

Well: **Expedition 384, Site U1555G**
Field: **Engineering Testing**
Rig: **JOIDES Resolution** Ocean: **Atlantic**

Rig: JOIDES Resolution Field: Engineering Testing Location: Latitude: N 60.2281 Well: Expedition 384, Site U1555G Company: International Ocean Discovery Program	High Resolution Laterolog (HRLA) Litho Density (HLDS) / (APS) Porosity Natural Gamma / MSS (HNGS)				
	LOCATION	Latitude: N 60.2281 Longitude: W 28.5004		Elev.: K.B. 0.00 m G.L. -1534.60 m D.F. 0.00 m	
		Permanent Datum: Sea Floor Log Measured From: Rig Floor Drilling Measured From: Rig Floor		Elev.: -1534.60 m 1534.60 m above Perm. Datum	
		API Serial No.		Max. Hole Devi. 4 deg	Longitude W28.5004

Logging Date		15-Aug-2020			
Run Number		1			
Depth Driller		1843.5 m			
Schlumberger Depth		1840 m			
Bottom Log Interval		1850 m			
Top Log Interval		1534.6 m			
Casing Driller Size @ Depth		5.500 in @ 1735 m		@	
Casing Schlumberger		1735 m			
Bit Size		9.875 in			
Type Fluid In Hole		Sepiolite Barite weighted			
MUD	Density	Viscosity	1.26 g/cm3		
	Fluid Loss	PH		8.07	
	Source Of Sample		Mudpit		
	RM @ Measured Temperature		0.220 ohm.m @ 23 degC		@
	RMF @ Measured Temperature		@		@
RMC @ Measured Temperature		@		@	
Source RMF	RMC	N/A	N/A		
RM @ MRT	RMF @ MRT	0.324 @ 9	@ 9	@	@
Maximum Recorded Temperatures		9 degC			
Circulation Stopped		Time	14-Aug-2020	20:00	
Logger On Bottom		Time	15-Aug-2020	7:06	
Unit Number	Location	627314 Larose, LA			
Recorded By		K. Swain			
Witnessed By		Dan Marone			

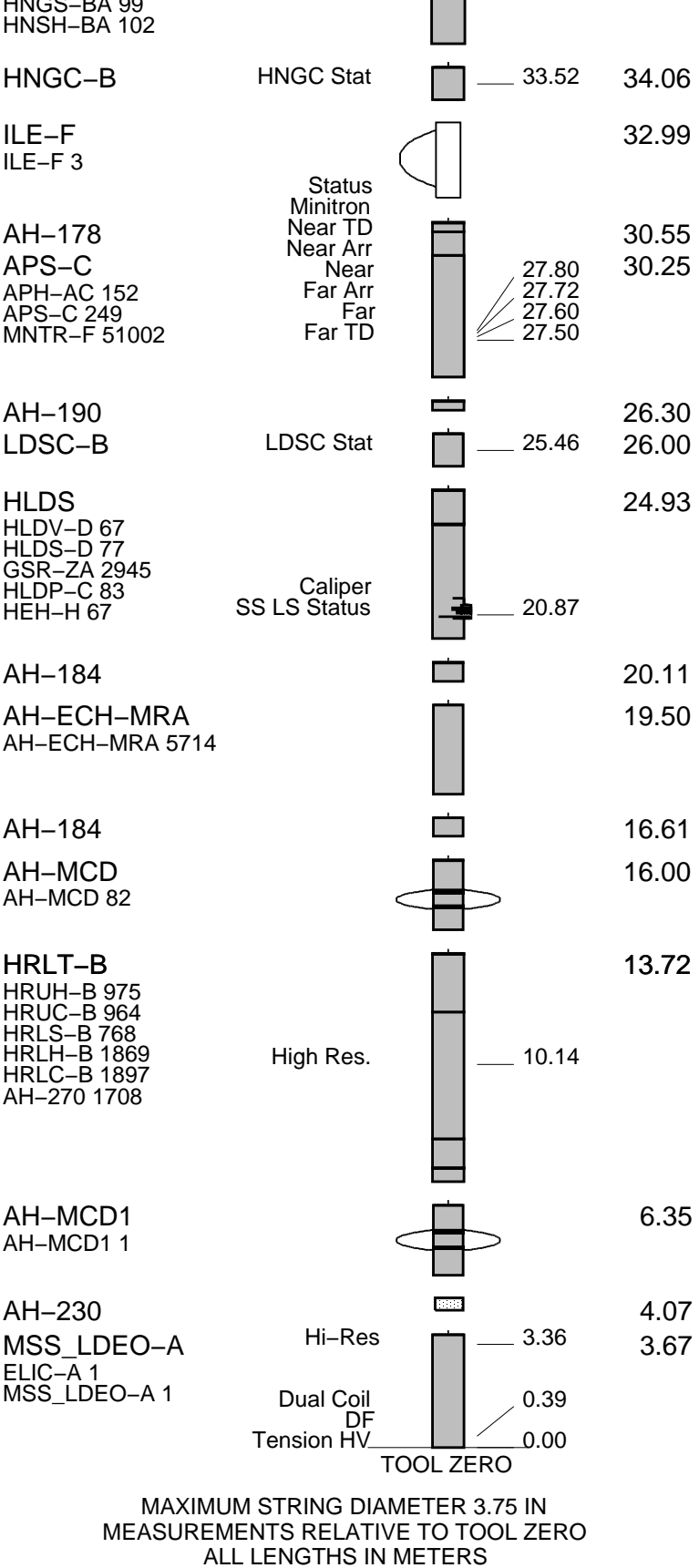
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REMARKS: RUN NUMBER 1	REMARKS: RUN NUMBER 2
Hole drilled with RCB bottom hole assembly (BHA) at 9-7/8" BS	
Drill pipe set at 1737 mbrf.	
Fluid type was Sepeolite mud weighted with Barite.	
Depth recorded from drill floor; logs presented as-logged without depth corrections or shifts, as per client instructions.	
All logs presented in wireline measured depth below rig floor (MDBRF).	
Caliper opened during upward passes; closed inside pipe.	
Hole size corrections made using caliper measurements for upward passes.	
AHC used from TD then switched off to facilitate pipe entry.	
10.5 lb/gal mud pumped in hole prior to logging.	

[illegible]



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

[illegible]



