

Schlumberger

Company: Lamont Doherty Earth Observatory

Well: Expedition 340, Site U1395B

Field: Lesser Antilles Volcanism and Landslides

Rig: JOIDES Resolution Ocean: Caribbean

Hostile Natural Gamma Sonde (HN GS)
Spectroscopy

Rig: JOIDES Resolution
Field: Lesser Antilles Volcanism and Landslides
Location: Latitude: N 16° 29.60'
Well: Expedition 340, Site U1395B
Company: Lamont Doherty Earth Observatory

LOCATION	Latitude: N 16° 29.60'	Elev.: K.B. -1211.60 m	
	Longitude: W 61° 57.09'	G.L. 0.00 m	
		D.F. -1211.60 m	
Permanent Datum: <u>Sea Floor</u>		Elev.: <u>0.00 m</u>	
Log Measured From: <u>Sea Floor</u>		0.00 m above Perm. Datum	
Drilling Measured From: <u>Sea Floor</u>			
API Serial No.	Max. Hole Devi. 0 deg	Longitude W 61° 57.09	Latitude N 16° 29.60'

Logging Date	16-Mar-2012		
Run Number	1		
Depth Driller	204 m		
Schlumberger Depth	203 m		
Bottom Log Interval	203 m		
Top Log Interval	0 m		
Casing Driller Size @ Depth	13.375 in @ 83 m		
Casing Schlumberger	82 m		
Bit Size	11.438 in		
Type Fluid In Hole	Seawater		
Density	Viscosity	1.25 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	@ 21	@ 21
		@	@
Maximum Recorded Temperatures	21 degC		
Circulation Stopped	Time	16-Mar-2012	12:00
Logger On Bottom	Time	16-Mar-2012	6:12
Unit Number	Location	625003	Houston
Recorded By	K. Swain		
Witnessed By	A. Slagle, S. Morgan		

	Run 1	Run 2	Run 3
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			
Density	Viscosity		
Fluid Loss	PH		
Source Of Sample			
RM @ Measured Temperature	@		
RMF @ Measured Temperature	@		
RMC @ Measured Temperature	@		
Source RMF	RMC		
RM @ MRT	RMF @ MRT	@	@
Maximum Recorded Temperatures			
Circulation Stopped	Time		
Logger On Bottom	Time		
Unit Number	Location		
Recorded By			
Witnessed By			

DISCLAIMER

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OTHER SERVICES1
 OS1: FMS
 OS2: MSS
 OS3: DSI
 OS4: HLDS
 OS5:

OTHER SERVICES2
 OS1:
 OS2:
 OS3:
 OS4:
 OS5:

REMARKS: RUN NUMBER 1
 Hole drilled with APC/XCB coring bit and bottom hole assembly (BHA) 11 7/16" bit
 Lamont Magnetic Susceptibility (MSS) tool run in combination with HRLA/HLDS/HNGS
 4 knuckle joints decouple the eccentered HLDS and HNGS from the centered HRLA and MSS.
 MSS tool run but susceptibility data not available due to electronic problem.
 Log played back using a zone parameter for GCSE using input for BS or LCAL.
 BS is used where caliper is closing or closed. LCAL is used where caliper is valid.
 Density data is valid only where the caliper is open.

REMARKS: RUN NUMBER 2

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

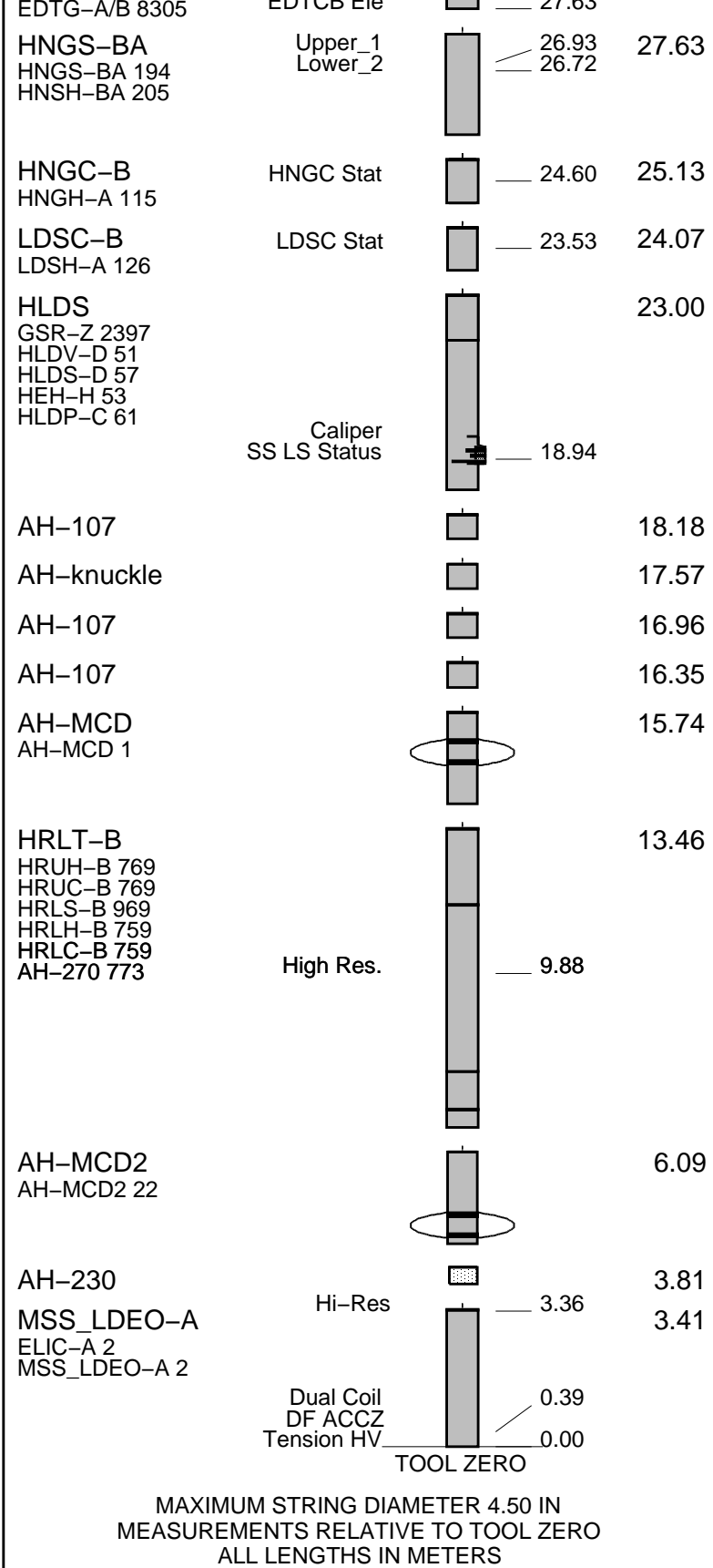
SURFACE EQUIPMENT

GSR-U 616008
 WITM (EDTS)-A 1

RUN 2

DOWNHOLE EQUIPMENT

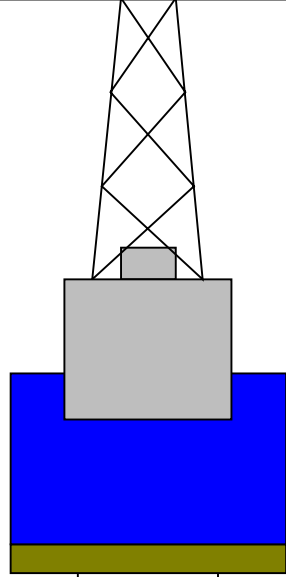
LEH-QT			30.94
LEH-QT 301			
AH-369	MDSB_EDTC		29.61
	Mud Tempe		30.05
	CTEM		28.55
EDTC-B	Gamma Ray		27.98
EDTH-B 8303	EFTB DIAG		29.61
EDTC-B 8317	TelStatus		
	EDTCB_Ele		27.62



