



Company: SANDIA TECHNOLOGIES, LLC

Well: NYSTA TANDEM LOT 1
 Field: WILDCAT
 County: ROCKLAND

State: NEW YORK

**PLATFORM EXPRESS
 LITHO-DENSITY / COMPENSATED NEUTRON
 GAMMA RAY / CALIPER**

County: ROCKLAND
 Field: WILDCAT
 Location: LAT: 41.1039
 Well: NYSTA TANDEM LOT 1
 Company: SANDIA TECHNOLOGIES, LLC

LOCATION		LAT: 41.1039	Elev.: K.B. 402.00 ft
		LONG: -74.027	G.L. 386.00 ft
			D.F. 402.00 ft
Permanent Datum:	GROUND LEVEL	Elev.: 386.00 ft	
Log Measured From:	KELLY BUSHING	16.00 ft above Perm. Datum	
Drilling Measured From:	KELLY BUSHING		
API Serial No.	Section	Township	QUAD
31-087-27016-00-00		CLARKSTOWN	

Logging Date	31-Aug-2011		
Run Number	1		
Depth Driller	1528 ft		
Schlumberger Depth	1500 ft		
Bottom Log Interval	1482 ft		
Top Log Interval	0 ft		
Casing Driller Size @ Depth	13.375 in	@	603 ft
Casing Schlumberger	602 ft		
Bit Size	12.250 in		
Type Fluid In Hole	FRESH WATER BASED MUD		
Density	9.3 lbm/gal		
Fluid Loss	VISCOUSITY		
Source Of Sample	MEASURED		
RM @ Measured Temperature	6.690 ohm.m	@	77 degF
RMF @ Measured Temperature	5.017 ohm.m	@	77 degF
RMC @ Measured Temperature	10.035 ohm.m	@	77 degF
Source RMF	CALCULATED	CALCULATED	
RM @ MRT	7.490 @ 68	5.617 @ 68	
Maximum Recorded Temperatures	68 degF		
Circulation Stopped	Time		
Logger On Bottom	31-Aug-2011	Time	1:02
Unit Number	3039	BRADFORD	
Recorded By	TIM ZOTARA		
Witnessed By	DAN COLLINS		

	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			
Fluid Loss			
Source Of Sample			
RM @ Measured Temperature			
RMF @ Measured Temperature			
RMC @ Measured Temperature			
Source RMF			
RM @ MRT			
Maximum Recorded Temperatures			
Circulation Stopped			
Logger On Bottom			
Unit Number			
Recorded By			
Witnessed By			

DEPTH SUMMARY LISTING

Date Created: 31-AUG-2011 1:45:23

Depth System Equipment

Depth Measuring Device	Tension Device	Logging Cable
Type: IDW-B Serial Number: 2828 Calibration Date: 1-JAN-2011 Calibrator Serial Number: 33 Calibration Cable Type: 7-39P LXS Wheel Correction 1: -5 Wheel Correction 2: -4	Type: CMTD-B/A Serial Number: 2929 Calibration Date: 2-AUG-2011 Calibrator Serial Number: 1095 Number of Calibration Points: 10 Calibration RMS: 45 Calibration Peak Error: 71	Type: 7-39P LXS Serial Number: 3039 Length: 13300 FT <hr/> Conveyance Method: Wireline Rig Type: LAND

Depth Control Parameters

Log Sequence: First Log In the Well
Rig Up Length At Surface:
Rig Up Length At Bottom:
Rig Up Length Correction:
Stretch Correction:
Tool Zero Check At Surface: 0.50 FT

Depth Control Remarks

1. ALL SCHLUMBERGER DEPTH CONTROL POLICIES FOLLOWED
2. IDW USED AS PRIMARY DEPTH DEVICE
3. Z-CHART USED AS SECONDARY DEPTH DEVICE
- 4.
- 5.
- 6.

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	OTHER SERVICES2
OS1: PEX-AIT	OS1:
OS2: CMR-ECS-HNGS	OS2:
OS3: PPC-SSCAN-FMI	OS3:
OS4: MDT-MSCT	OS4:
OS5: CBL/VDL-USIT	OS5:

REMARKS: RUN NUMBER 1	REMARKS: RUN NUMBER 2
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THANK YOU FOR CHOOSING SCHLUMBERGER

TOOLS RUN AS PER TOOL SKETCH, W/BOWSPRING & STANDOFFS ON AIT
ALL WELLSITE DATA, PERMIT, MUD REPORT, SOP PROVIDED BY CLIENT

RUN1: PEX-AIT	RUN2: CMR-ECS-HNGS	RUN3: PPC-SSCAN-FMI
RUN4: MSCT	RUN5: MDT	RUN6: CBL/VDL-USIT

RUN4: MSC1 RUN5: MDT RUN6: CDEVDL-031

GEO REQUESTED MATR = SANDSTONE / MDEN = 2.65 G/CC
 3 MAX TEMP THERMOMETERS RUN IN HEAD, PER RUN, MAX TEMP FROM HTEM.
 RUN1 LOGGED AT: REPEAT & MAIN @ 1600'/HR

SLB CREW: THIMLAR / CANNON

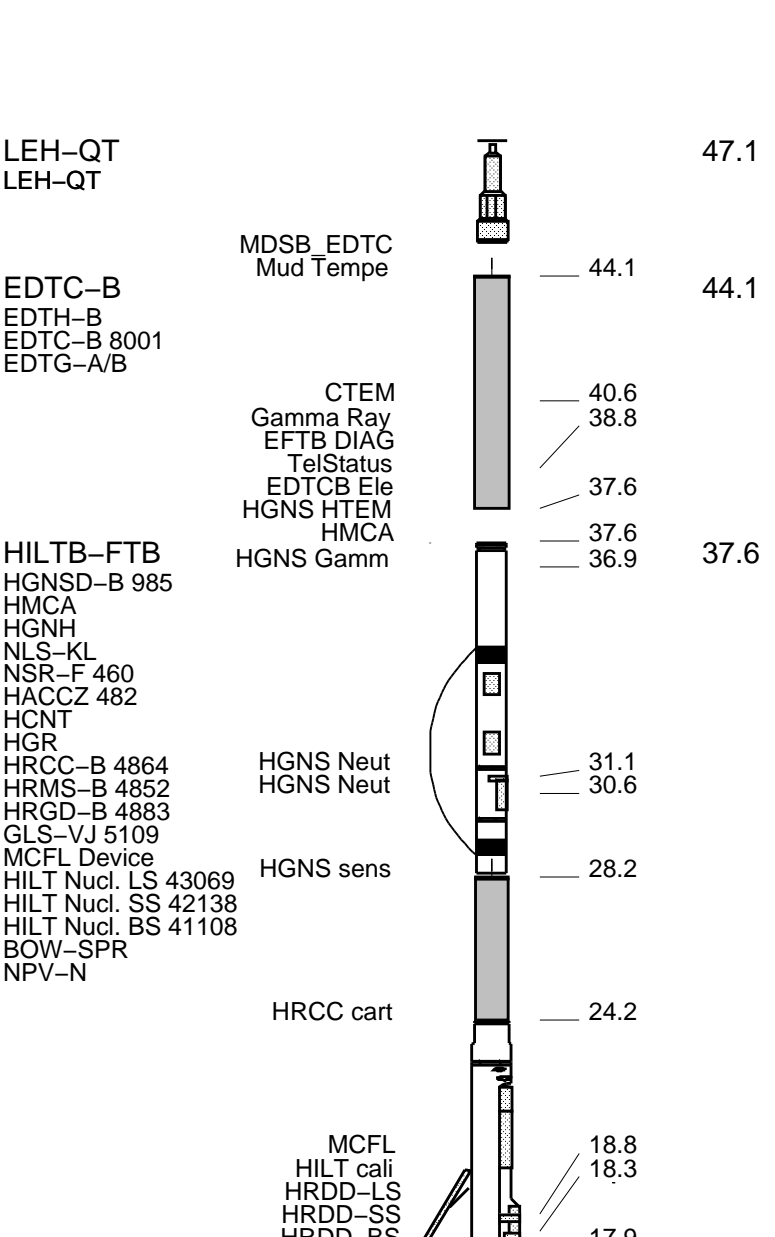
RUN 1			RUN 2		
SERVICE ORDER #:		AXPS-00185	SERVICE ORDER #:		
PROGRAM VERSION:		19C0-187	PROGRAM VERSION:		
FLUID LEVEL:		0 ft	FLUID LEVEL:		
LOGGED INTERVAL	START	STOP	LOGGED INTERVAL	START	STOP

EQUIPMENT DESCRIPTION

RUN 1 RUN 2

SURFACE EQUIPMENT
 WITM (EDTS)-A
 GSR-U 1289
 NCT-B
 CNB-AB
 NCS-VB

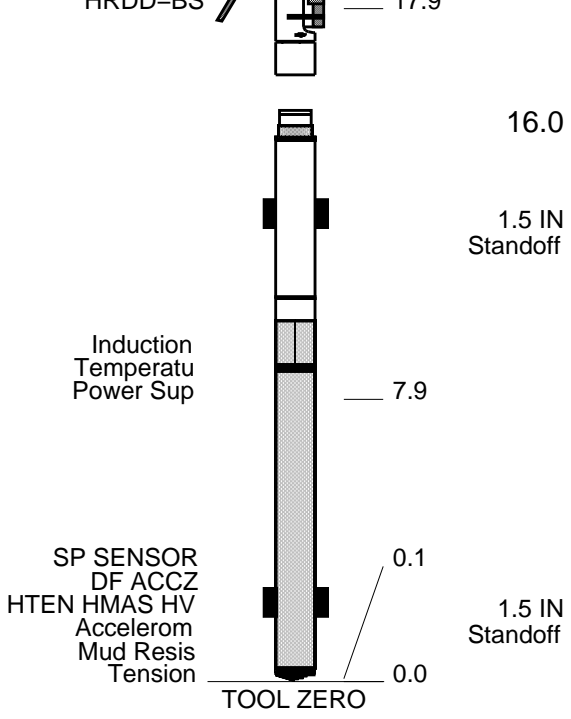
DOWNHOLE EQUIPMENT



SURFACE EQUIPMENT

DOWNHOLE EQUIPMENT

HAIT-H
AHIS-BA 266
AHRM-A



MAXIMUM STRING DIAMETER 6.88 IN
MEASUREMENTS RELATIVE TO TOOL ZERO
ALL LENGTHS IN FEET



MAIN 2"

MAXIS Field Log

Input DLIS Files

DEFAULT	AIT_TLD_MCFL_CNL_014LUP	FN:18	PRODUCER	31-Aug-2011 01:02	1512.0 FT	-16.0 FT
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Output DLIS Files

DEFAULT	AIT_TLD_MCFL_CNL_025PUP	FN:36	PRODUCER	31-Aug-2011 04:05	1512.0 FT	-16.0 FT
RTB	AIT_TLD_MCFL_CNL_025PUP	FN:37	PRODUCER	31-Aug-2011 04:05	1512.0 FT	-16.0 FT

Integrated Hole/Cement Volume Summary

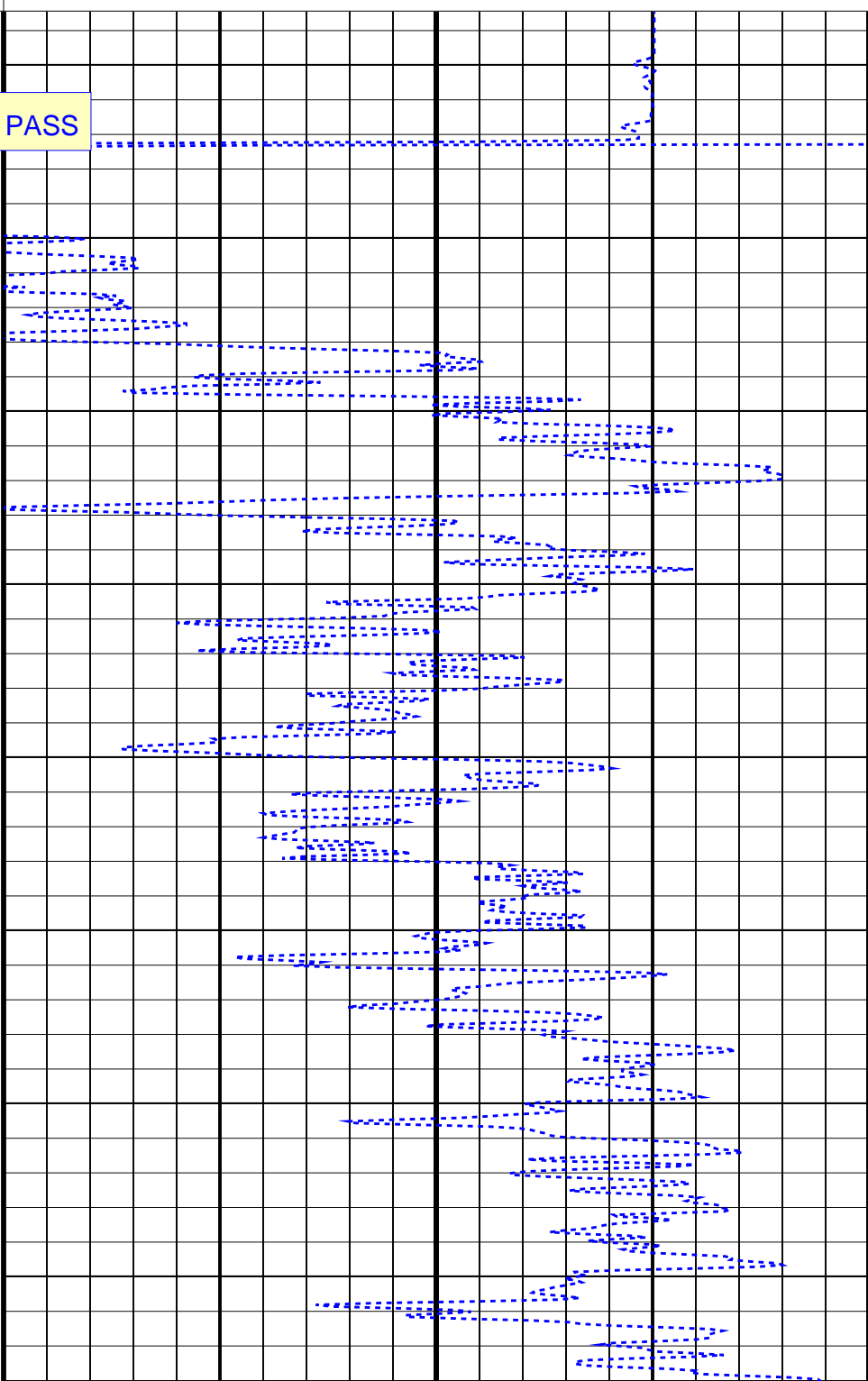
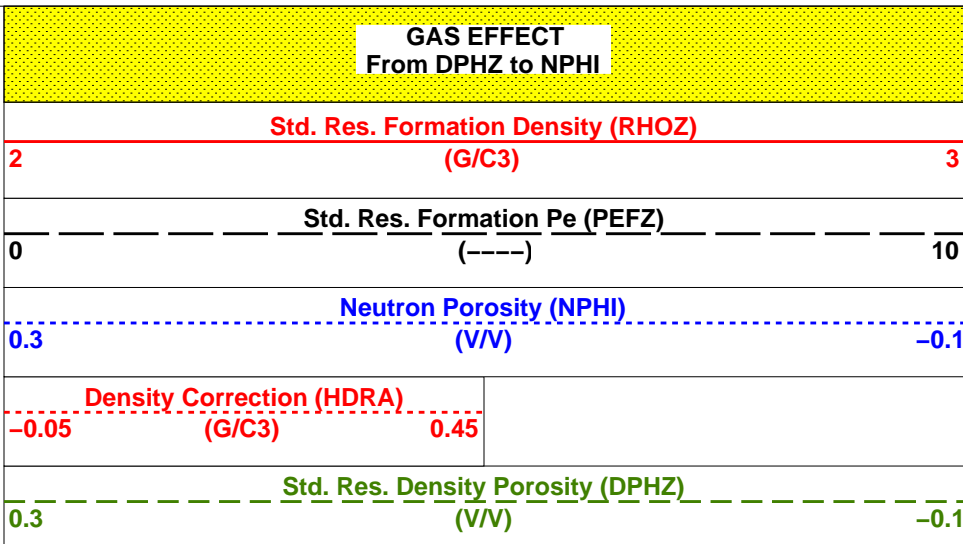
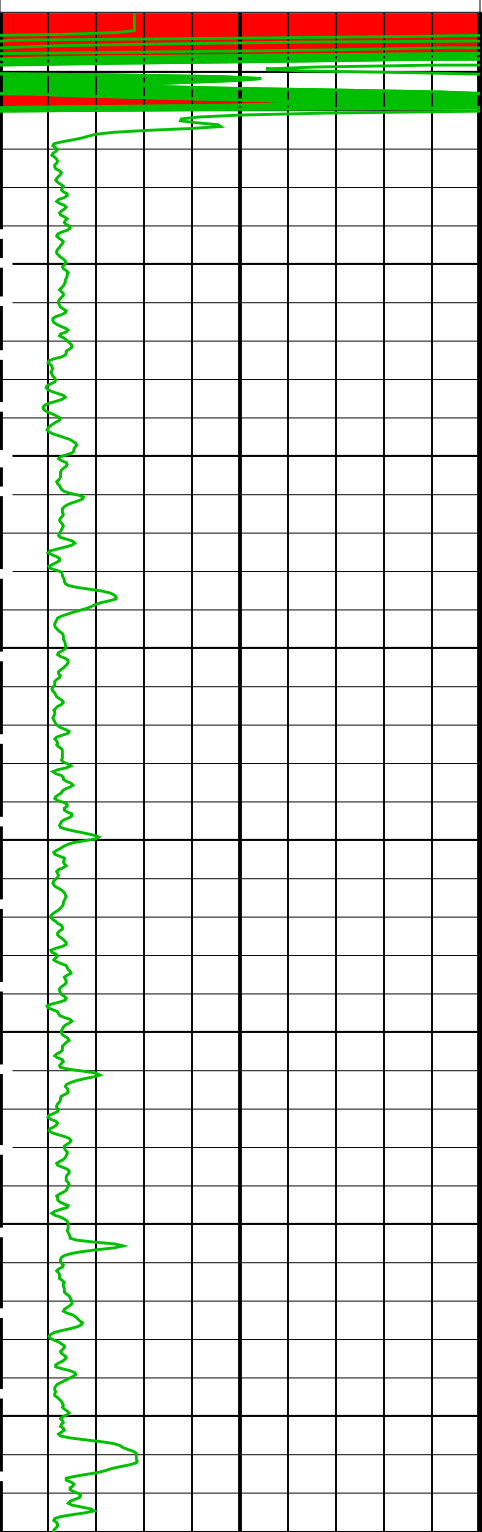
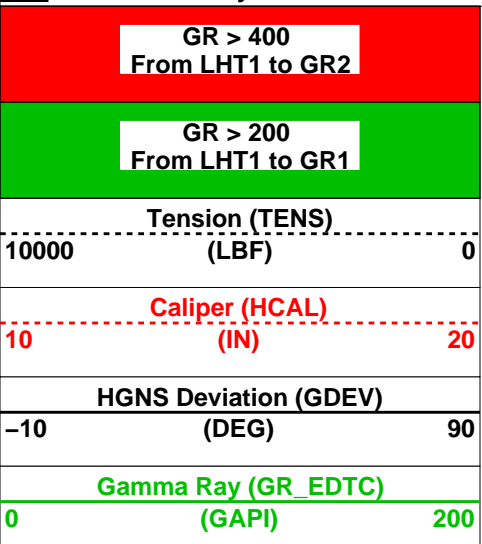
Hole Volume = 784.50 F3
Cement Volume = 330.53 F3 (assuming 9.63 IN casing O.D.)
Computed from 1500.0 FT to 602.0 FT using data channel(s) HCAL

