

Well: **Expedition 402, Site U1617A**  
Field: **Tyrrhenian Continent–Ocean Transition**  
Rig: **JOIDES Resolution** Country: **Italy**

Rig:	JOIDES Resolution	High Resolution Laterolog (HRLA) / HLDS			
Field:	Tyrrhenian Continent–Ocean Transect	Magnetic Susceptibility (MSS)			
Location:	Latitude: N 40° 00.0211'	Natural Gamma / MSS (HNGS)			
Well:	Expedition 402, Site U1617A				
Company:	International Ocean Discovery Program				
LOCATION		Latitude: N 40° 00.0211'		Elev.:	K.B. 0.00 m
		Longitude: E 13° 24.4662'			G.L. –2833.60 m
					D.F. 0.00 m
		Permanent Datum: Sea Floor		Elev.:	–2833.60 m
		Log Measured From: Rig Floor		2833.60 m above Perm. Datum	
		Drilling Measured From: Rig Floor			
Ocean: Mediterranean		Max. Well Deviation 5 deg		Longitude E 13.40777*	Latitude N 40.00035*

Logging Date			16-Mar-2024					
Run Number			1					
Depth Driller			3173.6 m					
Schlumberger Depth			3004 m					
Bottom Log Interval			3004 m					
Top Log Interval			2833.6 m					
Casing Driller Size @ Depth			5.500 in @ 2985.3 m			@		
Casing Schlumberger			2985.3 m					
Bit Size			9.875 in					
Type Fluid In Hole			Sea Water					
MUD	Density	Viscosity	1.023 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	0.369 @ 5	@ 5	@	@		
Maximum Recorded Temperatures			5 degC					
Circulation Stopped		Time	16-Mar-2024		1:00			
Logger On Bottom		Time	16-Mar-2024		12:20			
Unit Number		Location	627314  Larose, LA					
Recorded By			C. Furman					
Witnessed By			K. Grigar					

[illegible]





Run 3	Run 4

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

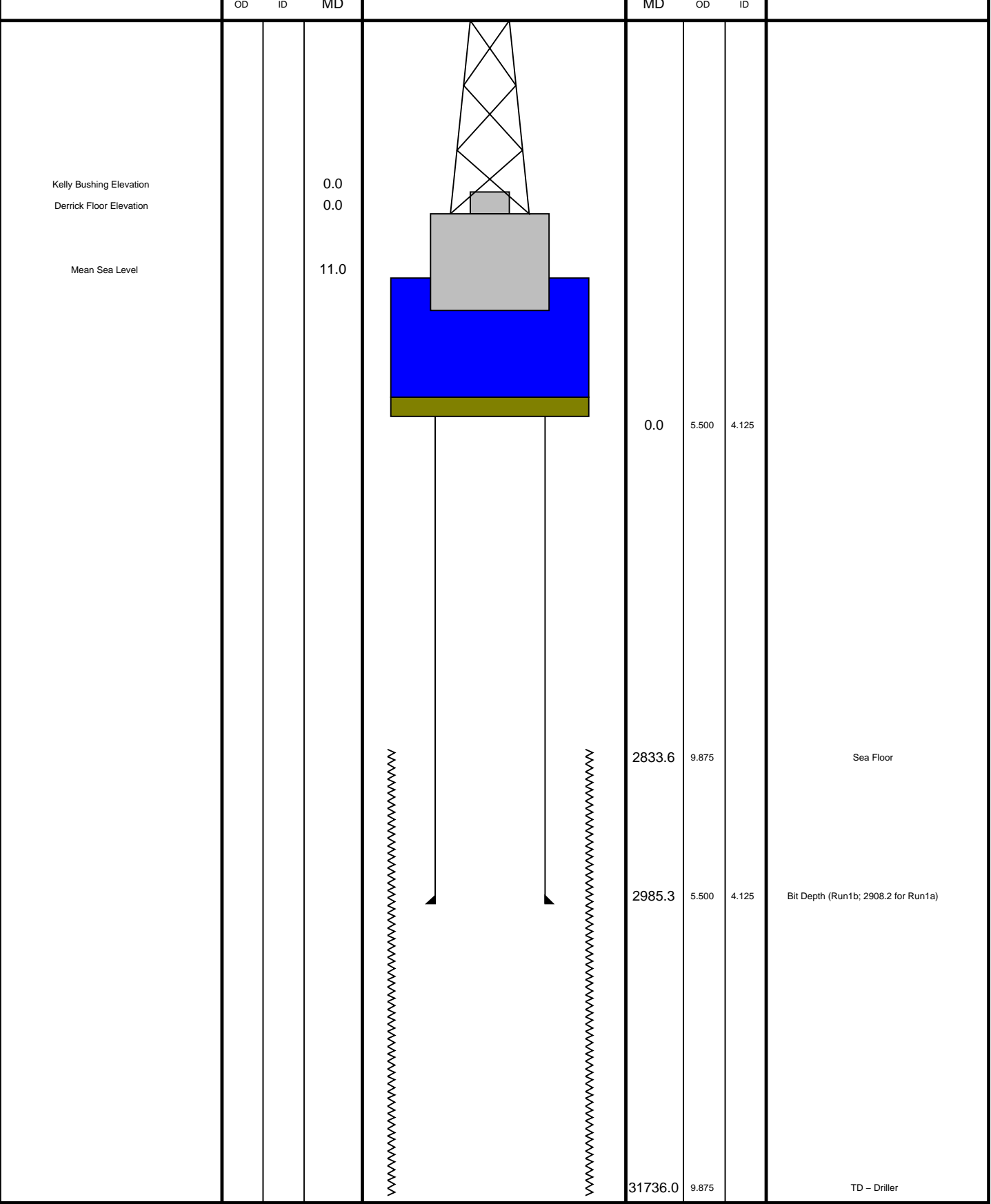
Drill pipe set at 2908.2 mbsf (75.5 mbsf) for Run1a
Tools hung up at 2969mbrf (135mbsf), so the decision was to pull out, move the pipe down, and try again.
Drill pipe set at 2985.3 mbrf (151.7 mbsf) for Run2a; tools hung up immediately outside of bit; logging had to be aborted.
Depth recorded from drill floor; logs presented as-logged without depth corrections or shifts, as per client instructions.
All logs presented in wireline measured depth below rig floor (MDBRF).
Caliper closed for down log, as it cannot be used in that direction, so Density measurement are NOT valid.
Caliper was NOT open for upward passes due to proximity to pipe (Run1a) / already being in pipe (Run1b)
Active heave compensator available but not used due to lack of heave during logging.

RUN 1			RUN 2		
SERVICE ORDER #: PROGRAM VERSION: 19C0-187 FLUID LEVEL:			SERVICE ORDER #: PROGRAM VERSION: FLUID LEVEL:		
LOGGED INTERVAL	START	STOP	LOGGED INTERVAL	START	STOP

RUN 1 RUN 2

SURFACE EQUIPMENT			
GSR-U 135			
WITM (EDTS)-A			
<hr/>			
DOWNHOLE EQUIPMENT			
LEH-PT			33.29
LEH-PT 1060			
AH-233	MDSB_EDTC		32.35
AH-369	Mud Tempe		31.54
EDTC B	CTEM		30.48
	Gamma Ray		29.91







First Attempt Downlog  
Scale 1:100

MAXIS Field Log

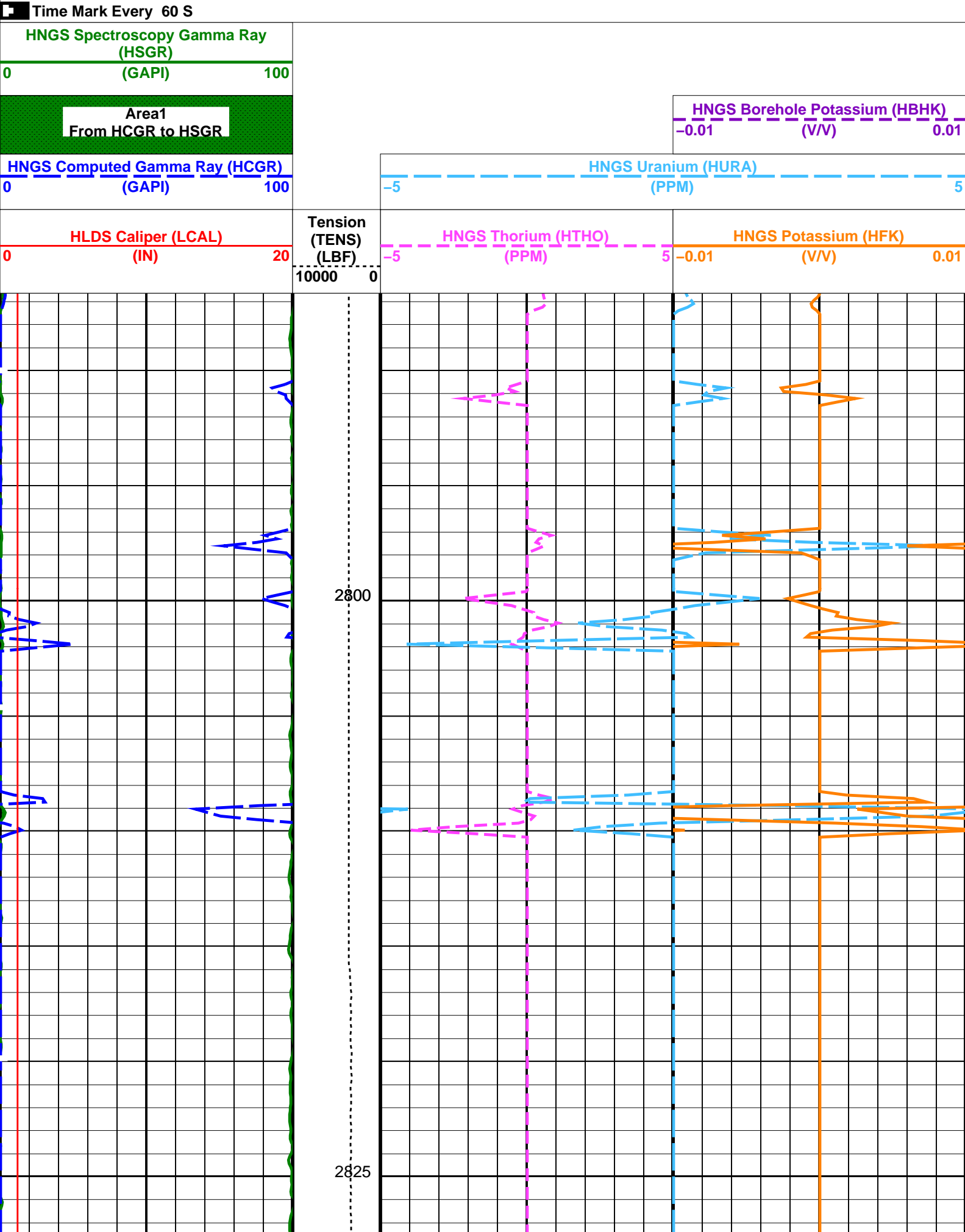
Company: International Ocean Discovery Program Well: Expedition 402, Site U1617A

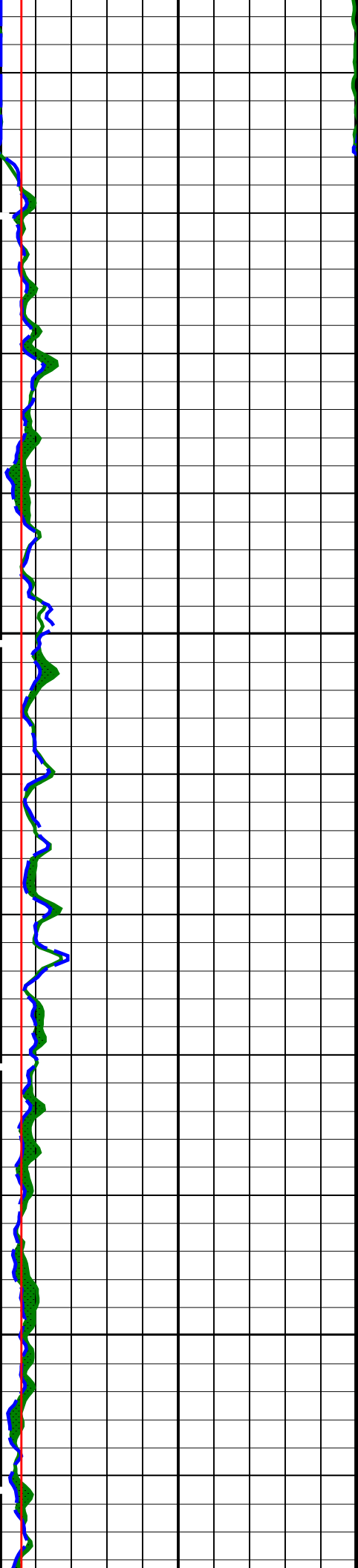
Input DLIS Files						
DEFAULT	Flip_MSS_LDEO_HRLA_021LUP	PRODUCER	16-Mar-2024 13:30	2970.9 M	2786.6 M	
Output DLIS Files						
DEFAULT	MSS_LDEO_HRLA_LDL_023PUP	FN:16	PRODUCER	16-Mar-2024 13:31	2970.9 M	2786.6 M
RTB	MSS_LDEO_HRLA_LDL_023PUP	FN:17	PRODUCER	16-Mar-2024 13:31	2970.9 M	2786.6 M

OP System Version: 19C0-187

MSS_LDEO-A	19C0-187	HRLT-B	19C0-187
HLDS	19C0-187	LDSC-B	19C0-187
HNGC-B	19C0-187	HNGS-BA	19C0-187

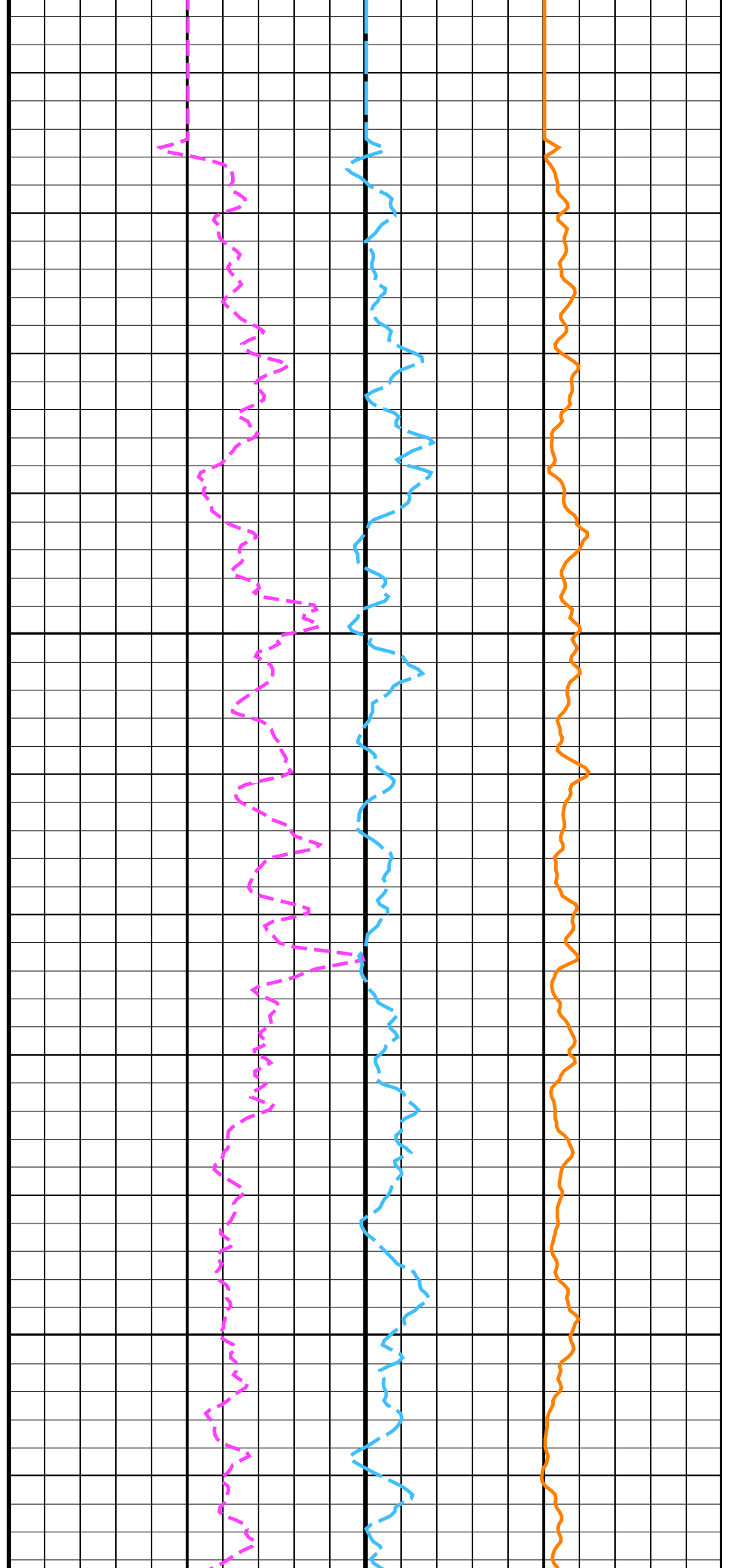
PIP SUMMARY

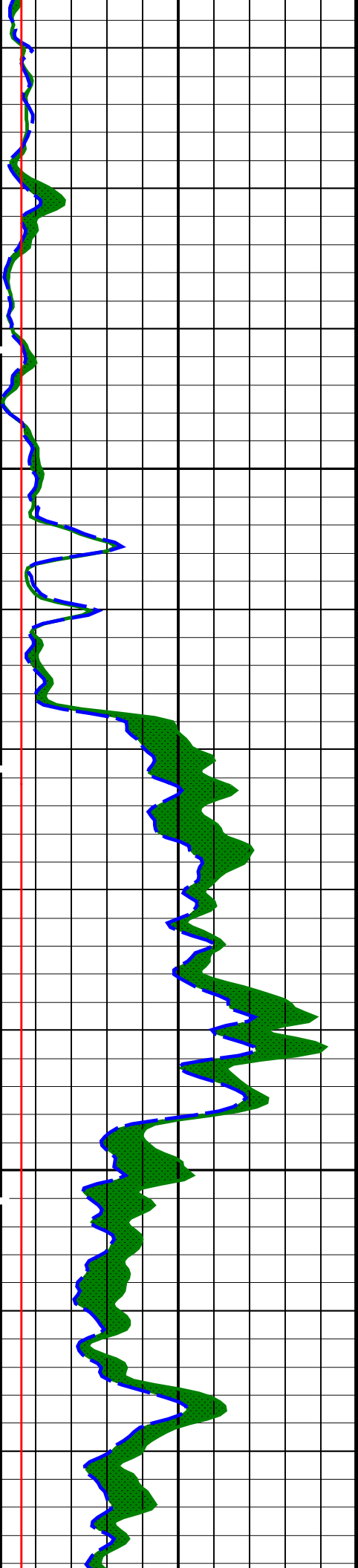




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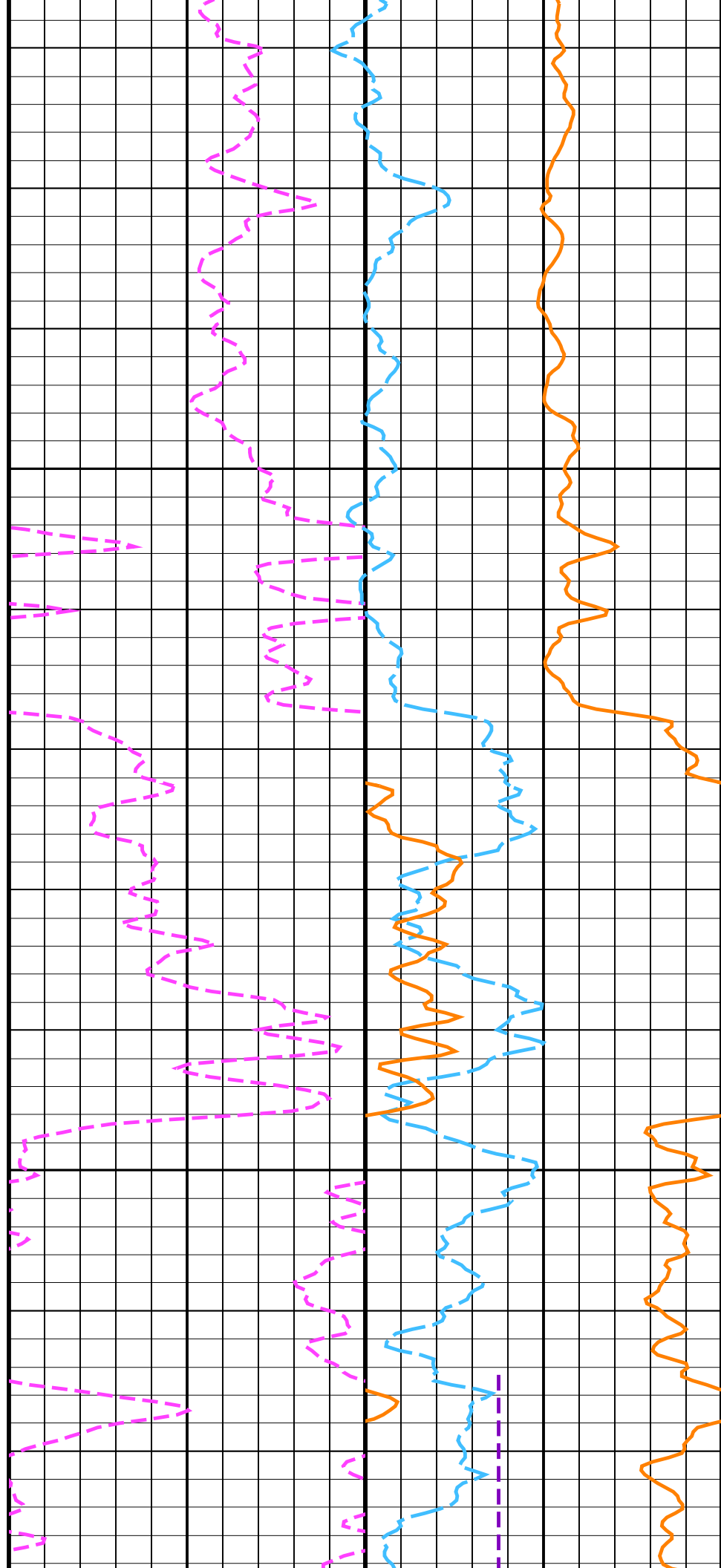
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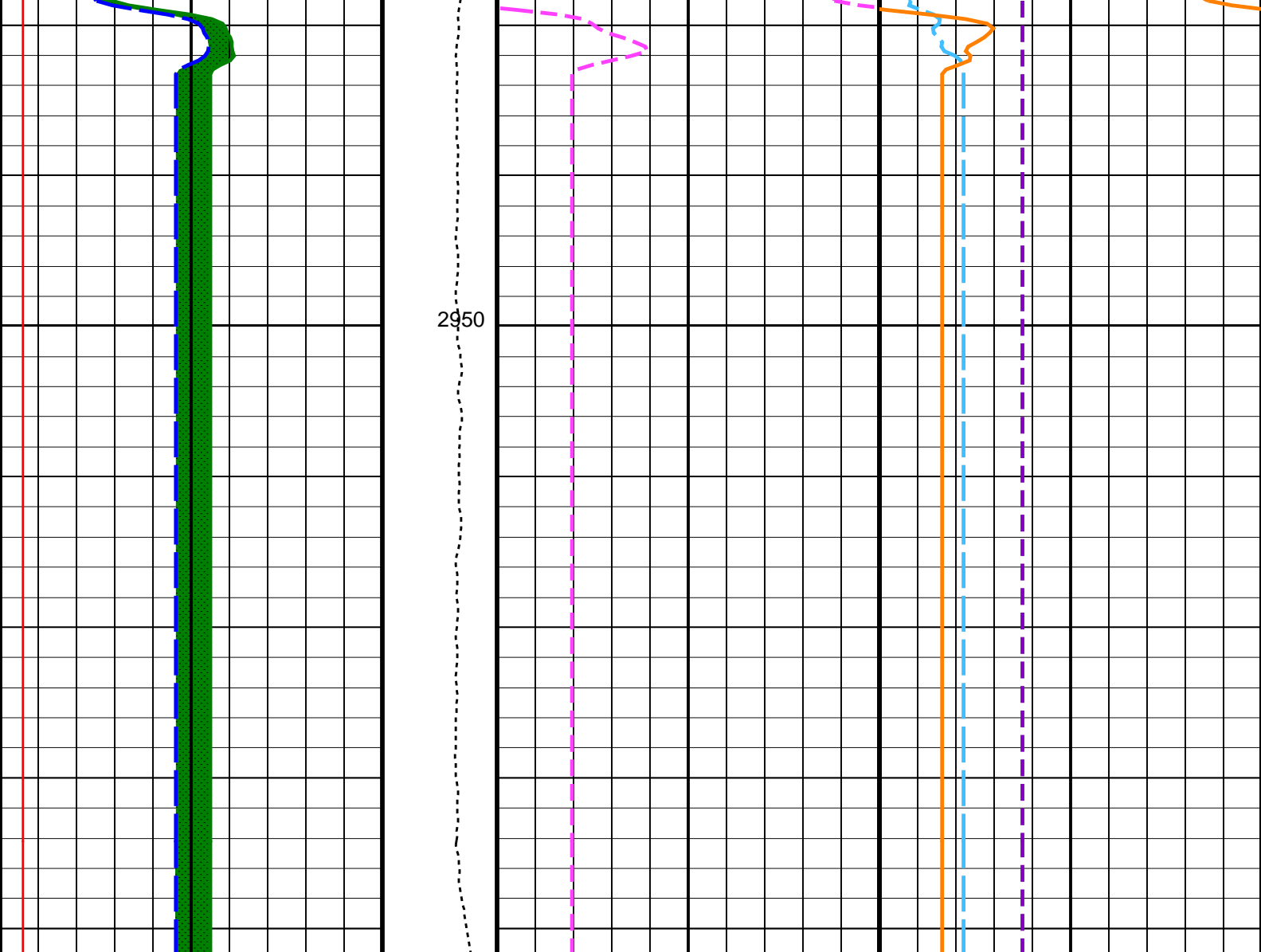


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HLDS Caliper (LCAL) (IN)		0	20
HNGS Computed Gamma Ray (HCGR) (GAPI)		0	100
Area1 From HCGR to HSGR			
HNGS Spectroscopy Gamma Ray (HSGR) (GAPI)		0	100
Tension (TENS) (LBF)		10000	0
HNGS Thorium (HTHO) (PPM)		-5	5
HNGS Potassium (HFK) (V/V)		-0.01	0.01
HNGS Uranium (HURA) (PPM)		-5	5
HNGS Borehole Potassium (HBHK) (V/V)		-0.01	0.01

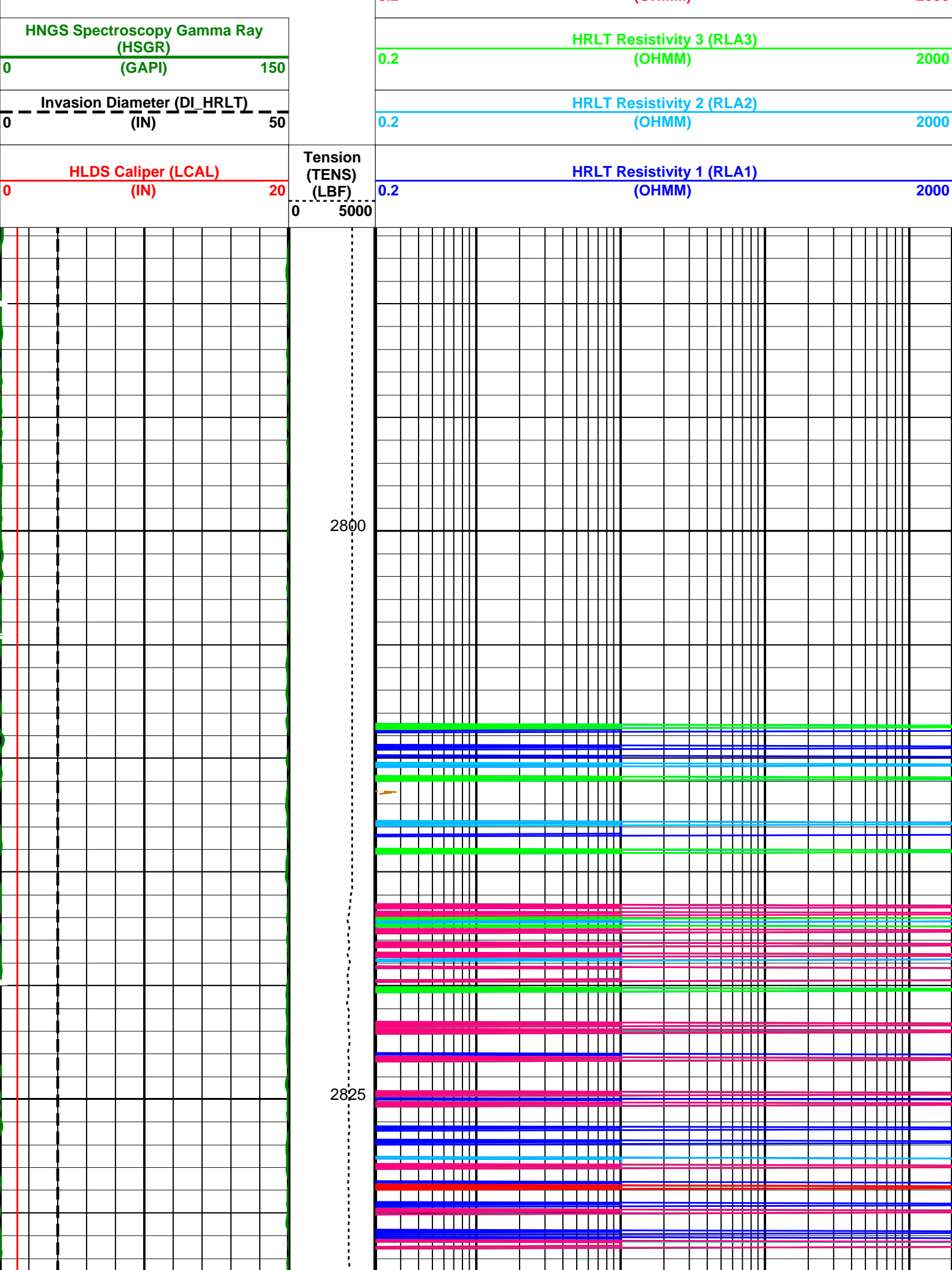
#### PIP SUMMARY

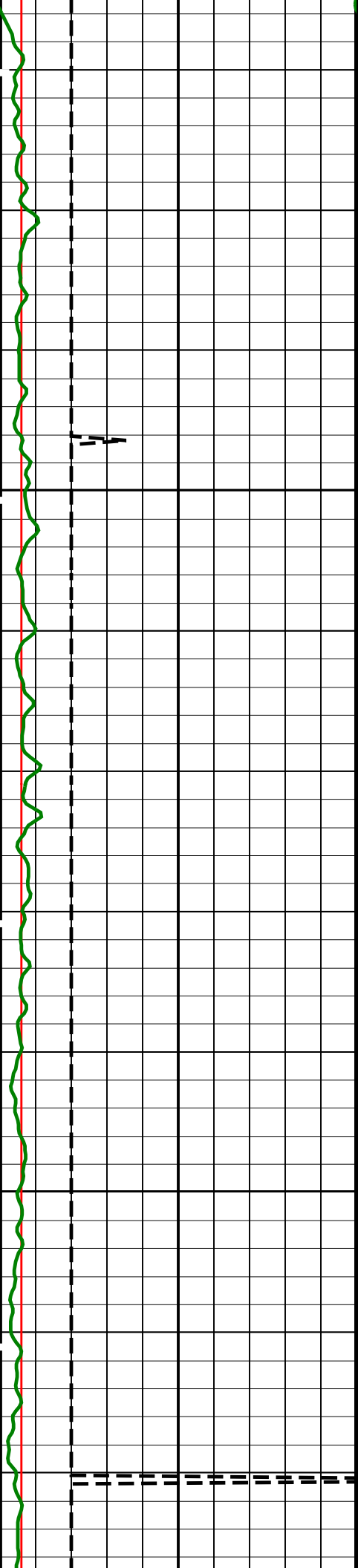
Time Mark Every 60 S

### Parameters

DLIS Name	Description	Value	
BHS	HRLT-B: High Resolution Laterolog Array – B		
GCSE	Borehole Status	OPEN	BS
	Generalized Caliper Selection		
	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