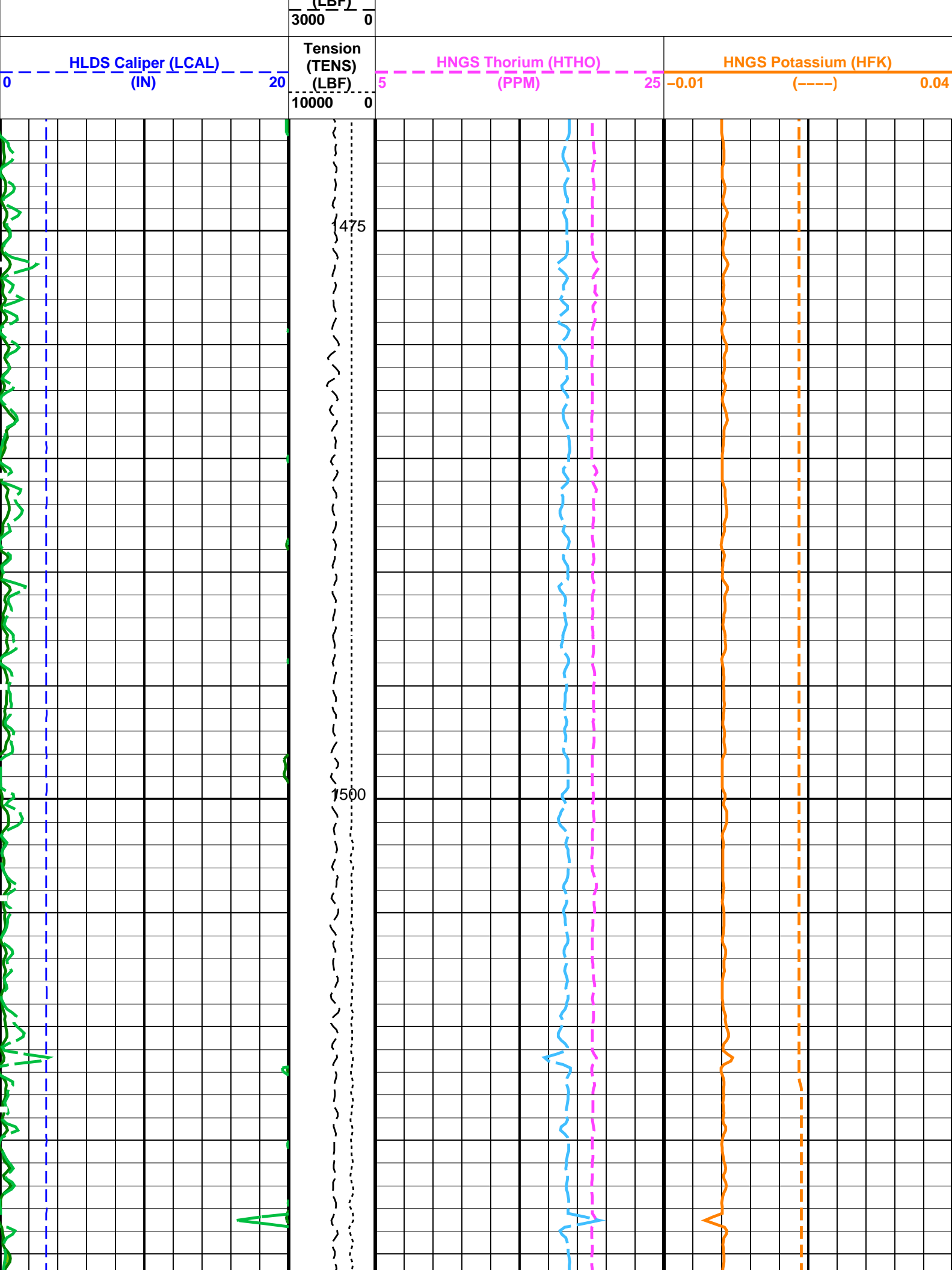
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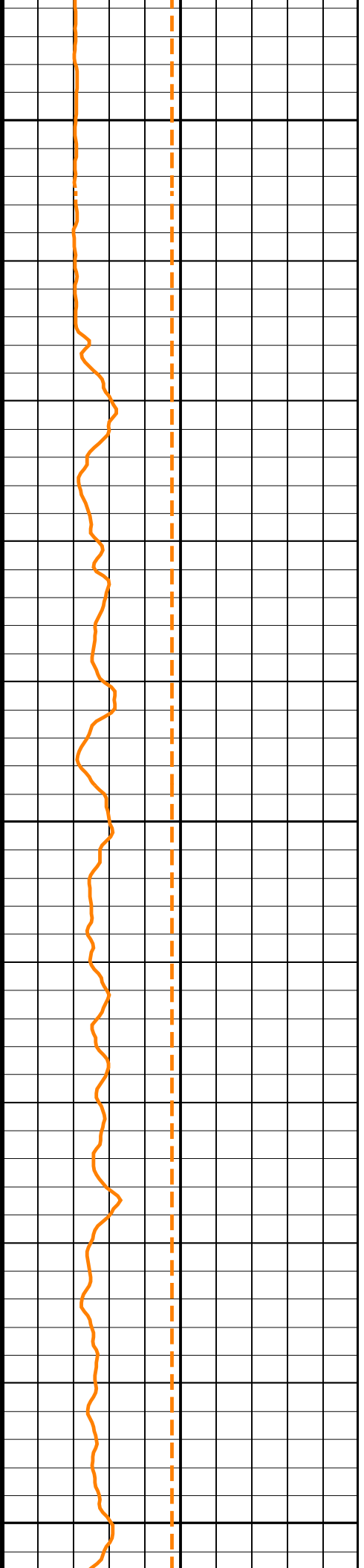
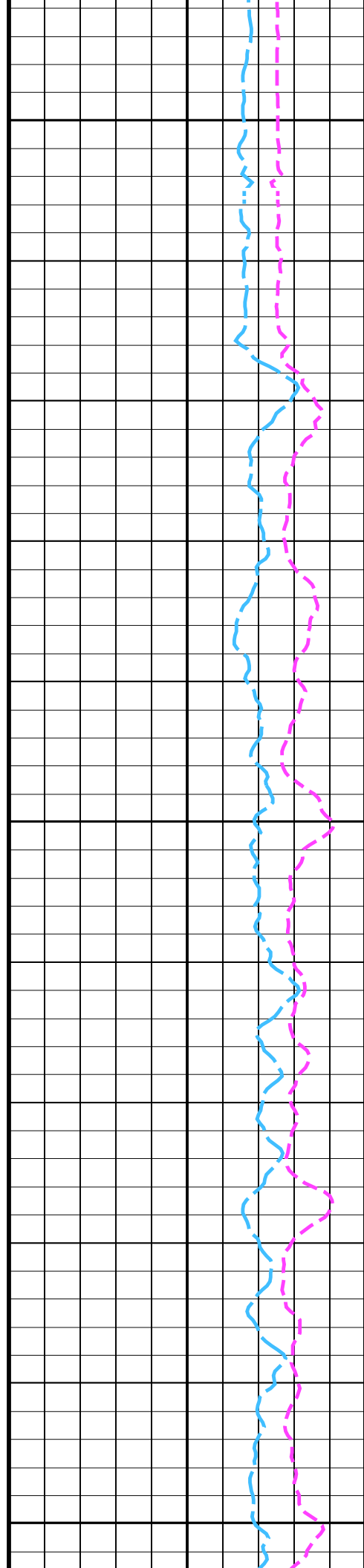
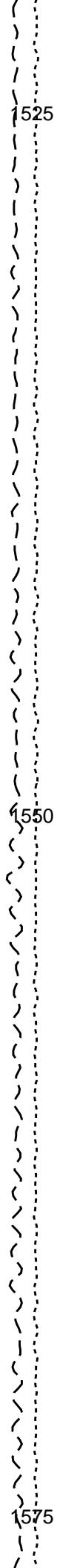
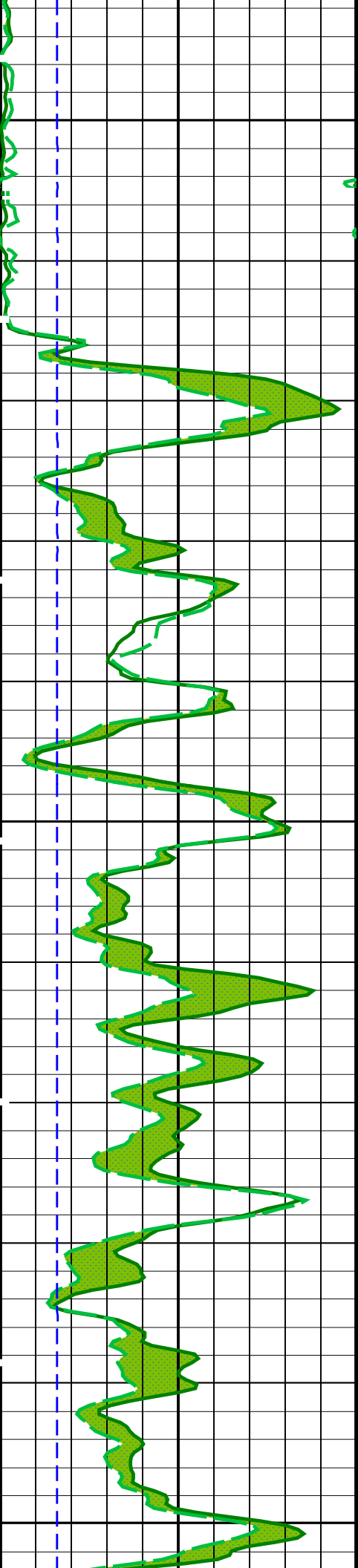
Output DLIS Files					
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				1470.1 M	

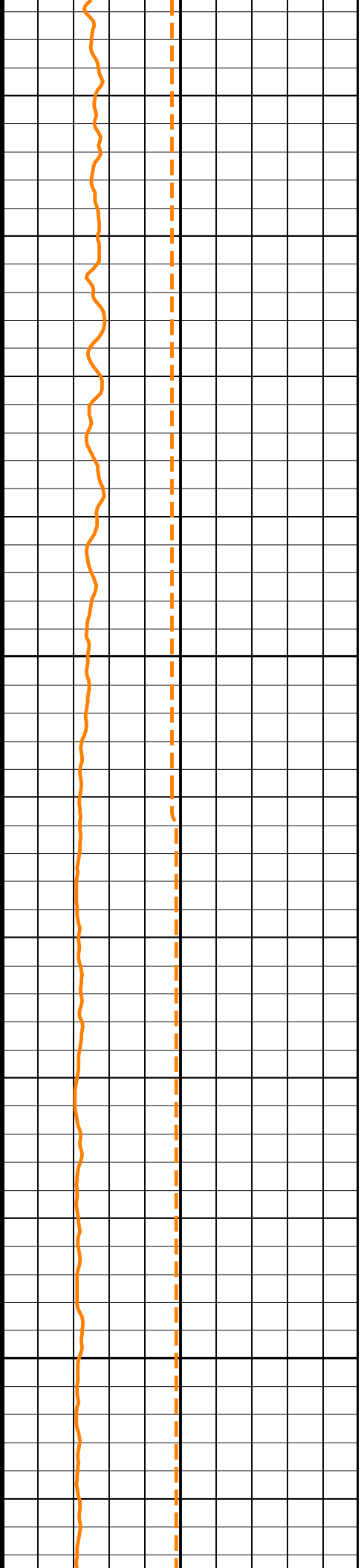
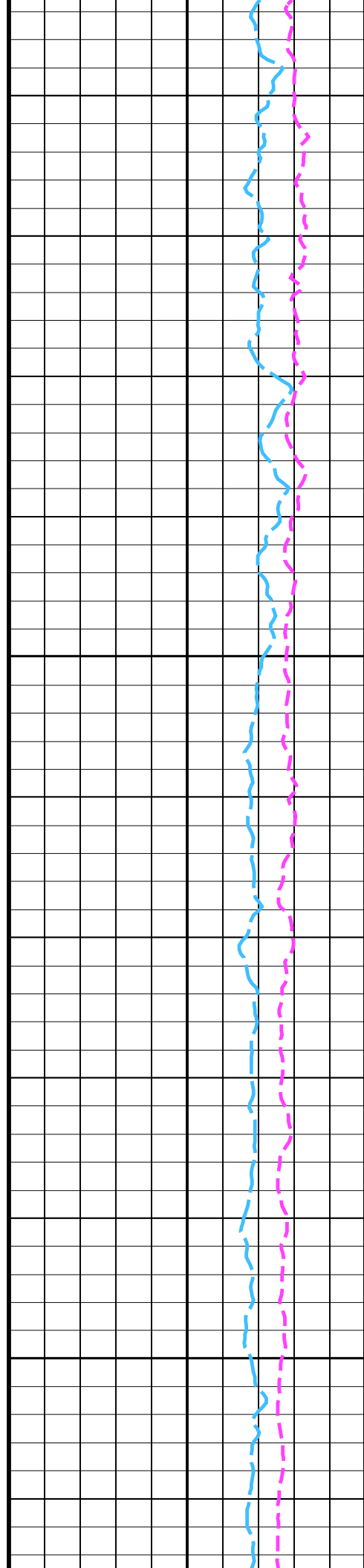
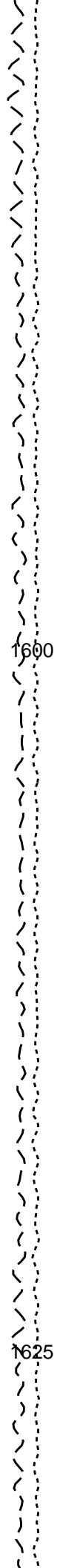
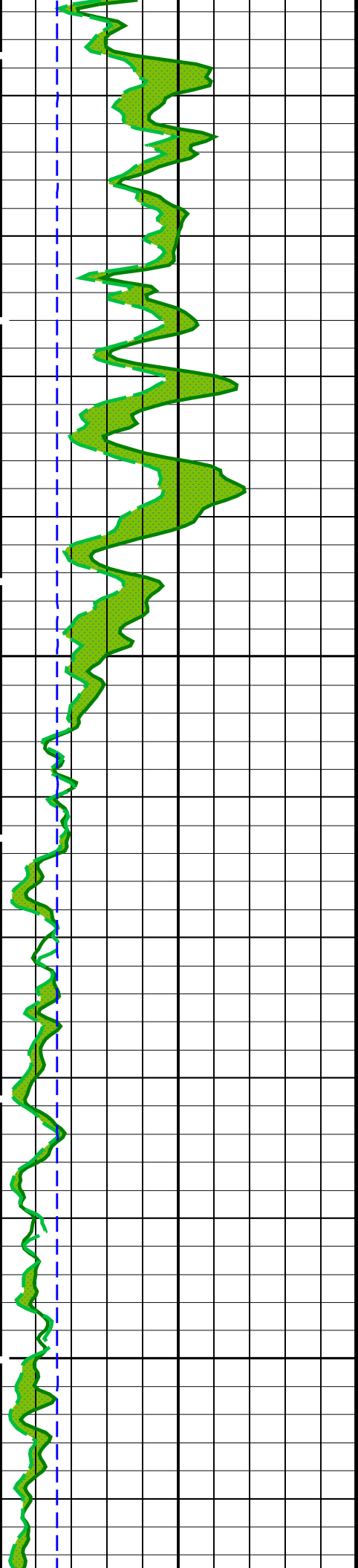
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HLDS	19C0-187		LDSC-B	19C0-187	
APS-C	19C0-187		HNGC-B	19C0-187	
HNGS-BA	19C0-187		DTC-H	19C0-187	

