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OTHER SERVICES1
 OS1: DITE/HLDS
 OS2: FMS/DSI
 OS3: HNGS
 OS4: GBM
 OS5:

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

REMARKS: RUN NUMBER 1
 Depths originally recorded from drill floor as main depth reference. Log files were played back with offset of -1514m to force sea floor as the new reference. This log references seafloor at 0m. Td of hole at 183m (driller), 181m (log). Tools run inside drill pipe and drill collars 9 7/8" bs. Bit released prior to logging. Active Heave Compensator used on all logs. ILE inline eccentralizer run for APS to eccentralize it against borehole. Gpit run with tool for AHC testing.

REMARKS: RUN NUMBER 2

RUN 1

SERVICE ORDER #: 17C0-154
 PROGRAM VERSION:
 FLUID LEVEL:

LOGGED INTERVAL	START	STOP

RUN 2

SERVICE ORDER #:
 PROGRAM VERSION:
 FLUID LEVEL:

LOGGED INTERVAL	START	STOP




EQUIPMENT DESCRIPTION

RUN 1

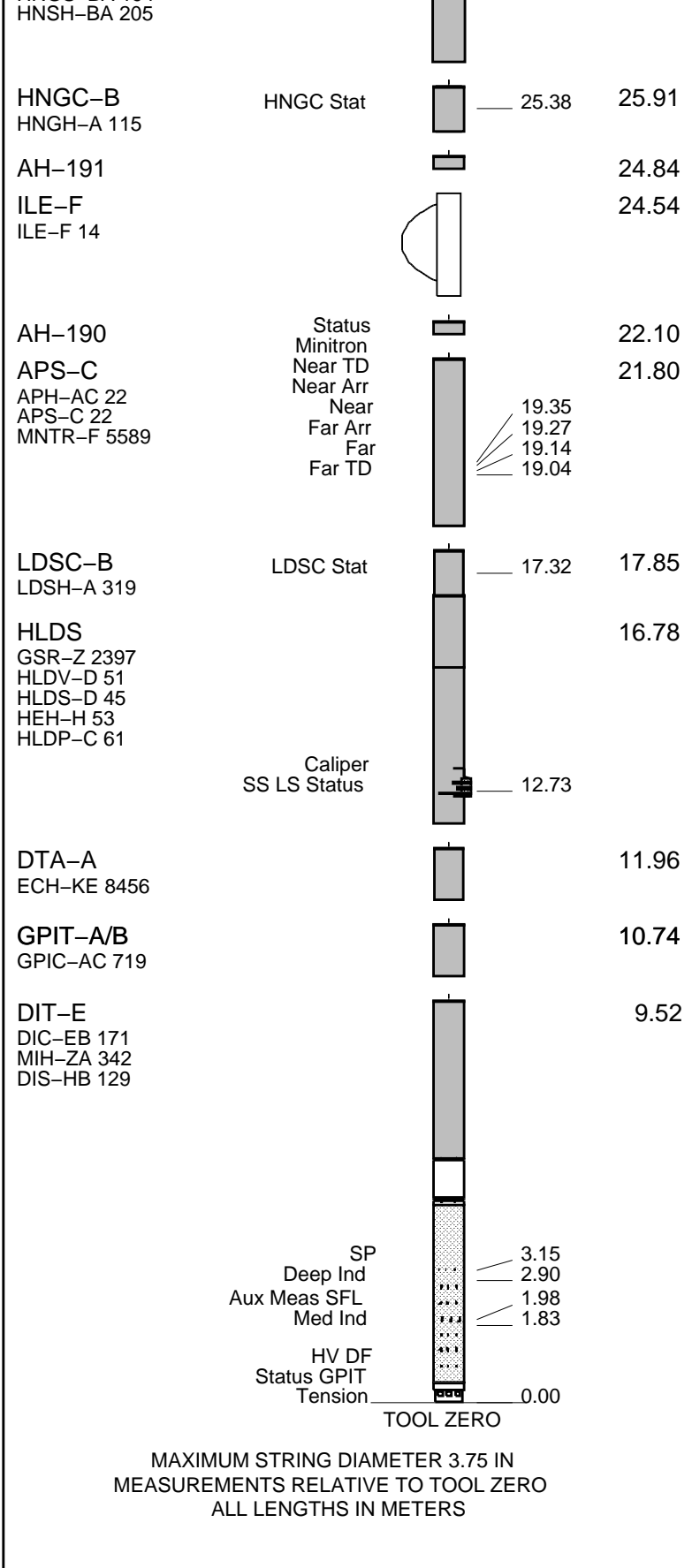
SURFACE EQUIPMENT

SFT-281 1
 SFT-178 1
 GSR-U 616008
 WITM (DTS)-A

DOWNHOLE EQUIPMENT

LEH-QT				30.21
LEH-QT 301				
DTC-H	CTEM		29.04	
ECH-KC 1777	TelStatus		29.32	
	ToolStatu		28.41	
HNGS-BA	Upper_1		27.71	28.41
HNGS-BA 194	Lower_2		27.50	

RUN 2

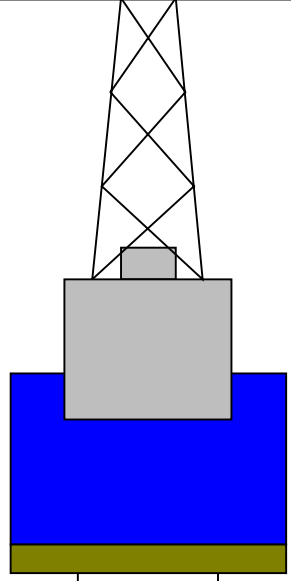


Production String	(in)	(M)	Well Schematic	(M)	(in)	Casing String
	OD	ID		MD	MD	

Kelly Bushing Elevation
Derrick Floor Elevation

Mean Sea Level

-1514
-1514
-1508



4.1



0
80
182

4.1
9.875

Sea Floor
Open Hole
Total Depth

Input DLIS Files

DEFAULT	PI_LDL_APS_NGS_035PUP	FN:51	PRODUCER	03-Feb-2011 08:57	1696.2 M	1584.8 M
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Output DLIS Files

