

Company: Lamont Doherty

Well: Expedition 321 Site U1341B

Field: Bering Sea

Rig: JOIDES Resolution Country: USA

**Dipole Shear Sonic Imager  
Natural Gamma Spectroscopy**

LOCATION		Latitude: N 54° 40.471'	Elev.:	K.B.	11.00 m
		Longitude: W 169° 58.453'		G.L.	-1879.40 m
				D.F.	11.00 m
Permanent Datum:	Mean Sea Level		Elev.:	0.00 m	
Log Measured From:	Drill Floor		11.00 m	above Perm. Datum	
Drilling Measured From:	Drill Floor				
Ocean: Pacific					
Max. Well Deviation 0 deg					
Longitude					
Latitude					

Rig: JOIDES Resolution  
Field: Bering Sea  
Location: Latitude: N 54° 40.471'  
Well: Expedition 321 Site U1341B  
Company: Lamont Doherty

Logging Date	1-Aug-2009				
Run Number	2				
Depth Driller	2750.9 m				
Schlumberger Depth	2750 m				
Bottom Log Interval	2732.5 m				
Top Log Interval	2229 m				
Casing Driller Size @ Depth	4.500 in @ 2229 m				
Casing Schlumberger	2229 m				
Bit Size	11.438 in				
Type Fluid In Hole	Seawater Gel				
Density	1.258 g/cm3				
Fluid Loss					
PH					
Source Of Sample	N/A				
RM @ Measured Temperature	@				
RMF @ Measured Temperature	@				
RMC @ Measured Temperature	@				
Source RMF	RMC				
RM @ MRT	RMF @ MRT				
Maximum Recorded Temperatures	15 degC @ 15 @ 15				
Circulation Stopped	20-Jul-2009 11:00				
Logger On Bottom	1-Aug-2009 22:00				
Unit Number	625003				
Location	Houston				
Recorded By	C. Furman				
Witnessed By	T. Liu, G. Guerin				

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

DISCLAIMER

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OTHER SERVICES1  
OS1: FMS  
OS2: DIT  
OS3: APS/HLDS  
OS4: HNGS


REMARKS: RUN NUMBER 1

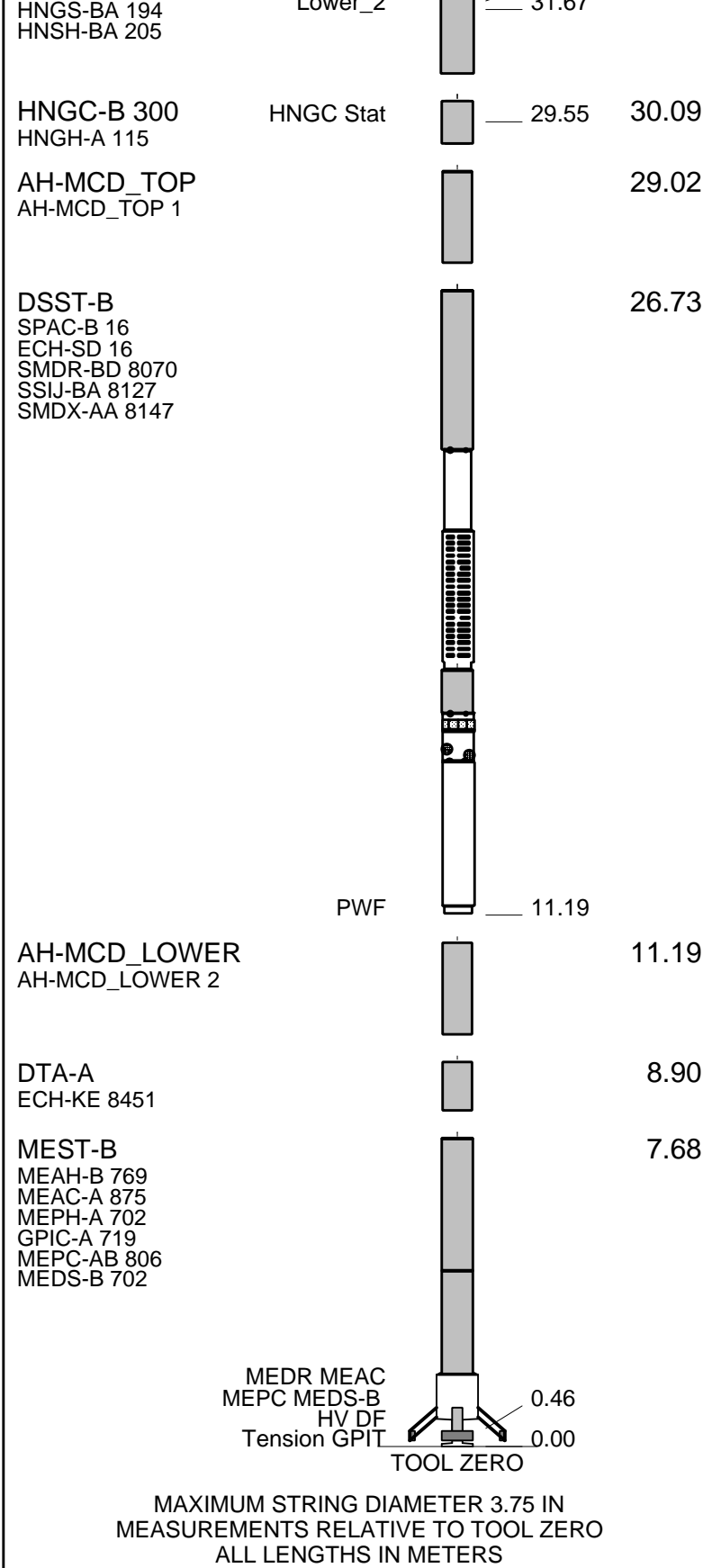
Logs run in second hole ("B" hole) of drilling site U1341 to aid in depth correlation of core data collected in surface labs.  
Average heave during the run less than 0.2m; No Heave Compensator used.  
TD was found to be 2750mBRF with the pipe (bit) at 2229mBRF. Sea found at 2150mBRF.  
Monopole run in standard frequency mode with slowness range of 120 - 440 uS/ft.  
Upper Dipole run in standard frequency mode; Lower Dipole run in Low-Frequency mode.  
Dipole slowness range was 300 - 1600 uS/ft.  
FMS Calipers open from TD to 2277m. Closed at 2277m for safe entry into drill pipe.  
DSI Centralized using two in-line bowspring type centralizers (modified MCD sondes).

RUN 1			RUN 2		
SERVICE ORDER #: PROGRAM VERSION: 17C0-154 FLUID LEVEL:			SERVICE ORDER #: PROGRAM VERSION: FLUID LEVEL:		
LOGGED INTERVAL	START	STOP	LOGGED INTERVAL	START	STOP

EQUIPMENT DESCRIPTION

RUN 1		RUN 2	
<b>SURFACE EQUIPMENT</b>			
GSR-U 616008 WITM (DTS)-A			

DOWNHOLE EQUIPMENT			
LEH-QT		34.39	
LEH-QT 301			
DTC-H	CTEM	33.22	
ECH-KC 2304	TelStatus	32.59	33.50
	ToolStatu		
HNGS-BA 194	Upper_1	31.89	32.59
	Lower_2	31.67	



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

Kelly Bushing Elevation

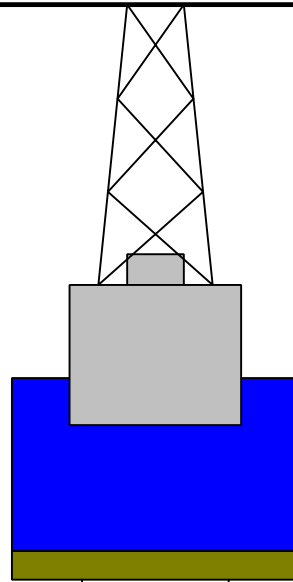
Derrick Floor Elevation

Mean Sea Level

0.0

0.0

0.0



0.0

5.875

3.800

Top of Drill Pipe

2150.9

11.438

Sea Floor

2229.0

5.875

3.800

Drill Bit / BHA w/ LFV

2750.9

11.438

Total Depth - Driller

**Schlumberger**

**Pass #2  
TD to Sea Bed**

MAXIS Field Log

Company: Lamont Doherty

Well: Expedition 321 Site U1339D

**Input DLIS Files**

DEFAULT	FMS_DSI_NGS_031LUP	FN:32	PRODUCER	01-Aug-2009 11:26	2745.5 M	2194.4 M
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**Output DLIS Files**

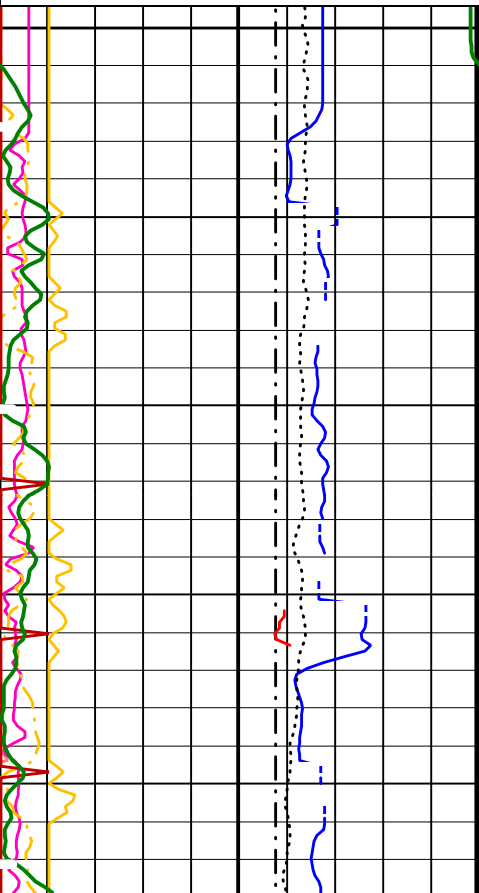
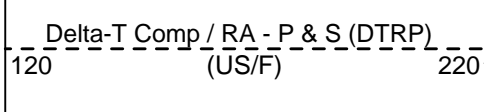
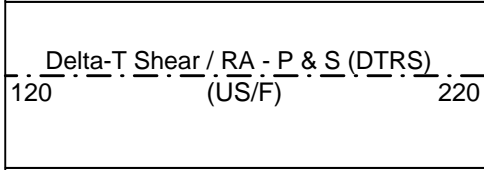
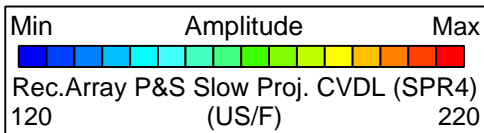
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**OP System Version: 17C0-154**

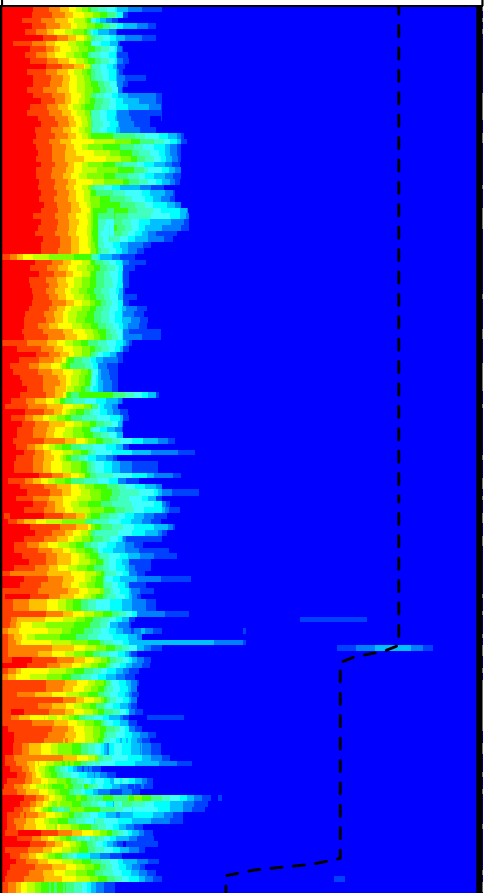
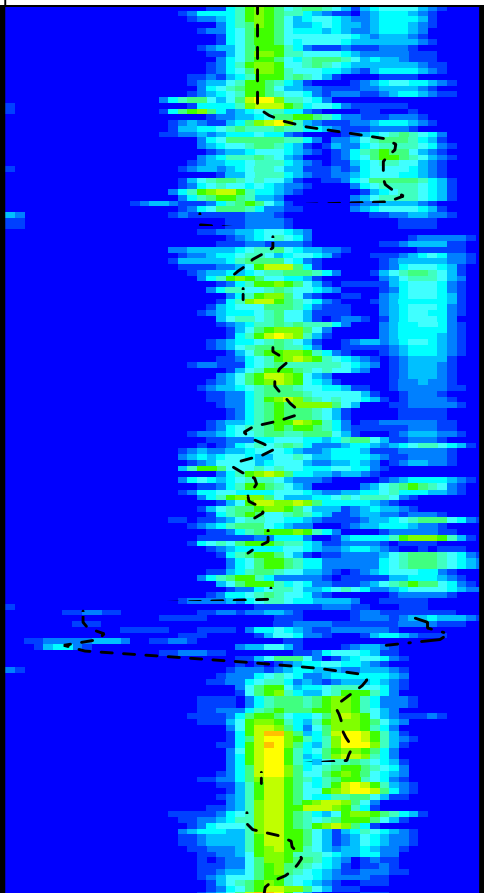
MEST-B	SRPC-3762-Q1_2009_OP17	DTA-A	17C0-154
DSST-B	17C0-154	HNGC-B	17C0-154
HNGS-BA	17C0-154	DTC-H	17C0-154

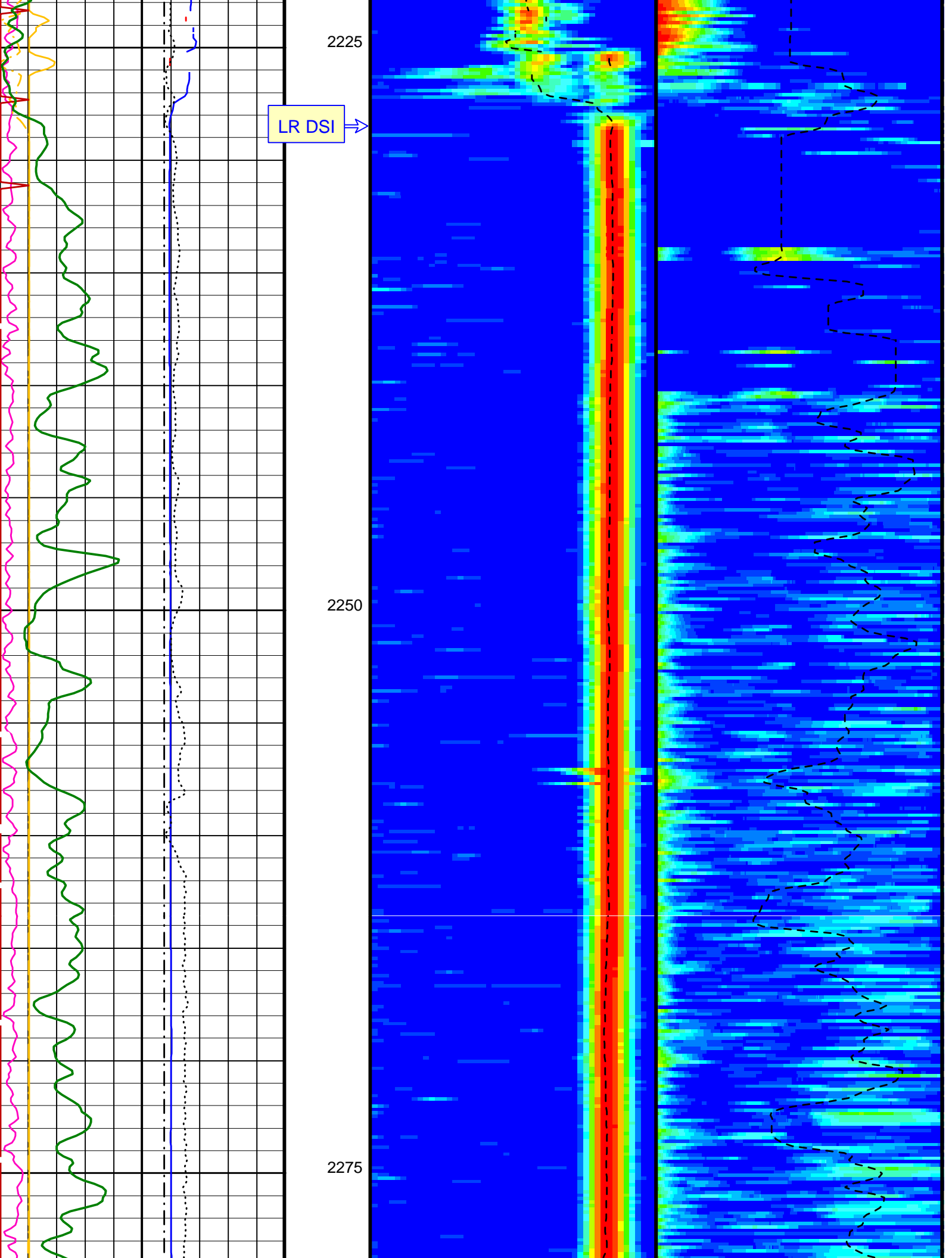
Time Mark Every 60 S

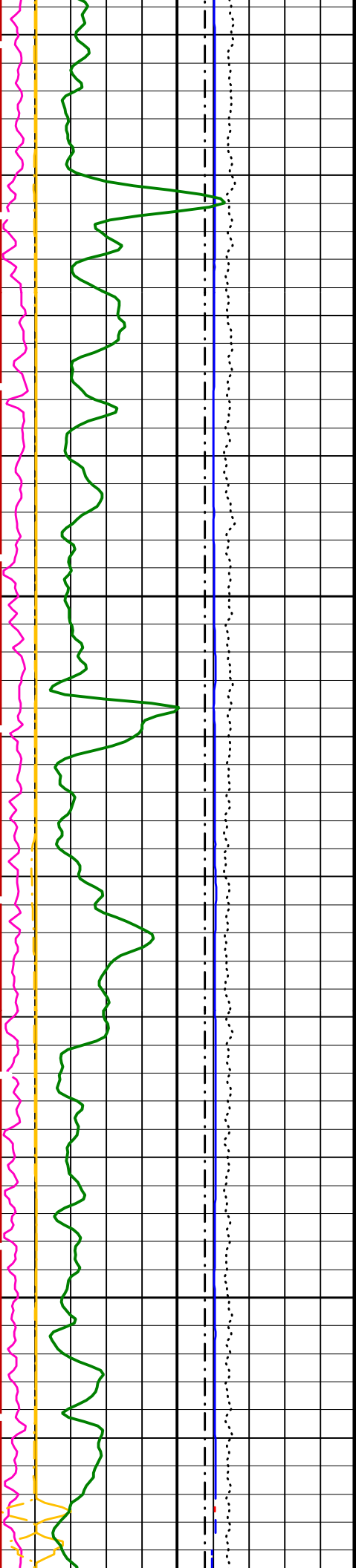
Waveform Data Copy Indicator 4 - Monopole P&S (WCI4)		
0	(----	10
Peak Coherence / RA - P & S Shear (CHRS)		
-1	(----	9
Peak Coherence / RA - P & S Comp (CHRP)		
0	(----	10
Peak Coherence / RA - Upper Dipole (CHR2)		
0	(----	10
HNGS Computed Gamma Ray (HCGR)		
0	(GAPI)	50
Tension (TENS)		
10000	(LBF)	0
Delta-T Shear - P & S (DT4S)		
440	(US/F)	40
Delta-T Comp - P & S (DT4P)		
440	(US/F)	40
Delta-T Shear - Upper Dipole (DT2)		
440	(US/F)	40
Bit Size (BS)		
0	(IN)	20



