

**Schlumberger**

Company: Lamont Doherty

Well: Expedition 339, Site U1386 GC-01A

Field: Mediterranean Outflow (Portugal)

Rig: JOIDES Resolution Ocean: Atlantic

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[illegible]

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				
Density	Viscosity			
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	Time			
Logger On Bottom	Time			
Unit Number	Location			
Recorded By				
Witnessed By				




Run 4

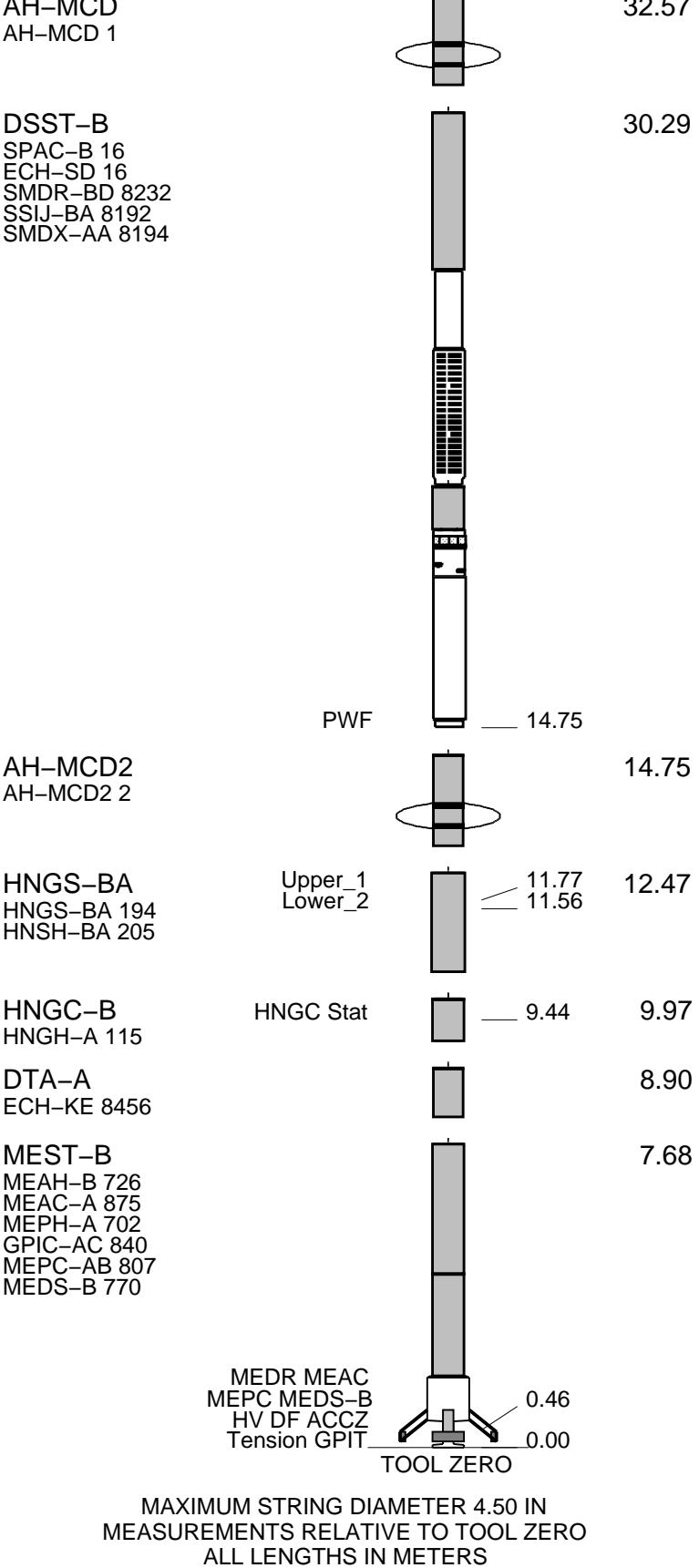
THE USE OF AND RELIANCE UPON THIS RECORDED-DATA BY THE HEREIN NAMED COMPANY (AND ANY OF ITS AFFILIATES, PARTNERS, REPRESENTATIVES, AGENTS, CONSULTANTS AND EMPLOYEES) IS SUBJECT TO THE TERMS AND CONDITIONS AGREED UPON BETWEEN SCHLUMBERGER AND THE COMPANY, INCLUDING: (a) RESTRICTIONS ON USE OF THE RECORDED-DATA; (b) DISCLAIMERS AND WAIVERS OF WARRANTIES AND REPRESENTATIONS REGARDING COMPANY'S USE OF AND RELIANCE UPON THE RECORDED-DATA; AND (c) CUSTOMER'S FULL AND SOLE RESPONSIBILITY FOR ANY INFERENCE DRAWN OR DECISION MADE IN CONNECTION WITH THE USE OF THIS RECORDED-DATA.

OTHER SERVICES1
OS1: FMS
OS2: VSI
OS3: HRLT
OS4: HNGS
OS5: HLDS/DITE
REMARKS: RUN NUMBER 1
Hole GC-01A Hole C was drilled with a 9 7/8" RCB bit to TDD of 1099mbrf.
Hole depth referenced from sea floor based on driller measurement is 526m
Logs played back with a depth offset to match sea floor at depth = 0m.
DSI run centralized with 2 MCD centralizers.
SAM 2=Upper dipole shear
SAM4=P&S monopole compressional
SAM1=lower frequency dipole shear
All logs recorded via wireline thru 5.5" drillpipe and RCB coring BHA.
consisting of a bit release sub, Kinley sub, drill collars. The rotary coring
bit was released on bottom prior to logging.
Tool bridged at 374mbsf and logged up from there.
1st pass logged from 374 to drill pipe.
2nd pass logged from 374 to sea floor.

RUN 1

RUN 2

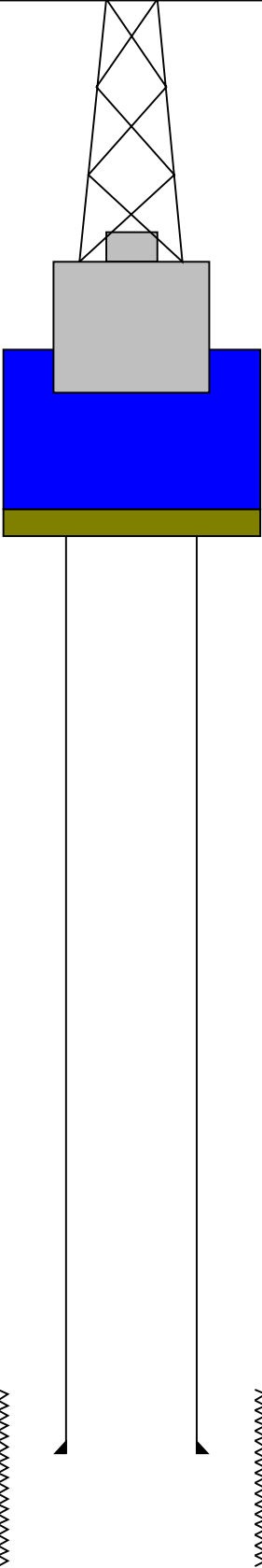
LEH-QT	MDSB_EDTC		34.55	35.44
LEH-QT	Mud Tempe CTEM		33.49	
EDTC-B	Gamma Ray		32.92	34.55
EDTH-B 8528	EFTB DIAG			
EDTC-B 8529	TelStatus			
EDTG-A/B 77693	EDTCB Ele		32.57	



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

Kelly Bushing Elevation  
Derrick Floor Elevation  
  
Mean Sea Level

-573.2  
-573.2  
  
-562.2



4.1

0  
102  
  
526

3.80  
9.875

Sea Floor  
Open Hole  
  
Total Depth

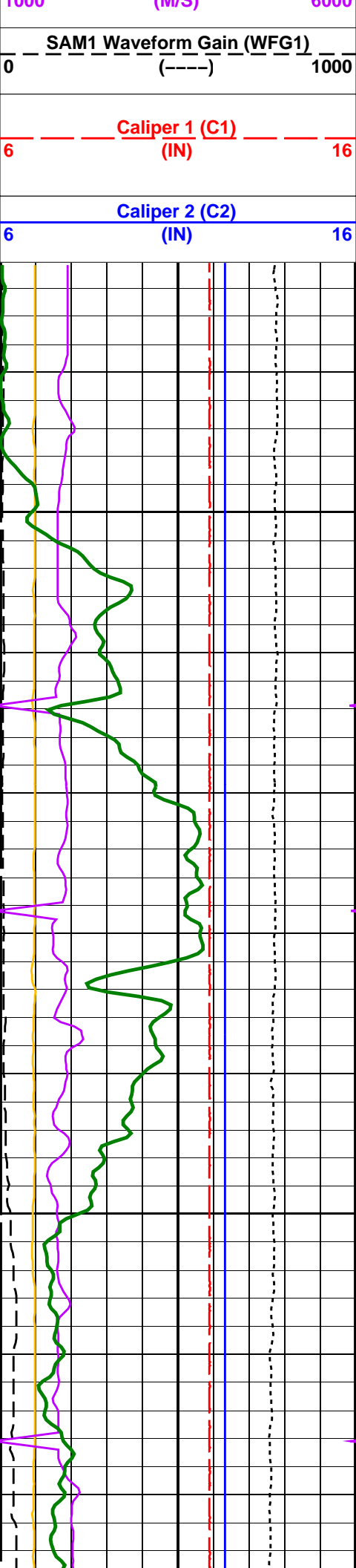
Input DLIS Files						
DEFAULT	FMS_NGS_DSI_019LUP	FN:28	PRODUCER	08-Dec-2011 06:28	946.4 M	563.0 M
Output DLIS Files						
DEFAULT	FMS_NGS_DSI_056PUP	FN:22	PRODUCER	31-Dec-2011 09:10	374.1 M	-9.0 M
OP System Version: 19C0-187						
MEST-B	19C0-187		DTA-A	19C0-187		
HNGC-B	19C0-187		HNGS-BA	19C0-187		
DSST-B	19C0-187		EDTC-B	19C0-187		

PIP SUMMARY	
	Time Mark Every 60 S

HNGS Spectroscopy Gamma Ray (HSGR)		
0	(GAPI)	75
Peak Coherence / RA – Lower Dipole (CHR1)		
0	(-----)	10
Tension (TENS)		
10000	(LBF)	0
Sonic Velocity (SVEL)		
1000	(M/S)	6000

