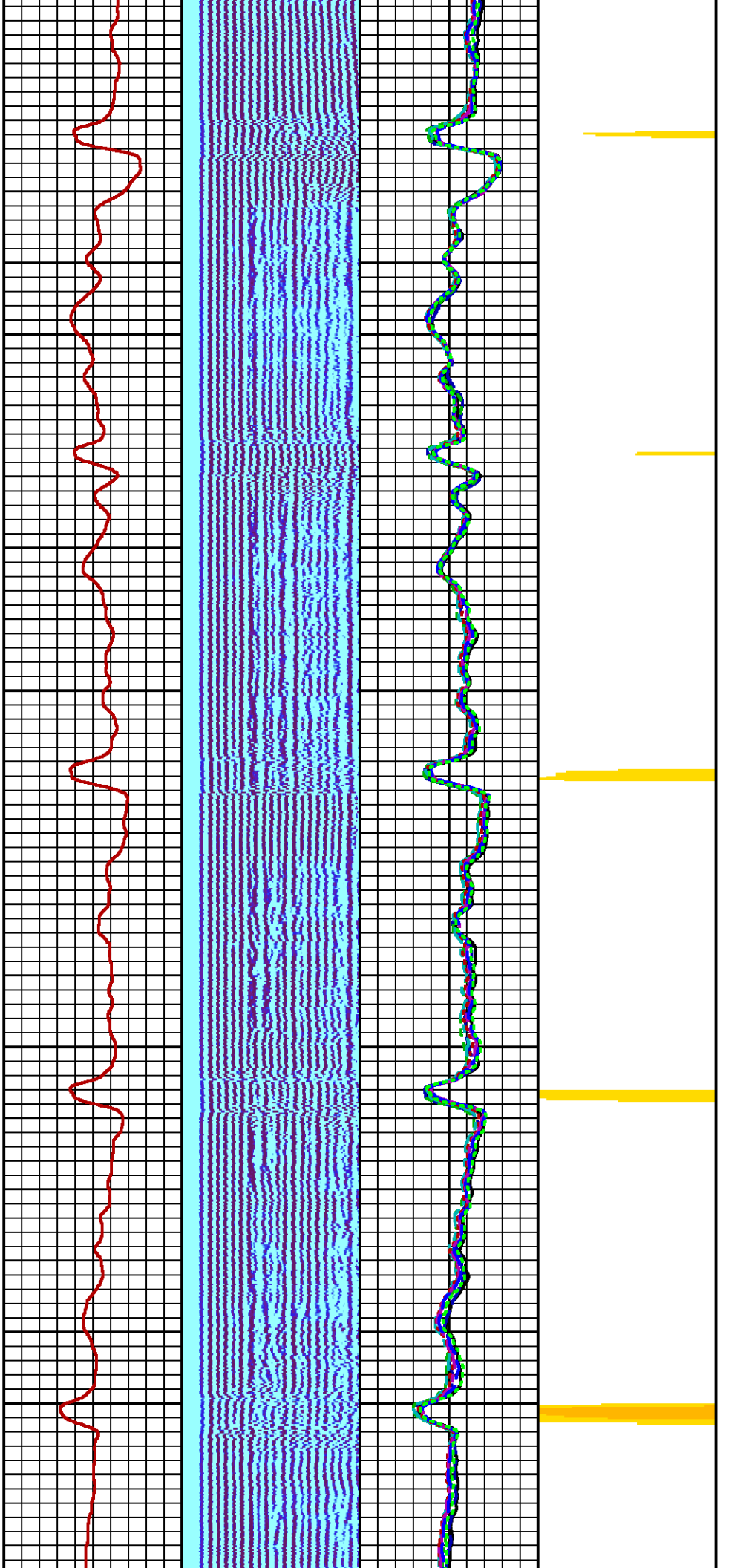


900

1000

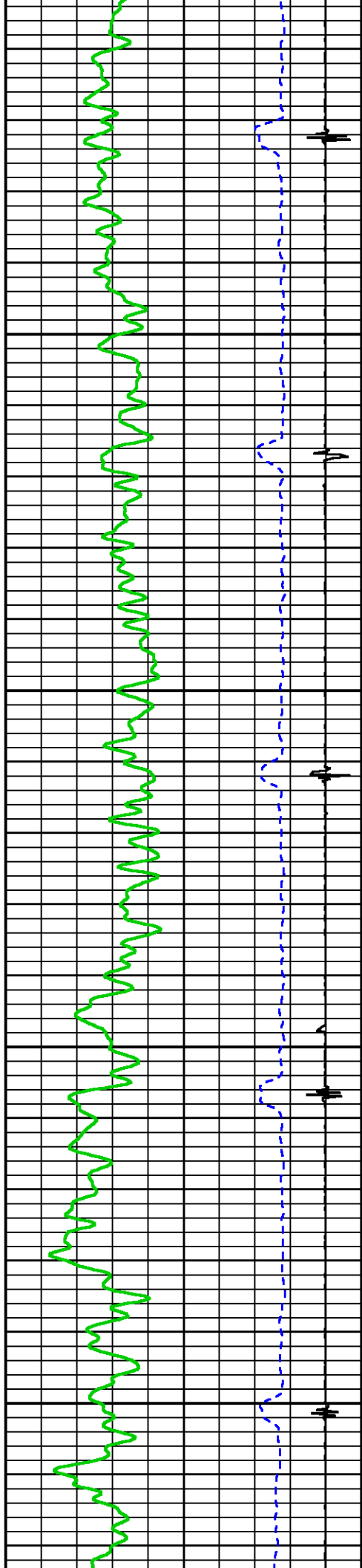
1100

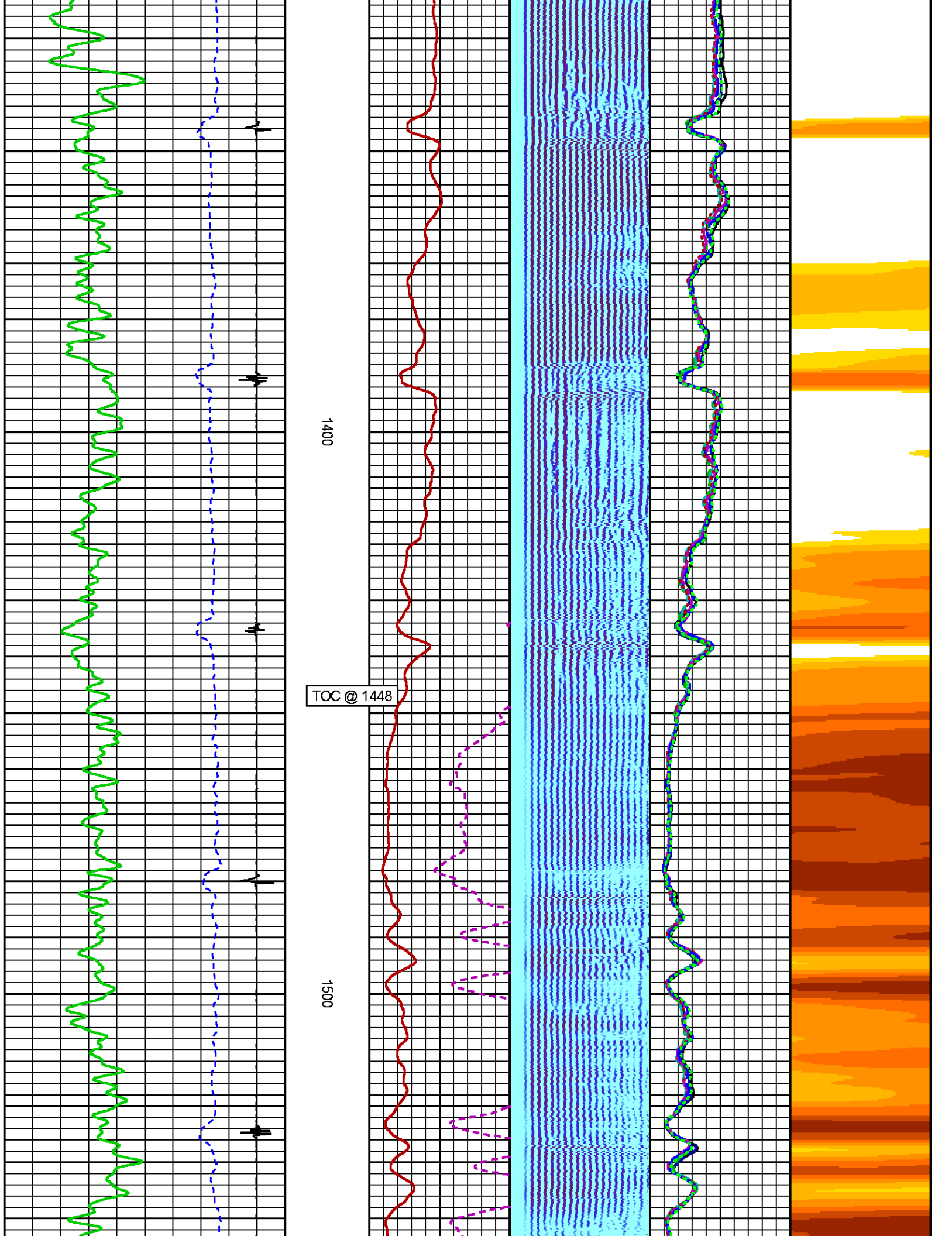


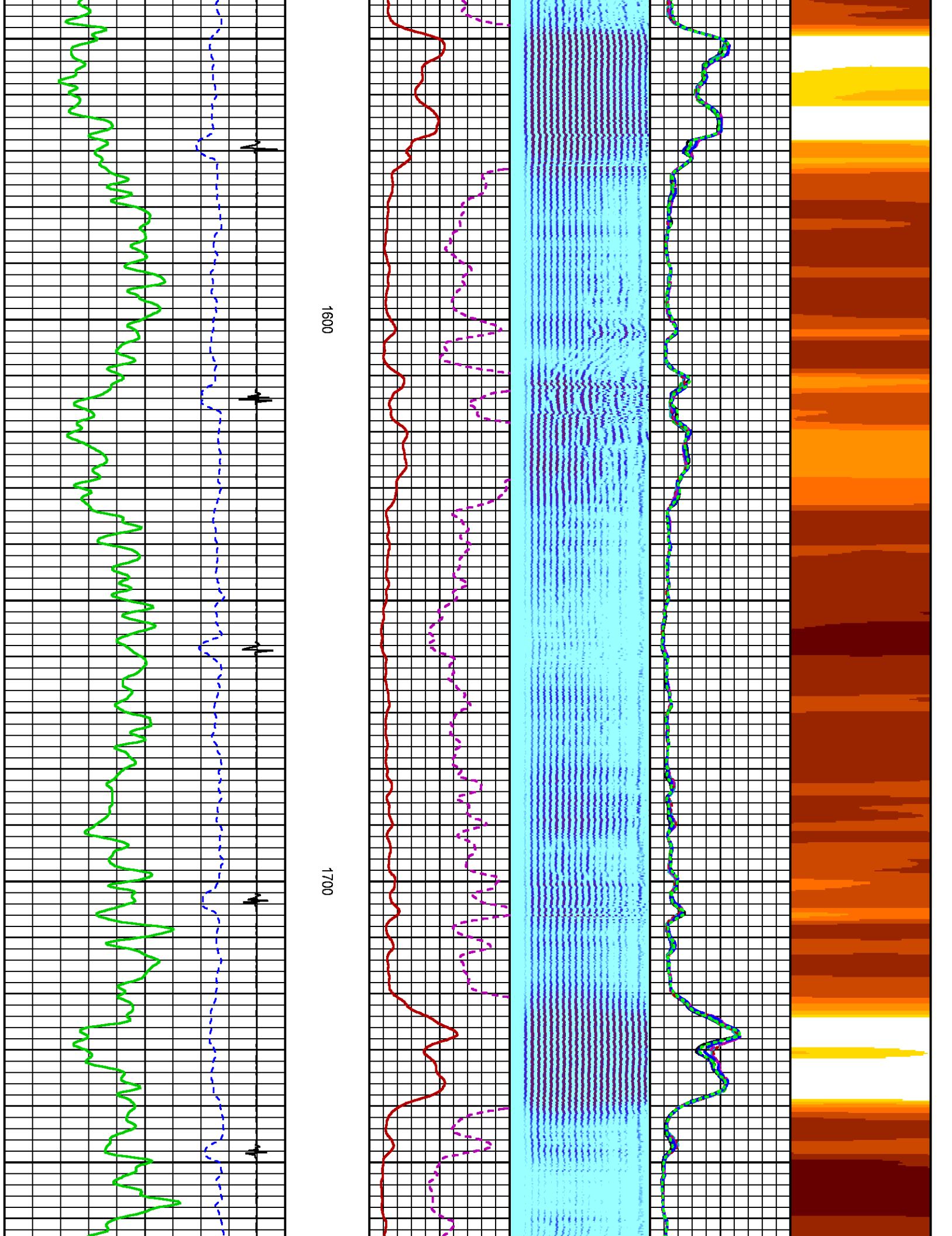


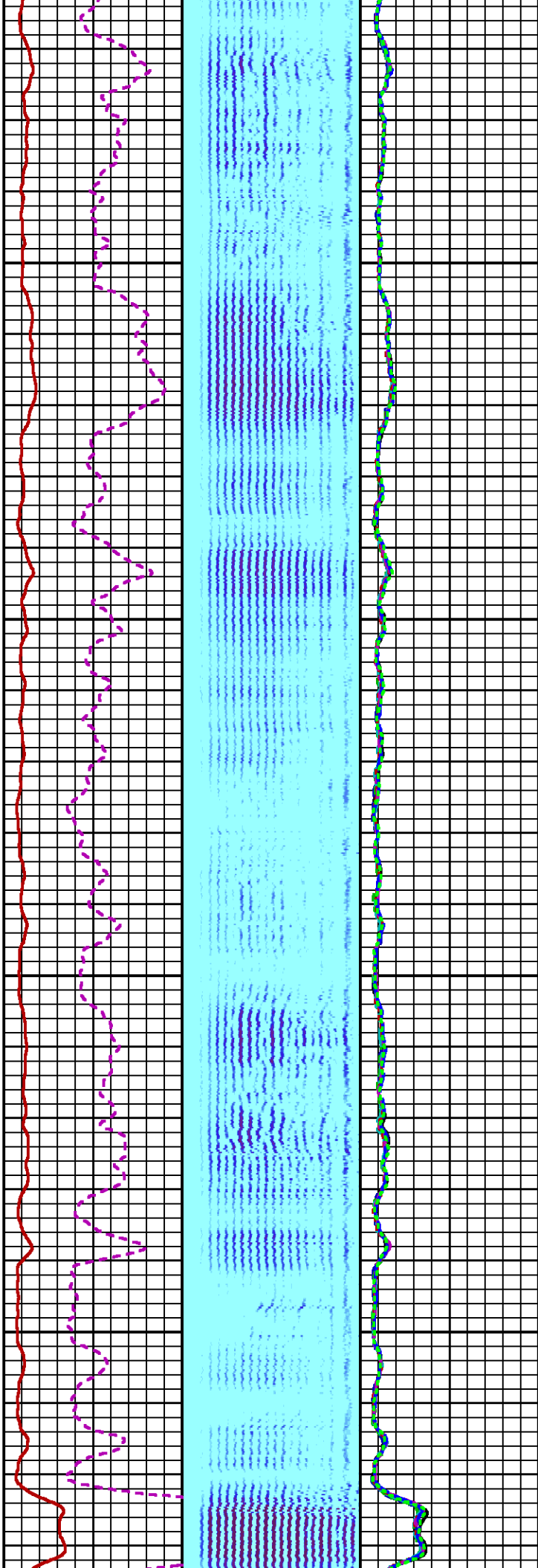
1200

1300



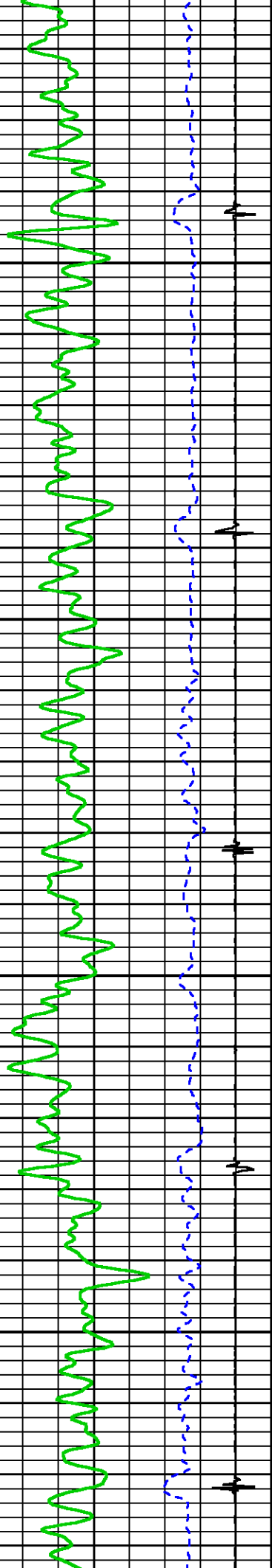


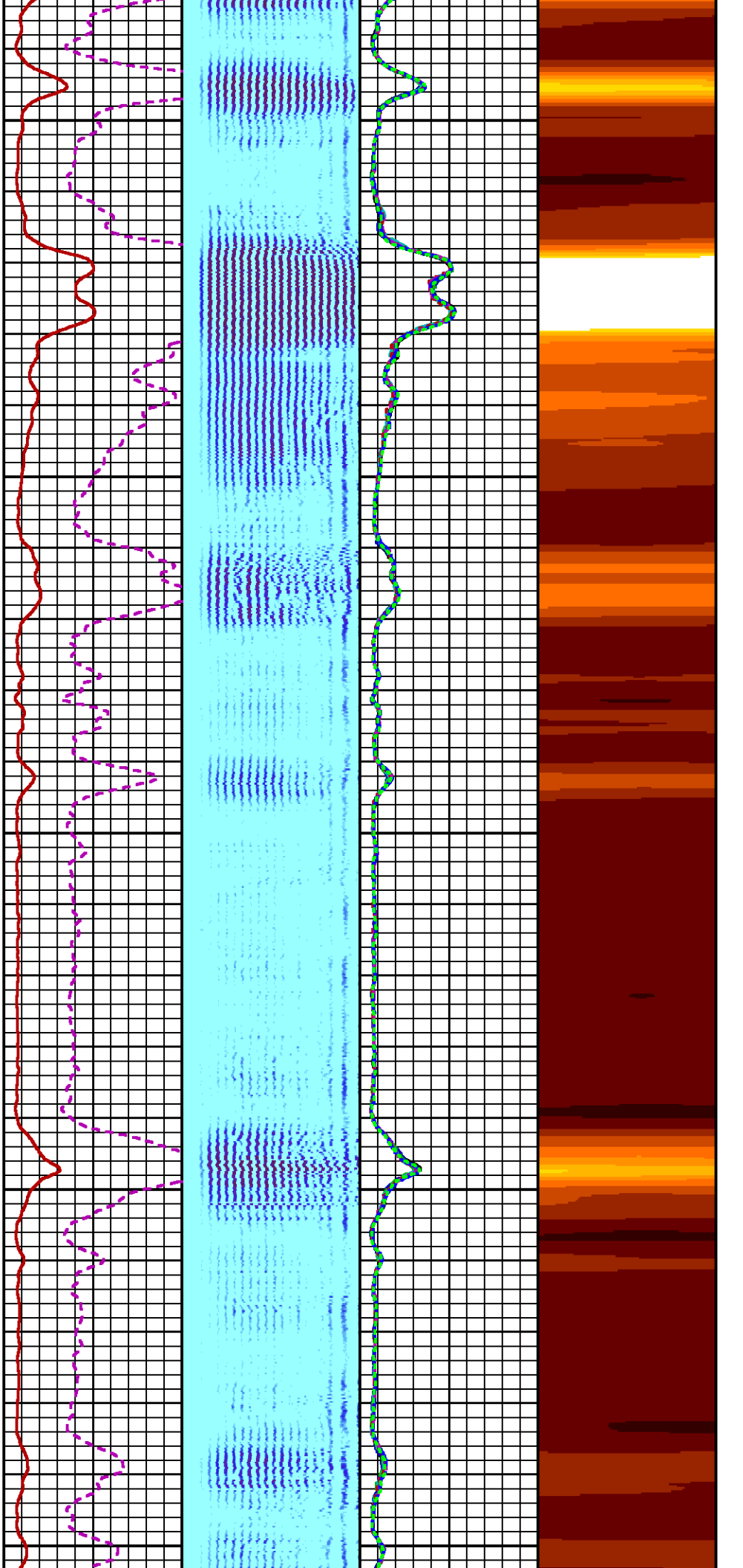




