



FILE NO:	COMPANY
CO097903	LARAMIE ENERGY
API NO:	WELL
05077102310000	GUNDERSON 29-13E
	FIELD
	VEGA
	COUNTY
	MESA
	STATE
	COLORADO

Ver. 4.01	LOCATION:	OTHER SERVICES
SEC 29 T9S R93W	SHL: LAT 39.248810 LONG -107.787831	RPM
PAD 29-09	BHL: LAT 39.246796 LONG -107.786787	
PATTERSON 306	SEC 29 TWP 9S RGE 93W	

PERMANENT DATUM	GL	ELEVATION	7631 FT	ELEVATIONS:
LOG MEASURED FROM	KB	22 FT	ABOVE P.D.	KB 7653 FT
DRILL MEAS. FROM	KB			DF
				GL 7631 FT

DATE	20-Jul-2015	
RUN	1	TRIP
SERVICE ORDER	US097903	
DEPTH DRILLER	7690 FT	
DEPTH LOGGER	7641 FT	
BOTTOM LOGGED INTERVAL	7631 FT	
TOP LOGGED INTERVAL	22 FT	
TIME STARTED	7:30	
TIME FINISHED	10:30	
OPERATOR RIG TIME	3 HOURS	
TYPE OF FLUID IN HOLE	WATER	
FLUID DENSITY	NA	
FLUID SALINITY	NA	
FLUID LEVEL	34 FT	
LOGGED CEMENT TOP	NA	
WELLHEAD PRESSURE	0 PSI	
MAXIMUM HOLE DEVIATION	NA	
NOMINAL LOGGING SPEED	100 F/MIN	
MAX. RECORDED TEMP.	243 DEGF	
REFERENCE LOG	NONE	
REFERENCE LOG DATE	NA	
EQUIP. NO.	6670	LOCATION
RECORDED BY	T. NEWELL	
WITNESSED BY	JOHN GRUBICH	

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
7.875 IN	22 FT	7843 FT

CASING RECORD				
SIZE	WEIGHT	GRADE	FROM	TO
4.5 IN	11.6 LB/F		22 FT	7843 FT

### REMARKS

RUN 1 TRIP 1: THIS IS THE FIRST LOG ON THIS WELL.

LOGGED WITH ZERO PSI AT WELLHEAD

BHT = 243 degF

SJ = 5907' - 5929'

SJ = 6800' - 6822'

THANK YOU FOR CHOOSING BAKER HUGHES ... THE BEST CHOICE!

### EQUIPMENT DATA

RUN	TRIP	TOOL	SERIES NO.	SERIAL NO.	POSITION
1	1	CD	112216	12451057	CD

1	1	CBL	1426XA	10154957	CENTRALIZED
1	1	CCL/GR	1355XA	10580209	CENTRALIZED

## MAIN PRESENTATION 0 PSI

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

Updates: 1 Patches: 6

Plotted: Mon Jul 20 11:42:39 2015

### PARAMETER AND FILTER SUMMARY REPORT

FILE: /dat1a/CH097903/n012g02.prm  
 LOGGING MODE: DEPTH DIRECTION: UP  
 TOP DEPTH: 7.250 ft BOTTOM DEPTH: 7648.173 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*)	186	us	TOP	BOTTOM
	AMP WINDOW START (fgp2*)	186	us	"	"
	AMP WINDOW START (fgp3*)	186	us	"	"
	AMP WINDOW START (fgp4*)	186	us	"	"
	AMP WINDOW START (fgp5*)	186	us	"	"
	AMP WINDOW START (fgp6*)	186	us	"	"
	AMP WINDOW START (fgp7*)	186	us	"	"
	AMP WINDOW START (fgp8*)	186	us	"	"
	AMP WINDOW START (fgpn*)	186	us	"	"
TRAVEL TIME WINDOW (NEAR)	AMP WINDOW LENGTH	25	us	"	"
	TT WINDOW START (ttn*)	177	us	"	"
	TT WINDOW LENGTH	500	us	"	"
	FIRST BRK THRESHOLD (ttn*)	4	mV	"	"
RAL CASING PARAMETERS	PPT NEAR	200.391	us	"	"
RAL TOOL DELAY	TOOL DELAY (str1*)	-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	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

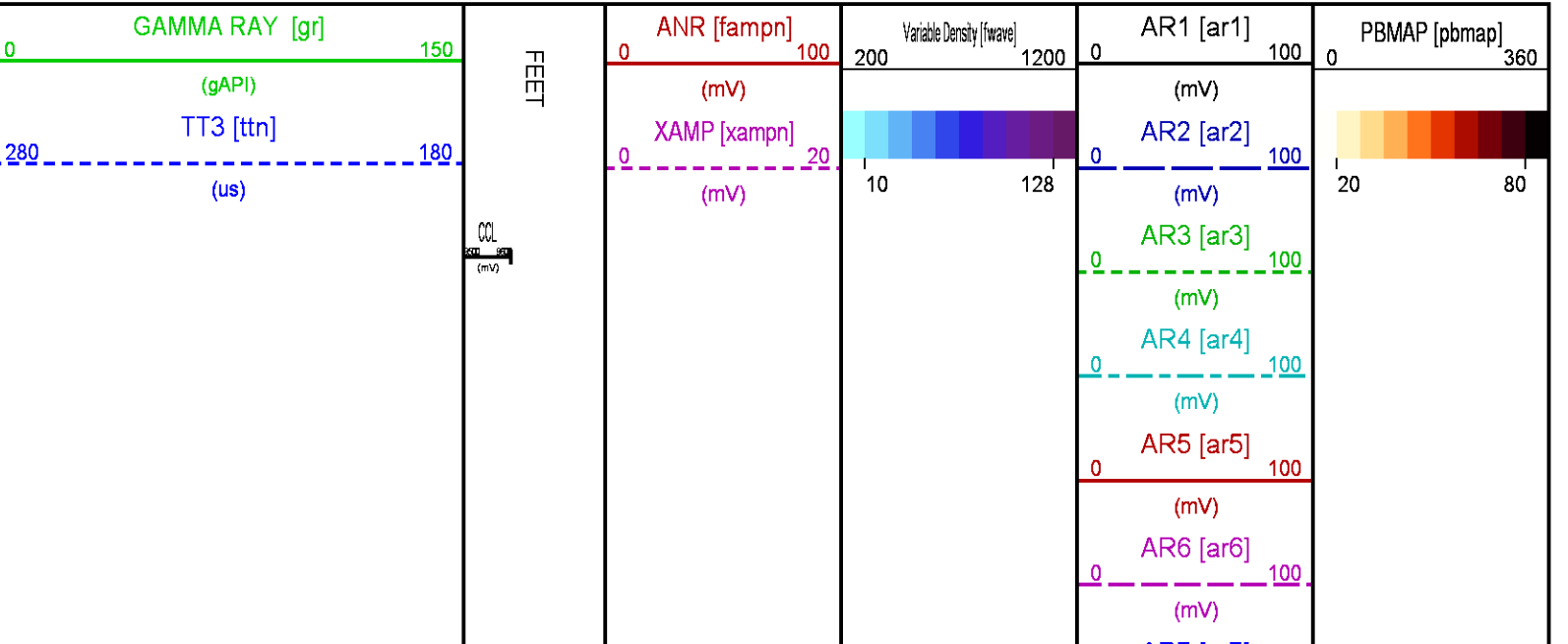
CURVE NAME	CREATION DATE	CURVE DESCRIPTION
F1:AR1	Jul 20 08:56:22 2015	FIXED GATE AMPLITUDE T-R1
F1:AR2	Jul 20 08:56:22 2015	FIXED GATE AMPLITUDE T-R2
F1:AR3	Jul 20 08:56:22 2015	FIXED GATE AMPLITUDE T-R3
F1:AR4	Jul 20 08:56:22 2015	FIXED GATE AMPLITUDE T-R4
F1:AR5	Jul 20 08:56:22 2015	FIXED GATE AMPLITUDE T-R5
F1:AR6	Jul 20 08:56:22 2015	FIXED GATE AMPLITUDE T-R6
F1:AR7	Jul 20 08:56:22 2015	FIXED GATE AMPLITUDE T-R7
F1:AR8	Jul 20 08:56:22 2015	FIXED GATE AMPLITUDE T-R8
F1:CCL	Jul 20 08:56:22 2015	CASING COLLAR LOCATOR
F1:FAMPN	Jul 20 08:56:22 2015	FIXED GATE AMPLITUDE NEAR RECEIVER
F1:FWAVE	Jul 20 08:56:22 2015	FAR WAVE FORM
F1:GR	Jul 20 08:56:22 2015	GAMMA RAY
F1:PBMAP	Jul 20 08:56:22 2015	PERCENT BOND CEMENT MAP
F1:TTN	Jul 20 08:56:22 2015	TRAVELTIME FROM NEAR TRANSMITTER-RECEIVER
F1:XAMPN	Jul 20 08:56:22 2015	FIXED GATE AMPLITUDE NEAR RECEIVER TIMES FIVE

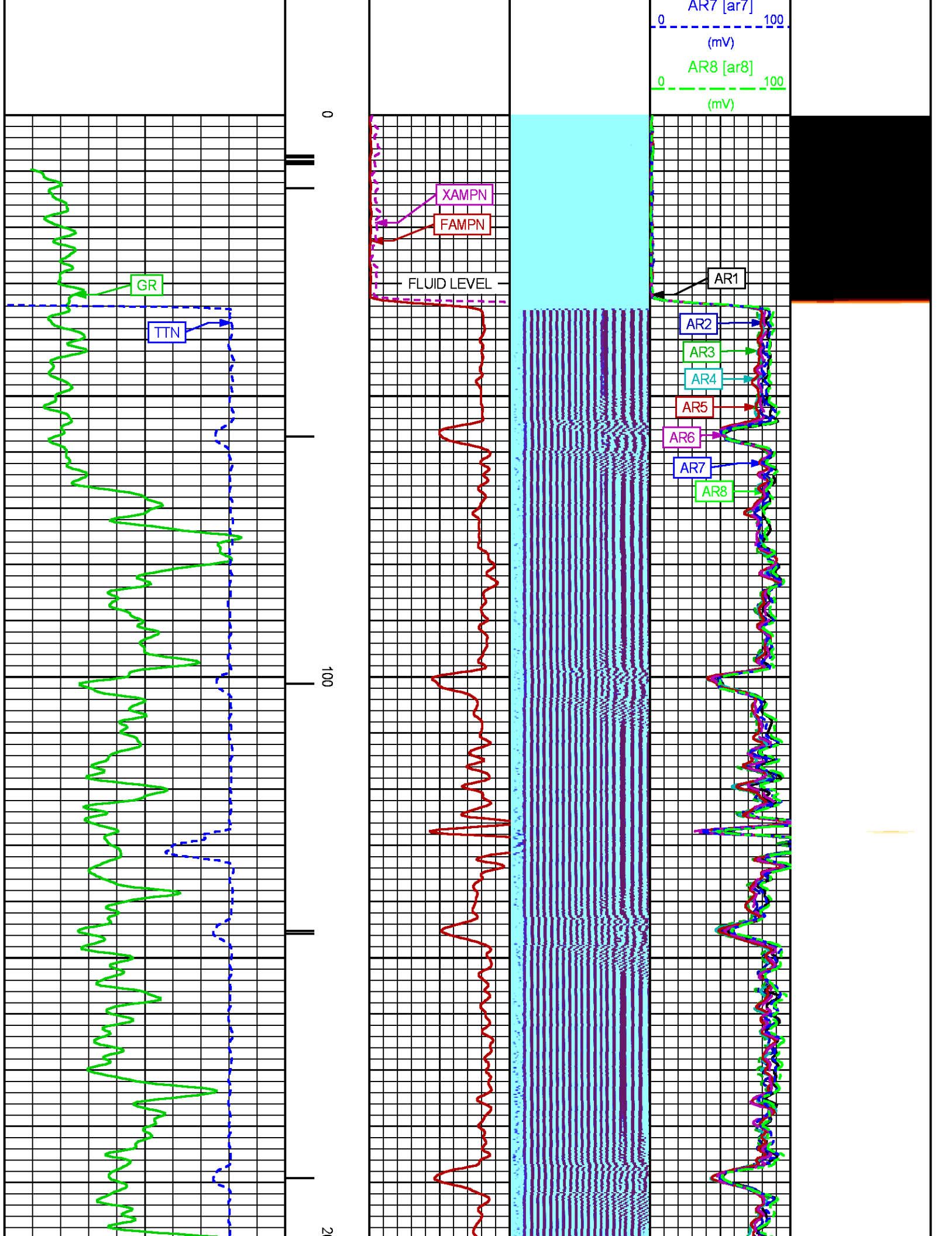
### CURVE MEASURE POINT OFFSET

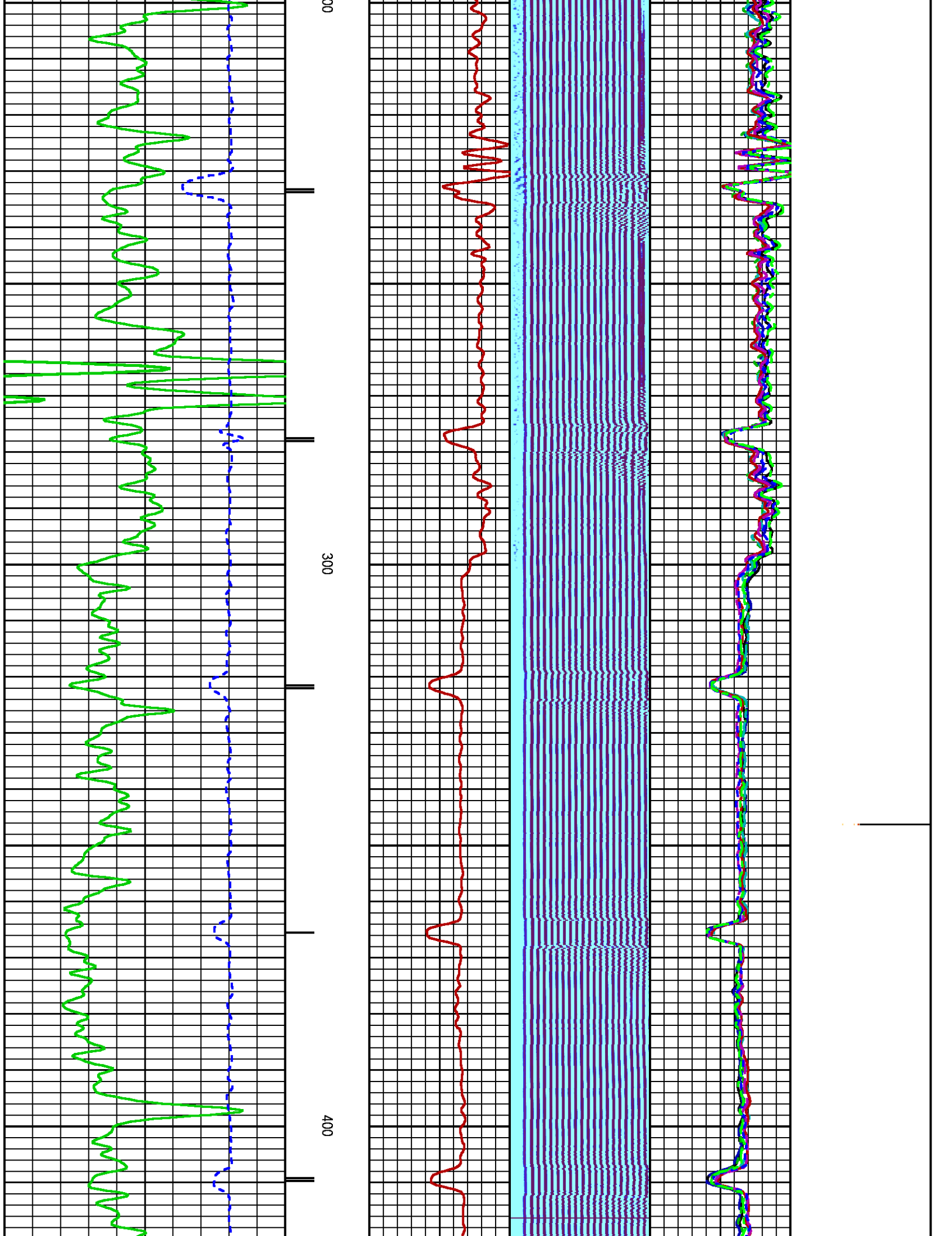
CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)
AR1	11.25	AR5	11.25	CCL	5.75	XAMPN	11.25
AR2	11.25	AR6	11.25	FAMPN	11.25		
AR3	11.25	AR7	11.25	GR	1.75		
AR4	11.25	AR8	11.25	TTN	11.25		

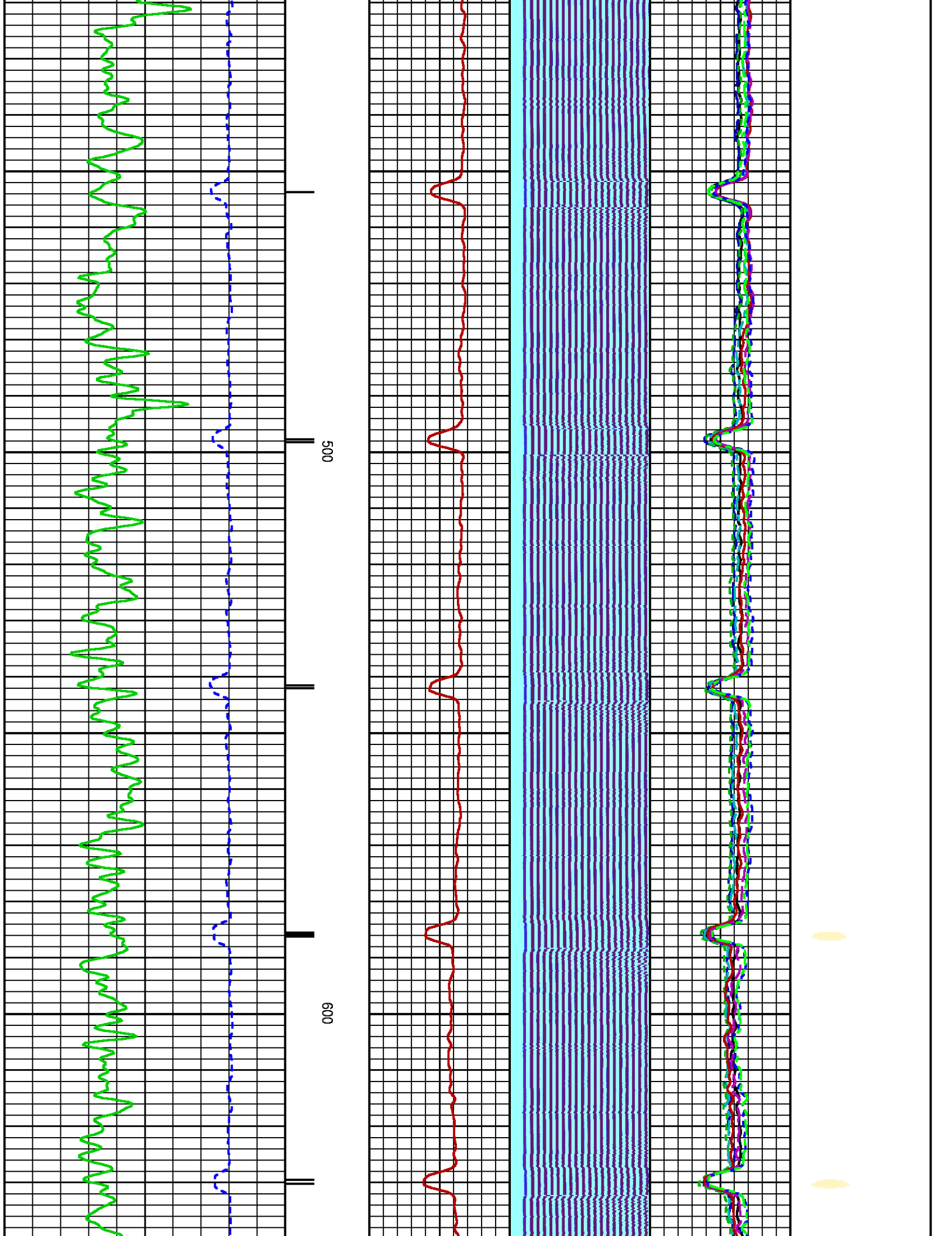
**Presentation** : HL6670:/dat1a/CH097903/13E\_CBL\_MAIN.fvpdf [5"/100' Scale]  
**Plot Interval** : 0 - 7650 Feet

