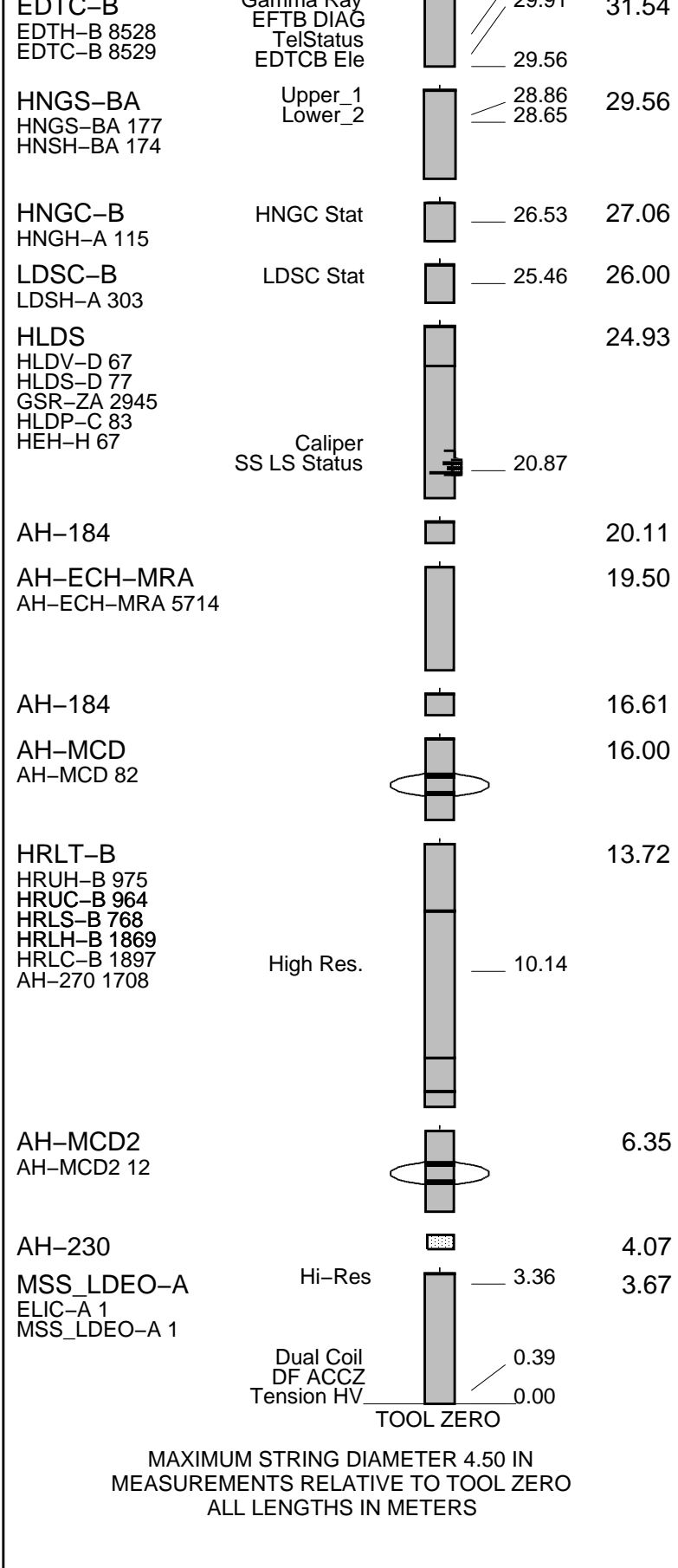


Well: **Expedition 402, Site U1613A**
Field: **Tyrrhenian Continent–Ocean Transition**
Rig: **JOIDES Resolution** Country: **Italy**

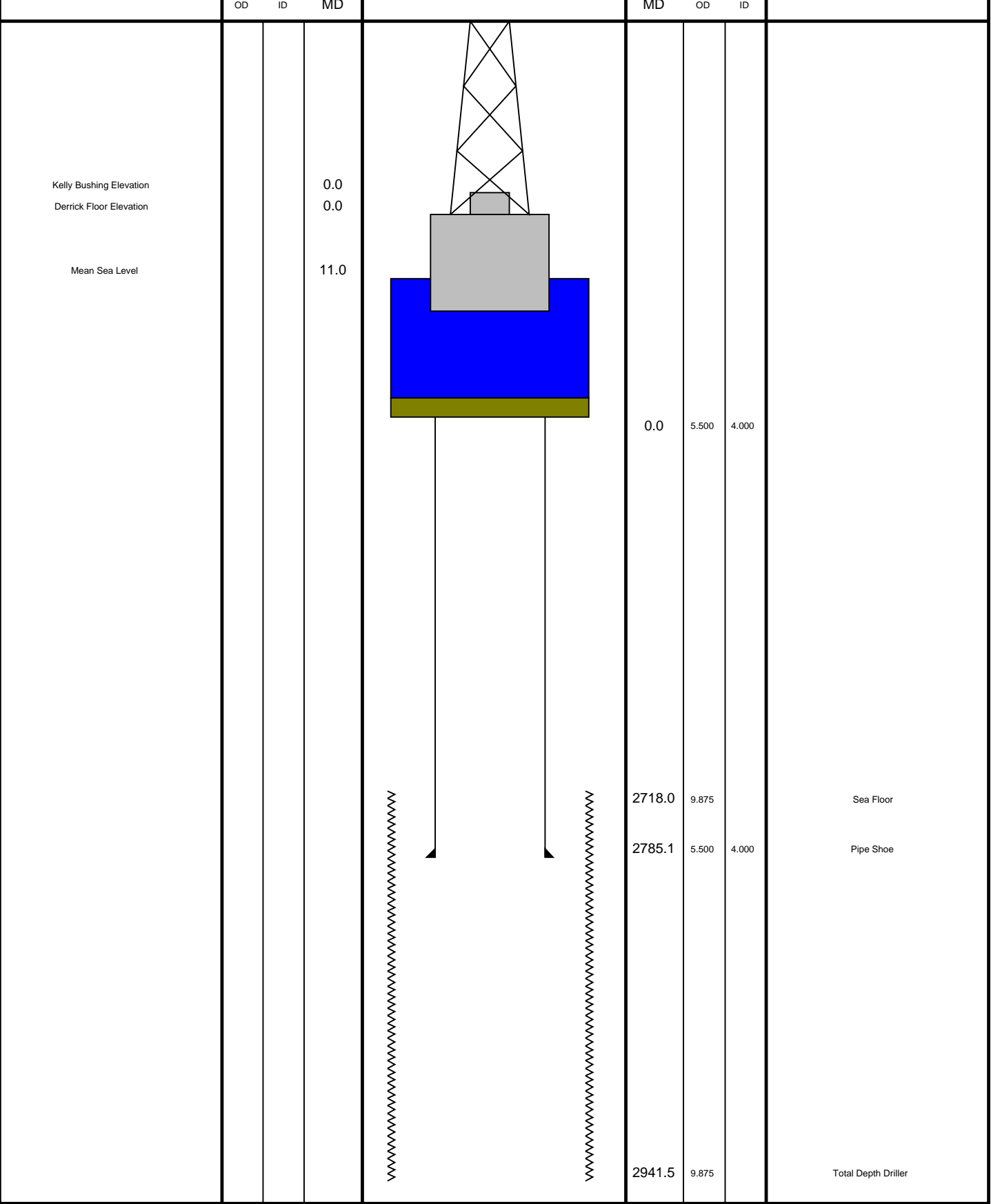
Rig:	JOIDES Resolution	Field:	Tyrrenian Continent–Ocean Transect	Location:	Latitude: N 40° 0.0593'	Well:	Expedition 402, Site U1613A	Company:	International Ocean Discovery Program	High Resolution Laterolog (HRLA) / HLDS			
										Magnetic Susceptibility (MSS)			
										Natural Gamma / MSS (HNGS)			
LOCATION										Latitude: N 40° 0.0593'		Elev.: K.B. 0.00 m	
										Longitude: E 10° 59.1732'		G.L. –2718.00 m	
												D.F. 0.00 m	
										Permanent Datum: Sea Floor		Elev.: –2718.00 m	
										Log Measured From: Rig Floor		2718.00 m above Perm. Datum	
										Drilling Measured From: Rig Floor			
										Ocean: Mediterranean		Max. Well Deviation 5 deg	
										Longitude E 10.98622		Latitude N 40.00099*	

Logging Date			22-Feb-2024					
Run Number			1					
Depth Driller			2941.5 m					
Schlumberger Depth			2915 m					
Bottom Log Interval			2915 m					
Top Log Interval			2718 m					
Casing Driller Size @ Depth			5.500 in @ 2785 m			@		
Casing Schlumberger			2791 m					
Bit Size			9.875 in					
MUD	Type Fluid In Hole		Sea Water					
	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	22-Feb-2024 0:00					
Logger On Bottom		Time	22-Feb-2024 17:15					
Unit Number	Location	627314 Larose, LA						
Recorded By		C. Furman						
Witnessed By		K. Grigar						

[illegible]



Production String	(in)	(m)	Well Schematic	(m)	(in)	Casing String
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Flipped Downlog
1:200 Scale

MAXIS Field Log

Company: International Ocean Discovery Program Well: Expedition 402, Site U1613A

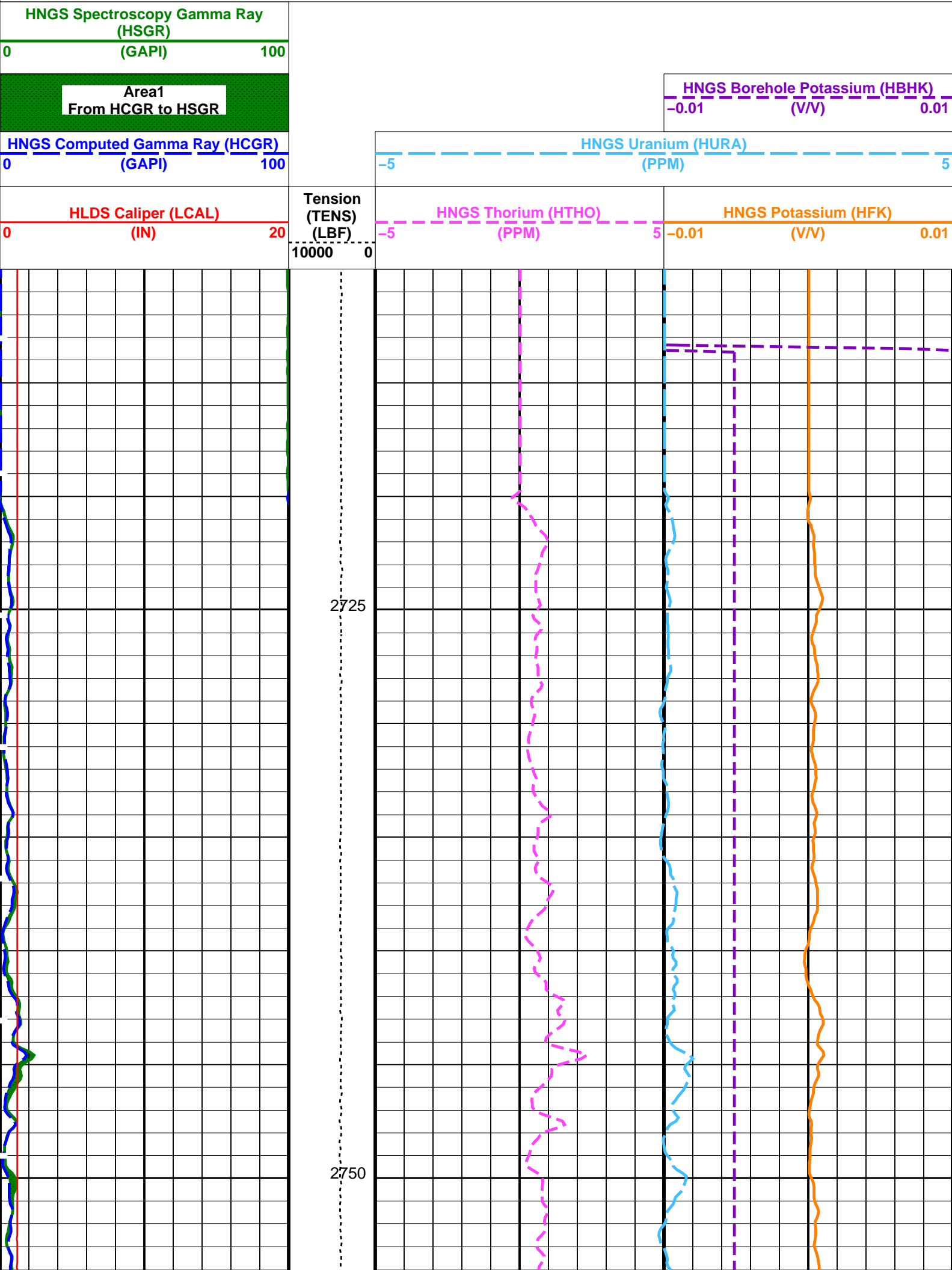
Output DLIS Files

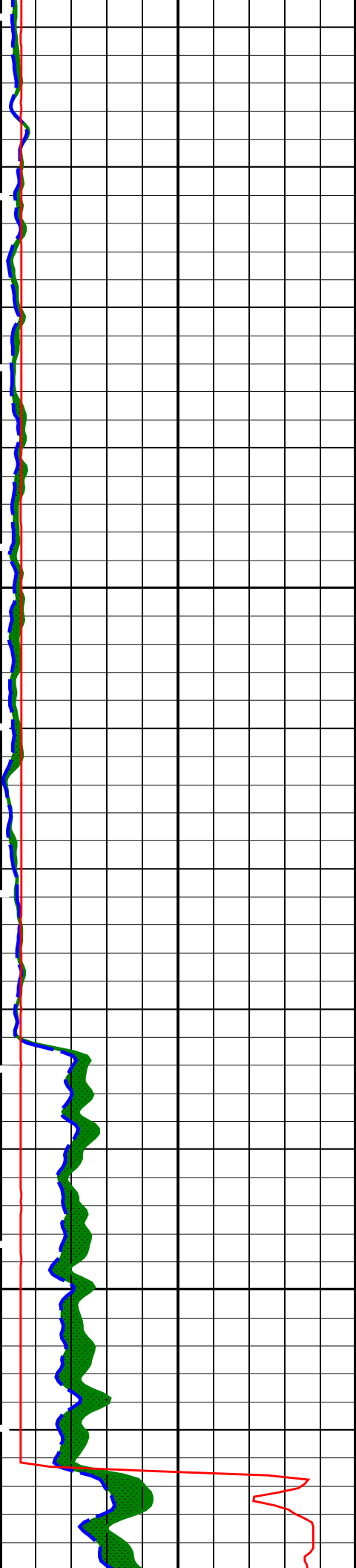
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BACKUP	MSS_LDEO_HRLA_LDL_015LUP	FN:8	PRODUCER	22-Feb-2024 16:48	2916.9 M	2711.2 M

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		

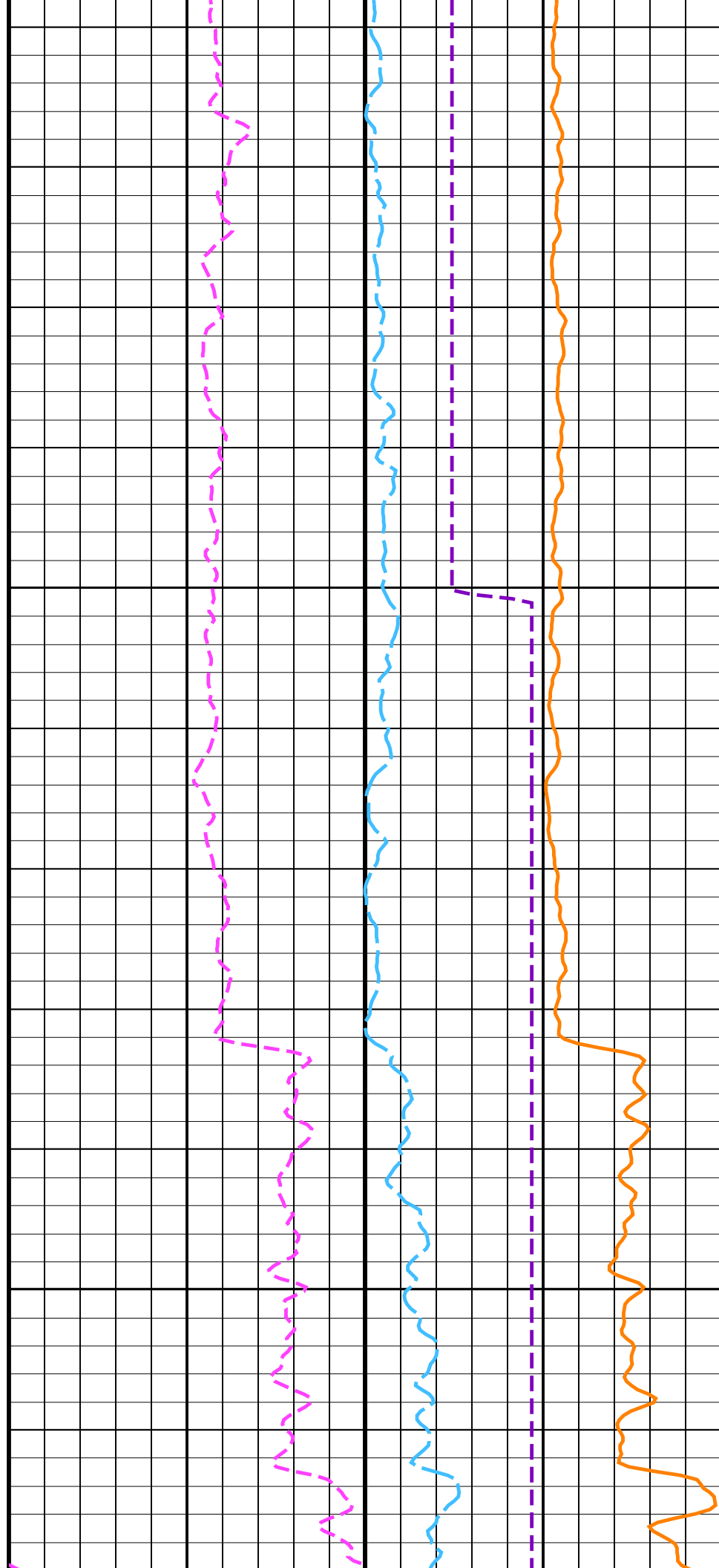
PIP SUMMARY

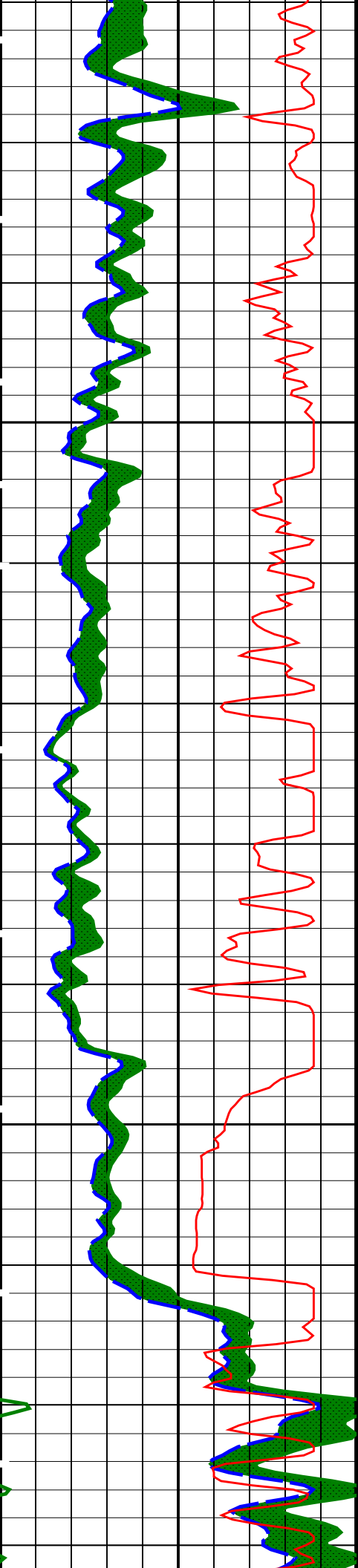




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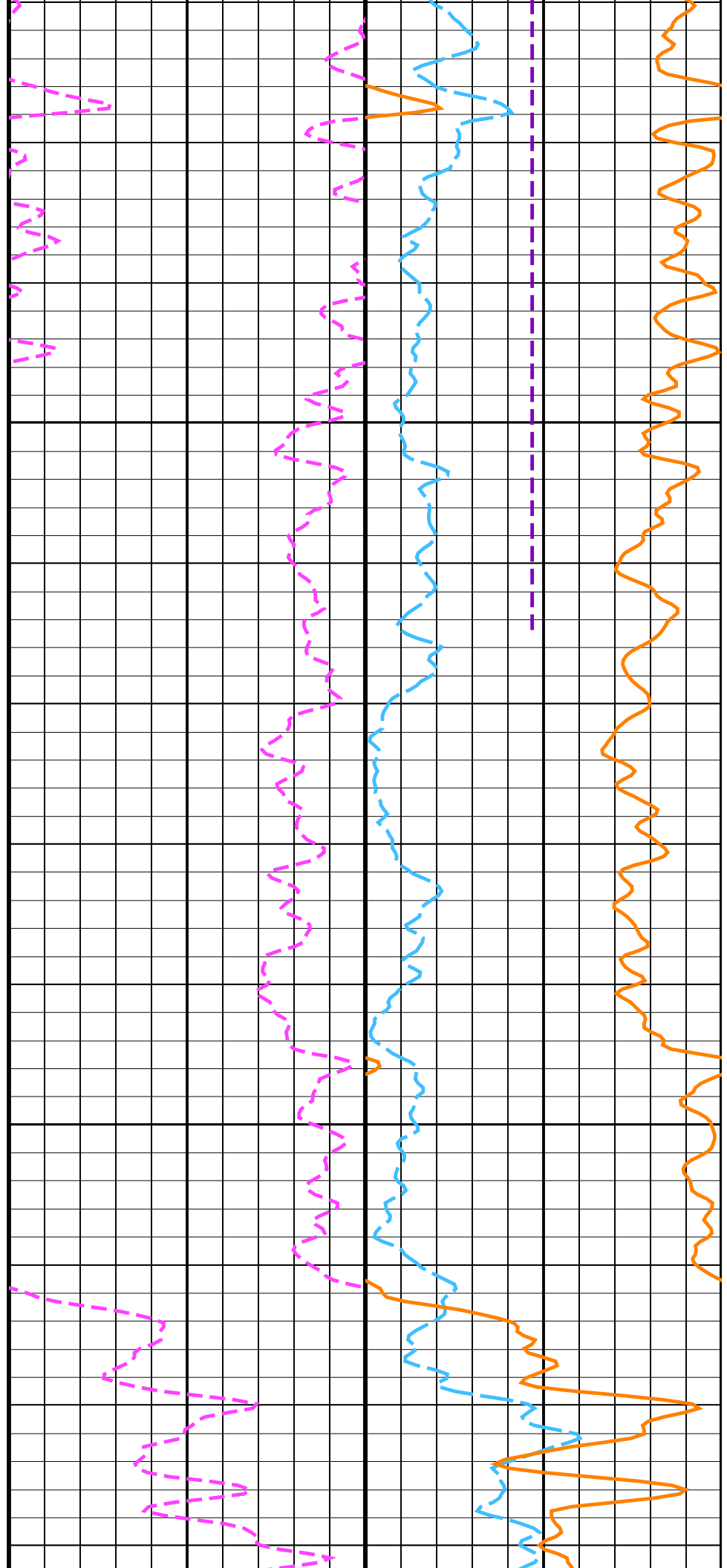
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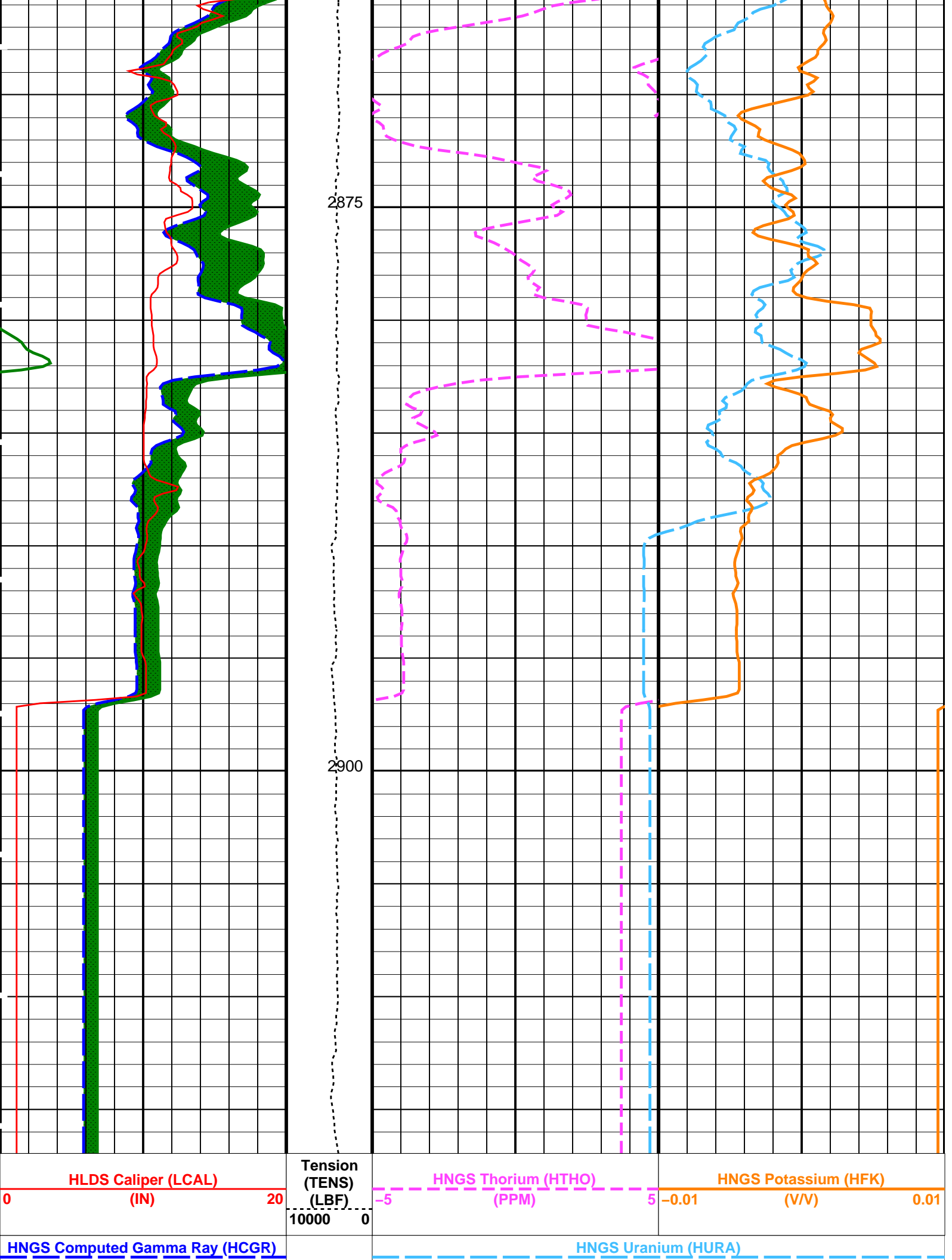