1800

1900

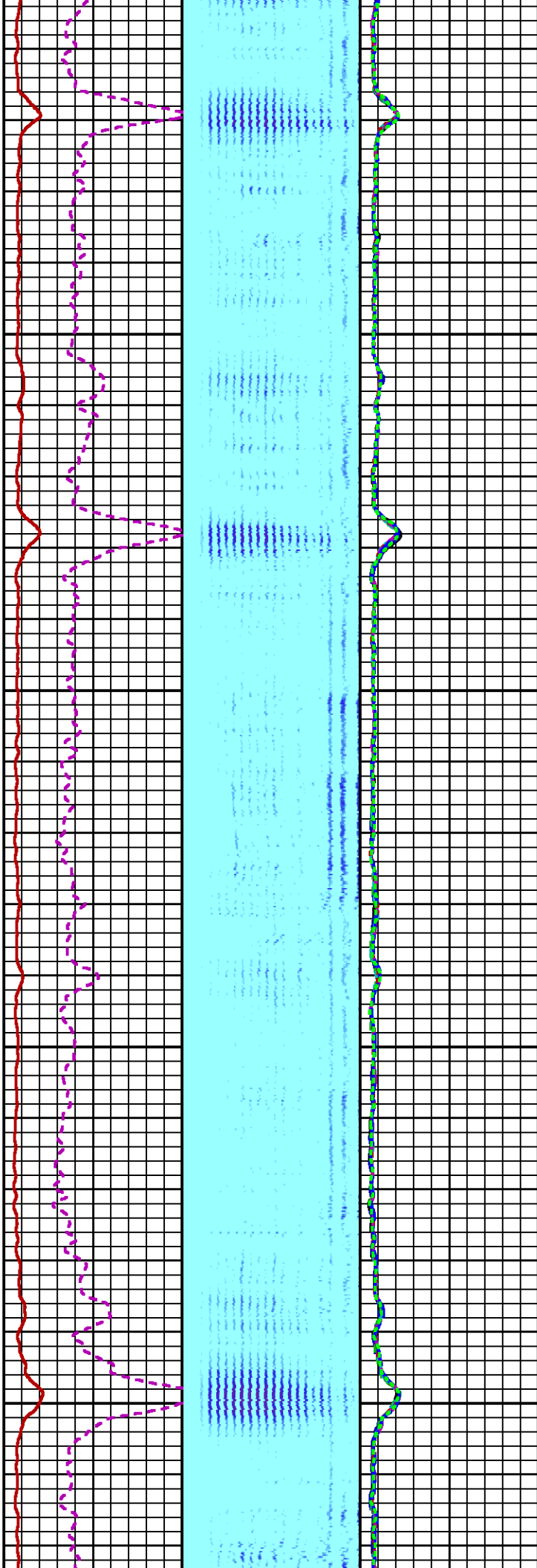
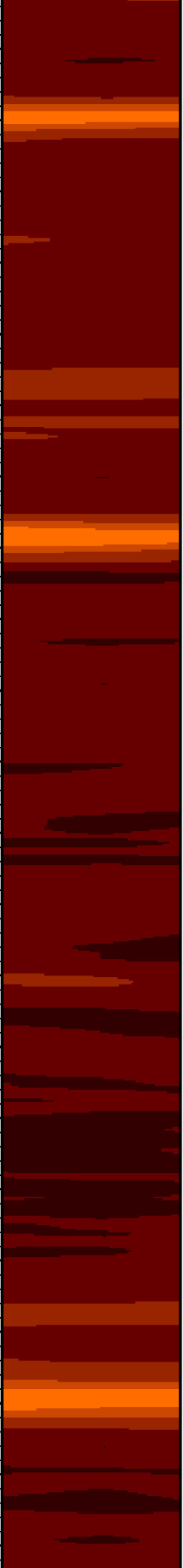




2000

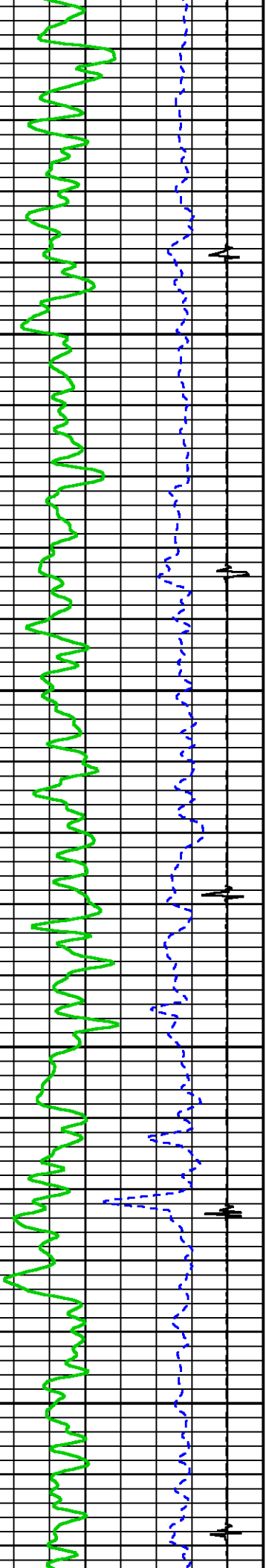
2100

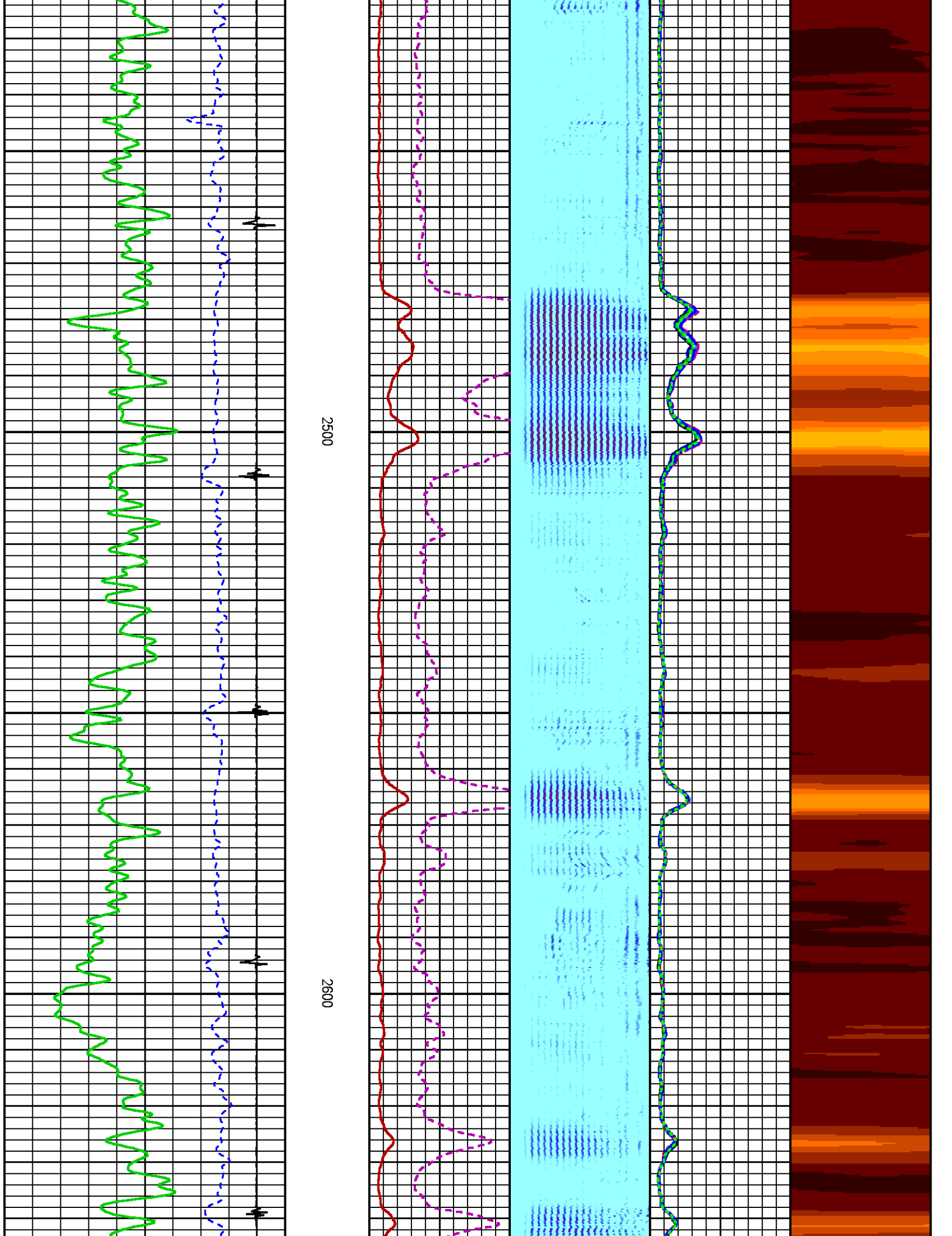
2200

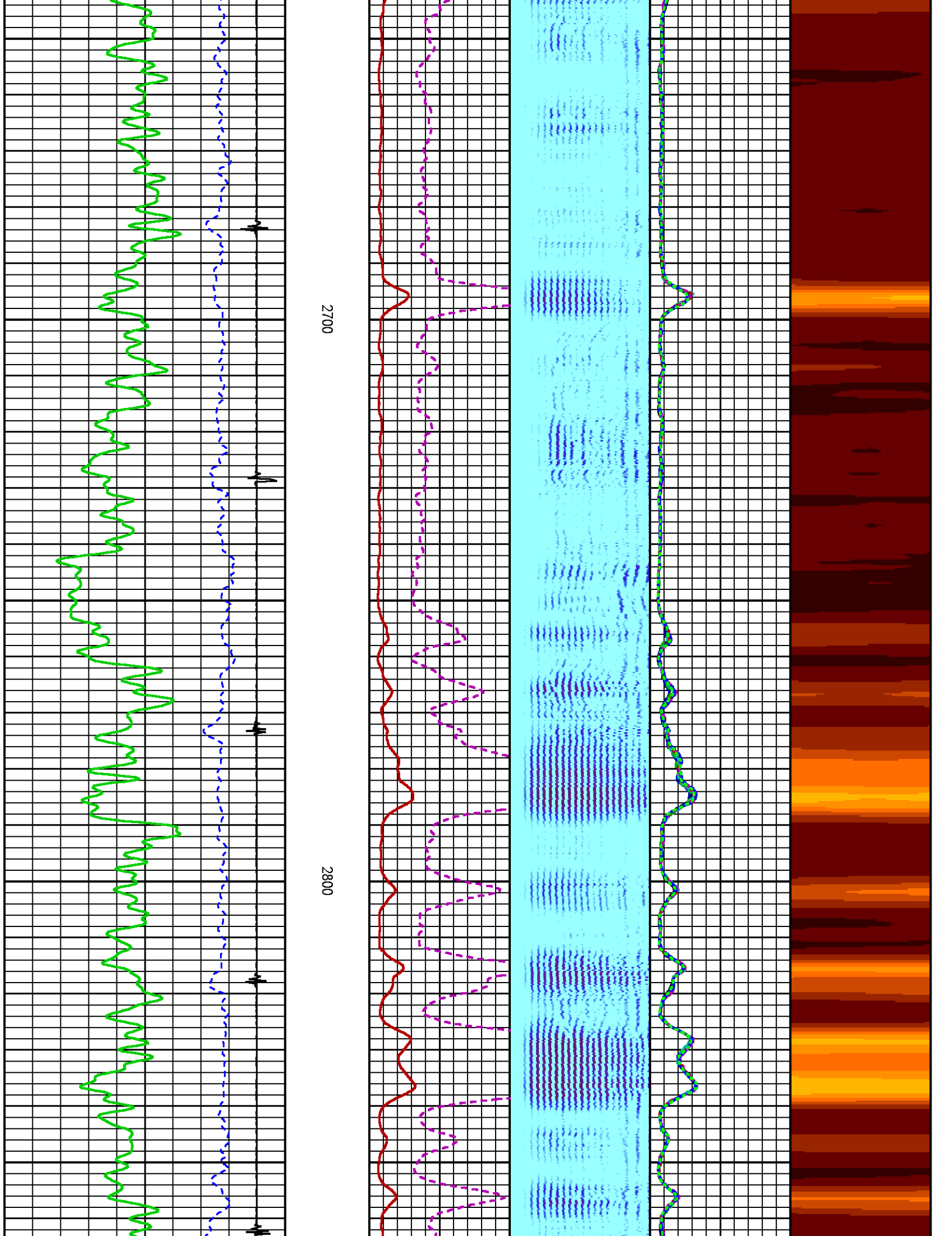


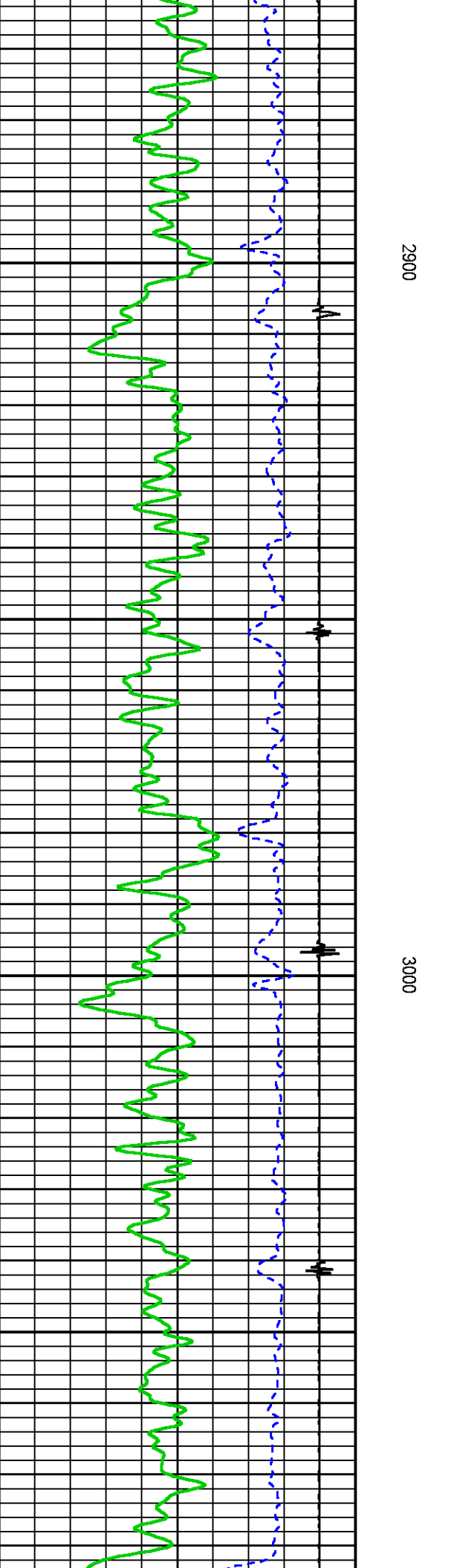
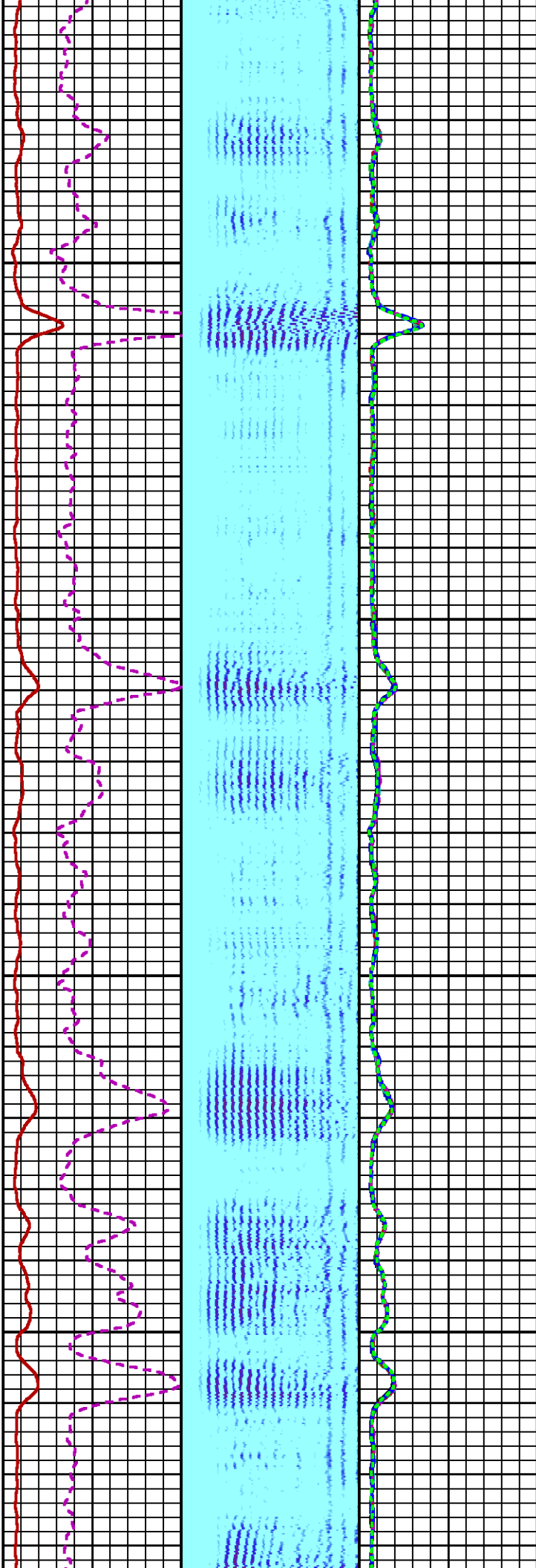
2300

