

Rig: **JOIDES Resolution** Country: **USA**

Rig: JOIDES Resolution Field: Baffin Bay Location: Latitude: N 75° 42' 58.35" Well: Expedition 344S, U0060A (USC68) Company: Lamont Doherty Earth Observatory	HRLA Resistivity				
	LOCATION	Latitude: N 75° 42' 58.35" Longitude: W 65° 57' 12.19"		Elev.: K.B. −603.20 m G.L. −592.20 m D.F. −603.20 m	
		Permanent Datum: <u>Mean Sea Level</u> Log Measured From: <u>Sea Floor</u> Drilling Measured From: <u>Drill Floor</u>		Elev.: <u>0.00 m</u> 11.00 m above Perm. Datum	
		Ocean: Atlantic	Max. Well Deviation 0 deg	Longitude N 75° 42' 58.35"	Latitude W 65° 57' 12.19"

Logging Date			27-Sep-2012					
Run Number			1					
Depth Driller			239.1 m					
Schlumberger Depth			195.5 m					
Bottom Log Interval			182 m					
Top Log Interval			43 m					
Casing Driller Size @ Depth			7.000 in @ 33 m			@		
Casing Schlumberger			31 m					
Bit Size			9.875 in					
Type Fluid In Hole			Seawater					
MUD	Density	Viscosity	1.05 g/cm3					
	Fluid Loss	PH						
	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	@ 9	@ 9	@	@			
Maximum Recorded Temperatures			9 degC					
Circulation Stopped		Time	27-Sep-2012		18:00			
Logger On Bottom		Time	27-Sep-2012		22:20			
Unit Number	Location	625003	Houston					
Recorded By			C. Furman					
Witnessed By			G. Guerin, H. Evans					

[illegible]

[illegible]

DISCLAIMER

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

OTHER SERVICES1

OS1: MSS
OS2: DSI
OS3: HNGS

REMARKS: RUN NUMBER 1

Site U0060A, client designation USC 060, was cored for exploration using the RCB system.

This site is subcontracted to Shell from LDEO, not a standard USIO/IODP site!

Tools were not able to reach TD due to hole obstruction: maximum depth was 195.5mbsf.

Centralized tools run using modified MCD chassis as inline centralizer, as per tool sketch.

Hole size corrections made using bit size, as no caliper was present in the string.

Tools conveyed to hole on wireline through drill pipe, as is standard for this riser-less operation.




Logs recorded from Drill Floor, but played back with zero reference at sea bed for compatibility with core data.

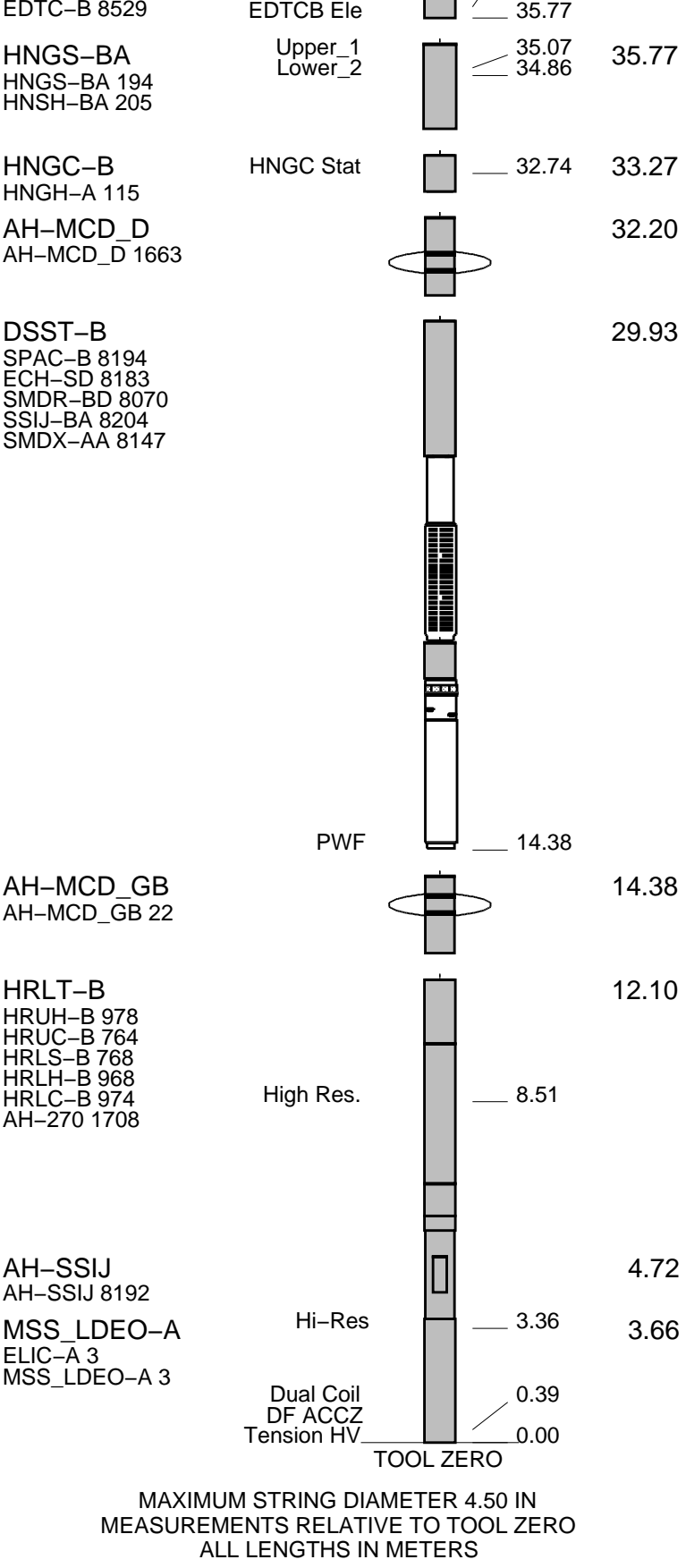
Original sea bed, as measured from drill floor, was 594.0m uncorrected measured depth below drill floor.

Heave compensation was not required due to exceptionally calm sea state and favorable weather during logging.

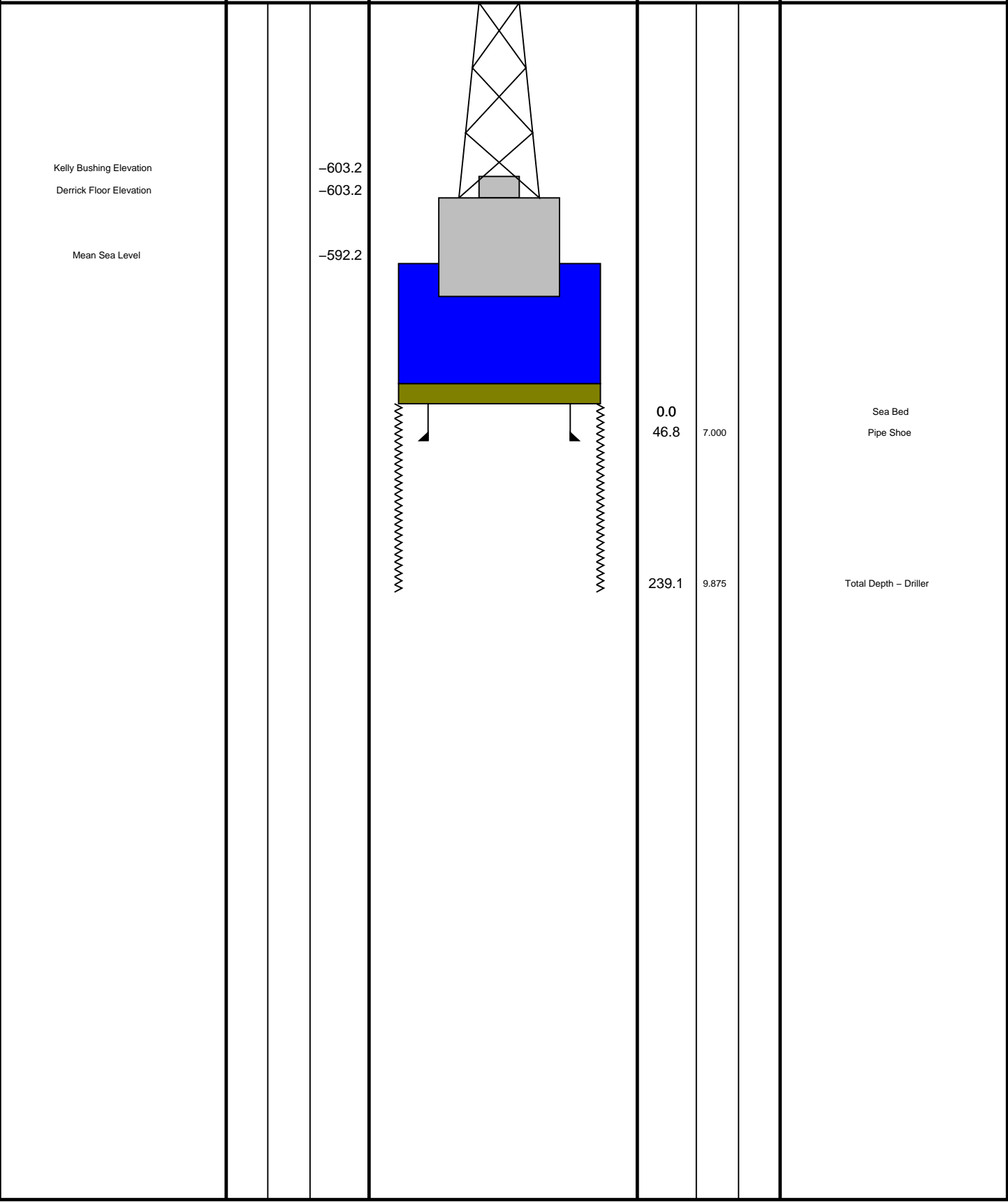
RUN 1 SERVICE ORDER #: PROGRAM VERSION: 19C0-187 FLUID LEVEL:			RUN 2 SERVICE ORDER #: PROGRAM VERSION: FLUID LEVEL:		
LOGGED INTERVAL	START	STOP	LOGGED INTERVAL	START	STOP

