



Company: International Ocean Discovery Program

Well: Expedition 367, Site U1499B  
 Field: South China Sea Rifted Margin A  
 Rig: JOIDES Resolution Ocean: South China Sea

High Resolution Laterolog Array  
 Hostile Litho Density / Dipole Sonic  
 Natural Gamma Ray

Latitude: N 18° 24.5705'	Elev.: K.B. 0.00 m
Longitude: E 115° 51.599'	G.L. -3769.00 m
	D.F. 0.00 m
Permanent Datum: Sea Floor	Elev.: -3769.00 m
Log Measured From: Rig Floor	3769.00 m above Perm. Datum
Drilling Measured From: Rig Floor	

API Serial No.	Max. Hole Devi. 0 deg	Longitude E 120.4352	Latitude S 15.0554
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Logging Date	7-Mar-2017	
Run Number	1	
Depth Driller	4822 m	
Schlumberger Depth	4789 m	
Bottom Log Interval	4789 m	
Top Log Interval	3770 m	
Casing Driller Size @ Depth	10.750 in @ 4420 m	
Casing Schlumberger	4420 m	
Bit Size	9.875 in	
Type Fluid In Hole	Seawater	
MUD Density	Viscosity	1.32 g/cm3
MUD Fluid Loss	PH	
Source Of Sample: Mudpit		
RM @ Measured Temperature	@	@
RMF @ Measured Temperature	@	@
RMC @ Measured Temperature	@	@
Source RMF	RMC	N/A
RM @ MRT	RMF @ MRT	@ 26 @ 26
Maximum Recorded Temperatures: 26 degC		
Circulation Stopped	Time	6-Mar-2017 23:30
Logger On Bottom	Time	7-Mar-2017 17:45
Unit Number	Location	627314 Larose, LA
Recorded By: K. Swain		
Witnessed By: Z. Mateo		

	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		
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: FMS/HNGS  
 OS2:  
 OS3:  
 OS4:  
 OS5:

**OTHER SERVICES2**  
 OS1:  
 OS2:  
 OS3:  
 OS4:  
 OS5:

**REMARKS: RUN NUMBER 1**  
 Open hole drilled with RCB bottom hole assembly (BHA) at 9 7/8" BitSize.  
 Pipe positioned 85m below sea floor and logging tools lowered inside of pipe.  
 Sea Floor: 3769 mbrf  
 Lower part of string centralized with 2 centralizers per tool sketch.  
 Upper part of string eccentered with HLDS caliper. 2 knuckle joints and thru-wired housing allow for degrees of freedom between both.  
 Bit dropped on bottom of hole prior to logging with mechanical bit release.  
 10 3/4" 45 lb/ft casing set to 4420mbrf up to sea floor at 3769mbrf.  
 Downlogs run with BS for caliper and uplogs run with LCAL caliper.  
 DSI run in SAM1 low frequency, SAM2, SAM4 modes with receiver array

**REMARKS: RUN NUMBER 2**  
 Further processing for sonic data recommended with Acoustic Toolbox in Techlog to optimize final outputs.





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**

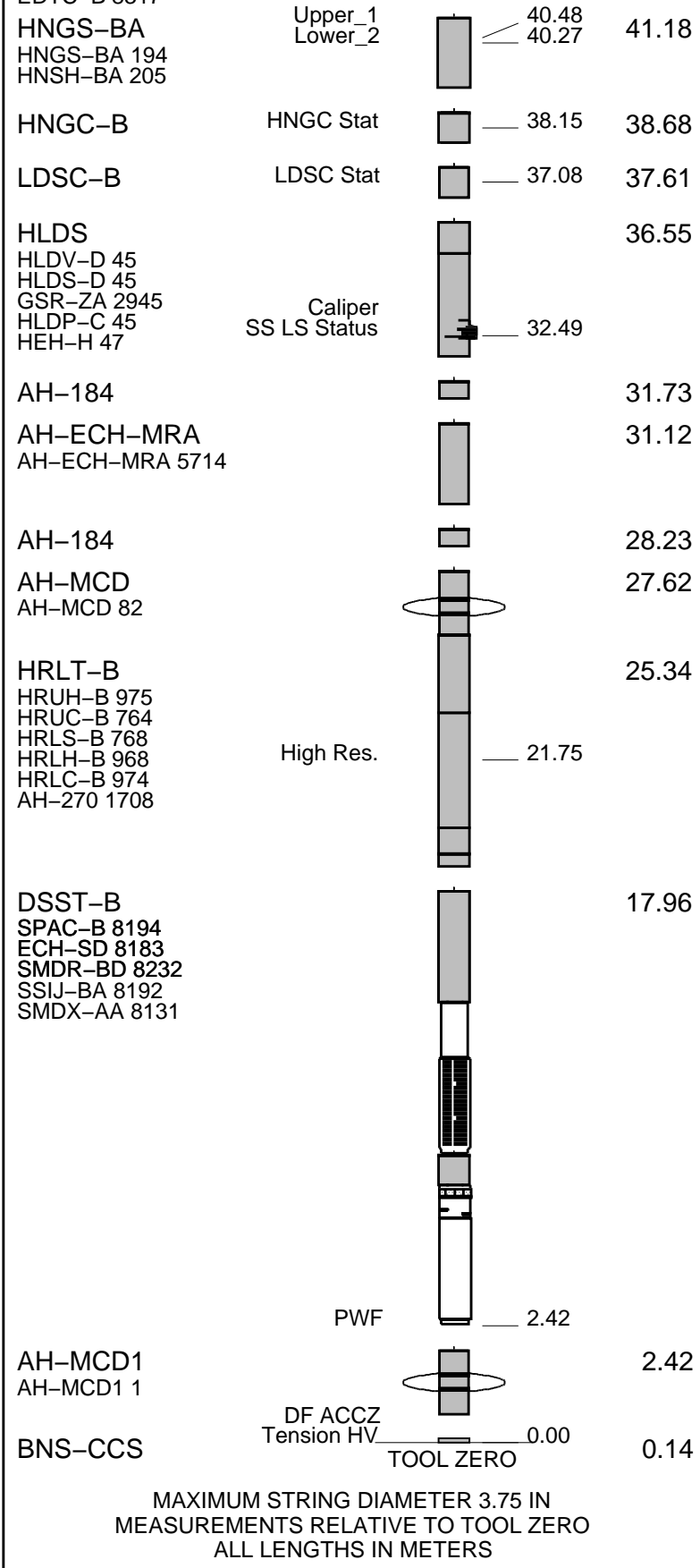
**RUN 1 SURFACE EQUIPMENT**  
 GSR-U 616008  
 WITM (EDTS)-A 1

**RUN 1 DOWNHOLE EQUIPMENT**

LEH-QT	MDSB_EDTC		43.16	44.48
	Mud Tempe		42.09	
AH-369	CTEM		41.52	43.60
	Gamma Ray			
EDTC-B	EFTB DIAG			43.16
EDTH-B 8303	TelStatus			
EDTC-B 8317	EDTCB Ele		41.18	

**RUN 2 SURFACE EQUIPMENT**

**RUN 2 DOWNHOLE EQUIPMENT**



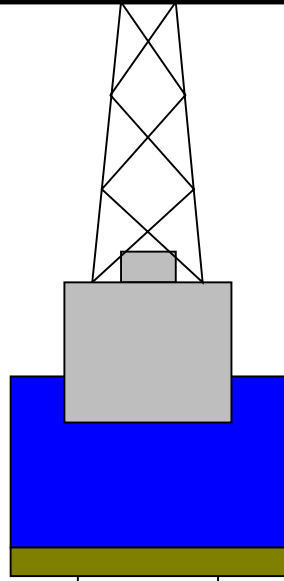
Production String	(in)	(M)	Well Schematic	(M)	(in)	Casing String
	OD	ID		MD	MD	

Kelly Bushing Elevation  
Derrick Floor Elevation

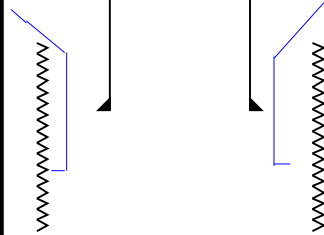
0  
0

Mean Sea Level

11



4.1



3769 4.1

3854.08 9.875

4420 10.75

4822

Sea Floor

Open Hole

**45 lb/ft Casing**

Total Depth



### Input DLIS Files

DEFAULT	DSI_HRLA_LDL_NGS_017PUP	FN:26	PRODUCER	07-Mar-2017 13:04	4784.6 M	3755.7 M
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### Output DLIS Files

DEFAULT	DSI_HRLA_LDL_NGS_042PUP	FN:60	PRODUCER	10-Mar-2017 16:10	4784.6 M	3755.7 M
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### OP System Version: 19C0-187

DSST-B	19C0-187	HRLT-B	19C0-187
HLDS	19C0-187	LDSC-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
COLL	90 US/F	65 US/F	4427.7 16:11:22

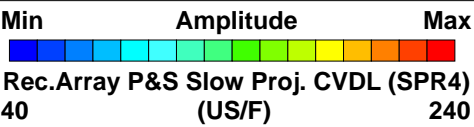
#### PIP SUMMARY

Time Mark Every 60 S

HNGS Spectroscopy Gamma Ray (HSGR)	
0 (GAPI)	100

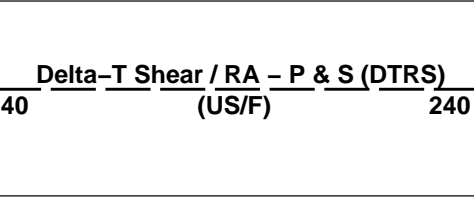
Waveform Data Copy Indicator 4 – Monopole P&S (WCI4)		
0	(-----)	10
Peak Coherence / RA – P & S Shear (CHRS)		
-1	(-----)	9
Peak Coherence / RA – P & S Comp (CHRP)		
0	(-----)	10
Peak Coherence / RA – Lower Dipole (CHR1)		
0	(-----)	10
Sonic Velocity (SVEL)		
1000	(M/S)	6000
HLDS Caliper (LCAL)		
0	(IN)	20
Gamma Ray (GR_EDTC)		
0	(GAPI)	100

Main Pass



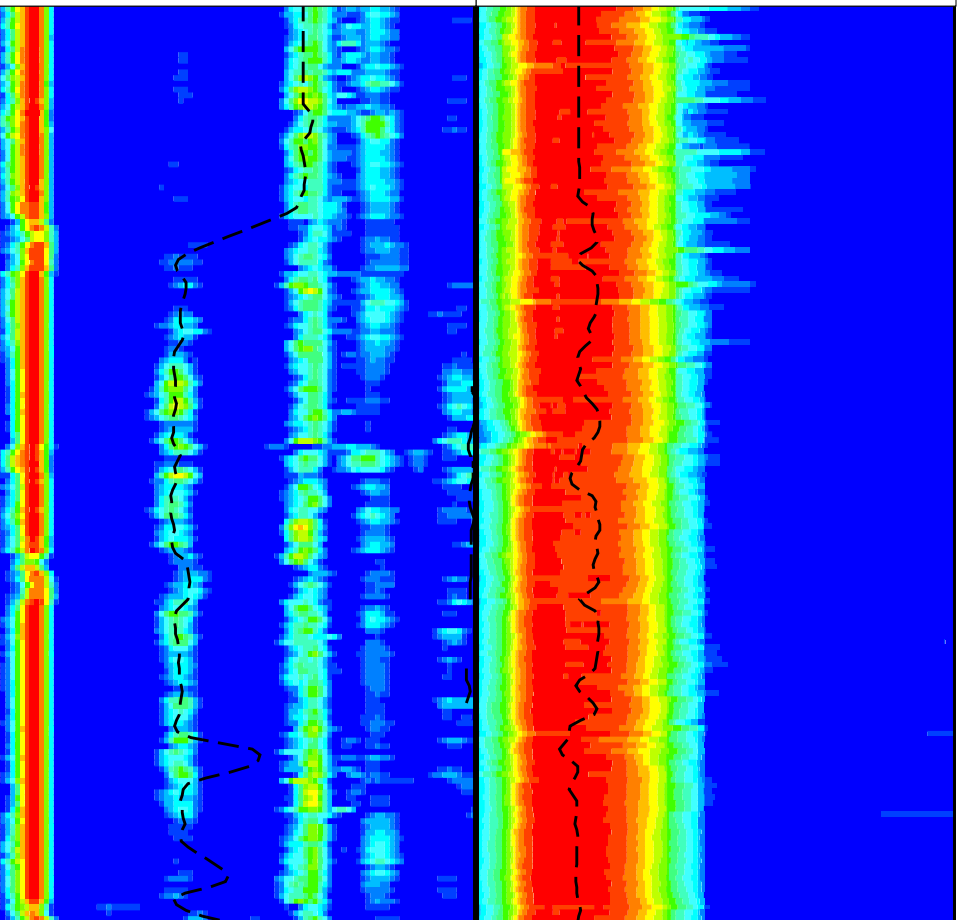
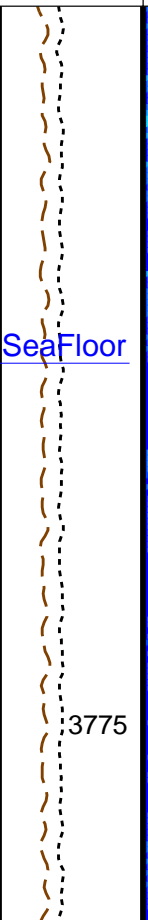
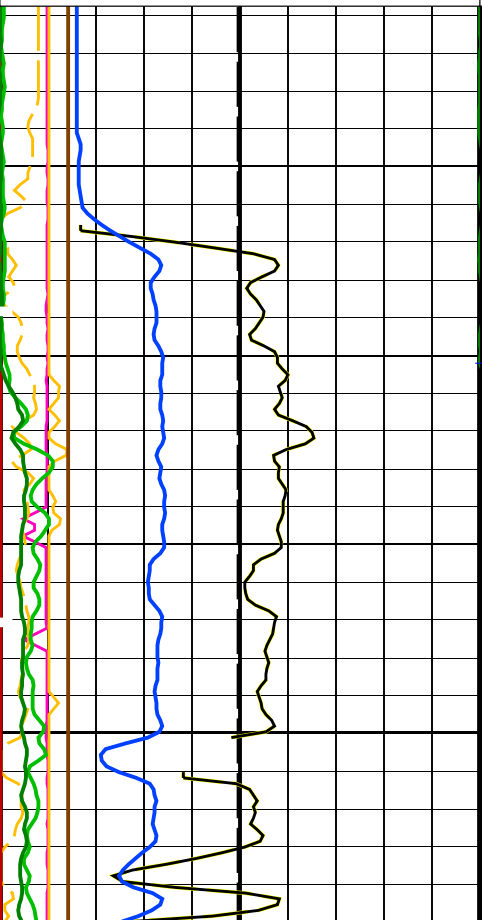
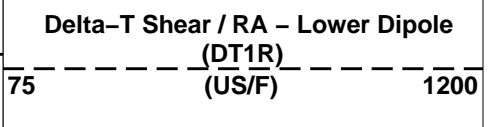
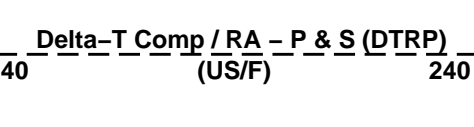
0	(-----)	0.5
Poisson's Ratio (PR)		
0	(-----)	0.5

Calibrated Downhole Force (CDF) (LBF)  
 3000 0



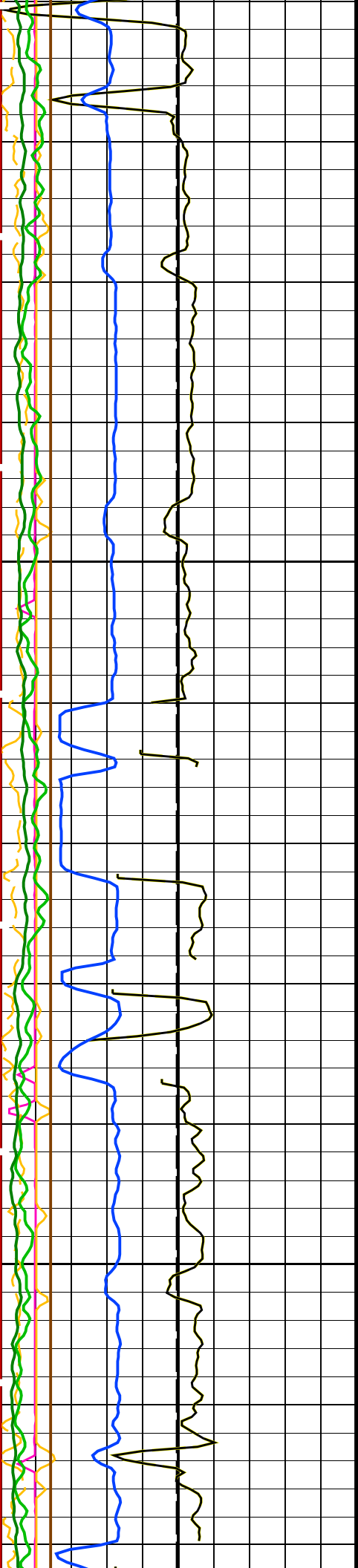
0	(-----)	20
Bit Size (BS) (IN)		
0	(-----)	20

Tension (TENS) (LBF)  
 10000 0



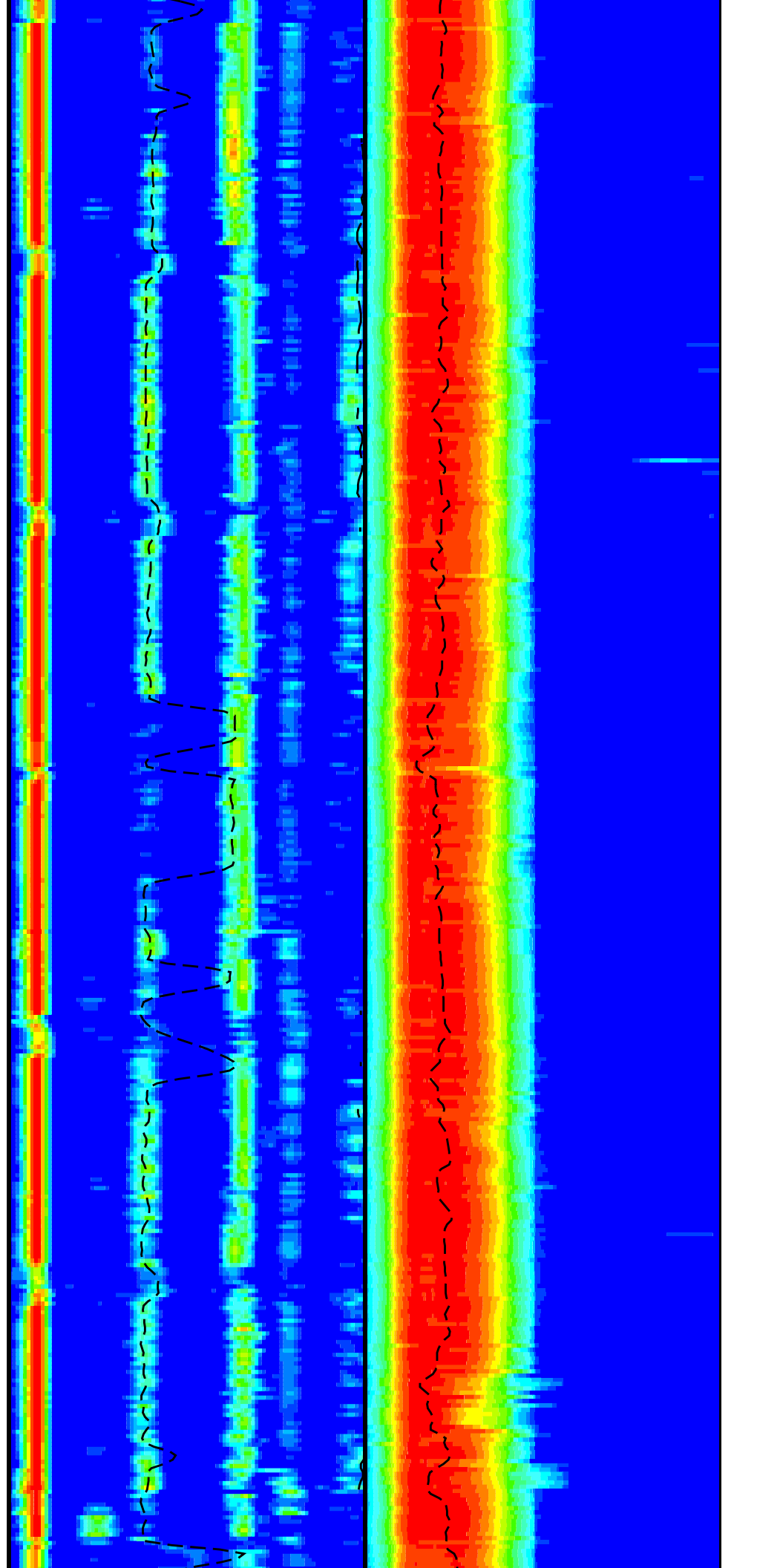
SeaFloor

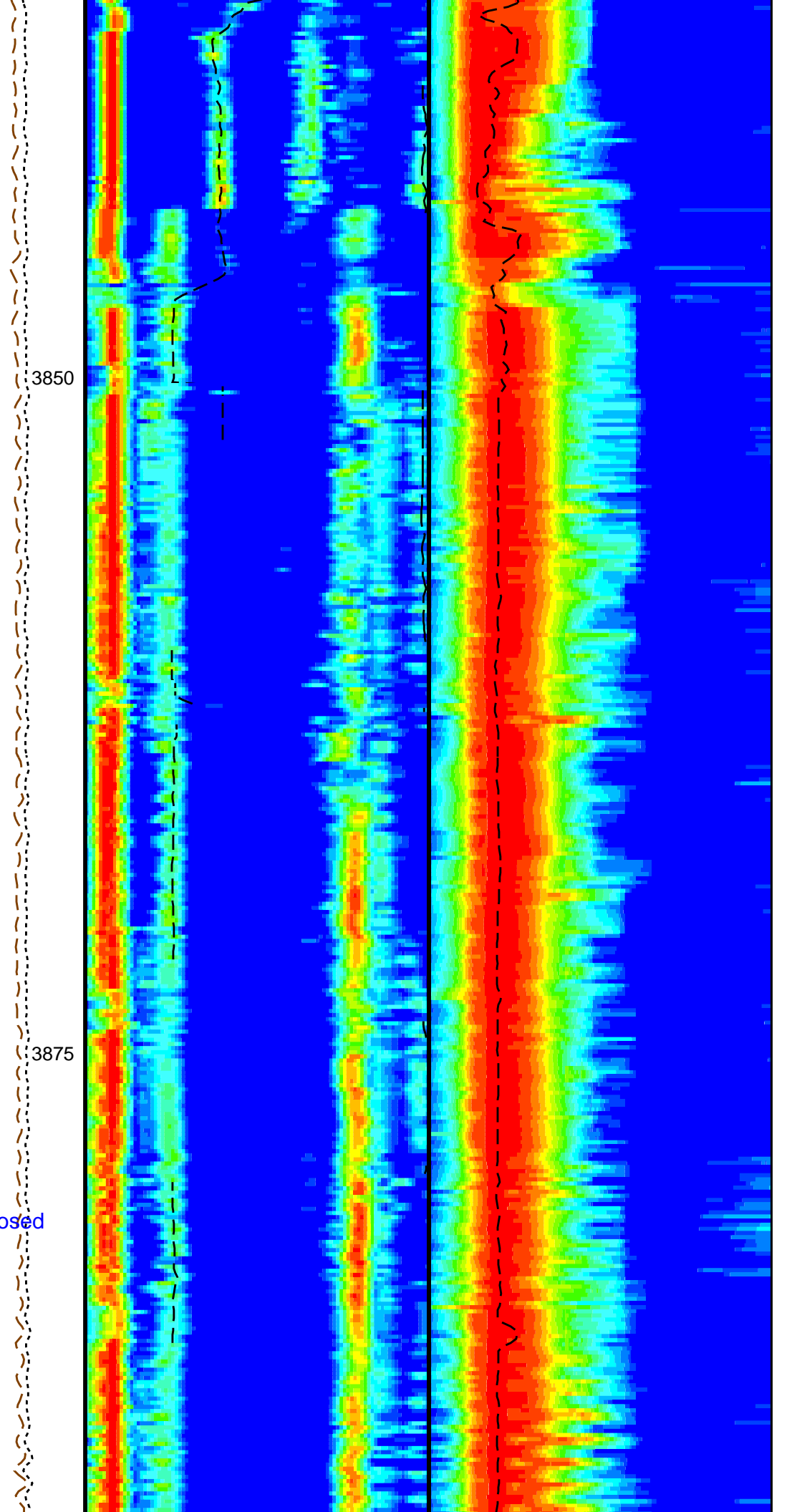
3775



3800

3825

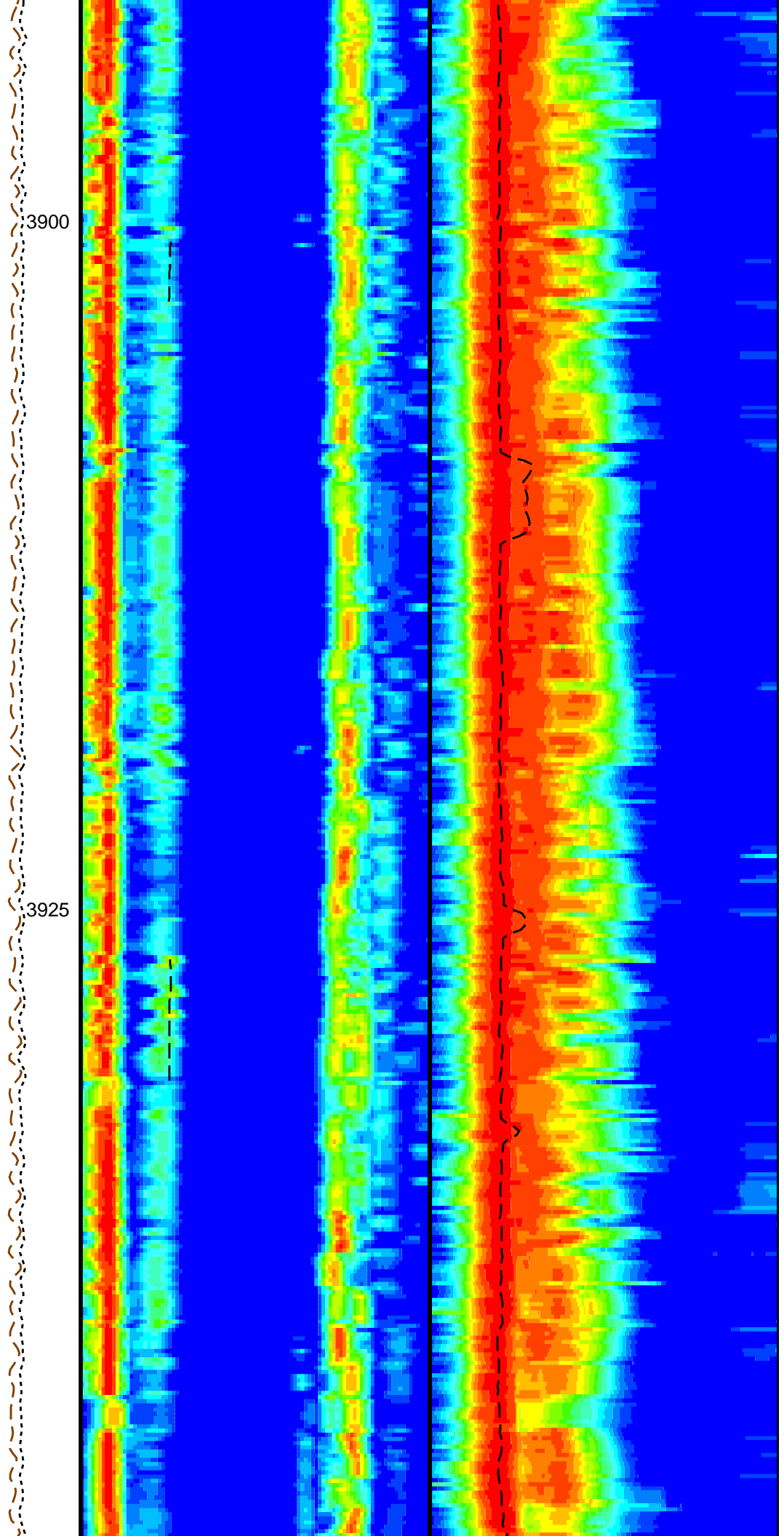
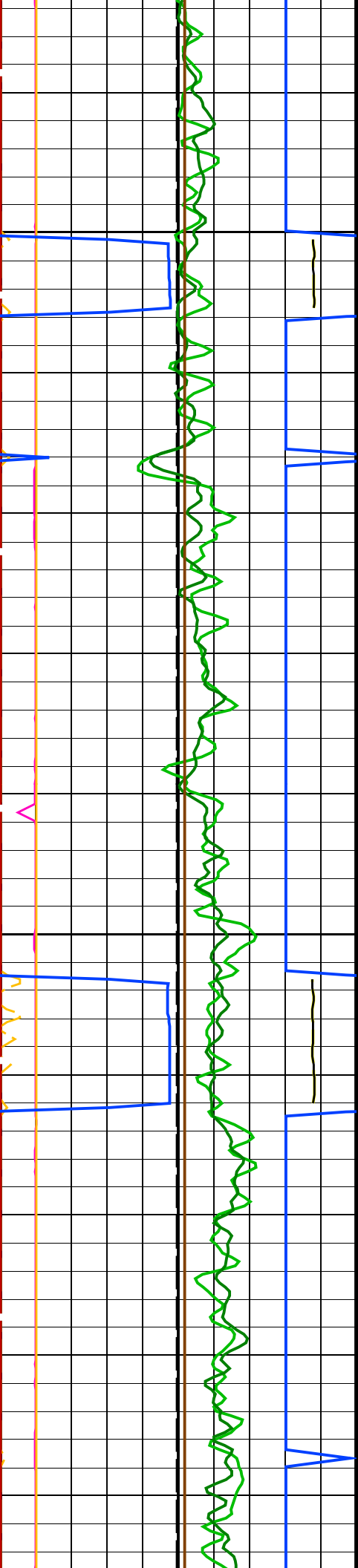


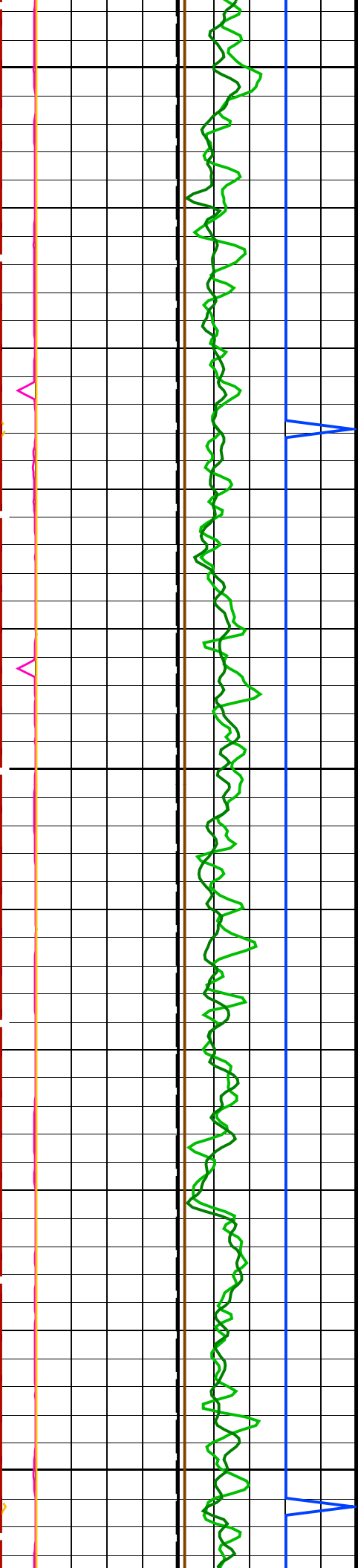


3850

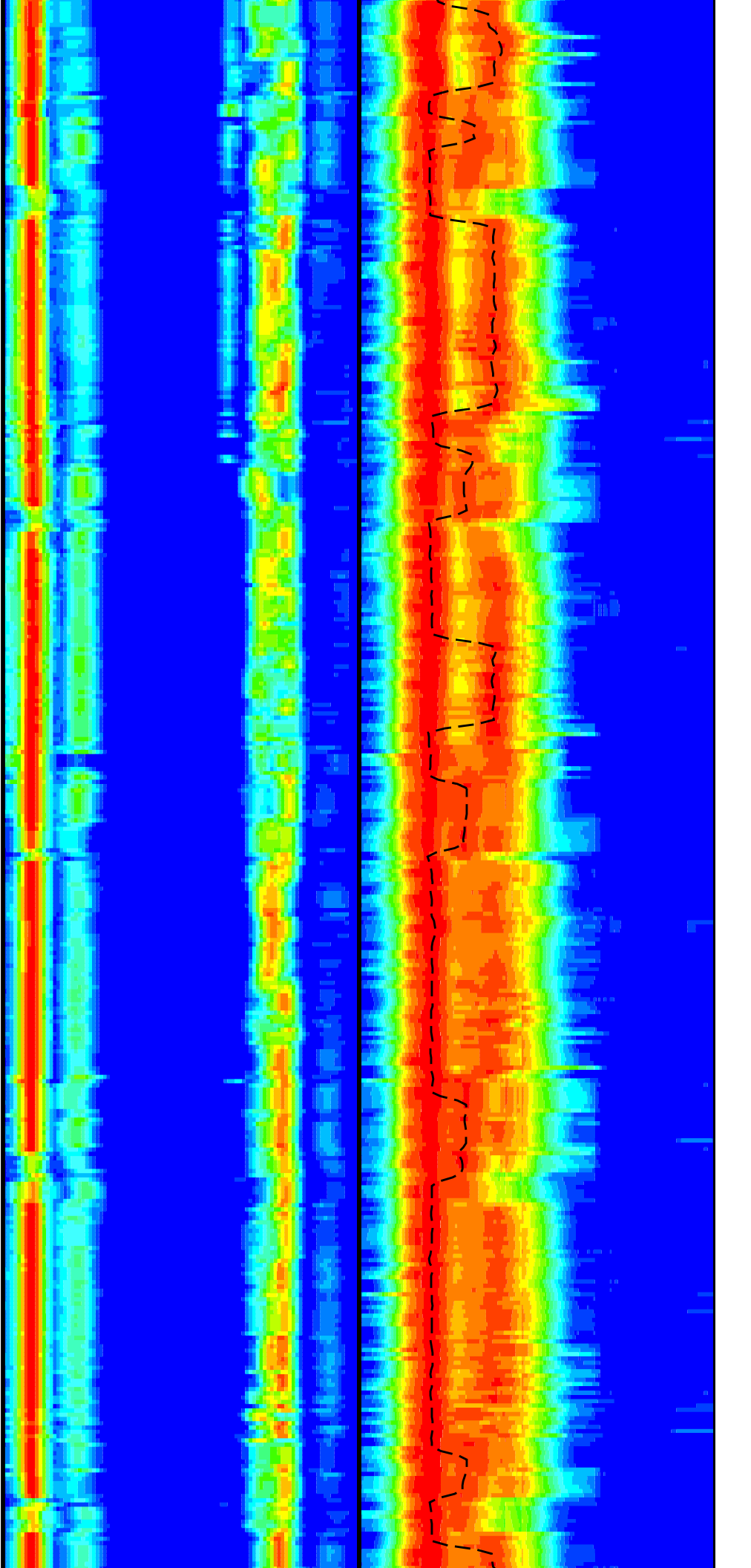
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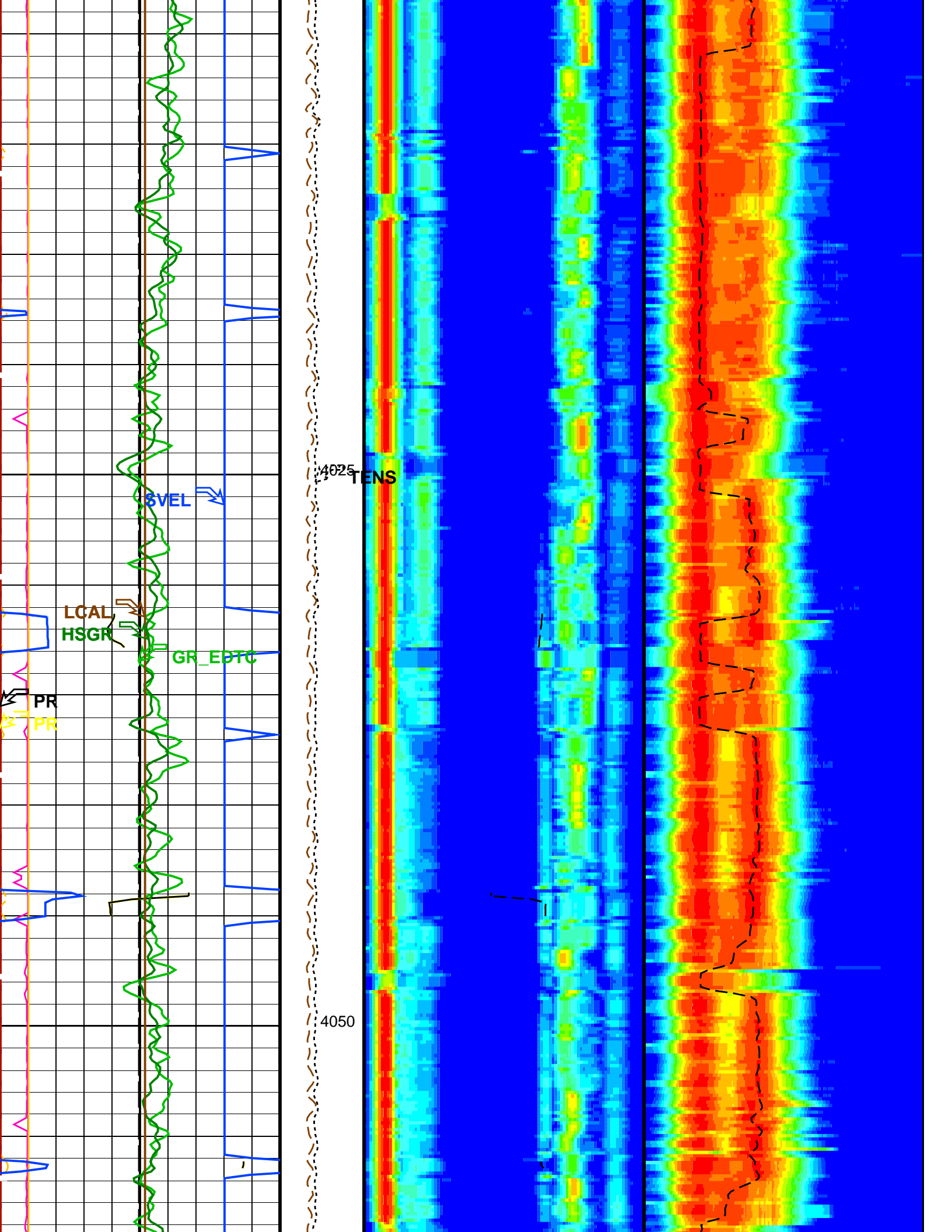
Caliber Closed



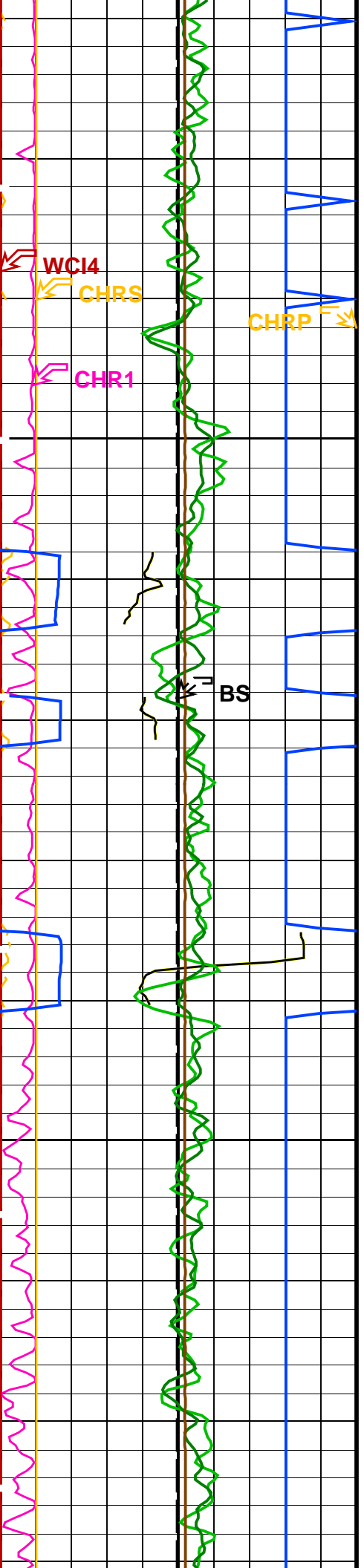


3950  
3975  
4000





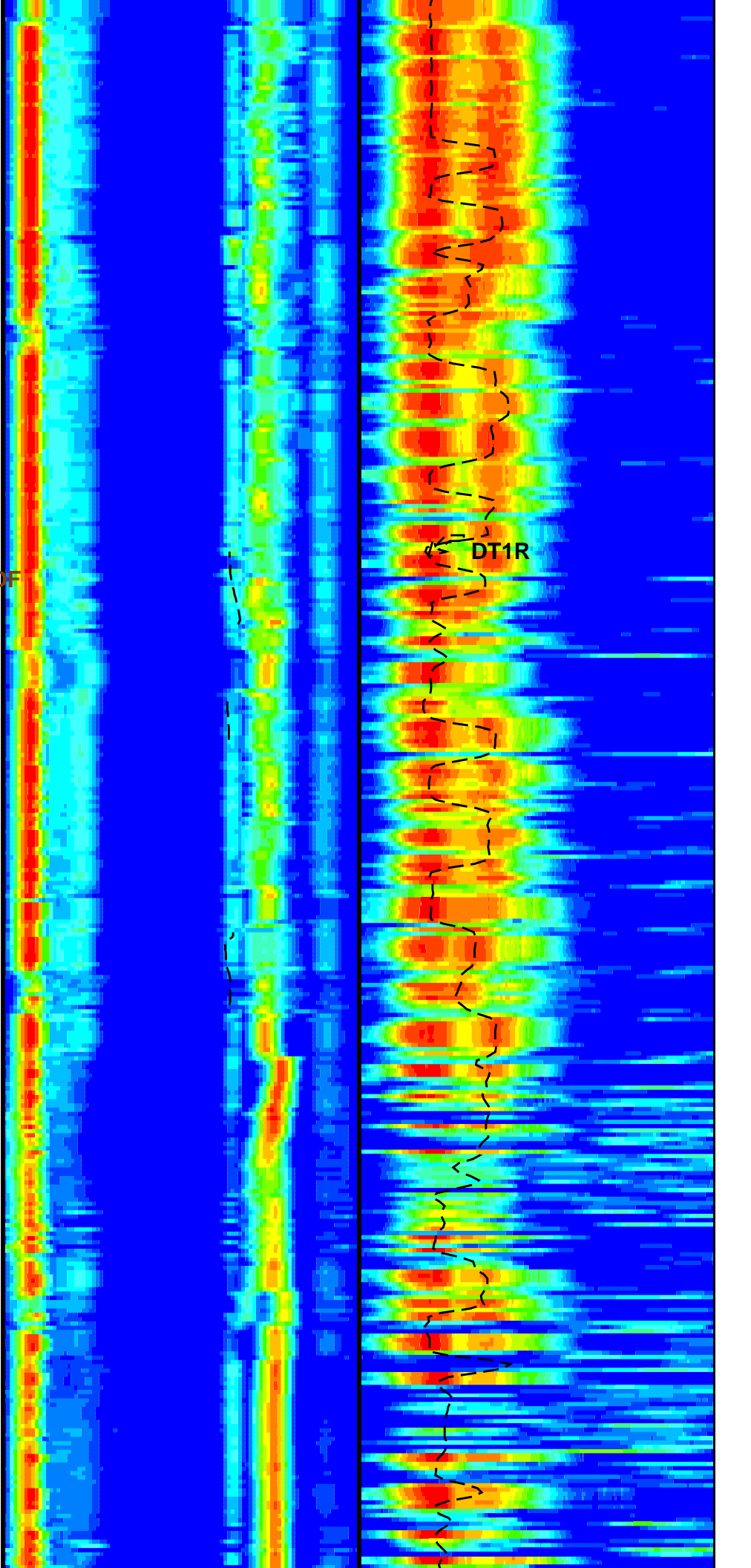




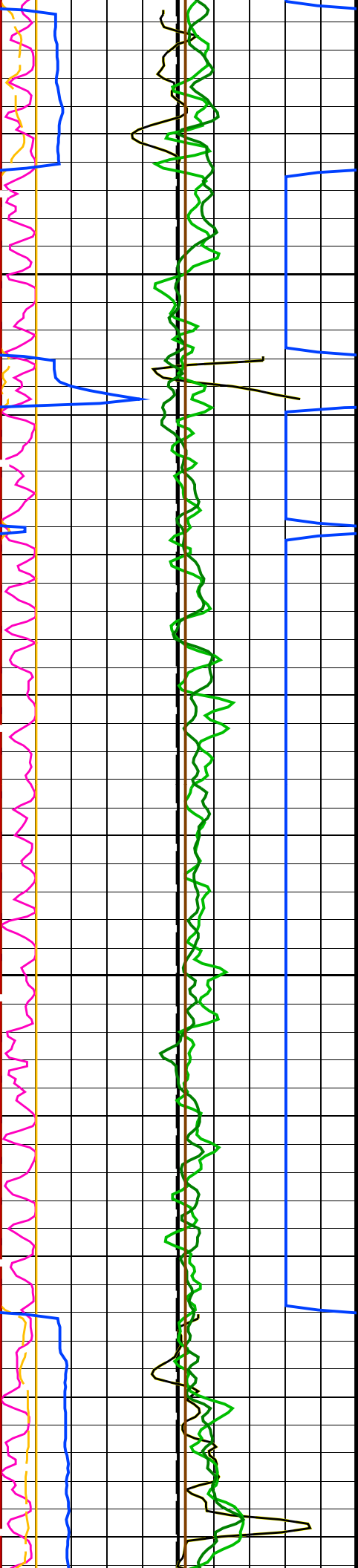
4075

**CDF**

4100

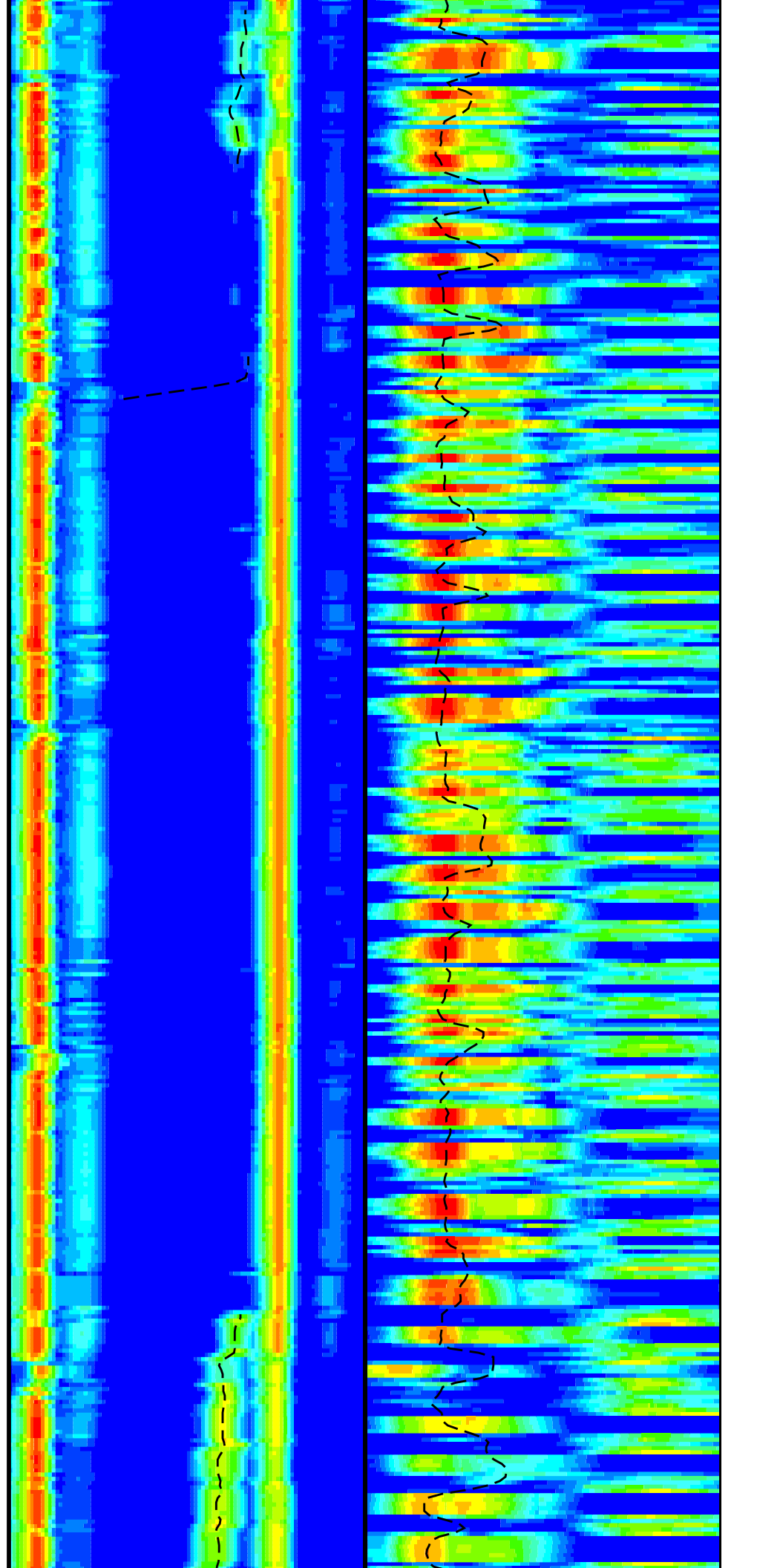


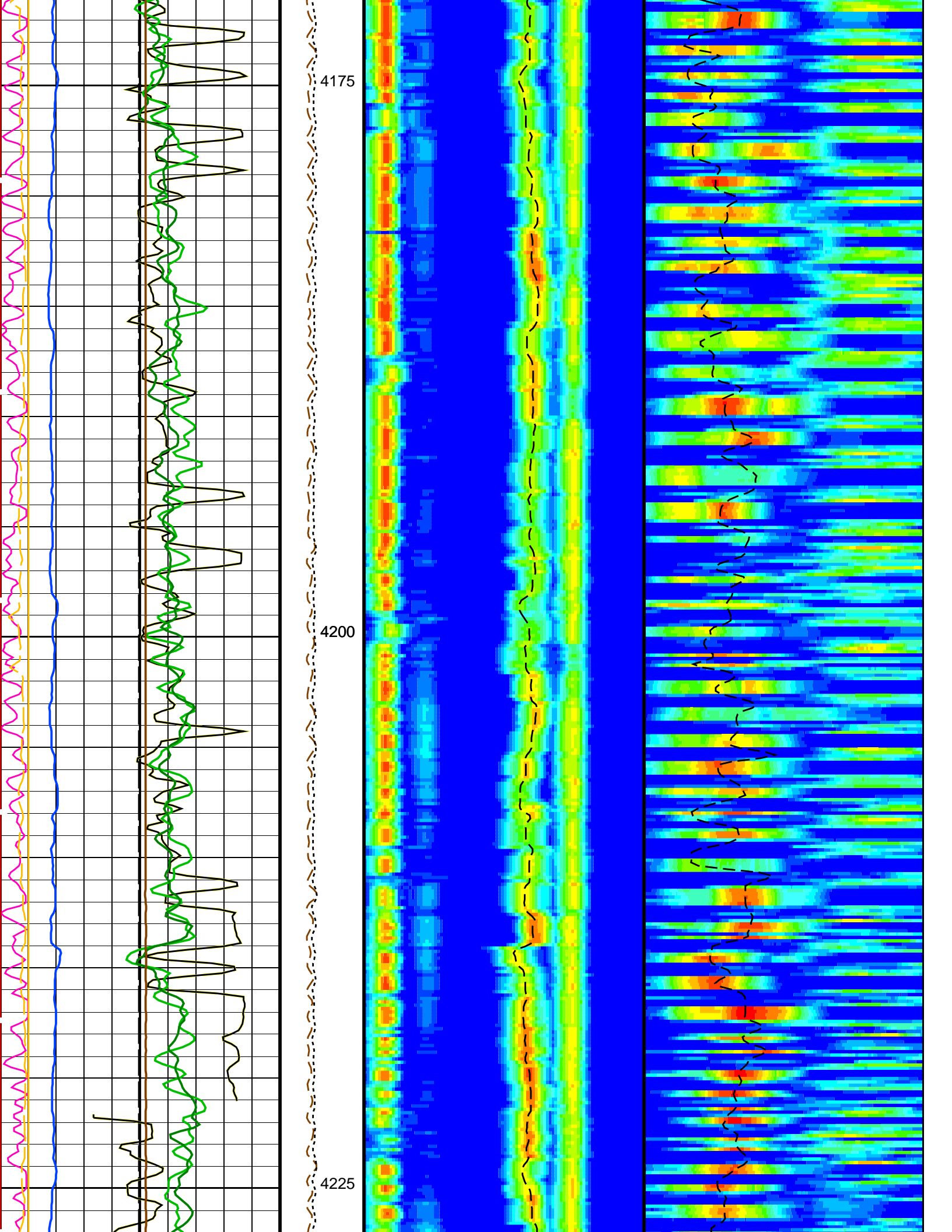


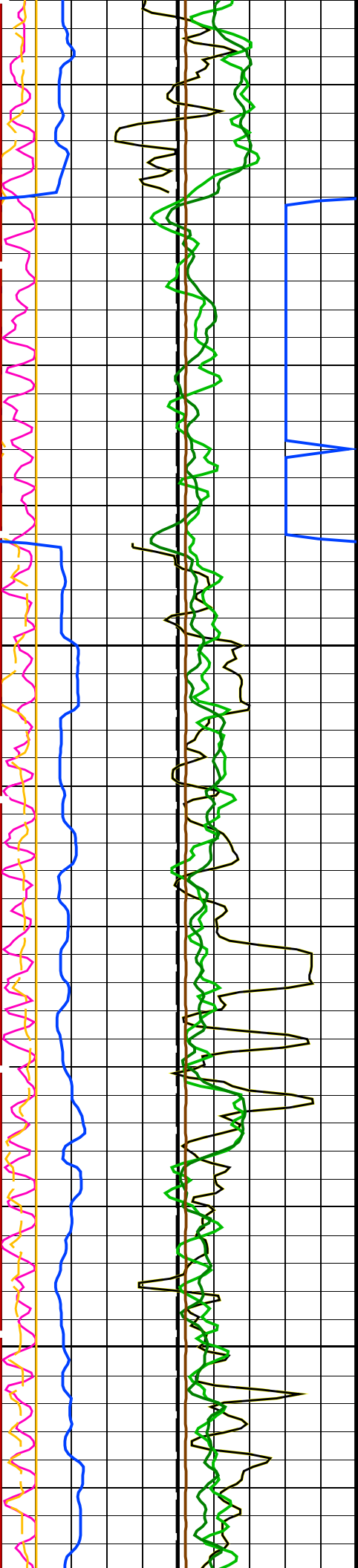


4125

4150

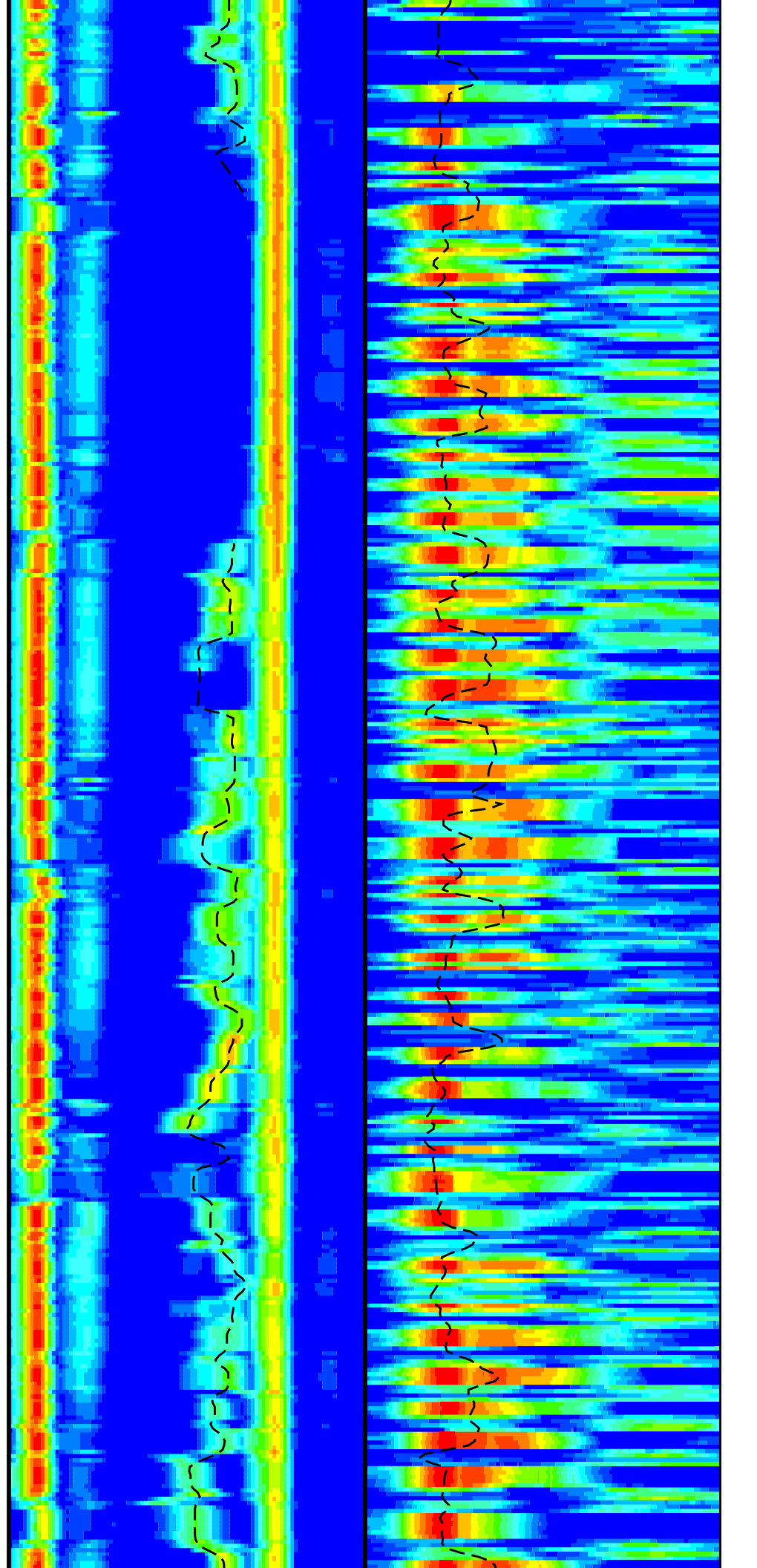


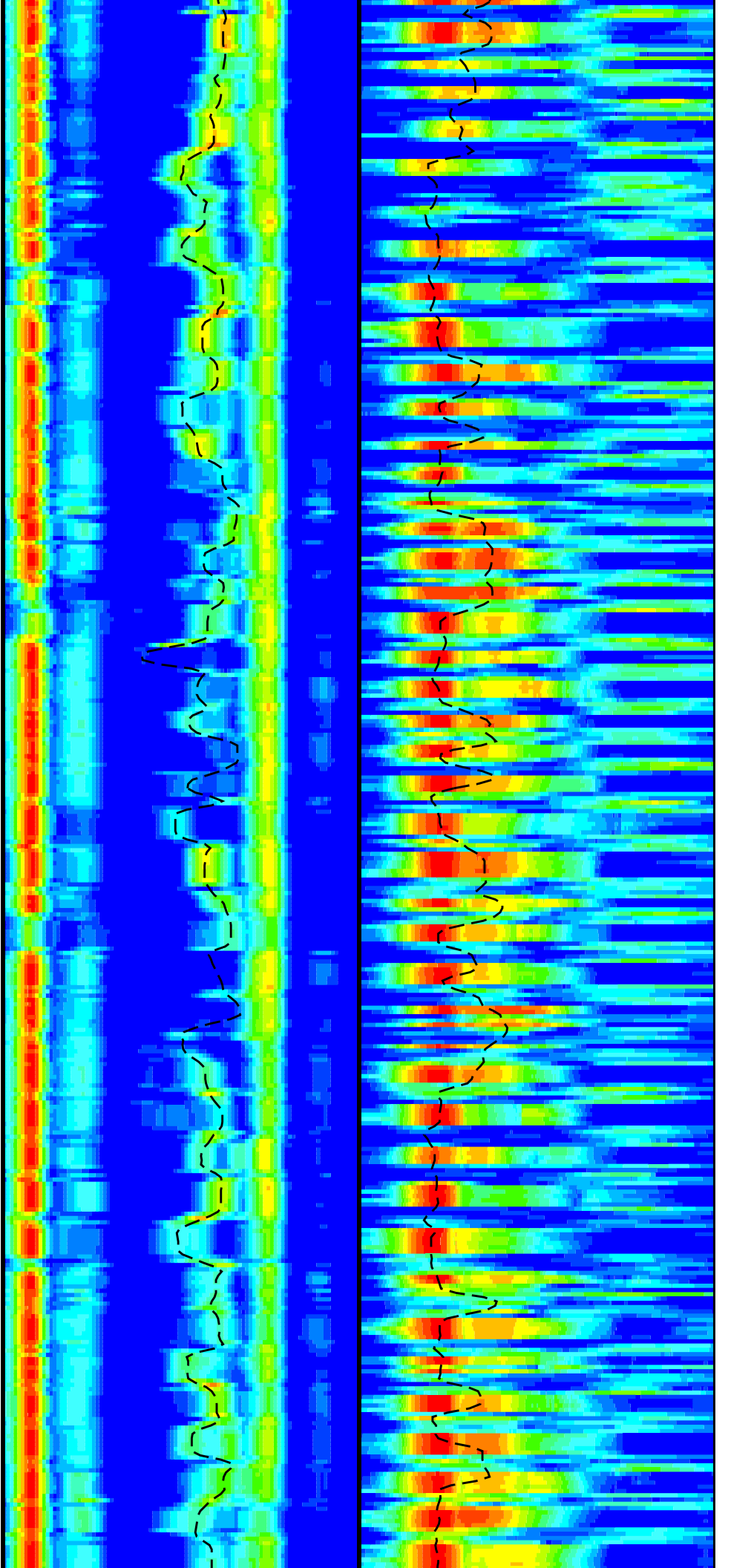
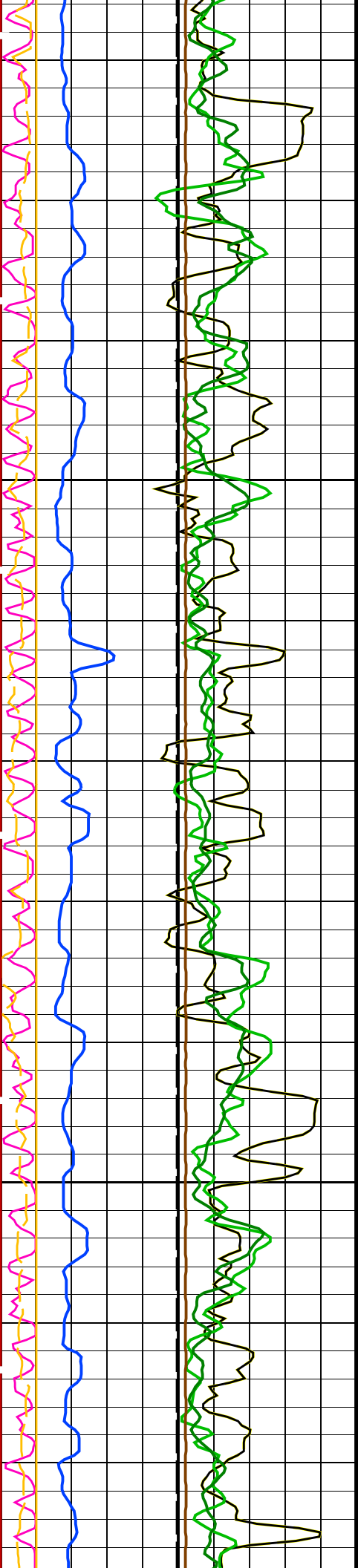


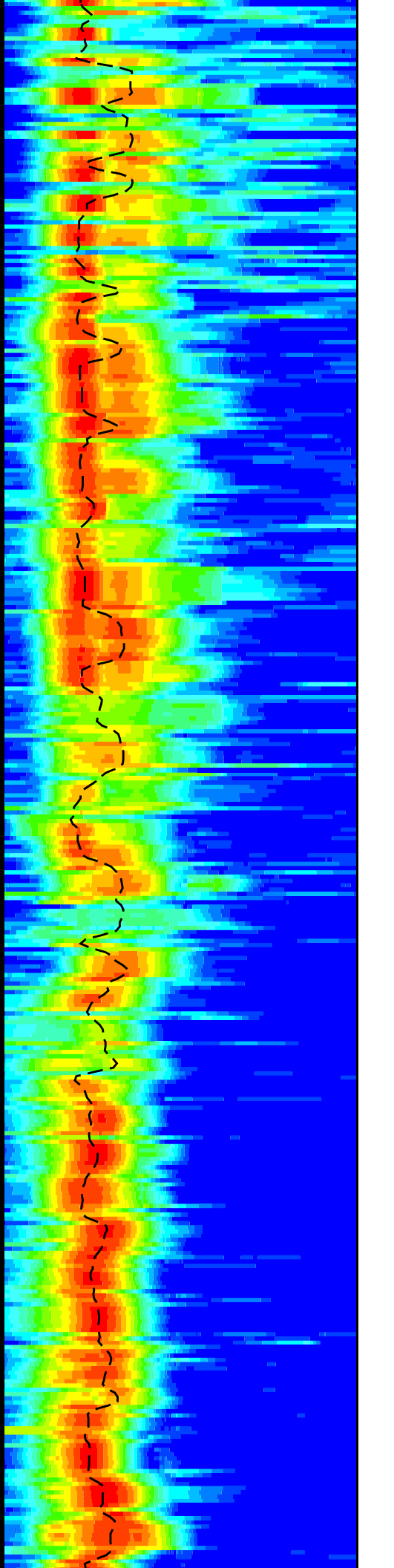
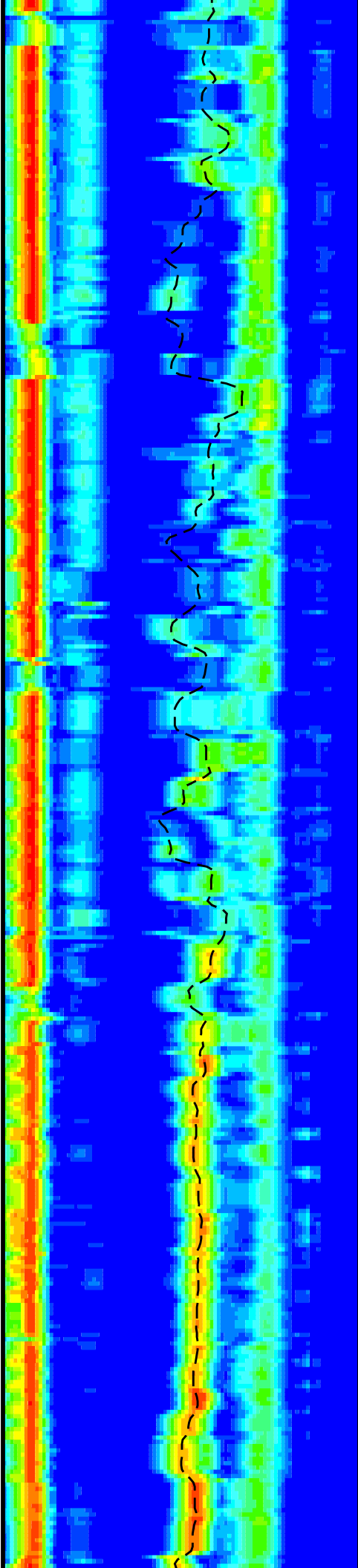
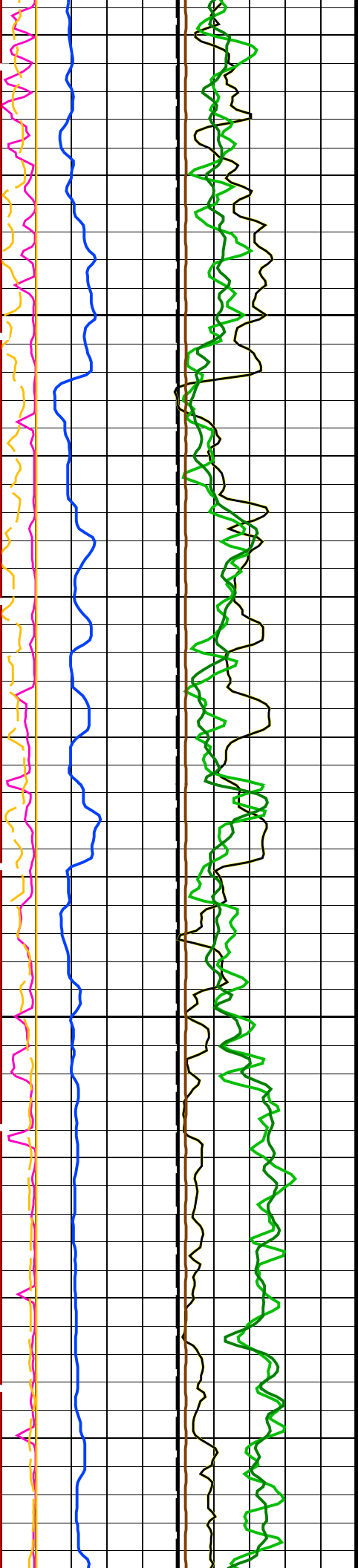


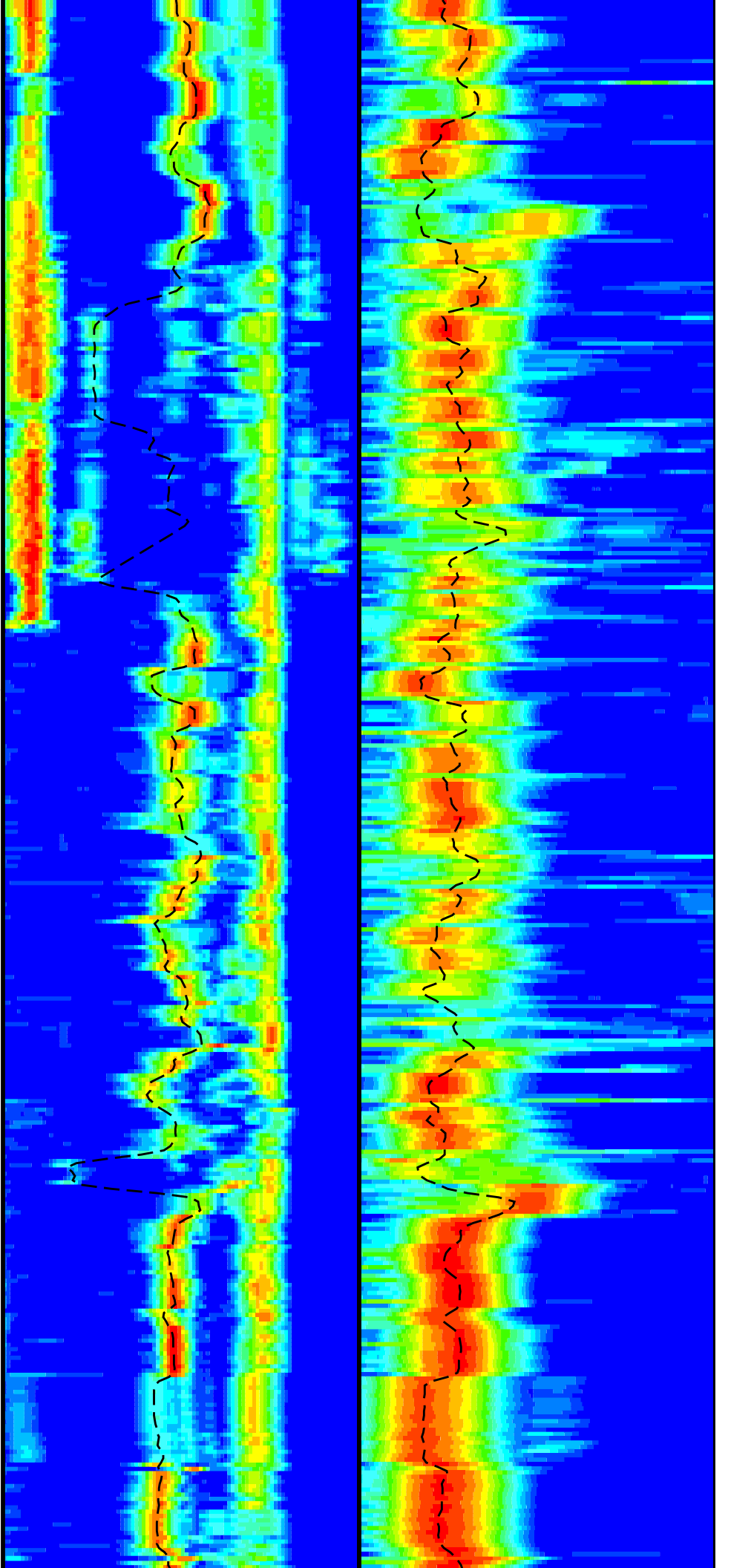
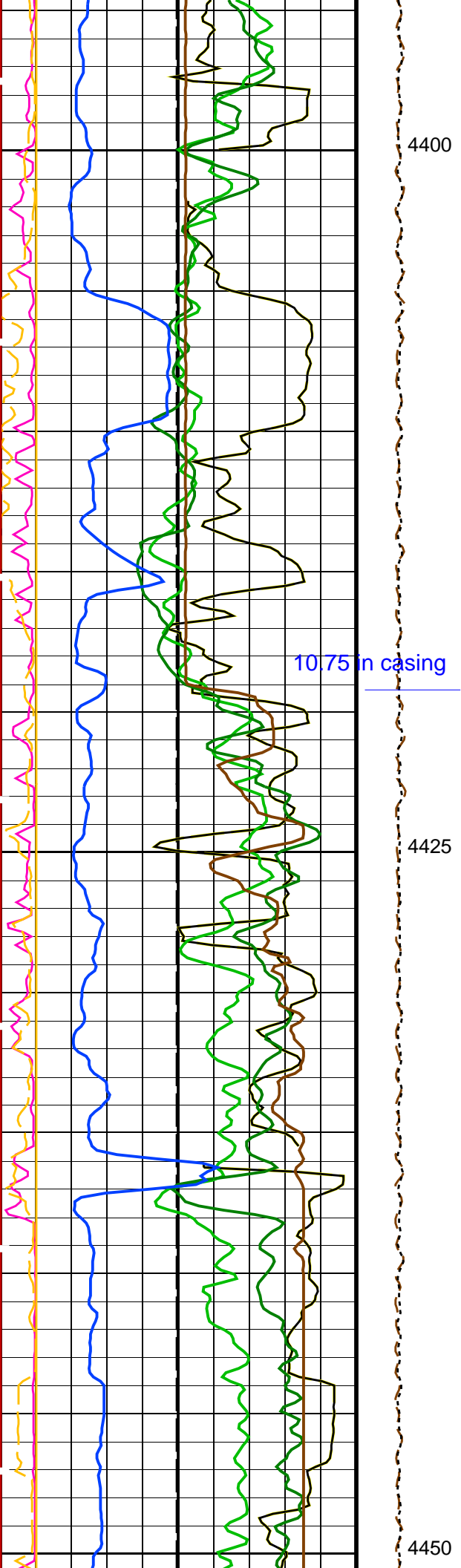
4250

4275

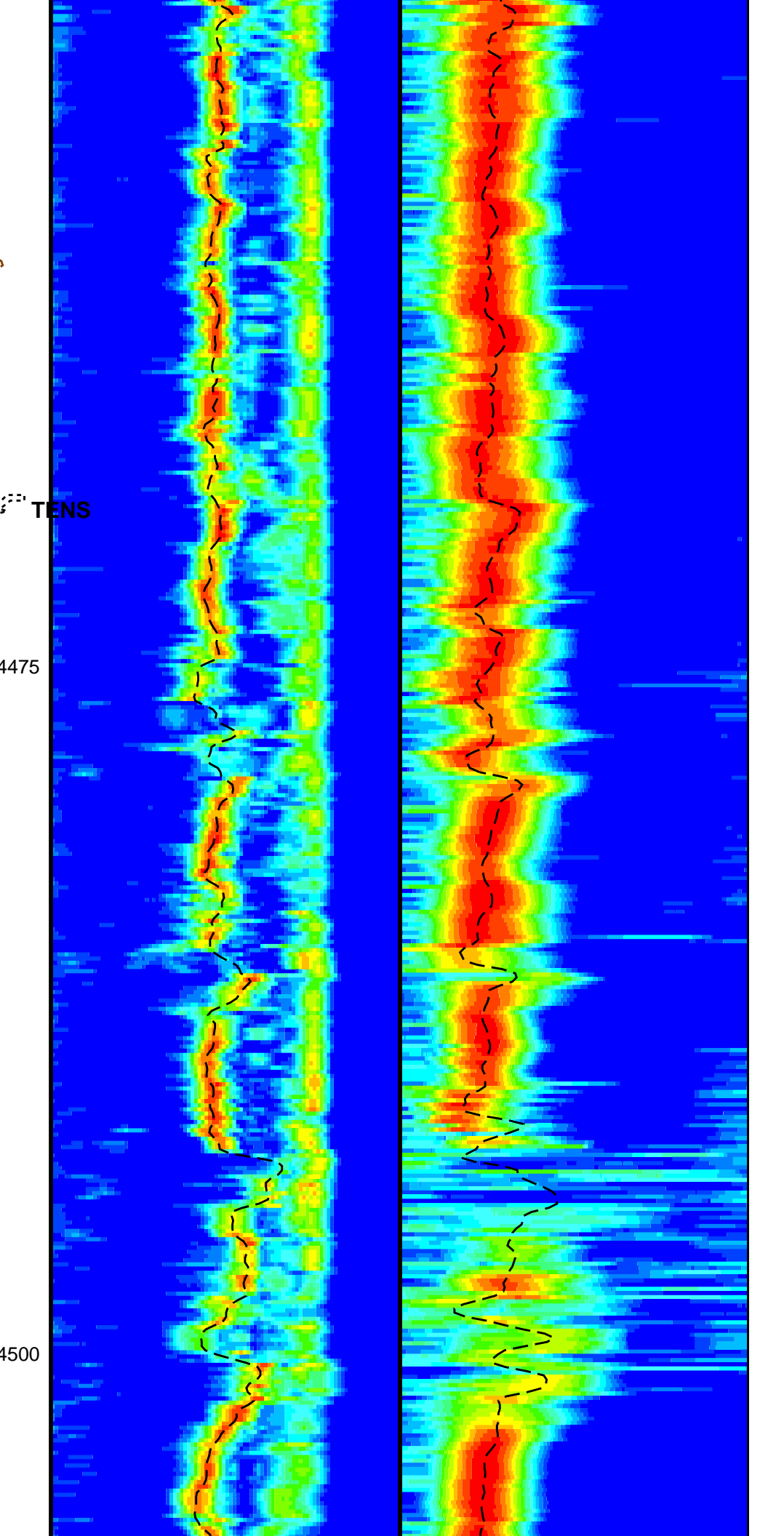
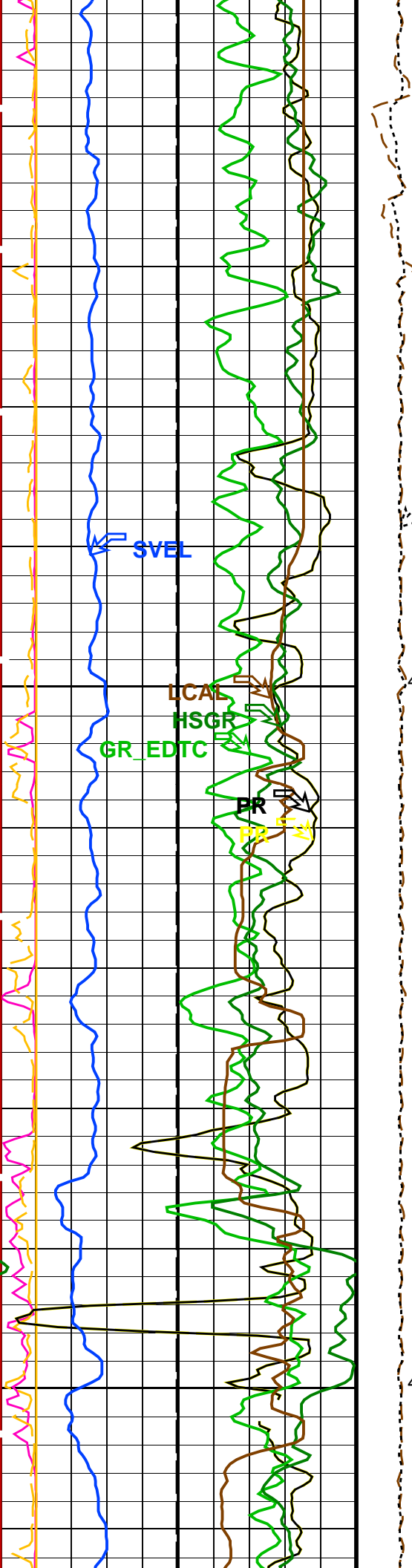


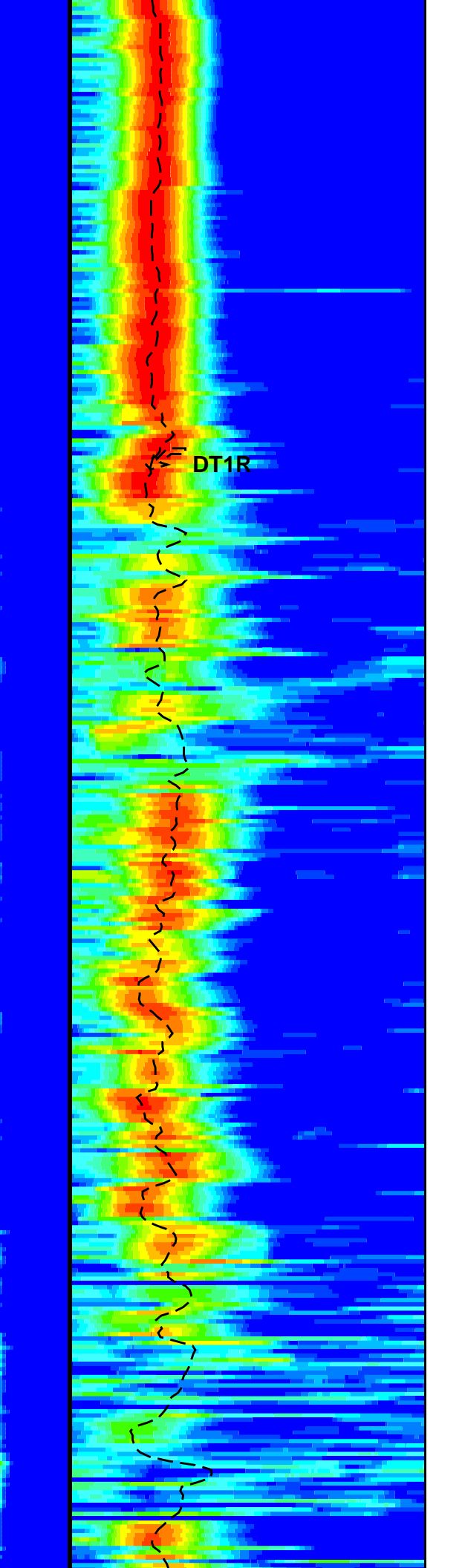
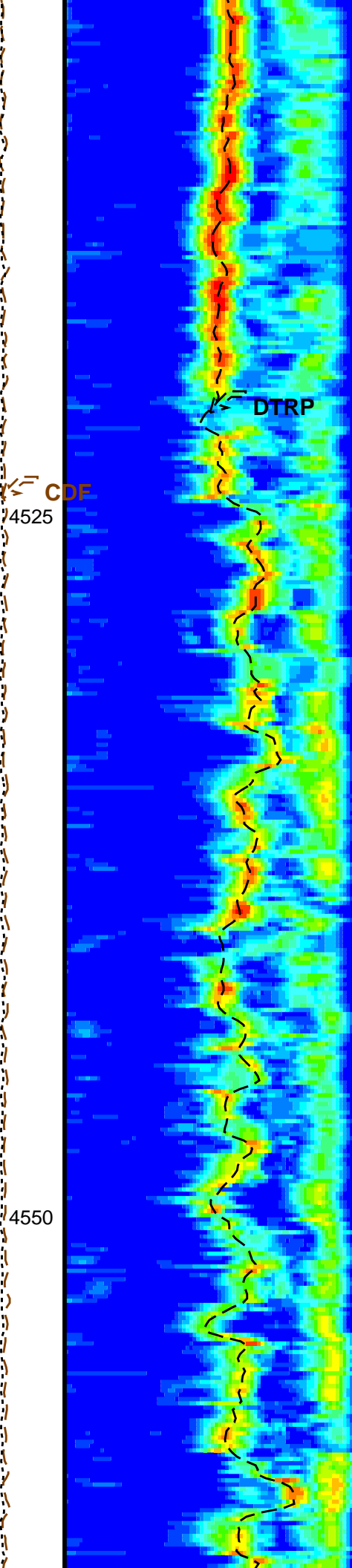
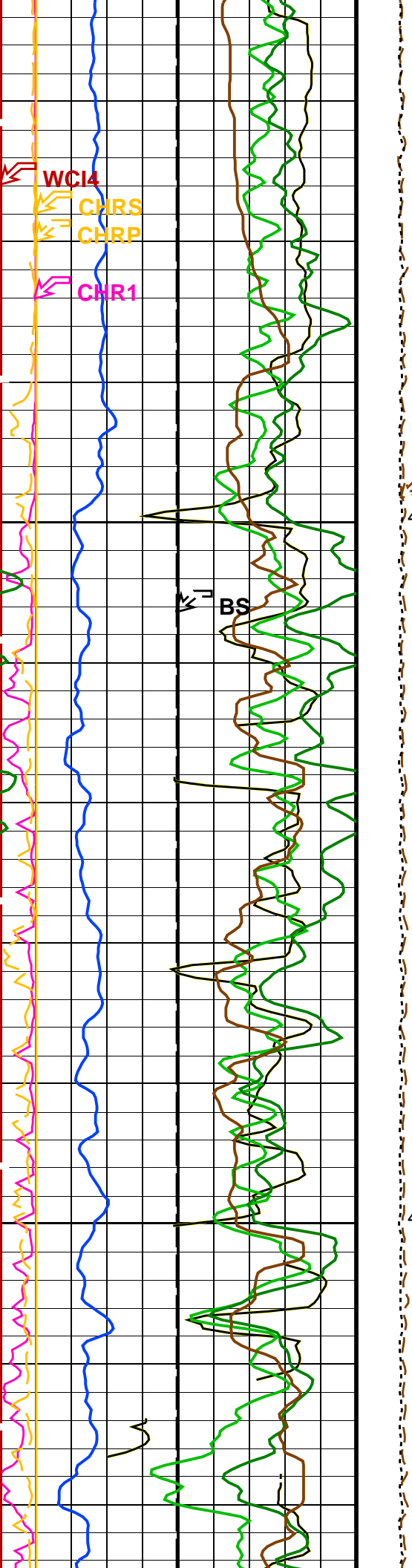




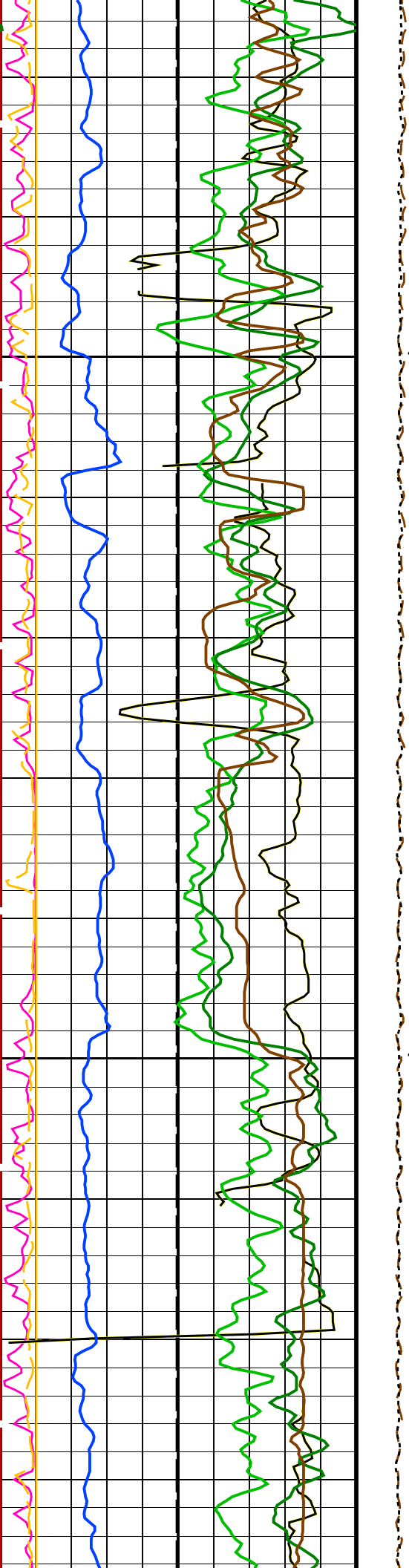






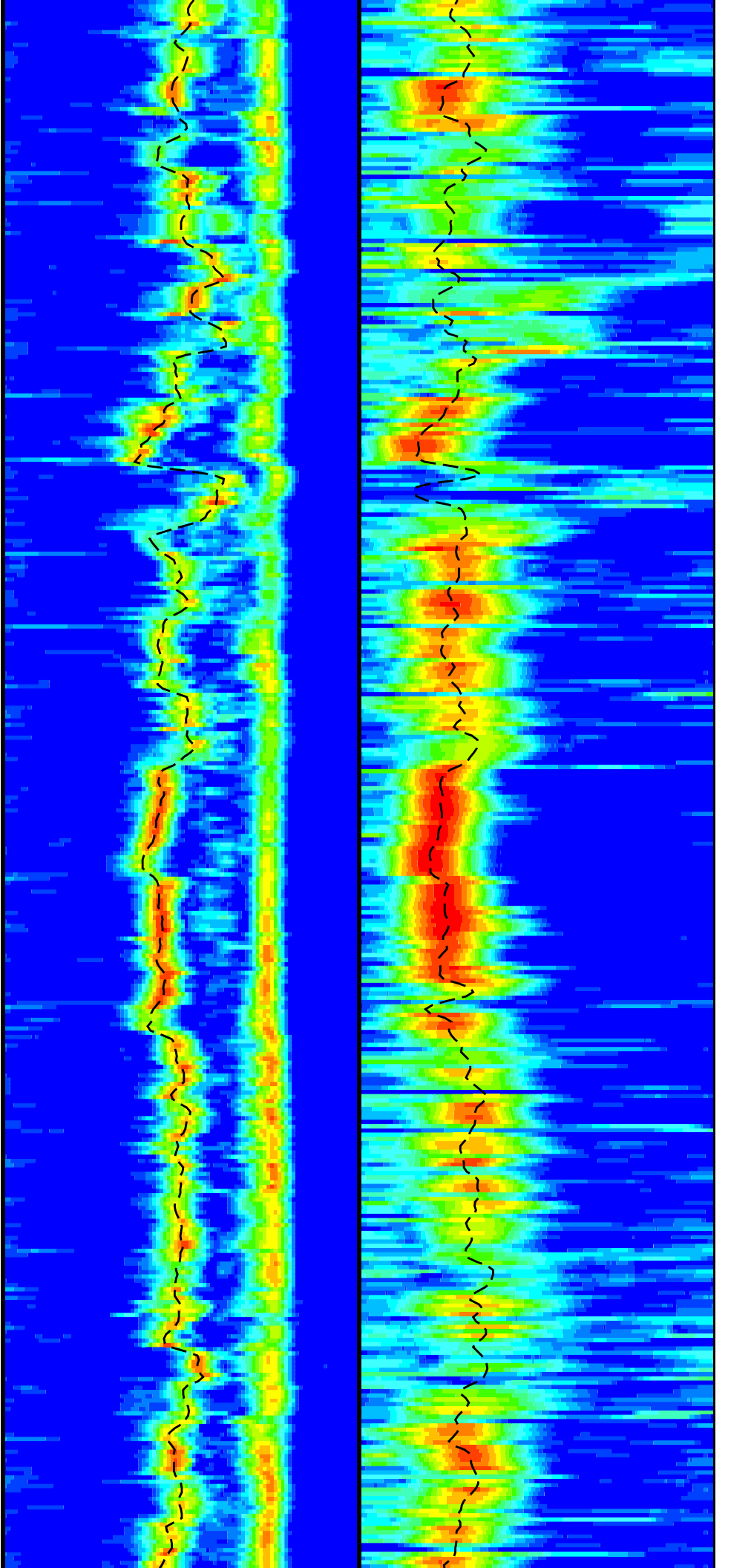


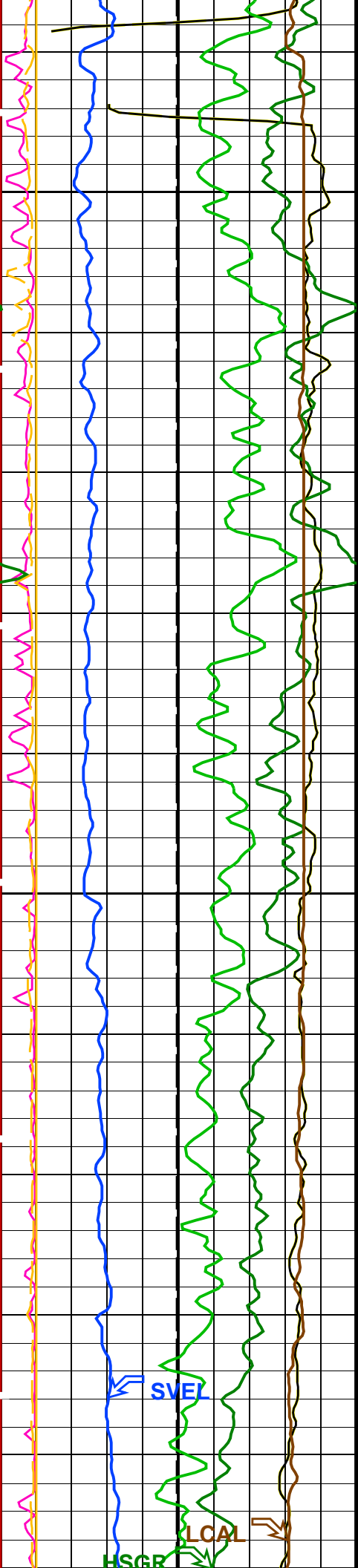




4575

4600

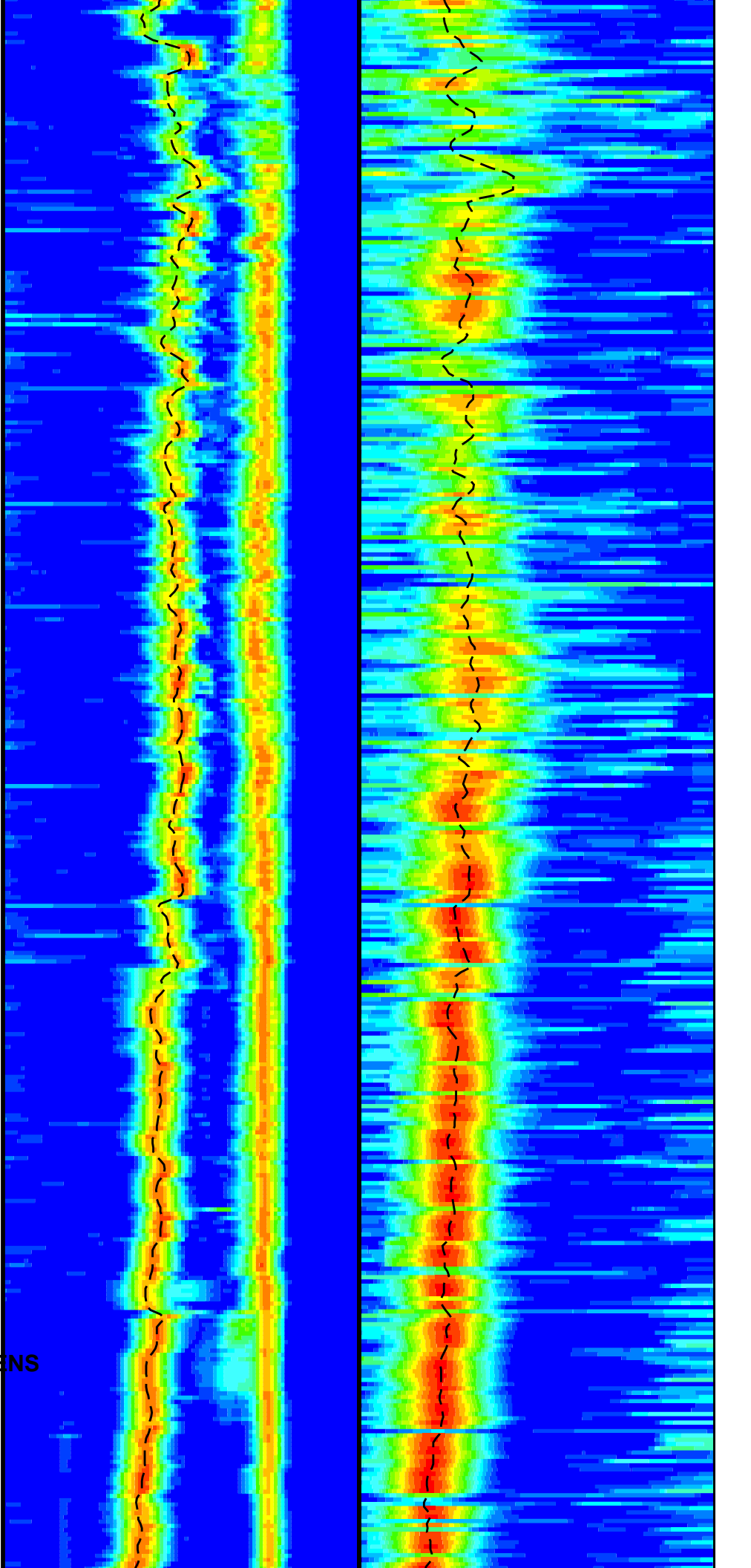


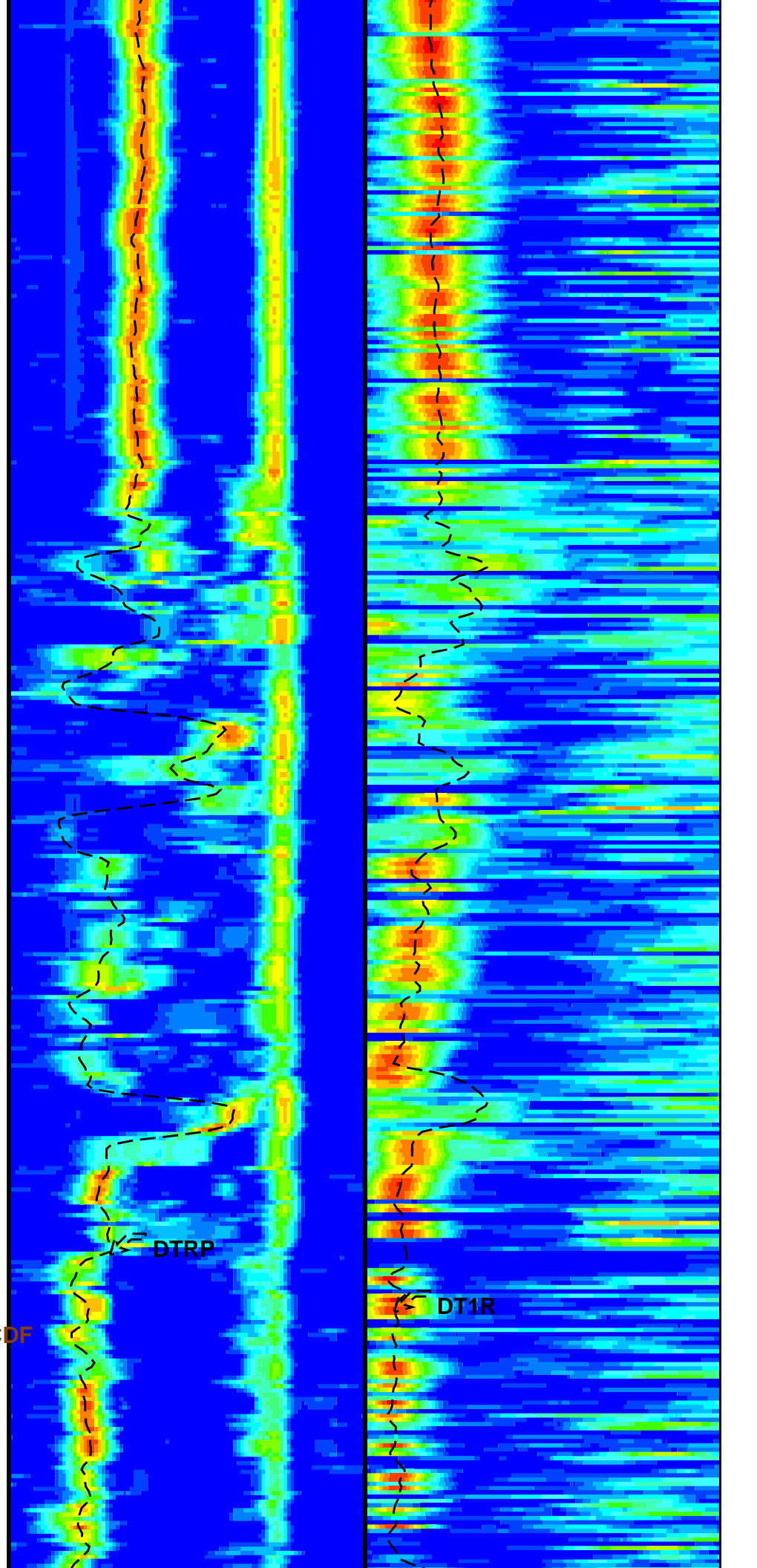
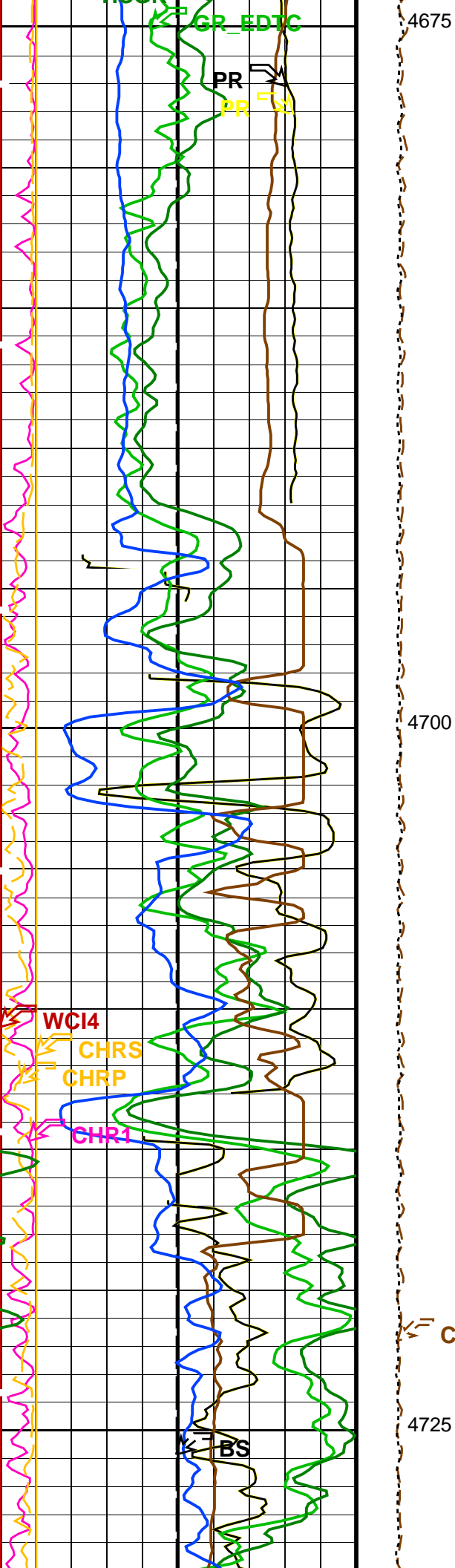


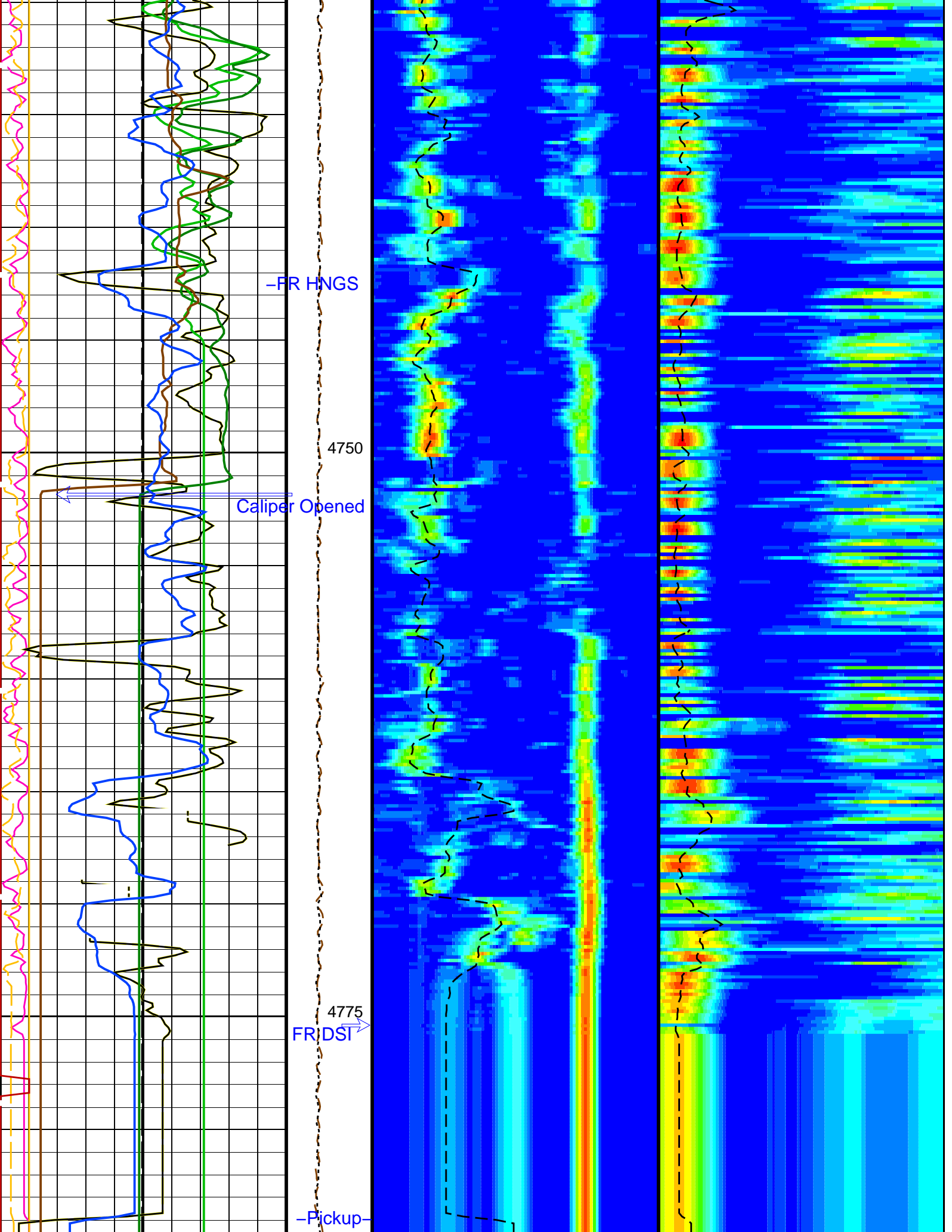
4625

4650

TENS







Bit Size (BS)

Tension (TENS)

Delta-T Comp / RA - P & S (DTRP)

Delta-T Shear / RA - Lower Dipole

0	Bit Size (BS) (IN)	20	(TENS) (LBF)	40	Delta-T Comp / RA - P & S (DTRF) (US/F)	240	75	(DT1R) (US/F)	1200
0	Poisson's Ratio (PR) (-----)	0.5	Calibrated Downhole Force (CDF) (LBF)	40	Delta-T Shear / RA - P & S (DTRS) (US/F)	240	75	Min Amplitude Max Rec.Array L.Dipole Slow Proj. CVDL (SPR1) (US/F)	1200
0	Poisson's Ratio (PR) (-----)	0.5	3000	40	Min Amplitude Max Rec.Array P&S Slow Proj. CVDL (SPR4) (US/F)	240			
0	Gamma Ray (GR_EDTC) (GAPI)	100							
0	HLDS Caliper (LCAL) (IN)	20							
1000	Sonic Velocity (SVEL) (M/S)	6000							
0	Peak Coherence / RA - Lower Dipole (CHR1)	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							
0	HNGS Spectroscopy Gamma Ray (HSGR) (GAPI)	100							

Main Pass Lower Dipole Shear  
and Compressional

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value
DSST-B: Dipole Shear Imager - B		
AGC1	Automatic Gain Control 1	ON
AGC2	Automatic Gain Control 2	ON
AGC3	Automatic Gain Control 3	ON
AGC4	Automatic Gain Control 4	ON
AGC5	Automatic Gain Control 5	ON
AGCX	Automatic Gain Control X	ON
BARS_MTR1	Length for Monopole Transmitter to Receiver 1	2.7432 M
BHS	Borehole Status	OPEN
BHT	Bottom Hole Temperature (used in calculations)	21 DEGC
CASF	Label Casing Function - Monopole P&S	50
CDS	C-Delta-T Shale	100 US/F
COLL	Label Slowness Lower Limit - Monopole P&S Compressional	65 US/F
COUL	Label Slowness Upper Limit - Monopole P&S Compressional	175 US/F
DDE1	Digitizing Delay 1	0 US
DDE2	Digitizing Delay 2	0 US
DDE3	Digitizing Delay 3	0 US
DDE4	Digitizing Delay 4	0 US
DDE5	Digitizing Delay 5	0 US
DDEX	Digitizing Delay X	0 US
DLCS	Label Compressional Source - Dipole Shear	USE
DLHS	Label Hole Diameter Source for SOBS Channel	AUTO
DSHL	Label Slowness Lower Limit - Dipole Shear	75 US/F
DSHU	Label Slowness Upper Limit - Dipole Shear	600 US/F

DSI1	Digitizer Sample Interval 1	40	US
DSI2	Digitizer Sample Interval 2	40	US
DSI3	Digitizer Sample Interval 3	40	US
DSI4	Digitizer Sample Interval 4	10	US
DSI5	Digitizer Sample Interval 5	10	US
DSIX	Digitizer Sample Interval X	40	US
DTCS	Compressional Delta-T Source for DTCO Channel	PS_COMP	
DTF	Delta-T Fluid	193	US/F
DTM	Delta-T Matrix	56	US/F
DTSS	Shear Delta-T Source for DTSM Channel	UPPER_DIPOLE	
DWC1	Digitizer Word Count 1	512	
DWC2	Digitizer Word Count 2	512	
DWC3	Digitizer Word Count 3	512	
DWC4	Digitizer Word Count 4	512	
DWC5	Digitizer Word Count 5	512	
DWCX	Digitizer Word Count X	512	
FDE1	Firing Delay 1	0	
FDE2	Firing Delay 2	0	
FDE3	Firing Delay 3	0	
FDE4	Firing Delay 4	0	
FDE5	Firing Delay 5	0	
FDEX	Firing Delay X	0	
FGM5	First Motion Gate Moveout 5	40	US/F
FGMX	First Motion Gate Moveout X	40	US/F
FILG	Label Fill Gap Control - Monopole P&S	COMP_SHEAR	
FMG5	First Motion Minimum Gate 5	500	US
FMGX	First Motion Minimum Gate X	500	US
FMLL	Slowness Lower Limit - FMD	40	US/F
FMRC	Restart Control - FMD	CONTINUE	
FMT5	First Motion Threshold 5	UP	
FMTX	First Motion Threshold X	NONE	
FMUL	Slowness Upper Limit - FMD	180	US/F
FNC5	First Motion Noise Counter Input 5	ALO	
FNCX	First Motion Noise Counter Input X	ALO	
FPM	Processing Mode - FMD	NONE	
FTD5	First Motion Threshold Direction 5	UP	
FTDX	First Motion Threshold Direction X	UP	
GAI1	Manual Gain 1	10	
GAI2	Manual Gain 2	10	
GAI3	Manual Gain 3	6	
GAI4	Manual Gain 4	16	
GAI5	Manual Gain 5	16	
GAIX	Manual Gain X	10	
GCSE	Generalized Caliper Selection	LCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GDT1	Gain Delta-T 1	800	US/F
GDT2	Gain Delta-T 2	800	US/F
GDT3	Gain Delta-T 3	800	US/F
GDT4	Gain Delta-T 4	160	US/F
GDT5	Gain Delta-T 5	160	US/F
GDTX	Gain Delta-T X	800	US/F
GGRD	Geothermal Gradient	0.018227	DC/M
GIN1	Gain Interval 1	15360	US
GIN2	Gain Interval 2	15360	US
GIN3	Gain Interval 3	15360	US
GIN4	Gain Interval 4	2560	US
GIN5	Gain Interval 5	1600	US
GINX	Gain Interval X	15360	US
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
HPF1	High Pass Filter 1	F80	
HPF2	High Pass Filter 2	F80	
HPF3	High Pass Filter 3	F80	
HPF4	High Pass Filter 4	F8K	
HPF5	High Pass Filter 5	F8K	
HPFX	High Pass Filter X	F80	
ISSBAR	Barite Mud Switch	BARITE	
ITTS	Integrated Transit Time Source	DTCO	
LFC	Label Formation Character - Monopole P&S	DYNAMIC	
LPF1	Low Pass Filter 1	F5K	
LPF2	Low Pass Filter 2	F5K	
LPF3	Low Pass Filter 3	F5K	
LPF4	Low Pass Filter 4	F30K	
LPF5	Low Pass Filter 5	F30K	
LPFX	Low Pass Filter X	F5K	
LTXG	Lower Dipole Transmitter Geometry	156	IN
MAI5	Slowness Averaging Interval - FMD	42	IN
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
MCS	Mean Casing Slowness	57	US/F
MDS5	Multishot Delta-T Scatter - FMD	20	US
MTXG	Monopole Transmitter Geometry	186	IN
MUX1	Sum Difference Multiplexor Input 1	RR	
MUX2	Sum Difference Multiplexor Input 2	RR	
MUX3	Sum Difference Multiplexor Input 3	RR	
MUX4	Sum Difference Multiplexor Input 4	RR	

MUX5	Sum Difference Multiplexor Input 5	RR	
MUXX	Sum Difference Multiplexor Input X	RR	
NTI5	Number Threshold Items 5	0	
NTIX	Number Threshold Items X	0	
NWI1	Number Waveform Items 1	8	
NWI2	Number Waveform Items 2	8	
NWI3	Number Waveform Items 3	0	
NWI4	Number Waveform Items 4	8	
NWI5	Number Waveform Items 5	0	
NWIX	Number Waveform Items X	0	
NWS1	Number Waveforms Stacked 1	1	
NWS2	Number Waveforms Stacked 2	1	
NWS3	Number Waveforms Stacked 3	1	
NWS4	Number Waveforms Stacked 4	1	
NWS5	Number Waveforms Stacked 5	1	
NWSX	Number Waveforms Stacked X	1	
RATE	Firing Rate	R7	
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	
SAM2	DSST Sonic Acquisition Mode 2 – Upper Dipole Mode	ODD	
SAM3	DSST Sonic Acquisition Mode 3 – Monopole Mode for Stoneley	OFF	
SAM4	DSST Sonic Acquisition Mode 4 – Monopole Mode for P&S	EVEN	
SAM5	DSST Sonic Acquisition Mode 5 – Monopole Mode for FMD	OFF	
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	
SAS3	STC Sonic Array Status – Monopole Stoneley	255	
SAS4	STC Sonic Array Status – Monopole P&S	255	
SAS5	Sonic Array Status – FMD	255	
SBO1	STC Search Band Offset – Lower Dipole	3000	US
SBO2	STC Search Band Offset – Upper Dipole	3000	US
SBO3	STC Search Band Offset – Monopole Stoneley	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
SBW2	STC Search Bandwidth – Upper Dipole	8000	US
SBW3	STC Search Bandwidth – Monopole Stoneley	8000	US
SBW4	STC Search Bandwidth – Monopole P&S	2000	US
SFC1	STC Formation Character – Lower Dipole	SELECTABLE	
SFC2	STC Formation Character – Upper Dipole	SELECTABLE	
SFC3	STC Formation Character – Monopole Stoneley	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	
SFM3	STC Filter – Monopole Stoneley	B.5–1.5K	
SFM4	STC Filter – Monopole P&S	B3–20K	
SHLL	Label Slowness Lower Limit – Monopole P&S Shear	235	US/F
SHT	Surface Hole Temperature	20	DEGC
SHUL	Label Slowness Upper Limit – Monopole P&S Shear	240	US/F
SLL1	STC Slowness Lower Limit – Lower Dipole	75	US/F
SLL2	STC Slowness Lower Limit – Upper Dipole	75	US/F
SLL3	STC Slowness Lower Limit – Monopole Stoneley	180	US/F
SLL4	STC Slowness Lower Limit – Monopole P&S	40	US/F
SPFS	Sonic Porosity Formula	RAYMER_HUNT	
SPSO	Sonic Porosity Source	DTCO	
SST1	STC Slowness Step – Lower Dipole	4	US/F
SST2	STC Slowness Step – Upper Dipole	4	US/F
SST3	STC Slowness Step – Monopole Stoneley	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	
SSW3	STC Source Waveform – Monopole Stoneley	WF_SAM3	
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	1200	US/F
SUL2	STC Slowness Upper Limit – Upper Dipole	1200	US/F
SUL3	STC Slowness Upper Limit – Monopole Stoneley	780	US/F
SUL4	STC Slowness Upper Limit – Monopole P&S	240	US/F
SWD1	STC Slowness Width – Lower Dipole	40	US/F
SWD2	STC Slowness Width – Upper Dipole	40	US/F
SWD3	STC Slowness Width – Monopole Stoneley	40	US/F
SWD4	STC Slowness Width – Monopole P&S	10	US/F
TBDB	Tool String Bottom to DSST Bottom	95.25	IN
TRF1	STC Time for Baseline Fill – Lower Dipole	0	US



TBF1	STC Time for Baseline Fill - Lower Dipole	0	US
TBF2	STC Time for Baseline Fill - Upper Dipole	0	US
TBF3	STC Time for Baseline Fill - Monopole Stoneley	0	US
TBF4	STC Time for Baseline Fill - Monopole P&S	300	US
TLL1	STC Time Lower Limit - Lower Dipole	600	US
TLL2	STC Time Lower Limit - Upper Dipole	600	US
TLL3	STC Time Lower Limit - Monopole Stoneley	600	US
TLL4	STC Time Lower Limit - Monopole P&S	150	US
TST1	STC Time Step - Lower Dipole	200	US
TST2	STC Time Step - Upper Dipole	200	US
TST3	STC Time Step - Monopole Stoneley	200	US
TST4	STC Time Step - Monopole P&S	50	US
TTDB	Tool String Top to DSST Bottom	1656.11	IN
TUL1	STC Time Upper Limit - Lower Dipole	20440	US
TUL2	STC Time Upper Limit - Upper Dipole	20200	US
TUL3	STC Time Upper Limit - Monopole Stoneley	12000	US
TUL4	STC Time Upper Limit - Monopole P&S	3660	US
TWA1	Transmitter Waveform Amplitude 1	179	
TWA2	Transmitter Waveform Amplitude 2	179	
TWA3	Transmitter Waveform Amplitude 3	166	
TWA4	Transmitter Waveform Amplitude 4	150	
TWA5	Transmitter Waveform Amplitude 5	150	
TWAX	Transmitter Waveform Amplitude X	179	
TWD1	STC Time Width - Lower Dipole	2000	US
TWD2	STC Time Width - Upper Dipole	2000	US
TWD3	STC Time Width - Monopole Stoneley	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
TWI3	STC Integration Time Window - Monopole Stoneley	2400	US
TWI4	STC Integration Time Window - Monopole P&S	500	US
TWR1	Transmitter Waveform Sample Rate 1	20	US
TWR2	Transmitter Waveform Sample Rate 2	5	US
TWR3	Transmitter Waveform Sample Rate 3	5	US
TWR4	Transmitter Waveform Sample Rate 4	5	US
TWR5	Transmitter Waveform Sample Rate 5	5	US
TWRX	Transmitter Waveform Sample Rate X	5	US
TWS1	Transmitter Waveform Select 1	2	
TWS2	Transmitter Waveform Select 2	0	
TWS3	Transmitter Waveform Select 3	4	
TWS4	Transmitter Waveform Select 4	6	
TWS5	Transmitter Waveform Select 5	6	
TWSX	Transmitter Waveform Select X	0	
UTXG	Upper Dipole Transmitter Geometry	162	IN
WFDTSP1	SAM1 Waveform Delta for Spectrum	0	US/F
WFDTSP2	SAM2 Waveform Delta for Spectrum	0	US/F
WFDTSP3	SAM3 Waveform Delta for Spectrum	0	US/F
WFDTSP4	SAM4 Waveform Delta for Spectrum	0	US/F
WFDTSPX	SAMX Waveform Delta for Spectrum	0	US/F
WFLLSP1	SAM1 Waveform Lower Limit for Spectrum	0	US
WFLLSP2	SAM2 Waveform Lower Limit for Spectrum	0	US
WFLLSP3	SAM3 Waveform Lower Limit for Spectrum	0	US
WFLLSP4	SAM4 Waveform Lower Limit for Spectrum	0	US
WFLLSPX	SAMX Waveform Lower Limit for Spectrum	0	US
WFM1	Waveform Mode 1	W1	
WFM2	Waveform Mode 2	W1	
WFM3	Waveform Mode 3	W1	
WFM4	Waveform Mode 4	W1	
WFM5	Waveform Mode 5	W1	
WFMX	Waveform Mode X	W1	
WFULSP1	SAM1 Waveform Upper Limit for Spectrum	20000	US
WFULSP2	SAM2 Waveform Upper Limit for Spectrum	20000	US
WFULSP3	SAM3 Waveform Upper Limit for Spectrum	20000	US
WFULSP4	SAM4 Waveform Upper Limit for Spectrum	5000	US
WFULSPX	SAMX Waveform Upper Limit for Spectrum	20000	US
XMT1	Transmitter Select 1	DLO	
XMT2	Transmitter Select 2	DUP	
XMT3	Transmitter Select 3	MONO	
XMT4	Transmitter Select 4	MONO	
XMT5	Transmitter Select 5	MONO	
XMTX	Transmitter Select X	DUP	
<b>HRLT-B: High Resolution Laterolog Array - B</b>			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	21	DEGC
CALSTAT	HRLTB Calibration Status	SHALLOW_DONE	
CALTEMP	HRLTB Calibration Temperature	23.3869	DEGC
FREQ0	HRLT Frequency Index for Mode 0	32	
FREQ1	HRLT Frequency Index for Mode 1	128	
FREQ2	HRLT Frequency Index for Mode 2	104	
FREQ3	HRLT Frequency Index for Mode 3	86	
FREQ4	HRLT Frequency Index for Mode 4	56	
FREQ5	HRLT Frequency Index for Mode 5	44	
FREQ6	HRLT Frequency Index for Mode 6	116	
GCSE	Generalized Caliper Selection	LCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG



GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
ISSBAR	Barite Mud Switch	BARITE	
KFAC_HRLT	HRLT K Factor Option	SONDE	
LOOPCOEF_S	HRLT Loop Coefficient for Shallow Modes	LOW	
LOOPMOD0	HRLT Mode 0 Loop Mode	OFF	
LOOPMOD1	HRLT Mode 1 Loop Mode	OFF	
LOOPMOD2	HRLT Mode 2 Loop Mode	OFF	
LOOPMOD3	HRLT Mode 3 Loop Mode	OFF	
LOOPMOD4	HRLT Mode 4 Loop Mode	OFF	
LOOPMOD5	HRLT Mode 5 Loop Mode	OFF	
LOOPMOD6	HRLT Mode 6 Loop Mode	OFF	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
PROCINV	Inversion Selection	ON	
PROCMSFL	Inversion Micro-Resistivity Selection	NO_EXTERNAL_RXO	
PROCMSO	Mechanical Standoff Fin Size	0	IN
PROCRM	Processing Mud Resistivity Select	HRLT_Compute	
PROCSPO	Sonde Position	Centered	
SHT	Surface Hole Temperature	20	DEGC
	<b>HLDS: Hostile Litho-Density Sonde</b>		
CLCL	HLDS LS Control Loop Controller Mode	AUTO_DEFAULT	
CLCS	HLDS SS Control Loop Controller Mode	AUTO_DEFAULT	
CLLS	HLDS Mode Loop Long Spacing	AUTO	
CLSS	HLDS Mode Loop Short Spacing	AUTO	
DHC	Density Hole Correction	BS	
DPPM	Density Porosity Processing Mode	HIRS	
FD	Fluid Density	1	G/C3
LATC	HLDS Activation Correction	ON	
LLDL	HLDS LS Low Level Discriminator DAC	14000	
LLDS	HLDS SS Low Level Discriminator DAC	14000	
LLML	HLDS LS Low Level Discriminator Mode	AUTO	
LLMS	HLDS SS Low Level Discriminator Mode	AUTO	
MDEN	Matrix Density	2.6	G/C3
PHVL	HLDS Long Spacing High Voltage Setting	1000	V
PHVS	HLDS Short Spacing High Voltage Setting	1000	V
PSDL	HLDS LS Pulse Shape Compensation DAC	30000	
PSDS	HLDS SS Pulse Shape Compensation DAC	30000	
PSML	HLDS LS Pulse Shape Compensation Mode	AUTO	
PSMS	HLDS SS Pulse Shape Compensation Mode	AUTO	
	<b>HNGS-BA: Hostile Natural Gamma Ray Sonde</b>		
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	
BHT	Bottom Hole Temperature (used in calculations)	21	DEGC
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	LCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
H1P	HNGS Detector 1 Allow/Disallow In Processing	ALLOW	
H2P	HNGS Detector 2 Allow/Disallow In Processing	ALLOW	
HABK	HNGS Borehole Potassium Running Average	0.000444161	
HALF	HNGS Alpha Filter Length	60	IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	BARI	
HNPE	HNGS Processing Enable	YES	
ISSBAR	Barite Mud Switch	BARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
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	
SHT	Surface Hole Temperature	20	DEGC
TPOS	Tool Position	ECCE	
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	0.969742	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	0.968706	
	<b>EDTC-B: Enhanced DTS Cartridge</b>		
BHFL	Borehole Fluid Type	WATER	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	21	DEGC
BSCO	Borehole Salinity Correction Option	NO	
CCCO	Casing & Cement Thickness Correction Option	NO	
DPPM	Density Porosity Processing Mode	HIRS	
FSAL	Formation Salinity	-50000	PPM
FSCO	Formation Salinity Correction Option	NO	
GCSE	Generalized Caliper Selection	LCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	

GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
HSCO	Hole Size Correction Option	YES	
ISSBAR	Barite Mud Switch	BARITE	
ISSBAR_EDTC	Nuclear Mud Type	BARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
MCCO	Mud Cake Correction Option	NO	
MCOR	Mud Correction	BARI	
MWCO	Mud Weight Correction Option	YES	
PTCO	Pressure/Temperature Correction Option	NO	
SDAT	Standoff Data Source	SOCN	
SHT	Surface Hole Temperature	20	DEGC
SOCN	Standoff Distance	0.5	IN
SOCO	Standoff Correction Option	NO	
TPOS_EDTC	EDTC Tool Centered/Eccentered	Eccentered	
U-ETELM_EDTS	Telemetry Mode for eWAFE	Standard_EDTS	
U-TELM_EDTS	Telemetry Mode for WAFE	Standard_EDTS	
<b>System and Miscellaneous</b>			
ALTDPCCHAN	Name of alternate depth channel	SpeedCorrectedDepth	
BS	Bit Size	9.875	IN
BSAL	Borehole Salinity	35000.00	PPM
CSIZ	Current Casing Size	5.000	IN
CWEI	Casing Weight	168.00	LB/F
DFD	Drilling Fluid Density	1.32	G/C3
DO	Depth Offset for Playback	0.0	M
FLEV	Fluid Level	-50000.00	M
MST	Mud Sample Temperature	23.00	DEGC
PBVSADP	Use alternate depth channel for playback	NO	
PP	Playback Processing	RECOMPUTE	
RMFS	Resistivity of Mud Filtrate Sample	-50000.0000	OHMM
RW	Resistivity of Connate Water	1.0000	OHMM
TD	Total Depth	4850.8	M
TDD	Total Depth - Driller	4850.80	M
TDL	Total Depth - Logger	4850.00	M
TWS	Temperature of Connate Water Sample	37.78	DEGC

Format: DSST\_P\_S\_LOWER\_VDL\_COLOR Vertical Scale: 1:200 Graphics File Created: 10-Mar-2017 16:10

**OP System Version: 19C0-187**

DSST-B	19C0-187	HRLT-B	19C0-187
HLDS	19C0-187	LDSC-B	19C0-187
HNGC-B	19C0-187	HNGS-BA	19C0-187
EDTC-B	SKK-5169-EDTCB		

**Input DLIS Files**

DEFAULT	DSI_HRLA_LDL_NGS_017PUP	FN:26	PRODUCER	07-Mar-2017 13:04	4784.6 M	3755.7 M
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**Output DLIS Files**

DEFAULT	DSI_HRLA_LDL_NGS_042PUP	FN:60	PRODUCER	10-Mar-2017 16:10		
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Company: International Ocean Discovery Program Well: Expedition 367, Site U1499B

**Input DLIS Files**

DEFAULT	DSI_HRLA_LDL_NGS_017PUP	FN:26	PRODUCER	07-Mar-2017 13:04	4784.6 M	3755.7 M
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**Output DLIS Files**

DEFAULT	DSI_HRLA_LDL_NGS_042PUP	FN:60	PRODUCER	10-Mar-2017 16:10	4784.6 M	3755.7 M
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**OP System Version: 19C0-187**

DSST-B	19C0-187	HRLT-B	19C0-187
HLDS	19C0-187	LDSC-B	19C0-187
HNGC-B	19C0-187	HNGS-BA	19C0-187
EDTC-B	SKK-5169-EDTCB		

**Changed Parameter Summary**

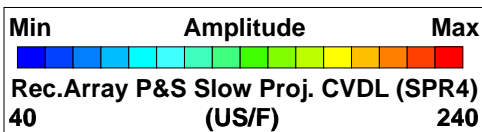
DLIS Name	New Value	Previous Value	Depth & Time
COLL	90 US/E	65 US/E	4427.7 16:11:22

PIP SUMMARY

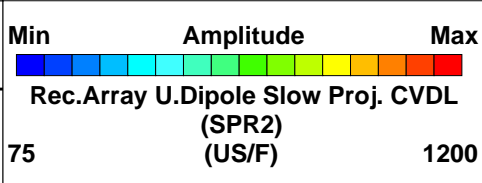
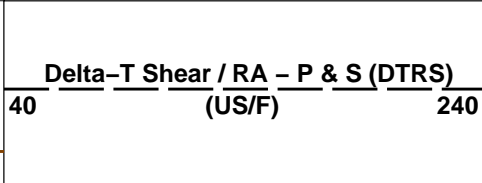
Time Mark Every 60 S

<b>HNGS Spectroscopy Gamma Ray (HSGR)</b>		
0	(GAPI)	100
<b>Waveform Data Copy Indicator 4 - Monopole P&amp;S (WCI4)</b>		
0	(----)	10
<b>Peak Coherence / RA - P &amp; S Shear (CHRS)</b>		
-1	(----)	9
<b>Peak Coherence / RA - P &amp; S Comp (CHRP)</b>		
0	(----)	10
<b>Peak Coherence / RA - Upper Dipole (CHR2)</b>		
0	(----)	10
<b>HLDS Caliper (LCAL)</b>		
0	(IN)	20
<b>Gamma Ray (GR_EDTC)</b>		
0	(GAPI)	100
<b>Poisson's Ratio (PR)</b>		
0	(----)	0.5
<b>Sonic Velocity (SVEL)</b>		
1000	(M/S)	6000
<b>Poisson's Ratio (PR)</b>		
0	(----)	0.5
<b>Bit Size (BS)</b>		
0	(IN)	20

