

DISCLAIMER
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OTHER SERVICES1
 OS1: FMS/DSI
 OS2: HNGS
 OS3: HLDS
 OS4: HRLA
 OS5: UBI

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

REMARKS: RUN NUMBER 1
 Hole was drilled with a 9 7/8" RCB bit to TDD of mbsf.
 10 bbls of 10.5lb/gal heavy weight mud pumped at TD prior to bit release.

 All logs recorded via wireline thru 5-5.5" drillpipe and RCB coring BHA consisting of a bit release sub, Kinley sub, drill collars. The bit was released at TD prior to logging.

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

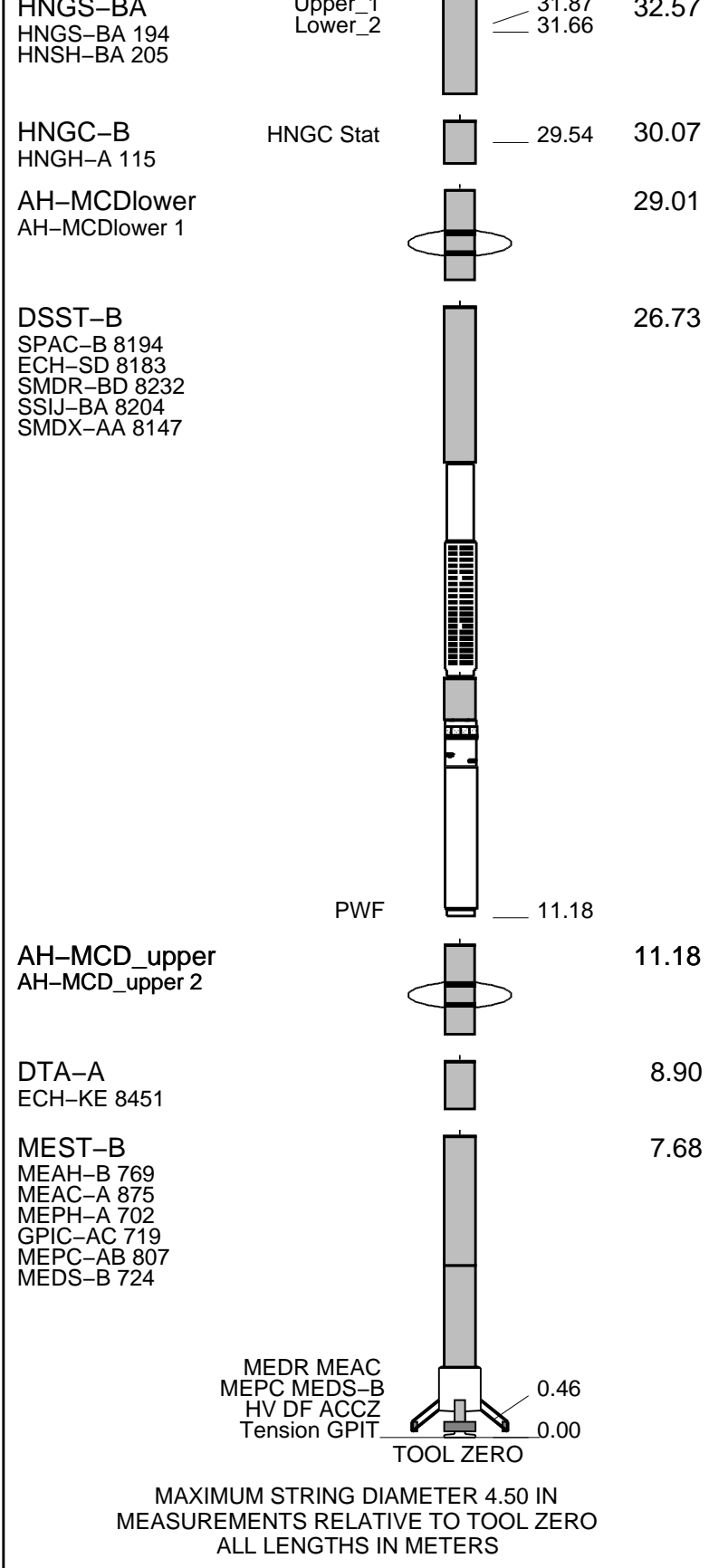
SURFACE EQUIPMENT

GSR-U 616008
 WITM (EDTS)-A 1

RUN 2

DOWNHOLE EQUIPMENT

LEH-MT	MDSB_EDTC		34.55	35.51
LEH-MT 101	Mud Tempe CTEM		33.49	
EDTC-B	Gamma Ray		32.92	34.55
EDTH-B 8528	EFTB DIAG			
EDTC-B 8529	TelStatus			
EDTG-A/B 77693	EDTCB Ele		32.57	



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

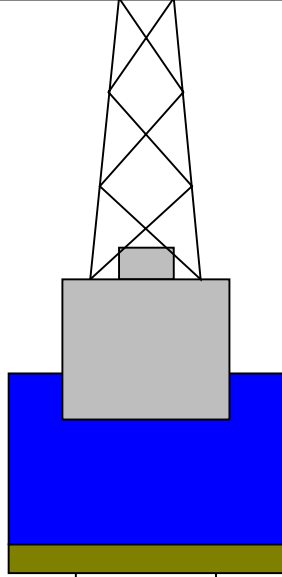
Kelly Bushing Elevation
Derrick Floor Elevation