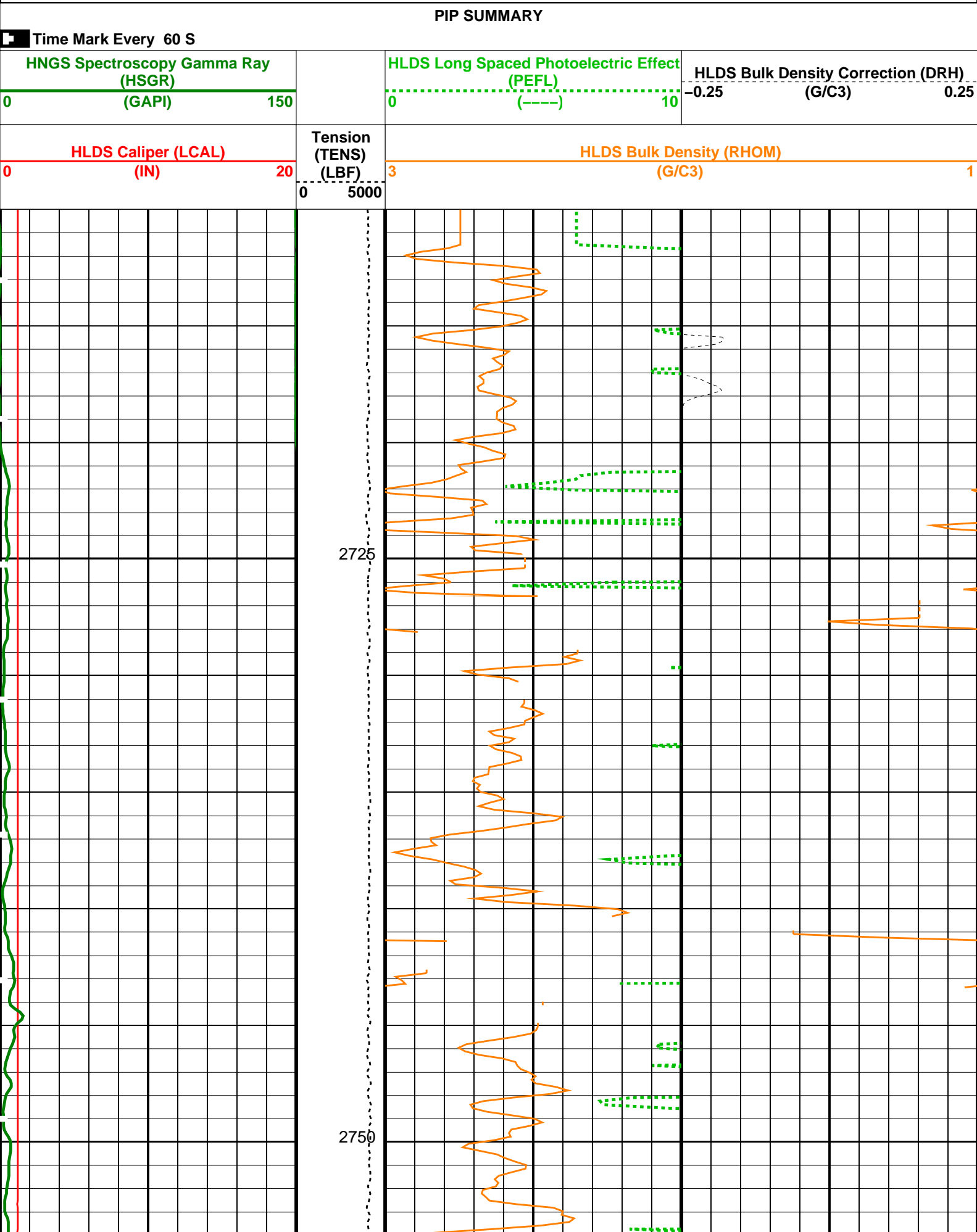
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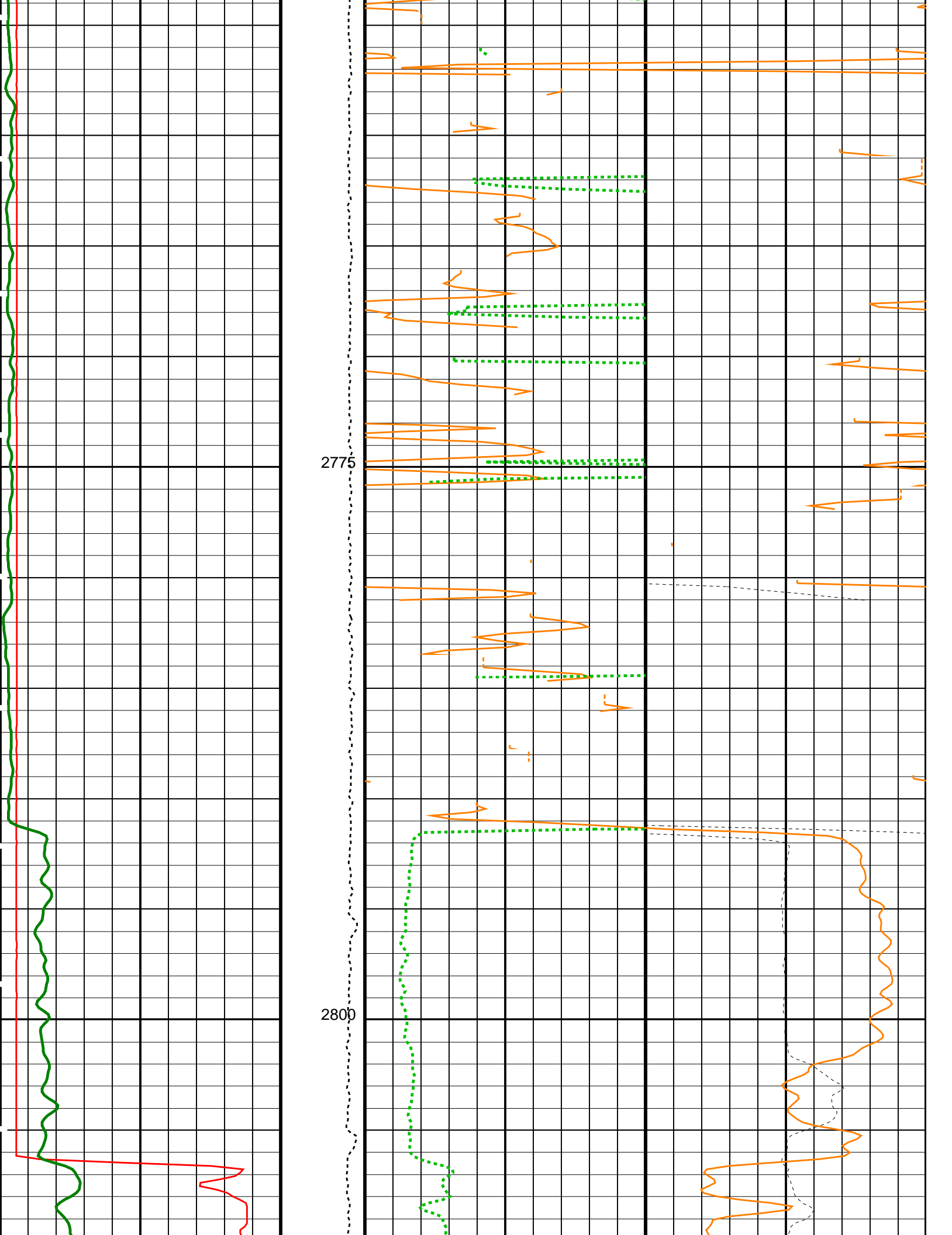
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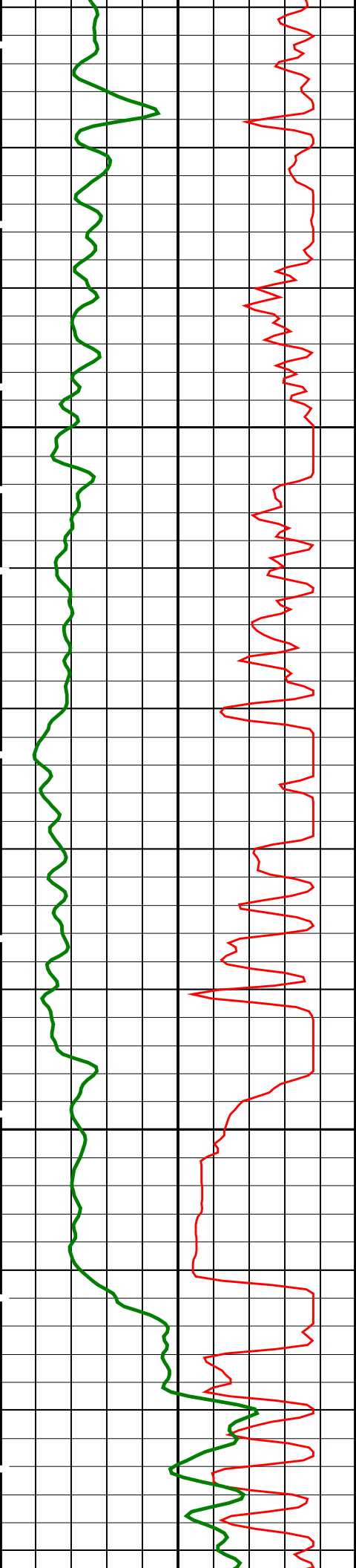




MISS_LDEO-A	19C0-187	HRLT-B	19C0-187
HLDS	19C0-187	LDSC-B	19C0-187
HNGC-B	19C0-187	HNGS-BA	19C0-187
EDTC-B	19C0-187		

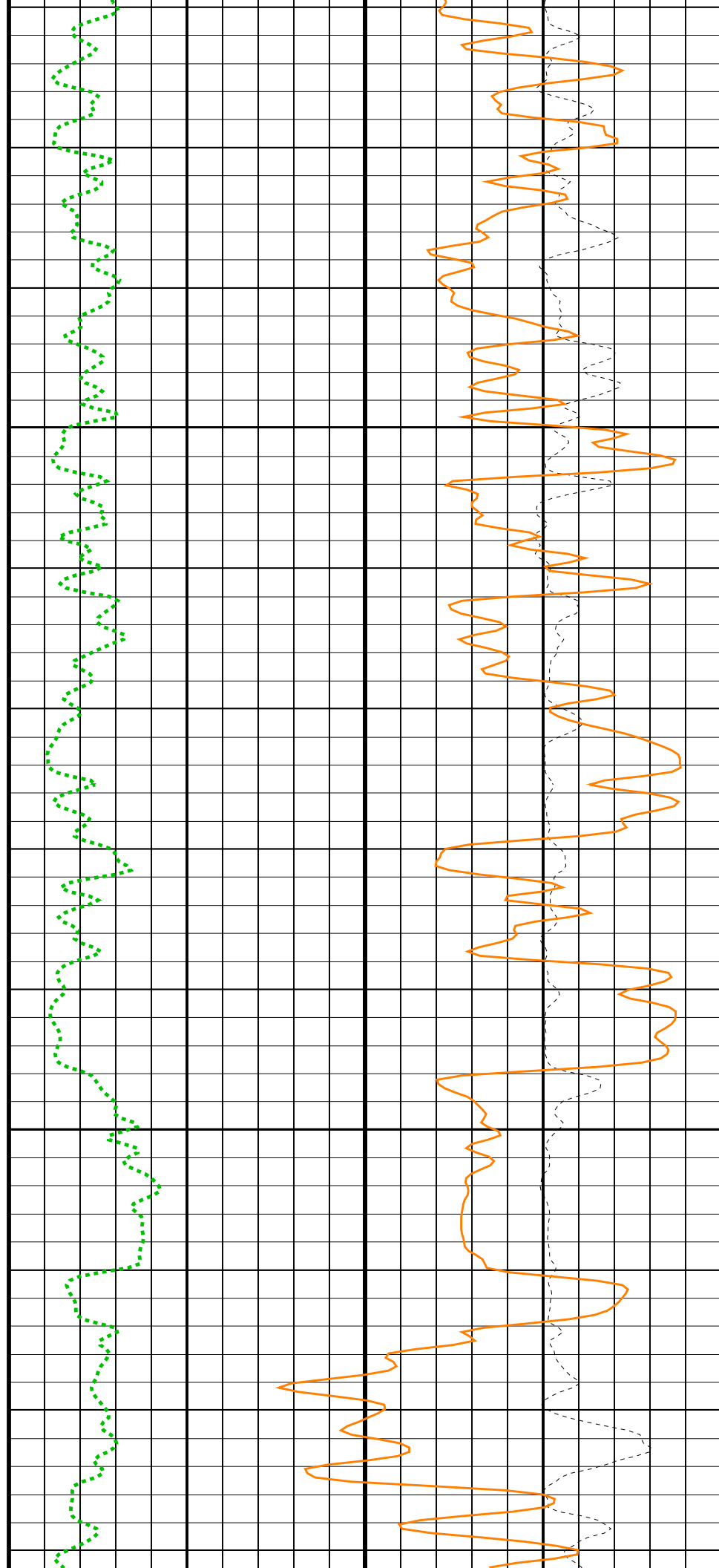


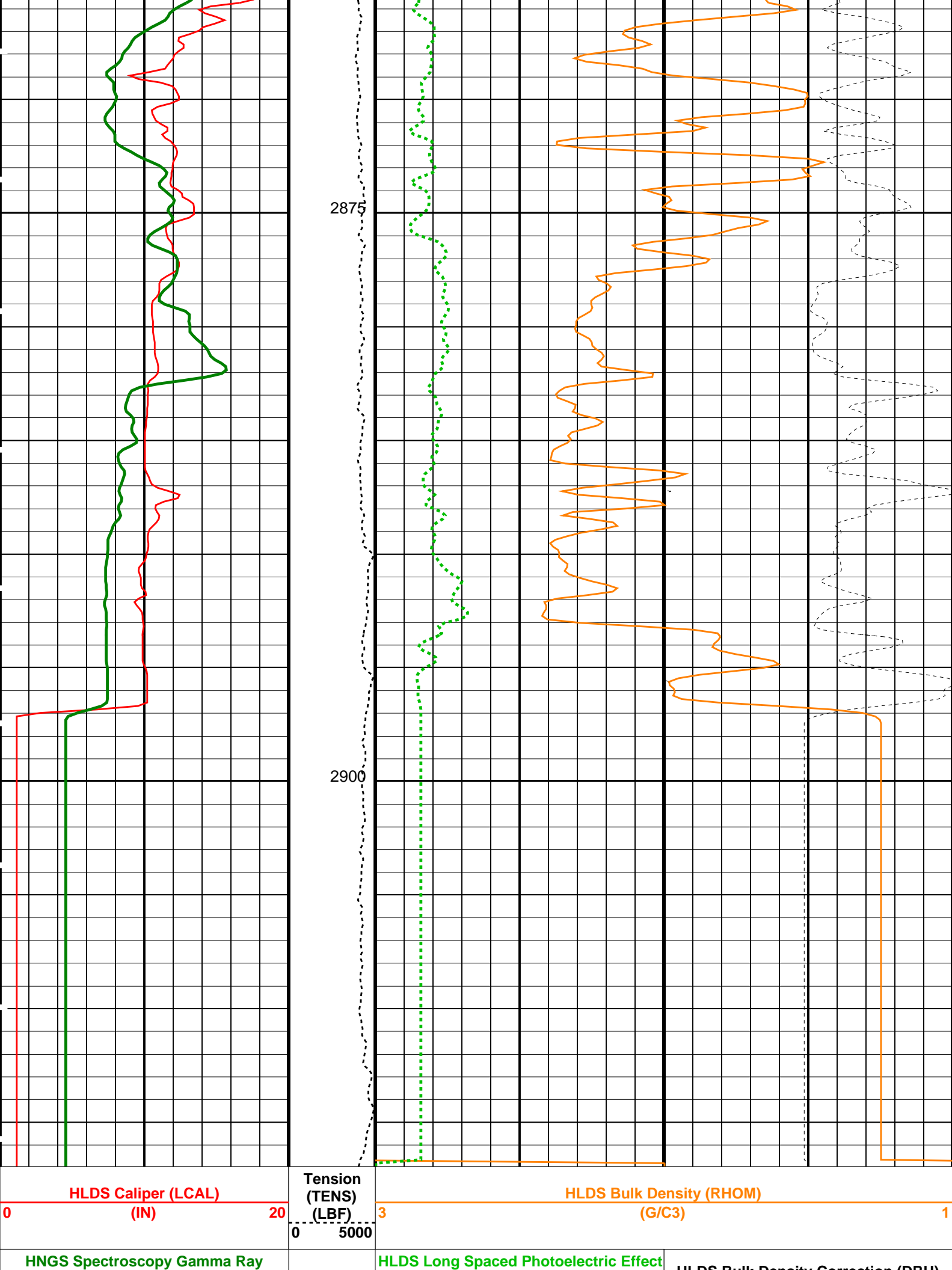




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(HSGR)	(PEFL)	HLDS Bulk Density Correction (DKH)
0 (GAPI) 150	0 (----) 10	-0.25 (G/C3) 0.25

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	LCAL	
HLDS: Hostile Litho-Density Sonde			
DHC	Density Hole Correction	BS	
DPPM	Density Porosity Processing Mode	HIRS	
FD	Fluid Density	1	G/C3
LATC	HLDS Activation Correction	OFF	
MDEN	Matrix Density	2.6	G/C3
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	-0.0414289	
HALF	HNGS Alpha Filter Length	60	IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	NATU	
HNPE	HNGS Processing Enable	YES	
S1BI	HNGS Detector 1 Calibration Bismuth Count Rate	1.3	CPS
S2BI	HNGS Detector 2 Calibration Bismuth Count Rate	1.3	CPS
SGRC	HNGS Standard Gamma-Ray Correction Flag	YES	
TPOS	Tool Position	ECCE	
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	1.02531	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	1.00405	
EDTC-B: Enhanced DTS Cartridge			
BHS	Borehole Status	OPEN	
DPPM	Density Porosity Processing Mode	HIRS	
GCSE	Generalized Caliper Selection	LCAL	
System and Miscellaneous			
BS	Bit Size	9.875	IN
DFD	Drilling Fluid Density	1.02	G/C3

Format: HLDS	DensityPE	Vertical Scale: 1:200	Graphics File Created: 22-Feb-2024 16:48
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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_015LUP	FN:7	PRODUCER	22-Feb-2024 16:48
BACKUP	MSS_LDEO_HRLA_LDL_015LUP	FN:8	PRODUCER	22-Feb-2024 16:48

Company: International Ocean Discovery Program	Well: Expedition 402, Site U1613A
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Output DLIS Files

DEFAULT	MSS_LDEO_HRLA_LDL_015LUP	FN:7	PRODUCER	22-Feb-2024 16:48	2916.9 M	2711.2 M
BACKUP	MSS_LDEO_HRLA_LDL_015LUP	FN:8	PRODUCER	22-Feb-2024 16:48	2916.9 M	2711.2 M

OP System Version: 19C0-187

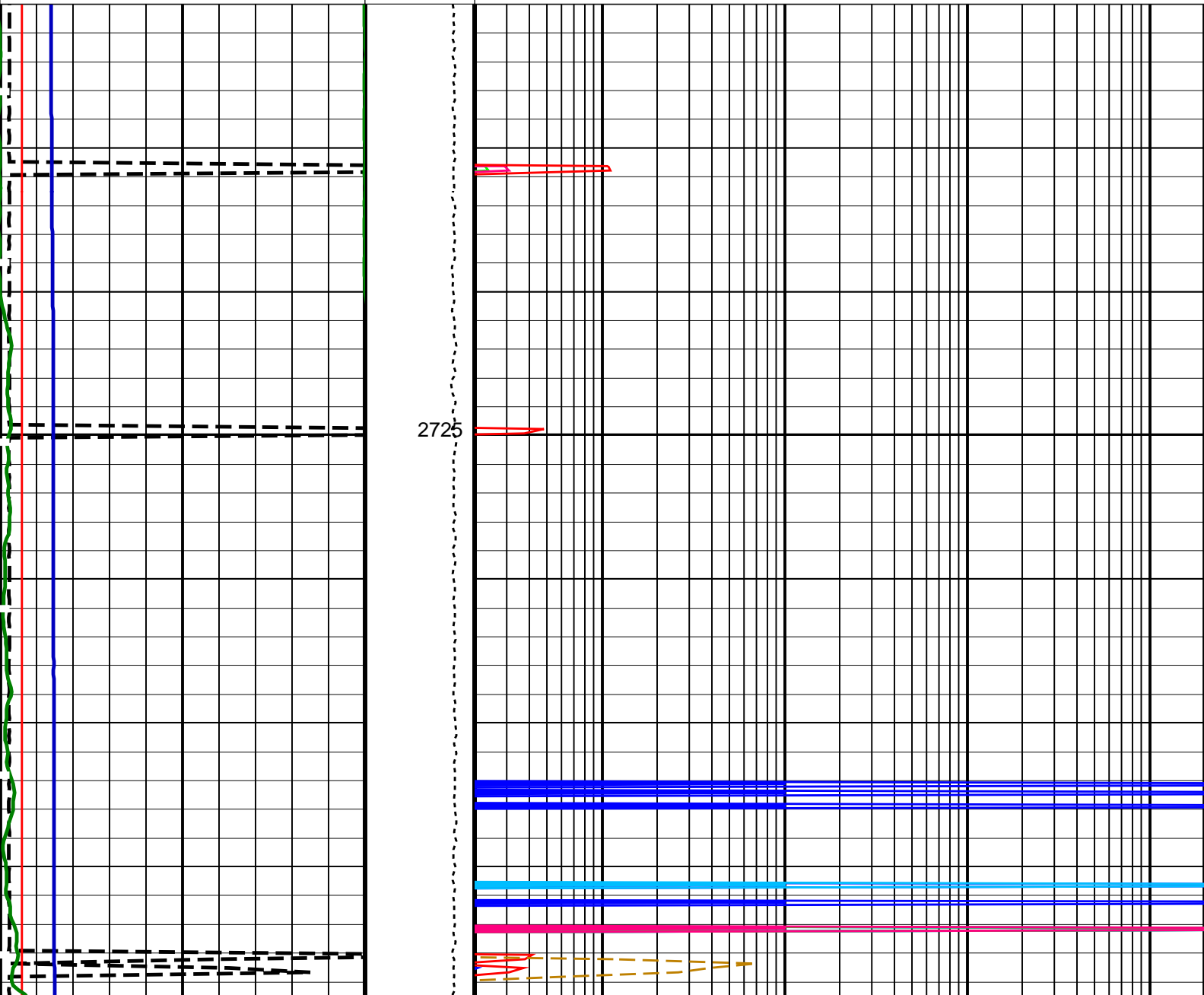
MSS_LDEO-A	19C0-187	HRLT-B	19C0-187
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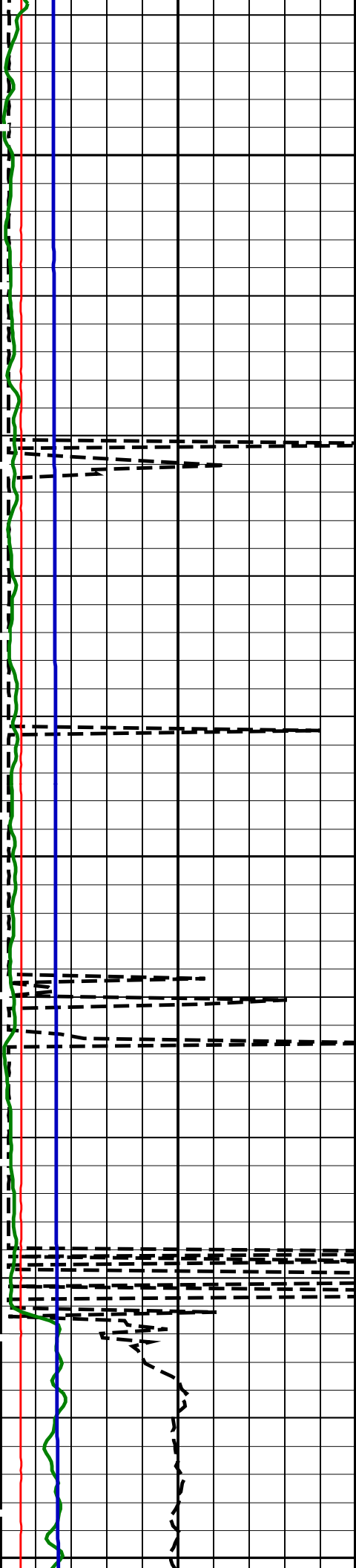
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HLDS	19C0-187	LDSC-B	19C0-187
HNGC-B	19C0-187	HNGS-BA	19C0-187
EDTC-B	19C0-187		