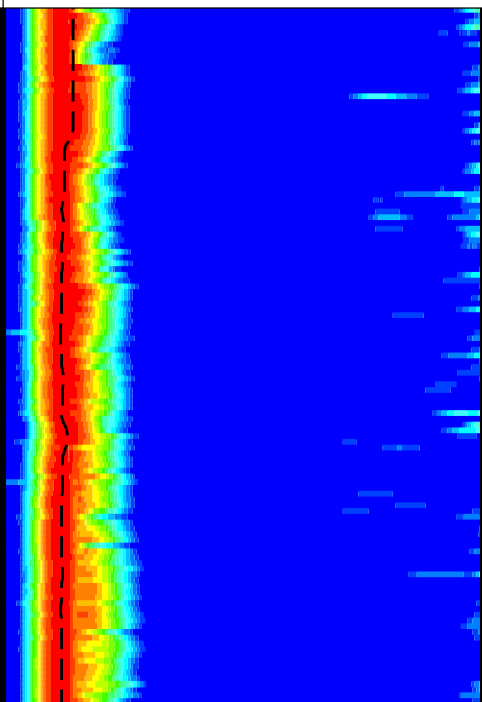
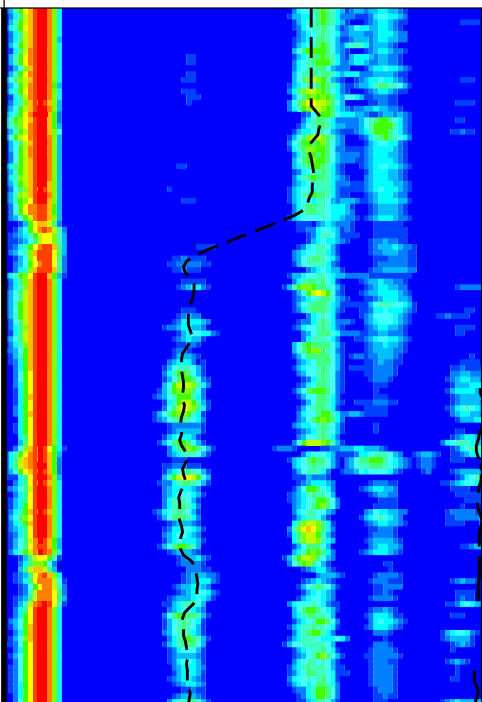
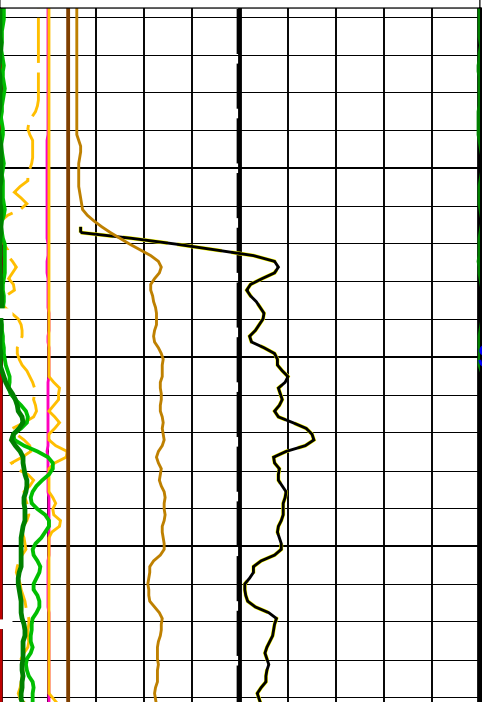
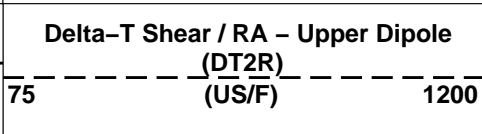
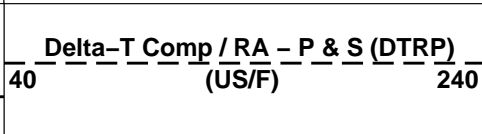
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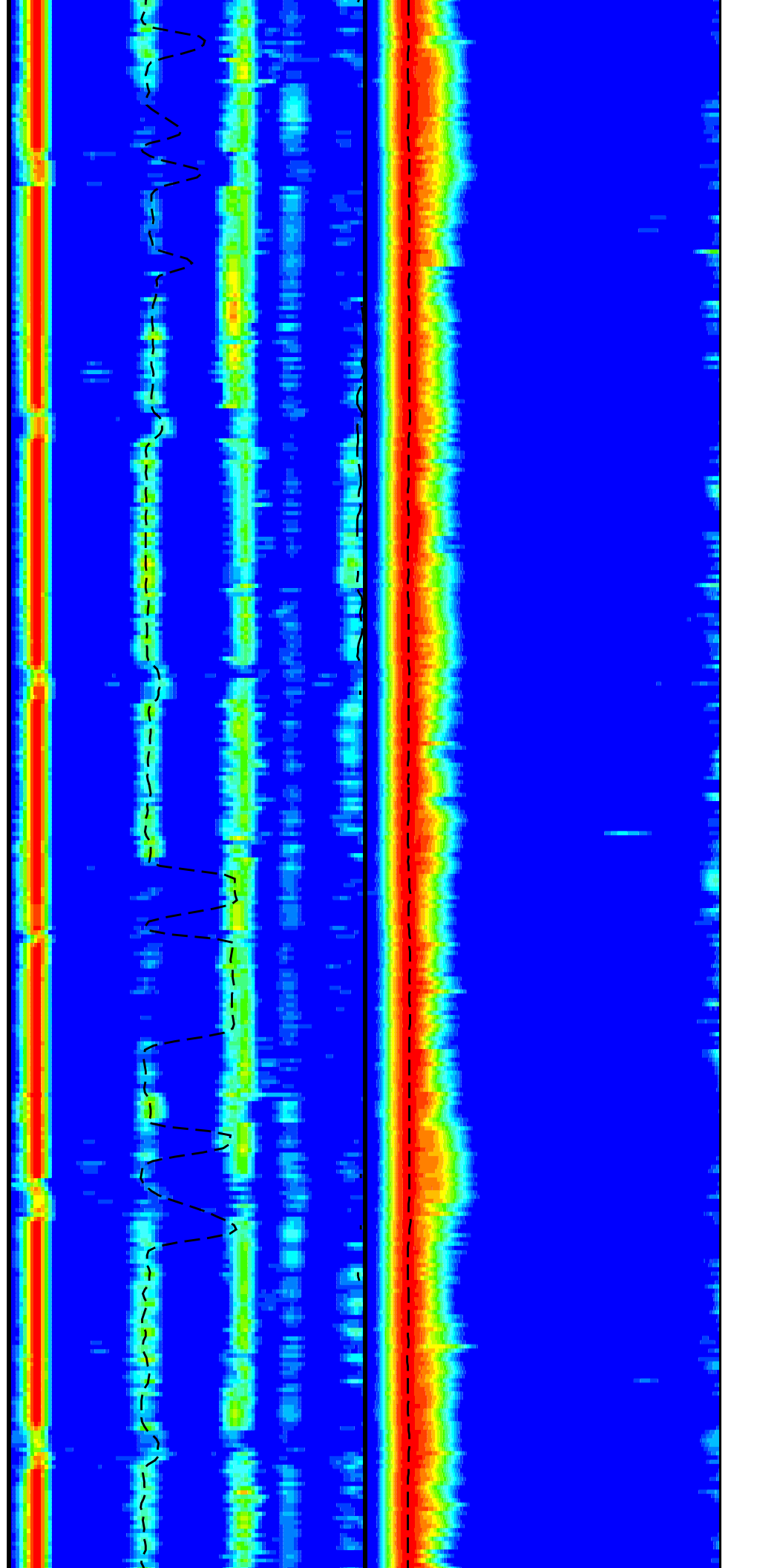
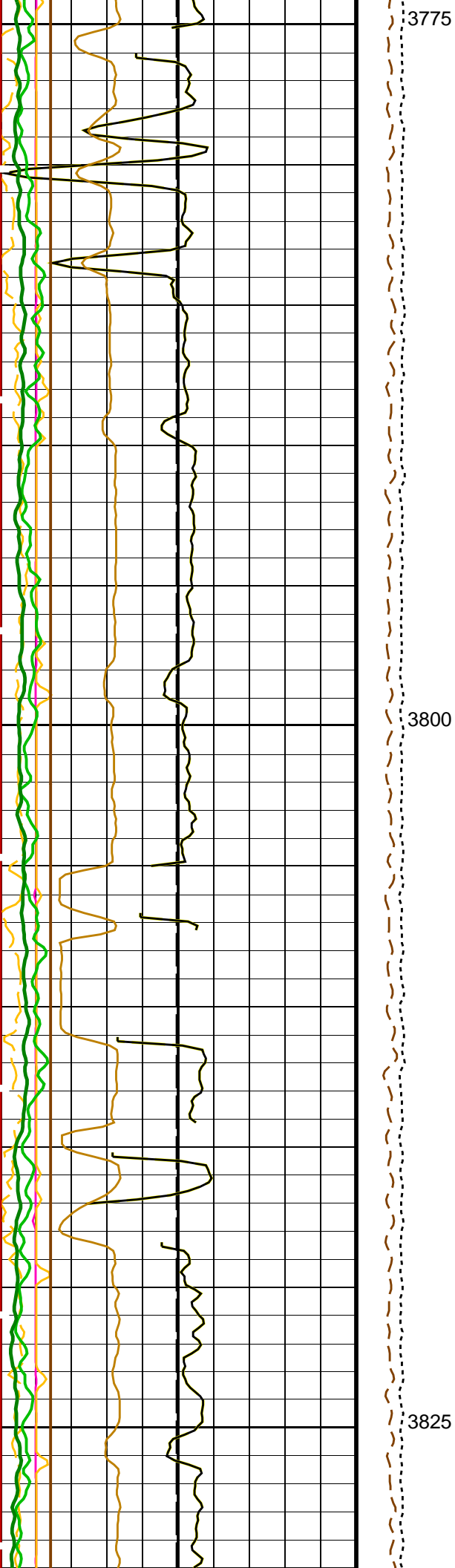


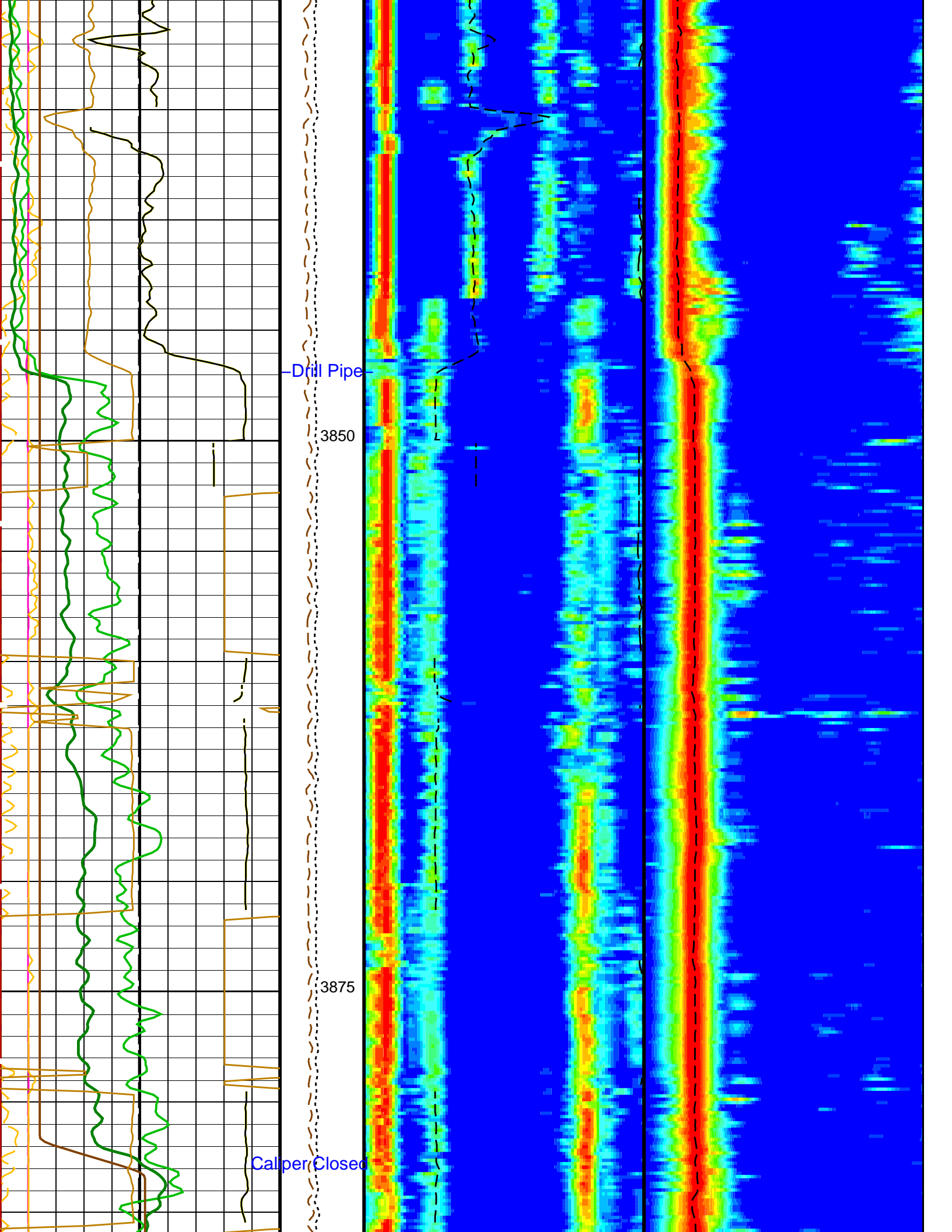
Calibrated Downhole Force (CDF) (LBF)  
 3000 0

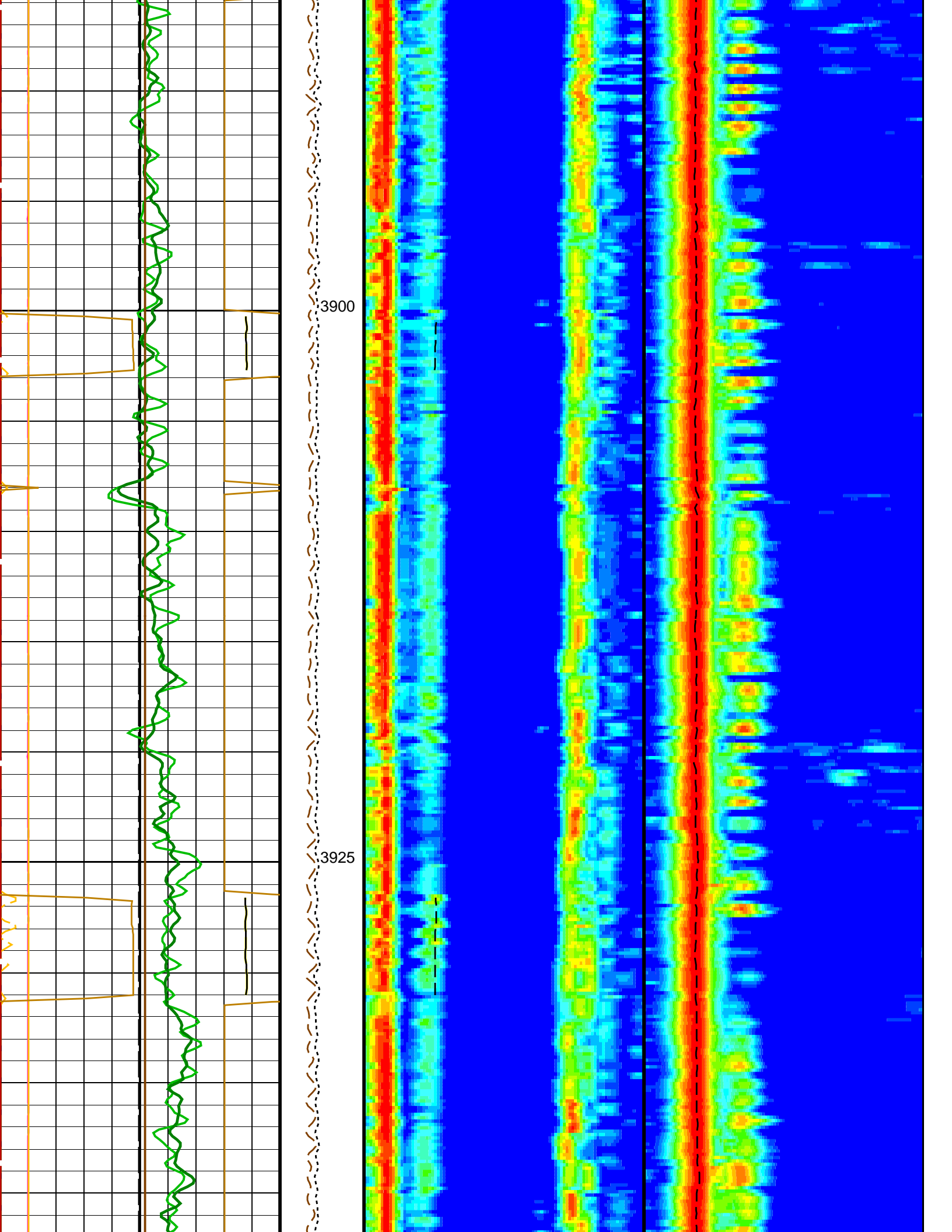


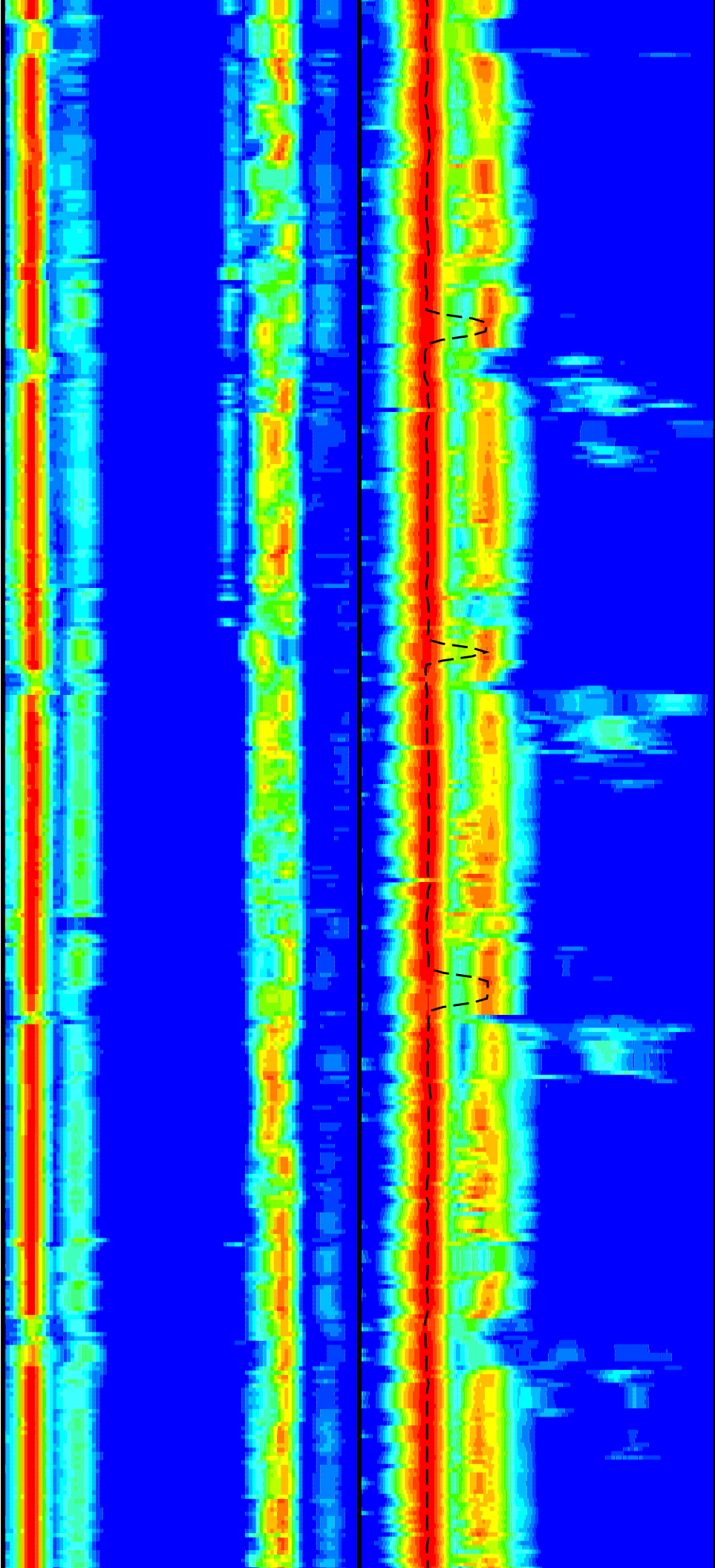
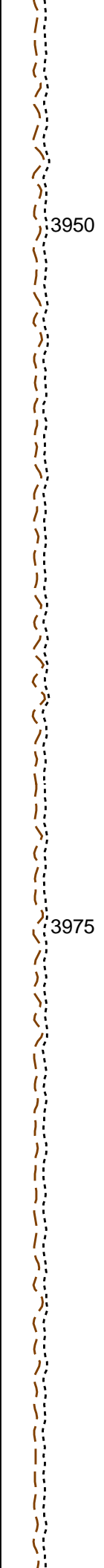
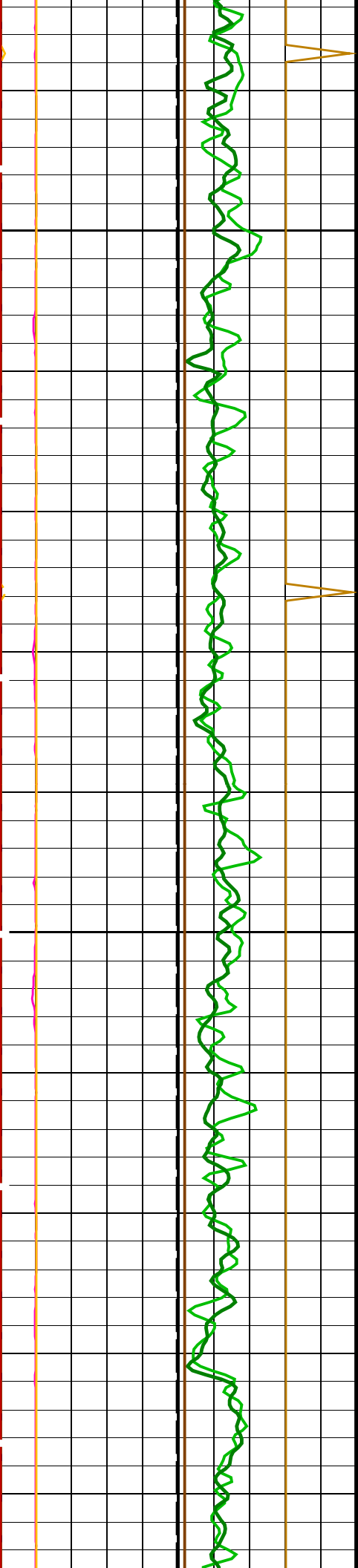
Tension (TENS) (LBF)  
 10000 0

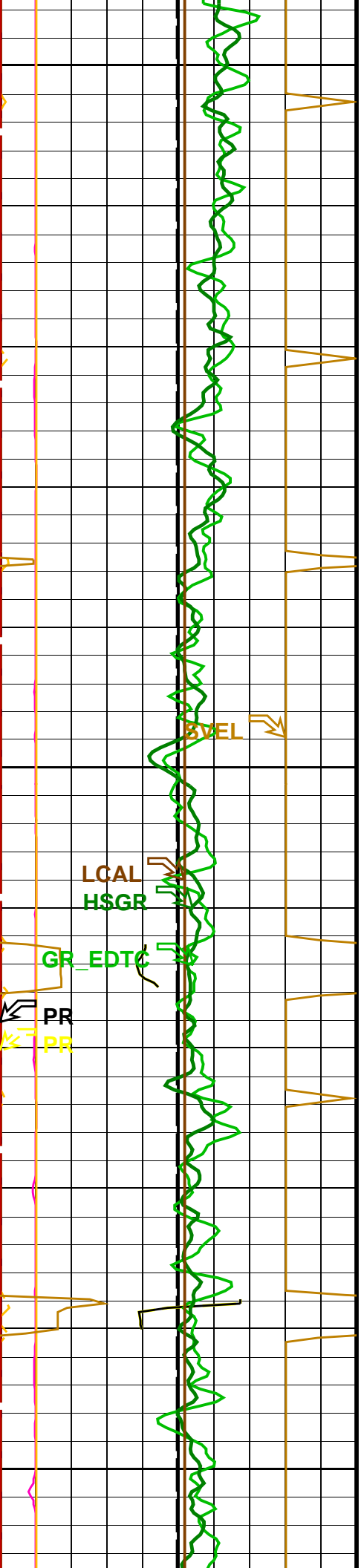






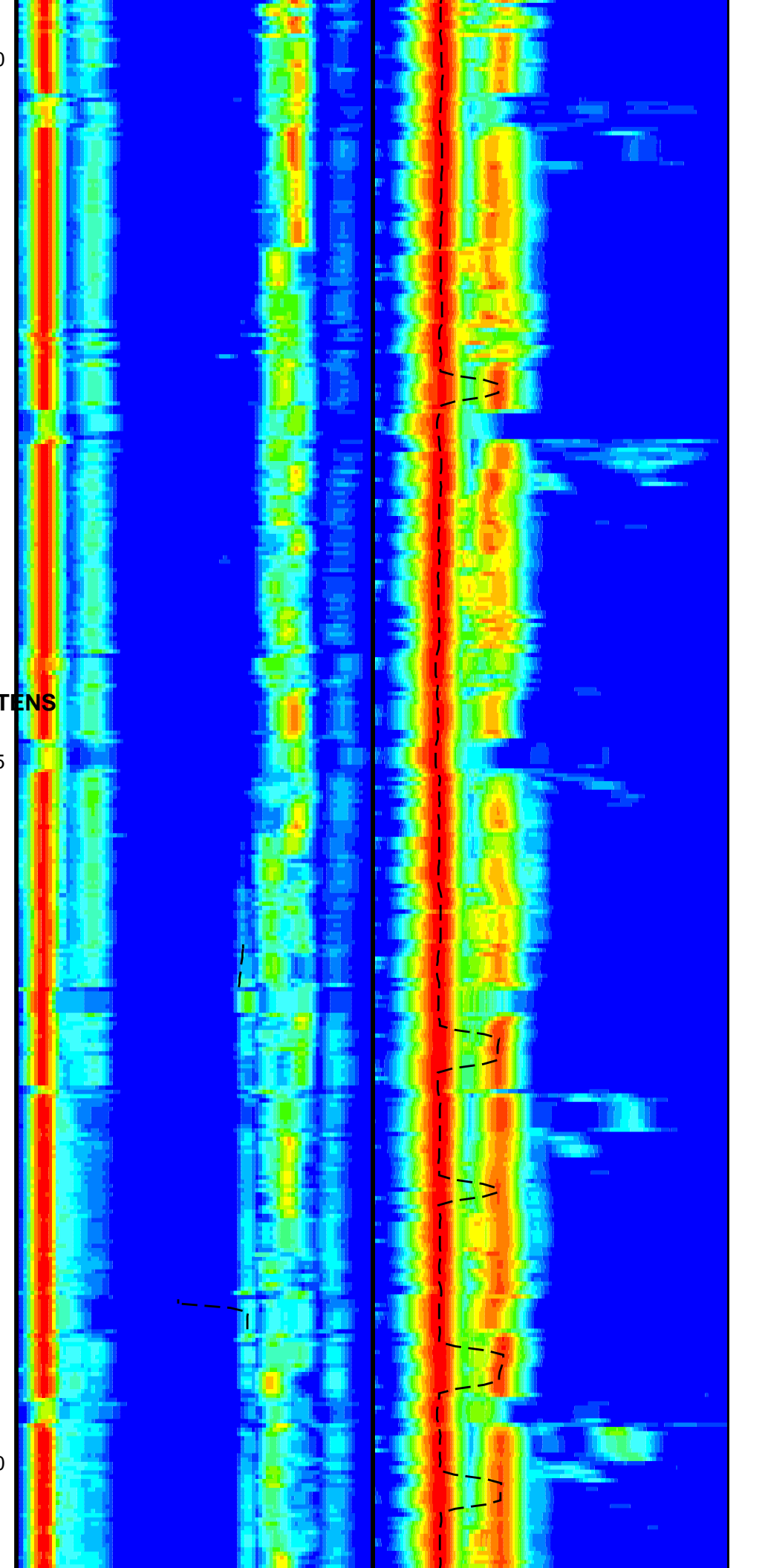




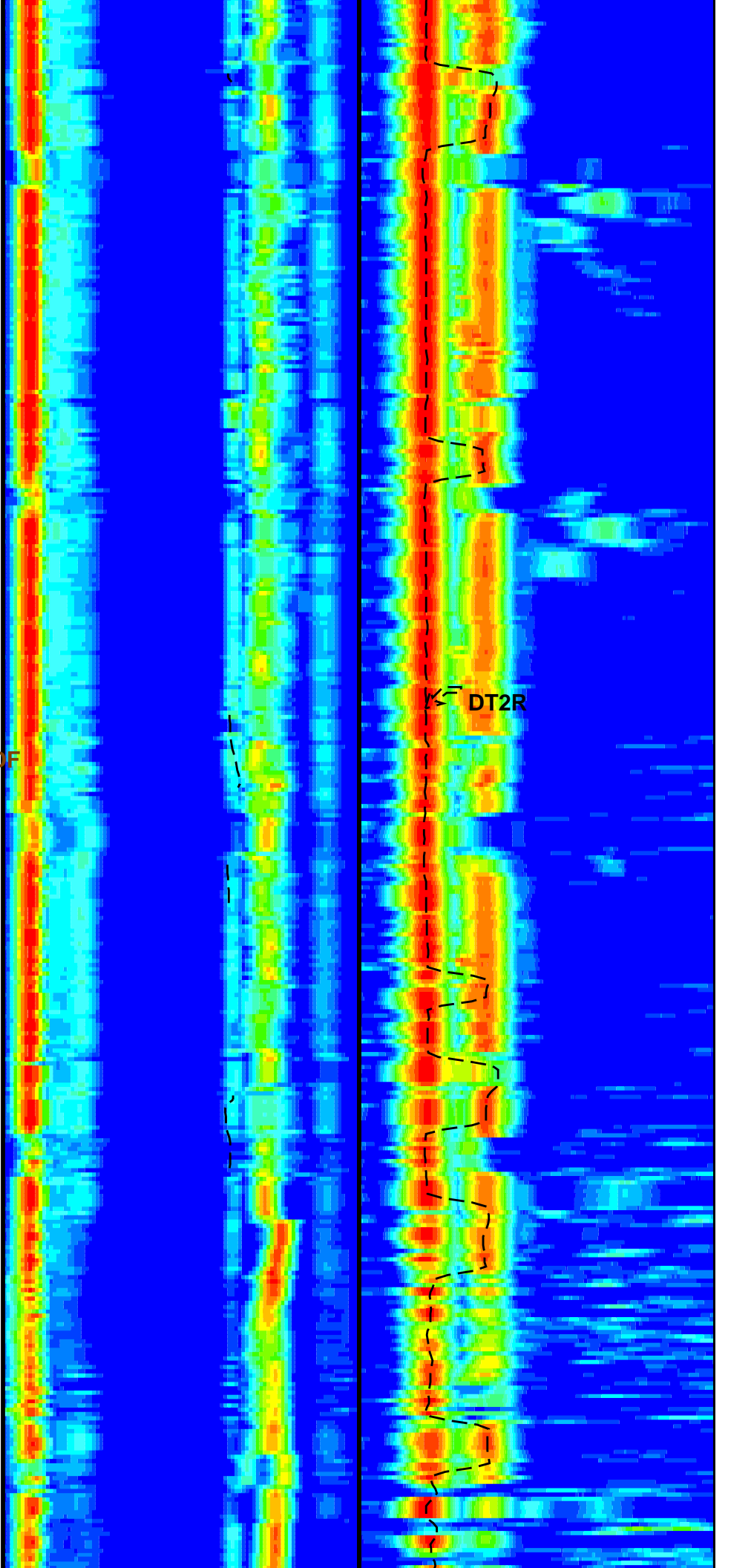
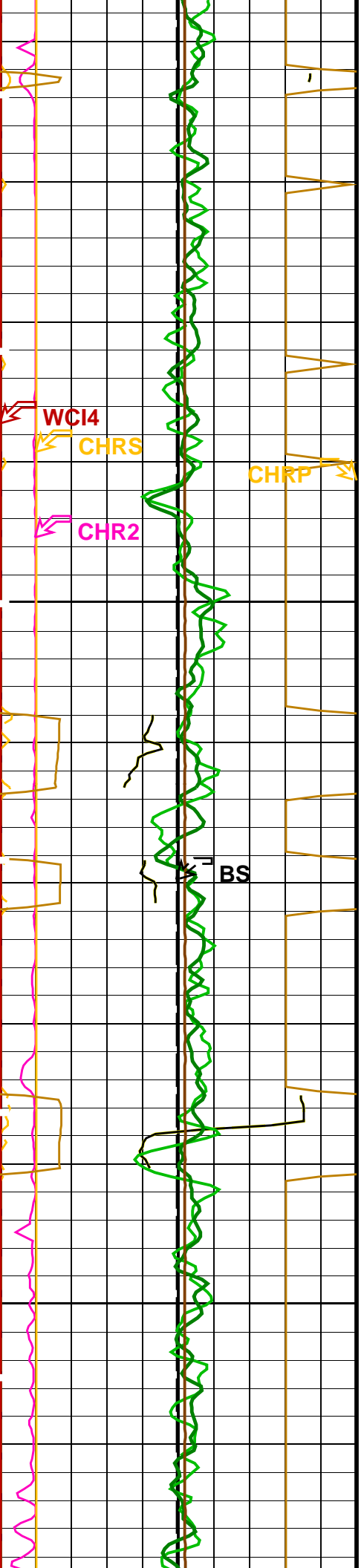


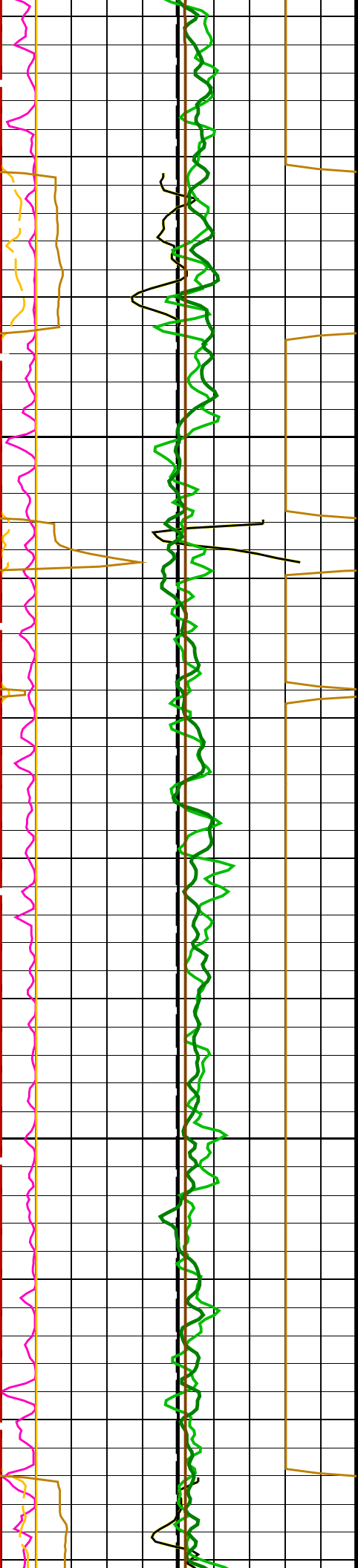
4000  
4025  
4050

TENS

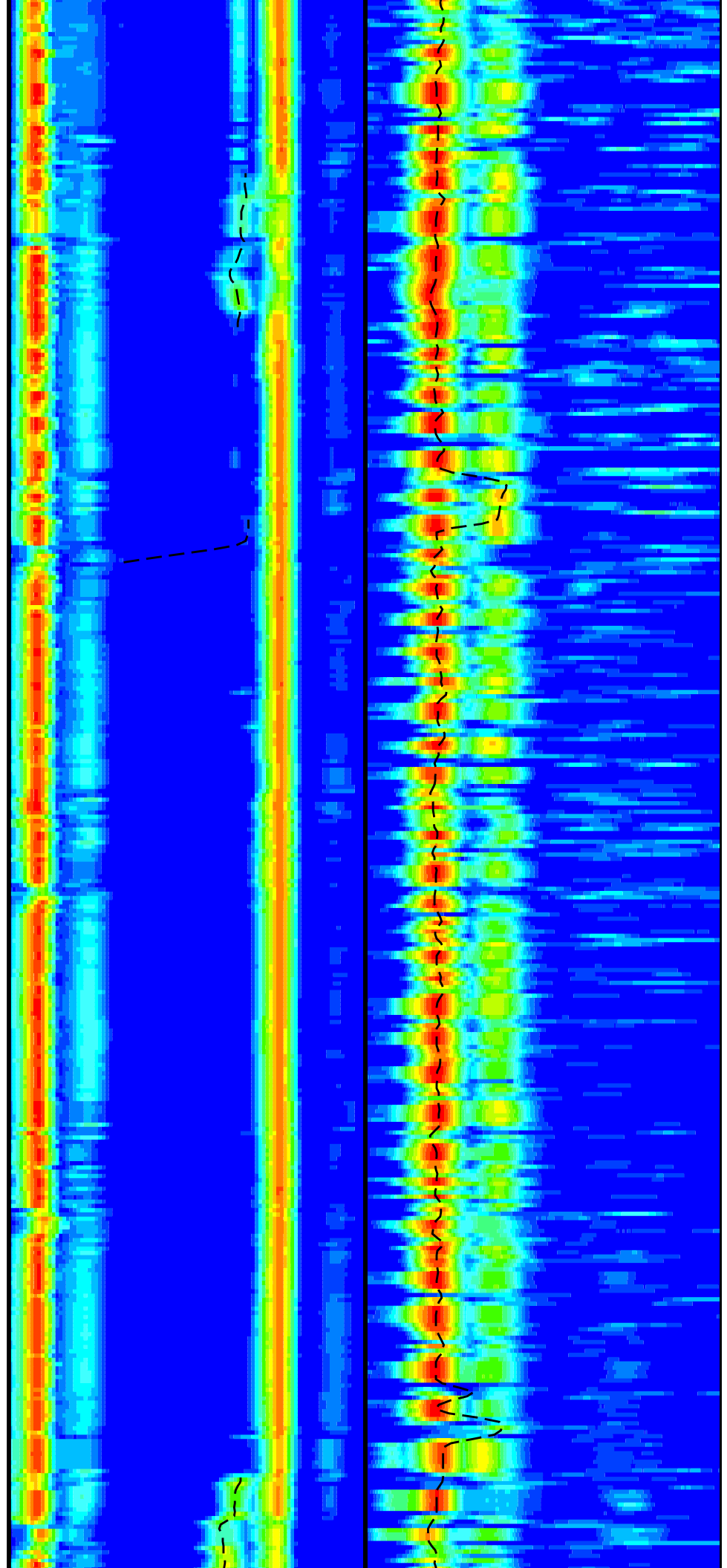


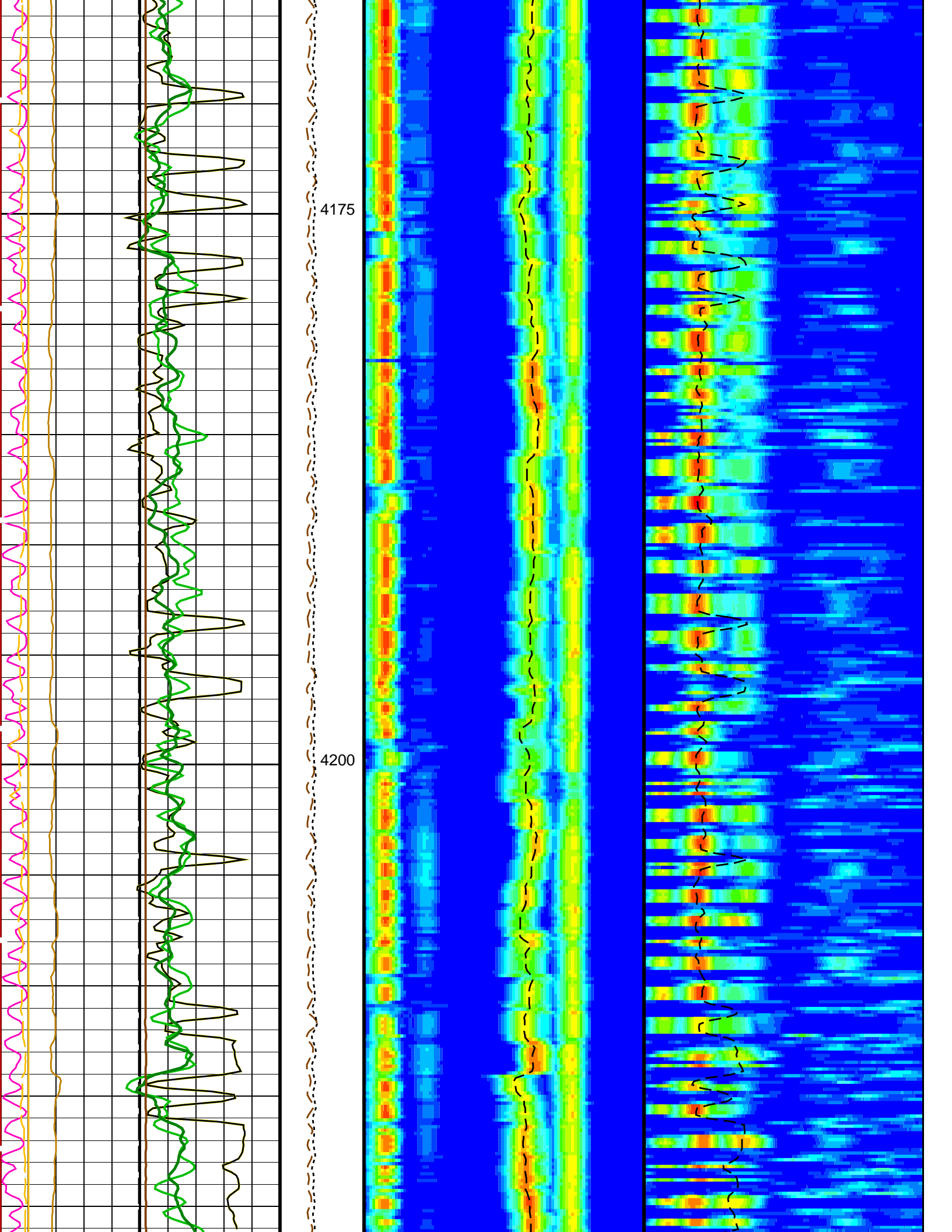


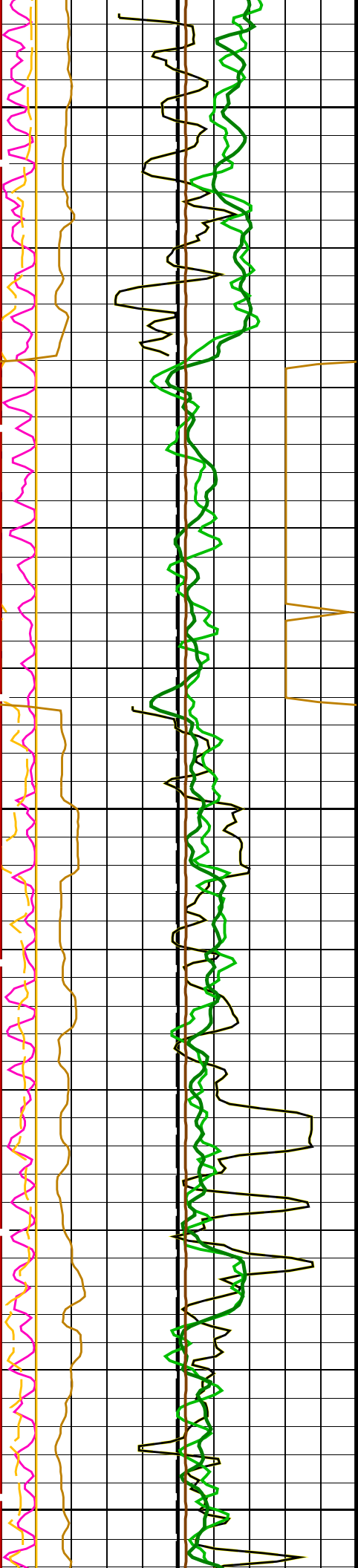




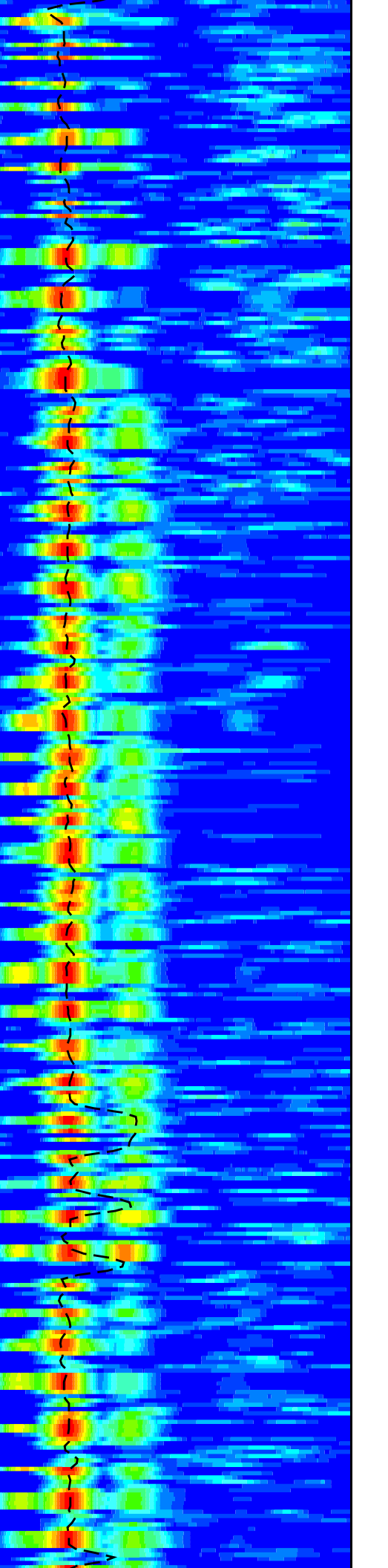
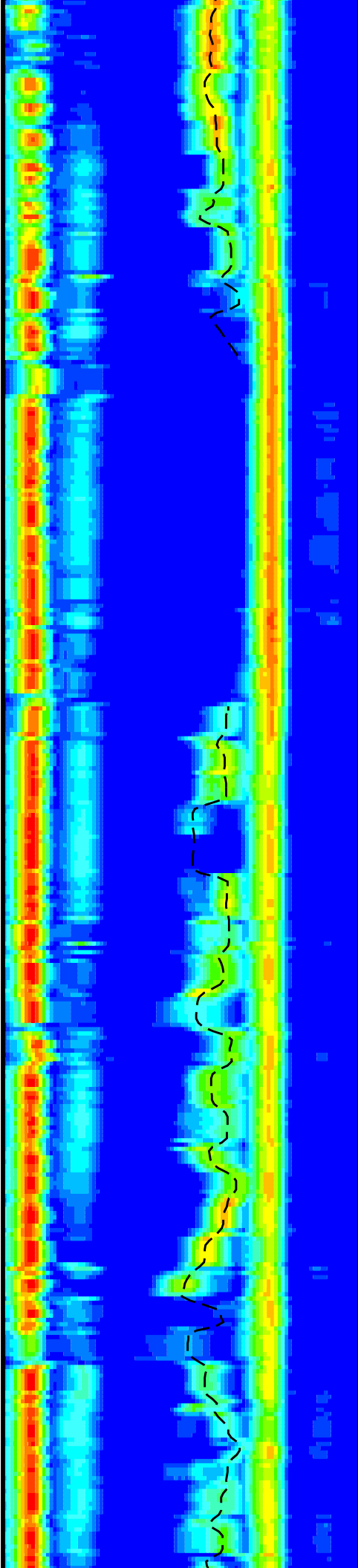
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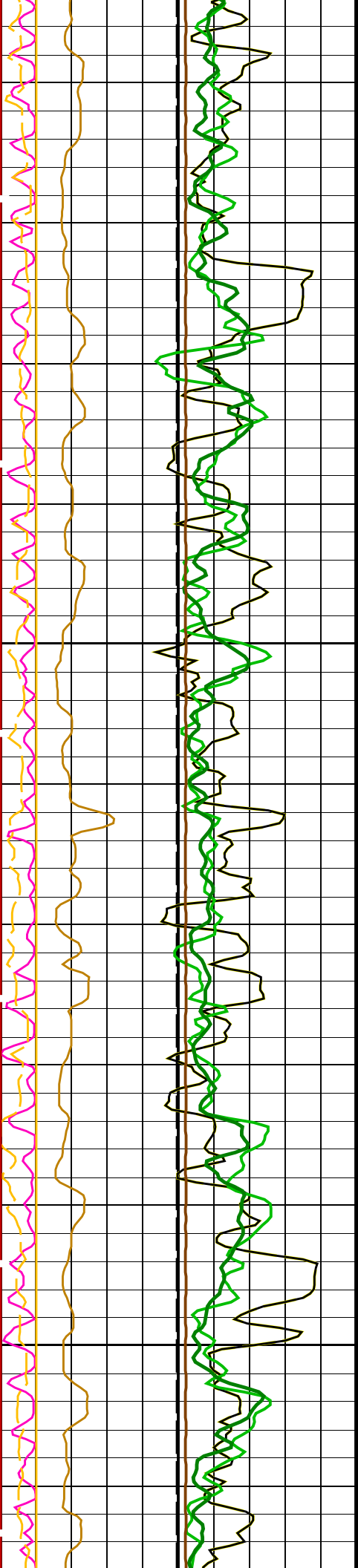






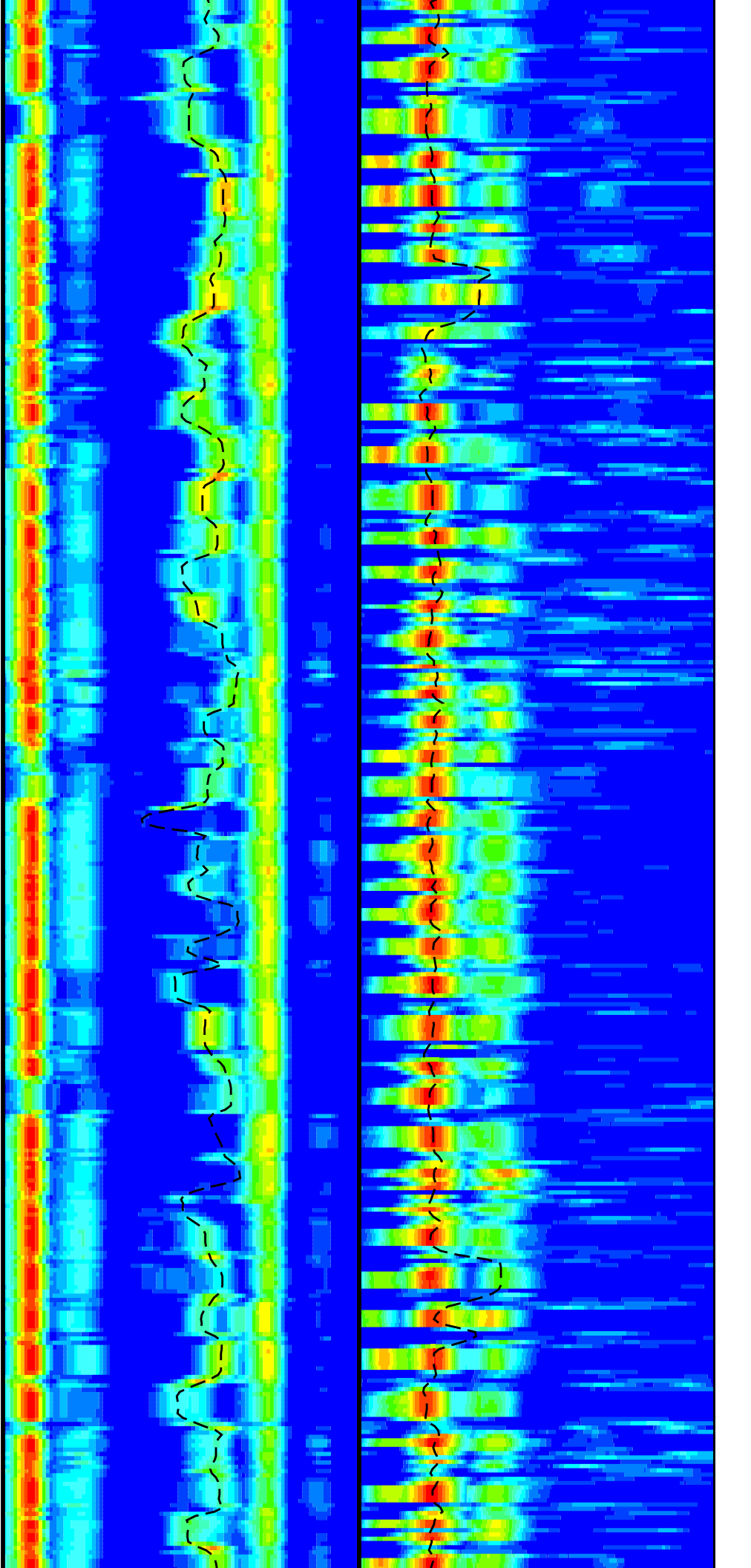
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4275





4300

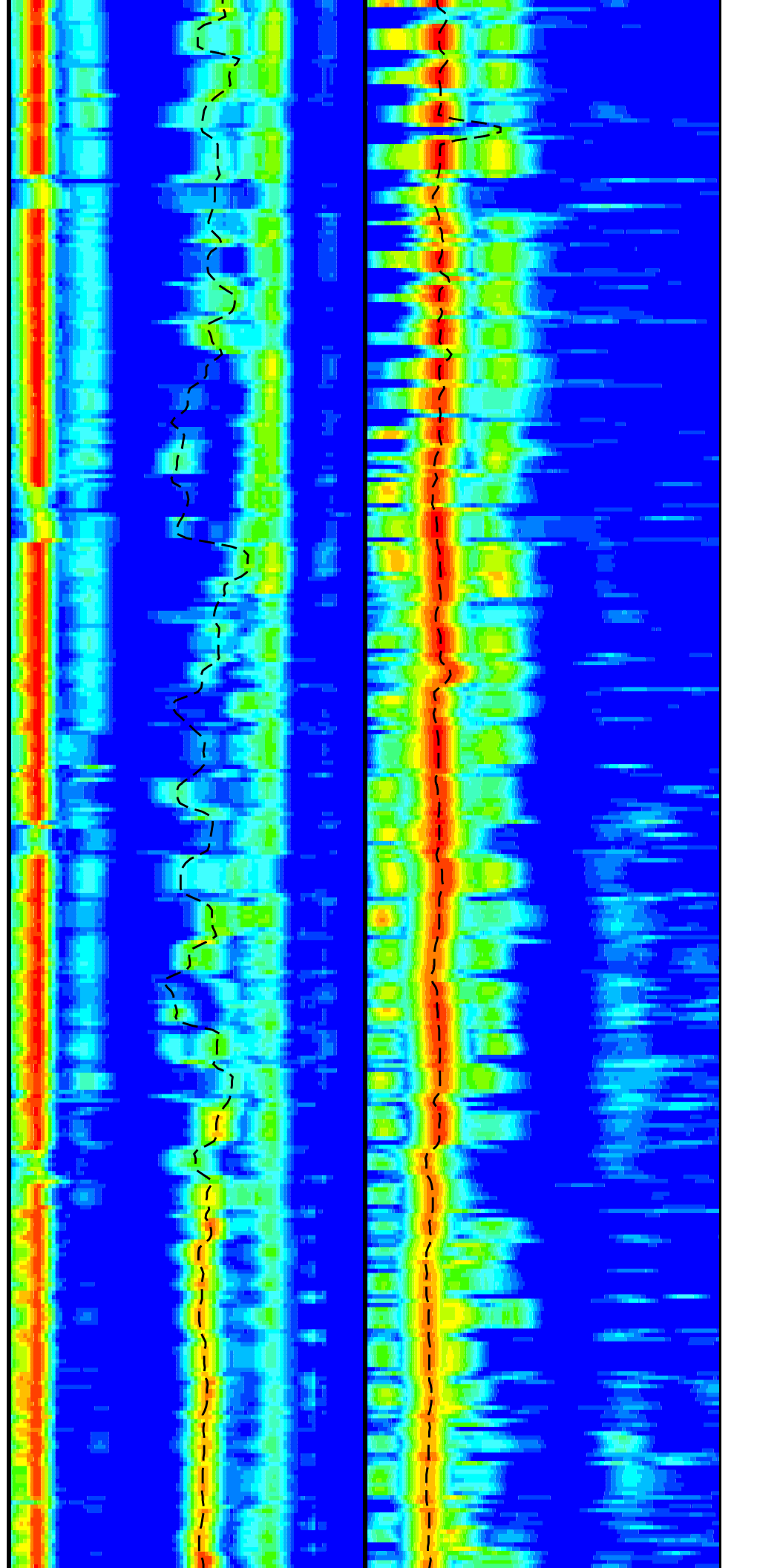
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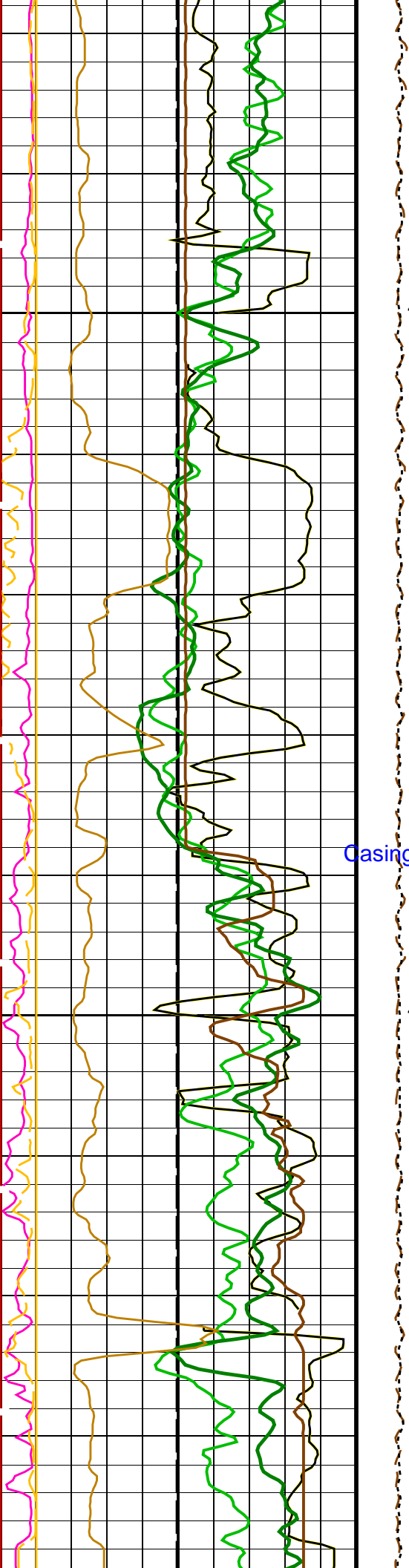


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4375



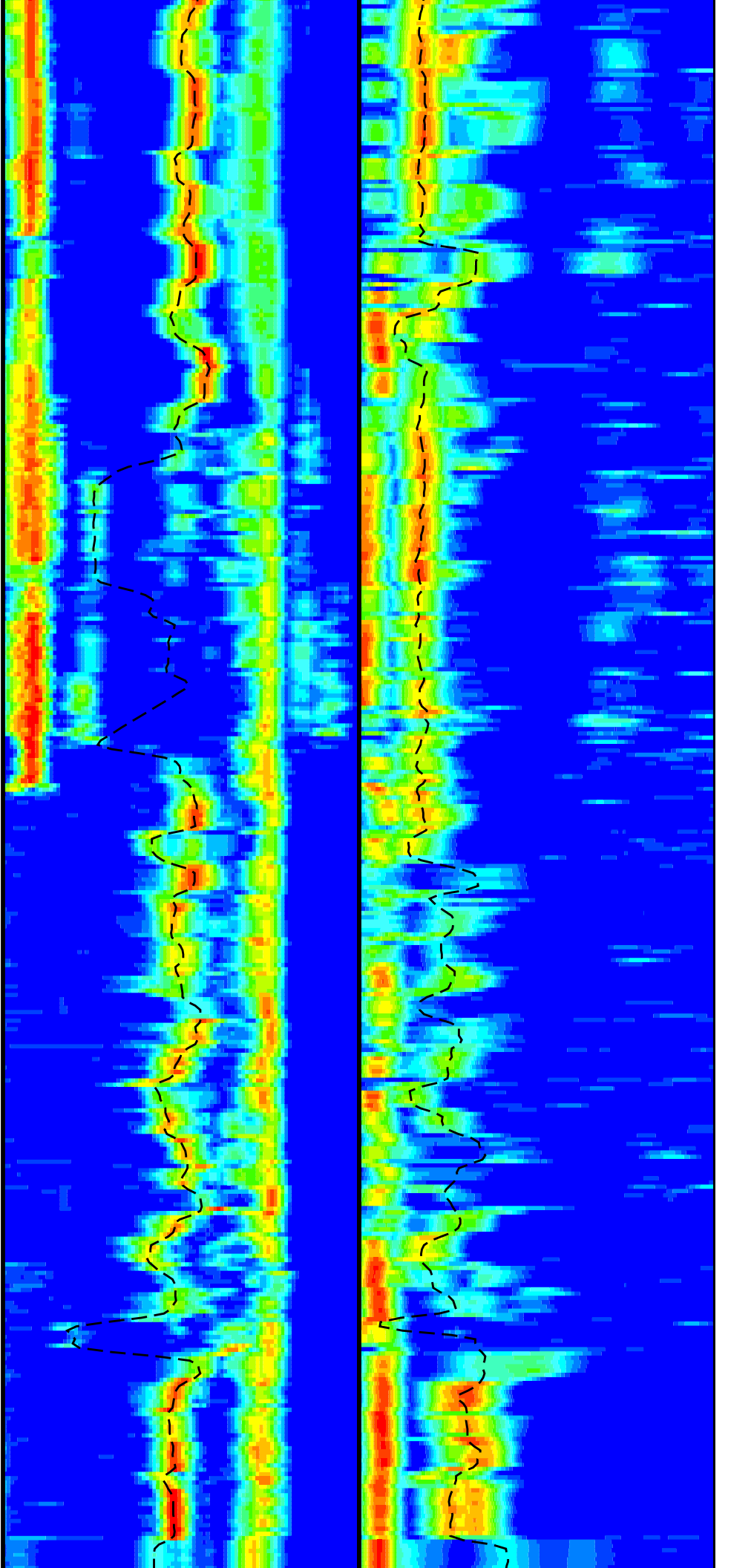


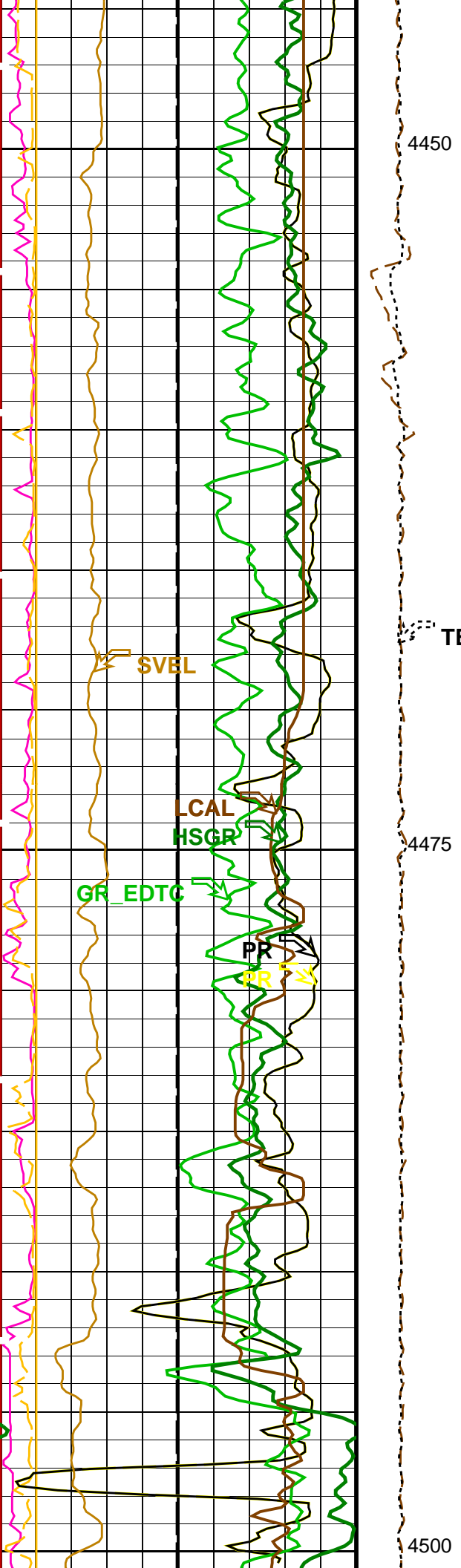


4400

Casing

4425



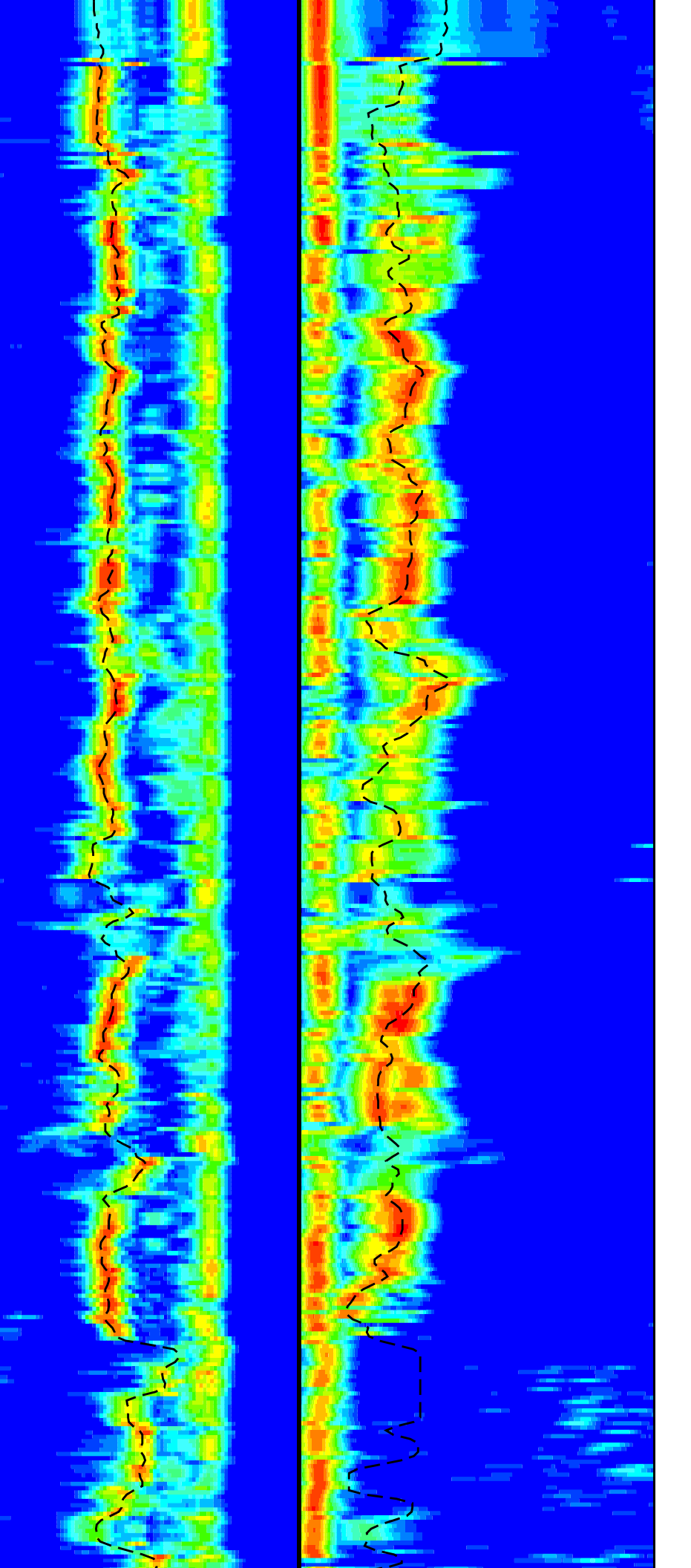


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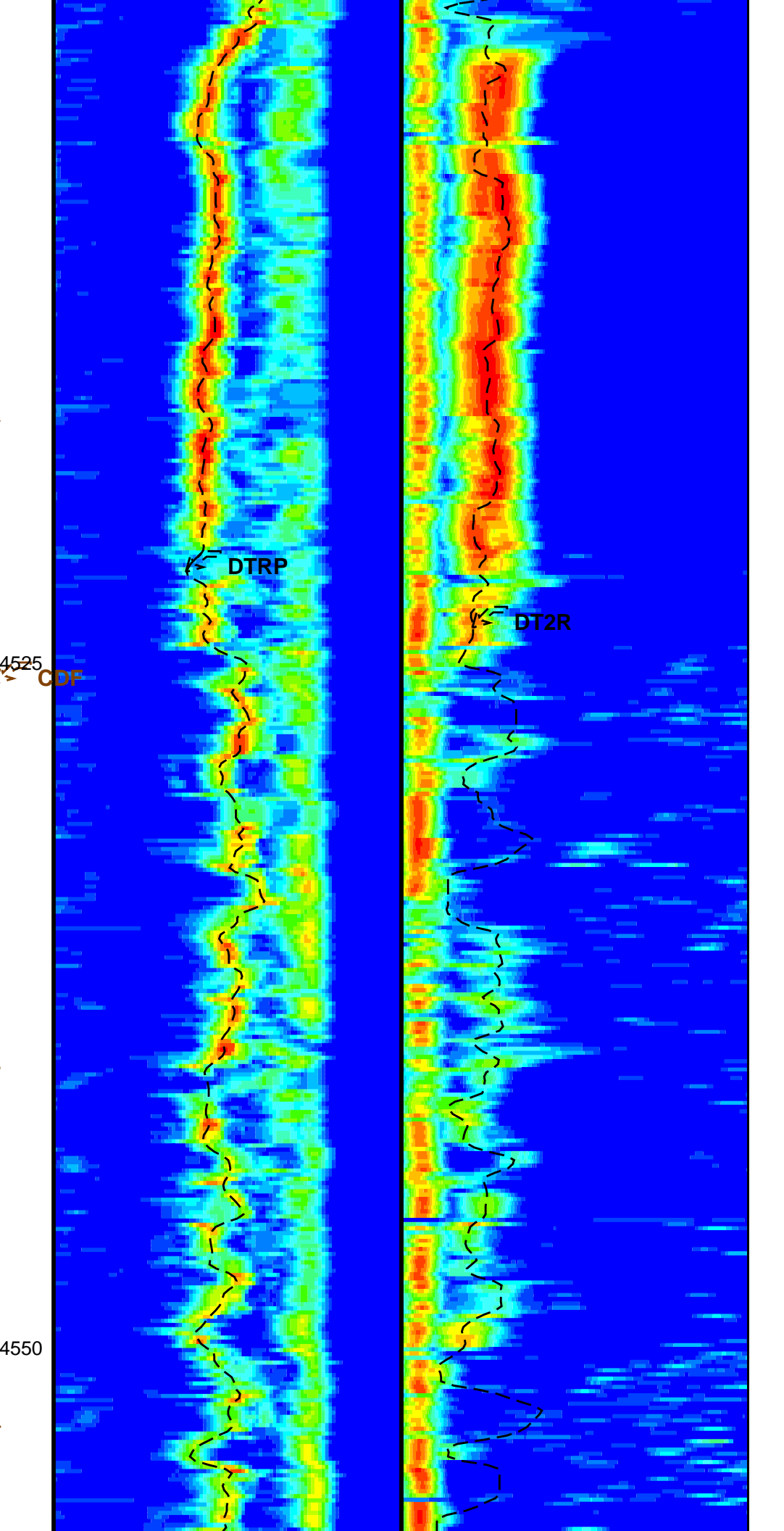
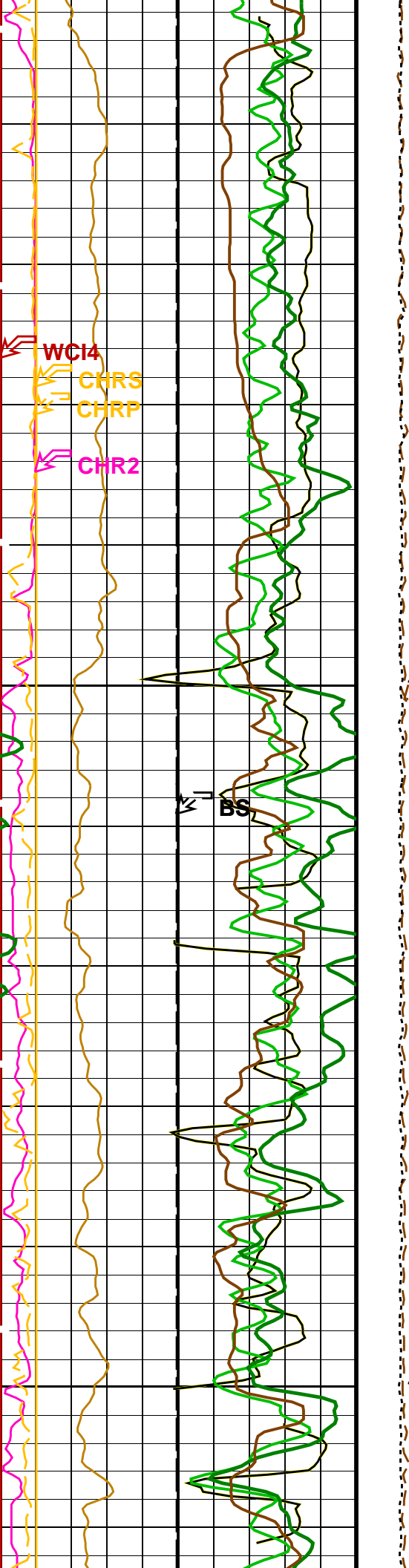
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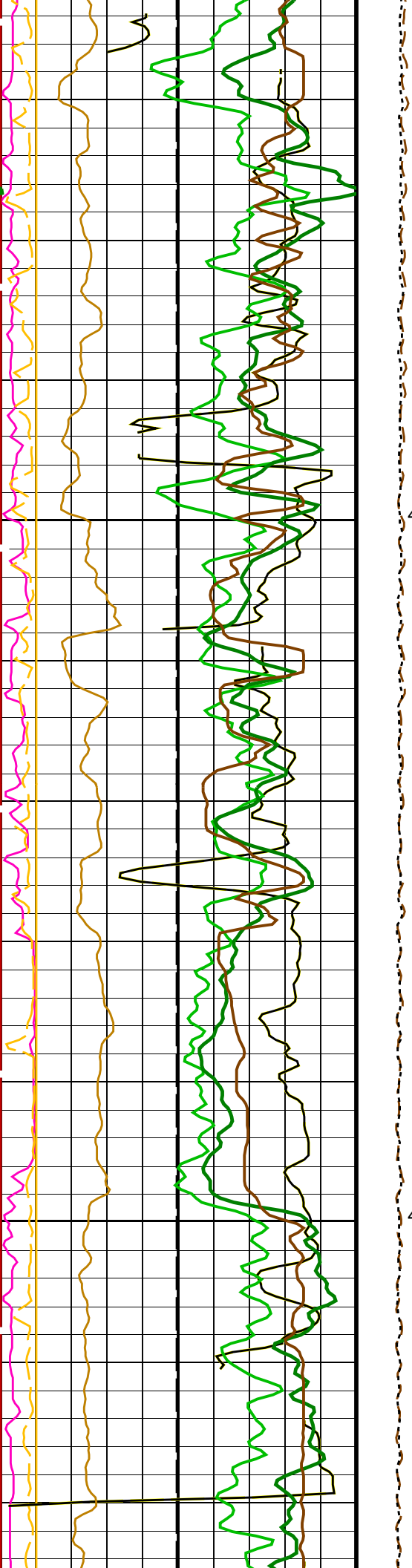
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TENS



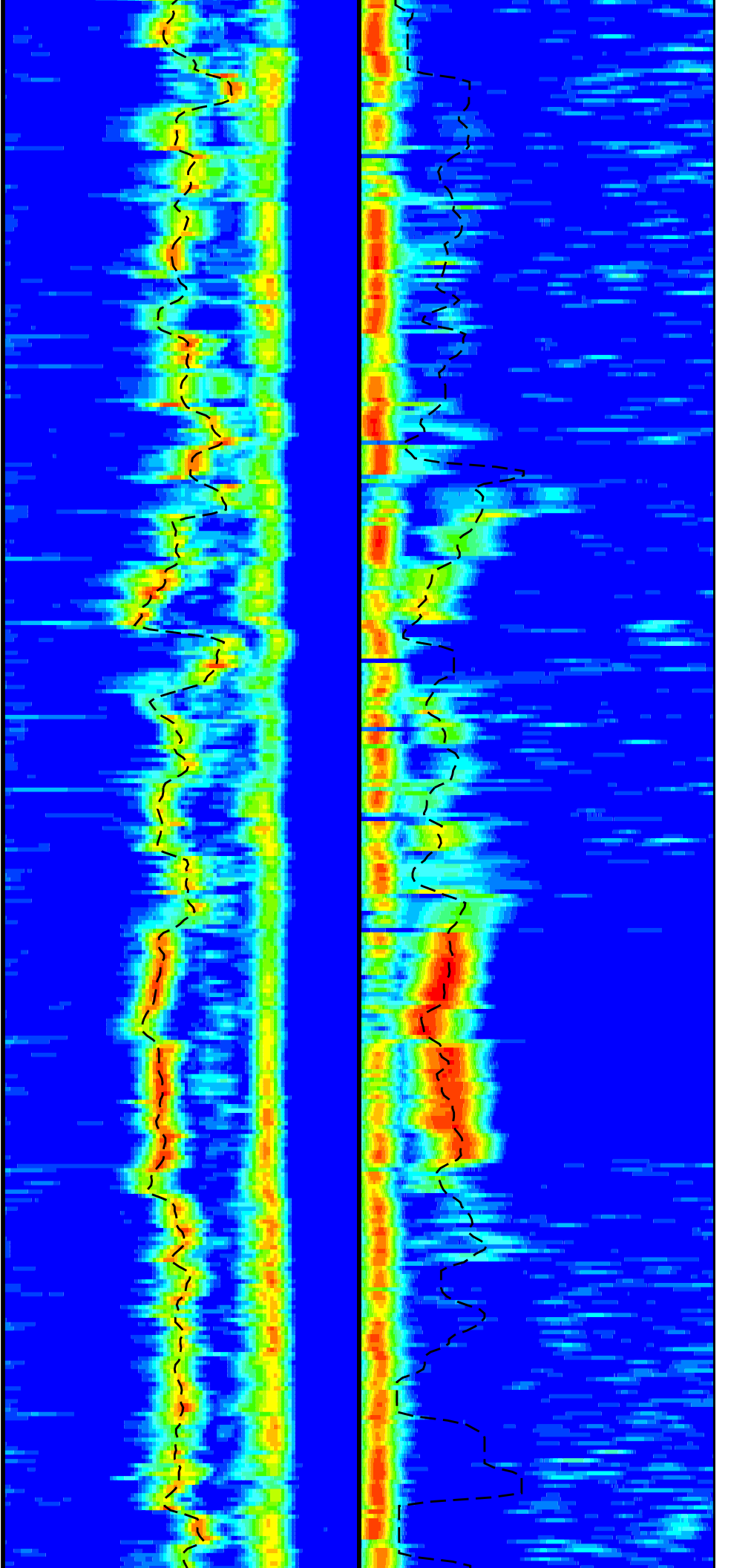


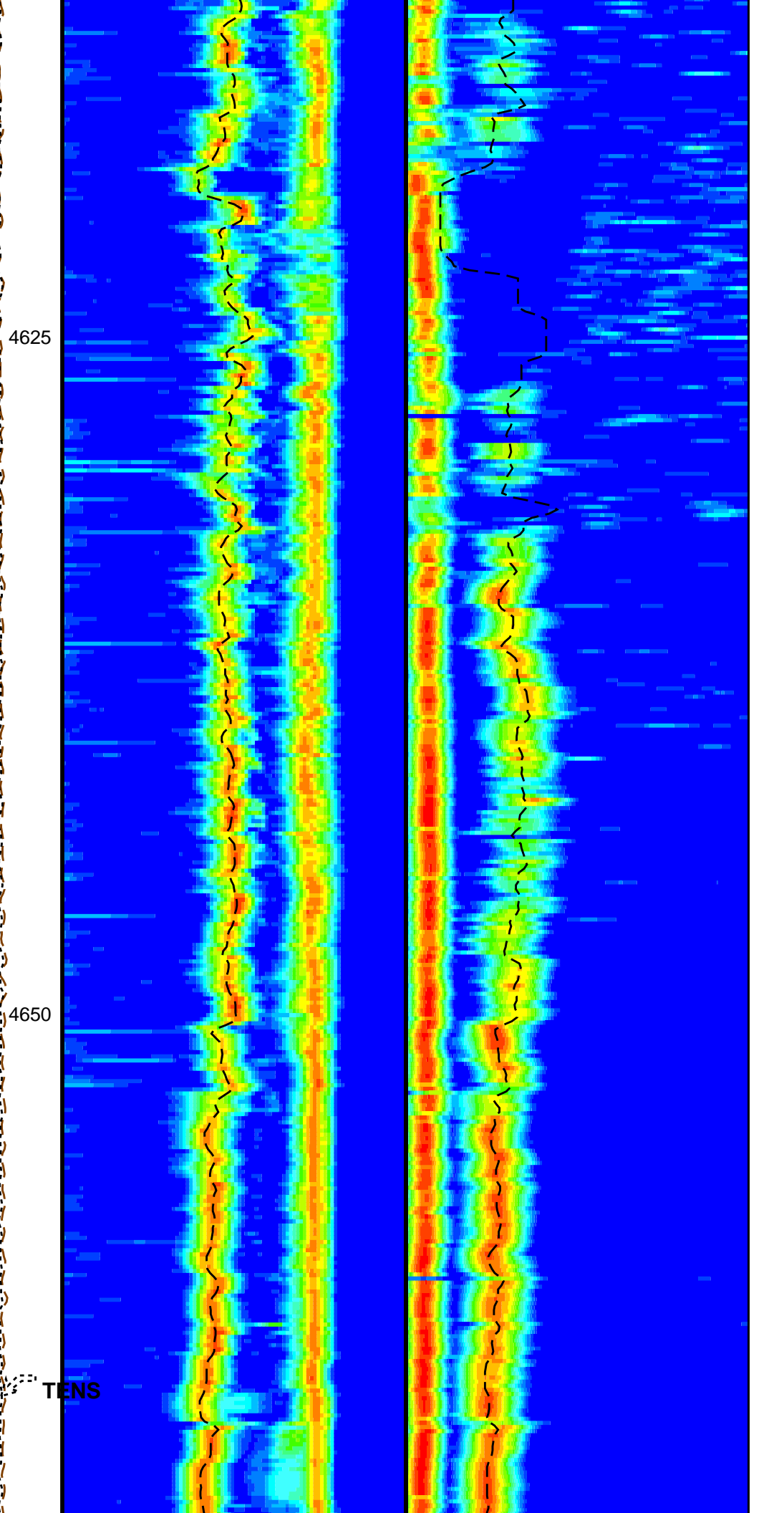
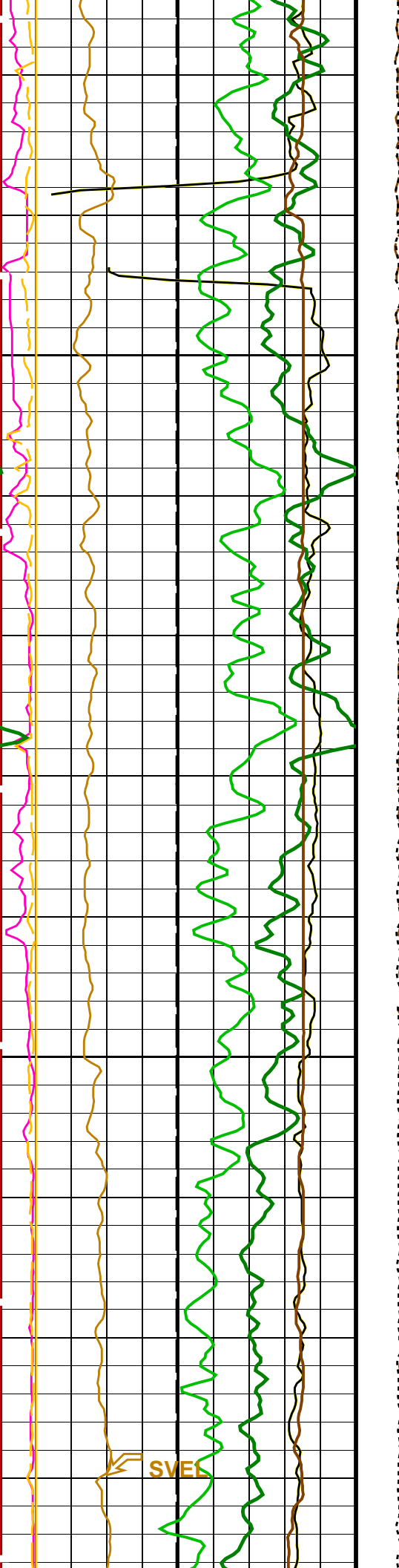


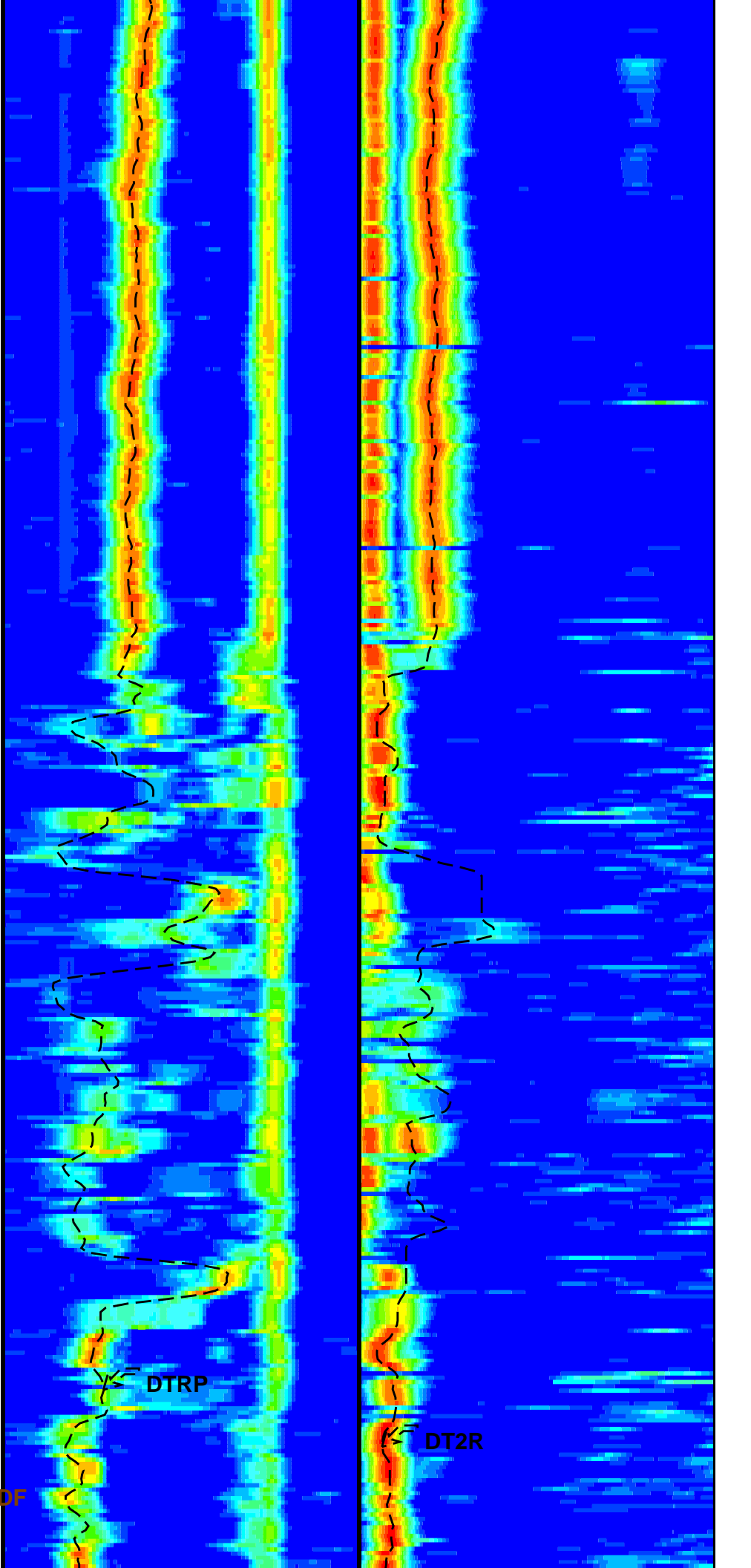
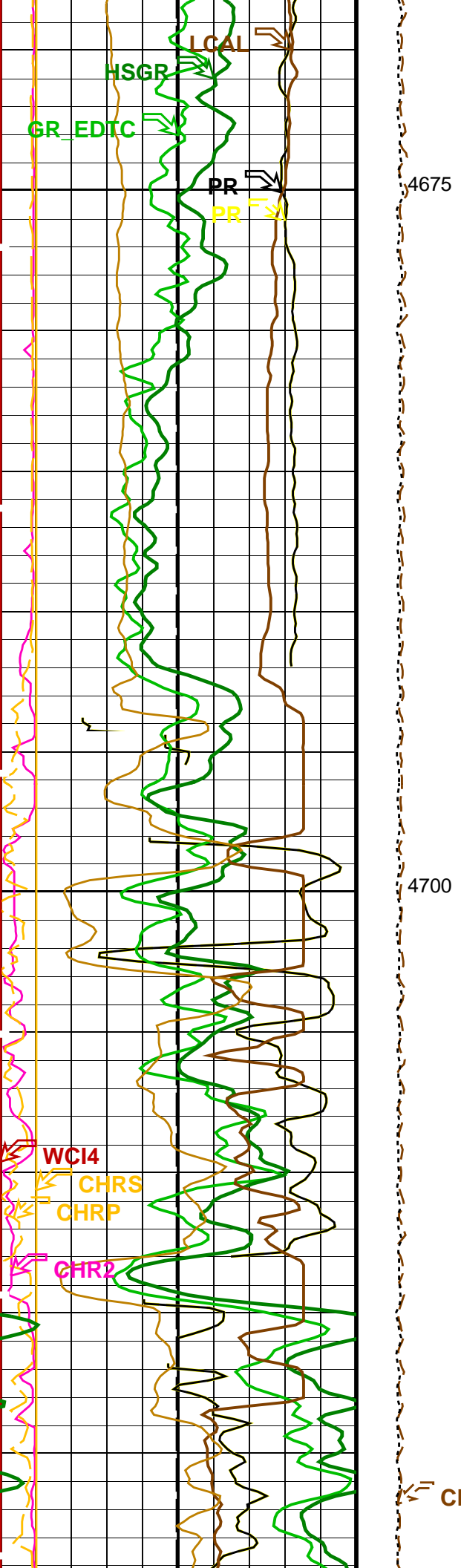


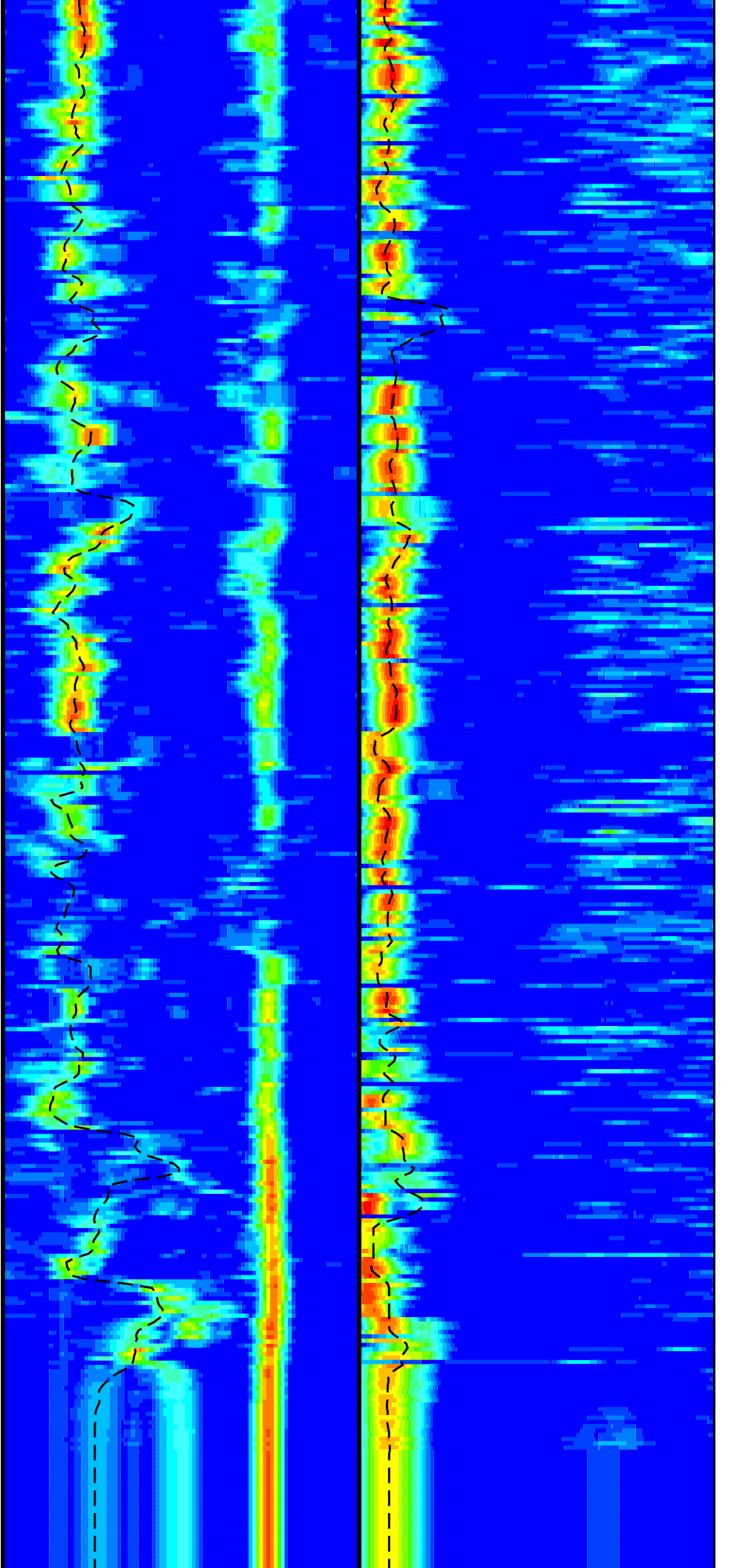
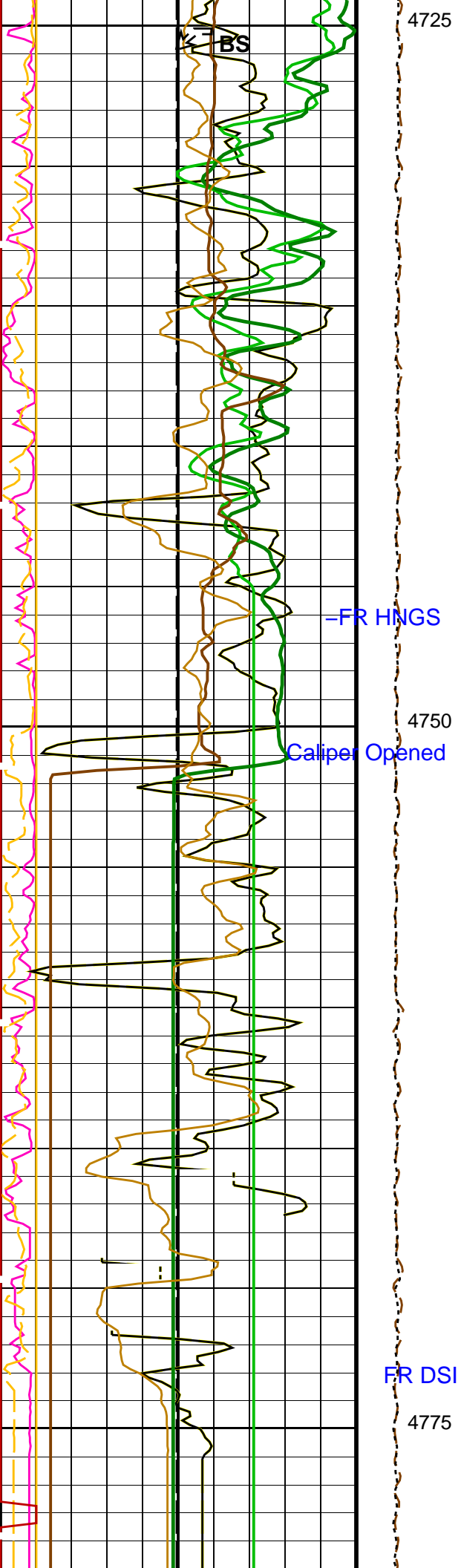
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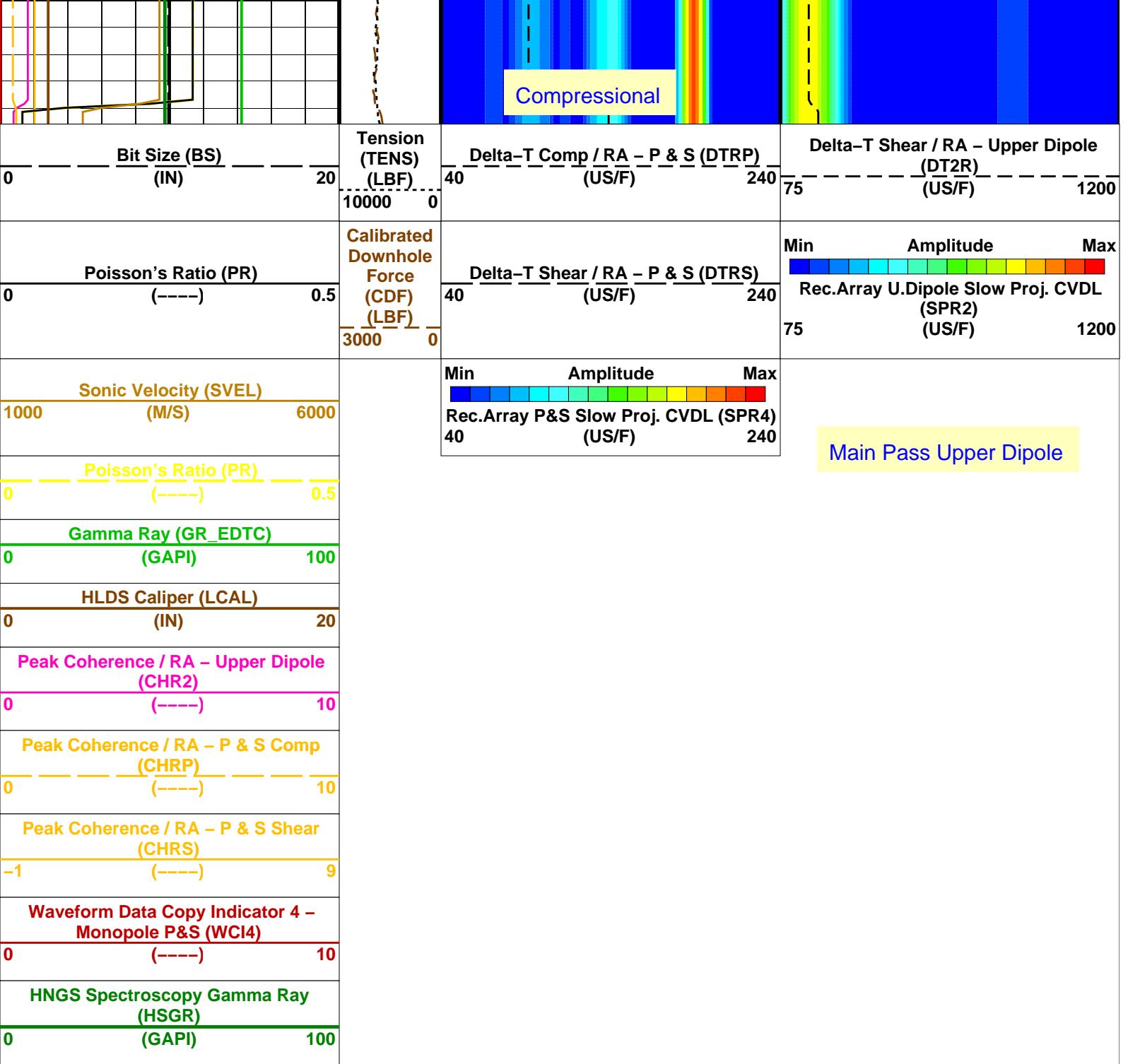
4600











PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value
DSST-B: Dipole Shear Imager - B		
AGC1	Automatic Gain Control 1	ON
AGC2	Automatic Gain Control 2	ON
AGC3	Automatic Gain Control 3	ON
AGC4	Automatic Gain Control 4	ON
AGC5	Automatic Gain Control 5	ON
AGCX	Automatic Gain Control X	ON
BARS_MTR1	Length for Monopole Transmitter to Receiver 1	2.7432 M
BHS	Borehole Status	OPEN
BHT	Bottom Hole Temperature (used in calculations)	21 DEGC
CASF	Label Casing Function - Monopole P&S	50
CDS	C-Delta-T Shale	100 US/F
COLL	Label Slowness Lower Limit - Monopole P&S Compressional	65 US/F
COUL	Label Slowness Upper Limit - Monopole P&S Compressional	175 US/F
DDE1	Digitizing Delay 1	0 US
DDE2	Digitizing Delay 2	0 US

DDE2	Digitizing Delay 2	0	US
DDE3	Digitizing Delay 3	0	US
DDE4	Digitizing Delay 4	0	US
DDE5	Digitizing Delay 5	0	US
DDEX	Digitizing Delay X	0	US
DLCS	Label Compressional Source – Dipole Shear	USE	
DLHS	Label Hole Diameter Source for SOBS Channel	AUTO	
DSHL	Label Slowness Lower Limit – Dipole Shear	75	US/F
DSHU	Label Slowness Upper Limit – Dipole Shear	600	US/F
DSI1	Digitizer Sample Interval 1	40	US
DSI2	Digitizer Sample Interval 2	40	US
DSI3	Digitizer Sample Interval 3	40	US
DSI4	Digitizer Sample Interval 4	10	US
DSI5	Digitizer Sample Interval 5	10	US
DSIX	Digitizer Sample Interval X	40	US
DTCS	Compressional Delta-T Source for DTCS Channel	PS_COMP	
DTF	Delta-T Fluid	193	US/F
DTM	Delta-T Matrix	56	US/F
DTSS	Shear Delta-T Source for DTSM Channel	UPPER_DIPOLE	
DWC1	Digitizer Word Count 1	512	
DWC2	Digitizer Word Count 2	512	
DWC3	Digitizer Word Count 3	512	
DWC4	Digitizer Word Count 4	512	
DWC5	Digitizer Word Count 5	512	
DWCX	Digitizer Word Count X	512	
FDE1	Firing Delay 1	0	
FDE2	Firing Delay 2	0	
FDE3	Firing Delay 3	0	
FDE4	Firing Delay 4	0	
FDE5	Firing Delay 5	0	
FDEX	Firing Delay X	0	
FGM5	First Motion Gate Moveout 5	40	US/F
FGMX	First Motion Gate Moveout X	40	US/F
FILG	Label Fill Gap Control – Monopole P&S	COMP_SHEAR	
FMG5	First Motion Minimum Gate 5	500	US
FMGX	First Motion Minimum Gate X	500	US
FMLL	Slowness Lower Limit – FMD	40	US/F
FMRC	Restart Control – FMD	CONTINUE	
FMT5	First Motion Threshold 5	UP	
FMTX	First Motion Threshold X	NONE	
FMUL	Slowness Upper Limit – FMD	180	US/F
FNC5	First Motion Noise Counter Input 5	ALO	
FNCX	First Motion Noise Counter Input X	ALO	
FPM	Processing Mode – FMD	NONE	
FTD5	First Motion Threshold Direction 5	UP	
FTDX	First Motion Threshold Direction X	UP	
GAI1	Manual Gain 1	10	
GAI2	Manual Gain 2	10	
GAI3	Manual Gain 3	6	
GAI4	Manual Gain 4	16	
GAI5	Manual Gain 5	16	
GAIX	Manual Gain X	10	
GCSE	Generalized Caliper Selection	LCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GDT1	Gain Delta-T 1	800	US/F
GDT2	Gain Delta-T 2	800	US/F
GDT3	Gain Delta-T 3	800	US/F
GDT4	Gain Delta-T 4	160	US/F
GDT5	Gain Delta-T 5	160	US/F
GDTX	Gain Delta-T X	800	US/F
GGRD	Geothermal Gradient	0.018227	DC/M
GIN1	Gain Interval 1	15360	US
GIN2	Gain Interval 2	15360	US
GIN3	Gain Interval 3	15360	US
GIN4	Gain Interval 4	2560	US
GIN5	Gain Interval 5	1600	US
GINX	Gain Interval X	15360	US
GRSE	Generalized Mud Resistivity Selection	CHART_GEN 9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
HPF1	High Pass Filter 1	F80	
HPF2	High Pass Filter 2	F80	
HPF3	High Pass Filter 3	F80	
HPF4	High Pass Filter 4	F8K	
HPF5	High Pass Filter 5	F8K	
HPFX	High Pass Filter X	F80	
ISSBAR	Barite Mud Switch	BARITE	
ITTS	Integrated Transit Time Source	DTCS	
LFC	Label Formation Character – Monopole P&S	DYNAMIC	
LPF1	Low Pass Filter 1	F5K	
LPF2	Low Pass Filter 2	F5K	
LPF3	Low Pass Filter 3	F5K	
LPF4	Low Pass Filter 4	F30K	
LPF5	Low Pass Filter 5	F30K	
LPFX	Low Pass Filter X	F5K	
LTXG	Lower Dipole Transmitter Geometry	156	IN



MAI5	Slowness Averaging Interval - FMD	42	IN
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
MCS	Mean Casing Slowness	57	US/F
MDS5	Multishot Delta-T Scatter - FMD	20	US
MTXG	Monopole Transmitter Geometry	186	IN
MUX1	Sum Difference Multiplexor Input 1	RR	
MUX2	Sum Difference Multiplexor Input 2	RR	
MUX3	Sum Difference Multiplexor Input 3	RR	
MUX4	Sum Difference Multiplexor Input 4	RR	
MUX5	Sum Difference Multiplexor Input 5	RR	
MUXX	Sum Difference Multiplexor Input X	RR	
NTI5	Number Threshold Items 5	0	
NTIX	Number Threshold Items X	0	
NWI1	Number Waveform Items 1	8	
NWI2	Number Waveform Items 2	8	
NWI3	Number Waveform Items 3	0	
NWI4	Number Waveform Items 4	8	
NWI5	Number Waveform Items 5	0	
NWIX	Number Waveform Items X	0	
NWS1	Number Waveforms Stacked 1	1	
NWS2	Number Waveforms Stacked 2	1	
NWS3	Number Waveforms Stacked 3	1	
NWS4	Number Waveforms Stacked 4	1	
NWS5	Number Waveforms Stacked 5	1	
NWSX	Number Waveforms Stacked X	1	
RATE	Firing Rate	R7	
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	
SAM2	DSST Sonic Acquisition Mode 2 - Upper Dipole Mode	ODD	
SAM3	DSST Sonic Acquisition Mode 3 - Monopole Mode for Stoneley	OFF	
SAM4	DSST Sonic Acquisition Mode 4 - Monopole Mode for P&S	EVEN	
SAM5	DSST Sonic Acquisition Mode 5 - Monopole Mode for FMD	OFF	
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	
SAS3	STC Sonic Array Status - Monopole Stoneley	255	
SAS4	STC Sonic Array Status - Monopole P&S	255	
SAS5	Sonic Array Status - FMD	255	
SBO1	STC Search Band Offset - Lower Dipole	3000	US
SBO2	STC Search Band Offset - Upper Dipole	3000	US
SBO3	STC Search Band Offset - Monopole Stoneley	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
SBW2	STC Search Bandwidth - Upper Dipole	8000	US
SBW3	STC Search Bandwidth - Monopole Stoneley	8000	US
SBW4	STC Search Bandwidth - Monopole P&S	2000	US
SFC1	STC Formation Character - Lower Dipole	SELECTABLE	
SFC2	STC Formation Character - Upper Dipole	SELECTABLE	
SFC3	STC Formation Character - Monopole Stoneley	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	
SFM3	STC Filter - Monopole Stoneley	B.5-1.5K	
SFM4	STC Filter - Monopole P&S	B3-20K	
SHLL	Label Slowness Lower Limit - Monopole P&S Shear	235	US/F
SHT	Surface Hole Temperature	20	DEGC
SHUL	Label Slowness Upper Limit - Monopole P&S Shear	240	US/F
SLL1	STC Slowness Lower Limit - Lower Dipole	75	US/F
SLL2	STC Slowness Lower Limit - Upper Dipole	75	US/F
SLL3	STC Slowness Lower Limit - Monopole Stoneley	180	US/F
SLL4	STC Slowness Lower Limit - Monopole P&S	40	US/F
SPFS	Sonic Porosity Formula	RAYMER_HUNT	
SPSO	Sonic Porosity Source	DTCO	
SST1	STC Slowness Step - Lower Dipole	4	US/F
SST2	STC Slowness Step - Upper Dipole	4	US/F
SST3	STC Slowness Step - Monopole Stoneley	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	
SSW3	STC Source Waveform - Monopole Stoneley	WF_SAM3	
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
SUI.1	STC Slowness Upper Limit - Lower Dipole	1200	US/F



SUL1	STC Slowness Upper Limit - Lower Dipole	1200	US/F
SUL3	STC Slowness Upper Limit - Monopole Stoneley	780	US/F
SUL4	STC Slowness Upper Limit - Monopole P&S	240	US/F
SWD1	STC Slowness Width - Lower Dipole	40	US/F
SWD2	STC Slowness Width - Upper Dipole	40	US/F
SWD3	STC Slowness Width - Monopole Stoneley	40	US/F
SWD4	STC Slowness Width - Monopole P&S	10	US/F
TBDB	Tool String Bottom to DSST Bottom	95.25	IN
TBF1	STC Time for Baseline Fill - Lower Dipole	0	US
TBF2	STC Time for Baseline Fill - Upper Dipole	0	US
TBF3	STC Time for Baseline Fill - Monopole Stoneley	0	US
TBF4	STC Time for Baseline Fill - Monopole P&S	300	US
TLL1	STC Time Lower Limit - Lower Dipole	600	US
TLL2	STC Time Lower Limit - Upper Dipole	600	US
TLL3	STC Time Lower Limit - Monopole Stoneley	600	US
TLL4	STC Time Lower Limit - Monopole P&S	150	US
TST1	STC Time Step - Lower Dipole	200	US
TST2	STC Time Step - Upper Dipole	200	US
TST3	STC Time Step - Monopole Stoneley	200	US
TST4	STC Time Step - Monopole P&S	50	US
TTDB	Tool String Top to DSST Bottom	1656.11	IN
TUL1	STC Time Upper Limit - Lower Dipole	20440	US
TUL2	STC Time Upper Limit - Upper Dipole	20200	US
TUL3	STC Time Upper Limit - Monopole Stoneley	12000	US
TUL4	STC Time Upper Limit - Monopole P&S	3660	US
TWA1	Transmitter Waveform Amplitude 1	179	
TWA2	Transmitter Waveform Amplitude 2	179	
TWA3	Transmitter Waveform Amplitude 3	166	
TWA4	Transmitter Waveform Amplitude 4	150	
TWA5	Transmitter Waveform Amplitude 5	150	
TWAX	Transmitter Waveform Amplitude X	179	
TWD1	STC Time Width - Lower Dipole	2000	US
TWD2	STC Time Width - Upper Dipole	2000	US
TWD3	STC Time Width - Monopole Stoneley	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
TWI3	STC Integration Time Window - Monopole Stoneley	2400	US
TWI4	STC Integration Time Window - Monopole P&S	500	US
TWR1	Transmitter Waveform Sample Rate 1	20	US
TWR2	Transmitter Waveform Sample Rate 2	5	US
TWR3	Transmitter Waveform Sample Rate 3	5	US
TWR4	Transmitter Waveform Sample Rate 4	5	US
TWR5	Transmitter Waveform Sample Rate 5	5	US
TWRX	Transmitter Waveform Sample Rate X	5	US
TWS1	Transmitter Waveform Select 1	2	
TWS2	Transmitter Waveform Select 2	0	
TWS3	Transmitter Waveform Select 3	4	
TWS4	Transmitter Waveform Select 4	6	
TWS5	Transmitter Waveform Select 5	6	
TWSX	Transmitter Waveform Select X	0	
UTXG	Upper Dipole Transmitter Geometry	162	IN
WFDTSP1	SAM1 Waveform Delta for Spectrum	0	US/F
WFDTSP2	SAM2 Waveform Delta for Spectrum	0	US/F
WFDTSP3	SAM3 Waveform Delta for Spectrum	0	US/F
WFDTSP4	SAM4 Waveform Delta for Spectrum	0	US/F
WFDTSPX	SAMX Waveform Delta for Spectrum	0	US/F
WFLLSP1	SAM1 Waveform Lower Limit for Spectrum	0	US
WFLLSP2	SAM2 Waveform Lower Limit for Spectrum	0	US
WFLLSP3	SAM3 Waveform Lower Limit for Spectrum	0	US
WFLLSP4	SAM4 Waveform Lower Limit for Spectrum	0	US
WFLLSPX	SAMX Waveform Lower Limit for Spectrum	0	US
WFM1	Waveform Mode 1	W1	
WFM2	Waveform Mode 2	W1	
WFM3	Waveform Mode 3	W1	
WFM4	Waveform Mode 4	W1	
WFM5	Waveform Mode 5	W1	
WFMX	Waveform Mode X	W1	
WFULSP1	SAM1 Waveform Upper Limit for Spectrum	20000	US
WFULSP2	SAM2 Waveform Upper Limit for Spectrum	20000	US
WFULSP3	SAM3 Waveform Upper Limit for Spectrum	20000	US
WFULSP4	SAM4 Waveform Upper Limit for Spectrum	5000	US
WFULSPX	SAMX Waveform Upper Limit for Spectrum	20000	US
XMT1	Transmitter Select 1	DLO	
XMT2	Transmitter Select 2	DUP	
XMT3	Transmitter Select 3	MONO	
XMT4	Transmitter Select 4	MONO	
XMT5	Transmitter Select 5	MONO	
XMTX	Transmitter Select X	DUP	

**HRLT-B: High Resolution Laterolog Array - B**

BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	21	DEGC
CALSTAT	HRLTB Calibration Status	SHALLOW_DONE	
CALTEMP	HRLTB Calibration Temperature	23.3869	DEGC

FREQ0	HRLT Frequency Index for Mode 0	32	
FREQ1	HRLT Frequency Index for Mode 1	128	
FREQ2	HRLT Frequency Index for Mode 2	104	
FREQ3	HRLT Frequency Index for Mode 3	86	
FREQ4	HRLT Frequency Index for Mode 4	56	
FREQ5	HRLT Frequency Index for Mode 5	44	
FREQ6	HRLT Frequency Index for Mode 6	116	
GCSE	Generalized Caliper Selection	LCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
ISSBAR	Barite Mud Switch	BARITE	
KFAC_HRLT	HRLT K Factor Option	SONDE	
LOOPCOEF_S	HRLT Loop Coefficient for Shallow Modes	LOW	
LOOPMOD0	HRLT Mode 0 Loop Mode	OFF	
LOOPMOD1	HRLT Mode 1 Loop Mode	OFF	
LOOPMOD2	HRLT Mode 2 Loop Mode	OFF	
LOOPMOD3	HRLT Mode 3 Loop Mode	OFF	
LOOPMOD4	HRLT Mode 4 Loop Mode	OFF	
LOOPMOD5	HRLT Mode 5 Loop Mode	OFF	
LOOPMOD6	HRLT Mode 6 Loop Mode	OFF	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
PROCINV	Inversion Selection	ON	
PROCMFL	Inversion Micro-Resistivity Selection	NO_EXTERNAL_RXO	
PROCMSO	Mechanical Standoff Fin Size	0	IN
PROCRM	Processing Mud Resistivity Select	HRLT_Compute	
PROCSPO	Sonde Position	Centered	
SHT	Surface Hole Temperature	20	DEGC
	<b>HLDS: Hostile Litho-Density Sonde</b>		
CLCL	HLDS LS Control Loop Controller Mode	AUTO_DEFAULT	
CLCS	HLDS SS Control Loop Controller Mode	AUTO_DEFAULT	
CLLS	HLDS Mode Loop Long Spacing	AUTO	
CLSS	HLDS Mode Loop Short Spacing	AUTO	
DHC	Density Hole Correction	BS	
DPPM	Density Porosity Processing Mode	HIRS	
FD	Fluid Density	1	G/C3
LATC	HLDS Activation Correction	ON	
LLDL	HLDS LS Low Level Discriminator DAC	14000	
LLDS	HLDS SS Low Level Discriminator DAC	14000	
LLML	HLDS LS Low Level Discriminator Mode	AUTO	
LLMS	HLDS SS Low Level Discriminator Mode	AUTO	
MDEN	Matrix Density	2.6	G/C3
PHVL	HLDS Long Spacing High Voltage Setting	1000	V
PHVS	HLDS Short Spacing High Voltage Setting	1000	V
PSDL	HLDS LS Pulse Shape Compensation DAC	30000	
PSDS	HLDS SS Pulse Shape Compensation DAC	30000	
PSML	HLDS LS Pulse Shape Compensation Mode	AUTO	
PSMS	HLDS SS Pulse Shape Compensation Mode	AUTO	
	<b>HNGS-BA: Hostile Natural Gamma Ray Sonde</b>		
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	
BHT	Bottom Hole Temperature (used in calculations)	21	DEGC
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	LCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
H1P	HNGS Detector 1 Allow/Disallow In Processing	ALLOW	
H2P	HNGS Detector 2 Allow/Disallow In Processing	ALLOW	
HABK	HNGS Borehole Potassium Running Average	0.000444161	
HALF	HNGS Alpha Filter Length	60	IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	BARI	
HNPE	HNGS Processing Enable	YES	
ISSBAR	Barite Mud Switch	BARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
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	
SHT	Surface Hole Temperature	20	DEGC
TPOS	Tool Position	ECCE	
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	0.969742	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	0.968706	
	<b>EDTC-B: Enhanced DTS Cartridge</b>		
BHFL	Borehole Fluid Type	WATER	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	21	DEGC

BSCO	Borehole Salinity Correction Option	NO	
CCCC	Casing & Cement Thickness Correction Option	NO	
DPPM	Density Porosity Processing Mode	HIRS	
FSAL	Formation Salinity	-50000	PPM
FSCO	Formation Salinity Correction Option	NO	
GCSE	Generalized Caliper Selection	LCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
HSCO	Hole Size Correction Option	YES	
ISSBAR	Barite Mud Switch	BARITE	
ISSBAR_EDTC	Nuclear Mud Type	BARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
MCCO	Mud Cake Correction Option	NO	
MCOR	Mud Correction	BARI	
MWCO	Mud Weight Correction Option	YES	
PTCO	Pressure/Temperature Correction Option	NO	
SDAT	Standoff Data Source	SOCN	
SHT	Surface Hole Temperature	20	DEGC
SOCN	Standoff Distance	0.5	IN
SOCO	Standoff Correction Option	NO	
TPOS_EDTC	EDTC Tool Centered/Eccentered	Eccentered	
U-ETELM_EDTS	Telemetry Mode for eWAFE	Standard_EDTS	
U-TELM_EDTS	Telemetry Mode for WAFE	Standard_EDTS	
<b>System and Miscellaneous</b>			
ALTDPCCHAN	Name of alternate depth channel	SpeedCorrectedDepth	
BS	Bit Size	9.875	IN
BSAL	Borehole Salinity	35000.00	PPM
CSIZ	Current Casing Size	5.000	IN
CWEI	Casing Weight	168.00	LB/F
DFD	Drilling Fluid Density	1.32	G/C3
DO	Depth Offset for Playback	0.0	M
FLEV	Fluid Level	-50000.00	M
MST	Mud Sample Temperature	23.00	DEGC
PBVSADP	Use alternate depth channel for playback	NO	
PP	Playback Processing	RECOMPUTE	
RMFS	Resistivity of Mud Filtrate Sample	-50000.0000	OHMM
RW	Resistivity of Connate Water	1.0000	OHMM
TD	Total Depth	4850.8	M
TDD	Total Depth - Driller	4850.80	M
TDL	Total Depth - Logger	4850.00	M
TWS	Temperature of Connate Water Sample	37.78	DEGC

Format: DSST\_P\_S\_UPPER\_VDL\_COLOR Vertical Scale: 1:200 Graphics File Created: 10-Mar-2017 16:10

### OP System Version: 19C0-187

DSST-B	19C0-187	HRLT-B	19C0-187
HLDS	19C0-187	LDSC-B	19C0-187
HNGC-B	19C0-187	HNGS-BA	19C0-187
EDTC-B	SKK-5169-EDTCB		

#### Input DLIS Files

DEFAULT	DSI_HRLA_LDL_NGS_017PUP	FN:26	PRODUCER	07-Mar-2017 13:04	4784.6 M	3755.7 M
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#### Output DLIS Files

DEFAULT	DSI_HRLA_LDL_NGS_042PUP	FN:60	PRODUCER	10-Mar-2017 16:10		
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#### Input DLIS Files

DEFAULT	DSI_HRLA_LDL_NGS_017PUP	FN:26	PRODUCER	07-Mar-2017 13:04	4784.6 M	3755.7 M
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#### Output DLIS Files

DEFAULT	DSI_HRLA_LDL_NGS_042PUP	FN:60	PRODUCER	10-Mar-2017 16:10	4784.6 M	3755.7 M
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### OP System Version: 19C0-187

DSST-B	19C0-187	HRLT-B	19C0-187
HLDS	19C0-187	LDSC-B	19C0-187
HNGC-B	19C0-187	HNGS-BA	19C0-187
EDTC-B	SKK-5169-EDTCB		

PIP SUMMARY

Time Mark Every 60 S

HNGS Spectroscopy Gamma Ray (HSGR)  
(GAPI) 0 100

Area1  
From HCGR to HSGR

Main Log

HNGS Borehole Potassium (HBHK)  
-0.05 (-----) 0.05

HNGS Computed Gamma Ray (HCGR)  
(GAPI) 0 100

Calibrated Downhole Force (CDF) (LBF)  
3000 0

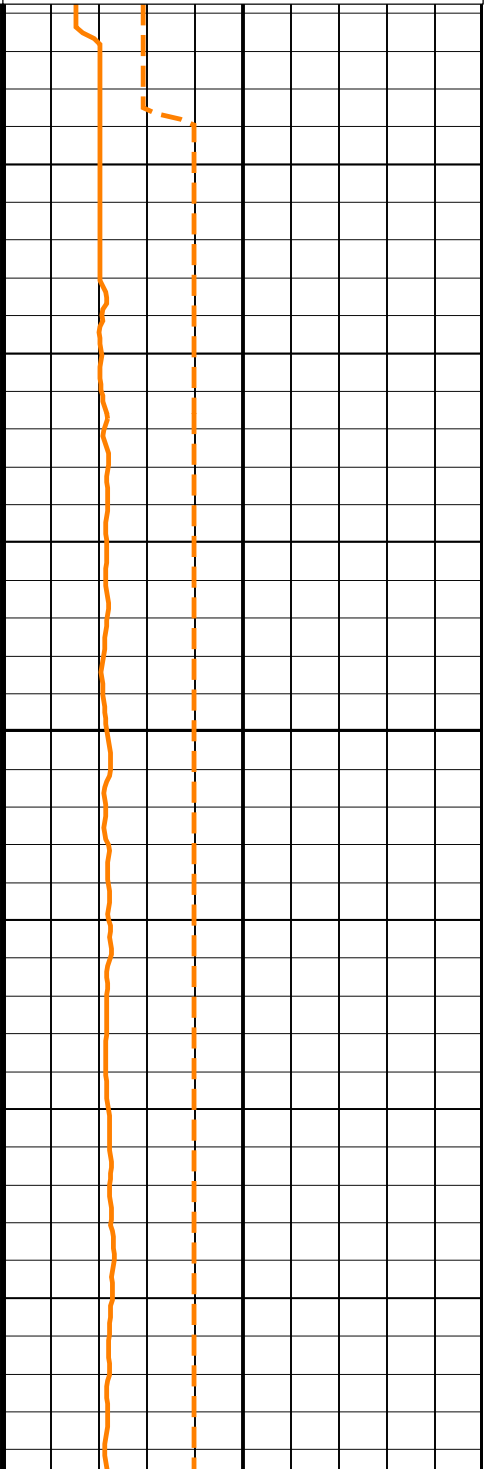
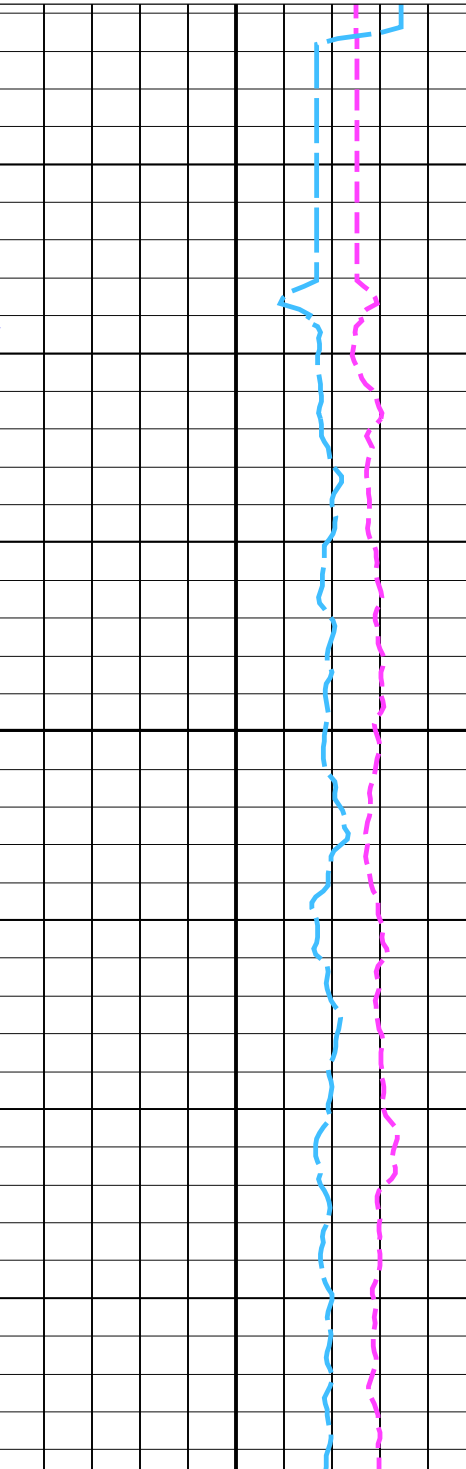
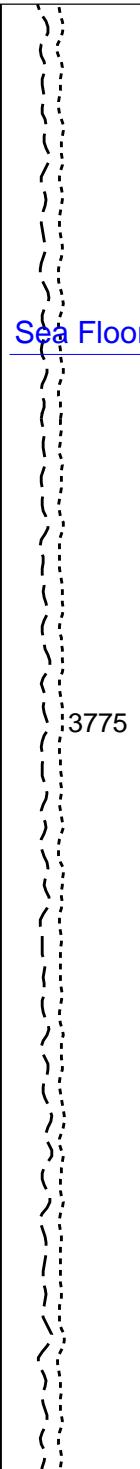
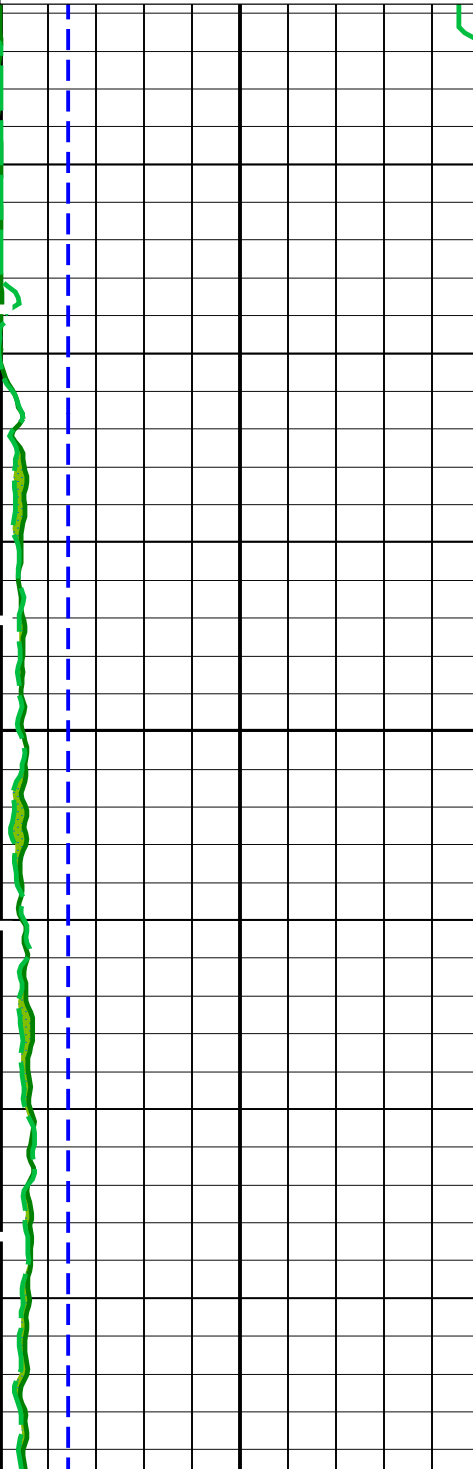
HNGS Uranium (HURA) (PPM)  
-5 10

HLDS Caliper (LCAL) (IN) 0 20

Tension (TENS) (LBF)  
10000 0

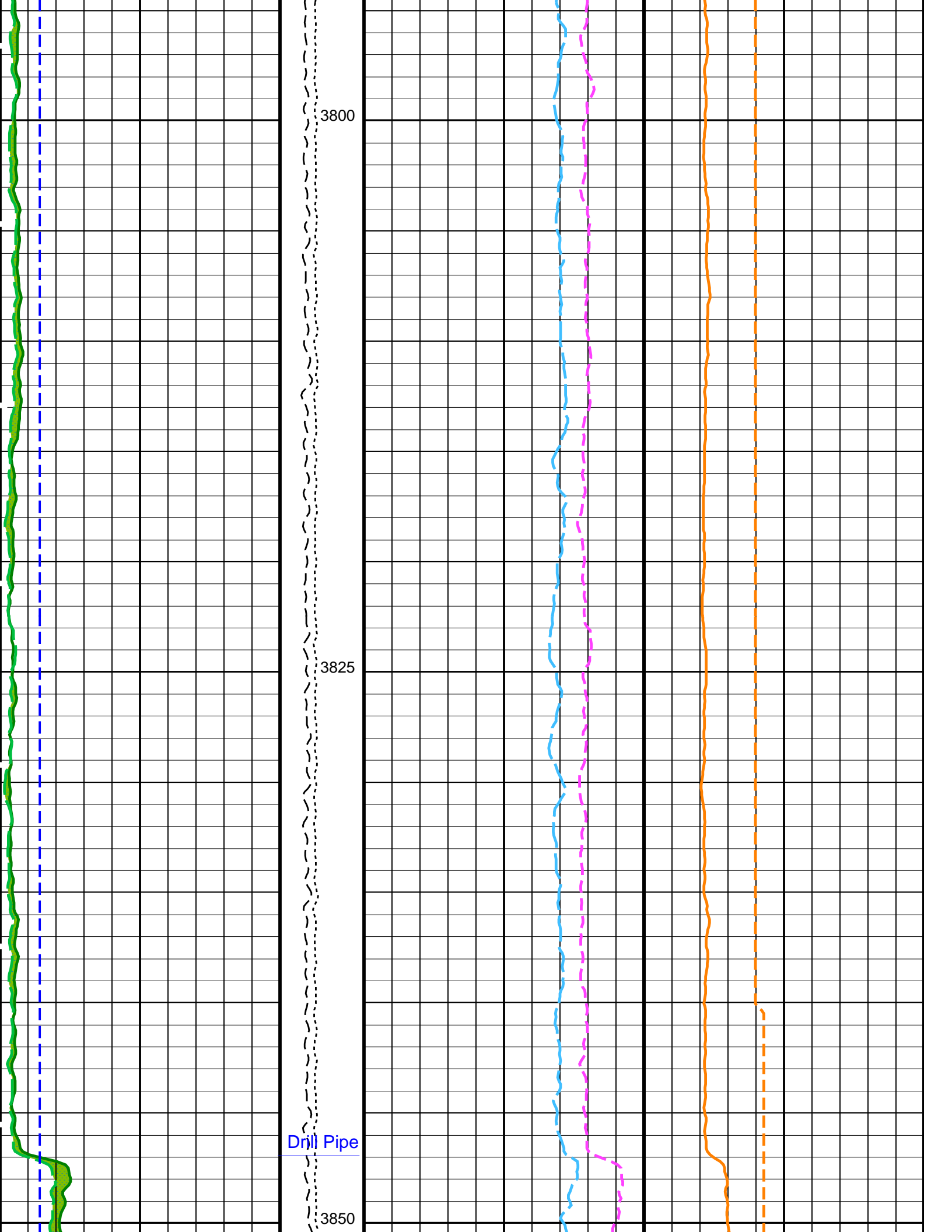
HNGS Thorium (HTHO) (PPM)  
5 25

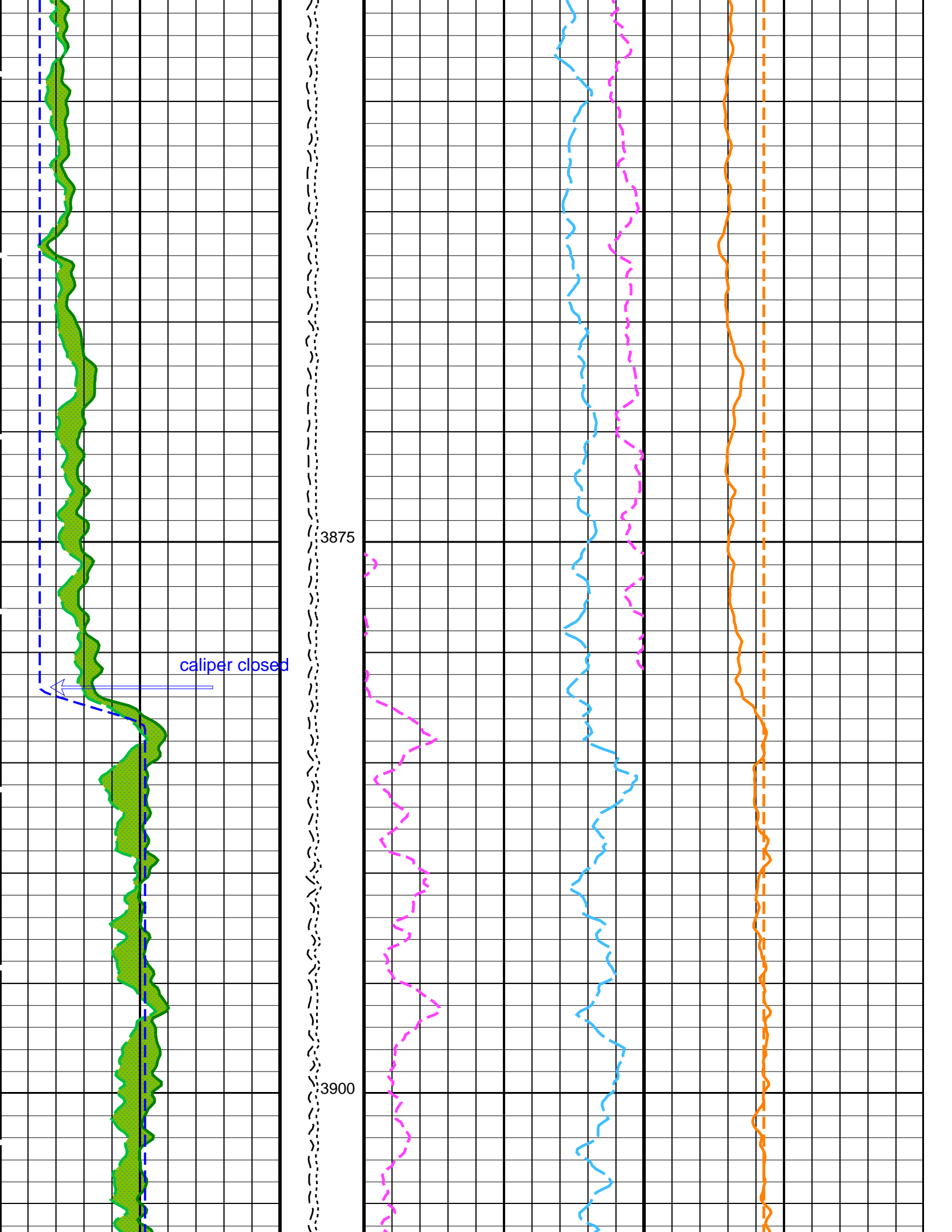
HNGS Potassium (HFK) (PPM)  
-0.01 (-----) 0.04