Mean Sea Level

-2469

-2469

-2458



0

7.75

4.1

Sea Floor



0

8.25

3.80

Sea Floor

95.8

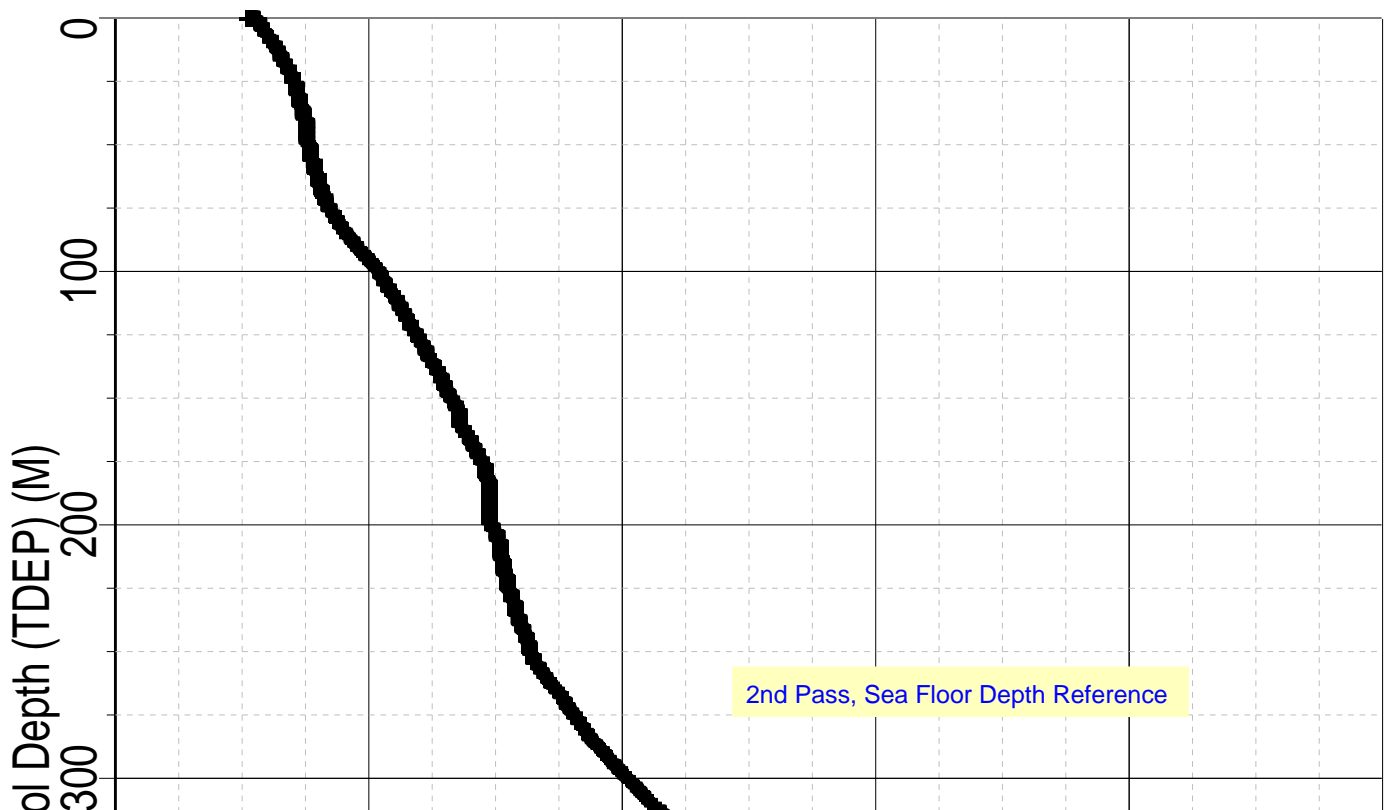
9.875

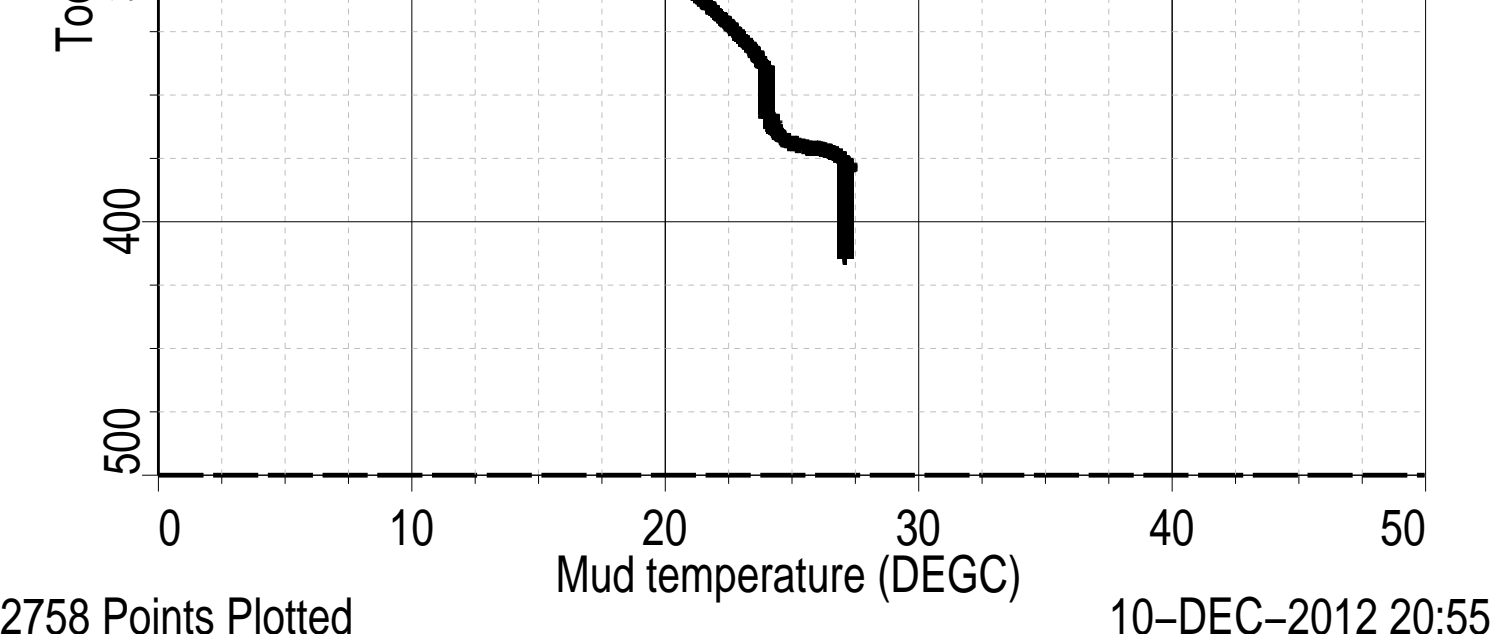
Open Hole

471.6

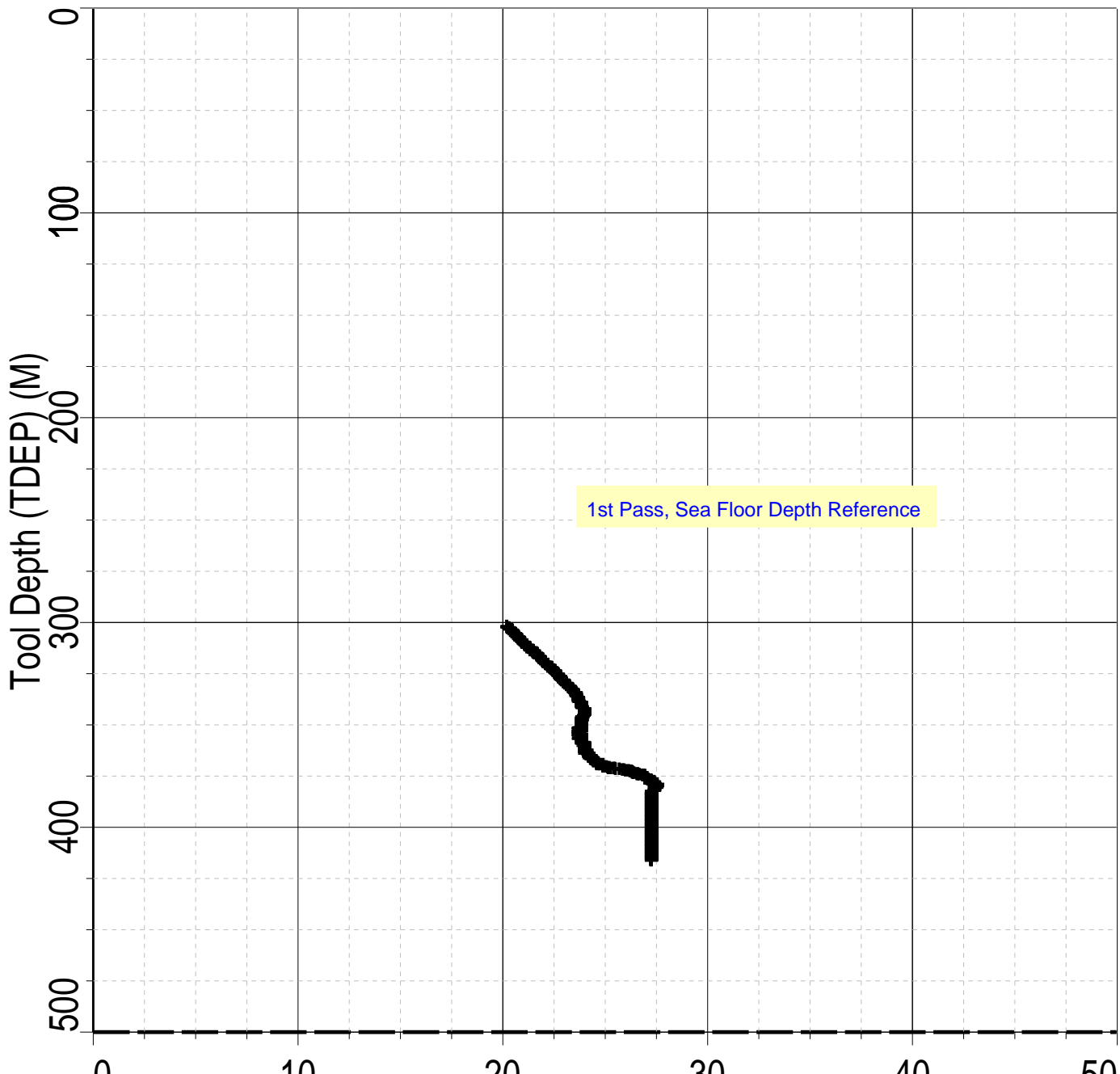
Total Depth

Index: 413.8 – -6.4 M





Index: 416.1 - 301.6 M



Input DLIS Files

DEFAULT FMS_DSI_NGS_036LUP FN:50 PRODUCER 10-Dec-2012 15:20 2882.6 M 2462.5 M