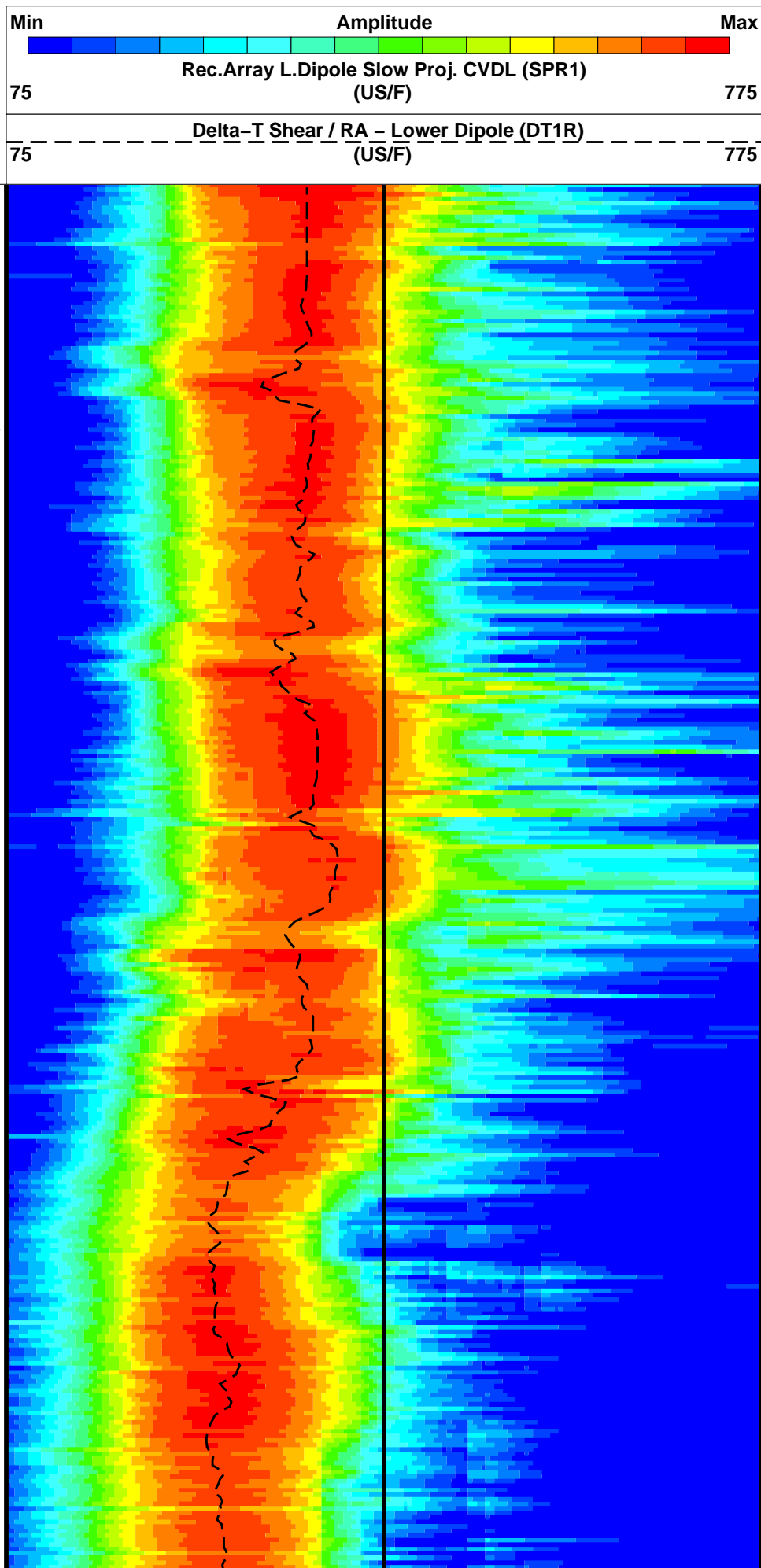
2nd Pass, Sea Floor Depth Reference

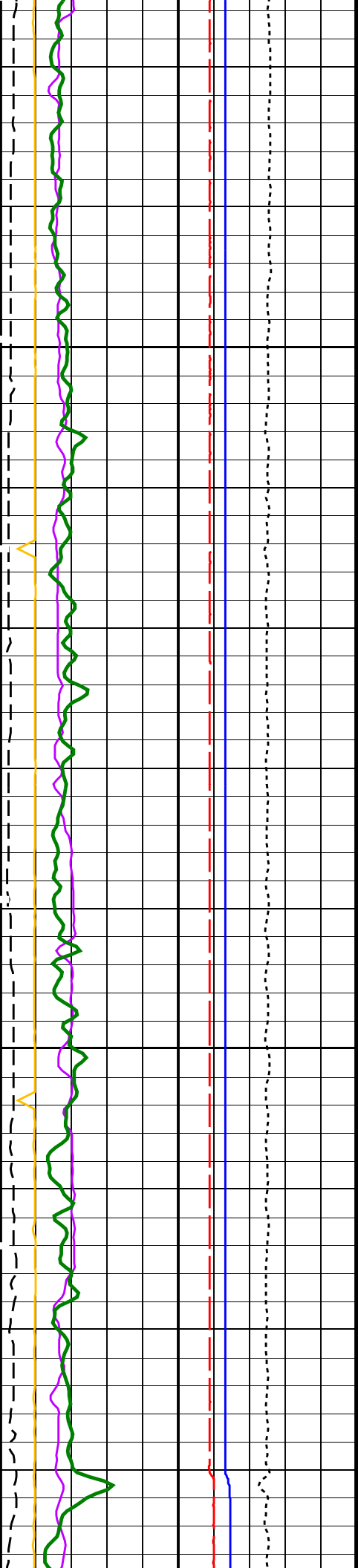
Tied into Tcombo Main log



Sea Floor

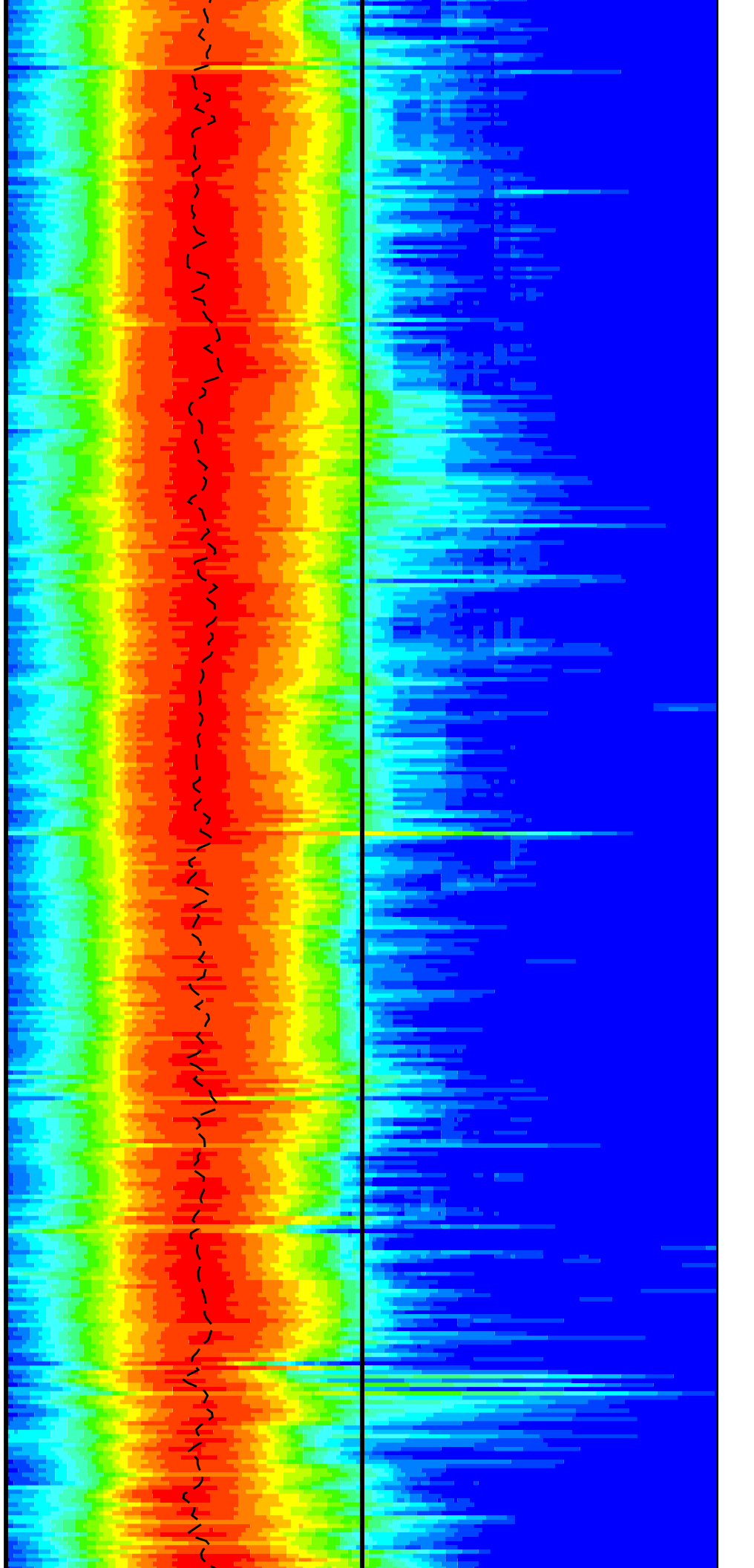
25

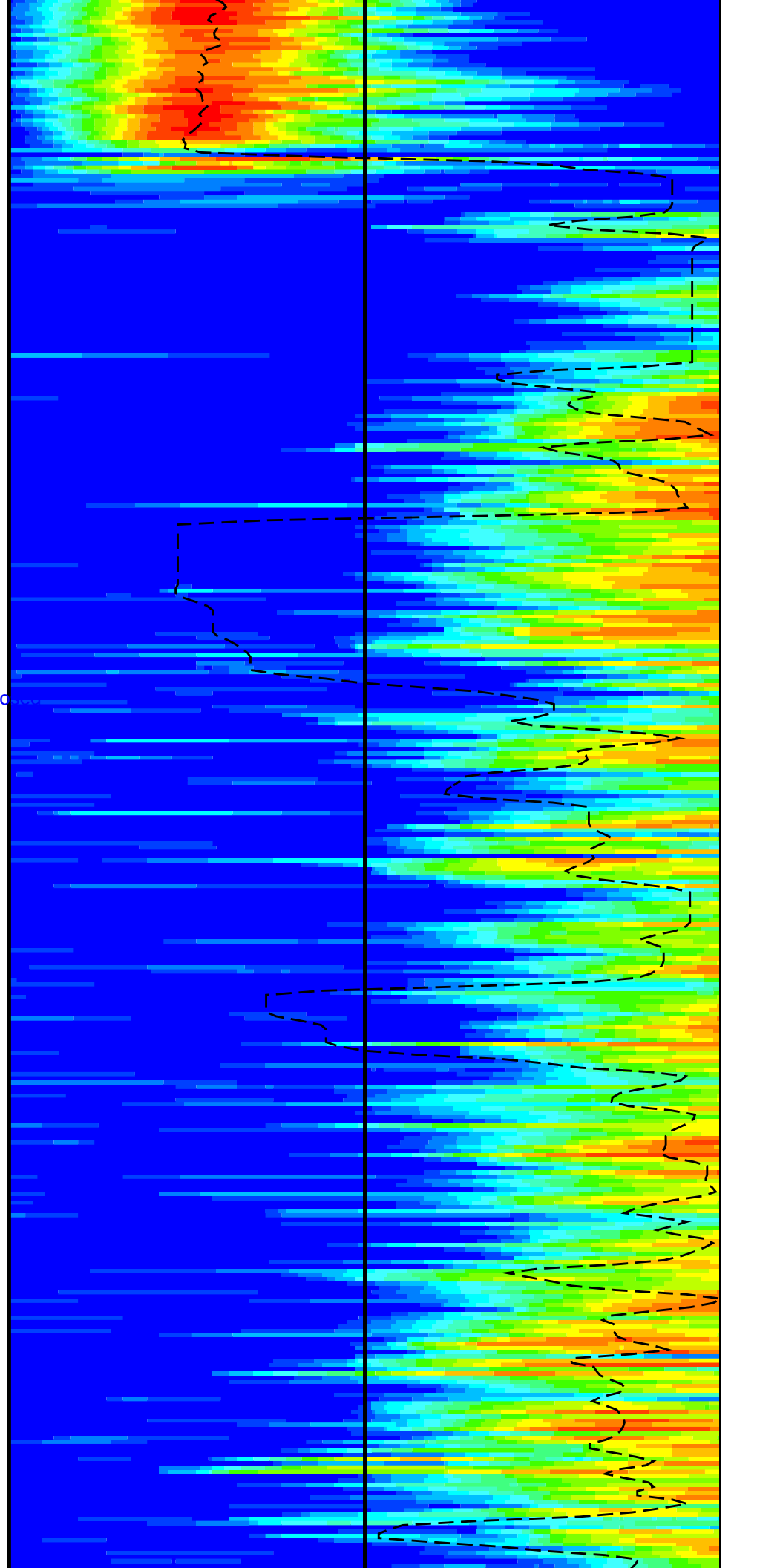
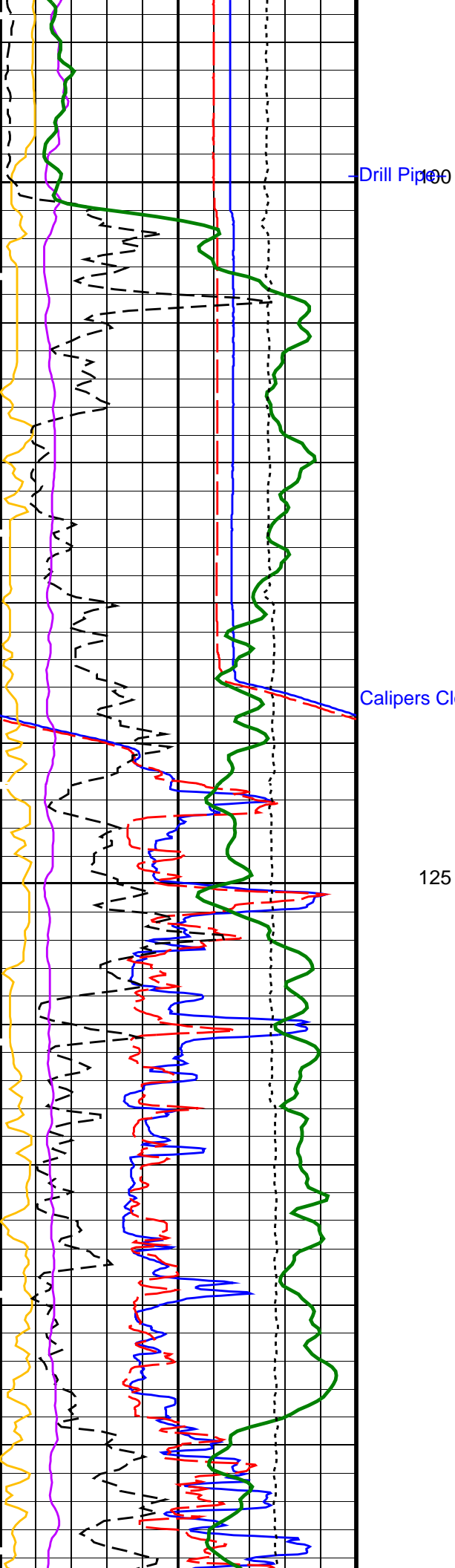




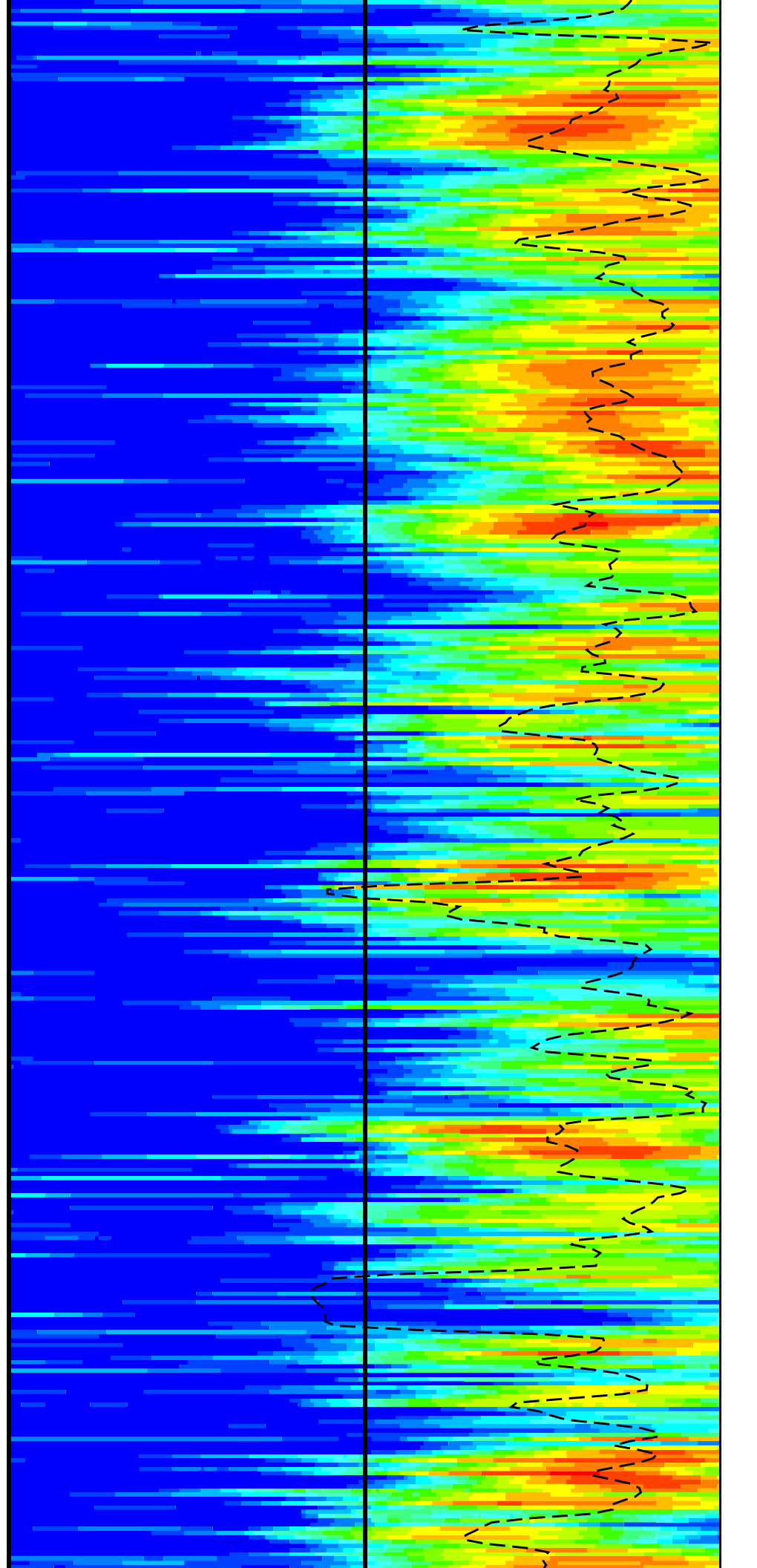
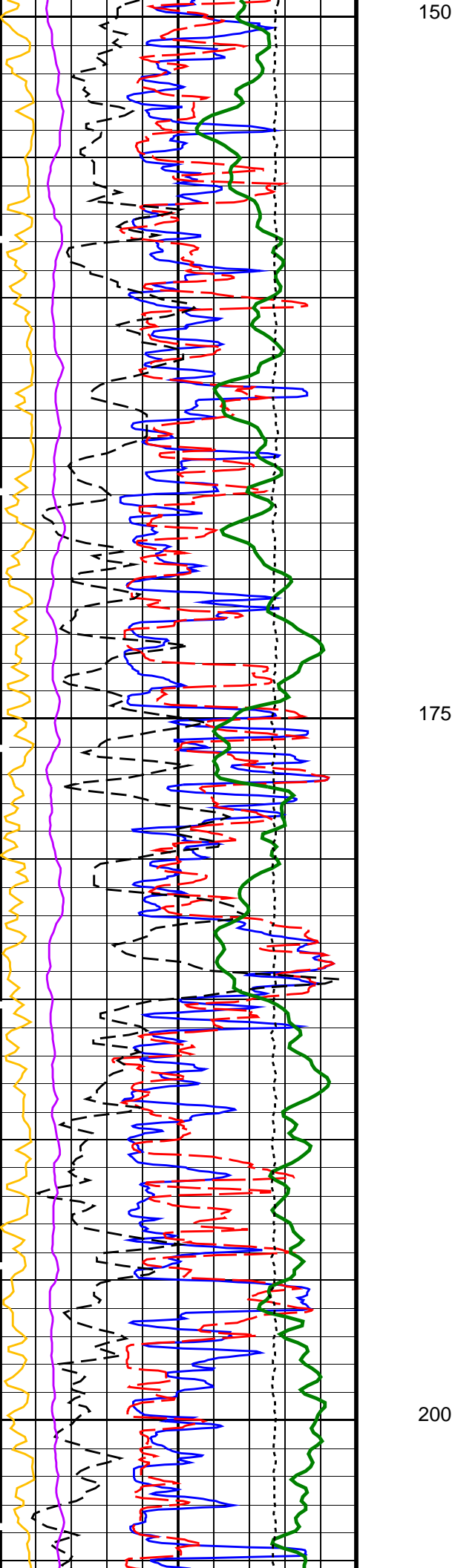
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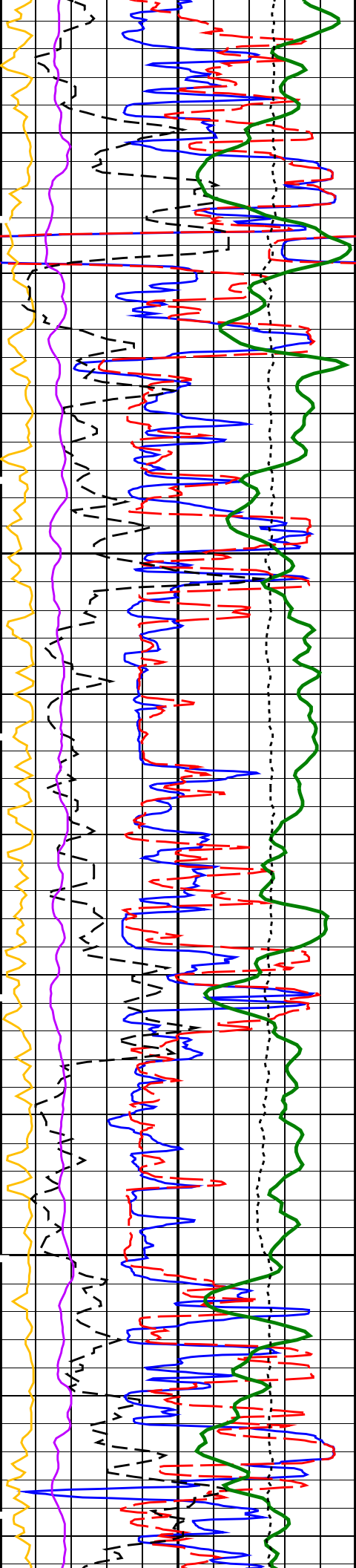
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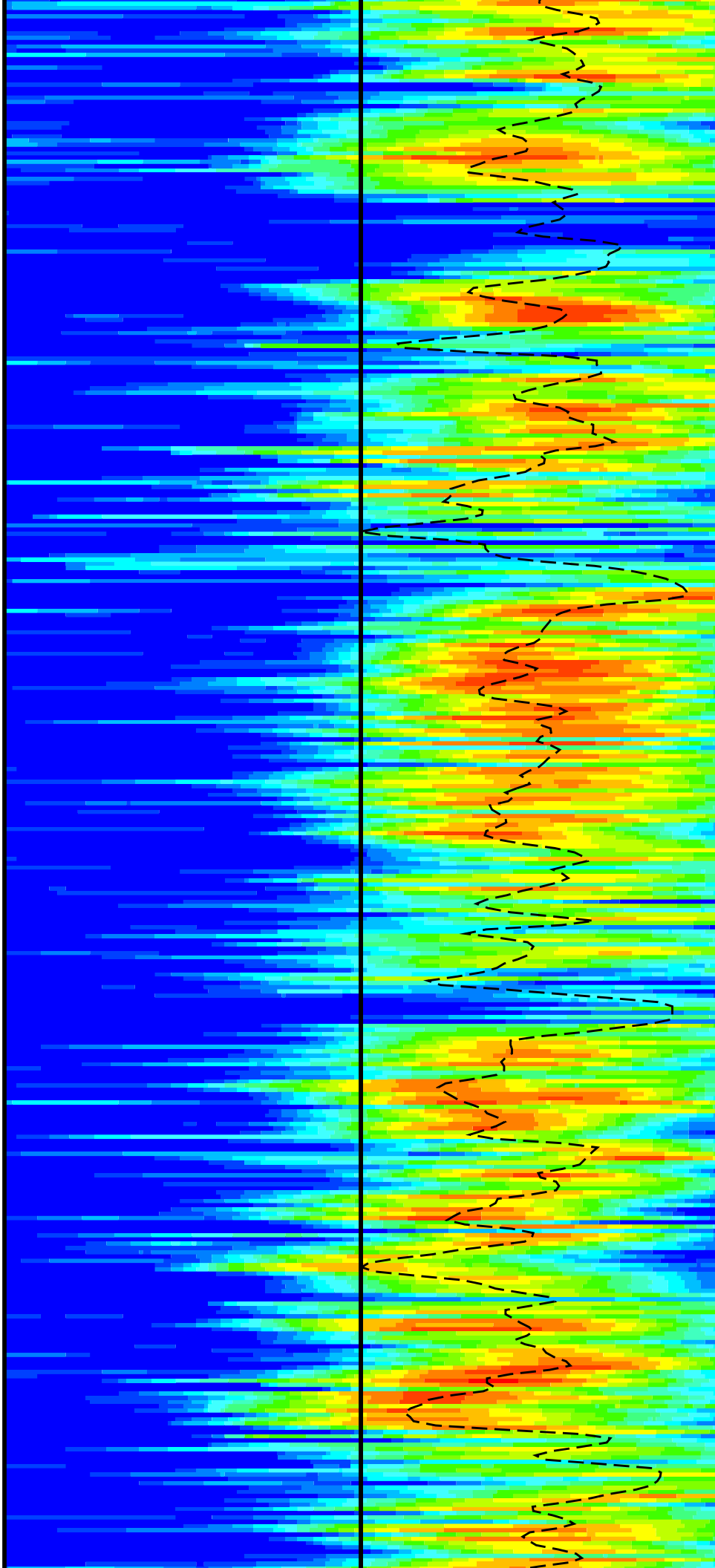


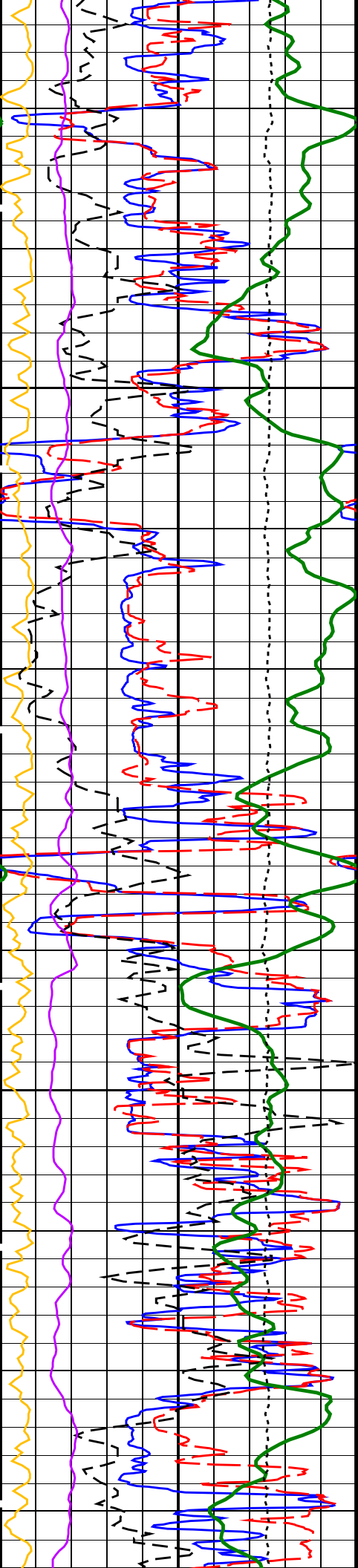




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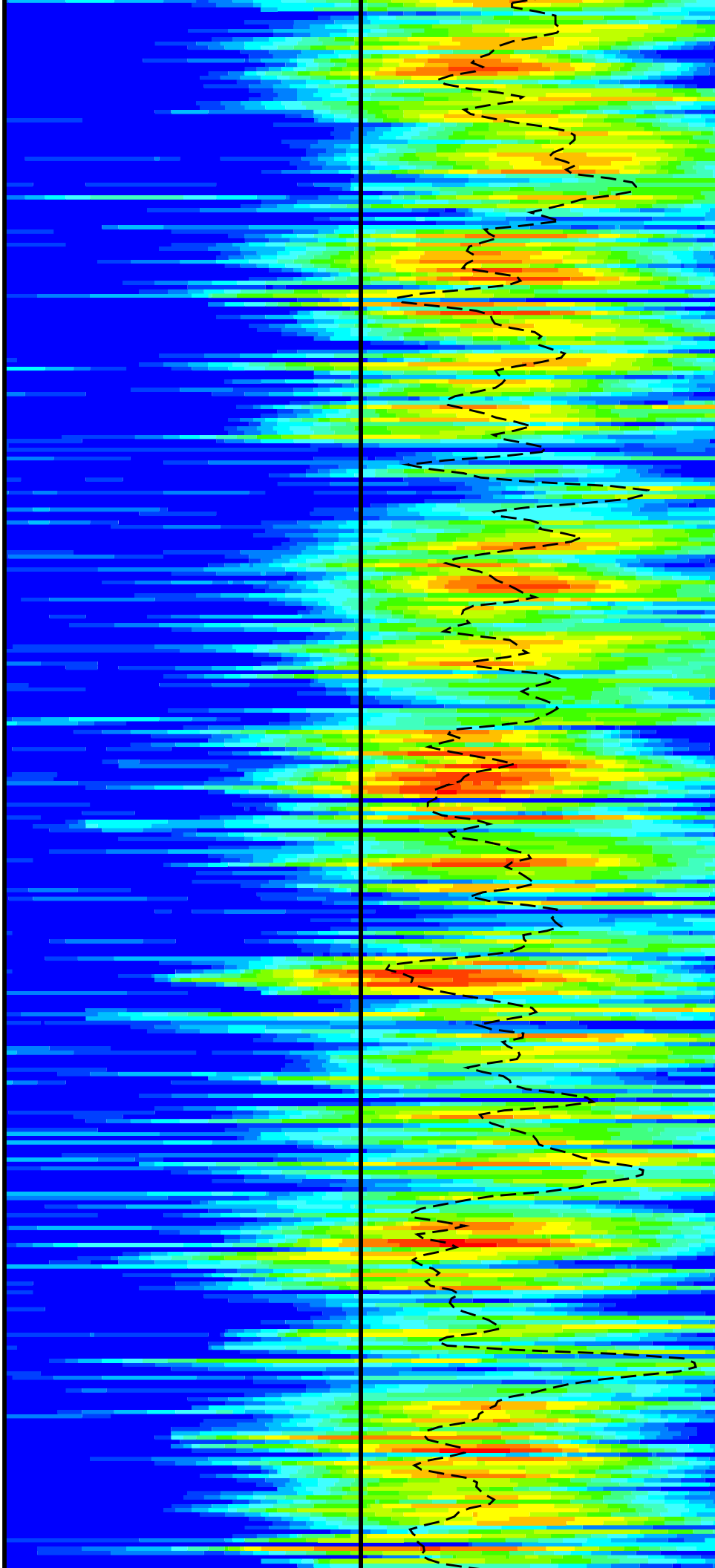
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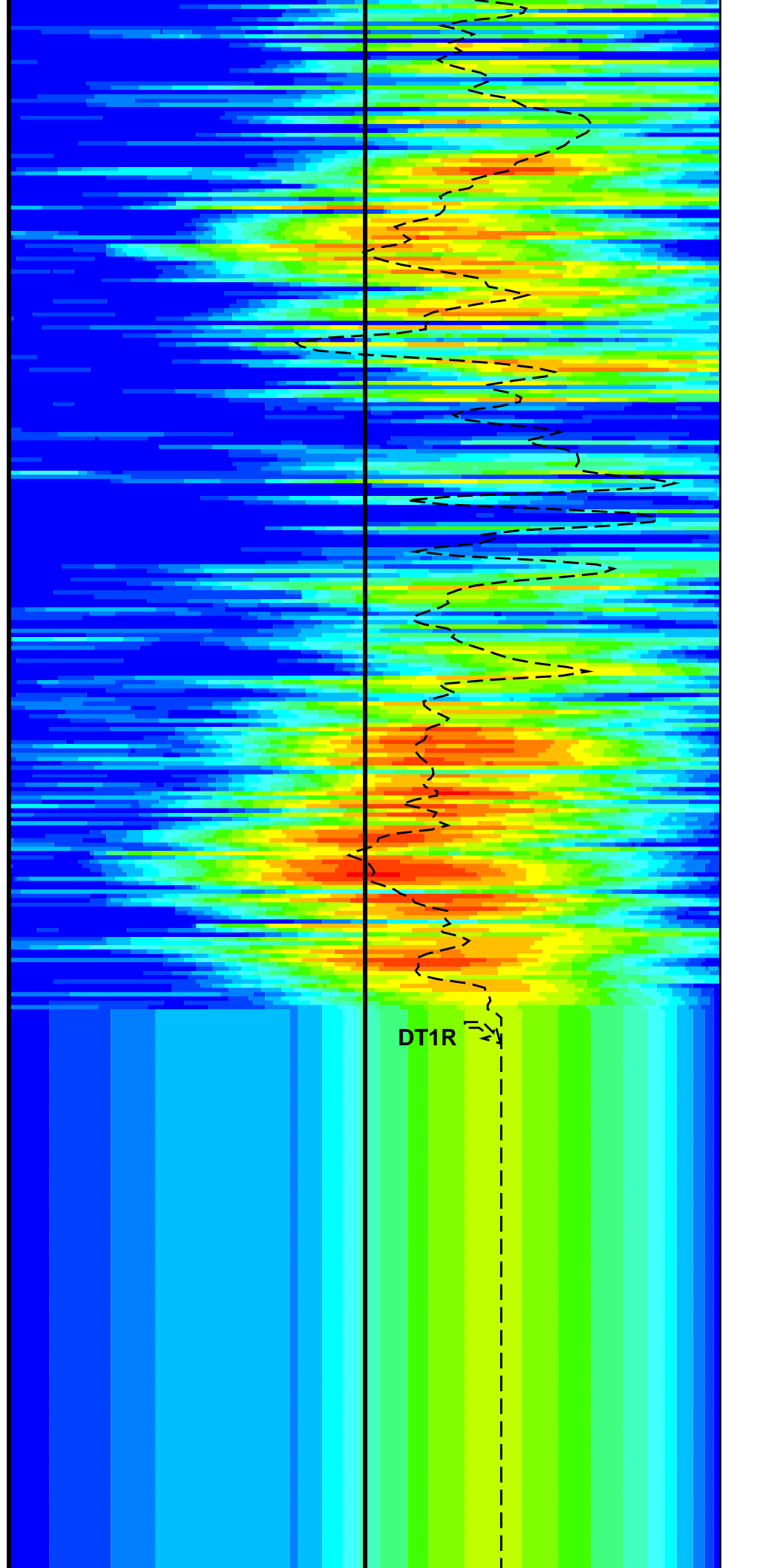
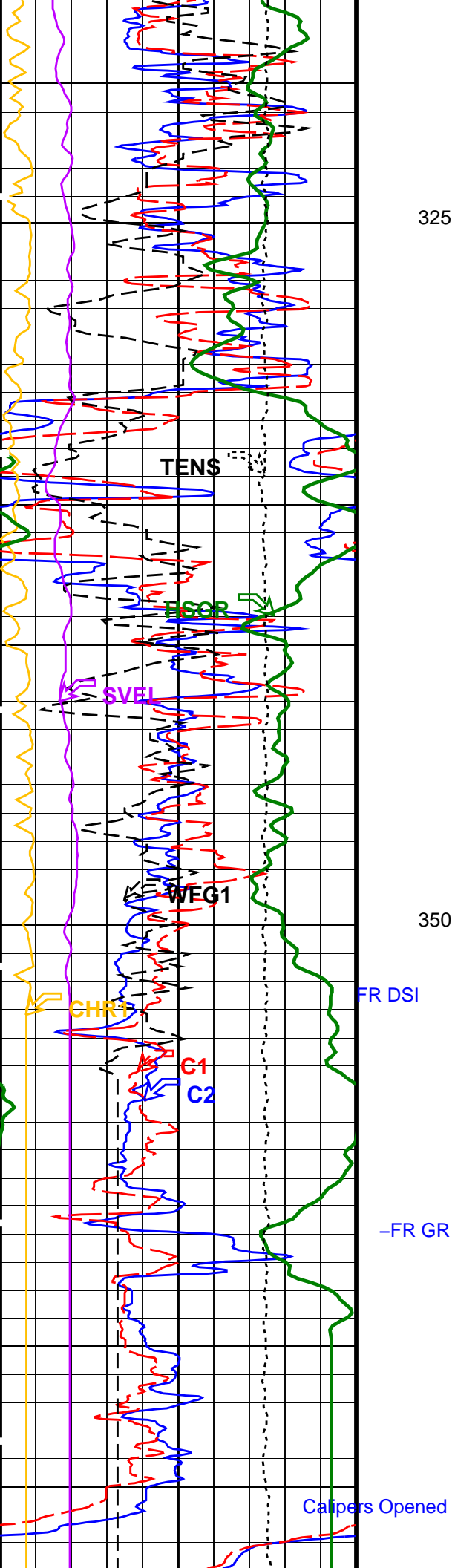