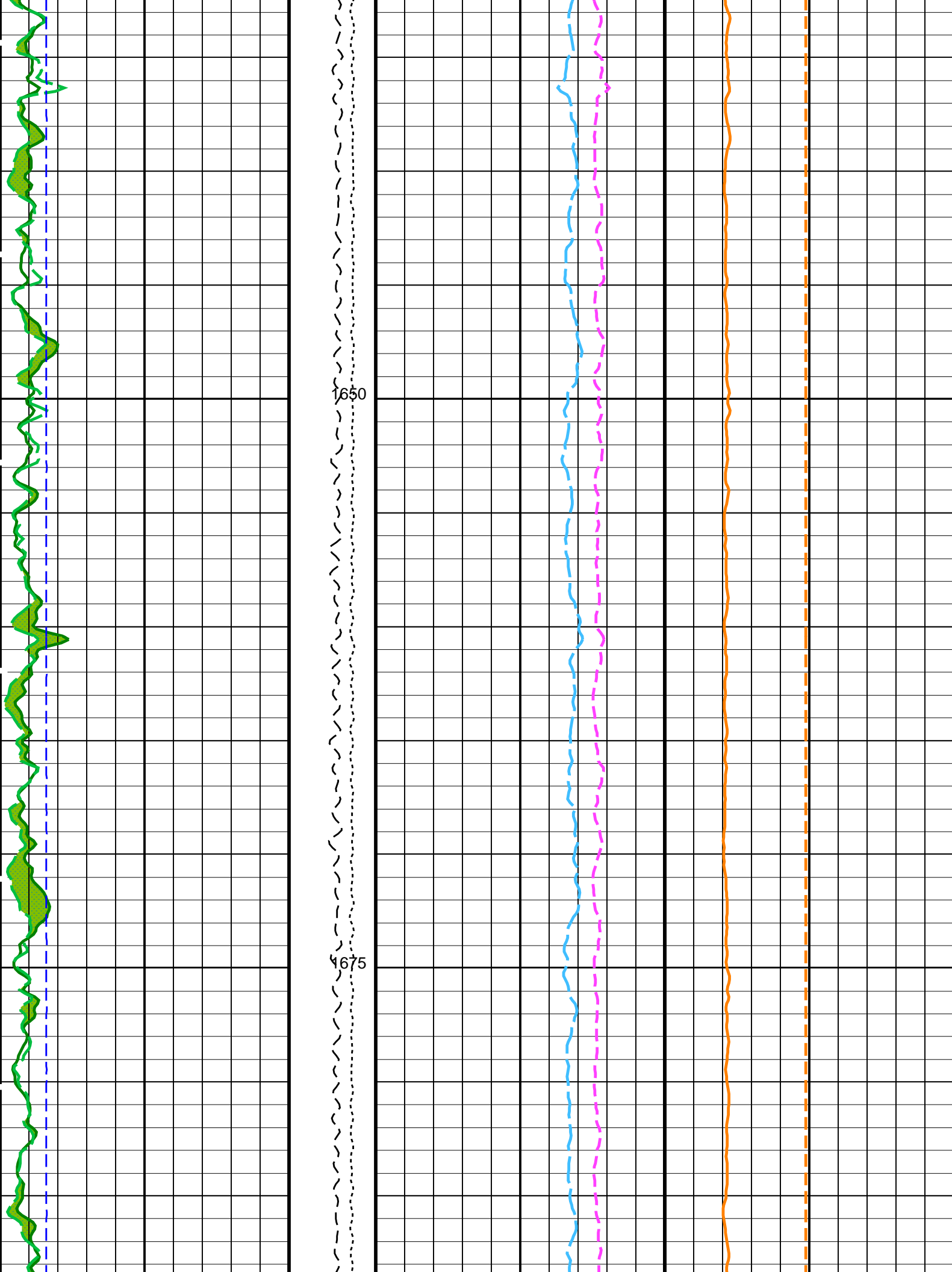
PIP SUMMARY	
 Time Mark Every 60 S	

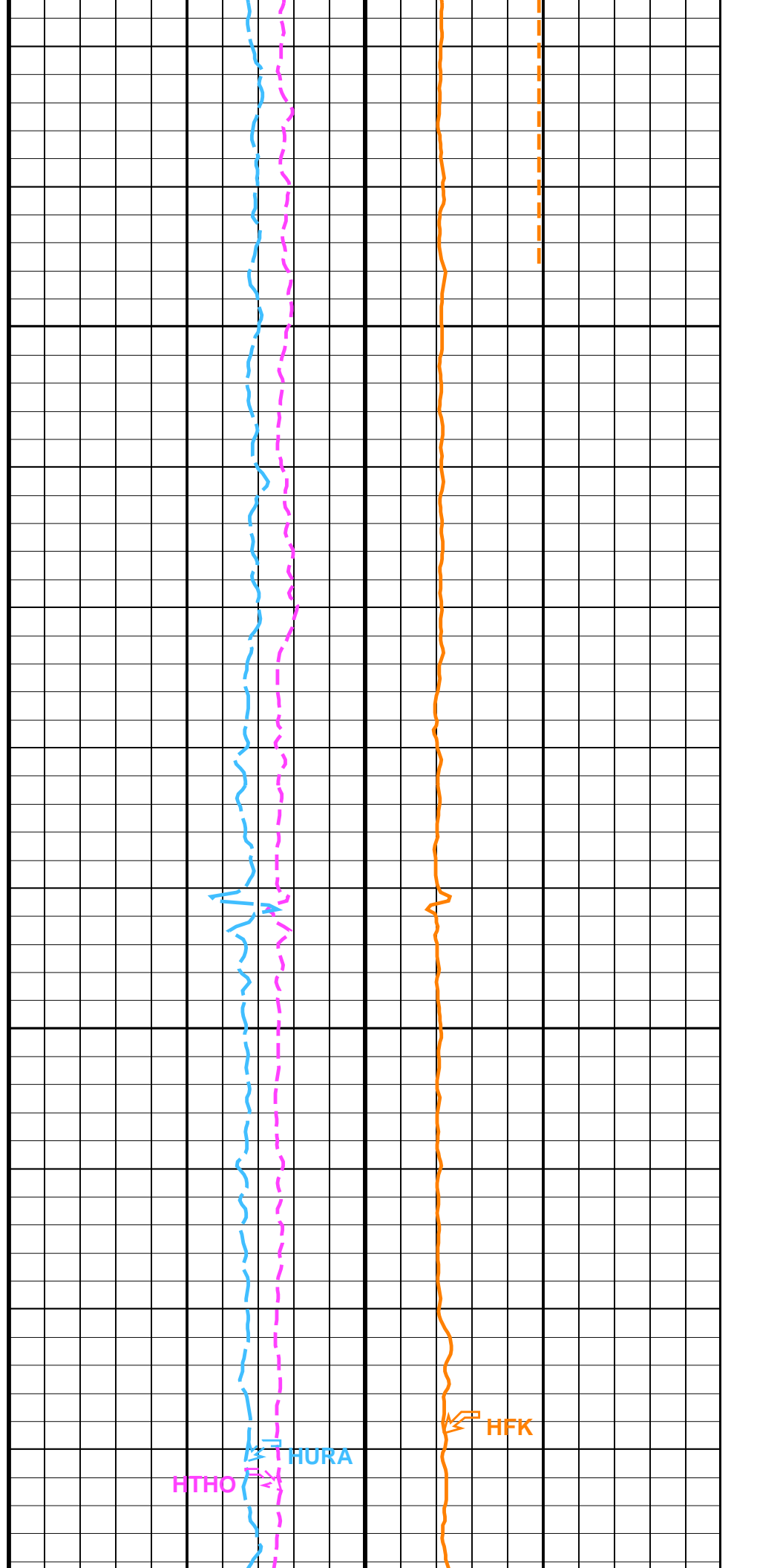
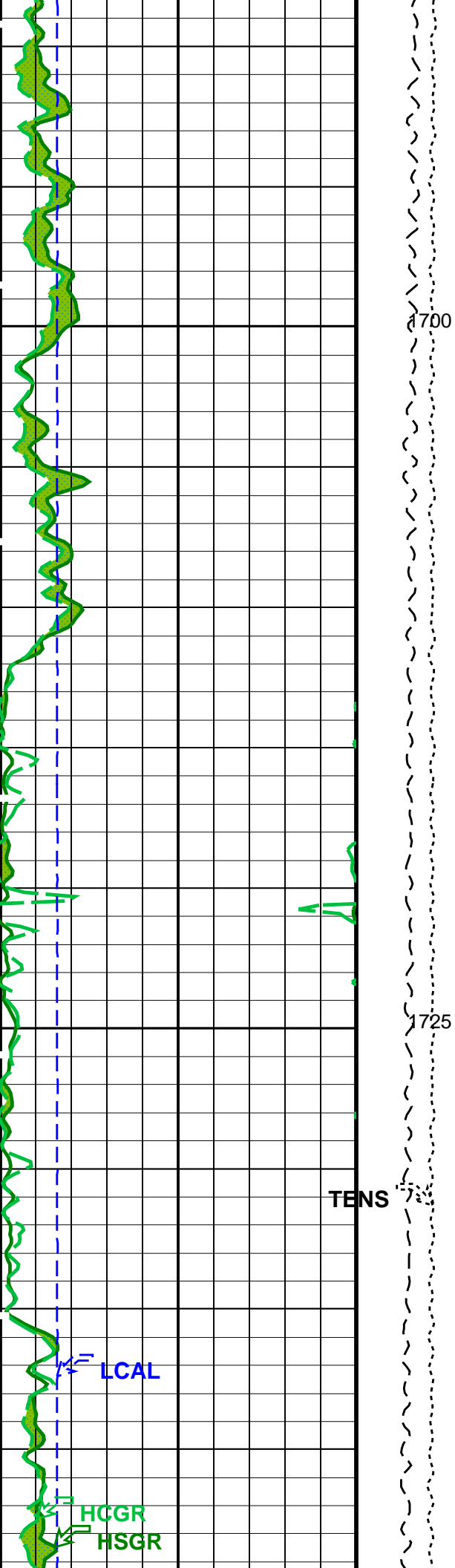


