

# Schlumberger

**Company: International Ocean Discovery Program**

Well: **Expedition 395C, Site U1554E**

Field: **North Atlantic Mantle Convection&Climate**Rig: **JOIDES Resolution**      Ocean: **Atlantic**

Rig:	JOIDES Resolution	High Resolution Laterolog (HRLA)			
Field:	North Atlantic Mantle Convection	Litho Density (HLDS) / (APS) Porosity			
Location:	Latitude: N 60.12539	Natural Gamma / MSS (HNGS)			
Well:	Expedition 395C, Site U1554E				
Company:	International Ocean Discovery Program				
LOCATION		Latitude: N 60.12539		Elev.:	K.B. 0.00 m
		Longitude: W 26.7022			G.L. -1880.80 m
					D.F. 0.00 m
		Permanent Datum: Sea Floor		Elev.:	-1880.80 m
		Log Measured From: Rig Floor		1880.80 m above Perm. Datum	
Drilling Measured From: Rig Floor					
API Serial No.		Max. Hole Devi. 12 deg	Longitude W 26.7022	Latitude N 60.12539	

Logging Date			27-Jun-2021					
Run Number			1					
Depth Driller			2528.5 m					
Schlumberger Depth			2526 m					
Bottom Log Interval			2526 m					
Top Log Interval			1950 m					
Casing Driller Size @ Depth			5.500 in @ 1953.5 m			@		
Casing Schlumberger			1950 m					
Bit Size			11.438 in					
Type Fluid In Hole			Sepiolite Barite weighted					
MUD	Density	Viscosity	1.258 g/cm3					
	Fluid Loss	PH		8.07				
	Source Of Sample		Mudpit					
	RM @ Measured Temperature		0.220 ohm.m @ 23 degC		@			
	RMF @ Measured Temperature		@		@			
RMC @ Measured Temperature		@		@				
Source RMF	RMC		N/A	N/A				
RM @ MRT	RMF @ MRT		0.270 @ 15	@ 15		@	@	
Maximum Recorded Temperatures			15 degC					
Circulation Stopped		Time	27-Jun-2021		11:00			
Logger On Bottom		Time	27-Jun-2021		23:15			
Unit Number		Location	627314	Larose, LA				
Recorded By			K. Swain					
Witnessed By			Z. Mateo					

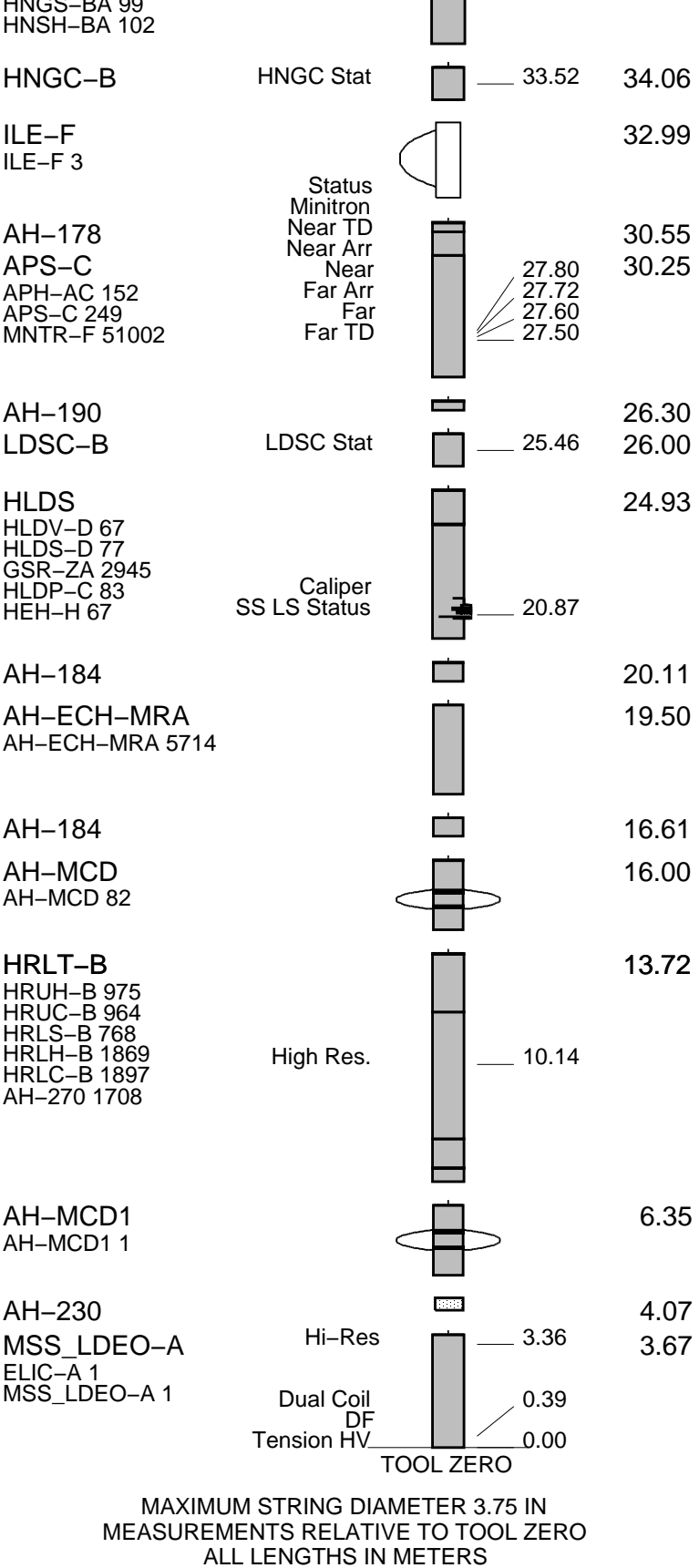
[illegible]

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

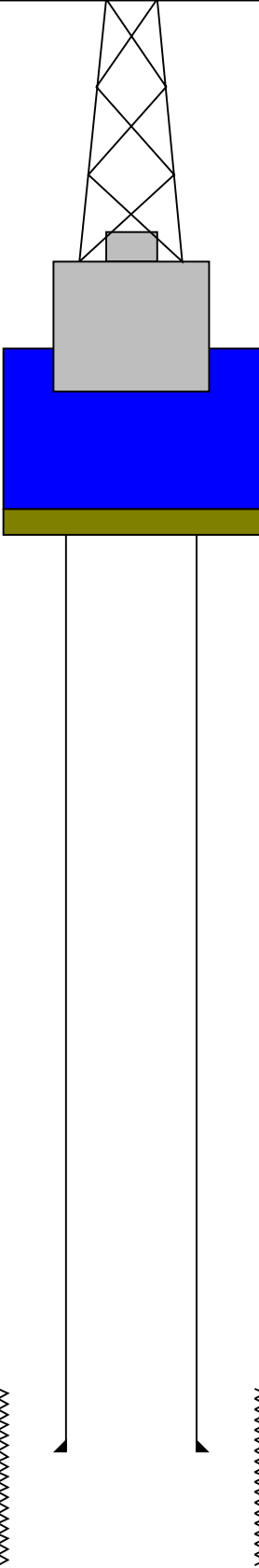
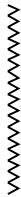

**DISCLAIMER**

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

[illegible]



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

Kelly Bushing Elevation Derrick Floor Elevation  Mean Sea Level		0				
		0				
		11			4.1	
				1880.8	4.1	Sea Floor
				1953.5	9.875	Open Hole
				2528.5		Total Depth

Input DLIS Files					
DEFAULT	Flip_MSS_LDEO_HRLA_032LUP	PRODUCER	28-Jun-2021 22:58	2530.4 M	1817.4 M
Output DLIS Files					
DEFAULT	MSS_LDEO_HRLA_LDL_033PUP	FN:47	PRODUCER	28-Jun-2021 23:02	2530.4 M
				1817.4 M	

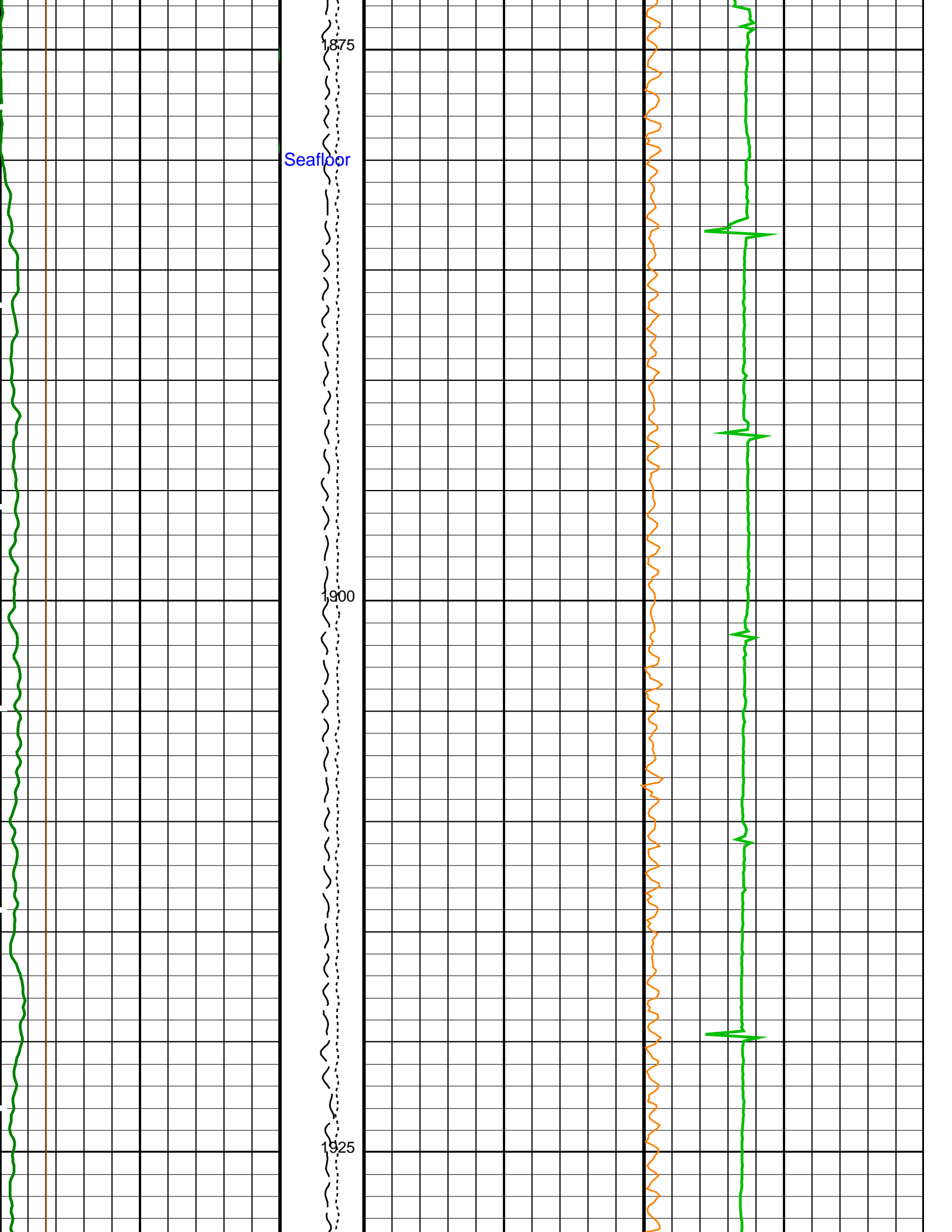
OP System Version: 19C0-187					
MSS_LDEO-A	19C0-187	HRLT-B	19C0-187		
HLDS	19C0-187	LDSC-B	19C0-187		
APS-C	19C0-187	HNGC-B	19C0-187		
HNGS-BA	19C0-187	DTC-H	19C0-187		

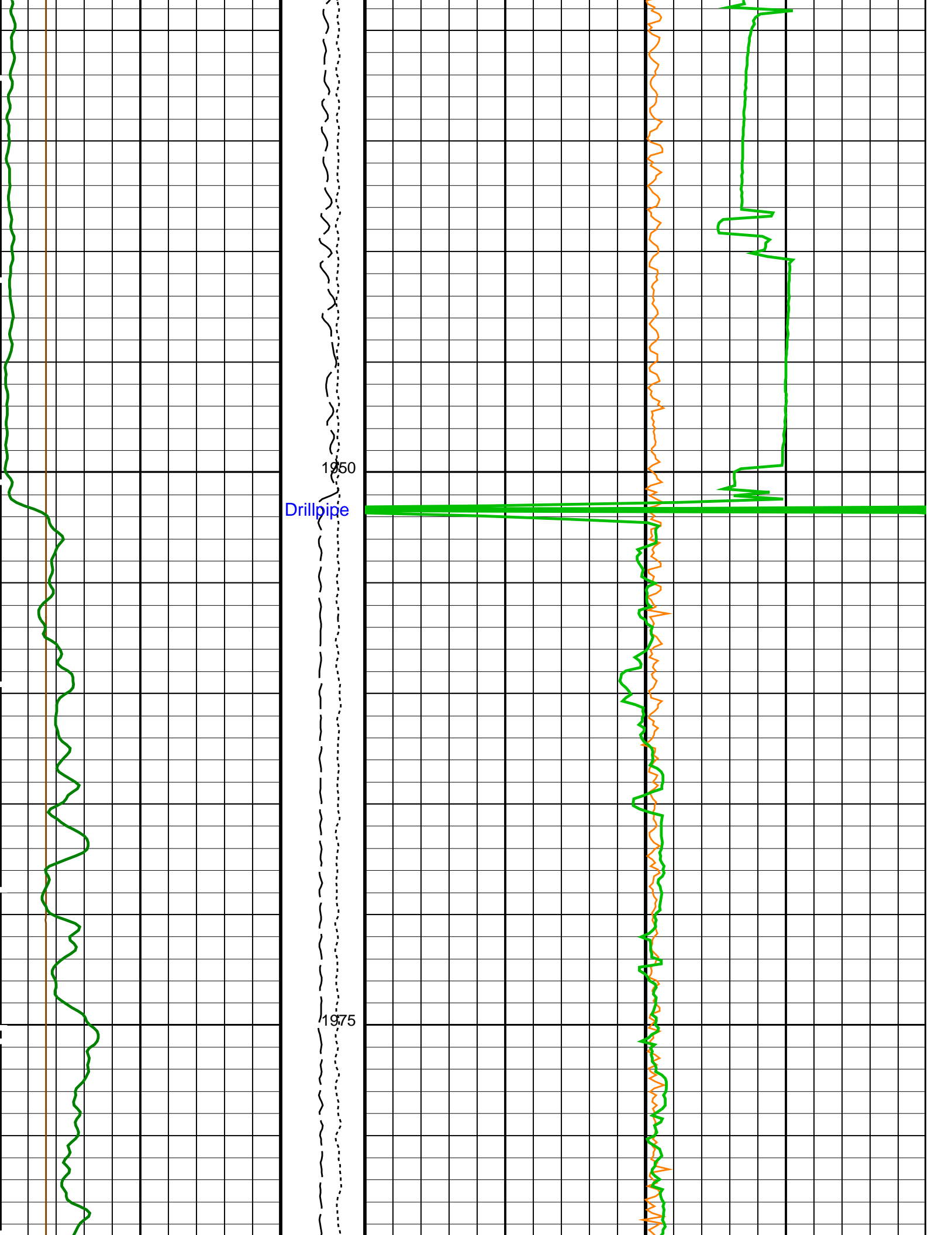
PIP SUMMARY					
Time Mark Every 60 S					
HNGS Spectroscopy Gamma Ray (HSGR)		Calibrated Downhole Force (CDF) (LBF)	Dual-Coil Susceptibility (MSSL SUS_LDEO)		
(GAPI)			(PPM)		
0	100	3000	-10000		10000
		0			
HLDS Caliper (LCAL)		Tension (TENS) (LBF)	Axial Acceleration (MSSZACC_LDEO)		
(IN)			(M/S2)		
0	20	10000	0		20
		0			

Flipped Downlog

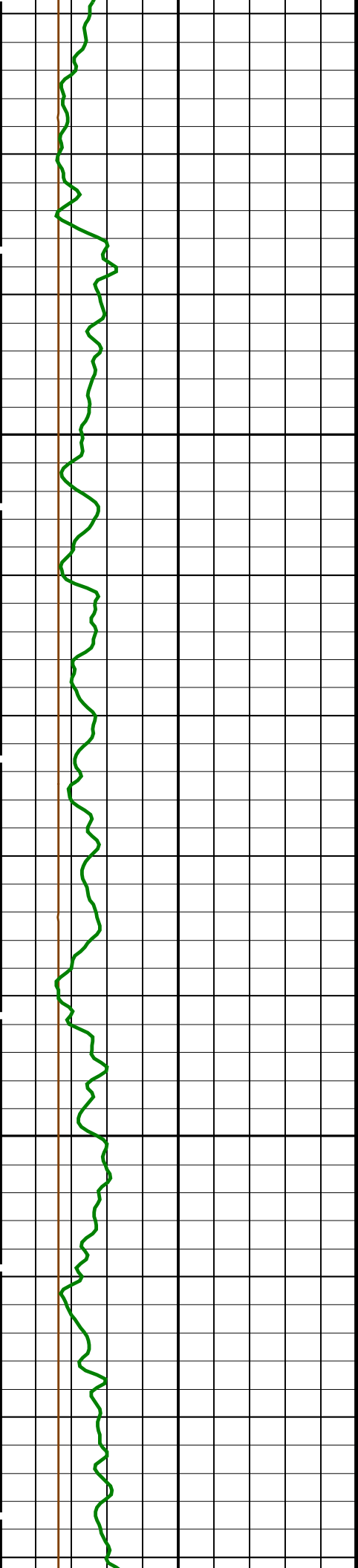
1825

1850



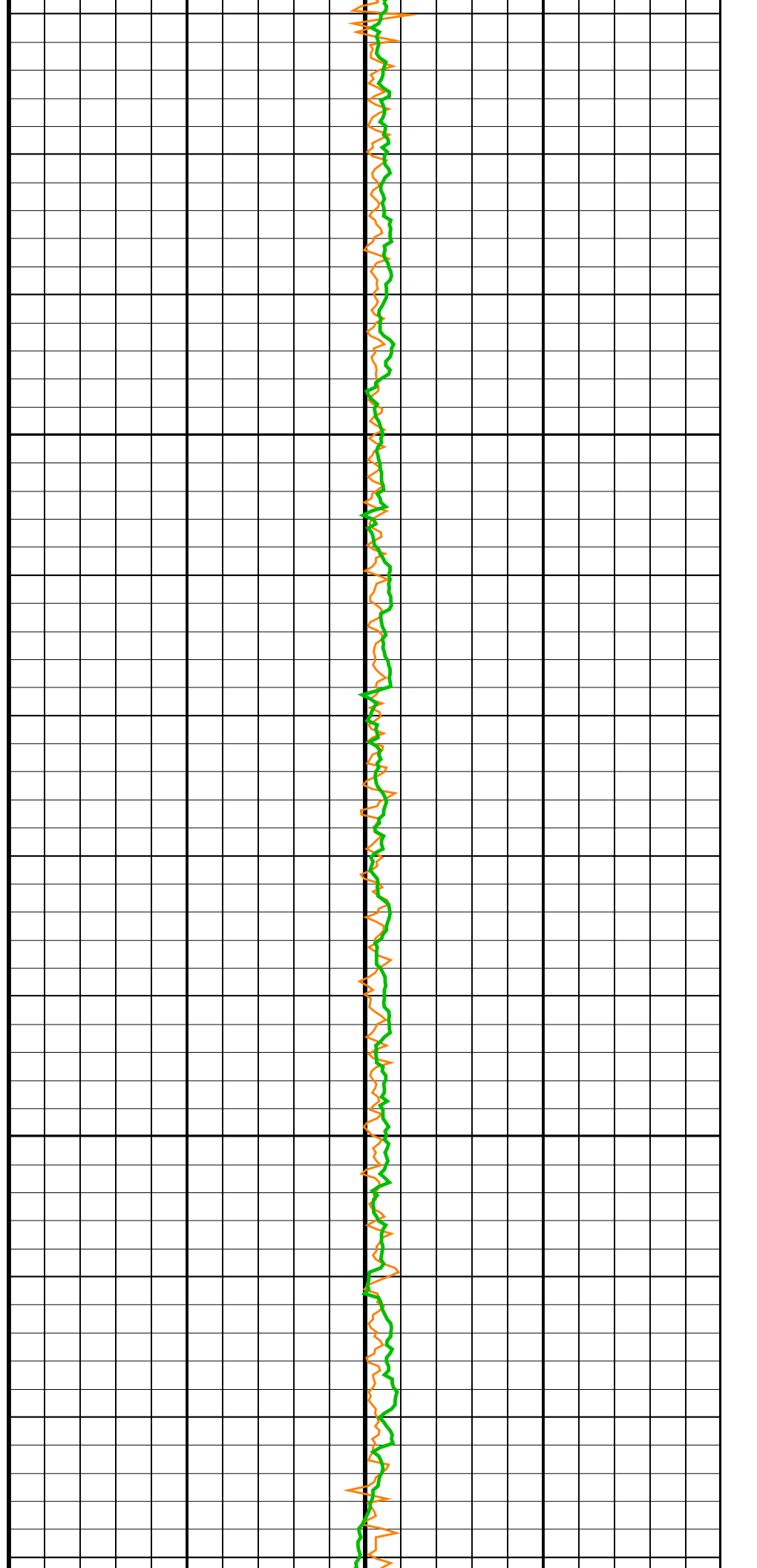


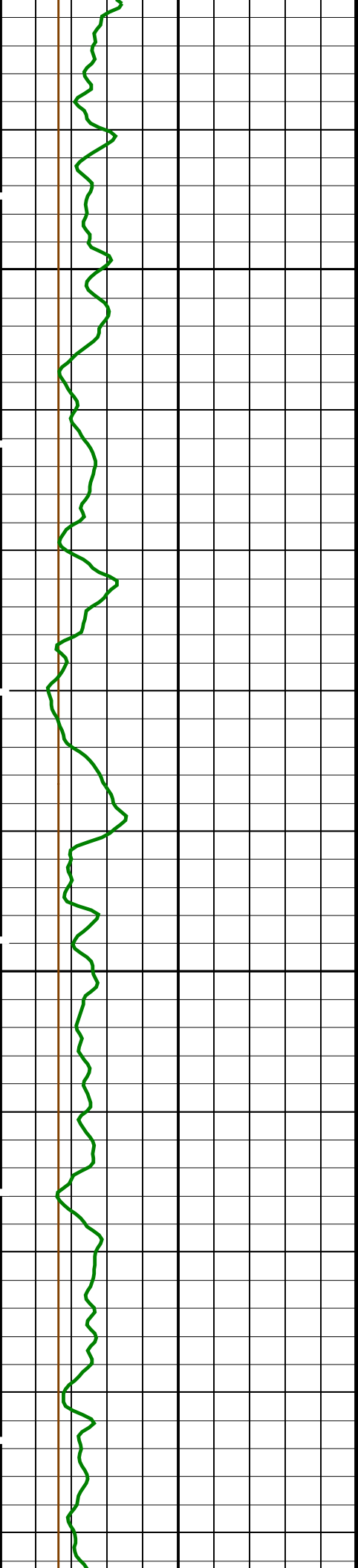




2000

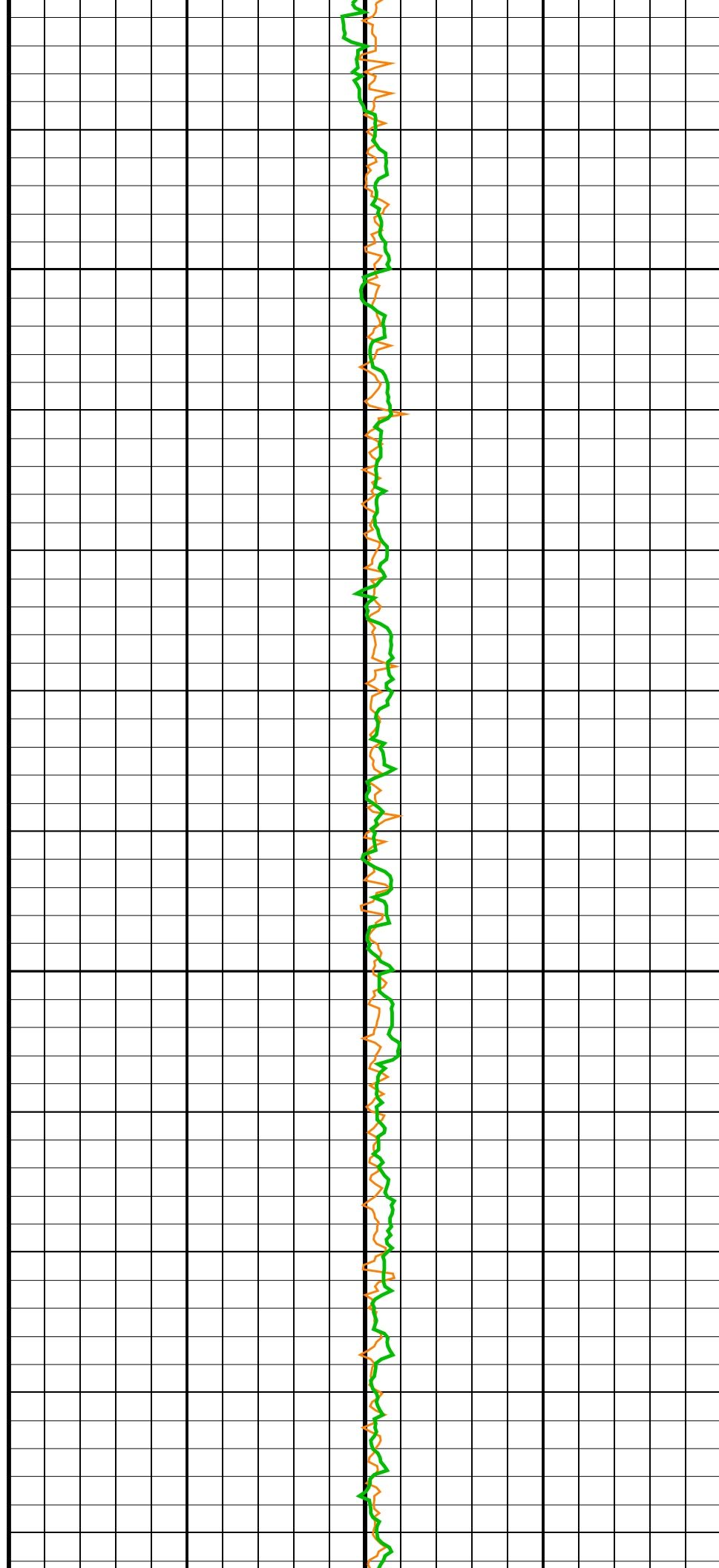
2025

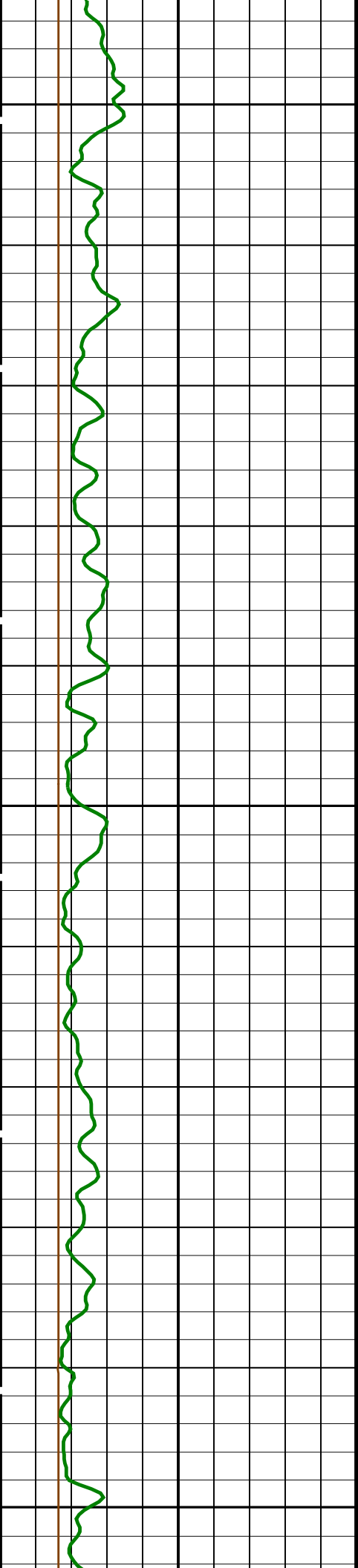




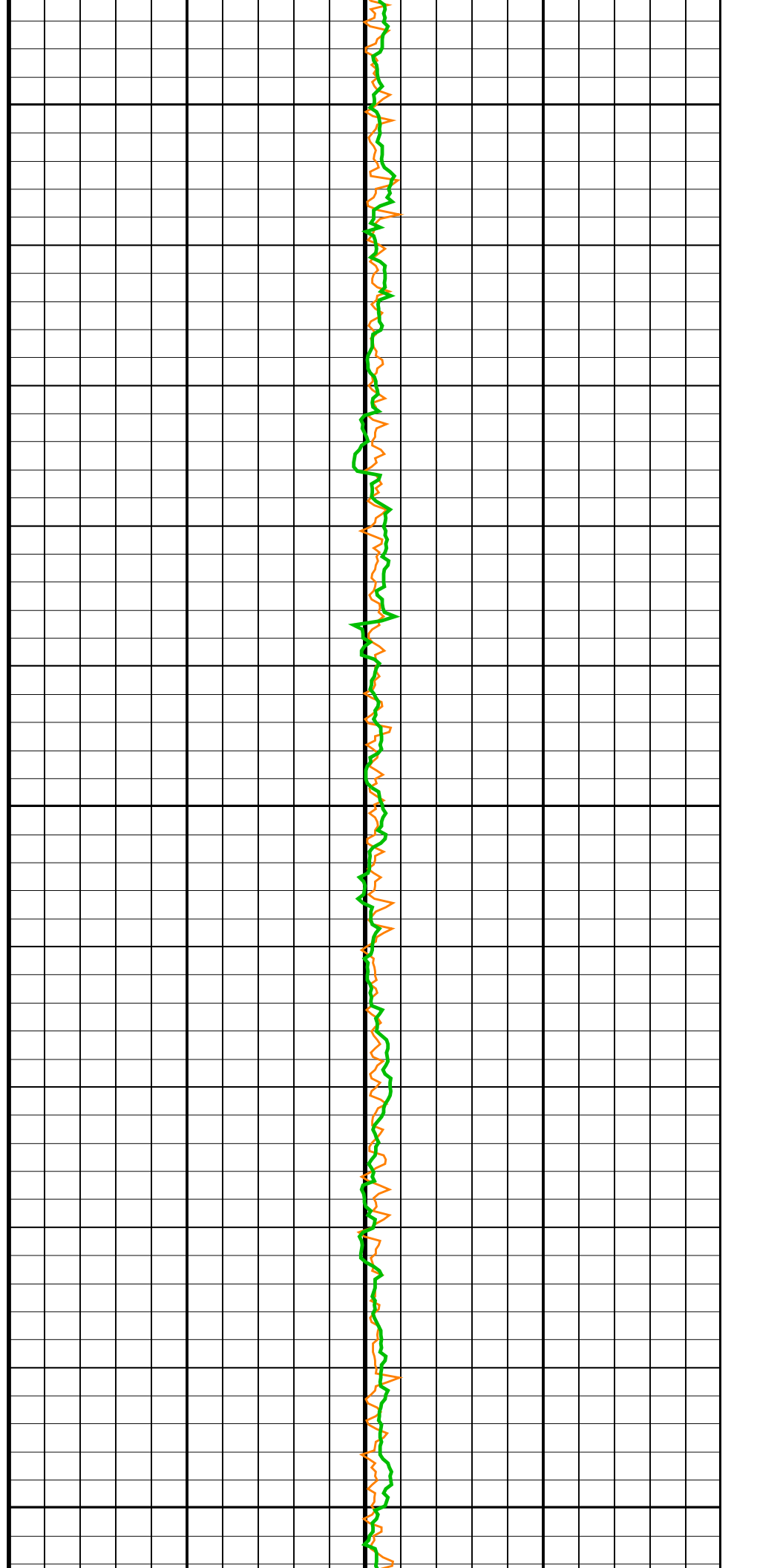
2050

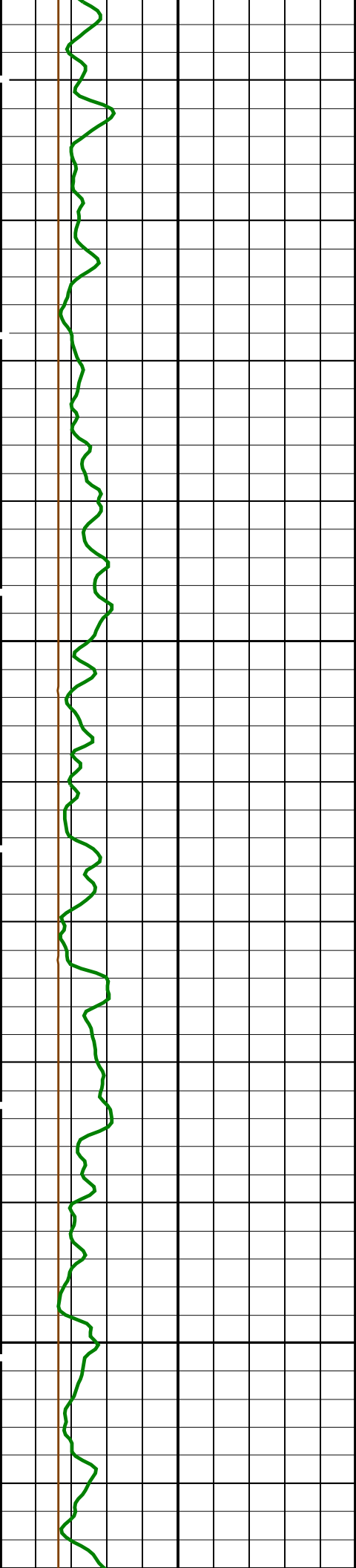
2075





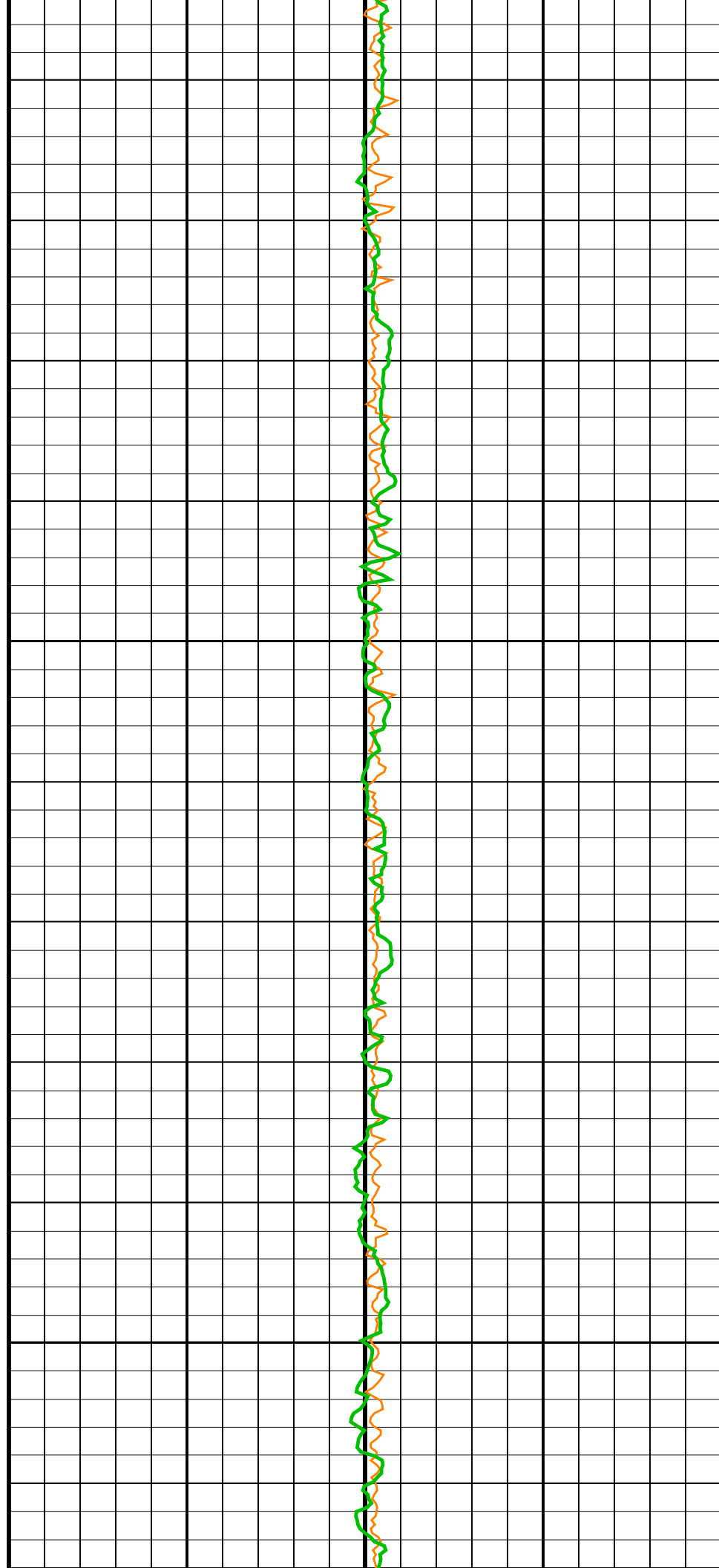
2100  
2125  
2150

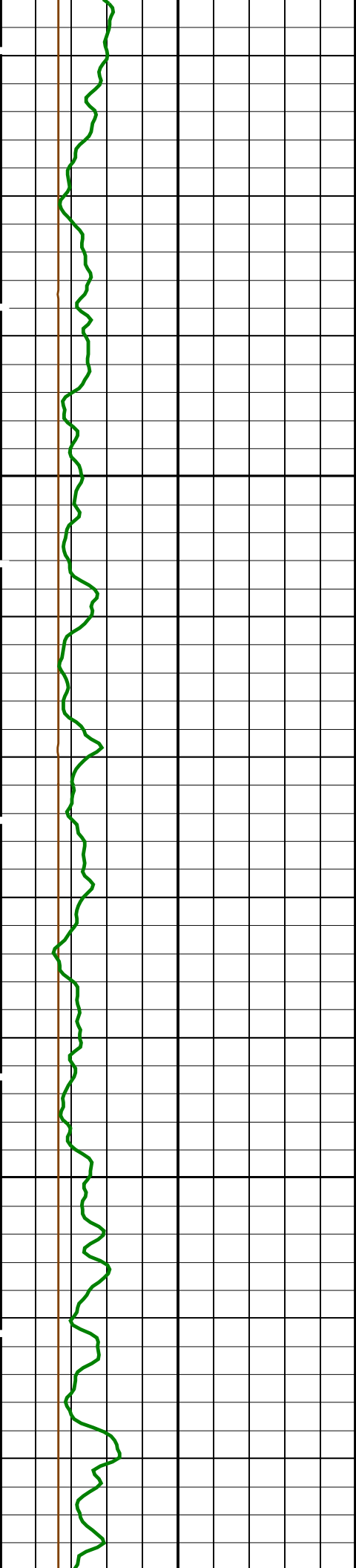




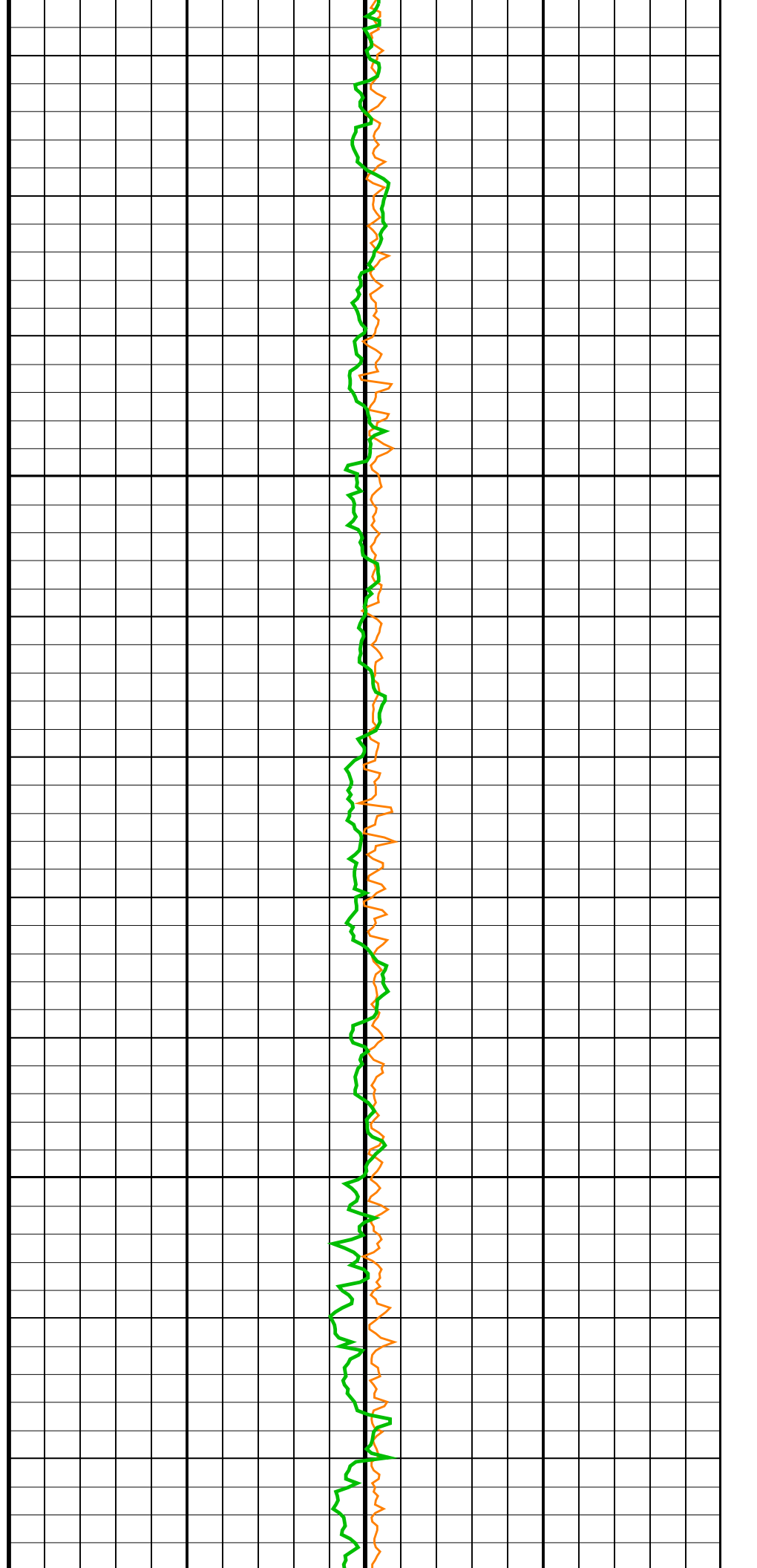
2175

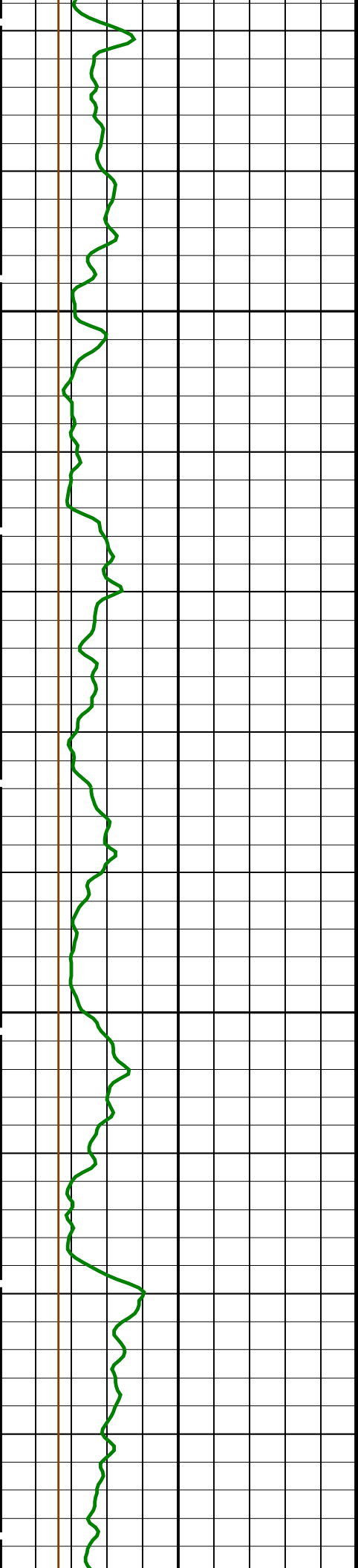
2200





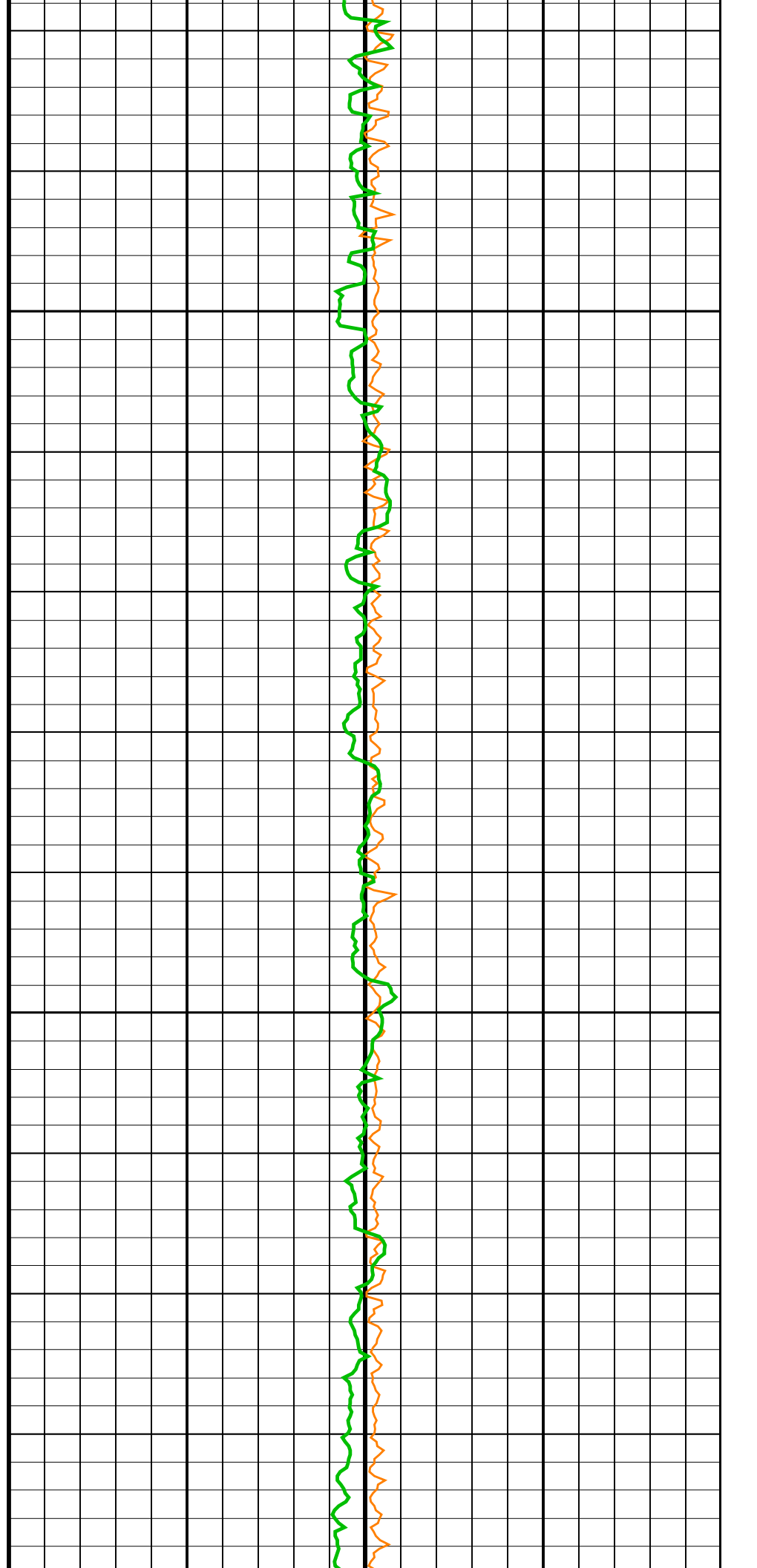
2250

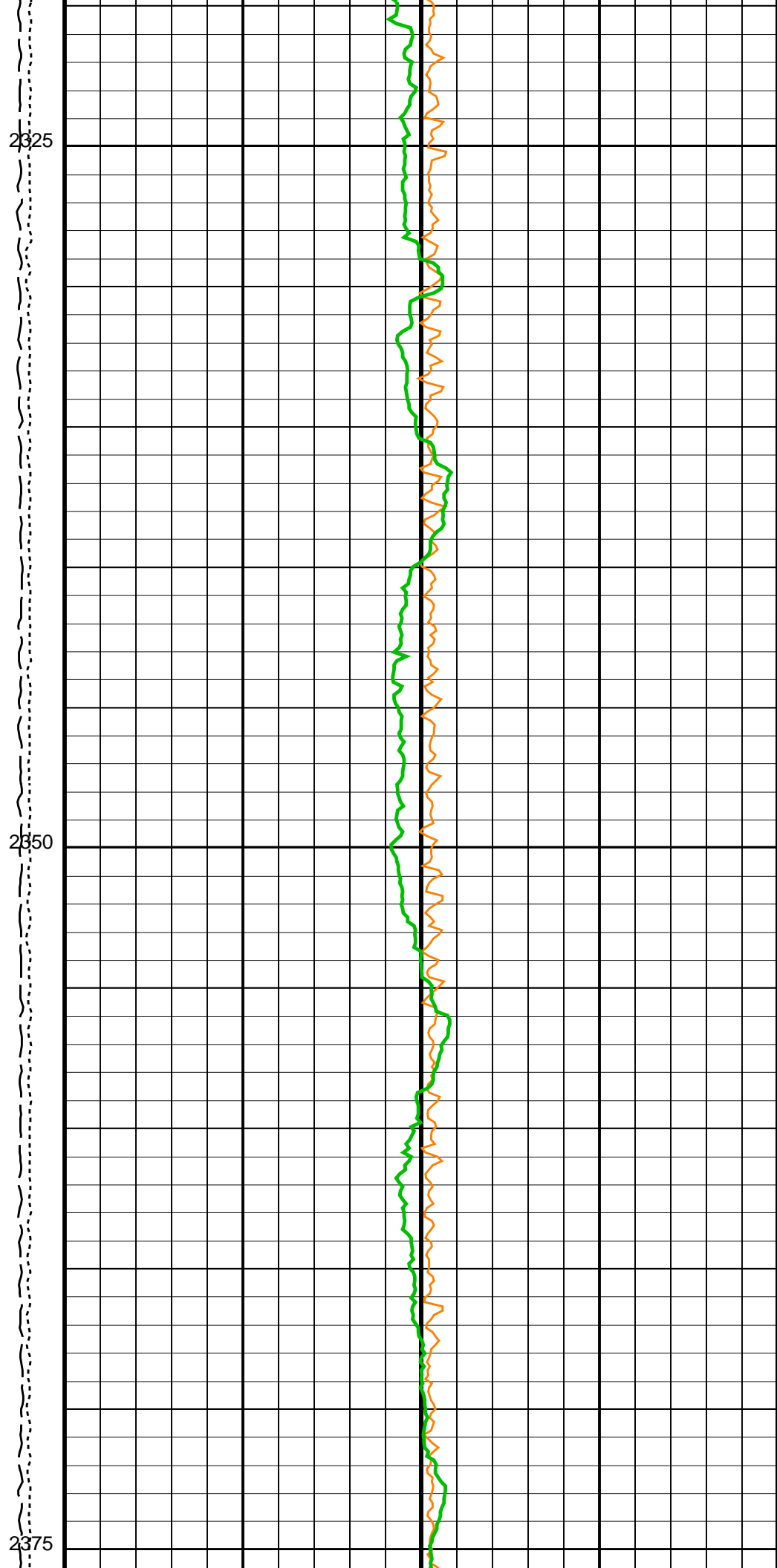
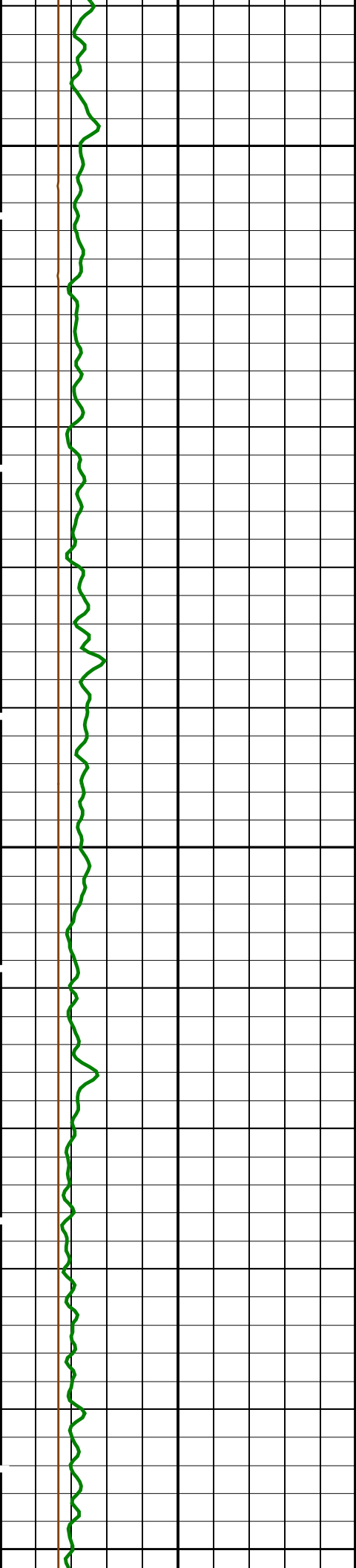


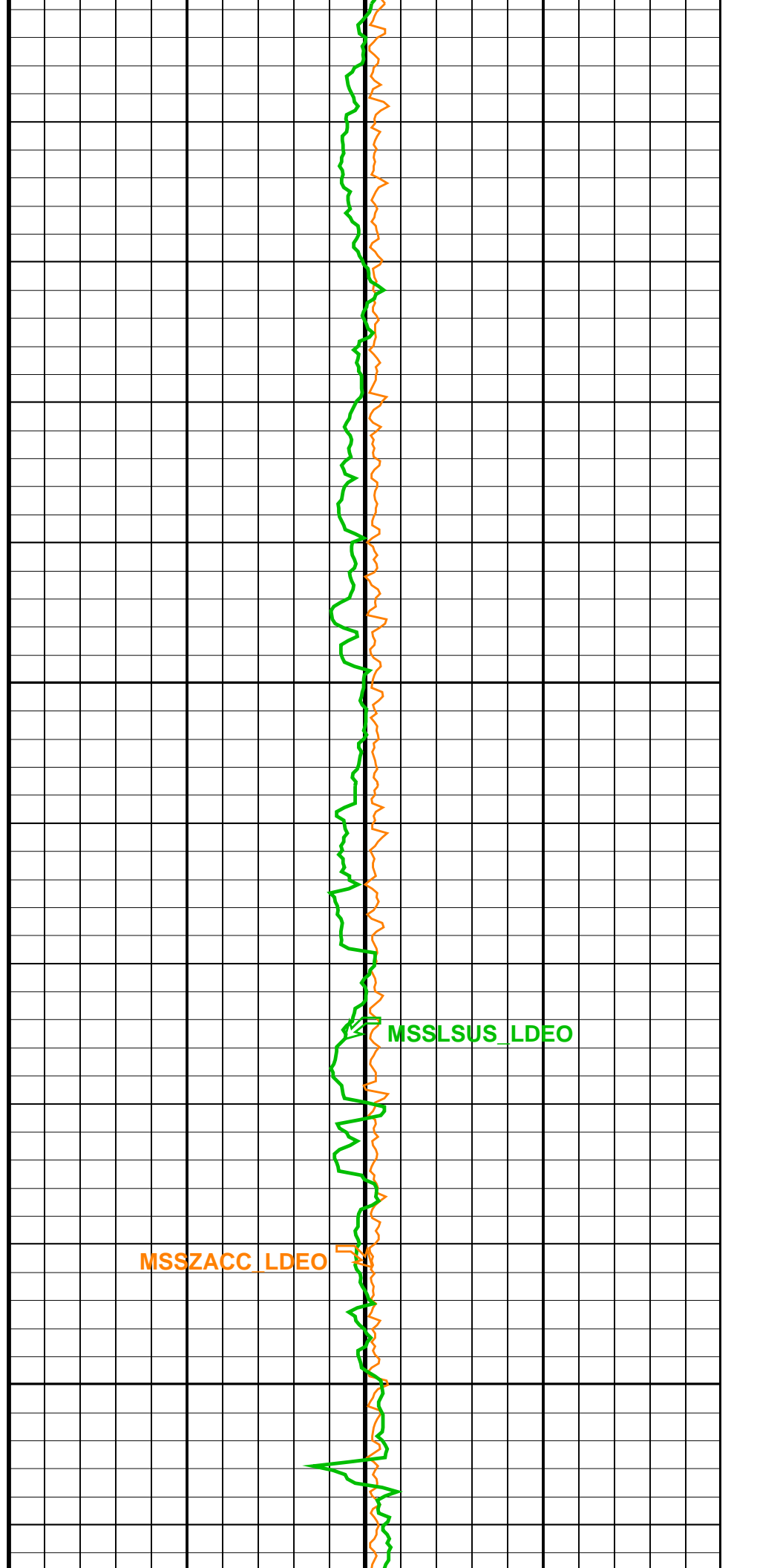
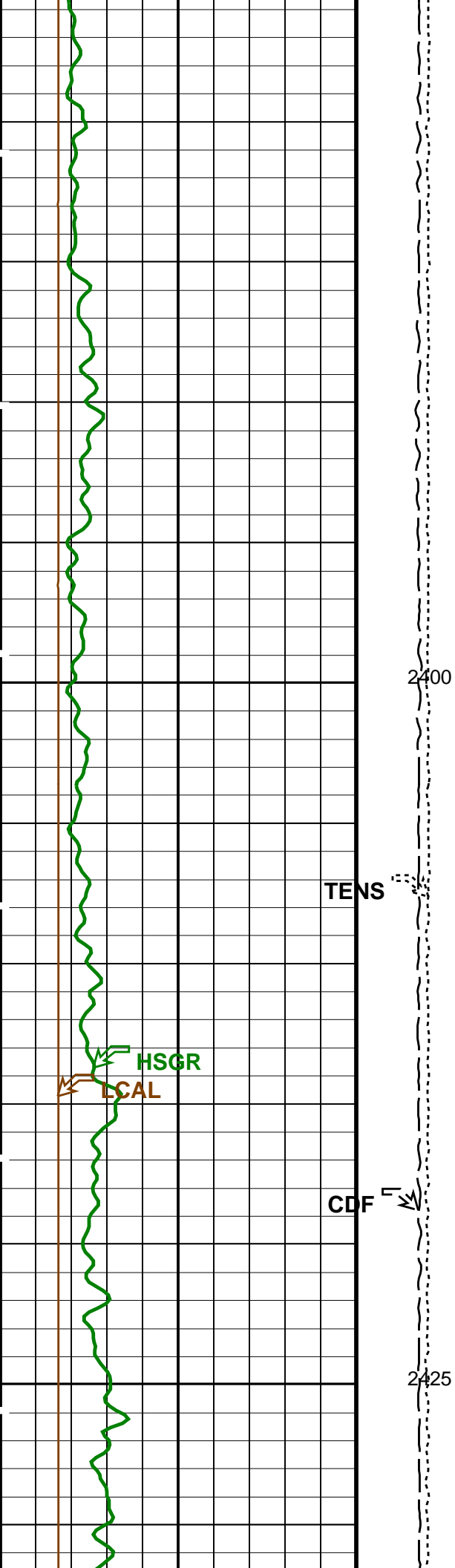