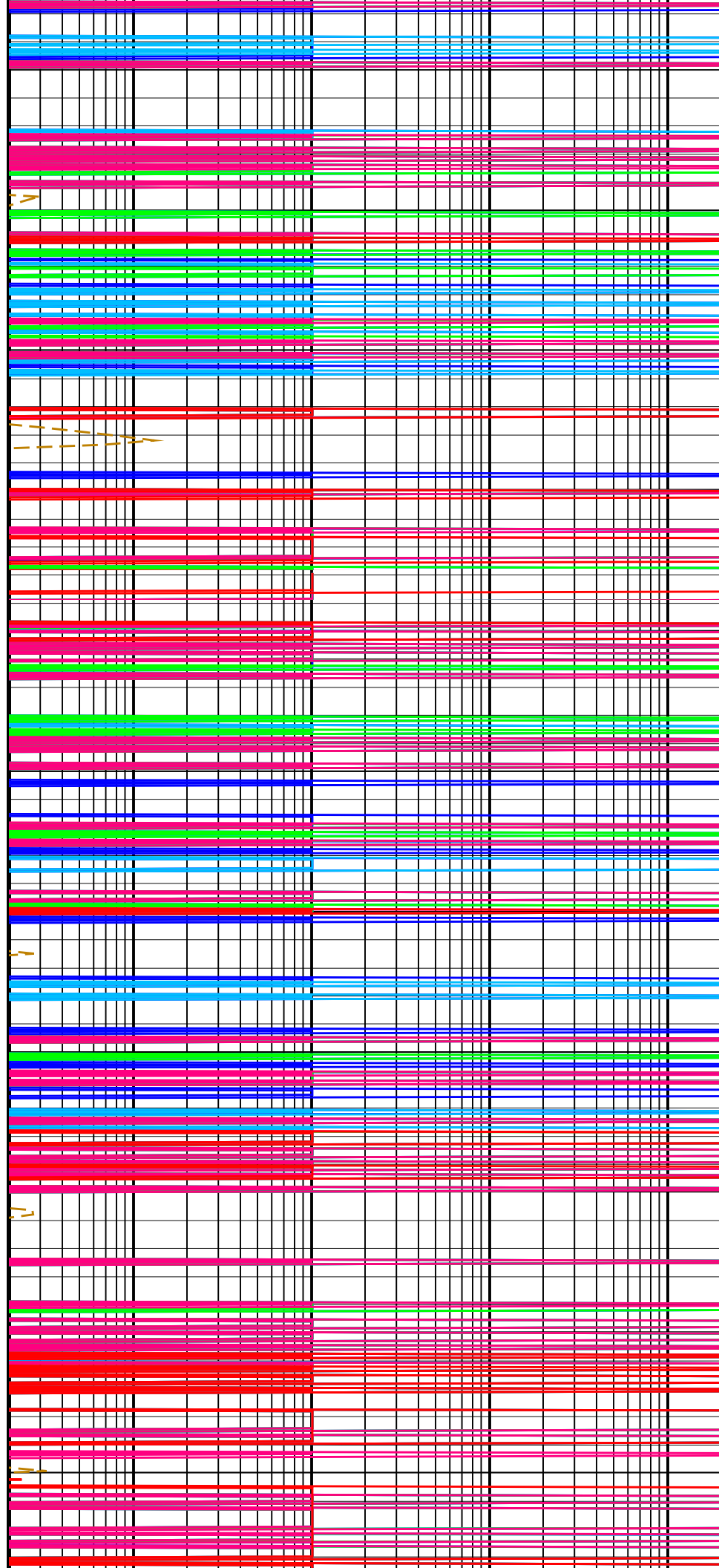
	HRLT Mud Resistivity (RM_HRLT)
	0.02 (OHMM) 200
	HRLT Resistivity 5 (RLA5)
	0.2 (OHMM) 2000
	HRLT Resistivity 4 (RLA4)
	0.2 (OHMM) 2000

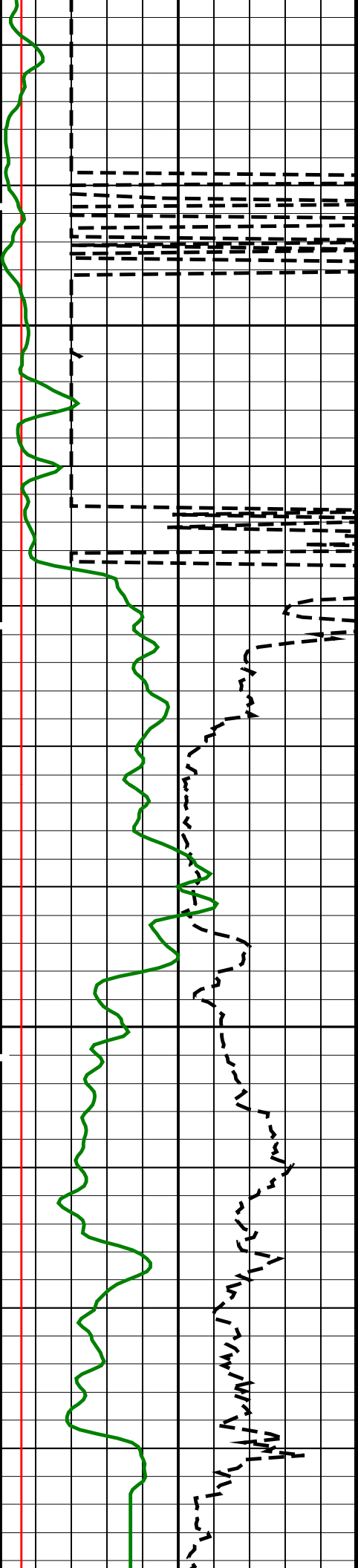




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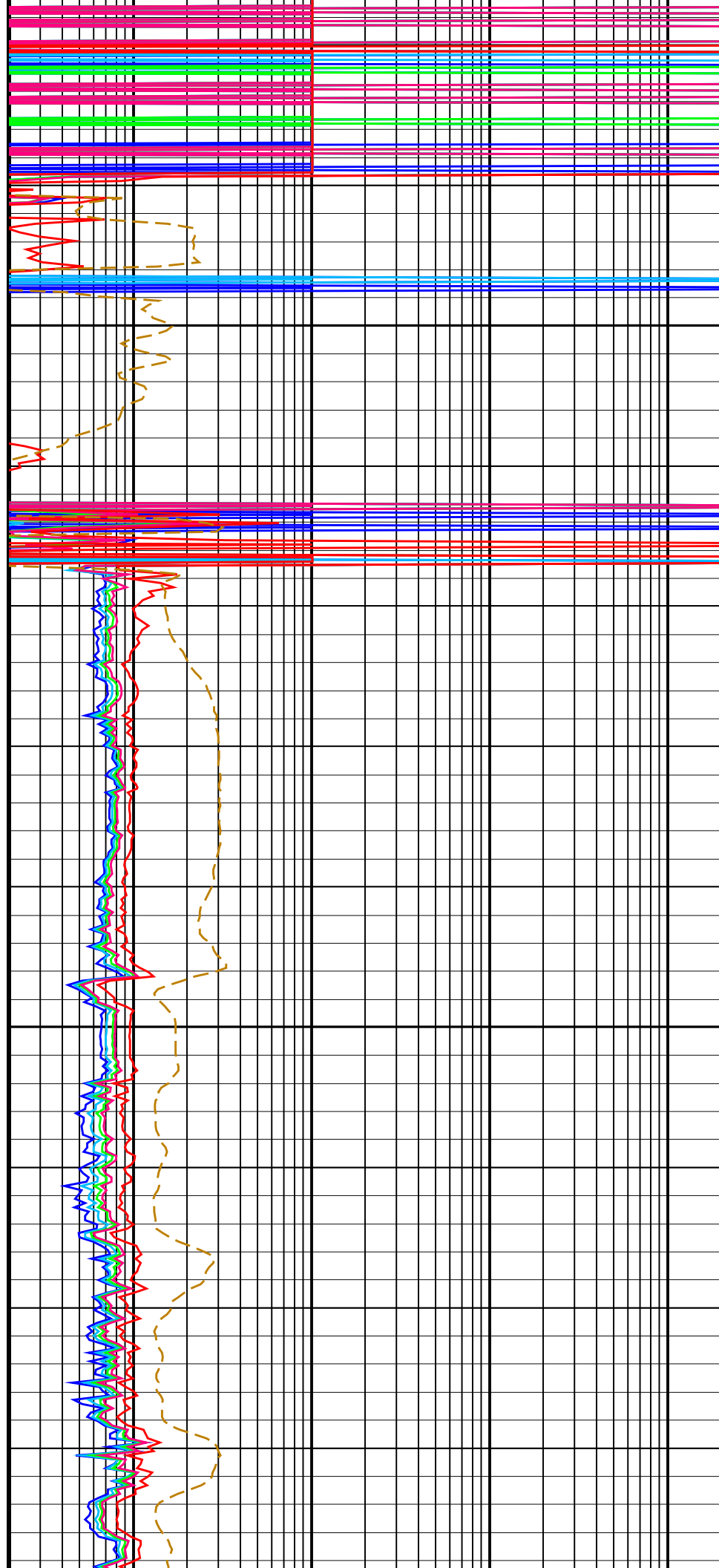
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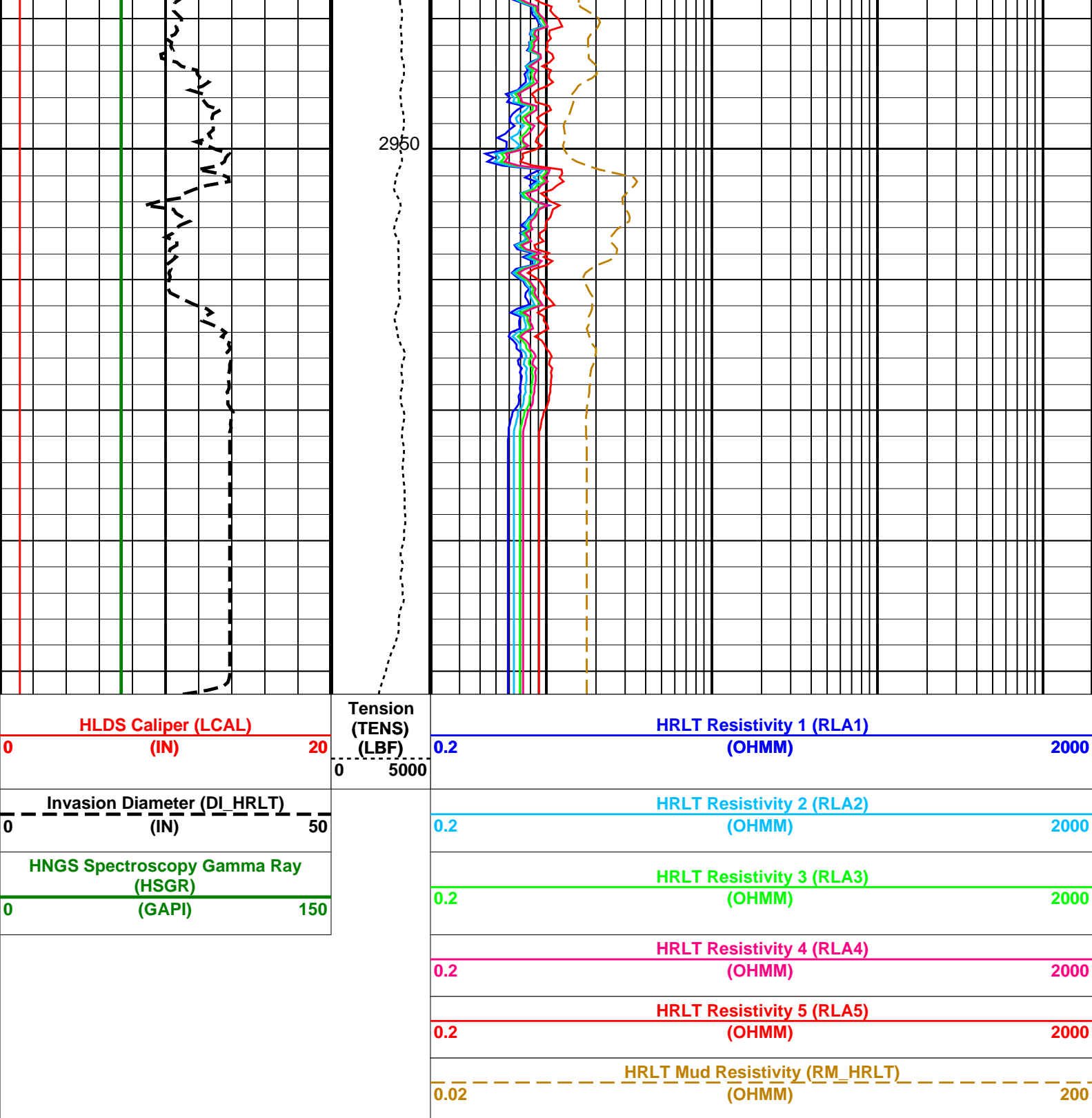




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Time Mark Every 60 S

## Parameters

DLIS Name	Description	Value	
HRLT-B: High Resolution Laterolog Array – B			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	35	DEGF
GCSE	Generalized Caliper Selection	BS	
GGRD	Geothermal Gradient	0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
KFAC_HRLT	HRLT K Factor Option	SONDE	
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	68	DEGF
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)	35	DEGF
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	
GGRD	Geothermal Gradient	0.01	DF/F
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	-0.00397026	
HALF	HNGS Alpha Filter Length	60	IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	NATU	
HNPE	HNGS Processing Enable	YES	
S1BI	HNGS Detector 1 Calibration Bismuth Count Rate	1.3	CPS
S2BI	HNGS Detector 2 Calibration Bismuth Count Rate	1.3	CPS
SGRC	HNGS Standard Gamma-Ray Correction Flag	YES	
SHT	Surface Hole Temperature	68	DEGF
TPOS	Tool Position	ECCE	
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	0.936239	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	0.93565	
EDTC-B: Enhanced DTS Cartridge			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	35	DEGF
GCSE	Generalized Caliper Selection	BS	
GGRD	Geothermal Gradient	0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
SHT	Surface Hole Temperature	68	DEGF
System and Miscellaneous			
BS	Bit Size	9.875	IN
DFD	Drilling Fluid Density	1.02	G/C3
DO	Depth Offset for Playback	0.0	M
MST	Mud Sample Temperature	23.00	DEGC
PP	Playback Processing	NORMAL	
TD	Total Depth	10190.3	FT

Format: HRLT    Vertical Scale: 1:200    Graphics File Created: 16-Mar-2024 13:31

## OP System Version: 19C0-187

MSS_LDEO-A	19C0-187	HRLT-B	19C0-187
HLDS	19C0-187	LDSC-B	19C0-187
HNGC-B	19C0-187	HNGS-BA	19C0-187
EDTC-B	19C0-187		

## Input DLIS Files

DEFAULT	Flip_MSS_LDEO_HRLA_021LUP	PRODUCER	16-Mar-2024 13:30	2970.9 M	2786.6 M
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## Output DLIS Files

DEFAULT	MSS_LDEO_HRLA_LDL_023PUP	FN:16	PRODUCER	16-Mar-2024 13:31
RTB	MSS_LDEO_HRLA_LDL_023PUP	FN:17	PRODUCER	16-Mar-2024 13:31

Company: International Ocean Discovery Program    Well: Expedition 402, Site U1617A

## Input DLIS Files

DEFAULT	Flip_MSS_LDEO_HRLA_021LUP	PRODUCER	16-Mar-2024 13:30	2970.9 M	2786.6 M
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## Output DLIS Files

DEFAULT	MSS_LDEO_HRLA_LDL_023PUP	FN:16	PRODUCER	16-Mar-2024 13:31	2970.9 M	2786.6 M
RTB	MSS_LDEO_HRLA_LDL_023PUP	FN:17	PRODUCER	16-Mar-2024 13:31	2970.9 M	2786.6 M

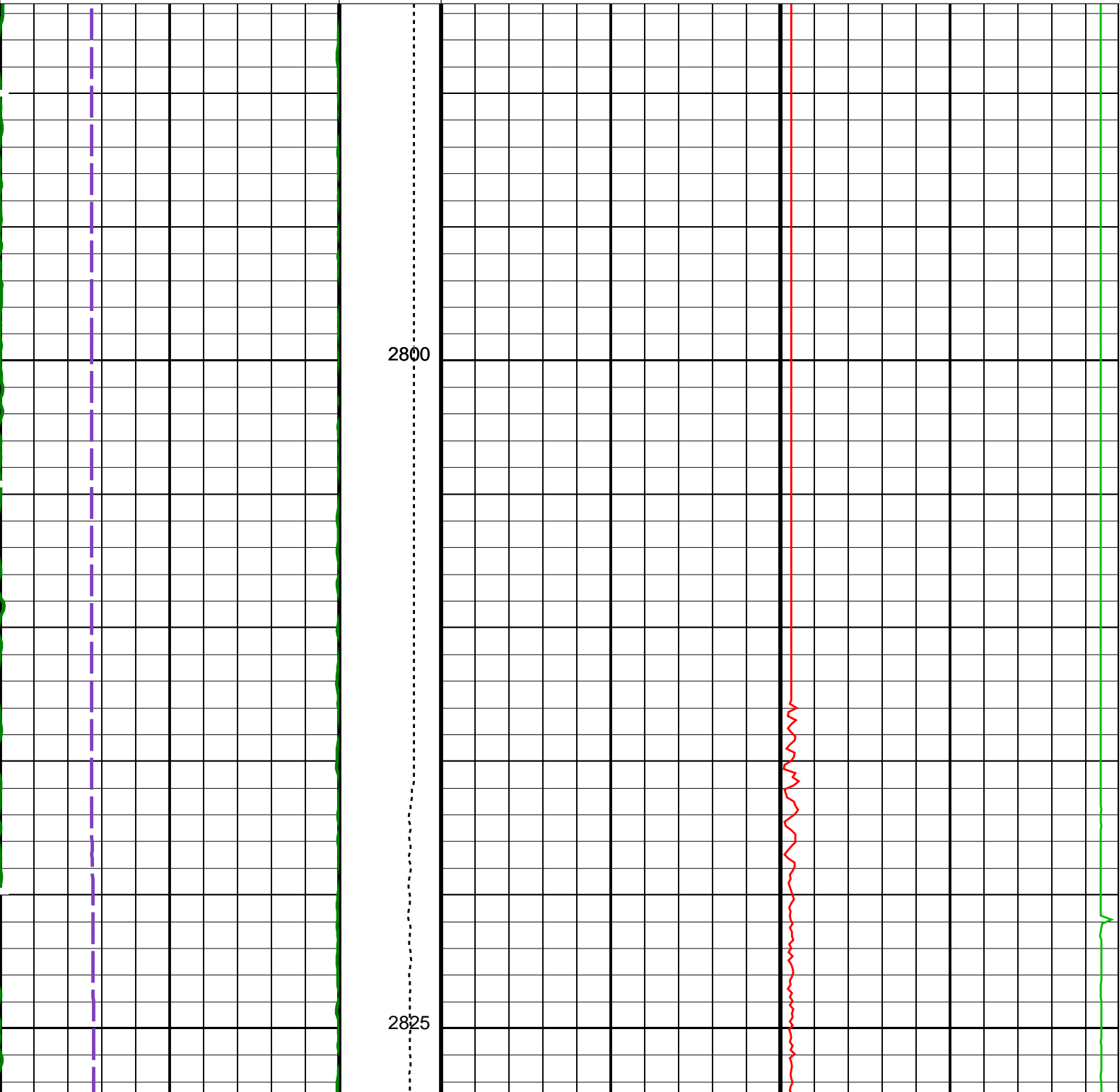
OP System Version: 19C0-187

MSS_LDEO-A	19C0-187	HRLT-B	19C0-187
HLDS	19C0-187	LDSC-B	19C0-187
HNGC-B	19C0-187	HNGS-BA	19C0-187
EDTC-B	19C0-187		

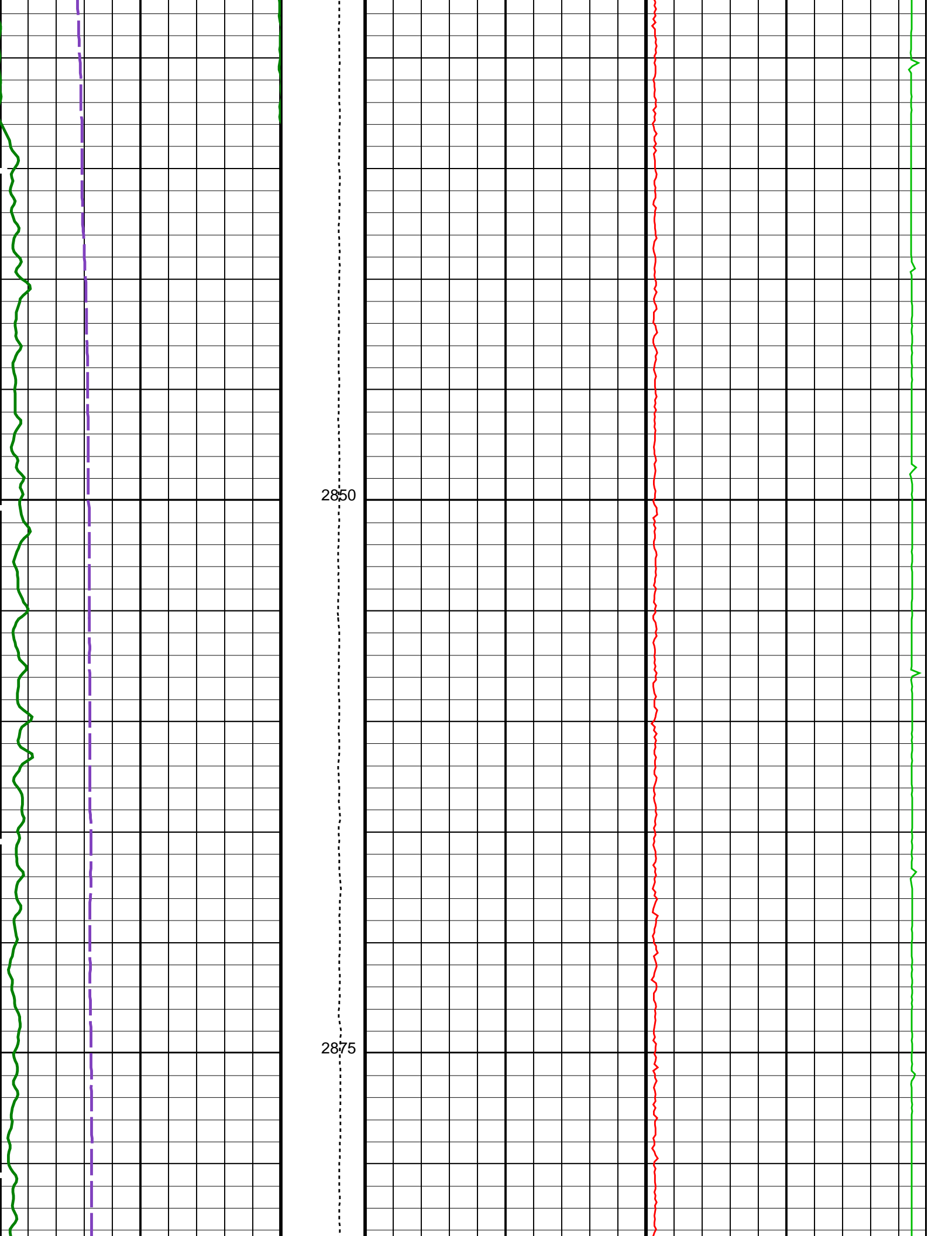
PIP SUMMARY

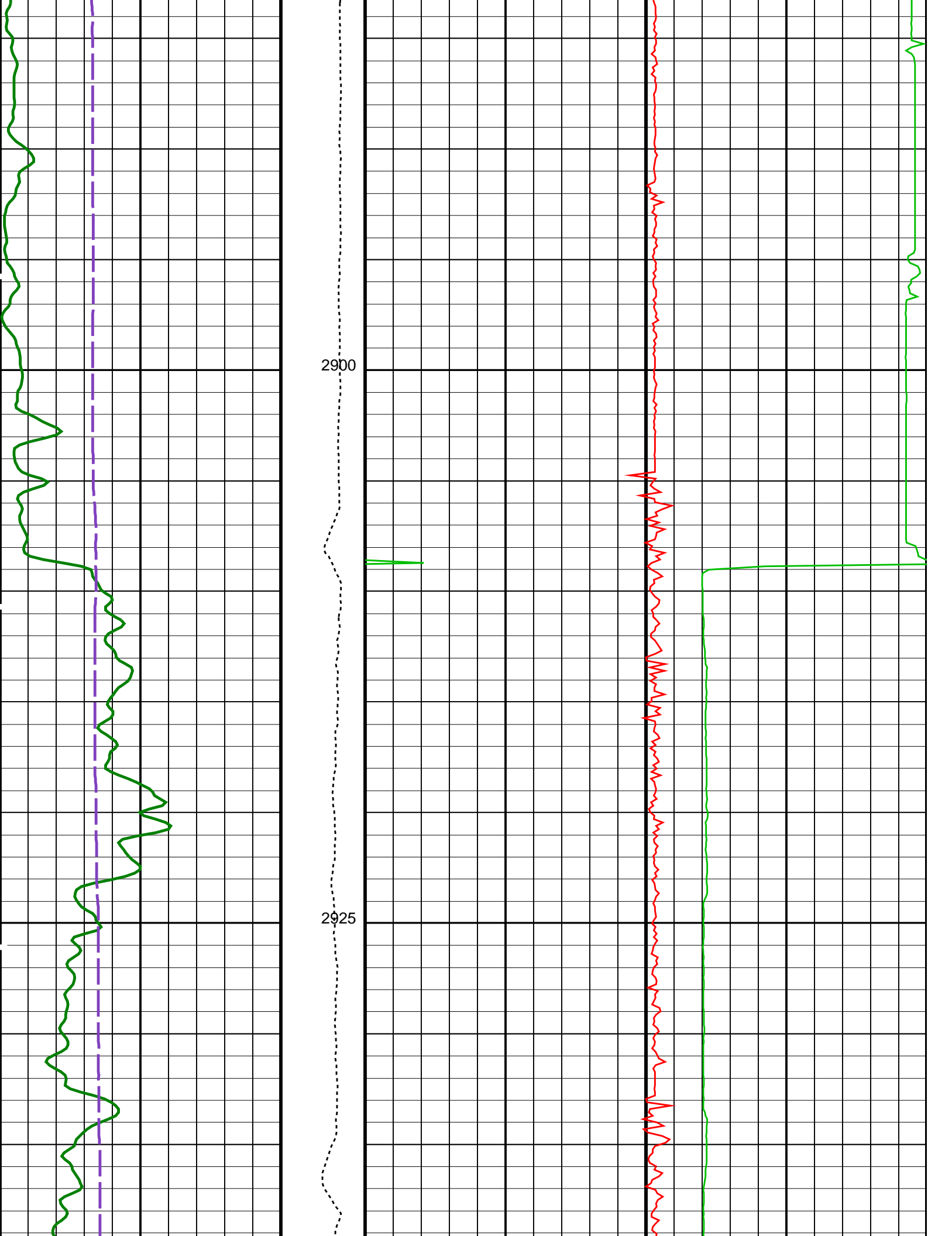
Time Mark Every 60 S

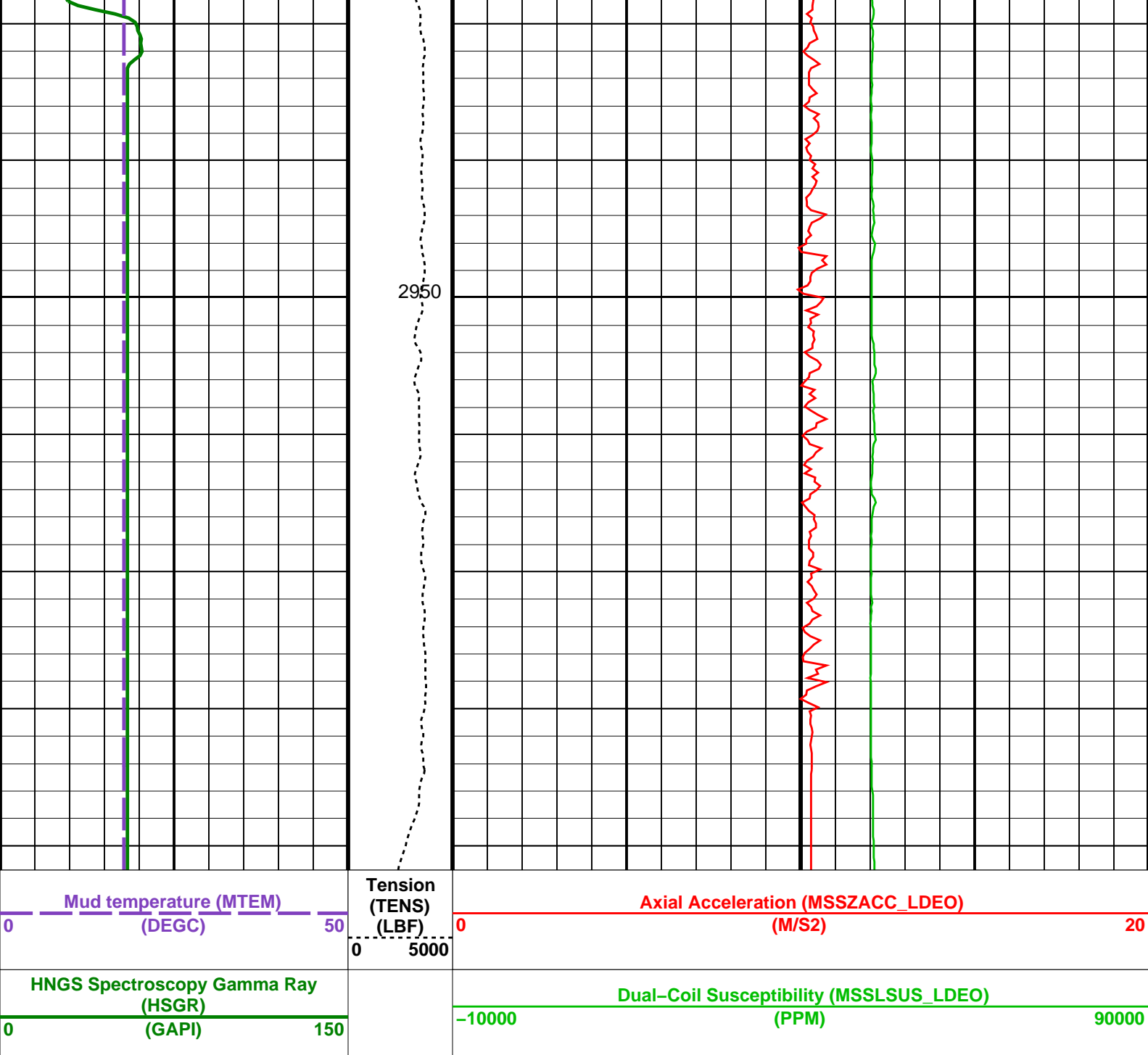
HNGS Spectroscopy Gamma Ray (HSGR) (GAPI)		Dual-Coil Susceptibility (MSSL SUS_LDEO) (PPM)	
0	150	-10000	90000
Mud temperature (MTEM) (DEGC)		Axial Acceleration (MSSZACC_LDEO) (M/S2)	
0	50	0	20
Tension (TENS) (LBF)			
0	5000		











PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
BHS	HRLT-B: High Resolution Laterolog Array - B		
GCSE	Borehole Status	OPEN	
	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	-0.00397026	
HALE	HNGS Alpha Filter Length	60	IN

HALP	HNGS Alpha Filter Length	60	IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	NATU	
HNPE	HNGS Processing Enable	YES	
S1BI	HNGS Detector 1 Calibration Bismuth Count Rate	1.3	CPS
S2BI	HNGS Detector 2 Calibration Bismuth Count Rate	1.3	CPS
SGRC	HNGS Standard Gamma-Ray Correction Flag	YES	
TPOS	Tool Position	ECCE	
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	0.936239	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	0.93565	
EDTC-B: Enhanced DTS Cartridge			
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	BS	
System and Miscellaneous			
BS	Bit Size	9.875	IN
DFD	Drilling Fluid Density	1.02	G/C3
DO	Depth Offset for Playback	0.0	M
PP	Playback Processing	NORMAL	

Format: MSS\_Logging

Vertical Scale: 1:200

Graphics File Created: 16-Mar-2024 13:31

## OP System Version: 19C0-187

MSS_LDEO-A	19C0-187	HRLT-B	19C0-187
HLDS	19C0-187	LDSC-B	19C0-187
HNGC-B	19C0-187	HNGS-BA	19C0-187
EDTC-B	19C0-187		

## Input DLIS Files

DEFAULT	Flip_MSS_LDEO_HRLA_021LUP	PRODUCER	16-Mar-2024 13:30	2970.9 M	2786.6 M
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## Output DLIS Files

DEFAULT	MSS_LDEO_HRLA_LDL_023PUP	FN:16	PRODUCER	16-Mar-2024 13:31
RTB	MSS_LDEO_HRLA_LDL_023PUP	FN:17	PRODUCER	16-Mar-2024 13:31

Schlumberger

First Attempt Uplog  
Scale 1:100

MAXIS Field Log

Company: International Ocean Discovery Program

Well: Expedition 402, Site U1617A

## Output DLIS Files

DEFAULT	MSS_LDEO_HRLA_LDL_016LUP	FN:8	PRODUCER	16-Mar-2024 05:19	2969.5 M	2818.6 M
RTB	MSS_LDEO_HRLA_LDL_016LUP	FN:9	PRODUCER	16-Mar-2024 05:19	2969.5 M	2818.6 M