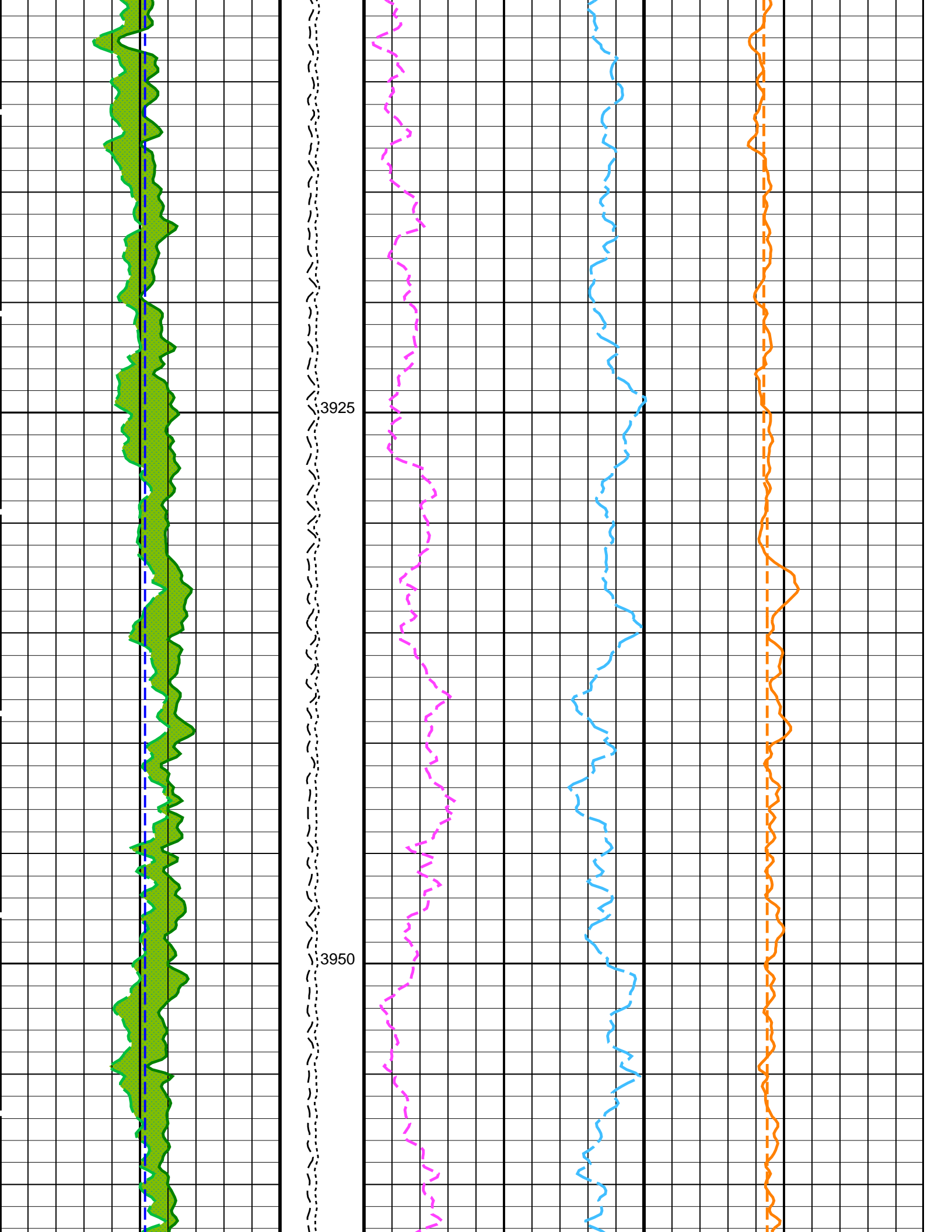


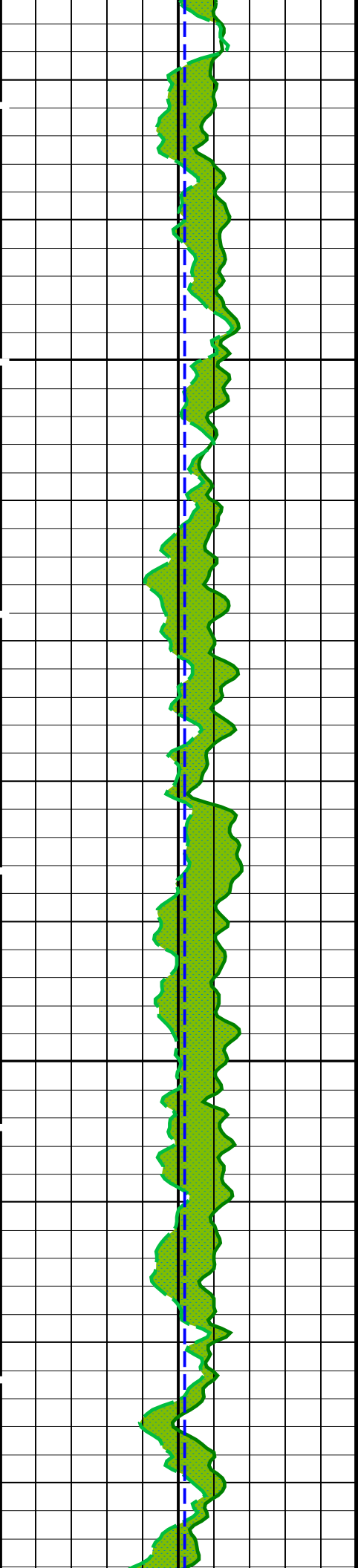
Sea Floor

3775

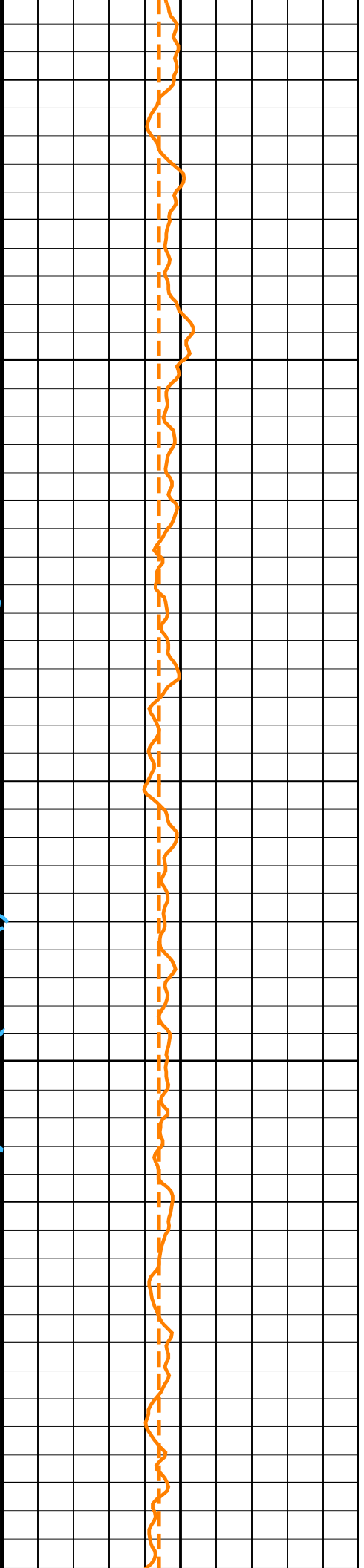
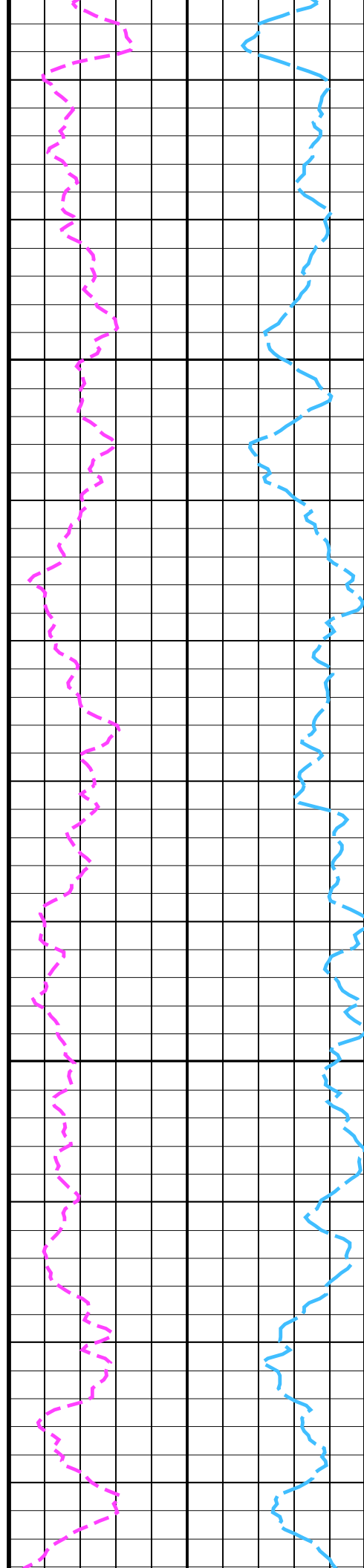




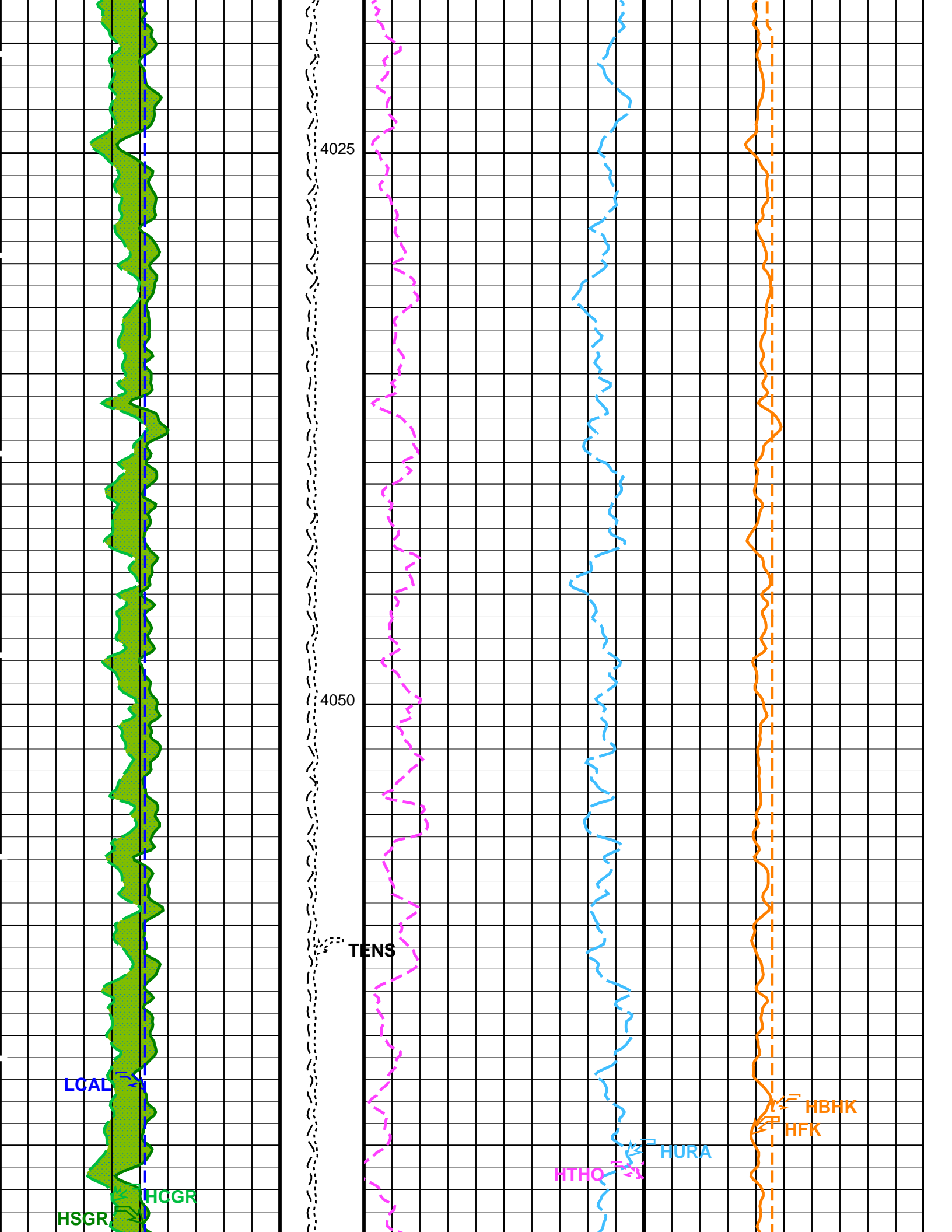


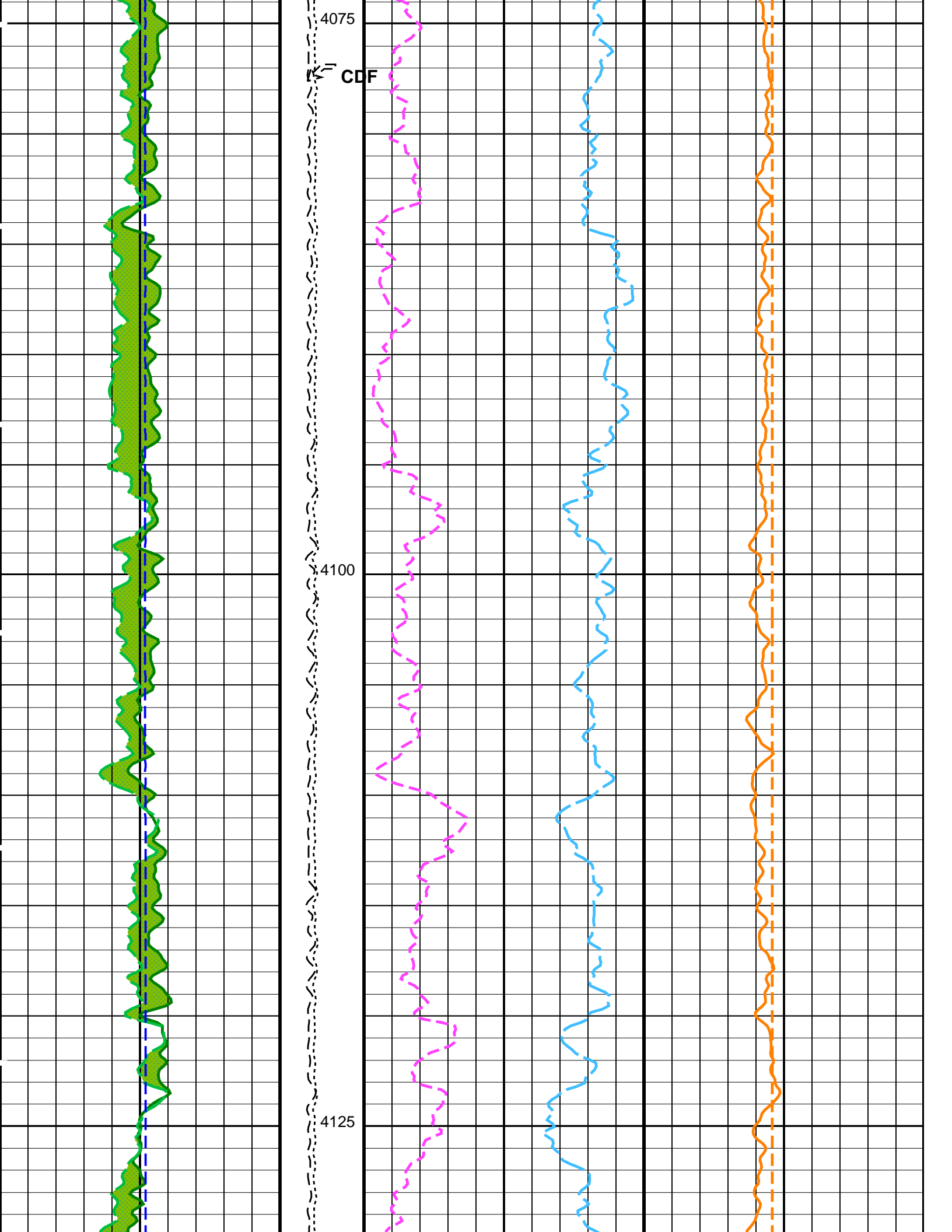


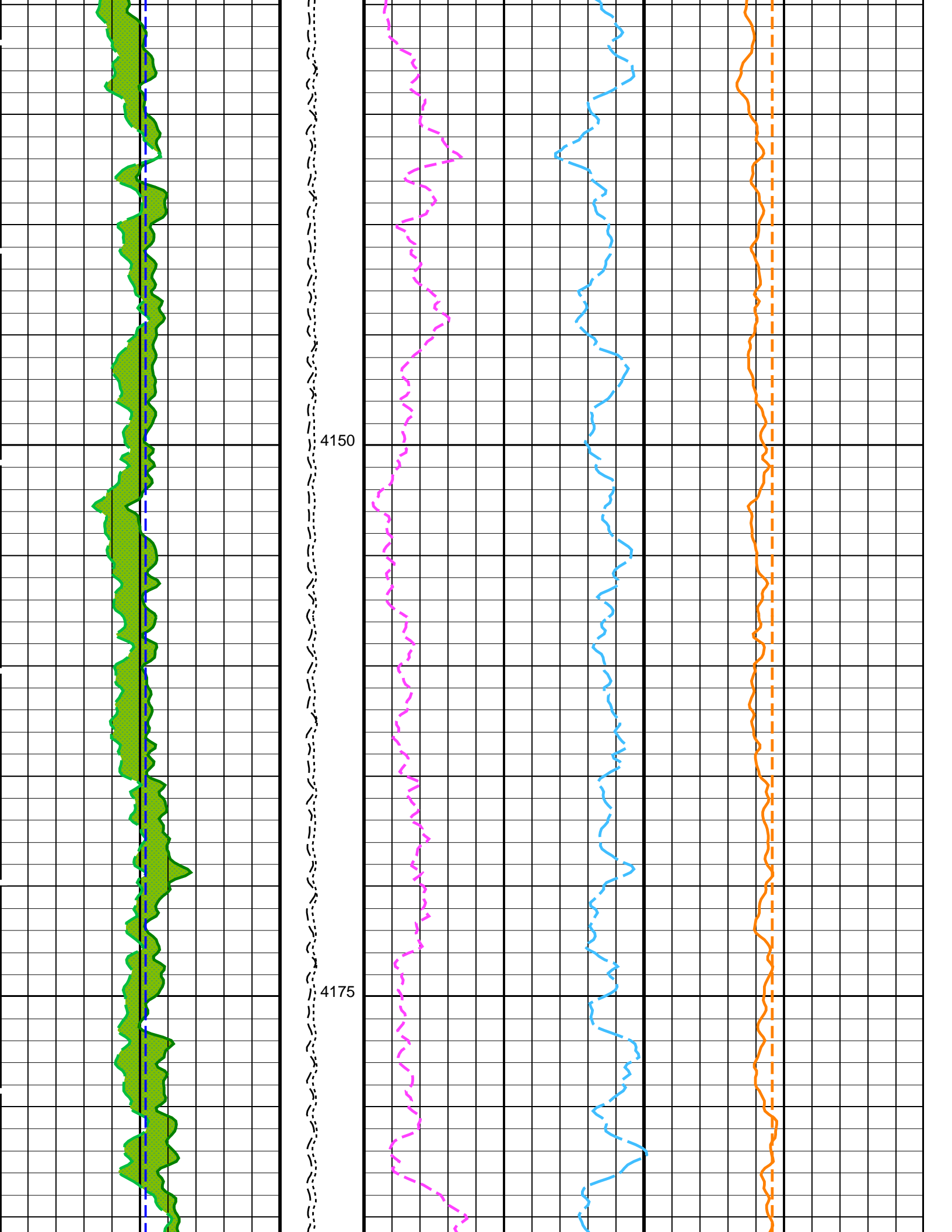
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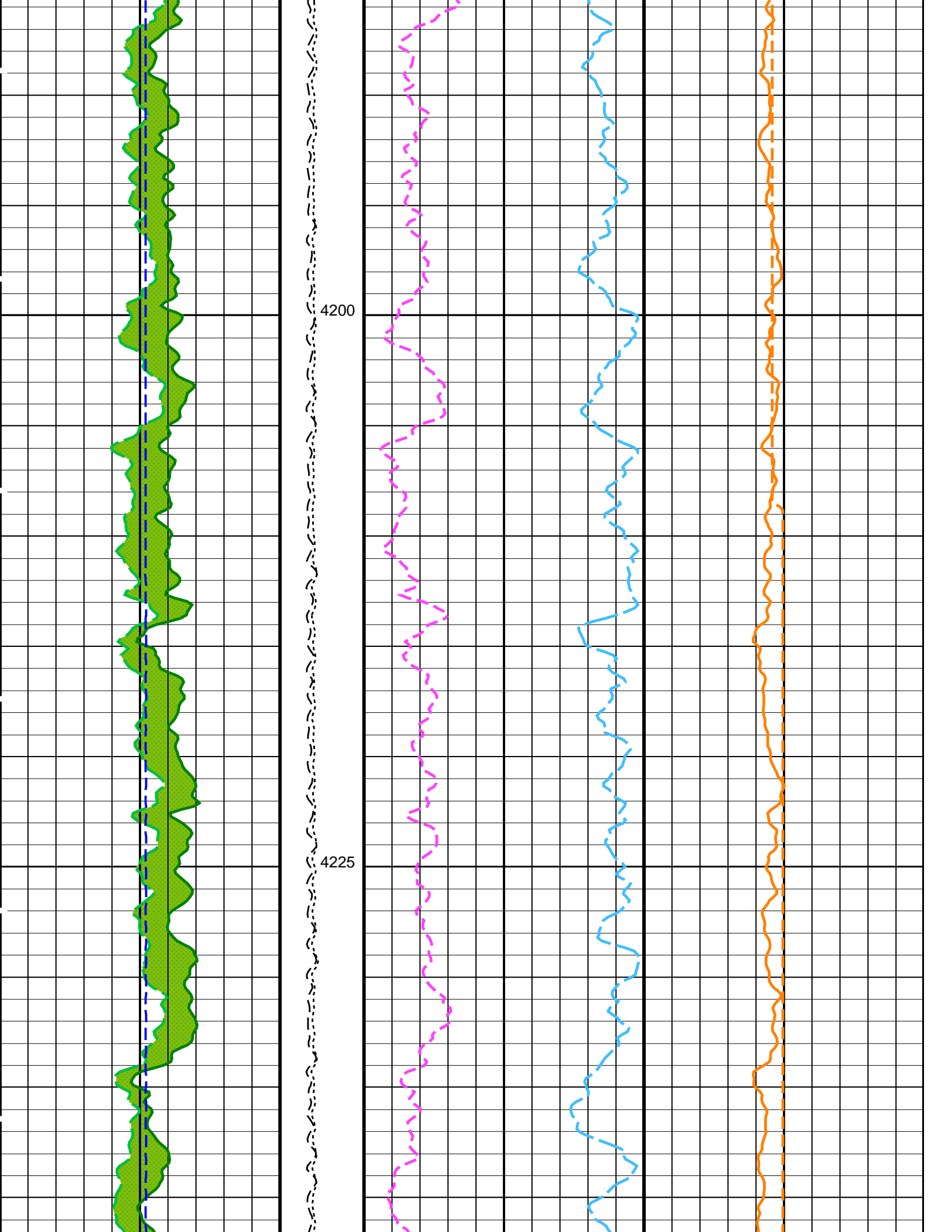


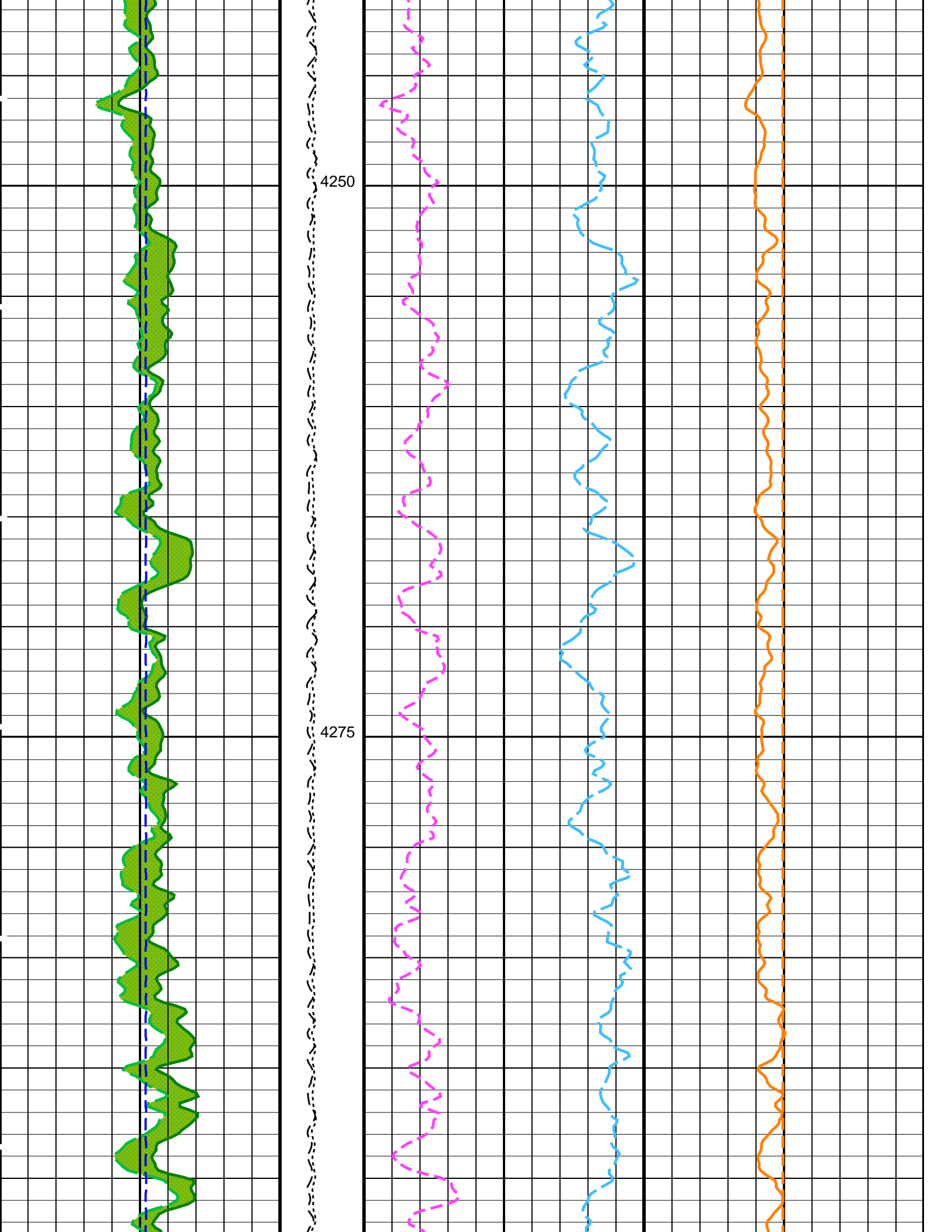


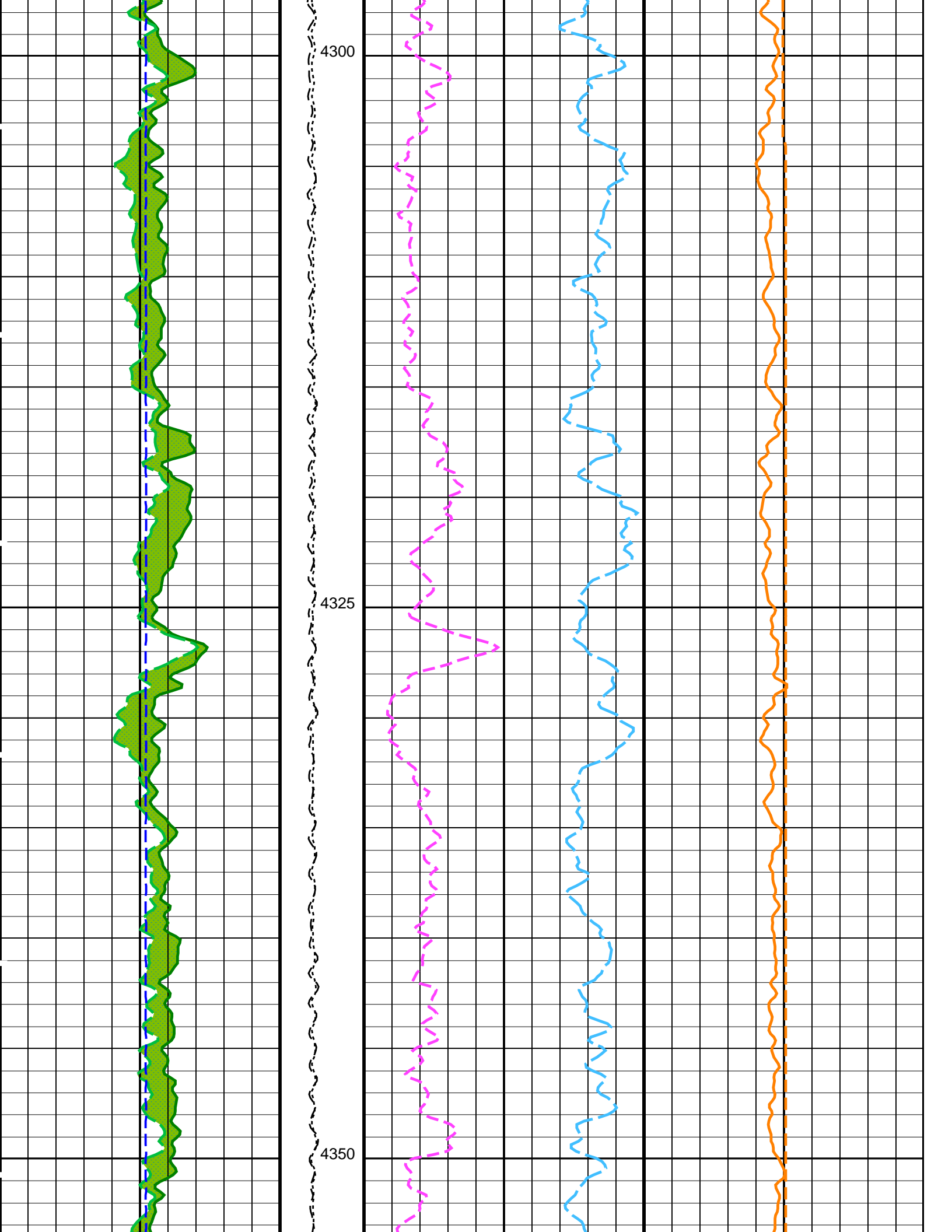


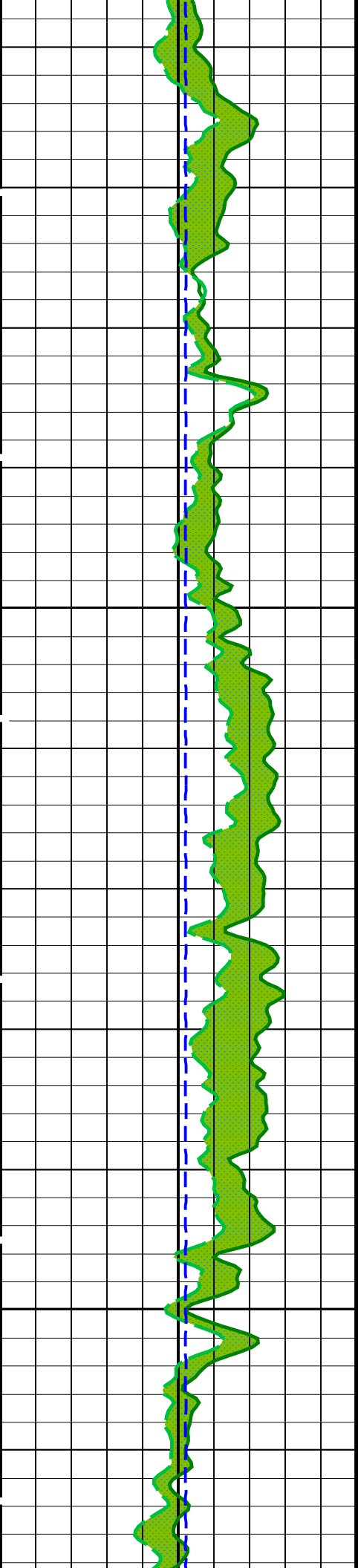






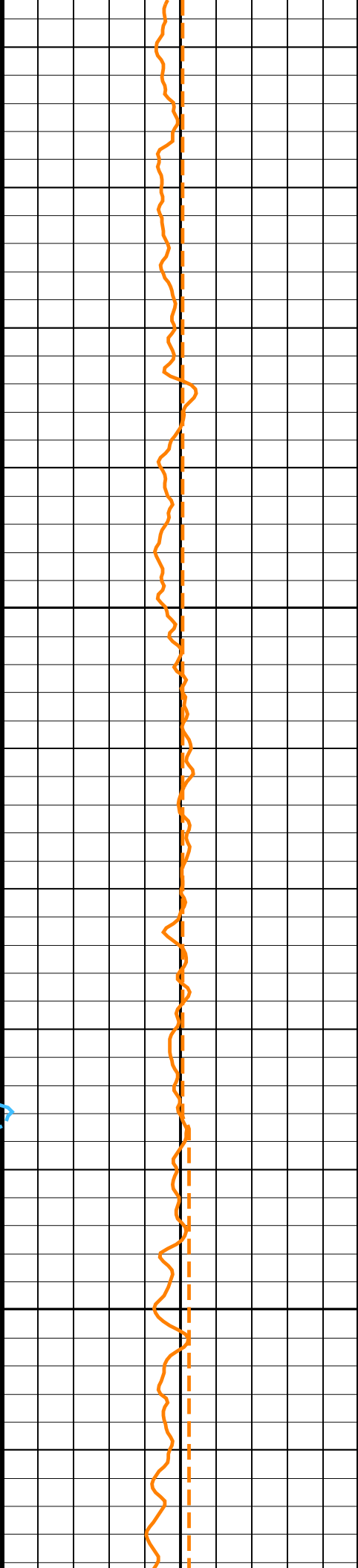
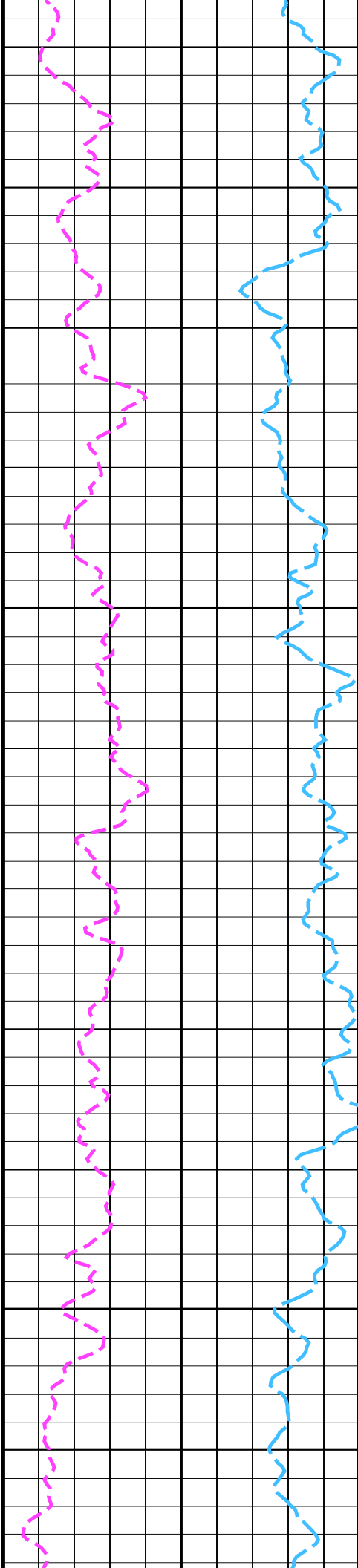


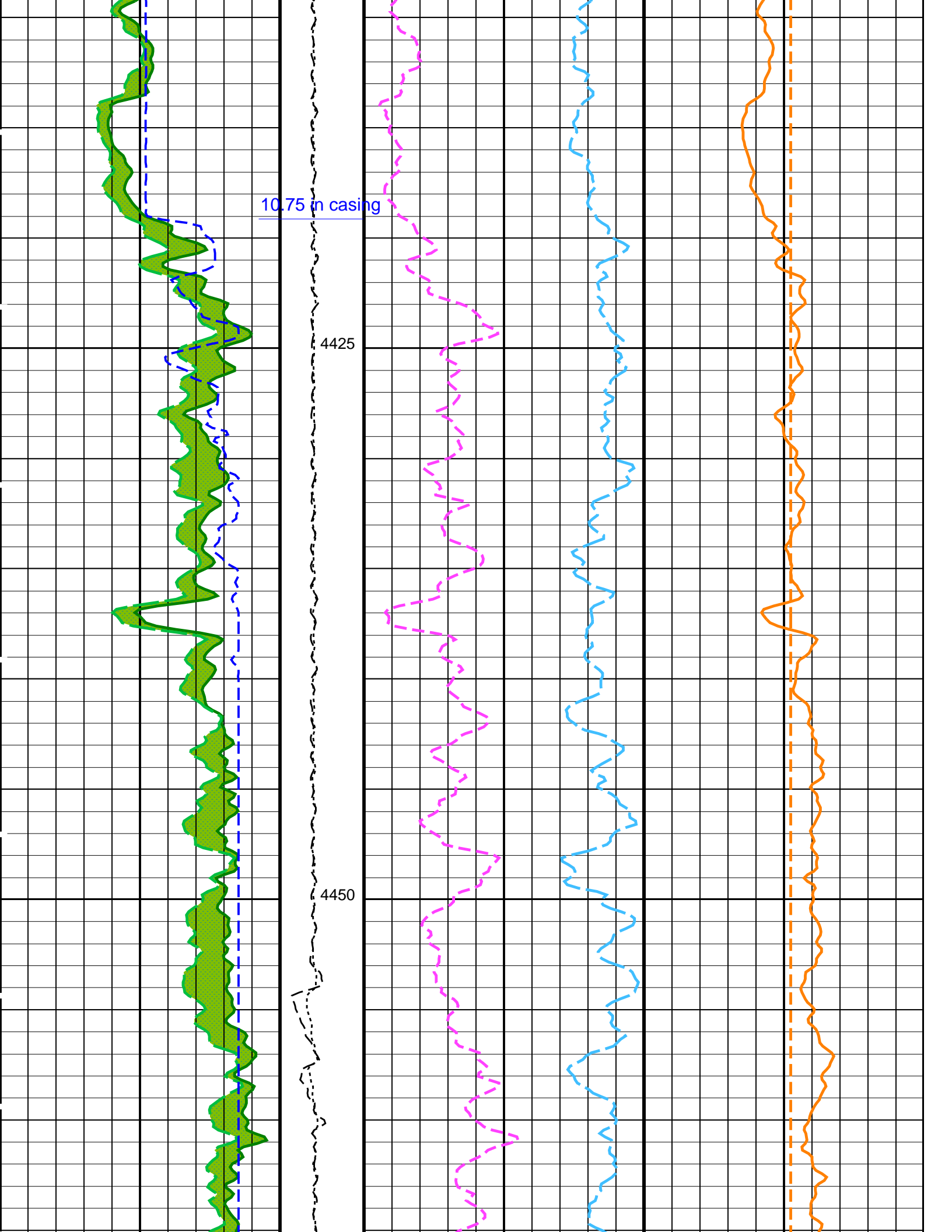




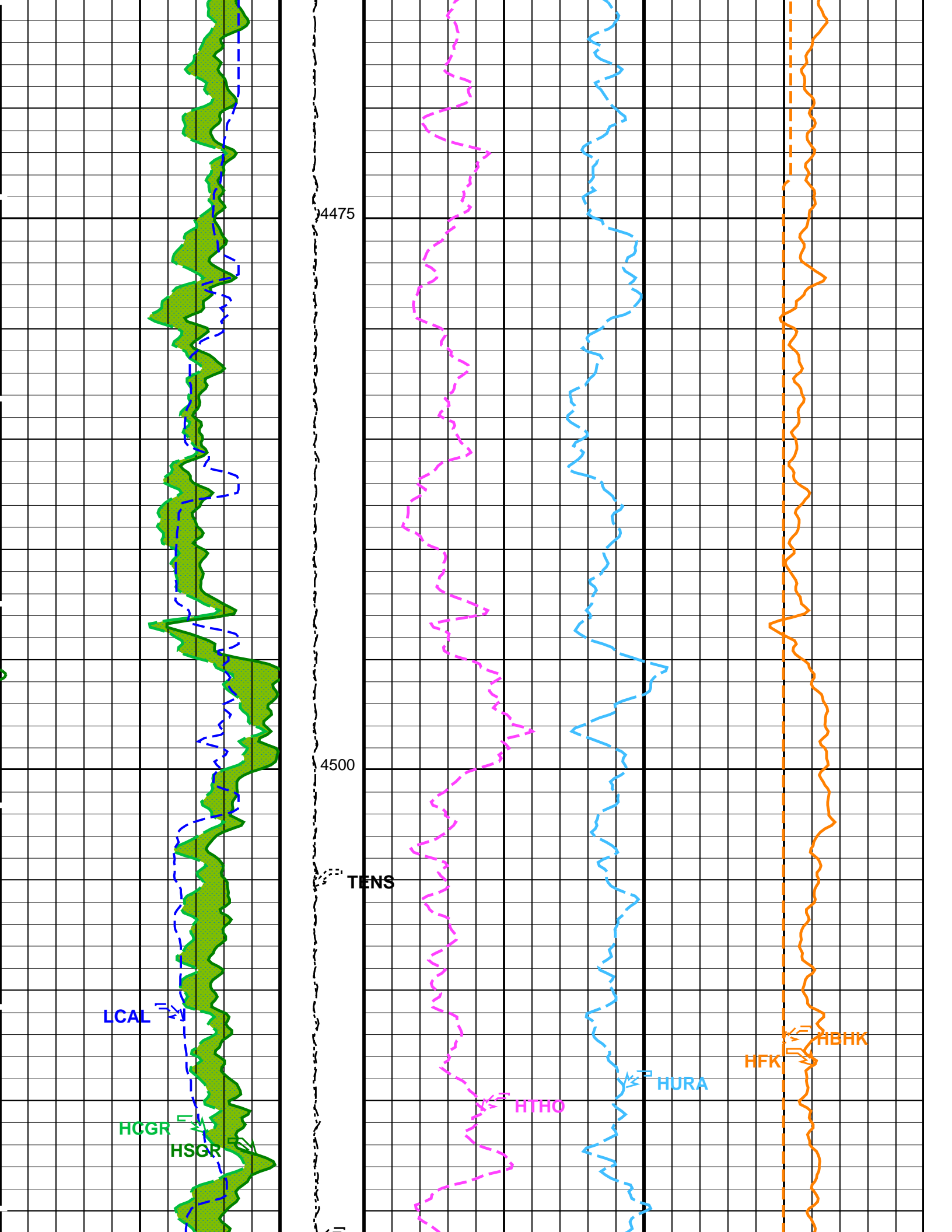
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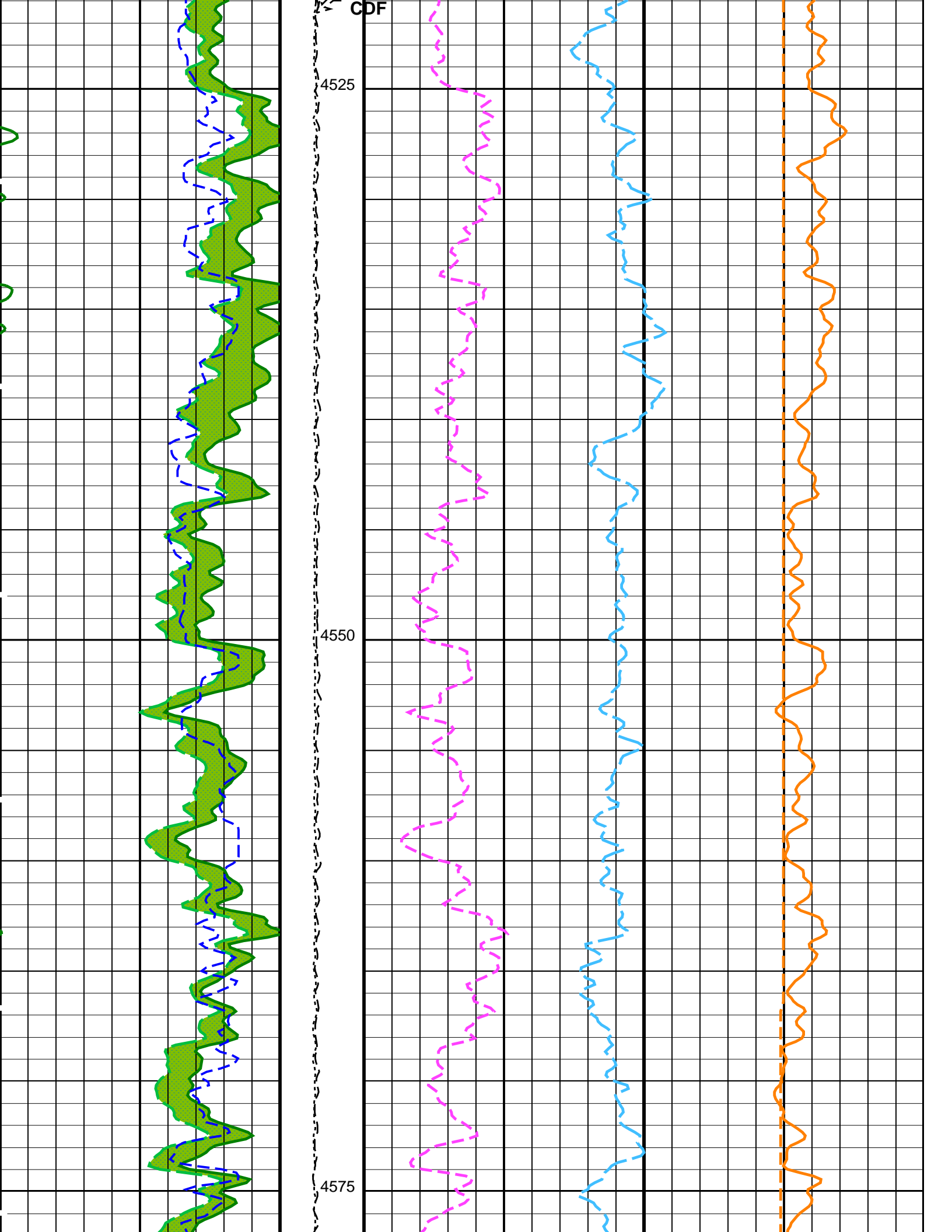
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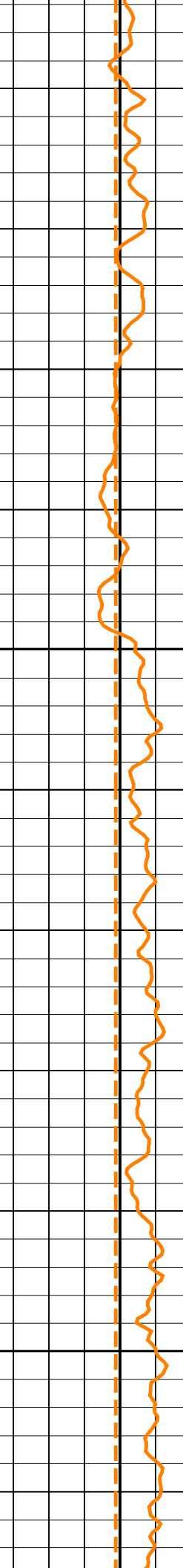
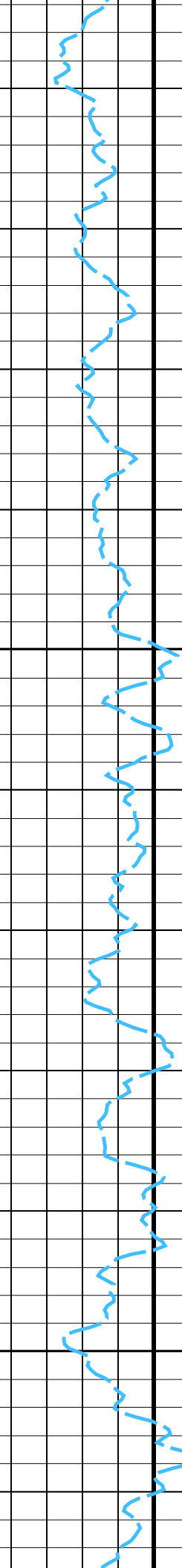
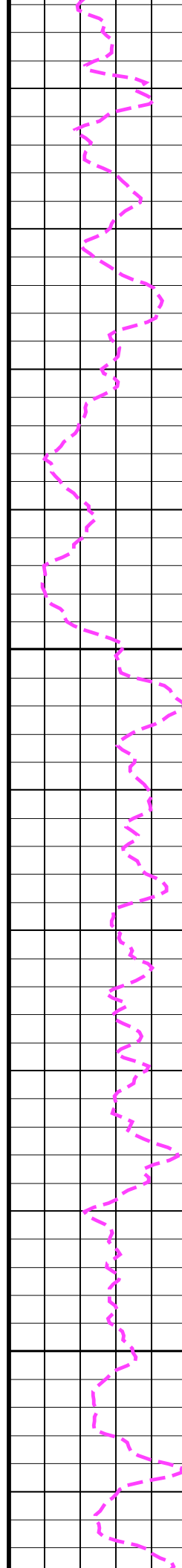
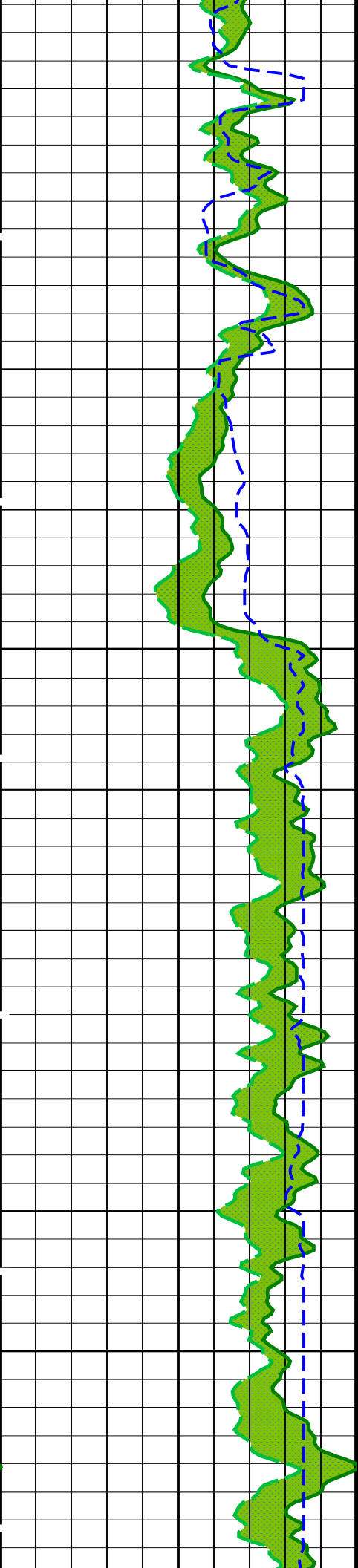


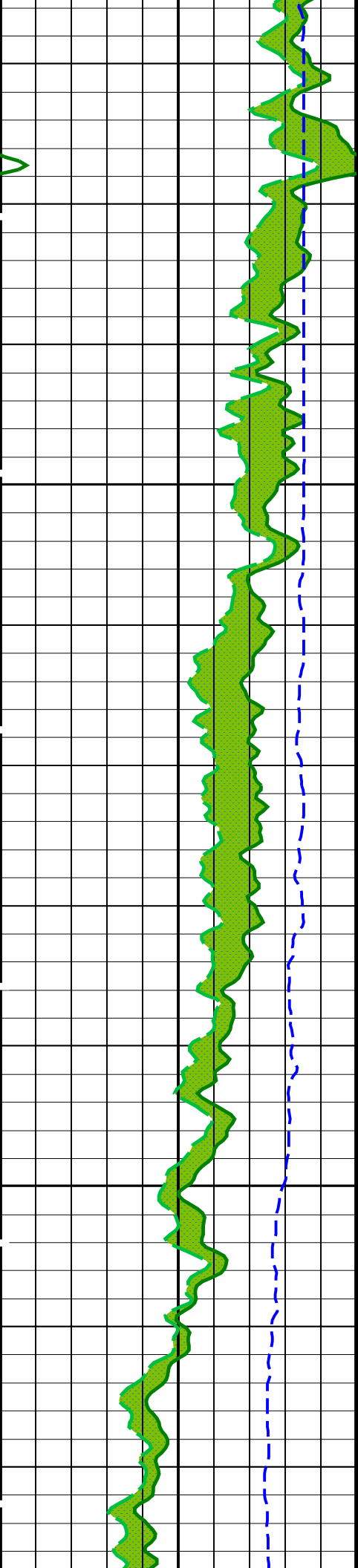






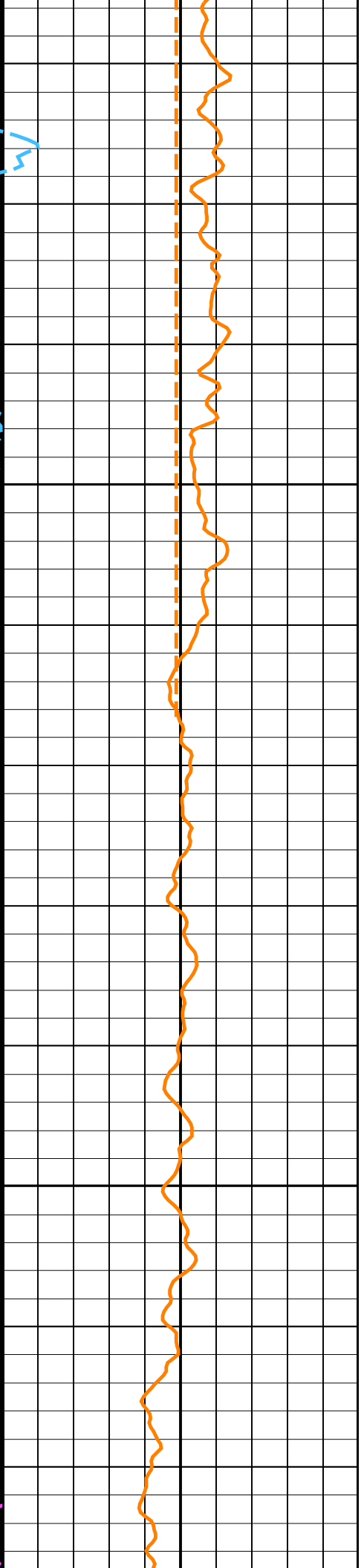
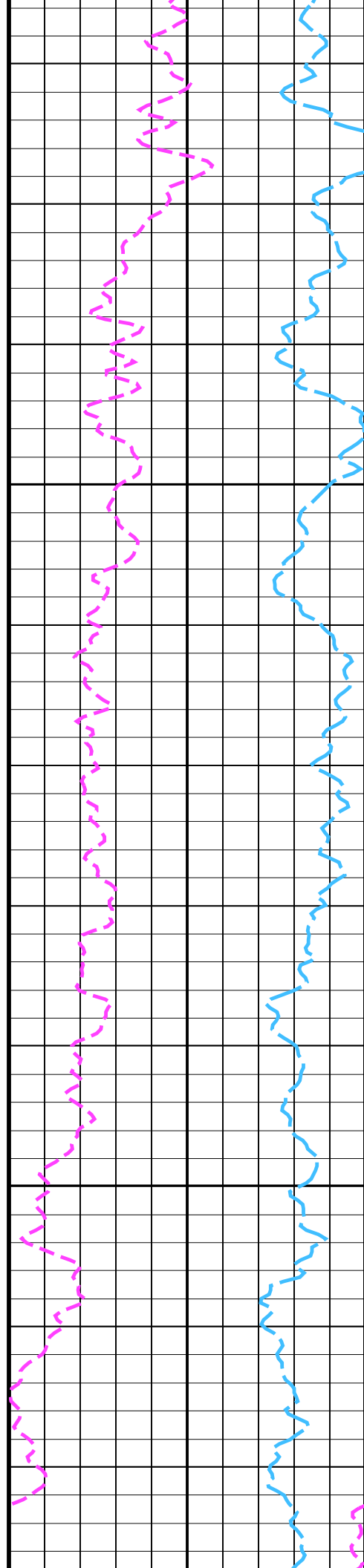


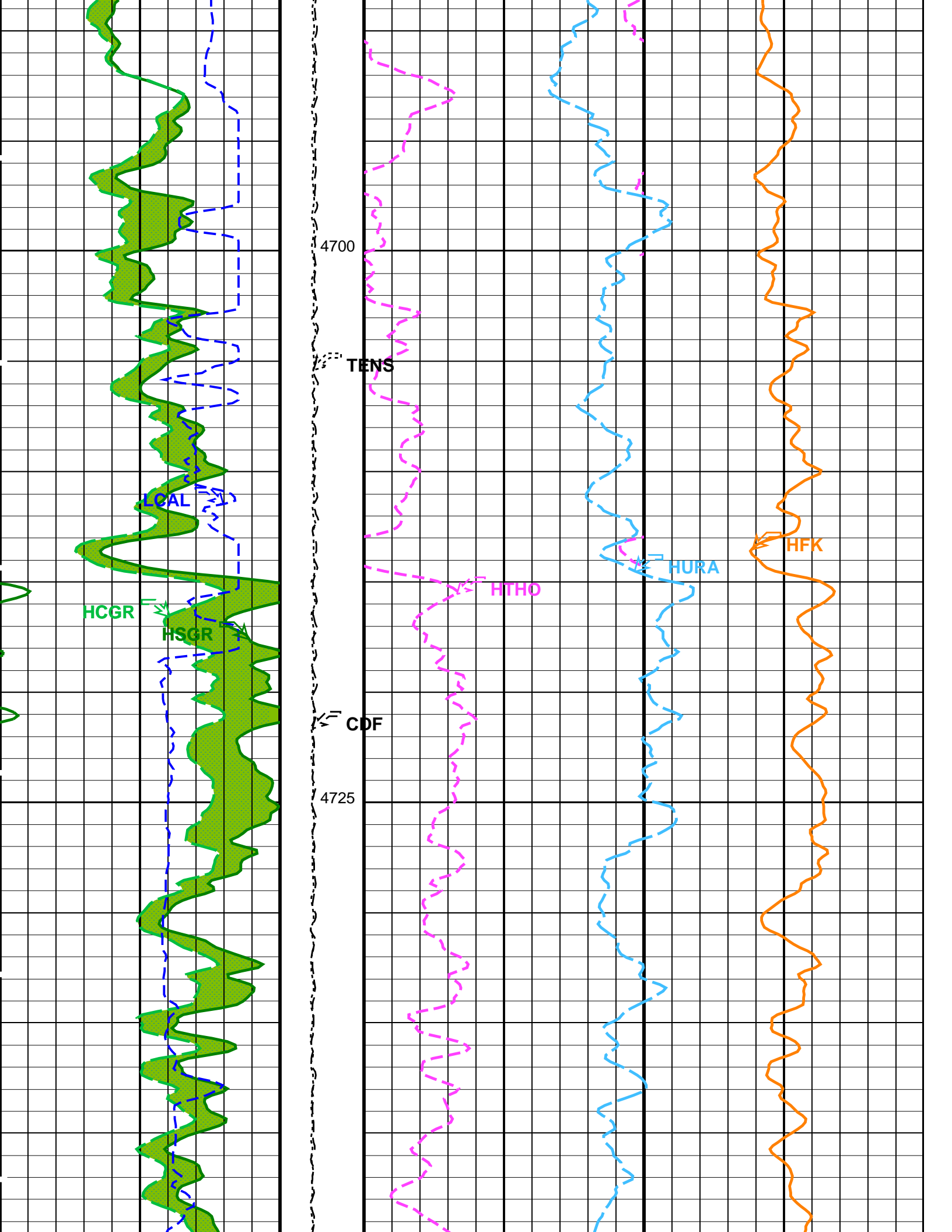


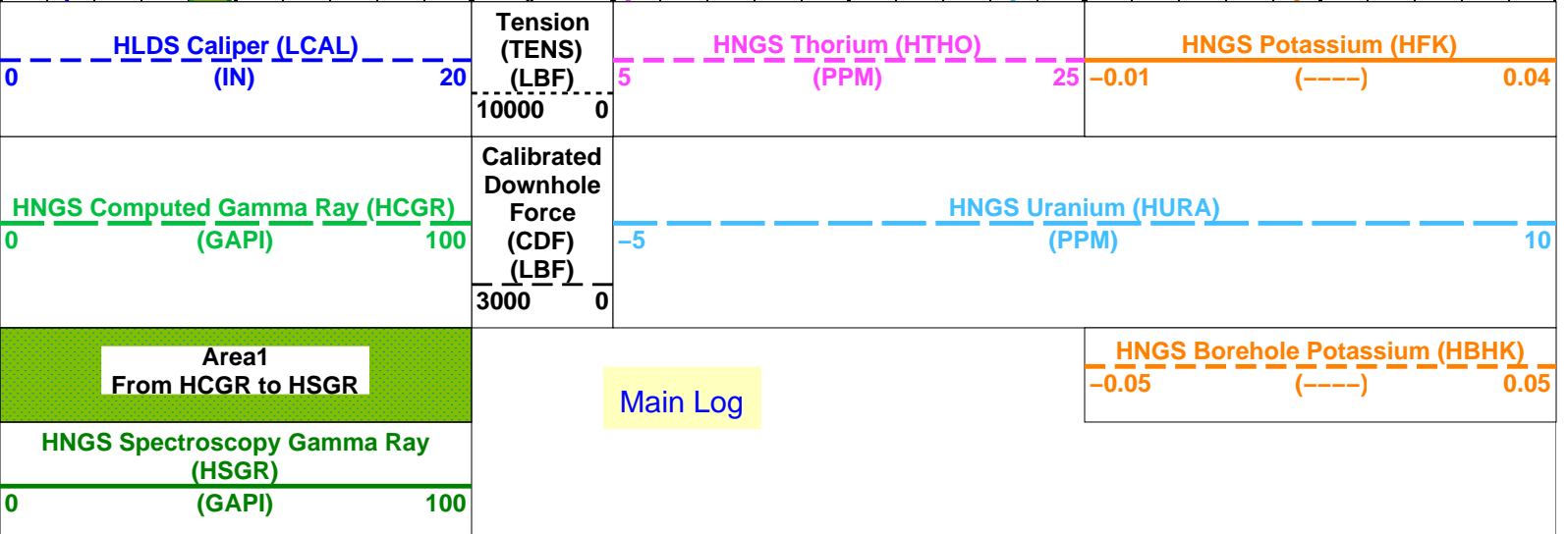
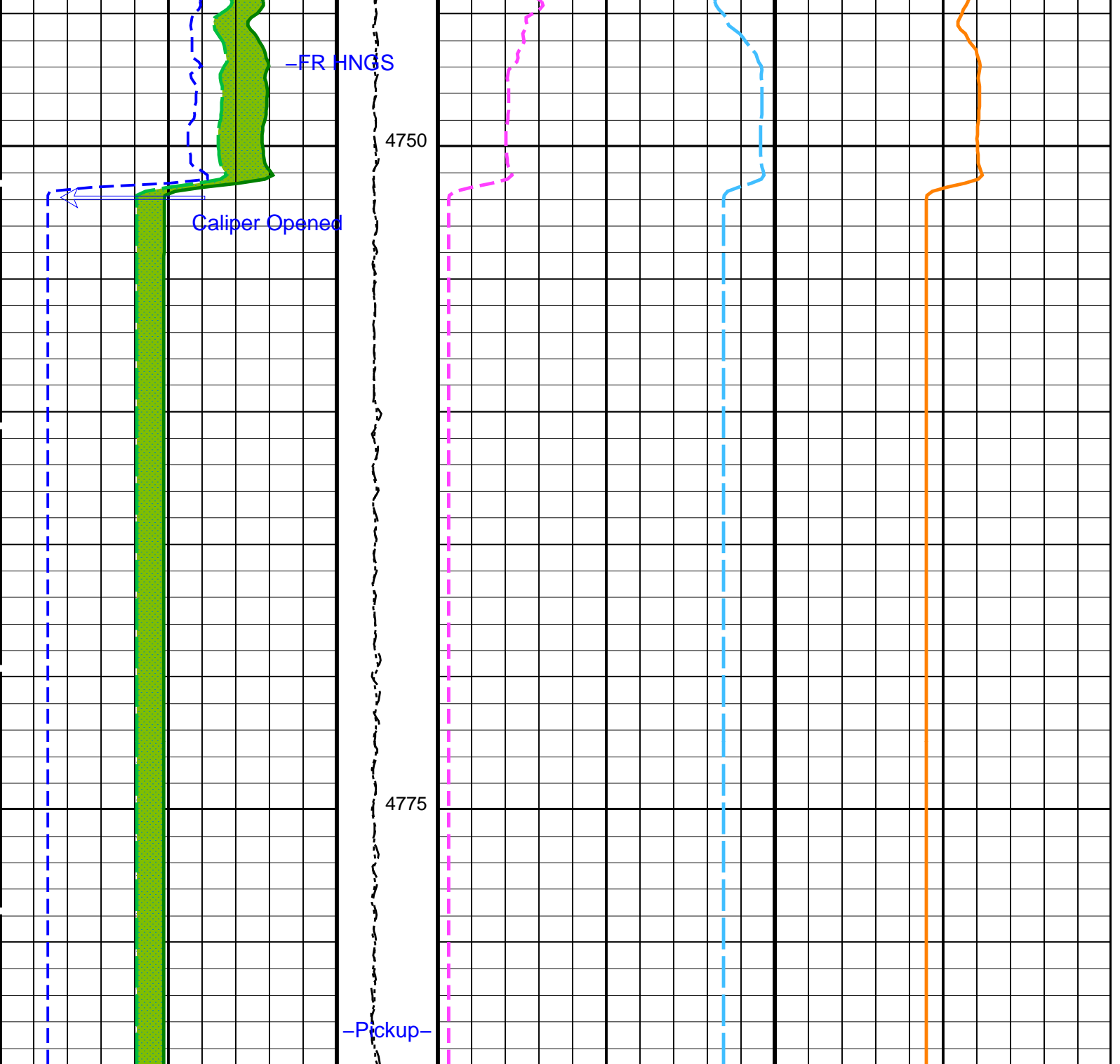


4650

4675







## Parameters

DLIS Name	Description	Value	
<b>DSST-B: Dipole Shear Imager - B</b>			
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	LCAL	
<b>HRLT-B: High Resolution Laterolog Array - B</b>			
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	LCAL	
<b>HNGS-BA: Hostile Natural Gamma Ray Sonde</b>			
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	LCAL	
H1P	HNGS Detector 1 Allow/Disallow In Processing	ALLOW	
H2P	HNGS Detector 2 Allow/Disallow In Processing	ALLOW	
HABK	HNGS Borehole Potassium Running Average	0.000444161	
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	0.969742	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	0.968706	
<b>EDTC-B: Enhanced DTS Cartridge</b>			
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	LCAL	
<b>System and Miscellaneous</b>			
BS	Bit Size	9.875	IN
DFD	Drilling Fluid Density	1.32	G/C3
DO	Depth Offset for Playback	0.0	M
PP	Playback Processing	RECOMPUTE	

Format: HNGSYields    Vertical Scale: 1:200    Graphics File Created: 10-Mar-2017 16:10

### OP System Version: 19C0-187

DSST-B	19C0-187	HRLT-B	19C0-187
HLDS	19C0-187	LDSC-B	19C0-187
HNGC-B	19C0-187	HNGS-BA	19C0-187
EDTC-B	SKK-5169-EDTCB		

#### Input DLIS Files

DEFAULT	DSI_HRLA_LDL_NGS_017PUP	FN:26	PRODUCER	07-Mar-2017 13:04	4784.6 M	3755.7 M
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#### Output DLIS Files

DEFAULT	DSI_HRLA_LDL_NGS_042PUP	FN:60	PRODUCER	10-Mar-2017 16:10		
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#### Input DLIS Files

DEFAULT	DSI_HRLA_LDL_NGS_017PUP	FN:26	PRODUCER	07-Mar-2017 13:04	4784.6 M	3755.7 M
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#### Output DLIS Files

DEFAULT	DSI_HRLA_LDL_NGS_042PUP	FN:60	PRODUCER	10-Mar-2017 16:10	4784.6 M	3755.7 M
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### OP System Version: 19C0-187

DSST-B	19C0-187	HRLT-B	19C0-187
HLDS	19C0-187	LDSC-B	19C0-187

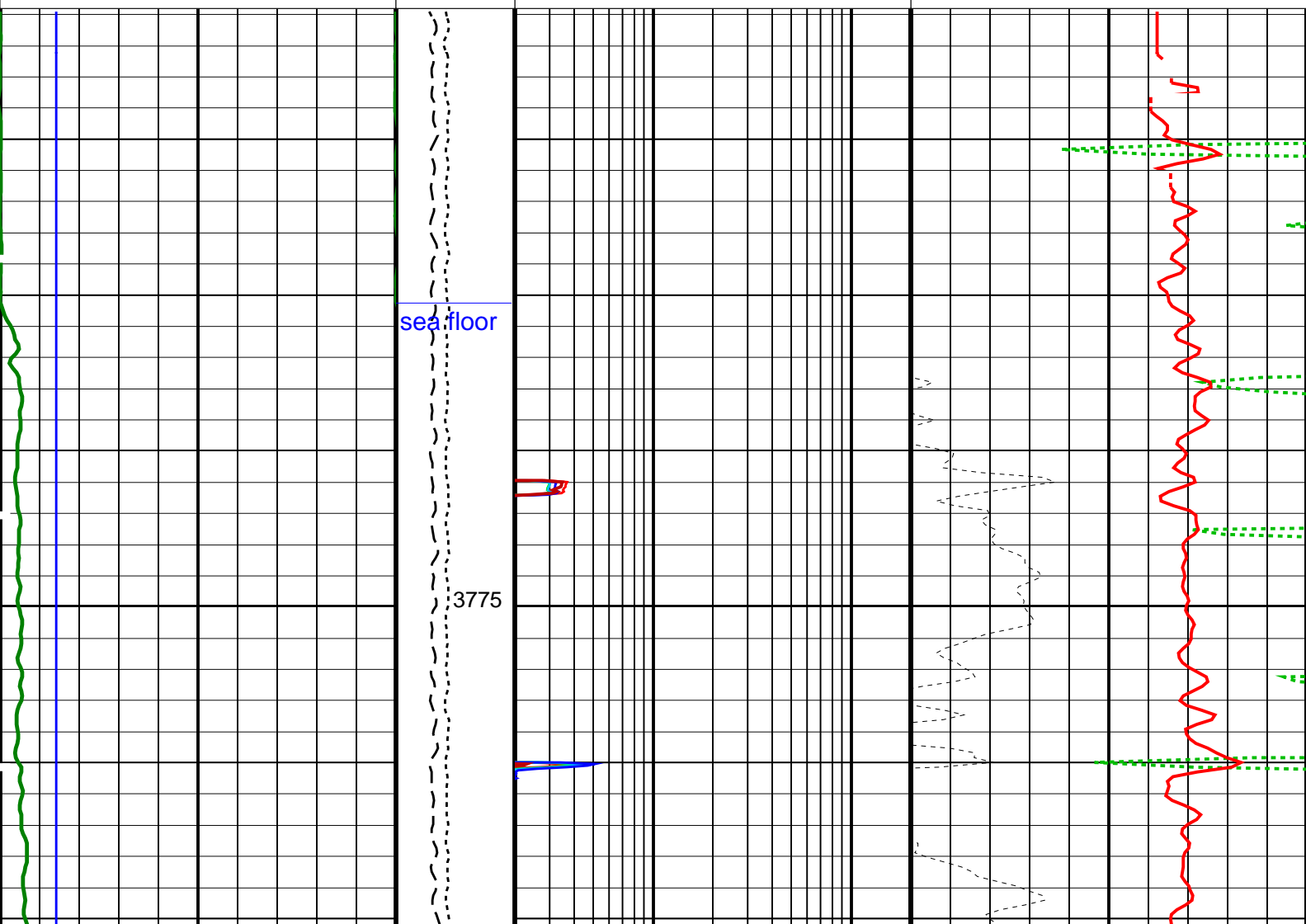
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DLIS Name	New Value	Previous Value	Depth & Time
COLL	90 US/F	65 US/F	4427.7 16:11:22

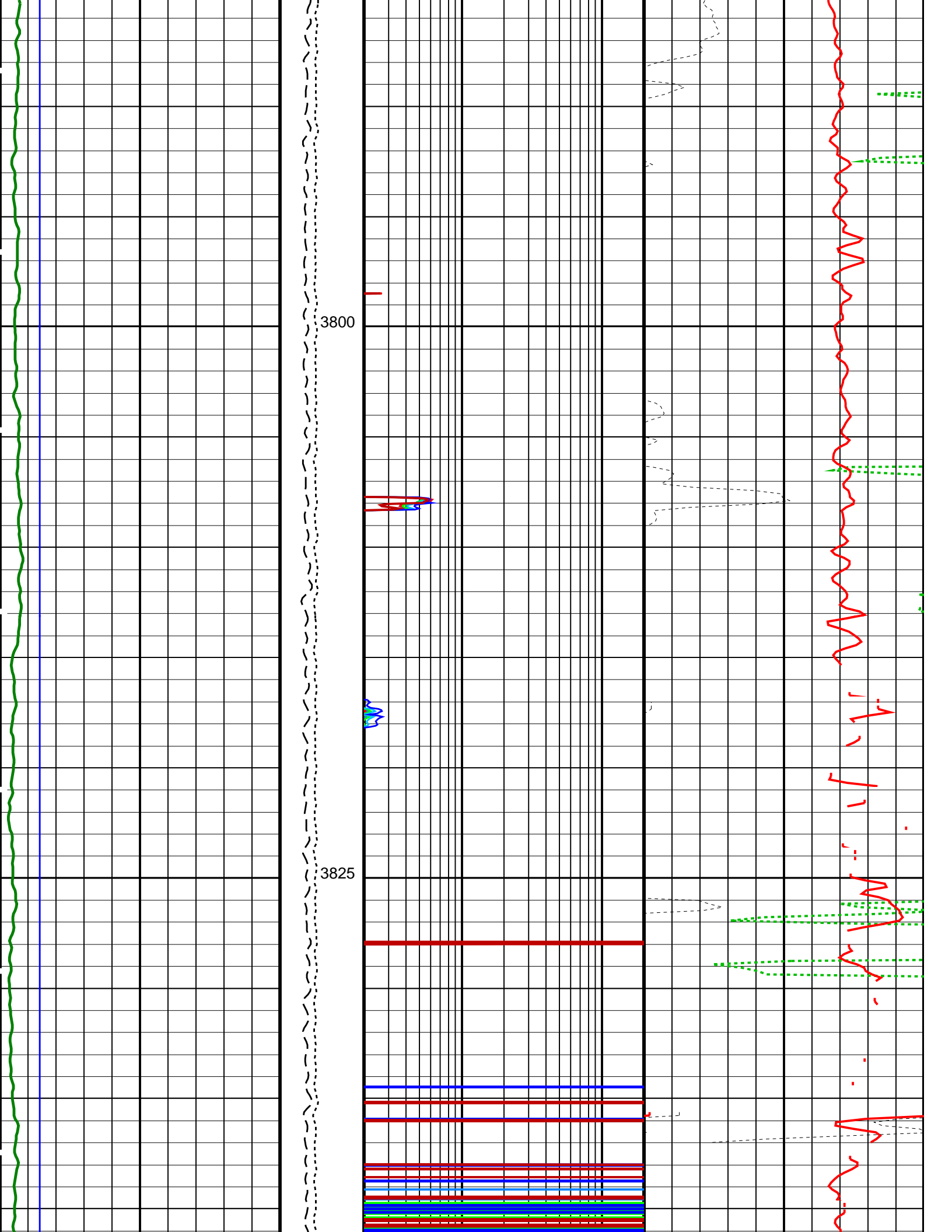
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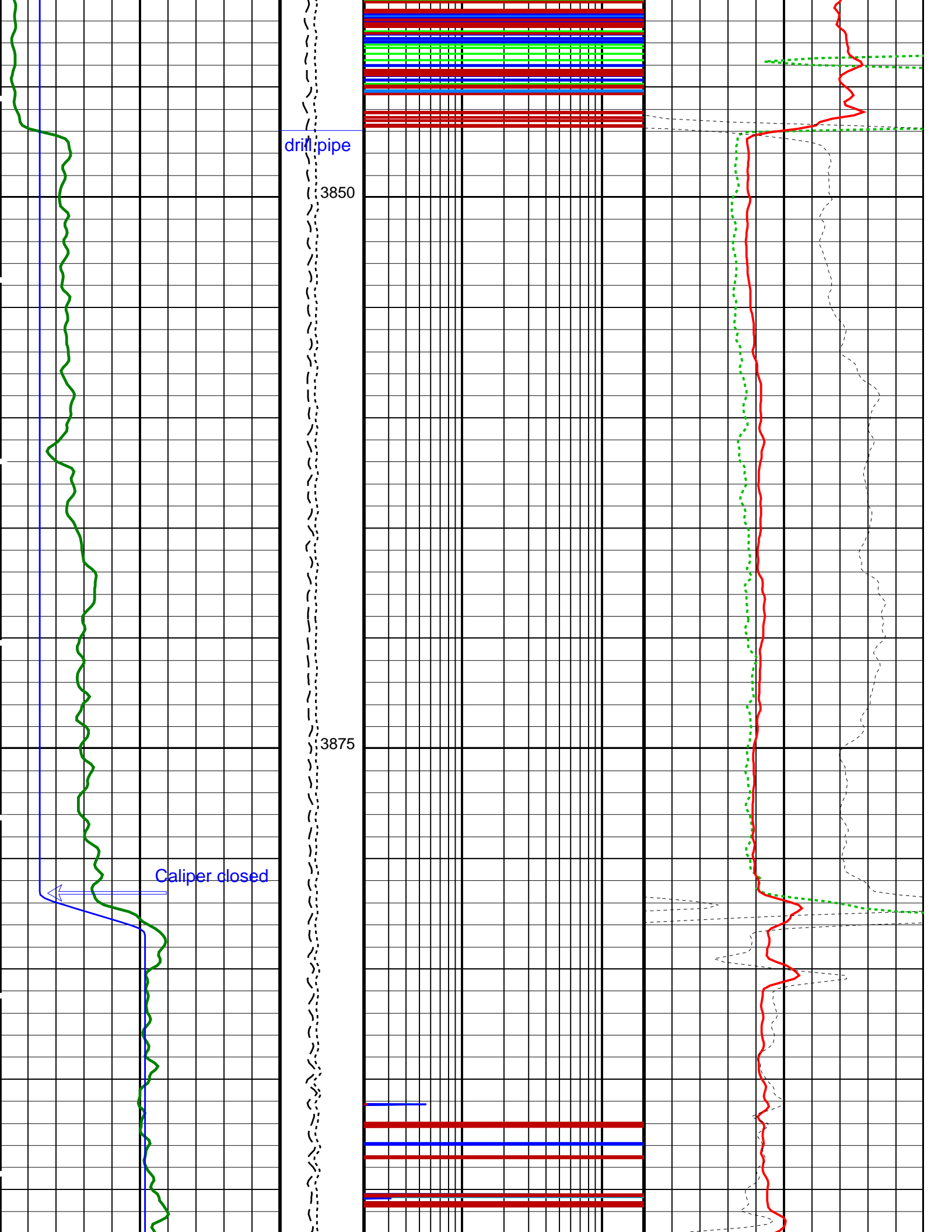
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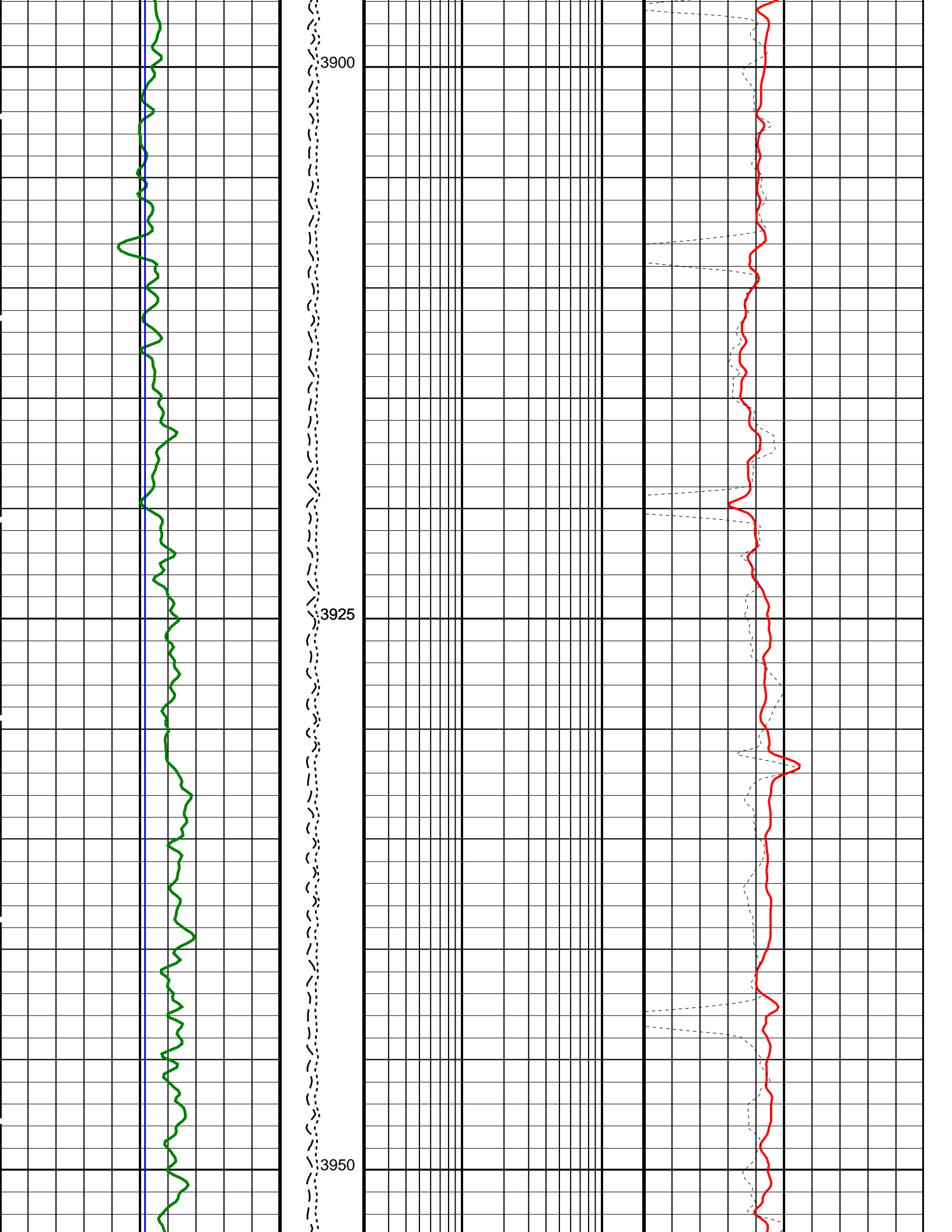
Main Pass	<b>HRLT True Resistivity (RT_HRLT)</b>		
	0.2 (OHMM)	20	
	<b>HRLT Resistivity 1 (RLA1)</b>		
	0.2 (OHMM)	20	
<b>HRLT Resistivity 2 (RLA2)</b>			
0.2 (OHMM)	20		
<b>HRLT Resistivity 3 (RLA3)</b>			
0.2 (OHMM)	20	<b>HLDS Bulk Density Correction (DRH)</b>	-0.25 (G/C3) 0.25
<b>HNGS Spectroscopy Gamma Ray (HSGR)</b>	<b>Calibrated Downhole Force (CDF) (LBF)</b>	<b>HRLT Resistivity 5 (RLA5)</b>	<b>HLDS Bulk Density (RHOM)</b>
0 (GAPI) 100	3000 0	0.2 (OHMM) 20	0 (G/C3) 4
<b>HLDS Caliper (LCAL)</b>	<b>Tension (TENS) (LBF)</b>	<b>HRLT Resistivity 4 (RLA4)</b>	<b>HLDS Long Spaced Photoelectric Effect (PEFL)</b>
0 (IN) 20	10000 0	0.2 (OHMM) 20	0 (----) 10







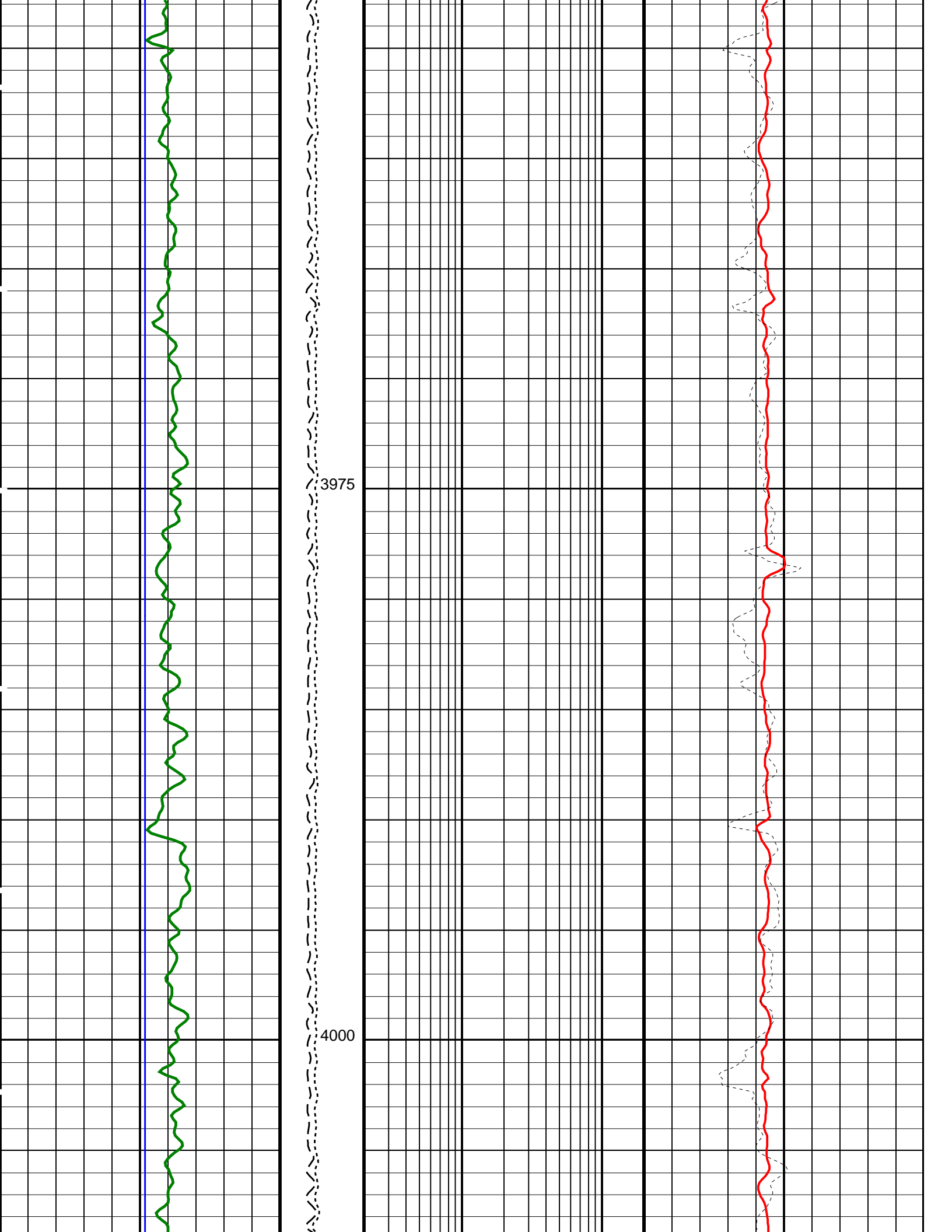


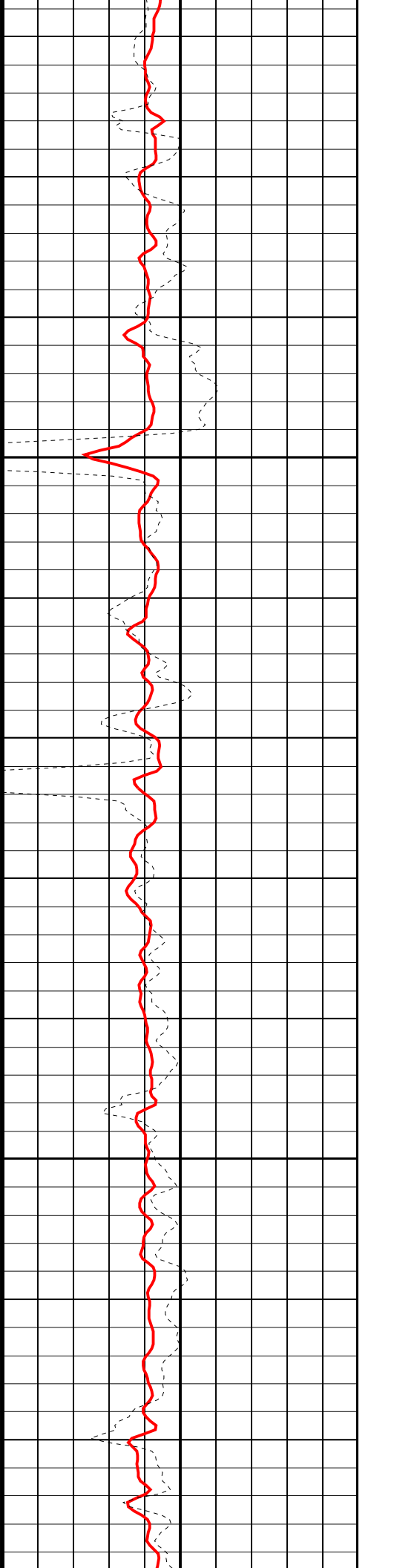
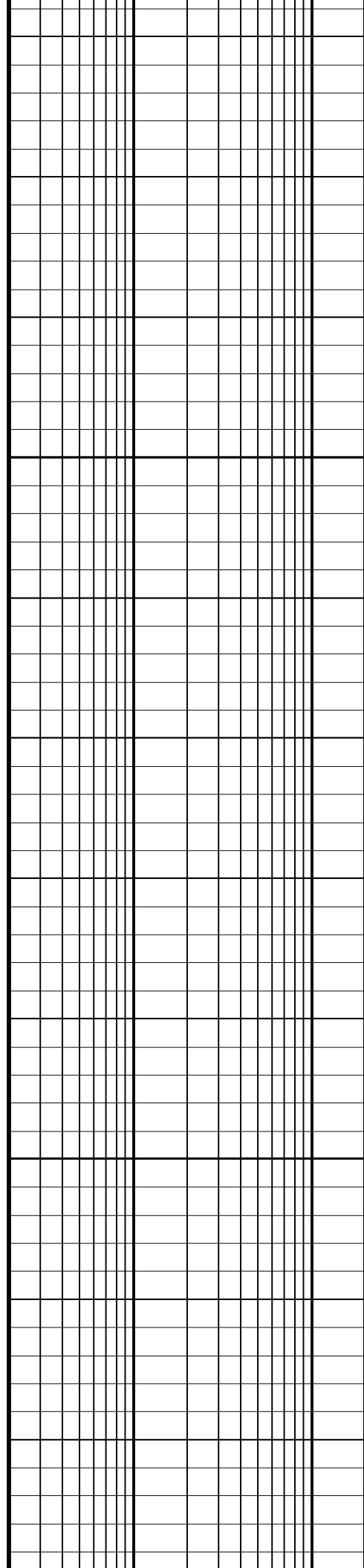
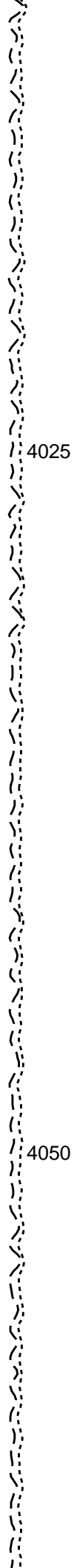
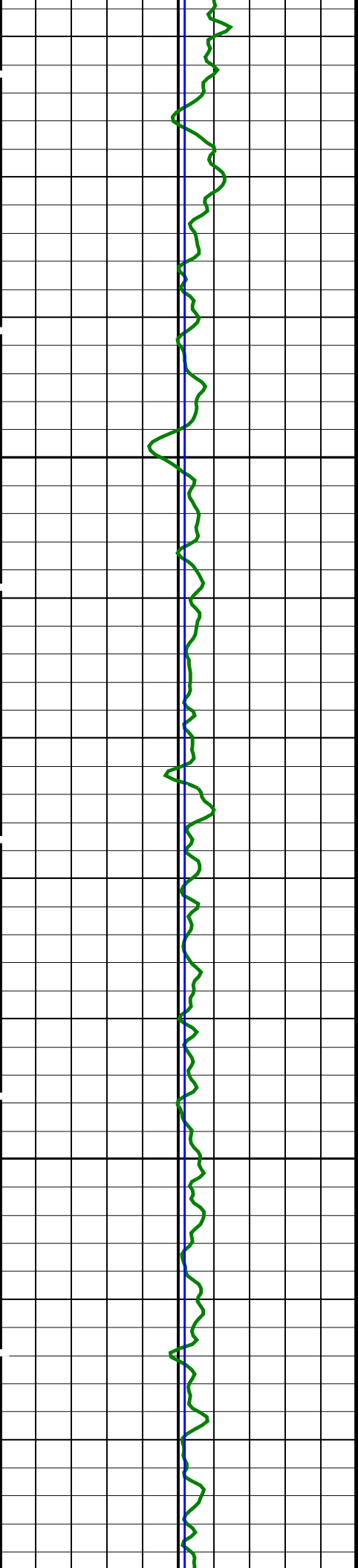


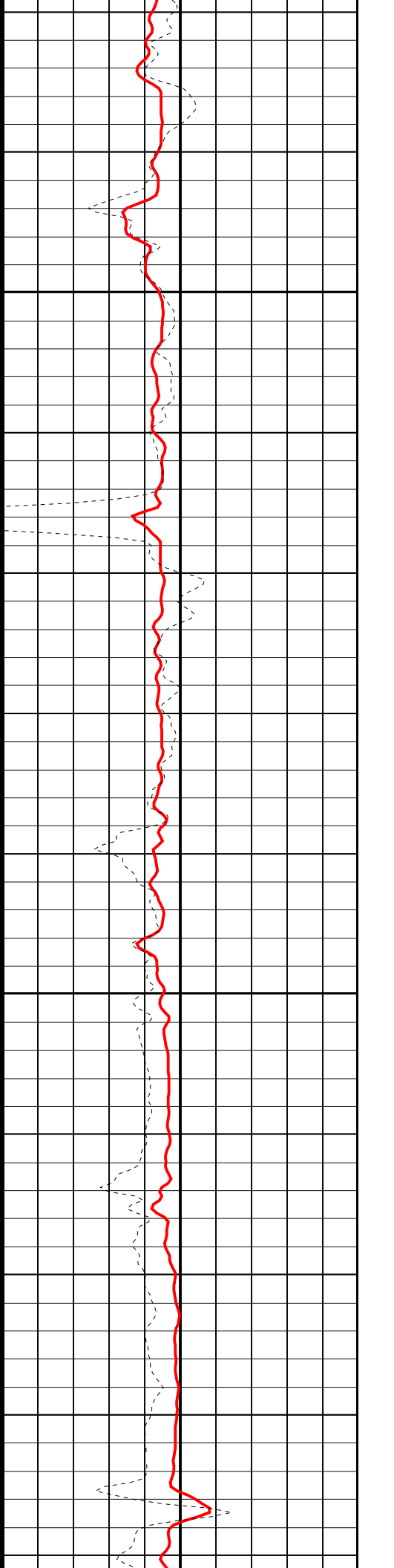
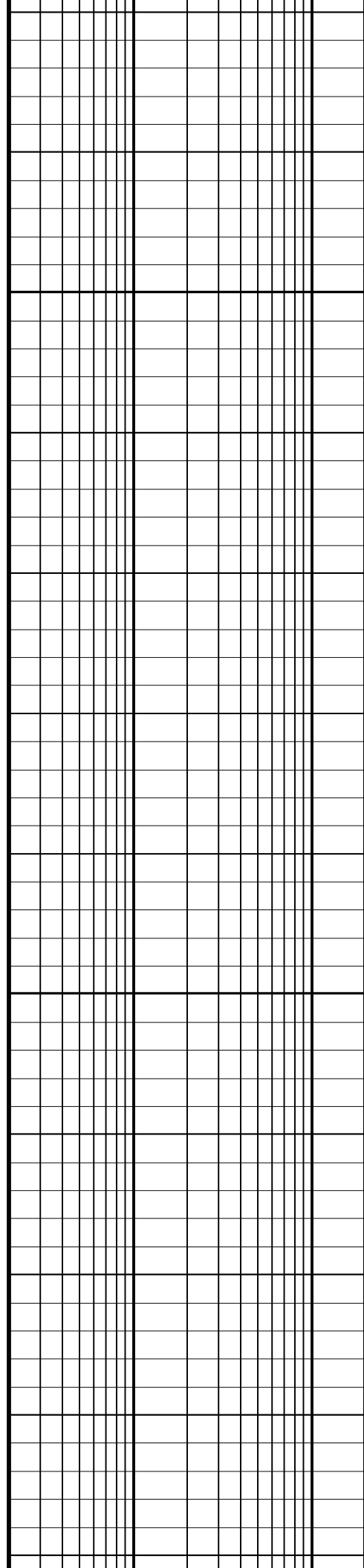
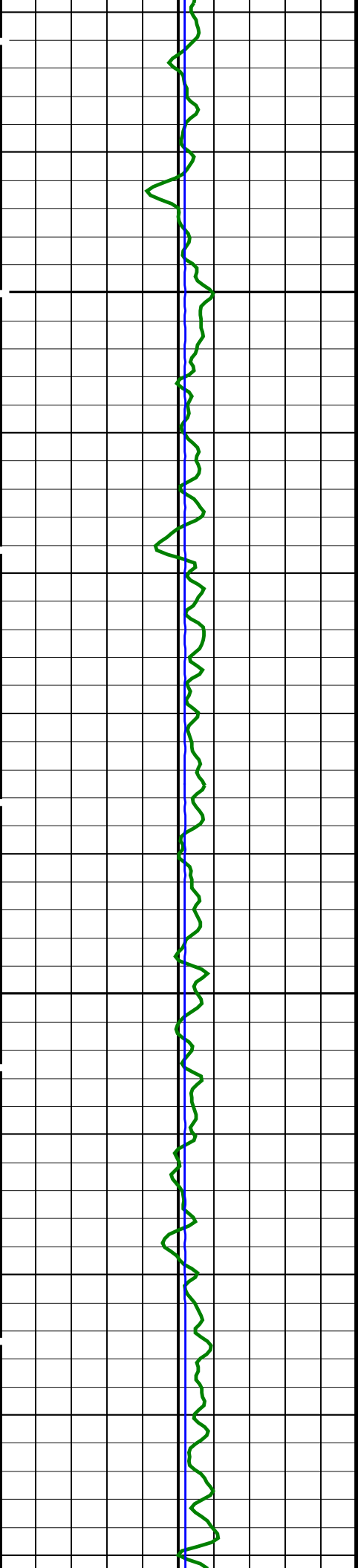
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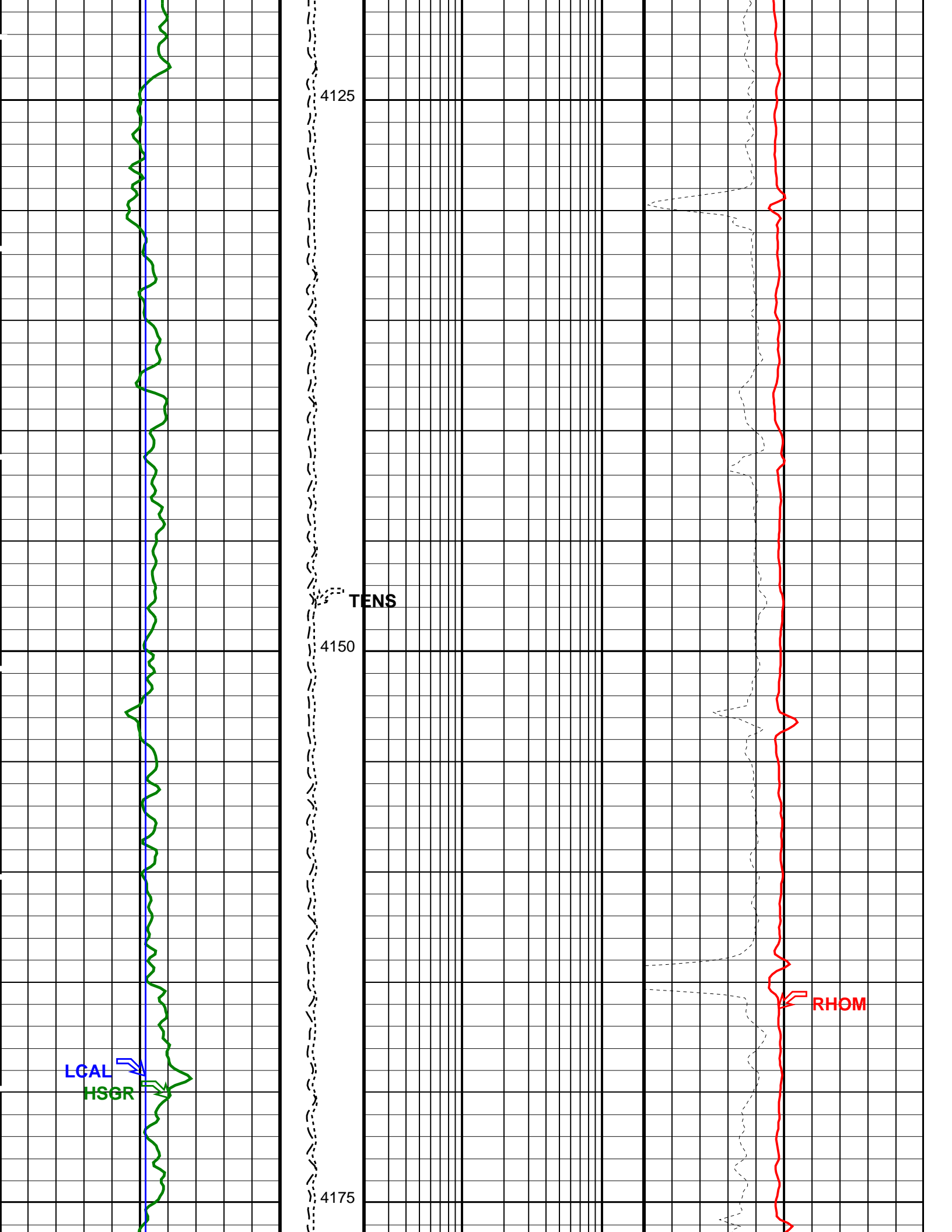
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3950









4125

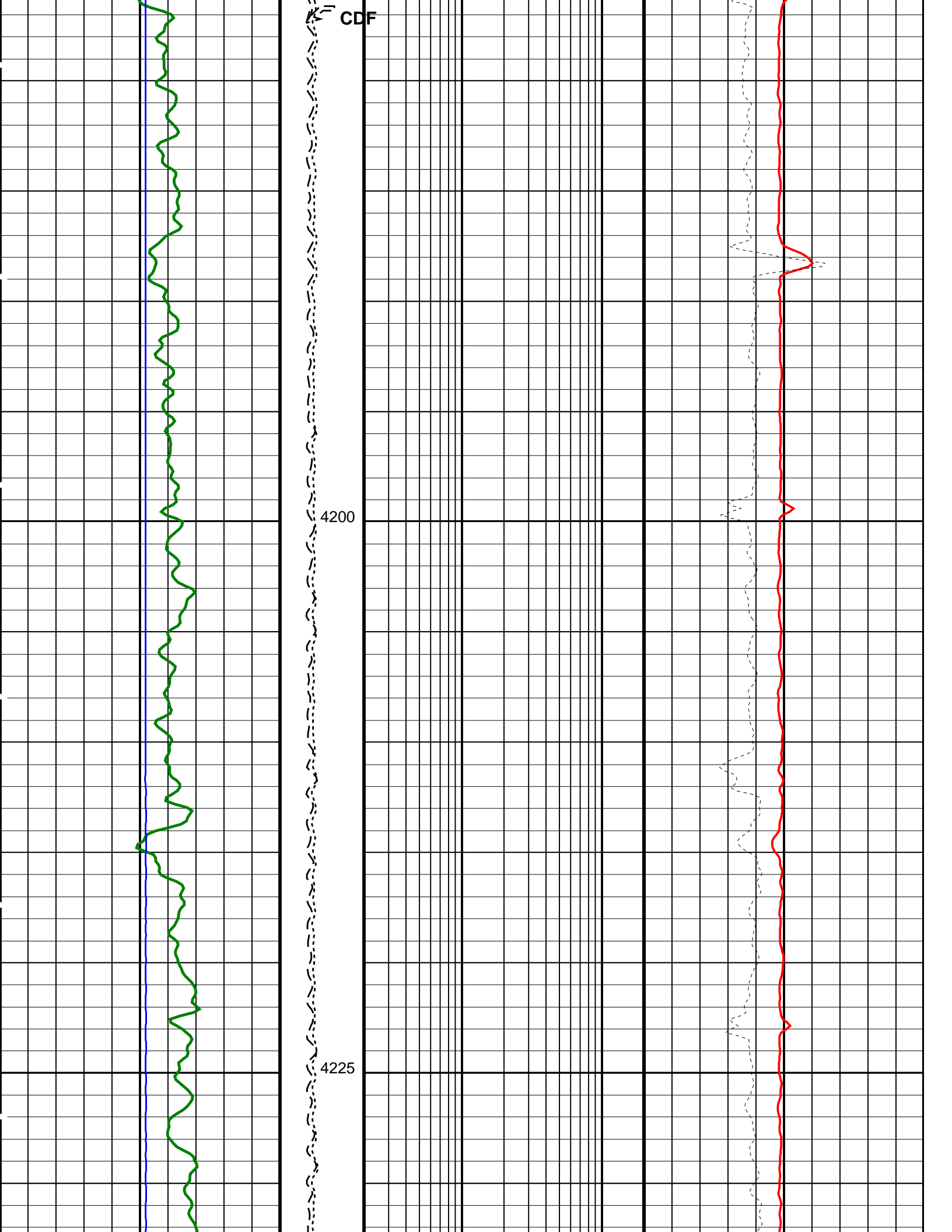
TENS

4150

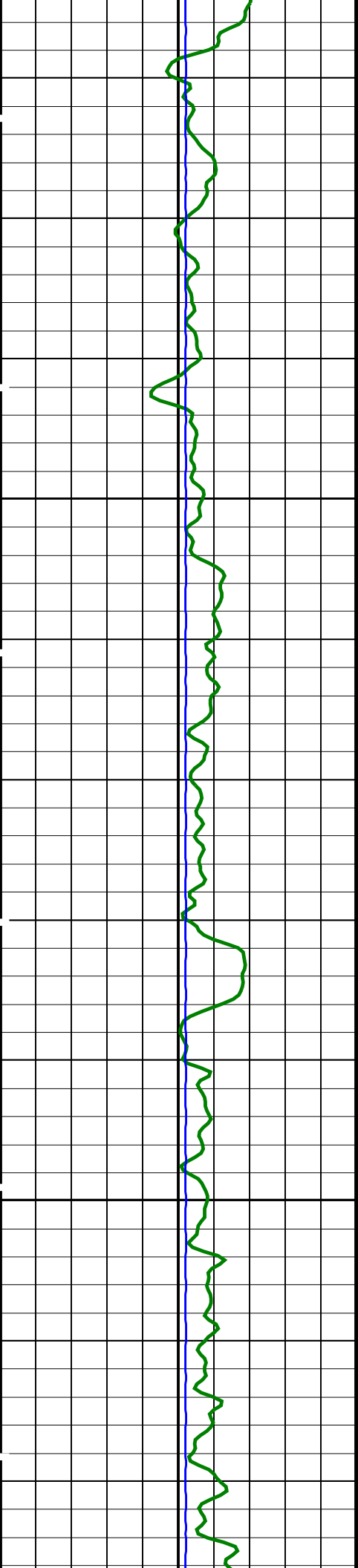
RHOM

LGAL  
HSGR

4175

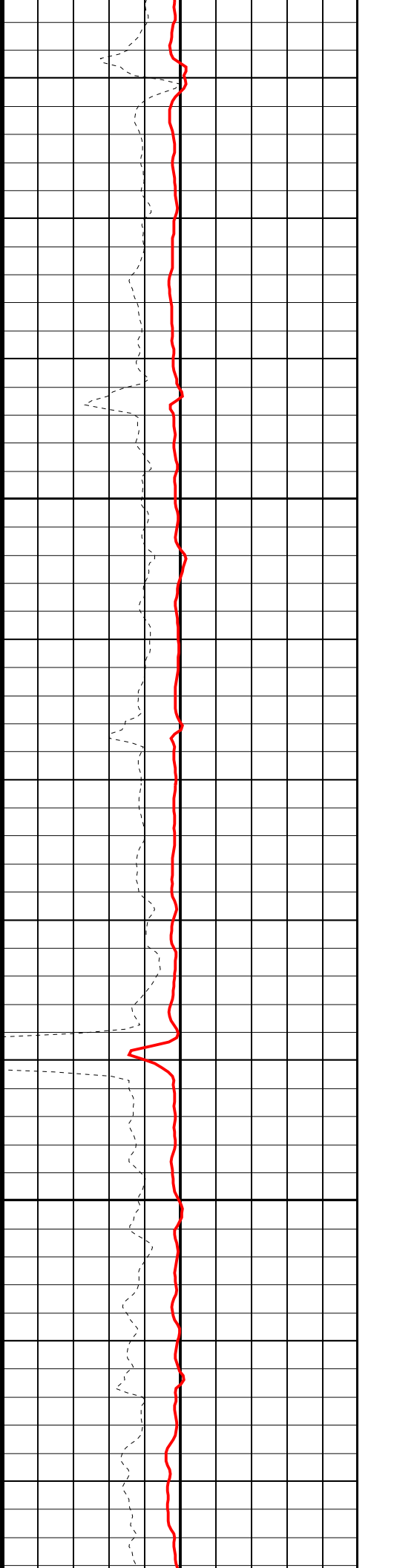
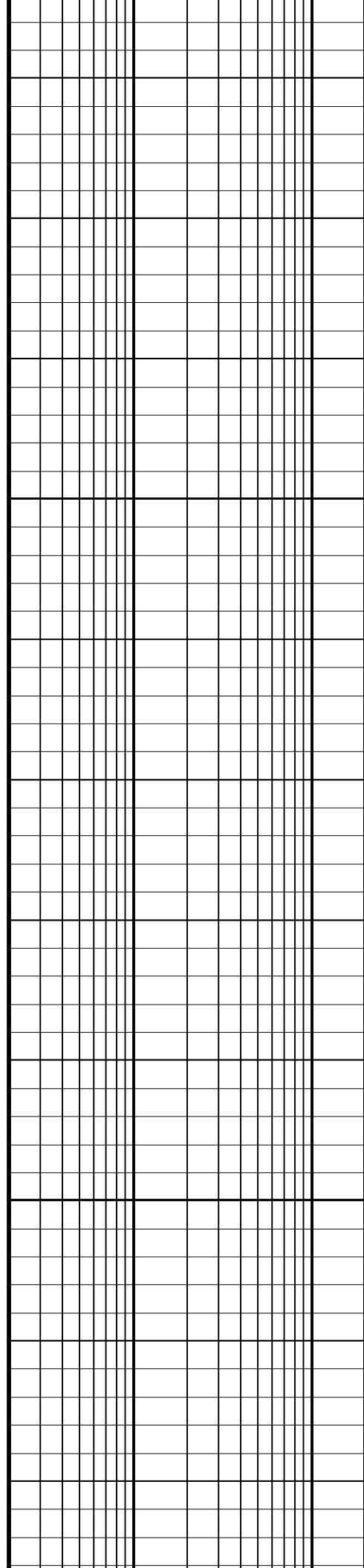


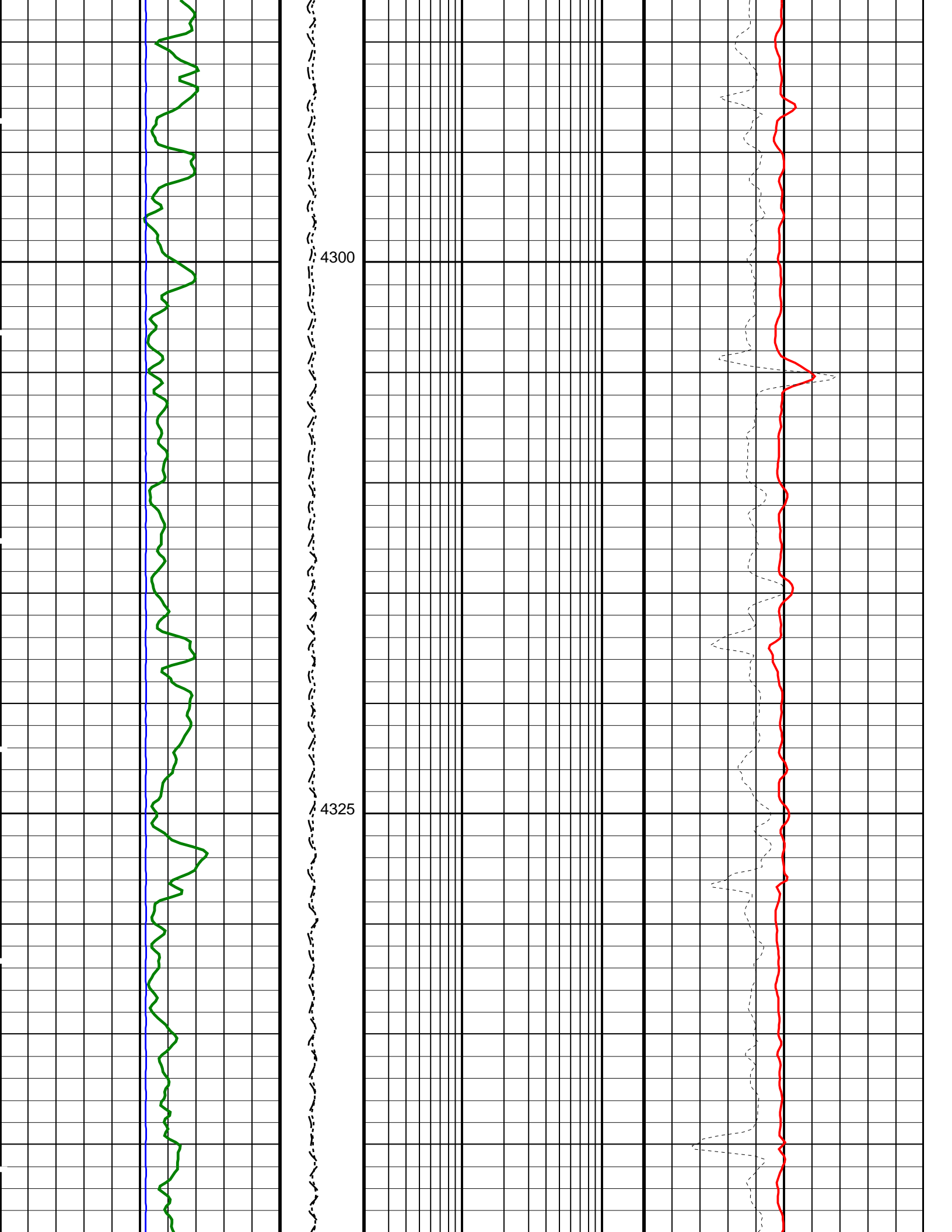




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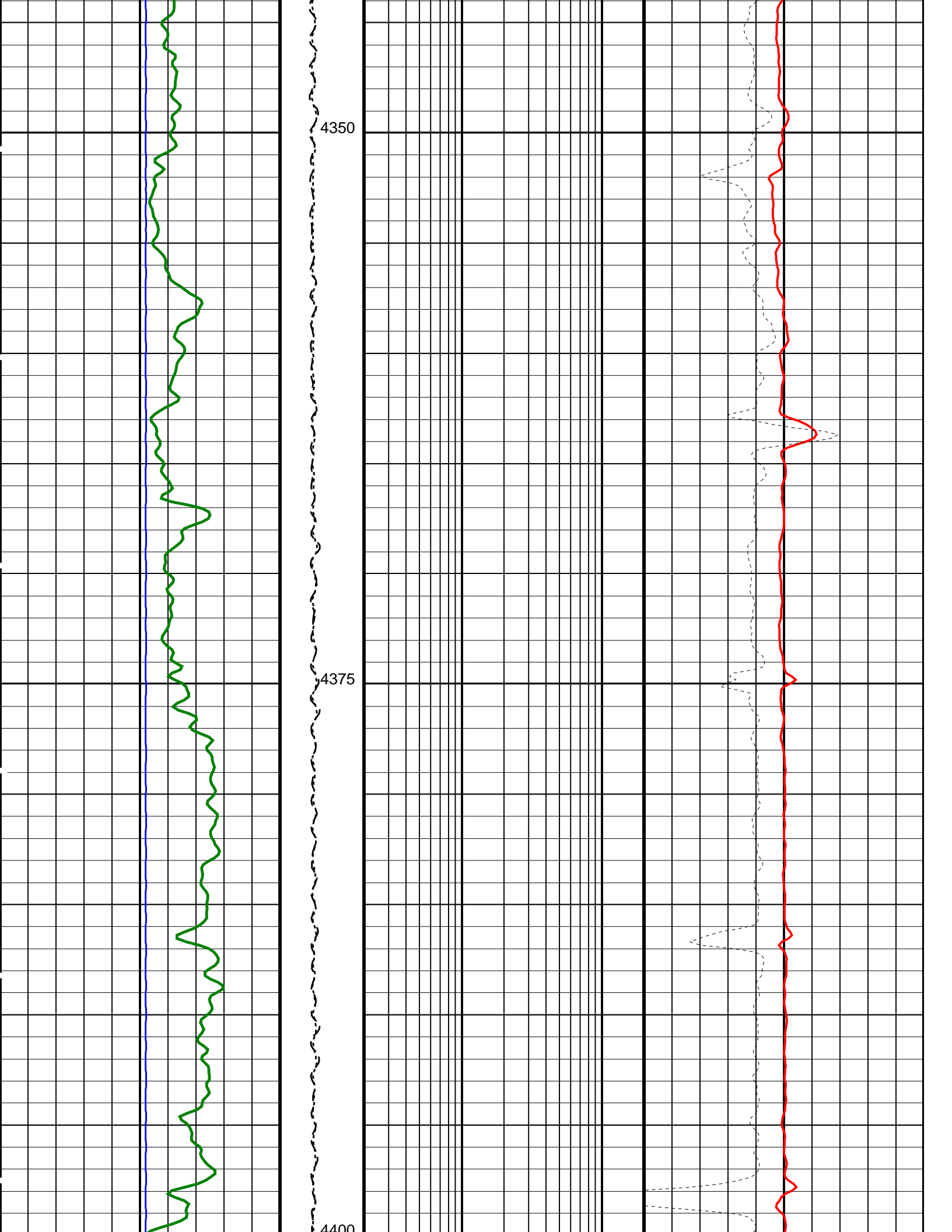
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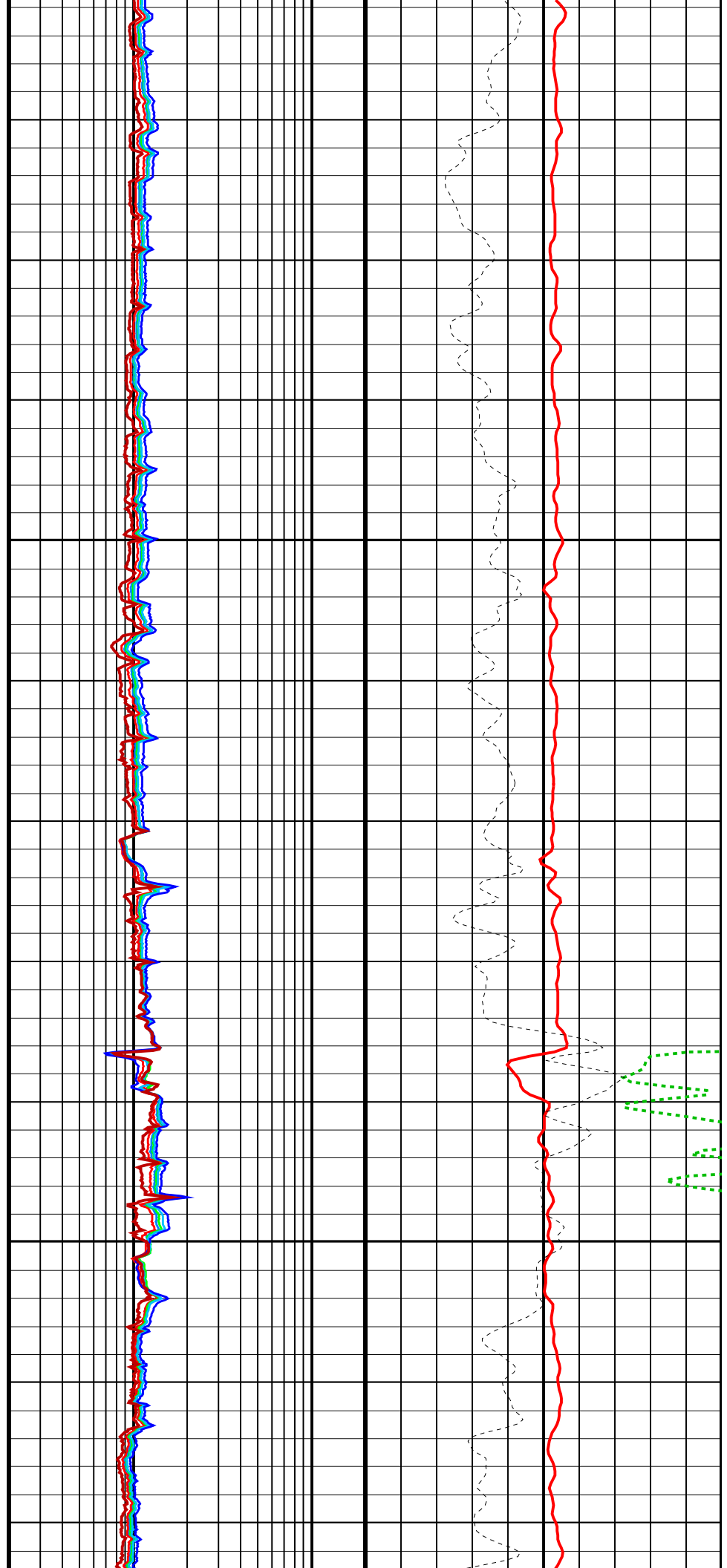
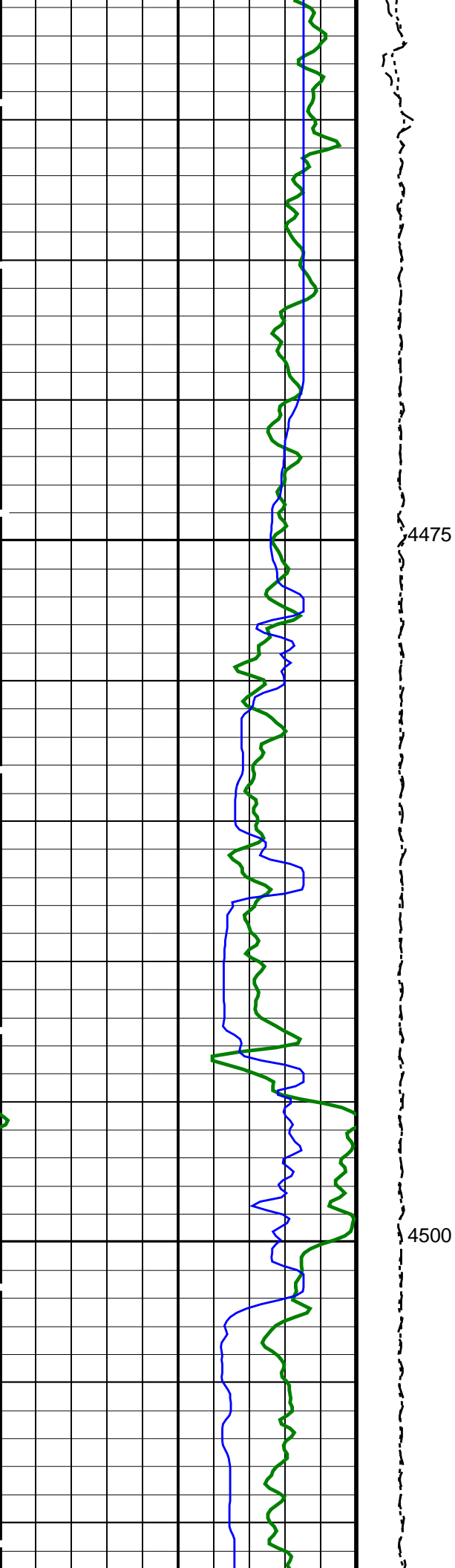


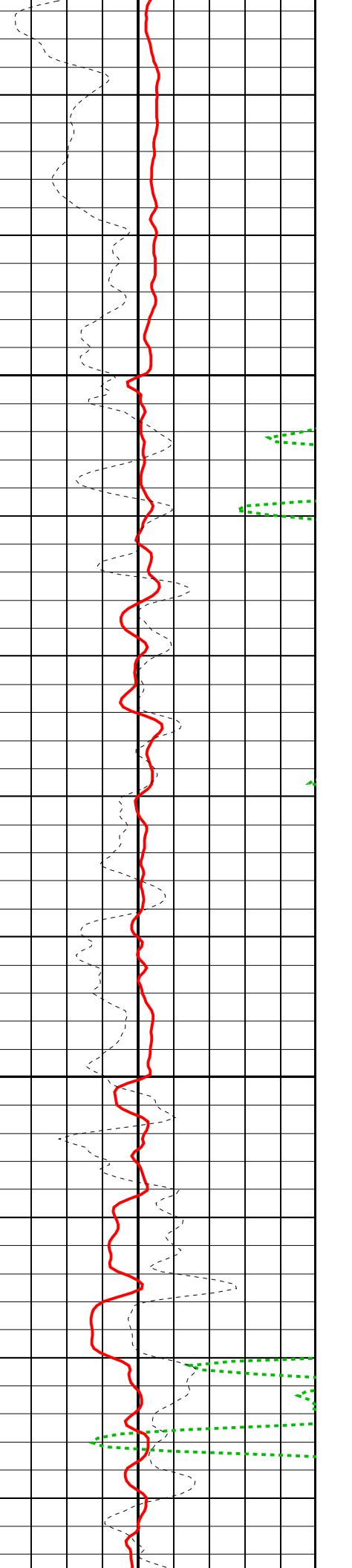
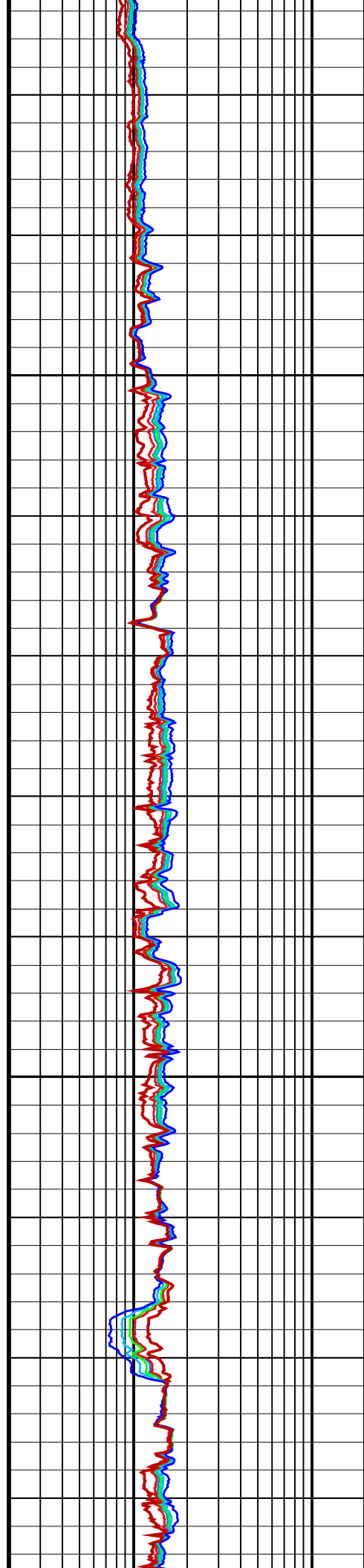
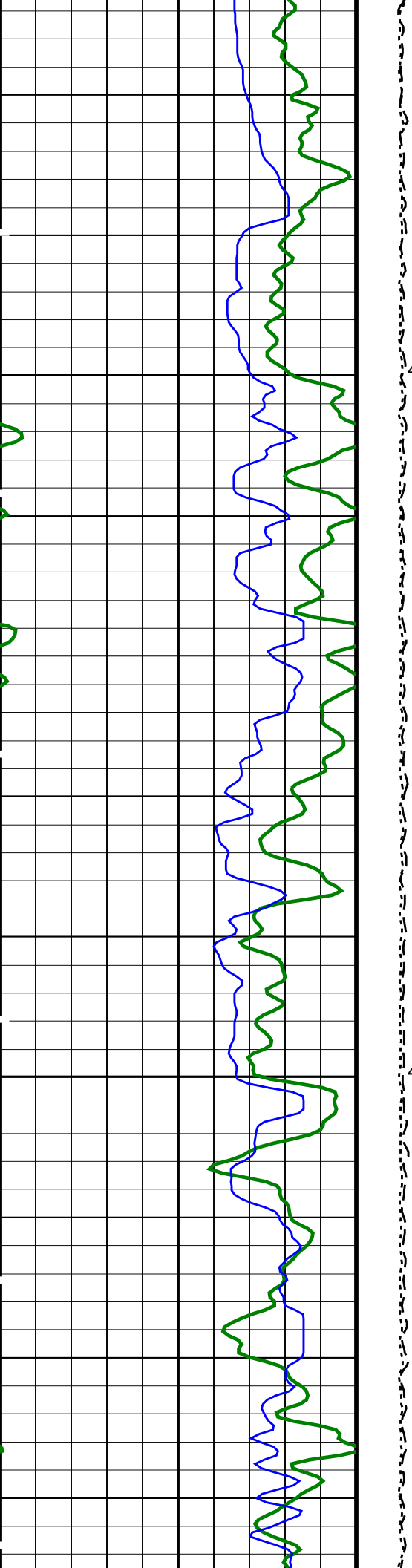
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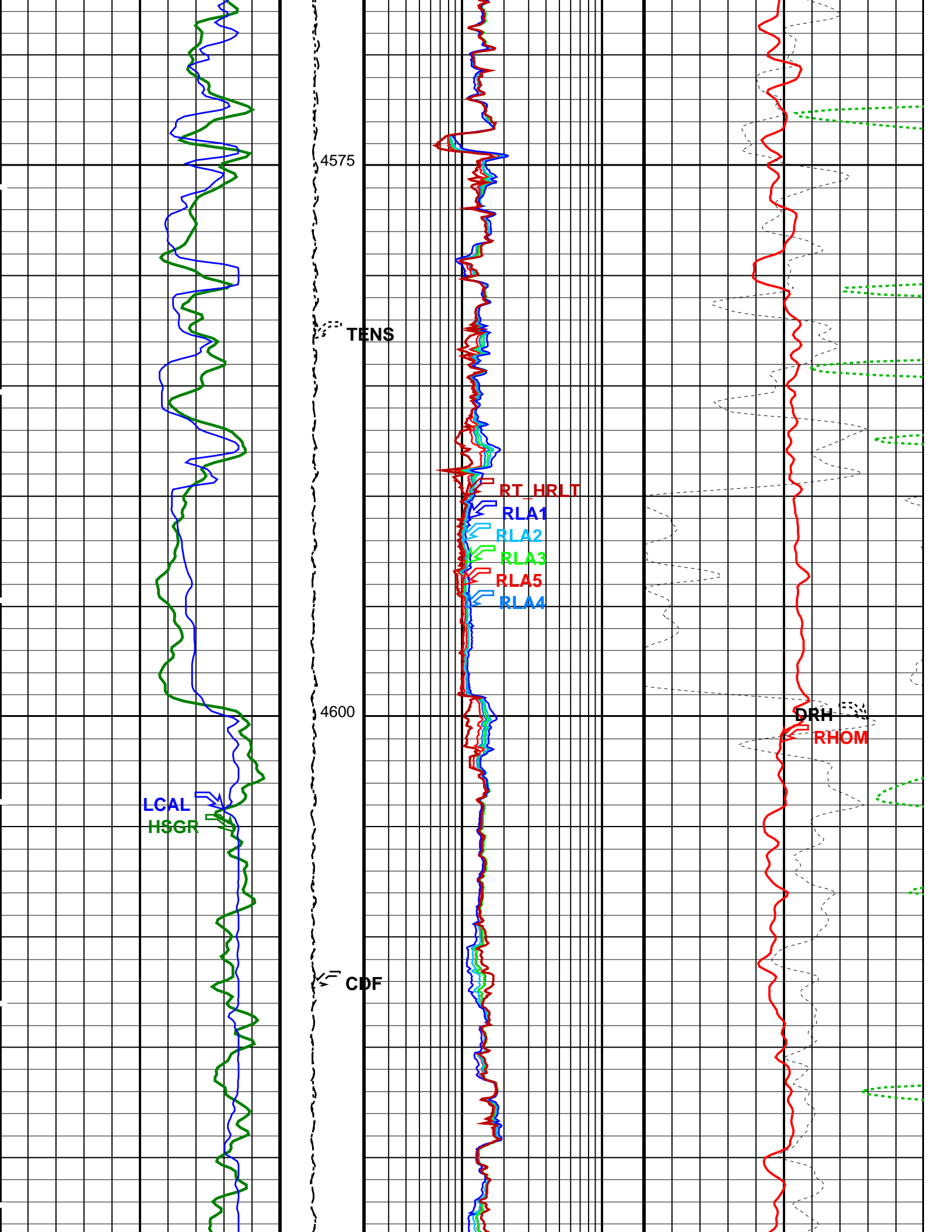
4325