2275

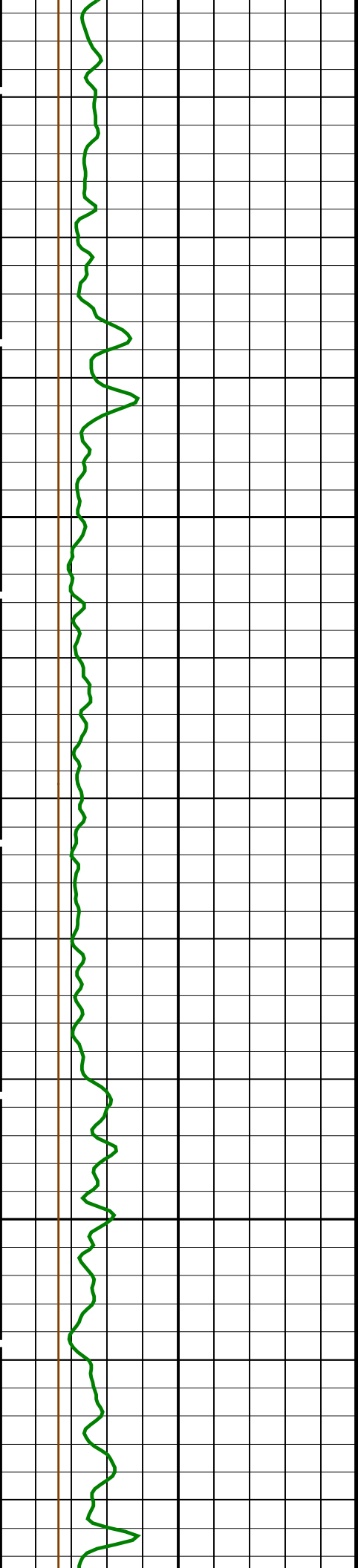
2300





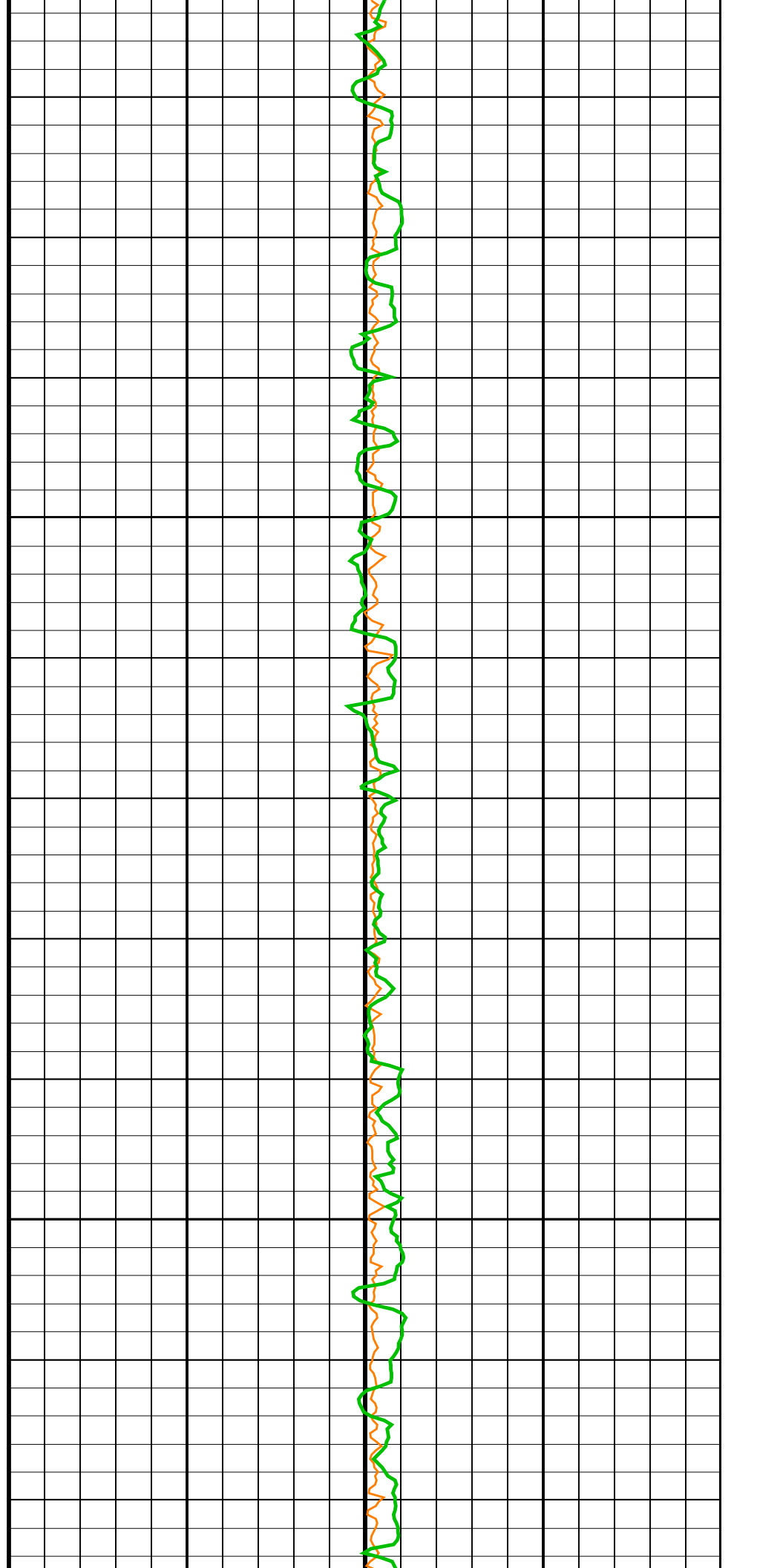


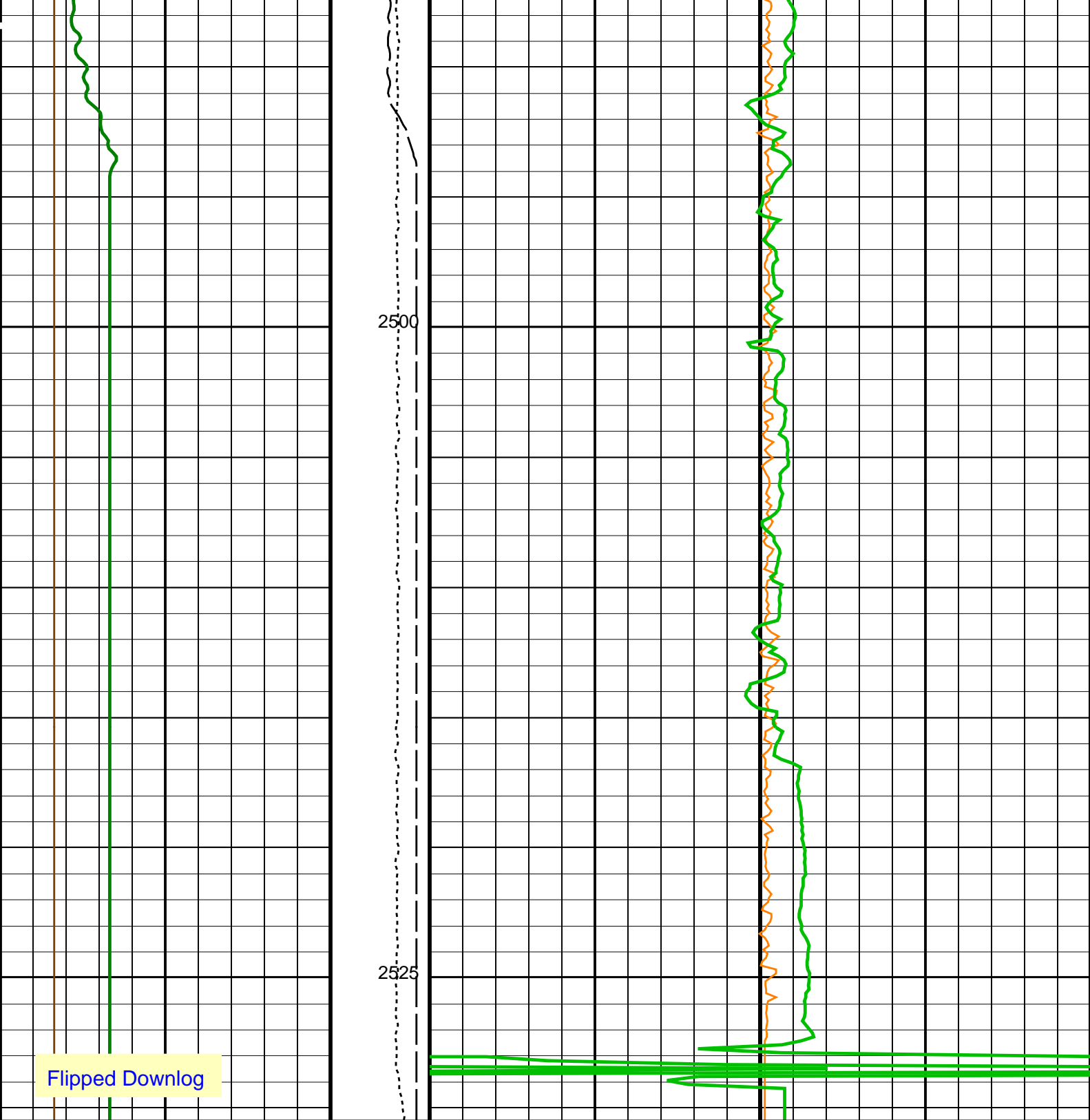




2450

2475





<div>HLDS Caliper (LCAL)</div> <div>(IN)</div> <div>020</div>	<div>Tension (TENS)</div> <div>(LBF)</div> <div>100000</div>	<div>Axial Acceleration (MSSZACC_LDEO)</div> <div>(M/S2)</div> <div>020</div>
<div>HNGS Spectroscopy Gamma Ray (HSGR)</div> <div>(GAPI)</div> <div>0100</div>	<div>Calibrated Downhole Force (CDF)</div> <div>(LBF)</div> <div>30000</div>	<div>Dual-Coil Susceptibility (MSSL SUS_LDEO)</div> <div>(PPM)</div> <div>-1000010000</div>

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value		
HRLT-B: High Resolution Laterolog Array – B				
BHS	Borehole Status	OPEN		
BHT	Bottom Hole Temperature (used in calculations)	25	DEGC	
CALSTAT	HRLTB Calibration Status	SHALLOW_DONE		
CALTEMP	HRLTB Calibration Temperature	11.6682	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	AUTO		
LOOPMOD1	HRLT Mode 1 Loop Mode	AUTO		
LOOPMOD2	HRLT Mode 2 Loop Mode	AUTO		
LOOPMOD3	HRLT Mode 3 Loop Mode	AUTO		
LOOPMOD4	HRLT Mode 4 Loop Mode	AUTO		
LOOPMOD5	HRLT Mode 5 Loop Mode	AUTO		
LOOPMOD6	HRLT Mode 6 Loop Mode	AUTO		
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	
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	OFF		
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	1500	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		
APS-C: Accelerator-Porosity Tool				
	APS Software Version	0		
AASD	APS Thermal and Array Detectors High Voltage Setting	1976.24	V	
ADSO	APS Array Detectors Data Source Switch	Both		
AFSD	APS Far Detector High Voltage Setting	2067.55	V	
AHCS	APS Holesize Correction Source	GCSE		
AHSS	APS Holesize Correction Switch	ON		
AMTY	APS Environmental Corrections Mud Type	WaterBaseBarite		
ANSD	APS Near Detector High Voltage Setting	1737.8	V	
ASOS	APS Standoff Correction Switch	ON		
ATSS	APS Temperature-Pressure-Salinity Correction Switch	ON		
BHFL_APS	APS TNPH Borehole Fluid Type	WATER		
BHS	Borehole Status	OPEN		
BHT	Bottom Hole Temperature (used in calculations)	25	DEGC	
BSCO_APS	APS TNPH Borehole Salinity Correction Option	NO		
DPPM	Density Porosity Processing Mode	HIRS		
DSCO_APS	APS TNPH Density Source Correction Option	MEASURED		
FSAL	Formation Salinity	-50000	PPM	
FSCO_APS	APS TNPH 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_APS	APS TNPH Hole Size Correction Option	YES		
ISSBAR	Barite Mud Switch	BARITE		
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE		
MCCO_APS	APS TNPH Mud Cake Correction Option	YES		

MCOR_APS	APS TNPH Mud Correction	NATU	
MWCO_APS	APS TNPH Mud Weight Correction Option	YES	
NARC	APS Near/Array Calibration Ratio	1.08341	
NFRC	APS Near/Far Calibration Ratio	0.942369	
PTCO_APS	APS TNPH Pressure/Temperature Correction Option	NO	
SHT	Surface Hole Temperature	20	DEGC
TNCO_APS	APS TNPH Computation Option	YES	
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)	25	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	-0.000378258	
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	1.11451	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	1.21062	
System and Miscellaneous			
ALTDPCCHAN	Name of alternate depth channel	SpeedCorrectedDepth	
BS	Bit Size	11.438	IN
BSAL	Borehole Salinity	38000.00	PPM
CSIZ	Current Casing Size	5.500	IN
CWEI	Casing Weight	168.00	LB/F
DFD	Drilling Fluid Density	1.26	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	NORMAL	
RMFS	Resistivity of Mud Filtrate Sample	-50000.0000	OHMM
RW	Resistivity of Connate Water	1.0000	OHMM
TD	Total Depth	6069.55	FT
TDD	Total Depth - Driller	2528.50	M
TDL	Total Depth - Logger	2528.50	M
TWS	Temperature of Connate Water Sample	37.78	DEGC

Format: MSS\_Logging    Vertical Scale: 1:200    Graphics File Created: 28-Jun-2021 23:02

## OP System Version: 19C0-187

MSS_LDEO-A	19C0-187	HRLT-B	19C0-187
HLDS	19C0-187	LDSC-B	19C0-187
APS-C	19C0-187	HNGC-B	19C0-187
HNGS-BA	19C0-187	DTC-H	19C0-187

## Input DLIS Files

DEFAULT	Flip_MSS_LDEO_HRLA_032LUP	PRODUCER	28-Jun-2021 22:58	2530.4 M	1817.4 M
---------	---------------------------	----------	-------------------	----------	----------

## Output DLIS Files

DEFAULT	MSS_LDEO_HRLA_LDL_033PUP	FN:47	PRODUCER	28-Jun-2021 23:02
---------	--------------------------	-------	----------	-------------------

## Input DLIS Files

DEFAULT	Flip_MSS_LDEO_HRLA_032LUP	PRODUCER	28-Jun-2021 22:58	2530.4 M	1817.4 M
---------	---------------------------	----------	-------------------	----------	----------

## Output DLIS Files

DEFAULT	MSS	LDEO	HRLA	LDL	033PUP	FN:47	PRODUCER	28-Jun-2021 23:02	2530.4 M	1817.4 M
---------	-----	------	------	-----	--------	-------	----------	-------------------	----------	----------

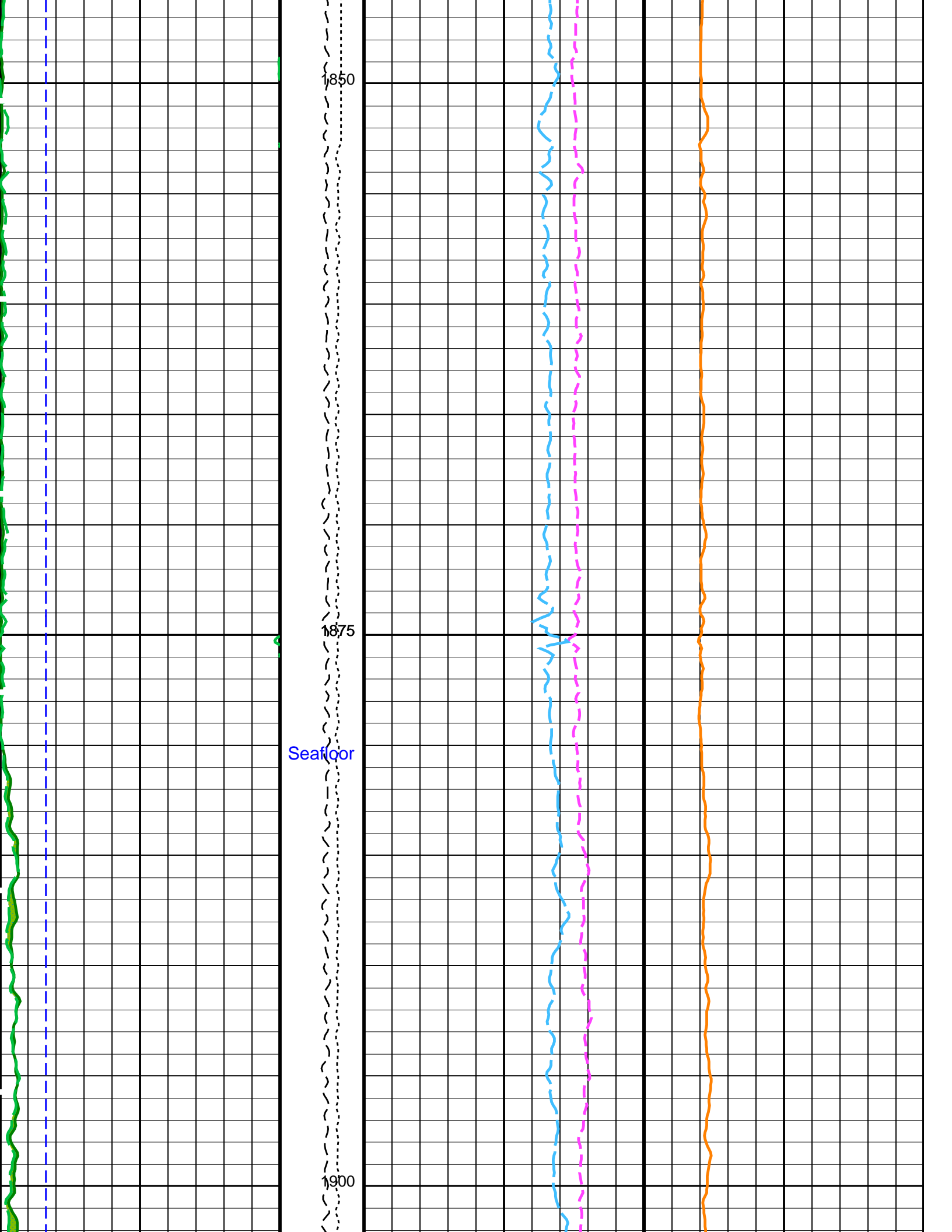
**OP System Version: 19C0-187**

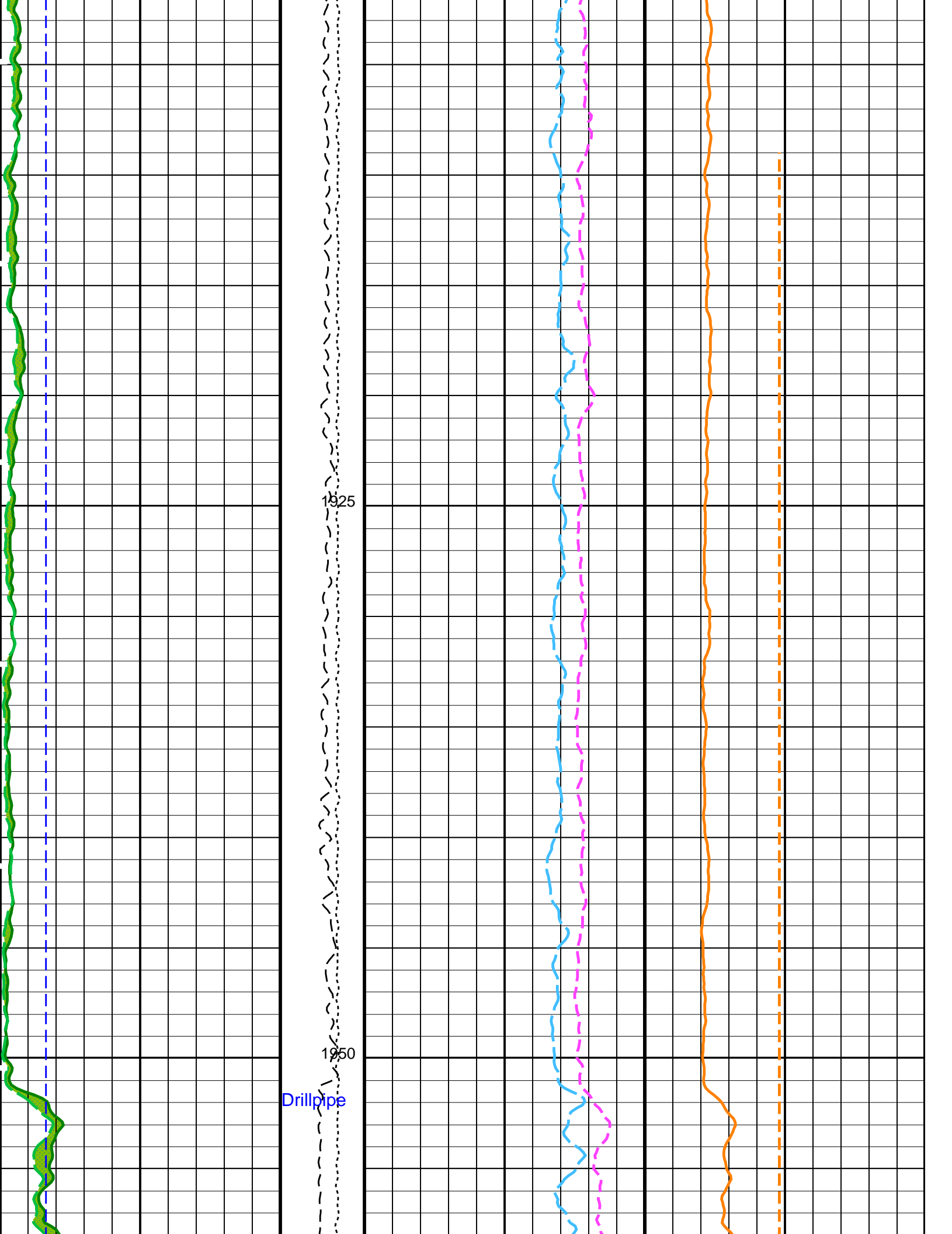
MSS_LDEO-A	19C0-187	HRLT-B	19C0-187
HLDS	19C0-187	LDSC-B	19C0-187
APS-C	19C0-187	HNGC-B	19C0-187
HNGS-BA	19C0-187	DTC-H	19C0-187

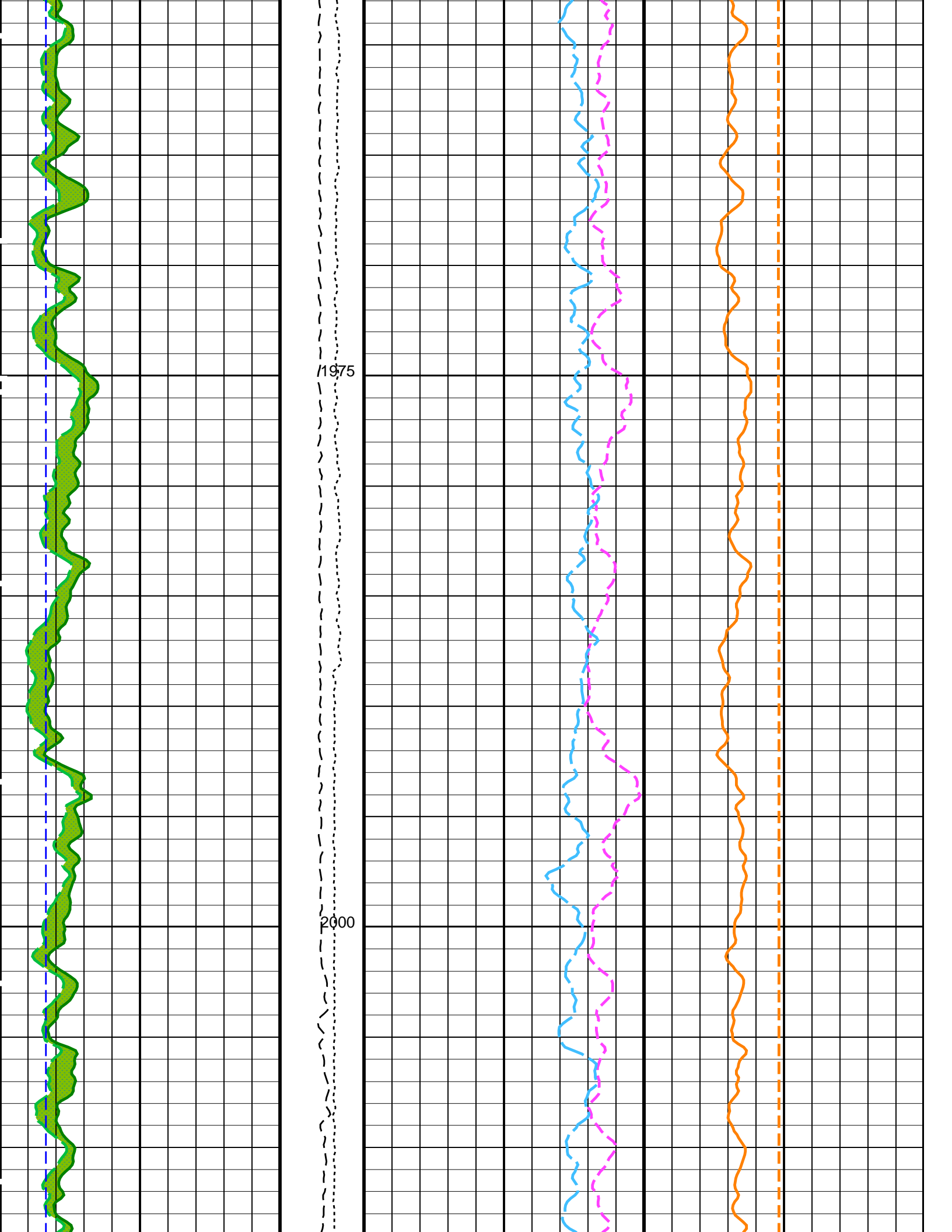
## PIP SUMMARY

**Time Mark Every 60 S**

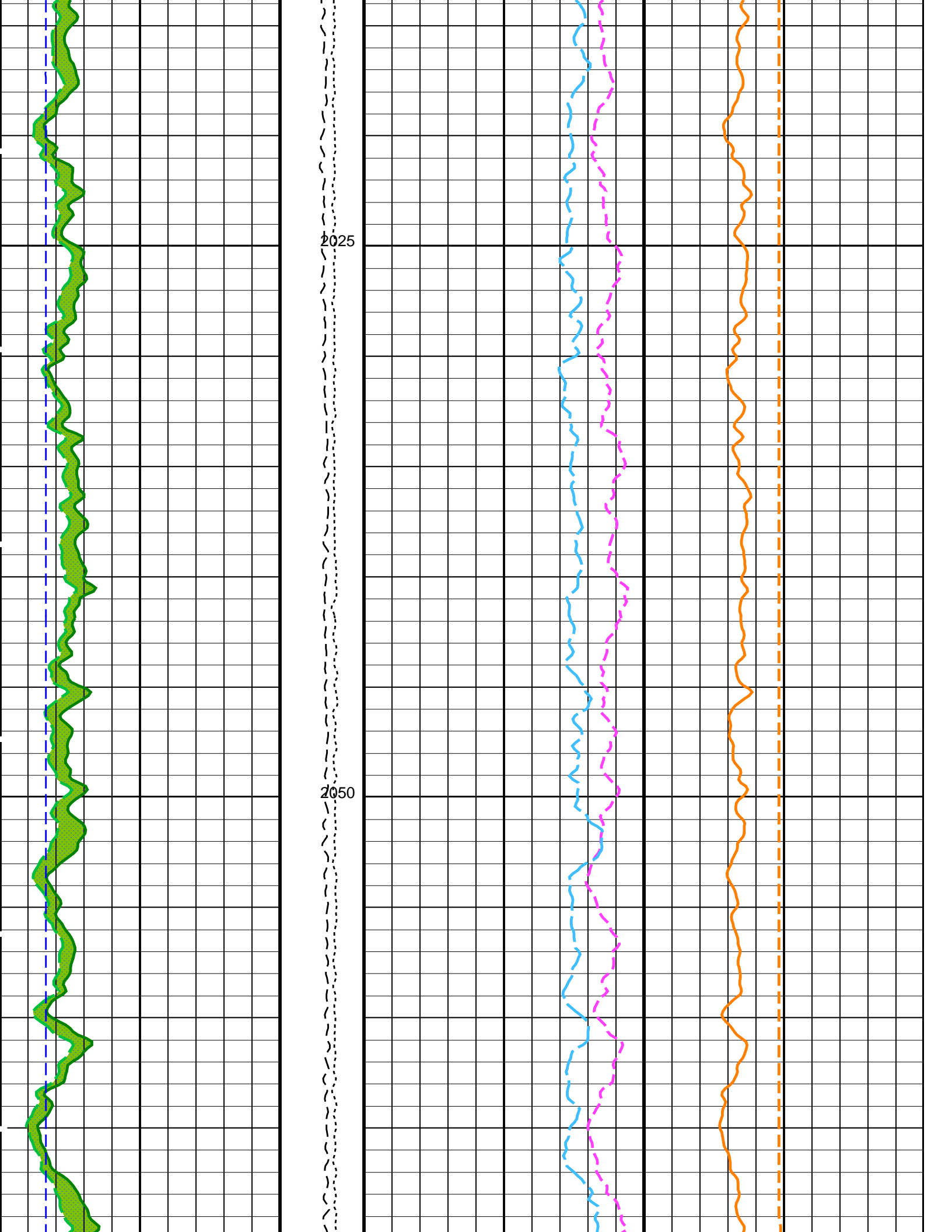


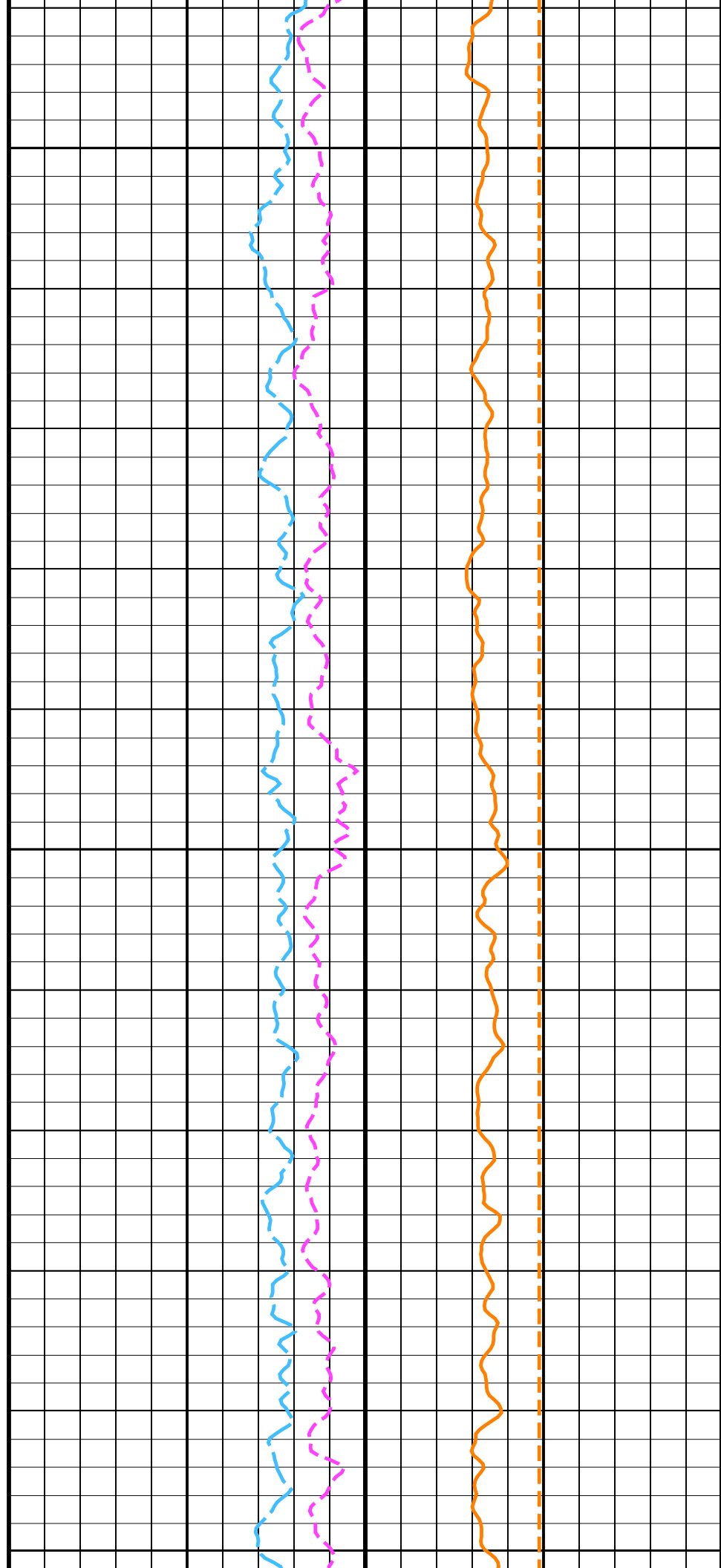
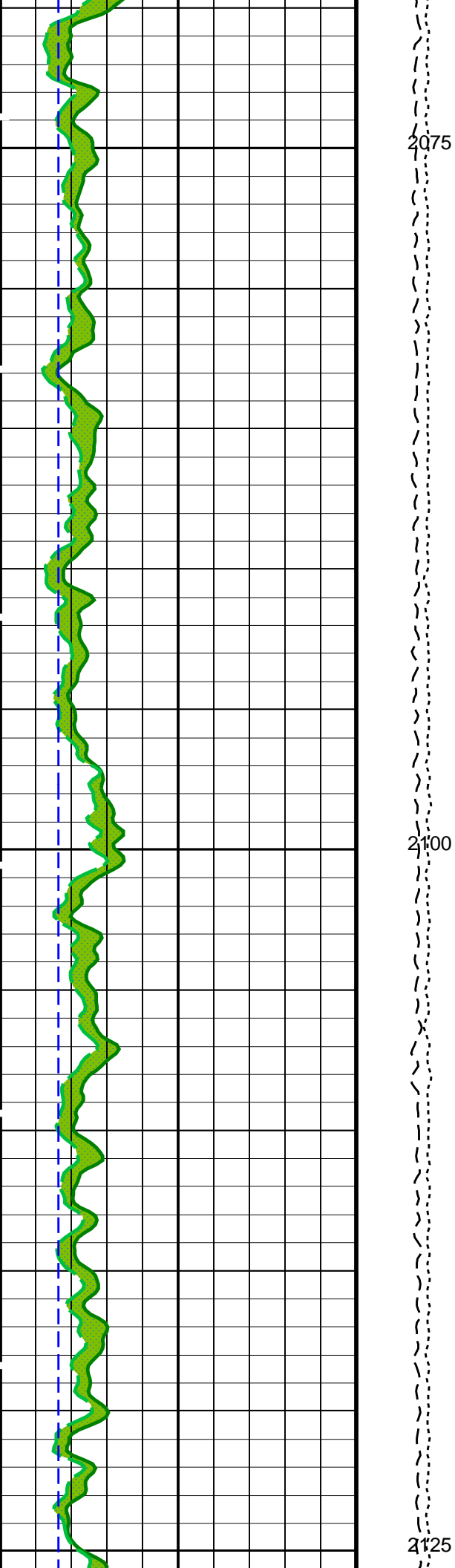


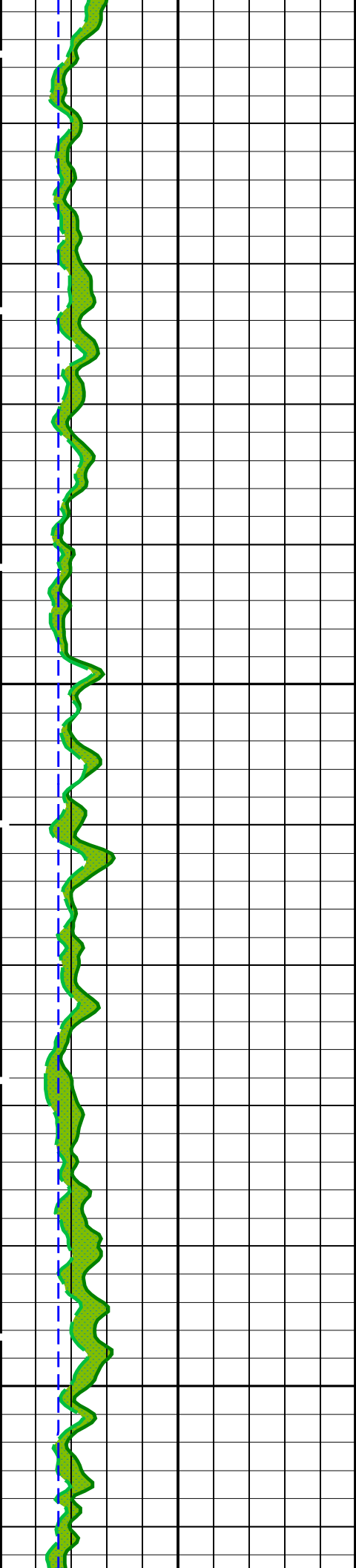




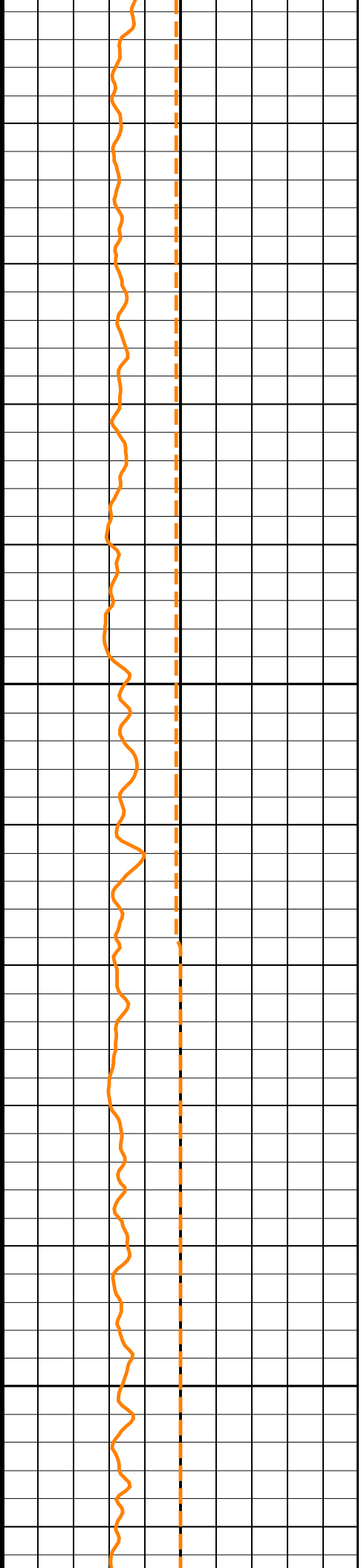
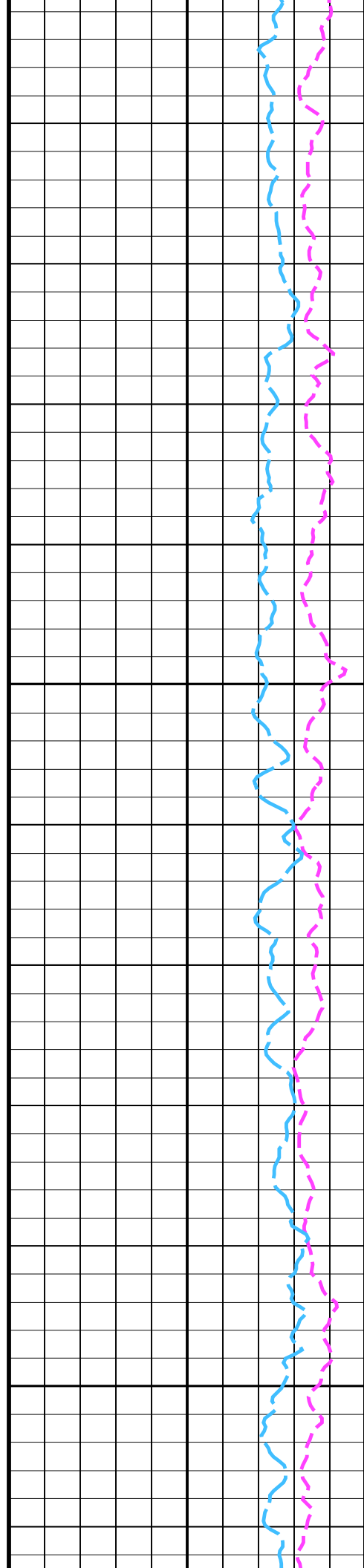


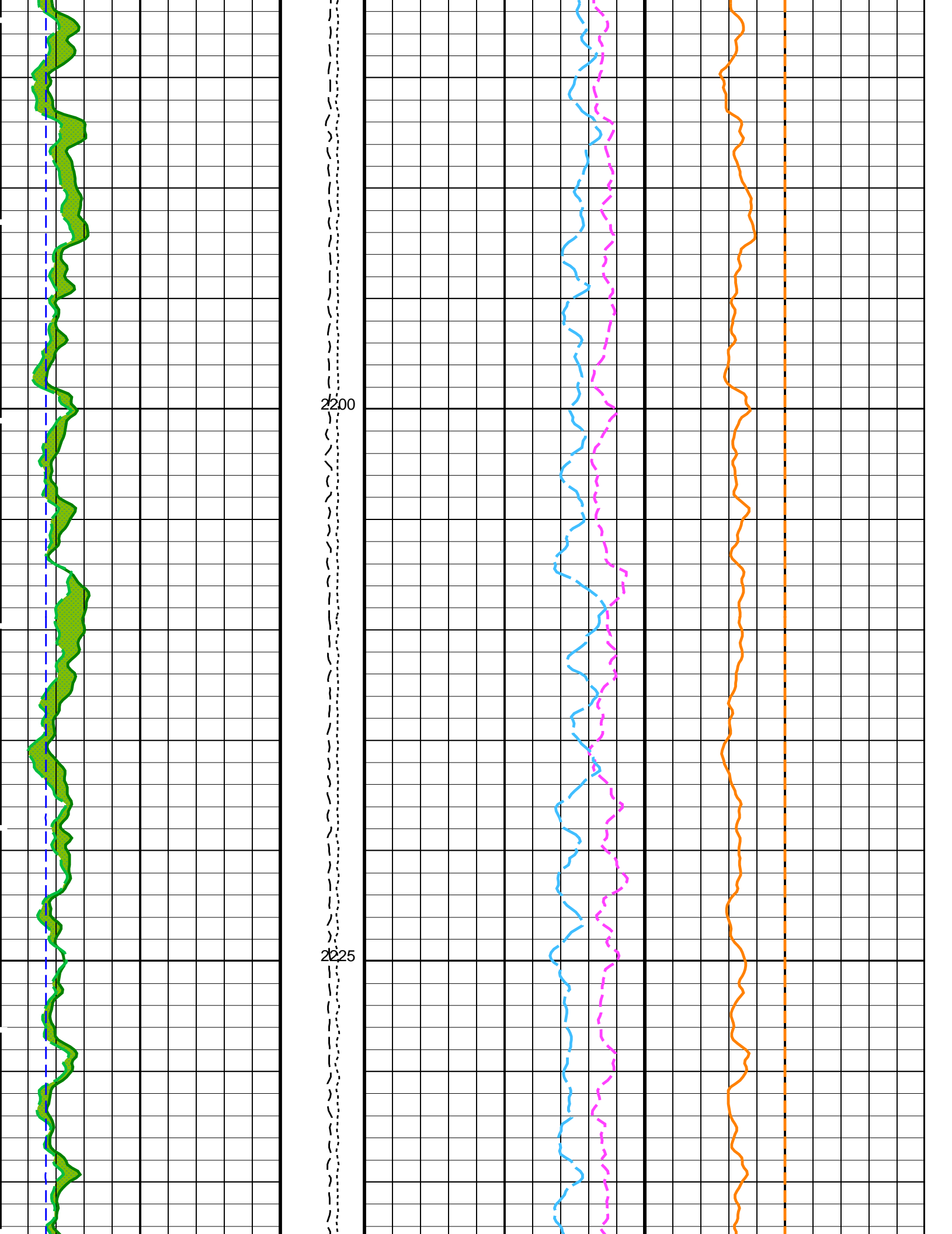


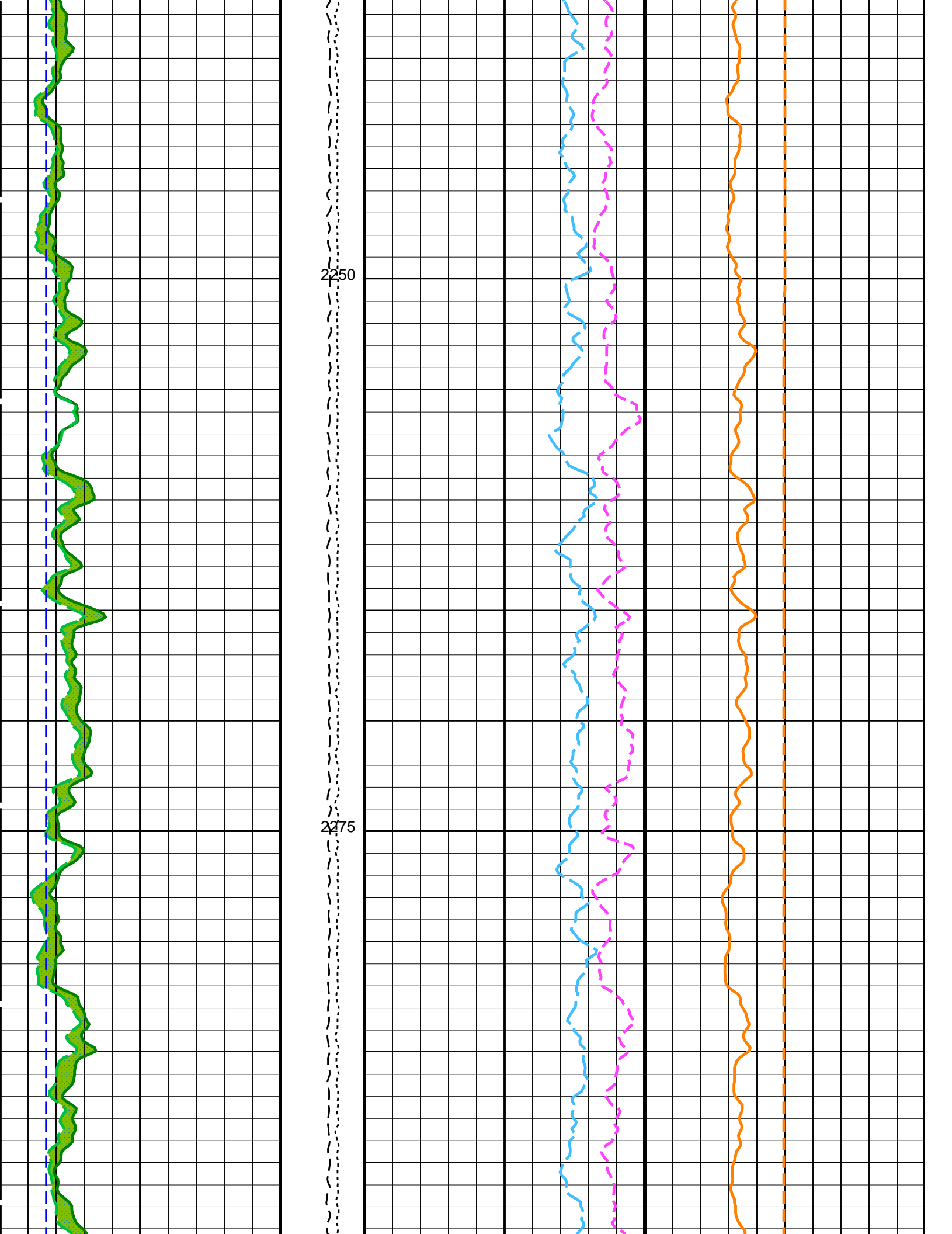


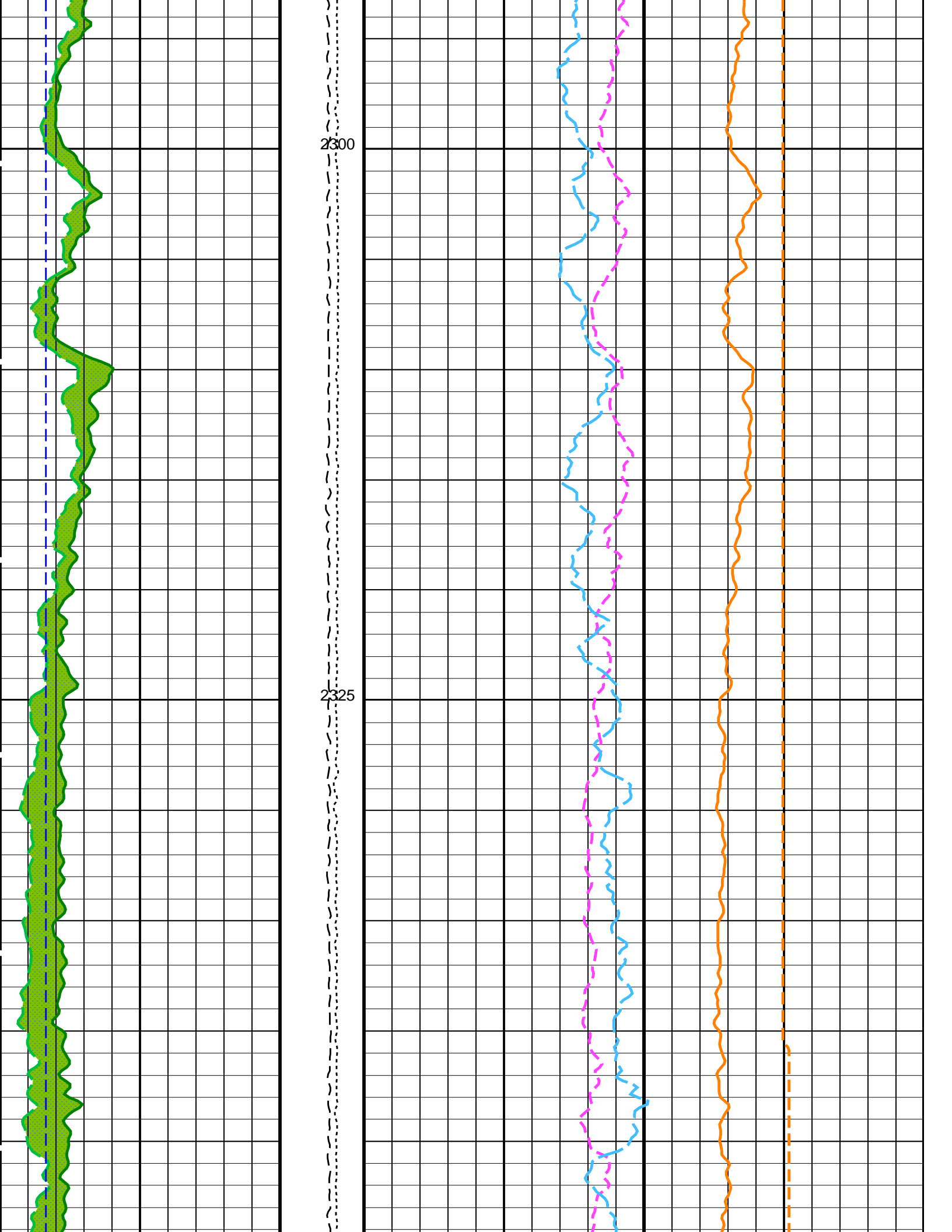


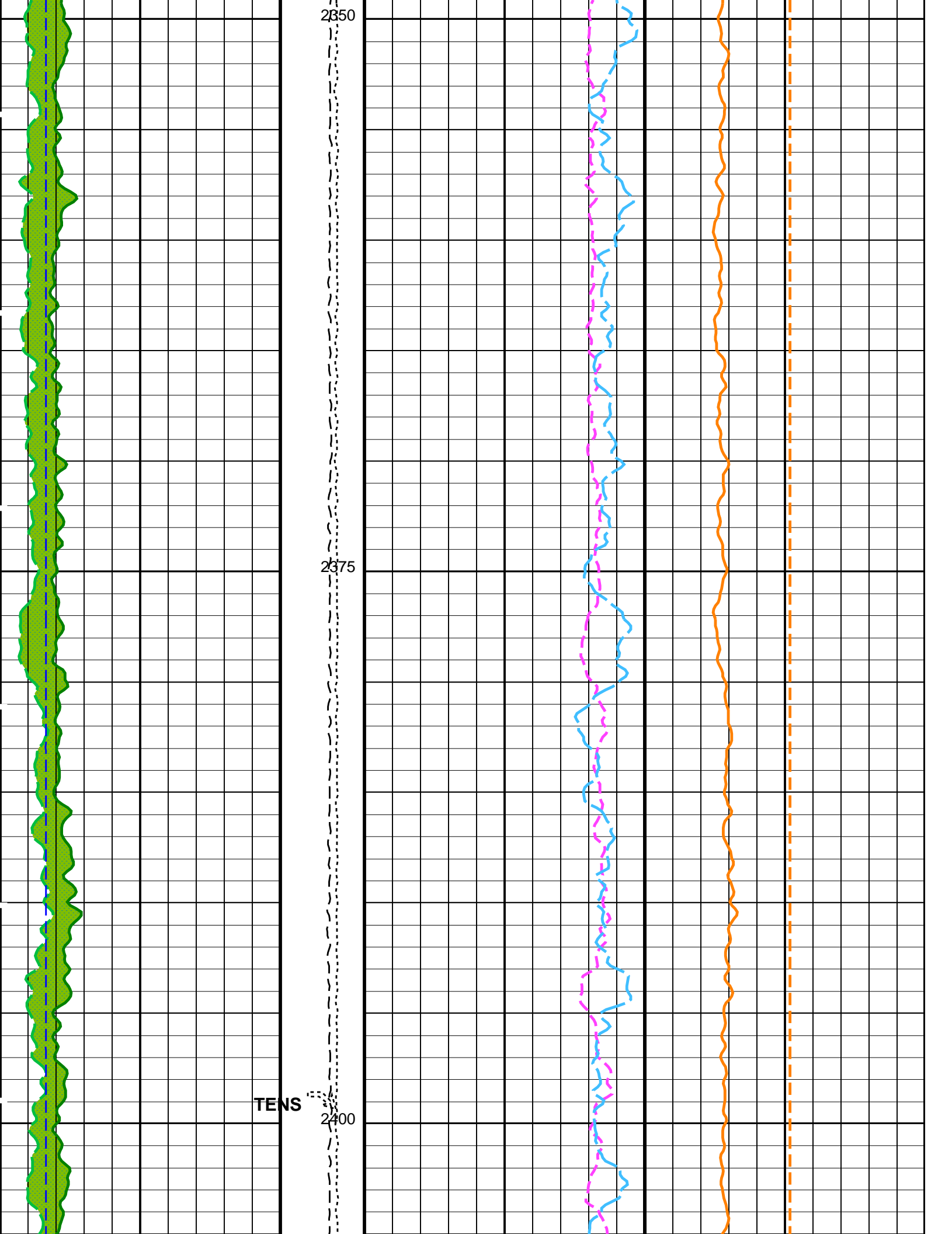
2150  
2175

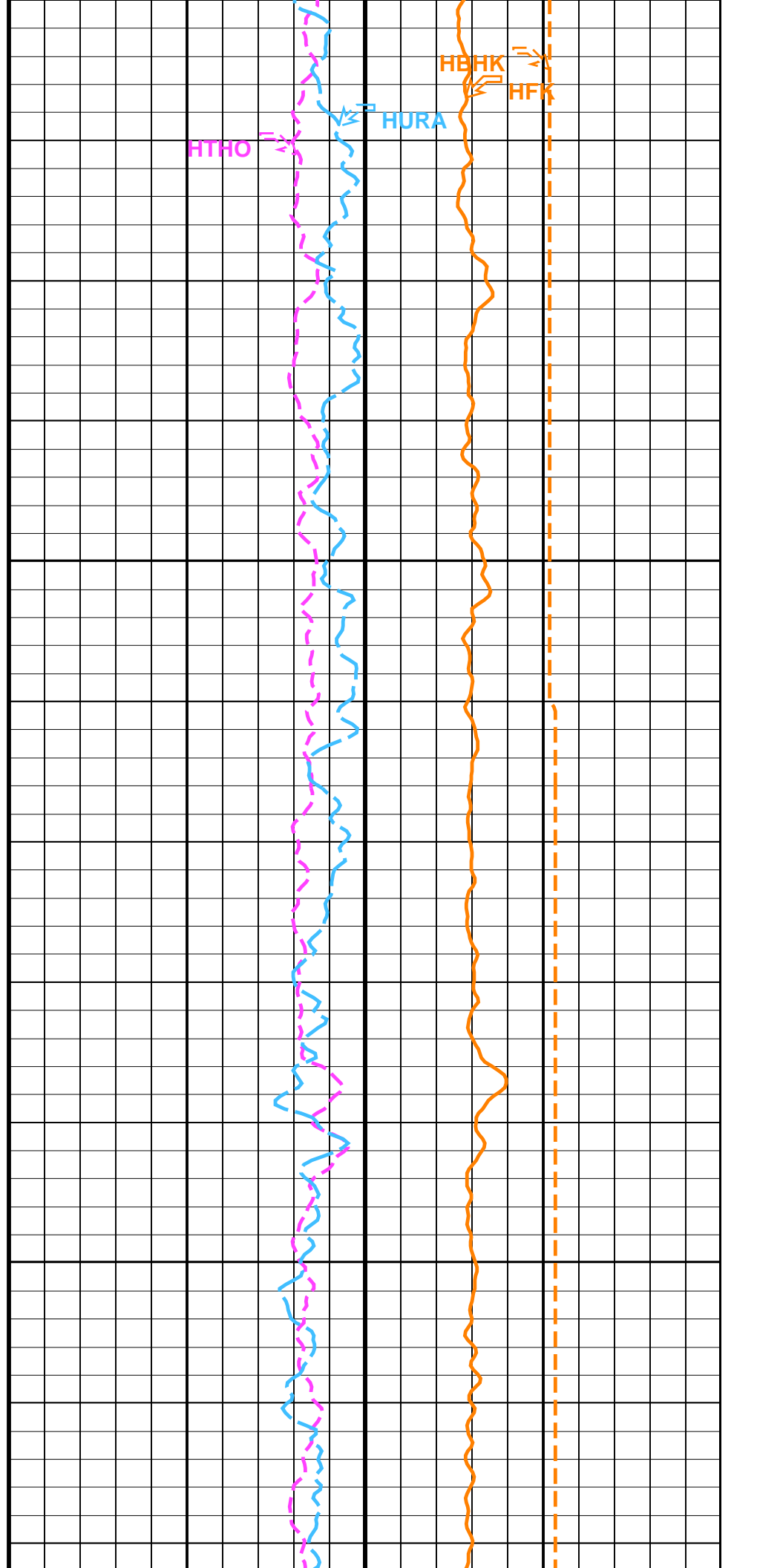
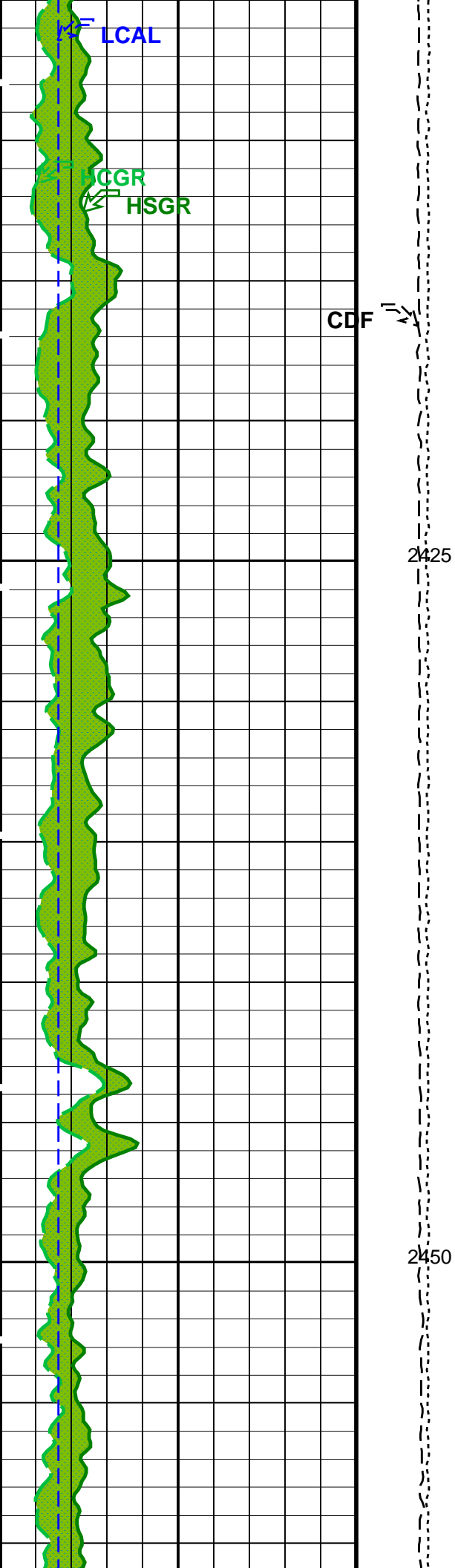