## OP System Version: 19C0-187

MSS_LDEO-A	19C0-187	HRLT-B	19C0-187
HLDS	19C0-187	LDSC-B	19C0-187
HNGC-B	19C0-187	HNGS-BA	19C0-187
EDTC-B	19C0-187		

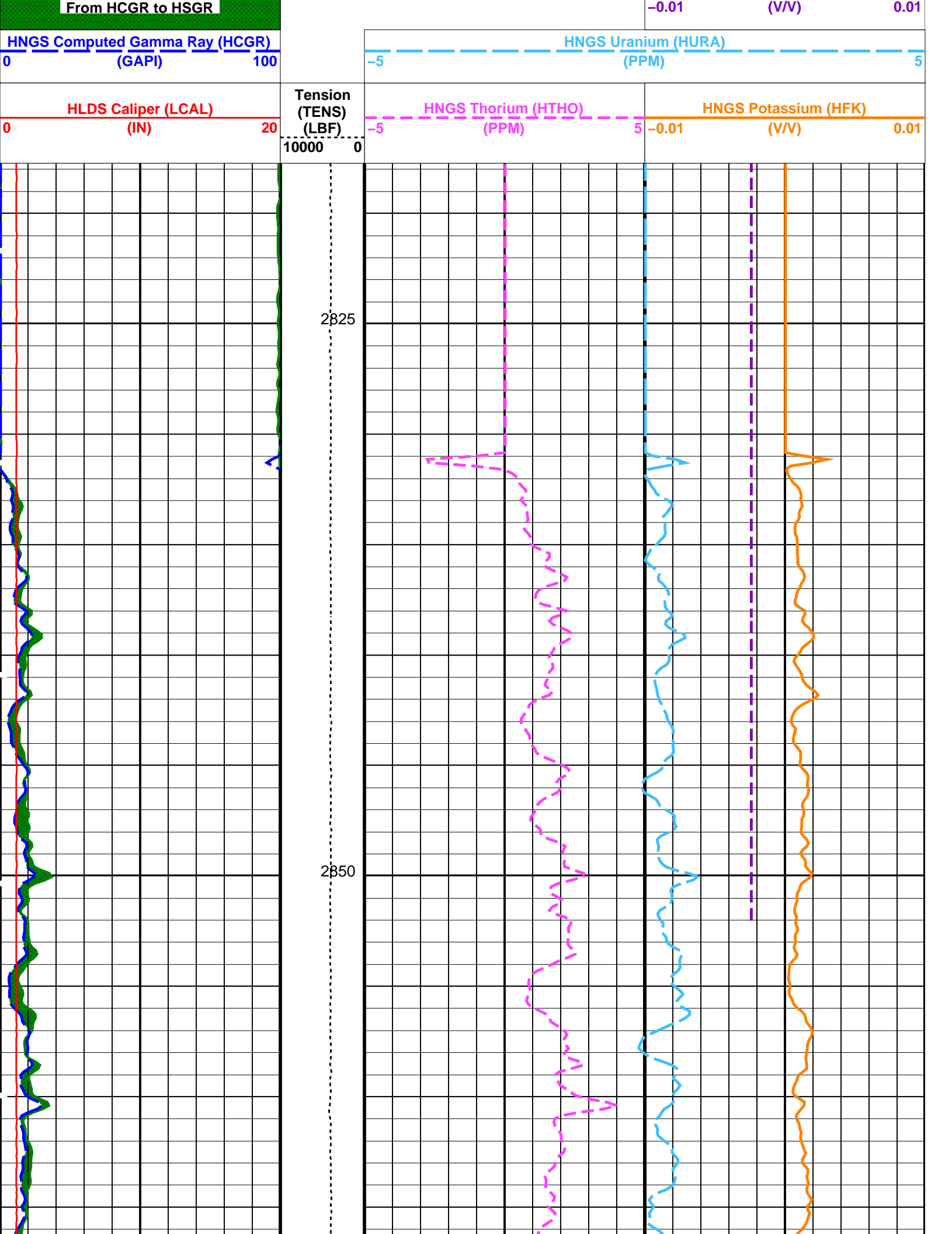
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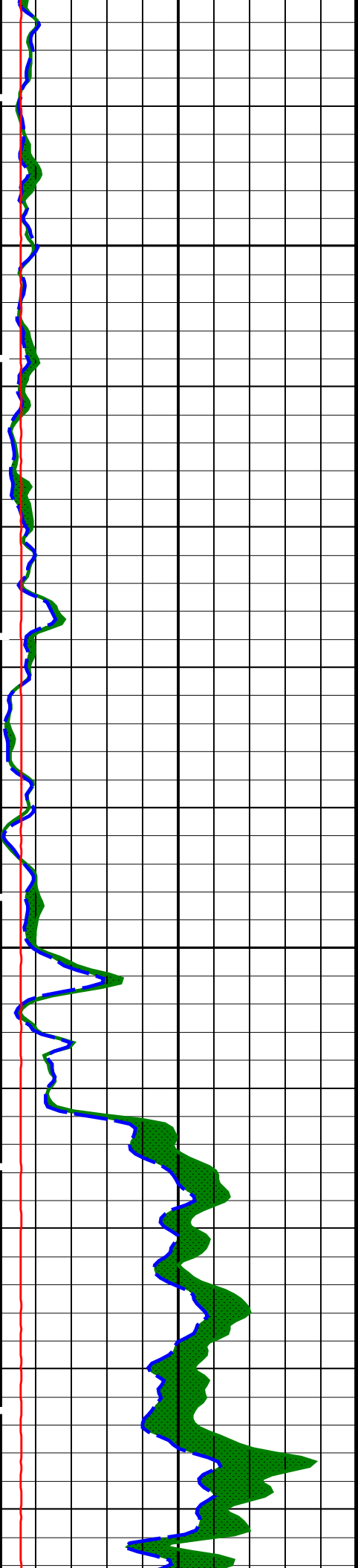
 Time Mark Every 60 S

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

Area1

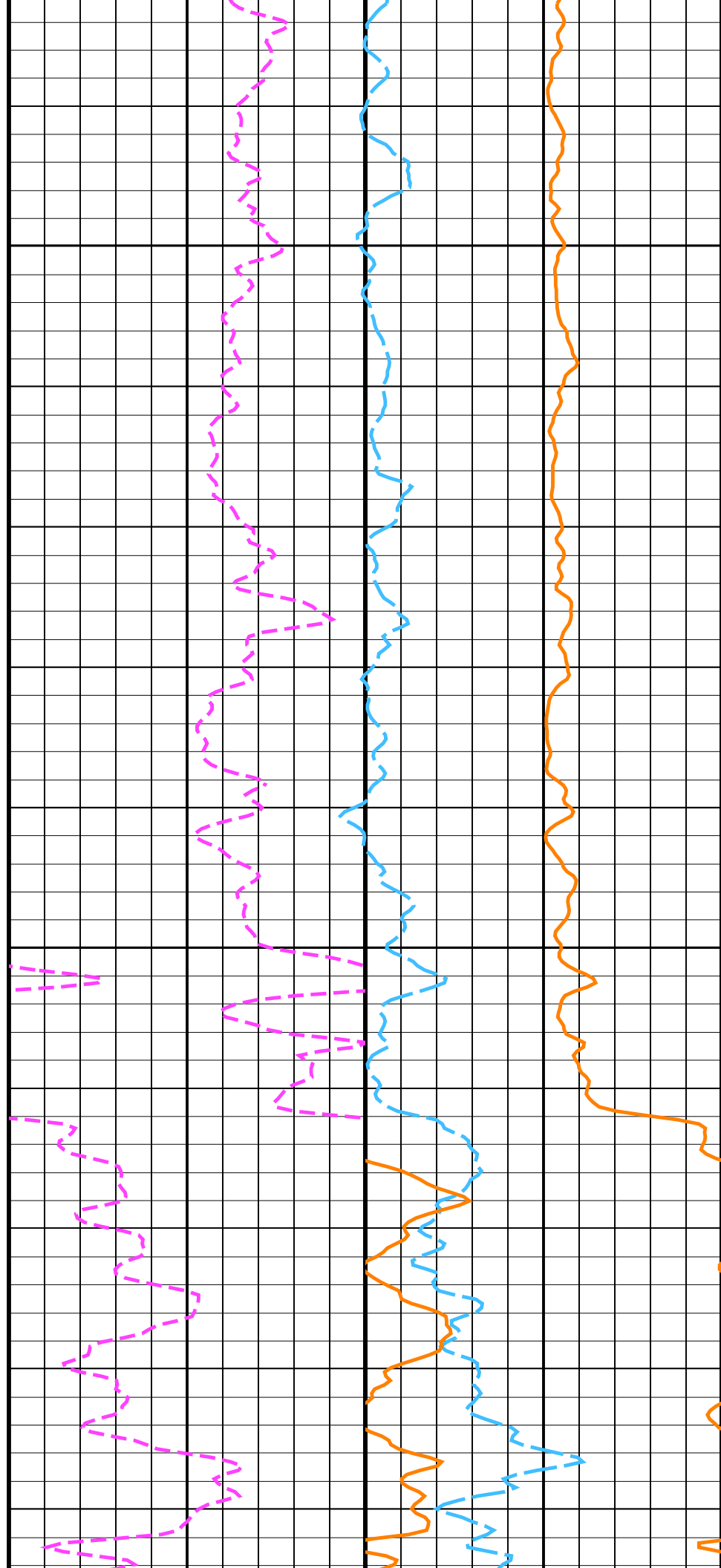
HNGS Borehole Potassium (HBHK)

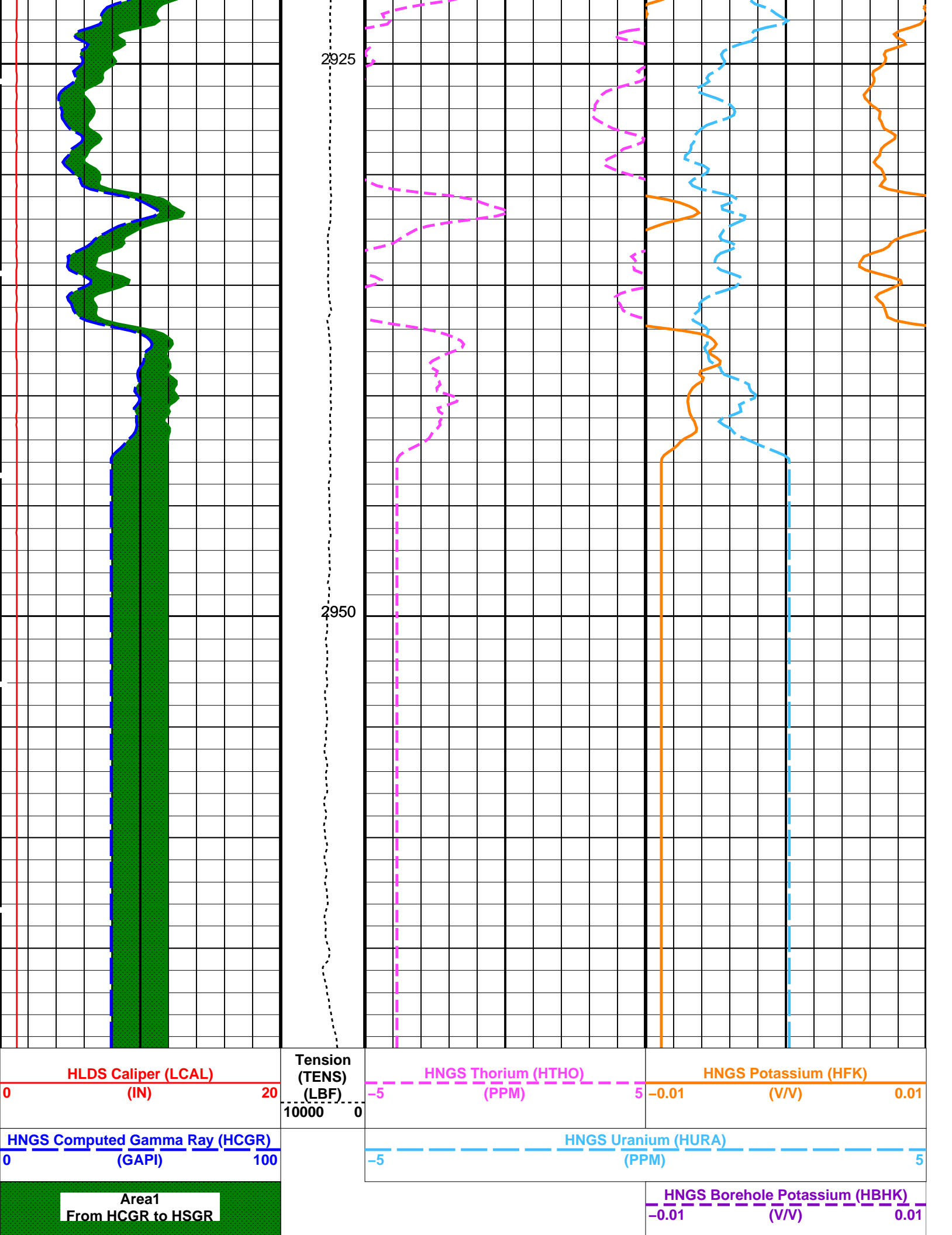




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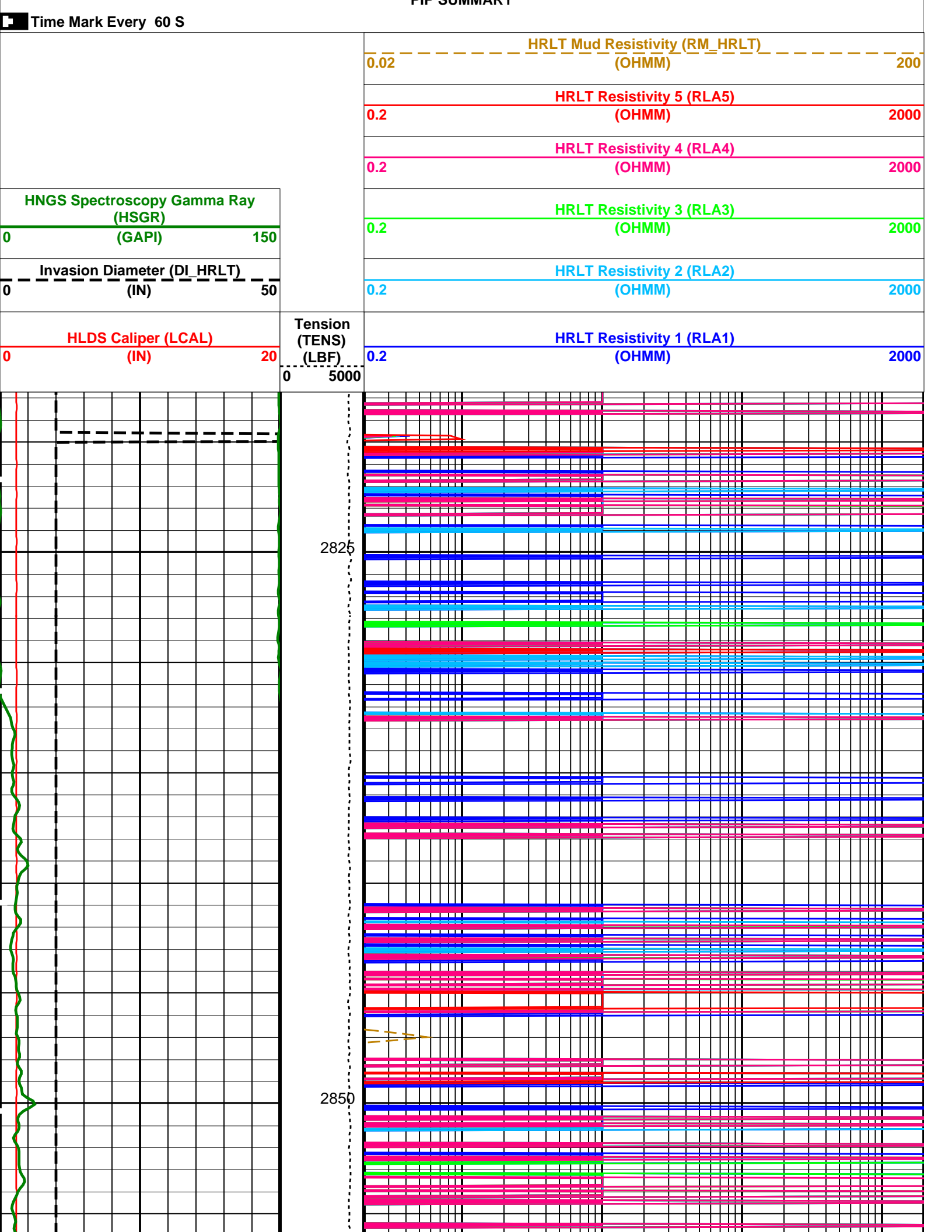
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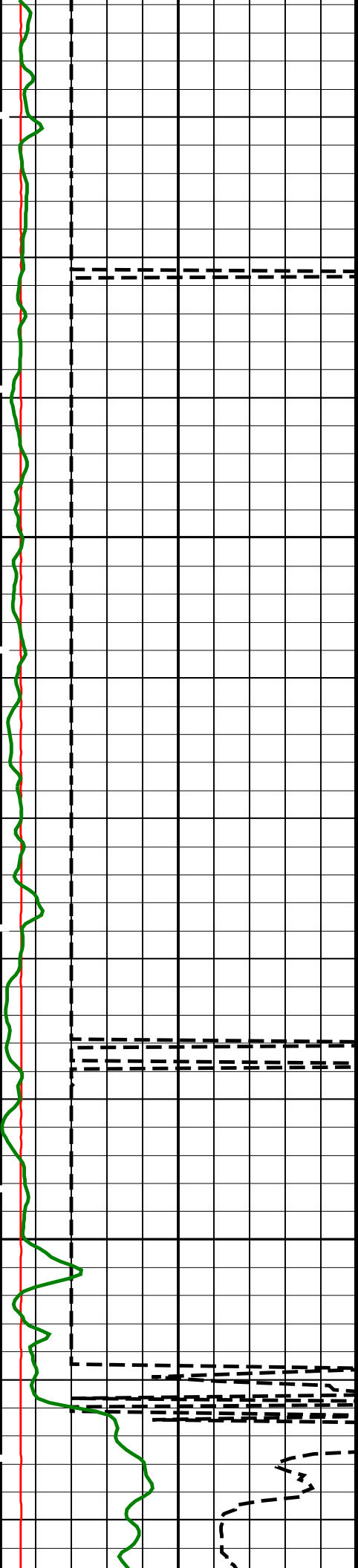




HNGS Spectroscopy Gamma Ray (HSGR)					
0	(GAPI)	100			
PIP SUMMARY					
Time Mark Every 60 S					
Parameters					
DLIS Name	Description	Value			
HRLT-B: High Resolution Laterolog Array – B					
BHS	Borehole Status	OPEN			
GCSE	Generalized Caliper Selection	BS			
HNGS-BA: Hostile Natural Gamma Ray Sonde					
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	-0.00257241			
HALF	HNGS Alpha Filter Length	60	IN		
HCRB	HNGS Apply Borehole Potassium Correction	NONE			
HMWM	Mud Weighting Material	NATU			
HNPE	HNGS Processing Enable	YES			
S1BI	HNGS Detector 1 Calibration Bismuth Count Rate	1.3	CPS		
S2BI	HNGS Detector 2 Calibration Bismuth Count Rate	1.3	CPS		
SGRC	HNGS Standard Gamma-Ray Correction Flag	YES			
TPOS	Tool Position	ECCE			
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	0.976278			
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	0.985496			
EDTC-B: Enhanced DTS Cartridge					
BHS	Borehole Status	OPEN			
GCSE	Generalized Caliper Selection	BS			
System and Miscellaneous					
BS	Bit Size	9.875	IN		
DFD	Drilling Fluid Density	1.02	G/C3		
Format: HNGSYields		Vertical Scale: 1:200			
		Graphics File Created: 16-Mar-2024 05:19			
OP System Version: 19C0-187					
MSS_LDEO-A	19C0-187	HRLT-B	19C0-187		
HLDS	19C0-187	LDSC-B	19C0-187		
HNGC-B	19C0-187	HNGS-BA	19C0-187		
EDTC-B	19C0-187				
Output DLIS Files					
DEFAULT	MSS_LDEO_HRLA_LDL_016LUP	FN:8	PRODUCER 16-Mar-2024 05:19		
RTB	MSS_LDEO_HRLA_LDL_016LUP	FN:9	PRODUCER 16-Mar-2024 05:19		
Company: International Ocean Discovery Program					
Well: Expedition 402, Site U1617A					
Output DLIS Files					
DEFAULT	MSS_LDEO_HRLA_LDL_016LUP	FN:8	PRODUCER 16-Mar-2024 05:19	2969.5 M	2818.6 M
RTB	MSS_LDEO_HRLA_LDL_016LUP	FN:9	PRODUCER 16-Mar-2024 05:19	2969.5 M	2818.6 M
OP System Version: 19C0-187					
MSS_LDEO-A	19C0-187	HRLT-B	19C0-187		
HLDS	19C0-187	LDSC-B	19C0-187		
HNGC-B	19C0-187	HNGS-BA	19C0-187		
EDTC-B	19C0-187				

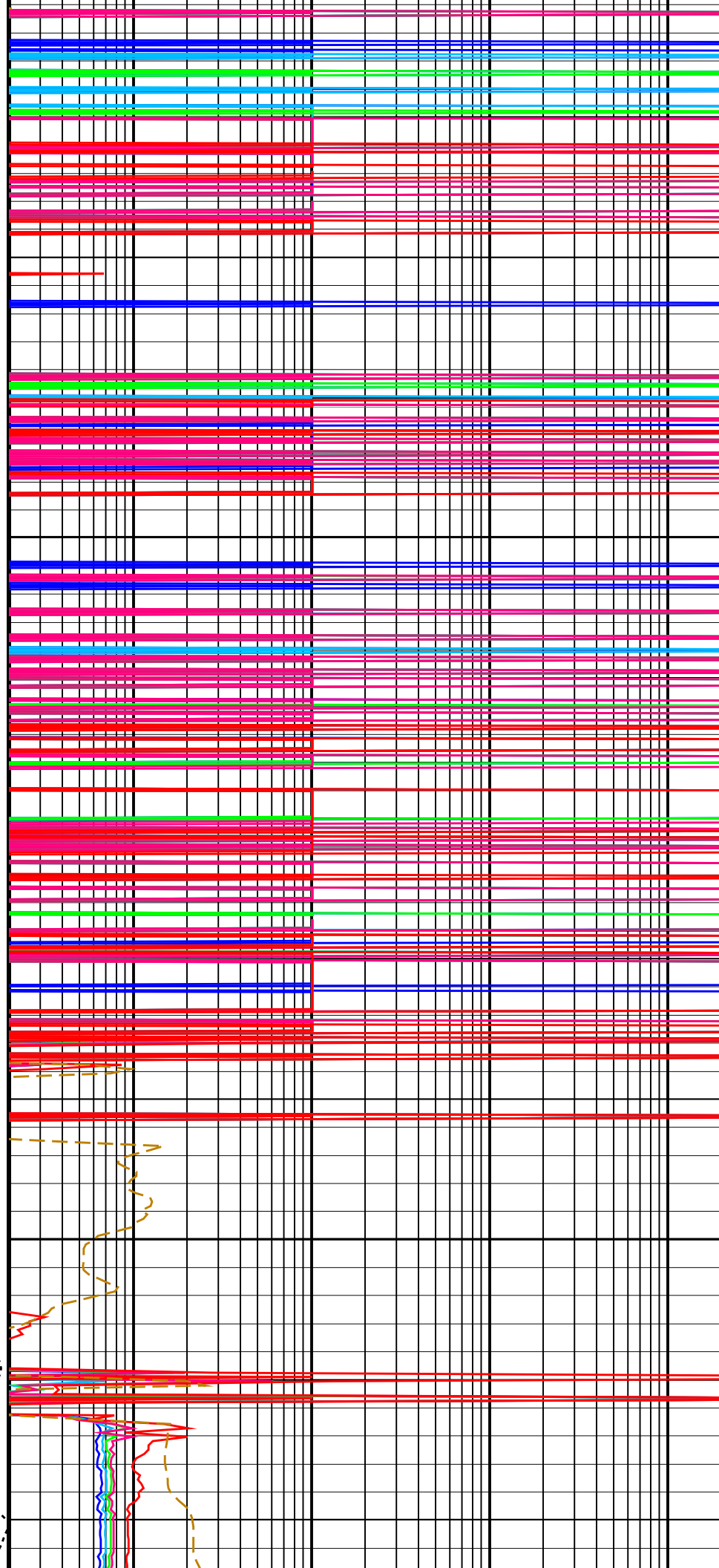


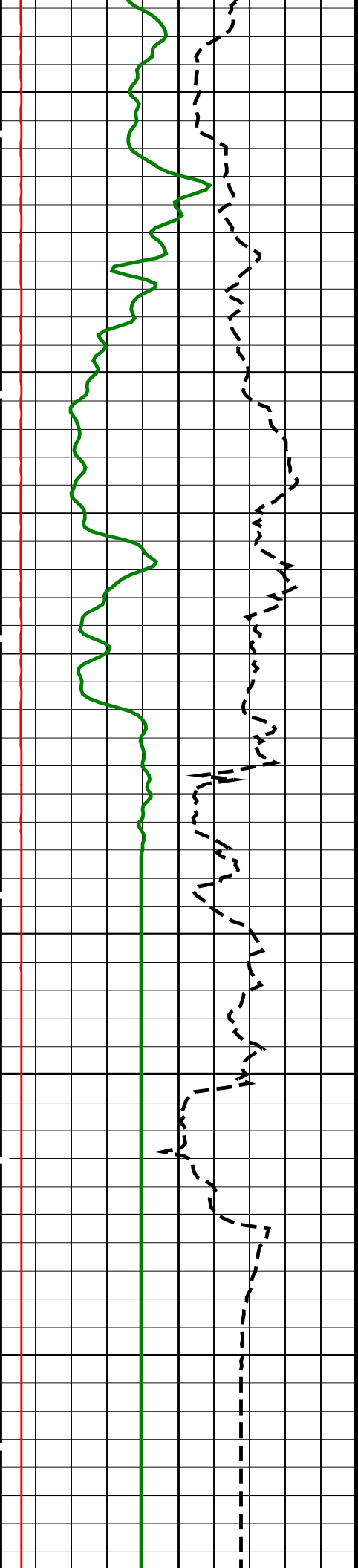




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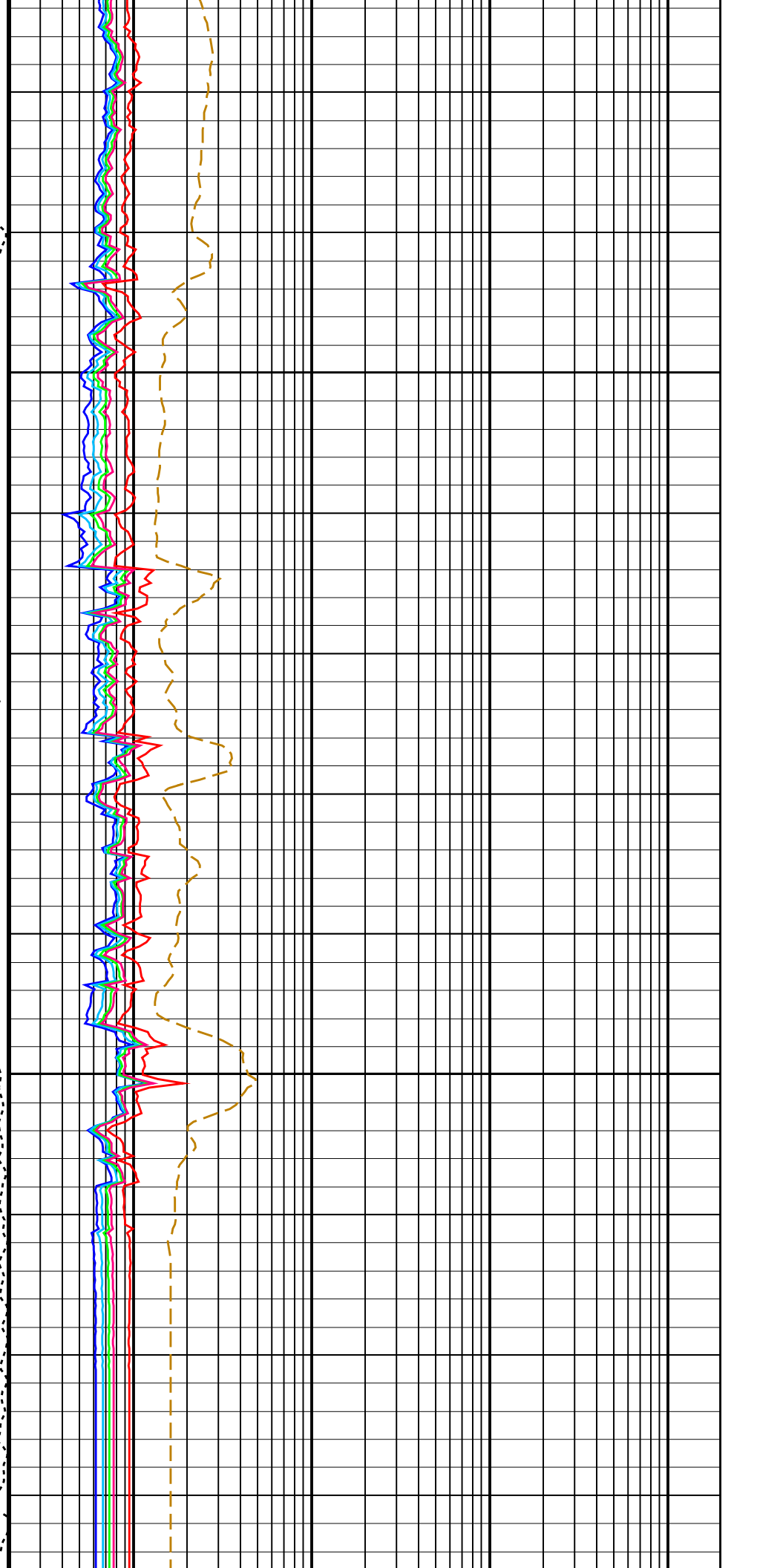
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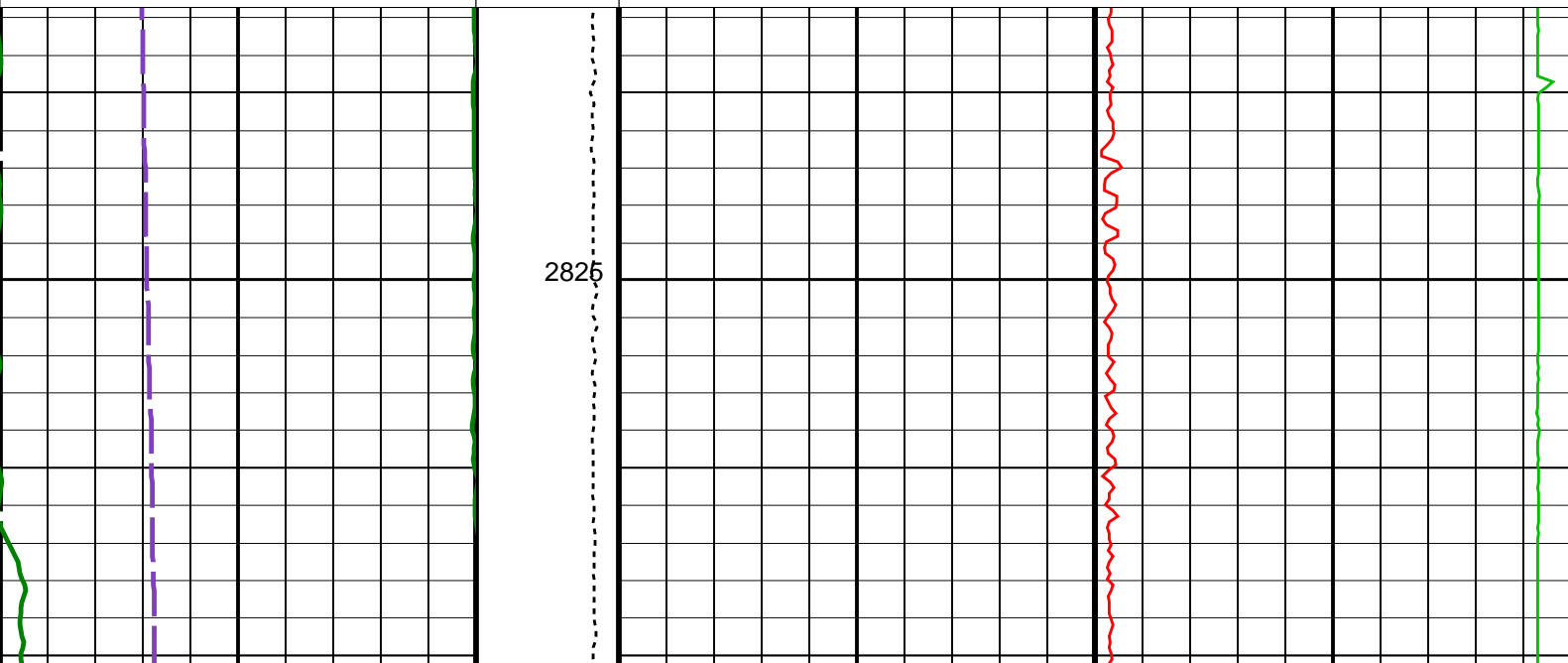
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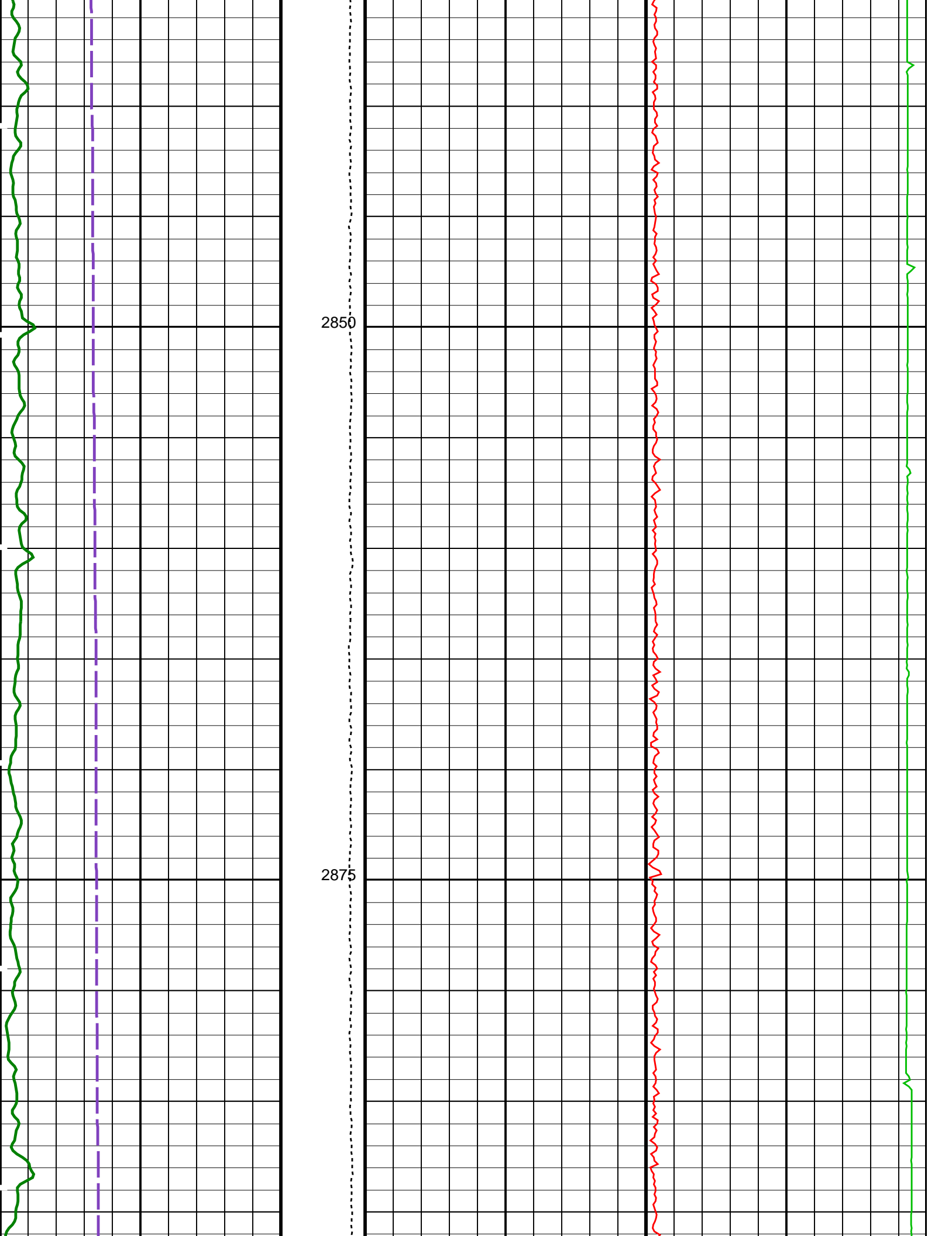