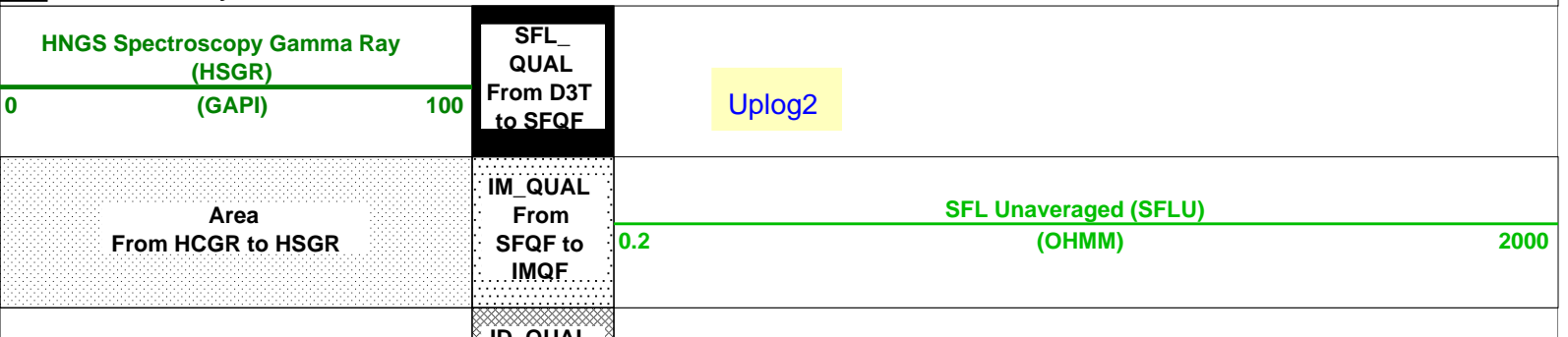
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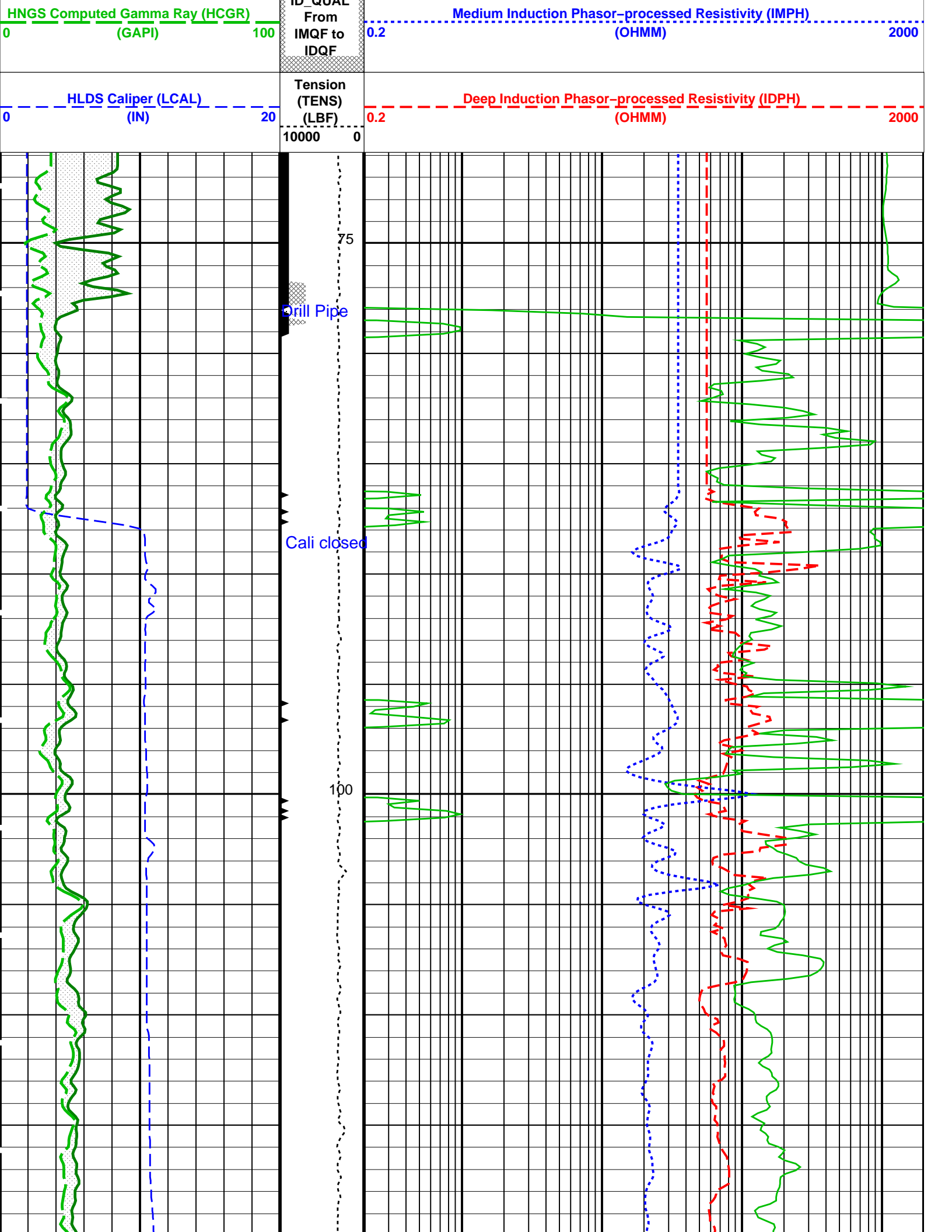
OP System Version: 17C0-154

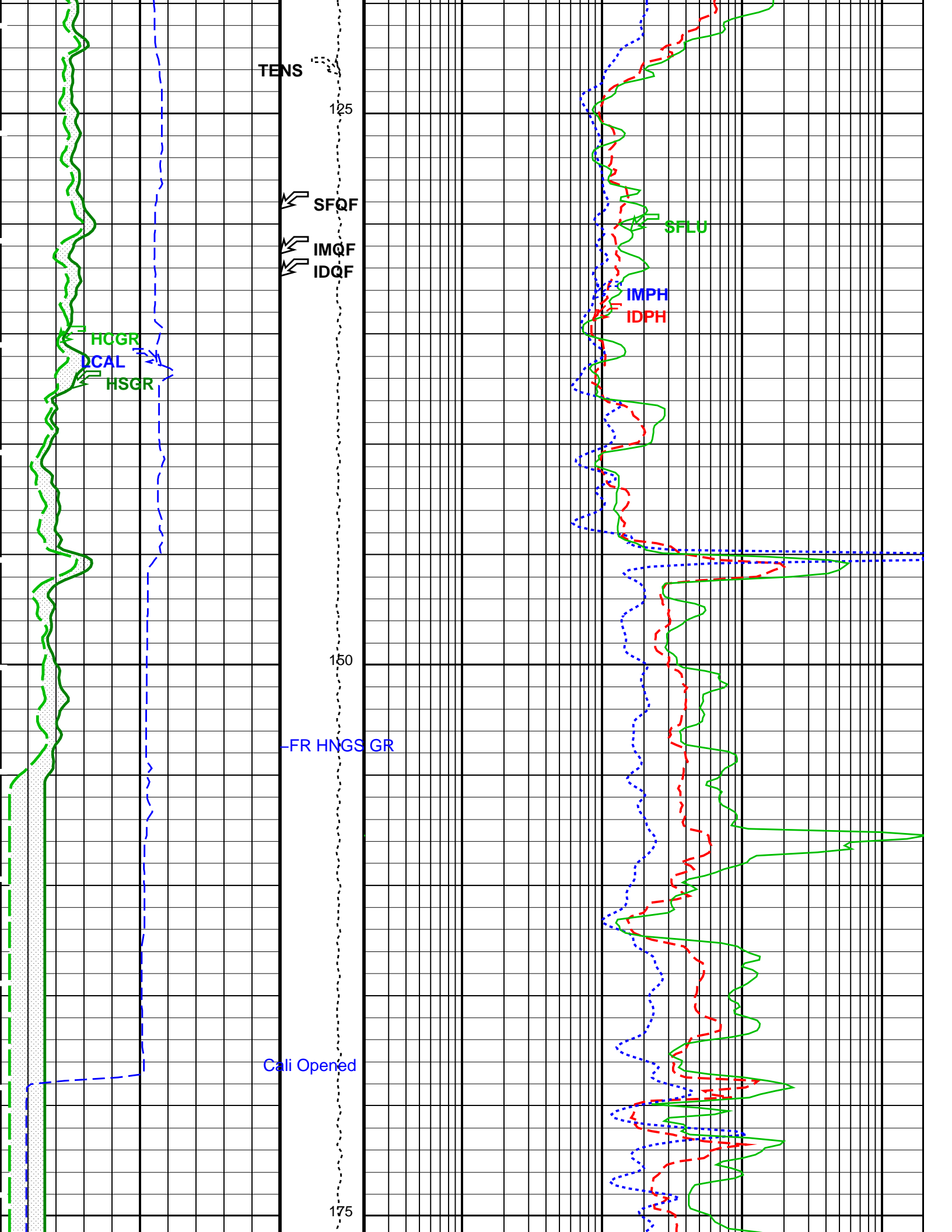
DIT-E	17C0-154	GPIT-A/B	SRPC-3971-Q1_2010_OP17
DTA-A	17C0-154	HLDS	SPC-3961-OP17_NUCL
LDSC-B	SPC-3961-OP17_NUCL	APS-C	SPC-3961-OP17_NUCL
HNGC-B	SPC-3961-OP17_NUCL	HNGS-BA	SPC-3961-OP17_NUCL
DTC-H	17C0-154		