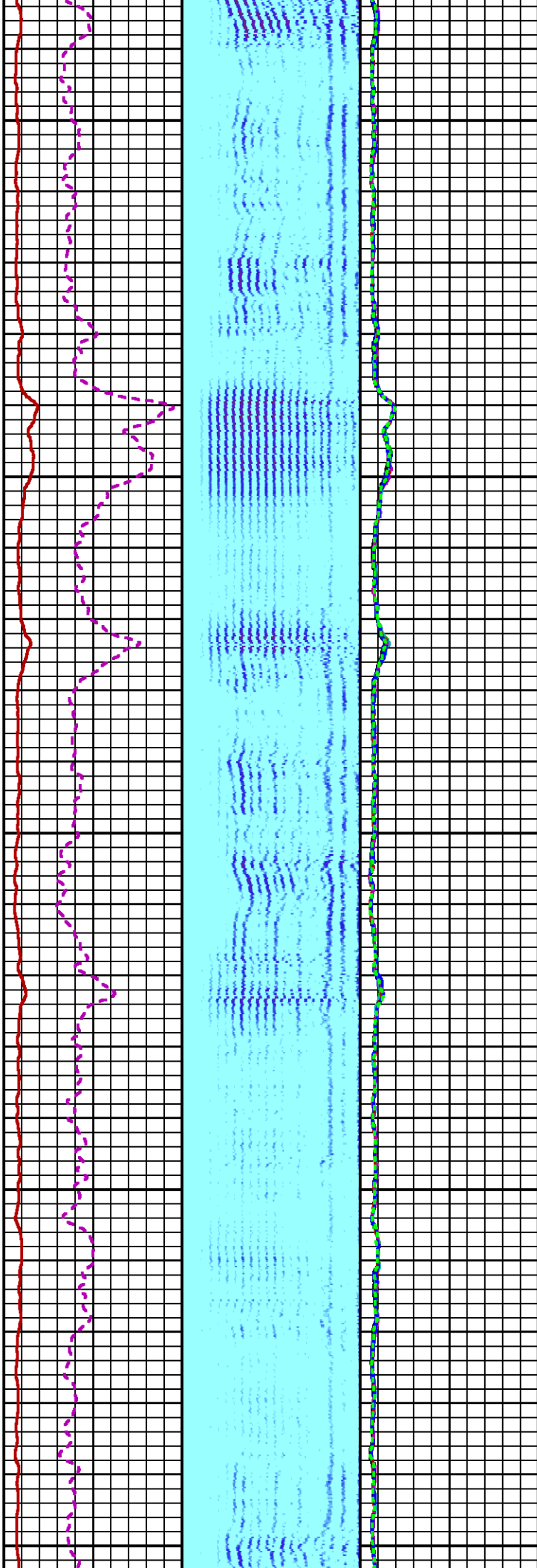
2400







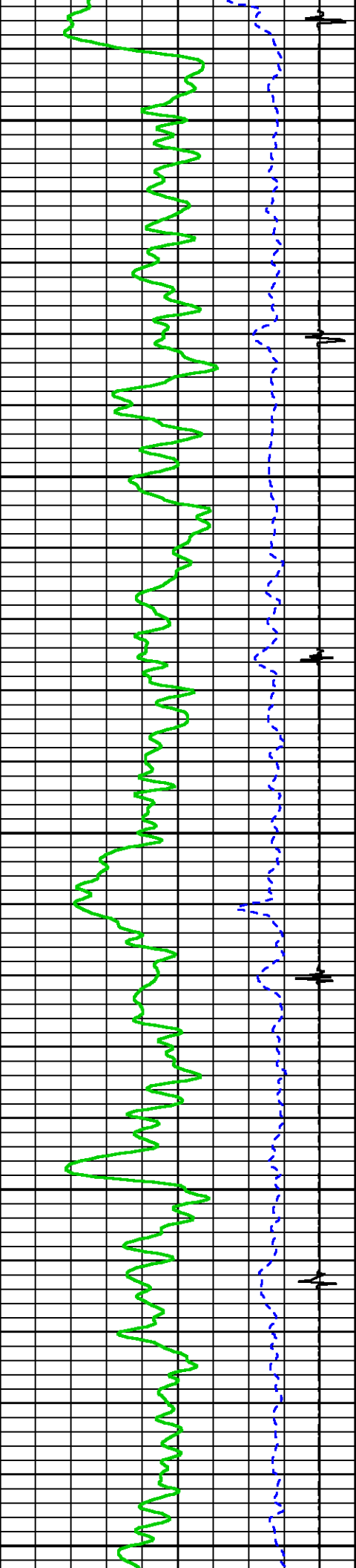


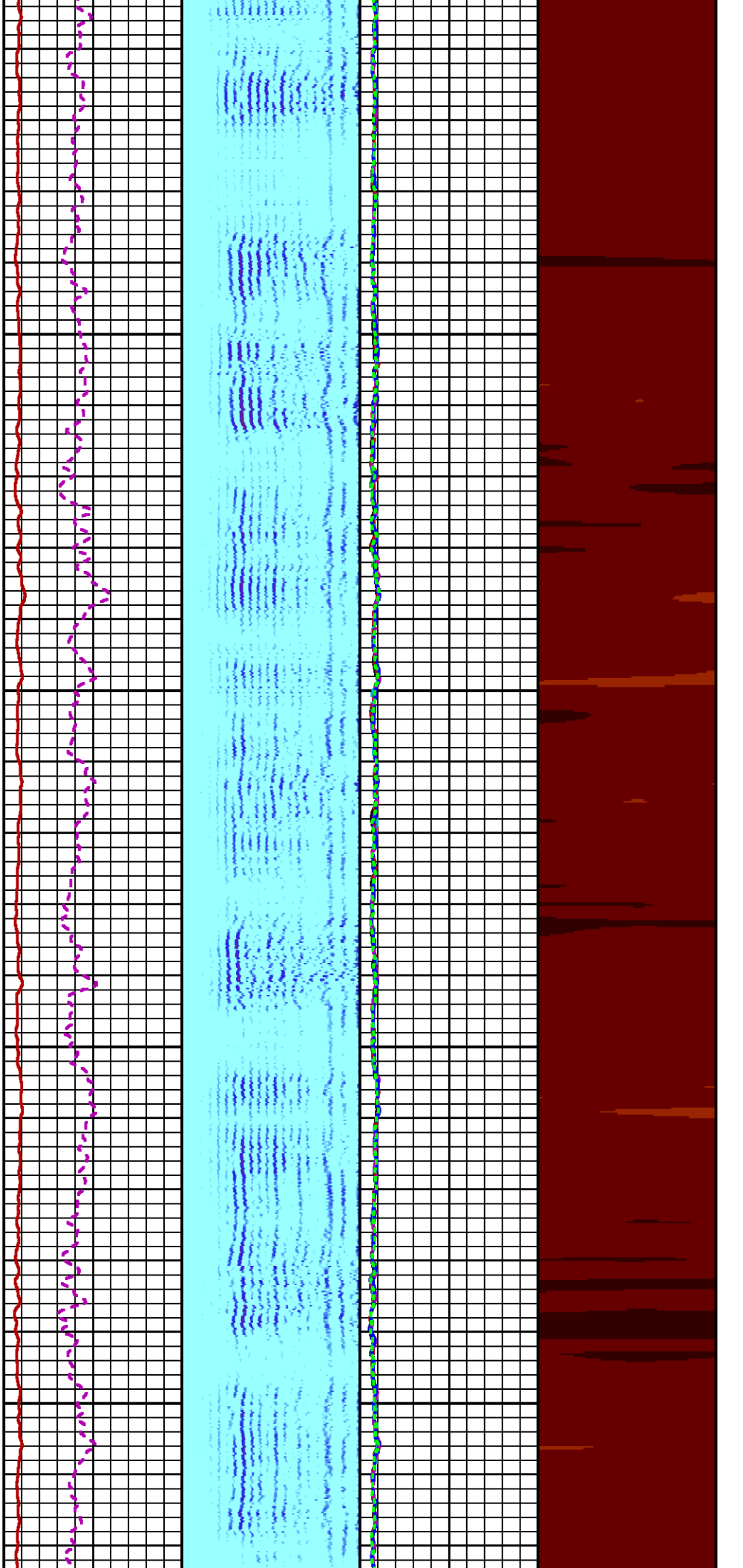


3100

3200

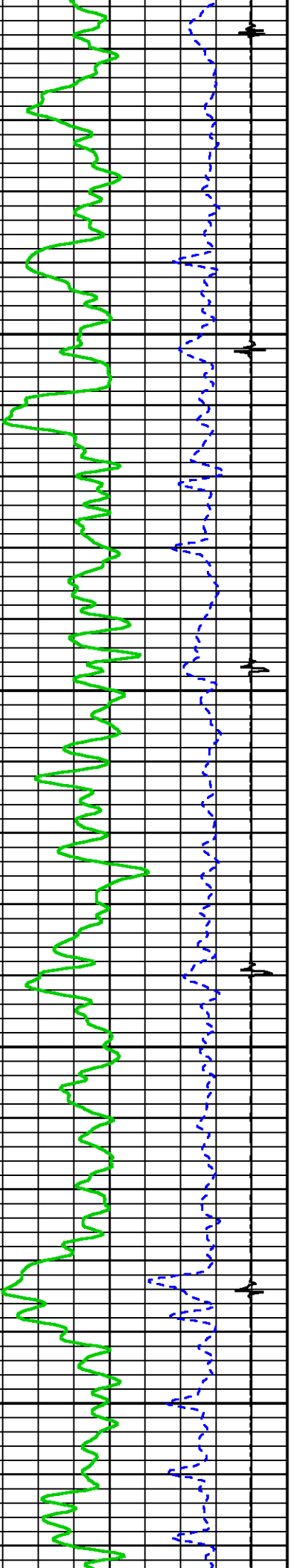
3300

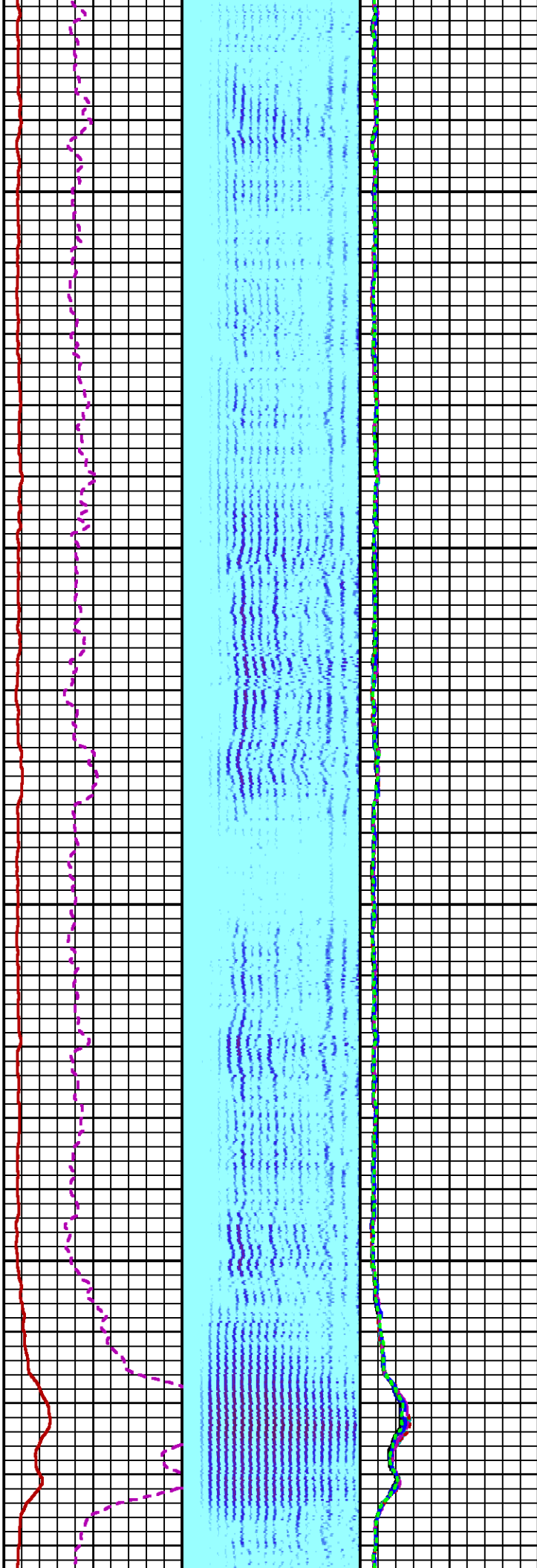
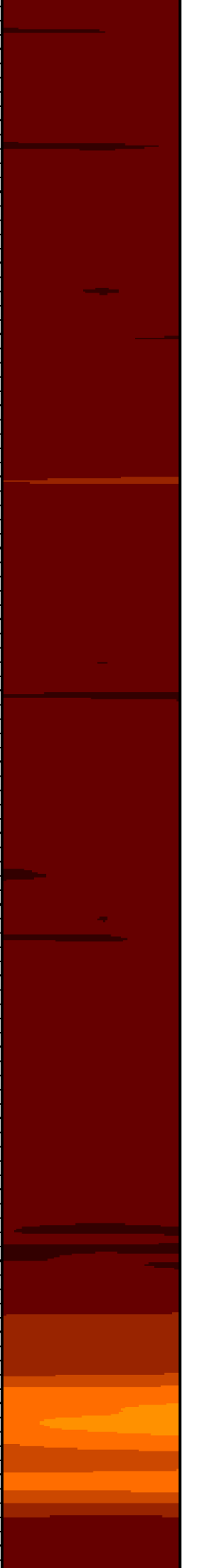