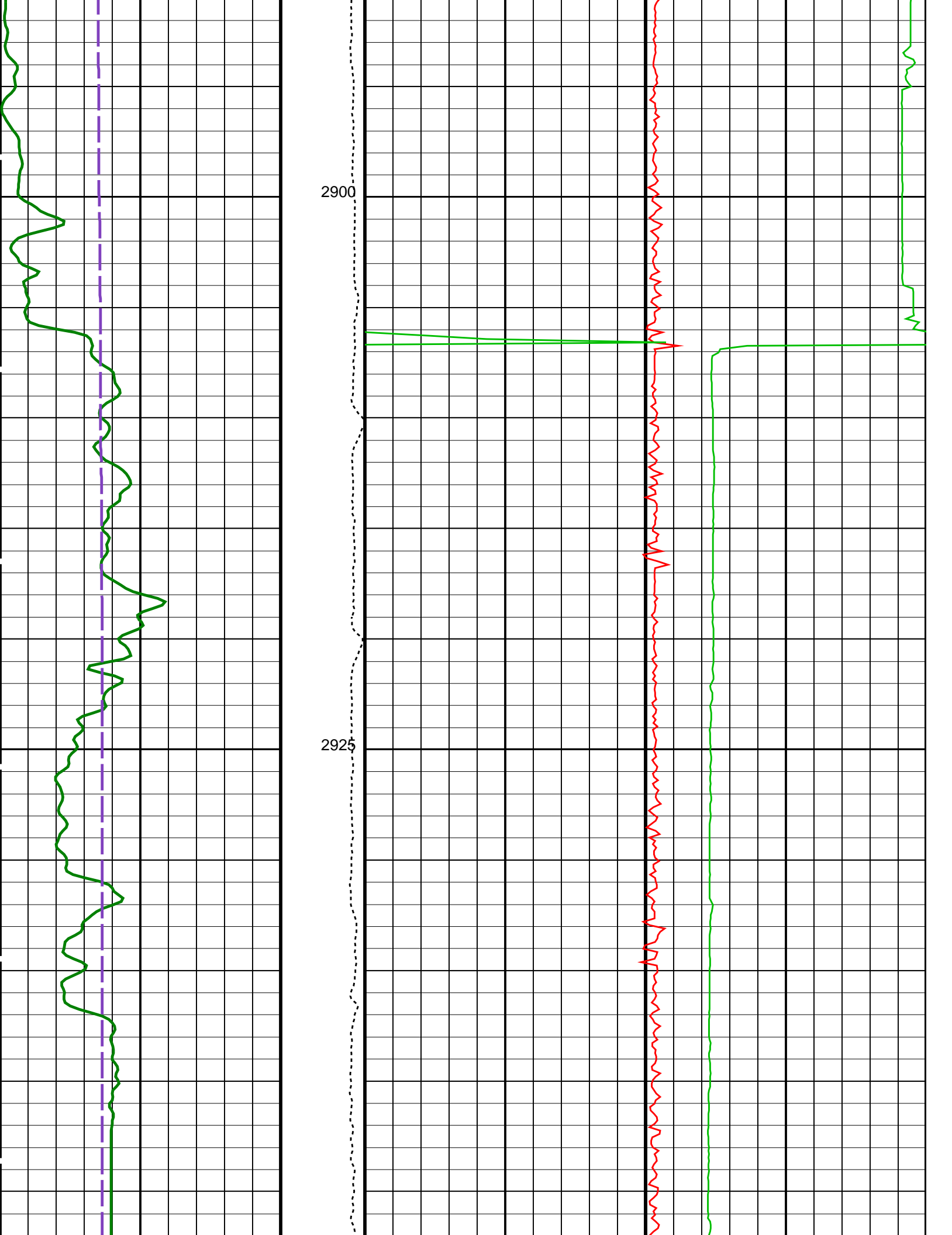
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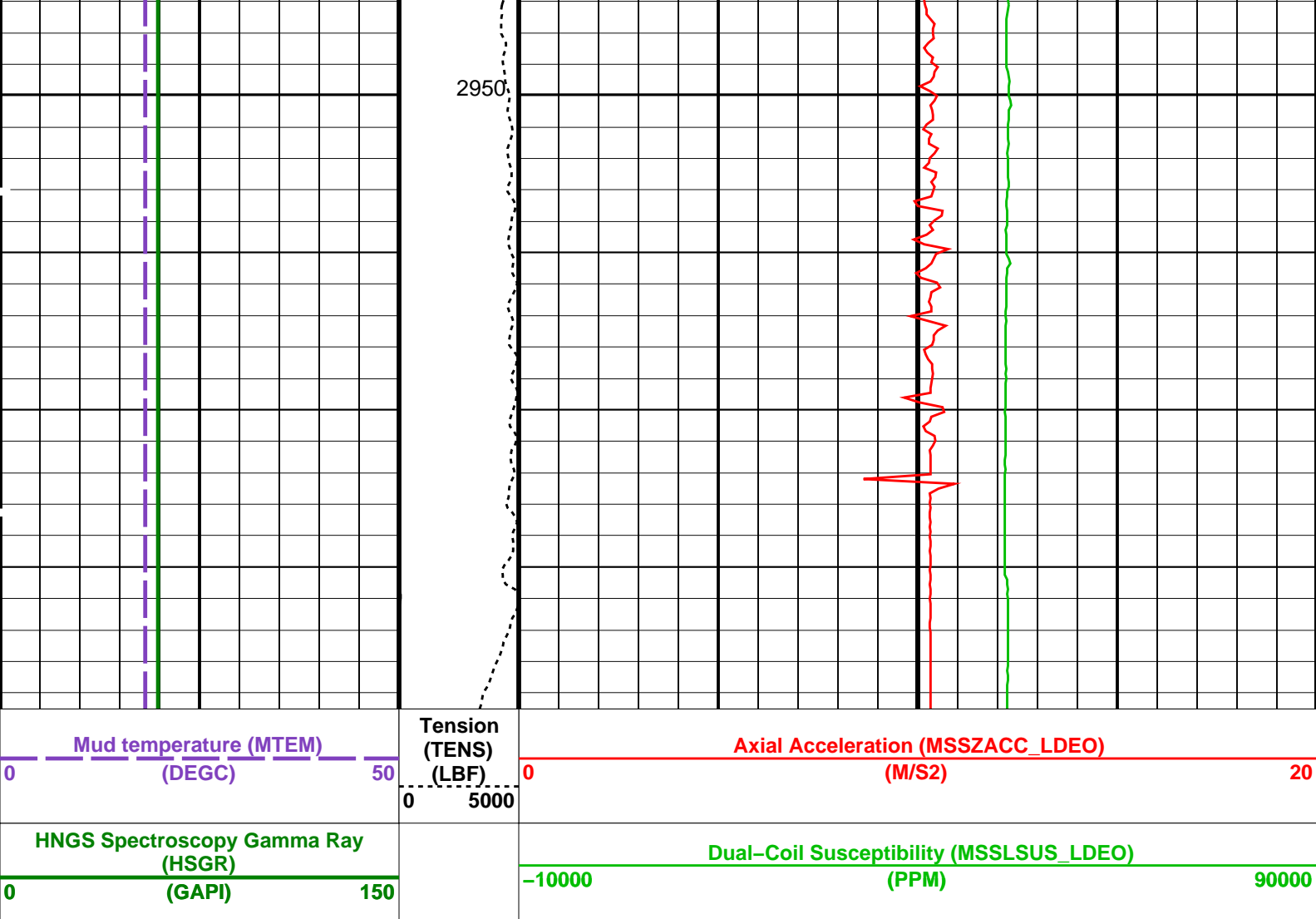
PIP SUMMARY
Time Mark Every 60 S

Parameters			
DLIS Name	Description	Value	
HRLT-B: High Resolution Laterolog Array – B			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	35	DEGF
GCSE	Generalized Caliper Selection	BS	
GGRD	Geothermal Gradient	0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	CHART_GEN 9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
KFAC_HRLT	HRLT K Factor Option	SONDE	
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	
PROCSP0	Sonde Position	Centered	
SHT	Surface Hole Temperature	68	DEGF
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)	35	DEGF
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	
GGRD	Geothermal Gradient	0.01	DF/F
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	-0.00257241	
HALF	HNGS Alpha Filter Length	60	IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	NATU	
HNPE	HNGS Processing Enable	YES	
S1BI	HNGS Detector 1 Calibration Bismuth Count Rate	1.3	CPS
S2BI	HNGS Detector 2 Calibration Bismuth Count Rate	1.3	CPS
SGRC	HNGS Standard Gamma-Ray Correction Flag	YES	
SHT	Surface Hole Temperature	68	DEGF
TPOS	Tool Position	ECCE	
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	0.976278	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	0.985496	
EDTC-B: Enhanced DTS Cartridge			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	35	DEGF
GCSE	Generalized Caliper Selection	BS	
GGRD	Geothermal Gradient	0.01	DF/F









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	
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	-0.00257241	
HALF	HNGS Alpha Filter Length	60	IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	NATU	
HNPE	HNGS Processing Enable	YES	
S1BI	HNGS Detector 1 Calibration Bismuth Count Rate	1.3	CPS
S2BI	HNGS Detector 2 Calibration Bismuth Count Rate	1.3	CPS
SGRC	HNGS Standard Gamma-Ray Correction Flag	YES	
TPOS	Tool Position	ECCE	
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	0.976278	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	0.985496	
EDTC-B: Enhanced DTS Cartridge			
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	BS	
System and Miscellaneous			



BS DFD	Bit Size Drilling Fluid Density	9.875 1.02	IN G/C3
Format: MSS_Logging		Vertical Scale: 1:200	Graphics File Created: 16-Mar-2024 05:19
OP System Version: 19C0-187			
MSS_LDEO-A	19C0-187	HRLT-B	19C0-187
HLDS	19C0-187	LDSC-B	19C0-187
HNGC-B	19C0-187	HNGS-BA	19C0-187
EDTC-B	19C0-187		
Output DLIS Files			
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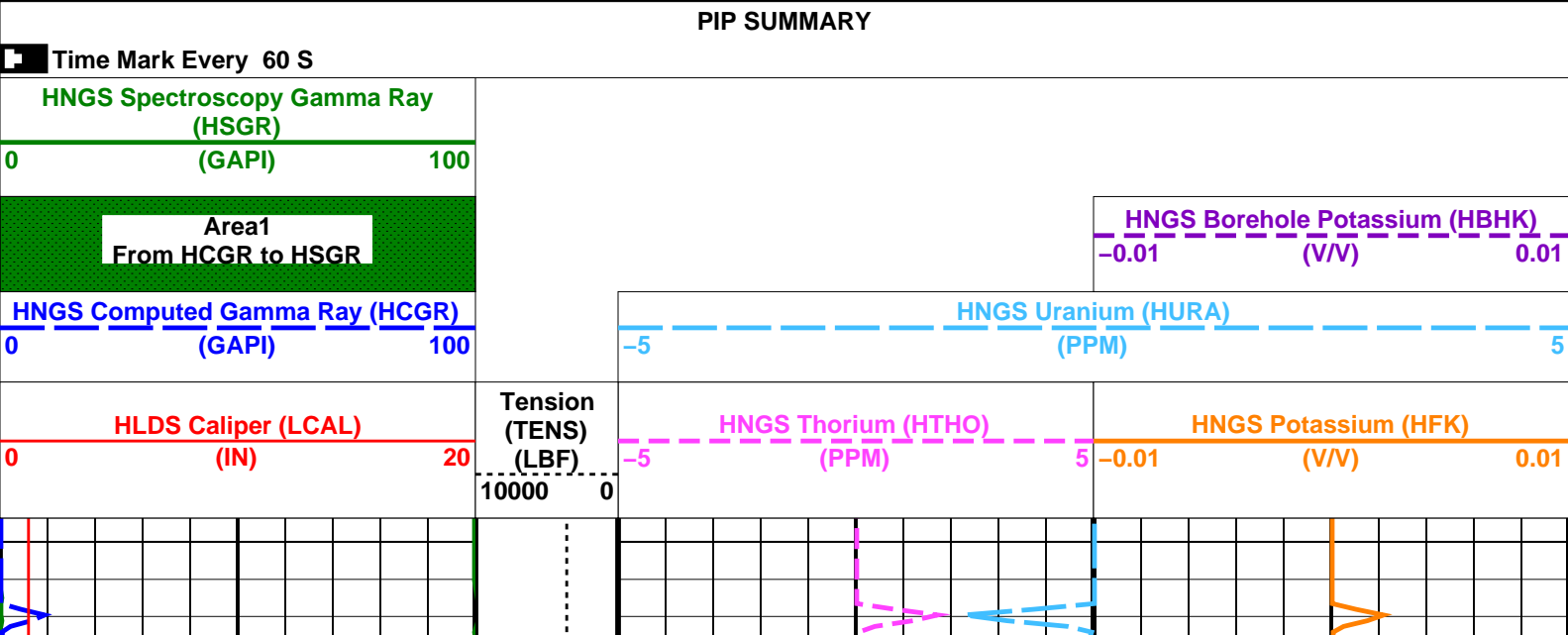
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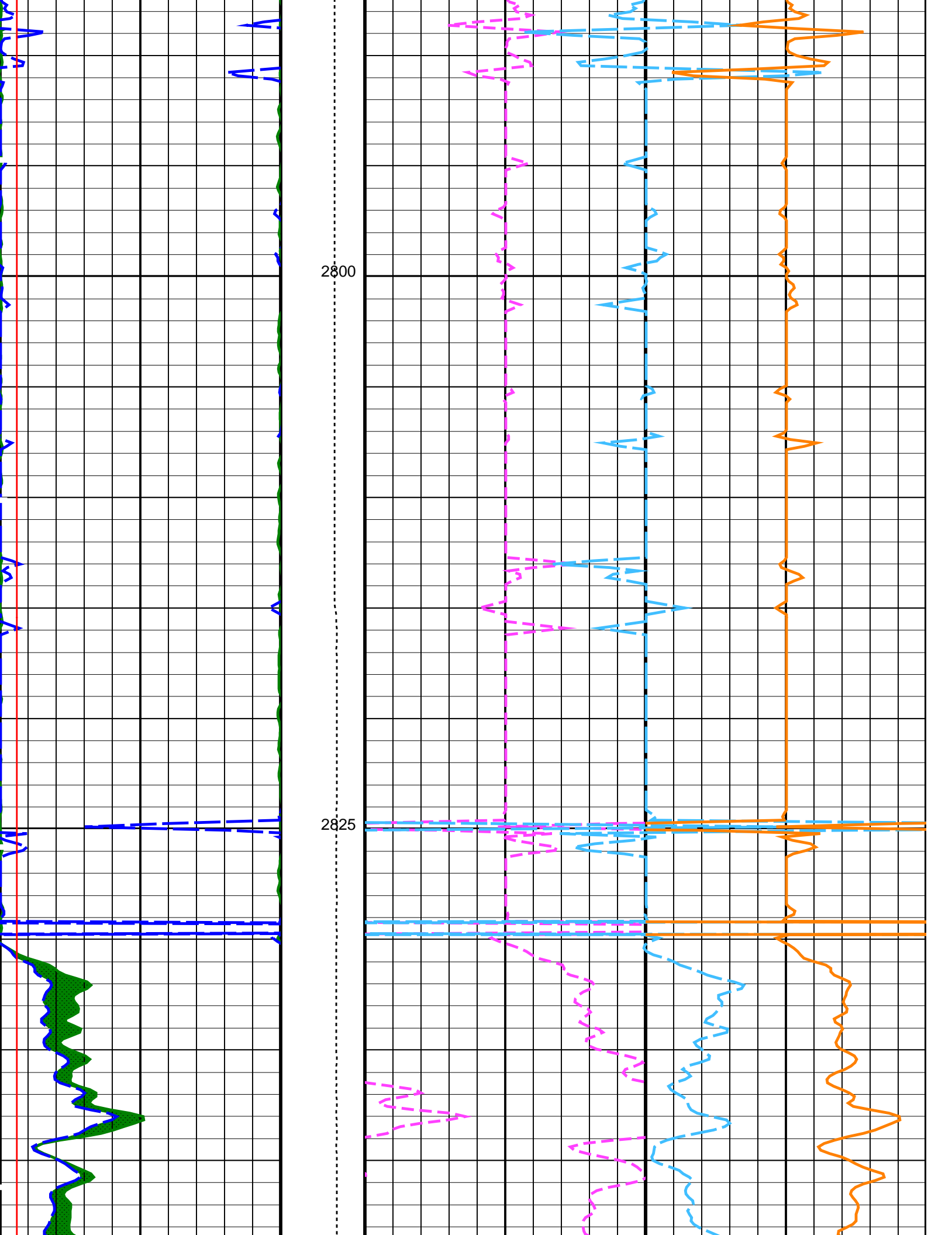
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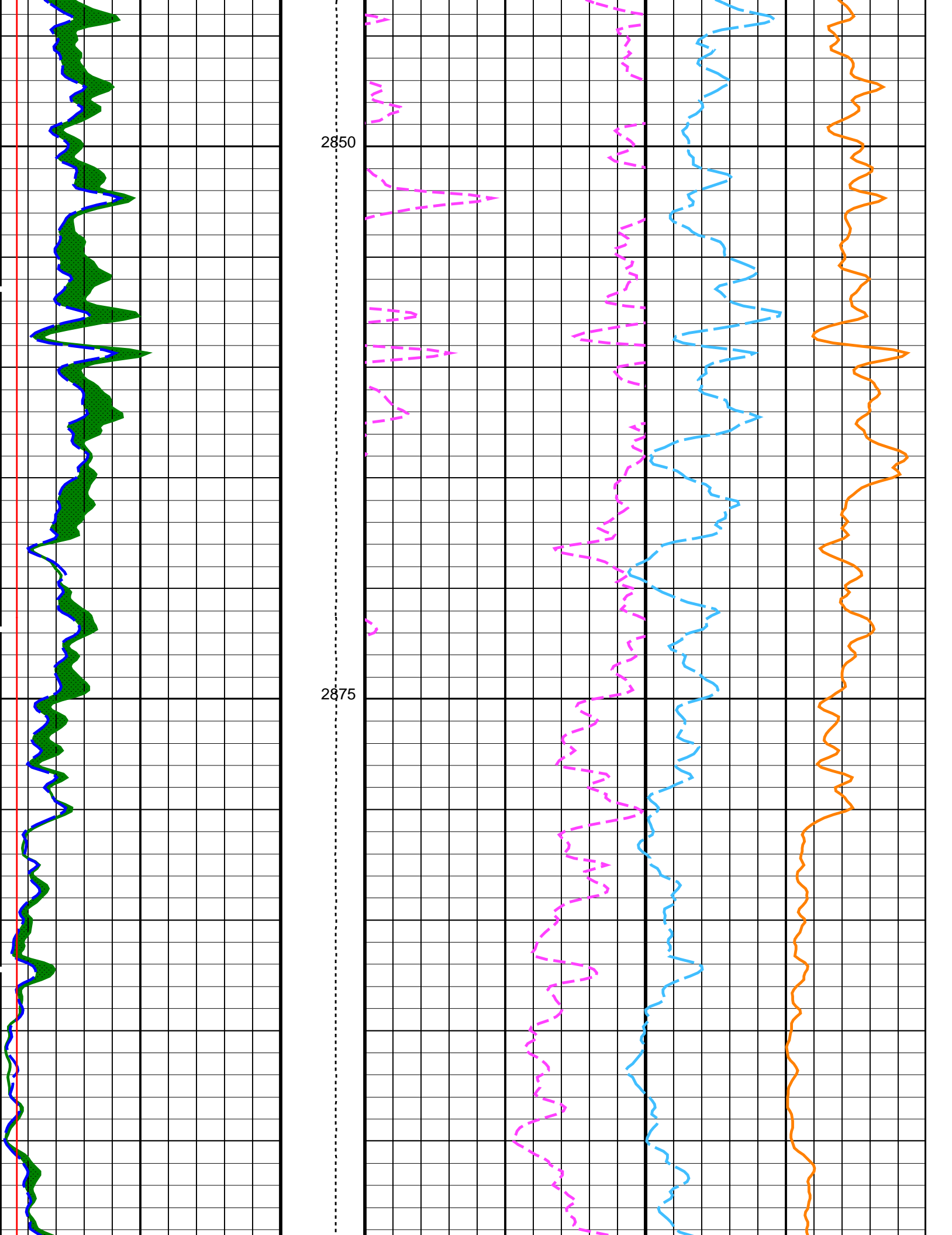
Company: International Ocean Discovery Program	Well: Expedition 402, Site U1617A
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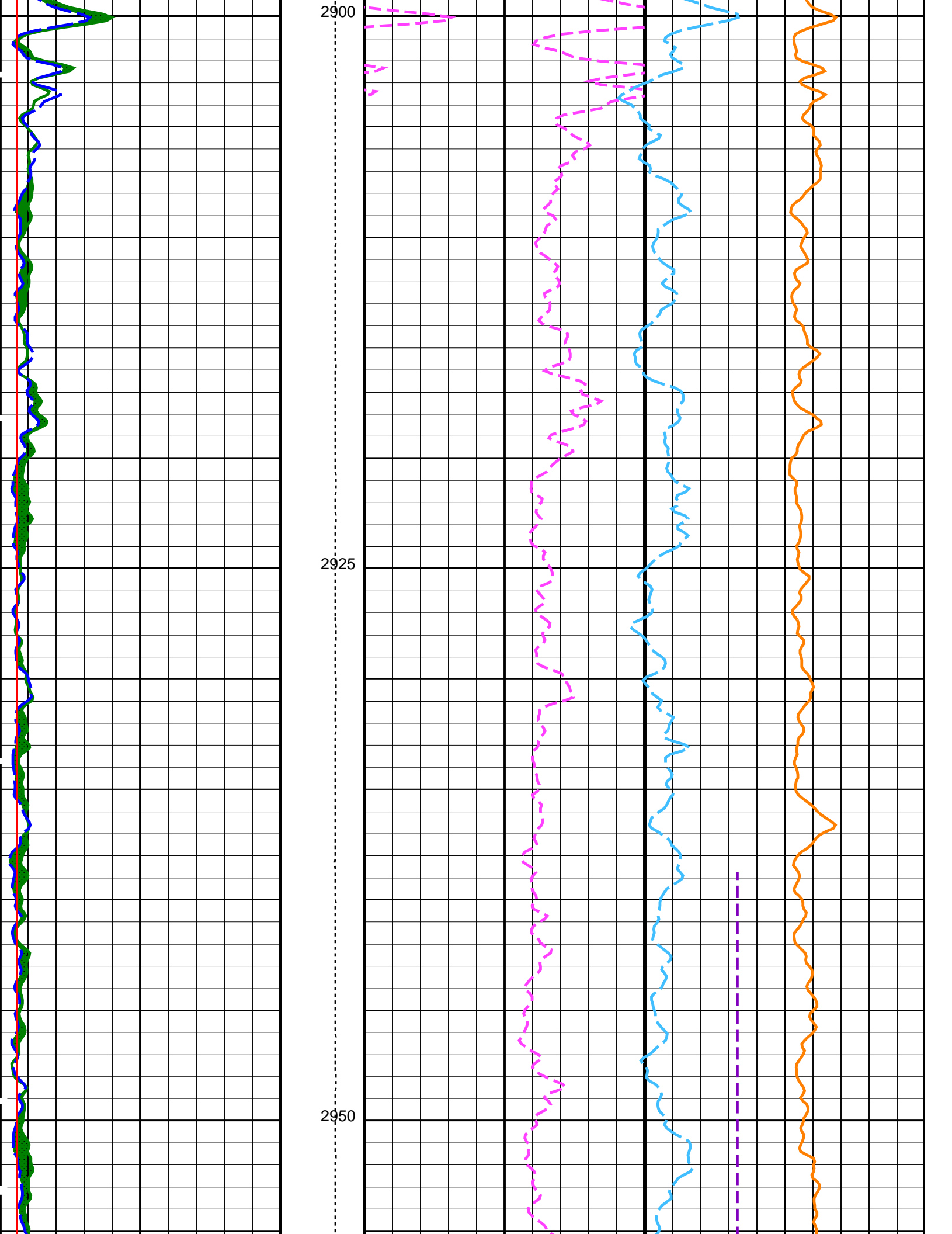
Input DLIS Files						
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Output DLIS Files						
DEFAULT	MSS_LDEO_HRLA_LDL_024PUP	FN:18	PRODUCER	16-Mar-2024 13:31	3004.4 M	2784.3 M
RTB	MSS_LDEO_HRLA_LDL_024PUP	FN:19	PRODUCER	16-Mar-2024 13:31	3004.4 M	2784.3 M

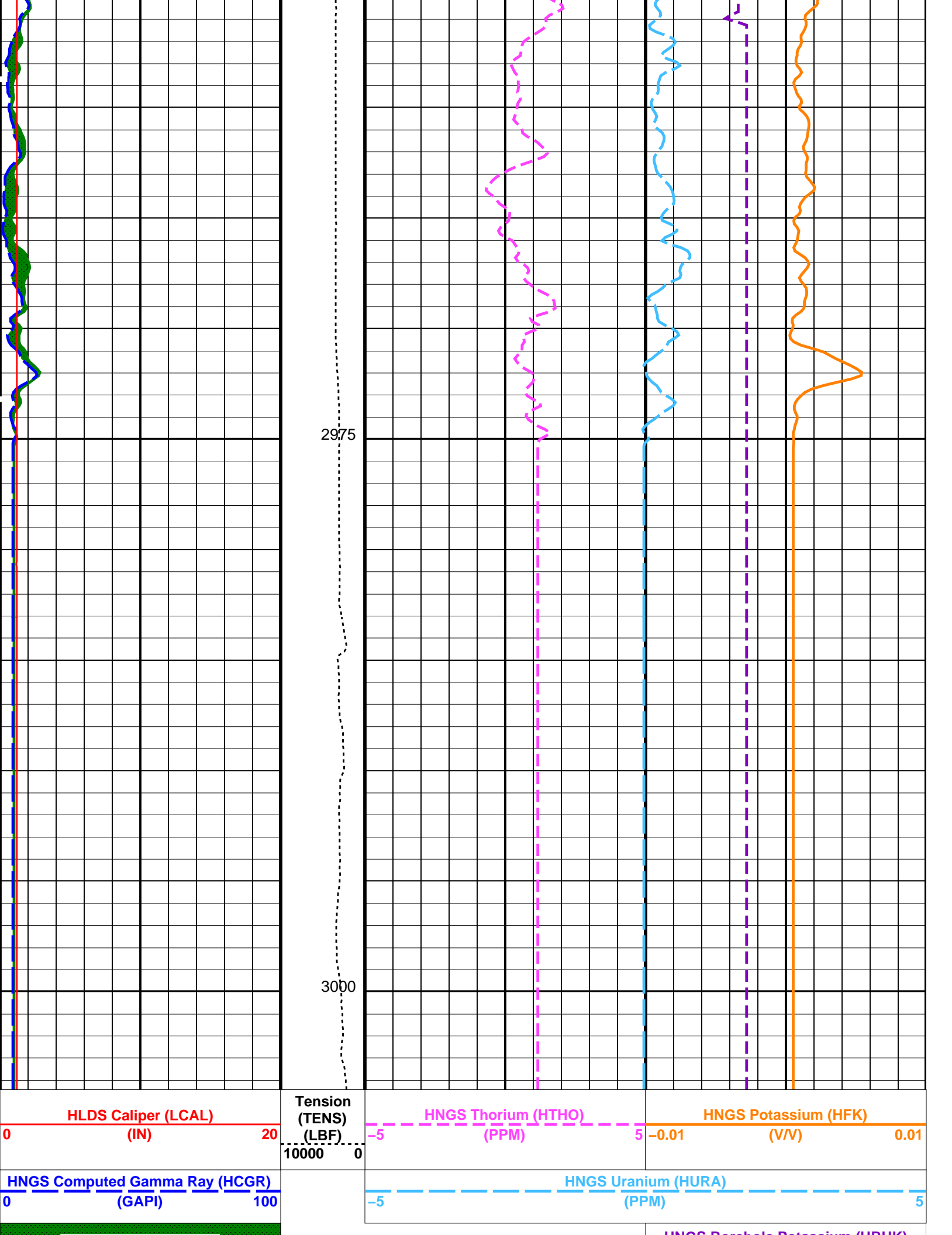
OP System Version: 19C0-187			
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HLDS	19C0-187	LDSC-B	19C0-187
HNGC-B	19C0-187	HNGS-BA	19C0-187
EDTC-B	19C0-187		













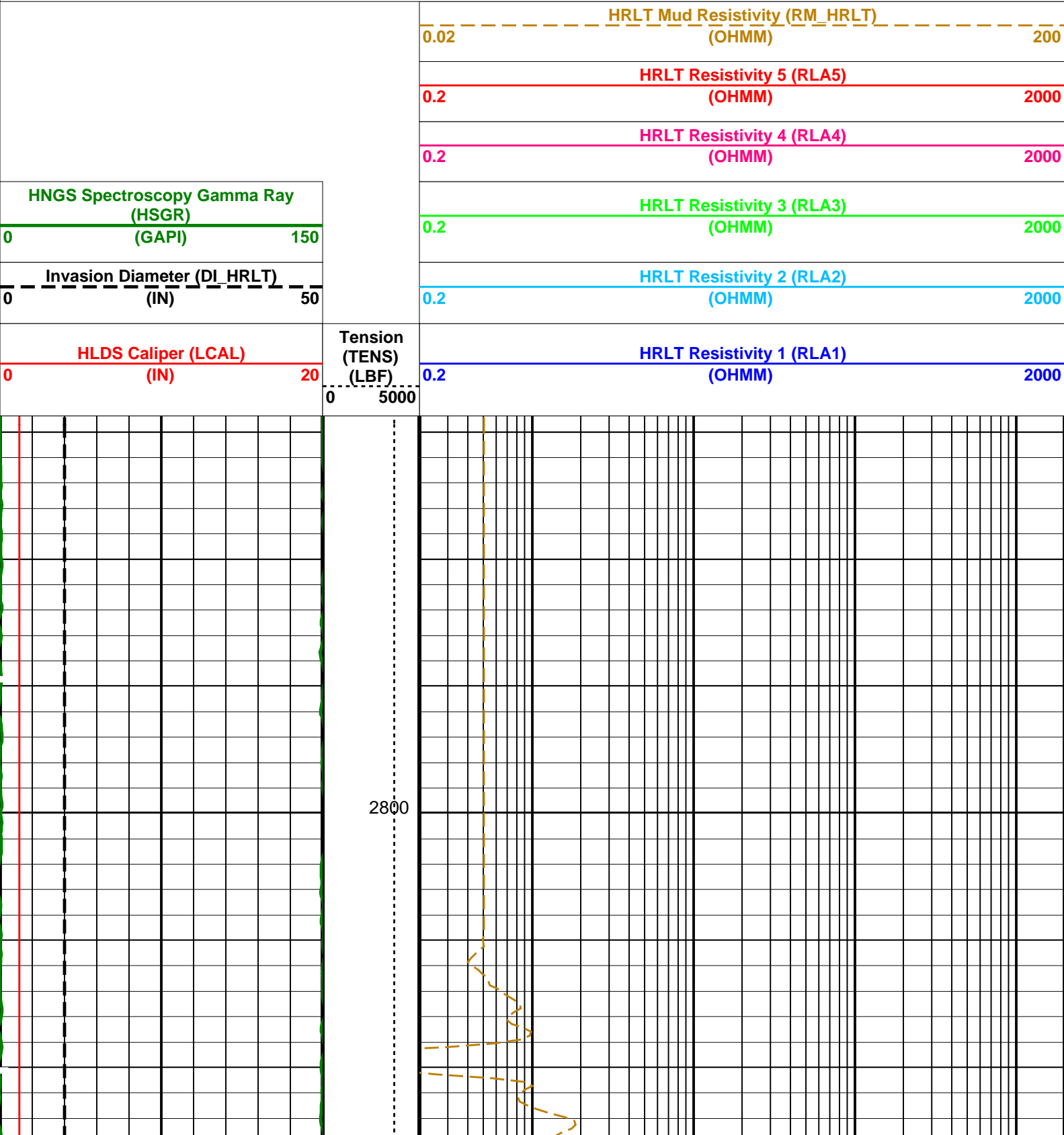
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RTB	MSS_LDEO_HRLA_LDL_024PUP	FN:19	PRODUCER	16-Mar-2024 13:31	3004.4 M	2784.3 M