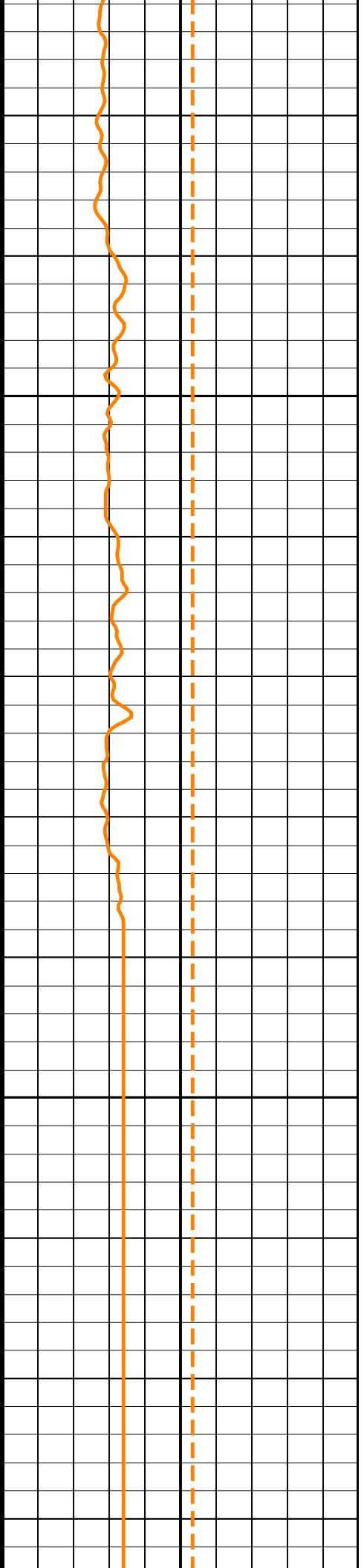
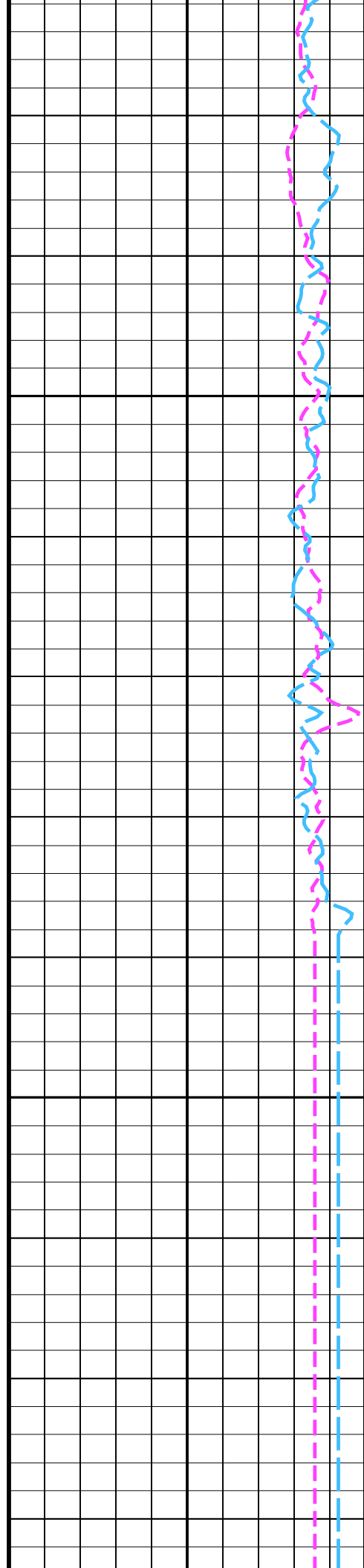
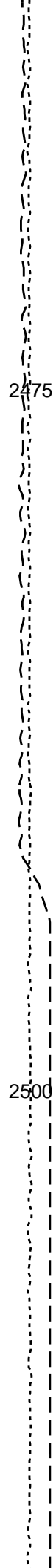
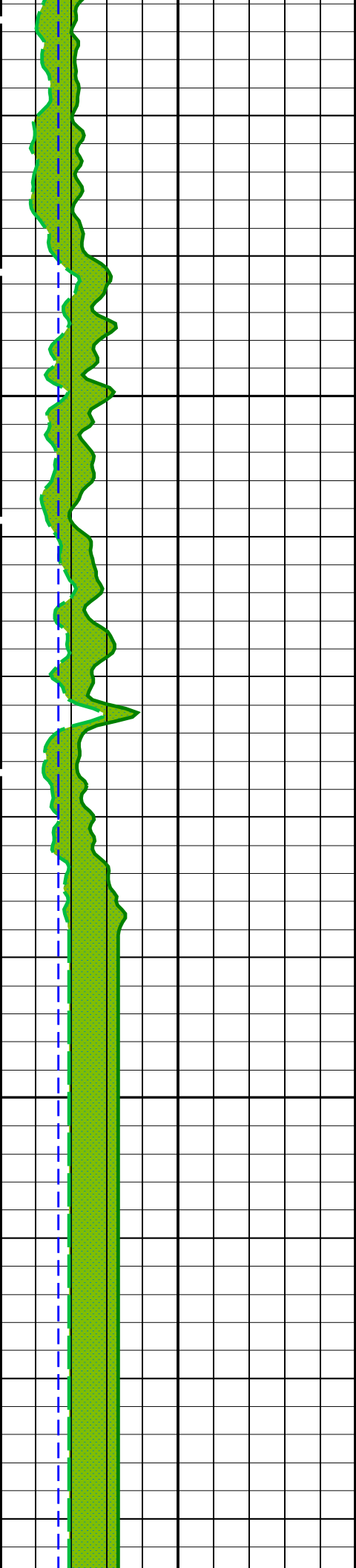


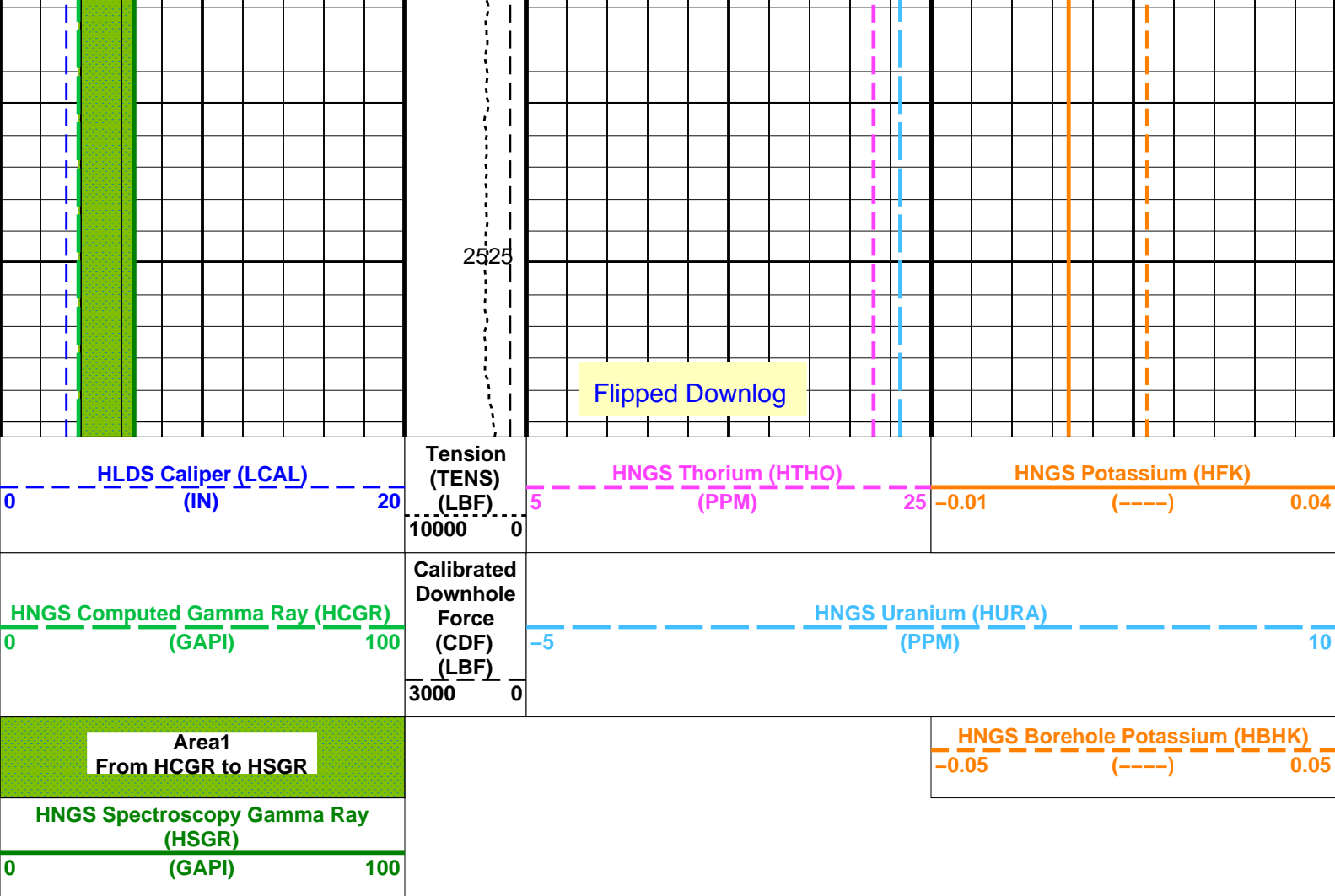












#### PIP SUMMARY

Time Mark Every 60 S

### Parameters

DLIS Name	Description	Value
HRLT-B: High Resolution Laterolog Array - B		
BHS	Borehole Status	OPEN
GCSE	Generalized Caliper Selection	BS
APS-C: Accelerator-Porosity Tool		
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	-0.000378258
HALF	HNGS Alpha Filter Length	60 IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE
HMWM	Mud Weighting Material	BARI
HNPE	HNGS Processing Enable	YES
S1BI	HNGS Detector 1 Calibration Bismuth Count Rate	1.3 CPS
S2BI	HNGS Detector 2 Calibration Bismuth Count Rate	1.3 CPS
SGRC	HNGS Standard Gamma-Ray Correction Flag	YES
TPOS	Tool Position	ECCE
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	1.11451
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	1.21062
System and Miscellaneous		
BS	Bit Size	11.438 IN
DFD	Drilling Fluid Density	1.26 G/C3

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

MSS_LDEO-A	19C0-187	HRLT-B	19C0-187
HLDS	19C0-187	LDSC-B	19C0-187
APS-C	19C0-187	HNGC-B	19C0-187
HNGS-BA	19C0-187	DTC-H	19C0-187

## Input DLIS Files

DEFAULT	Flip_MSS_LDEO_HRLA_032LUP	PRODUCER	28-Jun-2021 22:58	2530.4 M	1817.4 M
---------	---------------------------	----------	-------------------	----------	----------

## Output DLIS Files

DEFAULT	MSS_LDEO_HRLA_LDL_033PUP	FN:47	PRODUCER	28-Jun-2021 23:02
---------	--------------------------	-------	----------	-------------------

## Input DLIS Files

DEFAULT	Flip_MSS_LDEO_HRLA_032LUP	PRODUCER	28-Jun-2021 22:58	2530.4 M	1817.4 M
---------	---------------------------	----------	-------------------	----------	----------

## Output DLIS Files

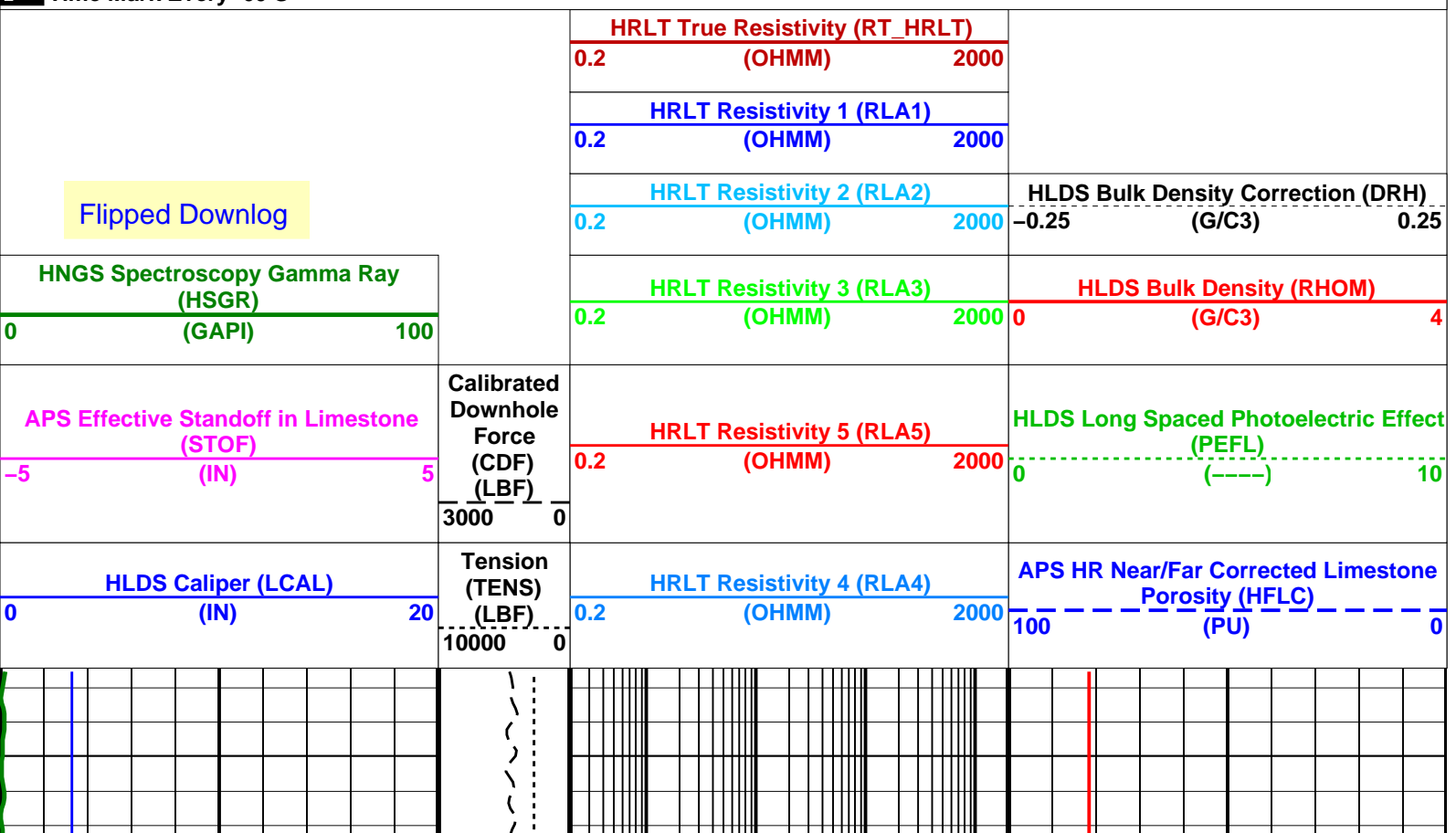
DEFAULT	MSS_LDEO_HRLA_LDL_033PUP	FN:47	PRODUCER	28-Jun-2021 23:02	2530.4 M	1817.4 M
---------	--------------------------	-------	----------	-------------------	----------	----------

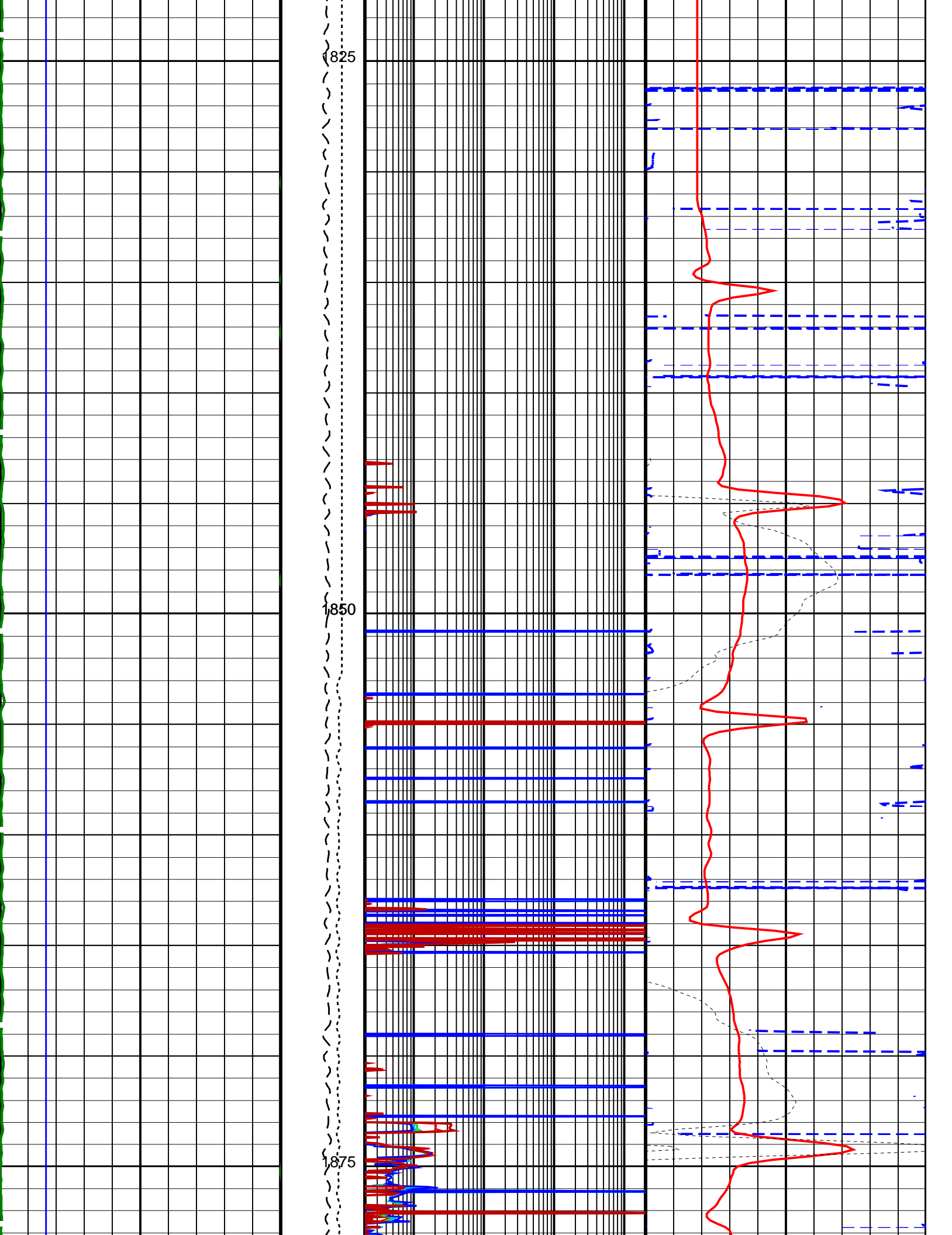
**OP System Version: 19C0-187**

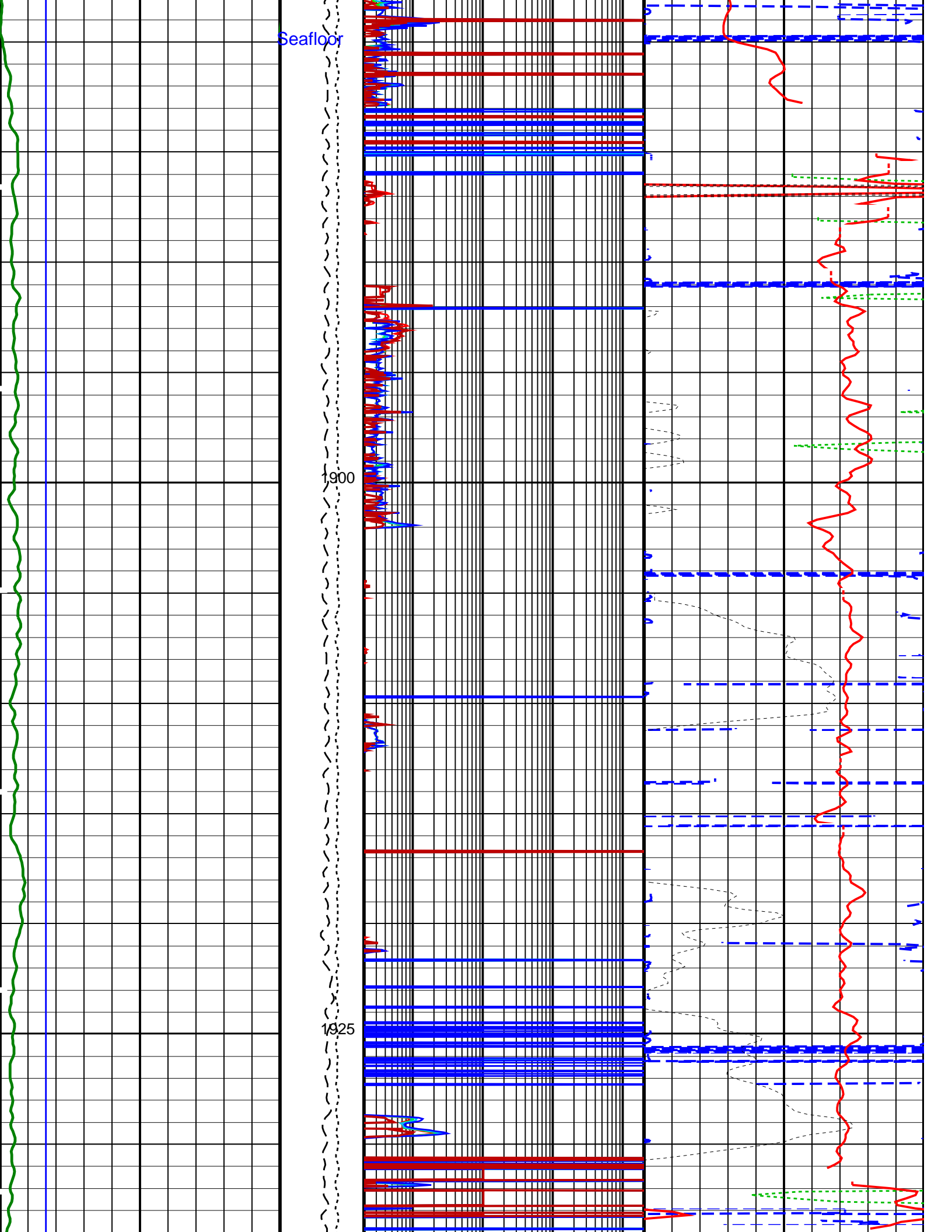
MSS_LDEO-A	19C0-187	HRLT-B	19C0-187
HLDS	19C0-187	LDSC-B	19C0-187
APS-C	19C0-187	HNGC-B	19C0-187
HNGS-BA	19C0-187	DTC-H	19C0-187

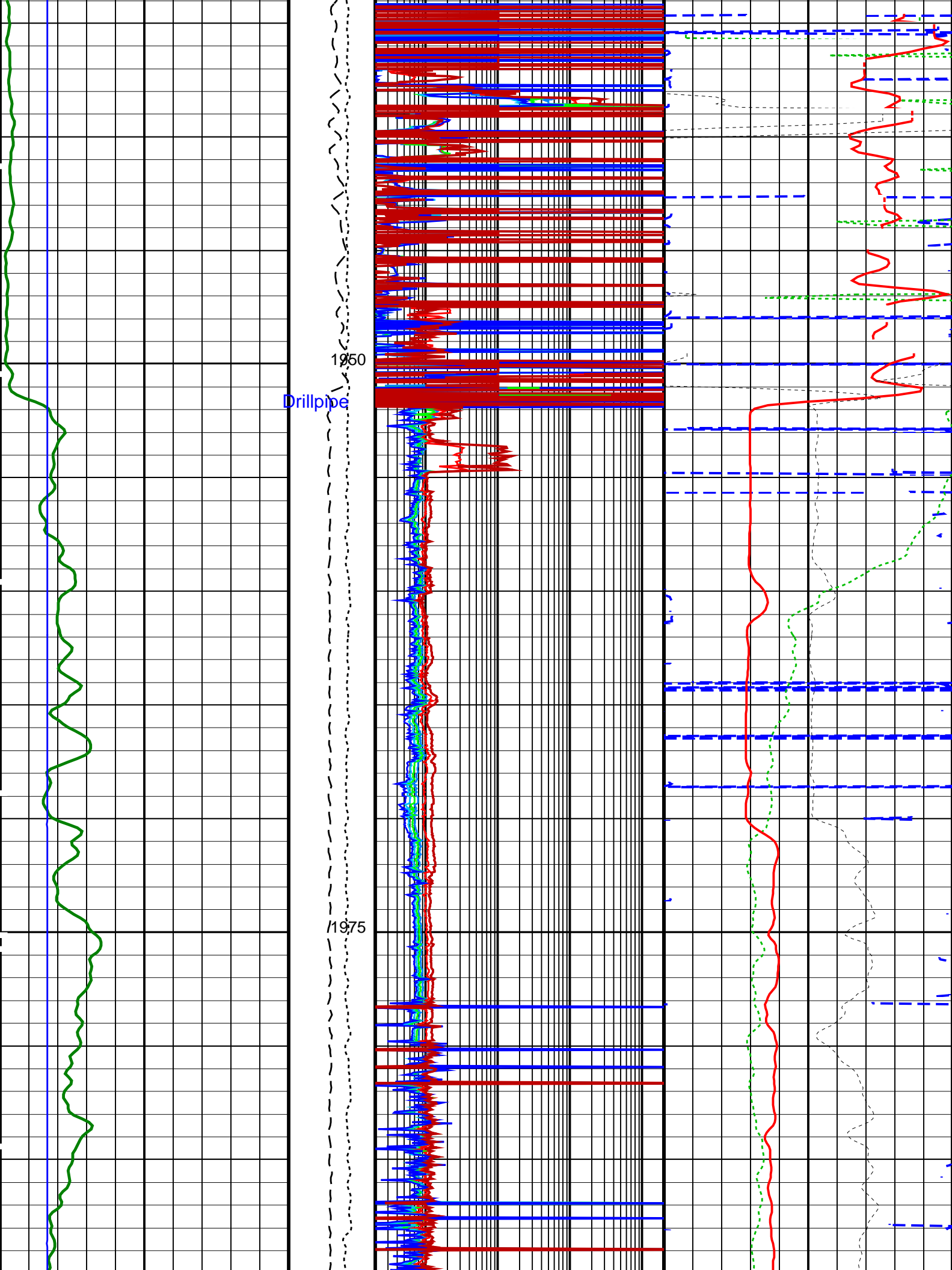
## PIP SUMMARY

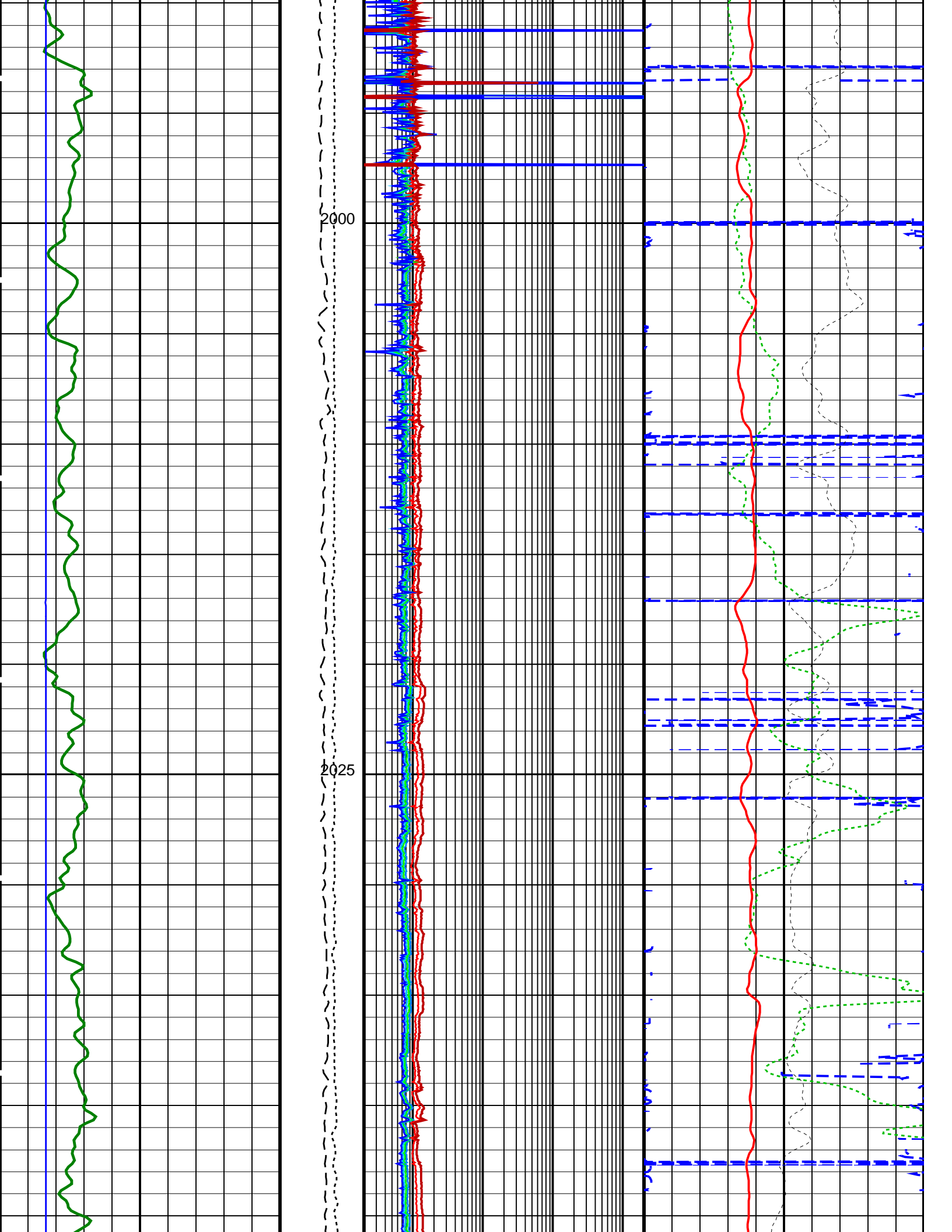
**Time Mark Every 60 S**

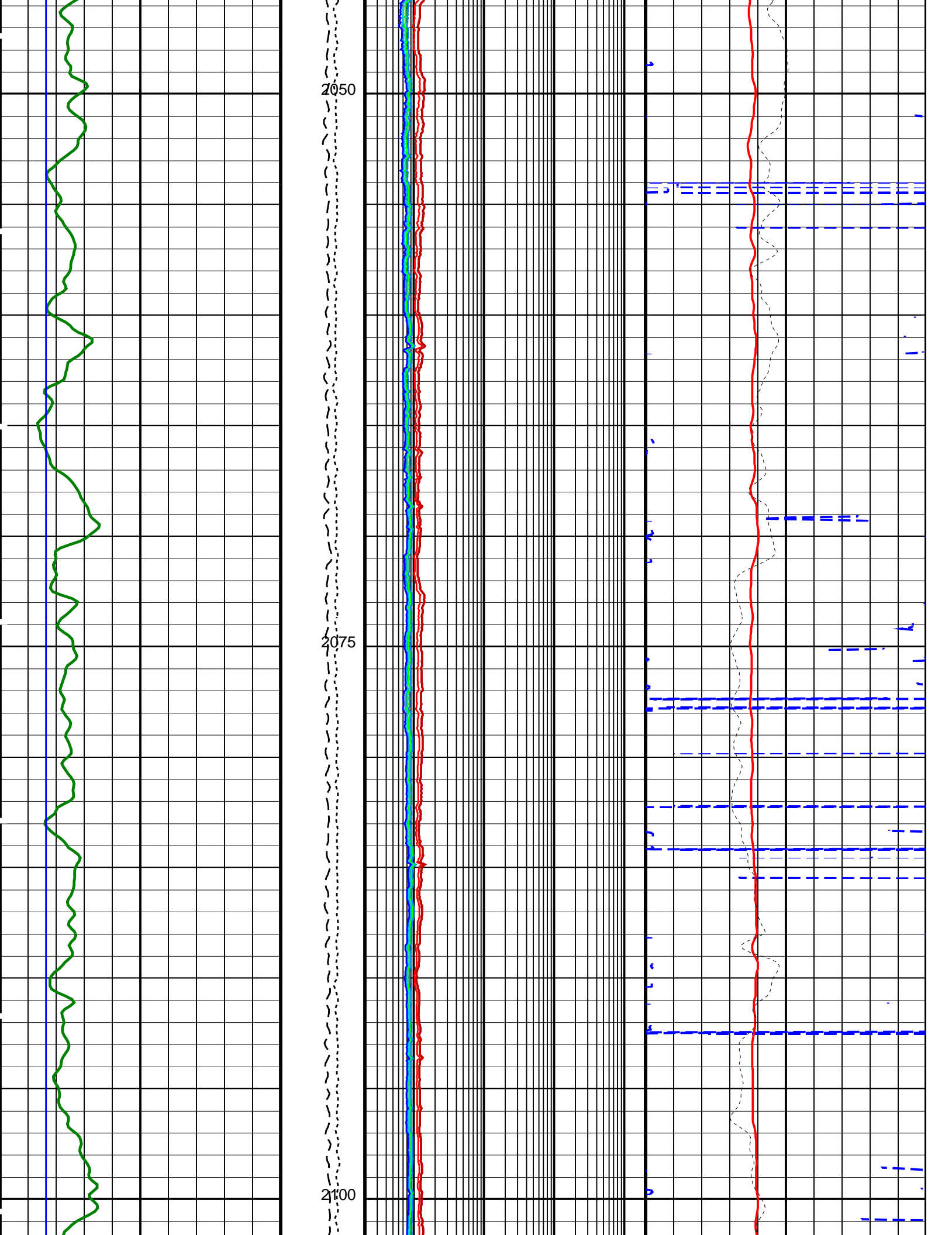




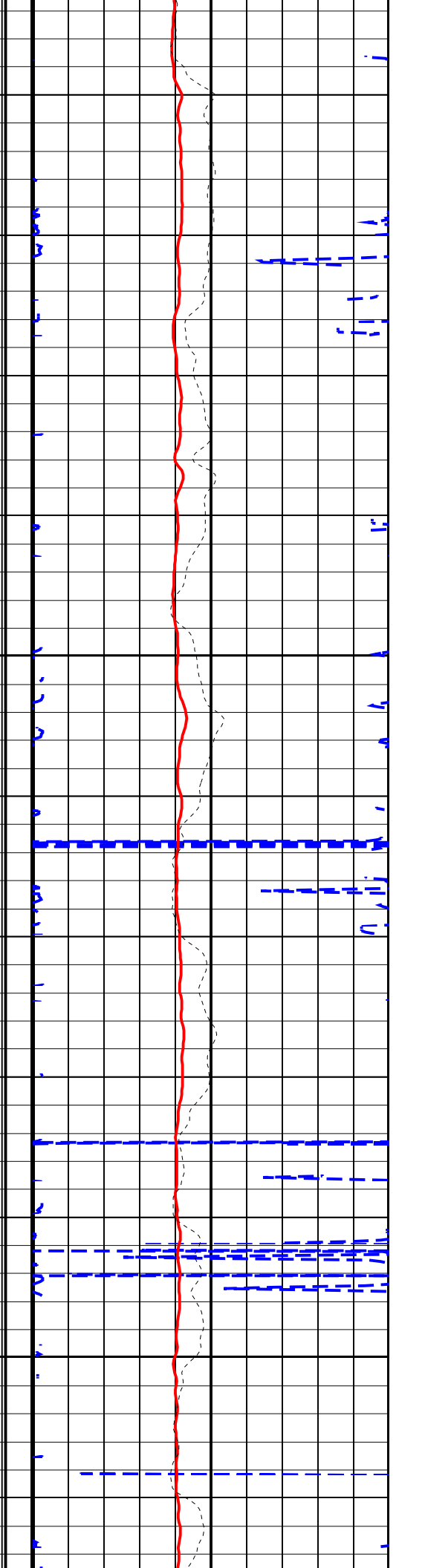
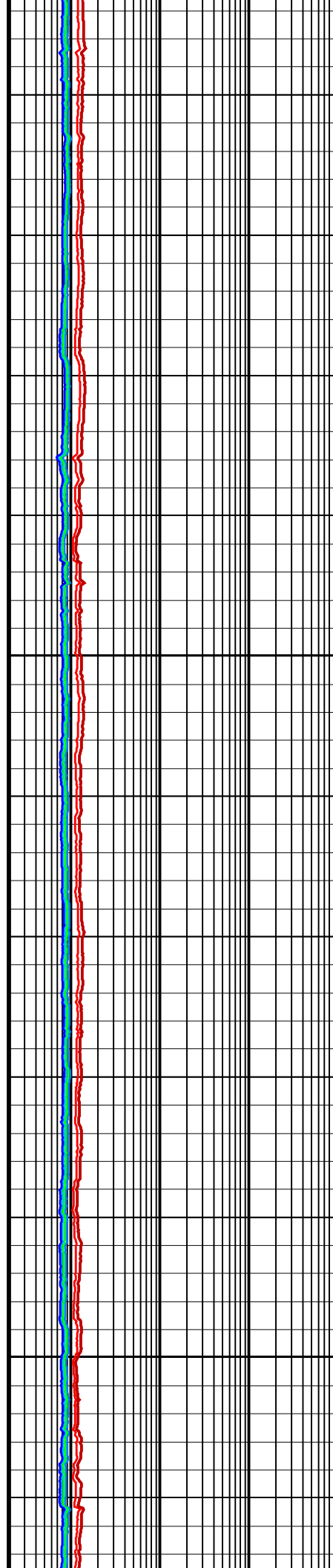
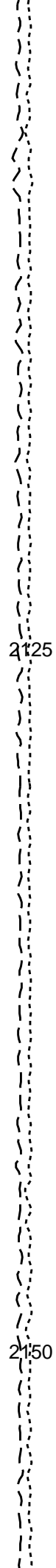
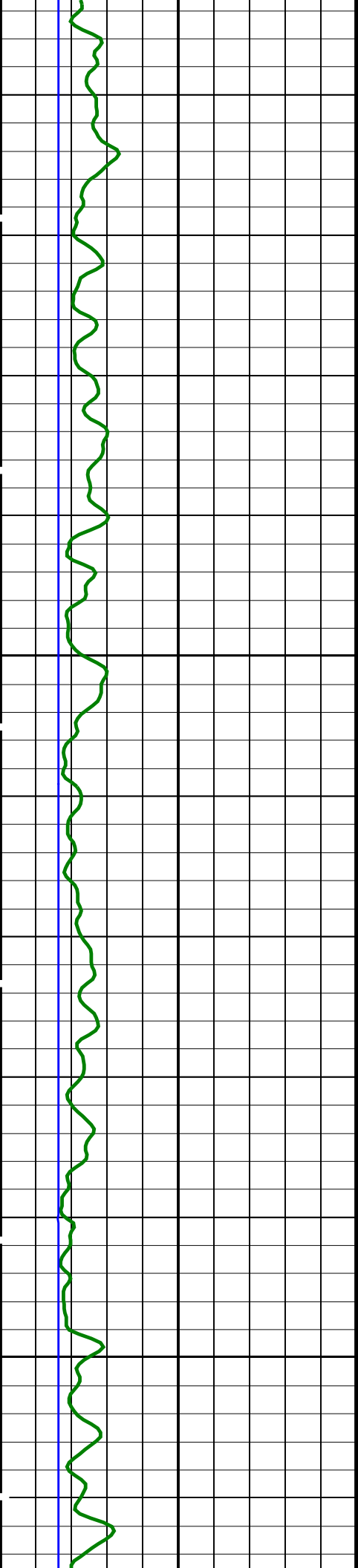