PIP SUMMARY

Time Mark Every 60 S

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

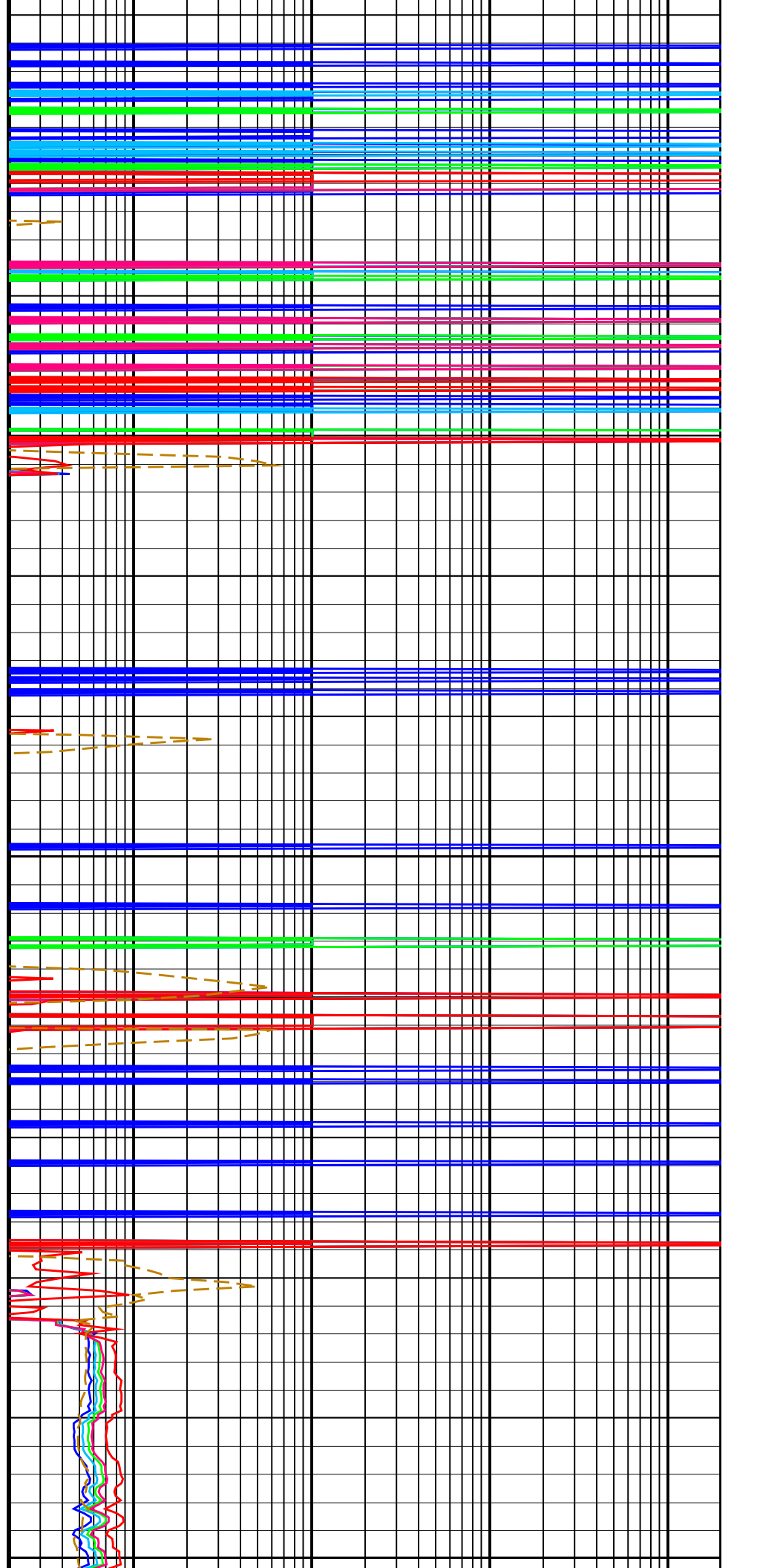


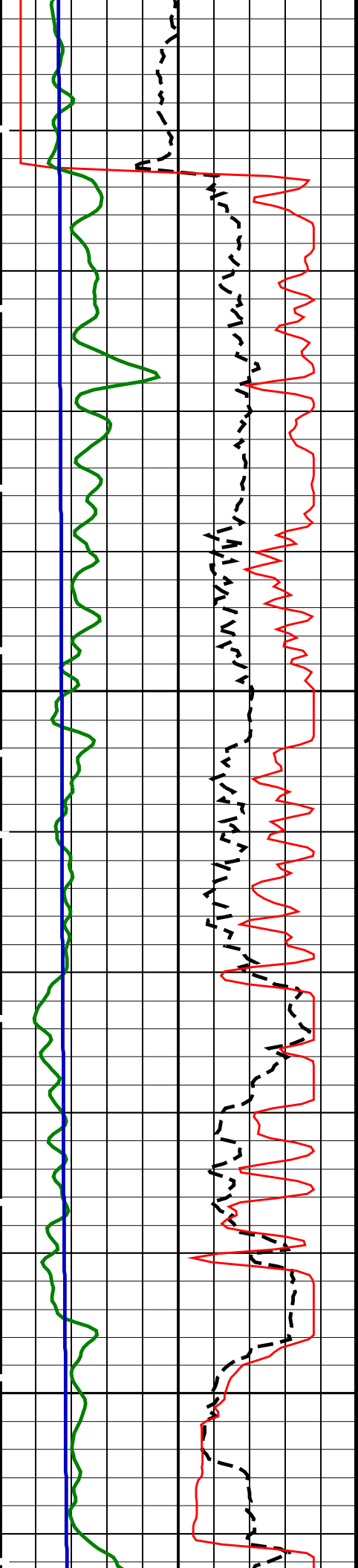


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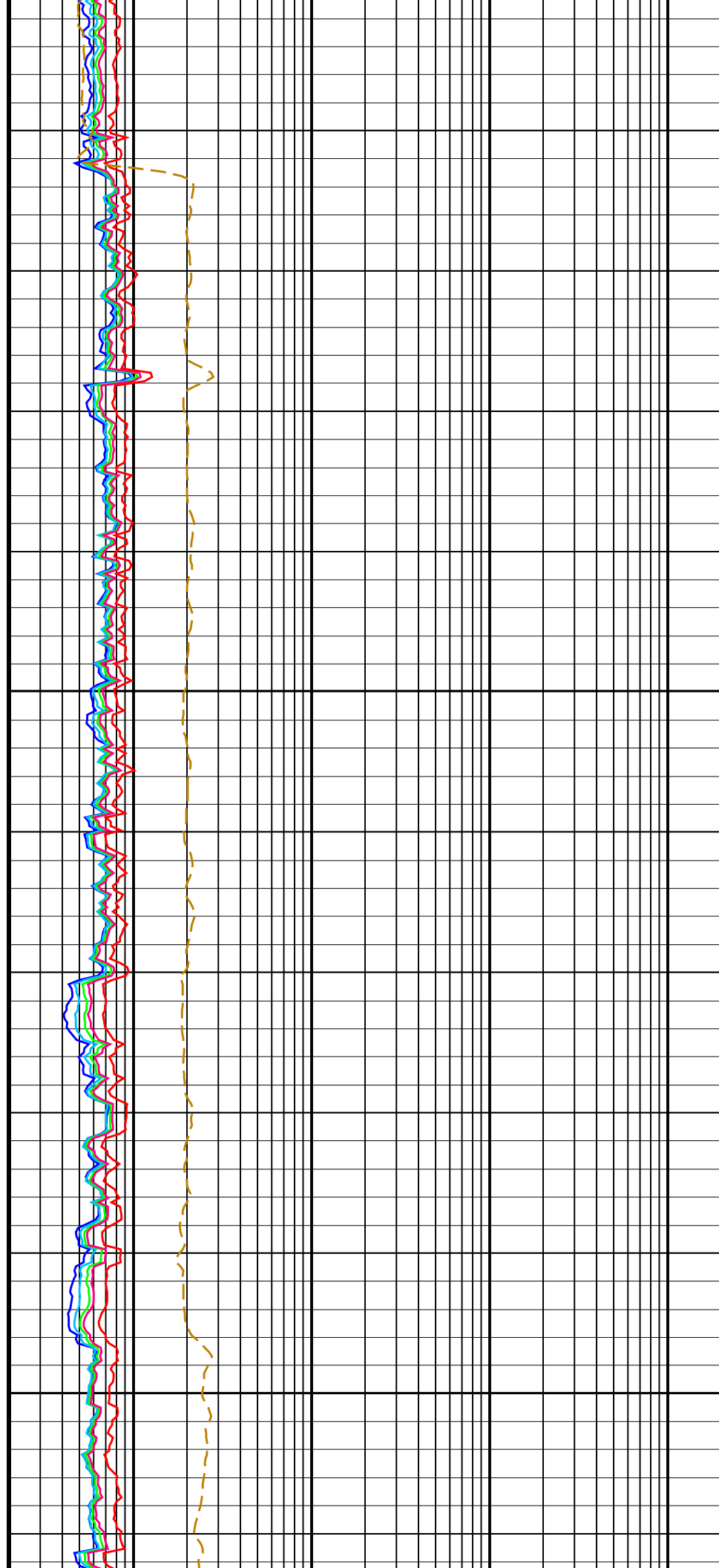
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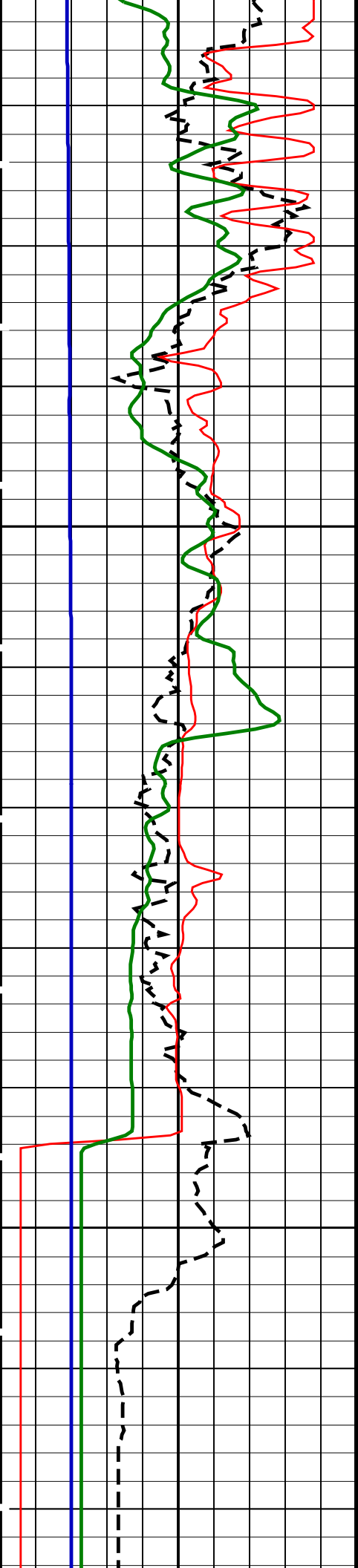




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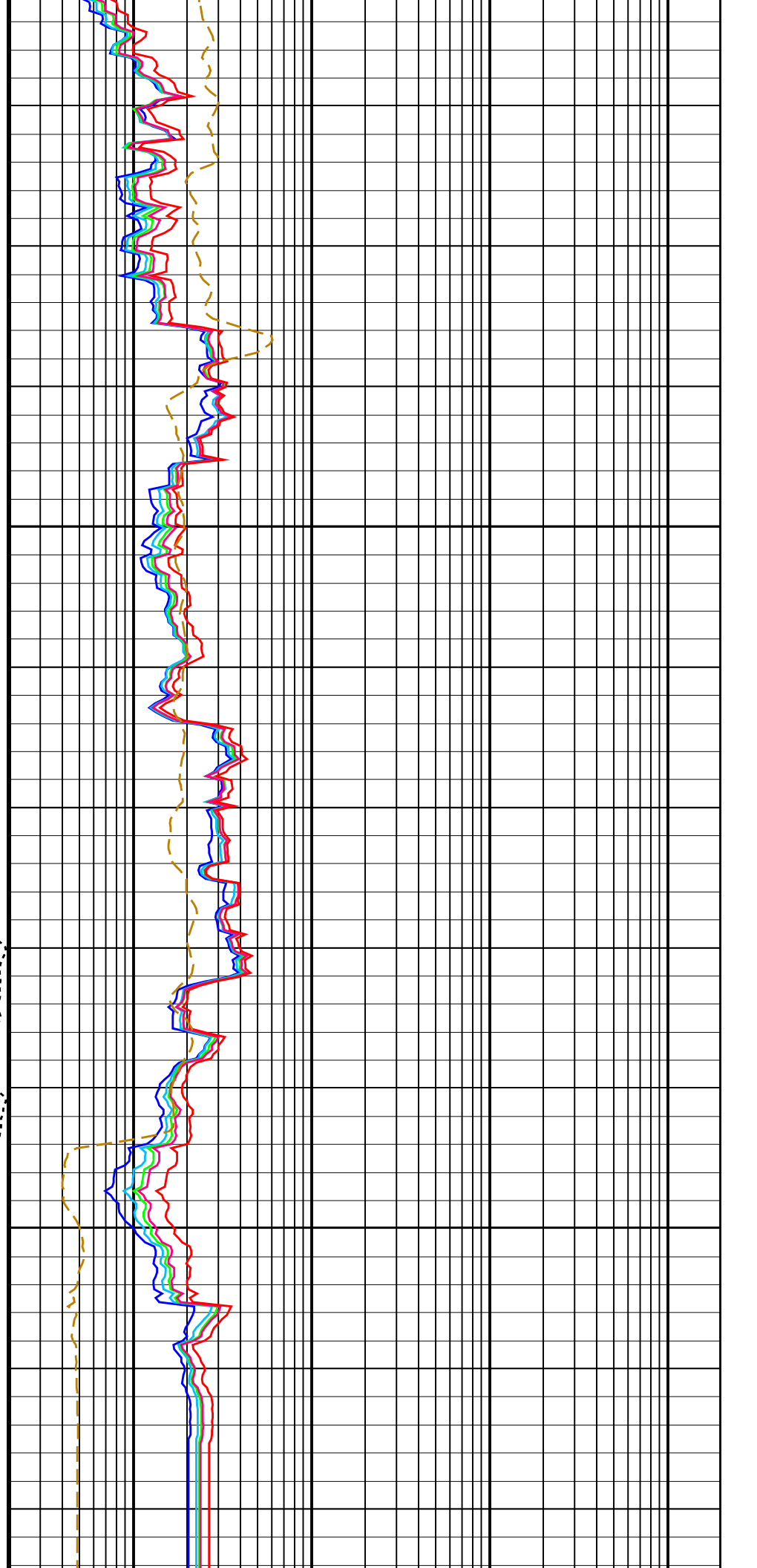
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<div><div>HLDS Caliper (LCAL)</div><div>0 (IN) 20</div></div>		<div><div>Tension (TENS)</div><div>(LBF)</div><div>0 5000</div></div>	<div><div>HRLT Resistivity 1 (RLA1)</div><div>0.2 (OHMM) 2000</div></div>		
<div><div>Invasion Diameter (DI_HRLT)</div><div>0 (IN) 50</div></div>			<div><div>HRLT Resistivity 2 (RLA2)</div><div>0.2 (OHMM) 2000</div></div>		
<div><div>Mud temperature (MTEM)</div><div>0 (DEGC) 100</div></div>			<div><div>HRLT Resistivity 3 (RLA3)</div><div>0.2 (OHMM) 2000</div></div>		
<div><div>HNGS Spectroscopy Gamma Ray (HSGR)</div><div>0 (GAPI) 150</div></div>			<div><div>HRLT Resistivity 4 (RLA4)</div><div>0.2 (OHMM) 2000</div></div>		
			<div><div>HRLT Resistivity 5 (RLA5)</div><div>0.2 (OHMM) 2000</div></div>		
			<div><div>HRLT Mud Resistivity (RM_HRLT)</div><div>0.02 (OHMM) 200</div></div>		
PIP SUMMARY					
<div><div>Time Mark Every 60 S</div></div>					

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	LCAL	
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	LCAL	
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	-0.0414289	
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	1.02531	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	1.00405	
EDTC-B: Enhanced DTS Cartridge			

BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	35	DEGF
GCSE	Generalized Caliper Selection	LCAL	
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
TD	Total Depth	10190.3	FT

Format: HRLT Vertical Scale: 1:200

Graphics File Created: 22-Feb-2024 16:48

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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BACKUP	MSS_LDEO_HRLA_LDL_015LUP	FN:8	PRODUCER	22-Feb-2024 16:48	

Company: International Ocean Discovery Program

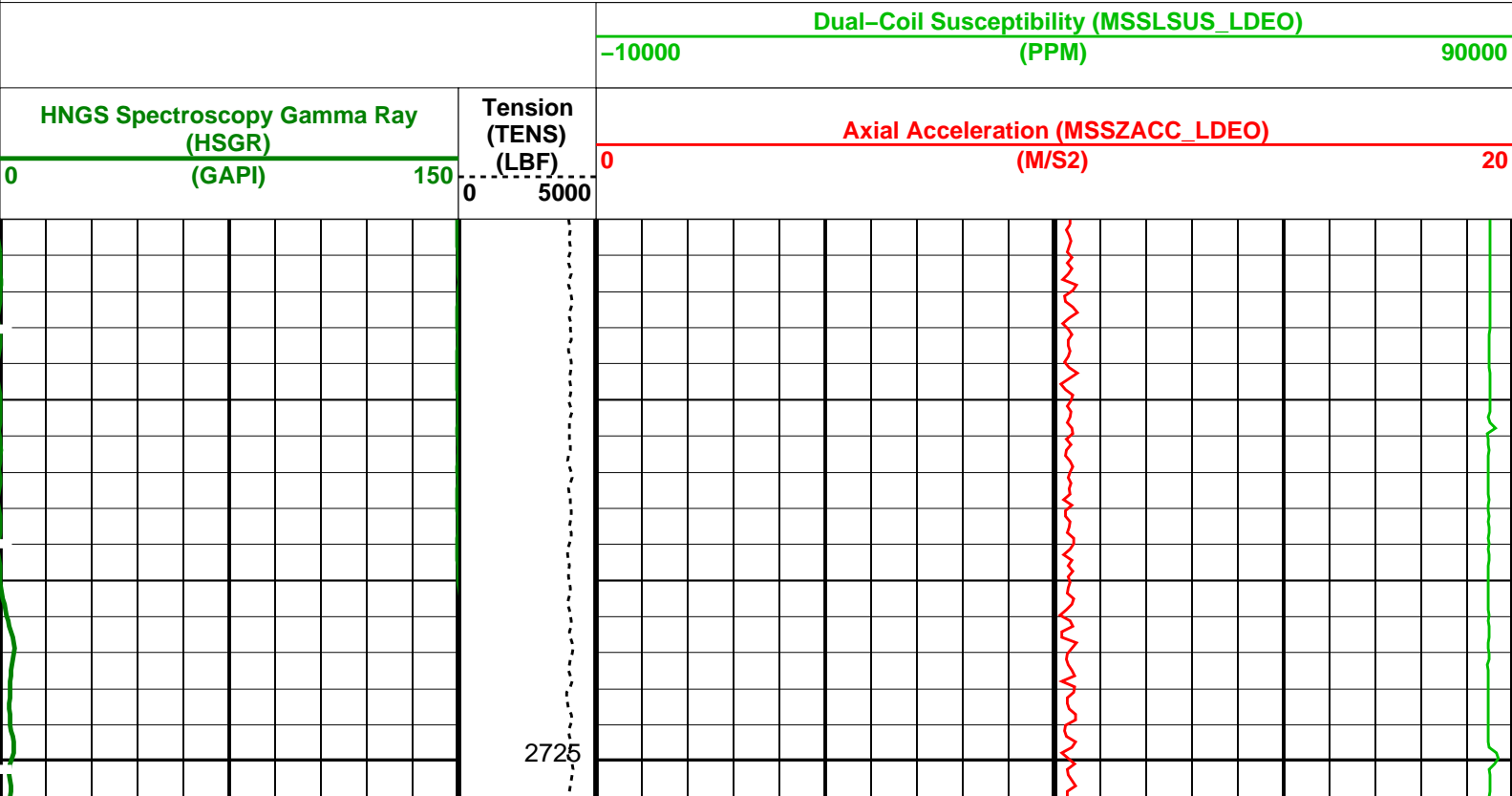
Well: Expedition 402, Site U1613A

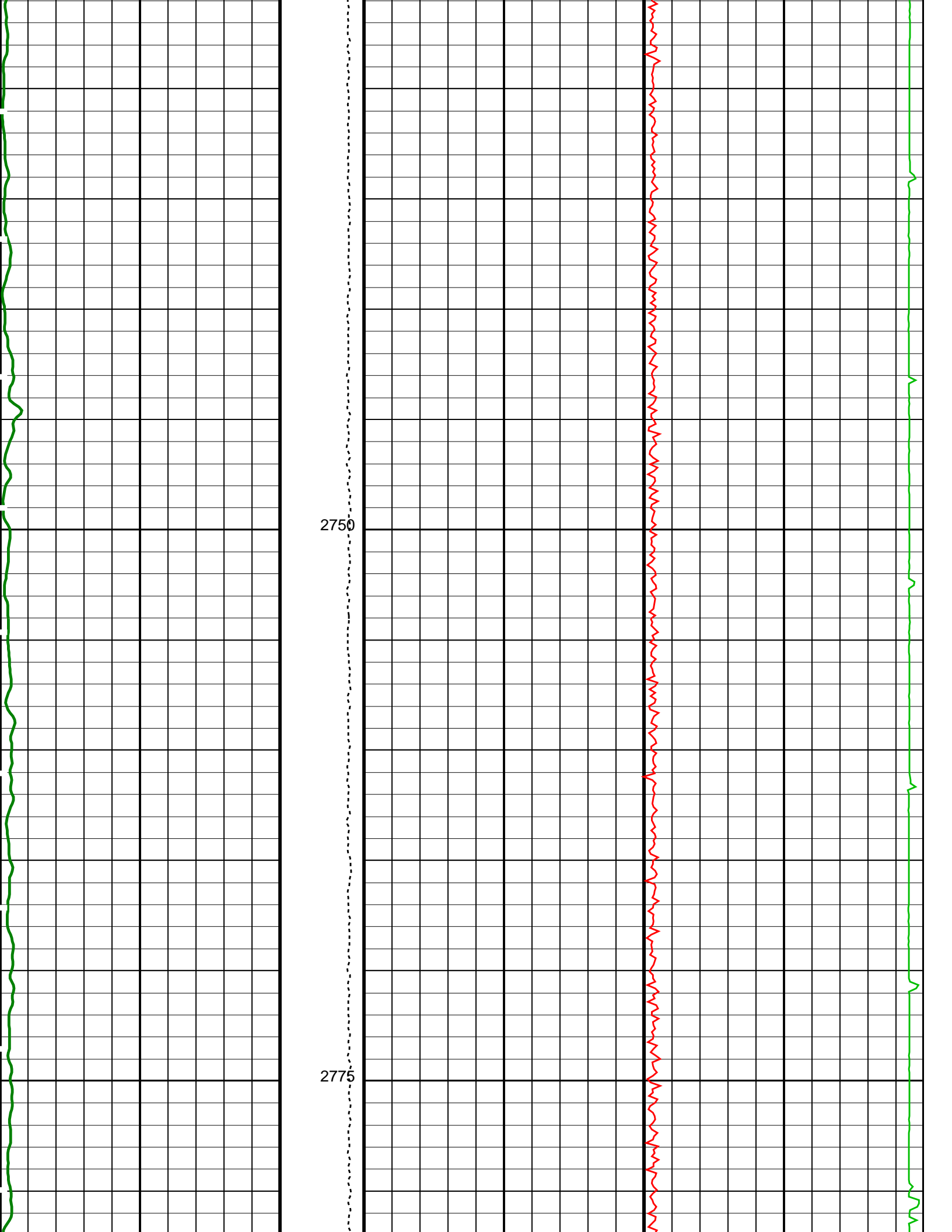
Output DLIS Files					
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BACKUP	MSS_LDEO_HRLA_LDL_015LUP	FN:8	PRODUCER	22-Feb-2024 16:48	2916.9 M 2711.2 M

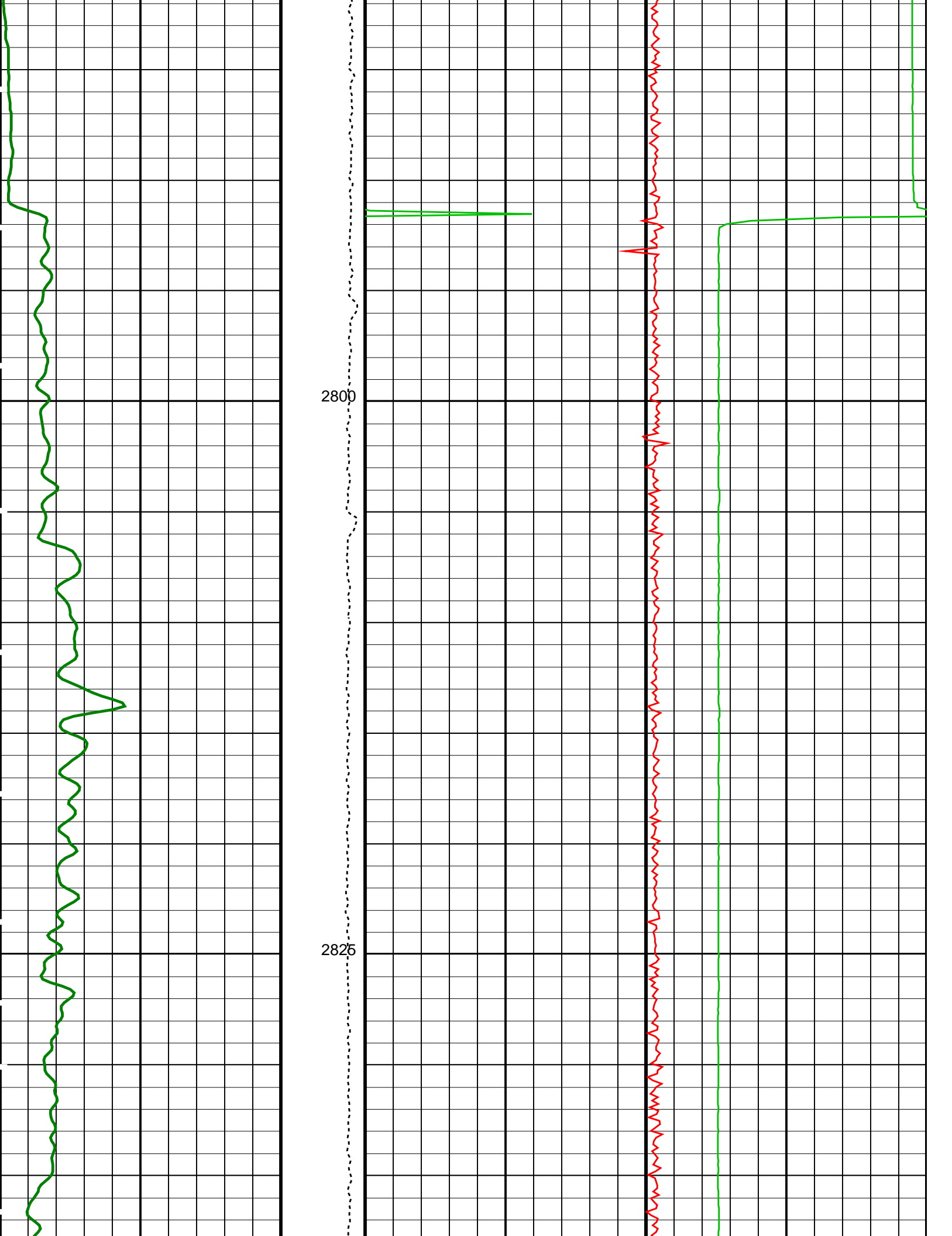
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HNGC-B	19C0-187	HNGS-BA	19C0-187
EDTC-B	19C0-187		