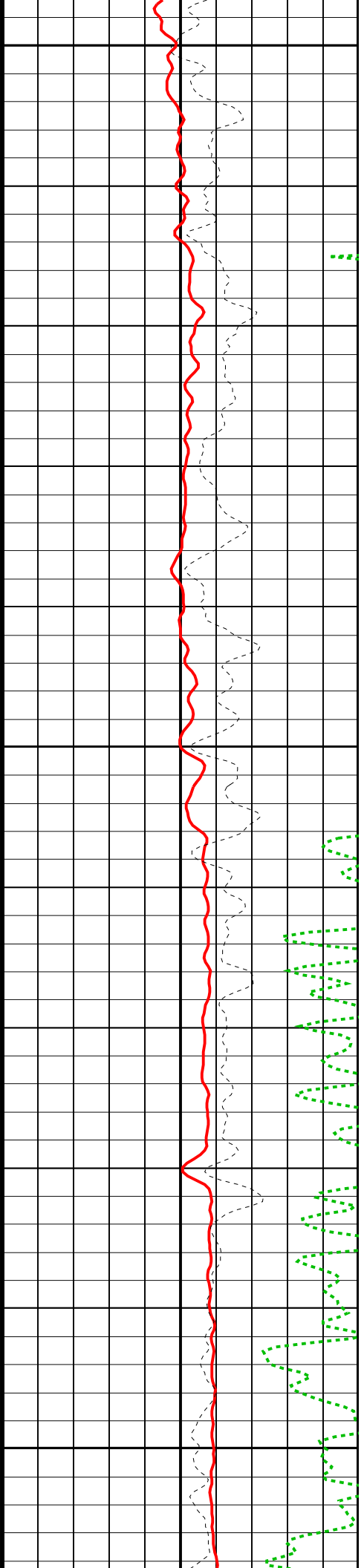
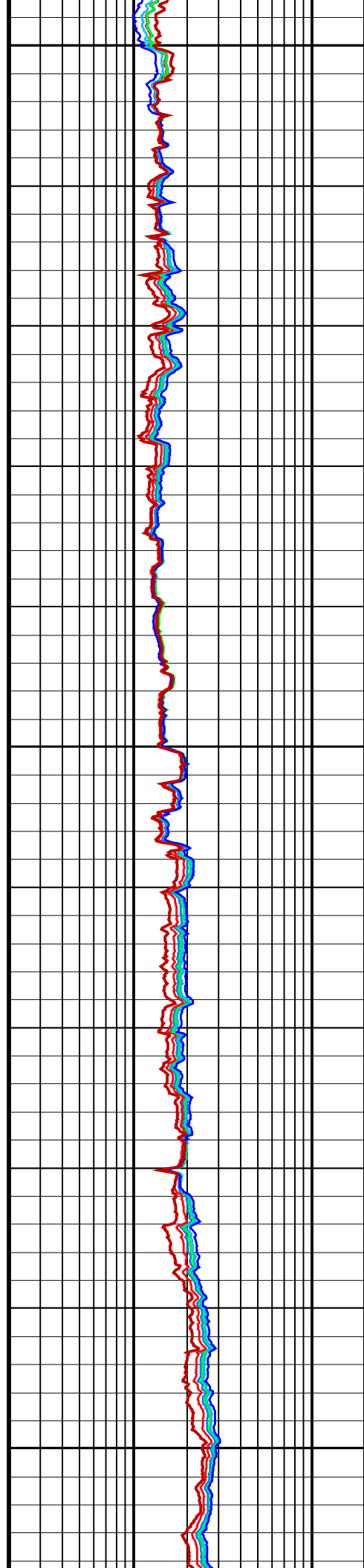
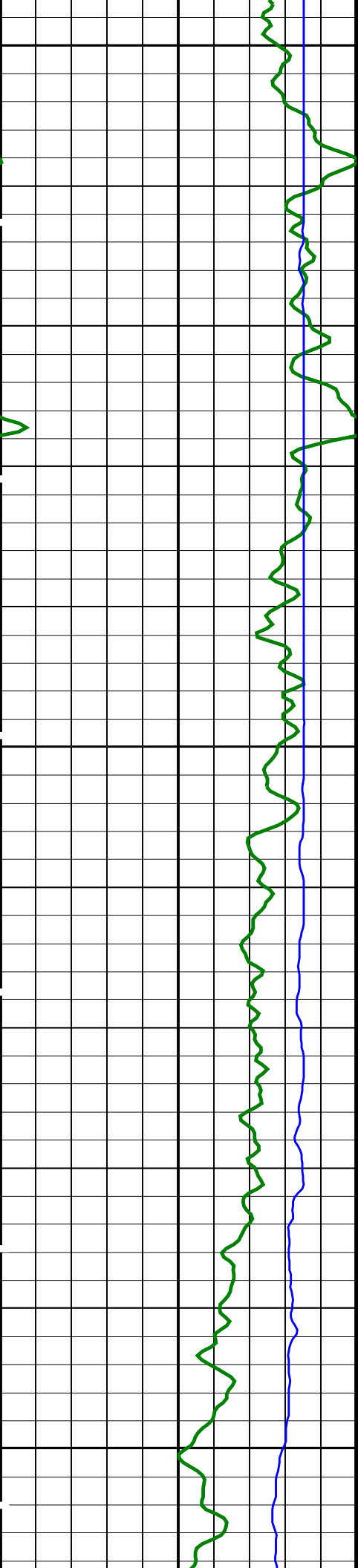




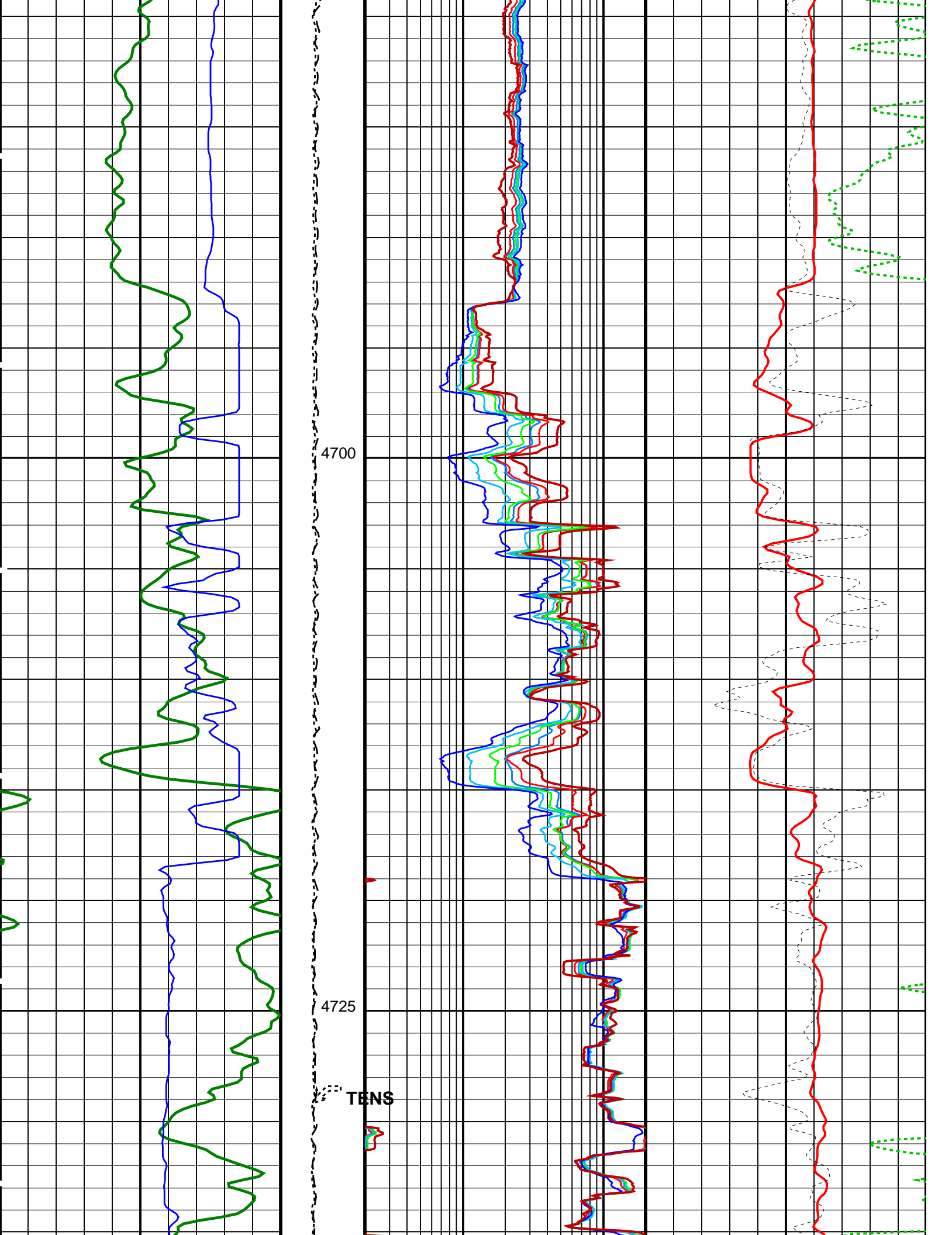


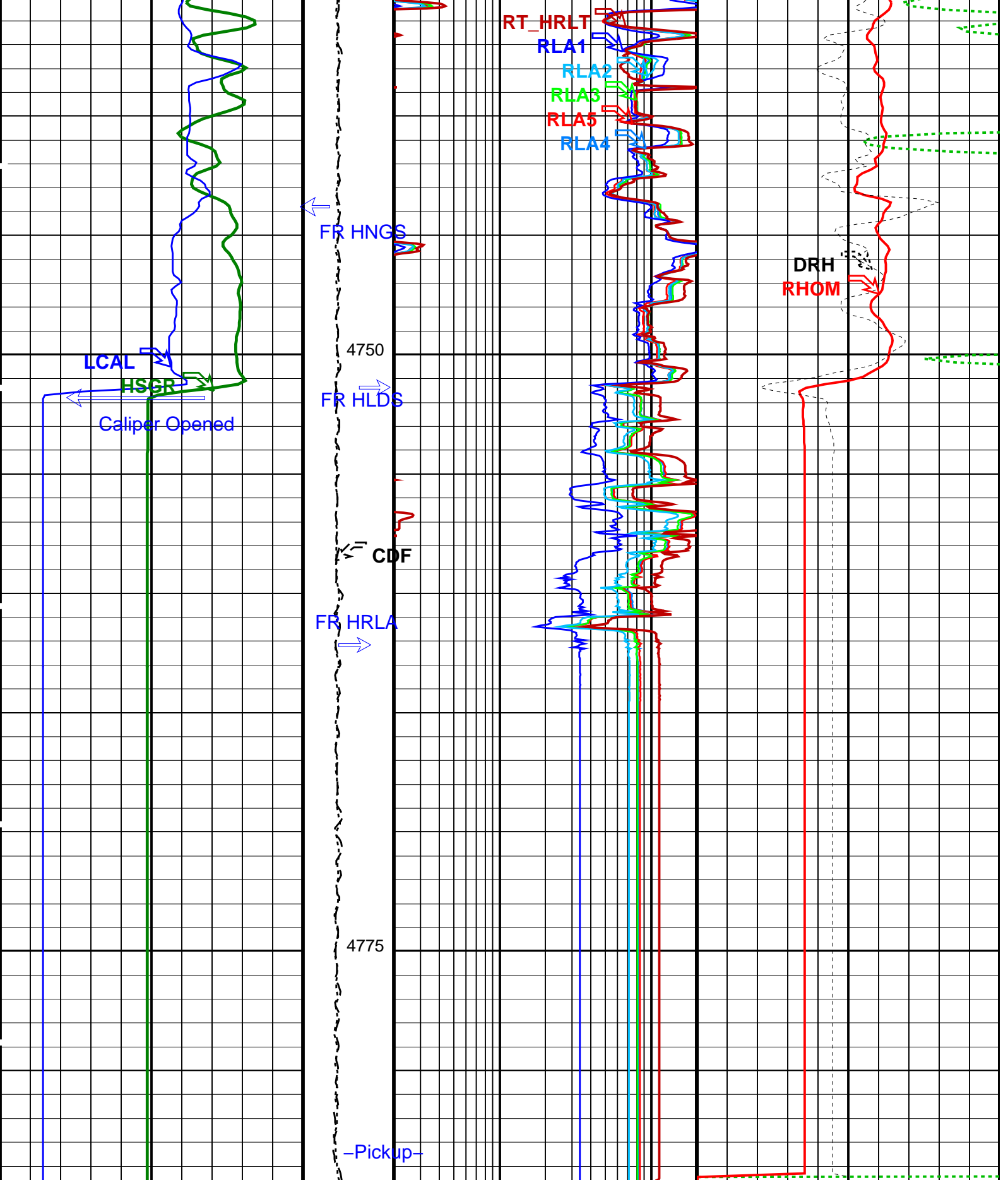












<p>HLDS Caliper (LCAL) (IN)</p> <p>0 20</p>	<p>Tension (TENS) (LBF)</p> <p>10000 0</p>	<p>HRLT Resistivity 4 (RLA4) (OHMM)</p> <p>0.2 20</p>	<p>HLDS Long Spaced Photoelectric Effect (PEFL) (----)</p> <p>0 10</p>
<p>HNGS Spectroscopy Gamma Ray (HSGR)</p>	<p>Calibrated Downhole Force (CDF)</p>	<p>HRLT Resistivity 5 (RLA5) (OHMM)</p> <p>0.2 20</p>	<p>HLDS Bulk Density (RHOM) (G/CC)</p> <p>4</p>

0	(GAPI)	100	(CDF)	0.2	(OHMM)	20	0	(G/C3)	4	
		3000	(LBF)				0			
Main Pass	<b>HRLT Resistivity 3 (RLA3)</b>						<b>HLDS Bulk Density Correction (DRH)</b>			
	0.2	(OHMM)				20	-0.25	(G/C3)		0.25
	<b>HRLT Resistivity 2 (RLA2)</b>									
	0.2	(OHMM)				20				
	<b>HRLT Resistivity 1 (RLA1)</b>									
0.2	(OHMM)				20					
<b>HRLT True Resistivity (RT_HRLT)</b>										
0.2	(OHMM)				20					

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value
DSST-B: Dipole Shear Imager - B		
AGC1	Automatic Gain Control 1	ON
AGC2	Automatic Gain Control 2	ON
AGC3	Automatic Gain Control 3	ON
AGC4	Automatic Gain Control 4	ON
AGC5	Automatic Gain Control 5	ON
AGCX	Automatic Gain Control X	ON
BARS_MTR1	Length for Monopole Transmitter to Receiver 1	2.7432 M
BHS	Borehole Status	OPEN
BHT	Bottom Hole Temperature (used in calculations)	21 DEGC
CASF	Label Casing Function - Monopole P&S	50
CDTS	C-Delta-T Shale	100 US/F
COLL	Label Slowness Lower Limit - Monopole P&S Compressional	65 US/F
COUL	Label Slowness Upper Limit - Monopole P&S Compressional	175 US/F
DDE1	Digitizing Delay 1	0 US
DDE2	Digitizing Delay 2	0 US
DDE3	Digitizing Delay 3	0 US
DDE4	Digitizing Delay 4	0 US
DDE5	Digitizing Delay 5	0 US
DDEX	Digitizing Delay X	0 US
DLCS	Label Compressional Source - Dipole Shear	USE
DLHS	Label Hole Diameter Source for SOBS Channel	AUTO
DSHL	Label Slowness Lower Limit - Dipole Shear	75 US/F
DSHU	Label Slowness Upper Limit - Dipole Shear	600 US/F
DSI1	Digitizer Sample Interval 1	40 US
DSI2	Digitizer Sample Interval 2	40 US
DSI3	Digitizer Sample Interval 3	40 US
DSI4	Digitizer Sample Interval 4	10 US
DSI5	Digitizer Sample Interval 5	10 US
DSIX	Digitizer Sample Interval X	40 US
DTCS	Compressional Delta-T Source for DTCO Channel	PS_COMP
DTF	Delta-T Fluid	193 US/F
DTM	Delta-T Matrix	56 US/F
DTSS	Shear Delta-T Source for DTSM Channel	UPPER_DIPOLE
DWC1	Digitizer Word Count 1	512
DWC2	Digitizer Word Count 2	512
DWC3	Digitizer Word Count 3	512
DWC4	Digitizer Word Count 4	512
DWC5	Digitizer Word Count 5	512
DWCX	Digitizer Word Count X	512
FDE1	Firing Delay 1	0
FDE2	Firing Delay 2	0
FDE3	Firing Delay 3	0
FDE4	Firing Delay 4	0
FDE5	Firing Delay 5	0
FDEX	Firing Delay X	0
FGM5	First Motion Gate Moveout 5	40 US/F
FGMX	First Motion Gate Moveout X	40 US/F
FILG	Label Fill Gap Control - Monopole P&S	COMP_SHEAR
FMG5	First Motion Minimum Gate 5	500 US
FMGX	First Motion Minimum Gate X	500 US
FMLL	Slowness Lower Limit - FMD	40 US/F
FMRC	Restart Control - FMD	CONTINUE
FMT5	First Motion Threshold 5	UP
FMTX	First Motion Threshold X	NONE
FMUL	Slowness Upper Limit - FMD	180 US/F
FNC5	First Motion Noise Counter Input 5	ALO
FNCX	First Motion Noise Counter Input X	ALO

PFM	Processing Mode - FMD	NONE	
FTD5	First Motion Threshold Direction 5	UP	
FTDX	First Motion Threshold Direction X	UP	
GAI1	Manual Gain 1	10	
GAI2	Manual Gain 2	10	
GAI3	Manual Gain 3	6	
GAI4	Manual Gain 4	16	
GAI5	Manual Gain 5	16	
GAIX	Manual Gain X	10	
GCSE	Generalized Caliper Selection	LCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GDT1	Gain Delta-T 1	800	US/F
GDT2	Gain Delta-T 2	800	US/F
GDT3	Gain Delta-T 3	800	US/F
GDT4	Gain Delta-T 4	160	US/F
GDT5	Gain Delta-T 5	160	US/F
GDTX	Gain Delta-T X	800	US/F
GGRD	Geothermal Gradient	0.018227	DC/M
GIN1	Gain Interval 1	15360	US
GIN2	Gain Interval 2	15360	US
GIN3	Gain Interval 3	15360	US
GIN4	Gain Interval 4	2560	US
GIN5	Gain Interval 5	1600	US
GINX	Gain Interval X	15360	US
GRSE	Generalized Mud Resistivity Selection	CHART_GEN 9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
HPF1	High Pass Filter 1	F80	
HPF2	High Pass Filter 2	F80	
HPF3	High Pass Filter 3	F80	
HPF4	High Pass Filter 4	F8K	
HPF5	High Pass Filter 5	F8K	
HPFX	High Pass Filter X	F80	
ISSBAR	Barite Mud Switch	BARITE	
ITTS	Integrated Transit Time Source	DTCO	
LFC	Label Formation Character - Monopole P&S	DYNAMIC	
LPF1	Low Pass Filter 1	F5K	
LPF2	Low Pass Filter 2	F5K	
LPF3	Low Pass Filter 3	F5K	
LPF4	Low Pass Filter 4	F30K	
LPF5	Low Pass Filter 5	F30K	
LPFX	Low Pass Filter X	F5K	
LTXG	Lower Dipole Transmitter Geometry	156	IN
MAI5	Slowness Averaging Interval - FMD	42	IN
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
MCS	Mean Casing Slowness	57	US/F
MDS5	Multishot Delta-T Scatter - FMD	20	US
MTXG	Monopole Transmitter Geometry	186	IN
MUX1	Sum Difference Multiplexor Input 1	RR	
MUX2	Sum Difference Multiplexor Input 2	RR	
MUX3	Sum Difference Multiplexor Input 3	RR	
MUX4	Sum Difference Multiplexor Input 4	RR	
MUX5	Sum Difference Multiplexor Input 5	RR	
MUXX	Sum Difference Multiplexor Input X	RR	
NTI5	Number Threshold Items 5	0	
NTIX	Number Threshold Items X	0	
NWI1	Number Waveform Items 1	8	
NWI2	Number Waveform Items 2	8	
NWI3	Number Waveform Items 3	0	
NWI4	Number Waveform Items 4	8	
NWI5	Number Waveform Items 5	0	
NWIX	Number Waveform Items X	0	
NWS1	Number Waveforms Stacked 1	1	
NWS2	Number Waveforms Stacked 2	1	
NWS3	Number Waveforms Stacked 3	1	
NWS4	Number Waveforms Stacked 4	1	
NWS5	Number Waveforms Stacked 5	1	
NWSX	Number Waveforms Stacked X	1	
RATE	Firing Rate	R7	
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	
SAM2	DSST Sonic Acquisition Mode 2 - Upper Dipole Mode	ODD	
SAM3	DSST Sonic Acquisition Mode 3 - Monopole Mode for Stoneley	OFF	
SAM4	DSST Sonic Acquisition Mode 4 - Monopole Mode for P&S	EVEN	
SAM5	DSST Sonic Acquisition Mode 5 - Monopole Mode for FMD	OFF	
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	
SAS3	STC Sonic Array Status - Monopole Stoneley	255	
SAS4	STC Sonic Array Status - Monopole P&S	255	
SAS5	Sonic Array Status - FMD	255	
SBO1	STC Search Band Offset - Lower Dipole	3000	US
SBO2	STC Search Band Offset - Upper Dipole	3000	US
SBO3	STC Search Band Offset - Monopole Stoneley	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
SBW2	STC Search Bandwidth - Upper Dipole	8000	US
SBW3	STC Search Bandwidth - Monopole Stoneley	8000	US
SBW4	STC Search Bandwidth - Monopole P&S	2000	US
SFC1	STC Formation Character - Lower Dipole	SELECTABLE	
SFC2	STC Formation Character - Upper Dipole	SELECTABLE	
SFC3	STC Formation Character - Monopole Stoneley	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	
SFM3	STC Filter - Monopole Stoneley	B.5-1.5K	
SFM4	STC Filter - Monopole P&S	B3-20K	
SHLL	Label Slowness Lower Limit - Monopole P&S Shear	235	US/F
SHT	Surface Hole Temperature	20	DEGC
SHUL	Label Slowness Upper Limit - Monopole P&S Shear	240	US/F
SLL1	STC Slowness Lower Limit - Lower Dipole	75	US/F
SLL2	STC Slowness Lower Limit - Upper Dipole	75	US/F
SLL3	STC Slowness Lower Limit - Monopole Stoneley	180	US/F
SLL4	STC Slowness Lower Limit - Monopole P&S	40	US/F
SPFS	Sonic Porosity Formula	RAYMER_HUNT	
SPSO	Sonic Porosity Source	DTCO	
SST1	STC Slowness Step - Lower Dipole	4	US/F
SST2	STC Slowness Step - Upper Dipole	4	US/F
SST3	STC Slowness Step - Monopole Stoneley	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	
SSW3	STC Source Waveform - Monopole Stoneley	WF_SAM3	
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	1200	US/F
SUL2	STC Slowness Upper Limit - Upper Dipole	1200	US/F
SUL3	STC Slowness Upper Limit - Monopole Stoneley	780	US/F
SUL4	STC Slowness Upper Limit - Monopole P&S	240	US/F
SWD1	STC Slowness Width - Lower Dipole	40	US/F
SWD2	STC Slowness Width - Upper Dipole	40	US/F
SWD3	STC Slowness Width - Monopole Stoneley	40	US/F
SWD4	STC Slowness Width - Monopole P&S	10	US/F
TBDB	Tool String Bottom to DSST Bottom	95.25	IN
TBF1	STC Time for Baseline Fill - Lower Dipole	0	US
TBF2	STC Time for Baseline Fill - Upper Dipole	0	US
TBF3	STC Time for Baseline Fill - Monopole Stoneley	0	US
TBF4	STC Time for Baseline Fill - Monopole P&S	300	US
TLL1	STC Time Lower Limit - Lower Dipole	600	US
TLL2	STC Time Lower Limit - Upper Dipole	600	US
TLL3	STC Time Lower Limit - Monopole Stoneley	600	US
TLL4	STC Time Lower Limit - Monopole P&S	150	US
TST1	STC Time Step - Lower Dipole	200	US
TST2	STC Time Step - Upper Dipole	200	US
TST3	STC Time Step - Monopole Stoneley	200	US
TST4	STC Time Step - Monopole P&S	50	US
TTDB	Tool String Top to DSST Bottom	1656.11	IN
TUL1	STC Time Upper Limit - Lower Dipole	20440	US
TUL2	STC Time Upper Limit - Upper Dipole	20200	US
TUL3	STC Time Upper Limit - Monopole Stoneley	12000	US
TUL4	STC Time Upper Limit - Monopole P&S	3660	US
TWA1	Transmitter Waveform Amplitude 1	179	
TWA2	Transmitter Waveform Amplitude 2	179	
TWA3	Transmitter Waveform Amplitude 3	166	
TWA4	Transmitter Waveform Amplitude 4	150	
TWA5	Transmitter Waveform Amplitude 5	150	
TWAX	Transmitter Waveform Amplitude X	179	
TWD1	STC Time Width - Lower Dipole	2000	US
TWD2	STC Time Width - Upper Dipole	2000	US
TWD3	STC Time Width - Monopole Stoneley	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
TWI3	STC Integration Time Window - Monopole Stoneley	2400	US
TWI4	STC Integration Time Window - Monopole P&S	500	US
TWR1	Transmitter Waveform Sample Rate 1	20	US
TWR2	Transmitter Waveform Sample Rate 2	5	US
TWR3	Transmitter Waveform Sample Rate 3	5	US

TWR4	Transmitter Waveform Sample Rate 4	5	US
TWR5	Transmitter Waveform Sample Rate 5	5	US
TWRX	Transmitter Waveform Sample Rate X	5	US
TWS1	Transmitter Waveform Select 1	2	
TWS2	Transmitter Waveform Select 2	0	
TWS3	Transmitter Waveform Select 3	4	
TWS4	Transmitter Waveform Select 4	6	
TWS5	Transmitter Waveform Select 5	6	
TWSX	Transmitter Waveform Select X	0	
UTXG	Upper Dipole Transmitter Geometry	162	IN
WFDTSP1	SAM1 Waveform Delta for Spectrum	0	US/F
WFDTSP2	SAM2 Waveform Delta for Spectrum	0	US/F
WFDTSP3	SAM3 Waveform Delta for Spectrum	0	US/F
WFDTSP4	SAM4 Waveform Delta for Spectrum	0	US/F
WFDTSPX	SAMX Waveform Delta for Spectrum	0	US/F
WFLLSP1	SAM1 Waveform Lower Limit for Spectrum	0	US
WFLLSP2	SAM2 Waveform Lower Limit for Spectrum	0	US
WFLLSP3	SAM3 Waveform Lower Limit for Spectrum	0	US
WFLLSP4	SAM4 Waveform Lower Limit for Spectrum	0	US
WFLLSPX	SAMX Waveform Lower Limit for Spectrum	0	US
WFM1	Waveform Mode 1	W1	
WFM2	Waveform Mode 2	W1	
WFM3	Waveform Mode 3	W1	
WFM4	Waveform Mode 4	W1	
WFM5	Waveform Mode 5	W1	
WFMX	Waveform Mode X	W1	
WFULSP1	SAM1 Waveform Upper Limit for Spectrum	20000	US
WFULSP2	SAM2 Waveform Upper Limit for Spectrum	20000	US
WFULSP3	SAM3 Waveform Upper Limit for Spectrum	20000	US
WFULSP4	SAM4 Waveform Upper Limit for Spectrum	5000	US
WFULSPX	SAMX Waveform Upper Limit for Spectrum	20000	US
XMT1	Transmitter Select 1	DLO	
XMT2	Transmitter Select 2	DUP	
XMT3	Transmitter Select 3	MONO	
XMT4	Transmitter Select 4	MONO	
XMT5	Transmitter Select 5	MONO	
XMTX	Transmitter Select X	DUP	
<b>HRLT-B: High Resolution Laterolog Array - B</b>			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	21	DEGC
CALSTAT	HRLTB Calibration Status	SHALLOW_DONE	
CALTEMP	HRLTB Calibration Temperature	23.3869	DEGC
FREQ0	HRLT Frequency Index for Mode 0	32	
FREQ1	HRLT Frequency Index for Mode 1	128	
FREQ2	HRLT Frequency Index for Mode 2	104	
FREQ3	HRLT Frequency Index for Mode 3	86	
FREQ4	HRLT Frequency Index for Mode 4	56	
FREQ5	HRLT Frequency Index for Mode 5	44	
FREQ6	HRLT Frequency Index for Mode 6	116	
GCSE	Generalized Caliper Selection	LCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GRGD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
ISSBAR	Barite Mud Switch	BARITE	
KFAC_HRLT	HRLT K Factor Option	SONDE	
LOOPCOEF_S	HRLT Loop Coefficient for Shallow Modes	LOW	
LOOPMOD0	HRLT Mode 0 Loop Mode	OFF	
LOOPMOD1	HRLT Mode 1 Loop Mode	OFF	
LOOPMOD2	HRLT Mode 2 Loop Mode	OFF	
LOOPMOD3	HRLT Mode 3 Loop Mode	OFF	
LOOPMOD4	HRLT Mode 4 Loop Mode	OFF	
LOOPMOD5	HRLT Mode 5 Loop Mode	OFF	
LOOPMOD6	HRLT Mode 6 Loop Mode	OFF	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
PROCVN	Inversion Selection	ON	
PROCMFL	Inversion Micro-Resistivity Selection	NO_EXTERNAL_RXO	
PROCMSO	Mechanical Standoff Fin Size	0	IN
PROCRM	Processing Mud Resistivity Select	HRLT_Compute	
PROCSP0	Sonde Position	Centered	
SHT	Surface Hole Temperature	20	DEGC
<b>HLDS: Hostile Litho-Density Sonde</b>			
CLCL	HLDS LS Control Loop Controller Mode	AUTO_DEFAULT	
CLCS	HLDS SS Control Loop Controller Mode	AUTO_DEFAULT	
CLLS	HLDS Mode Loop Long Spacing	AUTO	
CLSS	HLDS Mode Loop Short Spacing	AUTO	
DHC	Density Hole Correction	BS	
DPPM	Density Porosity Processing Mode	HIRS	
FD	Fluid Density	1	G/C3
LATC	HLDS Activation Correction	ON	
LLDL	HLDS LS Low Level Discriminator DAC	14000	
LLDS	HLDS SS Low Level Discriminator DAC	14000	
LLML	HLDS LS Low Level Discriminator Mode	AUTO	
LLMS	HLDS SS Low Level Discriminator Mode	AUTO	
MDEN	Matrix Density	2.6	G/C3

PHVL	HLDS Long Spacing High Voltage Setting	1000	V
PHVS	HLDS Short Spacing High Voltage Setting	1000	V
PSDL	HLDS LS Pulse Shape Compensation DAC	30000	
PSDS	HLDS SS Pulse Shape Compensation DAC	30000	
PSML	HLDS LS Pulse Shape Compensation Mode	AUTO	
PSMS	HLDS SS Pulse Shape Compensation Mode	AUTO	
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	
BHT	Bottom Hole Temperature (used in calculations)	21	DEGC
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	LCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN 9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
H1P	HNGS Detector 1 Allow/Disallow In Processing	ALLOW	
H2P	HNGS Detector 2 Allow/Disallow In Processing	ALLOW	
HABK	HNGS Borehole Potassium Running Average	0.000444161	
HALF	HNGS Alpha Filter Length	60	IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	BARI	
HNPE	HNGS Processing Enable	YES	
ISSBAR	Barite Mud Switch	BARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
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	
SHT	Surface Hole Temperature	20	DEGC
TPOS	Tool Position	ECCE	
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	0.969742	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	0.968706	
EDTC-B: Enhanced DTS Cartridge			
BHFL	Borehole Fluid Type	WATER	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	21	DEGC
BSCO	Borehole Salinity Correction Option	NO	
CCCO	Casing & Cement Thickness Correction Option	NO	
DPPM	Density Porosity Processing Mode	HIRS	
FSAL	Formation Salinity	-50000	PPM
FSCO	Formation Salinity Correction Option	NO	
GCSE	Generalized Caliper Selection	LCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN 9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
HSCO	Hole Size Correction Option	YES	
ISSBAR	Barite Mud Switch	BARITE	
ISSBAR_EDTC	Nuclear Mud Type	BARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
MCCO	Mud Cake Correction Option	NO	
MCOR	Mud Correction	BARI	
MWCO	Mud Weight Correction Option	YES	
PTCO	Pressure/Temperature Correction Option	NO	
SDAT	Standoff Data Source	SOCN	
SHT	Surface Hole Temperature	20	DEGC
SOCN	Standoff Distance	0.5	IN
SOCO	Standoff Correction Option	NO	
TPOS_EDTC	EDTC Tool Centered/Eccentered	Eccentered	
U-ETELM_EDTS	Telemetry Mode for eWAFE	Standard_EDTS	
U-TELM_EDTS	Telemetry Mode for WAFE	Standard_EDTS	
System and Miscellaneous			
ALTDPCHAN	Name of alternate depth channel	SpeedCorrectedDepth	
BS	Bit Size	9.875	IN
BSAL	Borehole Salinity	35000.00	PPM
CSIZ	Current Casing Size	5.000	IN
CWEI	Casing Weight	168.00	LB/F
DFD	Drilling Fluid Density	1.32	G/C3
DO	Depth Offset for Playback	0.0	M
FLEV	Fluid Level	-50000.00	M
MST	Mud Sample Temperature	23.00	DEGC
PBVSADP	Use alternate depth channel for playback	NO	
PP	Playback Processing	RECOMPUTE	
RMFS	Resistivity of Mud Filtrate Sample	-50000.0000	OHMM
RW	Resistivity of Connate Water	1.0000	OHMM
TD	Total Depth	4850.8	M
TDD	Total Depth - Driller	4850.80	M
TDL	Total Depth - Logger	4850.00	M
TWC	Temperature of Connate Water Sample	83.38	DEGC

**OP System Version: 19C0-187**

DSST-B	19C0-187	HRLT-B	19C0-187
HLDS	19C0-187	LDSC-B	19C0-187
HNGC-B	19C0-187	HNGS-BA	19C0-187
EDTC-B	SKK-5169-EDTCB		

**Input DLIS Files**

DEFAULT	DSI_HRLA_LDL_NGS_017PUP	FN:26	PRODUCER	07-Mar-2017 13:04	4784.6 M	3755.7 M
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**Output DLIS Files**

DEFAULT	DSI_HRLA_LDL_NGS_042PUP	FN:60	PRODUCER	10-Mar-2017 16:10
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Company: International Ocean Discovery Program Well: Expedition 367, Site U1499B

**Input DLIS Files**

DEFAULT	Flip_DSI_HRLA_LDL_032LUP	PRODUCER	08-Mar-2017 13:34	4786.6 M	3717.0 M
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**Output DLIS Files**

DEFAULT	DSI_HRLA_LDL_NGS_037PUP	FN:56	PRODUCER	08-Mar-2017 13:50	4786.6 M	3717.0 M
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**OP System Version: 19C0-187**

DSST-B	19C0-187	HRLT-B	19C0-187
HLDS	19C0-187	LDSC-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
COLL	90 US/F	65 US/F	4439.6 13:51:33

**PIP SUMMARY**

Time Mark Every 60 S

<b>HNGS Spectroscopy Gamma Ray (HSGR)</b>		
0	(GAPI)	100
<b>Waveform Data Copy Indicator 4 - Monopole P&amp;S (WCI4)</b>		
0	(----)	10
<b>Peak Coherence / RA - P &amp; S Shear (CHRS)</b>		
-1	(----)	9
<b>Peak Coherence / RA - P &amp; S Comp (CHRP)</b>		
0	(----)	10
<b>Peak Coherence / RA - Lower Dipole (CHR1)</b>		
0	(----)	10
<b>Sonic Velocity (SVEL)</b>		
1000	(M/S)	6000
<b>HLDS Caliper (LCAL)</b>		
0	(IN)	20



Gamma Ray (GR\_EDTC)  
(GAPI) 0 100

Poisson's Ratio (PR)  
(----) 0 0.5

Poisson's Ratio (PR)  
(----) 0 0.5

Bit Size (BS)  
(IN) 0 20

Min Amplitude Max  
Rec.Array P&S Slow Proj. CVDL (SPR4)  
(US/F) 40 240

Calibrated  
Downhole  
Force  
(CDF)  
(LBF)  
3000 0

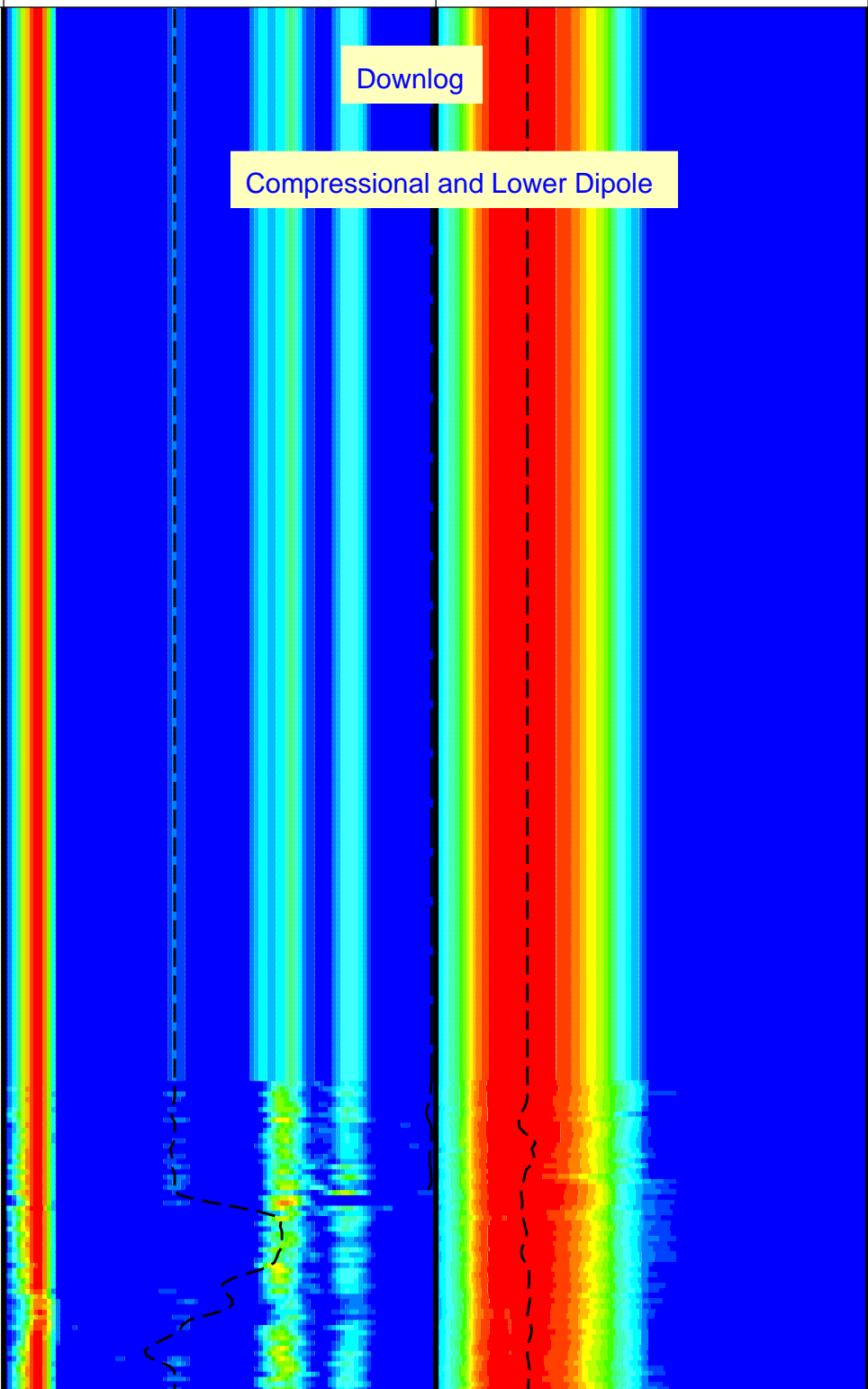
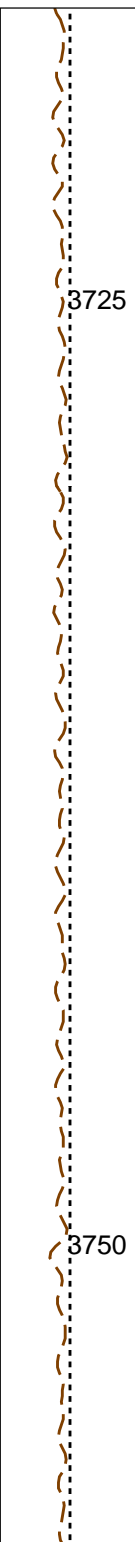
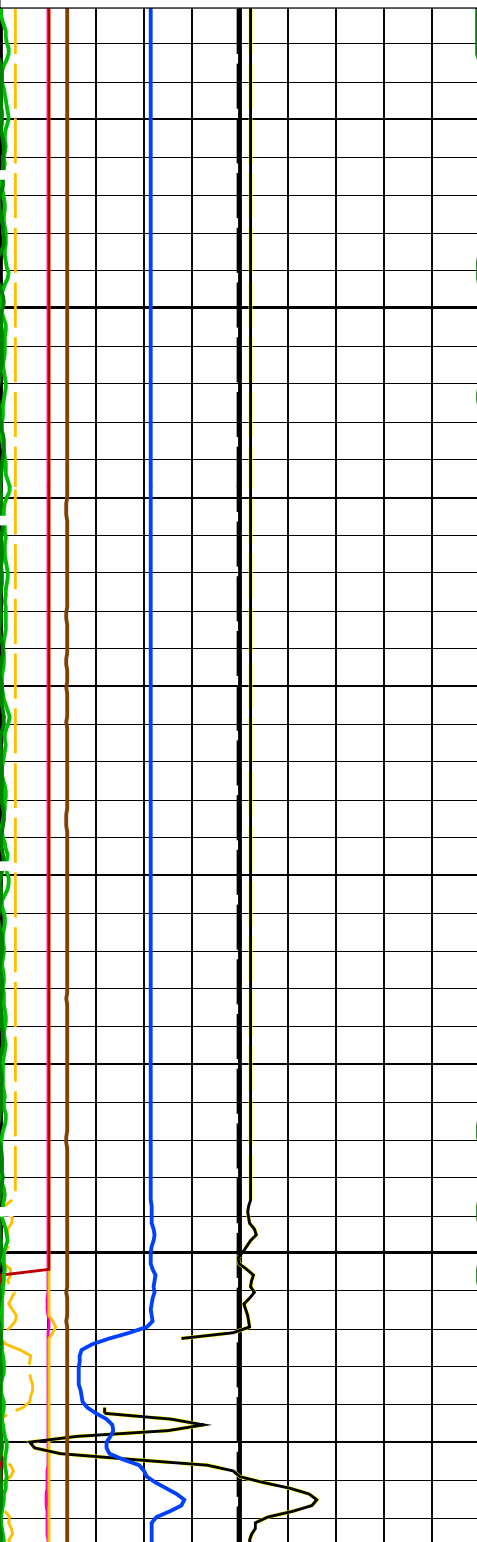
Delta-T Shear / RA - P & S (DTRS)  
(US/F) 40 240

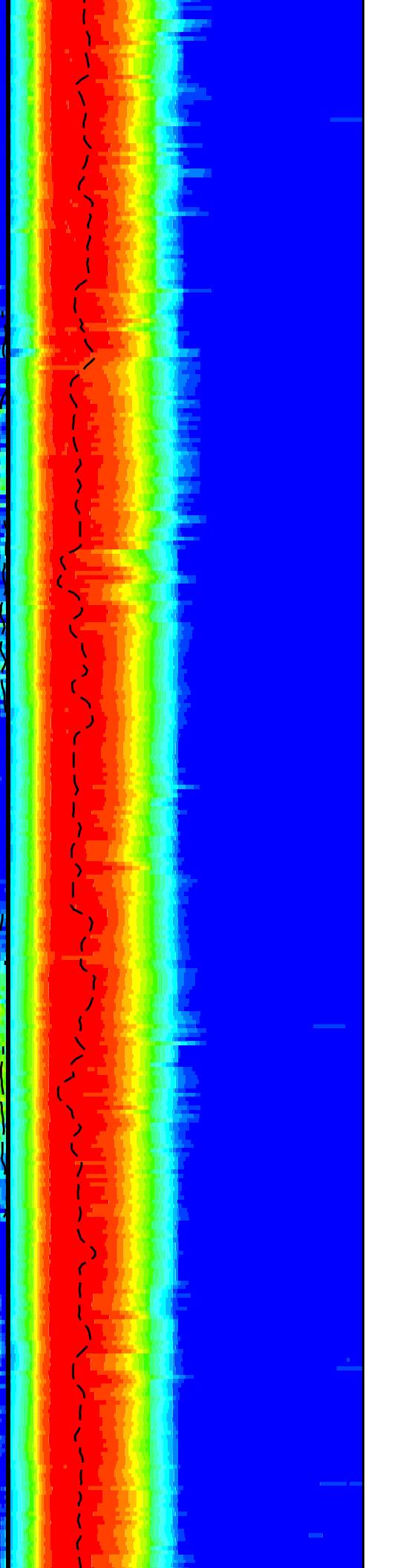
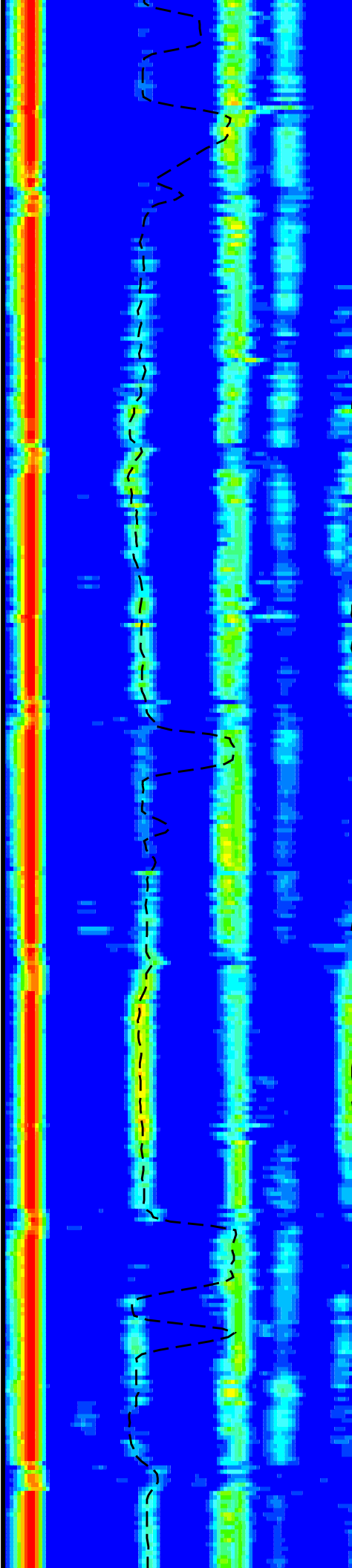
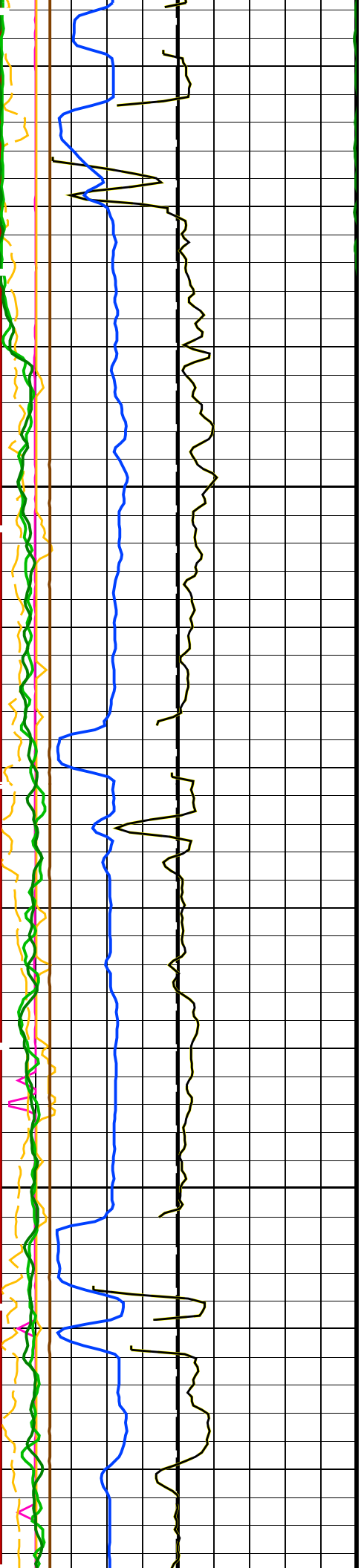
Min Amplitude Max  
Rec.Array L.Dipole Slow Proj. CVDL  
(SPR1)  
(US/F) 75 1200

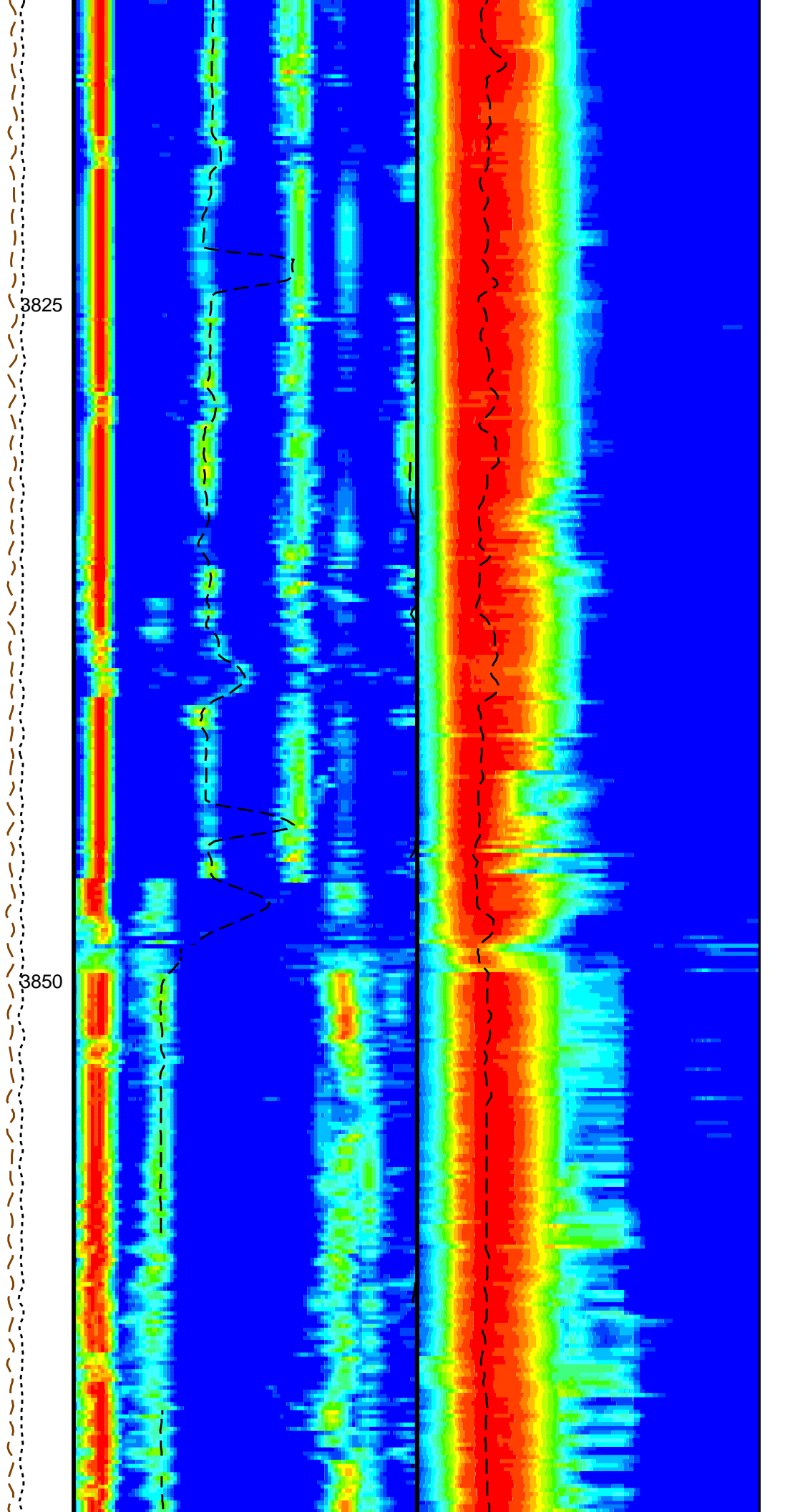
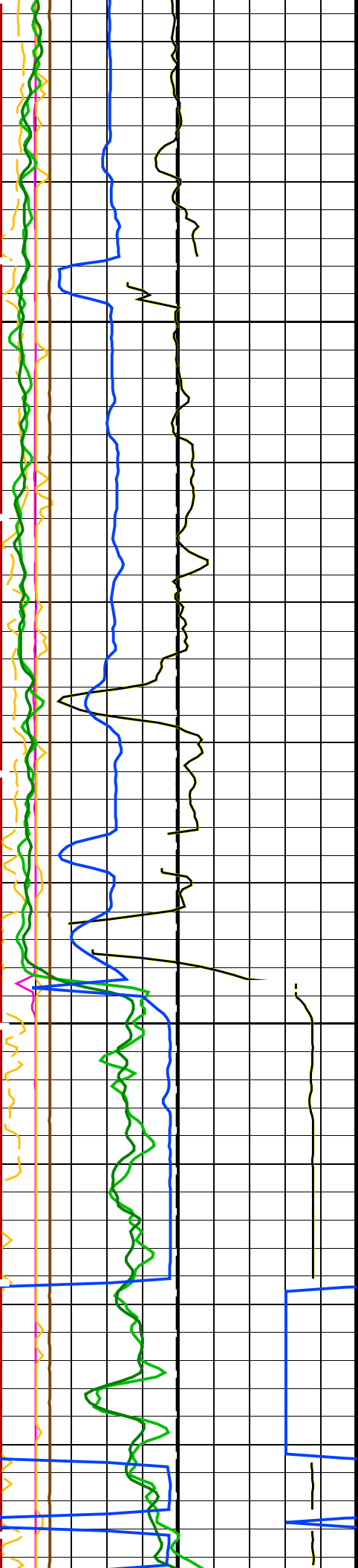
Tension  
(TENS)  
(LBF)  
10000 0

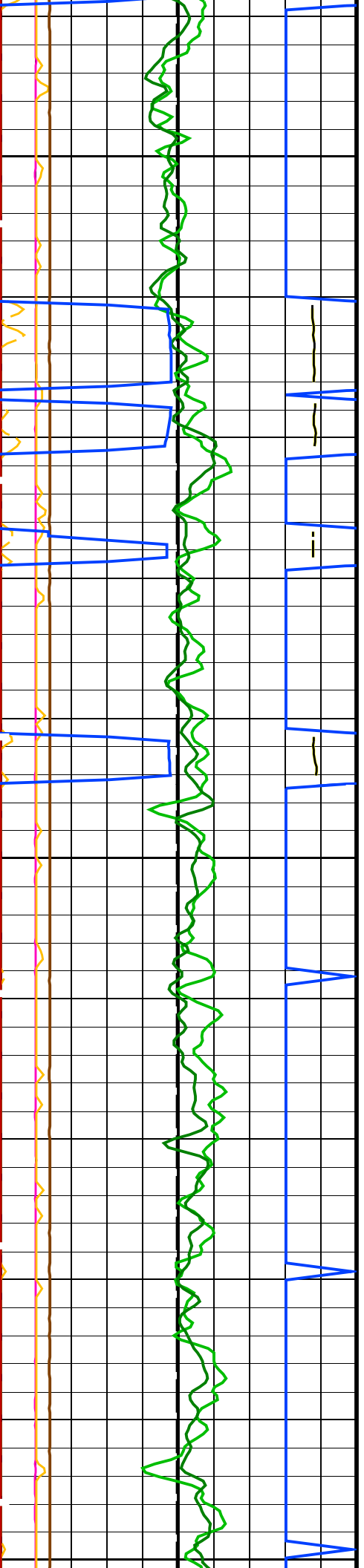
Delta-T Comp / RA - P & S (DTRP)  
(US/F) 40 240

Delta-T Shear / RA - Lower Dipole  
(DT1R)  
(US/F) 75 1200





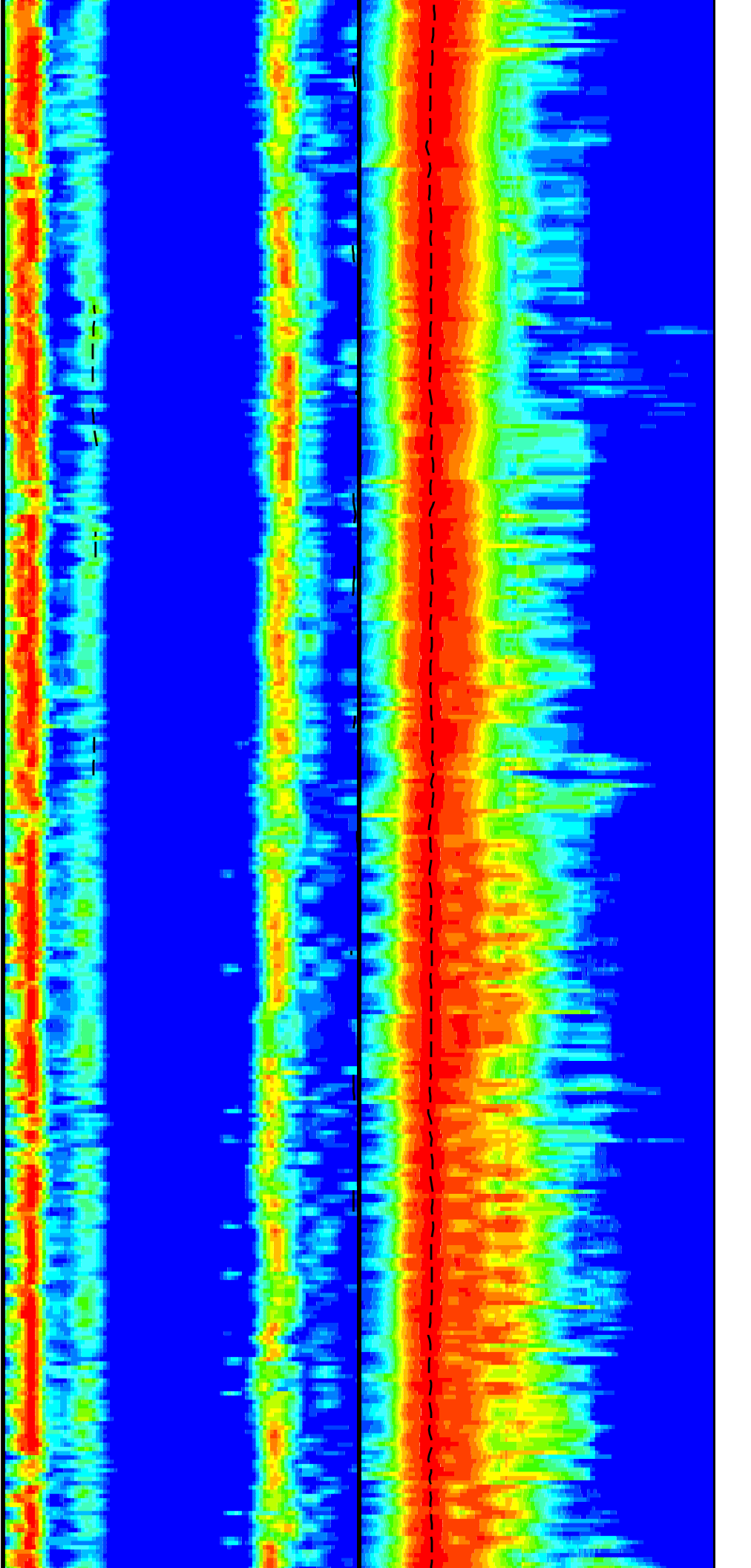


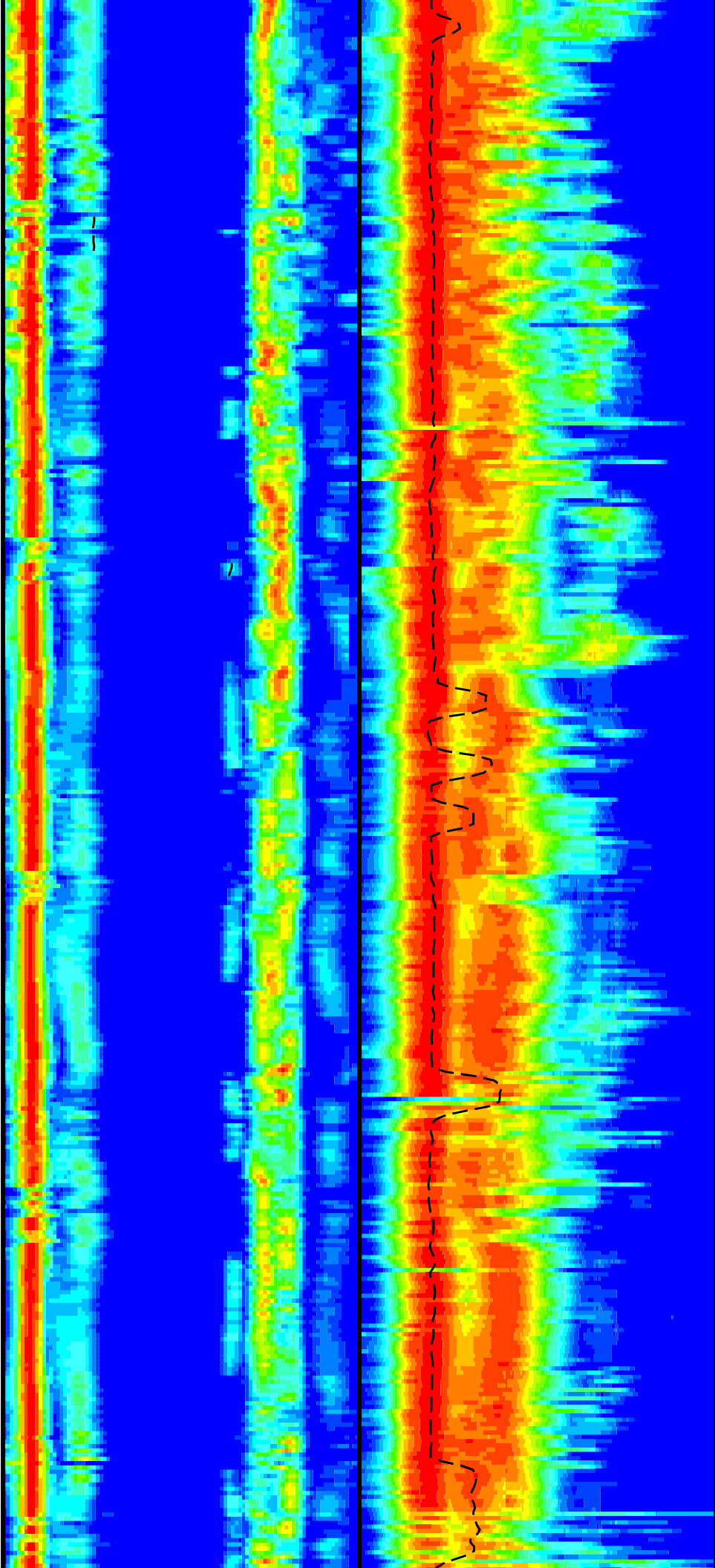
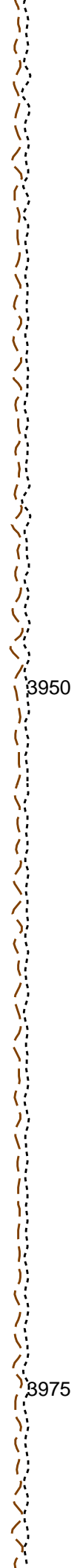
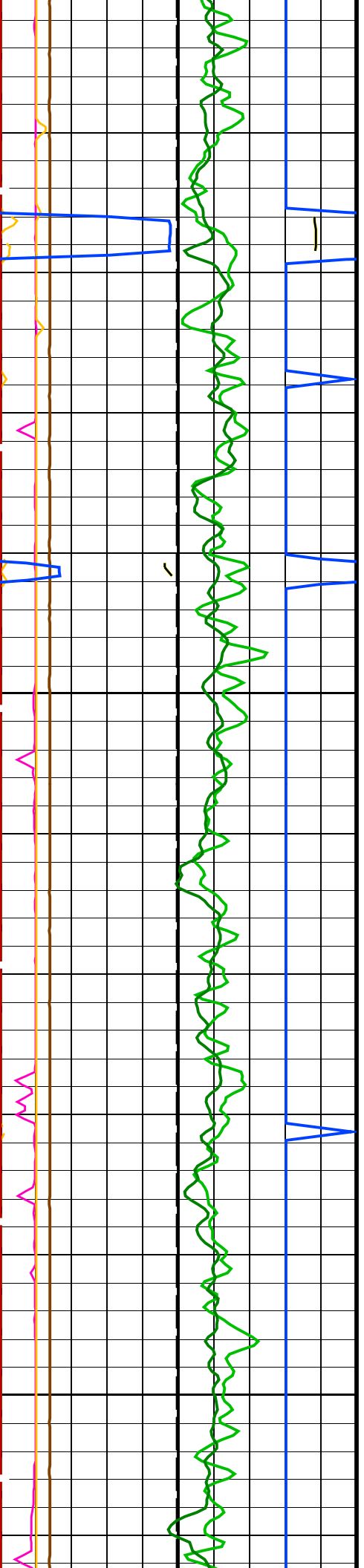


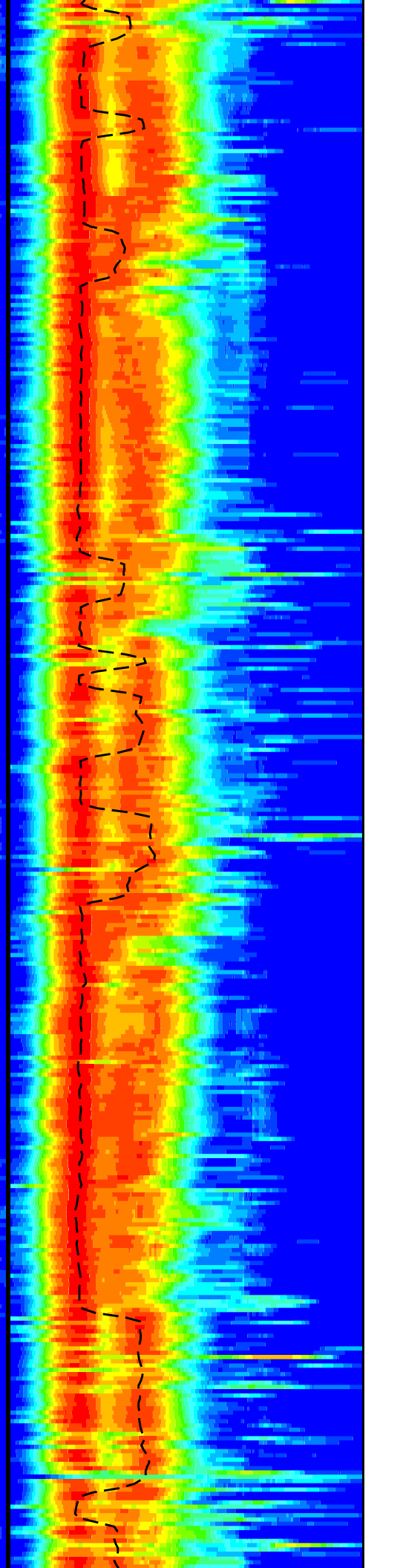
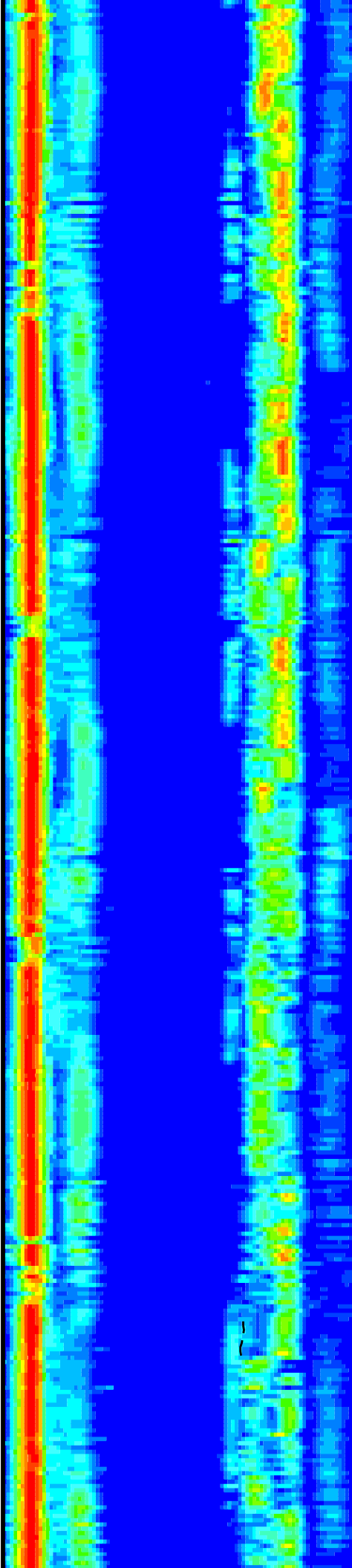
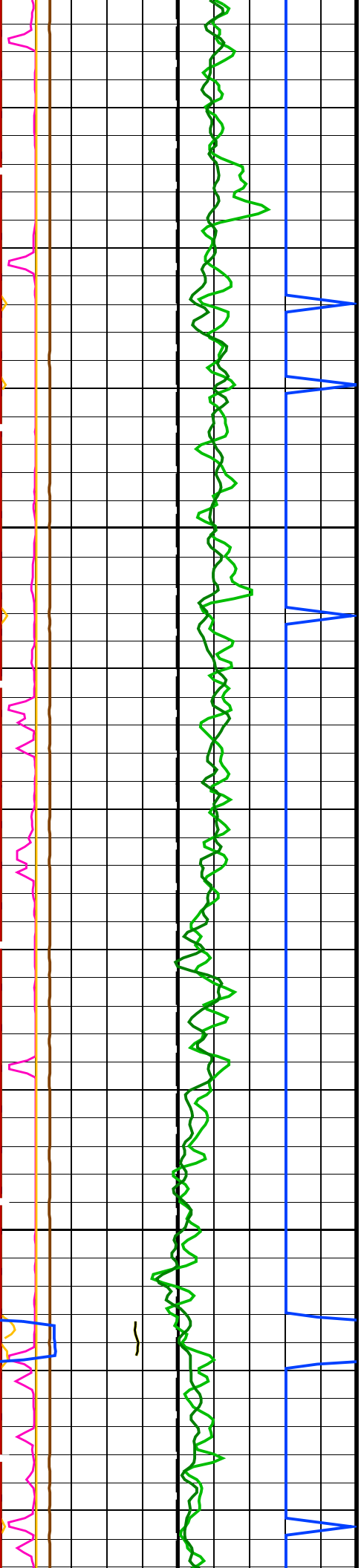
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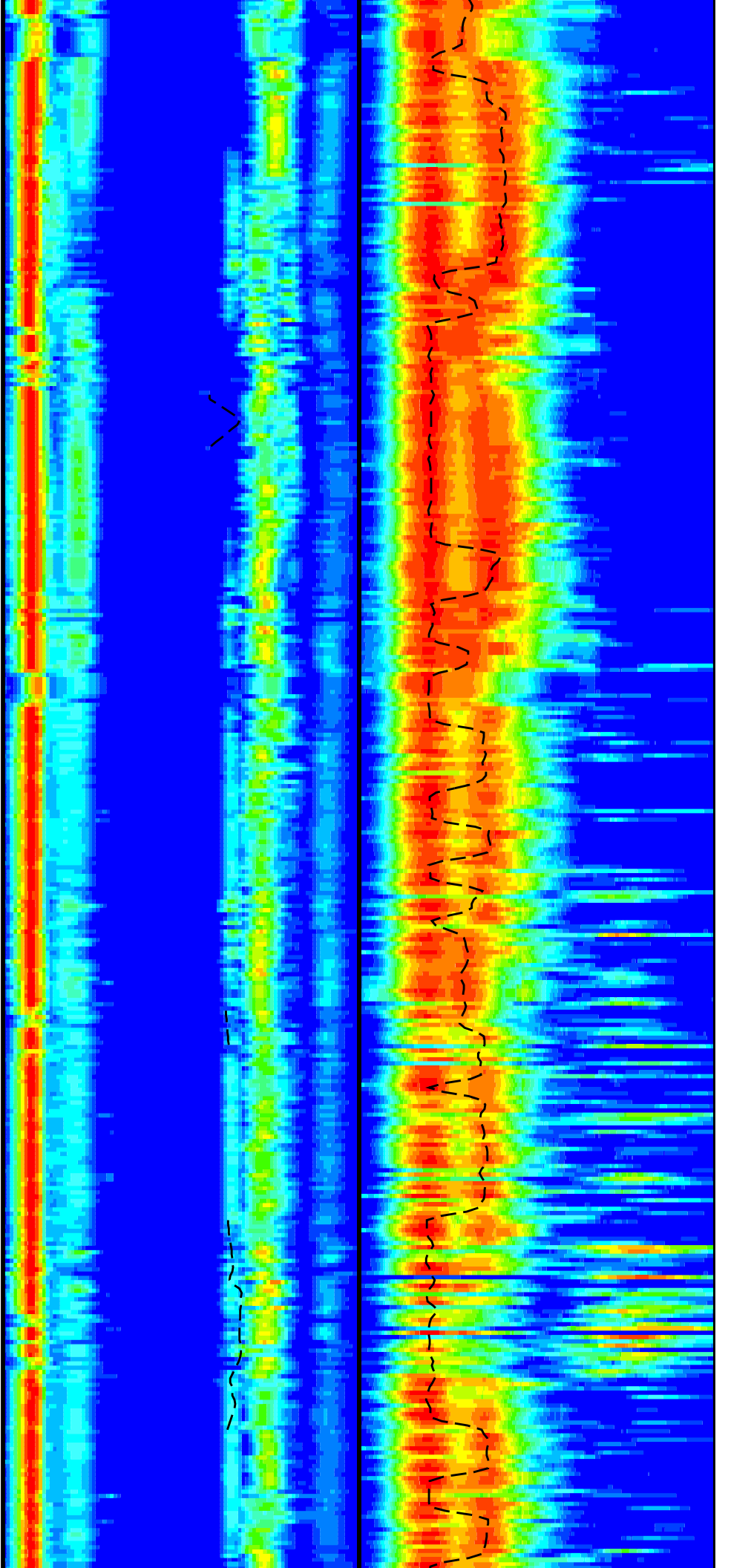
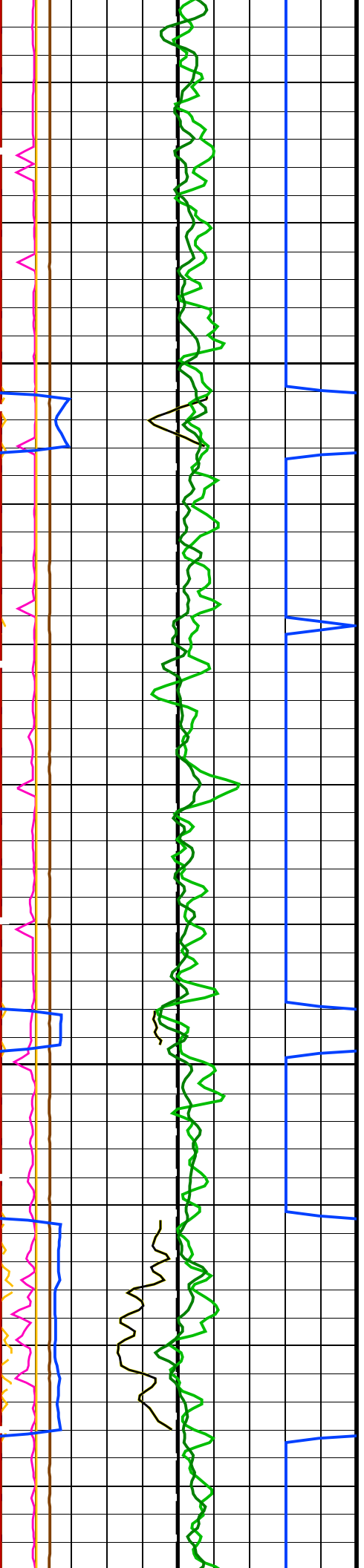
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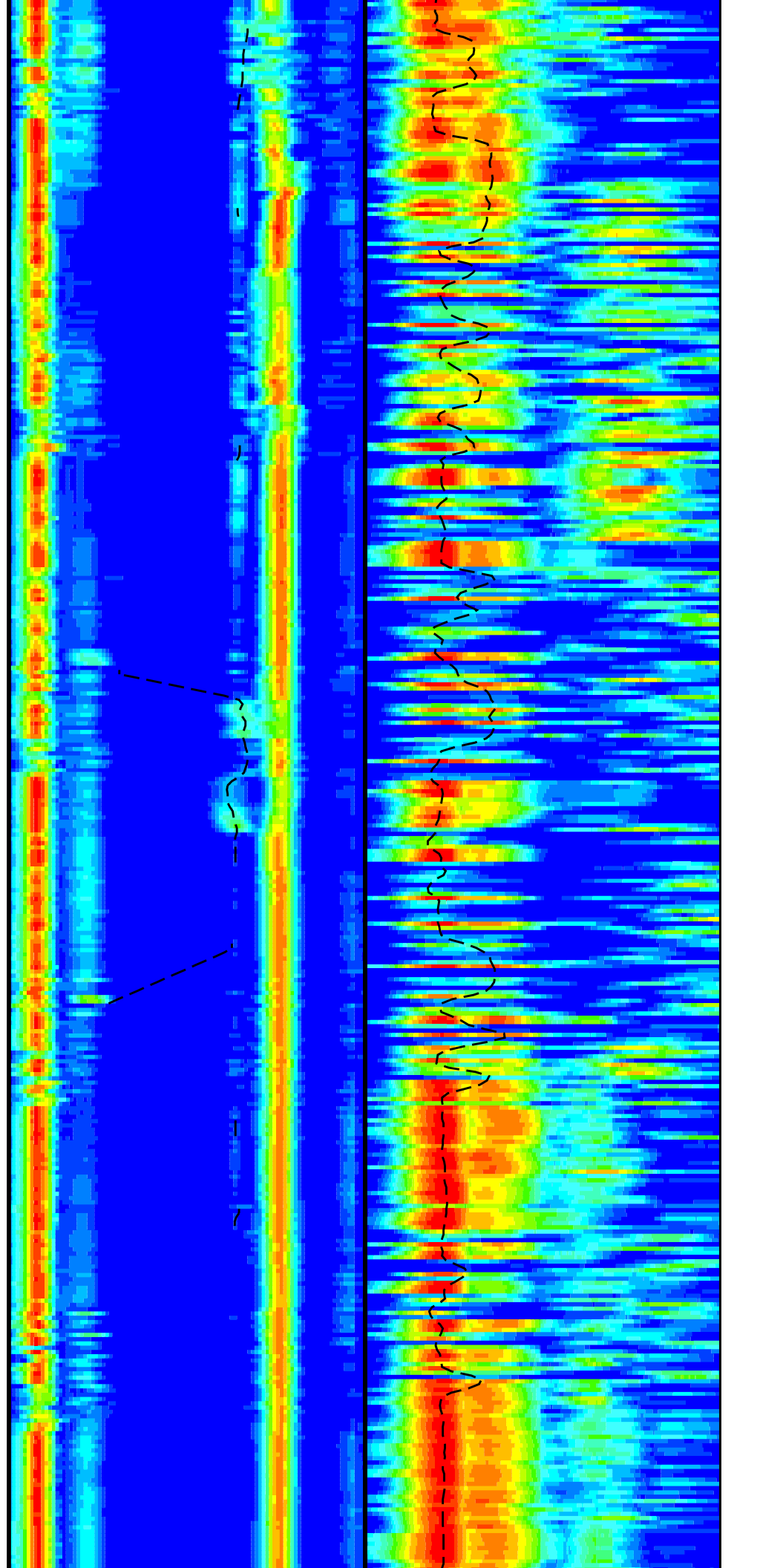
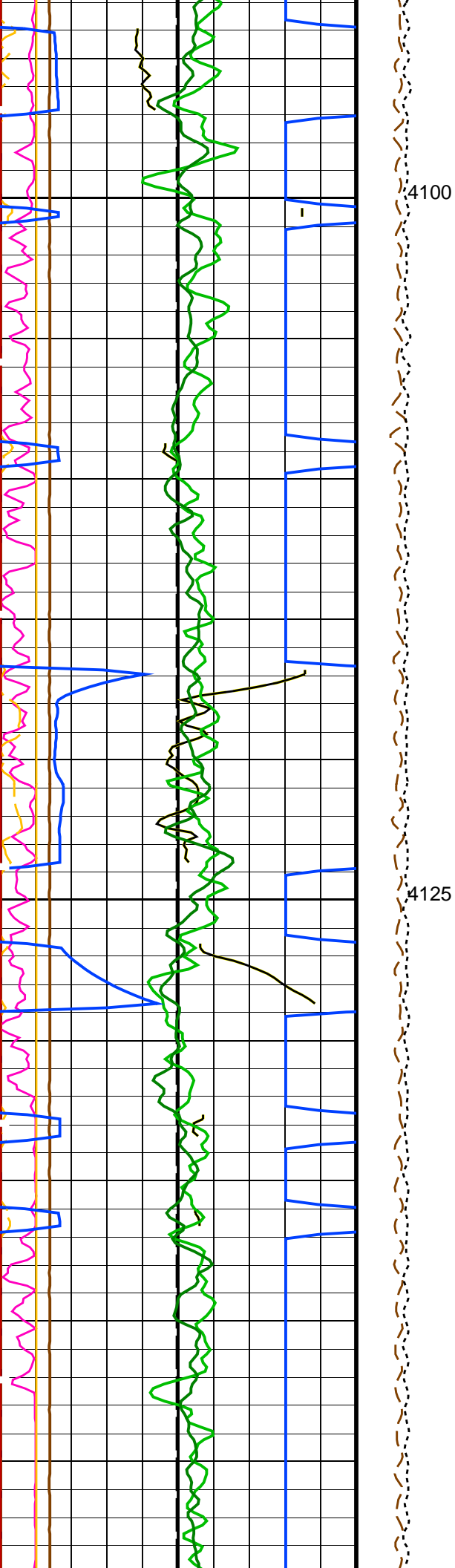




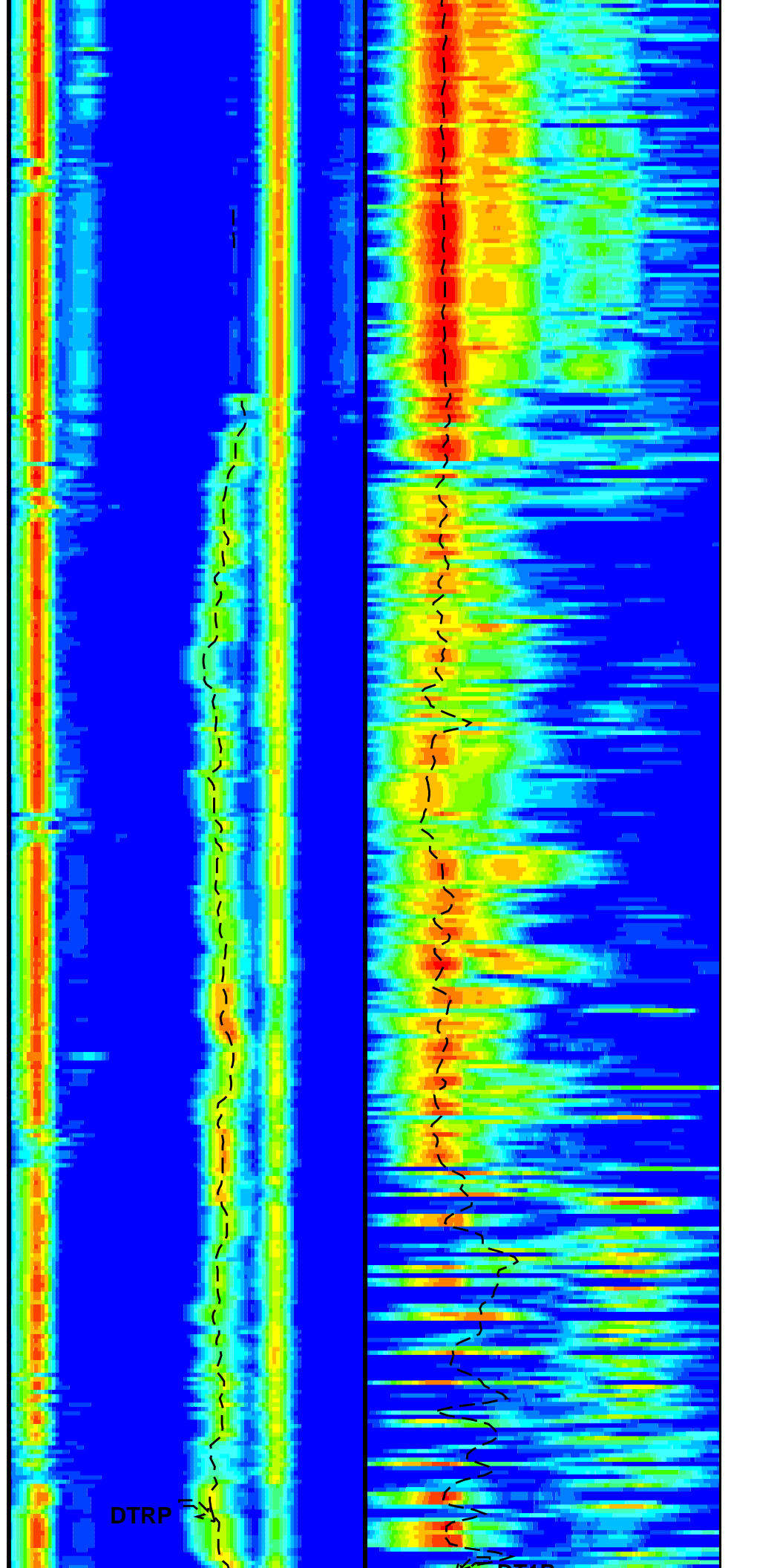
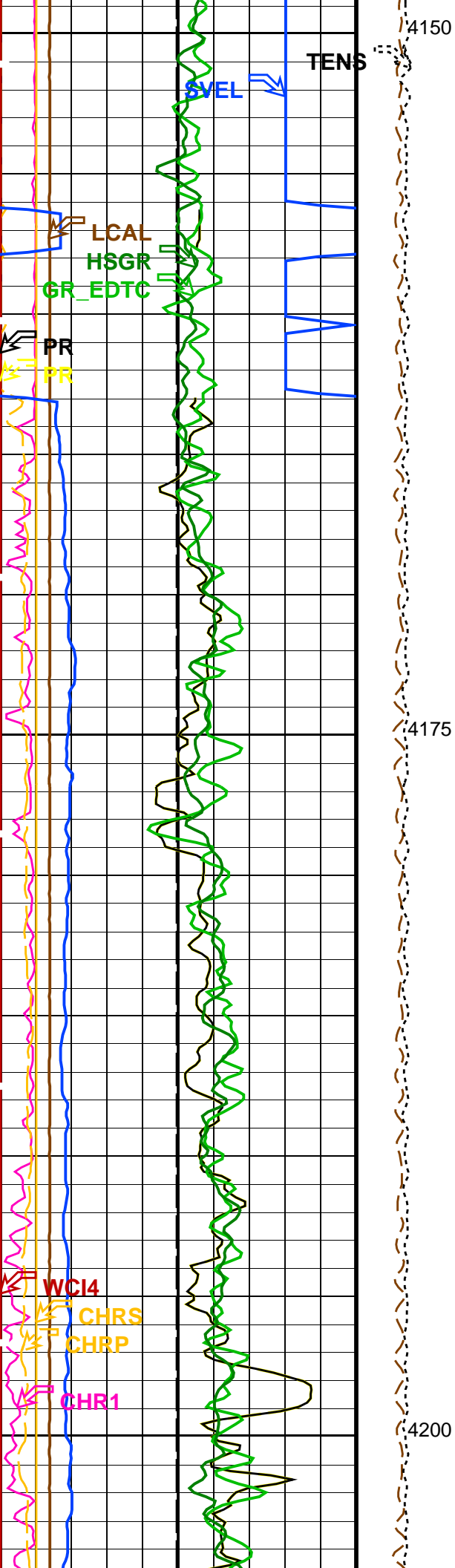


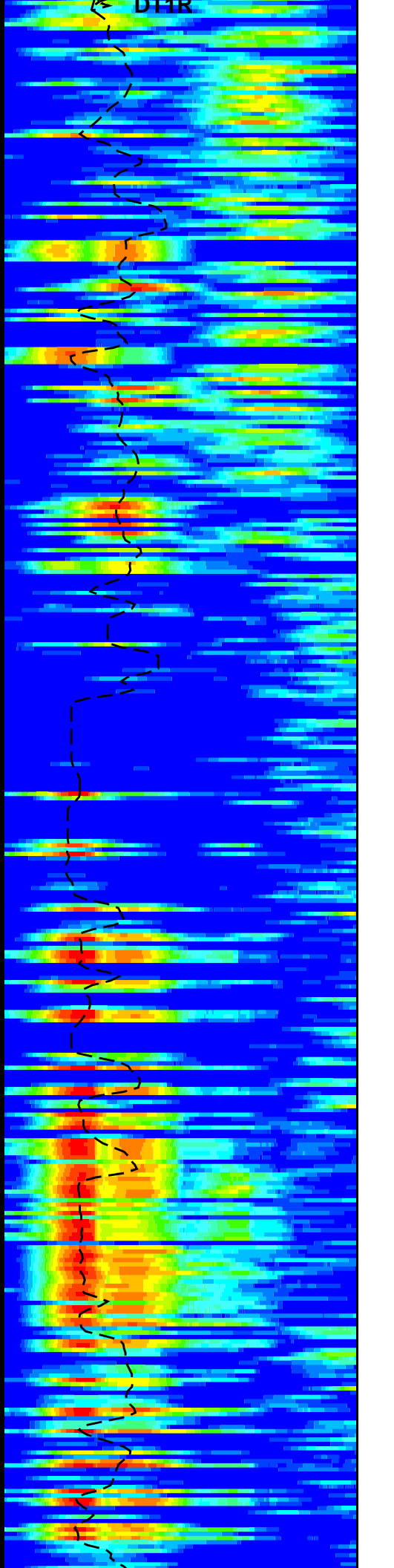
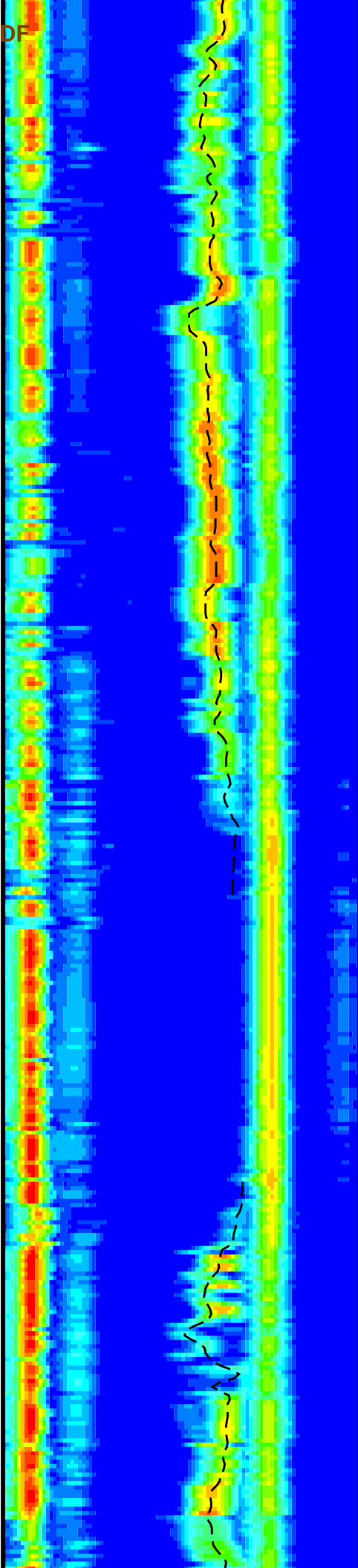
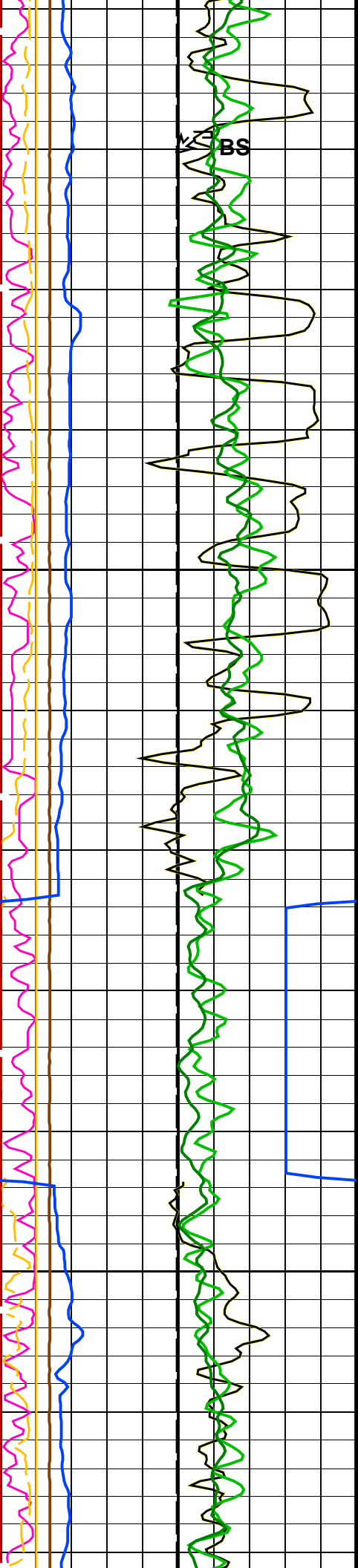




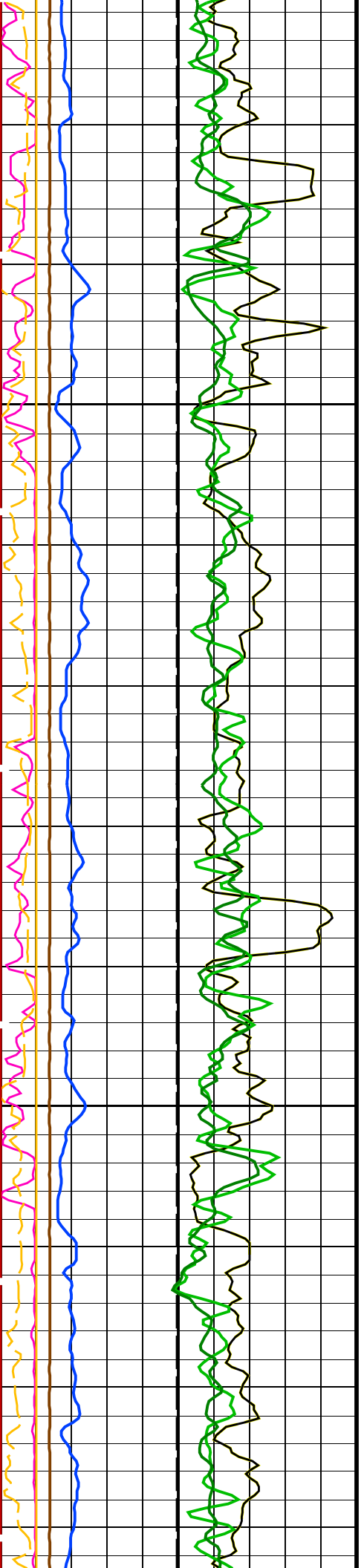






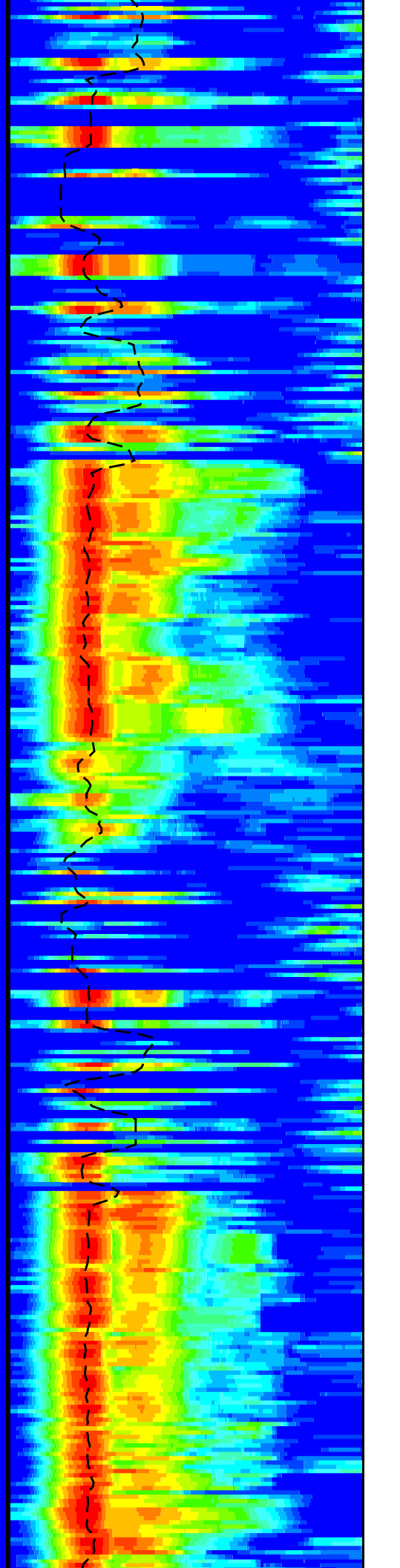
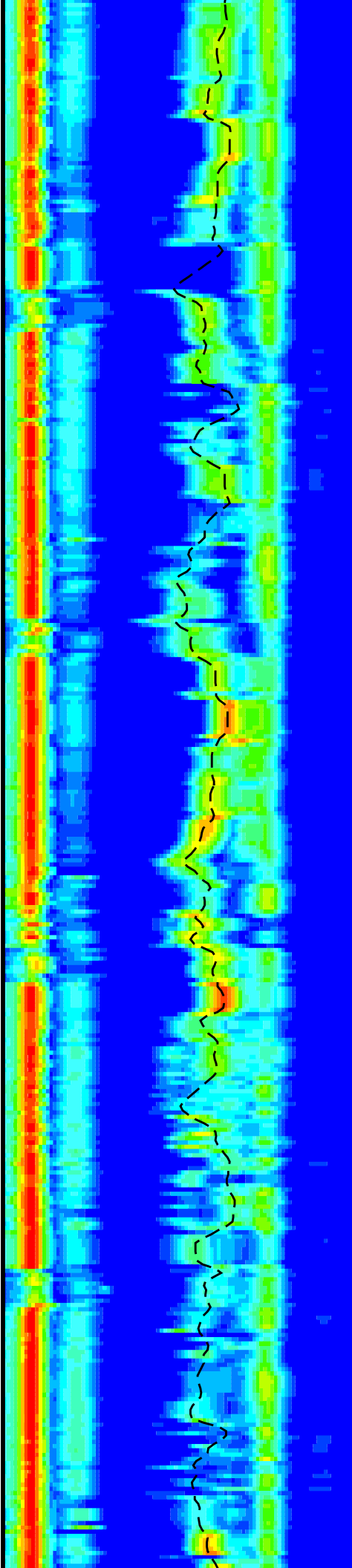


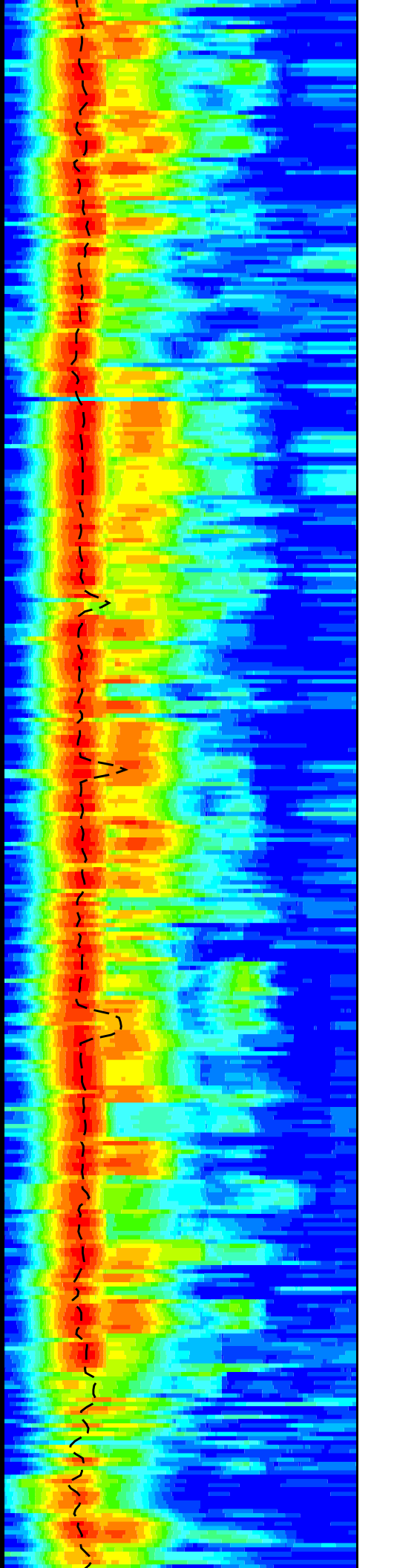
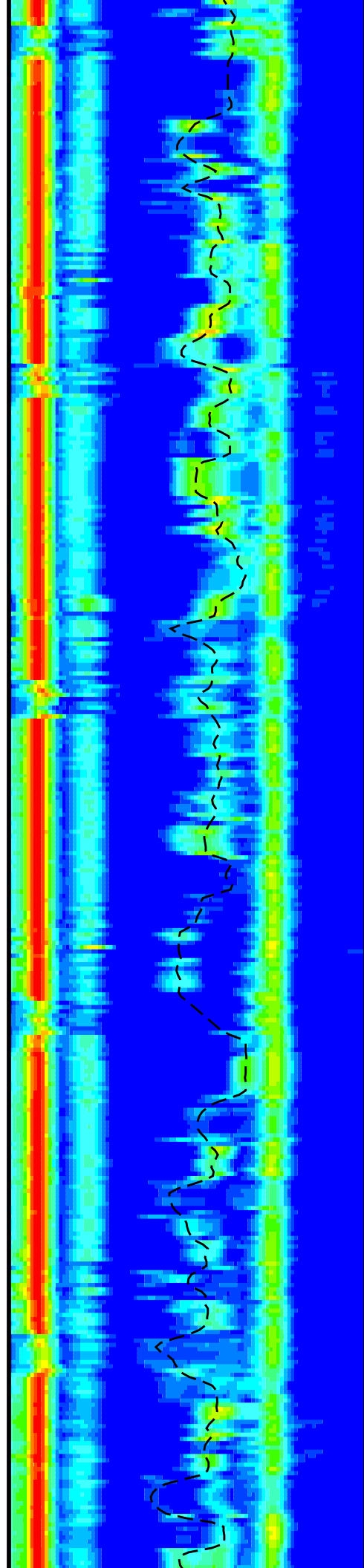
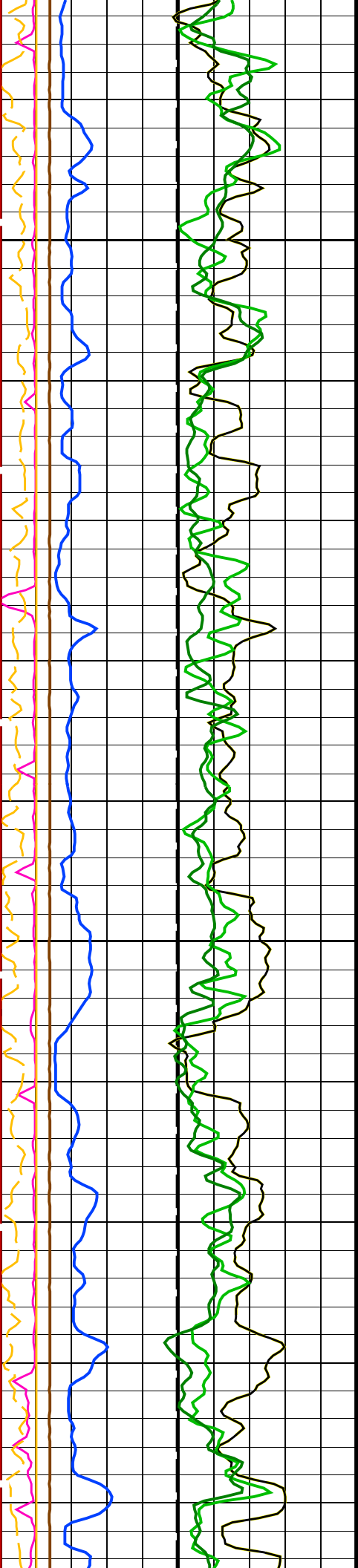
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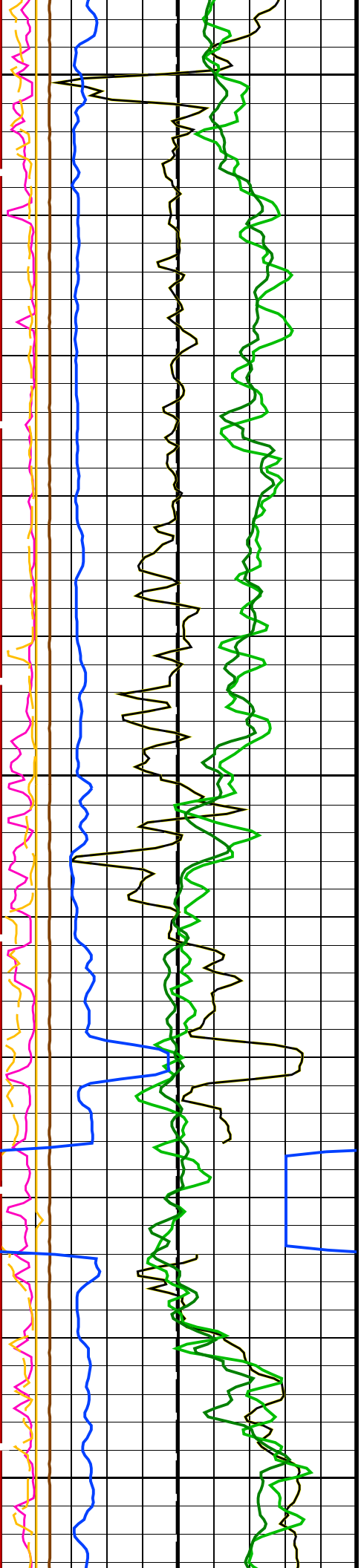


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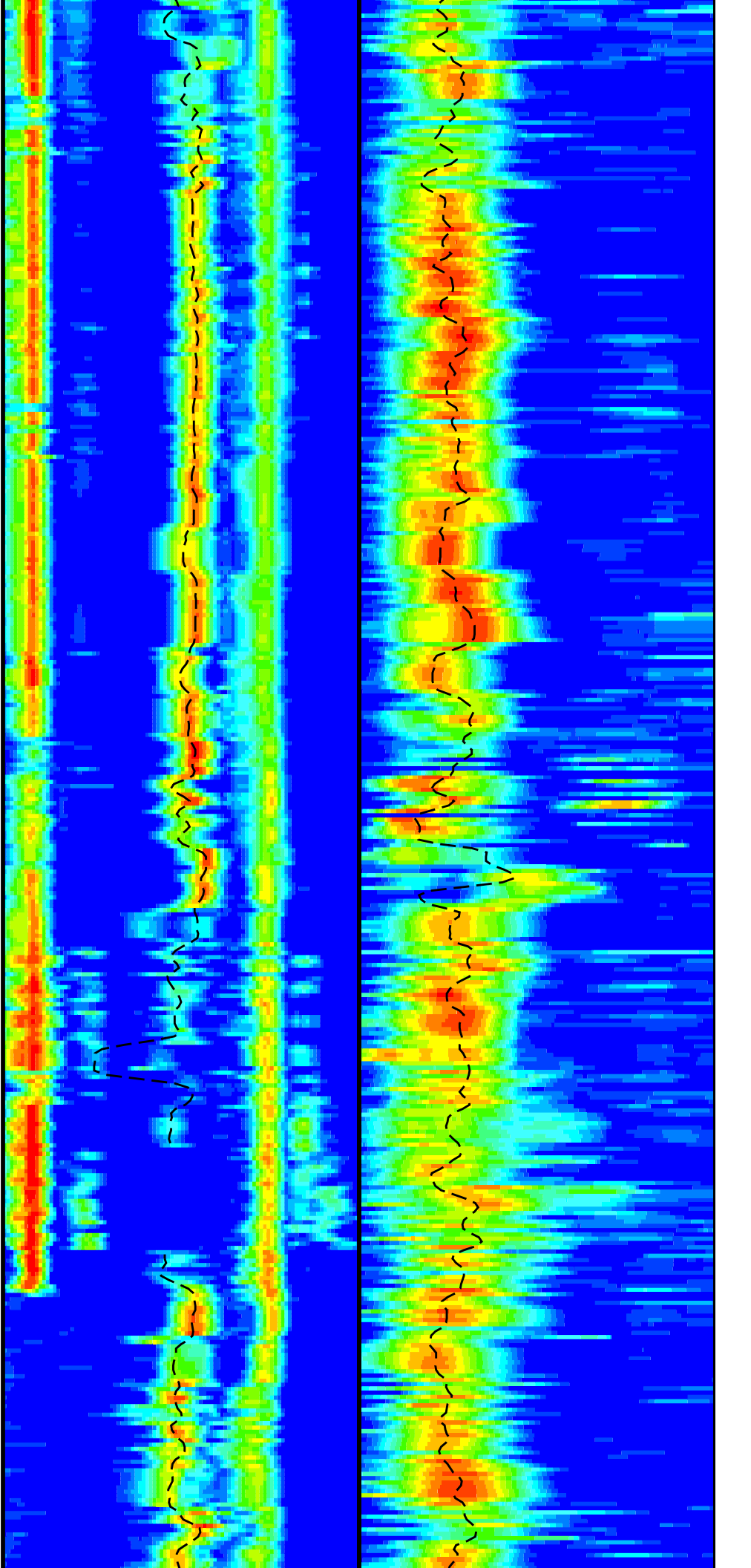
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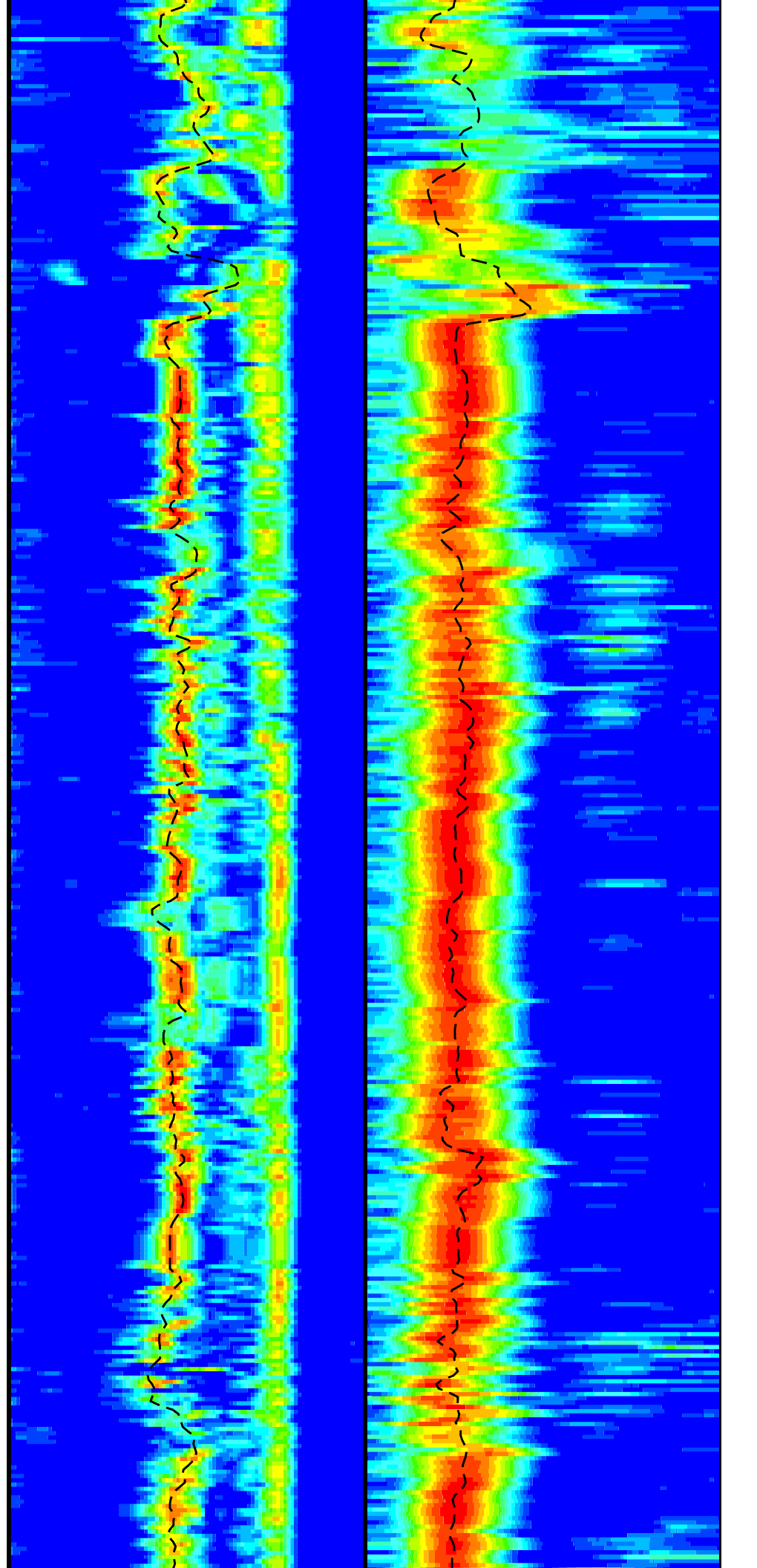
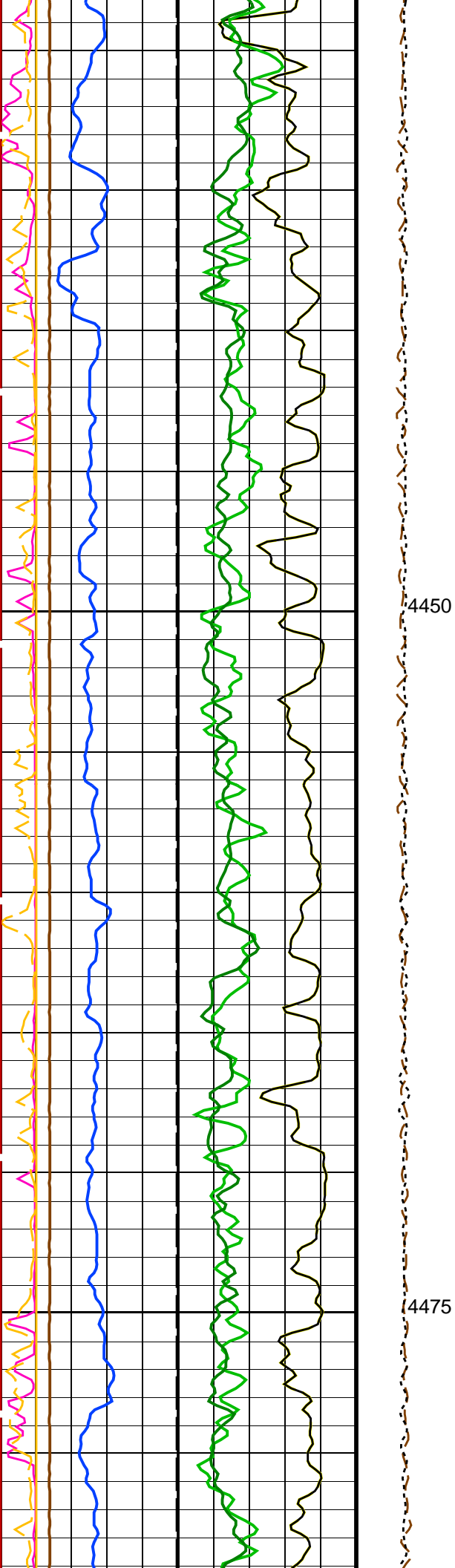




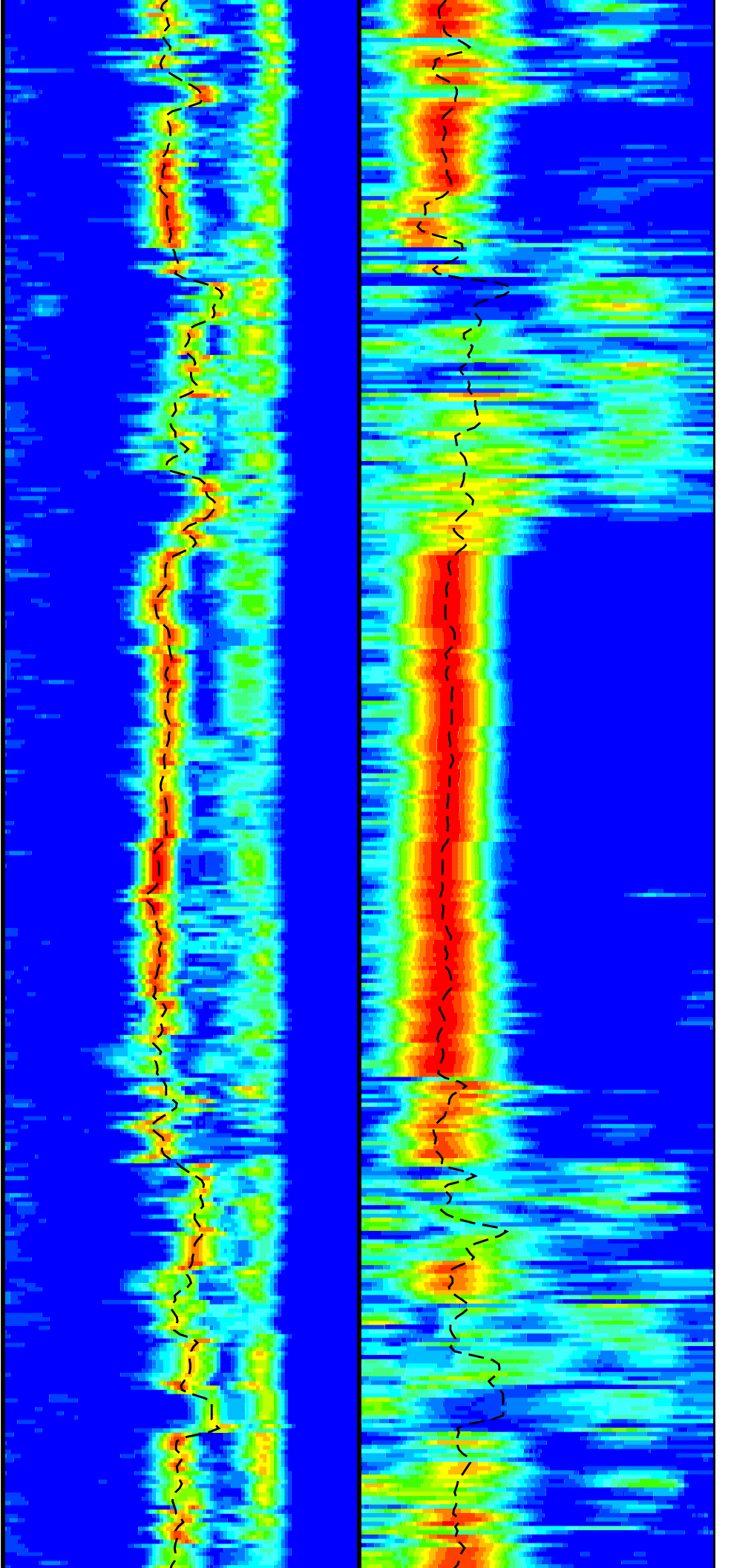
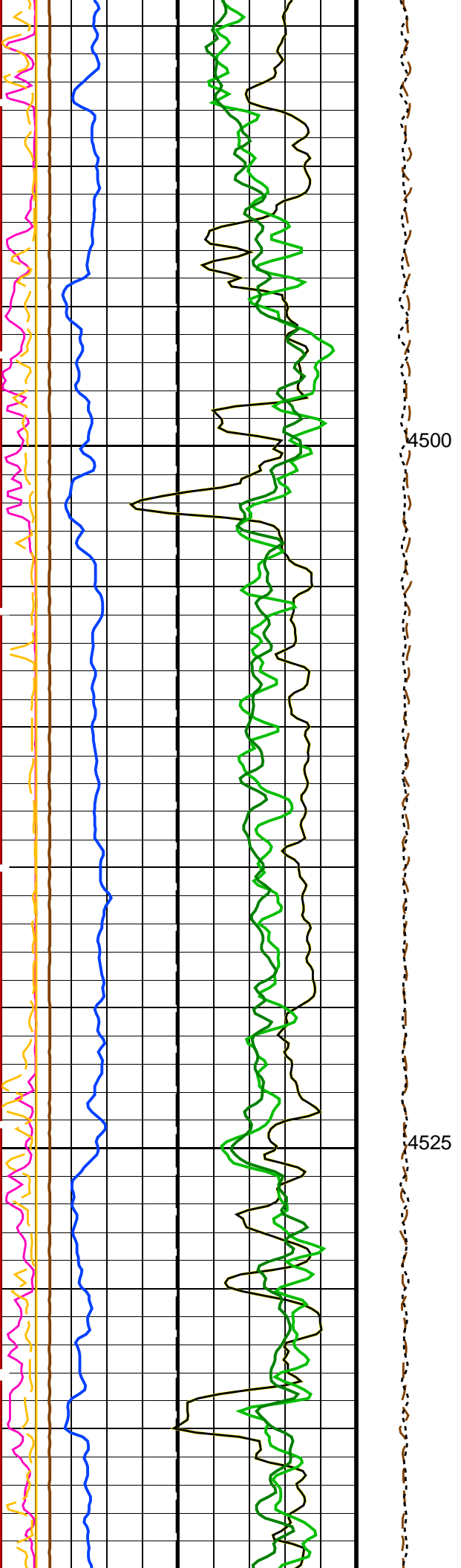


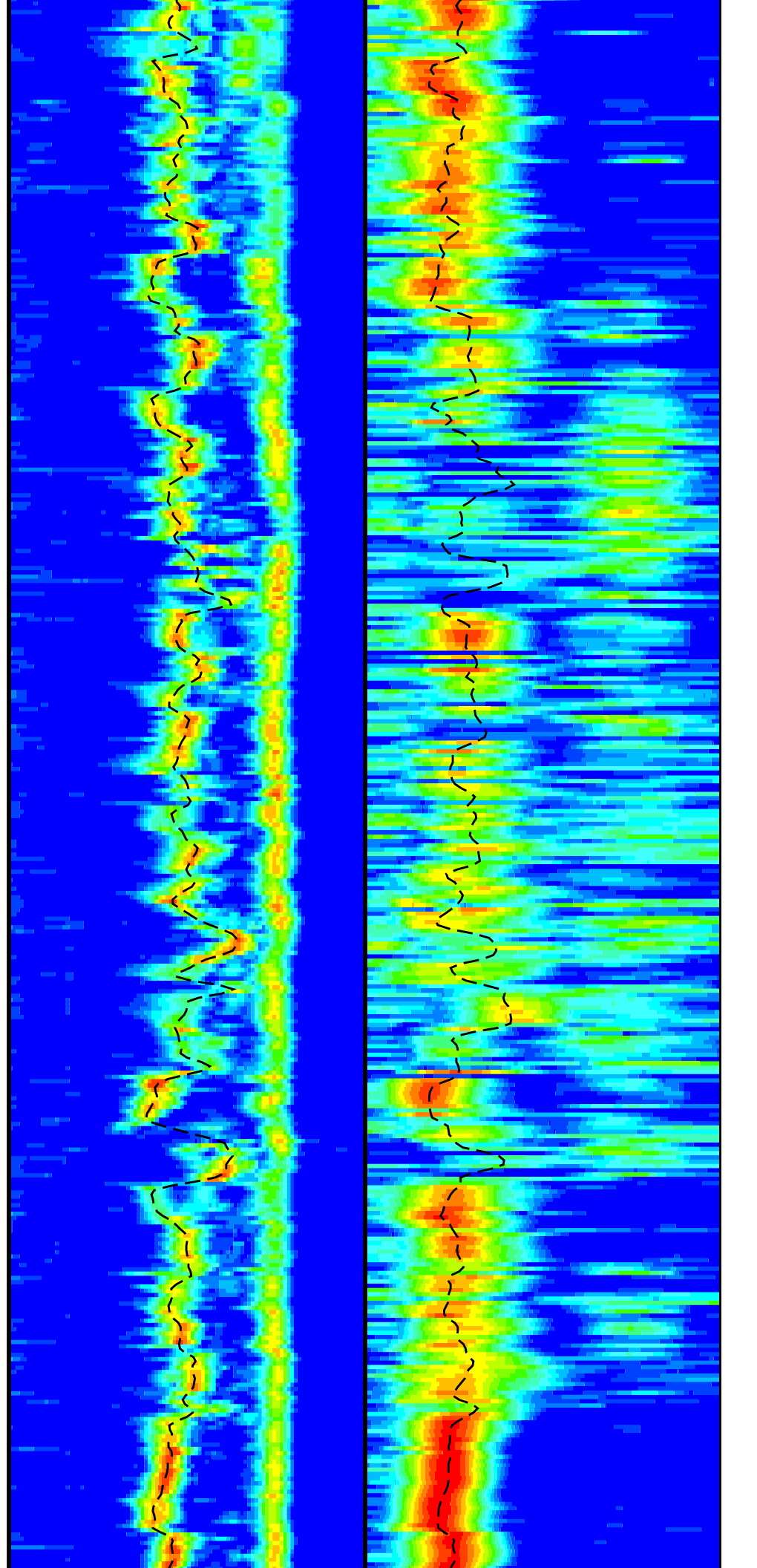
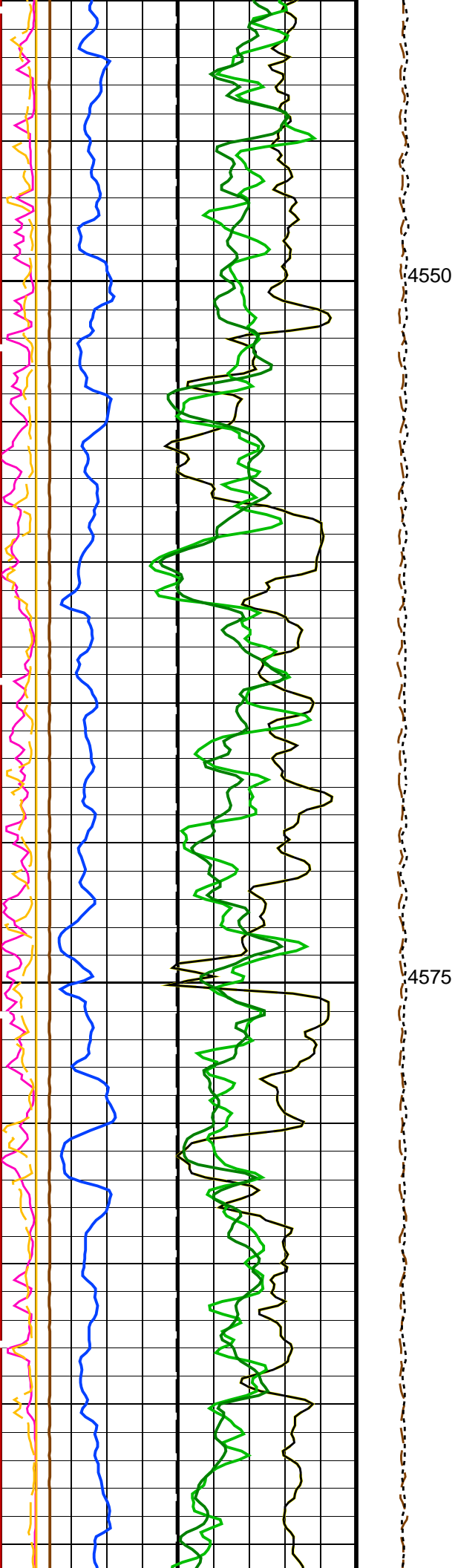
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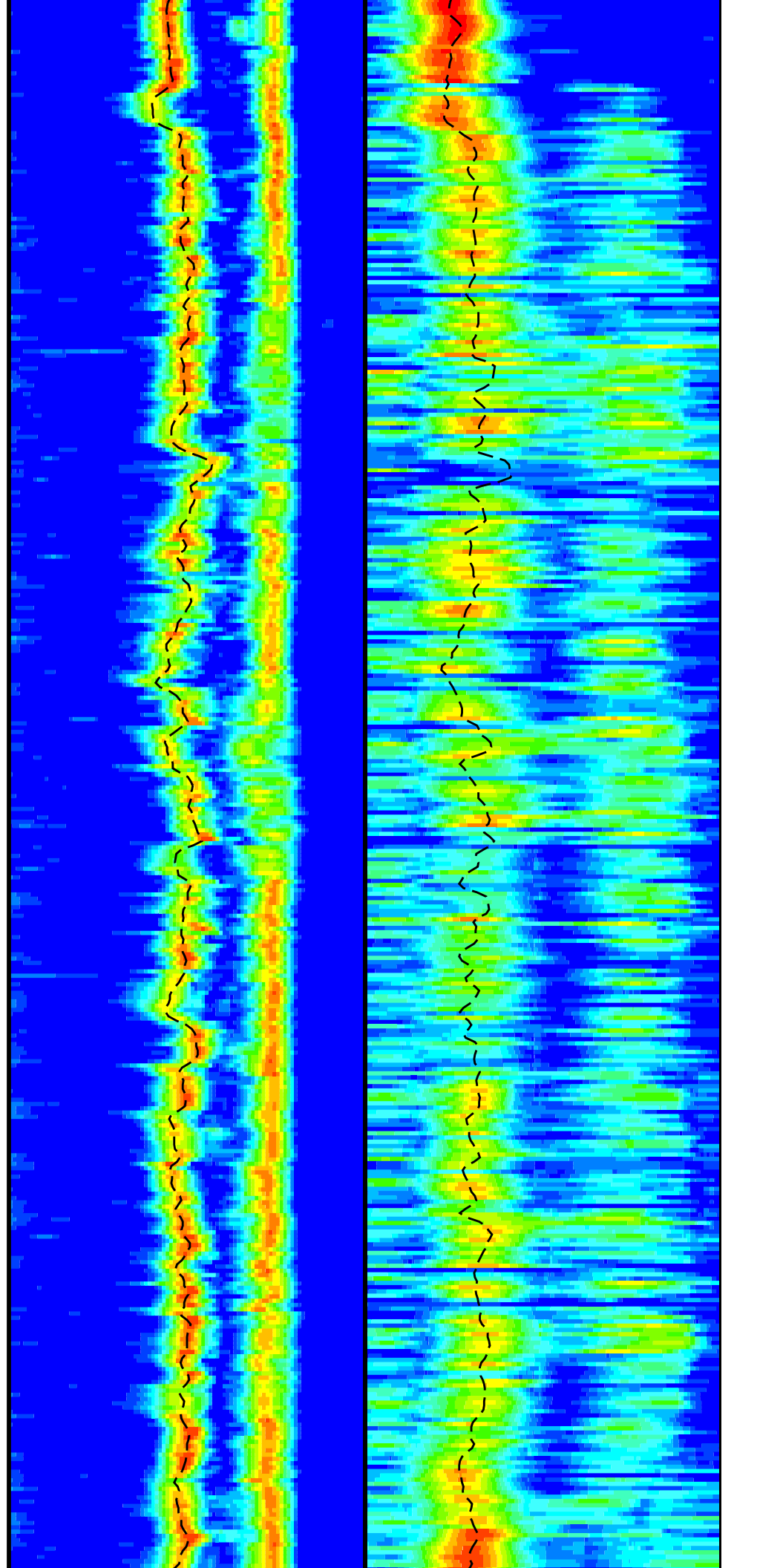
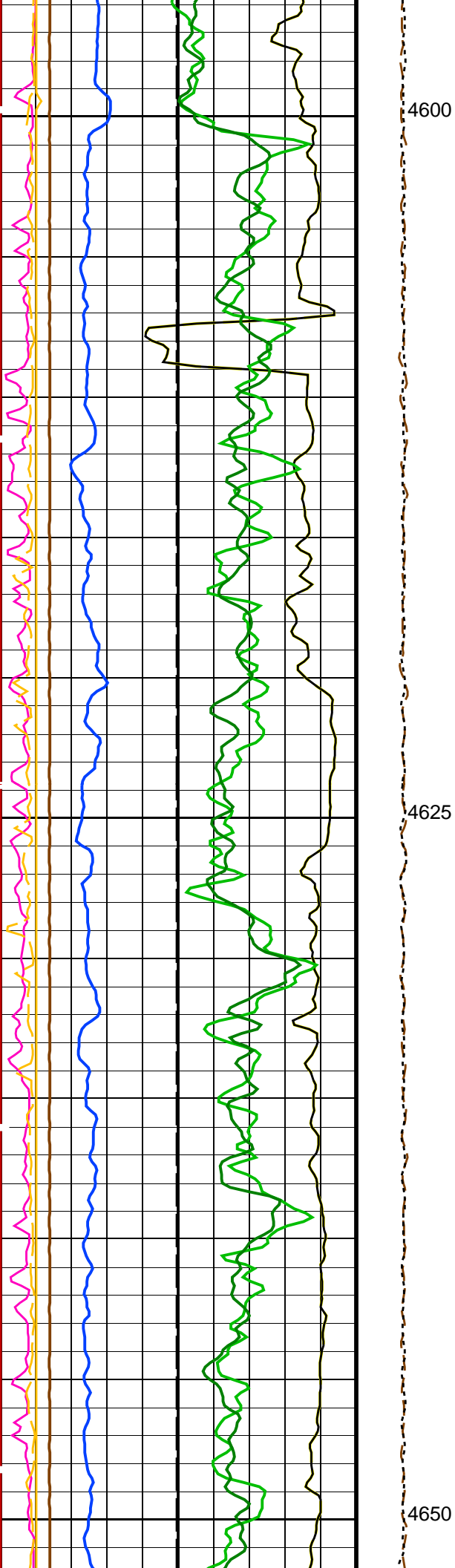