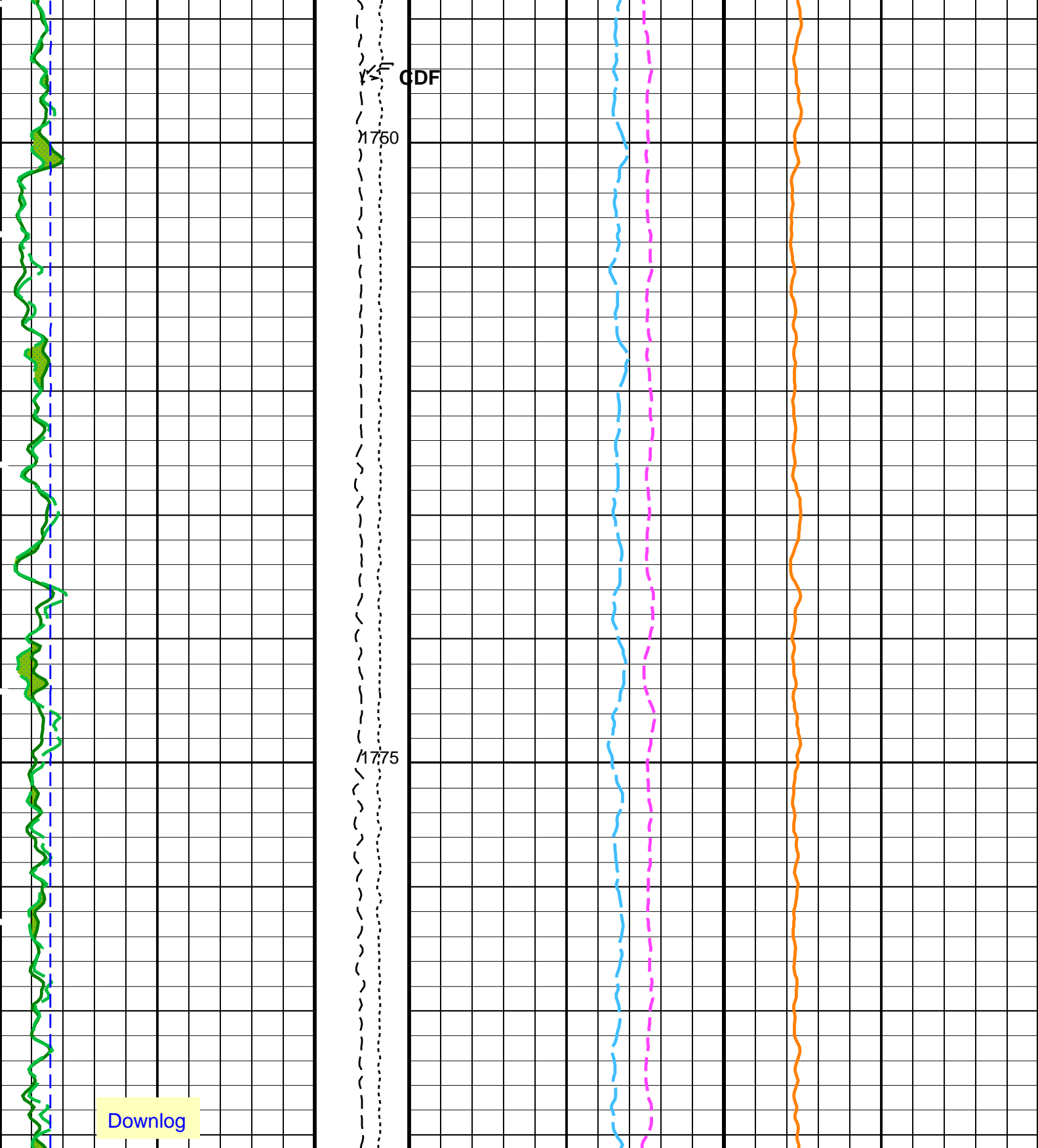












<div>HLDS Caliper (LCAL) (IN)</div> <div>020</div>	<div>Tension (TENS) (LBF)</div> <div>100000</div>	<div>HNGS Thorium (HTHO) (PPM)</div> <div>525</div>	<div>HNGS Potassium (HFK) (-----)</div> <div>-0.010.04</div>
<div>HNGS Computed Gamma Ray (HCGR) (GAPI)</div> <div>025</div>	<div>Calibrated Downhole Force (CDF) (LBF)</div> <div>30000</div>	<div>HNGS Uranium (HURA) (PPM)</div> <div>-510</div>	<div>HNGS Borehole Potassium (HBHK)</div>