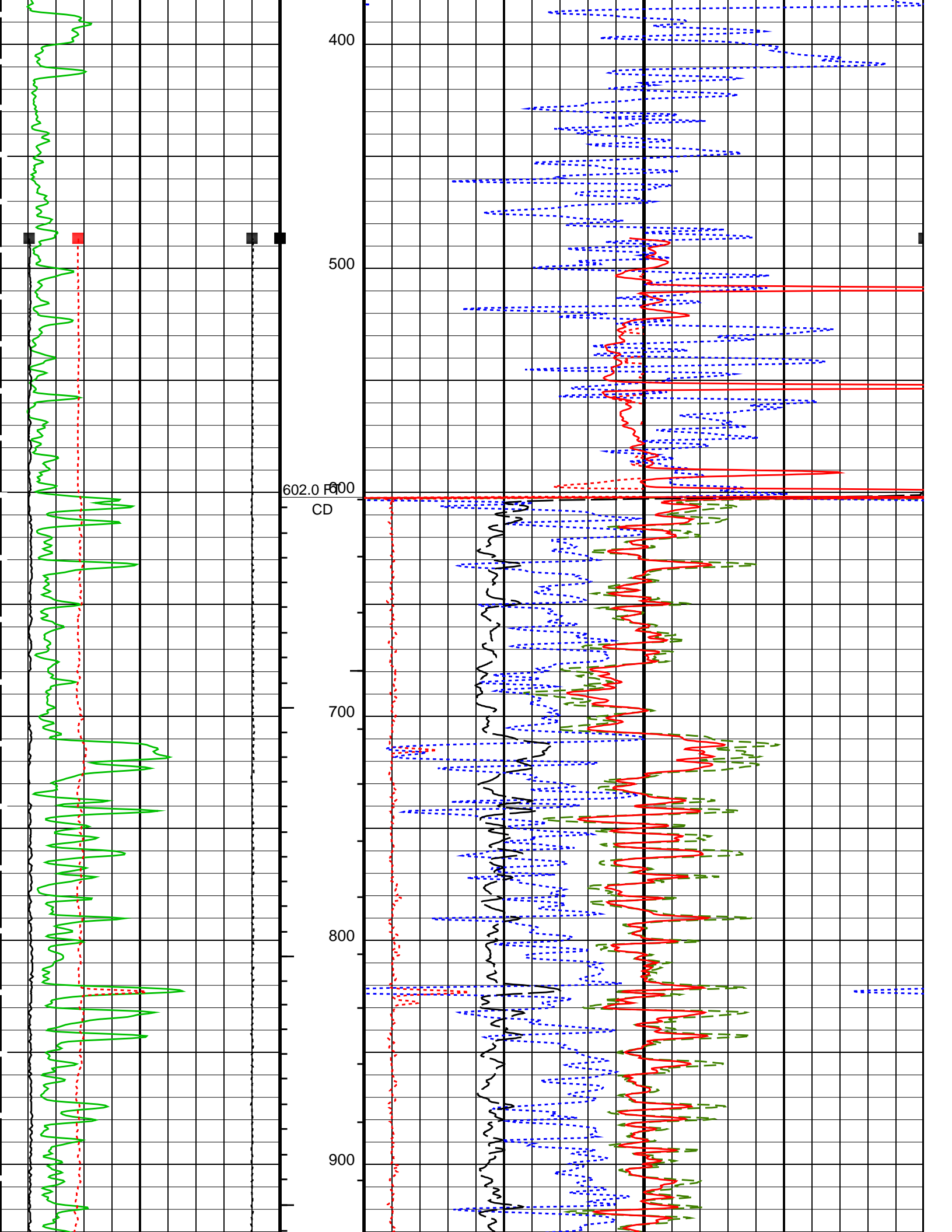
OP System Version: 19C0-187

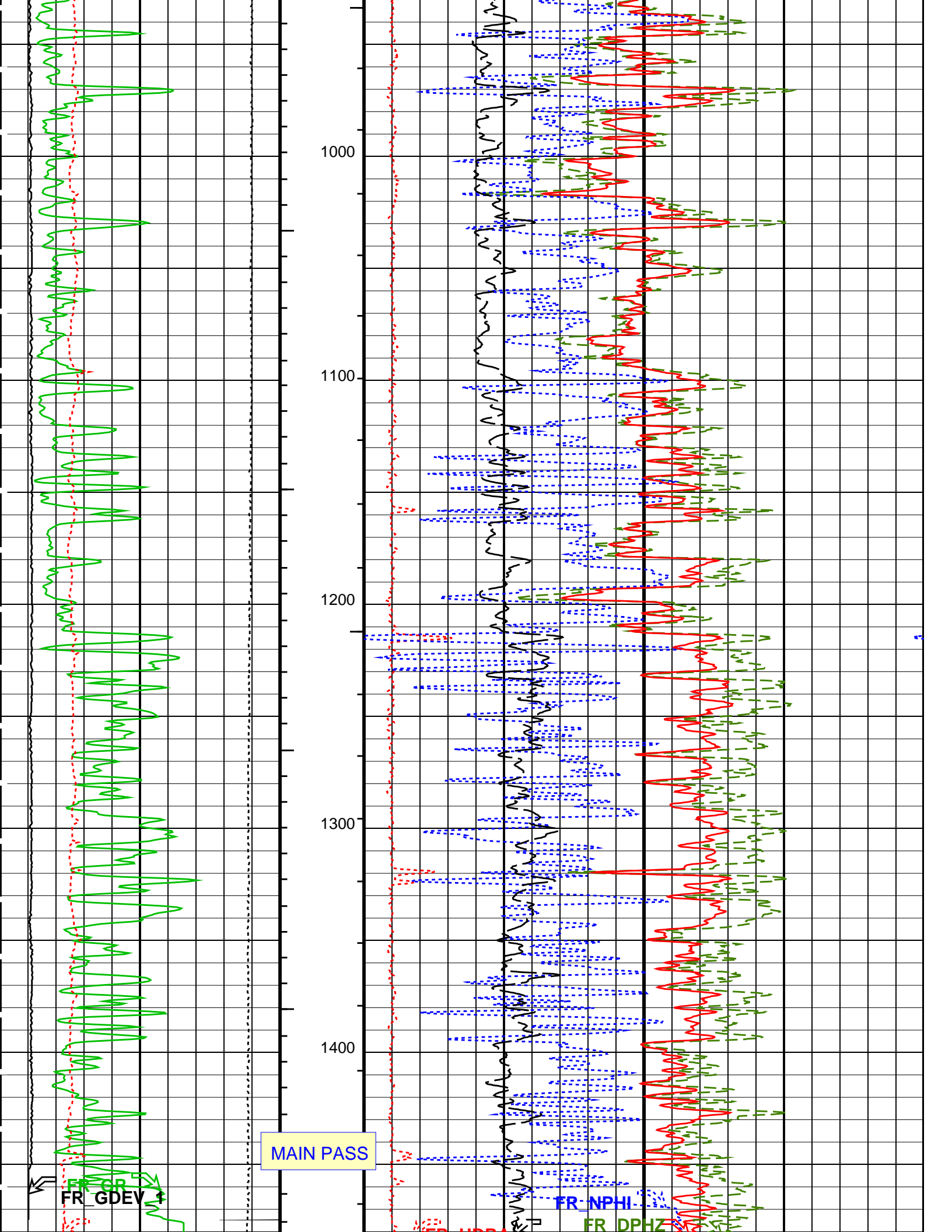
HAIT-H EDTC-B	SRPC-5047-H1-2011-OP19_b 19C0-187	HILTB-FTB	SRPC-5047-H1-2011-OP19_b
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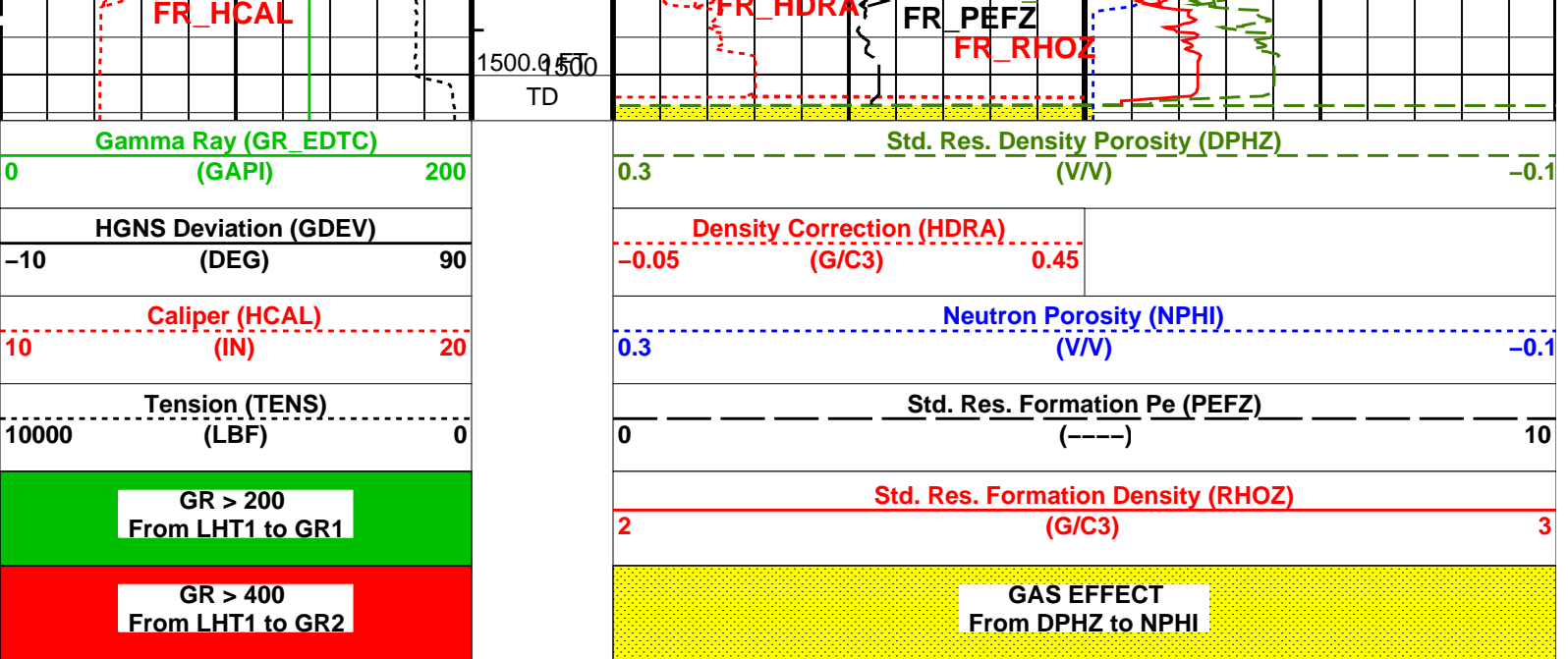
PIP SUMMARY

- ┆ Integrated Hole Volume Minor Pip Every 10 F3
- ┆ Integrated Hole Volume Major Pip Every 100 F3
- ┆ Integrated Cement Volume Minor Pip Every 10 F3
- ┆ Integrated Cement Volume Major Pip Every 100 F3









PIP SUMMARY

- ┆ Integrated Hole Volume Minor Pip Every 10 F3
- ┆ Integrated Hole Volume Major Pip Every 100 F3
- ┆ Integrated Cement Volume Minor Pip Every 10 F3
- ┆ Integrated Cement Volume Major Pip Every 100 F3

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value
HAIT-H: Array Induction Tool - H		
BHS	Borehole Status	OPEN
GCSE	Generalized Caliper Selection	HCAL
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE
HILTB-FTB: High resolution Integrated Logging Tool-DTS		
BHFL_TLD	HILT Nuclear Mud Base	WATER
BHS	Borehole Status	OPEN
DHC	Density Hole Correction	BS
FD	Fluid Density	1.1 G/C3
GCLF	Germany Coal-like Formation Option	NO
GCSE	Generalized Caliper Selection	HCAL
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE
MDEN	Matrix Density	2.65 G/C3
NAAC	HRDD APS Activation Correction	OFF
NMT	HILT Nuclear Mud Type	NOBARITE
NPRM	HRDD Processing Mode	HiRes
NSAR	HRDD Depth Sampling Rate	1 IN
EDTC-B: Enhanced DTS Cartridge		
BHS	Borehole Status	OPEN
GCSE	Generalized Caliper Selection	HCAL
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE
HOLEV: Integrated Hole/Cement Volume		
BHS	Borehole Status	OPEN
FCD	Future Casing (Outer) Diameter	9.625 IN
GCSE	Generalized Caliper Selection	HCAL
HVCS	Integrated Hole Volume Caliper Selection	AUTOMATIC
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE
STI: Stuck Tool Indicator		
LBFR	Trigger for MAXIS First Reading Label	TDL
STKT	STI Stuck Threshold	2.5 FT
TDD	Total Depth - Driller	1528.00 FT
TDL	Total Depth - Logger	1500.00 FT
System and Miscellaneous		
BS	Bit Size	12.250 IN
DO	Depth Offset for Playback	0.0 FT
PP	Playback Processing	RECOMPUTE
TD	Total Depth	1500 FT

Format: PEX_NUC2 Vertical Scale: 2" per 100'

Graphics File Created: 31-Aug-2011 04:05

OP System Version: 19C0-187

Input DLIS Files

DEFAULT AIT_TLD_MCFL_CNL_014LUP FN:18 PRODUCER 31-Aug-2011 01:02 1512.0 FT -16.0 FT

Output DLIS Files

DEFAULT AIT_TLD_MCFL_CNL_025PUP FN:36 PRODUCER 31-Aug-2011 04:05
 RTB AIT_TLD_MCFL_CNL_025PUP FN:37 PRODUCER 31-Aug-2011 04:05



MAIN 5"

MAXIS Field Log

Input DLIS Files

DEFAULT AIT_TLD_MCFL_CNL_014LUP FN:18 PRODUCER 31-Aug-2011 01:02 1512.0 FT -16.0 FT

Output DLIS Files

DEFAULT AIT_TLD_MCFL_CNL_025PUP FN:36 PRODUCER 31-Aug-2011 04:05 1512.0 FT -16.0 FT
 RTB AIT_TLD_MCFL_CNL_025PUP FN:37 PRODUCER 31-Aug-2011 04:05 1512.0 FT -16.0 FT

Integrated Hole/Cement Volume Summary

Hole Volume = 784.50 F3
 Cement Volume = 330.53 F3 (assuming 9.63 IN casing O.D.)
 Computed from 1500.0 FT to 602.0 FT using data channel(s) HCAL

