Schlumberger

Company: **Lamont Doherty Earth Observatory**

Well: **Expedition 350, Site U1437D**
Field: **IBM−1 (Rear Arc)**
Rig: **JOIDES Resolution** Country:

Rig: JOIDES Resolution
Field: IBM−1 (Rear Arc)
Location: Latitude: N 31.7897*
Well: Expedition 350, Site U1437D
Company: Lamont Doherty Earth Observatory

DSI Sonic
Upper Dipole

LOCATION

Latitude: N 31.7897*
Longitude: E 139.02631*

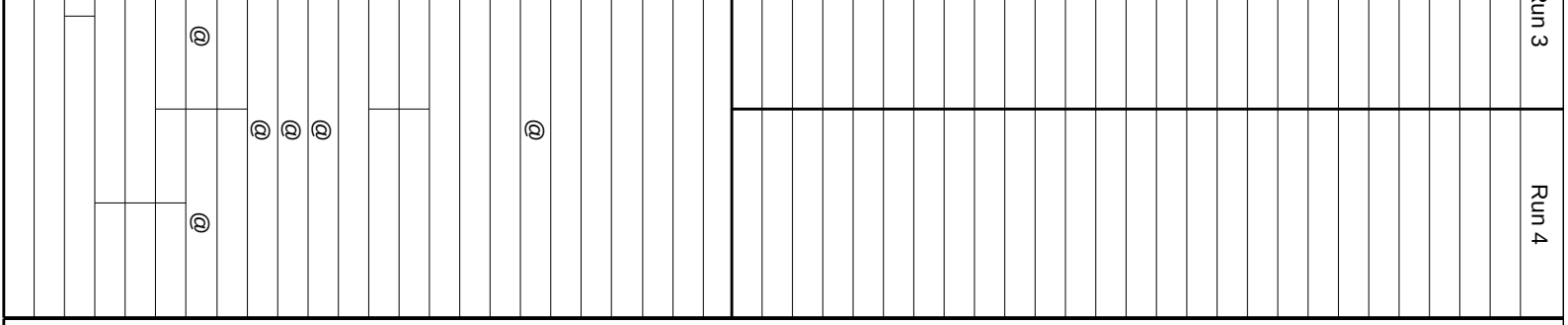
Elev.: K.B. −2127.30 m
G.L. 0.00 m
D.F. −2127.30 m

Permanent Datum: Mean Sea Level — Elev.: 0.00 m
Log Measured From: Drill Floor — 0.00 m above Perm. Datum
Drilling Measured From: Drill Floor

Ocean: Pacific	Max. Well Deviation 0 deg	Longitude E 139.02631	Latitude N 31.7897

Logging Date			22−Apr−2014						
Run Number			1						
Depth Driller			980.4 m						
Schlumberger Depth			946.5 m						
Bottom Log Interval			930 m						
Top Log Interval			137.5 m						
Casing Driller Size @ Depth			5.500 in	@	92.3 m		@		
Casing Schlumberger			92.3 m						
Bit Size			9.875 in						
Type Fluid In Hole			Seawater						
MUD	Density	Viscosity	1.03 g/cm3						
	Fluid Loss	PH							
	Source Of Sample		N/A						
RM @ Measured Temperature				@			@		
RMF @ Measured Temperature				@			@		
RMC @ Measured Temperature				@			@		
Source RMF	RMC		N/A	N/A					
RM @ MRT	RMF @ MRT		@ 60	@ 60		@		@	
Maximum Recorded Temperatures			60 degC						
Circulation Stopped	Time		22−Apr−2014	14:00					
Logger On Bottom	Time		23−Apr−2014	5:10					
Unit Number	Location		627314	Houston					
Recorded By			C. Furman						
Witnessed By			G. Guerin						

	Run 1	Run 2	R
Logging Date			
Run Number			
Depth Driller			
Schlumberger Depth			
Bottom Log Interval			
Top Log Interval			
Casing Driller Size @ Depth	@		
Casing Schlumberger			
Bit Size			
Type Fluid In Hole			
MUD Density / Viscosity			
MUD Fluid Loss / PH			
MUD Source Of Sample			
RM @ Measured Temperature	@		
RMF @ Measured Temperature	@		
RMC @ Measured Temperature	@		
Source RMF / RMC			
RM @ MRT / RMF @ MRT	@	@	
Maximum Recorded Temperatures			
Circulation Stopped / Time			
Logger On Bottom / Time			
Unit Number / Location			
Recorded By			
Witnessed By			



DISCLAIMER

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OTHER SERVICES1

OS1: HRLA
OS2: HLDS / APS
OS3: MSS
OS4: HNGS
OS5: FMS

REMARKS: RUN NUMBER 1

Hole drilled with RCB coring bit and bottom hole assembly (BHA). 9 7/8 " BS
Coring concluded approximately 24 hours prior to logging.
Drill pipe set at a depth of 92.3mbsf with a logging bit installed to facilitate wireline logging.
Downlog run with corrections computed using bit size; uplogs corrected for actual hole size using caliper.
FMS Calipers closed for downlog; calipers open for uplog with EMEX set to Auto mode.
DSI run with P&S=Std, Stoneley=Std, Upper Dipole = Std, and Lower Dipole = Low Freq. modes for all passes.
Tool string run centered using modified MCD inline centralizers, as per toolsketch.
Fluid type was sea water, as used to drill, so no barite corrections were required.
Depth originally recorded from drill floor; played back with sea floor as reference zero.
All logs presented in measured depth below sea floor (MDBSF).
Logs played back to correct Slowness labelling, apply GPIT corrections, and apply computed FMS contrast map.

RUN 1

SERVICE ORDER #:
PROGRAM VERSION: 19C0−187
FLUID LEVEL:

LOGGED INTERVAL	START	STOP

RUN 2

SERVICE ORDER #:
PROGRAM VERSION:
FLUID LEVEL:

LOGGED INTERVAL	START	STOP

EQUIPMENT DESCRIPTION

RUN 1

SURFACE EQUIPMENT

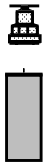
GSR−U 616008
WITM (EDTS)−A

DOWNHOLE EQUIPMENT

LEH−QT
LEH−QT 1701

EDTC−B
EDTH−B 8303
EDTC−B 8317
EDTG−A/B 8305

MDSB_EDTC
Mud Tempe
CTEM
Gamma Ray
EFTB DIAG
TelStatus
EDTCB Ele



34.55
33.49
32.92
32.57

35.44
34.55

RUN 2

HNGS−BA
HNGS−BA 194
HNSH−BA 205

Upper_1
Lower_2

31.87
31.66

32.57

HNGC−B
HNGH−A 115

HNGC Stat

29.54

30.07

AH−MCD
AH−MCD 82

29.01

DSST−B
SPAC−B 8194
ECH−SD 8183
SMDR−BD 8232
SSIJ−BA 8204
SMDX−AA 8147

26.73

PWF

11.18

AH−MCD1
AH−MCD1 1

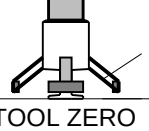
11.18

DTA−A 8453
ECH−KE 8456

8.90

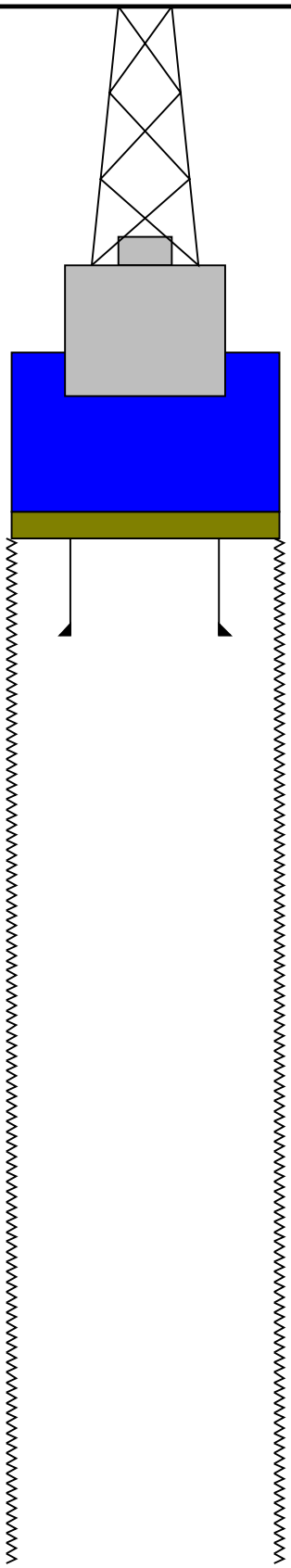
MEST−B
MEAH−B 769
MEAC−A 875
MEPH−A 702
GPIC−AC 840
MEPC−AB 807
MEDS−B 724

7.68



MAXIMUM STRING DIAMETER 4.50 IN
MEASUREMENTS RELATIVE TO TOOL ZERO
ALL LENGTHS IN METERS

Production String	(in) OD	ID	(m) MD	Well Schematic	(m) MD	(in) OD	ID	Casing String

	OD	ID	MD		MD	OD	ID	
Kelly Bushing Elevation			−2127.3					
Derrick Floor Elevation			−2127.3					
Mean Sea Level			−2117.3					
					0.0			Sea Floor
					92.3	5.500		Bit Depth
					980.4	9.875		Total Depth − Driller

Schlumberger

Downlog
1:200 Scale

MAXIS Field Log

Input DLIS Files

DEFAULT	Flip_FMS_DSI_NGS_044LUP		PRODUCER	25−Apr−2014 03:46	3075.9 M	2098.5 M

Output DLIS Files

DEFAULT	FMS_DSI_NGS_047PUP	FN:57	PRODUCER	25−Apr−2014 04:25	952.3 M	−25.0 M
CLIENT	FMS_DSI_NGS_047PUC	FN:58	CUSTOMER	25−Apr−2014 04:25	952.3 M	−25.0 M

OP System Version: 19C0−187

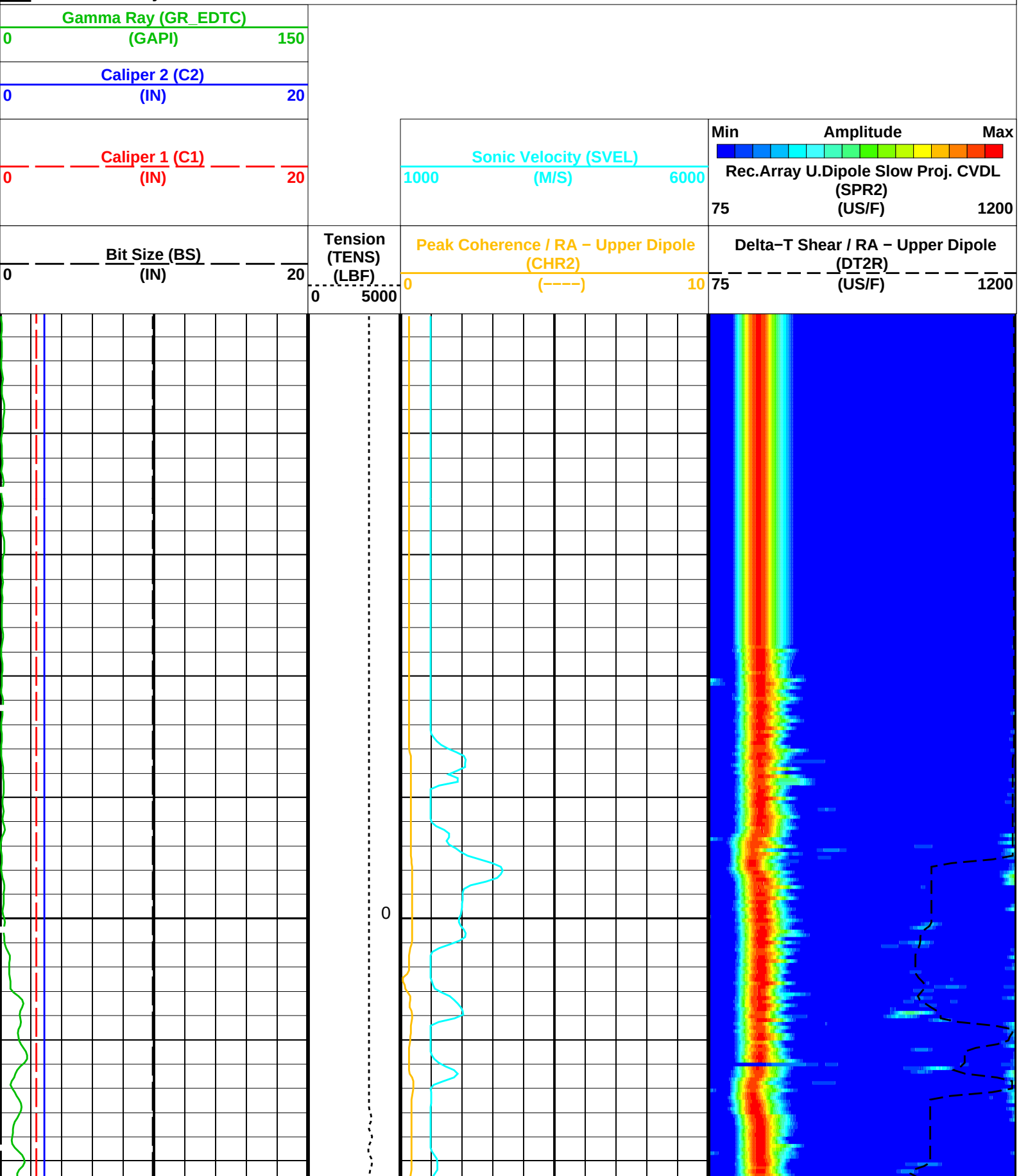
MEST−B	19C0−187	DTA−A	8453
DSST−B	19C0−187	HNGC−B	19C0−187
HNGS−BA	19C0−187	EDTC−B	SKK−5169−EDTCB

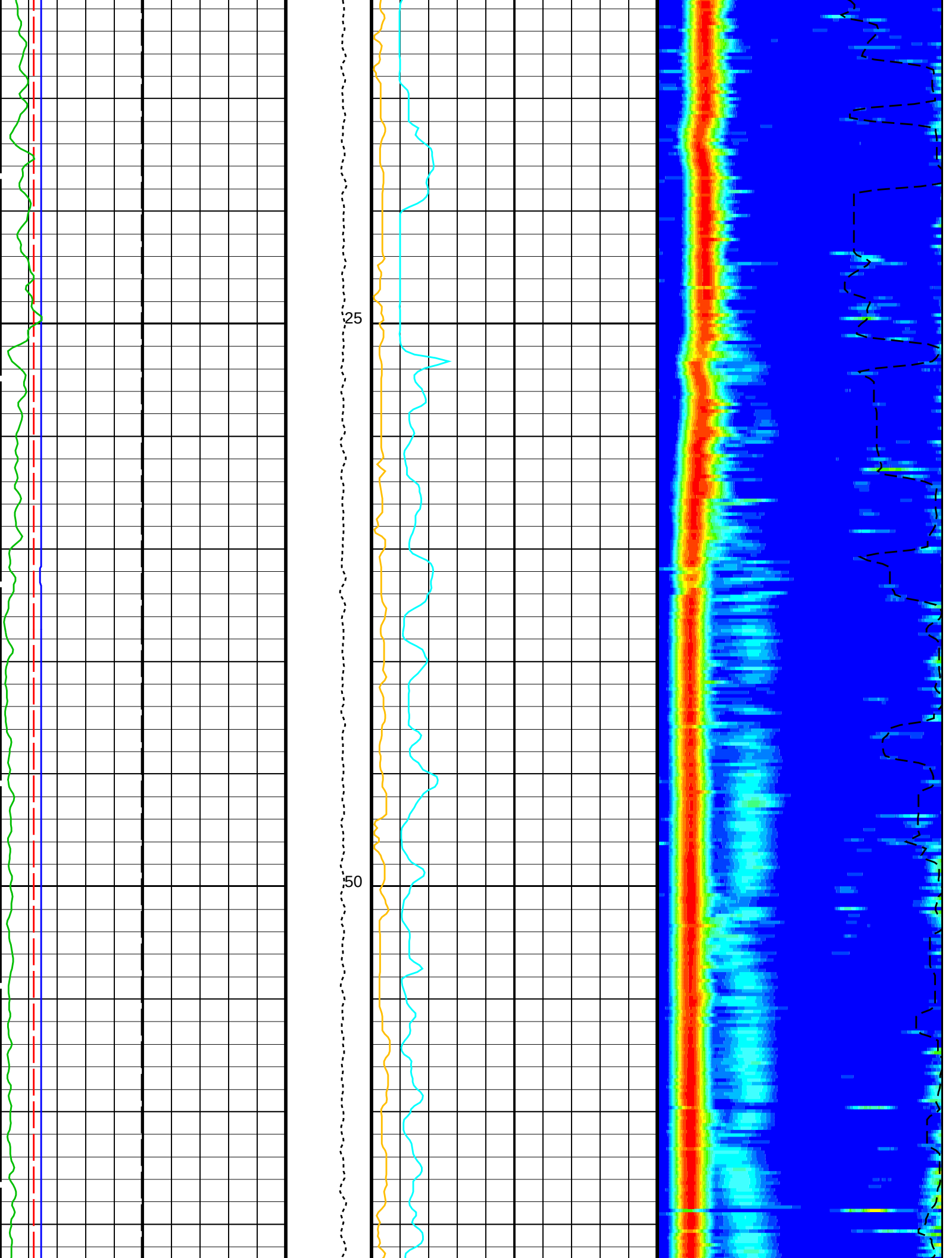
Changed Parameter Summary

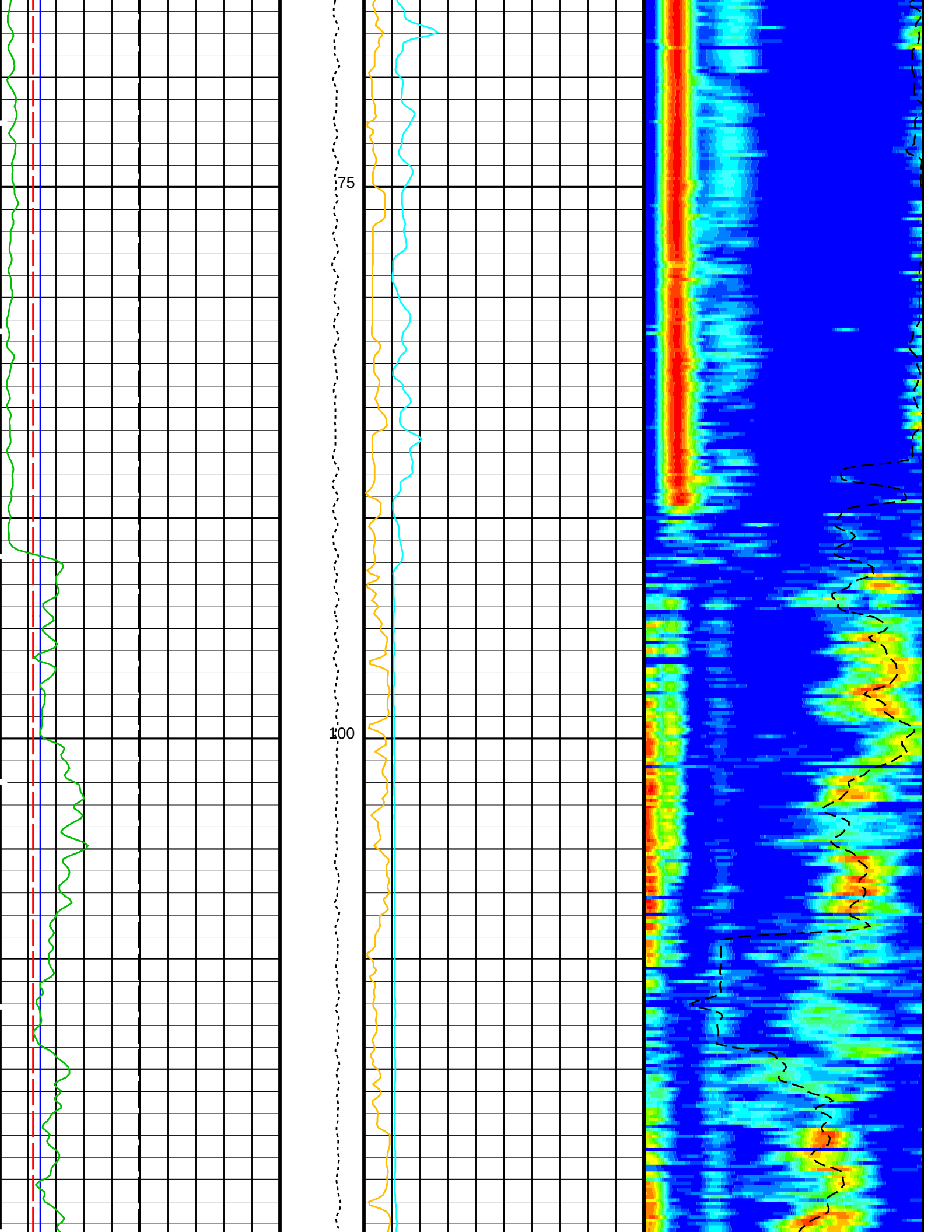
DLIS Name	New Value	Previous Value	Depth & Time
DSHL	75 US/F	75 US/F	952.3 04:25:42
	220 US/F	75 US/F	219.9 04:27:29
	75 US/F	220 US/F	91.4 04:27:48

