Schlumberger

Company: **Integrated Ocean Discovery Program**

Well: **Expedition 354, Site U1453A**
Field: **Bengal Fan**
Rig: **JOIDES Resolution** Country:

Rig: JOIDES Resolution
Field: Bengal Fan
Location: Latitude: N 08.007*
Well: Expedition 354, Site U1453A
Company: Integrated Ocean Discovery Prog

Triple Combo
Spectral GR, Caliper,
Resistivity, Magnetic Susceptibility

LOCATION

Latitude: N 08.007*
Longitude: E 086.7983*

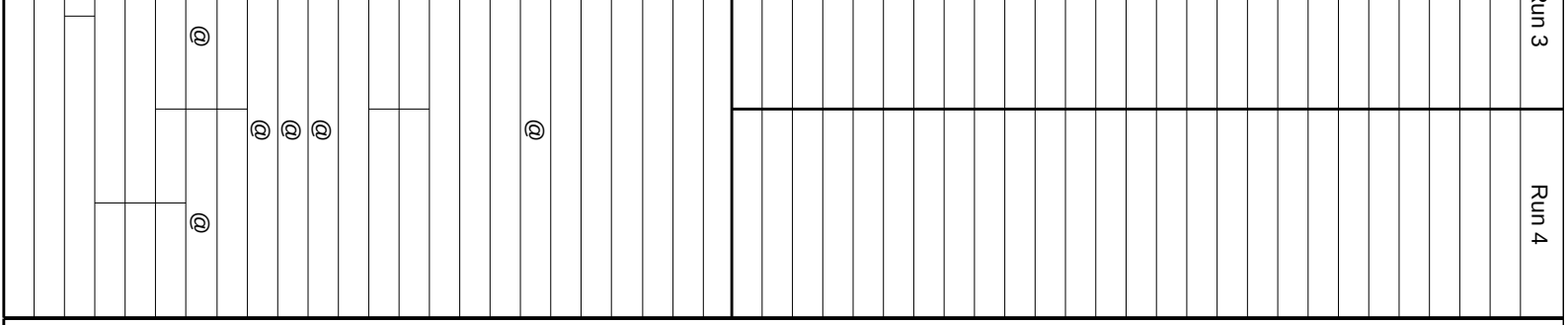
Elev.: K.B. −3690.50 m
G.L. 0.00 m
D.F. −3690.50 m

Permanent Datum: Sea Floor — Elev.: 0.00 m
Log Measured From: Drill Floor — 3690.50 m above Perm. Datum
Drilling Measured From: Drill Floor

Ocean: Indian	Max. Well Deviation 0 deg	Longitude E 086.7983*	Latitude N 08.007*

	Run 1	Run 2	R
Logging Date	17−Mar−2015		
Run Number	1		
Depth Driller	215.7 m		
Schlumberger Depth	215.7 m		
Bottom Log Interval	215.5 m		
Top Log Interval	0 m		
Casing Driller Size @ Depth	5.500 in @ 78.5 m	@	
Casing Schlumberger	78 m		
Bit Size	9.875 in		
Type Fluid In Hole	Sepeolite WBM		
MUD Density / Viscosity	1.44 g/cm3		
MUD Fluid Loss / PH			
MUD Source Of Sample	N/A		
RM @ Measured Temperature	@	@	
RMF @ Measured Temperature	@	@	
RMC @ Measured Temperature	@	@	
Source RMF / RMC	N/A / N/A		
RM @ MRT / RMF @ MRT	@ 60 / @ 60	@ / @	
Maximum Recorded Temperatures	60 degC		
Circulation Stopped / Time	17−Mar−2015 / 8:00		
Logger On Bottom / Time	17−Mar−2015 / 22:00		
Unit Number / Location	627314 / Houston		
Recorded By	C. Furman		
Witnessed By	T. Williams / Y. Martos		

	Run 1	Run 2	R
Logging Date			
Run Number			
Depth Driller			
Schlumberger Depth			
Bottom Log Interval			
Top Log Interval			
Casing Driller Size @ Depth	@		
Casing Schlumberger			
Bit Size			
Type Fluid In Hole			
MUD Density / Viscosity			
MUD Fluid Loss / PH			
MUD Source Of Sample			
RM @ Measured Temperature	@		
RMF @ Measured Temperature	@		
RMC @ Measured Temperature	@		
Source RMF / RMC			
RM @ MRT / RMF @ MRT	@	@	
Maximum Recorded Temperatures			
Circulation Stopped / Time			
Logger On Bottom / Time			
Unit Number / Location			
Recorded By			
Witnessed By			



OTHER SERVICES1

OS1: DSI

OS2: FMS

REMARKS: RUN NUMBER 1

Hole was drilled with a 9−7/8" PDC bit and APC/XCB coring asssembly, cored to a depth of 215.7mbsf.

Log originally recorded with zero at the drill floor; played back with zero at the sea bed for core data compatibility

NO NUCLEAR SOURCE was run due to concerns about potential hole conditions

Nuclear measurements corrected for barite

Hole size corrections made using Bit Size for downlogs and HLDS Caliper for up logs

Heave was less than 0.5m p−p; AHC used for OH portion of all passes; deactivated at 3820mbrf on main up pass

Caliper closed at 3807m without stopping during main pass to facilitate pipe entry

Repeat pass skipped at client request to preserve hole conditions for second run

Significant increase in tension observed pulling into pipe due to combination of narrow restrictions and high viscosity mud

RUN 1

SERVICE ORDER #:

PROGRAM VERSION: 19C0−187

FLUID LEVEL:

LOGGED INTERVAL	START	STOP

RUN 2

SERVICE ORDER #:

PROGRAM VERSION:

FLUID LEVEL:

LOGGED INTERVAL	START	STOP

EQUIPMENT DESCRIPTION

RUN 1 RUN 2

SURFACE EQUIPMENT

GSR−U 616008
WITM (EDTS)−A

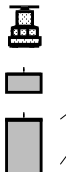
DOWNHOLE EQUIPMENT

LEH−MT
LEH−MT 301

AH−369

EDTC−B
EDTH−B 8303

MDSB_EDTC
Mud Tempe
CTEM
Gamma Ray
EFTB DIAG
TelStatus

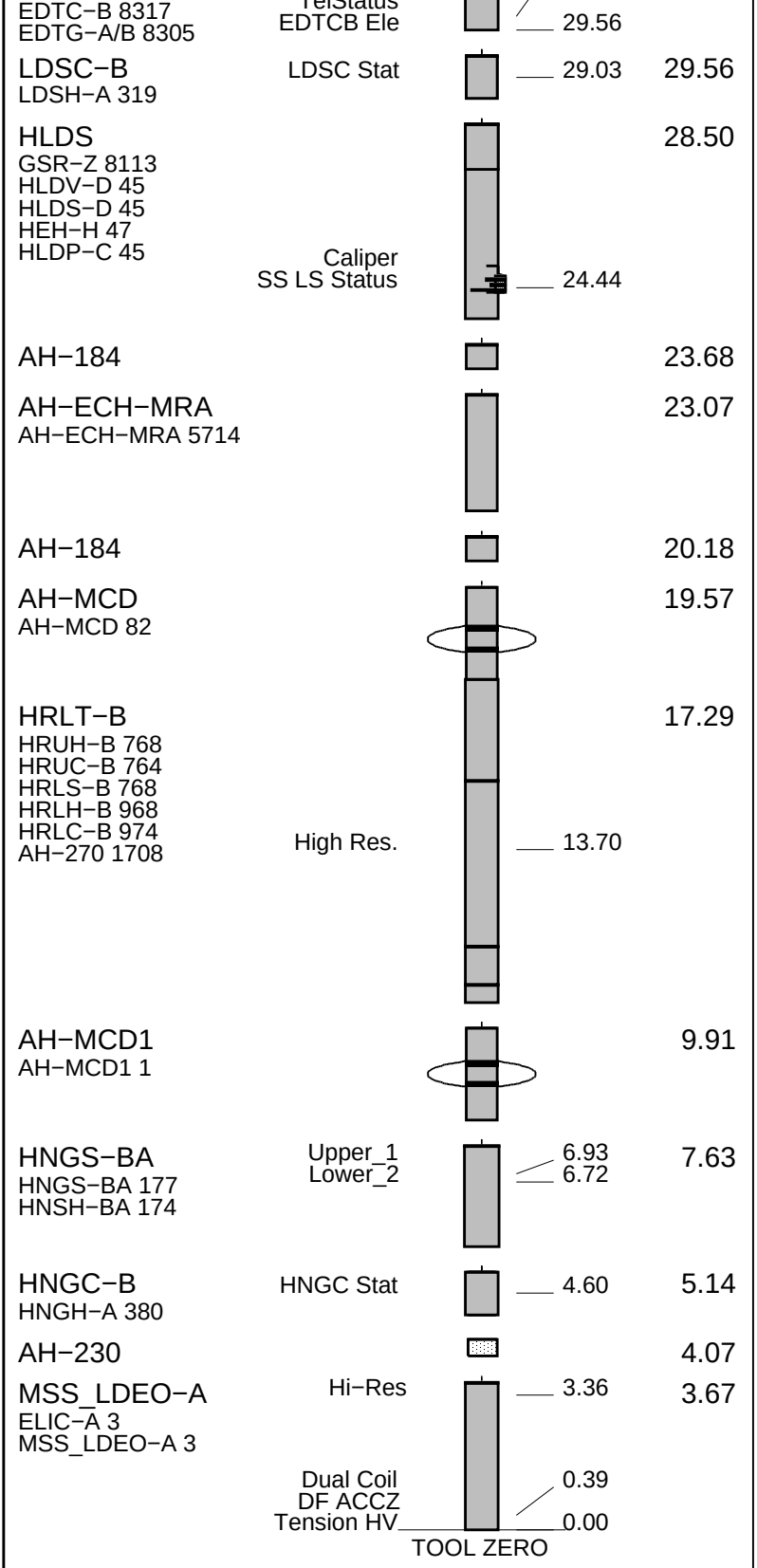


32.94

31.54
30.48
29.91

31.98

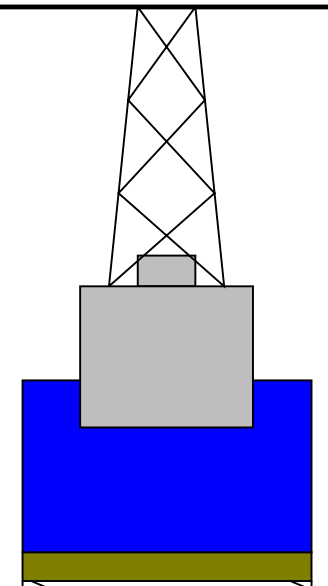
31.54



MAXIMUM STRING DIAMETER 4.50 IN
MEASUREMENTS RELATIVE TO TOOL ZERO
ALL LENGTHS IN METERS

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

	OD	ID	MD
Kelly Bushing Elevation			−3690.5
Derrick Floor Elevation			−3690.5
Mean Sea Level			0.0



MD	OD	ID	
0.0	9.875	4.000	Sea Floor
78.5	11.000	4.000	Bit − Driller's Depth
215.7	9.875		TD − Driller's Depth