OP System Version: 19C0-187

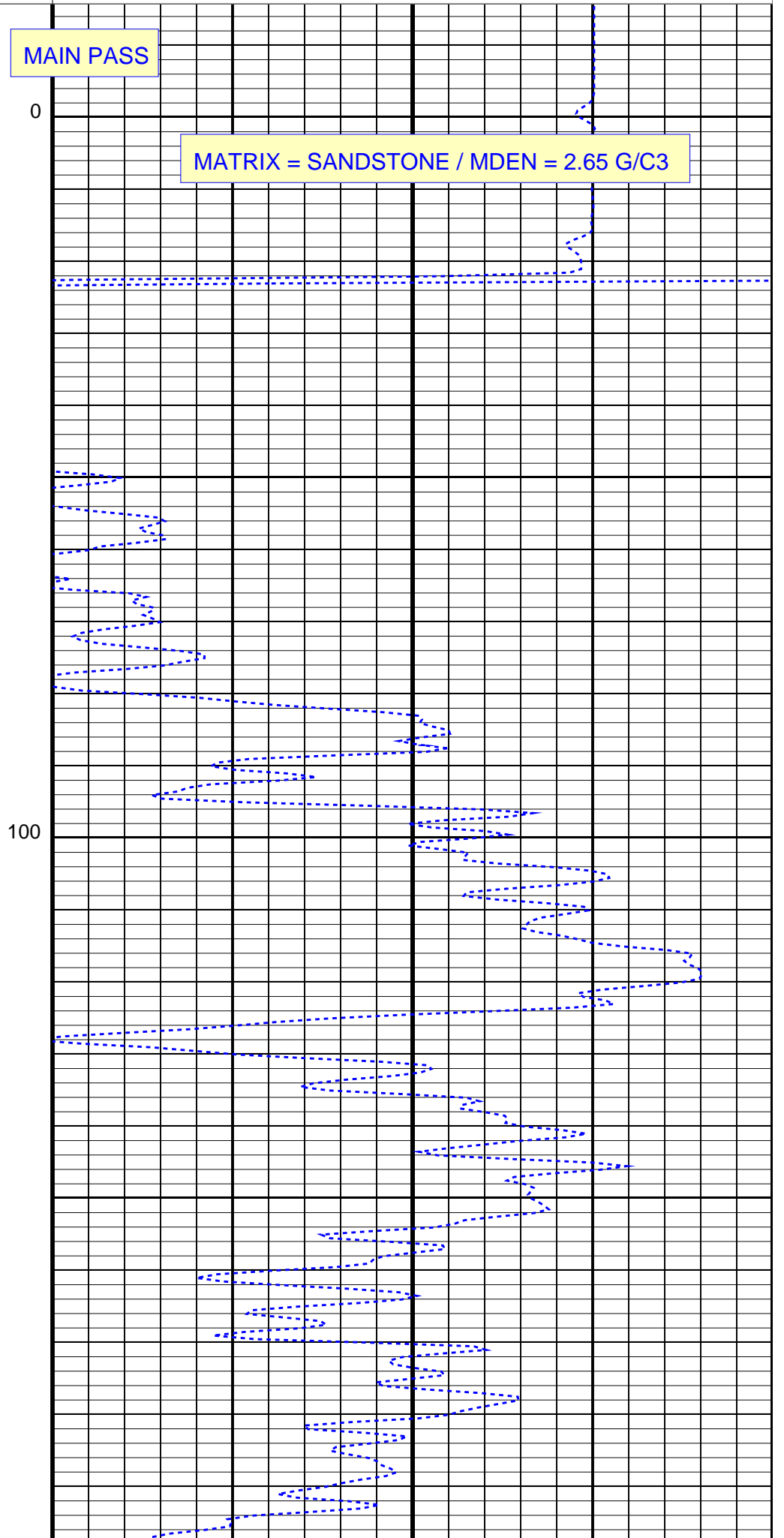
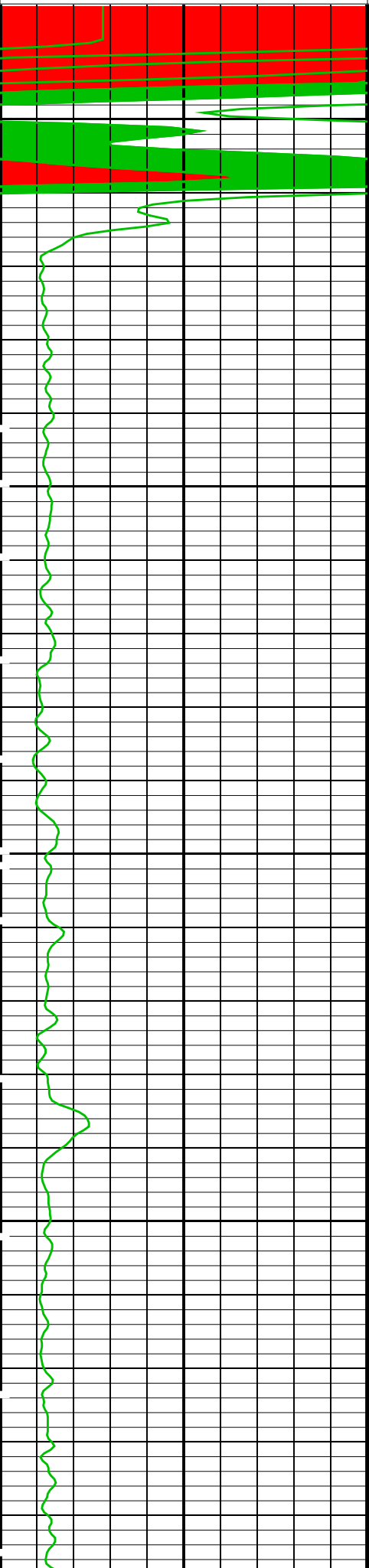
HAIT-H SRPC-5047-H1-2011-OP19_b HILTB-FTB SRPC-5047-H1-2011-OP19_b
 EDTC-B 19C0-187

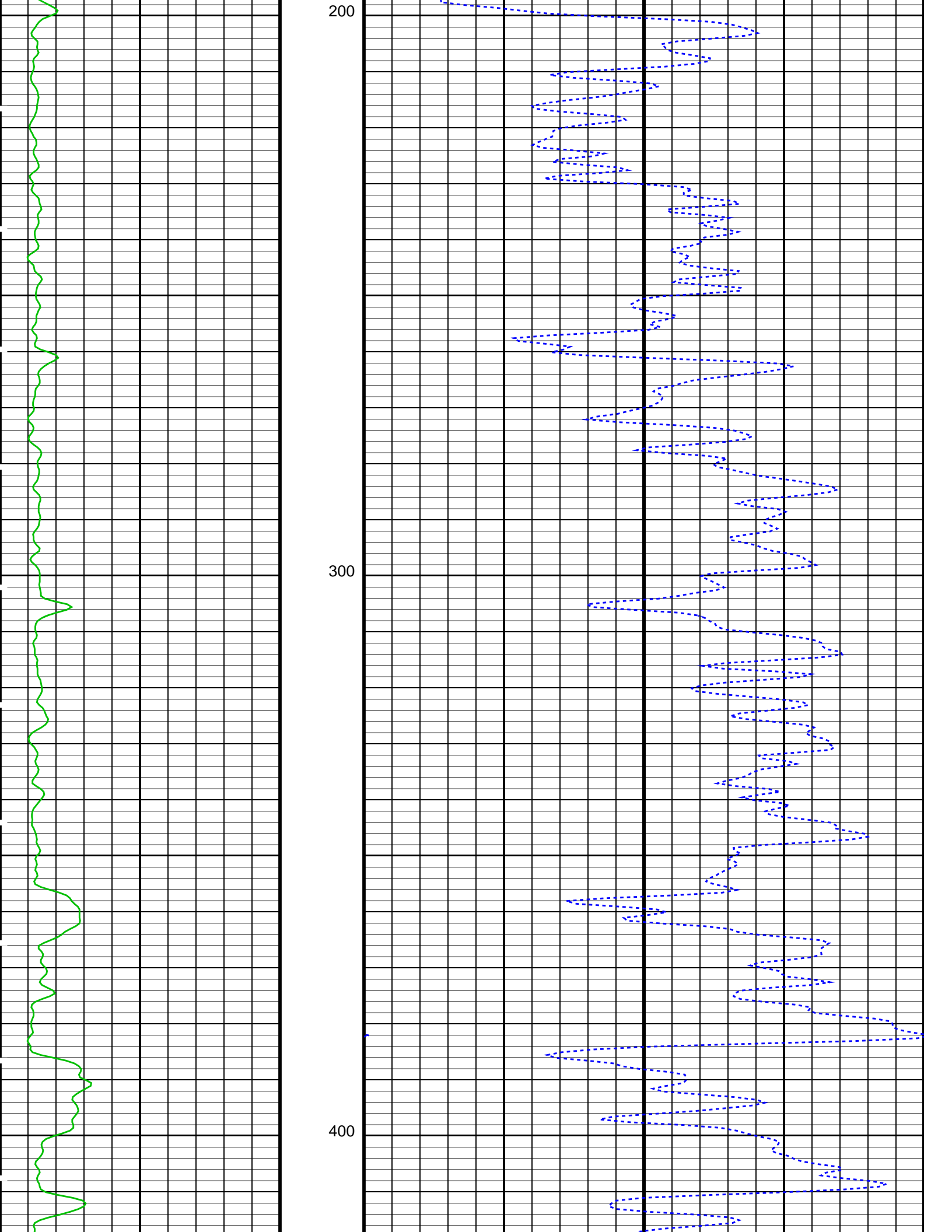
PIP SUMMARY

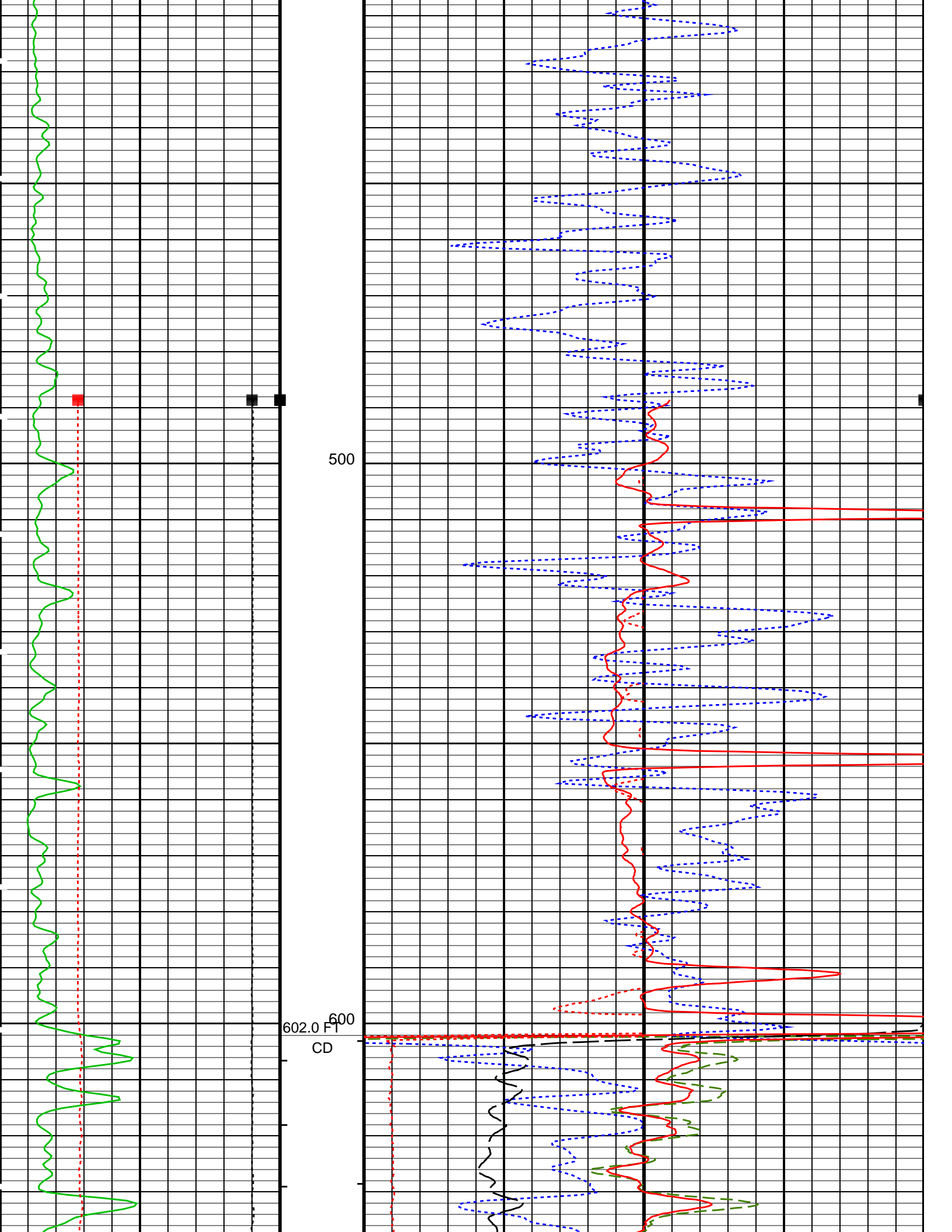
- ┆ Integrated Hole Volume Minor Pip Every 10 F3
- ┆ Integrated Hole Volume Major Pip Every 100 F3
- ┆ Integrated Cement Volume Minor Pip Every 10 F3
- ┆ Integrated Cement Volume Major Pip Every 100 F3

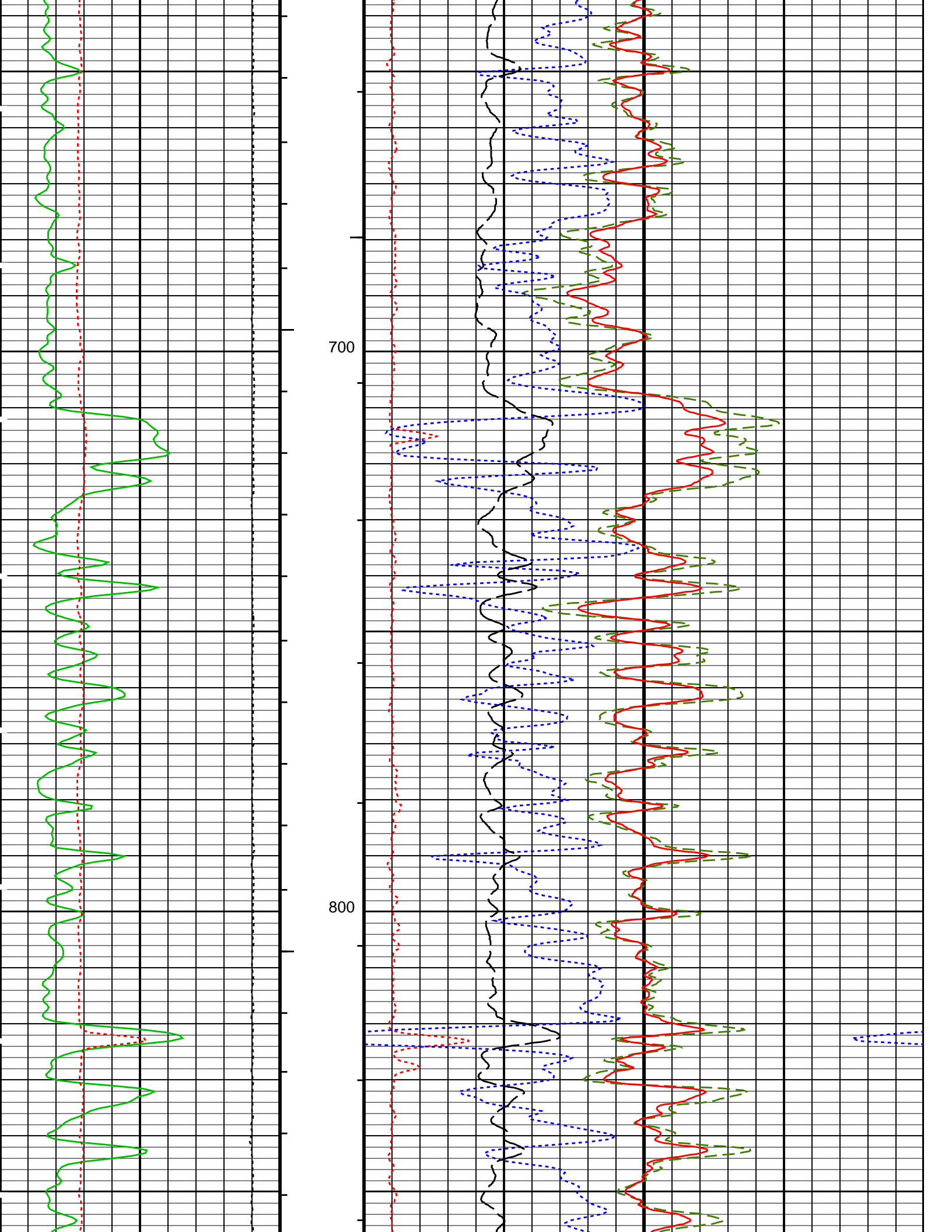
Time Mark Every 60 S

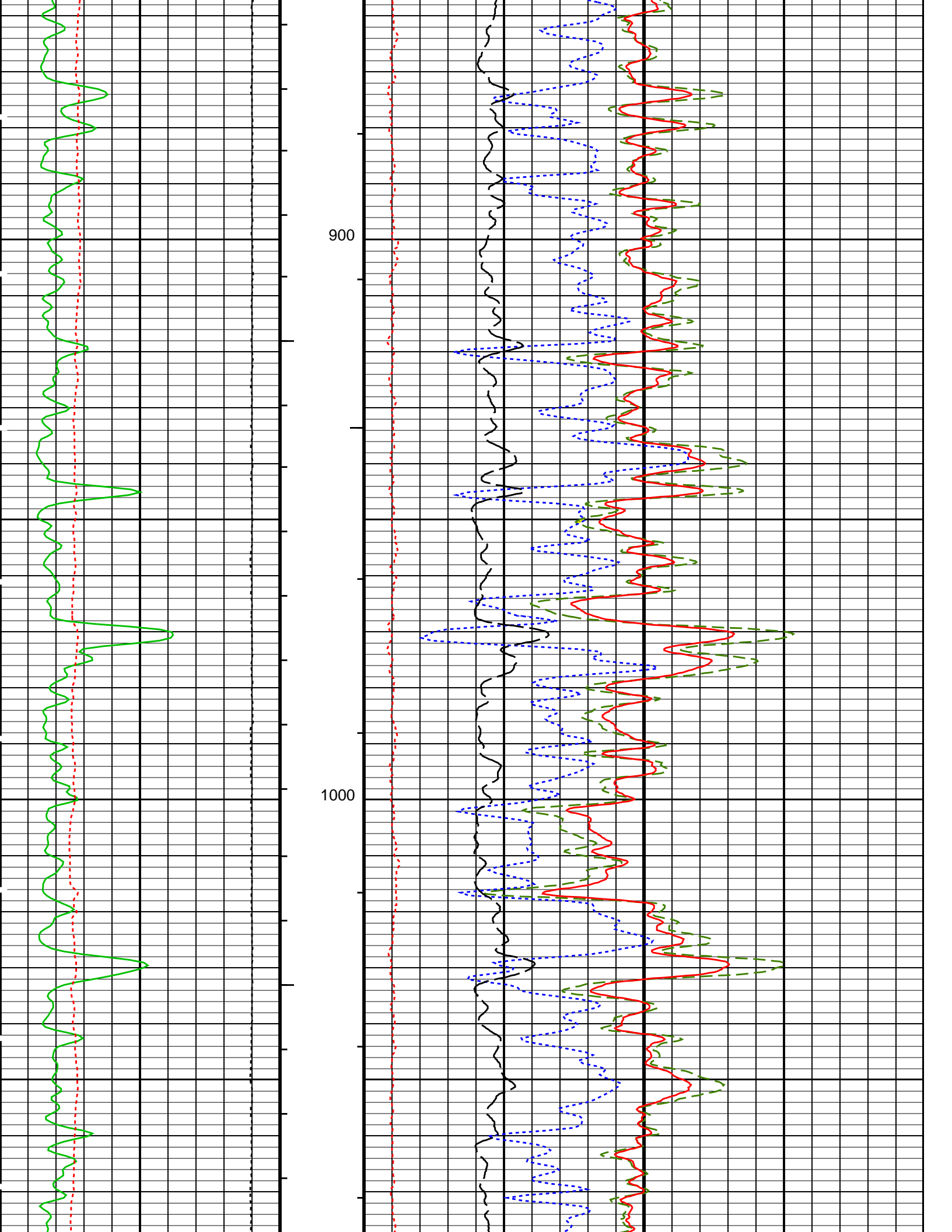
<div style="background-color: red; color: white; padding: 5px; text-align: center;"> GR > 400 From LHT1 to GR2 </div>		GAS EFFECT From DPHZ to NPHI	
		Std. Res. Formation Density (RHOZ) 2 (G/C3) 3	
<div style="background-color: green; color: white; padding: 5px; text-align: center;"> GR > 200 From LHT1 to GR1 </div>		Std. Res. Formation Pe (PEFZ) 0 (----) 10	
		Neutron Porosity (NPHI) 0.3 (V/V) -0.1	
Tension (TENS) 10000 (LBF) 0		Density Correction (HDRA) -0.05 (G/C3) 0.45	
Caliper (HCAL) 10 (IN) 20		Std. Res. Density Porosity (DPH7)	
Gamma Ray (GR EDTC)			