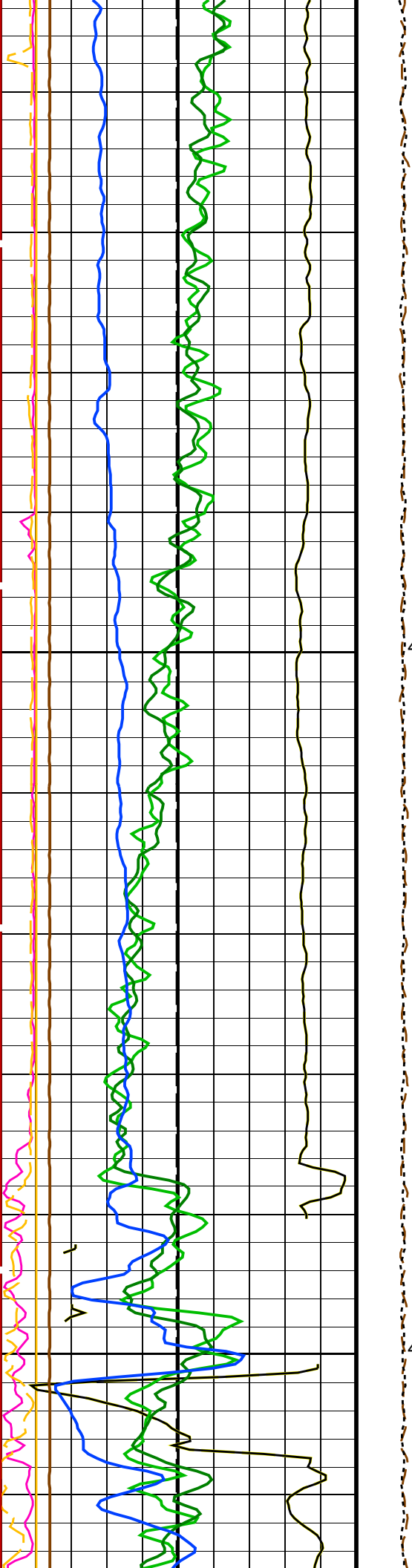






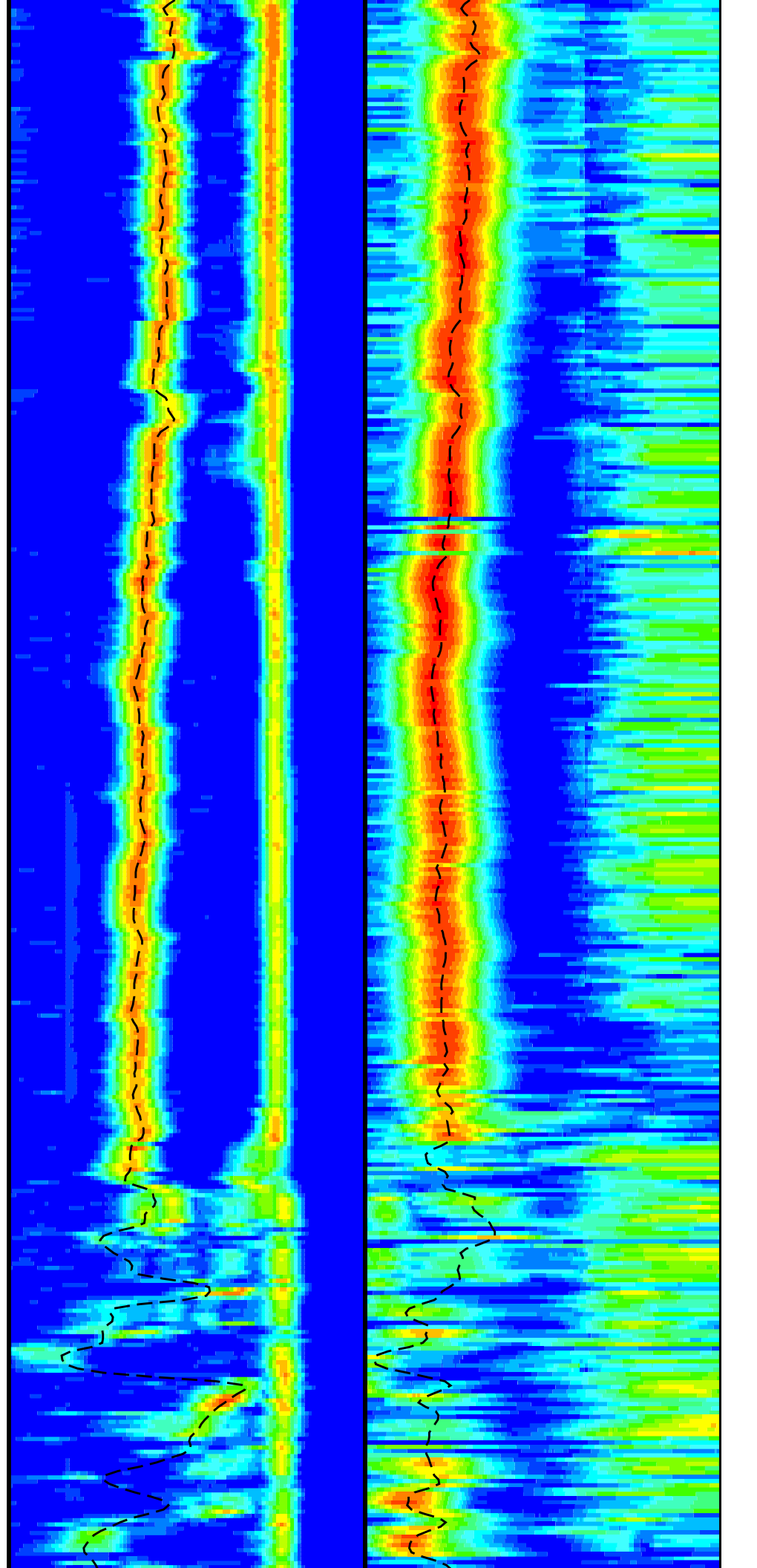


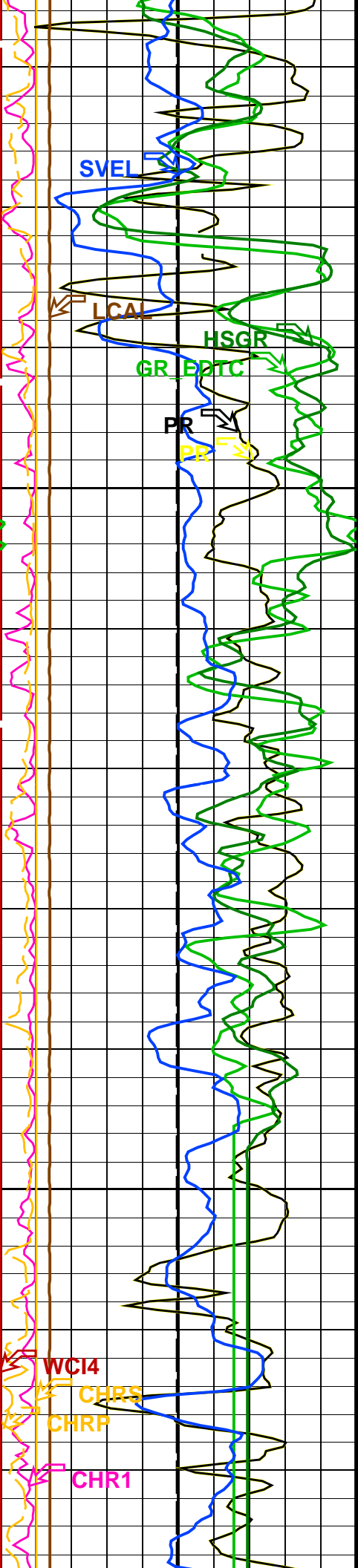




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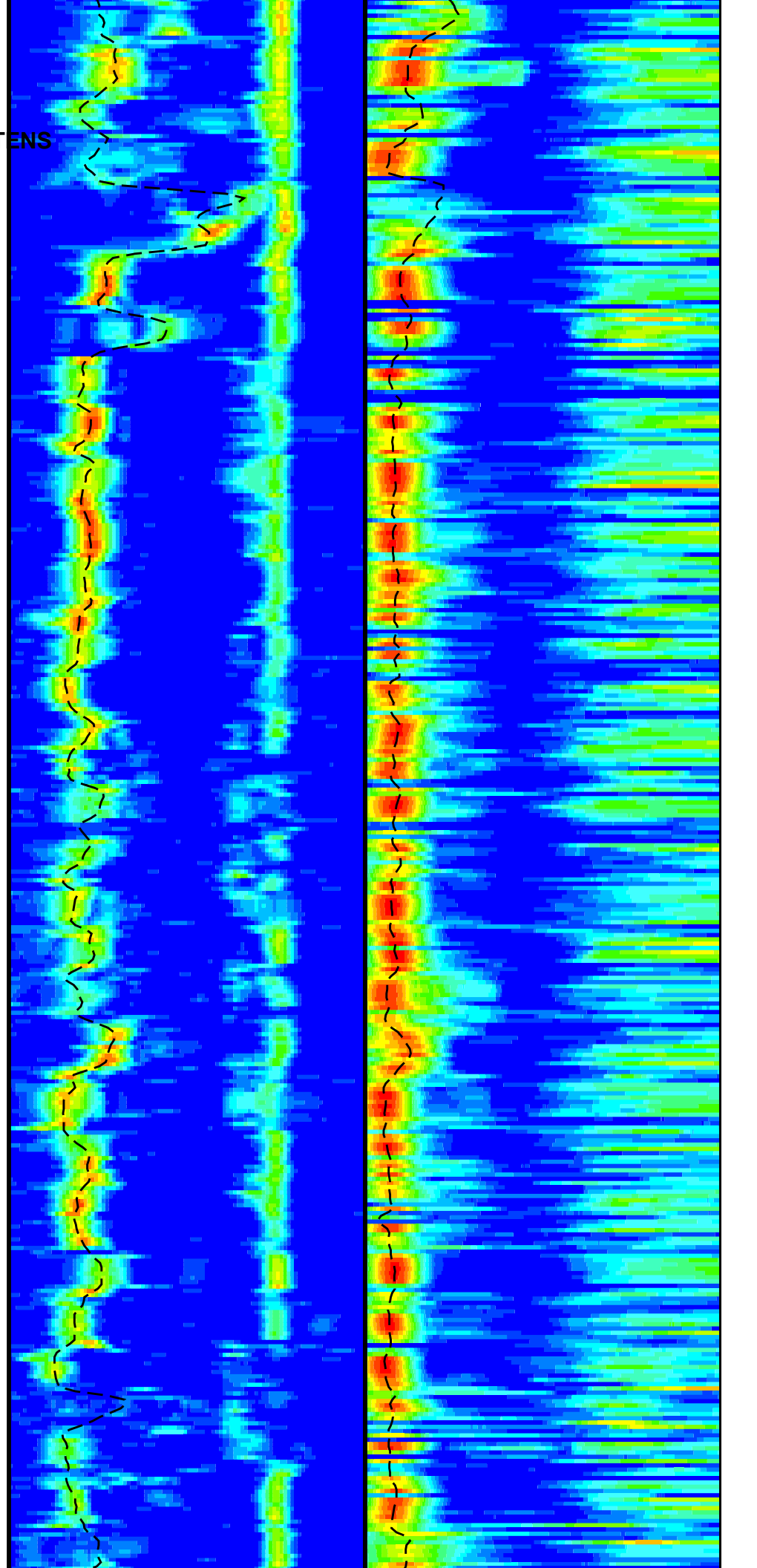


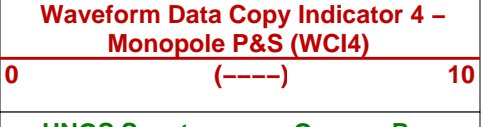
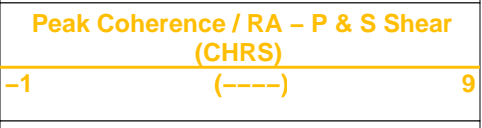
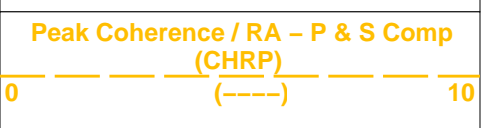
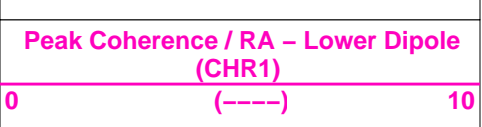
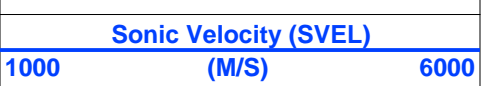
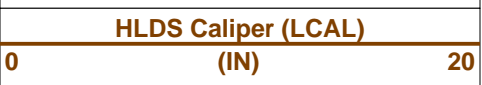
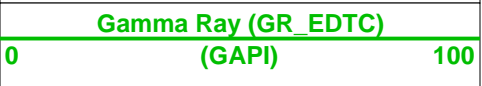
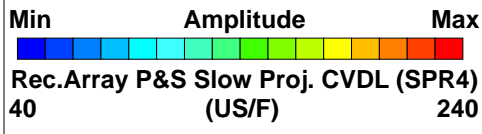
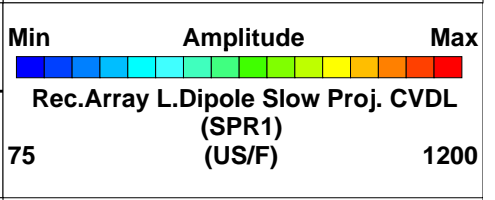
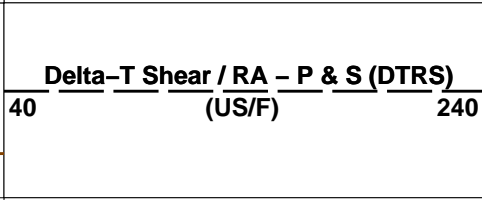
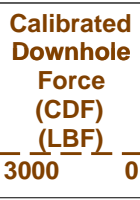
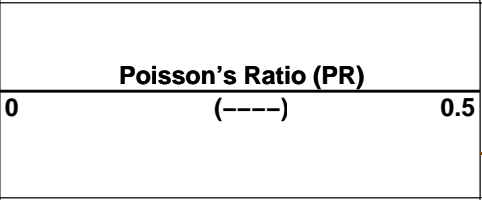
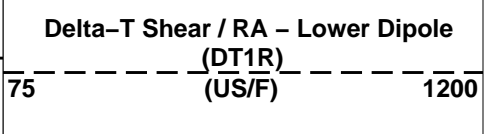
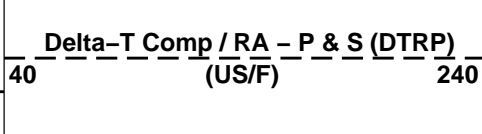
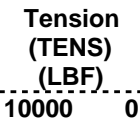
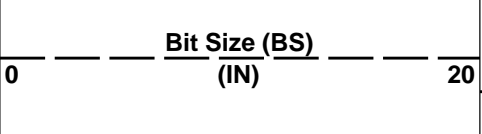
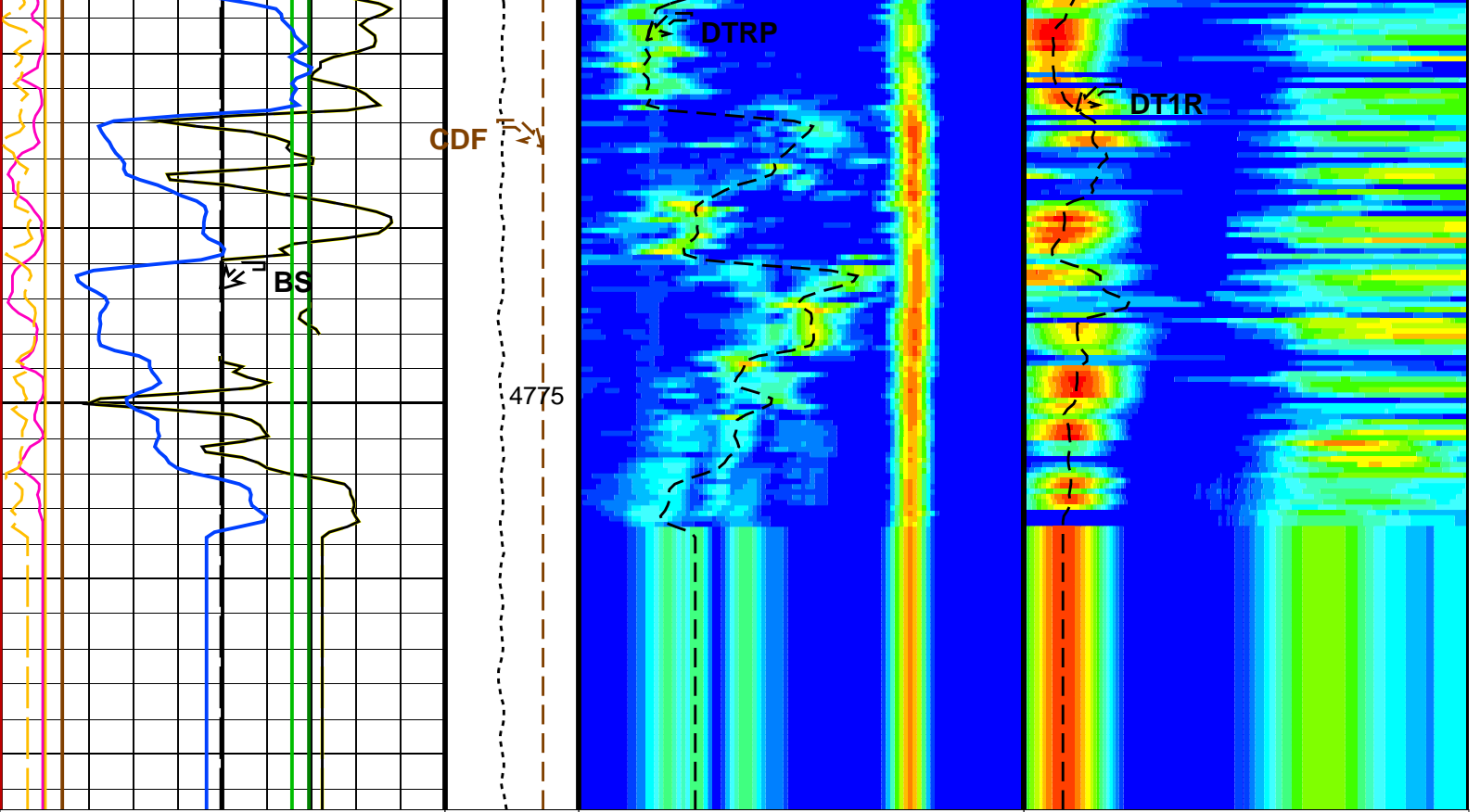


TENS

4725

4750





Compressional and Lower Dipole

Downlog

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
DSST-B: Dipole Shear Imager - B			
AGC1	Automatic Gain Control 1	ON	
AGC2	Automatic Gain Control 2	ON	
AGC3	Automatic Gain Control 3	ON	
AGC4	Automatic Gain Control 4	ON	
AGC5	Automatic Gain Control 5	ON	
AGCX	Automatic Gain Control X	ON	
BARS_MTR1	Length for Monopole Transmitter to Receiver 1	2.7432	M
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	21	DEGC
CASF	Label Casing Function - Monopole P&S	50	
CDTS	C-Delta-T Shale	100	US/F
COLL	Label Slowness Lower Limit - Monopole P&S Compressional	65	US/F
COUL	Label Slowness Upper Limit - Monopole P&S Compressional	175	US/F
DDE1	Digitizing Delay 1	0	US
DDE2	Digitizing Delay 2	0	US
DDE3	Digitizing Delay 3	0	US
DDE4	Digitizing Delay 4	0	US
DDE5	Digitizing Delay 5	0	US
DDEX	Digitizing Delay X	0	US
DLCS	Label Compressional Source - Dipole Shear	USE	
DLHS	Label Hole Diameter Source for SOBS Channel	AUTO	
DSHL	Label Slowness Lower Limit - Dipole Shear	75	US/F
DSHU	Label Slowness Upper Limit - Dipole Shear	600	US/F
DSI1	Digitizer Sample Interval 1	40	US
DSI2	Digitizer Sample Interval 2	40	US
DSI3	Digitizer Sample Interval 3	40	US
DSI4	Digitizer Sample Interval 4	10	US
DSI5	Digitizer Sample Interval 5	10	US
DSIX	Digitizer Sample Interval X	40	US
DTCS	Compressional Delta-T Source for DTCO Channel	PS_COMP	
DTF	Delta-T Fluid	193	US/F
DTM	Delta-T Matrix	56	US/F
DTSS	Shear Delta-T Source for DTSM Channel	UPPER_DIPOLE	
DWC1	Digitizer Word Count 1	512	
DWC2	Digitizer Word Count 2	512	
DWC3	Digitizer Word Count 3	512	
DWC4	Digitizer Word Count 4	512	
DWC5	Digitizer Word Count 5	512	
DWCX	Digitizer Word Count X	512	
FDE1	Firing Delay 1	0	
FDE2	Firing Delay 2	0	
FDE3	Firing Delay 3	0	
FDE4	Firing Delay 4	0	
FDE5	Firing Delay 5	0	
FDEX	Firing Delay X	0	
FGM5	First Motion Gate Moveout 5	40	US/F
FGMX	First Motion Gate Moveout X	40	US/F
FILG	Label Fill Gap Control - Monopole P&S	COMP_SHEAR	
FMG5	First Motion Minimum Gate 5	500	US
FMGX	First Motion Minimum Gate X	500	US
FMLL	Slowness Lower Limit - FMD	40	US/F
FMRC	Restart Control - FMD	CONTINUE	
FMT5	First Motion Threshold 5	UP	
FMTX	First Motion Threshold X	NONE	
FMUL	Slowness Upper Limit - FMD	180	US/F
FNC5	First Motion Noise Counter Input 5	ALO	
FNCX	First Motion Noise Counter Input X	ALO	
FPM	Processing Mode - FMD	NONE	
FTD5	First Motion Threshold Direction 5	UP	
FTDX	First Motion Threshold Direction X	UP	
GAI1	Manual Gain 1	10	
GAI2	Manual Gain 2	10	
GAI3	Manual Gain 3	6	
GAI4	Manual Gain 4	16	
GAI5	Manual Gain 5	16	
GAIX	Manual Gain X	10	
GCSE	Generalized Caliper Selection	BS	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GDT1	Gain Delta-T 1	800	US/F
GDT2	Gain Delta-T 2	800	US/F
GDT3	Gain Delta-T 3	800	US/F

GDT4	Gain Delta-T 4	160	US/F
GDT5	Gain Delta-T 5	160	US/F
GDTX	Gain Delta-T X	800	US/F
GGRD	Geothermal Gradient	0.018227	DC/M
GIN1	Gain Interval 1	15360	US
GIN2	Gain Interval 2	15360	US
GIN3	Gain Interval 3	15360	US
GIN4	Gain Interval 4	2560	US
GIN5	Gain Interval 5	1600	US
GINX	Gain Interval X	15360	US
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
HPF1	High Pass Filter 1	F80	
HPF2	High Pass Filter 2	F80	
HPF3	High Pass Filter 3	F80	
HPF4	High Pass Filter 4	F8K	
HPF5	High Pass Filter 5	F8K	
HPFX	High Pass Filter X	F80	
ISSBAR	Barite Mud Switch	BARITE	
ITTS	Integrated Transit Time Source	DTCO	
LFC	Label Formation Character - Monopole P&S	DYNAMIC	
LPF1	Low Pass Filter 1	F5K	
LPF2	Low Pass Filter 2	F5K	
LPF3	Low Pass Filter 3	F5K	
LPF4	Low Pass Filter 4	F30K	
LPF5	Low Pass Filter 5	F30K	
LPFX	Low Pass Filter X	F5K	
LTXG	Lower Dipole Transmitter Geometry	156	IN
MAI5	Slowness Averaging Interval - FMD	42	IN
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
MCS	Mean Casing Slowness	57	US/F
MDS5	Multishot Delta-T Scatter - FMD	20	US
MTXG	Monopole Transmitter Geometry	186	IN
MUX1	Sum Difference Multiplexor Input 1	RR	
MUX2	Sum Difference Multiplexor Input 2	RR	
MUX3	Sum Difference Multiplexor Input 3	RR	
MUX4	Sum Difference Multiplexor Input 4	RR	
MUX5	Sum Difference Multiplexor Input 5	RR	
MUXX	Sum Difference Multiplexor Input X	RR	
NTI5	Number Threshold Items 5	0	
NTIX	Number Threshold Items X	0	
NWI1	Number Waveform Items 1	8	
NWI2	Number Waveform Items 2	8	
NWI3	Number Waveform Items 3	0	
NWI4	Number Waveform Items 4	8	
NWI5	Number Waveform Items 5	0	
NWIX	Number Waveform Items X	0	
NWS1	Number Waveforms Stacked 1	1	
NWS2	Number Waveforms Stacked 2	1	
NWS3	Number Waveforms Stacked 3	1	
NWS4	Number Waveforms Stacked 4	1	
NWS5	Number Waveforms Stacked 5	1	
NWSX	Number Waveforms Stacked X	1	
RATE	Firing Rate	R7	
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	
SAM2	DSST Sonic Acquisition Mode 2 - Upper Dipole Mode	ODD	
SAM3	DSST Sonic Acquisition Mode 3 - Monopole Mode for Stoneley	OFF	
SAM4	DSST Sonic Acquisition Mode 4 - Monopole Mode for P&S	EVEN	
SAM5	DSST Sonic Acquisition Mode 5 - Monopole Mode for FMD	OFF	
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	
SAS3	STC Sonic Array Status - Monopole Stoneley	255	
SAS4	STC Sonic Array Status - Monopole P&S	255	
SAS5	Sonic Array Status - FMD	255	
SBO1	STC Search Band Offset - Lower Dipole	3000	US
SBO2	STC Search Band Offset - Upper Dipole	3000	US
SBO3	STC Search Band Offset - Monopole Stoneley	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
SBW2	STC Search Bandwidth - Upper Dipole	8000	US
SBW3	STC Search Bandwidth - Monopole Stoneley	8000	US
SBW4	STC Search Bandwidth - Monopole P&S	2000	US

SFC1	STC Formation Character - Lower Dipole		
SFC2	STC Formation Character - Upper Dipole		
SFC3	STC Formation Character - Monopole Stoneley		
SFC4	STC Formation Character - Monopole P&S		
SFM1	STC Filter - Lower Dipole	B.3-1.5K	
SFM2	STC Filter - Upper Dipole	B1-2K	
SFM3	STC Filter - Monopole Stoneley	B.5-1.5K	
SFM4	STC Filter - Monopole P&S	B3-20K	
SHLL	Label Slowness Lower Limit - Monopole P&S Shear	235	US/F
SHT	Surface Hole Temperature	20	DEGC
SHUL	Label Slowness Upper Limit - Monopole P&S Shear	240	US/F
LLL1	STC Slowness Lower Limit - Lower Dipole	75	US/F
LLL2	STC Slowness Lower Limit - Upper Dipole	75	US/F
LLL3	STC Slowness Lower Limit - Monopole Stoneley	180	US/F
LLL4	STC Slowness Lower Limit - Monopole P&S	40	US/F
SPFS	Sonic Porosity Formula	RAYMER_HUNT	
SPSO	Sonic Porosity Source	DTCO	
SST1	STC Slowness Step - Lower Dipole	4	US/F
SST2	STC Slowness Step - Upper Dipole	4	US/F
SST3	STC Slowness Step - Monopole Stoneley	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	
SSW3	STC Source Waveform - Monopole Stoneley	WF_SAM3	
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	1200	US/F
SUL2	STC Slowness Upper Limit - Upper Dipole	1200	US/F
SUL3	STC Slowness Upper Limit - Monopole Stoneley	780	US/F
SUL4	STC Slowness Upper Limit - Monopole P&S	240	US/F
SWD1	STC Slowness Width - Lower Dipole	40	US/F
SWD2	STC Slowness Width - Upper Dipole	40	US/F
SWD3	STC Slowness Width - Monopole Stoneley	40	US/F
SWD4	STC Slowness Width - Monopole P&S	10	US/F
TBDB	Tool String Bottom to DSST Bottom	95.25	IN
TBF1	STC Time for Baseline Fill - Lower Dipole	0	US
TBF2	STC Time for Baseline Fill - Upper Dipole	0	US
TBF3	STC Time for Baseline Fill - Monopole Stoneley	0	US
TBF4	STC Time for Baseline Fill - Monopole P&S	300	US
TLL1	STC Time Lower Limit - Lower Dipole	600	US
TLL2	STC Time Lower Limit - Upper Dipole	600	US
TLL3	STC Time Lower Limit - Monopole Stoneley	600	US
TLL4	STC Time Lower Limit - Monopole P&S	150	US
TST1	STC Time Step - Lower Dipole	200	US
TST2	STC Time Step - Upper Dipole	200	US
TST3	STC Time Step - Monopole Stoneley	200	US
TST4	STC Time Step - Monopole P&S	50	US
TTDB	Tool String Top to DSST Bottom	1656.11	IN
TUL1	STC Time Upper Limit - Lower Dipole	20440	US
TUL2	STC Time Upper Limit - Upper Dipole	20200	US
TUL3	STC Time Upper Limit - Monopole Stoneley	12000	US
TUL4	STC Time Upper Limit - Monopole P&S	3660	US
TWA1	Transmitter Waveform Amplitude 1	179	
TWA2	Transmitter Waveform Amplitude 2	179	
TWA3	Transmitter Waveform Amplitude 3	166	
TWA4	Transmitter Waveform Amplitude 4	150	
TWA5	Transmitter Waveform Amplitude 5	150	
TWAX	Transmitter Waveform Amplitude X	179	
TWD1	STC Time Width - Lower Dipole	2000	US
TWD2	STC Time Width - Upper Dipole	2000	US
TWD3	STC Time Width - Monopole Stoneley	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
TWI3	STC Integration Time Window - Monopole Stoneley	2400	US
TWI4	STC Integration Time Window - Monopole P&S	500	US
TWR1	Transmitter Waveform Sample Rate 1	20	US
TWR2	Transmitter Waveform Sample Rate 2	5	US
TWR3	Transmitter Waveform Sample Rate 3	5	US
TWR4	Transmitter Waveform Sample Rate 4	5	US
TWR5	Transmitter Waveform Sample Rate 5	5	US
TWRX	Transmitter Waveform Sample Rate X	5	US
TWS1	Transmitter Waveform Select 1	2	
TWS2	Transmitter Waveform Select 2	0	
TWS3	Transmitter Waveform Select 3	4	
TWS4	Transmitter Waveform Select 4	6	
TWS5	Transmitter Waveform Select 5	6	
TWSX	Transmitter Waveform Select X	0	
UTXG	Upper Dipole Transmitter Geometry	162	IN
WFDTSP1	SAM1 Waveform Delta for Spectrum	0	US/F
WFDTSP2	SAM2 Waveform Delta for Spectrum	0	US/F
WFDTSP3	SAM3 Waveform Delta for Spectrum	0	US/F
WFDTSP4	SAM4 Waveform Delta for Spectrum	0	US/F
WFDTSPX	SAMX Waveform Delta for Spectrum	0	US/F



WFD1SPX	SAMX Waveform Delta for Spectrum	0	US/F
WFLLSP1	SAM1 Waveform Lower Limit for Spectrum	0	US
WFLLSP2	SAM2 Waveform Lower Limit for Spectrum	0	US
WFLLSP3	SAM3 Waveform Lower Limit for Spectrum	0	US
WFLLSP4	SAM4 Waveform Lower Limit for Spectrum	0	US
WFLLSPX	SAMX Waveform Lower Limit for Spectrum	0	US
WFM1	Waveform Mode 1	W1	
WFM2	Waveform Mode 2	W1	
WFM3	Waveform Mode 3	W1	
WFM4	Waveform Mode 4	W1	
WFM5	Waveform Mode 5	W1	
WFMX	Waveform Mode X	W1	
WFULSP1	SAM1 Waveform Upper Limit for Spectrum	20000	US
WFULSP2	SAM2 Waveform Upper Limit for Spectrum	20000	US
WFULSP3	SAM3 Waveform Upper Limit for Spectrum	20000	US
WFULSP4	SAM4 Waveform Upper Limit for Spectrum	5000	US
WFULSPX	SAMX Waveform Upper Limit for Spectrum	20000	US
XMT1	Transmitter Select 1	DLO	
XMT2	Transmitter Select 2	DUP	
XMT3	Transmitter Select 3	MONO	
XMT4	Transmitter Select 4	MONO	
XMT5	Transmitter Select 5	MONO	
XMTX	Transmitter Select X	DUP	
<b>HRLT-B: High Resolution Laterolog Array - B</b>			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	21	DEGC
CALSTAT	HRLTB Calibration Status	SHALLOW_DONE	
CALTEMP	HRLTB Calibration Temperature	23.3869	DEGC
FREQ0	HRLT Frequency Index for Mode 0	32	
FREQ1	HRLT Frequency Index for Mode 1	128	
FREQ2	HRLT Frequency Index for Mode 2	104	
FREQ3	HRLT Frequency Index for Mode 3	86	
FREQ4	HRLT Frequency Index for Mode 4	56	
FREQ5	HRLT Frequency Index for Mode 5	44	
FREQ6	HRLT Frequency Index for Mode 6	116	
GCSE	Generalized Caliper Selection	BS	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN 9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
ISSBAR	Barite Mud Switch	BARITE	
KFAC_HRLT	HRLT K Factor Option	SONDE	
LOOPCOEF_S	HRLT Loop Coefficient for Shallow Modes	LOW	
LOOPMOD0	HRLT Mode 0 Loop Mode	OFF	
LOOPMOD1	HRLT Mode 1 Loop Mode	OFF	
LOOPMOD2	HRLT Mode 2 Loop Mode	OFF	
LOOPMOD3	HRLT Mode 3 Loop Mode	OFF	
LOOPMOD4	HRLT Mode 4 Loop Mode	OFF	
LOOPMOD5	HRLT Mode 5 Loop Mode	OFF	
LOOPMOD6	HRLT Mode 6 Loop Mode	OFF	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
PROCINV	Inversion Selection	ON	
PROCMFL	Inversion Micro-Resistivity Selection	NO_EXTERNAL_RXO	
PROCMSO	Mechanical Standoff Fin Size	0	IN
PROCRM	Processing Mud Resistivity Select	HRLT_Compute	
PROCSPO	Sonde Position	Centered	
SHT	Surface Hole Temperature	20	DEGC
<b>HLDS: Hostile Litho-Density Sonde</b>			
CLCL	HLDS LS Control Loop Controller Mode	AUTO_DEFAULT	
CLCS	HLDS SS Control Loop Controller Mode	AUTO_DEFAULT	
CLLS	HLDS Mode Loop Long Spacing	AUTO	
CLSS	HLDS Mode Loop Short Spacing	AUTO	
DHC	Density Hole Correction	BS	
DPPM	Density Porosity Processing Mode	HIRS	
FD	Fluid Density	1	G/C3
LATC	HLDS Activation Correction	ON	
LLDL	HLDS LS Low Level Discriminator DAC	14000	
LLDS	HLDS SS Low Level Discriminator DAC	14000	
LLML	HLDS LS Low Level Discriminator Mode	AUTO	
LLMS	HLDS SS Low Level Discriminator Mode	AUTO	
MDEN	Matrix Density	2.6	G/C3
PHVL	HLDS Long Spacing High Voltage Setting	1000	V
PHVS	HLDS Short Spacing High Voltage Setting	1000	V
PSDL	HLDS LS Pulse Shape Compensation DAC	30000	
PSDS	HLDS SS Pulse Shape Compensation DAC	30000	
PSML	HLDS LS Pulse Shape Compensation Mode	AUTO	
PSMS	HLDS SS Pulse Shape Compensation Mode	AUTO	
<b>HNGS-BA: Hostile Natural Gamma Ray Sonde</b>			
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	
BHT	Bottom Hole Temperature (used in calculations)	21	DEGC
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	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
H1P	HNGS Detector 1 Allow/Disallow In Processing	ALLOW	
H2P	HNGS Detector 2 Allow/Disallow In Processing	ALLOW	
HABK	HNGS Borehole Potassium Running Average	-0.00211472	
HALF	HNGS Alpha Filter Length	60	IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	BARI	
HNPE	HNGS Processing Enable	YES	
ISSBAR	Barite Mud Switch	BARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
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	
SHT	Surface Hole Temperature	20	DEGC
TPOS	Tool Position	ECCE	
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	0.955708	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	0.964775	
<b>EDTC-B: Enhanced DTS Cartridge</b>			
BHFL	Borehole Fluid Type	WATER	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	21	DEGC
BSCO	Borehole Salinity Correction Option	NO	
CCCO	Casing & Cement Thickness Correction Option	NO	
DPPM	Density Porosity Processing Mode	HIRS	
FSAL	Formation Salinity	-50000	PPM
FSCO	Formation Salinity Correction Option	NO	
GCSE	Generalized Caliper Selection	BS	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
HSCO	Hole Size Correction Option	YES	
ISSBAR	Barite Mud Switch	BARITE	
ISSBAR_EDTC	Nuclear Mud Type	BARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
MCCO	Mud Cake Correction Option	NO	
MCOR	Mud Correction	BARI	
MWCO	Mud Weight Correction Option	YES	
PTCO	Pressure/Temperature Correction Option	NO	
SDAT	Standoff Data Source	SOCN	
SHT	Surface Hole Temperature	20	DEGC
SOCN	Standoff Distance	0.5	IN
SOCO	Standoff Correction Option	NO	
TPOS_EDTC	EDTC Tool Centered/Eccentered	Eccentered	
U-ETELM_EDTS	Telemetry Mode for eWAFE	Standard_EDTS	
U-TELM_EDTS	Telemetry Mode for WAFE	Standard_EDTS	
<b>System and Miscellaneous</b>			
ALTDPCCHAN	Name of alternate depth channel	SpeedCorrectedDepth	
BS	Bit Size	9.875	IN
BSAL	Borehole Salinity	35000.00	PPM
CSIZ	Current Casing Size	5.000	IN
CWEI	Casing Weight	168.00	LB/F
DFD	Drilling Fluid Density	1.32	G/C3
DO	Depth Offset for Playback	0.0	M
FLEV	Fluid Level	-50000.00	M
MST	Mud Sample Temperature	23.00	DEGC
PBVSADP	Use alternate depth channel for playback	NO	
PP	Playback Processing	RECOMPUTE	
RMFS	Resistivity of Mud Filtrate Sample	-50000.0000	OHMM
RW	Resistivity of Connate Water	1.0000	OHMM
TD	Total Depth	4909	M
TDD	Total Depth - Driller	4850.80	M
TDL	Total Depth - Logger	4850.00	M
TWS	Temperature of Connate Water Sample	37.78	DEGC

Format: DSST\_P\_S\_LOWER\_VDL\_COLOR Vertical Scale: 1:200 Graphics File Created: 08-Mar-2017 13:50

### OP System Version: 19C0-187

DSST-B	19C0-187	HRLT-B	19C0-187
HLDS	19C0-187	LDSC-B	19C0-187
HNGC-B	19C0-187	HNGS-BA	19C0-187
EDTC-B	SKK-5169-EDTCB		

Input DLIS Files

### Output DLIS Files

Company: International Ocean Discovery Program Well: Expedition 367, Site U1499B

### Input DLIS Files

### Output DLIS Files

### OP System Version: 19C0-187

DSST-B	19C0-187	HRLT-B	19C0-187
HLDS	19C0-187	LDSC-B	19C0-187
HNGC-B	19C0-187	HNGS-BA	19C0-187
EDTC-B	SKK-5169-EDTCB		

### Changed Parameter Summary

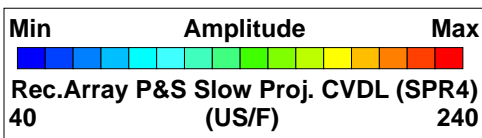
DLIS Name	New Value	Previous Value	Depth & Time
COLL	90 US/F	65 US/F	4439.6 13:51:33

#### PIP SUMMARY

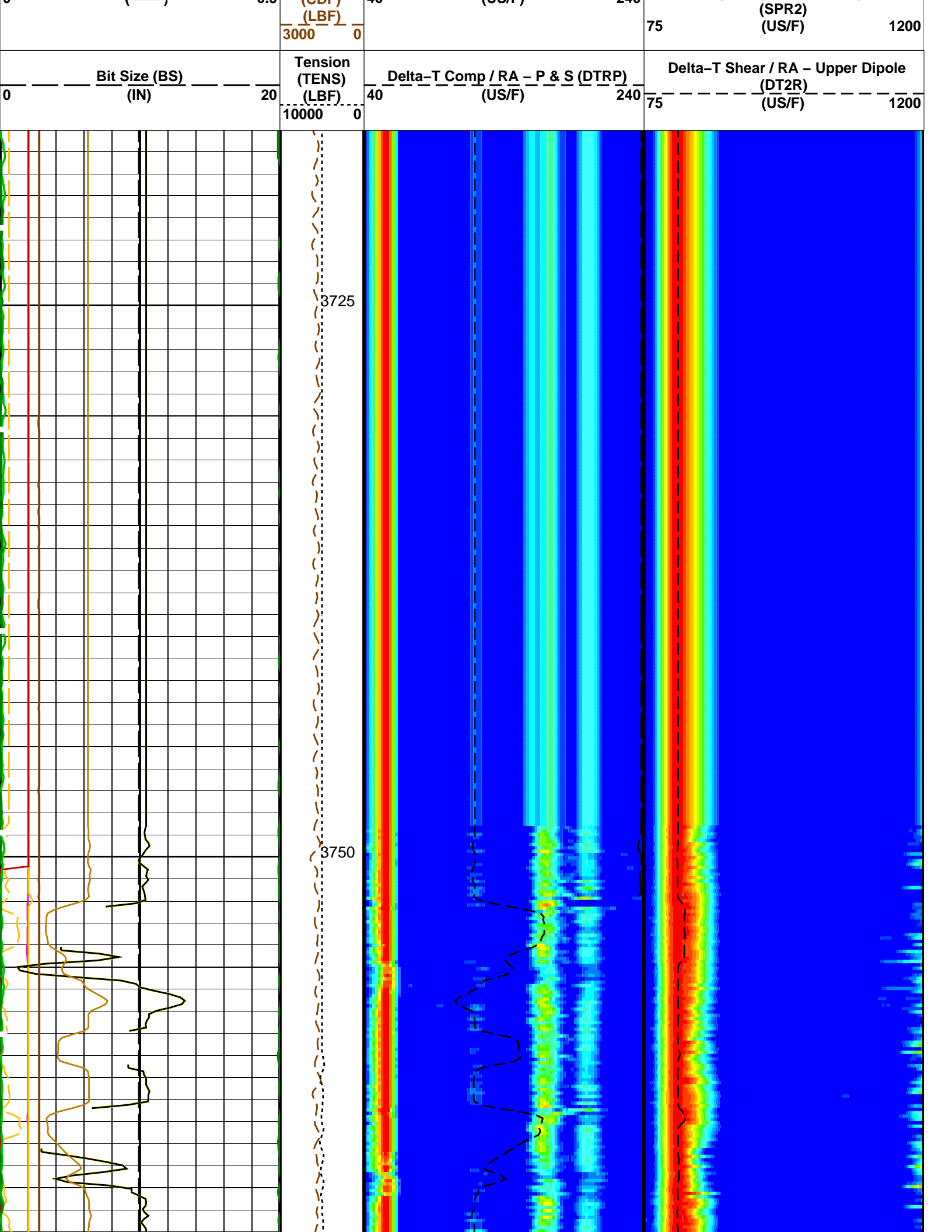
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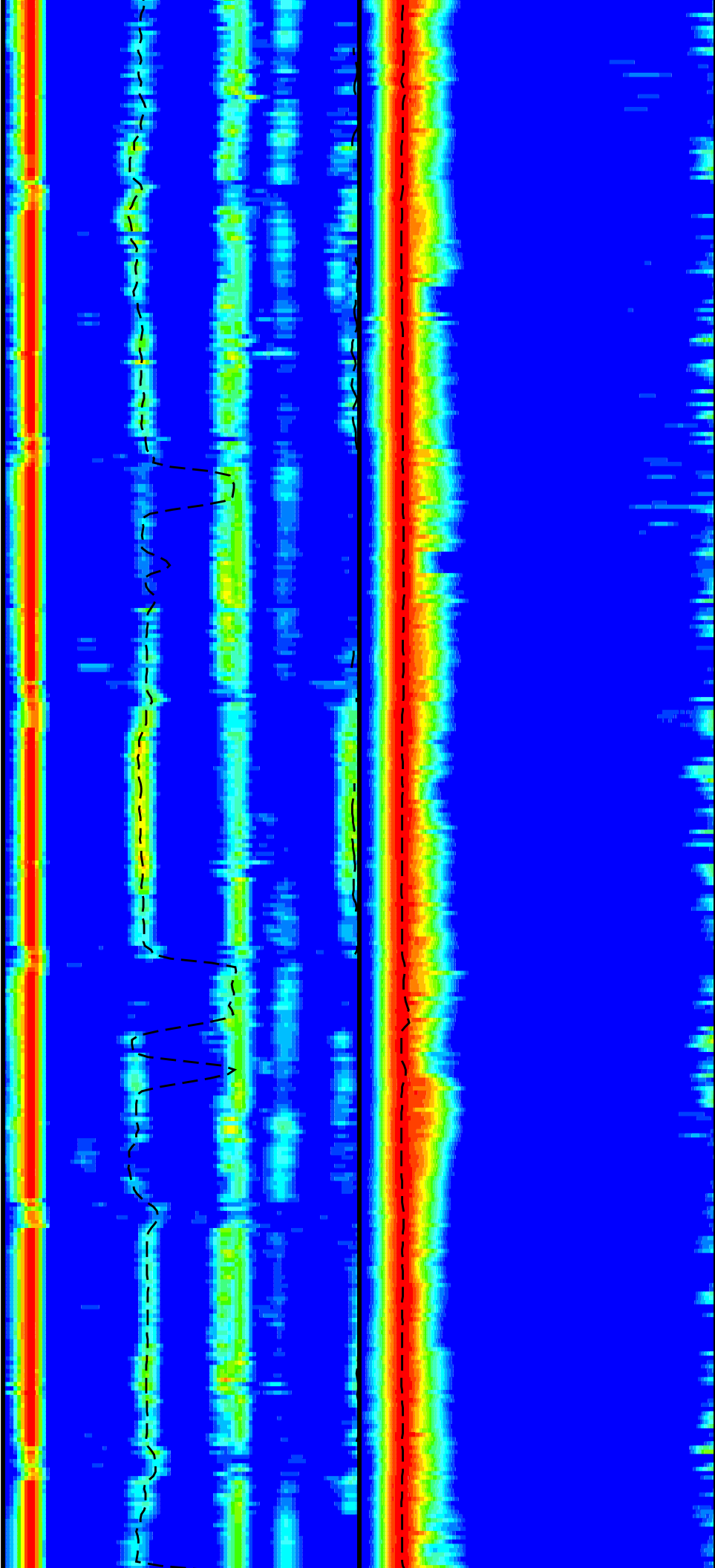
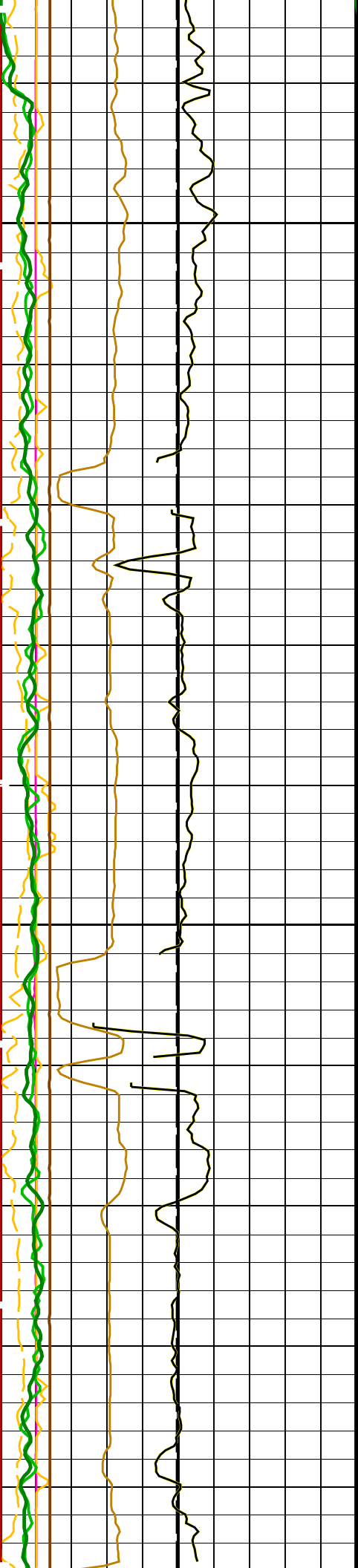
HNGS Spectroscopy Gamma Ray (HSGR)	(GAPI)	100
Waveform Data Copy Indicator 4 - Monopole P&S (WCI4)	(----)	10
Peak Coherence / RA - P & S Shear (CHRS)	(----)	9
Peak Coherence / RA - P & S Comp (CHRP)	(----)	10
Peak Coherence / RA - Upper Dipole (CHR2)	(----)	10
HLDS Caliper (LCAL)	(IN)	20
Gamma Ray (GR_EDTC)	(GAPI)	100
Poisson's Ratio (PR)	(----)	0.5
Sonic Velocity (SVEL)	(M/S)	6000

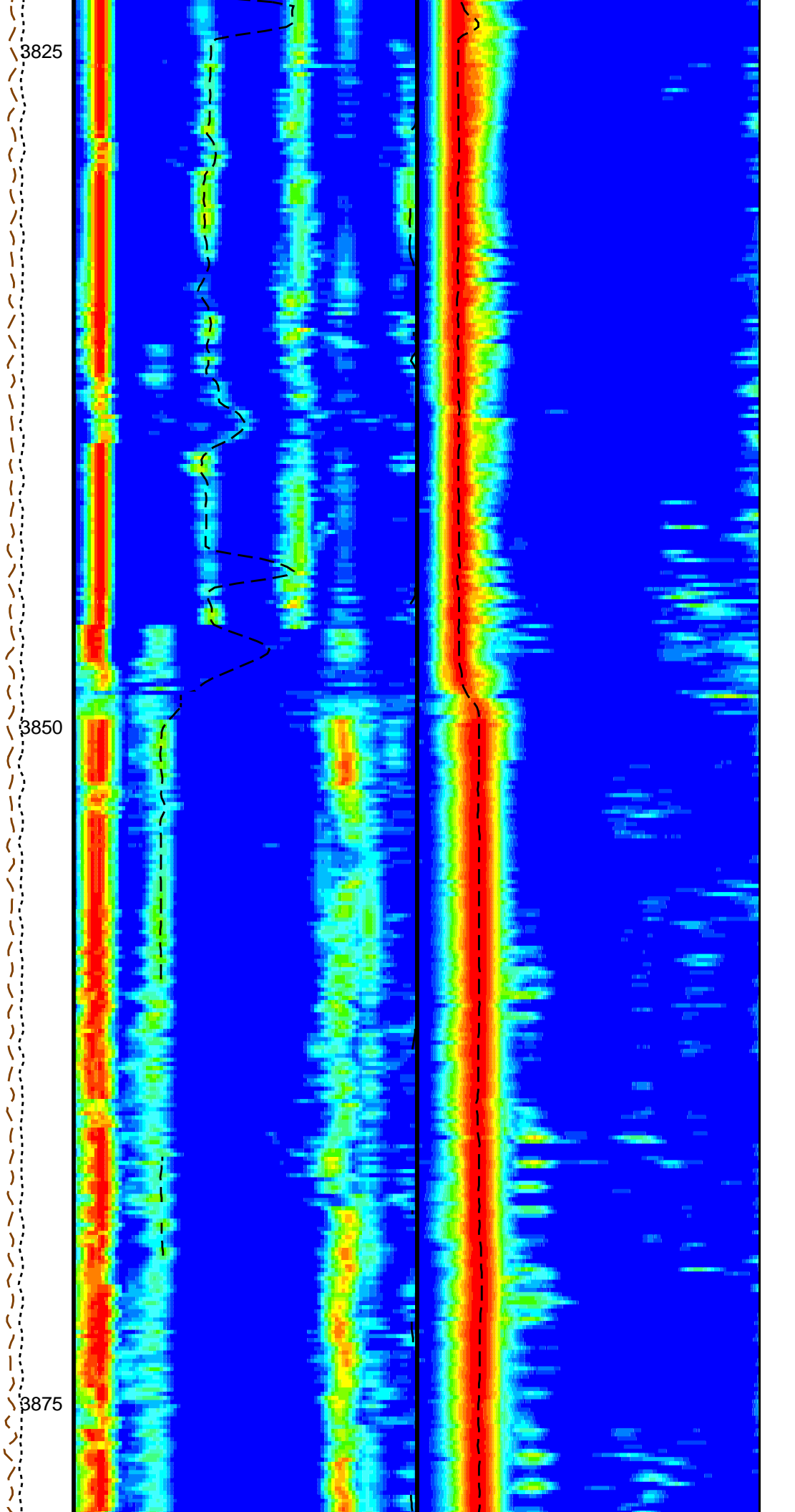
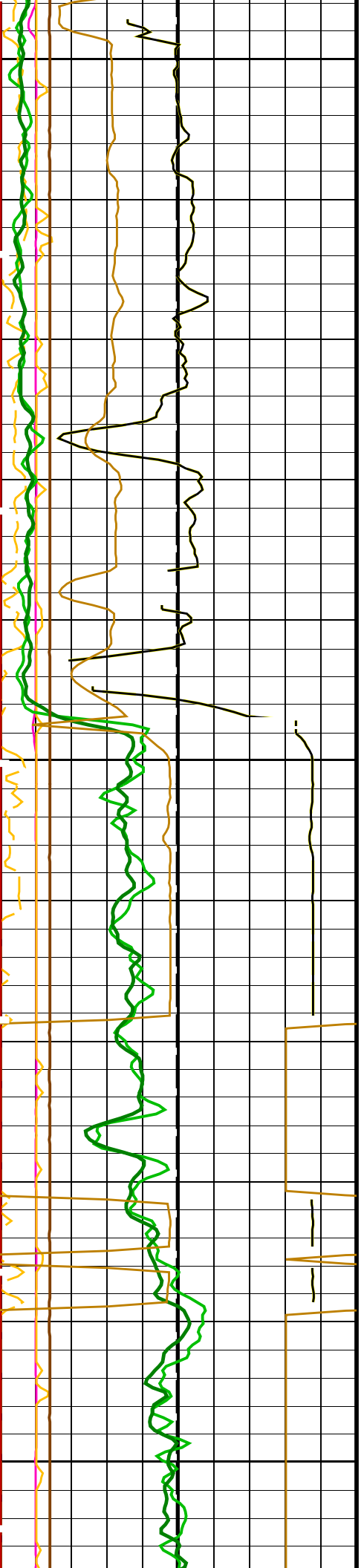
Downlog Compressional and Upper Dipole

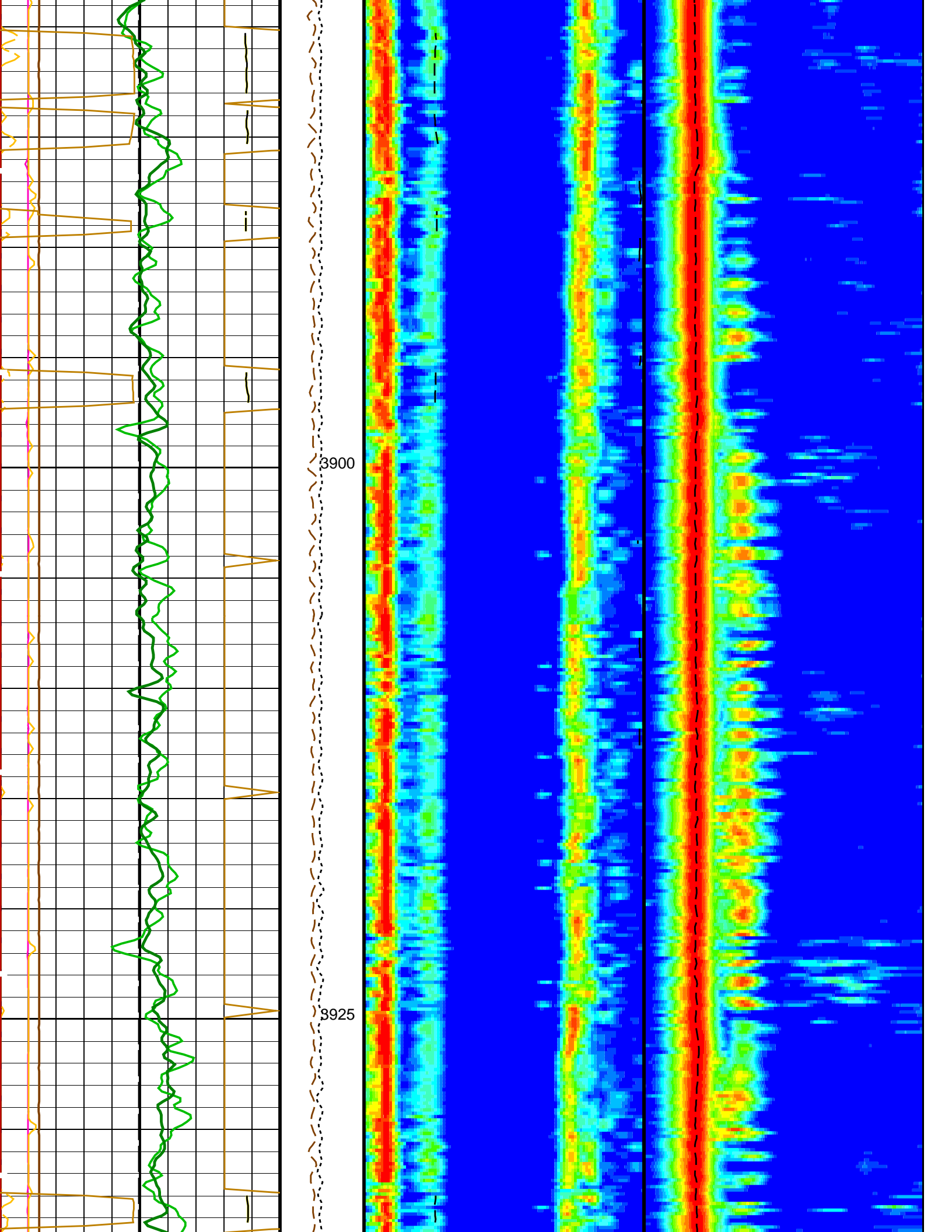


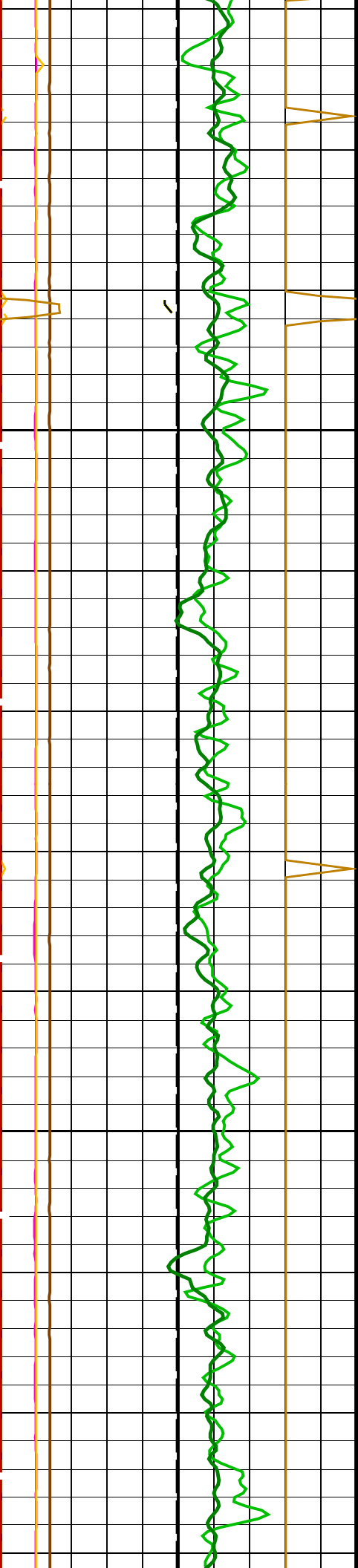
Poisson's Ratio (PR)	(----)	0.5	Calibrated Downhole Force (CDE)	Delta-T Shear / RA - P & S (DTRS)	(US/F)	40 240	Min Amplitude Max Rec.Array U.Dipole Slow Proj. CVDL
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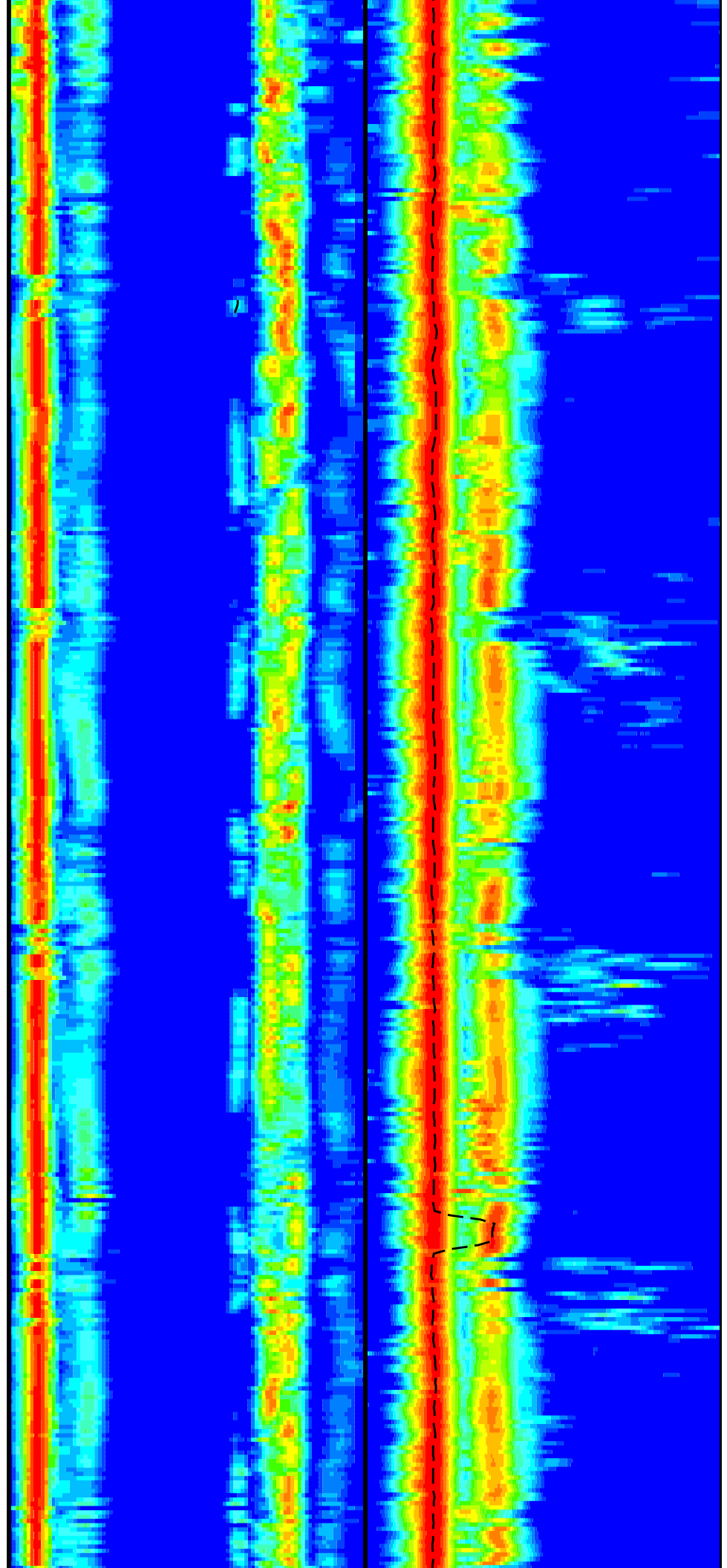




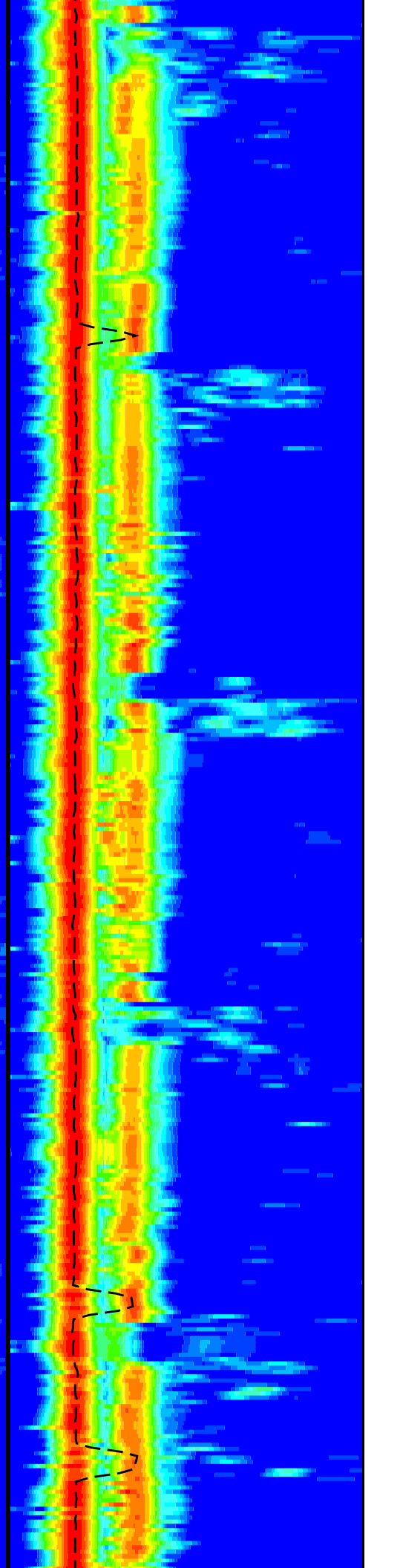
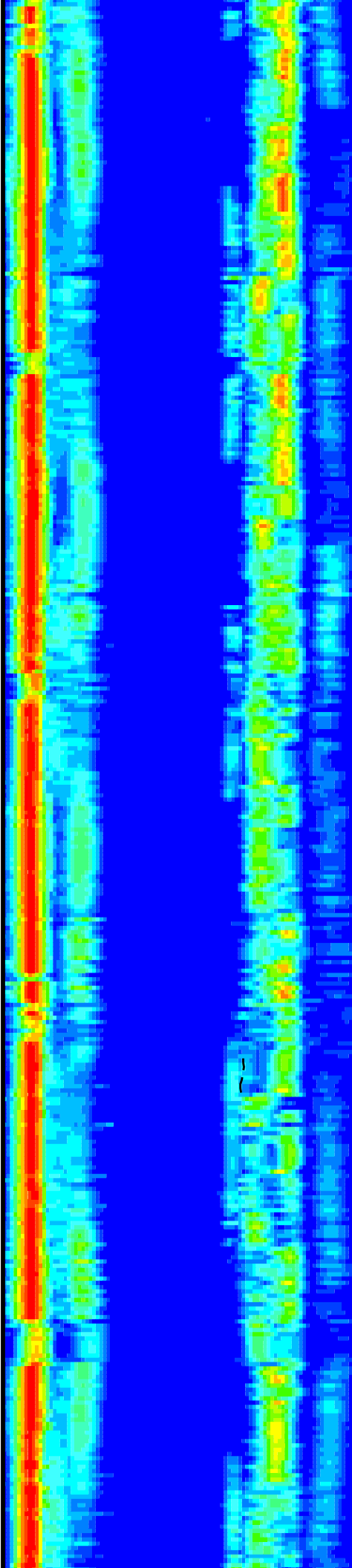
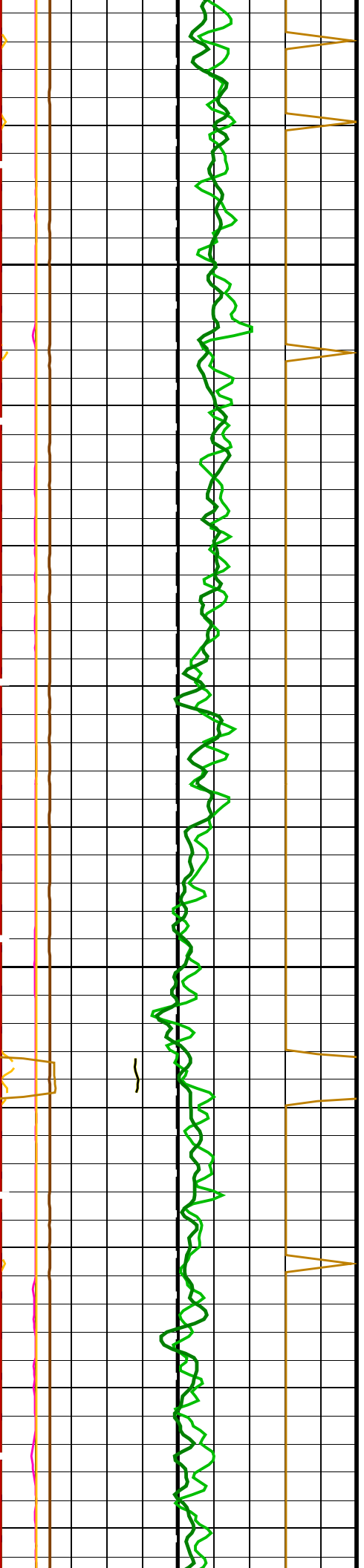




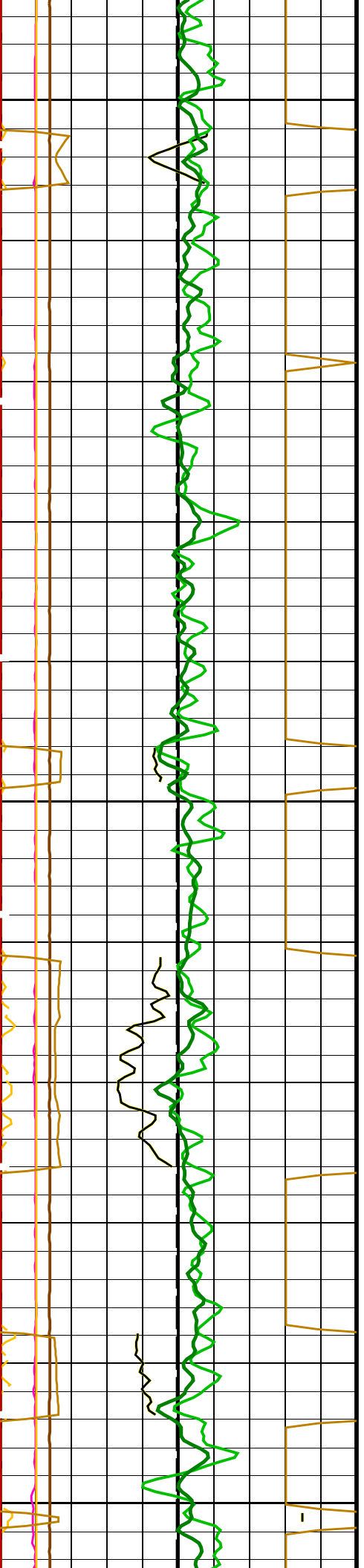
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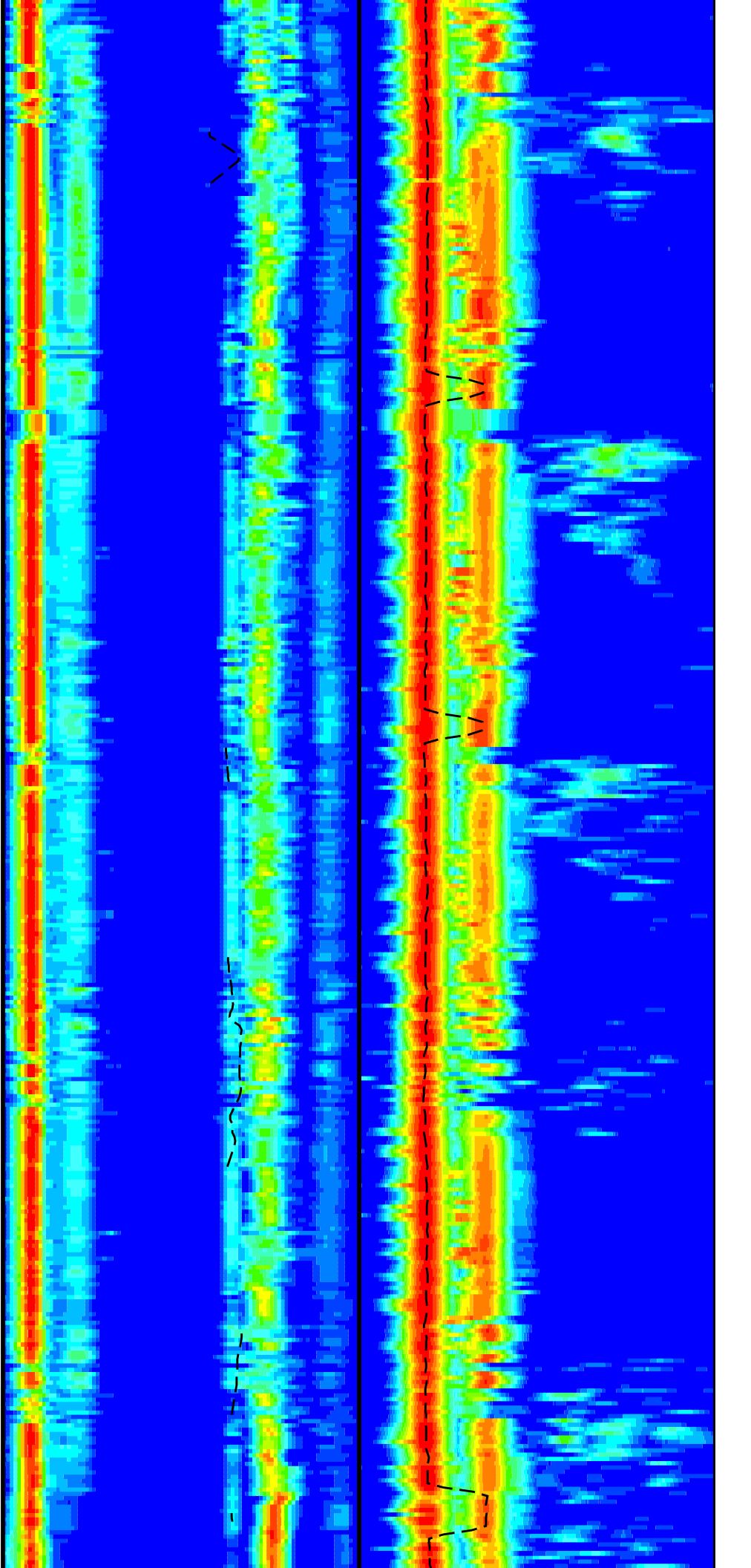


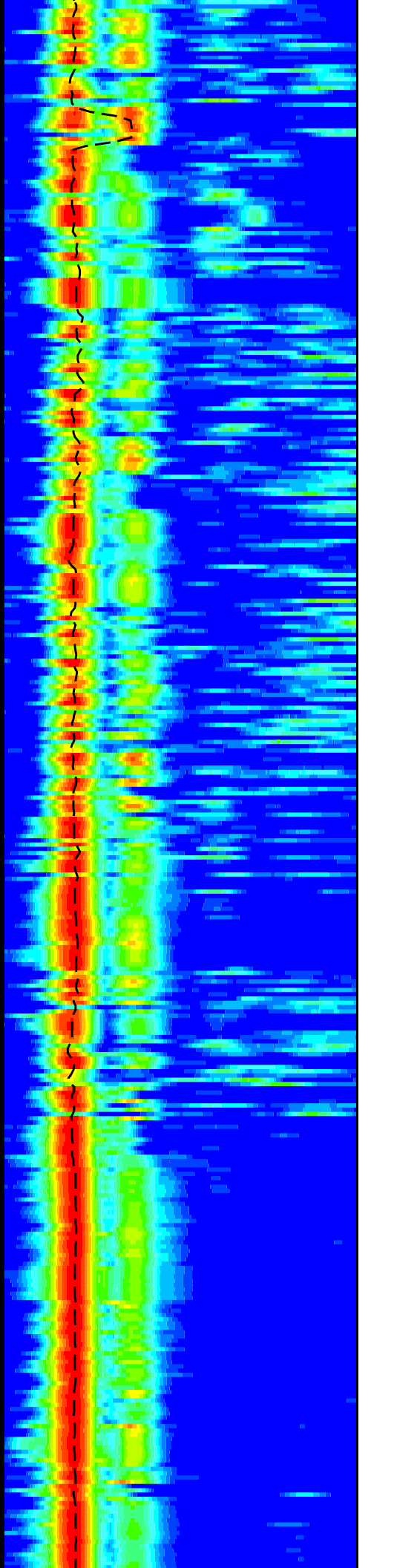
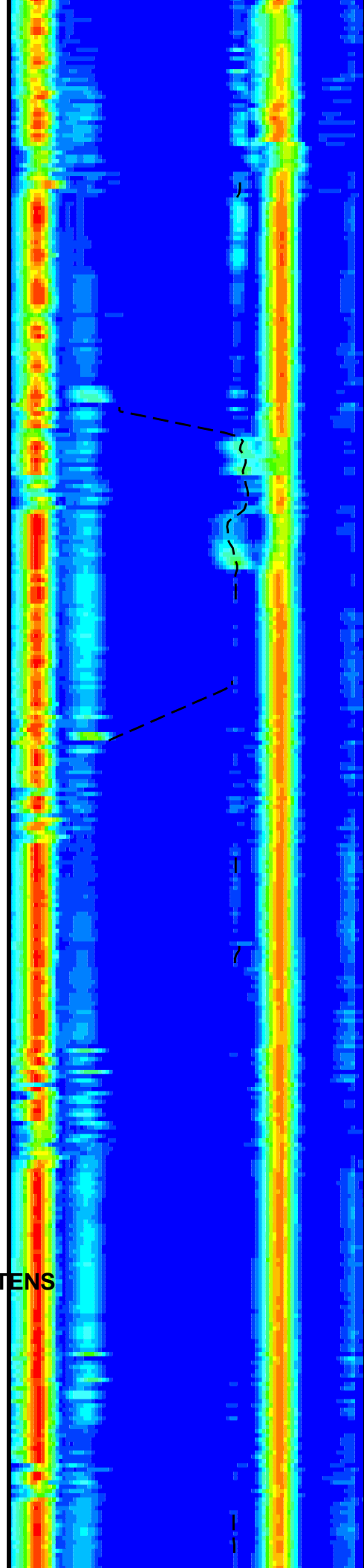
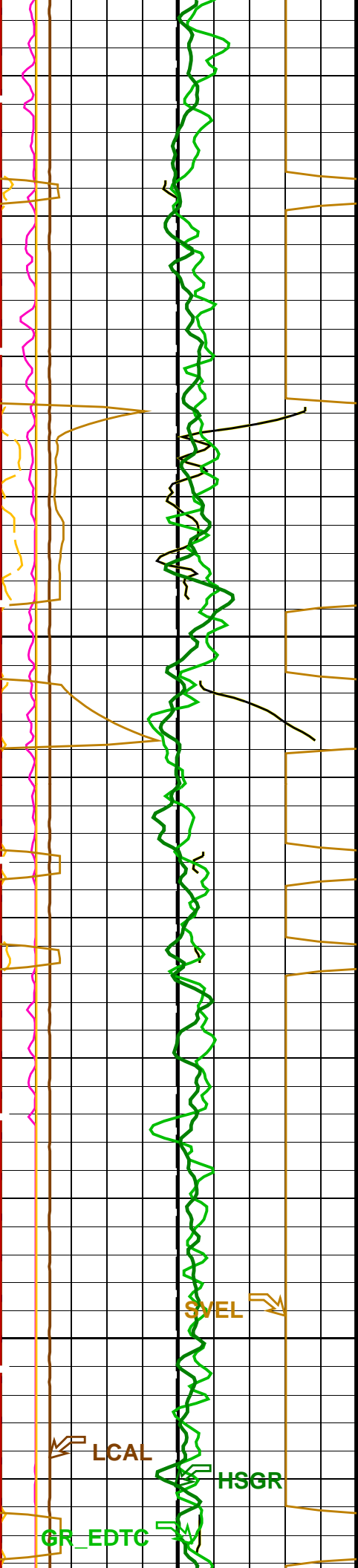


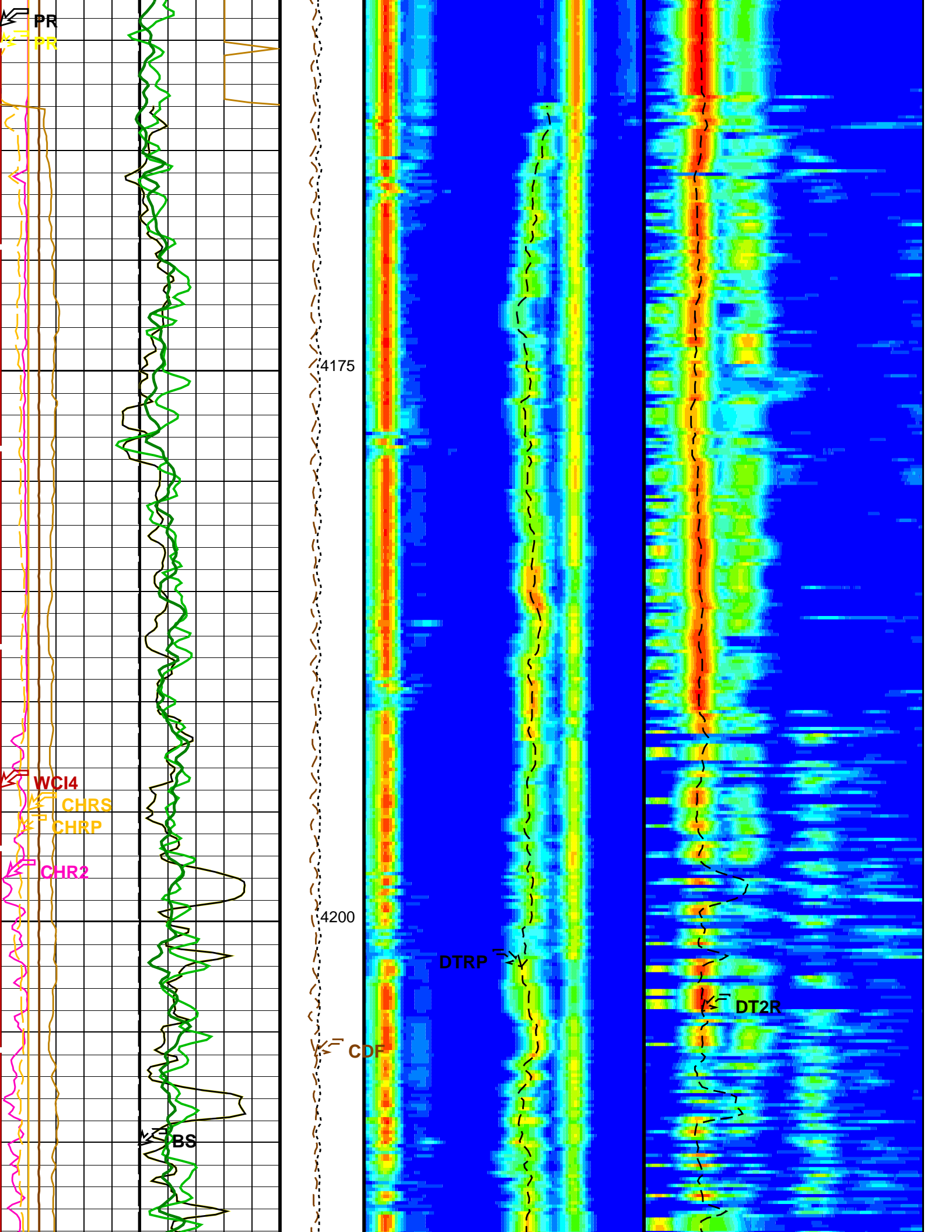


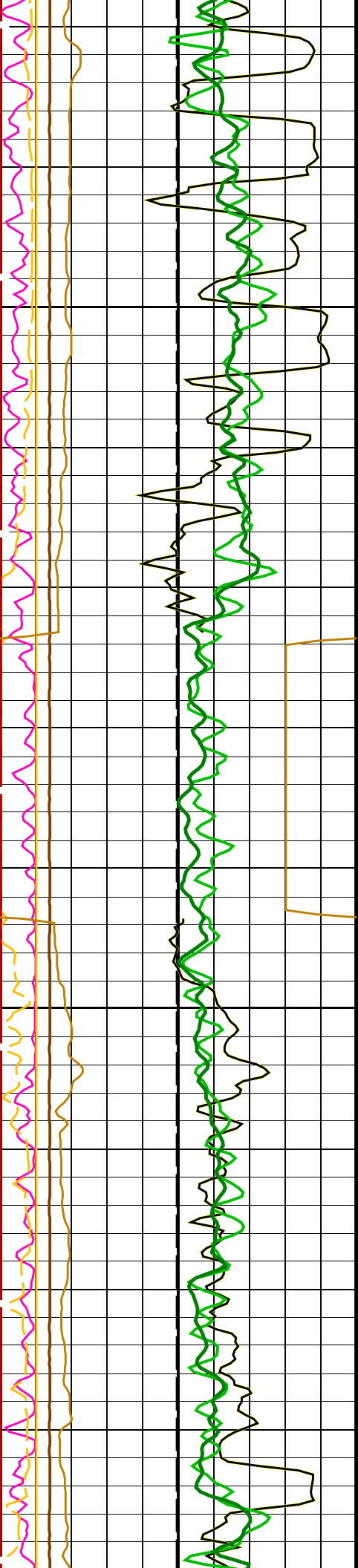


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4075  
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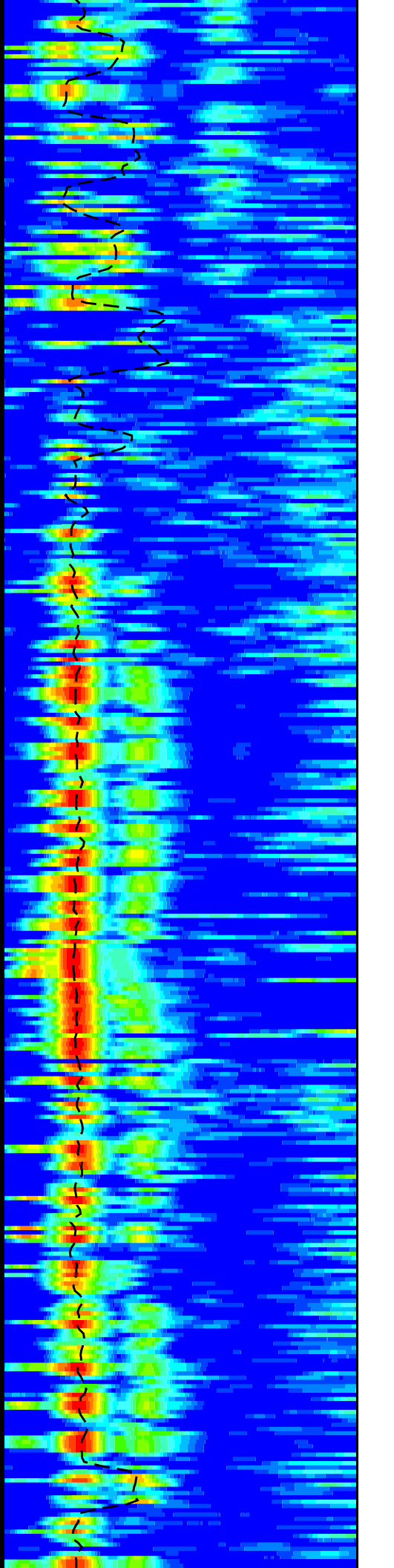
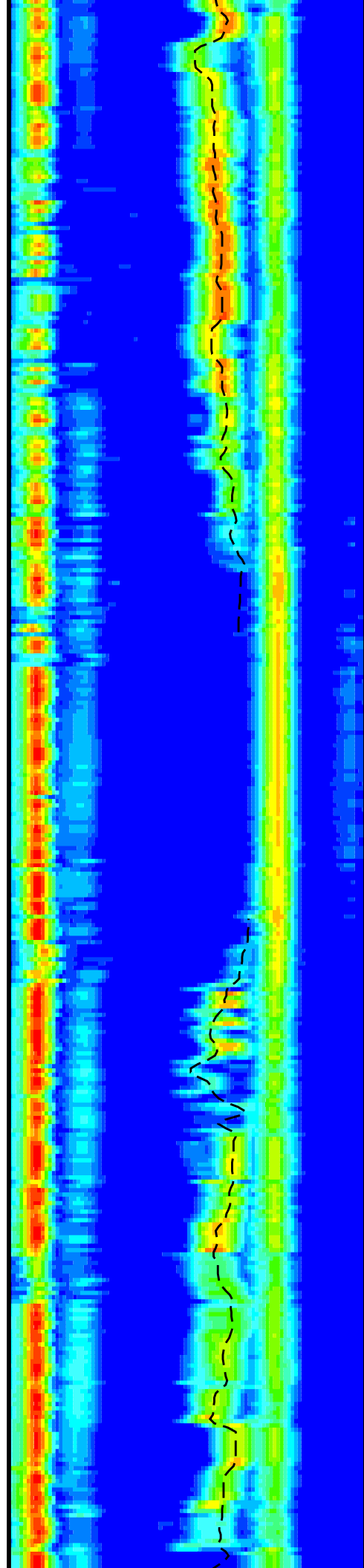


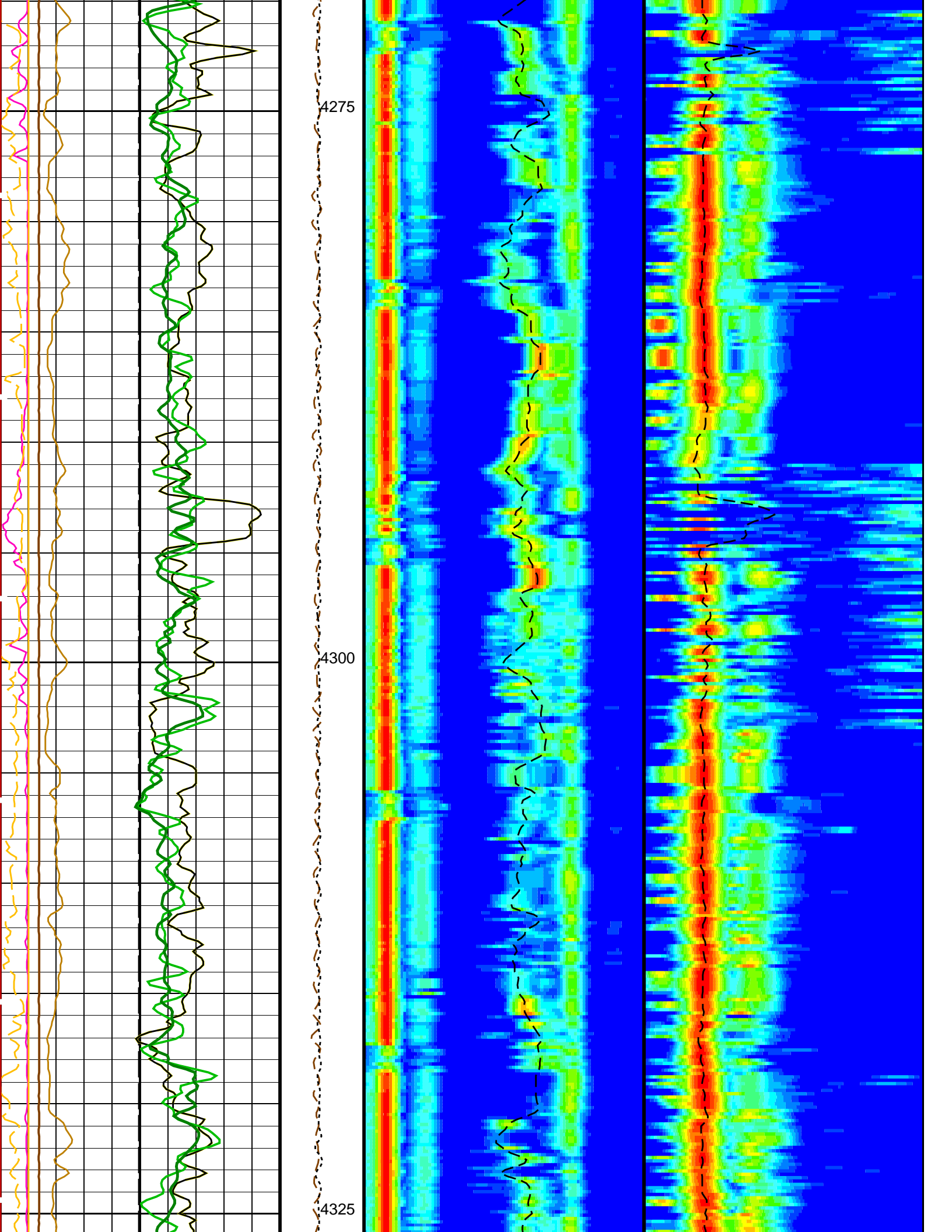




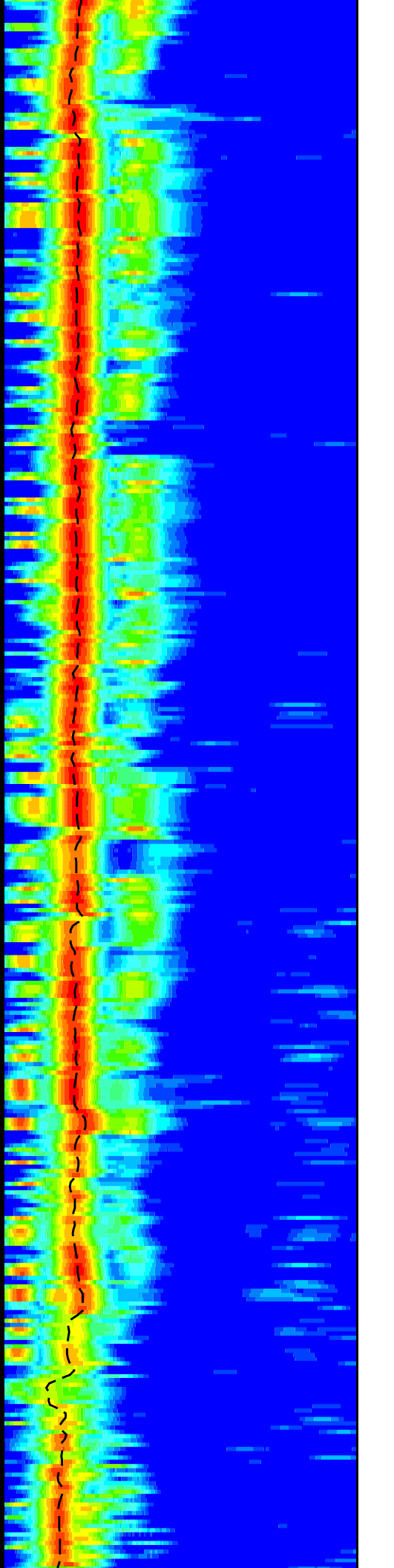
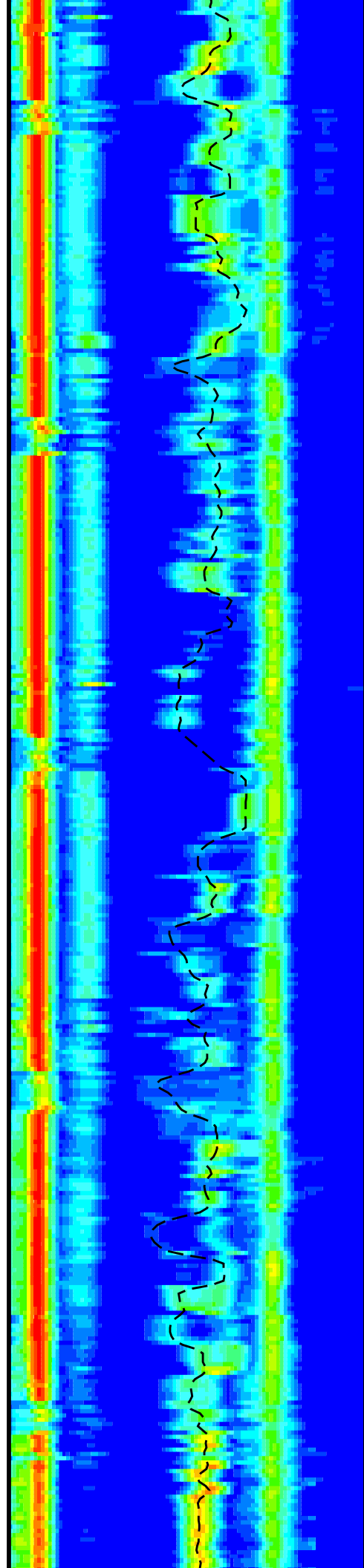
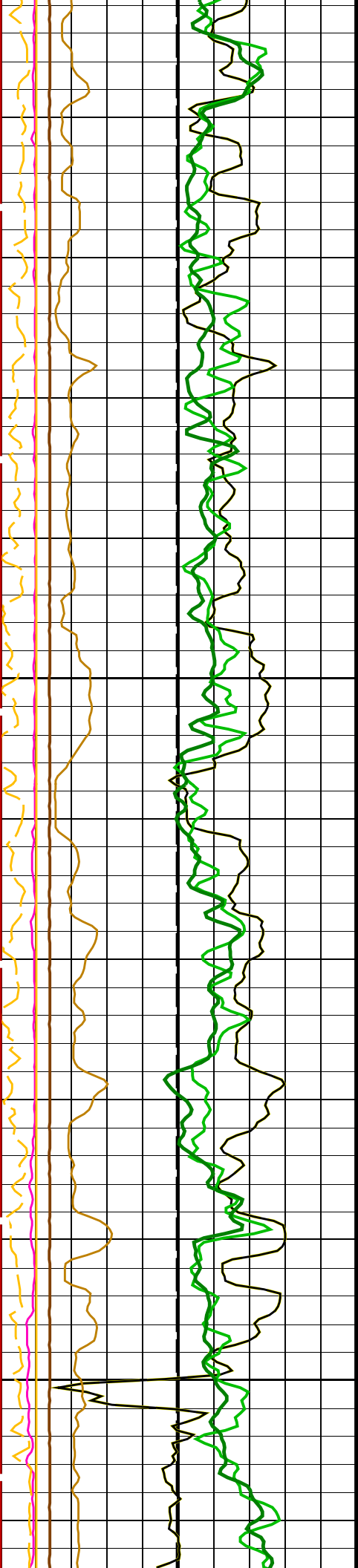


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4250





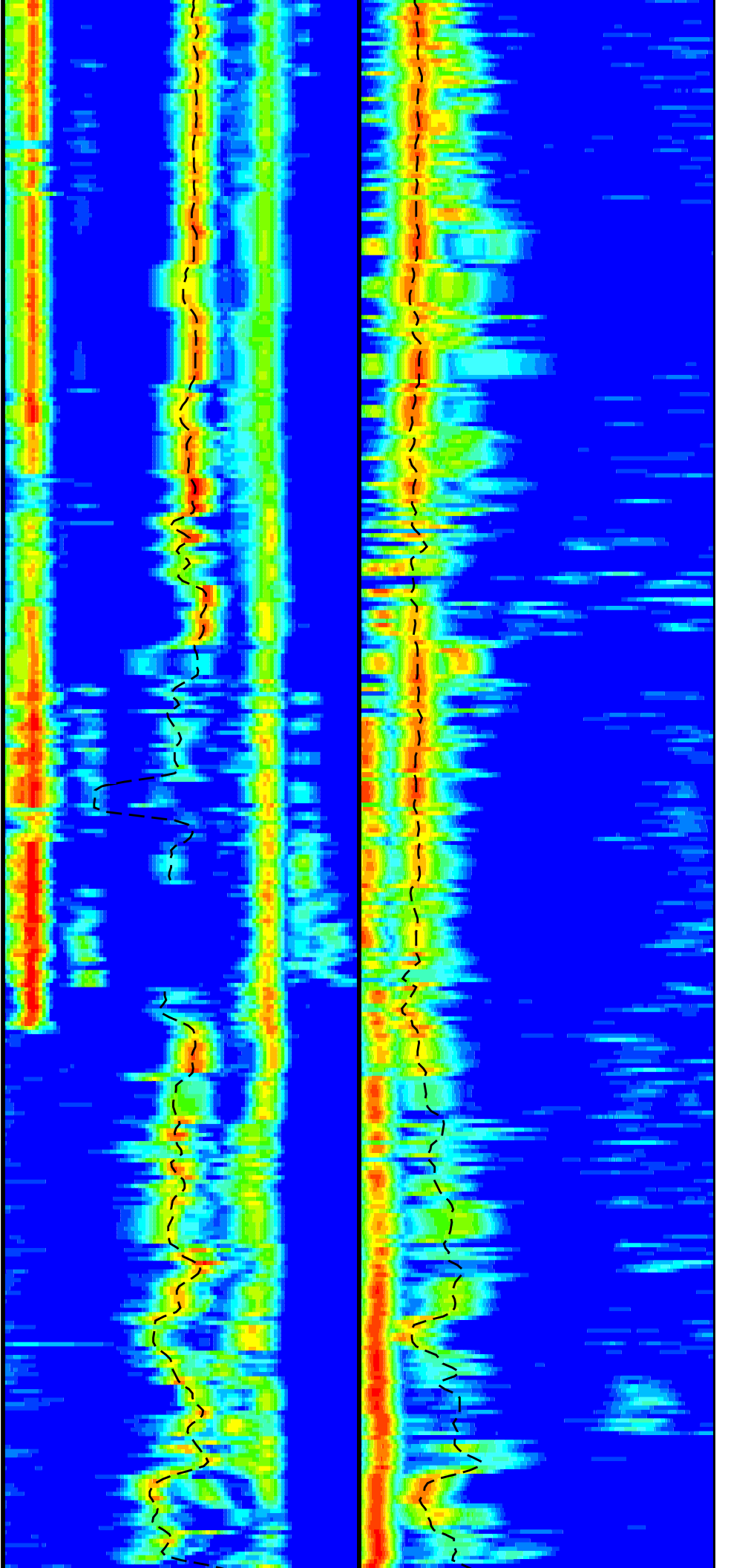


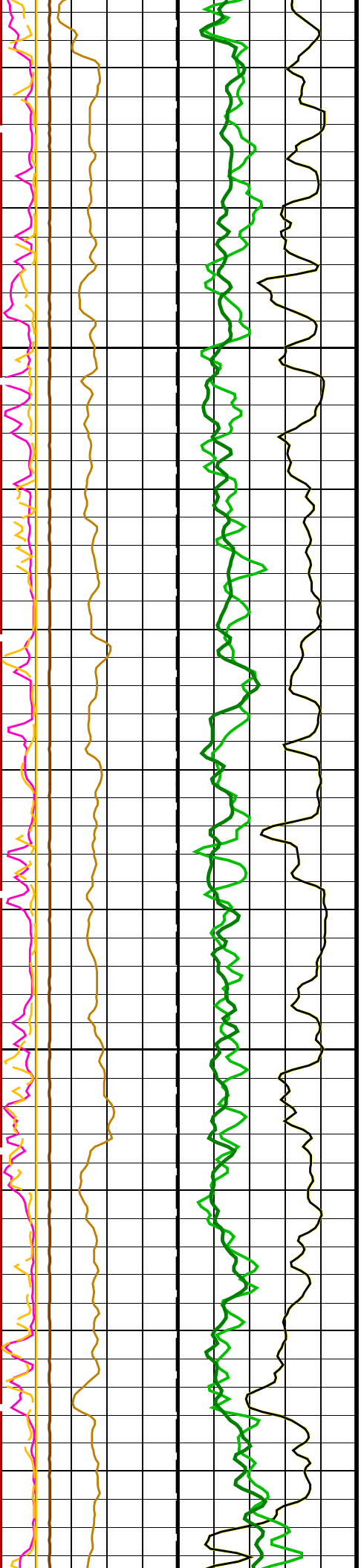




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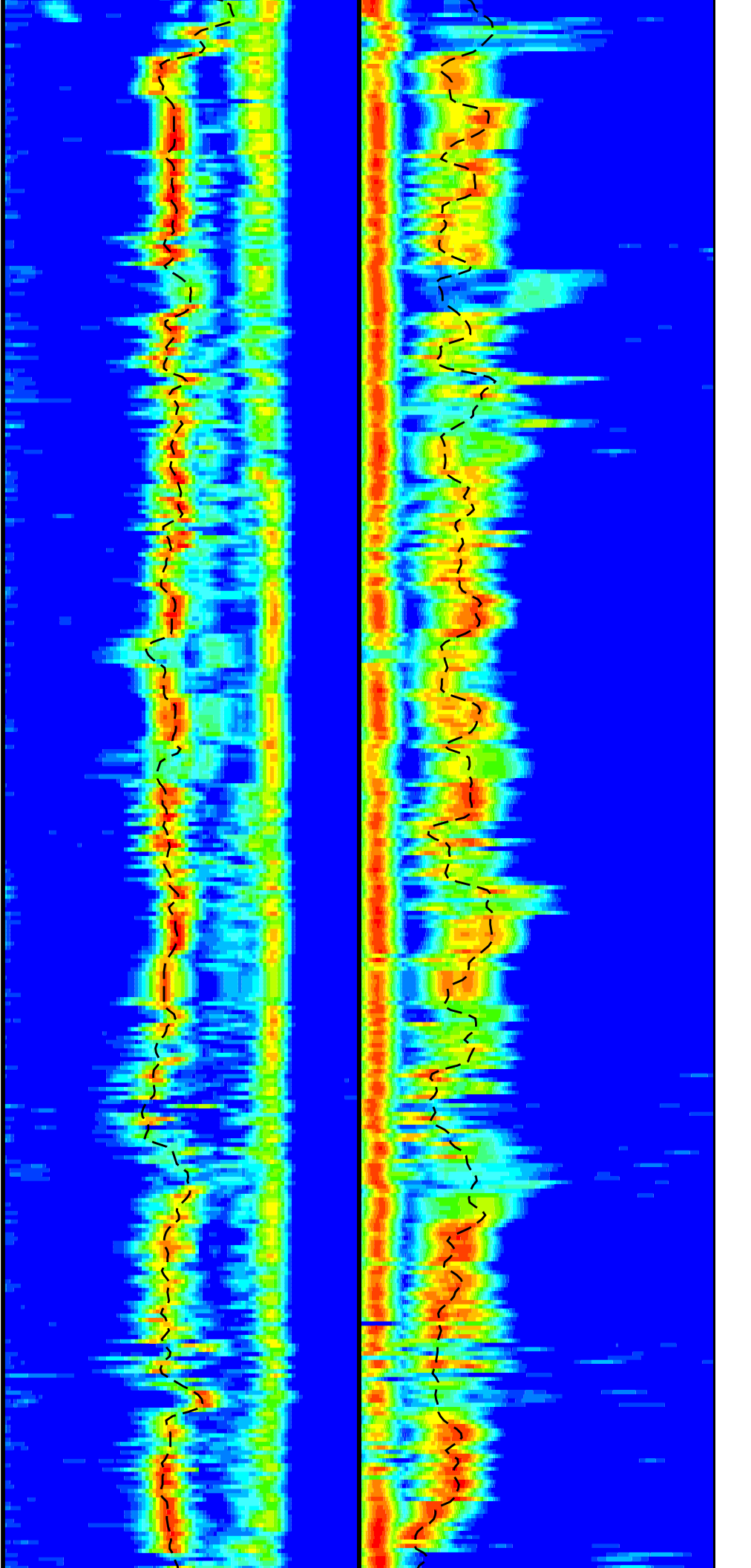
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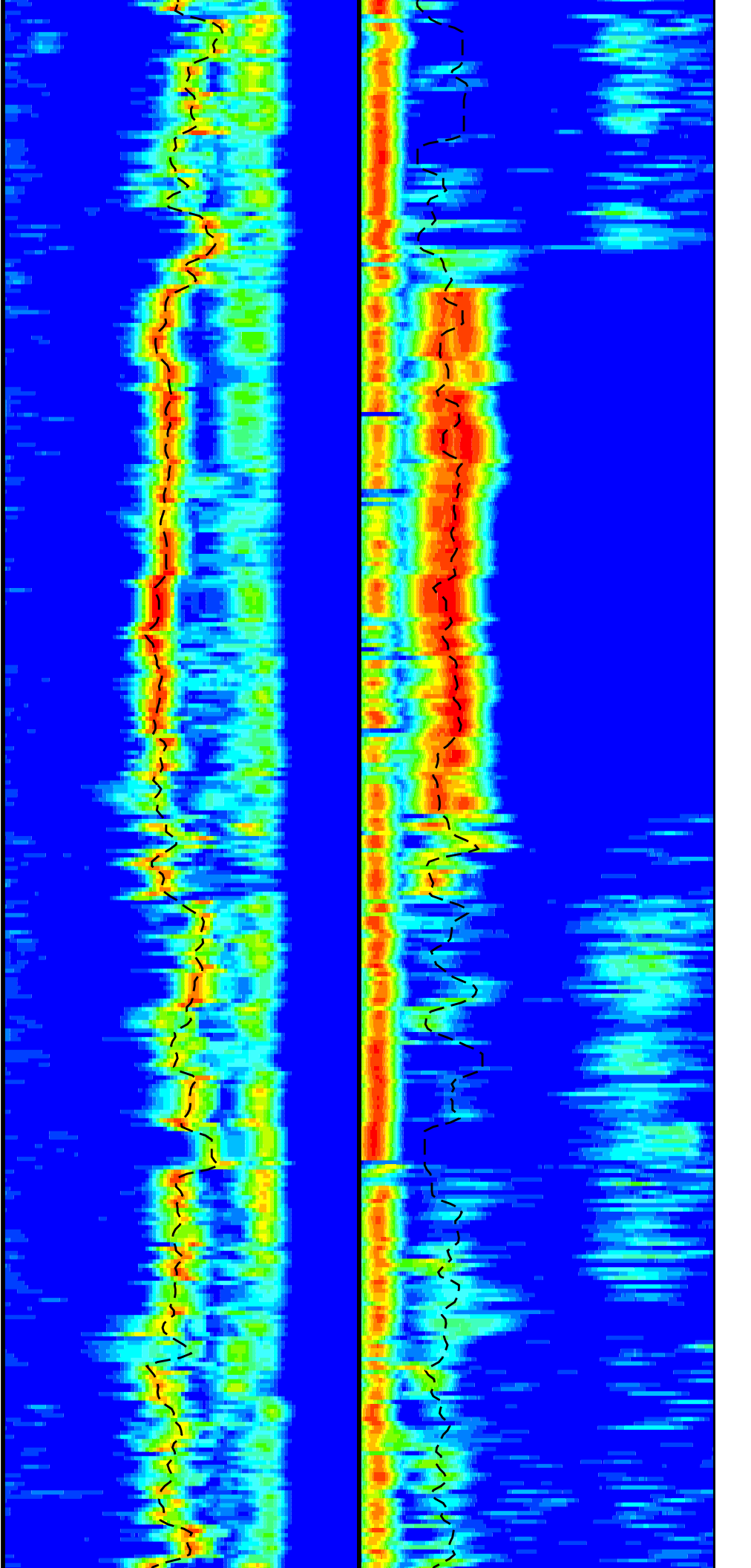
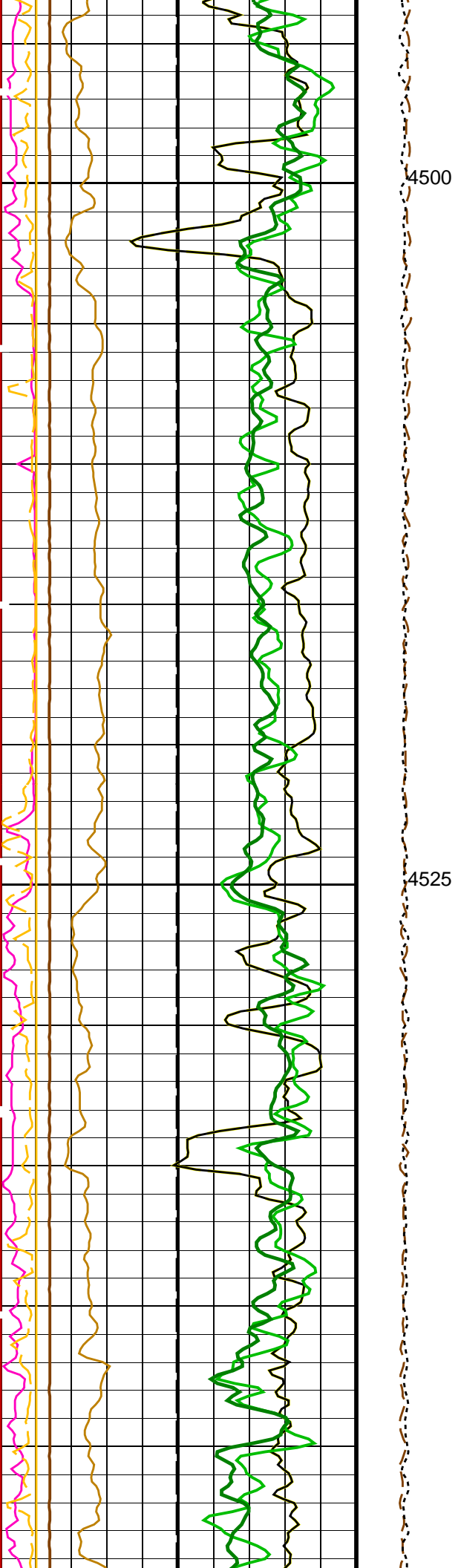


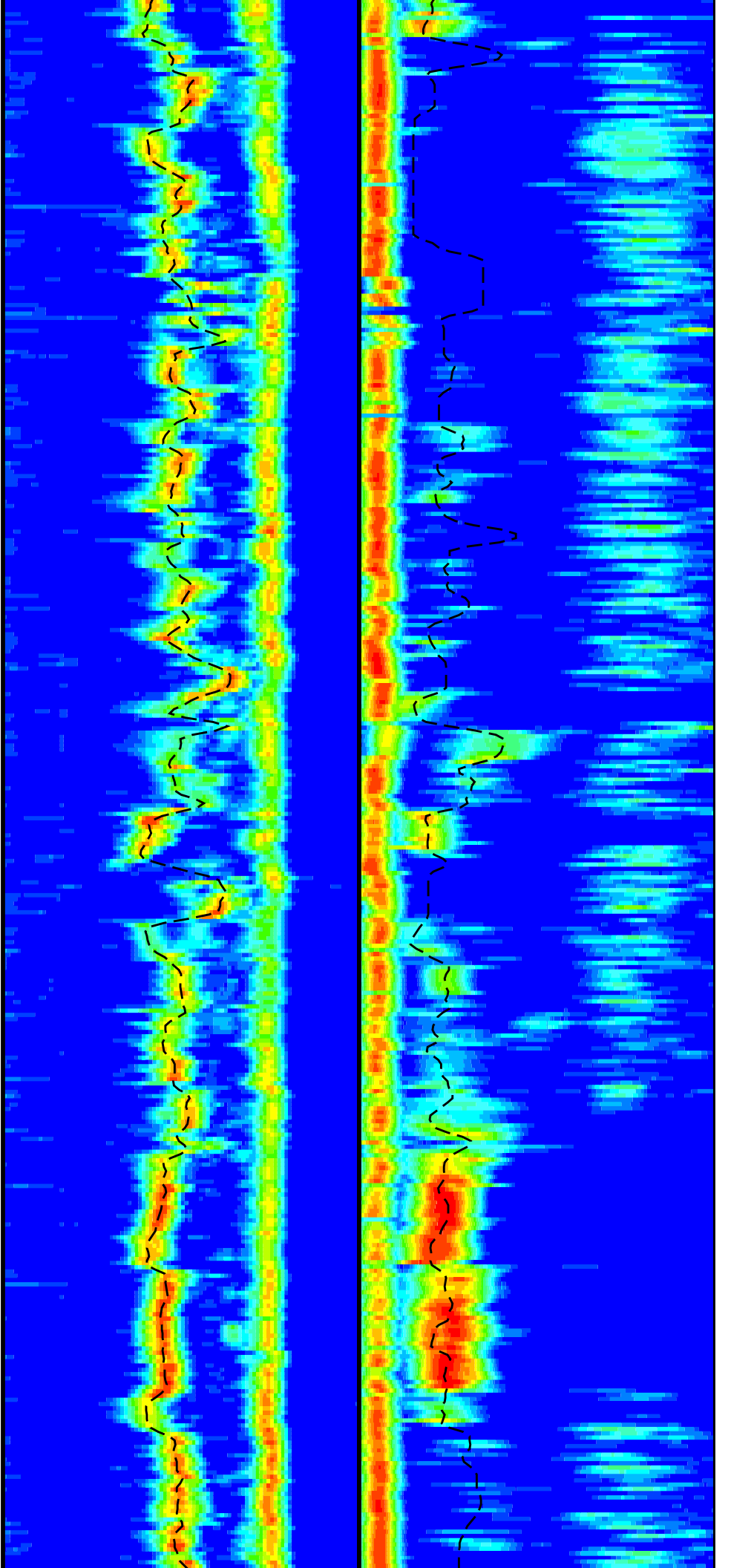
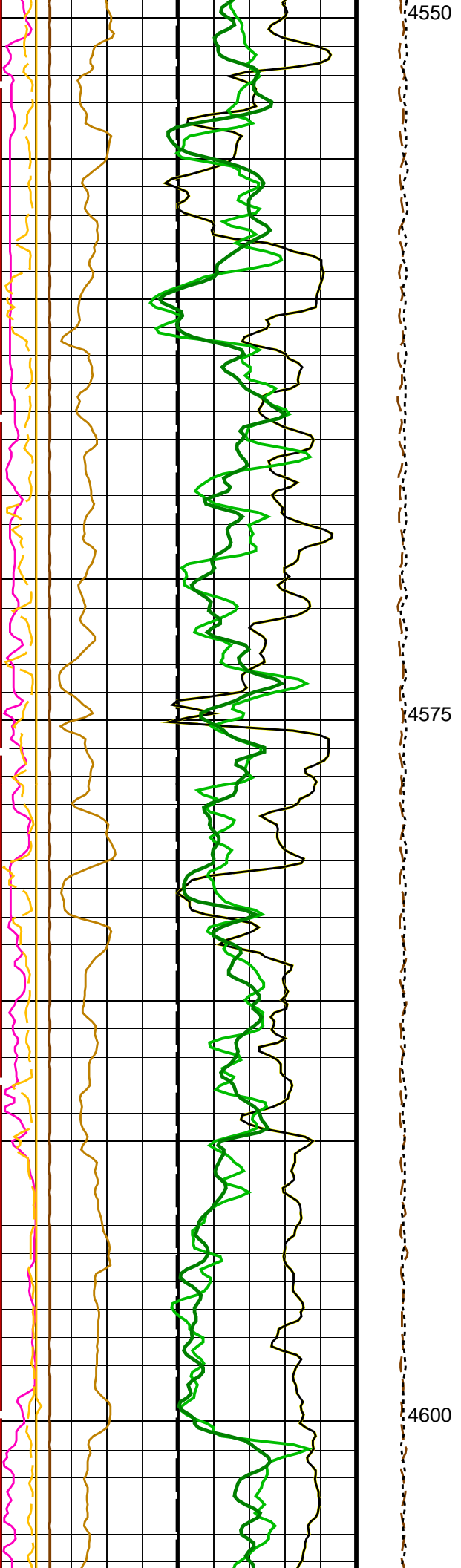
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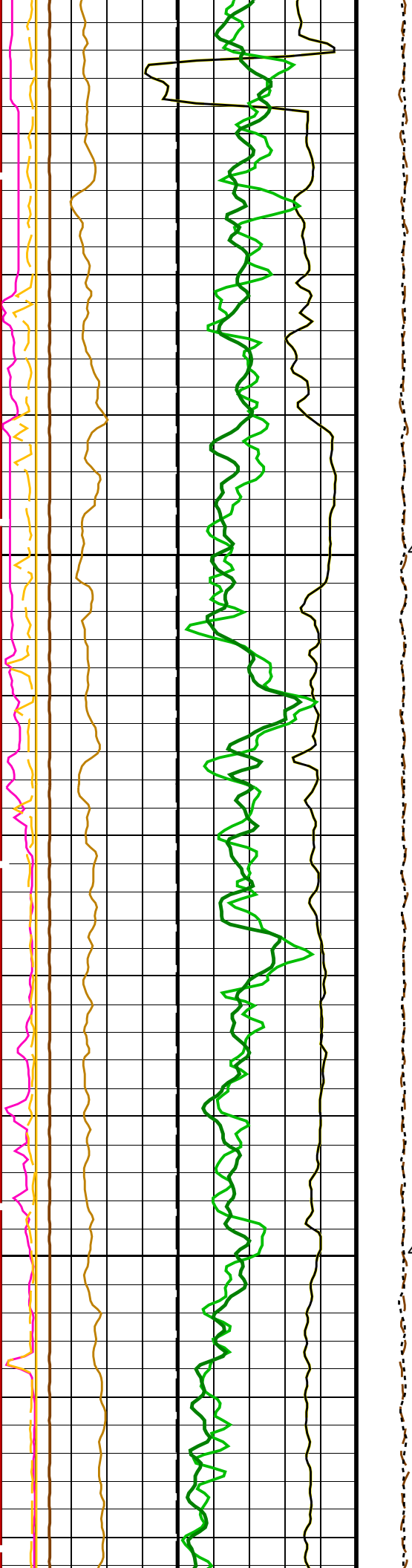
4475





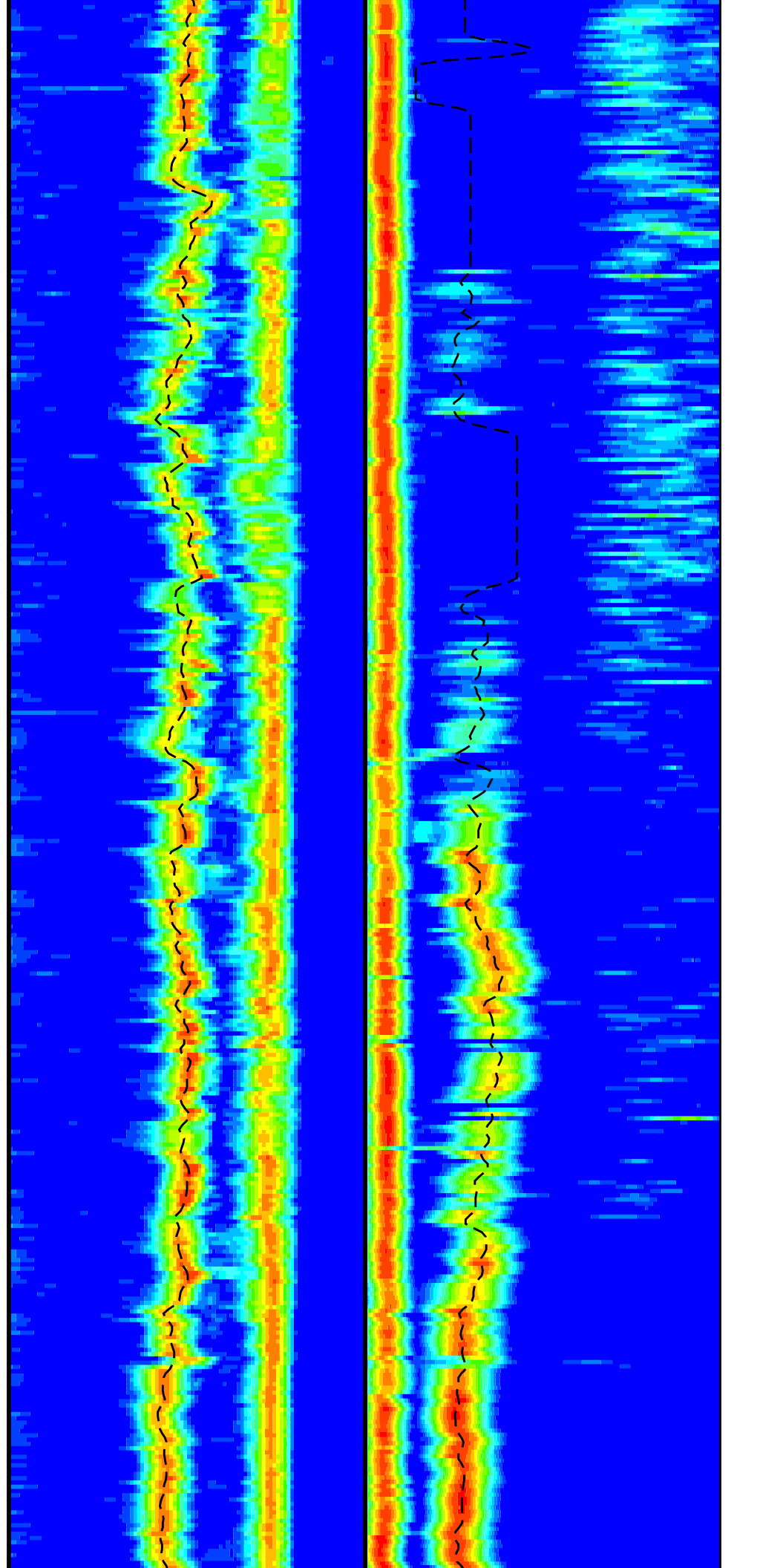


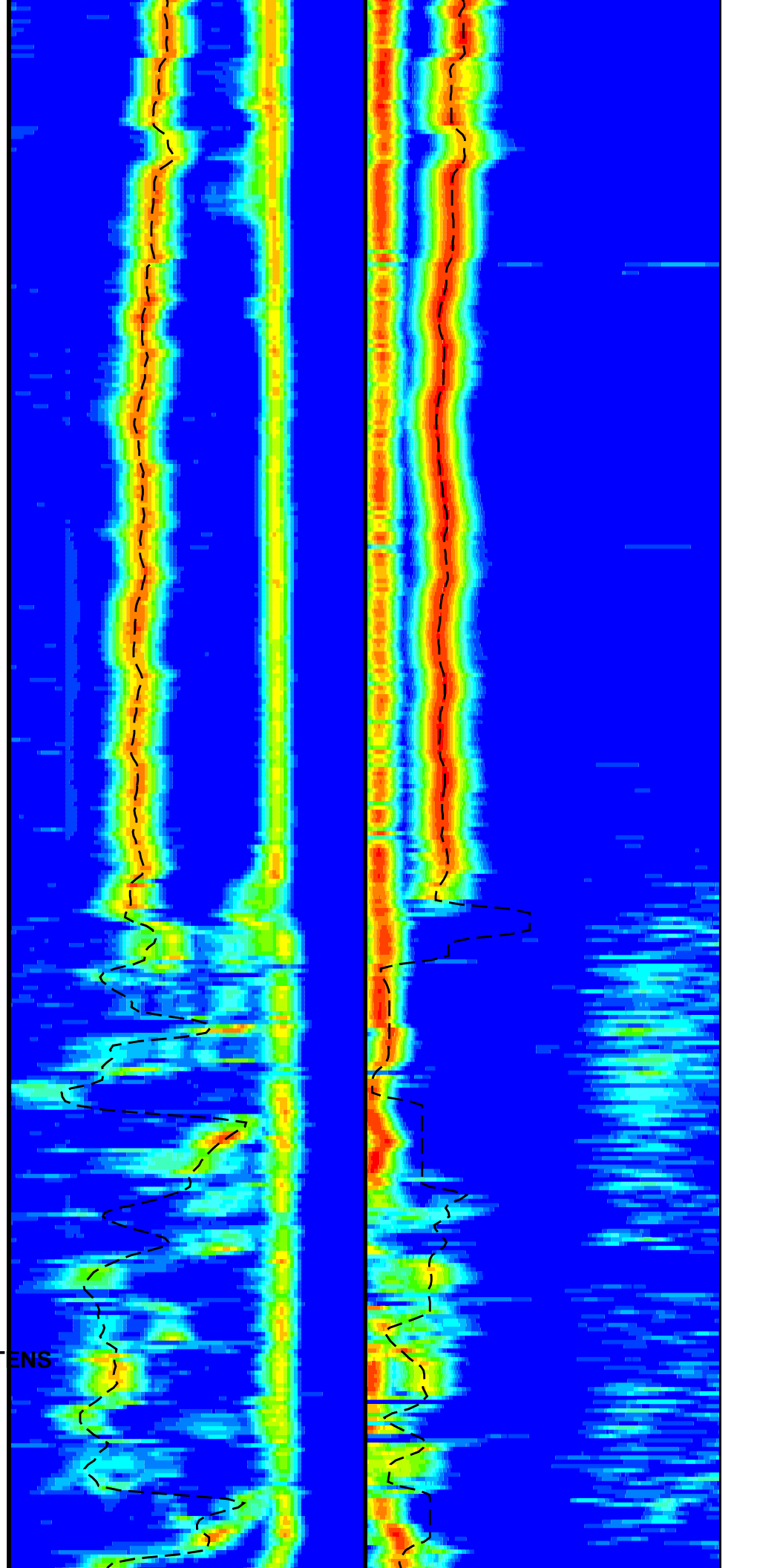
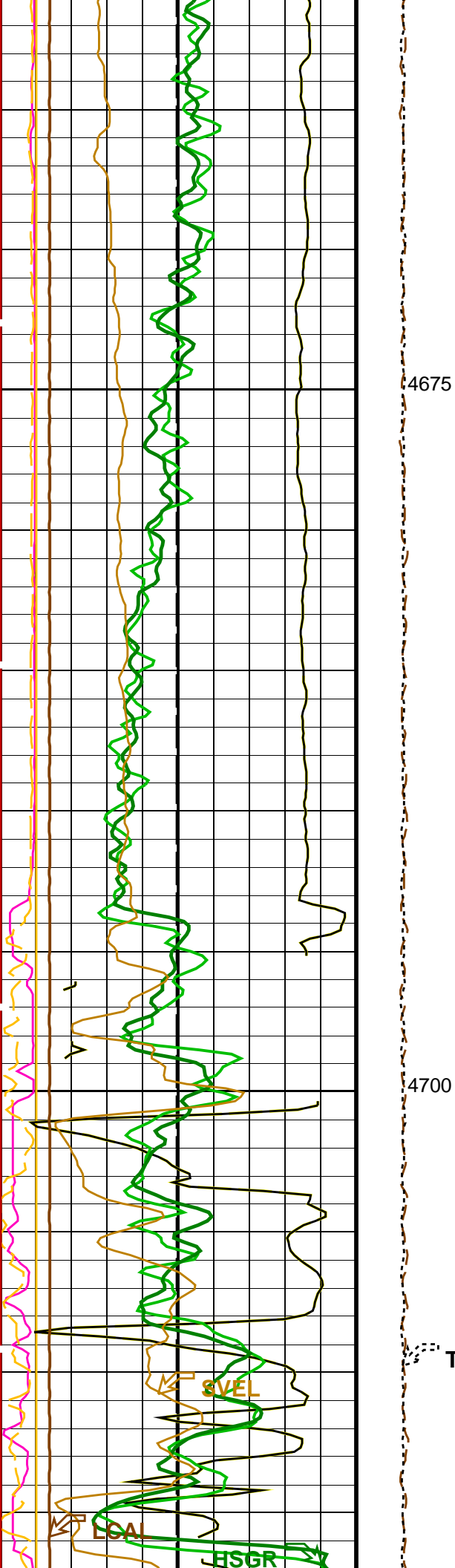