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

Kelly Bushing Elevation
Derrick Floor Elevation
Mean Sea Level

-1211.6
-1211.6
-1200.6



4.1



0
83
204

3.80
11.43

Sea Floor
Open Hole
Total Depth

Input DLIS Files

DEFAULT MSS_LDEO_HRLA_LDL_036PUP FN:50 PRODUCER 18-Mar-2012 15:05 1412.7 M 1191.5 M

Output DLIS Files

DEFAULT MSS_LDEO_HRLA_LDL_038PUP FN:52 PRODUCER 18-Mar-2012 15:13 203.5 M -17.5 M

OP System Version: 19C0-187

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

Changed Parameter Summary

DLIS Name	New Value	Previous Value	Depth & Time
GCSE	BS	BS	203.5 15:13:40

PIP SUMMARY

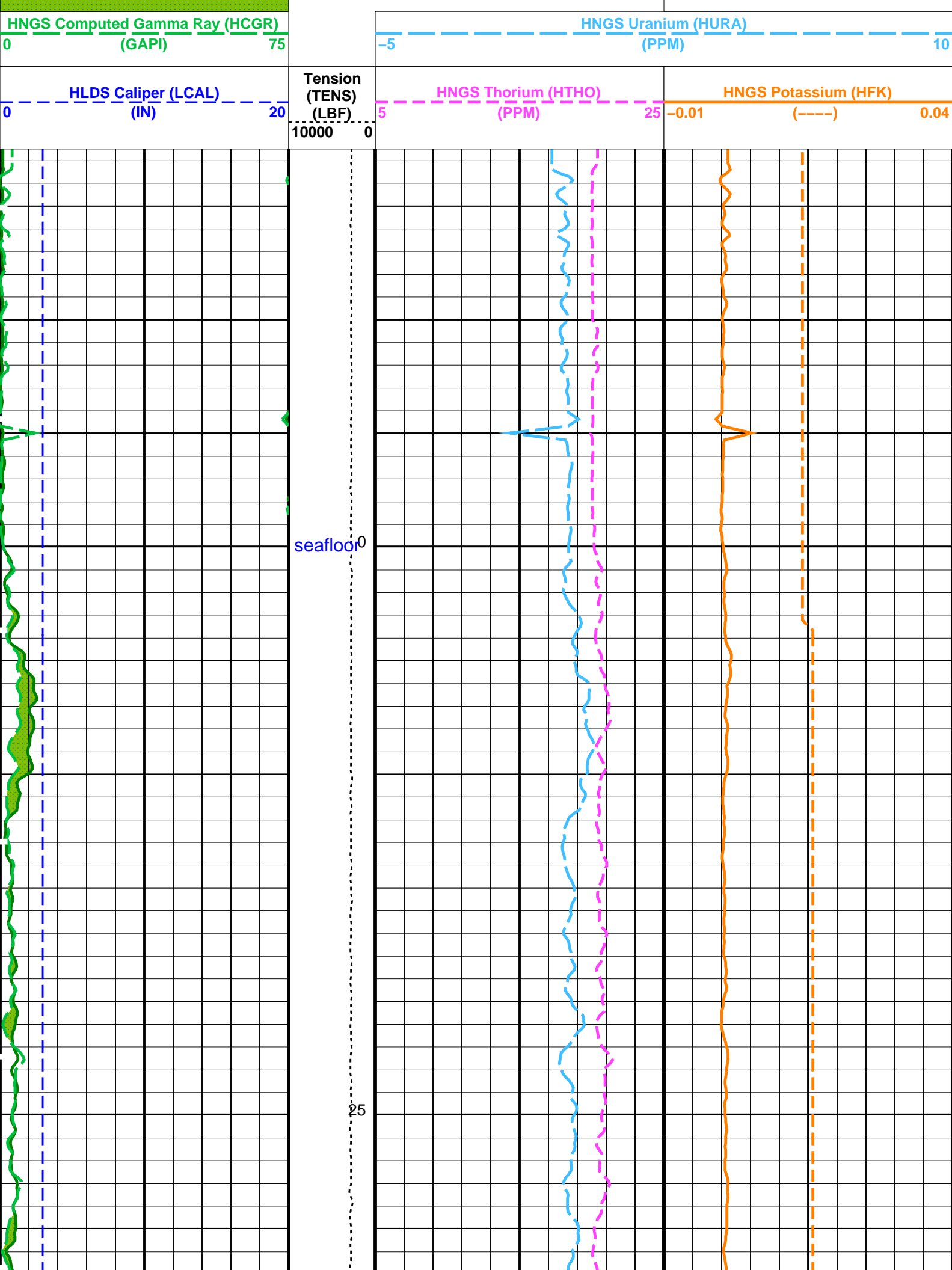
Time Mark Every 60 S

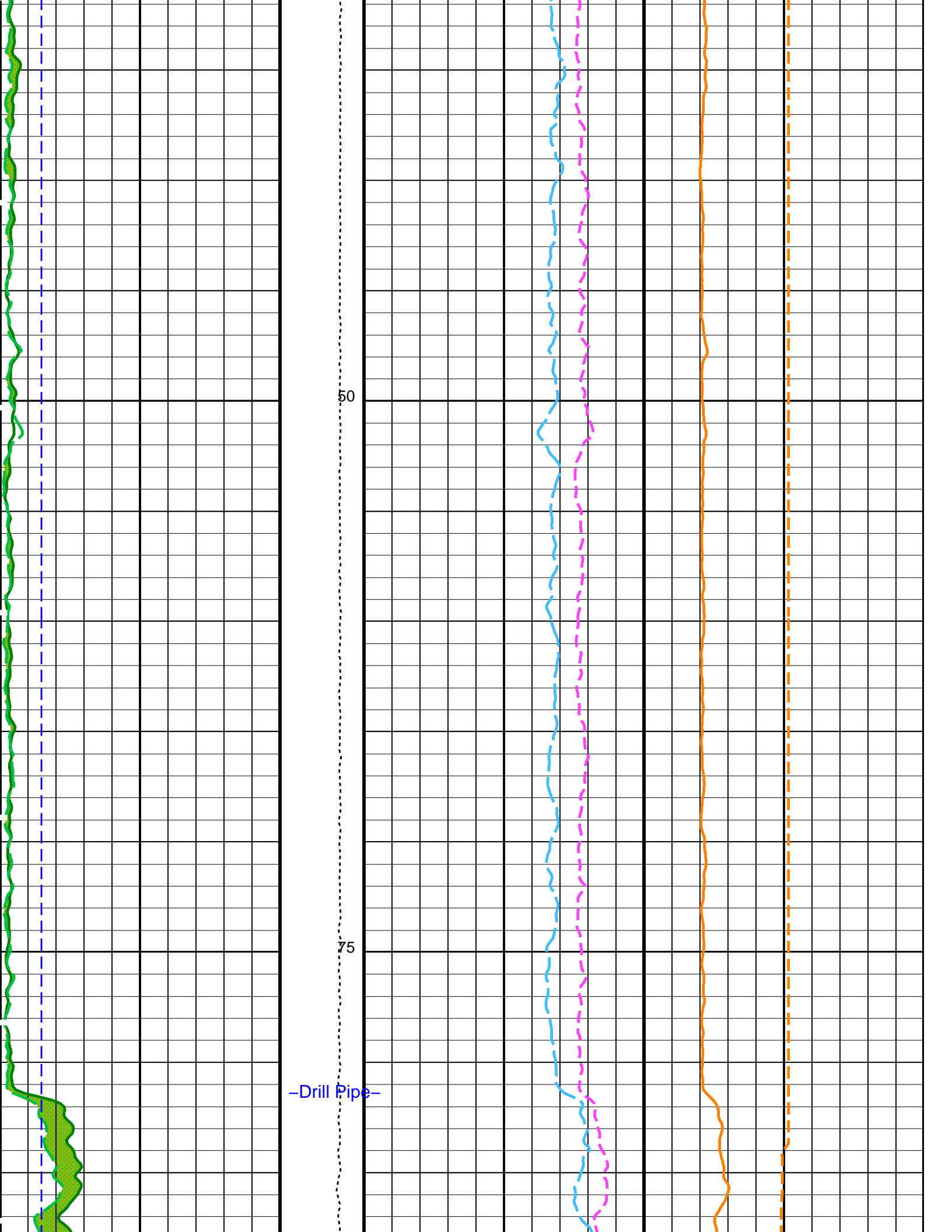
HNGS Spectroscopy Gamma Ray
(HSGR)
0 (GAPI) 75