2200

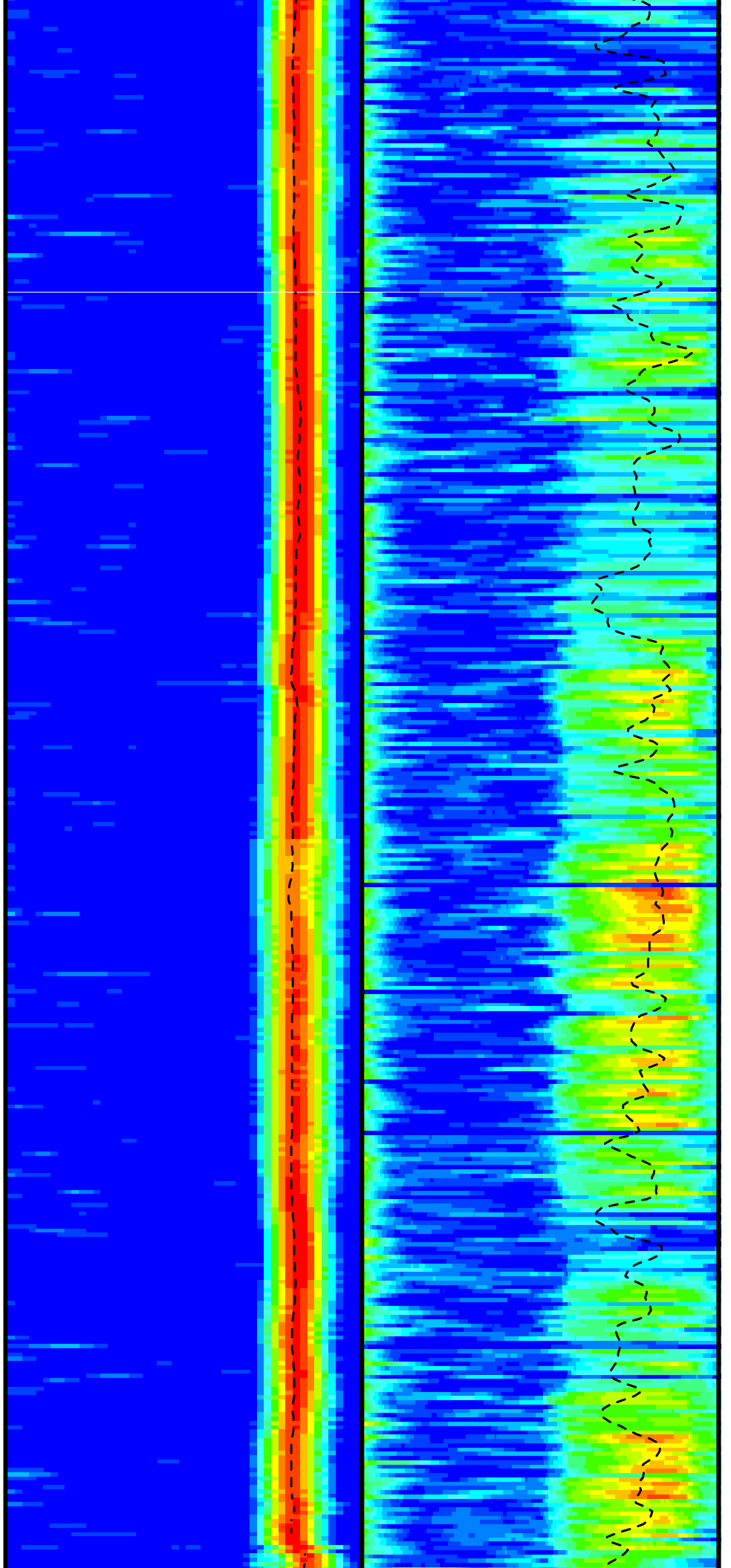




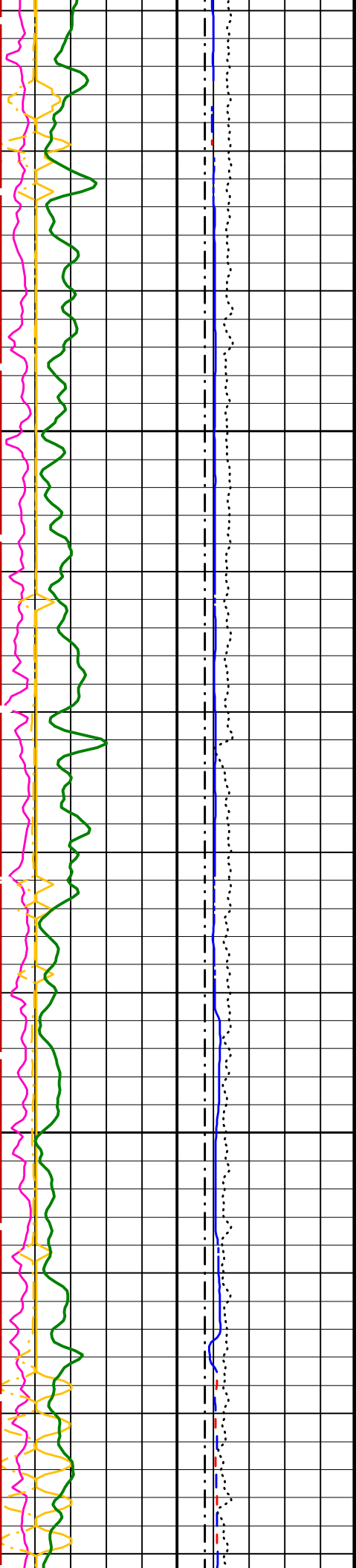


2300

2325

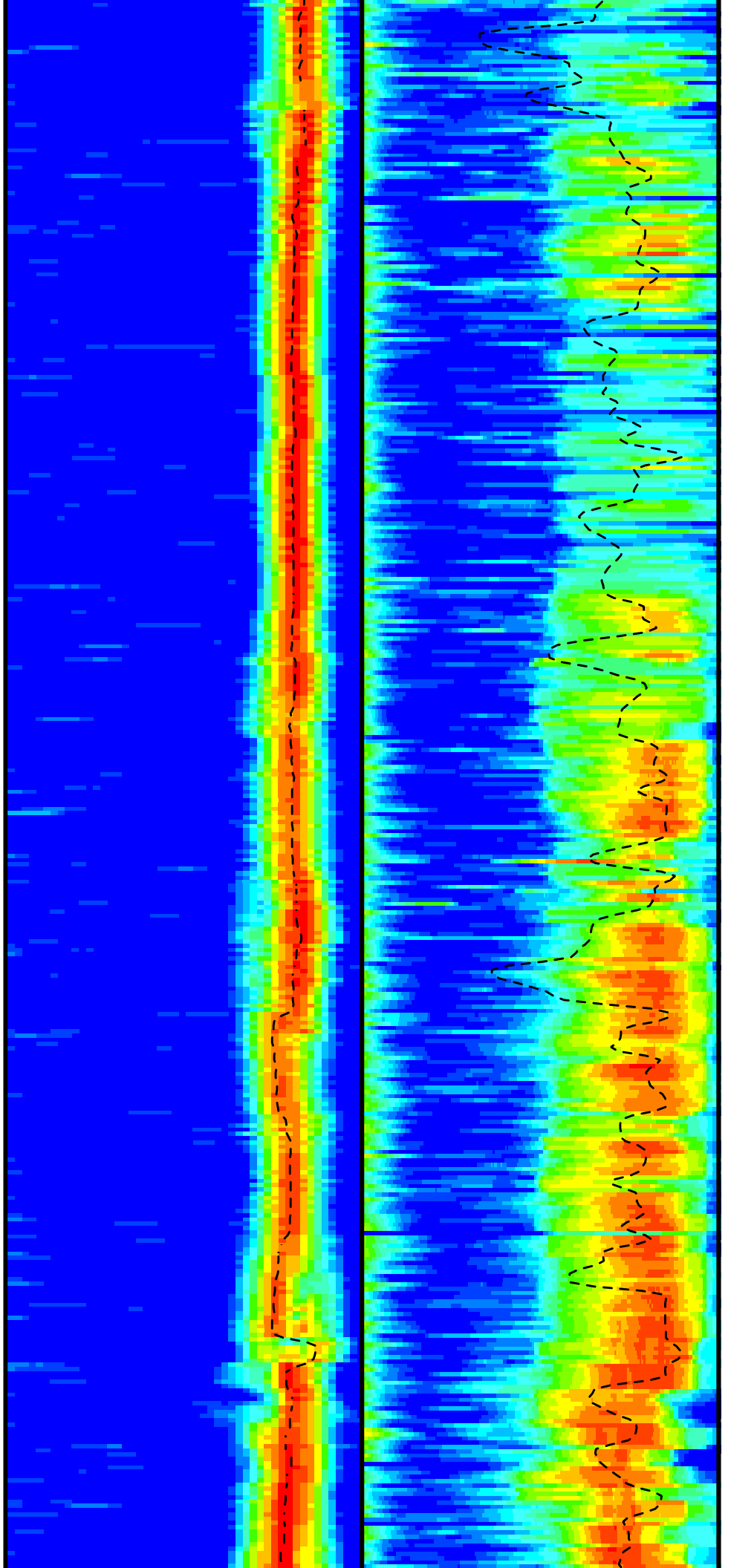


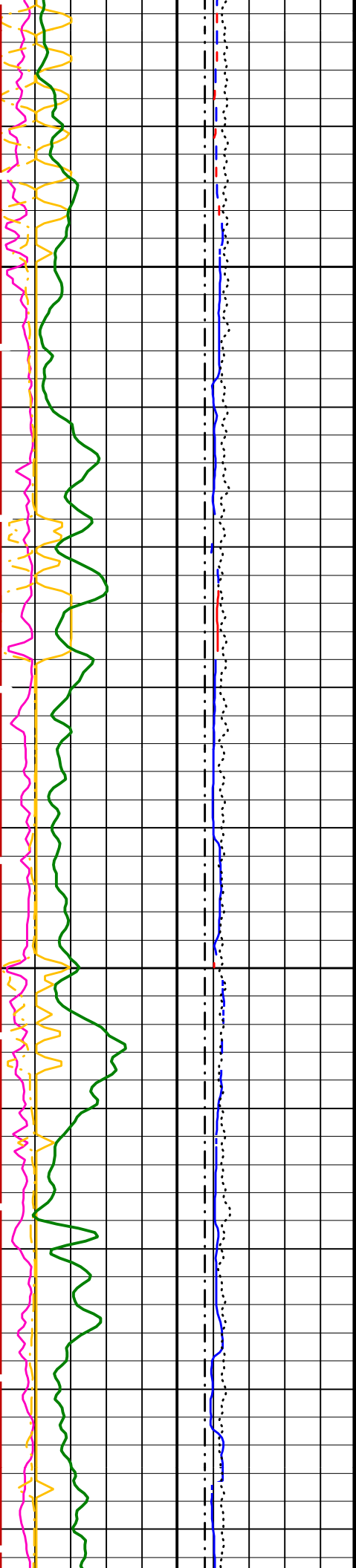




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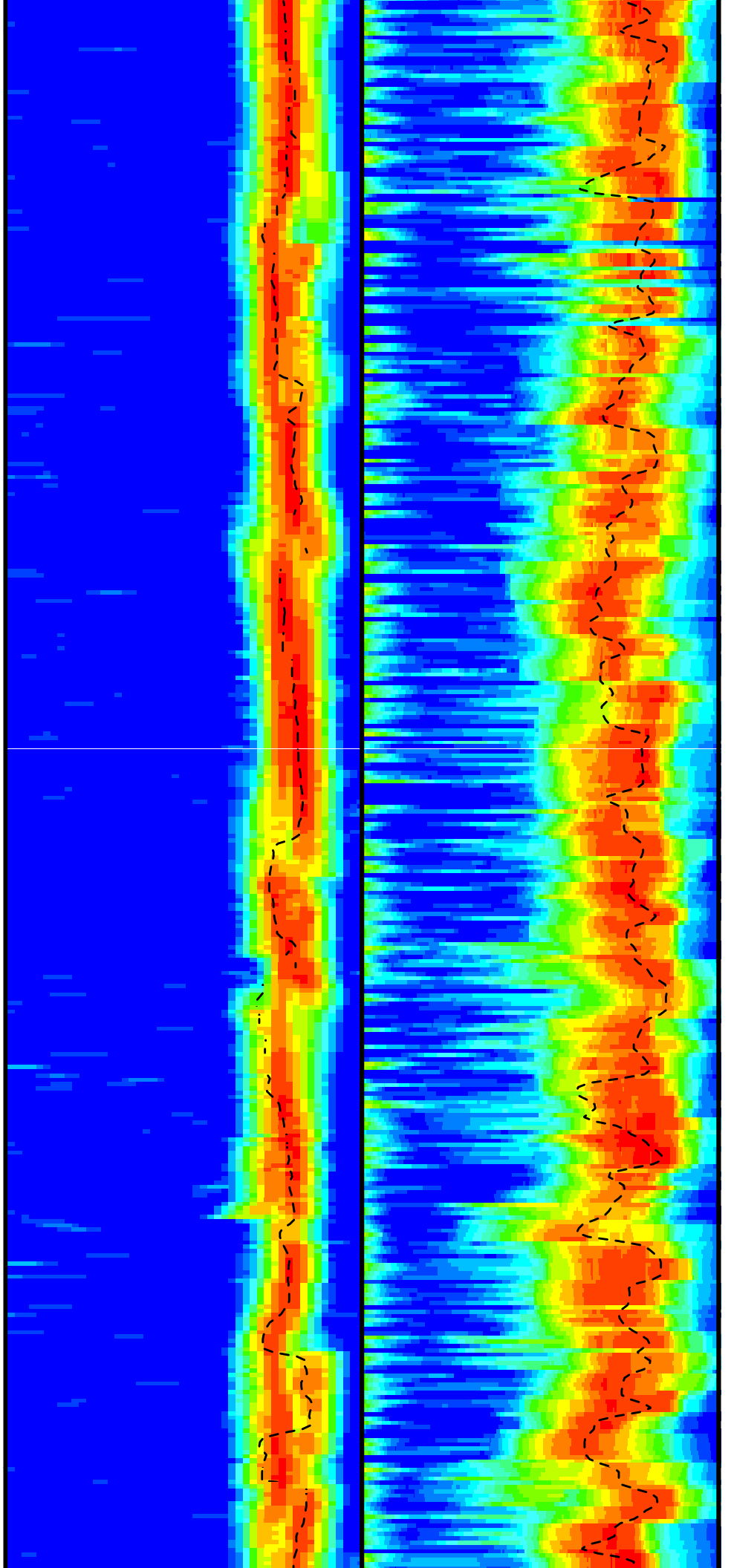
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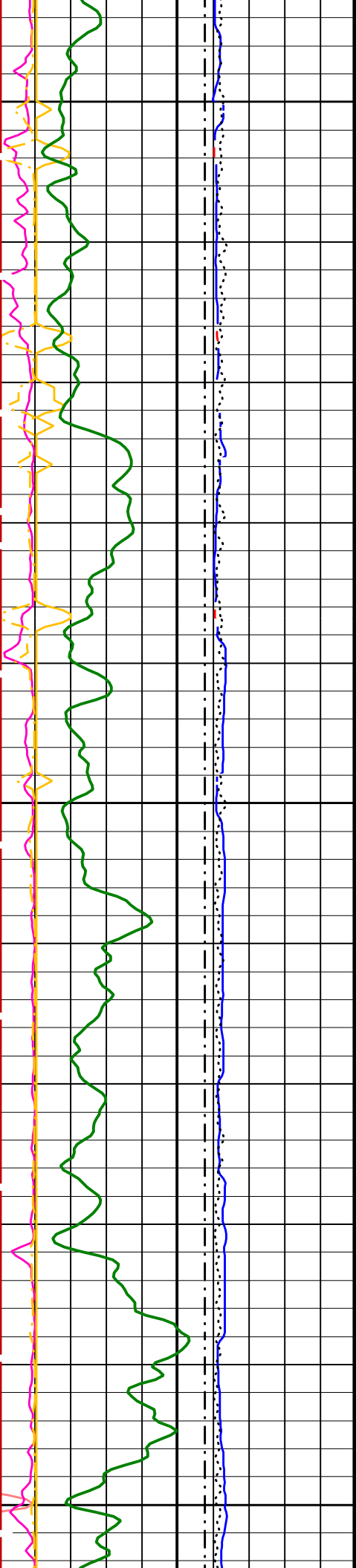