Schlumberger

HNGS Main Pass

MAXIS Field Log

Input DLIS Files

DEFAULT	MSS_LDEO_NGS_HRLA_019LUP	FN:10	PRODUCER	17−Mar−2015 09:57	3904.5 M	3676.6 M

Output DLIS Files

DEFAULT	MSS_LDEO_NGS_HRLA_031PUP	FN:22	PRODUCER	19−Mar−2015 12:52	219.5 M	−9.3 M

OP System Version: 19C0−187

MSS_LDEO−A	19C0−187	HNGC−B	19C0−187
HNGS−BA	19C0−187	HRLT−B	19C0−187
HLDS	19C0−187	LDSC−B	19C0−187
EDTC−B	SKK−5169−EDTCB		

PIP SUMMARY

Time Mark Every 60 S

HNGS Spectroscopy Gamma Ray (HSGR)
0 (GAPI) 150

Area1
From HCGR to HSGR

HNGS Borehole Potassium (HBHK)
−0.05 (−−−−) 0.05

HNGS Computed Gamma Ray (HCGR)
0 (GAPI) 150

Calibrated Downhole Force (CDF) (LBF)
3000 0

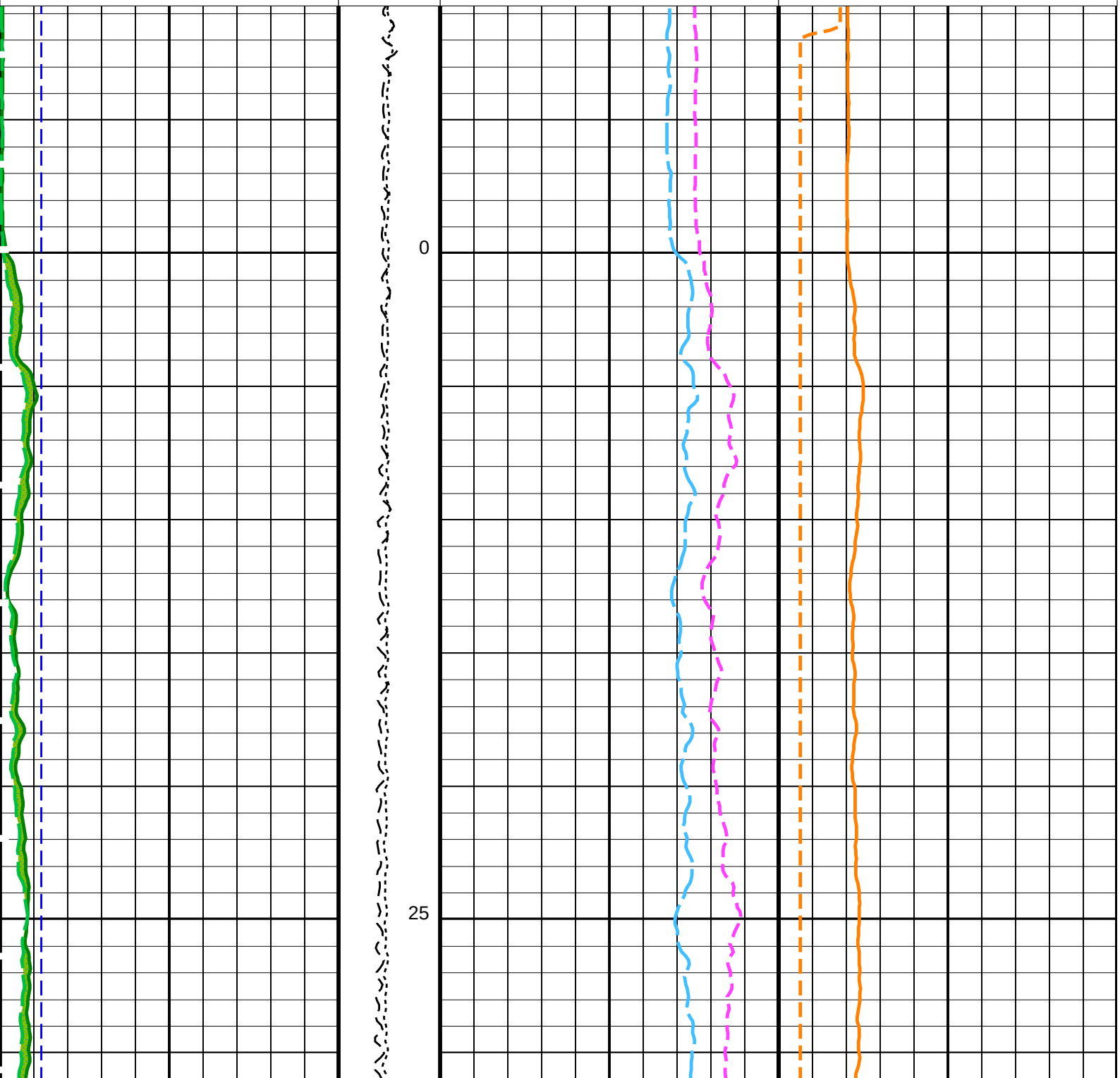
HNGS Uranium (HURA)
−5 (PPM) 10

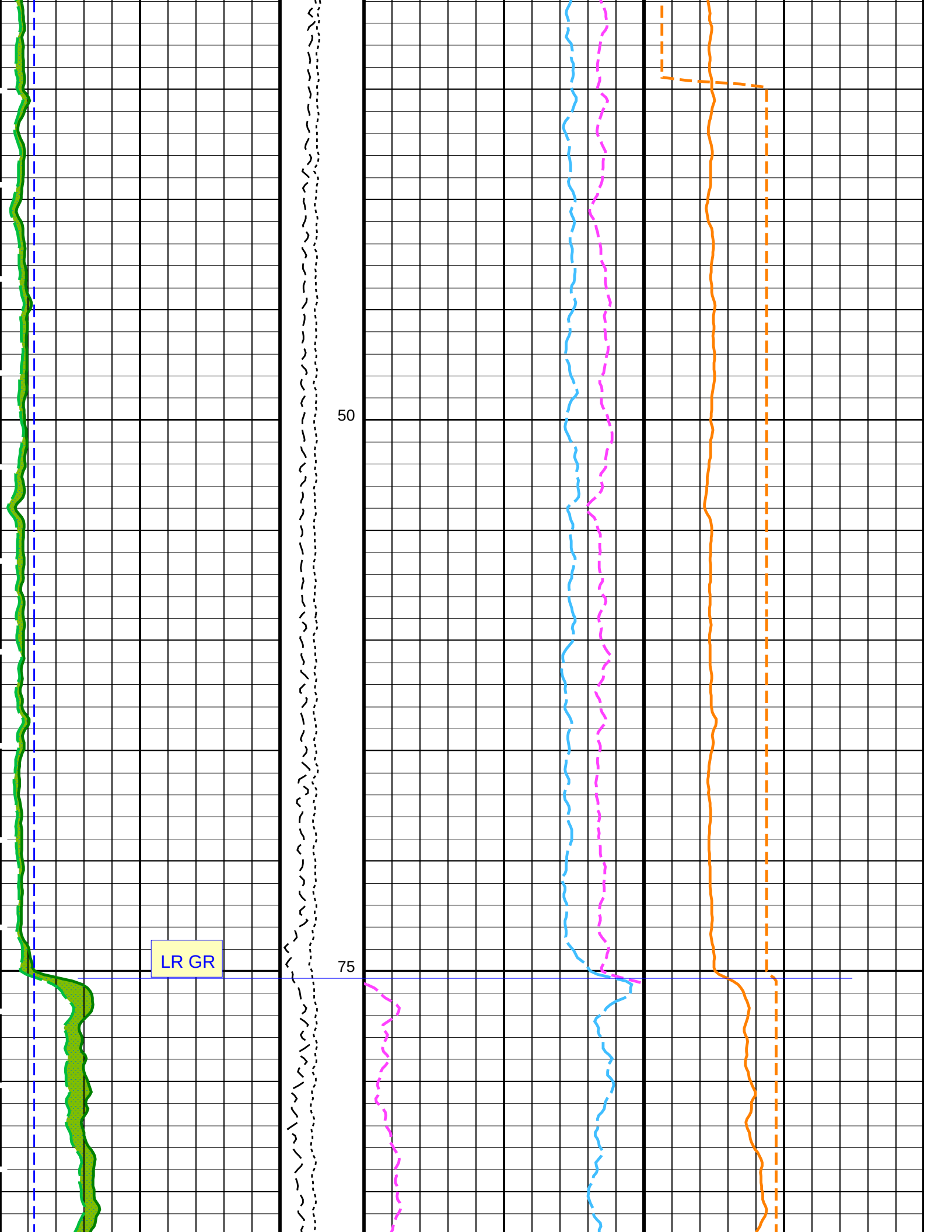
HLDS Caliper (LCAL)
0 (IN) 20

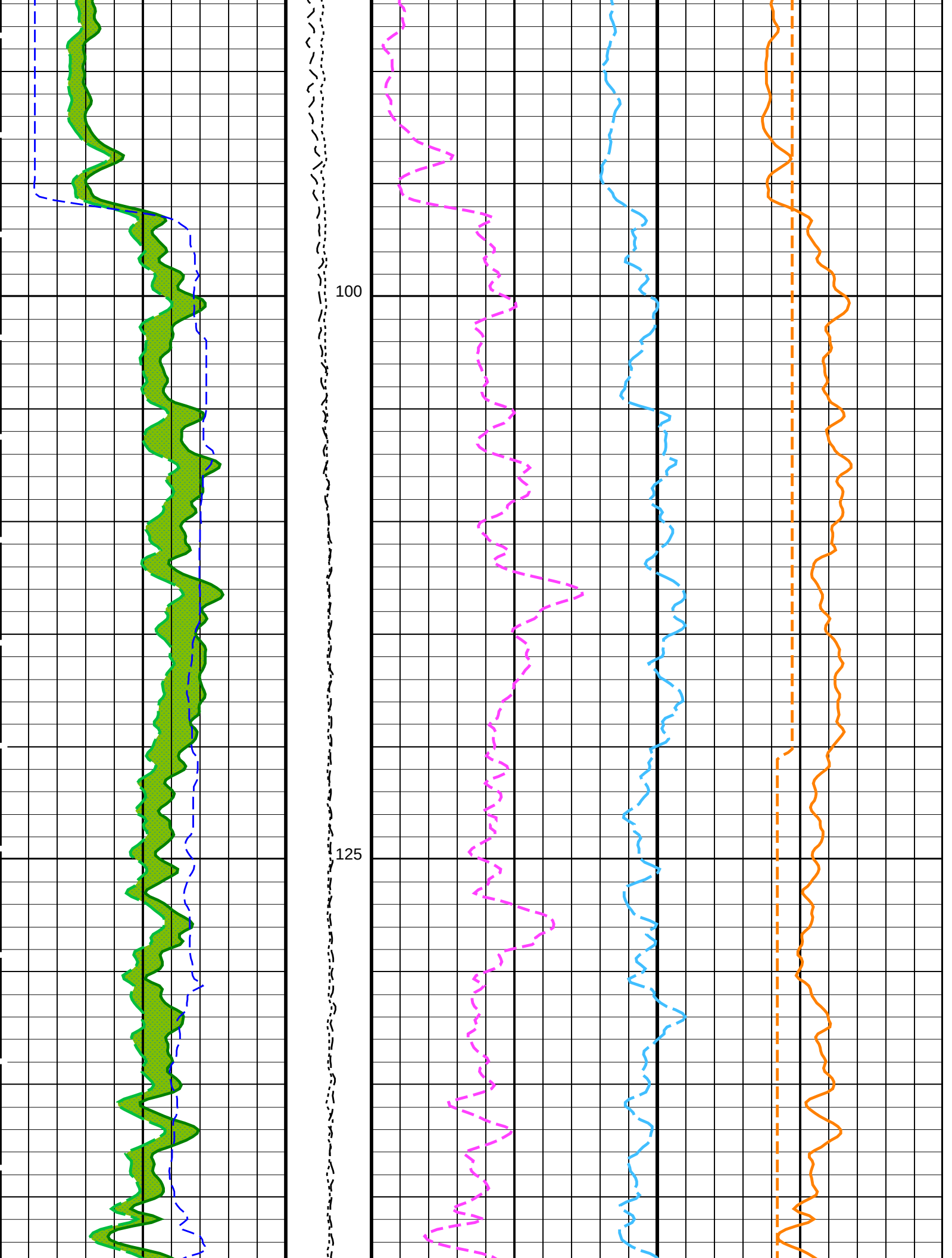
Tension (TENS) (LBF)
10000 0

HNGS Thorium (HTHO)
5 (PPM) 25

HNGS Potassium (HFK)
−0.01 (−−−−) 0.04




50
75
LR GR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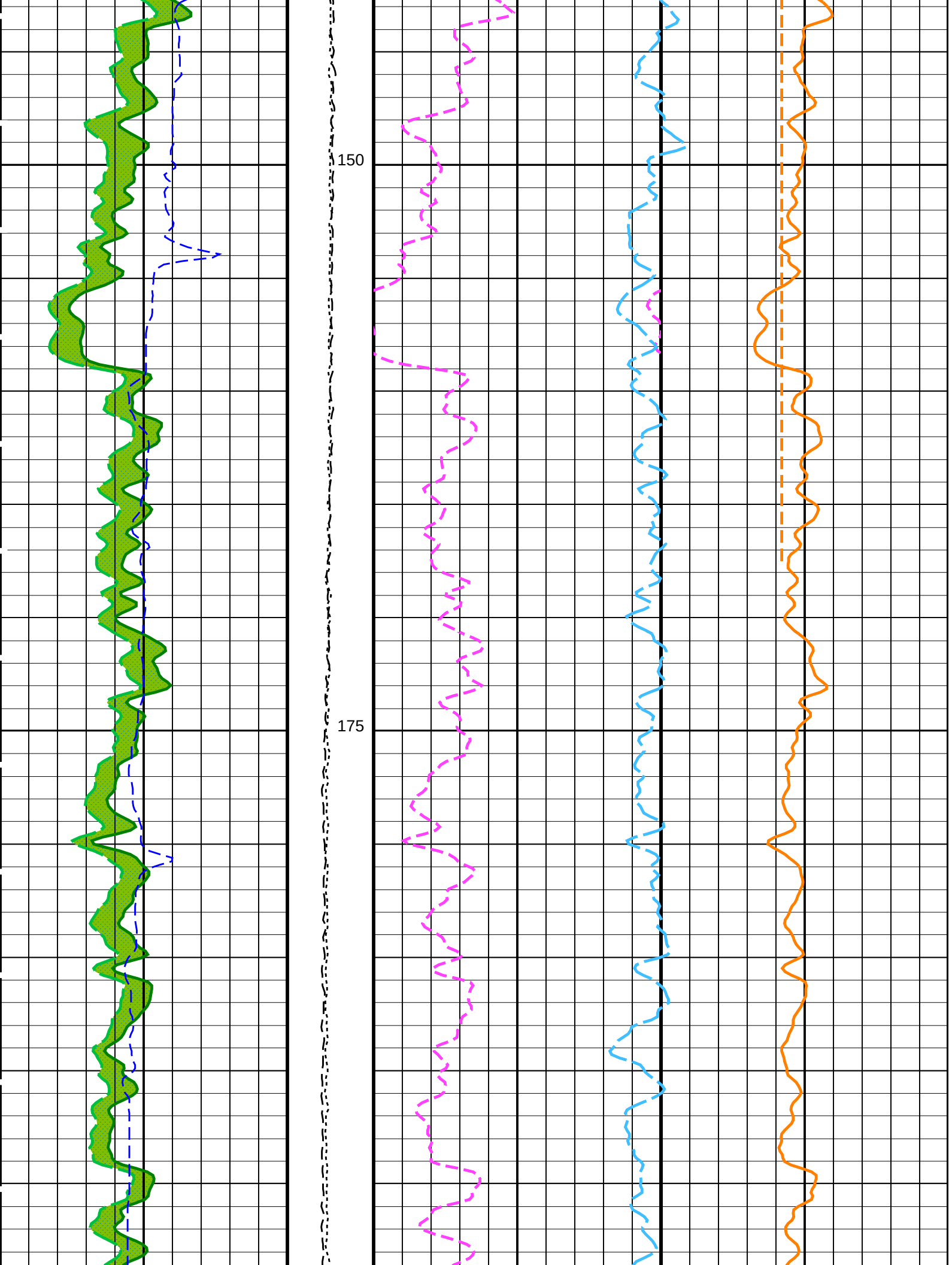
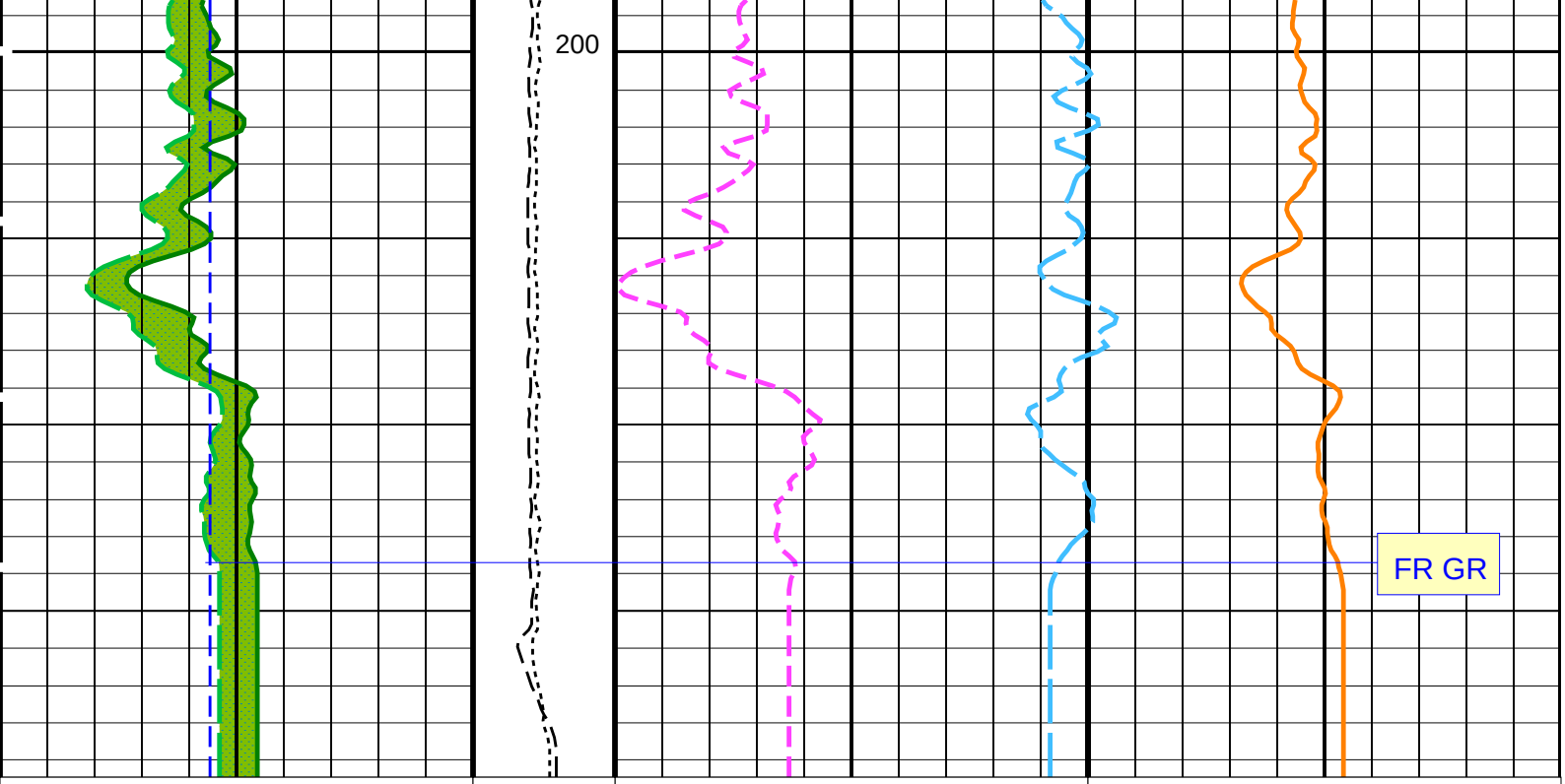

150
175



HLDS Caliper (LCAL)
0 (IN) 20

Tension (TENS) (LBF)
10000 0

HNGS Thorium (HTHO)
5 (PPM) 25

HNGS Potassium (HFK)
−0.01 (−−−−) 0.04

HNGS Computed Gamma Ray (HCGR)
0 (GAPI) 150

Calibrated Downhole Force (CDF) (LBF)
3000 0

HNGS Uranium (HURA)
−5 (PPM) 10

Area1
From HCGR to HSGR

HNGS Borehole Potassium (HBHK)
−0.05 (−−−−) 0.05

HNGS Spectroscopy Gamma Ray (HSGR)
0 (GAPI) 150

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
	HNGS−BA: Hostile Natural Gamma Ray Sonde		
BAR1	HNGS Detector 1 Barite Constant	1	
BAR2	HNGS Detector 2 Barite Constant	1	
BHK	HNGS Borehole Potassium Correction Concentration	0	
BHS	Borehole Status	OPEN	
CSD1	Inner Casing Outer Diameter	0	IN
CSD2	Outer Casing Outer Diameter	0	IN
CSW1	Inner Casing Weight	0	LB/F
CSW2	Outer Casing Weight	0	LB/F
DBCC	HNGS Barite Constant Correction Flag	NONE	
GCSE	Generalized Caliper Selection	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	−0.0186751	
HALF	HNGS Alpha Filter Length	60	IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	BARI	
HNPE	HNGS Processing Enable	YES	
S1BI	HNGS Detector 1 Calibration Bismuth Count Rate	1.3	CPS
S2BI	HNGS Detector 2 Calibration Bismuth Count Rate	1.3	CPS
SGRC	HNGS Standard Gamma−Ray Correction Flag	YES	
TPOS	Tool Position	ECCE	

VBA1	HNGS Detector 1 Variable Barite Factor Running Average	0.88536	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	0.887425	
	HRLT−B: High Resolution Laterolog Array − B		
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	LCAL	
	EDTC−B: Enhanced DTS Cartridge		
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	LCAL	
	System and Miscellaneous		
BS	Bit Size	9.875	IN
DO	Depth Offset for Playback	−3686.0	M
PP	Playback Processing	RECOMPUTE	

Format: HNGSYields **Vertical Scale: 1:200** **Graphics File Created: 19−Mar−2015 12:52**

OP System Version: 19C0−187

MSS_LDEO−A	19C0−187	HNGC−B	19C0−187
HNGS−BA	19C0−187	HRLT−B	19C0−187
HLDS	19C0−187	LDSC−B	19C0−187
EDTC−B	SKK−5169−EDTCB		

Input DLIS Files

DEFAULT	MSS_LDEO_NGS_HRLA_019LUP	FN:10	PRODUCER	17−Mar−2015 09:57	3904.5 M	3676.6 M

Output DLIS Files

DEFAULT	MSS_LDEO_NGS_HRLA_031PUP	FN:22	PRODUCER	19−Mar−2015 12:52		

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HRLA Main Pass

MAXIS Field Log

Company: Integrated Ocean Discovery Program **Well: Expedition 354, Site U1453A**

Input DLIS Files

DEFAULT	MSS_LDEO_NGS_HRLA_019LUP	FN:10	PRODUCER	17−Mar−2015 09:57	3904.5 M	3676.6 M

Output DLIS Files

DEFAULT	MSS_LDEO_NGS_HRLA_031PUP	FN:22	PRODUCER	19−Mar−2015 12:52	219.5 M	−9.3 M

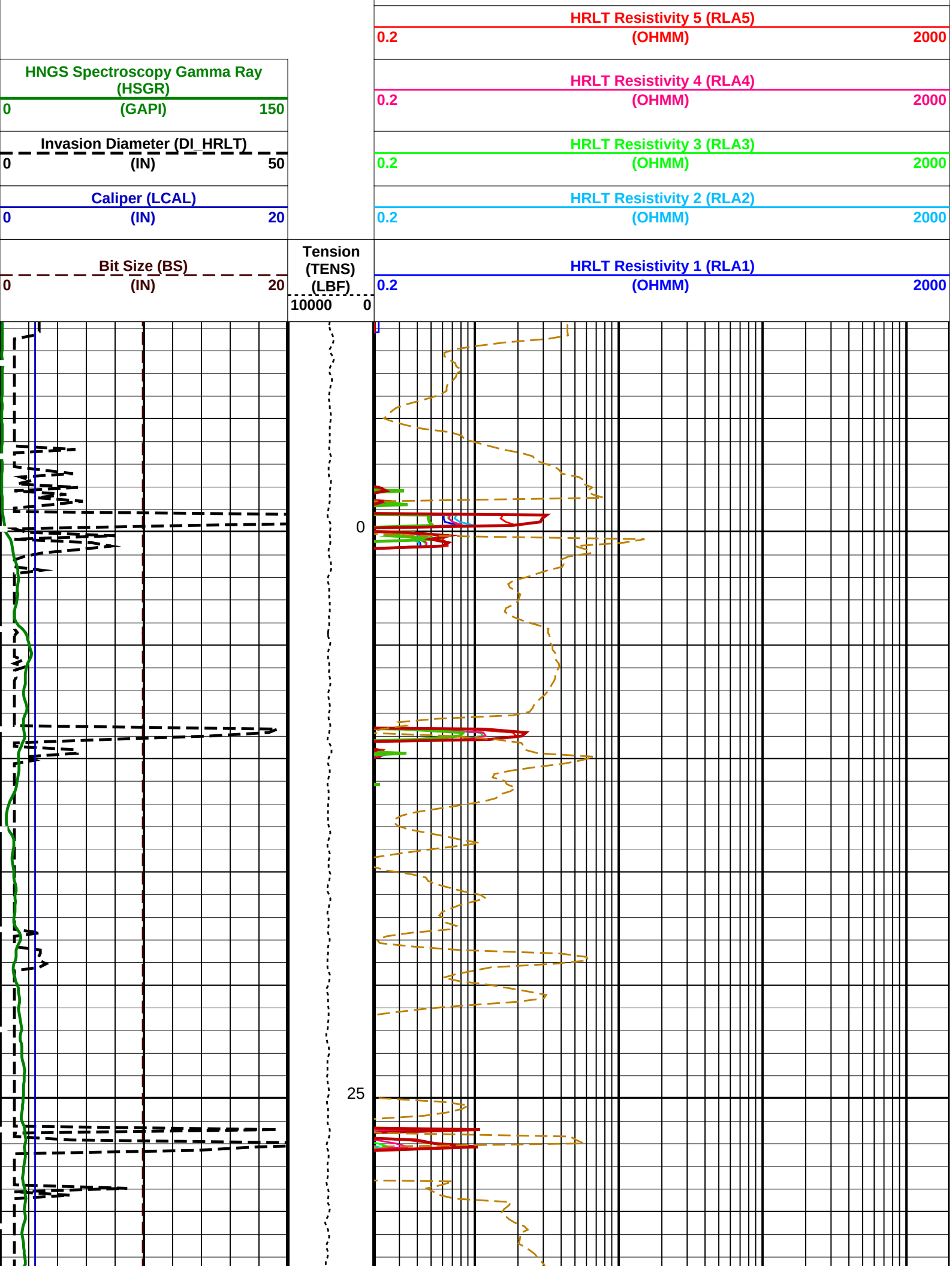
OP System Version: 19C0−187

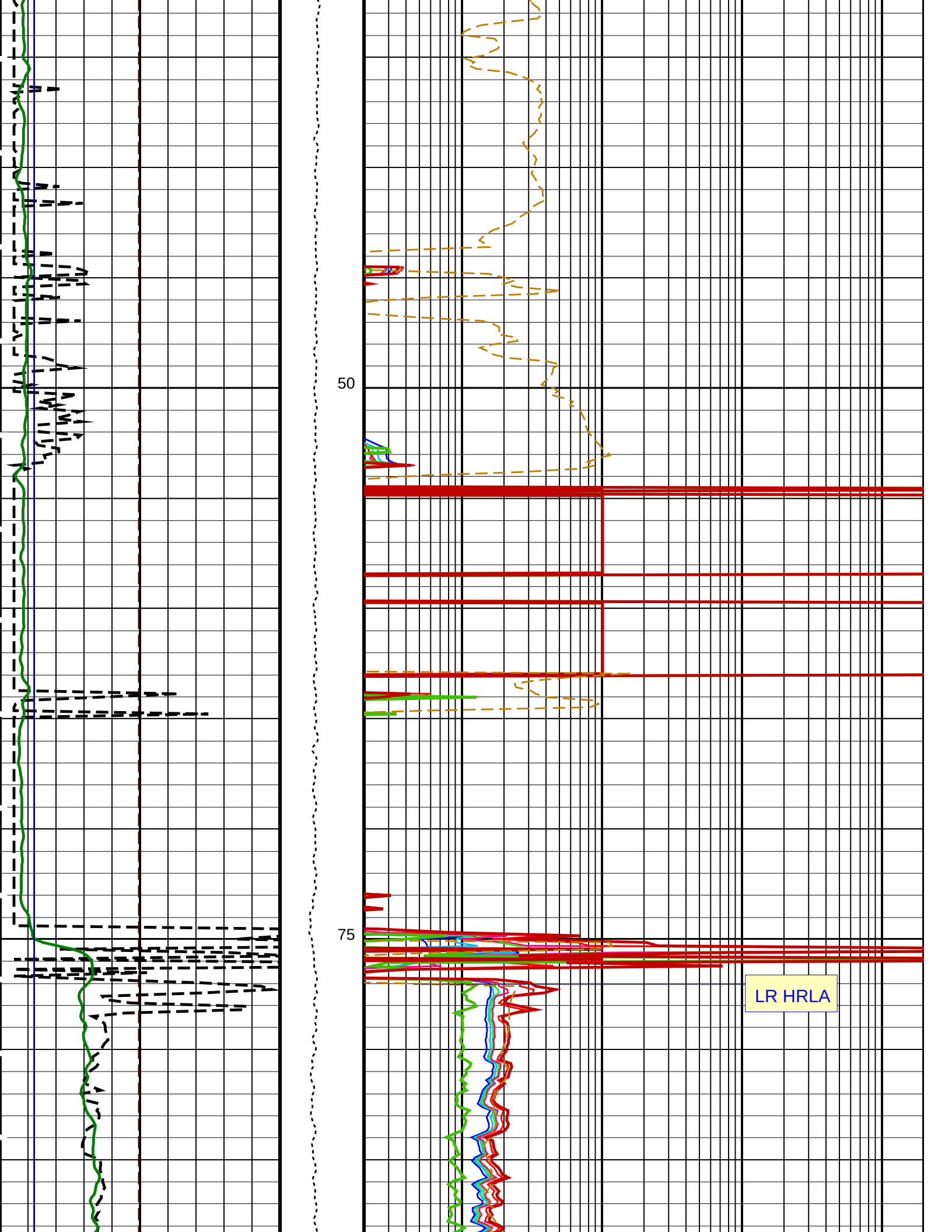
MSS_LDEO−A	19C0−187	HNGC−B	19C0−187
HNGS−BA	19C0−187	HRLT−B	19C0−187
HLDS	19C0−187	LDSC−B	19C0−187
EDTC−B	SKK−5169−EDTCB		