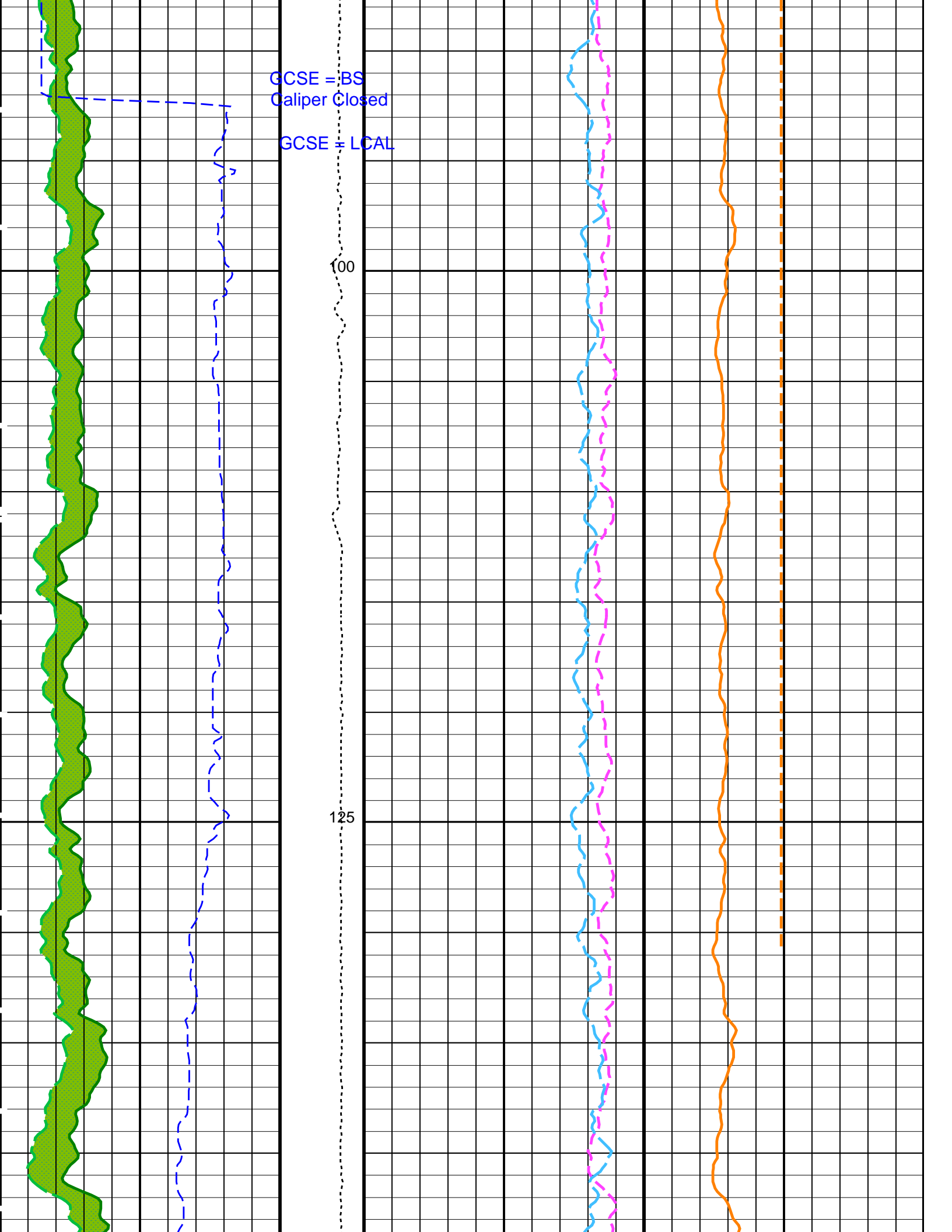
2nd Pass, Sea Floor Depth Reference

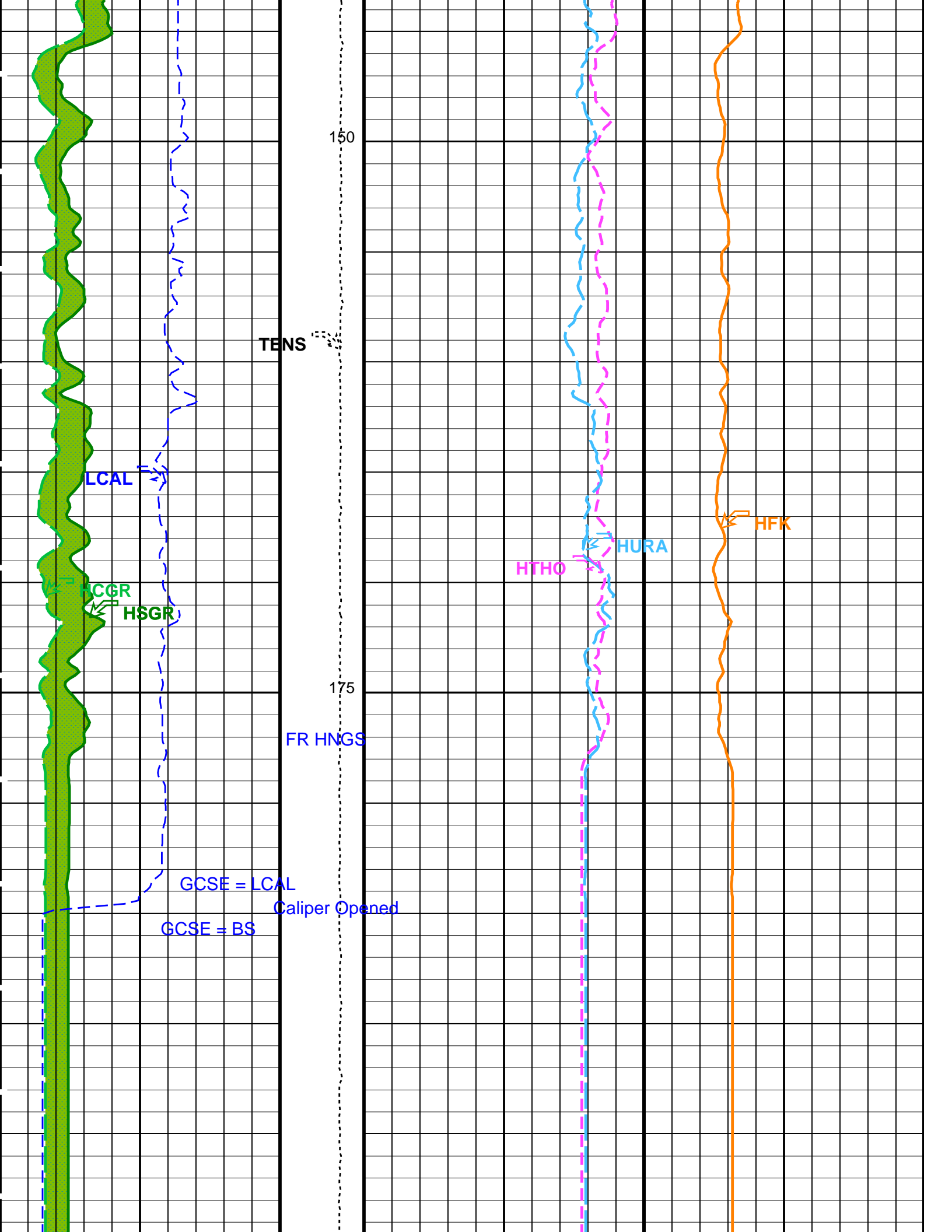
Area1
From HCGR to HSGR

HNGS Borehole Potassium (HBHK)
-0.05 (-----) 0.05









150

TENS

LCAL

HCGR

HSGR

175

FR HNGS

GCSE = LCAL

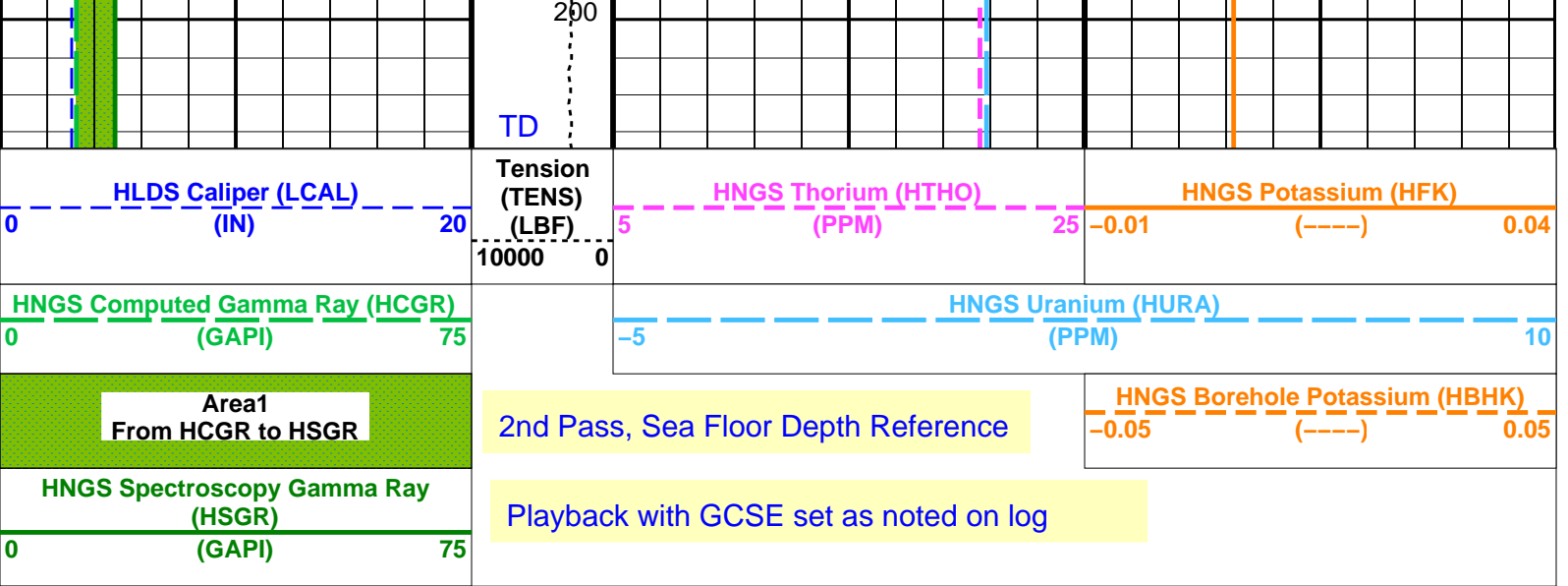
GCSE = BS

Caliper Opened

HTHO

HURA

HFK



PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value
HRLT-B: High Resolution Laterolog Array - B		
BHS	Borehole Status	OPEN
GCSE	Generalized Caliper Selection	BS
HNGS-BA: Hostile Natural Gamma Ray Sonde		
BAR1	HNGS Detector 1 Barite Constant	1
BAR2	HNGS Detector 2 Barite Constant	1
BHK	HNGS Borehole Potassium Correction Concentration	0
BHS	Borehole Status	OPEN
CSD1	Inner Casing Outer Diameter	0 IN
CSD2	Outer Casing Outer Diameter	0 IN
CSW1	Inner Casing Weight	0 LB/F
CSW2	Outer Casing Weight	0 LB/F
DBCC	HNGS Barite Constant Correction Flag	NONE
GCSE	Generalized Caliper Selection	BS
H1P	HNGS Detector 1 Allow/Disallow In Processing	ALLOW
H2P	HNGS Detector 2 Allow/Disallow In Processing	ALLOW
HABK	HNGS Borehole Potassium Running Average	-0.000814831
HALF	HNGS Alpha Filter Length	60 IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE
HMWM	Mud Weighting Material	BARI
HNPE	HNGS Processing Enable	YES