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2425

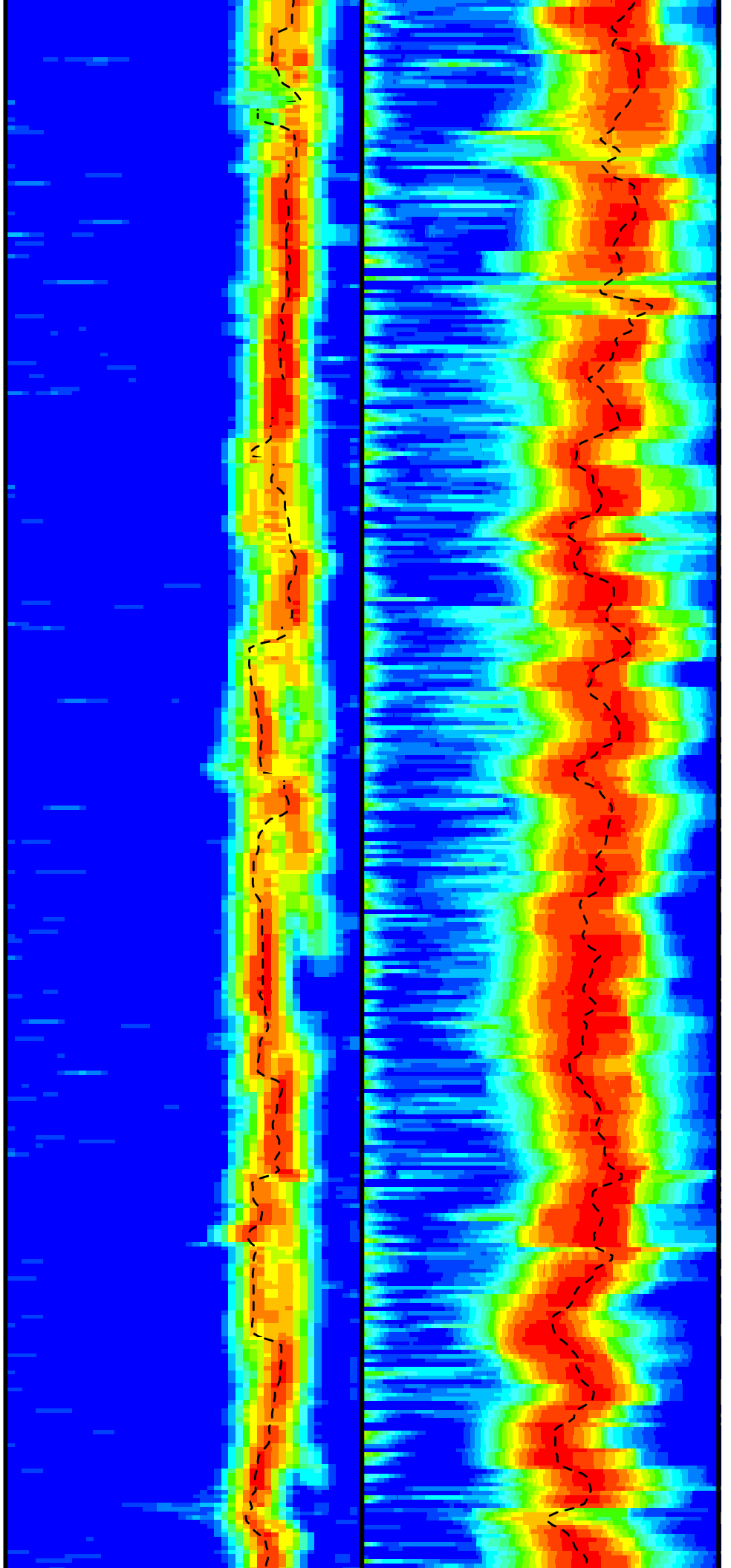


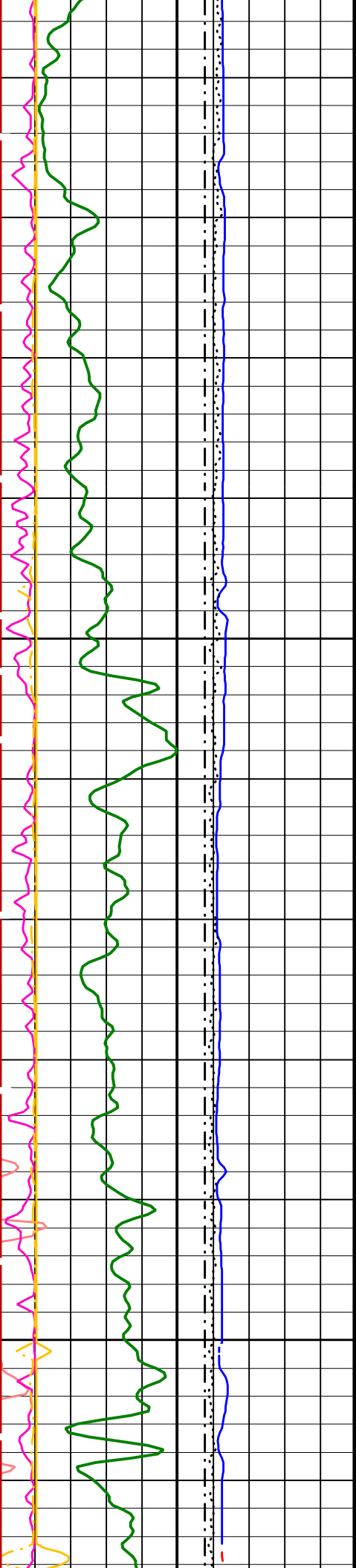


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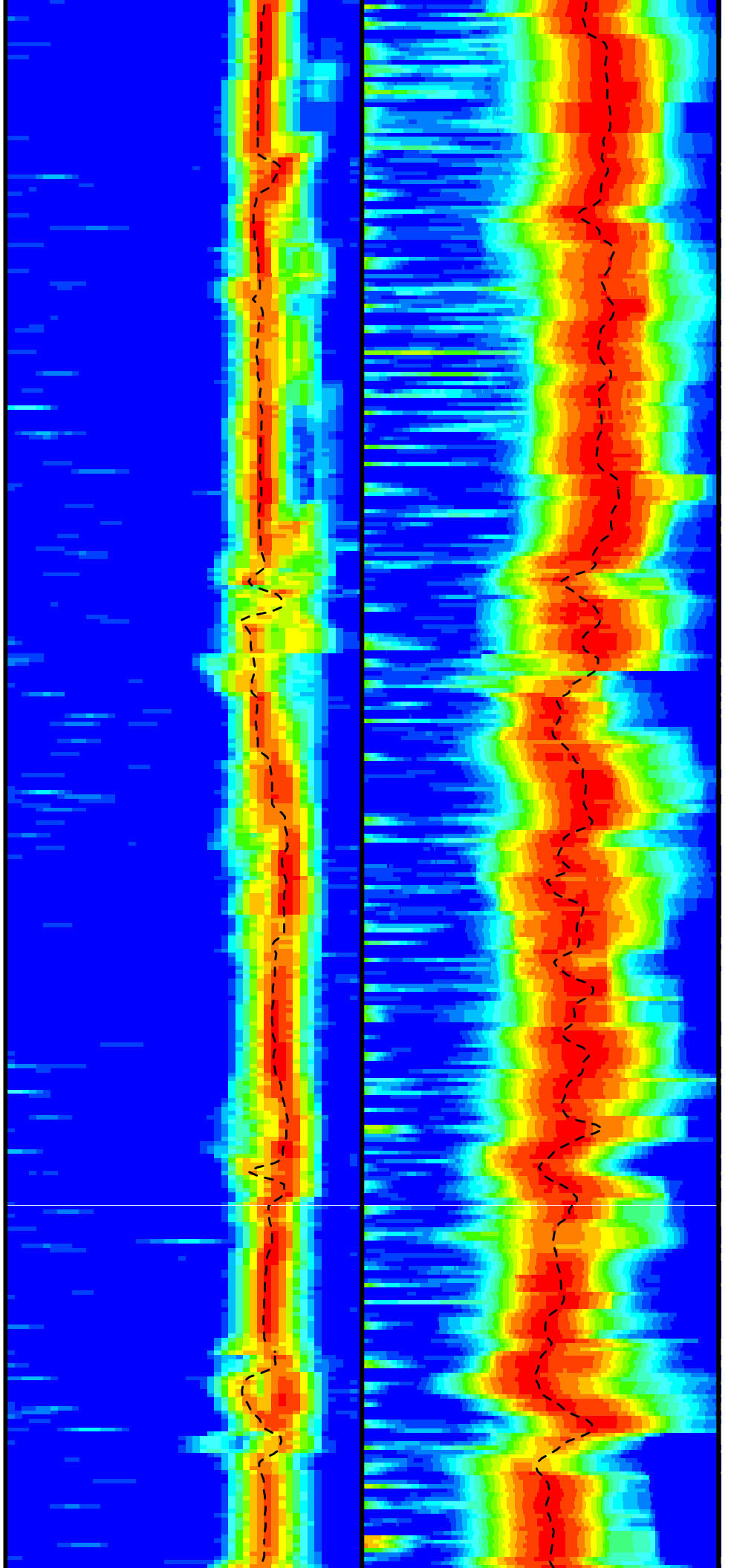
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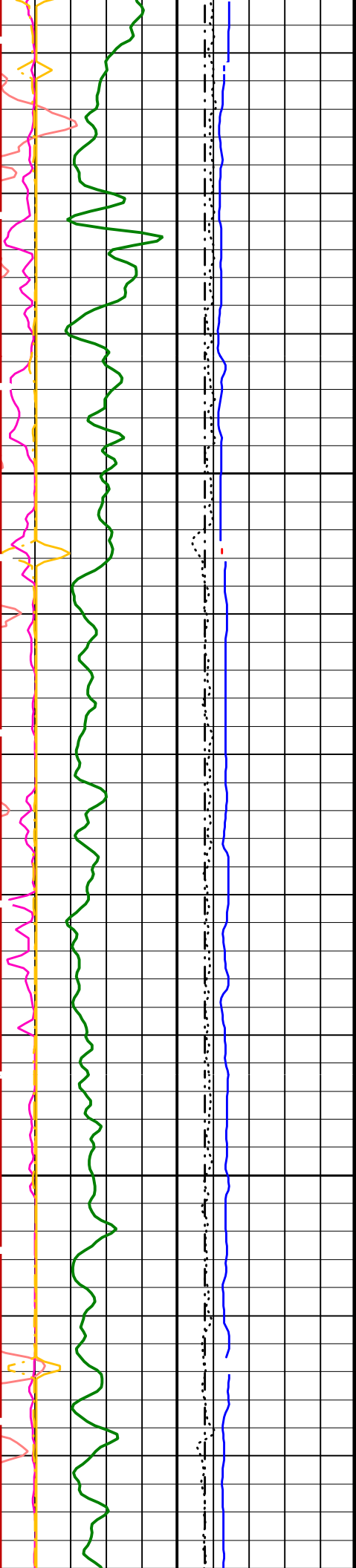




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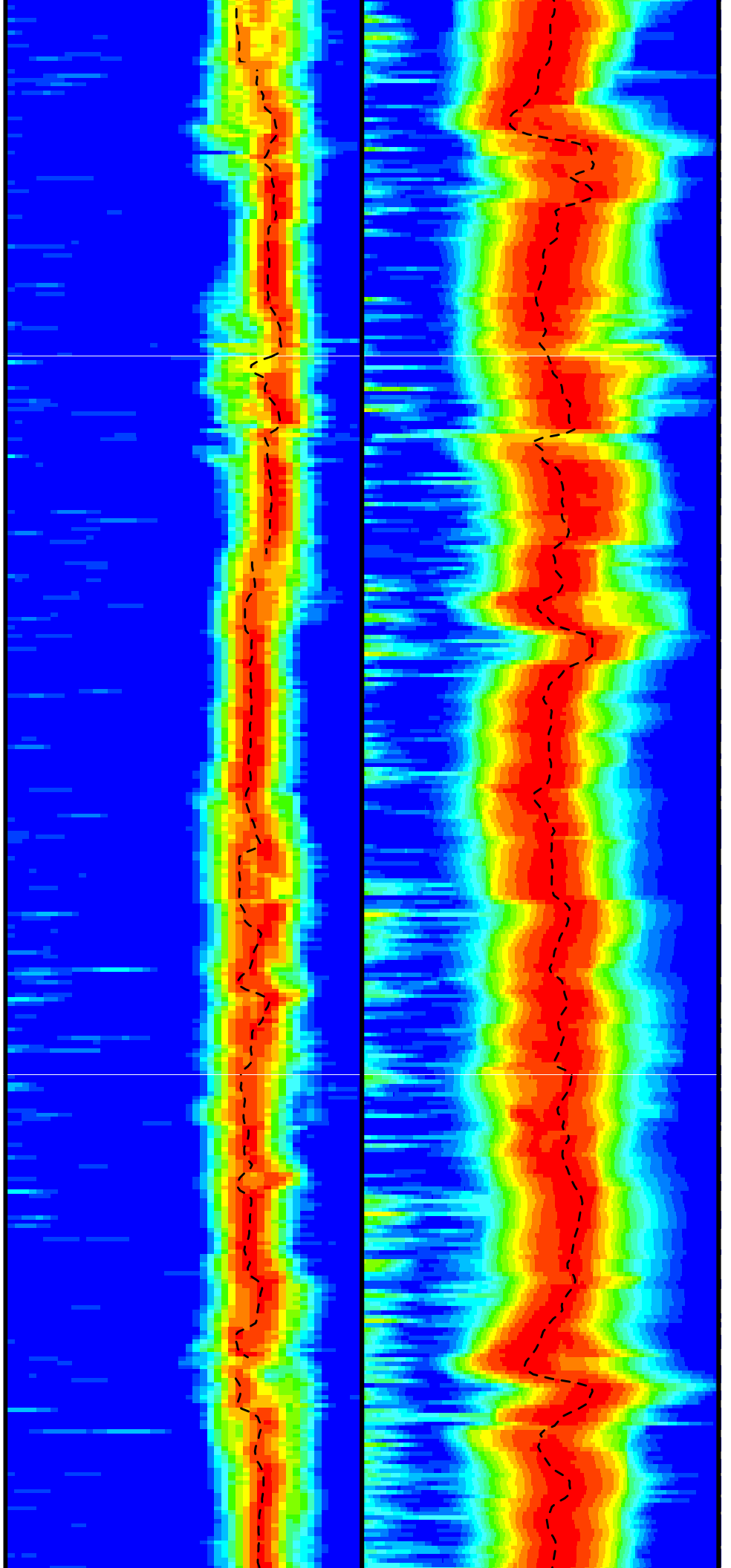
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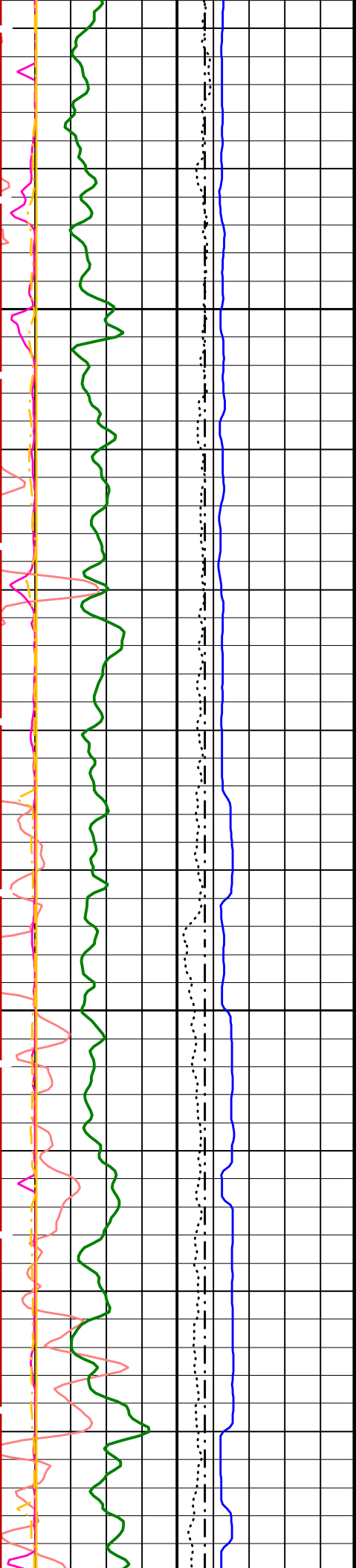