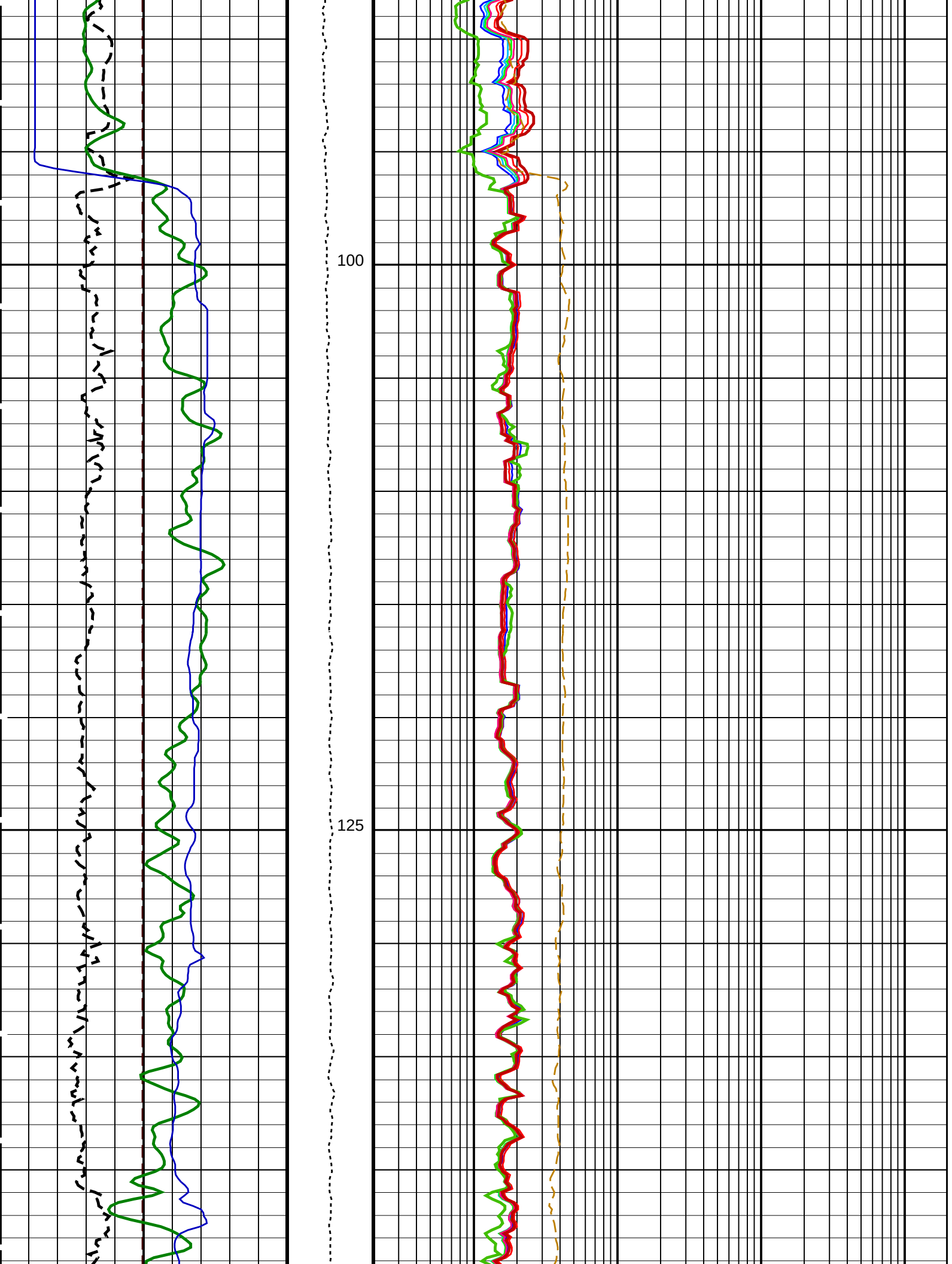
PIP SUMMARY

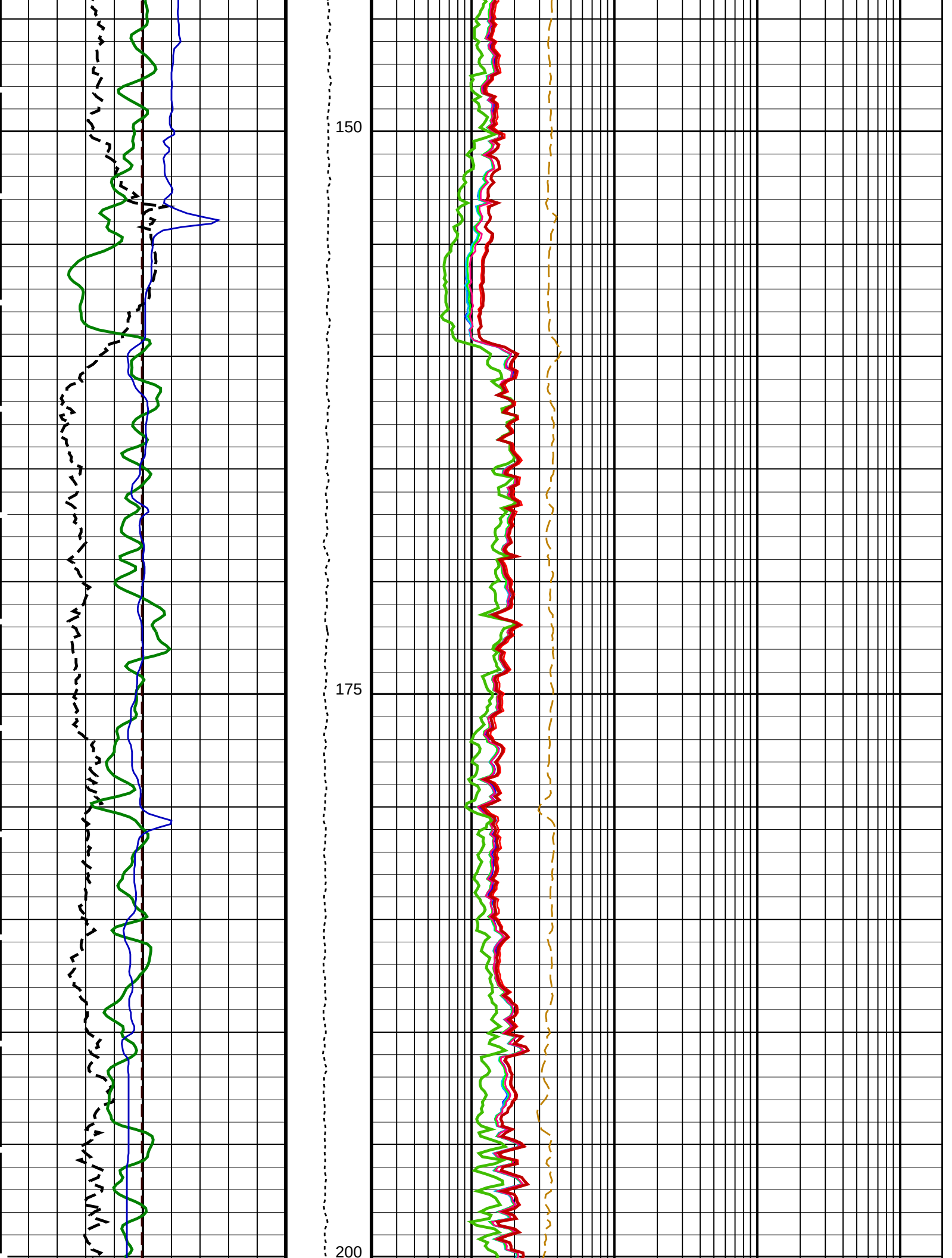
Time Mark Every 60 S

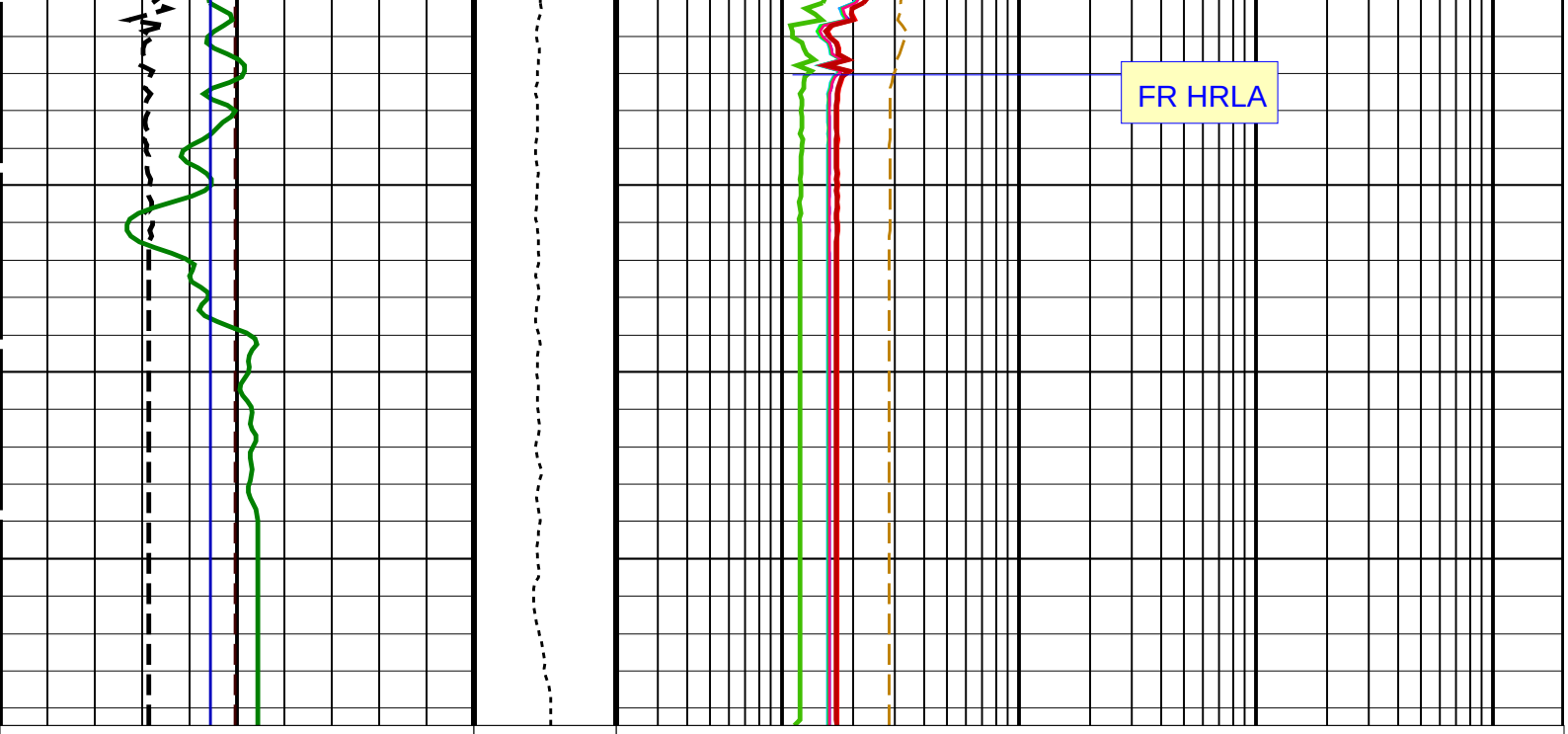
	HRLT True Resistivity (RT_HRLT)	
0.2	(OHMM)	2000
	Invaded Zone Resistivity (RXO_HRLT)	
0.2	(OHMM)	2000
	HRLT Mud Resistivity (RM_HRLT)	
0.02	(OHMM)	200


HNGS Spectroscopy Gamma Ray (HSGR)
0
(GAPI)
150
Invasion Diameter (DI_HRLT)
0
(IN)
50
Caliper (LCAL)
0
(IN)
20
Bit Size (BS)
0
(IN)
20
Tension (TENS) (LBF)
10000
0
HRLT Resistivity 5 (RLA5)
0.2
(OHMM)
2000
HRLT Resistivity 4 (RLA4)
0.2
(OHMM)
2000
HRLT Resistivity 3 (RLA3)
0.2
(OHMM)
2000
HRLT Resistivity 2 (RLA2)
0.2
(OHMM)
2000
HRLT Resistivity 1 (RLA1)
0.2
(OHMM)
2000
0
25


50
75
LR HRLA


100
125


150
175
200



Bit Size (BS)	Tension (TENS)	HRLT Resistivity 1 (RLA1)
0 (IN) 20	10000 0 (LBF)	0.2 (OHMM) 2000
Caliper (LCAL)		**HRLT Resistivity 2 (RLA2)**
0 (IN) 20		0.2 (OHMM) 2000
Invasion Diameter (DI_HRLT)		**HRLT Resistivity 3 (RLA3)**
0 (IN) 50		0.2 (OHMM) 2000
HNGS Spectroscopy Gamma Ray (HSGR)		**HRLT Resistivity 4 (RLA4)**
0 (GAPI) 150		0.2 (OHMM) 2000
		HRLT Resistivity 5 (RLA5)
		0.2 (OHMM) 2000
		HRLT Mud Resistivity (RM_HRLT)
		0.02 (OHMM) 200
		Invaded Zone Resistivity (RXO_HRLT)
		0.2 (OHMM) 2000
		HRLT True Resistivity (RT_HRLT)
		0.2 (OHMM) 2000

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
	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)	60	DEGC
CSD1	Inner Casing Outer Diameter	0	IN
CSD2	Outer Casing Outer Diameter	0	IN
CSW1	Inner Casing Weight	0	LB/F
CSW2	Outer Casing Weight	0	LB/F
DBCC	HNGS Barite Constant Correction Flag	NONE	
GCSE	Generalized Caliper Selection	LCAL	
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	

GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
H1P	HNGS Detector 1 Allow/Disallow In Processing	ALLOW	
H2P	HNGS Detector 2 Allow/Disallow In Processing	ALLOW	
HABK	HNGS Borehole Potassium Running Average	−0.0186751	
HALF	HNGS Alpha Filter Length	60	IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	BARI	
HNPE	HNGS Processing Enable	YES	
S1BI	HNGS Detector 1 Calibration Bismuth Count Rate	1.3	CPS
S2BI	HNGS Detector 2 Calibration Bismuth Count Rate	1.3	CPS
SGRC	HNGS Standard Gamma−Ray Correction Flag	YES	
SHT	Surface Hole Temperature	20	DEGC
TPOS	Tool Position	ECCE	
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	0.88536	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	0.887425	
	HRLT−B: High Resolution Laterolog Array − B		
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	60	DEGC
GCSE	Generalized Caliper Selection	LCAL	
GGRD	Geothermal Gradient	0.018227	DC/M
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	
PROCSPO	Sonde Position	Eccentered	
SHT	Surface Hole Temperature	20	DEGC
	EDTC−B: Enhanced DTS Cartridge		
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	60	DEGC
GCSE	Generalized Caliper Selection	LCAL	
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
SHT	Surface Hole Temperature	20	DEGC
	System and Miscellaneous		
BS	Bit Size	9.875	IN
DO	Depth Offset for Playback	−3686.0	M
MST	Mud Sample Temperature	−50000.00	DEGC
PP	Playback Processing	RECOMPUTE	
TD	Total Depth	215.7	M

Format: HRLT **Vertical Scale: 1:200** **Graphics File Created: 19−Mar−2015 12:52**

OP System Version: 19C0−187

MSS_LDEO−A	19C0−187	HNGC−B	19C0−187
HNGS−BA	19C0−187	HRLT−B	19C0−187
HLDS	19C0−187	LDSC−B	19C0−187
EDTC−B	SKK−5169−EDTCB		

Input DLIS Files

DEFAULT	MSS_LDEO_NGS_HRLA_019LUP	FN:10	PRODUCER	17−Mar−2015 09:57	3904.5 M	3676.6 M

Output DLIS Files

DEFAULT	MSS_LDEO_NGS_HRLA_031PUP	FN:22	PRODUCER	19−Mar−2015 12:52

Schlumberger

MSS Main Pass

MAXIS Field Log

Company: Integrated Ocean Discovery Program **Well: Expedition 354, Site U1453A**

Input DLIS Files

Input DLIS Files

DEFAULT	MSS_LDEO_NGS_HRLA_019LUP	FN:10	PRODUCER	17−Mar−2015 09:57	3904.5 M	3676.6 M

Output DLIS Files

DEFAULT	MSS_LDEO_NGS_HRLA_031PUP	FN:22	PRODUCER	19−Mar−2015 12:52	219.5 M	−9.3 M

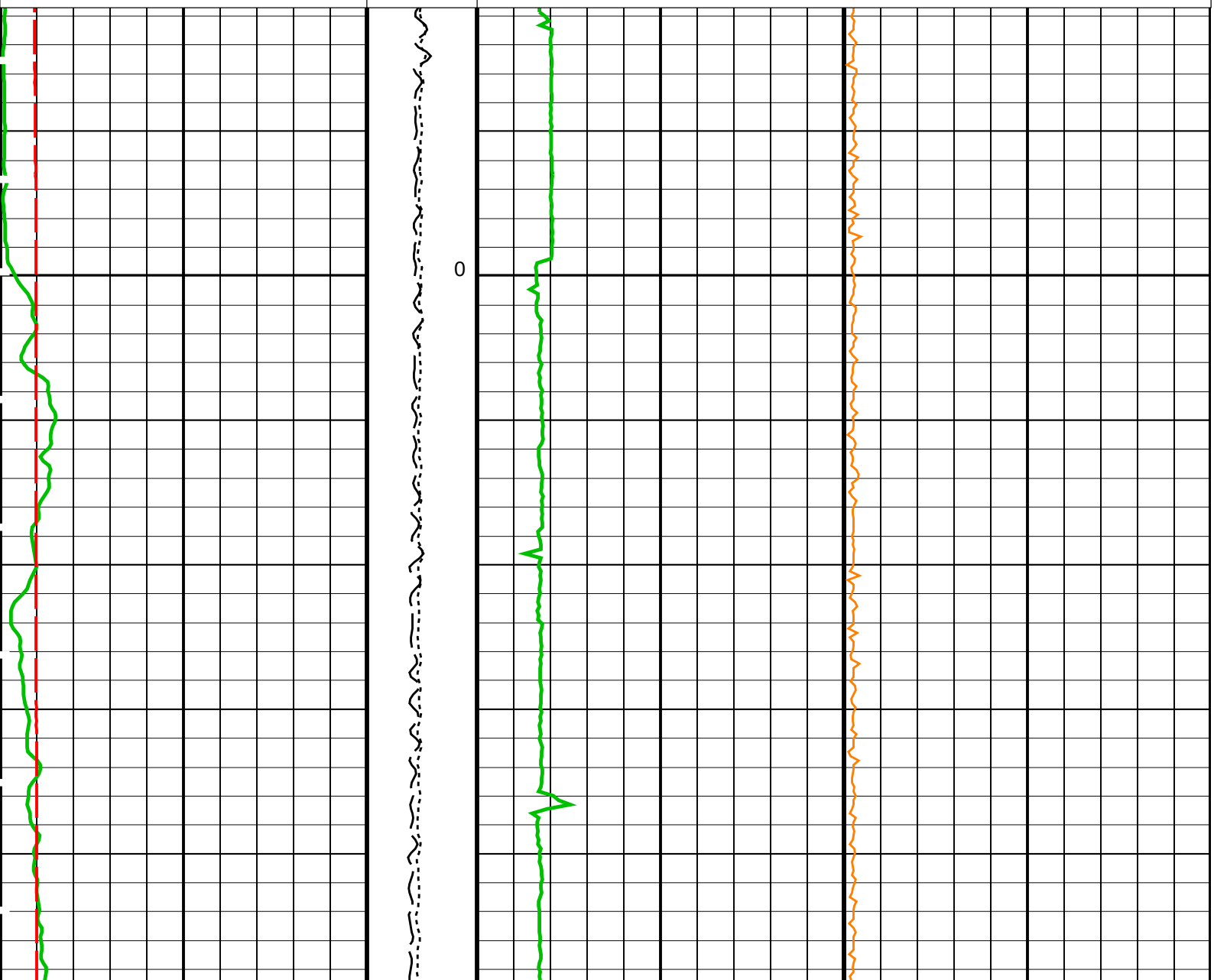
OP System Version: 19C0−187

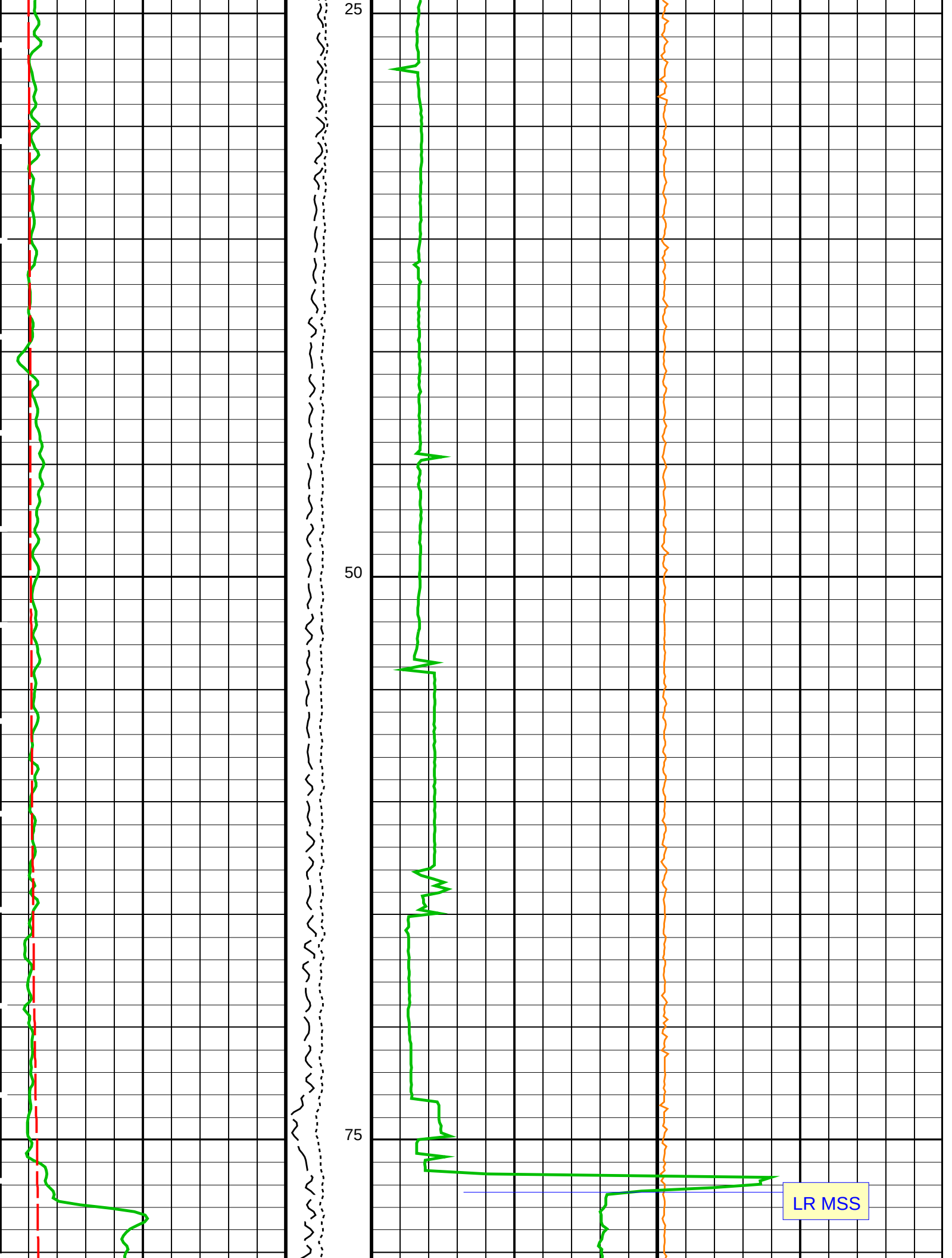
MSS_LDEO−A	19C0−187	HNGC−B	19C0−187
HNGS−BA	19C0−187	HRLT−B	19C0−187
HLDS	19C0−187	LDSC−B	19C0−187
EDTC−B	SKK−5169−EDTCB		