EQUIPMENT	DESCRIPTION

RUN 1		RUN 2	
SURFACE EQUIPMENT			
GSR-U 616008 WITM (EDTS)-A			
DOWNHOLE EQUIPMENT			
LEH-MT			39.15
LEH-MT 101	MDSB_EDTC		
AH-369	Mud Tempe		37.75
	CTEM		36.69
EDTC-B	Gamma Ray		36.12
EDTH-B 8528	EFTB DIAG		37.75
	TelStatus		



Production String	(in)	(m)	Well Schematic	(m)	(in)	Casing String





Up Log

MAXIS Field Log

Company: Lamont Doherty Earth Observatory Well: Expedition 344S, U0060A (USC60)

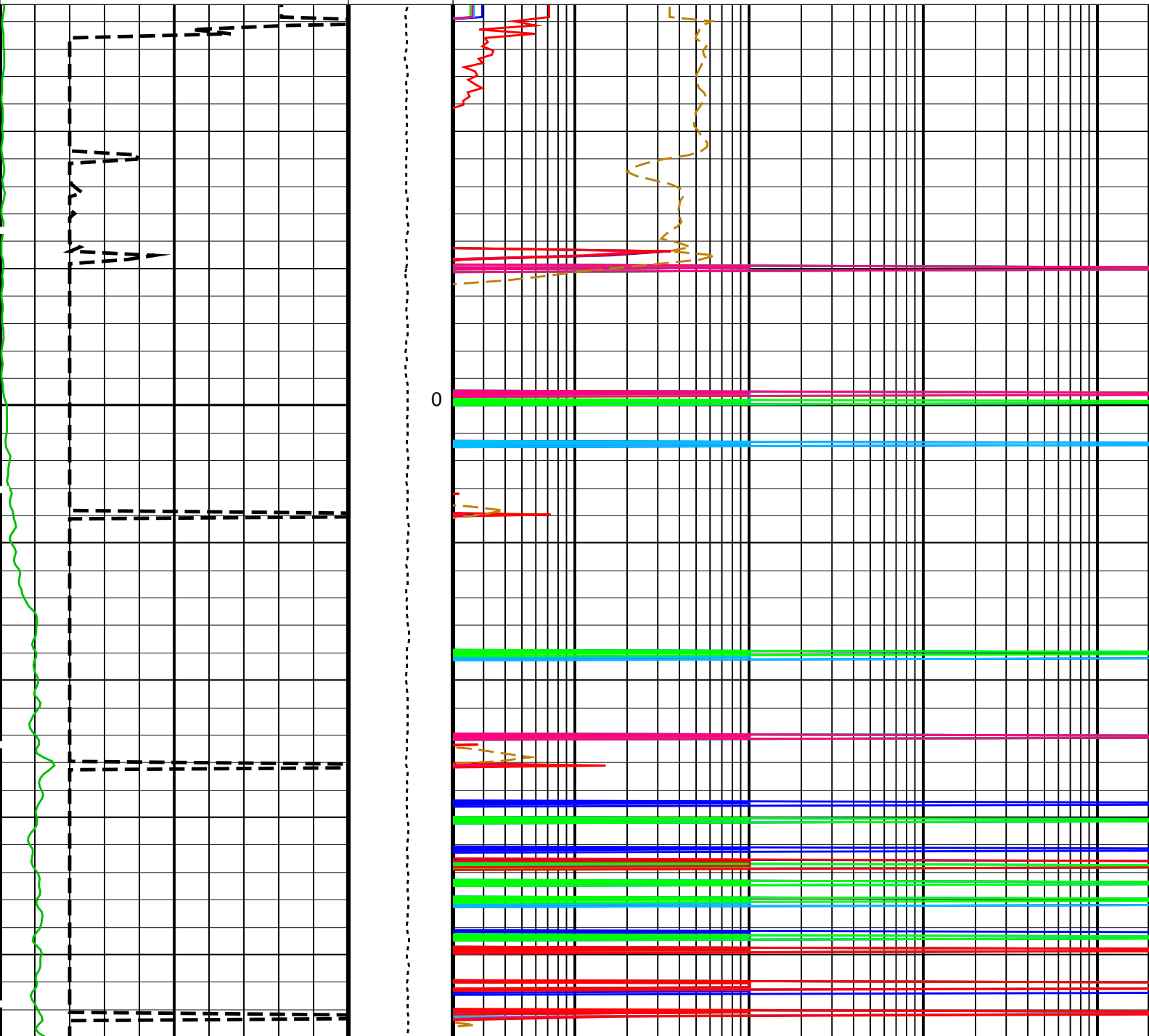
Input DLIS Files						
DEFAULT	MSS_LDEO_HRLA_DSI_007LUP	FN:6	PRODUCER	28-Sep-2012 00:21	788.7 M	579.3 M
Output DLIS Files						
DEFAULT	MSS_LDEO_HRLA_DSI_011PUP	FN:10	PRODUCER	28-Sep-2012 20:08	194.3 M	-14.6 M
CLIENT	MSS_LDEO_HRLA_DSI_011PUC	FN:11	CUSTOMER	28-Sep-2012 20:08	194.3 M	-14.6 M

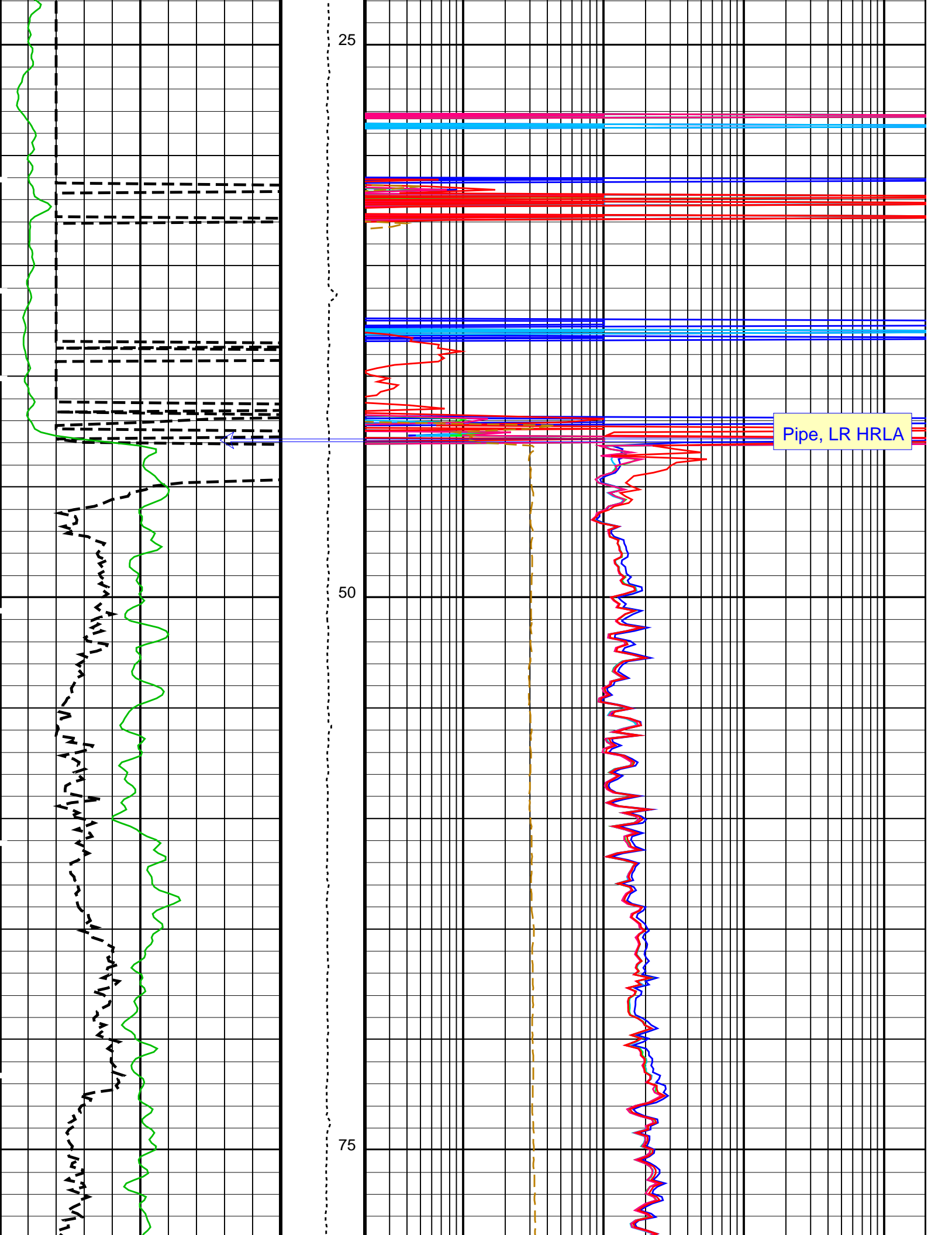
OP System Version: 19C0-187					
MSS_LDEO-A	19C0-187	HRLT-B	19C0-187		
DSST-B	19C0-187	HNGC-B	19C0-187		
HNGS-BA	19C0-187	EDTC-B	SKK-5169-EDTCB		