3400

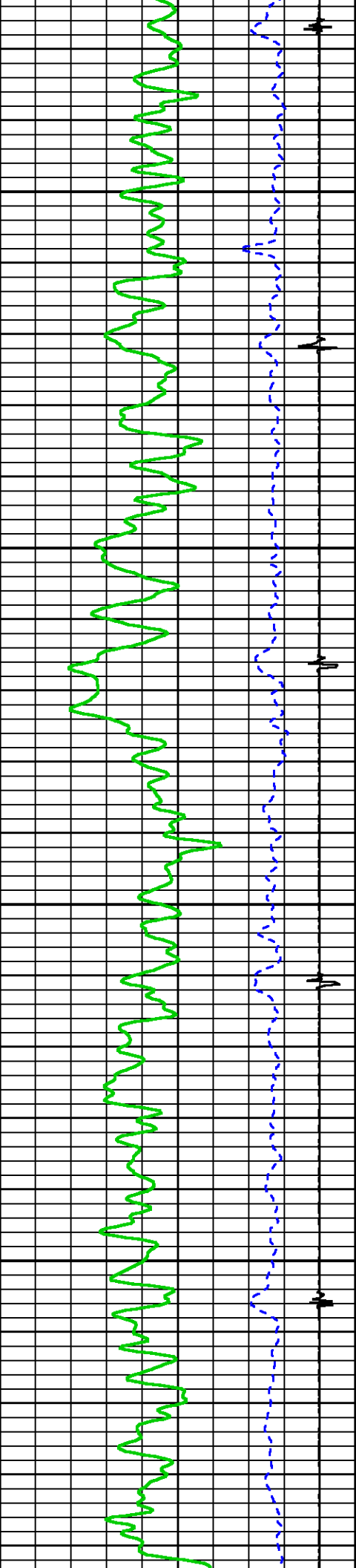
3500

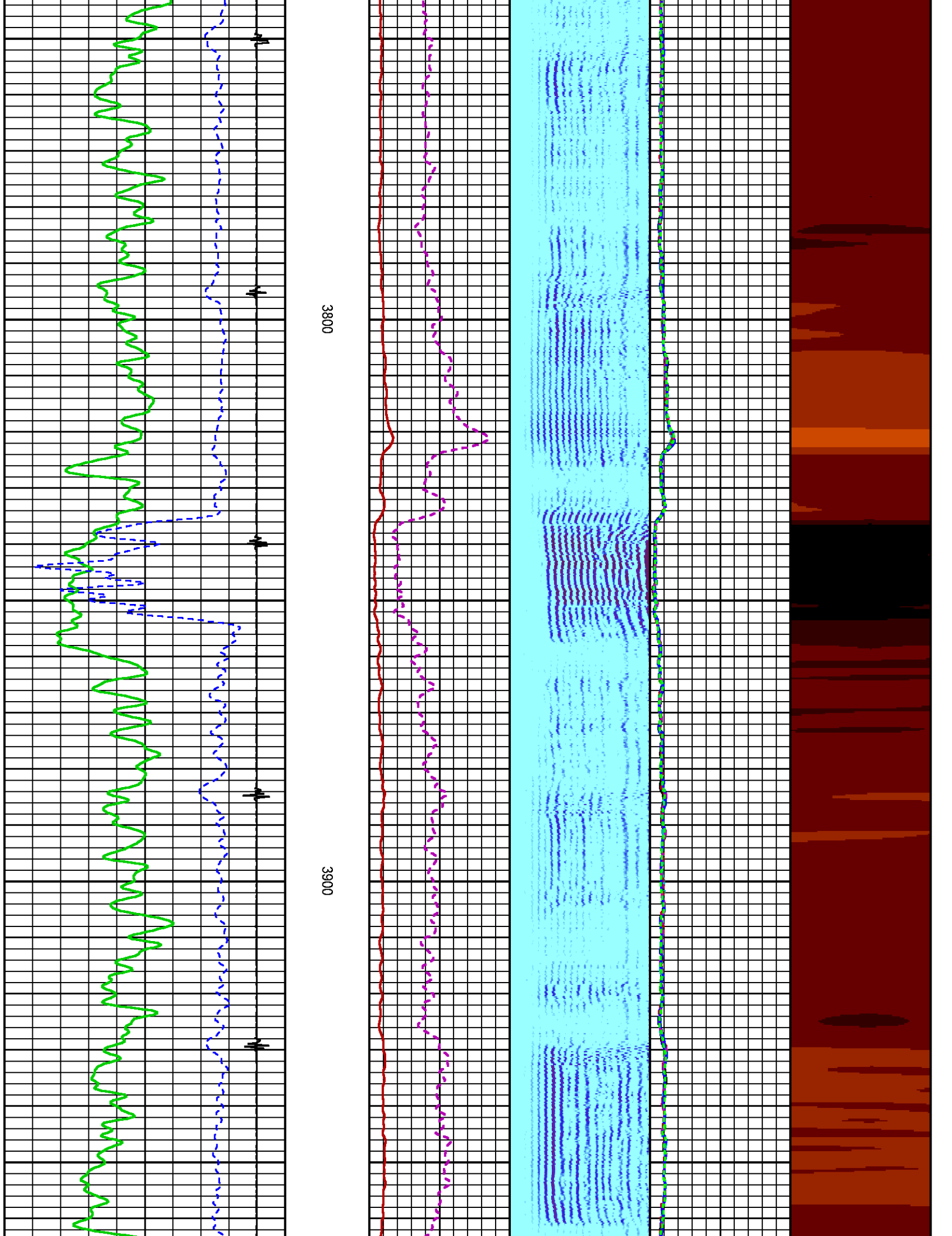


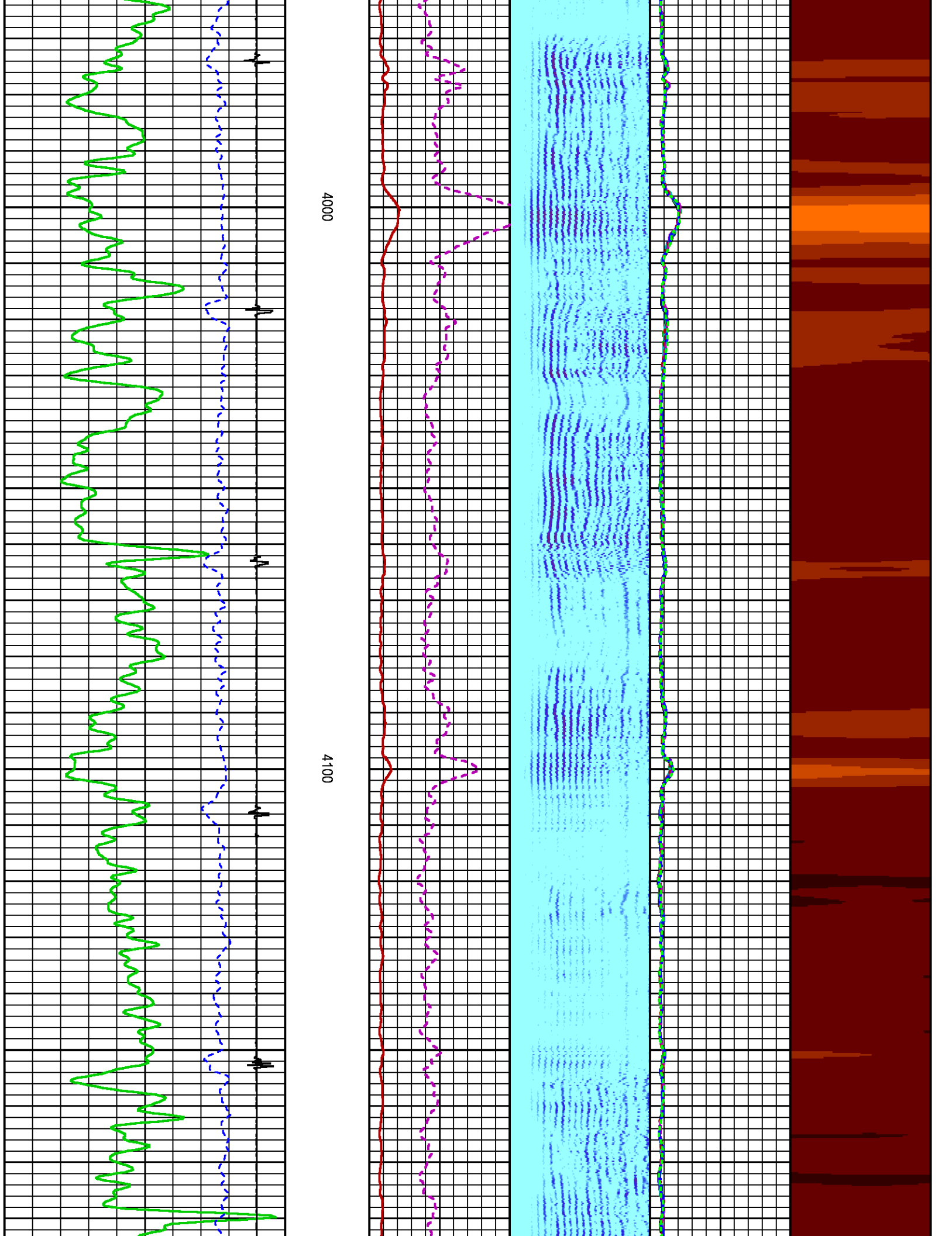


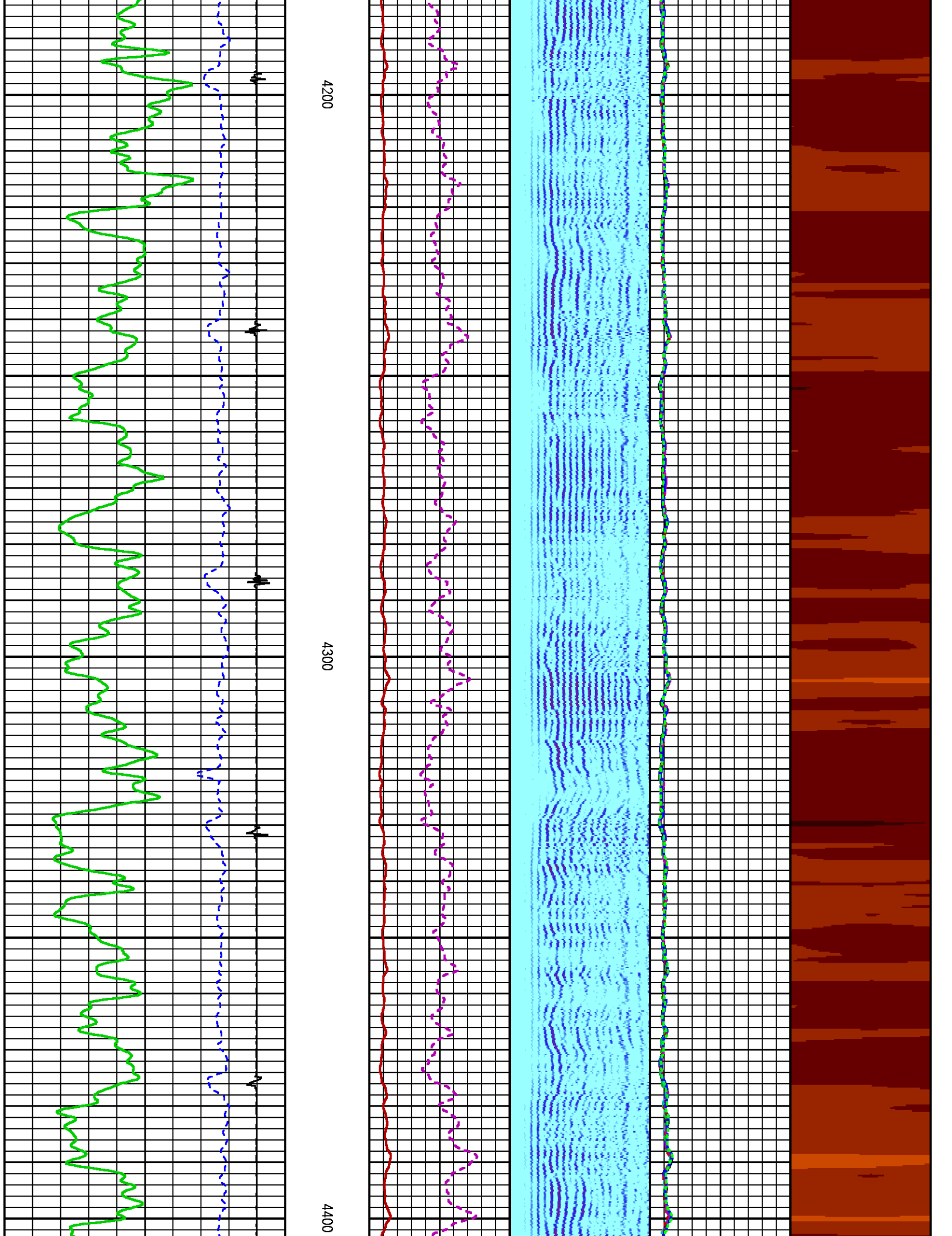
3600

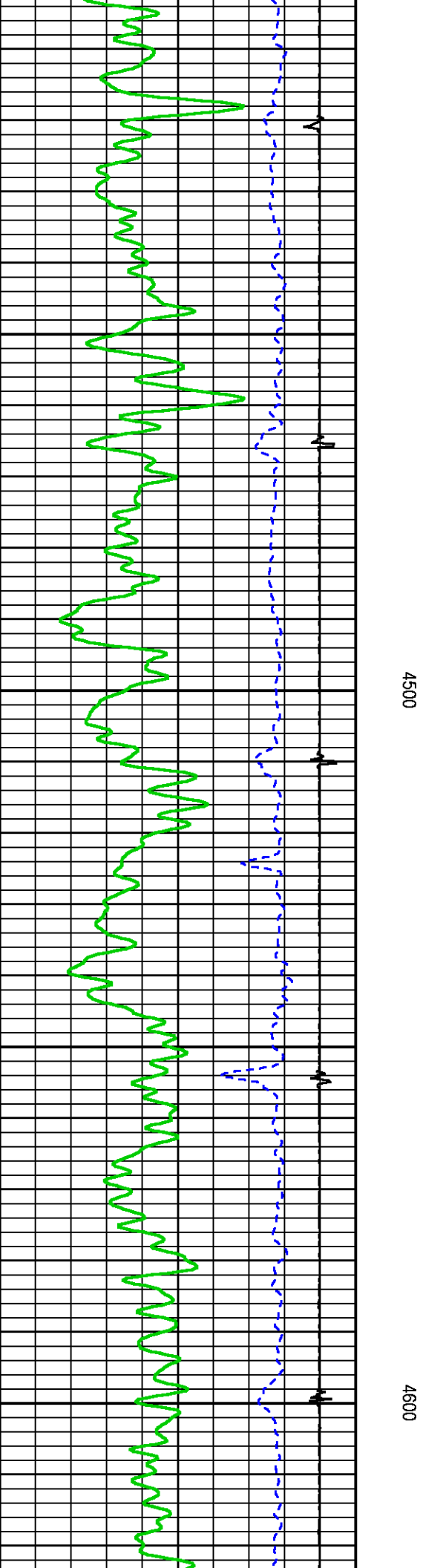
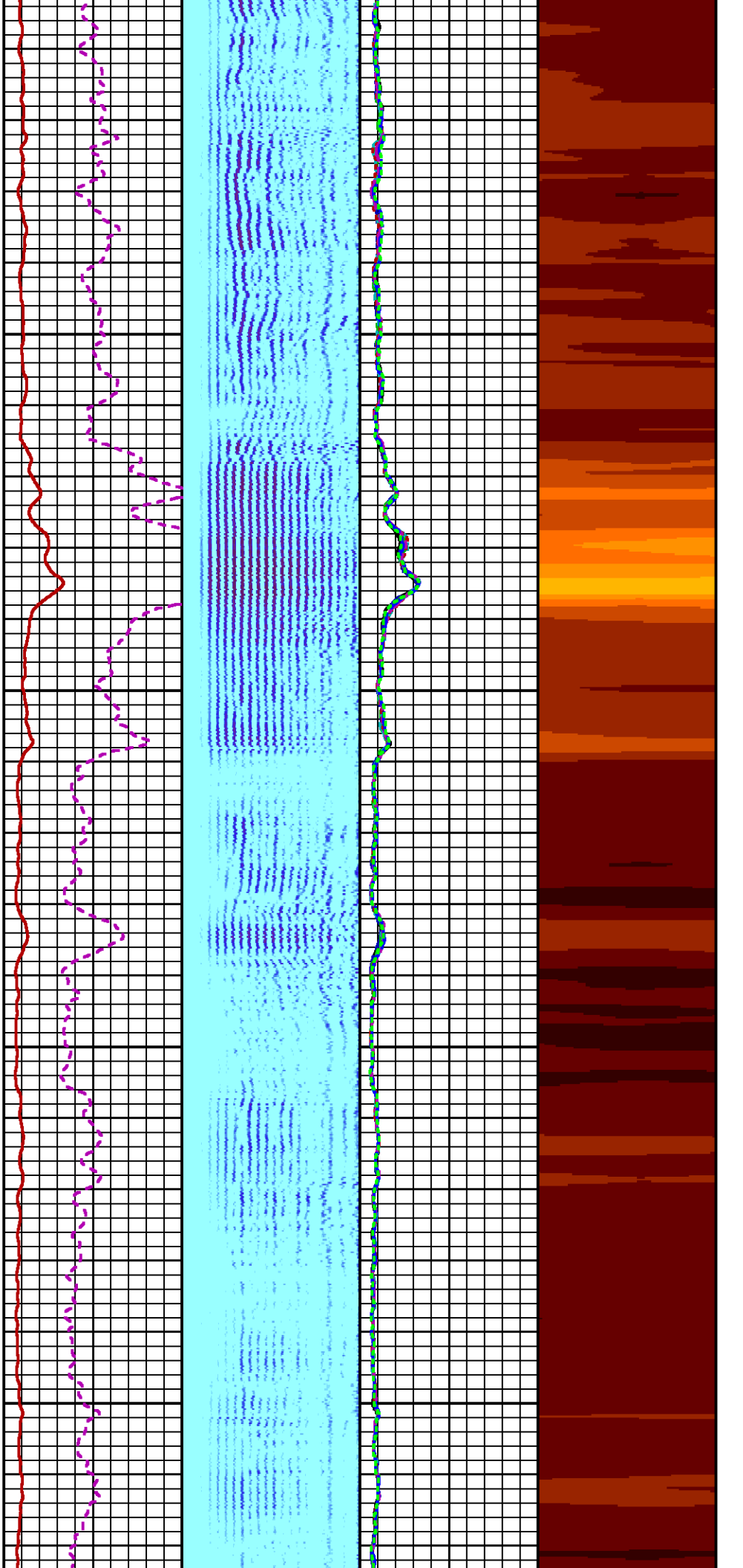
3700