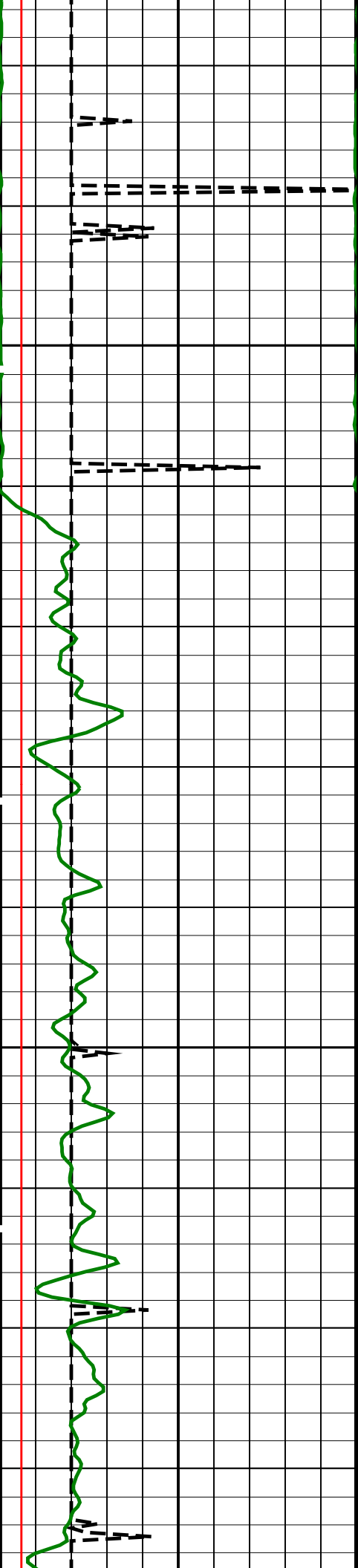
OP System Version: 19C0-187

MSS_LDEO-A	19C0-187	HRLT-B	19C0-187
HLDS	19C0-187	LDSC-B	19C0-187
HNGC-B	19C0-187	HNGS-BA	19C0-187
EDTC-B	19C0-187		

PIP SUMMARY

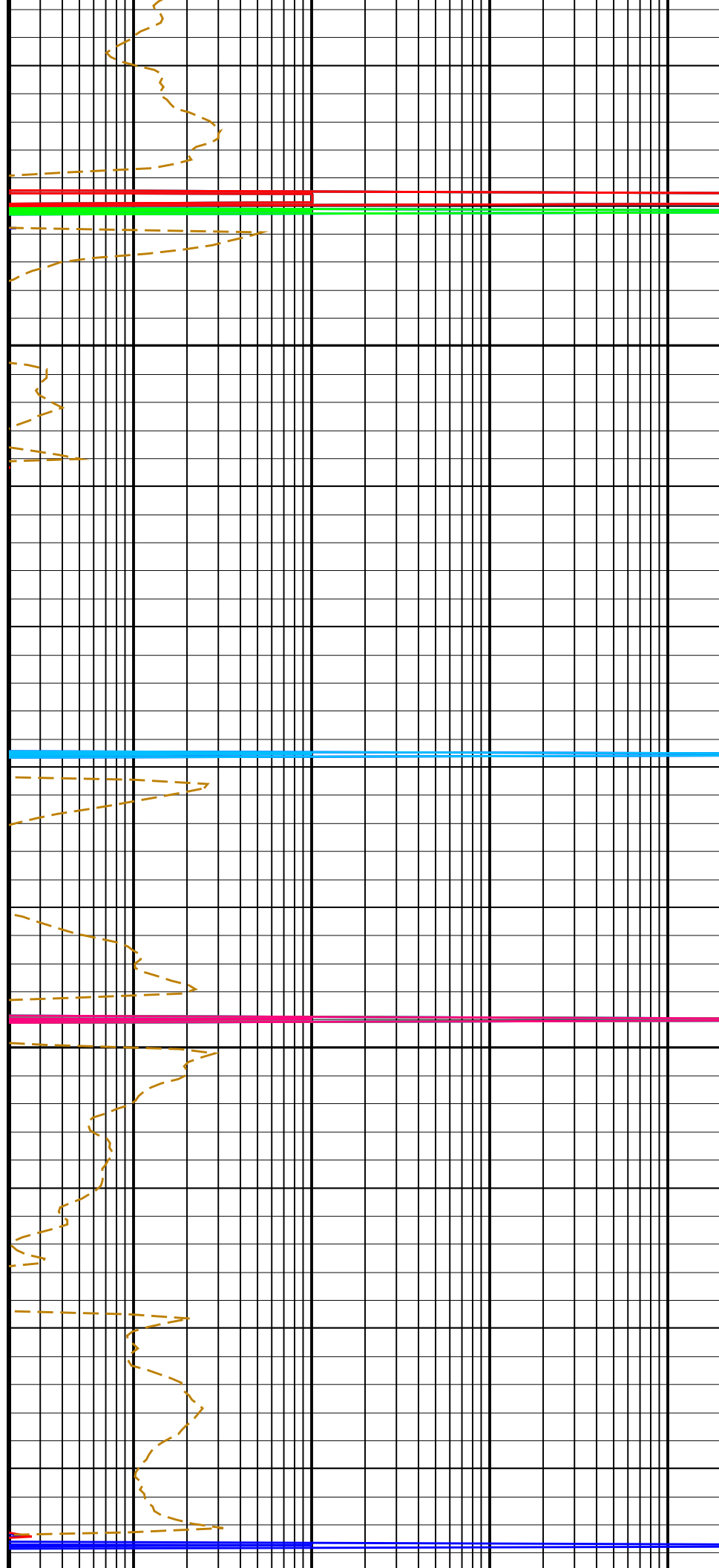
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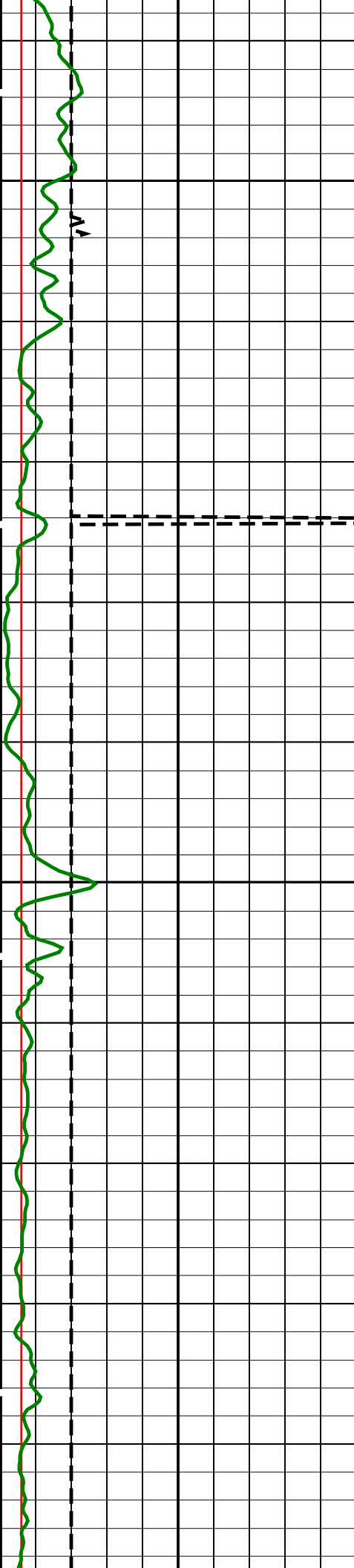


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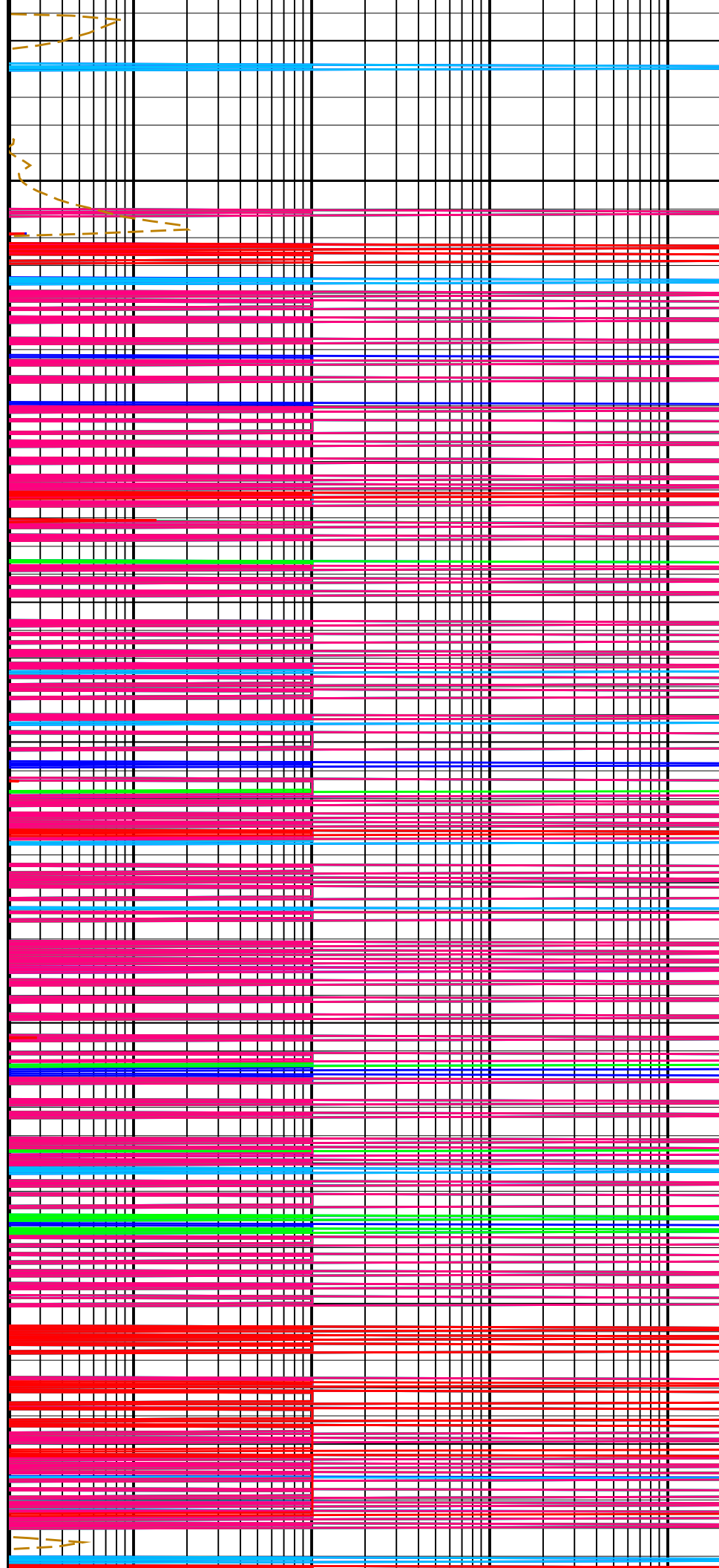


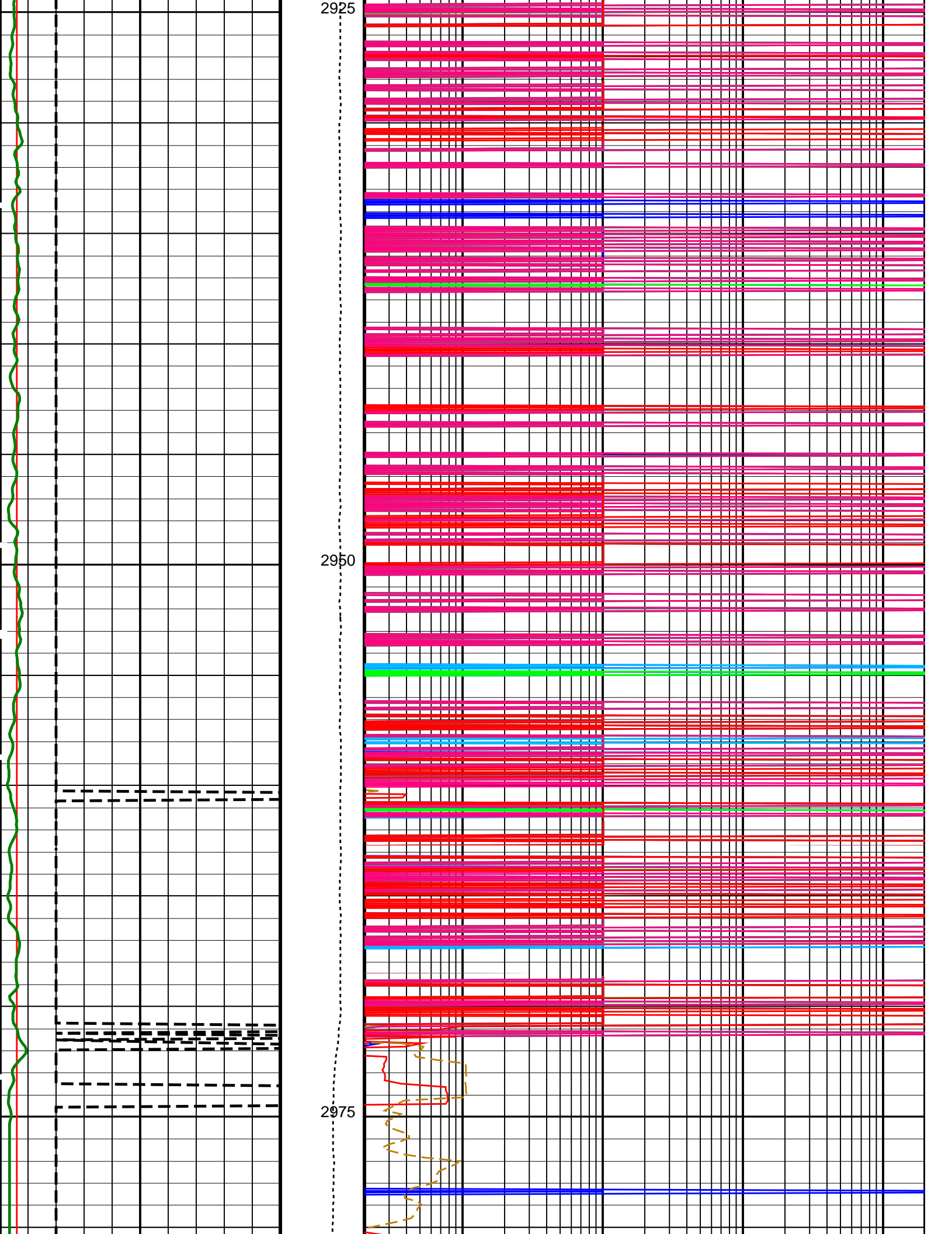


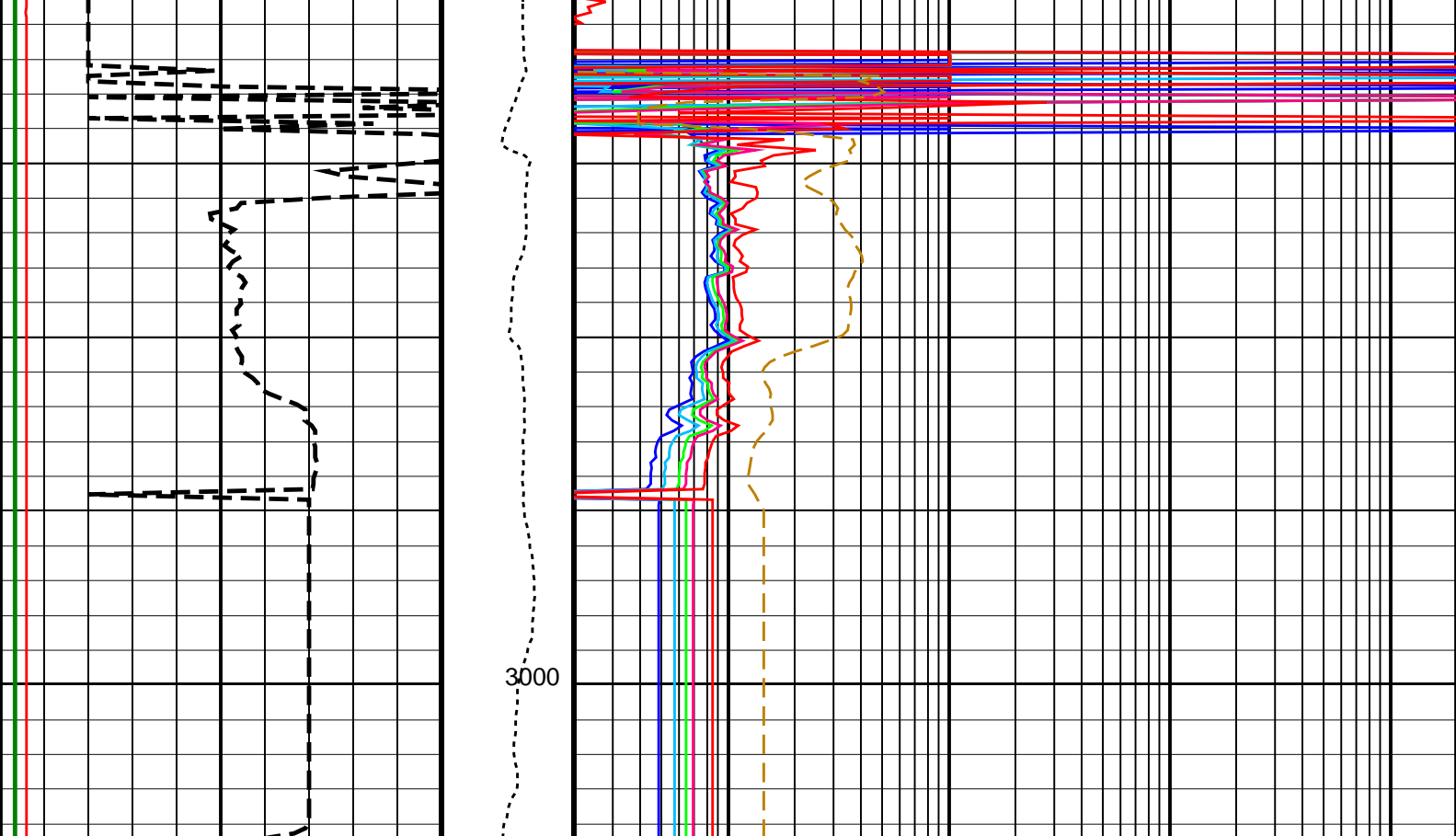


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<div>HLDS Caliper (LCAL) (IN)</div> <div>020</div>	<div>Tension (TENS) (LBF)</div> <div>05000</div>	<div>HRLT Resistivity 1 (RLA1) (OHMM)</div> <div>0.22000</div>
<div>Invasion Diameter (DI_HRLT) (IN)</div> <div>050</div>		<div>HRLT Resistivity 2 (RLA2) (OHMM)</div> <div>0.22000</div>
<div>HNGS Spectroscopy Gamma Ray (HSGR) (GAPI)</div> <div>0150</div>		<div>HRLT Resistivity 3 (RLA3) (OHMM)</div> <div>0.22000</div>
		<div>HRLT Resistivity 4 (RLA4) (OHMM)</div> <div>0.22000</div>
		<div>HRLT Resistivity 5 (RLA5) (OHMM)</div> <div>0.22000</div>
		<div>HRLT Mud Resistivity (RM_HRLT) (OHMM)</div> <div>0.02200</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)	35 DEGF
GCSE	Generalized Caliper Selection	BS
GGRD	Geothermal Gradient	0.01 DF/F
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE
KFAC_HRLT	HRLT K Factor Option	SONDE
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
PROCSP	Sonde Position	Centered
SHT	Surface Hole Temperature	68 DEGF
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)	35	DEGF
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	
GGRD	Geothermal Gradient	0.01	DF/F
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	-0.00397026	
HALF	HNGS Alpha Filter Length	60	IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	NATU	
HNPE	HNGS Processing Enable	YES	
S1BI	HNGS Detector 1 Calibration Bismuth Count Rate	1.3	CPS
S2BI	HNGS Detector 2 Calibration Bismuth Count Rate	1.3	CPS
SGRC	HNGS Standard Gamma-Ray Correction Flag	YES	
SHT	Surface Hole Temperature	68	DEGF
TPOS	Tool Position	ECCE	
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	0.936239	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	0.93565	
EDTC-B: Enhanced DTS Cartridge			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	35	DEGF
GCSE	Generalized Caliper Selection	BS	
GGRD	Geothermal Gradient	0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
SHT	Surface Hole Temperature	68	DEGF
System and Miscellaneous			
BS	Bit Size	9.875	IN
DFD	Drilling Fluid Density	1.02	G/C3
DO	Depth Offset for Playback	0.0	M
MST	Mud Sample Temperature	23.00	DEGC
PP	Playback Processing	NORMAL	
TD	Total Depth	10190.3	FT

Format: HRLT

Vertical Scale: 1:200

Graphics File Created: 16-Mar-2024 13:31

OP System Version: 19C0-187					
MSS_LDEO-A	19C0-187	HRLT-B	19C0-187		
HLDS	19C0-187	LDSC-B	19C0-187		
HNGC-B	19C0-187	HNGS-BA	19C0-187		
EDTC-B	19C0-187				
Input DLIS Files					
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Output DLIS Files					
DEFAULT	MSS_LDEO_HRLA_LDL_024PUP	FN:18	PRODUCER	16-Mar-2024 13:31	
RTB	MSS_LDEO_HRLA_LDL_024PUP	FN:19	PRODUCER	16-Mar-2024 13:31	

Company: International Ocean Discovery Program

Well: Expedition 402, Site U1617A

Input DLIS Files					
DEFAULT	Flip_MSS_LDEO_HRLA_022LUP	PRODUCER	16-Mar-2024 13:30	3004.4 M	2784.3 M
Output DLIS Files					
DEFAULT	MSS_LDEO_HRLA_LDL_024PUP	FN:18	PRODUCER	16-Mar-2024 13:31	3004.4 M 2784.3 M
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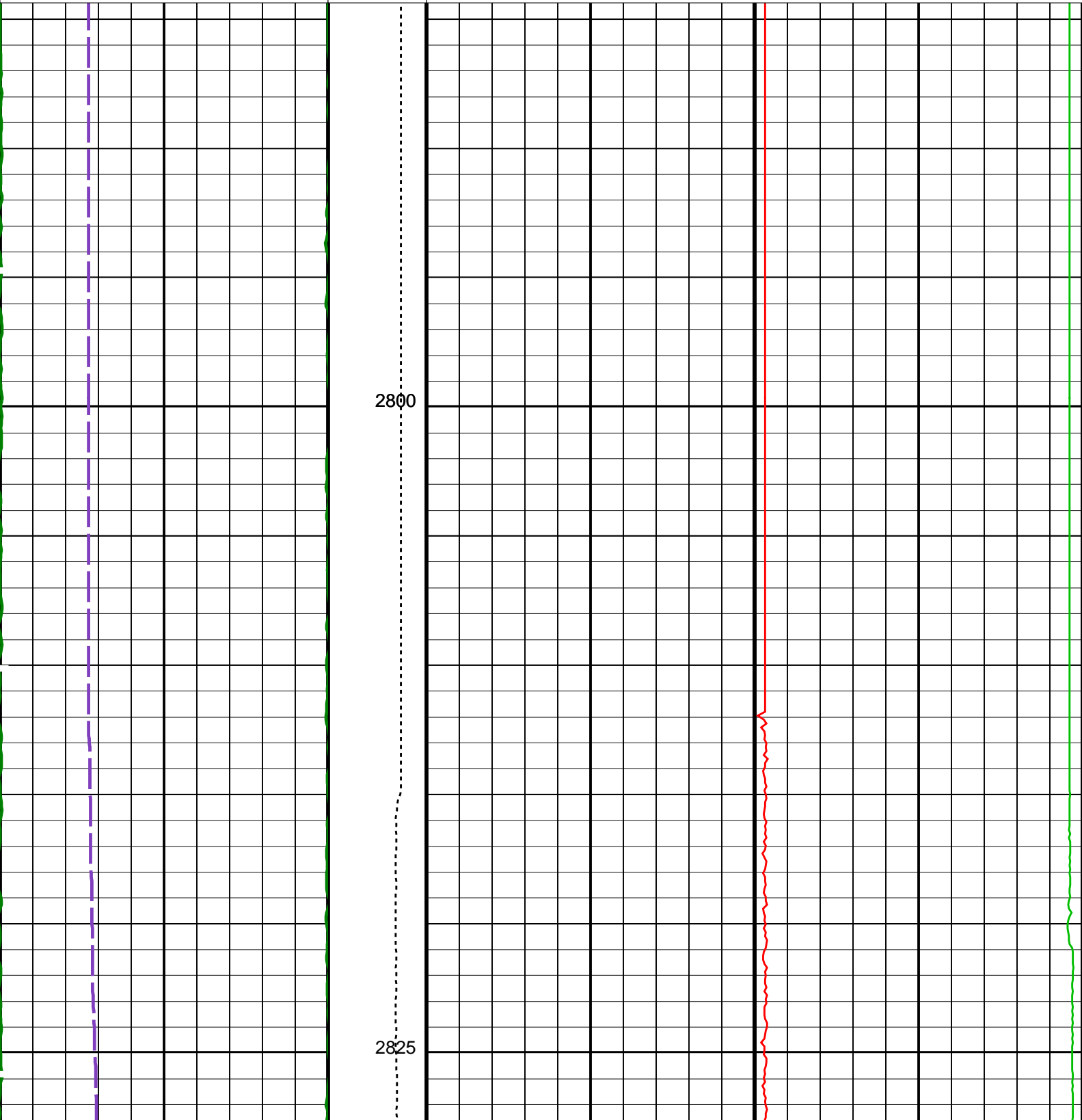
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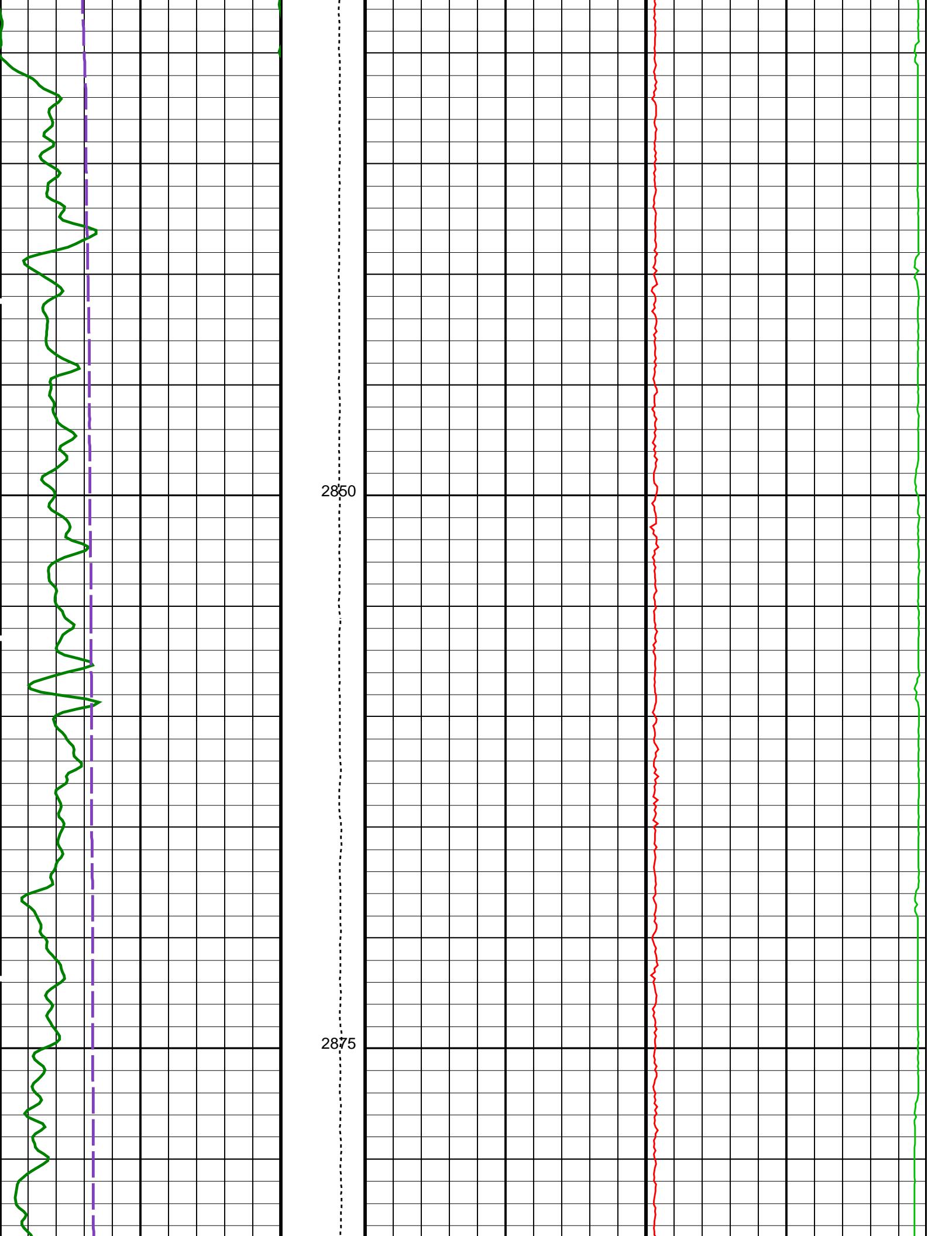
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HNGC-B	19C0-187	HNGS-BA	19C0-187
EDTC-B	19C0-187		

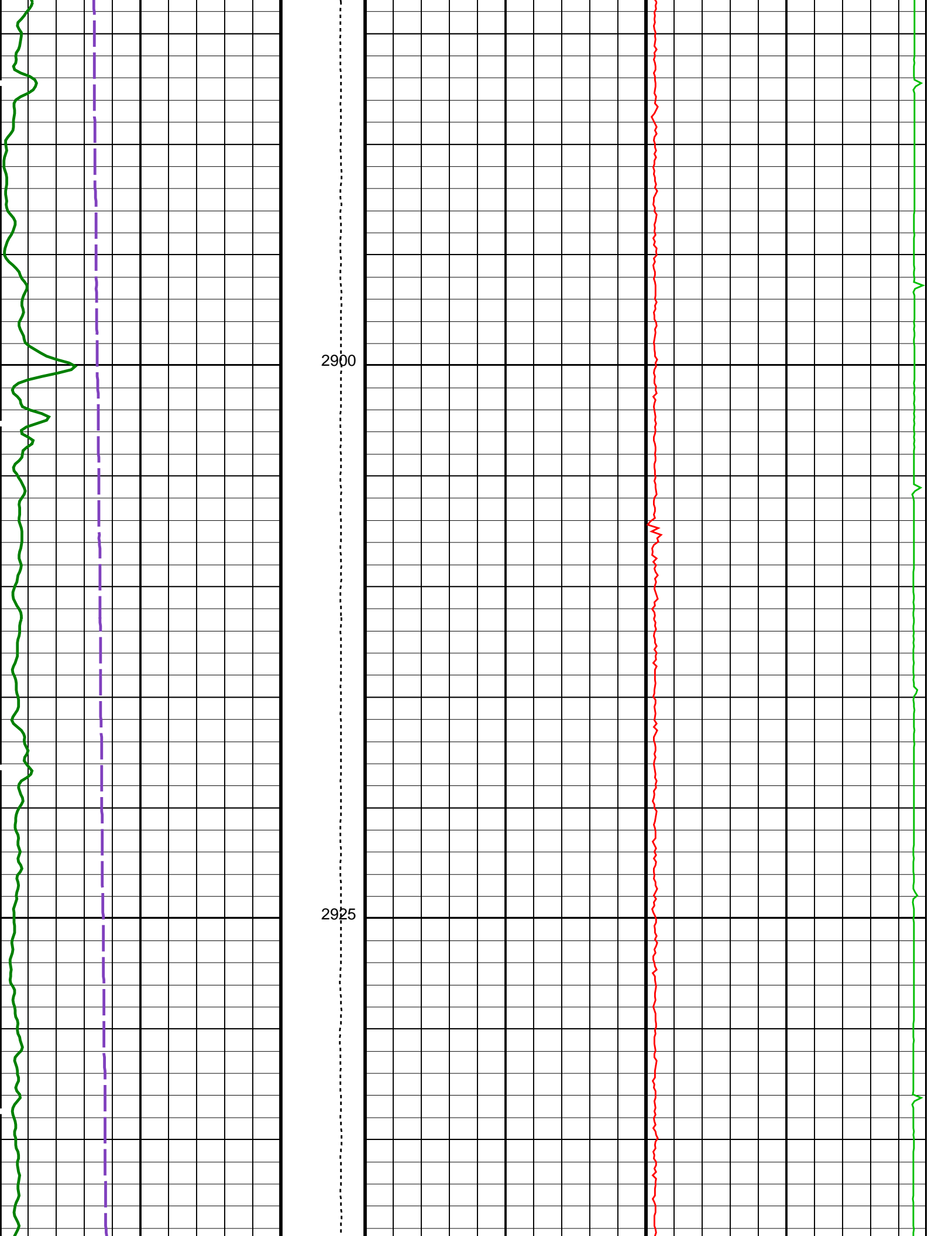
PIP SUMMARY

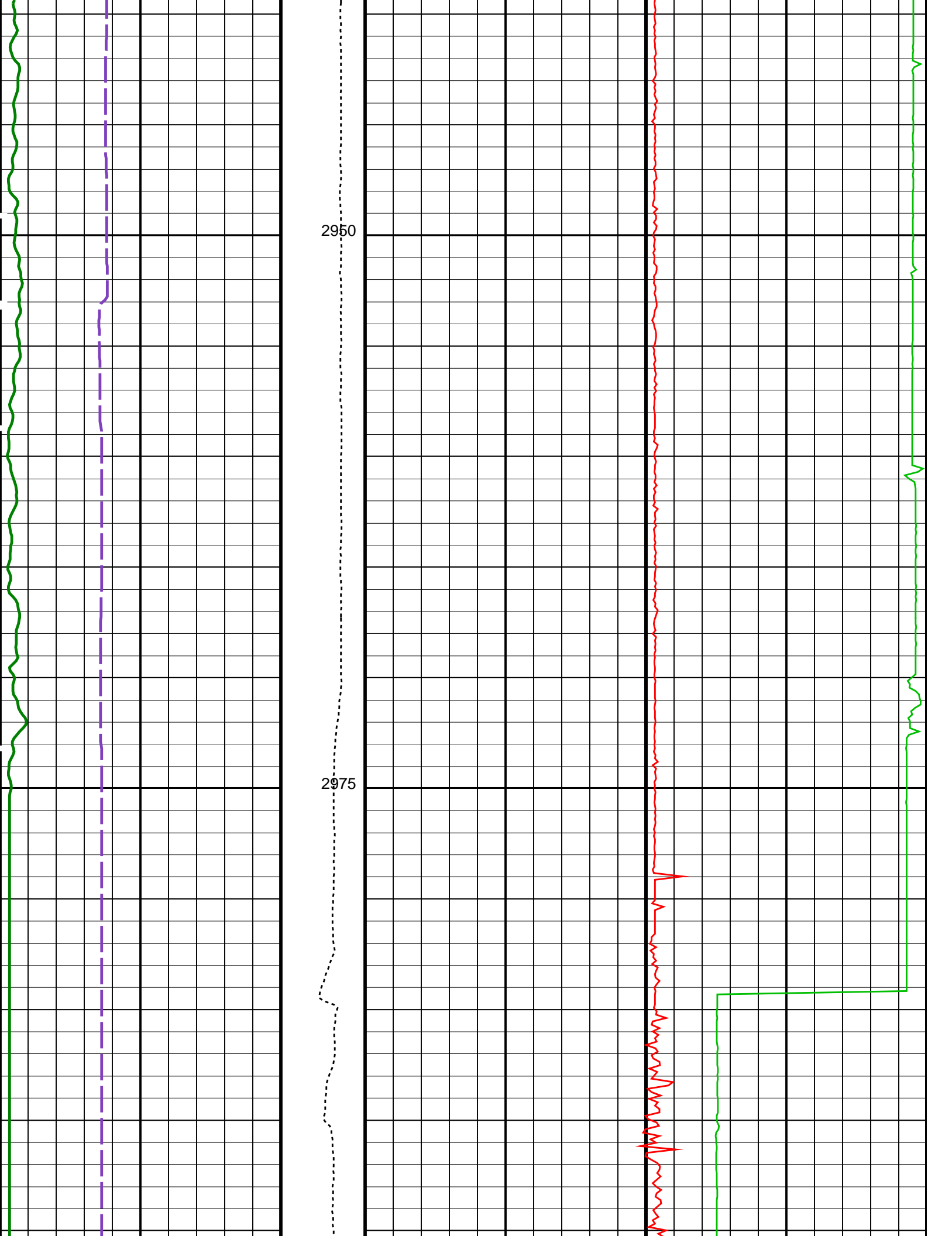
Time Mark Every 60 S

HNGS Spectroscopy Gamma Ray (HSGR)		Dual-Coil Susceptibility (MSSL SUS_LDEO)
0 (GAPI) 150		-10000 (PPM) 90000
Mud temperature (MTEM) (DEGC)	Tension (TENS) (LBF)	Axial Acceleration (MSSZACC_LDEO)
0 50	0 5000	0 (M/S2) 20

