



FILE NO: CH098427		COMPANY LARAMIE ENERGY	
WELL PICEANCE 28-01W		VEGA	
API NO: 05077102360000		FIELD COUNTY MESA STATE COLORADO	
Ver. 4.05		LOCATION:	
28 9S 93W		SHL: LAT 39.251125, LONG -107.779575	
28-05 PAD		BHL: LAT 39.255011, LONG -107.780733	
PATTERSON 306		SEC 28 TWP 9S RGE 93W	
PERMANENT DATUM		G.L. ELEVATION 7556 FT	
LOG MEASURED FROM		K.B. 22 FT ABOVE P.D.	
DRILL. MEAS. FROM		K.B.	
DATE		25-Oct-2015	
RUN TRIP		1 1	
SERVICE ORDER		US098427J	
DEPTH DRILLER		8052 FT	
DEPTH LOGGER		8025 FT	
BOTTOM LOGGED INTERVAL		8023 FT	
TOP LOGGED INTERVAL		0 FT	
TIME STARTED		07:30	
TIME FINISHED		09:30	
OPERATOR RIG TIME		2 HOURS	
TYPE OF FLUID IN HOLE		WATER	
FLUID DENSITY		NA	
FLUID SALINITY		NA	
FLUID LEVEL		46 FT	
LOGGED CEMENT TOP		SEE LOG	
WELLHEAD PRESSURE		0 PSI	
MAXIMUM HOLE DEVIATION		NA	
NOMINAL LOGGING SPEED		100 F/MN	
MAX. RECORDED TEMP.		242 DEGF	
REFERENCE LOG		NA	
REFERENCE LOG DATE		NA	
EQUIP. NO.		HL-6685	
LOCATION		GRAND JCT.	
RECORDED BY		SPENCER	
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			CASING RECORD				
BIT SIZE	FROM	TO	SIZE	WEIGHT	GRADE	FROM	TO
7.875 IN	0 FT	8125 FT	4.5 IN	11.6 LB/F		0 FT	8139 FT

REMARKS
RUN 1 TRIP 1: THIS IS THE FIRST LOG ON THIS WELL LOGGED WITH 0 PSI AT SURFACE
SJ = 6328' - 6350'
SJ = 7175' - 7197'
THANKS FOR CHOOSING BAKER HUGHES...THE BEST CHOICE!
CREW: COATE / OLSON

EQUIPMENT DATA					
RUN	TRIP	TOOL	SERIES NO.	SERIAL NO.	POSITION
1	1	RAL	1426XA	10154957	CENTRALIZED
1	1	GR / CCL	1311XA	12670181	CENTRALIZED

# MAIN LOG PRESENTATION 0 PSI

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

Updates: 1 Patches: 8

Plotted: Sun Oct 25 09:57:18 2015

## PARAMETER AND FILTER SUMMARY REPORT

FILE: /dat1a/CH098427/n012g02.prm  
 LOGGING MODE: DEPTH DIRECTION: UP  
 TOP DEPTH: 21.500 ft BOTTOM DEPTH: 8028.250 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 (fgp1*)	180	us	TOP	BOTTOM
	AMP WINDOW START (fgp2*)	180	us	"	"
	AMP WINDOW START (fgp3*)	180	us	"	"
	AMP WINDOW START (fgp4*)	180	us	"	"
	AMP WINDOW START (fgp5*)	180	us	"	"
	AMP WINDOW START (fgp6*)	180	us	"	"
	AMP WINDOW START (fgp7*)	180	us	"	"
	AMP WINDOW START (fgp8*)	180	us	"	"
	AMP WINDOW START (fgpn*)	180	us	"	"
TRAVEL TIME WINDOW (NEAR)	AMP WINDOW LENGTH	30	us	"	"
	TT WINDOW START (ttn*)	172	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*)	-66	us	"	"
	TOOL DELAY (str2*)	-66	us	"	"
	TOOL DELAY (str3*)	-66	us	"	"
	TOOL DELAY (str4*)	-66	us	"	"
	TOOL DELAY (str5*)	-66	us	"	"
	TOOL DELAY (str6*)	-66	us	"	"
	TOOL DELAY (str7*)	-66	us	"	"
	TOOL DELAY (str8*)	-66	us	"	"
BASELINE NOISE (NEAR)	TOOL DELAY (strn*)	-66	us	"	"
	NOISE WINDOW START	132	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 1	80	mV	"	"
FREE AMP REC 8	2	mV	"	"
RAL FULL BOND AMPLITUDE	2	mV	"	"
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	"	"

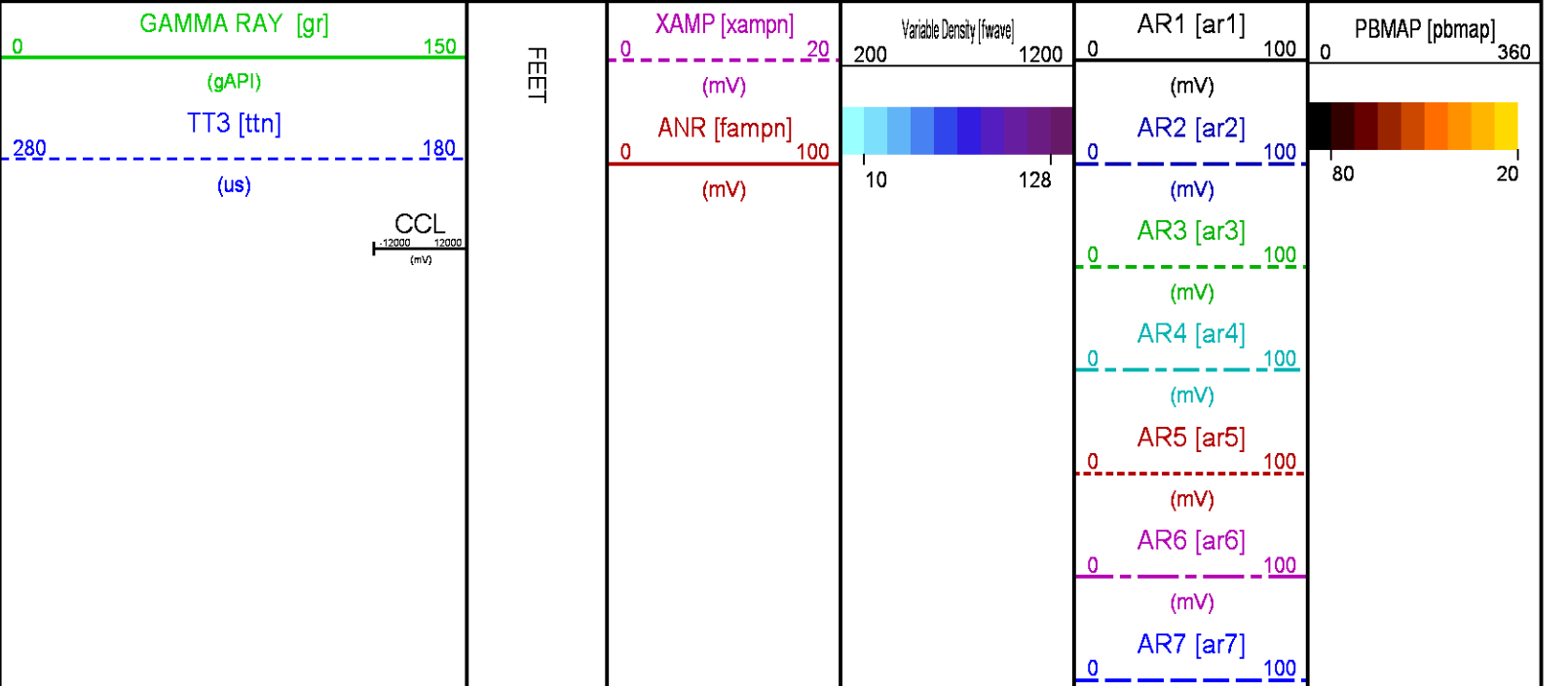
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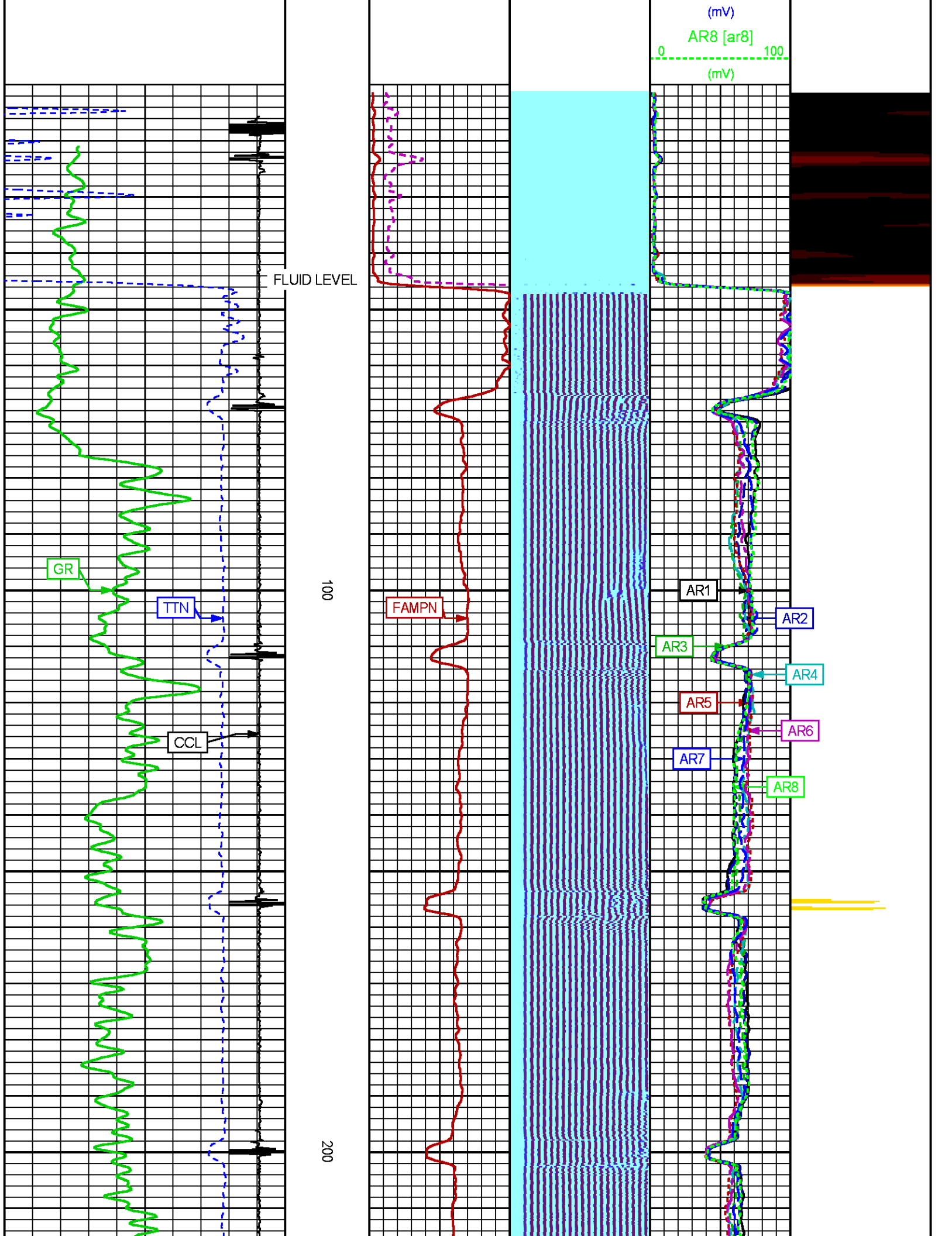
CURVE NAME	CREATION DATE	CURVE DESCRIPTION
F1:AR1	Oct 25 08:06:51 2015	FIXED GATE AMPLITUDE T-R1
F1:AR2	Oct 25 08:06:51 2015	FIXED GATE AMPLITUDE T-R2
F1:AR3	Oct 25 08:06:51 2015	FIXED GATE AMPLITUDE T-R3
F1:AR4	Oct 25 08:06:51 2015	FIXED GATE AMPLITUDE T-R4
F1:AR5	Oct 25 08:06:51 2015	FIXED GATE AMPLITUDE T-R5
F1:AR6	Oct 25 08:06:51 2015	FIXED GATE AMPLITUDE T-R6
F1:AR7	Oct 25 08:06:51 2015	FIXED GATE AMPLITUDE T-R7
F1:AR8	Oct 25 08:06:51 2015	FIXED GATE AMPLITUDE T-R8
F1:CCL	Oct 25 08:06:51 2015	CASING COLLAR LOCATOR
F1:FAMPN	Oct 25 08:06:51 2015	FIXED GATE AMPLITUDE NEAR RECEIVER
F1:FWAVE	Oct 25 08:06:51 2015	FAR WAVE FORM
F1:GR	Oct 25 08:06:51 2015	GAMMA RAY
F1:PBMAP	Oct 25 08:06:51 2015	PERCENT BOND CEMENT MAP
F1:TTN	Oct 25 08:06:51 2015	TRAVELTIME FROM NEAR TRANSMITTER-RECEIVER
F1:XAMPN	Oct 25 08:06:51 2015	FIXED GATE AMPLITUDE NEAR RECEIVER TIMES FIVE

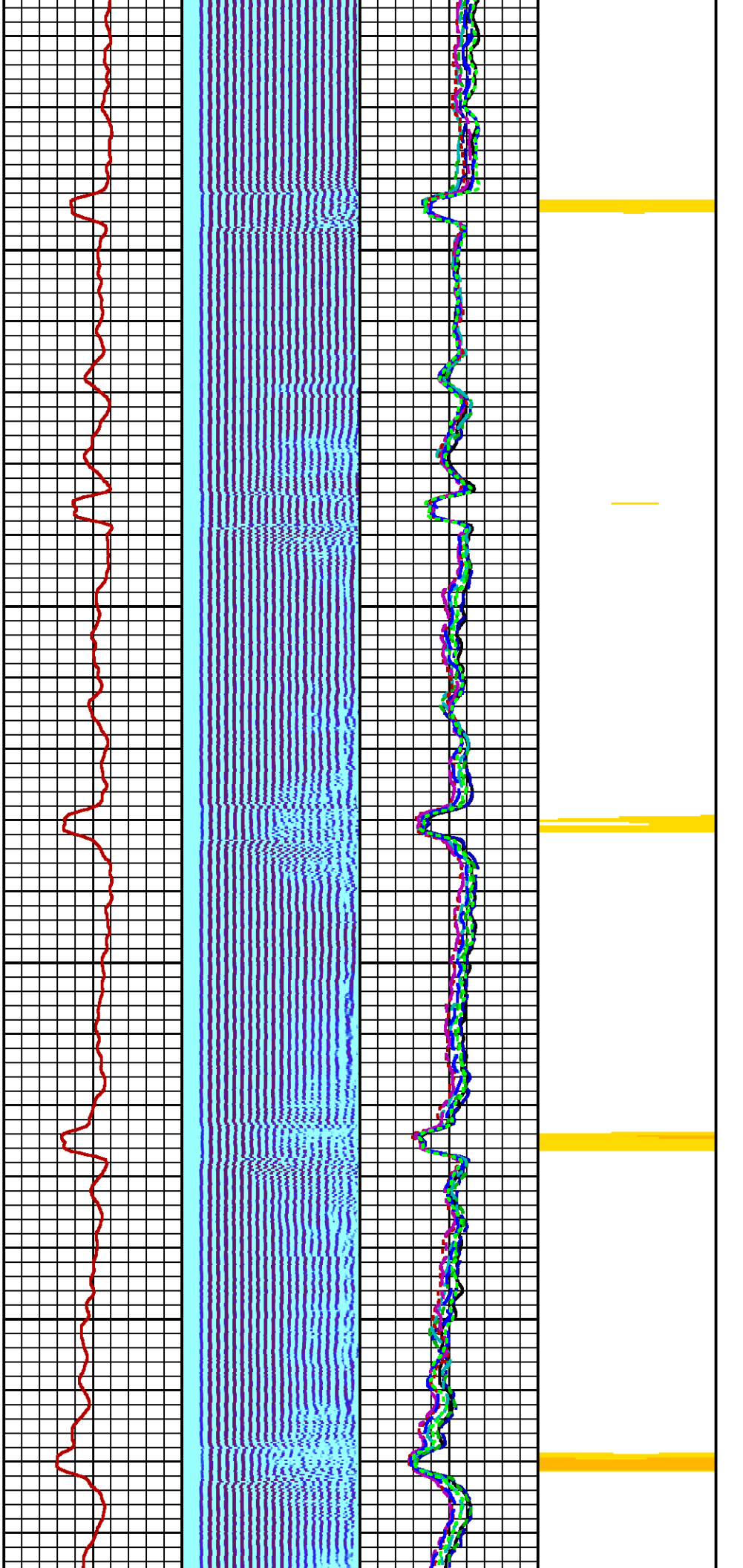
### CURVE MEASURE POINT OFFSET

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		

<b>Presentation</b>	: cas6685:/dat1a/CH098427/CBL-MAIN.fvpdf [5"/100' Scale]
<b>Plot Interval</b>	: 11.25 - 8027 Feet
<b>Data File 1</b>	: F1 : cas6685:/dat1a/CH098427/n012g02.aff
<b>Created On</b>	: Oct 25 08:06:51 2015
<b>Company</b>	: LARAMIE ENERGY
<b>Well</b>	: PICEANCE 28-01W
<b>Field</b>	: VEGA
<b>File Interval</b>	: 10.25 - 8028.25 Feet
<b>OCT</b>	: n012g

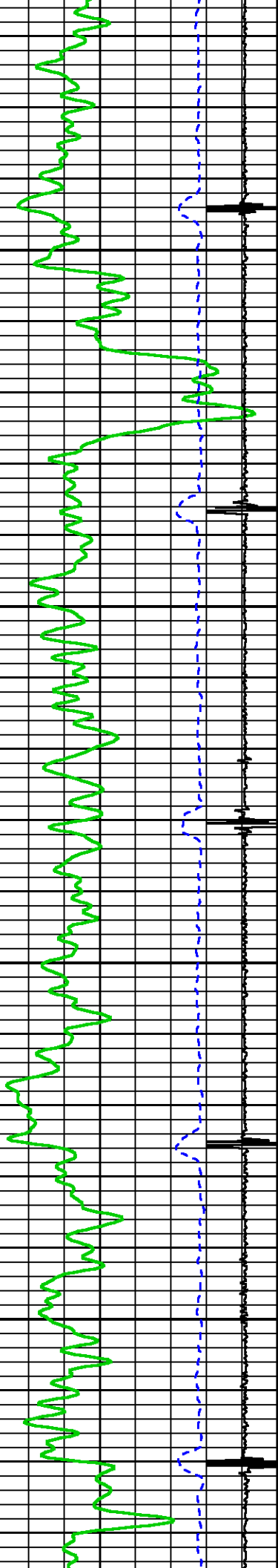


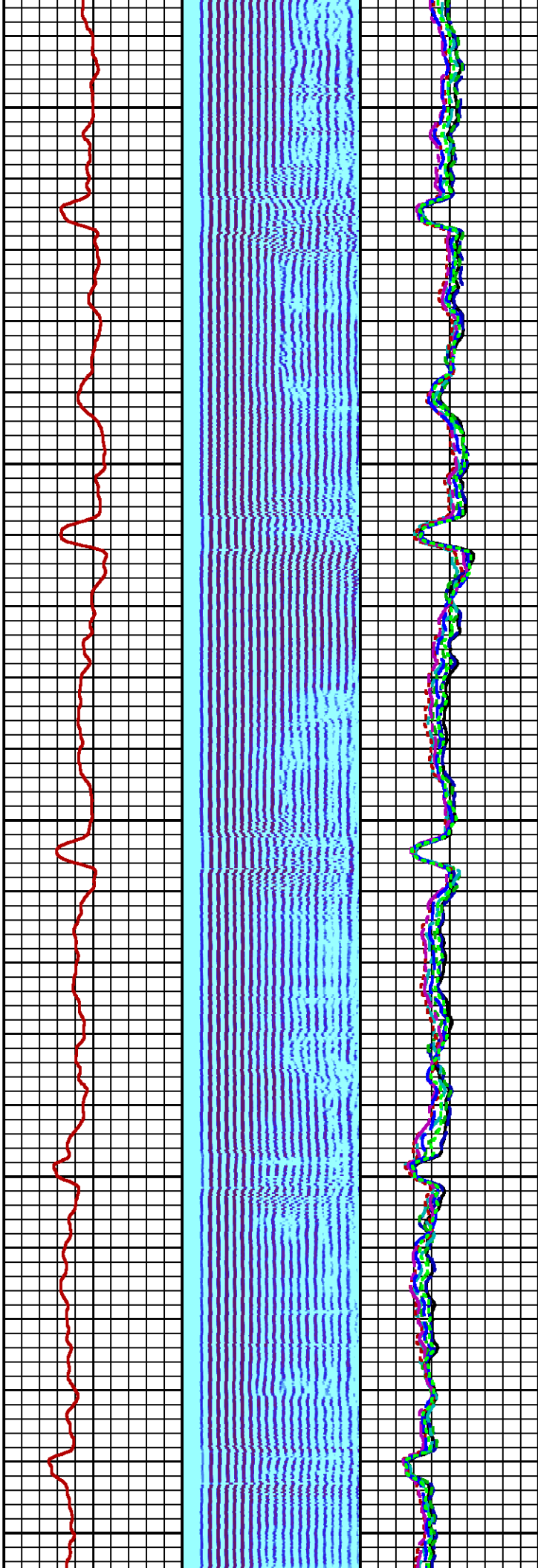
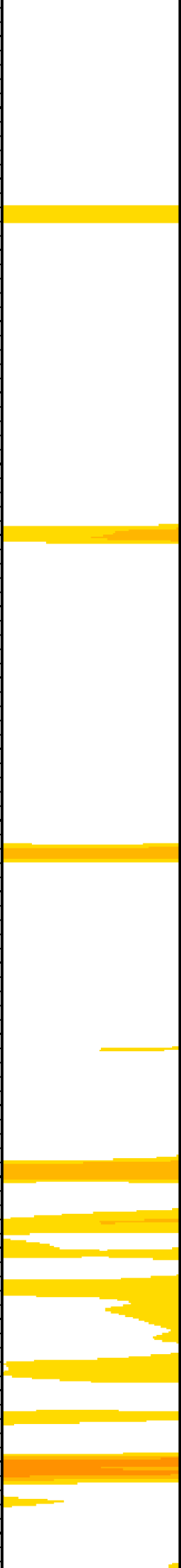