Output DLIS Files

DEFAULT FMS_DSI_NGS_043PUP FN:63 PRODUCER 10-Dec-2012 20:54 413.8 M -6.4 M

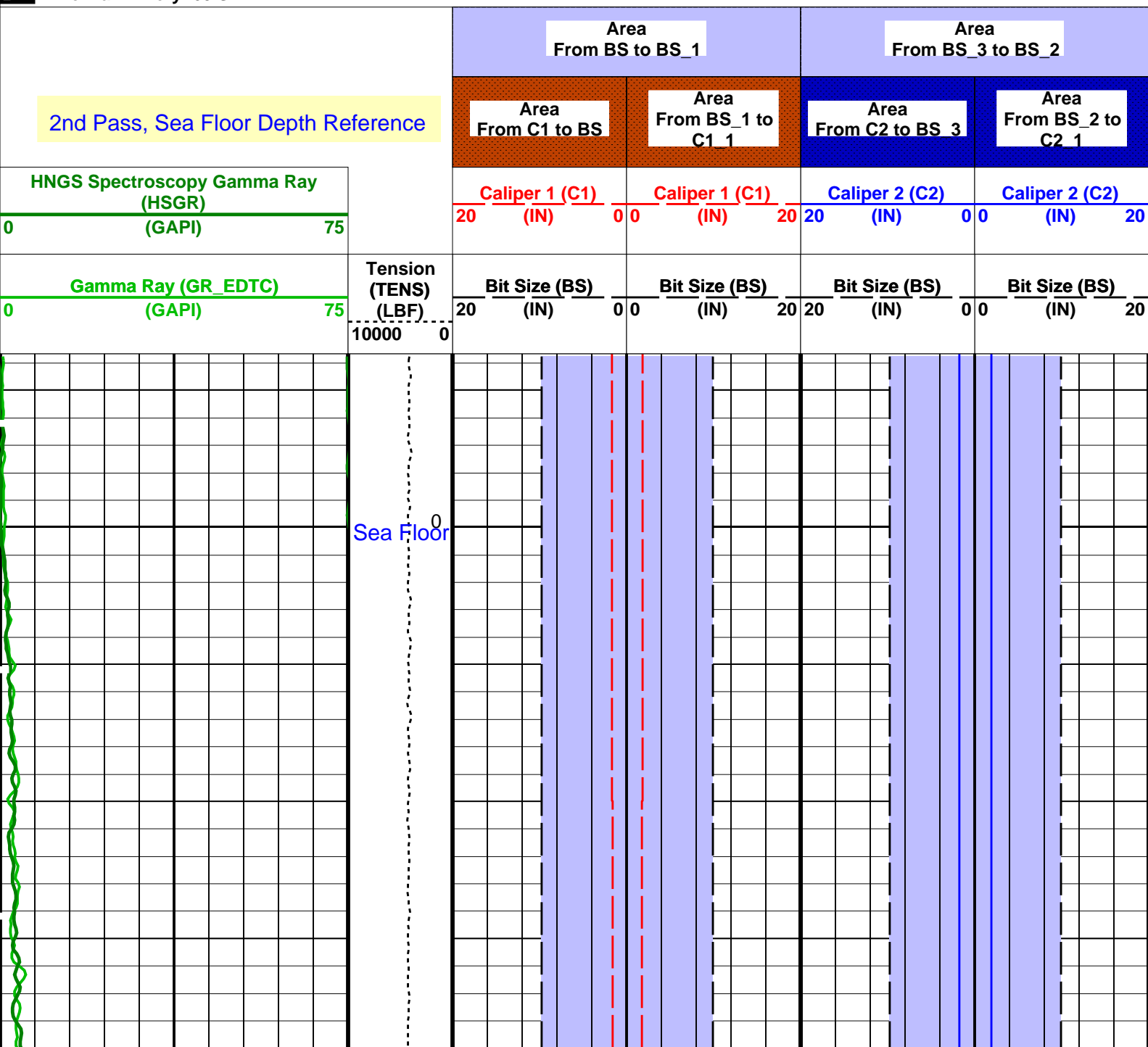
OP System Version: 19C0-187

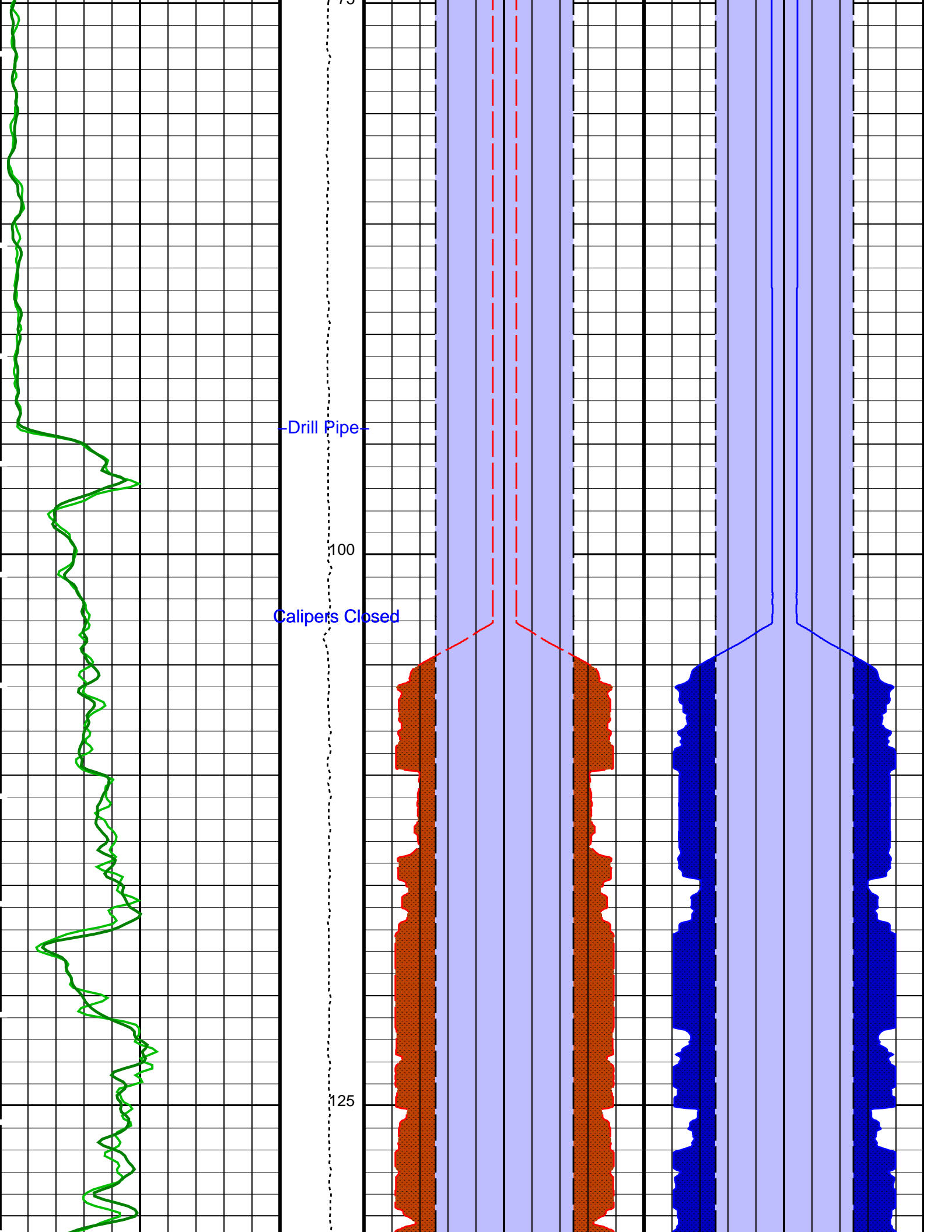
MEST-B 19C0-187
 DSST-B 19C0-187
 HNGS-BA 19C0-187

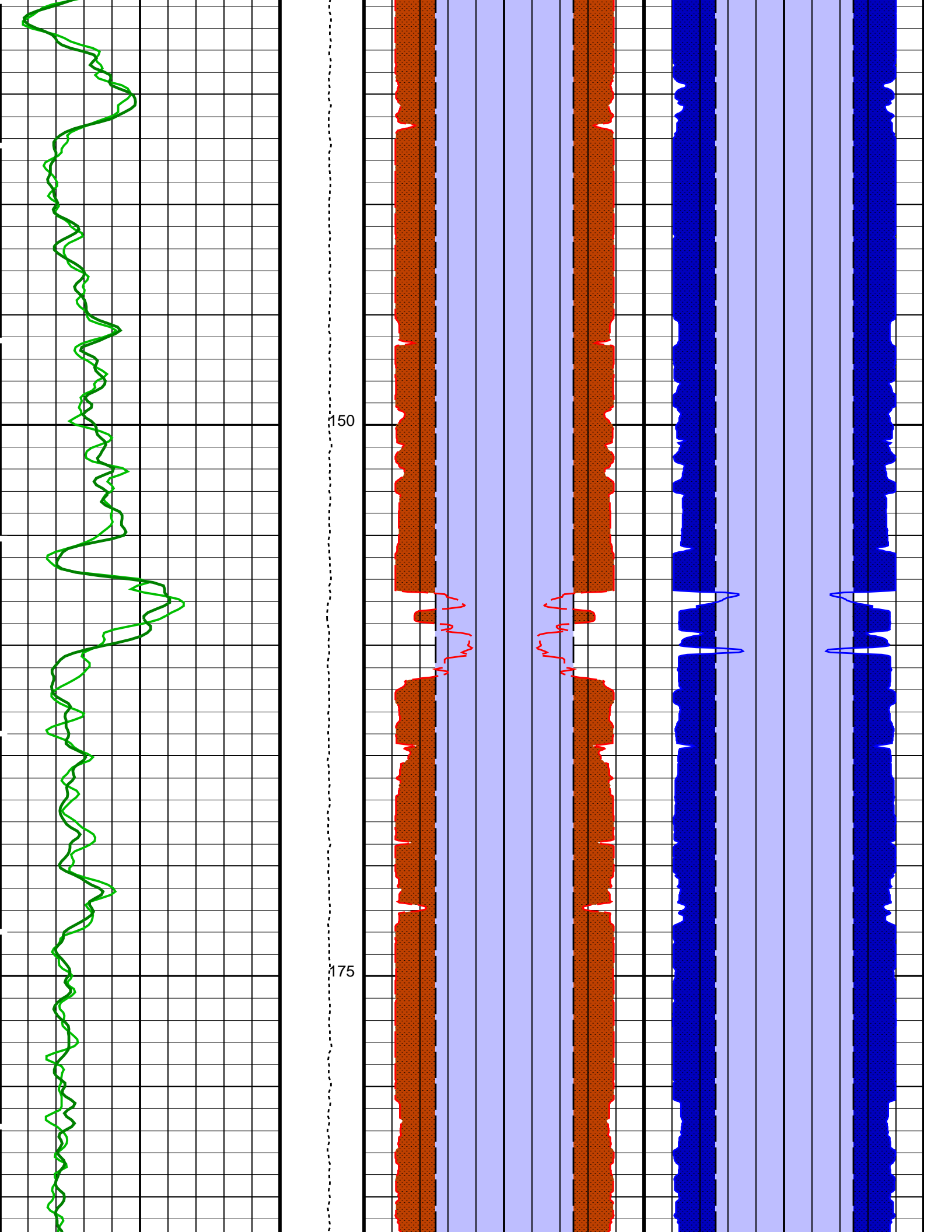
DTA-A 19C0-187
 HNGC-B 19C0-187
 EDTC-B SKK-5169-EDTCB