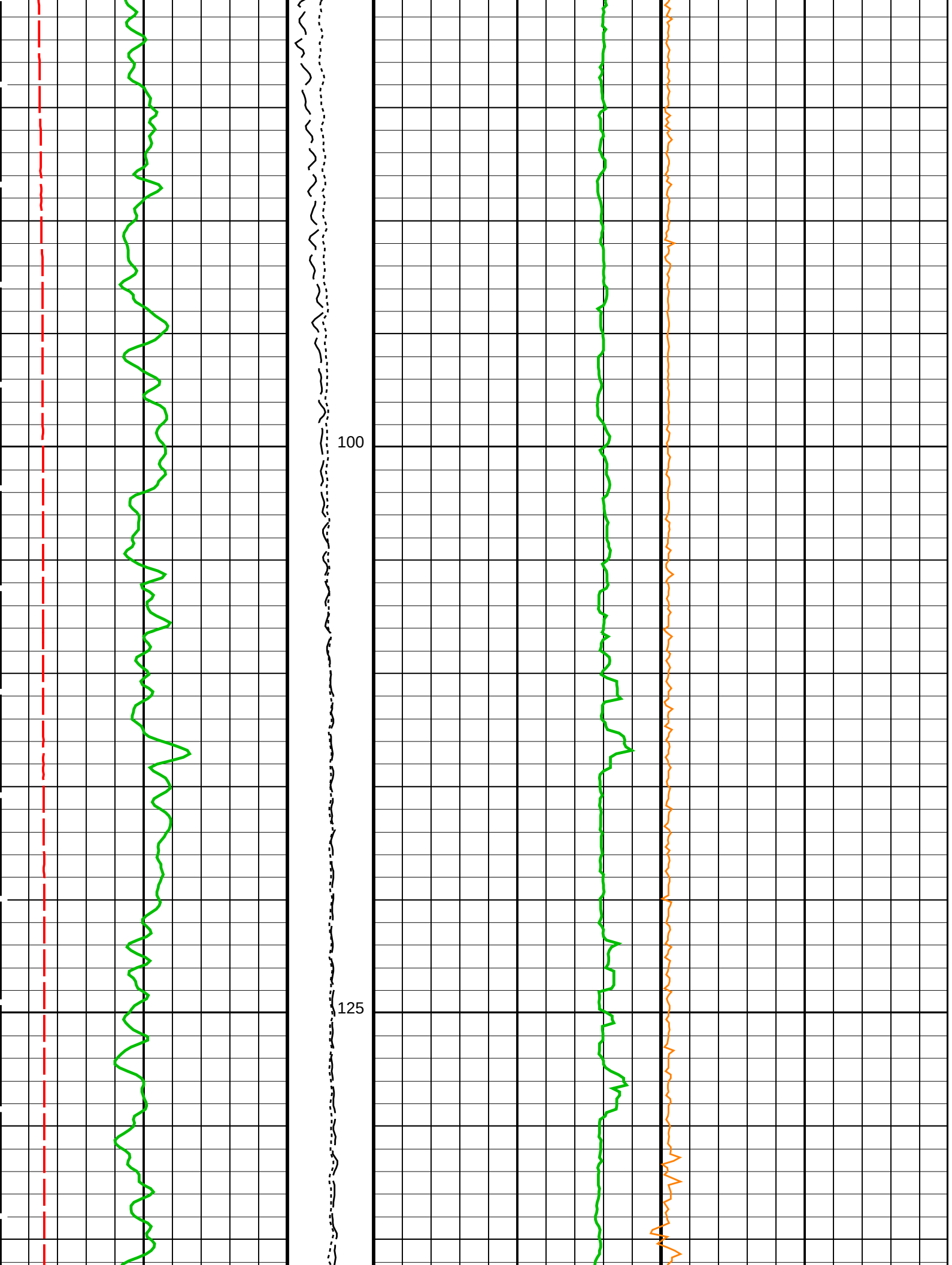
PIP SUMMARY

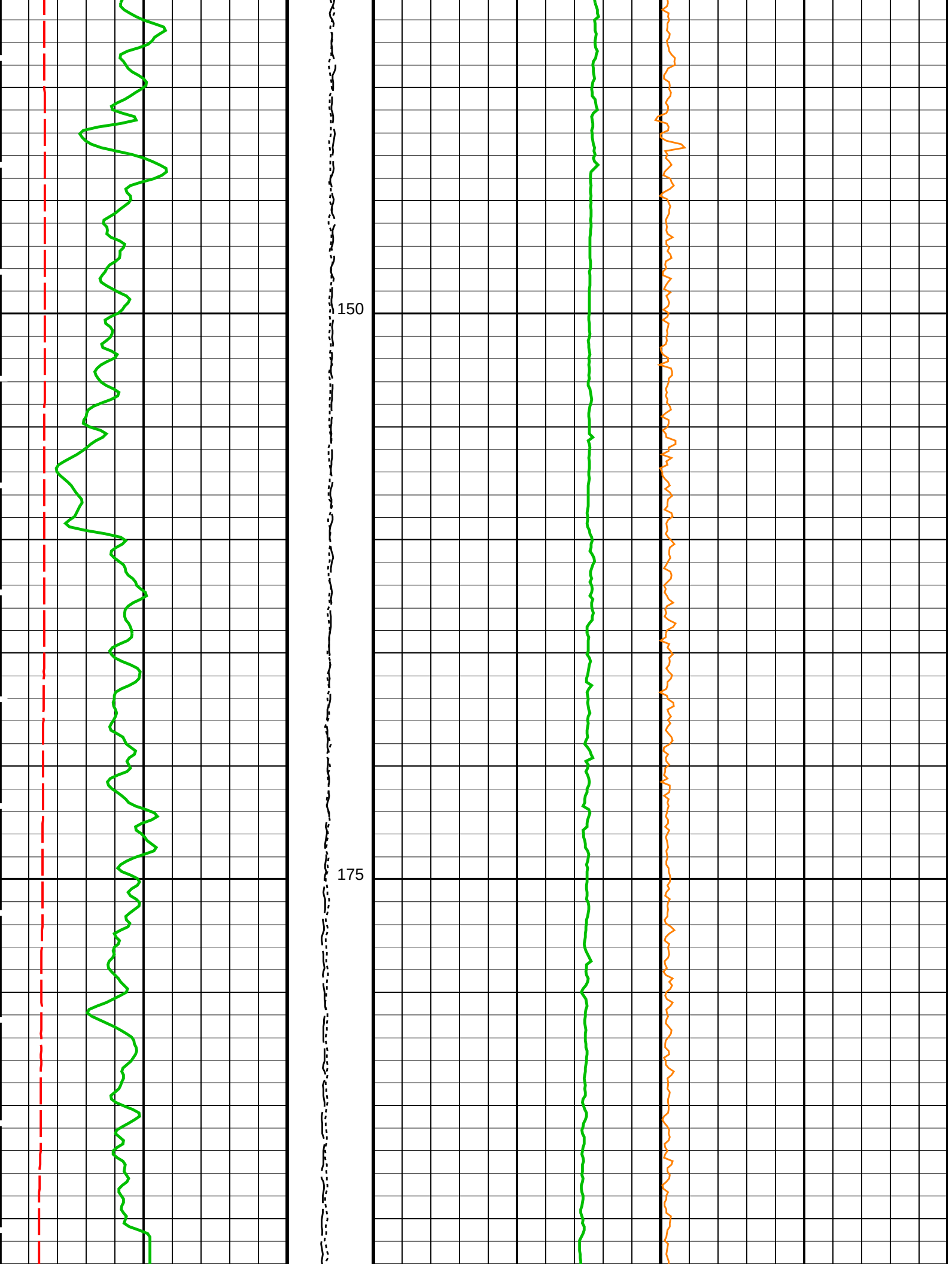
Time Mark Every 60 S

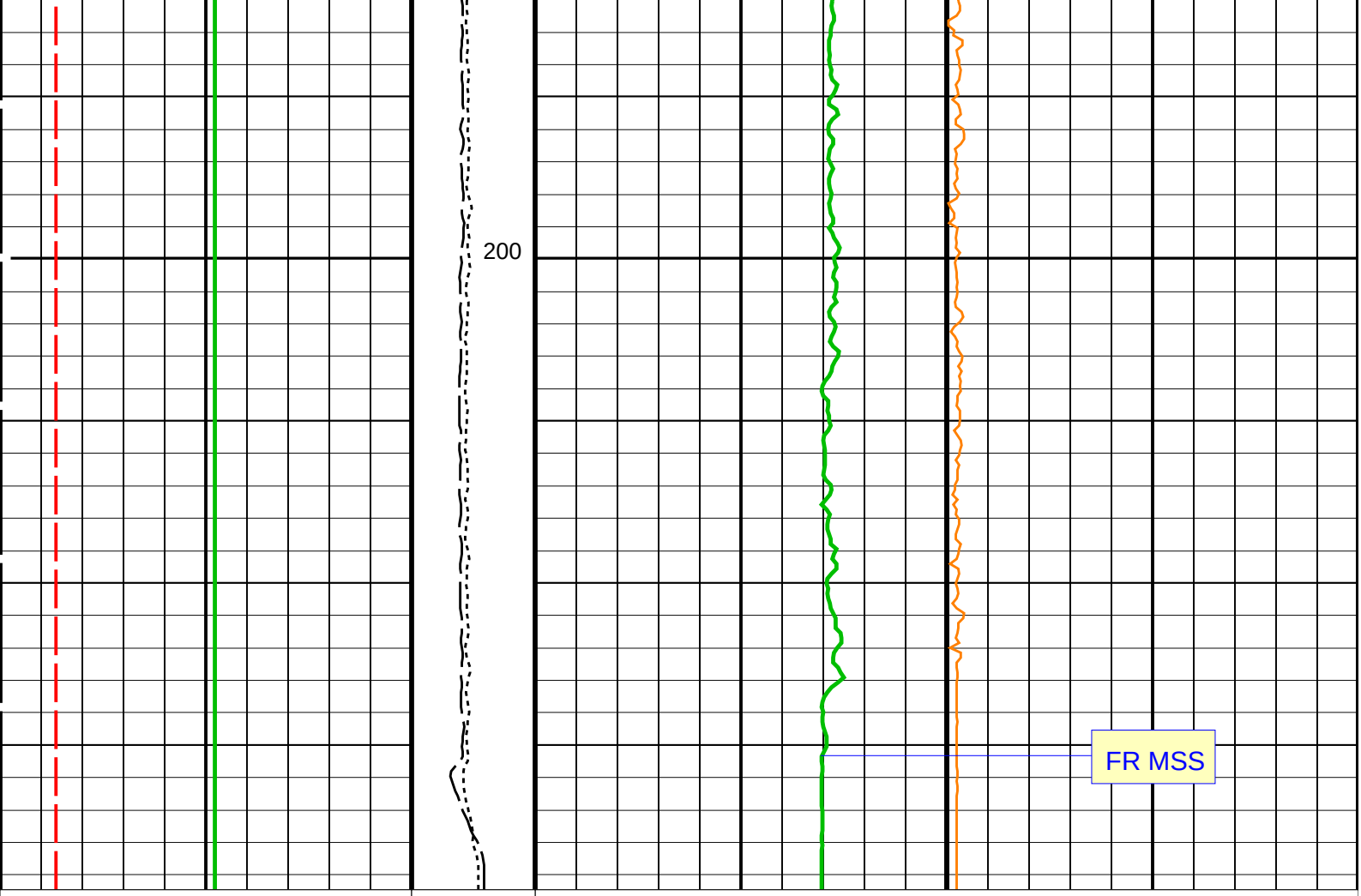
Gamma Ray (GR_EDTC)	Calibrated Downhole Force (CDF) (LBF)	Dual−Coil Susceptibility (MSSLSUS_LDEO)
0 (GAPI) 150	3000 0	−20000 (PPM) 20000
Mud temperature (MTEM)	**Tension (TENS) (LBF)**	**Axial Acceleration (MSSZACC_LDEO)**
0 (DEGC) 50	10000 0	0 (M/S2) 20




25
50
75
LR MSS


100
125


150
175



Mud temperature (MTEM)	Tension (TENS)	Axial Acceleration (MSSZACC_LDEO)
0 (DEGC) 50	(LBF) 10000 0	0 (M/S2) 20

Gamma Ray (GR_EDTC)	Calibrated Downhole Force (CDF)	Dual−Coil Susceptibility (MSSLSUS_LDEO)
0 (GAPI) 150	(LBF) 3000 0	−20000 (PPM) 20000

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
	HNGS−BA: Hostile Natural Gamma Ray Sonde		
BAR1	HNGS Detector 1 Barite Constant	1	
BAR2	HNGS Detector 2 Barite Constant	1	
BHK	HNGS Borehole Potassium Correction Concentration	0	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	60	DEGC
CSD1	Inner Casing Outer Diameter	0	IN
CSD2	Outer Casing Outer Diameter	0	IN
CSW1	Inner Casing Weight	0	LB/F
CSW2	Outer Casing Weight	0	LB/F
DBCC	HNGS Barite Constant Correction Flag	NONE	
GCSE	Generalized Caliper Selection	LCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
H1P	HNGS Detector 1 Allow/Disallow In Processing	ALLOW	
H2P	HNGS Detector 2 Allow/Disallow In Processing	ALLOW	
HABK	HNGS Borehole Potassium Running Average	−0.0186751	
HALF	HNGS Alpha Filter Length	60	IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE	

HMWM	Mud Weighting Material	BARI	
HNPE	HNGS Processing Enable	YES	
ISSBAR	Barite Mud Switch	NOBARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
S1BI	HNGS Detector 1 Calibration Bismuth Count Rate	1.3	CPS
S2BI	HNGS Detector 2 Calibration Bismuth Count Rate	1.3	CPS
SGRC	HNGS Standard Gamma−Ray Correction Flag	YES	
SHT	Surface Hole Temperature	20	DEGC
TPOS	Tool Position	ECCE	
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	0.88536	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	0.887425	
HRLT−B: High Resolution Laterolog Array − B			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	60	DEGC
CALSTAT	HRLTB Calibration Status	SHALLOW_DONE	
CALTEMP	HRLTB Calibration Temperature	6.78536	DEGC
FREQ0	HRLT Frequency Index for Mode 0	32	
FREQ1	HRLT Frequency Index for Mode 1	128	
FREQ2	HRLT Frequency Index for Mode 2	104	
FREQ3	HRLT Frequency Index for Mode 3	86	
FREQ4	HRLT Frequency Index for Mode 4	56	
FREQ5	HRLT Frequency Index for Mode 5	44	
FREQ6	HRLT Frequency Index for Mode 6	116	
GCSE	Generalized Caliper Selection	LCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
ISSBAR	Barite Mud Switch	NOBARITE	
KFAC_HRLT	HRLT K Factor Option	SONDE	
LOOPCOEF_S	HRLT Loop Coefficient for Shallow Modes	LOW	
LOOPMOD0	HRLT Mode 0 Loop Mode	OFF	
LOOPMOD1	HRLT Mode 1 Loop Mode	OFF	
LOOPMOD2	HRLT Mode 2 Loop Mode	OFF	
LOOPMOD3	HRLT Mode 3 Loop Mode	OFF	
LOOPMOD4	HRLT Mode 4 Loop Mode	OFF	
LOOPMOD5	HRLT Mode 5 Loop Mode	OFF	
LOOPMOD6	HRLT Mode 6 Loop Mode	OFF	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
PROCINV	Inversion Selection	ON	
PROCMFL	Inversion Micro−Resistivity Selection	NO_EXTERNAL_RXO	
PROCMSO	Mechanical Standoff Fin Size	0	IN
PROCRM	Processing Mud Resistivity Select	HRLT_Compute	
PROCSPO	Sonde Position	Eccentered	
SHT	Surface Hole Temperature	20	DEGC
HLDS: Hostile Litho−Density Sonde			
CLCL	HLDS LS Control Loop Controller Mode	AUTO_DEFAULT	
CLCS	HLDS SS Control Loop Controller Mode	AUTO_DEFAULT	
CLLS	HLDS Mode Loop Long Spacing	AUTO	
CLSS	HLDS Mode Loop Short Spacing	AUTO	
DHC	Density Hole Correction	BS	
DPPM	Density Porosity Processing Mode	HIRS	
FD	Fluid Density	1	G/C3
LATC	HLDS Activation Correction	ON	
LLDL	HLDS LS Low Level Discriminator DAC	14000	
LLDS	HLDS SS Low Level Discriminator DAC	14000	
LLML	HLDS LS Low Level Discriminator Mode	AUTO	
LLMS	HLDS SS Low Level Discriminator Mode	AUTO	
MDEN	Matrix Density	2.71	G/C3
PHVL	HLDS Long Spacing High Voltage Setting	1000	V
PHVS	HLDS Short Spacing High Voltage Setting	1000	V
PSDL	HLDS LS Pulse Shape Compensation DAC	30000	
PSDS	HLDS SS Pulse Shape Compensation DAC	30000	
PSML	HLDS LS Pulse Shape Compensation Mode	AUTO	
PSMS	HLDS SS Pulse Shape Compensation Mode	AUTO	
EDTC−B: Enhanced DTS Cartridge			
BHFL	Borehole Fluid Type	WATER	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	60	DEGC
BSCO	Borehole Salinity Correction Option	NO	
CCCO	Casing & Cement Thickness Correction Option	NO	
DPPM	Density Porosity Processing Mode	HIRS	
FSAL	Formation Salinity	−50000	PPM
FSCO	Formation Salinity Correction Option	NO	
GCSE	Generalized Caliper Selection	LCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
HSCO	Hole Size Correction Option	YES	
ISSBAR	Barite Mud Switch	NOBARITE	
ISSBAR_EDTC	Nuclear Mud Type	BARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
MCCO	Mud Cake Correction Option	NO	
MCOR	Mud Correction	BARI	

MCOR	Mud Correction	BARI	
MWCO	Mud Weight Correction Option	YES	
PTCO	Pressure/Temperature Correction Option	NO	
SDAT	Standoff Data Source	SOCN	
SHT	Surface Hole Temperature	20	DEGC
SOCN	Standoff Distance	0.5	IN
SOCO	Standoff Correction Option	NO	
TPOS_EDTC	EDTC Tool Centered/Eccentered	Eccentered	
U−ETELM_EDTS	Telemetry Mode for eWAFE	Standard_EDTS	
U−TELM_EDTS	Telemetry Mode for WAFE	Standard_EDTS	
System and Miscellaneous			
ALTDPCHAN	Name of alternate depth channel	SpeedCorrectedDepth	
BS	Bit Size	9.875	IN
BSAL	Borehole Salinity	−50000.00	PPM
CSIZ	Current Casing Size	5.500	IN
CWEI	Casing Weight	168.00	LB/F
DFD	Drilling Fluid Density	1.44	G/C3
DO	Depth Offset for Playback	−3686.0	M
FLEV	Fluid Level	−50000.00	M
MST	Mud Sample Temperature	−50000.00	DEGC
PBVSADP	Use alternate depth channel for playback	NO	
PP	Playback Processing	RECOMPUTE	
RMFS	Resistivity of Mud Filtrate Sample	−50000.0000	OHMM
RW	Resistivity of Connate Water	1.0000	OHMM
TD	Total Depth	215.7	M
TDD	Total Depth − Driller	215.70	M
TDL	Total Depth − Logger	215.70	M
TWS	Temperature of Connate Water Sample	37.78	DEGC

Format: MSS_Logging Vertical Scale: 1:200 Graphics File Created: 19−Mar−2015 12:52