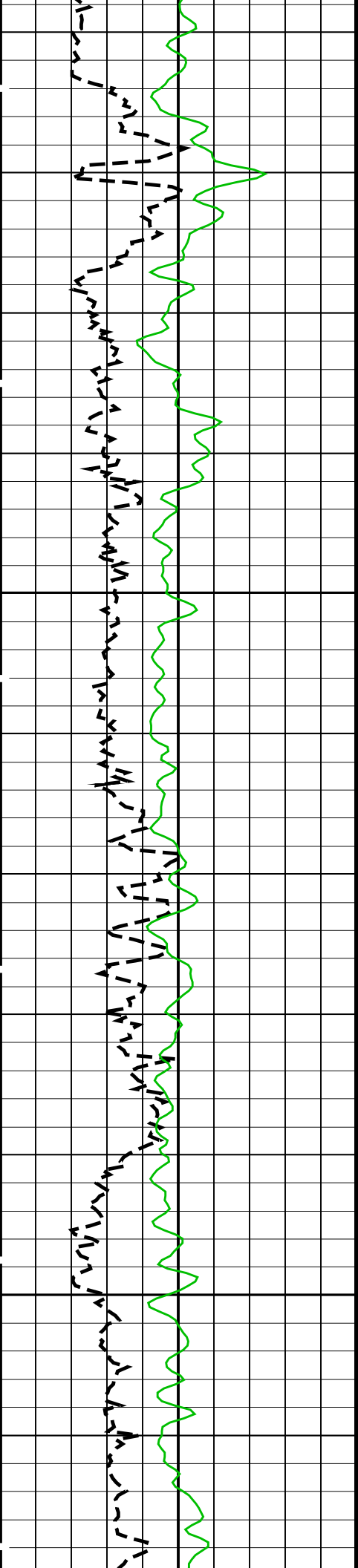
PIP SUMMARY

Time Mark Every 60 S

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

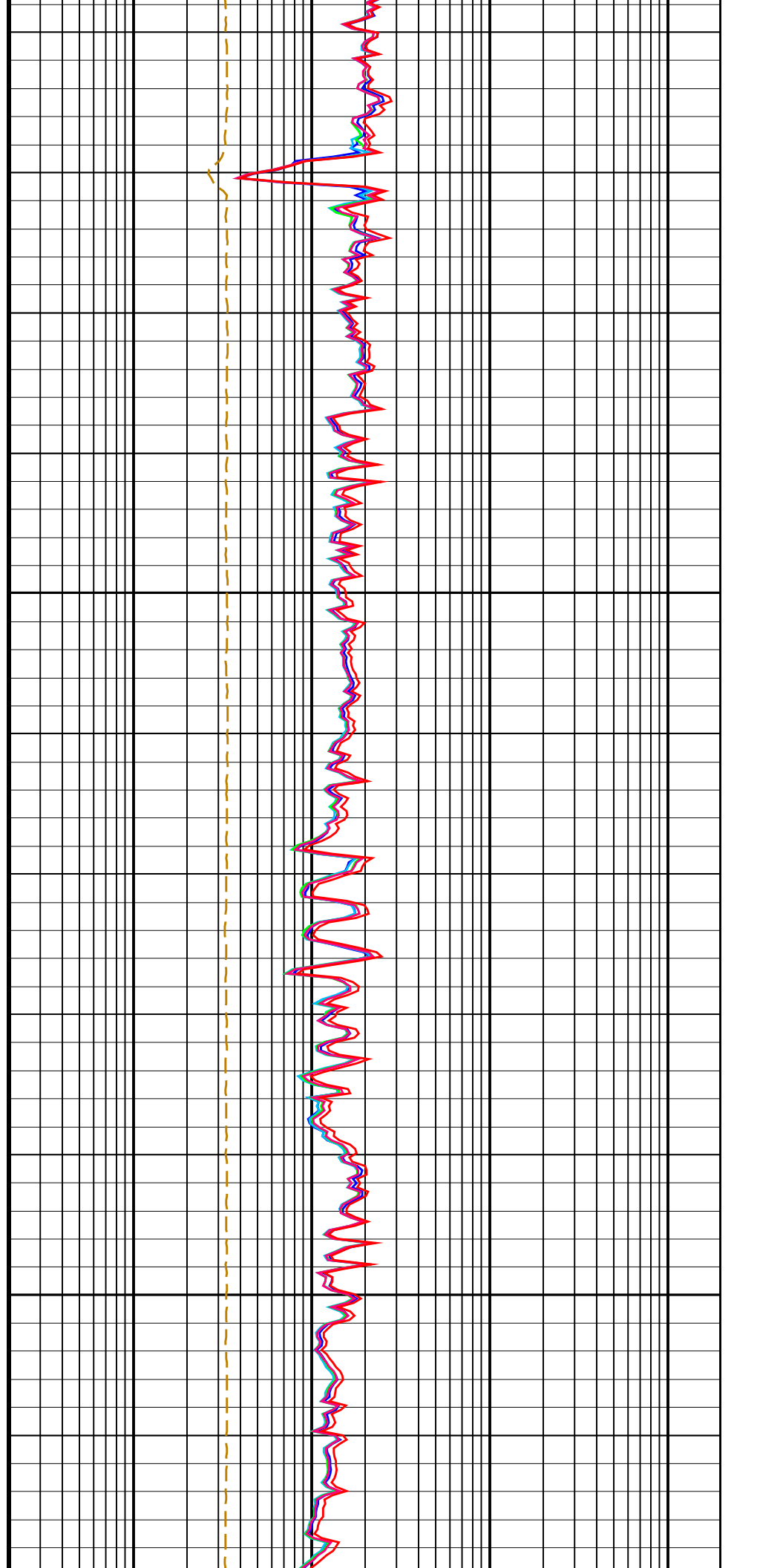


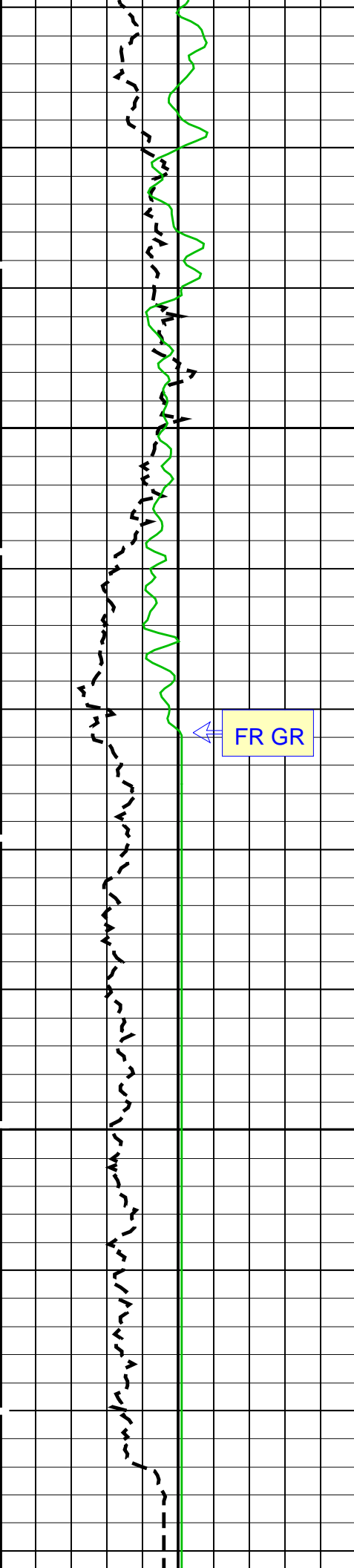




100

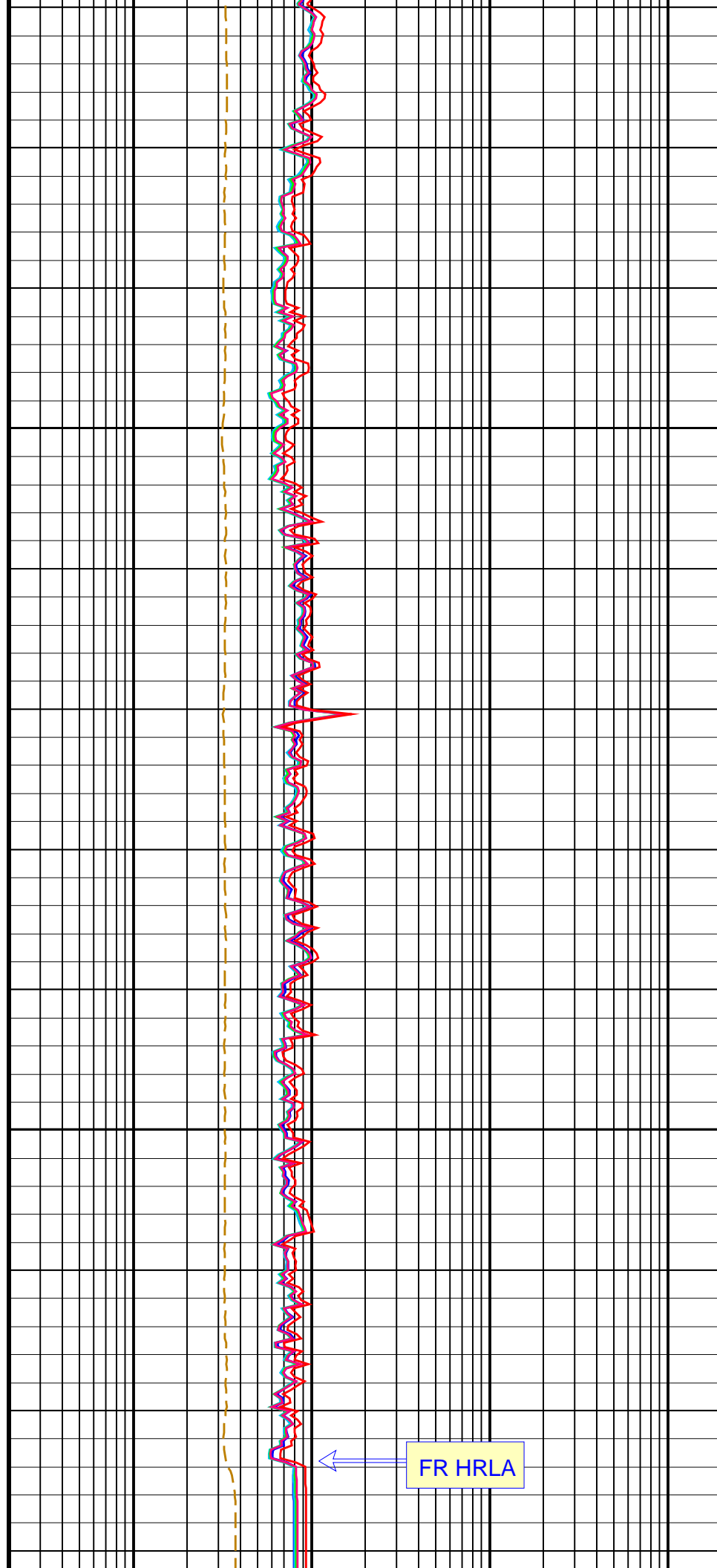
125



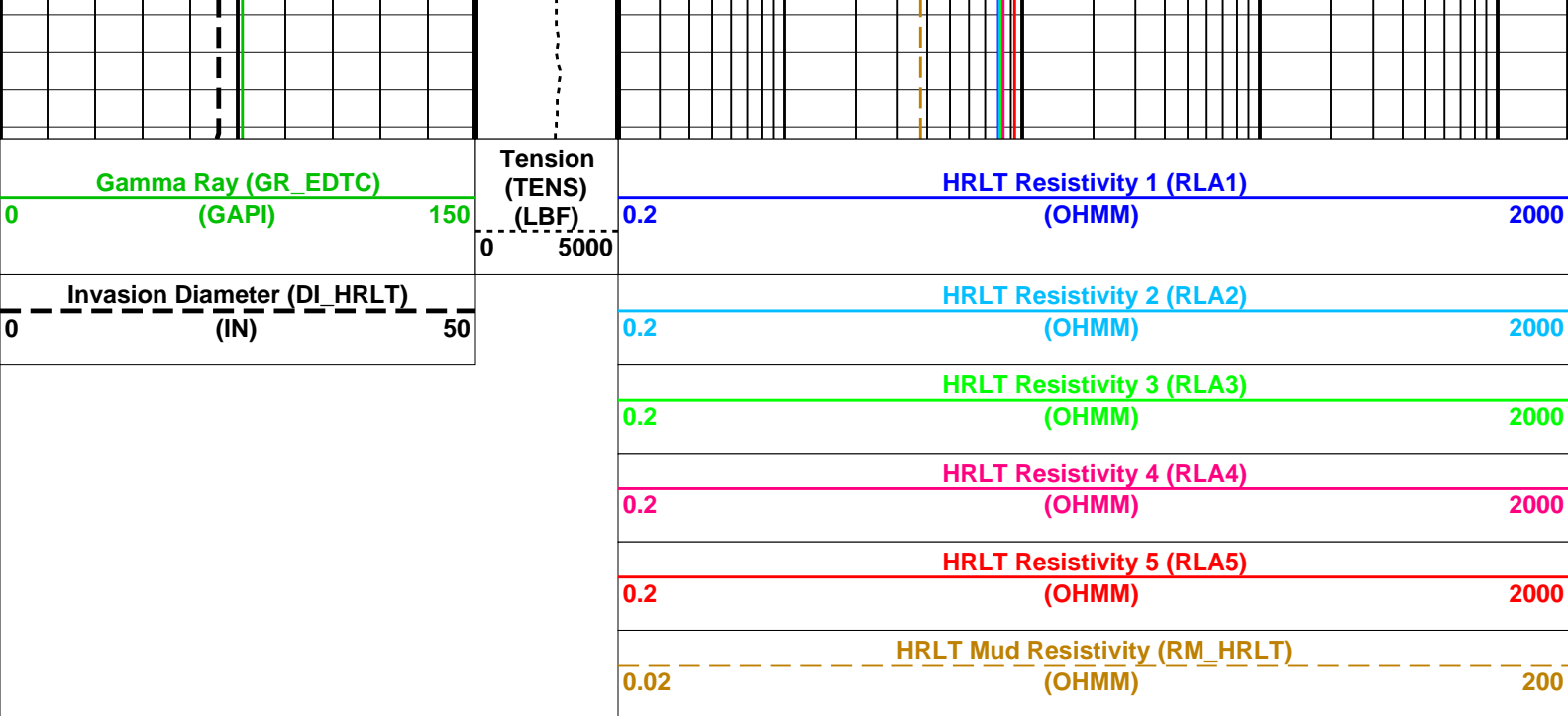


150

175



FR HRLA



PIP SUMMARY

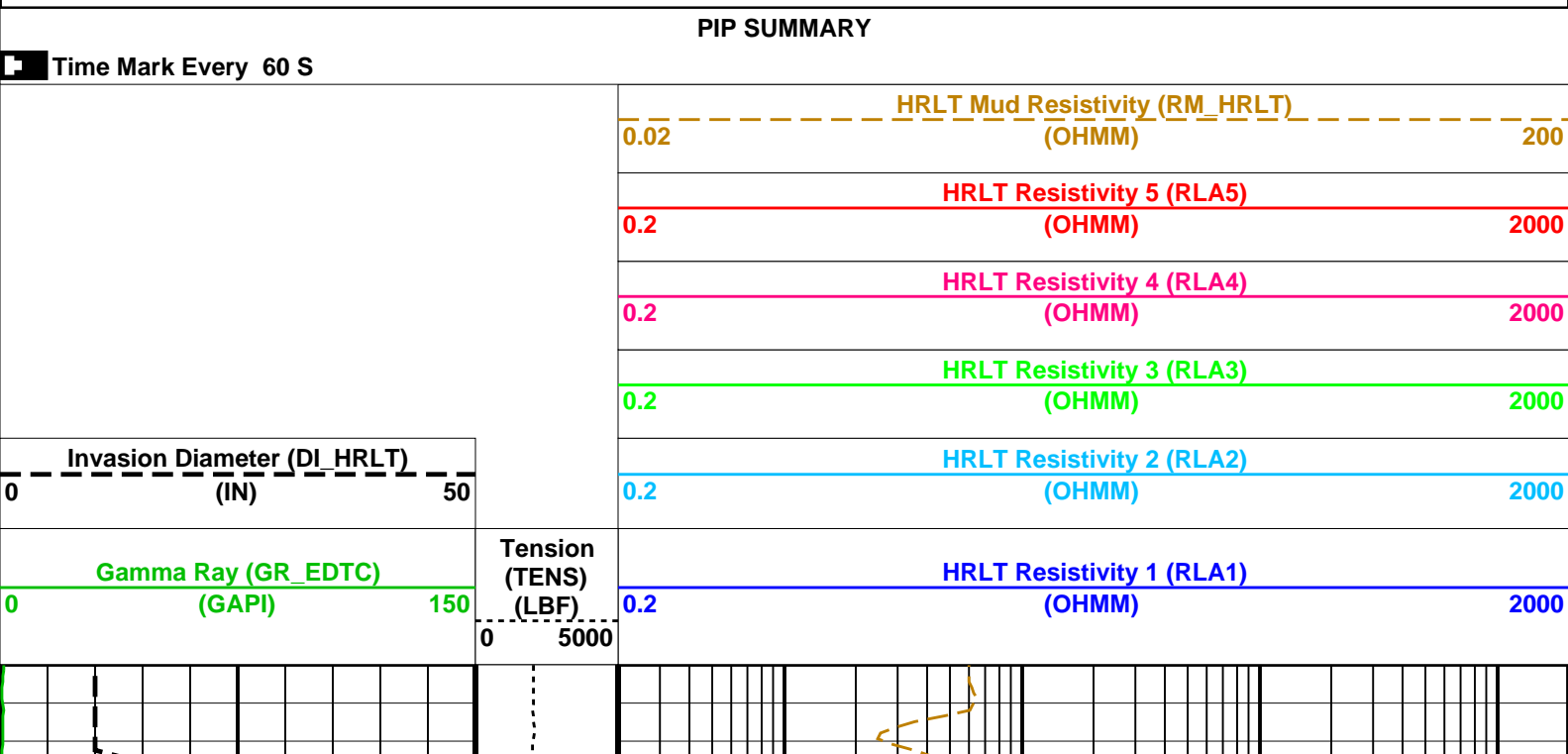
Time Mark Every 60 S

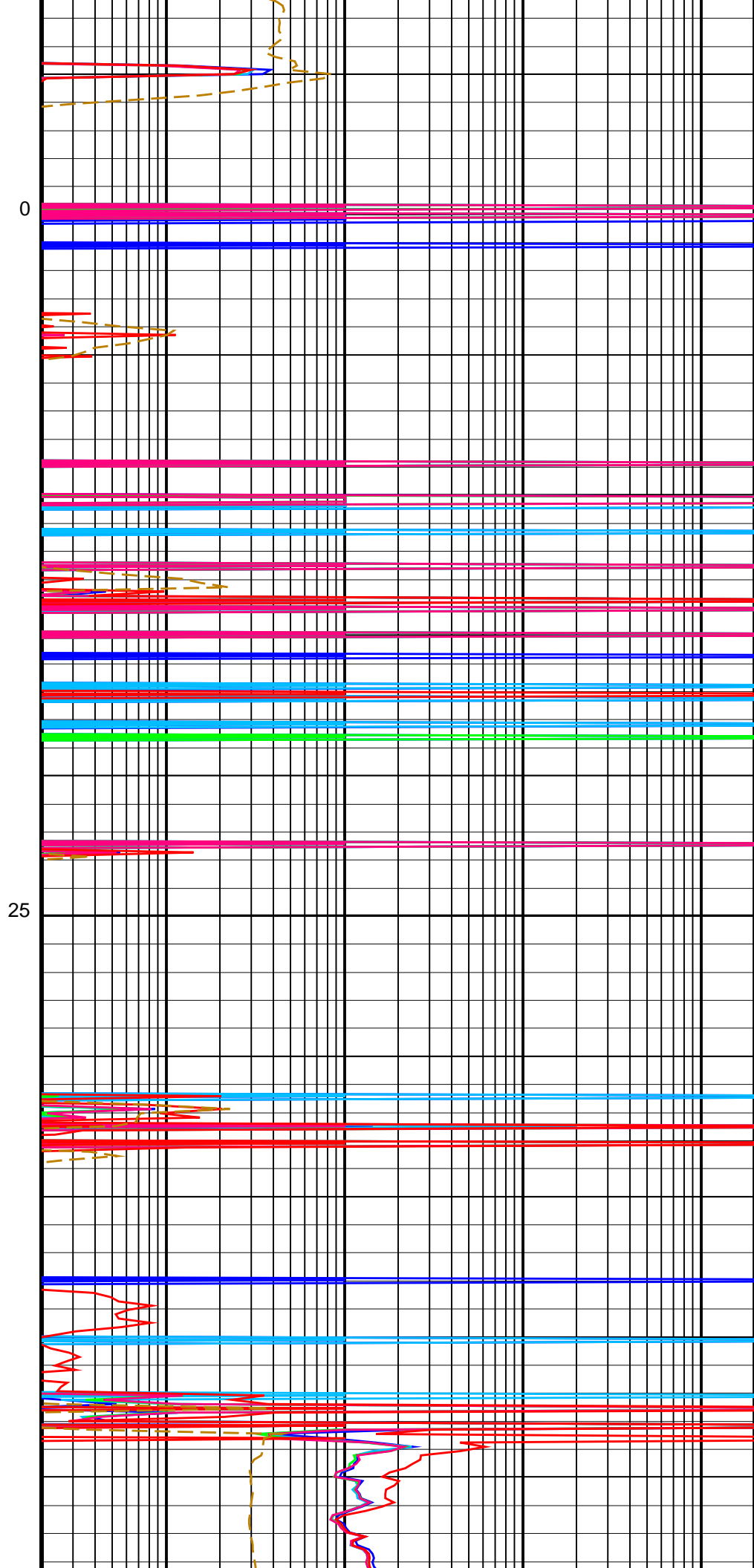
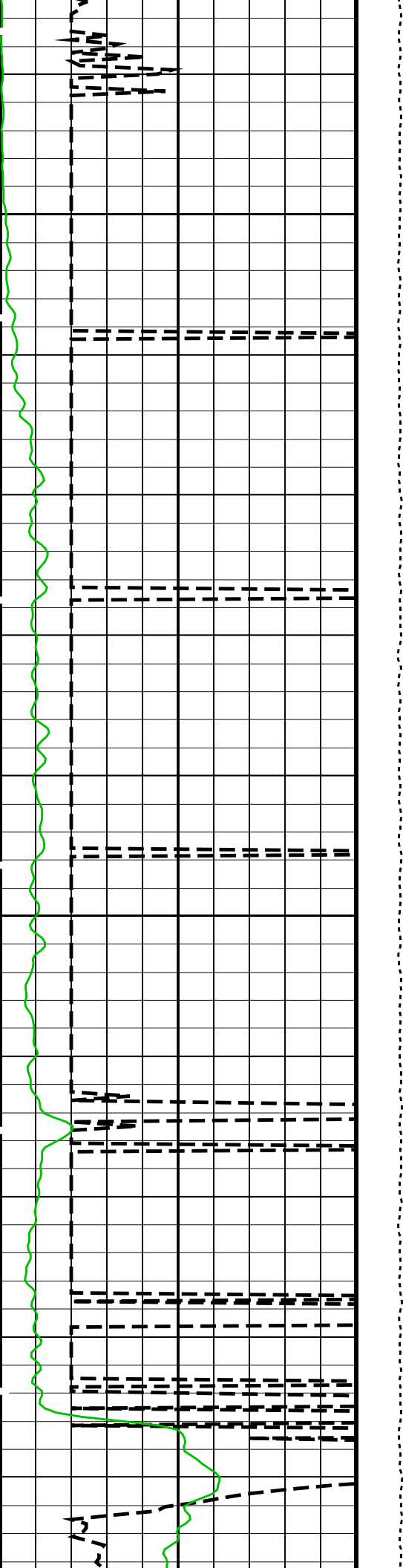
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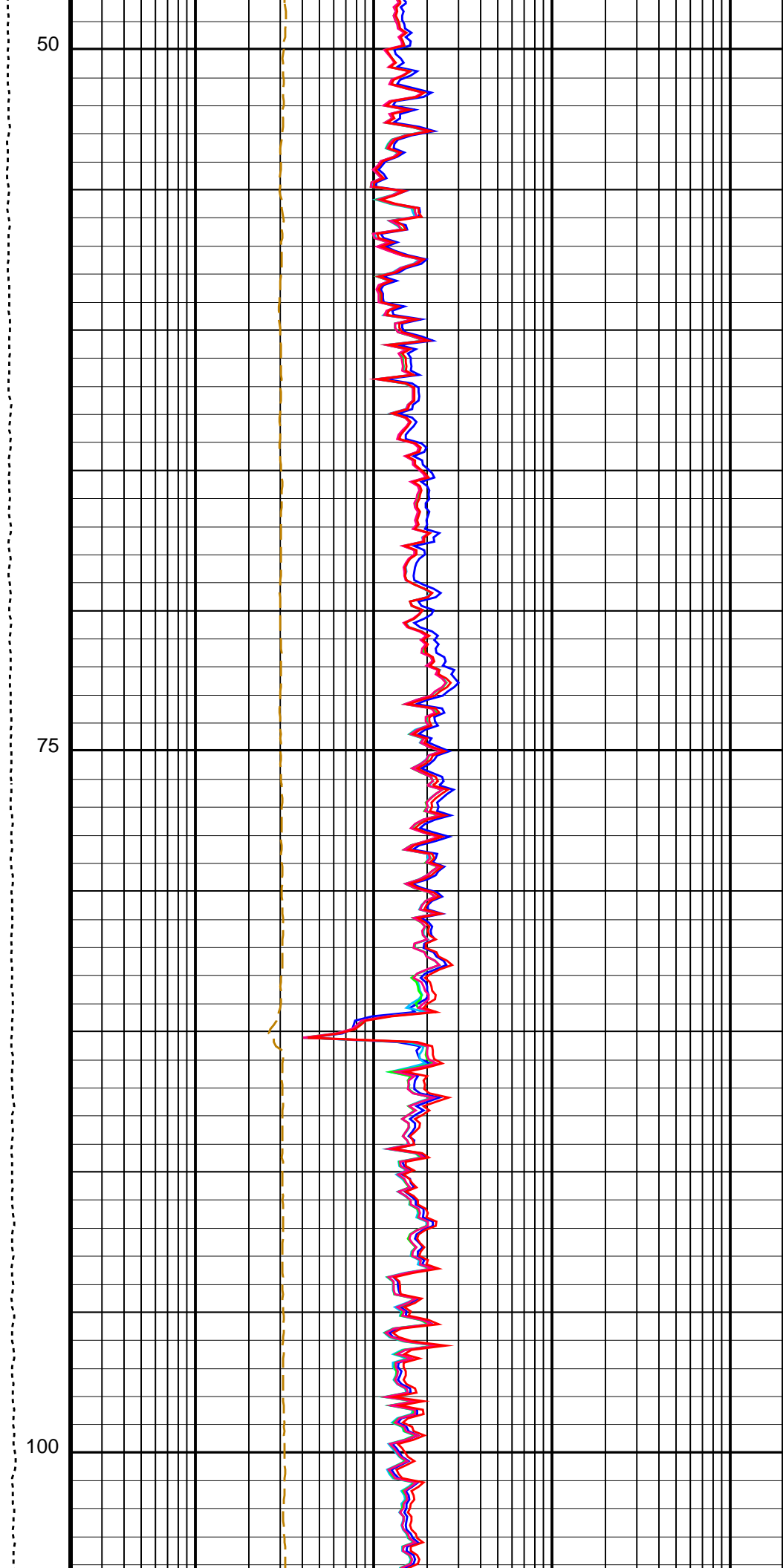
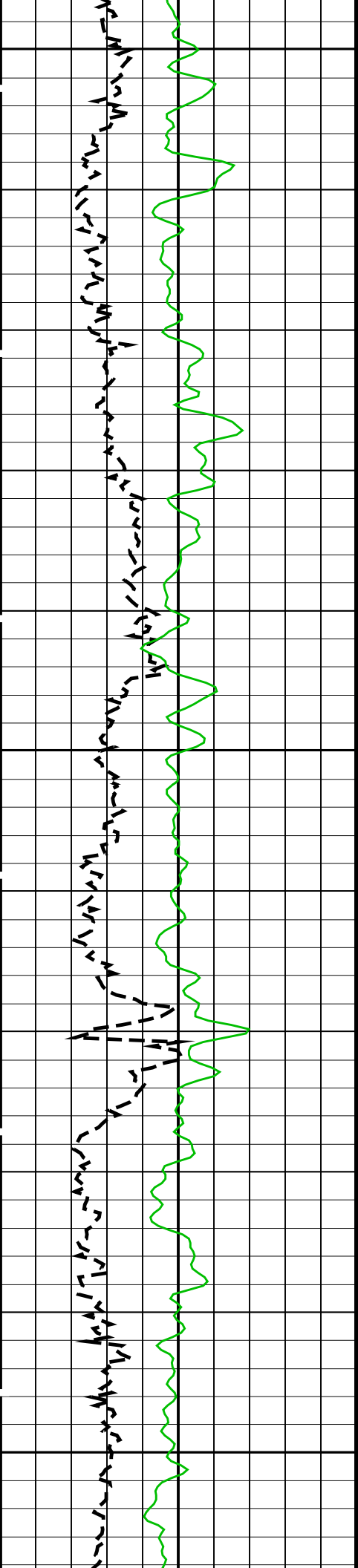