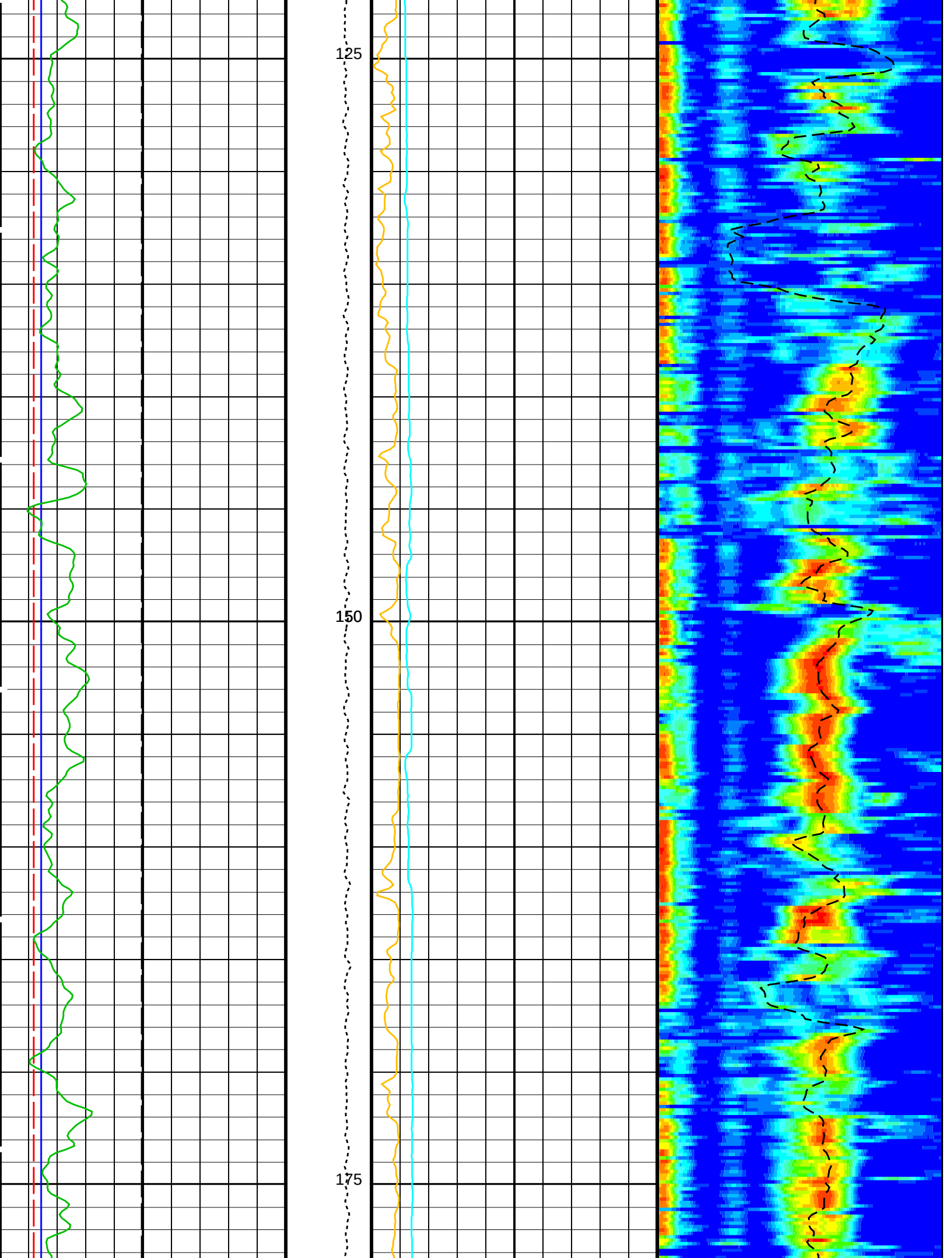
PIP SUMMARY

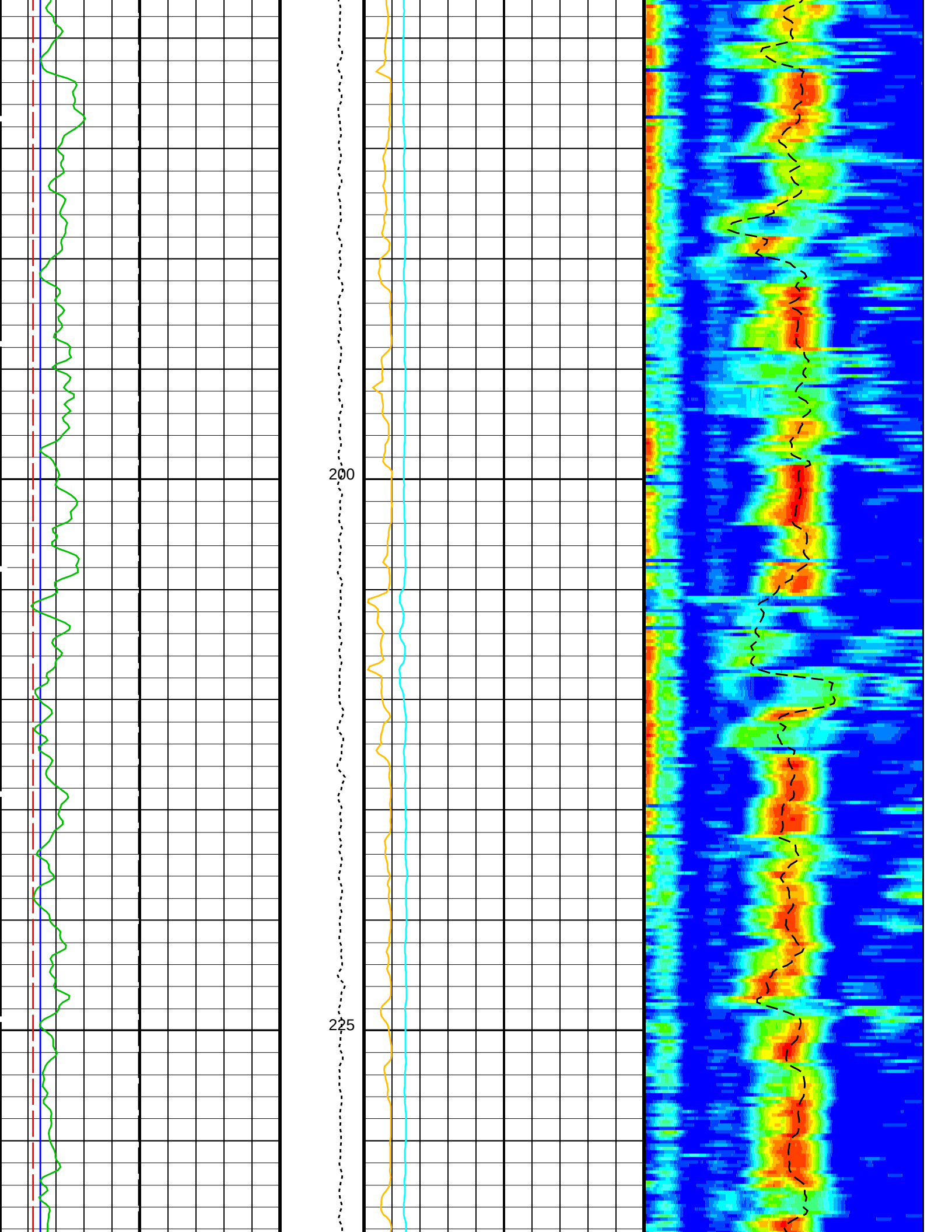
Time Mark Every 60 S

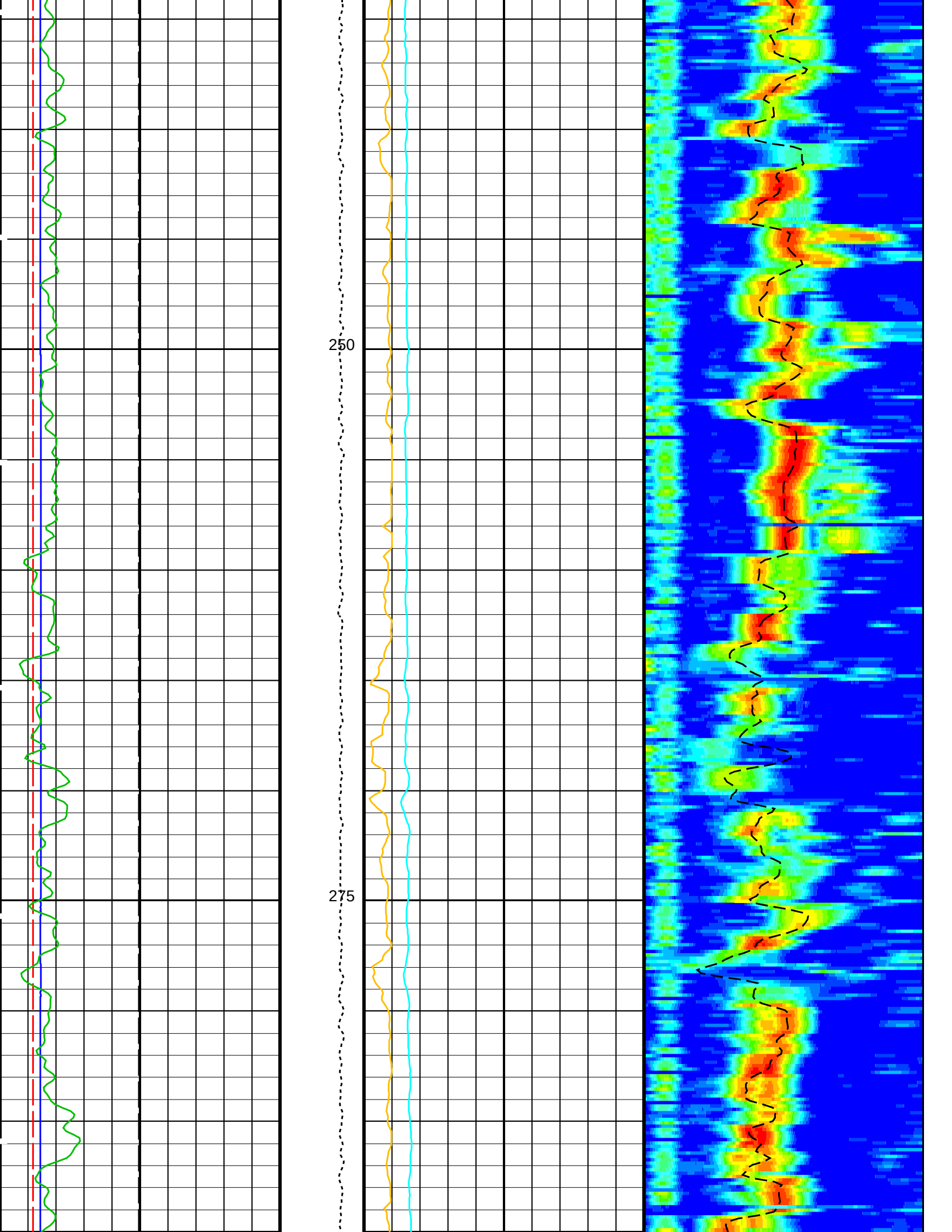


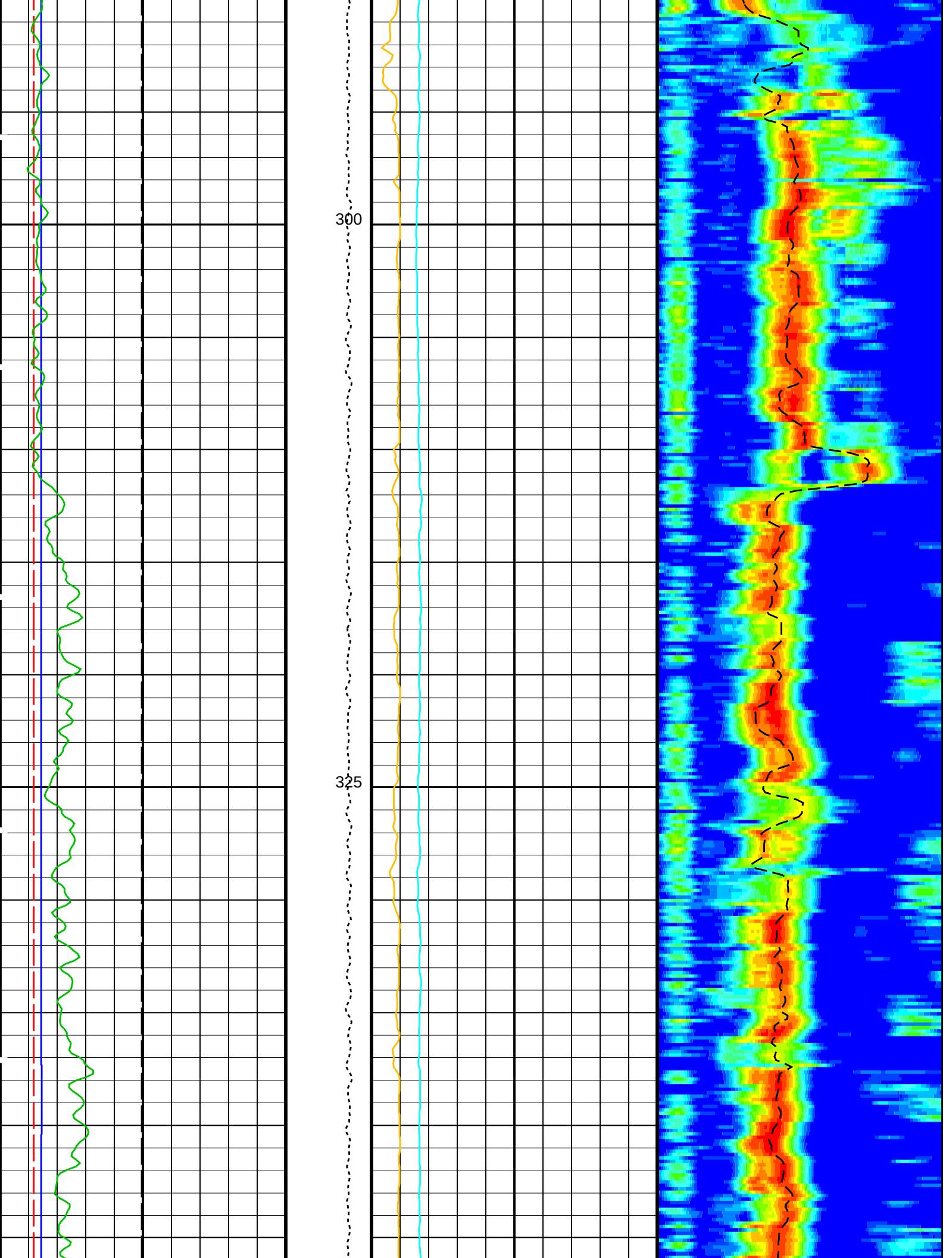

25
50

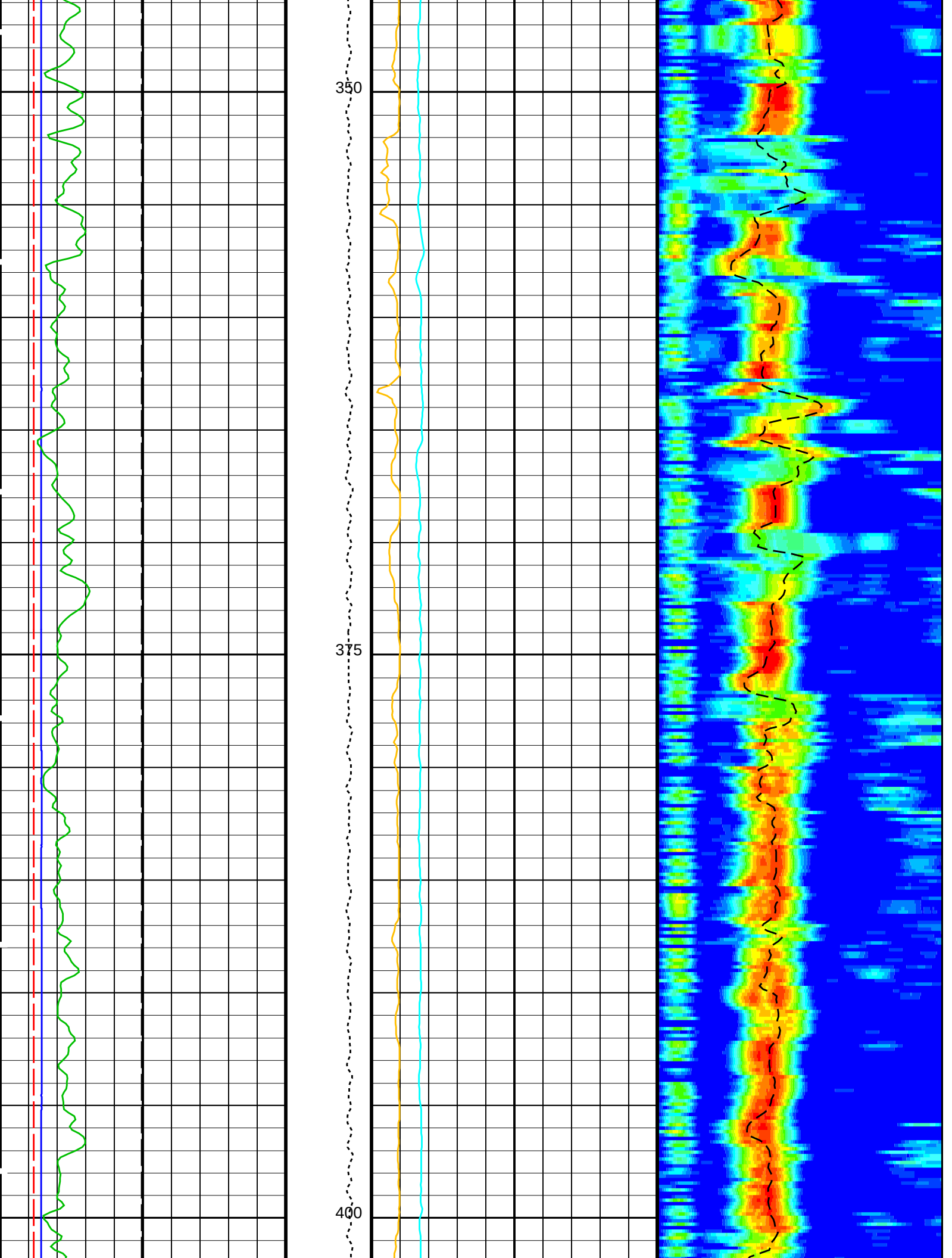

75
100

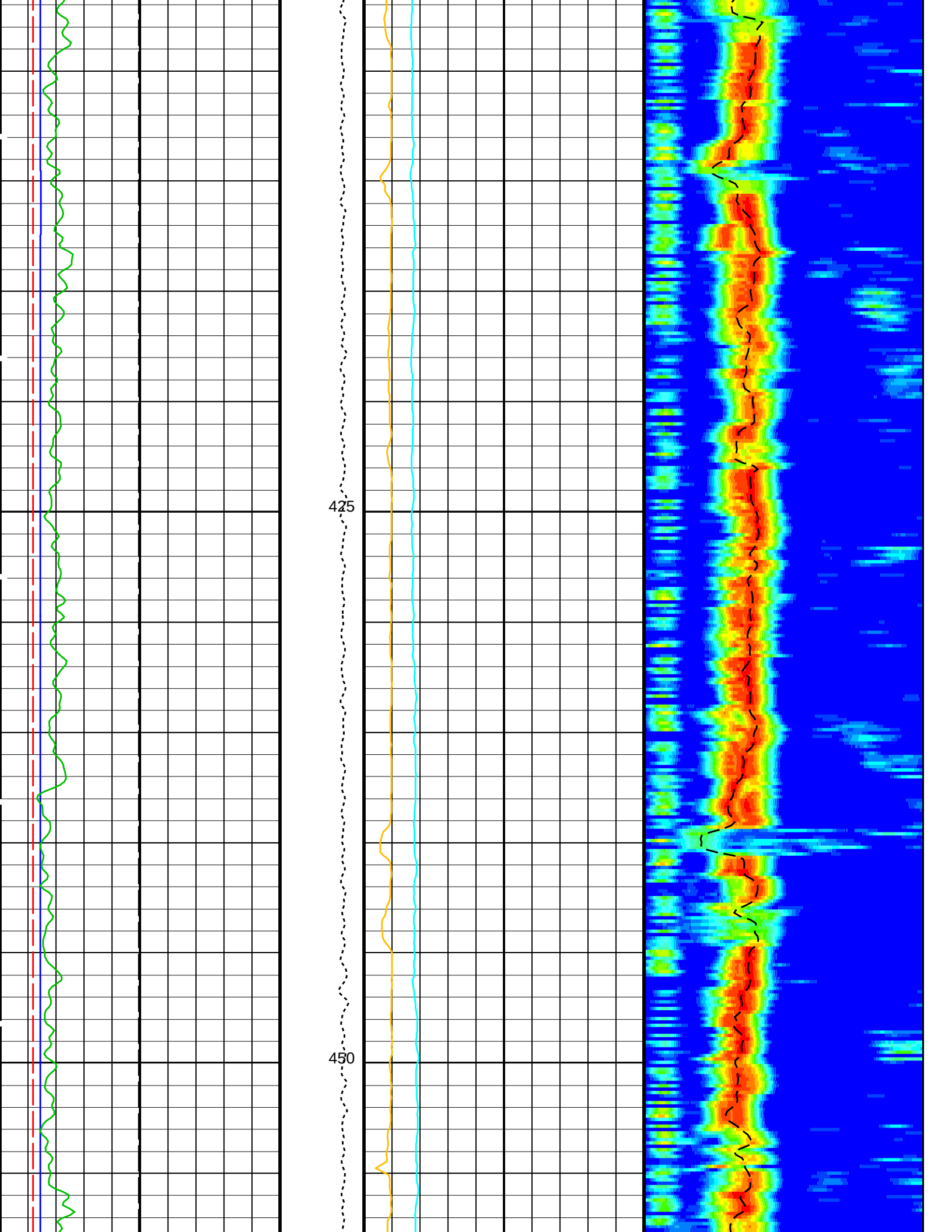

125
150
175

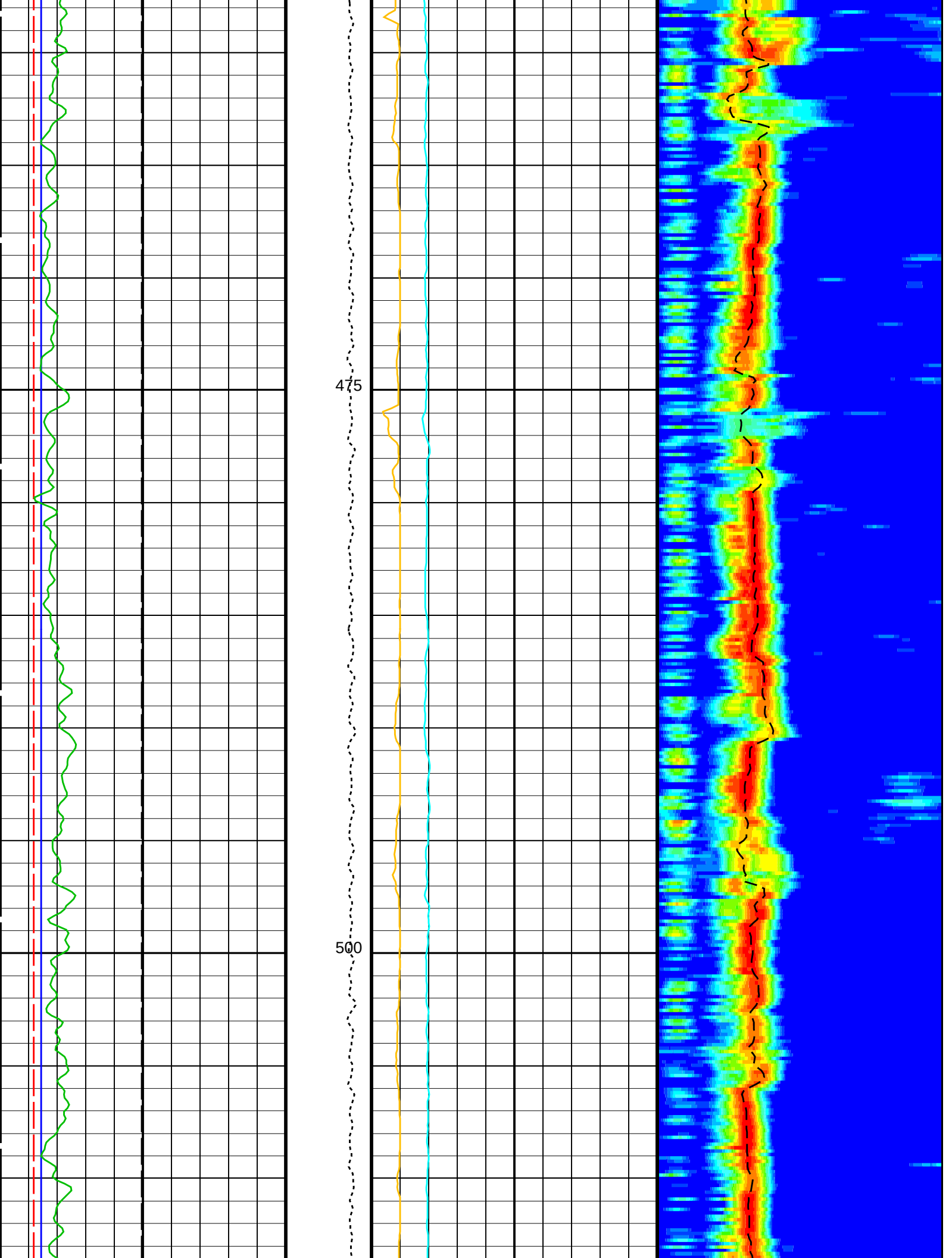

200
225

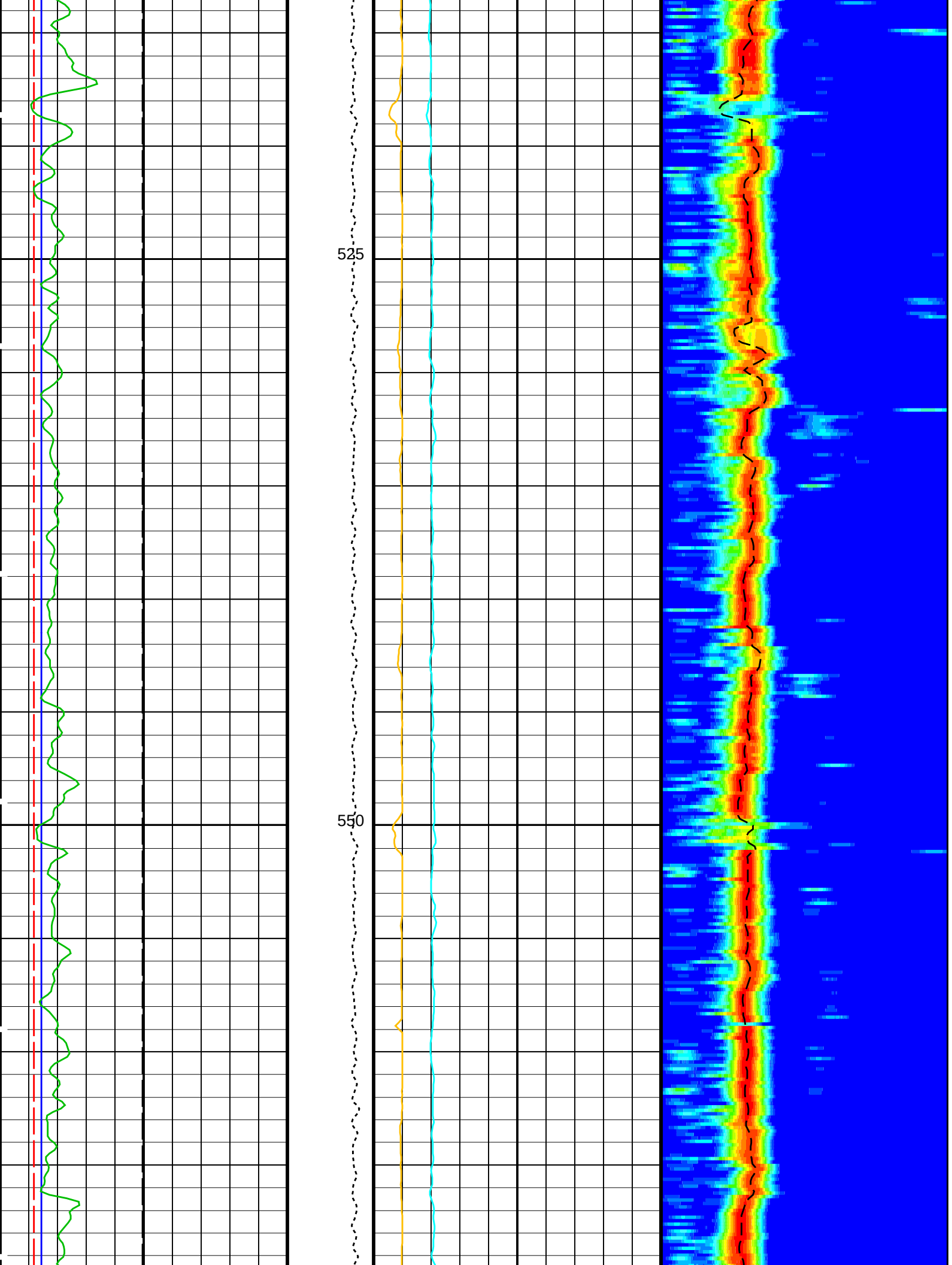

250
275

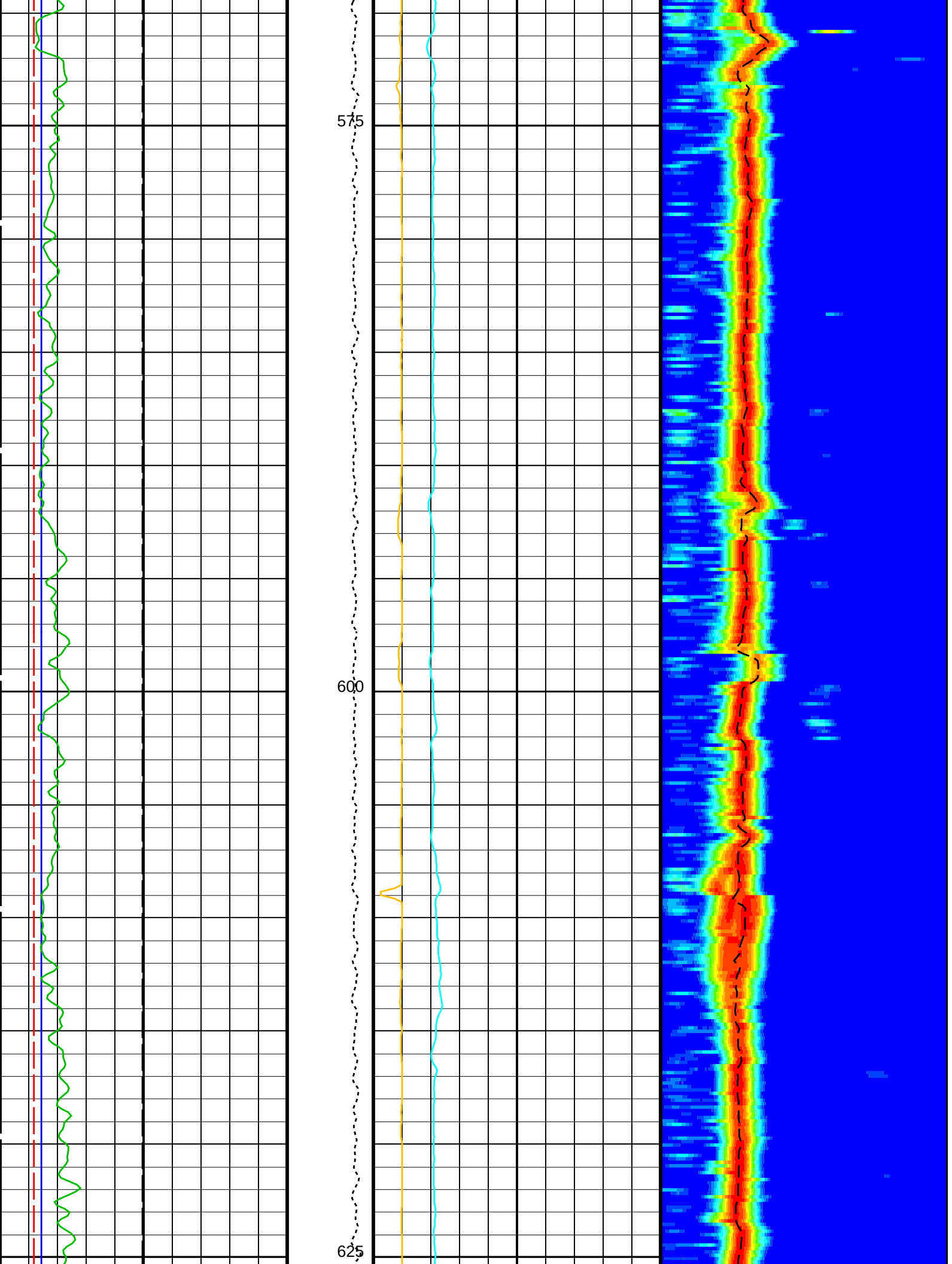

300
325

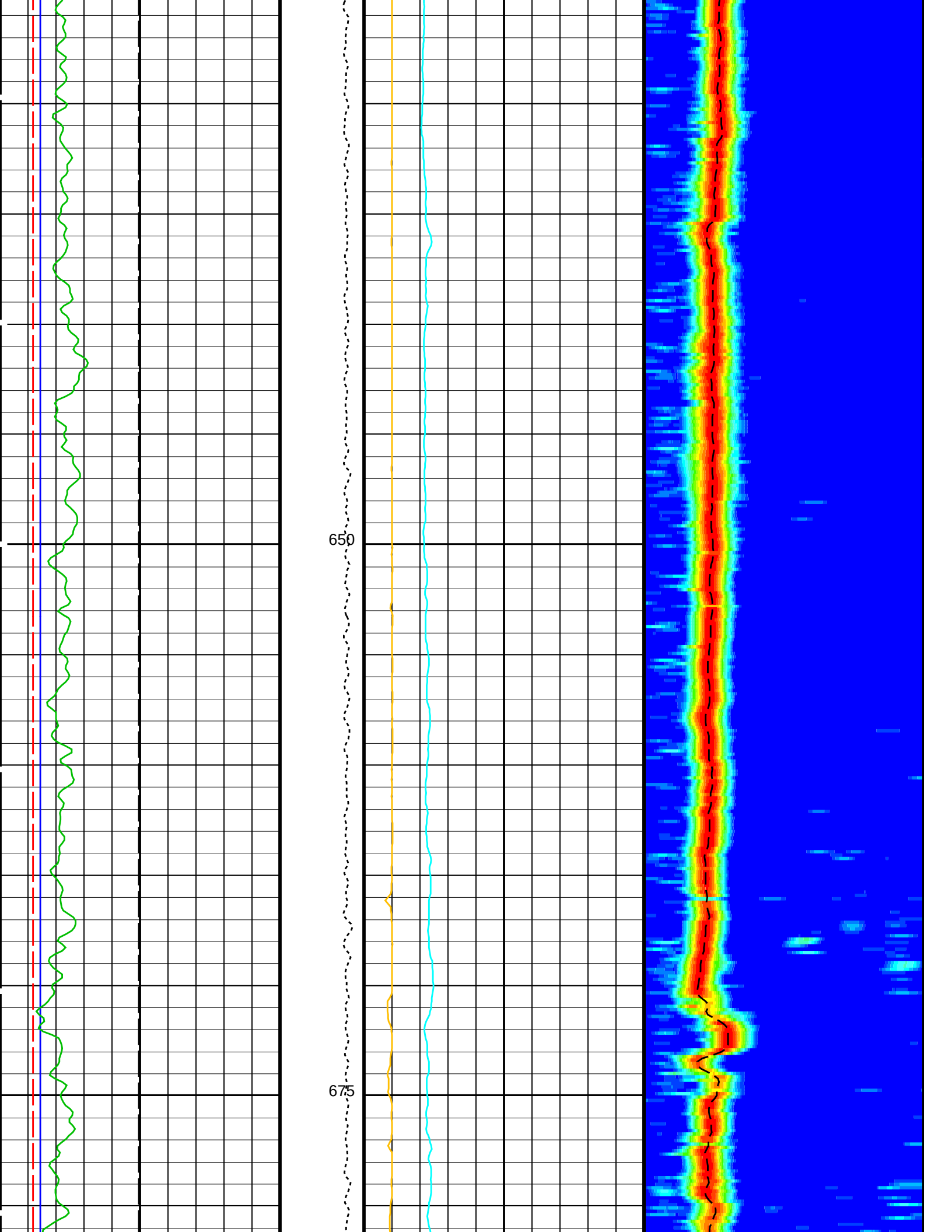

350
375
400

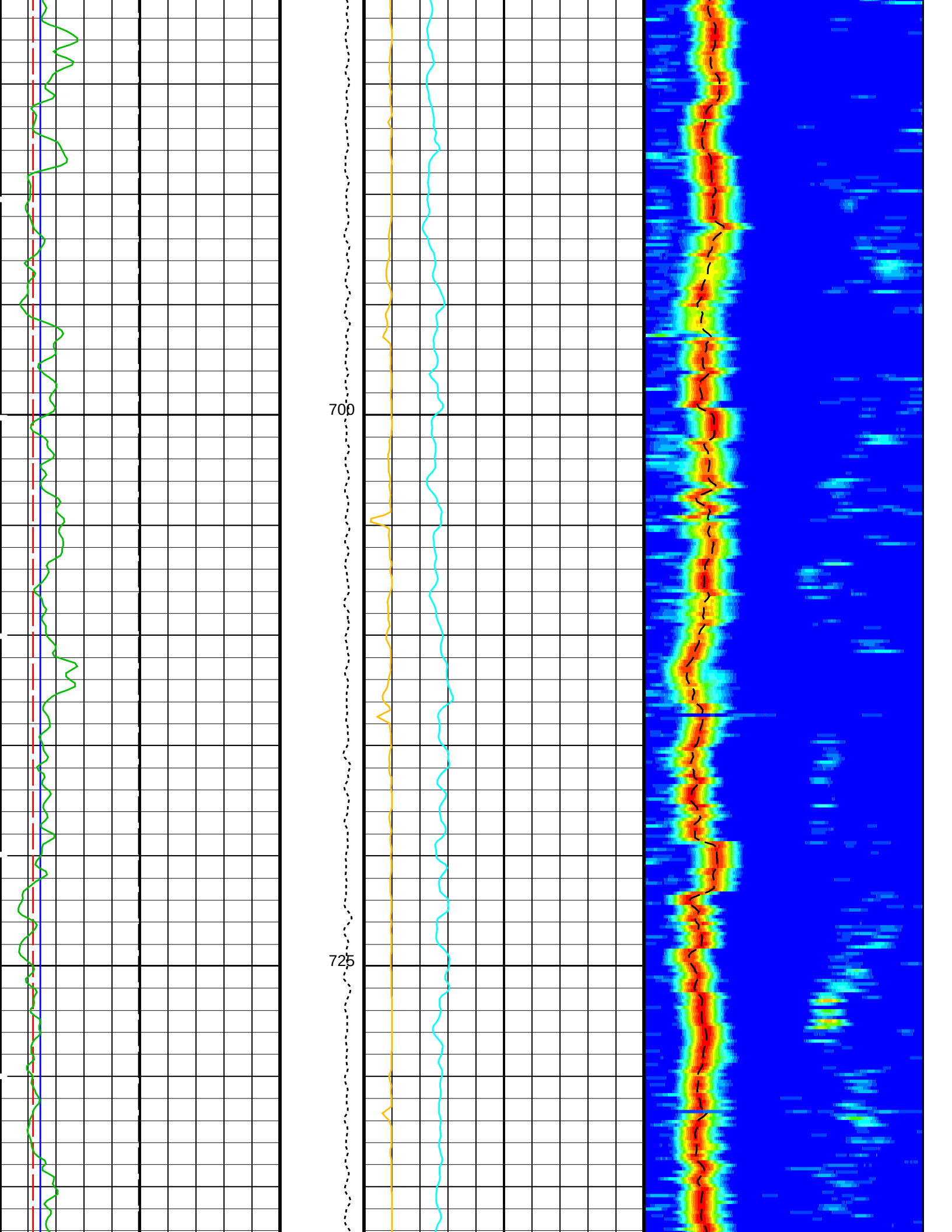

425
450

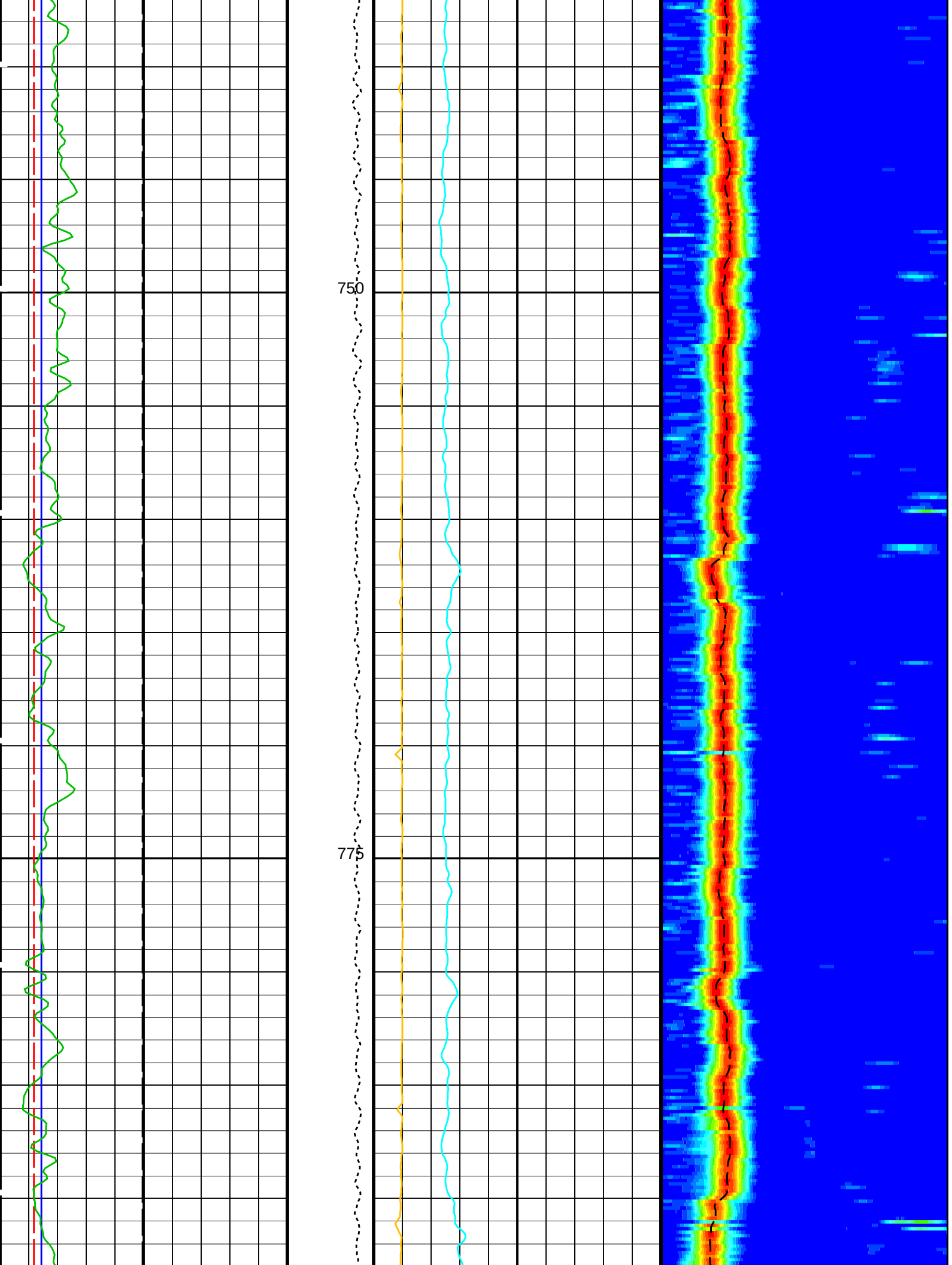

475
500

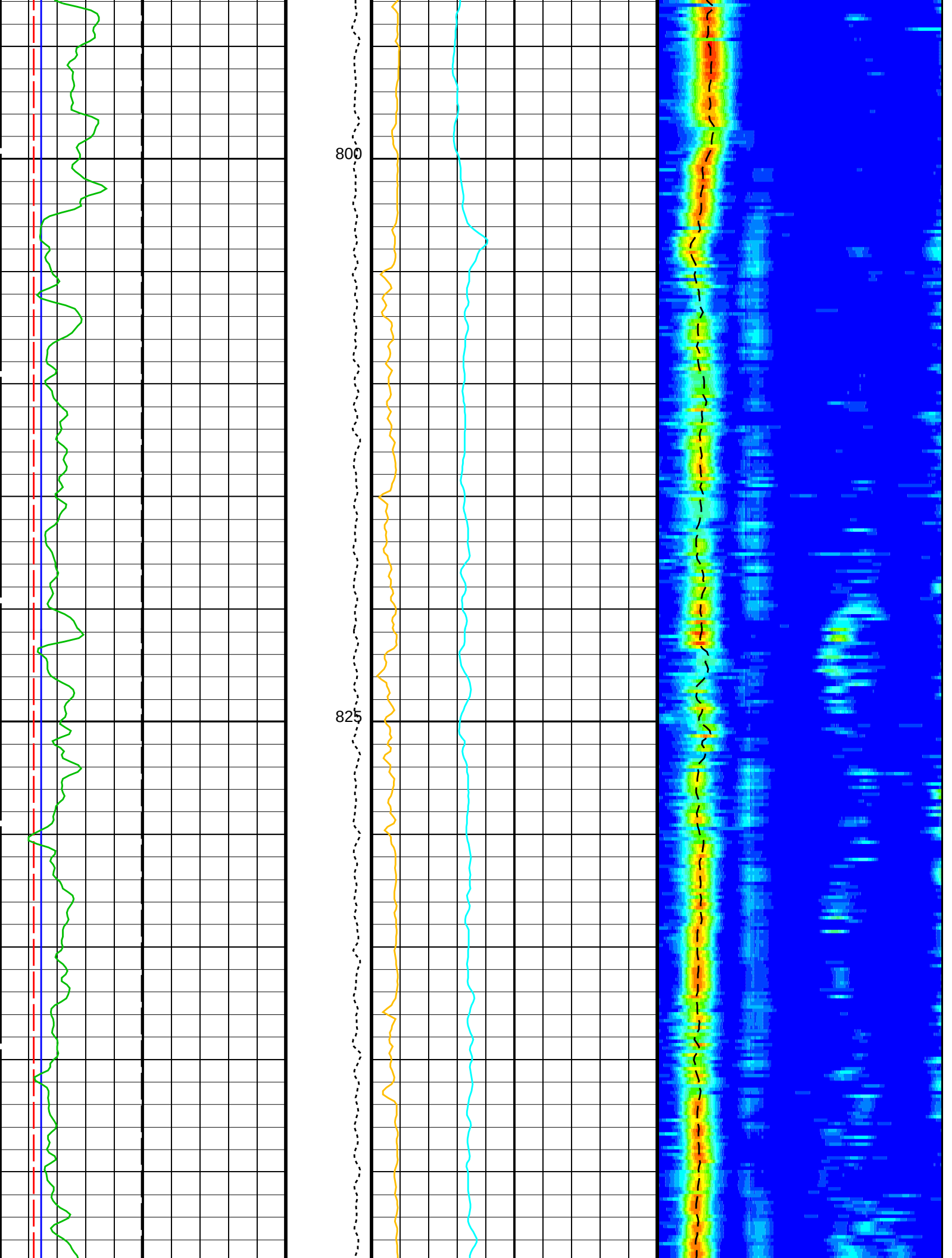

525
550

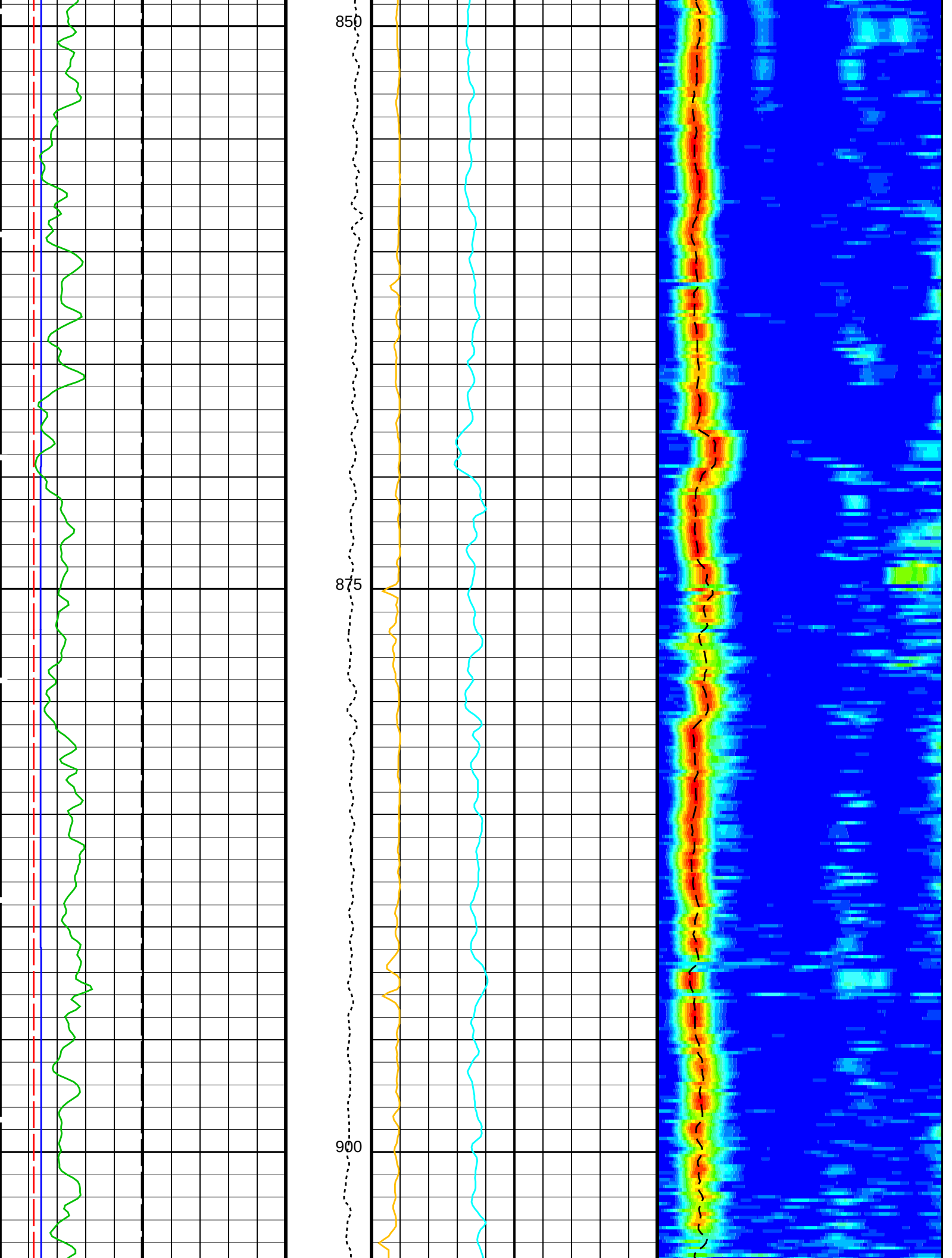

575
600
625

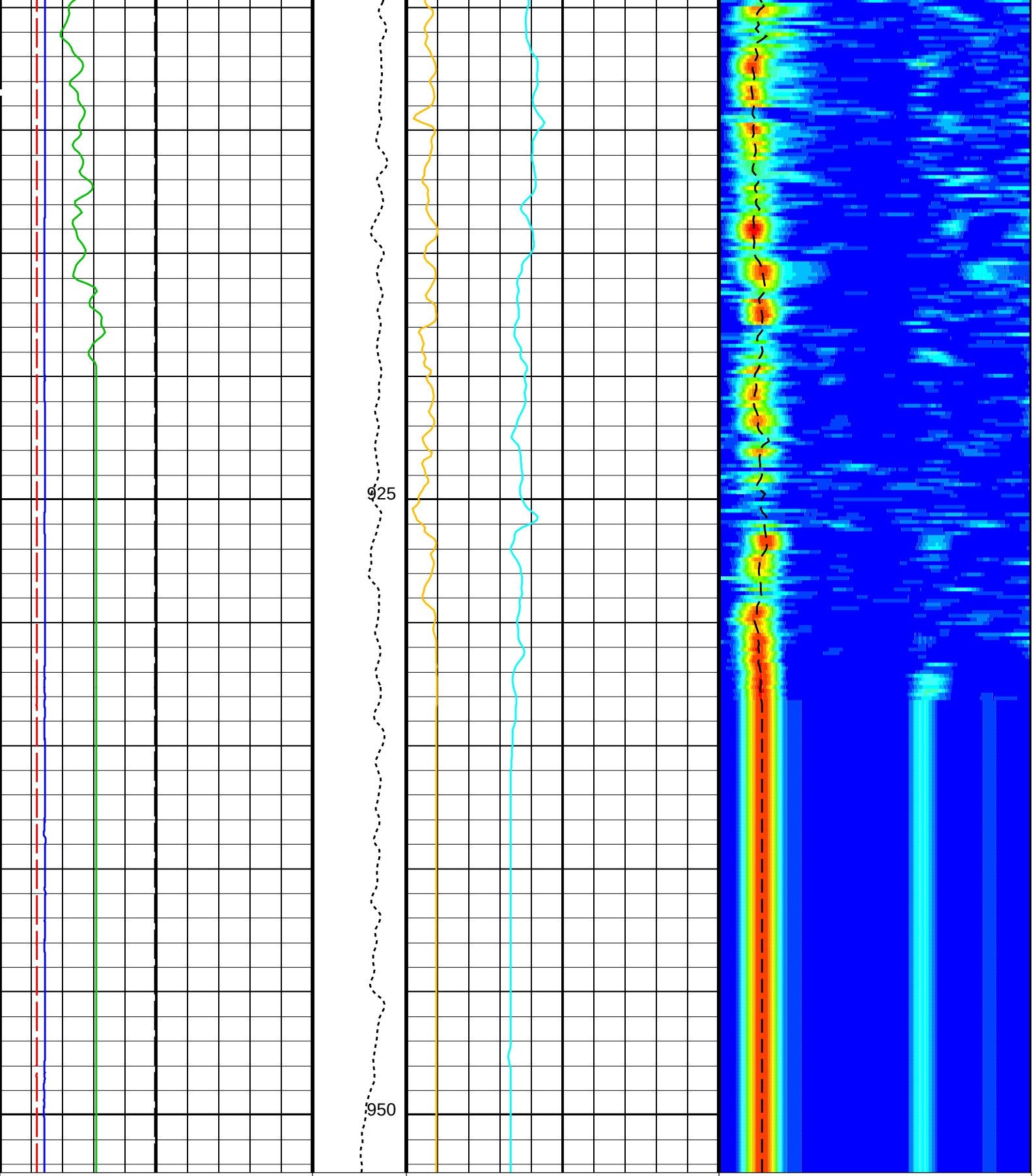

650
675


700
725


750
775


800
825


850
875
900



Bit Size (BS)	Tension (TENS)	Peak Coherence / RA − Upper Dipole (CHR2)	Delta−T Shear / RA − Upper Dipole (DT2R)
0 (IN) 20	0 (LBF) 5000	0 (−−−−) 10	75 (US/F) 1200
Caliper 1 (C1)		**Sonic Velocity (SVEL)**	**Min Amplitude Max**
0 (IN) 20		1000 (M/S) 6000	Rec.Array U.Dipole Slow Proj. CVDL (SPR2) 75 (US/F) 1200

Caliper 2 (C2)		
0	(IN)	20

Gamma Ray (GR_EDTC)		
0	(GAPI)	150

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
	DSST−B: Dipole Shear Imager − B		
DDE2	Digitizing Delay 2	0	US
DDEX	Digitizing Delay X	0	US
DLCS	Label Compressional Source − Dipole Shear	USE	
DSHL	Label Slowness Lower Limit − Dipole Shear	75	US/F