S1BI	HNGS Detector 1 Calibration Bismuth Count Rate	1.3 CPS
S2BI	HNGS Detector 2 Calibration Bismuth Count Rate	1.3 CPS
SGRC	HNGS Standard Gamma-Ray Correction Flag	YES
TPOS	Tool Position	ECCE
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	1.00364
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	-0.376766
EDTC-B: Enhanced DTS Cartridge		
BHS	Borehole Status	OPEN
GCSE	Generalized Caliper Selection	BS
System and Miscellaneous		
BS	Bit Size	11.438 IN
DO	Depth Offset for Playback	-1209.0 M
PP	Playback Processing	OFF

Format: HNGSYields

Vertical Scale: 1:200

Graphics File Created: 18-Mar-2012 15:13

OP System Version: 19C0-187

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

Input DLIS Files

DEFAULT	MSS_LDEO_HRLA_LDL_036PUP	FN:50	PRODUCER	18-Mar-2012 15:05	1412.7 M	1191.5 M
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Output DLIS Files

Input DLIS Files

DEFAULT MSS_LDEO_HRLA_LDL_035PUP FN:49 PRODUCER 18-Mar-2012 15:04 1412.7 M 1329.8 M

Output DLIS Files

DEFAULT MSS_LDEO_HRLA_LDL_037PUP FN:51 PRODUCER 18-Mar-2012 15:12 203.5 M 120.9 M

OP System Version: 19C0-187

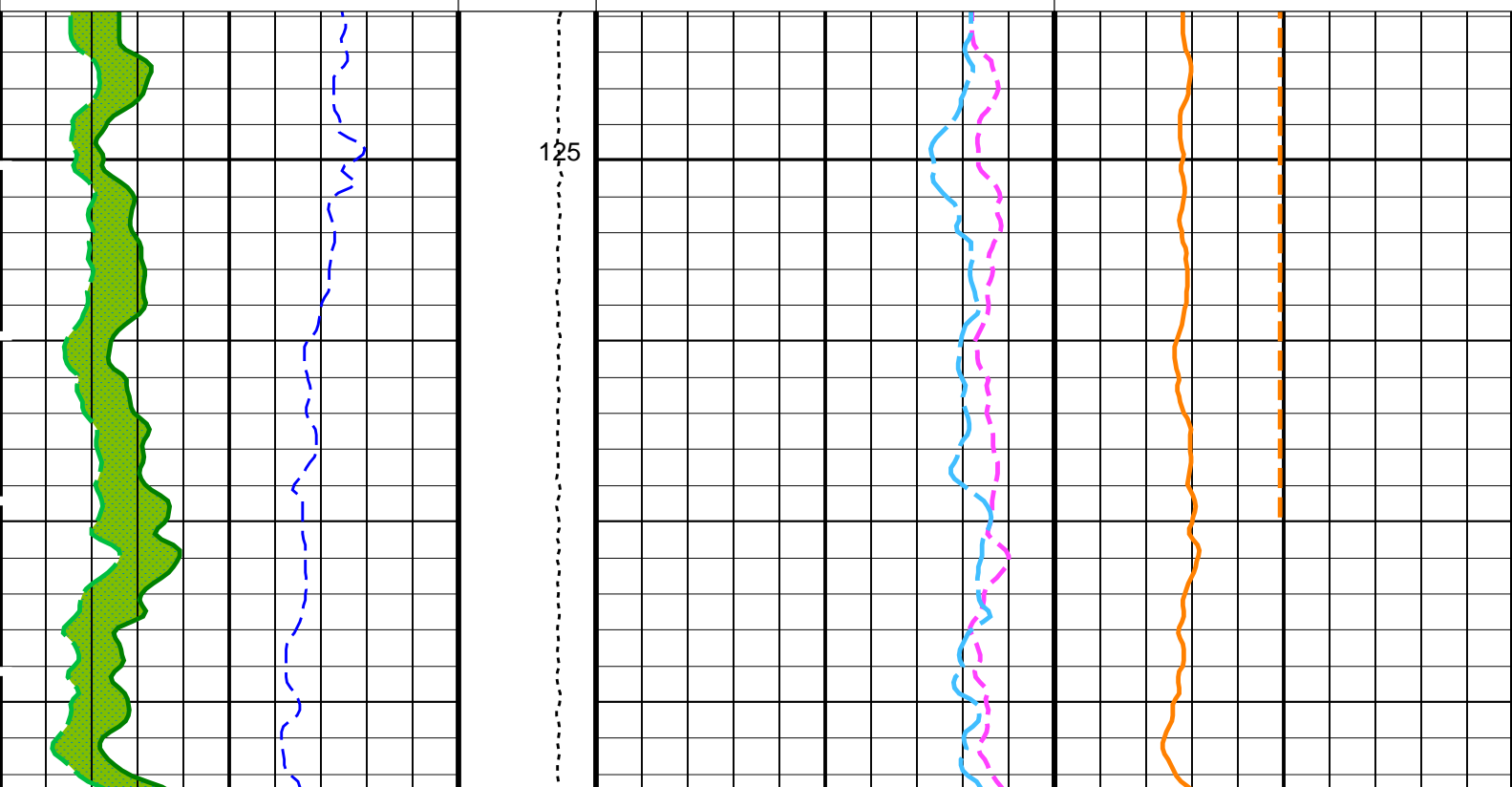
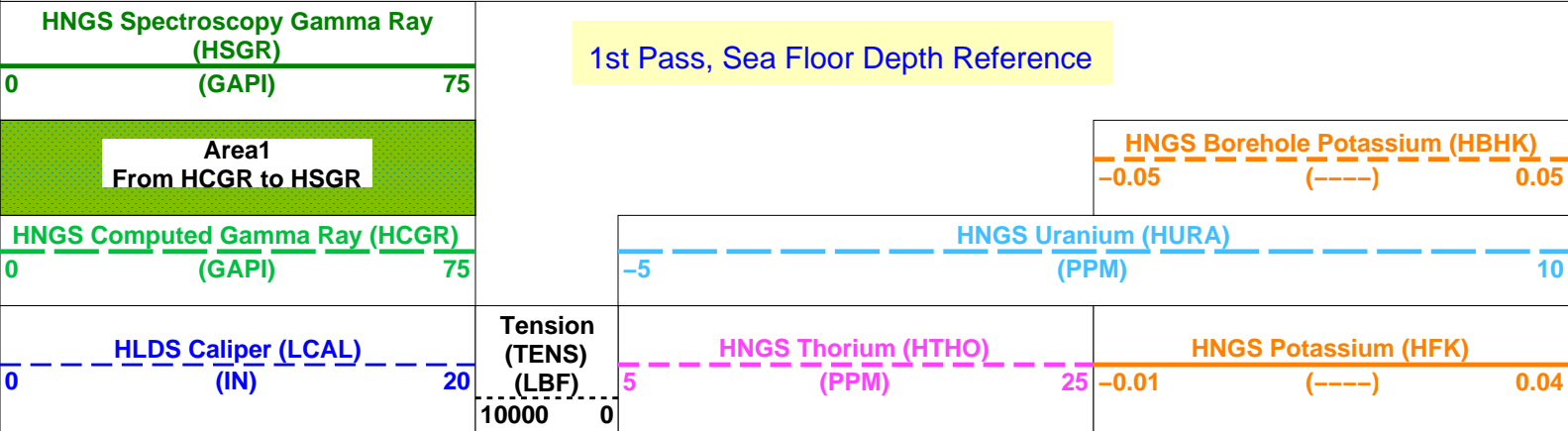
MSS_LDEO-A	19C0-187	HRLT-B	19C0-187
HLDS	19C0-187	LDSC-B	19C0-187
HNGC-B	19C0-187	HNGS-BA	19C0-187
EDTC-B	SKK-5169-EDTCB		