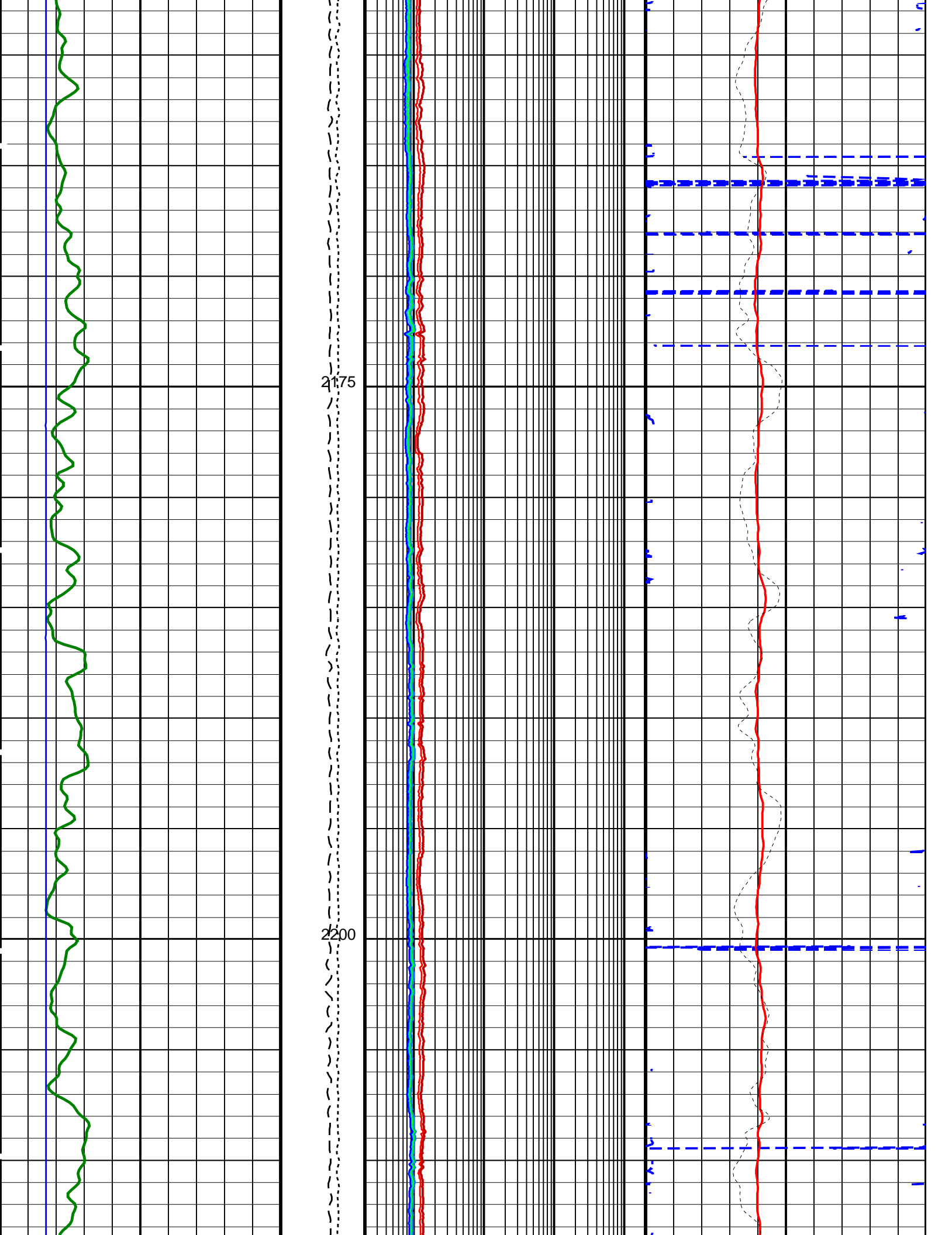


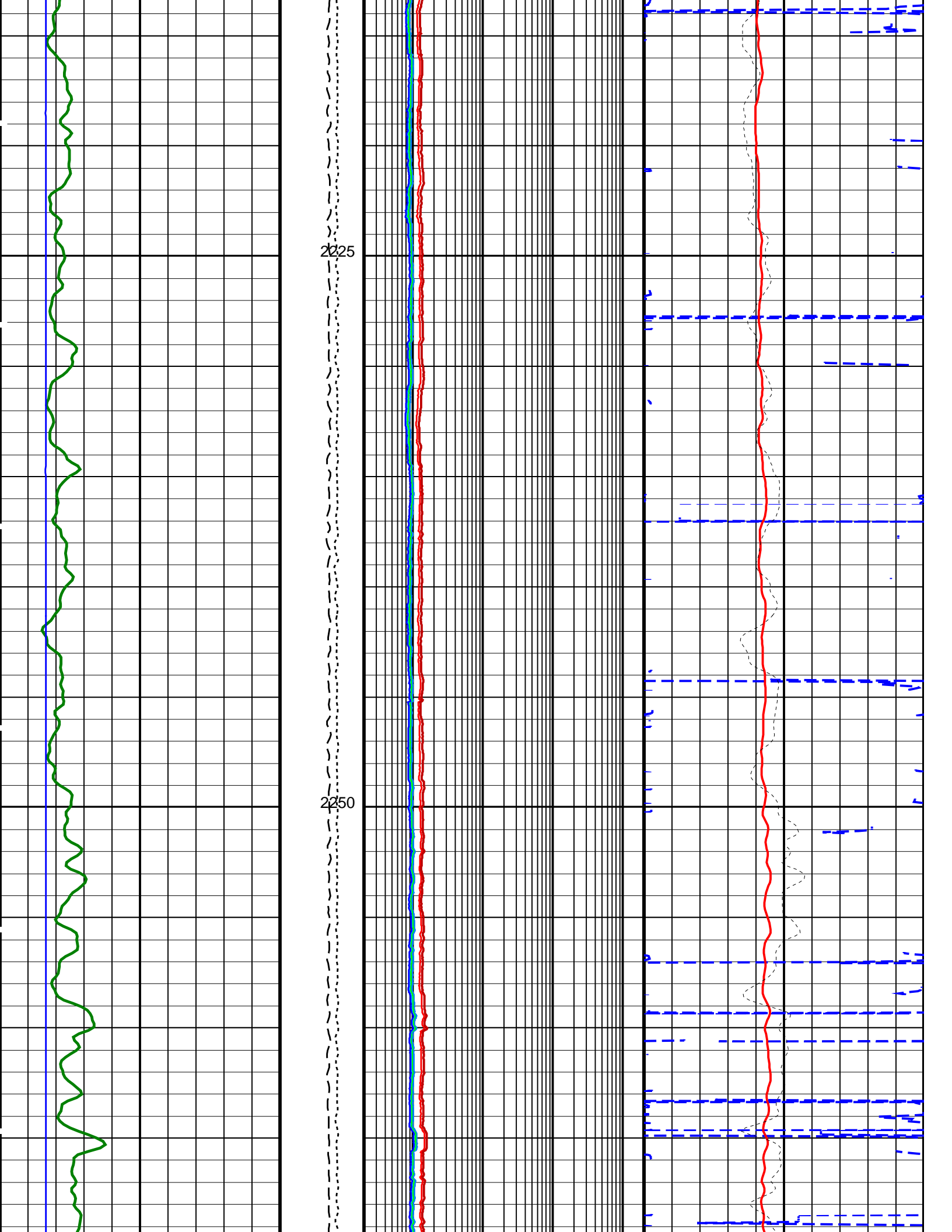


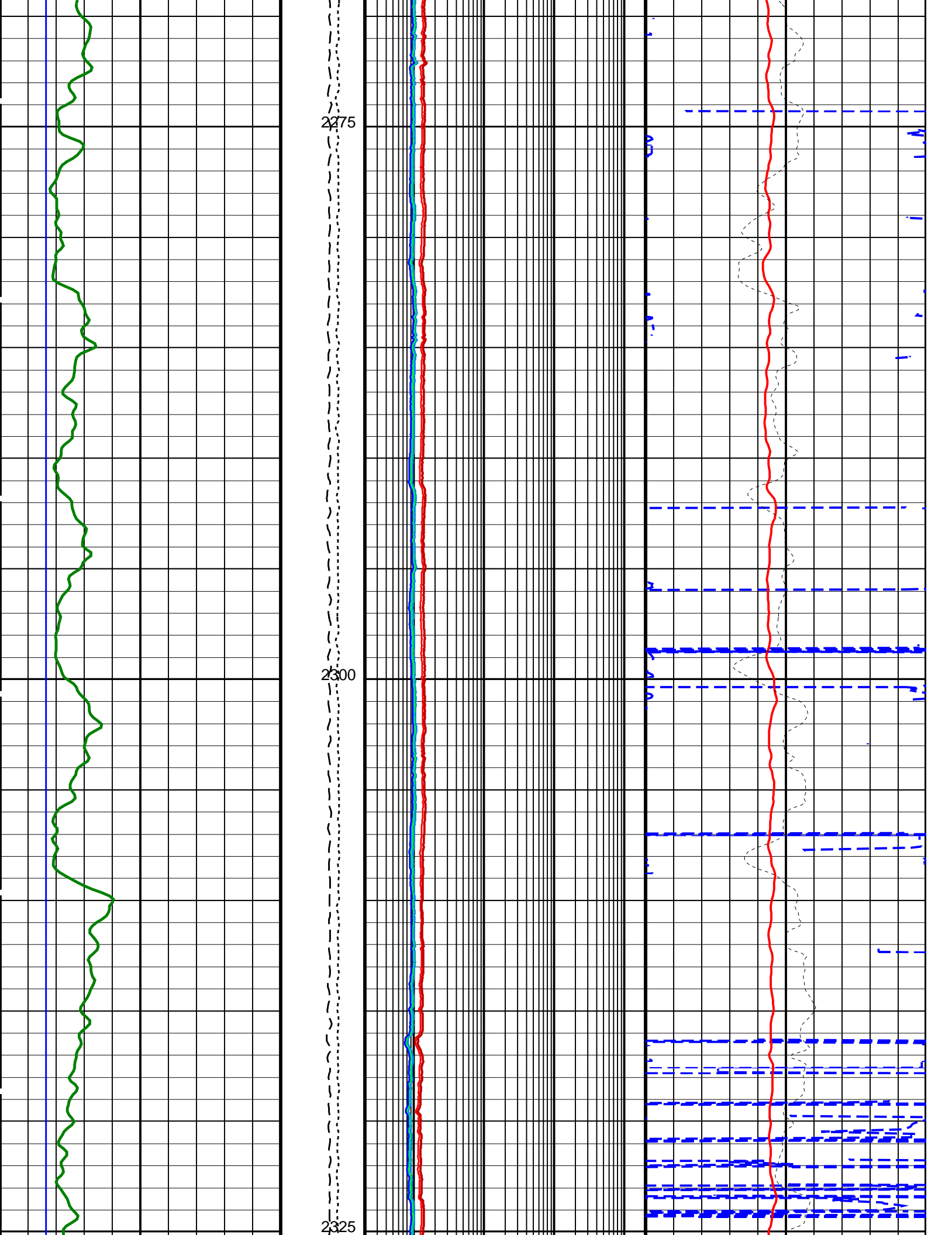


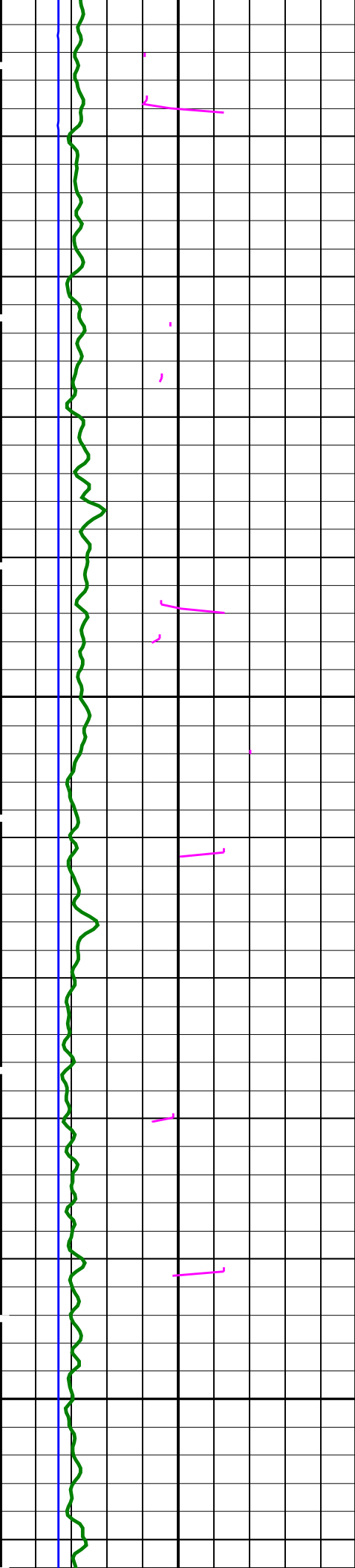






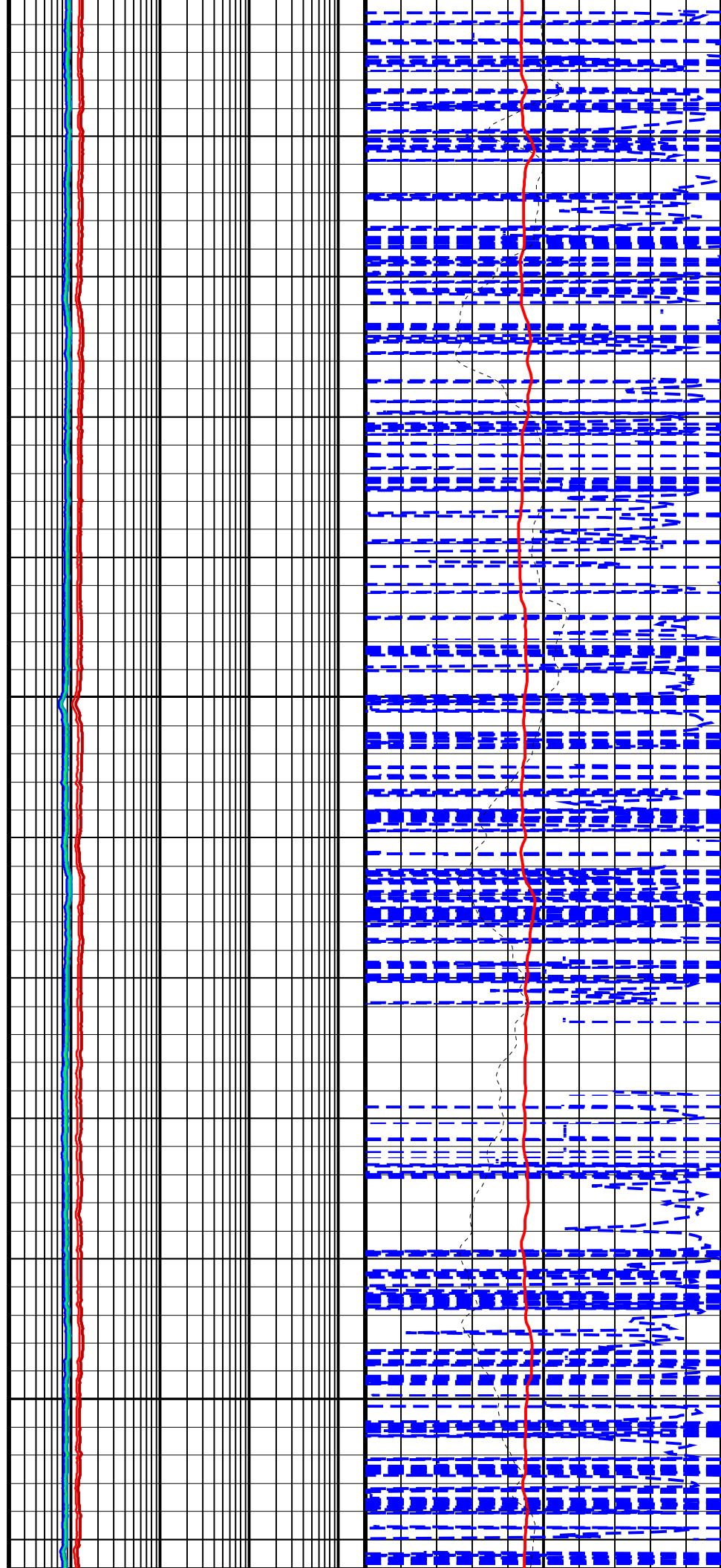


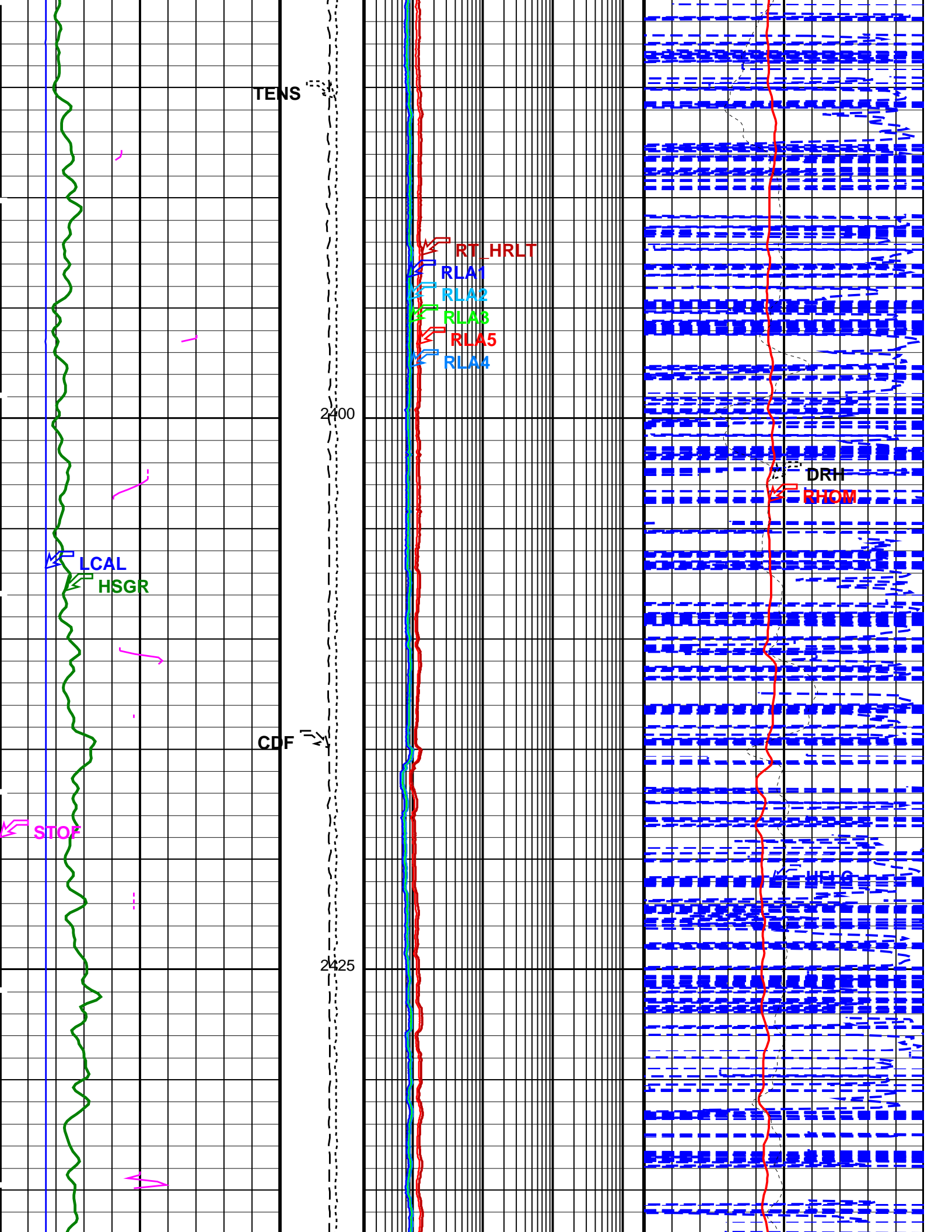


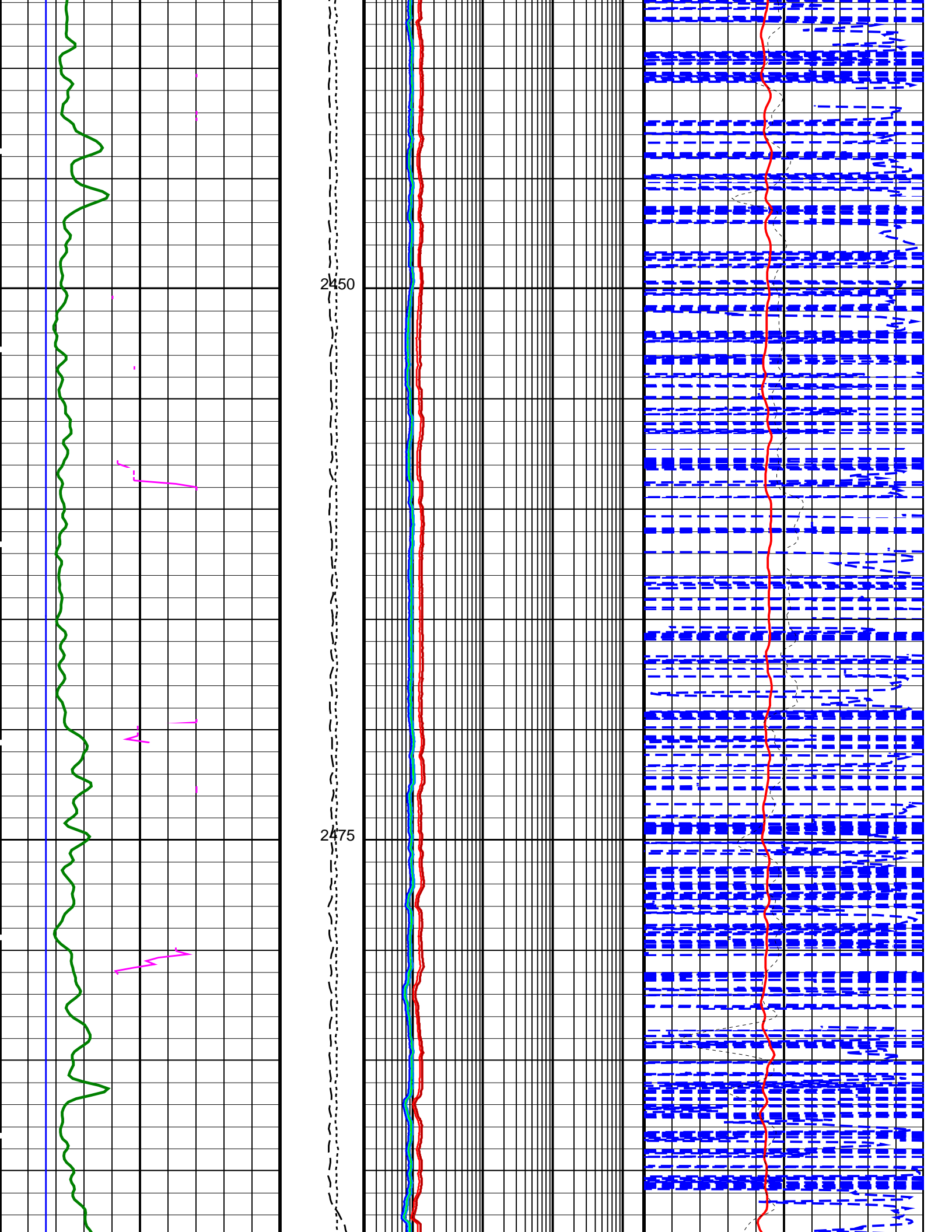


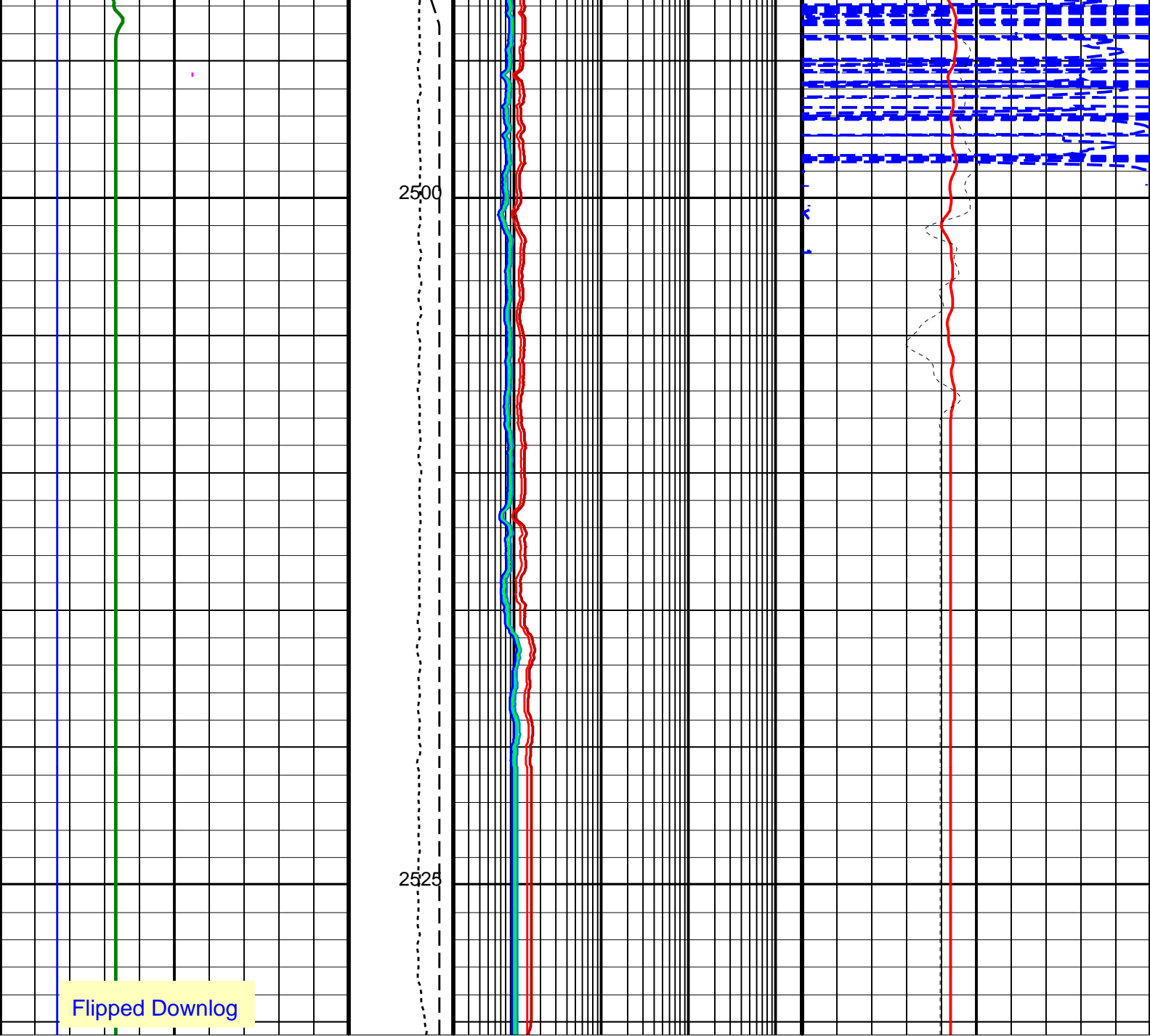
2350

2375









HLDS Caliper (LCAL) (IN)	Tension (TENS) (LBF)	HRLT Resistivity 4 (RLA4) (OHMM)	APS HR Near/Far Corrected Limestone Porosity (HFLC) (PU)
0 20	10000 0	0.2 2000	100 0
APS Effective Standoff in Limestone (STOF) (IN)	Calibrated Downhole Force (CDF) (LBF)	HRLT Resistivity 5 (RLA5) (OHMM)	HLDS Long Spaced Photoelectric Effect (PEFL) (-----)
-5 5	3000 0	0.2 2000	0 10
HNGS Spectroscopy Gamma Ray (HSGR) (GAPI)		HRLT Resistivity 3 (RLA3) (OHMM)	HLDS Bulk Density (RHOM) (G/C3)
0 100		0.2 2000	0 4
		HRLT Resistivity 2 (RLA2) (OHMM)	HLDS Bulk Density Correction (DRH) (G/C3)
		0.2 2000	-0.25 0.25
		HRLT Resistivity 1 (RLA1) (OHMM)	
		0.2 2000	
		HRLT True Resistivity (RT_HRLT) (OHMM)	
		0.2 2000	



## Parameters

DLIS Name	Description	Value
-----------	-------------	-------

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

BHS	Borehole Status	OPEN
BHT	Bottom Hole Temperature (used in calculations)	25 DEGC
CALSTAT	HRLTB Calibration Status	SHALLOW_DONE
CALTEMP	HRLTB Calibration Temperature	11.6682 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	AUTO
LOOPMOD1	HRLT Mode 1 Loop Mode	AUTO
LOOPMOD2	HRLT Mode 2 Loop Mode	AUTO
LOOPMOD3	HRLT Mode 3 Loop Mode	AUTO
LOOPMOD4	HRLT Mode 4 Loop Mode	AUTO
LOOPMOD5	HRLT Mode 5 Loop Mode	AUTO
LOOPMOD6	HRLT Mode 6 Loop Mode	AUTO
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE
PROCINV	Inversion Selection	ON
PROCML	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

## 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	OFF
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	1500 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

## APS-C: Accelerator-Porosity Tool

AASD	APS Software Version	0
ADSO	APS Thermal and Array Detectors High Voltage Setting	1976.24 V
AFSD	APS Array Detectors Data Source Switch	Both
AHCS	APS Far Detector High Voltage Setting	2067.55 V
AHSS	APS Holesize Correction Source	GCSE
AMTY	APS Holesize Correction Switch	ON
ANSD	APS Environmental Corrections Mud Type	WaterBaseBarite
ASOS	APS Near Detector High Voltage Setting	1737.8 V
ATSS	APS Standoff Correction Switch	ON
BHFL_APS	APS Temperature-Pressure-Salinity Correction Switch	ON
BHS	APS TNPH Borehole Fluid Type	WATER
BHT	Borehole Status	OPEN
BSCO_APS	Bottom Hole Temperature (used in calculations)	25 DEGC
DPPM	APS TNPH Borehole Salinity Correction Option	NO
DSCO_APS	Density Porosity Processing Mode	HIRS
FSAL	APS TNPH Density Source Correction Option	MEASURED
FSCO_APS	Formation Salinity	-50000 PPM
GCSE	APS TNPH Formation Salinity Correction Option	NO
GDEV	Generalized Caliper Selection	BS
	Average Angular Deviation of Borehole from Normal	0 DEG

GDEV	Average Angular Deviation of Borehole from Normal	0.018227	0	DEG
GGRD	Geothermal Gradient	CHART_GEN 9	DC/M	
GRSE	Generalized Mud Resistivity Selection	LINEAR_ESTIMATE		
GTSE	Generalized Temperature Selection	YES		
HSCO_APS	APS TNPH Hole Size Correction Option	BARITE		
ISSBAR	Barite Mud Switch	LIMESTONE		
MATR	Rock Matrix for Neutron Porosity Corrections	YES		
MCCO_APS	APS TNPH Mud Cake Correction Option	NATU		
MCOR_APS	APS TNPH Mud Correction	YES		
MWCO_APS	APS TNPH Mud Weight Correction Option	1.08341		
NARC	APS Near/Array Calibration Ratio	0.942369		
NFRC	APS Near/Far Calibration Ratio	NO		
PTCO_APS	APS TNPH Pressure/Temperature Correction Option	20	DEGC	
SHT	Surface Hole Temperature	YES		
TNCO_APS	APS TNPH Computation Option			
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)	25	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	-0.000378258		
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	1.11451		
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	1.21062		
System and Miscellaneous				
ALTDPCCHAN	Name of alternate depth channel	SpeedCorrectedDepth		
BS	Bit Size	11.438	IN	
BSAL	Borehole Salinity	38000.00	PPM	
CSIZ	Current Casing Size	5.500	IN	
CWEI	Casing Weight	168.00	LB/F	
DFD	Drilling Fluid Density	1.26	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	NORMAL		
RMFS	Resistivity of Mud Filtrate Sample	-50000.0000	OHMM	
RW	Resistivity of Connate Water	1.0000	OHMM	
TD	Total Depth	6069.55	FT	
TDD	Total Depth - Driller	2528.50	M	
TDL	Total Depth - Logger	2528.50	M	
TWS	Temperature of Connate Water Sample	37.78	DEGC	

Format: TripleCombo Vertical Scale: 1:200 Graphics File Created: 28-Jun-2021 23:02

## OP System Version: 19C0-187

MSS_LDEO-A	19C0-187	HRLT-B	19C0-187
HLDS	19C0-187	LDSC-B	19C0-187
APS-C	19C0-187	HNGC-B	19C0-187
HNGS-BA	19C0-187	DTC-H	19C0-187

## Input DLIS Files

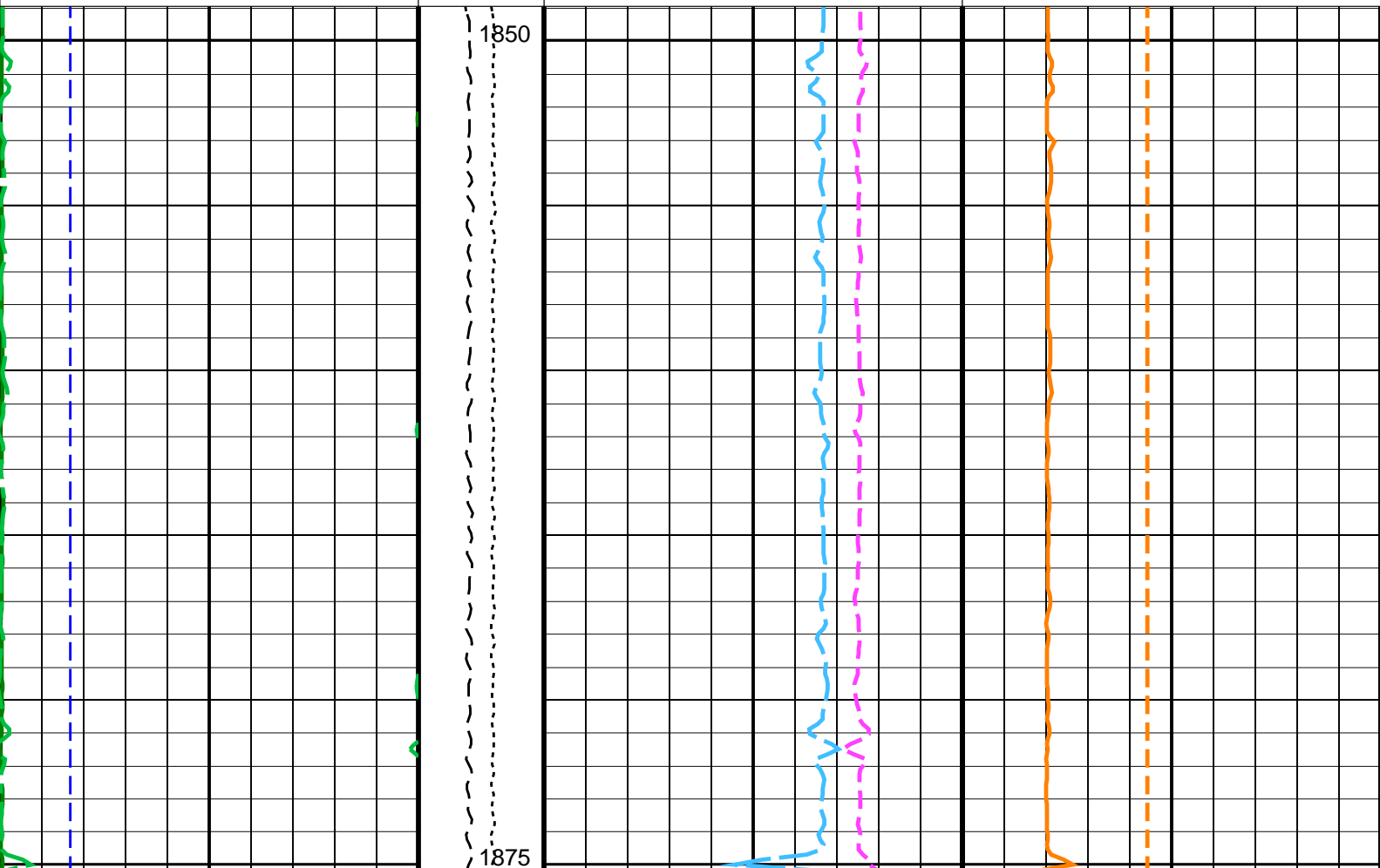
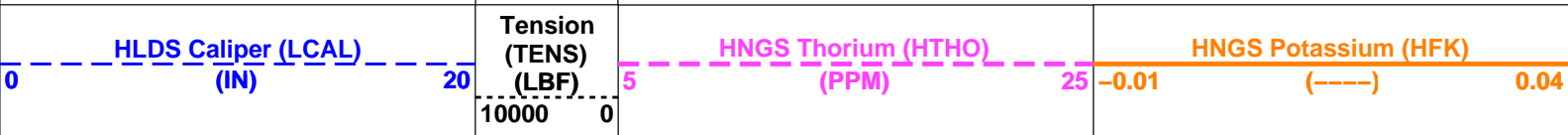
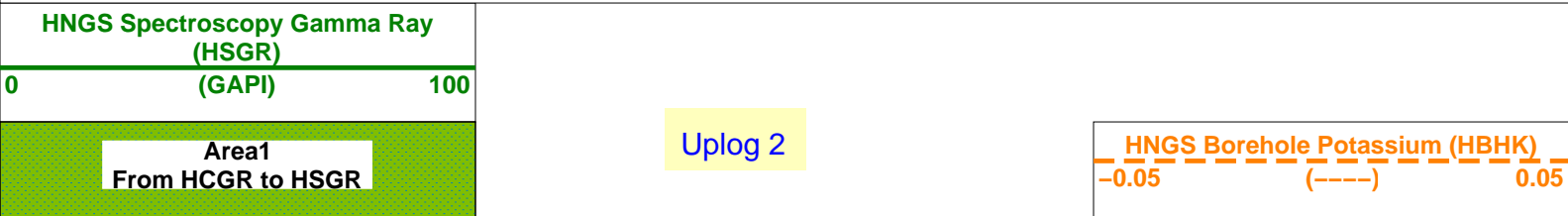
DEFAULT Flip\_MSS\_LDEO\_HRLA\_032LUP PRODUCER 28-Jun-2021 22:58 2530.4 M 1817.4 M

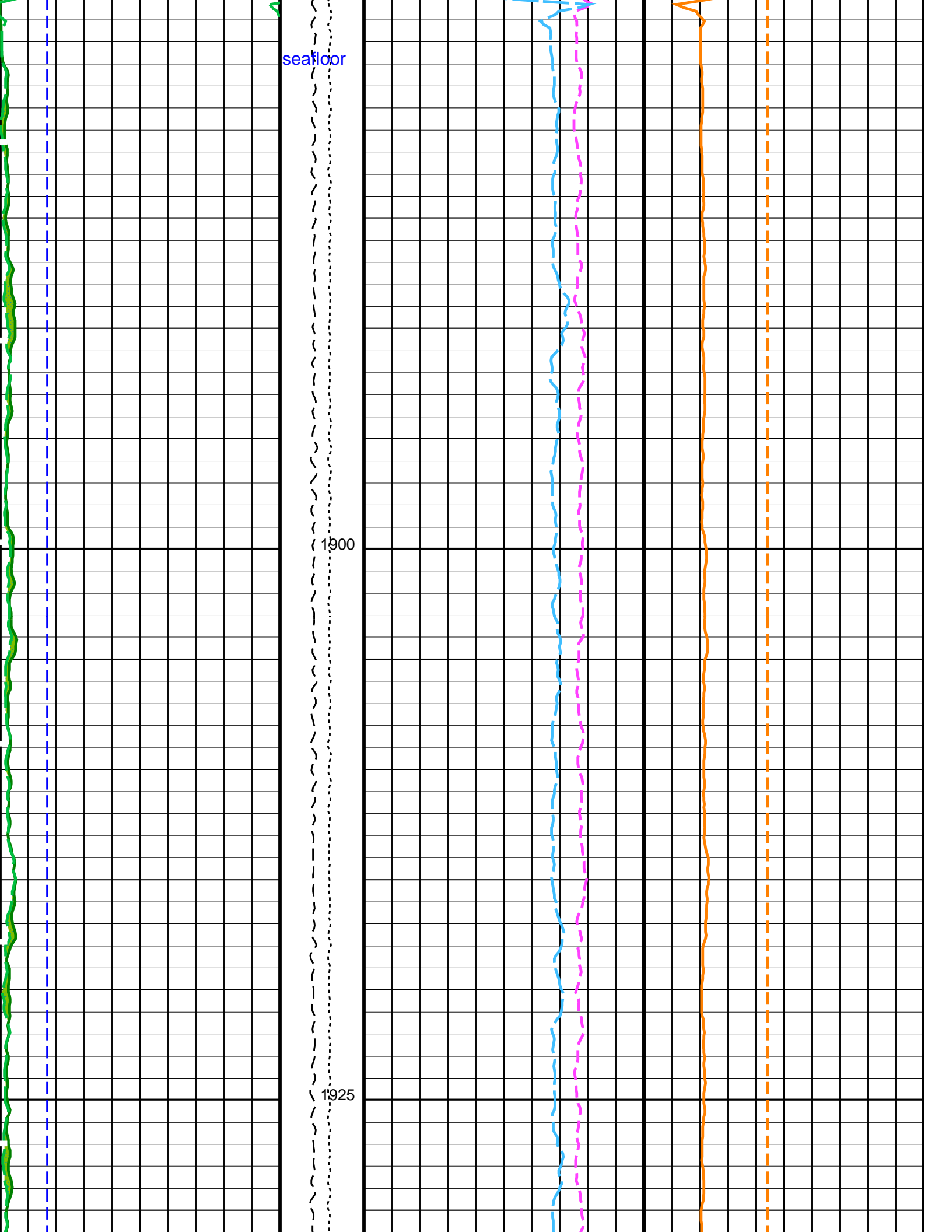
## Output DLIS Files

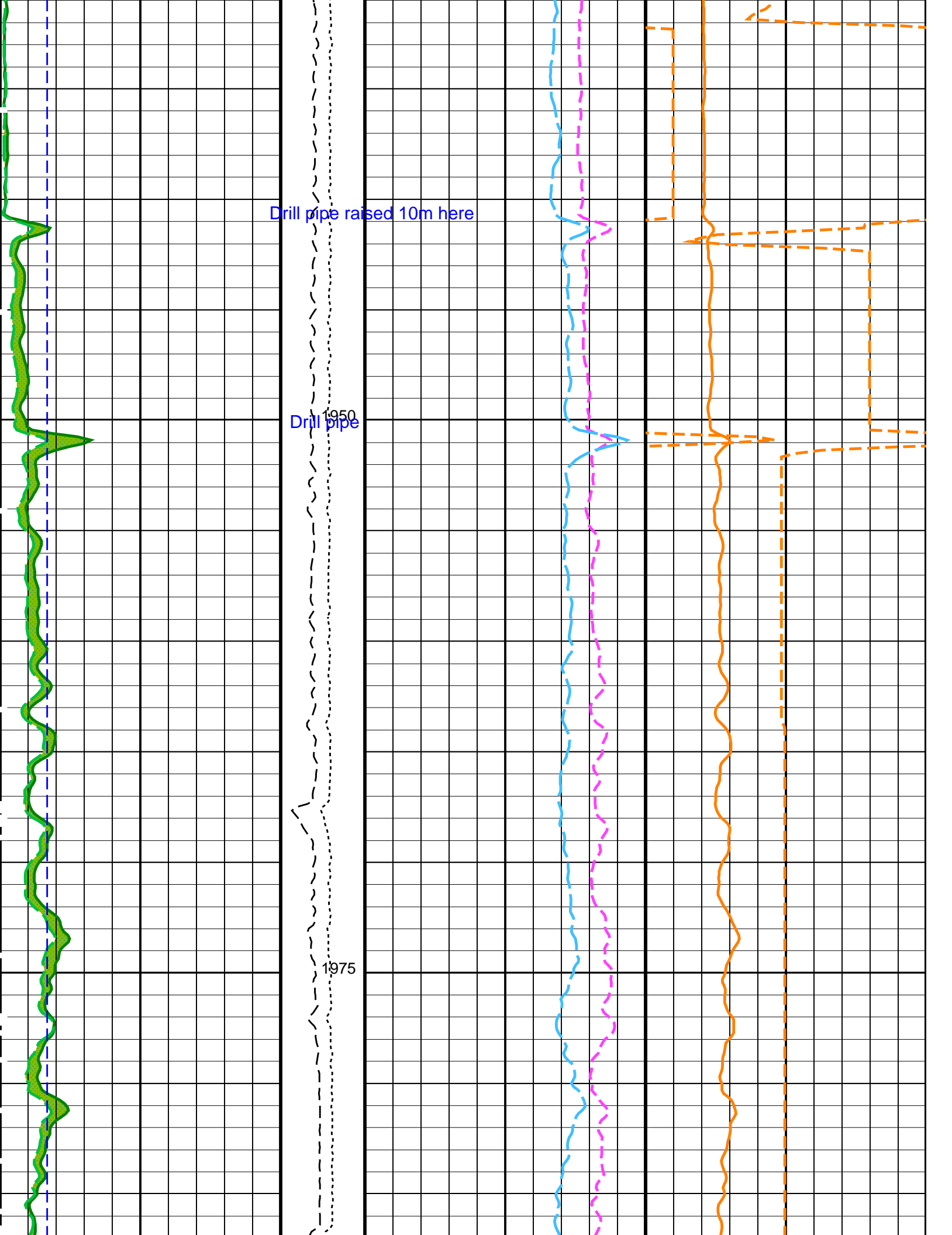
Output DLIS Files						
DEFAULT	MSS_LDEO_HRLA_LDL_009LUP	FN:13	PRODUCER	27-Jun-2021 23:53	2528.3 M	1849.4 M
BACKUP	MSS_LDEO_HRLA_LDL_009LUP	FN:14	PRODUCER	27-Jun-2021 23:53	2528.3 M	1849.4 M

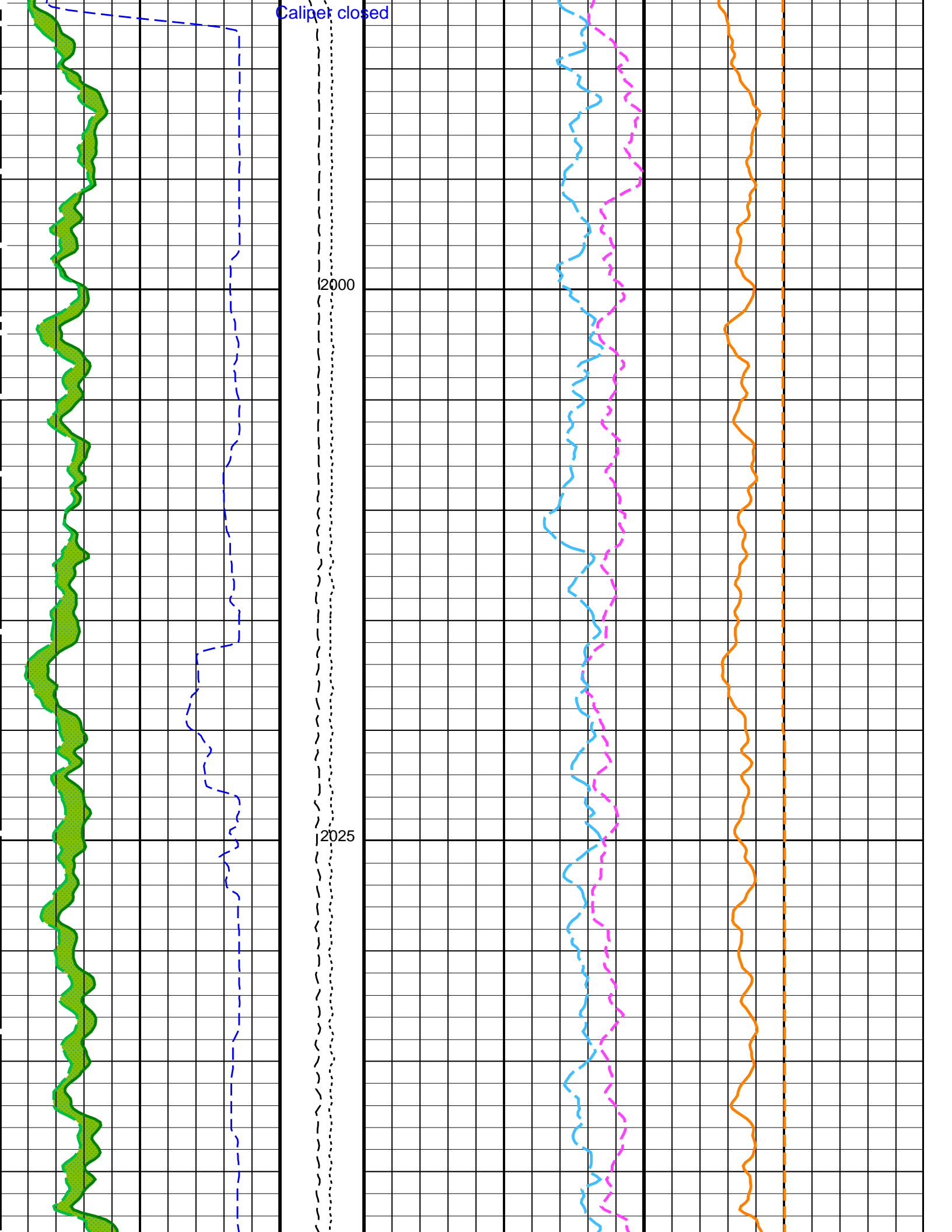
OP System Version: 19C0-187						
MSS_LDEO-A	19C0-187		HRLT-B	19C0-187		
HLDS	19C0-187		LDSC-B	19C0-187		
APS-C	19C0-187		HNGC-B	19C0-187		
HNGS-BA	19C0-187		DTC-H	19C0-187		