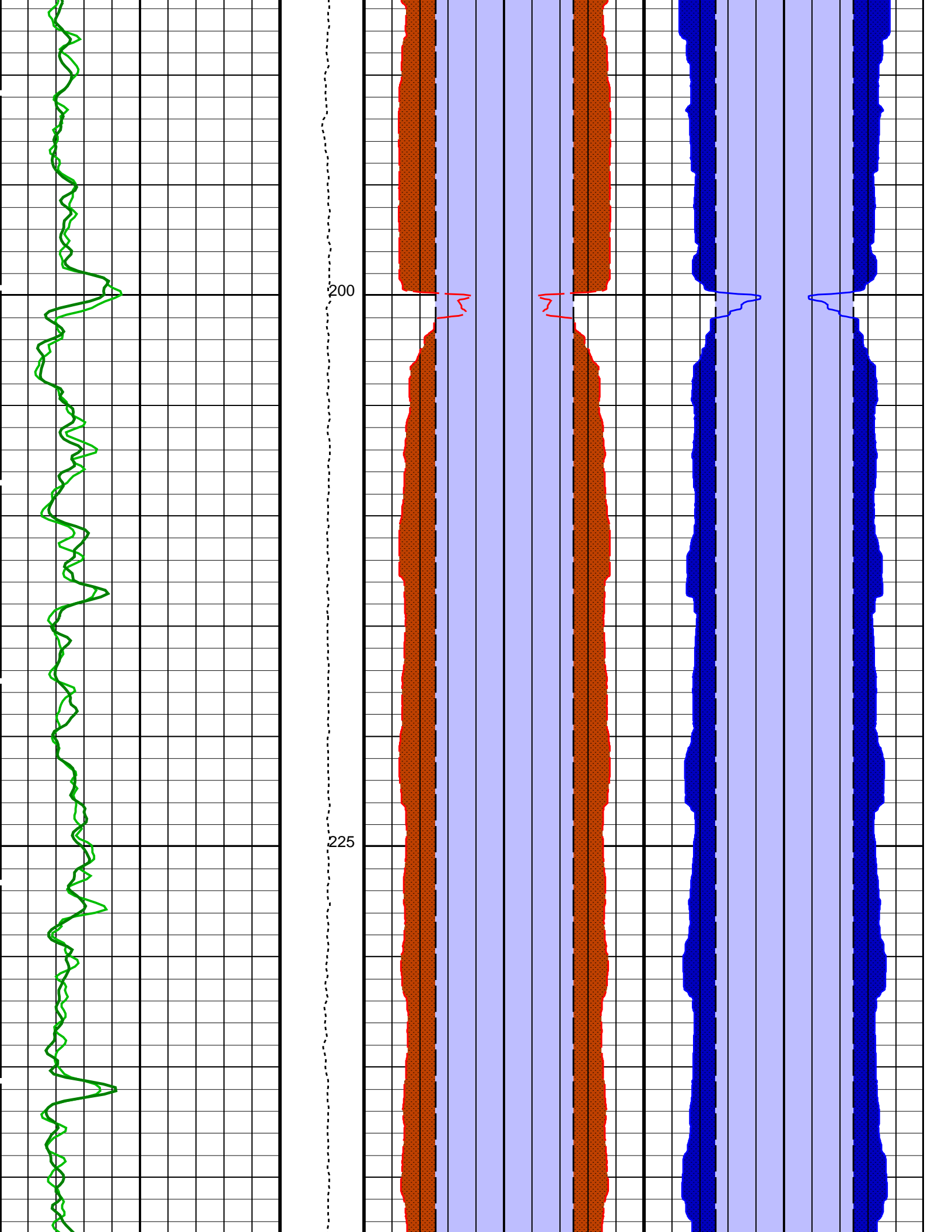
PIP SUMMARY

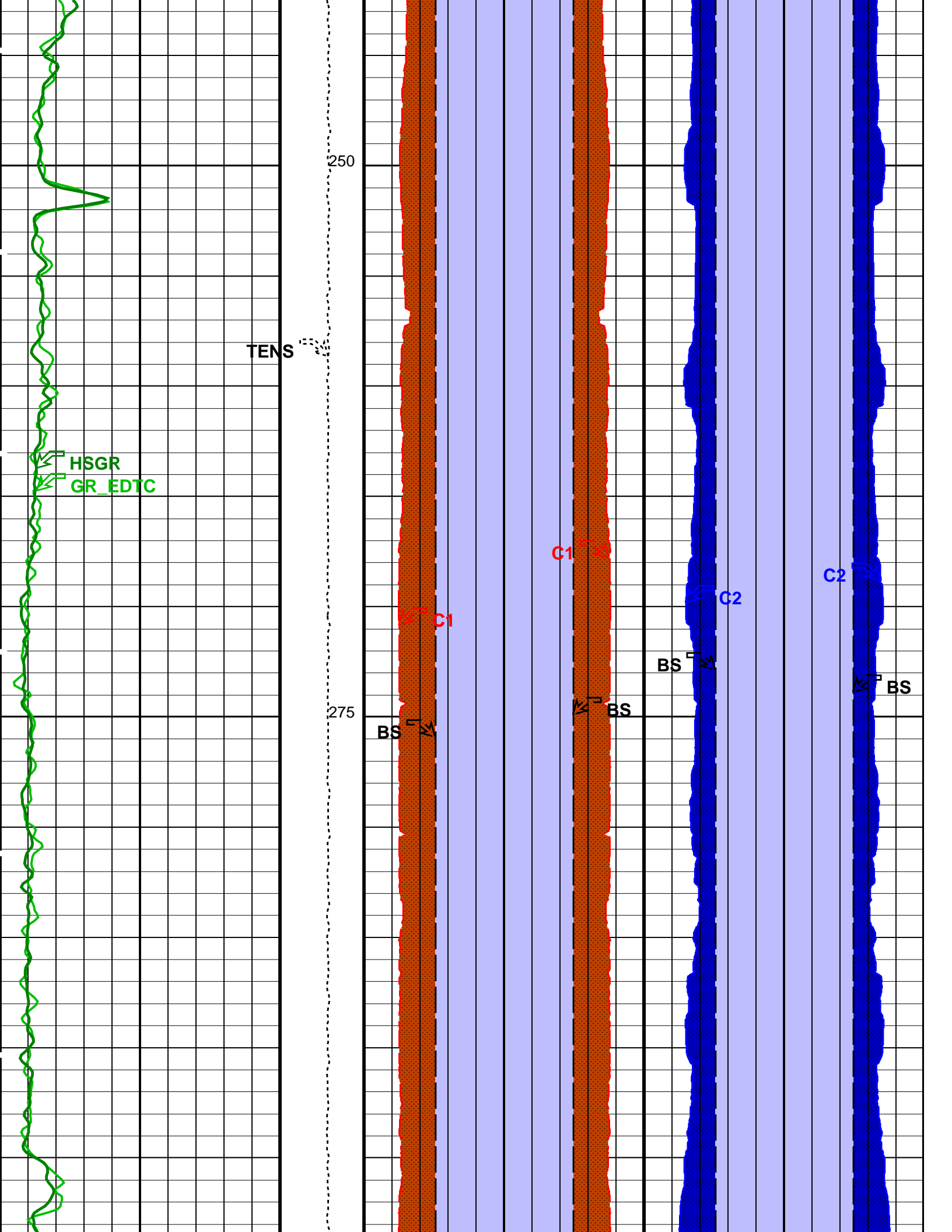
Time Mark Every 60 S

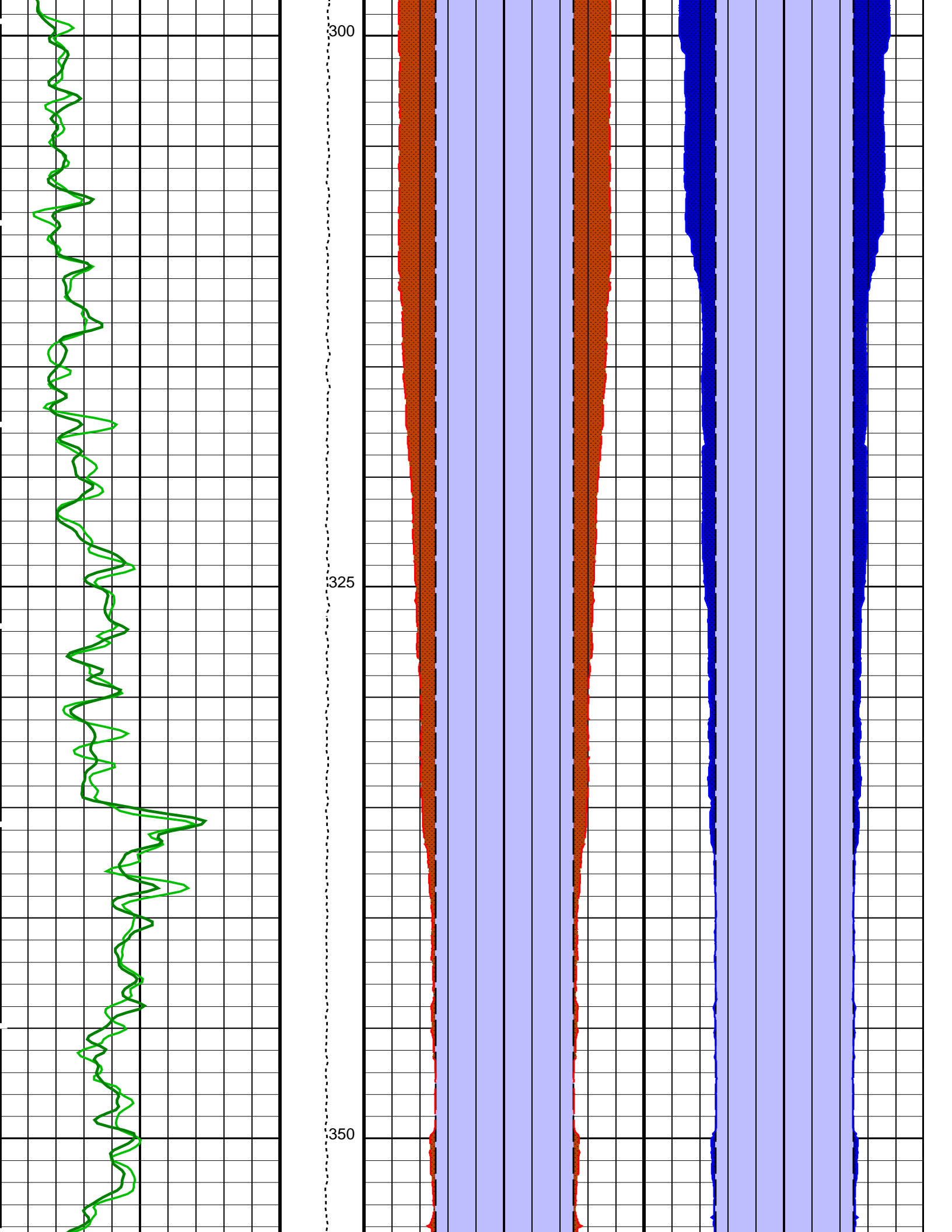


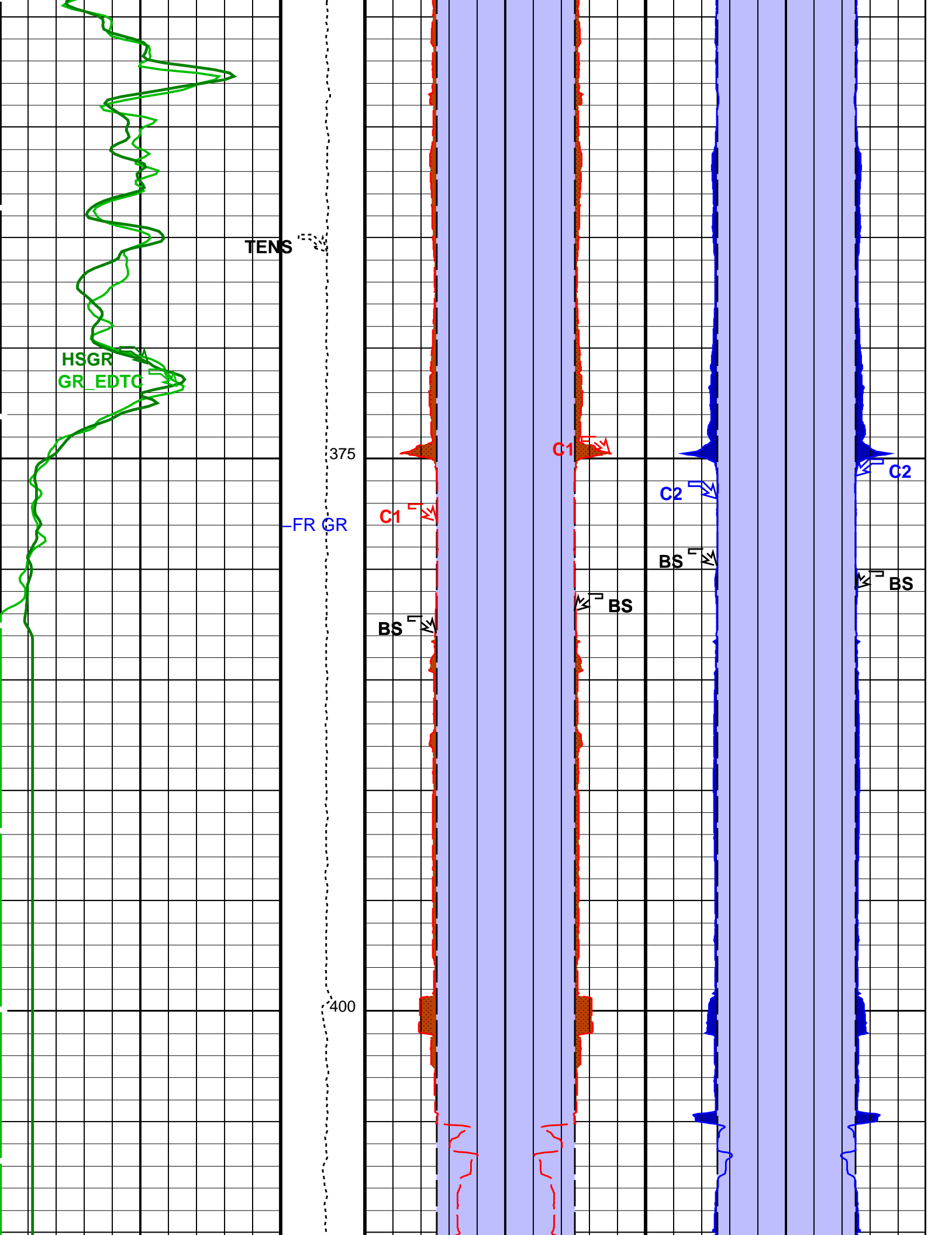


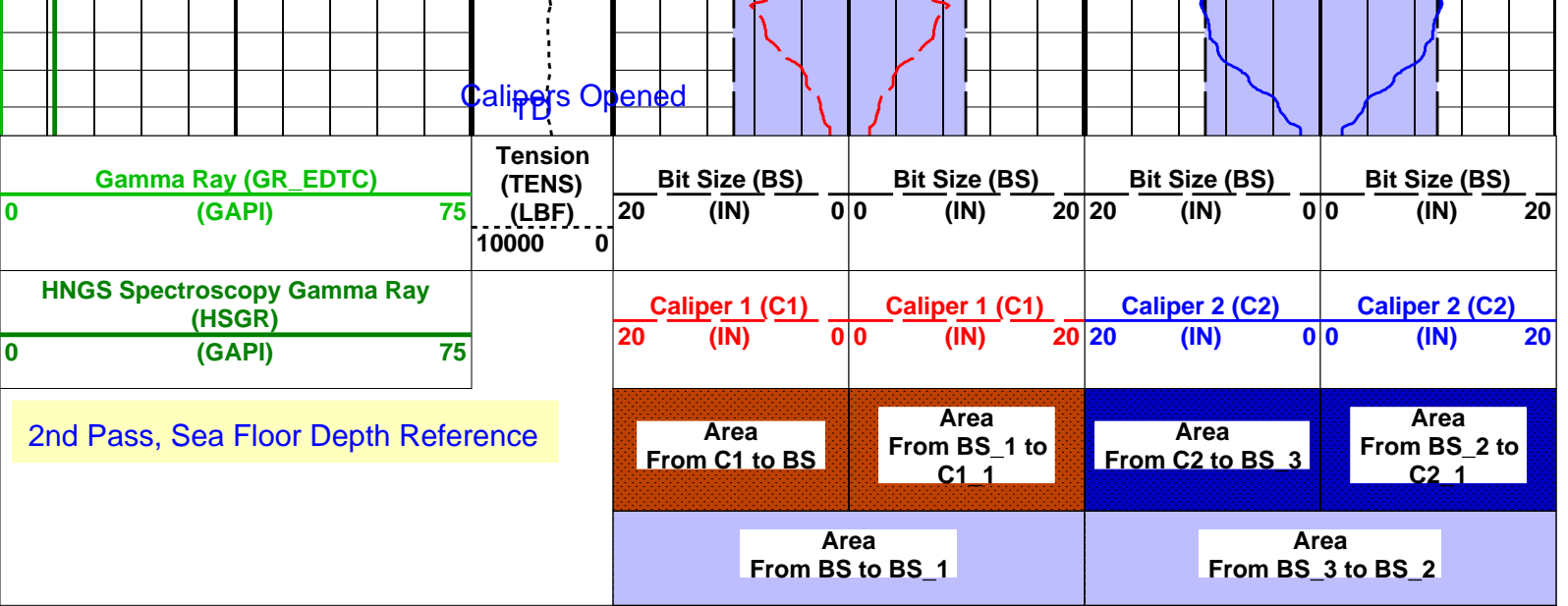












PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value
DSST-B: Dipole Shear Imager - 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	-0.00624076
HALF	HNGS Alpha Filter Length	60 IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE
HMWM	Mud Weighting Material	NATU
HNPE	HNGS Processing Enable	YES
S1BI	HNGS Detector 1 Calibration Bismuth Count Rate	1.3 CPS
S2BI	HNGS Detector 2 Calibration Bismuth Count Rate	1.3 CPS
SGRC	HNGS Standard Gamma-Ray Correction Flag	YES
TPOS	Tool Position	CENT
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	1.35495
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	1.05547
EDTC-B: Enhanced DTS Cartridge		
BHS	Borehole Status	OPEN
GCSE	Generalized Caliper Selection	BS
System and Miscellaneous		
BS	Bit Size	9.875 IN
DFD	Drilling Fluid Density	1.02 G/C3
DO	Depth Offset for Playback	-2469.0 M
PP	Playback Processing	NORMAL

Format: BHP Vertical Scale: 1:200 Graphics File Created: 10-Dec-2012 20:54

OP System Version: 19C0-187

MEST-B	19C0-187	DTA-A	19C0-187
DSST-B	19C0-187	HNGC-B	19C0-187
HNGS-BA	19C0-187	EDTC-B	SKK-5169-EDTCB

Input DLIS Files

DEFAULT	FMS_DSI_NGS_036LUP	FN:50	PRODUCER	10-Dec-2012 15:20	2882.6 M	2462.5 M
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Output DLIS Files