DEFAULT	MSS	LDEO	HRLA	LDL	071PUP	FN:95	PRODUCER	20-Aug-2020 03:11	1790.5 M	1470.1 M
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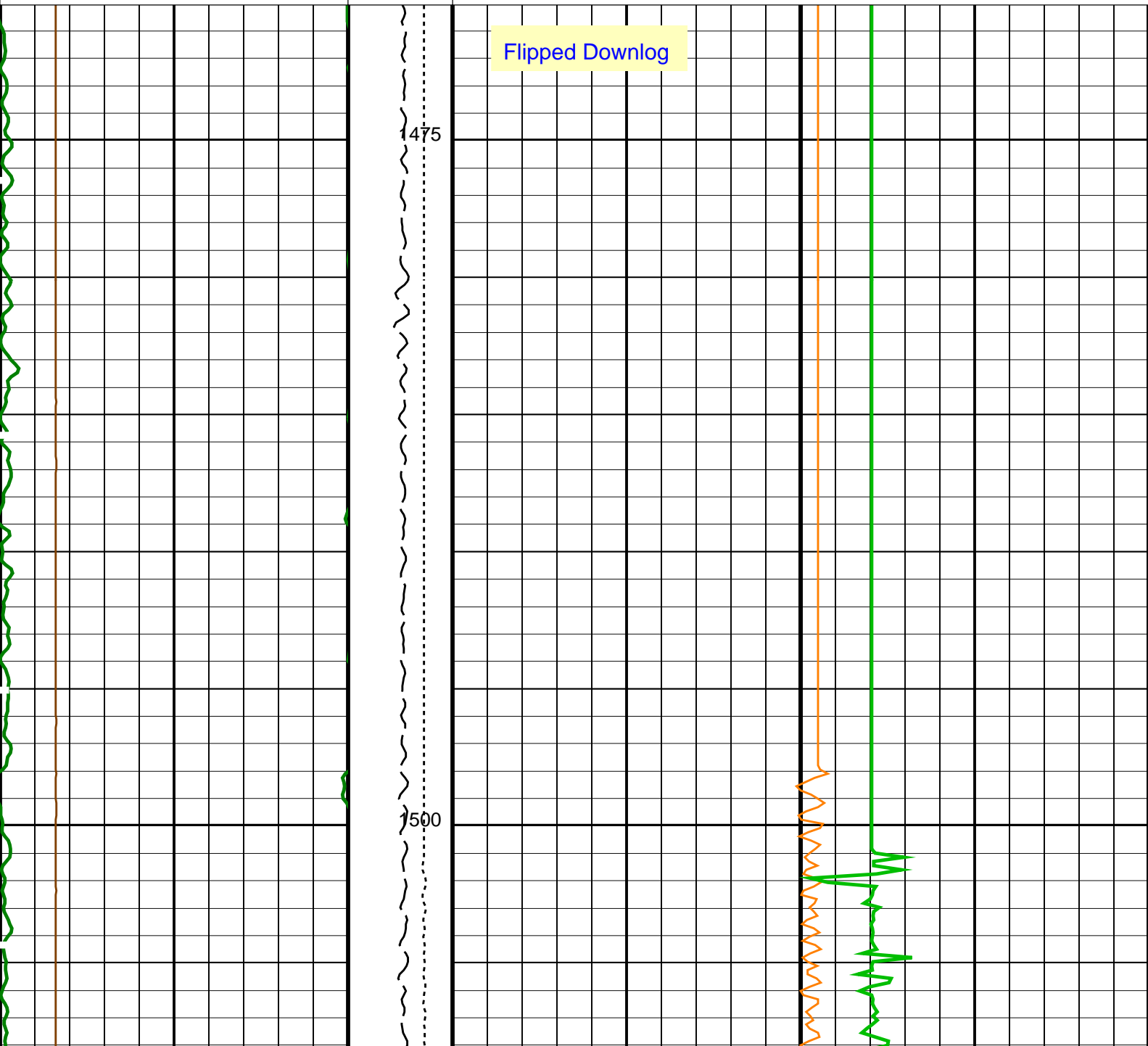
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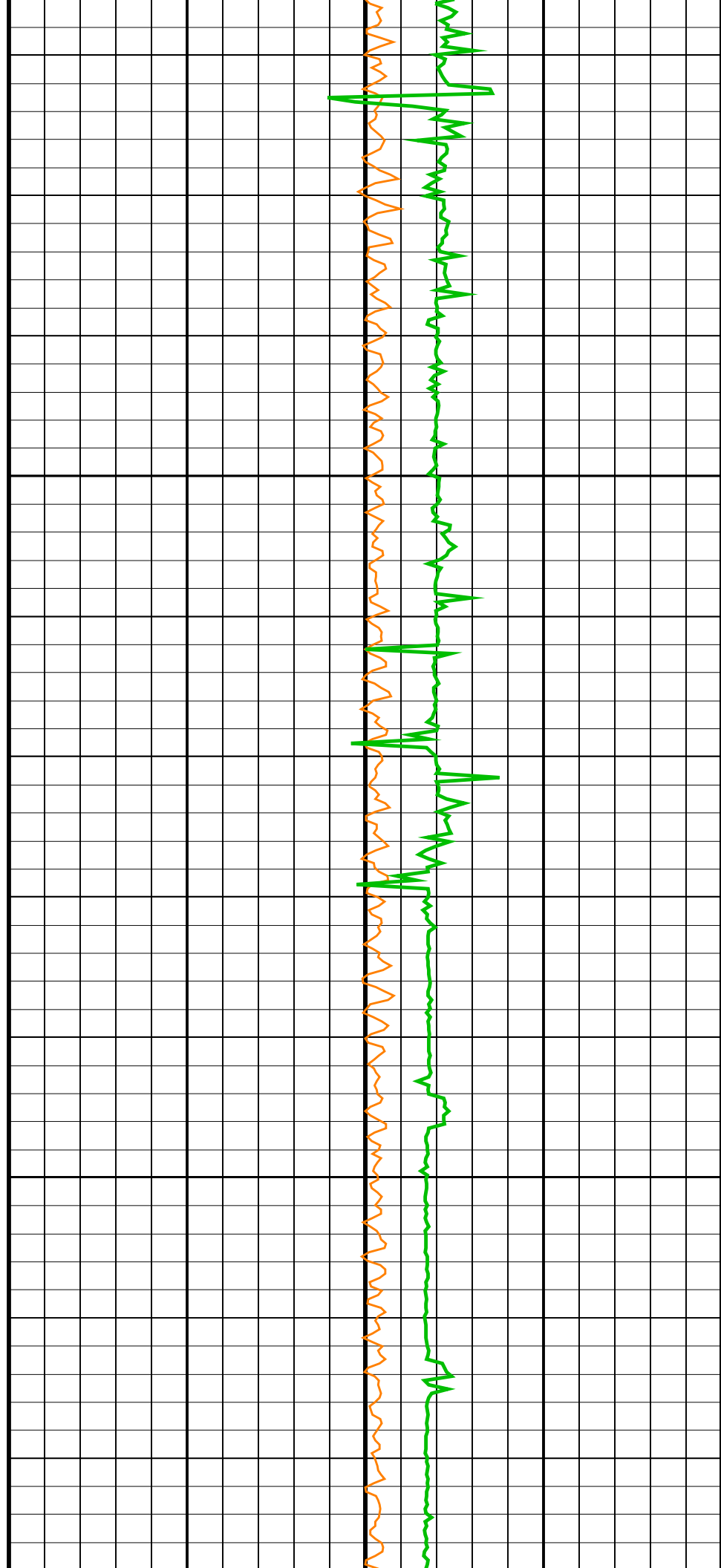
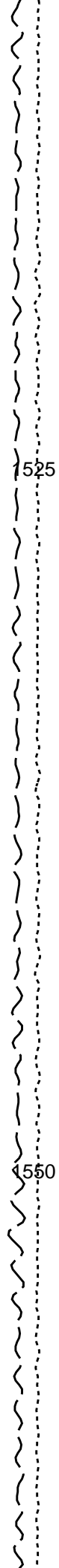
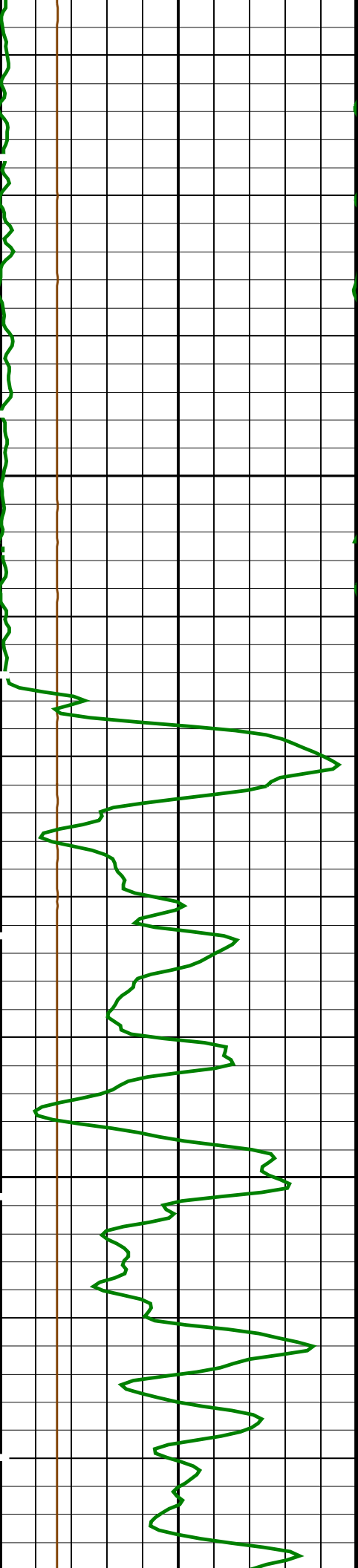
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HLDS	19C0-187	LDSC-B	19C0-187
APS-C	19C0-187	HNGC-B	19C0-187
HNGS-BA	19C0-187	DTC-H	19C0-187

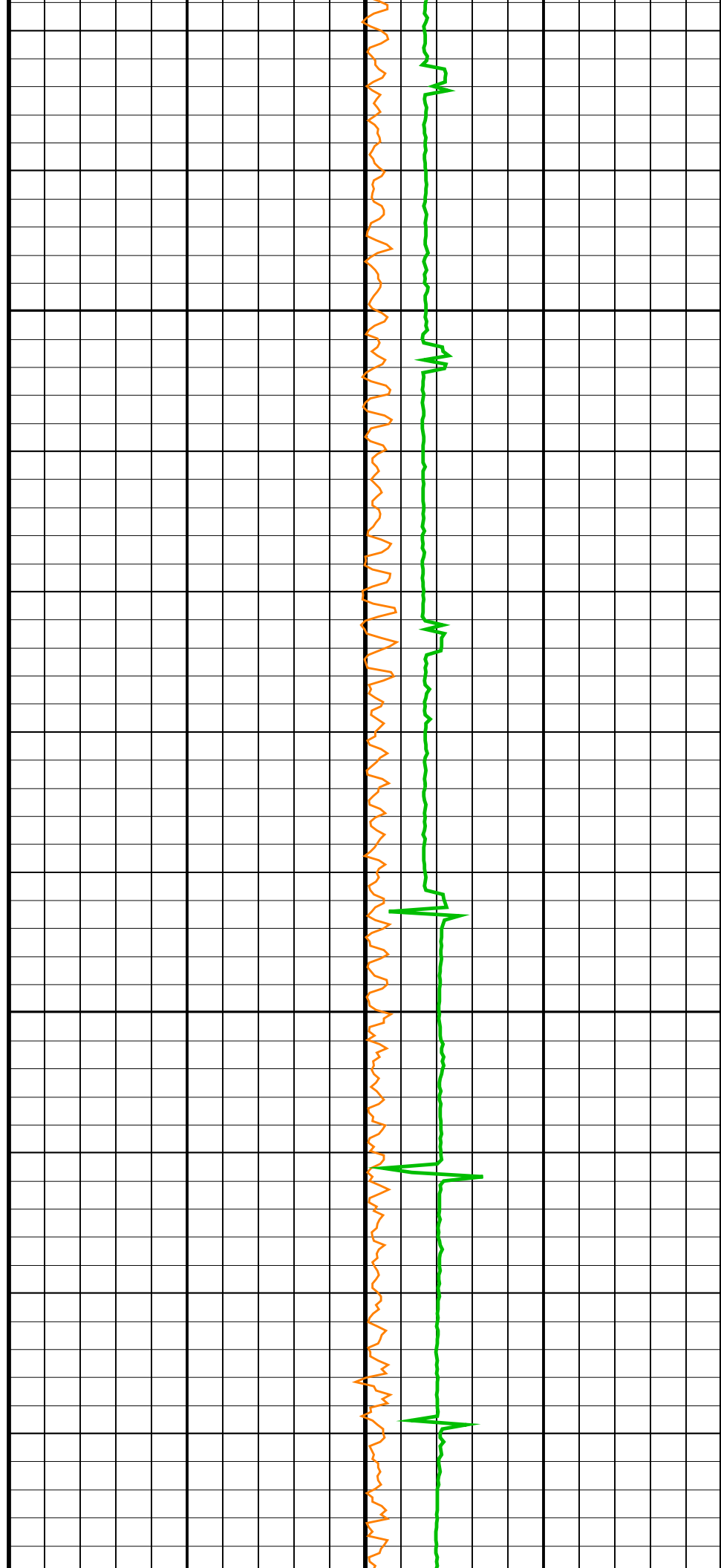
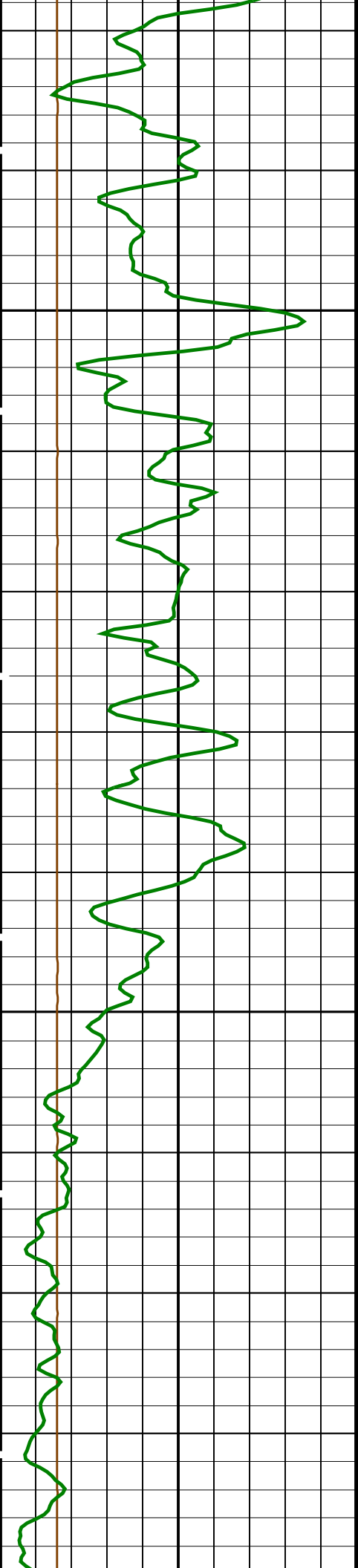
PIP SUMMARY