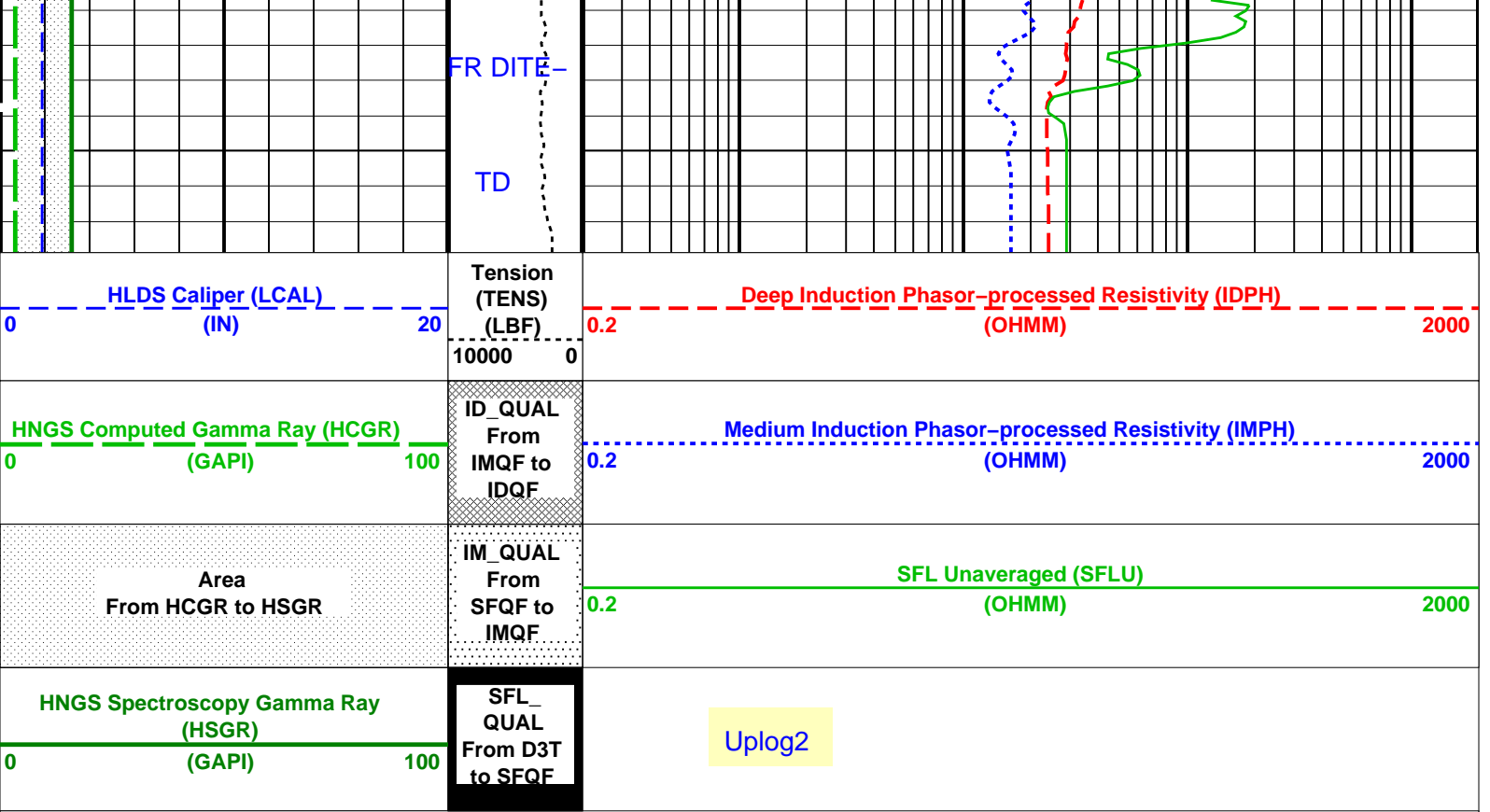
PIP SUMMARY

Time Mark Every 60 S









PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value
DIT-E: Dual Induction - E		
BHS	Borehole Status	OPEN
BHT	Bottom Hole Temperature (used in calculations)	43 DEGF
DGF2	Deep 20 kHz Gain Factor	0.992515
DPH2	Deep 20 kHz Phase Shift	-0.0620342 DEG
DRE2	Deep Real 20 kHz Sonde Error Correction	17.1426 MM/M
DSR2	Deep Sigma Reference (20 kHz)	1843 MM/M
DXE2	Deep Quad 20 kHz Sonde Error Correction	137.206 MM/M
GCSE	Generalized Caliper Selection	BS
GDEV	Average Angular Deviation of Borehole from Normal	0 DEG
GGRD	Geothermal Gradient	0.01 DF/F
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE
IFRS	DIT-E Induction Frequency Selector	20
IPHA	DIT-E Phasor Processing Mode	ALL
IPRO	DIT-E Induction Processing Selector	PHASOR
ITEN	DIT-E Temperature Enable	ENABLE
MGF2	Medium 20 kHz Gain Factor	0.995142
MPH2	Medium 20 kHz Phase Shift	-0.890816 DEG
MRE2	Medium Real 20 kHz Sonde Error Correction	10.896 MM/M
MSR2	Medium Sigma Reference (20 kHz)	3250 MM/M
MXE2	Medium Quad 20 kHz Sonde Error Correction	177.452 MM/M
SFCR	SFL Channel Ratio	1000
SHT	Surface Hole Temperature	68 DEGF
APS-C: Accelerator-Porosity Tool		
BHS	Borehole Status	OPEN
BHT	Bottom Hole Temperature (used in calculations)	43 DEGF
GCSE	Generalized Caliper Selection	BS
GDEV	Average Angular Deviation of Borehole from Normal	0 DEG
GGRD	Geothermal Gradient	0.01 DF/F
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE
SHT	Surface Hole Temperature	68 DEGF
HNGS-BA: Hostile Natural Gamma Ray Sonde		
BAR1	HNGS Detector 1 Barite Constant	1
BAR2	HNGS Detector 2 Barite Constant	1
BHK	HNGS Borehole Potassium Correction Concentration	0
BHS	Borehole Status	OPEN
BHT	Bottom Hole Temperature (used in calculations)	43 DEGF
CSD1	Inner Casing Outer Diameter	0 IN
CSD2	Outer Casing Outer Diameter	0 IN
CSW1	Inner Casing Weight	0 LB/F
CSW2	Outer Casing Weight	0 LB/F

DBCC	HNGS Barite Constant Correction Flag	NONE	
GCSE	Generalized Caliper Selection	BS	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
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	-0.00533577	
HALF	HNGS Alpha Filter Length	60	IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	NATU	
HNPE	HNGS Processing Enable	YES	
S1BI	HNGS Detector 1 Calibration Bismuth Count Rate	1.3	CPS
S2BI	HNGS Detector 2 Calibration Bismuth Count Rate	1.3	CPS
SGRC	HNGS Standard Gamma-Ray Correction Flag	YES	
SHT	Surface Hole Temperature	68	DEGF
TPOS	Tool Position	ECCE	
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	0.615824	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	1.20133	
System and Miscellaneous			
BS	Bit Size	9.875	IN
DFD	Drilling Fluid Density	1.26	G/C3
DO	Depth Offset for Playback	-1514.0	M
FLEV	Fluid Level	-50000.00	M
PP	Playback Processing	NORMAL	
TD	Total Depth	600	FT

Format: DITE_LogPhasor Vertical Scale: 1:200 Graphics File Created: 11-Feb-2011 11:04

OP System Version: 17C0-154

DIT-E	17C0-154	GPIT-A/B	SRPC-3971-Q1_2010_OP17
DTA-A	17C0-154	HLDS	SPC-3961-OP17_NUCL
LDSC-B	SPC-3961-OP17_NUCL	APS-C	SPC-3961-OP17_NUCL
HNGC-B	SPC-3961-OP17_NUCL	HNGS-BA	SPC-3961-OP17_NUCL
DTC-H	17C0-154		