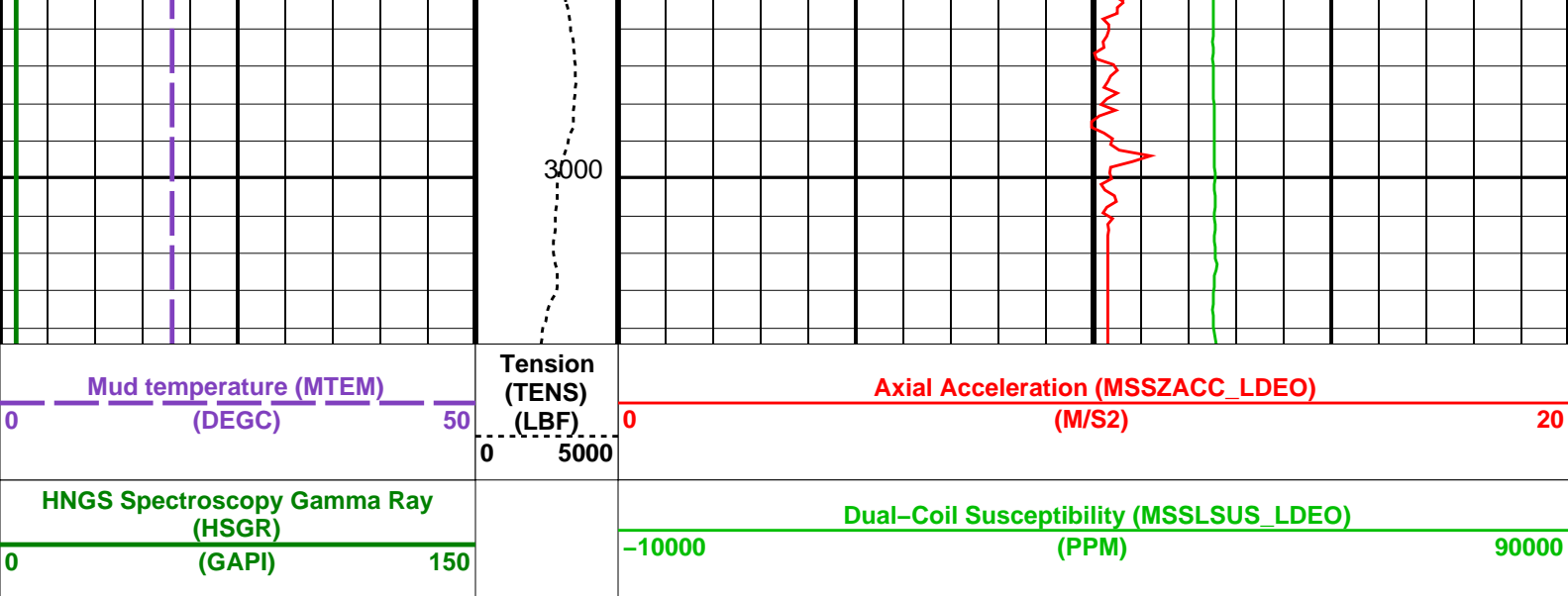












Time Mark Every 60 S

Parameters			
DLIS Name	Description	Value	
HRLT-B: High Resolution Laterolog Array – B			
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	BS	
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	-0.00397026	
HALF	HNGS Alpha Filter Length	60	IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	NATU	
HNPE	HNGS Processing Enable	YES	
S1BI	HNGS Detector 1 Calibration Bismuth Count Rate	1.3	CPS
S2BI	HNGS Detector 2 Calibration Bismuth Count Rate	1.3	CPS
SGRC	HNGS Standard Gamma-Ray Correction Flag	YES	
TPOS	Tool Position	ECCE	
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	0.936239	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	0.93565	
EDTC-B: Enhanced DTS Cartridge			
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	BS	
System and Miscellaneous			
BS	Bit Size	9.875	IN
DFD	Drilling Fluid Density	1.02	G/C3
DO	Depth Offset for Playback	0.0	M
PP	Playback Processing	NORMAL	

Format: MSS\_Logging    Vertical Scale: 1:200    Graphics File Created: 16-Mar-2024 13:31

OP System Version: 19C0-187			
MSS_LDEO-A	19C0-187	HRLT-B	19C0-187
HLDS	19C0-187	LDSC-B	19C0-187
HNGC-B	19C0-187	HNGS-BA	19C0-187
EDTC-B	19C0-187		

Input DLIS Files					
DEFAULT	Flip_MSS_LDEO_HRLA_022LUP	PRODUCER	16-Mar-2024 13:30	3004.4 M	2784.3 M

Output DLIS Files

DEFAULT	MSS_LDEO_HRLA_LDL_024PUP	FN:18	PRODUCER	16-Mar-2024 13:31
RTB	MSS_LDEO_HRLA_LDL_024PUP	FN:19	PRODUCER	16-Mar-2024 13:31

Schlumberger

Second Attempt Uplog  
Scale 1:100

MAXIS Field Log

Company: International Ocean Discovery ProgramWell: Expedition 402, Site U1617A

Output DLIS Files

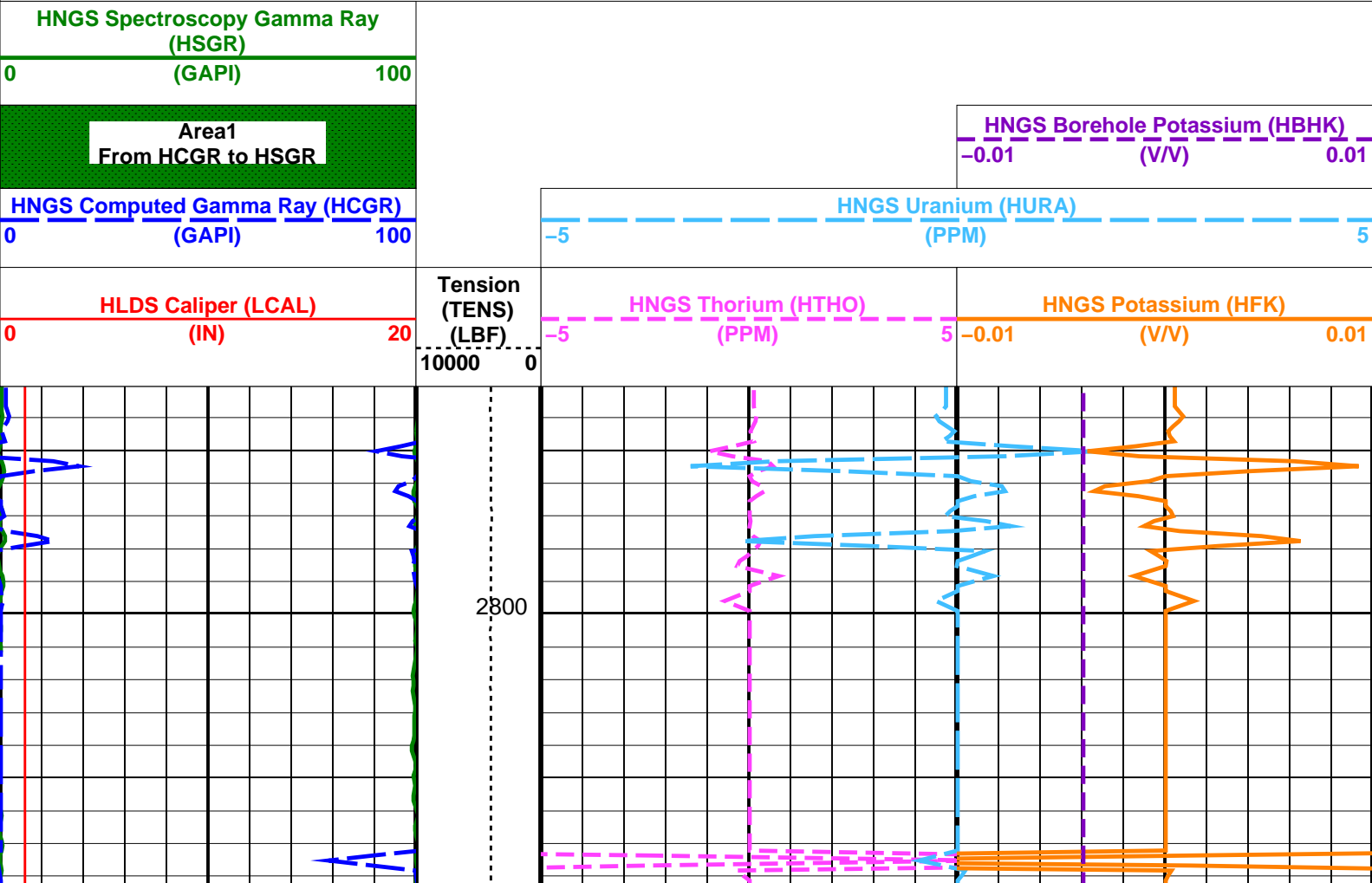
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RTB	MSS_LDEO_HRLA_LDL_019LUP	FN:14	PRODUCER	16-Mar-2024 12:19	2999.2 M	2793.5 M

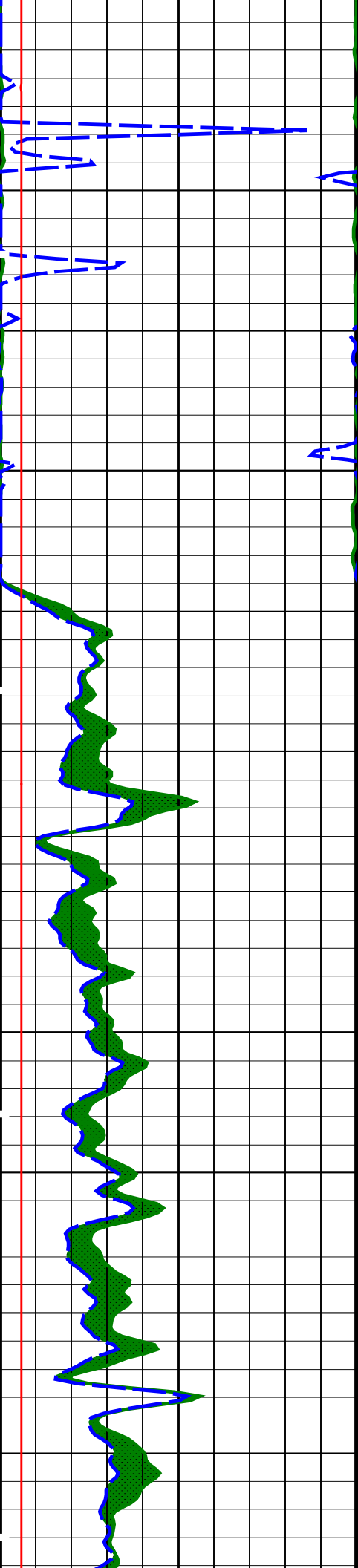
OP System Version: 19C0-187

MSS_LDEO-A	19C0-187	HRLT-B	19C0-187
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EDTC-B	19C0-187		

PIP SUMMARY

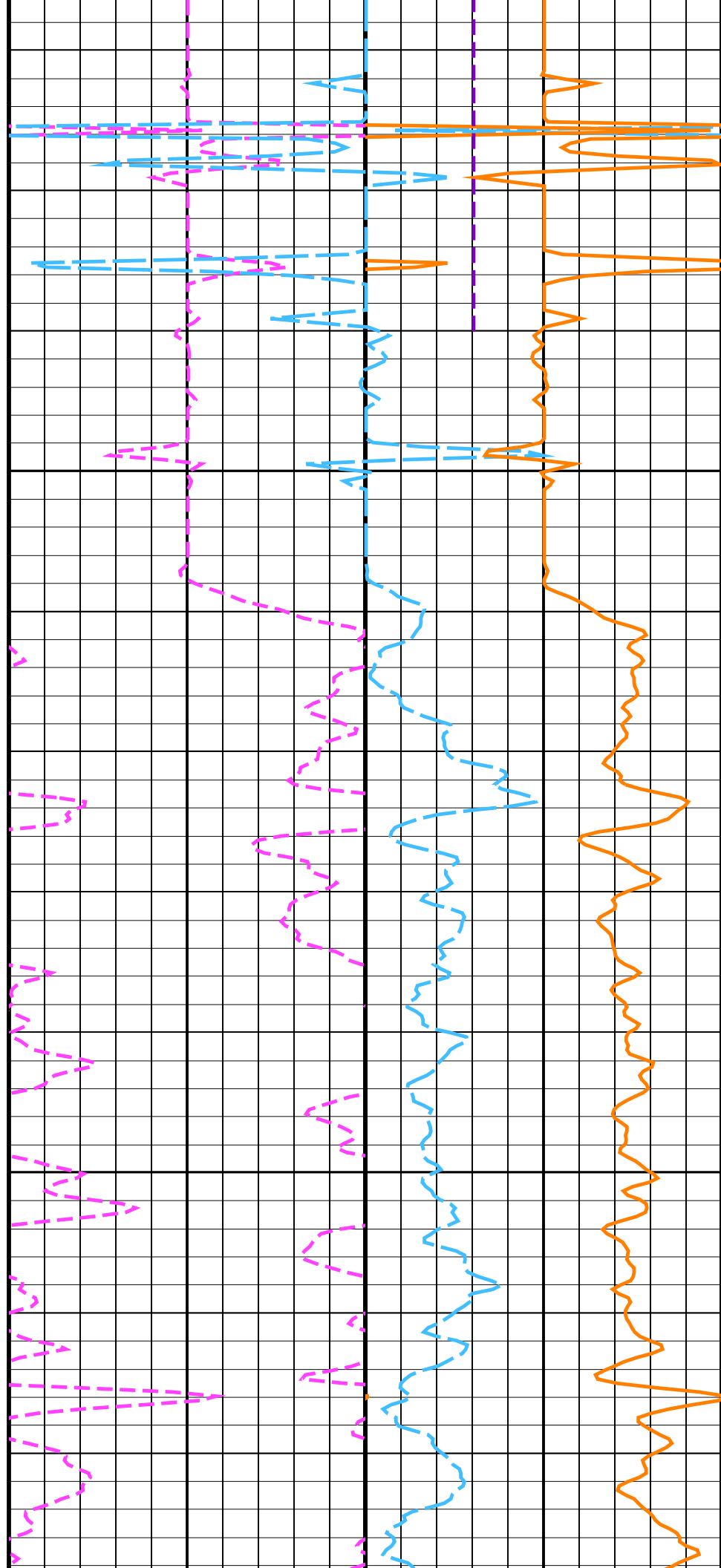
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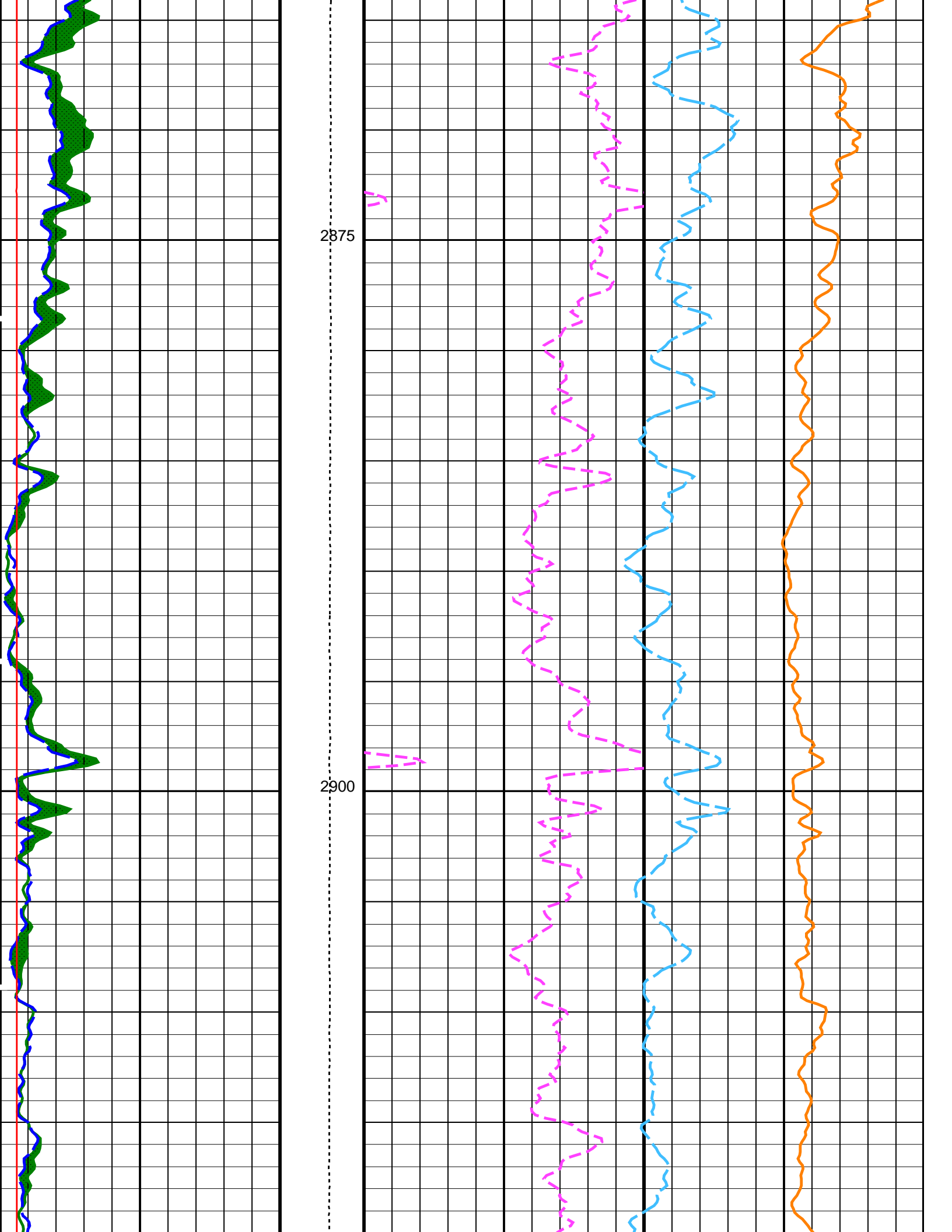


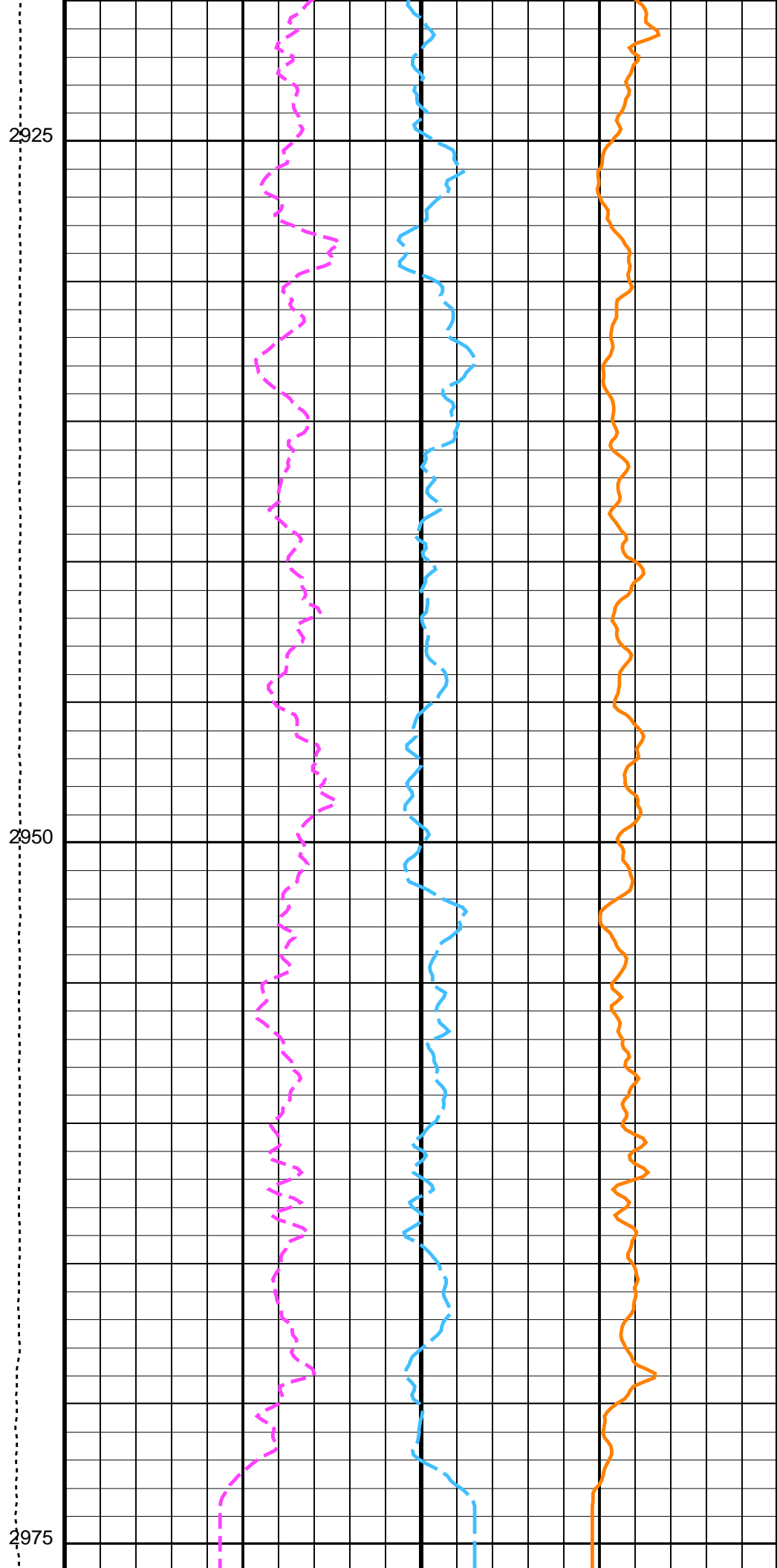
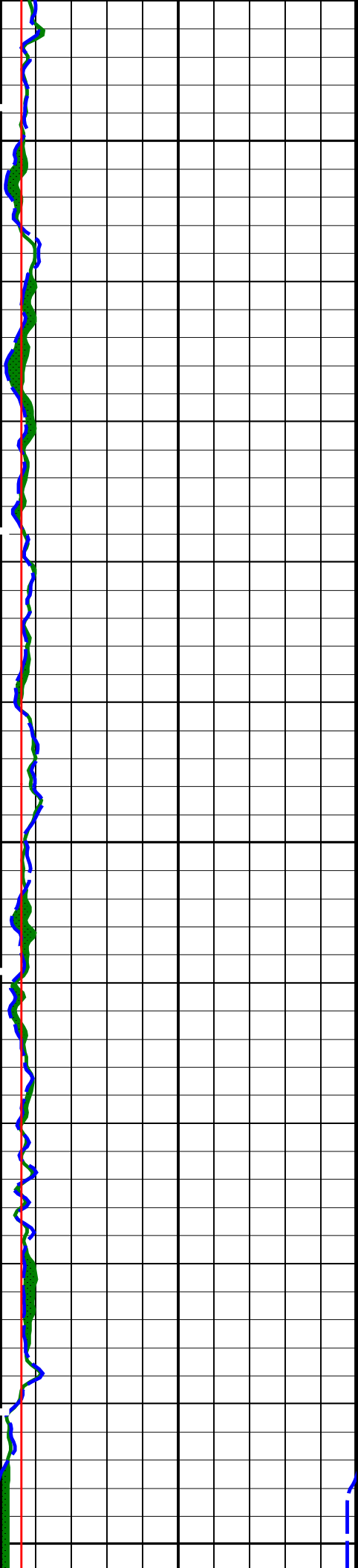


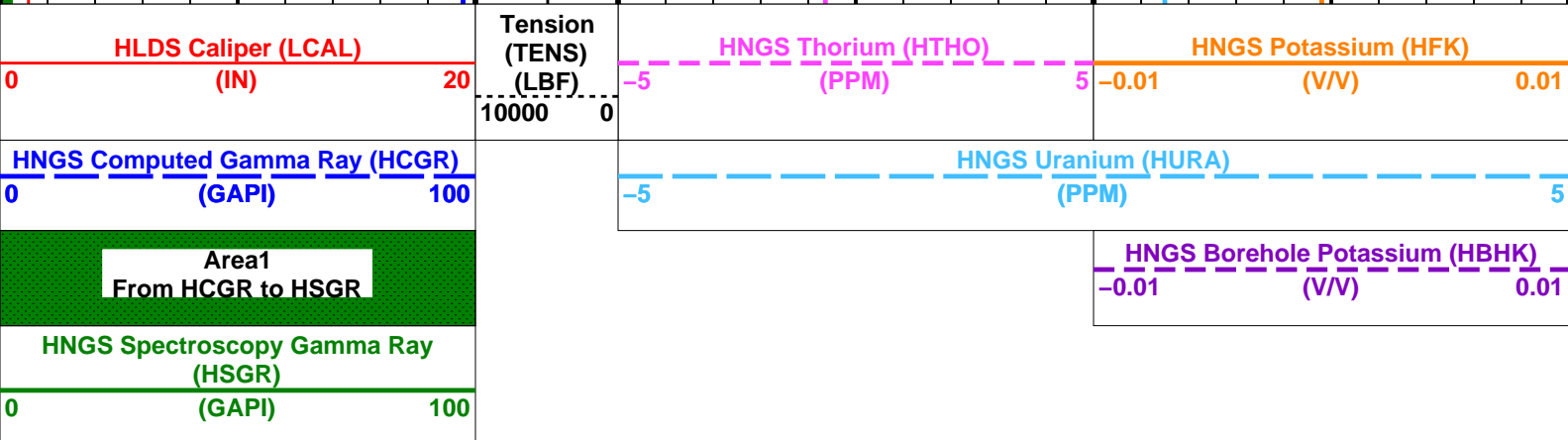
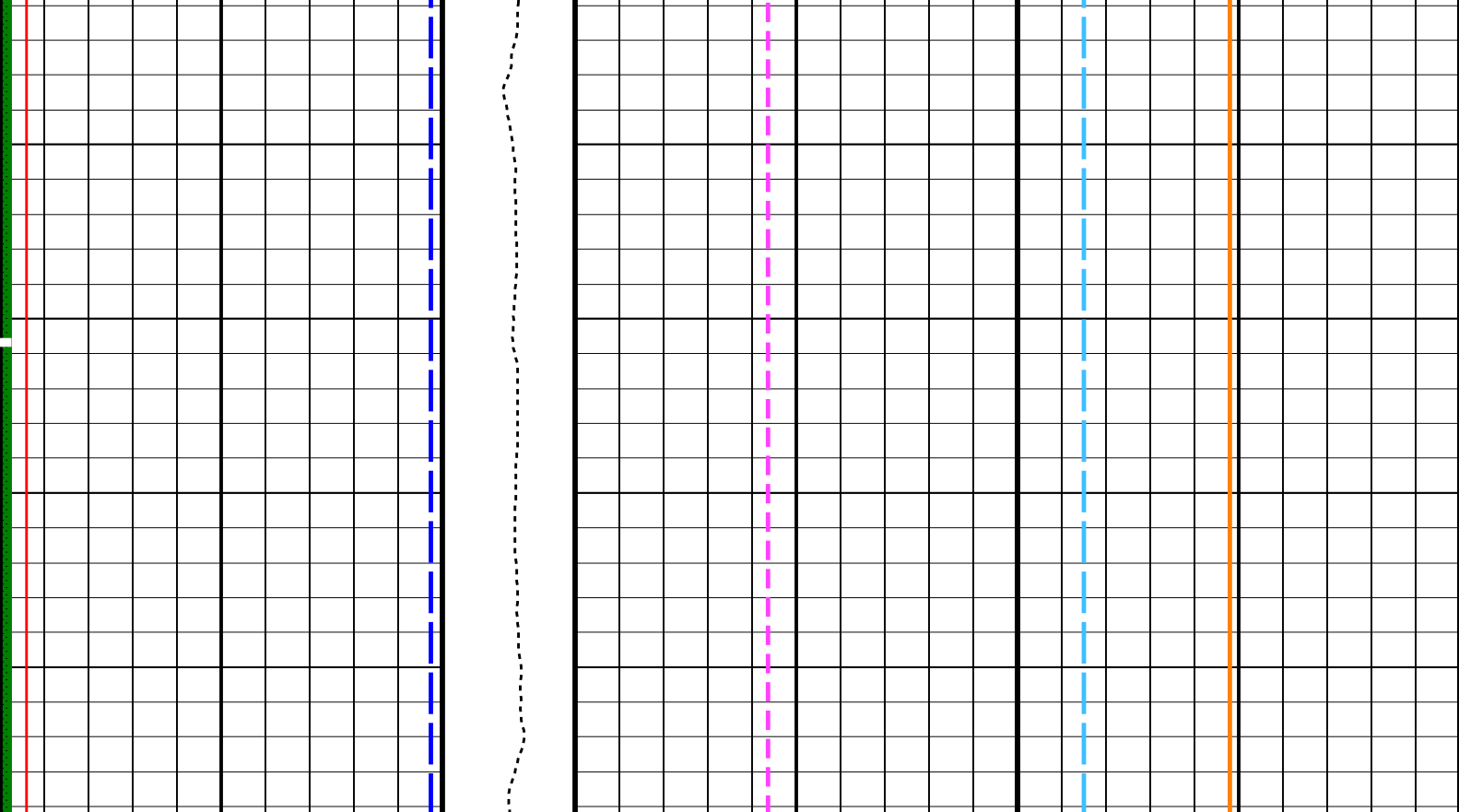
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PIP SUMMARY

☒ Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
BHS	HRLT-B: High Resolution Laterolog Array – B		
GCSE	Borehole Status	OPEN	
	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	-0.00395691	
HALF	HNGS Alpha Filter Length	60	IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	NATU	
HNPE	HNGS Processing Enable	YES	
S1BI	HNGS Detector 1 Calibration Bismuth Count Rate	1.3	CPS
S2BI	HNGS Detector 2 Calibration Bismuth Count Rate	1.3	CPS

SGRC	HNGS Detector 2 Calibration Gamma-Ray Count Rate	YES	CP 3
TPOS	Tool Position	ECCE	
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	0.315045	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	0.94616	
EDTC-B: Enhanced DTS Cartridge			
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	BS	
System and Miscellaneous			
BS	Bit Size	9.875	IN
DFD	Drilling Fluid Density	1.02	G/C3

Format: HNGSYields

Vertical Scale: 1:200

Graphics File Created: 16-Mar-2024 12:19

OP System Version: 19C0-187			
MSS_LDEO-A	19C0-187	HRLT-B	19C0-187
HLDS	19C0-187	LDSC-B	19C0-187
HNGC-B	19C0-187	HNGS-BA	19C0-187
EDTC-B	19C0-187		