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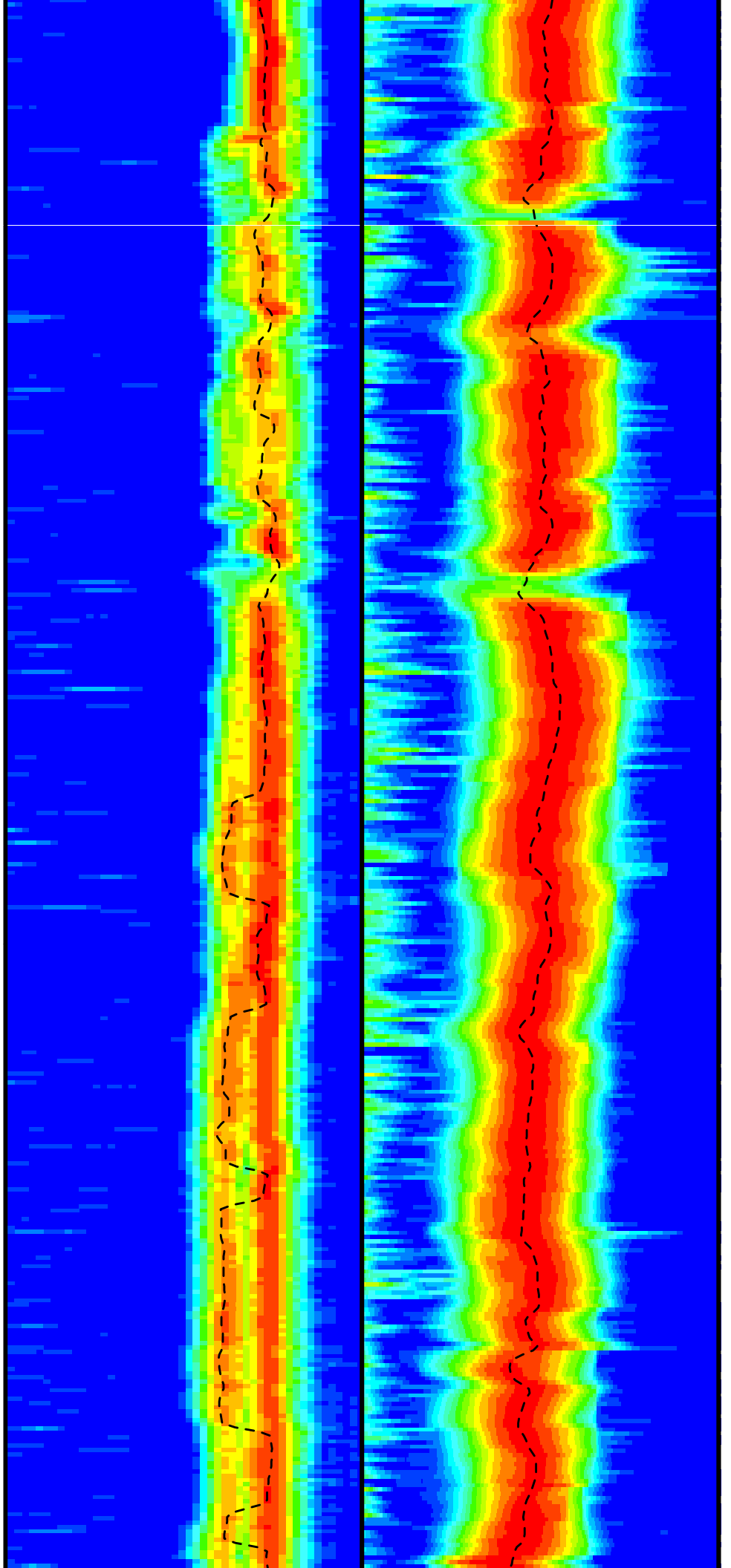
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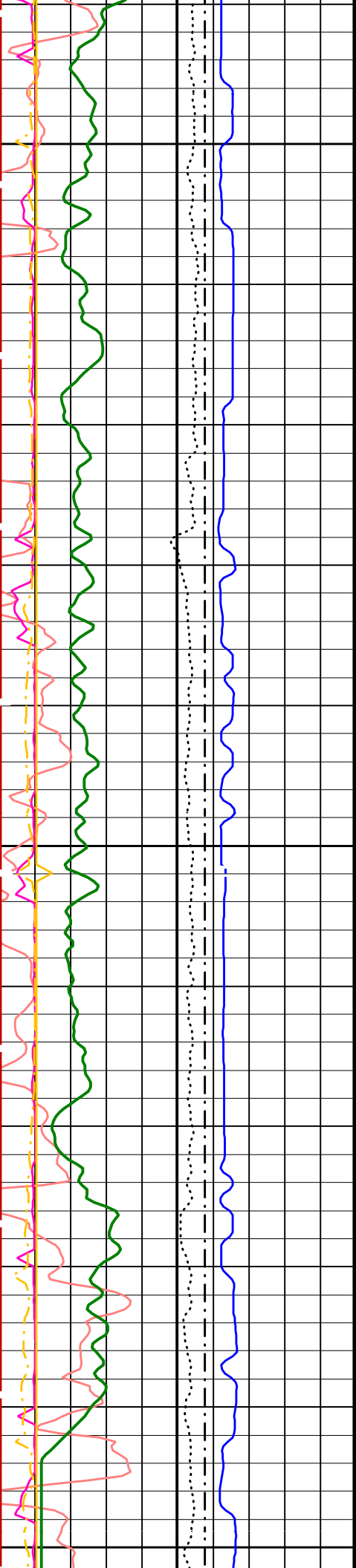




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2650

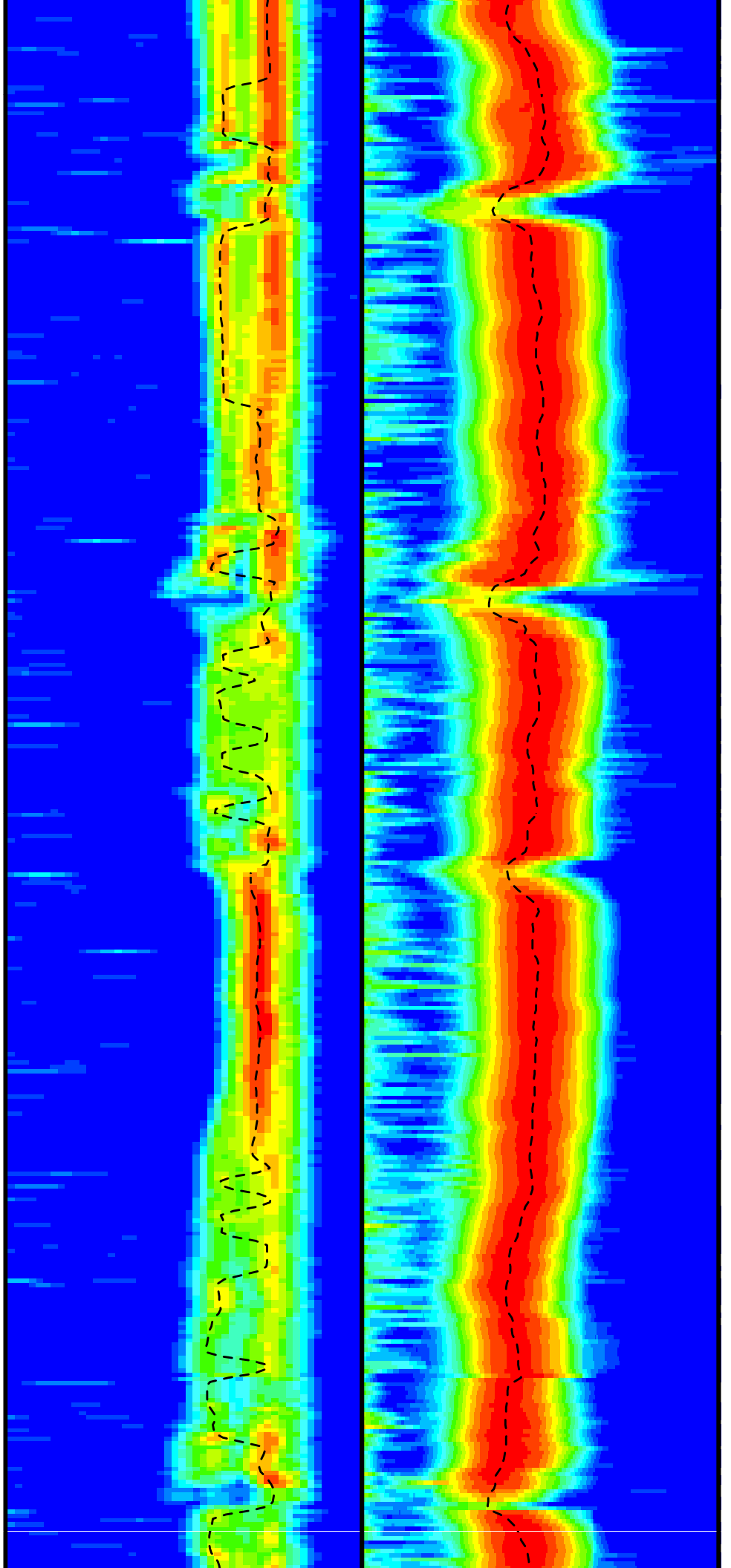


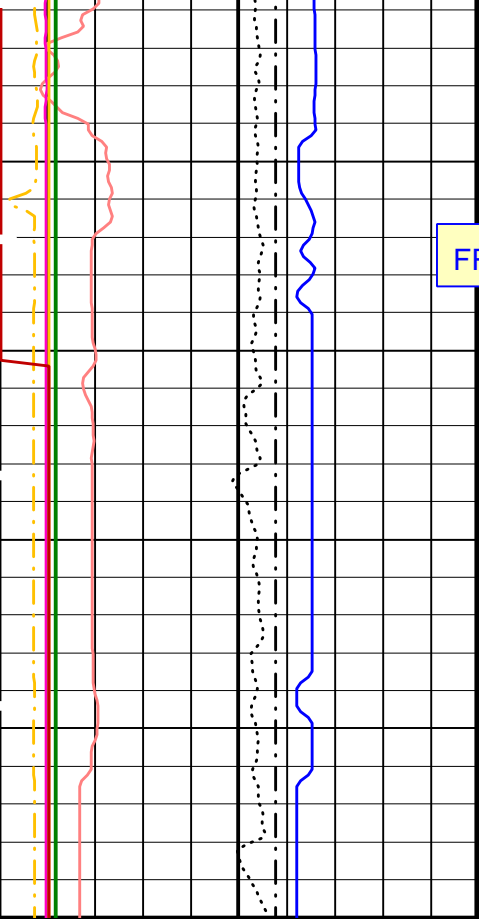


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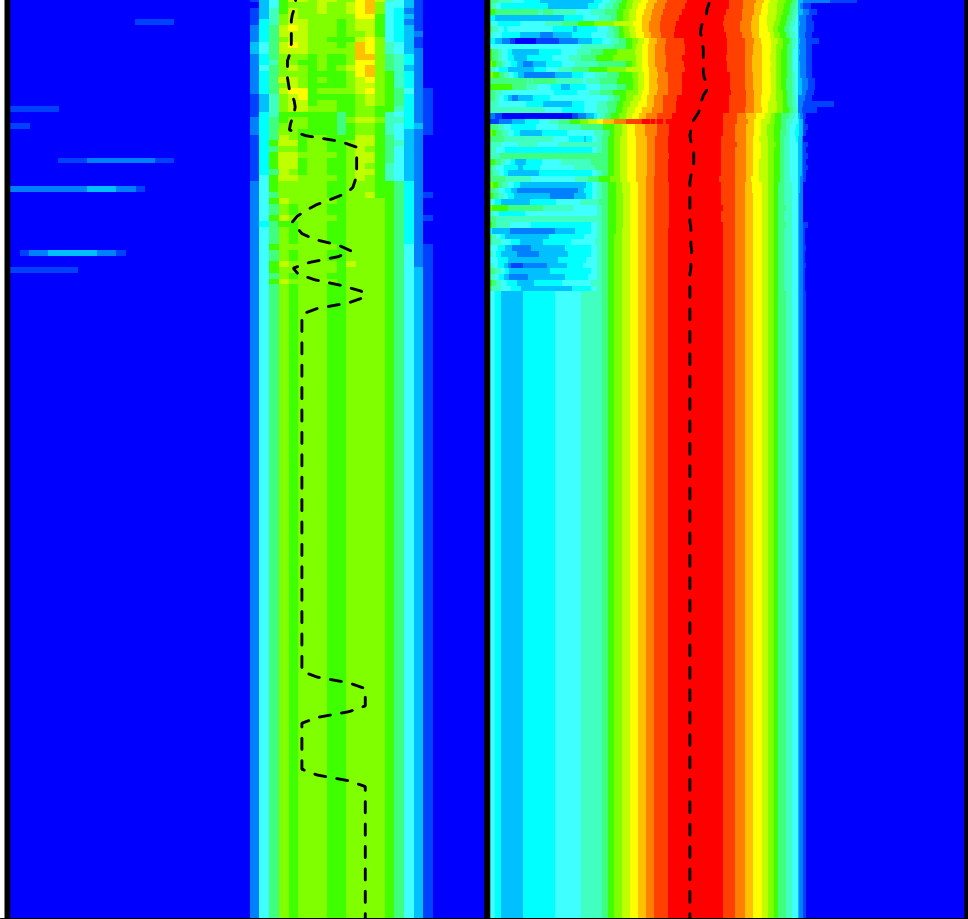
2700

2725





FR DSI →

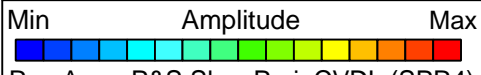
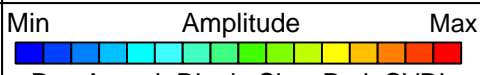


2750

0	Bit Size (BS) (IN)	20
440	Delta-T Shear - Upper Dipole (DT2) (US/F)	40
440	Delta-T Comp - P & S (DT4P) (US/F)	40
440	Delta-T Shear - P & S (DT4S) (US/F)	40
10000	Tension (TENS) (LBF)	0
0	HNGS Computed Gamma Ray (HCGR) (GAPI)	50
0	Peak Coherence / RA - Upper Dipole (CHR2) (---)	10
0	Peak Coherence / RA - P & S Comp (CHRP) (---)	10
-1	Peak Coherence / RA - P & S Shear (CHRS) (---)	9
0	Waveform Data Copy Indicator 4 - Monopole P&S (WCI4) (---)	10

120	Delta-T Comp / RA - P & S (DTRP) (US/F)	220
120	Delta-T Shear / RA - P & S (DTRS) (US/F)	220
120	Rec.Array P&S Slow Proj. CVDL (SPR4) (US/F)	220

300	Delta-T Shear / RA - Lower Dipole (DT1R) (US/F)	1600
300	Rec.Array L.Dipole Slow Proj. CVDL (SPR1) (US/F)	1600





## Parameters

DLIS Name	Description	Value
	DSST-B: Dipole Shear Imager - B	
BHS	Borehole Status	OPEN
CASF	Label Casing Function - Monopole P&S	50
COLL	Label Slowness Lower Limit - Monopole P&S Compressional	120 US/F
COUL	Label Slowness Upper Limit - Monopole P&S Compressional	220 US/F
DDE1	Digitizing Delay 1	0 US
DDE4	Digitizing Delay 4	0 US
DDEX	Digitizing Delay X	0 US
DLCS	Label Compressional Source - Dipole Shear	USE
DSHL	Label Slowness Lower Limit - Dipole Shear	700 US/F
DSHU	Label Slowness Upper Limit - Dipole Shear	1500 US/F
DSI1	Digitizer Sample Interval 1	40 US
DSI4	Digitizer Sample Interval 4	10 US
DSIX	Digitizer Sample Interval X	40 US
DTCS	Compressional Delta-T Source for DTCO Channel	PS_COMP
DTF	Delta-T Fluid	204.5 US/F
DWC1	Digitizer Word Count 1	512
DWC4	Digitizer Word Count 4	512
DWCX	Digitizer Word Count X	512
FILG	Label Fill Gap Control - Monopole P&S	COMP_SHEAR
GCSE	Generalized Caliper Selection	BS
LFC	Label Formation Character - Monopole P&S	DYNAMIC
LTXG	Lower Dipole Transmitter Geometry	156 IN
MCS	Mean Casing Slowness	57 US/F
MTXG	Monopole Transmitter Geometry	186 IN
NWI1	Number Waveform Items 1	8
NWI2	Number Waveform Items 2	8
NWI4	Number Waveform Items 4	8
NWIX	Number Waveform Items X	0
RSMN	Label Shear/Compressional Minimum Ratio - Monopole P&S	1.4
RSMX	Label Shear/Compressional Maximum Ratio - Monopole P&S	2.12
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
SAM1	DSST Sonic Acquisition Mode 1 - Lower Dipole Mode	LFD_EVEN
SAM4	DSST Sonic Acquisition Mode 4 - High Frequency Monopole Mode for P&S	ODD
SAMX	DSST Sonic Acquisition Mode X - Both Dipoles or Monopole Mode for Expert	OFF
SAS1	STC Sonic Array Status - Lower Dipole	255
SAS2	STC Sonic Array Status - Upper Dipole	255
SAS4	STC Sonic Array Status - Monopole P&S	255
SBO1	STC Search Band Offset - Lower Dipole	3000 US
SBO4	STC Search Band Offset - Monopole P&S	500 US
SBR4	STC Baseline Removal - Monopole P&S	ON
SBW1	STC Search Bandwidth - Lower Dipole	8000 US
SBW4	STC Search Bandwidth - Monopole P&S	2000 US
SFC1	STC Formation Character - Lower Dipole	SELECTABLE
SFC4	STC Formation Character - Monopole P&S	SELECTABLE
SFM1	STC Filter - Lower Dipole	B.3-1.5K
SFM2	STC Filter - Upper Dipole	B1-2K
SFM4	STC Filter - Monopole P&S	B3-20K
SHLL	Label Slowness Lower Limit - Monopole P&S Shear	120 US/F
SHUL	Label Slowness Upper Limit - Monopole P&S Shear	220 US/F
SLL1	STC Slowness Lower Limit - Lower Dipole	300 US/F
SLL4	STC Slowness Lower Limit - Monopole P&S	120 US/F
SST1	STC Slowness Step - Lower Dipole	4 US/F
SST4	STC Slowness Step - Monopole P&S	2 US/F
SSW1	STC Source Waveform - Lower Dipole	WF_SAM1
SSW2	STC Source Waveform - Upper Dipole	WF_SAM2
SSW4	STC Source Waveform - Monopole P&S	WF_SAM4
STLL	Label Slowness Lower Limit - Monopole Stoneley	180 US/F
STUL	Label Slowness Upper Limit - Monopole Stoneley	780 US/F
SUL1	STC Slowness Upper Limit - Lower Dipole	1600 US/F
SUL4	STC Slowness Upper Limit - Monopole P&S	220 US/F
SWD1	STC Slowness Width - Lower Dipole	40 US/F
SWD4	STC Slowness Width - Monopole P&S	10 US/F
TBF1	STC Time for Baseline Fill - Lower Dipole	0 US
TBF4	STC Time for Baseline Fill - Monopole P&S	300 US
TLL1	STC Time Lower Limit - Lower Dipole	2450 US
TLL4	STC Time Lower Limit - Monopole P&S	580 US
TST1	STC Time Step - Lower Dipole	200 US