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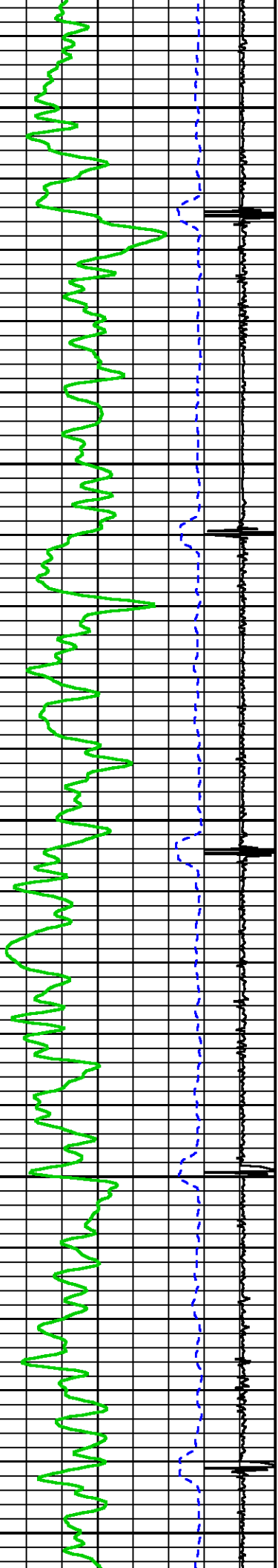
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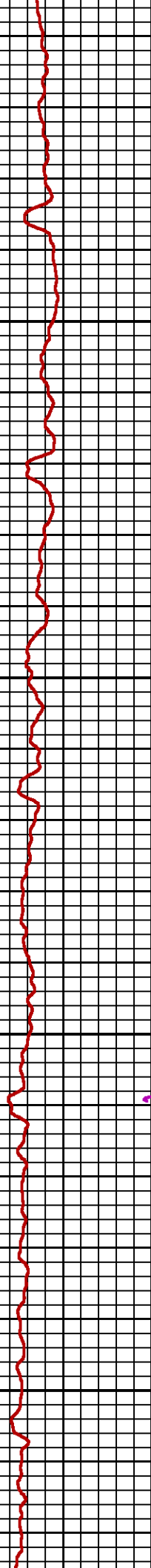
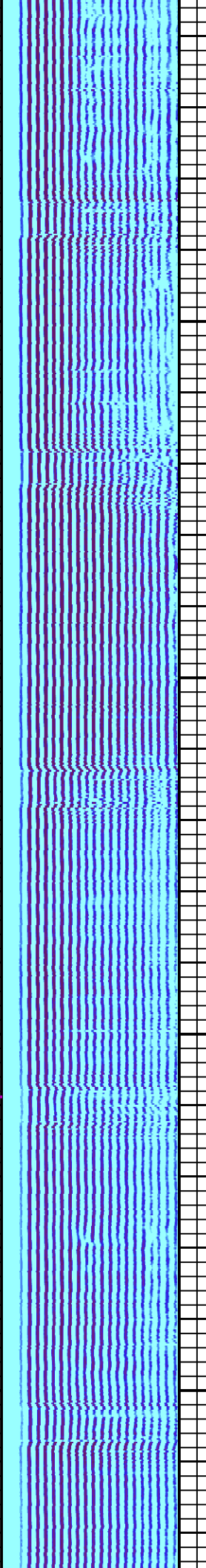
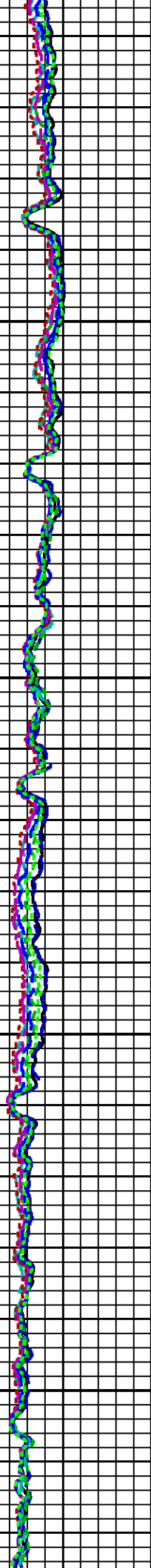


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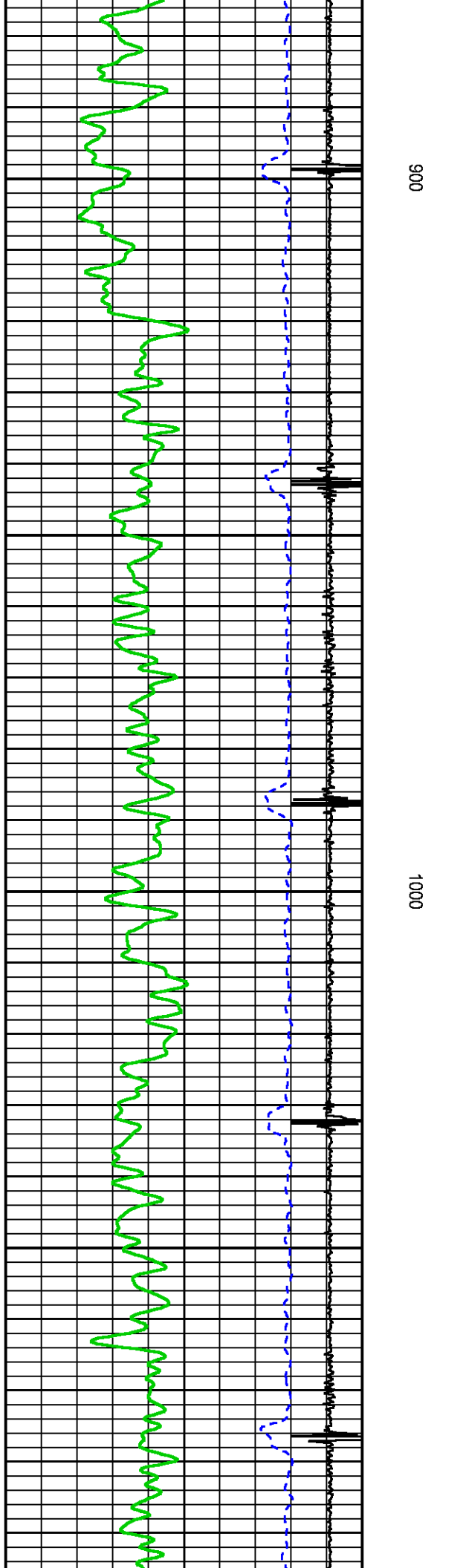
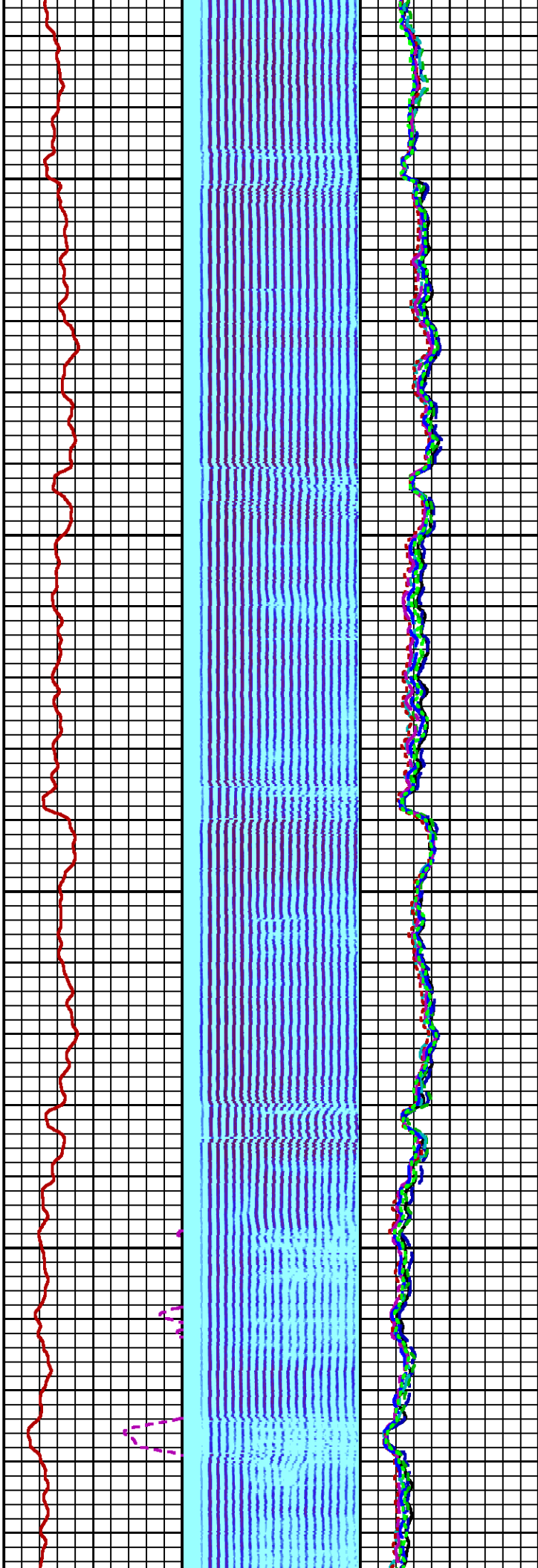




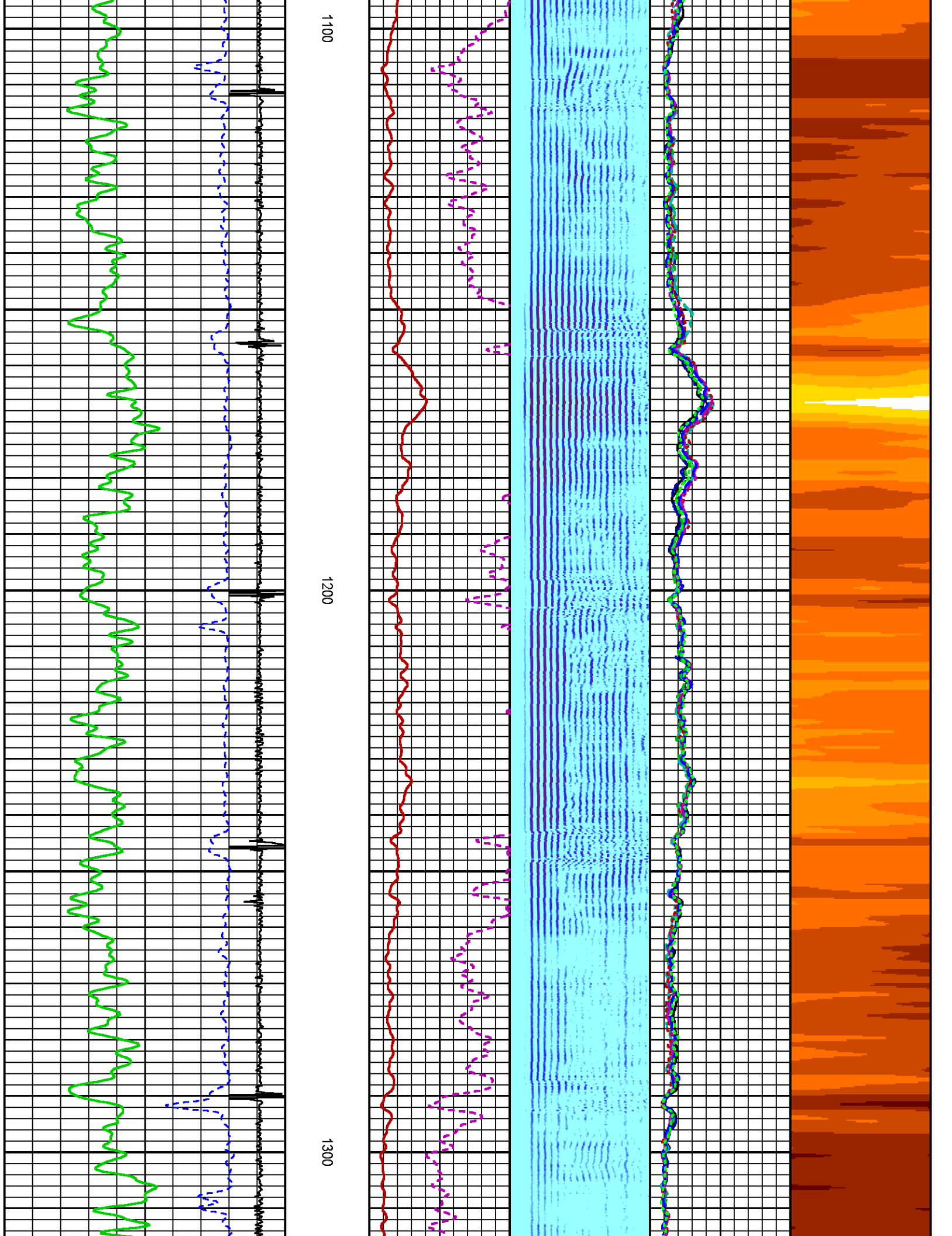
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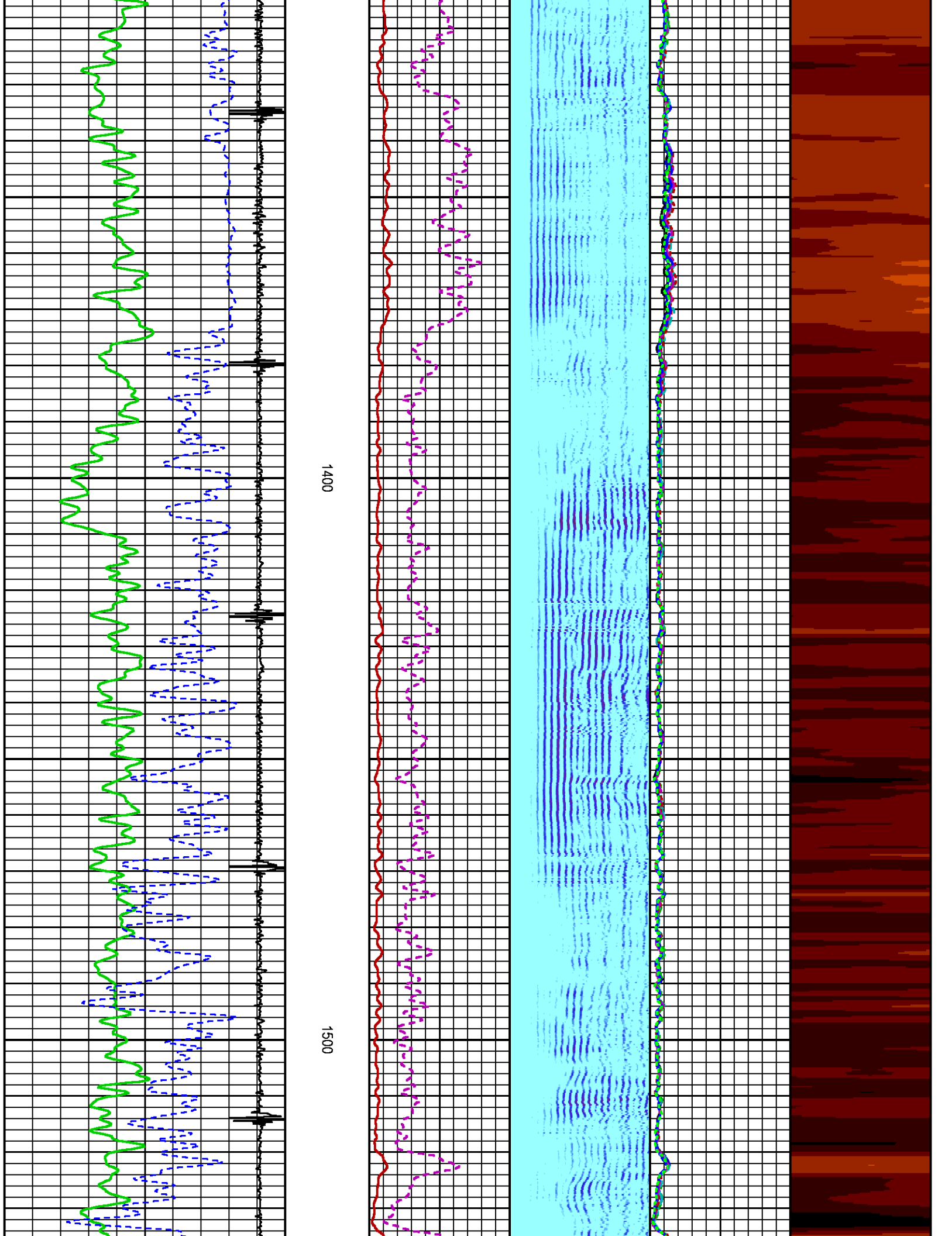
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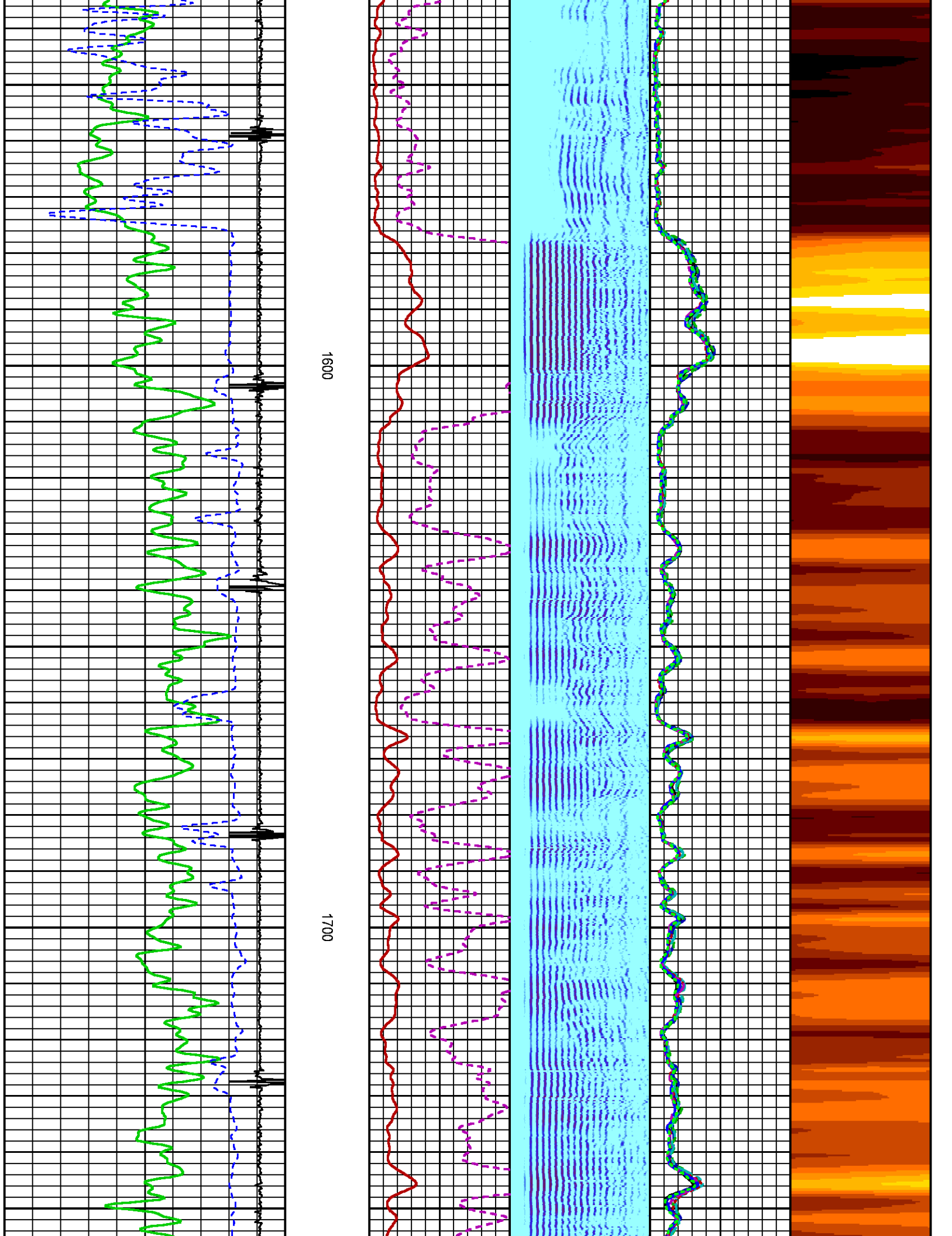


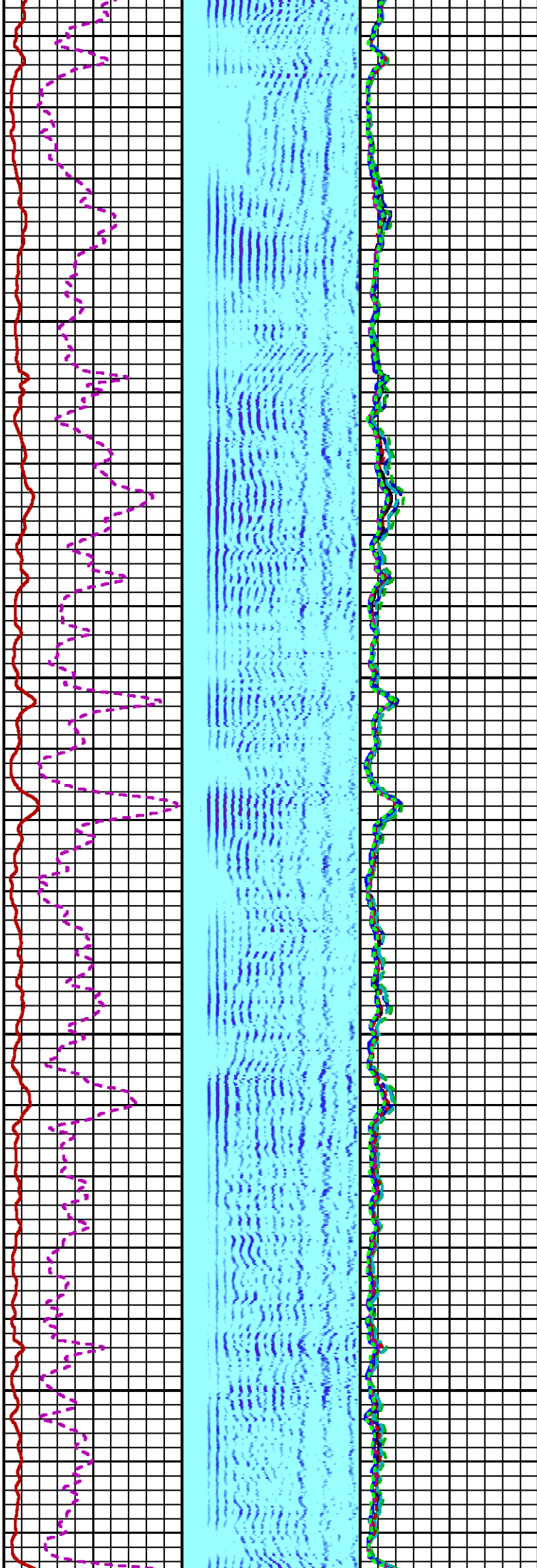
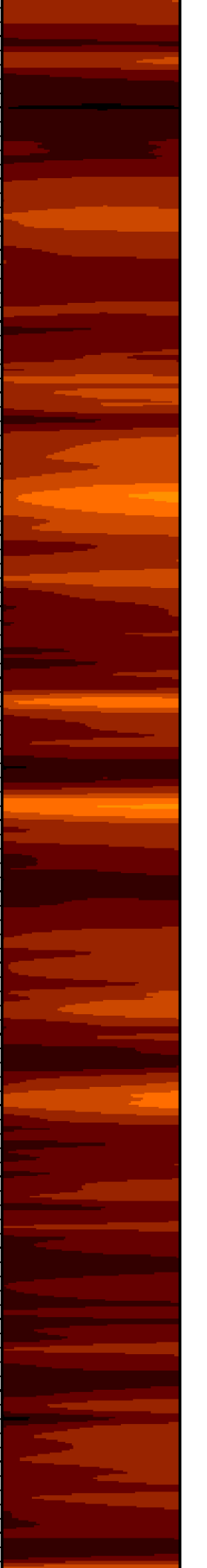