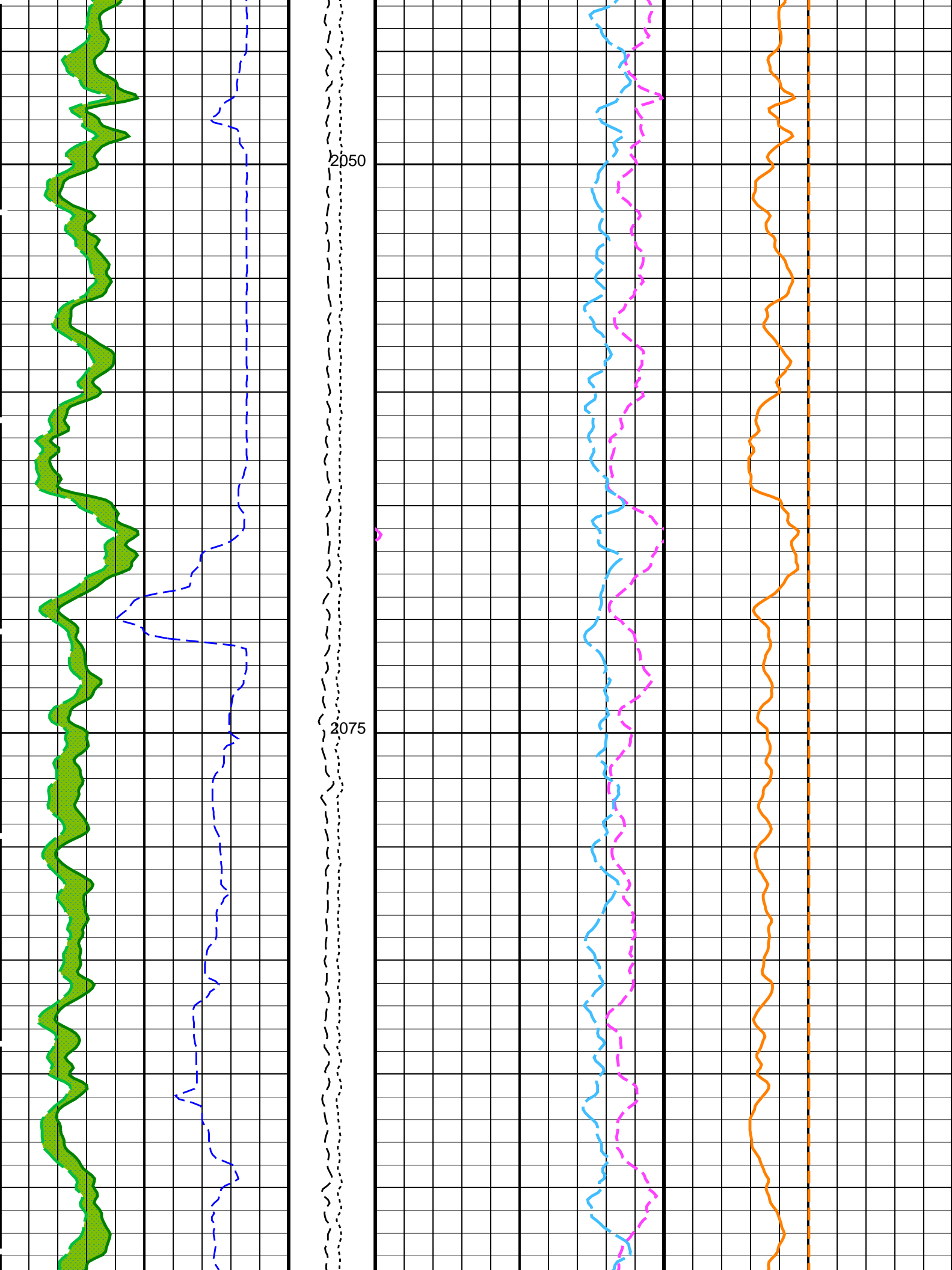
PIP SUMMARY						
Time Mark Every 60 S						

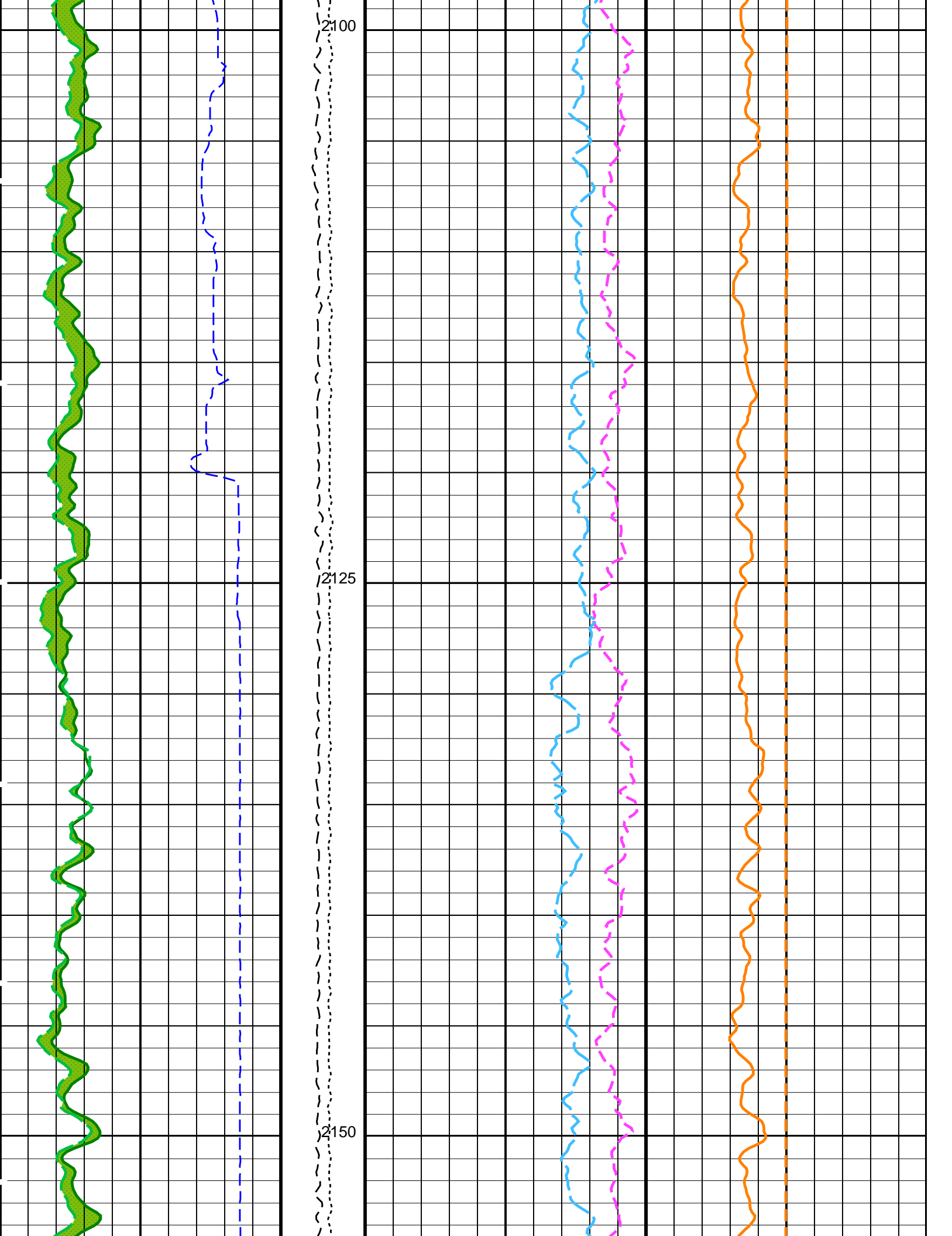




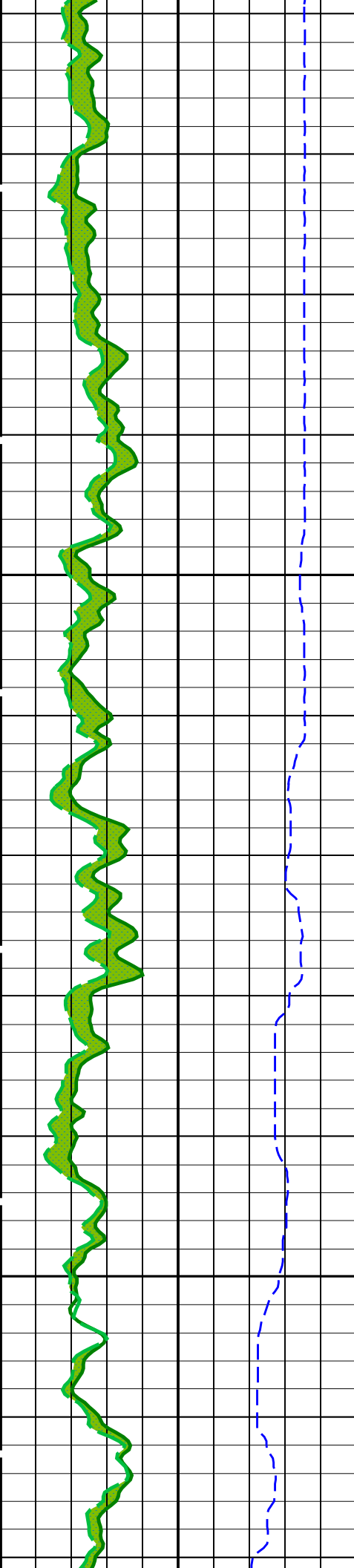




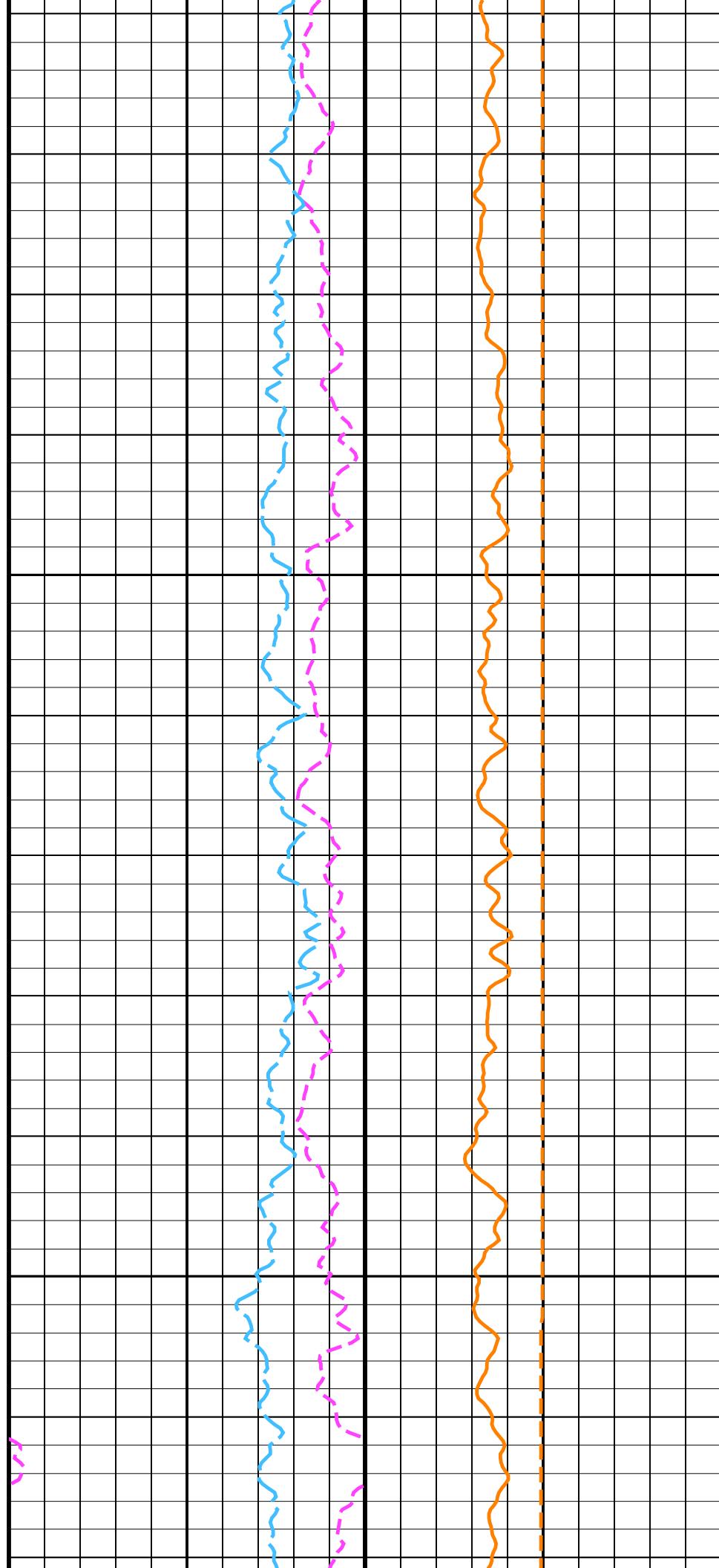


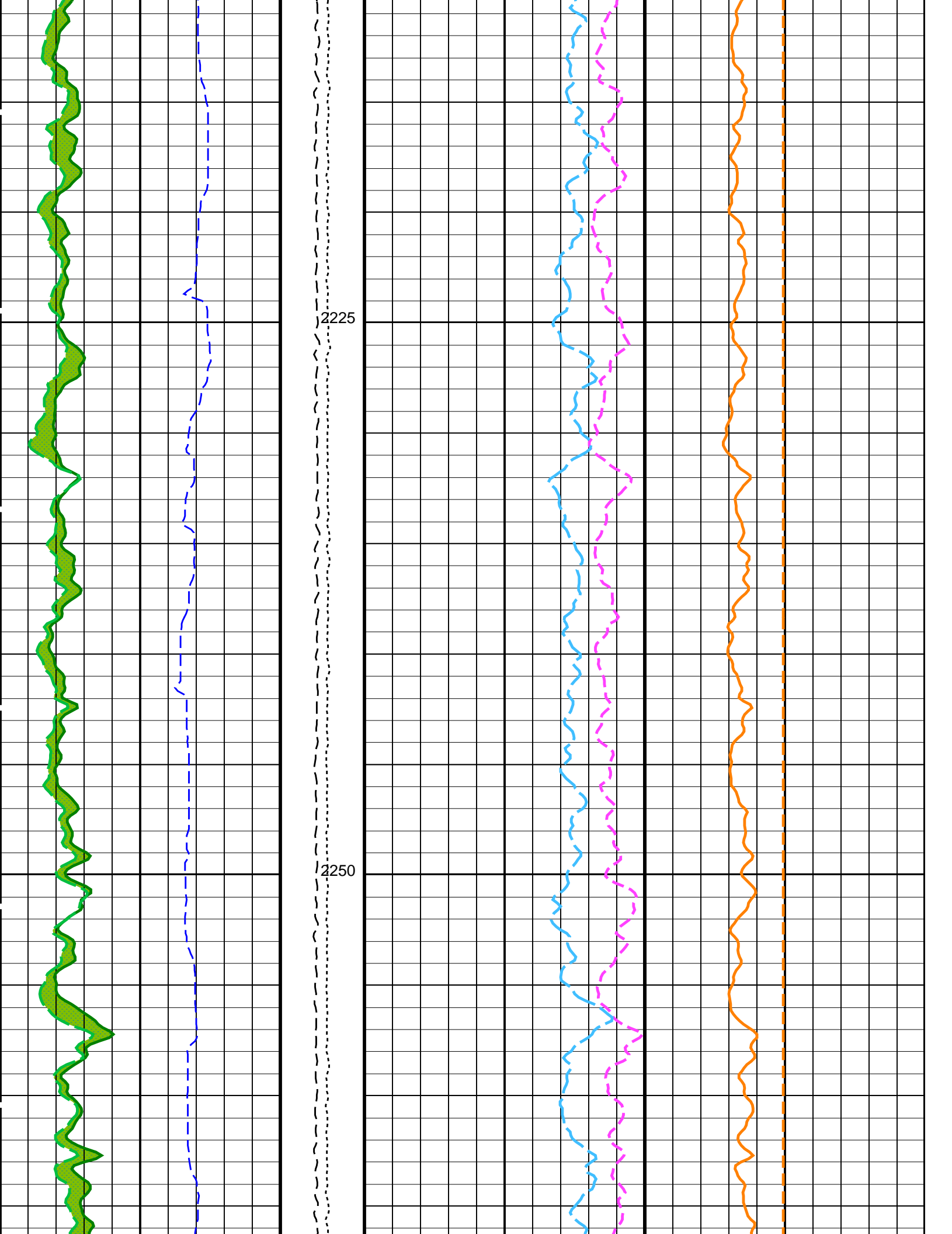


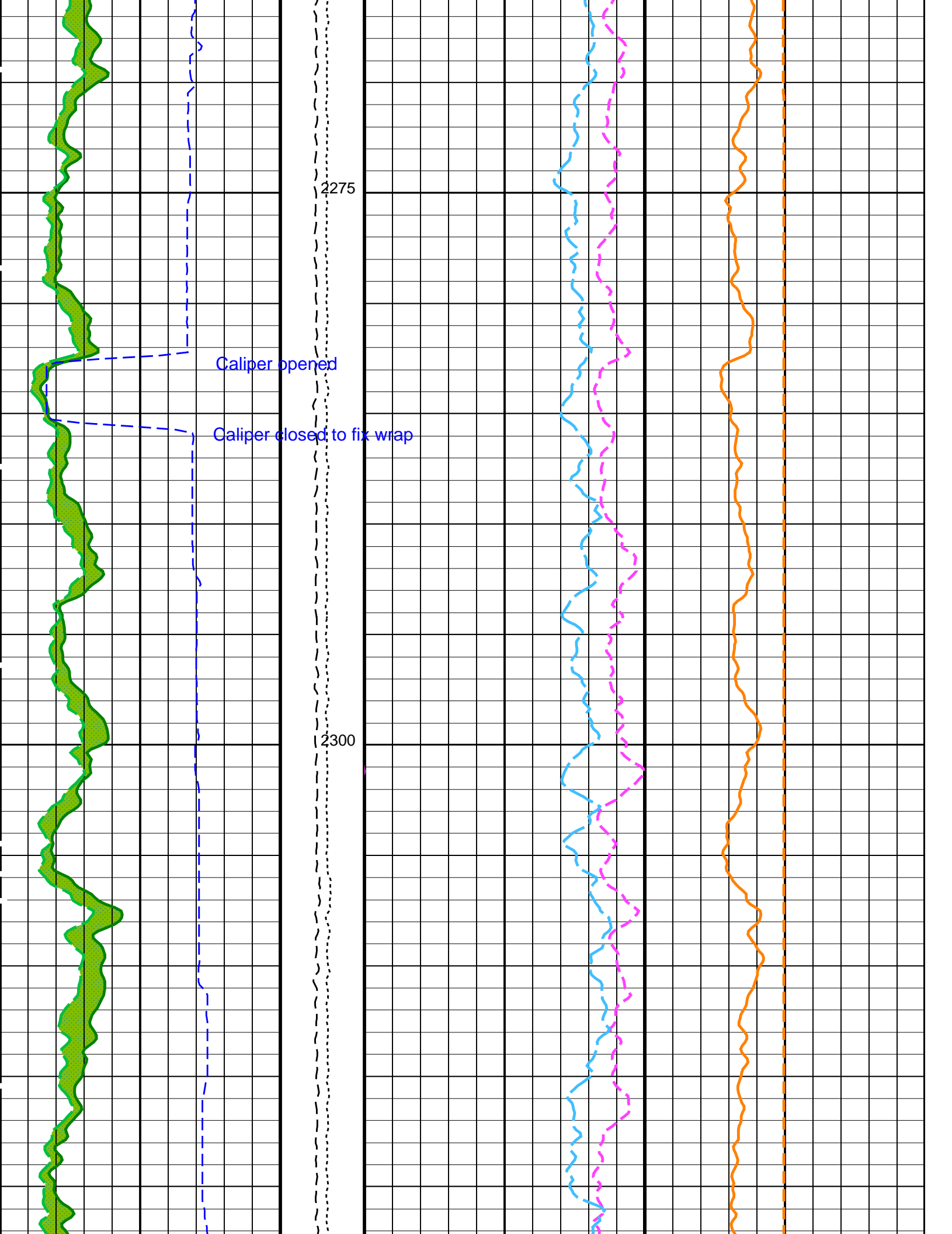


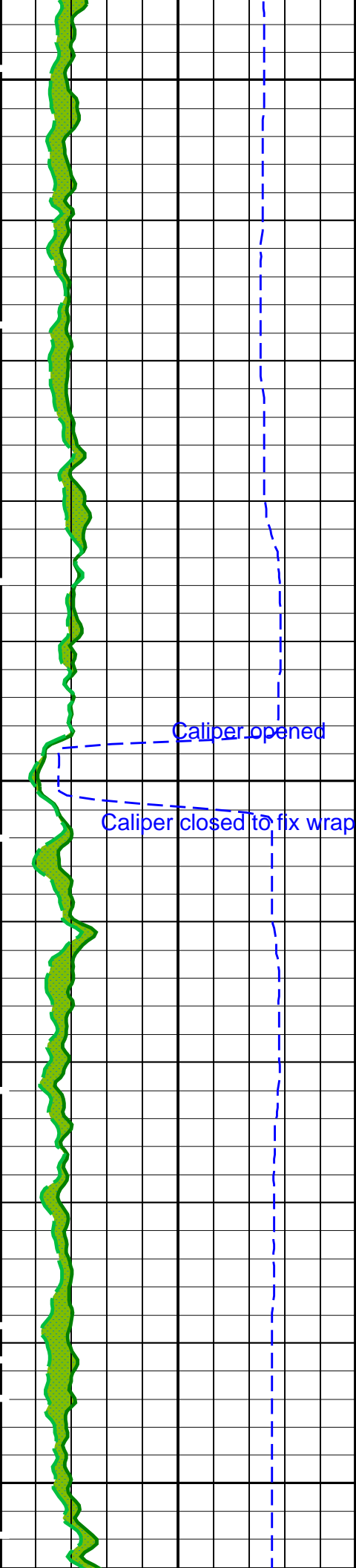


2175  
2200





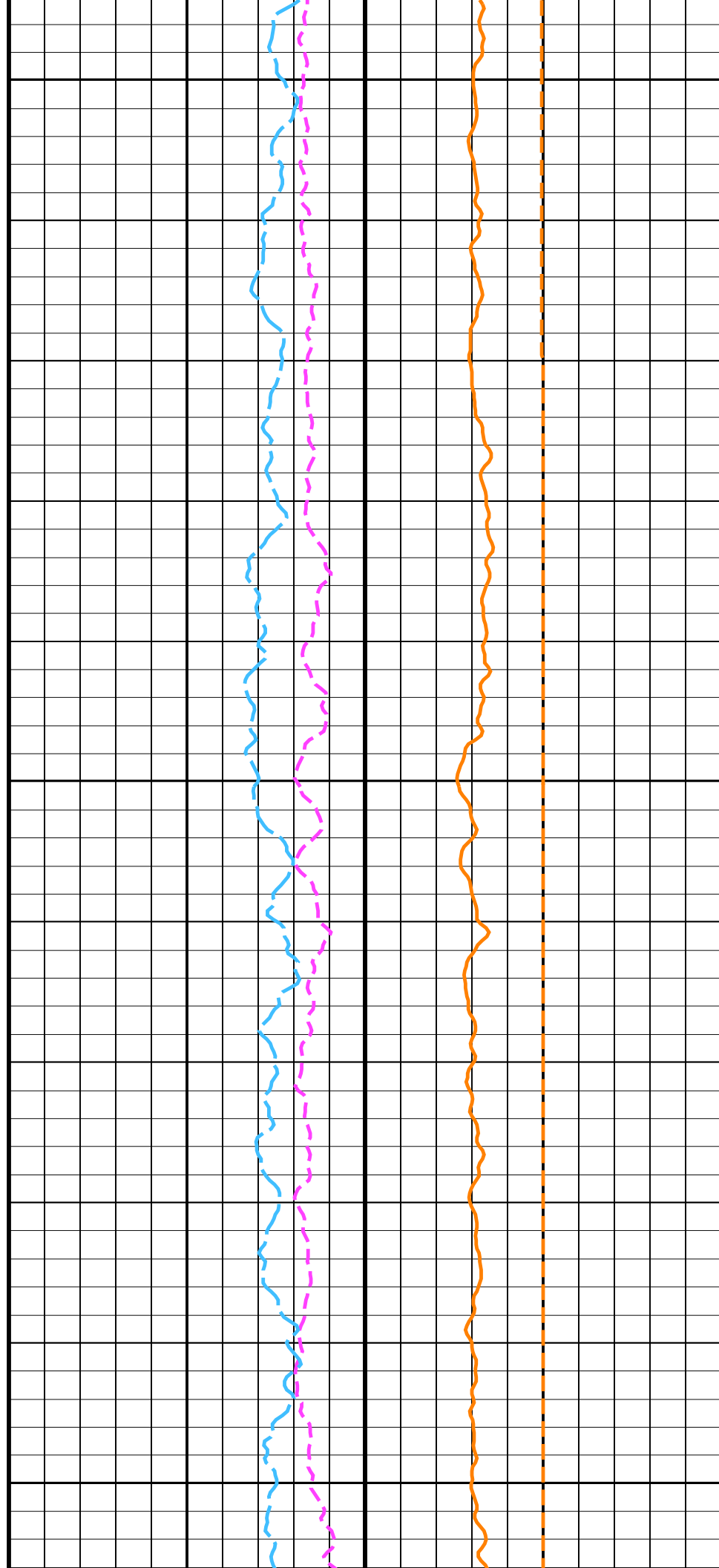


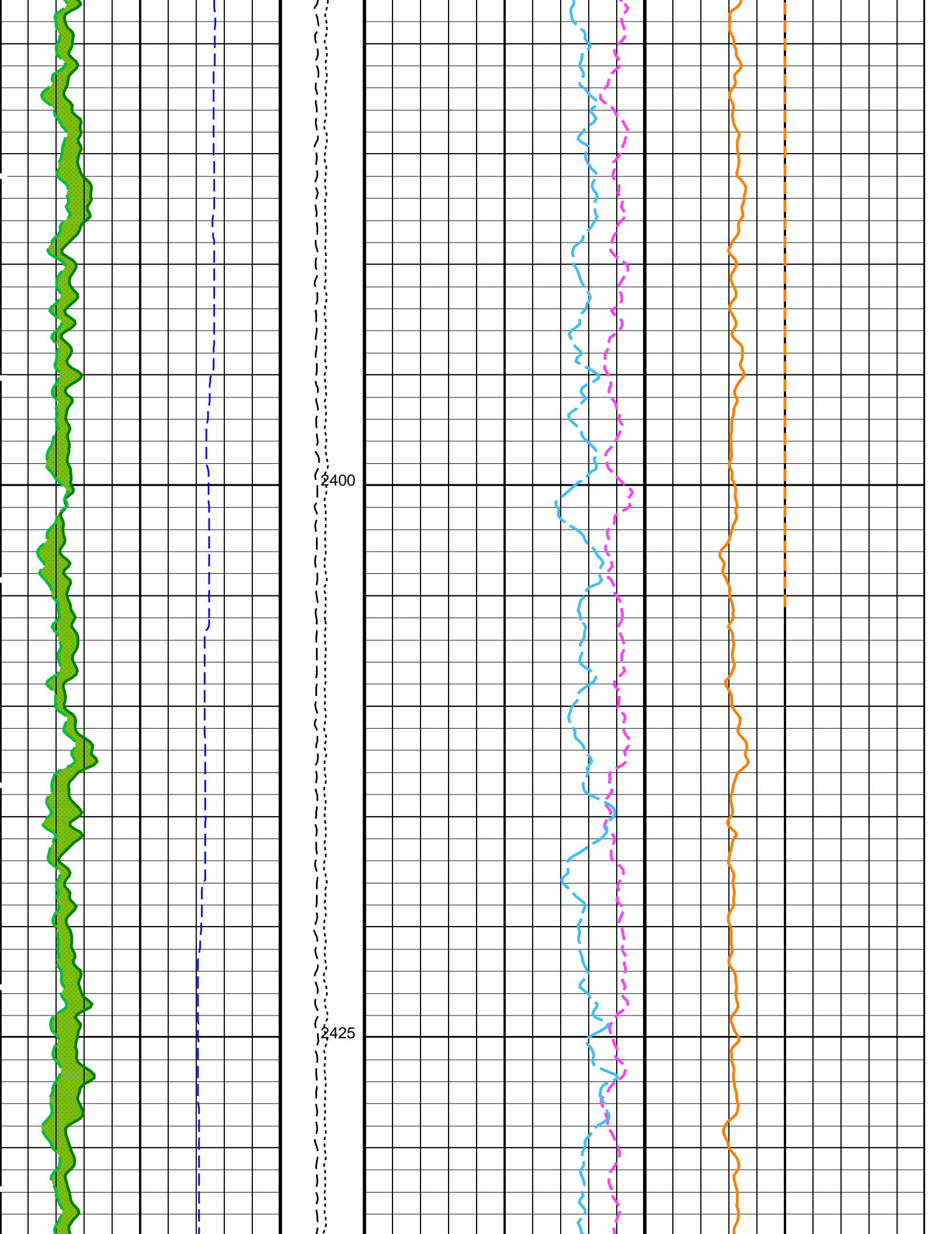


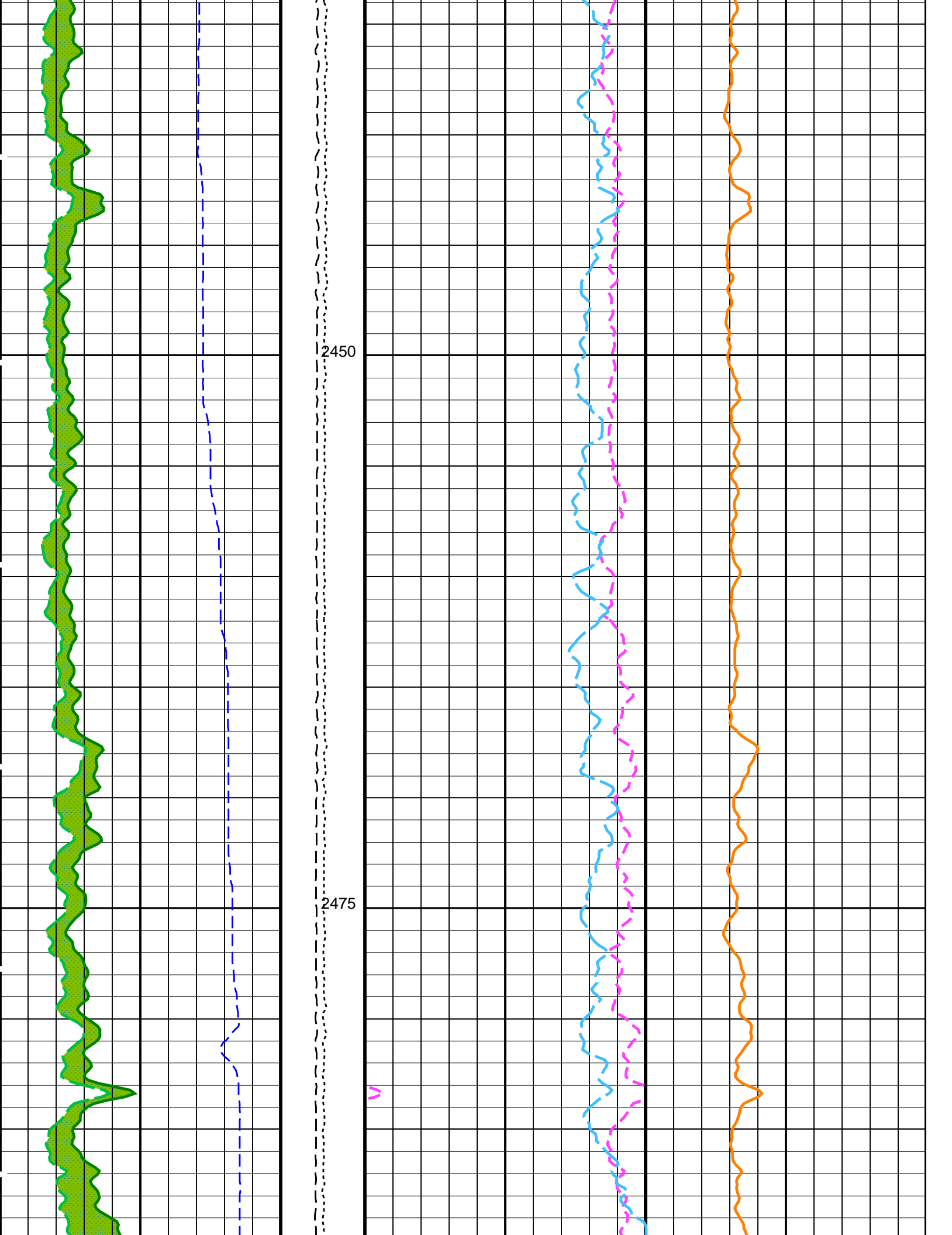
2325

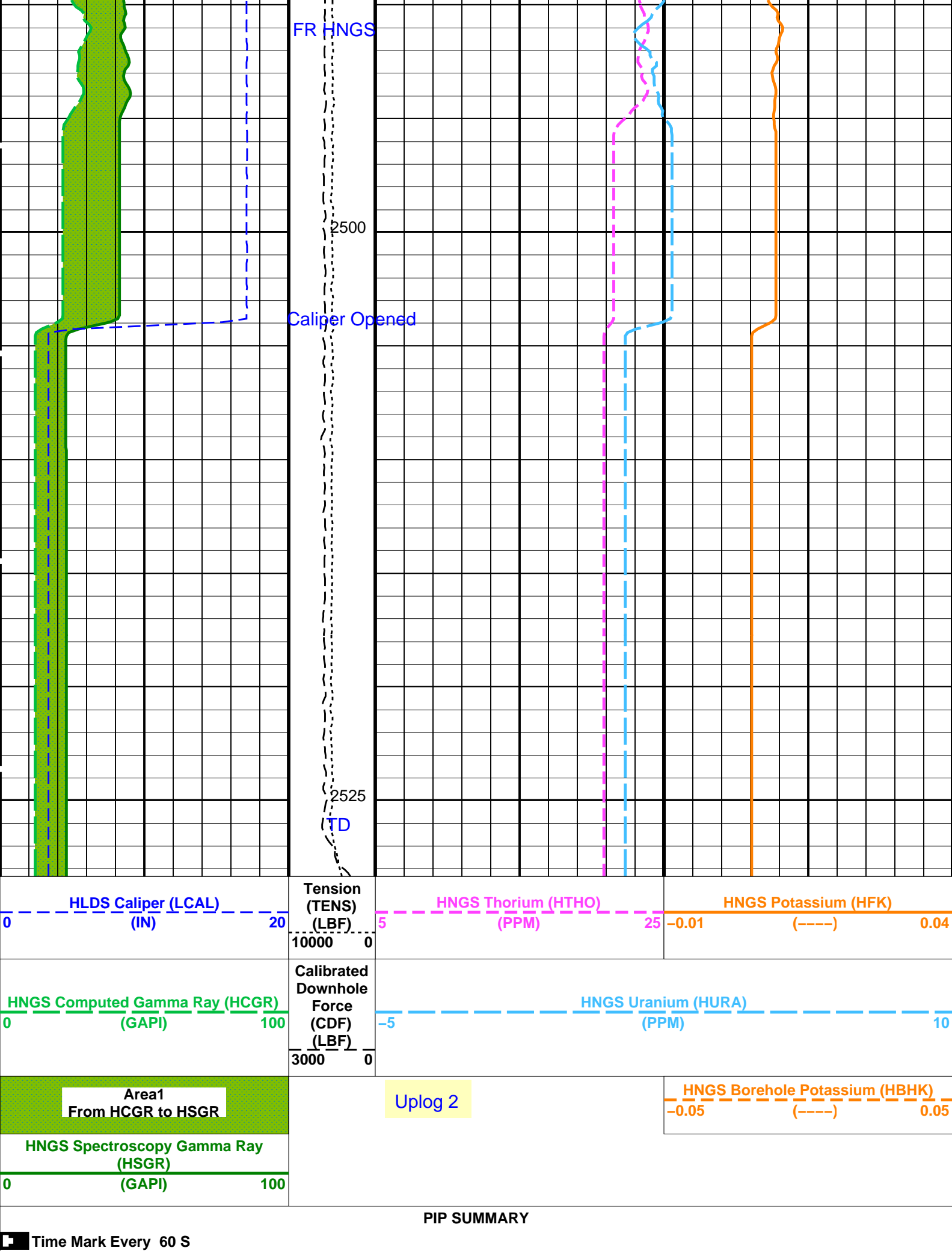
2350

2375



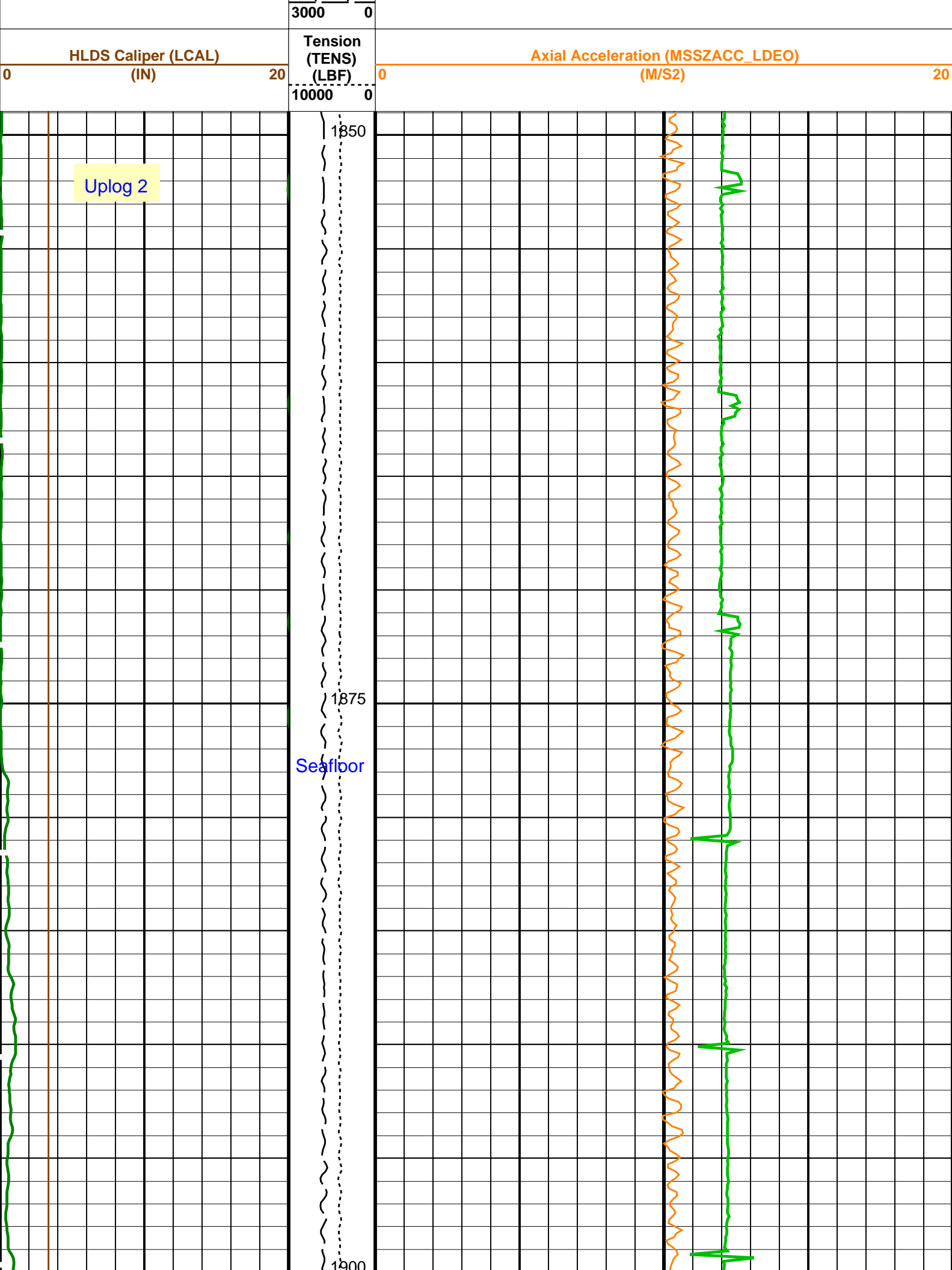


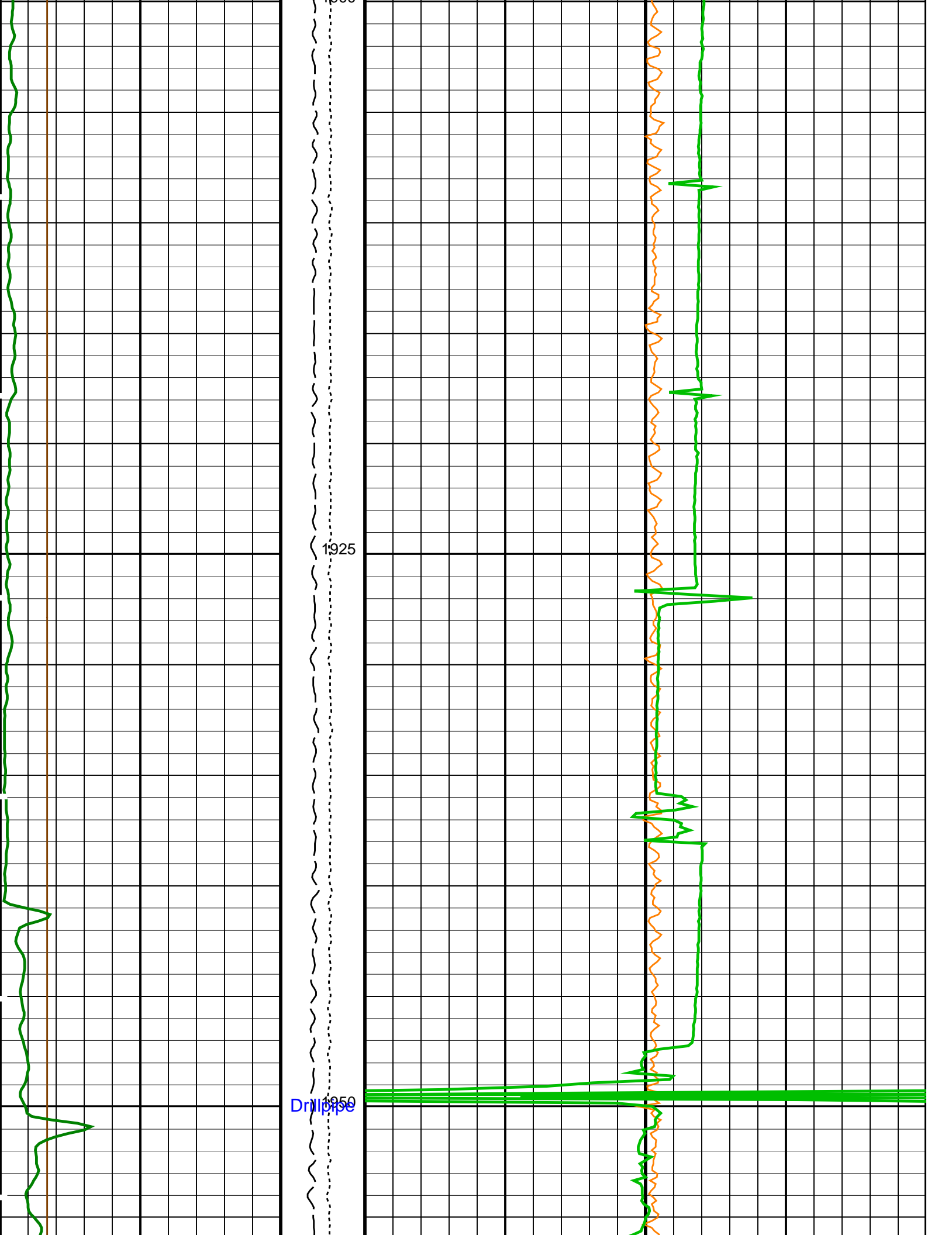


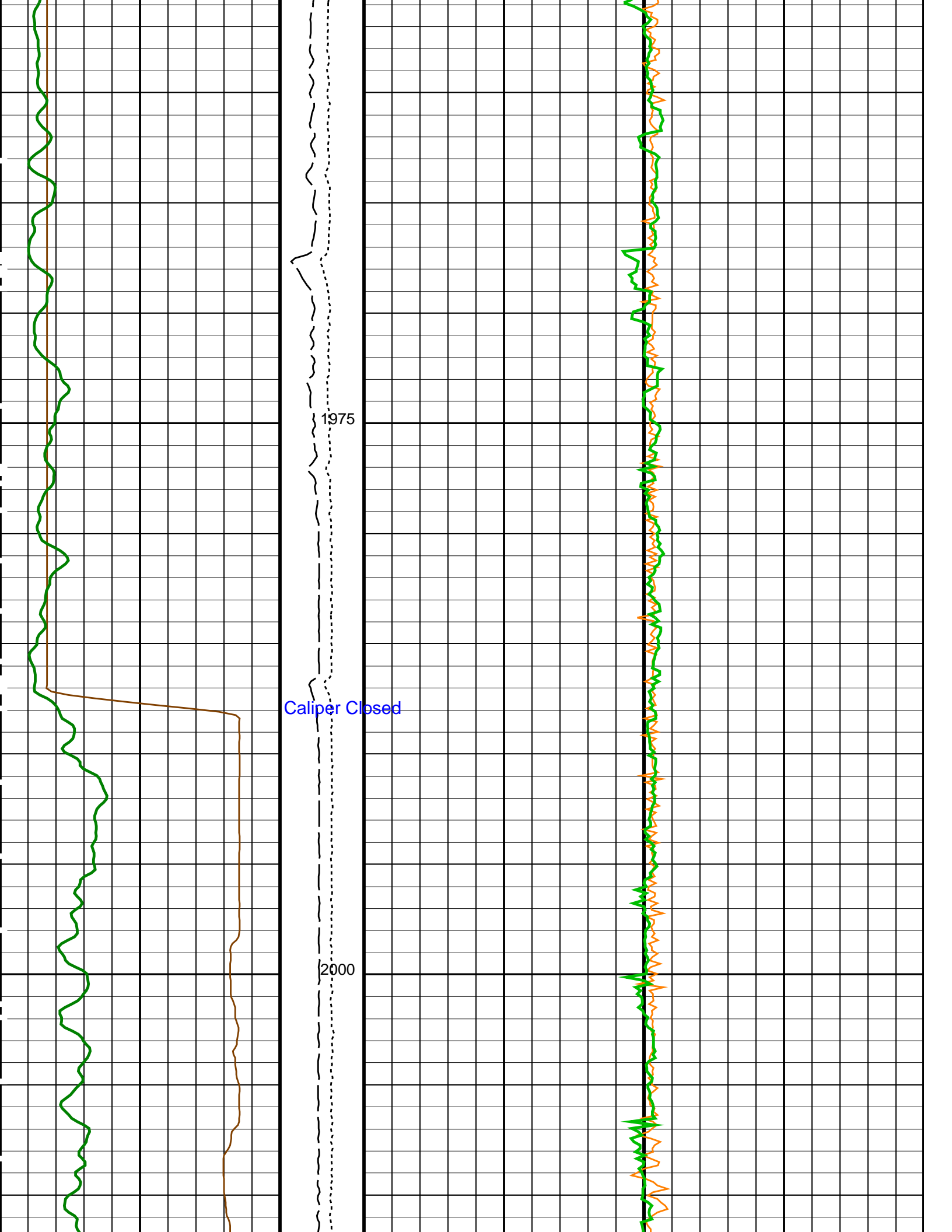


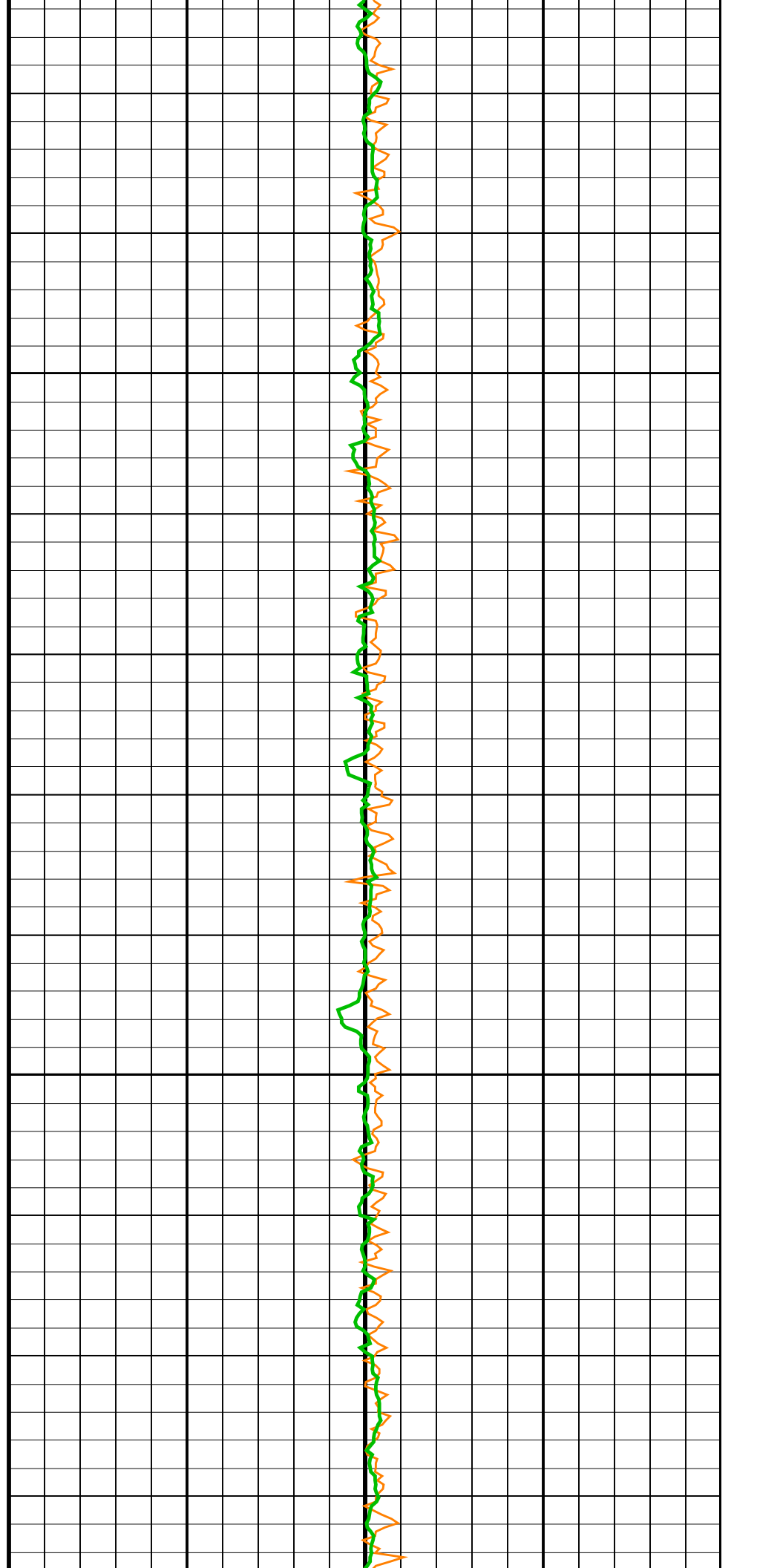
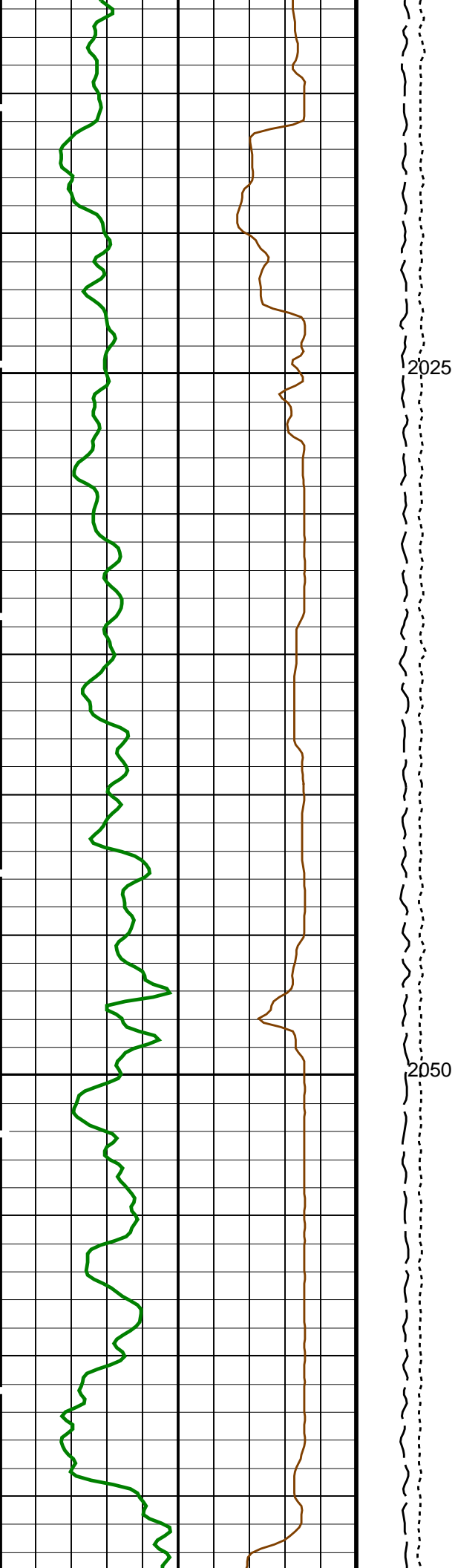
DLIS Name		Description	Parameters		Value
BHS GCSE	HRLT-B: High Resolution Laterolog Array – B				
		Borehole Status			OPEN
APS-C: Accelerator-Porosity Tool		Generalized Caliper Selection			LCAL
BHS GCSE	HNGS-BA: Hostile Natural Gamma Ray Sonde				
		Borehole Status			OPEN
BAR1 BAR2 BHK BHS CSD1 CSD2 CSW1 CSW2 DBCC GCSE H1P H2P HABK HALF HCRB HMWM HNPE S1BI S2BI SGRC TPOS VBA1 VBA2		Generalized Caliper Selection			LCAL
		HNGS Detector 1 Barite Constant			1
		HNGS Detector 2 Barite Constant			1
		HNGS Borehole Potassium Correction Concentration			0
		Borehole Status			OPEN
		Inner Casing Outer Diameter		IN	0
		Outer Casing Outer Diameter		IN	0
		Inner Casing Weight		LB/F	0
		Outer Casing Weight		LB/F	0
		HNGS Barite Constant Correction Flag			NONE
		Generalized Caliper Selection			LCAL
		HNGS Detector 1 Allow/Disallow In Processing			ALLOW
		HNGS Detector 2 Allow/Disallow In Processing			ALLOW
		HNGS Borehole Potassium Running Average			-0.000788171
		HNGS Alpha Filter Length		IN	60
		HNGS Apply Borehole Potassium Correction			NONE
		Mud Weighting Material			BARI
		HNGS Processing Enable			YES
		HNGS Detector 1 Calibration Bismuth Count Rate		CPS	1.3
		HNGS Detector 2 Calibration Bismuth Count Rate		CPS	1.3
		HNGS Standard Gamma-Ray Correction Flag			YES
		Tool Position			ECCE
		HNGS Detector 1 Variable Barite Factor Running Average			0.960262
		HNGS Detector 2 Variable Barite Factor Running Average			0.99789
System and Miscellaneous					
BS		Bit Size		IN	11.438
DFD		Drilling Fluid Density		G/C3	1.26
Format: HNGSYields      Vertical Scale: 1:200      Graphics File Created: 27-Jun-2021 23:53					
OP System Version: 19C0-187					
MSS_LDEO-A	19C0-187		HRLT-B	19C0-187	
HLDS	19C0-187		LDSC-B	19C0-187	
APS-C	19C0-187		HNGC-B	19C0-187	
HNGS-BA	19C0-187		DTC-H	19C0-187	
Output DLIS Files					
DEFAULT	MSS_LDEO_HRLA_LDL_009LUP	FN:13	PRODUCER	27-Jun-2021 23:53	
BACKUP	MSS_LDEO_HRLA_LDL_009LUP	FN:14	PRODUCER	27-Jun-2021 23:53	
Company: International Ocean Discovery Program      Well: Expedition 395C, Site U1554E					
Output DLIS Files					
DEFAULT	MSS_LDEO_HRLA_LDL_009LUP	FN:13	PRODUCER	27-Jun-2021 23:53	2528.3 M      1849.4 M
BACKUP	MSS_LDEO_HRLA_LDL_009LUP	FN:14	PRODUCER	27-Jun-2021 23:53	2528.3 M      1849.4 M
OP System Version: 19C0-187					
MSS_LDEO-A	19C0-187		HRLT-B	19C0-187	
HLDS	19C0-187		LDSC-B	19C0-187	
APS-C	19C0-187		HNGC-B	19C0-187	
HNGS-BA	19C0-187		DTC-H	19C0-187	
PIP SUMMARY					
Time Mark Every 60 S					
HNGS Spectroscopy Gamma Ray (HSGR)		Calibrated Downhole Force (CDF) (LBF)	Dual-Coil Susceptibility (MSSL SUS_LDEO)		
(GAPI)			(PPM)		
0	100		-10000      10000		

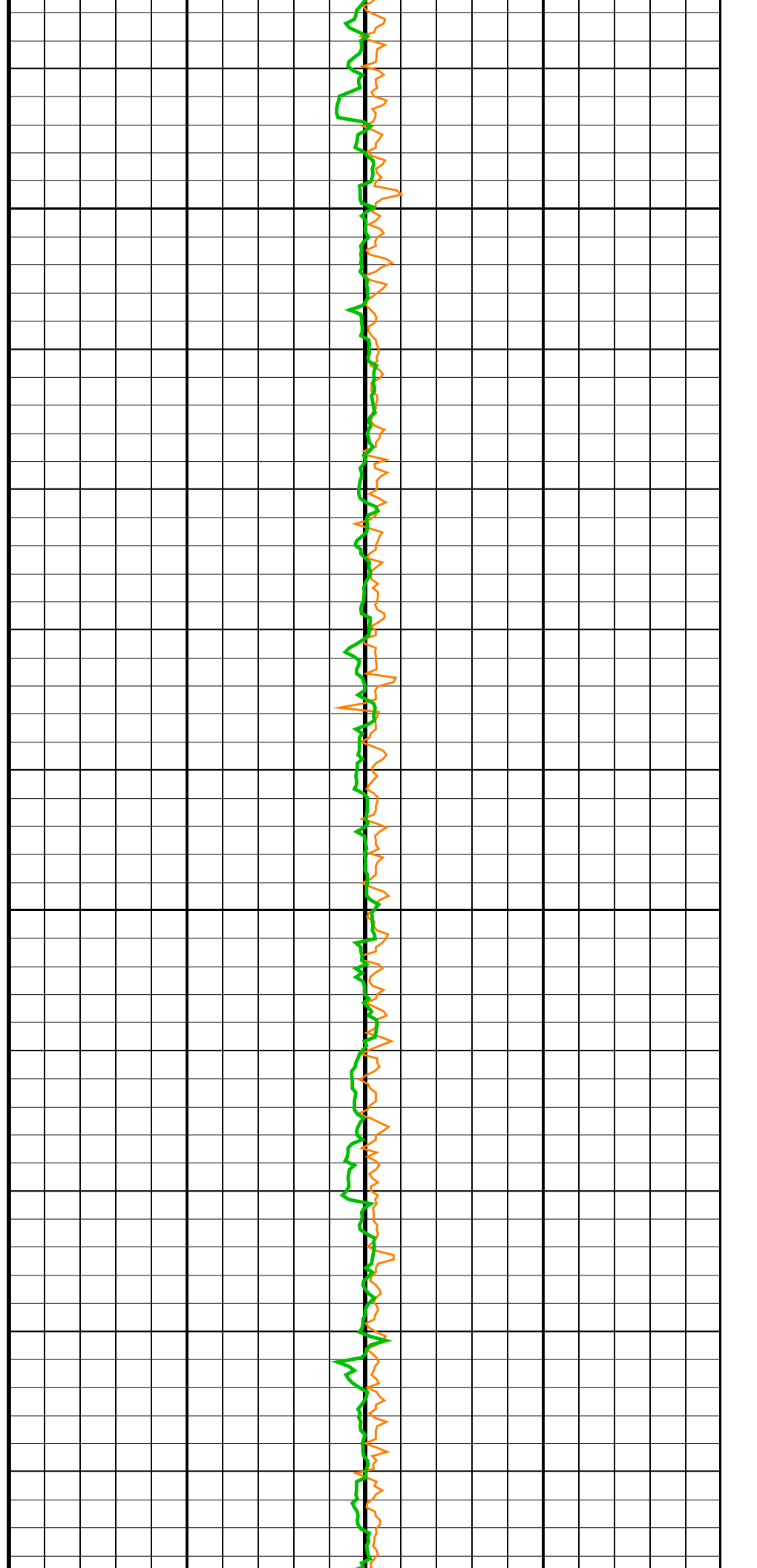
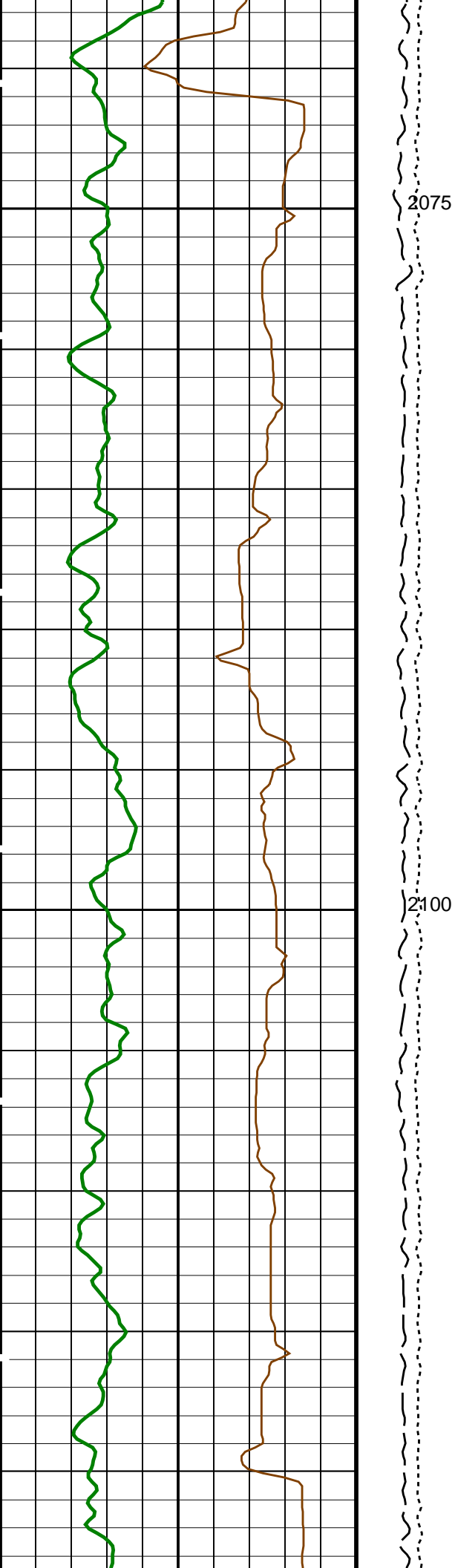