Output DLIS Files				
DEFAULT	MSS_LDEO_HRLA_LDL_019LUP	FN:13	PRODUCER	16-Mar-2024 12:19
RTB	MSS_LDEO_HRLA_LDL_019LUP	FN:14	PRODUCER	16-Mar-2024 12:19

Company: International Ocean Discovery Program

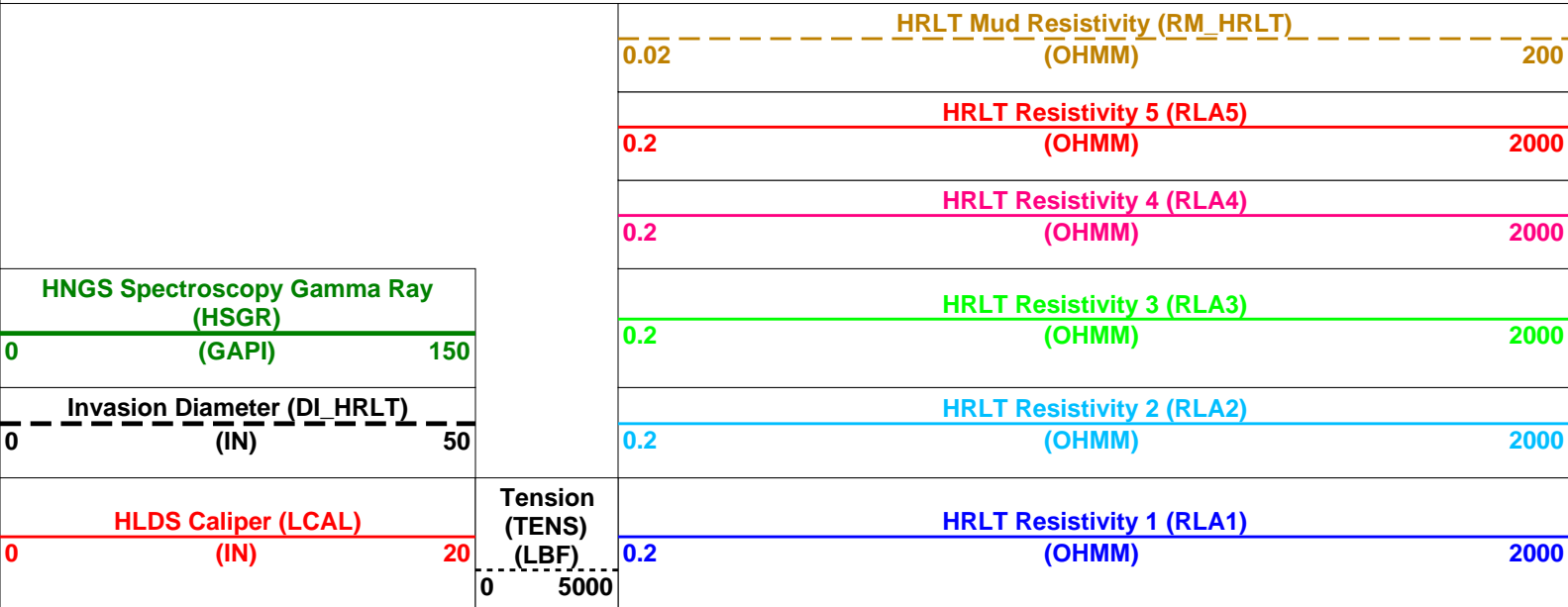
Well: Expedition 402, Site U1617A

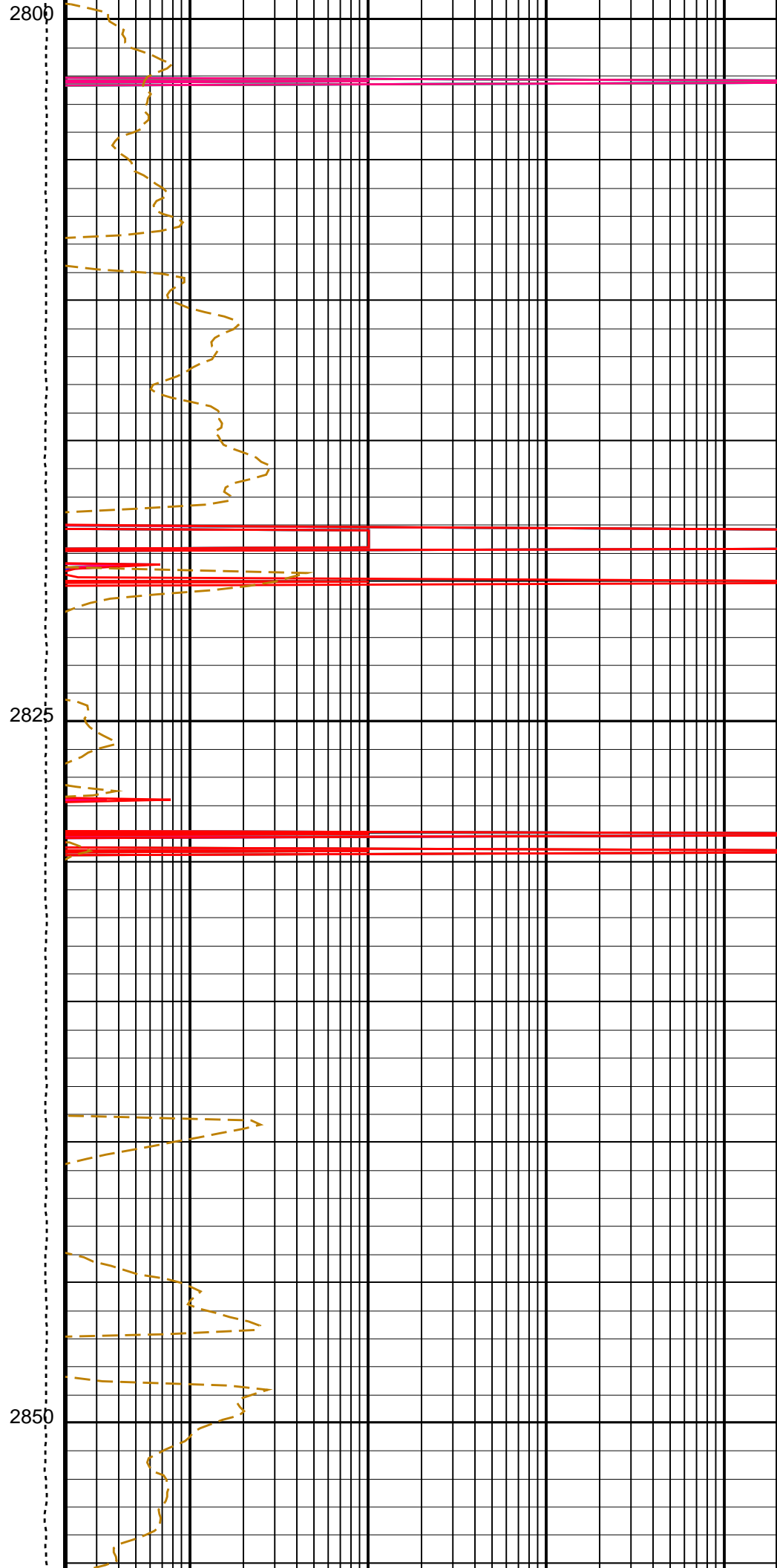
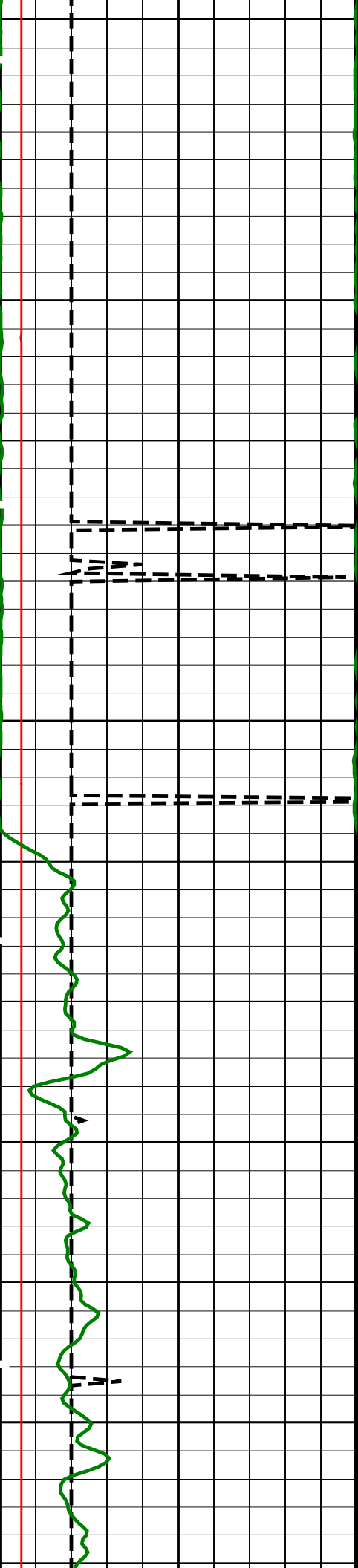
Output DLIS Files						
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RTB	MSS_LDEO_HRLA_LDL_019LUP	FN:14	PRODUCER	16-Mar-2024 12:19	2999.2 M	2793.5 M

OP System Version: 19C0-187			
MSS_LDEO-A	19C0-187	HRLT-B	19C0-187
HLDS	19C0-187	LDSC-B	19C0-187
HNGC-B	19C0-187	HNGS-BA	19C0-187
EDTC-B	19C0-187		

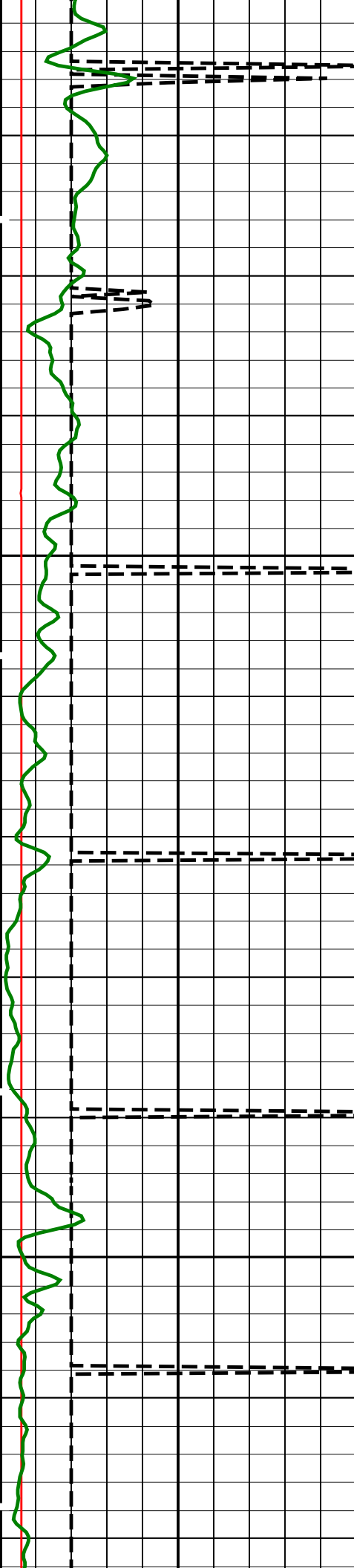
PIP SUMMARY

Time Mark Every 60 S



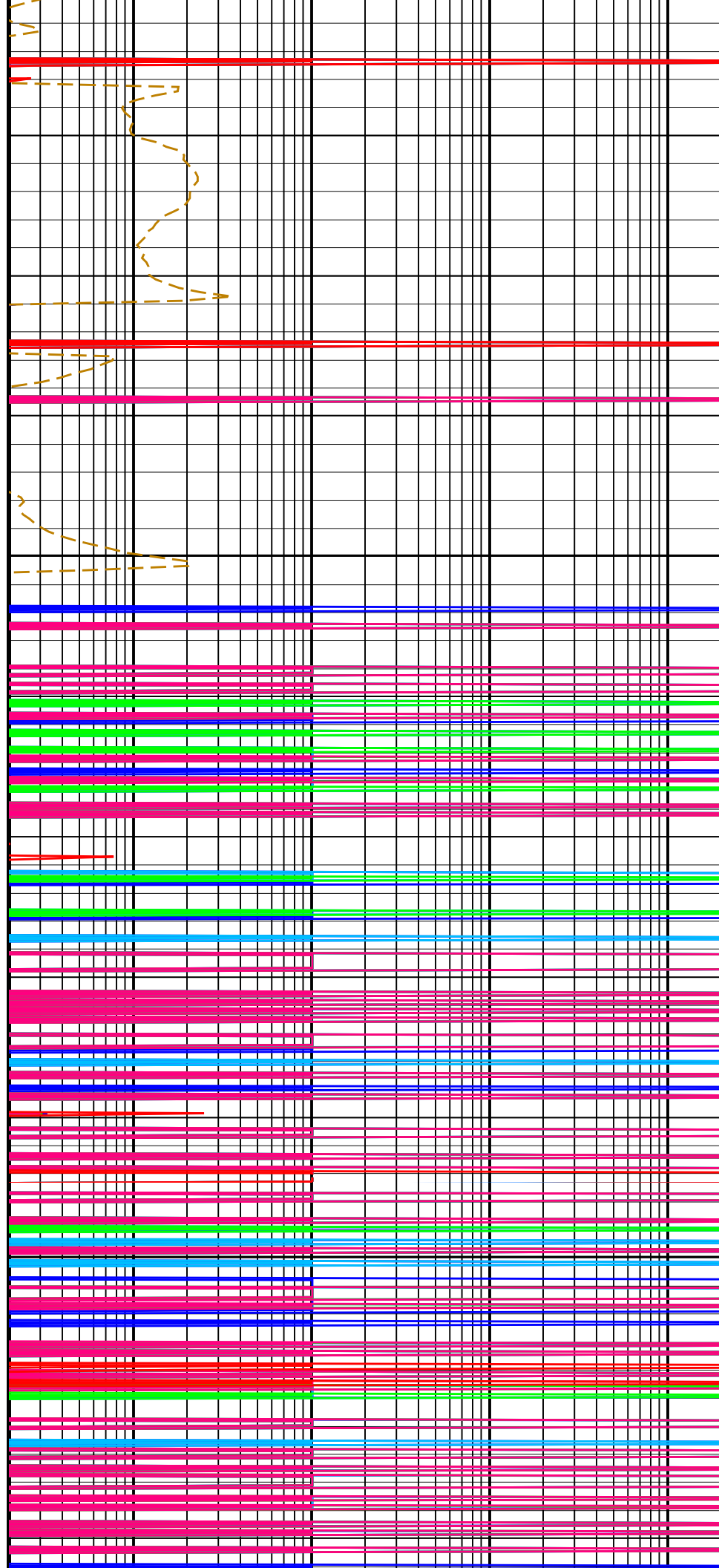


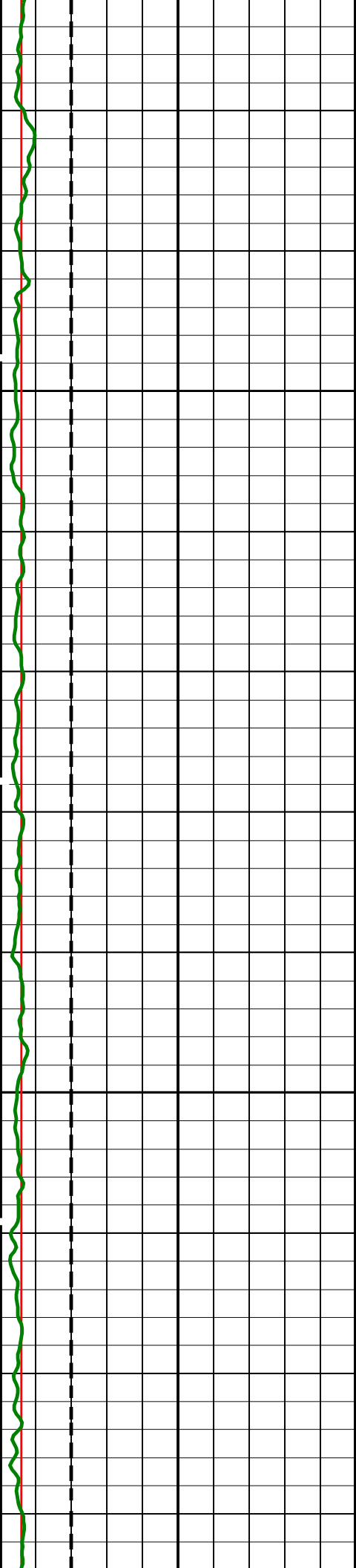




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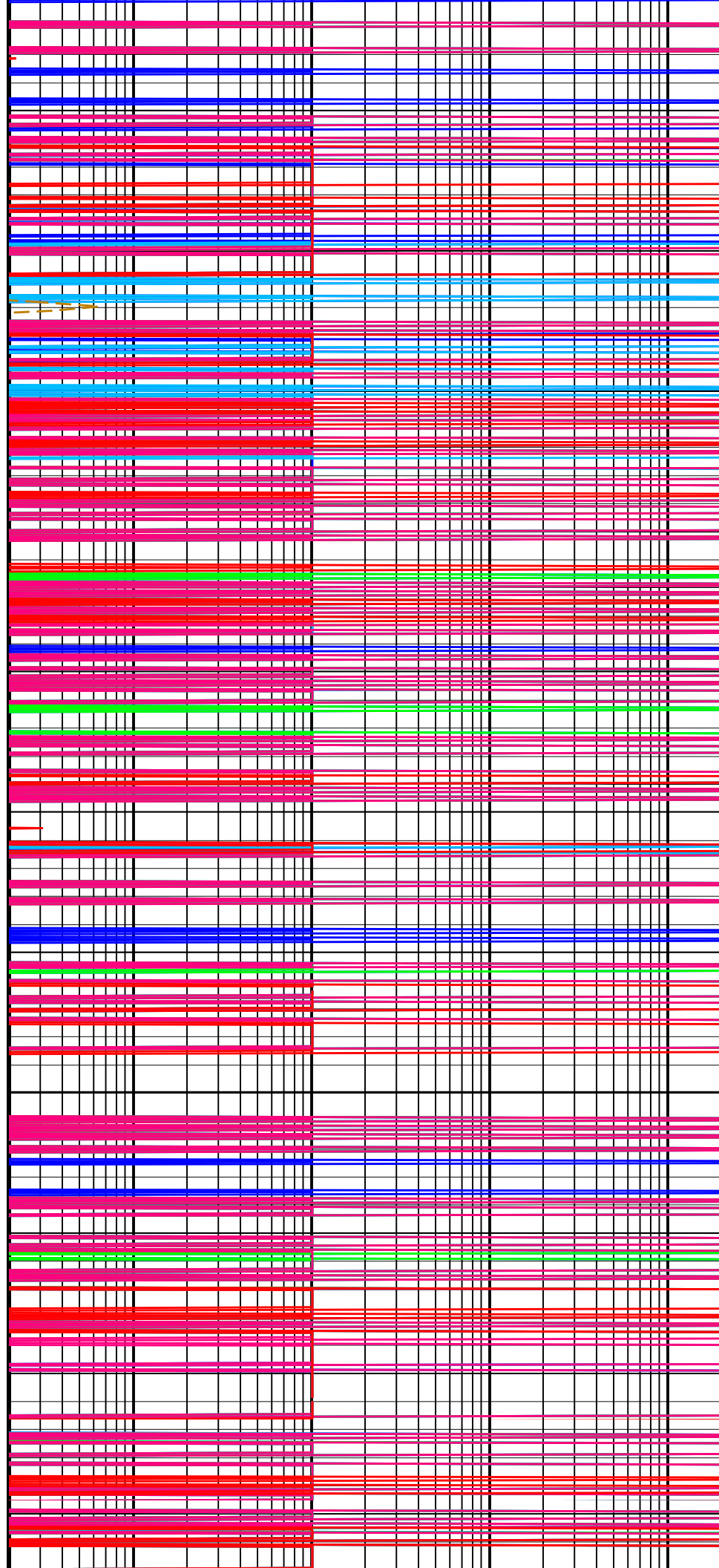
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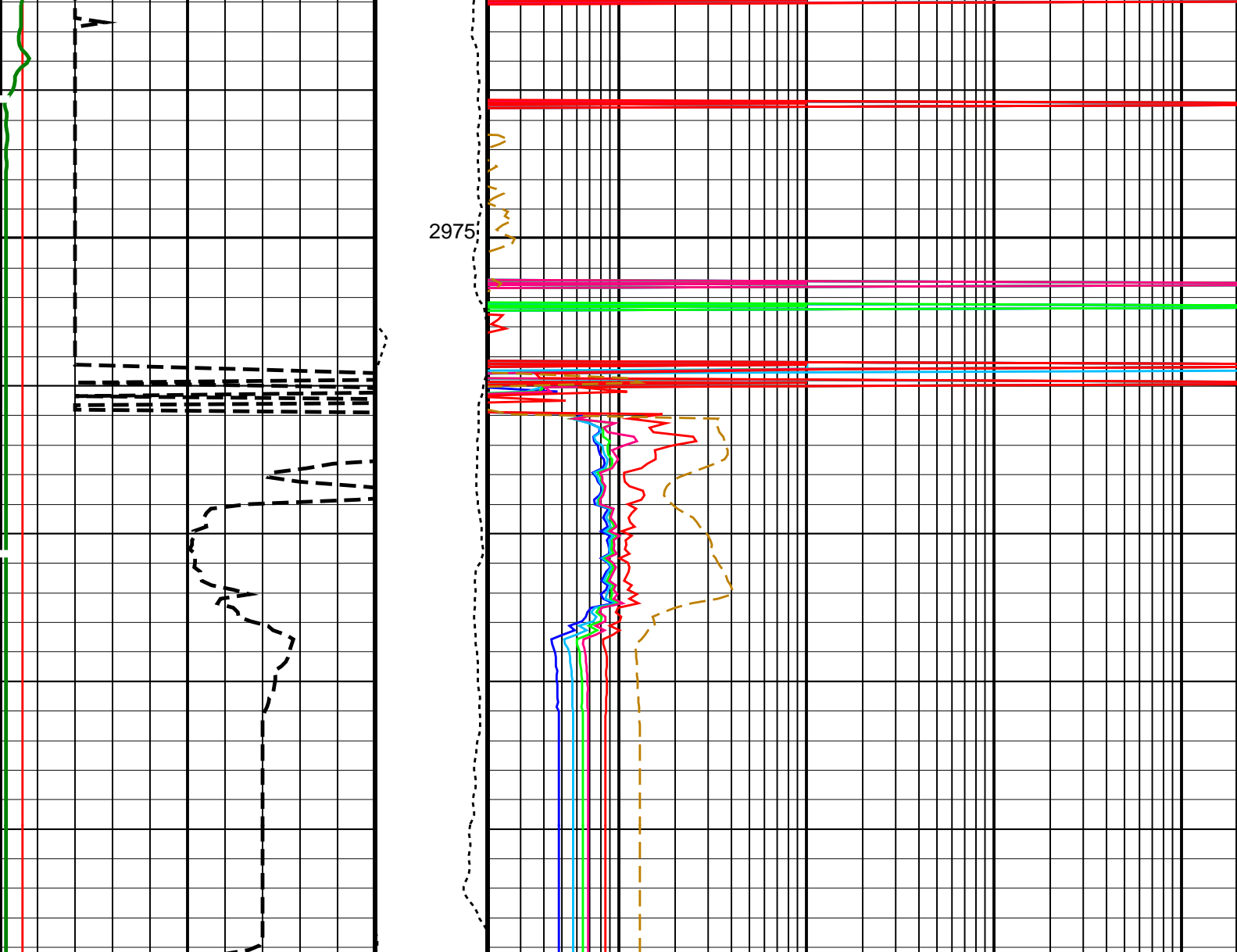




2925

2950





<div>HLDS Caliper (LCAL)</div> <div>020</div> <div>(IN)</div>	<div>Tension (TENS)</div> <div>(LBF)</div> <div>05000</div>	<div>HRLT Resistivity 1 (RLA1)</div> <div>0.22000</div> <div>(OHMM)</div>
<div>Invasion Diameter (DI_HRLT)</div> <div>050</div> <div>(IN)</div>		<div>HRLT Resistivity 2 (RLA2)</div> <div>0.22000</div> <div>(OHMM)</div>
<div>HNGS Spectroscopy Gamma Ray (HSGR)</div> <div>0150</div> <div>(GAPI)</div>		<div>HRLT Resistivity 3 (RLA3)</div> <div>0.22000</div> <div>(OHMM)</div>
		<div>HRLT Resistivity 4 (RLA4)</div> <div>0.22000</div> <div>(OHMM)</div>
		<div>HRLT Resistivity 5 (RLA5)</div> <div>0.22000</div> <div>(OHMM)</div>
		<div>HRLT Mud Resistivity (RM_HRLT)</div> <div>0.02200</div> <div>(OHMM)</div>

PIP SUMMARY

Time Mark Every 60 S

Parameters		
DLIS Name	Description	Value
BHS	HRLT-B: High Resolution Laterolog Array – B Borehole Status	OPEN

BHT	Bottom Hole Temperature (used in calculations)	35	DEGF
GCSE	Generalized Caliper Selection	BS	
GGRD	Geothermal Gradient	0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
KFAC_HRLT	HRLT K Factor Option	SONDE	
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	68	DEGF
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)	35	DEGF
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	
GGRD	Geothermal Gradient	0.01	DF/F
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	-0.00395691	
HALF	HNGS Alpha Filter Length	60	IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	NATU	
HNPE	HNGS Processing Enable	YES	
S1BI	HNGS Detector 1 Calibration Bismuth Count Rate	1.3	CPS
S2BI	HNGS Detector 2 Calibration Bismuth Count Rate	1.3	CPS
SGRC	HNGS Standard Gamma-Ray Correction Flag	YES	
SHT	Surface Hole Temperature	68	DEGF
TPOS	Tool Position	ECCE	
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	0.315045	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	0.94616	
EDTC-B: Enhanced DTS Cartridge			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	35	DEGF
GCSE	Generalized Caliper Selection	BS	
GGRD	Geothermal Gradient	0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
SHT	Surface Hole Temperature	68	DEGF
System and Miscellaneous			
BS	Bit Size	9.875	IN
DFD	Drilling Fluid Density	1.02	G/C3
MST	Mud Sample Temperature	23.00	DEGC
TD	Total Depth	10190.3	FT

Format: HRLT    Vertical Scale: 1:200    Graphics File Created: 16-Mar-2024 12:19

## OP System Version: 19C0-187

MSS_LDEO-A	19C0-187	HRLT-B	19C0-187
HLDS	19C0-187	LDSC-B	19C0-187
HNGC-B	19C0-187	HNGS-BA	19C0-187
EDTC-B	19C0-187		

## Output DLIS Files

DEFAULT	MSS_LDEO_HRLA_LDL_019LUP	FN:13	PRODUCER	16-Mar-2024 12:19
RTB	MSS_LDEO_HRLA_LDL_019LUP	FN:14	PRODUCER	16-Mar-2024 12:19

Company: International Ocean Discovery Program    Well: Expedition 402, Site U1617A

## Output DLIS Files

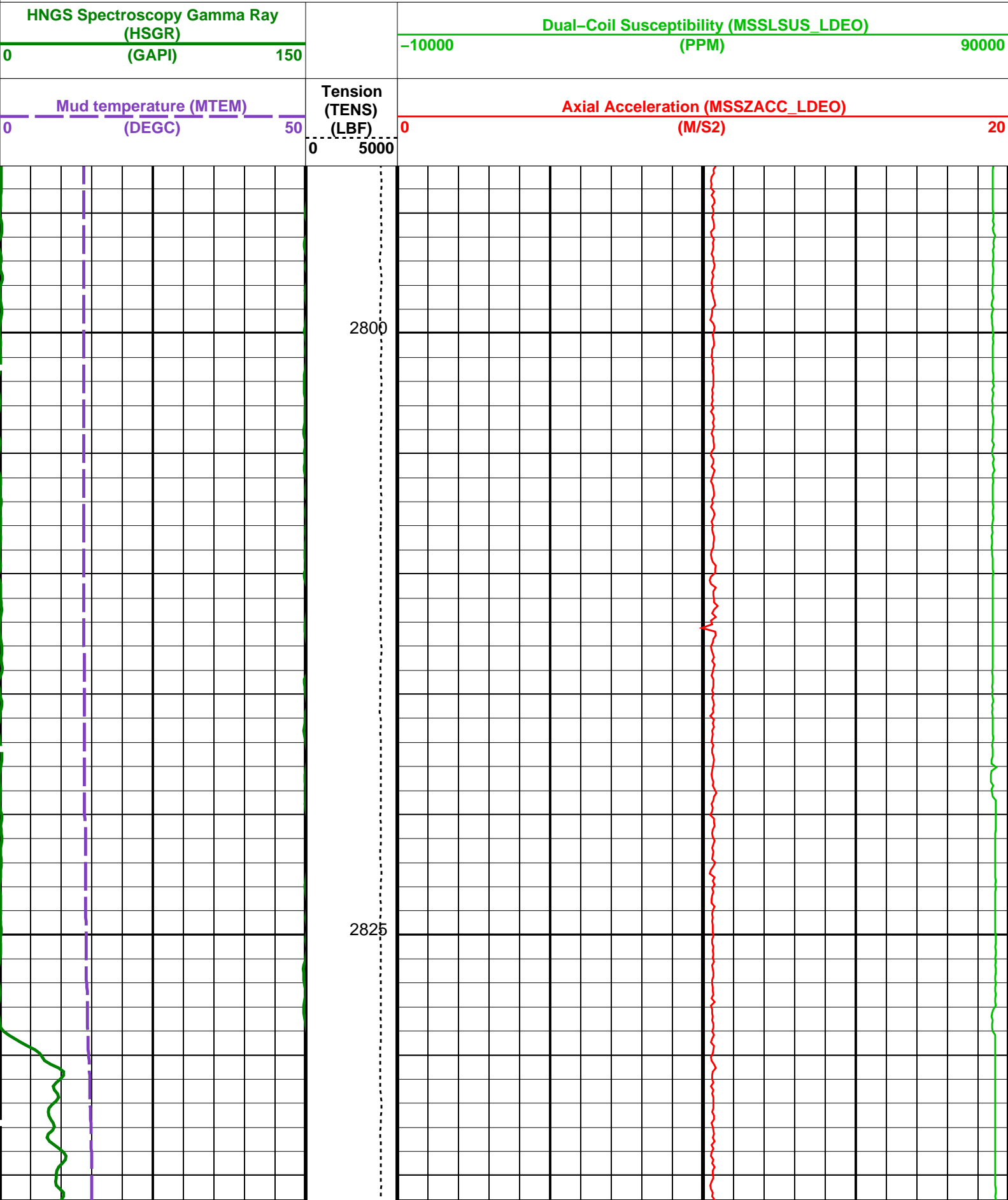
DEFAULT	MSS_LDEO_HRLA_LDL_019LUP	FN:13	PRODUCER	16-Mar-2024 12:19	2999.2 M	2793.5 M
RTB	MSS_LDEO_HRLA_LDL_019LUP	FN:14	PRODUCER	16-Mar-2024 12:19	2999.2 M	2793.5 M