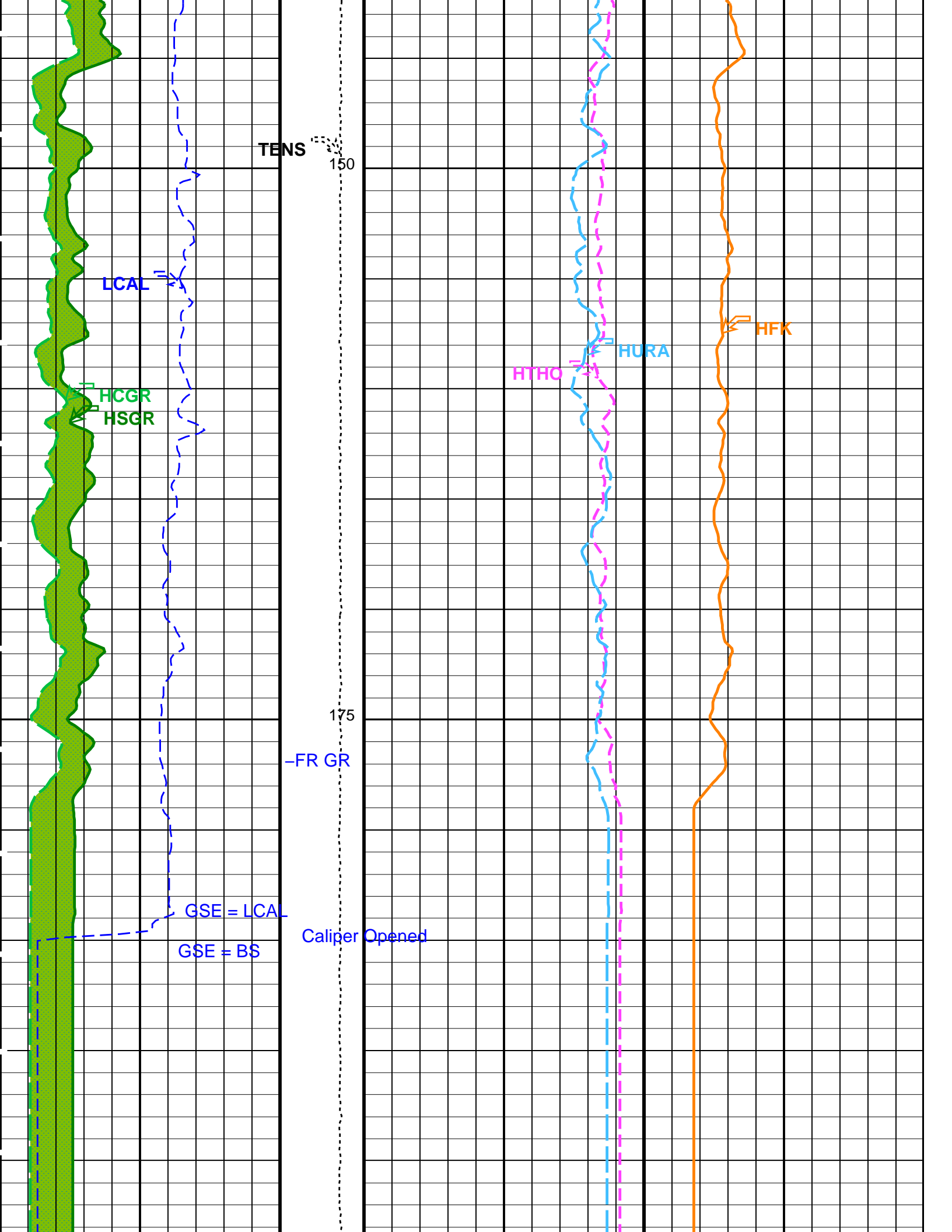
Changed Parameter Summary

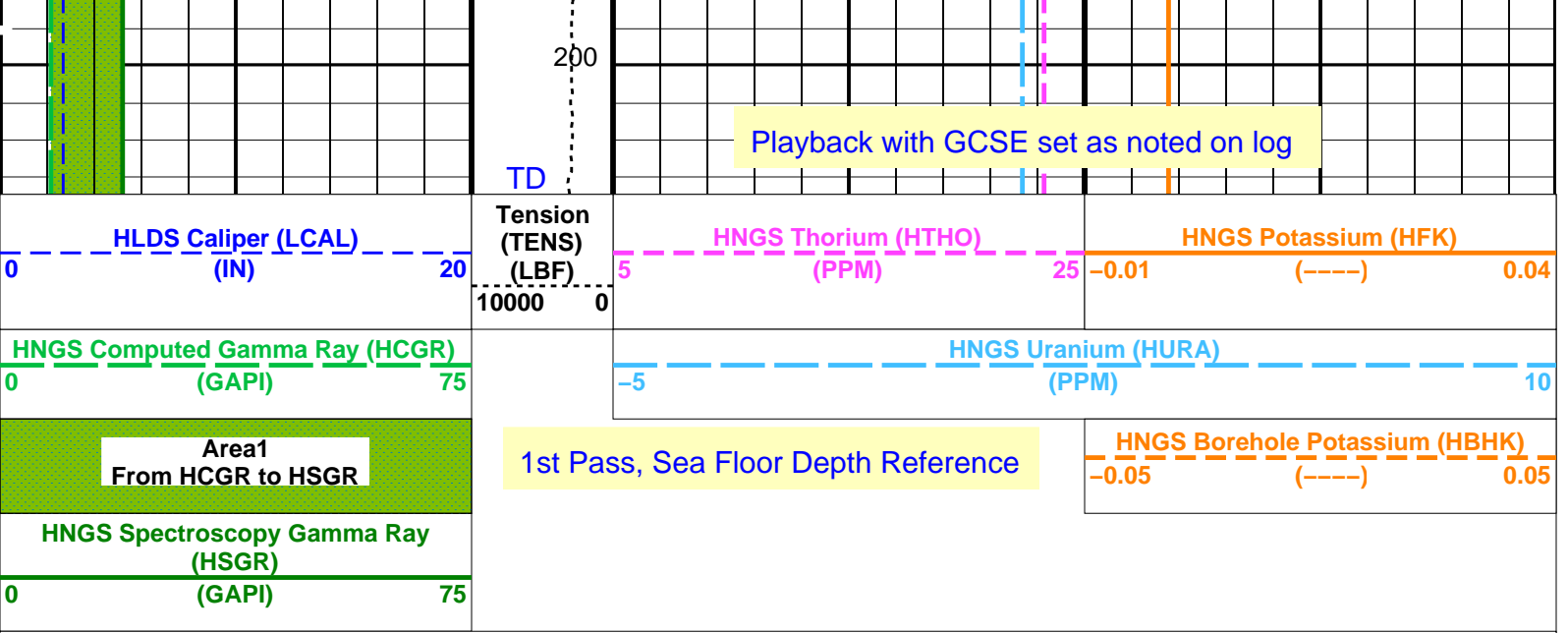
DLIS Name	New Value	Previous Value	Depth & Time
GCSE	BS	BS	203.5 15:12:40