DSHU	Label Slowness Upper Limit − Dipole Shear	1200	US/F
DSI2	Digitizer Sample Interval 2	40	US
DSIX	Digitizer Sample Interval X	40	US
DTCS	Compressional Delta−T Source for DTCO Channel	PS_COMP	
DWC2	Digitizer Word Count 2	512	
DWCX	Digitizer Word Count X	512	
NWI2	Number Waveform Items 2	8	
NWIX	Number Waveform Items X	0	
RX1G	Receiver 1 Geometry	294	IN
RX2G	Receiver 2 Geometry	300	IN
RX3G	Receiver 3 Geometry	306	IN
RX4G	Receiver 4 Geometry	312	IN
RX5G	Receiver 5 Geometry	318	IN
RX6G	Receiver 6 Geometry	324	IN
RX7G	Receiver 7 Geometry	330	IN
RX8G	Receiver 8 Geometry	336	IN
SAM2	DSST Sonic Acquisition Mode 2 − Upper Dipole Mode	ODD	
SAMX	DSST Sonic Acquisition Mode X − Both Dipoles or Monopole Mode for Expert	OFF	
SAS2	STC Sonic Array Status − Upper Dipole	255	
SBO2	STC Search Band Offset − Upper Dipole	3000	US
SBW2	STC Search Bandwidth − Upper Dipole	8000	US
SFC2	STC Formation Character − Upper Dipole	SELECTABLE	
SFM2	STC Filter − Upper Dipole	B1−2K	
SLL2	STC Slowness Lower Limit − Upper Dipole	75	US/F
SST2	STC Slowness Step − Upper Dipole	4	US/F
SSW2	STC Source Waveform − Upper Dipole	WF_SAM2	
SUL2	STC Slowness Upper Limit − Upper Dipole	1200	US/F
SWD2	STC Slowness Width − Upper Dipole	40	US/F
TBF2	STC Time for Baseline Fill − Upper Dipole	0	US
TLL2	STC Time Lower Limit − Upper Dipole	600	US
TST2	STC Time Step − Upper Dipole	200	US
TUL2	STC Time Upper Limit − Upper Dipole	20200	US
TWD2	STC Time Width − Upper Dipole	2000	US
TWI2	STC Integration Time Window − Upper Dipole	1600	US