OP System Version: 19C0−187

MSS_LDEO−A	19C0−187	HNGC−B	19C0−187
HNGS−BA	19C0−187	HRLT−B	19C0−187
HLDS	19C0−187	LDSC−B	19C0−187
EDTC−B	SKK−5169−EDTCB		

Input DLIS Files

DEFAULT	MSS_LDEO_NGS_HRLA_019LUP	FN:10	PRODUCER	17−Mar−2015 09:57	3904.5 M	3676.6 M

Output DLIS Files

DEFAULT	MSS_LDEO_NGS_HRLA_031PUP	FN:22	PRODUCER	19−Mar−2015 12:52		

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HNGS Downlog

MAXIS Field Log

Input DLIS Files

DEFAULT	Flip_MSS_LDEO_NGS_030LUP		PRODUCER	19−Mar−2015 12:50	3874.6 M	3650.7 M

Output DLIS Files

DEFAULT	MSS_LDEO_NGS_HRLA_035PUP	FN:26	PRODUCER	19−Mar−2015 13:08	183.6 M	−14.5 M

OP System Version: 19C0−187

MSS_LDEO−A	19C0−187	HNGC−B	19C0−187
HNGS−BA	19C0−187	HRLT−B	19C0−187
HLDS	19C0−187	LDSC−B	19C0−187
EDTC−B	SKK−5169−EDTCB		

PIP SUMMARY

Time Mark Every 60 S

HNGS Spectroscopy Gamma Ray (HSGR)
0 (GAPI) 150

Area1
From HCGR to HSGR

HNGS Borehole Potassium (HBHK)
−0.05 (−−−−) 0.05

HNGS Computed Gamma Ray (HCGR)
0 (GAPI) 150

Calibrated Downhole Force (CDF) (LBF)
3000 0

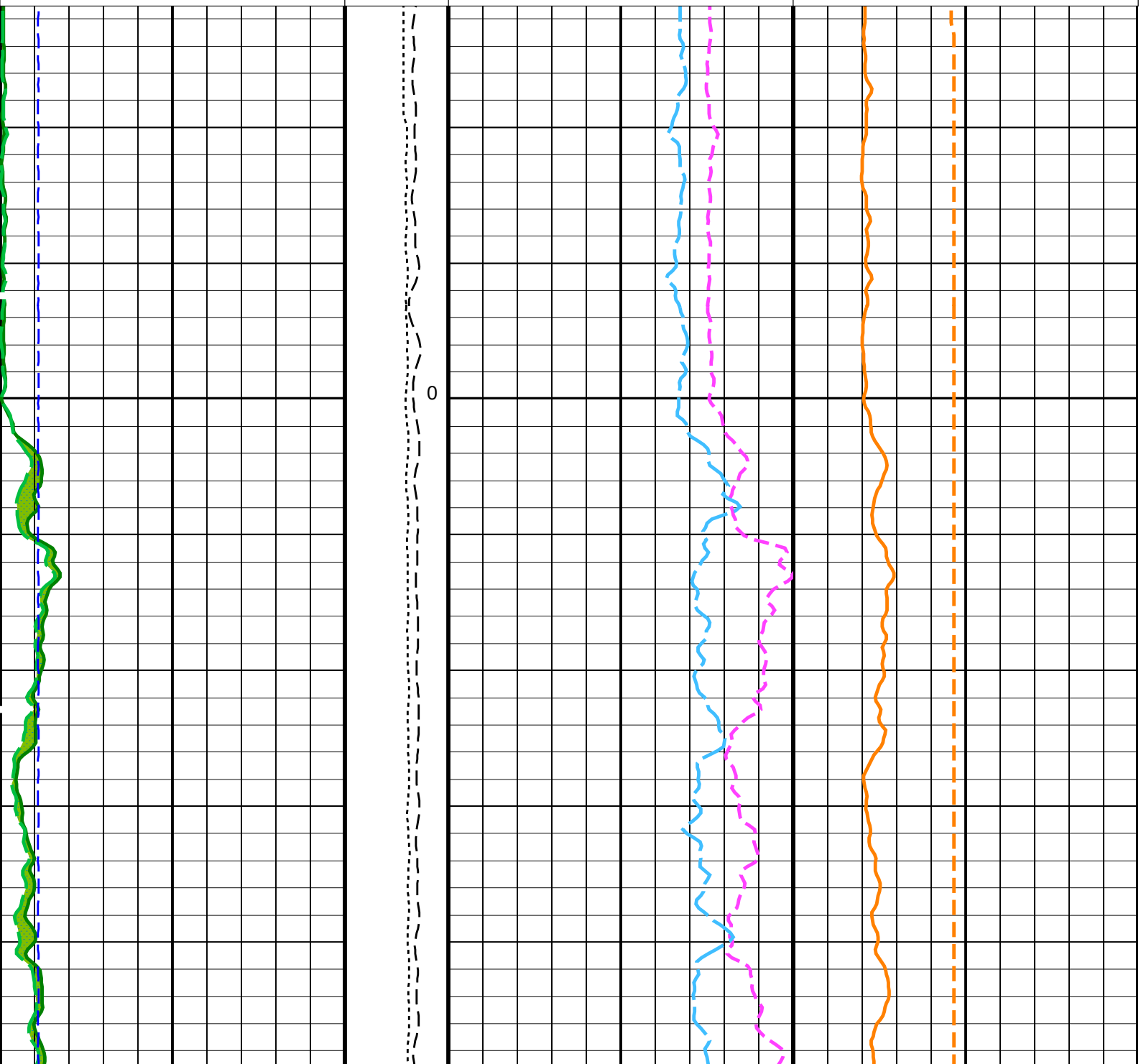
HNGS Uranium (HURA)
−5 (PPM) 10

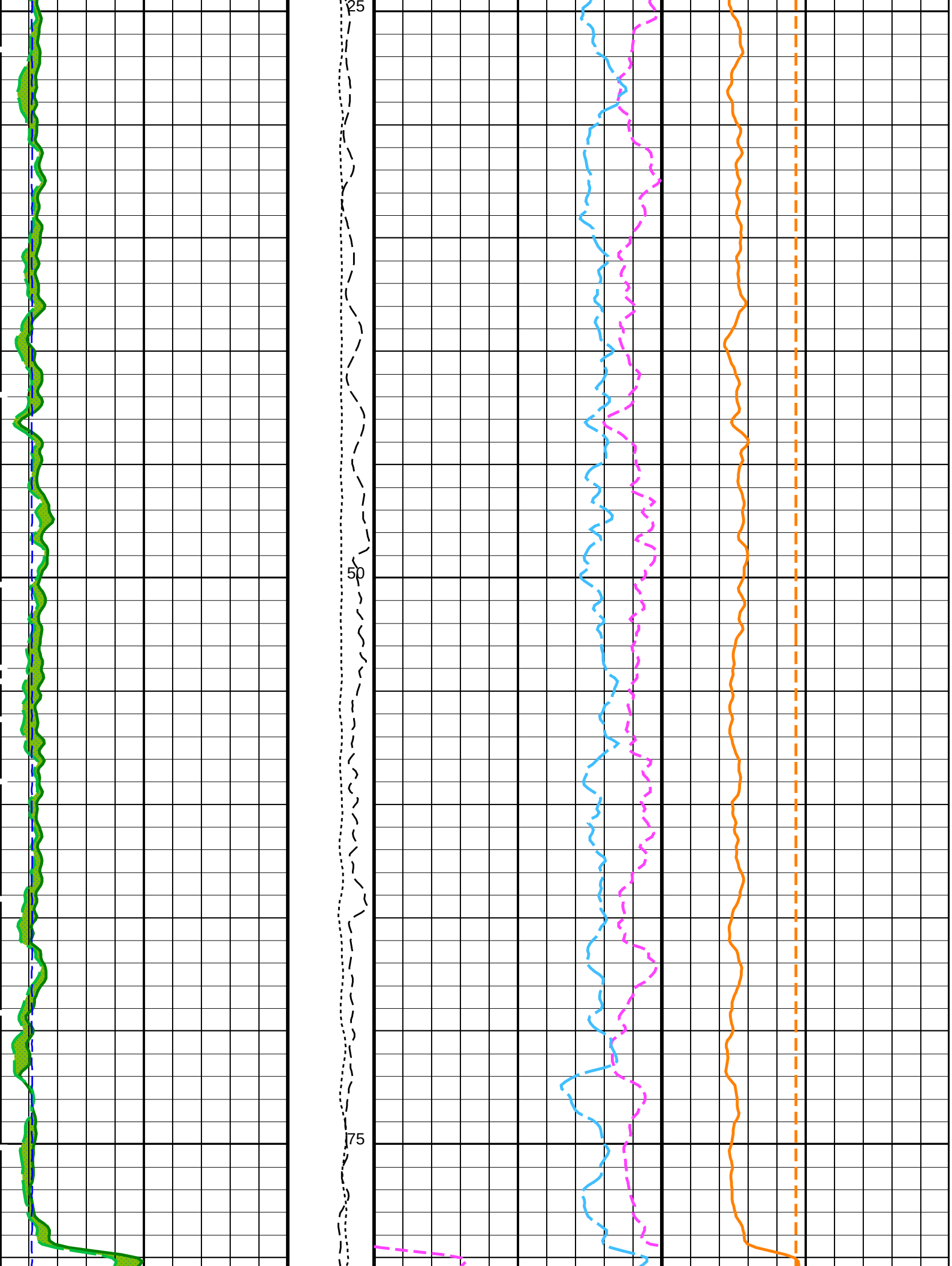
HLDS Caliper (LCAL)
0 (IN) 20

Tension (TENS) (LBF)
10000 0

HNGS Thorium (HTHO)
5 (PPM) 25

HNGS Potassium (HFK)
−0.01 (−−−−) 0.04

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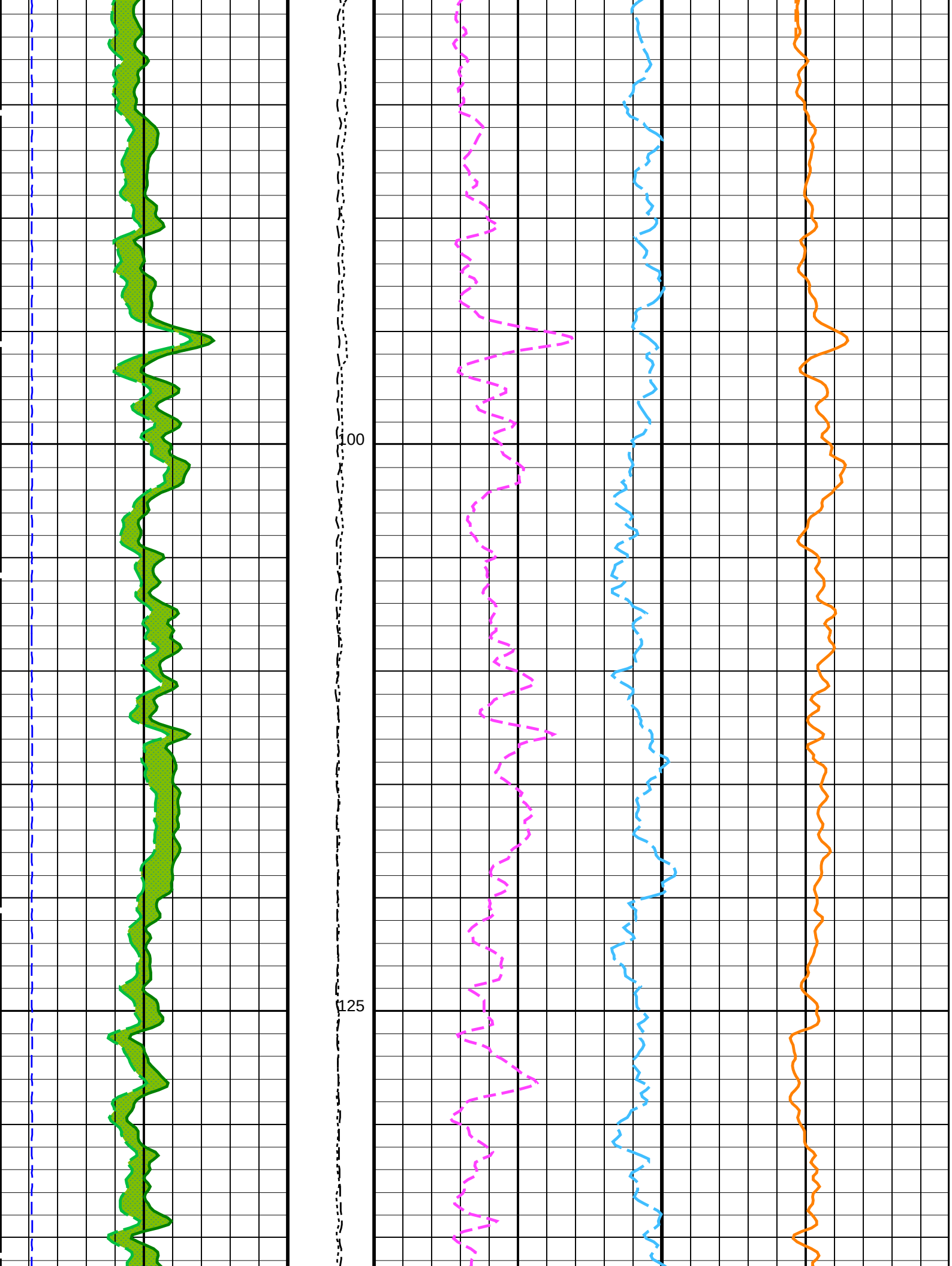
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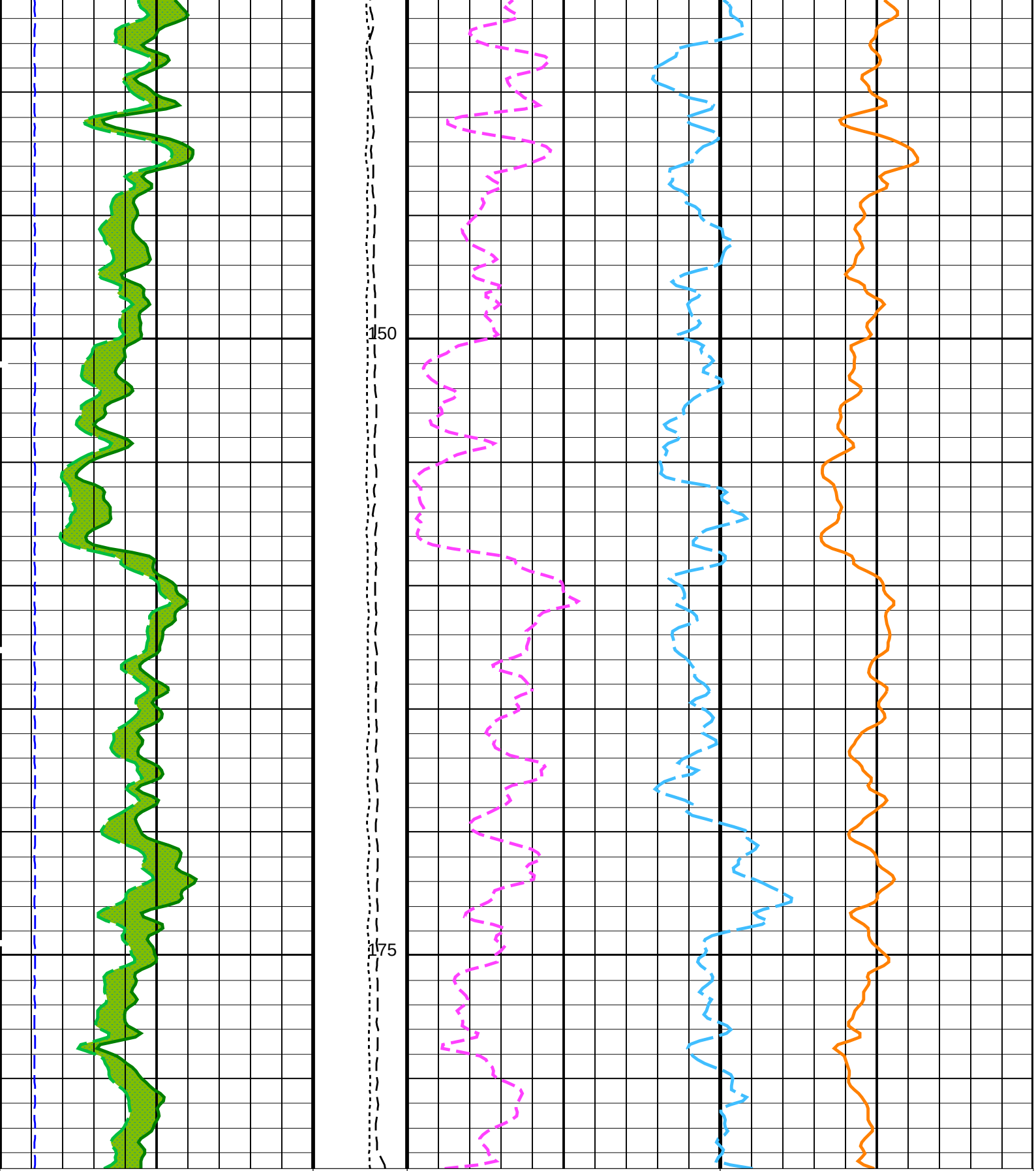

HLDS Caliper (LCAL)
0 (IN) 20

Tension (TENS) (LBF)
10000 0

HNGS Thorium (HTHO)
5 (PPM) 25

HNGS Potassium (HFK)
−0.01 (−−−−) 0.04

HNGS Computed Gamma Ray (HCGR)
0 (GAPI) 150

Calibrated Downhole Force (CDF) (LBF)
3000 0

HNGS Uranium (HURA)
−5 (PPM) 10

Area1
From HCGR to HSGR

HNGS Spectroscopy Gamma Ray (HSGR)

0 (GAPI) 150

HNGS Borehole Potassium (HBHK)

−0.05 (−−−−) 0.05

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
	HNGS−BA: Hostile Natural Gamma Ray Sonde		
BAR1	HNGS Detector 1 Barite Constant	1	
BAR2	HNGS Detector 2 Barite Constant	1	
BHK	HNGS Borehole Potassium Correction Concentration	0	
BHS	Borehole Status	OPEN	
CSD1	Inner Casing Outer Diameter	0	IN
CSD2	Outer Casing Outer Diameter	0	IN
CSW1	Inner Casing Weight	0	LB/F
CSW2	Outer Casing Weight	0	LB/F
DBCC	HNGS Barite Constant Correction Flag	NONE	
GCSE	Generalized Caliper Selection	BS	
H1P	HNGS Detector 1 Allow/Disallow In Processing	ALLOW	
H2P	HNGS Detector 2 Allow/Disallow In Processing	ALLOW	
HABK	HNGS Borehole Potassium Running Average	−0.00420981	
HALF	HNGS Alpha Filter Length	60	IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	BARI	
HNPE	HNGS Processing Enable	YES	
S1BI	HNGS Detector 1 Calibration Bismuth Count Rate	1.3	CPS
S2BI	HNGS Detector 2 Calibration Bismuth Count Rate	1.3	CPS
SGRC	HNGS Standard Gamma−Ray Correction Flag	YES	
TPOS	Tool Position	ECCE	
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	0.888244	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	0.887662	
	HRLT−B: High Resolution Laterolog Array − B		
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	BS	
	EDTC−B: Enhanced DTS Cartridge		
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	BS	
	System and Miscellaneous		
BS	Bit Size	9.875	IN
DO	Depth Offset for Playback	−3691.0	M
PP	Playback Processing	RECOMPUTE	

Format: HNGSYields Vertical Scale: 1:200 Graphics File Created: 19−Mar−2015 13:08

OP System Version: 19C0−187

MSS_LDEO−A	19C0−187	HNGC−B	19C0−187
HNGS−BA	19C0−187	HRLT−B	19C0−187
HLDS	19C0−187	LDSC−B	19C0−187
EDTC−B	SKK−5169−EDTCB		

Input DLIS Files

DEFAULT	Flip_MSS_LDEO_NGS_030LUP	PRODUCER	19−Mar−2015 12:50	3874.6 M	3650.7 M

Output DLIS Files

DEFAULT	MSS_LDEO_NGS_HRLA_035PUP	FN:26	PRODUCER	19−Mar−2015 13:08

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HRLA Downlog

Company: Integrated Ocean Discovery Program | Well: Expedition 354, Site U1453A

Input DLIS Files

DEFAULT	Flip_MSS_LDEO_NGS_030LUP	PRODUCER	19−Mar−2015 12:50	3874.6 M	3650.7 M

Output DLIS Files

DEFAULT	MSS_LDEO_NGS_HRLA_035PUP	FN:26	PRODUCER	19−Mar−2015 13:08	183.6 M	−14.5 M

OP System Version: 19C0−187

MSS_LDEO−A	19C0−187	HNGC−B	19C0−187
HNGS−BA	19C0−187	HRLT−B	19C0−187
HLDS	19C0−187	LDSC−B	19C0−187
EDTC−B	SKK−5169−EDTCB		

PIP SUMMARY

Time Mark Every 60 S

HRLT True Resistivity (RT_HRLT)
0.2 (OHMM) 2000

Invaded Zone Resistivity (RXO_HRLT)
0.2 (OHMM) 2000

HRLT Mud Resistivity (RM_HRLT)
0.02 (OHMM) 200

HRLT Resistivity 5 (RLA5)
0.2 (OHMM) 2000

HNGS Spectroscopy Gamma Ray (HSGR)
0 (GAPI) 150

HRLT Resistivity 4 (RLA4)
0.2 (OHMM) 2000

Invasion Diameter (DI_HRLT)
0 (IN) 50

HRLT Resistivity 3 (RLA3)
0.2 (OHMM) 2000

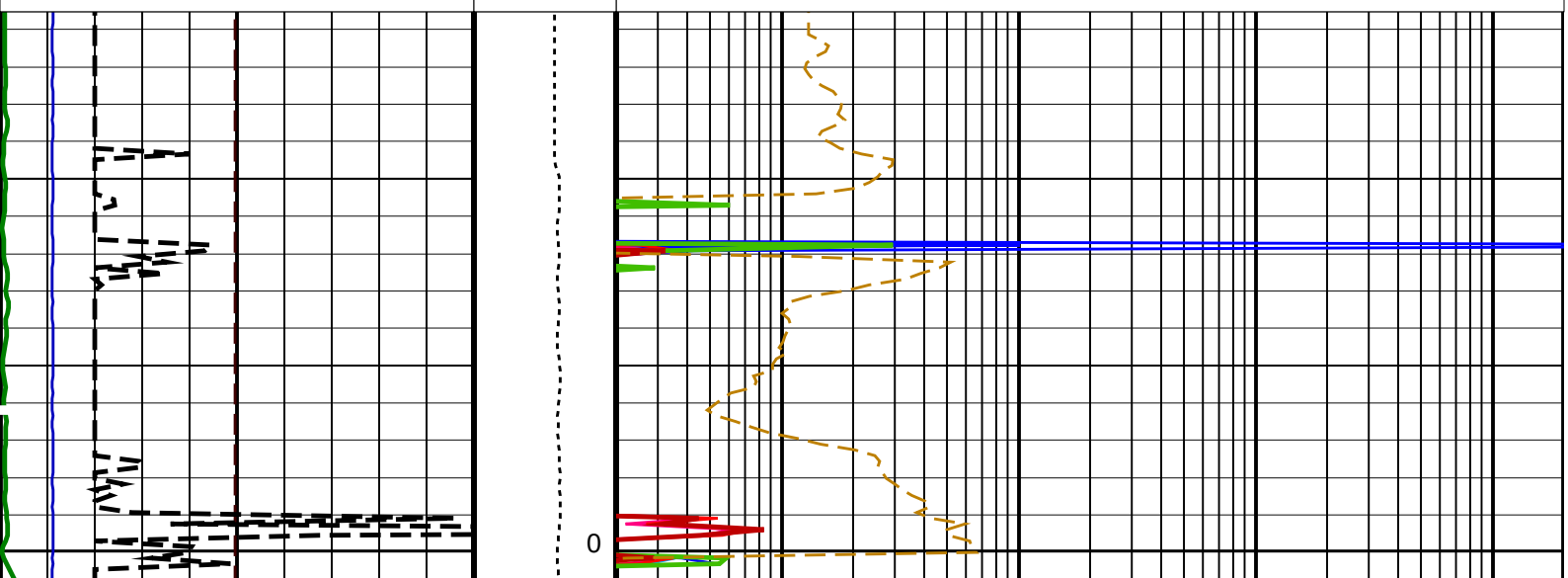
Caliper (LCAL)
0 (IN) 20

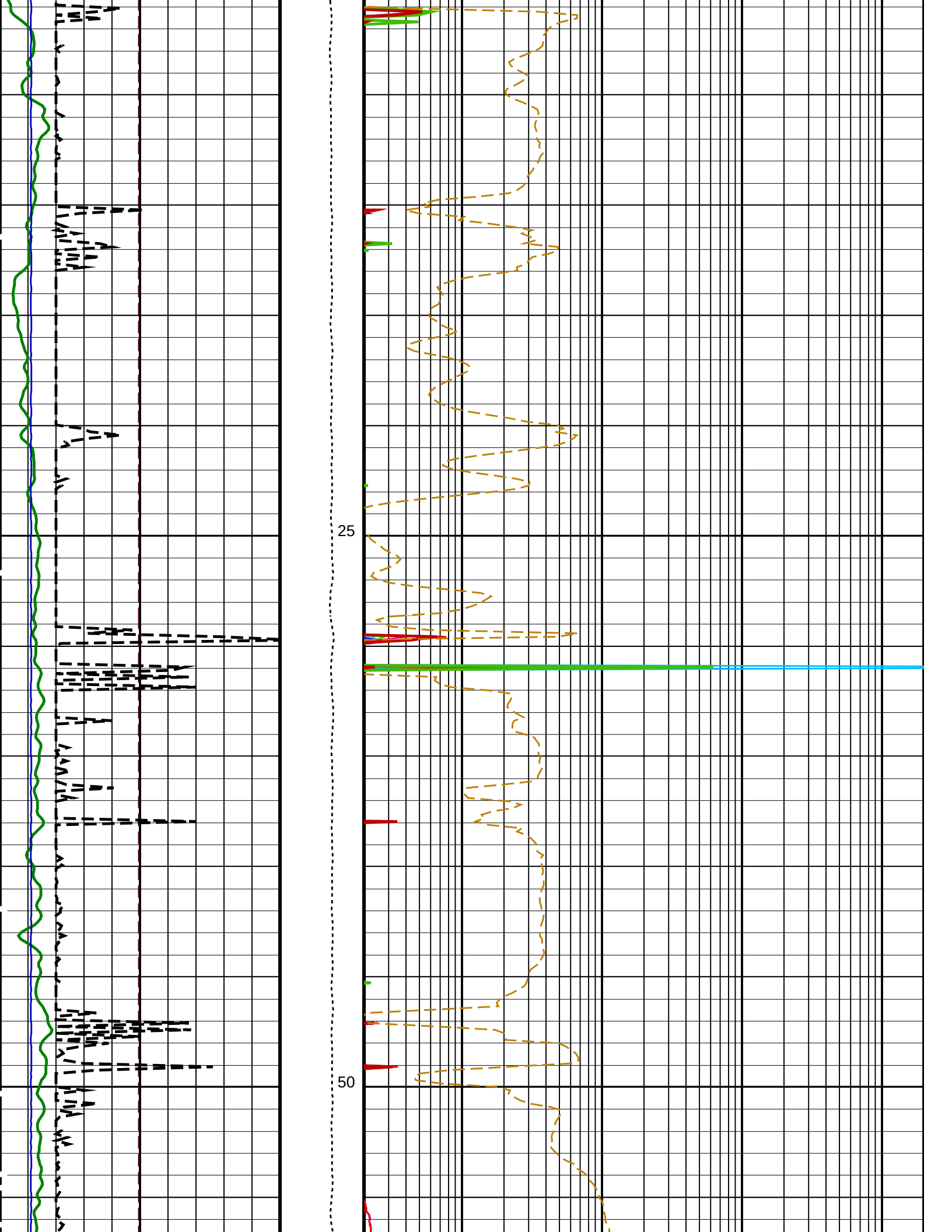
HRLT Resistivity 2 (RLA2)
0.2 (OHMM) 2000