DLIS Name	Description	Value	
HRLT-B: High Resolution Laterolog Array – B			
BHT	Bottom Hole Temperature (used in calculations)	9	DEGC
GCSE	Generalized Caliper Selection	BS	
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN 9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
KFAC_HRLT	HRLT K Factor Option	SONDE	
PROCIINV	Inversion Selection	ON	
PROCMFL	Inversion Micro-Resistivity Selection	NO_EXTERNAL_RXO	
PROCMSO	Mechanical Standoff Fin Size	1.5	IN
PROCRM	Processing Mud Resistivity Select	HRLT_Compute	
PROCSPO	Sonde Position	Eccentered	
SHT	Surface Hole Temperature	-2	DEGC
DSST-B: Dipole Shear Imager – B			
BHT	Bottom Hole Temperature (used in calculations)	9	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	-2	DEGC
HNGBS-BA: Hostile Natural Gamma Ray Sonde			
BHT	Bottom Hole Temperature (used in calculations)	9	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	-2	DEGC
EDTC-B: Enhanced DTS Cartridge			
BHT	Bottom Hole Temperature (used in calculations)	9	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	-2	DEGC
System and Miscellaneous			
BS	Bit Size	9.875	IN
DO	Depth Offset for Playback	-594.0	M
MST	Mud Sample Temperature	-50000.00	DEGC
PP	Playback Processing	NORMAL	
TD	Total Depth	831.3	M