Input DLIS Files

DEFAULT	PI_LDL_APS_NGS_035PUP	FN:51	PRODUCER	03-Feb-2011 08:57	1696.2 M	1584.8 M
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Output DLIS Files

DEFAULT	PI_LDL_APS_NGS_045PUP	FN:3	PRODUCER	11-Feb-2011 11:04		
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Input DLIS Files

DEFAULT	PI_LDL_APS_NGS_034PUP	FN:50	PRODUCER	03-Feb-2011 08:52	1696.2 M	1502.5 M
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Output DLIS Files

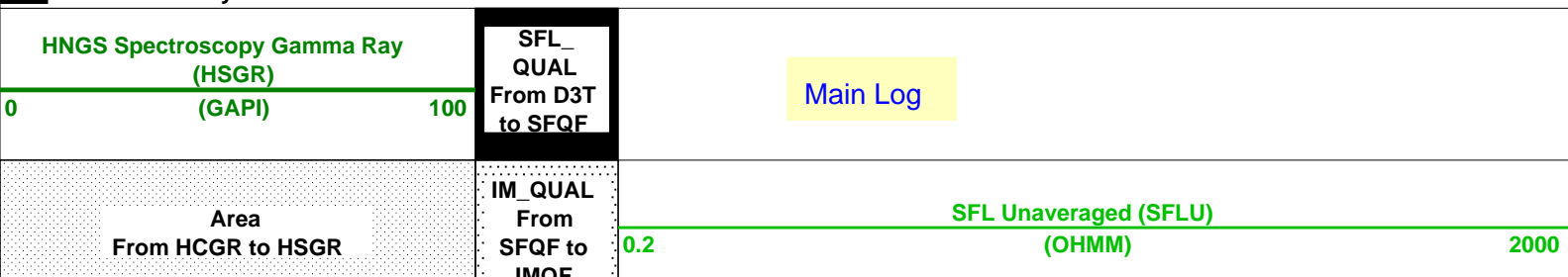
DEFAULT	PI_LDL_APS_NGS_044PUP	FN:2	PRODUCER	11-Feb-2011 10:53	182.9 M	-11.4 M
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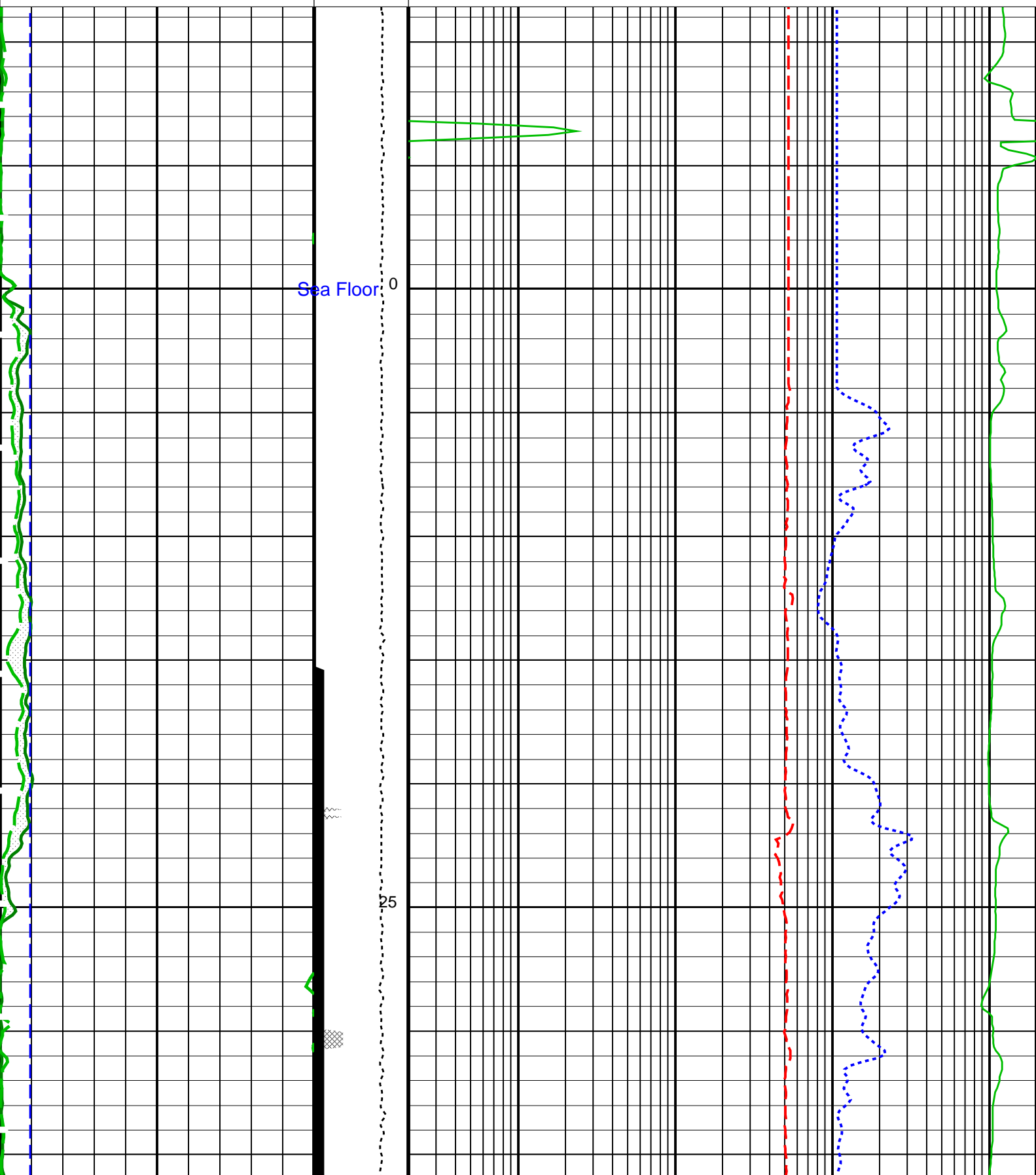
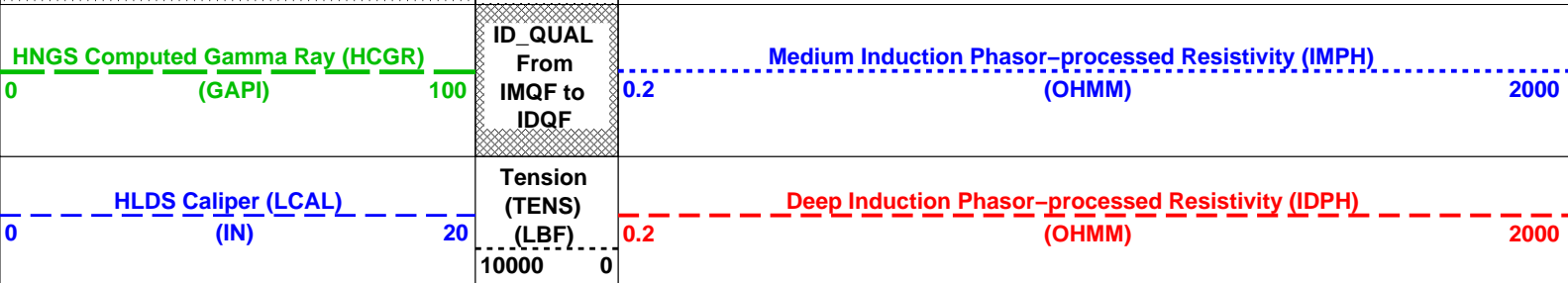
OP System Version: 17C0-154