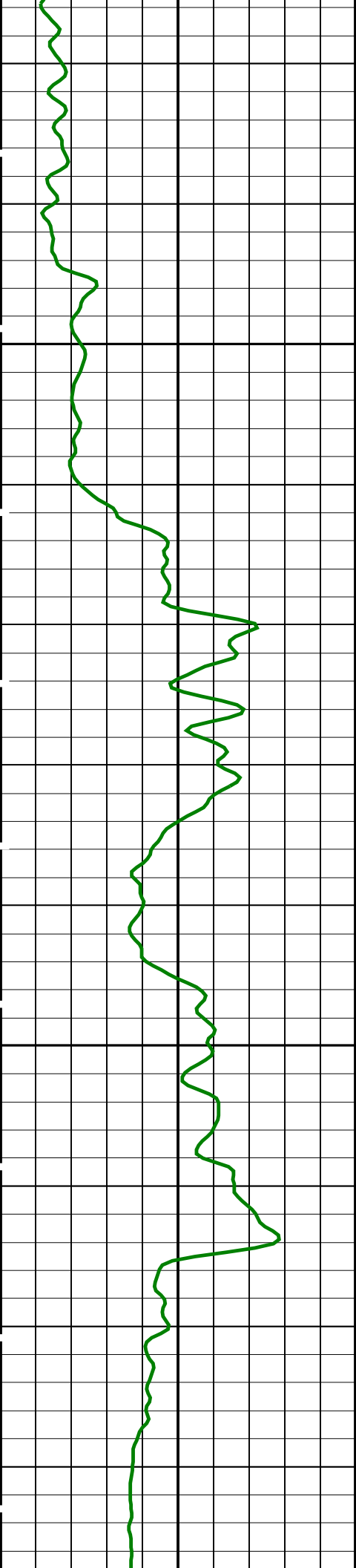
PIP SUMMARY

☒ Time Mark Every 60 S



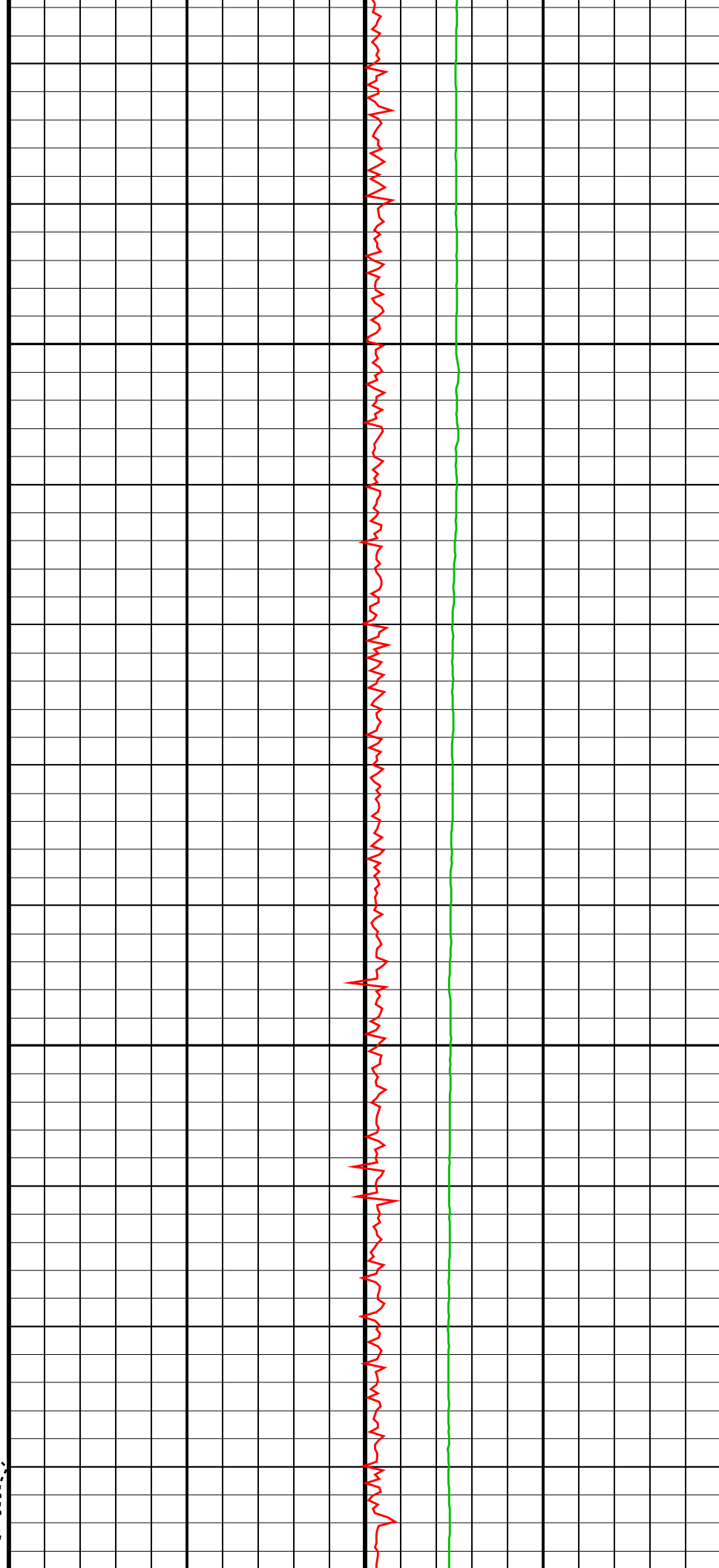


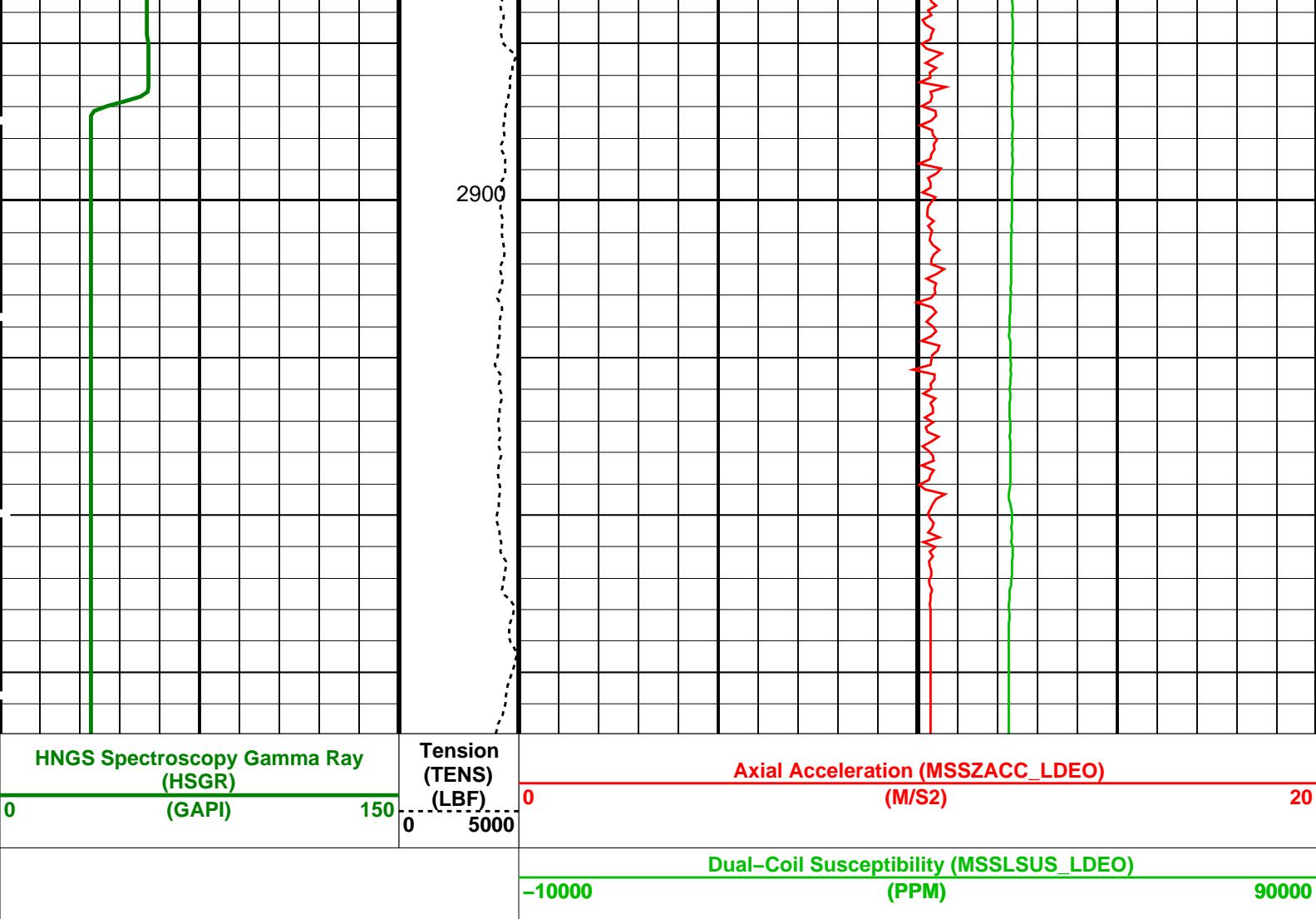




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PIP SUMMARY

Time Mark Every 60 S

Parameters			
DLIS Name	Description	Value	
HRLT-B: High Resolution Laterolog Array – B			
BHS	Borehole Status	OPEN	
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	-0.0414289	
HALF	HNGS Alpha Filter Length	60	IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	NATU	
HNPE	HNGS Processing Enable	YES	
S1BI	HNGS Detector 1 Calibration Bismuth Count Rate	1.3	CPS
S2BI	HNGS Detector 2 Calibration Bismuth Count Rate	1.3	CPS
SGRC	HNGS Standard Gamma-Ray Correction Flag	YES	
TPOS	Tool Position	ECCE	
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	1.02531	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	1.00405	
EDTC-B: Enhanced DTS Cartridge			
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	LCAL	
System and Miscellaneous			
PS	Pit Size	0.875	IN

BS	Bit Size	9.875	IN
DFD	Drilling Fluid Density	1.02	G/C3
Format: MSS_Logging		Vertical Scale: 1:200	Graphics File Created: 22-Feb-2024 16:48
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_015LUP	FN:7	PRODUCER 22-Feb-2024 16:48
BACKUP	MSS_LDEO_HRLA_LDL_015LUP	FN:8	PRODUCER 22-Feb-2024 16:48

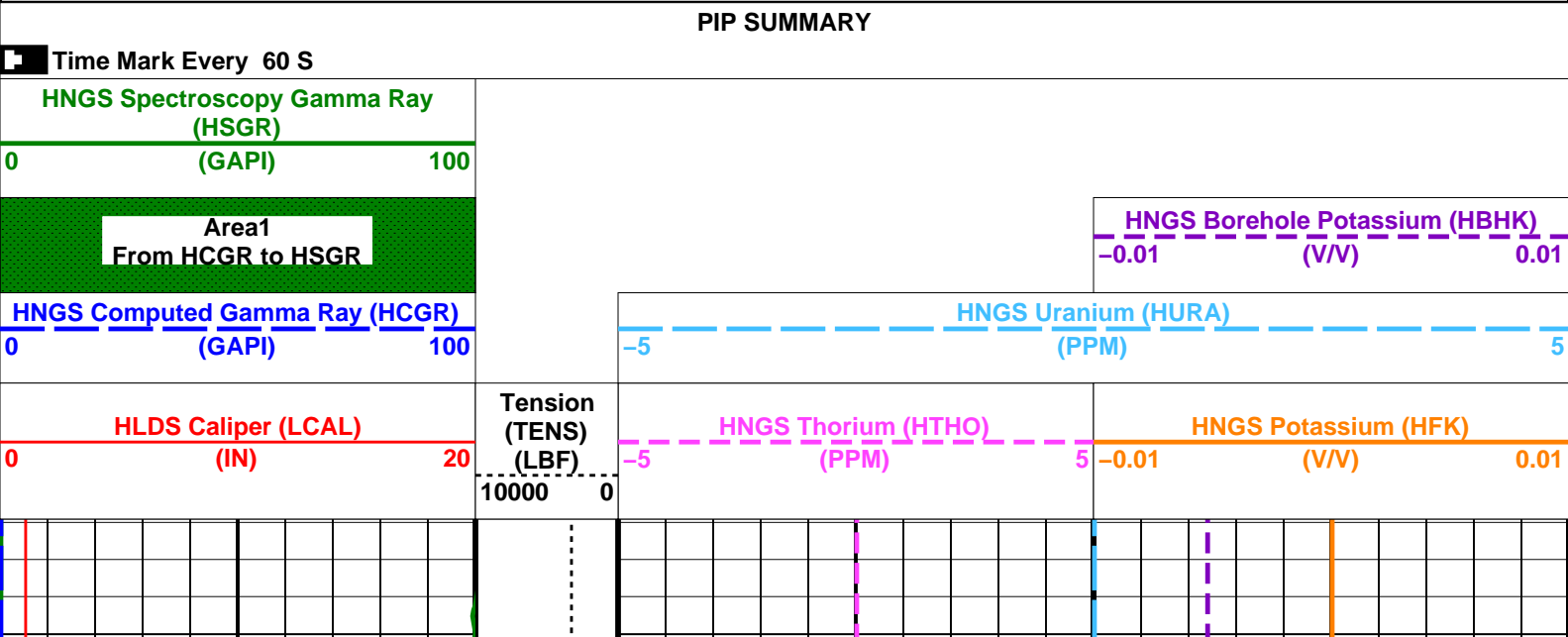


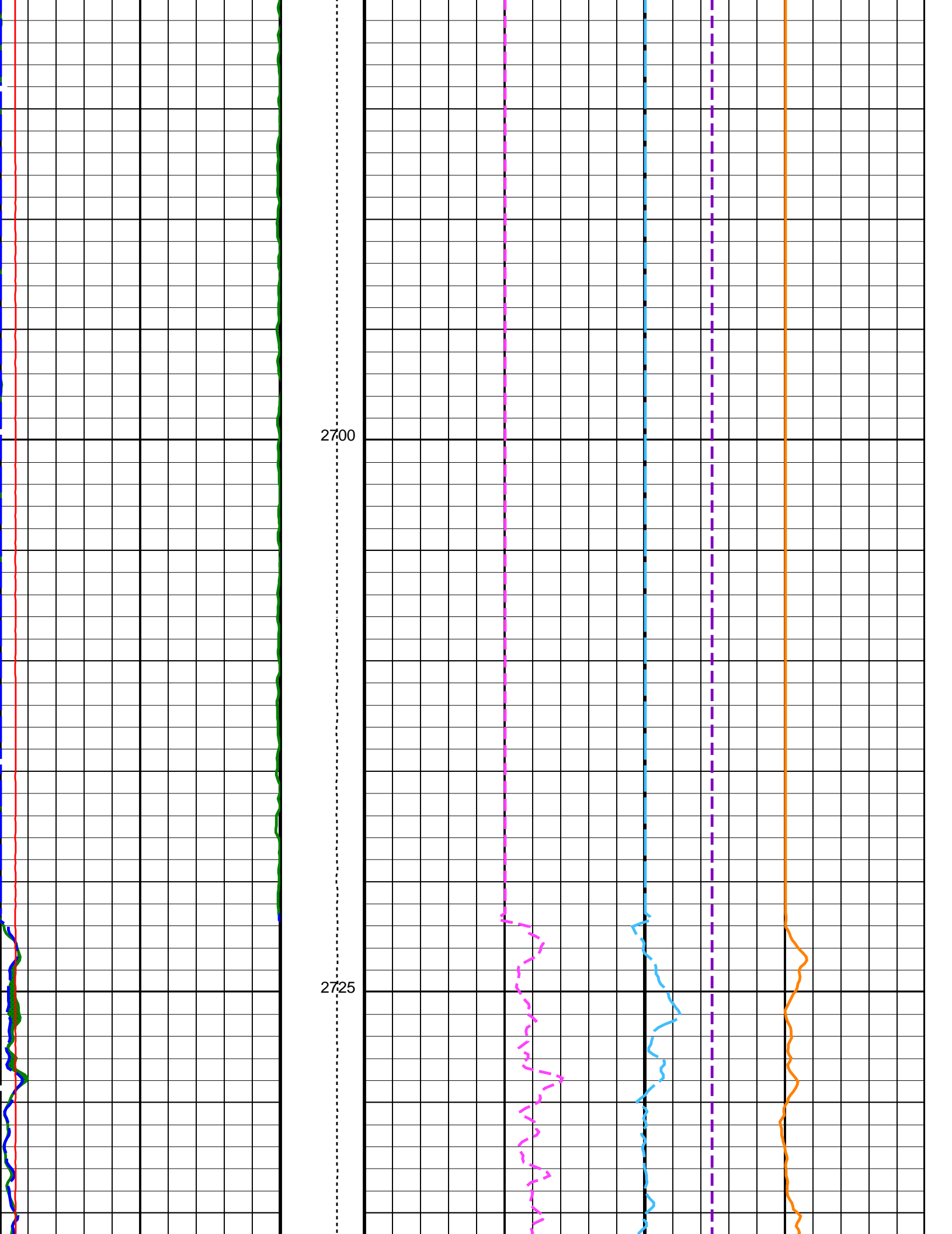
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1:200 Scale

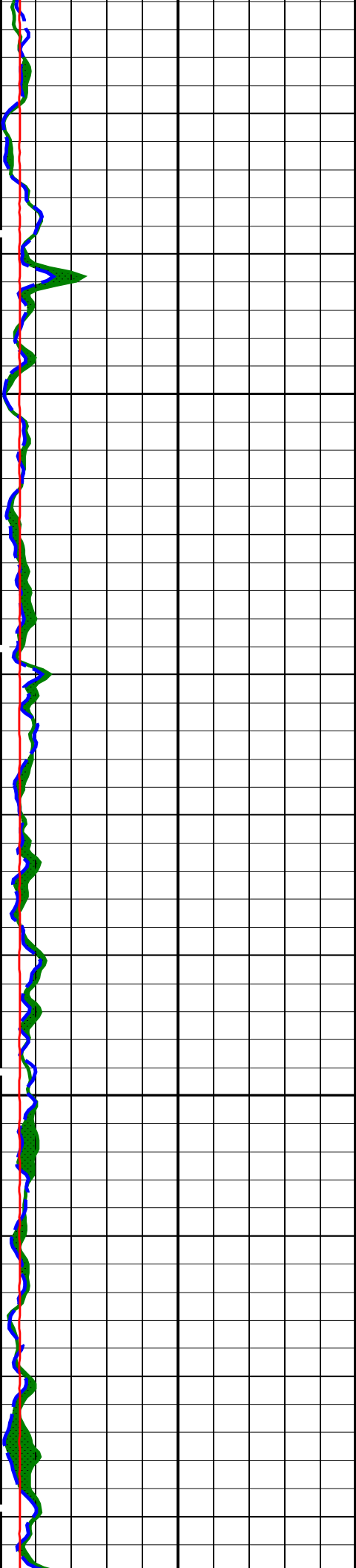
MAXIS Field Log

Company: International Ocean Discovery Program				Well: Expedition 402, Site U1613A		
Input DLIS Files						
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Output DLIS Files						
DEFAULT	MSS_LDEO_HRLA_LDL_018PUP	FN:11	PRODUCER	22-Feb-2024 17:30	2922.0 M	2676.9 M
BACKUP	MSS_LDEO_HRLA_LDL_018PUP	FN:12	PRODUCER	22-Feb-2024 17:30	2922.0 M	2676.9 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		

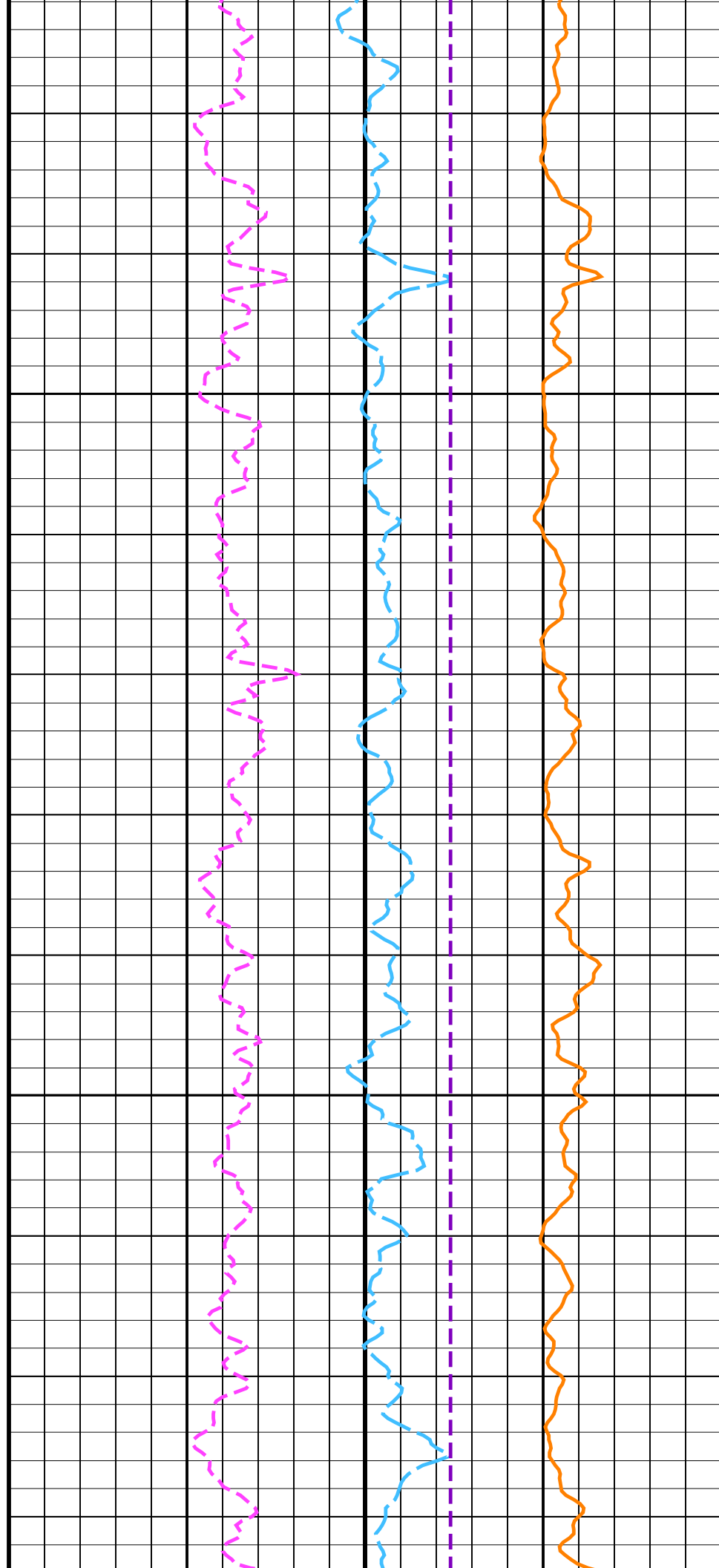


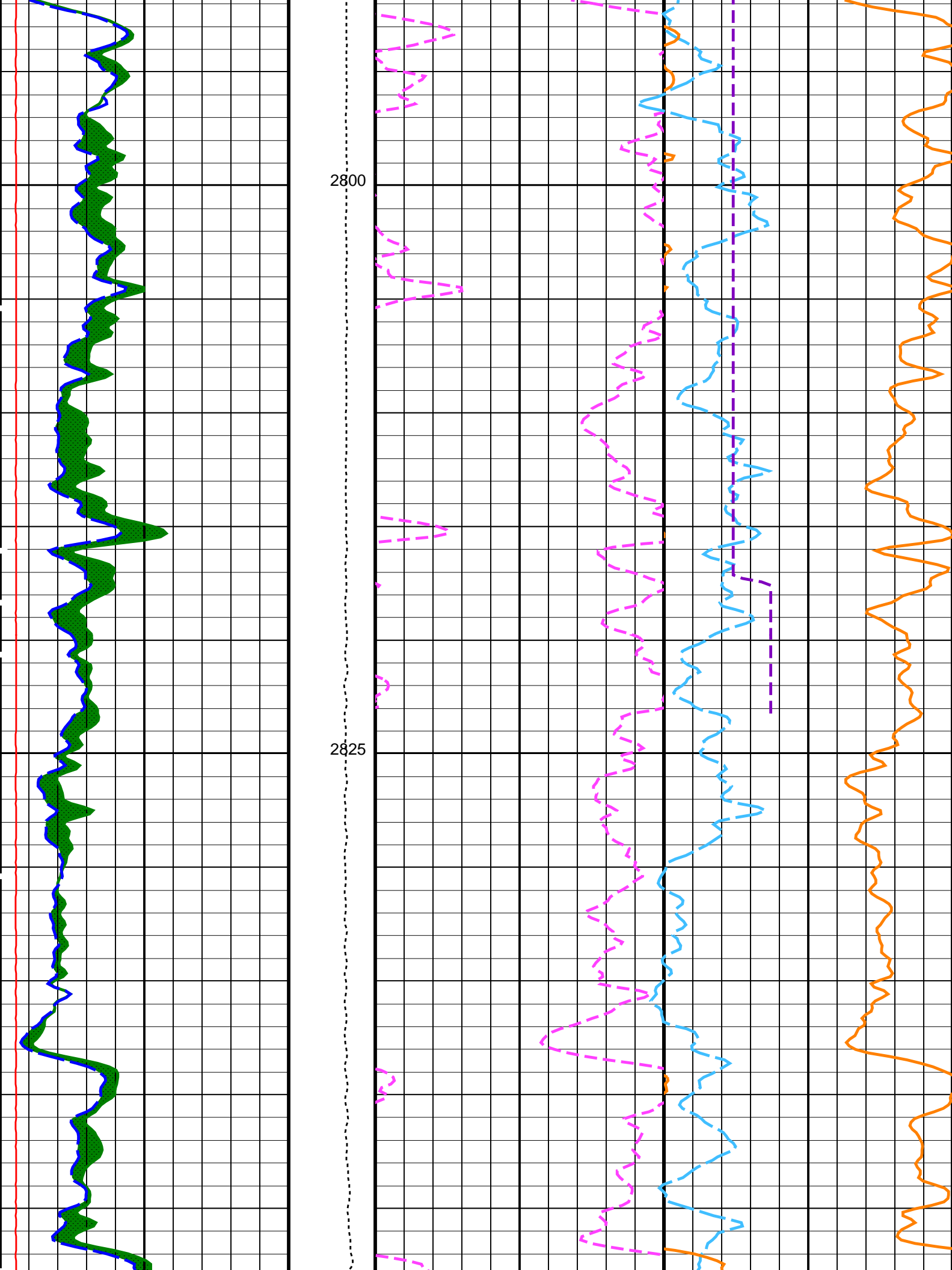


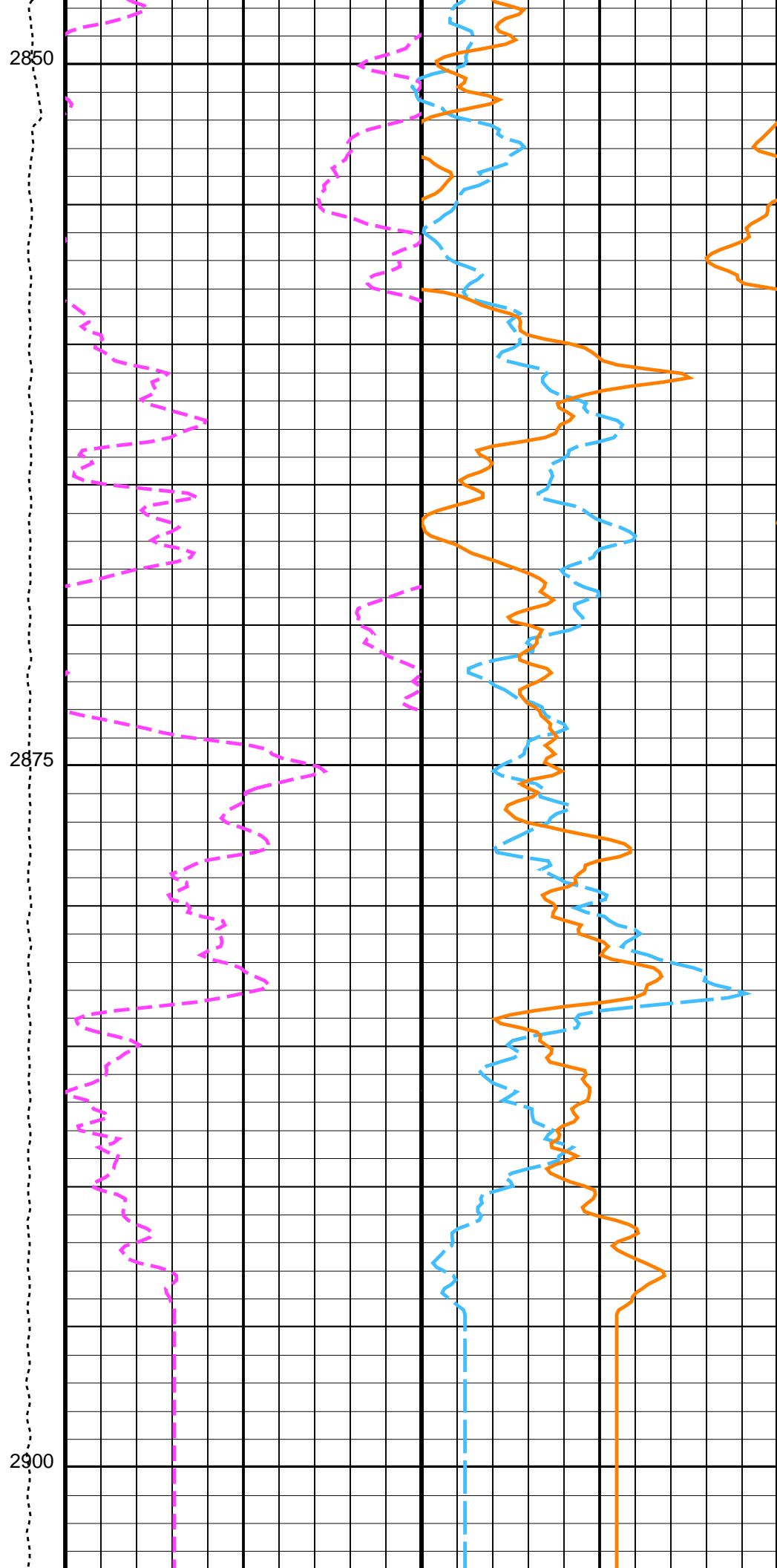
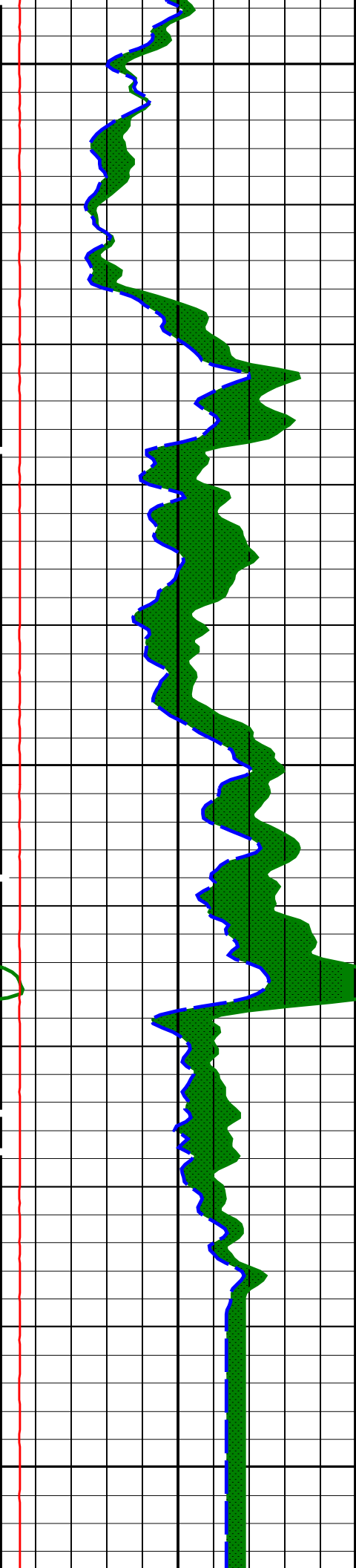