PIP SUMMARY

Time Mark Every 60 S







PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value
HRLT-B: High Resolution Laterolog Array - B		
BHS	Borehole Status	OPEN
GCSE	Generalized Caliper Selection	BS
HNGS-BA: Hostile Natural Gamma Ray Sonde		
BAR1	HNGS Detector 1 Barite Constant	1
BAR2	HNGS Detector 2 Barite Constant	1
BHK	HNGS Borehole Potassium Correction Concentration	0
BHS	Borehole Status	OPEN
CSD1	Inner Casing Outer Diameter	0 IN
CSD2	Outer Casing Outer Diameter	0 IN
CSW1	Inner Casing Weight	0 LB/F
CSW2	Outer Casing Weight	0 LB/F
DBCC	HNGS Barite Constant Correction Flag	NONE
GCSE	Generalized Caliper Selection	BS
H1P	HNGS Detector 1 Allow/Disallow In Processing	ALLOW
H2P	HNGS Detector 2 Allow/Disallow In Processing	ALLOW
HABK	HNGS Borehole Potassium Running Average	-0.000814831
HALF	HNGS Alpha Filter Length	60 IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE
HMWM	Mud Weighting Material	BARI
HNPE	HNGS Processing Enable	YES
S1BI	HNGS Detector 1 Calibration Bismuth Count Rate	1.3 CPS
S2BI	HNGS Detector 2 Calibration Bismuth Count Rate	1.3 CPS
SGRC	HNGS Standard Gamma-Ray Correction Flag	YES
TPOS	Tool Position	ECCE
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	1.00364
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	-0.376766
EDTC-B: Enhanced DTS Cartridge		
BHS	Borehole Status	OPEN
GCSE	Generalized Caliper Selection	BS
System and Miscellaneous		
BS	Bit Size	11.438 IN
DO	Depth Offset for Playback	-1209.0 M
PP	Playback Processing	OFF

Format: HNGSYields

Vertical Scale: 1:200

Graphics File Created: 18-Mar-2012 15:12

OP System Version: 19C0-187

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

Input DLIS Files

DEFAULT MSS_LDEO_HRLA_LDL_035PUP FN:49 PRODUCER 18-Mar-2012 15:04 1412.7 M 1329.8 M

Output DLIS Files

DEFAULT MSS_LDEO_HRLA_LDL_037PUP FN:51 PRODUCER 18-Mar-2012 15:12

Calibration and Check Summary

Measurement	Nominal	Master	Before	After	Change	Limit	Units
High Resolution Laterolog Array – B Wellsite Calibration – HRLT M01							
Before: 16-Mar-2012 5:06 After: 16-Mar-2012 9:52							
HRLT M0-M1 Voltage Plus – 0	0	N/A	-318.4	-318.4	0.005524	9.681	UV
HRLT M0-M1 Voltage Plus – 1	0	N/A	-325.5	-325.6	-0.08093	9.681	UV
HRLT M0-M1 Voltage Plus – 2	0	N/A	-328.4	-328.6	-0.1485	9.681	UV
HRLT M0-M1 Voltage Plus – 3	0	N/A	-333.7	-333.7	0	9.681	UV
HRLT M0-M1 Voltage Plus – 4	0	N/A	-324.3	-324.2	0.03174	9.681	UV
HRLT M0-M1 Voltage Plus – 5	0	N/A	-320.9	-320.8	0.08734	9.681	UV
HRLT M0-M1 Voltage Plus – 6	0	N/A	317.5	317.6	0.09869	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: 16-Mar-2012 5:06 After: 16-Mar-2012 9:52							
HRLT M1-M2 Voltage Plus – 0	0	N/A	1751	1751	0.3818	53.42	UV
HRLT M1-M2 Voltage Plus – 1	0	N/A	1788	1789	0.7792	53.42	UV
HRLT M1-M2 Voltage Plus – 2	0	N/A	1800	1801	1.259	53.42	UV
HRLT M1-M2 Voltage Plus – 3	0	N/A	1830	1830	0.5406	53.42	UV
HRLT M1-M2 Voltage Plus – 4	0	N/A	1779	1779	0.4772	53.42	UV
HRLT M1-M2 Voltage Plus – 5	0	N/A	1762	1762	0.2520	53.42	UV
HRLT M1-M2 Voltage Plus – 6	0	N/A	-1752	-1753	-0.7925	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: 16-Mar-2012 5:06 After: 16-Mar-2012 9:52							
HRLT M2-M3 Voltage Plus – 0	0	N/A	1737	1736	-0.5146	53.42	UV
HRLT M2-M3 Voltage Plus – 1	0	N/A	1787	1786	-0.7456	53.42	UV
HRLT M2-M3 Voltage Plus – 2	0	N/A	1800	1800	-0.06702	53.42	UV
HRLT M2-M3 Voltage Plus – 3	0	N/A	1833	1832	-0.4811	53.42	UV
HRLT M2-M3 Voltage Plus – 4	0	N/A	1776	1775	-0.9590	53.42	UV
HRLT M2-M3 Voltage Plus – 5	0	N/A	1760	1759	-0.7697	53.42	UV
HRLT M2-M3 Voltage Plus – 6	0	N/A	-1740	-1740	0.6014	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: 16-Mar-2012 5:06 After: 16-Mar-2012 9:52							
HRLT A3-A4 Voltage Plus – 0	0	N/A	68230	68240	8.789	2100	UV
HRLT A3-A4 Voltage Plus – 1	0	N/A	69990	70010	24.23	2100	UV
HRLT A3-A4 Voltage Plus – 2	0	N/A	70800	70830	37.80	2100	UV
HRLT A3-A4 Voltage Plus – 3	0	N/A	72350	72380	20.48	2100	UV
HRLT A3-A4 Voltage Plus – 4	0	N/A	70080	70090	9.359	2100	UV
HRLT A3-A4 Voltage Plus – 5	0	N/A	69460	69460	-0.6484	2100	UV
HRLT A3-A4 Voltage Plus – 6	0	N/A	-67200	-67220	-20.80	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: 16-Mar-2012 5:06 After: 16-Mar-2012 9:52							
HRLT A4-A5 Voltage Plus – 0	0	N/A	68510	68520	8.148	2100	UV
HRLT A4-A5 Voltage Plus – 1	0	N/A	70370	70420	50.27	2100	UV
HRLT A4-A5 Voltage Plus – 2	0	N/A	71140	71170	34.51	2100	UV
HRLT A4-A5 Voltage Plus – 3	0	N/A	72700	72720	18.21	2100	UV
HRLT A4-A5 Voltage Plus – 4	0	N/A	70380	70390	14.04	2100	UV
HRLT A4-A5 Voltage Plus – 5	0	N/A	69740	69740	3.234	2100	UV
HRLT A4-A5 Voltage Plus – 6	0	N/A	-67550	-67600	-46.80	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: 16-Mar-2012 5:06 After: 16-Mar-2012 9:52							
HRLT A5-A6 Voltage Plus – 0	0	N/A	68420	68420	7.523	2100	UV
HRLT A5-A6 Voltage Plus – 1	0	N/A	70100	70120	23.77	2100	UV
HRLT A5-A6 Voltage Plus – 2	0	N/A	70920	70950	36.16	2100	UV
HRLT A5-A6 Voltage Plus – 3	0	N/A	72500	72520	19.73	2100	UV
HRLT A5-A6 Voltage Plus – 4	0	N/A	70240	70250	8.016	2100	UV
HRLT A5-A6 Voltage Plus – 5	0	N/A	69620	69620	2.594	2100	UV
HRLT A5-A6 Voltage Plus – 6	0	N/A	-67290	-67320	-31.20	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: 16-Mar-2012 5:06 After: 16-Mar-2012 9:52