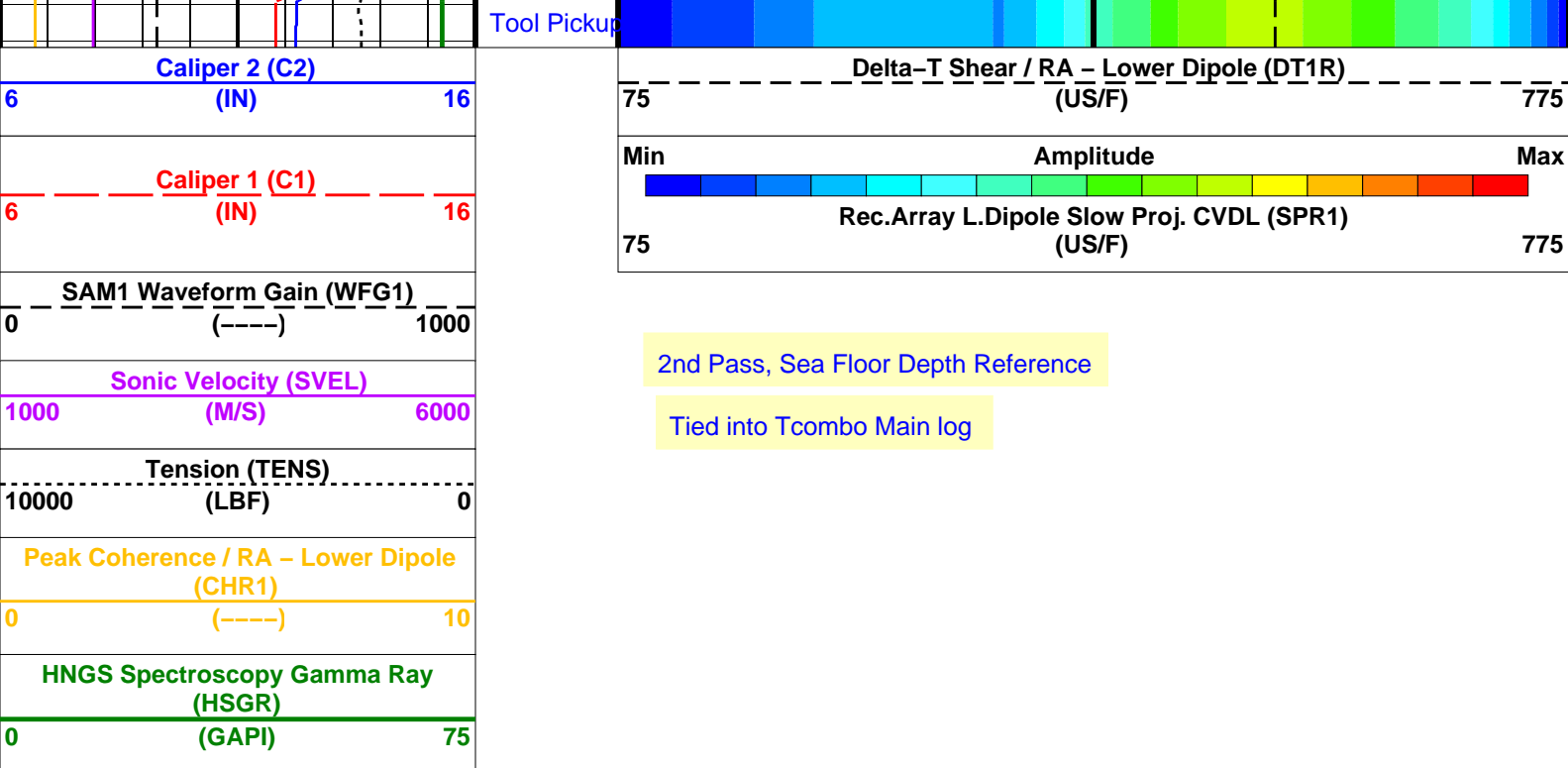


275

300







## PIP SUMMARY

Time Mark Every 60 S

## Parameters

DLIS Name	Description	Value	
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	-0.000816423	
HALF	HNGS Alpha Filter Length	60	IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	NATU	
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	1.00422	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	0.99791	
DSST-B: Dipole Shear Imager - B			
BHS	Borehole Status	OPEN	
DDE1	Digitizing Delay 1	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	775	US/F
DSI1	Digitizer Sample Interval 1	40	US
DSIX	Digitizer Sample Interval X	40	US
DTCS	Compressional Delta-T Source for DTCO Channel	PS_COMP	
DWC1	Digitizer Word Count 1	512	
DWCX	Digitizer Word Count X	512	
GCSE	Generalized Caliper Selection	BS	
LTXG	Lower Dipole Transmitter Geometry	156	IN
NWI1	Number Waveform Items 1	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

RX3G	Receiver 3 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	
SAMX	DSST Sonic Acquisition Mode X – Both Dipoles or Monopole Mode for Expert	OFF	
SAS1	STC Sonic Array Status – Lower Dipole	255	
SBO1	STC Search Band Offset – Lower Dipole	3000	US
SBW1	STC Search Bandwidth – Lower Dipole	8000	US
SFC1	STC Formation Character – Lower Dipole	SELECTABLE	
SFM1	STC Filter – Lower Dipole	B.3–1.5K	
SLL1	STC Slowness Lower Limit – Lower Dipole	75	US/F
SST1	STC Slowness Step – Lower Dipole	4	US/F
SSW1	STC Source Waveform – Lower Dipole	WF_SAM1	
SUL1	STC Slowness Upper Limit – Lower Dipole	775	US/F
SWD1	STC Slowness Width – Lower Dipole	40	US/F
TBF1	STC Time for Baseline Fill – Lower Dipole	0	US
TLL1	STC Time Lower Limit – Lower Dipole	600	US
TST1	STC Time Step – Lower Dipole	200	US
TUL1	STC Time Upper Limit – Lower Dipole	15912.5	US
TWD1	STC Time Width – Lower Dipole	2000	US
TWI1	STC Integration Time Window – Lower Dipole	1600	US
TWSX	Transmitter Waveform Select X	0	
WFM1	Waveform Mode 1	W1	
	EDTC-B: Enhanced DTS Cartridge		
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	BS	
	System and Miscellaneous		
BS	Bit Size	9.875	IN
DFD	Drilling Fluid Density	1.25	G/C3
DO	Depth Offset for Playback	-572.0	M
PP	Playback Processing	NORMAL	

Format: DSST\_LOWER\_DIPOLE\_VDL\_COLOR      Vertical Scale: 1:200      Graphics File Created: 31-Dec-2011 09:10

## OP System Version: 19C0-187

MEST-B	19C0-187	DTA-A	19C0-187
HNGC-B	19C0-187	HNGS-BA	19C0-187
DSST-B	19C0-187	EDTC-B	19C0-187

## Input DLIS Files

DEFAULT	FMS_NGS_DSI_019LUP	FN:28	PRODUCER	08-Dec-2011 06:28	946.4 M	563.0 M
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## Output DLIS Files

DEFAULT	FMS_NGS_DSI_056PUP	FN:22	PRODUCER	31-Dec-2011 09:10		
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Company: Lamont Doherty      Well: Expedition 339, Site U1386 GC-01A

## Input DLIS Files

DEFAULT	FMS_NGS_DSI_019LUP	FN:28	PRODUCER	08-Dec-2011 06:28	946.4 M	563.0 M
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## Output DLIS Files

DEFAULT	FMS_NGS_DSI_056PUP	FN:22	PRODUCER	31-Dec-2011 09:10	374.1 M	-9.0 M
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## OP System Version: 19C0-187

MEST-B	19C0-187	DTA-A	19C0-187
HNGC-B	19C0-187	HNGS-BA	19C0-187
DSST-B	19C0-187	EDTC-B	19C0-187

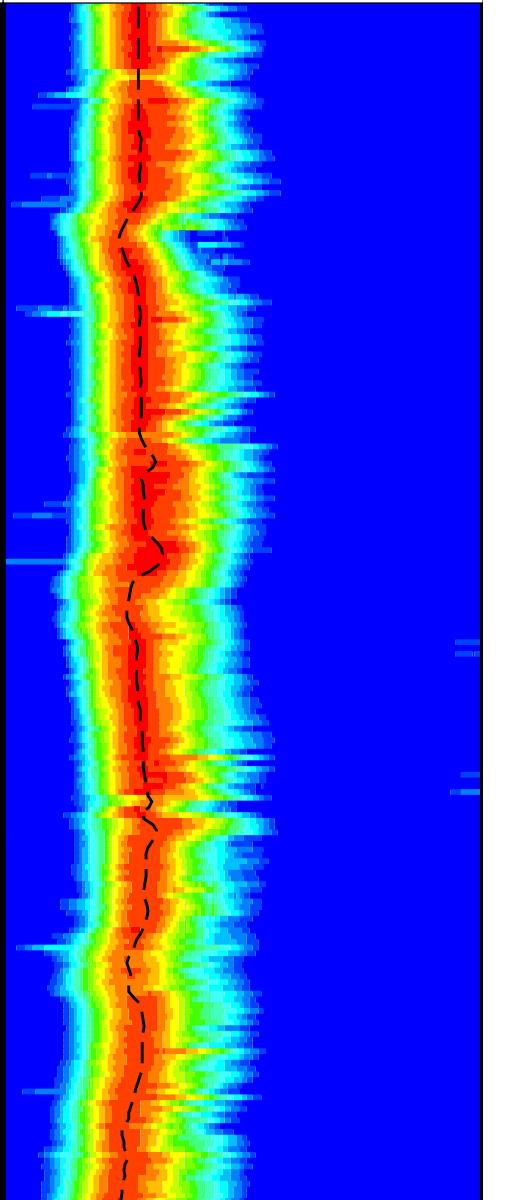
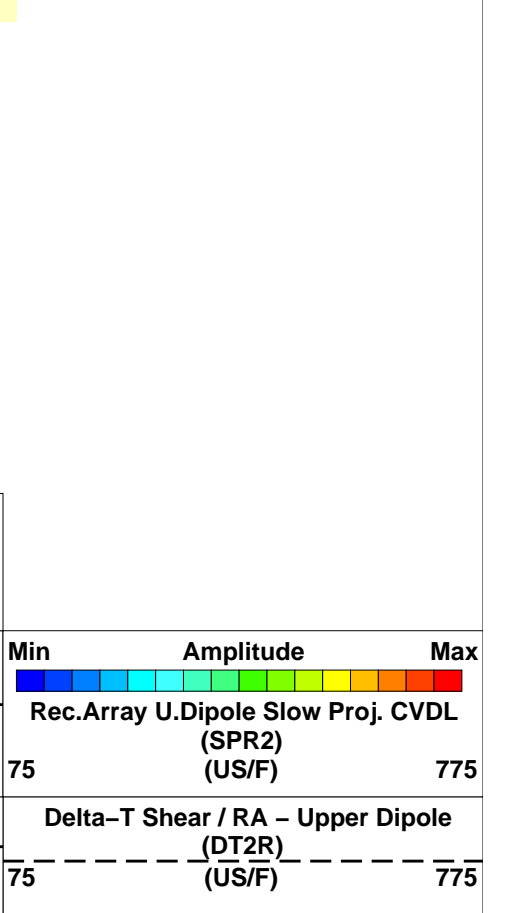
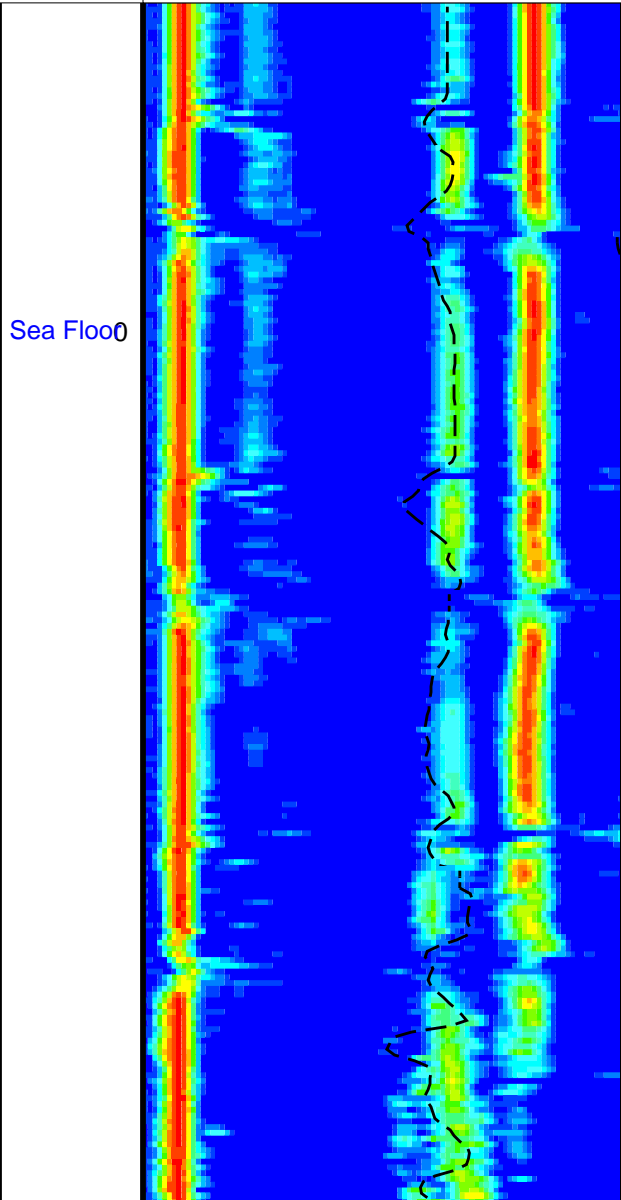
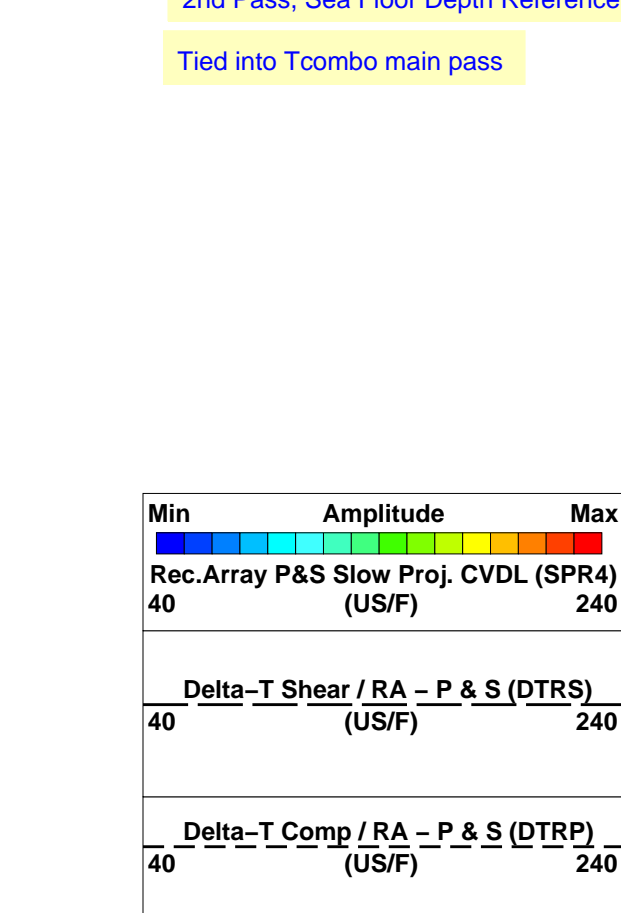
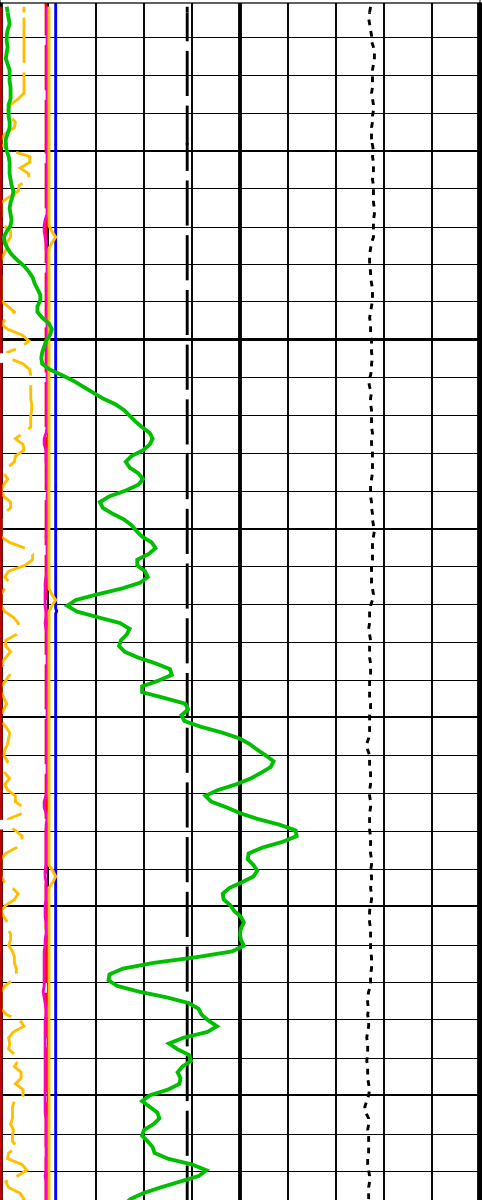
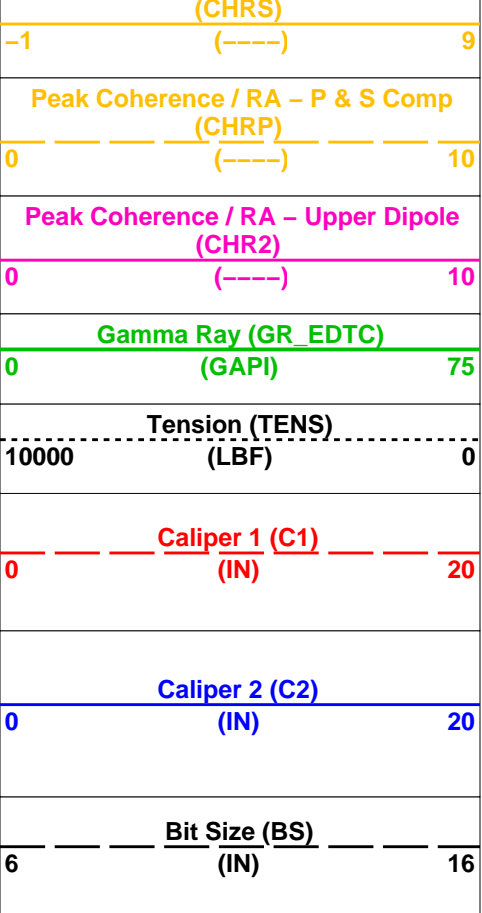
## PIP SUMMARY