Bit Size (BS)
0 (IN) 20

Tension (TENS) (LBF)
10000 0

HRLT Resistivity 1 (RLA1)
0.2 (OHMM) 2000

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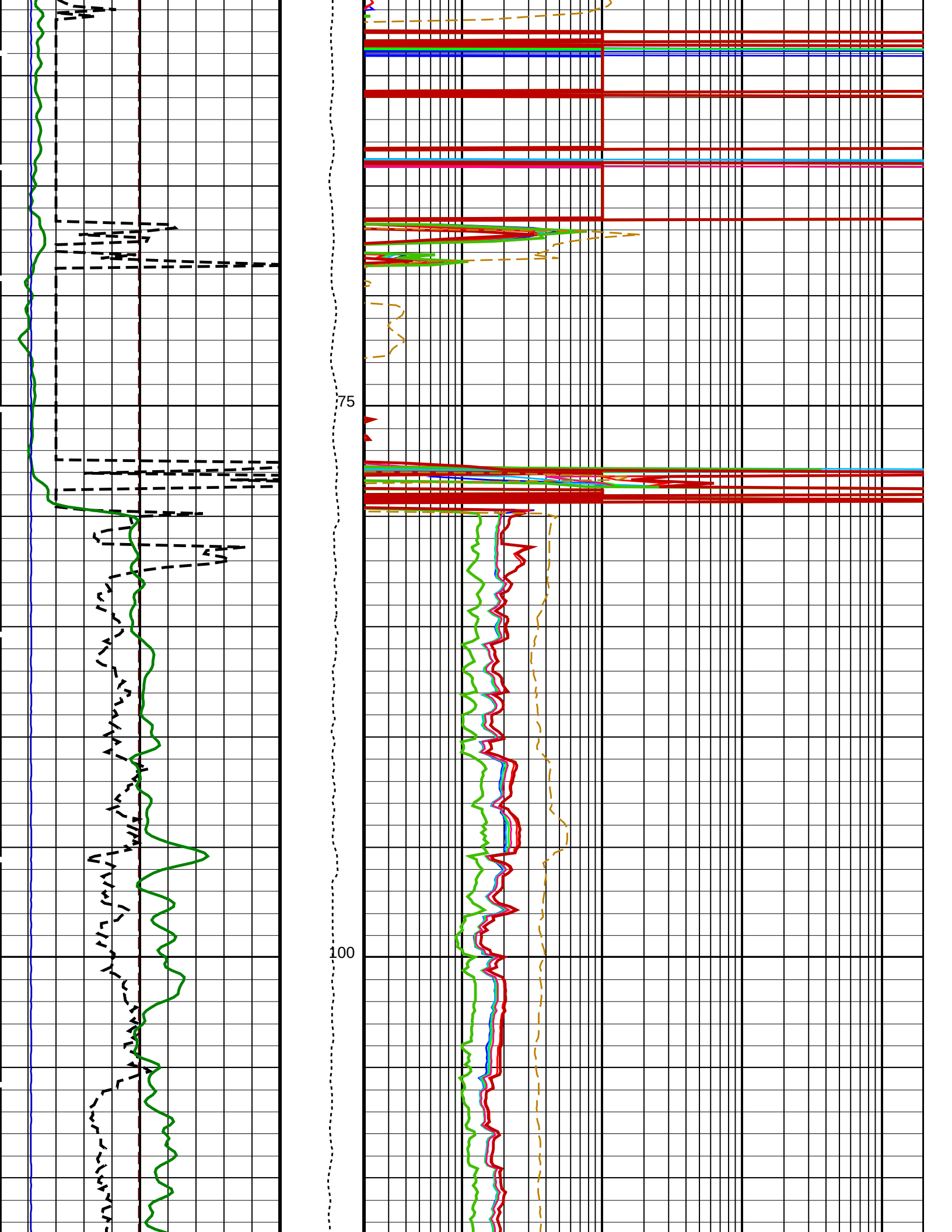
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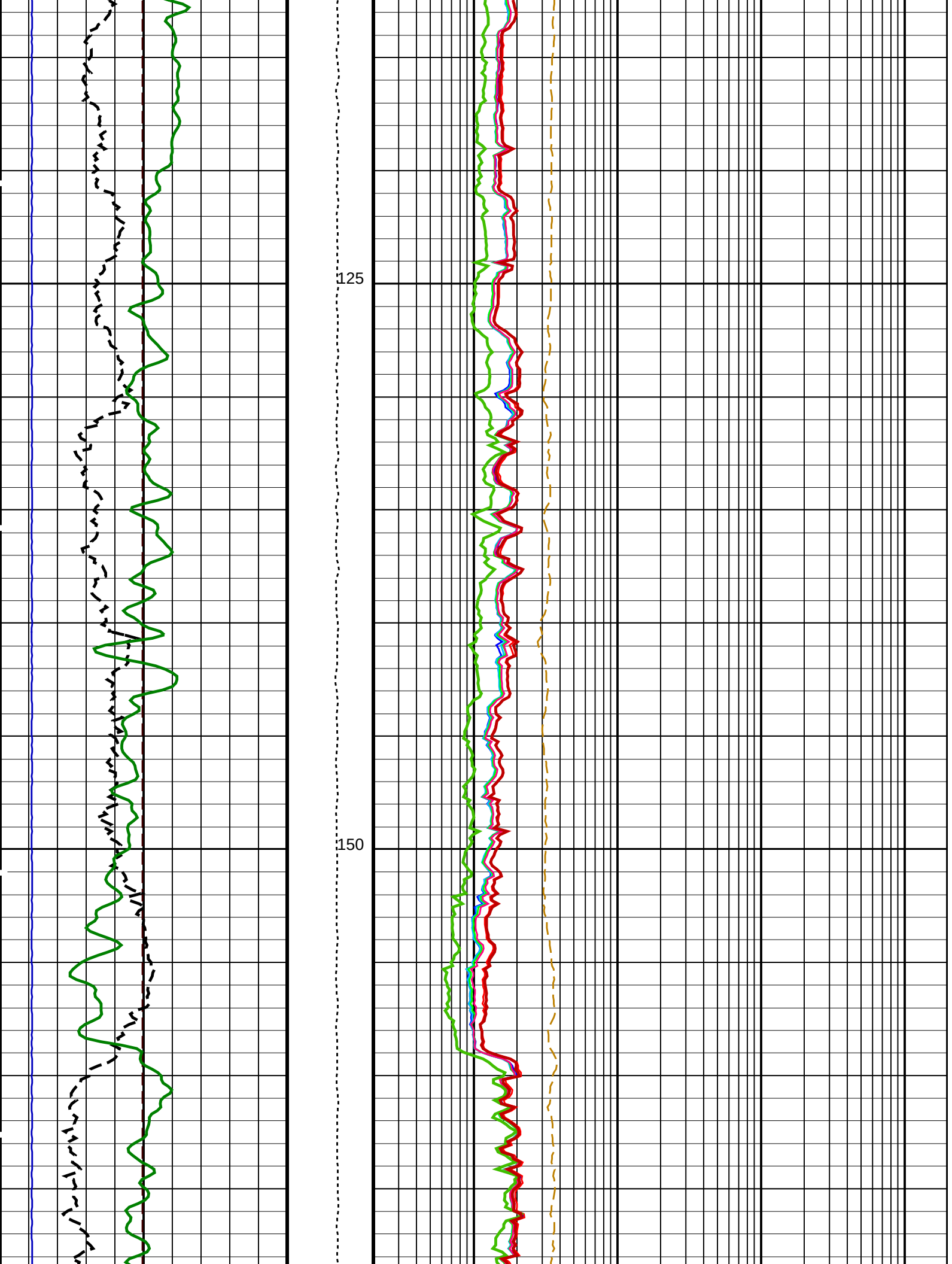
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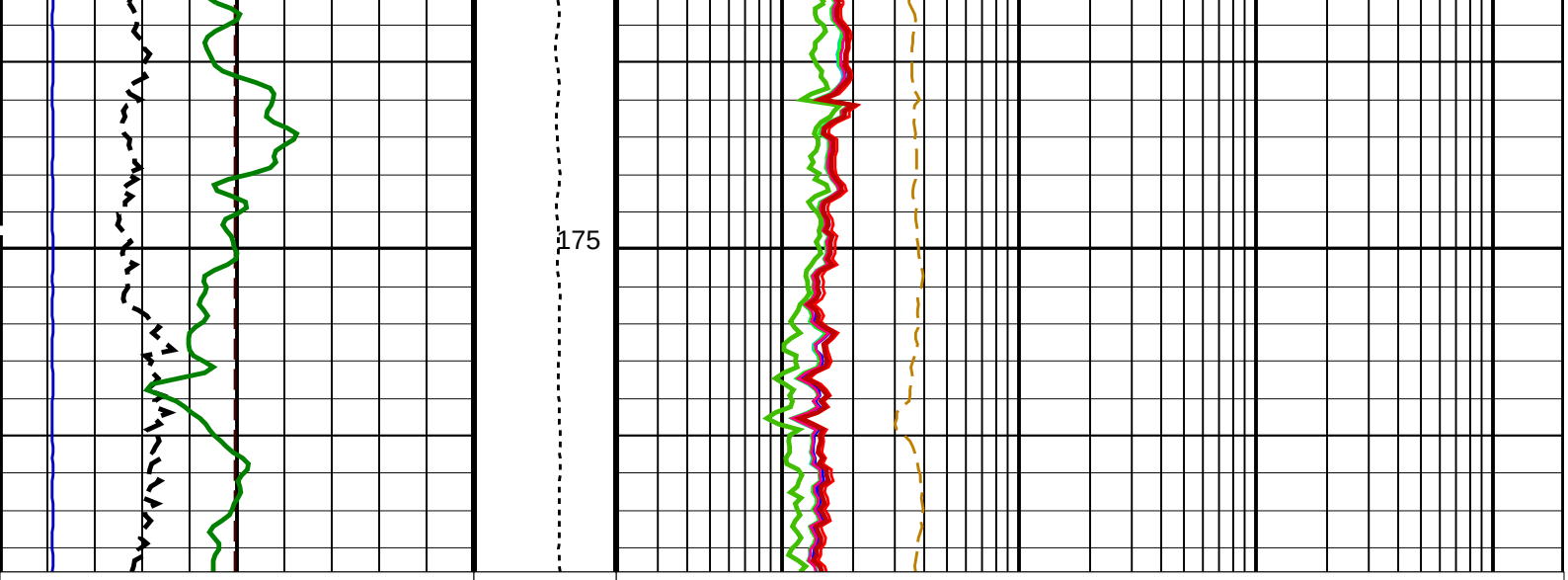

Bit Size (BS)	Tension (TENS)	HRLT Resistivity 1 (RLA1)
0 (IN) 20	10000 (LBF) 0	0.2 (OHMM) 2000
Caliper (LCAL)		HRLT Resistivity 2 (RLA2)
0 (IN) 20		0.2 (OHMM) 2000
Invasion Diameter (DI_HRLT)		HRLT Resistivity 3 (RLA3)
0 (IN) 50		0.2 (OHMM) 2000
HNGS Spectroscopy Gamma Ray (HSGR)		HRLT Resistivity 4 (RLA4)
0 (GAPI) 150		0.2 (OHMM) 2000
		HRLT Resistivity 5 (RLA5)
		0.2 (OHMM) 2000
		HRLT Mud Resistivity (RM_HRLT)
		0.02 (OHMM) 200
		Invaded Zone Resistivity (RXO_HRLT)
		0.2 (OHMM) 2000
		HRLT True Resistivity (RT_HRLT)
		0.2 (OHMM) 2000

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
	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)	60	DEGC
CSD1	Inner Casing Outer Diameter	0	IN
CSD2	Outer Casing Outer Diameter	0	IN
CSW1	Inner Casing Weight	0	LB/F
CSW2	Outer Casing Weight	0	LB/F
DBCC	HNGS Barite Constant Correction Flag	NONE	
GCSE	Generalized Caliper Selection	BS	
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
H1P	HNGS Detector 1 Allow/Disallow In Processing	ALLOW	
H2P	HNGS Detector 2 Allow/Disallow In Processing	ALLOW	
HABK	HNGS Borehole Potassium Running Average	−0.00420981	
HALF	HNGS Alpha Filter Length	60	IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	BARI	

HNPE	HNGS Processing Enable	YES	
S1BI	HNGS Detector 1 Calibration Bismuth Count Rate	1.3	CPS
S2BI	HNGS Detector 2 Calibration Bismuth Count Rate	1.3	CPS
SGRC	HNGS Standard Gamma−Ray Correction Flag	YES	
SHT	Surface Hole Temperature	20	DEGC
TPOS	Tool Position	ECCE	
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	0.888244	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	0.887662	
	HRLT−B: High Resolution Laterolog Array − B		
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	60	DEGC
GCSE	Generalized Caliper Selection	BS	
GGRD	Geothermal Gradient	0.018227	DC/M
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	
PROCSPO	Sonde Position	Eccentered	
SHT	Surface Hole Temperature	20	DEGC
	EDTC−B: Enhanced DTS Cartridge		
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	60	DEGC
GCSE	Generalized Caliper Selection	BS	
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
SHT	Surface Hole Temperature	20	DEGC
	System and Miscellaneous		
BS	Bit Size	9.875	IN
DO	Depth Offset for Playback	−3691.0	M
MST	Mud Sample Temperature	−50000.00	DEGC
PP	Playback Processing	RECOMPUTE	
TD	Total Depth	215.7	M

Format: HRLT Vertical Scale: 1:200 Graphics File Created: 19−Mar−2015 13:08

OP System Version: 19C0−187

MSS_LDEO−A	19C0−187	HNGC−B	19C0−187
HNGS−BA	19C0−187	HRLT−B	19C0−187
HLDS	19C0−187	LDSC−B	19C0−187
EDTC−B	SKK−5169−EDTCB		

Input DLIS Files

DEFAULT	Flip_MSS_LDEO_NGS_030LUP	PRODUCER	19−Mar−2015 12:50	3874.6 M	3650.7 M

Output DLIS Files

DEFAULT	MSS_LDEO_NGS_HRLA_035PUP FN:26	PRODUCER	19−Mar−2015 13:08	

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MSS Downlog

MAXIS Field Log

Company: Integrated Ocean Discovery Program Well: Expedition 354, Site U1453A

Input DLIS Files

DEFAULT	Flip_MSS_LDEO_NGS_030LUP	PRODUCER	19−Mar−2015 12:50	3874.6 M	3650.7 M

Output DLIS Files

DEFAULT	MSS_LDEO_NGS_HRLA_035PUP	FN:26	PRODUCER	19−Mar−2015 13:08	183.6 M	−14.5 M

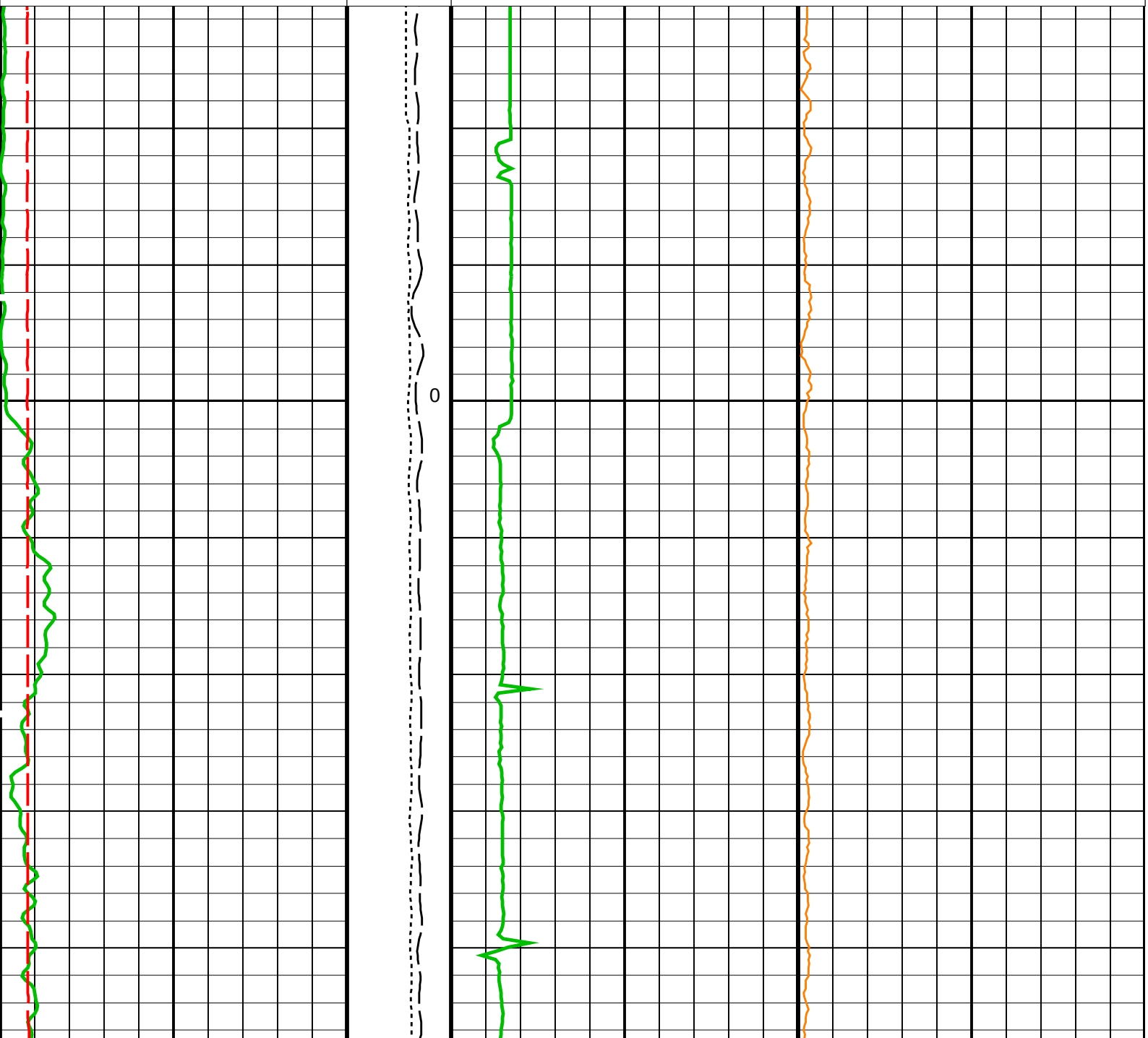
OP System Version: 19C0−187

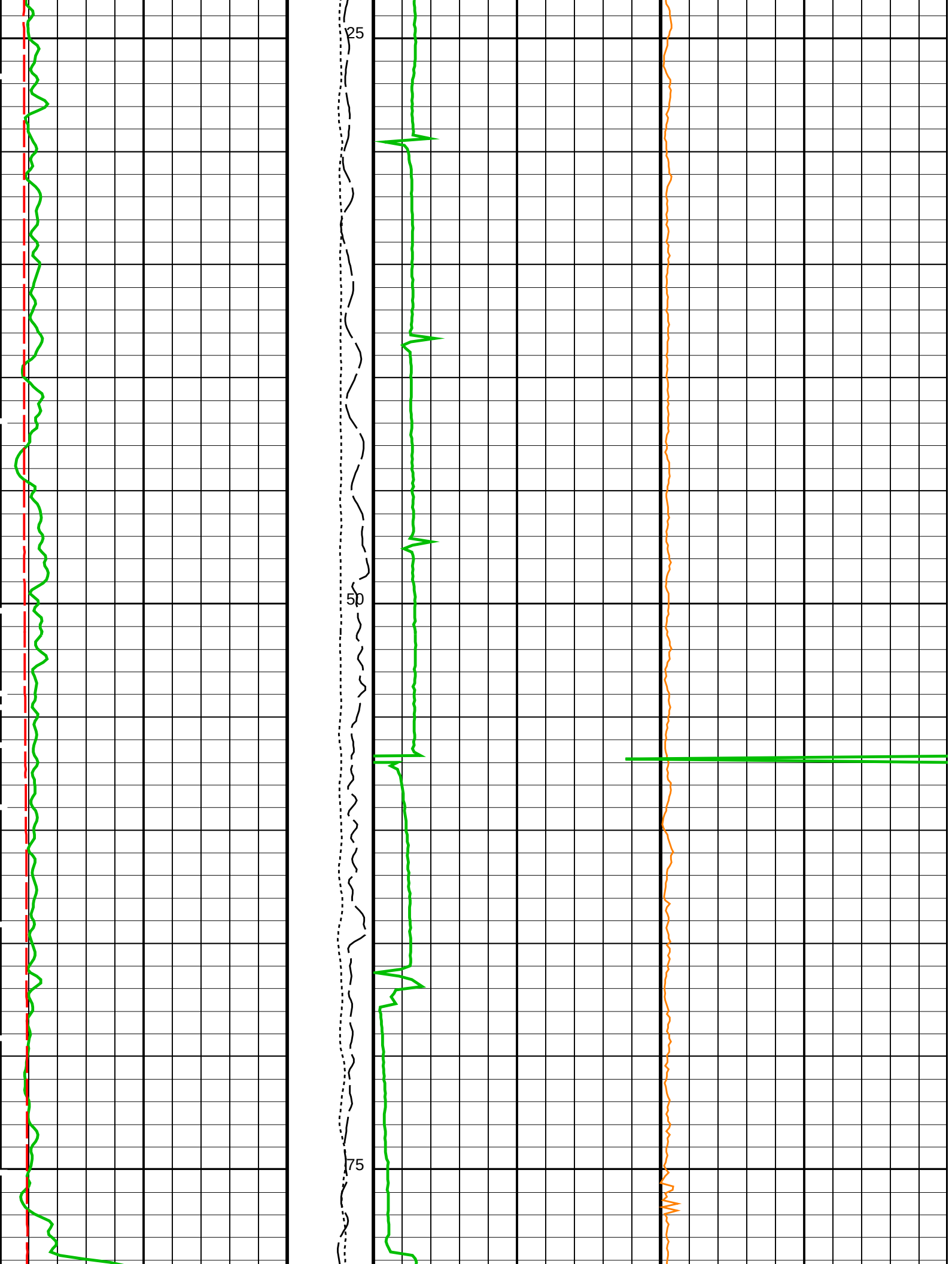
MSS_LDEO−A	19C0−187	HNGC−B	19C0−187
HNGS−BA	19C0−187	HRLT−B	19C0−187
HLDS	19C0−187	LDSC−B	19C0−187
EDTC−B	SKK−5169−EDTCB		

PIP SUMMARY

Time Mark Every 60 S

Gamma Ray (GR_EDTC)	Calibrated Downhole Force (CDF) (LBF)	Dual−Coil Susceptibility (MSSLSUS_LDEO)
0 (GAPI) 150	3000 0	−20000 (PPM) 20000
Mud temperature (MTEM)	**Tension (TENS) (LBF)**	**Axial Acceleration (MSSZACC_LDEO)**
0 (DEGC) 50	10000 0	0 (M/S2) 20