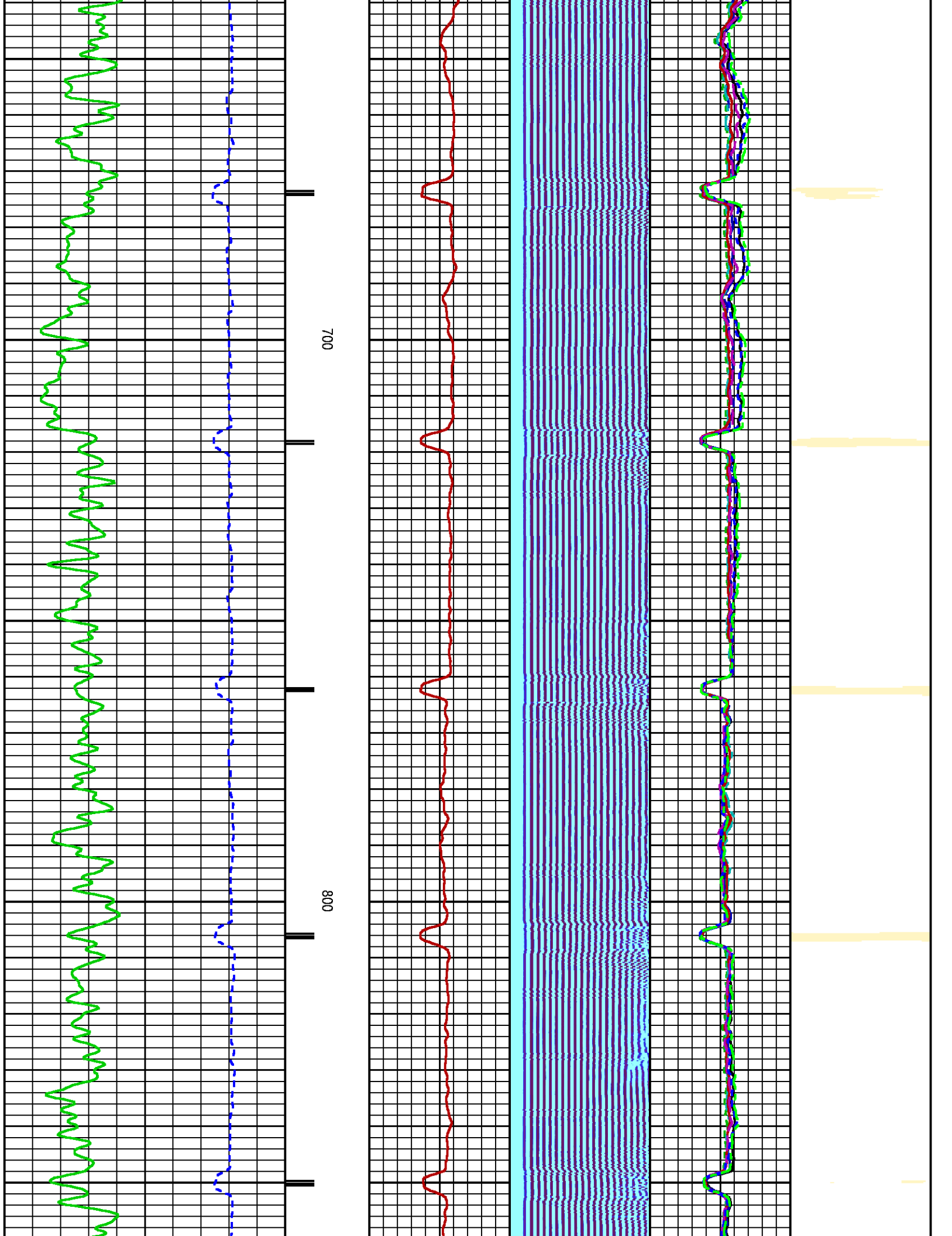
**Data File 1** : F1 : HL6670:/dat1a/CH097903/13E\_CBL\_MAIN.xtf  
**Created On** : Jul 20 08:56:22 2015  
**Company** : LARAMIE ENERGY  
**Well** : GUNDERSON 29-13E  
**Field** : VEGA  
**File Interval** : -1 - 7647.25 Feet  
**OCT** : n012g