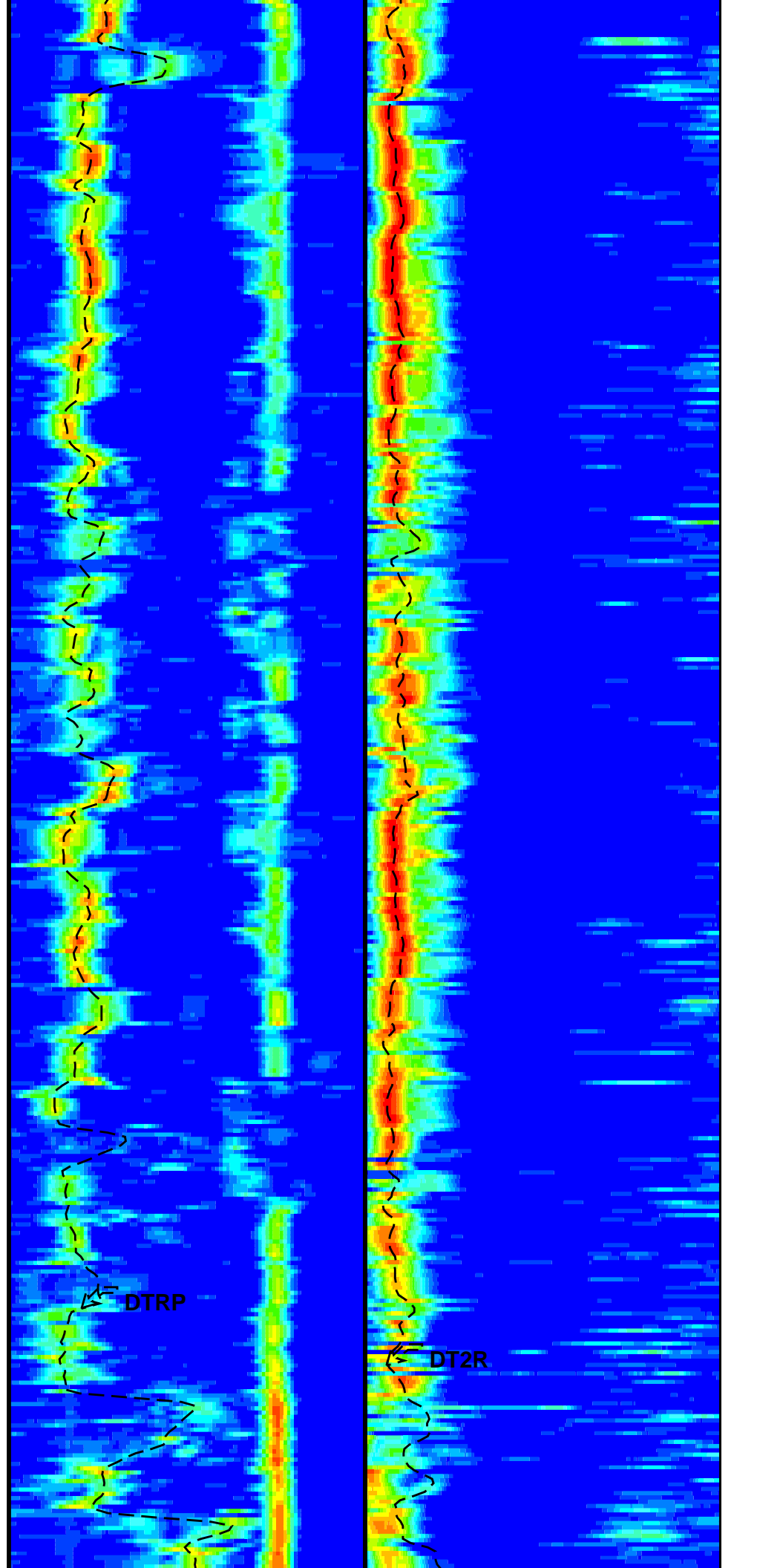
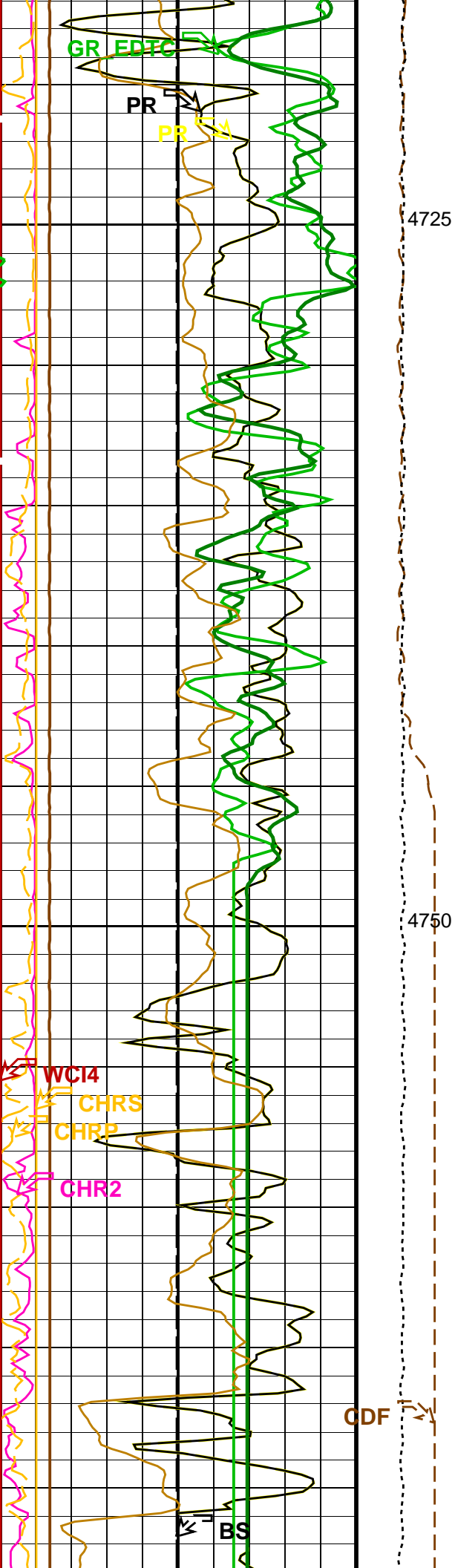


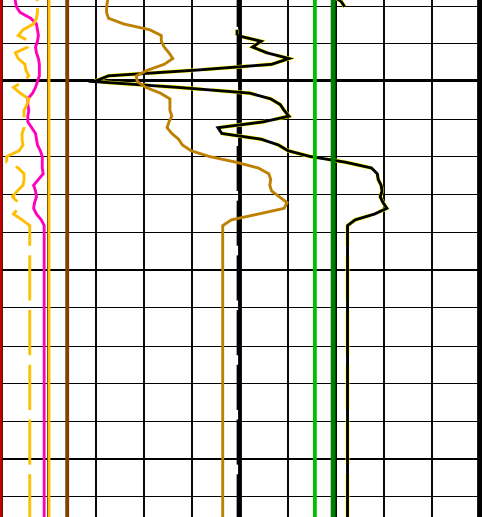
4625

4650

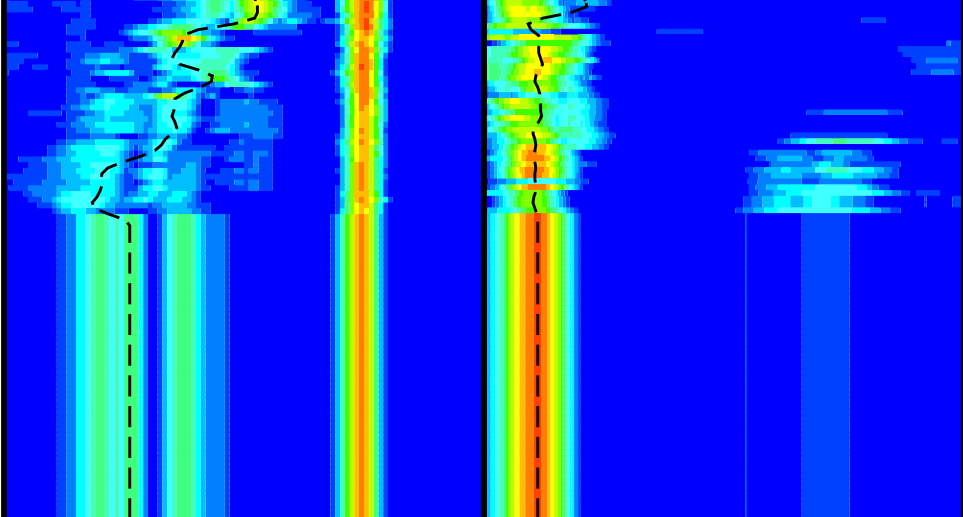








4775



<b>Bit Size (BS)</b> (IN)	0	20
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<b>Tension (TENS)</b> (LBF)	10000	0
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<b>Delta-T Comp / RA - P &amp; S (DTRP)</b> (US/F)	40	240
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<b>Delta-T Shear / RA - Upper Dipole (DT2R)</b> (US/F)	75	1200
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<b>Poisson's Ratio (PR)</b> (----)	0	0.5
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<b>Calibrated Downhole Force (CDF)</b> (LBF)	3000	0
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<b>Delta-T Shear / RA - P &amp; S (DTRS)</b> (US/F)	40	240
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<b>Min</b>	<b>Amplitude</b>	<b>Max</b>
75	Rec.Array U.Dipole Slow Proj. CVDL (SPR2) (US/F)	1200

<b>Sonic Velocity (SVEL)</b> (M/S)	1000	6000
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<b>Min</b>	<b>Amplitude</b>	<b>Max</b>
40	Rec.Array P&S Slow Proj. CVDL (SPR4) (US/F)	240

<b>Poisson's Ratio (PR)</b> (----)	0	0.5
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<b>Gamma Ray (GR_EDTC)</b> (GAPI)	0	100
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<b>HLDS Caliper (LCAL)</b> (IN)	0	20
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<b>Peak Coherence / RA - Upper Dipole (CHR2)</b> (----)	0	10
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<b>Peak Coherence / RA - P &amp; S Comp (CHRP)</b> (----)	0	10
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<b>Peak Coherence / RA - P &amp; S Shear (CHRS)</b> (----)	-1	9
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<b>Waveform Data Copy Indicator 4 - Monopole P&amp;S (WCI4)</b> (----)	0	10
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<b>HNGS Spectroscopy Gamma Ray (HSGR)</b> (GAPI)	0	100
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Downlog Compressional and Upper Dipole

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value
AGC1	DSST-B: Dipole Shear Imager - B Automatic Gain Control 1	ON

AGC1	Automatic Gain Control 1	ON	
AGC2	Automatic Gain Control 2	ON	
AGC3	Automatic Gain Control 3	ON	
AGC4	Automatic Gain Control 4	ON	
AGC5	Automatic Gain Control 5	ON	
AGCX	Automatic Gain Control X	ON	
BARS_MTR1	Length for Monopole Transmitter to Receiver 1	2.7432	M
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	21	DEGC
CASF	Label Casing Function - Monopole P&S	50	
CDTS	C-Delta-T Shale	100	US/F
COLL	Label Slowness Lower Limit - Monopole P&S Compressional	65	US/F
COUL	Label Slowness Upper Limit - Monopole P&S Compressional	175	US/F
DDE1	Digitizing Delay 1	0	US
DDE2	Digitizing Delay 2	0	US
DDE3	Digitizing Delay 3	0	US
DDE4	Digitizing Delay 4	0	US
DDE5	Digitizing Delay 5	0	US
DDEX	Digitizing Delay X	0	US
DLCS	Label Compressional Source - Dipole Shear	USE	
DLHS	Label Hole Diameter Source for SOBS Channel	AUTO	
DSHL	Label Slowness Lower Limit - Dipole Shear	75	US/F
DSHU	Label Slowness Upper Limit - Dipole Shear	600	US/F
DSI1	Digitizer Sample Interval 1	40	US
DSI2	Digitizer Sample Interval 2	40	US
DSI3	Digitizer Sample Interval 3	40	US
DSI4	Digitizer Sample Interval 4	10	US
DSI5	Digitizer Sample Interval 5	10	US
DSIX	Digitizer Sample Interval X	40	US
DTCS	Compressional Delta-T Source for DTCO Channel	PS_COMP	
DTF	Delta-T Fluid	193	US/F
DTM	Delta-T Matrix	56	US/F
DTSS	Shear Delta-T Source for DTSM Channel	UPPER_DIPOLE	
DWC1	Digitizer Word Count 1	512	
DWC2	Digitizer Word Count 2	512	
DWC3	Digitizer Word Count 3	512	
DWC4	Digitizer Word Count 4	512	
DWC5	Digitizer Word Count 5	512	
DWCX	Digitizer Word Count X	512	
FDE1	Firing Delay 1	0	
FDE2	Firing Delay 2	0	
FDE3	Firing Delay 3	0	
FDE4	Firing Delay 4	0	
FDE5	Firing Delay 5	0	
FDEX	Firing Delay X	0	
FGM5	First Motion Gate Moveout 5	40	US/F
FGMX	First Motion Gate Moveout X	40	US/F
FILG	Label Fill Gap Control - Monopole P&S	COMP_SHEAR	
FMG5	First Motion Minimum Gate 5	500	US
FMGX	First Motion Minimum Gate X	500	US
FMLL	Slowness Lower Limit - FMD	40	US/F
FMRC	Restart Control - FMD	CONTINUE	
FMT5	First Motion Threshold 5	UP	
FMTX	First Motion Threshold X	NONE	
FMUL	Slowness Upper Limit - FMD	180	US/F
FNC5	First Motion Noise Counter Input 5	ALO	
FNCX	First Motion Noise Counter Input X	ALO	
FPM	Processing Mode - FMD	NONE	
FTD5	First Motion Threshold Direction 5	UP	
FTDX	First Motion Threshold Direction X	UP	
GAI1	Manual Gain 1	10	
GAI2	Manual Gain 2	10	
GAI3	Manual Gain 3	6	
GAI4	Manual Gain 4	16	
GAI5	Manual Gain 5	16	
GAIX	Manual Gain X	10	
GCSE	Generalized Caliper Selection	BS	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GDT1	Gain Delta-T 1	800	US/F
GDT2	Gain Delta-T 2	800	US/F
GDT3	Gain Delta-T 3	800	US/F
GDT4	Gain Delta-T 4	160	US/F
GDT5	Gain Delta-T 5	160	US/F
GDTX	Gain Delta-T X	800	US/F
GGRD	Geothermal Gradient	0.018227	DC/M
GIN1	Gain Interval 1	15360	US
GIN2	Gain Interval 2	15360	US
GIN3	Gain Interval 3	15360	US
GIN4	Gain Interval 4	2560	US
GIN5	Gain Interval 5	1600	US
GINX	Gain Interval X	15360	US
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
HPF1	High Pass Filter 1	F80	
HPF2	High Pass Filter 2	F80	
HPF3	High Pass Filter 3	F80	



HPF3	High Pass Filter 3		
HPF4	High Pass Filter 4	F8K	
HPF5	High Pass Filter 5	F8K	
HPFX	High Pass Filter X	F80	
ISSBAR	Barite Mud Switch	BARITE	
ITTS	Integrated Transit Time Source	DTCO	
LFC	Label Formation Character – Monopole P&S	DYNAMIC	
LPF1	Low Pass Filter 1	F5K	
LPF2	Low Pass Filter 2	F5K	
LPF3	Low Pass Filter 3	F5K	
LPF4	Low Pass Filter 4	F30K	
LPF5	Low Pass Filter 5	F30K	
LPFX	Low Pass Filter X	F5K	
LTXG	Lower Dipole Transmitter Geometry	156	IN
MAI5	Slowness Averaging Interval – FMD	42	IN
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
MCS	Mean Casing Slowness	57	US/F
MDS5	Multishot Delta-T Scatter – FMD	20	US
MTXG	Monopole Transmitter Geometry	186	IN
MUX1	Sum Difference Multiplexor Input 1	RR	
MUX2	Sum Difference Multiplexor Input 2	RR	
MUX3	Sum Difference Multiplexor Input 3	RR	
MUX4	Sum Difference Multiplexor Input 4	RR	
MUX5	Sum Difference Multiplexor Input 5	RR	
MUXX	Sum Difference Multiplexor Input X	RR	
NTI5	Number Threshold Items 5	0	
NTIX	Number Threshold Items X	0	
NWI1	Number Waveform Items 1	8	
NWI2	Number Waveform Items 2	8	
NWI3	Number Waveform Items 3	0	
NWI4	Number Waveform Items 4	8	
NWI5	Number Waveform Items 5	0	
NWIX	Number Waveform Items X	0	
NWS1	Number Waveforms Stacked 1	1	
NWS2	Number Waveforms Stacked 2	1	
NWS3	Number Waveforms Stacked 3	1	
NWS4	Number Waveforms Stacked 4	1	
NWS5	Number Waveforms Stacked 5	1	
NWSX	Number Waveforms Stacked X	1	
RATE	Firing Rate	R7	
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	
SAM2	DSST Sonic Acquisition Mode 2 – Upper Dipole Mode	ODD	
SAM3	DSST Sonic Acquisition Mode 3 – Monopole Mode for Stoneley	OFF	
SAM4	DSST Sonic Acquisition Mode 4 – Monopole Mode for P&S	EVEN	
SAM5	DSST Sonic Acquisition Mode 5 – Monopole Mode for FMD	OFF	
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	
SAS3	STC Sonic Array Status – Monopole Stoneley	255	
SAS4	STC Sonic Array Status – Monopole P&S	255	
SAS5	Sonic Array Status – FMD	255	
SBO1	STC Search Band Offset – Lower Dipole	3000	US
SBO2	STC Search Band Offset – Upper Dipole	3000	US
SBO3	STC Search Band Offset – Monopole Stoneley	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
SBW2	STC Search Bandwidth – Upper Dipole	8000	US
SBW3	STC Search Bandwidth – Monopole Stoneley	8000	US
SBW4	STC Search Bandwidth – Monopole P&S	2000	US
SFC1	STC Formation Character – Lower Dipole	SELECTABLE	
SFC2	STC Formation Character – Upper Dipole	SELECTABLE	
SFC3	STC Formation Character – Monopole Stoneley	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	
SFM3	STC Filter – Monopole Stoneley	B.5–1.5K	
SFM4	STC Filter – Monopole P&S	B3–20K	
SHLL	Label Slowness Lower Limit – Monopole P&S Shear	235	US/F
SHT	Surface Hole Temperature	20	DEGC
SHUL	Label Slowness Upper Limit – Monopole P&S Shear	240	US/F
LLL1	STC Slowness Lower Limit – Lower Dipole	75	US/F
LLL2	STC Slowness Lower Limit – Upper Dipole	75	US/F
LLL3	STC Slowness Lower Limit – Monopole Stoneley	180	US/F



SLI4	STC Slowness Lower Limit - Monopole P&S	40	US/F
SPFS	Sonic Porosity Formula	RAYMER_HUNT	
SPSO	Sonic Porosity Source	DTCO	
SST1	STC Slowness Step - Lower Dipole	4	US/F
SST2	STC Slowness Step - Upper Dipole	4	US/F
SST3	STC Slowness Step - Monopole Stoneley	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	
SSW3	STC Source Waveform - Monopole Stoneley	WF_SAM3	
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	1200	US/F
SUL2	STC Slowness Upper Limit - Upper Dipole	1200	US/F
SUL3	STC Slowness Upper Limit - Monopole Stoneley	780	US/F
SUL4	STC Slowness Upper Limit - Monopole P&S	240	US/F
SWD1	STC Slowness Width - Lower Dipole	40	US/F
SWD2	STC Slowness Width - Upper Dipole	40	US/F
SWD3	STC Slowness Width - Monopole Stoneley	40	US/F
SWD4	STC Slowness Width - Monopole P&S	10	US/F
TBDB	Tool String Bottom to DSST Bottom	95.25	IN
TBF1	STC Time for Baseline Fill - Lower Dipole	0	US
TBF2	STC Time for Baseline Fill - Upper Dipole	0	US
TBF3	STC Time for Baseline Fill - Monopole Stoneley	0	US
TBF4	STC Time for Baseline Fill - Monopole P&S	300	US
TLL1	STC Time Lower Limit - Lower Dipole	600	US
TLL2	STC Time Lower Limit - Upper Dipole	600	US
TLL3	STC Time Lower Limit - Monopole Stoneley	600	US
TLL4	STC Time Lower Limit - Monopole P&S	150	US
TST1	STC Time Step - Lower Dipole	200	US
TST2	STC Time Step - Upper Dipole	200	US
TST3	STC Time Step - Monopole Stoneley	200	US
TST4	STC Time Step - Monopole P&S	50	US
TTDB	Tool String Top to DSST Bottom	1656.11	IN
TUL1	STC Time Upper Limit - Lower Dipole	20440	US
TUL2	STC Time Upper Limit - Upper Dipole	20200	US
TUL3	STC Time Upper Limit - Monopole Stoneley	12000	US
TUL4	STC Time Upper Limit - Monopole P&S	3660	US
TWA1	Transmitter Waveform Amplitude 1	179	
TWA2	Transmitter Waveform Amplitude 2	179	
TWA3	Transmitter Waveform Amplitude 3	166	
TWA4	Transmitter Waveform Amplitude 4	150	
TWA5	Transmitter Waveform Amplitude 5	150	
TWAX	Transmitter Waveform Amplitude X	179	
TWD1	STC Time Width - Lower Dipole	2000	US
TWD2	STC Time Width - Upper Dipole	2000	US
TWD3	STC Time Width - Monopole Stoneley	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
TWI3	STC Integration Time Window - Monopole Stoneley	2400	US
TWI4	STC Integration Time Window - Monopole P&S	500	US
TWR1	Transmitter Waveform Sample Rate 1	20	US
TWR2	Transmitter Waveform Sample Rate 2	5	US
TWR3	Transmitter Waveform Sample Rate 3	5	US
TWR4	Transmitter Waveform Sample Rate 4	5	US
TWR5	Transmitter Waveform Sample Rate 5	5	US
TWRX	Transmitter Waveform Sample Rate X	5	US
TWS1	Transmitter Waveform Select 1	2	
TWS2	Transmitter Waveform Select 2	0	
TWS3	Transmitter Waveform Select 3	4	
TWS4	Transmitter Waveform Select 4	6	
TWS5	Transmitter Waveform Select 5	6	
TWSX	Transmitter Waveform Select X	0	
UTXG	Upper Dipole Transmitter Geometry	162	IN
WFDTS1	SAM1 Waveform Delta for Spectrum	0	US/F
WFDTS2	SAM2 Waveform Delta for Spectrum	0	US/F
WFDTS3	SAM3 Waveform Delta for Spectrum	0	US/F
WFDTS4	SAM4 Waveform Delta for Spectrum	0	US/F
WFDTSX	SAMX Waveform Delta for Spectrum	0	US/F
WFLLS1	SAM1 Waveform Lower Limit for Spectrum	0	US
WFLLS2	SAM2 Waveform Lower Limit for Spectrum	0	US
WFLLS3	SAM3 Waveform Lower Limit for Spectrum	0	US
WFLLS4	SAM4 Waveform Lower Limit for Spectrum	0	US
WFLLSX	SAMX Waveform Lower Limit for Spectrum	0	US
WFM1	Waveform Mode 1	W1	
WFM2	Waveform Mode 2	W1	
WFM3	Waveform Mode 3	W1	
WFM4	Waveform Mode 4	W1	
WFM5	Waveform Mode 5	W1	
WFMX	Waveform Mode X	W1	
WFULS1	SAM1 Waveform Upper Limit for Spectrum	20000	US
WFULS2	SAM2 Waveform Upper Limit for Spectrum	20000	US
WFULS3	SAM3 Waveform Upper Limit for Spectrum	20000	US
WFULS4	SAM4 Waveform Upper Limit for Spectrum	20000	US
WFULSX	SAMX Waveform Upper Limit for Spectrum	20000	US

WFULSP3	SAM3 Waveform Upper Limit for Spectrum	20000	US
WFULSP4	SAM4 Waveform Upper Limit for Spectrum	5000	US
WFULSPX	SAMX Waveform Upper Limit for Spectrum	20000	US
XMT1	Transmitter Select 1	DLO	
XMT2	Transmitter Select 2	DUP	
XMT3	Transmitter Select 3	MONO	
XMT4	Transmitter Select 4	MONO	
XMT5	Transmitter Select 5	MONO	
XMTX	Transmitter Select X	DUP	
<b>HRLT-B: High Resolution Laterolog Array - B</b>			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	21	DEGC
CALSTAT	HRLTB Calibration Status	SHALLOW_DONE	
CALTEMP	HRLTB Calibration Temperature	23.3869	DEGC
FREQ0	HRLT Frequency Index for Mode 0	32	
FREQ1	HRLT Frequency Index for Mode 1	128	
FREQ2	HRLT Frequency Index for Mode 2	104	
FREQ3	HRLT Frequency Index for Mode 3	86	
FREQ4	HRLT Frequency Index for Mode 4	56	
FREQ5	HRLT Frequency Index for Mode 5	44	
FREQ6	HRLT Frequency Index for Mode 6	116	
GCSE	Generalized Caliper Selection	BS	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN 9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
ISSBAR	Barite Mud Switch	BARITE	
KFAC_HRLT	HRLT K Factor Option	SONDE	
LOOPCOEF_S	HRLT Loop Coefficient for Shallow Modes	LOW	
LOOPMOD0	HRLT Mode 0 Loop Mode	OFF	
LOOPMOD1	HRLT Mode 1 Loop Mode	OFF	
LOOPMOD2	HRLT Mode 2 Loop Mode	OFF	
LOOPMOD3	HRLT Mode 3 Loop Mode	OFF	
LOOPMOD4	HRLT Mode 4 Loop Mode	OFF	
LOOPMOD5	HRLT Mode 5 Loop Mode	OFF	
LOOPMOD6	HRLT Mode 6 Loop Mode	OFF	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
PROGINV	Inversion Selection	ON	
PROCMFL	Inversion Micro-Resistivity Selection	NO_EXTERNAL_RXO	
PROCMSO	Mechanical Standoff Fin Size	0	IN
PROCRM	Processing Mud Resistivity Select	HRLT_Compute	
PROCSPO	Sonde Position	Centered	
SHT	Surface Hole Temperature	20	DEGC
<b>HLDS: Hostile Litho-Density Sonde</b>			
CLCL	HLDS LS Control Loop Controller Mode	AUTO_DEFAULT	
CLCS	HLDS SS Control Loop Controller Mode	AUTO_DEFAULT	
CLLS	HLDS Mode Loop Long Spacing	AUTO	
CLSS	HLDS Mode Loop Short Spacing	AUTO	
DHC	Density Hole Correction	BS	
DPPM	Density Porosity Processing Mode	HIRS	
FD	Fluid Density	1	G/C3
LATC	HLDS Activation Correction	ON	
LLDL	HLDS LS Low Level Discriminator DAC	14000	
LLDS	HLDS SS Low Level Discriminator DAC	14000	
LLML	HLDS LS Low Level Discriminator Mode	AUTO	
LLMS	HLDS SS Low Level Discriminator Mode	AUTO	
MDEN	Matrix Density	2.6	G/C3
PHVL	HLDS Long Spacing High Voltage Setting	1000	V
PHVS	HLDS Short Spacing High Voltage Setting	1000	V
PSDL	HLDS LS Pulse Shape Compensation DAC	30000	
PSDS	HLDS SS Pulse Shape Compensation DAC	30000	
PSML	HLDS LS Pulse Shape Compensation Mode	AUTO	
PSMS	HLDS SS Pulse Shape Compensation Mode	AUTO	
<b>HNGS-BA: Hostile Natural Gamma Ray Sonde</b>			
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	
BHT	Bottom Hole Temperature (used in calculations)	21	DEGC
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	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN 9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
H1P	HNGS Detector 1 Allow/Disallow In Processing	ALLOW	
H2P	HNGS Detector 2 Allow/Disallow In Processing	ALLOW	
HABK	HNGS Borehole Potassium Running Average	-0.00211472	
HALF	HNGS Alpha Filter Length	60	IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	BARI	

HNPE	HNGS Processing Enable	YES	
ISSBAR	Barite Mud Switch	BARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
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	
SHT	Surface Hole Temperature	20	DEGC
TPOS	Tool Position	ECCE	
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	0.955708	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	0.964775	
<b>EDTC-B: Enhanced DTS Cartridge</b>			
BHFL	Borehole Fluid Type	WATER	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	21	DEGC
BSCO	Borehole Salinity Correction Option	NO	
CCCO	Casing & Cement Thickness Correction Option	NO	
DPPM	Density Porosity Processing Mode	HIRS	
FSAL	Formation Salinity	-50000	PPM
FSCO	Formation Salinity Correction Option	NO	
GCSE	Generalized Caliper Selection	BS	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
HSCO	Hole Size Correction Option	YES	
ISSBAR	Barite Mud Switch	BARITE	
ISSBAR_EDTC	Nuclear Mud Type	BARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
MCCO	Mud Cake Correction Option	NO	
MCOR	Mud Correction	BARI	
MWCO	Mud Weight Correction Option	YES	
PTCO	Pressure/Temperature Correction Option	NO	
SDAT	Standoff Data Source	SOCN	
SHT	Surface Hole Temperature	20	DEGC
SOCN	Standoff Distance	0.5	IN
SOCO	Standoff Correction Option	NO	
TPOS_EDTC	EDTC Tool Centered/Eccentered	Eccentered	
U-ETELM_EDTS	Telemetry Mode for eWAFE	Standard_EDTS	
U-TELM_EDTS	Telemetry Mode for WAFE	Standard_EDTS	
<b>System and Miscellaneous</b>			
ALTDPCCHAN	Name of alternate depth channel	SpeedCorrectedDepth	
BS	Bit Size	9.875	IN
BSAL	Borehole Salinity	35000.00	PPM
CSIZ	Current Casing Size	5.000	IN
CWEI	Casing Weight	168.00	LB/F
DFD	Drilling Fluid Density	1.32	G/C3
DO	Depth Offset for Playback	0.0	M
FLEV	Fluid Level	-50000.00	M
MST	Mud Sample Temperature	23.00	DEGC
PBVSADP	Use alternate depth channel for playback	NO	
PP	Playback Processing	RECOMPUTE	
RMFS	Resistivity of Mud Filtrate Sample	-50000.0000	OHMM
RW	Resistivity of Connate Water	1.0000	OHMM
TD	Total Depth	4909	M
TDD	Total Depth - Driller	4850.80	M
TDL	Total Depth - Logger	4850.00	M
TWS	Temperature of Connate Water Sample	37.78	DEGC

Format: DSST\_P\_S\_UPPER\_VDL\_COLOR    Vertical Scale: 1:200    Graphics File Created: 08-Mar-2017 13:50

### OP System Version: 19C0-187

DSST-B	19C0-187	HRLT-B	19C0-187
HLDS	19C0-187	LDSC-B	19C0-187
HNGC-B	19C0-187	HNGS-BA	19C0-187
EDTC-B	SKK-5169-EDTCB		

### Input DLIS Files

DEFAULT	Flip_DSI_HRLA_LDL_032LUP	PRODUCER	08-Mar-2017 13:34	4786.6 M	3717.0 M
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### Output DLIS Files

DEFAULT	DSI_HRLA_LDL_NGS_037PUP	FN:56	PRODUCER	08-Mar-2017 13:50	
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### Input DLIS Files

DEFAULT	DSI_HRLA_LDL_NGS_037PUP	FN:56	PRODUCER	08-Mar-2017 13:50	4786.6 M	3717.0 M
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# Output DLIS Files

DEFAULT

DSI\_HRLA\_LDL\_NGS\_053PUP

FN:71

PRODUCER

17-Mar-2017 16:43

4786.9 M

3717.0 M

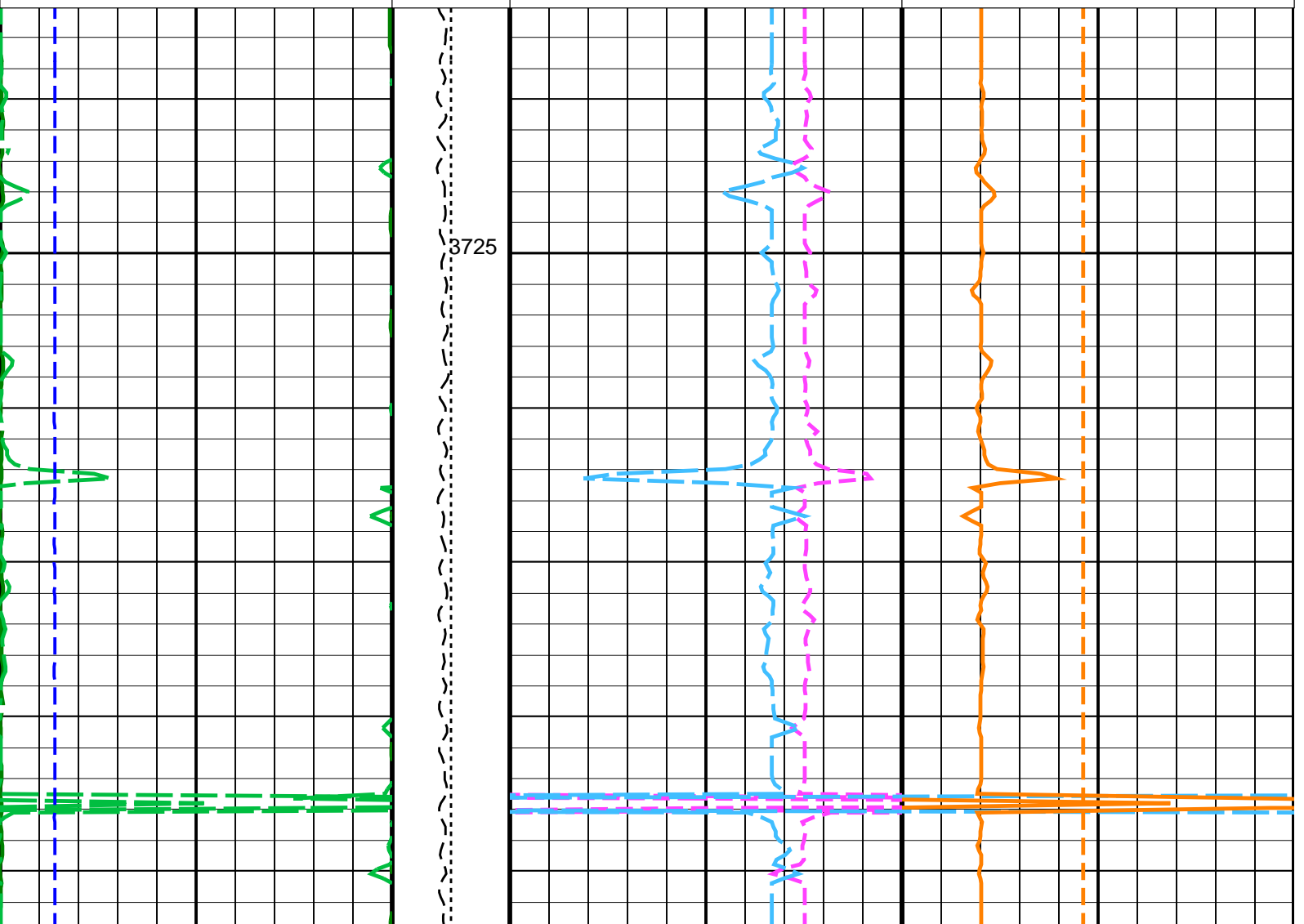
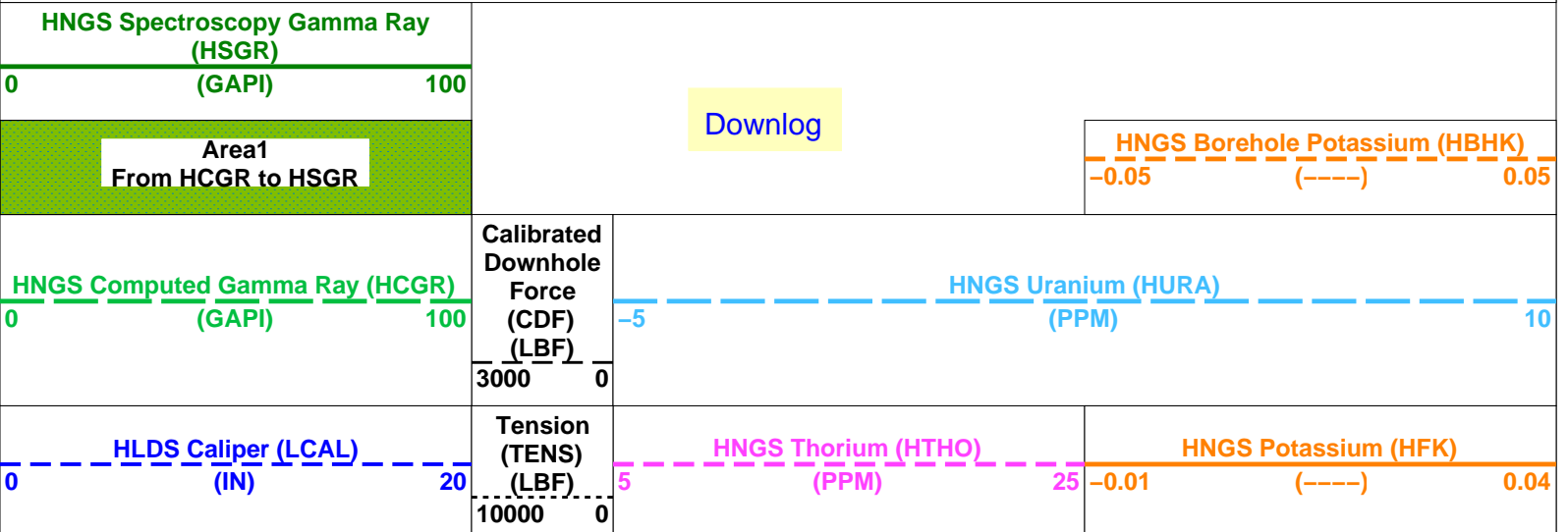
## OP System Version: 19C0-187

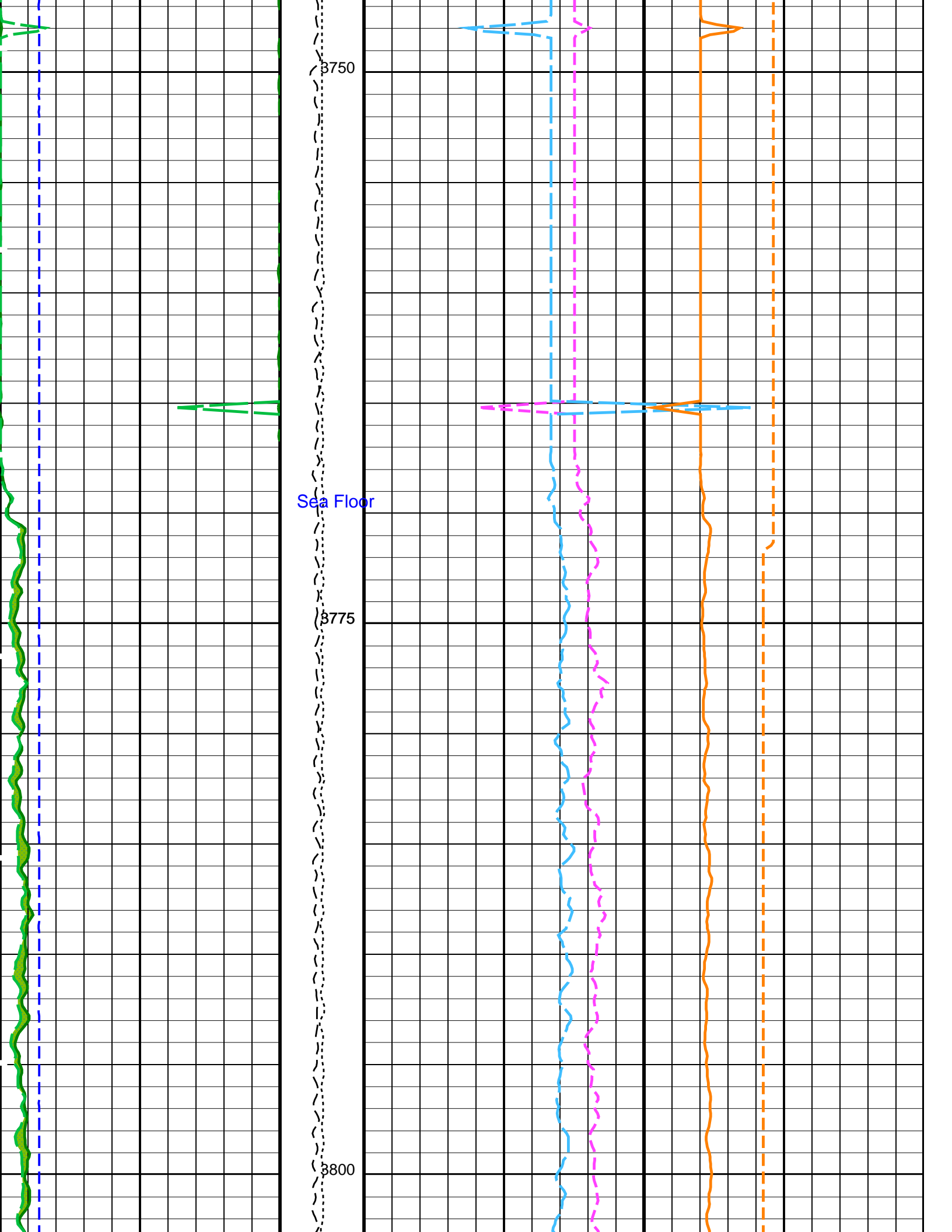
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 HLDS 19C0-187  
 HNGC-B 19C0-187  
 EDTC-B SKK-5169-EDTCB

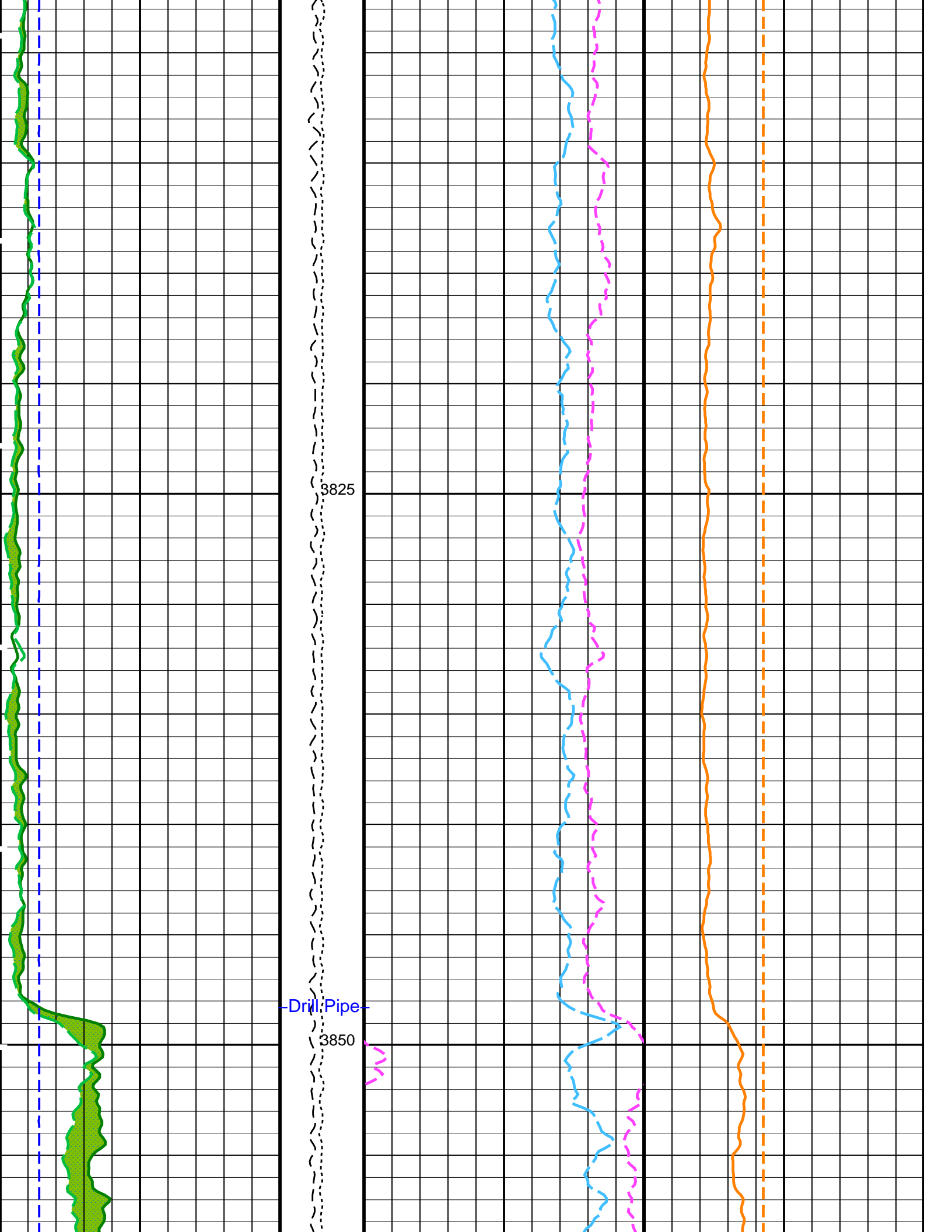
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 LDSC-B 19C0-187  
 HNGS-BA 19C0-187

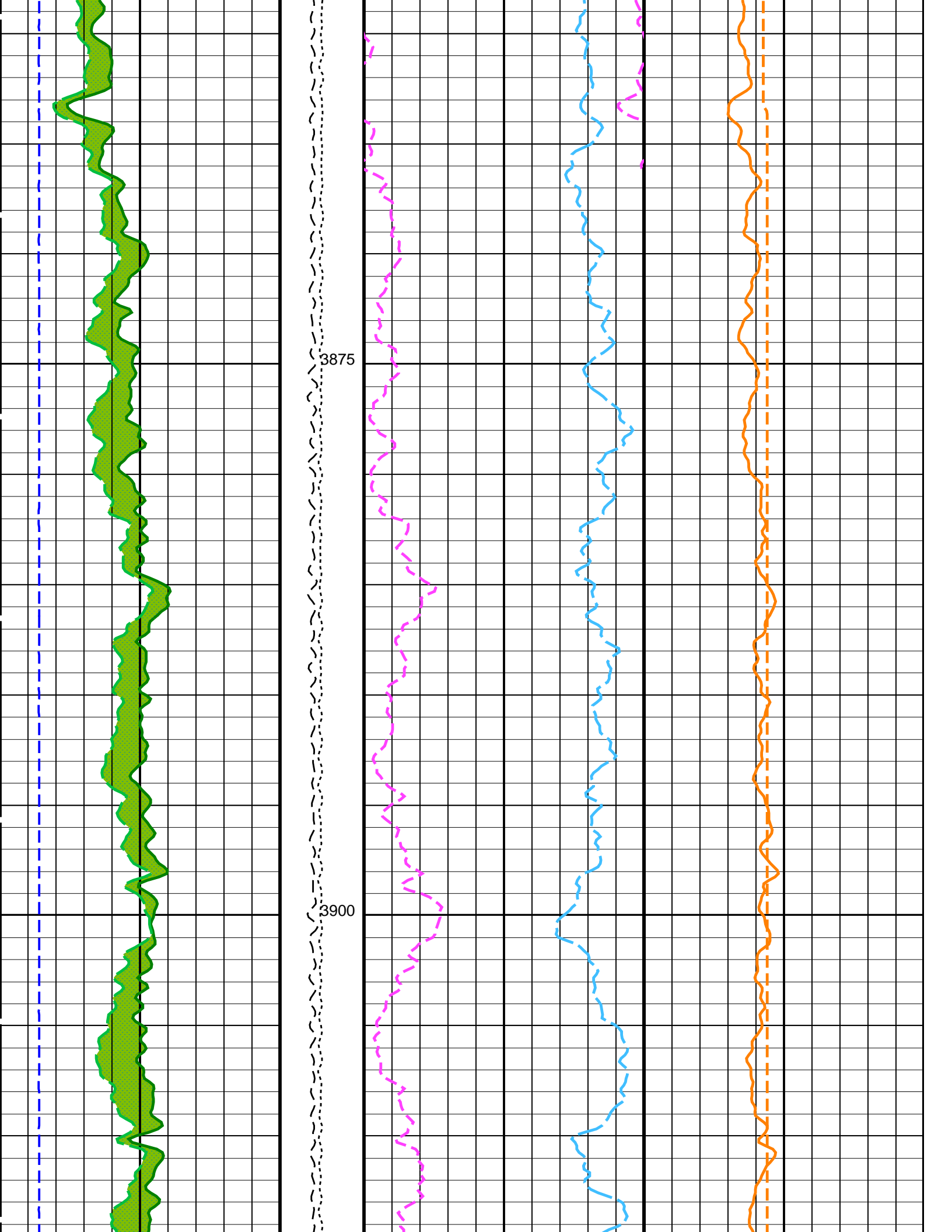
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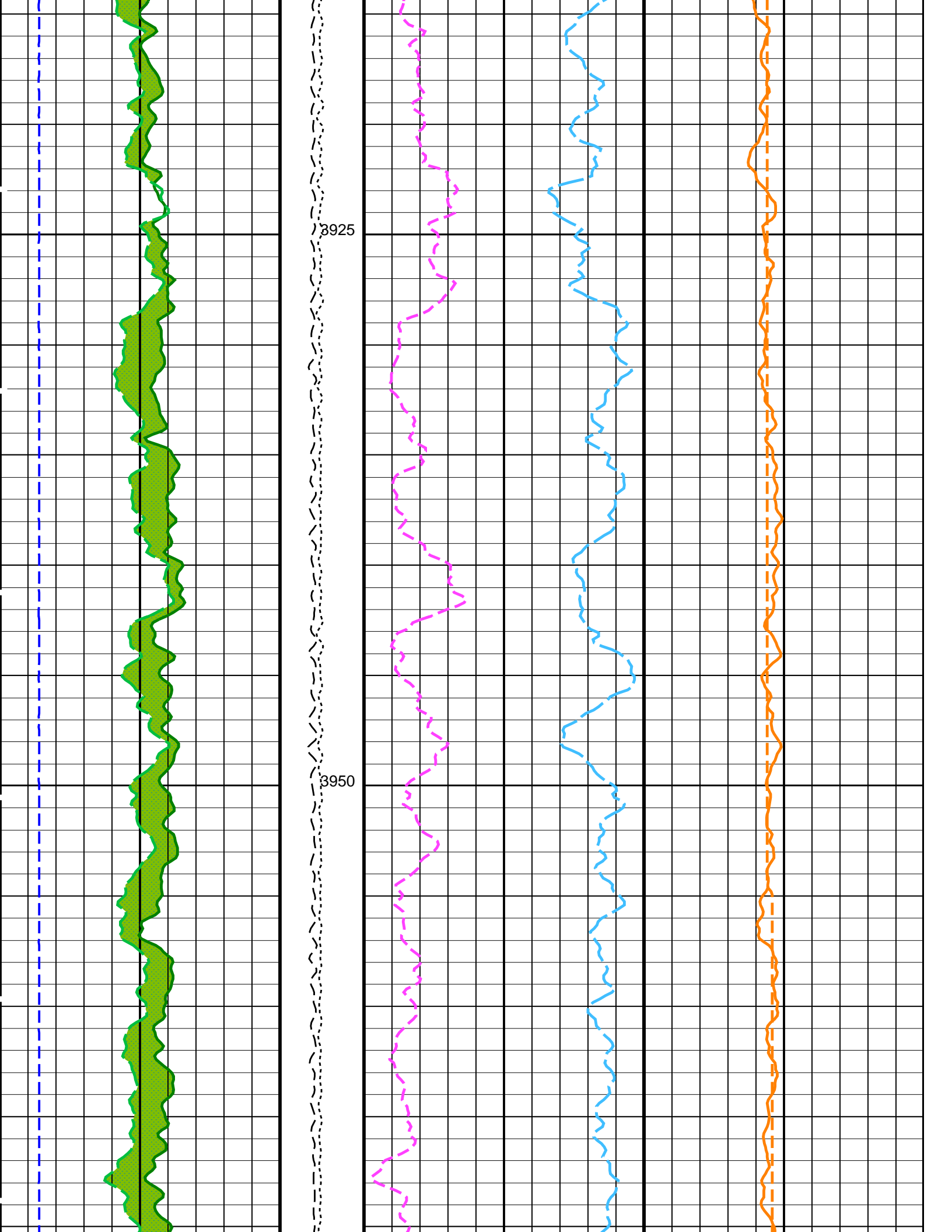
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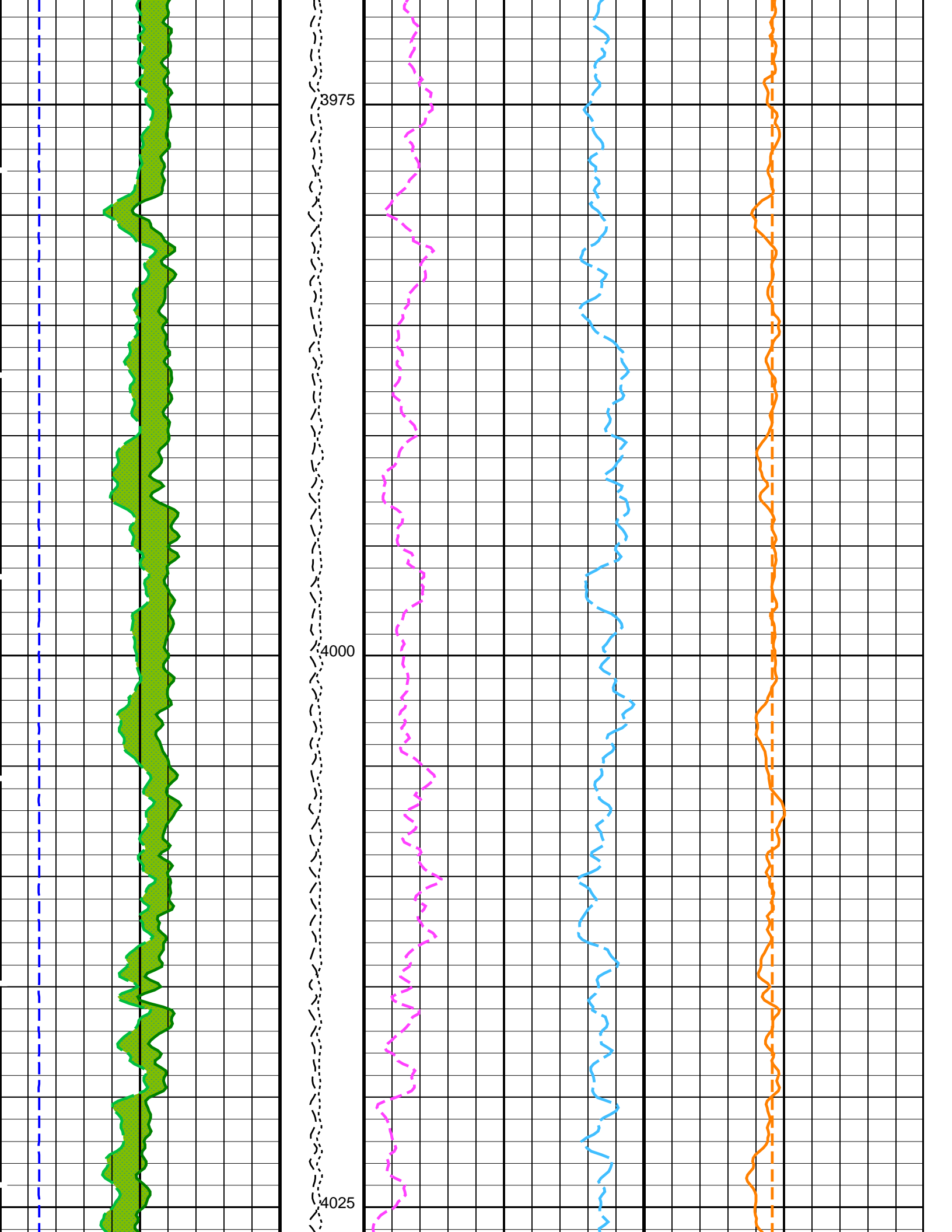


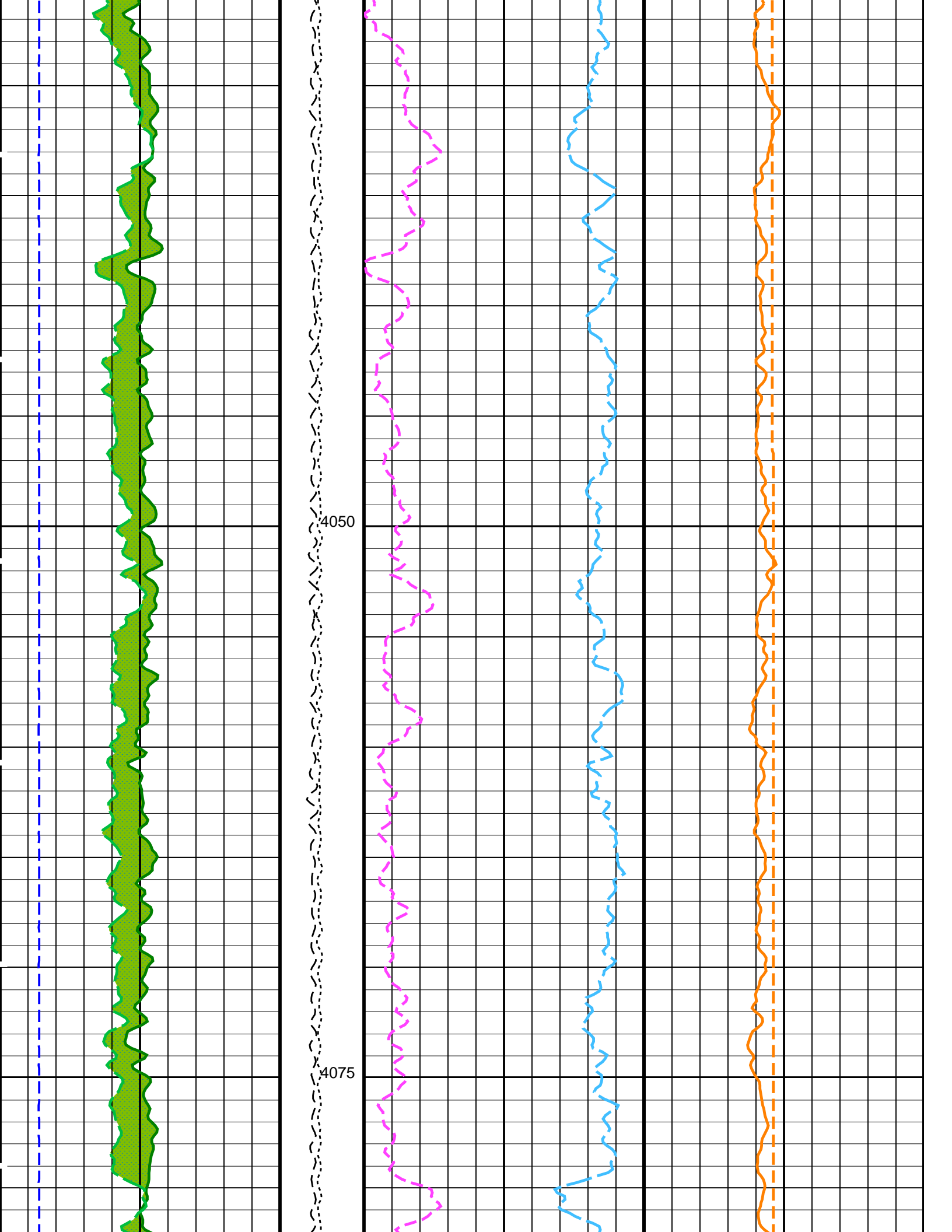


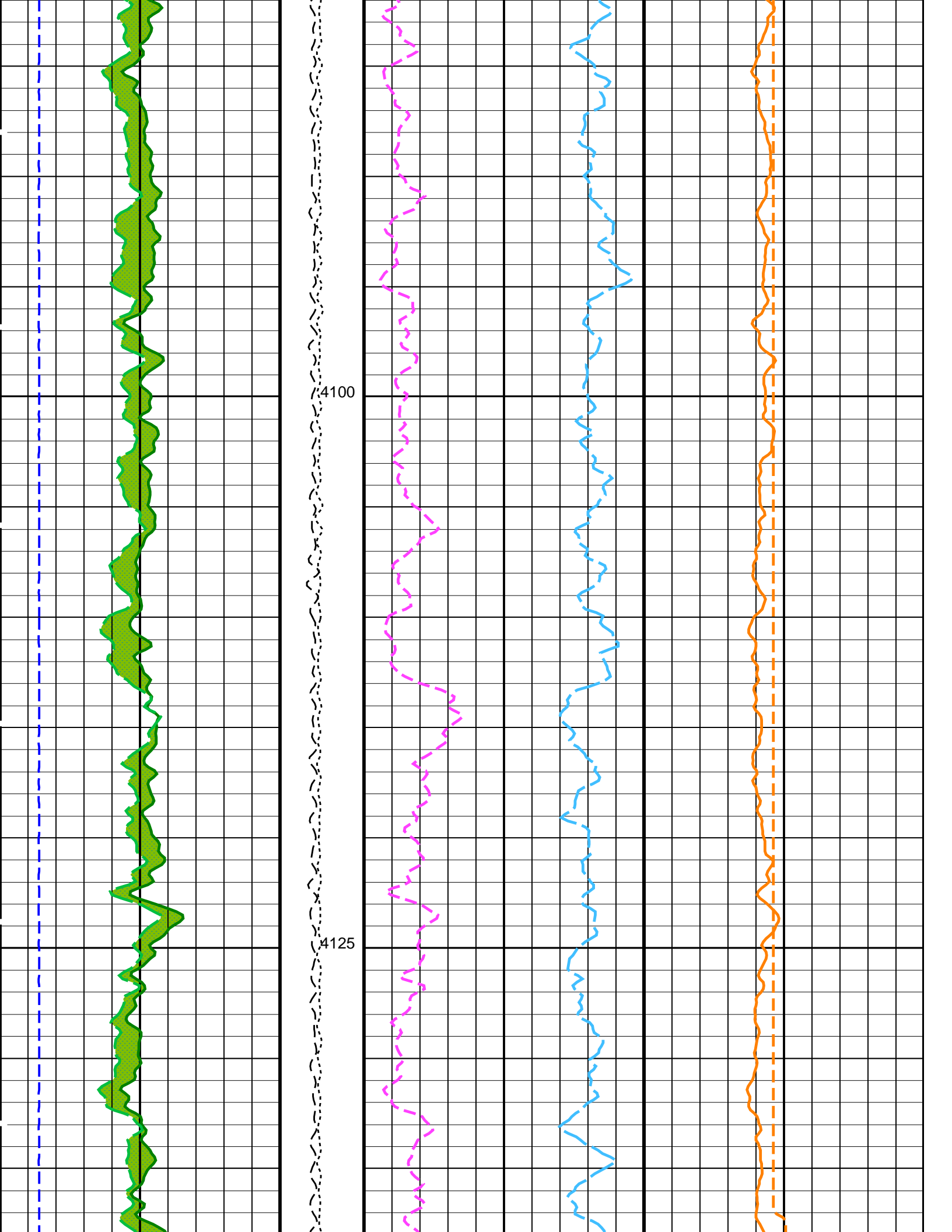


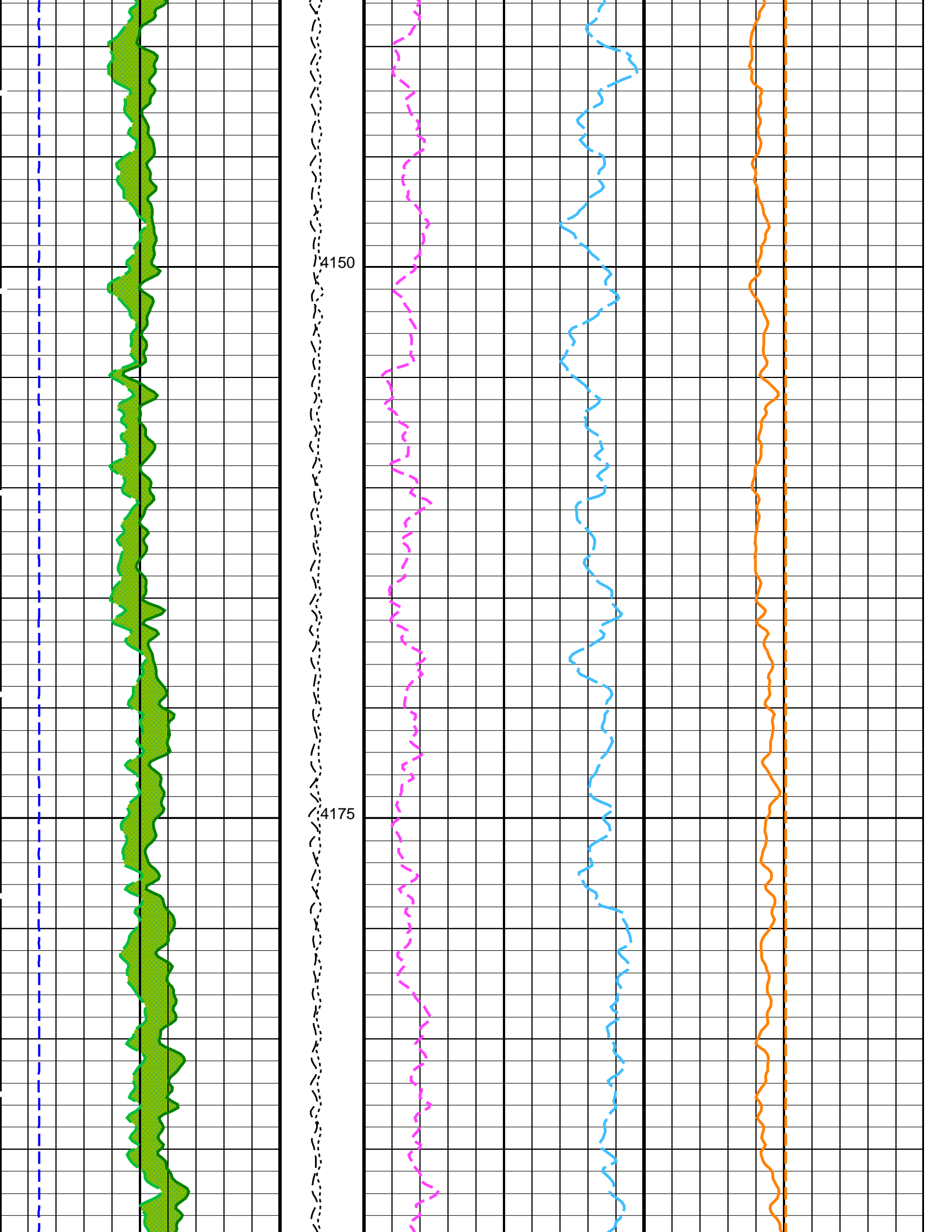


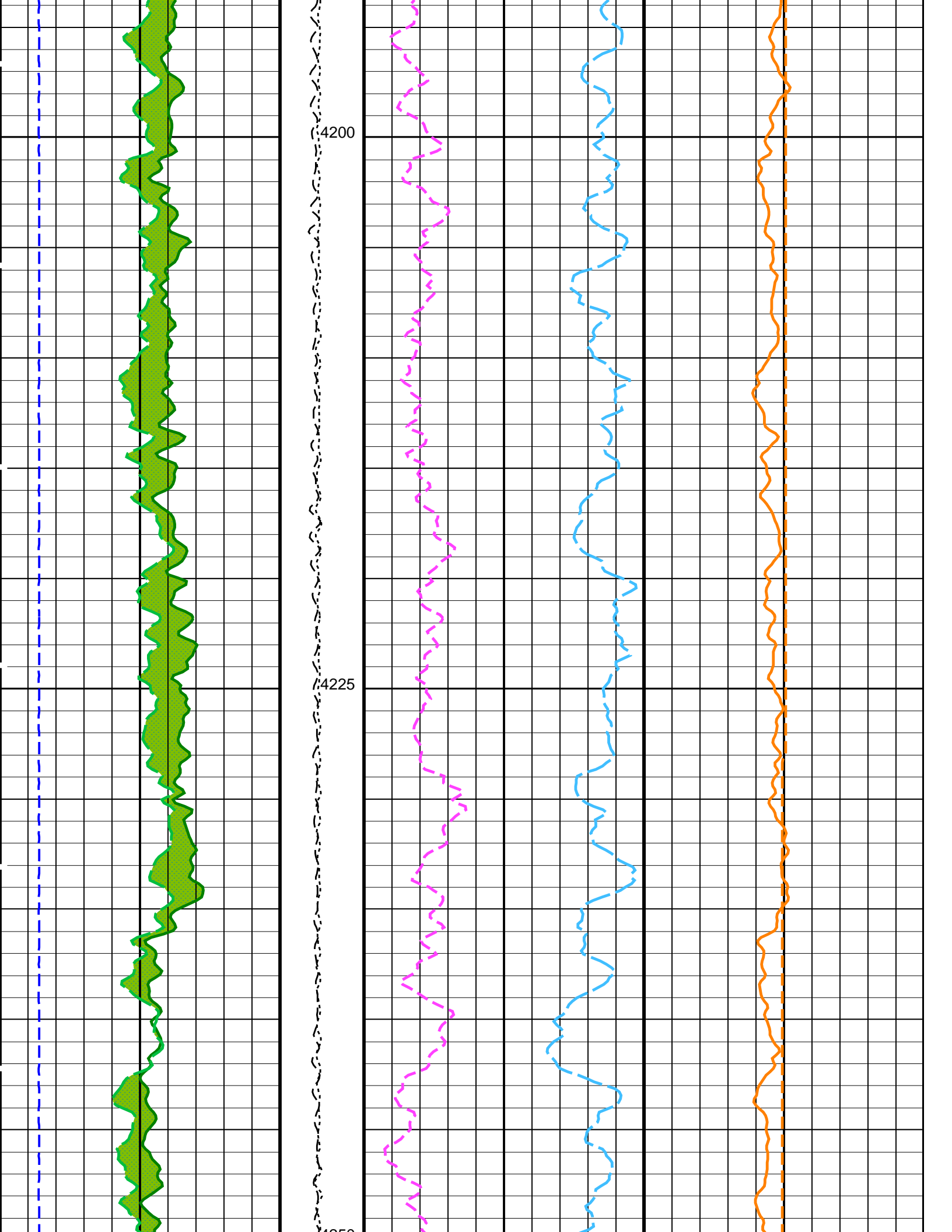


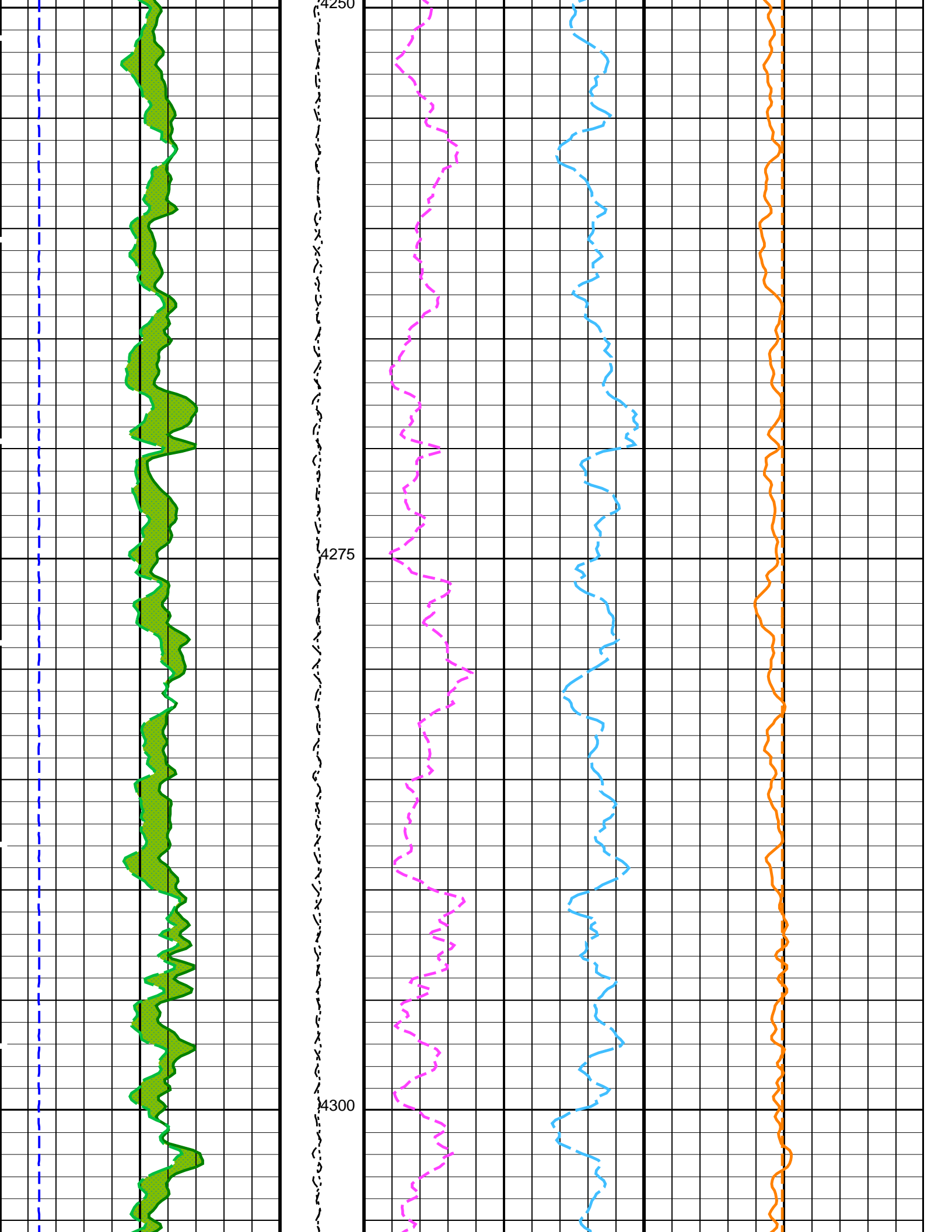


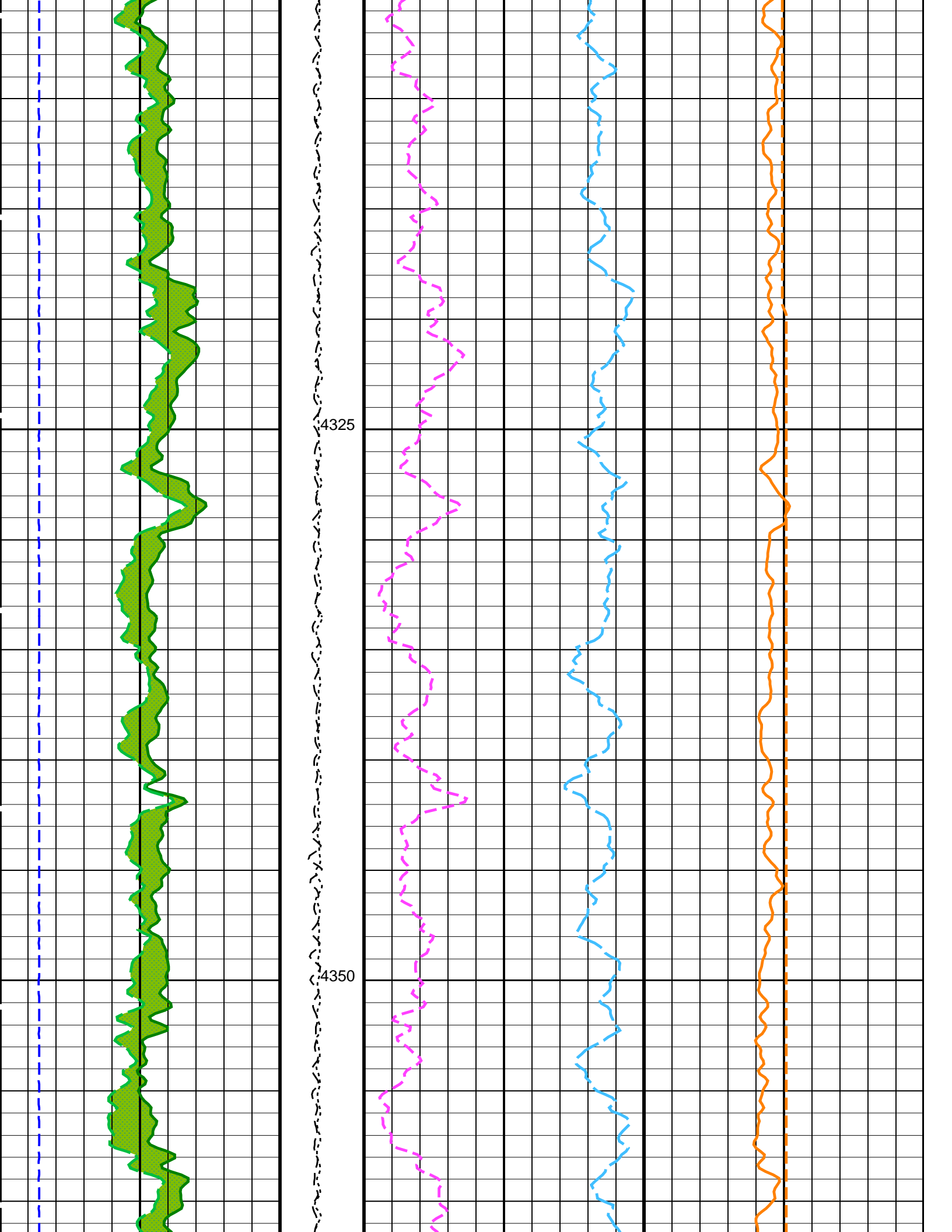


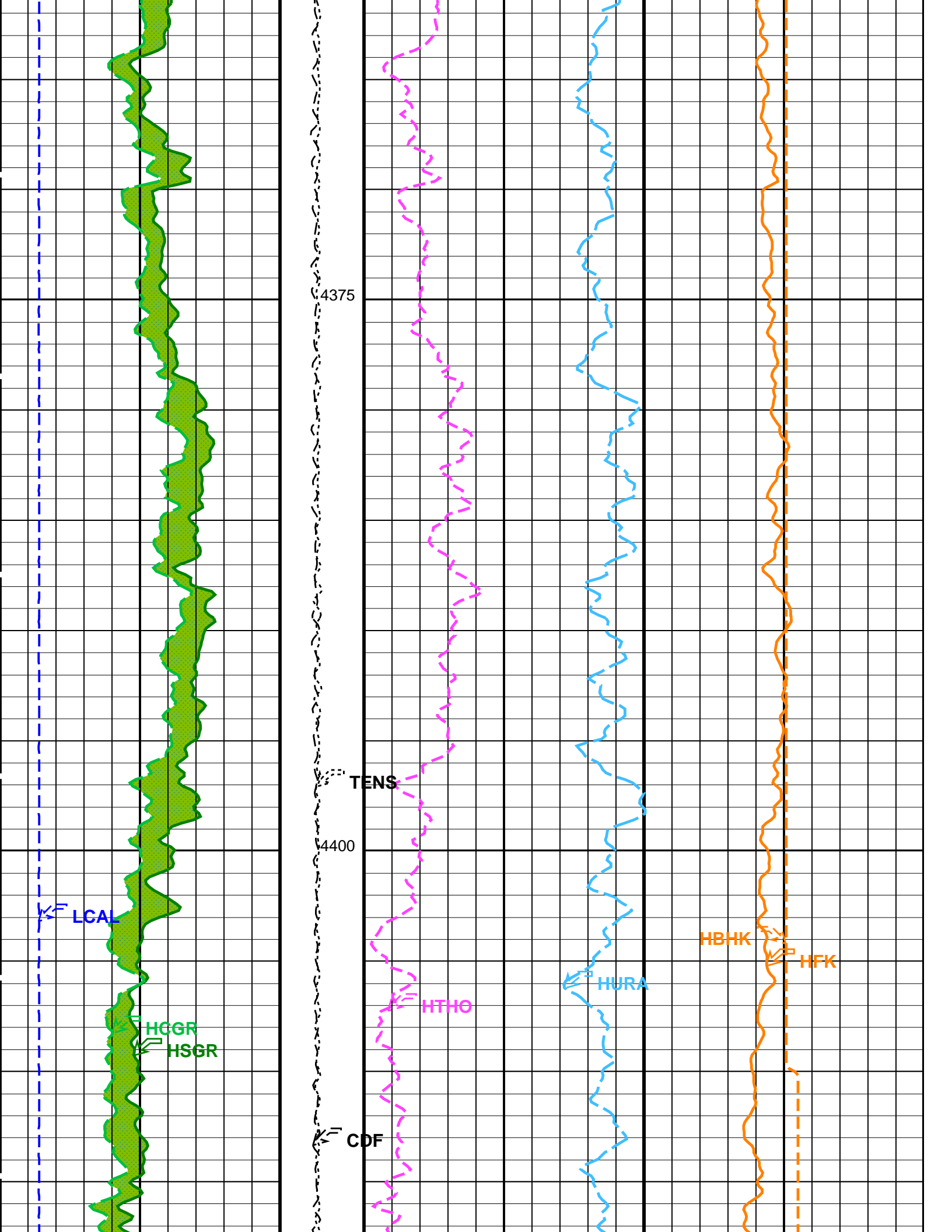




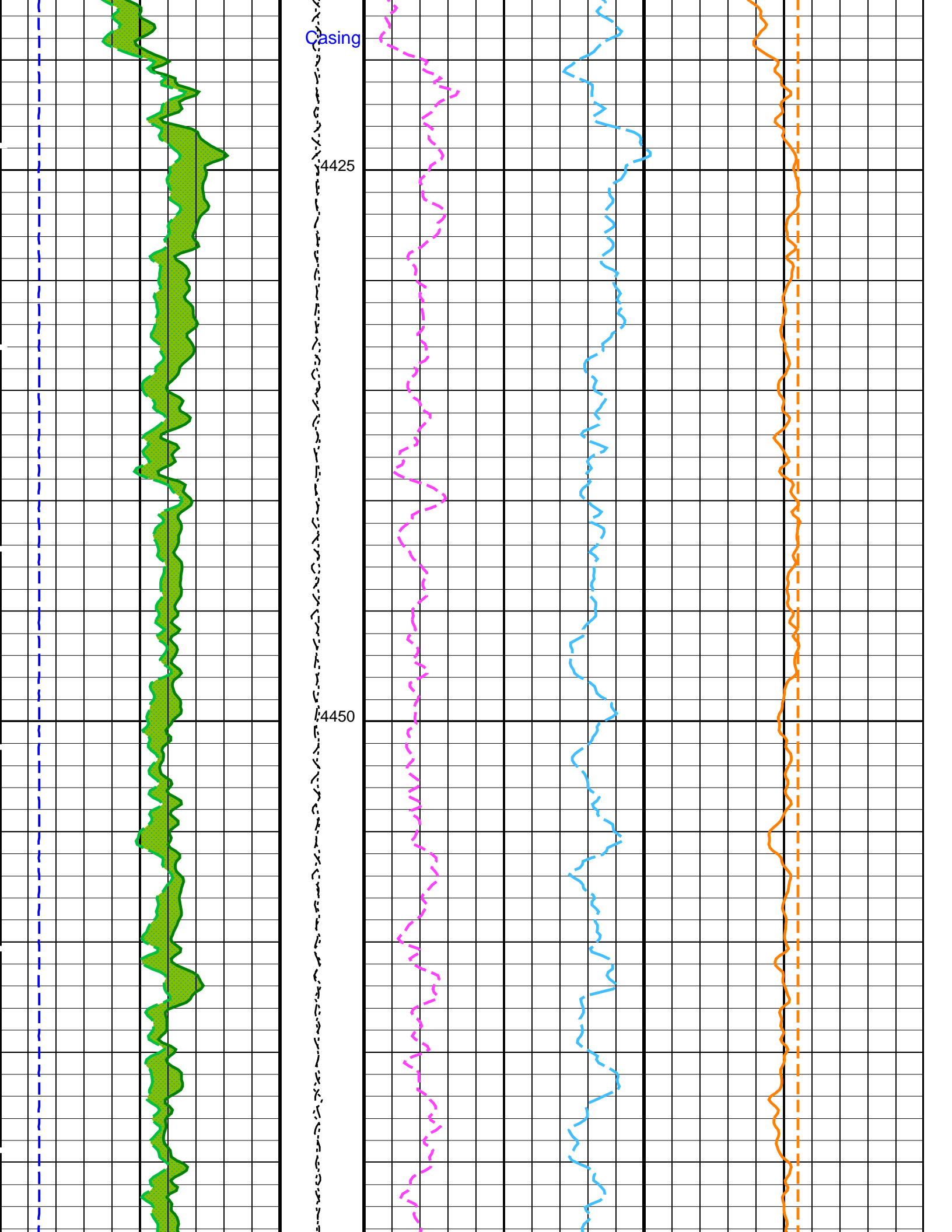








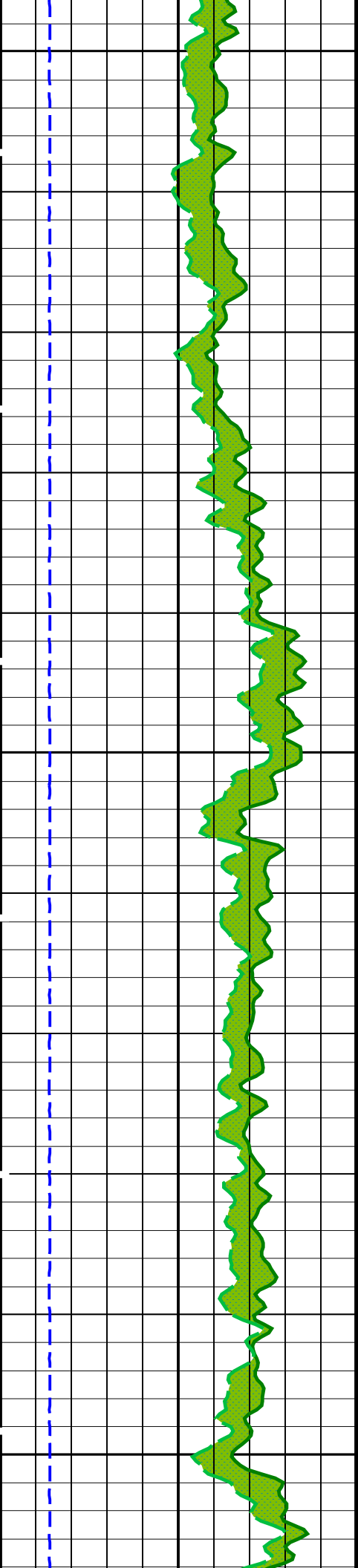




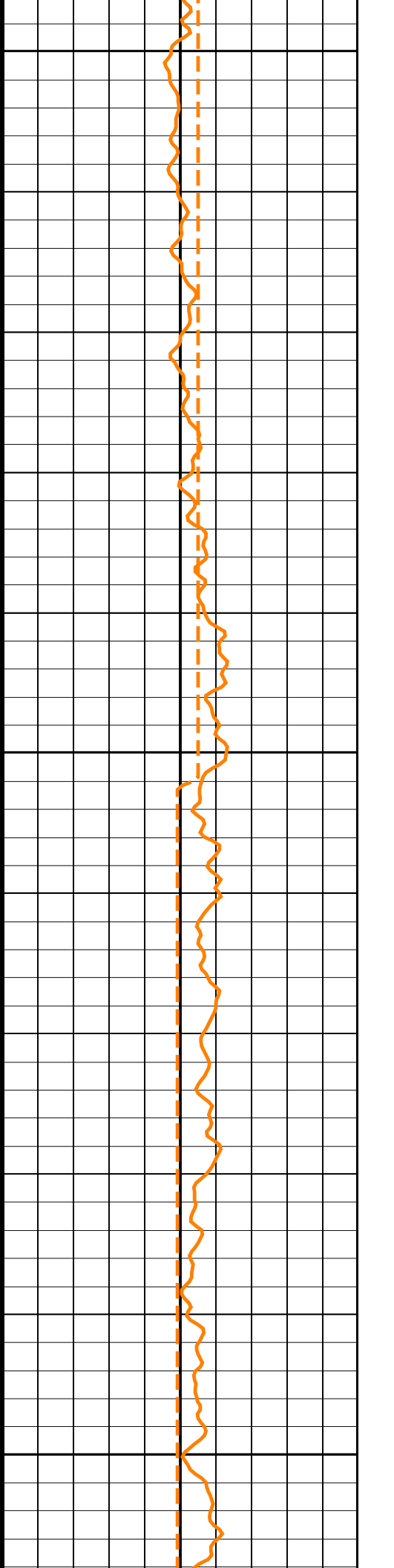
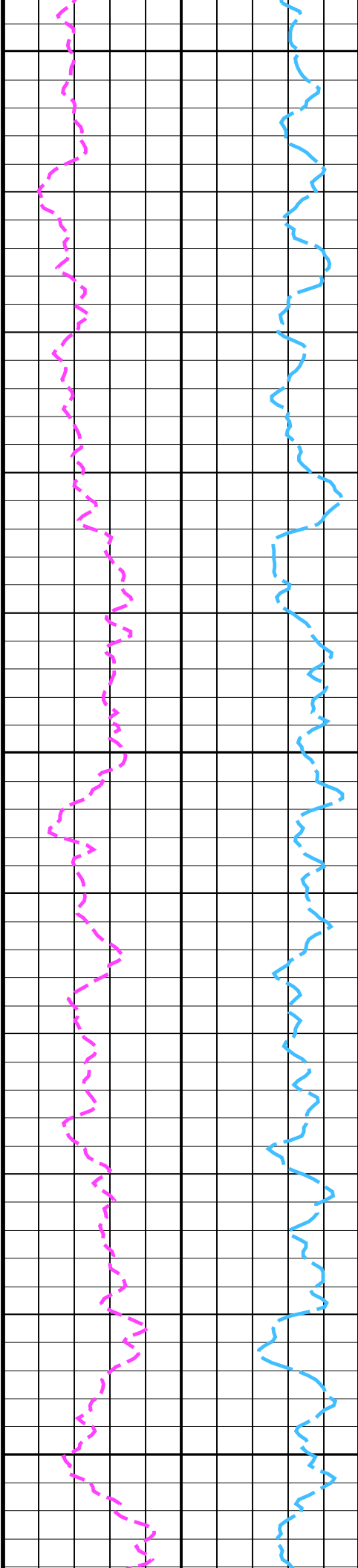
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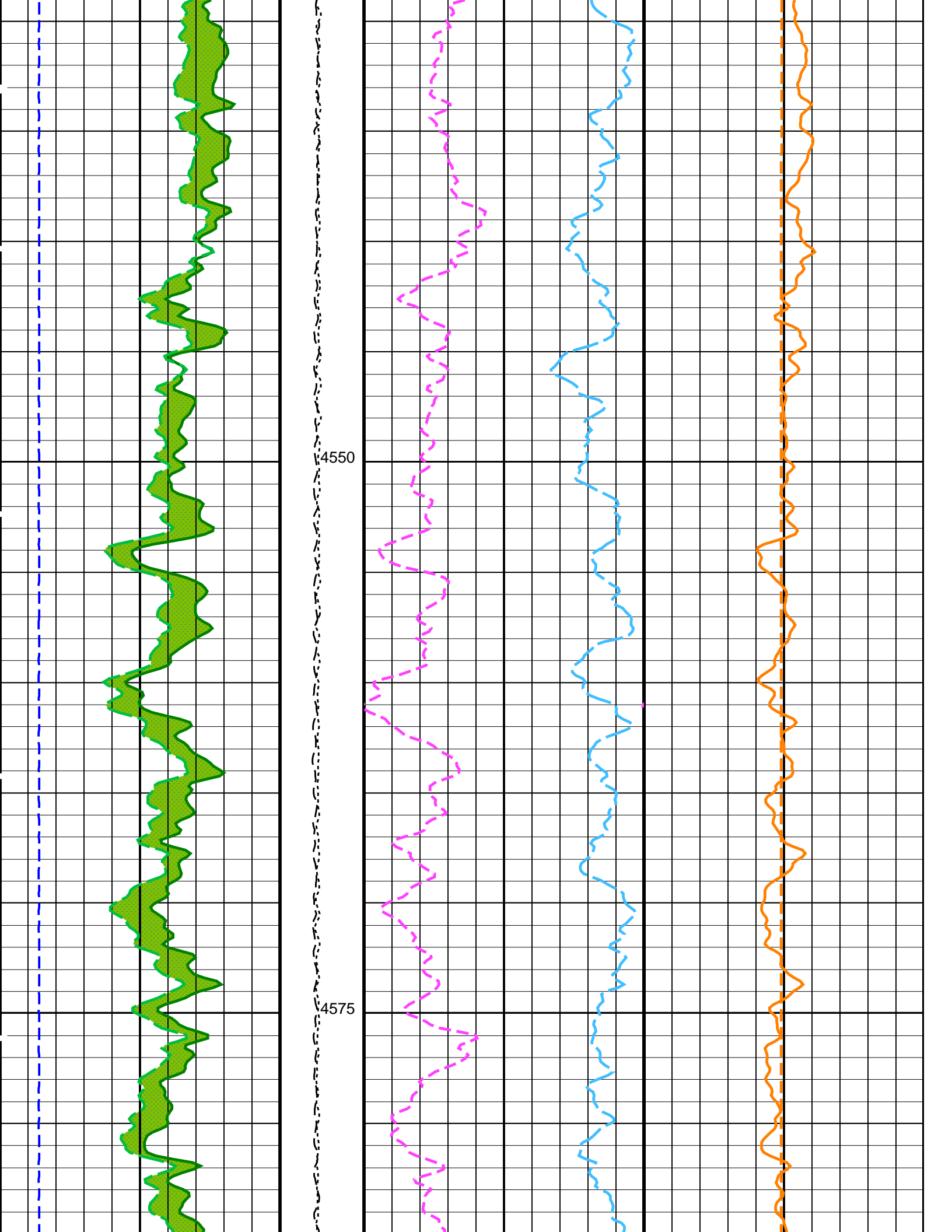
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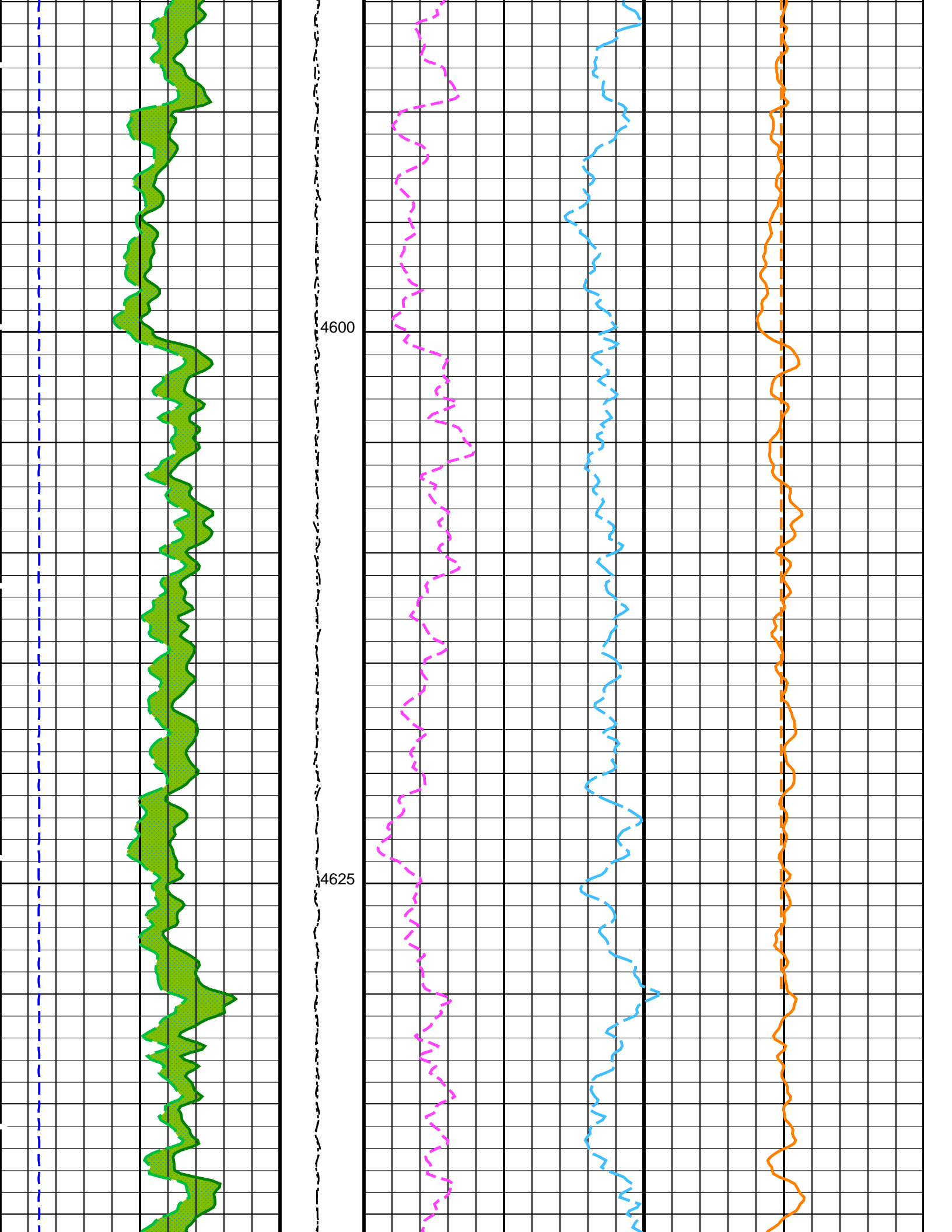
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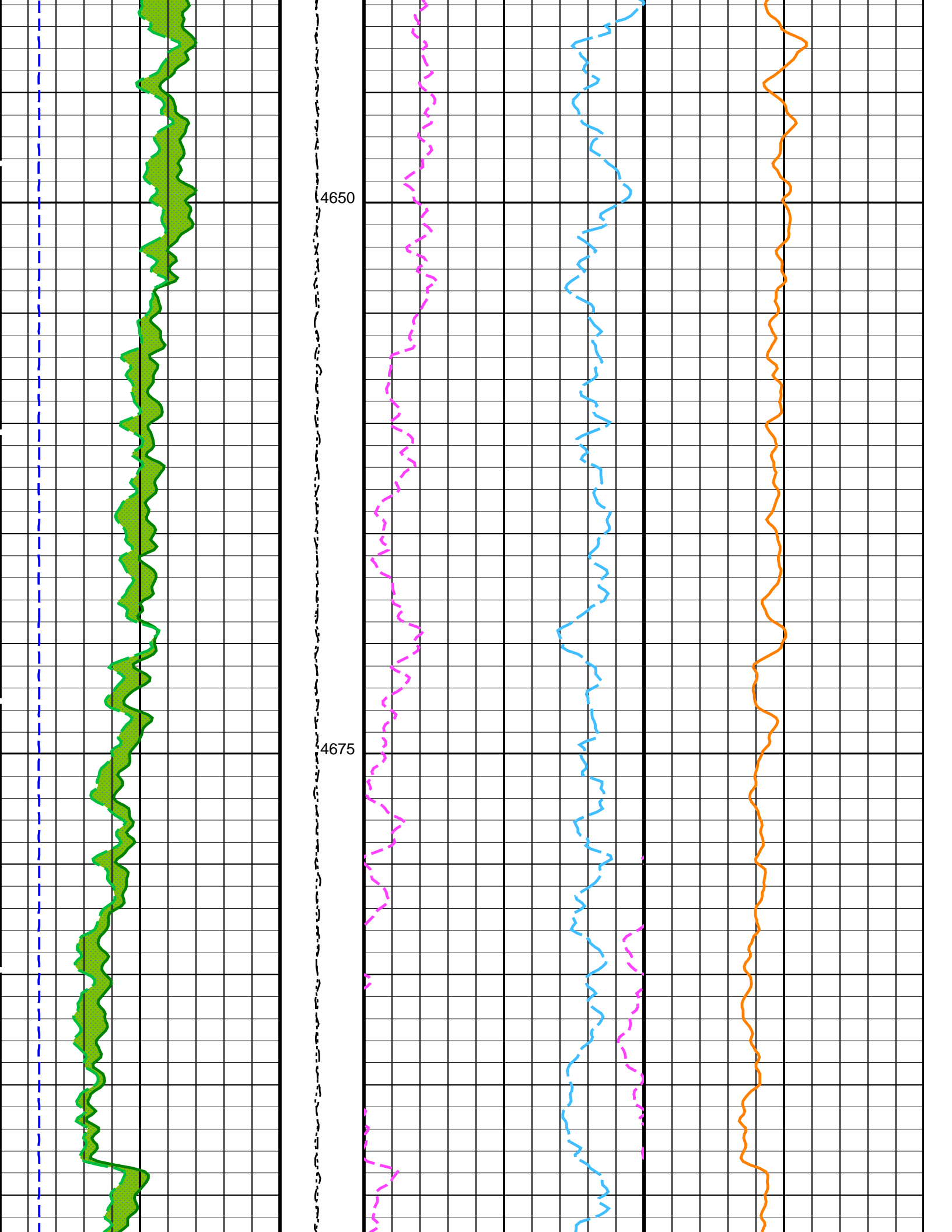


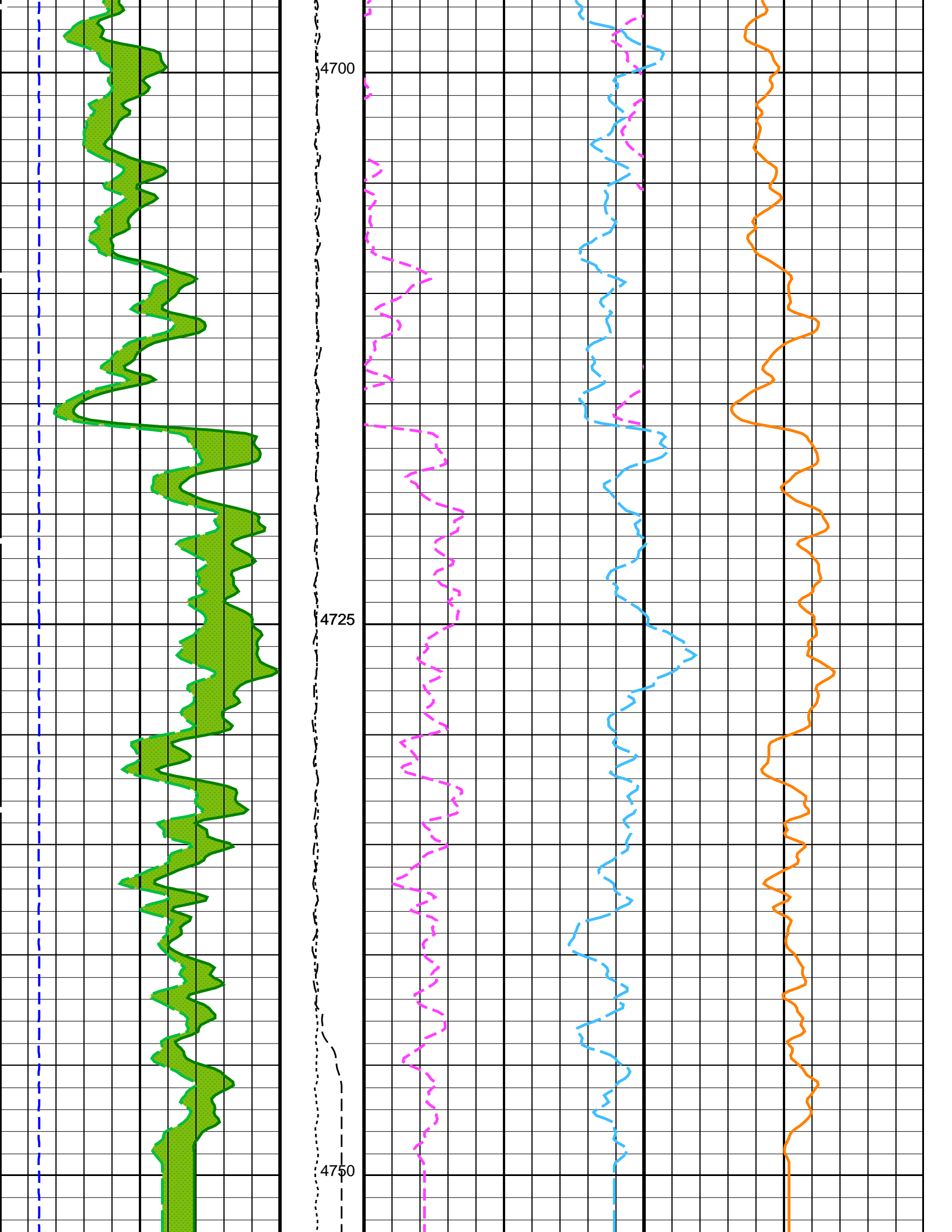
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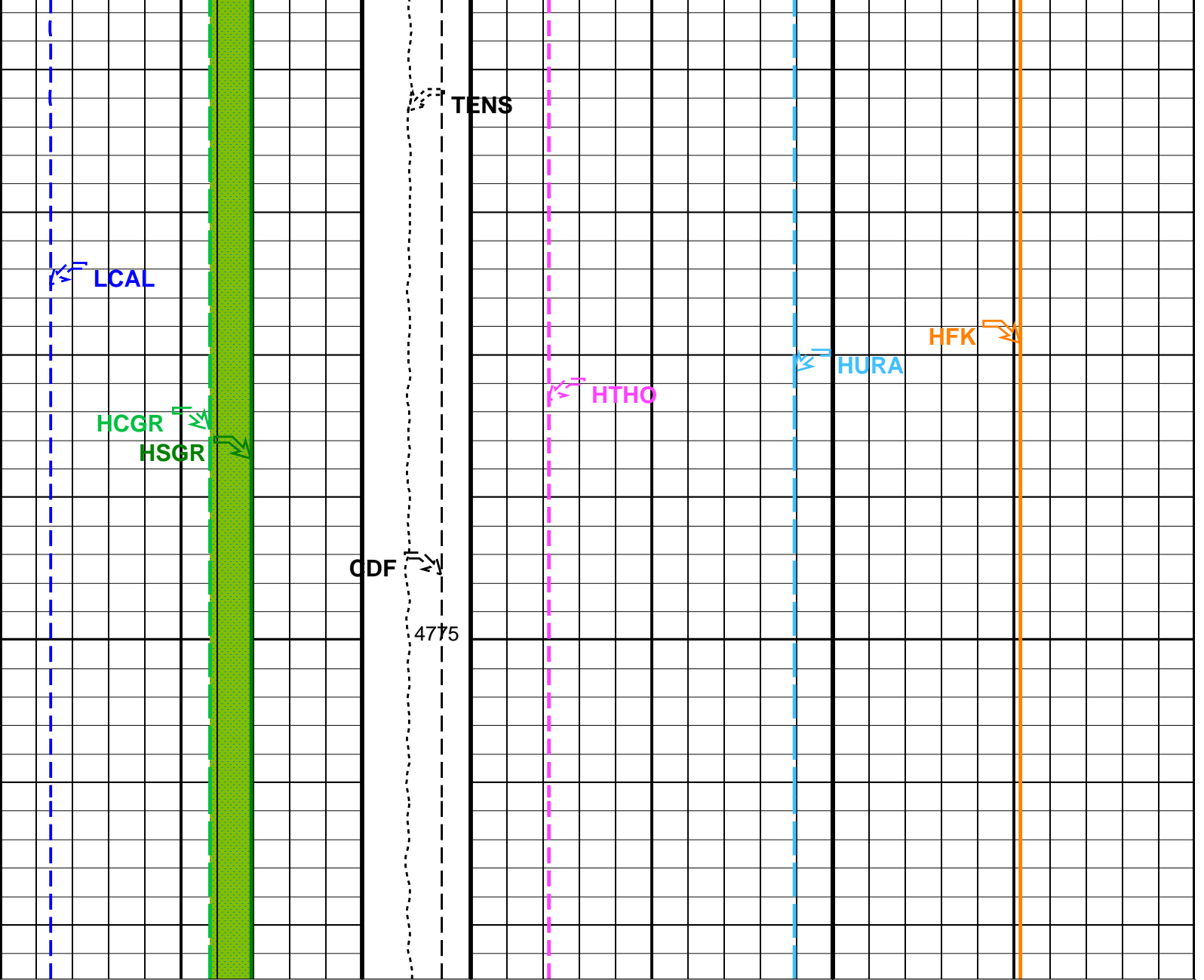












Area1  
From HCGR to HSGR

Downlog

HNGS Borehole Potassium (HBHK)  
-0.05 (----) 0.05

HNGS Spectroscopy Gamma Ray (HSGR)  
0 (GAPI) 100

PIP SUMMARY  
Time Mark Every 60 S

Parameters		
DLIS Name	Description	Value
BHS	DSST-B: Dipole Shear Imager - B Borehole Status	OPEN

GCSE	HRLT-B: High Resolution Laterolog Array - B	Generalized Caliper Selection		BS	
BHS		Borehole Status		OPEN	
GCSE		Generalized Caliper Selection		BS	
	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		-0.00481112	
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		0.950737	
VBA2		HNGS Detector 2 Variable Barite Factor Running Average		0.965721	
	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		1.32	G/C3
DO		Depth Offset for Playback		0.0	M
PP		Playback Processing		RECOMPUTE	

Format: HNGSYields Vertical Scale: 1:200 Graphics File Created: 17-Mar-2017 16:43

### OP System Version: 19C0-187

DSST-B	19C0-187	HRLT-B	19C0-187
HLDS	19C0-187	LDSC-B	19C0-187
HNGC-B	19C0-187	HNGS-BA	19C0-187
EDTC-B	SKK-5169-EDTCB		

#### Input DLIS Files

DEFAULT	DSI_HRLA_LDL_NGS_037PUP	FN:56	PRODUCER	08-Mar-2017 13:50	4786.6 M	3717.0 M
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#### Output DLIS Files

DEFAULT	DSI_HRLA_LDL_NGS_053PUP	FN:71	PRODUCER	17-Mar-2017 16:43		
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#### Input DLIS Files

DEFAULT	DSI_HRLA_LDL_NGS_037PUP	FN:56	PRODUCER	08-Mar-2017 13:50	4786.6 M	3717.0 M
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#### Output DLIS Files

DEFAULT	DSI_HRLA_LDL_NGS_053PUP	FN:71	PRODUCER	17-Mar-2017 16:43	4786.9 M	3717.0 M
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### OP System Version: 19C0-187

DSST-B	19C0-187	HRLT-B	19C0-187
HLDS	19C0-187	LDSC-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
CSW1	00 US/F	05 US/F	4427.7 16:45:24

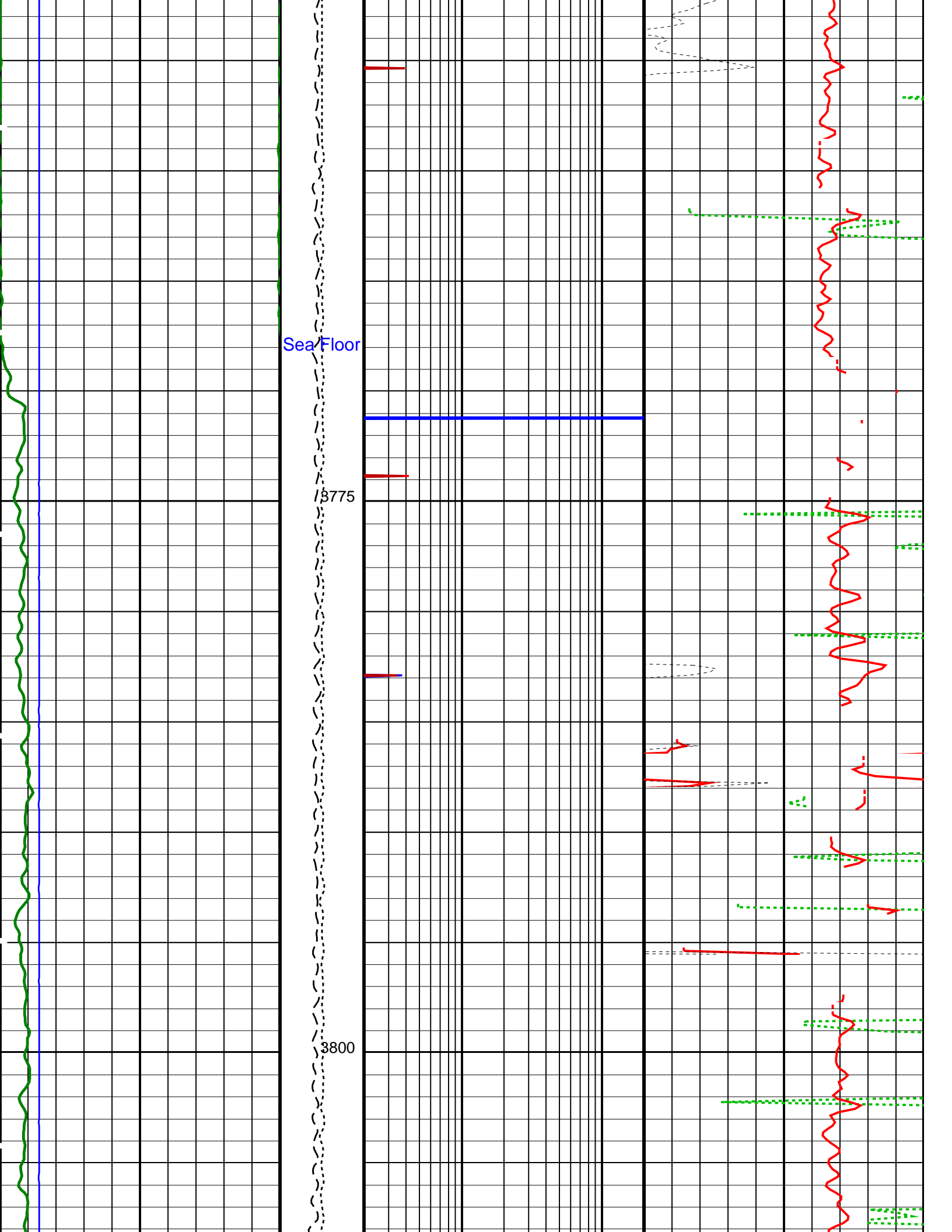


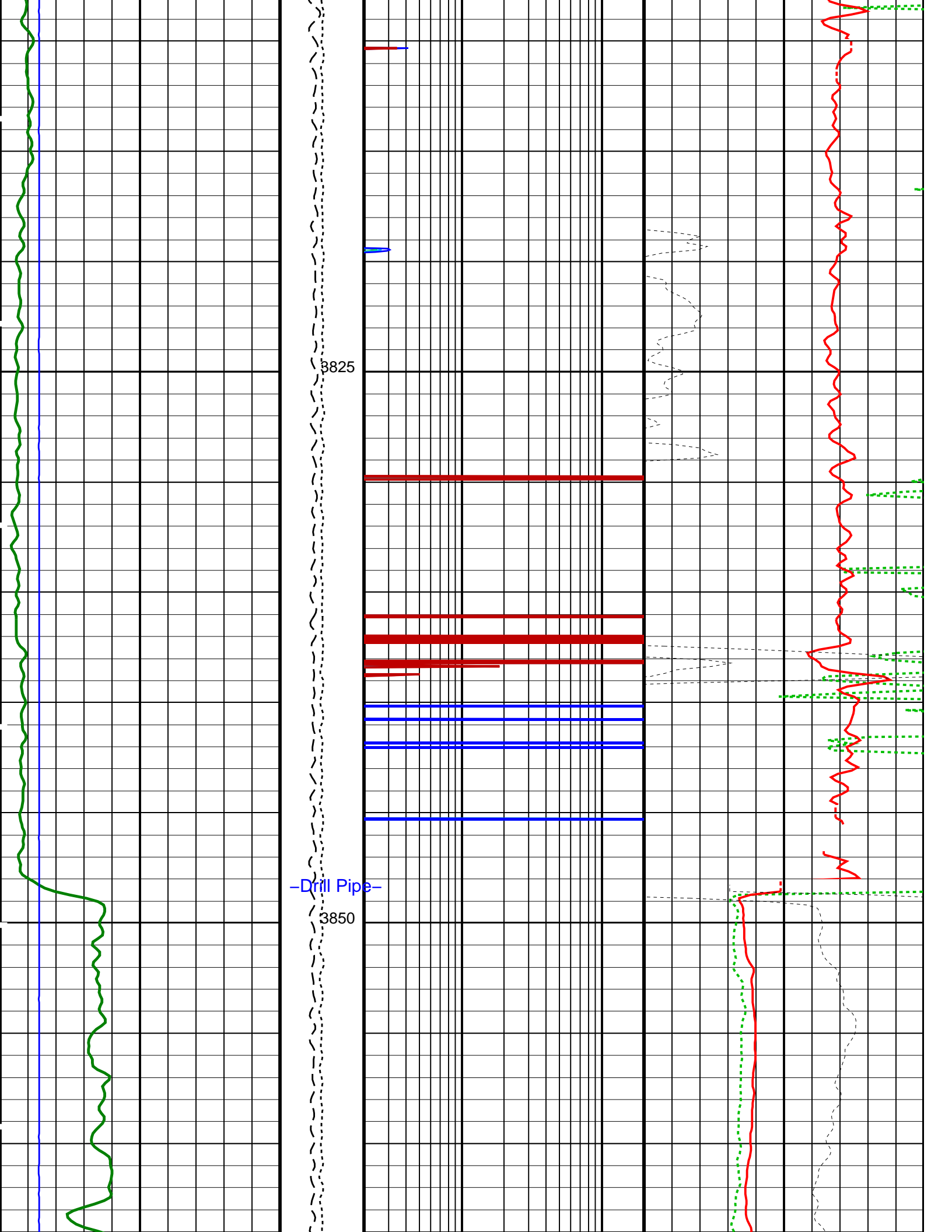
PIP SUMMARY

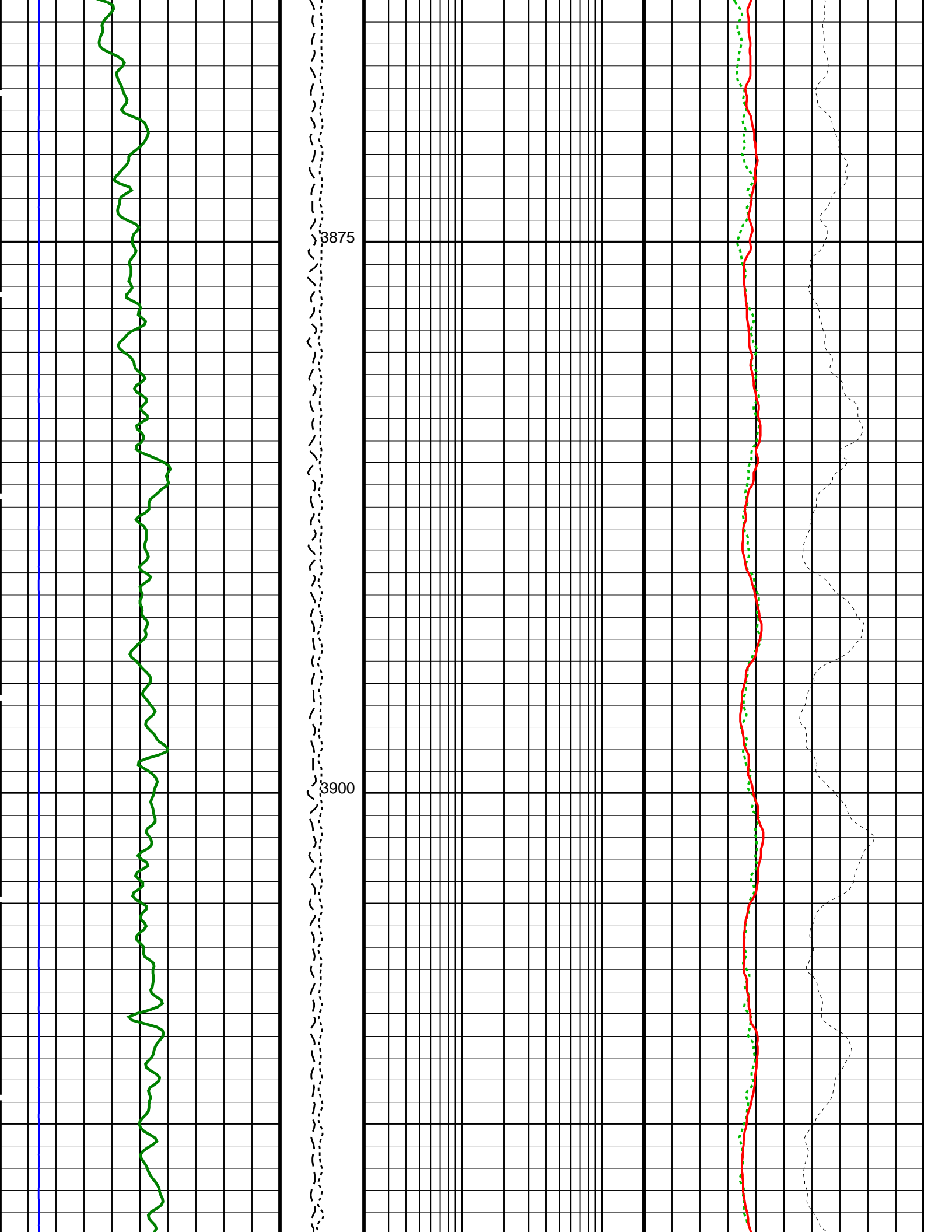
Time Mark Every 60 S

		<b>HRLT True Resistivity (RT_HRLT)</b>			
		0.2	(OHMM)	20	
		<b>HRLT Resistivity 1 (RLA1)</b>			
		0.2	(OHMM)	20	
		<b>HRLT Resistivity 2 (RLA2)</b>			
		0.2	(OHMM)	20	
		<b>HRLT Resistivity 3 (RLA3)</b>		<b>HLDS Bulk Density Correction (DRH)</b>	
		0.2	(OHMM)	20	-0.25 (G/C3) 0.25
<b>HNGS Spectroscopy Gamma Ray (HSGR)</b>	<b>Calibrated Downhole Force (CDF) (LBF)</b>	<b>HRLT Resistivity 5 (RLA5)</b>		<b>HLDS Bulk Density (RHOM)</b>	
0 (GAPI) 100	3000 0	0.2	(OHMM)	20	0 (G/C3) 4
<b>HLDS Caliper (LCAL)</b>	<b>Tension (TENS) (LBF)</b>	<b>HRLT Resistivity 4 (RLA4)</b>		<b>HLDS Long Spaced Photoelectric Effect (PEFL)</b>	
0 (IN) 20	10000 0	0.2	(OHMM)	20	0 (----) 10



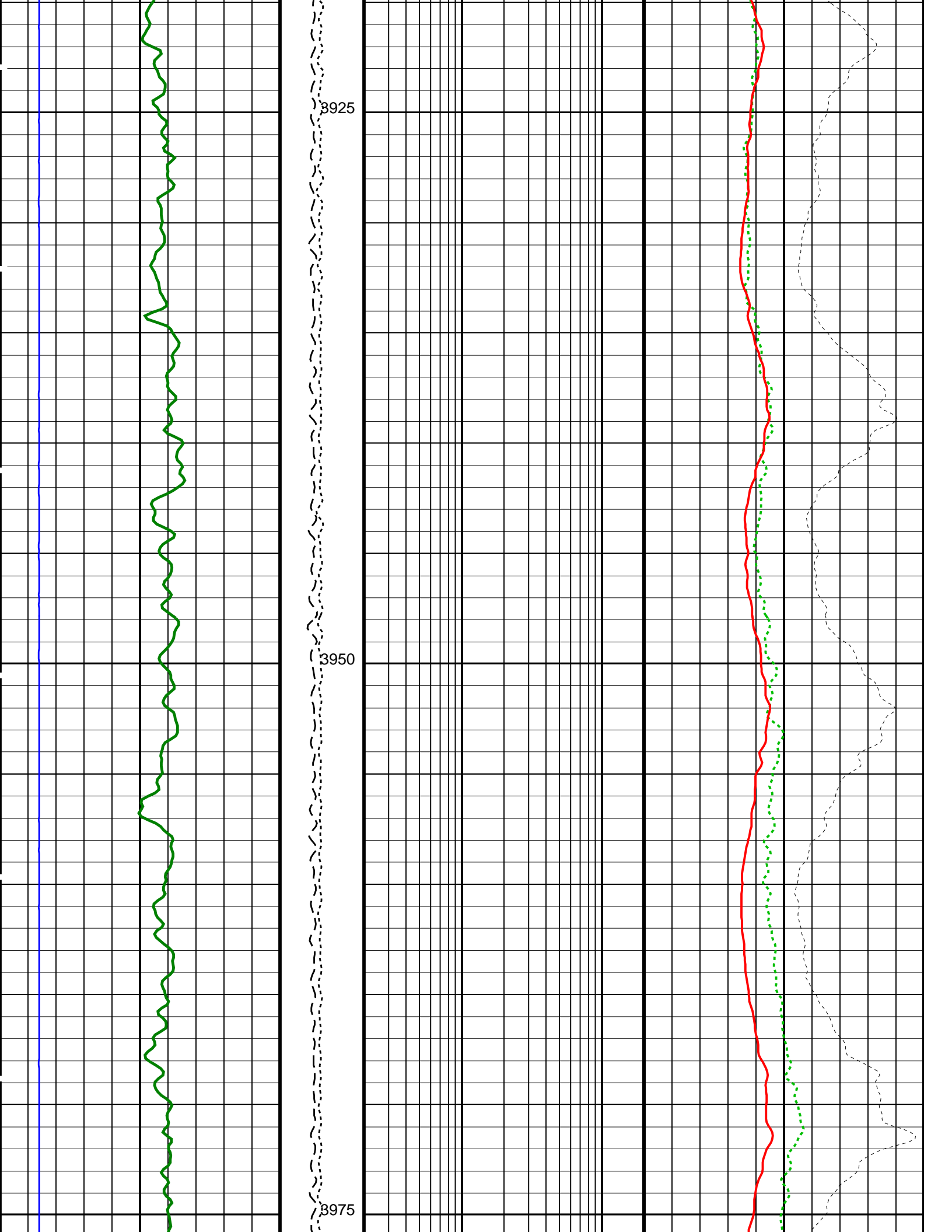


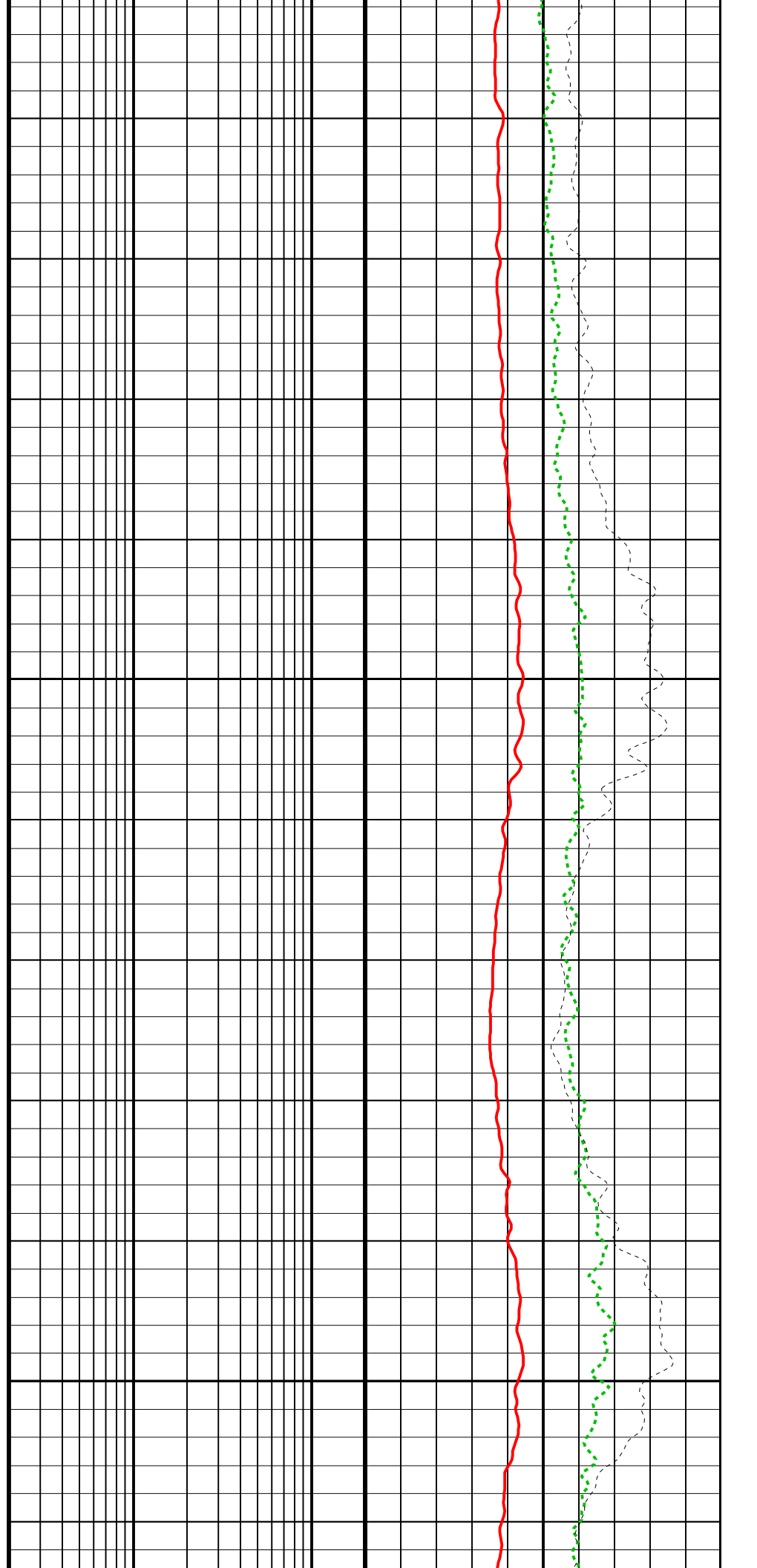
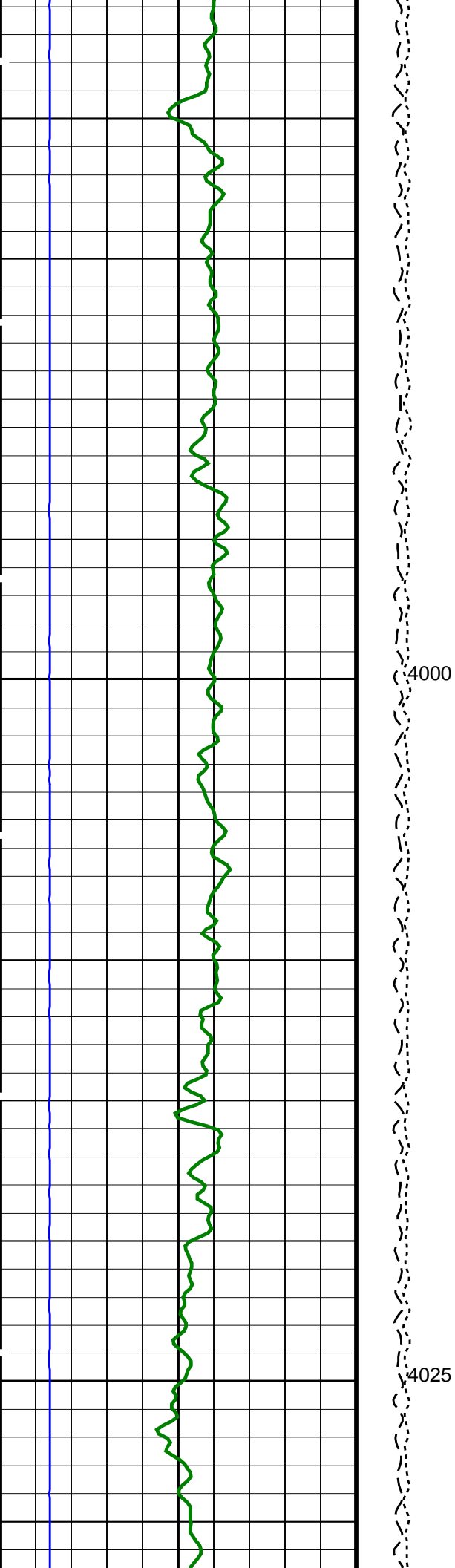


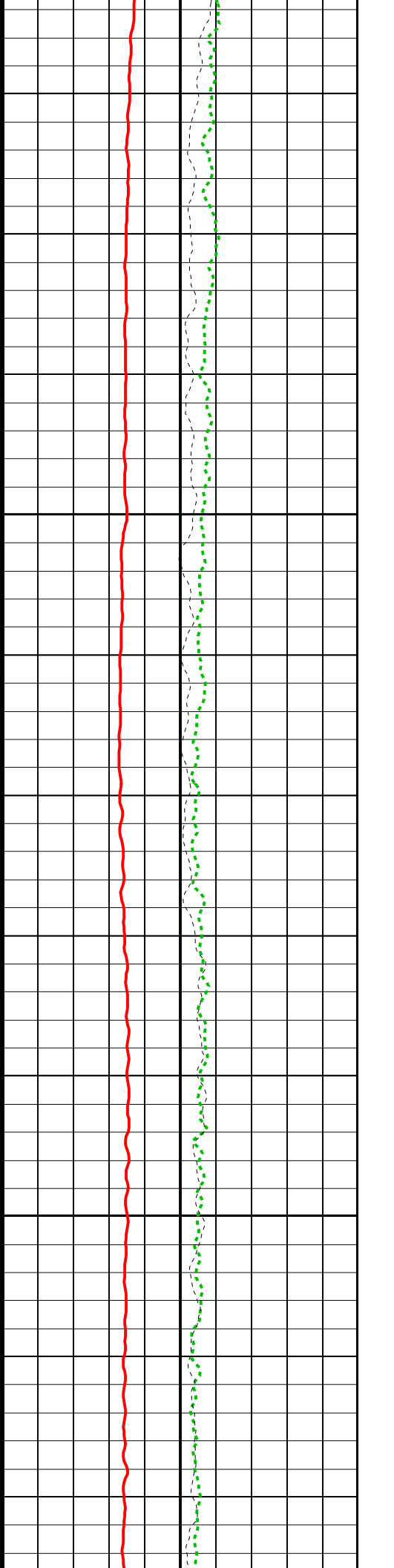
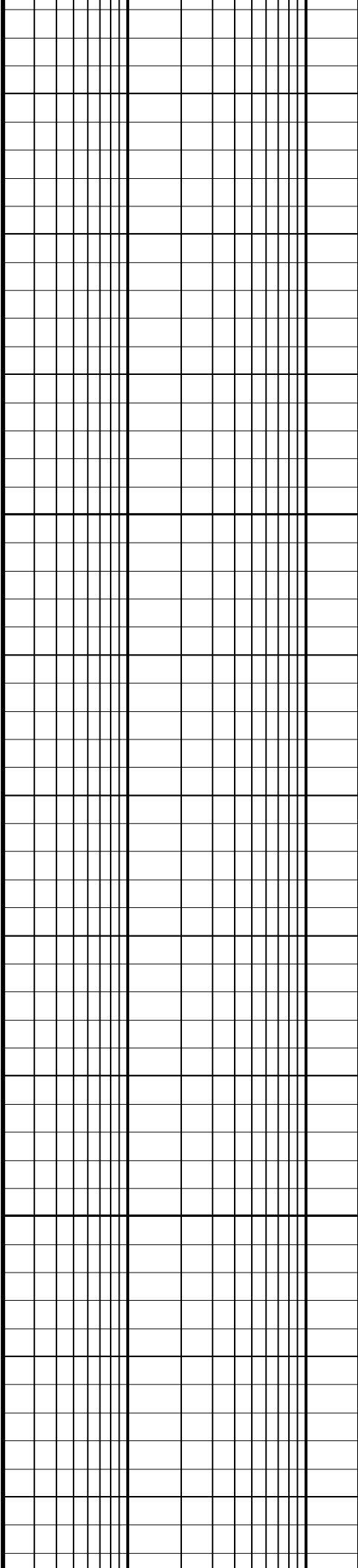
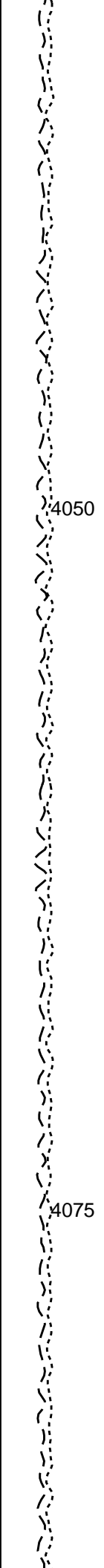
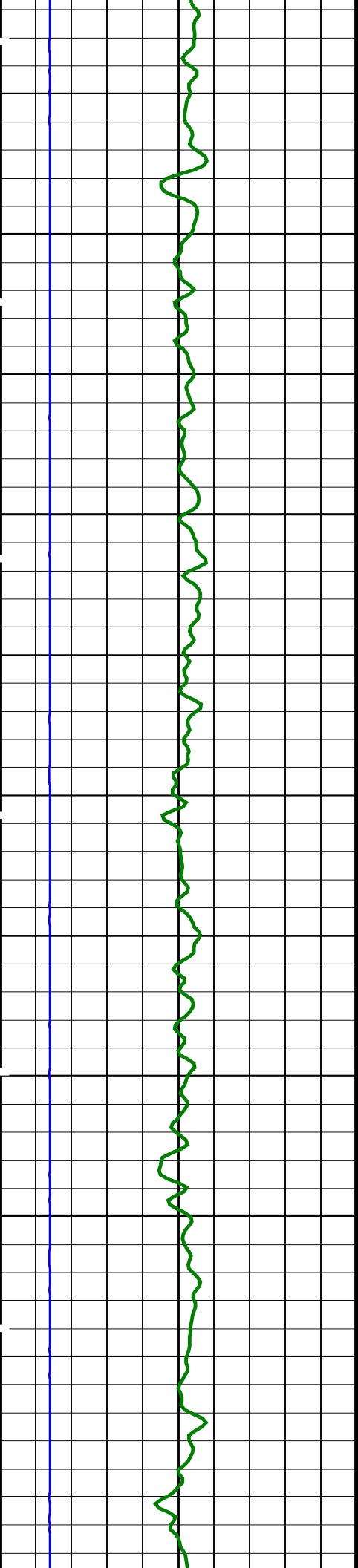