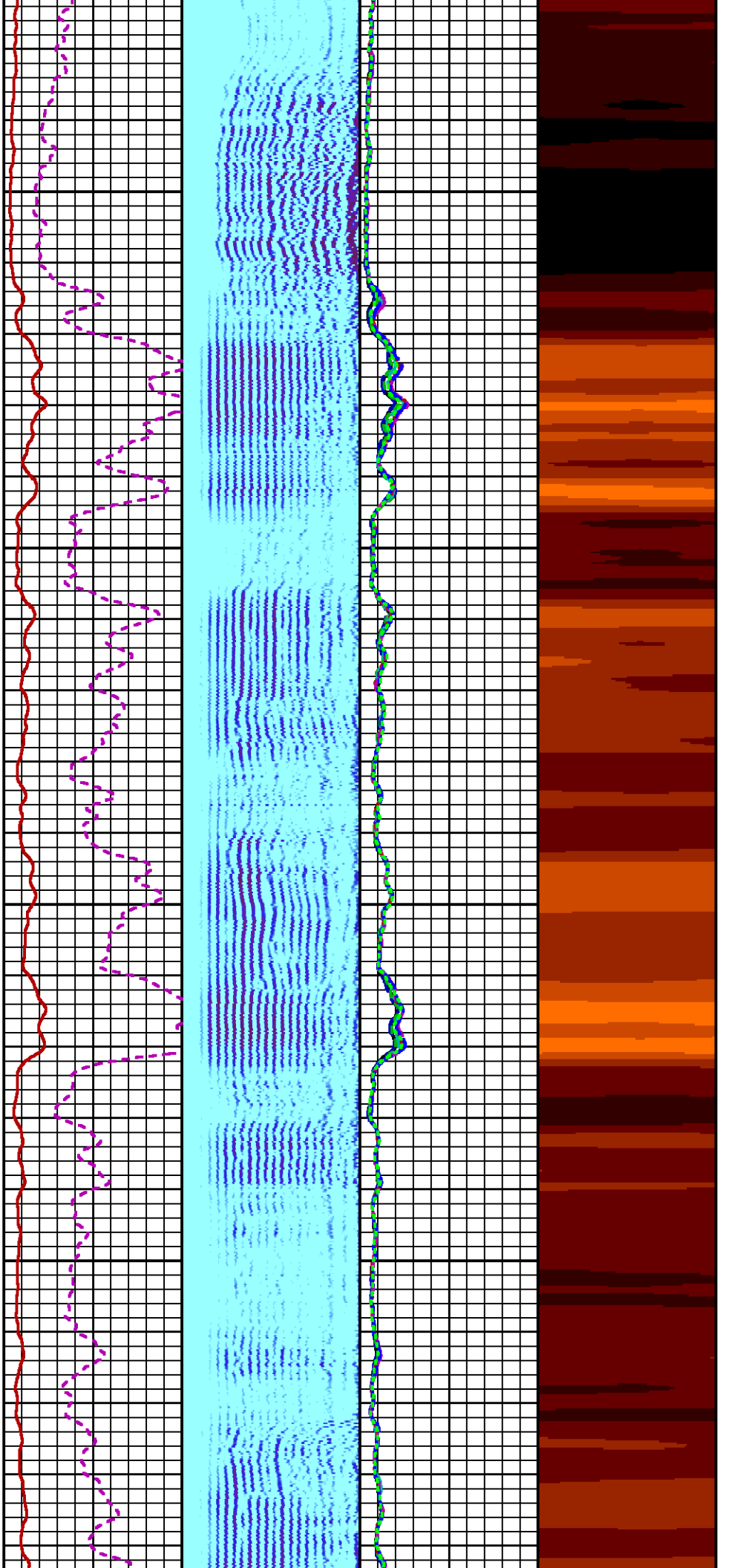






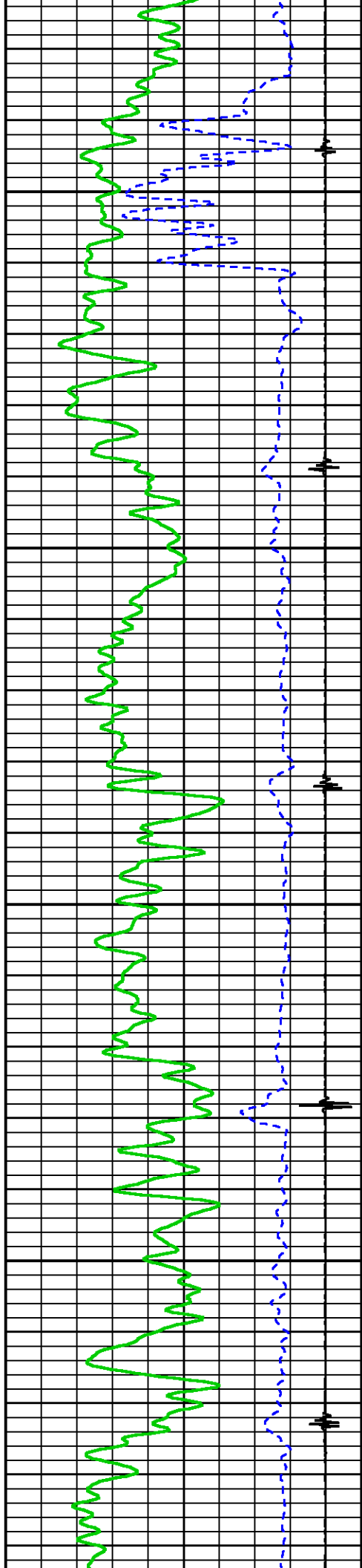


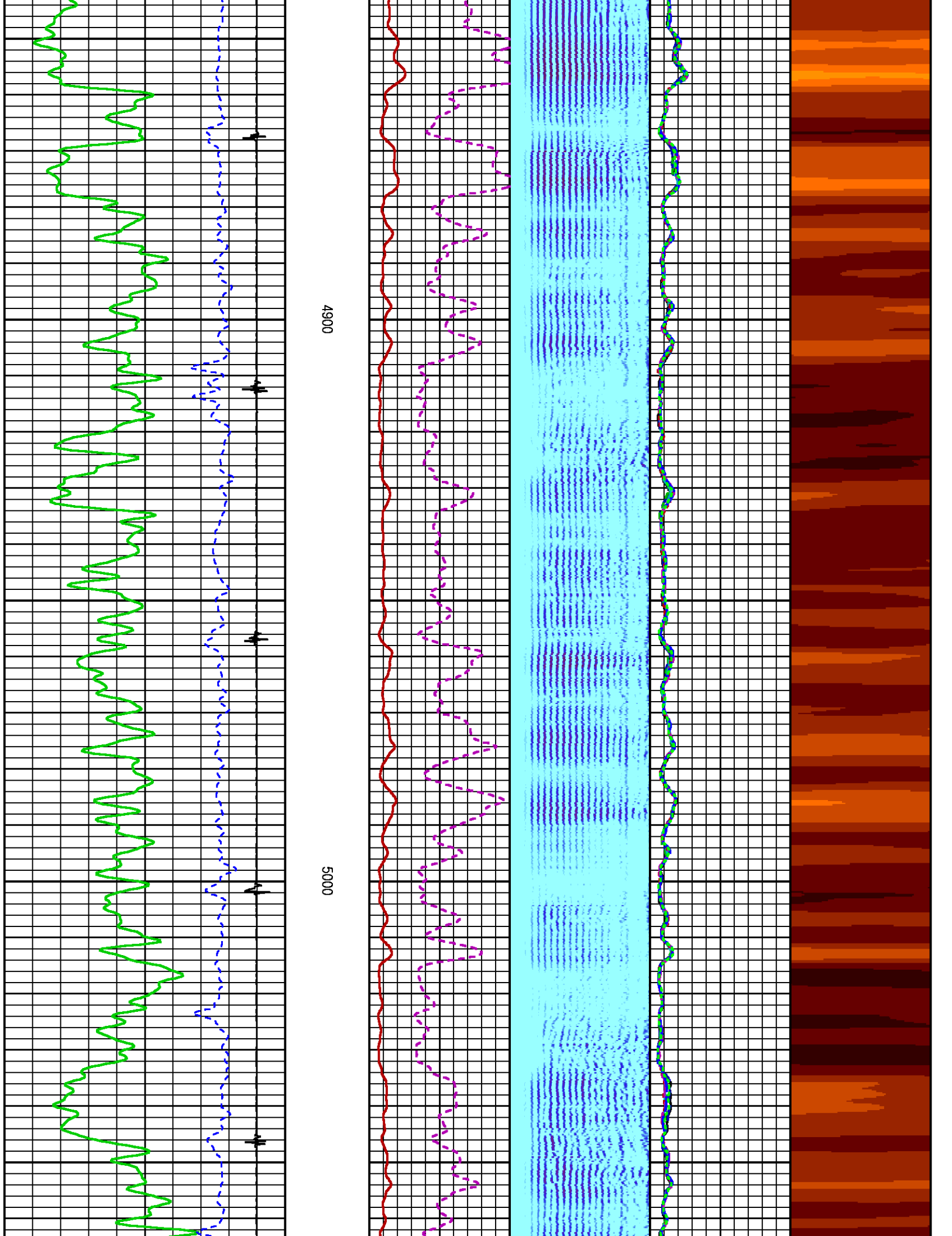


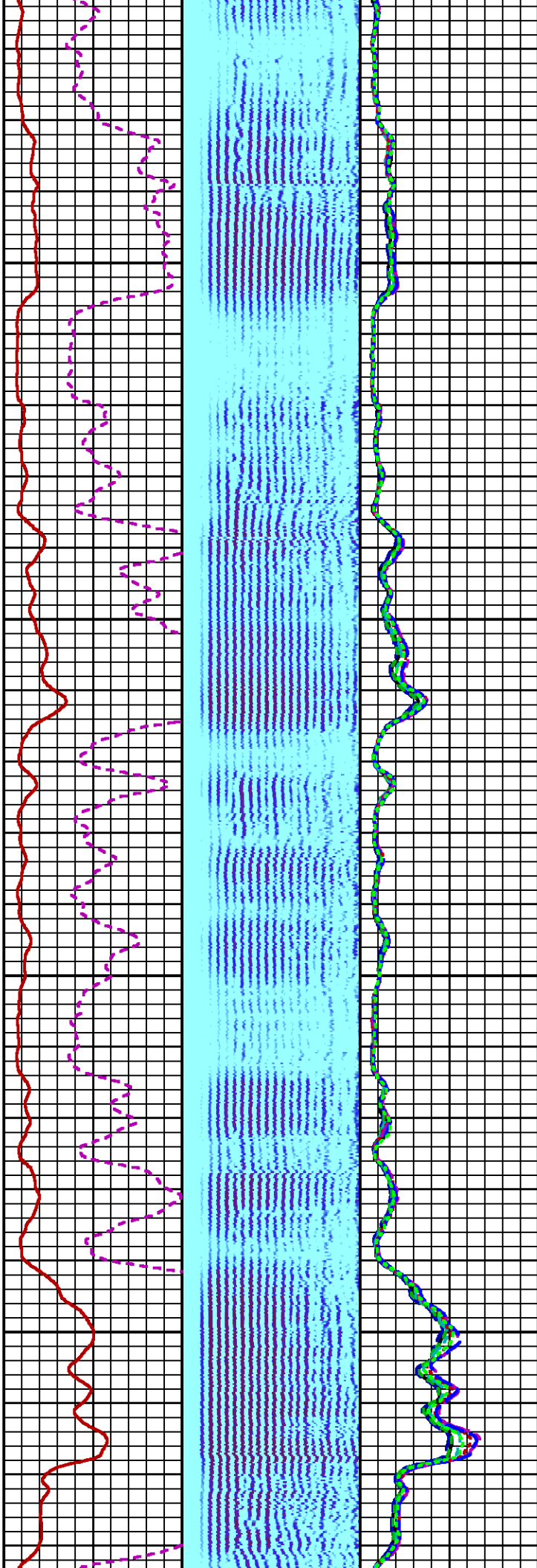


4700

4800

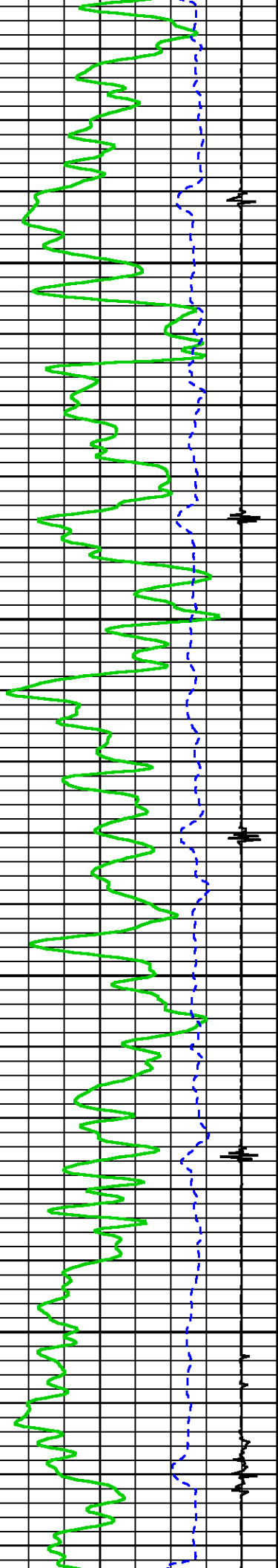


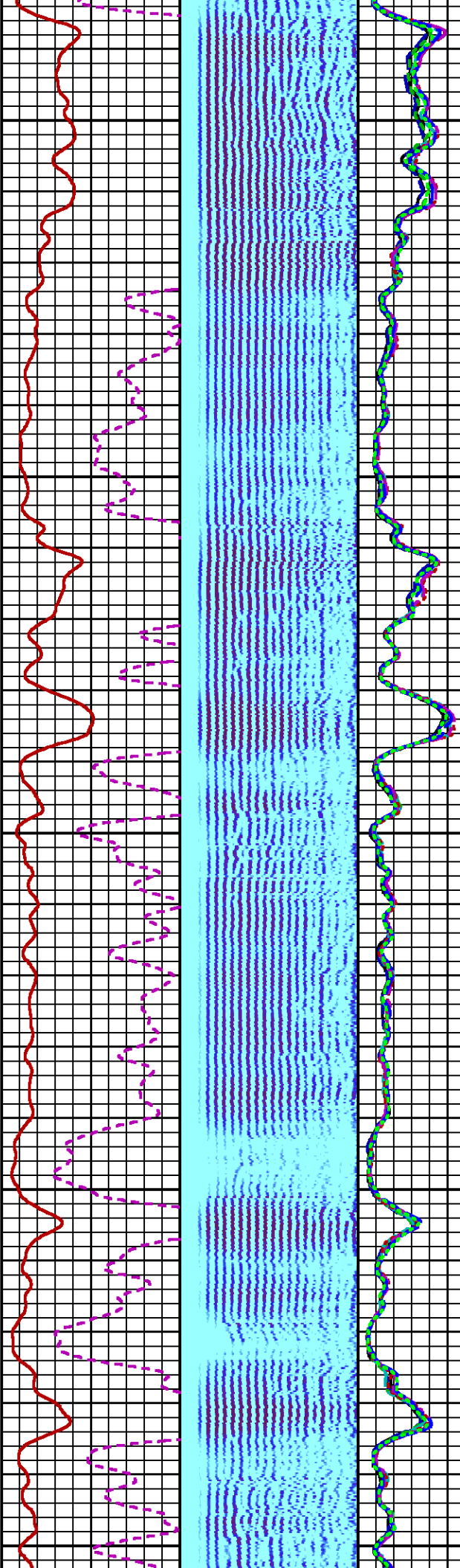




5100

5200