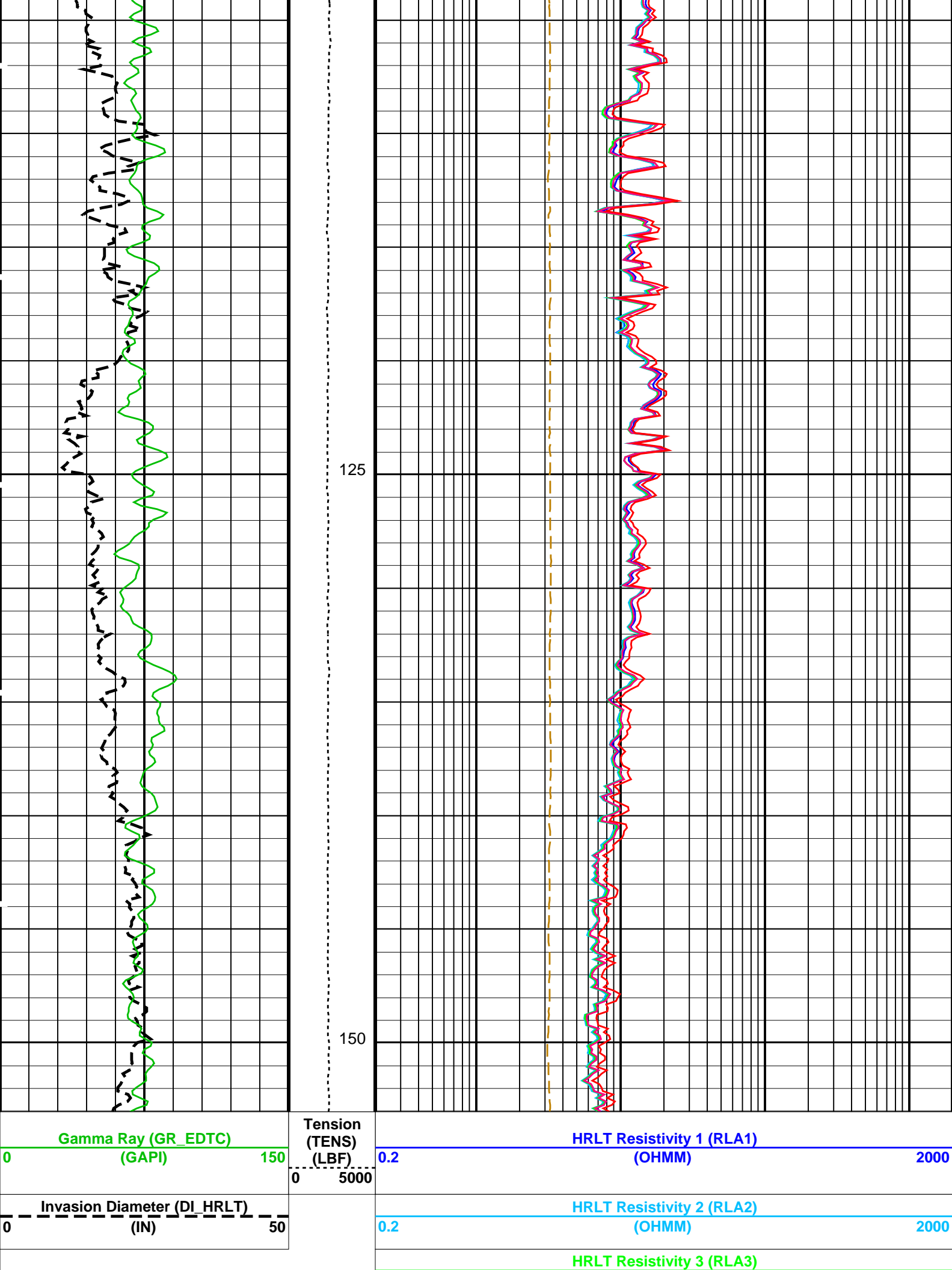
Format: HRLT Vertical Scale: 1:200 Graphics File Created: 28-Sep-2012 20:08

OP System Version: 19C0-187









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

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
HRLT-B: High Resolution Laterolog Array - B			
BHT	Bottom Hole Temperature (used in calculations)	9	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	1.5	IN
PROCRM	Processing Mud Resistivity Select	HRLT_Compute	
PROCSP0	Sonde Position	Eccentered	
SHT	Surface Hole Temperature	-2	DEGC
DSST-B: Dipole Shear Imager - B			
BHT	Bottom Hole Temperature (used in calculations)	9	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	-2	DEGC
HNGS-BA: Hostile Natural Gamma Ray Sonde			
BHT	Bottom Hole Temperature (used in calculations)	9	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	-2	DEGC
EDTC-B: Enhanced DTS Cartridge			
BHT	Bottom Hole Temperature (used in calculations)	9	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	-2	DEGC
System and Miscellaneous			
BS	Bit Size	9.875	IN
DO	Depth Offset for Playback	0.0	M
MST	Mud Sample Temperature	-50000.00	DEGC
PP	Playback Processing	NORMAL	
TD	Total Depth	831.3	M

Format: HRLT Vertical Scale: 1:200 Graphics File Created: 28-Sep-2012 20:29

OP System Version: 19C0-187

MSS_LDEO-A	19C0-187	HRLT-B	19C0-187
DSST-B	19C0-187	HNGC-B	19C0-187
HNGS-BA	19C0-187	EDTC-B	SKK-5169-EDTCB

Input DLIS Files

DEFAULT	Flip_MSS_LDEO_HRLA_020PUP	PRODUCER	28-Sep-2012 20:28	153.0 M	-10.1 M
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Output DLIS Files

DEFAULT	MSS_LDEO_HRLA_DSI_021PUP	FN:26	PRODUCER	28-Sep-2012 20:29
CLIENT	MSS_LDEO_HRLA_DSI_021PUC	FN:27	CUSTOMER	28-Sep-2012 20:29

MAXIS Field Log

Calibration and Check Summary

Measurement	Nominal	Master	Before	After	Change	Limit	Units
High Resolution Laterolog Array – B Wellsite Calibration – HRLT M01							
Before: 20-Sep-2012 18:03 After: 20-Sep-2012 20:45							
HRLT M0-M1 Voltage Plus – 0	0	N/A	-320.1	-319.3	0.7999	9.681	UV
HRLT M0-M1 Voltage Plus – 1	0	N/A	-341.6	-338.6	2.980	9.681	UV
HRLT M0-M1 Voltage Plus – 2	0	N/A	-339.5	-337.3	2.248	9.681	UV
HRLT M0-M1 Voltage Plus – 3	0	N/A	-342.4	-340.5	1.922	9.681	UV
HRLT M0-M1 Voltage Plus – 4	0	N/A	-328.1	-327.0	1.090	9.681	UV
HRLT M0-M1 Voltage Plus – 5	0	N/A	-323.6	-322.7	0.8422	9.681	UV
HRLT M0-M1 Voltage Plus – 6	0	N/A	332.2	329.8	-2.436	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: 20-Sep-2012 18:03 After: 20-Sep-2012 20:45							
HRLT M1-M2 Voltage Plus – 0	0	N/A	1758	1755	-2.932	53.42	UV
HRLT M1-M2 Voltage Plus – 1	0	N/A	1876	1860	-16.31	53.42	UV
HRLT M1-M2 Voltage Plus – 2	0	N/A	1860	1848	-11.92	53.42	UV
HRLT M1-M2 Voltage Plus – 3	0	N/A	1876	1866	-9.832	53.42	UV
HRLT M1-M2 Voltage Plus – 4	0	N/A	1799	1794	-5.057	53.42	UV
HRLT M1-M2 Voltage Plus – 5	0	N/A	1776	1772	-3.489	53.42	UV
HRLT M1-M2 Voltage Plus – 6	0	N/A	-1832	-1820	12.60	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: 20-Sep-2012 18:03 After: 20-Sep-2012 20:45							
HRLT M2-M3 Voltage Plus – 0	0	N/A	1745	1741	-3.911	53.42	UV
HRLT M2-M3 Voltage Plus – 1	0	N/A	1875	1857	-17.45	53.42	UV
HRLT M2-M3 Voltage Plus – 2	0	N/A	1860	1847	-13.26	53.42	UV
HRLT M2-M3 Voltage Plus – 3	0	N/A	1879	1868	-10.97	53.42	UV
HRLT M2-M3 Voltage Plus – 4	0	N/A	1796	1789	-6.424	53.42	UV
HRLT M2-M3 Voltage Plus – 5	0	N/A	1773	1769	-4.405	53.42	UV
HRLT M2-M3 Voltage Plus – 6	0	N/A	-1819	-1805	13.85	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: 20-Sep-2012 18:03 After: 20-Sep-2012 20:45							
HRLT A3-A4 Voltage Plus – 0	0	N/A	68580	68470	-107.9	2100	UV
HRLT A3-A4 Voltage Plus – 1	0	N/A	73460	72830	-631.8	2100	UV
HRLT A3-A4 Voltage Plus – 2	0	N/A	73170	72710	-458.4	2100	UV
HRLT A3-A4 Voltage Plus – 3	0	N/A	74220	73830	-386.3	2100	UV
HRLT A3-A4 Voltage Plus – 4	0	N/A	70890	70690	-197.9	2100	UV
HRLT A3-A4 Voltage Plus – 5	0	N/A	70020	69890	-123.6	2100	UV
HRLT A3-A4 Voltage Plus – 6	0	N/A	-70280	-69810	468.9	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: 20-Sep-2012 18:03 After: 20-Sep-2012 20:45							
HRLT A4-A5 Voltage Plus – 0	0	N/A	68870	68760	-110.4	2100	UV
HRLT A4-A5 Voltage Plus – 1	0	N/A	73860	73240	-616.3	2100	UV
HRLT A4-A5 Voltage Plus – 2	0	N/A	73540	73080	-459.3	2100	UV
HRLT A4-A5 Voltage Plus – 3	0	N/A	74570	74180	-394.7	2100	UV
HRLT A4-A5 Voltage Plus – 4	0	N/A	71190	70990	-199.9	2100	UV
HRLT A4-A5 Voltage Plus – 5	0	N/A	70310	70180	-130.1	2100	UV
HRLT A4-A5 Voltage Plus – 6	0	N/A	-70670	-70200	471.5	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: 20-Sep-2012 18:03 After: 20-Sep-2012 20:45							
HRLT A5-A6 Voltage Plus – 0	0	N/A	68760	68650	-113.5	2100	UV