TST4	STC Time Step - Monopole P&S	50	US
TUL1	STC Time Upper Limit - Lower Dipole	20440	US
TUL4	STC Time Upper Limit - Monopole P&S	3480	US
TWD1	STC Time Width - Lower Dipole	2000	US
TWD4	STC Time Width - Monopole P&S	1000	US
TWI1	STC Integration Time Window - Lower Dipole	1600	US
TWI2	STC Integration Time Window - Upper Dipole	1600	US
TWI4	STC Integration Time Window - Monopole P&S	500	US
TWSX	Transmitter Waveform Select X	0	
UTXG	Upper Dipole Transmitter Geometry	162	IN
WFM4	Waveform Mode 4	W1	
HNGS-BA: Hostile Natural Gamma Ray Sonde			
BAR1	HNGS Detector 1 Barite Constant	1	
BAR2	HNGS Detector 2 Barite Constant	1	
BHK	HNGS Borehole Potassium Correction Concentration	0	
BHS	Borehole Status	OPEN	
CSD1	Inner Casing Outer Diameter	0	IN
CSD2	Outer Casing Outer Diameter	0	IN
CSW1	Inner Casing Weight	0	LB/F
CSW2	Outer Casing Weight	0	LB/F
DBCC	HNGS Barite Constant Correction Flag	NONE	
GCSE	Generalized Caliper Selection	BS	
H1P	HNGS Detector 1 Allow/Disallow In Processing	ALLOW	
H2P	HNGS Detector 2 Allow/Disallow In Processing	ALLOW	
HABK	HNGS Borehole Potassium Running Average	-0.000712155	
HALF	HNGS Alpha Filter Length	60	IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	BARI	
HNPE	HNGS Processing Enable	YES	
S1BI	HNGS Detector 1 Calibration Bismuth Count Rate	1.3	CPS
S2BI	HNGS Detector 2 Calibration Bismuth Count Rate	1.3	CPS
SGRC	HNGS Standard Gamma-Ray Correction Flag	YES	
TPOS	Tool Position	ECCE	
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	1.01648	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	1.02283	
System and Miscellaneous			
BS	Bit Size	11.438	IN
DFD	Drilling Fluid Density	1.26	G/C3
DO	Depth Offset for Playback	5.0	M
PP	Playback Processing	RECOMPUTE	

Format: DSST\_P\_S\_LOWER\_VDL\_COLOR Vertical Scale: 1:200 Graphics File Created: 01-Aug-2009 16:39

## OP System Version: 17C0-154

MEST-B	SRPC-3762-Q1_2009_OP17	DTA-A	17C0-154
DSST-B	17C0-154	HNGC-B	17C0-154
HNGS-BA	17C0-154	DTC-H	17C0-154

### Input DLIS Files

DEFAULT	FMS_DSI_NGS_031LUP	FN:32	PRODUCER	01-Aug-2009 11:26	2745.5 M	2194.4 M
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### Output DLIS Files

DEFAULT	FMS_DSI_NGS_043PUP	FN:44	PRODUCER	01-Aug-2009 16:39		
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**Schlumberger**

**Pass #1  
OH Only**

MAXIS Field Log

Company: Lamont Doherty

Well: Expedition 321 Site U1339D

### Input DLIS Files

DEFAULT	FMS_DSI_NGS_030LUP	FN:31	PRODUCER	01-Aug-2009 09:37	2745.5 M	2275.3 M
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# Output DLIS Files

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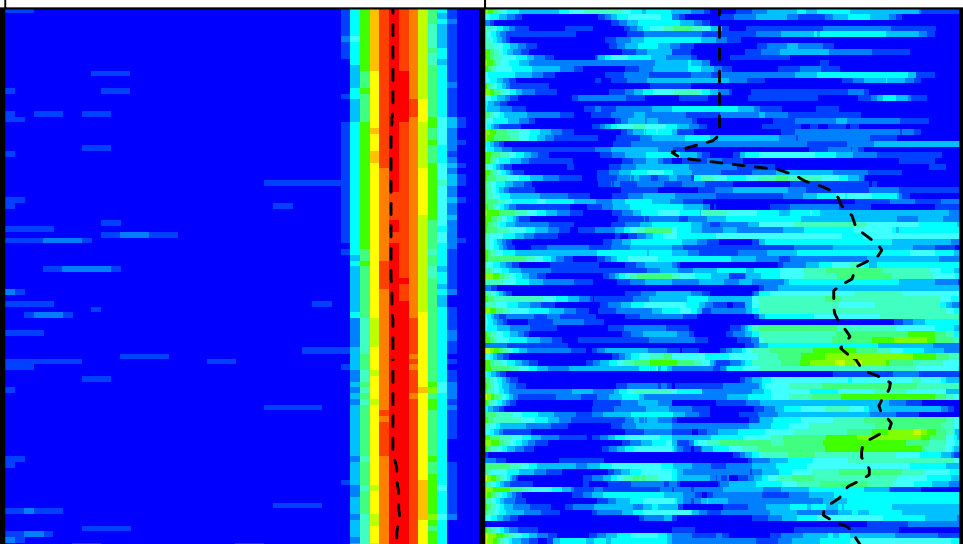
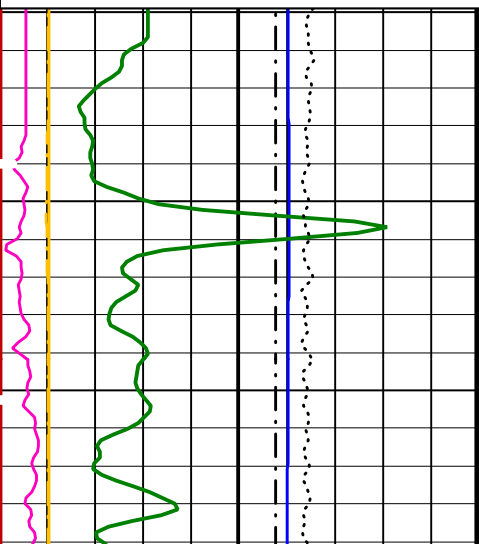
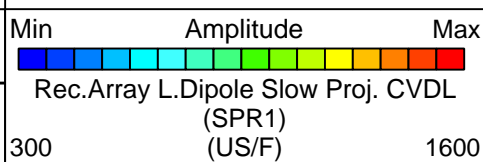
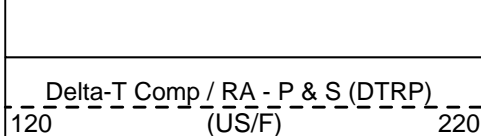
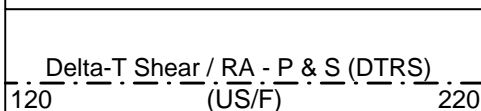
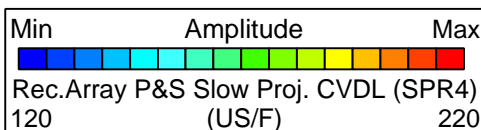
## OP System Version: 17C0-154

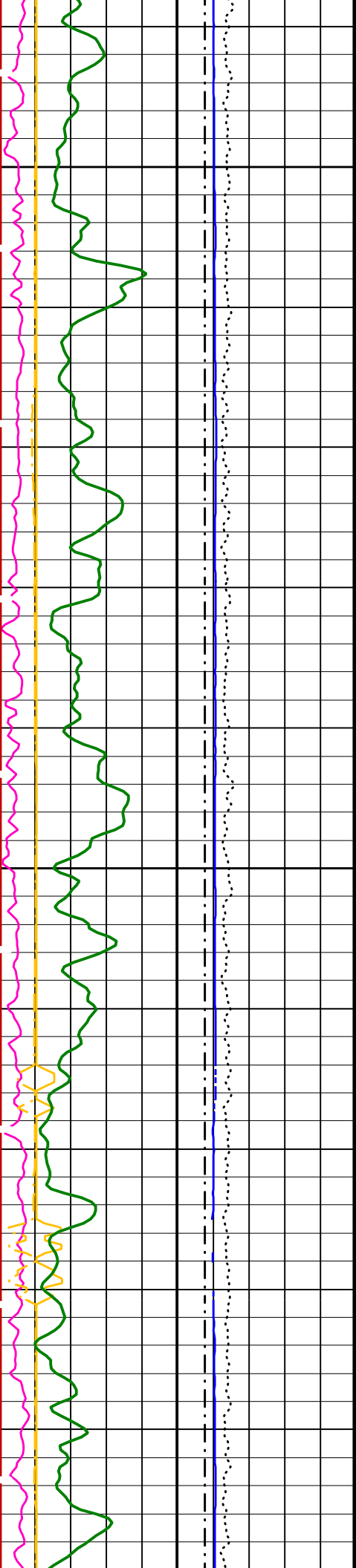
MEST-B	SRPC-3762-Q1_2009_OP17	DTA-A	17C0-154
DSST-B	17C0-154	HNGC-B	17C0-154
HNGS-BA	17C0-154	DTC-H	17C0-154

### PIP SUMMARY

Time Mark Every 60 S

Waveform Data Copy Indicator 4 - Monopole P&S (WCI4)	0	(----	10
Peak Coherence / RA - P & S Shear (CHRS)	-1	(----	9
Peak Coherence / RA - P & S Comp (CHRP)	0	(----	10
Peak Coherence / RA - Upper Dipole (CHR2)	0	(----	10
HNGS Computed Gamma Ray (HCGR)	0	(GAPI)	50
Tension (TENS)	10000	(LBF)	0
Delta-T Shear - P & S (DT4S)	440	(US/F)	40
Delta-T Comp - P & S (DT4P)	440	(US/F)	40
Delta-T Shear - Upper Dipole (DT2)	440	(US/F)	40
Bit Size (BS)	0	(IN)	20