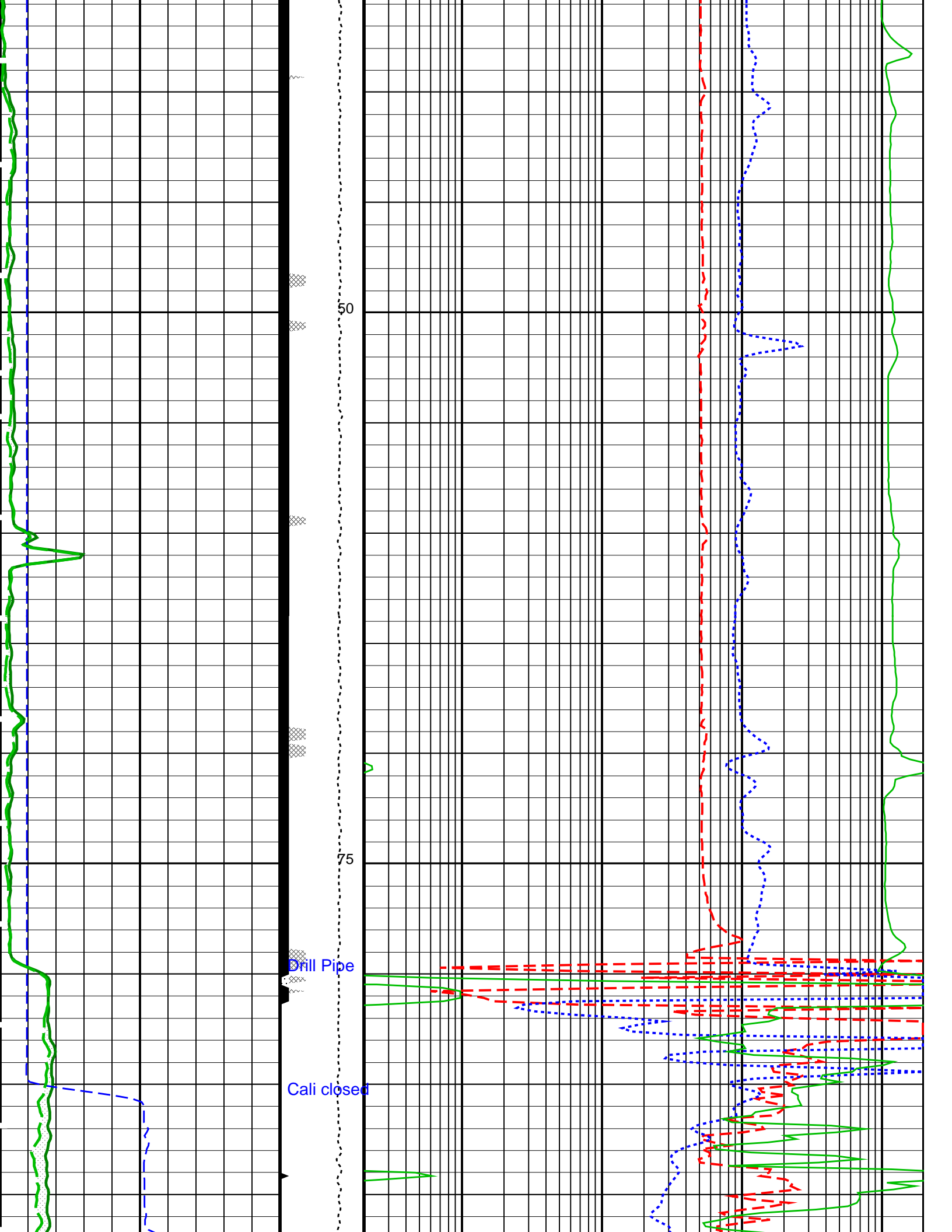
DIT-E	17C0-154	GPIT-A/B	SRPC-3971-Q1_2010_OP17
DTA-A	17C0-154	HLDS	SPC-3961-OP17_NUCL
LDSC-B	SPC-3961-OP17_NUCL	APS-C	SPC-3961-OP17_NUCL
HNGC-B	SPC-3961-OP17_NUCL	HNGS-BA	SPC-3961-OP17_NUCL
DTC-H	17C0-154		