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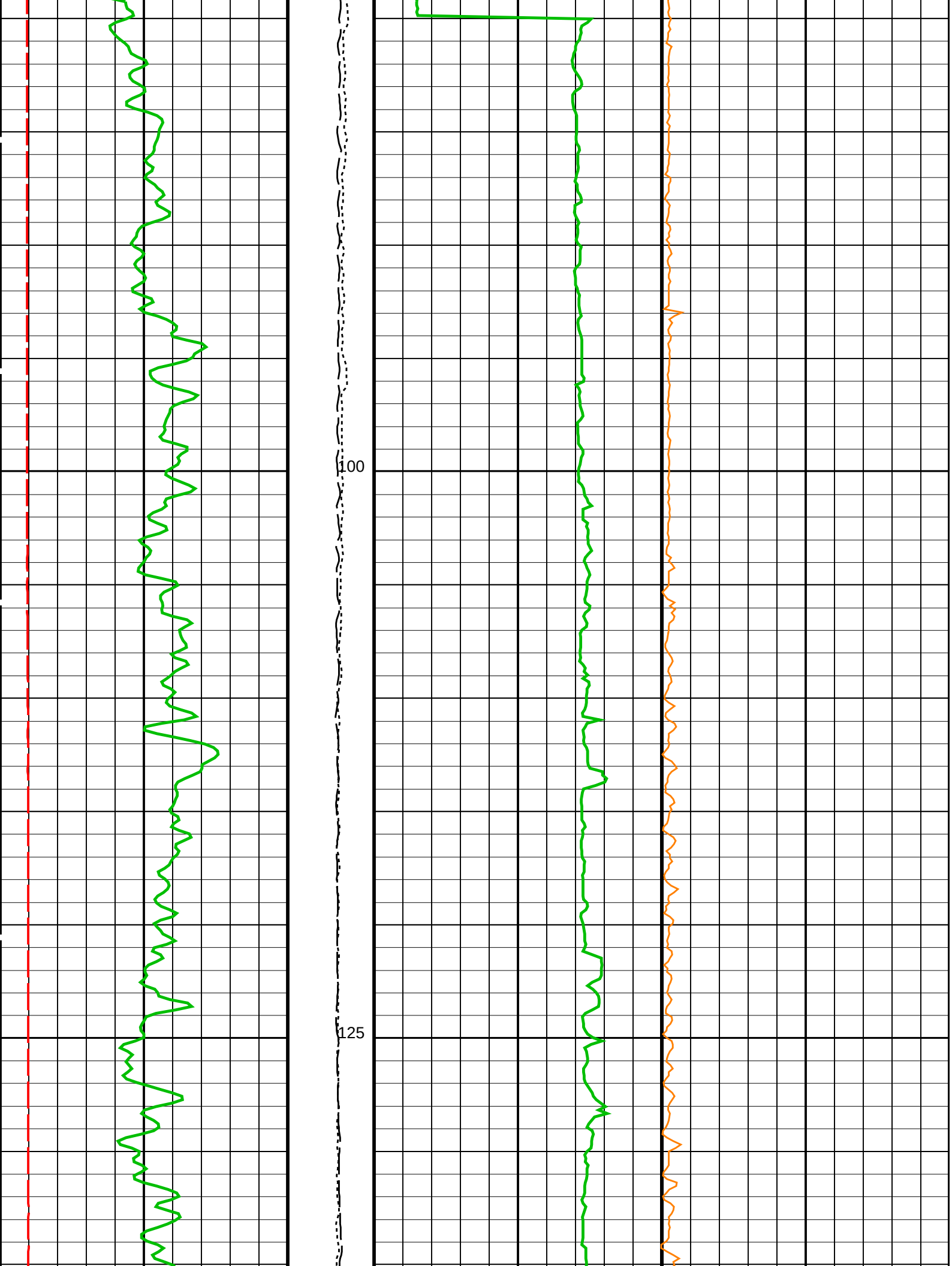
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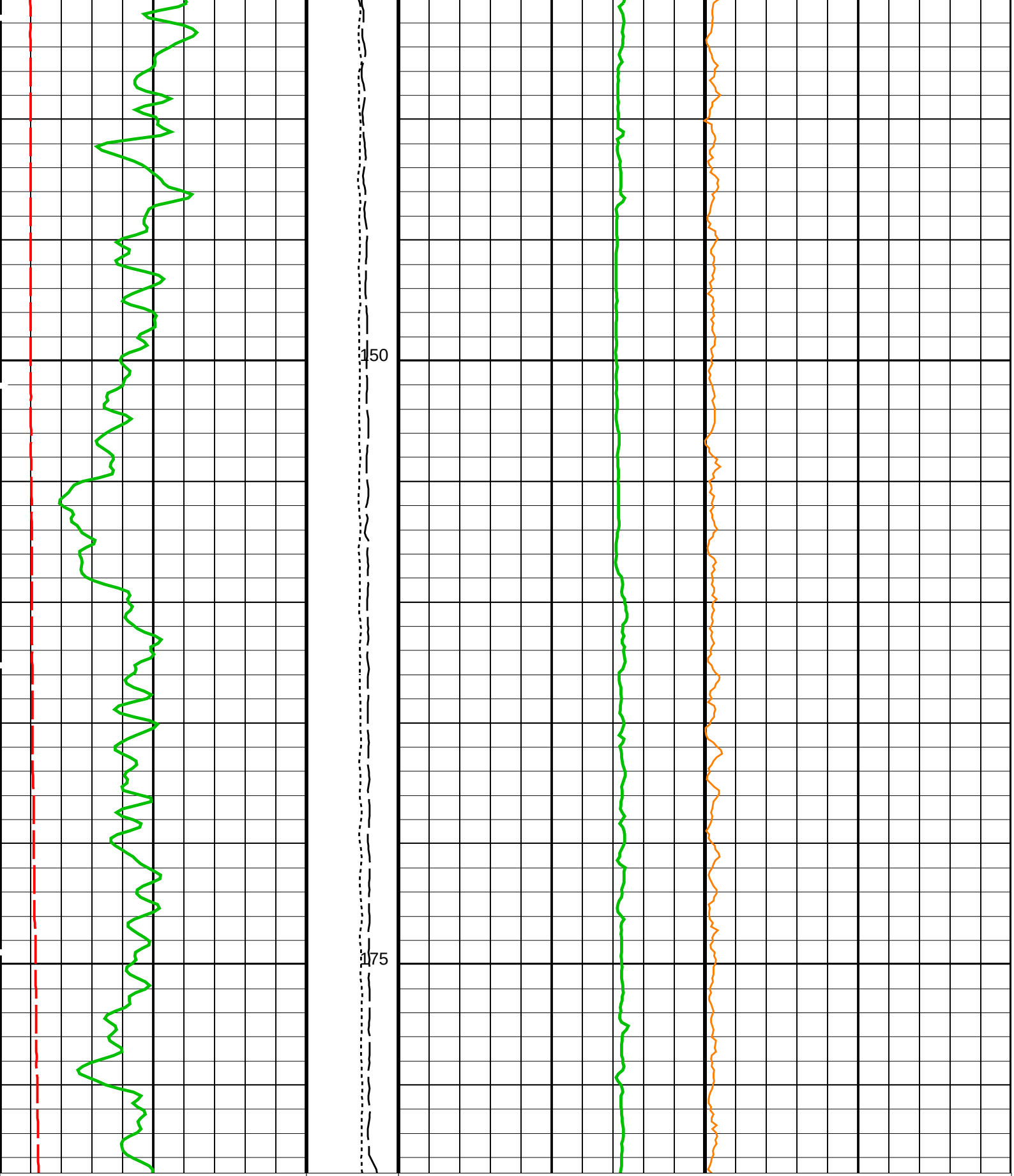


Mud temperature (MTEM)	Tension (TENS)	Axial Acceleration (MSSZACC_LDEO)
0 (DEGC) 50	10000 0 (LBF)	0 (M/S2) 20
Gamma Ray (GR_EDTC)	**Calibrated Downhole Force (CDF)**	**Dual−Coil Susceptibility (MSSLSUS_LDEO)**
0 (GAPI) 150	(LBF)	−20000 (PPM) 20000

(LBF)	
3000	0

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
	HNGS−BA: Hostile Natural Gamma Ray Sonde		
BAR1	HNGS Detector 1 Barite Constant	1	
BAR2	HNGS Detector 2 Barite Constant	1	
BHK	HNGS Borehole Potassium Correction Concentration	0	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	60	DEGC
CSD1	Inner Casing Outer Diameter	0	IN
CSD2	Outer Casing Outer Diameter	0	IN
CSW1	Inner Casing Weight	0	LB/F
CSW2	Outer Casing Weight	0	LB/F
DBCC	HNGS Barite Constant Correction Flag	NONE	
GCSE	Generalized Caliper Selection	BS	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
H1P	HNGS Detector 1 Allow/Disallow In Processing	ALLOW	
H2P	HNGS Detector 2 Allow/Disallow In Processing	ALLOW	
HABK	HNGS Borehole Potassium Running Average	−0.00420981	
HALF	HNGS Alpha Filter Length	60	IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	BARI	
HNPE	HNGS Processing Enable	YES	
ISSBAR	Barite Mud Switch	NOBARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
S1BI	HNGS Detector 1 Calibration Bismuth Count Rate	1.3	CPS
S2BI	HNGS Detector 2 Calibration Bismuth Count Rate	1.3	CPS
SGRC	HNGS Standard Gamma−Ray Correction Flag	YES	
SHT	Surface Hole Temperature	20	DEGC
TPOS	Tool Position	ECCE	
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	0.888244	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	0.887662	
	HRLT−B: High Resolution Laterolog Array − B		
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	60	DEGC
CALSTAT	HRLTB Calibration Status	SHALLOW_DONE	
CALTEMP	HRLTB Calibration Temperature	6.78536	DEGC
FREQ0	HRLT Frequency Index for Mode 0	32	
FREQ1	HRLT Frequency Index for Mode 1	128	
FREQ2	HRLT Frequency Index for Mode 2	104	
FREQ3	HRLT Frequency Index for Mode 3	86	
FREQ4	HRLT Frequency Index for Mode 4	56	
FREQ5	HRLT Frequency Index for Mode 5	44	
FREQ6	HRLT Frequency Index for Mode 6	116	
GCSE	Generalized Caliper Selection	BS	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
ISSBAR	Barite Mud Switch	NOBARITE	
KFAC_HRLT	HRLT K Factor Option	SONDE	
LOOPCOEF_S	HRLT Loop Coefficient for Shallow Modes	LOW	
LOOPMOD0	HRLT Mode 0 Loop Mode	OFF	
LOOPMOD1	HRLT Mode 1 Loop Mode	OFF	
LOOPMOD2	HRLT Mode 2 Loop Mode	OFF	
LOOPMOD3	HRLT Mode 3 Loop Mode	OFF	
LOOPMOD4	HRLT Mode 4 Loop Mode	OFF	
LOOPMOD5	HRLT Mode 5 Loop Mode	OFF	
LOOPMOD6	HRLT Mode 6 Loop Mode	OFF	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
PROCINV	Inversion Selection	ON	
PROCMFL	Inversion Micro−Resistivity Selection	NO_EXTERNAL_RXO	
PROCMSO	Mechanical Standoff Fin Size	0	IN
PROCRM	Processing Mud Resistivity Select	HRLT_Compute	
PROCSPO	Sonde Position	Eccentered	
SHT	Surface Hole Temperature	20	DEGC
	HLDS: Hostile Litho−Density Sonde		
CLCL	HLDS LS Control Loop Controller Mode	AUTO_DEFAULT	
CLCS	HLDS SS Control Loop Controller Mode	AUTO_DEFAULT	
CLLS	HLDS Mode Loop Long Spacing	AUTO	
CLSS	HLDS Mode Loop Short Spacing	AUTO	
DHC	Density Hole Correction	BS	
DPPM	Density Porosity Processing Mode	HIRS	
FD	Fluid Density	1	G/C3

FD	Fluid Density	1	G/C3
LATC	HLDS Activation Correction	ON	
LLDL	HLDS LS Low Level Discriminator DAC	14000	
LLDS	HLDS SS Low Level Discriminator DAC	14000	
LLML	HLDS LS Low Level Discriminator Mode	AUTO	
LLMS	HLDS SS Low Level Discriminator Mode	AUTO	
MDEN	Matrix Density	2.71	G/C3
PHVL	HLDS Long Spacing High Voltage Setting	1000	V
PHVS	HLDS Short Spacing High Voltage Setting	1000	V
PSDL	HLDS LS Pulse Shape Compensation DAC	30000	
PSDS	HLDS SS Pulse Shape Compensation DAC	30000	
PSML	HLDS LS Pulse Shape Compensation Mode	AUTO	
PSMS	HLDS SS Pulse Shape Compensation Mode	AUTO	
EDTC−B: Enhanced DTS Cartridge			
BHFL	Borehole Fluid Type	WATER	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	60	DEGC
BSCO	Borehole Salinity Correction Option	NO	
CCCO	Casing & Cement Thickness Correction Option	NO	
DPPM	Density Porosity Processing Mode	HIRS	
FSAL	Formation Salinity	−50000	PPM
FSCO	Formation Salinity Correction Option	NO	
GCSE	Generalized Caliper Selection	BS	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
HSCO	Hole Size Correction Option	YES	
ISSBAR	Barite Mud Switch	NOBARITE	
ISSBAR_EDTC	Nuclear Mud Type	BARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
MCCO	Mud Cake Correction Option	NO	
MCOR	Mud Correction	BARI	
MWCO	Mud Weight Correction Option	YES	
PTCO	Pressure/Temperature Correction Option	NO	
SDAT	Standoff Data Source	SOCN	
SHT	Surface Hole Temperature	20	DEGC
SOCN	Standoff Distance	0.5	IN
SOCO	Standoff Correction Option	NO	
TPOS_EDTC	EDTC Tool Centered/Eccentered	Eccentered	
U−ETELM_EDTS	Telemetry Mode for eWAFE	Standard_EDTS	
U−TELM_EDTS	Telemetry Mode for WAFE	Standard_EDTS	
System and Miscellaneous			
ALTDPCHAN	Name of alternate depth channel	SpeedCorrectedDepth	
BS	Bit Size	9.875	IN
BSAL	Borehole Salinity	−50000.00	PPM
CSIZ	Current Casing Size	5.500	IN
CWEI	Casing Weight	168.00	LB/F
DFD	Drilling Fluid Density	1.44	G/C3
DO	Depth Offset for Playback	−3691.0	M
FLEV	Fluid Level	−50000.00	M
MST	Mud Sample Temperature	−50000.00	DEGC
PBVSADP	Use alternate depth channel for playback	NO	
PP	Playback Processing	RECOMPUTE	
RMFS	Resistivity of Mud Filtrate Sample	−50000.0000	OHMM
RW	Resistivity of Connate Water	1.0000	OHMM
TD	Total Depth	215.7	M
TDD	Total Depth − Driller	215.70	M
TDL	Total Depth − Logger	215.70	M
TWS	Temperature of Connate Water Sample	37.78	DEGC

Format: MSS_Logging Vertical Scale: 1:200 Graphics File Created: 19−Mar−2015 13:08

OP System Version: 19C0−187

MSS_LDEO−A	19C0−187	HNGC−B	19C0−187
HNGS−BA	19C0−187	HRLT−B	19C0−187
HLDS	19C0−187	LDSC−B	19C0−187
EDTC−B	SKK−5169−EDTCB		

Input DLIS Files

DEFAULT	Flip_MSS_LDEO_NGS_030LUP	PRODUCER	19−Mar−2015 12:50	3874.6 M	3650.7 M

Output DLIS Files

DEFAULT	MSS_LDEO_NGS_HRLA_035PUP FN:26	PRODUCER	19−Mar−2015 13:08	

Schlumberger

Calibrations

MAXIS Field Log

Calibration and Check Summary

Measurement	Nominal	Master	Before	After	Change	Limit	Units
Hostile Natural Gamma Ray Sonde Wellsite Calibration − Detector 1 Check							
Master: 22−Jan−2015 20:16 Before: 10−Mar−2015 19:02 After: 10−Mar−2015 22:34							
Na 511 Peak Loc	40.00	38.74	39.39	39.55	0.1570	1.000	
Na 511 Peak Res	15.50	17.62	16.55	17.02	0.4719	2.000	%
High Voltage	1150	1229	1223	1223	0.7083	N/A	V
Na 1785 Peak Loc	142.6	141.5	142.7	142.2	−0.5279	7.000	
Na 1785 Peak Res	8.500	8.658	9.837	9.447	−0.3898	2.000	%
Temperature	15.50	35.80	33.84	32.58	−1.259	N/A	DEGC
Na Count Rate	45.00	22.06	20.61	20.86	0.2464	8.000	CPS
Hostile Natural Gamma Ray Sonde Wellsite Calibration − Detector 2 Check							
Master: 22−Jan−2015 20:16 Before: 10−Mar−2015 19:02 After: 10−Mar−2015 22:34							
Na 511 Peak Loc	40.00	39.60	39.70	39.49	−0.2152	1.000	
Na 511 Peak Res	15.50	16.72	16.61	16.38	−0.2308	2.000	%
High Voltage	1150	1110	1104	1105	1.433	N/A	V
Na 1785 Peak Loc	142.6	143.1	143.0	143.2	0.1643	7.000	
Na 1785 Peak Res	8.500	9.464	9.179	9.258	0.07925	2.000	%
Temperature	15.50	35.58	33.49	33.17	−0.3187	N/A	DEGC
Na Count Rate	45.00	22.07	20.56	20.86	0.2982	8.000	CPS
Hostile Natural Gamma Ray Sonde Wellsite Calibration − Ratio Of Detector 1 To Detector 2							
Master: 22−Jan−2015 20:16 Before: 10−Mar−2015 19:02 After: 10−Mar−2015 22:34							
Coincidence Count Rate Ratio	1.000	0.9971	1.002	1.000	−0.001547	0.05000	
High Resolution Laterolog Array − B Wellsite Calibration − HRLT M01							
Before: 10−Mar−2015 18:58 After: 10−Mar−2015 22:31							
HRLT M0−M1 Voltage Plus − 0	0	N/A	−318.2	−318.2	−0.008240	9.681	UV
HRLT M0−M1 Voltage Plus − 1	0	N/A	−330.8	−327.0	3.845	9.681	UV
HRLT M0−M1 Voltage Plus − 2	0	N/A	−338.7	−335.3	3.456	9.681	UV
HRLT M0−M1 Voltage Plus − 3	0	N/A	−329.0	−326.5	2.511	9.681	UV
HRLT M0−M1 Voltage Plus − 4	0	N/A	−319.7	−318.8	0.8938	9.681	UV
HRLT M0−M1 Voltage Plus − 5	0	N/A	−321.7	−320.8	0.9210	9.681	UV
HRLT M0−M1 Voltage Plus − 6	0	N/A	320.1	316.9	−3.169	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: 10−Mar−2015 18:58 After: 10−Mar−2015 22:31							
HRLT M1−M2 Voltage Plus − 0	0	N/A	1739	1735	−4.151	53.42	UV
HRLT M1−M2 Voltage Plus − 1	0	N/A	1815	1789	−25.85	53.42	UV
HRLT M1−M2 Voltage Plus − 2	0	N/A	1851	1828	−23.80	53.42	UV
HRLT M1−M2 Voltage Plus − 3	0	N/A	1797	1778	−18.60	53.42	UV
HRLT M1−M2 Voltage Plus − 4	0	N/A	1745	1736	−9.069	53.42	UV
HRLT M1−M2 Voltage Plus − 5	0	N/A	1756	1747	−9.094	53.42	UV
HRLT M1−M2 Voltage Plus − 6	0	N/A	−1764	−1742	22.41	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: 10−Mar−2015 18:58 After: 10−Mar−2015 22:31							
HRLT M2−M3 Voltage Plus − 0	0	N/A	1730	1728	−2.509	53.42	UV
HRLT M2−M3 Voltage Plus − 1	0	N/A	1817	1792	−25.18	53.42	UV
HRLT M2−M3 Voltage Plus − 2	0	N/A	1855	1832	−22.85	53.42	UV
HRLT M2−M3 Voltage Plus − 3	0	N/A	1803	1786	−17.27	53.42	UV
HRLT M2−M3 Voltage Plus − 4	0	N/A	1746	1738	−7.520	53.42	UV
HRLT M2−M3 Voltage Plus − 5	0	N/A	1758	1751	−7.457	53.42	UV
HRLT M2−M3 Voltage Plus − 6	0	N/A	−1754	−1733	21.33	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: 10−Mar−2015 18:58 After: 10−Mar−2015 22:31							
HRLT A3−A4 Voltage Plus − 0	0	N/A	68590	68500	−90.34	2100	UV
HRLT A3−A4 Voltage Plus − 1	0	N/A	71820	70850	−969.2	2100	UV

HRLT A3−A4 Voltage Plus − 2	0	N/A	73620	72770	−855.3	2100	UV
HRLT A3−A4 Voltage Plus − 3	0	N/A	71840	71210	−630.0	2100	UV
HRLT A3−A4 Voltage Plus − 4	0	N/A	69500	69230	−274.1	2100	UV
HRLT A3−A4 Voltage Plus − 5	0	N/A	70000	69730	−264.1	2100	UV
HRLT A3−A4 Voltage Plus − 6	0	N/A	−68380	−67590	794.9	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: 10−Mar−2015 18:58 After: 10−Mar−2015 22:31

HRLT A4−A5 Voltage Plus − 0	0	N/A	68660	68570	−90.33	2100	UV
HRLT A4−A5 Voltage Plus − 1	0	N/A	72030	71050	−976.5	2100	UV
HRLT A4−A5 Voltage Plus − 2	0	N/A	73810	72950	−862.6	2100	UV
HRLT A4−A5 Voltage Plus − 3	0	N/A	72010	71330	−679.3	2100	UV
HRLT A4−A5 Voltage Plus − 4	0	N/A	69620	69340	−284.1	2100	UV
HRLT A4−A5 Voltage Plus − 5	0	N/A	70100	69830	−269.2	2100	UV
HRLT A4−A5 Voltage Plus − 6	0	N/A	−68580	−67790	793.1	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: 10−Mar−2015 18:58 After: 10−Mar−2015 22:31

HRLT A5−A6 Voltage Plus − 0	0	N/A	68510	68430	−85.93	2100	UV
HRLT A5−A6 Voltage Plus − 1	0	N/A	71860	70910	−954.6	2100	UV
HRLT A5−A6 Voltage Plus − 2	0	N/A	73630	72780	−850.3	2100	UV
HRLT A5−A6 Voltage Plus − 3	0	N/A	71860	71210	−640.6	2100	UV
HRLT A5−A6 Voltage Plus − 4	0	N/A	69490	69200	−292.1	2100	UV
HRLT A5−A6 Voltage Plus − 5	0	N/A	69990	69710	−282.8	2100	UV
HRLT A5−A6 Voltage Plus − 6	0	N/A	−68430	−67640	793.1	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: 10−Mar−2015 18:58 After: 10−Mar−2015 22:31