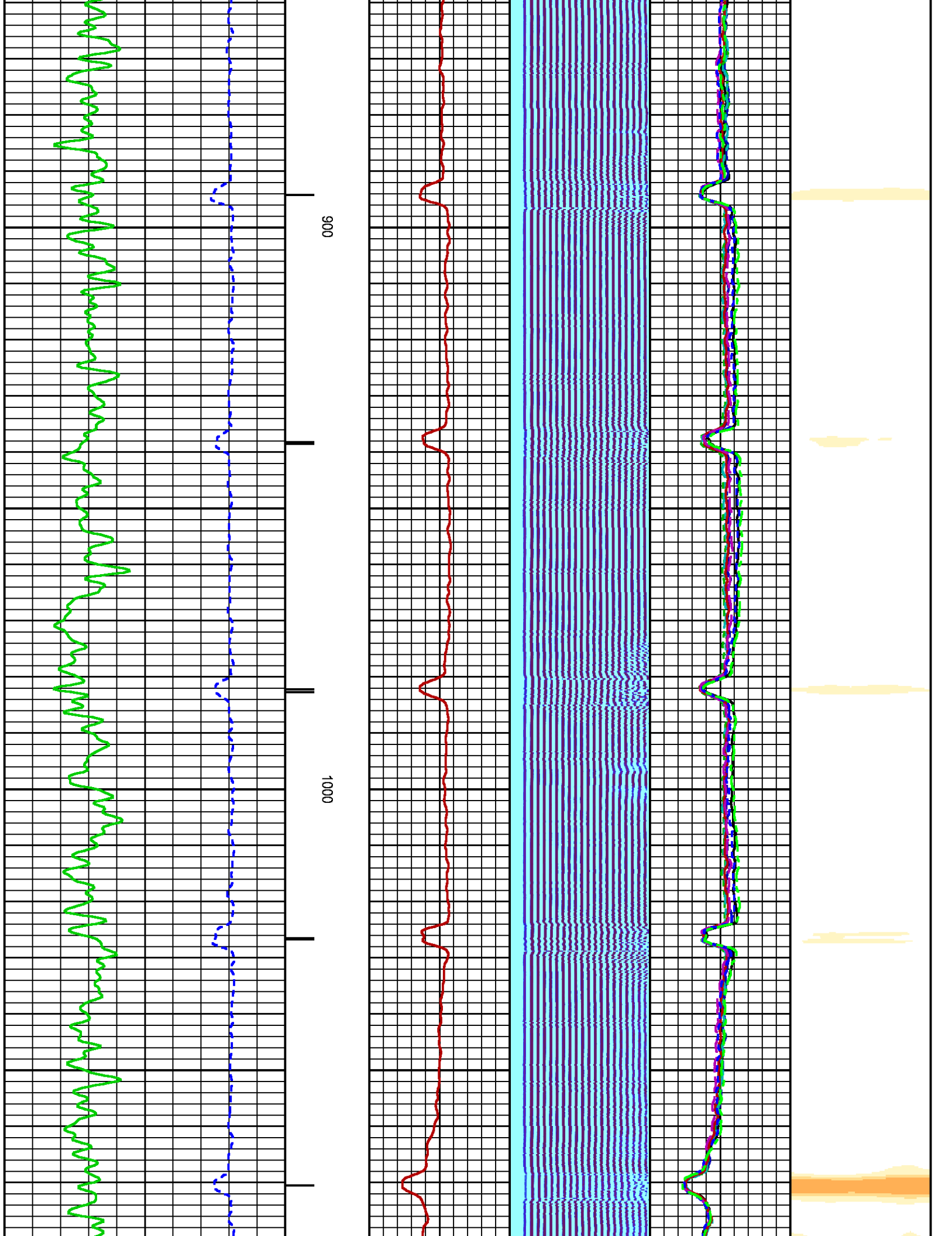




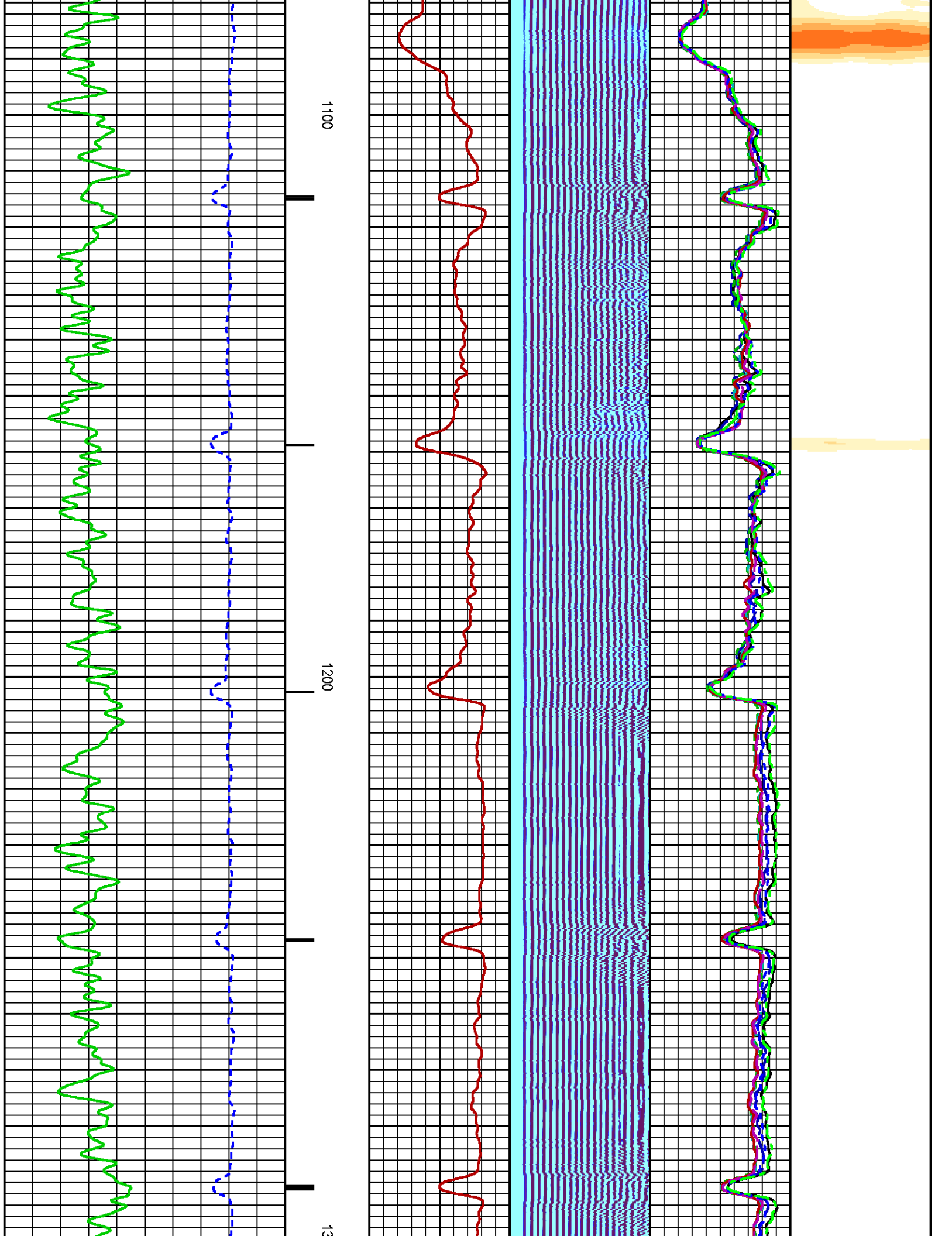


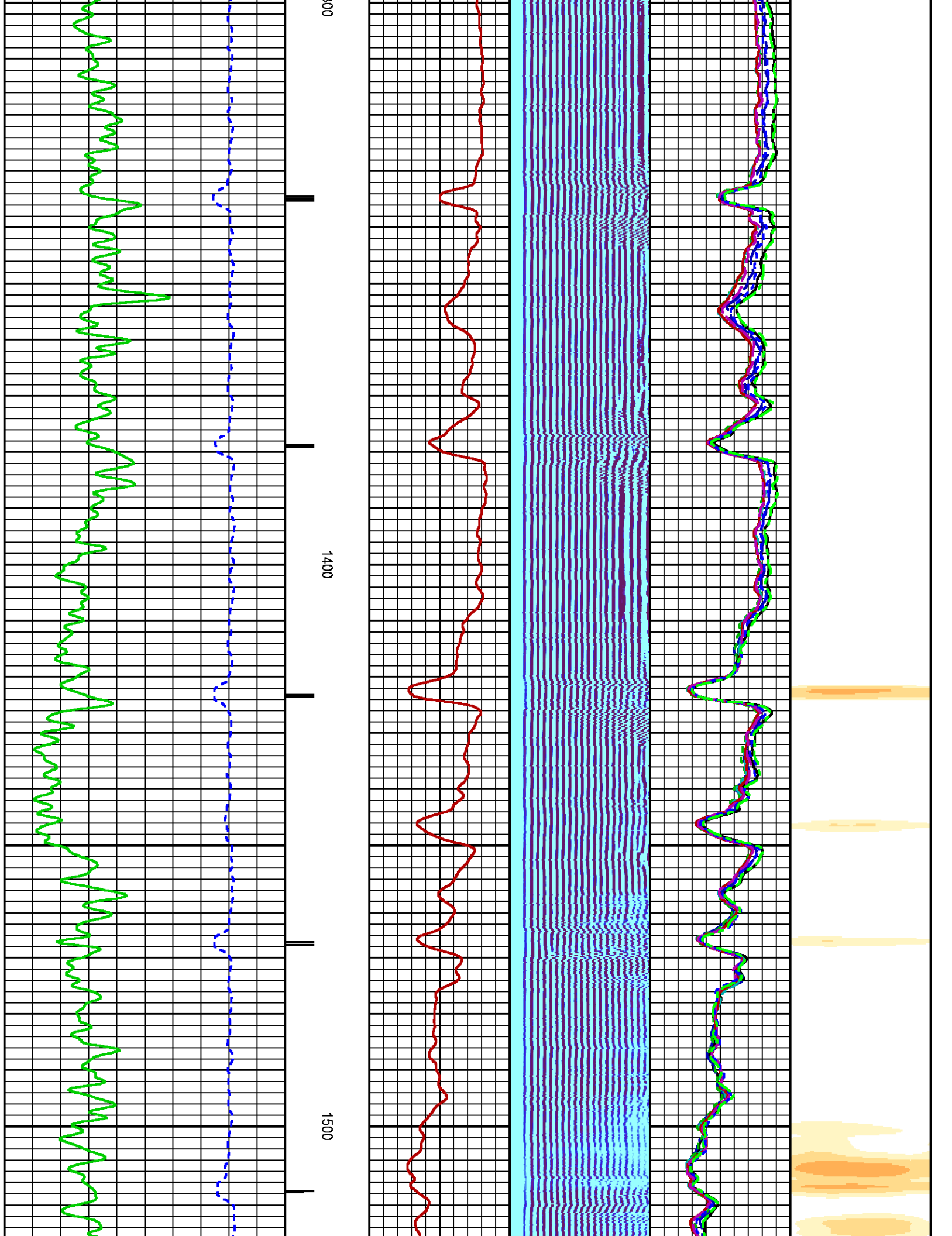


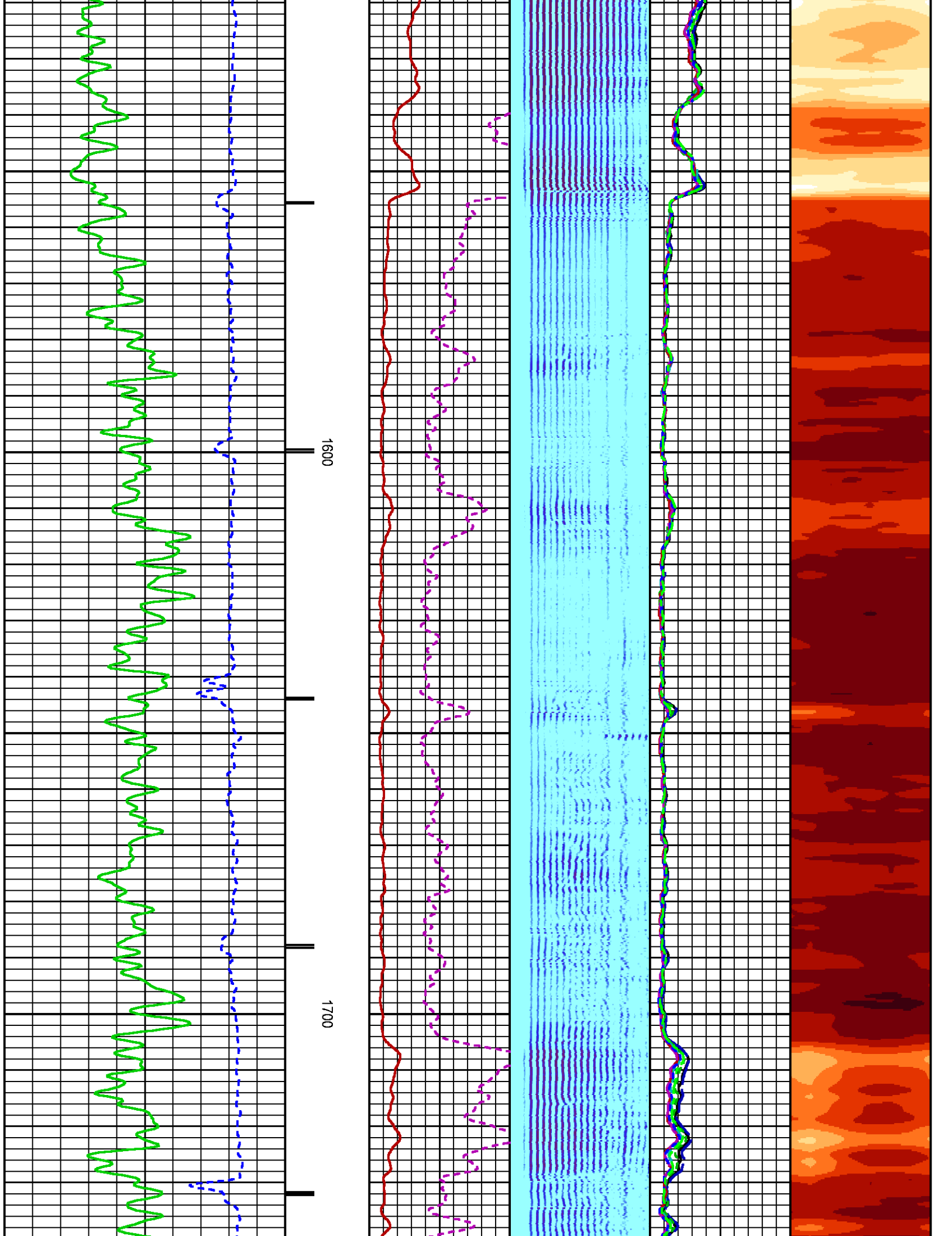


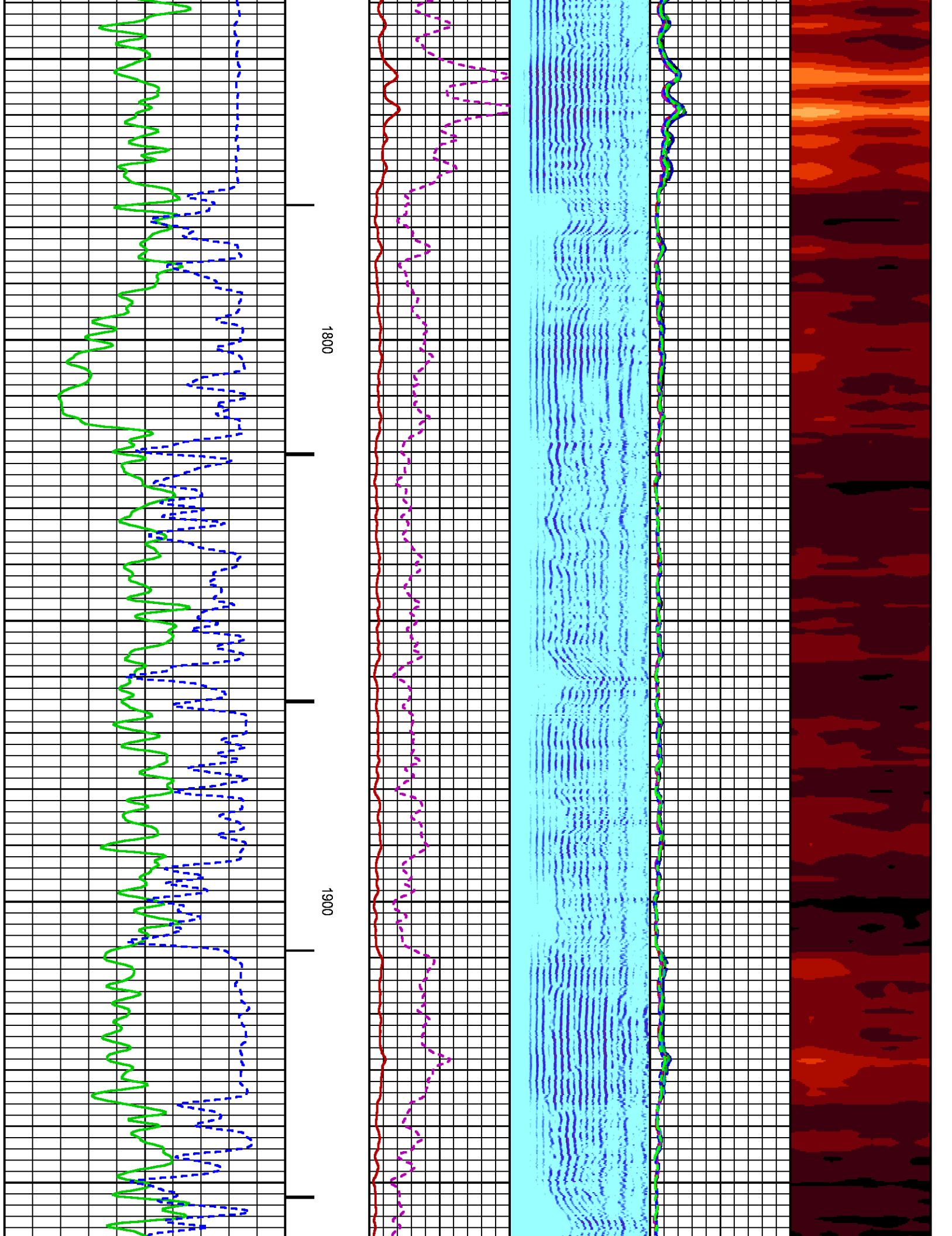


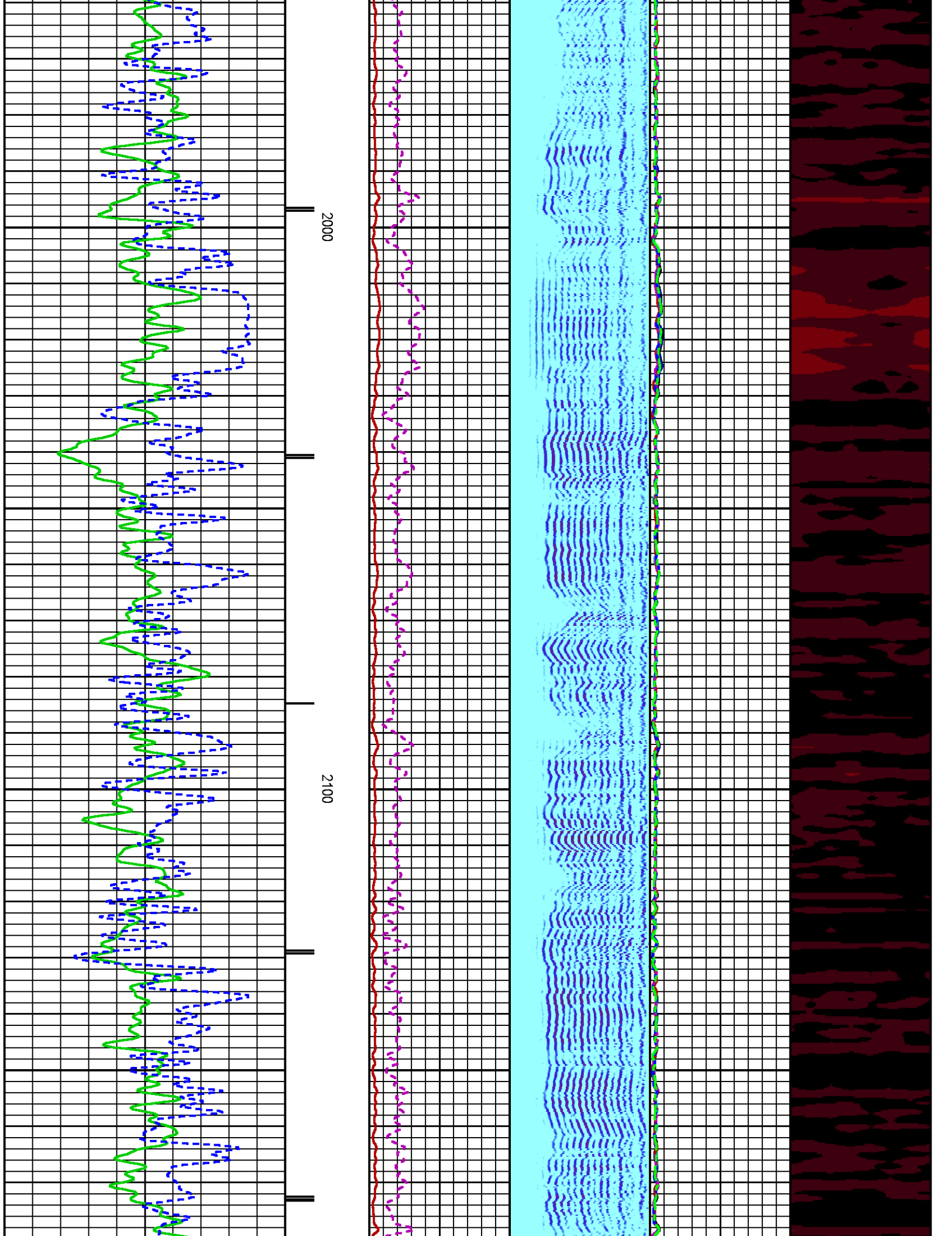




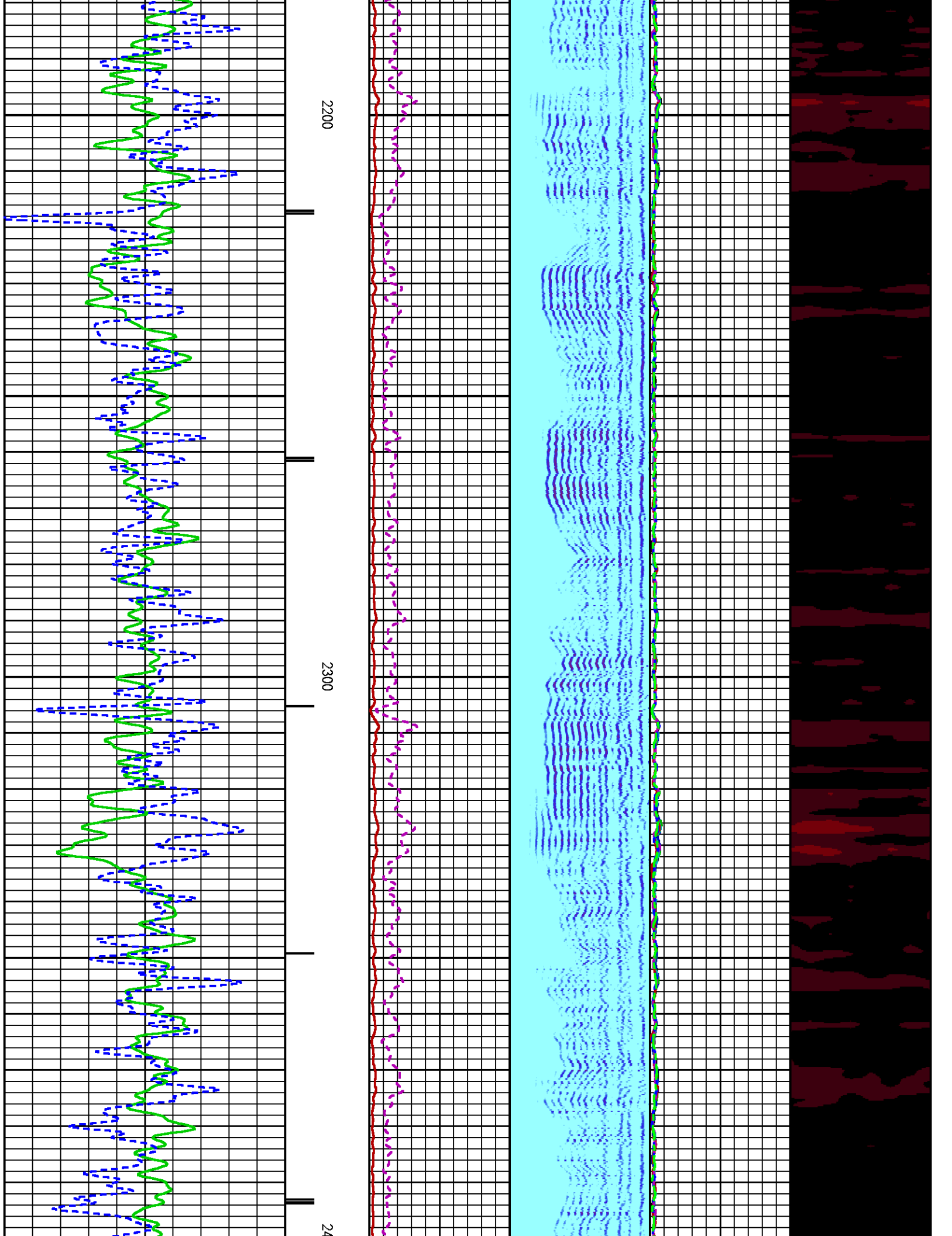


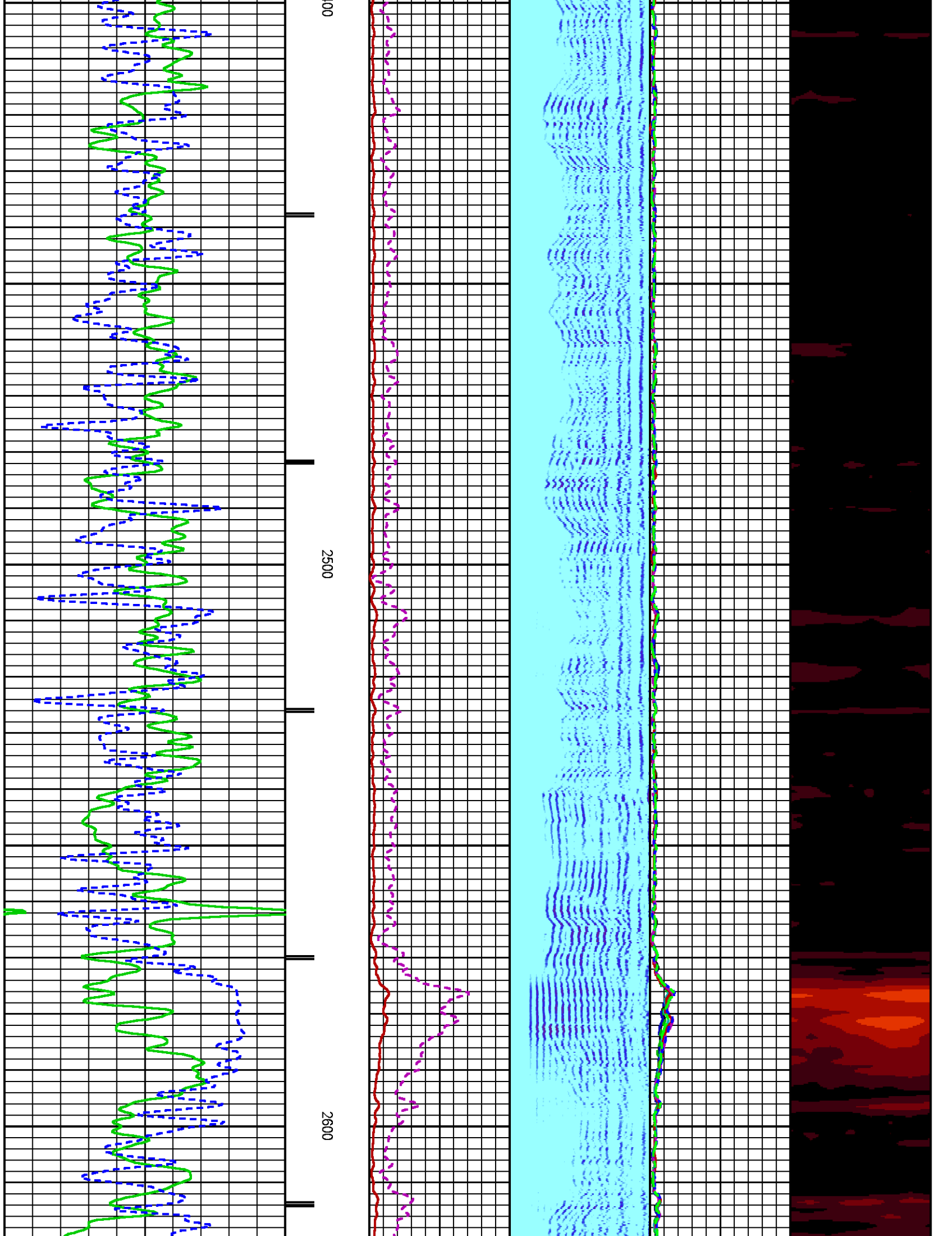




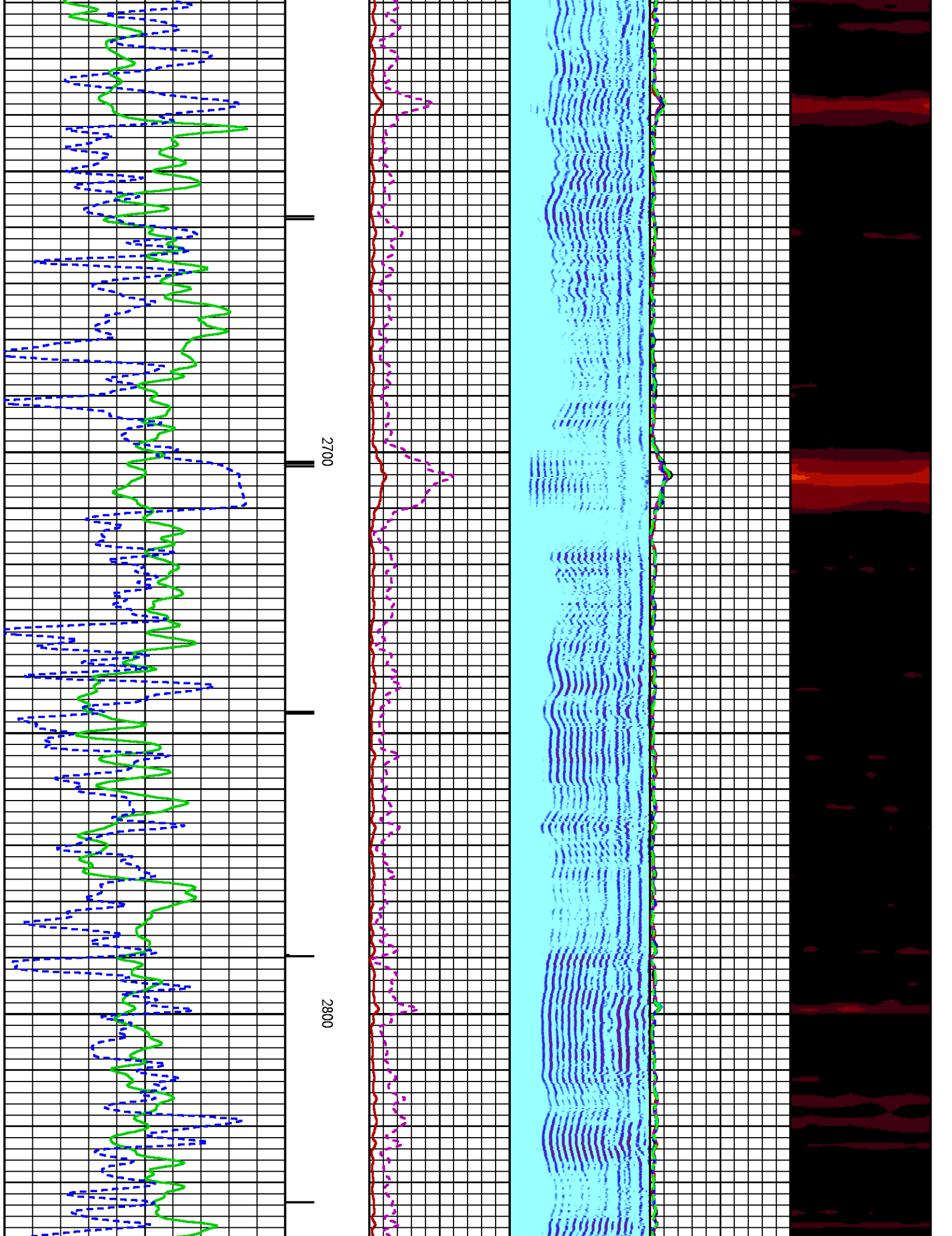


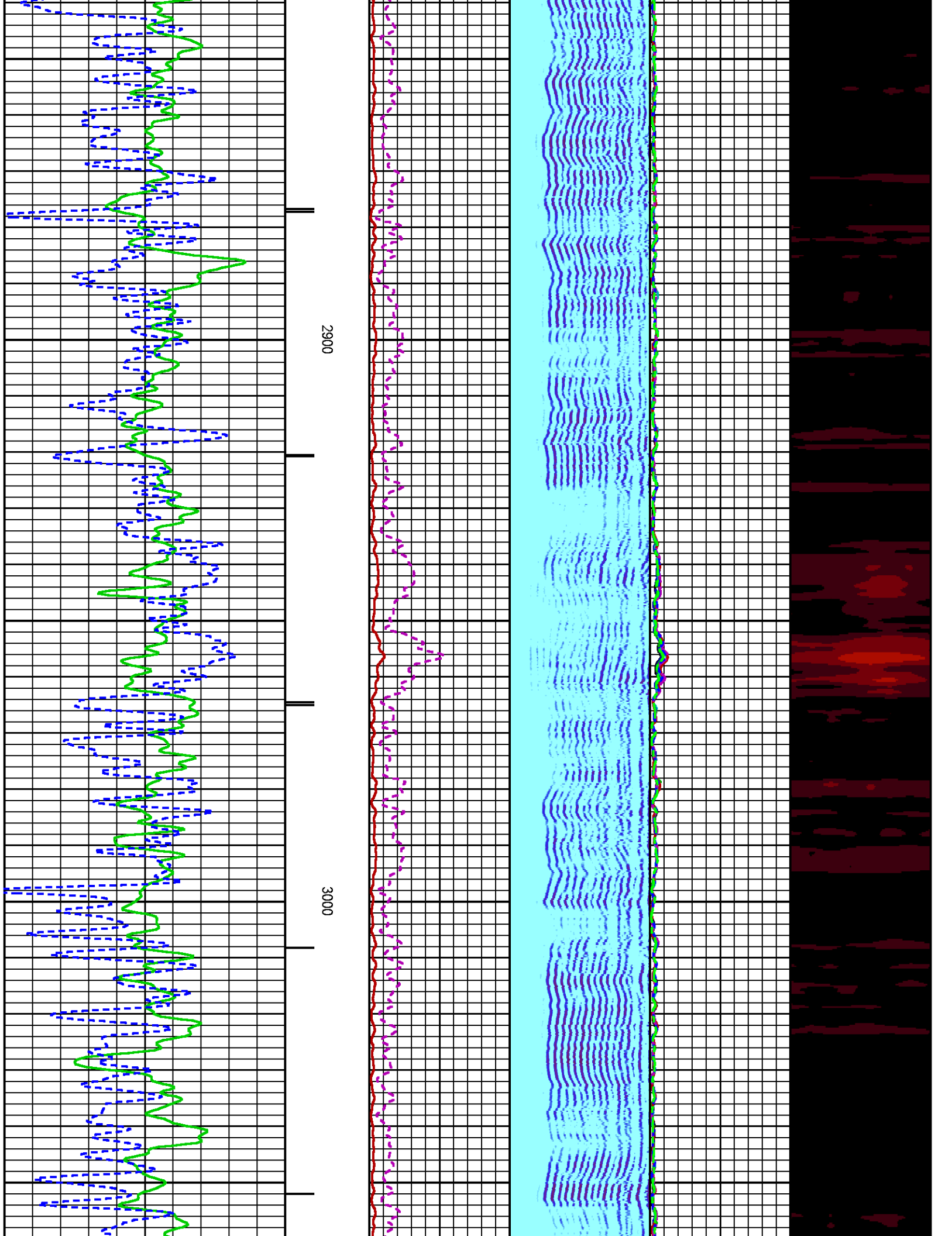


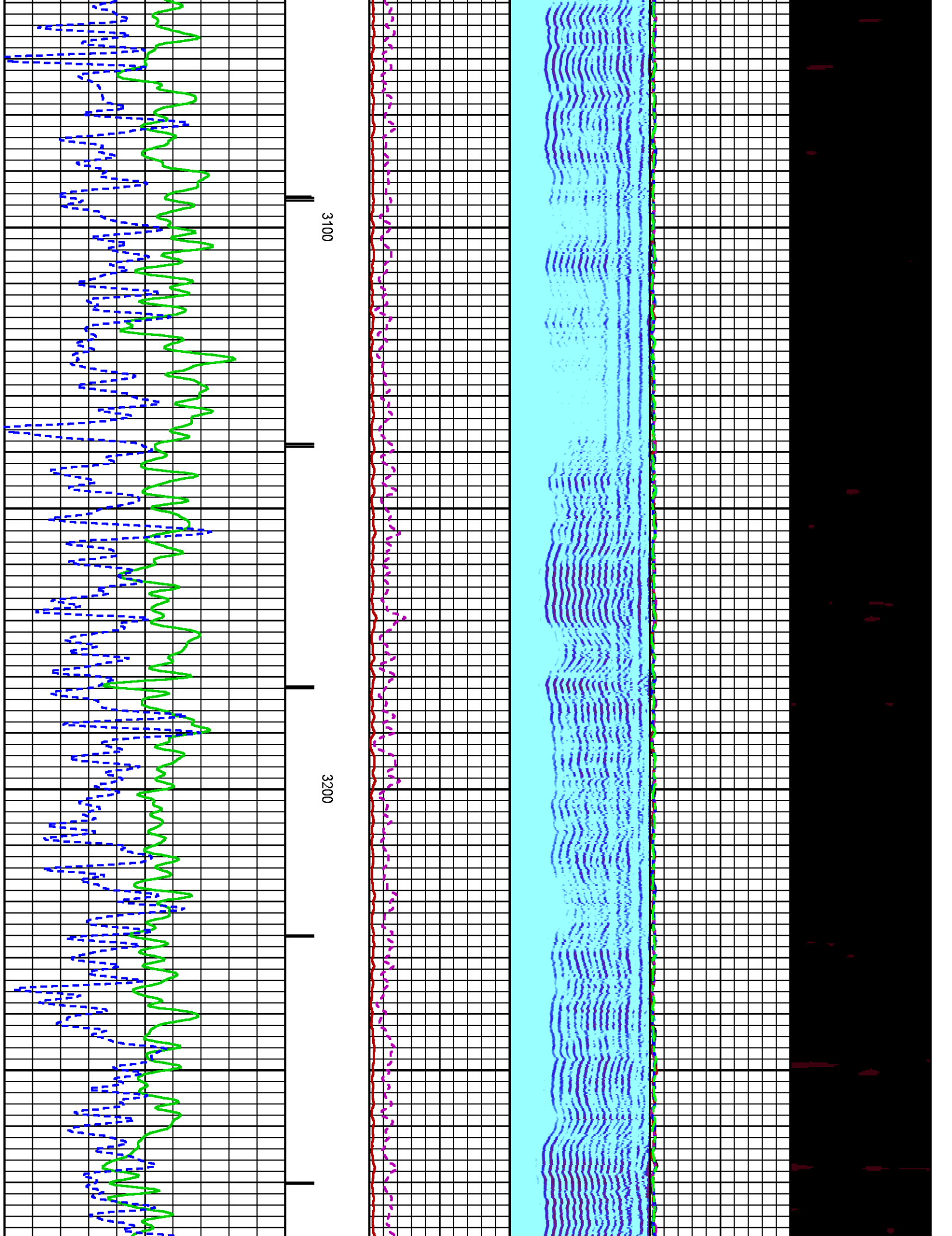


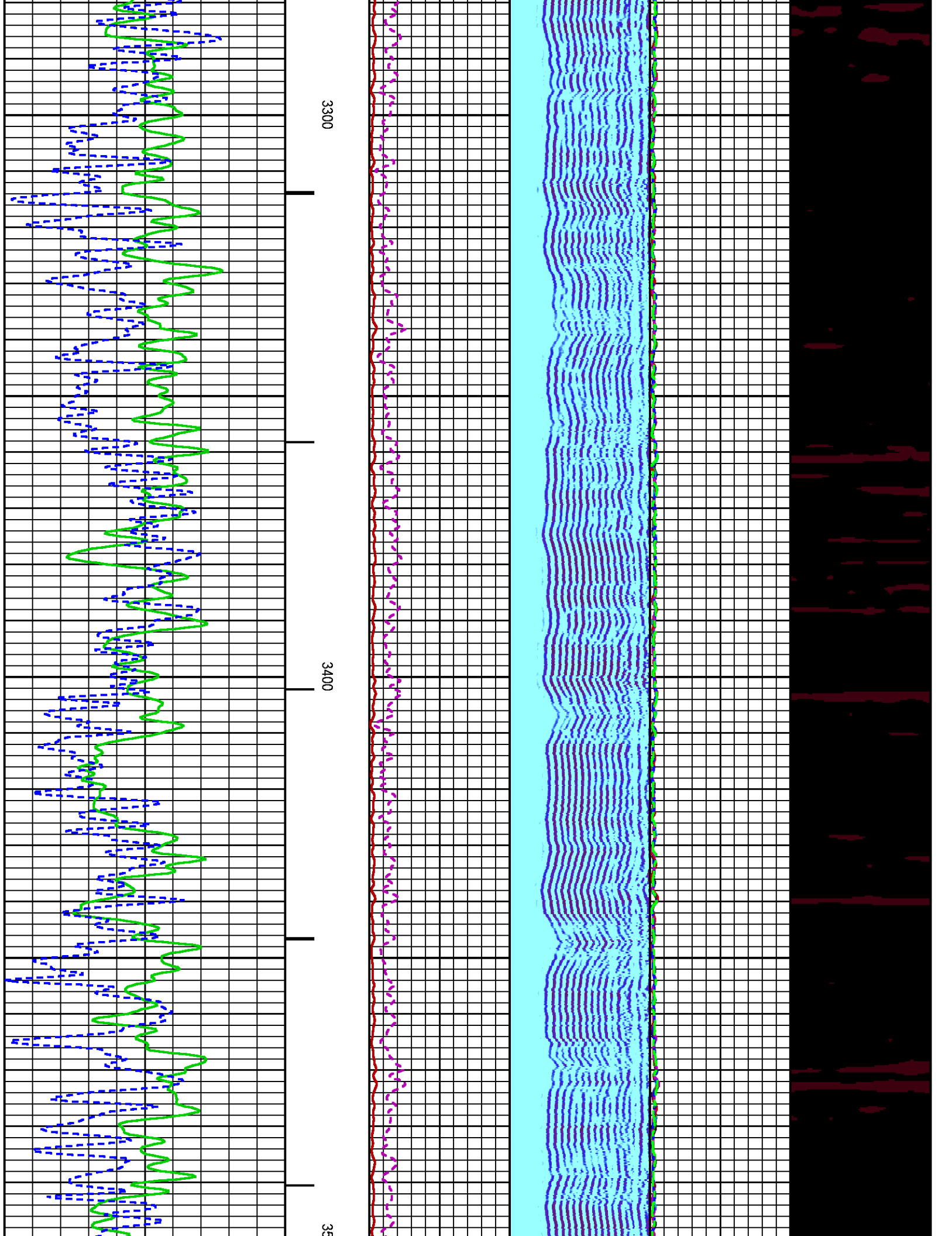


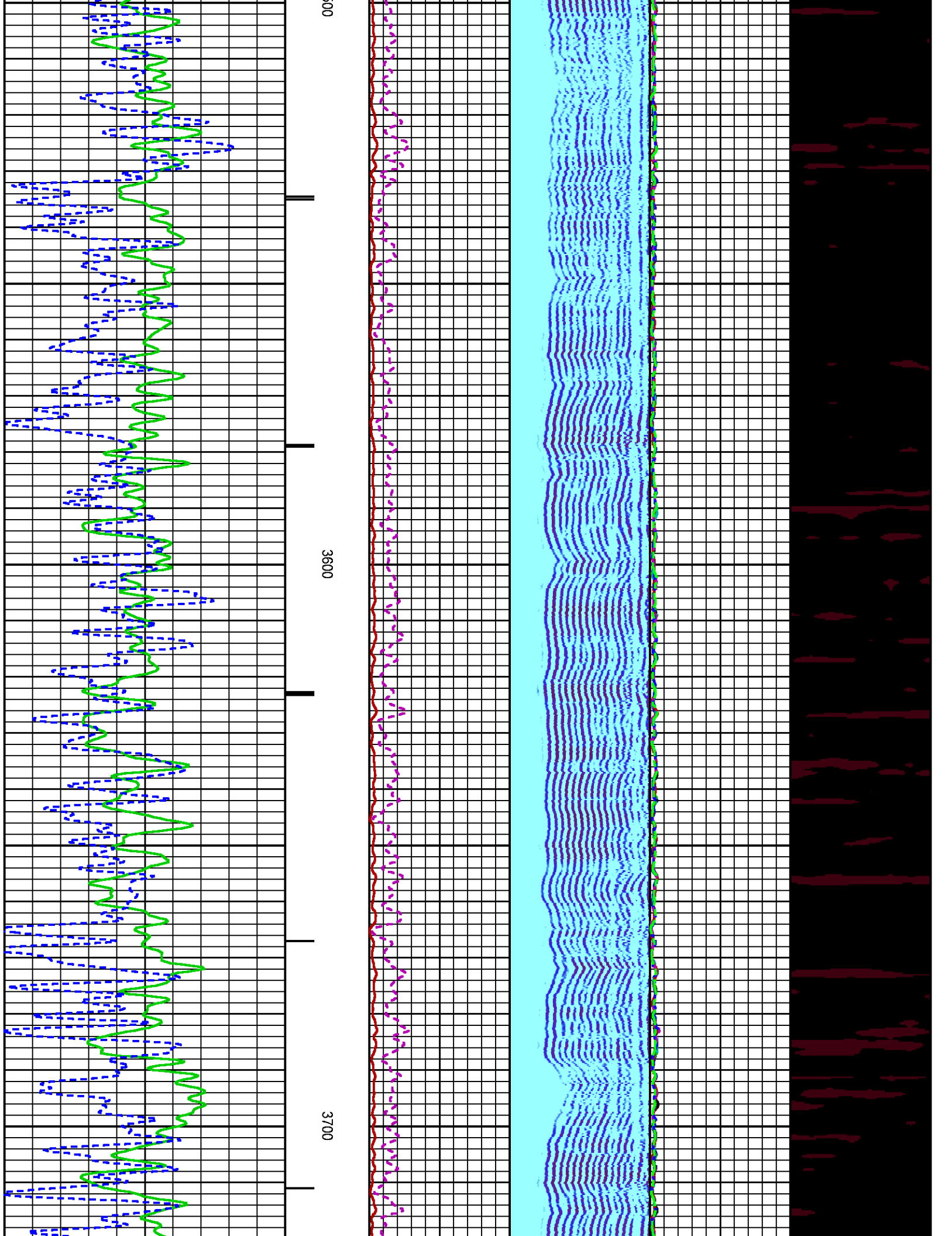




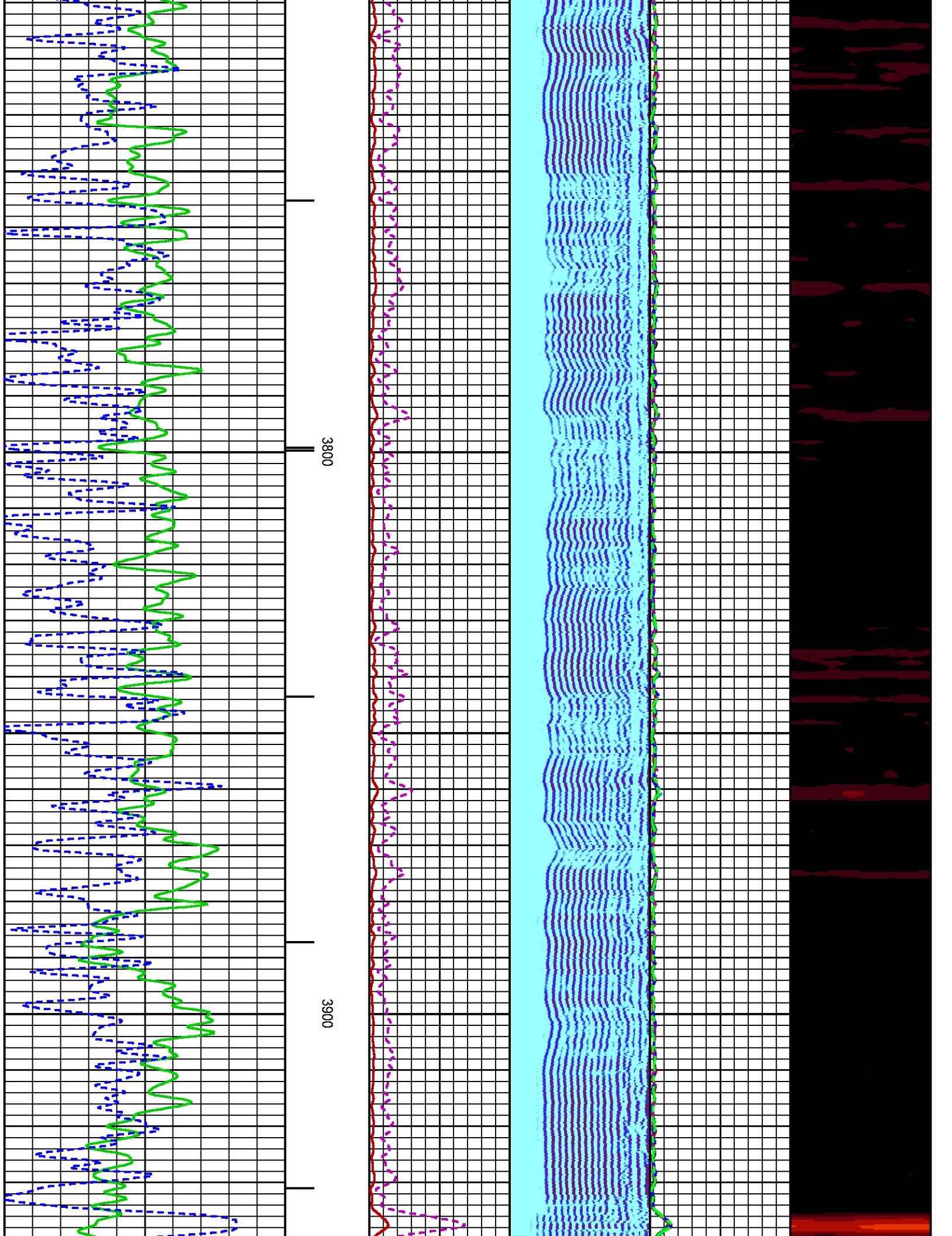


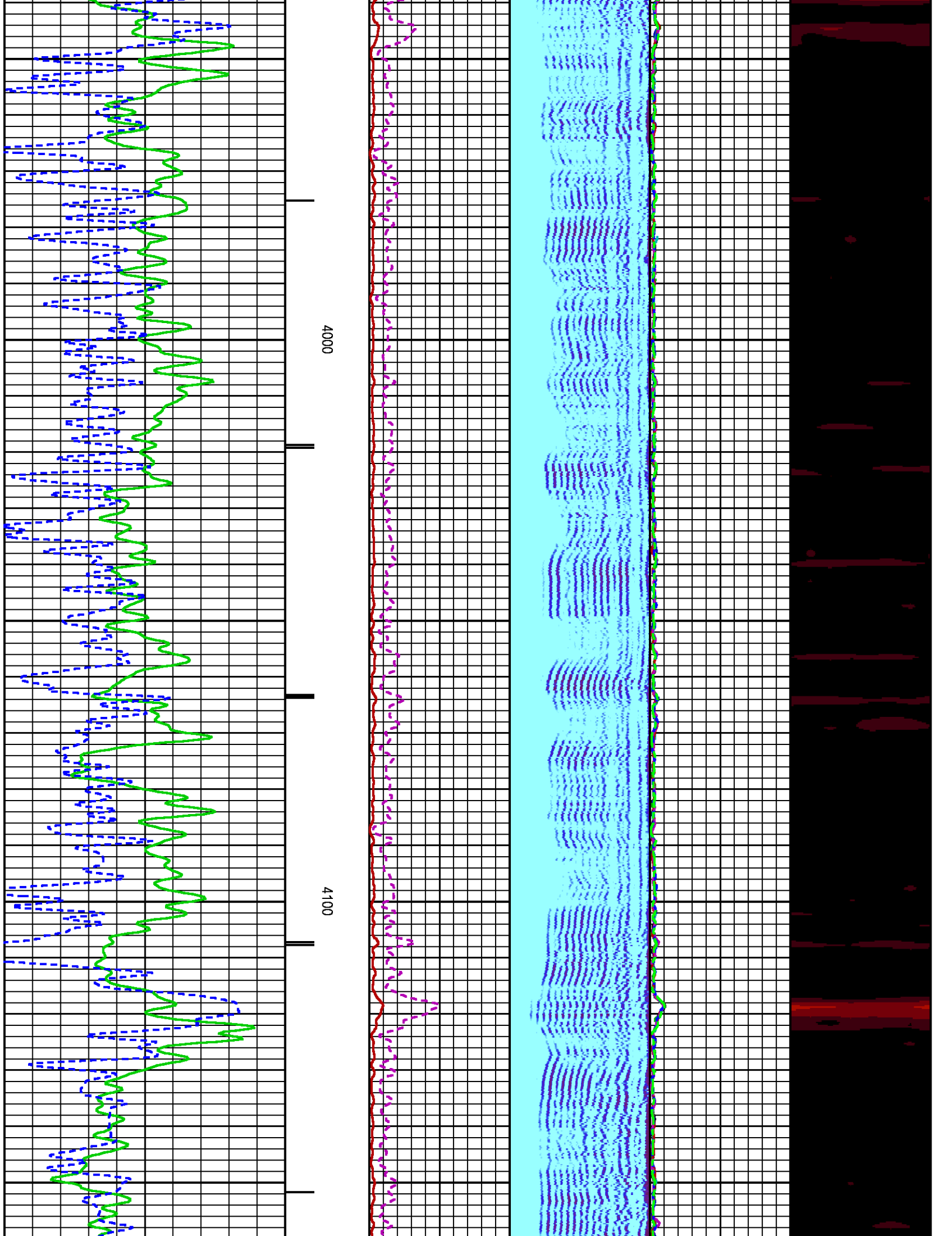




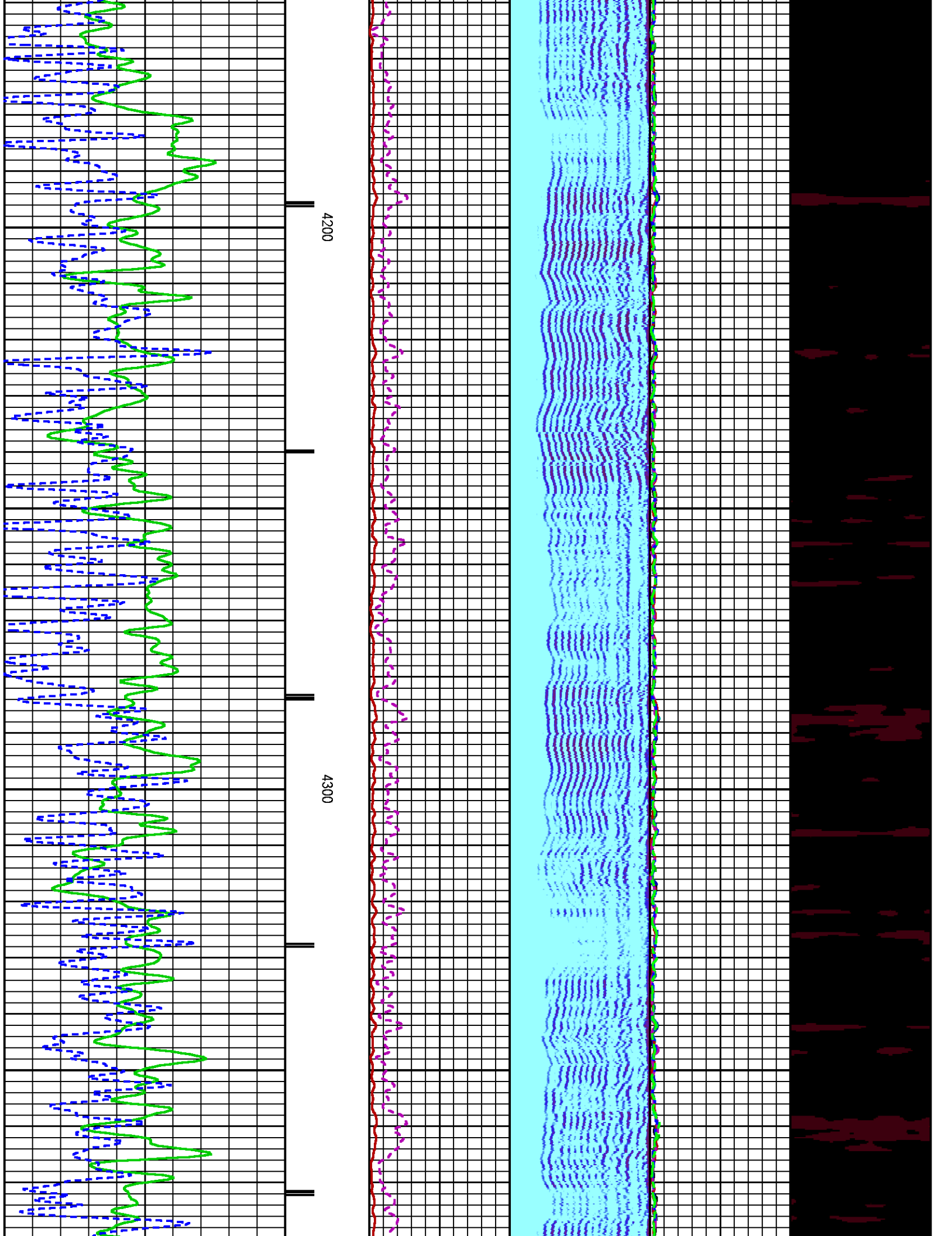


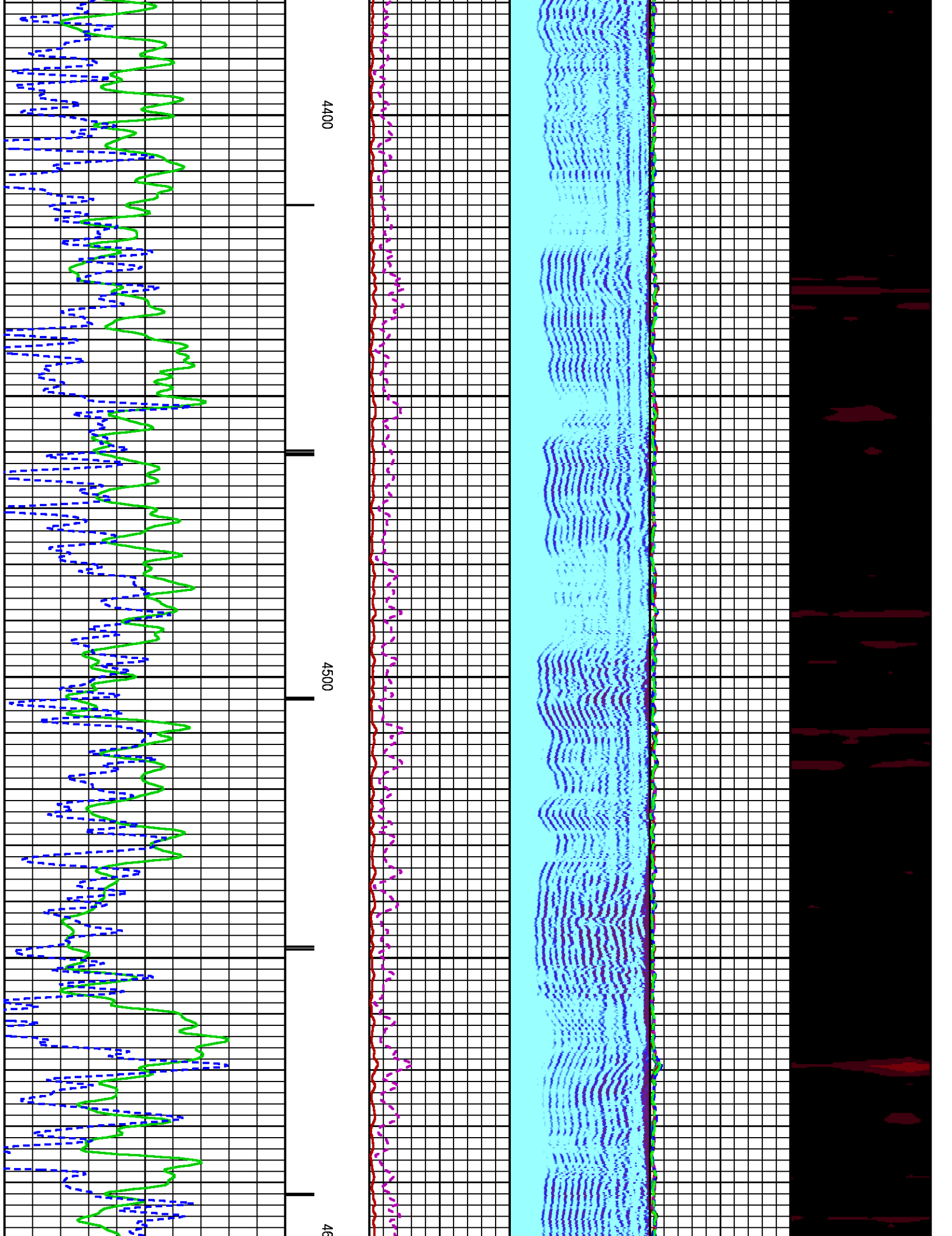


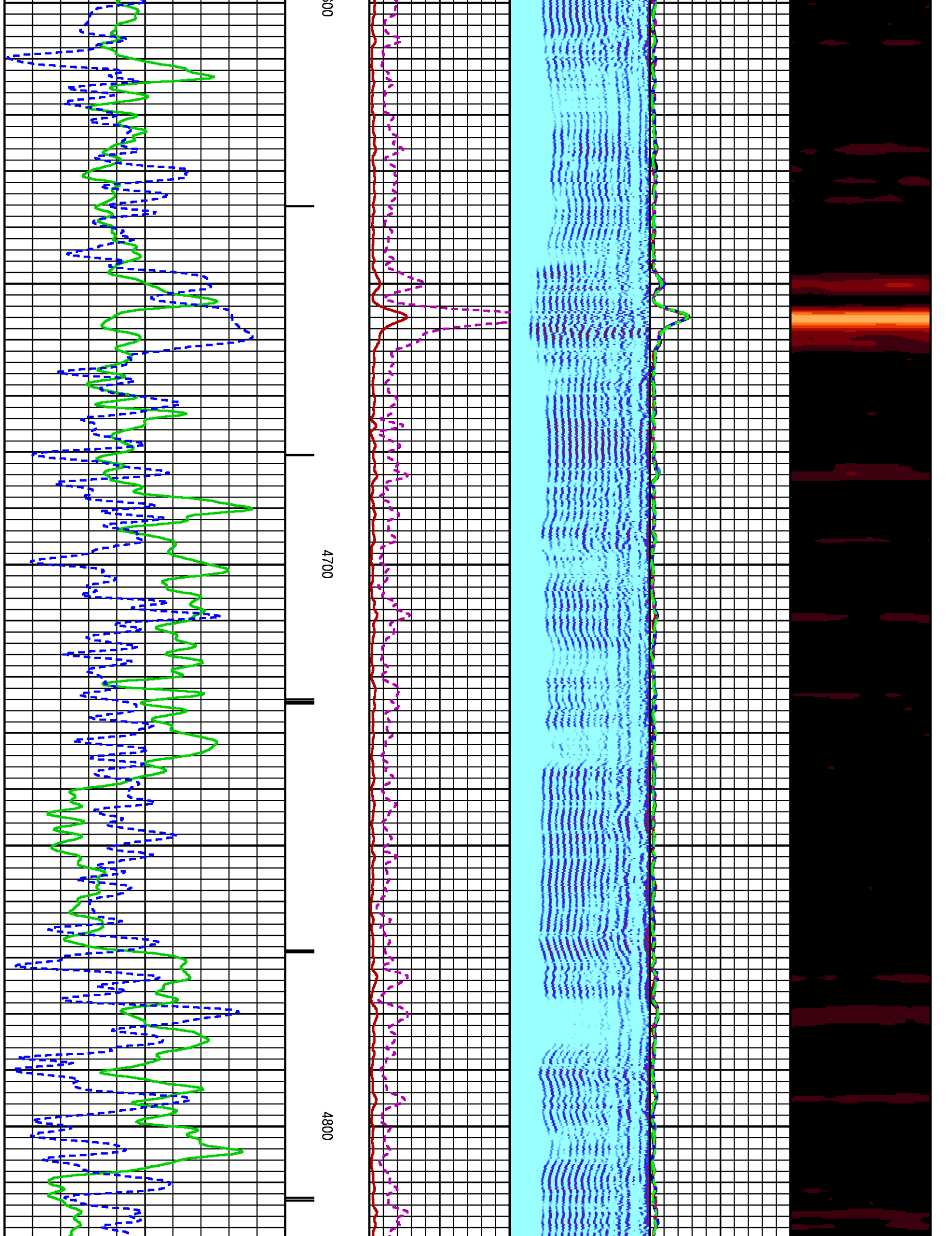


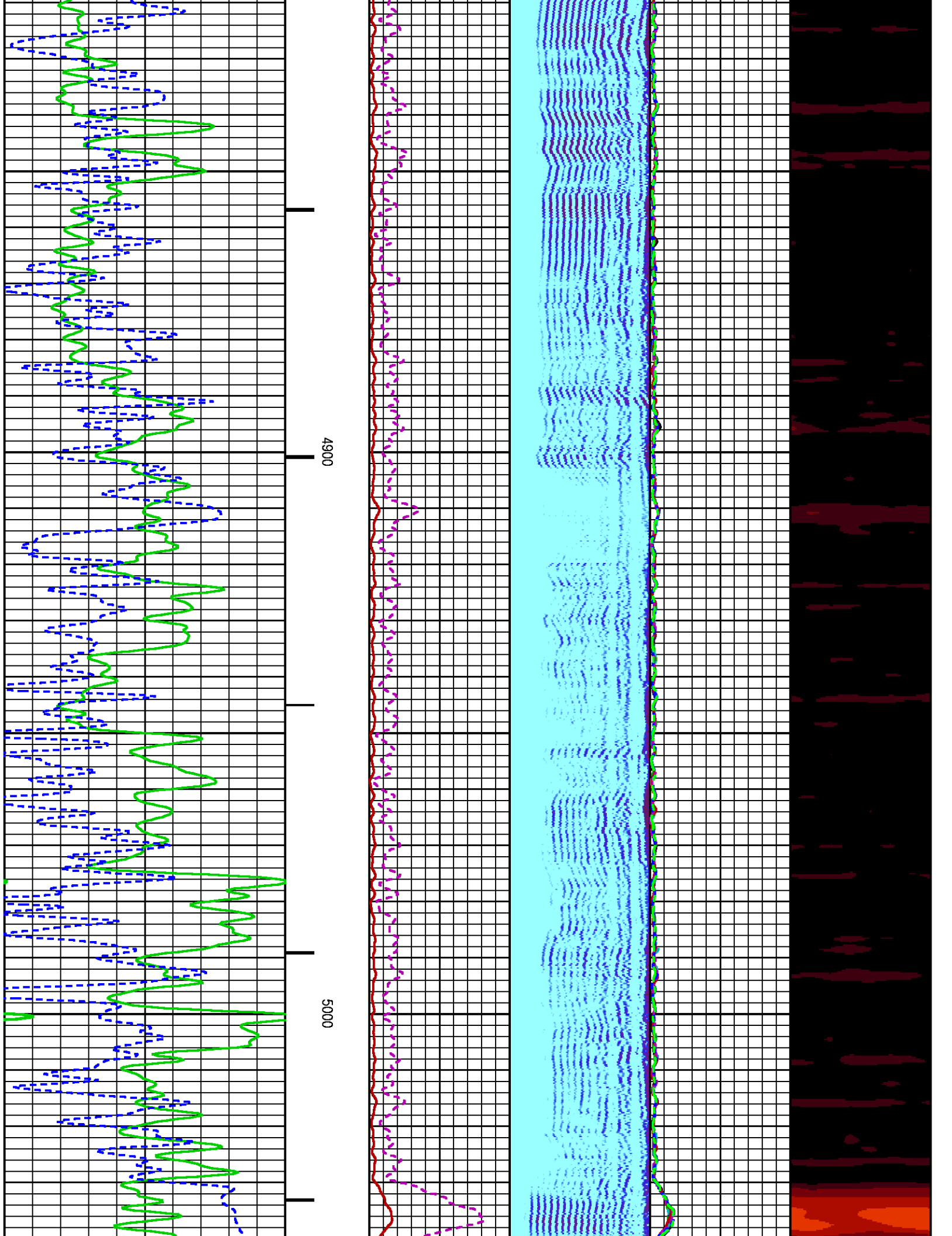


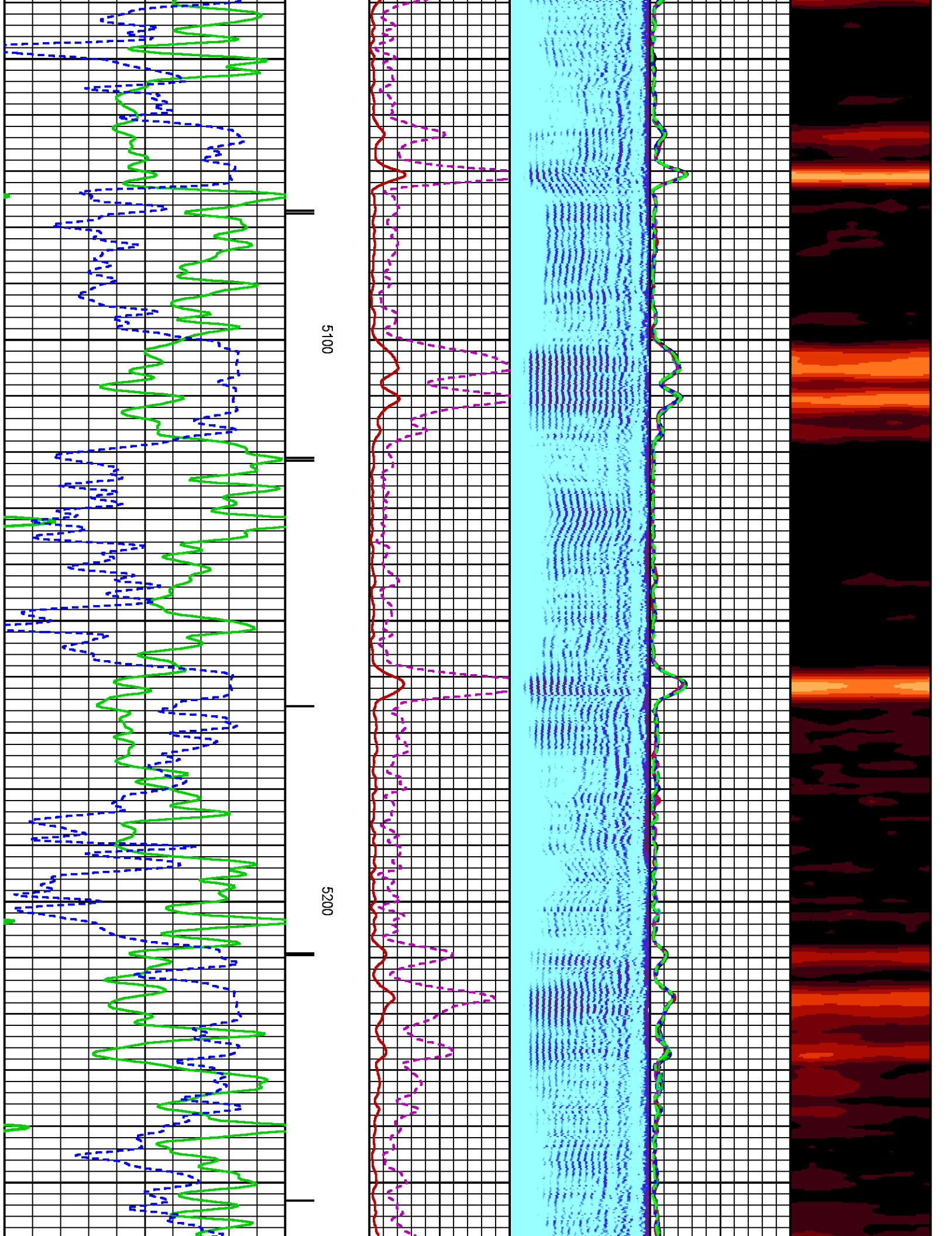




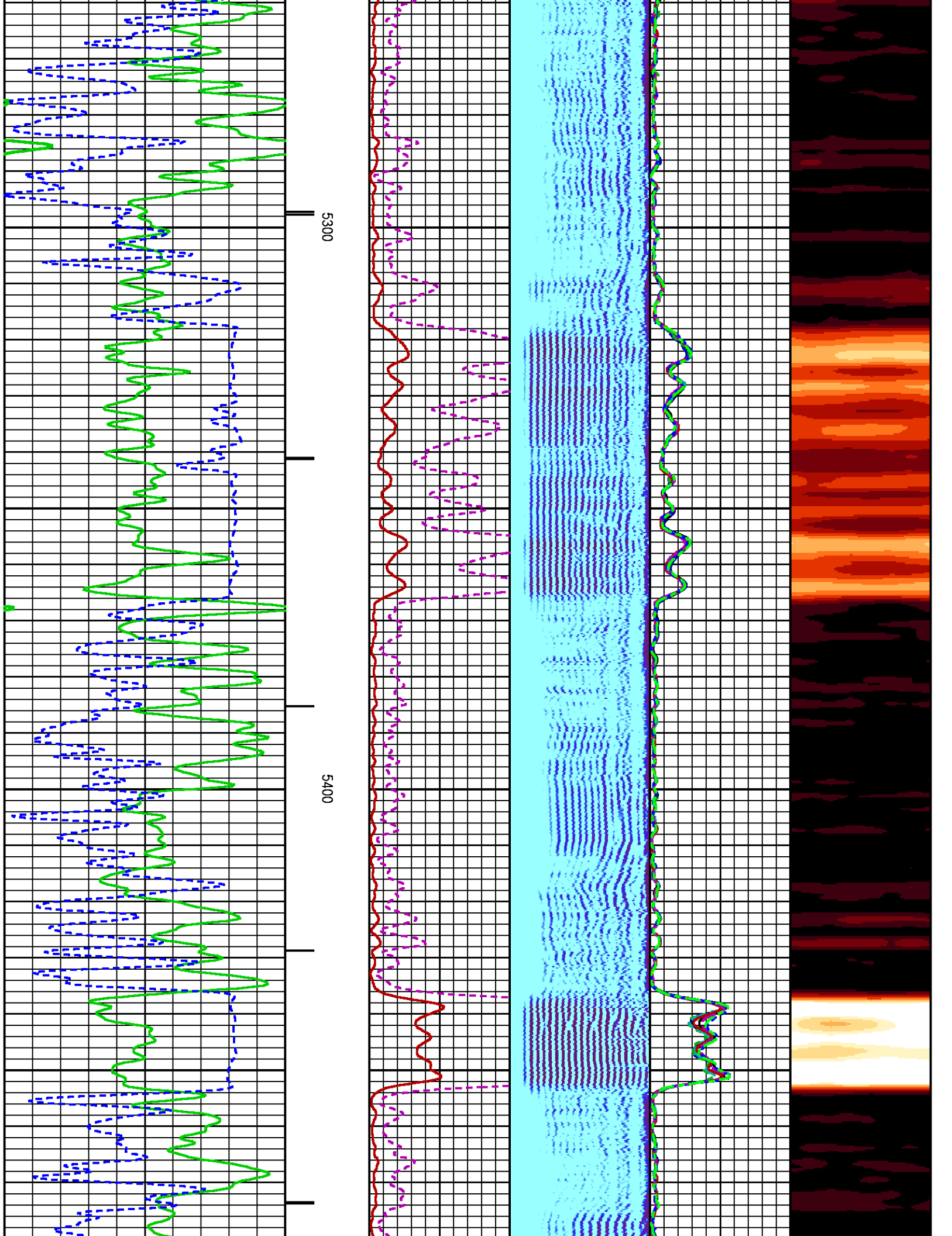


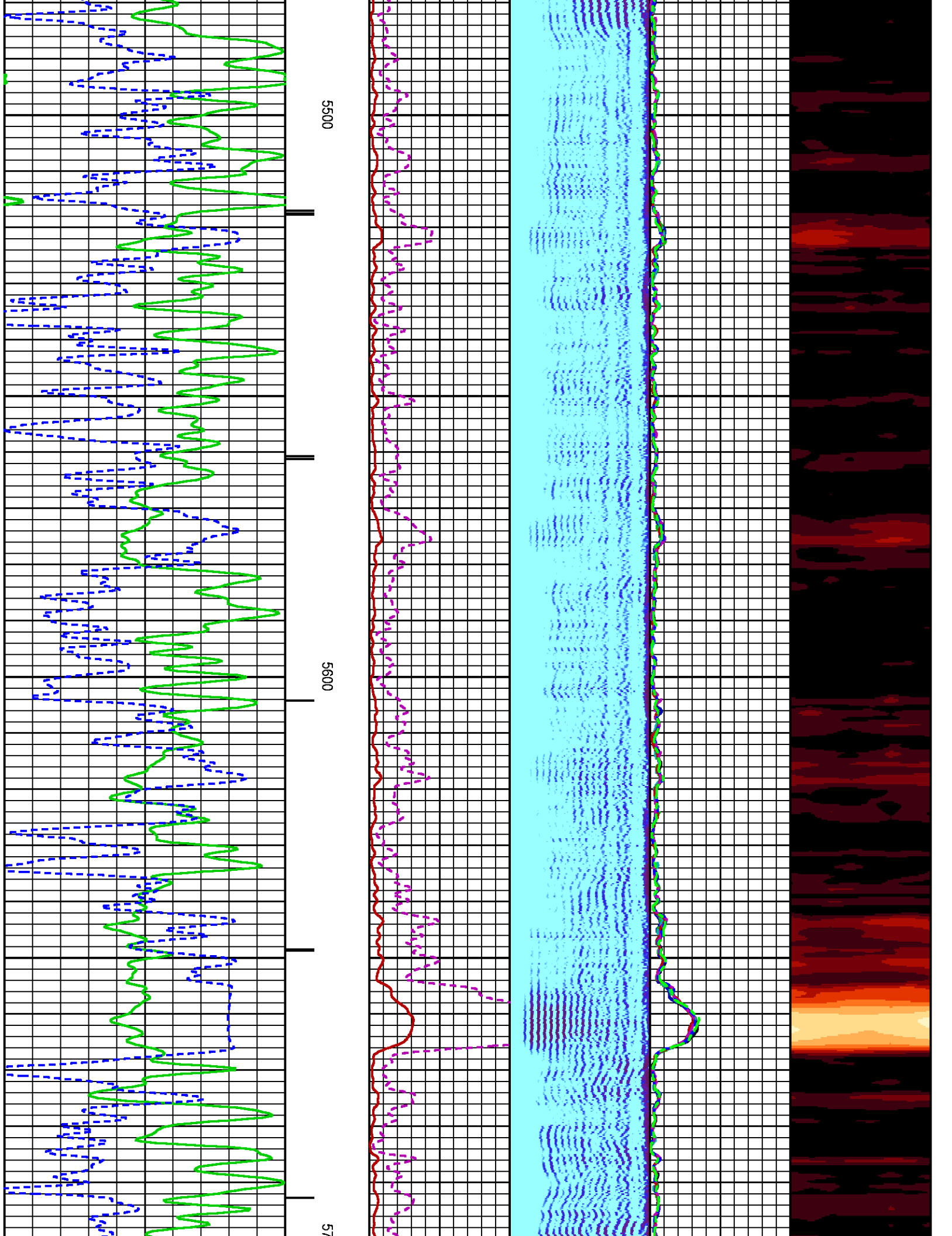




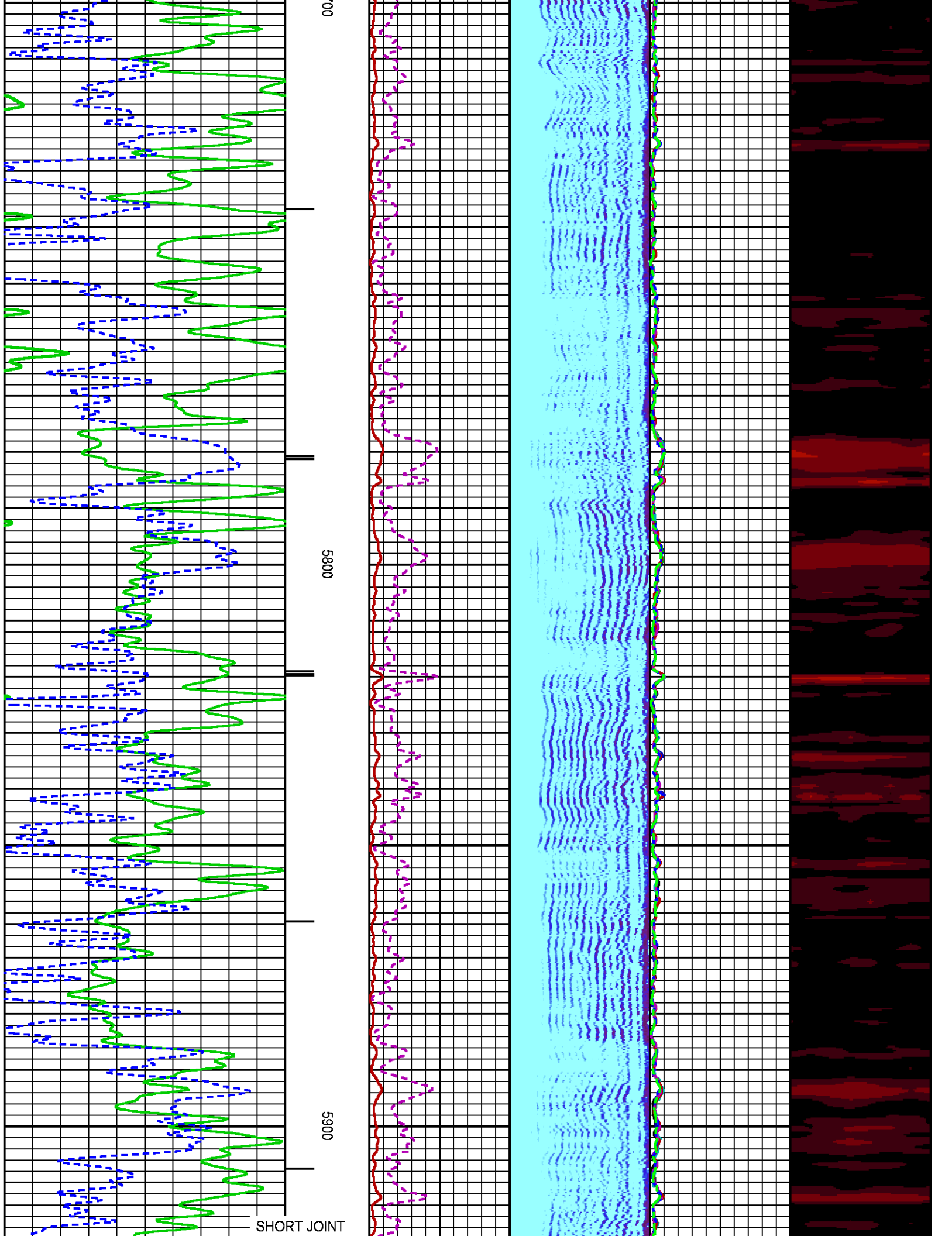


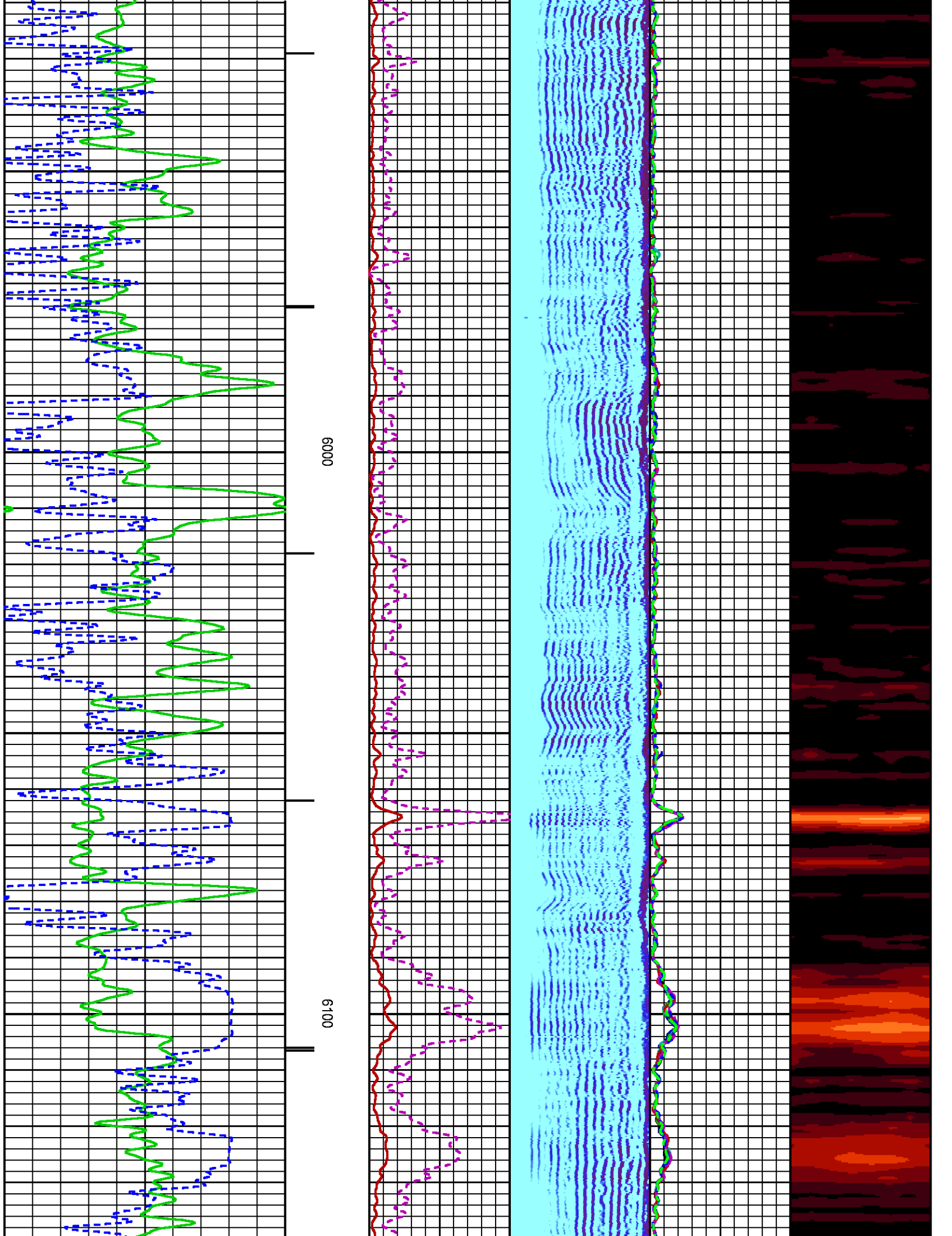