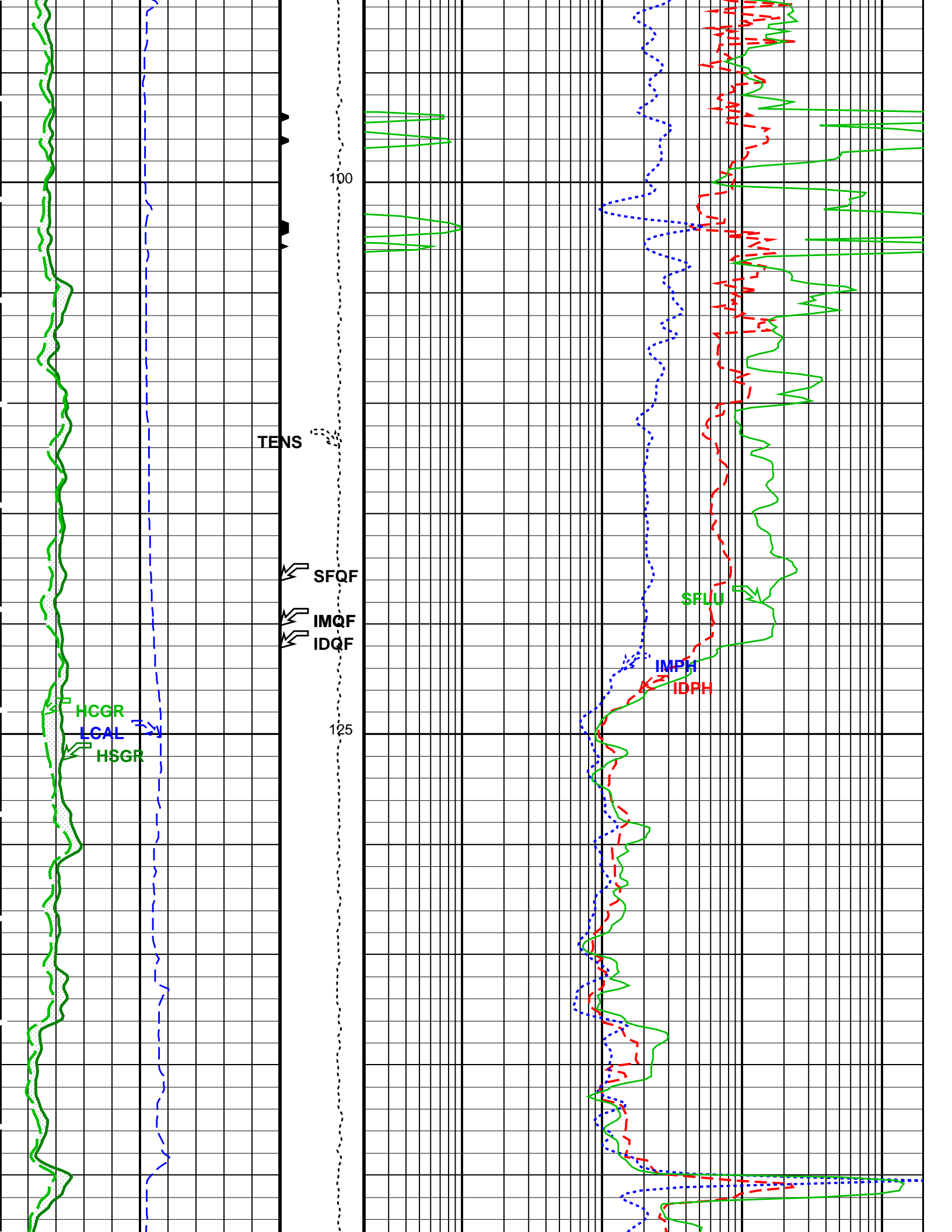
PIP SUMMARY

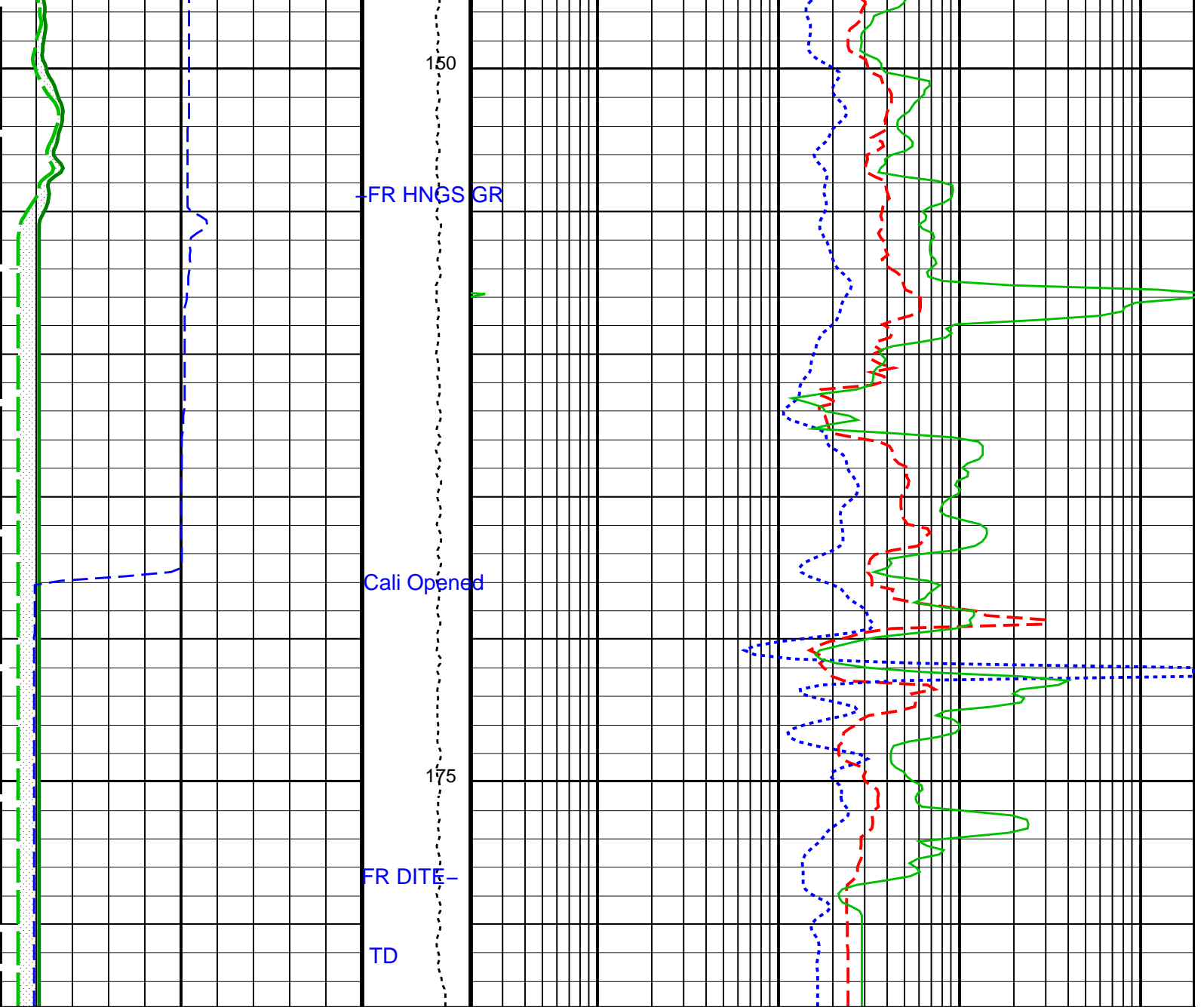
Time Mark Every 60 S











<p>HLDS Caliper (LCAL) (IN)</p> <p>0 20</p>	<p>Tension (TENS) (LBF)</p> <p>10000 0</p>	<p>Deep Induction Phasor-processed Resistivity (IDPH) (OHMM)</p> <p>0.2 2000</p>
<p>HNGS Computed Gamma Ray (HCGR) (GAPI)</p> <p>0 100</p>	<p>ID_QUAL From IMQF to IDQF</p>	<p>Medium Induction Phasor-processed Resistivity (IMPH) (OHMM)</p> <p>0.2 2000</p>
<p>Area From HCGR to HSGR</p>	<p>IM_QUAL From SFQF to IMQF</p>	<p>SFL Unaveraged (SFLU) (OHMM)</p> <p>0.2 2000</p>
<p>HNGS Spectroscopy Gamma Ray (HSGR) (GAPI)</p> <p>0 100</p>	<p>SFL_QUAL From D3T to SFQF</p>	

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value
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DLIS Name

Description

Value

DIT-E: Dual Induction - E

BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	43	DEGF
DGF2	Deep 20 kHz Gain Factor	0.992515	
DPH2	Deep 20 kHz Phase Shift	-0.0620342	DEG
DRE2	Deep Real 20 kHz Sonde Error Correction	17.1426	MM/M
DSR2	Deep Sigma Reference (20 kHz)	1843	MM/M
DXE2	Deep Quad 20 kHz Sonde Error Correction	137.206	MM/M
GCSE	Generalized Caliper Selection	BS	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
IFRS	DIT-E Induction Frequency Selector	20	
IPHA	DIT-E Phasor Processing Mode	ALL	
IPRO	DIT-E Induction Processing Selector	PHASOR	
ITEN	DIT-E Temperature Enable	ENABLE	
MGF2	Medium 20 kHz Gain Factor	0.995142	
MPH2	Medium 20 kHz Phase Shift	-0.890816	DEG
MRE2	Medium Real 20 kHz Sonde Error Correction	10.896	MM/M
MSR2	Medium Sigma Reference (20 kHz)	3250	MM/M
MXE2	Medium Quad 20 kHz Sonde Error Correction	177.452	MM/M
SFCR	SFL Channel Ratio	1000	
SHT	Surface Hole Temperature	68	DEGF

APS-C: Accelerator-Porosity Tool

BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	43	DEGF
GCSE	Generalized Caliper Selection	BS	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
SHT	Surface Hole Temperature	68	DEGF

HNGS-BA: Hostile Natural Gamma Ray Sonde

BAR1	HNGS Detector 1 Barite Constant	1	
BAR2	HNGS Detector 2 Barite Constant	1	
BHK	HNGS Borehole Potassium Correction Concentration	0	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	43	DEGF
CSD1	Inner Casing Outer Diameter	0	IN
CSD2	Outer Casing Outer Diameter	0	IN
CSW1	Inner Casing Weight	0	LB/F
CSW2	Outer Casing Weight	0	LB/F
DBCC	HNGS Barite Constant Correction Flag	NONE	
GCSE	Generalized Caliper Selection	BS	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
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	-0.00533577	
HALF	HNGS Alpha Filter Length	60	IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	NATU	
HNPE	HNGS Processing Enable	YES	
S1BI	HNGS Detector 1 Calibration Bismuth Count Rate	1.3	CPS
S2BI	HNGS Detector 2 Calibration Bismuth Count Rate	1.3	CPS
SGRC	HNGS Standard Gamma-Ray Correction Flag	YES	
SHT	Surface Hole Temperature	68	DEGF
TPOS	Tool Position	ECCE	
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	0.615824	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	1.20133	

System and Miscellaneous

BS	Bit Size	9.875	IN
DFD	Drilling Fluid Density	1.26	G/C3
DO	Depth Offset for Playback	-1514.0	M
FLEV	Fluid Level	-50000.00	M
PP	Playback Processing	NORMAL	
TD	Total Depth	600	FT

Format: DITE_LogPhasor Vertical Scale: 1:200 Graphics File Created: 11-Feb-2011 10:53

OP System Version: 17C0-154

DIT-E	17C0-154	GPIT-A/B	SRPC-3971-Q1_2010_OP17
DTA-A	17C0-154	HLDS	SPC-3961-OP17_NUCL
LDSC-B	SPC-3961-OP17_NUCL	APS-C	SPC-3961-OP17_NUCL
HNGC-B	SPC-3961-OP17_NUCL	HNGS-BA	SPC-3961-OP17_NUCL
DTC-H	17C0-154		