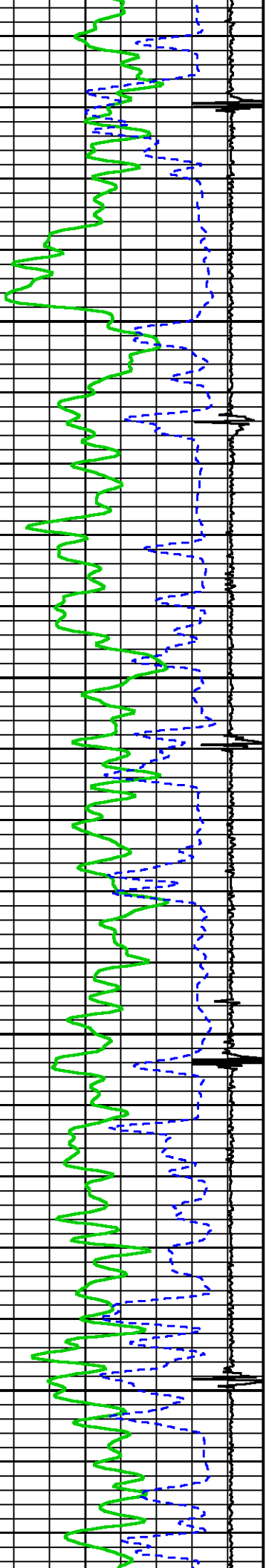


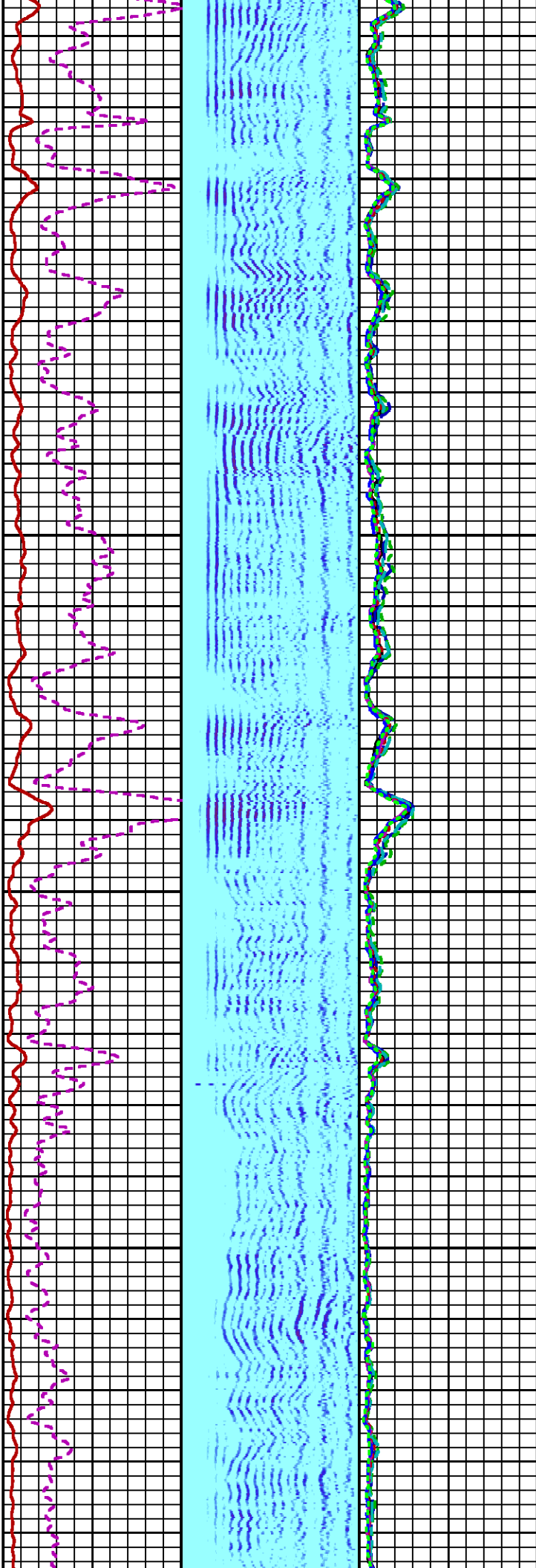
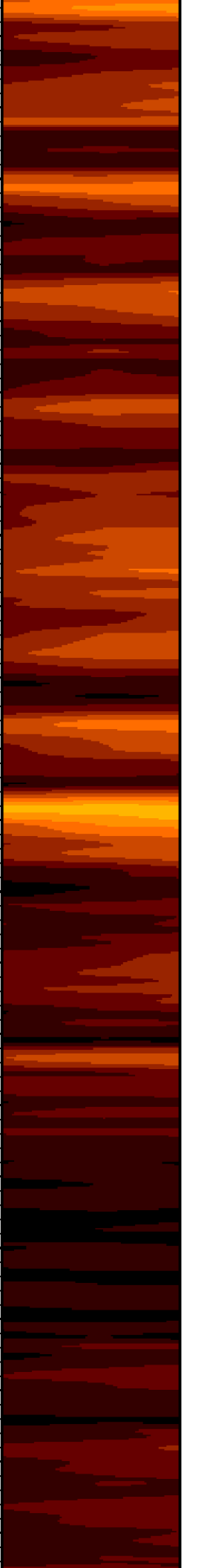




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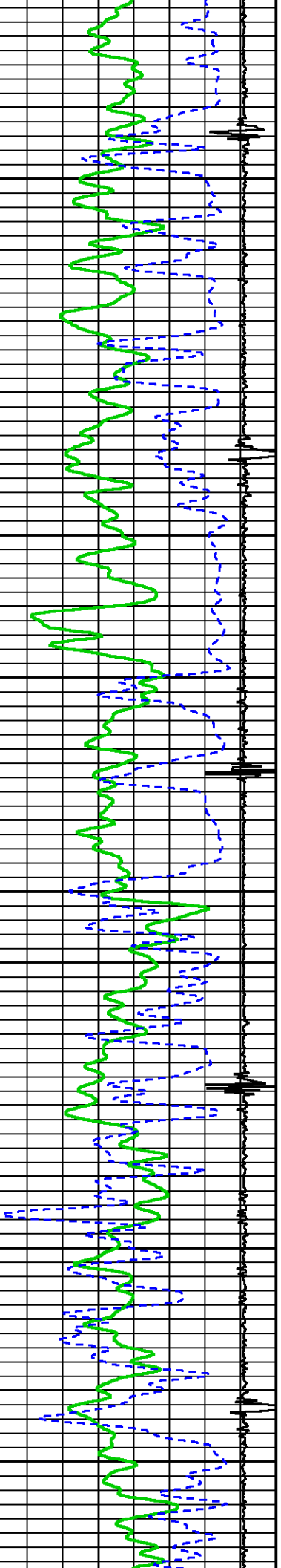
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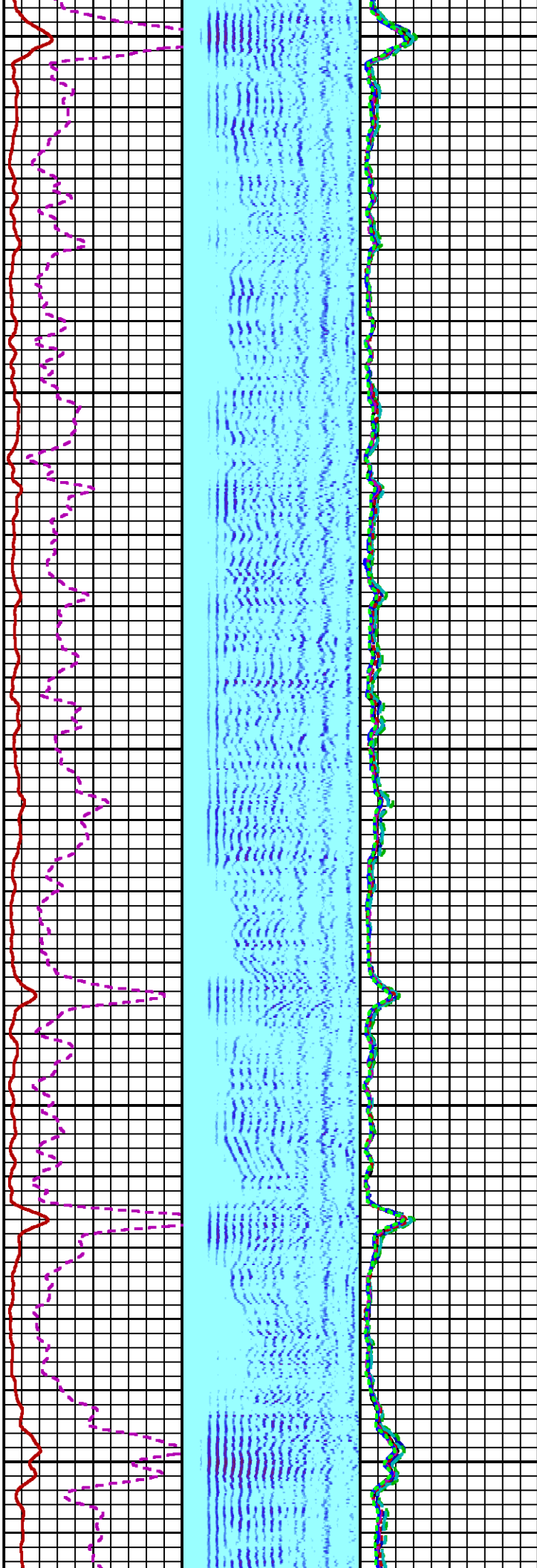


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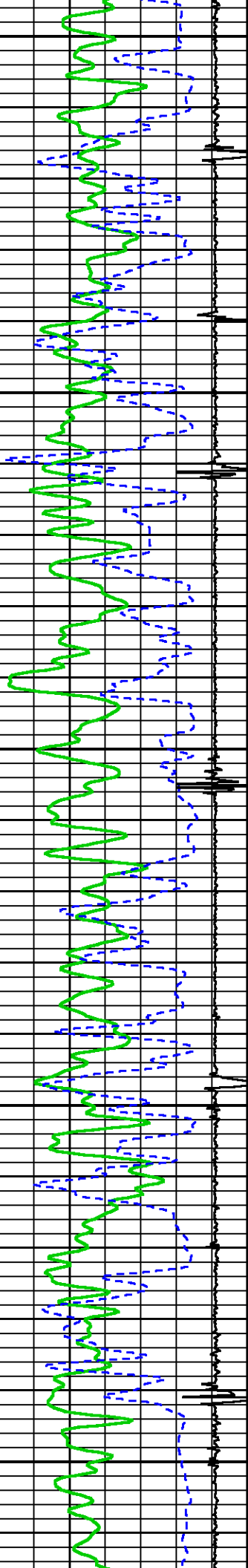




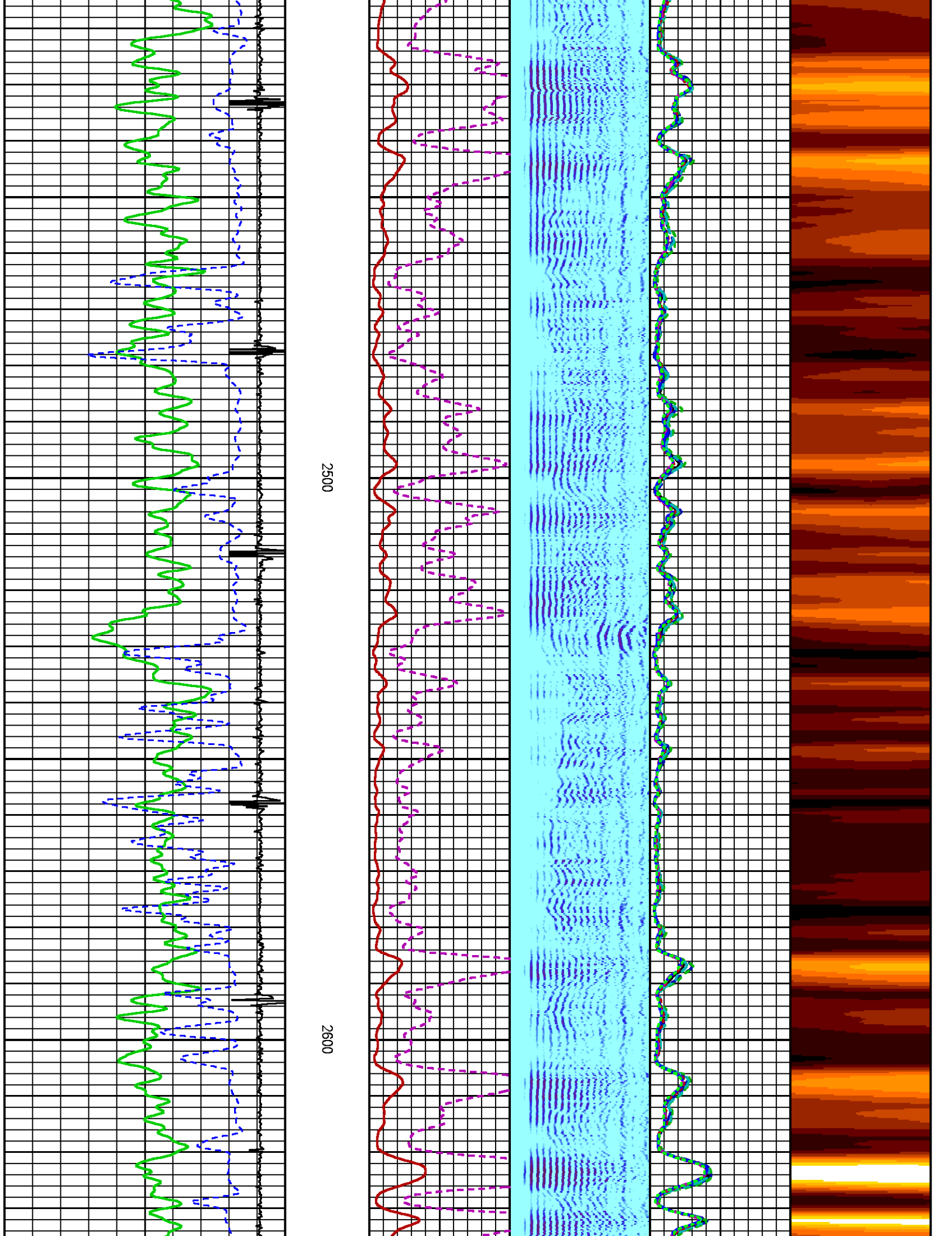
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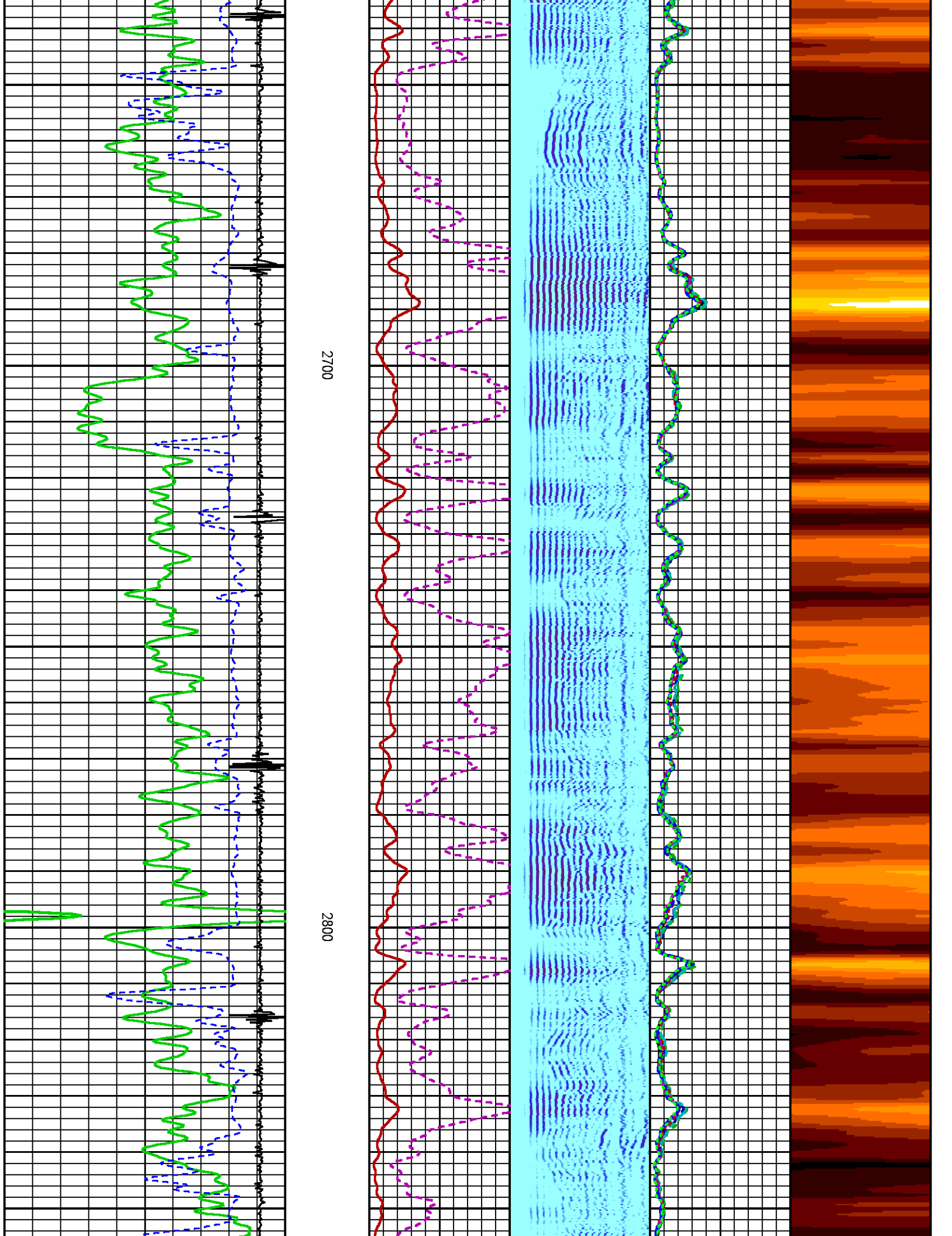
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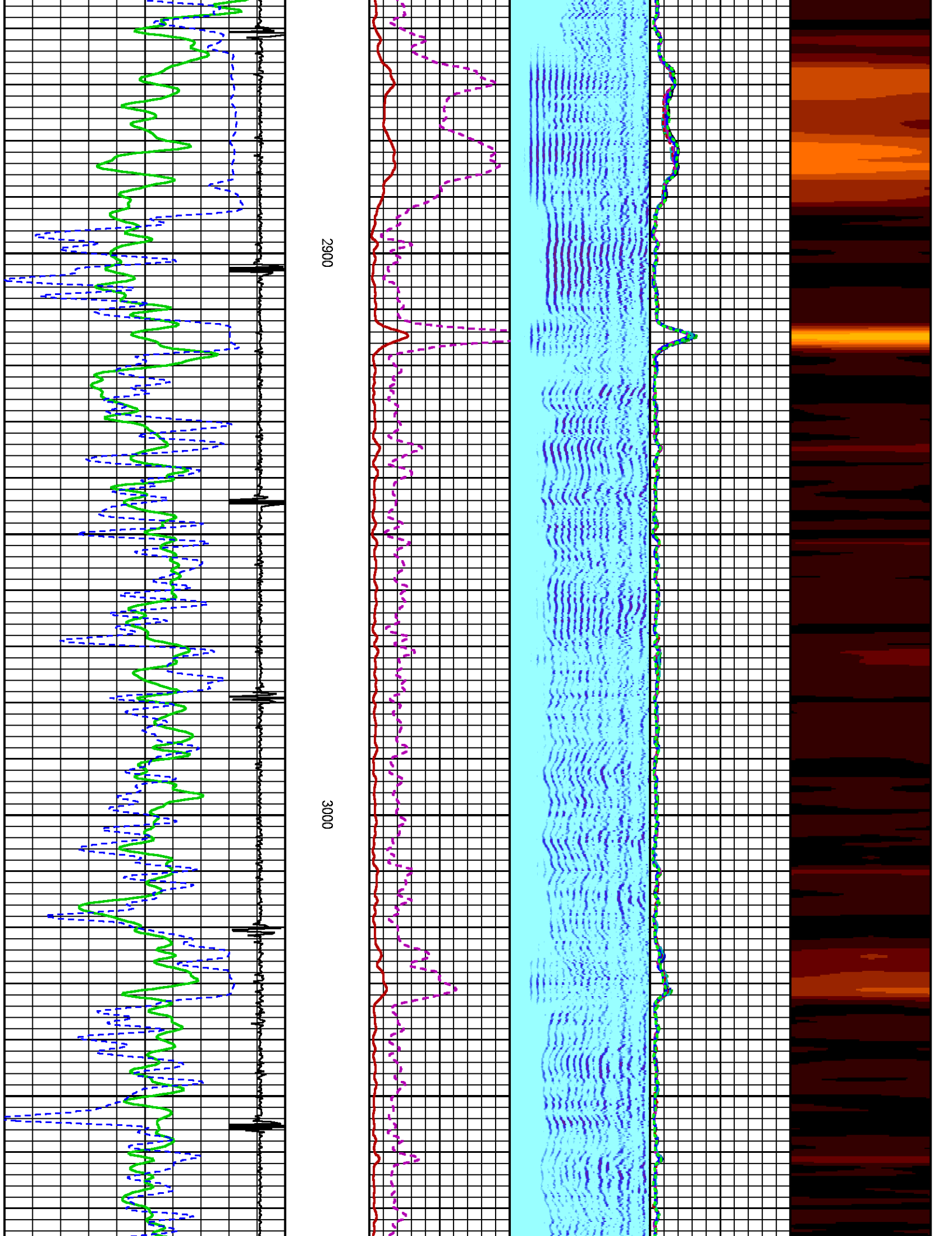
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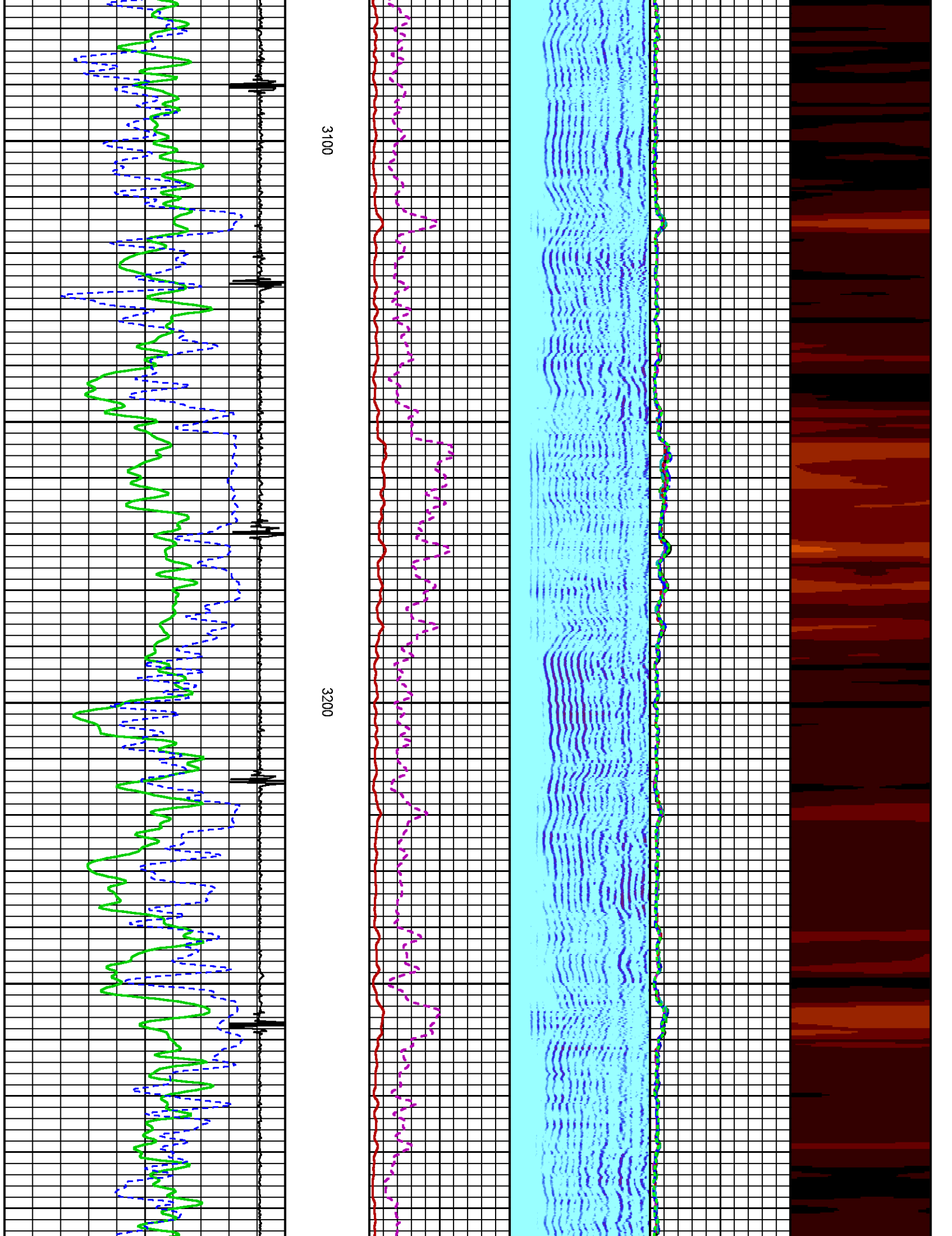