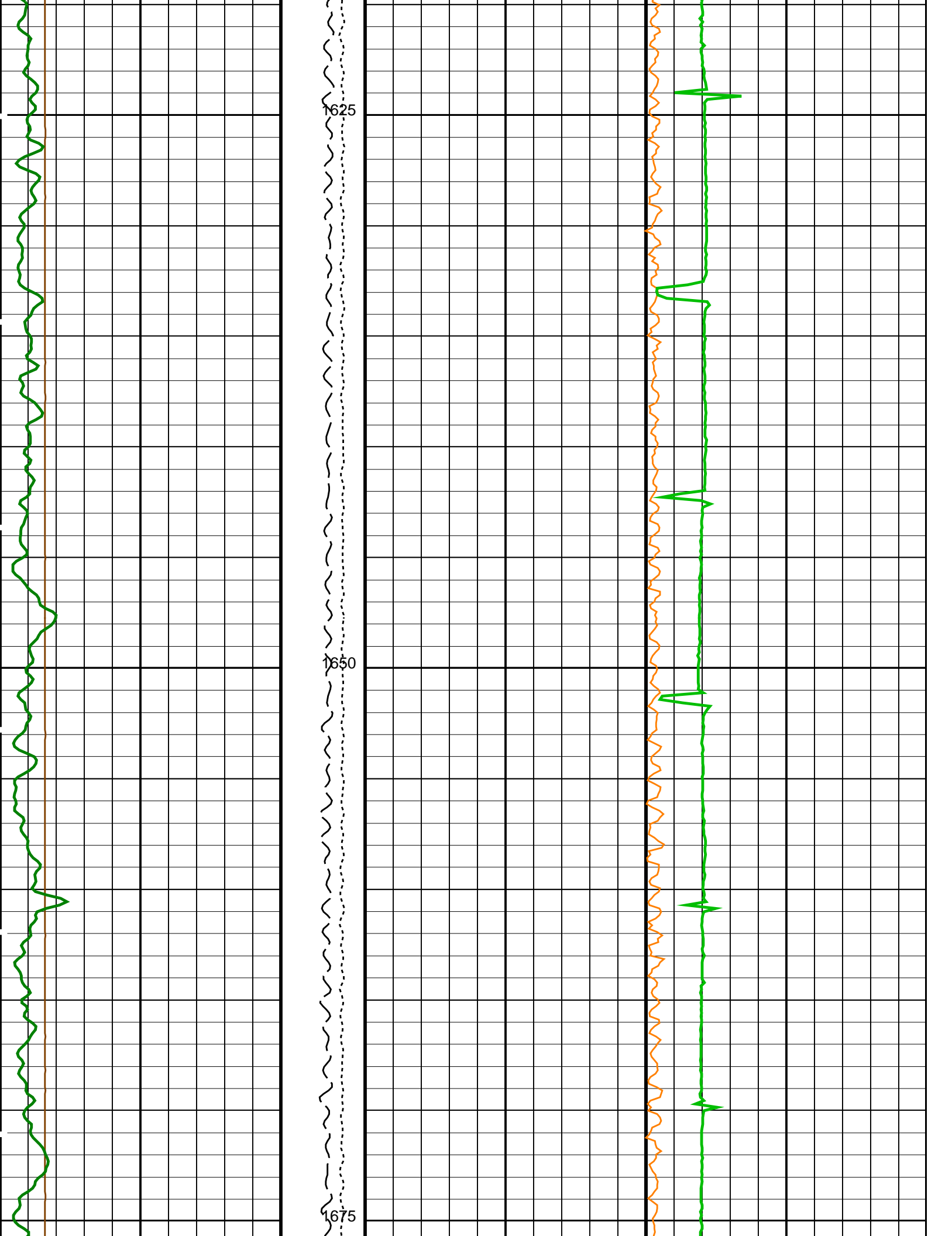
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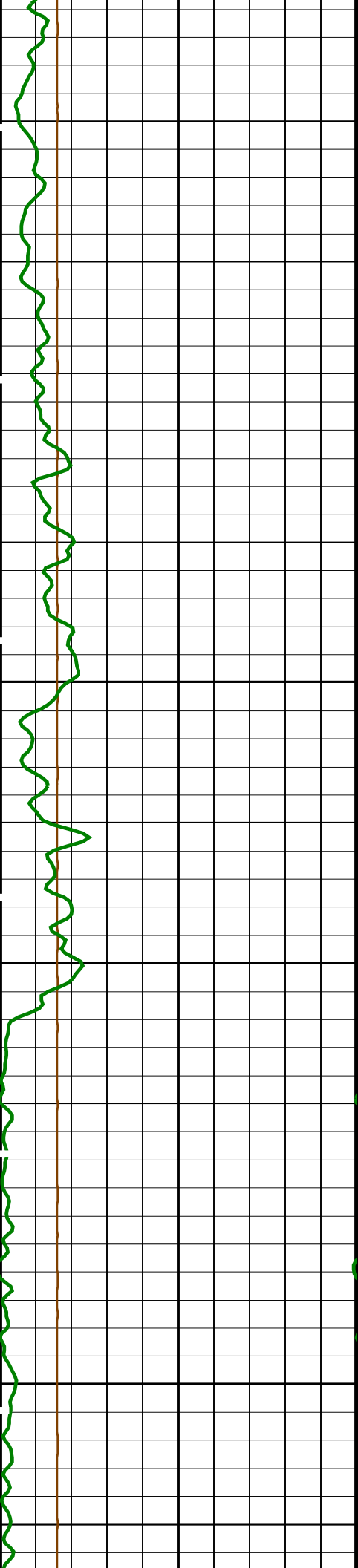
HNGS Spectroscopy Gamma Ray (HSGR) (GAPI)		Calibrated Downhole Force (CDF) (LBF)	Dual-Coil Susceptibility (MSSL SUS_LDEO) (PPM)	
0	25		-10000	10000
		3000 0		
HLDS Caliper (LCAL) (IN)		Tension (TENS) (LBF)	Axial Acceleration (MSSZACC_LDEO) (M/S2)	
0	20		0	20
		10000 0		