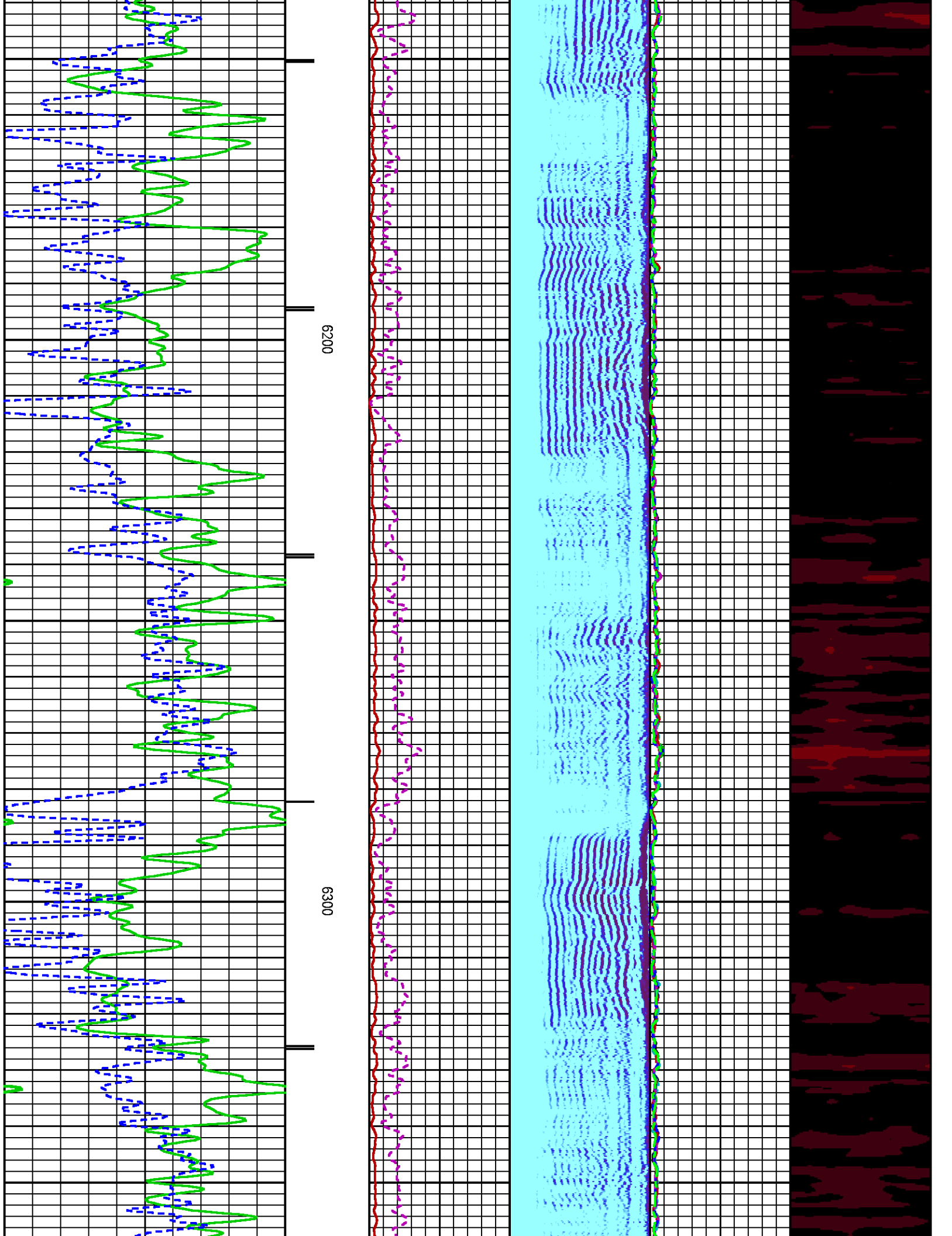


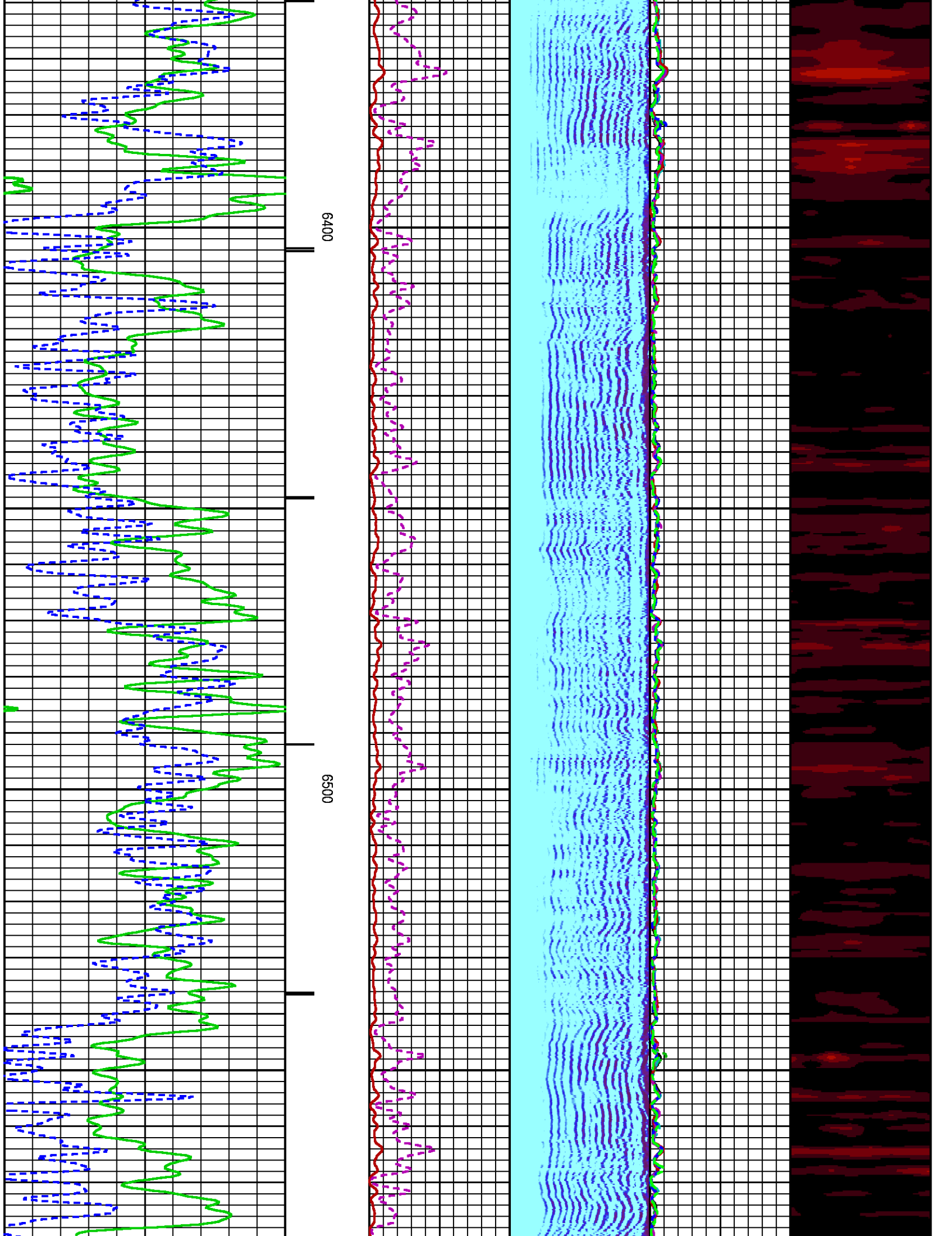


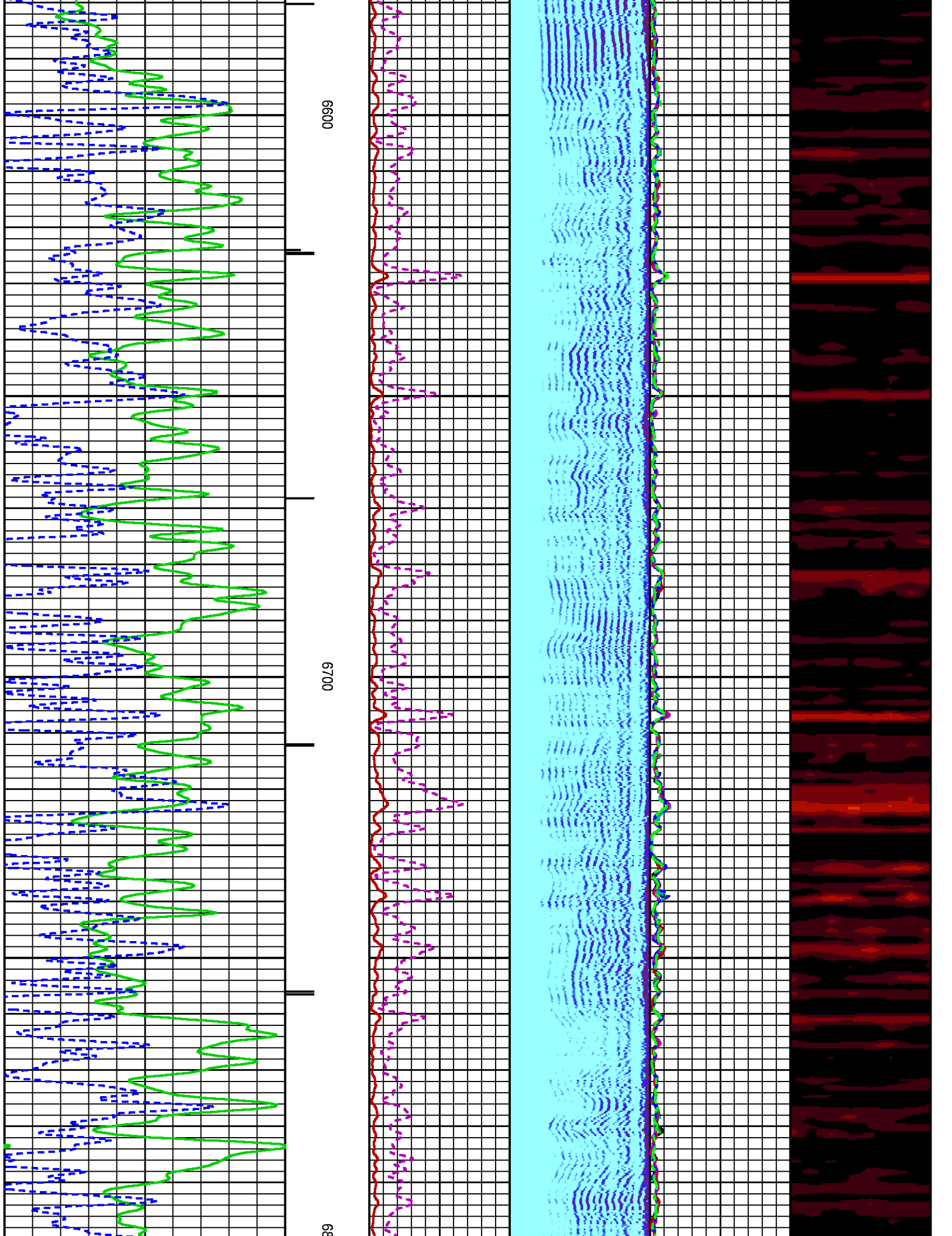




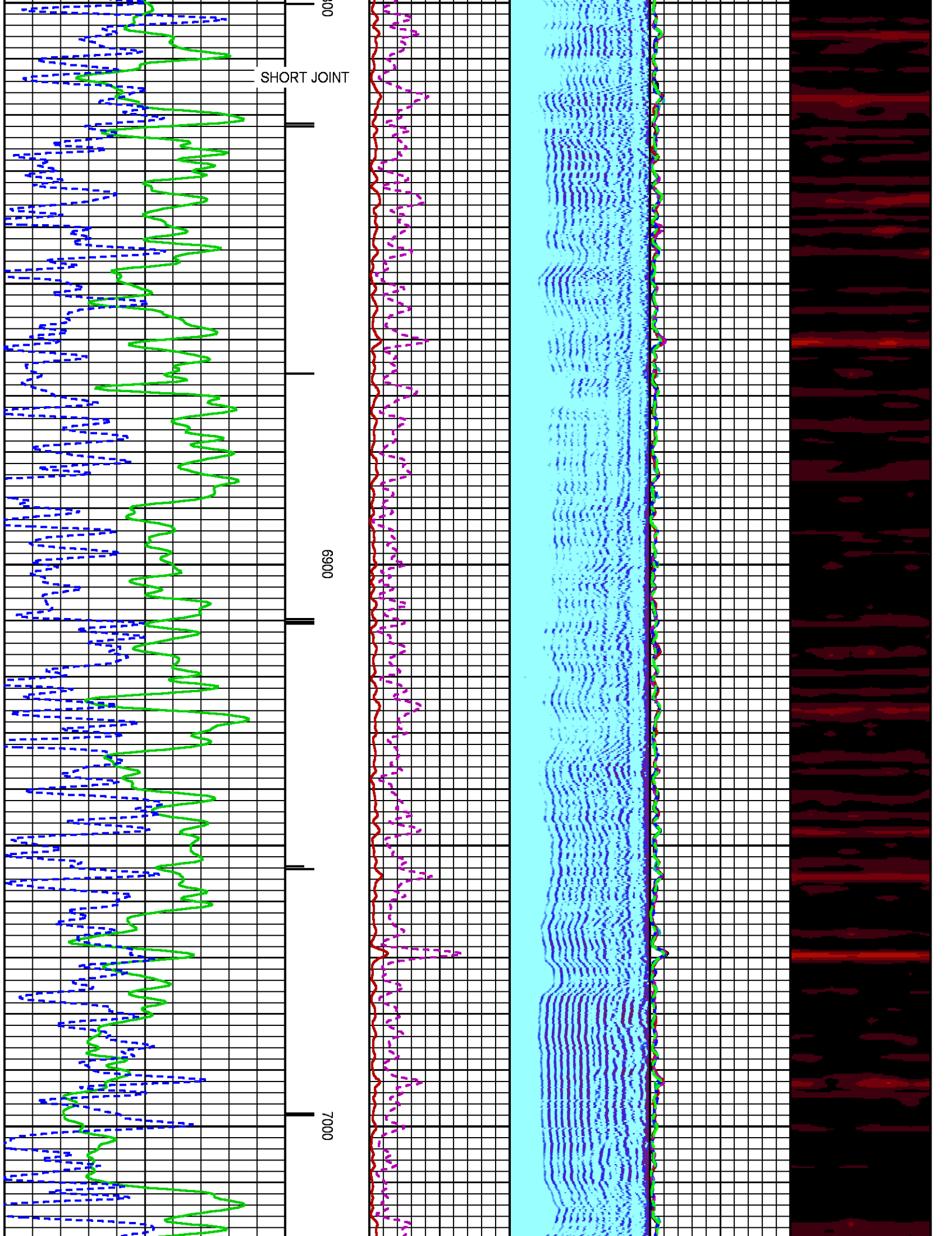


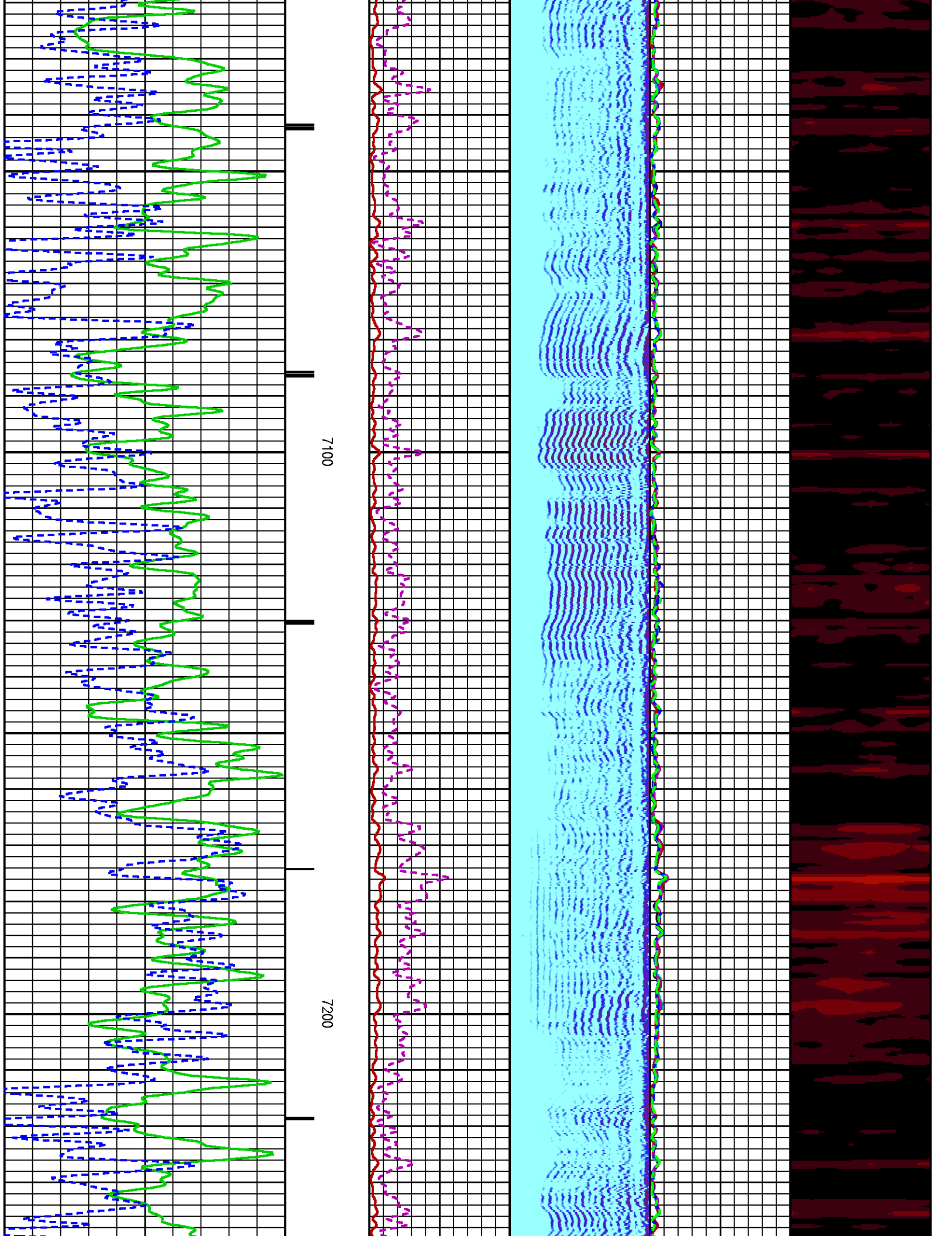




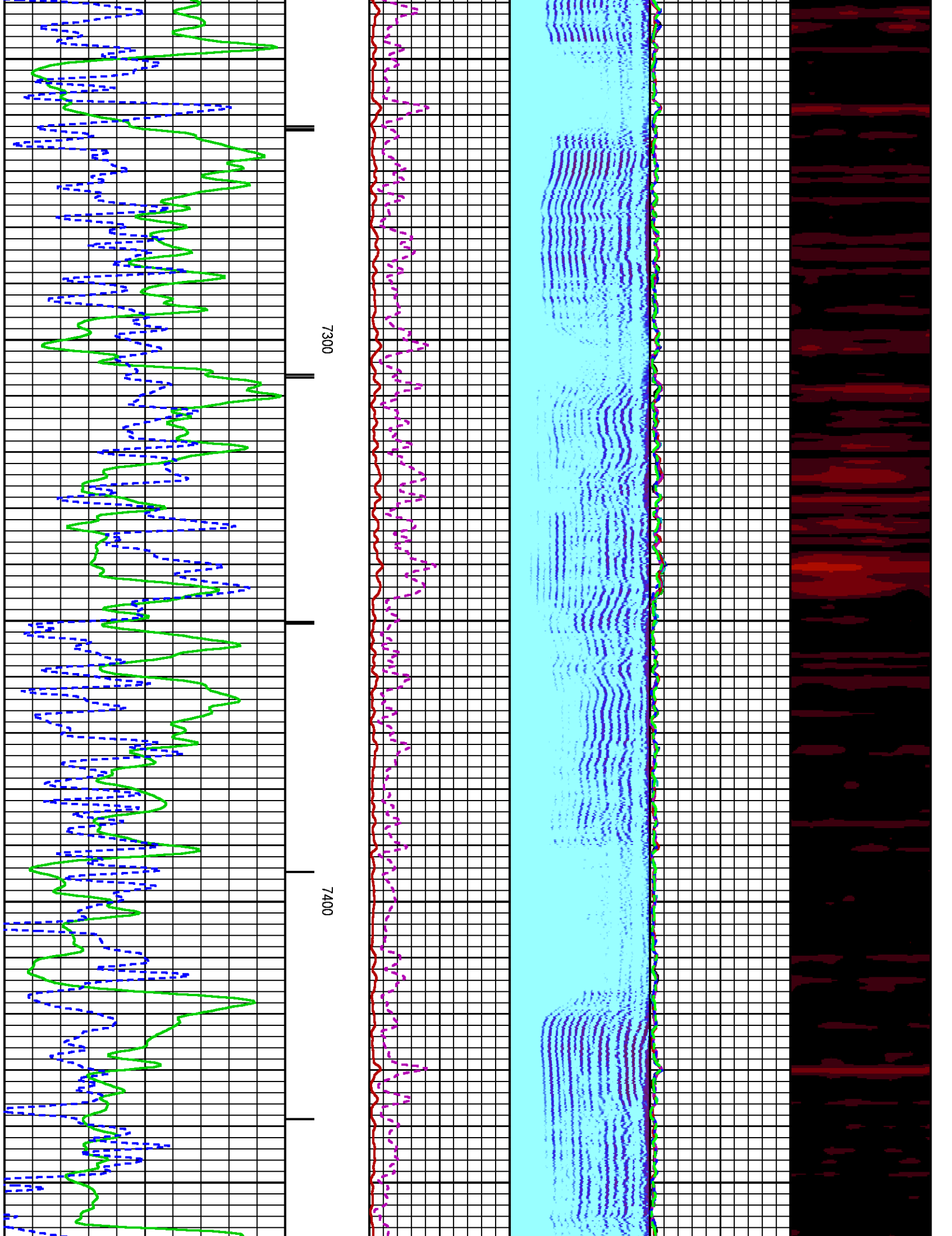


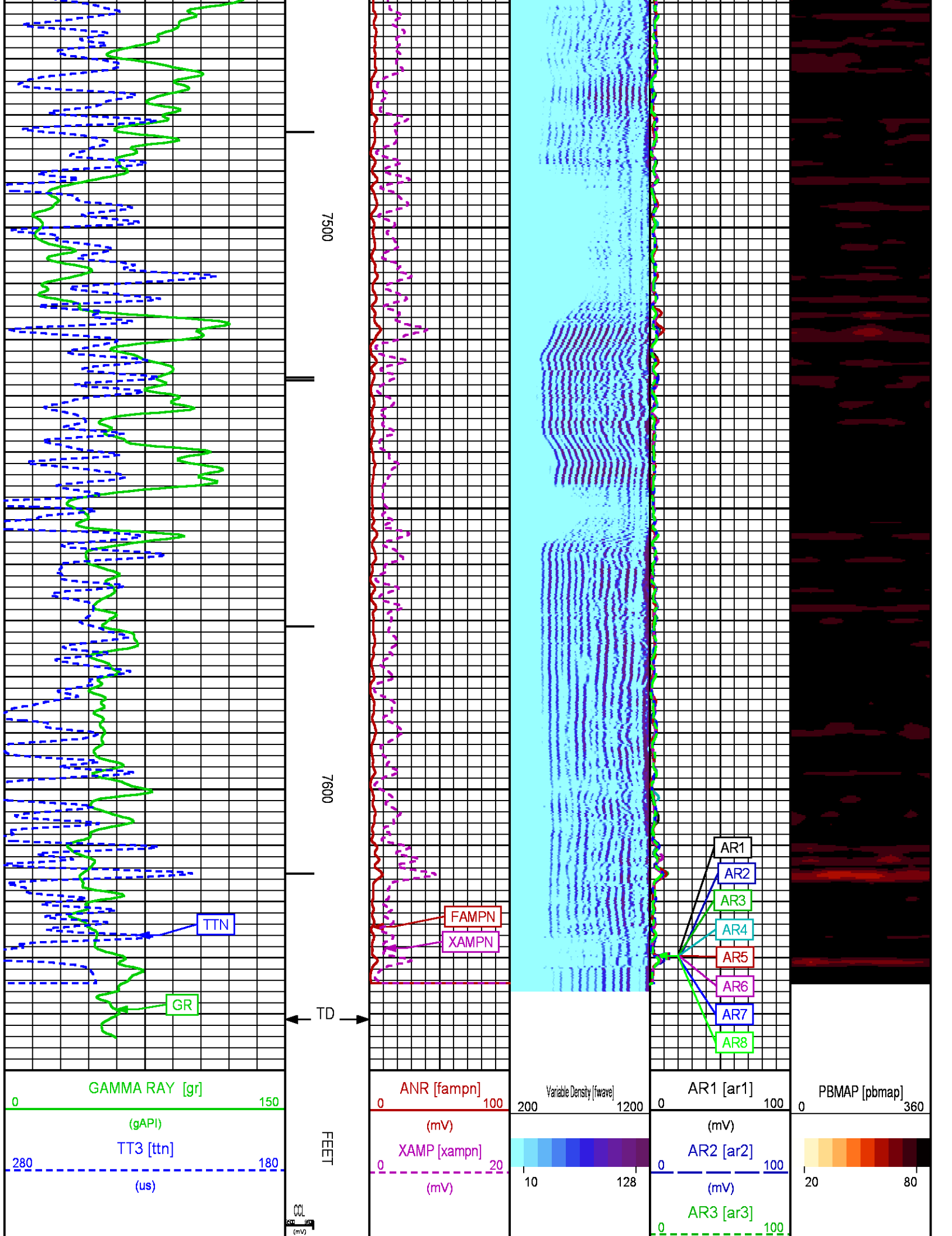


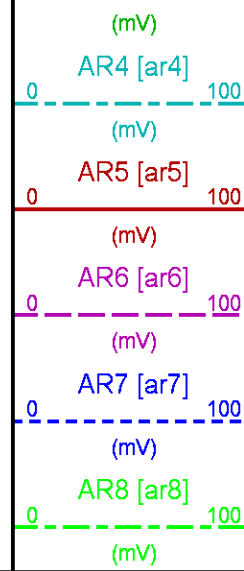












REPEAT PRESENTATION 0 PSI

ECLIPS 6.2i ECLIPS General Release Rel 6.2i Wed Jun 12 12:21:40 CDT 2013  
Updates: 1 Patches: 6

Plotted: Mon Jul 20 10:43:20 2015

PARAMETER AND FILTER SUMMARY REPORT					
FILE: /dat1a/CH097903/n012g01.prm LOGGING MODE: DEPTH DIRECTION: UP TOP DEPTH: 7392.250 ft BOTTOM DEPTH: 7651.426 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*)	186	us	TOP	BOTTOM
	AMP WINDOW START (fgp2*)	186	us	"	"
	AMP WINDOW START (fgp3*)	186	us	"	"
	AMP WINDOW START (fgp4*)	186	us	"	"
	AMP WINDOW START (fgp5*)	186	us	"	"
	AMP WINDOW START (fgp6*)	186	us	"	"
	AMP WINDOW START (fgp7*)	186	us	"	"
	AMP WINDOW START (fgp8*)	186	us	"	"
	AMP WINDOW START (fgpn*)	186	us	"	"