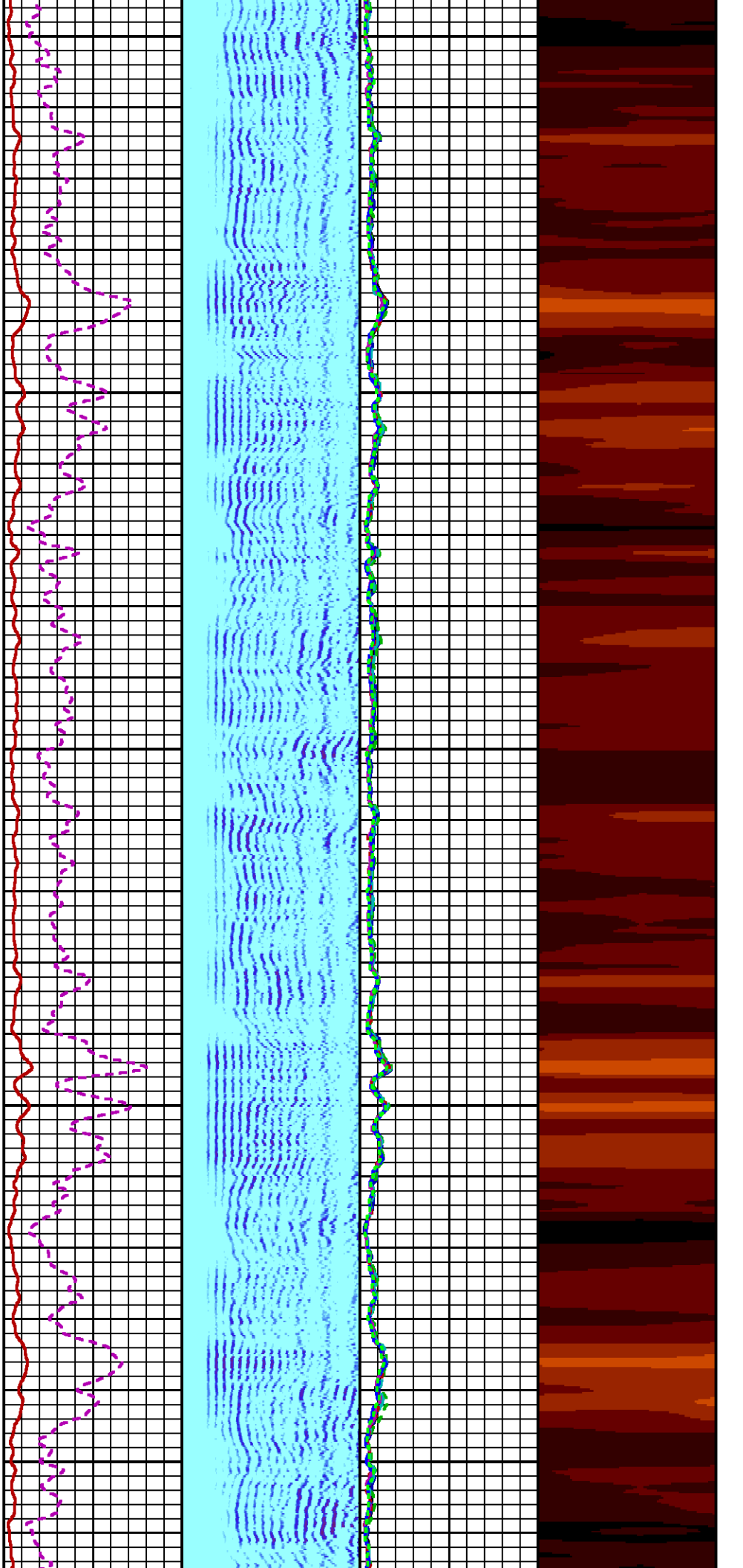










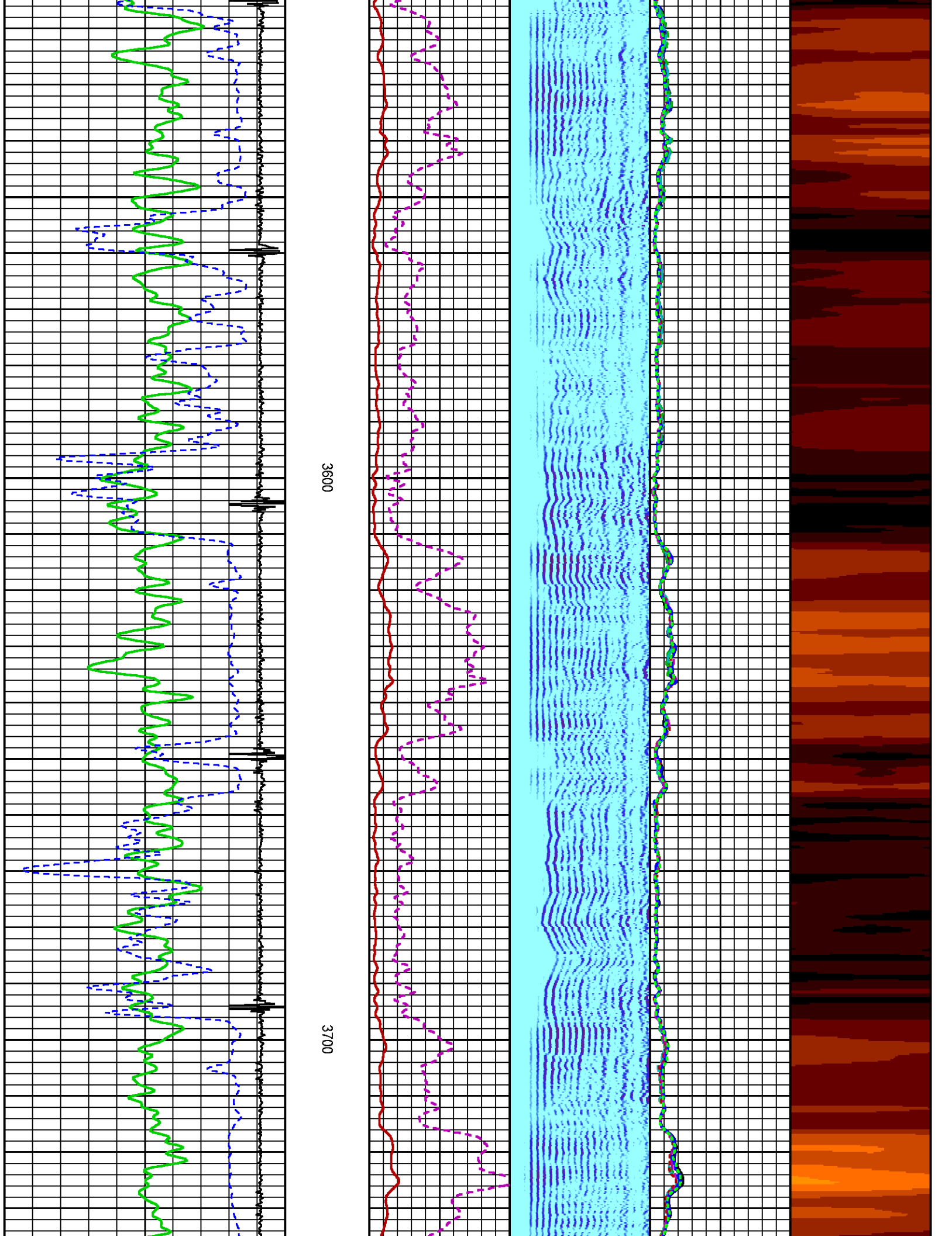


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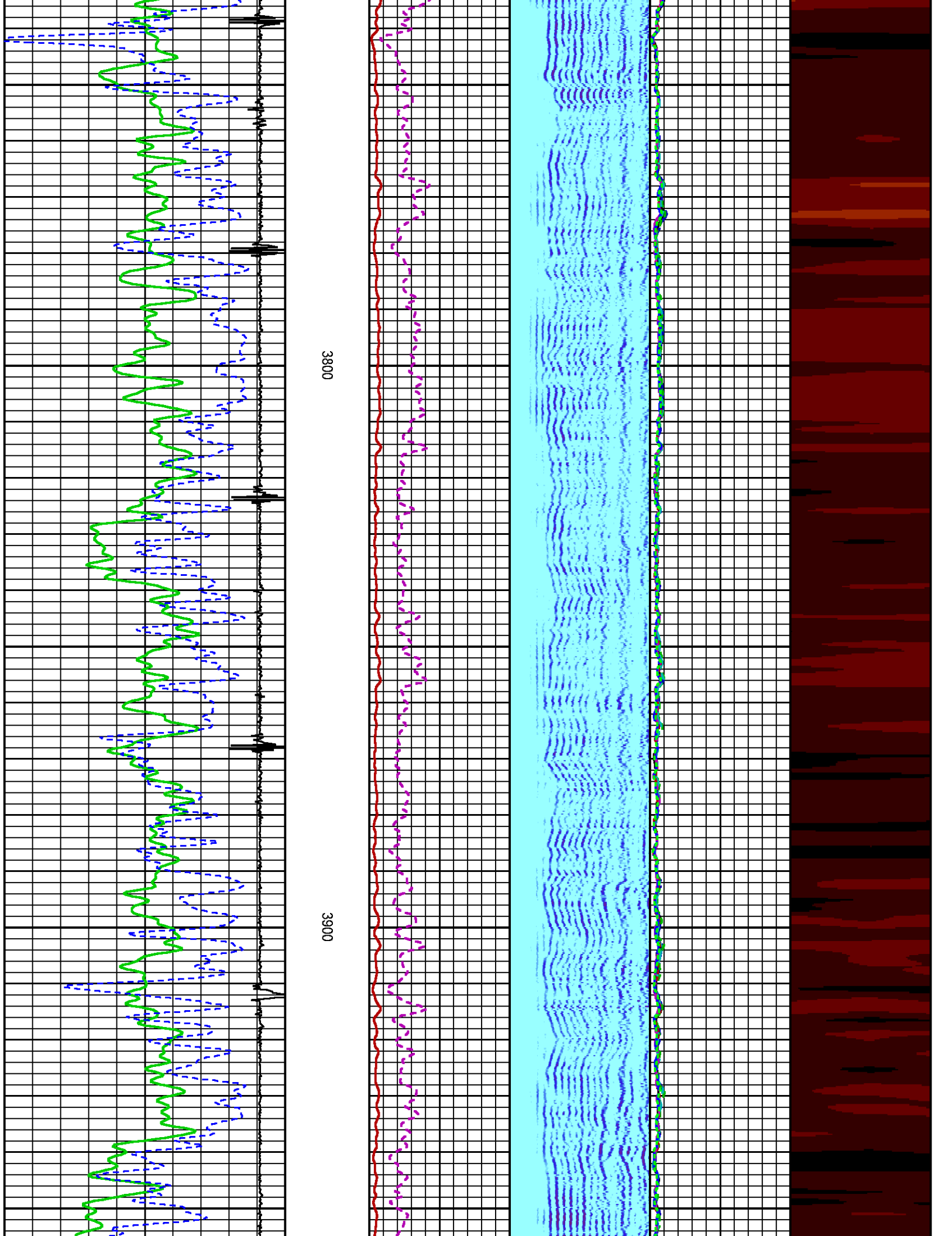
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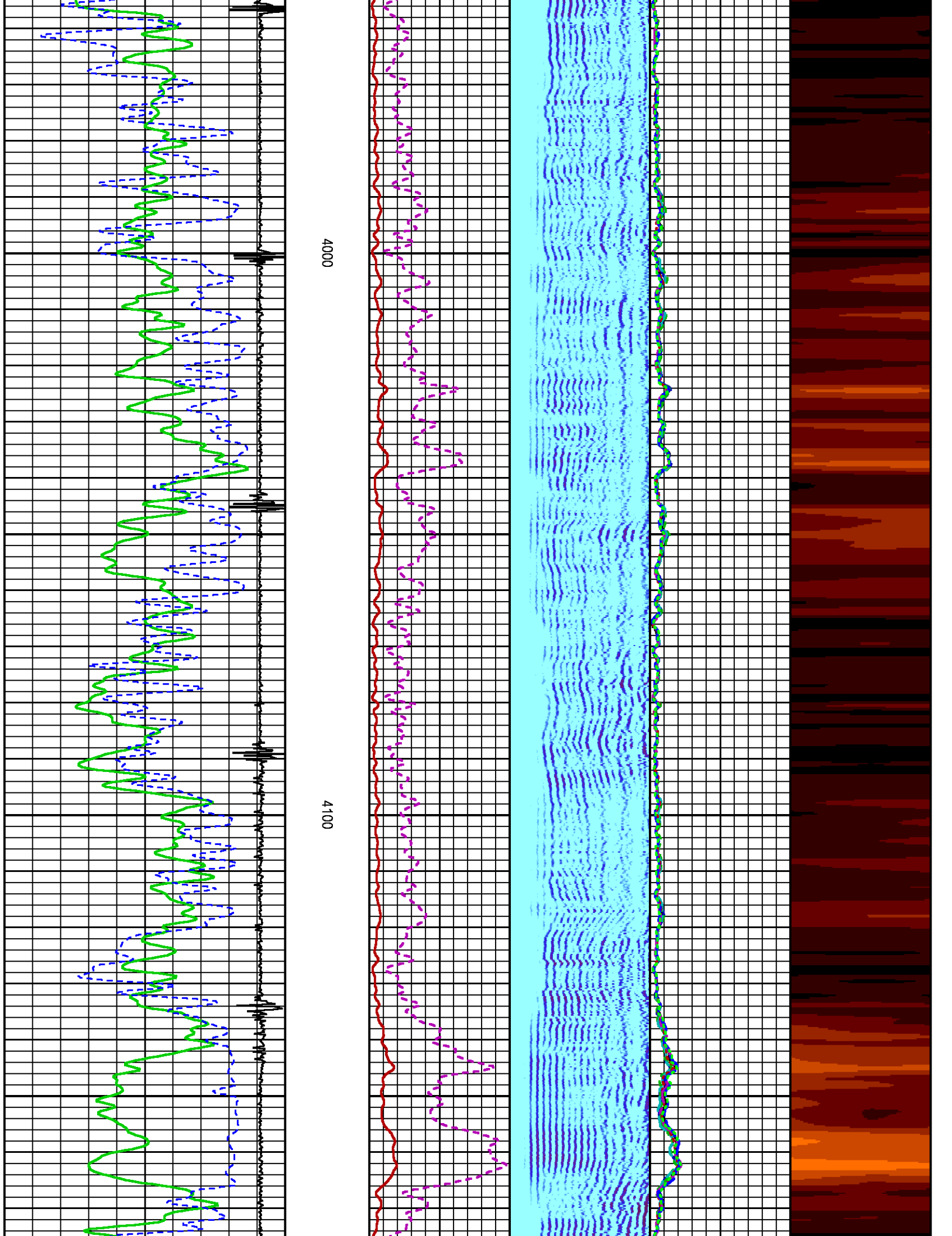
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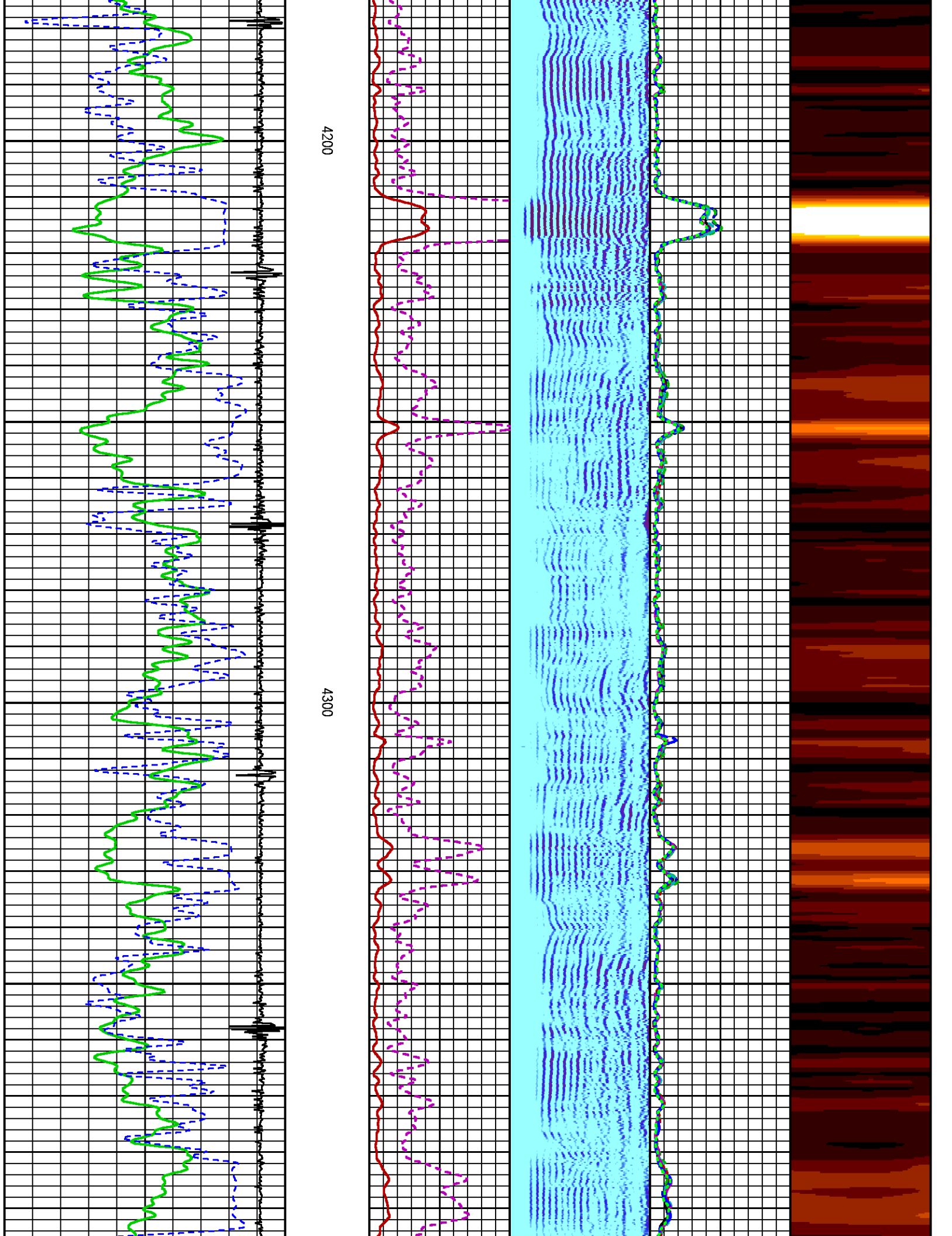