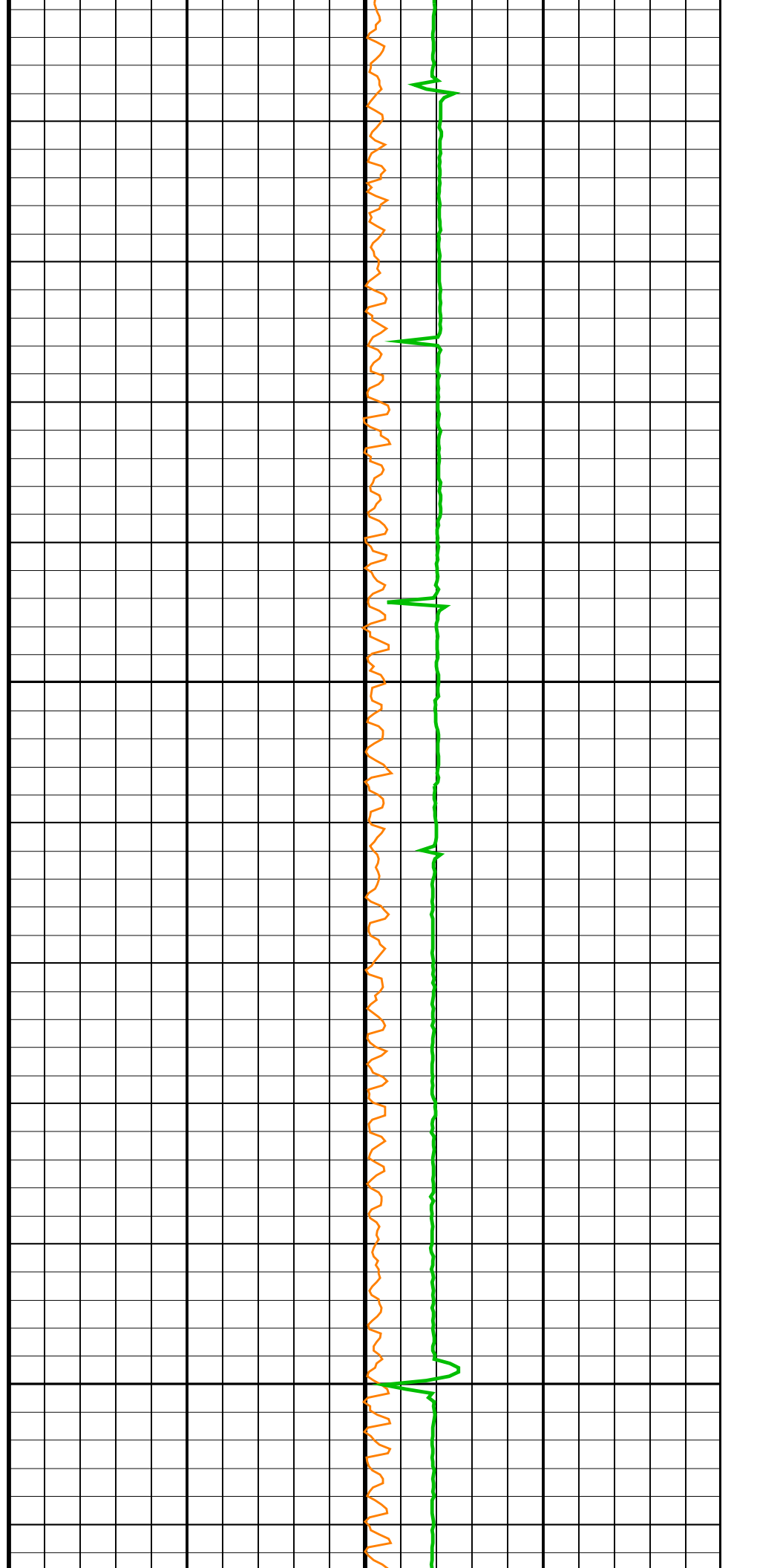


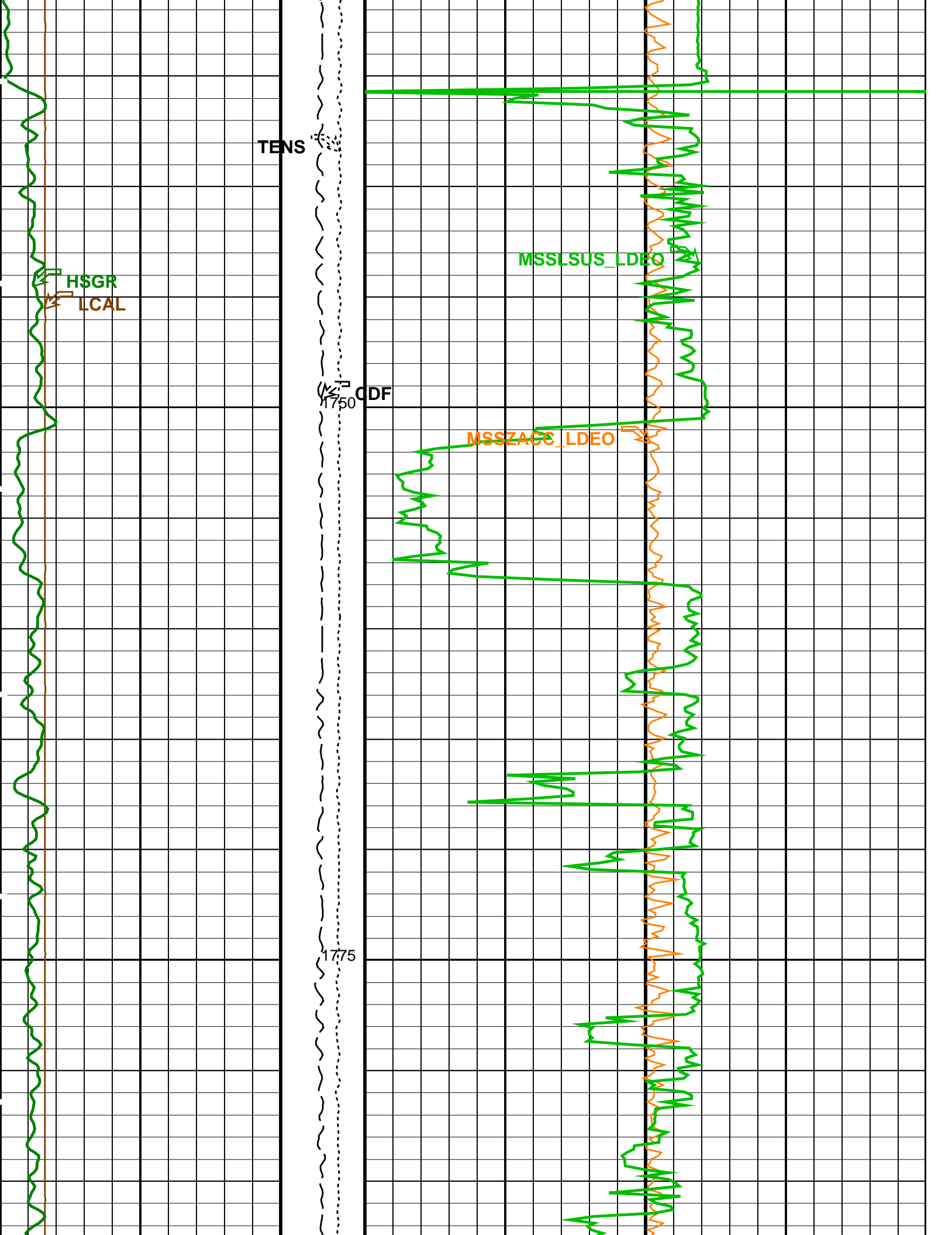






1700
1725





HLDS Caliper (LCAL)		Tension (TENS)	Axial Acceleration (MSSZACC_LDEO)	
0	(IN)	(LBF)	0	(M/S2)
	20	10000		20
HNGS Spectroscopy Gamma Ray (HSGR)		Calibrated Downhole Force (CDF) (LBF)	Dual-Coil Susceptibility (MSSLSUS_LDEO)	
0	(GAPI)	3000	-10000	(PPM)
	25	0		10000

PIP SUMMARY

 Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
HRLT-B: High Resolution Laterolog Array – B			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	100	DEGC
CALSTAT	HRLTB Calibration Status	SHALLOW_DONE	
CALTEMP	HRLTB Calibration Temperature	7.76192	DEGC
FREQ0	HRLT Frequency Index for Mode 0	32	
FREQ1	HRLT Frequency Index for Mode 1	128	
FREQ2	HRLT Frequency Index for Mode 2	104	
FREQ3	HRLT Frequency Index for Mode 3	86	
FREQ4	HRLT Frequency Index for Mode 4	56	
FREQ5	HRLT Frequency Index for Mode 5	44	
FREQ6	HRLT Frequency Index for Mode 6	116	
GCSE	Generalized Caliper Selection	BS	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
ISSBAR	Barite Mud Switch	BARITE	
KFAC_HRLT	HRLT K Factor Option	SONDE	
LOOPCOEF_S	HRLT Loop Coefficient for Shallow Modes	LOW	
LOOPMOD0	HRLT Mode 0 Loop Mode	AUTO	
LOOPMOD1	HRLT Mode 1 Loop Mode	AUTO	
LOOPMOD2	HRLT Mode 2 Loop Mode	AUTO	
LOOPMOD3	HRLT Mode 3 Loop Mode	AUTO	
LOOPMOD4	HRLT Mode 4 Loop Mode	AUTO	
LOOPMOD5	HRLT Mode 5 Loop Mode	AUTO	
LOOPMOD6	HRLT Mode 6 Loop Mode	AUTO	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
PROCINV	Inversion Selection	ON	
PROCMFL	Inversion Micro-Resistivity Selection	NO_EXTERNAL_RXO	
PROCMSO	Mechanical Standoff Fin Size	0	IN
PROCRM	Processing Mud Resistivity Select	HRLT_Compute	
PROCSP0	Sonde Position	Centered	
SHT	Surface Hole Temperature	20	DEGC
HLDS: Hostile Litho-Density Sonde			
CLCL	HLDS LS Control Loop Controller Mode	AUTO_DEFAULT	
CLCS	HLDS SS Control Loop Controller Mode	AUTO_DEFAULT	
CLLS	HLDS Mode Loop Long Spacing	AUTO	
CLSS	HLDS Mode Loop Short Spacing	AUTO	
DHC	Density Hole Correction	BS	
DPPM	Density Porosity Processing Mode	HIRS	
FD	Fluid Density	1	G/C3
LATC	HLDS Activation Correction	OFF	
LLDL	HLDS LS Low Level Discriminator DAC	14000	
LLDS	HLDS SS Low Level Discriminator DAC	14000	
LLML	HLDS LS Low Level Discriminator Mode	AUTO	
LLMS	HLDS SS Low Level Discriminator Mode	AUTO	
MDEN	Matrix Density	2.6	G/C3
PHVL	HLDS Long Spacing High Voltage Setting	1000	V
PHVS	HLDS Short Spacing High Voltage Setting	1500	V
PSDL	HLDS LS Pulse Shape Compensation DAC	30000	
PSDS	HLDS SS Pulse Shape Compensation DAC	30000	
PSML	HLDS LS Pulse Shape Compensation Mode	AUTO	
PSMS	HLDS SS Pulse Shape Compensation Mode	AUTO	