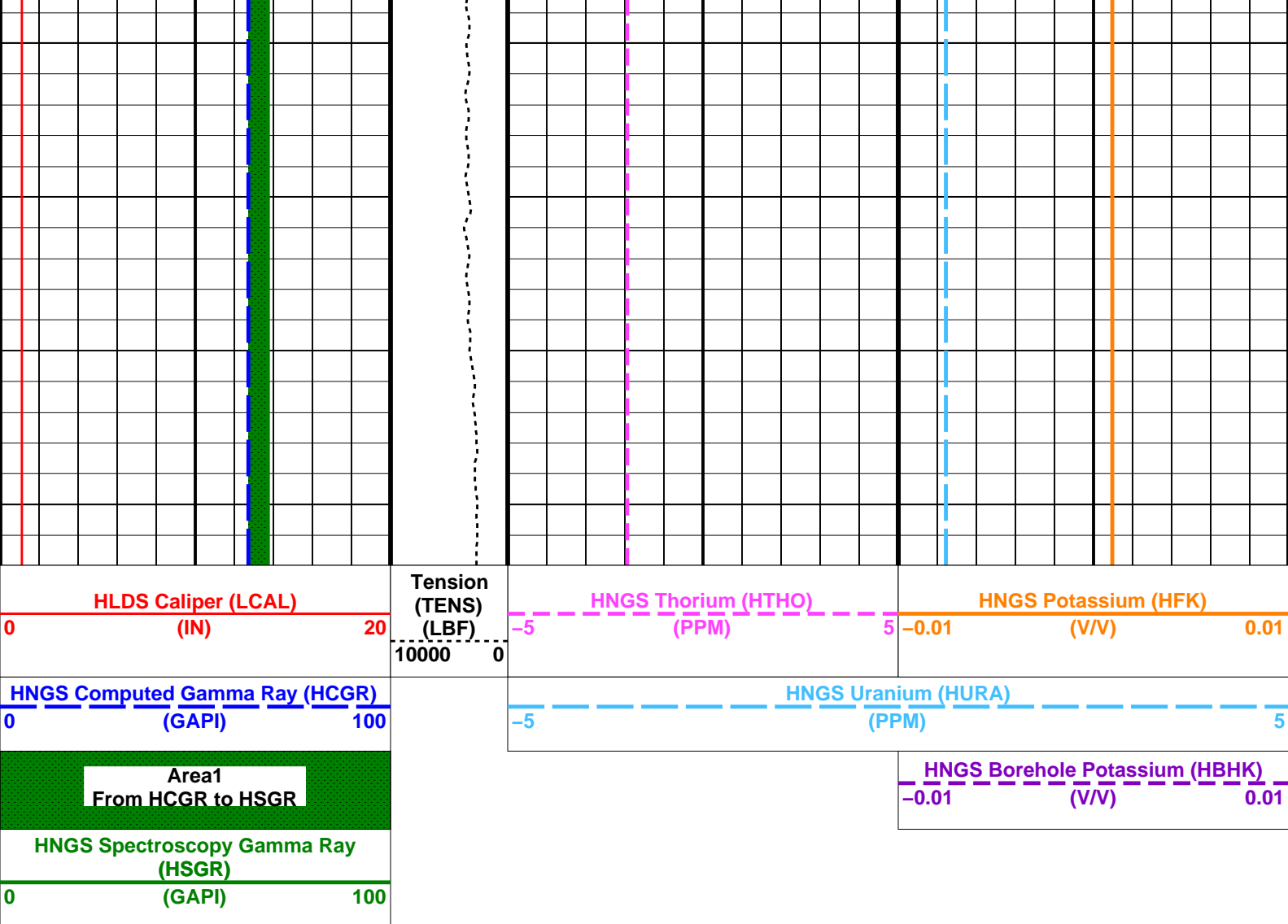
2750

2775









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	-0.0142666
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	0.986316
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	0.968932
	EDTC-B: Enhanced DTS Cartridge	
BHS	Borehole Status	OPEN
GCSE	Generalized Caliper Selection	BS

```

          9.875    IN
          1.02    G/C3
          0.0     M
RECOMPUTE

```

OP System Version: 19C0-187

Input DLIS Files

Output DLIS Files

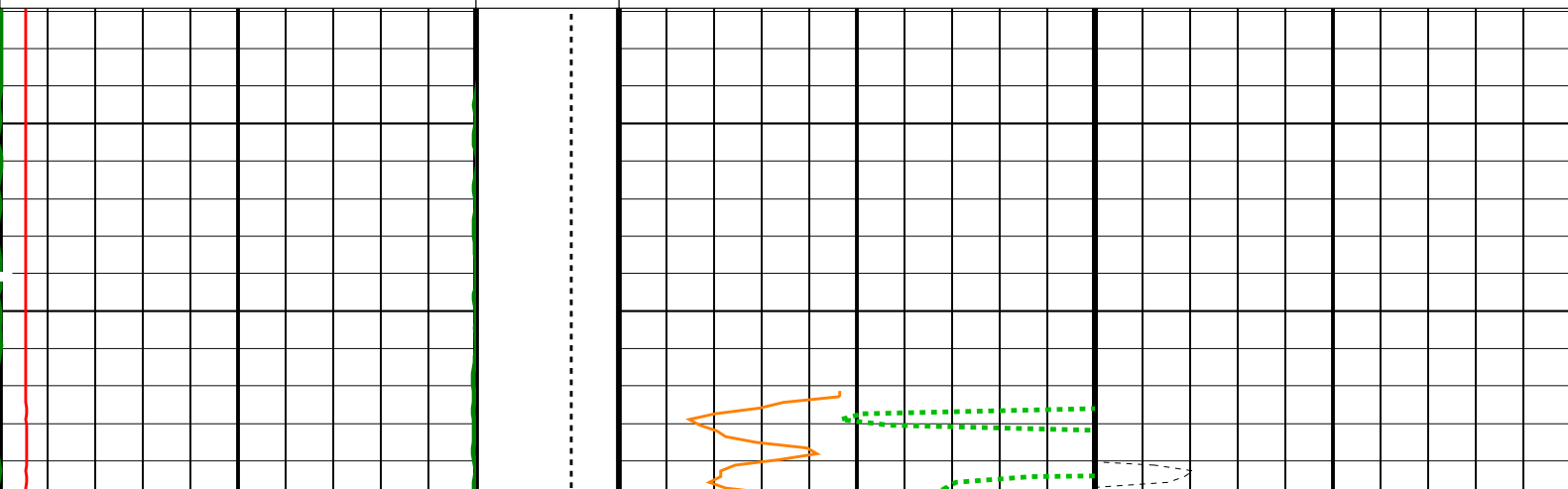
Input DLIS Files

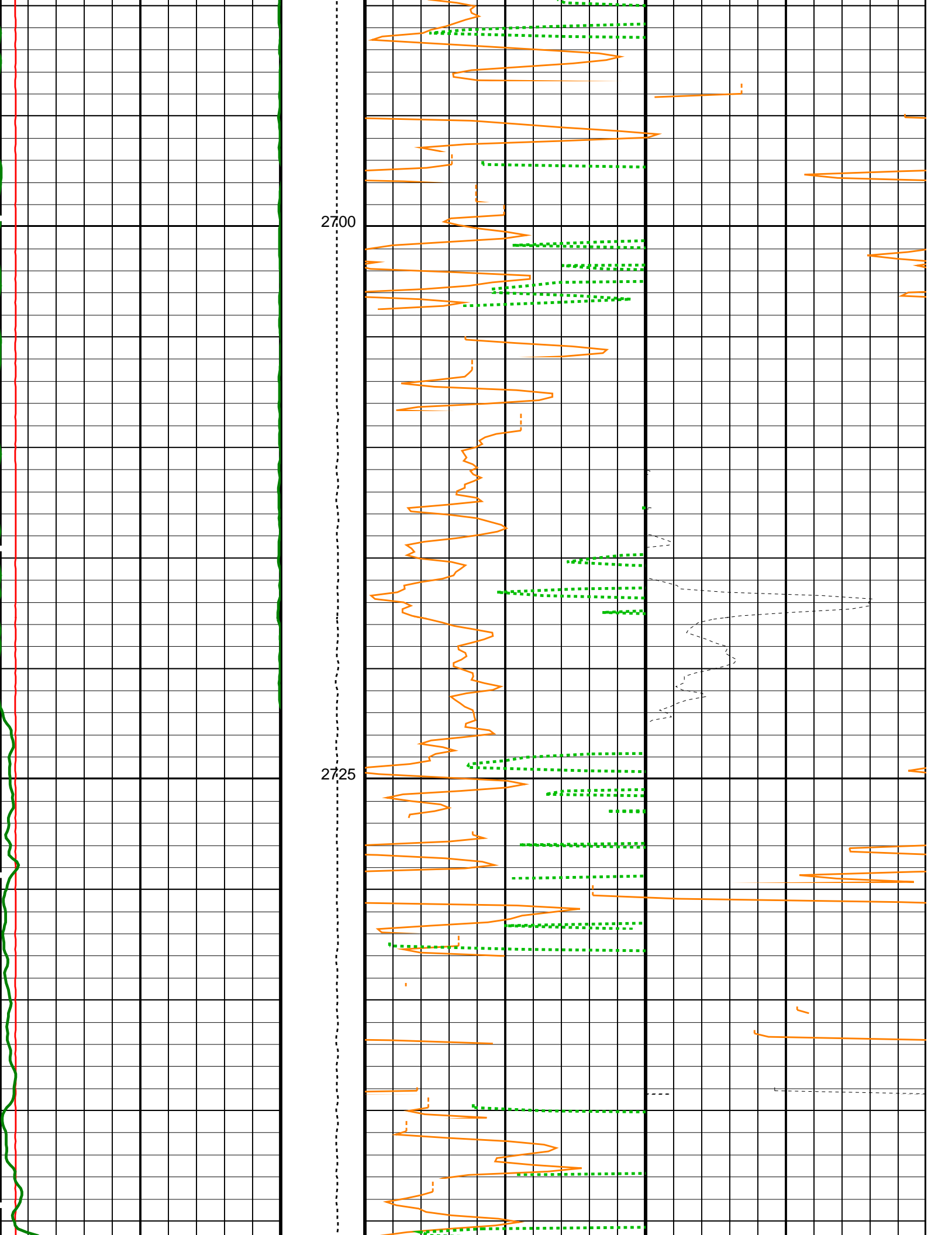
Output DLIS Files

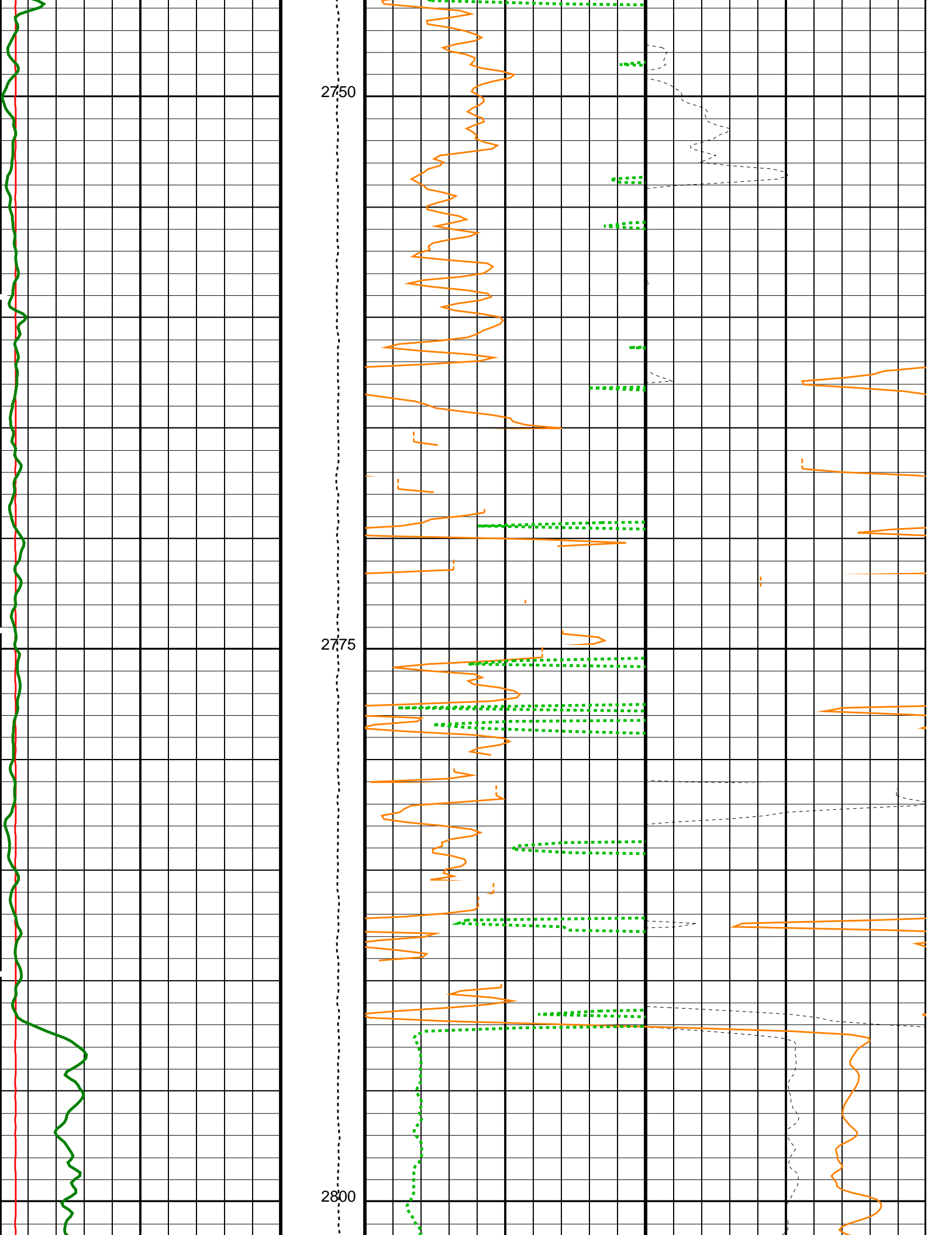
OP System Version: 19C0-187

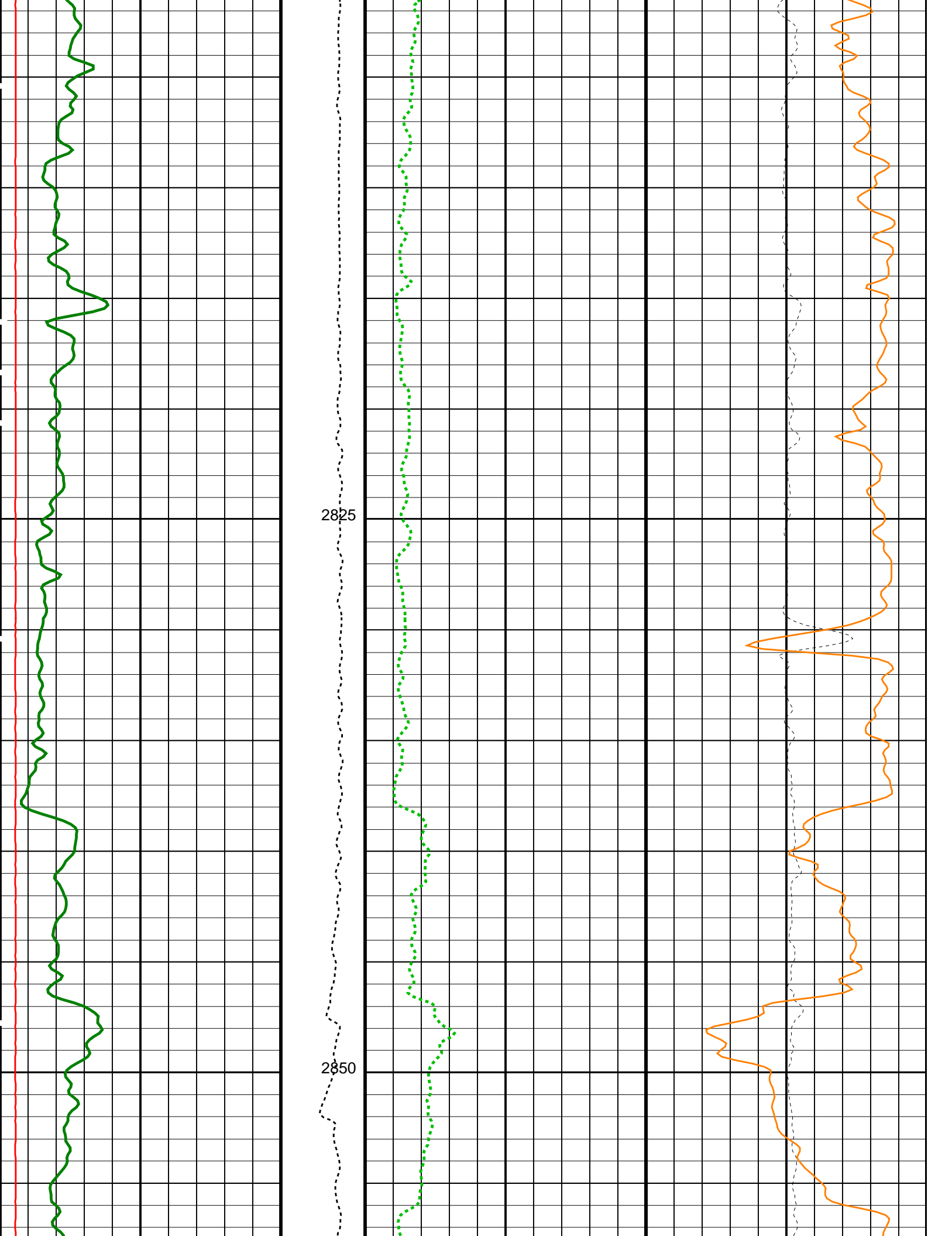
PIP SUMMARY

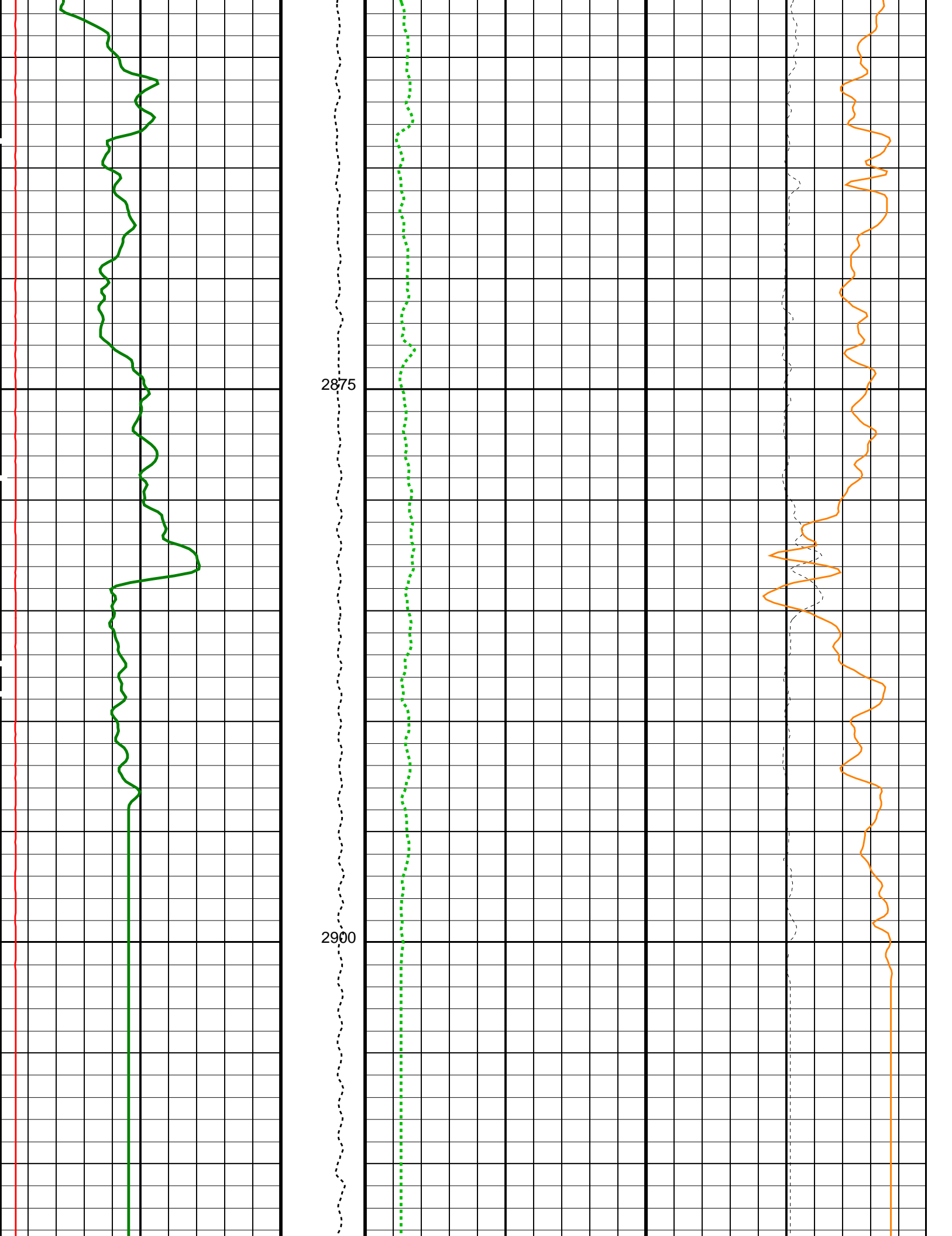
HNGS Spectroscopy Gamma Ray (HSGR)			HLDS Long Spaced Photoelectric Effect (PEFL)		HLDS Bulk Density Correction (DRH)	
0	150 (GAPI)		0	10 (----)	-0.25	0.25 (G/C3)
HLDS Caliper (LCAL)		Tension (TENS) (LBF)	HLDS Bulk Density (RHOM)			
0	20 (IN)		3	1 (G/C3)		
		0				
		5000				