HRLT A5-A6 Voltage Plus - 1	0	N/A	73580	72960	-610.8	2100	UV
HRLT A5-A6 Voltage Plus - 2	0	N/A	73290	72840	-458.4	2100	UV
HRLT A5-A6 Voltage Plus - 3	0	N/A	74370	74000	-375.0	2100	UV
HRLT A5-A6 Voltage Plus - 4	0	N/A	71050	70850	-198.5	2100	UV
HRLT A5-A6 Voltage Plus - 5	0	N/A	70190	70050	-145.6	2100	UV
HRLT A5-A6 Voltage Plus - 6	0	N/A	-70390	-69900	494.1	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: 20-Sep-2012 18:03 After: 20-Sep-2012 20:45

HRLT Torpedo-M0 Voltage - 0	0	N/A	-68440	-68340	106.0	2100	UV
HRLT Torpedo-M0 Voltage - 1	0	N/A	-73930	-73290	640.7	2100	UV
HRLT Torpedo-M0 Voltage - 2	0	N/A	-73610	-73150	462.2	2100	UV
HRLT Torpedo-M0 Voltage - 3	0	N/A	-74670	-74280	396.4	2100	UV
HRLT Torpedo-M0 Voltage - 4	0	N/A	-71250	-71050	203.0	2100	UV
HRLT Torpedo-M0 Voltage - 5	0	N/A	-70360	-70210	147.7	2100	UV
HRLT Torpedo-M0 Voltage - 6	0	N/A	70680	70180	-490.6	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: 20-Sep-2012 18:03 After: 20-Sep-2012 20:45

HRLT Bridle#9-M0 Voltage - 0	0	N/A	-68430	-68320	110.2	2100	UV
HRLT Bridle#9-M0 Voltage - 1	0	N/A	-73910	-73280	637.2	2100	UV
HRLT Bridle#9-M0 Voltage - 2	0	N/A	-73590	-73130	456.7	2100	UV
HRLT Bridle#9-M0 Voltage - 3	0	N/A	-74650	-74260	384.8	2100	UV
HRLT Bridle#9-M0 Voltage - 4	0	N/A	-71250	-71040	204.3	2100	UV
HRLT Bridle#9-M0 Voltage - 5	0	N/A	-70340	-70210	134.8	2100	UV
HRLT Bridle#9-M0 Voltage - 6	0	N/A	70650	70160	-490.6	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: 20-Sep-2012 18:03 After: 20-Sep-2012 20:45

HRLT Source Current Plus - 0	0	N/A	285.3	284.9	-0.3990	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: 20-Sep-2012 18:03 After: 20-Sep-2012 20:45

HRLT Vertical Voltage PI - 0	0	N/A	-322.3	-321.4	0.8523	9.681	UV
HRLT Vertical Voltage PI - 1	0	N/A	-335.6	-332.5	3.175	9.681	UV
HRLT Vertical Voltage PI - 2	0	N/A	-332.8	-330.4	2.353	9.681	UV
HRLT Vertical Voltage PI - 3	0	N/A	-333.9	-331.9	2.034	9.681	UV
HRLT Vertical Voltage PI - 4	0	N/A	-317.3	-316.2	1.169	9.681	UV
HRLT Vertical Voltage PI - 5	0	N/A	-328.1	-327.2	0.9027	9.681	UV
HRLT Vertical Voltage PI - 6	0	N/A	339.4	336.7	-2.633	9.681	UV
HRLT Vertical Voltage PI - 7	0	N/A	-322.7	-322.7	0	9.681	UV

Hostile Natural Gamma Ray Sonde Wellsite Calibration - Detector 1 Check

Master: 15-Jul-2012 1:37 Before: 21-Sep-2012 1:23 After: 21-Sep-2012 1:28

Na 511 Peak Loc	40.00	39.55	39.64	39.63	-0.01205	1.000	
Na 511 Peak Res	15.50	15.74	14.62	14.61	-0.01343	2.000	%
High Voltage	1150	1192	1133	1131	-1.140	N/A	V
Na 1785 Peak Loc	142.6	141.9	143.3	142.5	-0.8368	7.000	
Na 1785 Peak Res	8.500	8.399	8.136	7.484	-0.6517	2.000	%
Temperature	15.50	30.02	5.829	5.848	0.01951	N/A	DEGC
Na Count Rate	45.00	18.00	15.48	15.98	0.5035	8.000	CPS

Hostile Natural Gamma Ray Sonde Wellsite Calibration - Detector 2 Check

Master: 15-Jul-2012 1:37 Before: 21-Sep-2012 1:23 After: 21-Sep-2012 1:28

Na 511 Peak Loc	40.00	39.55	39.64	39.78	0.1437	1.000	
Na 511 Peak Res	15.50	16.74	16.05	14.99	-1.060	2.000	%
High Voltage	1150	1112	1067	1067	0.09460	N/A	V
Na 1785 Peak Loc	142.6	142.2	141.8	141.9	0.09863	7.000	
Na 1785 Peak Res	8.500	9.140	8.464	9.198	0.7344	2.000	%
Temperature	15.50	30.92	6.453	6.596	0.1431	N/A	DEGC
Na Count Rate	45.00	18.43	15.49	16.22	0.7288	8.000	CPS

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

Master: 15-Jul-2012 1:37 Before: 21-Sep-2012 1:23 After: 21-Sep-2012 1:28

Coincidence Count Rate Ratio	1.000	0.9742	0.9968	0.9870	-0.009778	0.05000	
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Enhanced DTS Cartridge Wellsite Calibration - EDTC Accelerometer Calibration

Before: 20-Sep-2012 18:08

EDTC Z-Axis Acceleration	9.810	N/A	9.852	N/A	N/A	N/A	M/S2
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Enhanced DTS Cartridge Wellsite Calibration - Detector Calibration

Before: 20-Sep-2012 18:08 After: 20-Sep-2012 20:45

Before: 20-Sep-2012 18:08	After: 20-Sep-2012 21:12						
Gamma Ray (Jig – Bkg)	159.7	N/A	159.7	162.2	2.544	14.52	GAPI
Gamma Ray (Calibrated)	165.0	N/A	165.0	167.6	2.629	15.00	GAPI

High Resolution Laterolog Array – B / Equipment Identification

Primary Equipment:

HRLT Sonde

HRLS – B

768

Auxiliary Equipment:

HRLT lower Housing

HRLH – B

968

HRLT Lower Cartridge

HRLC – B

974

HRLT upper Housing

















HRUH – B











978

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		–320.1	–322.7	–280.7	–379.7
	After		–319.3			
1	Before		–341.6	–322.7	–280.7	–379.7
	After		–338.6			
2	Before		–339.5	–322.7	–280.7	–379.7
	After		–337.3			
3	Before		–342.4	–322.7	–280.7	–379.7
	After		–340.5			
4	Before		–328.1	–322.7	–280.7	–379.7
	After		–327.0			
5	Before		–323.6	–322.7	–280.7	–379.7
	After		–322.7			
6	Before		332.2	322.7	379.7	280.7
	After		329.8			
7	Before		–322.7	–322.7	–280.7	–379.7
	After		–322.7			
(Minimum) (Nominal) (Maximum)						
Before: 20-Sep-2012 18:03						
After: 20-Sep-2012 20:45						

High Resolution Laterolog Array – B Wellsite Calibration						
HRLT M12						
Idx	Phase	HRLT M1–M2 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		1758	1781	2095	1549
	After		1755			
1	Before		1876	1781	2095	1549
	After		1860			
2	Before		1860	1781	2095	1549
	After		1848			
3	Before		1876	1781	2095	1549
	After		1866			
4	Before		1799	1781	2095	1549
	After		1794			