TWSX	Transmitter Waveform Select X	0	
UTXG	Upper Dipole Transmitter Geometry	162	IN
	System and Miscellaneous		
BS	Bit Size	9.875	IN
DO	Depth Offset for Playback	−2123.5	M
PP	Playback Processing	RECOMPUTE	

Format: DSST_UPPER_DIPOLE_VDL_COLOR Vertical Scale: 1:200 Graphics File Created: 25−Apr−2014 04:25

OP System Version: 19C0−187

MEST−B	19C0−187	DTA−A	8453
DSST−B	19C0−187	HNGC−B	19C0−187
HNGS−BA	19C0−187	EDTC−B	SKK−5169−EDTCB

Input DLIS Files

DEFAULT	Flip_FMS_DSI_NGS_044LUP	PRODUCER	25−Apr−2014 03:46	3075.9 M	2098.5 M

Output DLIS Files

DEFAULT	FMS_DSI_NGS_047PUP	FN:57	PRODUCER	25−Apr−2014 04:25
CLIENT	FMS_DSI_NGS_047PUC	FN:58	CUSTOMER	25−Apr−2014 04:25

Schlumberger

Repeat Pass
1:200 Scale

MAXIS Field Log

Input DLIS Files

DEFAULT	FMS_DSI_NGS_025LUP	FN:28	PRODUCER	22−Apr−2014 20:12	3074.7 M	2750.5 M

Output DLIS Files

DEFAULT	FMS_DSI_NGS_052PUP	FN:67	PRODUCER	25−Apr−2014 04:57	951.0 M	627.6 M
CLIENT	FMS_DSI_NGS_052PUC	FN:68	CUSTOMER	25−Apr−2014 04:57	951.0 M	627.6 M

OP System Version: 19C0−187

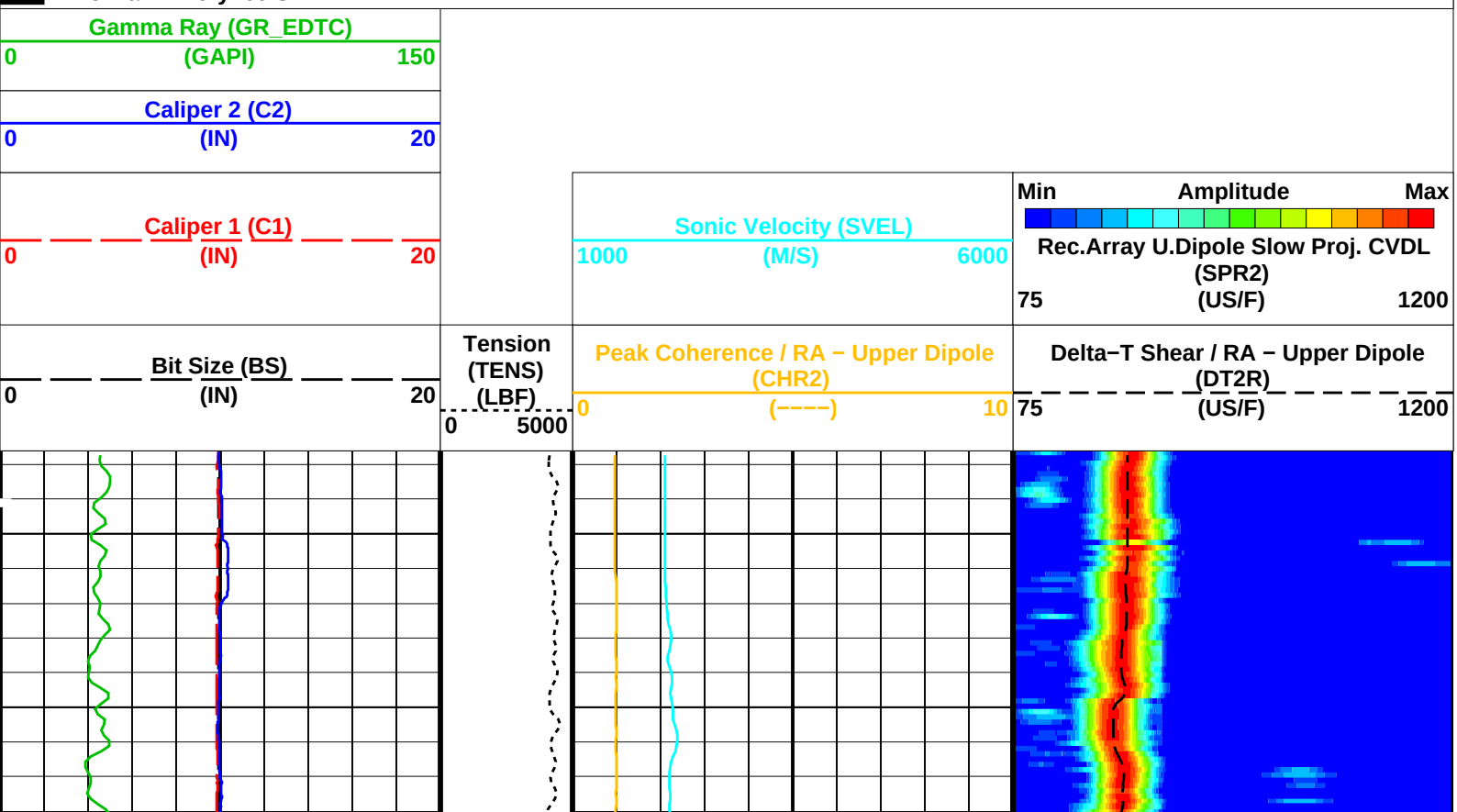
MEST−B	19C0−187	DTA−A	8453
DSST−B	19C0−187	HNGC−B	19C0−187
HNGS−BA	19C0−187	EDTC−B	SKK−5169−EDTCB

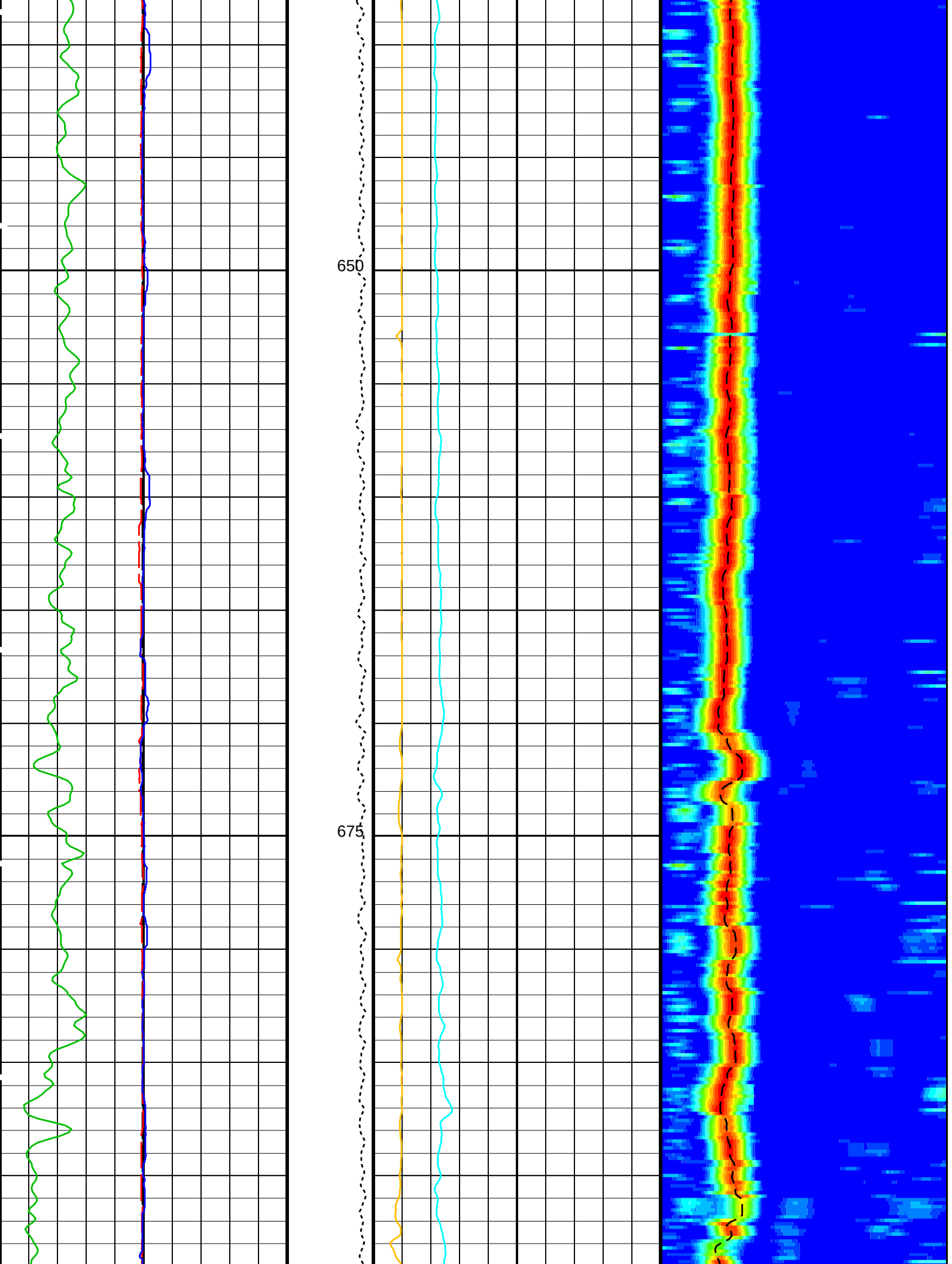
Changed Parameter Summary

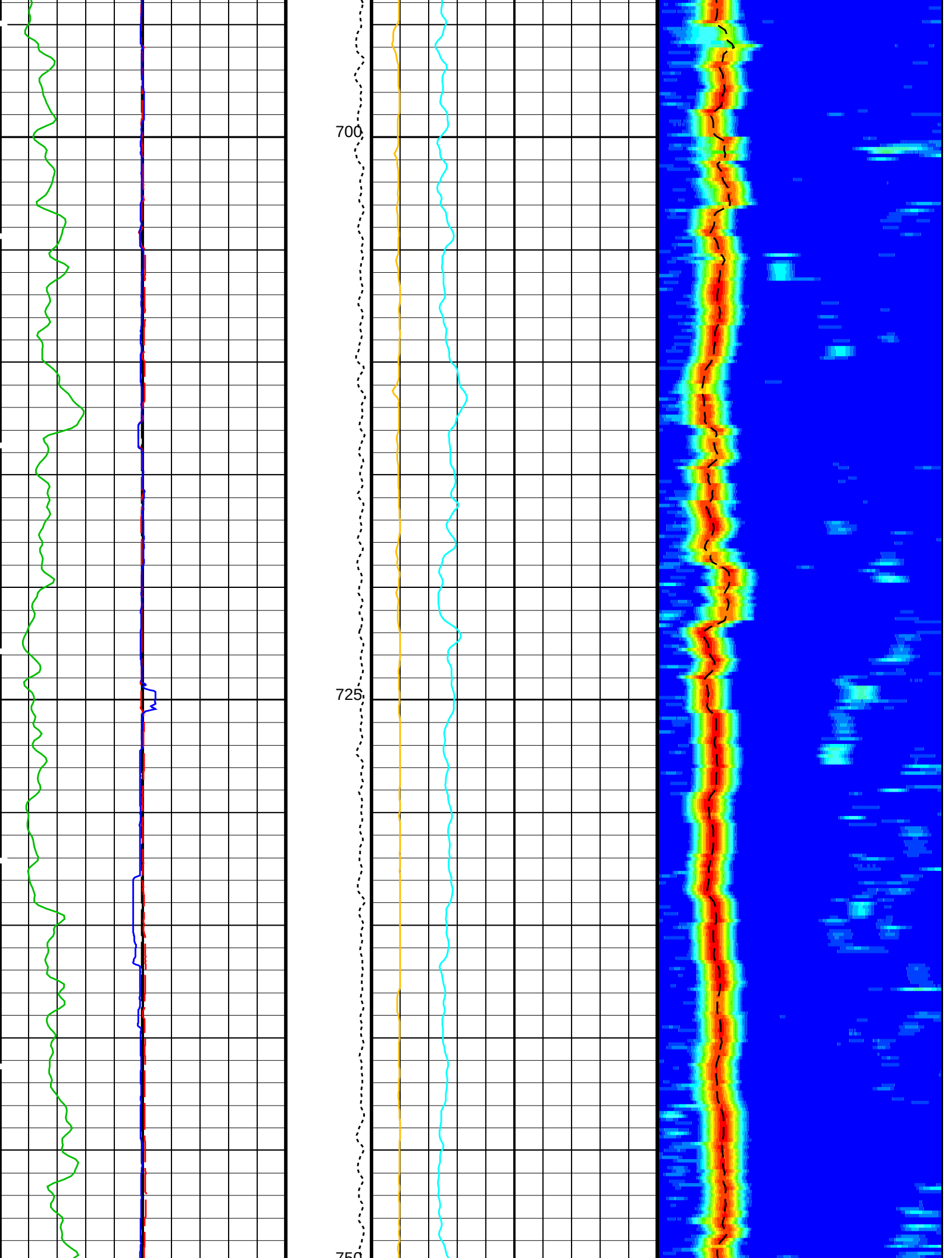
DLIS Name	New Value	Previous Value	Depth & Time
DSHL	75 US/F	75 US/F	951.0 04:57:05
	75 US/F	75 US/F	799.9 04:57:25
DSHU	400 US/F	1200 US/F	951.0 04:57:05
	1200 US/F	400 US/F	799.9 04:57:25