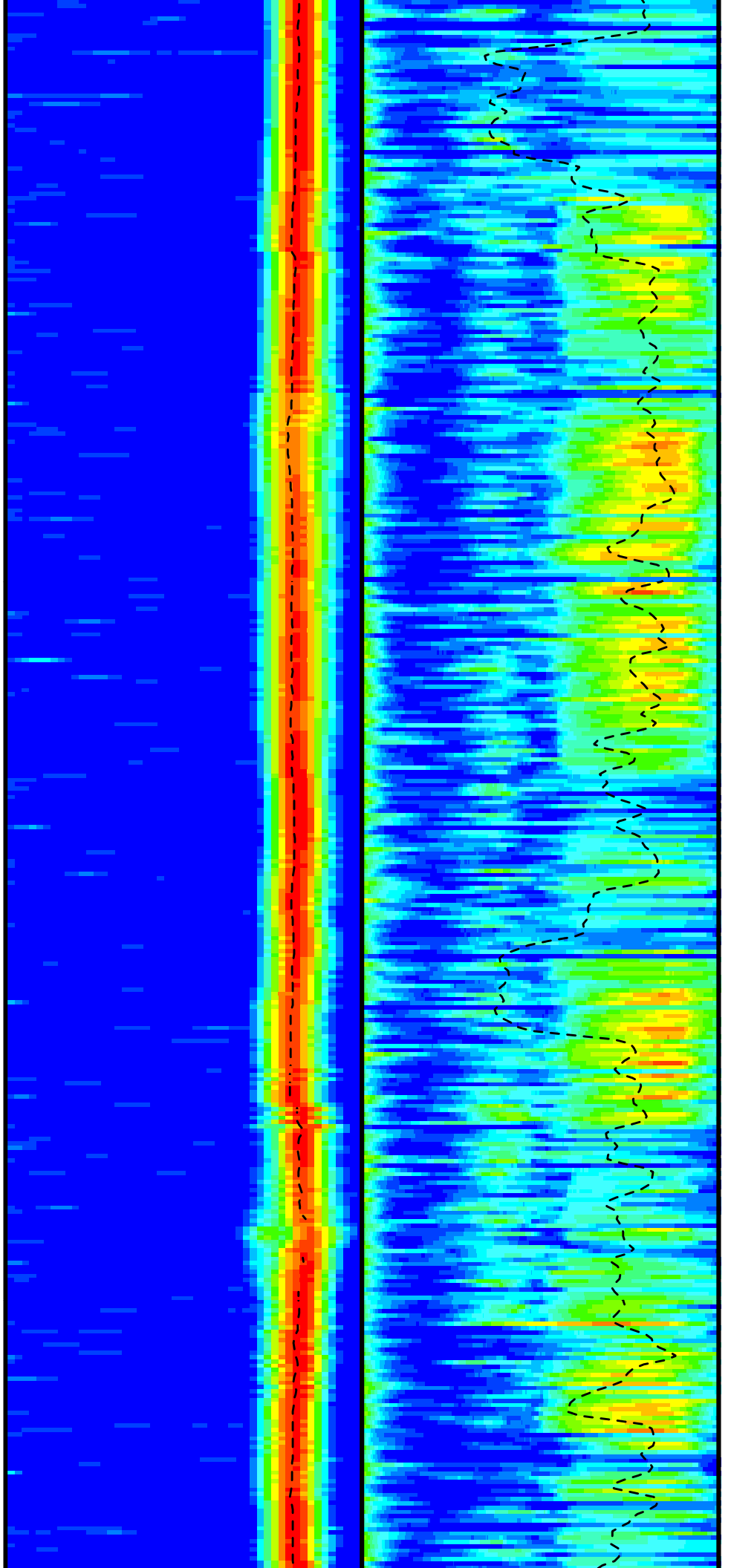


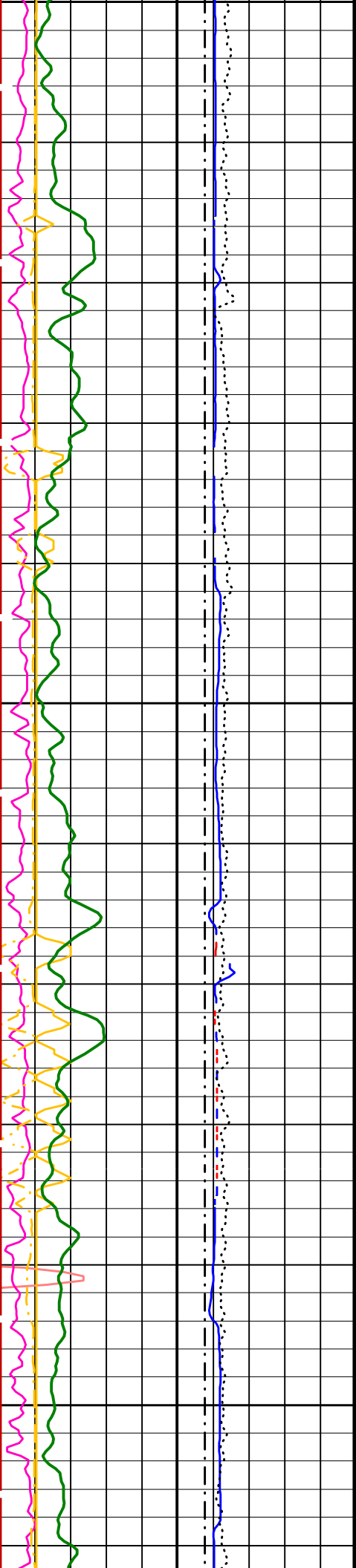


2300

2325

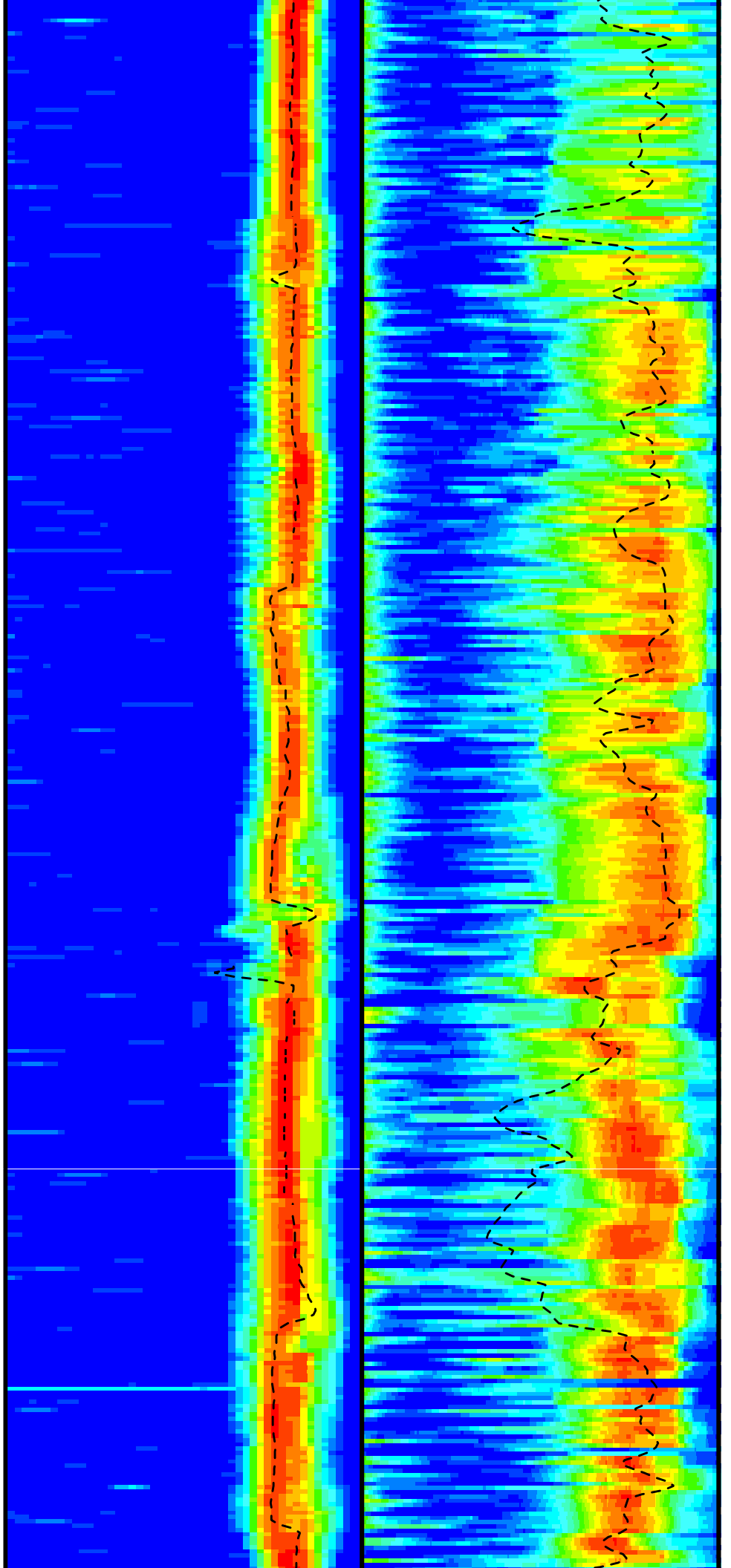
2350

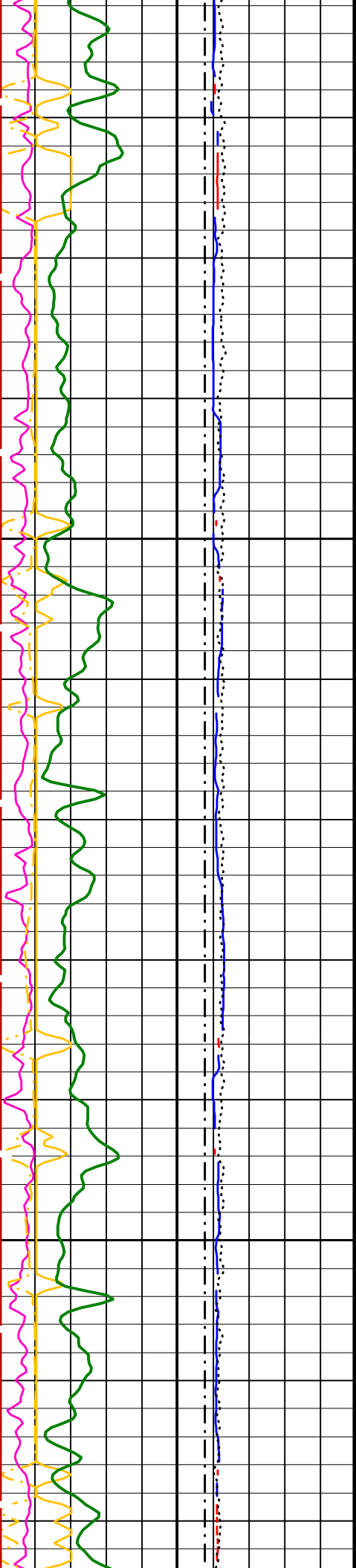




2375

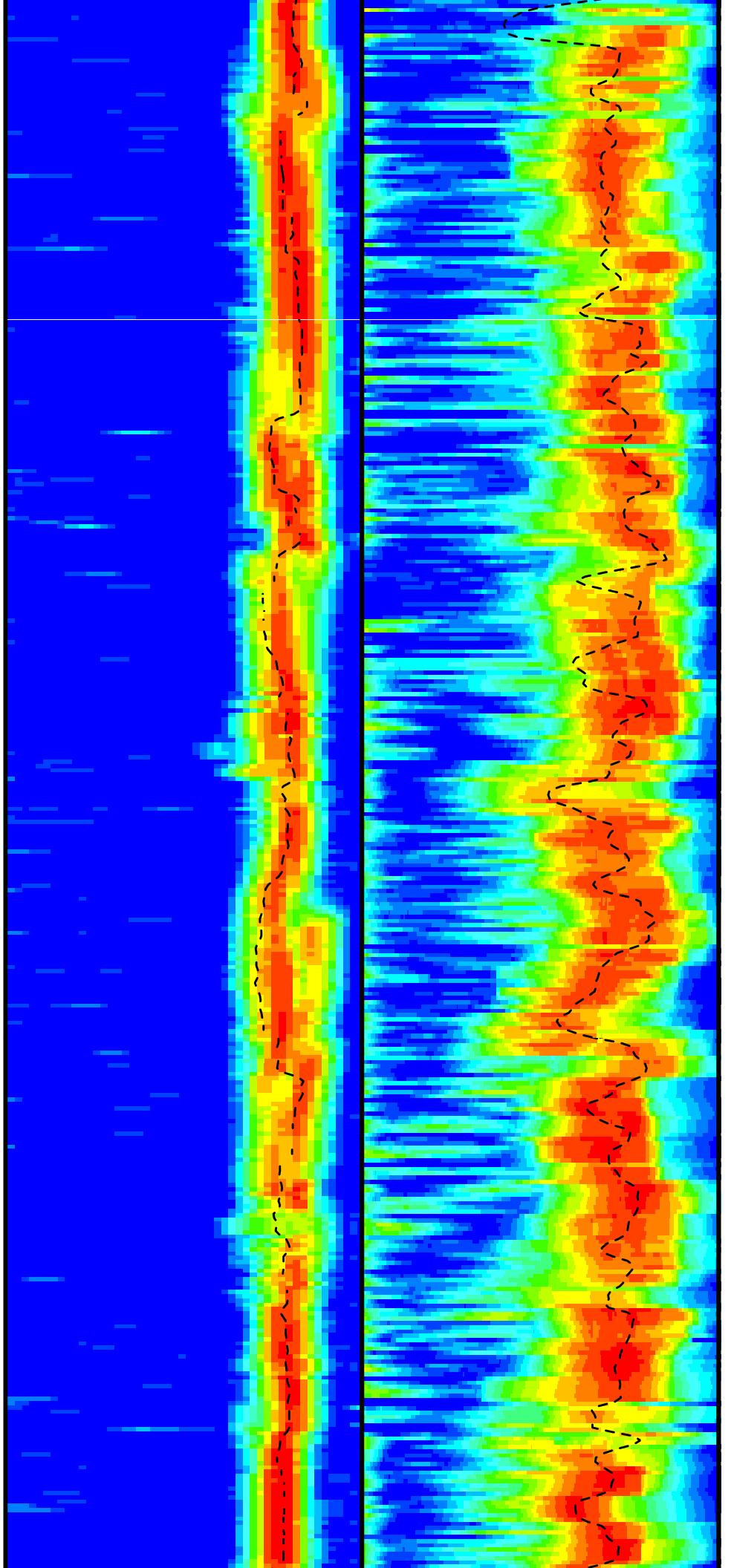
2400

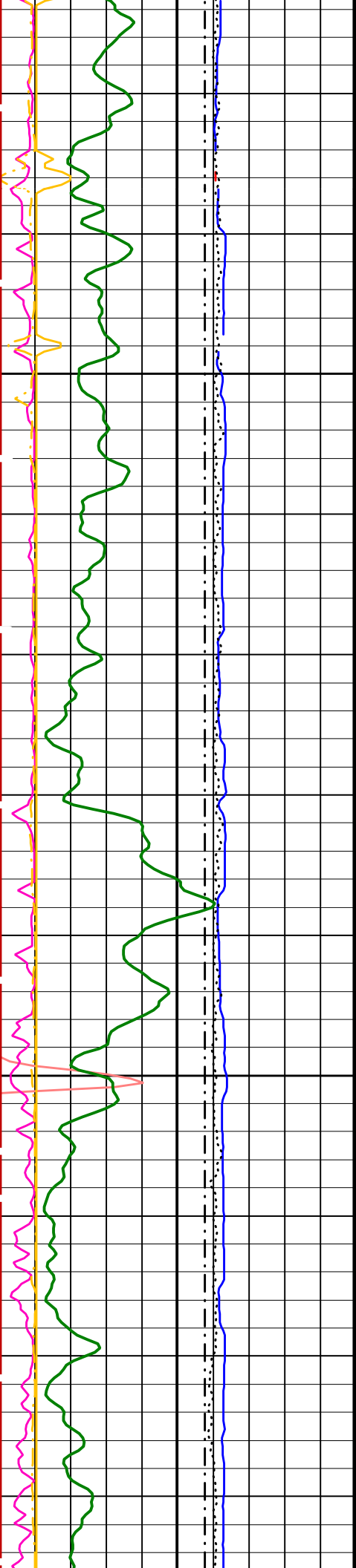




2425

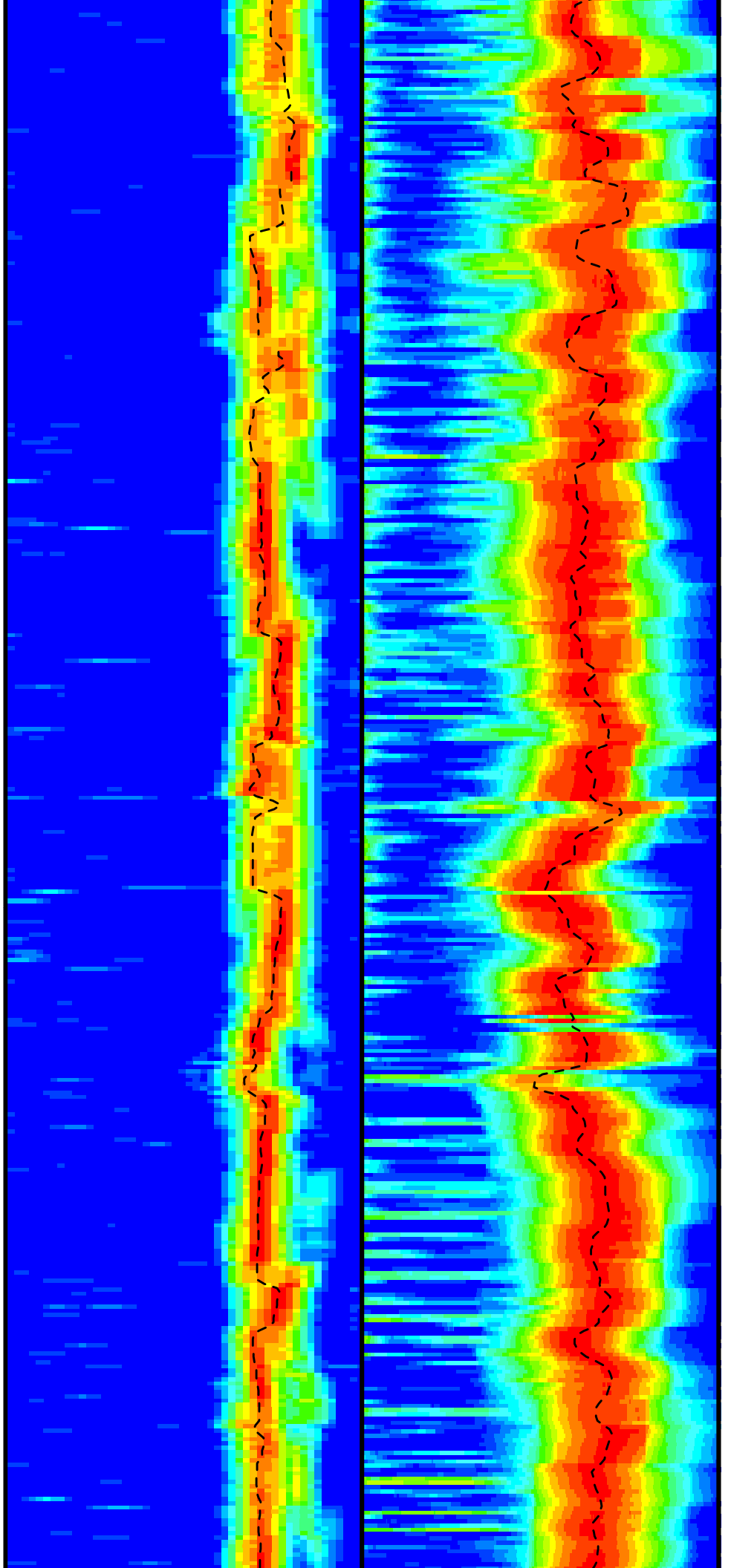
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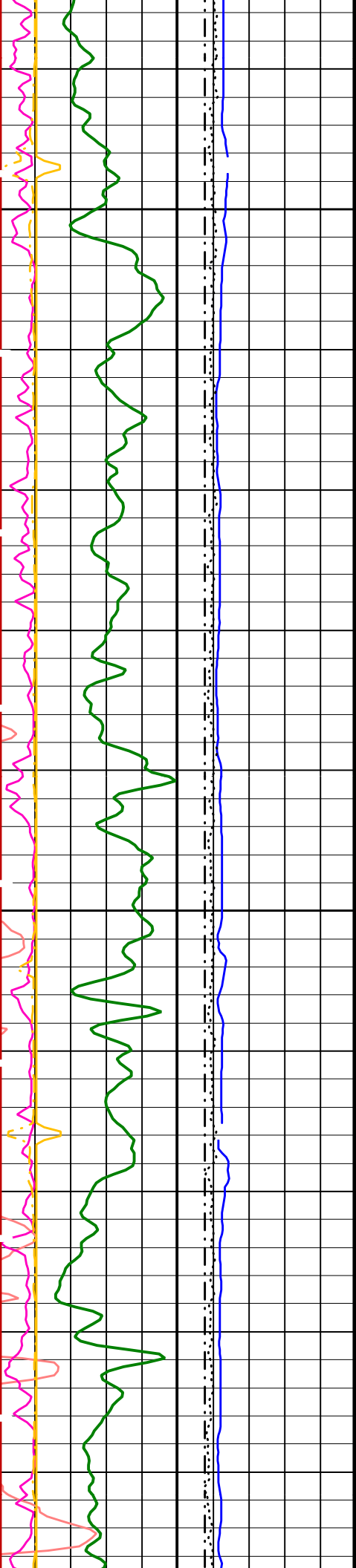