☒ Time Mark Every 60 S

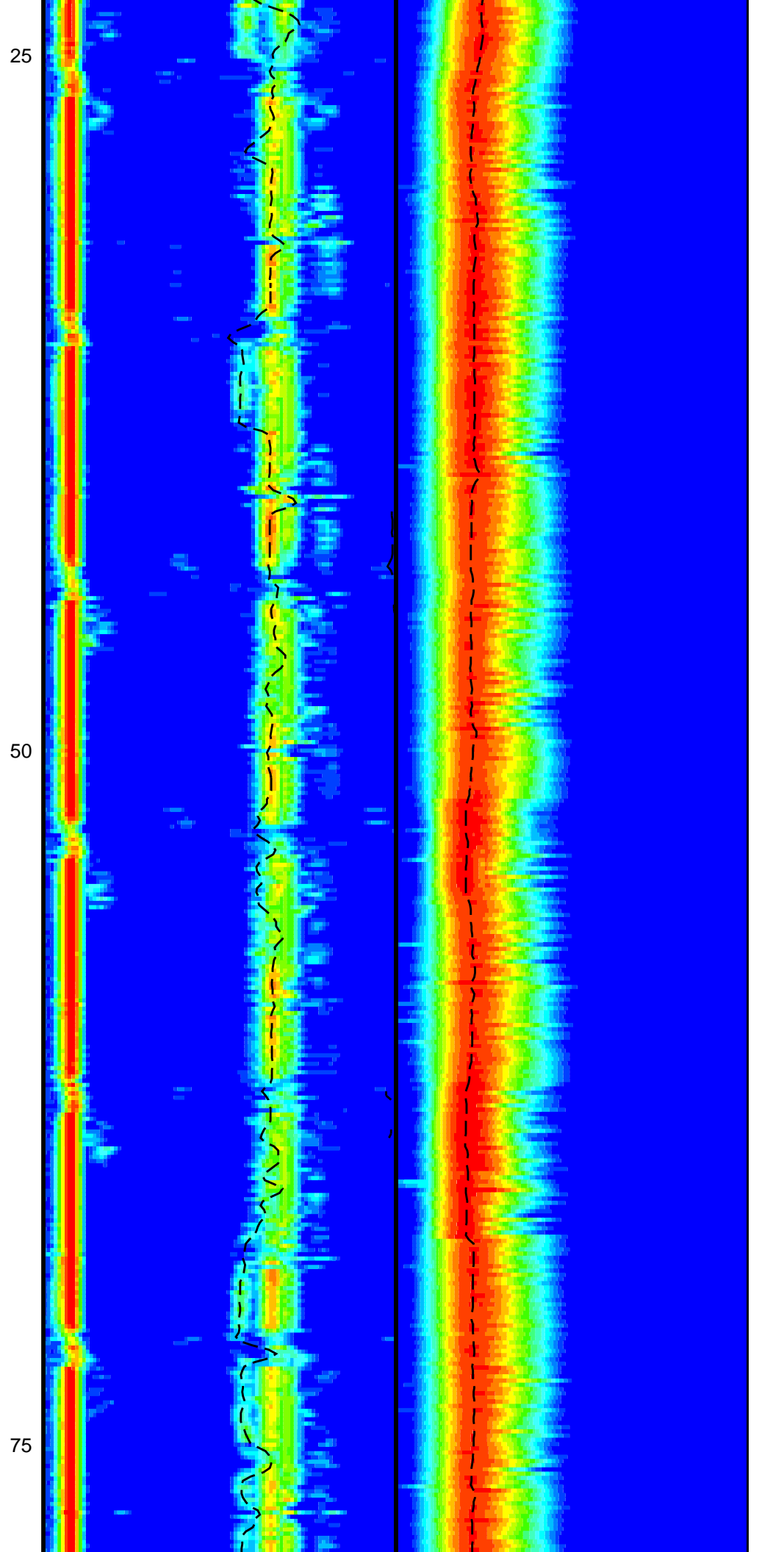
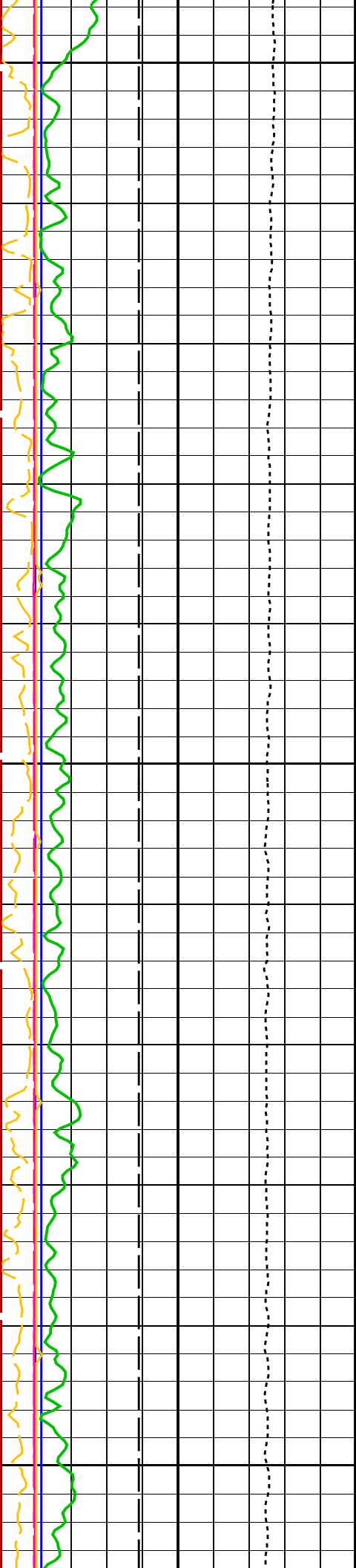
Waveform Data Copy Indicator 4 – Monopole P&S (WCI4)		
0	(----)	10

Peak Coherence / RA – P & S Shear

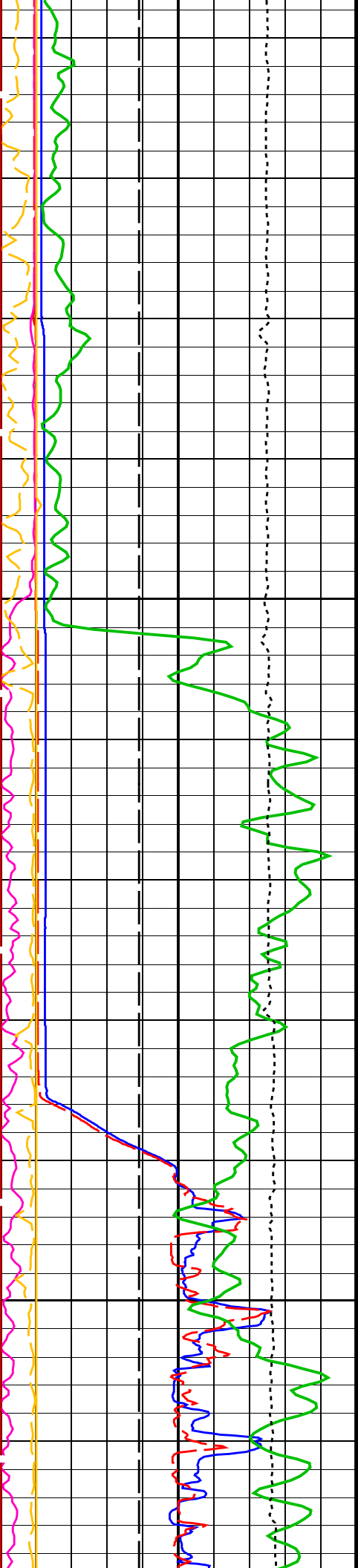
2nd Pass: Sea Floor Depth Reference



Sea Floor0



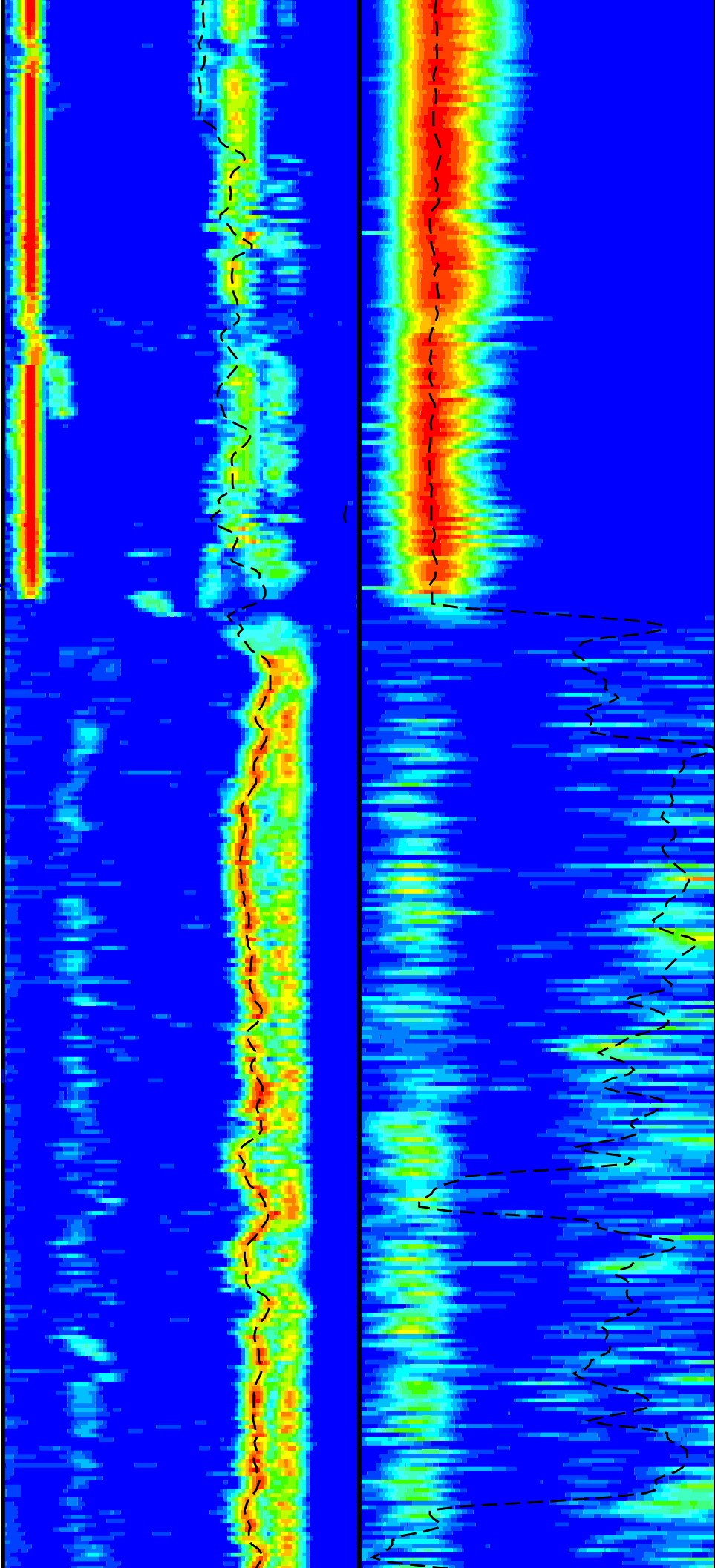


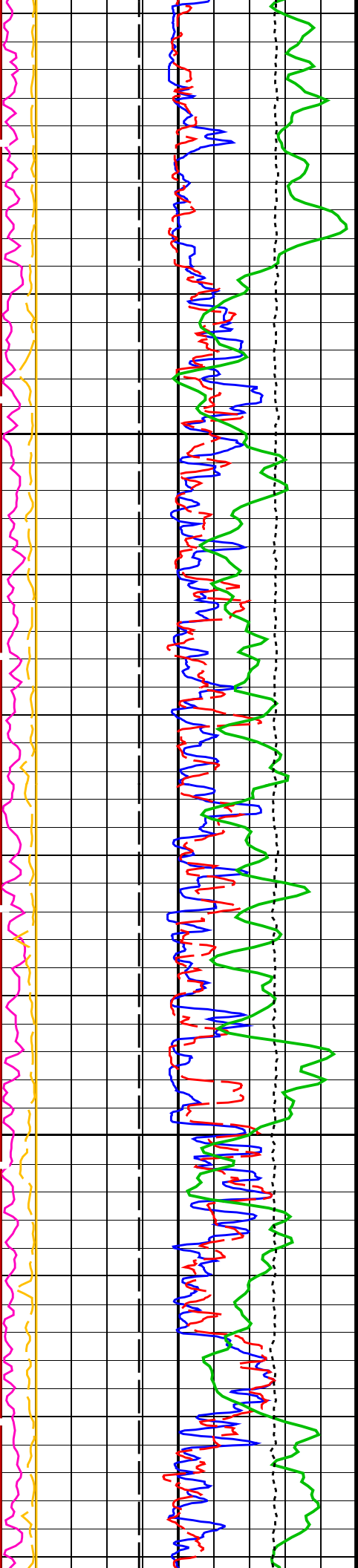


-Drill Pipe

Calipers C

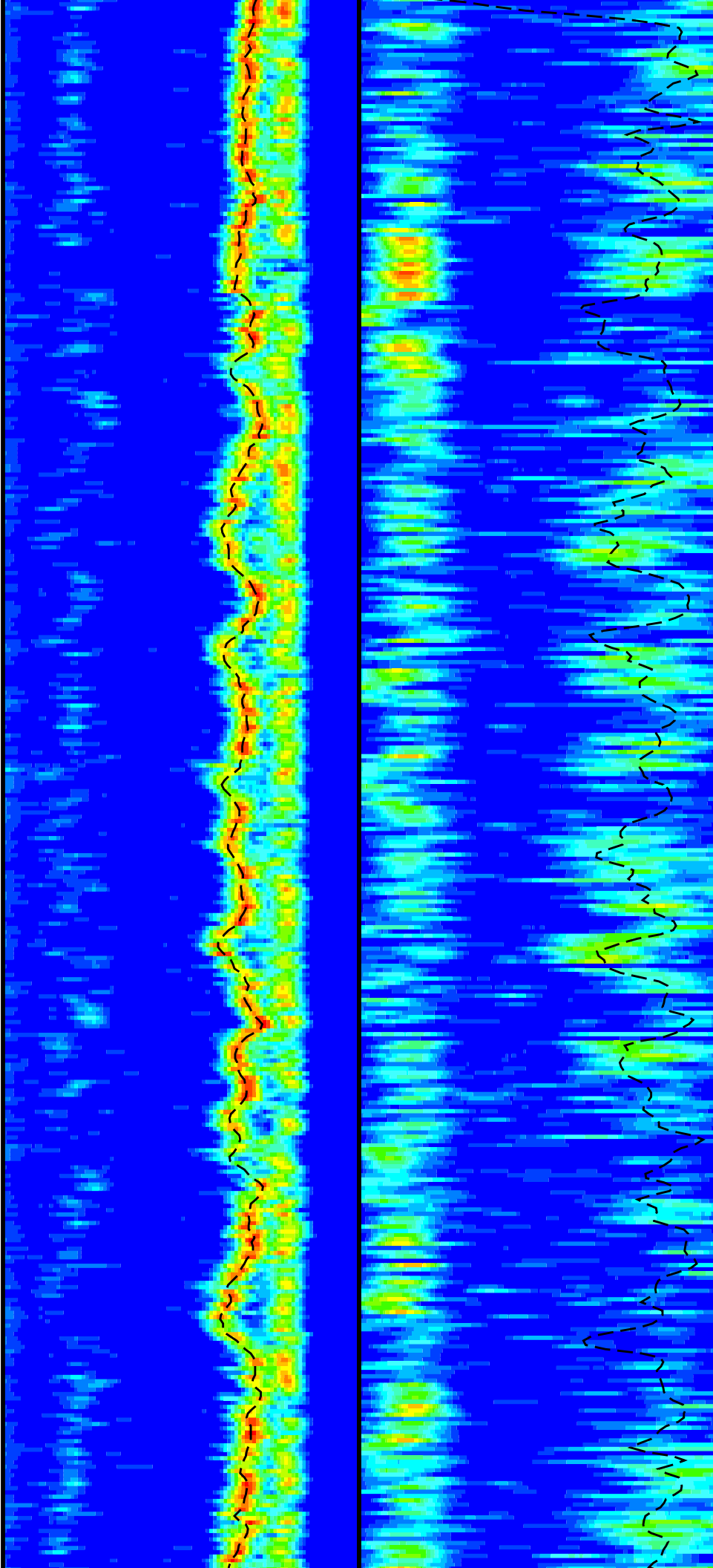
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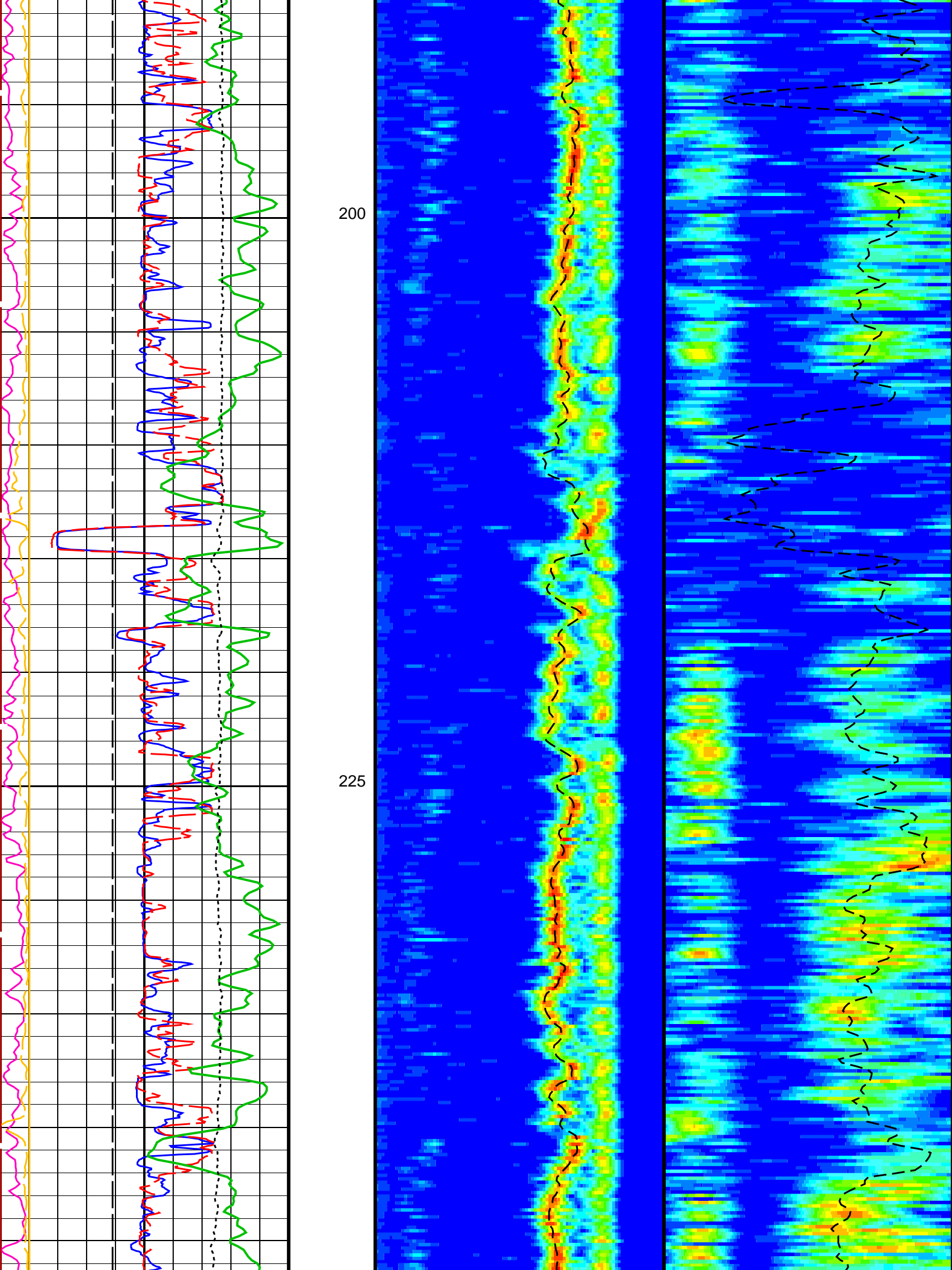