	AMP WINDOW LENGTH	25	us	"	"
TRAVEL TIME WINDOW (NEAR)	TT WINDOW START (ttn*)	177	us	"	"
	TT WINDOW LENGTH	500	us	"	"
	FIRST BRK THRESHOLD (ttn*)	4	mV	"	"
RAL CASING PARAMETERS	PPT NEAR	200.391	us	"	"
RAL TOOL DELAY	TOOL DELAY (str1*)	-67	us	"	"

FREE 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	"	"
BASLINE 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	"	"

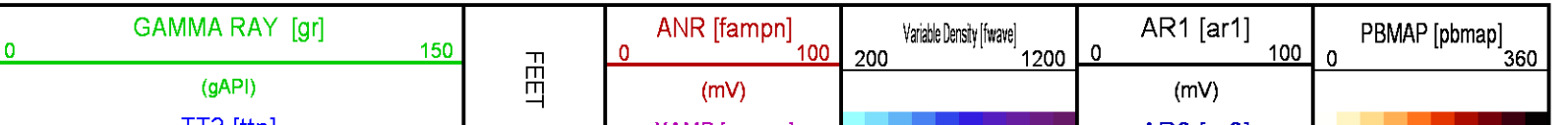
CURVE DESCRIPTION REPORT

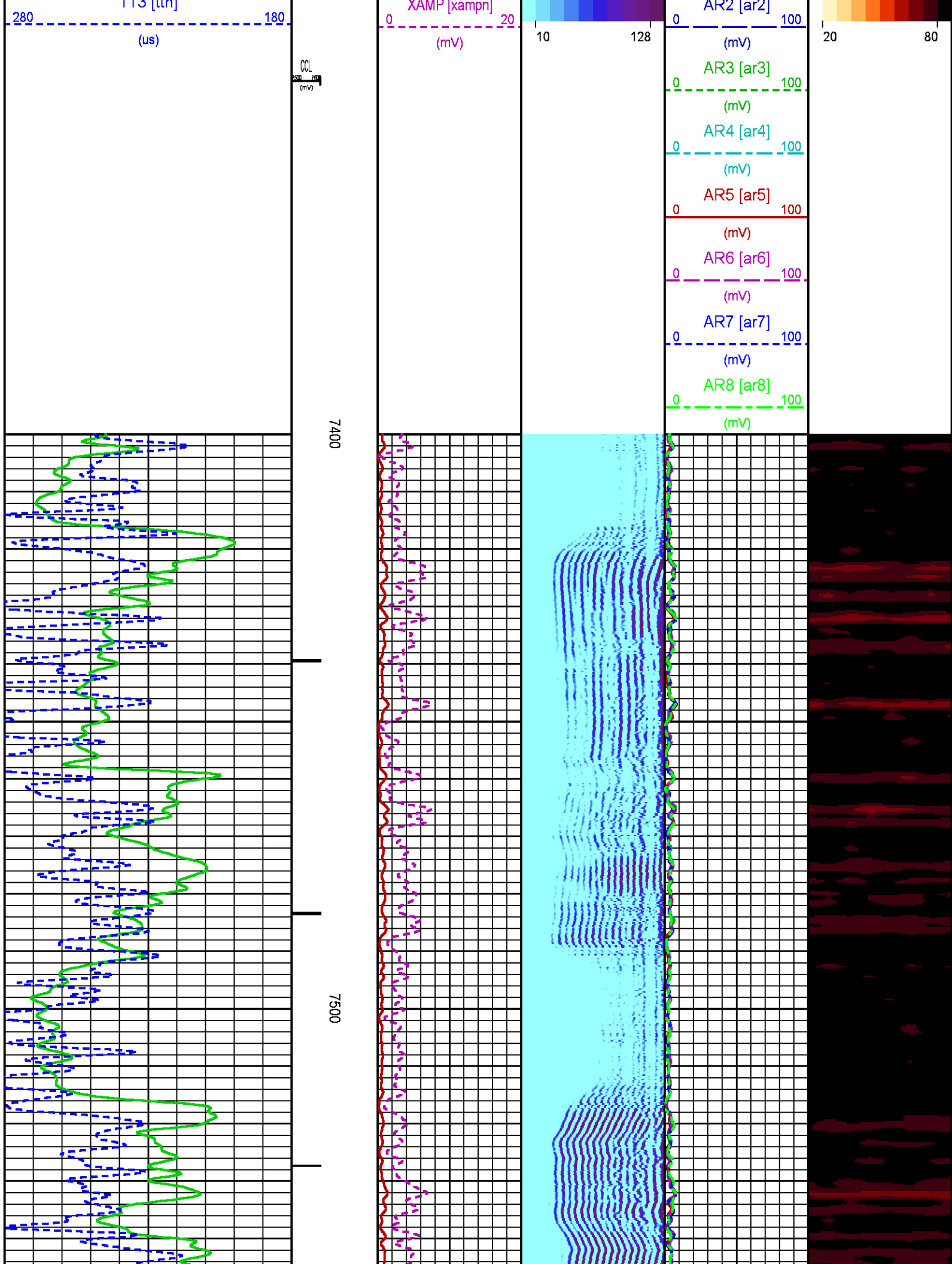
CURVE NAME	CREATION DATE	CURVE DESCRIPTION
F1:AR1	Jul 20 08:49:21 2015	FIXED GATE AMPLITUDE T-R1
F1:AR2	Jul 20 08:49:21 2015	FIXED GATE AMPLITUDE T-R2
F1:AR3	Jul 20 08:49:21 2015	FIXED GATE AMPLITUDE T-R3
F1:AR4	Jul 20 08:49:21 2015	FIXED GATE AMPLITUDE T-R4
F1:AR5	Jul 20 08:49:21 2015	FIXED GATE AMPLITUDE T-R5
F1:AR6	Jul 20 08:49:21 2015	FIXED GATE AMPLITUDE T-R6
F1:AR7	Jul 20 08:49:21 2015	FIXED GATE AMPLITUDE T-R7
F1:AR8	Jul 20 08:49:21 2015	FIXED GATE AMPLITUDE T-R8
F1:CCL	Jul 20 08:49:21 2015	CASING COLLAR LOCATOR
F1:FAMPN	Jul 20 08:49:21 2015	FIXED GATE AMPLITUDE NEAR RECEIVER