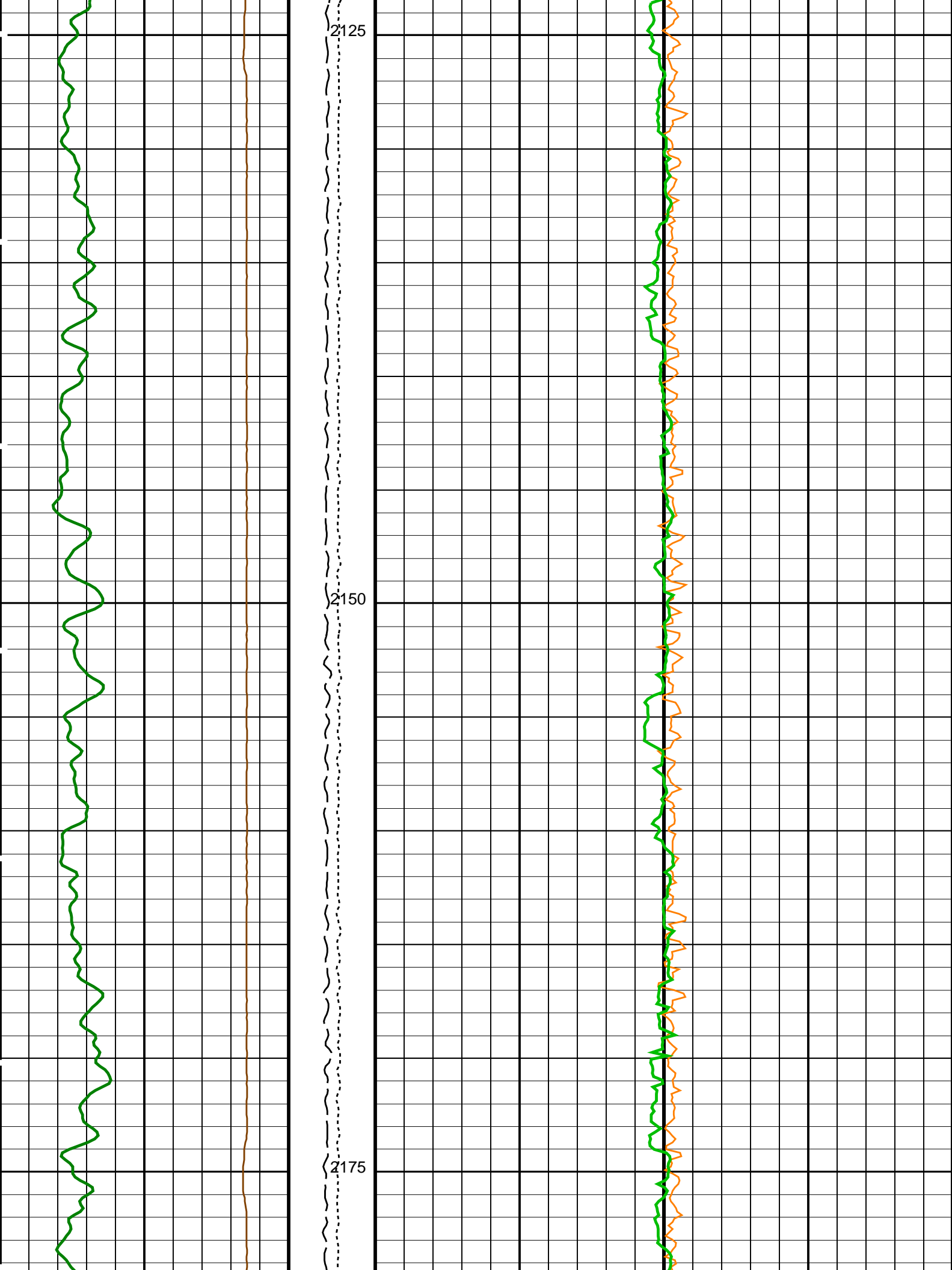


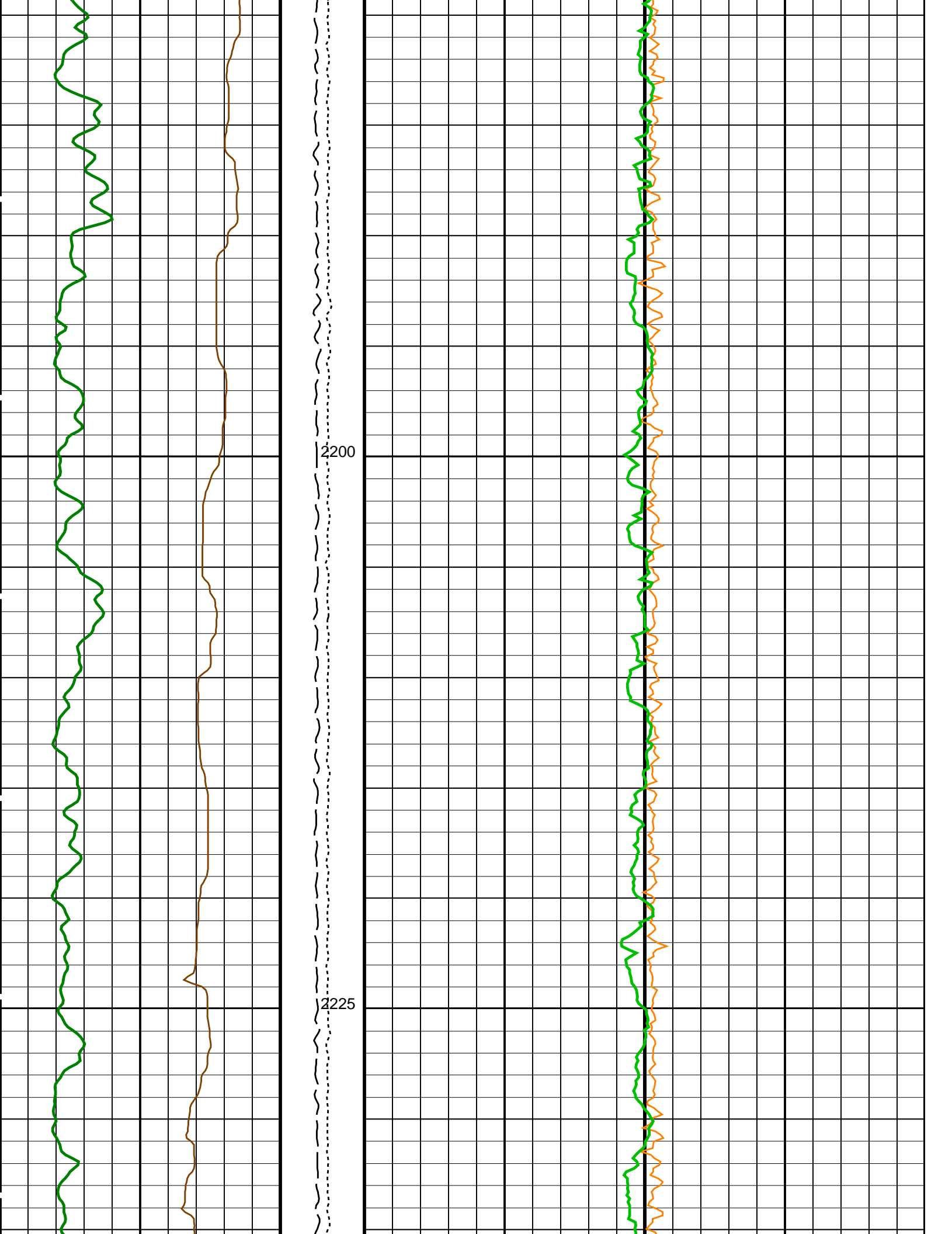


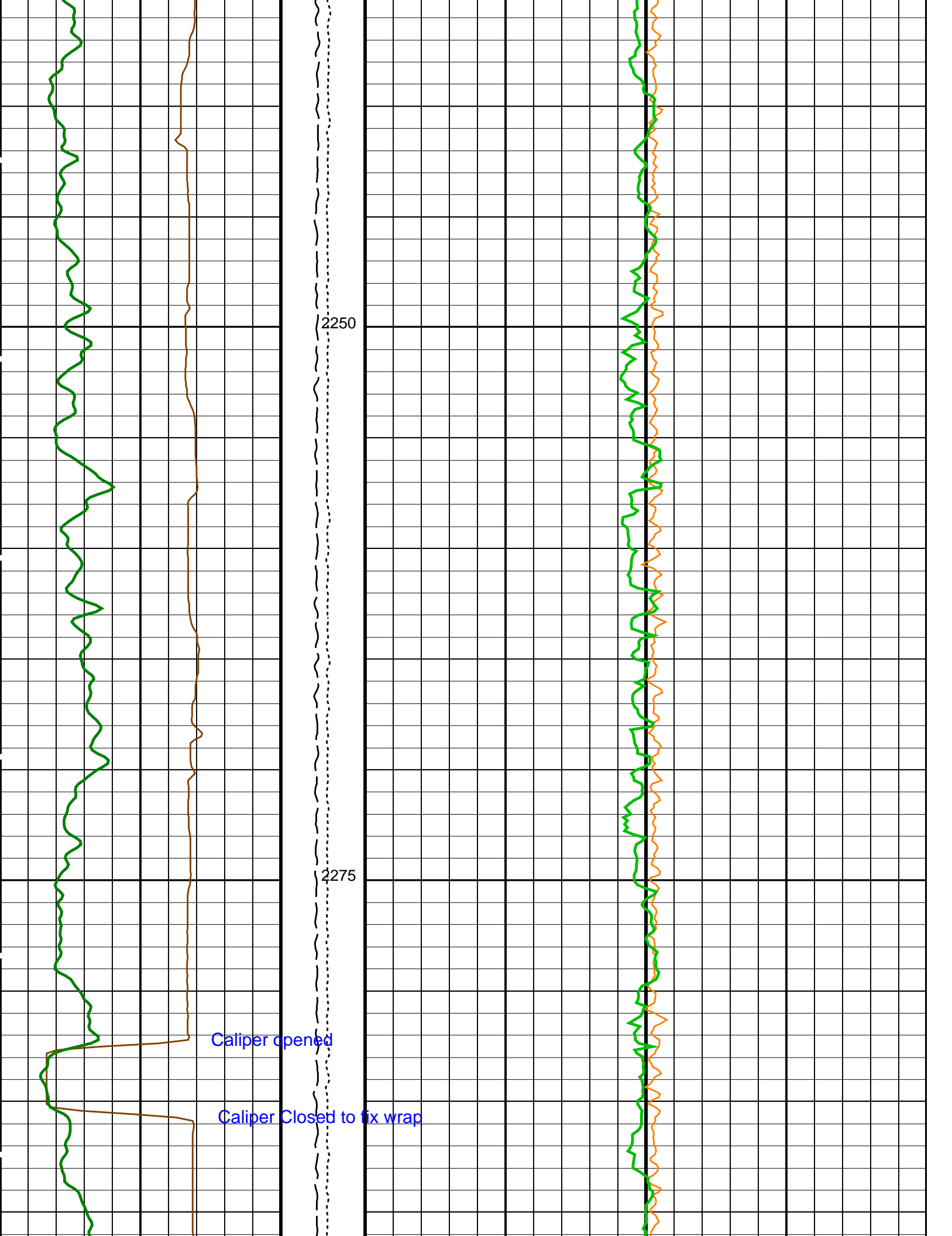




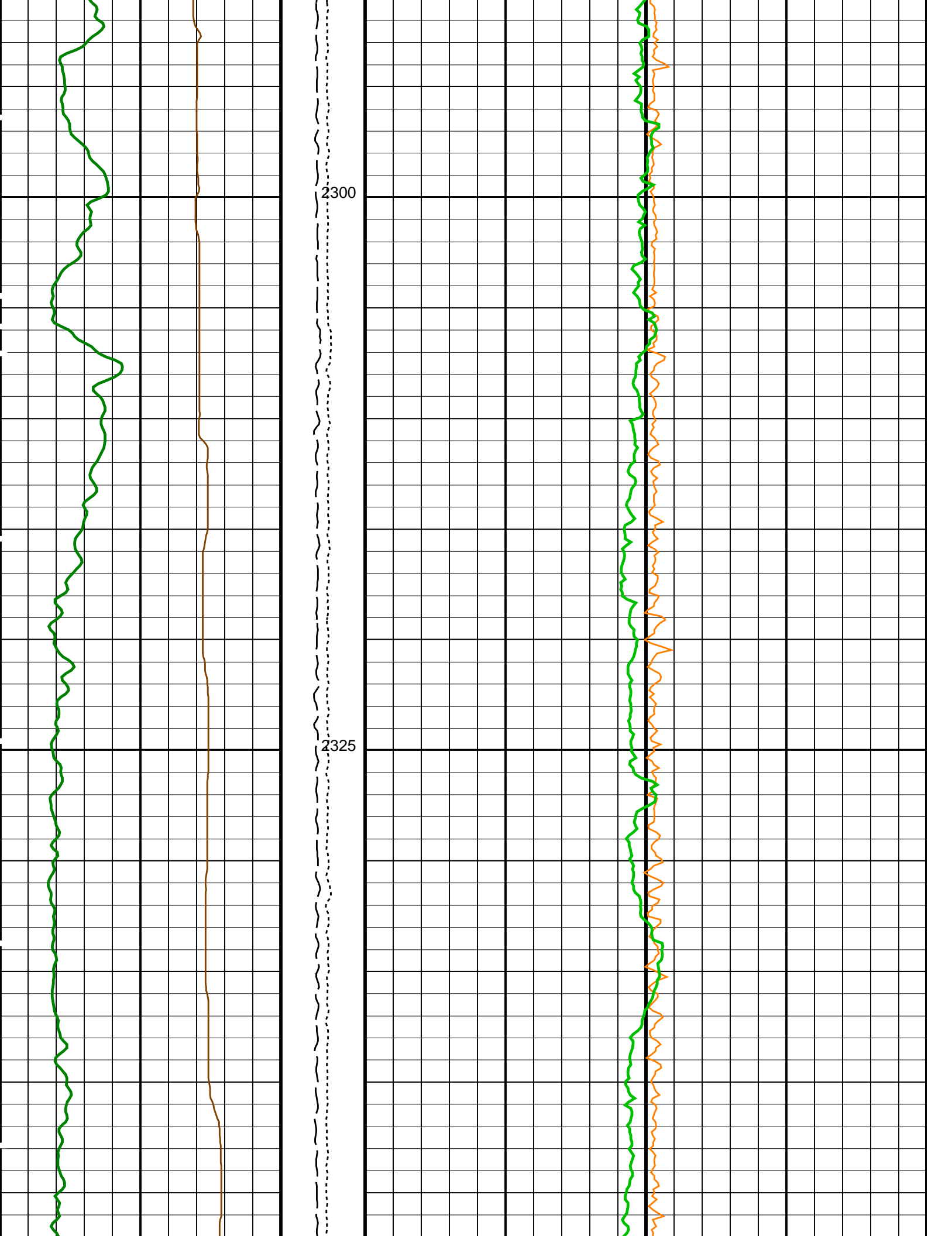


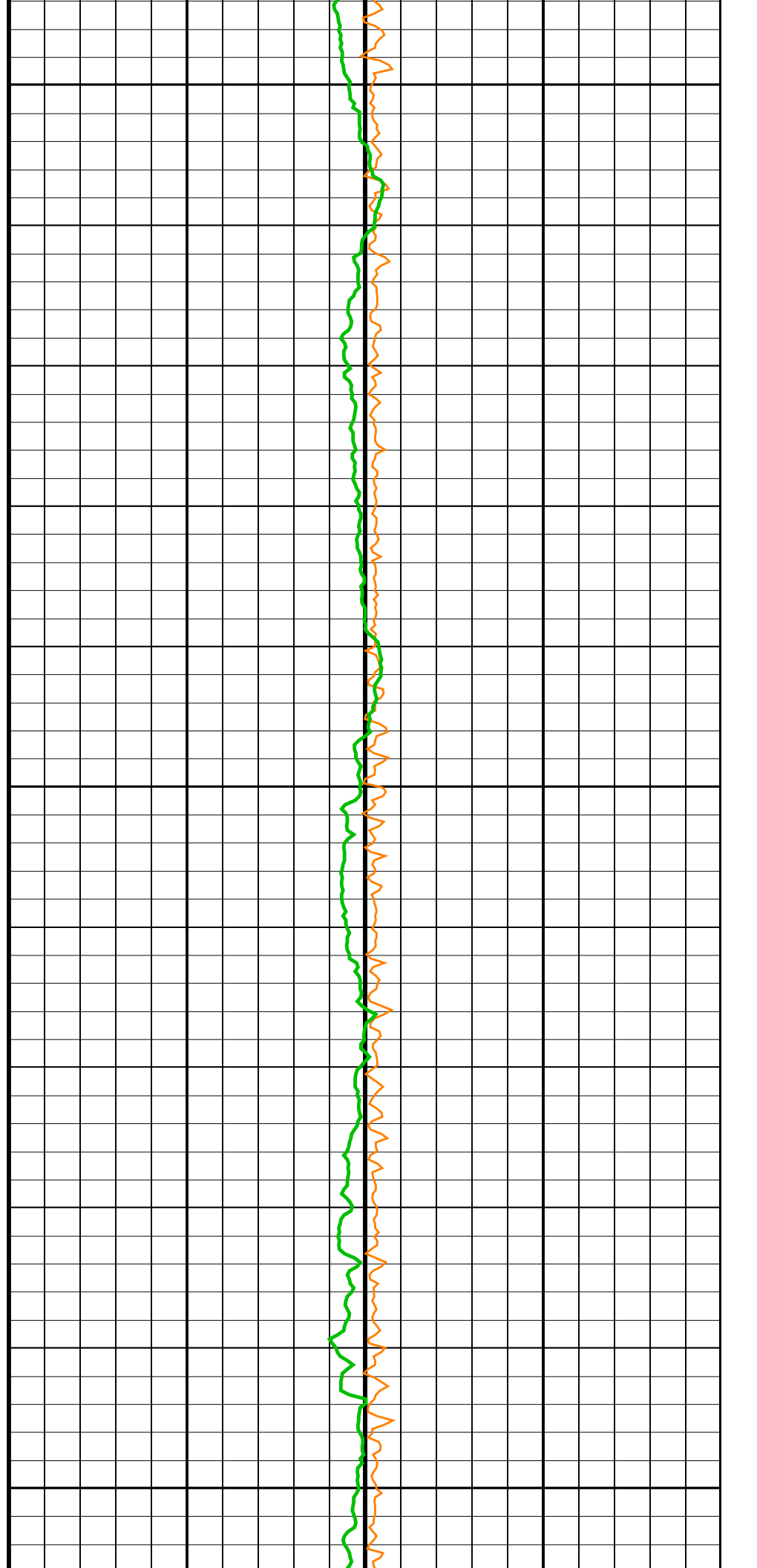
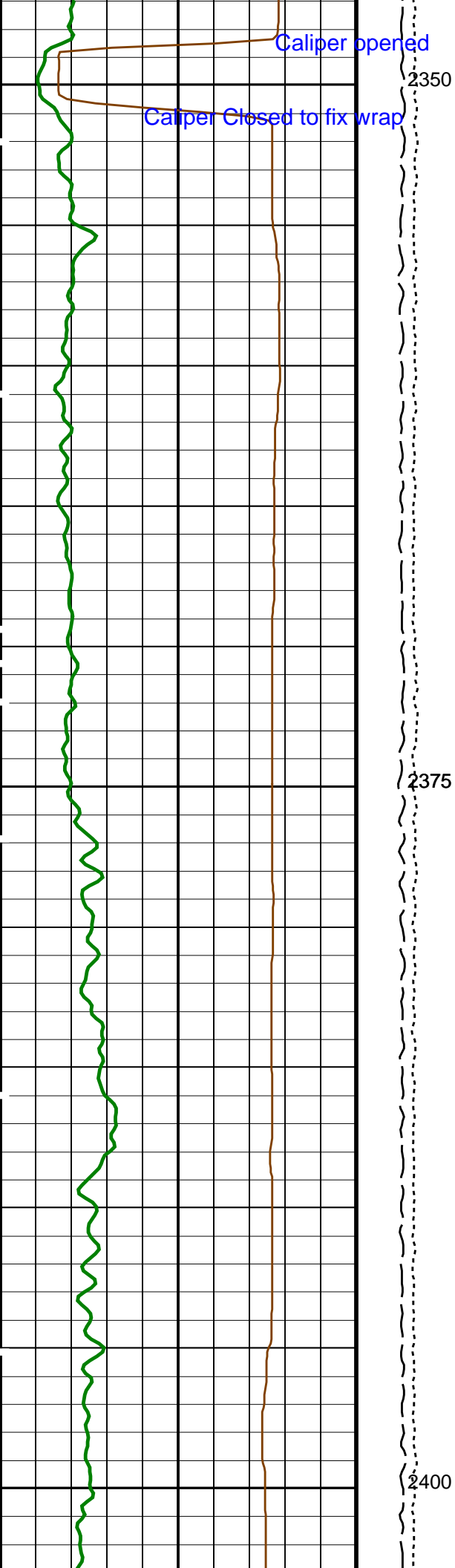


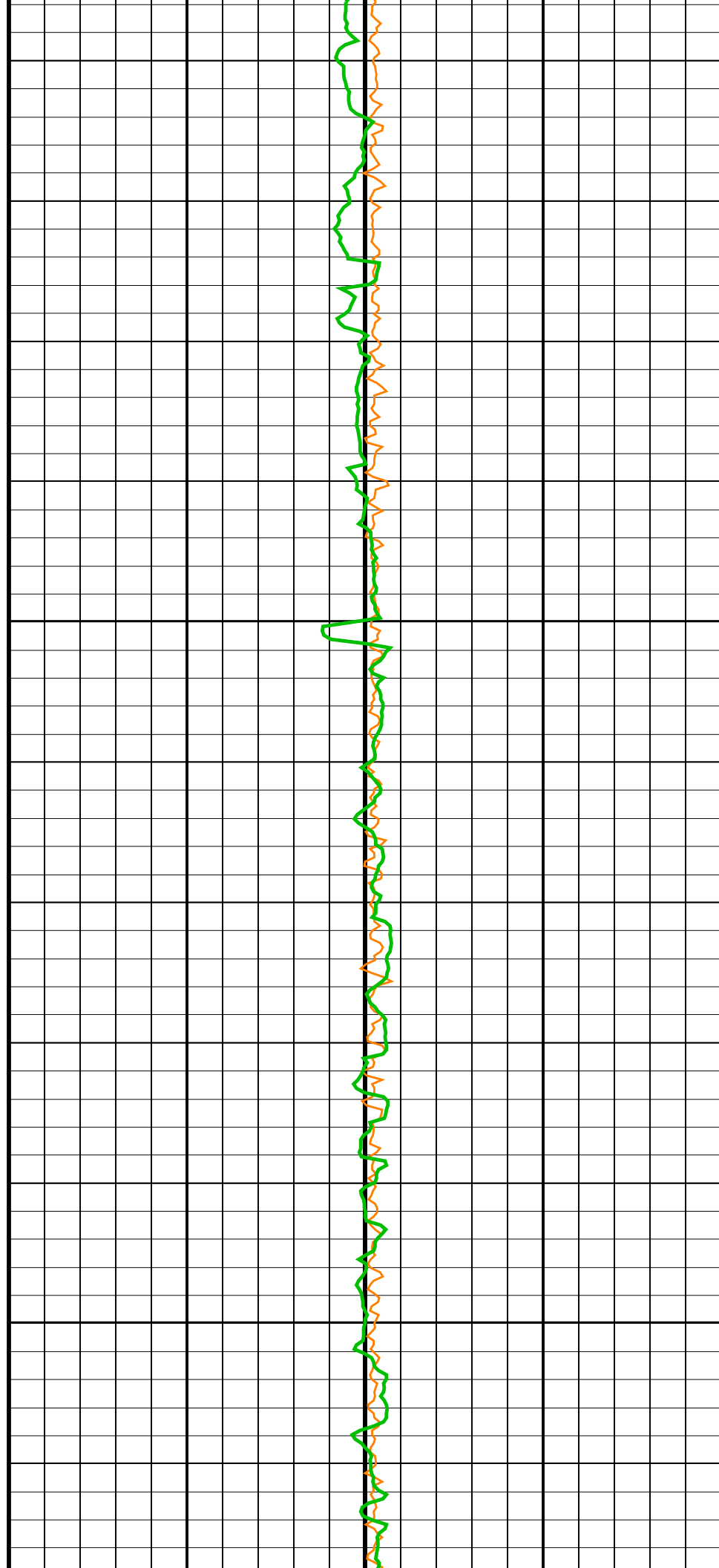
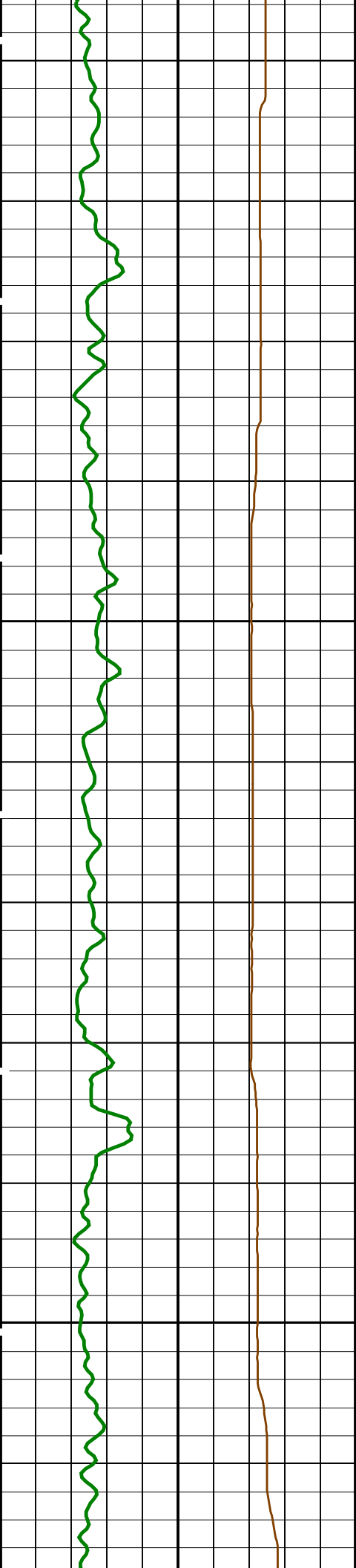


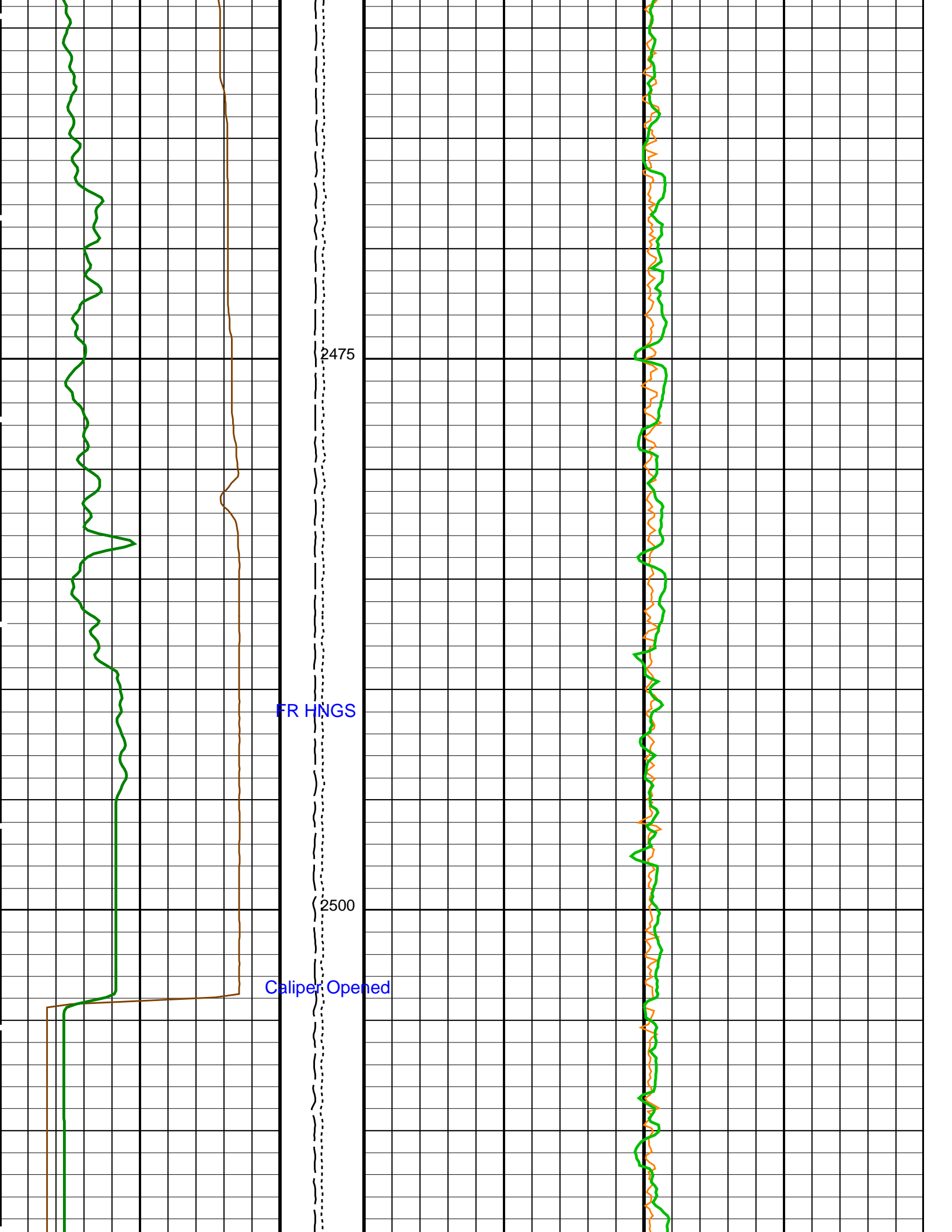


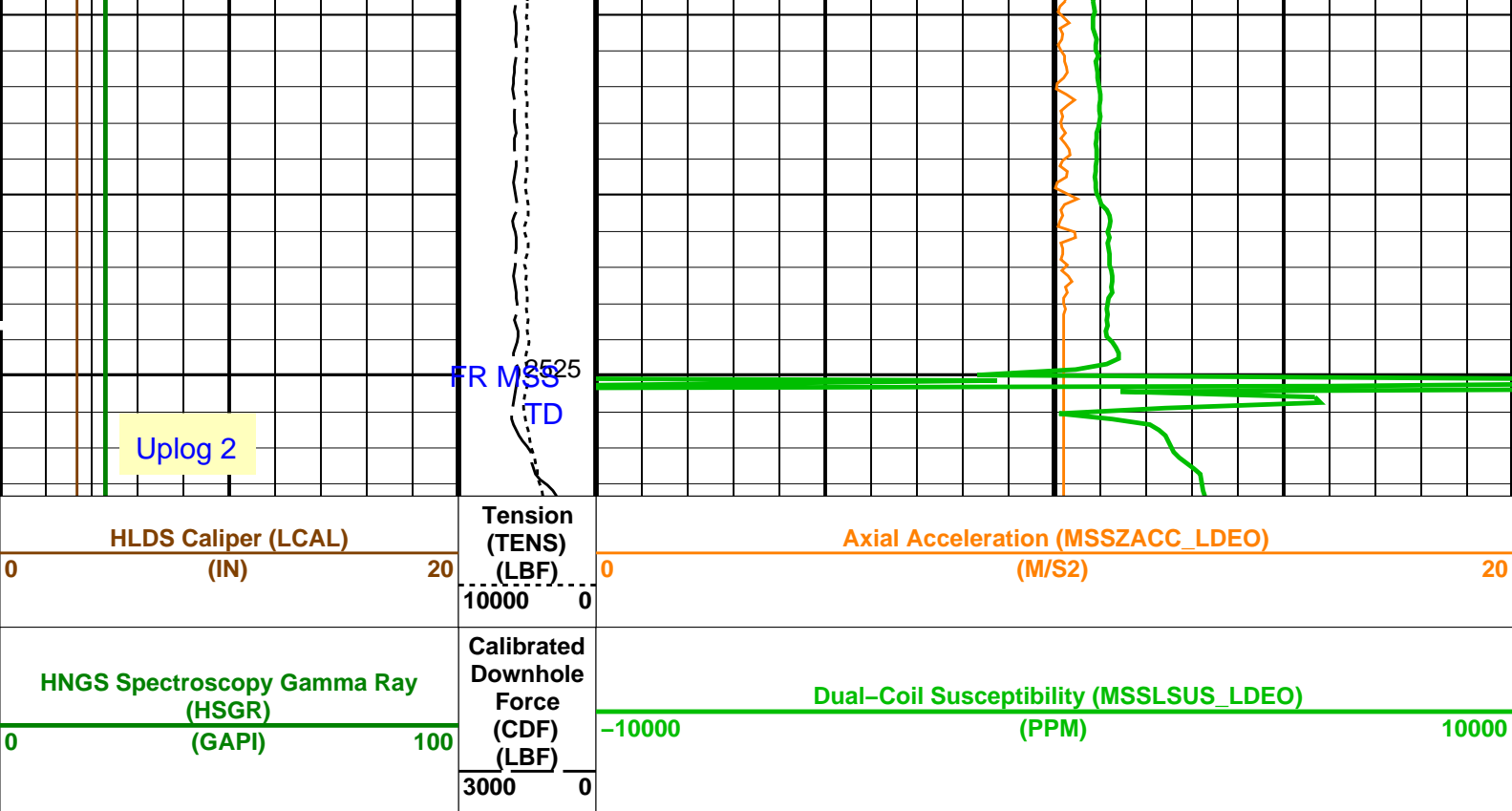












Time Mark Every 60 S

Parameters			
DLIS Name	Description	Value	
HRLT-B: High Resolution Laterolog Array – B			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	25	DEGC
CALSTAT	HRLTB Calibration Status	SHALLOW_DONE	
CALTEMP	HRLTB Calibration Temperature	11.6682	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	AUTO	
LOOPMOD1	HRLT Mode 1 Loop Mode	AUTO	
LOOPMOD2	HRLT Mode 2 Loop Mode	AUTO	
LOOPMOD3	HRLT Mode 3 Loop Mode	AUTO	
LOOPMOD4	HRLT Mode 4 Loop Mode	AUTO	
LOOPMOD5	HRLT Mode 5 Loop Mode	AUTO	
LOOPMOD6	HRLT Mode 6 Loop Mode	AUTO	
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
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	OFF	
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	1500	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	

APS-C: Accelerator-Porosity Tool

AASD	APS Software Version	5	
ADSO	APS Thermal and Array Detectors High Voltage Setting	1976.24	V
AFSD	APS Array Detectors Data Source Switch	Both	
AHCS	APS Far Detector High Voltage Setting	2067.55	V
AHSS	APS Holesize Correction Source	GCSE	
AMTY	APS Holesize Correction Switch	ON	
ANSD	APS Environmental Corrections Mud Type	WaterBaseBarite	
ASOS	APS Near Detector High Voltage Setting	1737.8	V
ATSS	APS Standoff Correction Switch	ON	
BHFL_APS	APS Temperature-Pressure-Salinity Correction Switch	ON	
BHS	APS TNPH Borehole Fluid Type	WATER	
BHT	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	25	DEGC
BSCO_APS	APS TNPH Borehole Salinity Correction Option	NO	
DPPM	Density Porosity Processing Mode	HIRS	
DSCO_APS	APS TNPH Density Source Correction Option	MEASURED	
FSAL	Formation Salinity	-50000	PPM
FSCO_APS	APS TNPH 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_APS	APS TNPH Hole Size Correction Option	YES	
ISSBAR	Barite Mud Switch	BARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
MCCO_APS	APS TNPH Mud Cake Correction Option	YES	
MCOR_APS	APS TNPH Mud Correction	BARI	
MWCO_APS	APS TNPH Mud Weight Correction Option	YES	
NARC	APS Near/Array Calibration Ratio	1.08341	
NFRC	APS Near/Far Calibration Ratio	0.942369	
PTCO_APS	APS TNPH Pressure/Temperature Correction Option	NO	
SHT	Surface Hole Temperature	20	DEGC
TNCO_APS	APS TNPH Computation Option	YES	

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)	25	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	-0.000788171	
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	0.960262	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	0.99789	

System and Miscellaneous

ALDTPCHAN	Name of alternate depth channel	SpeedCorrectedDepth	
BS	Bit Size	11.438	IN
BSAL	Borehole Salinity	38000.00	PPM
CSIZ	Current Casing Size	5.500	IN
CWEI	Casing Weight	160.00	LB/F

CWEL	Casing Weight	168.00	LB/F
DFD	Drilling Fluid Density	1.26	G/C3
FLEV	Fluid Level	-50000.00	M
MST	Mud Sample Temperature	23.00	DEGC
PBVSADP	Use alternate depth channel for playback	NO	
RMFS	Resistivity of Mud Filtrate Sample	-50000.0000	OHMM
RW	Resistivity of Connate Water	1.0000	OHMM
TD	Total Depth	6069.55	FT
TDD	Total Depth - Driller	2528.50	M
TDL	Total Depth - Logger	2528.50	M
TWS	Temperature of Connate Water Sample	37.78	DEGC

Format: MSS\_Logging    Vertical Scale: 1:200    Graphics File Created: 27-Jun-2021 23:53

## OP System Version: 19C0-187

MSS_LDEO-A	19C0-187	HRLT-B	19C0-187
HLDS	19C0-187	LDSC-B	19C0-187
APS-C	19C0-187	HNGC-B	19C0-187
HNGS-BA	19C0-187	DTC-H	19C0-187

## Output DLIS Files

DEFAULT	MSS_LDEO_HRLA_LDL_009LUP	FN:13	PRODUCER	27-Jun-2021 23:53
BACKUP	MSS_LDEO_HRLA_LDL_009LUP	FN:14	PRODUCER	27-Jun-2021 23:53

## Output DLIS Files

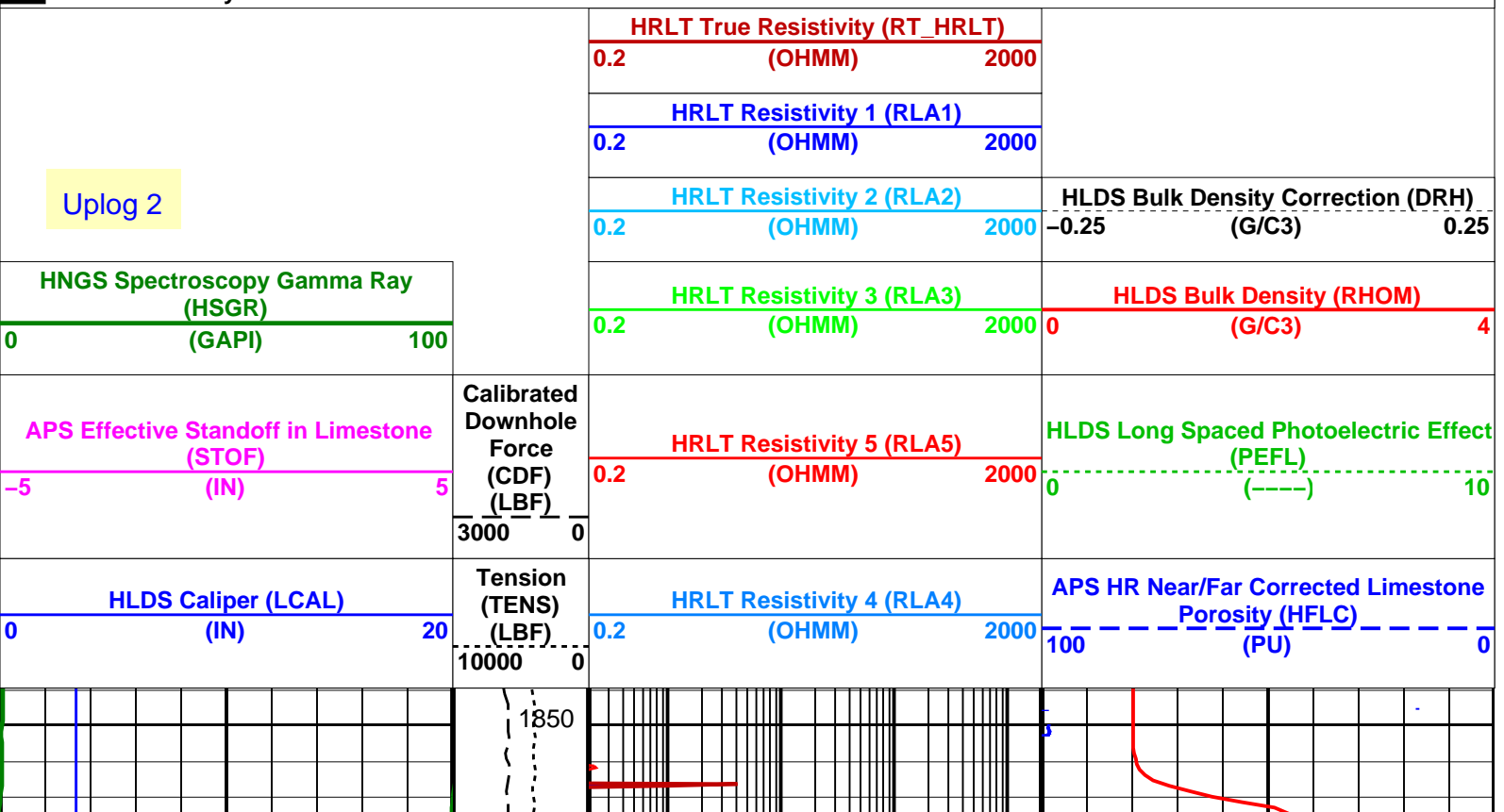
DEFAULT	MSS_LDEO_HRLA_LDL_009LUP	FN:13	PRODUCER	27-Jun-2021 23:53	2528.3 M	1849.4 M
BACKUP	MSS_LDEO_HRLA_LDL_009LUP	FN:14	PRODUCER	27-Jun-2021 23:53	2528.3 M	1849.4 M

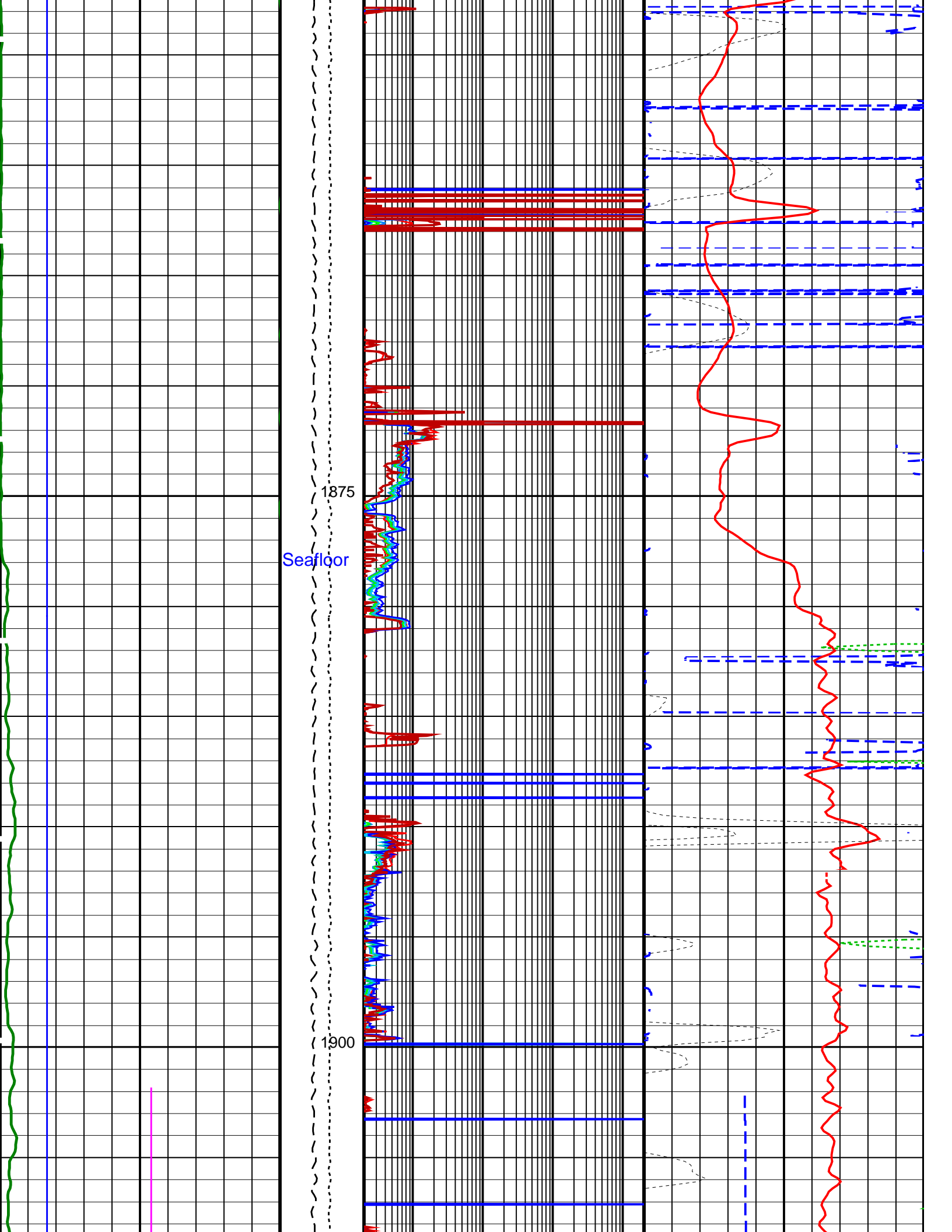
## OP System Version: 19C0-187

MSS_LDEO-A	19C0-187	HRLT-B	19C0-187
HLDS	19C0-187	LDSC-B	19C0-187
APS-C	19C0-187	HNGC-B	19C0-187
HNGS-BA	19C0-187	DTC-H	19C0-187