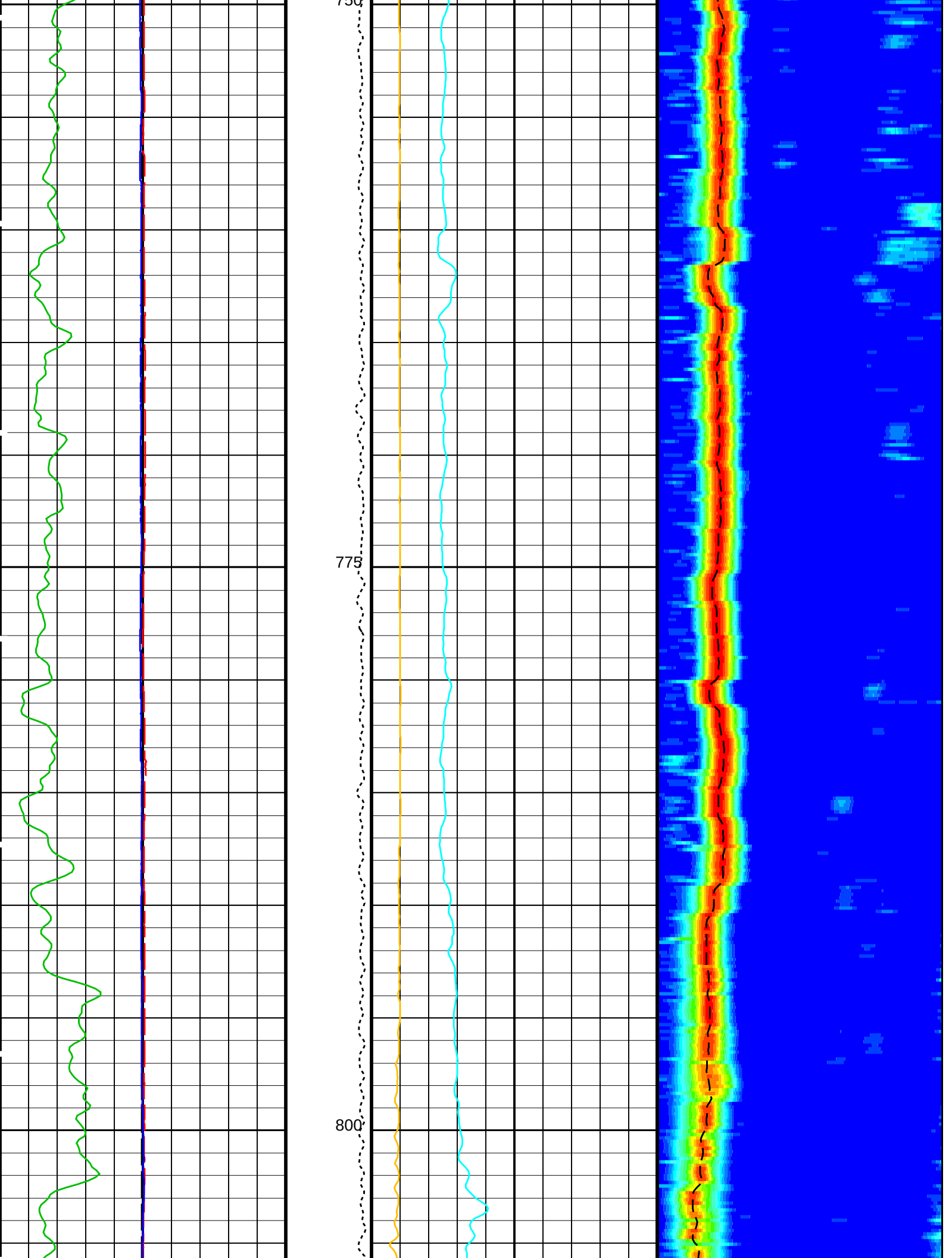
PIP SUMMARY

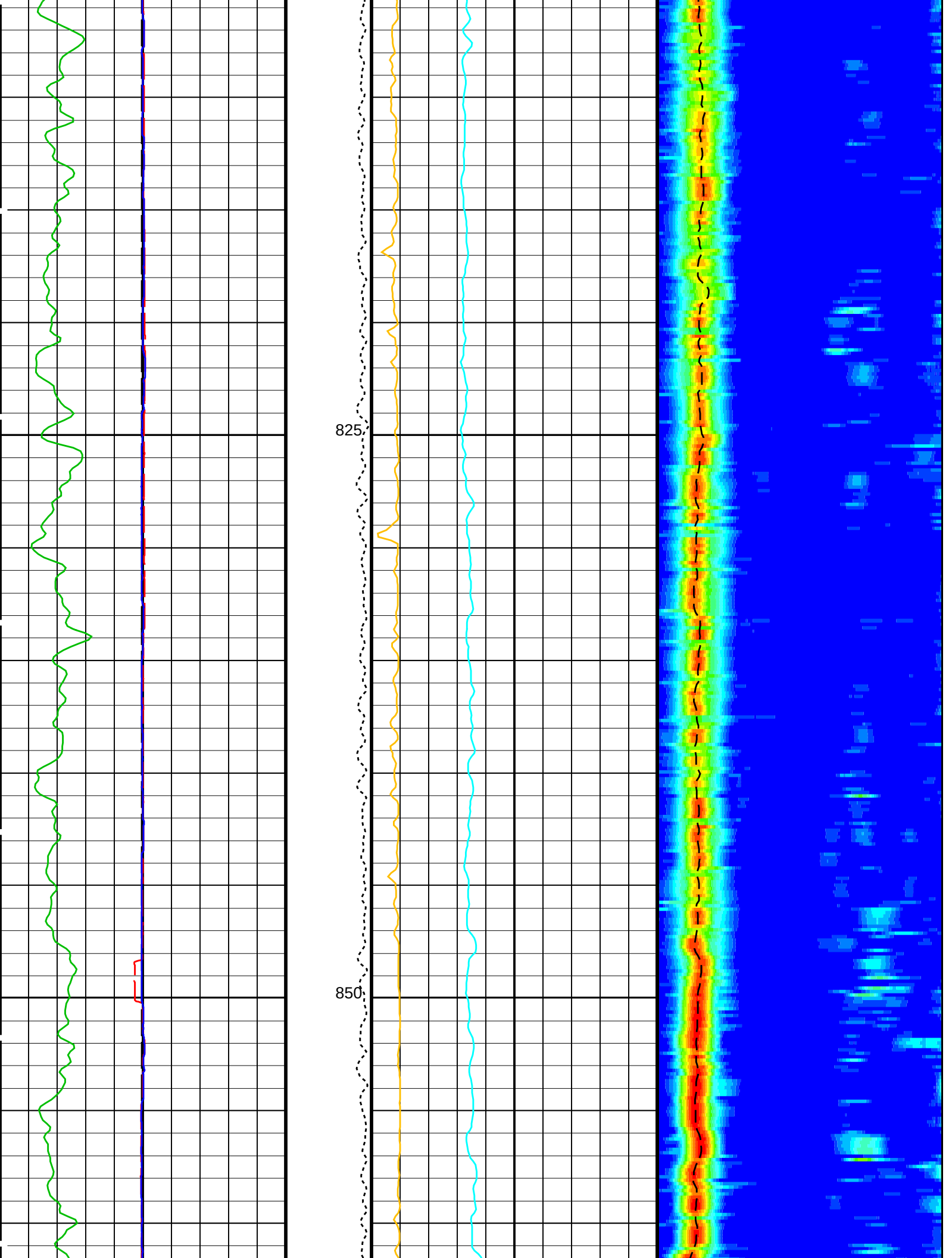
Time Mark Every 60 S

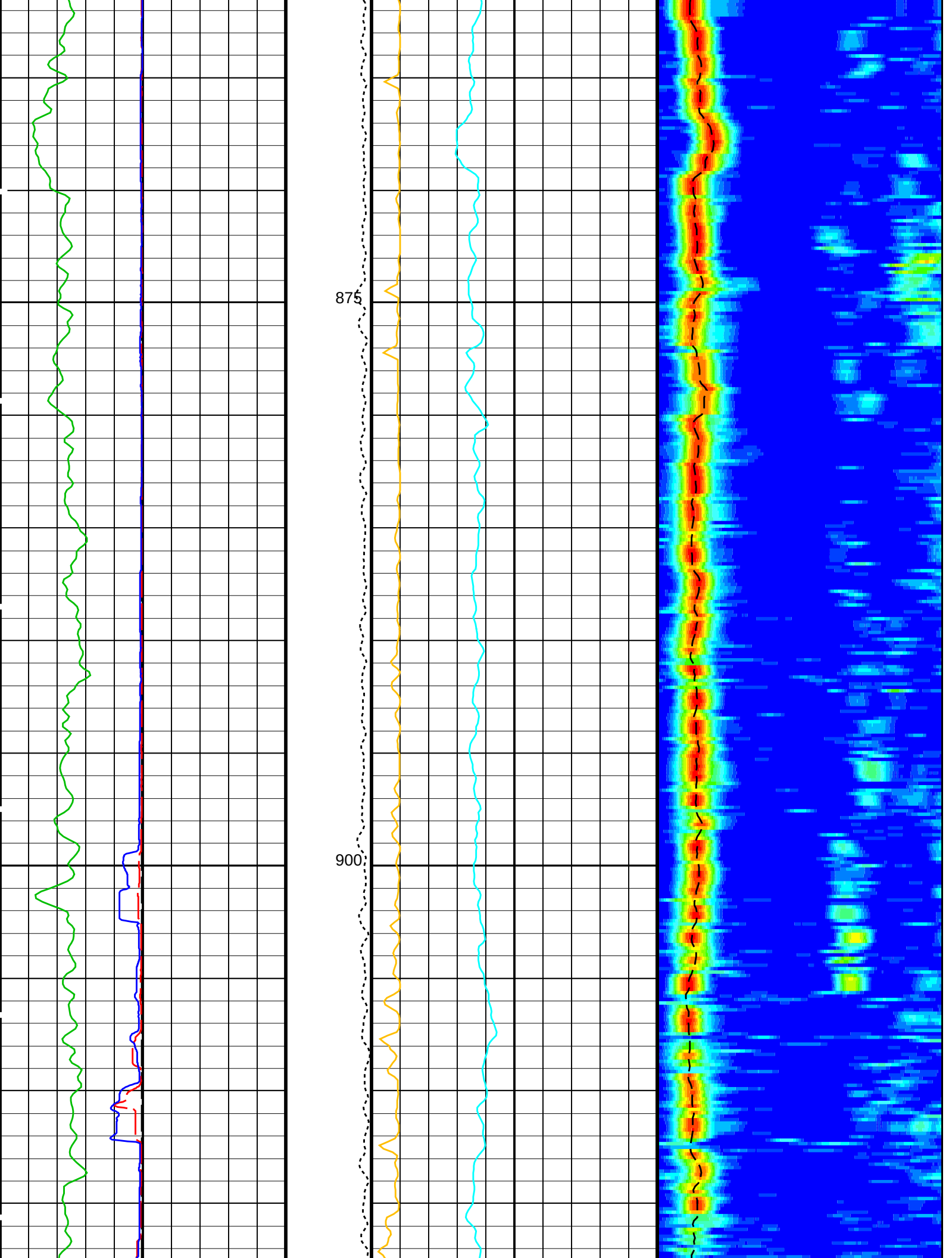


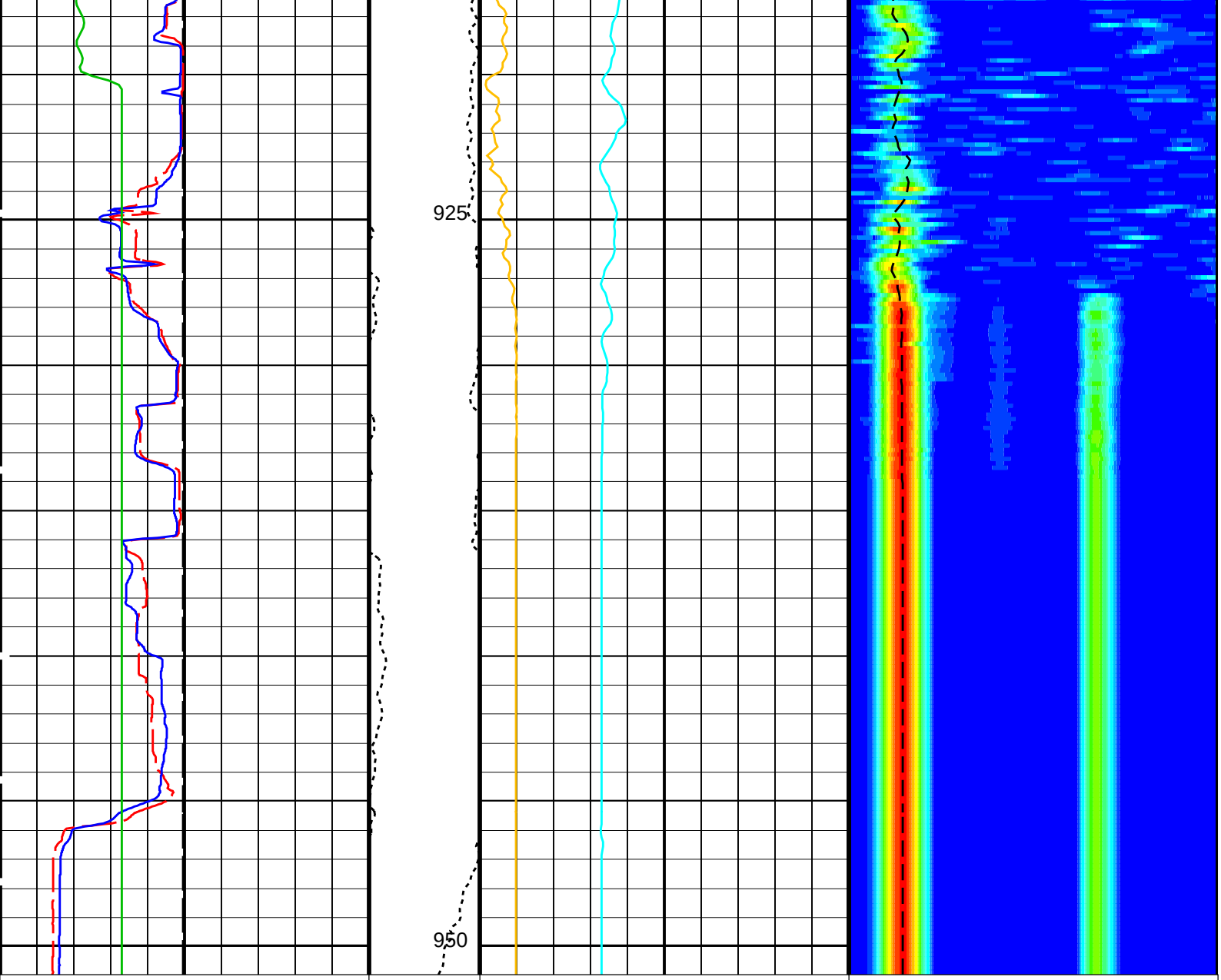

650
675


700
725
750


750
775
800


825
850


875
900



Bit Size (BS)
0 (IN) 20

Caliper 1 (C1)
0 (IN) 20

Caliper 2 (C2)
0 (IN) 20

Gamma Ray (GR_EDTC)
0 (GAPI) 150

Tension (TENS) (LBF)
0 5000

Peak Coherence / RA − Upper Dipole (CHR2)
0 (−−−−) 10

Sonic Velocity (SVEL)
1000 (M/S) 6000

Delta−T Shear / RA − Upper Dipole (DT2R)
75 (US/F) 1200

Min Amplitude Max

Rec.Array U.Dipole Slow Proj. CVDL (SPR2)
75 (US/F) 1200

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
	DSST−B: Dipole Shear Imager − B		
DDE2	Digitizing Delay 2	0	US
DDEX	Digitizing Delay X	0	US
DLCS	Label Compressional Source − Dipole Shear	USE	
DSHL	Label Slowness Lower Limit − Dipole Shear	75	US/F
DSHU	Label Slowness Upper Limit − Dipole Shear	1200	US/F

DSI2	Digitizer Sample Interval 2	40	US
DSIX	Digitizer Sample Interval X	40	US
DTCS	Compressional Delta−T Source for DTCO Channel	PS_COMP	
DWC2	Digitizer Word Count 2	512	
DWCX	Digitizer Word Count X	512	
NWI2	Number Waveform Items 2	8	
NWIX	Number Waveform Items X	0	
RX1G	Receiver 1 Geometry	294	IN
RX2G	Receiver 2 Geometry	300	IN
RX3G	Receiver 3 Geometry	306	IN
RX4G	Receiver 4 Geometry	312	IN
RX5G	Receiver 5 Geometry	318	IN
RX6G	Receiver 6 Geometry	324	IN
RX7G	Receiver 7 Geometry	330	IN
RX8G	Receiver 8 Geometry	336	IN
SAM2	DSST Sonic Acquisition Mode 2 − Upper Dipole Mode	ODD	
SAMX	DSST Sonic Acquisition Mode X − Both Dipoles or Monopole Mode for Expert	OFF	
SAS2	STC Sonic Array Status − Upper Dipole	255	
SBO2	STC Search Band Offset − Upper Dipole	3000	US
SBW2	STC Search Bandwidth − Upper Dipole	8000	US
SFC2	STC Formation Character − Upper Dipole	SELECTABLE	
SFM2	STC Filter − Upper Dipole	B1−2K	
SLL2	STC Slowness Lower Limit − Upper Dipole	75	US/F
SST2	STC Slowness Step − Upper Dipole	4	US/F
SSW2	STC Source Waveform − Upper Dipole	WF_SAM2	
SUL2	STC Slowness Upper Limit − Upper Dipole	1200	US/F
SWD2	STC Slowness Width − Upper Dipole	40	US/F
TBF2	STC Time for Baseline Fill − Upper Dipole	0	US
TLL2	STC Time Lower Limit − Upper Dipole	600	US
TST2	STC Time Step − Upper Dipole	200	US
TUL2	STC Time Upper Limit − Upper Dipole	20200	US
TWD2	STC Time Width − Upper Dipole	2000	US
TWI2	STC Integration Time Window − Upper Dipole	1600	US
TWSX	Transmitter Waveform Select X	0	
UTXG	Upper Dipole Transmitter Geometry	162	IN
	System and Miscellaneous		
BS	Bit Size	9.875	IN
DO	Depth Offset for Playback	−2122.9	M
PP	Playback Processing	RECOMPUTE	

Format: DSST_UPPER_DIPOLE_VDL_COLOR **Vertical Scale: 1:200** **Graphics File Created: 25−Apr−2014 04:57**

OP System Version: 19C0−187

MEST−B	19C0−187	DTA−A	8453
DSST−B	19C0−187	HNGC−B	19C0−187
HNGS−BA	19C0−187	EDTC−B	SKK−5169−EDTCB

Input DLIS Files

DEFAULT	FMS_DSI_NGS_025LUP	FN:28	PRODUCER	22−Apr−2014 20:12	3074.7 M	2750.5 M

Output DLIS Files

DEFAULT	FMS_DSI_NGS_052PUP	FN:67	PRODUCER	25−Apr−2014 04:57
CLIENT	FMS_DSI_NGS_052PUC	FN:68	CUSTOMER	25−Apr−2014 04:57

Schlumberger

Main Pass
1:200 Scale

MAXIS Field Log

Input DLIS Files

DEFAULT	FMS_DSI_NGS_026LUP	FN:30	PRODUCER	22−Apr−2014 21:11	3070.1 M	2260.1 M

Output DLIS Files

DEFAULT	FMS_DSI_NGS_050PUP	FN:63	PRODUCER	25−Apr−2014 04:51	946.4 M	137.5 M
CLIENT	FMS_DSI_NGS_050PUC	FN:64	CUSTOMER	25−Apr−2014 04:51	946.4 M	137.5 M

OP System Version: 19C0−187

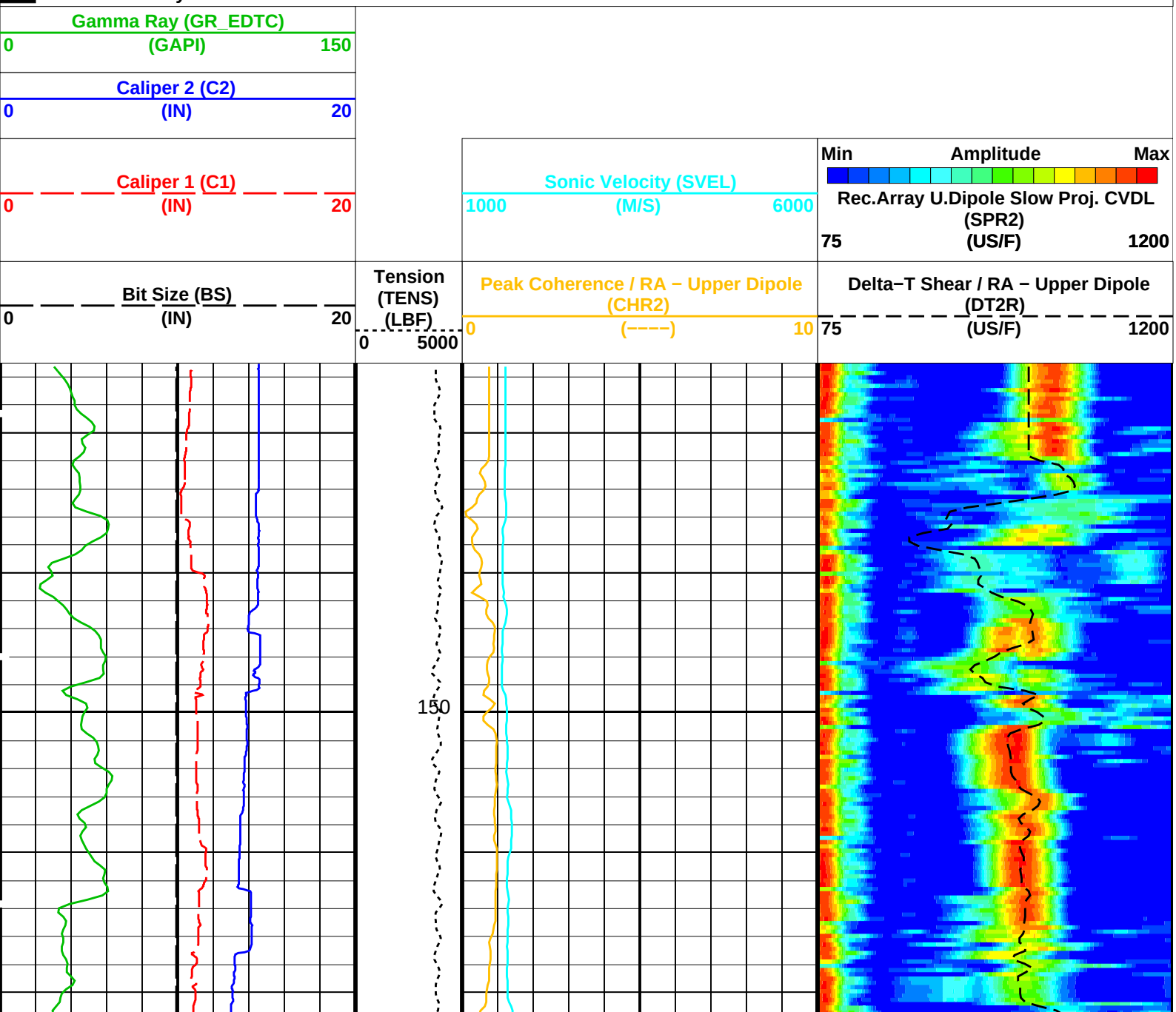
MEST−B	19C0−187	DTA−A	8453
DSST−B	19C0−187	HNGC−B	19C0−187
HNGS−BA	19C0−187	EDTC−B	SKK−5169−EDTCB