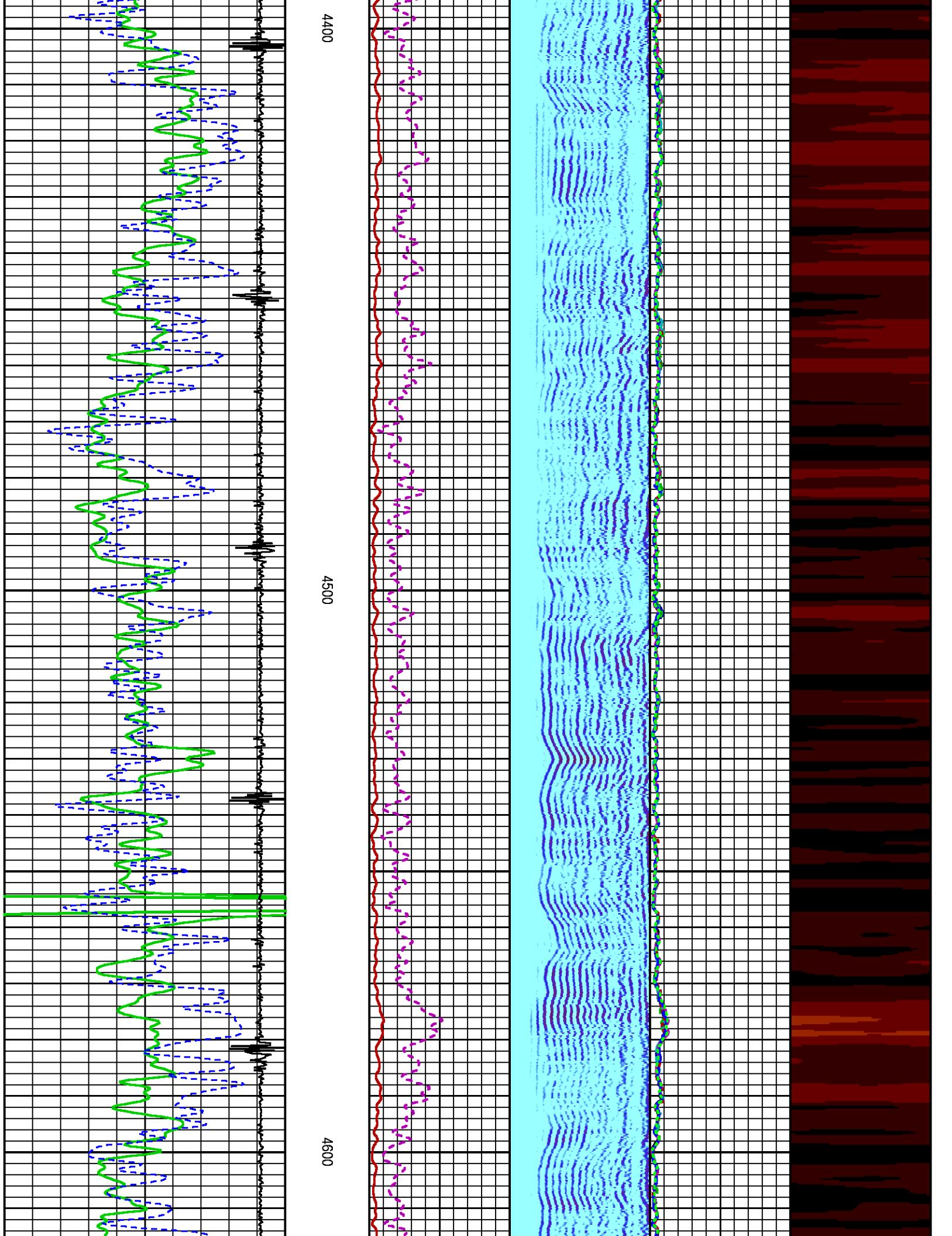




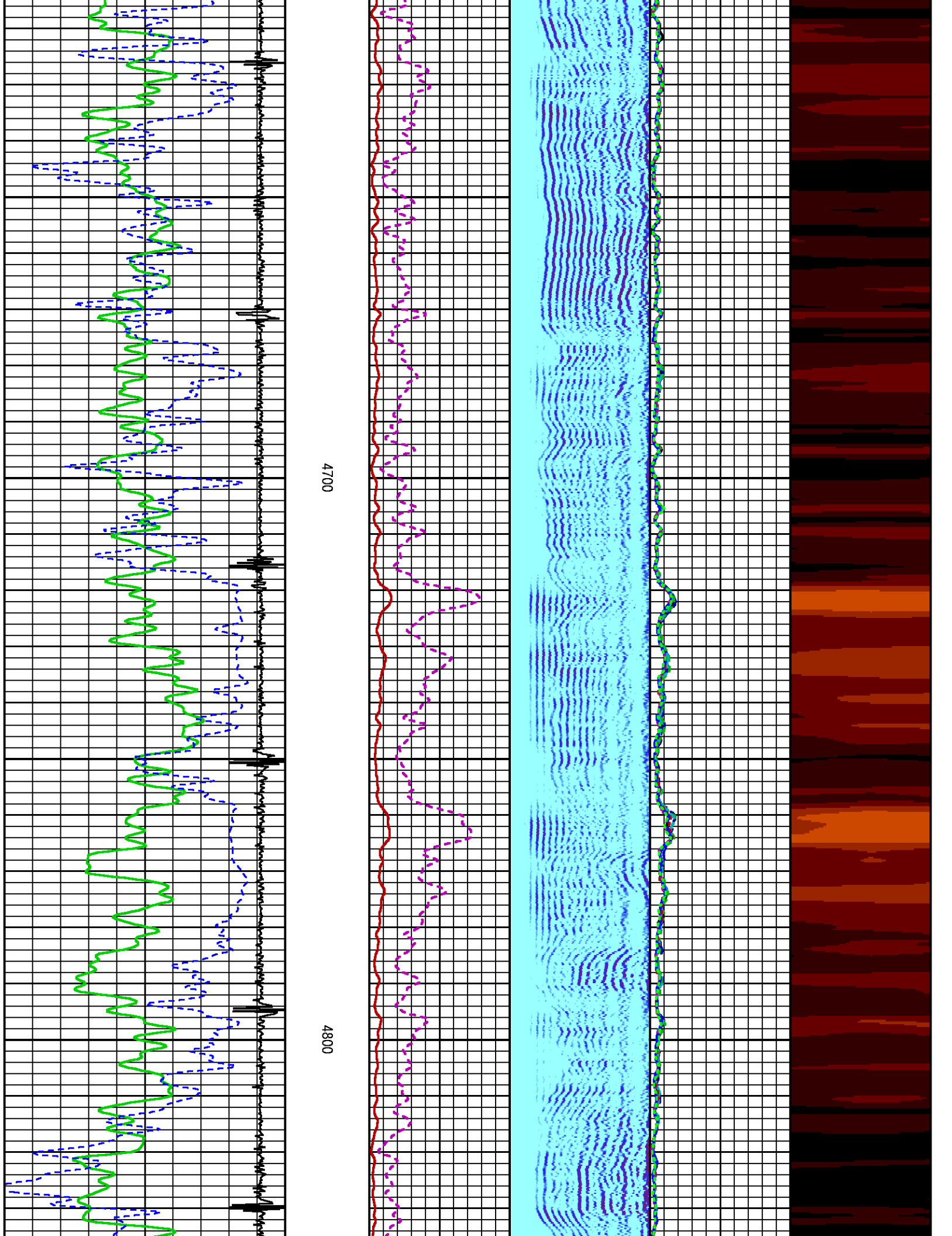


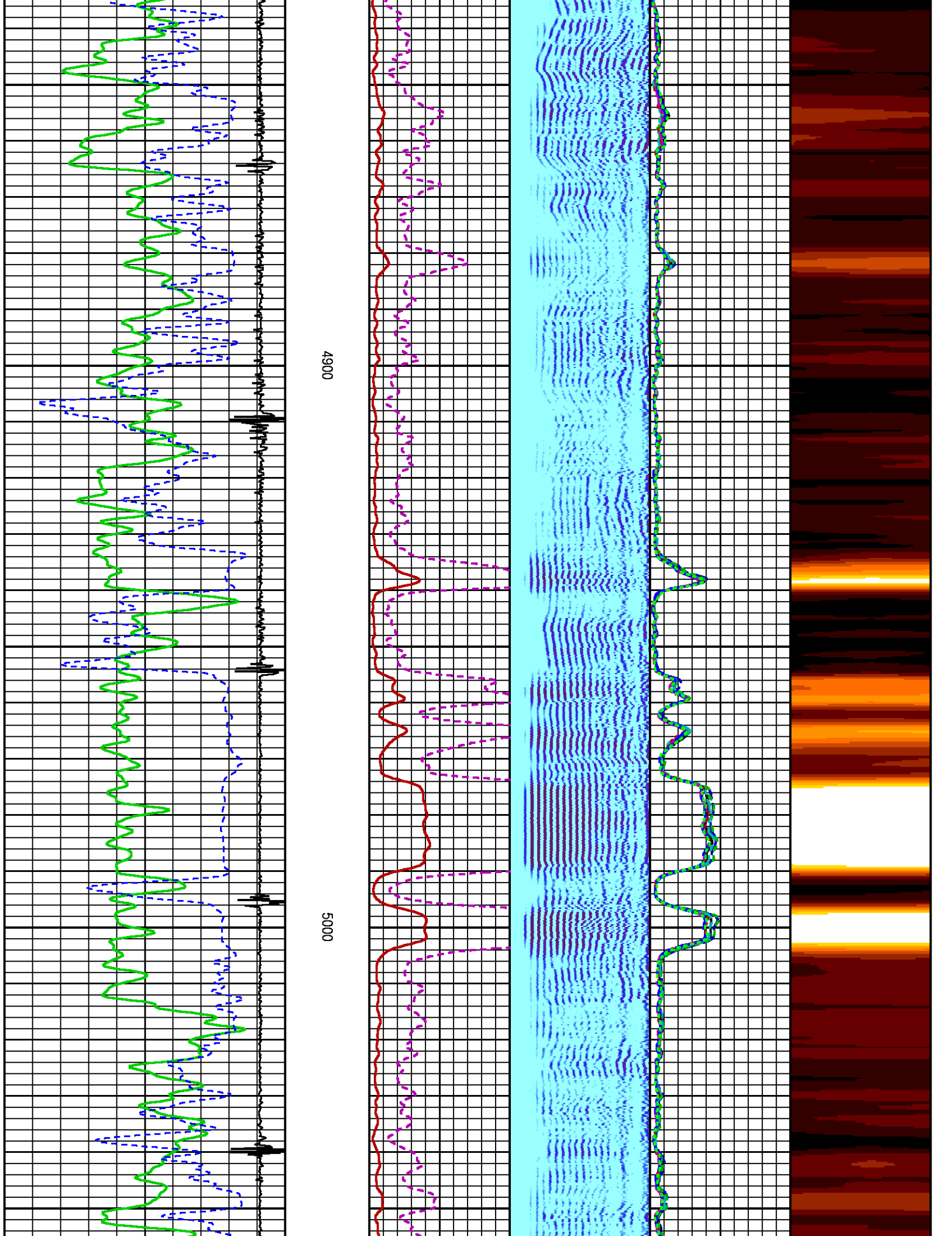




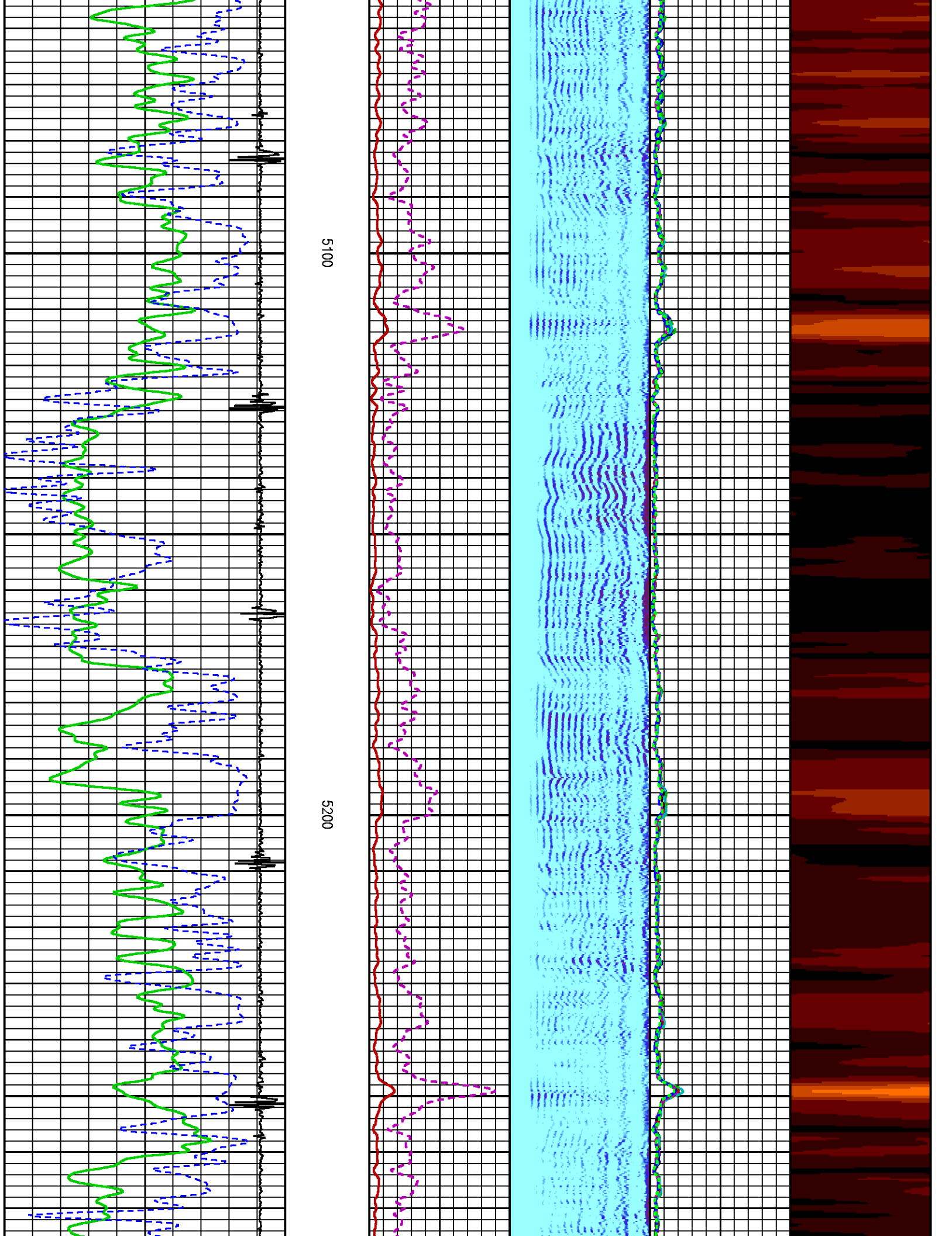


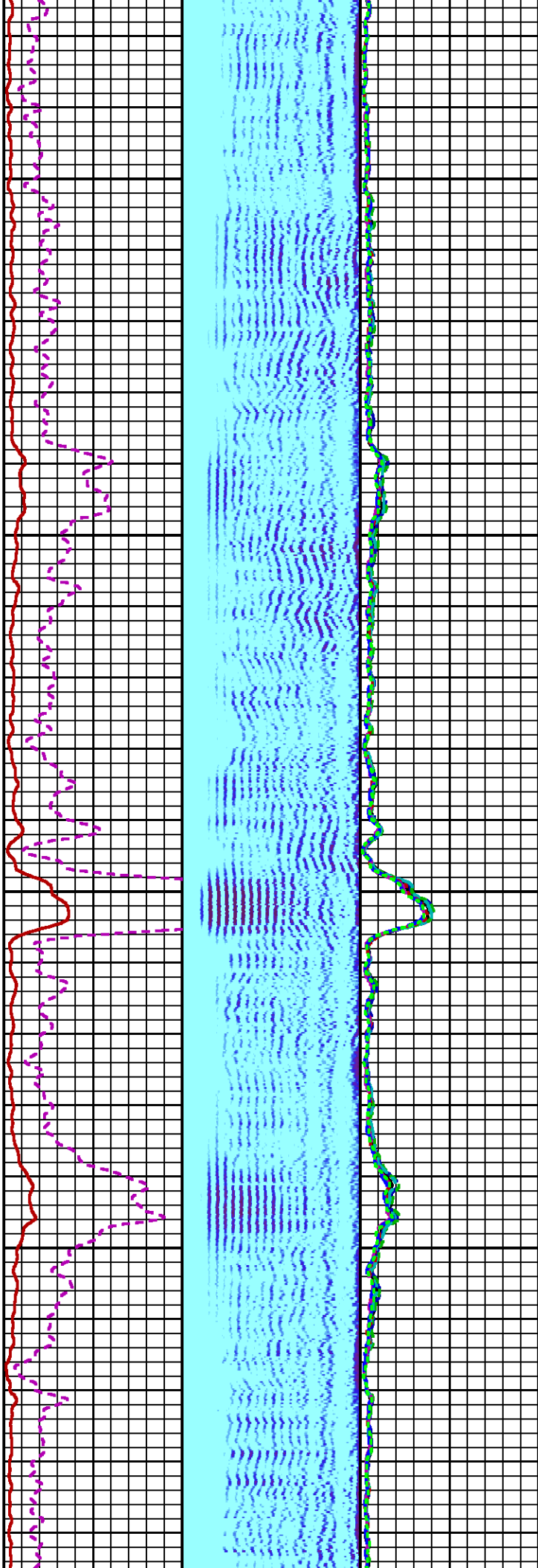






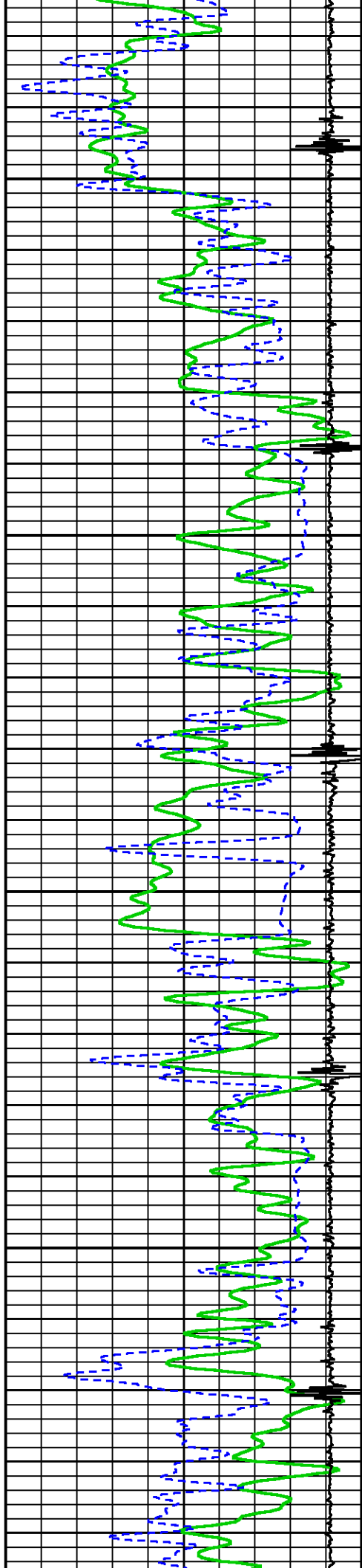


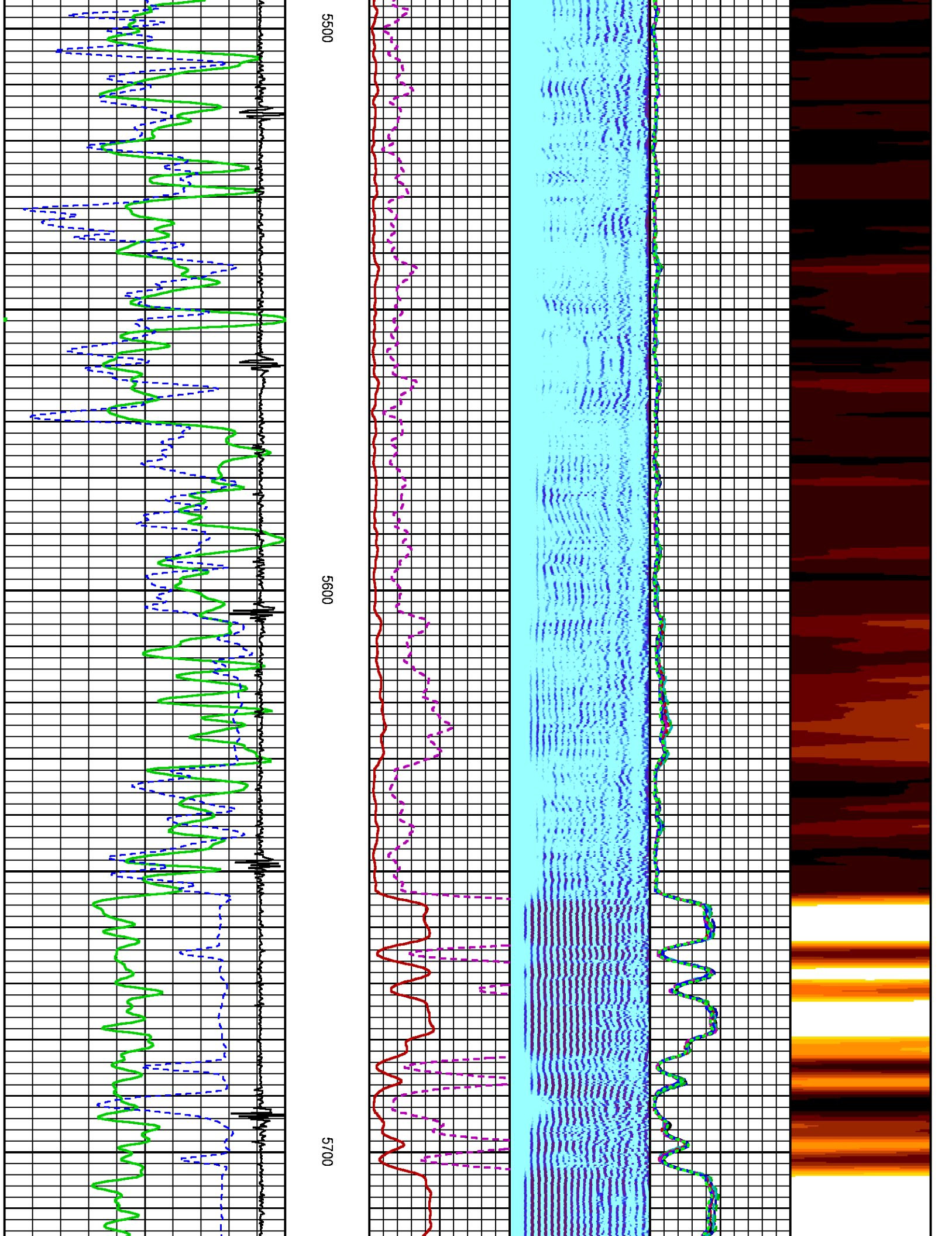


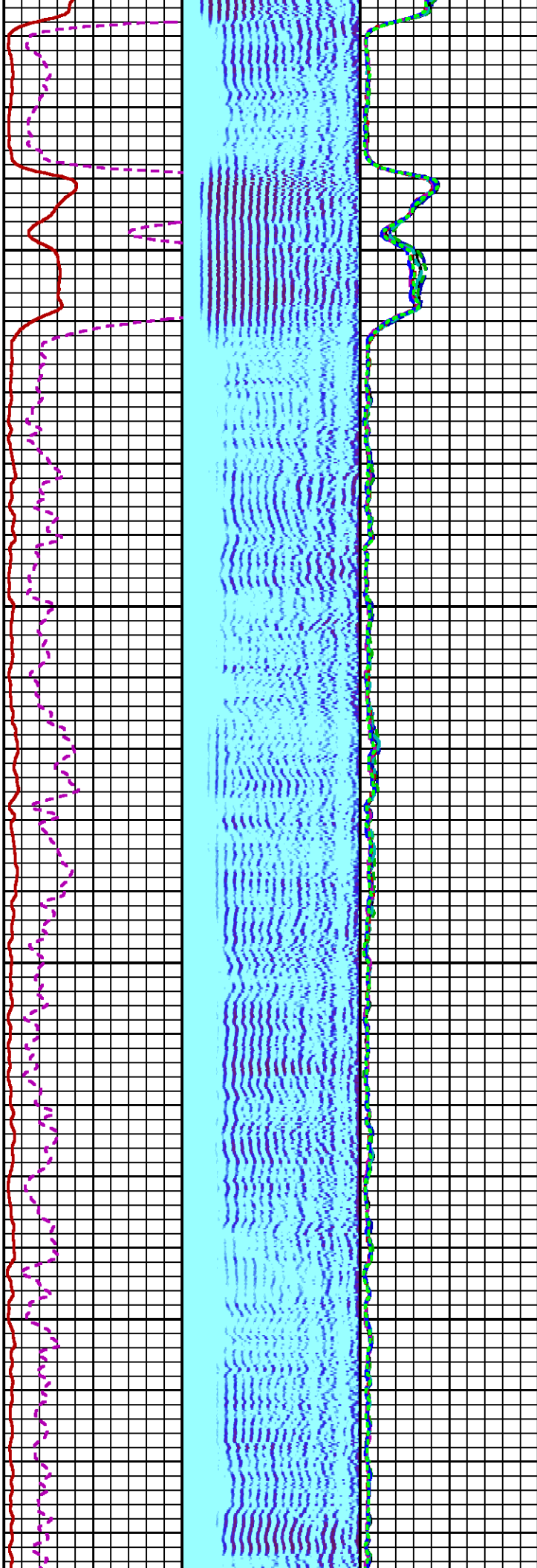


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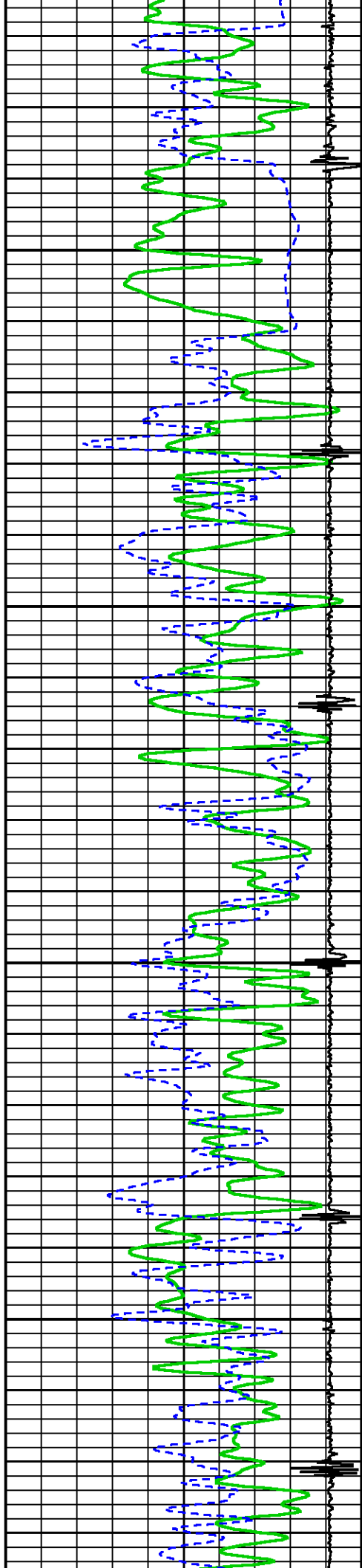