DEFAULT

FMS_DSI_NGS_043PUP

FN:63

PRODUCER

10-Dec-2012 20:54

Input DLIS Files

DEFAULT

FMS_DSI_NGS_035LUP

FN:48

PRODUCER

10-Dec-2012 15:01

2884.9 M

2770.6 M

Output DLIS Files

DEFAULT

FMS_DSI_NGS_042PUP

FN:62

PRODUCER

10-Dec-2012 20:24

416.1 M

301.6 M

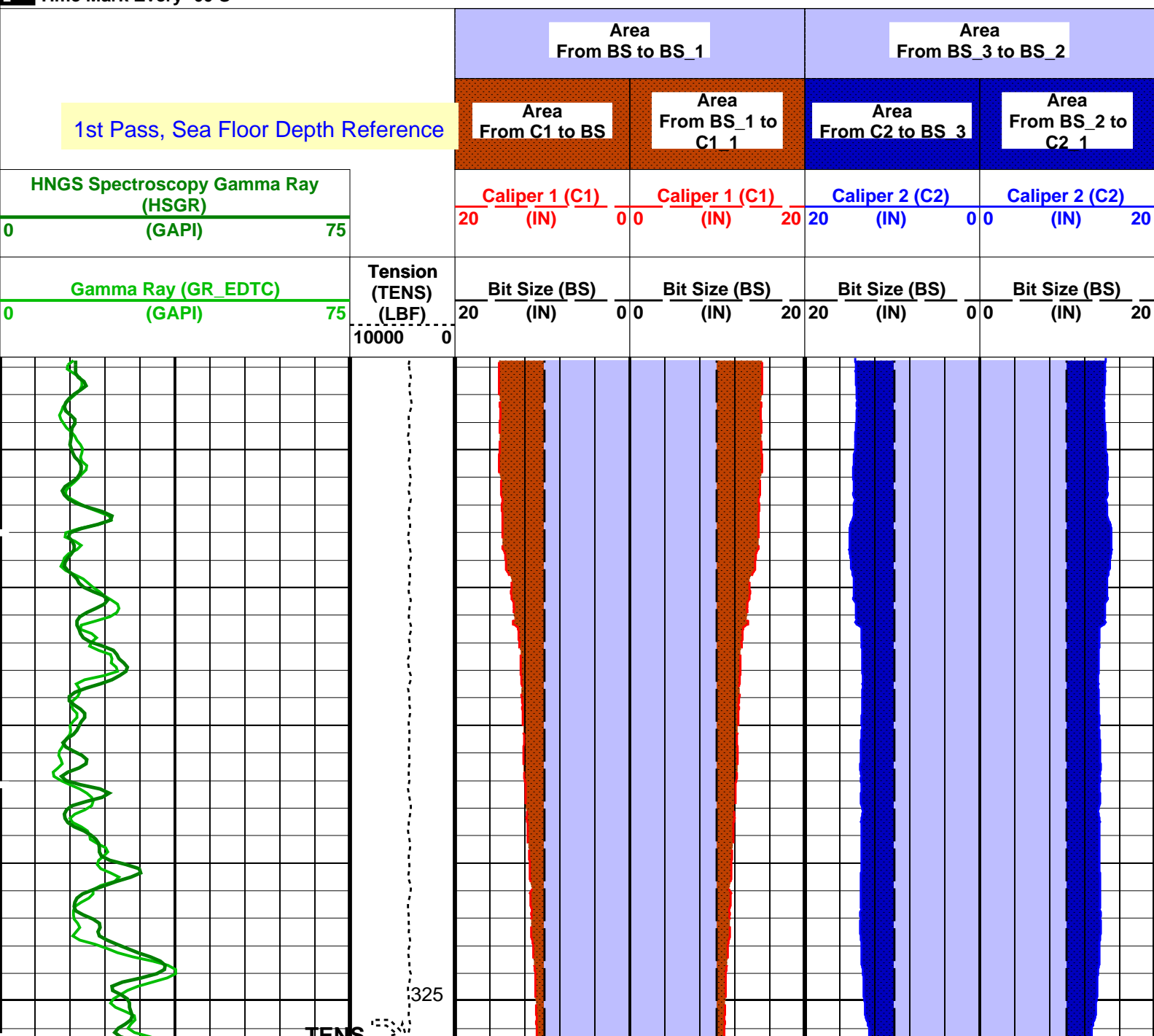
OP System Version: 19C0-187

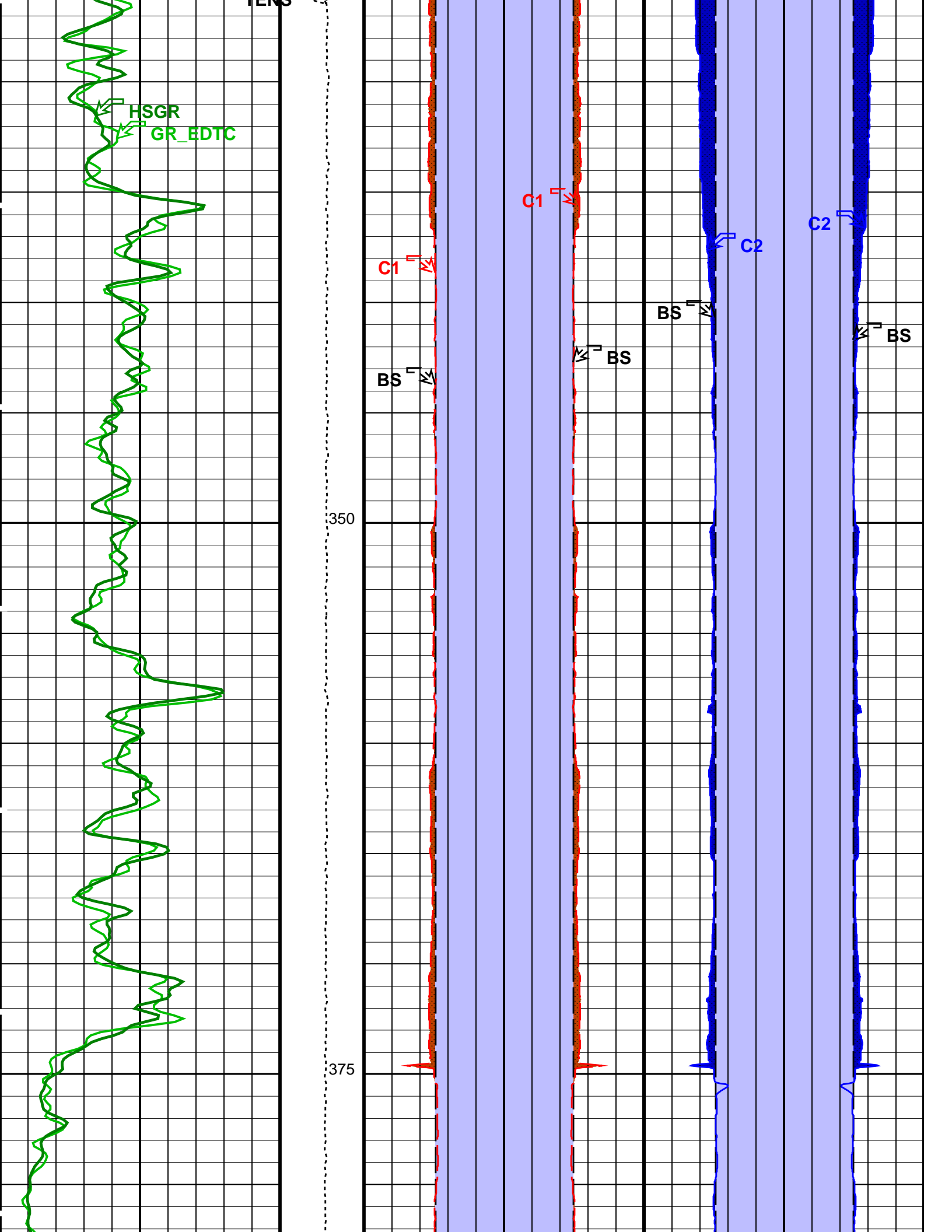
MEST-B 19C0-187
 DSST-B 19C0-187
 HNGS-BA 19C0-187

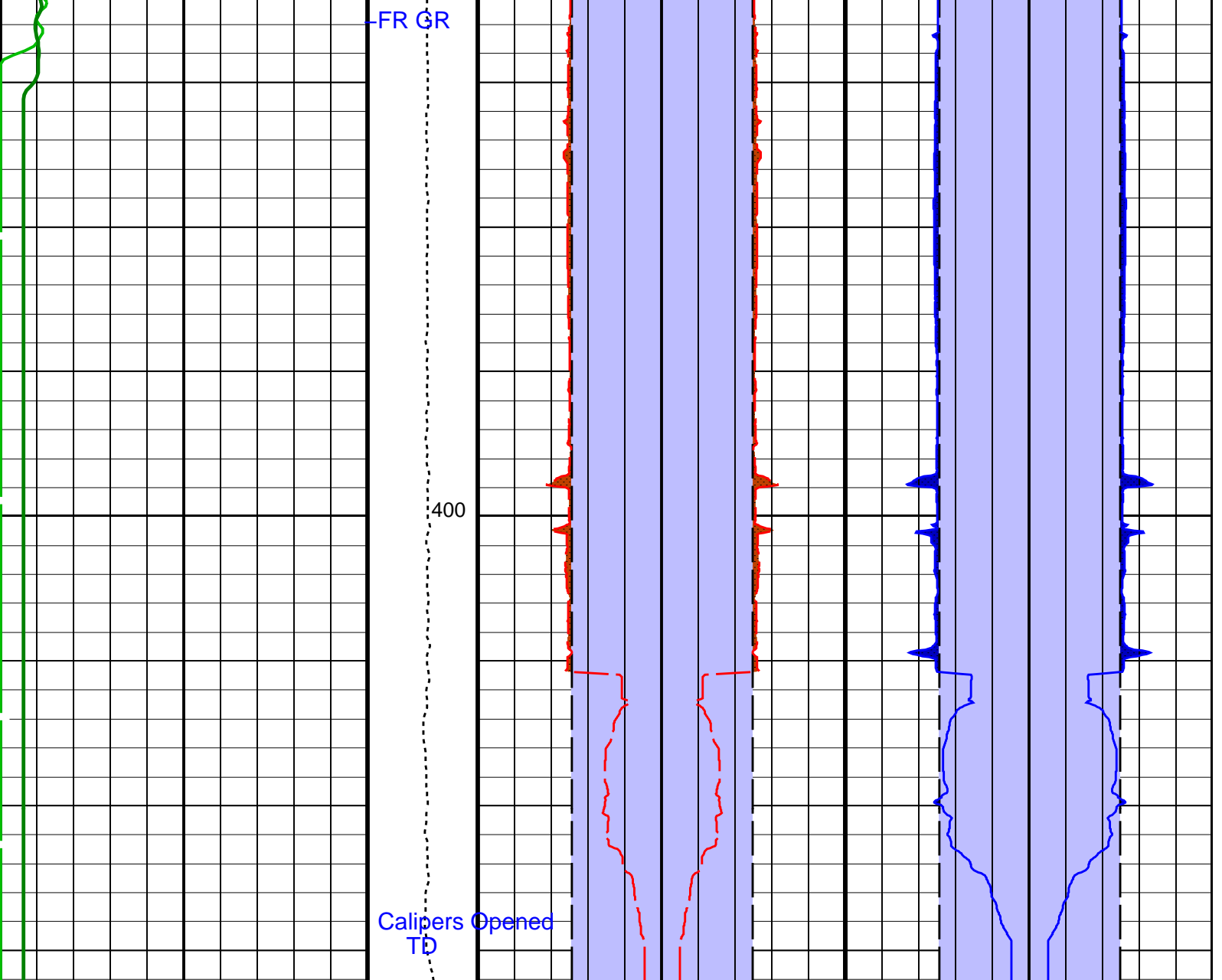
DTA-A 19C0-187
 HNGC-B 19C0-187
 EDTC-B SKK-5169-EDTCB

PIP SUMMARY

Time Mark Every 60 S







Gamma Ray (GR_EDTC) (GAPI)	Tension (TENS) (LBF)	Bit Size (BS) (IN)	Bit Size (BS) (IN)	Bit Size (BS) (IN)	Bit Size (BS) (IN)
0 75	10000 0	20 0 0	0 0 20	20 0 0	0 0 20
HNGS Spectroscopy Gamma Ray (HSGR) (GAPI)		Caliper 1 (C1) (IN)	Caliper 1 (C1) (IN)	Caliper 2 (C2) (IN)	Caliper 2 (C2) (IN)
0 75		20 0 0	0 0 20	20 0 0	0 0 20
1st Pass, Sea Floor Depth Reference		Area From C1 to BS	Area From BS_1 to C1_1	Area From C2 to BS_3	Area From BS_2 to C2_1
		Area From BS to BS_1		Area From BS_3 to BS_2	

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value
BHS	DSST-B: Dipole Shear Imager - B	
GCSE	Borehole Status	OPEN
	Generalized Caliper Selection	BS
BAR1	HNGS-BA: Hostile Natural Gamma Ray Sonde	
BAR2	HNGS Detector 1 Barite Constant	1