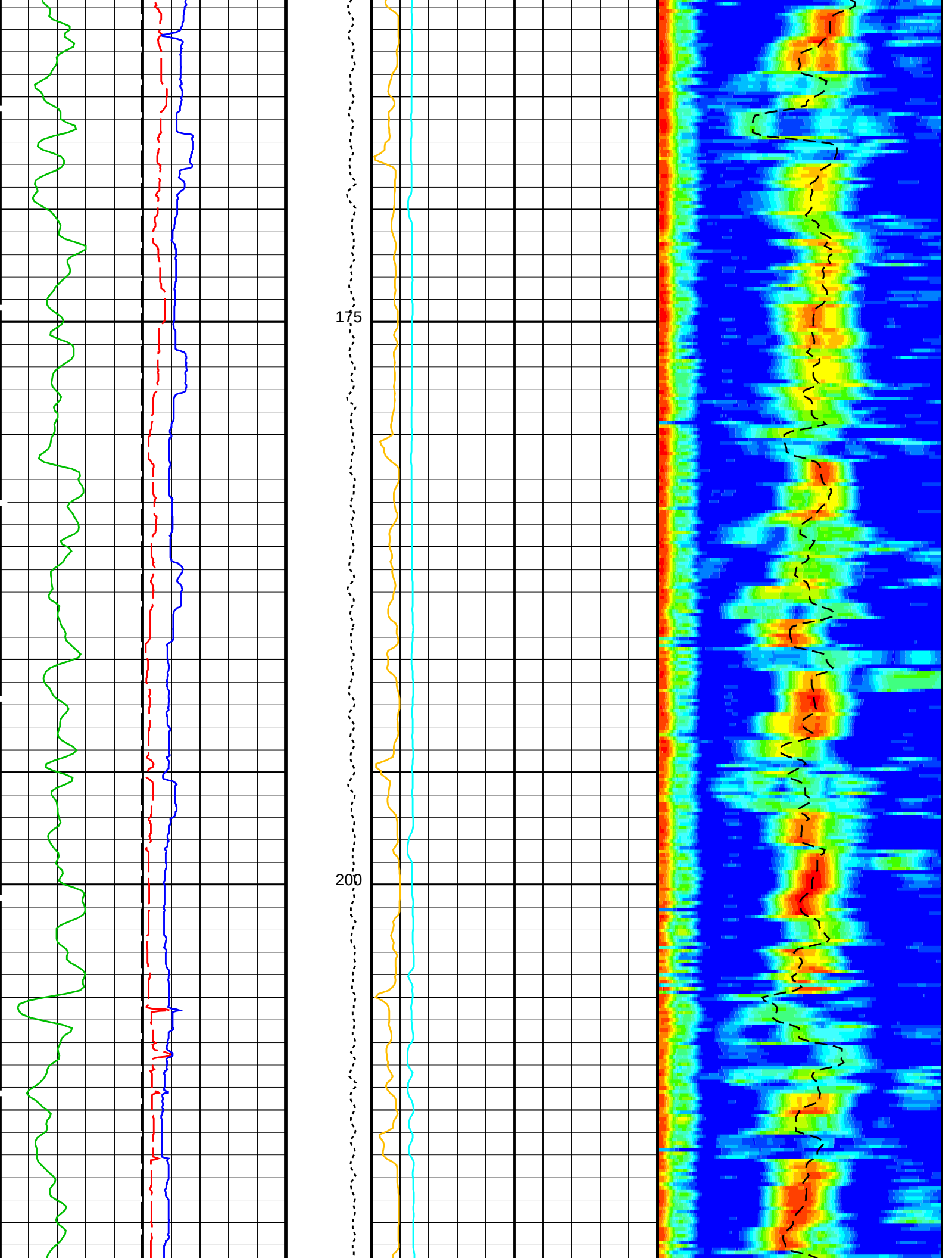
Changed Parameter Summary

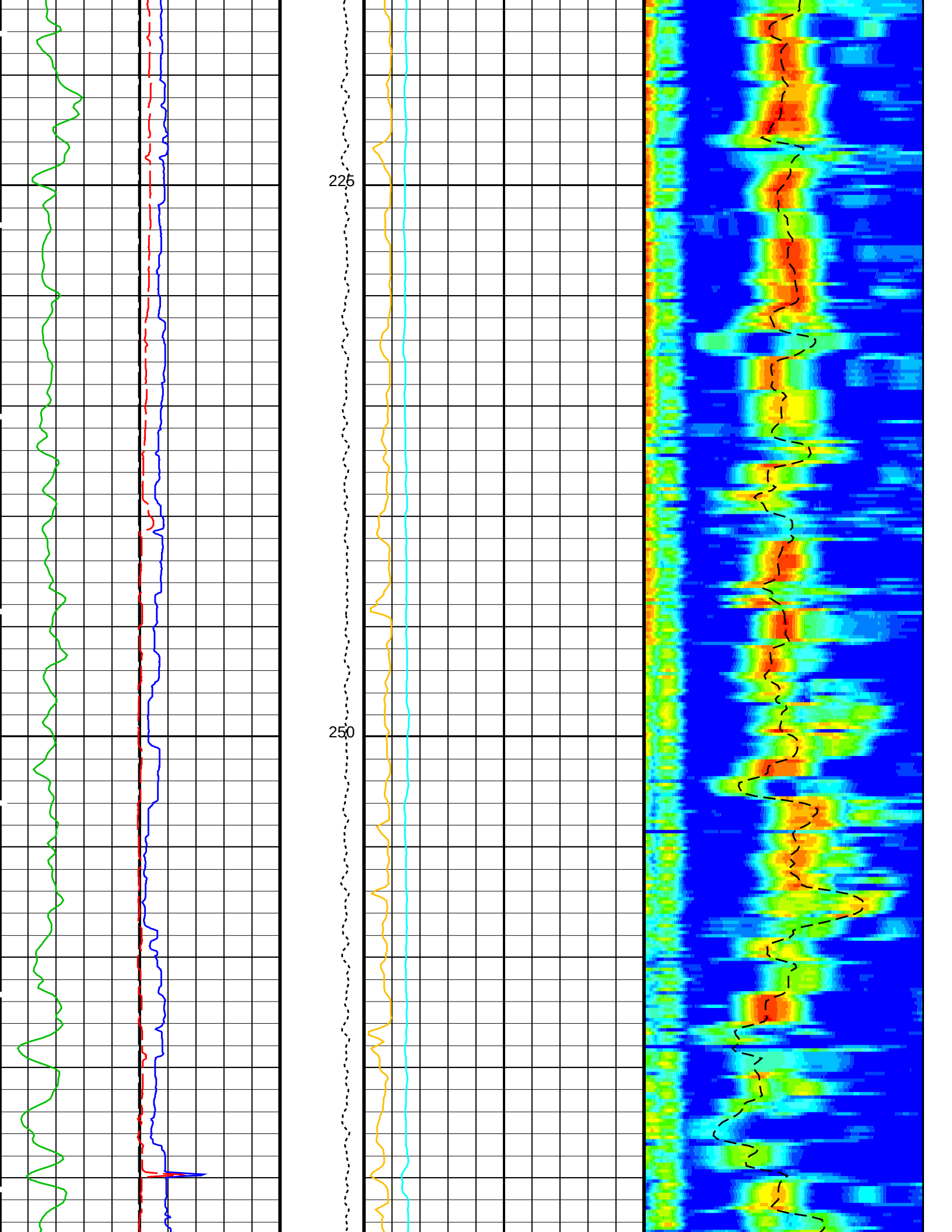
DLIS Name	New Value	Previous Value	Depth & Time
DSHL	75 US/F	220 US/F	946.4 04:51:04
	75 US/F	75 US/F	799.9 04:51:22
	220 US/F	75 US/F	219.9 04:52:37
DSHU	400 US/F	1200 US/F	946.4 04:51:04
	1200 US/F	400 US/F	799.9 04:51:22
	1200 US/F	1200 US/F	219.9 04:52:37