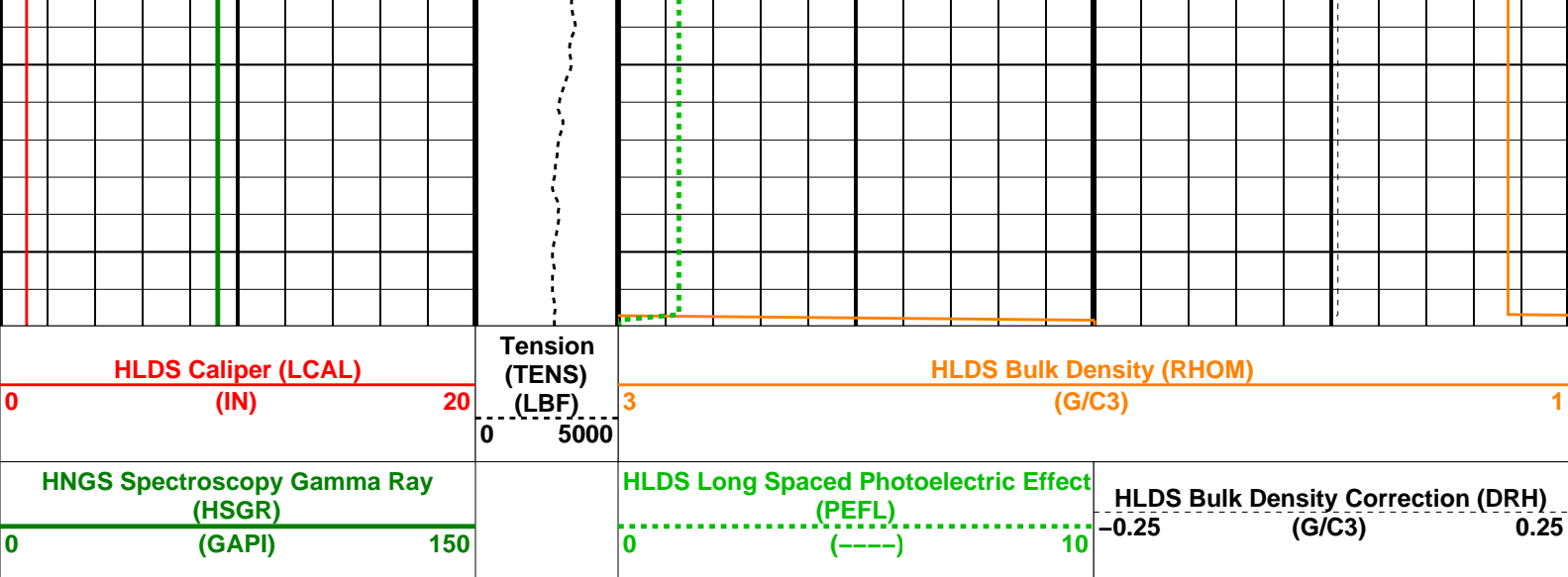












HLDS Caliper (LCAL) (IN)		Tension (TENS) (LBF)	HLDS Bulk Density (RHOM) (G/C3)	
0	20	0 5000	3	1
HNGS Spectroscopy Gamma Ray (HSGR) (GAPI)			HLDS Long Spaced Photoelectric Effect (PEFL) (----)	HLDS Bulk Density Correction (DRH) (G/C3)
0	150		0 10	-0.25 0.25

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	
HLDS: Hostile Litho-Density Sonde			
DHC	Density Hole Correction	BS	
DPPM	Density Porosity Processing Mode	HIRS	
FD	Fluid Density	1	G/C3
LATC	HLDS Activation Correction	OFF	
MDEN	Matrix Density	2.6	G/C3
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	-0.0142666	
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	0.986316	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	0.968932	
EDTC-B: Enhanced DTS Cartridge			
BHS	Borehole Status	OPEN	
DPPM	Density Porosity Processing Mode	HIRS	
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	RECOMPUTE	

Format: HLDSDensityPE Vertical Scale: 1:200 Graphics File Created: 22-Feb-2024 17:30

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_017LUP	PRODUCER	22-Feb-2024 17:29	2922.0 M	2676.9 M	
Output DLIS Files						
DEFAULT	MSS_LDEO_HRLA_LDL_018PUP	FN:11	PRODUCER	22-Feb-2024 17:30		
BACKUP	MSS_LDEO_HRLA_LDL_018PUP	FN:12	PRODUCER	22-Feb-2024 17:30		

Company: International Ocean Discovery Program

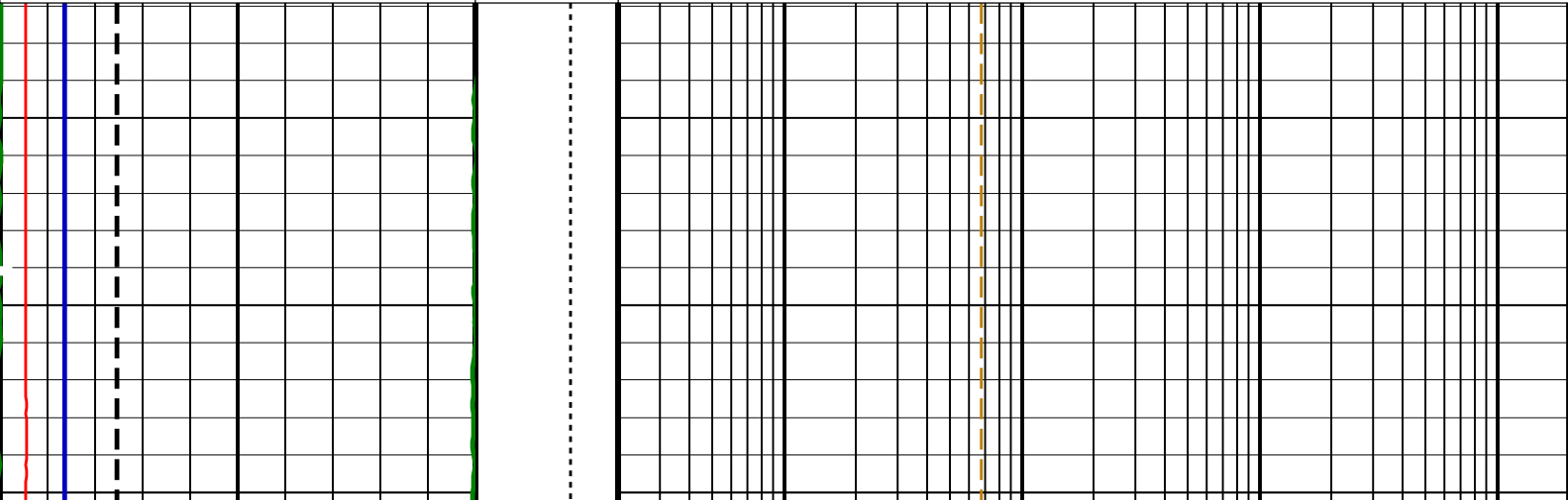
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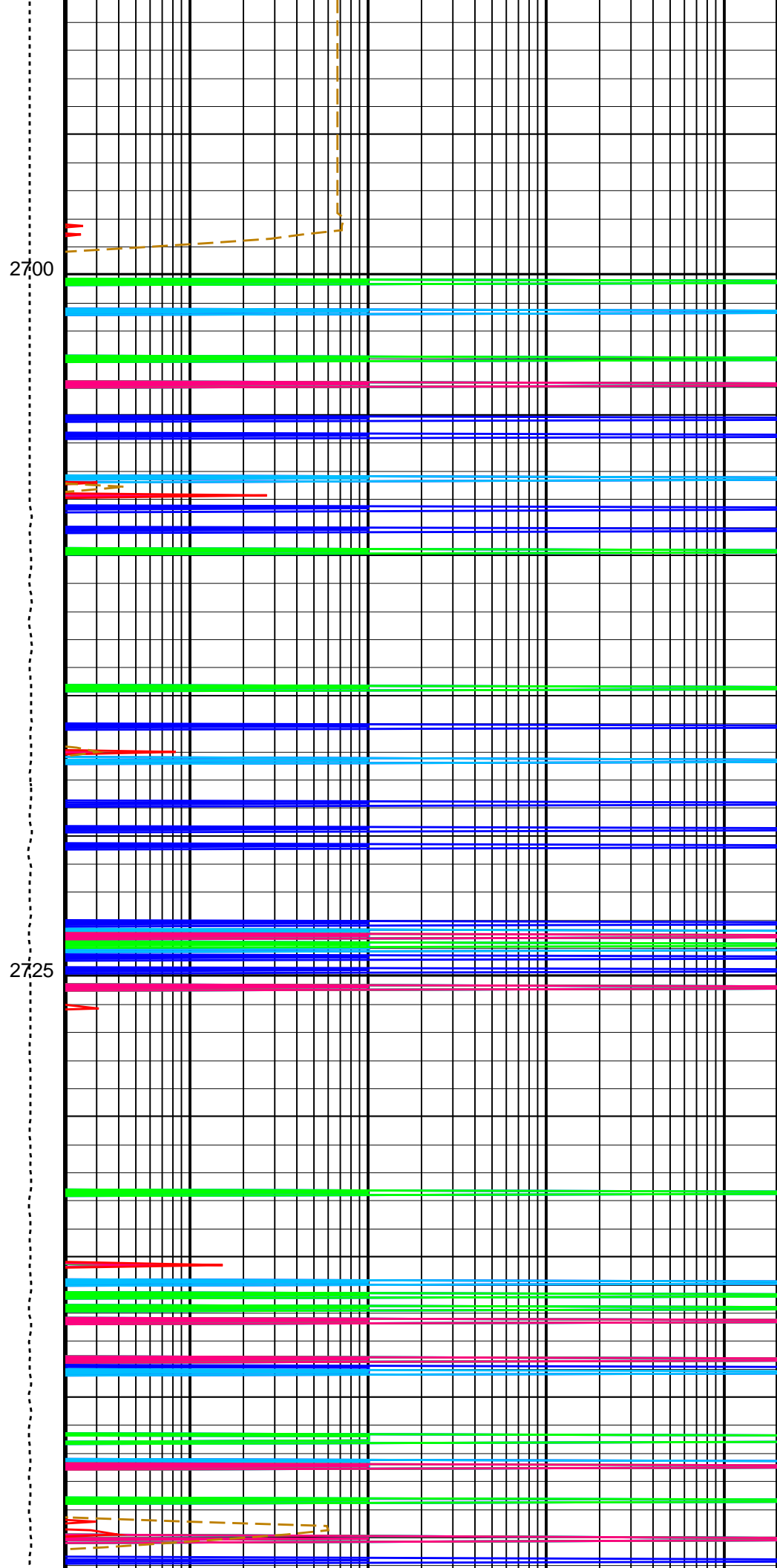
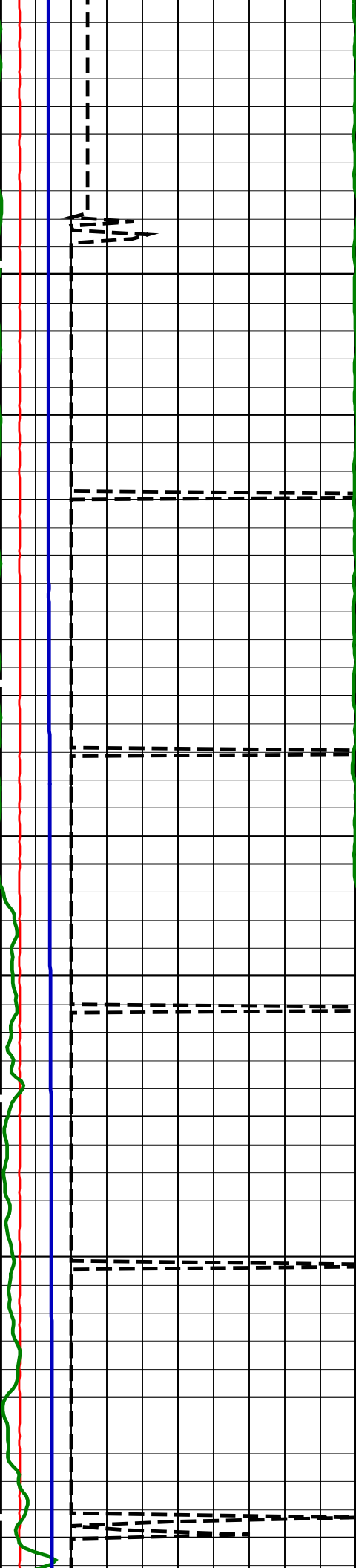
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Output DLIS Files						
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BACKUP	MSS_LDEO_HRLA_LDL_018PUP	FN:12	PRODUCER	22-Feb-2024 17:30	2922.0 M	2676.9 M

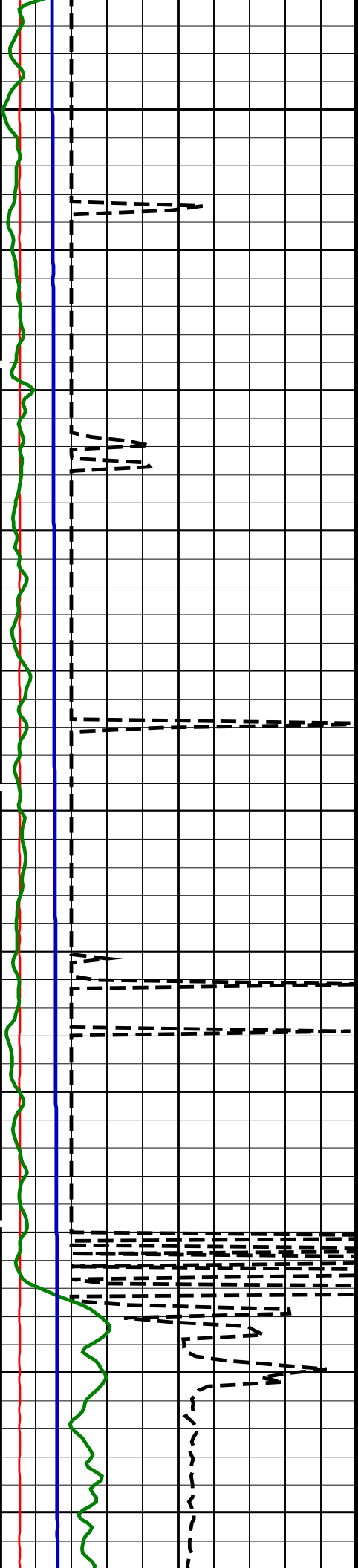
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MSS_LDEO-A	19C0-187		HRLT-B	19C0-187		
HLDS	19C0-187		LDSC-B	19C0-187		
HNGC-B	19C0-187		HNGS-BA	19C0-187		
EDTC-B	19C0-187					

PIP SUMMARY						
Time Mark Every 60 S						

<div>HNGS Spectroscopy Gamma Ray (HSGR)</div> <div>0150 (GAPI)</div> <div>Mud temperature (MTEM)</div> <div>0100 (DEGC)</div> <div>Invasion Diameter (DI_HRLT)</div> <div>050 (IN)</div>		<div>HRLT Mud Resistivity (RM_HRLT)</div> <div>0.02200 (OHMM)</div>				
		<div>HRLT Resistivity 5 (RLA5)</div> <div>0.22000 (OHMM)</div>				
		<div>HRLT Resistivity 4 (RLA4)</div> <div>0.22000 (OHMM)</div>				
		<div>HRLT Resistivity 3 (RLA3)</div> <div>0.22000 (OHMM)</div>				
		<div>HRLT Resistivity 2 (RLA2)</div> <div>0.22000 (OHMM)</div>				
<div>HLDS Caliper (LCAL)</div> <div>020 (IN)</div>	<div>Tension (TENS) (LBF)</div> <div>05000</div>	<div>HRLT Resistivity 1 (RLA1)</div> <div>0.22000 (OHMM)</div>				



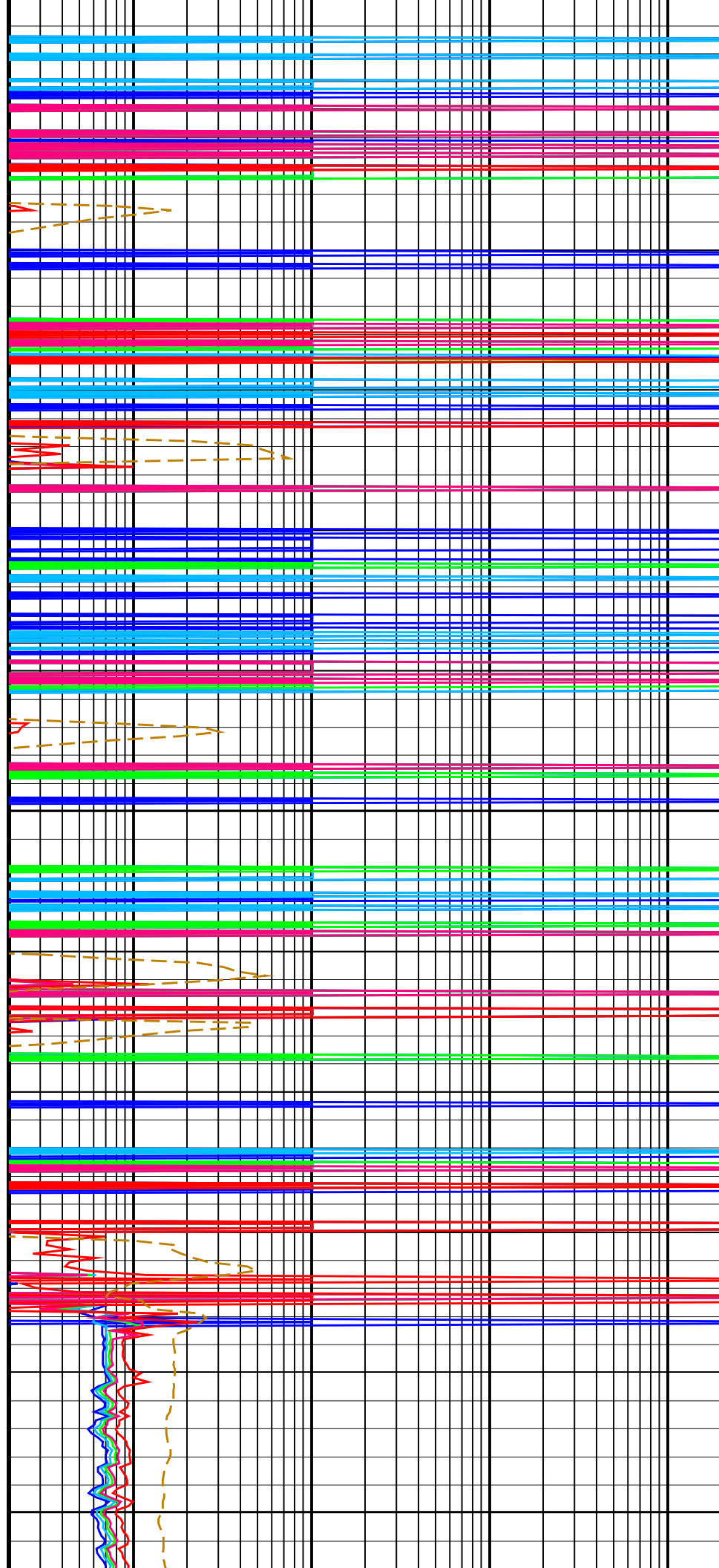


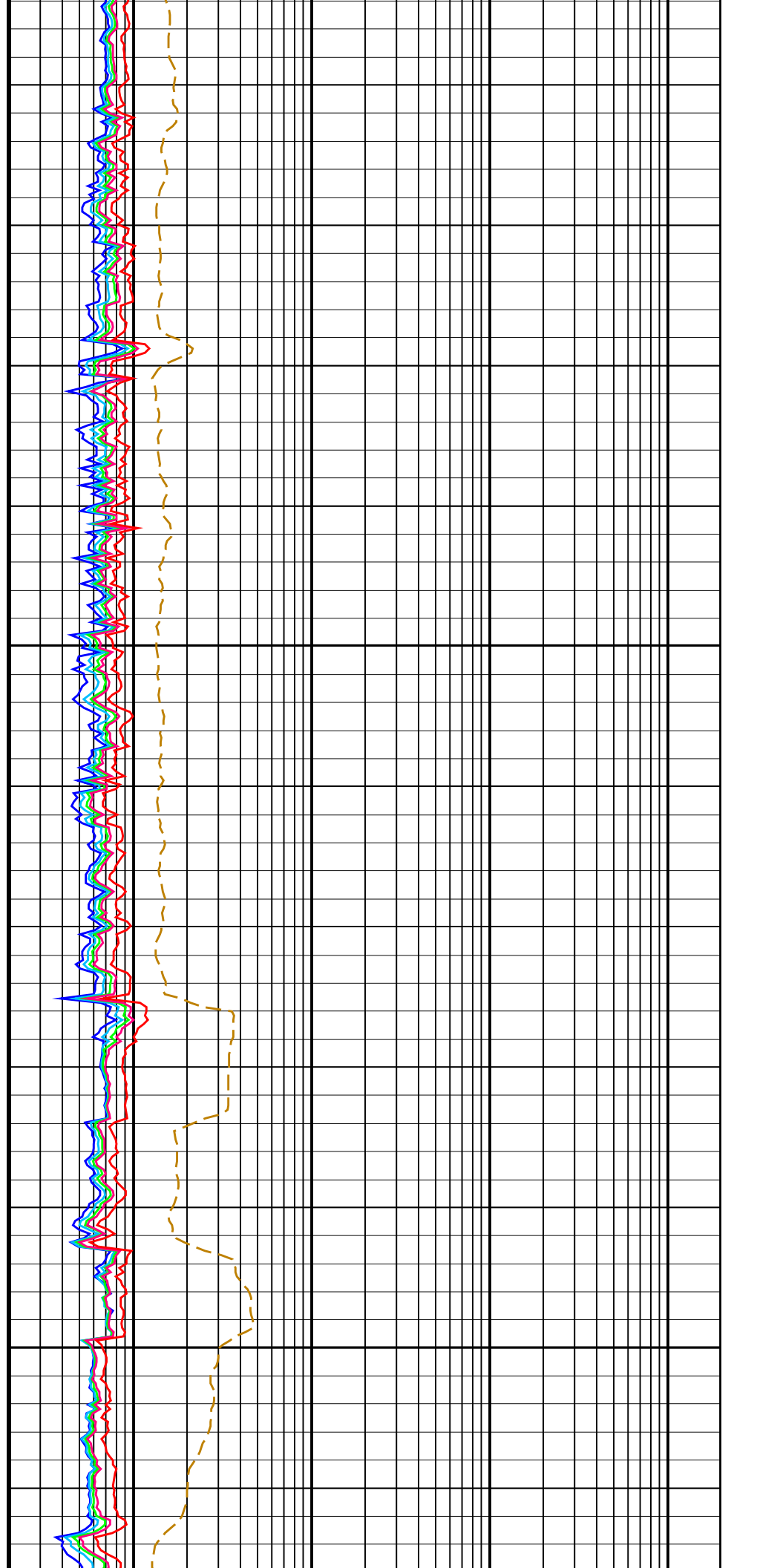
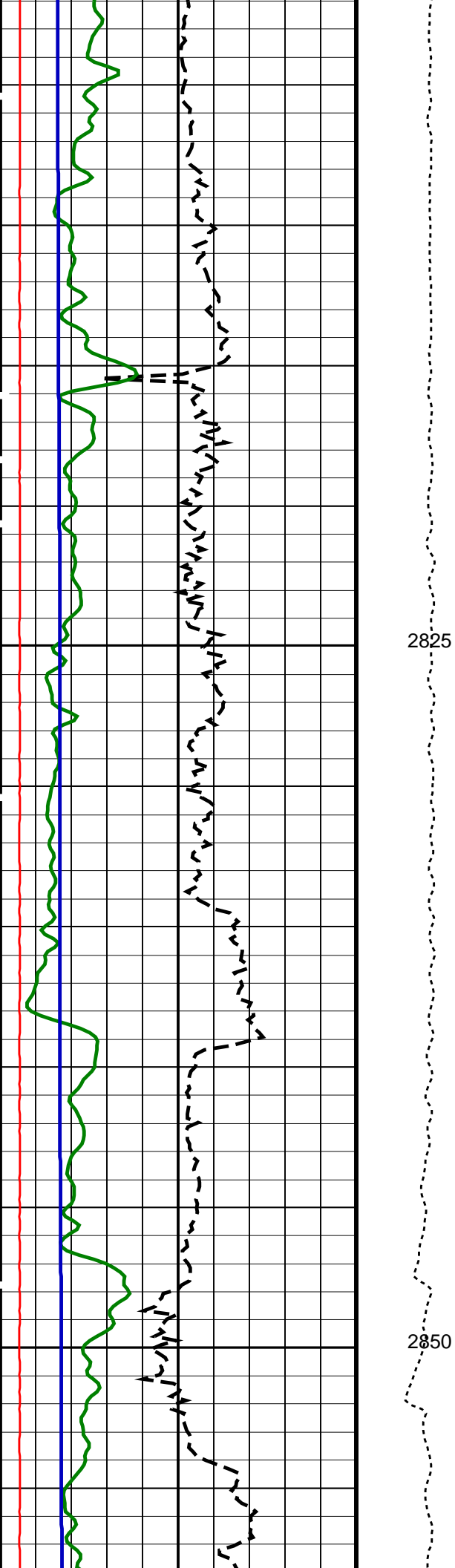


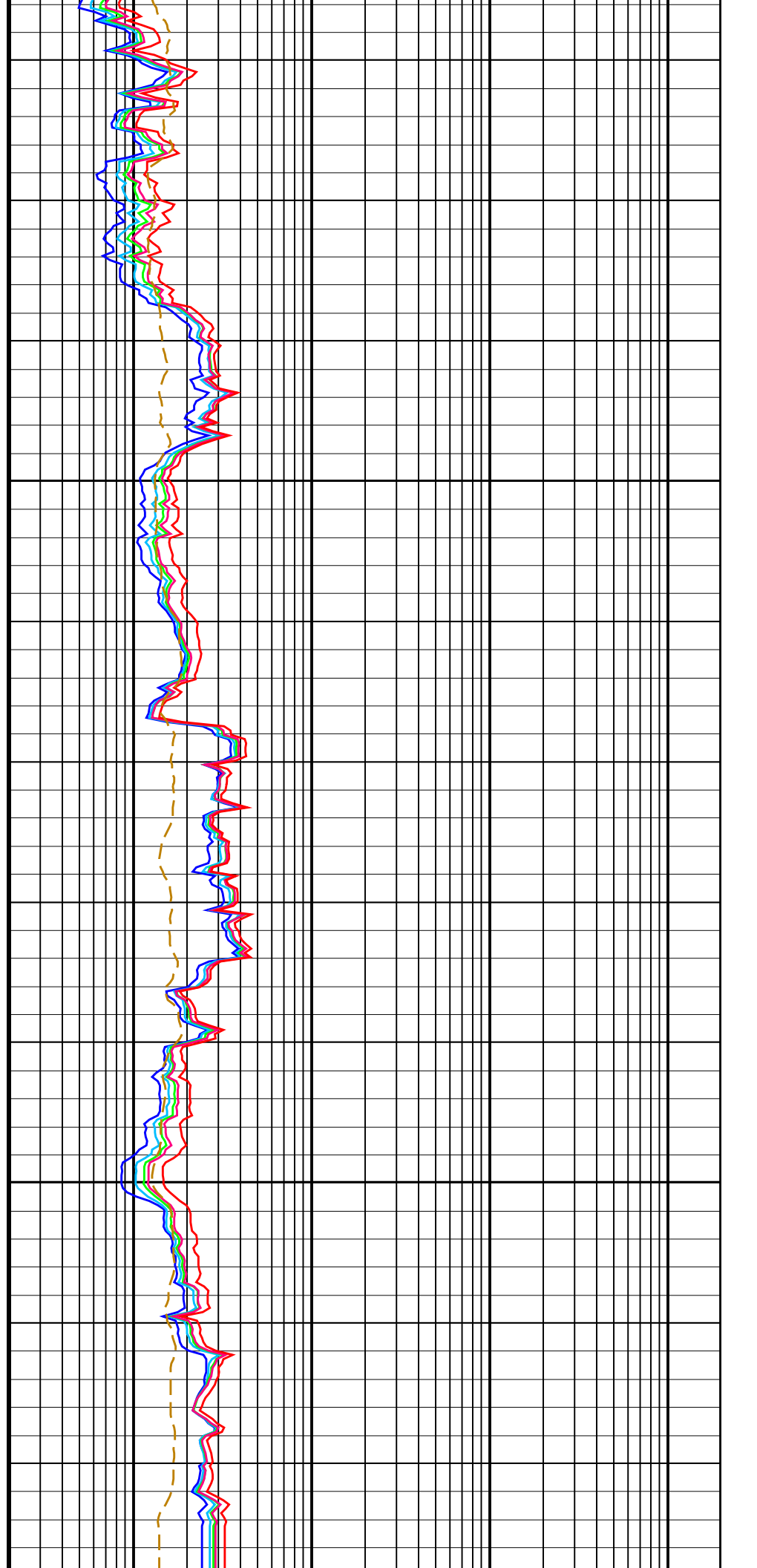
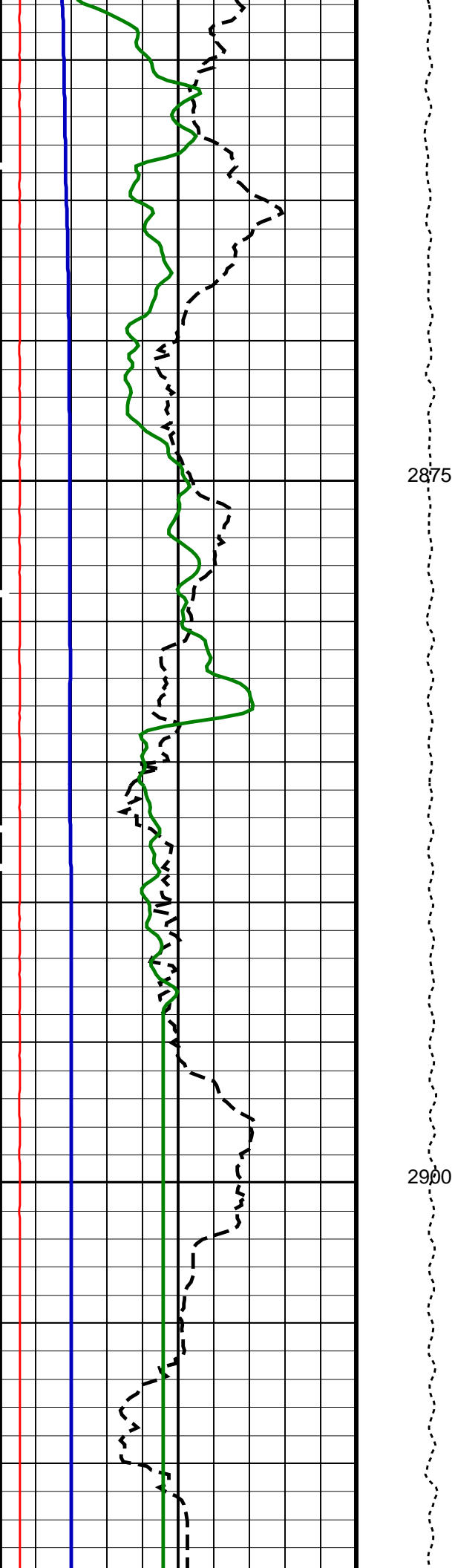
2750