2475

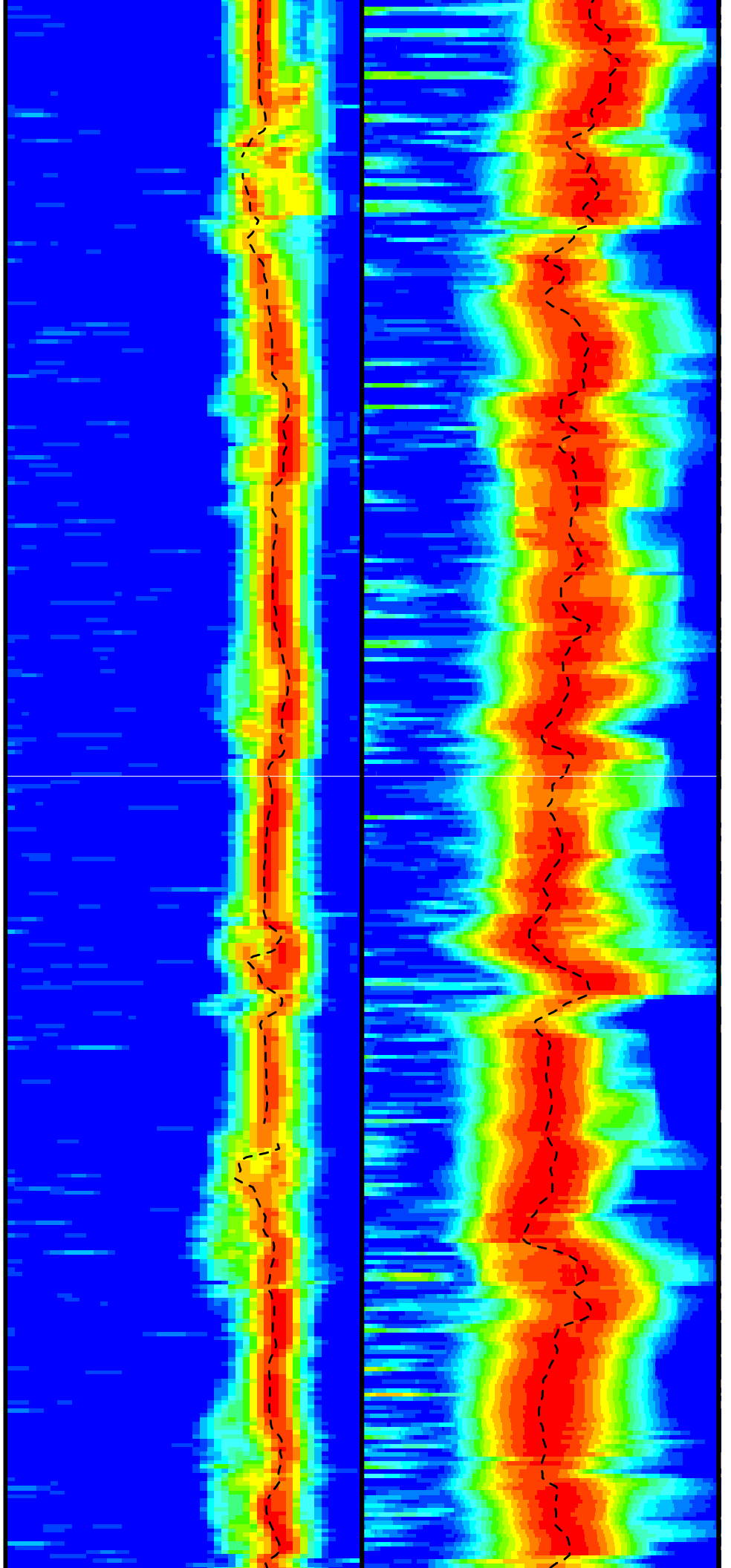
2500



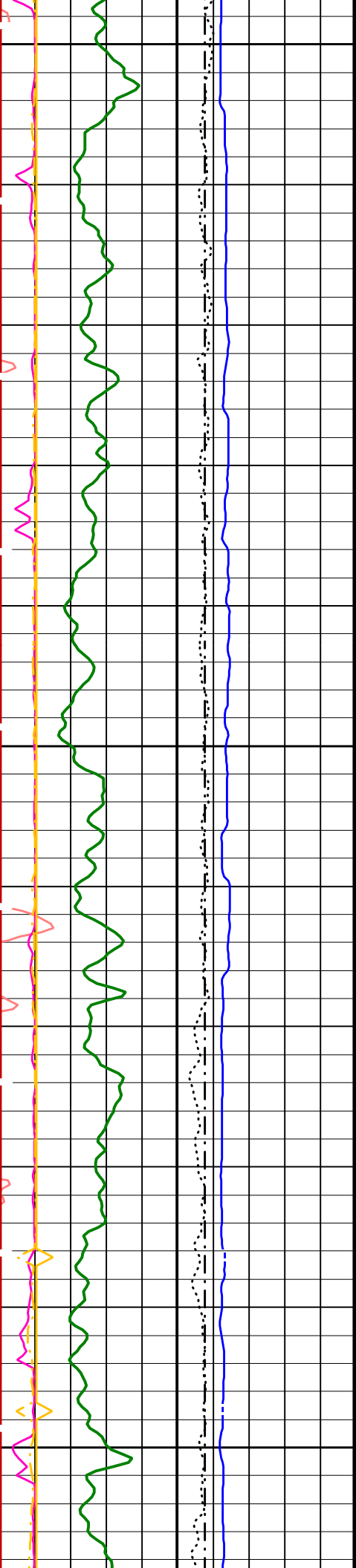


2525

2550



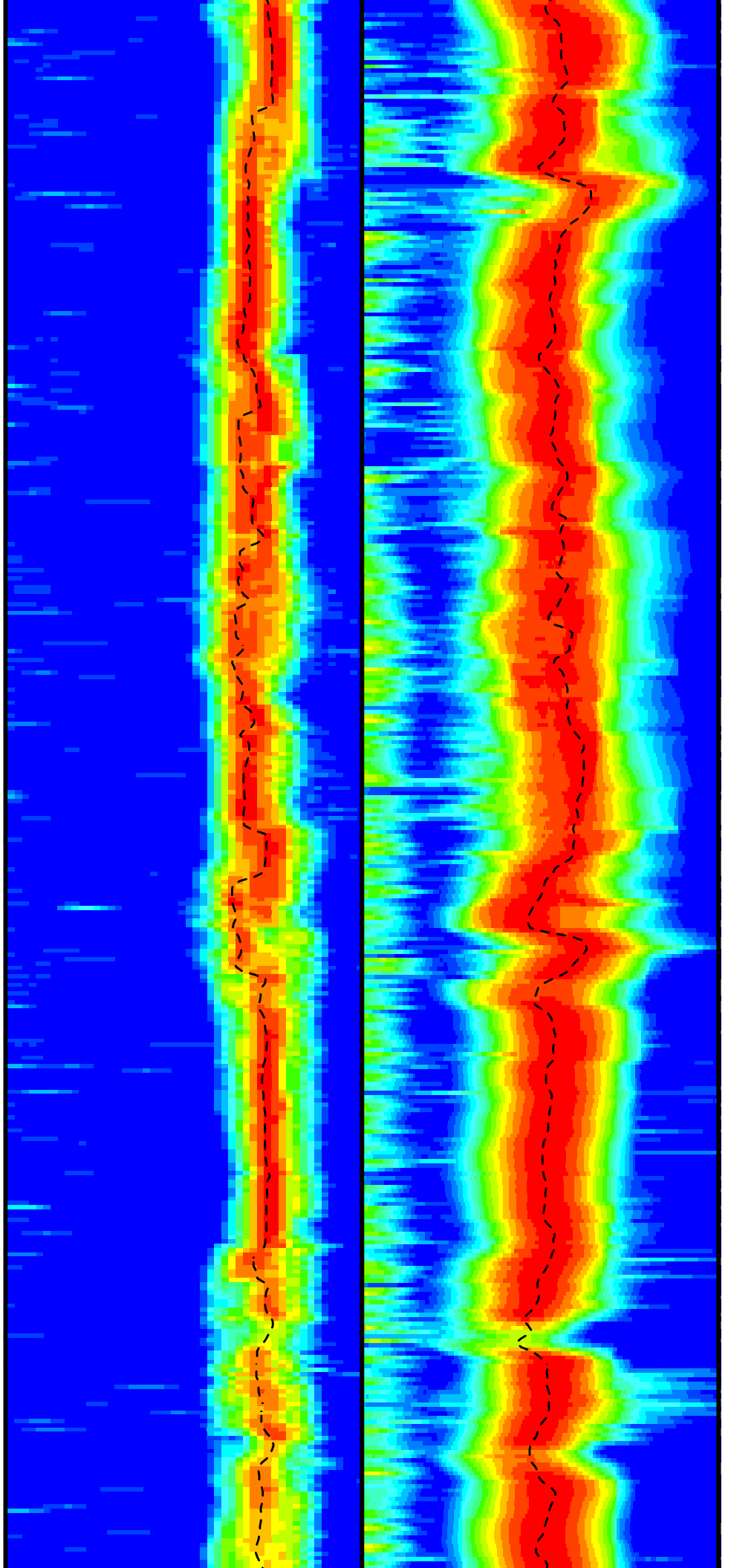


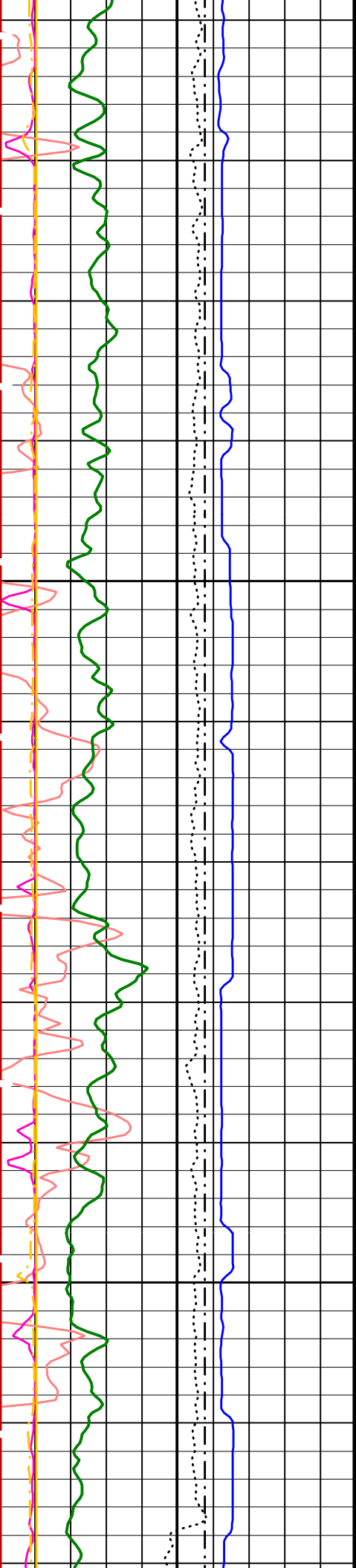


2575

2600

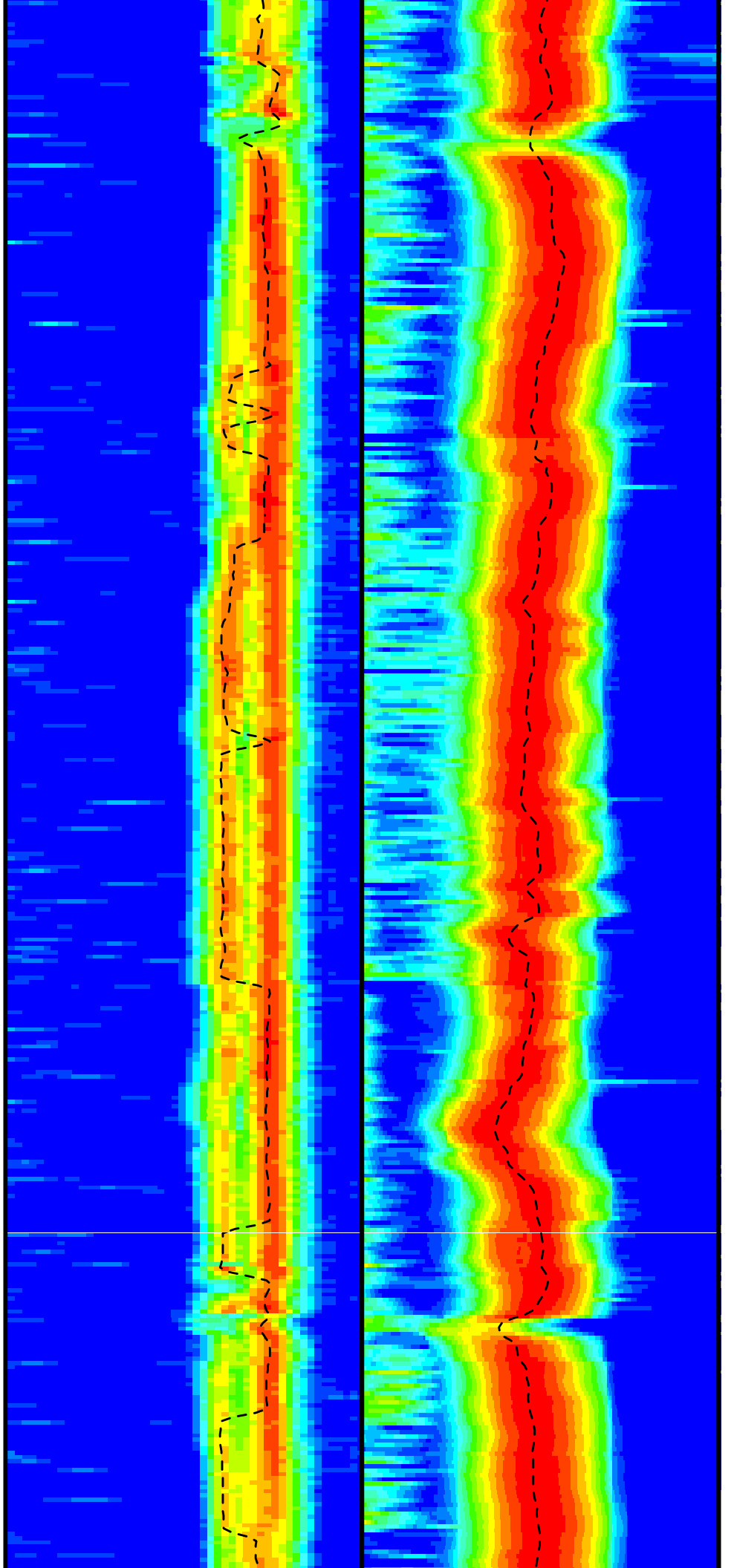
2625

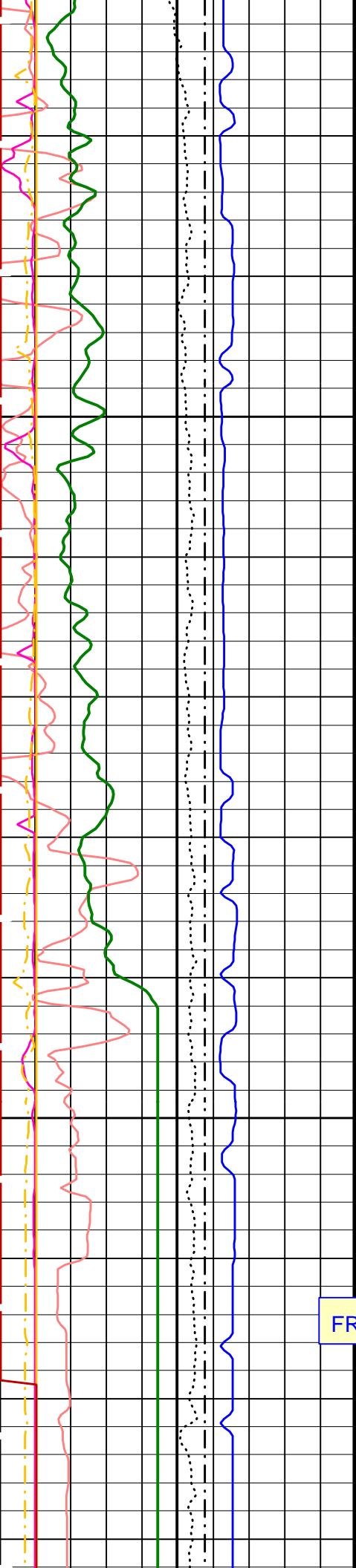




2650

2675

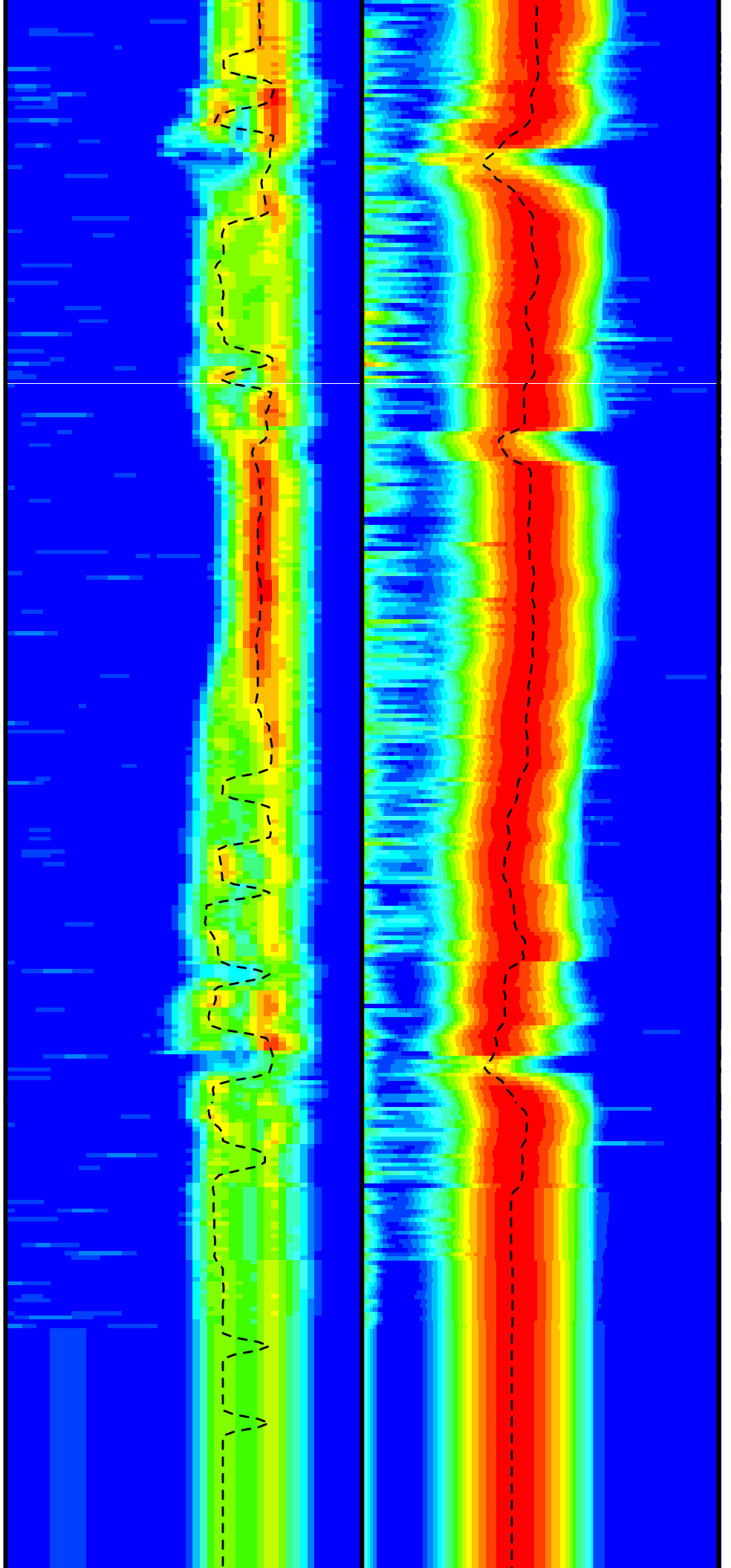


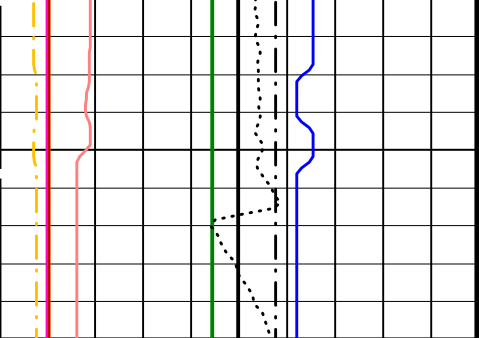


2700

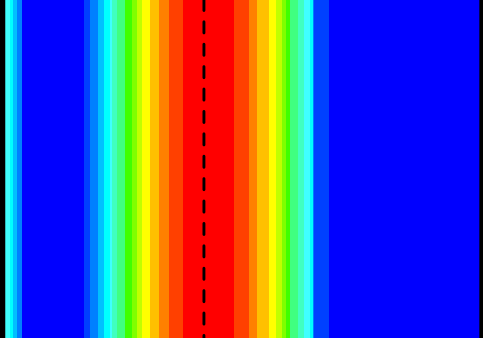
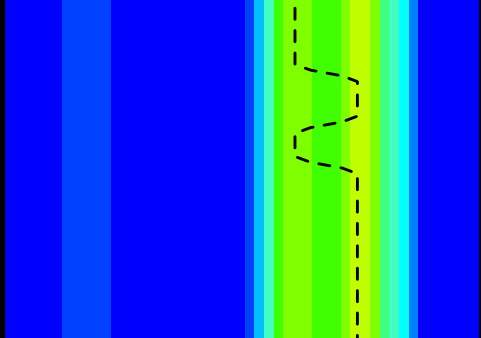
2725