	HNGS Detector 2 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	-0.00624076	
HALF	HNGS Alpha Filter Length	60	IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	NATU	
HNPE	HNGS Processing Enable	YES	
S1BI	HNGS Detector 1 Calibration Bismuth Count Rate	1.3	CPS
S2BI	HNGS Detector 2 Calibration Bismuth Count Rate	1.3	CPS
SGRC	HNGS Standard Gamma-Ray Correction Flag	YES	
TPOS	Tool Position	CENT	
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	1.35495	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	1.05547	
	EDTC-B: Enhanced DTS Cartridge		
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	BS	
	System and Miscellaneous		
BS	Bit Size	9.875	IN
DFD	Drilling Fluid Density	1.02	G/C3
DO	Depth Offset for Playback	-2469.0	M
PP	Playback Processing	NORMAL	

Format: BHP Vertical Scale: 1:200 Graphics File Created: 10-Dec-2012 20:24

OP System Version: 19C0-187

MEST-B	19C0-187	DTA-A	19C0-187
DSST-B	19C0-187	HNGC-B	19C0-187
HNGS-BA	19C0-187	EDTC-B	SKK-5169-EDTCB

Input DLIS Files

DEFAULT	FMS_DSI_NGS_035LUP	FN:48	PRODUCER	10-Dec-2012 15:01	2884.9 M	2770.6 M
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Output DLIS Files

DEFAULT	FMS_DSI_NGS_042PUP	FN:62	PRODUCER	10-Dec-2012 20:24
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Calibration and Check Summary