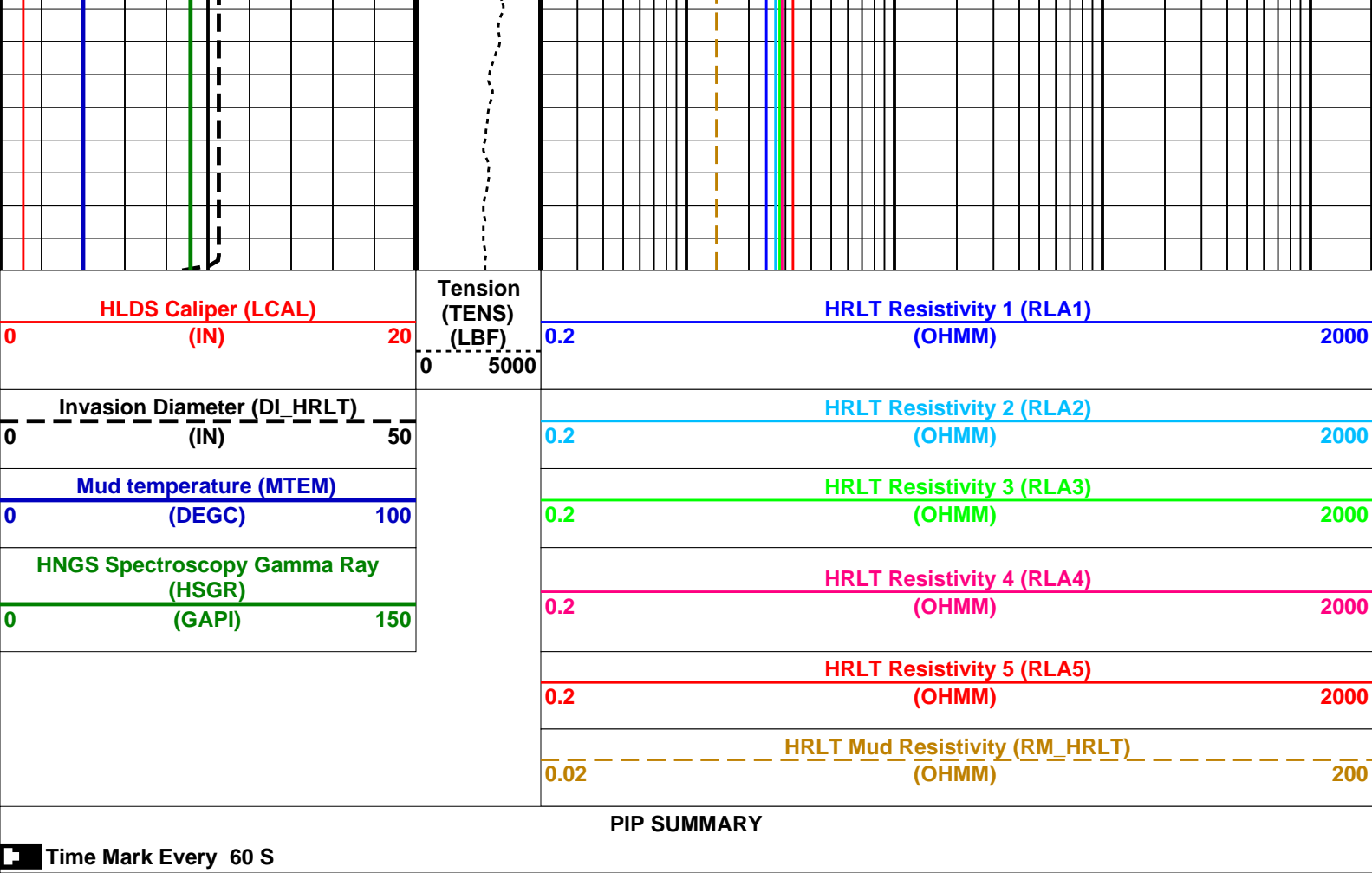
2775

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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	-0.0142666
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

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	0.986316	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	0.968932	
	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
PP	Playback Processing	RECOMPUTE	
TD	Total Depth	10190.3	FT

OP System Version: 19C0-187

Input DLIS Files

Output DLIS Files

Company: International Ocean Discovery Program

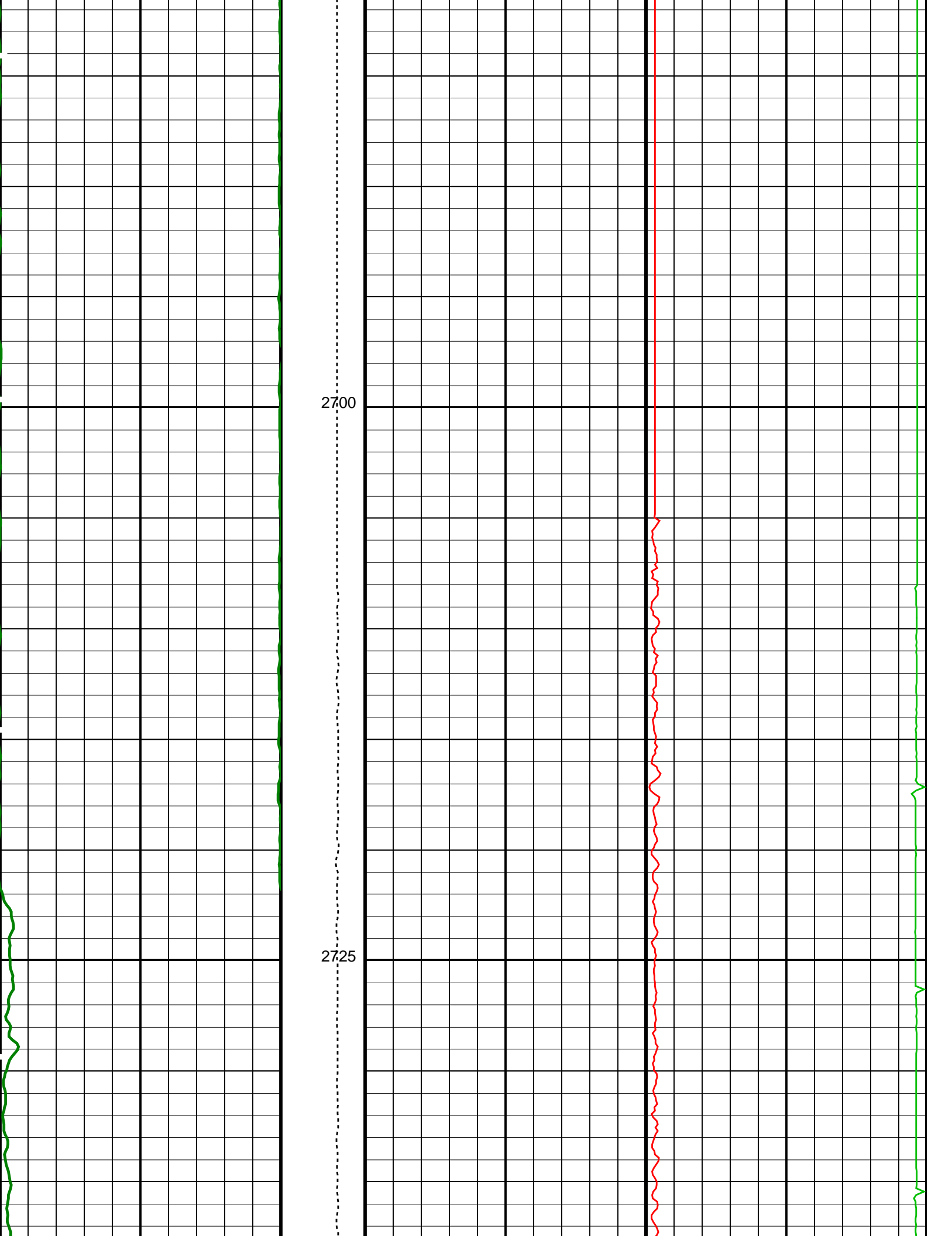
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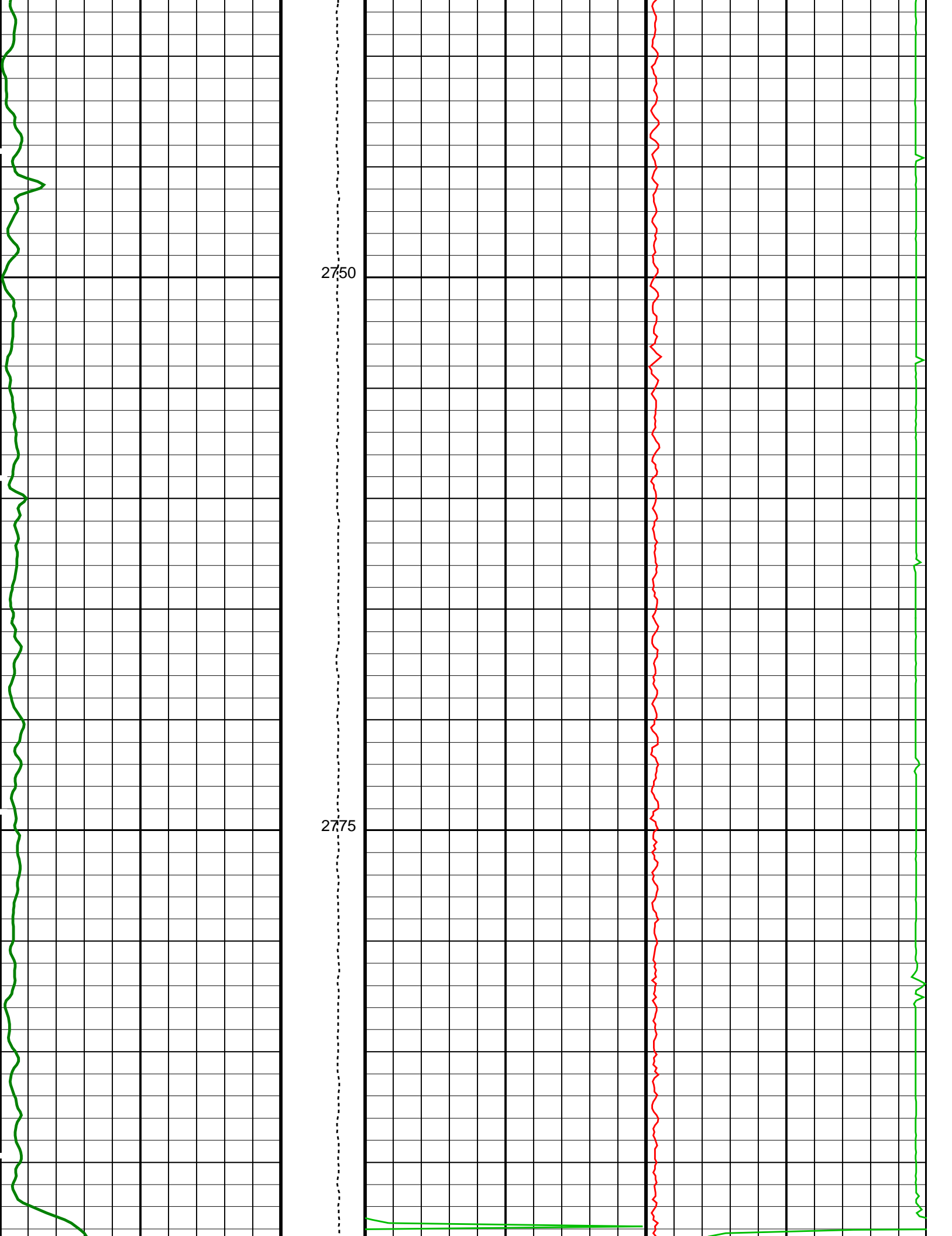
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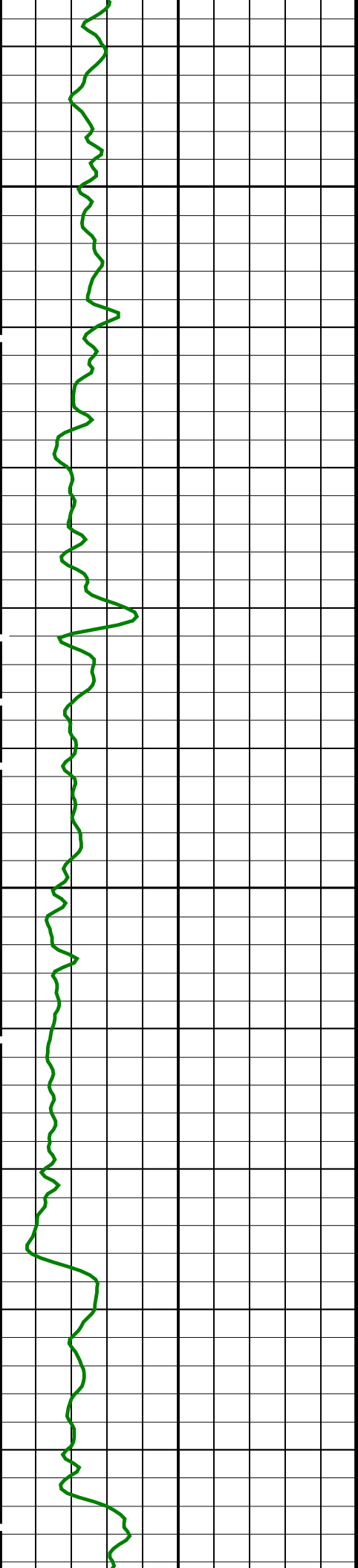
OP System Version: 19C0-187

PIP SUMMARY

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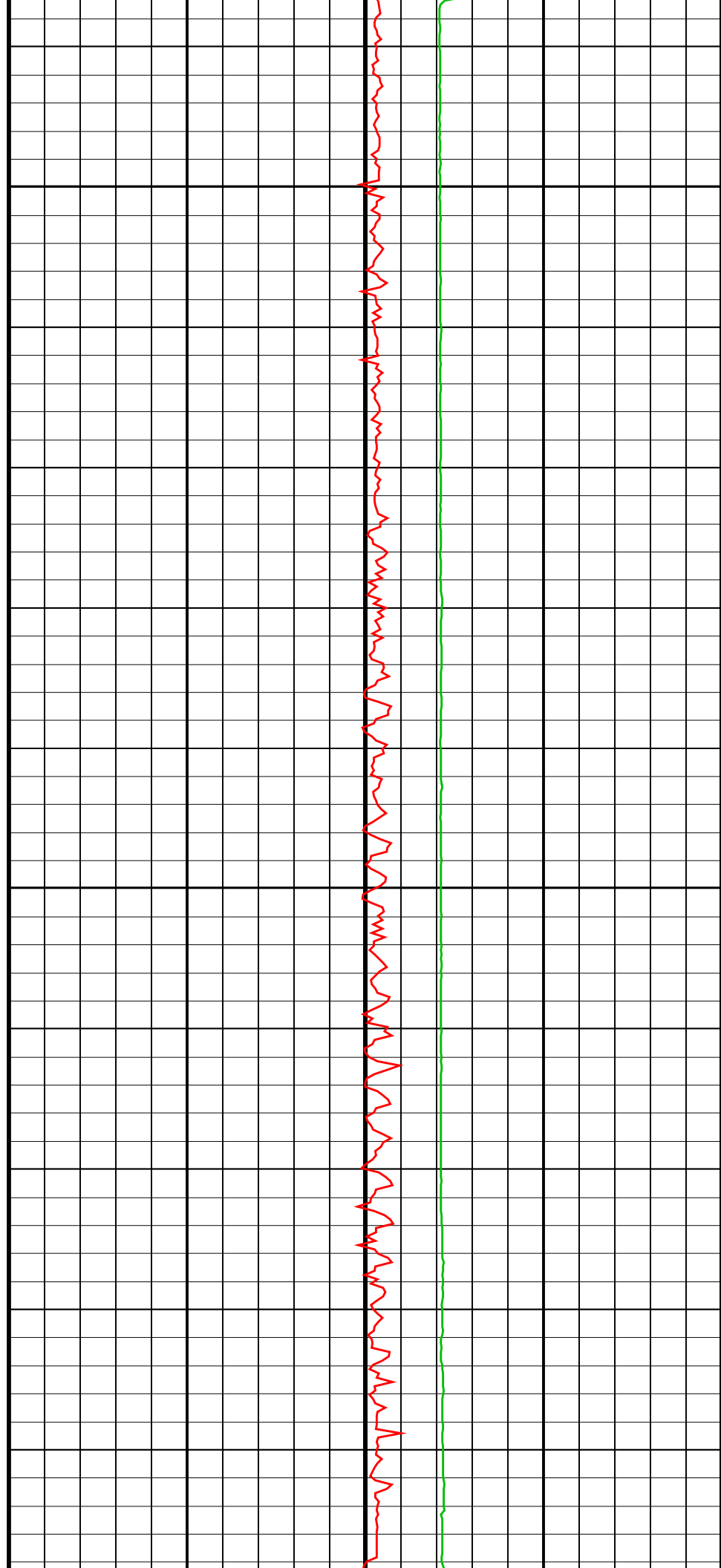
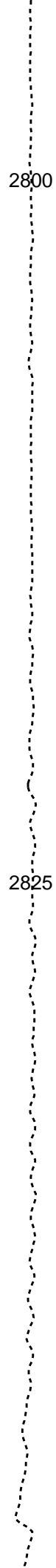


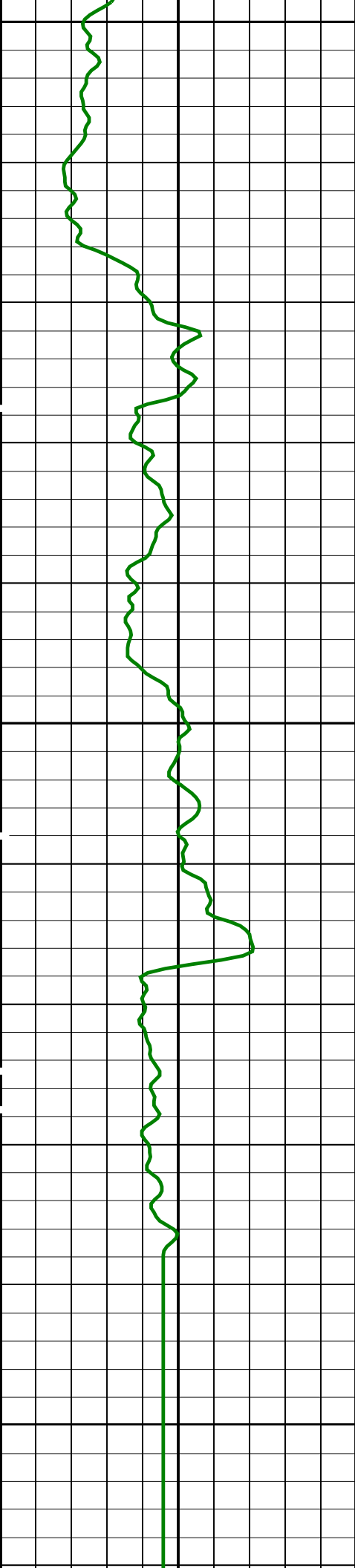




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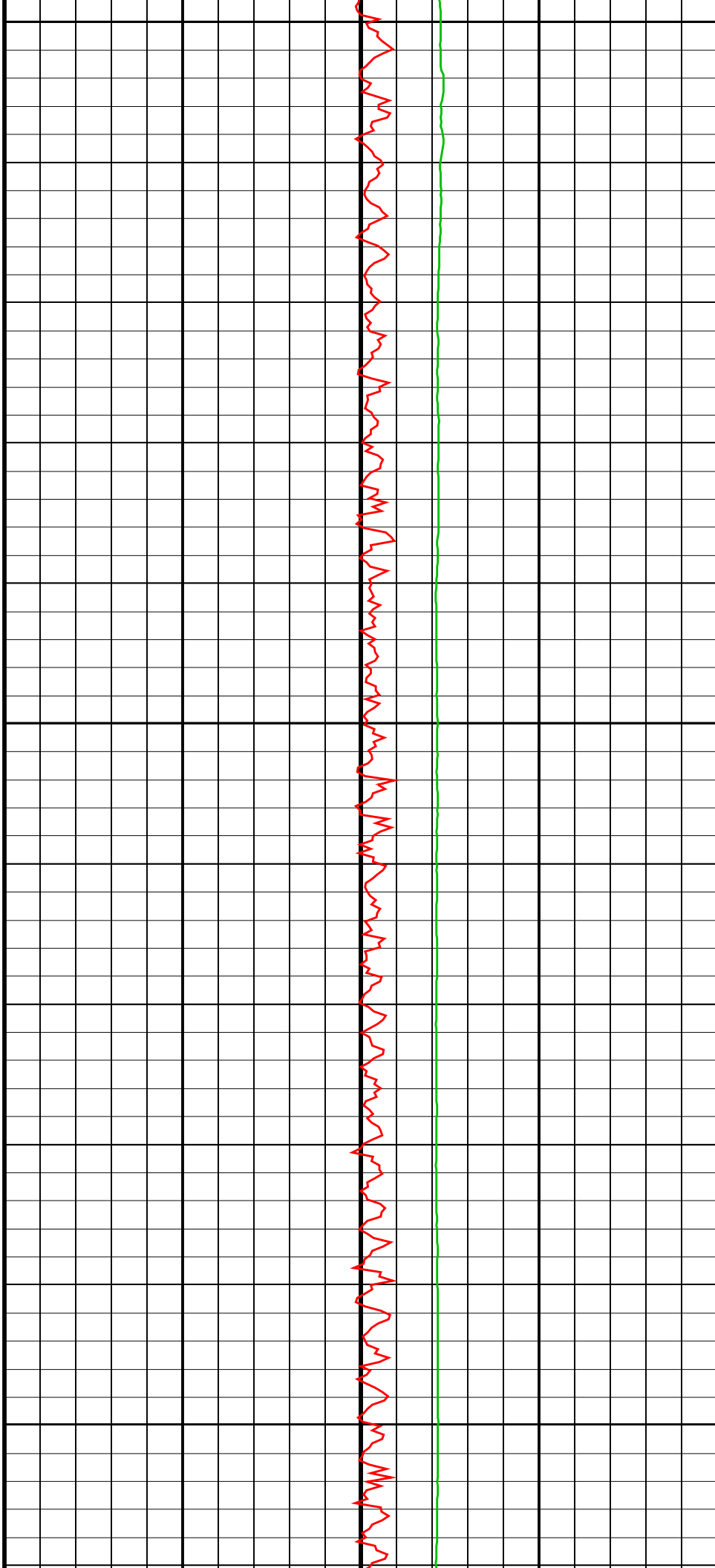


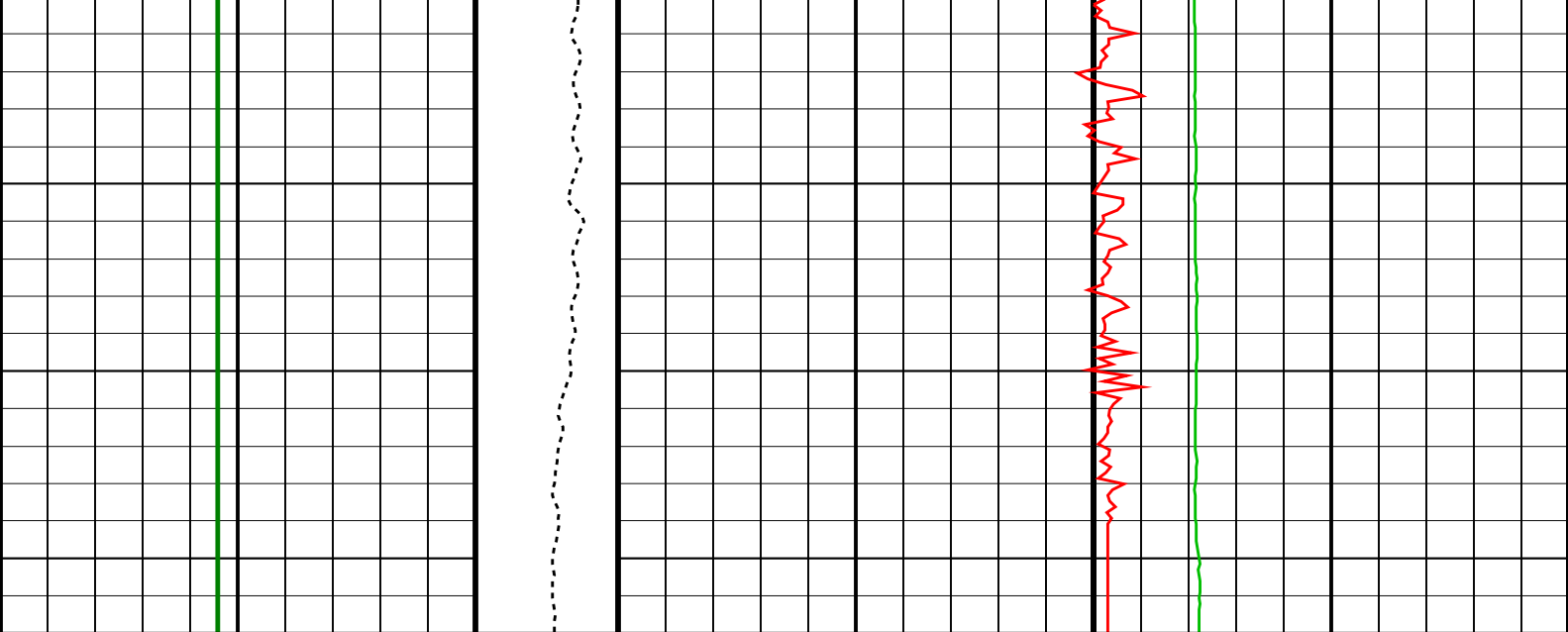


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2900





HNGS Spectroscopy Gamma Ray (HSGR)		Tension (TENS)	Axial Acceleration (MSSZACC_LDEO)	
(GAPI)		(LBF)	(M/S2)	
0	150	0 5000	0	20
			Dual-Coil Susceptibility (MSSLSSUS_LDEO)	
			(PPM)	
			-10000	90000