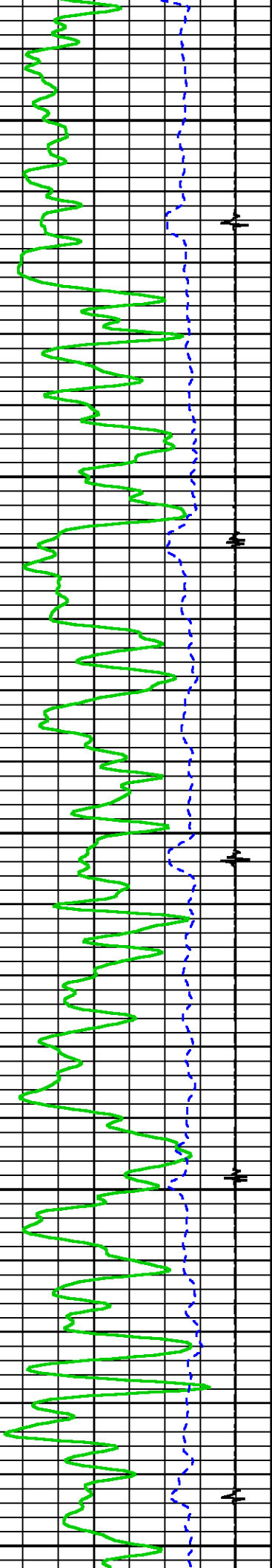


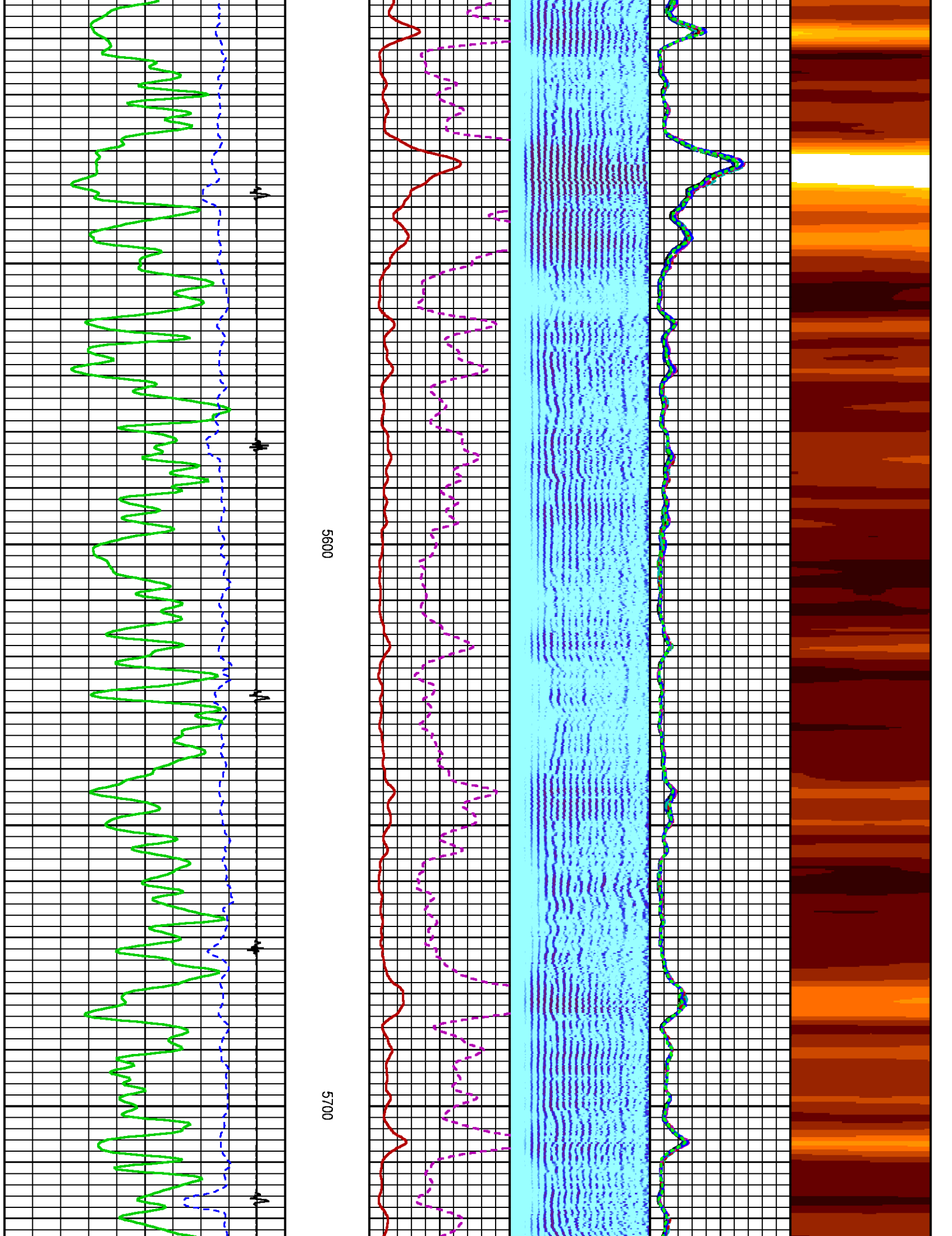


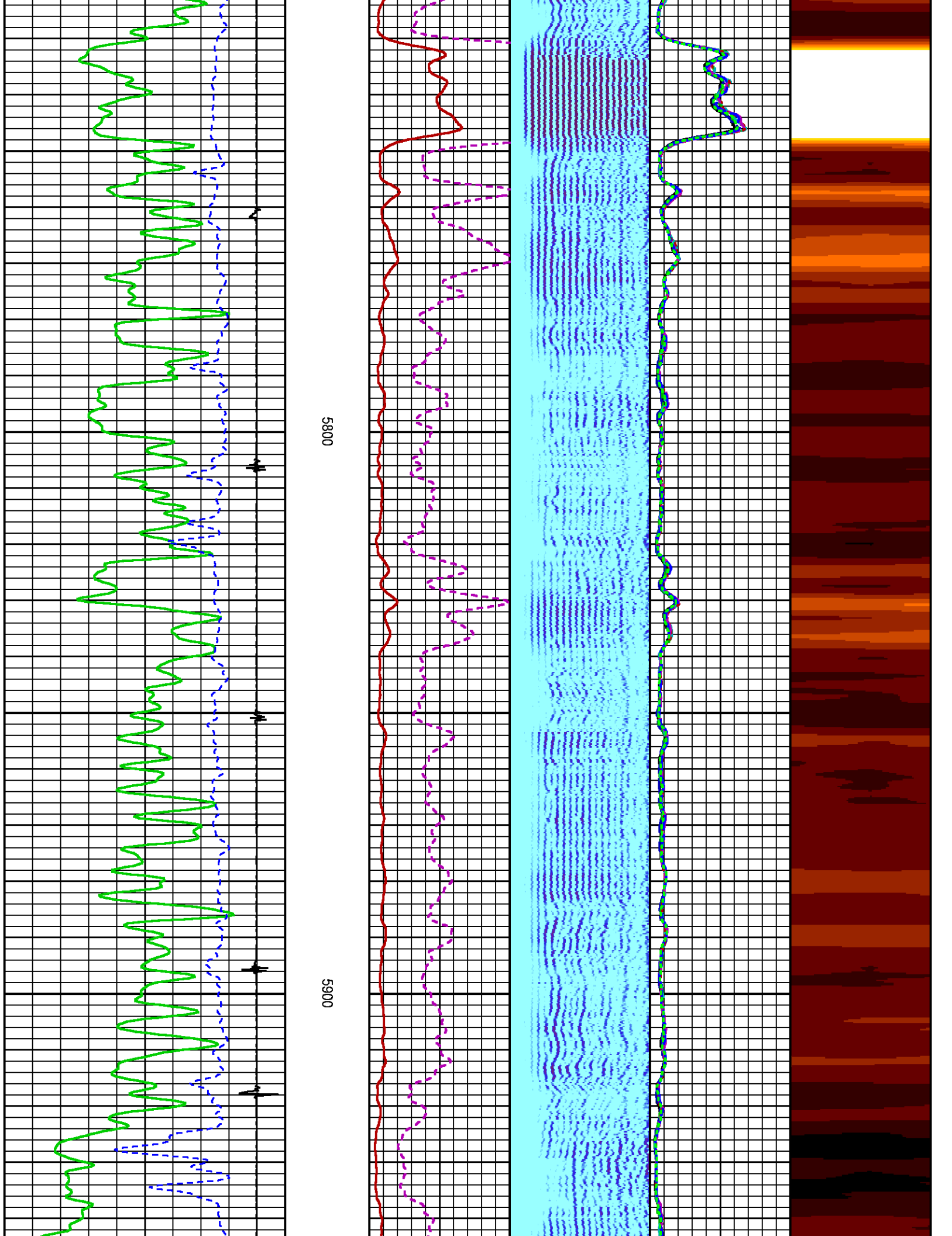
5300

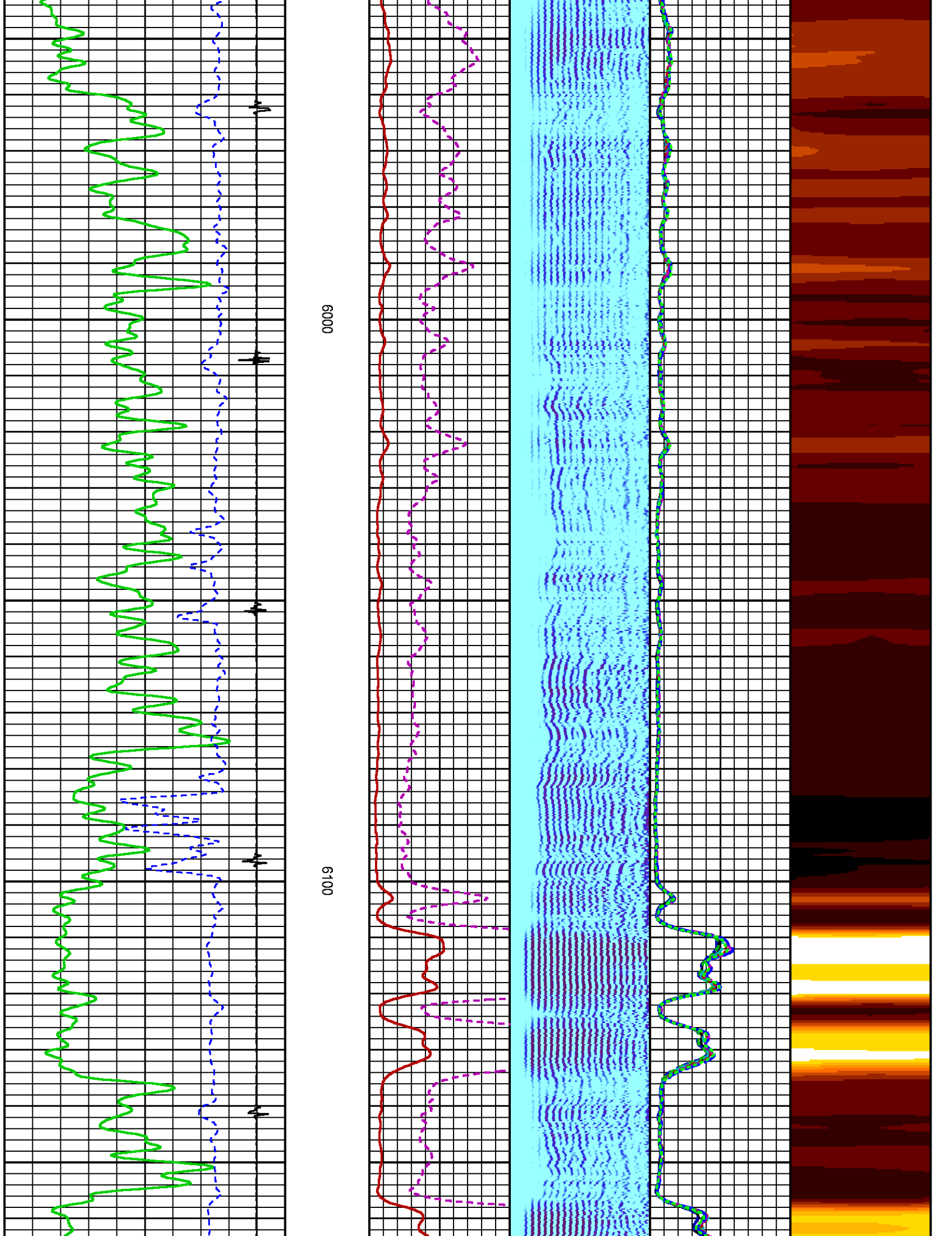
5400

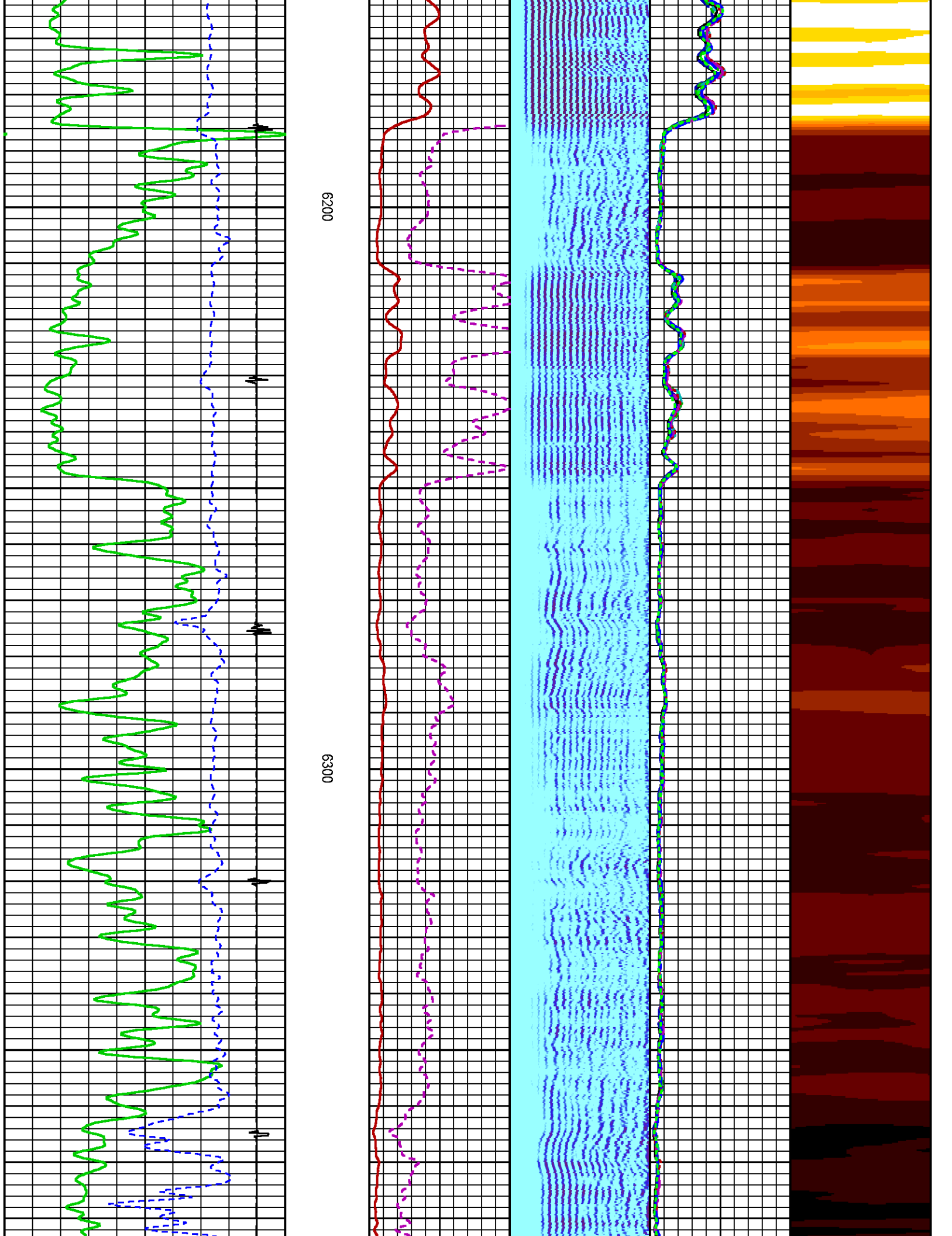
5500

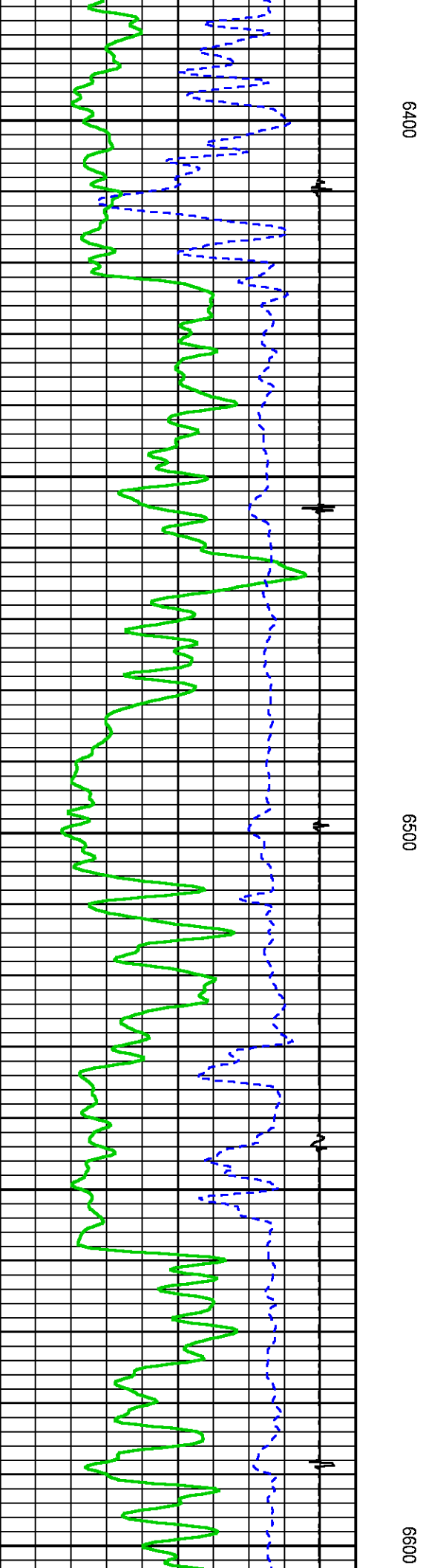
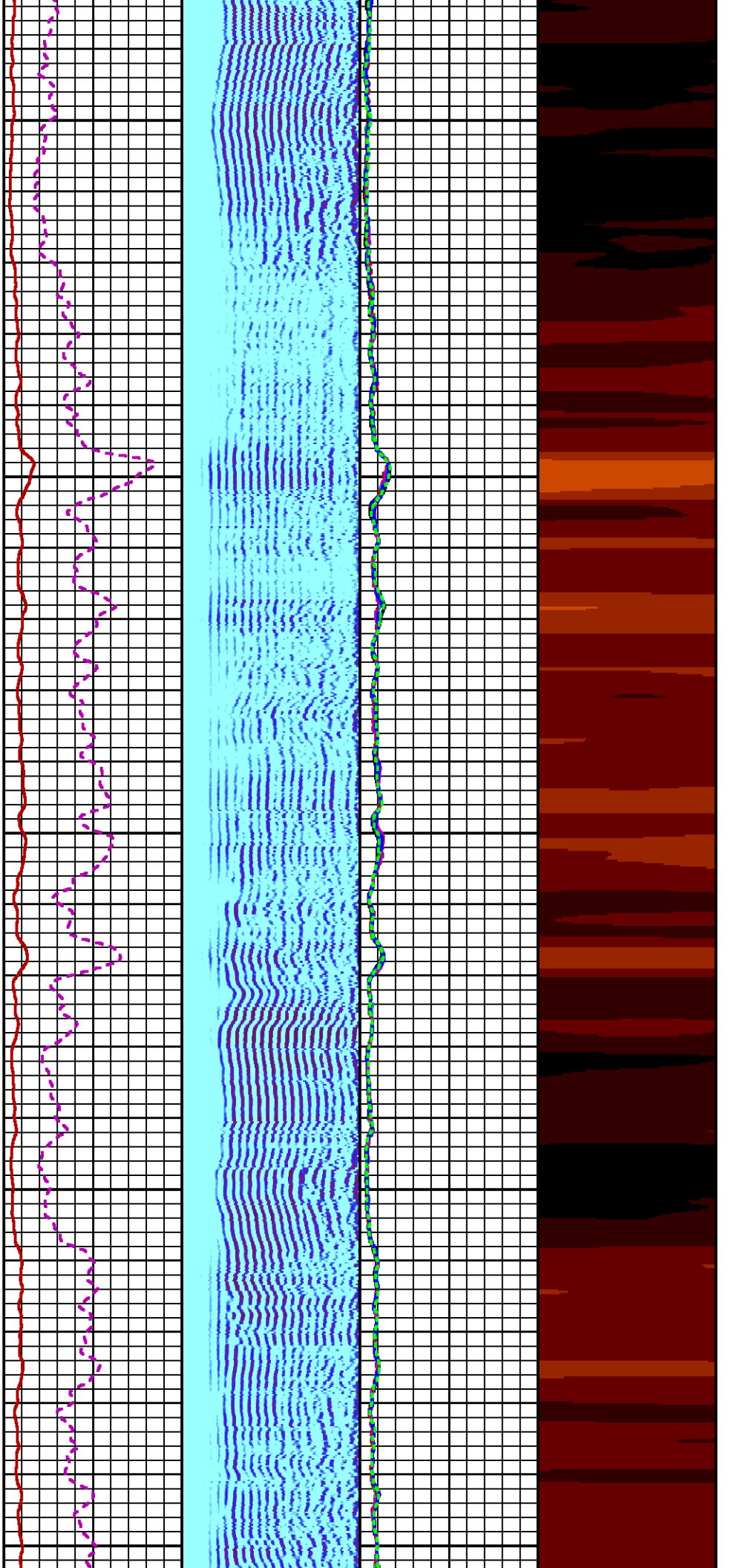