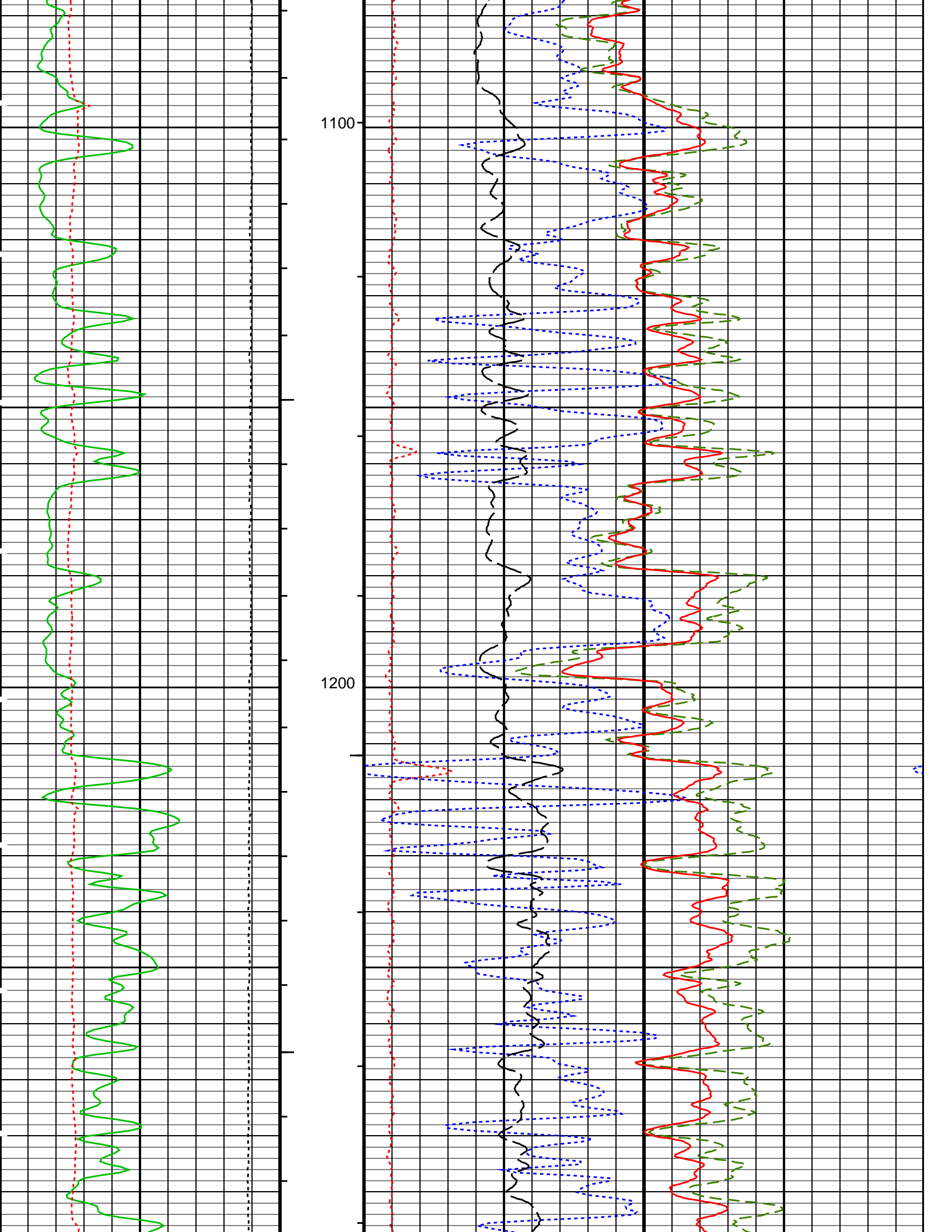


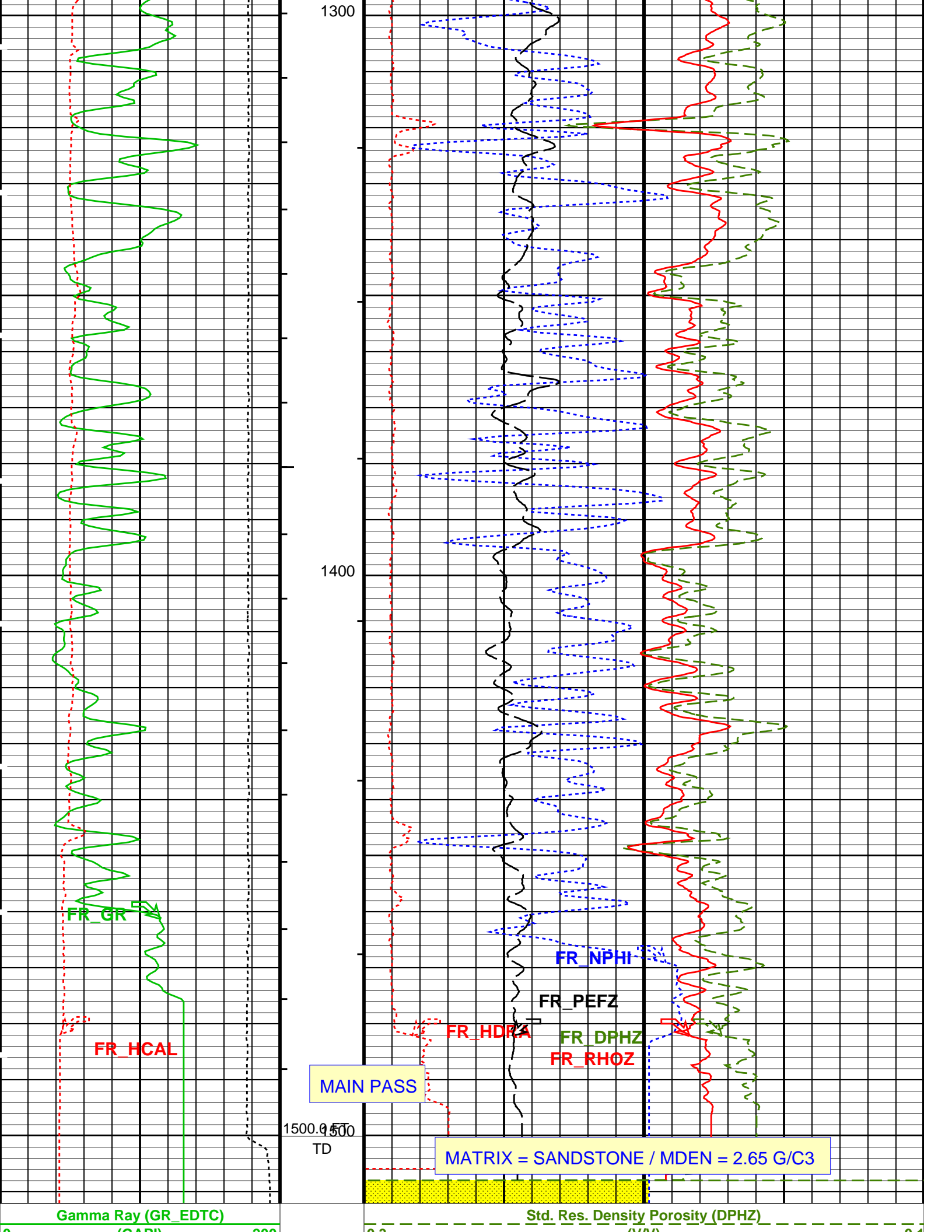












1300

1400

1500.500
TD

MAIN PASS

MATRIX = SANDSTONE / MDEN = 2.65 G/C3

Gamma Ray (GR_EDTC)
(API)

Std. Res. Density Porosity (DPHZ)
(%)

FR GR

FR_HCAL

FR_NPHI

FR_PEFZ

FR_HDRA

FR_DPHZ

FR_RHOZ

(GAPI)	200	0.3	(V/V)	-0.1
Caliper (HCAL) (IN)	10 ----- 20	Density Correction (HDRA) (G/C3)	-0.05 ----- 0.45	
Tension (TENS) (LBF)	10000 ----- 0	Neutron Porosity (NPHI) (V/V)	0.3 ----- -0.1	
GR > 200 From LHT1 to GR1		Std. Res. Formation Pe (PEFZ) (----)	0 ----- 10	
GR > 400 From LHT1 to GR2		Std. Res. Formation Density (RHOZ) (G/C3)	2 ----- 3	
		GAS EFFECT From DPHZ to NPHI		

PIP SUMMARY

- └ Integrated Hole Volume Minor Pip Every 10 F3
- └ Integrated Hole Volume Major Pip Every 100 F3
 - └ Integrated Cement Volume Minor Pip Every 10 F3
 - └ Integrated Cement Volume Major Pip Every 100 F3

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
HAIT-H: Array Induction Tool - H			
AHAPL	Array Induction Answer Product Level(Depth Log/View only) 3_BholeCorr_BasicLogs_Radial_Processing	0_ComputeMudResistivity	
AHBHM	Array Induction Borehole Correction Mode	900	
AHBHV	Array Induction Borehole Correction Code Version Number	6_One_Two_and_Four	
AHBLM	Array Induction Basic Logs Mode	223	
AHBLV	Array Induction Basic Logs Code Version Number	Yes	
AHCDE	Array Induction Casing Detection Enable	Eccentered	
AHCEN	Array Induction Tool Centering Flag (in Borehole)	0x00_Log_000	
AHDITM	Array Induction Desired Tool Mode	Yes	
AHEBC	Array Induction Enable Borehole Correction	Yes	
AHEBL	Array Induction Enable Basic Logs	Yes	
AHERP	Array Induction Enable Radial Processing	Yes	
AHETP	Array Induction Enable Sonde Error Temp&Pres Corr	Yes	
AHFRSV	Array Induction Response Set Version for Four ft Resolution	41.70.24.20	
AHIGS	Array Induction Select Akima Interpolation Gating	On	
AHLNV	Array Induction Log Not Valid Flag	Log_Valid-No_Default_Parameters	
AHMUD	Array Induction Mud Resistivity Calibration Depth	0	FT
AHMRF	Array Induction Mud Resistivity Factor	1	
AHORSV	Array Induction Response Set Version for One ft Resolution	41.70.24.20	
AHRFV	Array Induction Radial Profiling Code Version Number	701	
AHRPM	Array Induction Radial Processing Mode	1_Two	
AHRPV	Array Induction Radial Parametrization Code Version Number	232	
AHSTA	Array Induction Tool Standoff	1.5	IN
AHTNO	Array Induction Tool Serial Number	266	
AHTRSV	Array Induction Response Set Version for Two ft Resolution	41.70.24.20	
AHTSE	Array Induction Temperature Selection (Sonde Error Correction)	Internal	
AHTTY	Array Induction Tool Type (of acquired data)	HAIT	
AHULV	Array Induction User Level Control	Normal	
ARTS	AIT Rt Selection (for ALLRES computation)	AITH_TwoResA90	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	67.7	DEGF
FEXP	Form Factor Exponent	2	
FNUM	Form Factor Numerator	1	
FPHI	Form Factor Porosity Source	DPHZ	
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	AITH_RESIST	
GTSE	Generalized Temperature Selection	HSTS_HTEM	
ISSBAR	Barite Mud Switch	NOBARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE	
RTCO	RTCO - Rt Invasion Correction	YES	
SHT	Surface Hole Temperature	65	DEGF
SPNV	SP Next Value	0	MV
HILTB-FTB: High resolution Integrated Logging Tool-DTS			
BHFL	Borehole Fluid Type	WATER	
BHFL_TLD	HILT Nuclear Mud Base	WATER	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	67.7	DEGF
BSCO	Borehole Salinity Correction Option	NO	

CCCO	Casing & Cement Thickness Correction Option	NO	
DHC	Density Hole Correction	BS	
DPPM	Density Porosity Processing Mode	HIRS	
EXSICL	External Shale Indicator Clean Value	20	
EXSISH	External Shale Indicator Shale Value	150	
FD	Fluid Density	1.1	G/C3
FEXP	Form Factor Exponent	2	
FNUM	Form Factor Numerator	1	
FPHI	Form Factor Porosity Source	DPHZ	
FSAL	Formation Salinity	-50000	PPM
FSCO	Formation Salinity Correction Option	NO	
GCLF	Germany Coal-like Formation Option	NO	
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	AITH_RESIST	
GTSE	Generalized Temperature Selection	HSTS_HTEM	
HACPP	Accelerometer PROM Presence	PRESENT_FILE	
HART	Accelerometer Reference Temperature	68	DEGF
HDCOD	HILT Density Coal detection	2	G/C3
HDSAD	HILT Density Salt detection	2.1	G/C3
HILT_GAS_DENSITY	HILT Gas Downhole Density	0	G/C3
HILT_GAS_OPTION	HILT Gas Computation Option	OFF	
HNCOD	HILT Neutron Coal detection	45	PU
HNSAD	HILT Neutron Salt detection	5	PU
HPHIECUT	HILT effective Porosity Cutoff	5	PU
HSCO	Hole Size Correction Option	YES	
HSIS	HILT Shale Indicator Selection	GR	
HSSO	HRDD Nuclear Source Strength Option	NORMAL	
HSWCUT	HILT Water Saturation from AITH cutoff	50	%
ISSBAR	Barite Mud Switch	NOBARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE	
MCCO	Mud Cake Correction Option	NO	
MCOR	Mud Correction	NATU	
MDEN	Matrix Density	2.65	G/C3
MHC0	MCFL B0 Contrast Correction Coefficient	2.2e-005	OHMS
MHC1	MCFL B1 Contrast Correction Coefficient	3.2e-005	OHMS
MHCC	MCFL High Contrast Correction Switch	NO	
MPOF	MCFL Processing Operation Mode	ON	
MWCO	Mud Weight Correction Option	NO	
NAAC	HRDD APS Activation Correction	OFF	
NMT	HILT Nuclear Mud Type	NOBARITE	
NPRM	HRDD Processing Mode	HiRes	
NSAR	HRDD Depth Sampling Rate	1	IN
PEA_FILTER	PEA Filter	NO_FILTER	
PEFC_FILTER	PEFC Filter	NO_FILTER	
PHIMAX	HILT max porosity	35	PU
PTCO	Pressure/Temperature Correction Option	NO	
SDAT	Standoff Data Source	SOCN	
SEXP_HILT	HILT Saturation Exponent	2	
SHT	Surface Hole Temperature	65	DEGF
SOCN	Standoff Distance	0.125	IN
SOCO	Standoff Correction Option	NO	
EDTC-B: Enhanced DTS Cartridge			
BHFL	Borehole Fluid Type	WATER	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	67.7	DEGF
BSCO	Borehole Salinity Correction Option	NO	
CCCO	Casing & Cement Thickness Correction Option	NO	
DPPM	Density Porosity Processing Mode	HIRS	
FSCO	Formation Salinity Correction Option	NO	
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	AITH_RESIST	
GTSE	Generalized Temperature Selection	HSTS_HTEM	
HSCO	Hole Size Correction Option	YES	
ISSBAR	Barite Mud Switch	NOBARITE	
ISSBAR_EDTC	Nuclear Mud Type	NOBARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE	
MCCO	Mud Cake Correction Option	NO	
MCOR	Mud Correction	NATU	
MWCO	Mud Weight Correction Option	NO	
PTCO	Pressure/Temperature Correction Option	NO	
SDAT	Standoff Data Source	SOCN	
SHT	Surface Hole Temperature	65	DEGF
SOCN	Standoff Distance	0.125	IN
SOCO	Standoff Correction Option	NO	
TPOS_EDTC	EDTC Tool Centered/Eccentered	Eccentered	
U-ETELM_EDTS	Telemetry Mode for eWAFE	Standard_EDTS	
U-TELM_EDTS	Telemetry Mode for WAFE	Standard_EDTS	
ALLRES: Basic Resistivity Transforms			
ARTS	AIT Rt Selection (for ALLRES computation)	AITH_TwoResA90	
RTCO	RTCO - Rt Invasion Correction	YES	
HOLEV: Integrated Hole/Cement Volume			

BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	67.7	DEGF
FCD	Future Casing (Outer) Diameter	9.625	IN
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	AITH_RESIST	
GTSE	Generalized Temperature Selection	HSTS_HTEM	
HVCS	Integrated Hole Volume Caliper Selection	AUTOMATIC	
ISSBAR	Barite Mud Switch	NOBARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE	
SHT	Surface Hole Temperature	65	DEGF
STI: Stuck Tool Indicator			
LBFR	Trigger for MAXIS First Reading Label	TDL	
STKT	STI Stuck Threshold	2.5	FT
TDD	Total Depth - Driller	1528.00	FT
TDL	Total Depth - Logger	1500.00	FT
System and Miscellaneous			
ALTDPCAN	Name of alternate depth channel	SpeedCorrectedDepth	
BS	Bit Size	12.250	IN
BSAL	Borehole Salinity	120.00	PPM
CSIZ	Current Casing Size	13.375	IN
CWEI	Casing Weight	48.00	LB/F
DFD	Drilling Fluid Density	9.30	LB/G
DO	Depth Offset for Playback	0.0	FT
FLEV	Fluid Level	0.00	FT
MST	Mud Sample Temperature	76.60	DEGF
PBVSADP	Use alternate depth channel for playback	NO	
PP	Playback Processing	RECOMPUTE	
RMFS	Resistivity of Mud Filtrate Sample	5.0175	OHMM
RW	Resistivity of Connate Water	1.0000	OHMM
TD	Total Depth	1500	FT
TWS	Temperature of Connate Water Sample	100.00	DEGF

Format: PEX_NUC5 Vertical Scale: 5" per 100' Graphics File Created: 31-Aug-2011 04:05

OP System Version: 19C0-187

HAIT-H SRPC-5047-H1-2011-OP19_b HILTB-FTB SRPC-5047-H1-2011-OP19_b
EDTC-B 19C0-187

Input DLIS Files

DEFAULT AIT_TLD_MCFL_CNL_014LUP FN:18 PRODUCER 31-Aug-2011 01:02 1512.0 FT -16.0 FT

Output DLIS Files

DEFAULT AIT_TLD_MCFL_CNL_025PUP FN:36 PRODUCER 31-Aug-2011 04:05
RTB AIT_TLD_MCFL_CNL_025PUP FN:37 PRODUCER 31-Aug-2011 04:05

Schlumberger

REPEAT SECTION

MAXIS Field Log

Input DLIS Files

DEFAULT AIT_TLD_MCFL_CNL_012LUP FN:14 PRODUCER 31-Aug-2011 00:37 1506.0 FT 1112.0 FT

Output DLIS Files

DEFAULT AIT_TLD_MCFL_CNL_022PUP FN:30 PRODUCER 31-Aug-2011 03:58 1506.0 FT 1112.0 FT
RTB AIT_TLD_MCFL_CNL_022PUP FN:31 PRODUCER 31-Aug-2011 03:58 1506.0 FT 1112.0 FT

Integrated Hole/Cement Volume Summary

Integrated Hole/Cement Volume Summary

Hole Volume = 286.57 F3

Cement Volume = 90.53 F3 (assuming 9.63 IN casing O.D.)