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	-0.0142666	
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	0.986316	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	0.968932	
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	RECOMPUTE	

Format: MSS_Logging Vertical Scale: 1:200 Graphics File Created: 22-Feb-2024 17:30

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_017LUP	PRODUCER	22-Feb-2024 17:29	2922.0 M	2676.9 M
Output DLIS Files					
DEFAULT	MSS_LDEO_HRLA_LDL_018PUP	FN:11	PRODUCER	22-Feb-2024 17:30	
BACKUP	MSS_LDEO_HRLA_LDL_018PUP	FN:12	PRODUCER	22-Feb-2024 17:30	



Calibrations



Calibration and Check Summary							
Measurement	Nominal	Master	Before	After	Change	Limit	Units
High Resolution Laterolog Array – B Wellsite Calibration – HRLT M01							
Before: 22-Feb-2024 14:29 After: 22-Feb-2024 19:29							
HRLT M0-M1 Voltage Plus – 0	0	N/A	-318.6	-318.9	-0.2758	9.681	UV
HRLT M0-M1 Voltage Plus – 1	0	N/A	-332.3	-333.3	-1.023	9.681	UV
HRLT M0-M1 Voltage Plus – 2	0	N/A	-339.2	-339.8	-0.6345	9.681	UV
HRLT M0-M1 Voltage Plus – 3	0	N/A	-329.2	-330.0	-0.8244	9.681	UV
HRLT M0-M1 Voltage Plus – 4	0	N/A	-319.7	-320.1	-0.4008	9.681	UV
HRLT M0-M1 Voltage Plus – 5	0	N/A	-321.3	-321.6	-0.3211	9.681	UV
HRLT M0-M1 Voltage Plus – 6	0	N/A	322.5	323.5	0.9835	9.681	UV
HRLT M0-M1 Voltage Plus – 7	0	N/A	-322.7	-322.7	0	9.681	UV
High Resolution Laterolog Array – B Wellsite Calibration – HRLT M12							
Before: 22-Feb-2024 14:29 After: 22-Feb-2024 19:29							
HRLT M1-M2 Voltage Plus – 0	0	N/A	1739	1741	1.934	53.42	UV
HRLT M1-M2 Voltage Plus – 1	0	N/A	1816	1822	5.637	53.42	UV
HRLT M1-M2 Voltage Plus – 2	0	N/A	1848	1852	3.715	53.42	UV
HRLT M1-M2 Voltage Plus – 3	0	N/A	1795	1799	4.568	53.42	UV
HRLT M1-M2 Voltage Plus – 4	0	N/A	1744	1746	2.180	53.42	UV
HRLT M1-M2 Voltage Plus – 5	0	N/A	1754	1756	1.902	53.42	UV
HRLT M1-M2 Voltage Plus – 6	0	N/A	-1769	-1775	-5.563	53.42	UV
HRLT M1-M2 Voltage Plus – 7	0	N/A	1781	1781	0	53.42	UV
High Resolution Laterolog Array – B Wellsite Calibration – HRLT M23							
Before: 22-Feb-2024 14:29 After: 22-Feb-2024 19:29							
HRLT M2-M3 Voltage Plus – 0	0	N/A	1731	1732	1.197	53.42	UV
HRLT M2-M3 Voltage Plus – 1	0	N/A	1819	1823	4.269	53.42	UV
HRLT M2-M3 Voltage Plus – 2	0	N/A	1853	1856	2.903	53.42	UV
HRLT M2-M3 Voltage Plus – 3	0	N/A	1803	1807	3.802	53.42	UV
HRLT M2-M3 Voltage Plus – 4	0	N/A	1746	1747	1.425	53.42	UV
HRLT M2-M3 Voltage Plus – 5	0	N/A	1757	1759	1.207	53.42	UV
HRLT M2-M3 Voltage Plus – 6	0	N/A	-1761	-1765	-4.174	53.42	UV
HRLT M2-M3 Voltage Plus – 7	0	N/A	1781	1781	0	53.42	UV
High Resolution Laterolog Array – B Wellsite Calibration – HRLT V34							
Before: 22-Feb-2024 14:29 After: 22-Feb-2024 19:29							
HRLT A3-A4 Voltage Plus – 0	0	N/A	68580	68680	94.09	2100	UV
HRLT A3-A4 Voltage Plus – 1	0	N/A	71880	72110	235.0	2100	UV
HRLT A3-A4 Voltage Plus – 2	0	N/A	73520	73690	173.3	2100	UV
HRLT A3-A4 Voltage Plus – 3	0	N/A	71790	71990	206.5	2100	UV
HRLT A3-A4 Voltage Plus – 4	0	N/A	69490	69590	99.61	2100	UV
HRLT A3-A4 Voltage Plus – 5	0	N/A	69970	70050	79.62	2100	UV

HRLT A3-A4 Voltage Plus - 6	0	N/A	-68630	-68850	-219.3	2100	UV
HRLT A3-A4 Voltage Plus - 7	0	N/A	70000	70000	0	2100	UV
High Resolution Laterolog Array - B Wellsite Calibration - HRLT V45							
Before: 22-Feb-2024 14:29 After: 22-Feb-2024 19:29							
HRLT A4-A5 Voltage Plus - 0	0	N/A	68670	68760	89.07	2100	UV
HRLT A4-A5 Voltage Plus - 1	0	N/A	72100	72320	227.7	2100	UV
HRLT A4-A5 Voltage Plus - 2	0	N/A	73700	73880	176.6	2100	UV
HRLT A4-A5 Voltage Plus - 3	0	N/A	71950	72130	174.6	2100	UV
HRLT A4-A5 Voltage Plus - 4	0	N/A	69600	69700	92.91	2100	UV
HRLT A4-A5 Voltage Plus - 5	0	N/A	70060	70140	83.49	2100	UV
HRLT A4-A5 Voltage Plus - 6	0	N/A	-68830	-69050	-222.8	2100	UV
HRLT A4-A5 Voltage Plus - 7	0	N/A	70000	70000	0	2100	UV
High Resolution Laterolog Array - B Wellsite Calibration - HRLT V56							
Before: 22-Feb-2024 14:29 After: 22-Feb-2024 19:29							
HRLT A5-A6 Voltage Plus - 0	0	N/A	68530	68620	86.56	2100	UV
HRLT A5-A6 Voltage Plus - 1	0	N/A	71920	72180	258.8	2100	UV
HRLT A5-A6 Voltage Plus - 2	0	N/A	73570	73710	139.7	2100	UV
HRLT A5-A6 Voltage Plus - 3	0	N/A	71810	72010	204.9	2100	UV
HRLT A5-A6 Voltage Plus - 4	0	N/A	69470	69570	102.3	2100	UV
HRLT A5-A6 Voltage Plus - 5	0	N/A	69950	70030	84.79	2100	UV
HRLT A5-A6 Voltage Plus - 6	0	N/A	-68680	-68910	-224.5	2100	UV
HRLT A5-A6 Voltage Plus - 7	0	N/A	70000	70000	0	2100	UV
High Resolution Laterolog Array - B Wellsite Calibration - HRLT VTP							
Before: 22-Feb-2024 14:29 After: 22-Feb-2024 19:29							
HRLT Torpedo-M0 Voltage - 0	0	N/A	-68050	-68140	-83.87	2100	UV
HRLT Torpedo-M0 Voltage - 1	0	N/A	-71730	-71970	-241.7	2100	UV
HRLT Torpedo-M0 Voltage - 2	0	N/A	-73390	-73550	-156.4	2100	UV
HRLT Torpedo-M0 Voltage - 3	0	N/A	-71710	-71900	-187.3	2100	UV
HRLT Torpedo-M0 Voltage - 4	0	N/A	-69420	-69520	-98.94	2100	UV
HRLT Torpedo-M0 Voltage - 5	0	N/A	-69890	-69970	-87.16	2100	UV
HRLT Torpedo-M0 Voltage - 6	0	N/A	68430	68650	218.5	2100	UV
HRLT Torpedo-M0 Voltage - 7	0	N/A	-70000	-70000	0	2100	UV
High Resolution Laterolog Array - B Wellsite Calibration - HRLT VBD							
Before: 22-Feb-2024 14:29 After: 22-Feb-2024 19:29							
HRLT Bridle#9-M0 Voltage - 0	0	N/A	-68090	-68180	-89.27	2100	UV
HRLT Bridle#9-M0 Voltage - 1	0	N/A	-71820	-72070	-243.4	2100	UV
HRLT Bridle#9-M0 Voltage - 2	0	N/A	-73480	-73630	-153.3	2100	UV
HRLT Bridle#9-M0 Voltage - 3	0	N/A	-71780	-71980	-203.3	2100	UV
HRLT Bridle#9-M0 Voltage - 4	0	N/A	-69470	-69560	-94.47	2100	UV
HRLT Bridle#9-M0 Voltage - 5	0	N/A	-69930	-70010	-82.23	2100	UV
HRLT Bridle#9-M0 Voltage - 6	0	N/A	68520	68740	221.0	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: 22-Feb-2024 14:29 After: 22-Feb-2024 19:29							
HRLT Source Current Plus - 0	0	N/A	283.9	284.4	0.4830	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: 22-Feb-2024 14:29 After: 22-Feb-2024 19:29							
HRLT Vertical Voltage PI - 0	0	N/A	-320.1	-320.2	-0.1685	9.681	UV
HRLT Vertical Voltage PI - 1	0	N/A	-325.8	-326.8	-0.9521	9.681	UV
HRLT Vertical Voltage PI - 2	0	N/A	-331.7	-332.3	-0.5975	9.681	UV
HRLT Vertical Voltage PI - 3	0	N/A	-320.6	-321.2	-0.6485	9.681	UV
HRLT Vertical Voltage PI - 4	0	N/A	-308.8	-309.0	-0.2647	9.681	UV
HRLT Vertical Voltage PI - 5	0	N/A	-325.4	-325.6	-0.2142	9.681	UV
HRLT Vertical Voltage PI - 6	0	N/A	328.7	329.6	0.8877	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: 22-Feb-2024 14:33 After: 22-Feb-2024 19:32							
SS Cs Resolution Bkg	9.000	7.740	7.828	7.733	-0.09468	1.800	%
LS Cs Resolution Bkg	9.000	8.164	8.130	7.978	-0.1516	1.800	%
LSW1 Background	100.0	67.09	67.16	66.93	-0.2253	3.000	CPS
LSW2 Background	100.0	61.34	60.47	60.21	-0.2503	3.000	CPS
LSW3 Background	200.0	139.1	136.9	135.7	-1.109	6.000	CPS
LSW4 Background	250.0	170.9	169.7	171.6	1.884	7.500	CPS
LSW5 Background	600.0	398.8	396.9	396.9	0.01675	18.00	CPS
SSW1 Background	100.0	64.20	64.00	64.30	0.2949	3.000	CPS
SSW2 Background	200.0	111.7	110.9	110.5	-0.3866	6.000	CPS
SSW3 Background	500.0	309.0	311.3	312.3	0.9896	15.00	CPS
SSW4 Background	270.0	168.1	167.3	166.0	-1.332	8.100	CPS

SSW4 Background	270.0	188.1	187.8	188.2	-0.4170	6.000	CPS
SSW5 Background	200.0	118.8	118.6	118.2			
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: 22-Feb-2024 14:33 After: 22-Feb-2024 19:33							
Na 511 Peak Loc	40.00	38.56	38.57	38.67	0.09555	1.000	
Na 511 Peak Res	15.50	16.82	16.41	15.63	-0.7810	2.000	%
High Voltage	1150	1206	1189	1193	4.643	N/A	V
Na 1785 Peak Loc	142.6	139.2	139.1	139.7	0.6193	7.000	
Na 1785 Peak Res	8.500	9.087	8.600	8.171	-0.4284	2.000	%
Temperature	15.50	26.64	18.59	18.90	0.3056	N/A	DEGC
Na Count Rate	45.00	47.40	38.71	38.50	-0.2095	8.000	CPS
Hostile Natural Gamma Ray Sonde Wellsite Calibration – Detector 2 Check							
Master: Calibration out of date 20-Apr-2023 2:22 Before: 22-Feb-2024 14:33 After: 22-Feb-2024 19:33							
Na 511 Peak Loc	40.00	39.72	39.48	39.70	0.2196	1.000	
Na 511 Peak Res	15.50	15.41	16.07	15.53	-0.5409	2.000	%
High Voltage	1150	1089	1076	1083	7.763	N/A	V
Na 1785 Peak Loc	142.6	142.9	142.2	142.7	0.5095	7.000	
Na 1785 Peak Res	8.500	8.753	8.871	7.928	-0.9433	2.000	%
Temperature	15.50	25.53	17.71	19.05	1.340	N/A	DEGC
Na Count Rate	45.00	47.70	38.76	38.95	0.1916	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: 22-Feb-2024 14:33 After: 22-Feb-2024 19:33							
Coincidence Count Rate Ratio	1.000	0.9913	0.9956	0.9881	-0.007490	0.05000	
Enhanced DTS Cartridge Wellsite Calibration – EDTC Accelerometer Calibration							
Before: 22-Feb-2024 14:36							
EDTC Z-Axis Acceleration	9.810	N/A	9.779	N/A	N/A	N/A	M/S2
Enhanced DTS Cartridge Wellsite Calibration – Detector Calibration							
Before: 22-Feb-2024 14:31 After: 22-Feb-2024 19:39							
Gamma Ray (Jig – Bkg)	166.1	N/A	166.1	163.0	-3.176	15.10	GAPI
Gamma Ray (Calibrated)	165.0	N/A	165.0	161.8	-3.154	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

















HRUH – 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		–318.6	–322.7	–280.7	–379.7
	After		–318.9			
1	Before		–332.3	–322.7	–280.7	–379.7
	After		–333.3			
2	Before		–339.2	–322.7	–280.7	–379.7
	After		–339.8			
3	Before		–329.2	–322.7	–280.7	–379.7
	After		–330.0			
4	Before		–319.7	–322.7	–280.7	–379.7
	After		–320.1			
5	Before		–321.3	–322.7	–280.7	–379.7
	After		–321.6			
6	Before		322.5	322.7	379.7	280.7
	After		323.5			
7	Before		–322.7	–322.7	–280.7	–379.7
	After		–322.7			
(Minimum) (Nominal) (Maximum)						
Before: 22–Feb–2024 14:29						
After: 22–Feb–2024 19:29						

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		1816	1781	2095	1549
	After		1822			
2	Before		1848	1781	2095	1549
	After		1852			
3	Before		1795	1781	2095	1549
	After		1799			
4	Before		1744	1781	2095	1549
	After		1746			
5	Before		1754	1781	2095	1549
	After		1756			
6	Before		–1769	–1781	–1549	–2095
	After		–1775			
7	Before		1781	1781	2095	1549
	After		1781			
(Minimum) (Nominal) (Maximum)						
Before: 22–Feb–2024 14:29						
After: 22–Feb–2024 19:29						

High Resolution Laterolog Array – B Wellsite Calibration						
HRLT M23						
Idx	Phase	HRLT M2–M3 Voltage Plus UV	Value	Nominal	Maximum	Minimum

Idx	Phase	HRLT M2-M3 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		1731	1781	2095	1549
	After		1732			
1	Before		1819	1781	2095	1549
	After		1823			
2	Before		1853	1781	2095	1549
	After		1856			
3	Before		1803	1781	2095	1549
	After		1807			
4	Before		1746	1781	2095	1549
	After		1747			
5	Before		1757	1781	2095	1549
	After		1759			
6	Before		-1761	-1781	-1549	-2095
	After		-1765			
7	Before		1781	1781	2095	1549
	After		1781			
(Minimum) (Nominal) (Maximum)						

Before: 22-Feb-2024 14:29

















After: 22-Feb-2024 19:29

















High Resolution Laterolog Array – B Wellsite Calibration						
HRLT V34						
Idx	Phase	HRLT A3-A4 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		68580	70000	82360	60900
	After		68680			
1	Before		71880	70000	82360	60900
	After		72110			
2	Before		73520	70000	82360	60900
	After		73690			
3	Before		71790	70000	82360	60900
	After		71990			
4	Before		69490	70000	82360	60900
	After		69590			
5	Before		69970	70000	82360	60900
	After		70050			
6	Before		-68630	-70000	-60900	-82360
	After		-68850			
7	Before		70000	70000	82360	60900
	After		70000			
(Minimum) (Nominal) (Maximum)						





Before: 22-Feb-2024 14:29

After: 22-Feb-2024 19:29

High Resolution Laterolog Array – B Wellsite Calibration						
HRLT V45						
Idx	Phase	HRLT A4-A5 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		68670	70000	82360	60900
	After		68700			

1	After		68760	70000	82360	60900
	Before		72100			
	After		72320	70000	82360	60900
	Before		73700			
2	After		73880	70000	82360	60900
	Before		71950			
3	After		72130	70000	82360	60900
	Before		69600			
4	After		69700	70000	82360	60900
	Before		70060			
5	After		70140	70000	82360	60900
	Before		-68830			
6	After		-69050	-70000	-60900	-82360
	Before		70000			
7	After		70000	70000	82360	60900
	Before					
(Minimum) (Nominal) (Maximum)						
Before: 22-Feb-2024 14:29						
After: 22-Feb-2024 19:29						











High Resolution Laterolog Array – B Wellsite Calibration						
HRLT V56						
Idx	Phase	HRLT A5–A6 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		68530	70000	82360	60900
	After		68620			
1	Before		71920	70000	82360	60900
	After		72180			
2	Before		73570	70000	82360	60900
	After		73710			
3	Before		71810	70000	82360	60900
	After		72010			
4	Before		69470	70000	82360	60900
	After		69570			
5	Before		69950	70000	82360	60900
	After		70030			
6	Before		-68680	-70000	-60900	-82360
	After		-68910			
7	Before		70000	70000	82360	60900
	After		70000			
(Minimum) (Nominal) (Maximum)						
Before: 22-Feb-2024 14:29						
After: 22-Feb-2024 19:29						

















High Resolution Laterolog Array – B Wellsite Calibration						
HRLT VTP						
Idx	Phase	HRLT Torpedo–M0 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		-68050	-70000	-60900	-82360
	After		-68140			
1	Before		-71730	-70000	-60900	-82360
	After					

	After		-71970			
2	Before		-73390	-70000	-60900	-82360
	After		-73550			
3	Before		-71710	-70000	-60900	-82360
	After		-71900			
4	Before		-69420	-70000	-60900	-82360
	After		-69520			
5	Before		-69890	-70000	-60900	-82360
	After		-69970			
6	Before		68430	70000	82360	60900
	After		68650			
7	Before		-70000	-70000	-60900	-82360
	After		-70000			
(Minimum) (Nominal) (Maximum)						
Before: 22-Feb-2024 14:29						
After: 22-Feb-2024 19:29						

High Resolution Laterolog Array – B Wellsite Calibration						
HRLT VBD						
Idx	Phase	HRLT Bridle#9–M0 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		-68090	-70000	-60900	-82360
	After		-68180			
1	Before		-71820	-70000	-60900	-82360
	After		-72070			
2	Before		-73480	-70000	-60900	-82360
	After		-73630			
3	Before		-71780	-70000	-60900	-82360
	After		-71980			
4	Before		-69470	-70000	-60900	-82360
	After		-69560			
5	Before		-69930	-70000	-60900	-82360
	After		-70010			
6	Before		68520	70000	82360	60900
	After		68740			
7	Before		-70000	-70000	-60900	-82360
	After		-70000			
(Minimum) (Nominal) (Maximum)						
Before: 22-Feb-2024 14:29						
After: 22-Feb-2024 19:29						

High Resolution Laterolog Array – B Wellsite Calibration						
HRLT ISO						
Idx	Phase	HRLT Source Current Plus UA	Value	Nominal	Maximum	Minimum
0	Before		283.9	284.0	334.1	247.0
	After		284.4			
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	After		281.1	281.1	330.7	244.4
	Before		281.1			
4	After		281.1	281.1	330.7	244.4
	Before		281.1			
5	After		281.1	281.1	330.7	244.4
	Before		281.1			
6	After		281.1	281.1	330.7	244.4
	Before		281.1			
7	After		281.1	281.1	330.7	244.4
	Before		281.1			
(Minimum) (Nominal) (Maximum)						
Before: 22-Feb-2024 14:29						
After: 22-Feb-2024 19:29						

High Resolution Laterolog Array – B Wellsite Calibration						
HRLT MV						
Idx	Phase	HRLT Vertical Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	After		-320.1	-322.7	-280.7	-379.7
	Before		-320.2			
1	After		-325.8	-322.7	-280.7	-379.7
	Before		-326.8			
2	After		-331.7	-322.7	-280.7	-379.7
	Before		-332.3			
3	After		-320.6	-322.7	-280.7	-379.7
	Before		-321.2			
4	After		-308.8	-322.7	-280.7	-379.7
	Before		-309.0			
5	After		-325.4	-322.7	-280.7	-379.7
	Before		-325.6			
6	After		328.7	322.7	379.7	280.7
	Before		329.6			
7	After		-322.7	-322.7	-280.7	-379.7
	Before		-322.7			
(Minimum) (Nominal) (Maximum)						
Before: 22-Feb-2024 14:29						
After: 22-Feb-2024 19:29						

Hostile Litho-Density Sonde / Equipment Identification		
Primary Equipment:		
Gamma Source Radioactive	GSR – ZA	2945
Hostile Litho Density Sonde	HLDS – D	77
Hostile Litho Density High Voltage	HLDP – C	67
Auxiliary Equipment:		
Hostile Litho Density High Voltage Housi	HEH – H	67
Hostile Litho Density Pad	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		7.740	Master		8.164	Master		67.09
Before		7.828	Before		8.130	Before		67.16
After		7.733	After		7.978	After		66.93
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		61.34	Master		139.1	Master		170.9
Before		60.47	Before		136.9	Before		169.7
After		60.21	After		135.7	After		171.6
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		398.8	Master		64.20	Master		111.7
Before		396.9	Before		64.00	Before		110.9
After		396.9	After		64.30	After		110.5
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		309.0	Master		168.1	Master		118.8
Before		311.3	Before		167.3	Before		118.6
After		312.3	After		166.0	After		118.2
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: 5–Feb–2024 14:31			Before: 22–Feb–2024 14:33			After: 22–Feb–2024 19:32		

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
Gamma Source Radioactive

HNSH – BA 174
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		38.57	Before		16.41	Before		1189
After		38.67	After		15.63	After		1193
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)		


(Minimum) (Nominal) (Maximum)			(Minimum) (Nominal) (Maximum)			(Minimum) (Nominal) (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		139.1	Before		8.600	Before		18.59
After		139.7	After		8.171	After		18.90
	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		38.71						
After		38.50						
	10.00 (Minimum) 45.00 (Nominal) 100.0 (Maximum)							
Master: Calibration out of date 20-Apr-2023 2:22			Before: 22-Feb-2024 14:33			After: 22-Feb-2024 19:33		




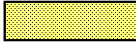


Hostile Natural Gamma Ray Sonde Wellsite Calibration											
Detector 2 Check											
Phase	Na 511 Peak Loc		Value	Phase	Na 511 Peak Res %		Value	Phase	High Voltage V		Value
Master	<div><div></div></div>		39.72	Master	<div><div></div></div>		15.41	Master	<div><div></div></div>		1089
Before	<div><div></div></div>		39.48	Before	<div><div></div></div>		16.07	Before	<div><div></div></div>		1076
After	<div><div></div></div>		39.70	After	<div><div></div></div>		15.53	After	<div><div></div></div>		1083
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>		142.9	Master	<div><div></div></div>		8.753	Master	<div><div></div></div>		25.53
Before	<div><div></div></div>		142.2	Before	<div><div></div></div>		8.871	Before	<div><div></div></div>		17.71
After	<div><div></div></div>		142.7	After	<div><div></div></div>		7.928	After	<div><div></div></div>		19.05
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>		47.70								
Before	<div><div></div></div>		38.76								
After	<div><div></div></div>		38.95								
10.00 (Minimum) 45.00 (Nominal) 100.0 (Maximum)											
Master: Calibration out of date 20-Apr-2023 2:22				Before: 22-Feb-2024 14:33				After: 22-Feb-2024 19:33			

Hostile Natural Gamma Ray Sonde Wellsite Calibration		
Ratio Of Detector 1 To Detector 2		
Phase	Coincidence Count Rate Ratio	Value
Master		0.9913
Before		0.9956
After		0.9881
	0.9500 (Minimum) 1.000 (Nominal) 1.050 (Maximum)	
Master: Calibration out of date 20-Apr-2023 2:22		
Before: 22-Feb-2024 14:33		
After: 22-Feb-2024 19:33		

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 Calibration Out of Date

EDTC Accelerometer Calibration		
Phase	EDTC Z-Axis Acceleration M/S2	Value
Before		9.779
	<div>9.610 (Minimum)</div> <div>9.810 (Nominal)</div> <div>10.01 (Maximum)</div>	
Before: 22-Feb-2024 14:36		

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			1.779	Before			166.1	Before			165.0
After			4.271	After			163.0	After			161.8
0 (Minimum) 30.00 (Nominal) 120.0 (Maximum)				151.0 (Minimum) 166.1 (Nominal) 181.2 (Maximum)				150.0 (Minimum) 165.0 (Nominal) 180.0 (Maximum)			
Before: 22-Feb-2024 14:31				After: 22-Feb-2024 19:39							

Company:

International Ocean Discovery Program

Well:

Expedition 402, Site U1613A

Field:

Tyrrhenian Continent–Ocean Transition

Rig:

JOIDES Resolution

Country:

Italy

Schlumberger

High Resolution Laterolog (HRLA) / HLDS

Magnetic Susceptibility (MSS)

Natural Gamma / MSS (HNGS)