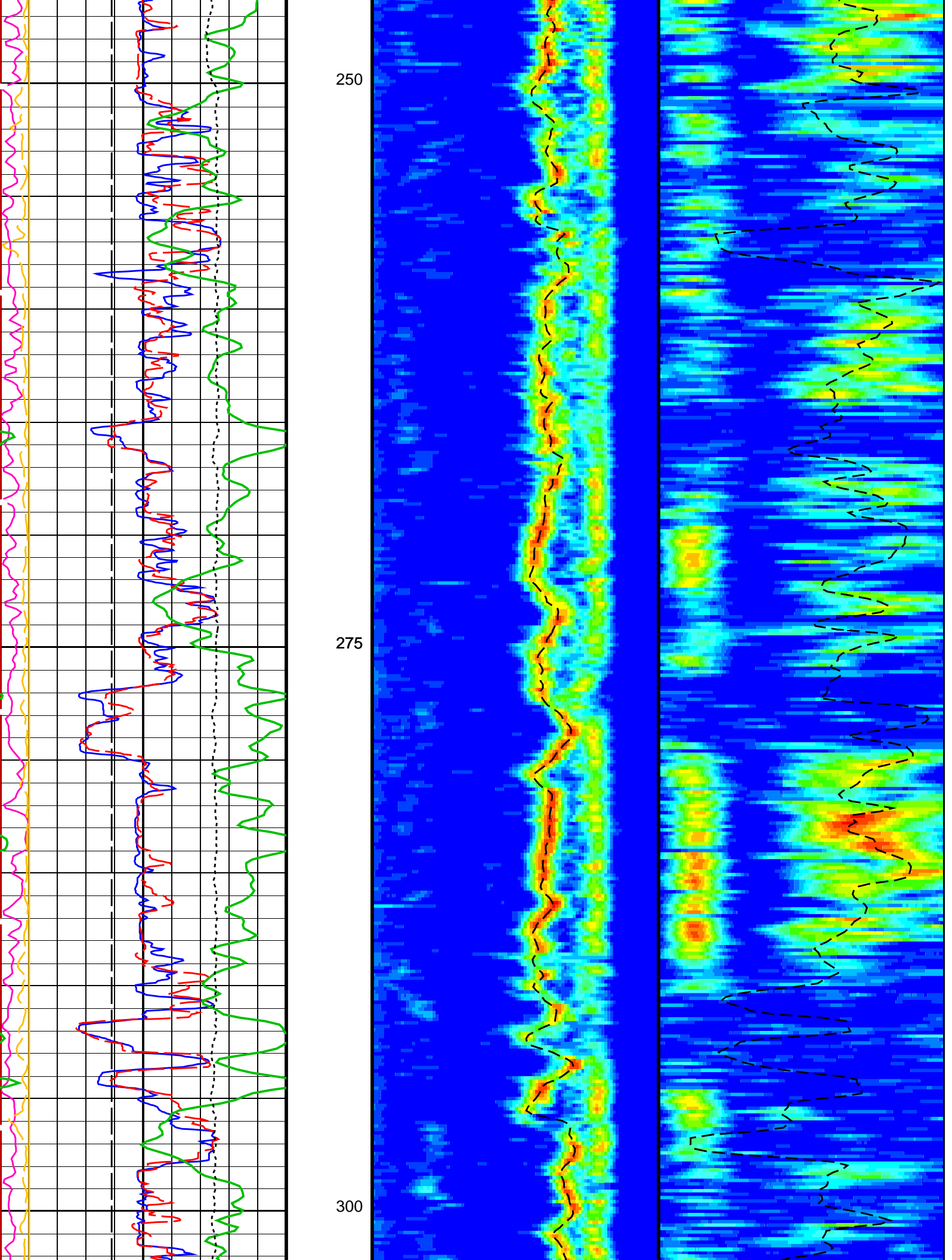


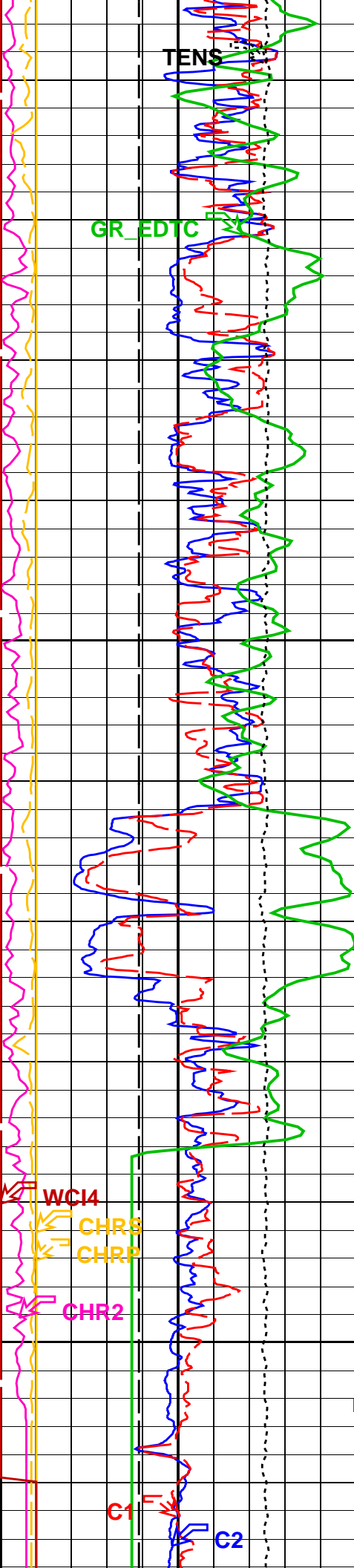
150

175







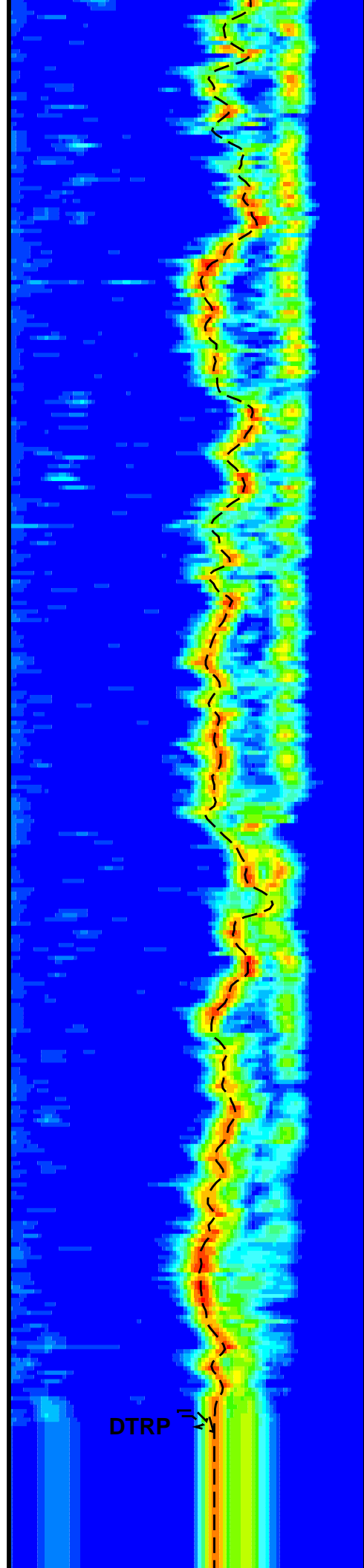


325

FR GR

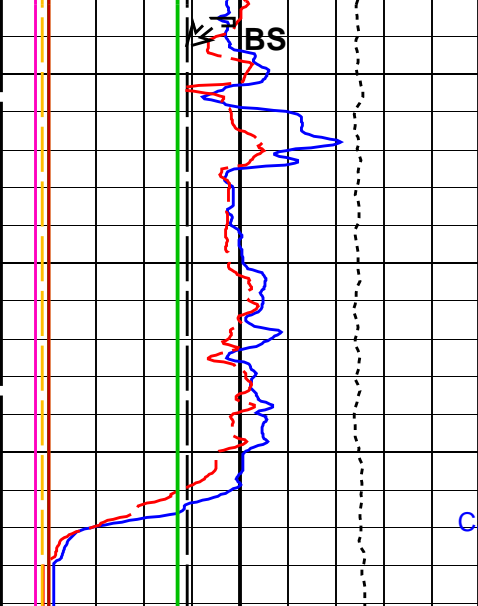
350

FR DSI-



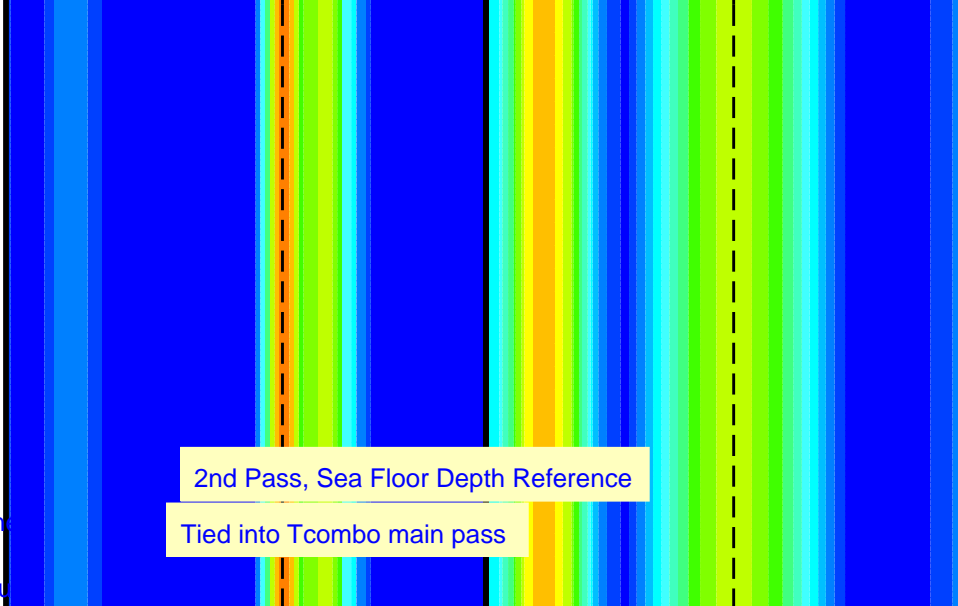
DTRP

DT2R



Calipers Open

Tool Pick



2nd Pass, Sea Floor Depth Reference

Tied into Tcombo main pass

Bit Size (BS)		
(IN)		
6		16
Caliper 2 (C2)		
(IN)		
0		20
Caliper 1 (C1)		
(IN)		
0		20
Tension (TENS)		
(LBF)		
10000		0
Gamma Ray (GR_EDTC)		
(GAPI)		
0		75
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

Delta-T Comp / RA - P & S (DTRP)		
(US/F)		
40		240
Delta-T Shear / RA - P & S (DTRS)		
(US/F)		
40		240
Delta-T Shear / RA - Upper Dipole (DT2R)		
(US/F)		
75		775
Min Amplitude Max		
Rec.Array U.Dipole Slow Proj. CVDL (SPR2)		
(US/F)		
75		775
Min Amplitude Max		
Rec.Array P&S Slow Proj. CVDL (SPR4)		
(US/F)		
40		240

## PIP SUMMARY

Time Mark Every 60 S

## Parameters

DLIS Name	Description	Value	
BHS	HNGS-BA: Hostile Natural Gamma Ray Sonde Borehole Status	OPEN	
BHS	DSST-B: Dipole Shear Imager - B Borehole Status	OPEN	
CASF	Label Casing Function - Monopole P&S	50	
COLL	Label Slowness Lower Limit - Monopole P&S Compressional	130	US/F
COUL	Label Slowness Upper Limit - Monopole P&S Compressional	190	US/F
DDE2	Digitizing Delay 2	0	US
DDE4	Digitizing Delay 4	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	75	US/F
DSHU	Label Slowness Upper Limit – Dipole Shear	775	US/F
DSI2	Digitizer Sample Interval 2	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	189	US/F
DWC2	Digitizer Word Count 2	512	
DWC4	Digitizer Word Count 4	512	
DWCX	Digitizer Word Count X	512	
FILG	Label Fill Gap Control – Monopole P&S	COMP_SHEAR	
LFC	Label Formation Character – Monopole P&S	DYNAMIC	
MCS	Mean Casing Slowness	57	US/F
MTXG	Monopole Transmitter Geometry	186	IN
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
SAM2	DSST Sonic Acquisition Mode 2 – Upper Dipole Mode	ODD	
SAM4	DSST Sonic Acquisition Mode 4 – Monopole Mode for P&S	EVEN	
SAMX	DSST Sonic Acquisition Mode X – Both Dipoles or Monopole Mode for Expert	OFF	
SAS2	STC Sonic Array Status – Upper Dipole	255	
SAS4	STC Sonic Array Status – Monopole P&S	255	
SBO2	STC Search Band Offset – Upper Dipole	3000	US
SBO4	STC Search Band Offset – Monopole P&S	500	US
SBR4	STC Baseline Removal – Monopole P&S	ON	
SBW2	STC Search Bandwidth – Upper Dipole	8000	US
SBW4	STC Search Bandwidth – Monopole P&S	2000	US
SFC2	STC Formation Character – Upper Dipole	SELECTABLE	
SFC4	STC Formation Character – Monopole P&S	SELECTABLE	
SFM2	STC Filter – Upper Dipole	B1–2K	
SFM4	STC Filter – Monopole P&S	B3–20K	
SHLL	Label Slowness Lower Limit – Monopole P&S Shear	230	US/F
SHUL	Label Slowness Upper Limit – Monopole P&S Shear	240	US/F
SLL2	STC Slowness Lower Limit – Upper Dipole	75	US/F
SLL4	STC Slowness Lower Limit – Monopole P&S	40	US/F
SST2	STC Slowness Step – Upper Dipole	4	US/F
SST4	STC Slowness Step – Monopole P&S	2	US/F
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
SUL2	STC Slowness Upper Limit – Upper Dipole	775	US/F
SUL4	STC Slowness Upper Limit – Monopole P&S	240	US/F
SWD2	STC Slowness Width – Upper Dipole	40	US/F
SWD4	STC Slowness Width – Monopole P&S	10	US/F
TBF2	STC Time for Baseline Fill – Upper Dipole	0	US
TBF4	STC Time for Baseline Fill – Monopole P&S	300	US
TLL2	STC Time Lower Limit – Upper Dipole	600	US
TLL4	STC Time Lower Limit – Monopole P&S	150	US
TST2	STC Time Step – Upper Dipole	200	US
TST4	STC Time Step – Monopole P&S	50	US
TUL2	STC Time Upper Limit – Upper Dipole	15525	US
TUL4	STC Time Upper Limit – Monopole P&S	3660	US
TWD2	STC Time Width – Upper Dipole	2000	US
TWD4	STC Time Width – Monopole P&S	1000	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	
BHS	EDTC–B: Enhanced DTS Cartridge Borehole Status	OPEN	
BS	System and Miscellaneous Bit Size	9.875	IN
DO	Depth Offset for Playback	–572.0	M
PP	Playback Processing	NORMAL	



MEST-B	19C0-187	DTA-A	19C0-187
HNGC-B	19C0-187	HNGS-BA	19C0-187
DSST-B	19C0-187	EDTC-B	19C0-187

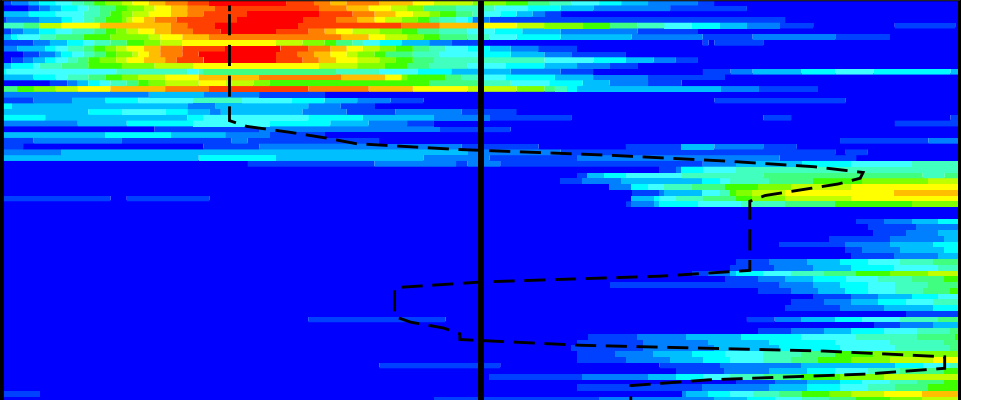
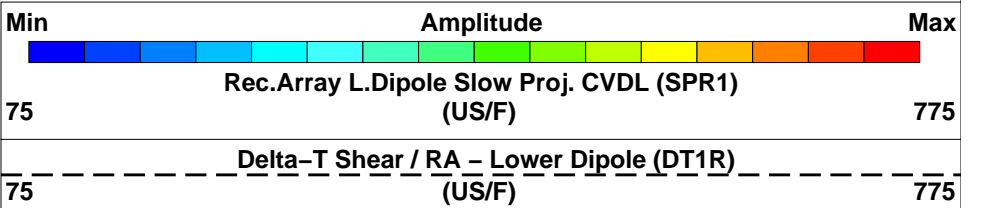
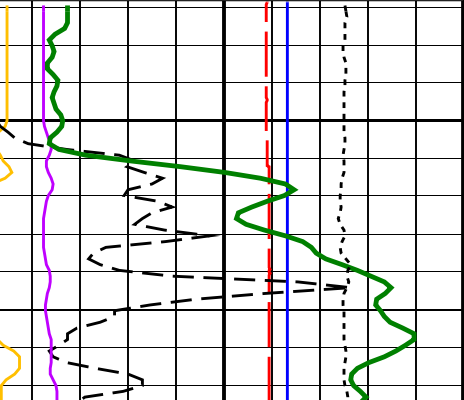
Input DLIS Files						
DEFAULT	FMS_NGS_DSI_019LUP	FN:28	PRODUCER	08-Dec-2011 06:28	946.4 M	563.0 M
Output DLIS Files						
DEFAULT	FMS_NGS_DSI_056PUP	FN:22	PRODUCER	31-Dec-2011 09:10		

Input DLIS Files						
DEFAULT	FMS_NGS_DSI_018LUP	FN:26	PRODUCER	08-Dec-2011 05:43	944.1 M	668.7 M
Output DLIS Files						
DEFAULT	FMS_NGS_DSI_057PUP	FN:23	PRODUCER	31-Dec-2011 09:13	372.6 M	96.8 M

OP System Version: 19C0-187						
MEST-B	19C0-187	DTA-A	19C0-187			
HNGC-B	19C0-187	HNGS-BA	19C0-187			
DSST-B	19C0-187	EDTC-B	19C0-187			

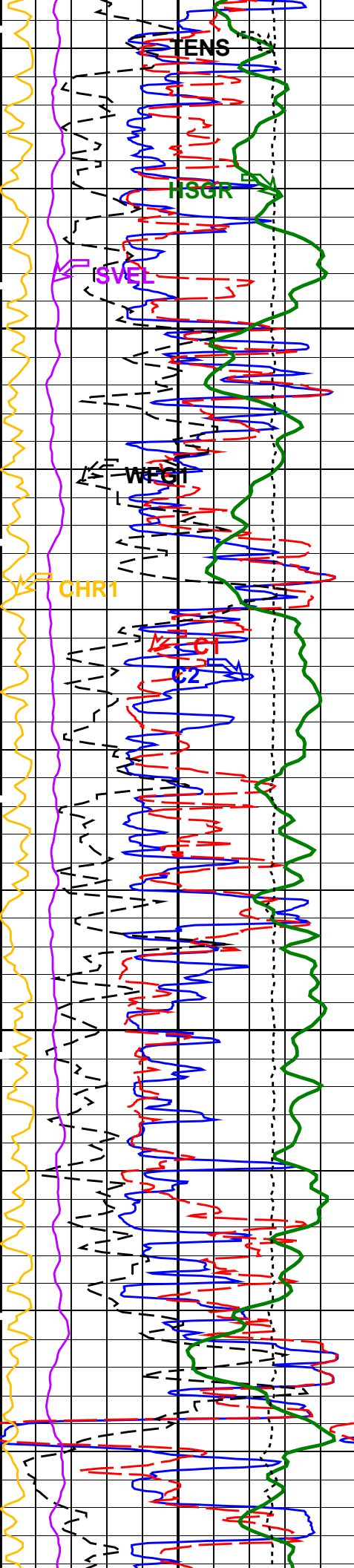
PIP SUMMARY						
Time Mark Every 60 S						

HNGS Spectroscopy Gamma Ray (HSGR)		
0	(GAPI)	75
Peak Coherence / RA - Lower Dipole (CHR1)		
0	(-----)	10
Tension (TENS)		
10000	(LBF)	0
Sonic Velocity (SVEL)		
1000	(M/S)	6000
SAM1 Waveform Gain (WFG1)		
0	(-----)	1000
Caliper 1 (C1)		
6	(IN)	16
Caliper 2 (C2)		
6	(IN)	16