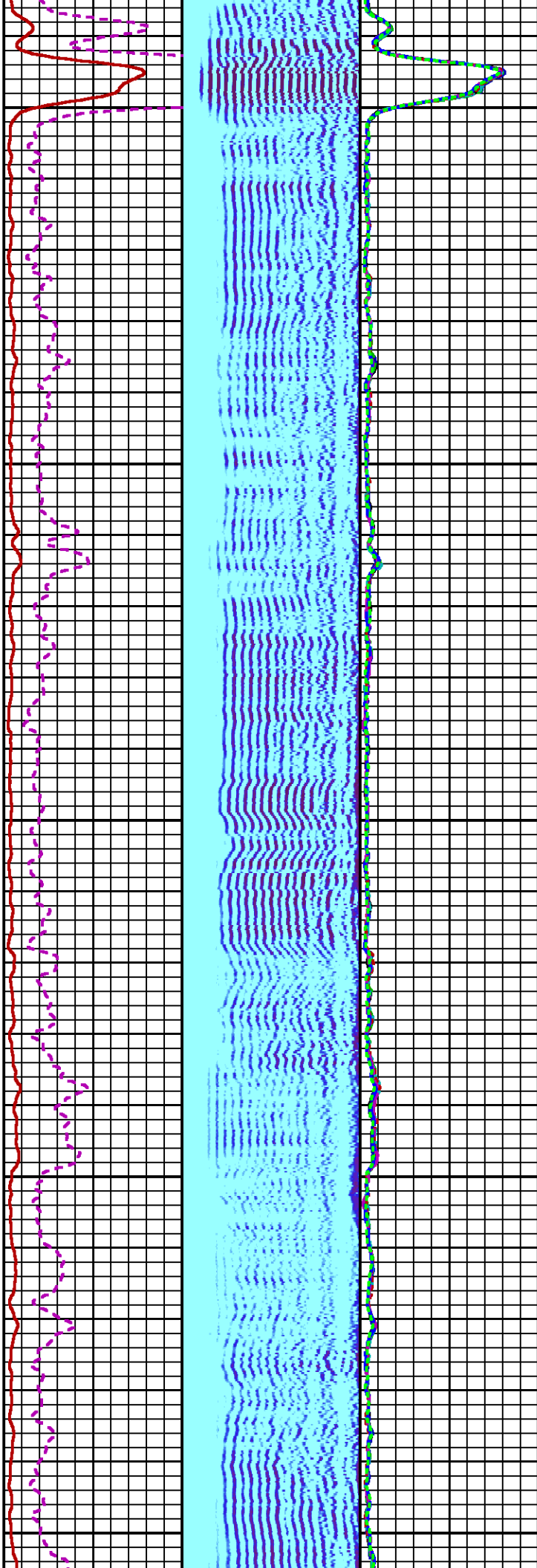
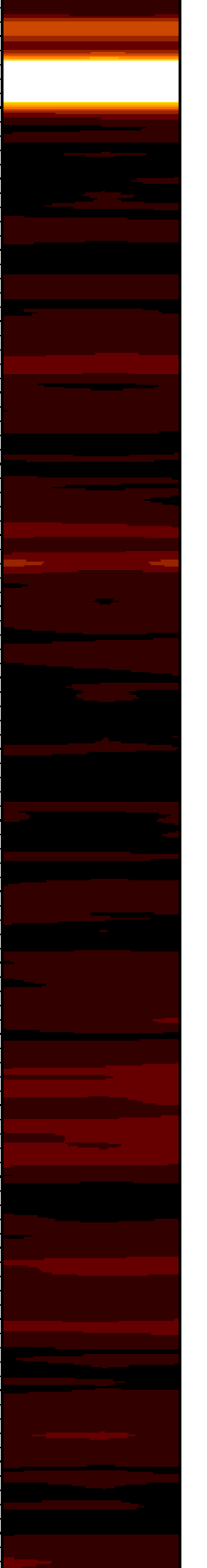


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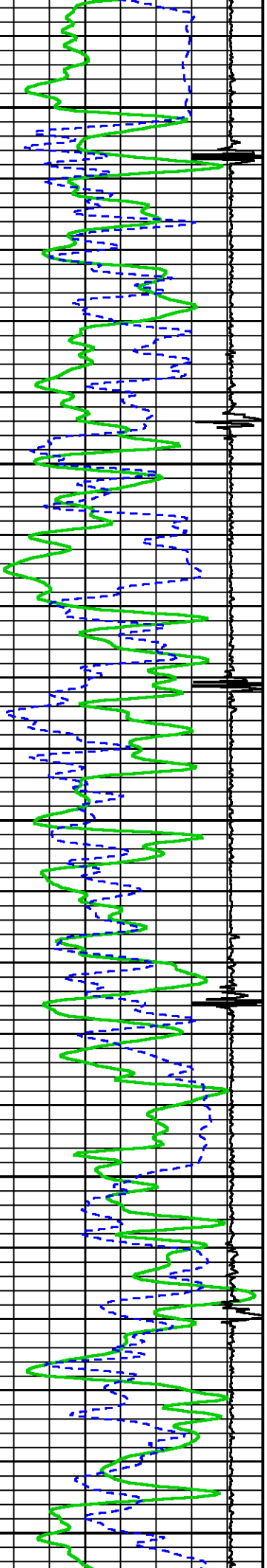




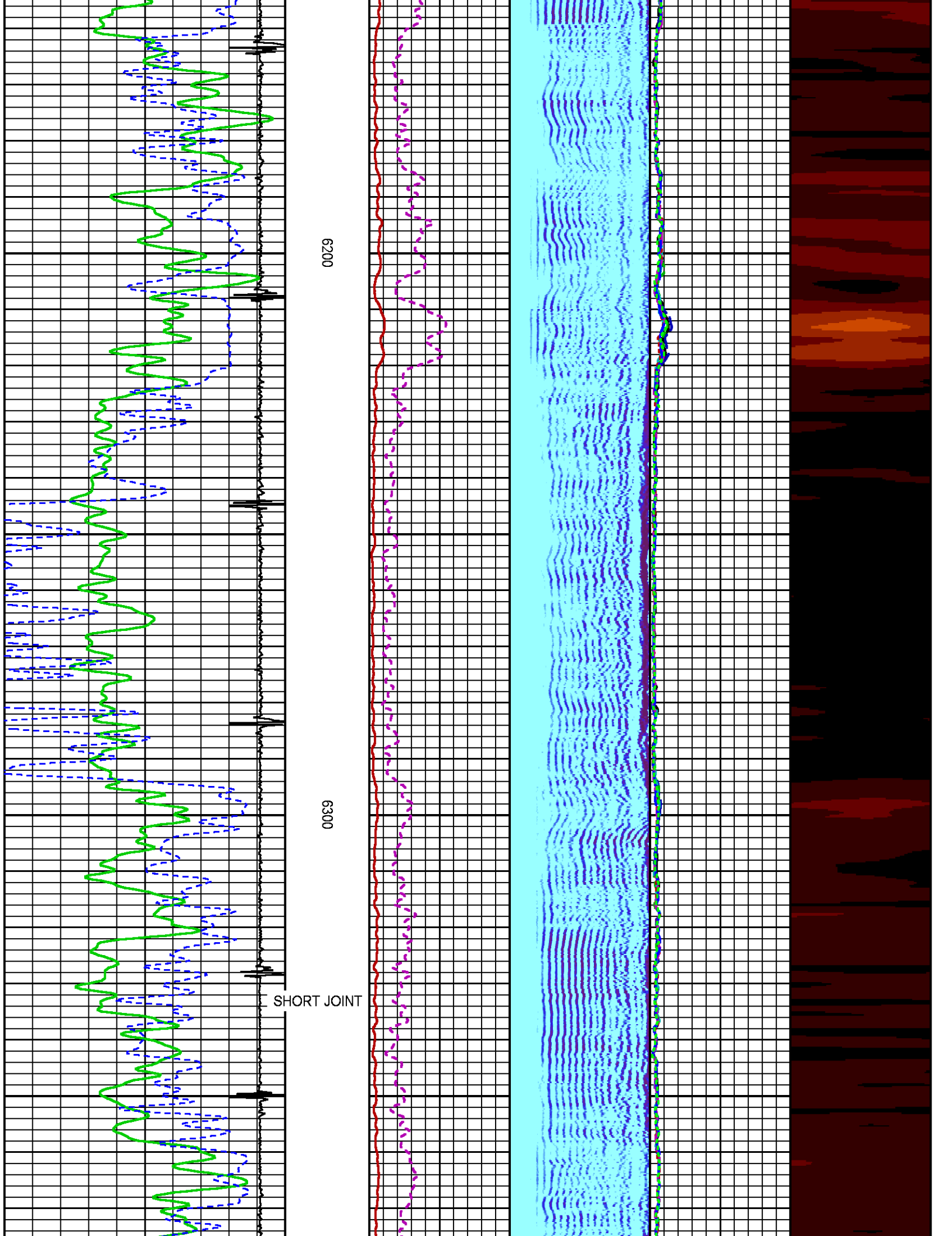


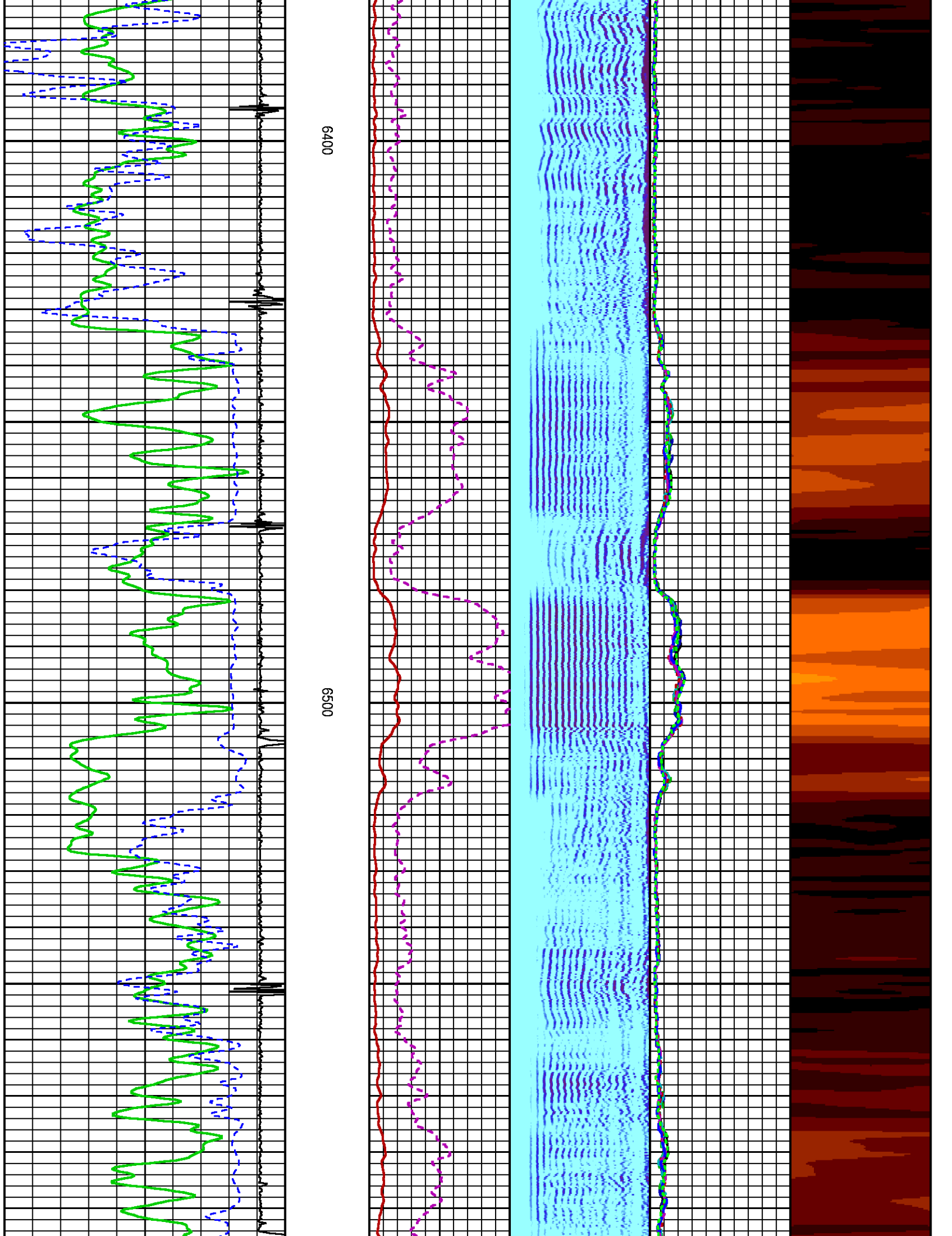
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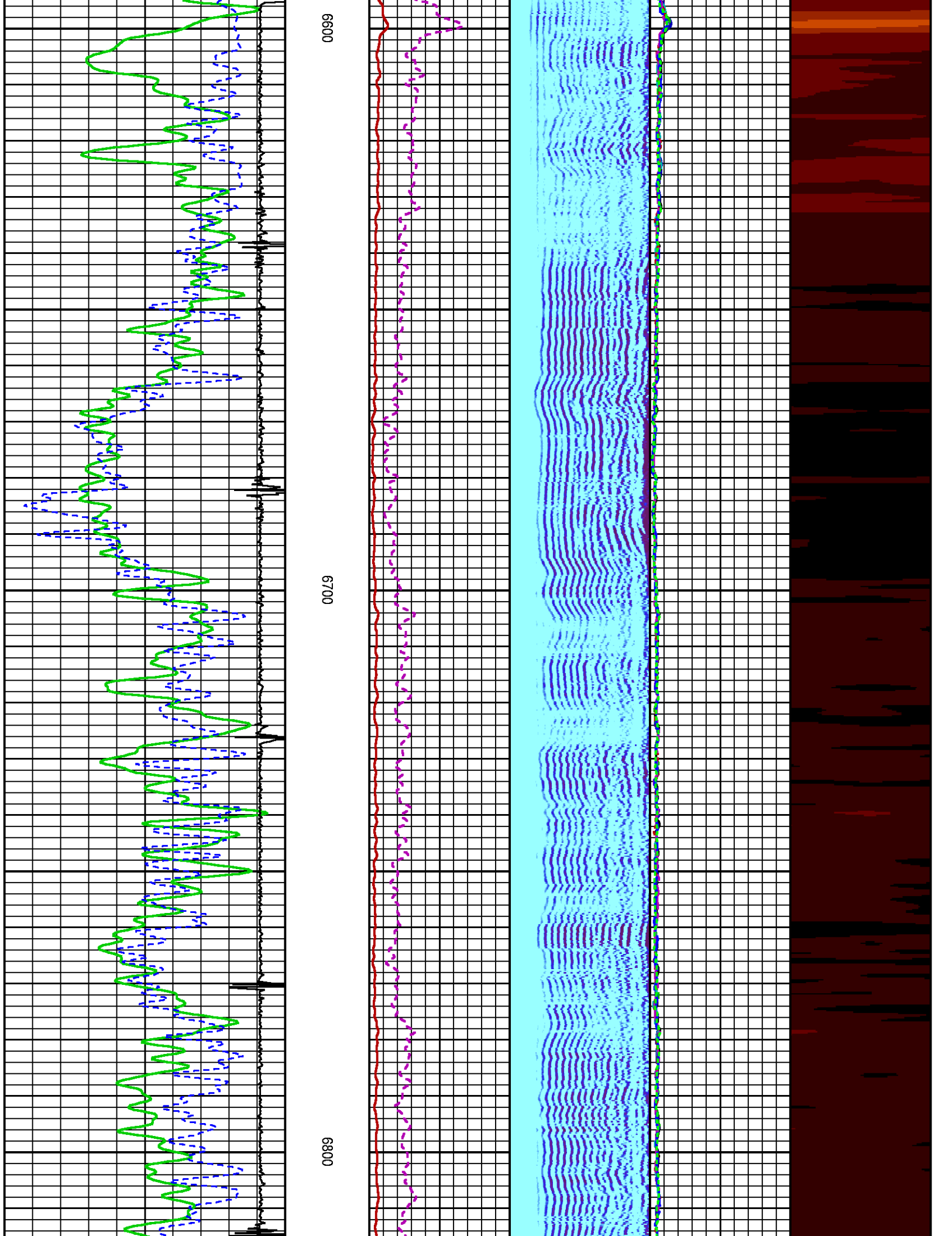
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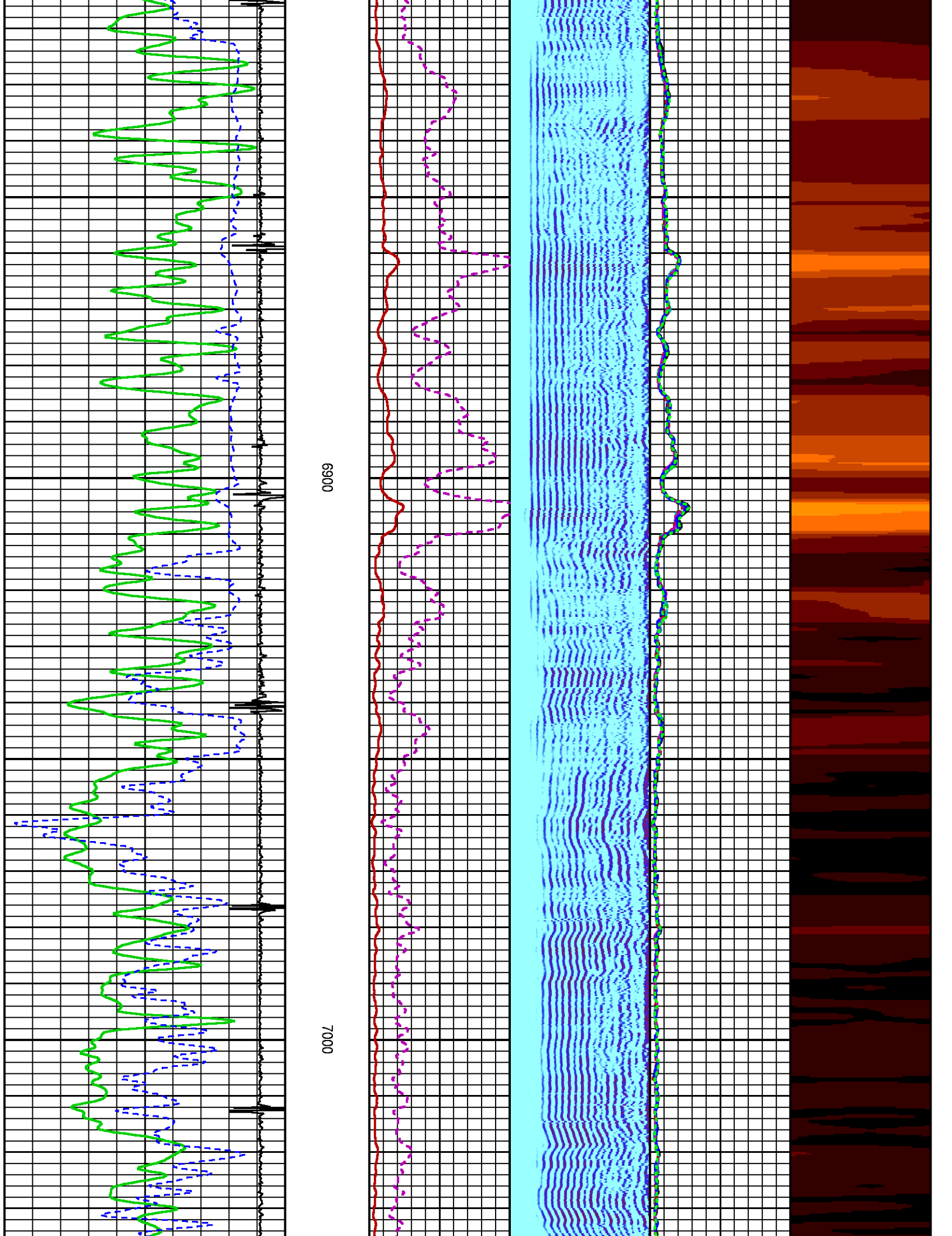