F1:FWAVE	Jul 20 08:49:21 2015	FAR WAVE FORM
F1:GR	Jul 20 08:49:21 2015	GAMMA RAY
F1:PBMAP	Jul 20 08:49:21 2015	PERCENT BOND CEMENT MAP
F1:TTN	Jul 20 08:49:21 2015	TRAVELTIME FROM NEAR TRANSMITTER-RECEIVER
F1:XAMPN	Jul 20 08:49:21 2015	FIXED GATE AMPLITUDE NEAR RECEIVER TIMES FIVE

CURVE MEASURE POINT OFFSET

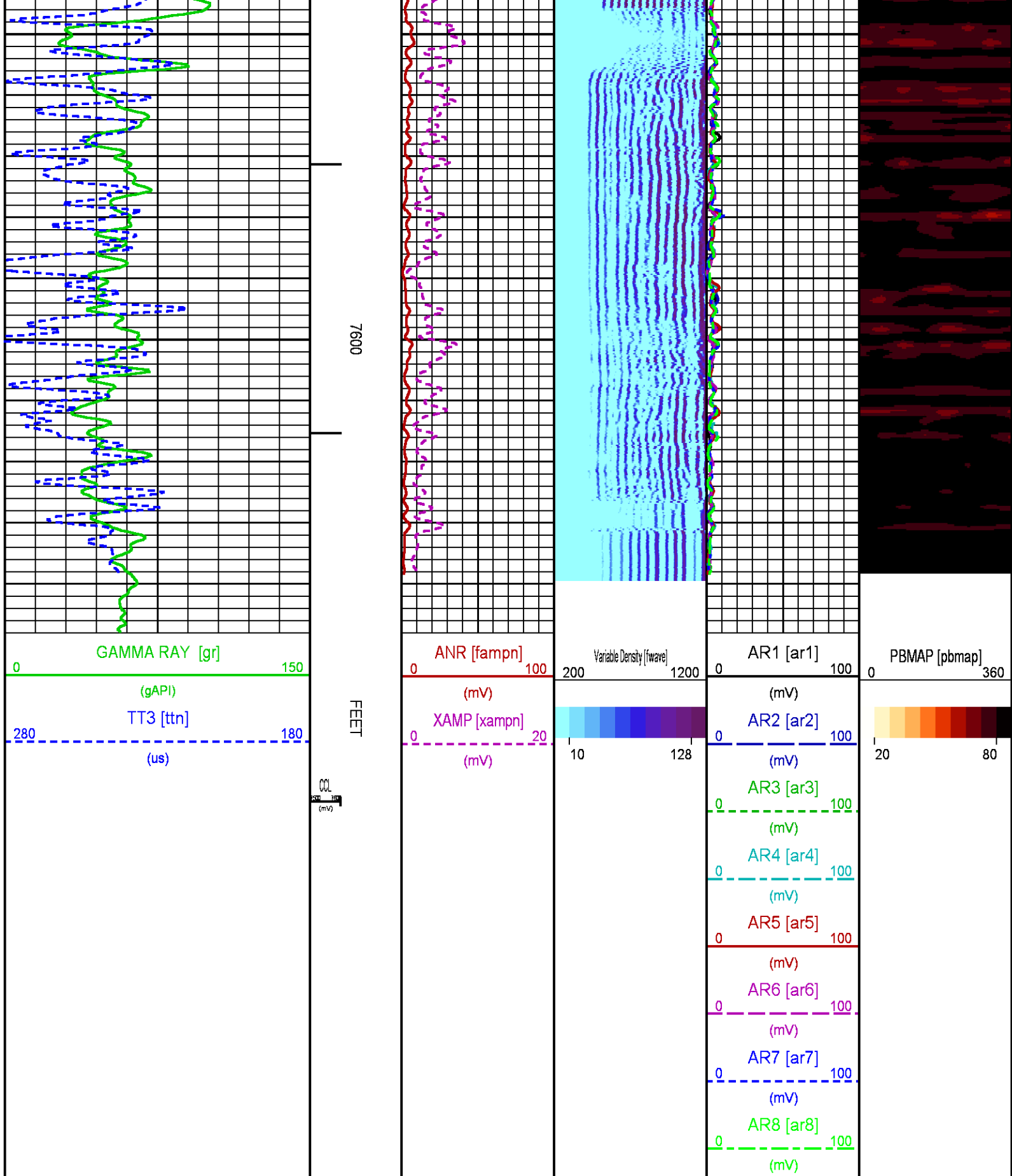
CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)
AR1	11.25	AR5	11.25	CCL	5.75	XAMPN	11.25
AR2	11.25	AR6	11.25	FAMPN	11.25		
AR3	11.25	AR7	11.25	GR	1.75		
AR4	11.25	AR8	11.25	TTN	11.25		

Presentation	: HL6670:/dat1a/CH097903/13E_CBL_REPEAT.fvpdf [5"/100' Scale]
Plot Interval	: 7400 - 7649.5 Feet
Data File 1	: F1 : HL6670:/dat1a/CH097903/13E_CBL_REPEAT.xtf
Created On	: Jul 20 08:49:21 2015
Company	: LARAMIE ENERGY
Well	: GUNDERSON 29-13E
Field	: VEGA
File Interval	: 7383.75 - 7650.75 Feet
OCT	: n012g









CALIBRATION / VERIFICATION SUMMARY

## RAL PRIMARY CALIBRATION SUMMARY

TOOL #: 1426XA 10154957

DATE/TIME PERFORMED: Mon Jul 20 08:01:18 2015