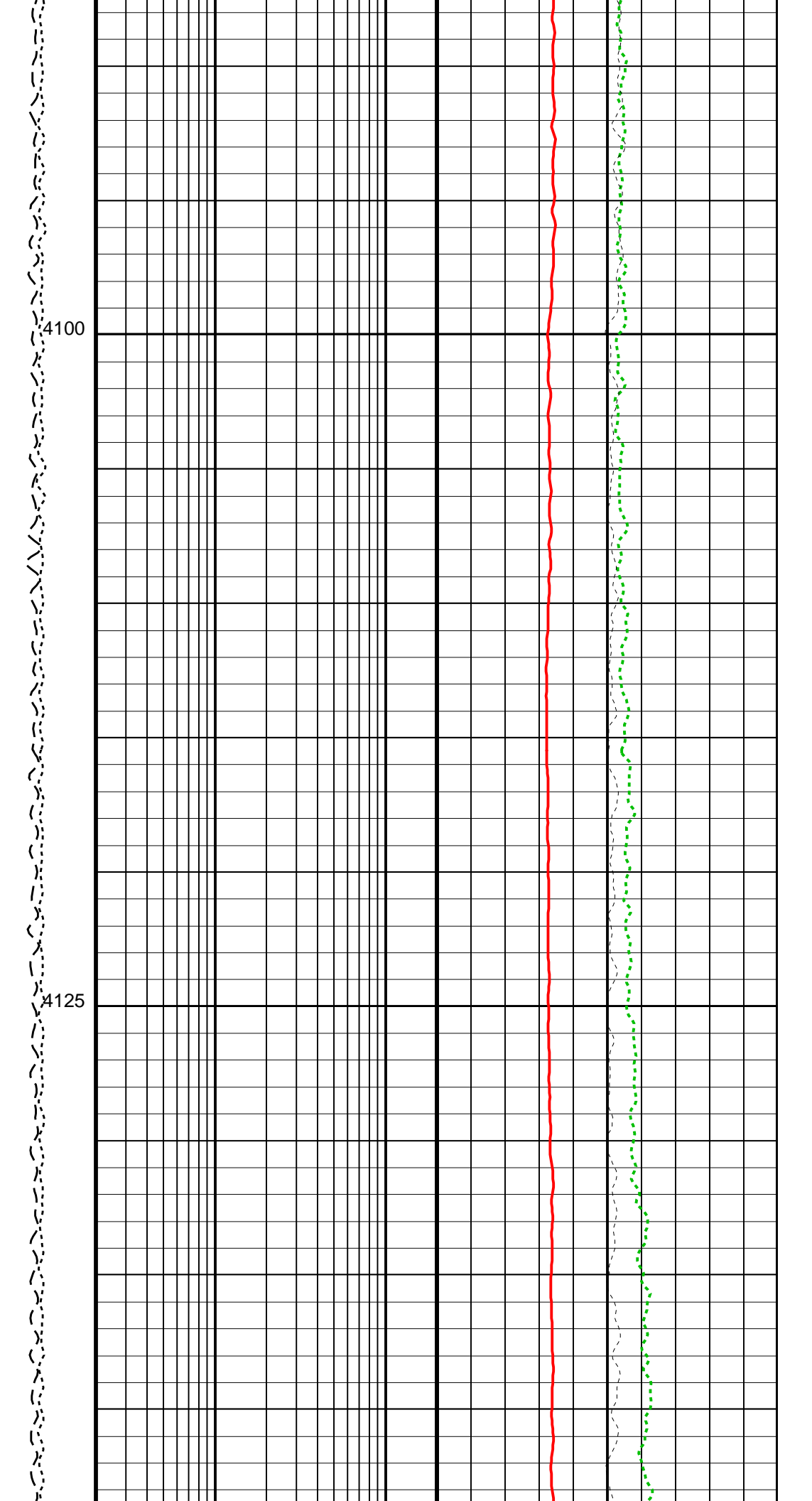
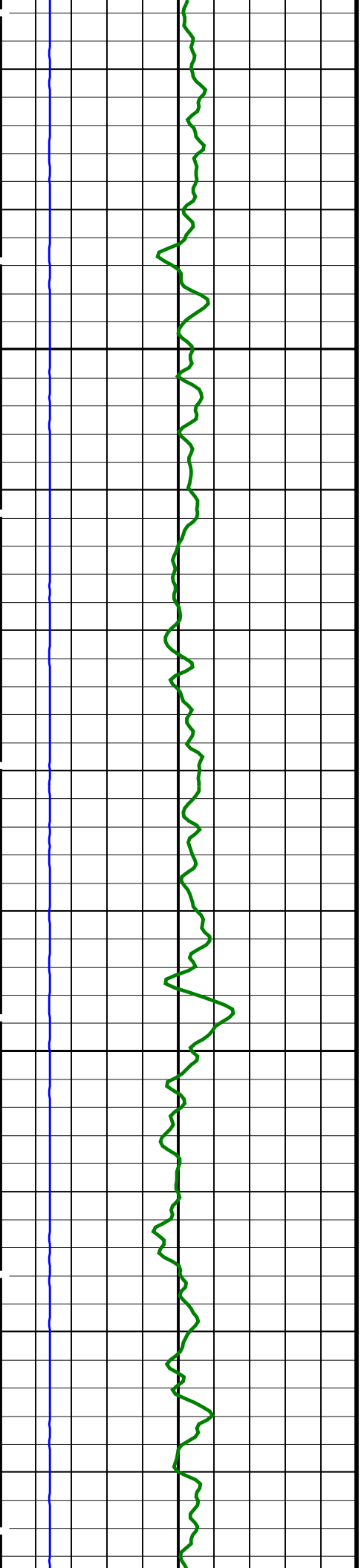
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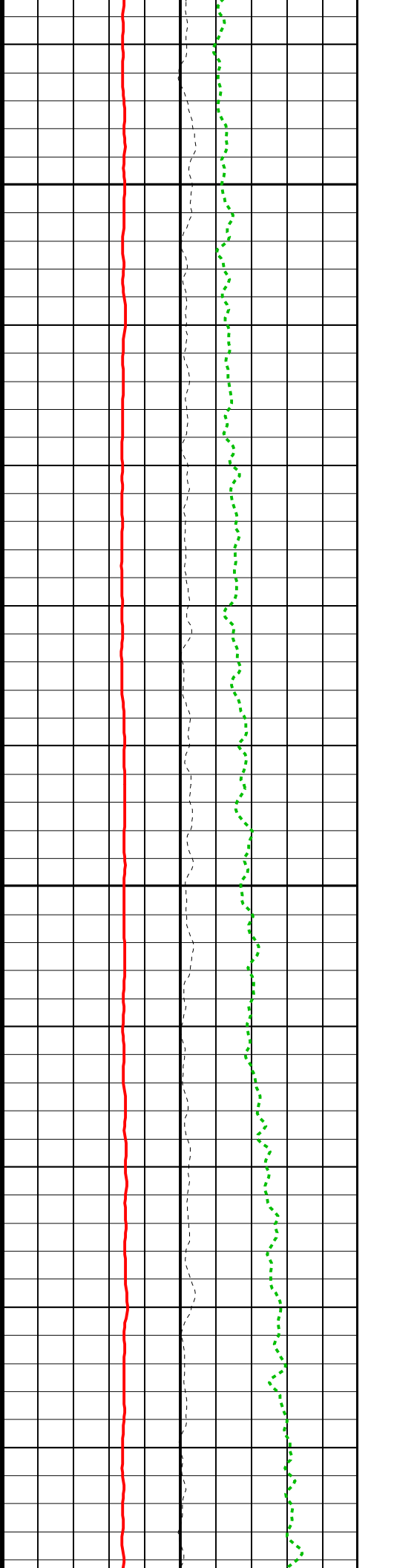
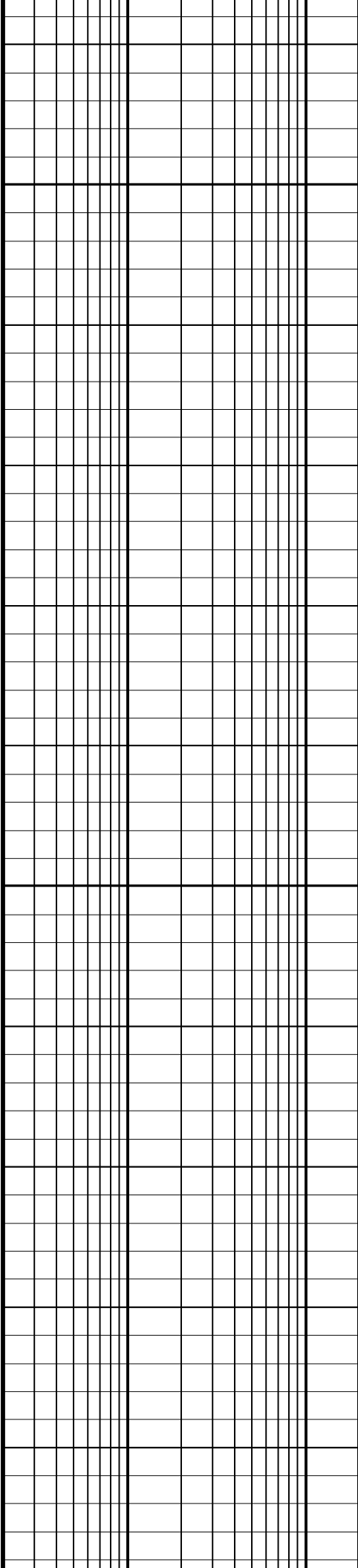
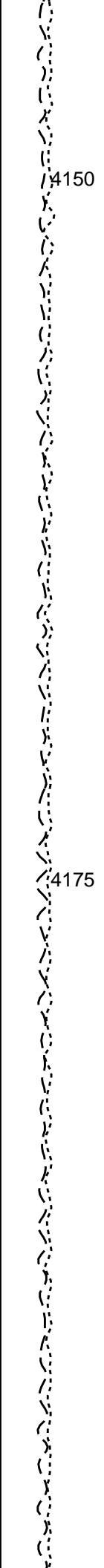
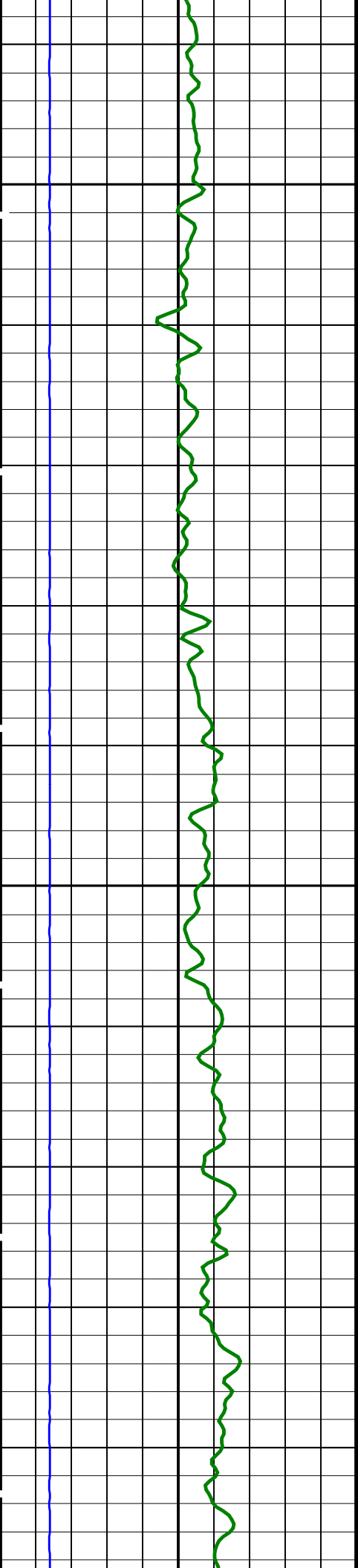


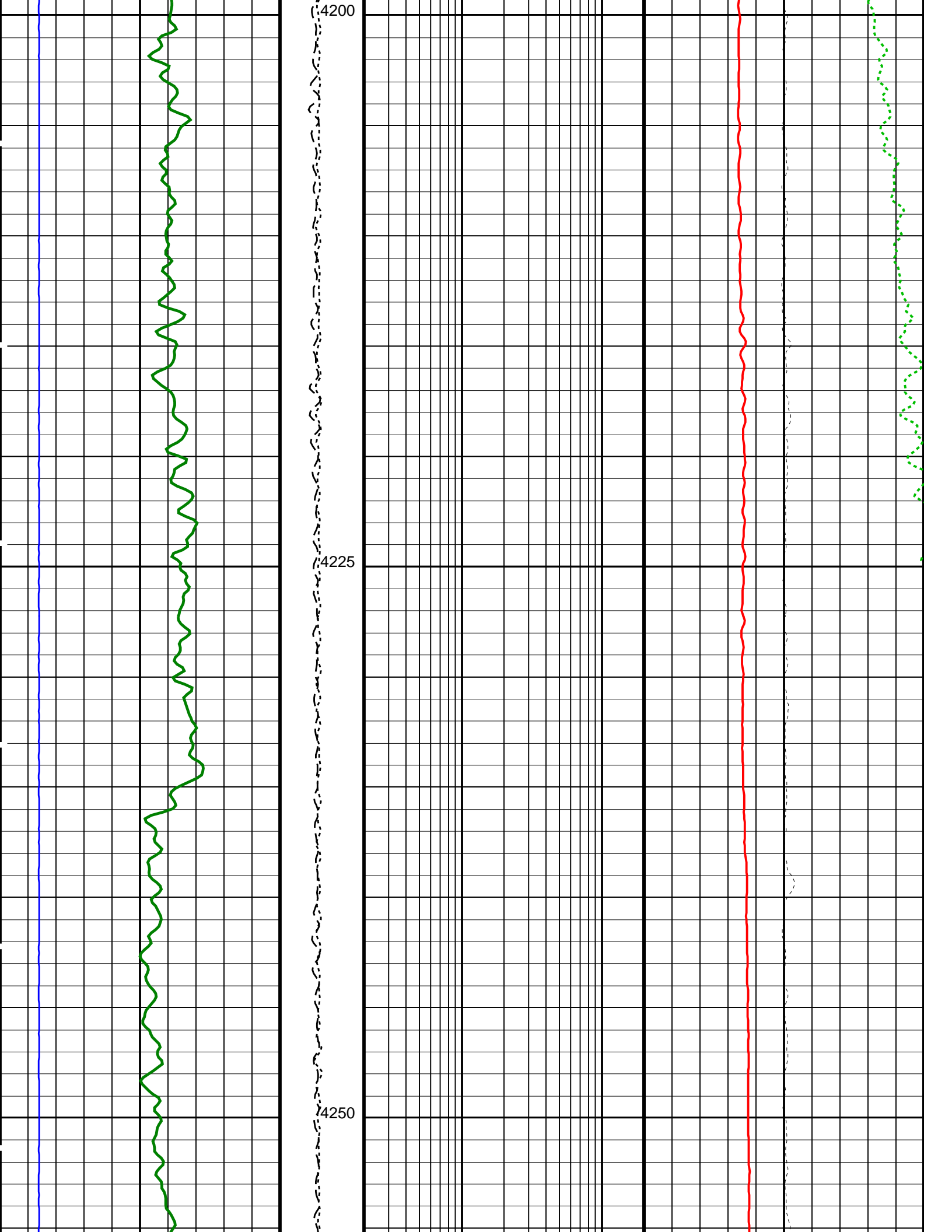


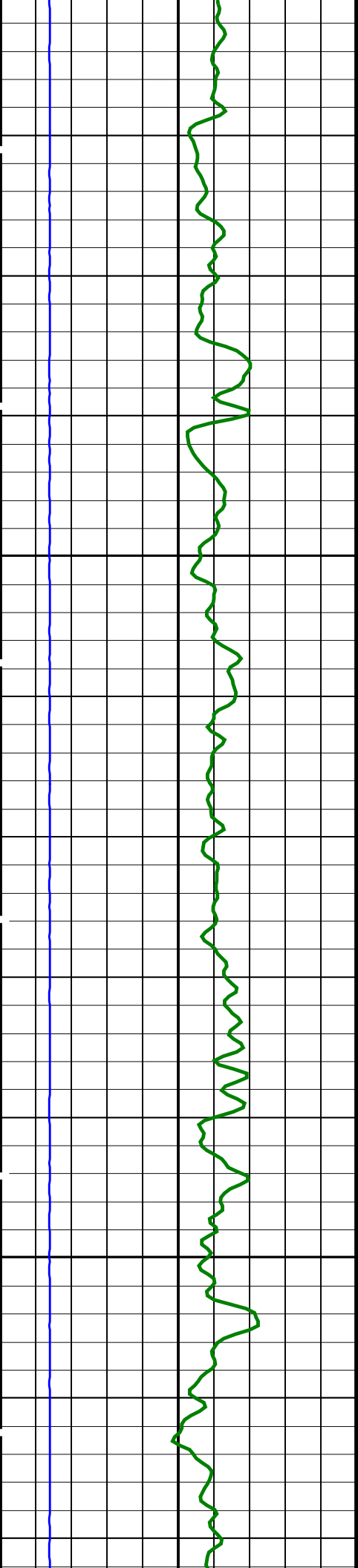




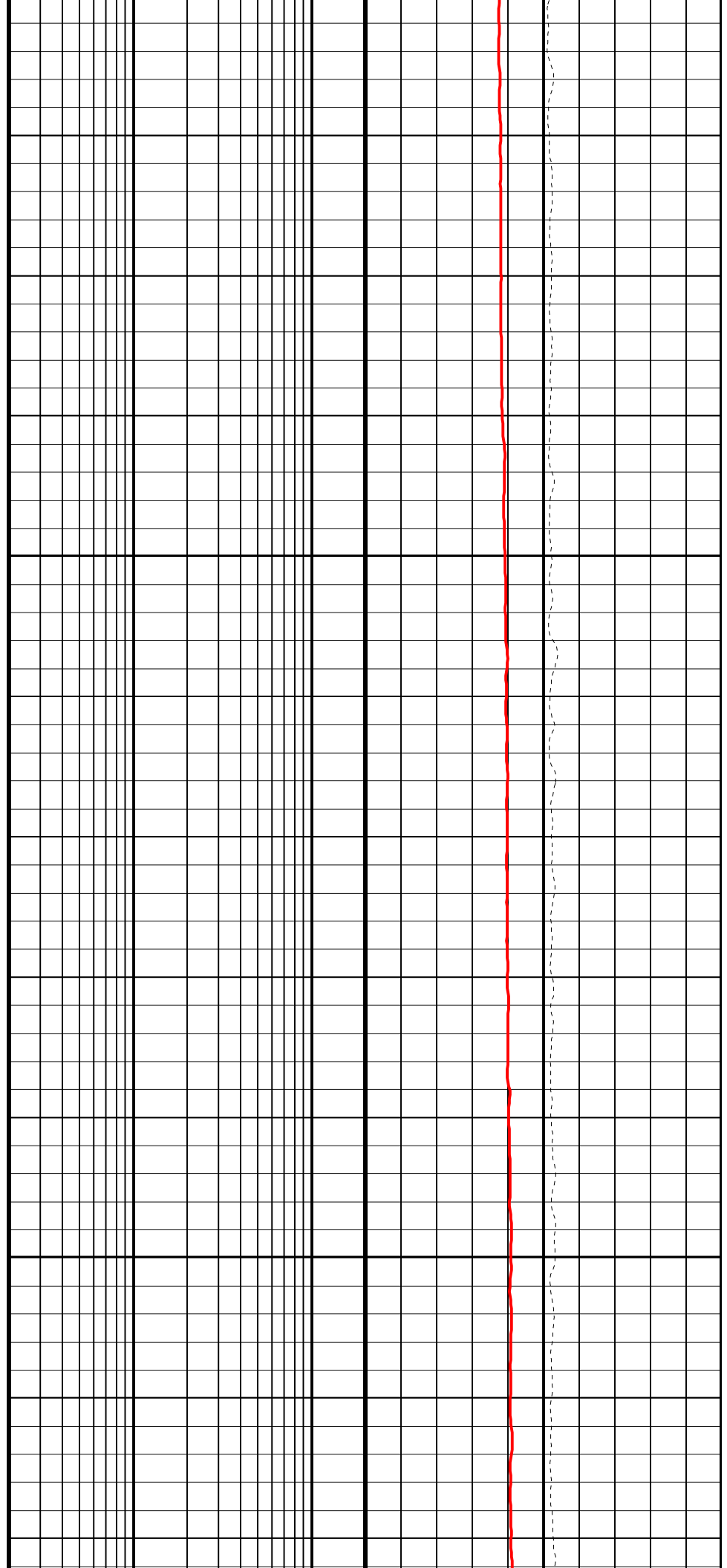


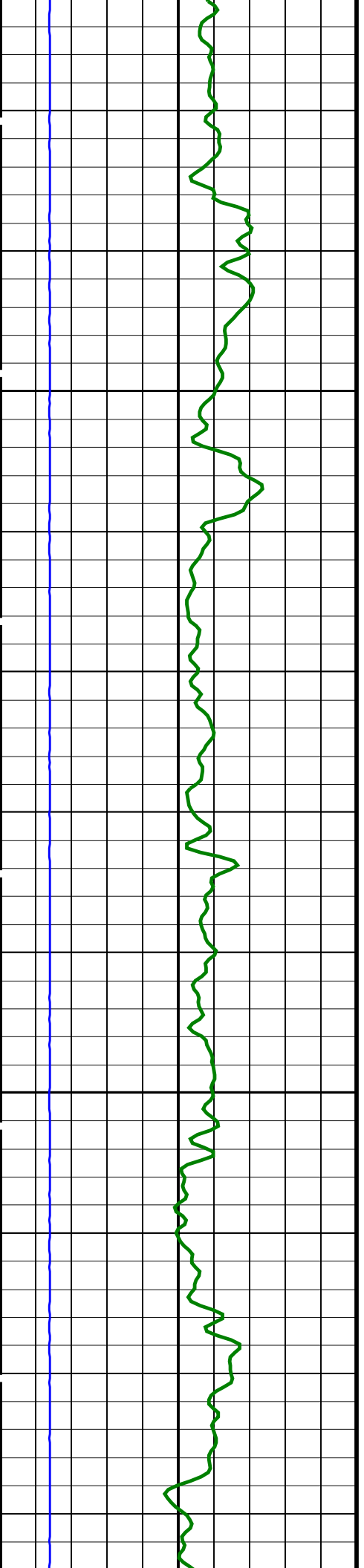




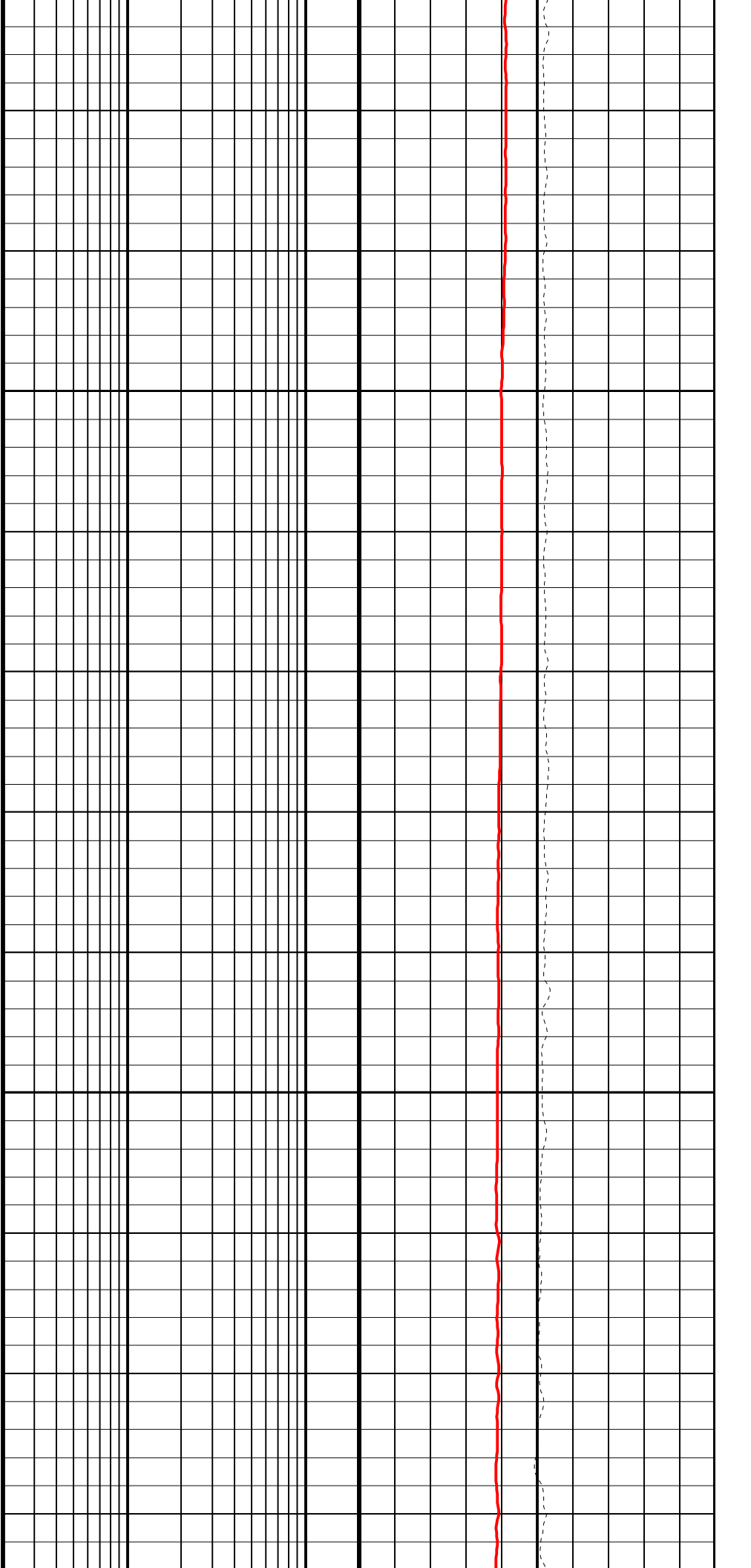


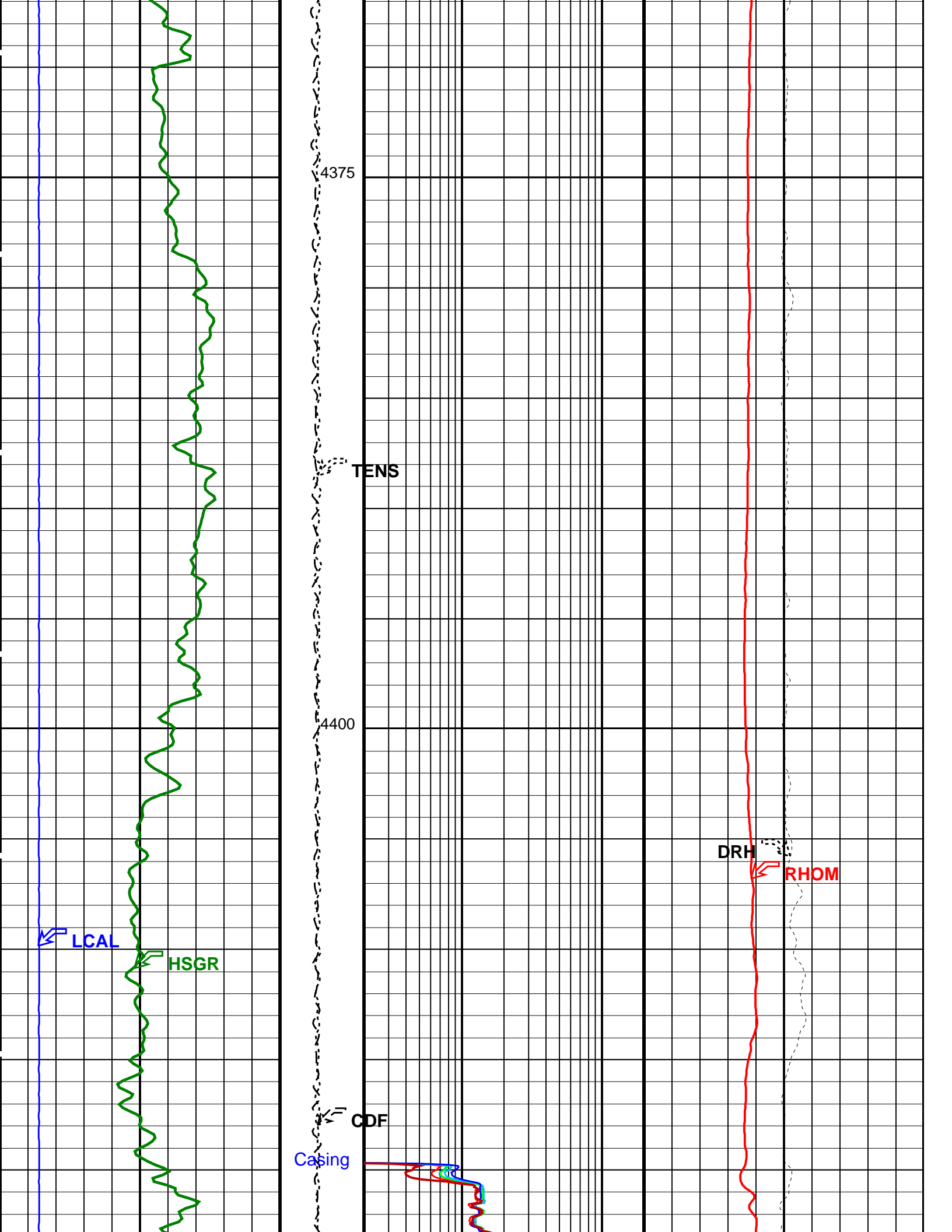
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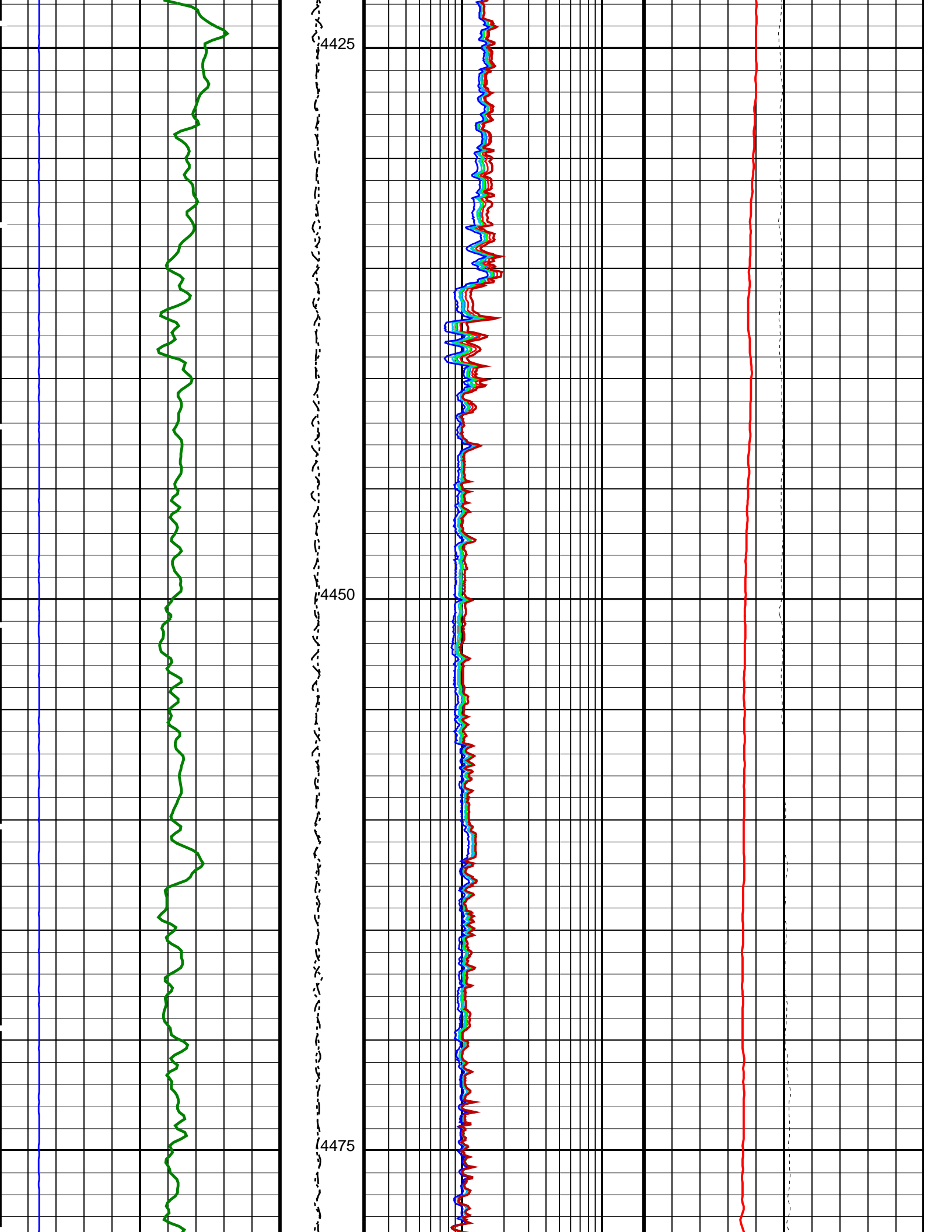


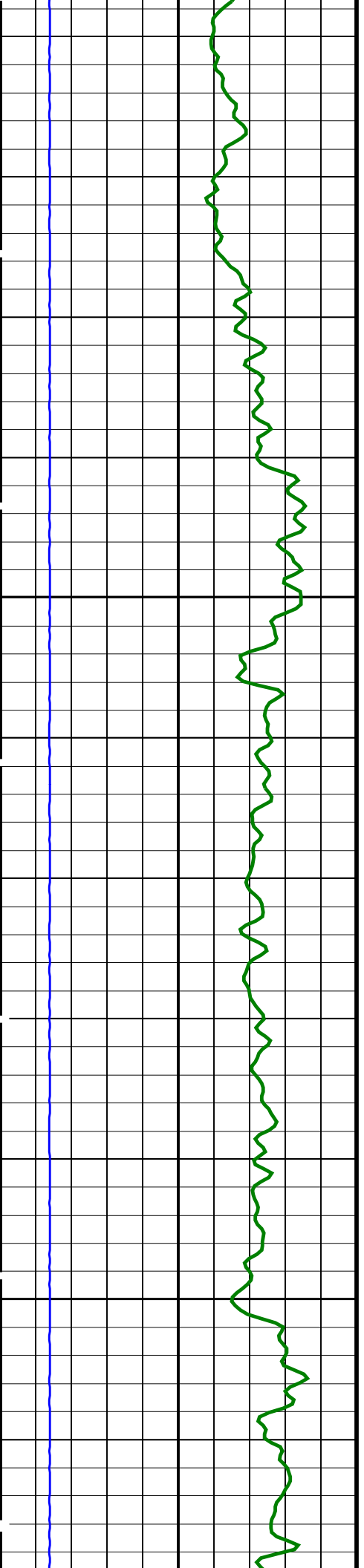


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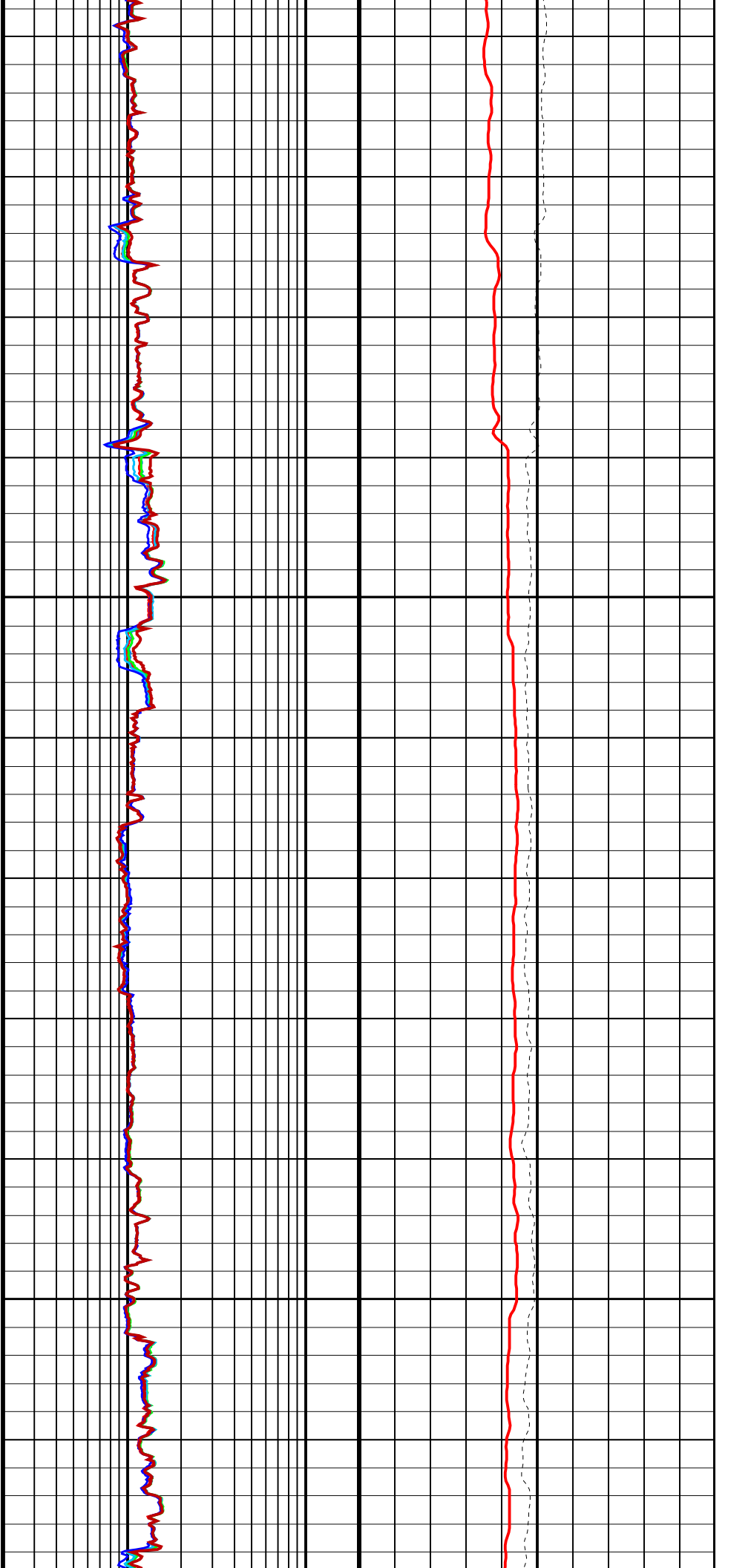


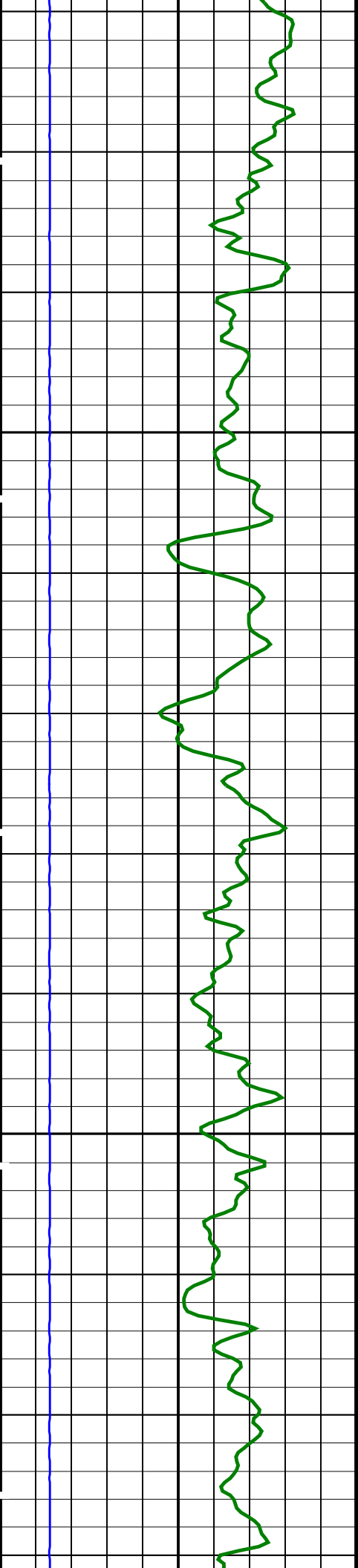




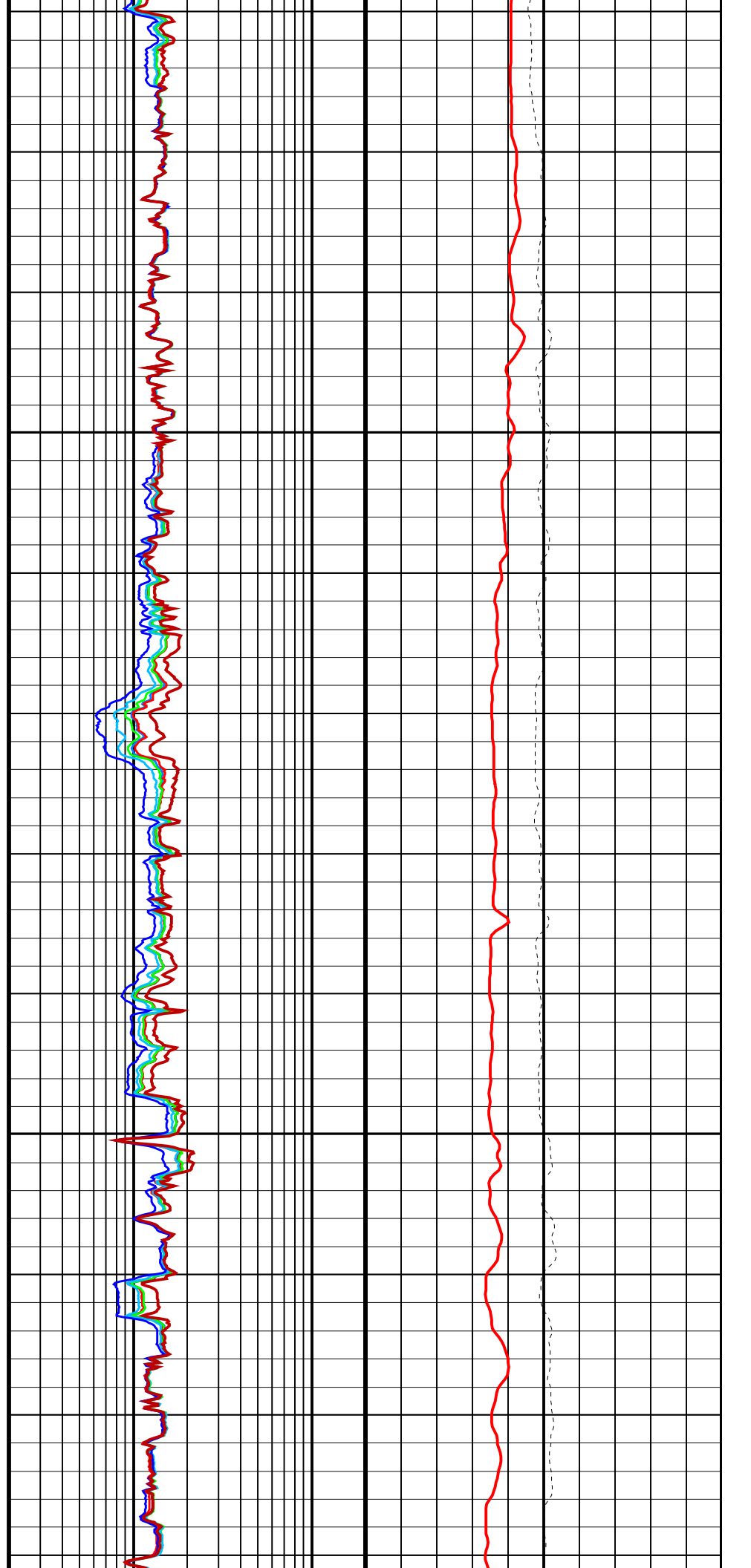
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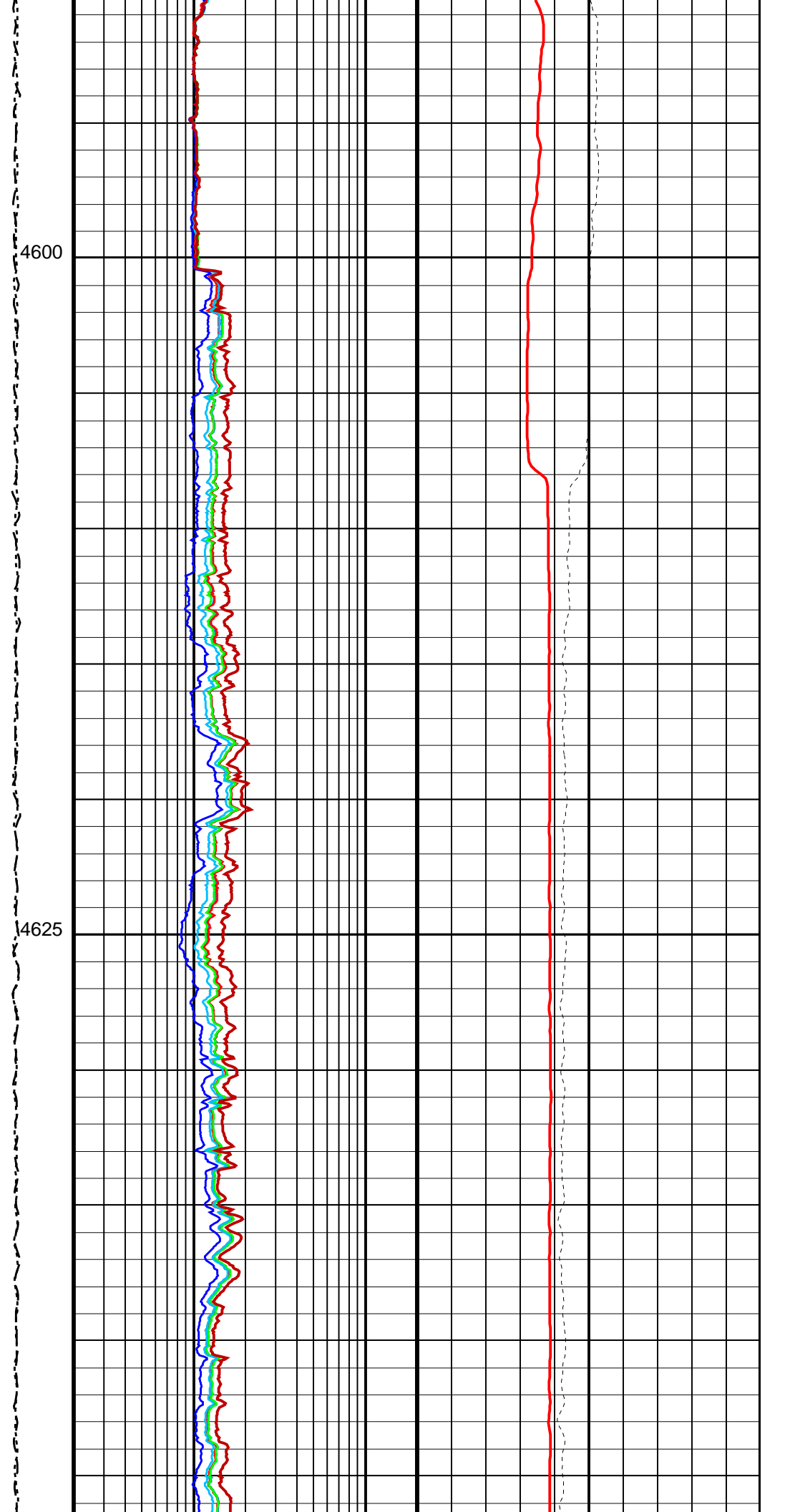
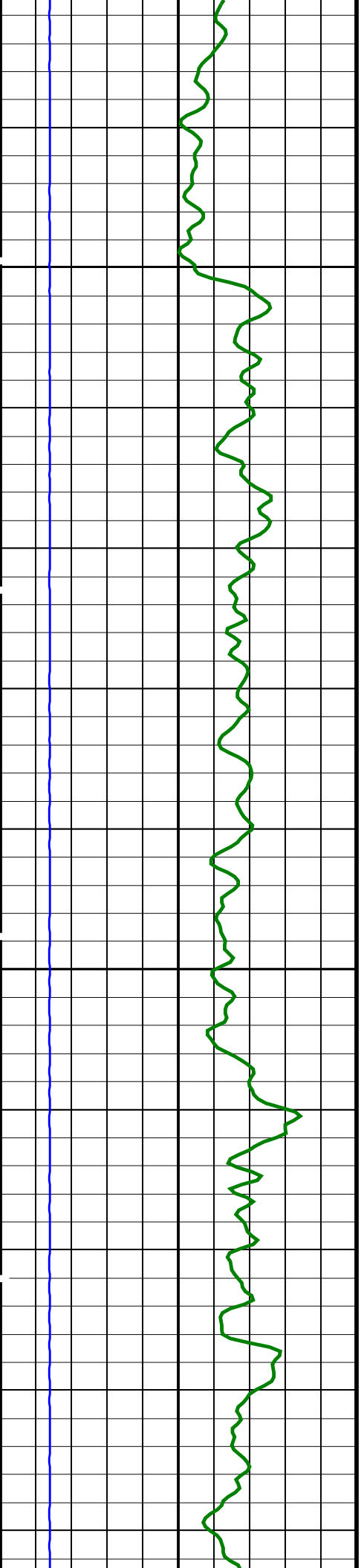


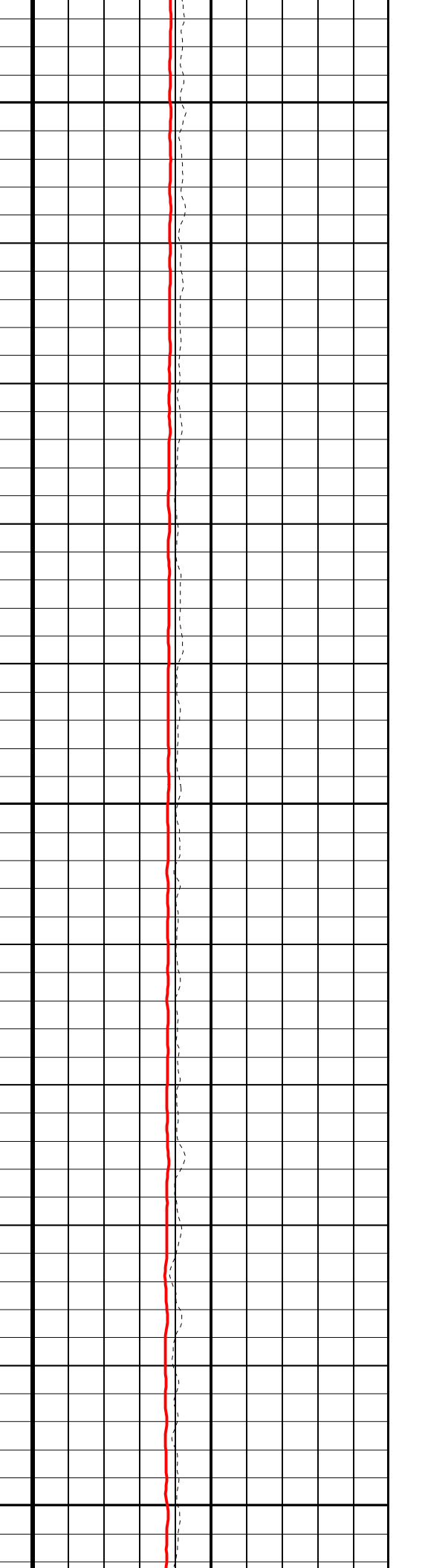
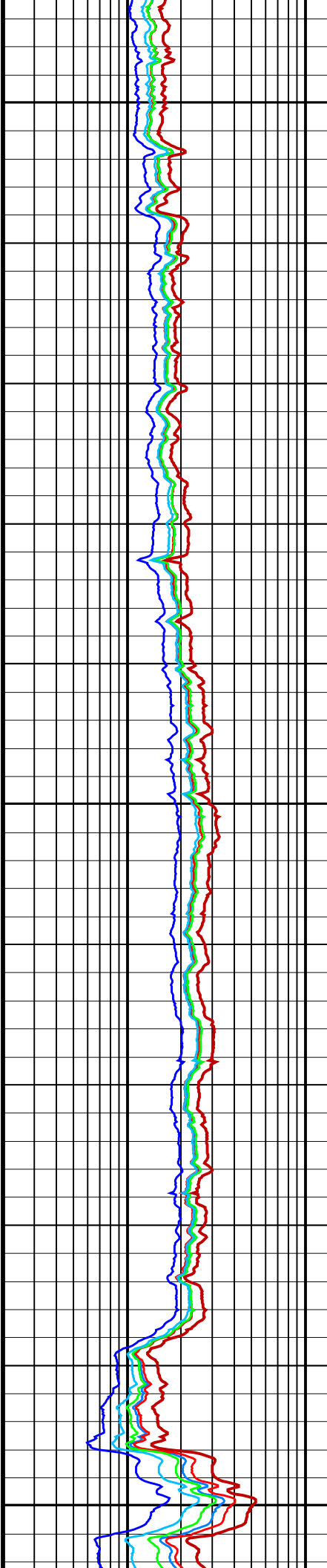
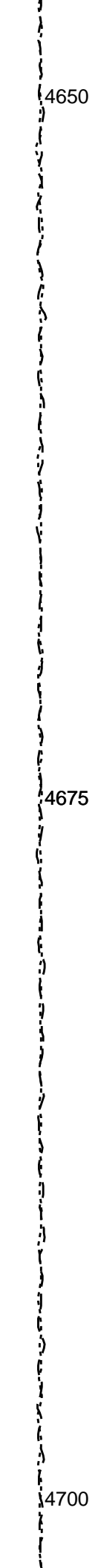
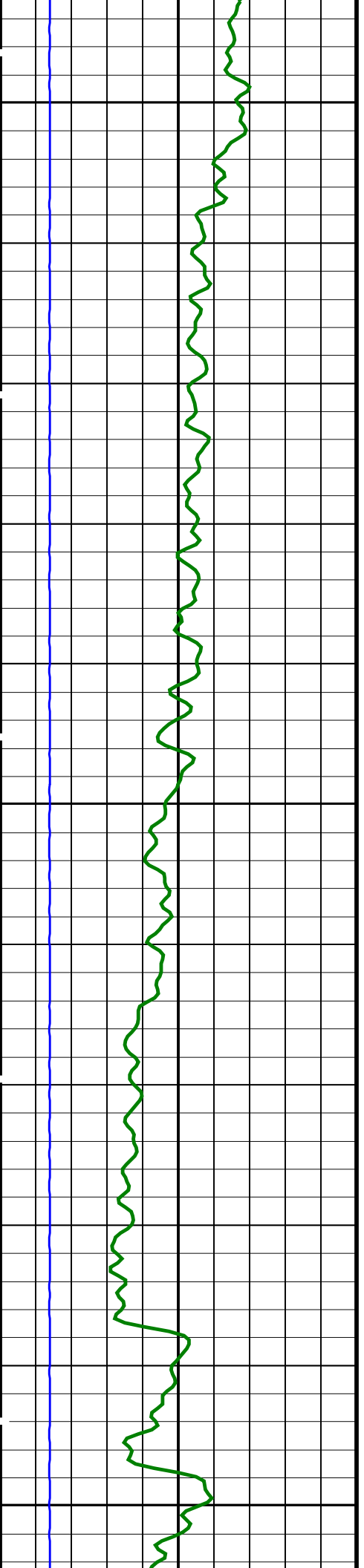


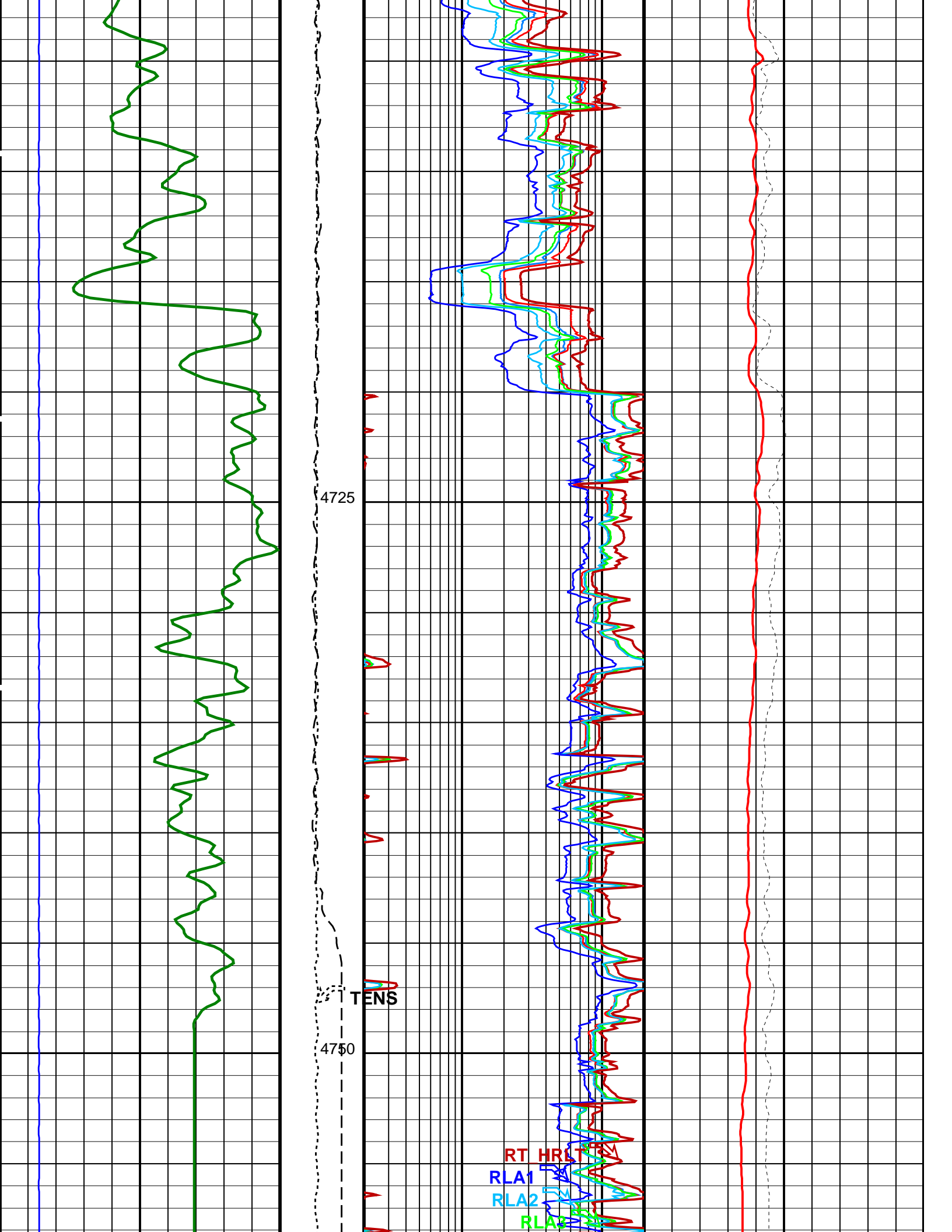
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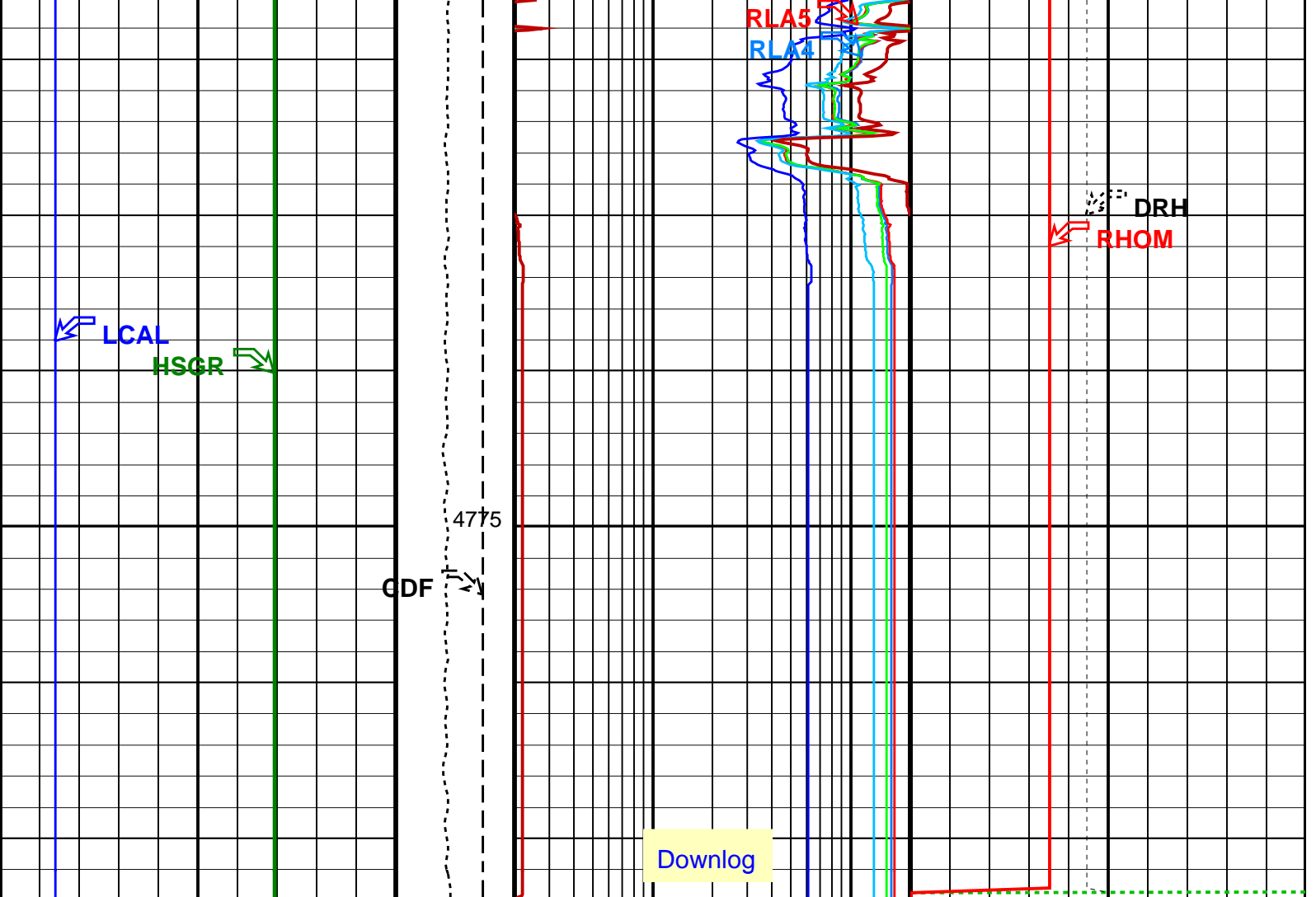












<b>HLDS Caliper (LCAL)</b> (IN)	Tension (TENS) (LBF)	<b>HRLT Resistivity 4 (RLA4)</b> (OHMM)	<b>HLDS Long Spaced Photoelectric Effect (PEFL)</b> (----)
0 20	10000 0	0.2 20	0 10
<b>HNGS Spectroscopy Gamma Ray (HSGR)</b> (GAPI)	Calibrated Downhole Force (CDF) (LBF)	<b>HRLT Resistivity 5 (RLA5)</b> (OHMM)	<b>HLDS Bulk Density (RHOM)</b> (G/C3)
0 100	3000 0	0.2 20	0 4
		<b>HRLT Resistivity 3 (RLA3)</b> (OHMM)	<b>HLDS Bulk Density Correction (DRH)</b> (G/C3)
		0.2 20	-0.25 0.25
		<b>HRLT Resistivity 2 (RLA2)</b> (OHMM)	
		0.2 20	
		<b>HRLT Resistivity 1 (RLA1)</b> (OHMM)	
		0.2 20	
		<b>HRLT True Resistivity (RT_HRLT)</b> (OHMM)	
		0.2 20	

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value
	DSST-B: Dipole Shear Imager - B	
AGC1	Automatic Gain Control 1	ON
AGC2	Automatic Gain Control 2	ON
AGC3	Automatic Gain Control 3	ON
AGC4	Automatic Gain Control 4	ON

AGC4	Automatic Gain Control 4	ON	
AGC5	Automatic Gain Control 5	ON	
AGCX	Automatic Gain Control X	ON	
BARS_MTR1	Length for Monopole Transmitter to Receiver 1	2.7432	M
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	21	DEGC
CASF	Label Casing Function - Monopole P&S	50	
CDTS	C-Delta-T Shale	100	US/F
COLL	Label Slowness Lower Limit - Monopole P&S Compressional	65	US/F
COUL	Label Slowness Upper Limit - Monopole P&S Compressional	175	US/F
DDE1	Digitizing Delay 1	0	US
DDE2	Digitizing Delay 2	0	US
DDE3	Digitizing Delay 3	0	US
DDE4	Digitizing Delay 4	0	US
DDE5	Digitizing Delay 5	0	US
DDEX	Digitizing Delay X	0	US
DLCS	Label Compressional Source - Dipole Shear	USE	
DLHS	Label Hole Diameter Source for SOBS Channel	AUTO	
DSHL	Label Slowness Lower Limit - Dipole Shear	75	US/F
DSHU	Label Slowness Upper Limit - Dipole Shear	600	US/F
DSI1	Digitizer Sample Interval 1	40	US
DSI2	Digitizer Sample Interval 2	40	US
DSI3	Digitizer Sample Interval 3	40	US
DSI4	Digitizer Sample Interval 4	10	US
DSI5	Digitizer Sample Interval 5	10	US
DSIX	Digitizer Sample Interval X	40	US
DTCS	Compressional Delta-T Source for DTCO Channel	PS_COMP	
DTF	Delta-T Fluid	193	US/F
DTM	Delta-T Matrix	56	US/F
DTSS	Shear Delta-T Source for DTSM Channel	LOWER_DIPOLE	
DWC1	Digitizer Word Count 1	512	
DWC2	Digitizer Word Count 2	512	
DWC3	Digitizer Word Count 3	512	
DWC4	Digitizer Word Count 4	512	
DWC5	Digitizer Word Count 5	512	
DWCX	Digitizer Word Count X	512	
FDE1	Firing Delay 1	0	
FDE2	Firing Delay 2	0	
FDE3	Firing Delay 3	0	
FDE4	Firing Delay 4	0	
FDE5	Firing Delay 5	0	
FDEX	Firing Delay X	0	
FGM5	First Motion Gate Moveout 5	40	US/F
FGMX	First Motion Gate Moveout X	40	US/F
FILG	Label Fill Gap Control - Monopole P&S	COMP_SHEAR	
FMG5	First Motion Minimum Gate 5	500	US
FMGX	First Motion Minimum Gate X	500	US
FMLL	Slowness Lower Limit - FMD	40	US/F
FMRC	Restart Control - FMD	CONTINUE	
FMT5	First Motion Threshold 5	UP	
FMTX	First Motion Threshold X	NONE	
FMUL	Slowness Upper Limit - FMD	180	US/F
FNC5	First Motion Noise Counter Input 5	ALO	
FNCX	First Motion Noise Counter Input X	ALO	
FPM	Processing Mode - FMD	NONE	
FTD5	First Motion Threshold Direction 5	UP	
FTDX	First Motion Threshold Direction X	UP	
GAI1	Manual Gain 1	10	
GAI2	Manual Gain 2	10	
GAI3	Manual Gain 3	6	
GAI4	Manual Gain 4	16	
GAI5	Manual Gain 5	16	
GAIX	Manual Gain X	10	
GCSE	Generalized Caliper Selection	BS	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GDT1	Gain Delta-T 1	800	US/F
GDT2	Gain Delta-T 2	800	US/F
GDT3	Gain Delta-T 3	800	US/F
GDT4	Gain Delta-T 4	160	US/F
GDT5	Gain Delta-T 5	160	US/F
GDTX	Gain Delta-T X	800	US/F
GGRD	Geothermal Gradient	0.018227	DC/M
GIN1	Gain Interval 1	15360	US
GIN2	Gain Interval 2	15360	US
GIN3	Gain Interval 3	15360	US
GIN4	Gain Interval 4	2560	US
GIN5	Gain Interval 5	1600	US
GINX	Gain Interval X	15360	US
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
HPF1	High Pass Filter 1	F80	
HPF2	High Pass Filter 2	F80	
HPF3	High Pass Filter 3	F80	
HPF4	High Pass Filter 4	F8K	
HPF5	High Pass Filter 5	F8K	

HPFX	High Pass Filter X		
ISSBAR	Barite Mud Switch	BARITE	
ITTS	Integrated Transit Time Source	DTCO	
LFC	Label Formation Character - Monopole P&S	DYNAMIC	
LPF1	Low Pass Filter 1	F5K	
LPF2	Low Pass Filter 2	F5K	
LPF3	Low Pass Filter 3	F5K	
LPF4	Low Pass Filter 4	F30K	
LPF5	Low Pass Filter 5	F30K	
LPFX	Low Pass Filter X	F5K	
LTXG	Lower Dipole Transmitter Geometry	156	IN
MAI5	Slowness Averaging Interval - FMD	42	IN
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
MCS	Mean Casing Slowness	57	US/F
MDS5	Multishot Delta-T Scatter - FMD	20	US
MTXG	Monopole Transmitter Geometry	186	IN
MUX1	Sum Difference Multiplexor Input 1	RR	
MUX2	Sum Difference Multiplexor Input 2	RR	
MUX3	Sum Difference Multiplexor Input 3	RR	
MUX4	Sum Difference Multiplexor Input 4	RR	
MUX5	Sum Difference Multiplexor Input 5	RR	
MUXX	Sum Difference Multiplexor Input X	RR	
NTI5	Number Threshold Items 5	0	
NTIX	Number Threshold Items X	0	
NWI1	Number Waveform Items 1	8	
NWI2	Number Waveform Items 2	8	
NWI3	Number Waveform Items 3	0	
NWI4	Number Waveform Items 4	8	
NWI5	Number Waveform Items 5	0	
NWIX	Number Waveform Items X	0	
NWS1	Number Waveforms Stacked 1	1	
NWS2	Number Waveforms Stacked 2	1	
NWS3	Number Waveforms Stacked 3	1	
NWS4	Number Waveforms Stacked 4	1	
NWS5	Number Waveforms Stacked 5	1	
NWSX	Number Waveforms Stacked X	1	
RATE	Firing Rate	R7	
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	
SAM2	DSST Sonic Acquisition Mode 2 - Upper Dipole Mode	ODD	
SAM3	DSST Sonic Acquisition Mode 3 - Monopole Mode for Stoneley	OFF	
SAM4	DSST Sonic Acquisition Mode 4 - Monopole Mode for P&S	EVEN	
SAM5	DSST Sonic Acquisition Mode 5 - Monopole Mode for FMD	OFF	
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	
SAS3	STC Sonic Array Status - Monopole Stoneley	255	
SAS4	STC Sonic Array Status - Monopole P&S	255	
SAS5	Sonic Array Status - FMD	255	
SBO1	STC Search Band Offset - Lower Dipole	3000	US
SBO2	STC Search Band Offset - Upper Dipole	3000	US
SBO3	STC Search Band Offset - Monopole Stoneley	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
SBW2	STC Search Bandwidth - Upper Dipole	8000	US
SBW3	STC Search Bandwidth - Monopole Stoneley	8000	US
SBW4	STC Search Bandwidth - Monopole P&S	2000	US
SFC1	STC Formation Character - Lower Dipole	SELECTABLE	
SFC2	STC Formation Character - Upper Dipole	SELECTABLE	
SFC3	STC Formation Character - Monopole Stoneley	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	
SFM3	STC Filter - Monopole Stoneley	B.5-1.5K	
SFM4	STC Filter - Monopole P&S	B3-20K	
SHLL	Label Slowness Lower Limit - Monopole P&S Shear	235	US/F
SHT	Surface Hole Temperature	20	DEGC
SHUL	Label Slowness Upper Limit - Monopole P&S Shear	240	US/F
SLL1	STC Slowness Lower Limit - Lower Dipole	75	US/F
SLL2	STC Slowness Lower Limit - Upper Dipole	75	US/F
SLL3	STC Slowness Lower Limit - Monopole Stoneley	180	US/F
SLL4	STC Slowness Lower Limit - Monopole P&S	40	US/F
SPFS	Sonic Porosity Formula	RAYMER_HUNT	
SPSO	Sonic Porosity Source	DTCO	

SST1	STC Slowness Step - Lower Dipole	4	US/F
SST2	STC Slowness Step - Upper Dipole	4	US/F
SST3	STC Slowness Step - Monopole Stoneley	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	
SSW3	STC Source Waveform - Monopole Stoneley	WF_SAM3	
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	1200	US/F
SUL2	STC Slowness Upper Limit - Upper Dipole	1200	US/F
SUL3	STC Slowness Upper Limit - Monopole Stoneley	780	US/F
SUL4	STC Slowness Upper Limit - Monopole P&S	240	US/F
SWD1	STC Slowness Width - Lower Dipole	40	US/F
SWD2	STC Slowness Width - Upper Dipole	40	US/F
SWD3	STC Slowness Width - Monopole Stoneley	40	US/F
SWD4	STC Slowness Width - Monopole P&S	10	US/F
TBDB	Tool String Bottom to DSST Bottom	95.25	IN
TBF1	STC Time for Baseline Fill - Lower Dipole	0	US
TBF2	STC Time for Baseline Fill - Upper Dipole	0	US
TBF3	STC Time for Baseline Fill - Monopole Stoneley	0	US
TBF4	STC Time for Baseline Fill - Monopole P&S	300	US
TLL1	STC Time Lower Limit - Lower Dipole	600	US
TLL2	STC Time Lower Limit - Upper Dipole	600	US
TLL3	STC Time Lower Limit - Monopole Stoneley	600	US
TLL4	STC Time Lower Limit - Monopole P&S	150	US
TST1	STC Time Step - Lower Dipole	200	US
TST2	STC Time Step - Upper Dipole	200	US
TST3	STC Time Step - Monopole Stoneley	200	US
TST4	STC Time Step - Monopole P&S	50	US
TTDB	Tool String Top to DSST Bottom	1656.11	IN
TUL1	STC Time Upper Limit - Lower Dipole	20440	US
TUL2	STC Time Upper Limit - Upper Dipole	20200	US
TUL3	STC Time Upper Limit - Monopole Stoneley	12000	US
TUL4	STC Time Upper Limit - Monopole P&S	3660	US
TWA1	Transmitter Waveform Amplitude 1	179	
TWA2	Transmitter Waveform Amplitude 2	179	
TWA3	Transmitter Waveform Amplitude 3	166	
TWA4	Transmitter Waveform Amplitude 4	150	
TWA5	Transmitter Waveform Amplitude 5	150	
TWAX	Transmitter Waveform Amplitude X	179	
TWD1	STC Time Width - Lower Dipole	2000	US
TWD2	STC Time Width - Upper Dipole	2000	US
TWD3	STC Time Width - Monopole Stoneley	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
TWI3	STC Integration Time Window - Monopole Stoneley	2400	US
TWI4	STC Integration Time Window - Monopole P&S	500	US
TWR1	Transmitter Waveform Sample Rate 1	20	US
TWR2	Transmitter Waveform Sample Rate 2	5	US
TWR3	Transmitter Waveform Sample Rate 3	5	US
TWR4	Transmitter Waveform Sample Rate 4	5	US
TWR5	Transmitter Waveform Sample Rate 5	5	US
TWRX	Transmitter Waveform Sample Rate X	5	US
TWS1	Transmitter Waveform Select 1	2	
TWS2	Transmitter Waveform Select 2	0	
TWS3	Transmitter Waveform Select 3	4	
TWS4	Transmitter Waveform Select 4	6	
TWS5	Transmitter Waveform Select 5	6	
TWSX	Transmitter Waveform Select X	0	
UTXG	Upper Dipole Transmitter Geometry	162	IN
WFDTSP1	SAM1 Waveform Delta for Spectrum	0	US/F
WFDTSP2	SAM2 Waveform Delta for Spectrum	0	US/F
WFDTSP3	SAM3 Waveform Delta for Spectrum	0	US/F
WFDTSP4	SAM4 Waveform Delta for Spectrum	0	US/F
WFDTSPX	SAMX Waveform Delta for Spectrum	0	US/F
WFLLSP1	SAM1 Waveform Lower Limit for Spectrum	0	US
WFLLSP2	SAM2 Waveform Lower Limit for Spectrum	0	US
WFLLSP3	SAM3 Waveform Lower Limit for Spectrum	0	US
WFLLSP4	SAM4 Waveform Lower Limit for Spectrum	0	US
WFLLSPX	SAMX Waveform Lower Limit for Spectrum	0	US
WFM1	Waveform Mode 1	W1	
WFM2	Waveform Mode 2	W1	
WFM3	Waveform Mode 3	W1	
WFM4	Waveform Mode 4	W1	
WFM5	Waveform Mode 5	W1	
WFMX	Waveform Mode X	W1	
WFULSP1	SAM1 Waveform Upper Limit for Spectrum	20000	US
WFULSP2	SAM2 Waveform Upper Limit for Spectrum	20000	US
WFULSP3	SAM3 Waveform Upper Limit for Spectrum	20000	US
WFULSP4	SAM4 Waveform Upper Limit for Spectrum	5000	US
WFULSPX	SAMX Waveform Upper Limit for Spectrum	20000	US
YMT1	Transmitter Select 1	PLC	

XMT1	Transmitter Select 1	DUP	
XMT2	Transmitter Select 2	DUP	
XMT3	Transmitter Select 3	MONO	
XMT4	Transmitter Select 4	MONO	
XMT5	Transmitter Select 5	MONO	
XMTX	Transmitter Select X	DUP	
<b>HRLT-B: High Resolution Laterolog Array - B</b>			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	21	DEGC
CALSTAT	HRLTB Calibration Status	SHALLOW_DONE	
CALTEMP	HRLTB Calibration Temperature	23.3869	DEGC
FREQ0	HRLT Frequency Index for Mode 0	32	
FREQ1	HRLT Frequency Index for Mode 1	128	
FREQ2	HRLT Frequency Index for Mode 2	104	
FREQ3	HRLT Frequency Index for Mode 3	86	
FREQ4	HRLT Frequency Index for Mode 4	56	
FREQ5	HRLT Frequency Index for Mode 5	44	
FREQ6	HRLT Frequency Index for Mode 6	116	
GCSE	Generalized Caliper Selection	BS	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
ISSBAR	Barite Mud Switch	BARITE	
KFAC_HRLT	HRLT K Factor Option	SONDE	
LOOPCOEF_S	HRLT Loop Coefficient for Shallow Modes	LOW	
LOOPMOD0	HRLT Mode 0 Loop Mode	OFF	
LOOPMOD1	HRLT Mode 1 Loop Mode	OFF	
LOOPMOD2	HRLT Mode 2 Loop Mode	OFF	
LOOPMOD3	HRLT Mode 3 Loop Mode	OFF	
LOOPMOD4	HRLT Mode 4 Loop Mode	OFF	
LOOPMOD5	HRLT Mode 5 Loop Mode	OFF	
LOOPMOD6	HRLT Mode 6 Loop Mode	OFF	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
PROCINV	Inversion Selection	ON	
PROCMFL	Inversion Micro-Resistivity Selection	NO_EXTERNAL_RXO	
PROCMSO	Mechanical Standoff Fin Size	0	IN
PROCRM	Processing Mud Resistivity Select	HRLT_Compute	
PROCSPO	Sonde Position	Centered	
SHT	Surface Hole Temperature	20	DEGC
<b>HLDS: Hostile Litho-Density Sonde</b>			
CLCL	HLDS LS Control Loop Controller Mode	AUTO_DEFAULT	
CLCS	HLDS SS Control Loop Controller Mode	AUTO_DEFAULT	
CLLS	HLDS Mode Loop Long Spacing	AUTO	
CLSS	HLDS Mode Loop Short Spacing	AUTO	
DHC	Density Hole Correction	BS	
DPPM	Density Porosity Processing Mode	HIRS	
FD	Fluid Density	1	G/C3
LATC	HLDS Activation Correction	ON	
LLDL	HLDS LS Low Level Discriminator DAC	14000	
LLDS	HLDS SS Low Level Discriminator DAC	14000	
LLML	HLDS LS Low Level Discriminator Mode	AUTO	
LLMS	HLDS SS Low Level Discriminator Mode	AUTO	
MDEN	Matrix Density	2.6	G/C3
PHVL	HLDS Long Spacing High Voltage Setting	1000	V
PHVS	HLDS Short Spacing High Voltage Setting	1000	V
PSDL	HLDS LS Pulse Shape Compensation DAC	30000	
PSDS	HLDS SS Pulse Shape Compensation DAC	30000	
PSML	HLDS LS Pulse Shape Compensation Mode	AUTO	
PSMS	HLDS SS Pulse Shape Compensation Mode	AUTO	
<b>HNGS-BA: Hostile Natural Gamma Ray Sonde</b>			
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	
BHT	Bottom Hole Temperature (used in calculations)	21	DEGC
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	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
H1P	HNGS Detector 1 Allow/Disallow In Processing	ALLOW	
H2P	HNGS Detector 2 Allow/Disallow In Processing	ALLOW	
HABK	HNGS Borehole Potassium Running Average	-0.0048112	
HALF	HNGS Alpha Filter Length	60	IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	BARI	
HNPE	HNGS Processing Enable	YES	
ISSBAR	Barite Mud Switch	BARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	



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	
SHT	Surface Hole Temperature	20	DEGC
TPOS	Tool Position	ECCE	
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	0.950737	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	0.965721	
<b>EDTC-B: Enhanced DTS Cartridge</b>			
BHFL	Borehole Fluid Type	WATER	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	21	DEGC
BSCO	Borehole Salinity Correction Option	NO	
CCCO	Casing & Cement Thickness Correction Option	NO	
DPPM	Density Porosity Processing Mode	HIRS	
FSAL	Formation Salinity	-50000	PPM
FSCO	Formation Salinity Correction Option	NO	
GCSE	Generalized Caliper Selection	BS	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN 9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
HSCO	Hole Size Correction Option	YES	
ISSBAR	Barite Mud Switch	BARITE	
ISSBAR_EDTC	Nuclear Mud Type	BARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
MCCO	Mud Cake Correction Option	NO	
MCOR	Mud Correction	BARI	
MWCO	Mud Weight Correction Option	YES	
PTCO	Pressure/Temperature Correction Option	NO	
SDAT	Standoff Data Source	SOCN	
SHT	Surface Hole Temperature	20	DEGC
SOCN	Standoff Distance	0.5	IN
SOCO	Standoff Correction Option	NO	
TPOS_EDTC	EDTC Tool Centered/Eccentered	Eccentered	
U-ETELM_EDTS	Telemetry Mode for eWAFE	Standard_EDTS	
U-TELM_EDTS	Telemetry Mode for WAFE	Standard_EDTS	

**System and Miscellaneous**

ALTDPCCHAN	Name of alternate depth channel	SpeedCorrectedDepth	
BS	Bit Size	9.875	IN
BSAL	Borehole Salinity	35000.00	PPM
CSIZ	Current Casing Size	5.000	IN
CWEI	Casing Weight	168.00	LB/F
DFD	Drilling Fluid Density	1.32	G/C3
DO	Depth Offset for Playback	0.0	M
FLEV	Fluid Level	-50000.00	M
MST	Mud Sample Temperature	23.00	DEGC
PBVSADP	Use alternate depth channel for playback	NO	
PP	Playback Processing	RECOMPUTE	
RMFS	Resistivity of Mud Filtrate Sample	-50000.0000	OHMM
RW	Resistivity of Connate Water	1.0000	OHMM
TD	Total Depth	4850.8	M
TDD	Total Depth - Driller	4822.00	M
TDL	Total Depth - Logger	4789.00	M
TWS	Temperature of Connate Water Sample	37.78	DEGC

Format: TripleCombo Vertical Scale: 1:200 Graphics File Created: 17-Mar-2017 16:43

**OP System Version: 19C0-187**

DSST-B	19C0-187	HRLT-B	19C0-187
HLDS	19C0-187	LDSC-B	19C0-187
HNGC-B	19C0-187	HNGS-BA	19C0-187
EDTC-B	SKK-5169-EDTCB		

**Input DLIS Files**

DEFAULT	DSI_HRLA_LDL_NGS_037PUP	FN:56	PRODUCER	08-Mar-2017 13:50	4786.6 M	3717.0 M
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**Output DLIS Files**

DEFAULT	DSI_HRLA_LDL_NGS_053PUP	FN:71	PRODUCER	17-Mar-2017 16:43		
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Company: International Ocean Discovery Program Well: Expedition 367, Site U1499B

**Input DLIS Files**

DEFAULT	DSI_HRLA_LDL_NGS_014LUP	FN:20	PRODUCER	07-Mar-2017 08:52	4647.4 M	4486.4 M
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OP System Version: 19C0-187

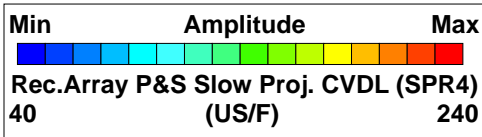
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HLDS	19C0-187	LDSC-B	19C0-187
HNGC-B	19C0-187	HNGS-BA	19C0-187
EDTC-B	SKK-5169-EDTCB		

PIP SUMMARY

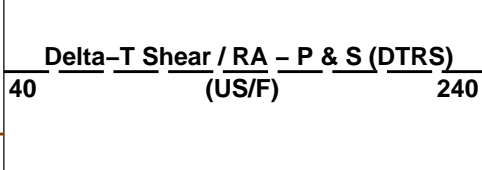
Time Mark Every 60 S

<b>HNGS Spectroscopy Gamma Ray (HSGR)</b>		
0	(GAPI)	100
<b>Waveform Data Copy Indicator 4 - Monopole P&amp;S (WCI4)</b>		
0	(----)	10
<b>Peak Coherence / RA - P &amp; S Shear (CHRS)</b>		
-1	(----)	9
<b>Peak Coherence / RA - P &amp; S Comp (CHRP)</b>		
0	(----)	10
<b>Peak Coherence / RA - Upper Dipole (CHR2)</b>		
0	(----)	10
<b>HLDS Caliper (LCAL)</b>		
0	(IN)	20
<b>Gamma Ray (GR_EDTC)</b>		
0	(GAPI)	100
<b>Poisson's Ratio (PR)</b>		
0	(----)	0.5
<b>Sonic Velocity (SVEL)</b>		
1000	(M/S)	6000

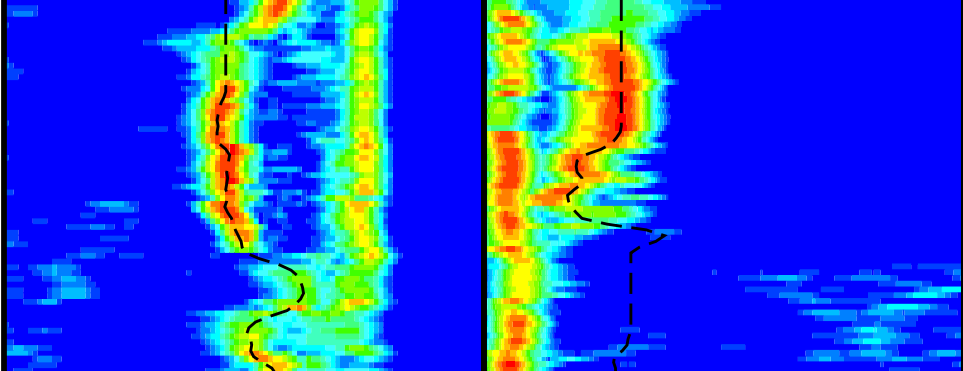
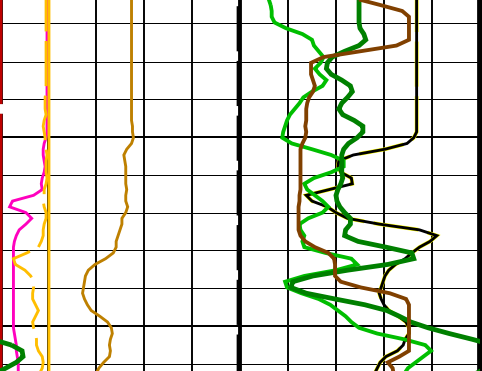
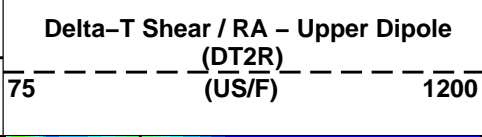
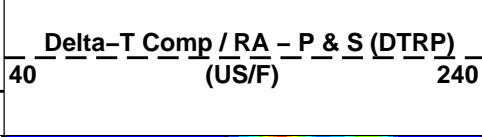
REPEAT SECTION

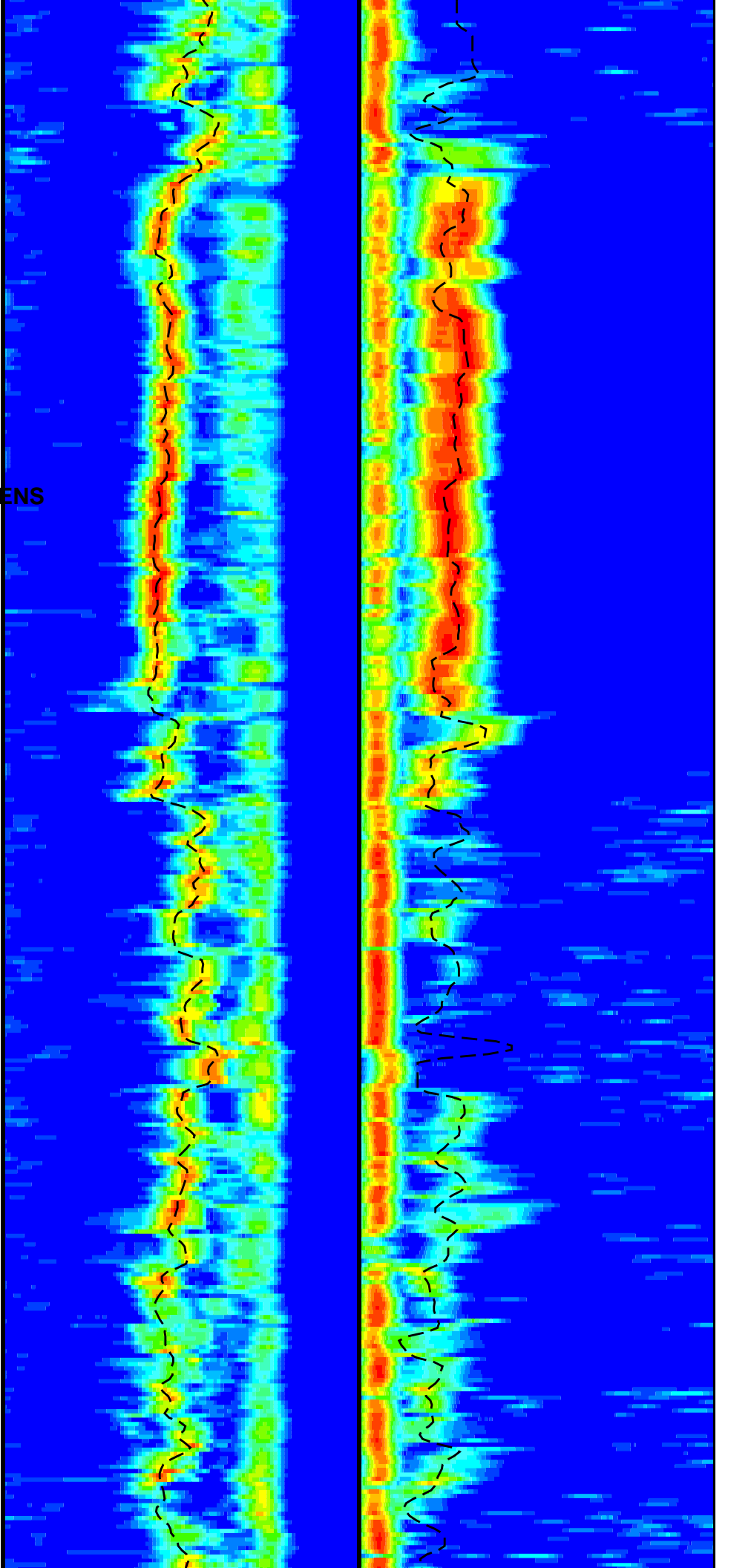
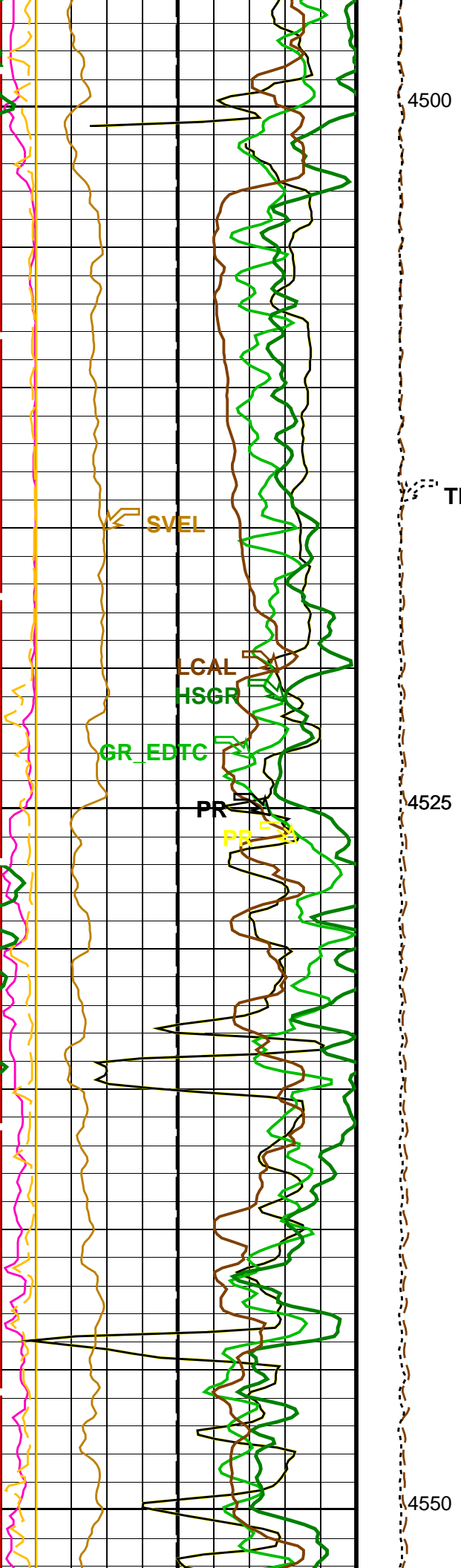


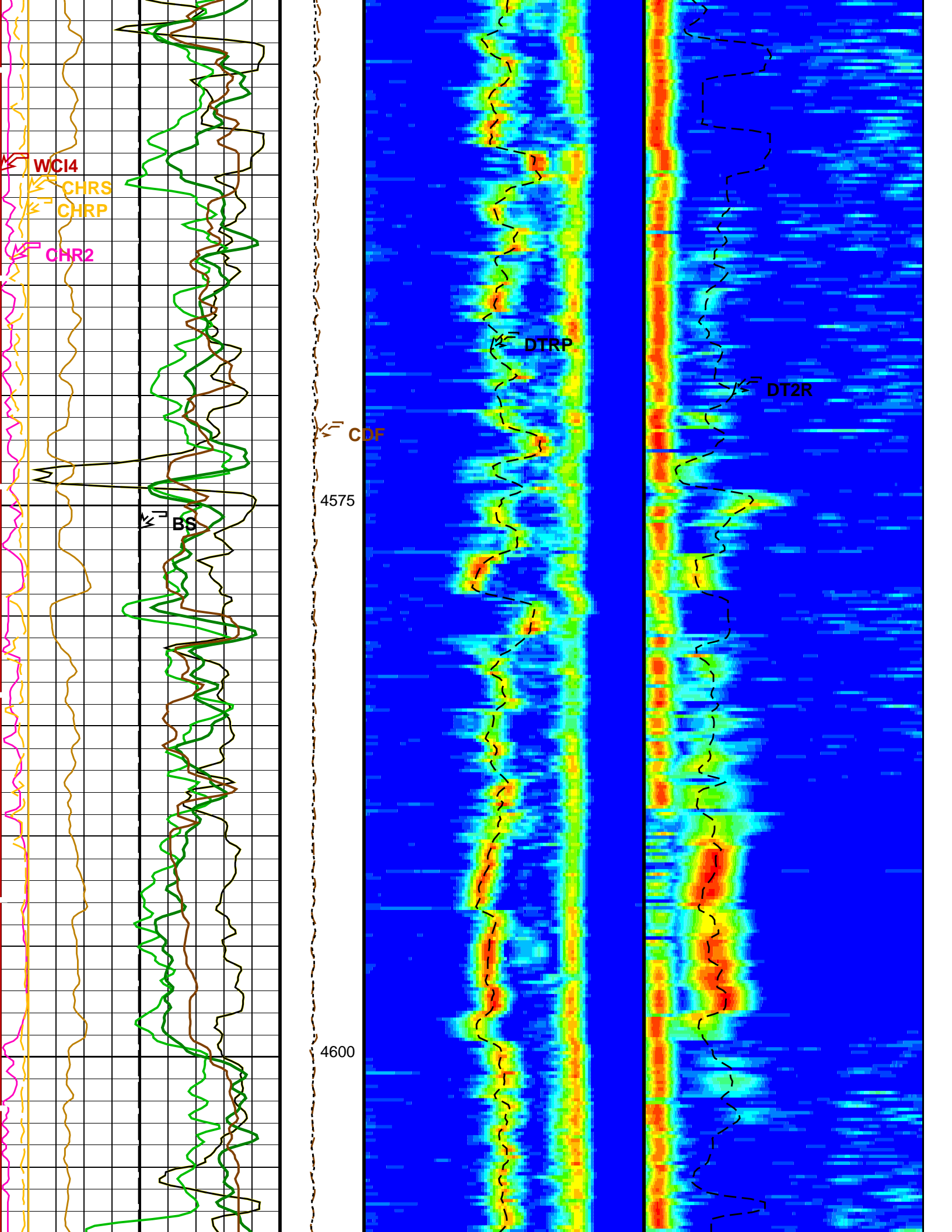
<b>Poisson's Ratio (PR)</b>		
0	(----)	0.5
<b>Calibrated Downhole Force (CDF) (LBF)</b>		
3000		0

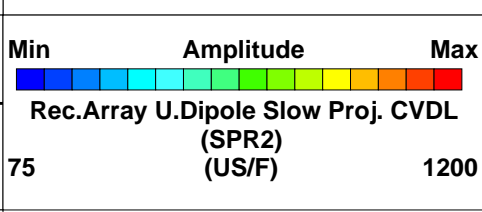
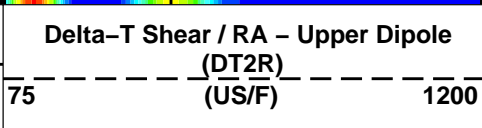
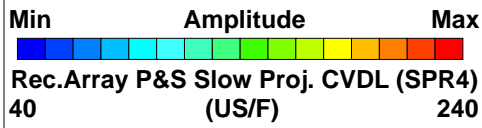
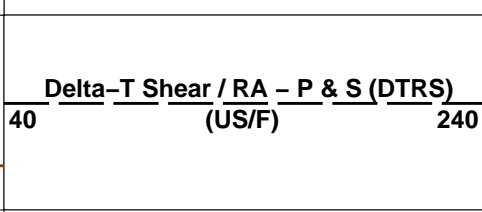
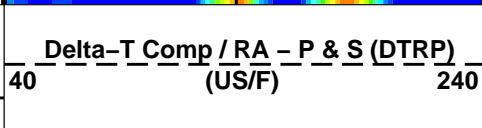
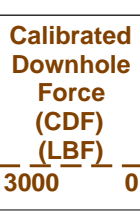
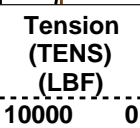
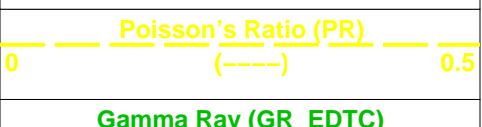
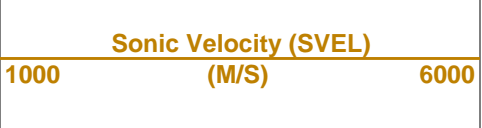
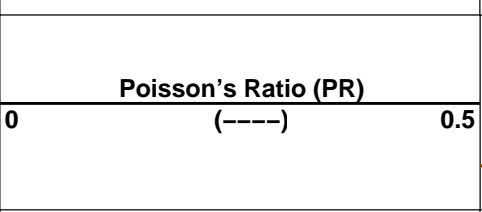
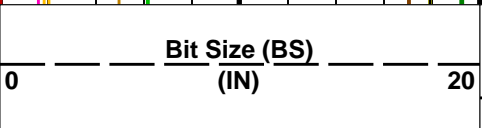
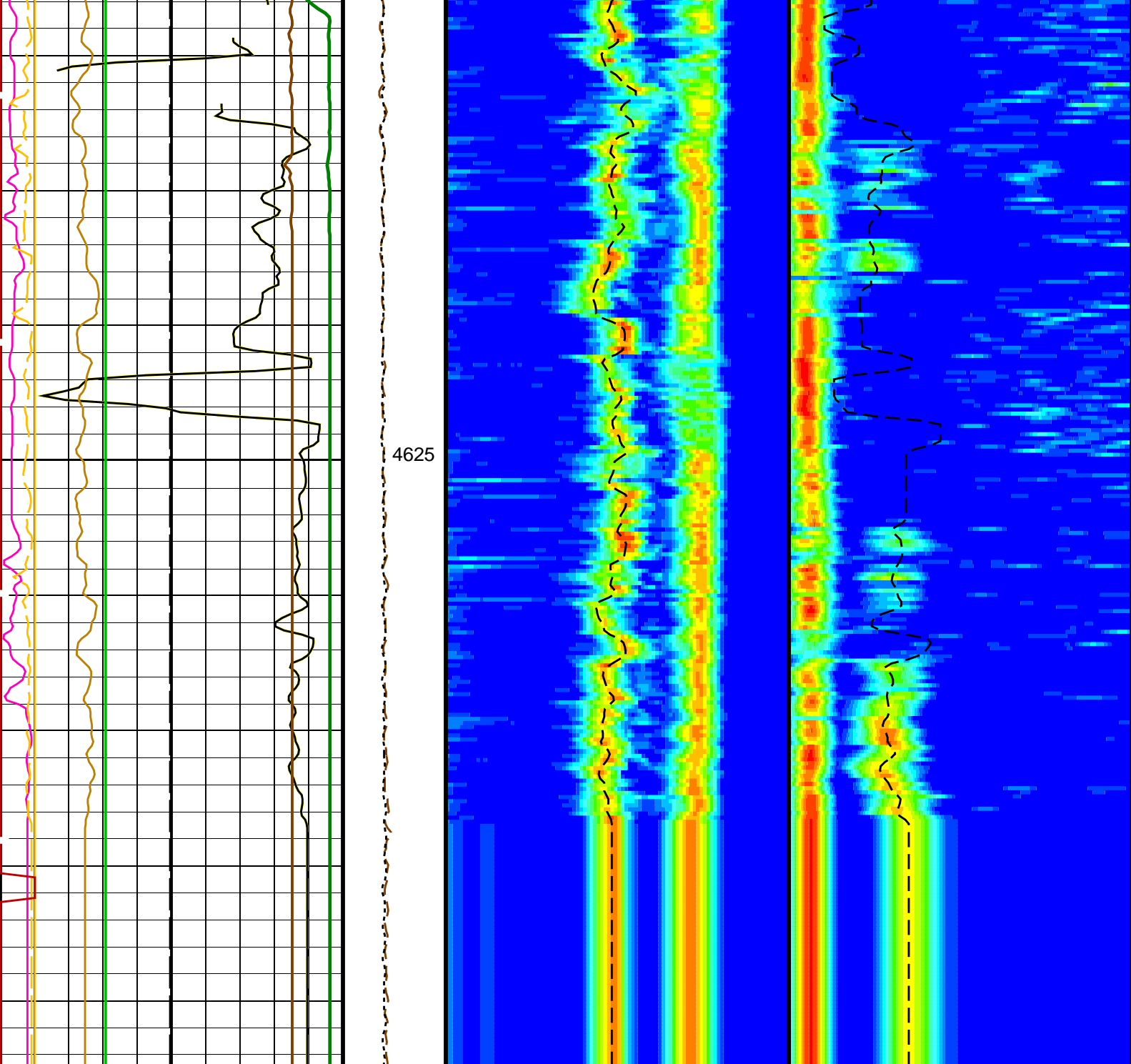


<b>Bit Size (BS) (IN)</b>		
0		20
<b>Tension (TENS) (LBF)</b>		
10000		0









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REPEAT SECTION

HLDS Caliper (LCAL)		
0	(IN)	20
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
HNGS Spectroscopy Gamma Ray (HSGR)		
0	(GAPI)	100

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value
DSST-B: Dipole Shear Imager – B		
AGC1	Automatic Gain Control 1	ON
AGC2	Automatic Gain Control 2	ON
AGC3	Automatic Gain Control 3	ON
AGC4	Automatic Gain Control 4	ON
AGC5	Automatic Gain Control 5	ON
AGCX	Automatic Gain Control X	ON
BARS_MTR1	Length for Monopole Transmitter to Receiver 1	2.7432 M
BHS	Borehole Status	OPEN
BHT	Bottom Hole Temperature (used in calculations)	21 DEGC
CASF	Label Casing Function – Monopole P&S	50
CDTS	C-Delta-T Shale	100 US/F
COLL	Label Slowness Lower Limit – Monopole P&S Compressional	65 US/F
COUL	Label Slowness Upper Limit – Monopole P&S Compressional	175 US/F
DDE1	Digitizing Delay 1	0 US
DDE2	Digitizing Delay 2	0 US
DDE3	Digitizing Delay 3	0 US
DDE4	Digitizing Delay 4	0 US
DDE5	Digitizing Delay 5	0 US
DDEX	Digitizing Delay X	0 US
DLCS	Label Compressional Source – Dipole Shear	USE
DLHS	Label Hole Diameter Source for SOBS Channel	AUTO
DSHL	Label Slowness Lower Limit – Dipole Shear	75 US/F
DSHU	Label Slowness Upper Limit – Dipole Shear	600 US/F
DSI1	Digitizer Sample Interval 1	40 US
DSI2	Digitizer Sample Interval 2	40 US
DSI3	Digitizer Sample Interval 3	40 US
DSI4	Digitizer Sample Interval 4	10 US
DSI5	Digitizer Sample Interval 5	10 US
DSIX	Digitizer Sample Interval X	40 US
DTCS	Compressional Delta-T Source for DTCS Channel	PS_COMP
DTF	Delta-T Fluid	193 US/F
DTM	Delta-T Matrix	56 US/F
DTSS	Shear Delta-T Source for DTSM Channel	UPPER_DIPOLE
DWC1	Digitizer Word Count 1	512
DWC2	Digitizer Word Count 2	512
DWC3	Digitizer Word Count 3	512
DWC4	Digitizer Word Count 4	512
DWC5	Digitizer Word Count 5	512
DWCX	Digitizer Word Count X	512
FDE1	Firing Delay 1	0
FDE2	Firing Delay 2	0
FDE3	Firing Delay 3	0
FDE4	Firing Delay 4	0
FDE5	Firing Delay 5	0
FDEX	Firing Delay X	0
FGM5	First Motion Gate Moveout 5	40 US/F

FGMX	First Motion Gate Moveout X	40	
FILG	Label Fill Gap Control – Monopole P&S	COMP_SHEAR	
FMG5	First Motion Minimum Gate 5	500	US
FMGX	First Motion Minimum Gate X	500	US
FMLL	Slowness Lower Limit – FMD	40	US/F
FMRC	Restart Control – FMD	CONTINUE	
FMT5	First Motion Threshold 5	UP	
FMTX	First Motion Threshold X	NONE	
FMUL	Slowness Upper Limit – FMD	180	US/F
FNC5	First Motion Noise Counter Input 5	ALO	
FNCX	First Motion Noise Counter Input X	ALO	
FPM	Processing Mode – FMD	NONE	
FTD5	First Motion Threshold Direction 5	UP	
FTDX	First Motion Threshold Direction X	UP	
GAI1	Manual Gain 1	10	
GAI2	Manual Gain 2	10	
GAI3	Manual Gain 3	6	
GAI4	Manual Gain 4	16	
GAI5	Manual Gain 5	16	
GAIX	Manual Gain X	10	
GCSE	Generalized Caliper Selection	LCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GDT1	Gain Delta–T 1	800	US/F
GDT2	Gain Delta–T 2	800	US/F
GDT3	Gain Delta–T 3	800	US/F
GDT4	Gain Delta–T 4	160	US/F
GDT5	Gain Delta–T 5	160	US/F
GDTX	Gain Delta–T X	800	US/F
GGRD	Geothermal Gradient	0.018227	DC/M
GIN1	Gain Interval 1	15360	US
GIN2	Gain Interval 2	15360	US
GIN3	Gain Interval 3	15360	US
GIN4	Gain Interval 4	2560	US
GIN5	Gain Interval 5	1600	US
GINX	Gain Interval X	15360	US
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
HPF1	High Pass Filter 1	F80	
HPF2	High Pass Filter 2	F80	
HPF3	High Pass Filter 3	F80	
HPF4	High Pass Filter 4	F8K	
HPF5	High Pass Filter 5	F8K	
HPFX	High Pass Filter X	F80	
ISSBAR	Barite Mud Switch	BARITE	
ITTS	Integrated Transit Time Source	DTCO	
LFC	Label Formation Character – Monopole P&S	DYNAMIC	
LPF1	Low Pass Filter 1	F5K	
LPF2	Low Pass Filter 2	F5K	
LPF3	Low Pass Filter 3	F5K	
LPF4	Low Pass Filter 4	F30K	
LPF5	Low Pass Filter 5	F30K	
LPFX	Low Pass Filter X	F5K	
LTXG	Lower Dipole Transmitter Geometry	156	IN
MAI5	Slowness Averaging Interval – FMD	42	IN
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
MCS	Mean Casing Slowness	57	US/F
MDS5	Multishot Delta–T Scatter – FMD	20	US
MTXG	Monopole Transmitter Geometry	186	IN
MUX1	Sum Difference Multiplexor Input 1	RR	
MUX2	Sum Difference Multiplexor Input 2	RR	
MUX3	Sum Difference Multiplexor Input 3	RR	
MUX4	Sum Difference Multiplexor Input 4	RR	
MUX5	Sum Difference Multiplexor Input 5	RR	
MUXX	Sum Difference Multiplexor Input X	RR	
NTI5	Number Threshold Items 5	0	
NTIX	Number Threshold Items X	0	
NWI1	Number Waveform Items 1	8	
NWI2	Number Waveform Items 2	8	
NWI3	Number Waveform Items 3	0	
NWI4	Number Waveform Items 4	8	
NWI5	Number Waveform Items 5	0	
NWIX	Number Waveform Items X	0	
NWS1	Number Waveforms Stacked 1	1	
NWS2	Number Waveforms Stacked 2	1	
NWS3	Number Waveforms Stacked 3	1	
NWS4	Number Waveforms Stacked 4	1	
NWS5	Number Waveforms Stacked 5	1	
NWSX	Number Waveforms Stacked X	1	
RATE	Firing Rate	R7	
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	
SAM2	DSST Sonic Acquisition Mode 2 – Upper Dipole Mode	ODD	
SAM3	DSST Sonic Acquisition Mode 3 – Monopole Mode for Stoneley	OFF	
SAM4	DSST Sonic Acquisition Mode 4 – Monopole Mode for P&S	EVEN	
SAM5	DSST Sonic Acquisition Mode 5 – Monopole Mode for FMD	OFF	
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	
SAS3	STC Sonic Array Status – Monopole Stoneley	255	
SAS4	STC Sonic Array Status – Monopole P&S	255	
SAS5	Sonic Array Status – FMD	255	
SBO1	STC Search Band Offset – Lower Dipole	3000	US
SBO2	STC Search Band Offset – Upper Dipole	3000	US
SBO3	STC Search Band Offset – Monopole Stoneley	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
SBW2	STC Search Bandwidth – Upper Dipole	8000	US
SBW3	STC Search Bandwidth – Monopole Stoneley	8000	US
SBW4	STC Search Bandwidth – Monopole P&S	2000	US
SFC1	STC Formation Character – Lower Dipole	SELECTABLE	
SFC2	STC Formation Character – Upper Dipole	SELECTABLE	
SFC3	STC Formation Character – Monopole Stoneley	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	
SFM3	STC Filter – Monopole Stoneley	B.5–1.5K	
SFM4	STC Filter – Monopole P&S	B3–20K	
SHLL	Label Slowness Lower Limit – Monopole P&S Shear	235	US/F
SHT	Surface Hole Temperature	20	DEGC
SHUL	Label Slowness Upper Limit – Monopole P&S Shear	240	US/F
SLL1	STC Slowness Lower Limit – Lower Dipole	75	US/F
SLL2	STC Slowness Lower Limit – Upper Dipole	75	US/F
SLL3	STC Slowness Lower Limit – Monopole Stoneley	180	US/F
SLL4	STC Slowness Lower Limit – Monopole P&S	40	US/F
SPFS	Sonic Porosity Formula	RAYMER_HUNT	
SPSO	Sonic Porosity Source	DTCO	
SST1	STC Slowness Step – Lower Dipole	4	US/F
SST2	STC Slowness Step – Upper Dipole	4	US/F
SST3	STC Slowness Step – Monopole Stoneley	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	
SSW3	STC Source Waveform – Monopole Stoneley	WF_SAM3	
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	1200	US/F
SUL2	STC Slowness Upper Limit – Upper Dipole	1200	US/F
SUL3	STC Slowness Upper Limit – Monopole Stoneley	780	US/F
SUL4	STC Slowness Upper Limit – Monopole P&S	240	US/F
SWD1	STC Slowness Width – Lower Dipole	40	US/F
SWD2	STC Slowness Width – Upper Dipole	40	US/F
SWD3	STC Slowness Width – Monopole Stoneley	40	US/F
SWD4	STC Slowness Width – Monopole P&S	10	US/F
TBDB	Tool String Bottom to DSST Bottom	95.25	IN
TBF1	STC Time for Baseline Fill – Lower Dipole	0	US
TBF2	STC Time for Baseline Fill – Upper Dipole	0	US
TBF3	STC Time for Baseline Fill – Monopole Stoneley	0	US
TBF4	STC Time for Baseline Fill – Monopole P&S	300	US
TLL1	STC Time Lower Limit – Lower Dipole	600	US
TLL2	STC Time Lower Limit – Upper Dipole	600	US
TLL3	STC Time Lower Limit – Monopole Stoneley	600	US
TLL4	STC Time Lower Limit – Monopole P&S	150	US
TST1	STC Time Step – Lower Dipole	200	US
TST2	STC Time Step – Upper Dipole	200	US
TST3	STC Time Step – Monopole Stoneley	200	US
TST4	STC Time Step – Monopole P&S	50	US
TTDB	Tool String Top to DSST Bottom	1656.11	IN
TUL1	STC Time Upper Limit – Lower Dipole	20440	US
TUL2	STC Time Upper Limit – Upper Dipole	20200	US
TUL3	STC Time Upper Limit – Monopole Stoneley	12000	US
TUL4	STC Time Upper Limit – Monopole P&S	3660	US
TWA1	Transmitter Waveform Amplitude 1	179	
TWA2	Transmitter Waveform Amplitude 2	179	
TWA3	Transmitter Waveform Amplitude 3	166	
TWA4	Transmitter Waveform Amplitude 4	150	
TWA5	Transmitter Waveform Amplitude 5	150	
TWAX	Transmitter Waveform Amplitude X	179	
TWD1	STC Time Width – Lower Dipole	2000	US



TWD1	STC Time Width - Lower Dipole	2000	US
TWD2	STC Time Width - Upper Dipole	2000	US
TWD3	STC Time Width - Monopole Stoneley	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
TWI3	STC Integration Time Window - Monopole Stoneley	2400	US
TWI4	STC Integration Time Window - Monopole P&S	500	US
TWR1	Transmitter Waveform Sample Rate 1	20	US
TWR2	Transmitter Waveform Sample Rate 2	5	US
TWR3	Transmitter Waveform Sample Rate 3	5	US
TWR4	Transmitter Waveform Sample Rate 4	5	US
TWR5	Transmitter Waveform Sample Rate 5	5	US
TWRX	Transmitter Waveform Sample Rate X	5	US
TWS1	Transmitter Waveform Select 1	2	
TWS2	Transmitter Waveform Select 2	0	
TWS3	Transmitter Waveform Select 3	4	
TWS4	Transmitter Waveform Select 4	6	
TWS5	Transmitter Waveform Select 5	6	
TWSX	Transmitter Waveform Select X	0	
UTXG	Upper Dipole Transmitter Geometry	162	IN
WFDTSP1	SAM1 Waveform Delta for Spectrum	0	US/F
WFDTSP2	SAM2 Waveform Delta for Spectrum	0	US/F
WFDTSP3	SAM3 Waveform Delta for Spectrum	0	US/F
WFDTSP4	SAM4 Waveform Delta for Spectrum	0	US/F
WFDTSPX	SAMX Waveform Delta for Spectrum	0	US/F
WFLDSP1	SAM1 Waveform Lower Limit for Spectrum	0	US
WFLDSP2	SAM2 Waveform Lower Limit for Spectrum	0	US
WFLDSP3	SAM3 Waveform Lower Limit for Spectrum	0	US
WFLDSP4	SAM4 Waveform Lower Limit for Spectrum	0	US
WFLDSPX	SAMX Waveform Lower Limit for Spectrum	0	US
WFM1	Waveform Mode 1	W1	
WFM2	Waveform Mode 2	W1	
WFM3	Waveform Mode 3	W1	
WFM4	Waveform Mode 4	W1	
WFM5	Waveform Mode 5	W1	
WFMX	Waveform Mode X	W1	
WFULSP1	SAM1 Waveform Upper Limit for Spectrum	20000	US
WFULSP2	SAM2 Waveform Upper Limit for Spectrum	20000	US
WFULSP3	SAM3 Waveform Upper Limit for Spectrum	20000	US
WFULSP4	SAM4 Waveform Upper Limit for Spectrum	5000	US
WFULSPX	SAMX Waveform Upper Limit for Spectrum	20000	US
XMT1	Transmitter Select 1	DLO	
XMT2	Transmitter Select 2	DUP	
XMT3	Transmitter Select 3	MONO	
XMT4	Transmitter Select 4	MONO	
XMT5	Transmitter Select 5	MONO	
XMTX	Transmitter Select X	DUP	
<b>HRLT-B: High Resolution Laterolog Array - B</b>			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	21	DEGC
CALSTAT	HRLTB Calibration Status	SHALLOW_DONE	
CALTEMP	HRLTB Calibration Temperature	23.3869	DEGC
FREQ0	HRLT Frequency Index for Mode 0	32	
FREQ1	HRLT Frequency Index for Mode 1	128	
FREQ2	HRLT Frequency Index for Mode 2	104	
FREQ3	HRLT Frequency Index for Mode 3	86	
FREQ4	HRLT Frequency Index for Mode 4	56	
FREQ5	HRLT Frequency Index for Mode 5	44	
FREQ6	HRLT Frequency Index for Mode 6	116	
GCSE	Generalized Caliper Selection	LCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN 9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
ISSBAR	Barite Mud Switch	BARITE	
KFAC_HRLT	HRLT K Factor Option	SONDE	
LOOPCOEF_S	HRLT Loop Coefficient for Shallow Modes	LOW	
LOOPMOD0	HRLT Mode 0 Loop Mode	OFF	
LOOPMOD1	HRLT Mode 1 Loop Mode	OFF	
LOOPMOD2	HRLT Mode 2 Loop Mode	OFF	
LOOPMOD3	HRLT Mode 3 Loop Mode	OFF	
LOOPMOD4	HRLT Mode 4 Loop Mode	OFF	
LOOPMOD5	HRLT Mode 5 Loop Mode	OFF	
LOOPMOD6	HRLT Mode 6 Loop Mode	OFF	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
PROCINV	Inversion Selection	ON	
PROCMFL	Inversion Micro-Resistivity Selection	NO_EXTERNAL_RXO	
PROCMO	Mechanical Standoff Fin Size	0	IN
PROCRM	Processing Mud Resistivity Select	HRLT_Compute	
PROCSPO	Sonde Position	Centered	
SHT	Surface Hole Temperature	20	DEGC
<b>HLDS: Hostile Litho-Density Sonde</b>			
CLCL	HLDS LS Control Loop Controller Mode	AUTO_DEFAULT	
CLCS	HLDS SS Control Loop Controller Mode	AUTO_DEFAULT	

CLLS	HLDS Mode Long Spacing	AUTO	
CLSS	HLDS Mode Loop Short Spacing	AUTO	
DHC	Density Hole Correction	BS	
DPPM	Density Porosity Processing Mode	HIRS	
FD	Fluid Density	1	G/C3
LATC	HLDS Activation Correction	ON	
LLDL	HLDS LS Low Level Discriminator DAC	14000	
LLDS	HLDS SS Low Level Discriminator DAC	14000	
LLML	HLDS LS Low Level Discriminator Mode	AUTO	
LLMS	HLDS SS Low Level Discriminator Mode	AUTO	
MDEN	Matrix Density	2.6	G/C3
PHVL	HLDS Long Spacing High Voltage Setting	1000	V
PHVS	HLDS Short Spacing High Voltage Setting	1000	V
PSDL	HLDS LS Pulse Shape Compensation DAC	30000	
PSDS	HLDS SS Pulse Shape Compensation DAC	30000	
PSML	HLDS LS Pulse Shape Compensation Mode	AUTO	
PSMS	HLDS SS Pulse Shape Compensation Mode	AUTO	

**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	
BHT	Bottom Hole Temperature (used in calculations)	21	DEGC
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	LCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
H1P	HNGS Detector 1 Allow/Disallow In Processing	ALLOW	
H2P	HNGS Detector 2 Allow/Disallow In Processing	ALLOW	
HABK	HNGS Borehole Potassium Running Average	-0.00211472	
HALF	HNGS Alpha Filter Length	60	IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	BARI	
HNPE	HNGS Processing Enable	YES	
ISSBAR	Barite Mud Switch	BARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
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	
SHT	Surface Hole Temperature	20	DEGC
TPOS	Tool Position	ECCE	
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	0.955708	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	0.964775	

**EDTC-B: Enhanced DTS Cartridge**

BHFL	Borehole Fluid Type	WATER	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	21	DEGC
BSCO	Borehole Salinity Correction Option	NO	
CCCO	Casing & Cement Thickness Correction Option	NO	
DPPM	Density Porosity Processing Mode	HIRS	
FSAL	Formation Salinity	-50000	PPM
FSCO	Formation Salinity Correction Option	NO	
GCSE	Generalized Caliper Selection	LCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
HSCO	Hole Size Correction Option	YES	
ISSBAR	Barite Mud Switch	BARITE	
ISSBAR_EDTC	Nuclear Mud Type	BARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
MCCO	Mud Cake Correction Option	NO	
MCOR	Mud Correction	BARI	
MWCO	Mud Weight Correction Option	YES	
PTCO	Pressure/Temperature Correction Option	NO	
SDAT	Standoff Data Source	SOCN	
SHT	Surface Hole Temperature	20	DEGC
SOCN	Standoff Distance	0.5	IN
SOCO	Standoff Correction Option	NO	
TPOS_EDTC	EDTC Tool Centered/Eccentered	Eccentered	
U-ETELM_EDTS	Telemetry Mode for eWAFE	Standard_EDTS	
U-TELM_EDTS	Telemetry Mode for WAFE	Standard_EDTS	

**System and Miscellaneous**

ALTDPCCHAN	Name of alternate depth channel	SpeedCorrectedDepth	
BS	Bit Size	9.875	IN
BSAL	Borehole Salinity	35000.00	PPM
CSIZ	Current Casing Size	5.000	IN
CWEI	Casing Weight	168.00	LB/F
DED	Drilling Fluid Density	1.32	G/C3

DO	Depth Offset for Playback	0.0	M
FLEV	Fluid Level	-50000.00	M
MST	Mud Sample Temperature	23.00	DEGC
PBVSADP	Use alternate depth channel for playback	NO	
PP	Playback Processing	RECOMPUTE	
RMFS	Resistivity of Mud Filtrate Sample	-50000.0000	OHMM
RW	Resistivity of Connate Water	1.0000	OHMM
TD	Total Depth	4850.8	M
TDD	Total Depth - Driller	4850.80	M
TDL	Total Depth - Logger	4850.00	M
TWS	Temperature of Connate Water Sample	37.78	DEGC

Format: DSST\_P\_S\_UPPER\_VDL\_COLOR    Vertical Scale: 1:200    Graphics File Created: 10-Mar-2017 15:58

### OP System Version: 19C0-187

DSST-B	19C0-187	HRLT-B	19C0-187
HLDS	19C0-187	LDSC-B	19C0-187
HNGC-B	19C0-187	HNGS-BA	19C0-187
EDTC-B	SKK-5169-EDTCB		

#### Input DLIS Files

DEFAULT	DSI_HRLA_LDL_NGS_014LUP	FN:20	PRODUCER	07-Mar-2017 08:52	4647.4 M	4486.4 M
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#### Output DLIS Files

DEFAULT	DSI_HRLA_LDL_NGS_041PUP	FN:59	PRODUCER	10-Mar-2017 15:58		
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Company: International Ocean Discovery Program    Well: Expedition 367, Site U1499B

#### Input DLIS Files

DEFAULT	DSI_HRLA_LDL_NGS_014LUP	FN:20	PRODUCER	07-Mar-2017 08:52	4647.4 M	4486.4 M
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#### Output DLIS Files

DEFAULT	DSI_HRLA_LDL_NGS_041PUP	FN:59	PRODUCER	10-Mar-2017 15:58	4647.4 M	4486.4 M
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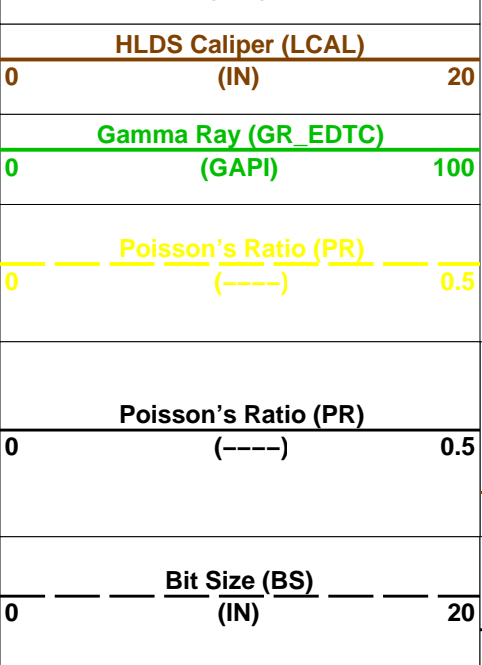
### OP System Version: 19C0-187

DSST-B	19C0-187	HRLT-B	19C0-187
HLDS	19C0-187	LDSC-B	19C0-187
HNGC-B	19C0-187	HNGS-BA	19C0-187
EDTC-B	SKK-5169-EDTCB		

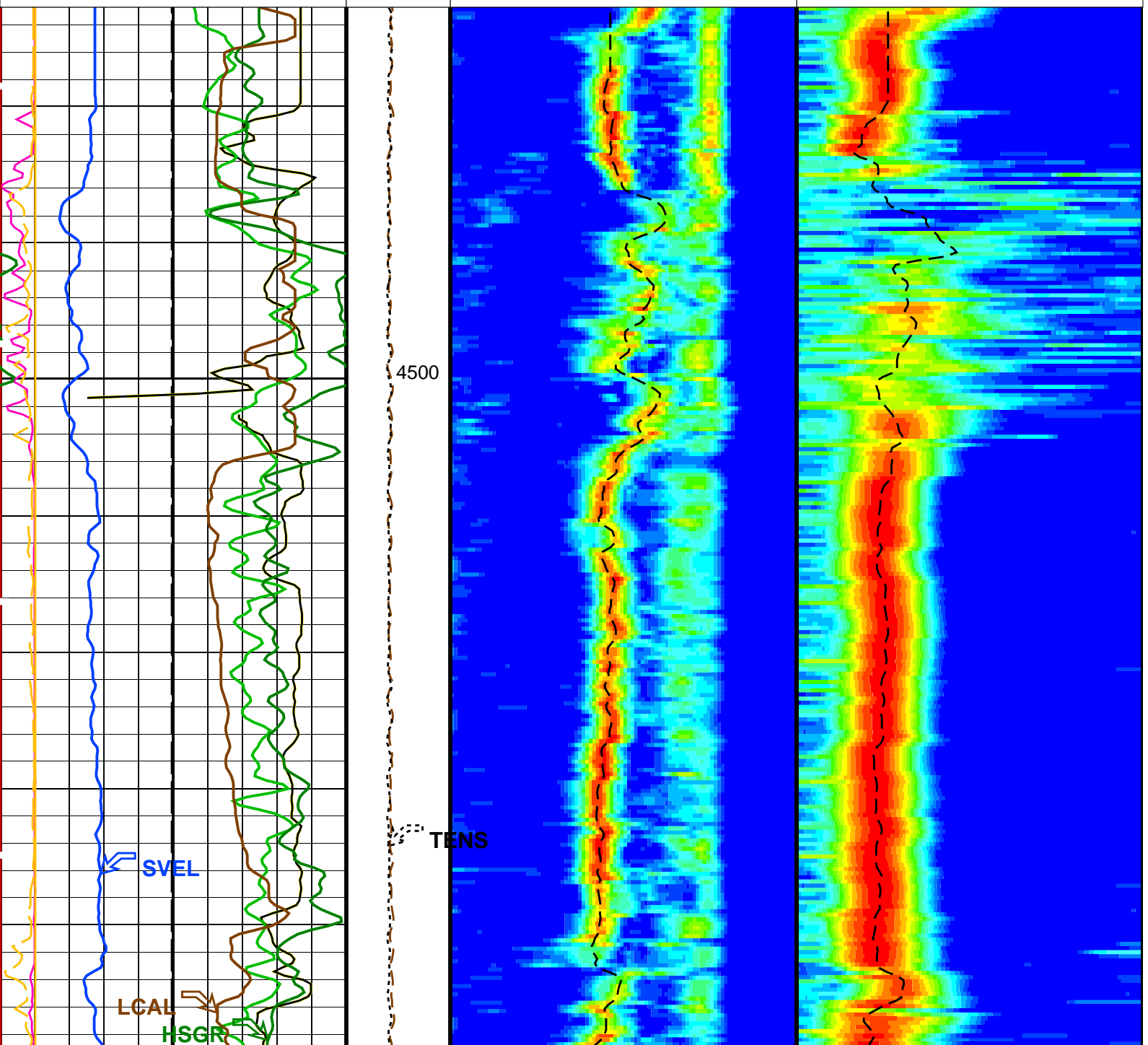
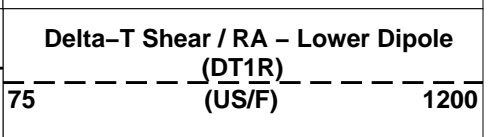
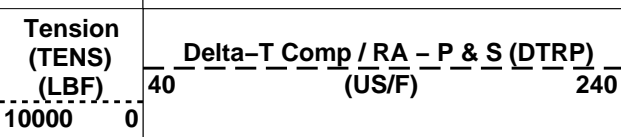
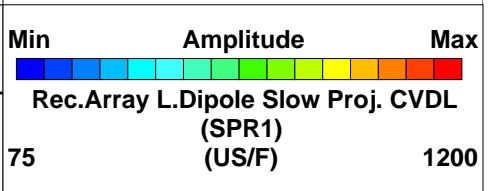
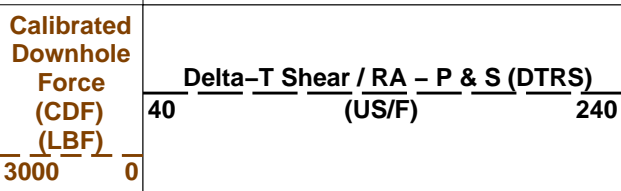
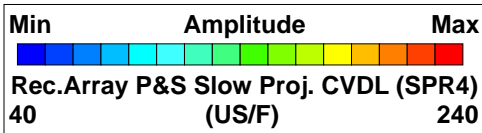
#### PIP SUMMARY