Measurement	Nominal	Master	Before	After	Change	Limit	Units
Micro Electrical Scanner - B (Slim) Wellsite Calibration - Caliper Calibration							
Before: 6-Dec-2012 2:43							
Caliper 1 Zero Measurement	12.00	N/A	12.82	N/A	N/A	N/A	IN
Caliper 2 Zero Measurement	12.00	N/A	12.62	N/A	N/A	N/A	IN
Caliper 1 Plus Measurement	15.19	N/A	15.87	N/A	N/A	N/A	IN
Caliper 2 Plus Measurement	15.19	N/A	15.71	N/A	N/A	N/A	IN
Micro Electrical Scanner - B (Slim) Wellsite Calibration - CROUZET ACCELEROMETER PROM HAS BEEN READ CORRECTLY							
Before: 10-Dec-2012 12:24							
TEMPERATURE REFERENCE :	N/A	N/A	20	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	3	N/A	N/A	N/A	
SERIAL NUMBER :	N/A	N/A	743	N/A	N/A	N/A	
Micro Electrical Scanner - B (Slim) Wellsite Calibration - CROUZET MAGNETOMETER PROM HAS BEEN READ CORRECTLY							
Before: 10-Dec-2012 12:24							
TEMPERATURE REFERENCE :	N/A	N/A	23	N/A	N/A	N/A	DEGC
YEAR OF CALIBRATION :	N/A	N/A	3	N/A	N/A	N/A	
MONTH OF CALIBRATION :	N/A	N/A	9	N/A	N/A	N/A	
SERIAL NUMBER :	N/A	N/A	507	N/A	N/A	N/A	

Hostile Natural Gamma Ray Sonde Wellsite Calibration - Detector 1 Check

Master: 9-Dec-2012 2:05 Before: 9-Dec-2012 2:13

No. 511 Peak Log	40.00	39.52	39.56	N/A	N/A	1.000
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Na 511 Peak Loc	40.00	39.32	39.36	N/A	N/A	1.000	%
Na 511 Peak Res	15.50	16.12	15.91	N/A	N/A	2.000	V
High Voltage	1150	1182	1182	N/A	N/A	N/A	V
Na 1785 Peak Loc	142.6	142.4	141.8	N/A	N/A	7.000	
Na 1785 Peak Res	8.500	9.181	9.123	N/A	N/A	2.000	%
Temperature	15.50	31.95	31.97	N/A	N/A	N/A	DEGC
Na Count Rate	45.00	16.45	16.74	N/A	N/A	8.000	CPS

Hostile Natural Gamma Ray Sonde Wellsite Calibration – Detector 2 Check

Master: 9-Dec-2012 2:05 Before: 9-Dec-2012 2:13

Na 511 Peak Loc	40.00	39.48	39.56	N/A	N/A	1.000	
Na 511 Peak Res	15.50	15.87	16.16	N/A	N/A	2.000	%
High Voltage	1150	1114	1115	N/A	N/A	N/A	V
Na 1785 Peak Loc	142.6	142.4	141.9	N/A	N/A	7.000	
Na 1785 Peak Res	8.500	9.230	9.385	N/A	N/A	2.000	%
Temperature	15.50	32.68	32.75	N/A	N/A	N/A	DEGC
Na Count Rate	45.00	16.90	17.23	N/A	N/A	8.000	CPS

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

Master: 9-Dec-2012 2:05 Before: 9-Dec-2012 2:13

Coincidence Count Rate Ratio	1.000	0.9742	0.9644	N/A	N/A	0.05000	
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Hostile Natural Gamma Ray Sonde Master Calibration – Detector 1 Calibration

Master: 9-Dec-2012 1:59

Na 511 Peak Set Point	40.00	41.00	--	--	--	--	
Th Peak Loc	209.6	210.5	--	--	--	--	
Th Peak Res	7.000	7.000	--	--	--	--	%
Background Count Rate	142.5	17.93	--	--	--	--	CPS
Gain Ratio	1.000	1.013	--	--	--	--	

Hostile Natural Gamma Ray Sonde Master Calibration – Detector 2 Calibration

Master: 9-Dec-2012 1:59

Na 511 Peak Set Point	40.00	41.00	--	--	--	--	
Th Peak Loc	209.6	209.2	--	--	--	--	
Th Peak Res	7.000	7.038	--	--	--	--	%
Background Count Rate	142.5	18.43	--	--	--	--	CPS
Gain Ratio	1.000	1.008	--	--	--	--	

Enhanced DTS Cartridge Wellsite Calibration – EDTC Accelerometer Calibration

Before: 10-Dec-2012 0:38

EDTC Z-Axis Acceleration	9.810	N/A	9.816	N/A	N/A	N/A	M/S2
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Enhanced DTS Cartridge Wellsite Calibration – Detector Calibration

Before: 9-Dec-2012 2:15

Gamma Ray (Jig – Bkg)	162.4	N/A	162.4	N/A	N/A	14.77	GAPI
Gamma Ray (Calibrated)	164.0	N/A	164.0	N/A	N/A	15.00	GAPI

Micro Electrical Scanner – B (Slim) / Equipment Identification

Primary Equipment:

MEST Sonde – B	MEDS – B	724
MEST Preamplifier Cartridge – AB	MEPC – AB	807
GPIT Cartridge – AC	GPIC – AC	719
MEST Acquisition Cartridge – A	MEAC – A	875

Auxiliary Equipment:

MEST-B Preamplifier Cartridge Housing	MEPH – A	702
MEST Acquisition Cartridge Housing (Slim)	MEAH – B	769

Hostile Natural Gamma Ray Cartridge – B / Equipment Identification

Primary Equipment:

HNGC Cartridge	HNGC – B	300
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Auxiliary Equipment:

HNGC Housing	HNGH – A	115
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Hostile Natural Gamma Ray Sonde / Equipment Identification

Primary Equipment:

HNGS Sonde	HNGS – BA	194
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Auxiliary Equipment:

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		39.52	Master		16.12	Master		1182
Before		39.56	Before		15.91	Before		1182
	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		142.4	Master		9.181	Master		31.95
Before		141.8	Before		9.123	Before		31.97
	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		16.45						
Before		16.74						
	10.00 (Minimum) 45.00 (Nominal) 100.0 (Maximum)							
Master: 9-Dec-2012 2:05			Before: 9-Dec-2012 2:13					

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		39.48	Master		15.87	Master		1114
Before		39.56	Before		16.16	Before		1115
	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		142.4	Master		9.230	Master		32.68
Before		141.9	Before		9.385	Before		32.75
	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		16.90						
Before		17.23						
	10.00 (Minimum) 45.00 (Nominal) 100.0 (Maximum)							
Master: 9-Dec-2012 2:05			Before: 9-Dec-2012 2:13					

Hostile Natural Gamma Ray Sonde Wellsite Calibration		
Ratio Of Detector 1 To Detector 2		
Phase	Coincidence Count Rate Ratio	Value
Master		0.9742
Before		0.9644
	0.9500 (Minimum) 1.000 (Nominal) 1.050 (Maximum)	
Master: 9-Dec-2012 2:05		
Before: 9-Dec-2012 2:13		

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		210.5	Master		7.000
	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		17.93	Master		1.013			
	10.00 (Minimum) 142.5 (Nominal) 265.0 (Maximum)			0.9400 (Minimum) 1.000 (Nominal) 1.060 (Maximum)				

Hostile Natural Gamma Ray Sonde Master Calibration									
Detector 2 Calibration									
Phase	Na 511 Peak Set Point			Value	Phase	Th Peak Loc			Value
Master				41.00	Master				209.2
	38.00 (Minimum)	40.00 (Nominal)	43.00 (Maximum)			201.0 (Minimum)	209.6 (Nominal)	218.3 (Maximum)	
Phase	Background Count Rate CPS			Value	Phase	Gain Ratio			Value
Master				18.43	Master				1.008
	10.00 (Minimum)	142.5 (Nominal)	265.0 (Maximum)			0.9400 (Minimum)	1.000 (Nominal)	1.060 (Maximum)	

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		9.816	
	9.610 (Minimum)	9.810 (Nominal)	10.01 (Maximum)

Enhanced DTS Cartridge Wellsite Calibration									
Detector Calibration									
Phase	Gamma Ray Background GAPI			Value	Phase	Gamma Ray (Jig - Bkg) GAPI			Value
Before				6.074	Before				162.4
	0 (Minimum)	30.00 (Nominal)	120.0 (Maximum)			147.7 (Minimum)	162.4 (Nominal)	177.2 (Maximum)	
Phase	Gamma Ray (Calibrated) GAPI			Value	Phase	Gamma Ray (Calibrated) GAPI			Value
Before				164.0	Before				164.0
	149.0 (Minimum)	164.0 (Nominal)	179.0 (Maximum)			149.0 (Minimum)	164.0 (Nominal)	179.0 (Maximum)	

Company:	Lamont Doherty	
Well:	Expedition 344, Site U1414A	
Field:	Costa Rica Seismogenesis (CRISP-A2)	
Rig:	JOIDES Resolution	
Ocean:	Pacific	
Formation Micro Scanner Dual Axis Caliper Gamma Ray, LEH-MT Temperature		