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)	-0.06	-0.28	-0.09	-0.34	-0.12	-0.10	-0.45	-0.18	-0.09	1.50	-0.02
AMP FLUID (mV)	59	59	58	58	58	59	60	60	59	79	58
TT (us)	217	217	217	216	216	216	216	216	218	325	218
M FACTOR	1.69	1.69	1.71	1.70	1.72	1.68	1.67	1.67	1.69	1.94	1.71

## RAL BEFORE LOG VERIFICATION SUMMARY

TOOL #: 1426XA 10154957

DATE/TIME PERFORMED: Mon Jul 20 08:16:50 2015

DAYS SINCE CAL: 0

UNIT #: 3880TA HL6670

CABLE #: 6670SM SMALL1

	NEAR (mV)	R1 (mV)	R2 (mV)	R3 (mV)	R4 (mV)	R5 (mV)	R6 (mV)	R7 (mV)	R8 (mV)	FAR (mV)	CAL (mV)
ZERO	-0.41	-1.02	-0.77	-0.87	-0.94	-0.92	-0.90	-0.96	-0.82	-0.26	-0.05
AMP AIR	0.81	1.54	1.21	1.47	1.27	1.42	1.23	1.25	1.12	1.52	99.10

SHOP M FACTOR	SHOP A FACTOR	WIRELINE FACTOR
1.71	0.00	1.01

## GR PRIMARY CALIBRATION SUMMARY

TOOL #: 1355XA 10580209

DATE/TIME PERFORMED: Mon Jul 20 08:04:43 2015

UNIT #: 3880TA HL6670

CALB JIG #: 4702NK WA-612

	BACKGROUND (cts)	CALBRTR ON (cts)	CR DIFF (cts/s)	MULT	BACKGROUND (gAPI)	CALBRTR ON (gAPI)	CALBRTR (gAPI)
GR	191.51	737.11	545.6	0.339	64.94	249.94	185