5	Before		1776	1781	2095	1549
	After		1772			
6	Before		-1832	-1781	-1549	-2095
	After		-1820			
7	Before		1781	1781	2095	1549
	After		1781			
(Minimum) (Nominal) (Maximum)						
Before: 20-Sep-2012 18:03						
After: 20-Sep-2012 20:45						



High Resolution Laterolog Array – B Wellsite Calibration						
HRLT M23						
Idx	Phase	HRLT M2-M3 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		1745	1781	2095	1549
	After		1741			
1	Before		1875	1781	2095	1549
	After		1857			
2	Before		1860	1781	2095	1549
	After		1847			
3	Before		1879	1781	2095	1549
	After		1868			
4	Before		1796	1781	2095	1549
	After		1789			
5	Before		1773	1781	2095	1549
	After		1769			
6	Before		-1819	-1781	-1549	-2095
	After		-1805			
7	Before		1781	1781	2095	1549
	After		1781			
(Minimum) (Nominal) (Maximum)						
Before: 20-Sep-2012 18:03						
After: 20-Sep-2012 20:45						

















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		68470			
1	Before		73460	70000	82360	60900
	After		72830			
2	Before		73170	70000	82360	60900
	After		72710			
3	Before		74220	70000	82360	60900
	After		73830			
4	Before		70890	70000	82360	60900
	After		70690			
5	Before		70020	70000	82360	60900
	After		69890			

















6	Before		-70280	-70000	-60900	-82360
	After		-69810			
7	Before		70000	70000	82360	60900
	After		70000			
(Minimum) (Nominal) (Maximum)						
Before: 20-Sep-2012 18:03						
After: 20-Sep-2012 20:45						

High Resolution Laterolog Array – B Wellsite Calibration						
HRLT V45						
Idx	Phase	HRLT A4–A5 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		68870	70000	82360	60900
	After		68760			
1	Before		73860	70000	82360	60900
	After		73240			
2	Before		73540	70000	82360	60900
	After		73080			
3	Before		74570	70000	82360	60900
	After		74180			
4	Before		71190	70000	82360	60900
	After		70990			
5	Before		70310	70000	82360	60900
	After		70180			
6	Before		-70670	-70000	-60900	-82360
	After		-70200			
7	Before		70000	70000	82360	60900
	After		70000			
(Minimum) (Nominal) (Maximum)						
Before: 20-Sep-2012 18:03						
After: 20-Sep-2012 20:45						

High Resolution Laterolog Array – B Wellsite Calibration						
HRLT V56						
Idx	Phase	HRLT A5–A6 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		68760	70000	82360	60900
	After		68650			
1	Before		73580	70000	82360	60900
	After		72960			
2	Before		73290	70000	82360	60900
	After		72840			
3	Before		74370	70000	82360	60900
	After		74000			
4	Before		71050	70000	82360	60900
	After		70850			
5	Before		70190	70000	82360	60900
	After		70050			
6	Before		-70390	-70000	-60900	-82360
	After		-69900			
			-70000			

7	Before		70000	82360	60900
	After		70000		
(Minimum) (Nominal) (Maximum)					
Before: 20-Sep-2012 18:03					
After: 20-Sep-2012 20:45					

High Resolution Laterolog Array – B Wellsite Calibration							
HRLT VTP							
Idx	Phase	HRLT Torpedo-M0 Voltage Plus UV	Value	Nominal	Maximum	Minimum	
0	Before		-68440	-70000	-60900	-82360	
	After		-68340				
1	Before		-73930	-70000	-60900	-82360	
	After		-73290				
2	Before		-73610	-70000	-60900	-82360	
	After		-73150				
3	Before		-74670	-70000	-60900	-82360	
	After		-74280				
4	Before		-71250	-70000	-60900	-82360	
	After		-71050				
5	Before		-70360	-70000	-60900	-82360	
	After		-70210				
6	Before		70680	70000	82360	60900	
	After		70180				
7	Before		-70000	-70000	-60900	-82360	
	After		-70000				
(Minimum) (Nominal) (Maximum)							
Before: 20-Sep-2012 18:03							
After: 20-Sep-2012 20:45							

High Resolution Laterolog Array – B Wellsite Calibration							
HRLT VBD							
Idx	Phase	HRLT Bridle#9-M0 Voltage Plus UV	Value	Nominal	Maximum	Minimum	
0	Before		-68430	-70000	-60900	-82360	
	After		-68320				
1	Before		-73910	-70000	-60900	-82360	
	After		-73280				
2	Before		-73590	-70000	-60900	-82360	
	After		-73130				
3	Before		-74650	-70000	-60900	-82360	
	After		-74260				
4	Before		-71250	-70000	-60900	-82360	
	After		-71040				
5	Before		-70340	-70000	-60900	-82360	
	After		-70210				
6	Before		70650	70000	82360	60900	
	After		70160				
7	Before		-70000	-70000	-60900	-82360	
	After		-70000				

	(Minimum)	(Nominal)	(Maximum)
Before: 20-Sep-2012 18:03			
After: 20-Sep-2012 20:45			

High Resolution Laterolog Array – B Wellsite Calibration						
HRLT ISO						
Idx	Phase	HRLT Source Current Plus UA	Value	Nominal	Maximum	Minimum
0	Before		285.3	284.0	334.1	247.0
	After		284.9			
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: 20-Sep-2012 18:03			
After: 20-Sep-2012 20:45			

High Resolution Laterolog Array – B Wellsite Calibration						
HRLT MV						
Idx	Phase	HRLT Vertical Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		-322.3	-322.7	-280.7	-379.7
	After		-321.4			
1	Before		-335.6	-322.7	-280.7	-379.7
	After		-332.5			
2	Before		-332.8	-322.7	-280.7	-379.7
	After		-330.4			
3	Before		-333.9	-322.7	-280.7	-379.7
	After		-331.9			
4	Before		-317.3	-322.7	-280.7	-379.7
	After		-316.2			
5	Before		-328.1	-322.7	-280.7	-379.7
	After		-327.2			
6	Before		339.4	322.7	379.7	280.7
	After		336.7			
7	Before		-322.7	-322.7	-280.7	-379.7
	After		-322.7			
(Minimum) (Nominal) (Maximum)						

Before: 20-Sep-2012 18:03			
After: 20-Sep-2012 20:45			

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 194

Auxiliary Equipment:
HNGS Sonde Housing
Gamma Source Radioactive

HNSH – BA 205
GSR – U 616008

Hostile Natural Gamma Ray Sonde Wellsite Calibration

Detector 1 Check

Na 511 Peak Loc			Value	Na 511 Peak Res %			Value	High Voltage V			Value
Master			39.55	Master			15.74	Master			1192
Before			39.64	Before			14.62	Before			1133
After			39.63	After			14.61	After			1131
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)			
Na 1785 Peak Loc			Value	Na 1785 Peak Res %			Value	Temperature DEGC			Value
Master			141.9	Master			8.399	Master			30.02
Before			143.3	Before			8.136	Before			5.829
After			142.5	After			7.484	After			5.848
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)			
Na Count Rate CPS			Value								
Master			18.00								
Before			15.48								
After			15.98								
10.00 (Minimum) 45.00 (Nominal) 100.0 (Maximum)											






















Master: 15-Jul-2012 1:37


Before: 21-Sep-2012 1:23




After: 21-Sep-2012 1:28

Hostile Natural Gamma Ray Sonde Wellsite Calibration


Detector 2 Check




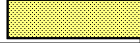


Na 511 Peak Loc			Value	Phase	Na 511 Peak Res %			Value	Phase	High Voltage V			Value	
Master			39.55	Master			16.74	Master			1112			
Before			39.64	Before			16.05	Before			1067			
After			39.78	After			14.99	After			1067			
37.50 (Minimum)			40.00 (Nominal)	43.50 (Maximum)	12.00 (Minimum)			15.50 (Nominal)	19.00 (Maximum)	900.0 (Minimum)			1150 (Nominal)	1600 (Maximum)
Na 1785 Peak Loc			Value	Phase	Na 1785 Peak Res %			Value	Phase	Temperature DEGC			Value	
Master			142.2	Master			9.140	Master			30.92			
Before			141.8	Before			8.464	Before			6.453			
After			141.9	After			9.198	After			6.596			
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			18.43											
Before			15.49											
After			15.98											
10.00 (Minimum)			45.00 (Nominal)	100.0 (Maximum)										

After		16.22
	10.00 (Minimum) 45.00 (Nominal) 100.0 (Maximum)	
Master: 15-Jul-2012 1:37 Before: 21-Sep-2012 1:23 After: 21-Sep-2012 1:28		

Hostile Natural Gamma Ray Sonde Wellsite Calibration		
Ratio Of Detector 1 To Detector 2		
Phase	Coincidence Count Rate Ratio	Value
Master		0.9742
Before		0.9968
After		0.9870
	0.9500 (Minimum) 1.000 (Nominal) 1.050 (Maximum)	
Master: 15-Jul-2012 1:37		
Before: 21-Sep-2012 1:23		
After: 21-Sep-2012 1:28		

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

Enhanced DTS Cartridge Wellsite Calibration		
EDTC Accelerometer Calibration		
Phase	EDTC Z-Axis Acceleration M/S2	Value
Before		9.852
	9.610 (Minimum) 9.810 (Nominal) 10.01 (Maximum)	
Before: 20-Sep-2012 18:08		

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		4.007	Before		159.7	Before		165.0	
After		4.426	After		162.2	After		167.6	
	0 (Minimum) 30.00 (Nominal) 120.0 (Maximum)			145.2 (Minimum) 159.7 (Nominal) 174.2 (Maximum)			150.0 (Minimum) 165.0 (Nominal) 180.0 (Maximum)		
Before: 20-Sep-2012 18:08					After: 20-Sep-2012 21:12				

Company: **Lamont Doherty Earth Observatory**
Shell
Well: **Expedition 344S, U0060A (USC60)**
Field: **Baffin Bay**
Rig: **JOIDES Resolution**
Country: **USA**

Schlumberger

HRLA Resistivity