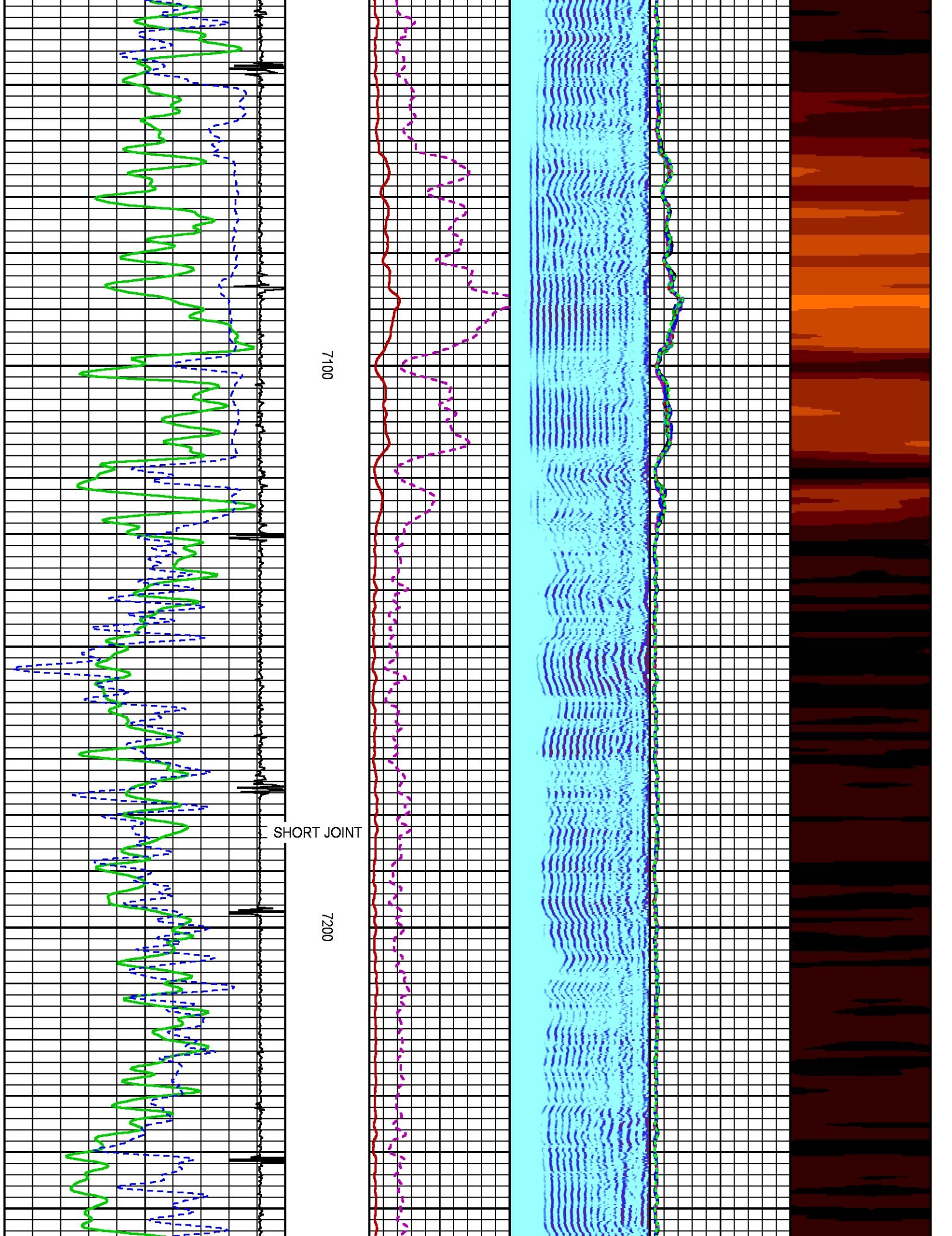




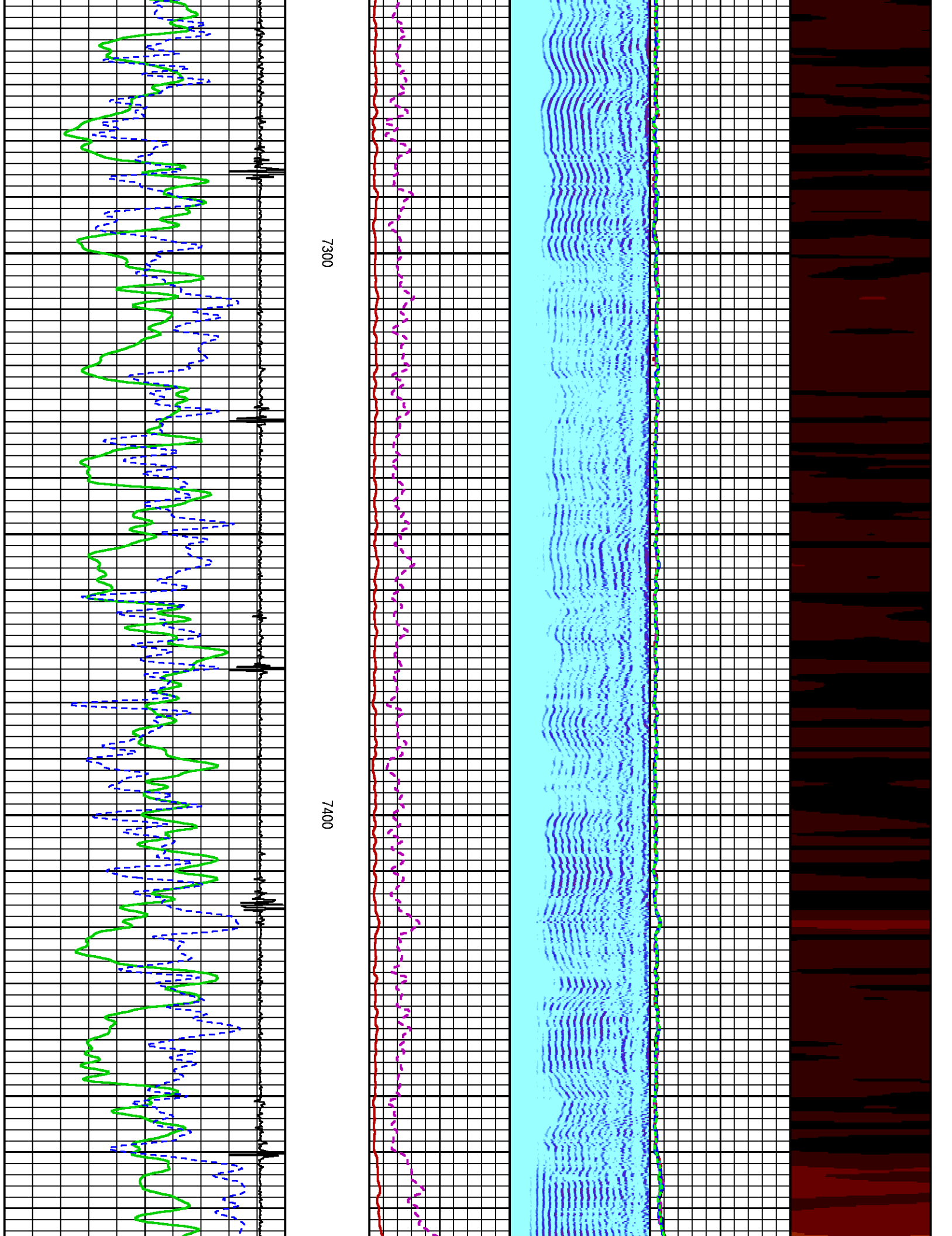


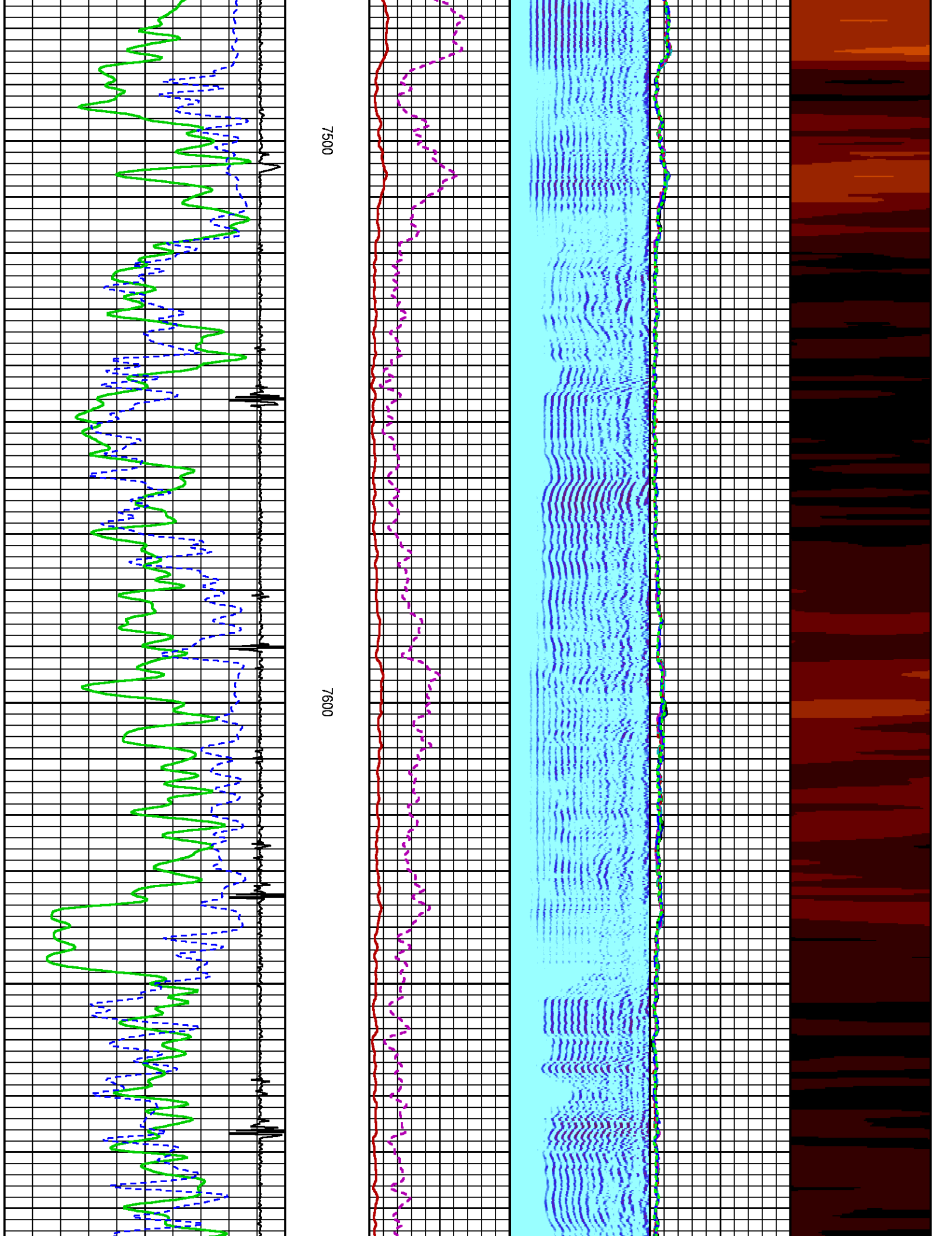


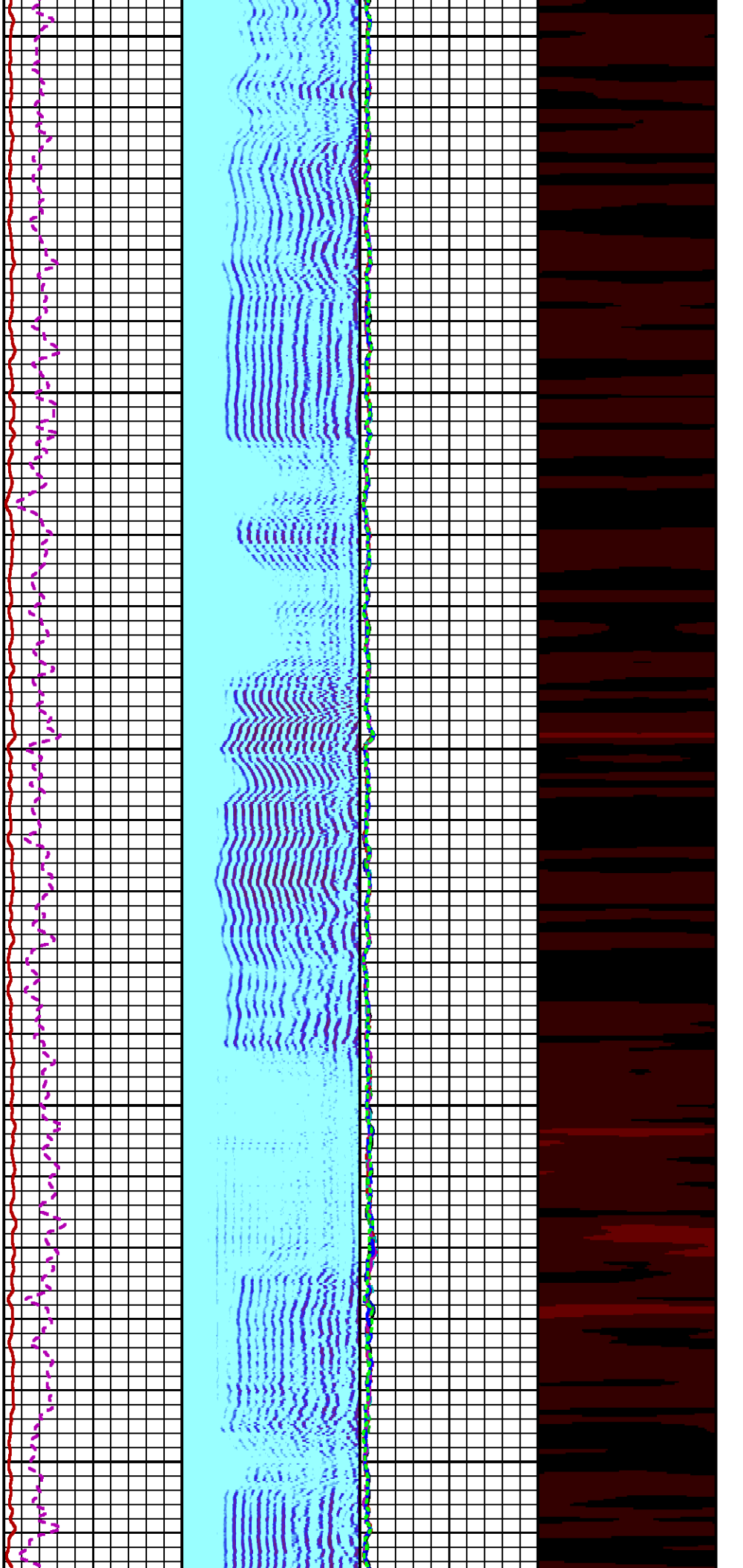








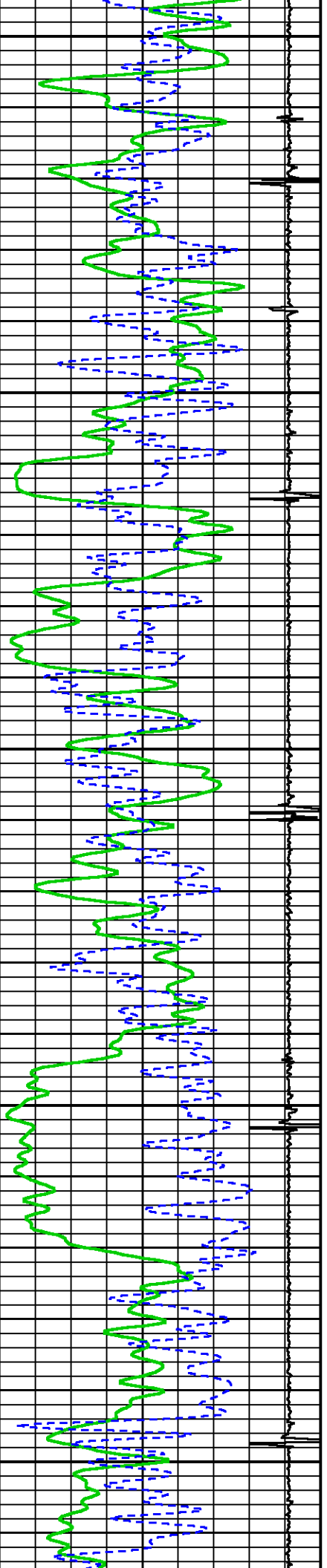


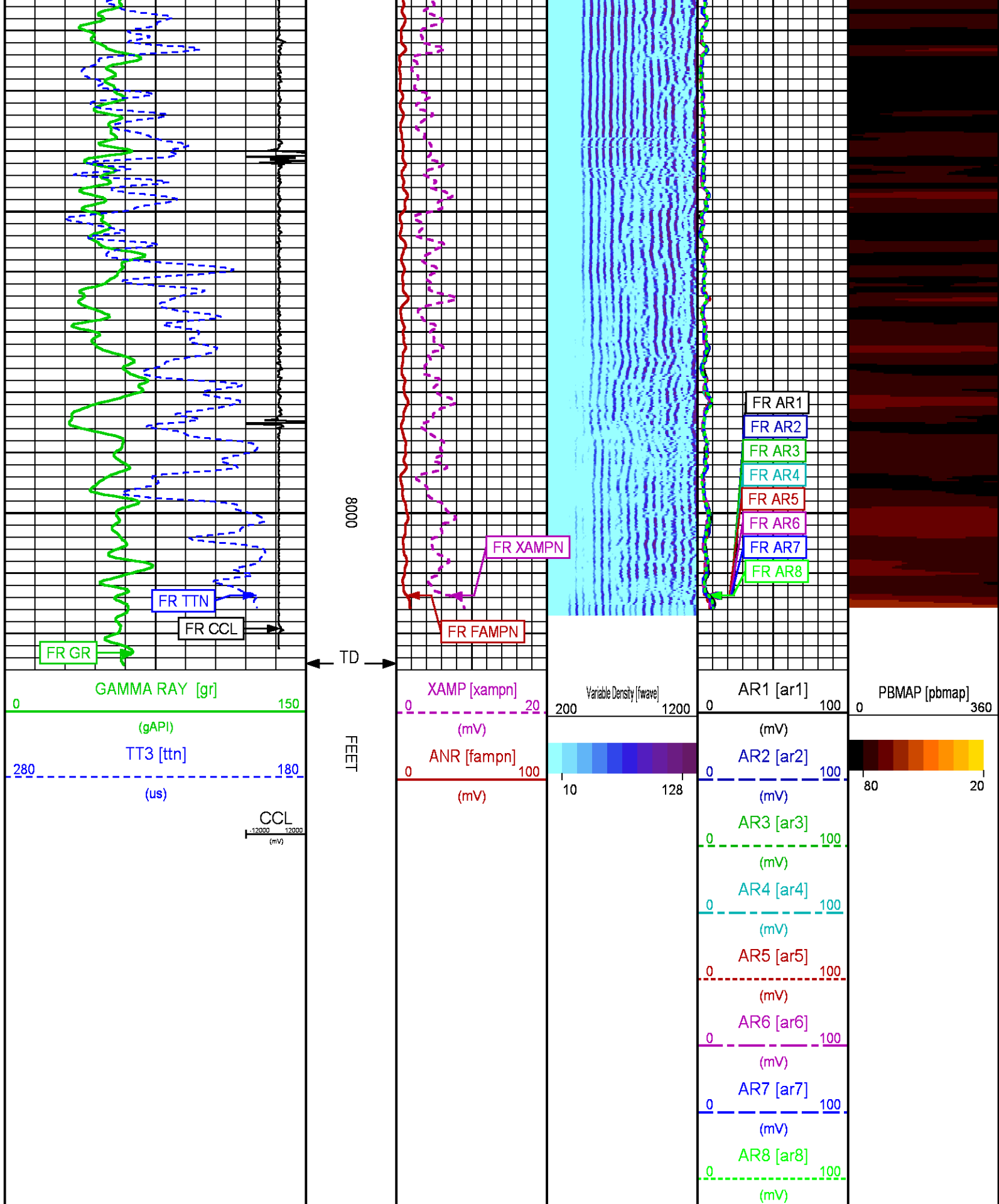


7700

7800

7900





# REPEAT PRESENTATION 0 PSI

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

Updates: 1 Patches: 8

Plotted: Sun Oct 25 08:06:38 2015

## PARAMETER AND FILTER SUMMARY REPORT

FILE: /dat1a/CH098427/n012g01.prm  
 LOGGING MODE: DEPTH DIRECTION: UP  
 TOP DEPTH: 7747.250 ft BOTTOM DEPTH: 8034.750 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*)	180	us	TOP	BOTTOM
	AMP WINDOW START (fgp2*)	180	us	"	"
	AMP WINDOW START (fgp3*)	180	us	"	"
	AMP WINDOW START (fgp4*)	180	us	"	"
	AMP WINDOW START (fgp5*)	180	us	"	"
	AMP WINDOW START (fgp6*)	180	us	"	"
	AMP WINDOW START (fgp7*)	180	us	"	"
	AMP WINDOW START (fgp8*)	180	us	"	"
	AMP WINDOW START (fgpn*)	180	us	"	"
	AMP WINDOW LENGTH	30	us	"	"
TRAVEL TIME WINDOW (NEAR)	TT WINDOW START (ttn*)	172	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*)	-66	us	"	"
	TOOL DELAY (str2*)	-66	us	"	"
	TOOL DELAY (str3*)	-66	us	"	"
	TOOL DELAY (str4*)	-66	us	"	"
	TOOL DELAY (str5*)	-66	us	"	"
	TOOL DELAY (str6*)	-66	us	"	"
	TOOL DELAY (str7*)	-66	us	"	"
	TOOL DELAY (str8*)	-66	us	"	"
	TOOL DELAY (strn*)	-66	us	"	"
BASELINE NOISE (NEAR)	NOISE WINDOW START	132	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

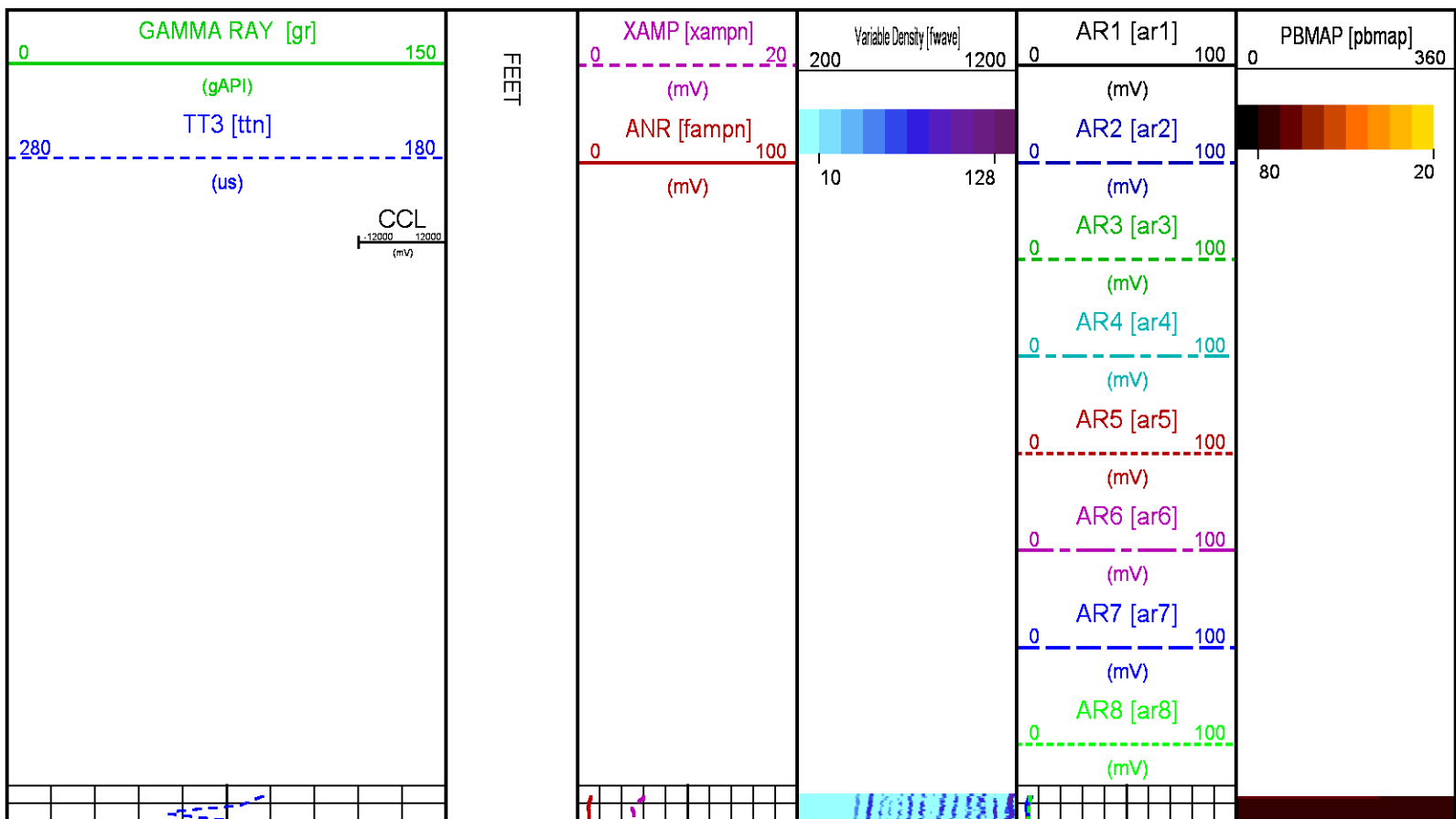
CURVE NAME	CREATION DATE	CURVE DESCRIPTION
F1:AR1	Oct 25 08:00:33 2015	FIXED GATE AMPLITUDE T-R1
F1:AR2	Oct 25 08:00:33 2015	FIXED GATE AMPLITUDE T-R2
F1:AR3	Oct 25 08:00:33 2015	FIXED GATE AMPLITUDE T-R3
F1:AR4	Oct 25 08:00:33 2015	FIXED GATE AMPLITUDE T-R4
F1:AR5	Oct 25 08:00:33 2015	FIXED GATE AMPLITUDE T-R5
F1:AR6	Oct 25 08:00:33 2015	FIXED GATE AMPLITUDE T-R6
F1:AR7	Oct 25 08:00:33 2015	FIXED GATE AMPLITUDE T-R7
F1:AR8	Oct 25 08:00:33 2015	FIXED GATE AMPLITUDE T-R8
F1:CCL	Oct 25 08:00:33 2015	CASING COLLAR LOCATOR
F1:FAMPN	Oct 25 08:00:33 2015	FIXED GATE AMPLITUDE NEAR RECEIVER
F1:FWAVE	Oct 25 08:00:33 2015	FAR WAVE FORM
F1:GR	Oct 25 08:00:33 2015	GAMMA RAY
F1:PBMAP	Oct 25 08:00:33 2015	PERCENT BOND CEMENT MAP
F1:TTN	Oct 25 08:00:33 2015	TRAVELTIME FROM NEAR TRANSMITTER-RECEIVER
F1:XAMPN	Oct 25 08:00:33 2015	FIXED GATE AMPLITUDE NEAR RECEIVER TIMES FIVE

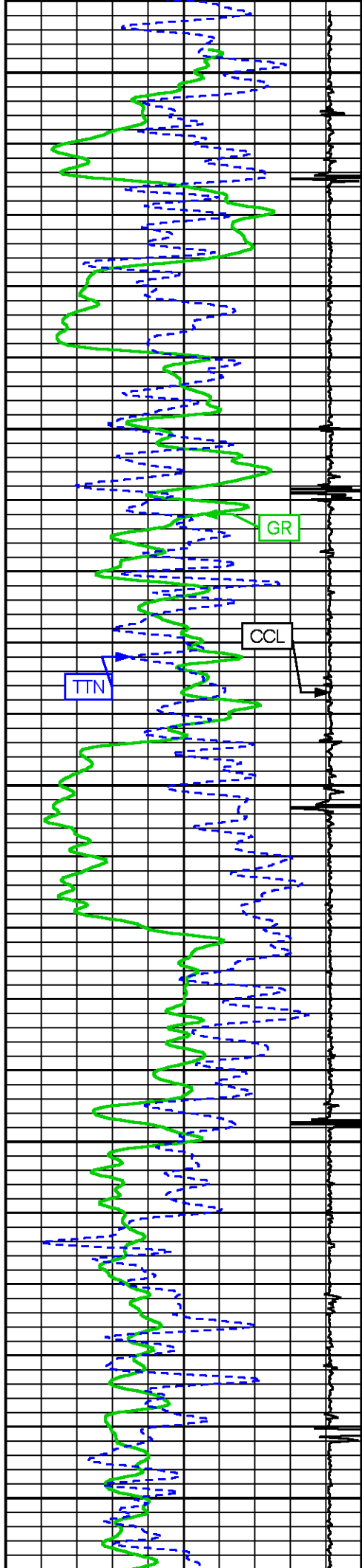
## CURVE MEASURE POINT OFFSET

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** : cas6685:/dat1a/CH098427/CBL-RPT.fvpdf [5"/100' Scale]  
**Plot Interval** : 7737 - 8033.5 Feet

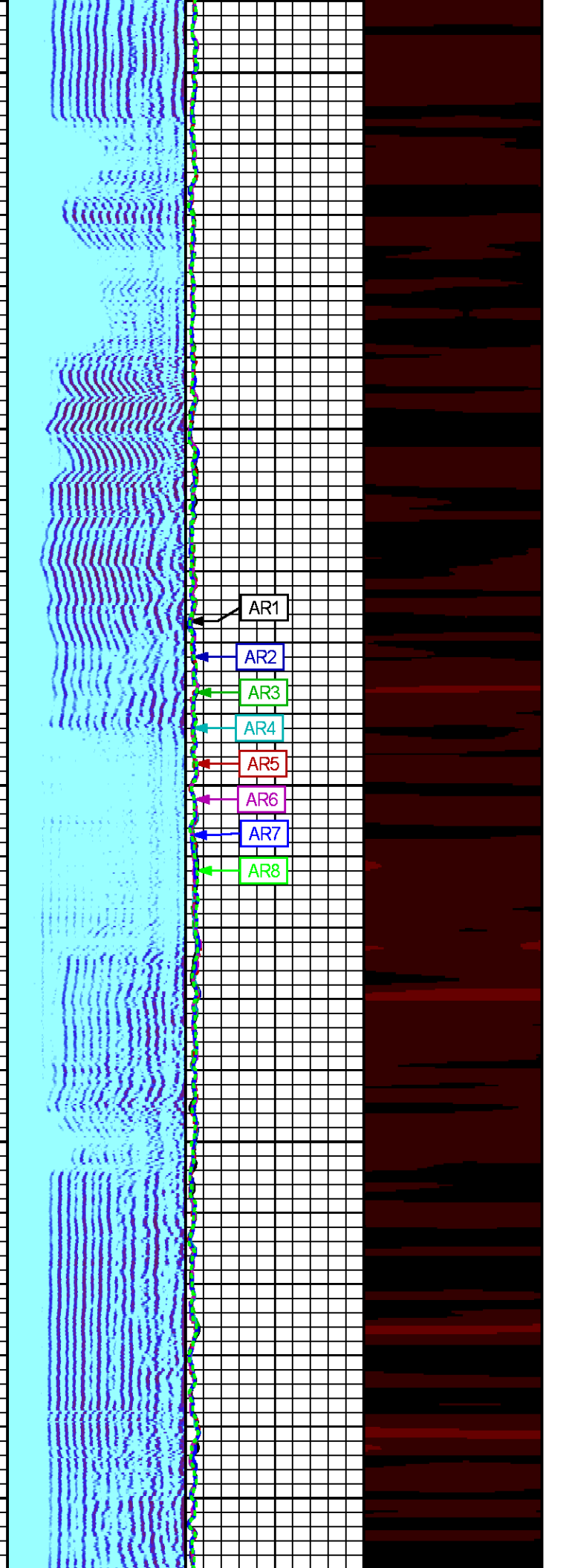