## GR PRIMARY VERIFICATION SUMMARY

TOOL #: 1355XA 10580209

DATE/TIME PERFORMED: Mon Jul 20 08:07:37 2015

UNIT #: 3880TA HL6670

VERI JIG #: 4702NK WA-612

	BACKGROUND (cts)	CALBRTR ON (cts)	MULT	BACKGROUND (gAPI)	CALBRTR ON (gAPI)	DIFF. (gAPI)
GR	176.44	735.91	0.339	59.83	249.53	189.70

175.00

195.00

# INSTRUMENT CONFIGURATION

Source File: /dat1a/CH097903/CBL-tdg

## CABLEHEAD

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

## 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

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



20.38'


NEAR RCVR 11.17'

FAR RCVR 10.21'

CCL 5.79'

GR 1.67'

TEMP 0.17'

	COMPANY	<u>LARAMIE ENERGY</u>		FILE NO:	<u>CO097903</u>
	WELL	<u>GUNDERSON 29-13E</u>		API NO:	<u>05077102310000</u>
	FIELD	<u>VEGA</u>			
	COUNTY	<u>MESA</u>	STATE	<u>COLORADO</u>	
LOCATION:		ELEVATIONS:		SEC 29 T9S R93W	
SHL: LAT 39.248810 LONG -107.787831		KB 7553 FT		PAD 29-09	
BHL: LAT 39.246796 LONG -107.786787		DF		PATTERSON 306	
GL 7531 FT		DATE		20-Jul-2015	
SEC <u>29</u> TWP <u>9S</u> RGE <u>93W</u>					