FR DSI →





2750



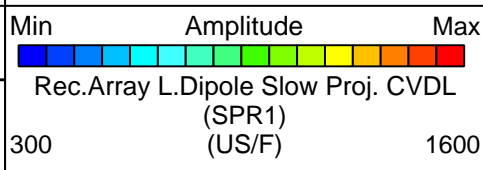
Bit Size (BS)		
0	(IN)	20

Delta-T Comp / RA - P & S (DTRP)		
120	(US/F)	220

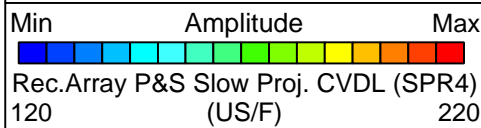
Delta-T Shear / RA - Lower Dipole (DT1R)		
300	(US/F)	1600

Delta-T Shear - Upper Dipole (DT2)		
440	(US/F)	40

Delta-T Shear / RA - P & S (DTRS)		
120	(US/F)	220



Delta-T Comp - P & S (DT4P)		
440	(US/F)	40



Delta-T Shear - P & S (DT4S)		
440	(US/F)	40

Tension (TENS)		
10000	(LBF)	0

HNGS Computed Gamma Ray (HCGR)		
0	(GAPI)	50

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

Peak Coherence / RA - P & S Comp (CHRP)		
0	(---)	10

Peak Coherence / RA - P & S Shear (CHRS)		
-1	(---)	9

Waveform Data Copy Indicator 4 - Monopole P&S (WCI4)		
0	(---)	10

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value
DSST-B:	Dipole Shear Imager - B	
BHS	Borehole Status	OPEN
CASF	Label Casing Function - Monopole P&S	50
COLL	Label Slowness Lower Limit - Monopole P&S Compressional	120 US/F
COUL	Label Slowness Upper Limit - Monopole P&S Compressional	220 US/F
DDE1	Digitizing Delay 1	0 US
DDE4	Digitizing Delay 4	0 US
DDEX	Digitizing Delay X	0 US
DLCS	Label Compressional Source - Dipole Shear	USE
DSHL	Label Slowness Lower Limit - Dipole Shear	700 US/F
DSHU	Label Slowness Upper Limit - Dipole Shear	1500 US/F
DSI1	Digitizer Sample Interval 1	40 US
DSI4	Digitizer Sample Interval 4	10 US
DSIX	Digitizer Sample Interval X	40 US
DTCS	Compressional Delta-T Source for DTCO Channel	PS_COMP
DTE	Delta-T Fluid	204.5 US/F

DWC1	Digitizer Word Count 1	512	
DWC4	Digitizer Word Count 4	512	
DWCX	Digitizer Word Count X	512	
FILG	Label Fill Gap Control - Monopole P&S	COMP_SHEAR	
GCSE	Generalized Caliper Selection	BS	
LFC	Label Formation Character - Monopole P&S	DYNAMIC	
LTXG	Lower Dipole Transmitter Geometry	156	IN
MCS	Mean Casing Slowness	57	US/F
MTXG	Monopole Transmitter Geometry	186	IN
NWI1	Number Waveform Items 1	8	
NWI2	Number Waveform Items 2	8	
NWI4	Number Waveform Items 4	8	
NWIX	Number Waveform Items X	0	
RSMN	Label Shear/Compressional Minimum Ratio - Monopole P&S	1.4	
RSMX	Label Shear/Compressional Maximum Ratio - Monopole P&S	2.12	
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
SAM1	DSST Sonic Acquisition Mode 1 - Lower Dipole Mode	LFD_EVEN	
SAM4	DSST Sonic Acquisition Mode 4 - High Frequency Monopole Mode for P&S	ODD	
SAMX	DSST Sonic Acquisition Mode X - Both Dipoles or Monopole Mode for Expert	OFF	
SAS1	STC Sonic Array Status - Lower Dipole	255	
SAS2	STC Sonic Array Status - Upper Dipole	255	
SAS4	STC Sonic Array Status - Monopole P&S	255	
SBO1	STC Search Band Offset - Lower Dipole	3000	US
SBO4	STC Search Band Offset - Monopole P&S	500	US
SBR4	STC Baseline Removal - Monopole P&S	ON	
SBW1	STC Search Bandwidth - Lower Dipole	8000	US
SBW4	STC Search Bandwidth - Monopole P&S	2000	US
SFC1	STC Formation Character - Lower Dipole	SELECTABLE	
SFC4	STC Formation Character - Monopole P&S	SELECTABLE	
SFM1	STC Filter - Lower Dipole	B.3-1.5K	
SFM2	STC Filter - Upper Dipole	B1-2K	
SFM4	STC Filter - Monopole P&S	B3-20K	
SHLL	Label Slowness Lower Limit - Monopole P&S Shear	120	US/F
SHUL	Label Slowness Upper Limit - Monopole P&S Shear	220	US/F
SLL1	STC Slowness Lower Limit - Lower Dipole	300	US/F
SLL4	STC Slowness Lower Limit - Monopole P&S	120	US/F
SST1	STC Slowness Step - Lower Dipole	4	US/F
SST4	STC Slowness Step - Monopole P&S	2	US/F
SSW1	STC Source Waveform - Lower Dipole	WF_SAM1	
SSW2	STC Source Waveform - Upper Dipole	WF_SAM2	
SSW4	STC Source Waveform - Monopole P&S	WF_SAM4	
STLL	Label Slowness Lower Limit - Monopole Stoneley	180	US/F
STUL	Label Slowness Upper Limit - Monopole Stoneley	780	US/F
SUL1	STC Slowness Upper Limit - Lower Dipole	1600	US/F
SUL4	STC Slowness Upper Limit - Monopole P&S	220	US/F
SWD1	STC Slowness Width - Lower Dipole	40	US/F
SWD4	STC Slowness Width - Monopole P&S	10	US/F
TBF1	STC Time for Baseline Fill - Lower Dipole	0	US
TBF4	STC Time for Baseline Fill - Monopole P&S	300	US
TLL1	STC Time Lower Limit - Lower Dipole	2450	US
TLL4	STC Time Lower Limit - Monopole P&S	580	US
TST1	STC Time Step - Lower Dipole	200	US
TST4	STC Time Step - Monopole P&S	50	US
TUL1	STC Time Upper Limit - Lower Dipole	20440	US
TUL4	STC Time Upper Limit - Monopole P&S	3480	US
TWD1	STC Time Width - Lower Dipole	2000	US
TWD4	STC Time Width - Monopole P&S	1000	US
TWI1	STC Integration Time Window - Lower Dipole	1600	US
TWI2	STC Integration Time Window - Upper Dipole	1600	US
TWI4	STC Integration Time Window - Monopole P&S	500	US
TWSX	Transmitter Waveform Select X	0	
UTXG	Upper Dipole Transmitter Geometry	162	IN
WFM4	Waveform Mode 4	W1	
HNGS-BA: Hostile Natural Gamma Ray Sonde			
BAR1	HNGS Detector 1 Barite Constant	1	
BAR2	HNGS Detector 2 Barite Constant	1	
BHK	HNGS Borehole Potassium Correction Concentration	0	
BHS	Borehole Status	OPEN	
CSD1	Inner Casing Outer Diameter	0	IN
CSD2	Outer Casing Outer Diameter	0	IN
CSW1	Inner Casing Weight	0	LB/F
CSW2	Outer Casing Weight	0	LB/F
DBCC	HNGS Barite Constant Correction Flag	NONE	
GCSE	Generalized Caliper Selection	BS	
H1P	HNGS Detector 1 Allow/Disallow In Processing	ALLOW	

H2P	HNGS Detector 2 Allow/Disallow In Processing	ALLOW	
HABK	HNGS Borehole Potassium Running Average	-0.000783282	
HALF	HNGS Alpha Filter Length	60	IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	BARI	
HNPE	HNGS Processing Enable	YES	
S1BI	HNGS Detector 1 Calibration Bismuth Count Rate	1.3	CPS
S2BI	HNGS Detector 2 Calibration Bismuth Count Rate	1.3	CPS
SGRC	HNGS Standard Gamma-Ray Correction Flag	YES	
TPOS	Tool Position	ECCE	
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	1.02715	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	1.02088	
<b>System and Miscellaneous</b>			
BS	Bit Size	11.438	IN
DFD	Drilling Fluid Density	1.26	G/C3
DO	Depth Offset for Playback	4.8	M
PP	Playback Processing	RECOMPUTE	

Format: DSST\_P\_S\_LOWER\_VDL\_COLOR      Vertical Scale: 1:200      Graphics File Created: 01-Aug-2009 16:35

## OP System Version: 17C0-154

MEST-B	SRPC-3762-Q1_2009_OP17	DTA-A	17C0-154
DSST-B	17C0-154	HNGC-B	17C0-154
HNGS-BA	17C0-154	DTC-H	17C0-154

### Input DLIS Files

DEFAULT	FMS_DSI_NGS_030LUP	FN:31	PRODUCER	01-Aug-2009 09:37	2745.5 M	2275.3 M
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### Output DLIS Files

DEFAULT	FMS_DSI_NGS_042PUP	FN:43	PRODUCER	01-Aug-2009 16:35
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## Calibrations

### MAXIS Field Log

#### Calibration and Check Summary

Measurement	Nominal	Master	Before	After	Change	Limit	Units
<b>Micro Electrical Scanner - B (Slim) Wellsite Calibration - Caliper Calibration</b>							
Before: Calibration out of date 4-Jun-2009 2:47							
Caliper 1 Zero Measurement	12.00	N/A	12.57	N/A	N/A	N/A	IN
Caliper 2 Zero Measurement	12.00	N/A	12.44	N/A	N/A	N/A	IN
Caliper 1 Plus Measurement	15.19	N/A	15.77	N/A	N/A	N/A	IN
Caliper 2 Plus Measurement	15.19	N/A	15.68	N/A	N/A	N/A	IN
<b>Micro Electrical Scanner - B (Slim) Wellsite Calibration - CROUZET ACCELEROMETER</b>							
Before: 1-Aug-2009 6:56							
TEMPERATURE REFERENCE :	N/A	N/A	20	N/A	N/A	N/A	DEGC
YEAR OF CALIBRATION :	N/A	N/A	92	N/A	N/A	N/A	
MONTH OF CALIBRATION :	N/A	N/A	10	N/A	N/A	N/A	
SERIAL NUMBER :	N/A	N/A	448	N/A	N/A	N/A	
<b>Micro Electrical Scanner - B (Slim) Wellsite Calibration - CROUZET MAGNETOMETER</b>							
Before: 1-Aug-2009 6:56							
TEMPERATURE REFERENCE :	N/A	N/A	19	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	12	N/A	N/A	N/A	
SERIAL NUMBER :	N/A	N/A	428	N/A	N/A	N/A	

Hostile Natural Gamma Ray Sonde Wellsite Calibration - Detector 1 Check

Master: 19-Jun-2009 22:52 Before: 1-Aug-2009 7:01 After: 1-Aug-2009 14:24

Na 511 Peak Loc	40.00	39.80	39.61	39.73	0.1242	1.000	
Na 511 Peak Res	15.50	15.76	14.80	14.77	-0.02923	2.000	%
High Voltage	1150	1181	1145	1148	3.242	N/A	V
Na 1785 Peak Loc	142.6	142.6	143.1	142.9	-0.1831	7.000	
Na 1785 Peak Res	8.500	8.553	7.181	7.778	0.5971	2.000	%
Temperature	15.50	32.22	13.82	14.91	1.089	N/A	DEGC
Na Count Rate	45.00	37.08	36.46	36.77	0.3117	8.000	CPS

Hostile Natural Gamma Ray Sonde Wellsite Calibration - Detector 2 Check

Master: 19-Jun-2009 22:52 Before: 1-Aug-2009 7:01 After: 1-Aug-2009 14:24

Na 511 Peak Loc	40.00	39.62	39.63	39.71	0.08313	1.000	
Na 511 Peak Res	15.50	16.69	14.92	14.89	-0.02178	2.000	%
High Voltage	1150	1114	1080	1082	1.789	N/A	V
Na 1785 Peak Loc	142.6	142.4	142.1	142.2	0.09767	7.000	
Na 1785 Peak Res	8.500	8.478	8.208	8.545	0.3373	2.000	%
Temperature	15.50	32.71	15.02	16.35	1.327	N/A	DEGC
Na Count Rate	45.00	38.14	36.62	36.70	0.08572	8.000	CPS

Hostile Natural Gamma Ray Sonde Wellsite Calibration - Ratio Of Detector 1 To Detector 2

Master: 19-Jun-2009 22:52 Before: 1-Aug-2009 7:01 After: 1-Aug-2009 14:24

Coincidence Count Rate Ratio	1.000	0.9751	0.9973	1.000	0.002843	0.05000	
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Micro Electrical Scanner - B (Slim) / Equipment Identification

Primary Equipment:

MEST Sonde - B	MEDS - B	702
MEST Preamplifier Cartridge - AB	MEPC - AB	806
GPIT Cartridge - A	GPIC - A	719
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
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Auxiliary Equipment:

HNGC Housing	HNGH - A	115
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Hostile Natural Gamma Ray Sonde / Equipment Identification

Primary Equipment:

HNGS Sonde	HNGS - BA	194
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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	Phase	Na 511 Peak Res %	Value	Phase	High Voltage V	Value
Master		39.80	Master		15.76	Master		1181
Before		39.61	Before		14.80	Before		1145
After		39.73	After		14.77	After		1148
	37.50 (Minimum) 40.00 (Nominal) 43.50 (Maximum)			12.00 (Minimum) 15.50 (Nominal) 19.00 (Maximum)			900.0 (Minimum) 1150 (Nominal) 1600 (Maximum)	

Phase	Na 1785 Peak Loc	Value	Phase	Na 1785 Peak Res %	Value	Phase	Temperature DEGC	Value
Master		142.6	Master		8.553	Master		32.22
Before		143.1	Before		7.181	Before		13.82
After		142.9	After		7.778	After		14.91

	135.0 (Minimum)	142.6 (Nominal)	150.3 (Maximum)		7.000 (Minimum)	8.500 (Nominal)	11.00 (Maximum)		-28.89 (Minimum)	15.50 (Nominal)	60.00 (Maximum)
Phase	Na Count Rate CPS			Value							
Master				37.08							
Before				36.46							
After				36.77							
	10.00 (Minimum)	45.00 (Nominal)	100.0 (Maximum)								
Master: 19-Jun-2009 22:52				Before: 1-Aug-2009 7:01				After: 1-Aug-2009 14:24			

Hostile Natural Gamma Ray Sonde Wellsite Calibration													
Detector 2 Check													
Phase	Na 511 Peak Loc			Value	Phase	Na 511 Peak Res %			Value	Phase	High Voltage V		Value
Master				39.62	Master				16.69	Master			1114
Before				39.63	Before				14.92	Before			1080
After				39.71	After				14.89	After			1082
	37.50 (Minimum)	40.00 (Nominal)	43.50 (Maximum)		12.00 (Minimum)	15.50 (Nominal)	19.00 (Maximum)		900.0 (Minimum)	1150 (Nominal)	1600 (Maximum)		
Phase	Na 1785 Peak Loc			Value	Phase	Na 1785 Peak Res %			Value	Phase	Temperature DEGC		Value
Master				142.4	Master				8.478	Master			32.71
Before				142.1	Before				8.208	Before			15.02
After				142.2	After				8.545	After			16.35
	135.0 (Minimum)	142.6 (Nominal)	150.3 (Maximum)		7.000 (Minimum)	8.500 (Nominal)	11.00 (Maximum)		-28.89 (Minimum)	15.50 (Nominal)	60.00 (Maximum)		
Phase	Na Count Rate CPS			Value									
Master				38.14									
Before				36.62									
After				36.70									
	10.00 (Minimum)	45.00 (Nominal)	100.0 (Maximum)										
Master: 19-Jun-2009 22:52				Before: 1-Aug-2009 7:01				After: 1-Aug-2009 14:24					

Hostile Natural Gamma Ray Sonde Wellsite Calibration		
Ratio Of Detector 1 To Detector 2		
Phase	Coincidence Count Rate Ratio	Value
Master		0.9751
Before		0.9973
After		1.000
	0.9500 (Minimum)	1.000 (Nominal)
Master: 19-Jun-2009 22:52		
Before: 1-Aug-2009 7:01		
After: 1-Aug-2009 14:24		

DTS Telemetry Tool / Equipment Identification		
Primary Equipment:		
DTC-H Auxiliary Cartridge	DTCH - A	
DTC-H Telemetry Cartridge	DTCH - A	8753
Auxiliary Equipment:		
DTCH Telemetry Cartridge Housing	ECH - KC	2304



Company: Lamont Doherty

**Schlumberger**

Well: Expedition 321 Site U1341B

Field: Bering Sea

Rig: JOIDES Resolution

Country: USA

Dipole Shear Sonic Imager

Natural Gamma Spectroscopy