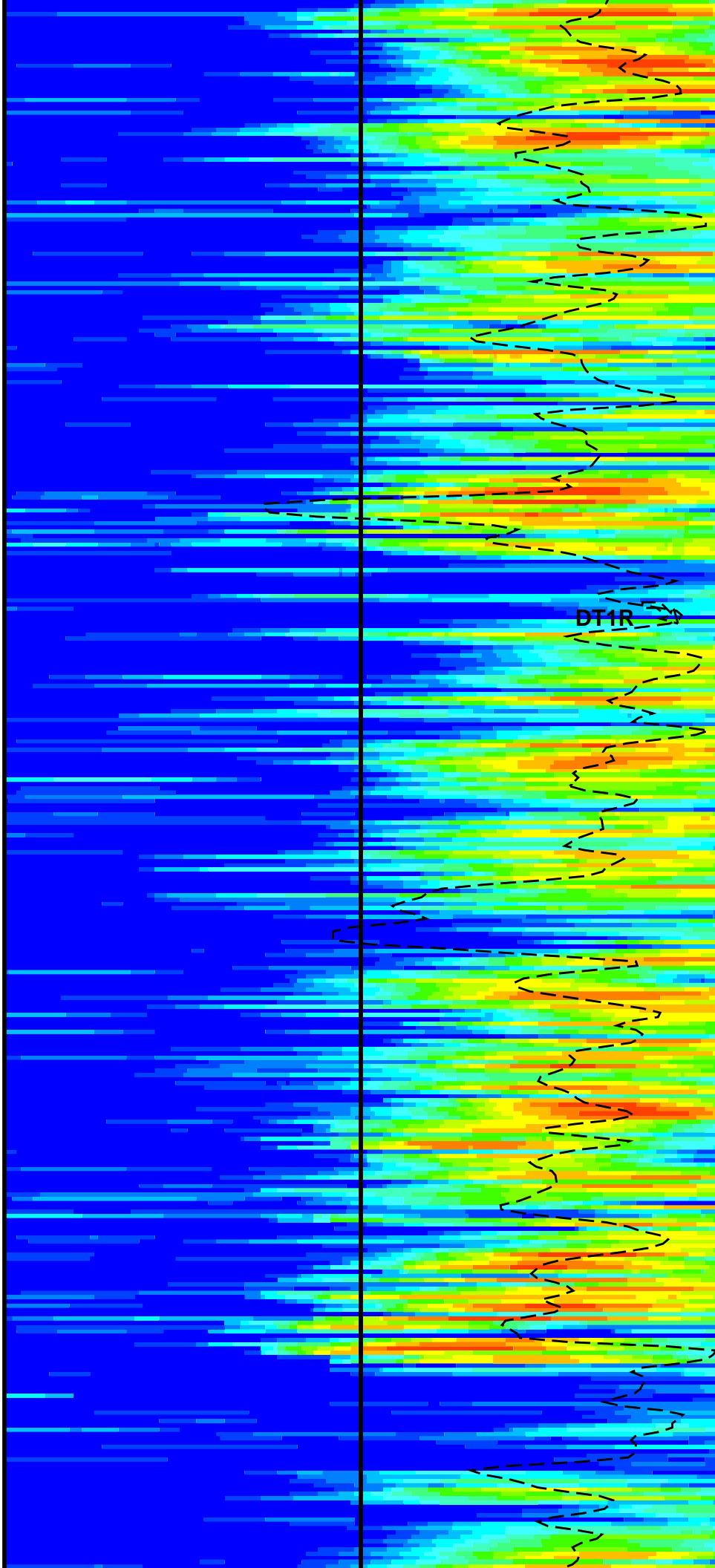


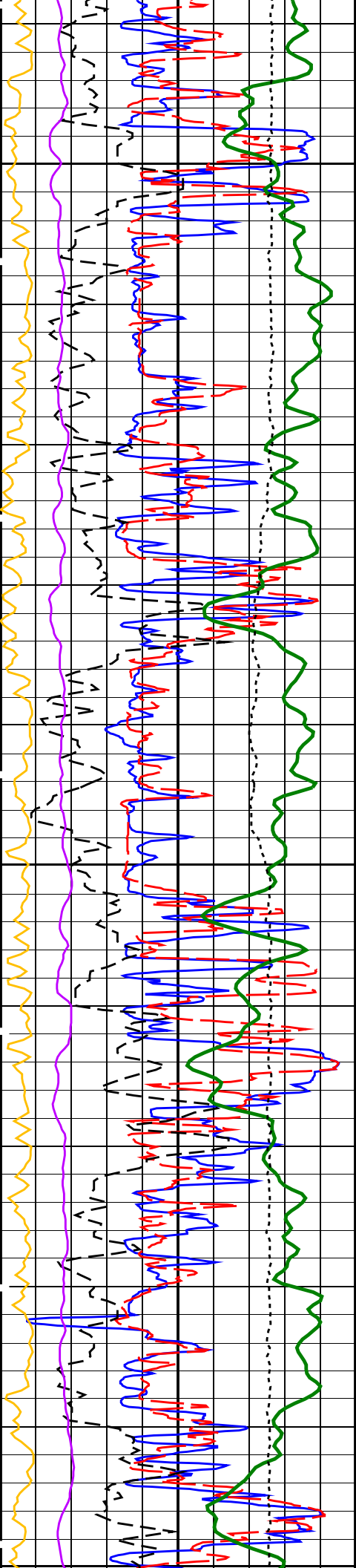




175

200

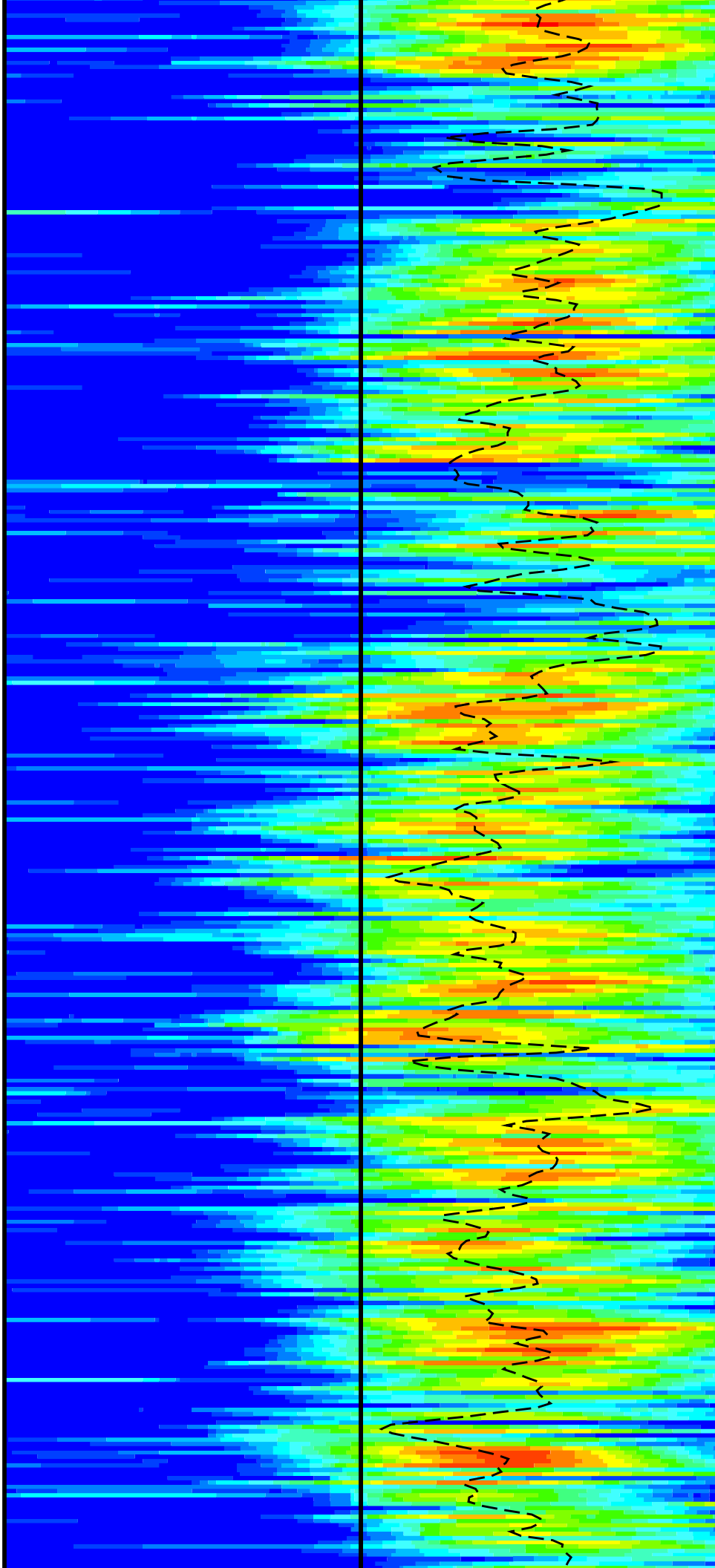


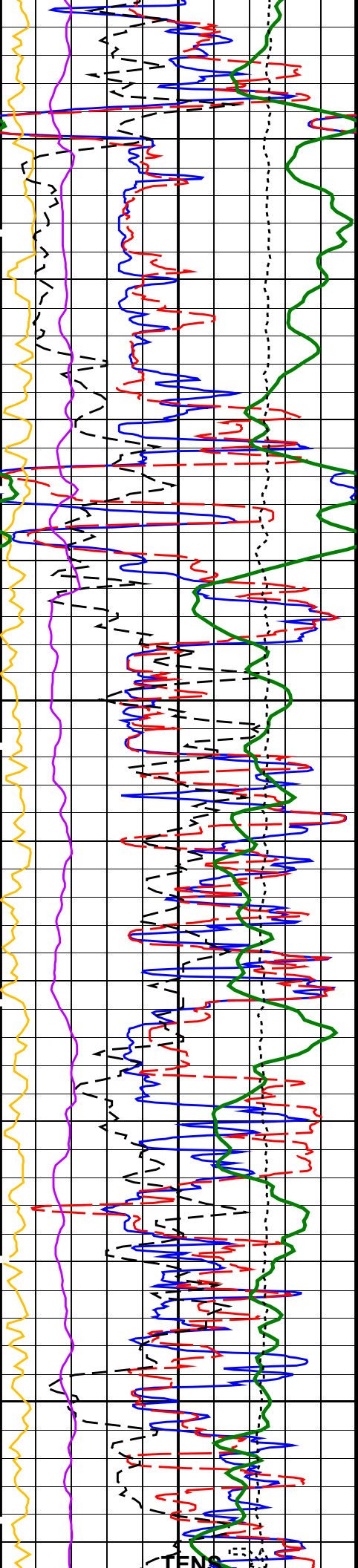


225

250

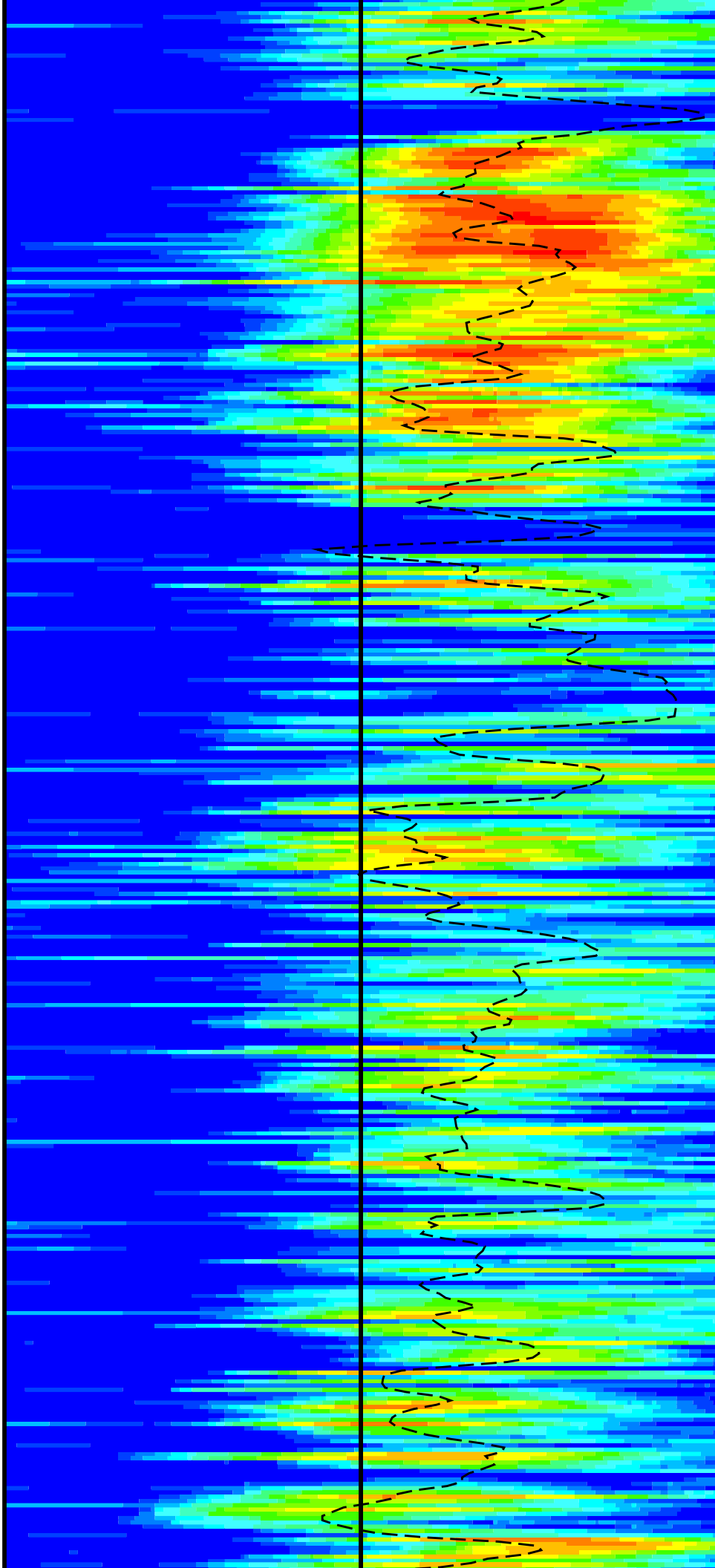
275

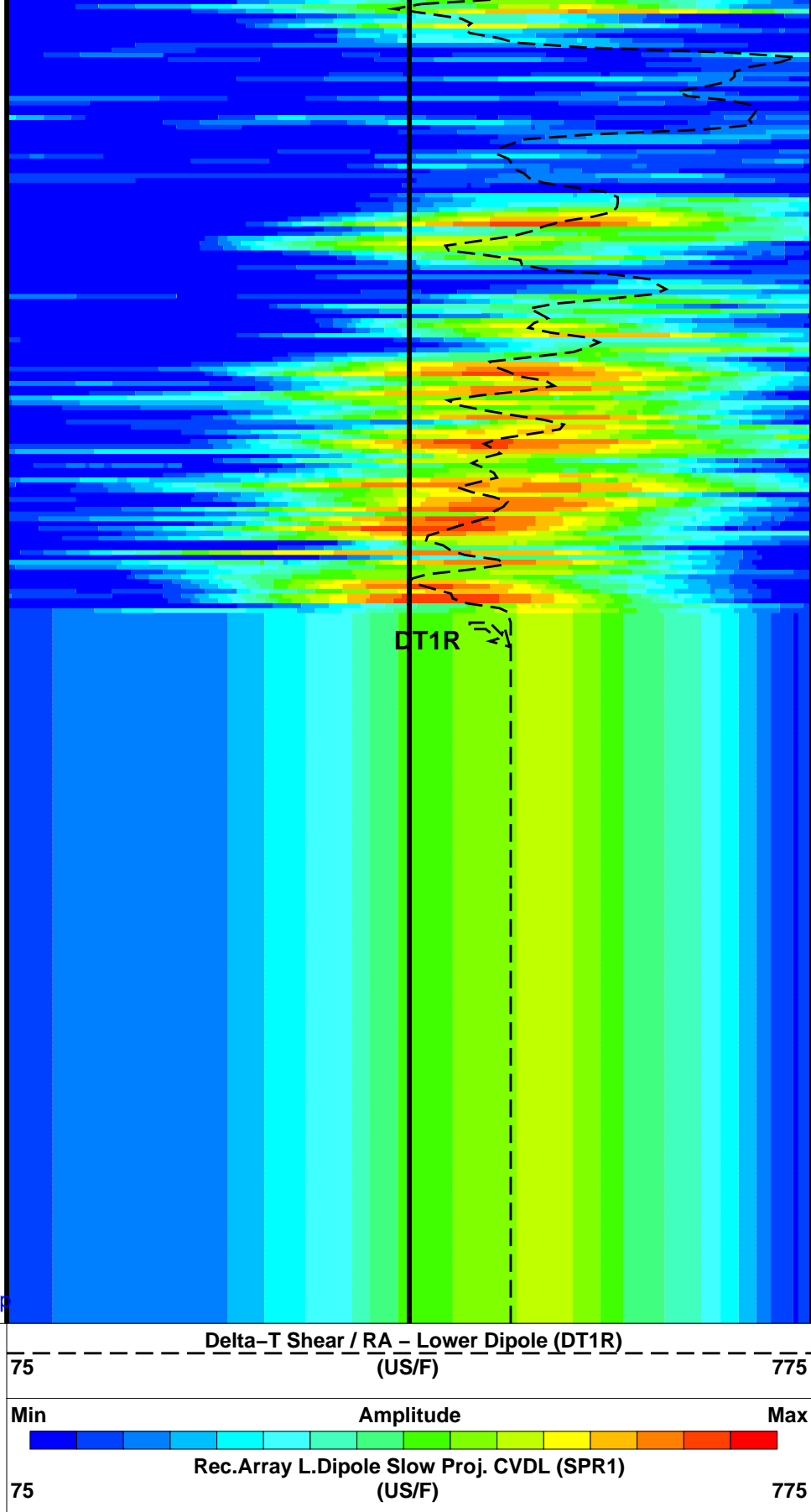
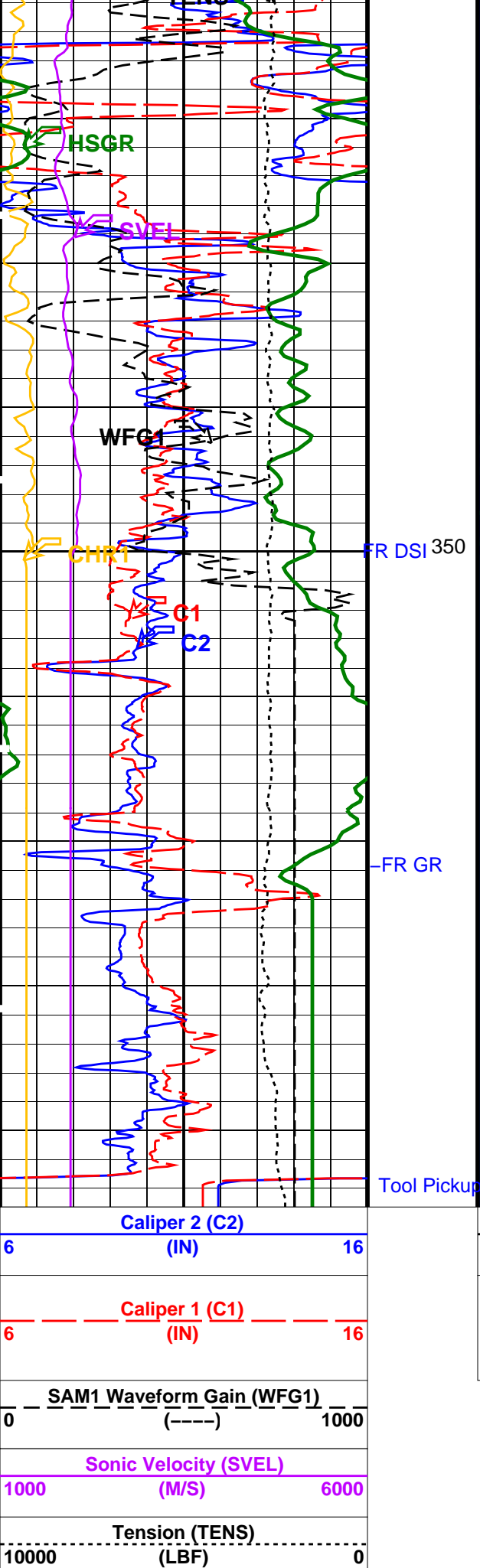




300

325





1st Pass, Sea Floor Depth Reference

Tied into Tcombo main log

0	(CHR1) (-----)	10
HNGS Spectroscopy Gamma Ray (HSGR)		
0	(GAPI)	75

## PIP SUMMARY

Time Mark Every 60 S

## Parameters

DLIS Name	Description	Value	
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	-0.000816423	
HALF	HNGS Alpha Filter Length	60	IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	NATU	
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	1.00422	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	0.99791	
DSST-B: Dipole Shear Imager - B			
BHS	Borehole Status	OPEN	
DDE1	Digitizing Delay 1	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	775	US/F
DSI1	Digitizer Sample Interval 1	40	US
DSIX	Digitizer Sample Interval X	40	US
DTCS	Compressional Delta-T Source for DTCO Channel	PS_COMP	
DWC1	Digitizer Word Count 1	512	
DWCX	Digitizer Word Count X	512	
GCSE	Generalized Caliper Selection	BS	
LTXG	Lower Dipole Transmitter Geometry	156	IN
NWI1	Number Waveform Items 1	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
SAM1	DSST Sonic Acquisition Mode 1 - Lower Dipole Mode	LFD_EVEN	
SAMX	DSST Sonic Acquisition Mode X - Both Dipoles or Monopole Mode for Expert	OFF	
SAS1	STC Sonic Array Status - Lower Dipole	255	
SBO1	STC Search Band Offset - Lower Dipole	3000	US
SBW1	STC Search Bandwidth - Lower Dipole	8000	US
SFC1	STC Formation Character - Lower Dipole	SELECTABLE	
SFM1	STC Filter - Lower Dipole	B.3-1.5K	
SLL1	STC Slowness Lower Limit - Lower Dipole	75	US/F
SST1	STC Slowness Step - Lower Dipole	4	US/F
SSW1	STC Source Waveform - Lower Dipole	WF_SAM1	
SUL1	STC Slowness Upper Limit - Lower Dipole	775	US/F
SWD1	STC Slowness Width - Lower Dipole	40	US/F
TBF1	STC Time for Baseline Fill - Lower Dipole	0	US
TLL1	STC Time Lower Limit - Lower Dipole	600	US
TST1	STC Time Step - Lower Dipole	200	US
TUL1	STC Time Upper Limit - Lower Dipole	15912.5	US
TWD1	STC Time Width - Lower Dipole	2000	US
TWI1	STC Integration Time Window - Lower Dipole	1600	US
TWSX	Transmitter Waveform Select X	0	

WFM1	Waveform Mode 1	W1
BHS	EDTC-B: Enhanced DTS Cartridge	
GCSE	Borehole Status	OPEN
	Generalized Caliper Selection	BS
BS	System and Miscellaneous	
DFD	Bit Size	9.875
DO	Drilling Fluid Density	1.25
PP	Depth Offset for Playback	-572.0
	Playback Processing	NORMAL
		IN
		G/C3
		M

Format: DSST\_LOWER\_DIPOLE\_VDL\_COLOR Vertical Scale: 1:200 Graphics File Created: 31-Dec-2011 09:13