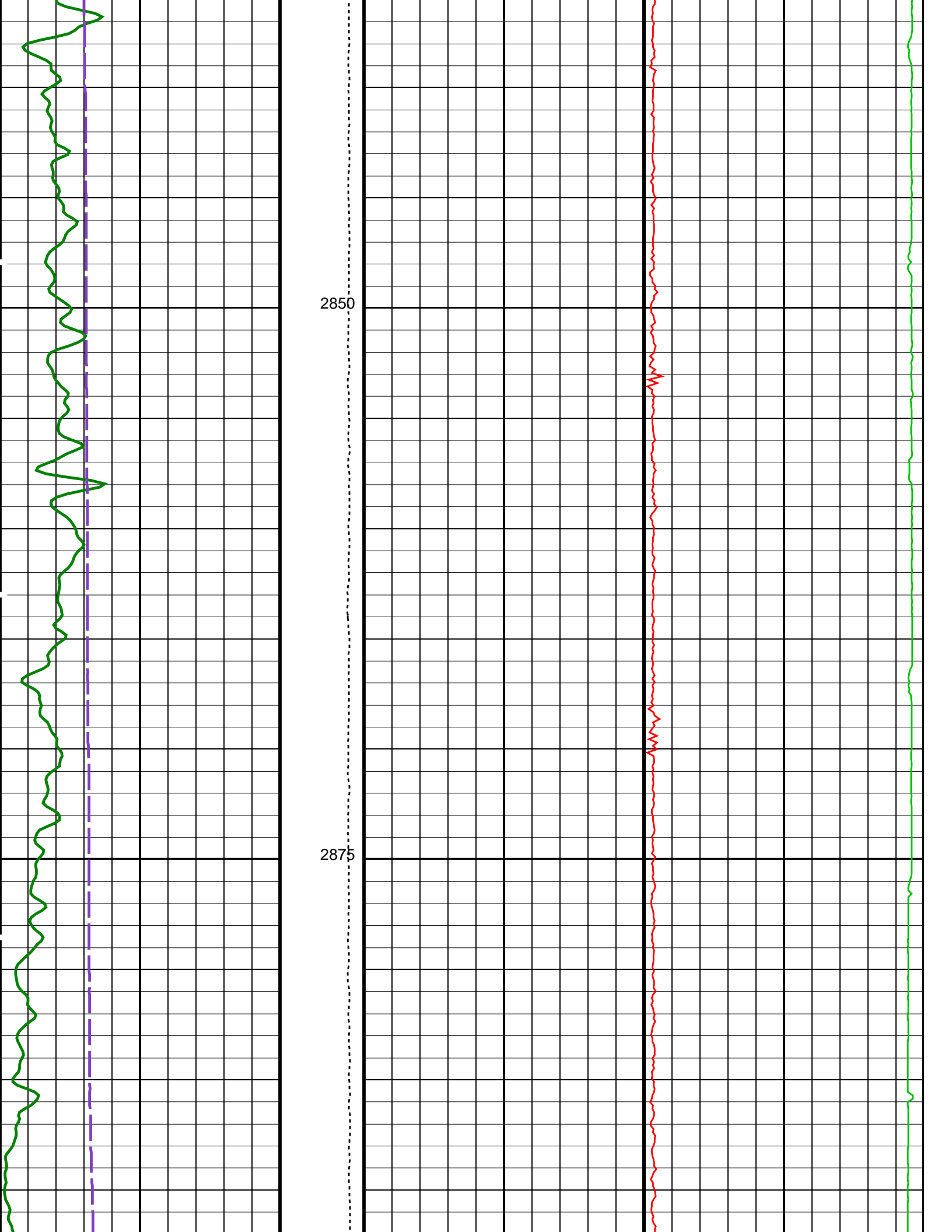
## OP System Version: 19C0-187

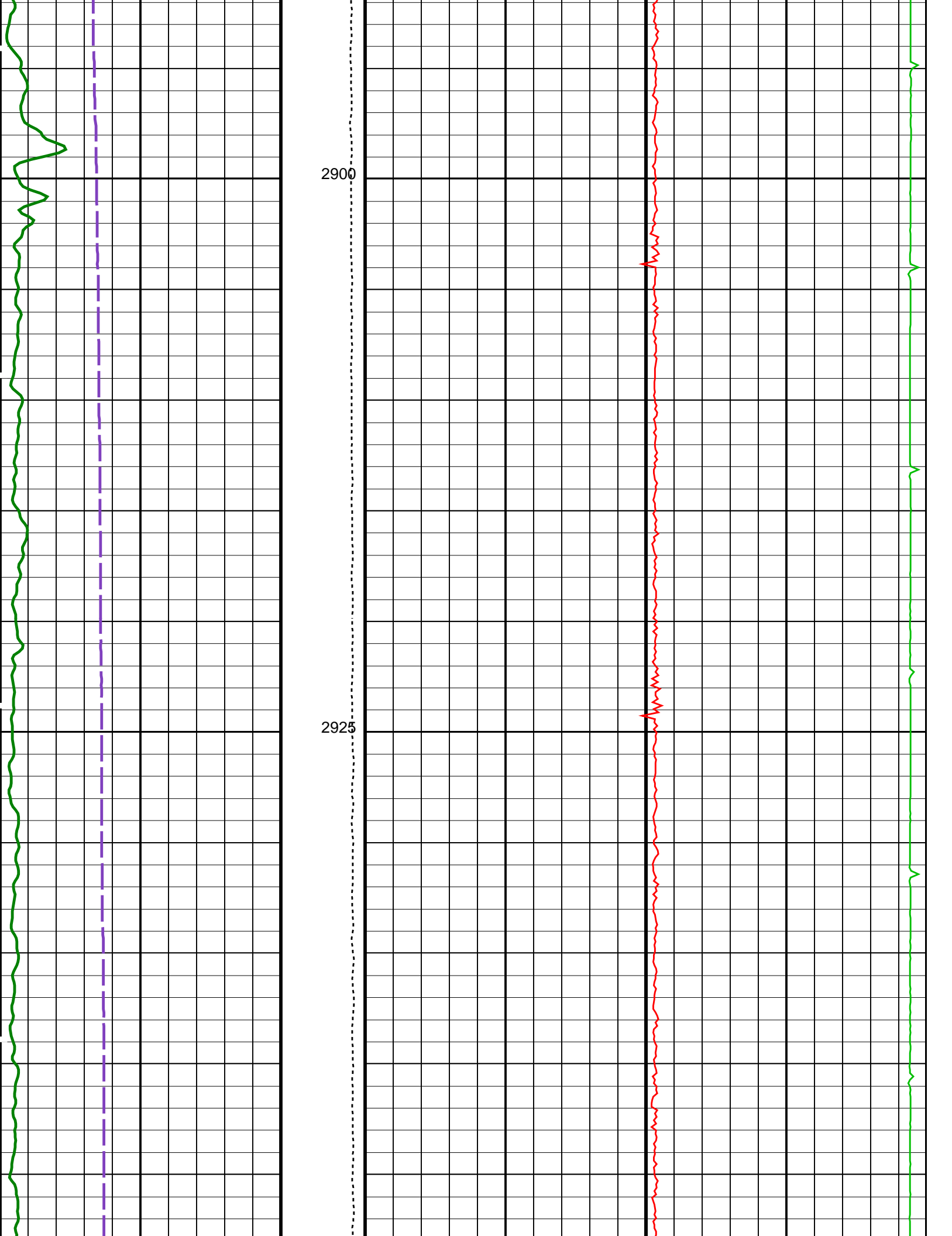
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HLDS	19C0-187	LDSC-B	19C0-187
HNGC-B	19C0-187	HNGS-BA	19C0-187
EDTC-B	19C0-187		

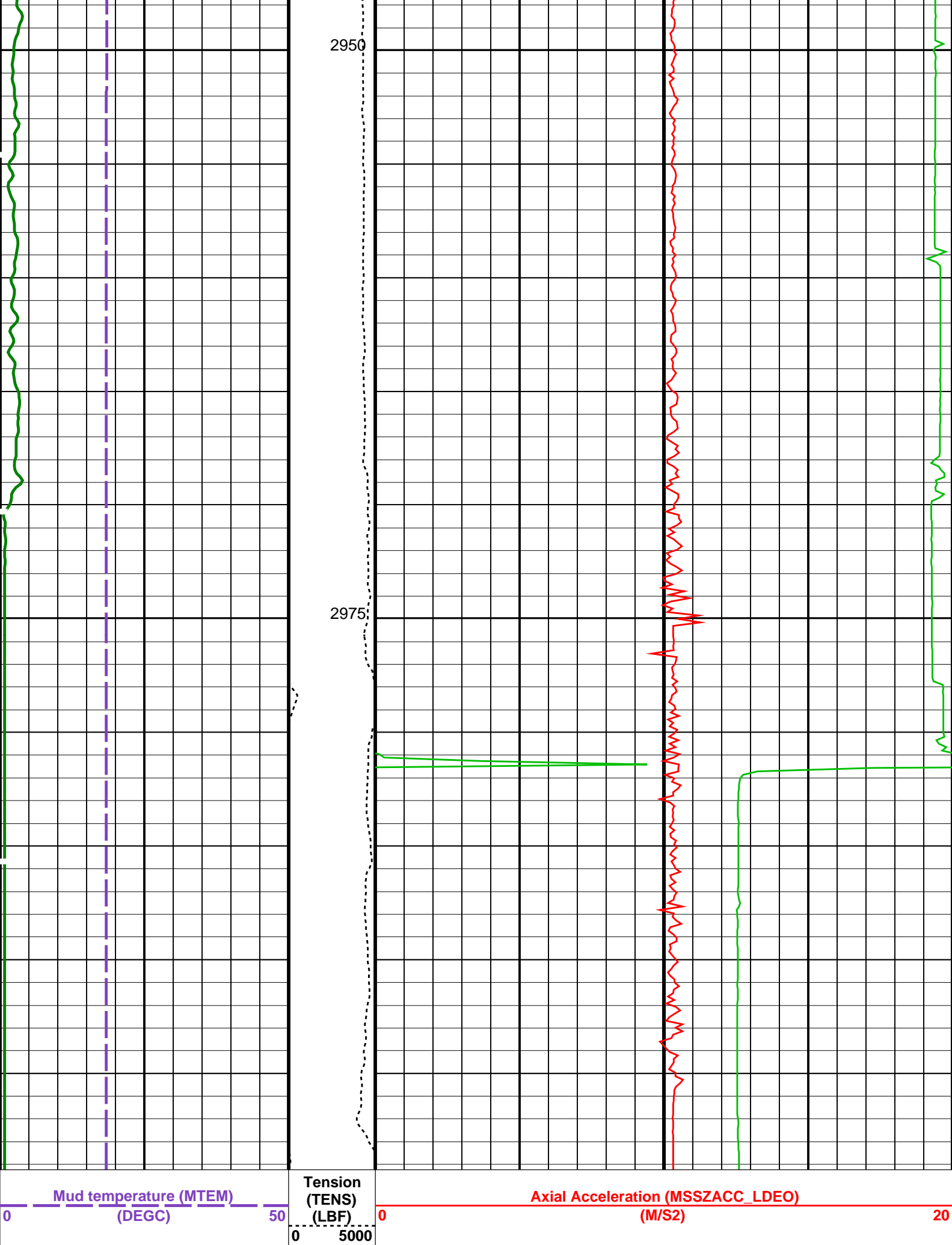
PIP SUMMARY

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	
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	-0.00395691	
HALF	HNGS Alpha Filter Length	60	IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	NATU	
HNPE	HNGS Processing Enable	YES	
S1BI	HNGS Detector 1 Calibration Bismuth Count Rate	1.3	CPS
S2BI	HNGS Detector 2 Calibration Bismuth Count Rate	1.3	CPS
SGRC	HNGS Standard Gamma-Ray Correction Flag	YES	
TPOS	Tool Position	ECCE	
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	0.315045	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	0.94616	
EDTC-B: Enhanced DTS Cartridge			
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	BS	
System and Miscellaneous			
BS	Bit Size	9.875	IN
DFD	Drilling Fluid Density	1.02	G/C3

OP System Version: 19C0-187			
MSS_LDEO-A	19C0-187	HRLT-B	19C0-187
HLDS	19C0-187	LDSC-B	19C0-187
HNGC-B	19C0-187	HNGS-BA	19C0-187
EDTC-B	19C0-187		

Output DLIS Files			
DEFAULT	MSS_LDEO_HRLA_LDL_019LUP	FN:13	PRODUCER 16-Mar-2024 12:19
RTB	MSS_LDEO_HRLA_LDL_019LUP	FN:14	PRODUCER 16-Mar-2024 12:19



Before: 16-Mar-2024 3:00 After: 16-Mar-2024 14:21							
HRLT Bridle#9-M0 Voltage - 0	0	N/A	-68110	-68190	-86.27	2100	UV
HRLT Bridle#9-M0 Voltage - 1	0	N/A	-71630	-72000	-365.1	2100	UV
HRLT Bridle#9-M0 Voltage - 2	0	N/A	-73250	-73600	-344.1	2100	UV
HRLT Bridle#9-M0 Voltage - 3	0	N/A	-71650	-71940	-293.0	2100	UV
HRLT Bridle#9-M0 Voltage - 4	0	N/A	-69400	-69560	-167.9	2100	UV
HRLT Bridle#9-M0 Voltage - 5	0	N/A	-69860	-70010	-148.4	2100	UV
HRLT Bridle#9-M0 Voltage - 6	0	N/A	68030	68450	418.9	2100	UV
HRLT Bridle#9-M0 Voltage - 7	0	N/A	-70000	-70000	0	2100	UV

High Resolution Laterolog Array - B Wellsite Calibration - HRLT ISO

Before: 16-Mar-2024 3:00 After: 16-Mar-2024 14:21								
HRLT Source Current Plus - 0	0	N/A	284.1	284.5	0.3964	8.520	UA	
HRLT Source Current Plus - 1	0	N/A	281.1	281.1	0	8.520	UA	
HRLT Source Current Plus - 2	0	N/A	281.1	281.1	0	8.520	UA	
HRLT Source Current Plus - 3	0	N/A	281.1	281.1	0	8.520	UA	
HRLT Source Current Plus - 4	0	N/A	281.1	281.1	0	8.520	UA	
HRLT Source Current Plus - 5	0	N/A	281.1	281.1	0	8.520	UA	
HRLT Source Current Plus - 6	0	N/A	281.1	281.1	0	8.520	UA	
HRLT Source Current Plus - 7	0	N/A	281.1	281.1	0	8.520	UA	

High Resolution Laterolog Array - B Wellsite Calibration - HRLT MV

Before: 16-Mar-2024 3:00 After: 16-Mar-2024 14:21								
HRLT Vertical Voltage PI - 0	0	N/A	-320.3	-320.4	-0.09094	9.681	UV	
HRLT Vertical Voltage PI - 1	0	N/A	-325.1	-326.6	-1.438	9.681	UV	
HRLT Vertical Voltage PI - 2	0	N/A	-330.8	-332.1	-1.236	9.681	UV	
HRLT Vertical Voltage PI - 3	0	N/A	-320.2	-321.1	-0.9594	9.681	UV	
HRLT Vertical Voltage PI - 4	0	N/A	-308.6	-309.0	-0.3816	9.681	UV	
HRLT Vertical Voltage PI - 5	0	N/A	-325.3	-325.6	-0.2740	9.681	UV	
HRLT Vertical Voltage PI - 6	0	N/A	326.6	328.4	1.822	9.681	UV	
HRLT Vertical Voltage PI - 7	0	N/A	-322.7	-322.7	0	9.681	UV	

Hostile Litho-Density Sonde Wellsite Calibration - Background Measurement

Master: 5-Feb-2024 14:31 Before: 16-Mar-2024 3:03 After: 16-Mar-2024 14:24							
SS Cs Resolution Bkg	9.000	7.740	7.752	7.703	-0.04876	1.800	%
LS Cs Resolution Bkg	9.000	8.164	8.073	8.021	-0.05173	1.800	%
LSW1 Background	100.0	67.09	66.20	67.57	1.371	3.000	CPS
LSW2 Background	100.0	61.34	59.52	59.36	-0.1622	3.000	CPS
LSW3 Background	200.0	139.1	137.6	137.3	-0.3458	6.000	CPS
LSW4 Background	250.0	170.9	171.4	170.4	-0.9882	7.500	CPS
LSW5 Background	600.0	398.8	397.2	396.4	-0.7809	18.00	CPS
SSW1 Background	100.0	64.20	64.05	65.02	0.9721	3.000	CPS
SSW2 Background	200.0	111.7	112.2	111.1	-1.086	6.000	CPS
SSW3 Background	500.0	309.0	309.8	312.4	2.663	15.00	CPS
SSW4 Background	270.0	168.1	166.5	166.4	-0.1047	8.100	CPS
SSW5 Background	200.0	118.8	118.7	119.0	0.3537	6.000	CPS

Hostile Litho-Density Sonde Wellsite Calibration - Aluminum Measurement

Master: 5-Feb-2024 15:19							
LSW1 Aluminum	600.0	404.4	N/A	N/A	N/A	N/A	CPS
LSW2 Aluminum	900.0	584.3	N/A	N/A	N/A	N/A	CPS
LSW3 Aluminum	1100	709.7	N/A	N/A	N/A	N/A	CPS
LSW4 Aluminum	580.0	358.1	N/A	N/A	N/A	N/A	CPS
LSW5 Aluminum	570.0	321.6	N/A	N/A	N/A	N/A	CPS
SSW1 Aluminum	2800	1939	N/A	N/A	N/A	N/A	CPS
SSW2 Aluminum	8000	5349	N/A	N/A	N/A	N/A	CPS
SSW3 Aluminum	11600	7472	N/A	N/A	N/A	N/A	CPS
SSW4 Aluminum	5000	2948	N/A	N/A	N/A	N/A	CPS
SSW5 Aluminum	660.0	328.7	N/A	N/A	N/A	N/A	CPS

Hostile Litho-Density Sonde Wellsite Calibration - Lithology Measurement

Master: 5-Feb-2024 15:12							
LSW1 Iron	400.0	282.3	N/A	N/A	N/A	N/A	CPS
LSW2 Iron	730.0	487.5	N/A	N/A	N/A	N/A	CPS
LSW3 Iron	1000	641.5	N/A	N/A	N/A	N/A	CPS
LSW4 Iron	520.0	332.1	N/A	N/A	N/A	N/A	CPS
LSW5 Iron	470.0	306.1	N/A	N/A	N/A	N/A	CPS
SSW1 Iron	2100	1464	N/A	N/A	N/A	N/A	CPS
SSW2 Iron	6800	4601	N/A	N/A	N/A	N/A	CPS
SSW3 Iron	10800	7020	N/A	N/A	N/A	N/A	CPS
SSW4 Iron	4600	2788	N/A	N/A	N/A	N/A	CPS
SSW5 Iron	580.0	307.0	N/A	N/A	N/A	N/A	CPS

Hostile Litho-Density Sonde Wellsite Calibration - Caliper Calibration

Before: 5-Feb-2024 13:50							
HLDS Caliper Small Ring	12.00	N/A	16.56	N/A	N/A	N/A	IN
HLDS Caliper Large Ring	15.19	N/A	19.92	N/A	N/A	N/A	IN

Hostile Natural Gamma Ray Sonde Wellsite Calibration - Detector 1 Check

Master: Calibration out of date 20-Apr-2023 2:22 Before: 16-Mar-2024 3:04 After: 16-Mar-2024 14:25							
Na 511 Peak Loc	40.00	38.56	38.60	38.47	-0.1270	1.000	
Na 1464 Peak Loc	40.00	38.56	38.60	38.47	-0.1270	1.000	

Na 511 Peak Res	15.50	16.82	16.33	15.97	-0.3587	2.000	%
High Voltage	1150	1206	1195	1200	4.967	N/A	V
Na 1785 Peak Loc	142.6	139.2	139.4	139.8	0.4237	7.000	
Na 1785 Peak Res	8.500	9.087	8.342	8.338	-0.004419	2.000	%
Temperature	15.50	26.64	22.01	22.74	0.7283	N/A	DEGC
Na Count Rate	45.00	47.40	37.08	36.66	-0.4230	8.000	CPS

#### Hostile Natural Gamma Ray Sonde Wellsite Calibration – Detector 2 Check

Master: Calibration out of date 20-Apr-2023 2:22 Before: 16-Mar-2024 3:04 After: 16-Mar-2024 14:25

Na 511 Peak Loc	40.00	39.72	39.53	39.54	0.01361	1.000	
Na 511 Peak Res	15.50	15.41	15.83	16.47	0.6463	2.000	%
High Voltage	1150	1089	1081	1085	4.705	N/A	V
Na 1785 Peak Loc	142.6	142.9	142.8	142.3	-0.5344	7.000	
Na 1785 Peak Res	8.500	8.753	8.819	9.217	0.3985	2.000	%
Temperature	15.50	25.53	21.49	23.03	1.536	N/A	DEGC
Na Count Rate	45.00	47.70	37.26	36.92	-0.3386	8.000	CPS

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

Master: Calibration out of date 20-Apr-2023 2:22 Before: 16-Mar-2024 3:04 After: 16-Mar-2024 14:25

Coincidence Count Rate Ratio	1.000	0.9913	0.9919	0.9908	-0.001170	0.05000	
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#### Enhanced DTS Cartridge Wellsite Calibration – EDTC Accelerometer Calibration

Before: 16-Mar-2024 2:59

EDTC Z-Axis Acceleration	9.810	N/A	9.782	N/A	N/A	N/A	M/S2
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#### Enhanced DTS Cartridge Wellsite Calibration – Detector Calibration

Before: 16-Mar-2024 3:01 After: 16-Mar-2024 14:21

Gamma Ray (Jig – Bkg)	170.0	N/A	170.0	170.7	0.6322	15.46	GAPI
Gamma Ray (Calibrated)	165.0	N/A	165.0	165.6	0.6135	15.00	GAPI

#### High Resolution Laterolog Array – B / Equipment Identification

##### Primary Equipment:

















HRLT Sonde HRLS – B 768

##### Auxiliary Equipment:

HRLT lower Housing HRLH – B 1869  
HRLT Lower Cartridge HRLC – B 1897  
HRLT upper Housing HRLH – B 975  
HRLT Upper Cartridge 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		-318.7	-322.7	-280.7	-379.7
	After		-319.0			
1	Before		-331.4	-322.7	-280.7	-379.7
	After		-333.0			
2	Before		-338.1	-322.7	-280.7	-379.7
	After		-339.6			
3	Before		-328.7	-322.7	-280.7	-379.7
	After		-329.9			
4	Before		-319.4	-322.7	-280.7	-379.7
	After		-320.1			
5	Before		-321.1	-322.7	-280.7	-379.7
	After		-321.6			
6	Before		320.2	322.7	379.7	280.7
	After		322.1			
7	Before		-322.7	-322.7	-280.7	-379.7
	After		-322.7			
(Minimum) (Nominal) (Maximum)						

















Before: 16 Mar 2024 3:00

Before: 16-Mar-2024 3:00
After: 16-Mar-2024 14:21

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
	After		1741			
1	Before		1811	1781	2095	1549
	After		1820			
2	Before		1842	1781	2095	1549
	After		1851			
3	Before		1791	1781	2095	1549
	After		1798			
4	Before		1741	1781	2095	1549
	After		1746			
5	Before		1752	1781	2095	1549
	After		1756			
6	Before		–1756	–1781	–1549	–2095
	After		–1768			
7	Before		1781	1781	2095	1549
	After		1781			
		(Minimum) (Nominal) (Maximum)				

Before: 16-Mar-2024 3:00

















After: 16-Mar-2024 14:21

High Resolution Laterolog Array – B Wellsite Calibration						
HRLT M23						
Idx	Phase	HRLT M2–M3 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		1732	1781	2095	1549
	After		1733			
1	Before		1814	1781	2095	1549
	After		1823			
2	Before		1847	1781	2095	1549
	After		1855			
3	Before		1799	1781	2095	1549
	After		1805			
4	Before		1744	1781	2095	1549
	After		1747			
5	Before		1756	1781	2095	1549
	After		1759			
6	Before		-1748	-1781	-1549	-2095
	After		-1758			
7	Before		1781	1781	2095	1549
	After		1781			
		(Minimum) (Nominal) (Maximum)				

















Before: 16-Mar-2024 3:00

After: 16-Mar-2024 14:21


High Resolution Laterolog Array – B Wellsite Calibration

















HRLT V34						
Idx	Phase	HRLT A3–A4 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		68600	70000	82360	60900
	After		68710			
1	Before		71680	70000	82360	60900
	After		72070			
2	Before		73280	70000	82360	60900
	After		73630			
3	Before		71670	70000	82360	60900
	After		71960			
4	Before		69410	70000	82360	60900
	After		69590			
5	Before		69900	70000	82360	60900
	After		70050			
6	Before		-68120	-70000	-60900	-82360
	After		-68540			
7	Before		70000	70000	82360	60900
	After		70000			
(Minimum) (Nominal) (Maximum)						
Before: 16–Mar–2024 3:00						
After: 16–Mar–2024 14:21						

High Resolution Laterolog Array – B Wellsite Calibration

















HRLT V45						
Idx	Phase	HRLT A4–A5 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		68680	70000	82360	60900
	After		68780			
1	Before		71890	70000	82360	60900
	After		72280			
2	Before		73460	70000	82360	60900
	After		73810			
3	Before		71810	70000	82360	60900
	After		72120			
4	Before		69520	70000	82360	60900
	After		69700			
5	Before		69990	70000	82360	60900
	After		70140			
6	Before		-68320	-70000	-60900	-82360
	After		-68750			
7	Before		70000	70000	82360	60900
	After		70000			
(Minimum) (Nominal) (Maximum)						
Before: 16–Mar–2024 3:00						
After: 16–Mar–2024 14:21						

High Resolution Laterolog Array – B Wellsite Calibration



HRLT V56						
Idx	Phase	HRLT A5–A6 Voltage Plus UV	Value	Nominal	Maximum	Minimum
	Before		68680	70000	82360	60900
	After		68780			















0	Before		68540	70000	82360	60900
	After		68640			
1	Before		71750	70000	82360	60900
	After		72130			
2	Before		73330	70000	82360	60900
	After		73680			
3	Before		71670	70000	82360	60900
	After		71960			
4	Before		69390	70000	82360	60900
	After		69560			
5	Before		69850	70000	82360	60900
	After		70020			
6	Before		-68180	-70000	-60900	-82360
	After		-68600			
7	Before		70000	70000	82360	60900
	After		70000			
(Minimum) (Nominal) (Maximum)						

















Before: 16-Mar-2024 3:00  
After: 16-Mar-2024 14:21





High Resolution Laterolog Array – B Wellsite Calibration							
HRLT VTP							
Idx	Phase	HRLT Torpedo-M0 Voltage Plus UV	Value	Nominal	Maximum	Minimum	
0	Before		-68070	-70000	-60900	-82360	
	After		-68150				
1	Before		-71540	-70000	-60900	-82360	
	After		-71910				
2	Before		-73160	-70000	-60900	-82360	
	After		-73500				
3	Before		-71580	-70000	-60900	-82360	
	After		-71880				
4	Before		-69340	-70000	-60900	-82360	
	After		-69510				
5	Before		-69830	-70000	-60900	-82360	
	After		-69970				
6	Before		67940	70000	82360	60900	
	After		68350				
7	Before		-70000	-70000	-60900	-82360	
	After		-70000				
(Minimum) (Nominal) (Maximum)							

Before: 16-Mar-2024 3:00  
After: 16-Mar-2024 14:21













High Resolution Laterolog Array – B Wellsite Calibration							
HRLT VBD							
Idx	Phase	HRLT Bridle#9-M0 Voltage Plus UV	Value	Nominal	Maximum	Minimum	
0	Before		-68110	-70000	-60900	-82360	
	After		-68190				
(Minimum) (Nominal) (Maximum)							

1	Before		-71630	-70000	-60900	-82360
	After		-72000			
2	Before		-73250	-70000	-60900	-82360
	After		-73600			
3	Before		-71650	-70000	-60900	-82360
	After		-71940			
4	Before		-69400	-70000	-60900	-82360
	After		-69560			
5	Before		-69860	-70000	-60900	-82360
	After		-70010			
6	Before		68030	70000	82360	60900
	After		68450			
7	Before		-70000	-70000	-60900	-82360
	After		-70000			
(Minimum) (Nominal) (Maximum)						
Before: 16-Mar-2024 3:00						
After: 16-Mar-2024 14:21						

High Resolution Laterolog Array – B Wellsite Calibration						
HRLT ISO						
Idx	Phase	HRLT Source Current Plus UA	Value	Nominal	Maximum	Minimum
0	Before		284.1	284.0	334.1	247.0
	After		284.5			
1	Before		281.1	281.1	330.7	244.4
	After		281.1			
2	Before		281.1	281.1	330.7	244.4
	After		281.1			
3	Before		281.1	281.1	330.7	244.4
	After		281.1			
4	Before		281.1	281.1	330.7	244.4
	After		281.1			
5	Before		281.1	281.1	330.7	244.4
	After		281.1			
6	Before		281.1	281.1	330.7	244.4
	After		281.1			
7	Before		281.1	281.1	330.7	244.4
	After		281.1			
(Minimum) (Nominal) (Maximum)						
Before: 16-Mar-2024 3:00						
After: 16-Mar-2024 14:21						

High Resolution Laterolog Array – B Wellsite Calibration						
HRLT MV						
Idx	Phase	HRLT Vertical Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		-320.3	-322.7	-280.7	-379.7
	After		-320.4			
1	Before		-325.1	-322.7	-280.7	-379.7
	After		-326.6			



2	Before		-330.8	-322.7	-280.7	-379.7
	After		-332.1			
3	Before		-320.2	-322.7	-280.7	-379.7
	After		-321.1			
4	Before		-308.6	-322.7	-280.7	-379.7
	After		-309.0			
5	Before		-325.3	-322.7	-280.7	-379.7
	After		-325.6			
6	Before		326.6	322.7	379.7	280.7
	After		328.4			
7	Before		-322.7	-322.7	-280.7	-379.7
	After		-322.7			
(Minimum) (Nominal) (Maximum)						
Before: 16-Mar-2024 3:00						
After: 16-Mar-2024 14:21						

### Hostile Litho-Density Sonde / Equipment Identification

#### Primary Equipment:

Gamma Source Radioactive

GSR – ZA

2945

Hostile Litho Density Sonde

HLDS – D

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Hostile Litho Density High Voltage

HLDV – D

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#### Auxiliary Equipment:

Hostile Litho Density High Voltage Housi

HEH – H

















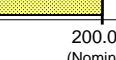



















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Hostile Litho Density Pad

HLDV – C

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### 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		7.740	Master		8.164	Master		67.09
Before		7.752	Before		8.073	Before		66.20
After		7.703	After		8.021	After		67.57
7.000 (Minimum)		9.000 (Nominal)	7.000 (Minimum)		9.000 (Nominal)	55.00 (Minimum)		100.0 (Nominal)
		11.00 (Maximum)			11.00 (Maximum)			150.0 (Maximum)
Phase	LSW2 Background CPS	Value	Phase	LSW3 Background CPS	Value	Phase	LSW4 Background CPS	Value
Master		61.34	Master		139.1	Master		170.9
Before		59.52	Before		137.6	Before		171.4
After		59.36	After		137.3	After		170.4
50.00 (Minimum)		100.0 (Nominal)	110.0 (Minimum)		200.0 (Nominal)	140.0 (Minimum)		250.0 (Nominal)
		140.0 (Maximum)			290.0 (Maximum)			360.0 (Maximum)
Phase	LSW5 Background CPS	Value	Phase	SSW1 Background CPS	Value	Phase	SSW2 Background CPS	Value
Master		398.8	Master		64.20	Master		111.7
Before		397.2	Before		64.05	Before		112.2
After		396.4	After		65.02	After		111.1
330.0 (Minimum)		600.0 (Nominal)	55.00 (Minimum)		100.0 (Nominal)	100.0 (Minimum)		200.0 (Nominal)
		830.0 (Maximum)			150.0 (Maximum)			260.0 (Maximum)
Phase	SSW3 Background CPS	Value	Phase	SSW4 Background CPS	Value	Phase	SSW5 Background CPS	Value
Master		309.0	Master		168.1	Master		118.8
Before		309.8	Before		166.5	Before		118.7
After		312.4	After		166.4	After		119.0
280.0 (Minimum)		500.0 (Nominal)	150.0 (Minimum)		270.0 (Nominal)	110.0 (Minimum)		200.0 (Nominal)
		700.0 (Maximum)			380.0 (Maximum)			270.0 (Maximum)

Master: 5-Feb-2024 14:31

Before: 16-Mar-2024 3:03

After: 16-Mar-2024 14:24

### Litho-Density Spectroscopy Cartridge – B / Equipment Identification

Primary Equipment: LDSC Cartridge	LDSC – B	326
Auxiliary Equipment: LDSC Housing	LDSH – A	303

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

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

### Hostile Natural Gamma Ray Sonde / Equipment Identification

Primary Equipment: HNGS Sonde	HNGS – BA	177
Auxiliary Equipment: HNGS Sonde Housing	HNSH – BA	174
Gamma Source Radioactive	GSR – U	135

### 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		38.56	Master		16.82	Master		1206
Before		38.60	Before		16.33	Before		1195
After		38.47	After		15.97	After		1200
	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		139.2	Master		9.087	Master		26.64
Before		139.4	Before		8.342	Before		22.01
After		139.8	After		8.338	After		22.74
	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		47.40						
Before		37.08						
After		36.66						
	10.00 (Minimum) 45.00 (Nominal) 100.0 (Maximum)							




Master: Calibration out of date 20-Apr-2023 2:22      Before: 16-Mar-2024 3:04      After: 16-Mar-2024 14:25

### Hostile Natural Gamma Ray Sonde Wellsite Calibration


#### Detector 2 Check

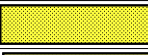





Phase	Na 511 Peak Loc	Value	Phase	Na 511 Peak Res %	Value	Phase	High Voltage V	Value
Master		39.72	Master		15.41	Master		1089
Before		39.53	Before		15.83	Before		1081
After		39.54	After		16.47	After		1085
	37.50 (Minimum) 40.00 (Nominal) 43.50 (Maximum)			12.00 (Minimum) 15.50 (Nominal) 19.00 (Maximum)			900.0 (Minimum) 1150 (Nominal) 1600 (Maximum)	
Phase	Na 1785 Peak Loc	Value	Phase	Na 1785 Peak Res %	Value	Phase	Temperature DEGC	Value
Master		142.9	Master		8.753	Master		25.53
Before		142.8	Before		8.819	Before		21.49

After		142.3	After		9.217	After		23.03
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							
Master	 MASTER-BEFORE LIMIT							
Before								
After								
10.00 (Minimum)      45.00 (Nominal)      100.0 (Maximum)								
Master: Calibration out of date    20-Apr-2023    2:22			Before: 16-Mar-2024    3:04			After: 16-Mar-2024    14:25		

Hostile Natural Gamma Ray Sonde Wellsite Calibration		
Ratio Of Detector 1 To Detector 2		
Phase	Coincidence Count Rate Ratio	Value
Master		0.9913
Before		0.9919
After		0.9908
0.9500 (Minimum)      1.000 (Nominal)      1.050 (Maximum)		
Master: Calibration out of date    20-Apr-2023    2:22		
Before: 16-Mar-2024    3:04		
After: 16-Mar-2024    14:25		

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

Enhanced DTS Cartridge Wellsite Calibration		
EDTC Accelerometer Calibration		
Phase	EDTC Z-Axis Acceleration M/S2	Value
Before		9.782
9.610 (Minimum)      9.810 (Nominal)      10.01 (Maximum)		
Before: 16-Mar-2024    2:59		

Enhanced DTS Cartridge Wellsite Calibration																	
Detector Calibration																	
Phase	Gamma Ray Background GAPI			Value	Phase	Gamma Ray (Jig – Bkg) GAPI			Value	Phase	Gamma Ray (Calibrated) GAPI			Value			
Before				1.160	Before				170.0	Before				165.0			
After				1.815	After				170.7	After				165.6			
0 (Minimum)				30.00 (Nominal)	120.0 (Maximum)	154.6 (Minimum)				170.0 (Nominal)	185.5 (Maximum)	150.0 (Minimum)				165.0 (Nominal)	180.0 (Maximum)
Before: 16–Mar–2024 3:01						After: 16–Mar–2024 14:21											

Company: International Ocean Discovery Program

Schlumberger

Well: Expedition 402, Site U1617A

Field: Tyrrhenian Continent, Ocean Transition

Field: **Syrianian Continent-Ocean Transition**  
Rig: **JOIDES Resolution**  
Country: **Italy**

High Resolution Laterolog (HRLA) / HLDS  
Magnetic Susceptibility (MSS)  
Natural Gamma / MSS (HNGS)