Input DLIS Files

Output DLIS Files

DEFAULT PI_LDL_APS_NGS_044PUP FN:2 PRODUCER 11-Feb-2011 10:53

Calibration and Check Summary

Measurement	Nominal	Master	Before	After	Change	Limit	Units
General Purpose Inclinator Wellsite Calibration – CROUZET ACCELEROMETER PROM HAS BEEN READ CORRECTLY							
Before: 20-Jan-2011 17:32							
TEMPERATURE REFERENCE :	N/A	N/A	20	N/A	N/A	N/A	DEGC
YEAR OF CALIBRATION :	N/A	N/A	92	N/A	N/A	N/A	
MONTH OF CALIBRATION :	N/A	N/A	10	N/A	N/A	N/A	
SERIAL NUMBER :	N/A	N/A	448	N/A	N/A	N/A	
General Purpose Inclinator Wellsite Calibration – CROUZET MAGNETOMETER PROM HAS BEEN READ CORRECTLY							
Before: 20-Jan-2011 17:32							
TEMPERATURE REFERENCE :	N/A	N/A	19	N/A	N/A	N/A	DEGC
YEAR OF CALIBRATION :	N/A	N/A	99	N/A	N/A	N/A	
MONTH OF CALIBRATION :	N/A	N/A	12	N/A	N/A	N/A	
SERIAL NUMBER :	N/A	N/A	428	N/A	N/A	N/A	
Hostile Litho-Density Sonde Wellsite Calibration – Background Measurement							
Master: 11-Dec-2010 5:21 Before: 25-Dec-2010 6:05 After: 20-Jan-2011 22:53							
SS Cs Resolution Bkg	9.000	8.370	8.517	8.559	0.04145	1.800	%
LS Cs Resolution Bkg	9.000	8.635	8.619	8.561	-0.05882	1.800	%
LSW1 Background	100.0	72.88	72.56	72.31	-0.2549	0.03000	CPS
LSW2 Background	100.0	66.98	66.25	67.15	0.9066	0.03000	CPS
LSW3 Background	200.0	151.3	148.8	149.7	0.9136	0.03000	CPS
LSW4 Background	250.0	184.5	182.4	182.2	-0.1443	0.03000	CPS
LSW5 Background	600.0	415.6	412.8	415.5	2.671	0.03000	CPS
SSW1 Background	100.0	72.08	71.78	71.62	-0.1605	0.03000	CPS
SSW2 Background	200.0	125.4	126.6	125.2	-1.397	0.03000	CPS
SSW3 Background	500.0	334.7	333.8	328.9	-4.811	0.03000	CPS
SSW4 Background	270.0	178.2	178.2	178.4	0.2584	0.03000	CPS
SSW5 Background	200.0	127.8	127.9	128.7	0.8630	0.03000	CPS
Hostile Litho-Density Sonde Wellsite Calibration – Aluminum Measurement							
Master: 11-Dec-2010 5:21							
LSW1 Aluminum	600.0	532.4	N/A	N/A	N/A	N/A	CPS
LSW2 Aluminum	900.0	783.1	N/A	N/A	N/A	N/A	CPS
LSW3 Aluminum	1100	957.6	N/A	N/A	N/A	N/A	CPS
LSW4 Aluminum	580.0	481.5	N/A	N/A	N/A	N/A	CPS
LSW5 Aluminum	570.0	443.6	N/A	N/A	N/A	N/A	CPS
SSW1 Aluminum	2800	2267	N/A	N/A	N/A	N/A	CPS
SSW2 Aluminum	8000	6468	N/A	N/A	N/A	N/A	CPS
SSW3 Aluminum	11600	9431	N/A	N/A	N/A	N/A	CPS
SSW4 Aluminum	5000	3976	N/A	N/A	N/A	N/A	CPS
SSW5 Aluminum	660.0	532.8	N/A	N/A	N/A	N/A	CPS
Hostile Litho-Density Sonde Wellsite Calibration – Lithology Measurement							
Master: 11-Dec-2010 5:21							
LSW1 Iron	400.0	362.4	N/A	N/A	N/A	N/A	CPS
LSW2 Iron	730.0	636.5	N/A	N/A	N/A	N/A	CPS
LSW3 Iron	1000	851.8	N/A	N/A	N/A	N/A	CPS
LSW4 Iron	520.0	439.8	N/A	N/A	N/A	N/A	CPS
LSW5 Iron	470.0	412.4	N/A	N/A	N/A	N/A	CPS
SSW1 Iron	2100	1712	N/A	N/A	N/A	N/A	CPS
SSW2 Iron	6800	5497	N/A	N/A	N/A	N/A	CPS
SSW3 Iron	10800	8763	N/A	N/A	N/A	N/A	CPS
SSW4 Iron	4600	3715	N/A	N/A	N/A	N/A	CPS
SSW5 Iron	580.0	488.7	N/A	N/A	N/A	N/A	CPS
Hostile Litho-Density Sonde Wellsite Calibration – Caliper Calibration							
Before: 25-Dec-2010 5:54							
HLDS Caliper Small Ring	11.88	N/A	13.51	N/A	N/A	N/A	IN
HLDS Caliper Large Ring	15.19	N/A	17.01	N/A	N/A	N/A	IN
Accelerator-Porosity Tool Wellsite Calibration – Detector Background							
Master: 11-Dec-2010 9:00 Before: 20-Jan-2011 17:41 After: 20-Jan-2011 21:56							
Near Det Bkg Cntrate	30.00	32.95	32.44	30.93	-1.502	N/A	CPS
Far Det Bkg Cntrate	30.00	32.12	33.19	33.43	0.2337	N/A	CPS
Array-1 Det Bkg Cntrate	30.00	29.56	29.36	28.81	-0.5505	N/A	CPS
Array-2 Det Bkg Cntrate	30.00	29.68	29.66	28.93	-0.7340	N/A	CPS

Array Therm Det Bkg Cntrate 30.00 31.39 34.13 34.43 0.2992 N/A CPS

Accelerator-Porosity Tool Wellsite Calibration - Calibration Ratios

Master: 11-Dec-2010 9:00

Near/Far Calibration Ratio	0.9250	0.8904	N/A	N/A	N/A	N/A
Near/Array Calibration Ratio	1.030	1.060	N/A	N/A	N/A	N/A
Near/Array Cal Ratio Up/Down	1.000	0.9962	N/A	N/A	N/A	N/A

Accelerator-Porosity Tool Wellsite Calibration - Tank Check

Master: 11-Dec-2010 9:00

Array-1 Standoff Porosity	11.75	12.03	N/A	N/A	N/A	N/A	PU
Array-2 Standoff Porosity	11.75	11.87	N/A	N/A	N/A	N/A	PU
Average Slowing Down Time	6.000	5.811	N/A	N/A	N/A	N/A	US
Array-1 SDT Ratio Up/Down	1.000	1.003	N/A	N/A	N/A	N/A	
Array-2 SDT Ratio Up/Down	1.000	0.9944	N/A	N/A	N/A	N/A	
Sigma Formation	27.50	28.18	N/A	N/A	N/A	N/A	CU

Accelerator-Porosity Tool Wellsite Calibration - CCR7 signal boxes

Master: 11-Dec-2010 8:15

Near Detector Plateau Setting	1650	1734	N/A	N/A	N/A	N/A	V
Far Detector Plateau Setting	2000	2080	N/A	N/A	N/A	N/A	V
Array Detector Plateau Setting	2000	1968	N/A	N/A	N/A	N/A	V

Hostile Natural Gamma Ray Sonde Wellsite Calibration - Detector 1 Check

Master: 10-Dec-2010 8:35 Before: 25-Dec-2010 5:54 After: 20-Jan-2011 22:54

Na 511 Peak Loc	40.00	39.66	39.55	39.70	0.1545	1.000	
Na 511 Peak Res	15.50	14.96	16.05	14.90	-1.148	2.000	%
High Voltage	1150	1187	1209	1176	-33.65	N/A	V
Na 1785 Peak Loc	142.6	141.8	142.2	142.3	0.1047	7.000	
Na 1785 Peak Res	8.500	8.530	9.021	8.877	-0.1443	2.000	%
Temperature	15.50	25.35	34.71	27.31	-7.397	N/A	DEGC
Na Count Rate	45.00	27.13	26.60	26.04	-0.5612	8.000	CPS