## OP System Version: 19C0-187

MEST-B	19C0-187	DTA-A	19C0-187
HNGC-B	19C0-187	HNGS-BA	19C0-187
DSST-B	19C0-187	EDTC-B	19C0-187

## Input DLIS Files

DEFAULT	FMS_NGS_DSI_018LUP	FN:26	PRODUCER	08-Dec-2011 05:43	944.1 M	668.7 M
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## Output DLIS Files

DEFAULT	FMS_NGS_DSI_057PUP	FN:23	PRODUCER	31-Dec-2011 09:13
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Company: Lamont Doherty Well: Expedition 339, Site U1386 GC-01A

## Input DLIS Files

DEFAULT	FMS_NGS_DSI_018LUP	FN:26	PRODUCER	08-Dec-2011 05:43	944.1 M	668.7 M
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## Output DLIS Files

DEFAULT	FMS_NGS_DSI_057PUP	FN:23	PRODUCER	31-Dec-2011 09:13	372.6 M	96.8 M
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## OP System Version: 19C0-187

MEST-B	19C0-187	DTA-A	19C0-187
HNGC-B	19C0-187	HNGS-BA	19C0-187
DSST-B	19C0-187	EDTC-B	19C0-187

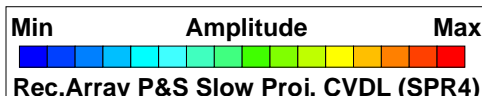
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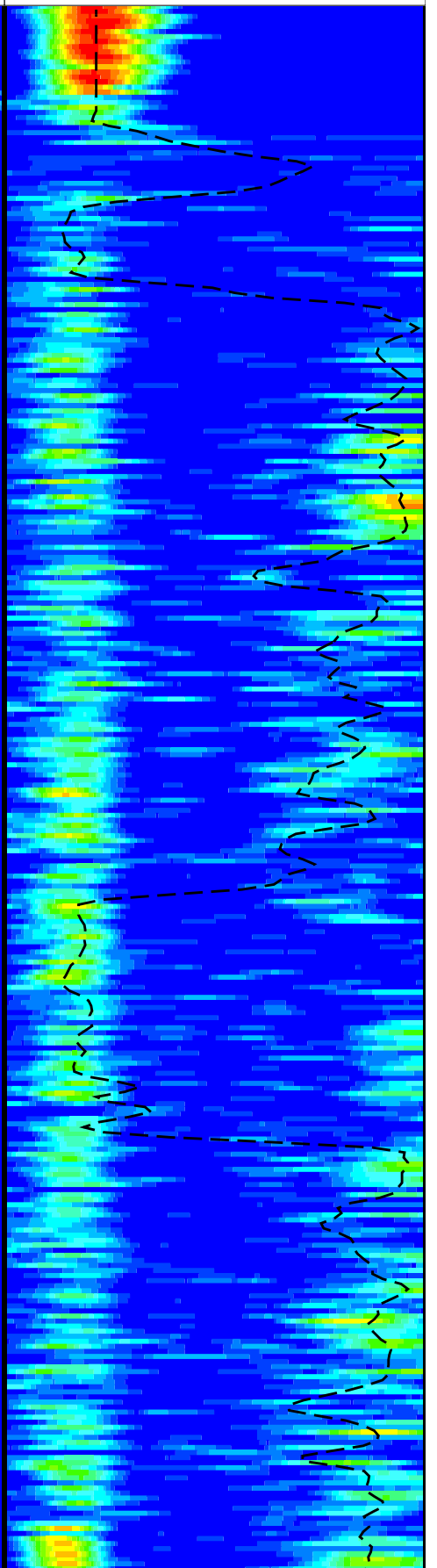
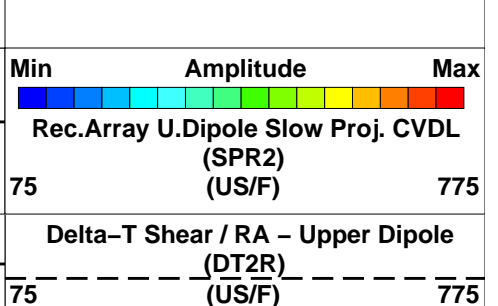
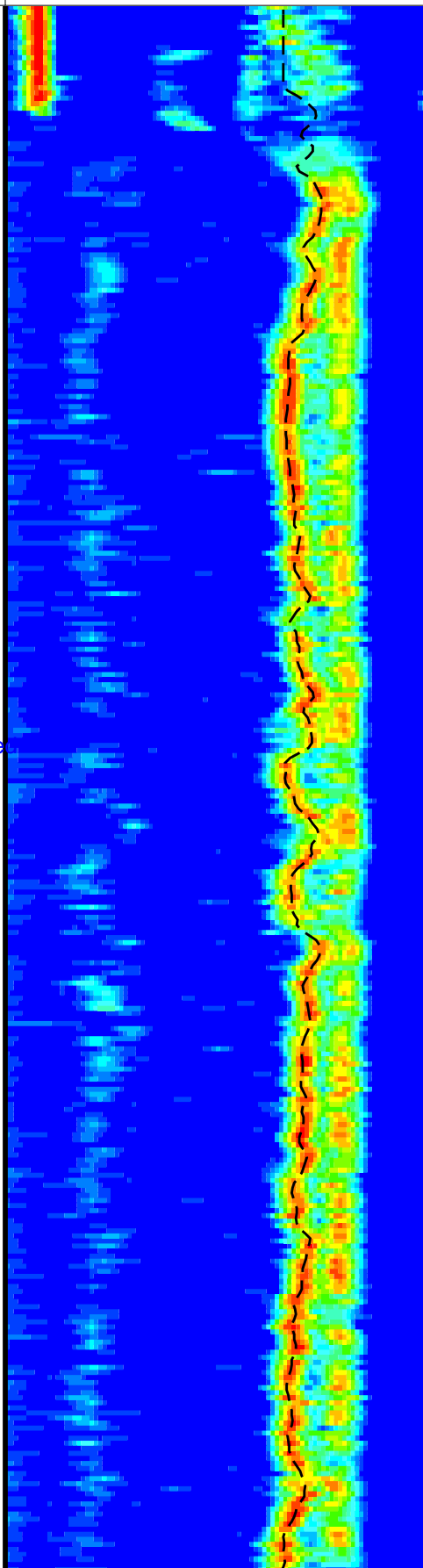
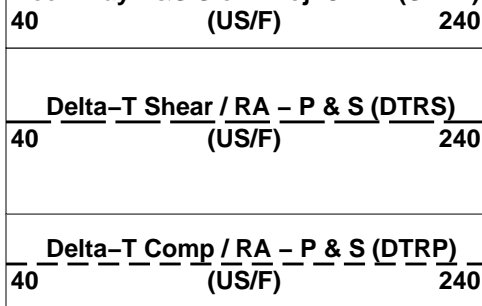
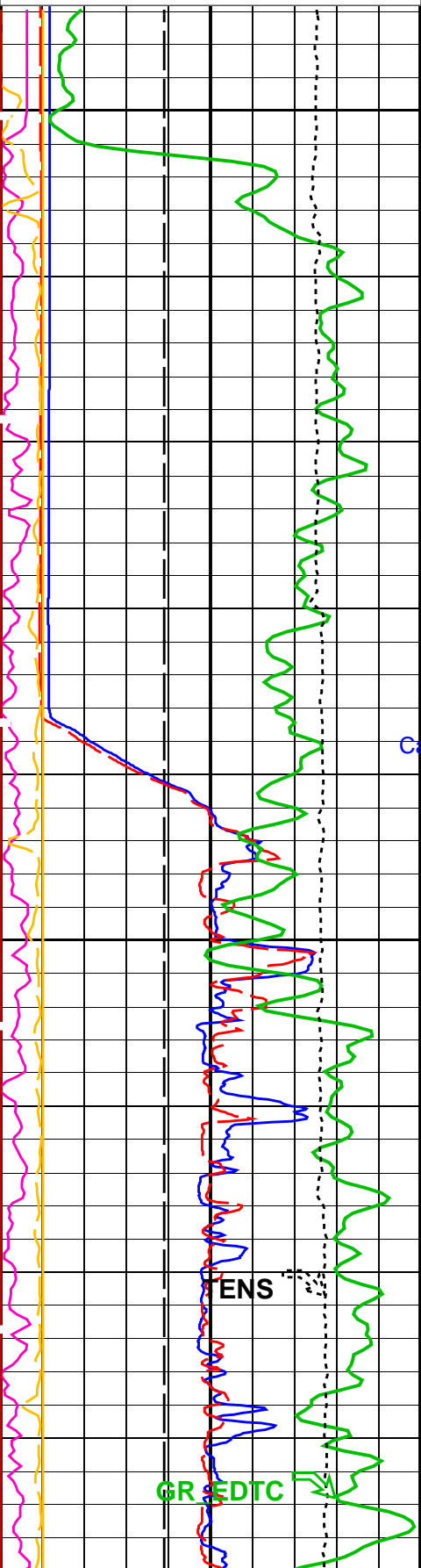
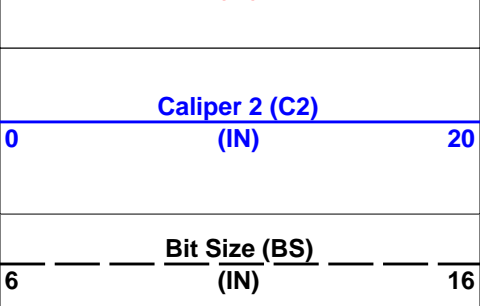
Time Mark Every 60 S

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
Gamma Ray (GR_EDTC)		
0	(GAPI)	75
Tension (TENS)		
10000	(LBF)	0
Caliper 1 (C1)		
0	(IN)	20