Computed from 1500.0 FT to 1112.5 FT using data channel(s) HCAL

OP System Version: 19C0-187

HAIT-H
EDTC-B

SRPC-5047-H1-2011-OP19_b
19C0-187

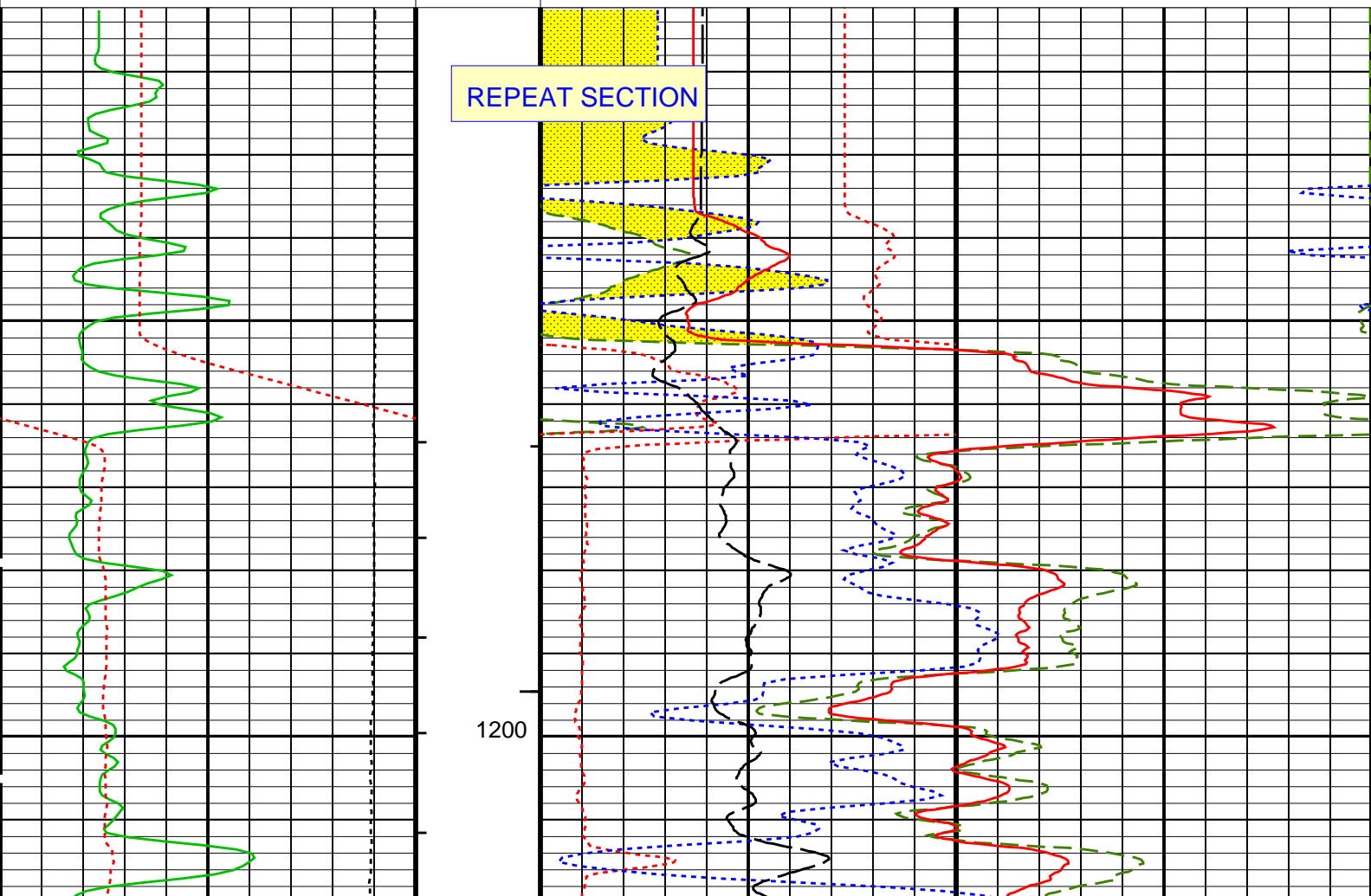
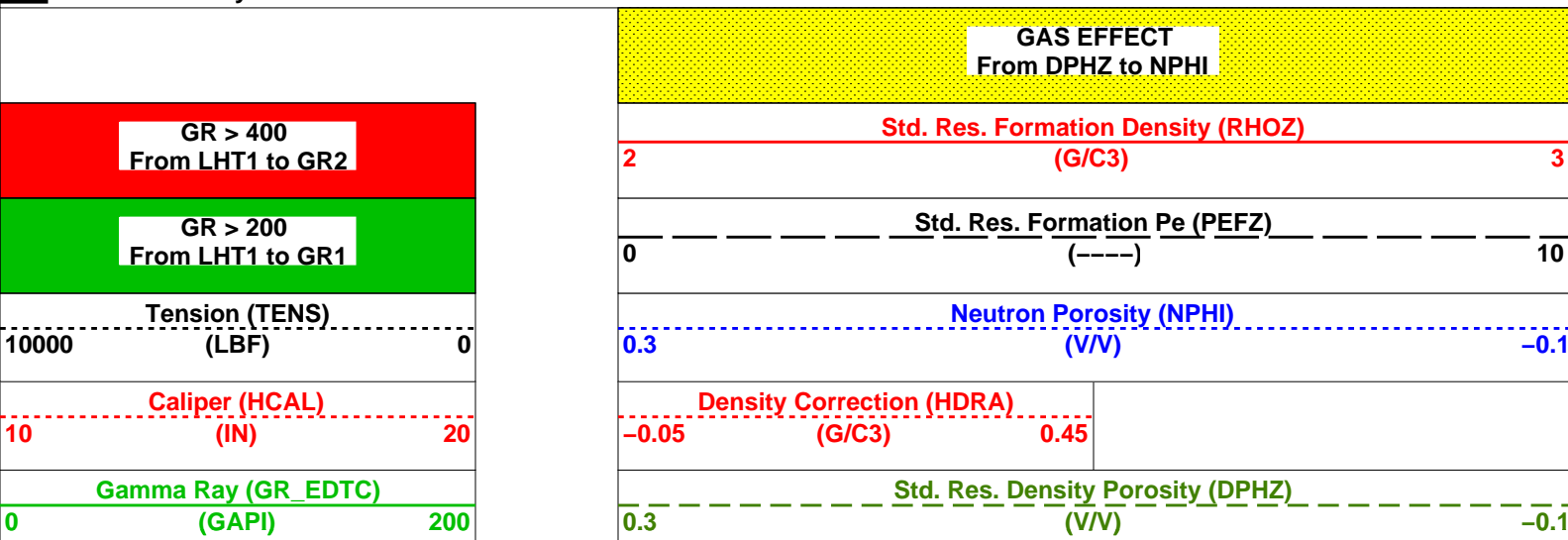
HILTB-FTB

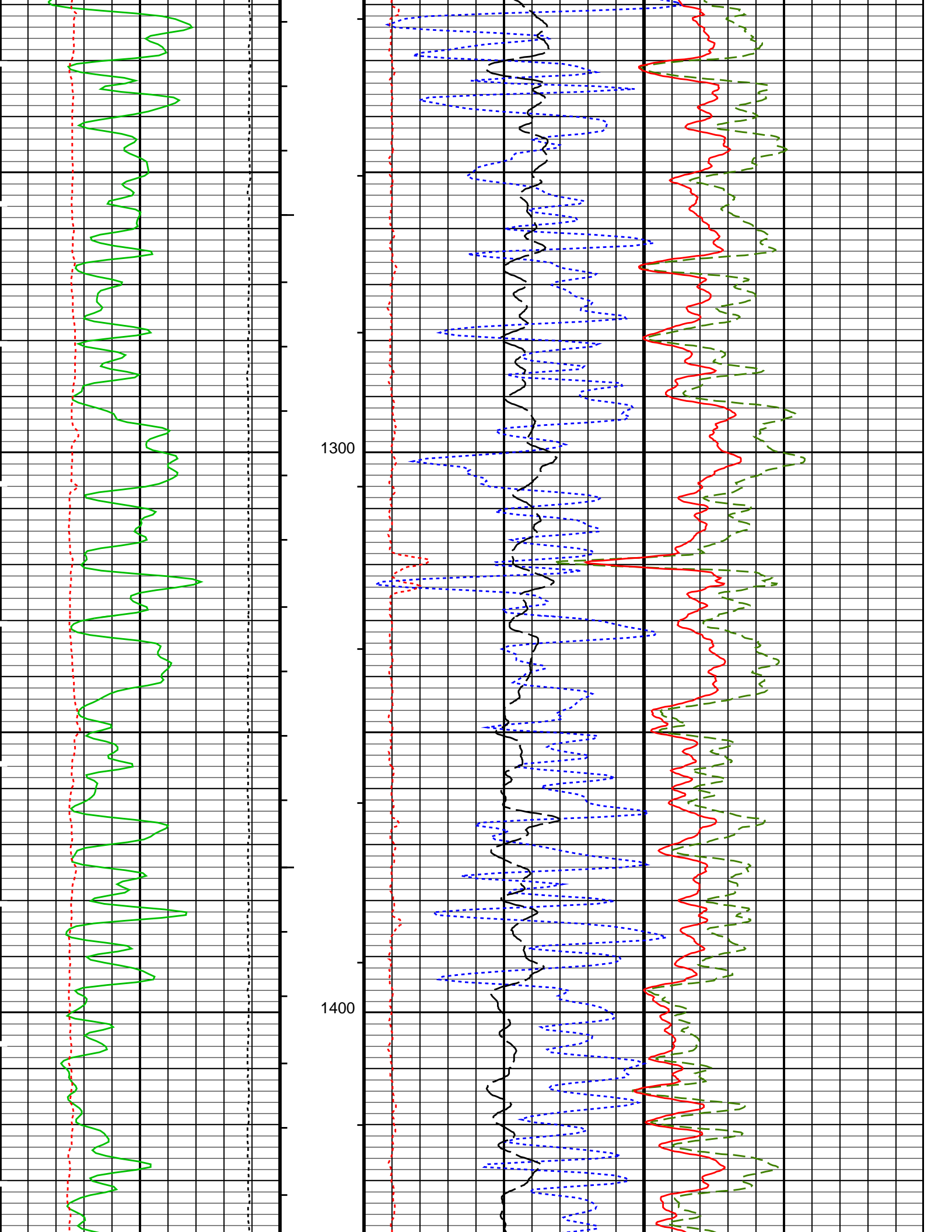
SRPC-5047-H1-2011-OP19_b

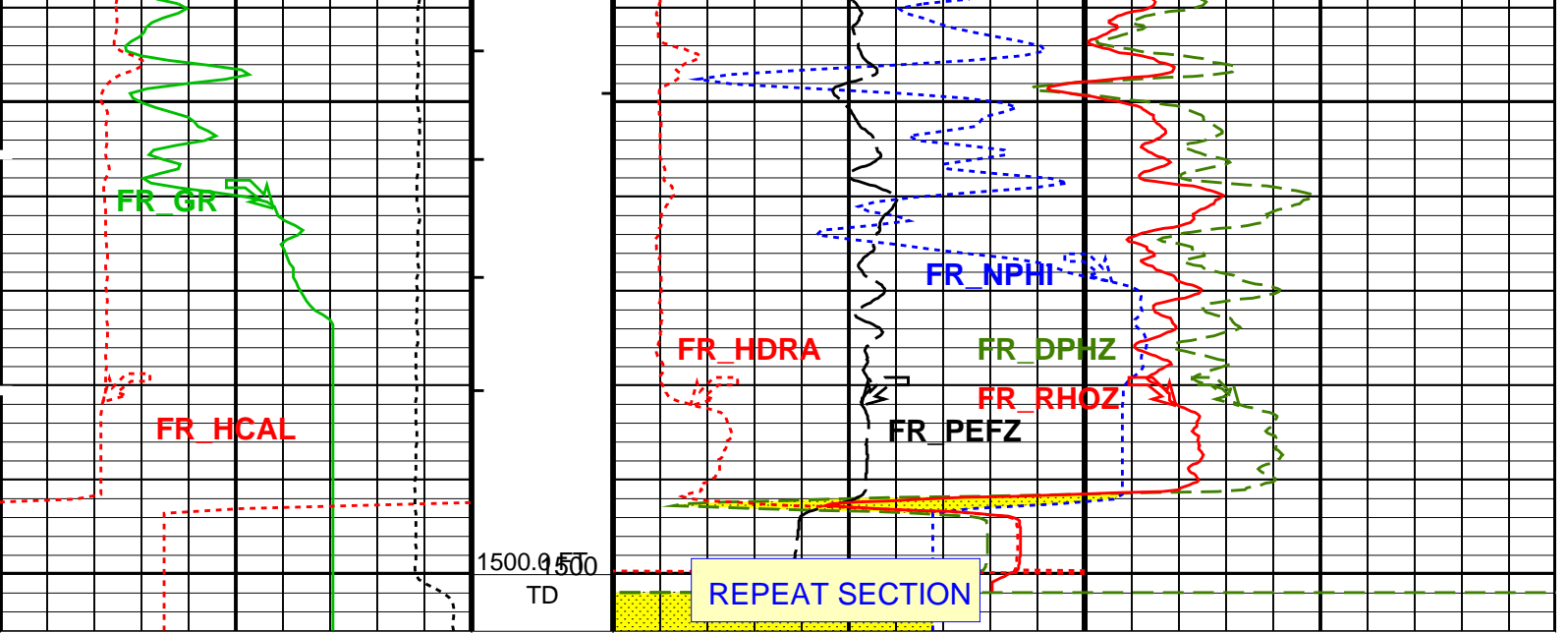
PIP SUMMARY

- ┌ Integrated Hole Volume Minor Pip Every 10 F3
- ┌ Integrated Hole Volume Major Pip Every 100 F3
 - └ Integrated Cement Volume Minor Pip Every 10 F3
 - └ Integrated Cement Volume Major Pip Every 100 F3

Time Mark Every 60 S







Gamma Ray (GR_EDTC) (GAPI)	0	200
Caliper (HCAL) (IN)	10	20
Tension (TENS) (LBF)	10000	0
GR > 200 From LHT1 to GR1		
GR > 400 From LHT1 to GR2		

Std. Res. Density Porosity (DPHZ) (V/V)	0.3	-0.1
Density Correction (HDRA) (G/C3)	-0.05	0.45
Neutron Porosity (NPHI) (V/V)	0.3	-0.1
Std. Res. Formation Pe (PEFZ) (----	0	10
Std. Res. Formation Density (RHOZ) (G/C3)	2	3
GAS EFFECT From DPHZ to NPHI		

PIP SUMMARY

- ┆ Integrated Hole Volume Minor Pip Every 10 F3
- ┆ Integrated Hole Volume Major Pip Every 100 F3
 - ┆ Integrated Cement Volume Minor Pip Every 10 F3
 - ┆ Integrated Cement Volume Major Pip Every 100 F3

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value
HAIT-H: Array Induction Tool - H		
AHAPL	Array Induction Answer Product Level(Depth Log/View only)	3_BholeCorr_BasicLogs_Radial_Processing
AHBHM	Array Induction Borehole Correction Mode	0_ComputeMudResistivity
AHBHV	Array Induction Borehole Correction Code Version Number	900
AHBLM	Array Induction Basic Logs Mode	6_One_Two_and_Four
AHBLV	Array Induction Basic Logs Code Version Number	223
AHCDE	Array Induction Casing Detection Enable	Yes
AHCEN	Array Induction Tool Centering Flag (in Borehole)	Eccentered
AHDITM	Array Induction Desired Tool Mode	0x00_Log_000
AHEBC	Array Induction Enable Borehole Correction	Yes
AHEBL	Array Induction Enable Basic Logs	Yes
AHERP	Array Induction Enable Radial Processing	Yes
AHETP	Array Induction Enable Sonde Error Temp&Pres Corr	Yes
AHFRSV	Array Induction Response Set Version for Four ft Resolution	41.70.24.20
AHIGS	Array Induction Select Akima Interpolation Gating	On
AHLNV	Array Induction Log Not Valid Flag	Log_Valid-No_Default_Parameters
AHMRD	Array Induction Mud Resistivity Calibration Depth	0 FT
AHMRF	Array Induction Mud Resistivity Factor	1
AHORSV	Array Induction Response Set Version for One ft Resolution	41.70.24.20
AHRFV	Array Induction Radial Profiling Code Version Number	701
AHRPM	Array Induction Radial Processing Mode	1_Two
AHRPV	Array Induction Radial Parametrization Code Version Number	232