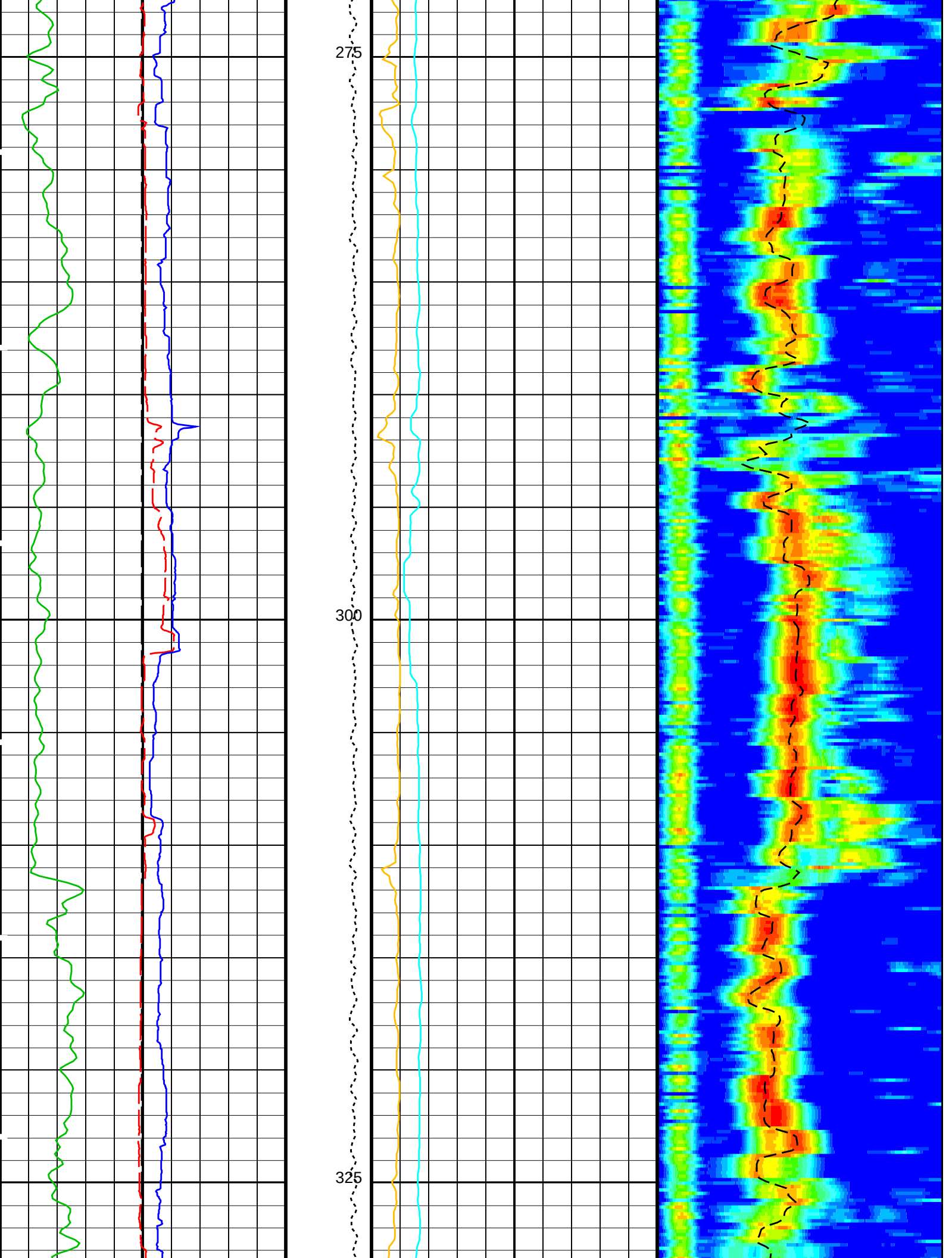
PIP SUMMARY

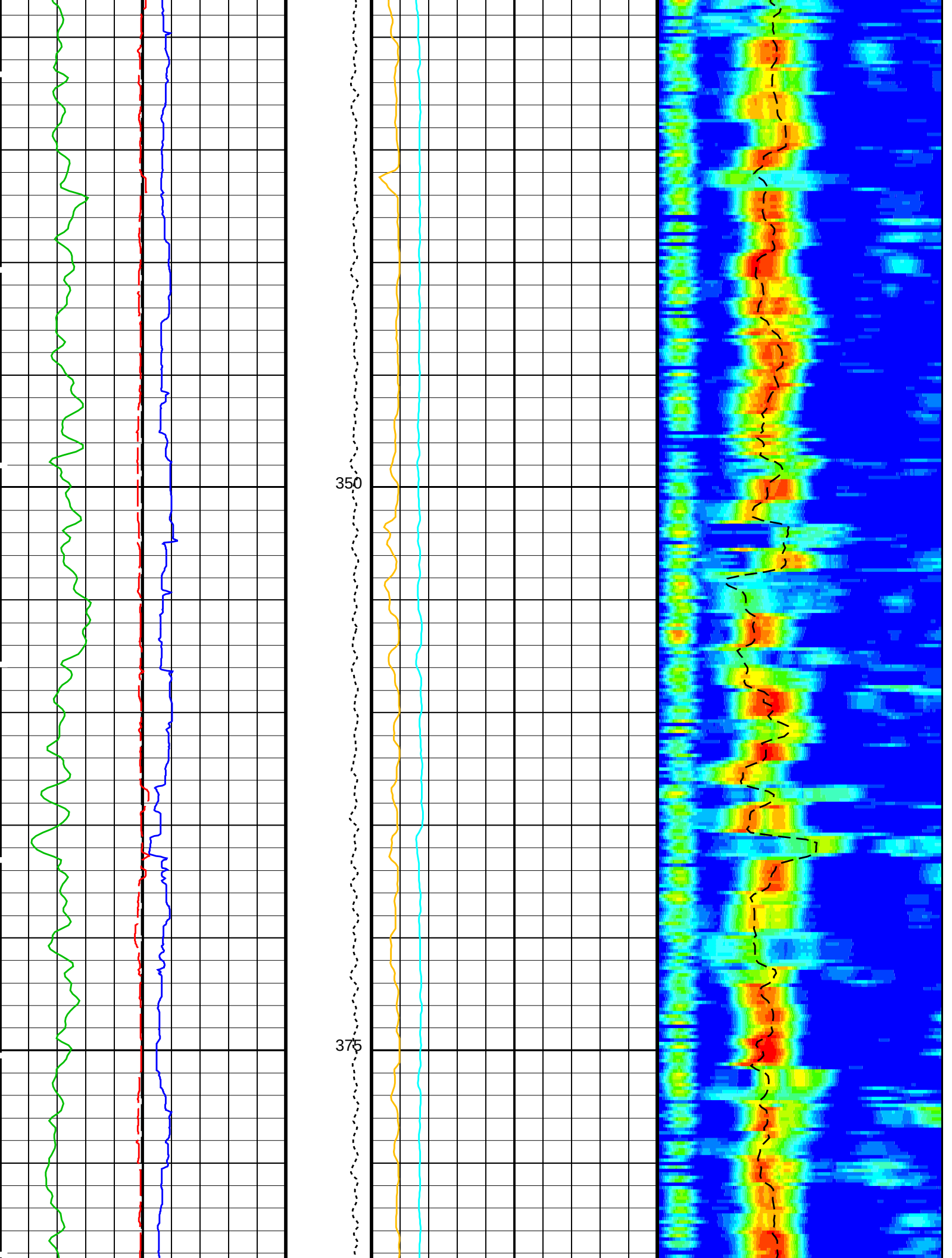
Time Mark Every 60 S

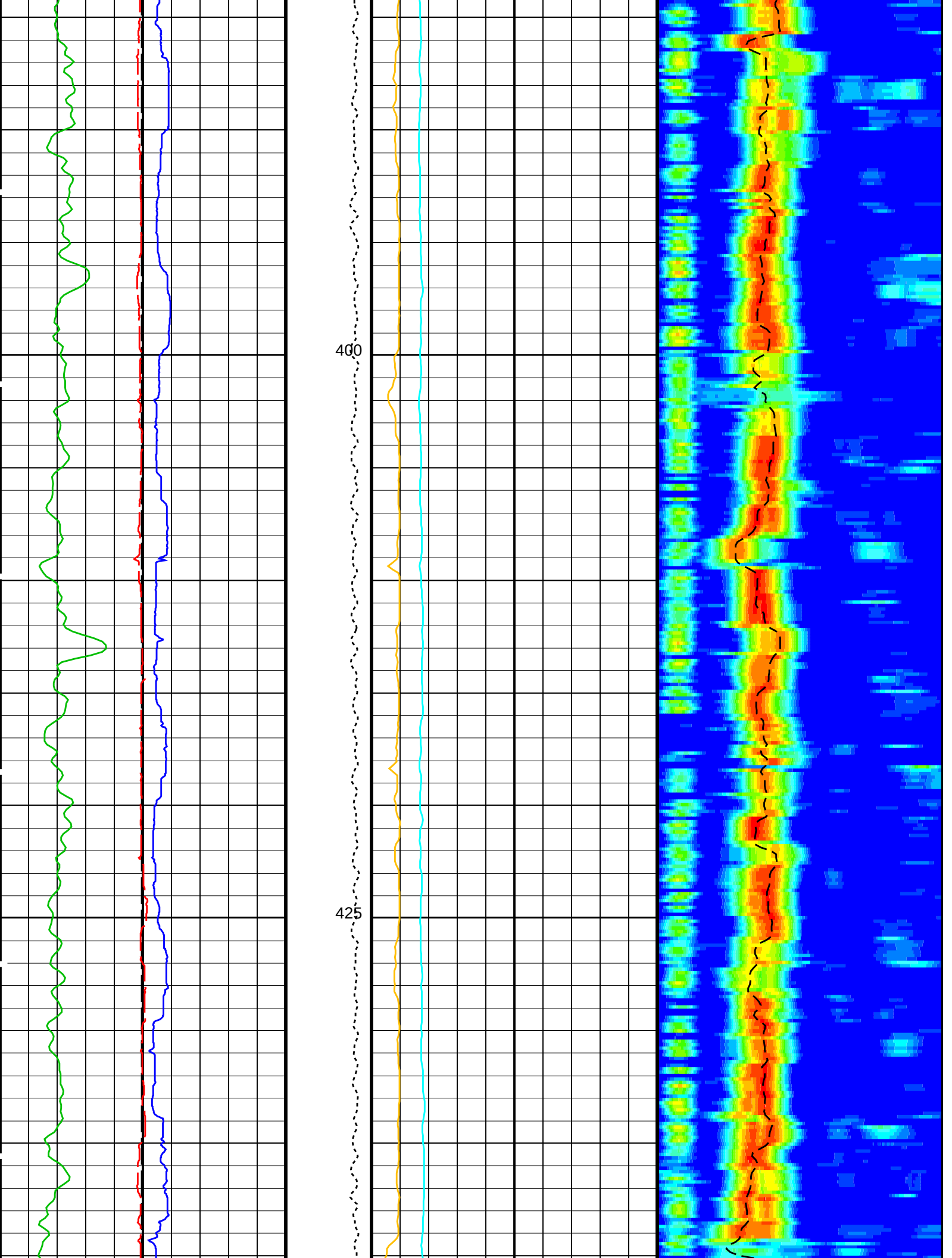


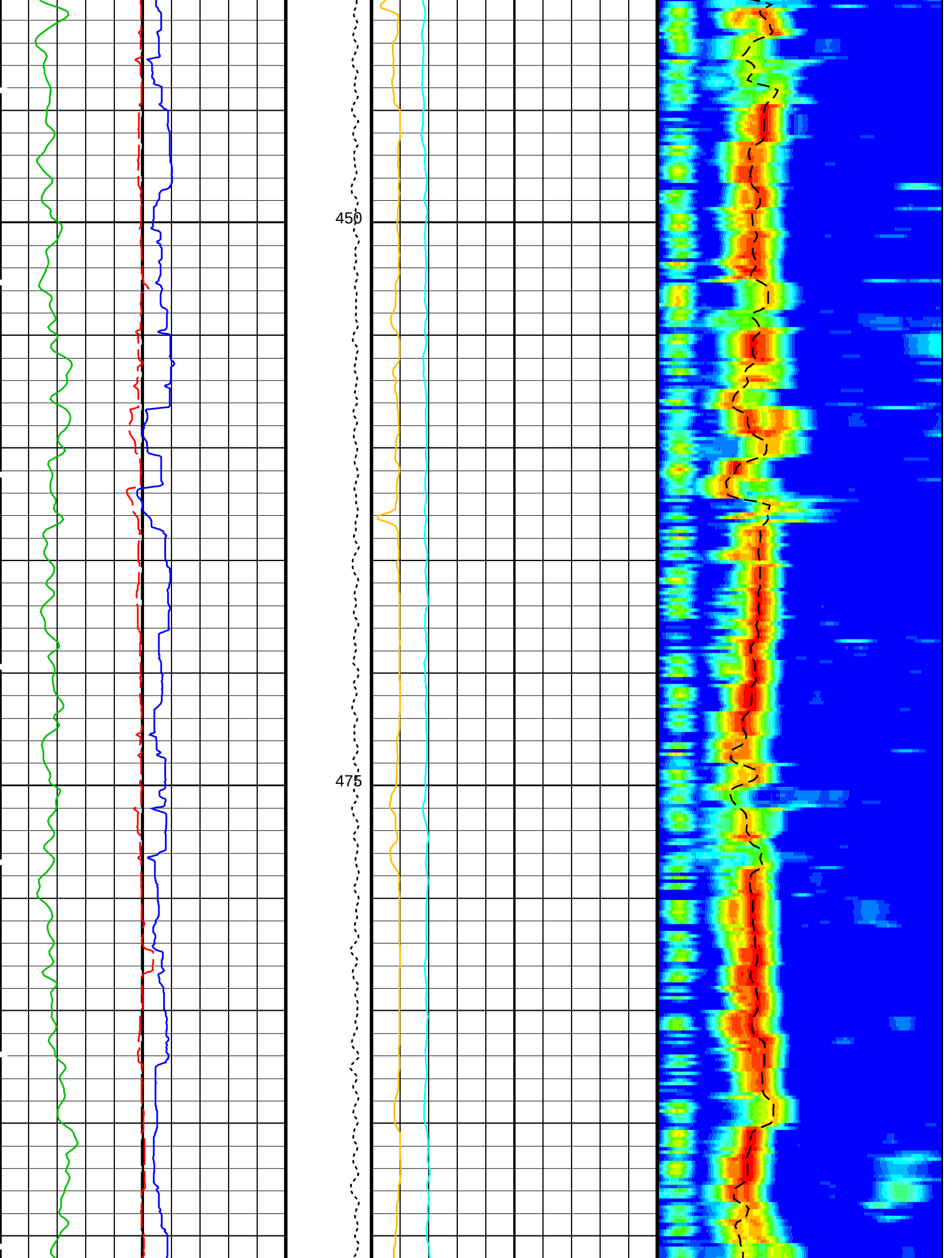

175
200

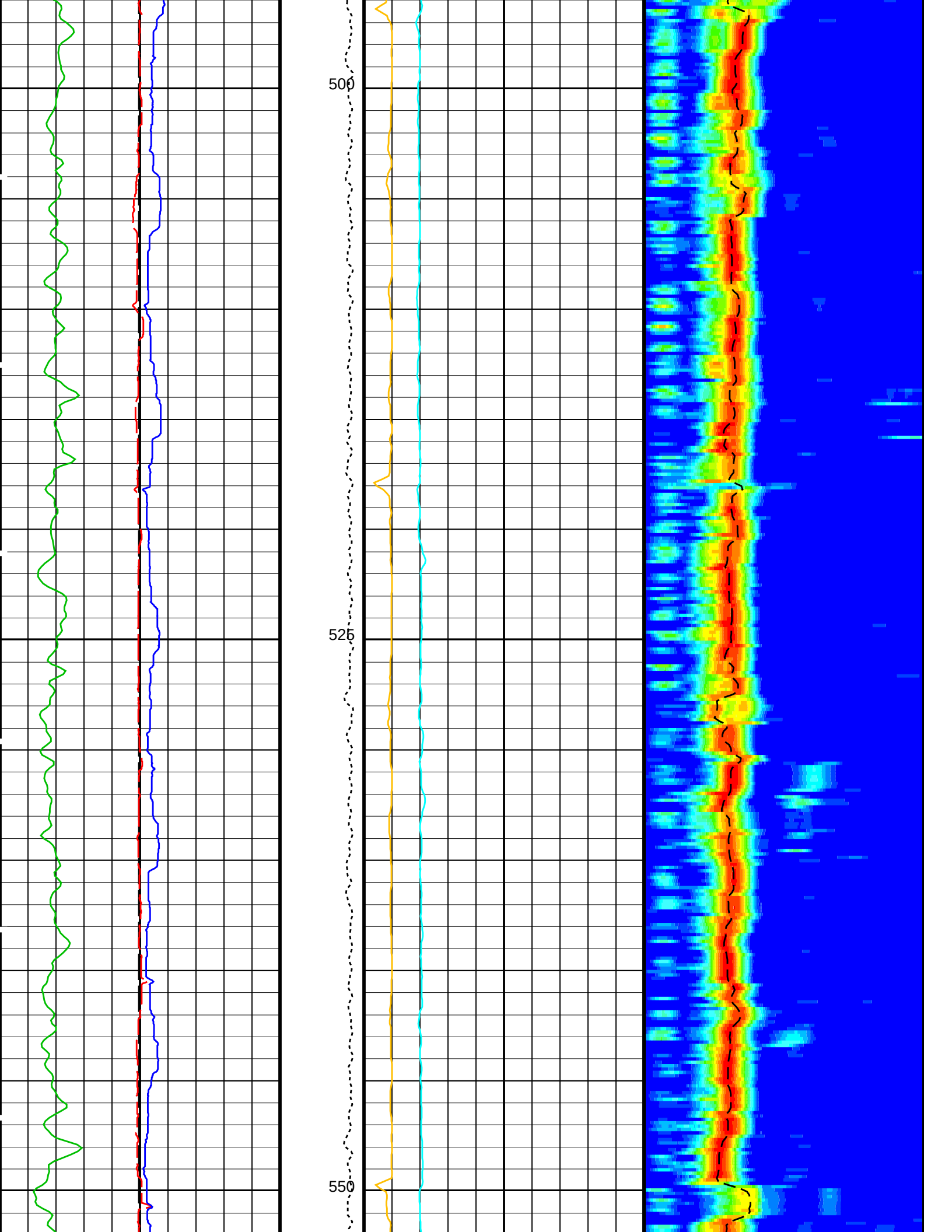

225
250


275
300
325


350
375


400
425


450
475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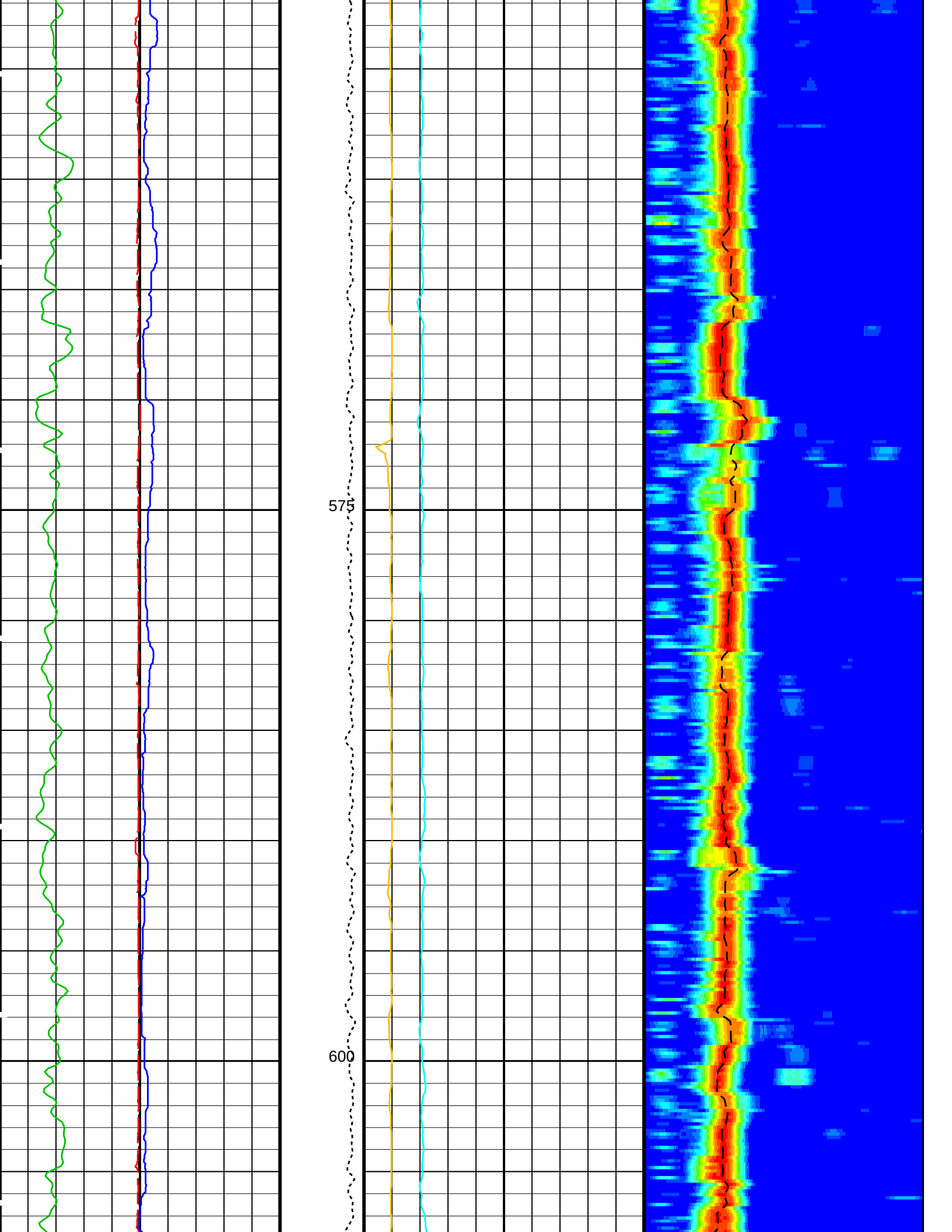
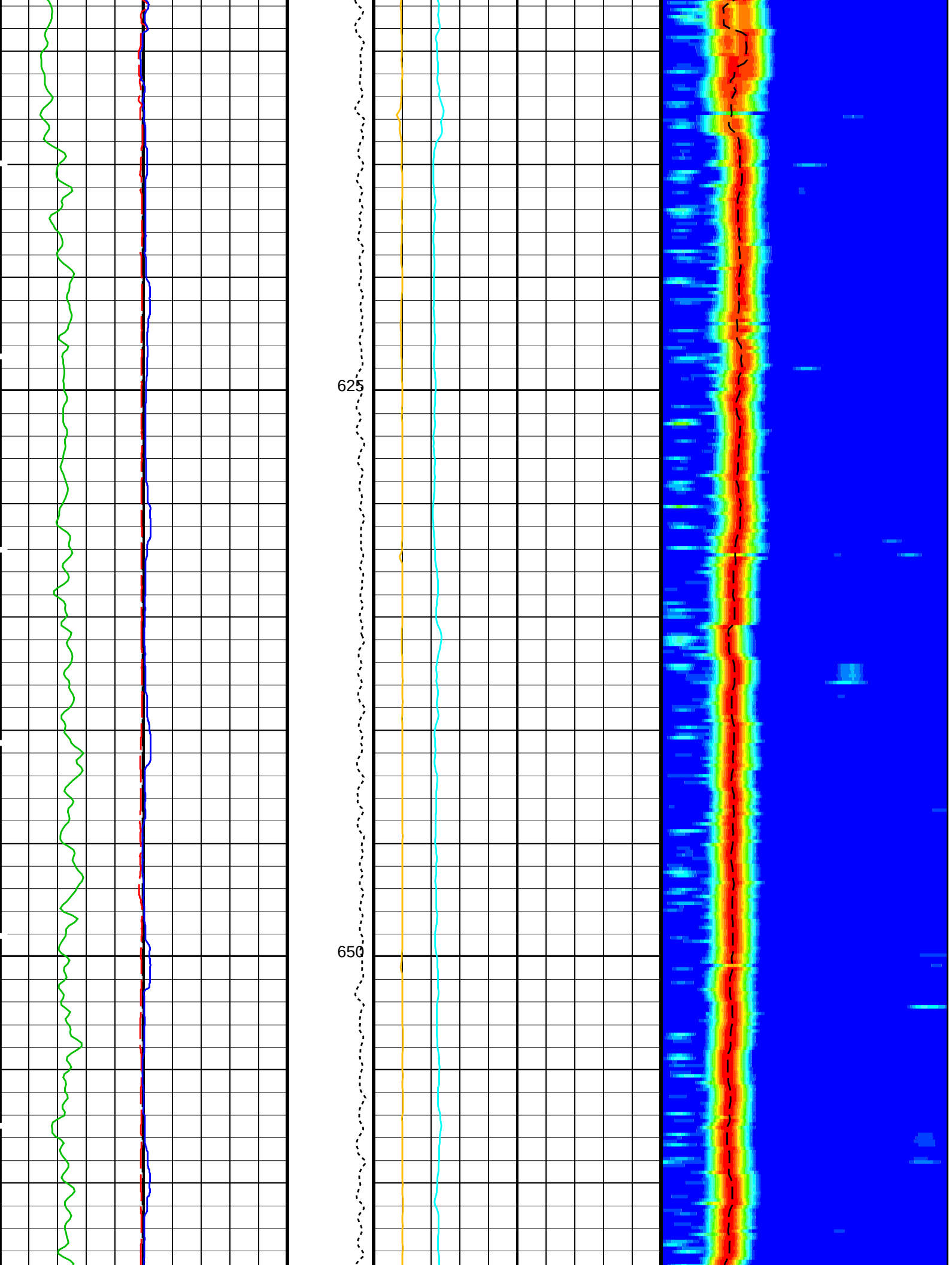
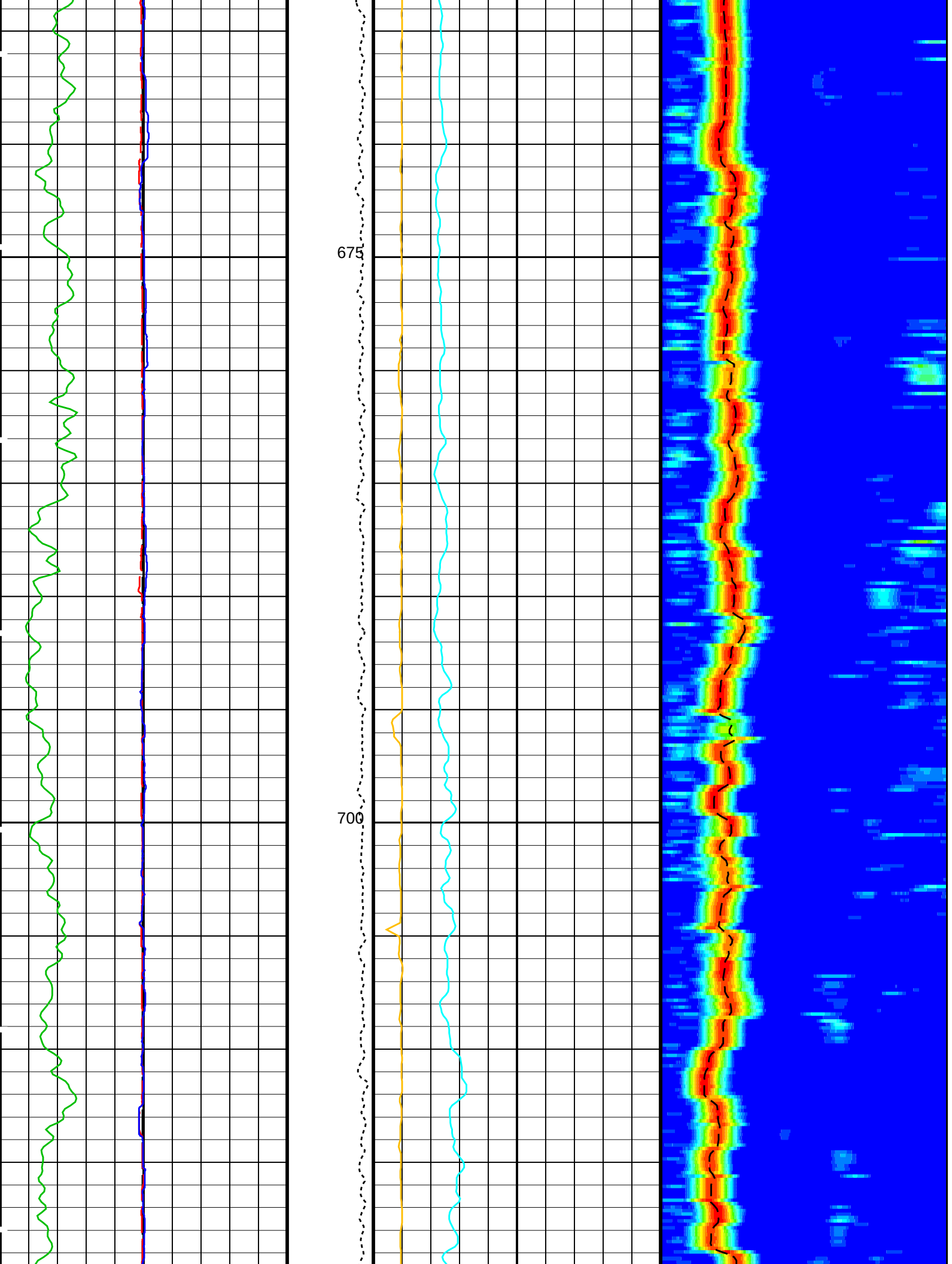
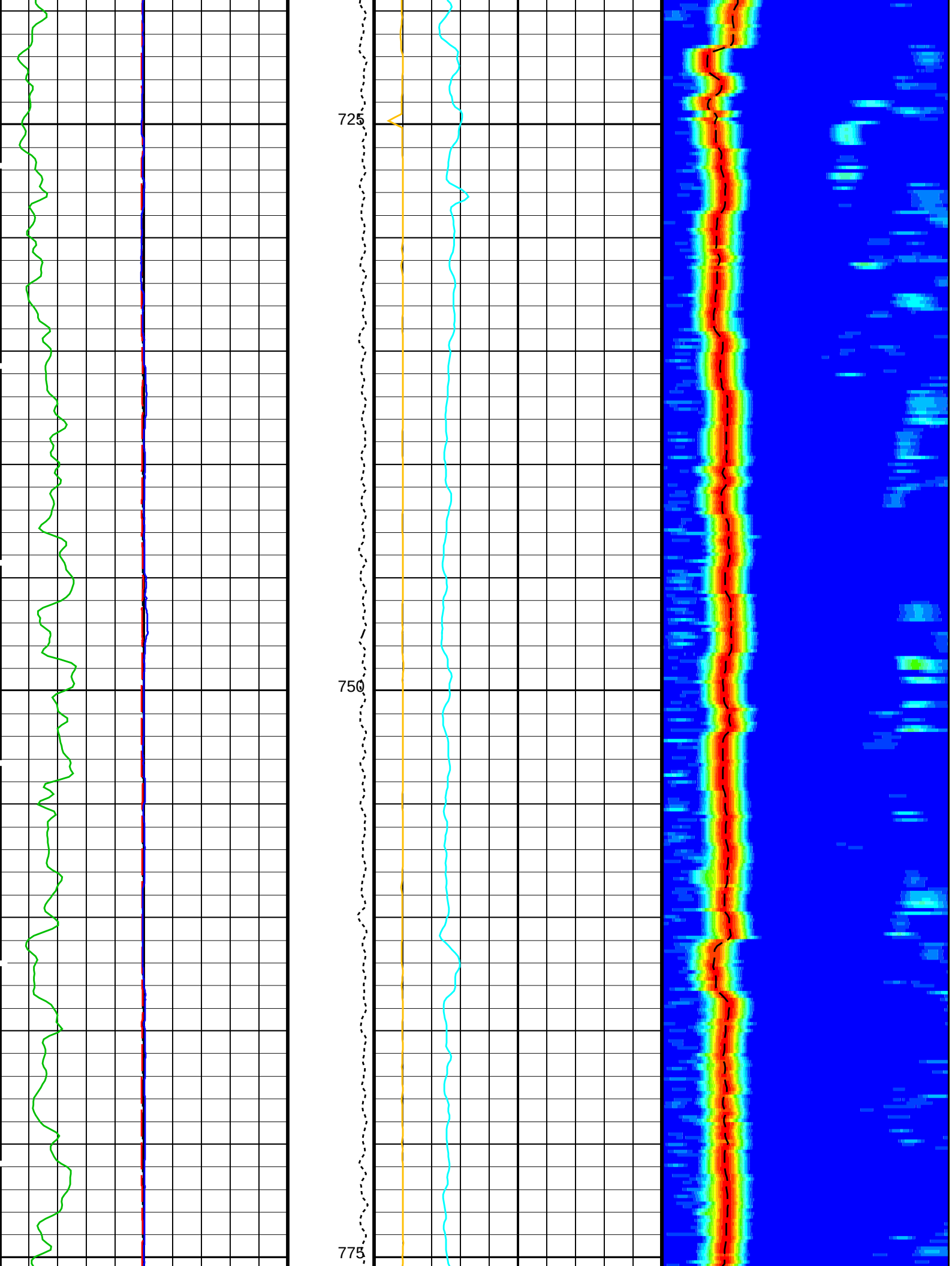
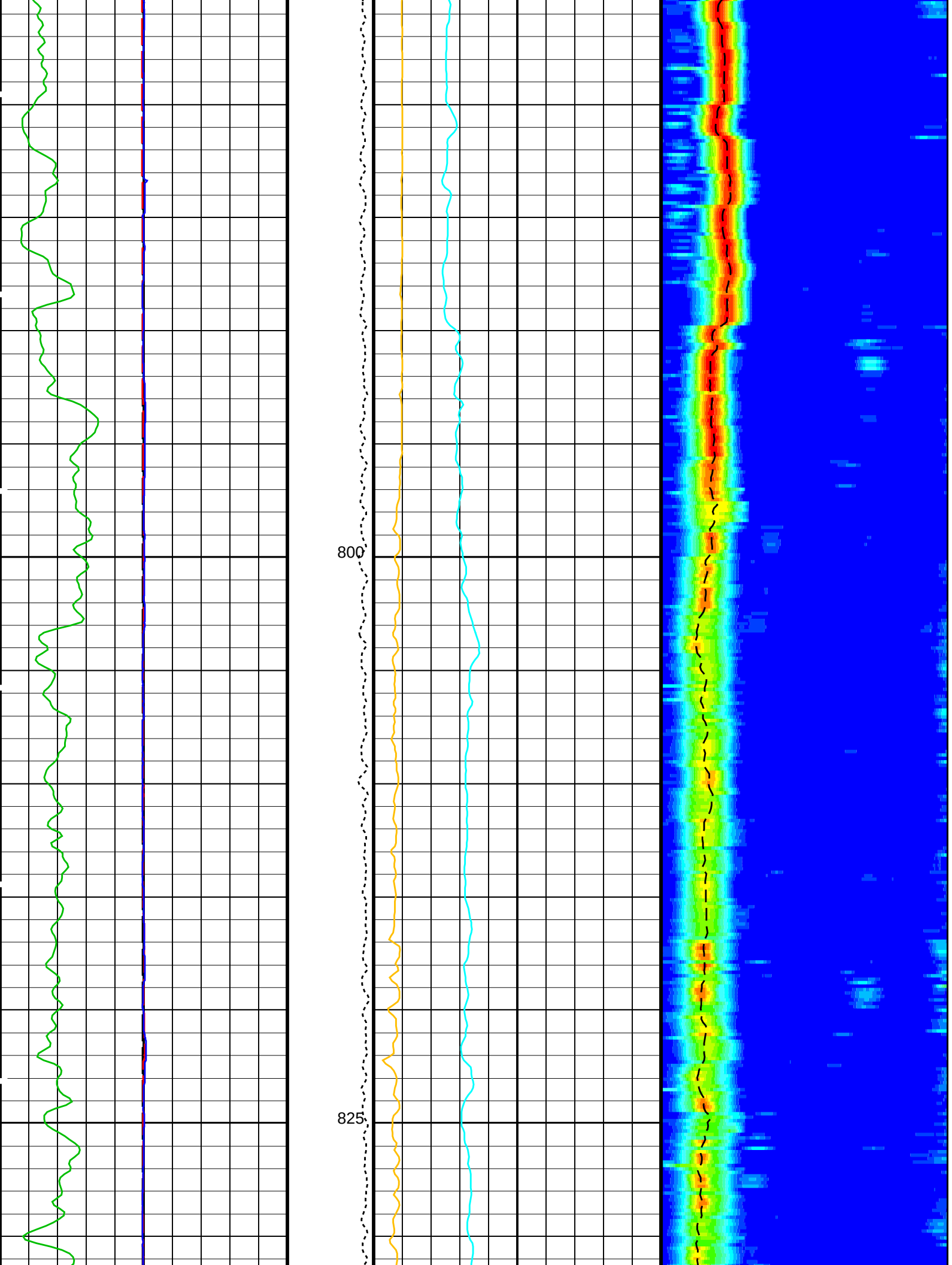
525
550