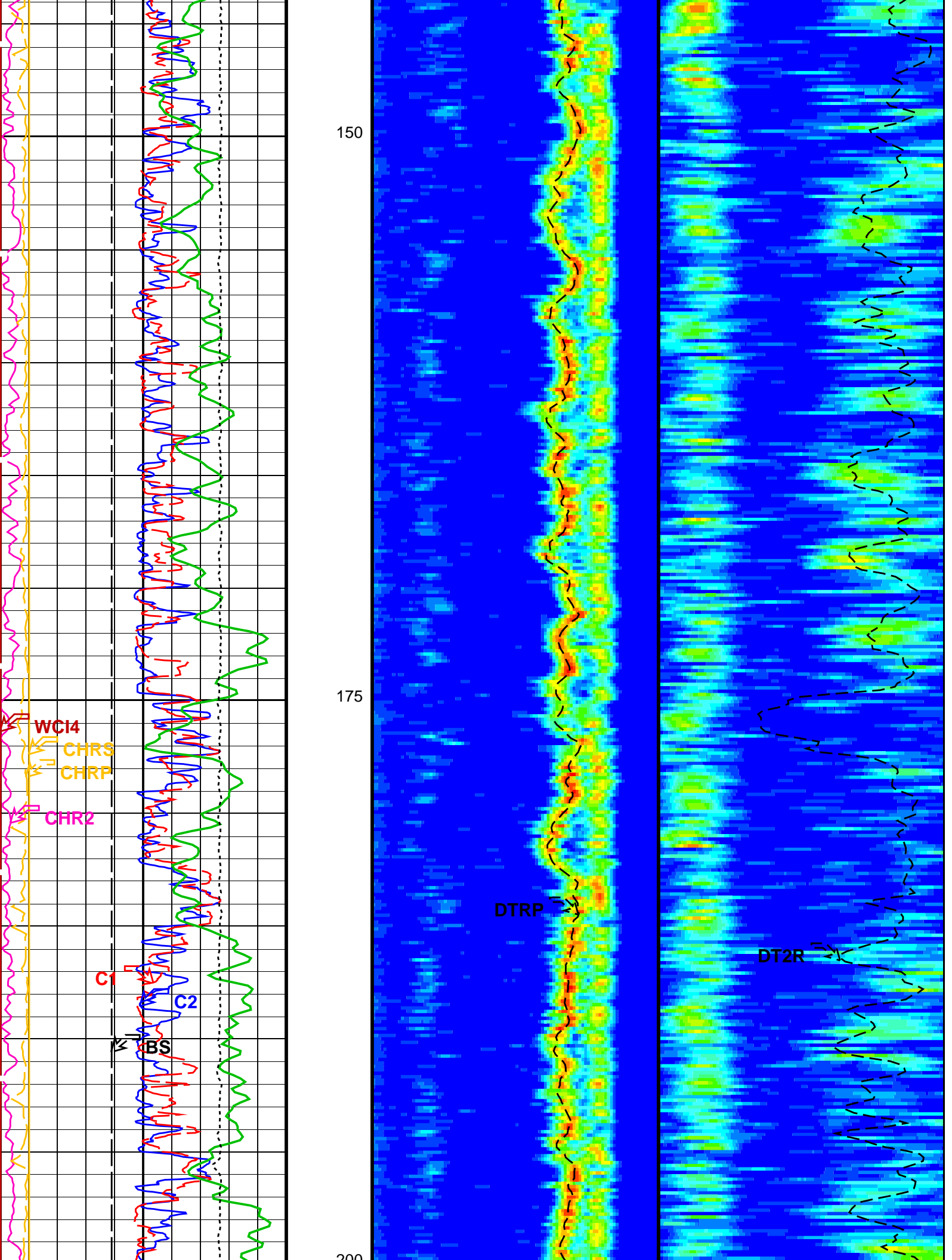
1st Pass, Sea Floor Depth Reference

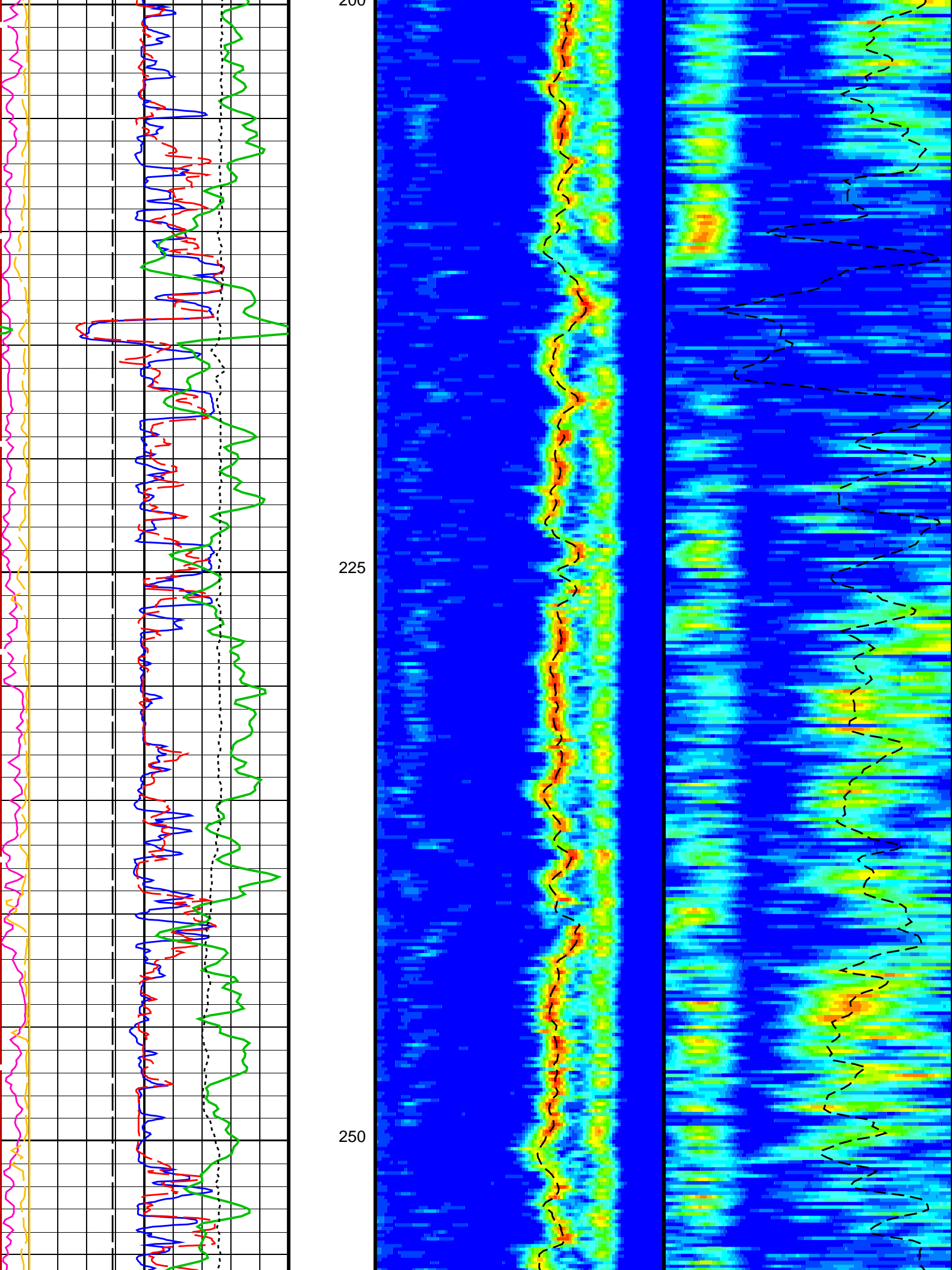
Tied into Tcombo main log

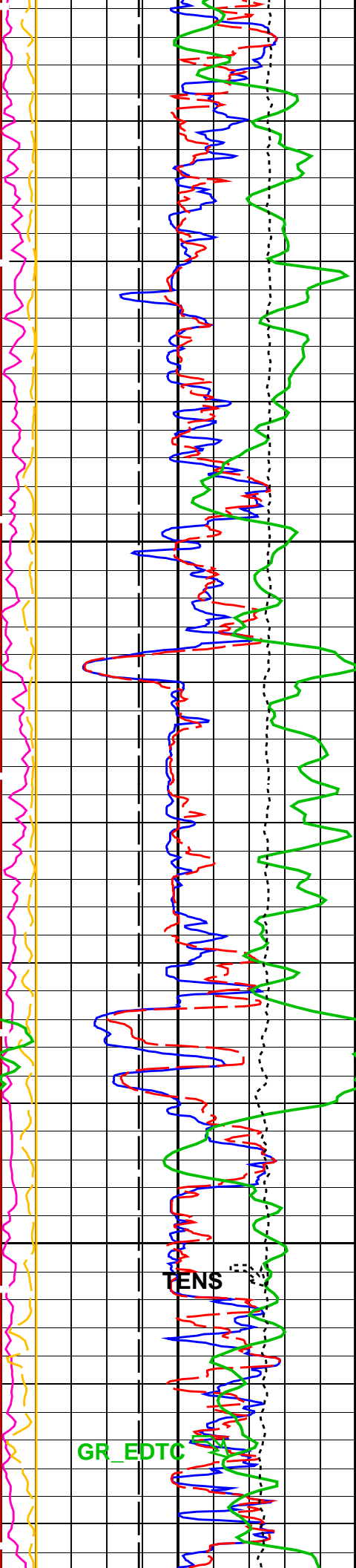






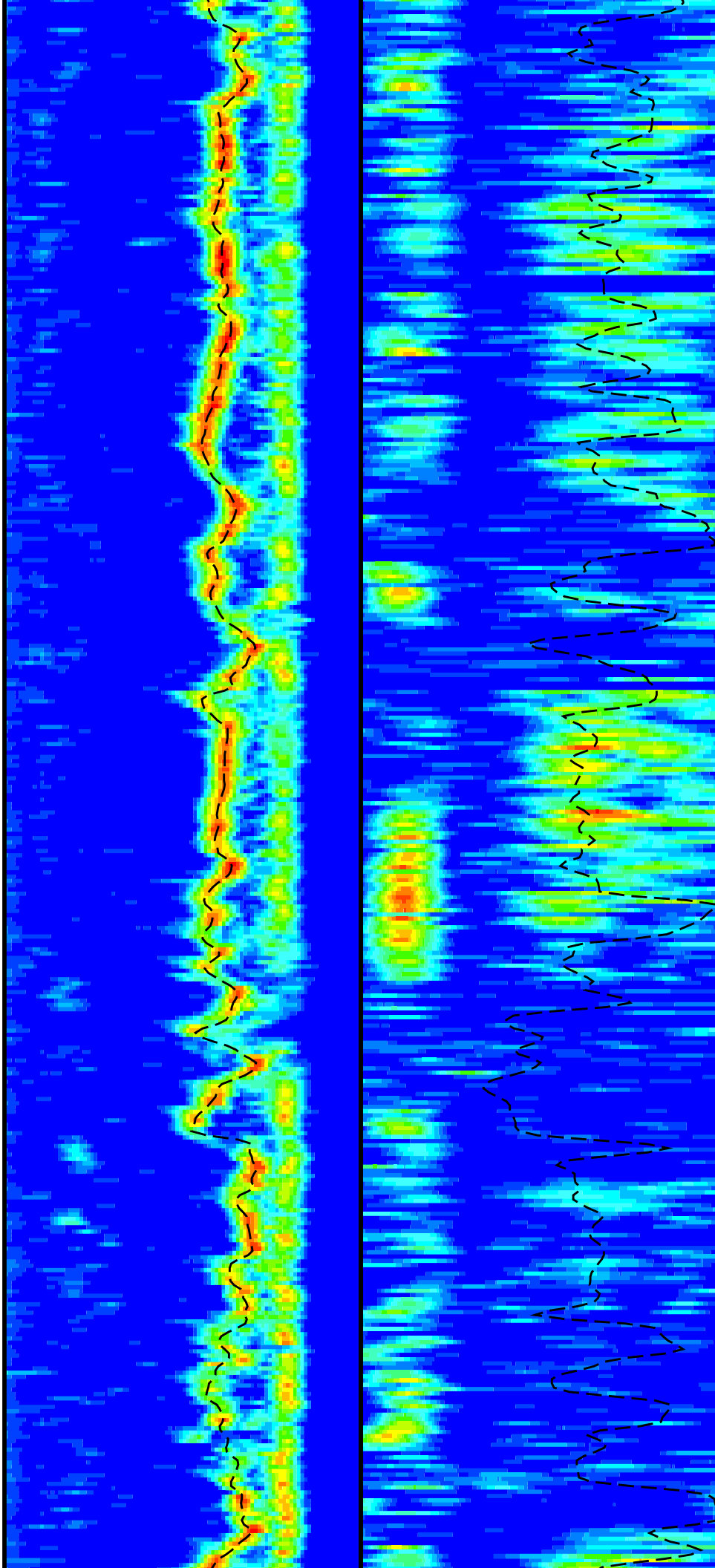


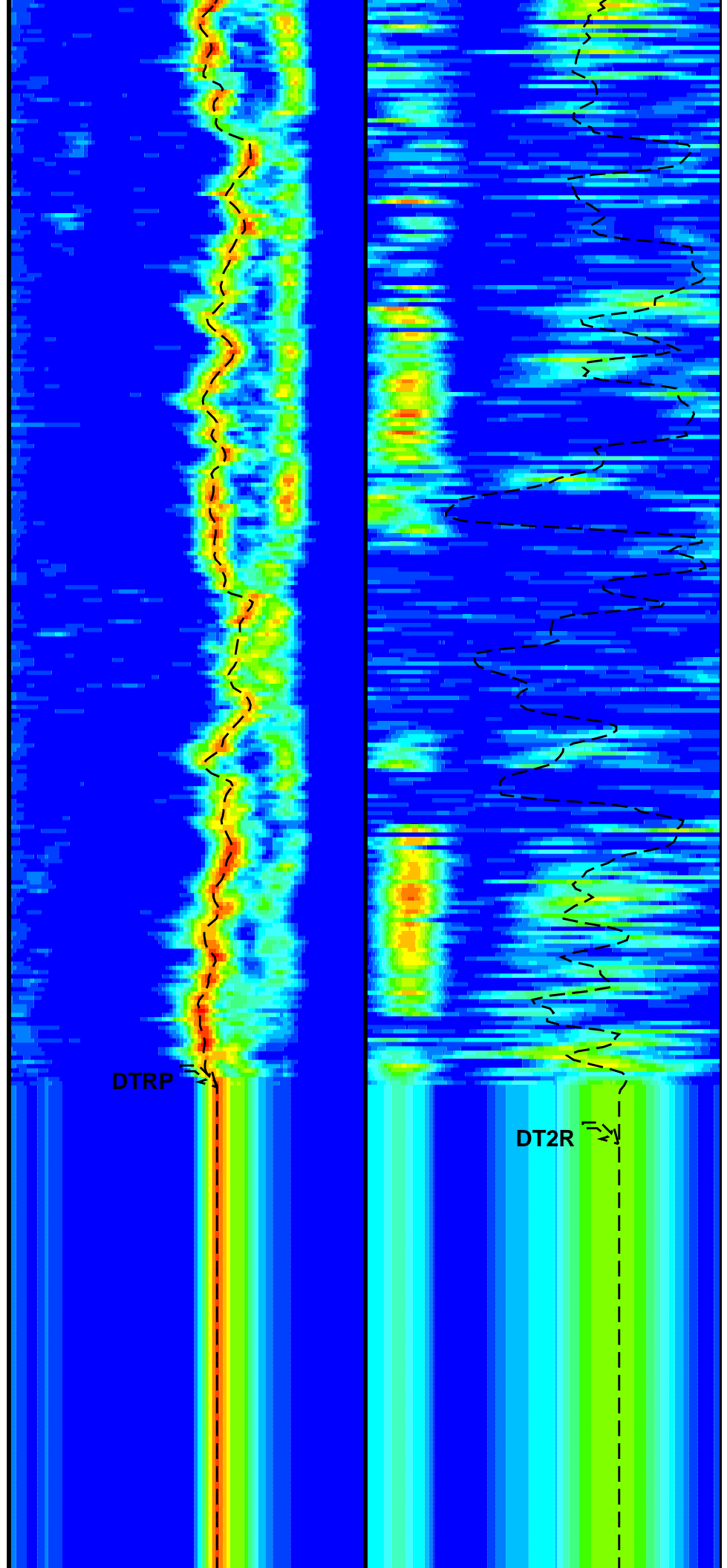
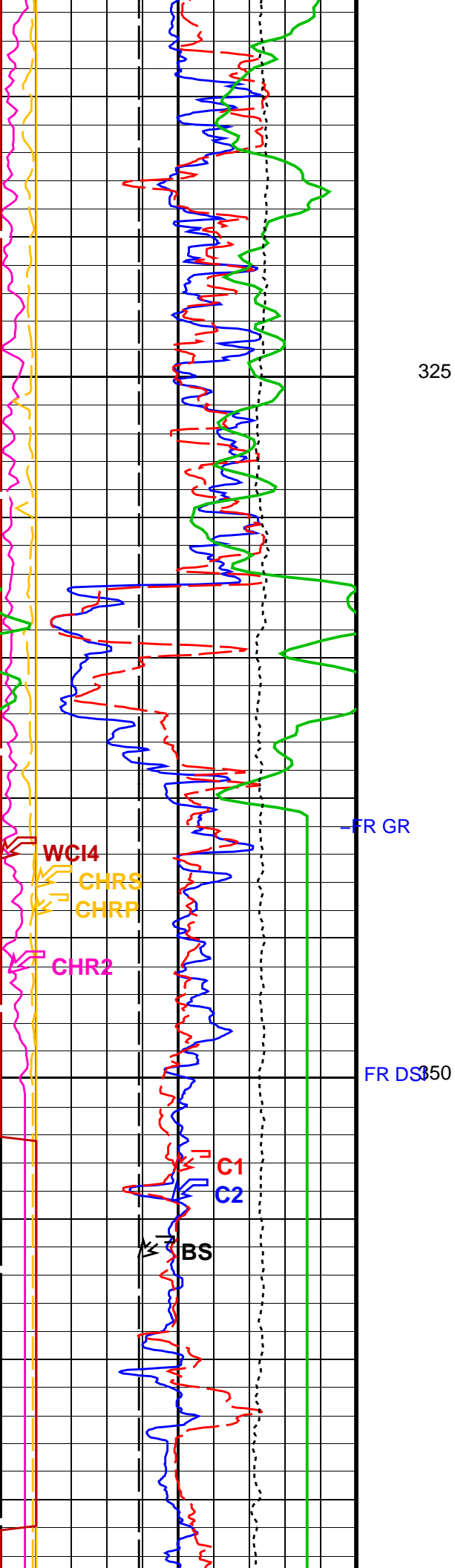


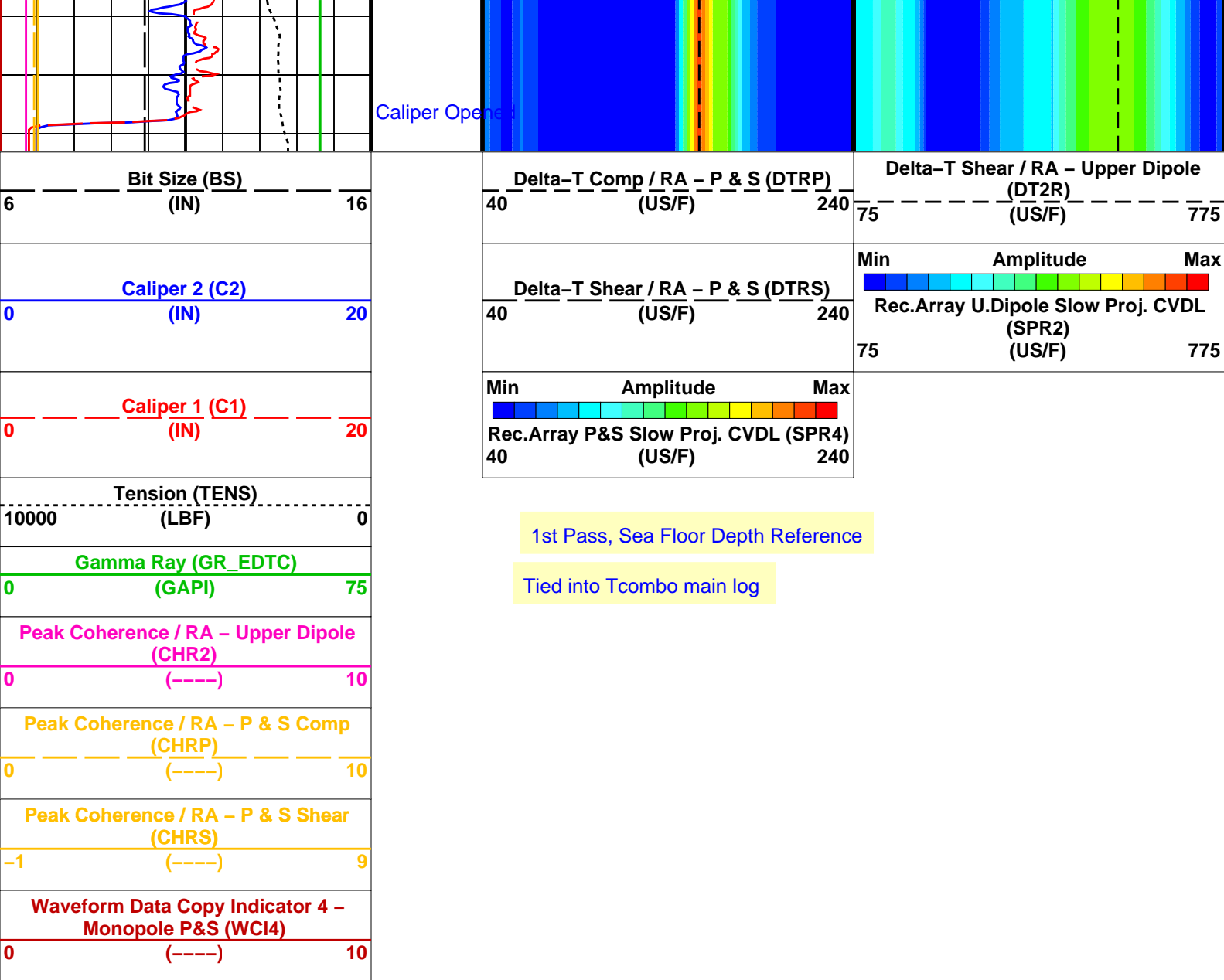


275

300







PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
BHS	HNGBA: Hostile Natural Gamma Ray Sonde		
BHS	Borehole Status	OPEN	
BHS	DSSTB: 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	130	US/F
COUL	Label Slowness Upper Limit - Monopole P&S Compressional	190	US/F
DDE2	Digitizing Delay 2	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	75	US/F
DSHU	Label Slowness Upper Limit - Dipole Shear	775	US/F
DSI2	Digitizer Sample Interval 2	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	189	US/F
DWC2	Digitizer Word Count 2	512	
DWC4	Digitizer Word Count 4	512	
DWCX	Digitizer Word Count X	512	
FILG	Label Fill Gap Control - Monopole P&S	COMP_SHEAR	
LFC	Label Formation Character - Monopole P&S	DYNAMIC	
MCS	Mean Casing Slowness	57	US/F
MTXG	Monopole Transmitter Geometry	186	IN

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
SAM2	DSST Sonic Acquisition Mode 2 – Upper Dipole Mode	ODD	
SAM4	DSST Sonic Acquisition Mode 4 – Monopole Mode for P&S	EVEN	
SAMX	DSST Sonic Acquisition Mode X – Both Dipoles or Monopole Mode for Expert	OFF	
SAS2	STC Sonic Array Status – Upper Dipole	255	
SAS4	STC Sonic Array Status – Monopole P&S	255	
SBO2	STC Search Band Offset – Upper Dipole	3000	US
SBO4	STC Search Band Offset – Monopole P&S	500	US
SBR4	STC Baseline Removal – Monopole P&S	ON	
SBW2	STC Search Bandwidth – Upper Dipole	8000	US
SBW4	STC Search Bandwidth – Monopole P&S	2000	US
SFC2	STC Formation Character – Upper Dipole	SELECTABLE	
SFC4	STC Formation Character – Monopole P&S	SELECTABLE	
SFM2	STC Filter – Upper Dipole	B1–2K	
SFM4	STC Filter – Monopole P&S	B3–20K	
SHLL	Label Slowness Lower Limit – Monopole P&S Shear	230	US/F
SHUL	Label Slowness Upper Limit – Monopole P&S Shear	240	US/F
SLL2	STC Slowness Lower Limit – Upper Dipole	75	US/F
SLL4	STC Slowness Lower Limit – Monopole P&S	40	US/F
SST2	STC Slowness Step – Upper Dipole	4	US/F
SST4	STC Slowness Step – Monopole P&S	2	US/F
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
SUL2	STC Slowness Upper Limit – Upper Dipole	775	US/F
SUL4	STC Slowness Upper Limit – Monopole P&S	240	US/F
SWD2	STC Slowness Width – Upper Dipole	40	US/F
SWD4	STC Slowness Width – Monopole P&S	10	US/F
TBF2	STC Time for Baseline Fill – Upper Dipole	0	US
TBF4	STC Time for Baseline Fill – Monopole P&S	300	US
TLL2	STC Time Lower Limit – Upper Dipole	600	US
TLL4	STC Time Lower Limit – Monopole P&S	150	US
TST2	STC Time Step – Upper Dipole	200	US
TST4	STC Time Step – Monopole P&S	50	US
TUL2	STC Time Upper Limit – Upper Dipole	15525	US
TUL4	STC Time Upper Limit – Monopole P&S	3660	US
TWD2	STC Time Width – Upper Dipole	2000	US
TWD4	STC Time Width – Monopole P&S	1000	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	
BHS	EDTC–B: Enhanced DTS Cartridge Borehole Status	OPEN	
BS	System and Miscellaneous Bit Size	9.875	IN
DO	Depth Offset for Playback	–572.0	M
PP	Playback Processing	NORMAL	

Format: DSST\_P\_S\_UPPER\_VDL\_COLOR      Vertical Scale: 1:200      Graphics File Created: 31–Dec–2011 09:13

## OP System Version: 19C0–187

MEST–B	19C0–187	DTA–A	19C0–187
HNGC–B	19C0–187	HNGS–BA	19C0–187
DSST–B	19C0–187	EDTC–B	19C0–187

## Input DLIS Files

DEFAULT	FMS_NGS_DSI_018LUP	FN:26	PRODUCER	08–Dec–2011 05:43	944.1 M	668.7 M
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## Output DLIS Files

DEFAULT	FMS_NGS_DSI_057PUP	FN:23	PRODUCER	31–Dec–2011 09:13
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# 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 27–Nov–2011 1:38							
Caliper 1 Zero Measurement	11.88	N/A	11.99	N/A	N/A	N/A	IN
Caliper 2 Zero Measurement	11.88	N/A	12.02	N/A	N/A	N/A	IN
Caliper 1 Plus Measurement	15.19	N/A	15.16	N/A	N/A	N/A	IN
Caliper 2 Plus Measurement	15.19	N/A	15.32	N/A	N/A	N/A	IN
Micro Electrical Scanner – B (Slim) Wellsite Calibration – CROUZET ACCELEROMETER PROM HAS BEEN READ CORRECTLY							
Before: 8–Dec–2011 3:59							
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: 8–Dec–2011 3:59							
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: 17–Nov–2011 7:57 Before: 26–Nov–2011 0:21							
Na 511 Peak Loc	40.00	39.70	39.69	N/A	N/A	1.000	
Na 511 Peak Res	15.50	15.50	15.07	N/A	N/A	2.000	%
High Voltage	1150	1176	1168	N/A	N/A	N/A	V
Na 1785 Peak Loc	142.6	142.1	141.8	N/A	N/A	7.000	
Na 1785 Peak Res	8.500	8.309	8.731	N/A	N/A	2.000	%
Temperature	15.50	29.76	21.55	N/A	N/A	N/A	DEGC
Na Count Rate	45.00	20.77	21.01	N/A	N/A	8.000	CPS
Hostile Natural Gamma Ray Sonde Wellsite Calibration – Detector 2 Check							
Master: 17–Nov–2011 7:57 Before: 26–Nov–2011 0:21							
Na 511 Peak Loc	40.00	39.60	39.49	N/A	N/A	1.000	
Na 511 Peak Res	15.50	16.99	15.91	N/A	N/A	2.000	%
High Voltage	1150	1109	1091	N/A	N/A	N/A	V
Na 1785 Peak Loc	142.6	142.6	142.3	N/A	N/A	7.000	
Na 1785 Peak Res	8.500	9.914	8.591	N/A	N/A	2.000	%
Temperature	15.50	29.91	21.84	N/A	N/A	N/A	DEGC
Na Count Rate	45.00	21.44	20.97	N/A	N/A	8.000	CPS
Hostile Natural Gamma Ray Sonde Wellsite Calibration – Ratio Of Detector 1 To Detector 2							
Master: 17–Nov–2011 7:57 Before: 26–Nov–2011 0:21							
Coincidence Count Rate Ratio	1.000	0.9705	1.004	N/A	N/A	0.05000	
Hostile Natural Gamma Ray Sonde Master Calibration – Detector 1 Calibration							
Master: 17–Nov–2011 7:52							
Na 511 Peak Set Point	40.00	41.00	--	--	--	--	
Th Peak Loc	209.6	210.8	--	--	--	--	
Th Peak Res	7.000	6.865	--	--	--	--	%
Background Count Rate	142.5	24.91	--	--	--	--	CPS
Gain Ratio	1.000	1.010	--	--	--	--	
Hostile Natural Gamma Ray Sonde Master Calibration – Detector 2 Calibration							
Master: 17–Nov–2011 7:52							
Na 511 Peak Set Point	40.00	41.00	--	--	--	--	
Th Peak Loc	209.6	208.5	--	--	--	--	
Th Peak Res	7.000	6.879	--	--	--	--	%
Background Count Rate	142.5	24.15	--	--	--	--	CPS
Gain Ratio	1.000	1.001	--	--	--	--	
Enhanced DTS Cartridge Wellsite Calibration – EDTC Accelerometer Calibration							
Before: 7–Dec–2011 19:06							
EDTC Z–Axis Acceleration	9.810	N/A	9.822	N/A	N/A	N/A	M/S2
Enhanced DTS Cartridge Wellsite Calibration – Detector Calibration							
Before: Calibration out of date 26–Nov–2011 0:18							
Gamma Ray (Jig – Bkg)	163.8	N/A	163.8	N/A	N/A	14.89	GAPI
Gamma Ray (Calibrated)	164.0	N/A	164.0	N/A	N/A	15.00	GAPI

Micro Electrical Scanner – B (Slim) / Equipment Identification

Primary Equipment:

MEST Sonde – B

MEST Preamplifier Cartridge – AB

GPIT Cartridge – AC

MEST Acquisition Cartridge – A

MEDS – B

770

MEPC – AB

807

GPIC – AC

840

MEAC – A

875

Auxiliary Equipment:

MEST–B Preamplifier Cartridge Housing

MEST Acquisition Cartridge Housing (Slim)

MEPH – A

702

MEAH – B

726

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

Gamma Source Radioactive

HNSH – BA

205

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		39.70	Master		15.50	Master		1176
Before		39.69	Before		15.07	Before		1168
	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		142.1	Master		8.309	Master		29.76
Before		141.8	Before		8.731	Before		21.55
	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		20.77						
Before		21.01						
	10.00 (Minimum) 45.00 (Nominal) 100.0 (Maximum)							

Master: 17–Nov–2011 7:57


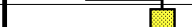
Before: 26–Nov–2011 0:21






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		39.60	Master		16.99	Master		1109
Before		39.49	Before		15.91	Before		1091
	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		9.914	Master		29.91
Before		142.3	Before		8.591	Before		21.84
	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		21.44						






Hostile Natural Gamma Ray Sonde Wellsite Calibration		
Ratio Of Detector 1 To Detector 2		
Phase	Coincidence Count Rate Ratio	Value
Master		0.9705
Before		1.004
Master: 17–Nov–2011 7:57 Before: 26–Nov–2011 0:21		

Hostile Natural Gamma Ray Sonde Master Calibration														
Detector 2 Calibration														
Phase	Na 511 Peak Set Point			Value	Phase	Th Peak Loc			Value	Phase	Th Peak Res %			Value
Master				41.00	Master				208.5	Master				6.879
	38.00 (Minimum)	40.00 (Nominal)	43.00 (Maximum)		201.0 (Minimum)	209.6 (Nominal)	218.3 (Maximum)			5.000 (Minimum)	7.000 (Nominal)	9.000 (Maximum)		
Phase	Background Count Rate CPS			Value	Phase	Gain Ratio			Value					
Master				24.15	Master				1.001					
	10.00 (Minimum)	142.5 (Nominal)	265.0 (Maximum)		0.9400 (Minimum)	1.000 (Nominal)	1.060 (Maximum)							
Master: 17-Nov-2011 7:52														

Enhanced DTS Cartridge / Equipment Identification		
Primary Equipment:		
EDTC Gamma Ray Detector	EDTG – A/B	77693
Enhanced DTS Cartridge	EDTC – B	8529
Auxiliary Equipment:		
EDTC Housing	EDTH – B	8528

Enhanced DTS Cartridge Wellsite Calibration		
EDTC Accelerometer Calibration		
Phase	EDTC Z-Axis Acceleration M/S2	Value
Before		9.822
	9.610 (Minimum)      9.810 (Nominal)      10.01 (Maximum)	

Before: 7-Dec-2011 19:06

Enhanced DTS Cartridge Wellsite Calibration														
Detector Calibration														
Phase	Gamma Ray Background GAPI			Value	Phase	Gamma Ray (Jig – Bkg) GAPI			Value	Phase	Gamma Ray (Calibrated) GAPI			Value
Before				9.201	Before				163.8	Before				164.0
	0 (Minimum)	30.00 (Nominal)	120.0 (Maximum)			148.9 (Minimum)	163.8 (Nominal)	178.7 (Maximum)			149.0 (Minimum)	164.0 (Nominal)	179.0 (Maximum)	
Before: Calibration out of date 26–Nov–2011 0:18														

Company: **Lamont Doherty**

**Schlumberger**

Well: **Expedition 339, Site U1386 GC-01A**

Field: **Mediterranean Outflow (Portugal)**

Rig: **JOIDES Resolution**

Ocean: **Atlantic**

Dipole Shear Sonic Imager

P&S Compressional, Dipole Shear

Gamma Ray