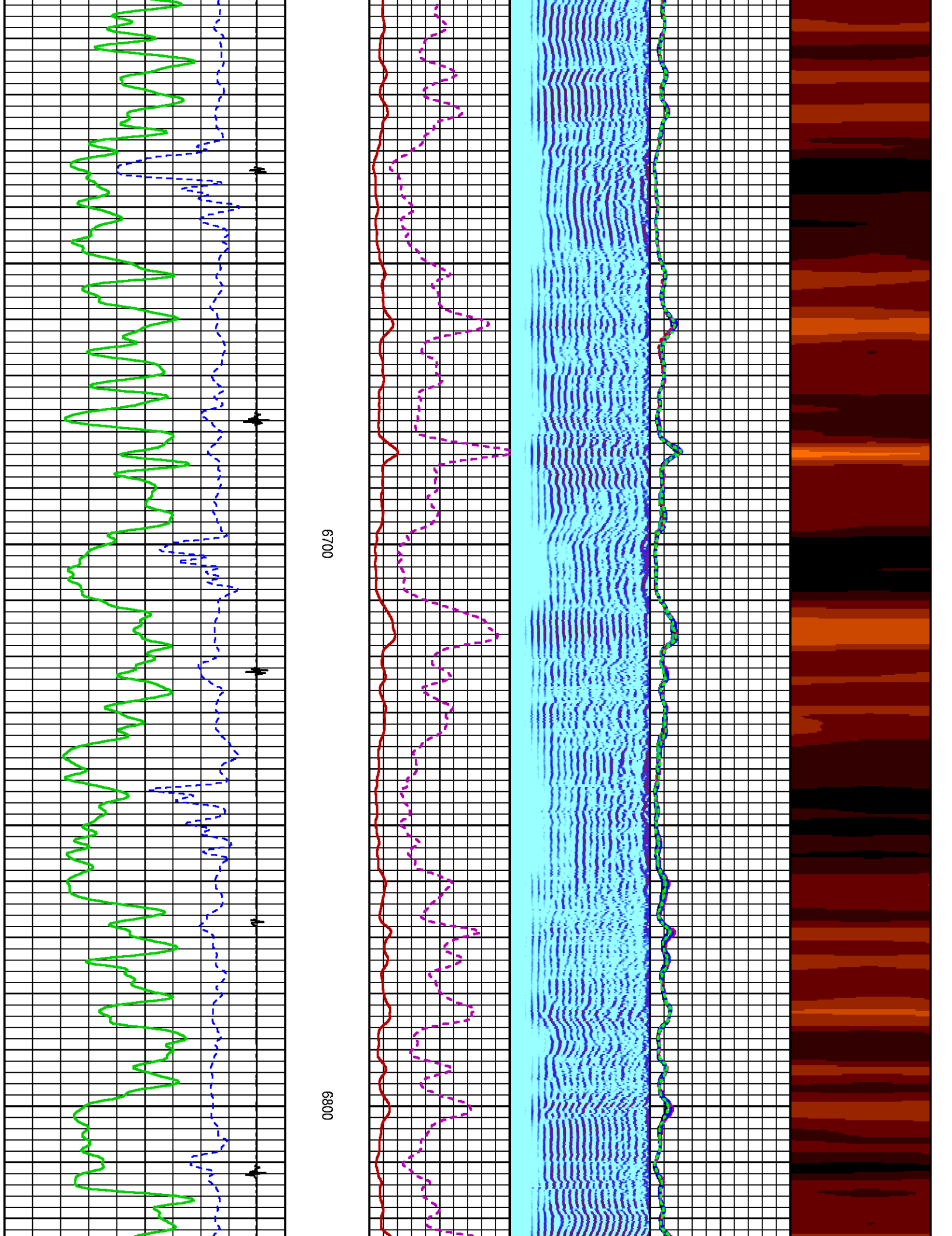


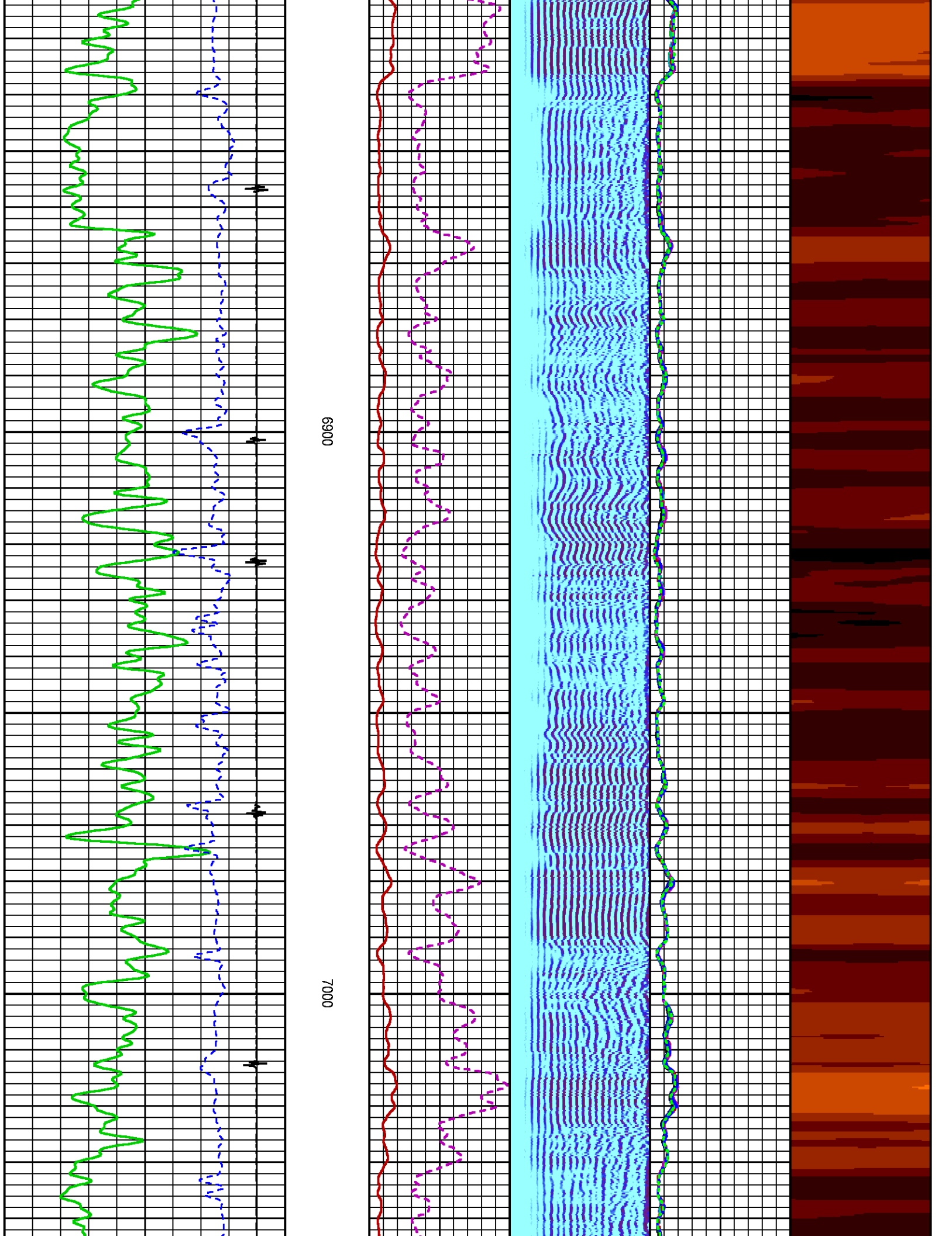


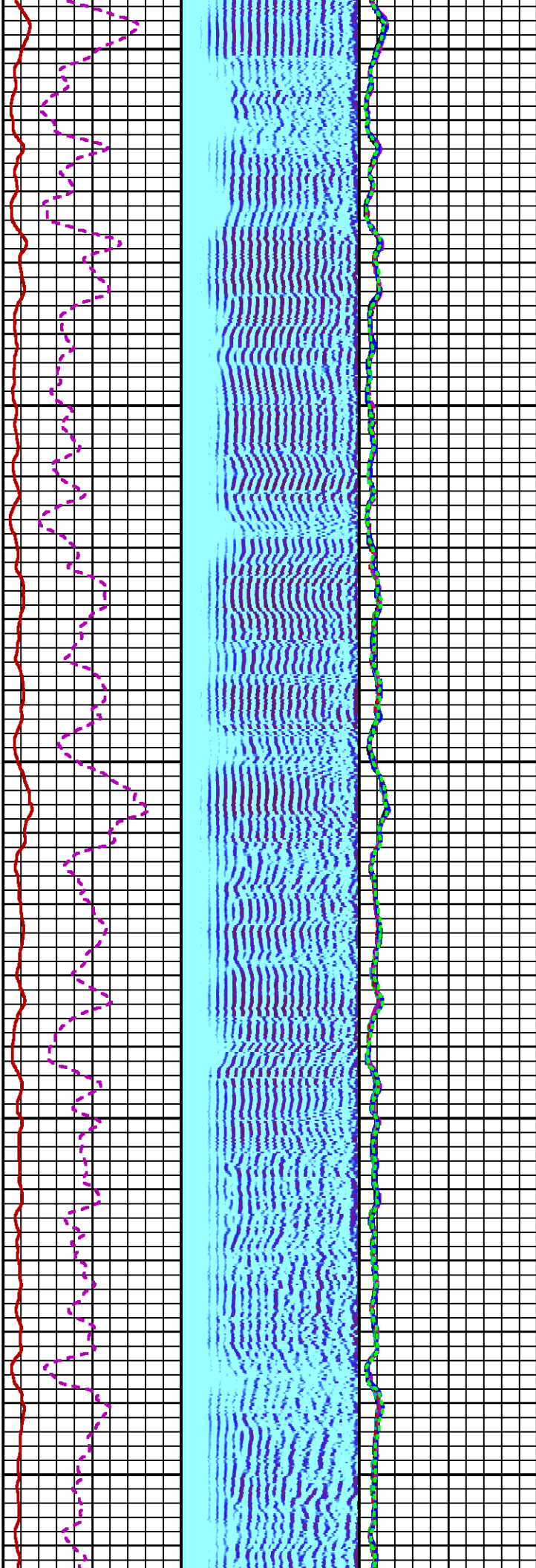






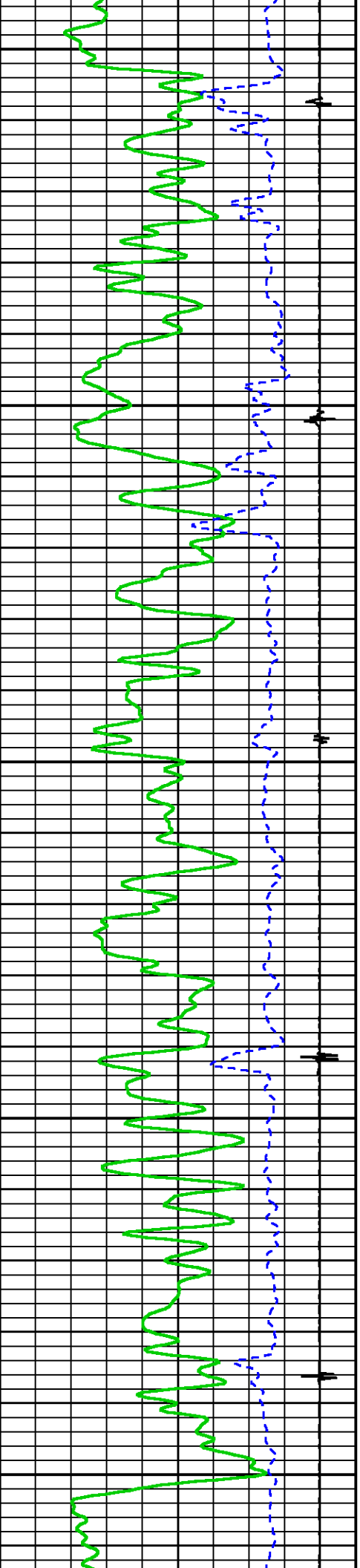


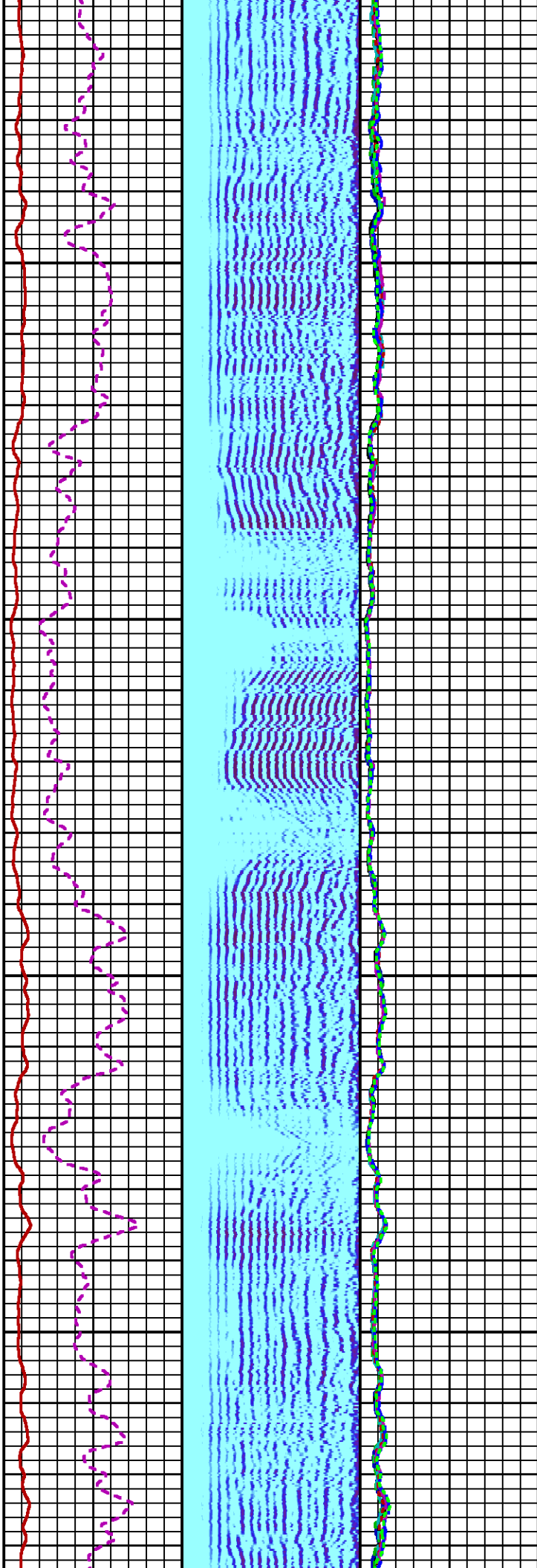
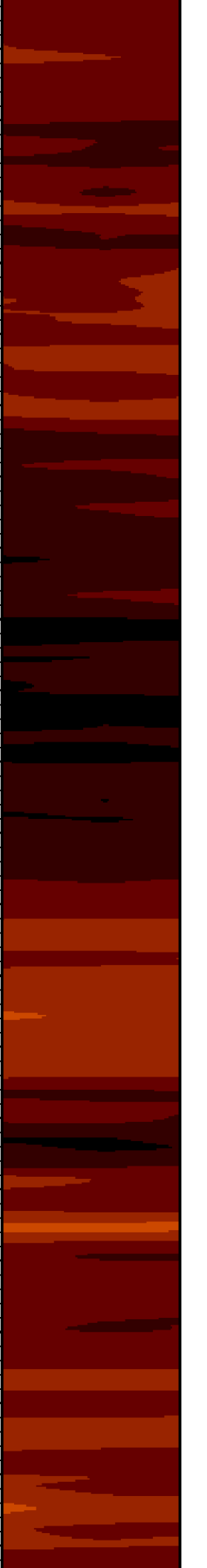




7100

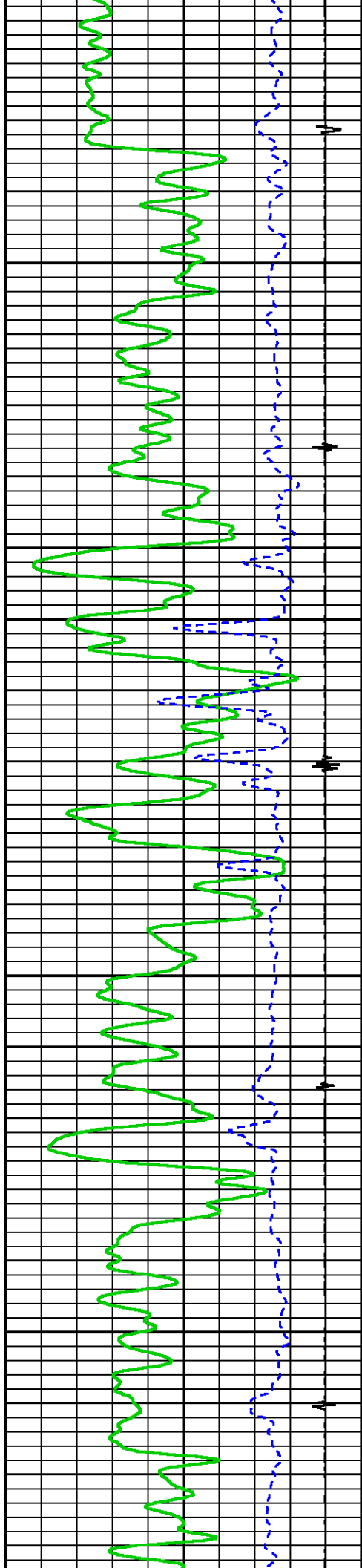
7200

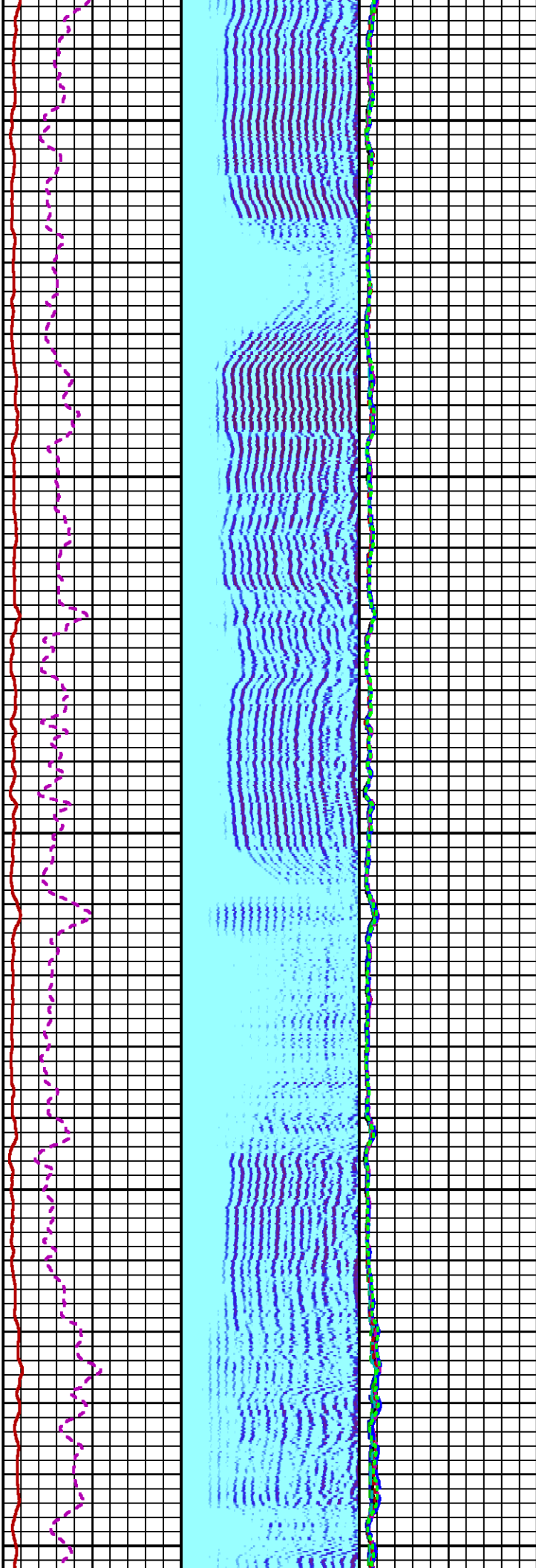




7300

7400

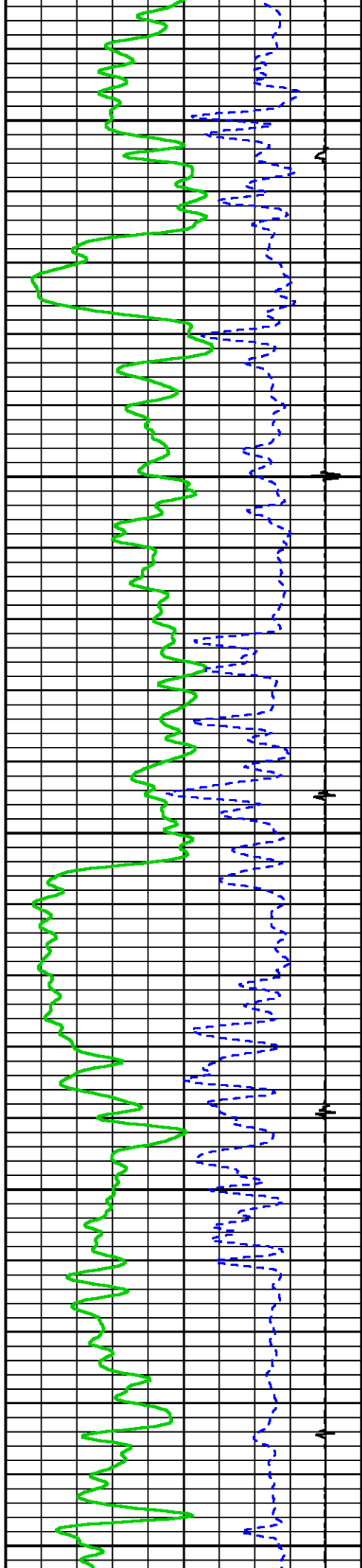


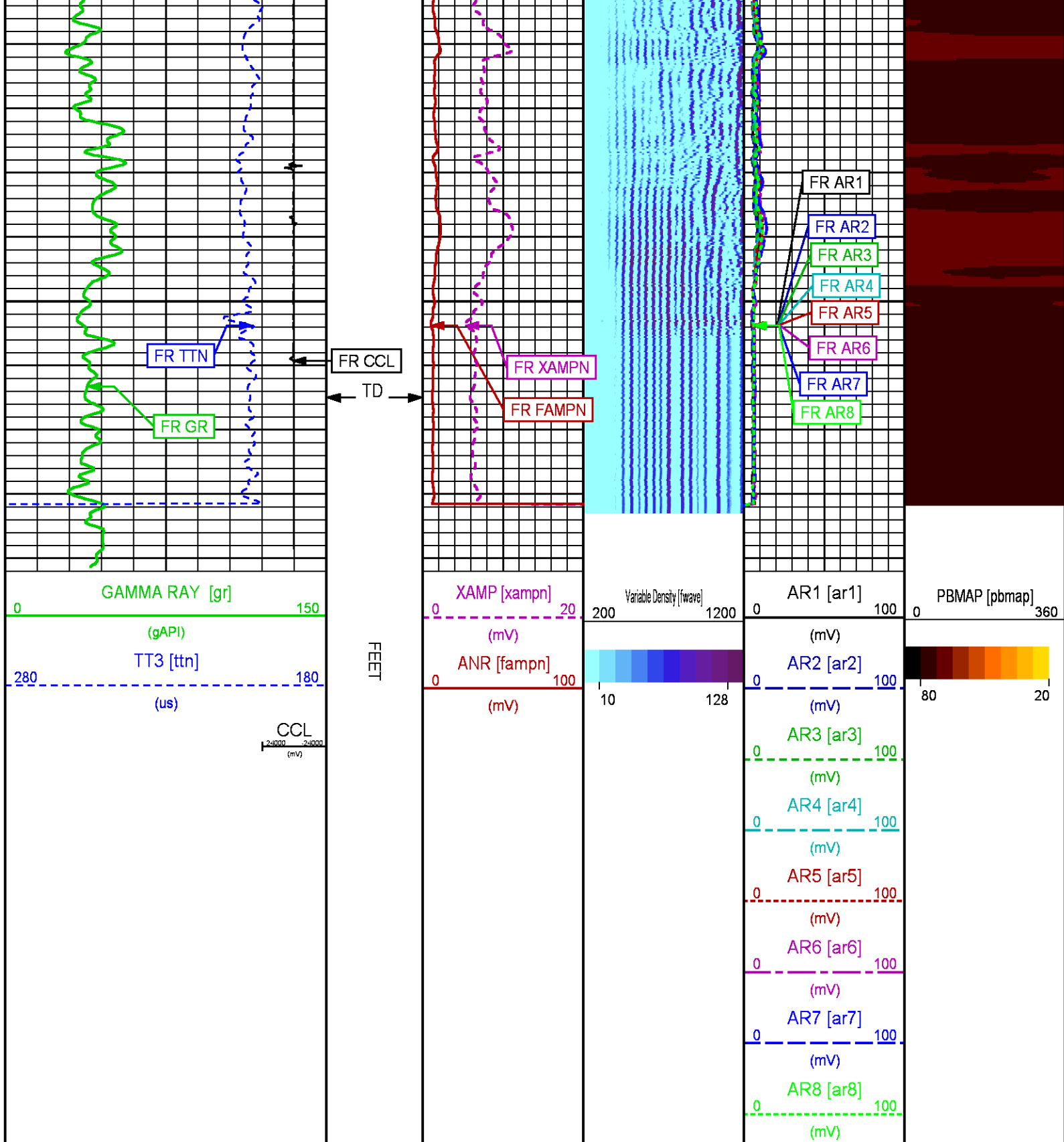


7500

7600

7700





REPEAT PASS 0 PSI

PARAMETER AND FILTER SUMMARY REPORT					
FILE: /dat1a/LARAMIE_BRUTON_19_16E/m012g01.prm LOGGING MODE: DEPTH DIRECTION: UP TOP DEPTH: 7366.500 ft BOTTOM DEPTH: 7804.750 ft					
SYMMETRIC FILTER					
MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
GR AMPLITUDE TRAVEL TIME	FILTER ()	medium (1)		TOP	BOTTOM
	FILTER ()	medium (1)		"	"
	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	"	"
	TOOL DELAY (str2*)	-59	us	"	"
	TOOL DELAY (str3*)	-59	us	"	"
	TOOL DELAY (str4*)	-59	us	"	"
	TOOL DELAY (str5*)	-59	us	"	"
	TOOL DELAY (str6*)	-59	us	"	"
	TOOL DELAY (str7*)	-59	us	"	"
	TOOL DELAY (str8*)	-59	us	"	"
	TOOL DELAY (strn*)	-59	us	"	"
BASELINE NOISE (NEAR)	NOISE WINDOW START	125	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	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