HRLT Torpedo-M0 Voltage - 0	0	N/A	-68090	-68100	-7.188	2100	UV
HRLT Torpedo-M0 Voltage - 1	0	N/A	-70420	-70440	-20.00	2100	UV
HRLT Torpedo-M0 Voltage - 2	0	N/A	-71200	-71240	-40.66	2100	UV
HRLT Torpedo-M0 Voltage - 3	0	N/A	-72770	-72790	-22.43	2100	UV
HRLT Torpedo-M0 Voltage - 4	0	N/A	-70430	-70440	-3.828	2100	UV
HRLT Torpedo-M0 Voltage - 5	0	N/A	-69780	-69770	6.797	2100	UV
HRLT Torpedo-M0 Voltage - 6	0	N/A	67550	67580	30.52	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: 16-Mar-2012 5:06 After: 16-Mar-2012 9:52

HRLT Bridle#9-M0 Voltage - 0	0	N/A	-68080	-68090	-6.594	2100	UV
HRLT Bridle#9-M0 Voltage - 1	0	N/A	-70400	-70430	-22.60	2100	UV
HRLT Bridle#9-M0 Voltage - 2	0	N/A	-71180	-71220	-35.19	2100	UV
HRLT Bridle#9-M0 Voltage - 3	0	N/A	-72760	-72780	-25.31	2100	UV
HRLT Bridle#9-M0 Voltage - 4	0	N/A	-70420	-70430	-10.22	2100	UV
HRLT Bridle#9-M0 Voltage - 5	0	N/A	-69770	-69770	0	2100	UV
HRLT Bridle#9-M0 Voltage - 6	0	N/A	67540	67560	27.21	2100	UV
HRLT Bridle#9-M0 Voltage - 7	0	N/A	-70000	-70000	0	2100	UV

High Resolution Laterolog Array - B Wellsite Calibration - HRLT ISO

Before: 16-Mar-2012 5:06 After: 16-Mar-2012 9:52

HRLT Source Current Plus - 0	0	N/A	283.9	284.0	0.1208	8.520	UA
HRLT Source Current Plus - 1	0	N/A	281.1	281.1	0	8.520	UA
HRLT Source Current Plus - 2	0	N/A	281.1	281.1	0	8.520	UA
HRLT Source Current Plus - 3	0	N/A	281.1	281.1	0	8.520	UA
HRLT Source Current Plus - 4	0	N/A	281.1	281.1	0	8.520	UA
HRLT Source Current Plus - 5	0	N/A	281.1	281.1	0	8.520	UA
HRLT Source Current Plus - 6	0	N/A	281.1	281.1	0	8.520	UA
HRLT Source Current Plus - 7	0	N/A	281.1	281.1	0	8.520	UA

High Resolution Laterolog Array - B Wellsite Calibration - HRLT MV

Before: 16-Mar-2012 5:06 After: 16-Mar-2012 9:52

HRLT Vertical Voltage PI - 0	0	N/A	-320.8	-320.6	0.1819	9.681	UV
HRLT Vertical Voltage PI - 1	0	N/A	-319.8	-319.7	0.1165	9.681	UV
HRLT Vertical Voltage PI - 2	0	N/A	-322.0	-322.0	0.08130	9.681	UV
HRLT Vertical Voltage PI - 3	0	N/A	-325.6	-325.4	0.1804	9.681	UV
HRLT Vertical Voltage PI - 4	0	N/A	-313.8	-313.5	0.3025	9.681	UV
HRLT Vertical Voltage PI - 5	0	N/A	-325.6	-325.3	0.2599	9.681	UV
HRLT Vertical Voltage PI - 6	0	N/A	324.6	324.5	-0.1247	9.681	UV
HRLT Vertical Voltage PI - 7	0	N/A	-322.7	-322.7	0	9.681	UV

Hostile Litho-Density Sonde Wellsite Calibration - Background Measurement

Master: 28-Feb-2012 2:19 Before: 28-Feb-2012 2:36 After: 16-Mar-2012 9:55

SS Cs Resolution Bkg	9.000	8.563	8.511	8.515	0.004113	1.800	%
LS Cs Resolution Bkg	9.000	8.637	8.632	8.614	-0.01812	1.800	%
LSW1 Background	100.0	71.69	71.37	70.54	-0.8282	0.03000	CPS
LSW2 Background	100.0	65.72	64.67	64.80	0.1281	0.03000	CPS
LSW3 Background	200.0	147.7	146.0	145.7	-0.3243	0.03000	CPS
LSW4 Background	250.0	178.3	178.0	176.6	-1.411	0.03000	CPS
LSW5 Background	600.0	402.3	401.7	405.1	3.367	0.03000	CPS
SSW1 Background	100.0	68.69	69.17	70.11	0.9393	0.03000	CPS
SSW2 Background	200.0	121.6	122.1	123.1	0.9534	0.03000	CPS
SSW3 Background	500.0	321.9	321.7	320.2	-1.431	0.03000	CPS
SSW4 Background	270.0	172.2	173.0	171.5	-1.533	0.03000	CPS
SSW5 Background	200.0	123.5	123.8	125.1	1.368	0.03000	CPS

Hostile Litho-Density Sonde Wellsite Calibration - Aluminum Measurement

Master: 28-Feb-2012 2:19

LSW1 Aluminum	600.0	521.9	N/A	N/A	N/A	N/A	CPS
LSW2 Aluminum	900.0	758.2	N/A	N/A	N/A	N/A	CPS
LSW3 Aluminum	1100	921.8	N/A	N/A	N/A	N/A	CPS
LSW4 Aluminum	580.0	463.1	N/A	N/A	N/A	N/A	CPS
LSW5 Aluminum	570.0	428.2	N/A	N/A	N/A	N/A	CPS
SSW1 Aluminum	2800	2229	N/A	N/A	N/A	N/A	CPS
SSW2 Aluminum	8000	6354	N/A	N/A	N/A	N/A	CPS
SSW3 Aluminum	11600	9261	N/A	N/A	N/A	N/A	CPS
SSW4 Aluminum	5000	3871	N/A	N/A	N/A	N/A	CPS
SSW5 Aluminum	660.0	518.3	N/A	N/A	N/A	N/A	CPS

Hostile Litho-Density Sonde Wellsite Calibration - Lithology Measurement

Master: 28-Feb-2012 2:19

LSW1 Iron	400.0	352.2	N/A	N/A	N/A	N/A	CPS
LSW2 Iron	730.0	613.7	N/A	N/A	N/A	N/A	CPS
LSW3 Iron	1000	811.4	N/A	N/A	N/A	N/A	CPS
LSW4 Iron	520.0	425.3	N/A	N/A	N/A	N/A	CPS
LSW5 Iron	470.0	389.1	N/A	N/A	N/A	N/A	CPS
SSW1 Iron	2100	1664	N/A	N/A	N/A	N/A	CPS
SSW2 Iron	6800	5327	N/A	N/A	N/A	N/A	CPS
SSW3 Iron	10800	8450	N/A	N/A	N/A	N/A	CPS
SSW4 Iron	4600	3532	N/A	N/A	N/A	N/A	CPS