Hostile Natural Gamma Ray Sonde Wellsite Calibration - Detector 2 Check

Master: 10-Dec-2010 8:35 Before: 25-Dec-2010 5:54 After: 20-Jan-2011 22:54

Na 511 Peak Loc	40.00	39.72	39.62	39.60	-0.02057	1.000	
Na 511 Peak Res	15.50	15.09	16.03	16.08	0.05057	2.000	%
High Voltage	1150	1099	1119	1105	-13.42	N/A	V
Na 1785 Peak Loc	142.6	142.5	141.3	141.3	0.03700	7.000	
Na 1785 Peak Res	8.500	8.852	9.212	9.090	-0.1219	2.000	%
Temperature	15.50	25.94	35.42	29.15	-6.274	N/A	DEGC
Na Count Rate	45.00	27.08	26.72	25.74	-0.9723	8.000	CPS

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

Master: 10-Dec-2010 8:35 Before: 25-Dec-2010 5:54 After: 20-Jan-2011 22:54

Coincidence Count Rate Ratio	1.000	1.001	0.9966	1.012	0.01544	0.05000
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Accelerator-Porosity Tool - Detector Plateau Settings :

Near Detector Plateau Setting 1734 V
 Far Detector Plateau Setting 2080 V
 Array Detector Plateau Setting 1968 V

Dual Induction - E / Equipment Identification

Primary Equipment:
 Dual Induction Sonde DIS - HB 129
 Dual Induction Cartridge DIC - EB 171

Auxiliary Equipment:
 Mass Isolated Housing MIH - ZA 342

Dual Induction - E Master Calibration

Test Loop Calibration: Calibration of Internal Reference to Test Loop Standard

Phase	Deep 10 kHz Gain Factor	Value	Phase	Deep 20 kHz Gain Factor	Value	Phase	Deep 40 kHz Gain Factor	Value
Master		0.9839	Master		0.9950	Master		1.006
	0.9000 (Minimum) 1.000 (Nominal) 1.100 (Maximum)			0.9000 (Minimum) 1.000 (Nominal) 1.100 (Maximum)			0.9000 (Minimum) 1.000 (Nominal) 1.100 (Maximum)	
Phase	Medium 10 kHz Gain Factor	Value	Phase	Medium 20 kHz Gain Factor	Value	Phase	Medium 40 kHz Gain Factor	Value
Master		0.9896	Master		0.9934	Master		1.014
	0.9000 (Minimum) 1.000 (Nominal) 1.100 (Maximum)			0.9000 (Minimum) 1.000 (Nominal) 1.100 (Maximum)			0.9000 (Minimum) 1.000 (Nominal) 1.100 (Maximum)	

Phase	Deep 10 kHz Phase Shift	Value	Phase	Deep 20 kHz Phase Shift	Value	Phase	Deep 40 kHz Phase Shift	Value
Master		0.1683	Master		0.01216	Master		-1.034
	-1.500 (Minimum) 0 (Nominal) 1.500 (Maximum)			-2.000 (Minimum) 0 (Nominal) 2.000 (Maximum)			-4.000 (Minimum) -1.000 (Nominal) 2.000 (Maximum)	
Phase	Medium 10 kHz Phase Shift	Value	Phase	Medium 20 kHz Phase Shift	Value	Phase	Medium 40 kHz Phase Shift	Value
Master		-0.2033	Master		-0.8862	Master		-2.228
	-1.500 (Minimum) 0 (Nominal) 1.500 (Maximum)			-3.000 (Minimum) -1.000 (Nominal) 1.000 (Maximum)			-5.000 (Minimum) -2.000 (Nominal) 1.000 (Maximum)	

Master: Calibration out of date 8-Jun-2010 10:23

Dual Induction – E Master Calibration								
Sonde Error Corrections: Correction for sonde response in zero conductivity environment. (Normalized to 25C).								
Phase	Real Deep 10 kHz S.E. Corr.	Value	Phase	Real Deep 20 kHz S.E. Corr.	Value	Phase	Real Deep 40 kHz S.E. Corr.	Value
Master		41.55	Master		17.22	Master		5.262
	-50.00 (Minimum) 0 (Nominal) 125.0 (Maximum)			-30.00 (Minimum) 0 (Nominal) 30.00 (Maximum)			-15.00 (Minimum) 0 (Nominal) 15.00 (Maximum)	
Phase	Quad Deep 10 kHz S.E. Corr.	Value	Phase	Quad Deep 20 kHz S.E. Corr.	Value	Phase	Quad Deep 40 kHz S.E. Corr.	Value
Master		254.5	Master		139.6	Master		80.45
	-250.0 (Minimum) 0 (Nominal) 350.0 (Maximum)			-125.0 (Minimum) 0 (Nominal) 200.0 (Maximum)			-75.00 (Minimum) 0 (Nominal) 125.0 (Maximum)	
Phase	Real Medium 10 kHz S.E. Corr.	Value	Phase	Real Medium 20 kHz S.E. Corr.	Value	Phase	Real Medium 40 kHz S.E. Corr.	Value
Master		30.33	Master		9.522	Master		0.8627
	-50.00 (Minimum) 0 (Nominal) 140.0 (Maximum)			-50.00 (Minimum) 0 (Nominal) 50.00 (Maximum)			-30.00 (Minimum) 0 (Nominal) 30.00 (Maximum)	
Phase	Quad Medium 10 kHz S.E. Corr.	Value	Phase	Quad Medium 20 kHz S.E. Corr.	Value	Phase	Quad Medium 40 kHz S.E. Corr.	Value
Master		345.7	Master		182.2	Master		117.7
	-1300 (Minimum) 0 (Nominal) 1300 (Maximum)			-650.0 (Minimum) 0 (Nominal) 650.0 (Maximum)			-350.0 (Minimum) 0 (Nominal) 350.0 (Maximum)	

Master: Calibration out of date 8-Jun-2010 10:38

General Purpose Inclinometer / Equipment Identification

Primary Equipment:		
GPIT Cartridge – AC	GPIC – AC	719
Auxiliary Equipment:		
GPIT Housing	GPIH – A	2864

Hostile Litho–Density Sonde / Equipment Identification

Primary Equipment:		
Hostile Litho Density Sonde	HLDS – D	45
Hostile Litho Density High Voltage	HLDV – D	51
Gamma Source Radioactive	GSR – Z	2397
Auxiliary Equipment:		
Hostile Litho Density Pad	HLDP – C	61
Hostile Litho Density High Voltage Housi	HEH – H	53

Litho–Density Spectroscopy Cartridge – B / Equipment Identification

Primary Equipment:		
LDSC Cartridge	LDSC – B	521
Auxiliary Equipment:		
LDSC Housing	LDSh – A	319

Accelerator–Porosity Tool / Equipment Identification

Primary Equipment:		
Accelerator–Porosity Sonde	APS – C	22
APS Minitron	MNTR – F	5589

Auxiliary Equipment:		
Accelerator-Porosity Housing	APH - AC	22
APS Calibration Water Tank	SFT - 178	1
APS Aluminum Calibrator Sleeve	SFT - 281	1

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	HNSH - BA	205
Gamma Source Radioactive	GSR - U	616008

DTS Telemetry Tool / Equipment Identification

Primary Equipment:		
DTC-H Auxiliary Cartridge	DTCH - A	8799
DTC-H Telemetry Cartridge	DTCH - A	8798
Auxiliary Equipment:		
DTCH Telemetry Cartridge Housing	ECH - KC	1777

Company: **Lamont Doherty**

Schlumberger

Well: **Expedition 330 Site U1376A**

Field: **Louisville Seamounts**

Rig: **JOIDES Resolution**

Ocean: **Pacific**

Phasor Induction
Natural Gamma Ray