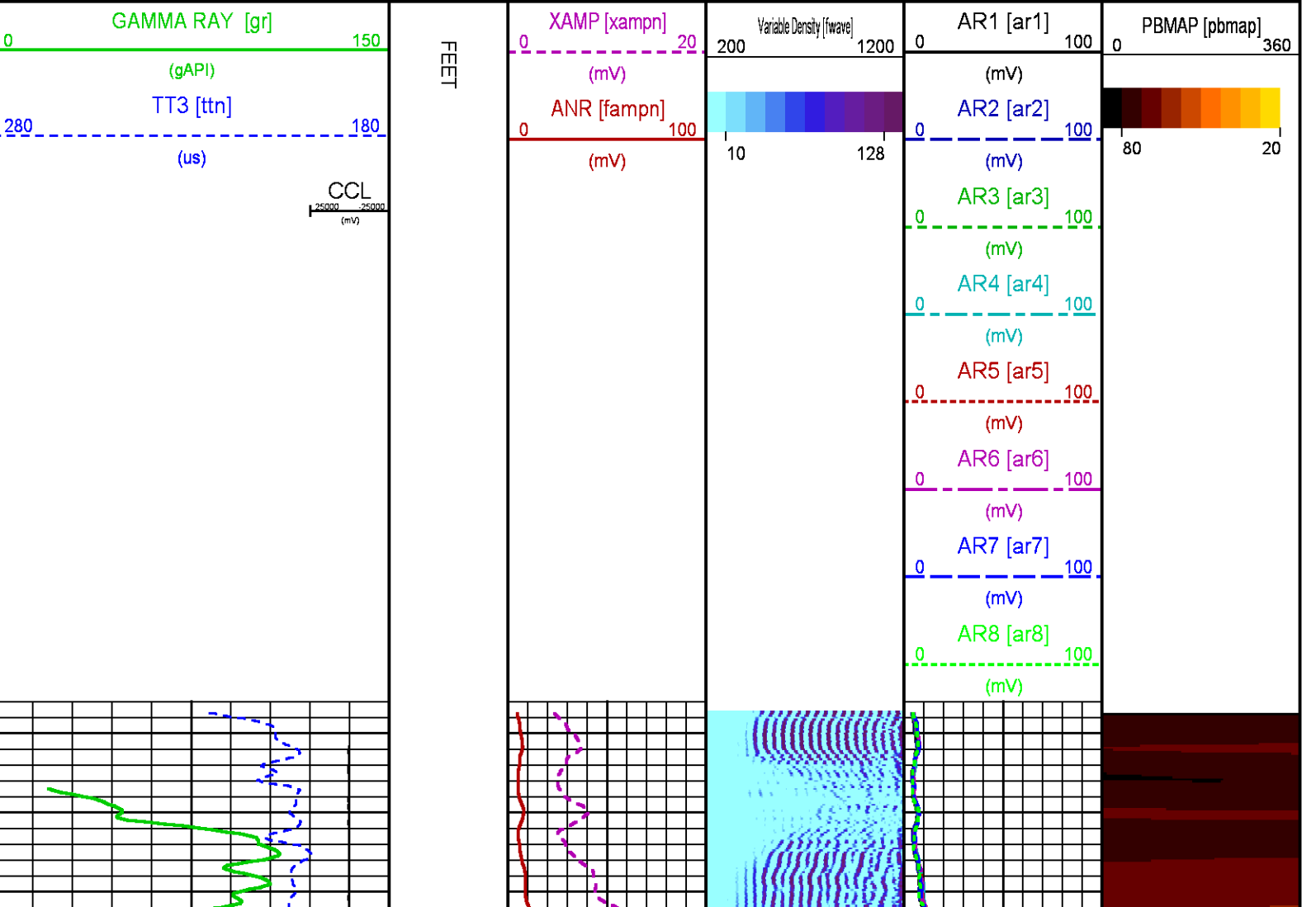
F1:AR1	Aug 23 08:46:32 2017	FIXED GATE AMPLITUDE T-R1
F1:AR2	Aug 23 08:46:32 2017	FIXED GATE AMPLITUDE T-R2
F1:AR3	Aug 23 08:46:32 2017	FIXED GATE AMPLITUDE T-R3
F1:AR4	Aug 23 08:46:32 2017	FIXED GATE AMPLITUDE T-R4
F1:AR5	Aug 23 08:46:32 2017	FIXED GATE AMPLITUDE T-R5
F1:AR6	Aug 23 08:46:32 2017	FIXED GATE AMPLITUDE T-R6
F1:AR7	Aug 23 08:46:32 2017	FIXED GATE AMPLITUDE T-R7
F1:AR8	Aug 23 08:46:32 2017	FIXED GATE AMPLITUDE T-R8
F1:CCL	Aug 23 08:46:32 2017	CASING COLLAR LOCATOR
F1:FAMPN	Aug 23 08:46:32 2017	FIXED GATE AMPLITUDE NEAR RECEIVER
F1:FWAVE	Aug 23 08:46:32 2017	FAR WAVE FORM
F1:GR	Aug 23 08:46:32 2017	GAMMA RAY
F1:PBMAP	Aug 23 08:46:32 2017	PERCENT BOND CEMENT MAP
F1:TTN	Aug 23 08:46:32 2017	TRAVELTIME FROM NEAR TRANSMITTER-RECEIVER
F1:XAMPN	Aug 23 08:46:32 2017	FIXED GATE AMPLITUDE NEAR RECEIVER TIMES FIVE

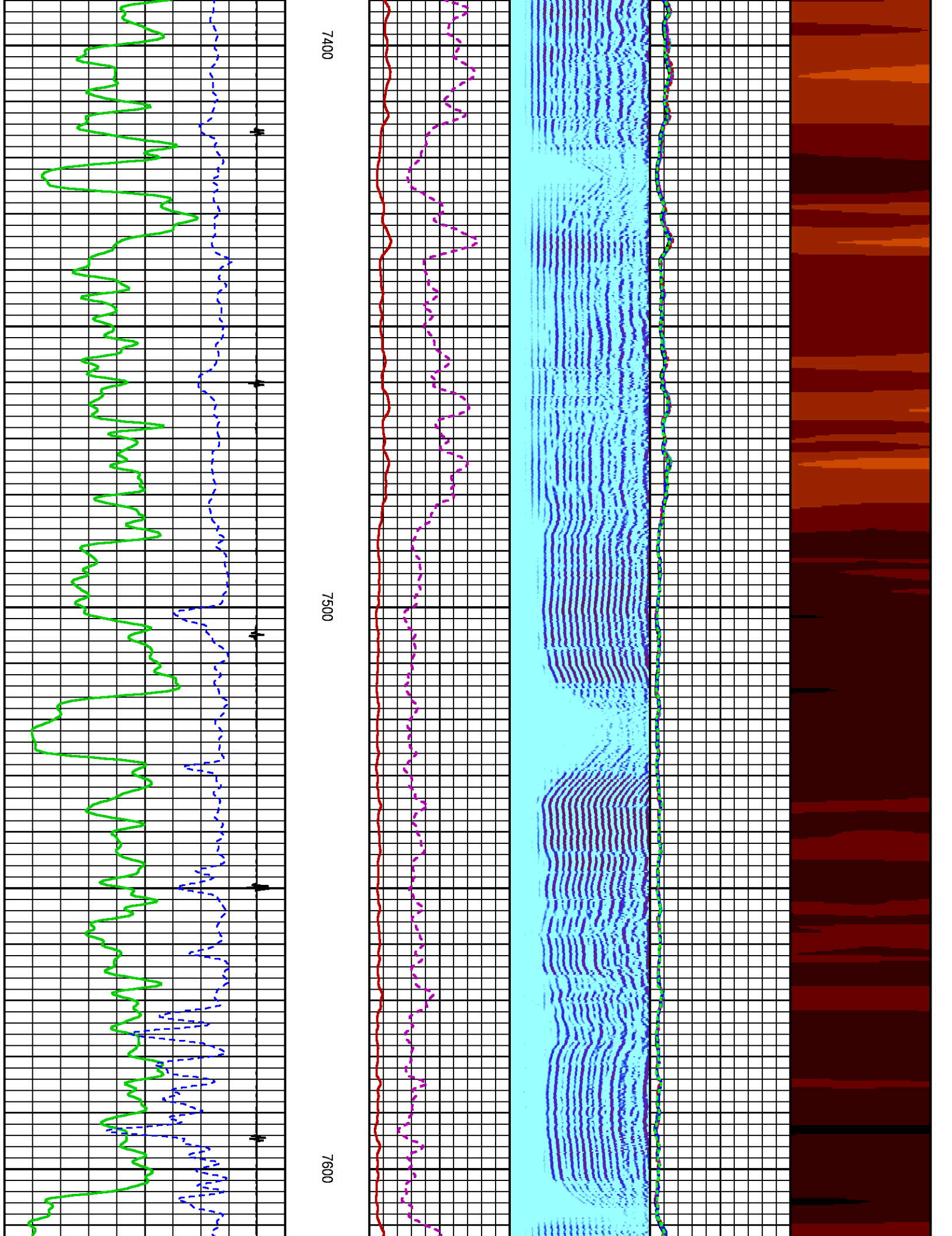
CURVE MEASURE POINT OFFSET

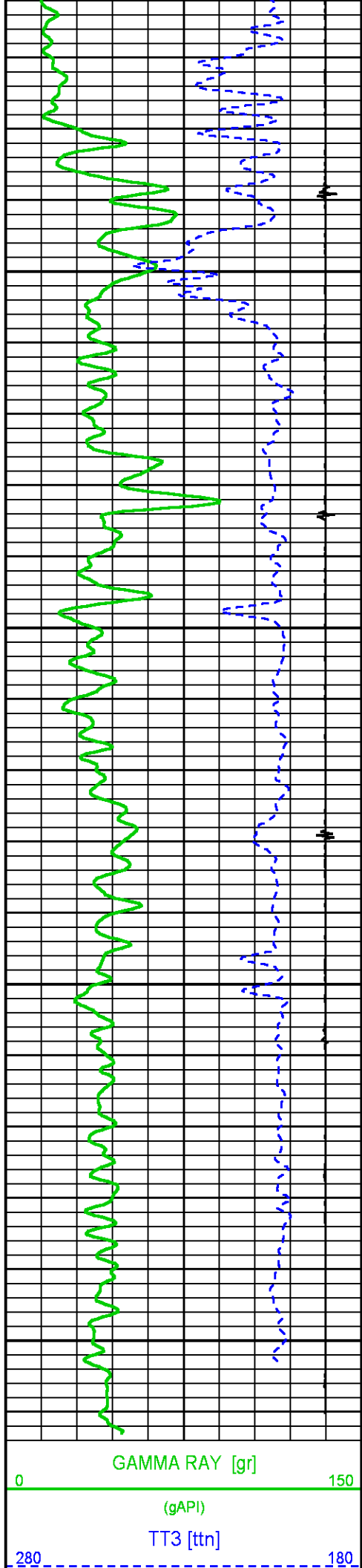
CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)
AR1	11.25	AR5	11.25	CCL	5.75	XAMPN	11.25
AR2	11.25	AR6	11.25	FAMPN	11.25		
AR3	11.25	AR7	11.25	GR	1.75		
AR4	11.25	AR8	11.25	TTN	11.25		

Presentation : cpu100:BRUTON_19_16E_RAL_REPEAT.fvpdf [5"/100' Scale]
Plot Interval : 7356.25 - 7803.75 Feet

Data File 1 : F1 : cpu100:/dat1a/LARAMIE_BRUTON_19_16E/BRUTON_19_16E_RAL_RPT.xtf
Created On : Aug 23 08:46:32 2017
Company : LARAMIE ENERGY
Well : BRUTON 19-16E
Field : MESA
File Interval : 7355.25 - 7805 Feet
OCT : n012g



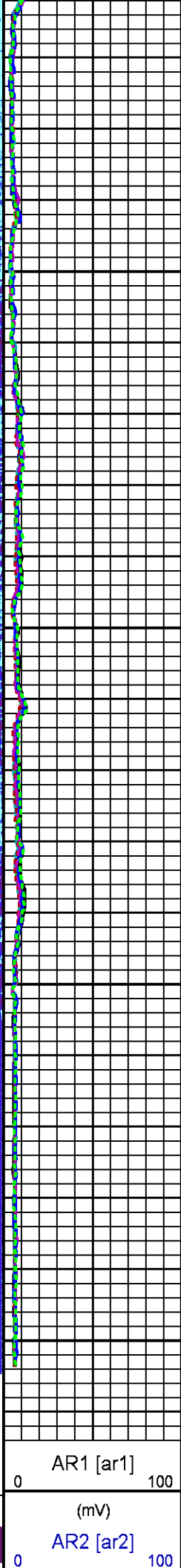
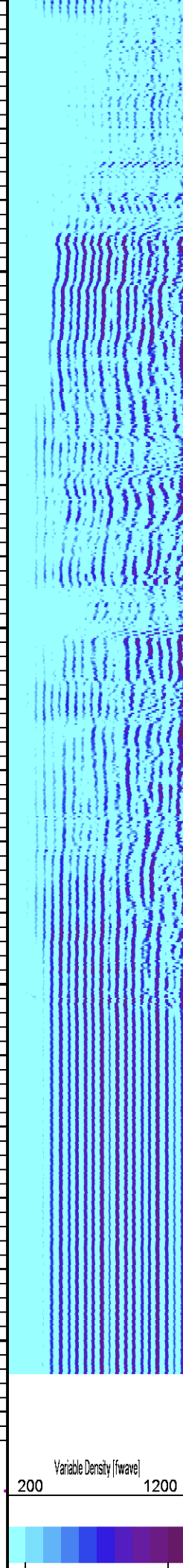
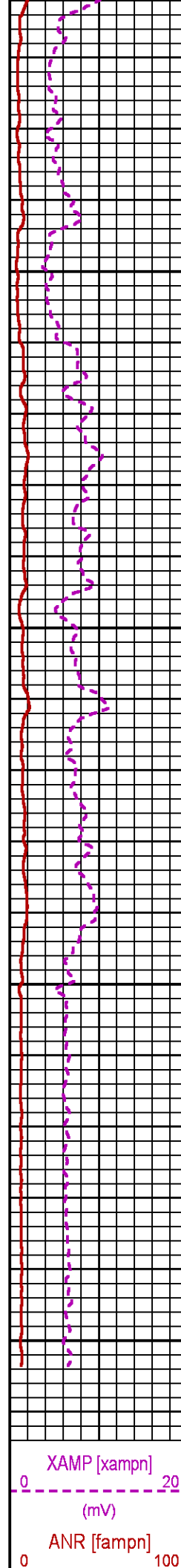




7700

7800

FEET



(us)

CCL
25000 -25000
(mV)

(mV)

10

128

(mV)

80

20

AR3 [ar3]

(mV)

AR4 [ar4]

(mV)

AR5 [ar5]

(mV)

AR6 [ar6]

(mV)

AR7 [ar7]

(mV)

AR8 [ar8]

(mV)

CALIBRATION / VERIFICATION SUMMARY

Source File: /dat1a/LARAMIE_BRUTON_19_16En012g.tp1

RAL PRIMARY CALIBRATION SUMMARY

TOOL #: 1426XA 10218496

DATE/TIME PERFORMED: Wed Aug 23 08:23:52 2017

UNIT #: 3880TA HL6670

	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)	-0.00	-0.07	0.05	-0.05	0.22	0.14	0.13	-0.01	0.01	1.03	0.01
AMP FLUID (mV)	86	85	84	84	86	86	87	87	86	114	84
TT (us)	201	202	202	202	200	199	199	199	202	310	202
M FACTOR	1.16	1.18	1.19	1.19	1.17	1.16	1.15	1.15	1.17	1.32	1.19

RAL BEFORE LOG VERIFICATION SUMMARY

TOOL #: 1426XA 10218496

DATE/TIME PERFORMED: Wed Aug 23 08:24:49 2017

DAYS SINCE CAL: 0

UNIT #: 3880TA HL6670

CABLE #: HL6670 6670SL

	NEAR (mV)	R1 (mV)	R2 (mV)	R3 (mV)	R4 (mV)	R5 (mV)	R6 (mV)	R7 (mV)	R8 (mV)	FAR (mV)	CAL (mV)
ZERO	0.12	0.07	0.08	0.05	0.07	0.09	0.10	0.05	0.06	0.71	-0.03
AMP AIR	2.67	2.09	2.21	2.27	2.21	2.88	2.66	2.51	2.19	2.52	100.29

SHOP M FACTOR	SHOP A FACTOR	WIRELINE FACTOR
1.19	0.00	1.00

GR PRIMARY CALIBRATION SUMMARY

TOOL #: 1355XA 12670180

DATE/TIME PERFORMED: Fri Dec 23 11:53:22 2016

UNIT #: 3880TA HL6670

CABLE #: 4702NK DA 228

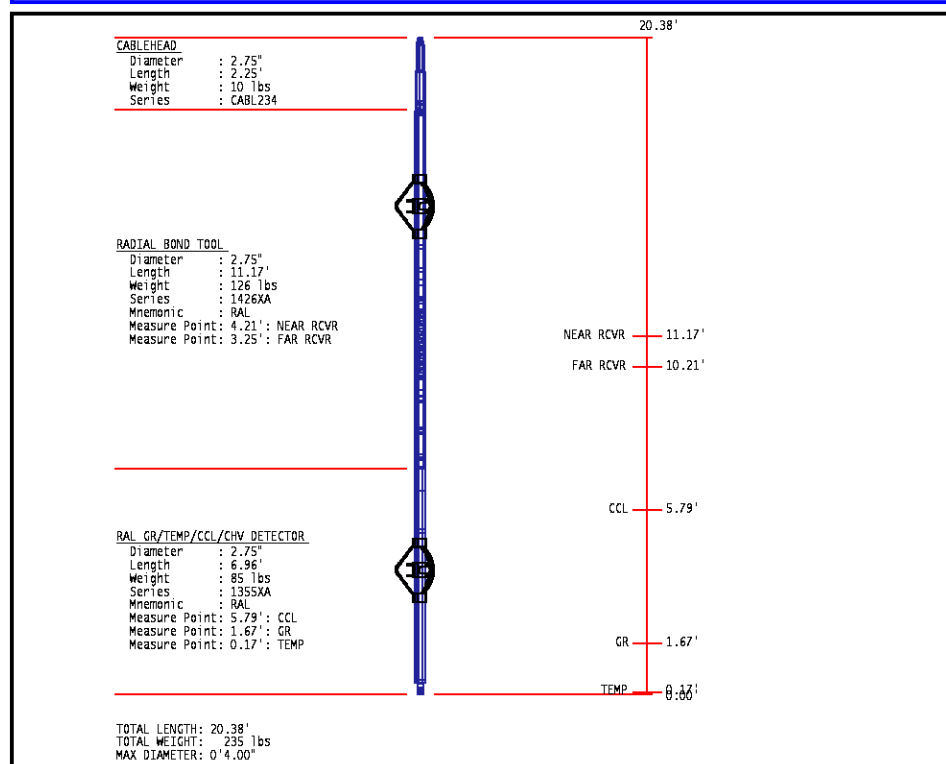
	BACKGROUND CALBRTR ON (cts)	CR DIFF (cts/s)	MULT	BACKGROUND CALBRTR ON (gAPI)	CALBRTR (gAPI)
GR	75.82	247.07	0.584	44.28	144.28

GR PRIMARY VERIFICATION SUMMARY					
TOOL # 1355XA 12670180			DATE/TIME PERFORMED: Fri Dec 23 11:54:47 2016		
UNIT # 3880TA HL6670		VERI JIG # 4702NK DA_228			

	BACKGROUND CALBRTR ON (cts)	CR DIFF (cts/s)	MULT	BACKGROUND CALBRTR ON (gAPI)	DIFF. (gAPI)
GR	77.11	254.76	0.584	45.03	103.74
					99.00 110.00

INSTRUMENT CONFIGURATION

Source File: /data1a/LARAMIE_BRUTON_19_16E/RAL-tdg



COMPANY <u>LARAMIE ENERGY</u> WELL <u>BRUTON 19-16E</u> FIELD <u>VEGA</u> COUNTY <u>MESA</u> STATE <u>COLORADO</u>	FILE NO: _____ API NO: <u>05077103800000</u>	
LOCATION: SHL: LAT:39.255232N;LONG:107.806537W BHL: LAT:39.259203N;LONG:107.807021W SEC <u>19</u> TWP <u>9S</u> RGE <u>93W</u>	ELEVATIONS: KB <u>7449 FT</u> DF <u>7448 FT</u> GL <u>7425 FT</u>	
DATE <u>23-AUG-2017</u>		