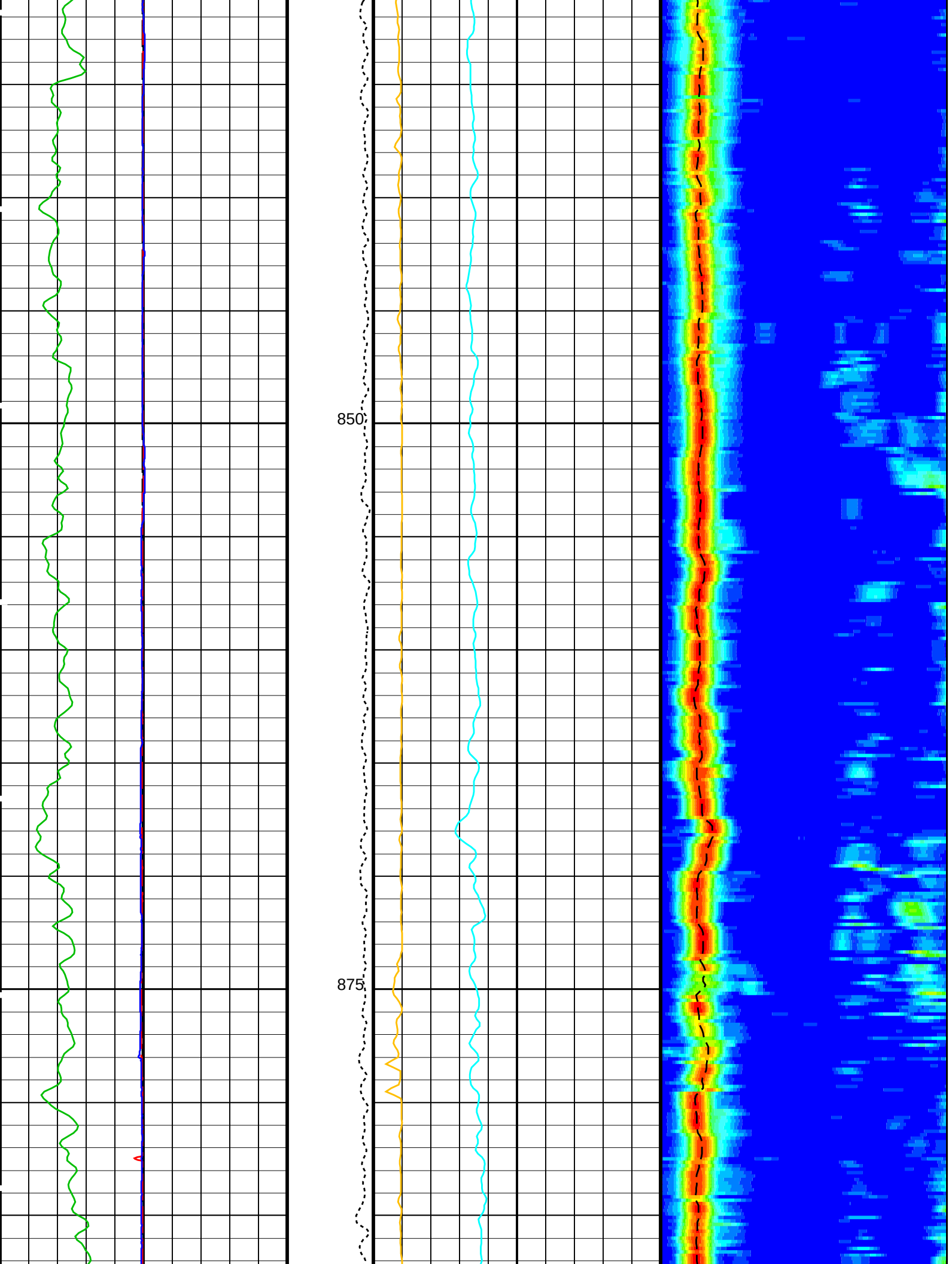

575
600

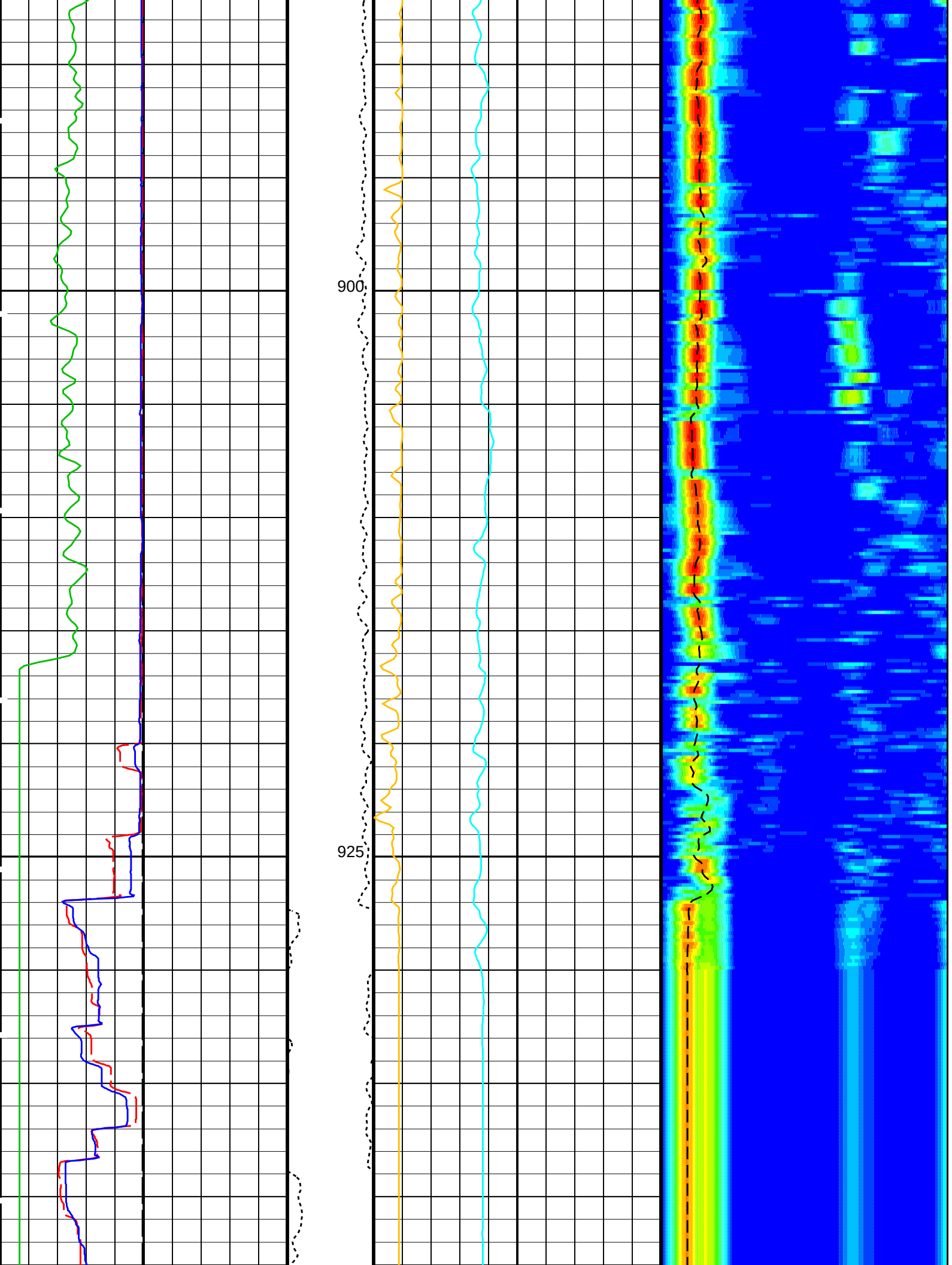

625
650

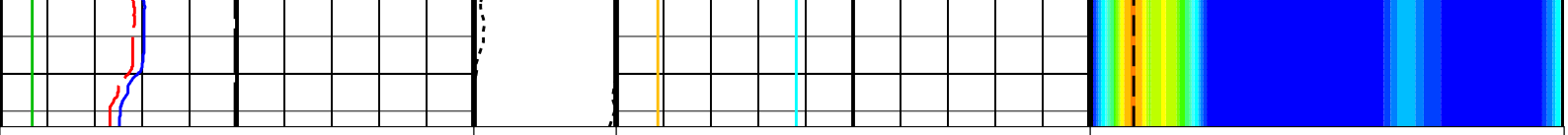

675
700


725
750
775


800
825


850
875


900
925



Bit Size (BS)	Tension (TENS)	Peak Coherence / RA − Upper Dipole (CHR2)	Delta−T Shear / RA − Upper Dipole (DT2R)
0 (IN) 20	0 (LBF) 5000	0 (−−−−) 10	75 (US/F) 1200
Caliper 1 (C1)		**Sonic Velocity (SVEL)**	Min Amplitude Max Rec.Array U.Dipole Slow Proj. CVDL (SPR2)
0 (IN) 20		1000 (M/S) 6000	75 (US/F) 1200
Caliper 2 (C2)			
0 (IN) 20			
Gamma Ray (GR_EDTC)			
0 (GAPI) 150			

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
	DSST−B: Dipole Shear Imager − B		
DDE2	Digitizing Delay 2	0	US
DDEX	Digitizing Delay X	0	US
DLCS	Label Compressional Source − Dipole Shear	USE	
DSHL	Label Slowness Lower Limit − Dipole Shear	220	US/F
DSHU	Label Slowness Upper Limit − Dipole Shear	1200	US/F
DSI2	Digitizer Sample Interval 2	40	US
DSIX	Digitizer Sample Interval X	40	US
DTCS	Compressional Delta−T Source for DTCO Channel	PS_COMP	
DWC2	Digitizer Word Count 2	512	
DWCX	Digitizer Word Count X	512	
NWI2	Number Waveform Items 2	8	
NWIX	Number Waveform Items X	0	
RX1G	Receiver 1 Geometry	294	IN
RX2G	Receiver 2 Geometry	300	IN
RX3G	Receiver 3 Geometry	306	IN
RX4G	Receiver 4 Geometry	312	IN
RX5G	Receiver 5 Geometry	318	IN
RX6G	Receiver 6 Geometry	324	IN
RX7G	Receiver 7 Geometry	330	IN
RX8G	Receiver 8 Geometry	336	IN
SAM2	DSST Sonic Acquisition Mode 2 − Upper Dipole Mode	ODD	
SAMX	DSST Sonic Acquisition Mode X − Both Dipoles or Monopole Mode for Expert	OFF	
SAS2	STC Sonic Array Status − Upper Dipole	255	
SBO2	STC Search Band Offset − Upper Dipole	3000	US
SBW2	STC Search Bandwidth − Upper Dipole	8000	US
SFC2	STC Formation Character − Upper Dipole	SELECTABLE	
SFM2	STC Filter − Upper Dipole	B1−2K	
SLL2	STC Slowness Lower Limit − Upper Dipole	75	US/F
SST2	STC Slowness Step − Upper Dipole	4	US/F
SSW2	STC Source Waveform − Upper Dipole	WF_SAM2	
SUL2	STC Slowness Upper Limit − Upper Dipole	1200	US/F
SWD2	STC Slowness Width − Upper Dipole	40	US/F
TBF2	STC Time for Baseline Fill − Upper Dipole	0	US
TLL2	STC Time Lower Limit − Upper Dipole	600	US
TST2	STC Time Step − Upper Dipole	200	US
TUL2	STC Time Upper Limit − Upper Dipole	20200	US
TWD2	STC Time Width − Upper Dipole	2000	US
TWI2	STC Integration Time Window − Upper Dipole	1600	US
TWSX	Transmitter Waveform Select X	0	
UTXG	Upper Dipole Transmitter Geometry	162	IN
	System and Miscellaneous		
BS	Bit Size	9.875	IN
DO	Depth Offset for Playback	−2122.7	M
PP	Playback Processing	RECOMPUTE	

Format: DSST_UPPER_DIPOLE_VDL_COLOR Vertical Scale: 1:200 Graphics File Created: 25−Apr−2014 04:51

OP System Version: 19C0−187

MEST−B	**19C0−187**	**DTA−A**	**8453**
DSST−B	**19C0−187**	**HNGC−B**	**19C0−187**
HNGS−BA	**19C0−187**	**EDTC−B**	**SKK−5169−EDTCB**

Input DLIS Files

DEFAULT	**FMS_DSI_NGS_026LUP**	**FN:30**	**PRODUCER**	**22−Apr−2014 21:11**	**3070.1 M**	**2260.1 M**

Output DLIS Files

DEFAULT	**FMS_DSI_NGS_050PUP**	**FN:63**	**PRODUCER**	**25−Apr−2014 04:51**
CLIENT	**FMS_DSI_NGS_050PUC**	**FN:64**	**CUSTOMER**	**25−Apr−2014 04:51**

Schlumberger

Calibrations

MAXIS Field Log

Calibration and Check Summary

Measurement	Nominal	Master	Before	After	Change	Limit	Units
Micro Electrical Scanner − B (Slim) Wellsite Calibration − Caliper Calibration							
Before: Calibration out of date 4−Feb−2014 3:22							
Caliper 1 Zero Measurement	12.00	N/A	11.98	N/A	N/A	N/A	IN
Caliper 2 Zero Measurement	12.00	N/A	12.05	N/A	N/A	N/A	IN
Caliper 1 Plus Measurement	15.19	N/A	15.18	N/A	N/A	N/A	IN
Caliper 2 Plus Measurement	15.19	N/A	15.38	N/A	N/A	N/A	IN
Micro Electrical Scanner − B (Slim) Wellsite Calibration − CROUZET ACCELEROMETER PROM HAS BEEN READ CORRECTLY							
Before: 22−Apr−2014 17:16							
TEMPERATURE REFERENCE :	N/A	N/A	20	N/A	N/A	N/A	DEGC
YEAR OF CALIBRATION :	N/A	N/A	99	N/A	N/A	N/A	
MONTH OF CALIBRATION :	N/A	N/A	3	N/A	N/A	N/A	
SERIAL NUMBER :	N/A	N/A	743	N/A	N/A	N/A	
Micro Electrical Scanner − B (Slim) Wellsite Calibration − CROUZET MAGNETOMETER PROM HAS BEEN READ CORRECTLY							
Before: 22−Apr−2014 17:16							
TEMPERATURE REFERENCE :	N/A	N/A	23	N/A	N/A	N/A	DEGC
YEAR OF CALIBRATION :	N/A	N/A	3	N/A	N/A	N/A	
MONTH OF CALIBRATION :	N/A	N/A	9	N/A	N/A	N/A	
SERIAL NUMBER :	N/A	N/A	507	N/A	N/A	N/A	
Hostile Natural Gamma Ray Sonde Wellsite Calibration − Detector 1 Check							
Master: 4−Feb−2014 21:51 Before: 4−Feb−2014 22:02 After: 4−Feb−2014 22:07							
Na 511 Peak Loc	40.00	39.52	39.48	39.57	0.09216	1.000	
Na 511 Peak Res	15.50	15.96	16.77	17.05	0.2800	2.000	%
High Voltage	1150	1194	1193	1193	0.08801	N/A	V
Na 1785 Peak Loc	142.6	142.1	141.8	142.0	0.2398	7.000	
Na 1785 Peak Res	8.500	9.703	8.709	9.174	0.4646	2.000	%
Temperature	15.50	35.74	35.71	35.75	0.03577	N/A	DEGC
Na Count Rate	45.00	11.77	12.16	12.19	0.02500	8.000	CPS
Hostile Natural Gamma Ray Sonde Wellsite Calibration − Detector 2 Check							
Master: 4−Feb−2014 21:51 Before: 4−Feb−2014 22:02 After: 4−Feb−2014 22:07							
Na 511 Peak Loc	40.00	39.56	39.51	40.01	0.4946	1.000	
Na 511 Peak Res	15.50	16.07	16.56	16.11	−0.4463	2.000	%
High Voltage	1150	1126	1128	1128	0.1504	N/A	V
Na 1785 Peak Loc	142.6	142.3	143.1	142.2	−0.8427	7.000	
Na 1785 Peak Res	8.500	8.959	9.953	8.887	−1.065	2.000	%
Temperature	15.50	36.60	36.88	36.96	0.08454	N/A	DEGC
Na Count Rate	45.00	12.28	12.68	12.52	−0.1613	8.000	CPS

Hostile Natural Gamma Ray Sonde Wellsite Calibration − Ratio Of Detector 1 To Detector 2
Master: 4−Feb−2014 21:51 Before: 4−Feb−2014 22:02 After: 4−Feb−2014 22:07

Coincidence Count Rate Ratio	1.000	0.9624	0.9606	0.9690	0.008355	0.05000	

Enhanced DTS Cartridge Wellsite Calibration − EDTC Accelerometer Calibration
Before: 22−Apr−2014 8:07

EDTC Z−Axis Acceleration	9.810	N/A	9.752	N/A	N/A	N/A	M/S2

Enhanced DTS Cartridge Wellsite Calibration − Detector Calibration
Before: 22−Apr−2014 8:17 After: 22−Apr−2014 15:50

Gamma Ray (Jig − Bkg)	156.4	N/A	156.4	158.2	1.813	14.22	GAPI
Gamma Ray (Calibrated)	165.0	N/A	165.0	166.9	1.913	15.00	GAPI

Micro Electrical Scanner − B (Slim) / Equipment Identification

Primary Equipment:		
MEST Sonde − B	MEDS − B	724
MEST Preamplifier Cartridge − AB	MEPC − AB	807
GPIT Cartridge − AC	GPIC − AC	840
MEST Acquisition Cartridge − A	MEAC − A	875
Auxiliary Equipment:		
MEST−B Preamplifier Cartridge Housing	MEPH − A	702
MEST Acquisition Cartridge Housing (Slim	MEAH − B	769

Hostile Natural Gamma Ray Cartridge − B / Equipment Identification

Primary Equipment:		
HNGC Cartridge	HNGC − B	300
Auxiliary Equipment:		
HNGC Housing	HNGH − A	115

Hostile Natural Gamma Ray Sonde / Equipment Identification

Primary Equipment:		
HNGS Sonde	HNGS − BA	194
Auxiliary Equipment:		
HNGS Sonde Housing	HNSH − BA	205
Gamma Source Radioactive	GSR − U	616008

Hostile Natural Gamma Ray Sonde Wellsite Calibration
Detector 1 Check

Phase	Na 511 Peak Loc	Value
Master		39.52
Before		39.48
After		39.57
37.50 (Minimum)	40.00 (Nominal)	43.50 (Maximum)

Phase	Na 511 Peak Res %	Value
Master		15.96
Before		16.77
After		17.05
12.00 (Minimum)	15.50 (Nominal)	19.00 (Maximum)

Phase	High Voltage V	Value
Master		1194
Before		1193
After		1193
900.0 (Minimum)	1150 (Nominal)	1600 (Maximum)

Phase	Na 1785 Peak Loc	Value
Master		142.1
Before		141.8
After		142.0
135.0 (Minimum)	142.6 (Nominal)	150.3 (Maximum)

Phase	Na 1785 Peak Res %	Value
Master		9.703
Before		8.709
After		9.174
7.000 (Minimum)	8.500 (Nominal)	11.00 (Maximum)

Phase	Temperature DEGC	Value
Master		35.74
Before		35.71
After		35.75
−28.89 (Minimum)	15.50 (Nominal)	60.00 (Maximum)

Phase	Na Count Rate CPS	Value
Master		11.77
Before		12.16
After		12.19
10.00 (Minimum)	45.00 (Nominal)	100.0 (Maximum)

Master: 4−Feb−2014 21:51 Before: 4−Feb−2014 22:02 After: 4−Feb−2014 22:07

Hostile Natural Gamma Ray Sonde Wellsite Calibration

Detector 2 Check

Phase	Na 511 Peak Loc	Value
Master		39.56
Before		39.51
After		40.01
	37.50 (Minimum) 40.00 (Nominal) 43.50 (Maximum)	

Phase	Na 511 Peak Res %	Value
Master		16.07
Before		16.56
After		16.11
	12.00 (Minimum) 15.50 (Nominal) 19.00 (Maximum)	

Phase	High Voltage V	Value
Master		1126
Before		1128
After		1128
	900.0 (Minimum) 1150 (Nominal) 1600 (Maximum)	

Phase	Na 1785 Peak Loc	Value
Master		142.3
Before		143.1
After		142.2
	135.0 (Minimum) 142.6 (Nominal) 150.3 (Maximum)	

Phase	Na 1785 Peak Res %	Value
Master		8.959
Before		9.953
After		8.887
	7.000 (Minimum) 8.500 (Nominal) 11.00 (Maximum)	

Phase	Temperature DEGC	Value
Master		36.60
Before		36.88
After		36.96
	−28.89 (Minimum) 15.50 (Nominal) 60.00 (Maximum)	

Phase	Na Count Rate CPS	Value
Master		12.28
Before		12.68
After		12.52
	10.00 (Minimum) 45.00 (Nominal) 100.0 (Maximum)	

Master: 4−Feb−2014 21:51 Before: 4−Feb−2014 22:02 After: 4−Feb−2014 22:07

Hostile Natural Gamma Ray Sonde Wellsite Calibration

Ratio Of Detector 1 To Detector 2

Phase	Coincidence Count Rate Ratio	Value
Master		0.9624
Before		0.9606
After		0.9690
	0.9500 (Minimum) 1.000 (Nominal) 1.050 (Maximum)	

Master: 4−Feb−2014 21:51
Before: 4−Feb−2014 22:02
After: 4−Feb−2014 22:07

Enhanced DTS Cartridge / Equipment Identification

Primary Equipment:

EDTC Gamma Ray Detector	EDTG − A/B	8305
Enhanced DTS Cartridge	EDTC − B	8317

Auxiliary Equipment:

EDTC Housing	EDTH − B	8303

Enhanced DTS Cartridge Wellsite Calibration

EDTC Accelerometer Calibration

Phase	EDTC Z−Axis Acceleration M/S2	Value
Before		9.752
	9.610 (Minimum) 9.810 (Nominal) 10.01 (Maximum)	

Before: 22−Apr−2014 8:07

Enhanced DTS Cartridge Wellsite Calibration

Detector Calibration

Phase	Gamma Ray Background GAPI	Value
Before		11.20
After		6.774
	0 (Minimum) 30.00 (Nominal) 120.0 (Maximum)	

Phase	Gamma Ray (Jig − Bkg) GAPI	Value
Before		156.4
After		158.2
	142.2 (Minimum) 156.4 (Nominal) 170.7 (Maximum)	

Phase	Gamma Ray (Calibrated) GAPI	Value
Before		165.0
After		166.9
	150.0 (Minimum) 165.0 (Nominal) 180.0 (Maximum)	

Company:	**Lamont Doherty Earth Observatory**
Well:	**Expedition 350, Site U1437D**
Field:	**IBM−1 (Rear Arc)**
Rig:	**JOIDES Resolution**
Country:	

Schlumberger

DSI Sonic
Upper Dipole