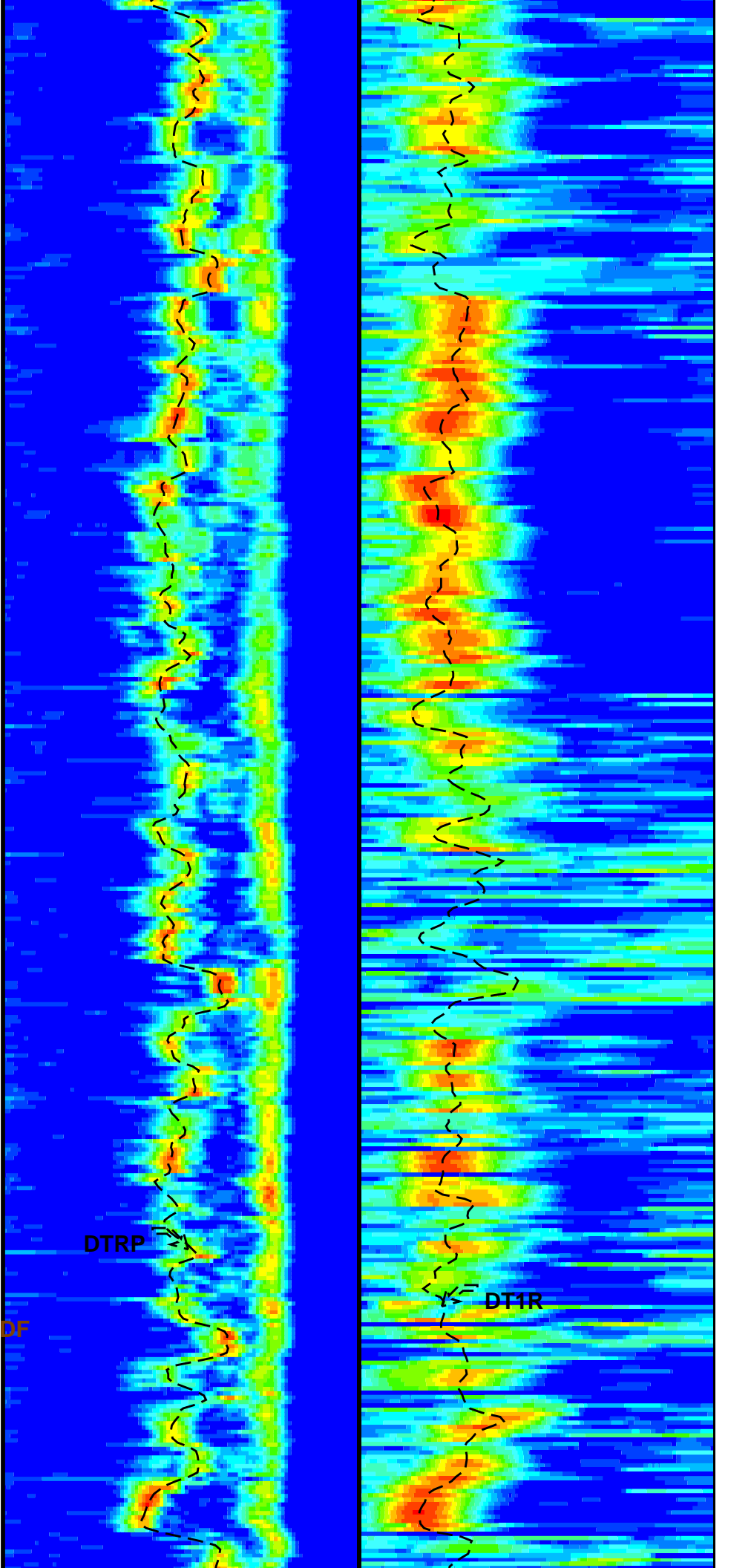
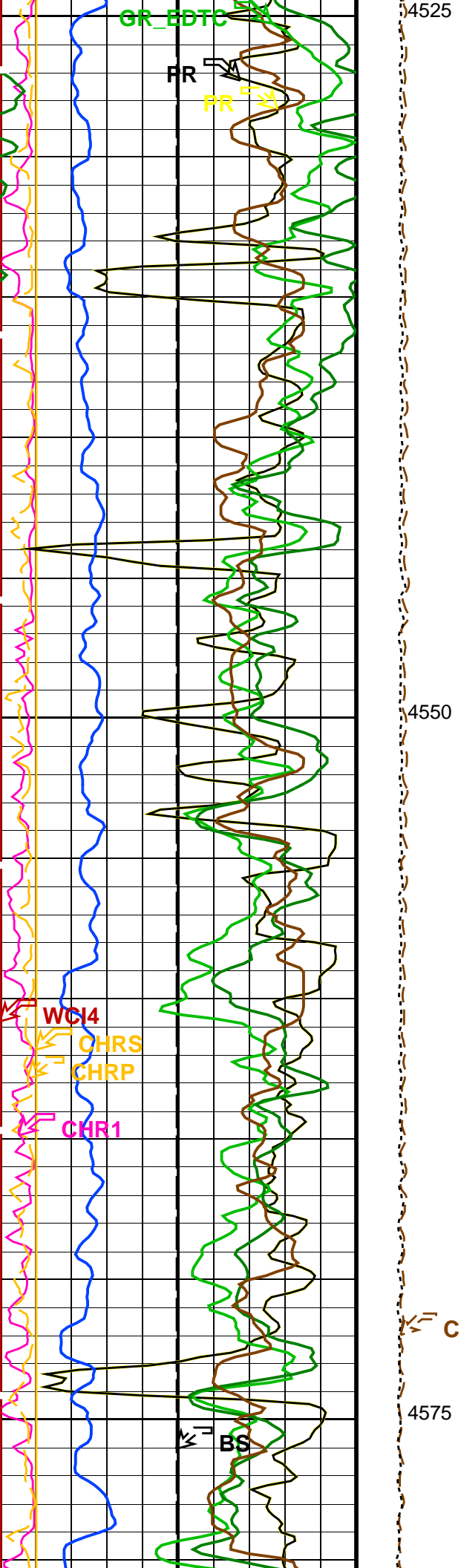
Time Mark Every 60 S

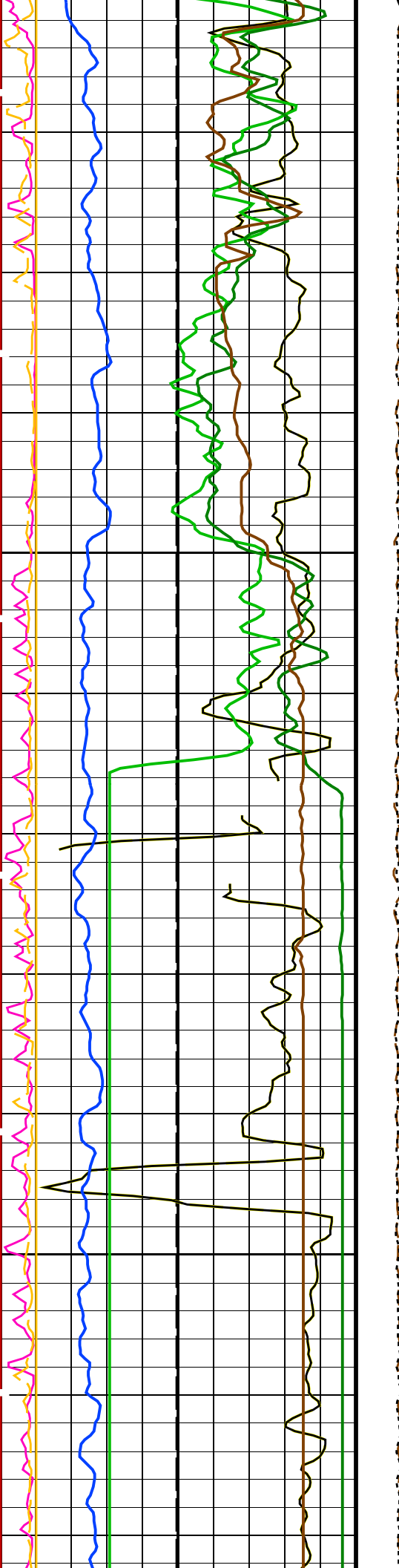
<b>HNGS Spectroscopy Gamma Ray (HSGR)</b>		
0	(GAPI)	100
<b>Waveform Data Copy Indicator 4 - Monopole P&amp;S (WCI4)</b>		
0	(----)	10
<b>Peak Coherence / RA - P &amp; S Shear (CHRS)</b>		
-1	(----)	9
<b>Peak Coherence / RA - P &amp; S Comp (CHRP)</b>		
0	(----)	10
<b>Peak Coherence / RA - Lower Dipole (CHR1)</b>		
0	(----)	10
<b>Sonic Velocity (SVEL)</b>		
1000	(M/S)	6000



REPEAT SECTION

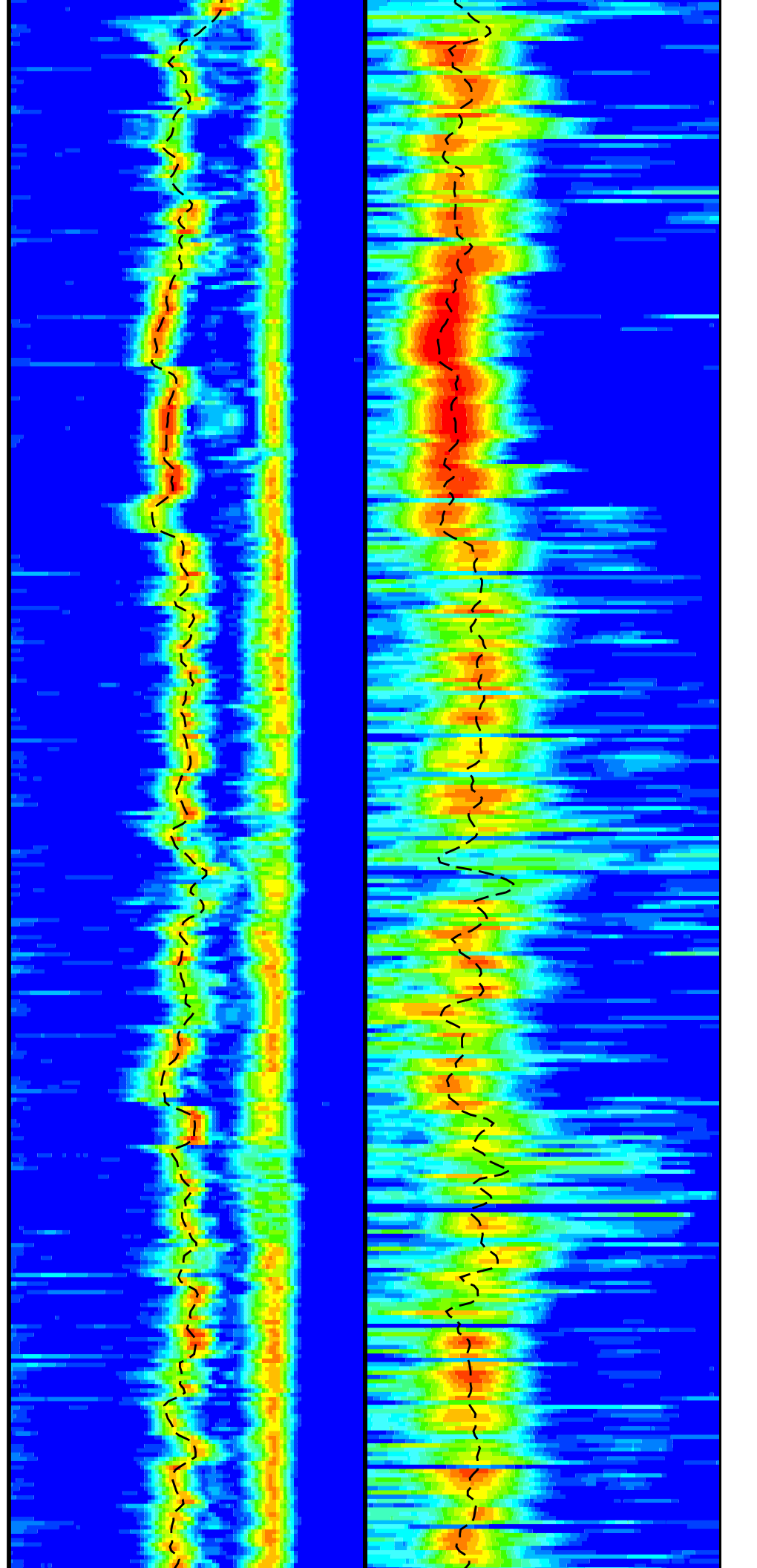


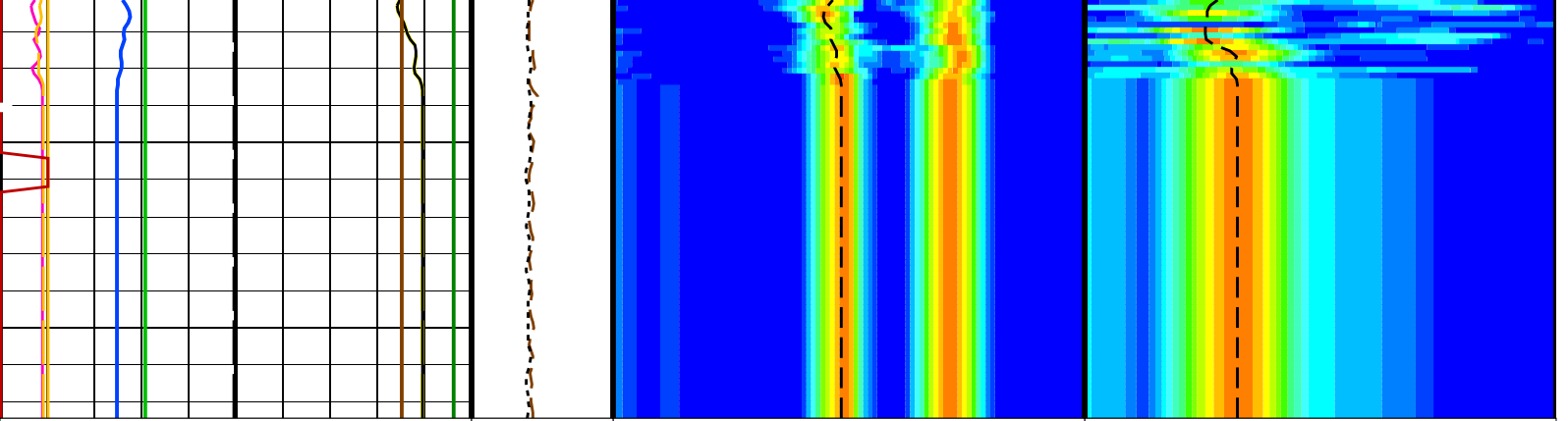




4600

4625





<b>Bit Size (BS)</b> (IN)	<b>Tension (TENS)</b> (LBF)	<b>Delta-T Comp / RA - P &amp; S (DTRP)</b> (US/F)	<b>Delta-T Shear / RA - Lower Dipole (DT1R)</b> (US/F)
0 --- 20	10000 --- 0	40 --- 240	75 --- 1200
<b>Poisson's Ratio (PR)</b> (----)	<b>Calibrated Downhole Force (CDF)</b> (LBF)	<b>Delta-T Shear / RA - P &amp; S (DTRS)</b> (US/F)	Min <span style="display: inline-block; width: 100px; height: 10px; background: linear-gradient(to right, blue, cyan, green, yellow, orange, red);"></span> Max <b>Rec.Array L.Dipole Slow Proj. CVDL (SPR1)</b> (US/F)
0 --- 0.5	3000 --- 0	40 --- 240	75 --- 1200
<b>Poisson's Ratio (PR)</b> (----)		Min <span style="display: inline-block; width: 100px; height: 10px; background: linear-gradient(to right, blue, cyan, green, yellow, orange, red);"></span> Max <b>Rec.Array P&amp;S Slow Proj. CVDL (SPR4)</b> (US/F)	
0 --- 0.5		40 --- 240	
<b>Gamma Ray (GR_EDTC)</b> (GAPI)			
0 --- 100			
<b>HLDS Caliper (LCAL)</b> (IN)			
0 --- 20			
<b>Sonic Velocity (SVEL)</b> (M/S)			
1000 --- 6000			
<b>Peak Coherence / RA - Lower Dipole (CHR1)</b> (----)			
0 --- 10			
<b>Peak Coherence / RA - P &amp; S Comp (CHRP)</b> (----)			
0 --- 10			
<b>Peak Coherence / RA - P &amp; S Shear (CHRS)</b> (----)			
-1 --- 9			
<b>Waveform Data Copy Indicator 4 - Monopole P&amp;S (WCI4)</b> (----)			
0 --- 10			
<b>HNGS Spectroscopy Gamma Ray (HSGR)</b> (GAPI)			
0 --- 100			

REPEAT SECTION

**PIP SUMMARY**

Time Mark Every 60 S

**Parameters**

DLIS Name	Description	Value
	<b>DSST-B: Dipole Shear Imager - B</b>	
AGC1	Automatic Gain Control 1	ON
AGC2	Automatic Gain Control 2	ON
AGC3	Automatic Gain Control 3	ON
AGC4	Automatic Gain Control 4	ON
AGC5	Automatic Gain Control 5	ON

AGC3	Automatic Gain Control 3	ON	
AGCX	Automatic Gain Control X	ON	
BARS_MTR1	Length for Monopole Transmitter to Receiver 1	2.7432	M
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	21	DEGC
CASF	Label Casing Function - Monopole P&S	50	
CDTS	C-Delta-T Shale	100	US/F
COLL	Label Slowness Lower Limit - Monopole P&S Compressional	65	US/F
COUL	Label Slowness Upper Limit - Monopole P&S Compressional	175	US/F
DDE1	Digitizing Delay 1	0	US
DDE2	Digitizing Delay 2	0	US
DDE3	Digitizing Delay 3	0	US
DDE4	Digitizing Delay 4	0	US
DDE5	Digitizing Delay 5	0	US
DDEX	Digitizing Delay X	0	US
DLCS	Label Compressional Source - Dipole Shear	USE	
DLHS	Label Hole Diameter Source for SOBS Channel	AUTO	
DSHL	Label Slowness Lower Limit - Dipole Shear	75	US/F
DSHU	Label Slowness Upper Limit - Dipole Shear	600	US/F
DSI1	Digitizer Sample Interval 1	40	US
DSI2	Digitizer Sample Interval 2	40	US
DSI3	Digitizer Sample Interval 3	40	US
DSI4	Digitizer Sample Interval 4	10	US
DSI5	Digitizer Sample Interval 5	10	US
DSIX	Digitizer Sample Interval X	40	US
DTCS	Compressional Delta-T Source for DTCO Channel	PS_COMP	
DTF	Delta-T Fluid	193	US/F
DTM	Delta-T Matrix	56	US/F
DTSS	Shear Delta-T Source for DTSM Channel	UPPER_DIPOLE	
DWC1	Digitizer Word Count 1	512	
DWC2	Digitizer Word Count 2	512	
DWC3	Digitizer Word Count 3	512	
DWC4	Digitizer Word Count 4	512	
DWC5	Digitizer Word Count 5	512	
DWCX	Digitizer Word Count X	512	
FDE1	Firing Delay 1	0	
FDE2	Firing Delay 2	0	
FDE3	Firing Delay 3	0	
FDE4	Firing Delay 4	0	
FDE5	Firing Delay 5	0	
FDEX	Firing Delay X	0	
FGM5	First Motion Gate Moveout 5	40	US/F
FGMX	First Motion Gate Moveout X	40	US/F
FILG	Label Fill Gap Control - Monopole P&S	COMP_SHEAR	
FMG5	First Motion Minimum Gate 5	500	US
FMGX	First Motion Minimum Gate X	500	US
FMLL	Slowness Lower Limit - FMD	40	US/F
FMRC	Restart Control - FMD	CONTINUE	
FMT5	First Motion Threshold 5	UP	
FMTX	First Motion Threshold X	NONE	
FMUL	Slowness Upper Limit - FMD	180	US/F
FNC5	First Motion Noise Counter Input 5	ALO	
FNCX	First Motion Noise Counter Input X	ALO	
FPM	Processing Mode - FMD	NONE	
FTD5	First Motion Threshold Direction 5	UP	
FTDX	First Motion Threshold Direction X	UP	
GAI1	Manual Gain 1	10	
GAI2	Manual Gain 2	10	
GAI3	Manual Gain 3	6	
GAI4	Manual Gain 4	16	
GAI5	Manual Gain 5	16	
GAIX	Manual Gain X	10	
GCSE	Generalized Caliper Selection	LCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GDT1	Gain Delta-T 1	800	US/F
GDT2	Gain Delta-T 2	800	US/F
GDT3	Gain Delta-T 3	800	US/F
GDT4	Gain Delta-T 4	160	US/F
GDT5	Gain Delta-T 5	160	US/F
GDTX	Gain Delta-T X	800	US/F
GGRD	Geothermal Gradient	0.018227	DC/M
GIN1	Gain Interval 1	15360	US
GIN2	Gain Interval 2	15360	US
GIN3	Gain Interval 3	15360	US
GIN4	Gain Interval 4	2560	US
GIN5	Gain Interval 5	1600	US
GINX	Gain Interval X	15360	US
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
HPF1	High Pass Filter 1	F80	
HPF2	High Pass Filter 2	F80	
HPF3	High Pass Filter 3	F80	
HPF4	High Pass Filter 4	F8K	
HPF5	High Pass Filter 5	F8K	
HPFX	High Pass Filter X	F80	



ISSBAR	BARITE Mud Switch	BARITE	
ITTS	Integrated Transit Time Source	DTCO	
LFC	Label Formation Character - Monopole P&S	DYNAMIC	
LPF1	Low Pass Filter 1	F5K	
LPF2	Low Pass Filter 2	F5K	
LPF3	Low Pass Filter 3	F5K	
LPF4	Low Pass Filter 4	F30K	
LPF5	Low Pass Filter 5	F30K	
LPFX	Low Pass Filter X	F5K	
LTXG	Lower Dipole Transmitter Geometry	156	IN
MAI5	Slowness Averaging Interval - FMD	42	IN
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
MCS	Mean Casing Slowness	57	US/F
MDS5	Multishot Delta-T Scatter - FMD	20	US
MTXG	Monopole Transmitter Geometry	186	IN
MUX1	Sum Difference Multiplexor Input 1	RR	
MUX2	Sum Difference Multiplexor Input 2	RR	
MUX3	Sum Difference Multiplexor Input 3	RR	
MUX4	Sum Difference Multiplexor Input 4	RR	
MUX5	Sum Difference Multiplexor Input 5	RR	
MUXX	Sum Difference Multiplexor Input X	RR	
NTI5	Number Threshold Items 5	0	
NTIX	Number Threshold Items X	0	
NWI1	Number Waveform Items 1	8	
NWI2	Number Waveform Items 2	8	
NWI3	Number Waveform Items 3	0	
NWI4	Number Waveform Items 4	8	
NWI5	Number Waveform Items 5	0	
NWIX	Number Waveform Items X	0	
NWS1	Number Waveforms Stacked 1	1	
NWS2	Number Waveforms Stacked 2	1	
NWS3	Number Waveforms Stacked 3	1	
NWS4	Number Waveforms Stacked 4	1	
NWS5	Number Waveforms Stacked 5	1	
NWSX	Number Waveforms Stacked X	1	
RATE	Firing Rate	R7	
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	
SAM2	DSST Sonic Acquisition Mode 2 - Upper Dipole Mode	ODD	
SAM3	DSST Sonic Acquisition Mode 3 - Monopole Mode for Stoneley	OFF	
SAM4	DSST Sonic Acquisition Mode 4 - Monopole Mode for P&S	EVEN	
SAM5	DSST Sonic Acquisition Mode 5 - Monopole Mode for FMD	OFF	
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	
SAS3	STC Sonic Array Status - Monopole Stoneley	255	
SAS4	STC Sonic Array Status - Monopole P&S	255	
SAS5	Sonic Array Status - FMD	255	
SBO1	STC Search Band Offset - Lower Dipole	3000	US
SBO2	STC Search Band Offset - Upper Dipole	3000	US
SBO3	STC Search Band Offset - Monopole Stoneley	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
SBW2	STC Search Bandwidth - Upper Dipole	8000	US
SBW3	STC Search Bandwidth - Monopole Stoneley	8000	US
SBW4	STC Search Bandwidth - Monopole P&S	2000	US
SFC1	STC Formation Character - Lower Dipole	SELECTABLE	
SFC2	STC Formation Character - Upper Dipole	SELECTABLE	
SFC3	STC Formation Character - Monopole Stoneley	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	
SFM3	STC Filter - Monopole Stoneley	B.5-1.5K	
SFM4	STC Filter - Monopole P&S	B3-20K	
SHLL	Label Slowness Lower Limit - Monopole P&S Shear	235	US/F
SHT	Surface Hole Temperature	20	DEGC
SHUL	Label Slowness Upper Limit - Monopole P&S Shear	240	US/F
SLL1	STC Slowness Lower Limit - Lower Dipole	75	US/F
SLL2	STC Slowness Lower Limit - Upper Dipole	75	US/F
SLL3	STC Slowness Lower Limit - Monopole Stoneley	180	US/F
SLL4	STC Slowness Lower Limit - Monopole P&S	40	US/F
SPFS	Sonic Porosity Formula	RAYMER_HUNT	
SPSO	Sonic Porosity Source	DTCO	
SST1	STC Slowness Step - Lower Dipole	4	US/F

SST1	STC Slowness Step – Lower Dipole	4	US/F
SST3	STC Slowness Step – Monopole Stoneley	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	
SSW3	STC Source Waveform – Monopole Stoneley	WF_SAM3	
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	1200	US/F
SUL2	STC Slowness Upper Limit – Upper Dipole	1200	US/F
SUL3	STC Slowness Upper Limit – Monopole Stoneley	780	US/F
SUL4	STC Slowness Upper Limit – Monopole P&S	240	US/F
SWD1	STC Slowness Width – Lower Dipole	40	US/F
SWD2	STC Slowness Width – Upper Dipole	40	US/F
SWD3	STC Slowness Width – Monopole Stoneley	40	US/F
SWD4	STC Slowness Width – Monopole P&S	10	US/F
TBDB	Tool String Bottom to DSST Bottom	95.25	IN
TBF1	STC Time for Baseline Fill – Lower Dipole	0	US
TBF2	STC Time for Baseline Fill – Upper Dipole	0	US
TBF3	STC Time for Baseline Fill – Monopole Stoneley	0	US
TBF4	STC Time for Baseline Fill – Monopole P&S	300	US
TLL1	STC Time Lower Limit – Lower Dipole	600	US
TLL2	STC Time Lower Limit – Upper Dipole	600	US
TLL3	STC Time Lower Limit – Monopole Stoneley	600	US
TLL4	STC Time Lower Limit – Monopole P&S	150	US
TST1	STC Time Step – Lower Dipole	200	US
TST2	STC Time Step – Upper Dipole	200	US
TST3	STC Time Step – Monopole Stoneley	200	US
TST4	STC Time Step – Monopole P&S	50	US
TTDB	Tool String Top to DSST Bottom	1656.11	IN
TUL1	STC Time Upper Limit – Lower Dipole	20440	US
TUL2	STC Time Upper Limit – Upper Dipole	20200	US
TUL3	STC Time Upper Limit – Monopole Stoneley	12000	US
TUL4	STC Time Upper Limit – Monopole P&S	3660	US
TWA1	Transmitter Waveform Amplitude 1	179	
TWA2	Transmitter Waveform Amplitude 2	179	
TWA3	Transmitter Waveform Amplitude 3	166	
TWA4	Transmitter Waveform Amplitude 4	150	
TWA5	Transmitter Waveform Amplitude 5	150	
TWAX	Transmitter Waveform Amplitude X	179	
TWD1	STC Time Width – Lower Dipole	2000	US
TWD2	STC Time Width – Upper Dipole	2000	US
TWD3	STC Time Width – Monopole Stoneley	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
TWI3	STC Integration Time Window – Monopole Stoneley	2400	US
TWI4	STC Integration Time Window – Monopole P&S	500	US
TWR1	Transmitter Waveform Sample Rate 1	20	US
TWR2	Transmitter Waveform Sample Rate 2	5	US
TWR3	Transmitter Waveform Sample Rate 3	5	US
TWR4	Transmitter Waveform Sample Rate 4	5	US
TWR5	Transmitter Waveform Sample Rate 5	5	US
TWRX	Transmitter Waveform Sample Rate X	5	US
TWS1	Transmitter Waveform Select 1	2	
TWS2	Transmitter Waveform Select 2	0	
TWS3	Transmitter Waveform Select 3	4	
TWS4	Transmitter Waveform Select 4	6	
TWS5	Transmitter Waveform Select 5	6	
TWSX	Transmitter Waveform Select X	0	
UTXG	Upper Dipole Transmitter Geometry	162	IN
WFDTSP1	SAM1 Waveform Delta for Spectrum	0	US/F
WFDTSP2	SAM2 Waveform Delta for Spectrum	0	US/F
WFDTSP3	SAM3 Waveform Delta for Spectrum	0	US/F
WFDTSP4	SAM4 Waveform Delta for Spectrum	0	US/F
WFDTSPX	SAMX Waveform Delta for Spectrum	0	US/F
WFLLSP1	SAM1 Waveform Lower Limit for Spectrum	0	US
WFLLSP2	SAM2 Waveform Lower Limit for Spectrum	0	US
WFLLSP3	SAM3 Waveform Lower Limit for Spectrum	0	US
WFLLSP4	SAM4 Waveform Lower Limit for Spectrum	0	US
WFLLSPX	SAMX Waveform Lower Limit for Spectrum	0	US
WFM1	Waveform Mode 1	W1	
WFM2	Waveform Mode 2	W1	
WFM3	Waveform Mode 3	W1	
WFM4	Waveform Mode 4	W1	
WFM5	Waveform Mode 5	W1	
WFMX	Waveform Mode X	W1	
WFULSP1	SAM1 Waveform Upper Limit for Spectrum	20000	US
WFULSP2	SAM2 Waveform Upper Limit for Spectrum	20000	US
WFULSP3	SAM3 Waveform Upper Limit for Spectrum	20000	US
WFULSP4	SAM4 Waveform Upper Limit for Spectrum	5000	US
WFULSPX	SAMX Waveform Upper Limit for Spectrum	20000	US
XMT1	Transmitter Select 1	DLO	
XMT2	Transmitter Select 2	DLO	

XMT2	Transmitter Select 2	DUP	
XMT3	Transmitter Select 3	MONO	
XMT4	Transmitter Select 4	MONO	
XMT5	Transmitter Select 5	MONO	
XMTX	Transmitter Select X	DUP	
<b>HRLT-B: High Resolution Laterolog Array - B</b>			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	21	DEGC
CALSTAT	HRLTB Calibration Status	SHALLOW_DONE	
CALTEMP	HRLTB Calibration Temperature	23.3869	DEGC
FREQ0	HRLT Frequency Index for Mode 0	32	
FREQ1	HRLT Frequency Index for Mode 1	128	
FREQ2	HRLT Frequency Index for Mode 2	104	
FREQ3	HRLT Frequency Index for Mode 3	86	
FREQ4	HRLT Frequency Index for Mode 4	56	
FREQ5	HRLT Frequency Index for Mode 5	44	
FREQ6	HRLT Frequency Index for Mode 6	116	
GCSE	Generalized Caliper Selection	LCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN 9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
ISSBAR	Barite Mud Switch	BARITE	
KFAC_HRLT	HRLT K Factor Option	SONDE	
LOOPCOEF_S	HRLT Loop Coefficient for Shallow Modes	LOW	
LOOPMOD0	HRLT Mode 0 Loop Mode	OFF	
LOOPMOD1	HRLT Mode 1 Loop Mode	OFF	
LOOPMOD2	HRLT Mode 2 Loop Mode	OFF	
LOOPMOD3	HRLT Mode 3 Loop Mode	OFF	
LOOPMOD4	HRLT Mode 4 Loop Mode	OFF	
LOOPMOD5	HRLT Mode 5 Loop Mode	OFF	
LOOPMOD6	HRLT Mode 6 Loop Mode	OFF	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
PROGINV	Inversion Selection	ON	
PROCINFL	Inversion Micro-Resistivity Selection	NO_EXTERNAL_RXO	
PROCMSO	Mechanical Standoff Fin Size	0	IN
PROCRM	Processing Mud Resistivity Select	HRLT_Compute	
PROCSPO	Sonde Position	Centered	
SHT	Surface Hole Temperature	20	DEGC
<b>HLDS: Hostile Litho-Density Sonde</b>			
CLCL	HLDS LS Control Loop Controller Mode	AUTO_DEFAULT	
CLCS	HLDS SS Control Loop Controller Mode	AUTO_DEFAULT	
CLLS	HLDS Mode Loop Long Spacing	AUTO	
CLSS	HLDS Mode Loop Short Spacing	AUTO	
DHC	Density Hole Correction	BS	
DPPM	Density Porosity Processing Mode	HIRS	
FD	Fluid Density	1	G/C3
LATC	HLDS Activation Correction	ON	
LLDL	HLDS LS Low Level Discriminator DAC	14000	
LLDS	HLDS SS Low Level Discriminator DAC	14000	
LLML	HLDS LS Low Level Discriminator Mode	AUTO	
LLMS	HLDS SS Low Level Discriminator Mode	AUTO	
MDEN	Matrix Density	2.6	G/C3
PHVL	HLDS Long Spacing High Voltage Setting	1000	V
PHVS	HLDS Short Spacing High Voltage Setting	1000	V
PSDL	HLDS LS Pulse Shape Compensation DAC	30000	
PSDS	HLDS SS Pulse Shape Compensation DAC	30000	
PSML	HLDS LS Pulse Shape Compensation Mode	AUTO	
PSMS	HLDS SS Pulse Shape Compensation Mode	AUTO	
<b>HNGS-BA: Hostile Natural Gamma Ray Sonde</b>			
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	
BHT	Bottom Hole Temperature (used in calculations)	21	DEGC
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	LCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN 9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
H1P	HNGS Detector 1 Allow/Disallow In Processing	ALLOW	
H2P	HNGS Detector 2 Allow/Disallow In Processing	ALLOW	
HABK	HNGS Borehole Potassium Running Average	-0.00211472	
HALF	HNGS Alpha Filter Length	60	IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	BARI	
HNPE	HNGS Processing Enable	YES	
ISSBAR	Barite Mud Switch	BARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
S1B1	HNGS Detector 1 Calibration Bismuth Count Rate	1.3	CPS

S2BI	HNGS 2 Calibration Bismuth Count Rate	1.3	CPS
SGRC	HNGS Standard Gamma-Ray Correction Flag	YES	
SHT	Surface Hole Temperature	20	DEGC
TPOS	Tool Position	ECCE	
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	0.955708	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	0.964775	
<b>EDTC-B: Enhanced DTS Cartridge</b>			
BHFL	Borehole Fluid Type	WATER	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	21	DEGC
BSCO	Borehole Salinity Correction Option	NO	
CCCO	Casing & Cement Thickness Correction Option	NO	
DPPM	Density Porosity Processing Mode	HIRS	
FSAL	Formation Salinity	-50000	PPM
FSCO	Formation Salinity Correction Option	NO	
GCSE	Generalized Caliper Selection	LCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
HSCO	Hole Size Correction Option	YES	
ISSBAR	Barite Mud Switch	BARITE	
ISSBAR_EDTC	Nuclear Mud Type	BARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
MCCO	Mud Cake Correction Option	NO	
MCOR	Mud Correction	BARI	
MWCO	Mud Weight Correction Option	YES	
PTCO	Pressure/Temperature Correction Option	NO	
SDAT	Standoff Data Source	SOCN	
SHT	Surface Hole Temperature	20	DEGC
SOCN	Standoff Distance	0.5	IN
SOCO	Standoff Correction Option	NO	
TPOS_EDTC	EDTC Tool Centered/Eccentered	Eccentered	
U-ETELM_EDTS	Telemetry Mode for eWAFE	Standard_EDTS	
U-TELM_EDTS	Telemetry Mode for WAFE	Standard_EDTS	
<b>System and Miscellaneous</b>			
ALTDPCCHAN	Name of alternate depth channel	SpeedCorrectedDepth	
BS	Bit Size	9.875	IN
BSAL	Borehole Salinity	35000.00	PPM
CSIZ	Current Casing Size	5.000	IN
CWEI	Casing Weight	168.00	LB/F
DFD	Drilling Fluid Density	1.32	G/C3
DO	Depth Offset for Playback	0.0	M
FLEV	Fluid Level	-50000.00	M
MST	Mud Sample Temperature	23.00	DEGC
PBVSADP	Use alternate depth channel for playback	NO	
PP	Playback Processing	RECOMPUTE	
RMFS	Resistivity of Mud Filtrate Sample	-50000.0000	OHMM
RW	Resistivity of Connate Water	1.0000	OHMM
TD	Total Depth	4850.8	M
TDD	Total Depth - Driller	4850.80	M
TDL	Total Depth - Logger	4850.00	M
TWS	Temperature of Connate Water Sample	37.78	DEGC

Format: DSST\_P\_S\_LOWER\_VDL\_COLOR Vertical Scale: 1:200 Graphics File Created: 10-Mar-2017 15:58

## OP System Version: 19C0-187

DSST-B	19C0-187	HRLT-B	19C0-187
HLDS	19C0-187	LDSC-B	19C0-187
HNGC-B	19C0-187	HNGS-BA	19C0-187
EDTC-B	SKK-5169-EDTCB		

### Input DLIS Files

DEFAULT	DSI_HRLA_LDL_NGS_014LUP	FN:20	PRODUCER	07-Mar-2017 08:52	4647.4 M	4486.4 M
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### Output DLIS Files

DEFAULT	DSI_HRLA_LDL_NGS_041PUP	FN:59	PRODUCER	10-Mar-2017 15:58		
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### Input DLIS Files

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### Output DLIS Files

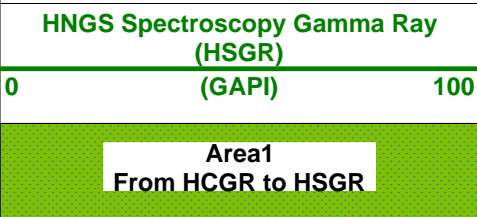
# OP System Version: 19C0-187

DSST-B 19C0-187  
 HLDS 19C0-187  
 HNGC-B 19C0-187  
 EDTC-B SKK-5169-EDTCB

HRLT-B 19C0-187  
 LDSC-B 19C0-187  
 HNGS-BA 19C0-187

## PIP SUMMARY

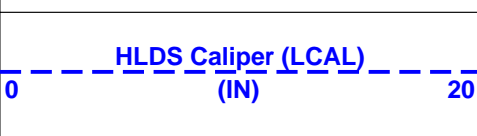
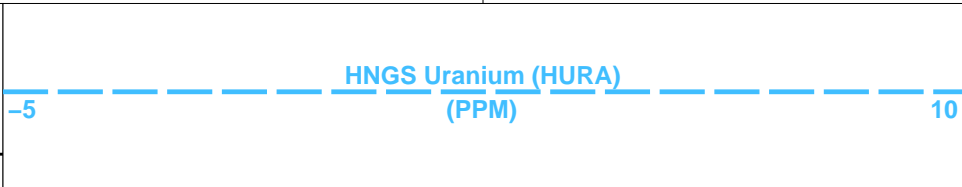
Time Mark Every 60 S



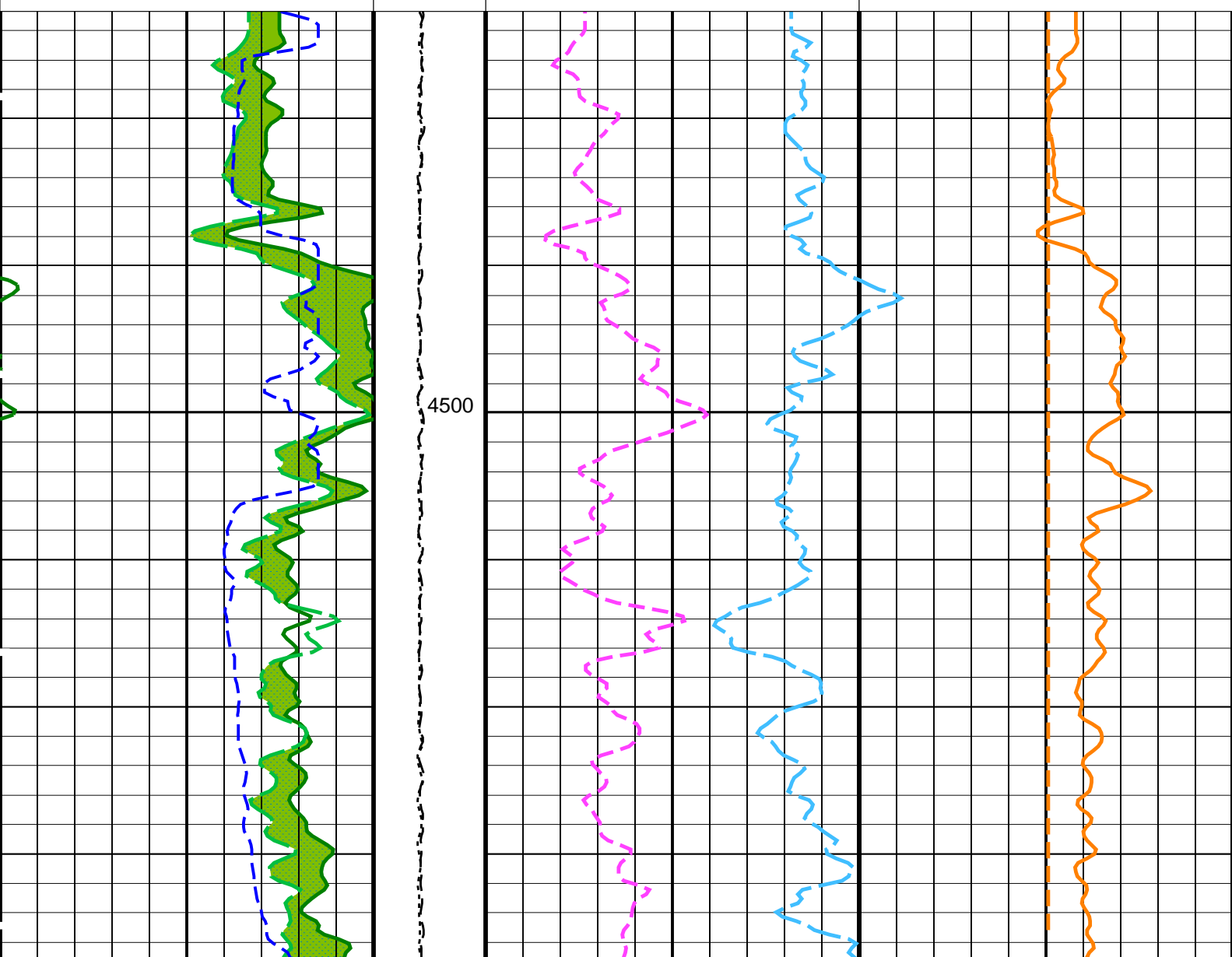
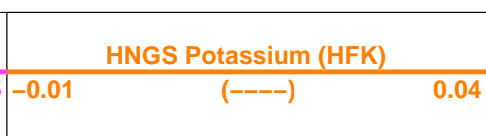
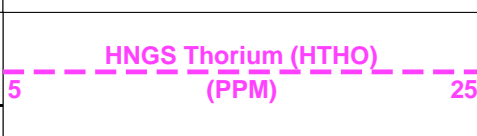
REPEAT SECTION

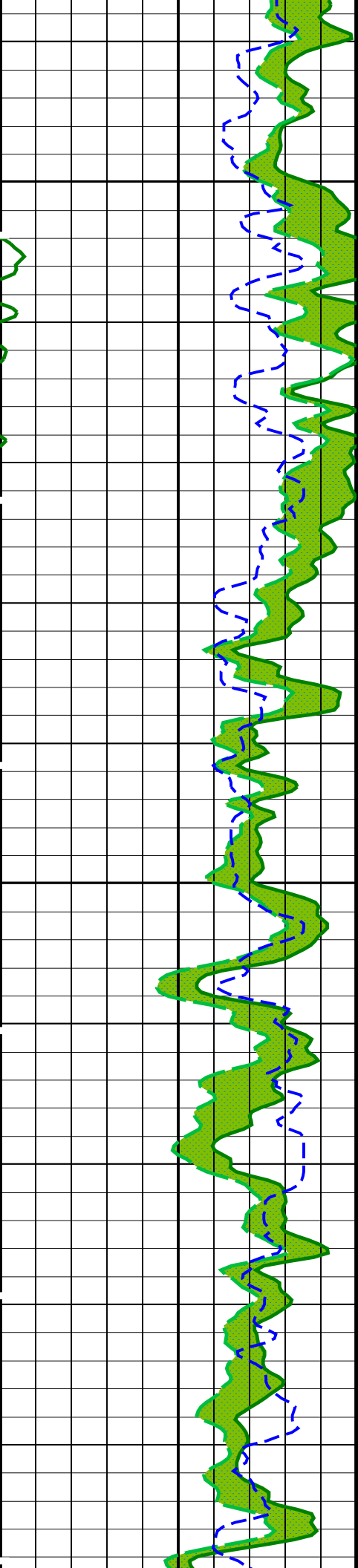


Calibrated  
 Downhole  
 Force  
 (CDF)  
 (LBF)  
 3000 0

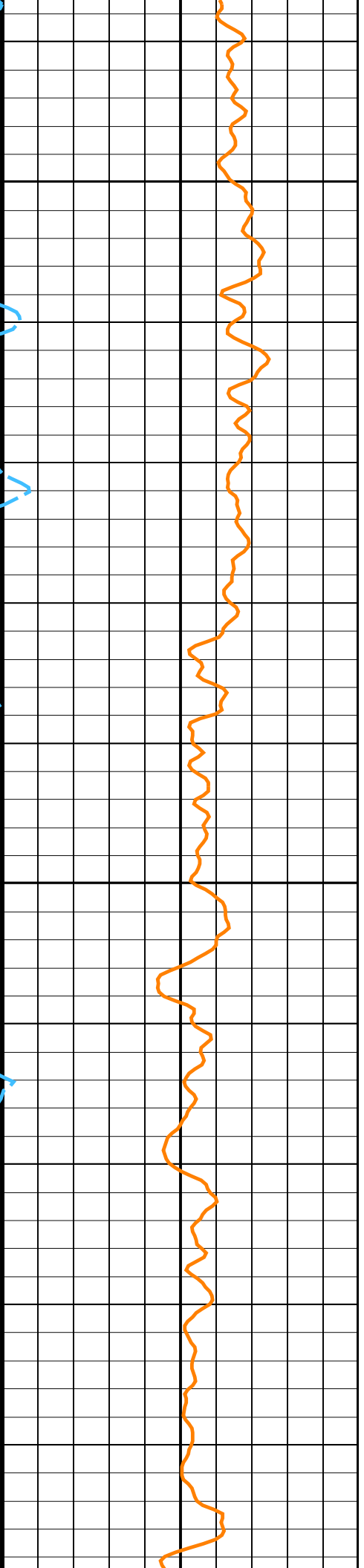
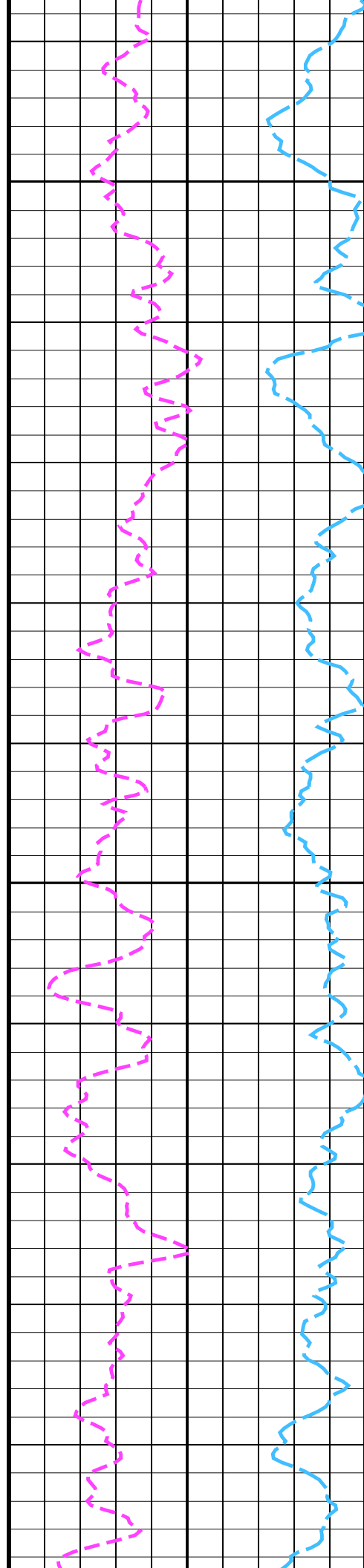


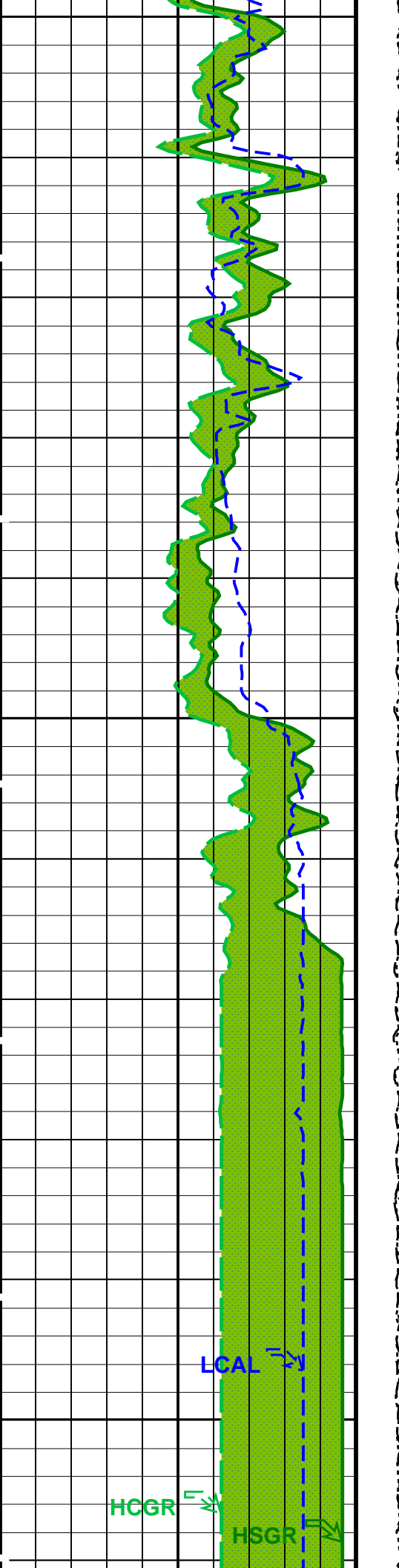
Tension  
 (TENS)  
 (LBF)  
 10000 0





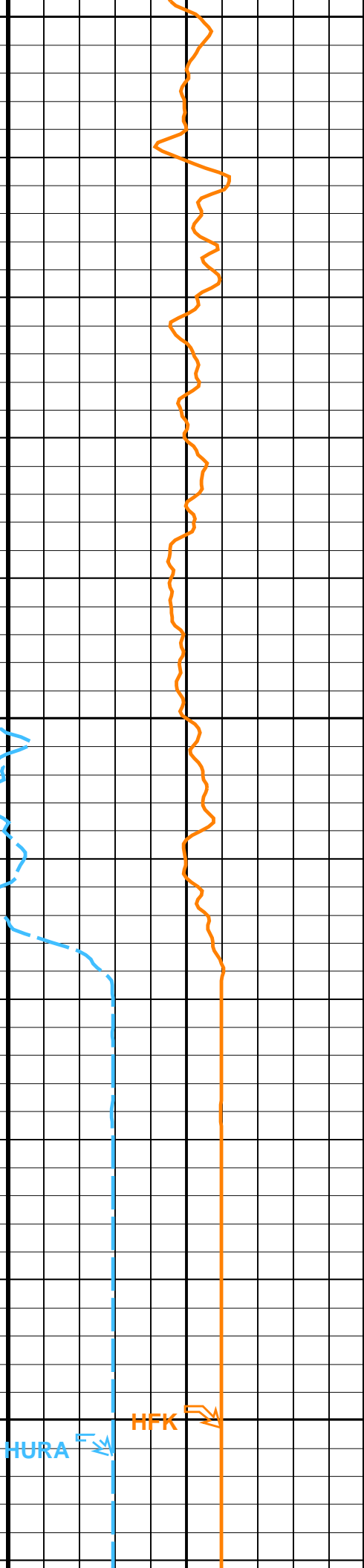
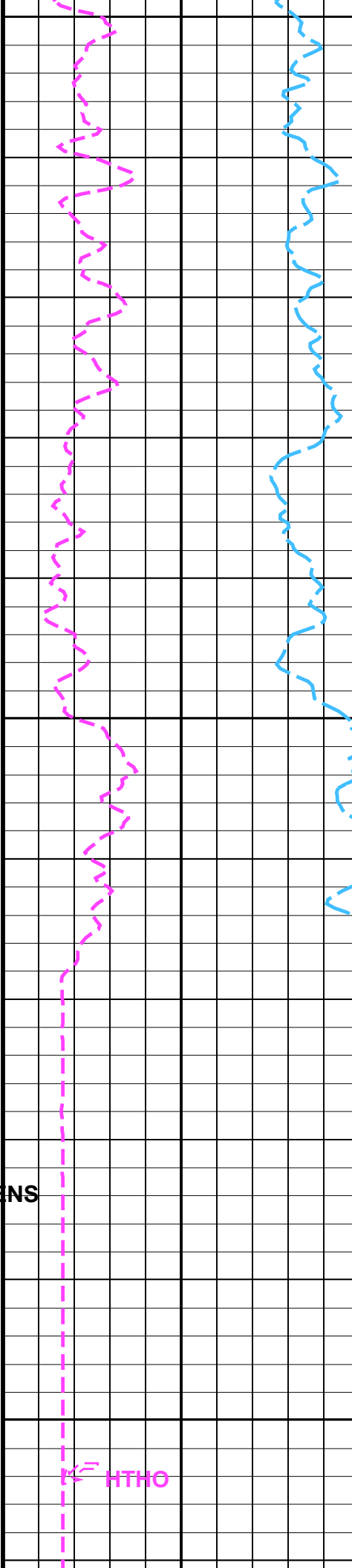
4525  
4550





4575  
4600  
4625

TENS



HCGR

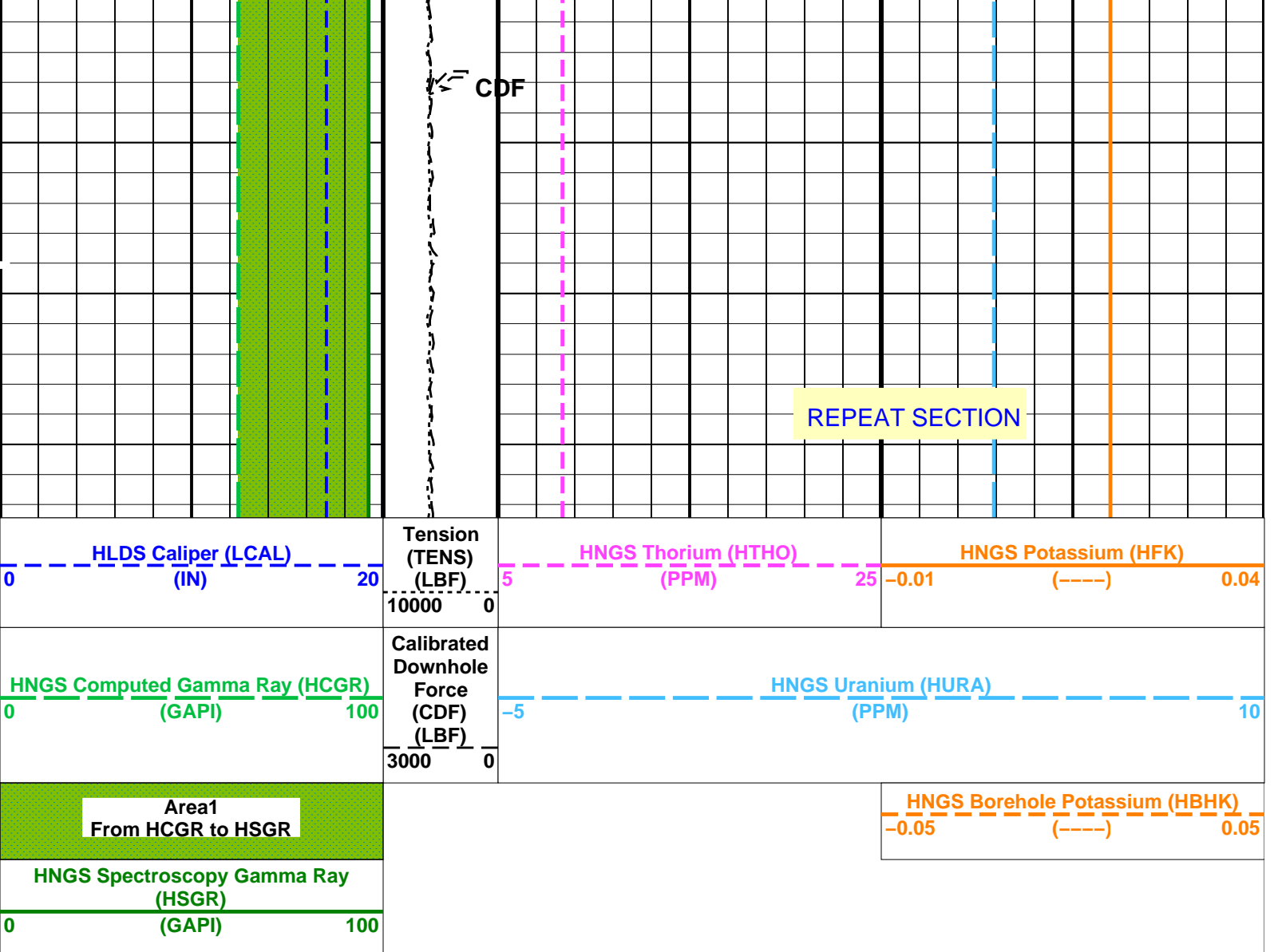
LCAL

HSGR

HTHO

HURA

HFK



PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value
BHS	DSST-B: Dipole Shear Imager - B	
GCSE	Borehole Status	OPEN
	Generalized Caliper Selection	LCAL
BHS	HRLT-B: High Resolution Laterolog Array - B	
GCSE	Borehole Status	OPEN
	Generalized Caliper Selection	LCAL
BAR1	HNGS-BA: Hostile Natural Gamma Ray Sonde	
BAR2	HNGS Detector 1 Barite Constant	1
BHK	HNGS Detector 2 Barite Constant	1
BHS	HNGS Borehole Potassium Correction Concentration	0
CSD1	Borehole Status	OPEN
CSD2	Inner Casing Outer Diameter	0 IN
CSW1	Outer Casing Outer Diameter	0 IN
CSW2	Inner Casing Weight	0 LB/F
DBCC	Outer Casing Weight	0 LB/F
GCSE	HNGS Barite Constant Correction Flag	NONE
H1P	Generalized Caliper Selection	LCAL
H2P	HNGS Detector 1 Allow/Disallow In Processing	ALLOW
HABK	HNGS Detector 2 Allow/Disallow In Processing	ALLOW
HALF	HNGS Borehole Potassium Running Average	-0.00209711
HCRB	HNGS Alpha Filter Length	60 IN
HMWM	HNGS Apply Borehole Potassium Correction	NONE
HNPE	Mud Weighting Material	BARI
S1BI	HNGS Processing Enable	YES
S2BI	HNGS Detector 1 Calibration Bismuth Count Rate	1.3 CPS
SGRC	HNGS Detector 2 Calibration Bismuth Count Rate	1.3 CPS
TPOS	HNGS Standard Gamma-Ray Correction Flag	YES
	Tool Position	ECCE



VBA1	HNGS Detector 1 Variable Barite Factor Running Average	0.955665	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	0.964832	
BHS	EDTC-B: Enhanced DTS Cartridge		
GCSE	Borehole Status	OPEN	
	Generalized Caliper Selection	LCAL	
BS	System and Miscellaneous		
DFD	Bit Size	9.875	IN
DO	Drilling Fluid Density	1.32	G/C3
PP	Depth Offset for Playback	0.0	M
	Playback Processing	RECOMPUTE	

Format: HNGSYields    Vertical Scale: 1:200    Graphics File Created: 17-Mar-2017 16:52

<b>OP System Version: 19C0-187</b>			
DSST-B	19C0-187	HRLT-B	19C0-187
HLDS	19C0-187	LDSC-B	19C0-187
HNGC-B	19C0-187	HNGS-BA	19C0-187
EDTC-B	SKK-5169-EDTCB		

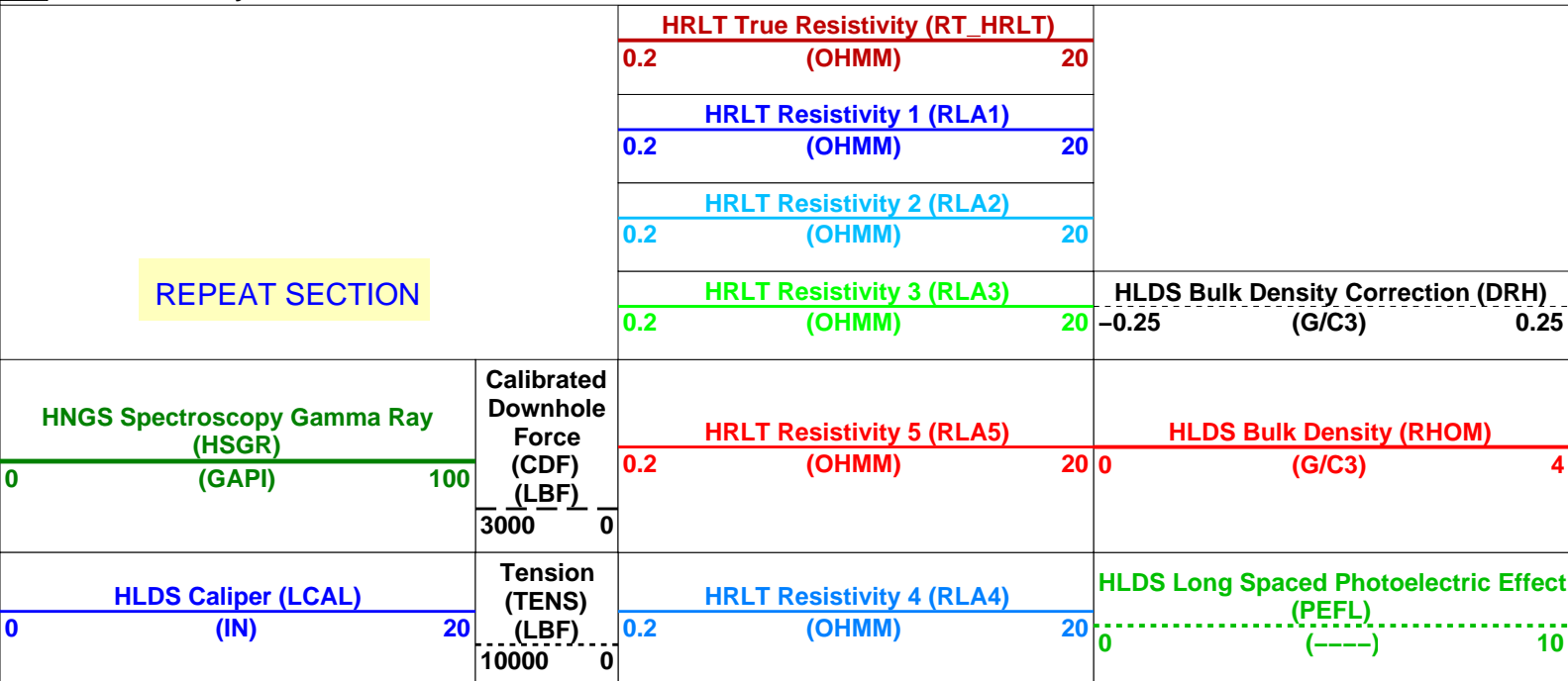
<b>Input DLIS Files</b>						
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<b>Output DLIS Files</b>						
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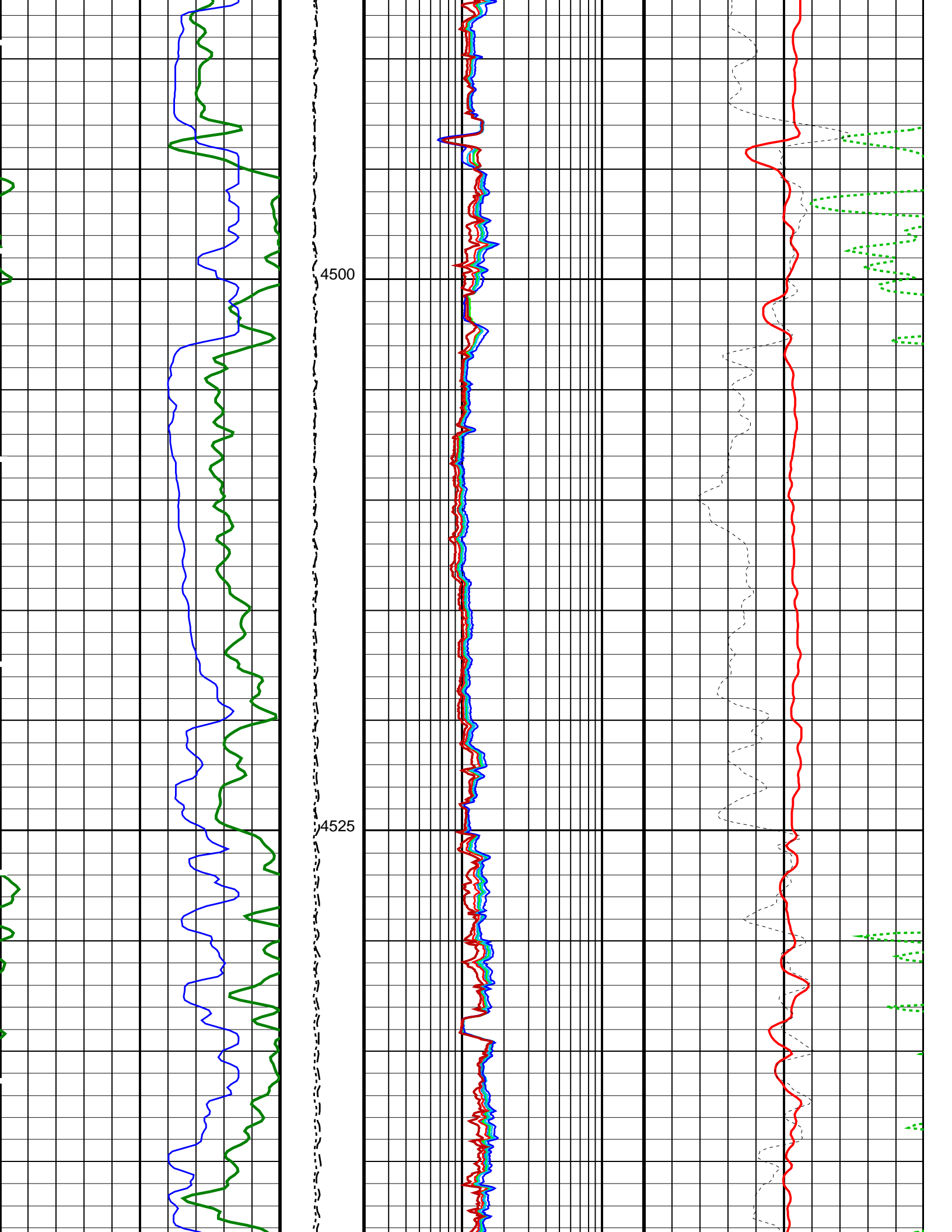
<b>Input DLIS Files</b>						
DEFAULT	DSI_HRLA_LDL_NGS_041PUP	FN:59	PRODUCER	10-Mar-2017 15:58	4647.4 M	4486.4 M
<b>Output DLIS Files</b>						
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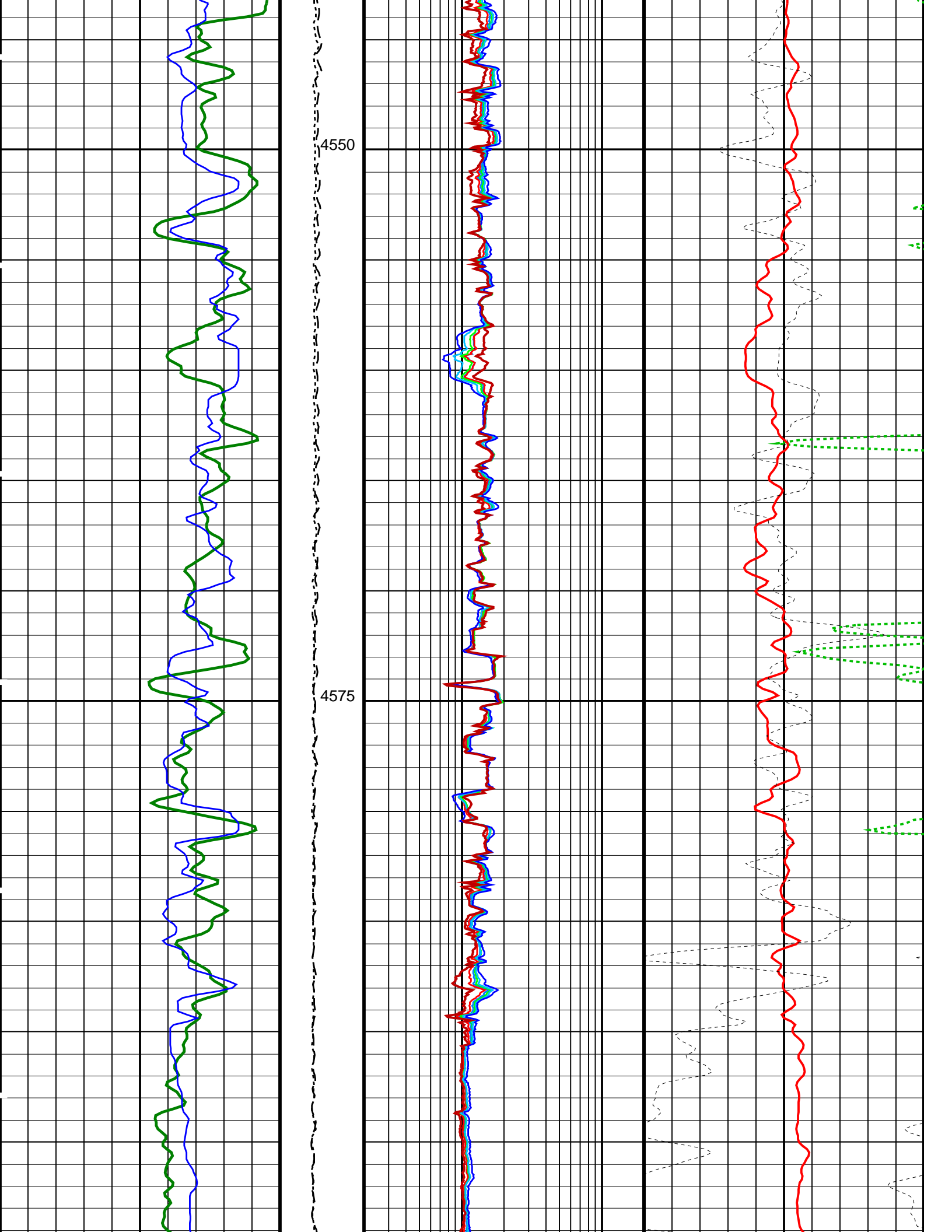
<b>OP System Version: 19C0-187</b>			
DSST-B	19C0-187	HRLT-B	19C0-187
HLDS	19C0-187	LDSC-B	19C0-187
HNGC-B	19C0-187	HNGS-BA	19C0-187
EDTC-B	SKK-5169-EDTCB		

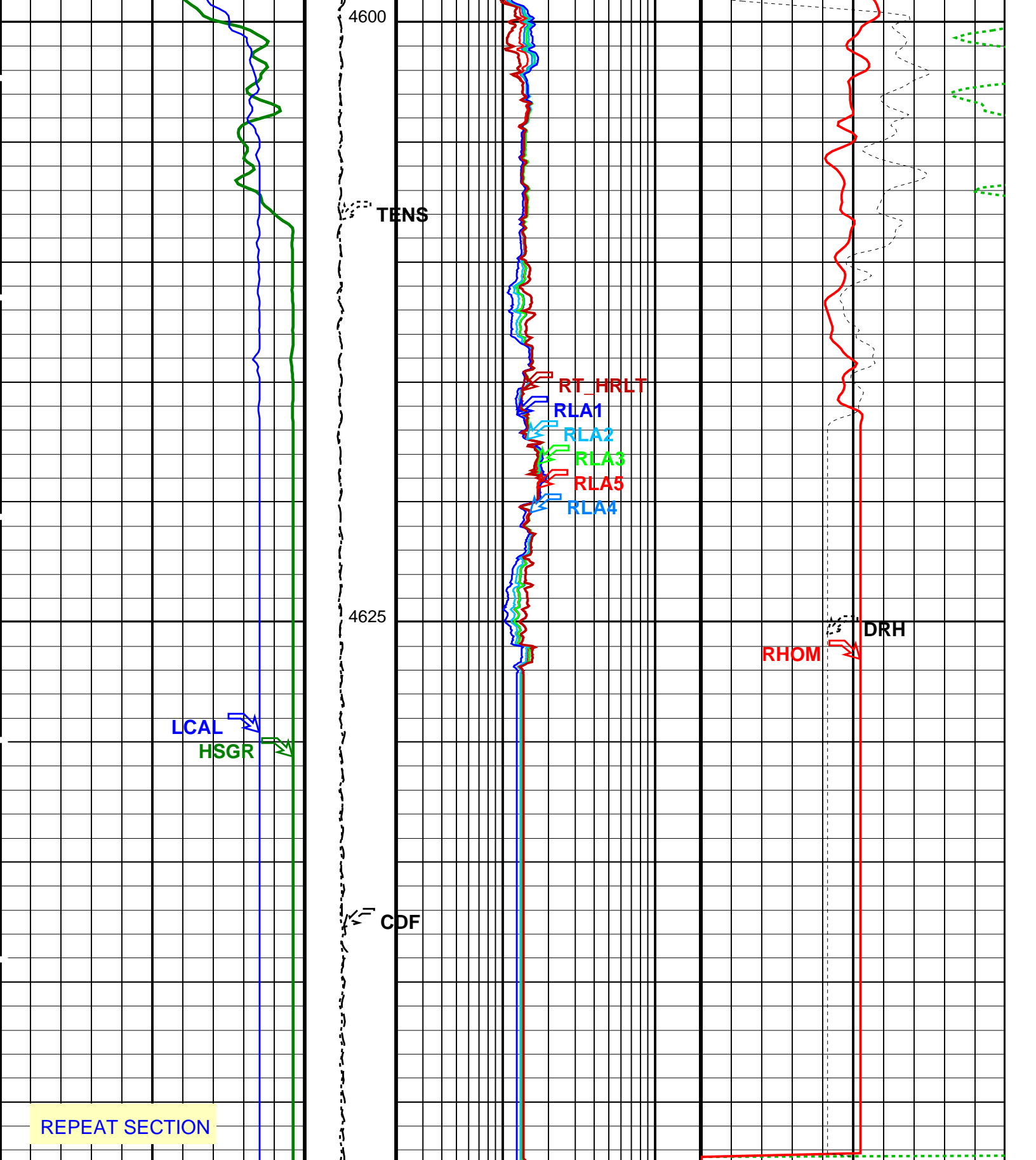
**PIP SUMMARY**

Time Mark Every 60 S









REPEAT SECTION

<p>HLDS Caliper (LCAL) (IN)</p> <p>0 20</p>	<p>Tension (TENS) (LBF)</p> <p>10000 0</p>	<p>HRLT Resistivity 4 (RLA4) (OHMM)</p> <p>0.2 20</p>	<p>HLDS Long Spaced Photoelectric Effect (PEFL) (G/C3)</p> <p>0 10</p>
<p>HNGS Spectroscopy Gamma Ray (HSGR) (GAPI)</p> <p>0 100</p>	<p>Calibrated Downhole Force (CDF) (LBF)</p>	<p>HRLT Resistivity 5 (RLA5) (OHMM)</p> <p>0.2 20</p>	<p>HLDS Bulk Density (RHOM) (G/C3)</p> <p>0 4</p>

3000 0

	<b>HRLT Resistivity 3 (RLA3)</b>		<b>HLDS Bulk Density Correction (DRH)</b>
0.2	(OHMM)	20	-0.25 (G/C3) 0.25
	<b>HRLT Resistivity 2 (RLA2)</b>		
0.2	(OHMM)	20	
	<b>HRLT Resistivity 1 (RLA1)</b>		
0.2	(OHMM)	20	
	<b>HRLT True Resistivity (RT_HRLT)</b>		
0.2	(OHMM)	20	

## PIP SUMMARY

Time Mark Every 60 S

## Parameters

DLIS Name	Description	Value
DSST-B: Dipole Shear Imager - B		
AGC1	Automatic Gain Control 1	ON
AGC2	Automatic Gain Control 2	ON
AGC3	Automatic Gain Control 3	ON
AGC4	Automatic Gain Control 4	ON
AGC5	Automatic Gain Control 5	ON
AGCX	Automatic Gain Control X	ON
BARS_MTR1	Length for Monopole Transmitter to Receiver 1	2.7432 M
BHS	Borehole Status	OPEN
BHT	Bottom Hole Temperature (used in calculations)	21 DEGC
CASF	Label Casing Function - Monopole P&S	50
CDTS	C-Delta-T Shale	100 US/F
COLL	Label Slowness Lower Limit - Monopole P&S Compressional	65 US/F
COUL	Label Slowness Upper Limit - Monopole P&S Compressional	175 US/F
DDE1	Digitizing Delay 1	0 US
DDE2	Digitizing Delay 2	0 US
DDE3	Digitizing Delay 3	0 US
DDE4	Digitizing Delay 4	0 US
DDE5	Digitizing Delay 5	0 US
DDEX	Digitizing Delay X	0 US
DLCS	Label Compressional Source - Dipole Shear	USE
DLHS	Label Hole Diameter Source for SOBS Channel	AUTO
DSHL	Label Slowness Lower Limit - Dipole Shear	75 US/F
DSHU	Label Slowness Upper Limit - Dipole Shear	600 US/F
DSI1	Digitizer Sample Interval 1	40 US
DSI2	Digitizer Sample Interval 2	40 US
DSI3	Digitizer Sample Interval 3	40 US
DSI4	Digitizer Sample Interval 4	10 US
DSI5	Digitizer Sample Interval 5	10 US
DSIX	Digitizer Sample Interval X	40 US
DTCS	Compressional Delta-T Source for DTCO Channel	PS_COMP
DTF	Delta-T Fluid	193 US/F
DTM	Delta-T Matrix	56 US/F
DTSS	Shear Delta-T Source for DTSM Channel	LOWER_DIPOLE
DWC1	Digitizer Word Count 1	512
DWC2	Digitizer Word Count 2	512
DWC3	Digitizer Word Count 3	512
DWC4	Digitizer Word Count 4	512
DWC5	Digitizer Word Count 5	512
DWCX	Digitizer Word Count X	512
FDE1	Firing Delay 1	0
FDE2	Firing Delay 2	0
FDE3	Firing Delay 3	0
FDE4	Firing Delay 4	0
FDE5	Firing Delay 5	0
FDEX	Firing Delay X	0
FGM5	First Motion Gate Moveout 5	40 US/F
FGMX	First Motion Gate Moveout X	40 US/F
FILG	Label Fill Gap Control - Monopole P&S	COMP_SHEAR
FMG5	First Motion Minimum Gate 5	500 US
FMGX	First Motion Minimum Gate X	500 US
FMLL	Slowness Lower Limit - FMD	40 US/F
FMRC	Restart Control - FMD	CONTINUE
FMT5	First Motion Threshold 5	UP
FMTX	First Motion Threshold X	NONE
FMUL	Slowness Upper Limit - FMD	180 US/F
FNC5	First Motion Noise Counter Input 5	ALO
FNCX	First Motion Noise Counter Input X	ALO
FPM	Processing Mode - FMD	NONE
ETD5	First Motion Threshold Direction 5	UP

FTD3	First Motion Threshold Direction 3	01	
FTDX	First Motion Threshold Direction X	UP	
GAI1	Manual Gain 1	10	
GAI2	Manual Gain 2	10	
GAI3	Manual Gain 3	6	
GAI4	Manual Gain 4	16	
GAI5	Manual Gain 5	16	
GAIX	Manual Gain X	10	
GCSE	Generalized Caliper Selection	LCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GDT1	Gain Delta-T 1	800	US/F
GDT2	Gain Delta-T 2	800	US/F
GDT3	Gain Delta-T 3	800	US/F
GDT4	Gain Delta-T 4	160	US/F
GDT5	Gain Delta-T 5	160	US/F
GDTX	Gain Delta-T X	800	US/F
GGRD	Geothermal Gradient	0.018227	DC/M
GIN1	Gain Interval 1	15360	US
GIN2	Gain Interval 2	15360	US
GIN3	Gain Interval 3	15360	US
GIN4	Gain Interval 4	2560	US
GIN5	Gain Interval 5	1600	US
GINX	Gain Interval X	15360	US
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
HPF1	High Pass Filter 1	F80	
HPF2	High Pass Filter 2	F80	
HPF3	High Pass Filter 3	F80	
HPF4	High Pass Filter 4	F8K	
HPF5	High Pass Filter 5	F8K	
HPFX	High Pass Filter X	F80	
ISSBAR	Barite Mud Switch	BARITE	
ITTS	Integrated Transit Time Source	DTCO	
LFC	Label Formation Character - Monopole P&S	DYNAMIC	
LPF1	Low Pass Filter 1	F5K	
LPF2	Low Pass Filter 2	F5K	
LPF3	Low Pass Filter 3	F5K	
LPF4	Low Pass Filter 4	F30K	
LPF5	Low Pass Filter 5	F30K	
LPFX	Low Pass Filter X	F5K	
LTXG	Lower Dipole Transmitter Geometry	156	IN
MAI5	Slowness Averaging Interval - FMD	42	IN
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
MCS	Mean Casing Slowness	57	US/F
MDS5	Multishot Delta-T Scatter - FMD	20	US
MTXG	Monopole Transmitter Geometry	186	IN
MUX1	Sum Difference Multiplexor Input 1	RR	
MUX2	Sum Difference Multiplexor Input 2	RR	
MUX3	Sum Difference Multiplexor Input 3	RR	
MUX4	Sum Difference Multiplexor Input 4	RR	
MUX5	Sum Difference Multiplexor Input 5	RR	
MUXX	Sum Difference Multiplexor Input X	RR	
NTI5	Number Threshold Items 5	0	
NTIX	Number Threshold Items X	0	
NWI1	Number Waveform Items 1	8	
NWI2	Number Waveform Items 2	8	
NWI3	Number Waveform Items 3	0	
NWI4	Number Waveform Items 4	8	
NWI5	Number Waveform Items 5	0	
NWIX	Number Waveform Items X	0	
NWS1	Number Waveforms Stacked 1	1	
NWS2	Number Waveforms Stacked 2	1	
NWS3	Number Waveforms Stacked 3	1	
NWS4	Number Waveforms Stacked 4	1	
NWS5	Number Waveforms Stacked 5	1	
NWSX	Number Waveforms Stacked X	1	
RATE	Firing Rate	R7	
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	
SAM2	DSST Sonic Acquisition Mode 2 - Upper Dipole Mode	ODD	
SAM3	DSST Sonic Acquisition Mode 3 - Monopole Mode for Stoneley	OFF	
SAM4	DSST Sonic Acquisition Mode 4 - Monopole Mode for P&S	EVEN	
SAM5	DSST Sonic Acquisition Mode 5 - Monopole Mode for FMD	OFF	
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	
SAS3	STC Sonic Array Status - Monopole Stoneley	255	
SAS4	STC Sonic Array Status - Monopole P&S	255	
SAS5	Sonic Array Status - FMD	255	
SBO1	STC Search Band Offset - Lower Dipole	3000	US
SBO2	STC Search Band Offset - Upper Dipole	3000	US
SBO3	STC Search Band Offset - Monopole Stoneley	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
SBW2	STC Search Bandwidth - Upper Dipole	8000	US
SBW3	STC Search Bandwidth - Monopole Stoneley	8000	US
SBW4	STC Search Bandwidth - Monopole P&S	2000	US
SFC1	STC Formation Character - Lower Dipole	SELECTABLE	
SFC2	STC Formation Character - Upper Dipole	SELECTABLE	
SFC3	STC Formation Character - Monopole Stoneley	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	
SFM3	STC Filter - Monopole Stoneley	B.5-1.5K	
SFM4	STC Filter - Monopole P&S	B3-20K	
SHLL	Label Slowness Lower Limit - Monopole P&S Shear	235	US/F
SHT	Surface Hole Temperature	20	DEGC
SHUL	Label Slowness Upper Limit - Monopole P&S Shear	240	US/F
LLL1	STC Slowness Lower Limit - Lower Dipole	75	US/F
LLL2	STC Slowness Lower Limit - Upper Dipole	75	US/F
LLL3	STC Slowness Lower Limit - Monopole Stoneley	180	US/F
LLL4	STC Slowness Lower Limit - Monopole P&S	40	US/F
SPFS	Sonic Porosity Formula	RAYMER_HUNT	
SPSO	Sonic Porosity Source	DTCO	
SST1	STC Slowness Step - Lower Dipole	4	US/F
SST2	STC Slowness Step - Upper Dipole	4	US/F
SST3	STC Slowness Step - Monopole Stoneley	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	
SSW3	STC Source Waveform - Monopole Stoneley	WF_SAM3	
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	1200	US/F
SUL2	STC Slowness Upper Limit - Upper Dipole	1200	US/F
SUL3	STC Slowness Upper Limit - Monopole Stoneley	780	US/F
SUL4	STC Slowness Upper Limit - Monopole P&S	240	US/F
SWD1	STC Slowness Width - Lower Dipole	40	US/F
SWD2	STC Slowness Width - Upper Dipole	40	US/F
SWD3	STC Slowness Width - Monopole Stoneley	40	US/F
SWD4	STC Slowness Width - Monopole P&S	10	US/F
TBDB	Tool String Bottom to DSST Bottom	95.25	IN
TBF1	STC Time for Baseline Fill - Lower Dipole	0	US
TBF2	STC Time for Baseline Fill - Upper Dipole	0	US
TBF3	STC Time for Baseline Fill - Monopole Stoneley	0	US
TBF4	STC Time for Baseline Fill - Monopole P&S	300	US
TLL1	STC Time Lower Limit - Lower Dipole	600	US
TLL2	STC Time Lower Limit - Upper Dipole	600	US
TLL3	STC Time Lower Limit - Monopole Stoneley	600	US
TLL4	STC Time Lower Limit - Monopole P&S	150	US
TST1	STC Time Step - Lower Dipole	200	US
TST2	STC Time Step - Upper Dipole	200	US
TST3	STC Time Step - Monopole Stoneley	200	US
TST4	STC Time Step - Monopole P&S	50	US
TTDB	Tool String Top to DSST Bottom	1656.11	IN
TUL1	STC Time Upper Limit - Lower Dipole	20440	US
TUL2	STC Time Upper Limit - Upper Dipole	20200	US
TUL3	STC Time Upper Limit - Monopole Stoneley	12000	US
TUL4	STC Time Upper Limit - Monopole P&S	3660	US
TWA1	Transmitter Waveform Amplitude 1	179	
TWA2	Transmitter Waveform Amplitude 2	179	
TWA3	Transmitter Waveform Amplitude 3	166	
TWA4	Transmitter Waveform Amplitude 4	150	
TWA5	Transmitter Waveform Amplitude 5	150	
TWAX	Transmitter Waveform Amplitude X	179	
TWD1	STC Time Width - Lower Dipole	2000	US
TWD2	STC Time Width - Upper Dipole	2000	US
TWD3	STC Time Width - Monopole Stoneley	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
TWI3	STC Integration Time Window - Monopole Stoneley	2400	US
TWI4	STC Integration Time Window - Monopole P&S	500	US
TWR1	Transmitter Waveform Sample Rate 1	20	US
TWR2	Transmitter Waveform Sample Rate 2	5	US
TWR3	Transmitter Waveform Sample Rate 3	5	US
TWR4	Transmitter Waveform Sample Rate 4	5	US
TWR5	Transmitter Waveform Sample Rate 5	5	US

TWRX	Transmitter Waveform Sample Rate X	5	US
TWS1	Transmitter Waveform Select 1	2	
TWS2	Transmitter Waveform Select 2	0	
TWS3	Transmitter Waveform Select 3	4	
TWS4	Transmitter Waveform Select 4	6	
TWS5	Transmitter Waveform Select 5	6	
TWSX	Transmitter Waveform Select X	0	
UTXG	Upper Dipole Transmitter Geometry	162	IN
WFDTSP1	SAM1 Waveform Delta for Spectrum	0	US/F
WFDTSP2	SAM2 Waveform Delta for Spectrum	0	US/F
WFDTSP3	SAM3 Waveform Delta for Spectrum	0	US/F
WFDTSP4	SAM4 Waveform Delta for Spectrum	0	US/F
WFDTSPX	SAMX Waveform Delta for Spectrum	0	US/F
WFLSP1	SAM1 Waveform Lower Limit for Spectrum	0	US
WFLSP2	SAM2 Waveform Lower Limit for Spectrum	0	US
WFLSP3	SAM3 Waveform Lower Limit for Spectrum	0	US
WFLSP4	SAM4 Waveform Lower Limit for Spectrum	0	US
WFLSPX	SAMX Waveform Lower Limit for Spectrum	0	US
WFM1	Waveform Mode 1	W1	
WFM2	Waveform Mode 2	W1	
WFM3	Waveform Mode 3	W1	
WFM4	Waveform Mode 4	W1	
WFM5	Waveform Mode 5	W1	
WFMX	Waveform Mode X	W1	
WFULSP1	SAM1 Waveform Upper Limit for Spectrum	20000	US
WFULSP2	SAM2 Waveform Upper Limit for Spectrum	20000	US
WFULSP3	SAM3 Waveform Upper Limit for Spectrum	20000	US
WFULSP4	SAM4 Waveform Upper Limit for Spectrum	5000	US
WFULSPX	SAMX Waveform Upper Limit for Spectrum	20000	US
XMT1	Transmitter Select 1	DLO	
XMT2	Transmitter Select 2	DUP	
XMT3	Transmitter Select 3	MONO	
XMT4	Transmitter Select 4	MONO	
XMT5	Transmitter Select 5	MONO	
XMTX	Transmitter Select X	DUP	
HRLT-B: High Resolution Laterolog Array - B			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	21	DEGC
CALSTAT	HRLTB Calibration Status	SHALLOW_DONE	
CALTEMP	HRLTB Calibration Temperature	23.3869	DEGC
FREQ0	HRLT Frequency Index for Mode 0	32	
FREQ1	HRLT Frequency Index for Mode 1	128	
FREQ2	HRLT Frequency Index for Mode 2	104	
FREQ3	HRLT Frequency Index for Mode 3	86	
FREQ4	HRLT Frequency Index for Mode 4	56	
FREQ5	HRLT Frequency Index for Mode 5	44	
FREQ6	HRLT Frequency Index for Mode 6	116	
GCSE	Generalized Caliper Selection	LCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
ISSBAR	Barite Mud Switch	BARITE	
KFAC_HRLT	HRLT K Factor Option	SONDE	
LOOPCOEF_S	HRLT Loop Coefficient for Shallow Modes	LOW	
LOOPMOD0	HRLT Mode 0 Loop Mode	OFF	
LOOPMOD1	HRLT Mode 1 Loop Mode	OFF	
LOOPMOD2	HRLT Mode 2 Loop Mode	OFF	
LOOPMOD3	HRLT Mode 3 Loop Mode	OFF	
LOOPMOD4	HRLT Mode 4 Loop Mode	OFF	
LOOPMOD5	HRLT Mode 5 Loop Mode	OFF	
LOOPMOD6	HRLT Mode 6 Loop Mode	OFF	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
PROGINV	Inversion Selection	ON	
PROCMFL	Inversion Micro-Resistivity Selection	NO_EXTERNAL_RXO	
PROCMO	Mechanical Standoff Fin Size	0	IN
PROCRM	Processing Mud Resistivity Select	HRLT_Compute	
PROCSO	Sonde Position	Centered	
SHT	Surface Hole Temperature	20	DEGC
HLDS: Hostile Litho-Density Sonde			
CLCL	HLDS LS Control Loop Controller Mode	AUTO_DEFAULT	
CLCS	HLDS SS Control Loop Controller Mode	AUTO_DEFAULT	
CLLS	HLDS Mode Loop Long Spacing	AUTO	
CLSS	HLDS Mode Loop Short Spacing	AUTO	
DHC	Density Hole Correction	BS	
DPPM	Density Porosity Processing Mode	HIRS	
FD	Fluid Density	1	G/C3
LATC	HLDS Activation Correction	ON	
LLDL	HLDS LS Low Level Discriminator DAC	14000	
LLDS	HLDS SS Low Level Discriminator DAC	14000	
LLML	HLDS LS Low Level Discriminator Mode	AUTO	
LLMS	HLDS SS Low Level Discriminator Mode	AUTO	
MDEN	Matrix Density	2.6	G/C3
PHVL	HLDS Long Spacing High Voltage Setting	1000	V
PLVS	HLDS Short Spacing High Voltage Setting	1000	V



PHVS	HLDS Short Spacing High Voltage Setting	1000	V
PSDL	HLDS LS Pulse Shape Compensation DAC	30000	
PSDS	HLDS SS Pulse Shape Compensation DAC	30000	
PSML	HLDS LS Pulse Shape Compensation Mode	AUTO	
PSMS	HLDS SS Pulse Shape Compensation Mode	AUTO	
<b>HNGS-BA: Hostile Natural Gamma Ray Sonde</b>			
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	
BHT	Bottom Hole Temperature (used in calculations)	21	DEGC
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	LCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN 9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
H1P	HNGS Detector 1 Allow/Disallow In Processing	ALLOW	
H2P	HNGS Detector 2 Allow/Disallow In Processing	ALLOW	
HABK	HNGS Borehole Potassium Running Average	-0.00209711	
HALF	HNGS Alpha Filter Length	60	IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	BARI	
HNPE	HNGS Processing Enable	YES	
ISSBAR	Barite Mud Switch	BARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
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	
SHT	Surface Hole Temperature	20	DEGC
TPOS	Tool Position	ECCE	
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	0.955665	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	0.964832	
<b>EDTC-B: Enhanced DTS Cartridge</b>			
BHFL	Borehole Fluid Type	WATER	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	21	DEGC
BSCO	Borehole Salinity Correction Option	NO	
CCCO	Casing & Cement Thickness Correction Option	NO	
DPPM	Density Porosity Processing Mode	HIRS	
FSAL	Formation Salinity	-50000	PPM
FSCO	Formation Salinity Correction Option	NO	
GCSE	Generalized Caliper Selection	LCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN 9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
HSCO	Hole Size Correction Option	YES	
ISSBAR	Barite Mud Switch	BARITE	
ISSBAR_EDTC	Nuclear Mud Type	BARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
MCCO	Mud Cake Correction Option	NO	
MCOR	Mud Correction	BARI	
MWCO	Mud Weight Correction Option	YES	
PTCO	Pressure/Temperature Correction Option	NO	
SDAT	Standoff Data Source	SOCN	
SHT	Surface Hole Temperature	20	DEGC
SOCN	Standoff Distance	0.5	IN
SOCO	Standoff Correction Option	NO	
TPOS_EDTC	EDTC Tool Centered/Eccentered	Eccentered	
U-ETELM_EDTS	Telemetry Mode for eWAFE	Standard_EDTS	
U-TELM_EDTS	Telemetry Mode for WAFE	Standard_EDTS	
<b>System and Miscellaneous</b>			
ALTDPCHAN	Name of alternate depth channel	SpeedCorrectedDepth	
BS	Bit Size	9.875	IN
BSAL	Borehole Salinity	35000.00	PPM
CSIZ	Current Casing Size	5.000	IN
CWEI	Casing Weight	168.00	LB/F
DFD	Drilling Fluid Density	1.32	G/C3
DO	Depth Offset for Playback	0.0	M
FLEV	Fluid Level	-50000.00	M
MST	Mud Sample Temperature	23.00	DEGC
PBVSADP	Use alternate depth channel for playback	NO	
PP	Playback Processing	RECOMPUTE	
RMFS	Resistivity of Mud Filtrate Sample	-50000.0000	OHMM
RW	Resistivity of Connate Water	1.0000	OHMM
TD	Total Depth	4850.8	M
TDD	Total Depth - Driller	4822.00	M
TDL	Total Depth - Logger	4789.00	M
TWS	Temperature of Connate Water Sample	37.78	DEGC

## OP System Version: 19C0-187

DSST-B	19C0-187	HRLT-B	19C0-187
HLDS	19C0-187	LDSC-B	19C0-187
HNGC-B	19C0-187	HNGS-BA	19C0-187
EDTC-B	SKK-5169-EDTCB		

### Input DLIS Files

DEFAULT	DSI_HRLA_LDL_NGS_041PUP	FN:59	PRODUCER	10-Mar-2017 15:58	4647.4 M	4486.4 M
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### Output DLIS Files

DEFAULT	DSI_HRLA_LDL_NGS_054PUP	FN:72	PRODUCER	17-Mar-2017 16:52
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### Calibration and Check Summary

Measurement	Nominal	Master	Before	After	Change	Limit	Units
<b>High Resolution Laterolog Array - B Wellsite Calibration - HRLT M01</b>							
Before: 7-Mar-2017 3:51 After: 7-Mar-2017 13:32							
HRLT M0-M1 Voltage Plus - 0	0	N/A	-318.5	-318.4	0.1434	9.681	UV
HRLT M0-M1 Voltage Plus - 1	0	N/A	-332.2	-330.9	1.258	9.681	UV
HRLT M0-M1 Voltage Plus - 2	0	N/A	-339.5	-339.0	0.5231	9.681	UV
HRLT M0-M1 Voltage Plus - 3	0	N/A	-330.0	-329.2	0.7832	9.681	UV
HRLT M0-M1 Voltage Plus - 4	0	N/A	-320.1	-319.8	0.2768	9.681	UV
HRLT M0-M1 Voltage Plus - 5	0	N/A	-322.0	-321.8	0.2112	9.681	UV
HRLT M0-M1 Voltage Plus - 6	0	N/A	322.5	320.4	-2.154	9.681	UV
HRLT M0-M1 Voltage Plus - 7	0	N/A	-322.7	-322.7	0	9.681	UV
<b>High Resolution Laterolog Array - B Wellsite Calibration - HRLT M12</b>							
Before: 7-Mar-2017 3:51 After: 7-Mar-2017 13:32							
HRLT M1-M2 Voltage Plus - 0	0	N/A	1741	1739	-2.192	53.42	UV
HRLT M1-M2 Voltage Plus - 1	0	N/A	1823	1815	-7.842	53.42	UV
HRLT M1-M2 Voltage Plus - 2	0	N/A	1856	1852	-4.033	53.42	UV
HRLT M1-M2 Voltage Plus - 3	0	N/A	1802	1797	-5.123	53.42	UV
HRLT M1-M2 Voltage Plus - 4	0	N/A	1747	1744	-3.006	53.42	UV
HRLT M1-M2 Voltage Plus - 5	0	N/A	1758	1756	-2.330	53.42	UV
HRLT M1-M2 Voltage Plus - 6	0	N/A	-1778	-1765	13.03	53.42	UV
HRLT M1-M2 Voltage Plus - 7	0	N/A	1781	1781	0	53.42	UV
<b>High Resolution Laterolog Array - B Wellsite Calibration - HRLT M23</b>							
Before: 7-Mar-2017 3:51 After: 7-Mar-2017 13:32							
HRLT M2-M3 Voltage Plus - 0	0	N/A	1732	1730	-1.930	53.42	UV
HRLT M2-M3 Voltage Plus - 1	0	N/A	1824	1817	-7.568	53.42	UV
HRLT M2-M3 Voltage Plus - 2	0	N/A	1859	1855	-4.212	53.42	UV
HRLT M2-M3 Voltage Plus - 3	0	N/A	1810	1804	-5.665	53.42	UV
HRLT M2-M3 Voltage Plus - 4	0	N/A	1749	1746	-2.932	53.42	UV
HRLT M2-M3 Voltage Plus - 5	0	N/A	1760	1758	-2.468	53.42	UV
HRLT M2-M3 Voltage Plus - 6	0	N/A	-1769	-1756	12.88	53.42	UV
HRLT M2-M3 Voltage Plus - 7	0	N/A	1781	1781	0	53.42	UV
<b>High Resolution Laterolog Array - B Wellsite Calibration - HRLT V34</b>							
Before: 7-Mar-2017 3:51 After: 7-Mar-2017 13:32							
HRLT A3-A4 Voltage Plus - 0	0	N/A	68650	68600	-45.78	2100	UV
HRLT A3-A4 Voltage Plus - 1	0	N/A	72120	71830	-288.9	2100	UV
HRLT A3-A4 Voltage Plus - 2	0	N/A	73800	73670	-133.1	2100	UV
HRLT A3-A4 Voltage Plus - 3	0	N/A	72070	71900	-172.3	2100	UV
HRLT A3-A4 Voltage Plus - 4	0	N/A	69600	69520	-80.89	2100	UV
HRLT A3-A4 Voltage Plus - 5	0	N/A	70090	70030	-66.66	2100	UV
HRLT A3-A4 Voltage Plus - 6	0	N/A	-68920	-68450	468.1	2100	UV
HRLT A3-A4 Voltage Plus - 7	0	N/A	70000	70000	0	2100	UV
<b>High Resolution Laterolog Array - B Wellsite Calibration - HRLT V45</b>							
Before: 7-Mar-2017 3:51 After: 7-Mar-2017 13:32							
HRLT A4-A5 Voltage Plus - 0	0	N/A	68740	68690	-48.30	2100	UV
HRLT A4-A5 Voltage Plus - 1	0	N/A	72340	72050	-288.0	2100	UV
HRLT A4-A5 Voltage Plus - 2	0	N/A	74000	73850	-142.1	2100	UV
HRLT A4-A5 Voltage Plus - 3	0	N/A	72240	72050	-182.2	2100	UV
HRLT A4-A5 Voltage Plus - 4	0	N/A	69730	69640	-87.56	2100	UV
HRLT A4-A5 Voltage Plus - 5	0	N/A	70190	70120	-69.26	2100	UV
HRLT A4-A5 Voltage Plus - 6	0	N/A	60120	68650	173.5	2100	UV

HRLT A4-A5 Voltage Plus - 0	0	N/A	-69130	-68030	478.3	2100	UV
HRLT A4-A5 Voltage Plus - 7	0	N/A	70000	70000	0	2100	UV

High Resolution Laterolog Array - B Wellsite Calibration - HRLT V56

Before: 7-Mar-2017 3:51 After: 7-Mar-2017 13:32

HRLT A5-A6 Voltage Plus - 0	0	N/A	68600	68540	-64.62	2100	UV
HRLT A5-A6 Voltage Plus - 1	0	N/A	72160	71880	-282.5	2100	UV
HRLT A5-A6 Voltage Plus - 2	0	N/A	73820	73690	-124.1	2100	UV
HRLT A5-A6 Voltage Plus - 3	0	N/A	72090	71900	-187.5	2100	UV
HRLT A5-A6 Voltage Plus - 4	0	N/A	69590	69490	-97.60	2100	UV
HRLT A5-A6 Voltage Plus - 5	0	N/A	70060	69990	-64.73	2100	UV
HRLT A5-A6 Voltage Plus - 6	0	N/A	-68970	-68510	466.3	2100	UV
HRLT A5-A6 Voltage Plus - 7	0	N/A	70000	70000	0	2100	UV

High Resolution Laterolog Array - B Wellsite Calibration - HRLT VTP

Before: 7-Mar-2017 3:51 After: 7-Mar-2017 13:32

HRLT Torpedo-M0 Voltage - 0	0	N/A	-68120	-68050	69.49	2100	UV
HRLT Torpedo-M0 Voltage - 1	0	N/A	-71990	-71690	305.1	2100	UV
HRLT Torpedo-M0 Voltage - 2	0	N/A	-73690	-73530	160.3	2100	UV
HRLT Torpedo-M0 Voltage - 3	0	N/A	-72010	-71800	209.0	2100	UV
HRLT Torpedo-M0 Voltage - 4	0	N/A	-69550	-69440	108.5	2100	UV
HRLT Torpedo-M0 Voltage - 5	0	N/A	-70020	-69940	77.27	2100	UV
HRLT Torpedo-M0 Voltage - 6	0	N/A	68760	68250	-507.1	2100	UV
HRLT Torpedo-M0 Voltage - 7	0	N/A	-70000	-70000	0	2100	UV

High Resolution Laterolog Array - B Wellsite Calibration - HRLT VBD

Before: 7-Mar-2017 3:51 After: 7-Mar-2017 13:32

HRLT Bridle#9-M0 Voltage - 0	0	N/A	-68130	-68090	40.14	2100	UV
HRLT Bridle#9-M0 Voltage - 1	0	N/A	-72050	-71780	273.0	2100	UV
HRLT Bridle#9-M0 Voltage - 2	0	N/A	-73740	-73610	122.8	2100	UV
HRLT Bridle#9-M0 Voltage - 3	0	N/A	-72050	-71880	173.6	2100	UV
HRLT Bridle#9-M0 Voltage - 4	0	N/A	-69570	-69500	74.69	2100	UV
HRLT Bridle#9-M0 Voltage - 5	0	N/A	-70040	-69970	68.62	2100	UV
HRLT Bridle#9-M0 Voltage - 6	0	N/A	68820	68350	-468.4	2100	UV
HRLT Bridle#9-M0 Voltage - 7	0	N/A	-70000	-70000	0	2100	UV

High Resolution Laterolog Array - B Wellsite Calibration - HRLT ISO

Before: 7-Mar-2017 3:51 After: 7-Mar-2017 13:32

HRLT Source Current Plus - 0	0	N/A	284.3	284.1	-0.2258	8.520	UA
HRLT Source Current Plus - 1	0	N/A	281.1	281.1	0	8.520	UA
HRLT Source Current Plus - 2	0	N/A	281.1	281.1	0	8.520	UA
HRLT Source Current Plus - 3	0	N/A	281.1	281.1	0	8.520	UA
HRLT Source Current Plus - 4	0	N/A	281.1	281.1	0	8.520	UA
HRLT Source Current Plus - 5	0	N/A	281.1	281.1	0	8.520	UA
HRLT Source Current Plus - 6	0	N/A	281.1	281.1	0	8.520	UA
HRLT Source Current Plus - 7	0	N/A	281.1	281.1	0	8.520	UA

High Resolution Laterolog Array - B Wellsite Calibration - HRLT MV

Before: 7-Mar-2017 3:51 After: 7-Mar-2017 13:32

HRLT Vertical Voltage PI - 0	0	N/A	-320.5	-320.0	0.4380	9.681	UV
HRLT Vertical Voltage PI - 1	0	N/A	-327.0	-325.6	1.458	9.681	UV
HRLT Vertical Voltage PI - 2	0	N/A	-333.1	-332.3	0.7885	9.681	UV
HRLT Vertical Voltage PI - 3	0	N/A	-322.0	-320.9	1.028	9.681	UV
HRLT Vertical Voltage PI - 4	0	N/A	-309.4	-308.8	0.5672	9.681	UV
HRLT Vertical Voltage PI - 5	0	N/A	-326.2	-325.6	0.5479	9.681	UV
HRLT Vertical Voltage PI - 6	0	N/A	330.3	327.8	-2.481	9.681	UV
HRLT Vertical Voltage PI - 7	0	N/A	-322.7	-322.7	0	9.681	UV

Hostile Litho-Density Sonde Wellsite Calibration - Background Measurement

Master: 6-Feb-2017 19:55 Before: 7-Mar-2017 13:46 After: 7-Mar-2017 13:35

SS Cs Resolution Bkg	9.000	8.054	7.991	7.988	-0.003340	1.800	%
LS Cs Resolution Bkg	9.000	8.116	8.076	8.146	0.06935	1.800	%
LSW1 Background	100.0	67.13	63.99	65.85	1.859	3.000	CPS
LSW2 Background	100.0	59.98	59.61	59.77	0.1622	3.000	CPS
LSW3 Background	200.0	132.7	132.9	131.8	-1.112	6.000	CPS
LSW4 Background	250.0	162.2	160.1	160.9	0.8169	7.500	CPS
LSW5 Background	600.0	372.2	371.9	370.6	-1.364	18.00	CPS
SSW1 Background	100.0	72.76	73.03	72.96	-0.07288	3.000	CPS
SSW2 Background	200.0	130.7	131.4	132.2	0.8506	6.000	CPS
SSW3 Background	500.0	351.7	352.1	352.9	0.7892	15.00	CPS
SSW4 Background	270.0	183.2	181.9	181.8	-0.1284	8.100	CPS
SSW5 Background	200.0	132.4	133.3	131.0	-2.308	6.000	CPS

Hostile Litho-Density Sonde Wellsite Calibration - Aluminum Measurement

Master: 6-Feb-2017 20:17

LSW1 Aluminum	600.0	519.9	N/A	N/A	N/A	N/A	CPS
LSW2 Aluminum	900.0	741.5	N/A	N/A	N/A	N/A	CPS
LSW3 Aluminum	1100	897.5	N/A	N/A	N/A	N/A	CPS
LSW4 Aluminum	580.0	452.7	N/A	N/A	N/A	N/A	CPS
LSW5 Aluminum	570.0	410.6	N/A	N/A	N/A	N/A	CPS
SSW1 Aluminum	2800	2406	N/A	N/A	N/A	N/A	CPS
SSW2 Aluminum	8000	6478	N/A	N/A	N/A	N/A	CPS

SSW3 Aluminum	11600	8981	N/A	N/A	N/A	N/A	CPS
SSW4 Aluminum	5000	3674	N/A	N/A	N/A	N/A	CPS
SSW5 Aluminum	660.0	453.3	N/A	N/A	N/A	N/A	CPS

Hostile Litho-Density Sonde Wellsite Calibration – Lithology Measurement

Master: 6-Feb-2017 20:12

LSW1 Iron	400.0	353.4	N/A	N/A	N/A	N/A	CPS
LSW2 Iron	730.0	601.7	N/A	N/A	N/A	N/A	CPS
LSW3 Iron	1000	794.3	N/A	N/A	N/A	N/A	CPS
LSW4 Iron	520.0	410.1	N/A	N/A	N/A	N/A	CPS
LSW5 Iron	470.0	378.2	N/A	N/A	N/A	N/A	CPS
SSW1 Iron	2100	1759	N/A	N/A	N/A	N/A	CPS
SSW2 Iron	6800	5414	N/A	N/A	N/A	N/A	CPS
SSW3 Iron	10800	8214	N/A	N/A	N/A	N/A	CPS
SSW4 Iron	4600	3360	N/A	N/A	N/A	N/A	CPS
SSW5 Iron	580.0	403.4	N/A	N/A	N/A	N/A	CPS

Hostile Litho-Density Sonde Wellsite Calibration – Caliper Calibration

Before: 16-Feb-2017 14:05

HLDS Caliper Small Ring	12.00	N/A	16.39	N/A	N/A	N/A	IN
HLDS Caliper Large Ring	15.19	N/A	20.28	N/A	N/A	N/A	IN

Hostile Natural Gamma Ray Sonde Wellsite Calibration – Detector 1 Check

Master: 11-Feb-2017 8:10 Before: 16-Feb-2017 13:34 After: 7-Mar-2017 13:36

Na 511 Peak Loc	40.00	39.64	39.54	39.60	0.06807	1.000	
Na 511 Peak Res	15.50	14.79	16.15	16.36	0.2107	2.000	%
High Voltage	1150	1163	1189	1191	1.584	N/A	V
Na 1785 Peak Loc	142.6	142.4	141.8	142.8	0.9939	7.000	
Na 1785 Peak Res	8.500	8.578	8.918	8.361	-0.5577	2.000	%
Temperature	15.50	20.24	29.96	31.93	1.970	N/A	DEGC
Na Count Rate	45.00	31.53	30.14	29.98	-0.1568	8.000	CPS

Hostile Natural Gamma Ray Sonde Wellsite Calibration – Detector 2 Check

Master: 11-Feb-2017 8:10 Before: 16-Feb-2017 13:34 After: 7-Mar-2017 13:36

Na 511 Peak Loc	40.00	39.49	39.51	39.66	0.1520	1.000	
Na 511 Peak Res	15.50	15.44	16.57	15.56	-1.008	2.000	%
High Voltage	1150	1092	1112	1120	8.242	N/A	V
Na 1785 Peak Loc	142.6	141.0	142.4	142.1	-0.2656	7.000	
Na 1785 Peak Res	8.500	8.215	8.738	8.502	-0.2364	2.000	%
Temperature	15.50	20.64	30.72	33.92	3.206	N/A	DEGC
Na Count Rate	45.00	31.04	30.30	29.91	-0.3858	8.000	CPS

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

Master: 11-Feb-2017 8:10 Before: 16-Feb-2017 13:34 After: 7-Mar-2017 13:36

Coincidence Count Rate Ratio	1.000	1.019	0.9952	1.002	0.006419	0.05000	
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Hostile Natural Gamma Ray Sonde Master Calibration – Detector 1 Calibration

Master: 11-Feb-2017 8:04

Na 511 Peak Set Point	40.00	41.00	--	--	--	--	
Th Peak Loc	209.6	210.1	--	--	--	--	
Th Peak Res	7.000	6.904	--	--	--	--	%
Background Count Rate	142.5	47.68	--	--	--	--	CPS
Gain Ratio	1.000	1.008	--	--	--	--	

Hostile Natural Gamma Ray Sonde Master Calibration – Detector 2 Calibration

Master: 11-Feb-2017 8:04

Na 511 Peak Set Point	40.00	41.00	--	--	--	--	
Th Peak Loc	209.6	208.5	--	--	--	--	
Th Peak Res	7.000	7.182	--	--	--	--	%
Background Count Rate	142.5	45.25	--	--	--	--	CPS
Gain Ratio	1.000	1.004	--	--	--	--	

Enhanced DTS Cartridge Wellsite Calibration – EDTC Accelerometer Calibration

Before: 7-Mar-2017 3:50

EDTC Z-Axis Acceleration	9.810	N/A	9.780	N/A	N/A	N/A	M/S2
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Enhanced DTS Cartridge Wellsite Calibration – Detector Calibration

Before: 16-Feb-2017 14:35 After: 16-Feb-2017 15:18

Gamma Ray (Jig – Bkg)	149.1	N/A	149.1	146.3	-2.791	13.55	GAPI
Gamma Ray (Calibrated)	164.0	N/A	164.0	160.9	-3.071	15.00	GAPI

High Resolution Laterolog Array – B / Equipment Identification

Primary Equipment:			
HRLT Sonde	HRLS – B	768	
Auxiliary Equipment:			
HRLT lower Housing	HRLH – B	968	

High Resolution Laterolog Array - B Wellsite Calibration							
HRLT M01							
Idx	Phase	HRLT M0-M1 Voltage Plus UV	Value	Nominal	Maximum	Minimum	
0	Before		-318.5	-322.7	-280.7	-379.7	
	After		-318.4				
1	Before		-332.2	-322.7	-280.7	-379.7	
	After		-330.9				
2	Before		-339.5	-322.7	-280.7	-379.7	
	After		-339.0				
3	Before		-330.0	-322.7	-280.7	-379.7	
	After		-329.2				
4	Before		-320.1	-322.7	-280.7	-379.7	
	After		-319.8				
5	Before		-322.0	-322.7	-280.7	-379.7	
	After		-321.8				
6	Before		322.5	322.7	379.7	280.7	
	After		320.4				
7	Before		-322.7	-322.7	-280.7	-379.7	
	After		-322.7				
		(Minimum) (Nominal) (Maximum)					
Before: 7-Mar-2017 3:51							
After: 7-Mar-2017 13:32							

High Resolution Laterolog Array - B Wellsite Calibration							
HRLT M12							
Idx	Phase	HRLT M1-M2 Voltage Plus UV	Value	Nominal	Maximum	Minimum	
0	Before		1741	1781	2095	1549	
	After		1739				
1	Before		1823	1781	2095	1549	
	After		1815				
2	Before		1856	1781	2095	1549	
	After		1852				
3	Before		1802	1781	2095	1549	
	After		1797				
4	Before		1747	1781	2095	1549	
	After		1744				
5	Before		1758	1781	2095	1549	
	After		1756				
6	Before		-1778	-1781	-1549	-2095	
	After		-1765				
7	Before		1781	1781	2095	1549	
	After		1781				
		(Minimum) (Nominal) (Maximum)					
Before: 7-Mar-2017 3:51							
After: 7-Mar-2017 13:32							

High Resolution Laterolog Array – B Wellsite Calibration						
HRLT M23						
Idx	Phase	HRLT M2–M3 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		1732	1781	2095	1549
	After		1730			
1	Before		1824	1781	2095	1549
	After		1817			
2	Before		1859	1781	2095	1549
	After		1855			
3	Before		1810	1781	2095	1549
	After		1804			
4	Before		1749	1781	2095	1549
	After		1746			
5	Before		1760	1781	2095	1549
	After		1758			
6	Before		-1769	-1781	-1549	-2095
	After		-1756			
7	Before		1781	1781	2095	1549
	After		1781			
		(Minimum) (Nominal) (Maximum)				
Before: 7-Mar-2017 3:51						
After: 7-Mar-2017 13:32						

High Resolution Laterolog Array – B Wellsite Calibration						
HRLT V34						
Idx	Phase	HRLT A3–A4 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		68650	70000	82360	60900
	After		68600			
1	Before		72120	70000	82360	60900
	After		71830			
2	Before		73800	70000	82360	60900
	After		73670			
3	Before		72070	70000	82360	60900
	After		71900			
4	Before		69600	70000	82360	60900
	After		69520			
5	Before		70090	70000	82360	60900
	After		70030			
6	Before		-68920	-70000	-60900	-82360
	After		-68450			
7	Before		70000	70000	82360	60900
	After		70000			
		(Minimum) (Nominal) (Maximum)				
Before: 7-Mar-2017 3:51						
After: 7-Mar-2017 13:32						

High Resolution Laterolog Array – B Wellsite Calibration						
HRLT V45						

HRLT V45						
Idx	Phase	HRLT A4-A5 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		68740	70000	82360	60900
	After		68690			
1	Before		72340	70000	82360	60900
	After		72050			
2	Before		74000	70000	82360	60900
	After		73850			
3	Before		72240	70000	82360	60900
	After		72050			
4	Before		69730	70000	82360	60900
	After		69640			
5	Before		70190	70000	82360	60900
	After		70120			
6	Before		-69130	-70000	-60900	-82360
	After		-68650			
7	Before		70000	70000	82360	60900
	After		70000			
		(Minimum) (Nominal) (Maximum)				
Before: 7-Mar-2017 3:51						
After: 7-Mar-2017 13:32						

High Resolution Laterolog Array – B Wellsite Calibration						
HRLT V56						
Idx	Phase	HRLT A5-A6 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		68600	70000	82360	60900
	After		68540			
1	Before		72160	70000	82360	60900
	After		71880			
2	Before		73820	70000	82360	60900
	After		73690			
3	Before		72090	70000	82360	60900
	After		71900			
4	Before		69590	70000	82360	60900
	After		69490			
5	Before		70060	70000	82360	60900
	After		69990			
6	Before		-68970	-70000	-60900	-82360
	After		-68510			
7	Before		70000	70000	82360	60900
	After		70000			
		(Minimum) (Nominal) (Maximum)				
Before: 7-Mar-2017 3:51						
After: 7-Mar-2017 13:32						

High Resolution Laterolog Array – B Wellsite Calibration						
HRLT VTP						
Idx	Phase	HRLT Torpedo-M0 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		-68120			

1	After		-68050	-70000	-60900	-82360
	Before		-71990			
2	After		-71690	-70000	-60900	-82360
	Before		-73690			
3	After		-72010	-70000	-60900	-82360
	Before		-71800			
4	After		-69550	-70000	-60900	-82360
	Before		-69440			
5	After		-70020	-70000	-60900	-82360
	Before		-69940			
6	After		68760	70000	82360	60900
	Before		68250			
7	After		-70000	-70000	-60900	-82360
	Before		-70000			
		(Minimum) (Nominal) (Maximum)				

Before: 7-Mar-2017 3:51  
After: 7-Mar-2017 13:32

High Resolution Laterolog Array – B Wellsite Calibration							
HRLT VBD							
Idx	Phase	HRLT Bridle#9-M0 Voltage Plus UV	Value	Nominal	Maximum	Minimum	
0	After		-68130	-70000	-60900	-82360	
	Before		-68090				
1	After		-72050	-70000	-60900	-82360	
	Before		-71780				
2	After		-73740	-70000	-60900	-82360	
	Before		-73610				
3	After		-72050	-70000	-60900	-82360	
	Before		-71880				
4	After		-69570	-70000	-60900	-82360	
	Before		-69500				
5	After		-70040	-70000	-60900	-82360	
	Before		-69970				
6	After		68820	70000	82360	60900	
	Before		68350				
7	After		-70000	-70000	-60900	-82360	
	Before		-70000				
		(Minimum) (Nominal) (Maximum)					

Before: 7-Mar-2017 3:51  
After: 7-Mar-2017 13:32

High Resolution Laterolog Array – B Wellsite Calibration							
HRLT ISO							
Idx	Phase	HRLT Source Current Plus UA	Value	Nominal	Maximum	Minimum	
0	After		284.3	284.0	334.1	247.0	
	Before		284.1				
1	Before		281.1				



	After		281.1	281.1	330.7	244.4
2	Before		281.1	281.1	330.7	244.4
	After		281.1			
3	Before		281.1	281.1	330.7	244.4
	After		281.1			
4	Before		281.1	281.1	330.7	244.4
	After		281.1			
5	Before		281.1	281.1	330.7	244.4
	After		281.1			
6	Before		281.1	281.1	330.7	244.4
	After		281.1			
7	Before		281.1	281.1	330.7	244.4
	After		281.1			
		(Minimum) (Nominal) (Maximum)				
Before: 7-Mar-2017 3:51						
After: 7-Mar-2017 13:32						

High Resolution Laterolog Array – B Wellsite Calibration						
HRLT MV						
Idx	Phase	HRLT Vertical Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		-320.5	-322.7	-280.7	-379.7
	After		-320.0			
1	Before		-327.0	-322.7	-280.7	-379.7
	After		-325.6			
2	Before		-333.1	-322.7	-280.7	-379.7
	After		-332.3			
3	Before		-322.0	-322.7	-280.7	-379.7
	After		-320.9			
4	Before		-309.4	-322.7	-280.7	-379.7
	After		-308.8			
5	Before		-326.2	-322.7	-280.7	-379.7
	After		-325.6			
6	Before		330.3	322.7	379.7	280.7
	After		327.8			
7	Before		-322.7	-322.7	-280.7	-379.7
	After		-322.7			
		(Minimum) (Nominal) (Maximum)				
Before: 7-Mar-2017 3:51						
After: 7-Mar-2017 13:32						

#### Hostile Litho-Density Sonde / Equipment Identification

##### Primary Equipment:

Gamma Source Radioactive	GSR – ZA	2945
Hostile Litho Density Sonde	HLDS – D	45
Hostile Litho Density High Voltage	HLDV – D	45

##### Auxiliary Equipment:

Hostile Litho Density High Voltage Housi	HEH – H	47
Hostile Litho Density Pad	HLDP – C	45

Hostile Litho-Density Sonde Wellsite Calibration								
Background Measurement								
Phase	SS Cs Resolution Bkg %	Value	Phase	LS Cs Resolution Bkg %	Value	Phase	LSW1 Background CPS	Value
Master		8.054	Master		8.116	Master		67.13
Before		7.991	Before		8.076	Before		63.99
After		7.988	After		8.146	After		65.85
7.000 (Minimum)		9.000 (Nominal)	11.000 (Maximum)		7.000 (Minimum)		9.000 (Nominal)	11.000 (Maximum)
55.00 (Minimum)		100.0 (Nominal)	150.0 (Maximum)		55.00 (Minimum)		100.0 (Nominal)	150.0 (Maximum)
Phase	LSW2 Background CPS	Value	Phase	LSW3 Background CPS	Value	Phase	LSW4 Background CPS	Value
Master		59.98	Master		132.7	Master		162.2
Before		59.61	Before		132.9	Before		160.1
After		59.77	After		131.8	After		160.9
50.00 (Minimum)		100.0 (Nominal)	140.0 (Maximum)		110.0 (Minimum)		200.0 (Nominal)	290.0 (Maximum)
140.0 (Minimum)		250.0 (Nominal)	360.0 (Maximum)		140.0 (Minimum)		250.0 (Nominal)	360.0 (Maximum)
Phase	LSW5 Background CPS	Value	Phase	SSW1 Background CPS	Value	Phase	SSW2 Background CPS	Value
Master		372.2	Master		72.76	Master		130.7
Before		371.9	Before		73.03	Before		131.4
After		370.6	After		72.96	After		132.2
330.0 (Minimum)		600.0 (Nominal)	830.0 (Maximum)		55.00 (Minimum)		100.0 (Nominal)	150.0 (Maximum)
100.0 (Minimum)		200.0 (Nominal)	260.0 (Maximum)		100.0 (Minimum)		200.0 (Nominal)	260.0 (Maximum)
Phase	SSW3 Background CPS	Value	Phase	SSW4 Background CPS	Value	Phase	SSW5 Background CPS	Value
Master		351.7	Master		183.2	Master		132.4
Before		352.1	Before		181.9	Before		133.3
After		352.9	After		181.8	After		131.0
280.0 (Minimum)		500.0 (Nominal)	700.0 (Maximum)		150.0 (Minimum)		270.0 (Nominal)	380.0 (Maximum)
110.0 (Minimum)		200.0 (Nominal)	270.0 (Maximum)		110.0 (Minimum)		200.0 (Nominal)	270.0 (Maximum)
Master: 6-Feb-2017 19:55			Before: 7-Mar-2017 13:46			After: 7-Mar-2017 13:35		

Hostile Litho-Density Sonde Master Calibration								
Detector Background Measurement								
Phase	LSW1 Background CPS	Value	Phase	LSW2 Background CPS	Value	Phase	LSW3 Background CPS	Value
Master		67.13	Master		59.98	Master		132.7
55.00 (Minimum)		100.0 (Nominal)	150.0 (Maximum)		50.00 (Minimum)		100.0 (Nominal)	140.0 (Maximum)
110.0 (Minimum)		200.0 (Nominal)	290.0 (Maximum)		110.0 (Minimum)		200.0 (Nominal)	290.0 (Maximum)
Phase	LSW4 Background CPS	Value	Phase	LSW5 Background CPS	Value	Phase	LS Cs Resolution Bkg %	Value
Master		162.2	Master		372.2	Master		8.116
140.0 (Minimum)		250.0 (Nominal)	360.0 (Maximum)		330.0 (Minimum)		600.0 (Nominal)	830.0 (Maximum)
7.000 (Minimum)		9.000 (Nominal)	11.000 (Maximum)		7.000 (Minimum)		9.000 (Nominal)	11.000 (Maximum)
Phase	SSW1 Background CPS	Value	Phase	SSW2 Background CPS	Value	Phase	SSW3 Background CPS	Value
Master		72.76	Master		130.7	Master		351.7
55.00 (Minimum)		100.0 (Nominal)	150.0 (Maximum)		100.0 (Minimum)		200.0 (Nominal)	260.0 (Maximum)
280.0 (Minimum)		500.0 (Nominal)	700.0 (Maximum)		280.0 (Minimum)		500.0 (Nominal)	700.0 (Maximum)
Phase	SSW4 Background CPS	Value	Phase	SSW5 Background CPS	Value	Phase	SS Cs Resolution Bkg %	Value
Master		183.2	Master		132.4	Master		8.054
150.0 (Minimum)		270.0 (Nominal)	380.0 (Maximum)		110.0 (Minimum)		200.0 (Nominal)	270.0 (Maximum)
7.000 (Minimum)		9.000 (Nominal)	11.000 (Maximum)		7.000 (Minimum)		9.000 (Nominal)	11.000 (Maximum)
Master: 6-Feb-2017 19:55								

Hostile Litho-Density Sonde Master Calibration								
Detector Aluminum Measurement (bkgd-subtracted)								
Phase	LSW1 Aluminum CPS	Value	Phase	LSW2 Aluminum CPS	Value	Phase	LSW3 Aluminum CPS	Value
Master		519.9	Master		741.5	Master		897.5
420.0 (Minimum)		600.0 (Nominal)	770.0 (Maximum)		650.0 (Minimum)		900.0 (Nominal)	1150 (Maximum)
800.0 (Minimum)		1100 (Nominal)	1450 (Maximum)		800.0 (Minimum)		1100 (Nominal)	1450 (Maximum)
Phase	LSW4 Aluminum CPS	Value	Phase	LSW5 Aluminum CPS	Value	Phase	SSW1 Aluminum CPS	Value
Master		452.7	Master		410.6	Master		2406
410.0 (Minimum)		580.0 (Nominal)	740.0 (Maximum)		410.0 (Minimum)		570.0 (Nominal)	740.0 (Maximum)
2000 (Minimum)		2800 (Nominal)	3200 (Maximum)		2000 (Minimum)		2800 (Nominal)	3200 (Maximum)
Phase	SSW2 Aluminum CPS	Value	Phase	SSW3 Aluminum CPS	Value	Phase	SSW4 Aluminum CPS	Value
Master		6478	Master		8981	Master		3674

Master	5800 (Minimum)	8000 (Nominal)	9300 (Maximum)	470	Master	8300 (Minimum)	11600 (Nominal)	13500 (Maximum)	3300	Master	3500 (Minimum)	5000 (Nominal)	5800 (Maximum)	3074
Phase	SSW5 Aluminum CPS			Value										
Master				453.3										
	430.0 (Minimum)	660.0 (Nominal)	770.0 (Maximum)											

Master: 6-Feb-2017 20:17

Hostile Litho-Density Sonde Master Calibration															
Detector Litholog Measurement (bkgd-subtracted)															
Phase	LSW1 Iron CPS			Value	Phase	LSW2 Iron CPS			Value	Phase	LSW3 Iron CPS			Value	
Master				353.4	Master				601.7	Master				794.3	
	290.0 (Minimum)	400.0 (Nominal)	560.0 (Maximum)				520.0 (Minimum)	730.0 (Nominal)	950.0 (Maximum)				720.0 (Minimum)	1000 (Nominal)	1350 (Maximum)
Phase	LSW4 Iron CPS			Value	Phase	LSW5 Iron CPS			Value	Phase	SSW1 Iron CPS			Value	
Master				410.1	Master				378.2	Master				1759	
	370.0 (Minimum)	520.0 (Nominal)	700.0 (Maximum)				340.0 (Minimum)	470.0 (Nominal)	750.0 (Maximum)				1500 (Minimum)	2100 (Nominal)	2400 (Maximum)
Phase	SSW2 Iron CPS			Value	Phase	SSW3 Iron CPS			Value	Phase	SSW4 Iron CPS			Value	
Master				5414	Master				8214	Master				3360	
	4900 (Minimum)	6800 (Nominal)	7900 (Maximum)				7800 (Minimum)	10800 (Nominal)	12600 (Maximum)				3300 (Minimum)	4600 (Nominal)	5400 (Maximum)
Phase	SSW5 Iron CPS			Value											
Master	EXCEEDS LIMIT			403.4											
	420.0 (Minimum)	580.0 (Nominal)	680.0 (Maximum)												

Master: 6-Feb-2017 20:12

Hostile Litho-Density Sonde Master Calibration															
Quality Ratios															
Phase	AL CALIBRATION RATIO 1			Value	Phase	AL CALIBRATION RATIO 2			Value	Phase	AL CALIBRATION RATIO 3			Value	
Master				1.040	Master				2.176	Master				0.6023	
	0.9000 (Minimum)	1.000 (Nominal)	1.100 (Maximum)				1.900 (Minimum)	2.100 (Nominal)	2.300 (Maximum)				0.4500 (Minimum)	0.5500 (Nominal)	0.6500 (Maximum)
Phase	AL CALIBRATION RATIO 4			Value	Phase	Pad-Wear SS Ratio			Value	Phase	Pad-Wear LS Ratio			Value	
Master				0.5831	Master				0.9959	Master				0.9878	
	0.4000 (Minimum)	0.5500 (Nominal)	0.6500 (Maximum)				0.9800 (Minimum)	0.9880 (Nominal)	0.9960 (Maximum)				0.9800 (Minimum)	0.9880 (Nominal)	0.9960 (Maximum)
Phase	Pad-Position SS Ratio			Value	Phase	Pad-Position LS Ratio			Value						
Master				1.002	Master	EXCEEDS LIMIT			0.9850						
	0.9900 (Minimum)	0.9940 (Nominal)	1.015 (Maximum)				0.9850 (Minimum)	0.9940 (Nominal)	1.010 (Maximum)						

Master: 6-Feb-2017 20:07

Litho-Density Spectroscopy Cartridge - B / Equipment Identification

Primary Equipment:  
LDSC Cartridge LDSC - B 521

Auxiliary Equipment:  
LDSC Housing LDSC - A 319

Hostile Natural Gamma Ray Cartridge - B / Equipment Identification

Primary Equipment:  
HNGC Cartridge HNGC - B 304

Auxiliary Equipment:  
HNGC Housing HNGH - A 3

Hostile Natural Gamma Ray Sonde / Equipment Identification

Primary Equipment:  
 HNGS Sonde  
 Auxiliary Equipment:  
 HNGS Sonde Housing  
 Gamma Source Radioactive






HNGS – BA 194  
 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		39.64	Master		14.79	Master		1163	
Before		39.54	Before		16.15	Before		1189	
After		39.60	After		16.36	After		1191	
	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		8.578	Master		20.24	
Before		141.8	Before		8.918	Before		29.96	
After		142.8	After		8.361	After		31.93	
	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		31.53							
Before		30.14							
After		29.98							
	10.00 (Minimum)	45.00 (Nominal)	100.0 (Maximum)						
Master: 11-Feb-2017 8:10			Before: 16-Feb-2017 13:34			After: 7-Mar-2017 13:36			






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		39.49	Master		15.44	Master		1092	
Before		39.51	Before		16.57	Before		1112	
After		39.66	After		15.56	After		1120	
	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		141.0	Master		8.215	Master		20.64	
Before		142.4	Before		8.738	Before		30.72	
After		142.1	After		8.502	After		33.92	
	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		31.04							
Before		30.30							
After		29.91							
	10.00 (Minimum)	45.00 (Nominal)	100.0 (Maximum)						
Master: 11-Feb-2017 8:10			Before: 16-Feb-2017 13:34			After: 7-Mar-2017 13:36			

Hostile Natural Gamma Ray Sonde Wellsite Calibration			
Ratio Of Detector 1 To Detector 2			
Phase	Coincidence Count Rate Ratio	Value	
Master		1.019	
Before		0.9952	
After		1.002	
	0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)

Master: 11-Feb-2017 8:10
Before: 16-Feb-2017 13:34
After: 7-Mar-2017 13:36


Hostile Natural Gamma Ray Sonde Master Calibration											
Detector 1 Calibration											
Phase	Na 511 Peak Set Point		Value	Phase	Th Peak Loc		Value	Phase	Th Peak Res %		Value
Master			41.00	Master			210.1	Master			6.904
	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			47.68	Master			1.008				
	10.00 (Minimum)	142.5 (Nominal)	265.0 (Maximum)		0.9400 (Minimum)	1.000 (Nominal)	1.060 (Maximum)				

Master: 11-Feb-2017 8:04




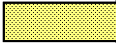


Hostile Natural Gamma Ray Sonde Master Calibration											
Detector 2 Calibration											
Phase	Na 511 Peak Set Point		Value	Phase	Th Peak Loc		Value	Phase	Th Peak Res %		Value
Master			41.00	Master			208.5	Master			7.182
	38.00 (Minimum)	40.00 (Nominal)	43.00 (Maximum)		201.0 (Minimum)	209.6 (Nominal)	218.3 (Maximum)		5.000 (Minimum)	7.000 (Nominal)	9.000 (Maximum)
Phase	Background Count Rate CPS		Value	Phase	Gain Ratio		Value				
Master			45.25	Master			1.004				
	10.00 (Minimum)	142.5 (Nominal)	265.0 (Maximum)		0.9400 (Minimum)	1.000 (Nominal)	1.060 (Maximum)				

Master: 11-Feb-2017 8:04

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		9.780
	9.610 (Minimum)	9.810 (Nominal)
		10.01 (Maximum)

Before: 7-Mar-2017 3:50

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			8.017	Before			149.1	Before			164.0
After			8.281	After			146.3	After			160.9
	0 (Minimum)	30.00 (Nominal)	120.0 (Maximum)		135.5 (Minimum)	149.1 (Nominal)	162.6 (Maximum)		149.0 (Minimum)	164.0 (Nominal)	179.0 (Maximum)

Before: 16-Feb-2017 14:35

After: 16-Feb-2017 15:18

**Well: Expedition 367, Site U1499B**  
**Field: South China Sea Rifted Margin A**  
**Rig: JOIDES Resolution**  
**Ocean: South China Sea**

High Resolution Laterolog Array  
Hostile Litho Density / Dipole Sonic  
Natural Gamma Ray