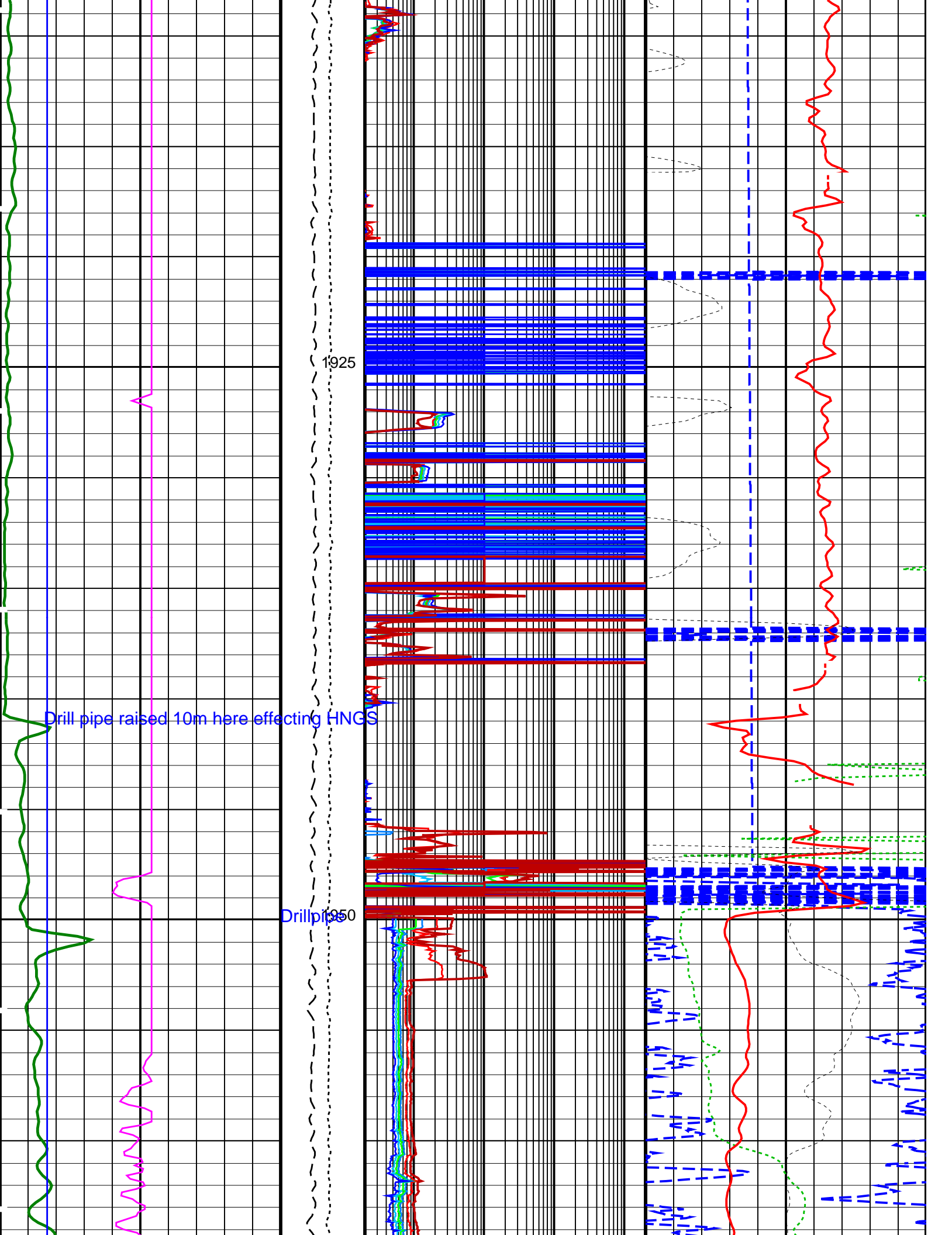
## PIP SUMMARY

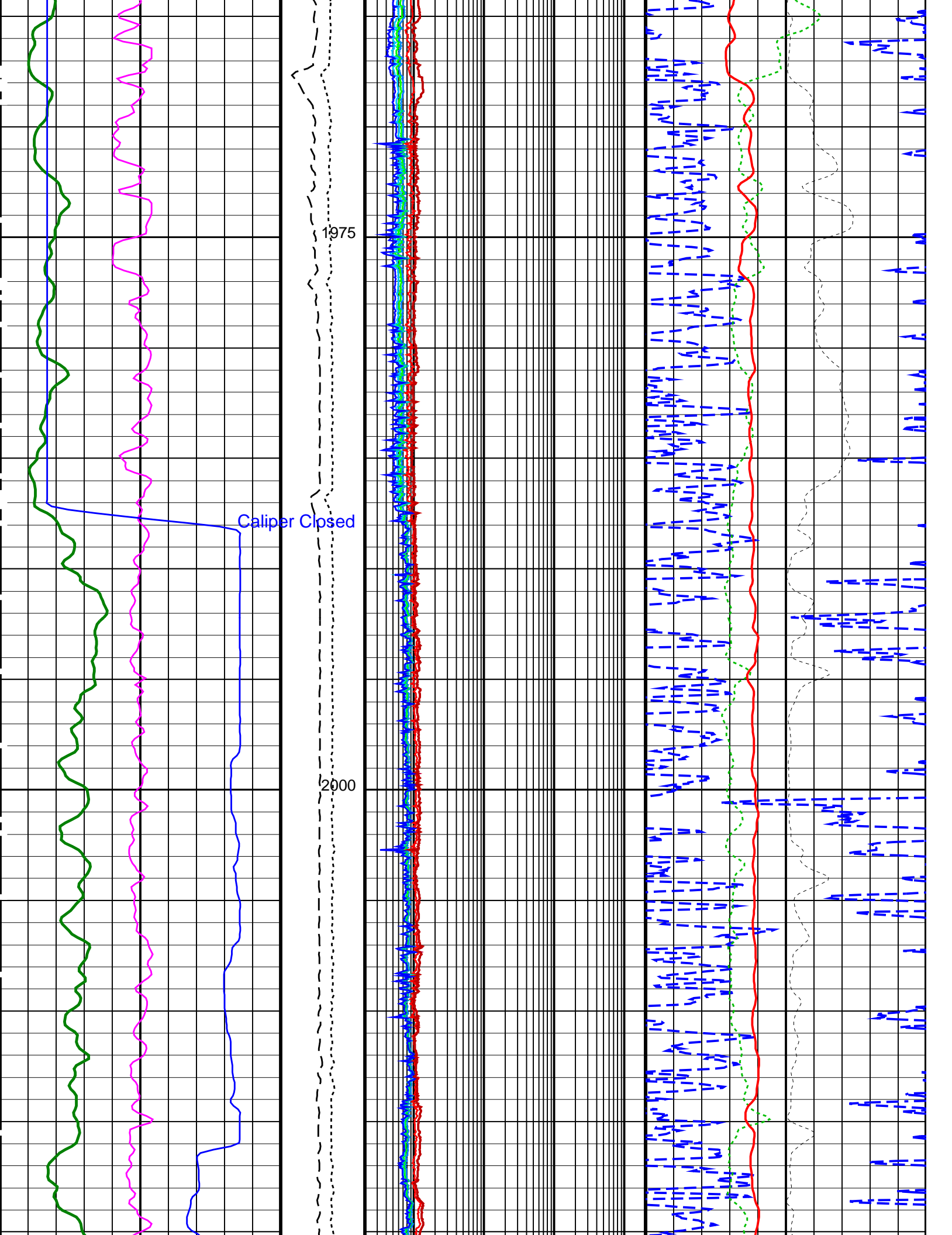
Time Mark Every 60 S

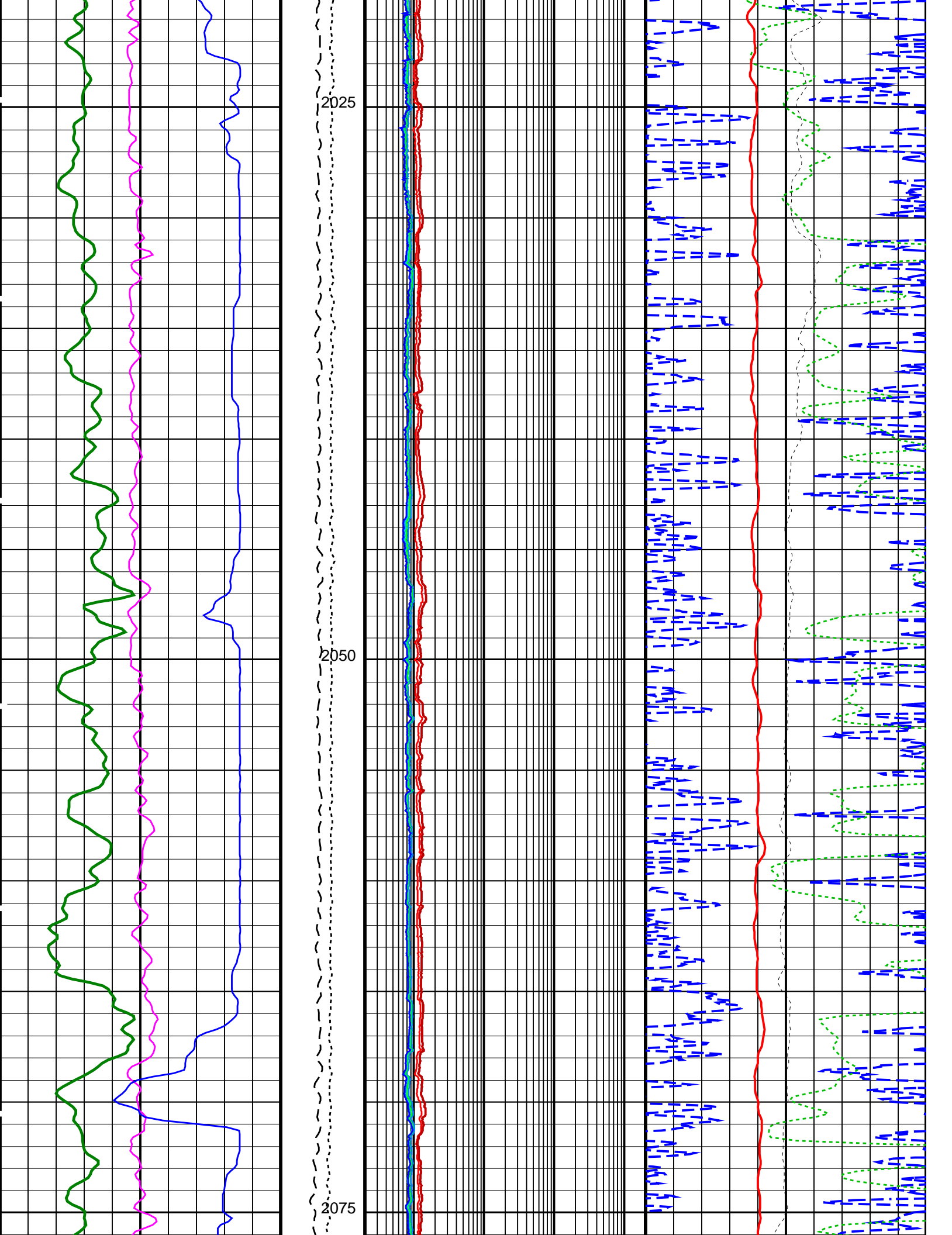


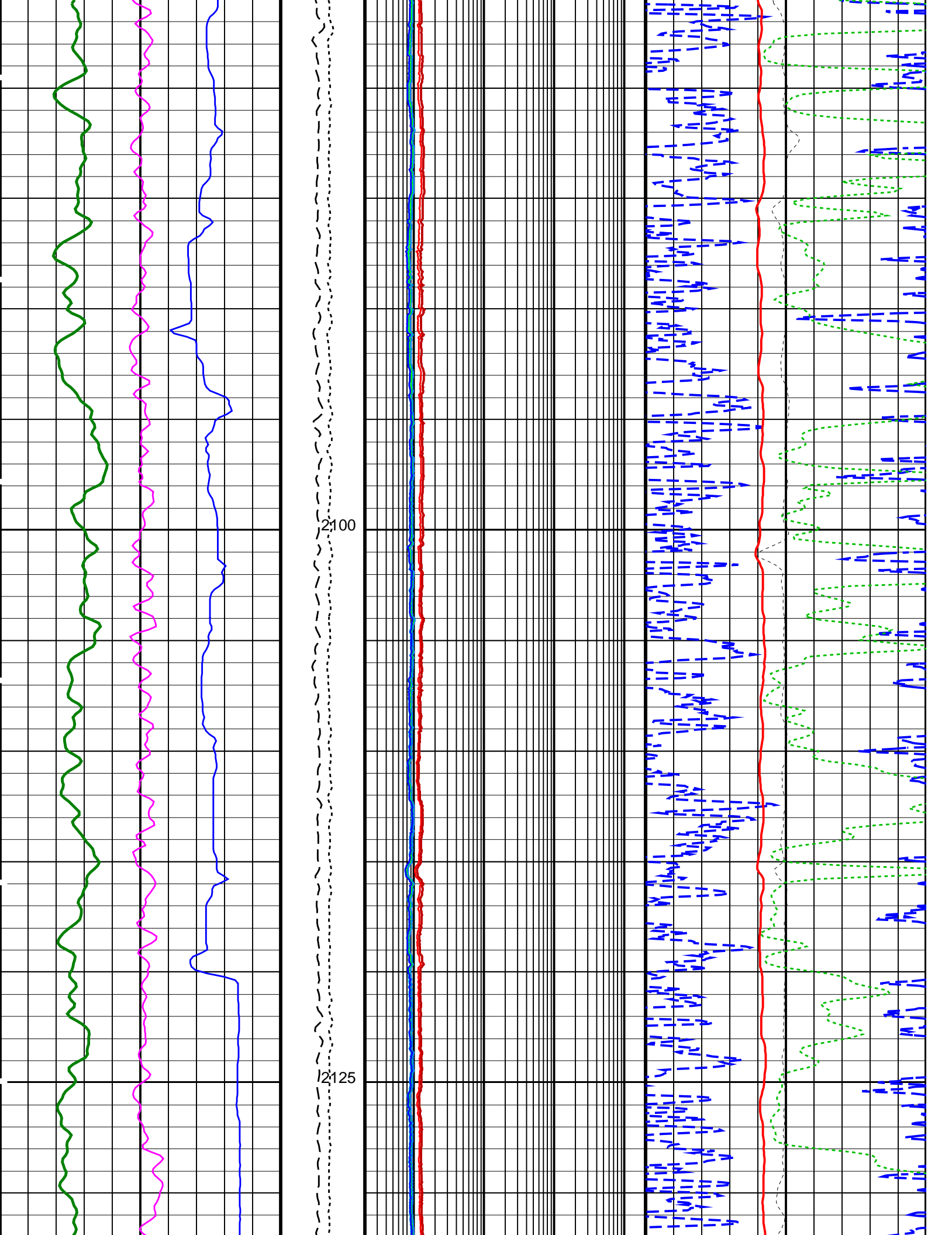


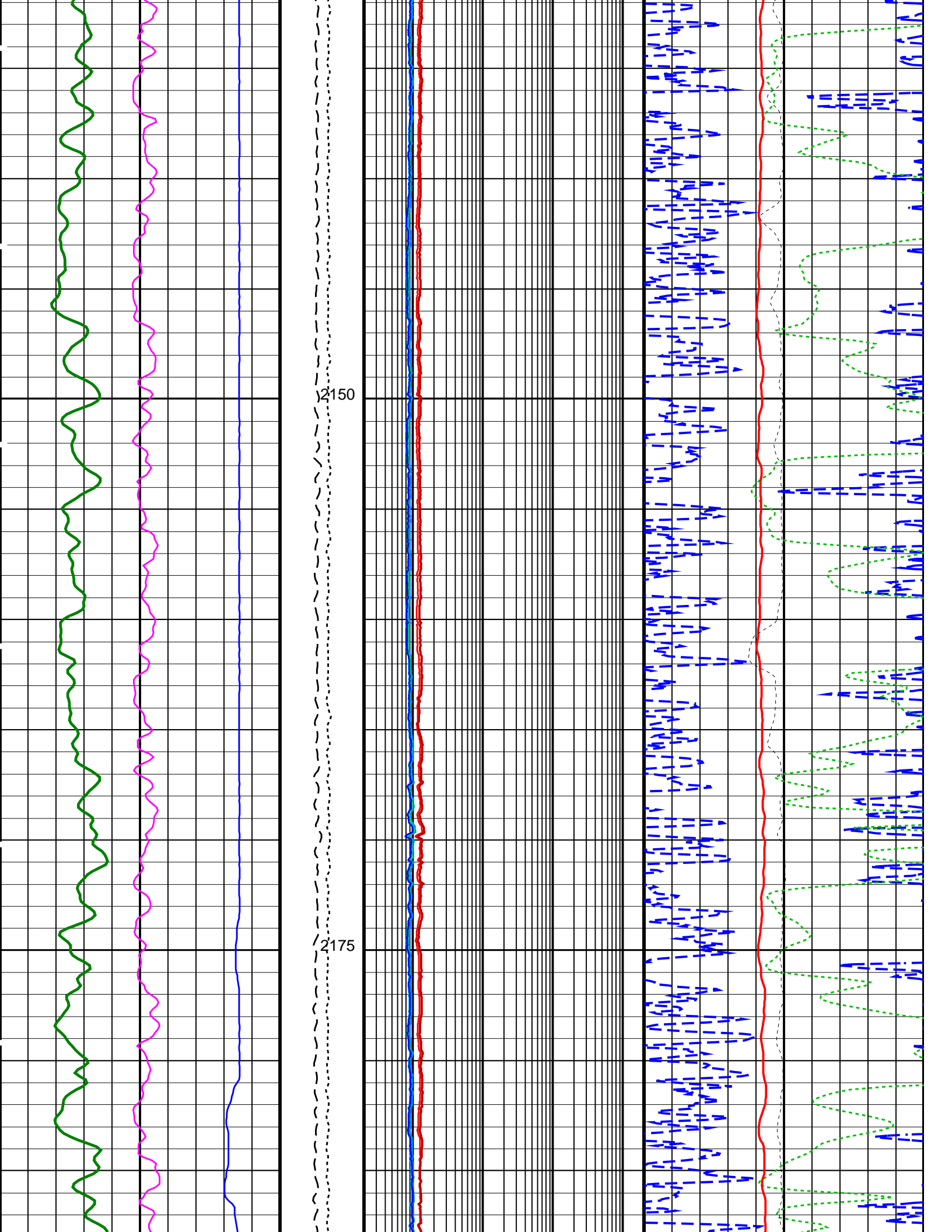


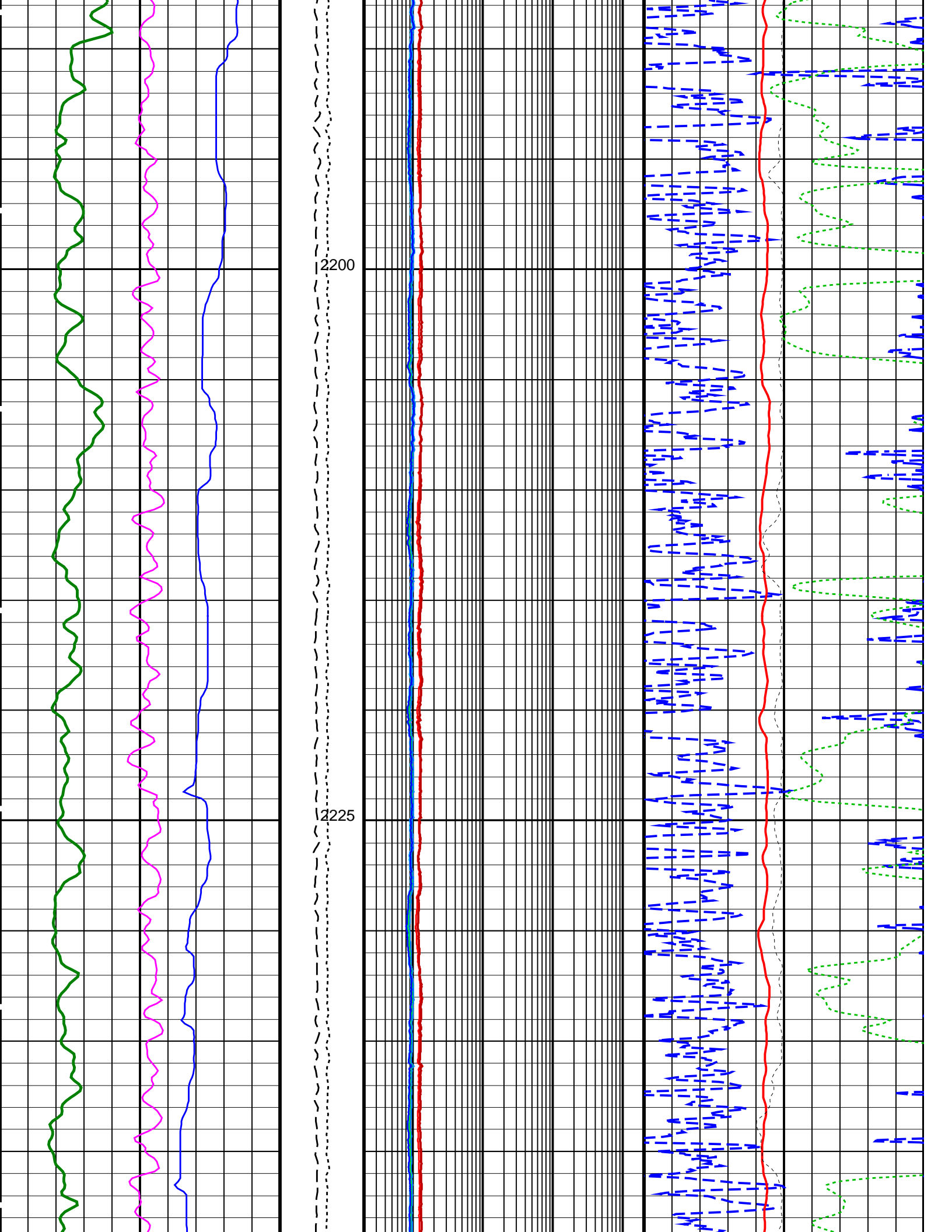


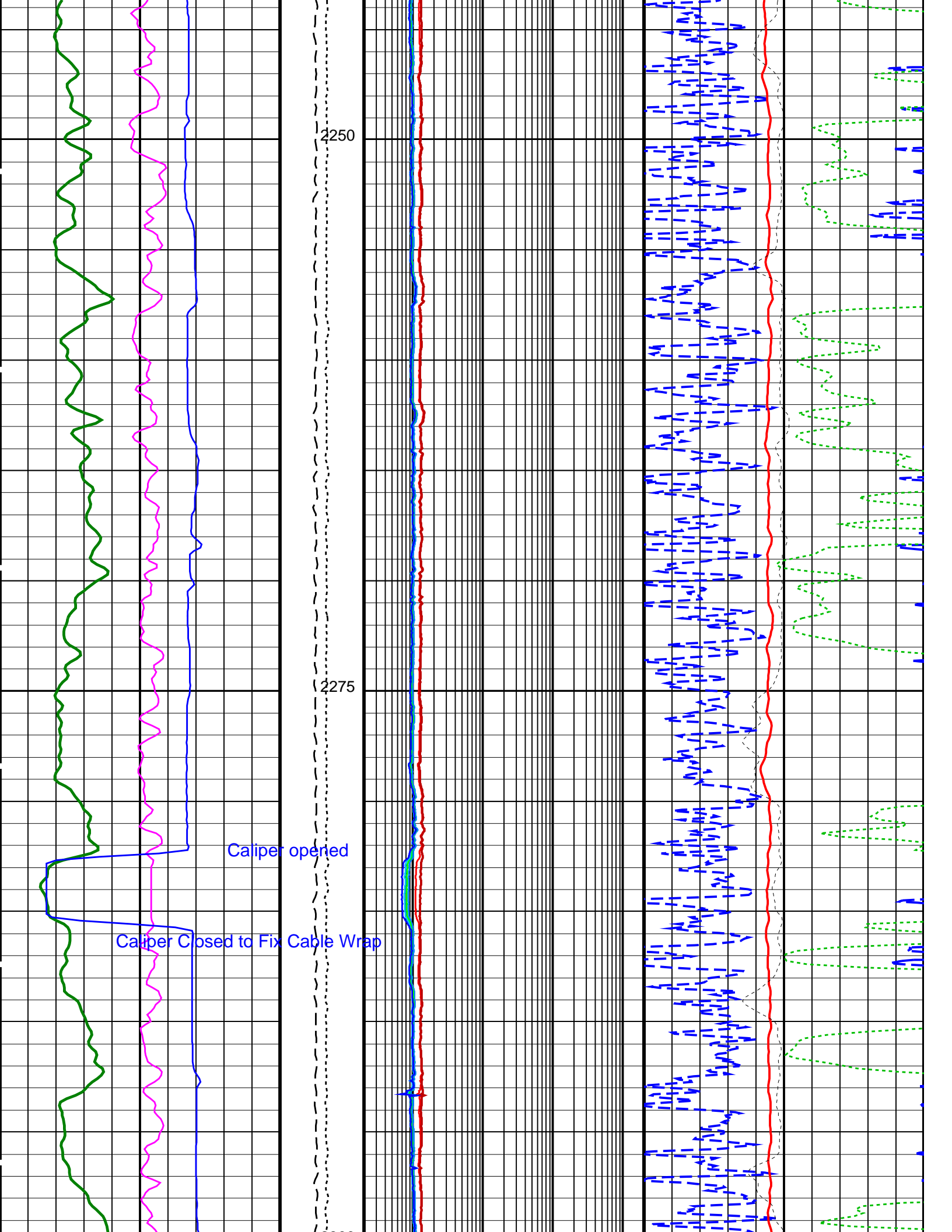


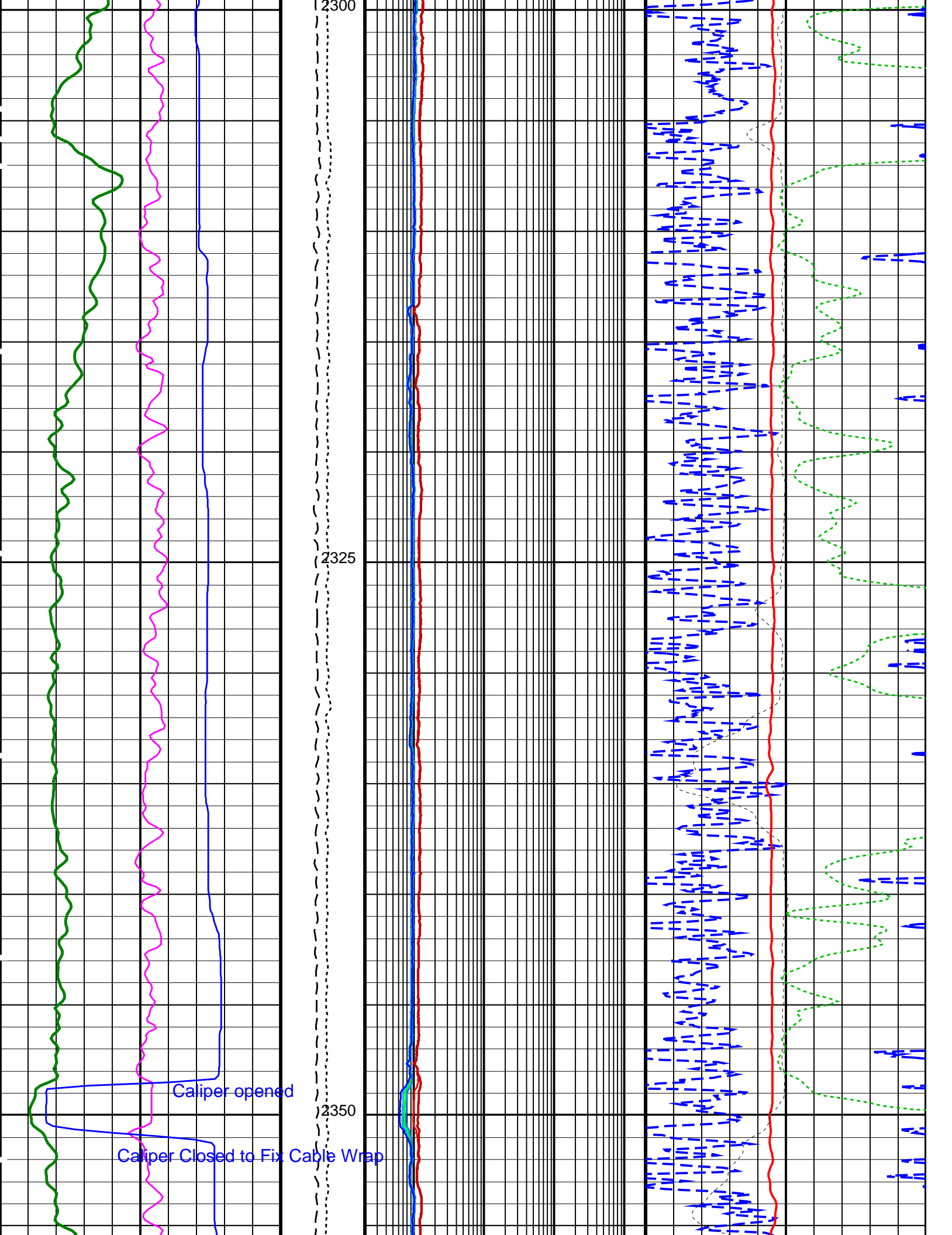




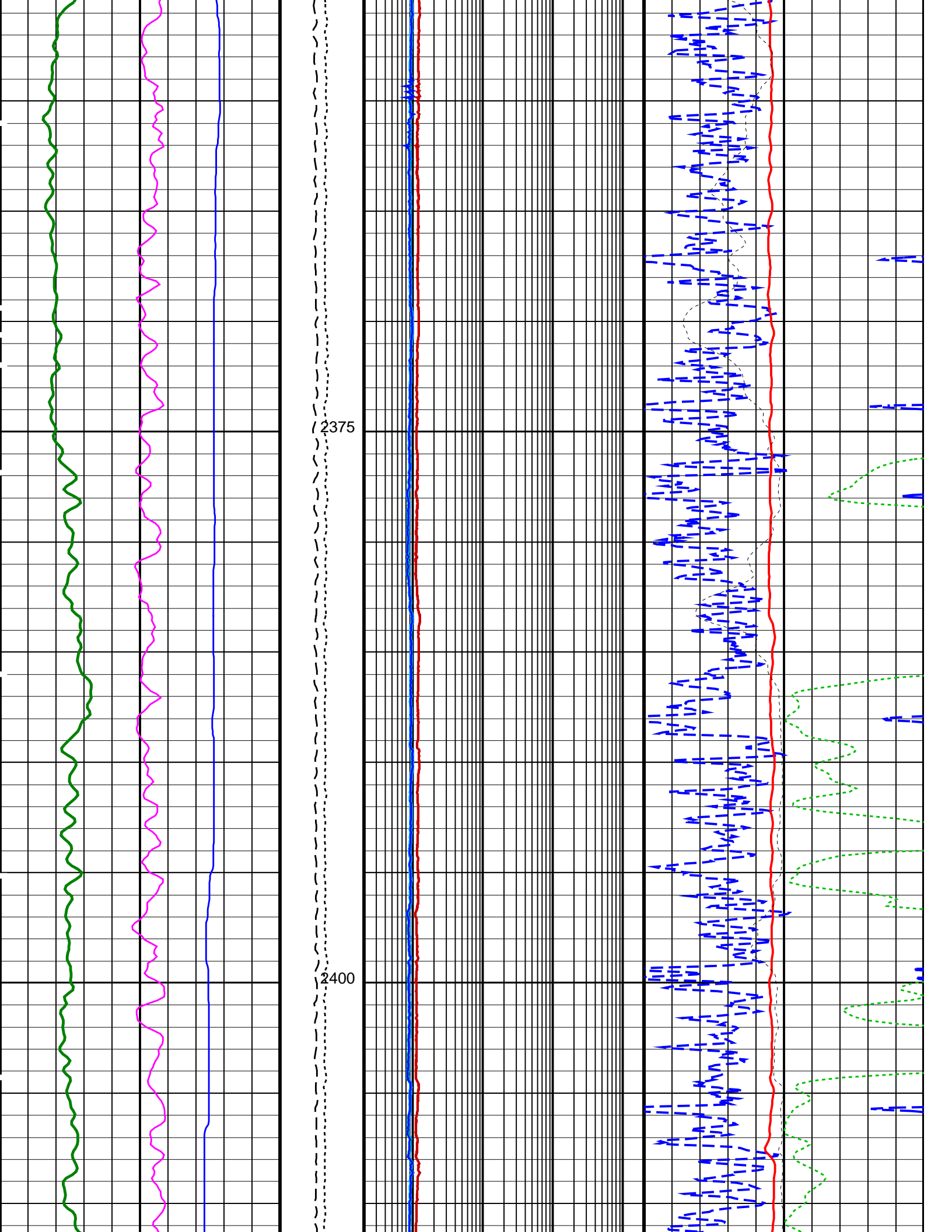


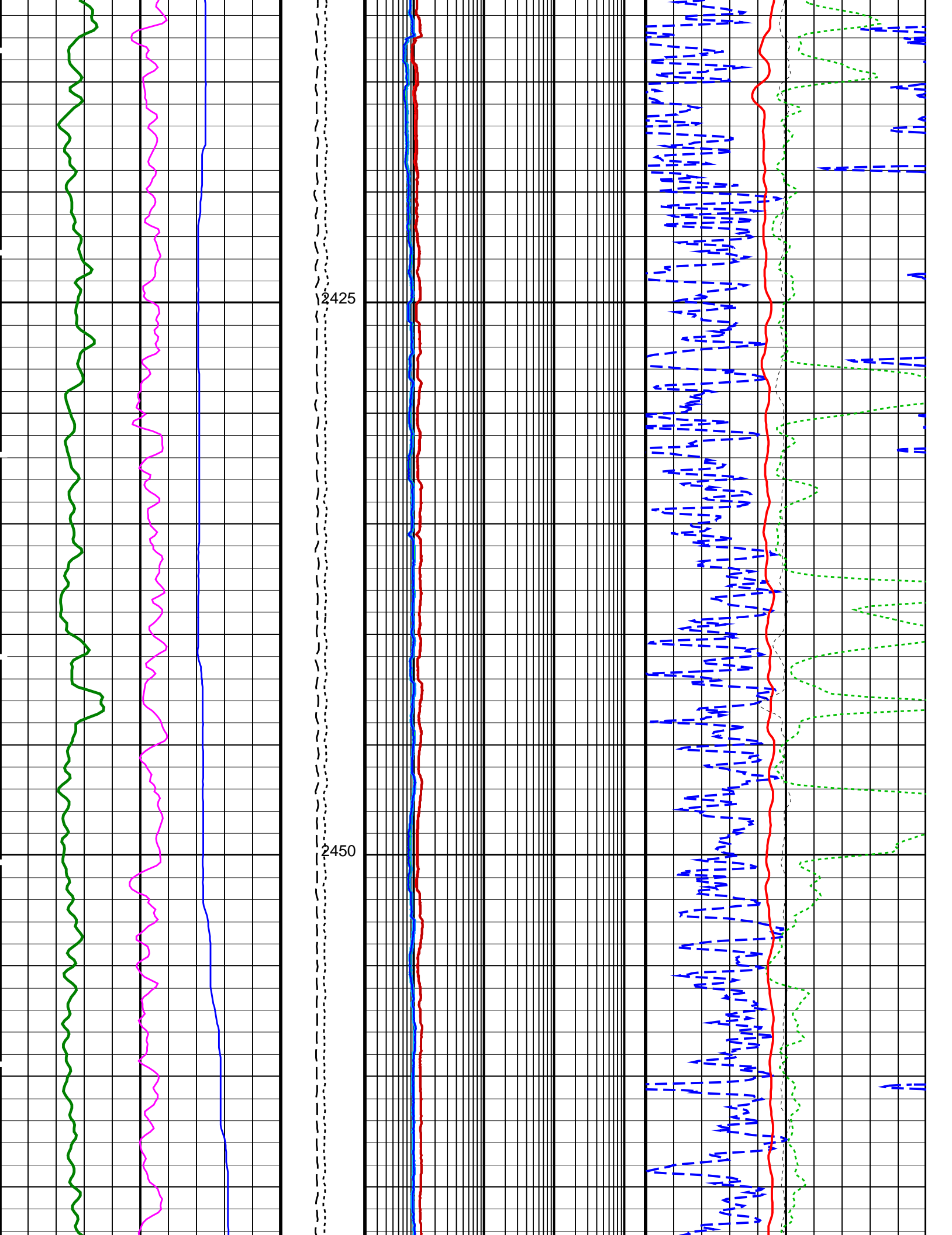


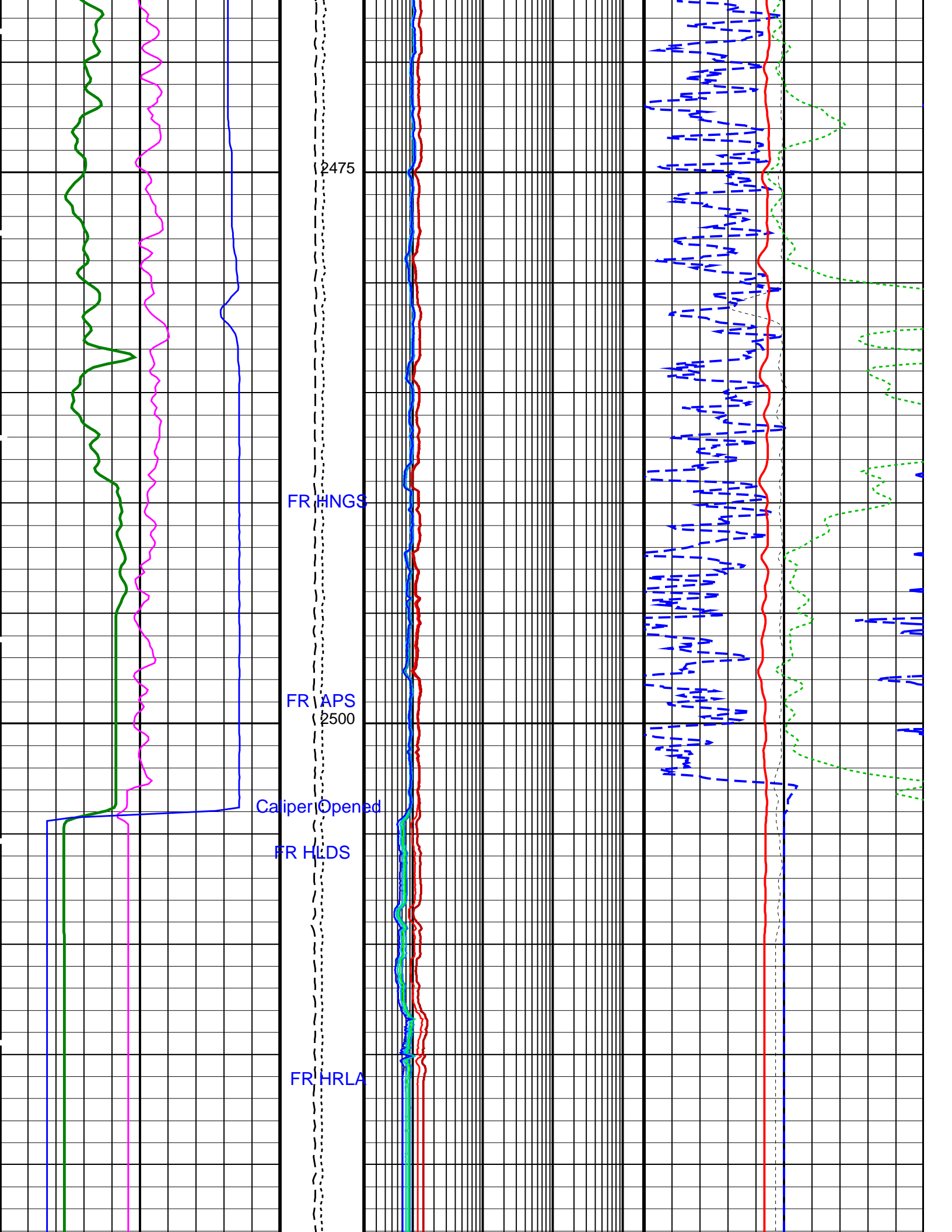


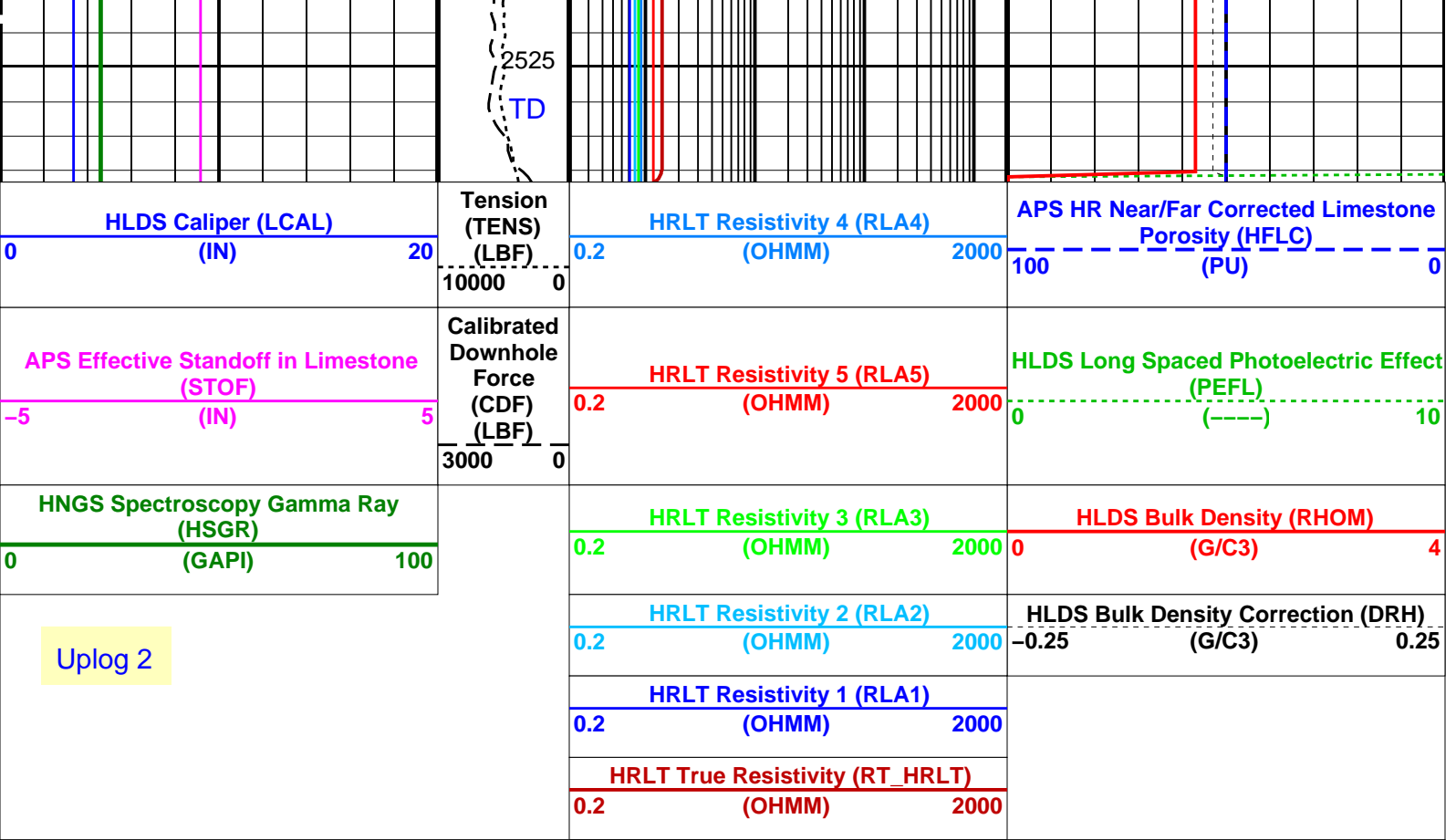










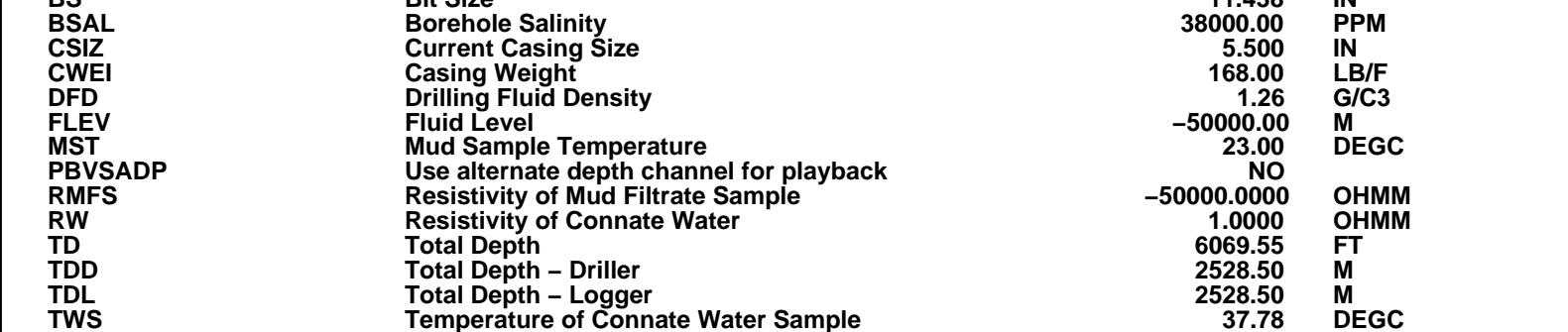


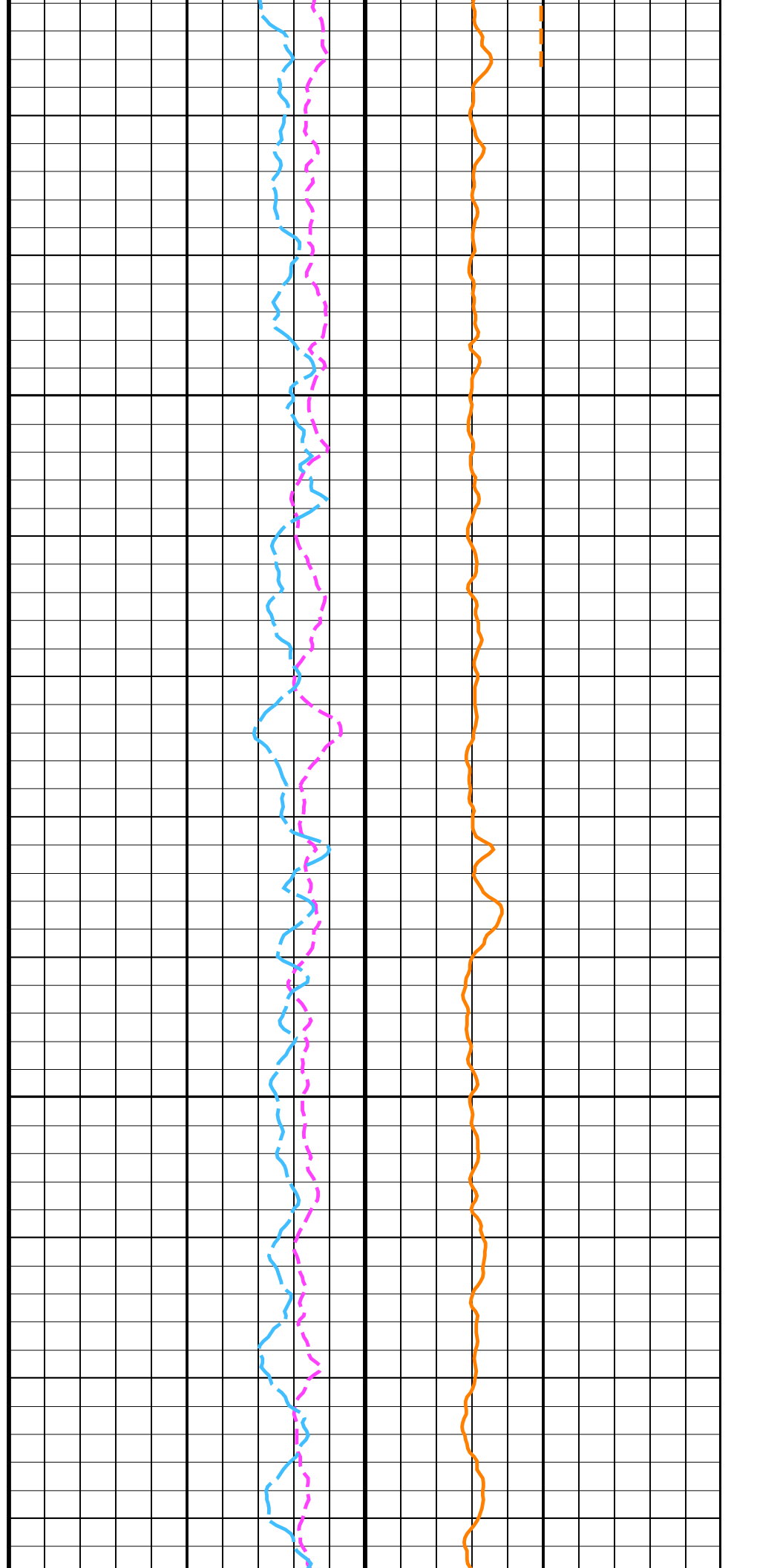
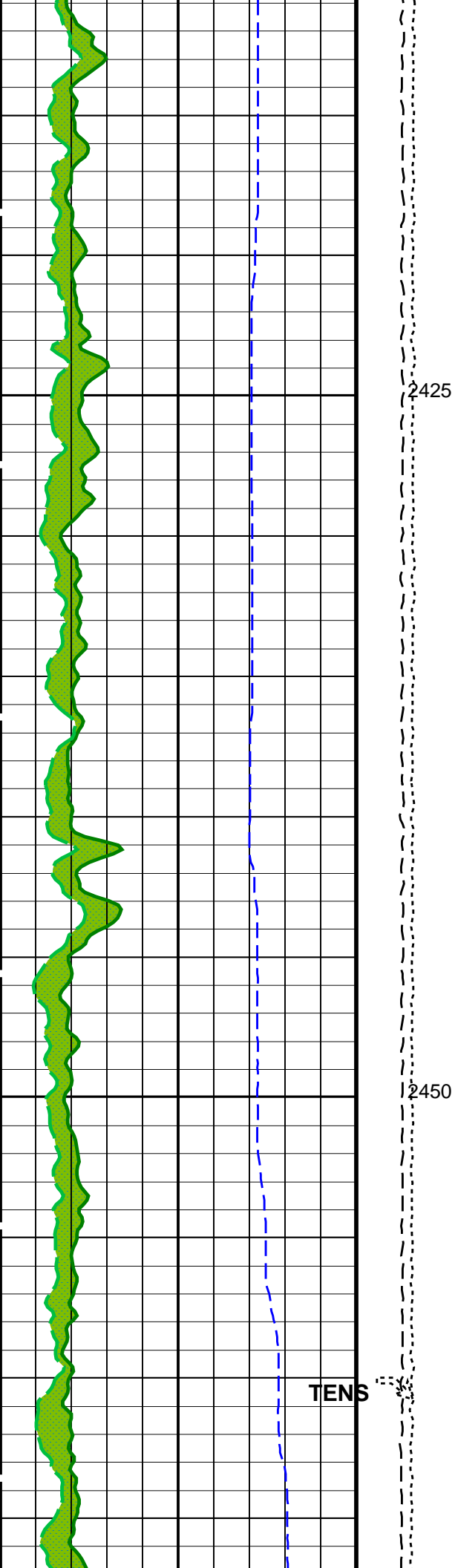
Time Mark Every 60 S

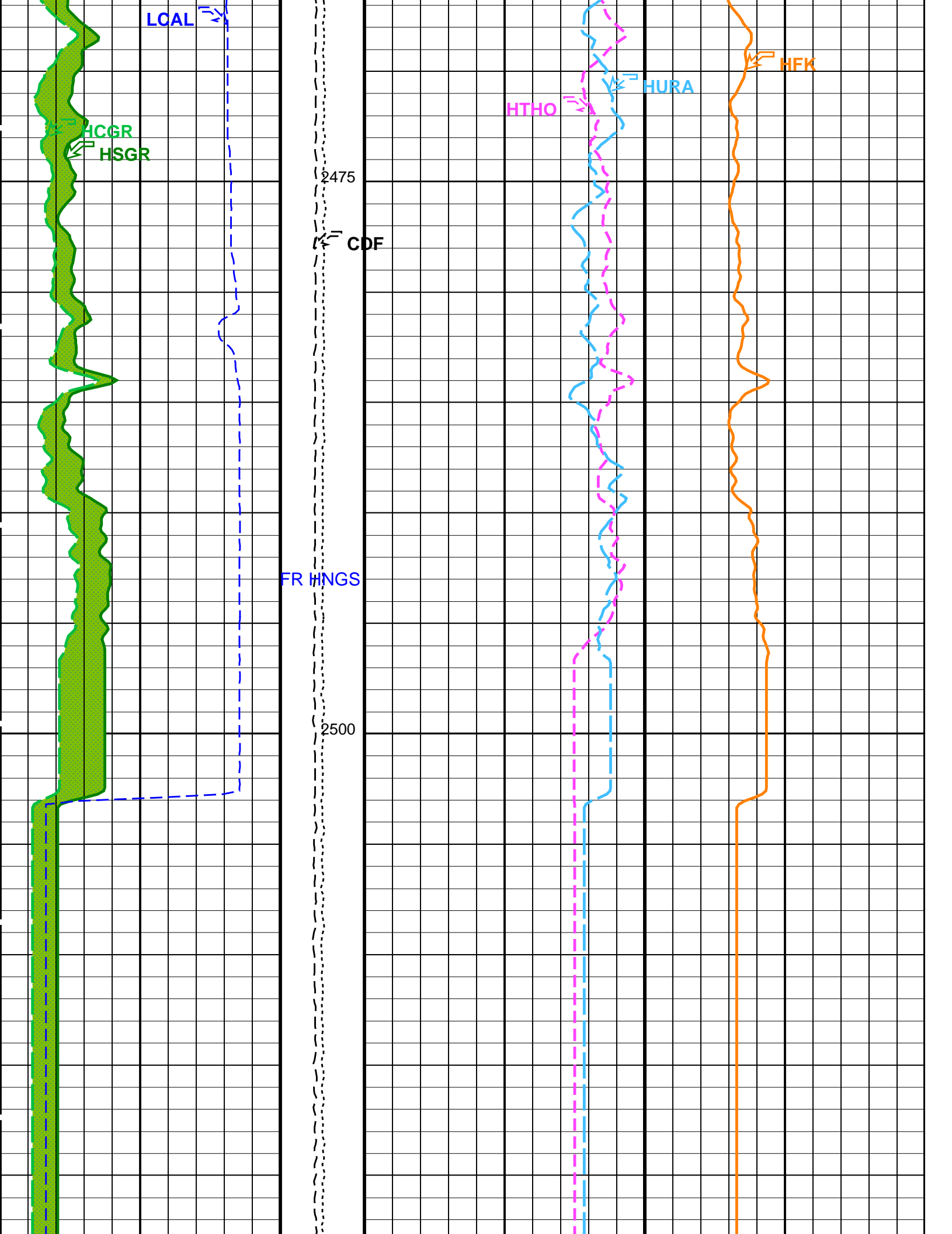
## Parameters

DLIS Name	Description	Value
HRLT-B: High Resolution Laterolog Array - B		
BHS	Borehole Status	OPEN
BHT	Bottom Hole Temperature (used in calculations)	25 DEGC
CALSTAT	HRLTB Calibration Status	SHALLOW_DONE
CALTEMP	HRLTB Calibration Temperature	11.6682 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	AUTO
LOOPMOD1	HRLT Mode 1 Loop Mode	AUTO
LOOPMOD2	HRLT Mode 2 Loop Mode	AUTO
LOOPMOD3	HRLT Mode 3 Loop Mode	AUTO
LOOPMOD4	HRLT Mode 4 Loop Mode	AUTO
LOOPMOD5	HRLT Mode 5 Loop Mode	AUTO
LOOPMOD6	HRLT Mode 6 Loop Mode	AUTO
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE
PROGINV	Inversion Selection	ON
PROCMFL	Inversion Micro-Resistivity Selection	NO_EXTERNAL_RXO
PROCMFO	Mechanical Standoff Fin Size	0 IN
PROCRM	Processing Mud Resistivity Select	HRLT_Compute
PROCSPO	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

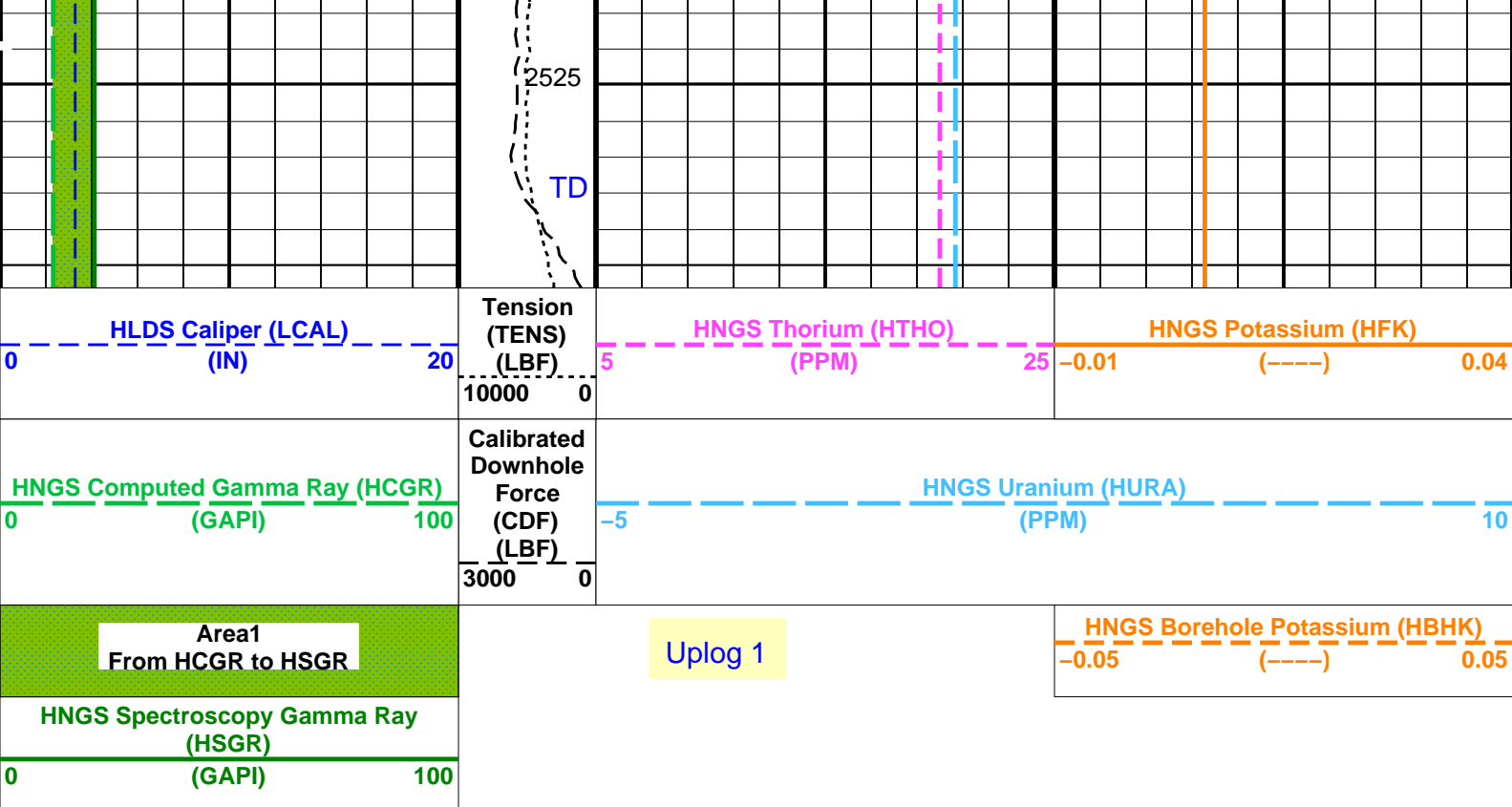
DHC	Density Hole Correction	BS	
DPPM	Density Porosity Processing Mode	HIRS	
FD	Fluid Density	1	G/C3
LATC	HLDS Activation Correction	OFF	
LLDL	HLDS LS Low Level Discriminator DAC	14000	
LLDS	HLDS SS Low Level Discriminator DAC	14000	
LLML	HLDS LS Low Level Discriminator Mode	AUTO	
LLMS	HLDS SS Low Level 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	1500	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	
APS-C: Accelerator-Porosity Tool			
	APS Software Version	5	
AASD	APS Thermal and Array Detectors High Voltage Setting	1976.24	V
ADSO	APS Array Detectors Data Source Switch	Both	
AFSD	APS Far Detector High Voltage Setting	2067.55	V
AHCS	APS Holesize Correction Source	GCSE	
AHSS	APS Holesize Correction Switch	ON	
AMTY	APS Environmental Corrections Mud Type	WaterBaseBarite	
ANSD	APS Near Detector High Voltage Setting	1737.8	V
ASOS	APS Standoff Correction Switch	ON	
ATSS	APS Temperature-Pressure-Salinity Correction Switch	ON	
BHFL_APS	APS TNPH Borehole Fluid Type	WATER	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	25	DEGC
BSCO_APS	APS TNPH Borehole Salinity Correction Option	NO	
DPPM	Density Porosity Processing Mode	HIRS	
DSCO_APS	APS TNPH Density Source Correction Option	MEASURED	
FSAL	Formation Salinity	-50000	PPM
FSCO_APS	APS TNPH 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_APS	APS TNPH Hole Size Correction Option	YES	
ISSBAR	Barite Mud Switch	BARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
MCCO_APS	APS TNPH Mud Cake Correction Option	YES	
MCOR_APS	APS TNPH Mud Correction	BARI	
MWCO_APS	APS TNPH Mud Weight Correction Option	YES	
NARC	APS Near/Array Calibration Ratio	1.08341	
NFRC	APS Near/Far Calibration Ratio	0.942369	
PTCO_APS	APS TNPH Pressure/Temperature Correction Option	NO	
SHT	Surface Hole Temperature	20	DEGC
TNCO_APS	APS TNPH Computation Option	YES	
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)	25	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	-0.000788171	
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	0.960262	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	0.99789	
System and Miscellaneous			
ALTDPC	Name of alternate depth channel	SpeedCorrectedDepth	
RS	Bit Size	11 438	IN











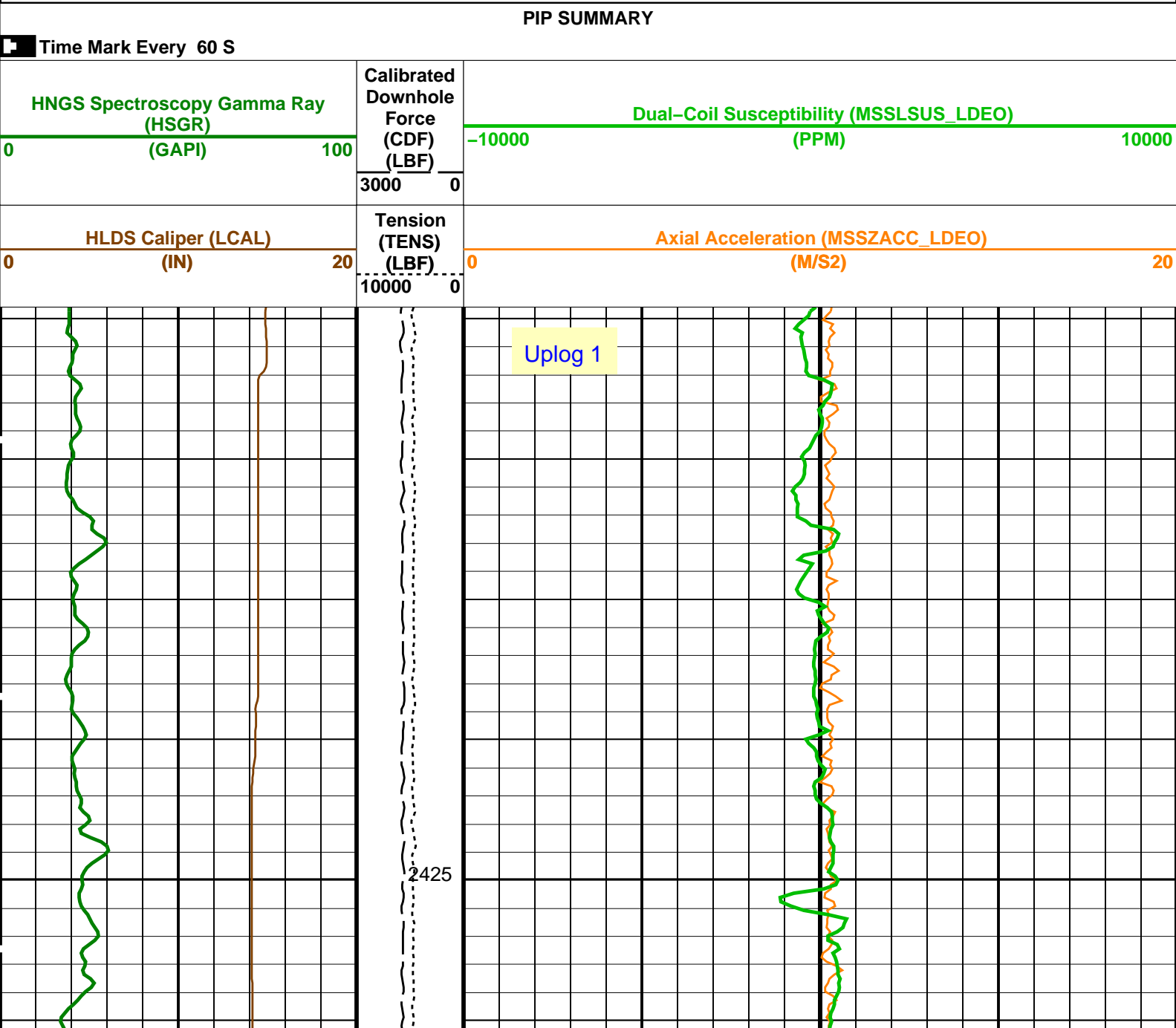
Time Mark Every 60 S

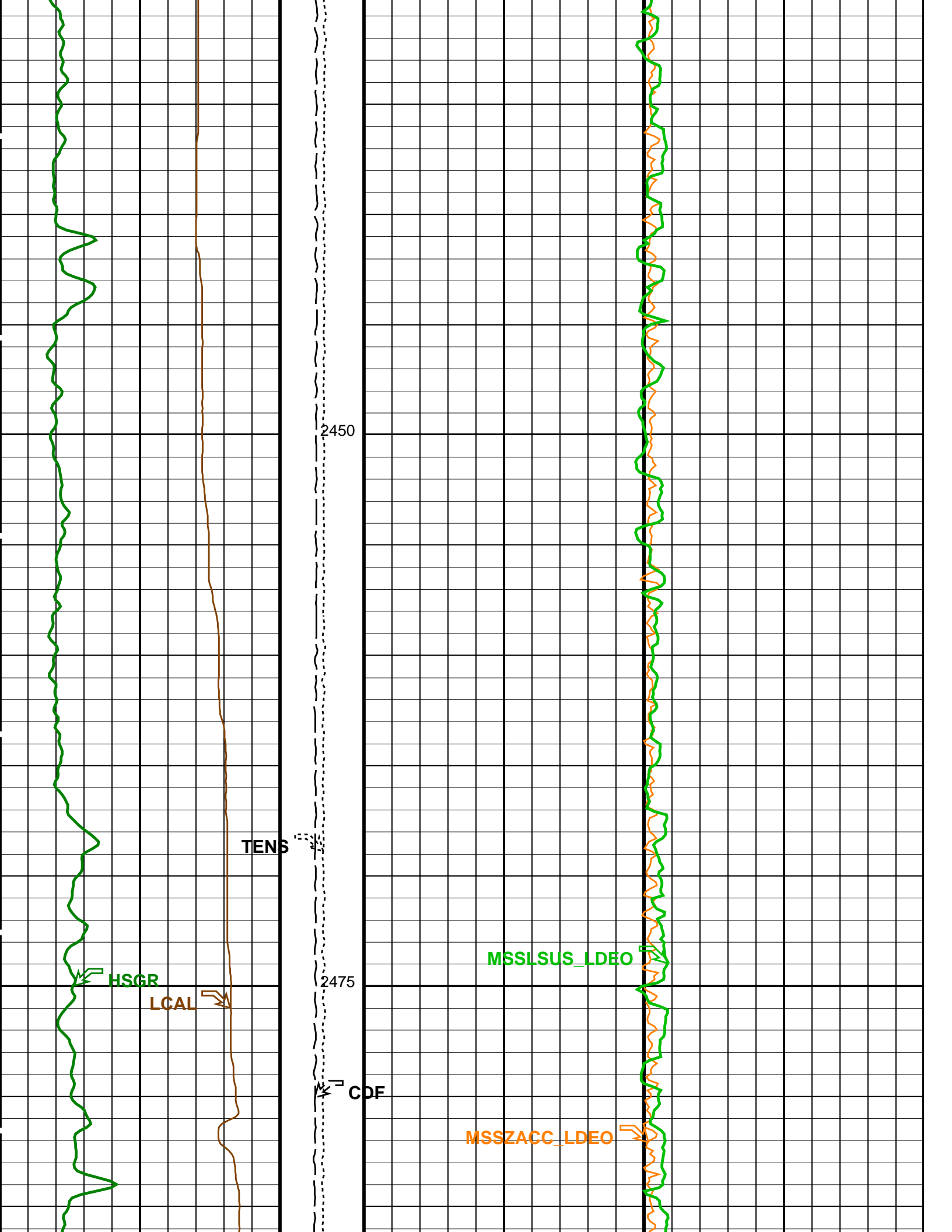
Parameters			
DLIS Name	Description	Value	
HRLT-B: High Resolution Laterolog Array – B			
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	LCAL	
APS-C: Accelerator-Porosity Tool			
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	LCAL	
HNGS-BA: Hostile Natural Gamma Ray Sonde			
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	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	-0.00024032	
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	0.991237	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	1.04941	
System and Miscellaneous			
BS	Bit Size	11.438	IN
DFD	Drilling Fluid Density	1.26	G/C3

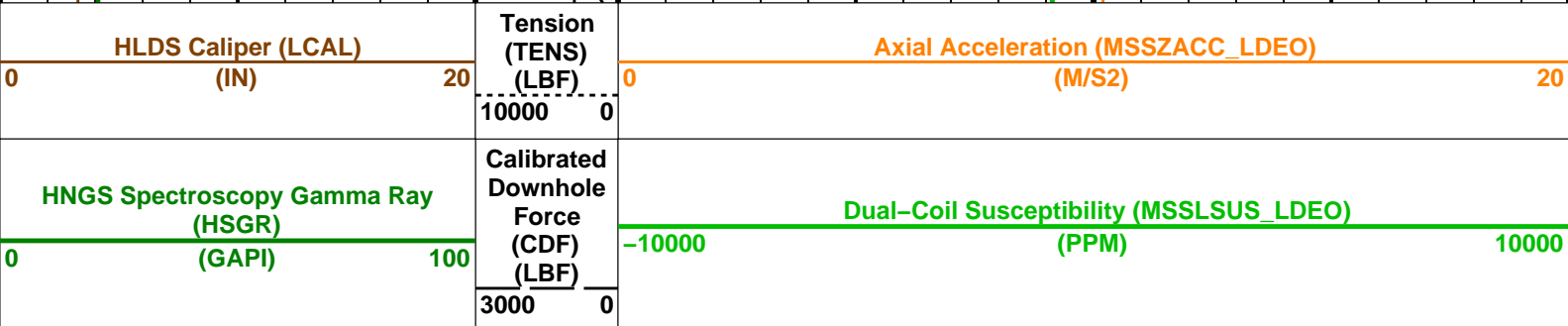
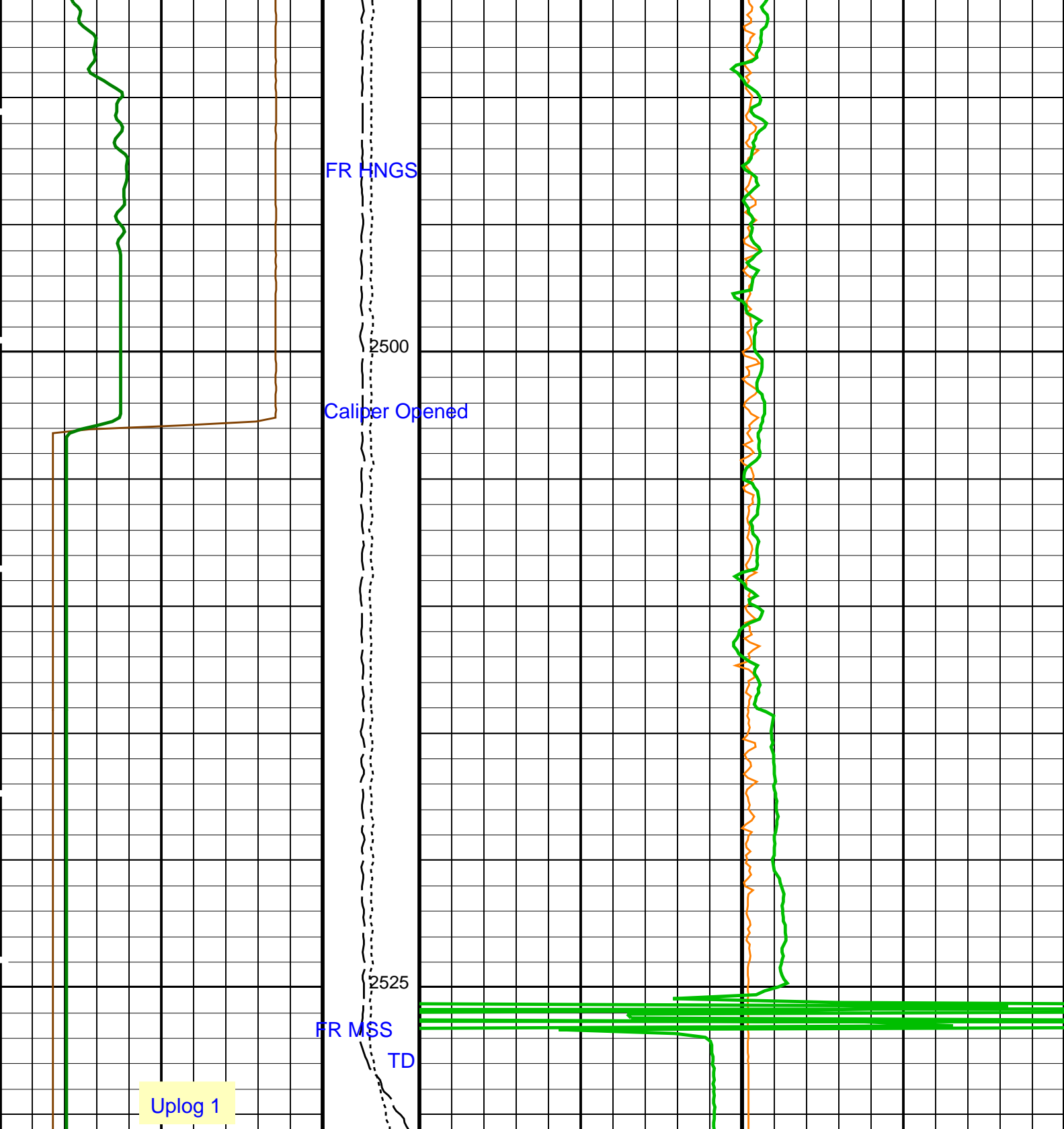
Format: HNGSYields Vertical Scale: 1:200 Graphics File Created: 27-Jun-2021 23:19

APS-C	19C0-187	HNGC-B	19C0-187
HNGS-BA	19C0-187	DTC-H	19C0-187
Output DLIS Files			
DEFAULT	MSS_LDEO_HRLA_LDL_008LUP	FN:11	PRODUCER 27-Jun-2021 23:19
BACKUP	MSS_LDEO_HRLA_LDL_008LUP	FN:12	PRODUCER 27-Jun-2021 23:19

Company: International Ocean Discovery Program				Well: Expedition 395C, Site U1554E			
Output DLIS Files							
DEFAULT	MSS_LDEO_HRLA_LDL_008LUP	FN:11	PRODUCER	27-Jun-2021 23:19	2530.6 M	2404.4 M	
BACKUP	MSS_LDEO_HRLA_LDL_008LUP	FN:12	PRODUCER	27-Jun-2021 23:19	2530.6 M	2404.4 M	
OP System Version: 19C0-187							
MSS_LDEO-A	19C0-187		HRLT-B	19C0-187			
HLDS	19C0-187		LDSC-B	19C0-187			
APS-C	19C0-187		HNGC-B	19C0-187			
HNGS-BA	19C0-187		DTC-H	19C0-187			







PIP SUMMARY

## Parameters

DLIS Name	Description	Value	
HRLT-B: High Resolution Laterolog Array – B			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	25	DEGC
CALSTAT	HRLTB Calibration Status	SHALLOW_DONE	
CALTEMP	HRLTB Calibration Temperature	11.6682	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	AUTO	
LOOPMOD1	HRLT Mode 1 Loop Mode	AUTO	
LOOPMOD2	HRLT Mode 2 Loop Mode	AUTO	
LOOPMOD3	HRLT Mode 3 Loop Mode	AUTO	
LOOPMOD4	HRLT Mode 4 Loop Mode	AUTO	
LOOPMOD5	HRLT Mode 5 Loop Mode	AUTO	
LOOPMOD6	HRLT Mode 6 Loop Mode	AUTO	
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	
PROCSP0	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	OFF	
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	1500	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	
APS-C: Accelerator-Porosity Tool			
	APS Software Version	5	
AASD	APS Thermal and Array Detectors High Voltage Setting	1976.24	V
ADSO	APS Array Detectors Data Source Switch	Both	
AFSD	APS Far Detector High Voltage Setting	2067.55	V
AHCS	APS Holesize Correction Source	GCSE	
AHSS	APS Holesize Correction Switch	ON	
AMTY	APS Environmental Corrections Mud Type	WaterBaseBarite	
ANSD	APS Near Detector High Voltage Setting	1737.8	V
ASOS	APS Standoff Correction Switch	ON	
ATSS	APS Temperature-Pressure-Salinity Correction Switch	ON	
BHFL_APS	APS TNPH Borehole Fluid Type	WATER	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	25	DEGC
BSCO_APS	APS TNPH Borehole Salinity Correction Option	NO	
DPPM	Density Porosity Processing Mode	HIRS	
DSCO_APS	APS TNPH Density Source Correction Option	MEASURED	
FSAL	Formation Salinity	-50000	PPM
FSCO_APS	APS TNPH 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_APS	APS TNPH Hole Size Correction Option	YES	
ISSBAR	Barite Mud Switch	BARITE	

MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
MCCO_APS	APS TNPH Mud Cake Correction Option	YES	
MCOR_APS	APS TNPH Mud Correction	BARI	
MWCO_APS	APS TNPH Mud Weight Correction Option	YES	
NARC	APS Near/Array Calibration Ratio	1.08341	
NFRC	APS Near/Far Calibration Ratio	0.942369	
PTCO_APS	APS TNPH Pressure/Temperature Correction Option	NO	
SHT	Surface Hole Temperature	20	DEGC
TNCO_APS	APS TNPH Computation Option	YES	
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)	25	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	-0.00024032	
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	0.991237	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	1.04941	
System and Miscellaneous			
ALTDCHAN	Name of alternate depth channel	SpeedCorrectedDepth	
BS	Bit Size	11.438	IN
BSAL	Borehole Salinity	38000.00	PPM
CSIZ	Current Casing Size	5.500	IN
CWEI	Casing Weight	168.00	LB/F
DFD	Drilling Fluid Density	1.26	G/C3
FLEV	Fluid Level	-50000.00	M
MST	Mud Sample Temperature	23.00	DEGC
PBVSADP	Use alternate depth channel for playback	NO	
RMFS	Resistivity of Mud Filtrate Sample	-50000.0000	OHMM
RW	Resistivity of Connate Water	1.0000	OHMM
TD	Total Depth	6069.55	FT
TDD	Total Depth - Driller	2528.50	M
TDL	Total Depth - Logger	2528.50	M
TWS	Temperature of Connate Water Sample	37.78	DEGC

Format: MSS\_Logging    Vertical Scale: 1:200    Graphics File Created: 27-Jun-2021 23:19

## OP System Version: 19C0-187

MSS_LDEO-A	19C0-187	HRLT-B	19C0-187
HLDS	19C0-187	LDSC-B	19C0-187
APS-C	19C0-187	HNGC-B	19C0-187
HNGS-BA	19C0-187	DTC-H	19C0-187

## Output DLIS Files

DEFAULT	MSS_LDEO_HRLA_LDL_008LUP	FN:11	PRODUCER	27-Jun-2021 23:19
BACKUP	MSS_LDEO_HRLA_LDL_008LUP	FN:12	PRODUCER	27-Jun-2021 23:19

## Output DLIS Files

DEFAULT	MSS_LDEO_HRLA_LDL_008LUP	FN:11	PRODUCER	27-Jun-2021 23:19	2530.6 M	2404.4 M
BACKUP	MSS_LDEO_HRLA_LDL_008LUP	FN:12	PRODUCER	27-Jun-2021 23:19	2530.6 M	2404.4 M

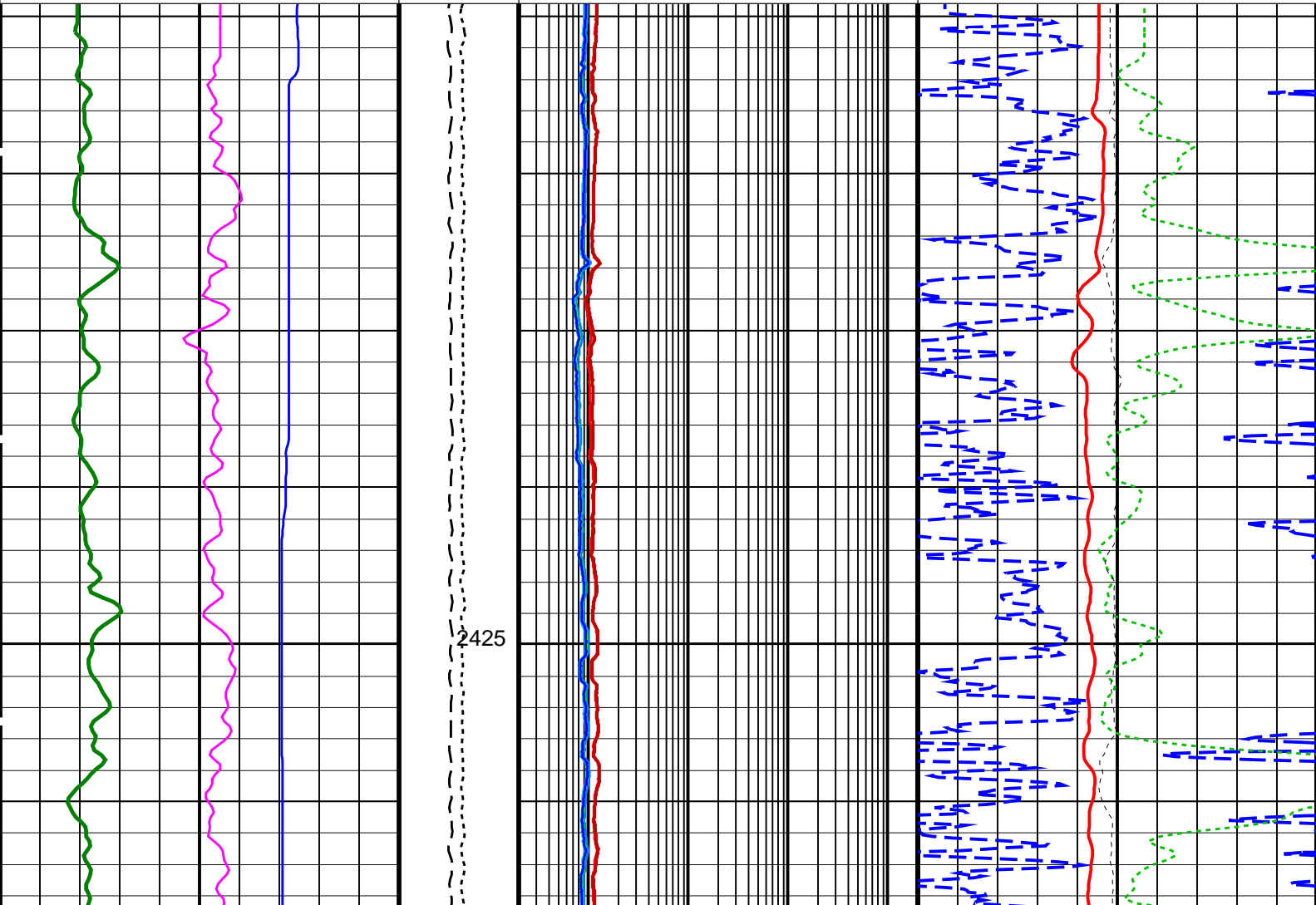
OP System Version: 19C0-187

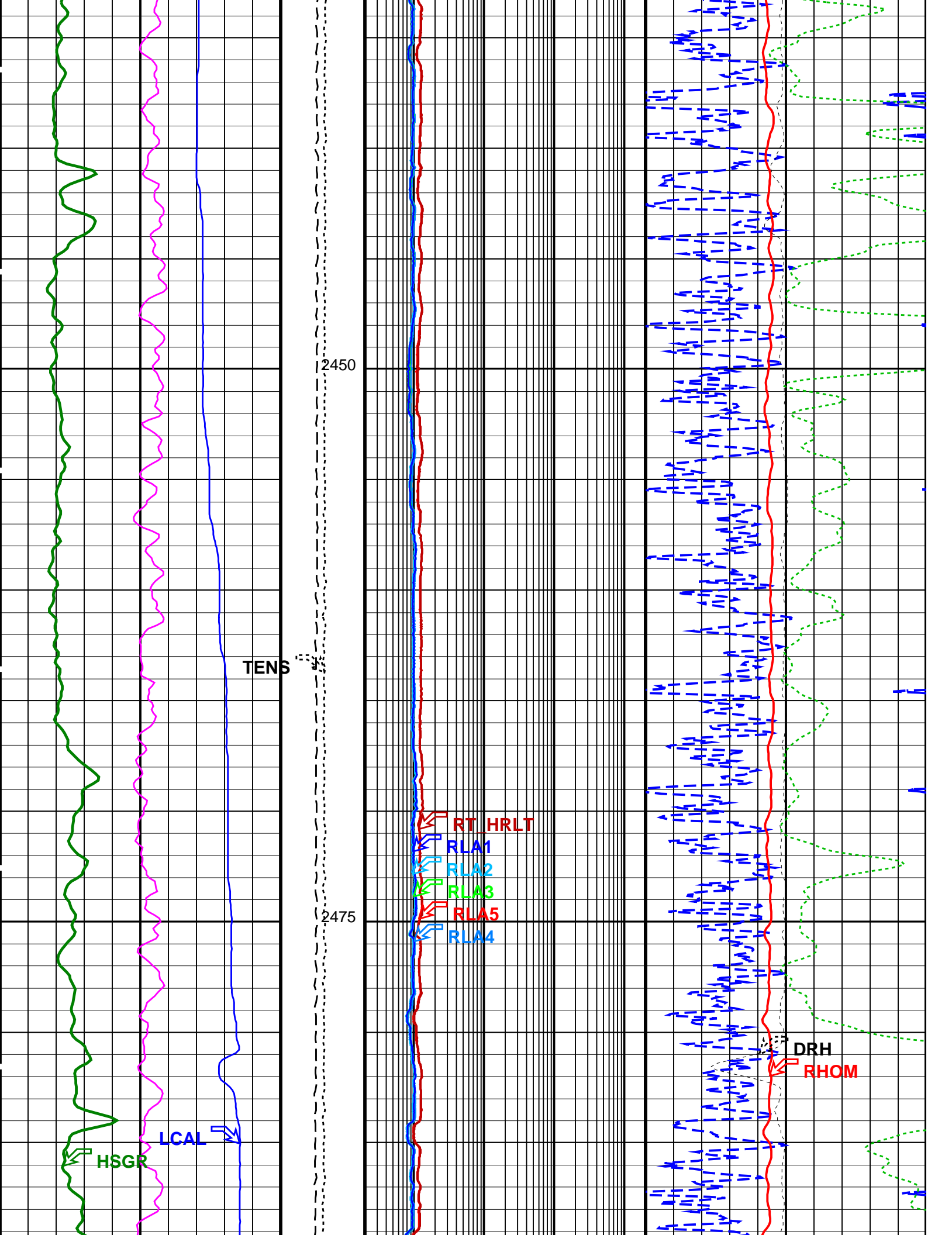
MSS_LDEO-A	19C0-187	HRLT-B	19C0-187
HLDS	19C0-187	LDSC-B	19C0-187
APS-C	19C0-187	HNGC-B	19C0-187
HNGS-BA	19C0-187	DTC-H	19C0-187

PIP SUMMARY

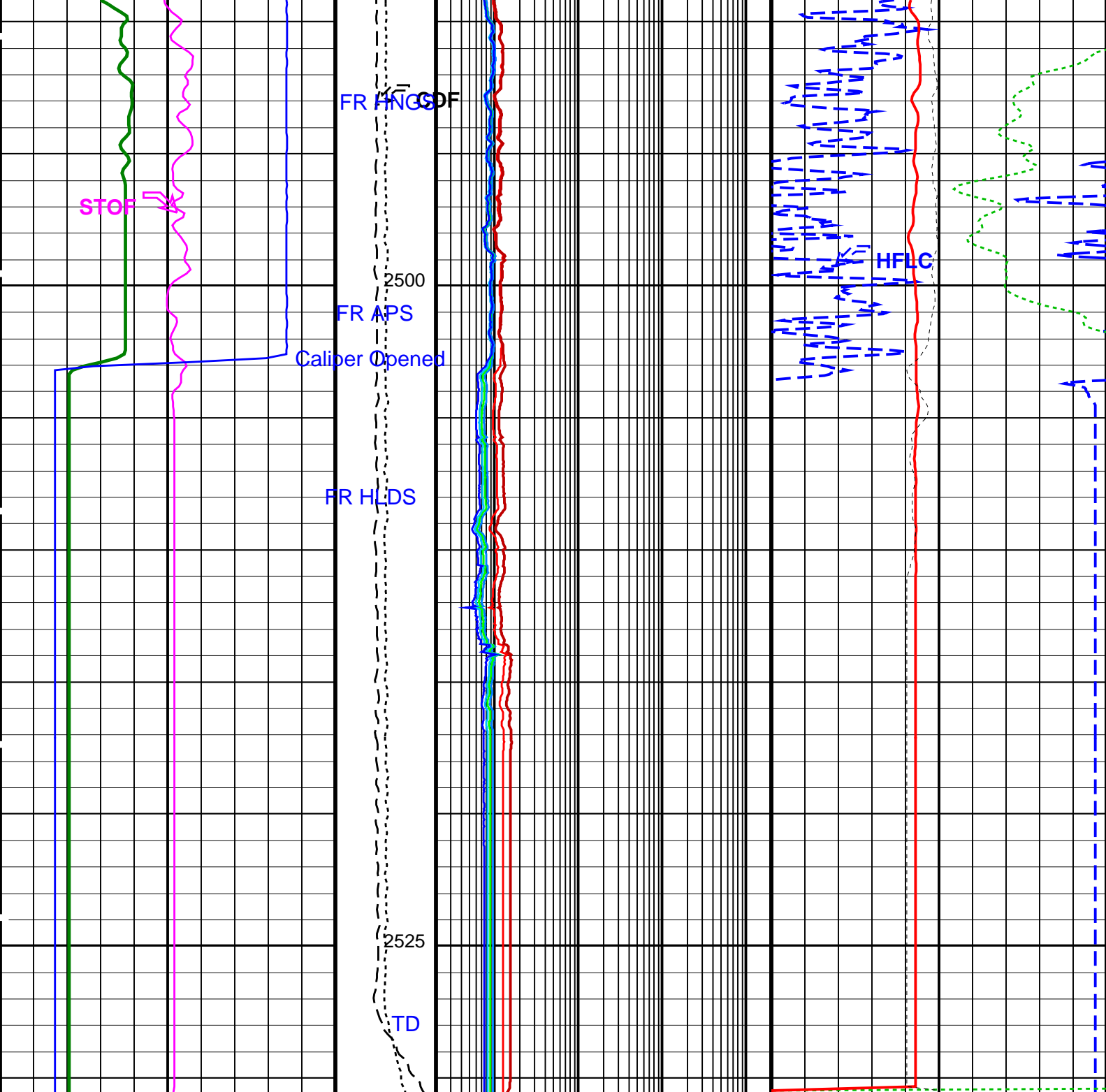
Time Mark Every 60 S

Uplog 1	HRLT True Resistivity (RT_HRLT)		HLDS Bulk Density Correction (DRH)		
	0.2	(OHMM) 2000			
	HRLT Resistivity 1 (RLA1)				
	0.2	(OHMM) 2000			
HRLT Resistivity 2 (RLA2)		-0.25	(G/C3) 0.25		
0.2		(OHMM) 2000			
HRLT Resistivity 3 (RLA3)		HLDS Bulk Density (RHOM)			
0.2		(OHMM) 2000	0	(G/C3) 4	
0.2		(OHMM) 2000			
HRLT Resistivity 5 (RLA5)		HLDS Long Spaced Photoelectric Effect			
0.2		(OHMM) 2000	(PEFL)		
-5		(IN) 5	0		(----) 10
3000		0			
HRLT Resistivity 4 (RLA4)		APS HR Near/Far Corrected Limestone			
0.2		(OHMM) 2000	Porosity (HFLC)		
100		(PU) 0			
10000		0			









<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 2000</p>	<p>APS HR Near/Far Corrected Limestone Porosity (HFLC) (PU)</p> <p>100 0</p>
<p>APS Effective Standoff in Limestone (STOF) (IN)</p> <p>-5 5</p>	<p>Calibrated Downhole Force (CDF) (LBF)</p> <p>3000 0</p>	<p>HRLT Resistivity 5 (RLA5) (OHMM)</p> <p>0.2 2000</p>	<p>HLDS Long Spaced Photoelectric Effect (PEFL) (-----)</p> <p>0 10</p>
<p>HNGS Spectroscopy Gamma Ray (HSGR) (GAPI)</p> <p>0 100</p>		<p>HRLT Resistivity 3 (RLA3) (OHMM)</p> <p>0.2 2000</p>	<p>HLDS Bulk Density (RHOM) (G/C3)</p> <p>0 4</p>
<p>Uplog 1</p>		<p>HRLT Resistivity 2 (RLA2) (OHMM)</p> <p>0.2 2000</p>	<p>HLDS Bulk Density Correction (DRH) (G/C3)</p> <p>-0.25 0.25</p>

	HRLT Resistivity 1 (RLA1)	
0.2	(OHMM)	2000
	HRLT True Resistivity (RT_HRLT)	
0.2	(OHMM)	2000

# PIP SUMMARY

Time Mark Every 60 S

## Parameters

DLIS Name	Description	Value	
HRLT-B: High Resolution Laterolog Array – B			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	25	DEGC
CALSTAT	HRLTB Calibration Status	SHALLOW_DONE	
CALTEMP	HRLTB Calibration Temperature	11.6682	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	AUTO	
LOOPMOD1	HRLT Mode 1 Loop Mode	AUTO	
LOOPMOD2	HRLT Mode 2 Loop Mode	AUTO	
LOOPMOD3	HRLT Mode 3 Loop Mode	AUTO	
LOOPMOD4	HRLT Mode 4 Loop Mode	AUTO	
LOOPMOD5	HRLT Mode 5 Loop Mode	AUTO	
LOOPMOD6	HRLT Mode 6 Loop Mode	AUTO	
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
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	OFF	
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	1500	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	
APS-C: Accelerator-Porosity Tool			
AASD	APS Software Version	5	
ADSO	APS Thermal and Array Detectors High Voltage Setting	1976.24	V
AFSD	APS Array Detectors Data Source Switch	Both	
AHCS	APS Far Detector High Voltage Setting	2067.55	V
AHSS	APS Holesize Correction Source	GCSE	
AMTY	APS Holesize Correction Switch	ON	
ANSO	APS Environmental Corrections Mud Type	WaterBaseBarite	
ATSS	APS Near Detector High Voltage Setting	1737.8	V
BHFL_APS	APS Standoff Correction Switch	ON	
BHT	APS Temperature-Pressure-Salinity Correction Switch	ON	
BHS	APS TNPH Borehole Fluid Type	WATER	
BHT	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	25	DEGC
BSCO_APS	APS TNPH Borehole Salinity Correction Option	NO	

DPPM	Density Porosity Processing Mode	MEASURED	HIRS
DSCO_APS	APS TNPH Density Source Correction Option	NO	
FSAL	Formation Salinity	-50000	PPM
FSCO_APS	APS TNPH 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_APS	APS TNPH Hole Size Correction Option	YES	
ISSBAR	Barite Mud Switch	BARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
MCCO_APS	APS TNPH Mud Cake Correction Option	YES	
MCOA_APS	APS TNPH Mud Correction	BARI	
MWCO_APS	APS TNPH Mud Weight Correction Option	YES	
NARC	APS Near/Array Calibration Ratio	1.08341	
NFRC	APS Near/Far Calibration Ratio	0.942369	
PTCO_APS	APS TNPH Pressure/Temperature Correction Option	NO	
SHT	Surface Hole Temperature	20	DEGC
TNCO_APS	APS TNPH Computation Option	YES	
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)	25	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	-0.00024032	
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	0.991237	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	1.04941	
System and Miscellaneous			
ALTDCHAN	Name of alternate depth channel	SpeedCorrectedDepth	
BS	Bit Size	11.438	IN
BSAL	Borehole Salinity	38000.00	PPM
CSIZ	Current Casing Size	5.500	IN
CWEI	Casing Weight	168.00	LB/F
DFD	Drilling Fluid Density	1.26	G/C3
FLEV	Fluid Level	-50000.00	M
MST	Mud Sample Temperature	23.00	DEGC
PBVSADP	Use alternate depth channel for playback	NO	
RMFS	Resistivity of Mud Filtrate Sample	-50000.0000	OHMM
RW	Resistivity of Connate Water	1.0000	OHMM
TD	Total Depth	6069.55	FT
TDD	Total Depth - Driller	2528.50	M
TDL	Total Depth - Logger	2528.50	M
TWS	Temperature of Connate Water Sample	37.78	DEGC

Format: TripleCombo Vertical Scale: 1:200 Graphics File Created: 27-Jun-2021 23:19

## OP System Version: 19C0-187

MSS_LDEO-A	19C0-187	HRLT-B	19C0-187
HLDS	19C0-187	LDSC-B	19C0-187
APS-C	19C0-187	HNGC-B	19C0-187
HNGS-BA	19C0-187	DTC-H	19C0-187

## Output DLIS Files

DEFAULT MSS\_LDEO\_HRLA\_LDL\_008LUP FN:11 PRODUCER 27-Jun-2021 23:19

Calibration and Check Summary							
Measurement	Nominal	Master	Before	After	Change	Limit	Units
High Resolution Laterolog Array – B Wellsite Calibration – HRLT M01							
Before: 27-Jun-2021 20:41							
HRLT M0–M1 Voltage Plus – 0	0	N/A	–318.6	N/A	N/A	9.681	UV
HRLT M0–M1 Voltage Plus – 1	0	N/A	–329.6	N/A	N/A	9.681	UV
HRLT M0–M1 Voltage Plus – 2	0	N/A	–337.6	N/A	N/A	9.681	UV
HRLT M0–M1 Voltage Plus – 3	0	N/A	–328.2	N/A	N/A	9.681	UV
HRLT M0–M1 Voltage Plus – 4	0	N/A	–319.6	N/A	N/A	9.681	UV
HRLT M0–M1 Voltage Plus – 5	0	N/A	–321.5	N/A	N/A	9.681	UV
HRLT M0–M1 Voltage Plus – 6	0	N/A	318.9	N/A	N/A	9.681	UV
HRLT M0–M1 Voltage Plus – 7	0	N/A	–322.7	N/A	N/A	9.681	UV
High Resolution Laterolog Array – B Wellsite Calibration – HRLT M12							
Before: 27-Jun-2021 20:41							
HRLT M1–M2 Voltage Plus – 0	0	N/A	1739	N/A	N/A	53.42	UV
HRLT M1–M2 Voltage Plus – 1	0	N/A	1806	N/A	N/A	53.42	UV
HRLT M1–M2 Voltage Plus – 2	0	N/A	1843	N/A	N/A	53.42	UV
HRLT M1–M2 Voltage Plus – 3	0	N/A	1790	N/A	N/A	53.42	UV
HRLT M1–M2 Voltage Plus – 4	0	N/A	1742	N/A	N/A	53.42	UV
HRLT M1–M2 Voltage Plus – 5	0	N/A	1753	N/A	N/A	53.42	UV
HRLT M1–M2 Voltage Plus – 6	0	N/A	–1756	N/A	N/A	53.42	UV
HRLT M1–M2 Voltage Plus – 7	0	N/A	1781	N/A	N/A	53.42	UV
High Resolution Laterolog Array – B Wellsite Calibration – HRLT M23							
Before: 27-Jun-2021 20:41							
HRLT M2–M3 Voltage Plus – 0	0	N/A	1732	N/A	N/A	53.42	UV
HRLT M2–M3 Voltage Plus – 1	0	N/A	1809	N/A	N/A	53.42	UV
HRLT M2–M3 Voltage Plus – 2	0	N/A	1848	N/A	N/A	53.42	UV
HRLT M2–M3 Voltage Plus – 3	0	N/A	1798	N/A	N/A	53.42	UV
HRLT M2–M3 Voltage Plus – 4	0	N/A	1744	N/A	N/A	53.42	UV
HRLT M2–M3 Voltage Plus – 5	0	N/A	1757	N/A	N/A	53.42	UV
HRLT M2–M3 Voltage Plus – 6	0	N/A	–1747	N/A	N/A	53.42	UV
HRLT M2–M3 Voltage Plus – 7	0	N/A	1781	N/A	N/A	53.42	UV
High Resolution Laterolog Array – B Wellsite Calibration – HRLT V34							
Before: 27-Jun-2021 20:41							
HRLT A3–A4 Voltage Plus – 0	0	N/A	68590	N/A	N/A	2100	UV
HRLT A3–A4 Voltage Plus – 1	0	N/A	71500	N/A	N/A	2100	UV
HRLT A3–A4 Voltage Plus – 2	0	N/A	73310	N/A	N/A	2100	UV
HRLT A3–A4 Voltage Plus – 3	0	N/A	71610	N/A	N/A	2100	UV
HRLT A3–A4 Voltage Plus – 4	0	N/A	69430	N/A	N/A	2100	UV
HRLT A3–A4 Voltage Plus – 5	0	N/A	69930	N/A	N/A	2100	UV
HRLT A3–A4 Voltage Plus – 6	0	N/A	–68110	N/A	N/A	2100	UV
HRLT A3–A4 Voltage Plus – 7	0	N/A	70000	N/A	N/A	2100	UV
High Resolution Laterolog Array – B Wellsite Calibration – HRLT V45							
Before: 27-Jun-2021 20:41							
HRLT A4–A5 Voltage Plus – 0	0	N/A	68690	N/A	N/A	2100	UV
HRLT A4–A5 Voltage Plus – 1	0	N/A	71700	N/A	N/A	2100	UV
HRLT A4–A5 Voltage Plus – 2	0	N/A	73490	N/A	N/A	2100	UV
HRLT A4–A5 Voltage Plus – 3	0	N/A	71770	N/A	N/A	2100	UV
HRLT A4–A5 Voltage Plus – 4	0	N/A	69540	N/A	N/A	2100	UV
HRLT A4–A5 Voltage Plus – 5	0	N/A	70020	N/A	N/A	2100	UV
HRLT A4–A5 Voltage Plus – 6	0	N/A	–68310	N/A	N/A	2100	UV
HRLT A4–A5 Voltage Plus – 7	0	N/A	70000	N/A	N/A	2100	UV
High Resolution Laterolog Array – B Wellsite Calibration – HRLT V56							
Before: 27-Jun-2021 20:41							
HRLT A5–A6 Voltage Plus – 0	0	N/A	68540	N/A	N/A	2100	UV
HRLT A5–A6 Voltage Plus – 1	0	N/A	71550	N/A	N/A	2100	UV
HRLT A5–A6 Voltage Plus – 2	0	N/A	73360	N/A	N/A	2100	UV
HRLT A5–A6 Voltage Plus – 3	0	N/A	71610	N/A	N/A	2100	UV
HRLT A5–A6 Voltage Plus – 4	0	N/A	69390	N/A	N/A	2100	UV
HRLT A5–A6 Voltage Plus – 5	0	N/A	69900	N/A	N/A	2100	UV
HRLT A5–A6 Voltage Plus – 6	0	N/A	–68150	N/A	N/A	2100	UV
HRLT A5–A6 Voltage Plus – 7	0	N/A	70000	N/A	N/A	2100	UV
High Resolution Laterolog Array – B Wellsite Calibration – HRLT VTP							
Before: 27-Jun-2021 20:41							
HRLT Torpedo–M0 Voltage – 0	0	N/A	–68090	N/A	N/A	2100	UV
HRLT Torpedo–M0 Voltage – 1	0	N/A	–71380	N/A	N/A	2100	UV

HRLT Torpedo-M0 Voltage - 2	0	N/A	-73210	N/A	N/A	2100	UV
HRLT Torpedo-M0 Voltage - 3	0	N/A	-71570	N/A	N/A	2100	UV
HRLT Torpedo-M0 Voltage - 4	0	N/A	-69380	N/A	N/A	2100	UV
HRLT Torpedo-M0 Voltage - 5	0	N/A	-69870	N/A	N/A	2100	UV
HRLT Torpedo-M0 Voltage - 6	0	N/A	67940	N/A	N/A	2100	UV
HRLT Torpedo-M0 Voltage - 7	0	N/A	-70000	N/A	N/A	2100	UV

#### High Resolution Laterolog Array - B Wellsite Calibration - HRLT VBD

Before: 27-Jun-2021 20:41

HRLT Bridle#9-M0 Voltage - 0	0	N/A	-68130	N/A	N/A	2100	UV
HRLT Bridle#9-M0 Voltage - 1	0	N/A	-71470	N/A	N/A	2100	UV
HRLT Bridle#9-M0 Voltage - 2	0	N/A	-73300	N/A	N/A	2100	UV
HRLT Bridle#9-M0 Voltage - 3	0	N/A	-71640	N/A	N/A	2100	UV
HRLT Bridle#9-M0 Voltage - 4	0	N/A	-69420	N/A	N/A	2100	UV
HRLT Bridle#9-M0 Voltage - 5	0	N/A	-69900	N/A	N/A	2100	UV
HRLT Bridle#9-M0 Voltage - 6	0	N/A	68020	N/A	N/A	2100	UV
HRLT Bridle#9-M0 Voltage - 7	0	N/A	-70000	N/A	N/A	2100	UV

#### High Resolution Laterolog Array - B Wellsite Calibration - HRLT ISO

Before: 27-Jun-2021 20:41

HRLT Source Current Plus - 0	0	N/A	284.2	N/A	N/A	8.520	UA
HRLT Source Current Plus - 1	0	N/A	281.1	N/A	N/A	8.520	UA
HRLT Source Current Plus - 2	0	N/A	281.1	N/A	N/A	8.520	UA
HRLT Source Current Plus - 3	0	N/A	281.1	N/A	N/A	8.520	UA
HRLT Source Current Plus - 4	0	N/A	281.1	N/A	N/A	8.520	UA
HRLT Source Current Plus - 5	0	N/A	281.1	N/A	N/A	8.520	UA
HRLT Source Current Plus - 6	0	N/A	281.1	N/A	N/A	8.520	UA
HRLT Source Current Plus - 7	0	N/A	281.1	N/A	N/A	8.520	UA

#### High Resolution Laterolog Array - B Wellsite Calibration - HRLT MV

Before: 27-Jun-2021 20:41

HRLT Vertical Voltage PI - 0	0	N/A	-320.5	N/A	N/A	9.681	UV
HRLT Vertical Voltage PI - 1	0	N/A	-324.5	N/A	N/A	9.681	UV
HRLT Vertical Voltage PI - 2	0	N/A	-331.1	N/A	N/A	9.681	UV
HRLT Vertical Voltage PI - 3	0	N/A	-320.2	N/A	N/A	9.681	UV
HRLT Vertical Voltage PI - 4	0	N/A	-308.8	N/A	N/A	9.681	UV
HRLT Vertical Voltage PI - 5	0	N/A	-325.6	N/A	N/A	9.681	UV
HRLT Vertical Voltage PI - 6	0	N/A	326.6	N/A	N/A	9.681	UV
HRLT Vertical Voltage PI - 7	0	N/A	-322.7	N/A	N/A	9.681	UV

#### Hostile Litho-Density Sonde Wellsite Calibration - Background Measurement

Master: 2-May-2021 7:20 Before: 27-Jun-2021 20:44

SS Cs Resolution Bkg	9.000	7.698	7.715	N/A	N/A	1.800	%
LS Cs Resolution Bkg	9.000	7.989	8.073	N/A	N/A	1.800	%
LSW1 Background	100.0	71.96	71.04	N/A	N/A	3.000	CPS
LSW2 Background	100.0	65.02	64.81	N/A	N/A	3.000	CPS
LSW3 Background	200.0	146.1	145.4	N/A	N/A	6.000	CPS
LSW4 Background	250.0	183.2	182.9	N/A	N/A	7.500	CPS
LSW5 Background	600.0	424.9	424.1	N/A	N/A	18.00	CPS
SSW1 Background	100.0	68.97	68.91	N/A	N/A	3.000	CPS
SSW2 Background	200.0	118.2	117.8	N/A	N/A	6.000	CPS
SSW3 Background	500.0	331.3	329.1	N/A	N/A	15.00	CPS
SSW4 Background	270.0	178.4	179.1	N/A	N/A	8.100	CPS
SSW5 Background	200.0	127.4	126.2	N/A	N/A	6.000	CPS

#### Hostile Litho-Density Sonde Wellsite Calibration - Aluminum Measurement

Master: 2-May-2021 7:46

LSW1 Aluminum	600.0	437.4	N/A	N/A	N/A	N/A	CPS
LSW2 Aluminum	900.0	651.2	N/A	N/A	N/A	N/A	CPS
LSW3 Aluminum	1100	787.2	N/A	N/A	N/A	N/A	CPS
LSW4 Aluminum	580.0	396.8	N/A	N/A	N/A	N/A	CPS
LSW5 Aluminum	570.0	364.1	N/A	N/A	N/A	N/A	CPS
SSW1 Aluminum	2800	2070	N/A	N/A	N/A	N/A	CPS
SSW2 Aluminum	8000	5832	N/A	N/A	N/A	N/A	CPS
SSW3 Aluminum	11600	8191	N/A	N/A	N/A	N/A	CPS
SSW4 Aluminum	5000	3322	N/A	N/A	N/A	N/A	CPS
SSW5 Aluminum	660.0	384.2	N/A	N/A	N/A	N/A	CPS

#### Hostile Litho-Density Sonde Wellsite Calibration - Lithology Measurement

Master: 2-May-2021 7:41

LSW1 Iron	400.0	298.6	N/A	N/A	N/A	N/A	CPS
LSW2 Iron	730.0	524.2	N/A	N/A	N/A	N/A	CPS
LSW3 Iron	1000	699.6	N/A	N/A	N/A	N/A	CPS
LSW4 Iron	520.0	360.1	N/A	N/A	N/A	N/A	CPS
LSW5 Iron	470.0	333.9	N/A	N/A	N/A	N/A	CPS
SSW1 Iron	2100	1520	N/A	N/A	N/A	N/A	CPS
SSW2 Iron	6800	4870	N/A	N/A	N/A	N/A	CPS
SSW3 Iron	10800	7479	N/A	N/A	N/A	N/A	CPS
SSW4 Iron	4600	3030	N/A	N/A	N/A	N/A	CPS
SSW5 Iron	580.0	343.3	N/A	N/A	N/A	N/A	CPS

#### Hostile Litho-Density Sonde Wellsite Calibration - Caliper Calibration

Hostile LHM-Density Sonde Wellsite Calibration – Caliper Calibration							
Before: 2-May-2021 8:12							
HLDS Caliper Small Ring	12.00	N/A	16.10	N/A	N/A	N/A	IN
HLDS Caliper Large Ring	15.19	N/A	20.13	N/A	N/A	N/A	IN
Accelerator-Porosity Tool Wellsite Calibration – Detector Background							
Master: 3-May-2021 6:13 Before: 27-Jun-2021 20:44							
Near Det Bkg Cntrate	30.00	25.16	25.91	N/A	N/A	N/A	CPS
Far Det Bkg Cntrate	30.00	24.05	25.53	N/A	N/A	N/A	CPS
Array-1 Det Bkg Cntrate	30.00	23.15	23.93	N/A	N/A	N/A	CPS
Array-2 Det Bkg Cntrate	30.00	23.93	24.59	N/A	N/A	N/A	CPS
Array Therm Det Bkg Cntrate	30.00	26.33	26.48	N/A	N/A	N/A	CPS
Accelerator-Porosity Tool Wellsite Calibration – Calibration Ratios							
Master: 3-May-2021 6:15							
Near/Far Calibration Ratio	0.9250	0.9424	N/A	N/A	N/A	N/A	
Near/Array Calibration Ratio	1.030	1.083	N/A	N/A	N/A	N/A	
Near/Array Cal Ratio Up/Down	1.000	1.016	N/A	N/A	N/A	N/A	
Accelerator-Porosity Tool Wellsite Calibration – Tank Check							
Master: 3-May-2021 6:16							
Array-1 Standoff Porosity	11.75	11.04	N/A	N/A	N/A	N/A	PU
Array-2 Standoff Porosity	11.75	10.88	N/A	N/A	N/A	N/A	PU
Average Slowing Down Time	6.000	5.997	N/A	N/A	N/A	N/A	US
Array-1 SDT Ratio Up/Down	1.000	0.9943	N/A	N/A	N/A	N/A	
Array-2 SDT Ratio Up/Down	1.000	0.9896	N/A	N/A	N/A	N/A	
Sigma Formation	27.50	27.71	N/A	N/A	N/A	N/A	CU
Accelerator-Porosity Tool Wellsite Calibration – CCR7 signal boxes							
Master: 3-May-2021 5:26							
Near Detector Plateau Setting	1650	1738	N/A	N/A	N/A	N/A	V
Far Detector Plateau Setting	2000	2068	N/A	N/A	N/A	N/A	V
Array Detector Plateau Setting	2000	1976	N/A	N/A	N/A	N/A	V
Hostile Natural Gamma Ray Sonde Wellsite Calibration – Detector 1 Check							
Master: 2-May-2021 10:04 Before: 13-Jun-2021 9:44							
Na 511 Peak Loc	40.00	39.25	39.64	N/A	N/A	1.000	
Na 511 Peak Res	15.50	16.53	14.84	N/A	N/A	2.000	%
High Voltage	1150	1197	1168	N/A	N/A	N/A	V
Na 1785 Peak Loc	142.6	141.8	143.3	N/A	N/A	7.000	
Na 1785 Peak Res	8.500	8.905	7.709	N/A	N/A	2.000	%
Temperature	15.50	26.59	11.69	N/A	N/A	N/A	DEGC
Na Count Rate	45.00	12.01	12.89	N/A	N/A	8.000	CPS
Hostile Natural Gamma Ray Sonde Wellsite Calibration – Detector 2 Check							
Master: 2-May-2021 10:04 Before: 13-Jun-2021 9:44							
Na 511 Peak Loc	40.00	39.88	39.51	N/A	N/A	1.000	
Na 511 Peak Res	15.50	15.29	15.27	N/A	N/A	2.000	%
High Voltage	1150	1122	1090	N/A	N/A	N/A	V
Na 1785 Peak Loc	142.6	142.6	140.8	N/A	N/A	7.000	
Na 1785 Peak Res	8.500	8.040	9.507	N/A	N/A	2.000	%
Temperature	15.50	27.21	12.30	N/A	N/A	N/A	DEGC
Na Count Rate	45.00	12.32	13.60	N/A	N/A	8.000	CPS
Hostile Natural Gamma Ray Sonde Wellsite Calibration – Ratio Of Detector 1 To Detector 2							
Master: 2-May-2021 10:04 Before: 13-Jun-2021 9:44							
Coincidence Count Rate Ratio	1.000	0.9728	0.9527	N/A	N/A	0.05000	
Hostile Natural Gamma Ray Sonde Master Calibration – Detector 1 Calibration							
Master: 2-May-2021 10:00							
Na 511 Peak Set Point	40.00	41.00	--	--	--	--	
Th Peak Loc	209.6	209.6	--	--	--	--	
Th Peak Res	7.000	6.625	--	--	--	--	%
Background Count Rate	142.5	17.82	--	--	--	--	CPS
Gain Ratio	1.000	1.015	--	--	--	--	
Hostile Natural Gamma Ray Sonde Master Calibration – Detector 2 Calibration							
Master: 2-May-2021 10:00							
Na 511 Peak Set Point	40.00	41.00	--	--	--	--	
Th Peak Loc	209.6	208.8	--	--	--	--	
Th Peak Res	7.000	7.662	--	--	--	--	%
Background Count Rate	142.5	16.78	--	--	--	--	CPS
Gain Ratio	1.000	0.9961	--	--	--	--	
Accelerator-Porosity Tool – Detector Plateau Settings :							
Near Detector Plateau Setting	1738 V						
Far Detector Plateau Setting	2068 V						
Array Detector Plateau Setting	1976 V						









# High Resolution Laterolog Array – B / Equipment Identification









Primary Equipment:  
HRLT Sonde









HRLS – B 768

Auxiliary Equipment:  
HRLT lower Housing  
HRLT Lower Cartridge  
HRLT upper Housing  
HRLT Upper Cartridge









HRLH – B 1869  
HRLC – B 1897  
HRUH – B 975  
HRUC – B 964

High Resolution Laterolog Array – B Wellsite Calibration						
HRLT M01						
Idx	Phase	HRLT M0–M1 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		-318.6	-322.7	-280.7	-379.7
1	Before		-329.6	-322.7	-280.7	-379.7
2	Before		-337.6	-322.7	-280.7	-379.7
3	Before		-328.2	-322.7	-280.7	-379.7
4	Before		-319.6	-322.7	-280.7	-379.7
5	Before		-321.5	-322.7	-280.7	-379.7
6	Before		318.9	322.7	379.7	280.7
7	Before		-322.7	-322.7	-280.7	-379.7
(Minimum) (Nominal) (Maximum)						
Before: 27-Jun-2021 20:41						









High Resolution Laterolog Array – B Wellsite Calibration						
HRLT M12						
Idx	Phase	HRLT M1–M2 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		1739	1781	2095	1549
1	Before		1806	1781	2095	1549
2	Before		1843	1781	2095	1549
3	Before		1790	1781	2095	1549
4	Before		1742	1781	2095	1549
5	Before		1753	1781	2095	1549
6	Before		-1756	-1781	-1549	-2095
7	Before		1781	1781	2095	1549
(Minimum) (Nominal) (Maximum)						
Before: 27-Jun-2021 20:41						

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
1	Before		1809	1781	2095	1549
2	Before		1848	1781	2095	1549
3	Before		1798	1781	2095	1549
4	Before		1744	1781	2095	1549
5	Before		1757	1781	2095	1549
6	Before		-1747	-1781	-1549	-2095
7	Before		1781	1781	2095	1549









(Minimum)	(Nominal)	(Maximum)
Before: 27-Jun-2021 20:41		

High Resolution Laterolog Array – B Wellsite Calibration						
HRLT V34						
Idx	Phase	HRLT A3–A4 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		68590	70000	82360	60900
1	Before		71500	70000	82360	60900
2	Before		73310	70000	82360	60900
3	Before		71610	70000	82360	60900
4	Before		69430	70000	82360	60900
5	Before		69930	70000	82360	60900
6	Before		-68110	-70000	-60900	-82360
7	Before		70000	70000	82360	60900
		(Minimum) (Nominal) (Maximum)				




Before: 27-Jun-2021 20:41

High Resolution Laterolog Array – B Wellsite Calibration						
HRLT V45						
Idx	Phase	HRLT A4–A5 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		68690	70000	82360	60900
1	Before		71700	70000	82360	60900
2	Before		73490	70000	82360	60900
3	Before		71770	70000	82360	60900
4	Before		69540	70000	82360	60900
5	Before		70020	70000	82360	60900
6	Before		-68310	-70000	-60900	-82360
7	Before		70000	70000	82360	60900
		(Minimum) (Nominal) (Maximum)				

Before: 27-Jun-2021 20:41

High Resolution Laterolog Array – B Wellsite Calibration						
HRLT V56						
Idx	Phase	HRLT A5–A6 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		68540	70000	82360	60900
1	Before		71550	70000	82360	60900
2	Before		73360	70000	82360	60900
3	Before		71610	70000	82360	60900
4	Before		69390	70000	82360	60900
5	Before		69900	70000	82360	60900
6	Before		-68150	-70000	-60900	-82360
7	Before		70000	70000	82360	60900
		(Minimum) (Nominal) (Maximum)				

Before: 27-Jun-2021 20:41

High Resolution Laterolog Array – B Wellsite Calibration						
HRLT VTP						
Idx	Phase	HRLT Torpedo–M0 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		-68090	-70000	-60900	-82360
1	Before		-71380	-70000	-60900	-82360
2	Before		-73210	-70000	-60900	-82360





# Hostile Litho-Density Sonde / Equipment Identification

## Primary Equipment:

Gamma Source Radioactive  
Hostile Litho Density Sonde  
Hostile Litho Density High Voltage

GSR – ZA 2945  
HLDS – D 77  
HLDV – D 67

## Auxiliary Equipment:

Hostile Litho Density High Voltage Housi  
Hostile Litho Density Pad

HEH – H 67  
HLDP – C 83

## 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		7.698	Master		7.989	Master		71.96
Before		7.715	Before		8.073	Before		71.04
7.000 (Minimum) 9.000 (Nominal) 11.00 (Maximum)			7.000 (Minimum) 9.000 (Nominal) 11.00 (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		65.02	Master		146.1	Master		183.2
Before		64.81	Before		145.4	Before		182.9
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)		
Phase	LSW5 Background CPS	Value	Phase	SSW1 Background CPS	Value	Phase	SSW2 Background CPS	Value
Master		424.9	Master		68.97	Master		118.2
Before		424.1	Before		68.91	Before		117.8
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)		
Phase	SSW3 Background CPS	Value	Phase	SSW4 Background CPS	Value	Phase	SSW5 Background CPS	Value
Master		331.3	Master		178.4	Master		127.4
Before		329.1	Before		179.1	Before		126.2
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)		

Master: 2-May-2021 7:20

Before: 27-Jun-2021 20:44

## 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		71.96	Master		65.02	Master		146.1
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)		
Phase	LSW4 Background CPS	Value	Phase	LSW5 Background CPS	Value	Phase	LS Cs Resolution Bkg %	Value
Master		183.2	Master		424.9	Master		7.989
140.0 (Minimum) 250.0 (Nominal) 360.0 (Maximum)			330.0 (Minimum) 600.0 (Nominal) 830.0 (Maximum)			7.000 (Minimum) 9.000 (Nominal) 11.00 (Maximum)		
Phase	SSW1 Background CPS	Value	Phase	SSW2 Background CPS	Value	Phase	SSW3 Background CPS	Value
Master		68.97	Master		118.2	Master		331.3
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)		
Phase	SSW4 Background CPS	Value	Phase	SSW5 Background CPS	Value	Phase	SS Cs Resolution Bkg %	Value
Master		178.4	Master		127.4	Master		7.698
150.0 (Minimum) 270.0 (Nominal) 380.0 (Maximum)			110.0 (Minimum) 200.0 (Nominal) 270.0 (Maximum)			7.000 (Minimum) 9.000 (Nominal) 11.00 (Maximum)		

Master: 2-May-2021 7:20

## 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		437.4	Master		651.2	Master	<div>EXCEEDS LIMIT</div>	787.2
420.0 (Minimum) 600.0 (Nominal) 770.0 (Maximum)			650.0 (Minimum) 900.0 (Nominal) 1150 (Maximum)			800.0 (Minimum) 1100 (Nominal) 1450 (Maximum)		
Phase	LSW4 Aluminum CPS	Value	Phase	LSW5 Aluminum CPS	Value	Phase	SSW1 Aluminum CPS	Value

Master	EXCEEDS LIMIT	396.8	Master	EXCEEDS LIMIT	364.1	Master		2070
410.0 (Minimum)	580.0 (Nominal)	740.0 (Maximum)	410.0 (Minimum)	570.0 (Nominal)	740.0 (Maximum)	2000 (Minimum)	2800 (Nominal)	3200 (Maximum)
Phase	SSW2 Aluminum CPS	Value	Phase	SSW3 Aluminum CPS	Value	Phase	SSW4 Aluminum CPS	Value
Master		5832	Master	EXCEEDS LIMIT	8191	Master	EXCEEDS LIMIT	3322
5800 (Minimum)	8000 (Nominal)	9300 (Maximum)	8300 (Minimum)	11600 (Nominal)	13500 (Maximum)	3500 (Minimum)	5000 (Nominal)	5800 (Maximum)
Phase	SSW5 Aluminum CPS	Value	HLDS Low counts due to weak source but density not effected.					
Master	EXCEEDS LIMIT	384.2						
430.0 (Minimum)	660.0 (Nominal)	770.0 (Maximum)						
Master: 2-May-2021 7:46								

Hostile Litho–Density Sonde Master Calibration											
Detector Litholog Measurement (bkqd–subtracted)											
Phase	LSW1 Iron CPS		Value	Phase	LSW2 Iron CPS		Value	Phase	LSW3 Iron CPS		Value
Master	<div></div>		298.6	Master	<div></div>		524.2	Master	<div>EXCEEDS LIMIT</div>		699.6
	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	<div>EXCEEDS LIMIT</div>		360.1	Master	<div>EXCEEDS LIMIT</div>		333.9	Master	<div></div>		1520
	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	<div>EXCEEDS LIMIT</div>		4870	Master	<div>EXCEEDS LIMIT</div>		7479	Master	<div>EXCEEDS LIMIT</div>		3030
	4900 (Minimum)	6800 (Nominal)	7900 (Maximum)		7800 (Minimum)	10800 (Nominal)	12600 (Maximum)		3300 (Minimum)	4600 (Nominal)	5400 (Maximum)
Phase	SSW5 Iron CPS		Value	HLDS Low counts due to weak source but density not effected.							
Master	<div>EXCEEDS LIMIT</div>		343.3								
	420.0 (Minimum)	580.0 (Nominal)	680.0 (Maximum)								
Master: 2–May–2021 7:41											

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	<div><div></div></div>		1.035	Master	<div><div></div></div>		2.210	Master	<div><div></div></div>		0.5748	
0.9000 (Minimum)			1.000 (Nominal)	1.100 (Maximum)			1.900 (Minimum)			2.100 (Nominal)	2.300 (Maximum)	
Phase	AL CALIBRATION RATIO 4		Value	Phase	Pad–Wear SS Ratio		Value	Phase	Pad–Wear LS Ratio		Value	
Master	<div><div></div></div>		0.5585	Master	<div><div></div></div>		0.9916	Master	<div><div></div></div>		0.9894	
0.4000 (Minimum)			0.5500 (Nominal)	0.6500 (Maximum)			0.9800 (Minimum)			0.9880 (Nominal)	0.9960 (Maximum)	
Phase	Pad–Position SS Ratio		Value	Phase	Pad–Position LS Ratio		Value					
Master	<div><div></div></div>		1.006	Master	<div><div></div></div>		0.9871					
0.9900 (Minimum)			0.9940 (Nominal)	1.015 (Maximum)			0.9850 (Minimum)					0.9940 (Nominal)
Master: 2–May–2021 7:36												

Litho–Density Spectroscopy Cartridge – B / Equipment Identification		
Primary Equipment:		
LDSC Cartridge	LDSC – B	521
Auxiliary Equipment:		
LDSC Housing	LDSC – A	319

Accelerator–Porosity Tool / Equipment Identification		
Primary Equipment:		
Accelerator–Porosity Sonde	APS – C	249
APS Minitron	MNTR – F	51002
Auxiliary Equipment:		

Accelerator-Porosity Tool Wellsite Calibration														
Detector Background														
Phase	Near Det Bkg Cntrate CPS			Value	Phase	Far Det Bkg Cntrate CPS			Value	Phase	Array-1 Det Bkg Cntrate CPS			Value
Master				25.16	Master				24.05	Master				23.15
Before				25.91	Before				25.53	Before				23.93
1.000 (Minimum)30.00 (Nominal)50.00 (Maximum)					1.000 (Minimum)30.00 (Nominal)50.00 (Maximum)					1.000 (Minimum)30.00 (Nominal)50.00 (Maximum)				
Phase	Array-2 Det Bkg Cntrate CPS			Value	Phase	Array Therm Det Bkg Cntrate CPS			Value					
Master				23.93	Master				26.33					
Before				24.59	Before				26.48					
1.000 (Minimum)30.00 (Nominal)50.00 (Maximum)					1.000 (Minimum)30.00 (Nominal)50.00 (Maximum)									
Master: 3-May-2021 6:13					Before: 27-Jun-2021 20:44									

Accelerator-Porosity Tool Wellsite Calibration														
Calibration Ratios														
Phase	Near/Far Calibration Ratio			Value	Phase	Near/Array Calibration Ratio			Value	Phase	Near/Array Cal Ratio Up/Down			Value
Master				0.9424	Master				1.083	Master				1.016
0.8000 (Minimum)		0.9250 (Nominal)		1.050 (Maximum)	0.9000 (Minimum)		1.030 (Nominal)		1.170 (Maximum)	0.9700 (Minimum)		1.000 (Nominal)		1.030 (Maximum)
Master: 3-May-2021 6:15														

Accelerator-Porosity Tool Wellsite Calibration														
Tank Check														
Phase	Array-1 Standoff Porosity PU			Value	Phase	Array-2 Standoff Porosity PU			Value	Phase	Average Slowing Down Time US			Value
Master				11.04	Master				10.88	Master				5.997
	9.900 (Minimum)	11.75 (Nominal)	13.60 (Maximum)			9.900 (Minimum)	11.75 (Nominal)	13.60 (Maximum)			5.500 (Minimum)	6.000 (Nominal)	6.250 (Maximum)	
Phase	Array-1 SDT Ratio Up/Down			Value	Phase	Array-2 SDT Ratio Up/Down			Value	Phase	Sigma Formation CU			Value
Master				0.9943	Master				0.9896	Master				27.71
	0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)			0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)			20.00 (Minimum)	27.50 (Nominal)	35.00 (Maximum)	
Master: 3-May-2021 6:16														

Accelerator–Porosity Tool Master Calibration											
Detector Calibration											
Phase	Near/Far Calibration Ratio		Value	Phase	Near/Array Calibration Ratio		Value	Phase	Near/Array Cal Ratio Up/Down		Value
Master			0.9424	Master			1.083	Master			1.016
0.8000 (Minimum)			0.9250 (Nominal)	1.050 (Maximum)			0.9000 (Minimum)			1.030 (Nominal)	1.170 (Maximum)
Master: 3–May–2021 6:15											

Accelerator–Porosity Tool Master Calibration														
Tank Check														
Phase	Array–1 Standoff Porosity PU			Value	Phase	Array–2 Standoff Porosity PU			Value	Phase	Average Slowing Down Time US			Value
Master				11.04	Master				10.88	Master				5.997
	9.900 (Minimum)	11.75 (Nominal)	13.60 (Maximum)			9.900 (Minimum)	11.75 (Nominal)	13.60 (Maximum)			5.500 (Minimum)	6.000 (Nominal)	6.250 (Maximum)	
Phase	Array–1 SDT Ratio Up/Down			Value	Phase	Array–2 SDT Ratio Up/Down			Value	Phase	Sigma Formation CU			Value
Master				0.9943	Master				0.9896	Master				27.71
	0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)			0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)			20.00 (Minimum)	27.50 (Nominal)	35.00 (Maximum)	
Master: 3-May-2021 6:16														

## Hostile Natural Gamma Ray Cartridge – B / Equipment Identification

Primary Equipment:  
HNGC Cartridge

HNGC – B



304






Auxiliary Equipment:

Hostile Natural Gamma Ray Sonde / Equipment Identification		
Primary Equipment: HNGS Sonde	HNGS – BA	99
Auxiliary Equipment: HNGS Sonde Housing	HNSH – BA	102
Gamma Source Radioactive	GSR – U	6098

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	<div><div></div></div>		39.25	Master	<div><div></div></div>		16.53	Master	<div><div></div></div>		1197
Before	<div><div></div></div>		39.64	Before	<div><div></div></div>		14.84	Before	<div><div></div></div>		1168
37.50 (Minimum) 40.00 (Nominal) 43.50 (Maximum)				12.00 (Minimum) 15.50 (Nominal) 19.00 (Maximum)				900.0 (Minimum) 1150 (Nominal) 1600 (Maximum)			
Phase	Na 1785 Peak Loc		Value	Phase	Na 1785 Peak Res %		Value	Phase	Temperature DEGC		Value
Master	<div><div></div></div>		141.8	Master	<div><div></div></div>		8.905	Master	<div><div></div></div>		26.59
Before	<div><div></div></div>		143.3	Before	<div><div></div></div>		7.709	Before	<div><div></div></div>		11.69
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	<div><div></div></div>		12.01								
Before	<div><div></div></div>		12.89								
10.00 (Minimum) 45.00 (Nominal) 100.0 (Maximum)											
Master: 2-May-2021 10:04				Before: 13-Jun-2021 9:44							

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	<div><div></div></div>		39.88	Master	<div><div></div></div>		15.29	Master	<div><div></div></div>		1122
Before	<div><div></div></div>		39.51	Before	<div><div></div></div>		15.27	Before	<div><div></div></div>		1090
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	<div><div></div></div>		142.6	Master	<div><div></div></div>		8.040	Master	<div><div></div></div>		27.21
Before	<div><div></div></div>		140.8	Before	<div><div></div></div>		9.507	Before	<div><div></div></div>		12.30
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	<div><div></div></div>		12.32								
Before	<div><div></div></div>		13.60								
10.00 (Minimum)45.00 (Nominal)100.0 (Maximum)											
Master: 2-May-2021 10:04				Before: 13-Jun-2021 9:44							

Hostile Natural Gamma Ray Sonde Wellsite Calibration		
Ratio Of Detector 1 To Detector 2		
Phase	Coincidence Count Rate Ratio	Value
Master		0.9728
Before		0.9527
	0.9500 (Minimum)	1.000 (Nominal)
		1.050 (Maximum)
Master: 2-May-2021 10:04		
Before: 13-Jun-2021 9:44		

Detector 1 Calibration											
Phase	Na 511 Peak Set Point		Value	Phase	Th Peak Loc		Value	Phase	Th Peak Res %		Value
Master			41.00	Master			209.6	Master			6.625
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			17.82	Master			1.015				
10.00 (Minimum)      142.5 (Nominal)      265.0 (Maximum)				0.9400 (Minimum)      1.000 (Nominal)      1.060 (Maximum)							
Master: 2-May-2021 10:00											

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	<div><div></div></div>		41.00	Master	<div><div></div></div>		208.8	Master	<div><div></div></div>		7.662
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	<div><div></div></div>		16.78	Master	<div><div></div></div>		0.9961				
10.00 (Minimum)      142.5 (Nominal)      265.0 (Maximum)				0.9400 (Minimum)      1.000 (Nominal)      1.060 (Maximum)							
Master: 2-May-2021 10:00											

DTS Telemetry Tool / Equipment Identification		
Primary Equipment:		
DTC-H Auxiliary Cartridge	DTCH – A	8799
DTC-H Telemetry Cartridge	DTCH – A	8799
Auxiliary Equipment:		
DTCH Telemetry Cartridge Housing	ECH – KC	9842

Company: **International Ocean Discovery Program**

**Schlumberger**

Well: **Expedition 395C, Site U1554E**  
Field: **North Atlantic Mantle Convection&Climate**  
Rig: **JOIDES Resolution**  
Ocean: **Atlantic**

High Resolution Laterolog (HRLA)  
Litho Density (HLDS) / (APS) Porosity  
Natural Gamma / MSS (HNGS)