HRLT Torpedo−M0 Voltage − 0	0	N/A	−68050	−67980	70.68	2100	UV
HRLT Torpedo−M0 Voltage − 1	0	N/A	−71690	−70740	948.4	2100	UV
HRLT Torpedo−M0 Voltage − 2	0	N/A	−73500	−72640	860.3	2100	UV
HRLT Torpedo−M0 Voltage − 3	0	N/A	−71790	−71130	660.4	2100	UV
HRLT Torpedo−M0 Voltage − 4	0	N/A	−69450	−69170	282.1	2100	UV
HRLT Torpedo−M0 Voltage − 5	0	N/A	−69940	−69670	272.0	2100	UV
HRLT Torpedo−M0 Voltage − 6	0	N/A	68210	67420	−796.6	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: 10−Mar−2015 18:58 After: 10−Mar−2015 22:31

HRLT Bridle#9−M0 Voltage − 0	0	N/A	−68090	−68010	73.68	2100	UV
HRLT Bridle#9−M0 Voltage − 1	0	N/A	−71780	−70820	966.7	2100	UV
HRLT Bridle#9−M0 Voltage − 2	0	N/A	−73590	−72740	852.5	2100	UV
HRLT Bridle#9−M0 Voltage − 3	0	N/A	−71860	−71210	648.8	2100	UV
HRLT Bridle#9−M0 Voltage − 4	0	N/A	−69490	−69220	275.7	2100	UV
HRLT Bridle#9−M0 Voltage − 5	0	N/A	−69970	−69710	257.2	2100	UV
HRLT Bridle#9−M0 Voltage − 6	0	N/A	68300	67510	−793.2	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: 10−Mar−2015 18:58 After: 10−Mar−2015 22:31

HRLT Source Current Plus − 0	0	N/A	284.0	283.9	−0.1181	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: 10−Mar−2015 18:58 After: 10−Mar−2015 22:31

HRLT Vertical Voltage Pl − 0	0	N/A	−320.3	−319.9	0.3908	9.681	UV
HRLT Vertical Voltage Pl − 1	0	N/A	−325.9	−321.5	4.325	9.681	UV
HRLT Vertical Voltage Pl − 2	0	N/A	−332.5	−328.4	4.052	9.681	UV
HRLT Vertical Voltage Pl − 3	0	N/A	−321.1	−318.1	3.009	9.681	UV
HRLT Vertical Voltage Pl − 4	0	N/A	−309.1	−307.8	1.327	9.681	UV
HRLT Vertical Voltage Pl − 5	0	N/A	−325.8	−324.6	1.229	9.681	UV
HRLT Vertical Voltage Pl − 6	0	N/A	327.9	324.1	−3.792	9.681	UV
HRLT Vertical Voltage Pl − 7	0	N/A	−322.7	−322.7	0	9.681	UV

Hostile Litho−Density Sonde Wellsite Calibration − Background Measurement
Master: 23−Jan−2015 21:08 Before: 10−Mar−2015 19:01 After: 10−Mar−2015 22:33

SS Cs Resolution Bkg	9.000	8.081	8.088	8.022	−0.06534	1.800	%
LS Cs Resolution Bkg	9.000	8.162	8.196	8.261	0.06447	1.800	%
LSW1 Background	100.0	69.10	68.64	67.60	−1.032	3.000	CPS
LSW2 Background	100.0	64.88	62.89	62.34	−0.5422	3.000	CPS
LSW3 Background	200.0	140.5	138.5	139.2	0.7610	6.000	CPS
LSW4 Background	250.0	169.3	170.3	167.8	−2.519	7.500	CPS
LSW5 Background	600.0	389.5	387.7	387.5	−0.1760	18.00	CPS

LSW5 Background	600.0	389.5	387.7	387.5	−0.1760	18.00	CPS
SSW1 Background	100.0	77.29	76.79	77.36	0.5714	3.000	CPS
SSW2 Background	200.0	137.8	137.5	138.3	0.7855	6.000	CPS
SSW3 Background	500.0	368.5	362.9	366.0	3.158	15.00	CPS
SSW4 Background	270.0	192.4	191.1	190.3	−0.8103	8.100	CPS
SSW5 Background	200.0	140.4	139.5	137.7	−1.809	6.000	CPS
Hostile Litho−Density Sonde Wellsite Calibration − Aluminum Measurement							
Master: 23−Jan−2015 21:34							
LSW1 Aluminum	600.0	515.7	N/A	N/A	N/A	N/A	CPS
LSW2 Aluminum	900.0	731.8	N/A	N/A	N/A	N/A	CPS
LSW3 Aluminum	1100	887.1	N/A	N/A	N/A	N/A	CPS
LSW4 Aluminum	580.0	446.6	N/A	N/A	N/A	N/A	CPS
LSW5 Aluminum	570.0	407.1	N/A	N/A	N/A	N/A	CPS
SSW1 Aluminum	2800	2394	N/A	N/A	N/A	N/A	CPS
SSW2 Aluminum	8000	6426	N/A	N/A	N/A	N/A	CPS
SSW3 Aluminum	11600	8895	N/A	N/A	N/A	N/A	CPS
SSW4 Aluminum	5000	3620	N/A	N/A	N/A	N/A	CPS
SSW5 Aluminum	660.0	436.5	N/A	N/A	N/A	N/A	CPS
Hostile Litho−Density Sonde Wellsite Calibration − Lithology Measurement							
Master: 23−Jan−2015 21:28							
LSW1 Iron	400.0	347.7	N/A	N/A	N/A	N/A	CPS
LSW2 Iron	730.0	591.4	N/A	N/A	N/A	N/A	CPS
LSW3 Iron	1000	781.6	N/A	N/A	N/A	N/A	CPS
LSW4 Iron	520.0	407.3	N/A	N/A	N/A	N/A	CPS
LSW5 Iron	470.0	371.5	N/A	N/A	N/A	N/A	CPS
SSW1 Iron	2100	1739	N/A	N/A	N/A	N/A	CPS
SSW2 Iron	6800	5360	N/A	N/A	N/A	N/A	CPS
SSW3 Iron	10800	8087	N/A	N/A	N/A	N/A	CPS
SSW4 Iron	4600	3293	N/A	N/A	N/A	N/A	CPS
SSW5 Iron	580.0	387.2	N/A	N/A	N/A	N/A	CPS
Hostile Litho−Density Sonde Wellsite Calibration − Caliper Calibration							
Before: 23−Jan−2015 23:41							
HLDS Caliper Small Ring	12.00	N/A	14.75	N/A	N/A	N/A	IN
HLDS Caliper Large Ring	15.19	N/A	18.30	N/A	N/A	N/A	IN
Enhanced DTS Cartridge Wellsite Calibration − EDTC Accelerometer Calibration							
Before: 17−Mar−2015 6:04							
EDTC Z−Axis Acceleration	9.810	N/A	9.726	N/A	N/A	N/A	M/S2
Enhanced DTS Cartridge Wellsite Calibration − Detector Calibration							
Before: 10−Mar−2015 19:00 After: Calibration out of date 22−Jan−2015 21:00							
Gamma Ray (Jig − Bkg)	155.6	N/A	155.6	151.3	−4.280	14.15	GAPI
Gamma Ray (Calibrated)	165.0	N/A	165.0	160.5	−4.539	15.00	GAPI

Hostile Natural Gamma Ray Cartridge − B / Equipment Identification

Primary Equipment:		
HNGC Cartridge	HNGC − B	439
Auxiliary Equipment:		
HNGC Housing	HNGH − A	380

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	616008

Hostile Natural Gamma Ray Sonde Wellsite Calibration

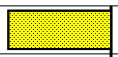
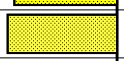
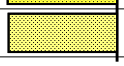
Detector 1 Check

Phase	Na 511 Peak Loc	Value	Phase	Na 511 Peak Res %	Value	Phase	High Voltage V	Value
Master		38.74	Master		17.62	Master		1229
Before		39.39	Before		16.55	Before		1223
After		39.55	After		17.02	After		1223
	37.50 40.00 43.50			12.00 15.50 19.00			900.0 1150 1600	

Phase	Na 1785 Peak Loc	Value
Master		141.5
Before		142.7
After		142.2
135.0 (Minimum)	142.6 (Nominal)	150.3 (Maximum)

Phase	Na 1785 Peak Res %	Value
Master		8.658
Before		9.837
After		9.447
7.000 (Minimum)	8.500 (Nominal)	11.00 (Maximum)

Phase	Temperature DEGC	Value
Master		35.80
Before		33.84
After		32.58
−28.89 (Minimum)	15.50 (Nominal)	60.00 (Maximum)

Phase	Na Count Rate CPS	Value
Master		22.06
Before		20.61
After		20.86
10.00 (Minimum)	45.00 (Nominal)	100.0 (Maximum)

Master: 22−Jan−2015 20:16 Before: 10−Mar−2015 19:02 After: 10−Mar−2015 22:34

Hostile Natural Gamma Ray Sonde Wellsite Calibration

Detector 2 Check

Phase	Na 511 Peak Loc	Value
Master		39.60
Before		39.70
After		39.49
37.50 (Minimum)	40.00 (Nominal)	43.50 (Maximum)

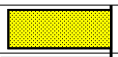
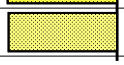
Phase	Na 511 Peak Res %	Value
Master		16.72
Before		16.61
After		16.38
12.00 (Minimum)	15.50 (Nominal)	19.00 (Maximum)

Phase	High Voltage V	Value
Master		1110
Before		1104
After		1105
900.0 (Minimum)	1150 (Nominal)	1600 (Maximum)

Phase	Na 1785 Peak Loc	Value
Master		143.1
Before		143.0
After		143.2
135.0 (Minimum)	142.6 (Nominal)	150.3 (Maximum)

Phase	Na 1785 Peak Res %	Value
Master		9.464
Before		9.179
After		9.258
7.000 (Minimum)	8.500 (Nominal)	11.00 (Maximum)

Phase	Temperature DEGC	Value
Master		35.58
Before		33.49
After		33.17
−28.89 (Minimum)	15.50 (Nominal)	60.00 (Maximum)

Phase	Na Count Rate CPS	Value
Master		22.07
Before		20.56
After		20.86
10.00 (Minimum)	45.00 (Nominal)	100.0 (Maximum)

Master: 22−Jan−2015 20:16 Before: 10−Mar−2015 19:02 After: 10−Mar−2015 22:34

Hostile Natural Gamma Ray Sonde Wellsite Calibration

Ratio Of Detector 1 To Detector 2

Phase	Coincidence Count Rate Ratio	Value
Master		0.9971
Before		1.002
After		1.000
0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)

Master: 22−Jan−2015 20:16

Before: 10−Mar−2015 19:02

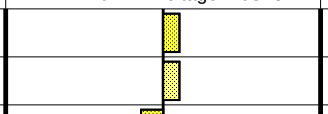
After: 10−Mar−2015 22:34

High Resolution Laterolog Array − B / Equipment Identification

Primary Equipment:		
HRLT Sonde	HRLS − B	768
Auxiliary Equipment:		
HRLT lower Housing	HRLH − B	968
HRLT Lower Cartridge	HRLC − B	974
HRLT upper Housing	HRUH − B	768
HRLT Upper Cartridge	HRUC − B	764

High Resolution Laterolog Array − B Wellsite Calibration

HRLT M01

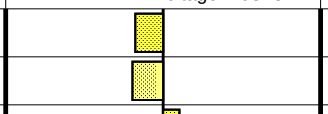
Idx	Phase	HRLT M0−M1 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		−318.2	−322.7	−280.7	−379.7
	After		−318.2			
1	Before		−330.8	−322.7	−280.7	−379.7
	After		−327.0			
2	Before		−338.7	−322.7	−280.7	−379.7
	After		−335.3			
3	Before		−329.0	−322.7	−280.7	−379.7
	After		−326.5			
4	Before		−319.7	−322.7	−280.7	−379.7
	After		−318.8			
5	Before		−321.7	−322.7	−280.7	−379.7
	After		−320.8			
6	Before		320.1	322.7	379.7	280.7
	After		316.9			
7	Before		−322.7	−322.7	−280.7	−379.7
	After		−322.7			
		(Minimum) (Nominal) (Maximum)				

Before: 10−Mar−2015 18:58

After: 10−Mar−2015 22:31

High Resolution Laterolog Array − B Wellsite Calibration

HRLT M12

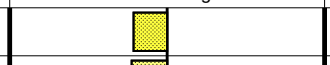
Idx	Phase	HRLT M1−M2 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		1739	1781	2095	1549
	After		1735			
1	Before		1815	1781	2095	1549
	After		1789			
2	Before		1851	1781	2095	1549
	After		1828			
3	Before		1797	1781	2095	1549
	After		1778			
4	Before		1745	1781	2095	1549
	After		1736			
5	Before		1756	1781	2095	1549
	After		1747			
6	Before		−1764	−1781	−1549	−2095
	After		−1742			
7	Before		1781	1781	2095	1549
	After		1781			
		(Minimum) (Nominal) (Maximum)				

Before: 10−Mar−2015 18:58

After: 10−Mar−2015 22:31

High Resolution Laterolog Array − B Wellsite Calibration

HRLT M23

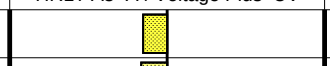
Idx	Phase	HRLT M2−M3 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		1730	1781	2095	1549
	After		1728			
1	Before		1817	1781	2095	1549
	After		1792			
2	Before		1855	1781	2095	1549
	After		1832			
3	Before		1803	1781	2095	1549
	After		1786			
4	Before		1746	1781	2095	1549
	After		1738			
5	Before		1758	1781	2095	1549
	After		1751			
6	Before		−1754	−1781	−1549	−2095
	After		−1733			
7	Before		1781	1781	2095	1549
	After		1781			
		(Minimum) (Nominal) (Maximum)				

Before: 10−Mar−2015 18:58

After: 10−Mar−2015 22:31

High Resolution Laterolog Array − B Wellsite Calibration

HRLT V34

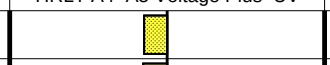
Idx	Phase	HRLT A3−A4 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		68590	70000	82360	60900
	After		68500			
1	Before		71820	70000	82360	60900
	After		70850			
2	Before		73620	70000	82360	60900
	After		72770			
3	Before		71840	70000	82360	60900
	After		71210			
4	Before		69500	70000	82360	60900
	After		69230			
5	Before		70000	70000	82360	60900
	After		69730			
6	Before		−68380	−70000	−60900	−82360
	After		−67590			
7	Before		70000	70000	82360	60900
	After		70000			
		(Minimum) (Nominal) (Maximum)				

Before: 10−Mar−2015 18:58

After: 10−Mar−2015 22:31

High Resolution Laterolog Array − B Wellsite Calibration

HRLT V45

Idx	Phase	HRLT A4−A5 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		68660	70000	82360	60900
	After					

	After	68570			
1	Before	72030	70000	82360	60900
	After	71050			
2	Before	73810	70000	82360	60900
	After	72950			
3	Before	72010	70000	82360	60900
	After	71330			
4	Before	69620	70000	82360	60900
	After	69340			
5	Before	70100	70000	82360	60900
	After	69830			
6	Before	−68580	−70000	−60900	−82360
	After	−67790			
7	Before	70000	70000	82360	60900
	After	70000			
	(Minimum) (Nominal) (Maximum)				

Before: 10−Mar−2015 18:58

After: 10−Mar−2015 22:31

High Resolution Laterolog Array − B Wellsite Calibration

HRLT V56

Idx	Phase	HRLT A5−A6 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		68510	70000	82360	60900
	After		68430			
1	Before		71860	70000	82360	60900
	After		70910			
2	Before		73630	70000	82360	60900
	After		72780			
3	Before		71860	70000	82360	60900
	After		71210			
4	Before		69490	70000	82360	60900
	After		69200			
5	Before		69990	70000	82360	60900
	After		69710			
6	Before		−68430	−70000	−60900	−82360
	After		−67640			
7	Before		70000	70000	82360	60900
	After		70000			
	(Minimum) (Nominal) (Maximum)					

Before: 10−Mar−2015 18:58

After: 10−Mar−2015 22:31

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		−67980			
1	Before		−71690	−70000	−60900	−82360

	After	−70740			
2	Before	−73500	−70000	−60900	−82360
	After	−72640			
3	Before	−71790	−70000	−60900	−82360
	After	−71130			
4	Before	−69450	−70000	−60900	−82360
	After	−69170			
5	Before	−69940	−70000	−60900	−82360
	After	−69670			
6	Before	68210	70000	82360	60900
	After	67420			
7	Before	−70000	−70000	−60900	−82360
	After	−70000			
	(Minimum) (Nominal) (Maximum)				

Before: 10−Mar−2015 18:58

After: 10−Mar−2015 22:31

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		−68010			
1	Before		−71780	−70000	−60900	−82360
	After		−70820			
2	Before		−73590	−70000	−60900	−82360
	After		−72740			
3	Before		−71860	−70000	−60900	−82360
	After		−71210			
4	Before		−69490	−70000	−60900	−82360
	After		−69220			
5	Before		−69970	−70000	−60900	−82360
	After		−69710			
6	Before		68300	70000	82360	60900
	After		67510			
7	Before		−70000	−70000	−60900	−82360
	After		−70000			
	(Minimum) (Nominal) (Maximum)					

Before: 10−Mar−2015 18:58

After: 10−Mar−2015 22:31

High Resolution Laterolog Array − B Wellsite Calibration

HRLT ISO

Idx	Phase	HRLT Source Current Plus UA	Value	Nominal	Maximum	Minimum
0	Before		284.0	284.0	334.1	247.0
	After		283.9			
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: 10−Mar−2015 18:58

After: 10−Mar−2015 22:31

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		−319.9			
1	Before		−325.9	−322.7	−280.7	−379.7
	After		−321.5			
2	Before		−332.5	−322.7	−280.7	−379.7
	After		−328.4			
3	Before		−321.1	−322.7	−280.7	−379.7
	After		−318.1			
4	Before		−309.1	−322.7	−280.7	−379.7
	After		−307.8			
5	Before		−325.8	−322.7	−280.7	−379.7
	After		−324.6			
6	Before		327.9	322.7	379.7	280.7
	After		324.1			
7	Before		−322.7	−322.7	−280.7	−379.7
	After		−322.7			
	(Minimum) (Nominal) (Maximum)					

Before: 10−Mar−2015 18:58

After: 10−Mar−2015 22:31

Hostile Litho−Density Sonde / Equipment Identification

Primary Equipment:

Hostile Litho Density Sonde	HLDS − D	45
Hostile Litho Density High Voltage	HLDV − D	45
Gamma Source Radioactive	GSR − Z	8113

Auxiliary Equipment:

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

Hostile Litho−Density Sonde Wellsite Calibration

Background Measurement

Phase	SS Ca Resolution Bkg, %	Value	Phase	LS Ca Resolution Bkg, %	Value	Phase	LSW1 Background, CPS	Value

Phase	SS Cs Resolution Bkg %	Value
Master		8.081
Before		8.088
After		8.022
7.000 (Minimum)	9.000 (Nominal)	11.00 (Maximum)

Phase	LS Cs Resolution Bkg %	Value
Master		8.162
Before		8.196
After		8.261
7.000 (Minimum)	9.000 (Nominal)	11.00 (Maximum)

Phase	LSW1 Background CPS	Value
Master		69.10
Before		68.64
After		67.60
55.00 (Minimum)	100.0 (Nominal)	150.0 (Maximum)

Phase	LSW2 Background CPS	Value
Master		64.88
Before		62.89
After		62.34
50.00 (Minimum)	100.0 (Nominal)	140.0 (Maximum)

Phase	LSW3 Background CPS	Value
Master		140.5
Before		138.5
After		139.2
110.0 (Minimum)	200.0 (Nominal)	290.0 (Maximum)

Phase	LSW4 Background CPS	Value
Master		169.3
Before		170.3
After		167.8
140.0 (Minimum)	250.0 (Nominal)	360.0 (Maximum)

Phase	LSW5 Background CPS	Value
Master		389.5
Before		387.7
After		387.5
330.0 (Minimum)	600.0 (Nominal)	830.0 (Maximum)

Phase	SSW1 Background CPS	Value
Master		77.29
Before		76.79
After		77.36
55.00 (Minimum)	100.0 (Nominal)	150.0 (Maximum)

Phase	SSW2 Background CPS	Value
Master		137.8
Before		137.5
After		138.3
100.0 (Minimum)	200.0 (Nominal)	260.0 (Maximum)

Phase	SSW3 Background CPS	Value
Master		368.5
Before		362.9
After		366.0
280.0 (Minimum)	500.0 (Nominal)	700.0 (Maximum)

Phase	SSW4 Background CPS	Value
Master		192.4
Before		191.1
After		190.3
150.0 (Minimum)	270.0 (Nominal)	380.0 (Maximum)

Phase	SSW5 Background CPS	Value
Master		140.4
Before		139.5
After		137.7
110.0 (Minimum)	200.0 (Nominal)	270.0 (Maximum)

Master: 23−Jan−2015 21:08 Before: 10−Mar−2015 19:01 After: 10−Mar−2015 22:33

Litho−Density Spectroscopy Cartridge − B / Equipment Identification

Primary Equipment:		
LDSC Cartridge	LDSC − B	521
Auxiliary Equipment:		
LDSC Housing	LDSH − A	319

Enhanced DTS Cartridge / Equipment Identification

Primary Equipment:		
EDTC Gamma Ray Detector	EDTG − A/B	8305
Enhanced DTS Cartridge	EDTC − B	8317
Auxiliary Equipment:		
EDTC Housing	EDTH − B	8303

Enhanced DTS Cartridge Wellsite Calibration

EDTC Accelerometer Calibration

Phase	EDTC Z−Axis Acceleration M/S2	Value
Before		9.726
9.610 (Minimum)	9.810 (Nominal)	10.01 (Maximum)

Before: 17−Mar−2015 6:04

Enhanced DTS Cartridge Wellsite Calibration

Detector Calibration

Phase	Gamma Ray Background GAPI	Value
Before		11.66
After		8.711
0 (Minimum)	30.00 (Nominal)	120.0 (Maximum)

Phase	Gamma Ray (Jig − Bkg) GAPI	Value
Before		155.6
After		151.3
141.5 (Minimum)	155.6 (Nominal)	169.7 (Maximum)

Phase	Gamma Ray (Calibrated) GAPI	Value
Before		165.0
After		160.5
150.0 (Minimum)	165.0 (Nominal)	180.0 (Maximum)

Before: 10−Mar−2015 19:00 After: Calibration out of date 22−Jan−2015 21:00

Company:	**Integrated Ocean Discovery Program**
Well:	**Expedition 354, Site U1453A**
Field:	**Bengal Fan**
Rig:	**JOIDES Resolution**
Country:	

Schlumberger

Triple Combo
Spectral GR, Caliper,
Resistivity, Magnetic Susceptibility