AHSTA	Array Induction Tool Standoff	1.5	IN
AHTNO	Array Induction Tool Serial Number	266	
AHTRSV	Array Induction Response Set Version for Two ft Resolution	41.70.24.20	
AHTSE	Array Induction Temperature Selection (Sonde Error Correction)	Internal	
AHTTY	Array Induction Tool Type (of acquired data)	HAIT	
AHULV	Array Induction User Level Control	Normal	
ARTS	AIT Rt Selection (for ALLRES computation)	AITH_TwoResA90	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	67.7	DEGF
FEXP	Form Factor Exponent	2	
FNUM	Form Factor Numerator	1	
FPHI	Form Factor Porosity Source	DPHZ	
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	AITH_RESIST	
GTSE	Generalized Temperature Selection	HSTS_HTEM	
ISSBAR	Barite Mud Switch	NOBARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE	
RTCO	RTCO - Rt Invasion Correction	YES	
SHT	Surface Hole Temperature	65	DEGF
SPNV	SP Next Value	0	MV

HILTB--FTB: High resolution Integrated Logging Tool--DTS

BHFL	Borehole Fluid Type	WATER	
BHFL_TLD	HILT Nuclear Mud Base	WATER	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	67.7	DEGF
BSCO	Borehole Salinity Correction Option	NO	
CCCO	Casing & Cement Thickness Correction Option	NO	
DHC	Density Hole Correction	BS	
DPPM	Density Porosity Processing Mode	HIRS	
EXSICL	External Shale Indicator Clean Value	20	
EXSISH	External Shale Indicator Shale Value	150	
FD	Fluid Density	1.1	G/C3
FEXP	Form Factor Exponent	2	
FNUM	Form Factor Numerator	1	
FPHI	Form Factor Porosity Source	DPHZ	
FSAL	Formation Salinity	-50000	PPM
FSCO	Formation Salinity Correction Option	NO	
GCLF	Germany Coal-like Formation Option	NO	
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	AITH_RESIST	
GTSE	Generalized Temperature Selection	HSTS_HTEM	
HACPP	Accelerometer PROM Presence	PRESENT_FILE	
HART	Accelerometer Reference Temperature	68	DEGF
HDCOD	HILT Density Coal detection	2	G/C3
HDSAD	HILT Density Salt detection	2.1	G/C3
HILT_GAS_DENSITY	HILT Gas Downhole Density	0	G/C3
HILT_GAS_OPTION	HILT Gas Computation Option	OFF	
HNCOD	HILT Neutron Coal detection	45	PU
HNSAD	HILT Neutron Salt detection	5	PU
HPHIECUT	HILT effective Porosity Cutoff	5	PU
HSCO	Hole Size Correction Option	YES	
HSIS	HILT Shale Indicator Selection	GR	
HSSO	HRDD Nuclear Source Strength Option	NORMAL	
HSWCUT	HILT Water Saturation from AITH cutoff	50	%
ISSBAR	Barite Mud Switch	NOBARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE	
MCCO	Mud Cake Correction Option	NO	
MCOR	Mud Correction	NATU	
MDEN	Matrix Density	2.65	G/C3
MHC0	MCFL B0 Contrast Correction Coefficient	2.2e-005	OHMS
MHC1	MCFL B1 Contrast Correction Coefficient	3.2e-005	OHMS
MHCC	MCFL High Contrast Correction Switch	NO	
MPOF	MCFL Processing Operation Mode	ON	
MWCO	Mud Weight Correction Option	NO	
NAAC	HRDD APS Activation Correction	OFF	
NMT	HILT Nuclear Mud Type	NOBARITE	
NPRM	HRDD Processing Mode	HiRes	
NSAR	HRDD Depth Sampling Rate	1	IN
PEA_FILTER	PEA Filter	NO_FILTER	
PEFC_FILTER	PEFC Filter	NO_FILTER	
PHIMAX	HILT max porosity	35	PU
PTCO	Pressure/Temperature Correction Option	NO	
SDAT	Standoff Data Source	SOCN	
SEXP_HILT	HILT Saturation Exponent	2	
SHT	Surface Hole Temperature	65	DEGF
SOCN	Standoff Distance	0.125	IN
SOCO	Standoff Correction Option	NO	

EDTC--B: Enhanced DTS Cartridge

BHFL	Borehole Fluid Type	WATER	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	67.7	DEGF

BSCO	Borehole Salinity Correction Option	NO	
CCCC	Casing & Cement Thickness Correction Option	NO	
DPPM	Density Porosity Processing Mode	HIRS	
FSCO	Formation Salinity Correction Option	NO	
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	AITH_RESIST	
GTSE	Generalized Temperature Selection	HSTS_HTEM	
HSCO	Hole Size Correction Option	YES	
ISSBAR	Barite Mud Switch	NOBARITE	
ISSBAR_EDTC	Nuclear Mud Type	NOBARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE	
MCCO	Mud Cake Correction Option	NO	
MCOR	Mud Correction	NATU	
MWCO	Mud Weight Correction Option	NO	
PTCO	Pressure/Temperature Correction Option	NO	
SDAT	Standoff Data Source	SOCN	
SHT	Surface Hole Temperature	65	DEGF
SOCN	Standoff Distance	0.125	IN
SOCO	Standoff Correction Option	NO	
TPOS_EDTC	EDTC Tool Centered/Eccentered	Eccentered	
U-ETELM_EDTS	Telemetry Mode for eWAFE	Standard_EDTS	
U-TELM_EDTS	Telemetry Mode for WAFE	Standard_EDTS	
	ALLRES: Basic Resistivity Transforms		
ARTS	AIT Rt Selection (for ALLRES computation)	AITH_TwoResA90	
RTCO	RTCO - Rt Invasion Correction	YES	
	HOLEV: Integrated Hole/Cement Volume		
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	67.7	DEGF
FCD	Future Casing (Outer) Diameter	9.625	IN
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	AITH_RESIST	
GTSE	Generalized Temperature Selection	HSTS_HTEM	
HVCS	Integrated Hole Volume Caliper Selection	AUTOMATIC	
ISSBAR	Barite Mud Switch	NOBARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE	
SHT	Surface Hole Temperature	65	DEGF
	STI: Stuck Tool Indicator		
LBFR	Trigger for MAXIS First Reading Label	TDL	
STKT	STI Stuck Threshold	2.5	FT
TDD	Total Depth - Driller	1528.00	FT
TDL	Total Depth - Logger	1500.00	FT
	System and Miscellaneous		
ALTDPCHAN	Name of alternate depth channel	SpeedCorrectedDepth	
BS	Bit Size	12.250	IN
BSAL	Borehole Salinity	120.00	PPM
CSIZ	Current Casing Size	13.375	IN
CWEI	Casing Weight	48.00	LB/F
DFD	Drilling Fluid Density	9.30	LB/G
DO	Depth Offset for Playback	0.0	FT
FLEV	Fluid Level	0.00	FT
MST	Mud Sample Temperature	76.60	DEGF
PBVSADP	Use alternate depth channel for playback	NO	
PP	Playback Processing	RECOMPUTE	
RMFS	Resistivity of Mud Filtrate Sample	5.0175	OHMM
RW	Resistivity of Connate Water	1.0000	OHMM
TD	Total Depth	1500	FT
TWS	Temperature of Connate Water Sample	100.00	DEGF

Format: PEX_NUC5 Vertical Scale: 5" per 100' Graphics File Created: 31-Aug-2011 03:58

OP System Version: 19C0-187

HAIT-H EDTC-B	SRPC-5047-H1-2011-OP19_b 19C0-187	HILTB-FTB	SRPC-5047-H1-2011-OP19_b
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Input DLIS Files

DEFAULT	AIT_TLD_MCFL_CNL_012LUP	FN:14	PRODUCER	31-Aug-2011 00:37	1506.0 FT	1112.0 FT
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Output DLIS Files

DEFAULT	AIT_TLD_MCFL_CNL_022PUP	FN:30	PRODUCER	31-Aug-2011 03:58		
RTB	AIT_TLD_MCFL_CNL_022PUP	FN:31	PRODUCER	31-Aug-2011 03:58		

MAXIS Field Log

Input DLIS Files

DEFAULT	AIT_TLD_MCFL_CNL_012LUP	FN:14	PRODUCER	31-Aug-2011 00:37	1506.0 FT	1112.0 FT
DEFAULT	AIT_TLD_MCFL_CNL_014LUP	FN:18	PRODUCER	31-Aug-2011 01:02	1512.0 FT	-16.0 FT

Output DLIS Files

DEFAULT	AIT_TLD_MCFL_CNL_024PUP	FN:34	PRODUCER	31-Aug-2011 04:03	1506.0 FT	1112.0 FT
RTB	AIT_TLD_MCFL_CNL_024PUP	FN:35	PRODUCER	31-Aug-2011 04:03	1506.0 FT	1112.0 FT

Integrated Hole/Cement Volume Summary

Hole Volume = 286.57 F3
 Cement Volume = 90.53 F3 (assuming 9.63 IN casing O.D.)
 Computed from 1500.0 FT to 1112.5 FT using data channel(s) HCAL

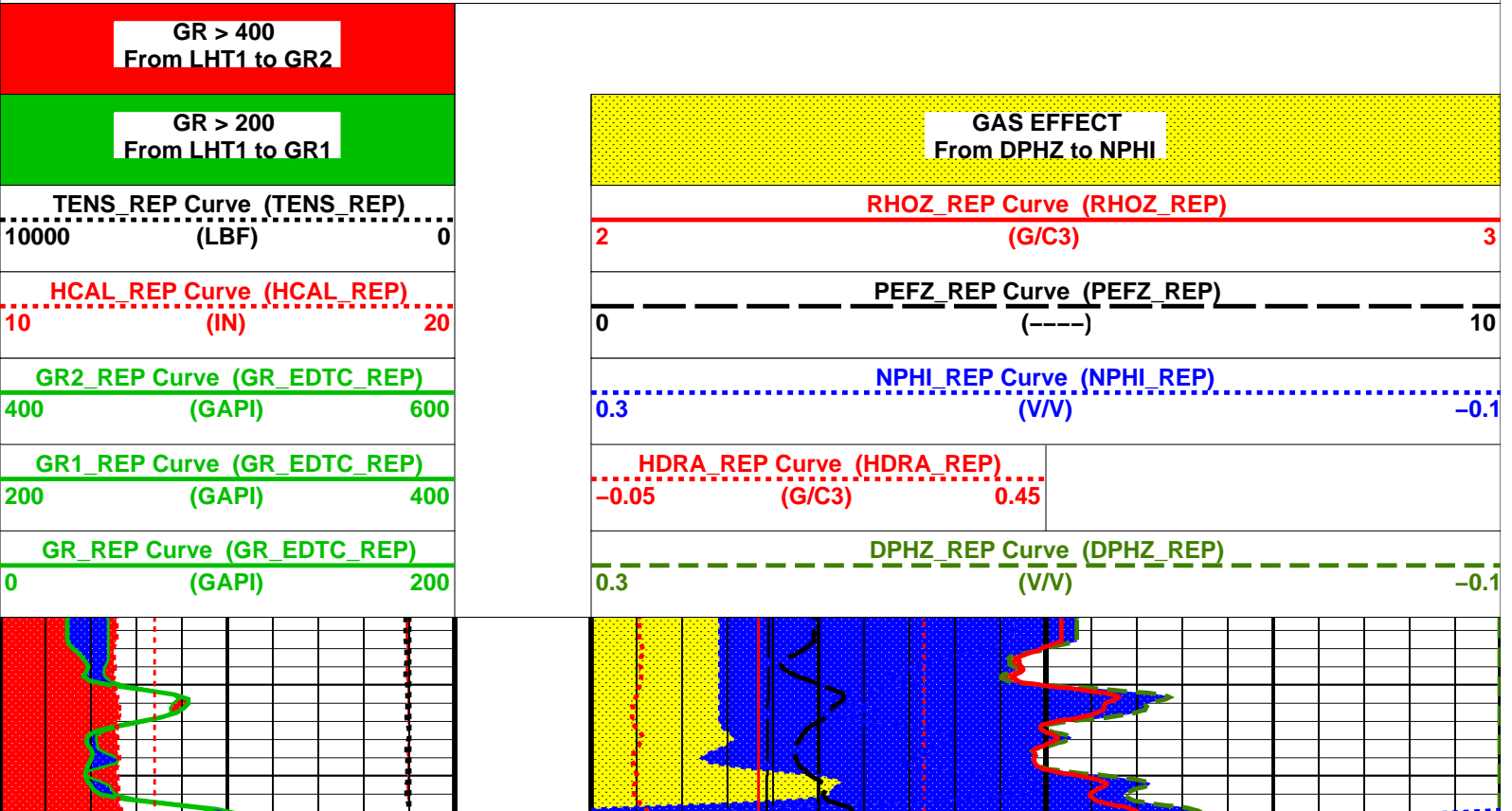
OP System Version: 19C0-187

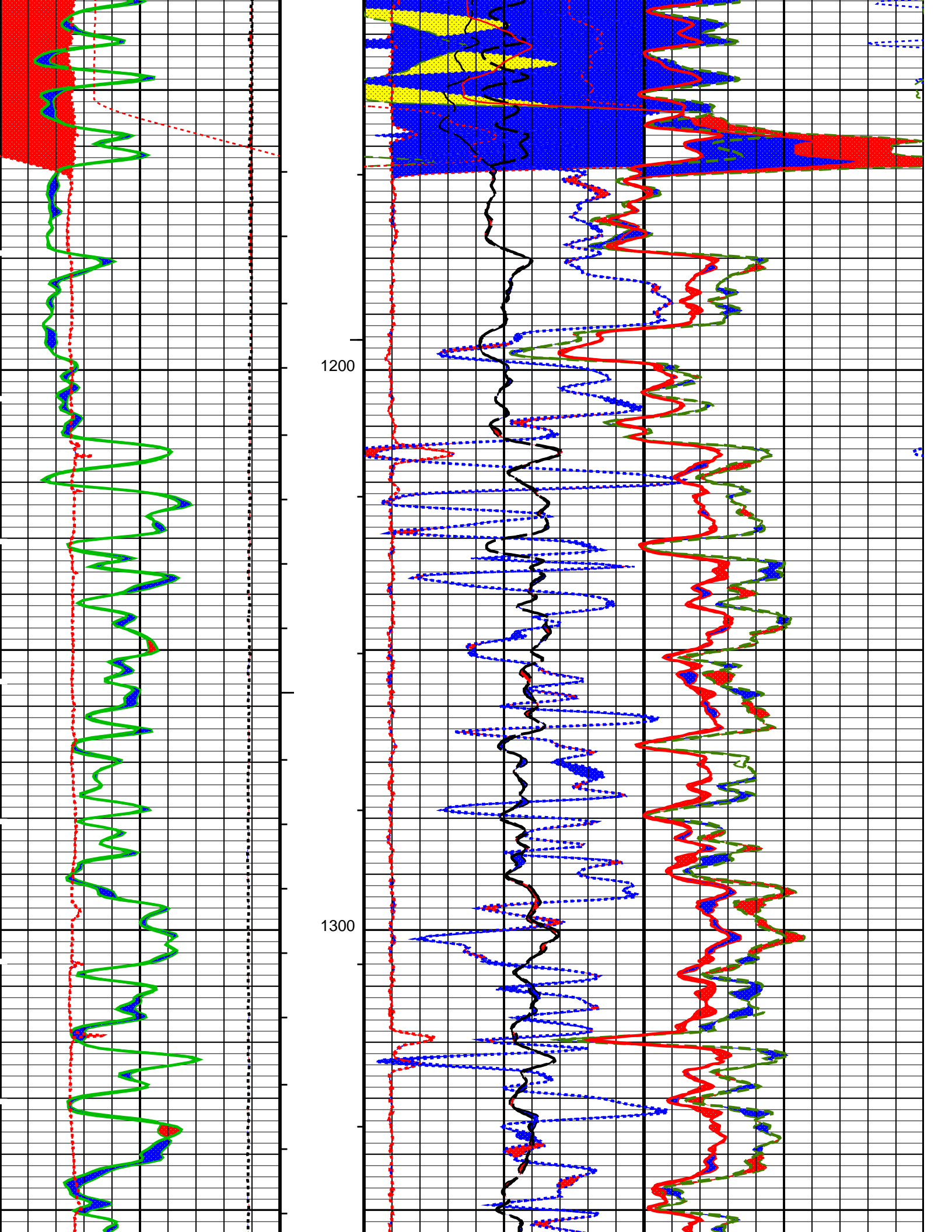
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EDTC-B	19C0-187		

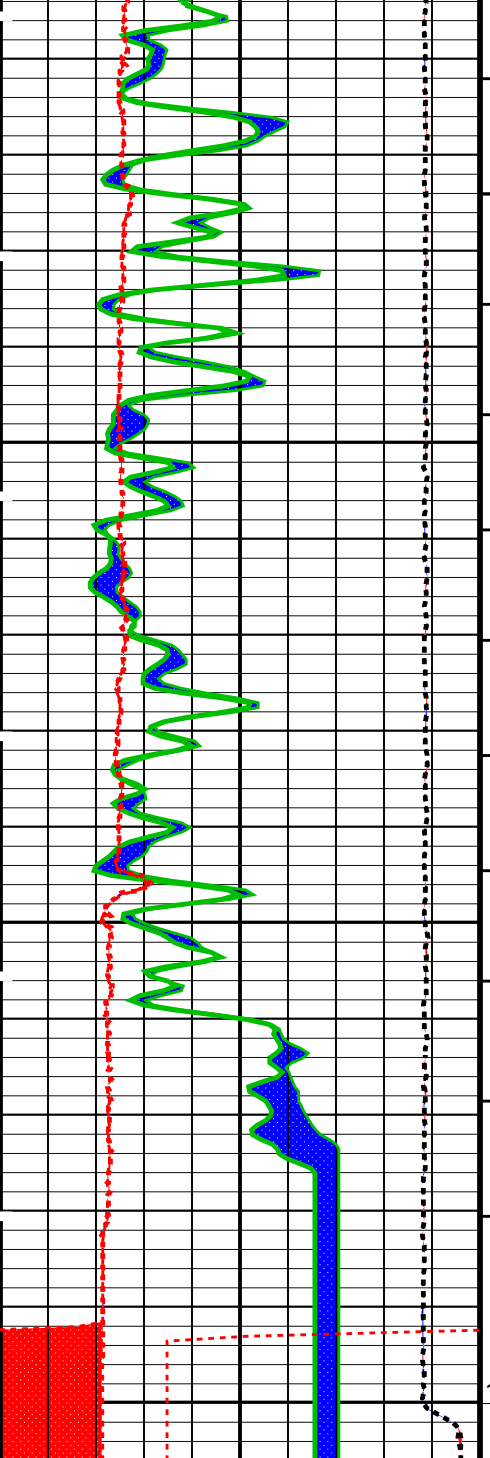
PIP SUMMARY

- ┆ Integrated Hole Volume Minor Pip Every 10 F3
- ┆ Integrated Hole Volume Major Pip Every 100 F3
- ┆ Integrated Cement Volume Minor Pip Every 10 F3
- ┆ Integrated Cement Volume Major Pip Every 100 F3