SSW4 Iron	4800	3532	N/A	N/A	N/A	N/A	CPS
SSW5 Iron	580.0	458.1	N/A	N/A	N/A	N/A	CPS
Hostile Litho-Density Sonde Wellsite Calibration – Caliper Calibration							
Before: 28-Feb-2012 2:41							
HLDS Caliper Small Ring	12.00	N/A	13.84	N/A	N/A	N/A	IN
HLDS Caliper Large Ring	15.19	N/A	17.47	N/A	N/A	N/A	IN
Hostile Natural Gamma Ray Sonde Wellsite Calibration – Detector 1 Check							
Master: 26-Feb-2012 20:15 Before: 6-Mar-2012 18:49 After: 16-Mar-2012 9:56							
Na 511 Peak Loc	40.00	39.64	39.54	39.62	0.07774	1.000	
Na 511 Peak Res	15.50	14.75	15.72	16.19	0.4740	2.000	%
High Voltage	1150	1169	1182	1177	-5.114	N/A	V
Na 1785 Peak Loc	142.6	141.6	141.5	141.9	0.4290	7.000	
Na 1785 Peak Res	8.500	8.869	8.671	9.301	0.6298	2.000	%
Temperature	15.50	26.03	31.35	29.11	-2.234	N/A	DEGC
Na Count Rate	45.00	19.34	19.64	19.01	-0.6245	8.000	CPS
Hostile Natural Gamma Ray Sonde Wellsite Calibration – Detector 2 Check							
Master: 26-Feb-2012 20:15 Before: 6-Mar-2012 18:49 After: 16-Mar-2012 9:56							
Na 511 Peak Loc	40.00	39.65	39.61	39.70	0.08602	1.000	
Na 511 Peak Res	15.50	16.96	15.84	15.58	-0.2573	2.000	%
High Voltage	1150	1100	1109	1109	-0.5347	N/A	V
Na 1785 Peak Loc	142.6	142.2	141.4	141.9	0.4977	7.000	
Na 1785 Peak Res	8.500	7.801	8.832	8.220	-0.6116	2.000	%
Temperature	15.50	26.16	31.73	30.66	-1.068	N/A	DEGC
Na Count Rate	45.00	19.53	20.28	19.14	-1.142	8.000	CPS
Hostile Natural Gamma Ray Sonde Wellsite Calibration – Ratio Of Detector 1 To Detector 2							
Master: 26-Feb-2012 20:15 Before: 6-Mar-2012 18:49 After: 16-Mar-2012 9:56							
Coincidence Count Rate Ratio	1.000	0.9899	0.9701	0.9937	0.02364	0.05000	
Hostile Natural Gamma Ray Sonde Master Calibration – Detector 1 Calibration							
Master: 26-Feb-2012 20:03							
Na 511 Peak Set Point	40.00	41.00	---	---	---	---	
Th Peak Loc	209.6	210.0	---	---	---	---	
Th Peak Res	7.000	6.521	---	---	---	---	%
Background Count Rate	142.5	18.97	---	---	---	---	CPS
Gain Ratio	1.000	1.008	---	---	---	---	
Hostile Natural Gamma Ray Sonde Master Calibration – Detector 2 Calibration							
Master: 26-Feb-2012 20:03							
Na 511 Peak Set Point	40.00	41.00	---	---	---	---	
Th Peak Loc	209.6	207.8	---	---	---	---	
Th Peak Res	7.000	6.775	---	---	---	---	%
Background Count Rate	142.5	18.84	---	---	---	---	CPS
Gain Ratio	1.000	0.9969	---	---	---	---	
Enhanced DTS Cartridge Wellsite Calibration – EDTC Accelerometer Calibration							
Before: 16-Mar-2012 5:05							
EDTC Z-Axis Acceleration	9.810	N/A	9.747	N/A	N/A	N/A	M/S2
Enhanced DTS Cartridge Wellsite Calibration – Detector Calibration							
Before: 4-Mar-2012 17:35							
Gamma Ray (Jig – Bkg)	159.9	N/A	159.9	N/A	N/A	14.53	GAPI
Gamma Ray (Calibrated)	164.0	N/A	164.0	N/A	N/A	15.00	GAPI

High Resolution Laterolog Array – B / Equipment Identification

Primary Equipment:		
HRLT Sonde	HRLS – B	969
Auxiliary Equipment:		
HRLT lower Housing	HRLH – B	759
HRLT Lower Cartridge	HRLC – B	759
HRLT upper Housing	HRUH – B	769
HRLT Upper Cartridge	HRUC – B	769

Hostile Litho-Density Sonde / Equipment Identification

Primary Equipment:		
Hostile Litho Density Sonde	HLDS – D	57
Hostile Litho Density High Voltage	HLDV – D	51
Gamma Source Radioactive	GSR – Z	2397
Auxiliary Equipment:		

Auxiliary Equipment: Hostile Litho Density Pad Hostile Litho Density High Voltage Housi	HLDP - C HEH - H	61 53
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Litho-Density Spectroscopy Cartridge - B / Equipment Identification		
Primary Equipment: LDSC Cartridge	LDSC - B	366
Auxiliary Equipment: LDSC Housing	LDSH - A	126

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 GSR - U	205 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			39.64	Master			14.75	Master			1169
Before			39.54	Before			15.72	Before			1182
After			39.62	After			16.19	After			1177
	37.50 (Minimum)	40.00 (Nominal)	43.50 (Maximum)		12.00 (Minimum)	15.50 (Nominal)	19.00 (Maximum)		900.0 (Minimum)	1150 (Nominal)	1600 (Maximum)
Phase	Na 1785 Peak Loc		Value	Phase	Na 1785 Peak Res %		Value	Phase	Temperature DEGC		Value
Master			141.6	Master			8.869	Master			26.03
Before			141.5	Before			8.671	Before			31.35
After			141.9	After			9.301	After			29.11
	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			19.34								
Before			19.64								
After			19.01								
	10.00 (Minimum)	45.00 (Nominal)	100.0 (Maximum)								
Master: 26-Feb-2012 20:15			Before: 6-Mar-2012 18:49			After: 16-Mar-2012 9:56					

Hostile Natural Gamma Ray Sonde Wellsite Calibration											
Detector 2 Check											
Phase	Na 511 Peak Loc		Value	Phase	Na 511 Peak Res %		Value	Phase	High Voltage V		Value
Master			39.65	Master			16.96	Master			1100
Before			39.61	Before			15.84	Before			1109
After			39.70	After			15.58	After			1109
	37.50 (Minimum)	40.00 (Nominal)	43.50 (Maximum)		12.00 (Minimum)	15.50 (Nominal)	19.00 (Maximum)		900.0 (Minimum)	1150 (Nominal)	1600 (Maximum)

Phase	Na 1785 Peak Loc	Value	Phase	Na 1785 Peak Res %	Value	Phase	Temperature DEGC	Value
Master		142.2	Master		7.801	Master		26.16
Before		141.4	Before		8.832	Before		31.73
After		141.9	After		8.220	After		30.66
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		19.53						
Before		20.28						
After		19.14						
10.00 (Minimum) 45.00 (Nominal) 100.0 (Maximum)								
Master: 26-Feb-2012 20:15			Before: 6-Mar-2012 18:49			After: 16-Mar-2012 9:56		

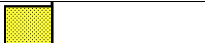
Hostile Natural Gamma Ray Sonde Wellsite Calibration		
Ratio Of Detector 1 To Detector 2		
Phase	Coincidence Count Rate Ratio	Value
Master		0.9899
Before		0.9701
After		0.9937
0.9500 (Minimum) 1.000 (Nominal) 1.050 (Maximum)		
Master: 26-Feb-2012 20:15		
Before: 6-Mar-2012 18:49		
After: 16-Mar-2012 9:56		

Hostile Natural Gamma Ray Sonde Master Calibration								
Detector 1 Calibration								
Phase	Na 511 Peak Set Point	Value	Phase	Th Peak Loc	Value	Phase	Th Peak Res %	Value
Master		41.00	Master		210.0	Master		6.521
38.00 (Minimum) 40.00 (Nominal) 43.00 (Maximum)			201.0 (Minimum) 209.6 (Nominal) 218.3 (Maximum)			5.000 (Minimum) 7.000 (Nominal) 9.000 (Maximum)		
Phase	Background Count Rate CPS	Value	Phase	Gain Ratio	Value			
Master		18.97	Master		1.008			
10.00 (Minimum) 142.5 (Nominal) 265.0 (Maximum)			0.9400 (Minimum) 1.000 (Nominal) 1.060 (Maximum)					
Master: 26-Feb-2012 20:03								

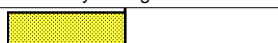
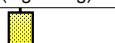

Hostile Natural Gamma Ray Sonde Master Calibration								
Detector 2 Calibration								
Phase	Na 511 Peak Set Point	Value	Phase	Th Peak Loc	Value	Phase	Th Peak Res %	Value
Master		41.00	Master		207.8	Master		6.775
38.00 (Minimum) 40.00 (Nominal) 43.00 (Maximum)			201.0 (Minimum) 209.6 (Nominal) 218.3 (Maximum)			5.000 (Minimum) 7.000 (Nominal) 9.000 (Maximum)		
Phase	Background Count Rate CPS	Value	Phase	Gain Ratio	Value			
Master		18.84	Master		0.9969			
10.00 (Minimum) 142.5 (Nominal) 265.0 (Maximum)			0.9400 (Minimum) 1.000 (Nominal) 1.060 (Maximum)					
Master: 26-Feb-2012 20:03								

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

Phase	Gamma Ray Background GAPI	Value
Before		9.747
	9.610 (Minimum) 9.810 (Nominal) 10.01 (Maximum)	

Before: 16-Mar-2012 5:05

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		7.622	Before		159.9	Before		164.0			
	0 (Minimum) 30.00 (Nominal) 120.0 (Maximum)			145.3 (Minimum) 159.9 (Nominal) 174.4 (Maximum)			149.0 (Minimum) 164.0 (Nominal) 179.0 (Maximum)				

Before: 4-Mar-2012 17:35

Company: **Lamont Doherty Earth Observatory**

Schlumberger

Well: **Expedition 340, Site U1395B**

Field: **Lesser Antilles Volcanism and Landslides**

Rig: **JOIDES Resolution**

Ocean: **Caribbean**

Hostile Natural Gamma Sonde (HNCS)
Spectroscopy