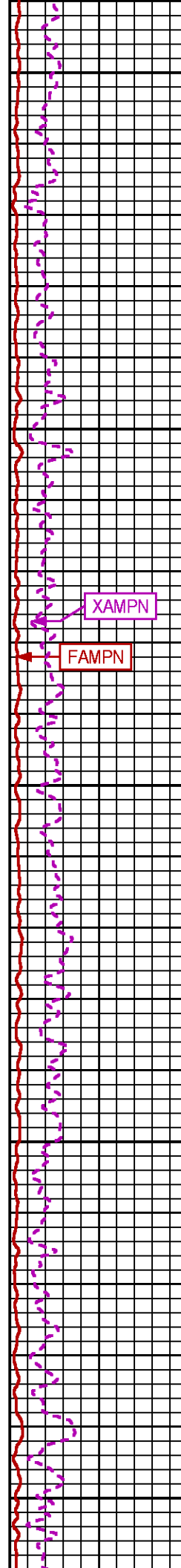
**Data File 1** : F1 : cas6685:/dat1a/CH098427/n012g01.aff  
**Created On** : Oct 25 08:00:33 2015  
**Company** : LARAMIE ENERGY  
**Well** : PICEANCE 28-01W  
**Field** : VEGA  
**File Interval** : 7736 - 8034.75 Feet  
**OCT** : n012g

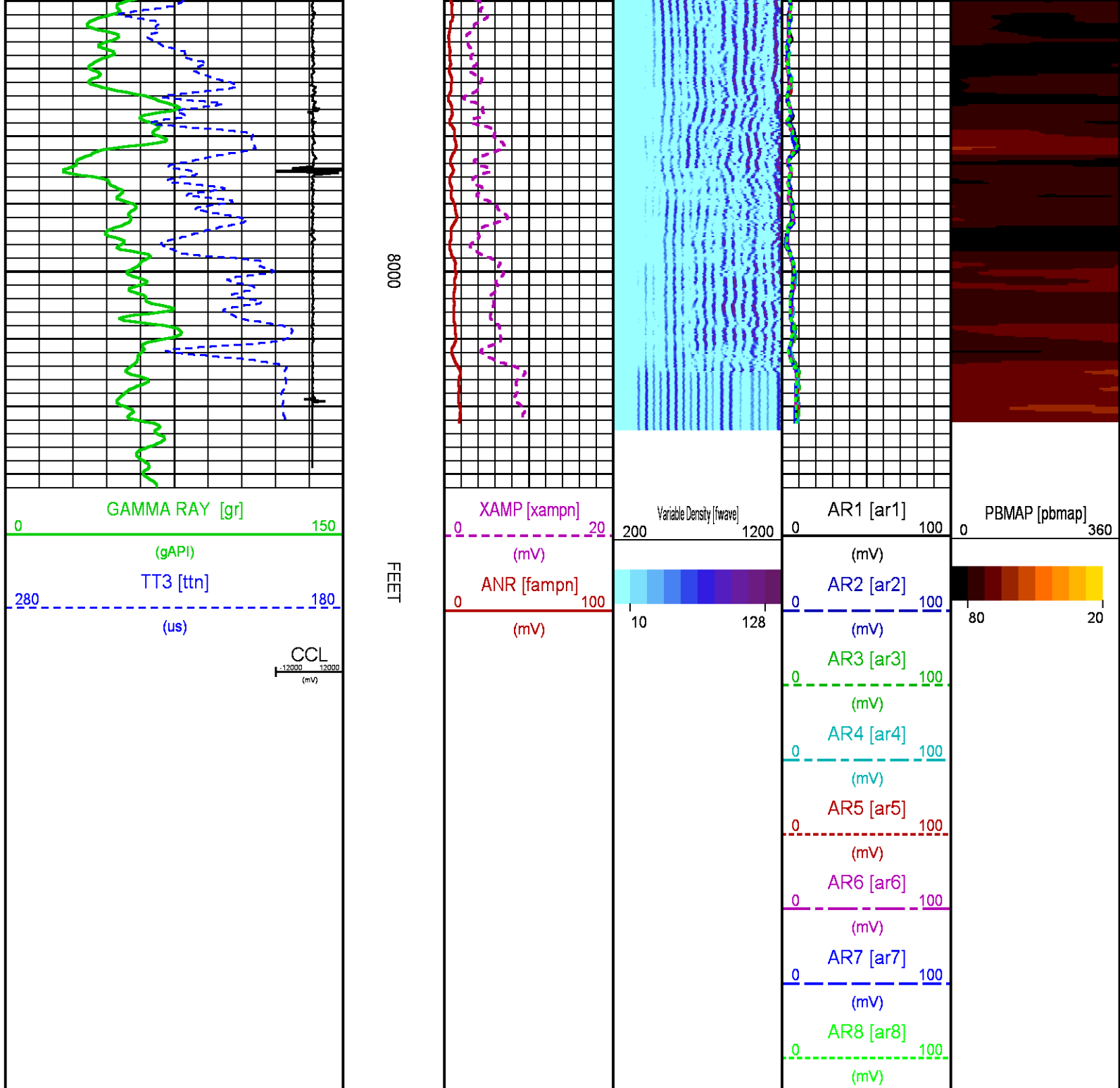




7800

7900





## CALIBRATION / VERIFICATION SUMMARY

Source File: /dat1a/CH098427/n012g.tp1

## RAL PRIMARY CALIBRATION SUMMARY

TOOL #: 1426XA 10154957

DATE/TIME PERFORMED: Wed Oct 21 13:16:48 2015

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)	-0.12	-0.12	-0.09	-0.19	-0.00	-0.13	-0.63	-0.36	0.05	2.16	-0.05
AMP FLUID (mV)	99	98	98	98	97	99	100	100	99	134	97
TT (us)	214	215	214	213	213	213	214	214	216	323	215
M FACTOR	1.01	1.02	1.02	1.02	1.03	1.01	1.00	1.00	1.01	1.14	1.03

### RAL BEFORE LOG VERIFICATION SUMMARY

TOOL #: 1426XA 10154957 DATE/TIME PERFORMED: Sun Oct 25 07:25:14 2015 DAYS SINCE CAL: 3

UNIT #: 3885TC 6685 CABLE #: HL6685 SMALL1

	NEAR (mV)	R1 (mV)	R2 (mV)	R3 (mV)	R4 (mV)	R5 (mV)	R6 (mV)	R7 (mV)	R8 (mV)	FAR (mV)	CAL (mV)
ZERO	-1.70	-2.21	-2.05	-2.22	-2.19	-2.25	-2.17	-2.19	-2.02	-1.96	0.21
AMP AIR	2.65	2.97	3.28	3.02	3.57	2.90	3.22	2.95	3.19	3.54	96.73

SHOP M FACTOR	SHOP A FACTOR	WIRELINE FACTOR
1.03	0.00	1.04

### GR PRIMARY CALIBRATION SUMMARY

TOOL #: 1355XA 12670181 DATE/TIME PERFORMED: Wed Oct 21 13:23:22 2015

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	81.51	297.38	215.9	0.695	56.64	206.64	150

### GR PRIMARY VERIFICATION SUMMARY

TOOL #: 1355XA 12670181 DATE/TIME PERFORMED: Wed Oct 21 13:24:55 2015

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

	BACKGROUND (cts)	CALBRTR ON (cts)	MULT	BACKGROUND (gAPI)	CALBRTR ON (gAPI)	DIFF. (gAPI)
GR	81.82	299.20	0.695	56.86	207.91	151.05
						140.00 160.00

### TEMP PRIMARY CALIBRATION SUMMARY

TOOL #: 1355XA 12670181 DATE/TIME PERFORMED: Wed Aug 12 11:34:41 2015

UNIT #: 3885TC 6685

	T(0)	T(1)	T(2)	T(3)
Corr Coeff for Temp	0.000000E+00	1.000000E-01	0.000000E+00	0.000000E+00

# INSTRUMENT CONFIGURATION

Source File: /dat1a/CH098427/h012g~-tdg

## 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

TOTAL LENGTH: 20.38'  
TOTAL WEIGHT: 225 lbs  
MAX DIAMETER: 0'4.25"



COMPANY  
WELL  
FIELD  
COUNTY

**LARAMIE ENERGY**  
**PICEANCE 28-01W**  
**VEGA**  
**MESA**

STATE **COLORADO**

LOCATION:

SHL: LAT 39.251125, LONG -107.779575  
BHL: LAT 39.255011, LONG -107.780733

SEC **28** TWP **9S** RGE **93W**

ELEVATIONS:

KB 7578 FT  
DF  
GL 7556 FT

DATE **25-Oct-2015**

FILE NO:

**CH098427**

API NO:

**05077102360000**

**28 9S 93W**

**28-05 PAD**  
**PATTERSON 306**