Time Mark Every 60 S

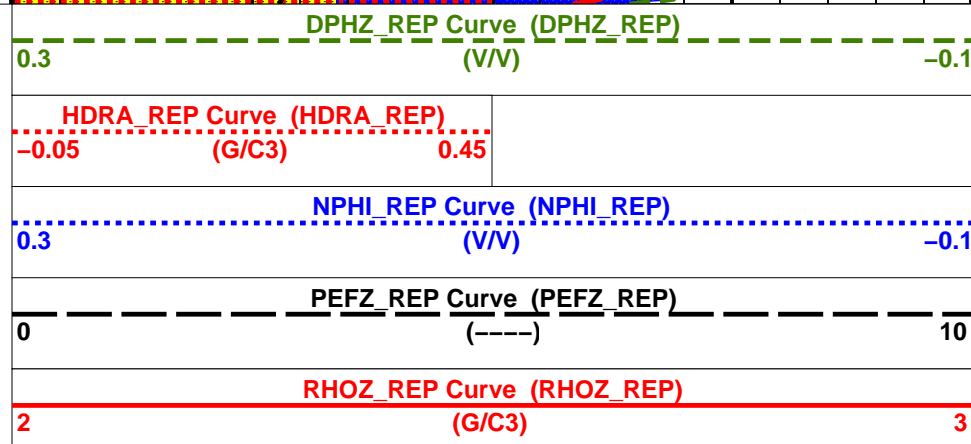
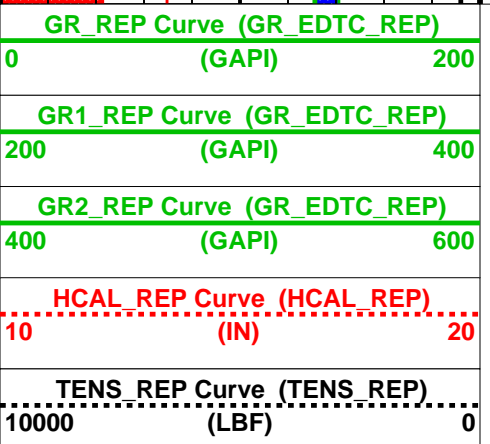
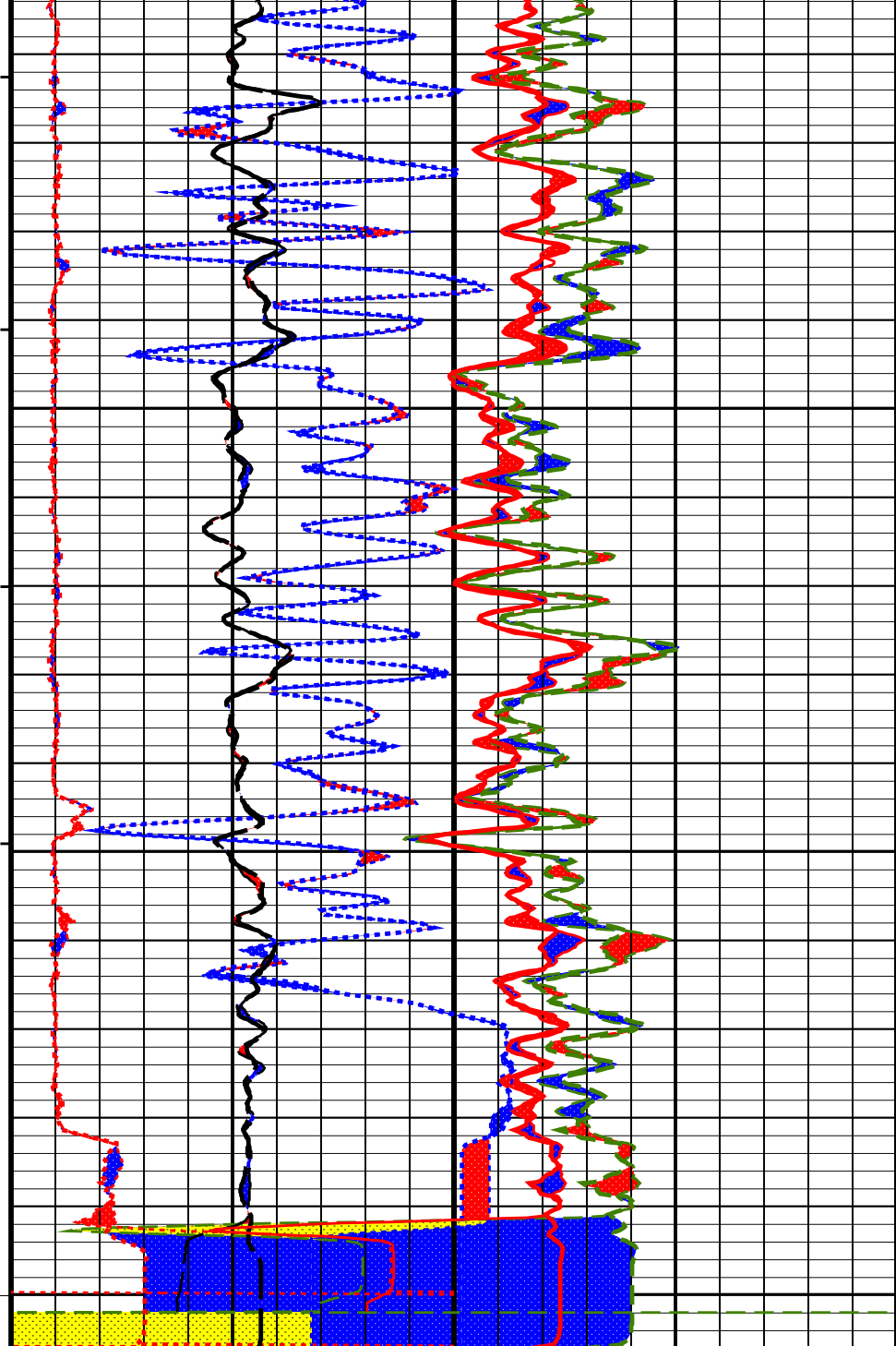






1400

1500.0
500
TD



GR > 200
From LHT1 to GR1

GR > 400
From LHT1 to GR2

GAS EFFECT
From DPHZ to NPHI

PIP SUMMARY

- └ Integrated Hole Volume Minor Pip Every 10 F3
- └ Integrated Hole Volume Major Pip Every 100 F3
 - └ Integrated Cement Volume Minor Pip Every 10 F3
 - └ Integrated Cement Volume Major Pip Every 100 F3

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
HAIT-H: Array Induction Tool - H			
AHAPL	Array Induction Answer Product Level(Depth Log/View only)	3_BholeCorr_BasicLogs_Radial_Processing	
AHBHM	Array Induction Borehole Correction Mode	0_ComputeMudResistivity	
AHBHV	Array Induction Borehole Correction Code Version Number	900	
AHBLM	Array Induction Basic Logs Mode	6_One_Two_and_Four	
AHBLV	Array Induction Basic Logs Code Version Number	223	
AHCDE	Array Induction Casing Detection Enable	Yes	
AHCEN	Array Induction Tool Centering Flag (in Borehole)	Eccentered	
AHDITM	Array Induction Desired Log Mode	0x00_Log_000	
AHEBC	Array Induction Enable Borehole Correction	Yes	
AHEBL	Array Induction Enable Basic Logs	Yes	
AHERP	Array Induction Enable Radial Processing	Yes	
AHETP	Array Induction Enable Sonde Error Temp&Pres Corr	Yes	
AHFRSV	Array Induction Response Set Version for Four ft Resolution	41.70.24.20	
AHIGS	Array Induction Select Akima Interpolation Gating	On	
AHLNV	Array Induction Log Not Valid Flag	Log_Valid-No_Default_Parameters	
AHMRD	Array Induction Mud Resistivity Calibration Depth	0	FT
AHMRF	Array Induction Mud Resistivity Factor	1	
AHORSV	Array Induction Response Set Version for One ft Resolution	41.70.24.20	
AHRFV	Array Induction Radial Profiling Code Version Number	701	
AHRPM	Array Induction Radial Processing Mode	1_Two	
AHRPV	Array Induction Radial Parametrization Code Version Number	232	
AHSTA	Array Induction Tool Standoff	1.5	IN
AHTNO	Array Induction Tool Serial Number	266	
AHTRSV	Array Induction Response Set Version for Two ft Resolution	41.70.24.20	
AHTSE	Array Induction Temperature Selection (Sonde Error Correction)	Internal	
AHTTY	Array Induction Tool Type (of acquired data)	HAIT	
AHULV	Array Induction User Level Control	Normal	
ARTS	AIT Rt Selection (for ALLRES computation)	AITH_TwoResA90	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	67.7	DEGF
FEXP	Form Factor Exponent	2	
FNUM	Form Factor Numerator	1	
FPHI	Form Factor Porosity Source	DPHZ	
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	AITH_RESIST	
GTSE	Generalized Temperature Selection	HSTS_HTEM	
ISSBAR	Barite Mud Switch	NOBARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE	
RTCO	RTCO - Rt Invasion Correction	YES	
SHT	Surface Hole Temperature	65	DEGF
SPNV	SP Next Value	0	MV
HILTB-FTB: High resolution Integrated Logging Tool-DTS			
BHFL	Borehole Fluid Type	WATER	
BHFL_TLD	HILT Nuclear Mud Base	WATER	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	67.7	DEGF
BSCO	Borehole Salinity Correction Option	NO	
CCCO	Casing & Cement Thickness Correction Option	NO	
DHC	Density Hole Correction	BS	
DPPM	Density Porosity Processing Mode	HIRS	
EXSICL	External Shale Indicator Clean Value	20	
EXSISH	External Shale Indicator Shale Value	150	
FD	Fluid Density	1.1	G/C3
FEXP	Form Factor Exponent	2	
FNUM	Form Factor Numerator	1	
FPHI	Form Factor Porosity Source	DPHZ	
FSAL	Formation Salinity	-50000	PPM
FSCO	Formation Salinity Correction Option	NO	
GCLF	Germany Coal-like Formation Option	NO	
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	AITH_RESIST	
GTSE	Generalized Temperature Selection	HSTS_HTEM	
HACPP	Accelerometer PROM Presence	PRESENT_FILE	
HART	Accelerometer Reference Temperature	68	DEGF
HDCOD	HILT Density Coal detection	2	G/C3
HPSAD	HILT Density Salt detection	2	G/C3

HDSAD	HILT Density Salt detection	2.1	G/C3
HILT_GAS_DENSITY	HILT Gas Downhole Density	0	G/C3
HILT_GAS_OPTION	HILT Gas Computation Option	OFF	
HNCOD	HILT Neutron Coal detection	45	PU
HNSAD	HILT Neutron Salt detection	5	PU
HPHIECUT	HILT effective Porosity Cutoff	5	PU
HSCO	Hole Size Correction Option	YES	
HSIS	HILT Shale Indicator Selection	GR	
HSSO	HRDD Nuclear Source Strength Option	NORMAL	
HSWCUT	HILT Water Saturation from AITH cutoff	50	%
ISSBAR	Barite Mud Switch	NOBARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE	
MCCO	Mud Cake Correction Option	NO	
MCOR	Mud Correction	NATU	
MDEN	Matrix Density	2.65	G/C3
MHC0	MCFL B0 Contrast Correction Coefficient	2.2e-005	OHMS
MHC1	MCFL B1 Contrast Correction Coefficient	3.2e-005	OHMS
MHCC	MCFL High Contrast Correction Switch	NO	
MPOF	MCFL Processing Operation Mode	ON	
MWCO	Mud Weight Correction Option	NO	
NAAC	HRDD APS Activation Correction	OFF	
NMT	HILT Nuclear Mud Type	NOBARITE	
NPRM	HRDD Processing Mode	HiRes	
NSAR	HRDD Depth Sampling Rate	1	IN
PEA_FILTER	PEA Filter	NO_FILTER	
PEFC_FILTER	PEFC Filter	NO_FILTER	
PHIMAX	HILT max porosity	35	PU
PTCO	Pressure/Temperature Correction Option	NO	
SDAT	Standoff Data Source	SOCN	
SEXP_HILT	HILT Saturation Exponent	2	
SHT	Surface Hole Temperature	65	DEGF
SOCN	Standoff Distance	0.125	IN
SOCO	Standoff Correction Option	NO	
EDTC-B: Enhanced DTS Cartridge			
BHFL	Borehole Fluid Type	WATER	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	67.7	DEGF
BSCO	Borehole Salinity Correction Option	NO	
CCCO	Casing & Cement Thickness Correction Option	NO	
DPPM	Density Porosity Processing Mode	HIRS	
FSCO	Formation Salinity Correction Option	NO	
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	AITH_RESIST	
GTSE	Generalized Temperature Selection	HSTS_HTEM	
HSCO	Hole Size Correction Option	YES	
ISSBAR	Barite Mud Switch	NOBARITE	
ISSBAR_EDTC	Nuclear Mud Type	NOBARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE	
MCCO	Mud Cake Correction Option	NO	
MCOR	Mud Correction	NATU	
MWCO	Mud Weight Correction Option	NO	
PTCO	Pressure/Temperature Correction Option	NO	
SDAT	Standoff Data Source	SOCN	
SHT	Surface Hole Temperature	65	DEGF
SOCN	Standoff Distance	0.125	IN
SOCO	Standoff Correction Option	NO	
TPOS_EDTC	EDTC Tool Centered/Eccentered	Eccentered	
U-ETELM_EDTS	Telemetry Mode for eWAFE	Standard_EDTS	
U-TELM_EDTS	Telemetry Mode for WAFE	Standard_EDTS	
ALLRES: Basic Resistivity Transforms			
ARTS	AIT Rt Selection (for ALLRES computation)	AITH_TwoResA90	
RTCO	RTCO - Rt Invasion Correction	YES	
HOLEV: Integrated Hole/Cement Volume			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	67.7	DEGF
FCD	Future Casing (Outer) Diameter	9.625	IN
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	AITH_RESIST	
GTSE	Generalized Temperature Selection	HSTS_HTEM	
HVCS	Integrated Hole Volume Caliper Selection	AUTOMATIC	
ISSBAR	Barite Mud Switch	NOBARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE	
SHT	Surface Hole Temperature	65	DEGF
STI: Stuck Tool Indicator			
LBFR	Trigger for MAXIS First Reading Label	TDL	
STKT	STI Stuck Threshold	2.5	FT
TDD	Total Depth - Driller	1528.00	FT
TDL	Total Depth - Logger	1500.00	FT
System and Miscellaneous			
ALTDPCAN	Name of alternate depth channel	SpeedCorrectedDepth	
BS	Bit Size	12.250	IN

BSAL	Borehole Salinity	120.00	PPM
CSIZ	Current Casing Size	13.375	IN
CWEI	Casing Weight	48.00	LB/F
DFD	Drilling Fluid Density	9.30	LB/G
DO	Depth Offset for Playback	0.0	FT
DORL	Depth Offset for Repeat Analysis	0.0	FT
FLEV	Fluid Level	0.00	FT
MST	Mud Sample Temperature	76.60	DEGF
PBVSADP	Use alternate depth channel for playback	NO	
PP	Playback Processing	RECOMPUTE	
RMFS	Resistivity of Mud Filtrate Sample	5.0175	OHMM
RW	Resistivity of Connate Water	1.0000	OHMM
TD	Total Depth	1500	FT
TWS	Temperature of Connate Water Sample	100.00	DEGF

Format: PEX_NUC5_REP Vertical Scale: 5" per 100' Graphics File Created: 31-Aug-2011 04:03

OP System Version: 19C0-187

HAIT-H SRPC-5047-H1-2011-OP19_b HILTB-FTB SRPC-5047-H1-2011-OP19_b
EDTC-B 19C0-187

Input DLIS Files

DEFAULT	AIT_TLD_MCFL_CNL_012LUP	FN:14	PRODUCER	31-Aug-2011 00:37	1506.0 FT	1112.0 FT
DEFAULT	AIT_TLD_MCFL_CNL_014LUP	FN:18	PRODUCER	31-Aug-2011 01:02	1512.0 FT	-16.0 FT

Output DLIS Files

DEFAULT	AIT_TLD_MCFL_CNL_024PUP	FN:34	PRODUCER	31-Aug-2011 04:03		
RTB	AIT_TLD_MCFL_CNL_024PUP	FN:35	PRODUCER	31-Aug-2011 04:03		



CALIBRATIONS

MAXIS Field Log

Calibration and Check Summary

Measurement	Nominal	Master	Before	After	Change	Limit	Units
Array Induction Tool - H Wellsite Calibration - Electronics Calibration Check - Thru Cal Mag. & Phase							
Before: 31-Aug-2011 0:06							
Thru Cal Magnitude - 0	0	N/A	0.6206	N/A	N/A	N/A	V
Thru Cal Magnitude - 1	0	N/A	1.275	N/A	N/A	N/A	V
Thru Cal Magnitude - 2	0	N/A	0.6336	N/A	N/A	N/A	V
Thru Cal Magnitude - 3	0	N/A	0.7133	N/A	N/A	N/A	V
Thru Cal Magnitude - 4	0	N/A	1.346	N/A	N/A	N/A	V
Thru Cal Magnitude - 5	0	N/A	1.950	N/A	N/A	N/A	V
Thru Cal Magnitude - 6	0	N/A	1.954	N/A	N/A	N/A	V
Thru Cal Magnitude - 7	0	N/A	1.420	N/A	N/A	N/A	V
Phase - 0	0	N/A	57.26	N/A	N/A	N/A	DEG
Phase - 1	0	N/A	56.24	N/A	N/A	N/A	DEG
Phase - 2	0	N/A	52.55	N/A	N/A	N/A	DEG
Phase - 3	0	N/A	51.80	N/A	N/A	N/A	DEG
Phase - 4	0	N/A	45.52	N/A	N/A	N/A	DEG
Phase - 5	0	N/A	43.66	N/A	N/A	N/A	DEG
Phase - 6	0	N/A	43.63	N/A	N/A	N/A	DEG
Phase - 7	0	N/A	39.78	N/A	N/A	N/A	DEG

Array Induction Tool - H Wellsite Calibration - Electronics Calibration Check - Auxilliary							
Before: 31-Aug-2011 0:06							
Array Induction SPA Plus	990.5	N/A	992.3	N/A	N/A	N/A	MV
Array Induction SPA Zero	0	N/A	0.1246	N/A	N/A	N/A	MV

Array Induction SPA Zero	0	N/A	0.1246	N/A	N/A	N/A	N/A	MV
Array Induction Temperature PI	0.9150	N/A	0.9199	N/A	N/A	N/A	N/A	V
Array Induction Temperature Ze	0	N/A	0.0001156	N/A	N/A	N/A	N/A	V

High resolution Integrated Logging Tool–DTS Wellsite Calibration – Stab Measurement Summary

Before: 29–Aug–2011 17:02

BS Window Ratio	0.7410	N/A	0.7410	N/A	N/A	N/A	N/A	
BS Window Sum	29350	N/A	29240	N/A	N/A	N/A	N/A	CPS
SS Window Ratio	0.4864	N/A	0.4858	N/A	N/A	N/A	N/A	
SS Window Sum	12980	N/A	12970	N/A	N/A	N/A	N/A	CPS
LS Window Ratio	0.2989	N/A	0.2965	N/A	N/A	N/A	N/A	
LS Window Sum	1337	N/A	1333	N/A	N/A	N/A	N/A	CPS

High resolution Integrated Logging Tool–DTS Wellsite Calibration – Photo–multiplier High Voltages Calibrations

Before: 29–Aug–2011 17:02

BS PM High Voltage (Command)	1694	N/A	1697	N/A	N/A	N/A	N/A	V
SS PM High Voltage (Command)	1854	N/A	1864	N/A	N/A	N/A	N/A	V
LS PM High Voltage (Command)	1518	N/A	1526	N/A	N/A	N/A	N/A	V

High resolution Integrated Logging Tool–DTS Wellsite Calibration – Crystal Quality Resolutions Calibration

Before: 29–Aug–2011 17:02

BS Crystal Resolution	10.58	N/A	10.59	N/A	N/A	N/A	N/A	%
SS Crystal Resolution	10.51	N/A	10.70	N/A	N/A	N/A	N/A	%
LS Crystal Resolution	8.311	N/A	8.290	N/A	N/A	N/A	N/A	%

High resolution Integrated Logging Tool–DTS Wellsite Calibration – MCFL Calibration

Before: 29–Aug–2011 17:03

Raw B0 Resistivity	3875	N/A	3889	N/A	N/A	N/A	N/A	OHMM
Raw B1 Resistivity	3830	N/A	3823	N/A	N/A	N/A	N/A	OHMM
Raw B2 Resistivity	3830	N/A	3832	N/A	N/A	N/A	N/A	OHMM

High resolution Integrated Logging Tool–DTS Wellsite Calibration – HILT Caliper Calibration

Before: 29–Aug–2011 17:05

HILT Caliper Zero Measurement	8.000	N/A	7.753	N/A	N/A	N/A	N/A	IN
HILT Caliper Plus Measurement	12.00	N/A	12.04	N/A	N/A	N/A	N/A	IN

High resolution Integrated Logging Tool–DTS Wellsite Calibration – Detector Calibration

Before: 29–Aug–2011 17:00

Gamma Ray Background	30.00	N/A	34.87	N/A	N/A	N/A	N/A	GAPI
Gamma Ray (Jig – Bkgd)	165.0	N/A	159.5	N/A	N/A	N/A	15.00	GAPI

High resolution Integrated Logging Tool–DTS Wellsite Calibration – Zero Measurement

Master: 15–Aug–2011 17:17 Before: 29–Aug–2011 17:02

CNTC Background	28.35	28.35	28.34	N/A	N/A	N/A	4.253	CPS
CFTC Background	28.21	28.21	29.07	N/A	N/A	N/A	4.232	CPS

High resolution Integrated Logging Tool–DTS Wellsite Calibration – Ratio Measurement

Master: 15–Aug–2011 17:17

Thermal Near Corr. (Tank)	5800	4709	N/A	N/A	N/A	N/A	N/A	CPS
Thermal Far Corr. (Tank)	2400	2062	N/A	N/A	N/A	N/A	N/A	CPS
CNTC/CFTC (Tank)	2.159	2.284	N/A	N/A	N/A	N/A	N/A	

High resolution Integrated Logging Tool–DTS Wellsite Calibration – Accelerometer Calibration

Before: 31–Aug–2011 0:05

Z–Axis Acceleration	32.19	N/A	32.16	N/A	N/A	N/A	N/A	F/S2
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High resolution Integrated Logging Tool–DTS Master Calibration – Inversion results

Master: 29–Aug–2011 15:18

Rho Aluminum	2.596	2.598	---	---	---	---	---	G/C3
Rho Magnesium	1.686	1.688	---	---	---	---	---	G/C3
Pe Aluminum	2.570	2.550	---	---	---	---	---	
Pe Magnesium	2.650	2.623	---	---	---	---	---	

High resolution Integrated Logging Tool–DTS Master Calibration – Deviation Summary

Master: 29–Aug–2011 15:18

BS Average Deviation	0	0.1847	---	---	---	---	---	%
BS Max Deviation	0	0.6784	---	---	---	---	---	%
SS Average Deviation	0	0.2826	---	---	---	---	---	%
SS Max Deviation	0	1.081	---	---	---	---	---	%
LS Average Deviation	0	0.4174	---	---	---	---	---	%
LS Max Deviation	0	1.083	---	---	---	---	---	%

Enhanced DTS Cartridge Wellsite Calibration – EDTC Accelerometer Calibration

Before: 31–Aug–2011 0:09

EDTC Z–Axis Acceleration	32.19	N/A	32.11	N/A	N/A	N/A	N/A	F/S2
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Enhanced DTS Cartridge Wellsite Calibration – Detector Calibration

Before: 29–Aug–2011 17:01

Gamma Ray (Jig – Bkg)	147.5	N/A	147.5	N/A	N/A	N/A	13.41	GAPI
Gamma Ray (Calibrated)	160.0	N/A	160.0	N/A	N/A	N/A	15.00	GAPI

The GLS-VJ source activity is acceptable.

The HGNS Neutron Master Calibration was done with the following parameters :

NCT-B Water Temperature 70.0 DEGF.
 Thermal Housing Size 3.375 IN.
 NSR-F serial number 460

Array Induction Tool – H / Equipment Identification

Primary Equipment:
 Rm/SP Bottom Nose AHRM – A
 Array Induction Sonde AHIS – BA 266

Auxiliary Equipment:

Array Induction Tool – H Wellsite Calibration							
Electronics Calibration Check – Thru Cal Mag. & Phase							
Idx	Phase	Value	Thru Cal Magnitude V	Nominal	Value	Phase DEG	Nominal
0	Before	0.6206		0.6050	57.26		71.00
1	Before	1.275		1.270	56.24		70.00
2	Before	0.6336		0.6230	52.55		66.00
3	Before	0.7133		0.7040	51.80		65.00
4	Before	1.346		1.337	45.52		59.00
5	Before	1.950		1.955	43.66		57.00
6	Before	1.954		1.955	43.63		57.00
7	Before	1.420		1.415	39.78		53.00
		60.00 % (Minimum)	(Nominal)	140.0 % (Maximum)	Nom -60.00 (Minimum)	(Nominal)	Nom + 60.00 (Maximum)

Before: 31-Aug-2011 0:06

Array Induction Tool – H Wellsite Calibration					
Electronics Calibration Check – Auxilliary					
Phase	Array Induction SPA Plus MV	Value	Phase	Array Induction SPA Zero MV	Value
Before		992.3	Before		0.1246
		941.0 (Minimum)			-50.00 (Minimum)
		990.5 (Nominal)			0 (Nominal)
		1040 (Maximum)			50.00 (Maximum)
Phase	Array Induction Temperature Plus V	Value	Phase	Array Induction Temperature Zero V	Value
Before		0.9199	Before		0.0001156
		0.8700 (Minimum)			-0.05000 (Minimum)
		0.9150 (Nominal)			0 (Nominal)
		0.9600 (Maximum)			0.05000 (Maximum)

Before: 31-Aug-2011 0:06

High resolution Integrated Logging Tool-DTS / Equipment Identification

Primary Equipment:
 HILT high-Resolution Mechanical Sonde HRMS – B 4852
 HILT Rxo Gamma-ray Device HRGD – B 4883
 HILT Micro Cylindrically Focused Log Dev MCFL –
 GR Logging Source GLS – VJ 5109
 HILT High Res. Control Cartridge HRCC – B 4864
 HILT Gamma-Ray Neutron Sonde-DTS HGNS – B
 HGNS Gamma-Ray Device HGR –
 HGNS Neutron Detector with Alpha Source HCNT –

Auxiliary Equipment:
 Neutron Calibration Tank NCT – B
 Gamma Source Radioactive GSR – U/Y
 HGNS Housing HGNH –

High resolution Integrated Logging Tool-DTS Wellsite Calibration

Stab Measurement Summary

Phase	BS Window Ratio	Value	Phase	SS Window Ratio	Value	Phase	LS Window Ratio	Value	
Before		0.7410	Before		0.4858	Before		0.2965	
	0.7039 (Minimum)	0.7410 (Nominal)	0.7780 (Maximum)	0.4621 (Minimum)	0.4864 (Nominal)	0.5107 (Maximum)	0.2839 (Minimum)	0.2989 (Nominal)	0.3138 (Maximum)
Phase	BS Window Sum CPS	Value	Phase	SS Window Sum CPS	Value	Phase	LS Window Sum CPS	Value	
Before		29240	Before		12970	Before		1333	
	27890 (Minimum)	29350 (Nominal)	30820 (Maximum)	12330 (Minimum)	12980 (Nominal)	13630 (Maximum)	1270 (Minimum)	1337 (Nominal)	1404 (Maximum)

Before: 29-Aug-2011 17:02

High resolution Integrated Logging Tool-DTS Wellsite Calibration

Photo-multiplier High Voltages Calibrations

Phase	BS PM High Voltage (Command) V	Value	Phase	SS PM High Voltage (Command) V	Value	Phase	LS PM High Voltage (Command) V	Value	
Before		1697	Before		1864	Before		1526	
	1594 (Minimum)	1694 (Nominal)	1794 (Maximum)	1754 (Minimum)	1854 (Nominal)	1954 (Maximum)	1418 (Minimum)	1518 (Nominal)	1618 (Maximum)

Before: 29-Aug-2011 17:02

High resolution Integrated Logging Tool-DTS Wellsite Calibration

Crystal Quality Resolutions Calibration

Phase	BS Crystal Resolution %	Value	Phase	SS Crystal Resolution %	Value	Phase	LS Crystal Resolution %	Value	
Before		10.59	Before		10.70	Before		8.290	
	9.576 (Minimum)	10.58 (Nominal)	11.58 (Maximum)	9.511 (Minimum)	10.51 (Nominal)	11.51 (Maximum)	7.311 (Minimum)	8.311 (Nominal)	9.311 (Maximum)

Before: 29-Aug-2011 17:02

High resolution Integrated Logging Tool-DTS Wellsite Calibration

MCFL Calibration

Phase	Raw B0 Resistivity OHMM	Value	Phase	Raw B1 Resistivity OHMM	Value	Phase	Raw B2 Resistivity OHMM	Value	
Before		3889	Before		3823	Before		3832	
	3565 (Minimum)	3875 (Nominal)	4185 (Maximum)	3524 (Minimum)	3830 (Nominal)	4136 (Maximum)	3524 (Minimum)	3830 (Nominal)	4136 (Maximum)

Before: 29-Aug-2011 17:03

High resolution Integrated Logging Tool-DTS Wellsite Calibration

HILT Caliper Calibration

Phase	HILT Caliper Zero Measurement IN	Value	Phase	HILT Caliper Plus Measurement IN	Value	
Before		7.753	Before		12.04	
	6.000 (Minimum)	8.000 (Nominal)	10.00 (Maximum)	9.000 (Minimum)	12.00 (Nominal)	15.00 (Maximum)

Before: 29-Aug-2011 17:05

High resolution Integrated Logging Tool-DTS Wellsite Calibration

Detector Calibration

Phase	Gamma Ray Background GAPI	Value	Phase	Gamma Ray (Jig - Bkgd) GAPI	Value	
Before		34.87	Before		159.5	
	0 (Minimum)	30.00 (Nominal)	120.0 (Maximum)	157.1 (Minimum)	165.0 (Nominal)	206.3 (Maximum)

Before: 29-Aug-2011 17:00

High resolution Integrated Logging Tool-DTS Wellsite Calibration

Zero Measurement

Phase	CNTC Background CPS	Value	Phase	CFTC Background CPS	Value	
Master		28.35	Master		28.21	
Before		28.34	Before		29.07	
	5.000 (Minimum)	28.35 (Nominal)	40.00 (Maximum)	5.000 (Minimum)	28.21 (Nominal)	40.00 (Maximum)

Master: 15-Aug-2011 17:17

Before: 29-Aug-2011 17:02

High resolution Integrated Logging Tool-DTS Wellsite Calibration

Ratio Measurement

Phase	Thermal Near Corr. (Tank) CPS	Value	Phase	Thermal Far Corr. (Tank) CPS	Value	Phase	CNTC/CFTC (Tank)	Value
Before			Before			Before		

Master	4700	5800	6900	4709	Master	1900	2400	2900	2062	Master	2.120	2.159	2.540	2.284
	(Minimum)	(Nominal)	(Maximum)			(Minimum)	(Nominal)	(Maximum)			(Minimum)	(Nominal)	(Maximum)	

Master: 15-Aug-2011 17:17

High resolution Integrated Logging Tool-DTS Wellsite Calibration		
Accelerometer Calibration		
Phase	Z-Axis Acceleration F/S2	Value
Before		32.16
	31.53 (Minimum) 32.19 (Nominal) 32.84 (Maximum)	
Before: 31-Aug-2011 0:05		

High resolution Integrated Logging Tool-DTS Master Calibration					
Inversion results					
Phase	Rho Aluminum G/C3	Value	Phase	Rho Magnesium G/C3	Value
Master		2.598	Master		1.688
	2.586 (Minimum) 2.596 (Nominal) 2.606 (Maximum)			1.676 (Minimum) 1.686 (Nominal) 1.696 (Maximum)	
Phase	Pe Aluminum	Value	Phase	Pe Magnesium	Value
Master		2.550	Master		2.623
	2.470 (Minimum) 2.570 (Nominal) 2.670 (Maximum)			2.550 (Minimum) 2.650 (Nominal) 2.750 (Maximum)	
Master: 29-Aug-2011 15:18					


High resolution Integrated Logging Tool-DTS Master Calibration								
Deviation Summary								
Phase	BS Average Deviation %	Value	Phase	SS Average Deviation %	Value	Phase	LS Average Deviation %	Value
Master		0.1847	Master		0.2826	Master		0.4174
	-0.6000 (Minimum) 0 (Nominal) 0.6000 (Maximum)			-1.000 (Minimum) 0 (Nominal) 1.000 (Maximum)			-1.500 (Minimum) 0 (Nominal) 1.500 (Maximum)	
Phase	BS Max Deviation %	Value	Phase	SS Max Deviation %	Value	Phase	LS Max Deviation %	Value
Master		0.6784	Master		1.081	Master		1.083
	-1.600 (Minimum) 0 (Nominal) 1.600 (Maximum)			-2.500 (Minimum) 0 (Nominal) 2.500 (Maximum)			-3.500 (Minimum) 0 (Nominal) 3.500 (Maximum)	
Master: 29-Aug-2011 15:18								

High resolution Integrated Logging Tool-DTS Master Calibration					
Zero Measurement					
Phase	CNTC Background CPS	Value	Phase	CFTC Background CPS	Value
Master		28.35	Master		28.21
	5.000 (Minimum) 28.35 (Nominal) 40.00 (Maximum)			5.000 (Minimum) 28.21 (Nominal) 40.00 (Maximum)	
Master: 15-Aug-2011 17:17					




High resolution Integrated Logging Tool-DTS Master Calibration								
Tank Measurement								
Phase	Thermal Near Corr. (Tank) CPS	Value	Phase	Thermal Far Corr. (Tank) CPS	Value	Phase	CNTC/CFTC (Tank)	Value
Master		4709	Master		2062	Master		2.284
	4700 (Minimum) 5800 (Nominal) 6900 (Maximum)			1900 (Minimum) 2400 (Nominal) 2900 (Maximum)			2.120 (Minimum) 2.159 (Nominal) 2.540 (Maximum)	
Master: 15-Aug-2011 17:17								

Enhanced DTS Cartridge / Equipment Identification	
Primary Equipment:	
EDTC Gamma Ray Detector	EDTG - A/B
Enhanced DTS Cartridge	EDTC - B
Auxiliary Equipment:	
EDTC Housing	EDTH - B

Enhanced DTS Cartridge Wellsite Calibration	
EDTC Accelerometer Calibration	

Phase	EDTC Z-Axis Acceleration F/S2	Value
Before		32.11
	31.53 (Minimum) 32.19 (Nominal) 32.84 (Maximum)	

Before: 31-Aug-2011 0:09

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			36.36	Before			147.5	Before			160.0
	0 (Minimum)	30.00 (Nominal)	120.0 (Maximum)		134.1 (Minimum)	147.5 (Nominal)	160.9 (Maximum)		145.0 (Minimum)	160.0 (Nominal)	175.0 (Maximum)

Before: 29-Aug-2011 17:01

Company: **SANDIA TECHNOLOGIES, LLC**

Schlumberger

Well: **NYSTA TANDEM LOT 1**

Field: **WILDCAT**

County: **ROCKLAND**

State: **NEW YORK**

**PLATFORM EXPRESS
LITHO-DENSITY / COMPENSATED NEUTRON
GAMMA RAY / CALIPER**