APS-C: Accelerator-Porosity Tool

	APS Software Version	5	
AASD	APS Thermal and Array Detectors High Voltage Setting	1979.3	V
ADSO	APS Array Detectors Data Source Switch	Both	

AFSD	APS Far Detector High Voltage Setting	2063.54	V
AHCS	APS Holesize Correction Source	GCSE	
AHSS	APS Holesize Correction Switch	ON	
AMTY	APS Environmental Corrections Mud Type	WaterBaseBarite	
ANSD	APS Near Detector High Voltage Setting	1734.6	V
ASOS	APS Standoff Correction Switch	ON	
ATSS	APS Temperature-Pressure-Salinity Correction Switch	ON	
BHFL_APS	APS TNPH Borehole Fluid Type	WATER	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	100	DEGC
BSCO_APS	APS TNPH Borehole Salinity Correction Option	YES	
DPPM	Density Porosity Processing Mode	HIRS	
DSCO_APS	APS TNPH Density Source Correction Option	MEASURED	
FSAL	Formation Salinity	-50000	PPM
FSCO_APS	APS TNPH Formation Salinity Correction Option	NO	
GCSE	Generalized Caliper Selection	BS	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
HSCO_APS	APS TNPH Hole Size Correction Option	YES	
ISSBAR	Barite Mud Switch	BARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
MCCO_APS	APS TNPH Mud Cake Correction Option	YES	
MCOR_APS	APS TNPH Mud Correction	BARI	
MWCO_APS	APS TNPH Mud Weight Correction Option	YES	
NARC	APS Near/Array Calibration Ratio	1.07955	
NFRC	APS Near/Far Calibration Ratio	0.945037	
PTCO_APS	APS TNPH Pressure/Temperature Correction Option	YES	
SHT	Surface Hole Temperature	20	DEGC
TNCO_APS	APS TNPH Computation Option	YES	
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)	100	DEGC
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	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
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	-0.0118732	
HALF	HNGS Alpha Filter Length	60	IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	BARI	
HNPE	HNGS Processing Enable	YES	
ISSBAR	Barite Mud Switch	BARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
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	20	DEGC
TPOS	Tool Position	ECCE	
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	0.932639	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	1.0184	
System and Miscellaneous			
ALTDPCHAN	Name of alternate depth channel	SpeedCorrectedDepth	
BS	Bit Size	9.875	IN
BSAL	Borehole Salinity	38000.00	PPM
CSIZ	Current Casing Size	5.500	IN
CWEI	Casing Weight	168.00	LB/F
DFD	Drilling Fluid Density	1.26	G/C3
DO	Depth Offset for Playback	0.0	M
FLEV	Fluid Level	-50000.00	M
MST	Mud Sample Temperature	23.00	DEGC
PBVSADP	Use alternate depth channel for playback	NO	
PP	Playback Processing	RECOMPUTE	
RMFS	Resistivity of Mud Filtrate Sample	-50000.0000	OHMM
RW	Resistivity of Connate Water	1.0000	OHMM
TD	Total Depth	6069.55	FT
TDD	Total Depth - Driller	1850.00	M
TDL	Total Depth - Logger	1850.00	M
TWS	Temperature of Connate Water Sample	37.78	DEGC

MSS_LDEO-A	19C0-187	HRLT-B	19C0-187
HLDS	19C0-187	LDSC-B	19C0-187
APS-C	19C0-187	HNGC-B	19C0-187
HNGS-BA	19C0-187	DTC-H	19C0-187

Input DLIS Files

DEFAULT	Flip MSS LDEO HRLA 070PUP	PRODUCER	20-Aug-2020 03:06	1790.5 M	1465.3 M
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Output DLIS Files

DEFAULT MSS LDEO HRLA LDL 071PUP FN:95 PRODUCER 20-Aug-2020 03:11

Input DLIS Files

DEFAULT	Flip MSS LDEO HRLA 070PUP	PRODUCER	20-Aug-2020 03:06	1790.5 M	1465.3 M
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Output DLIS Files

DEFAULT	MSS	LDEO	HRLA	LDL	071PUP	FN:95	PRODUCER	20-Aug-2020 03:11	1790.5 M	1470.1 M
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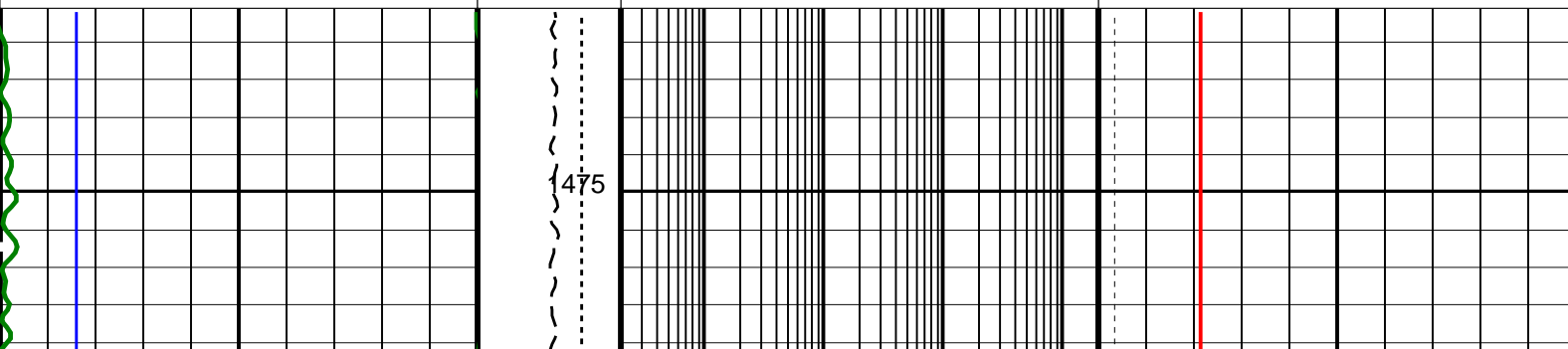
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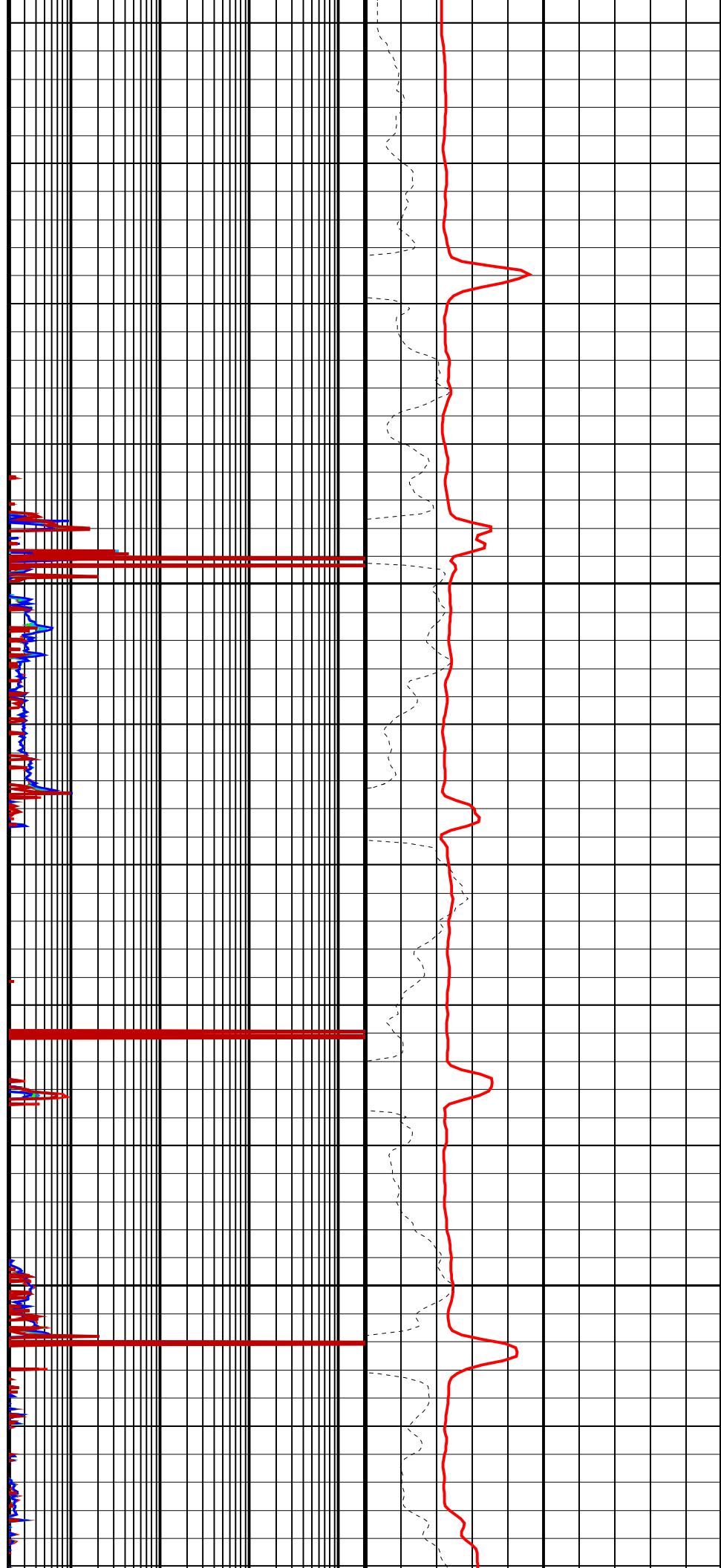
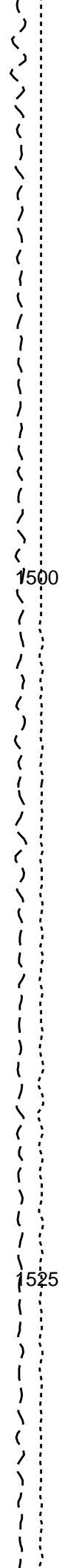
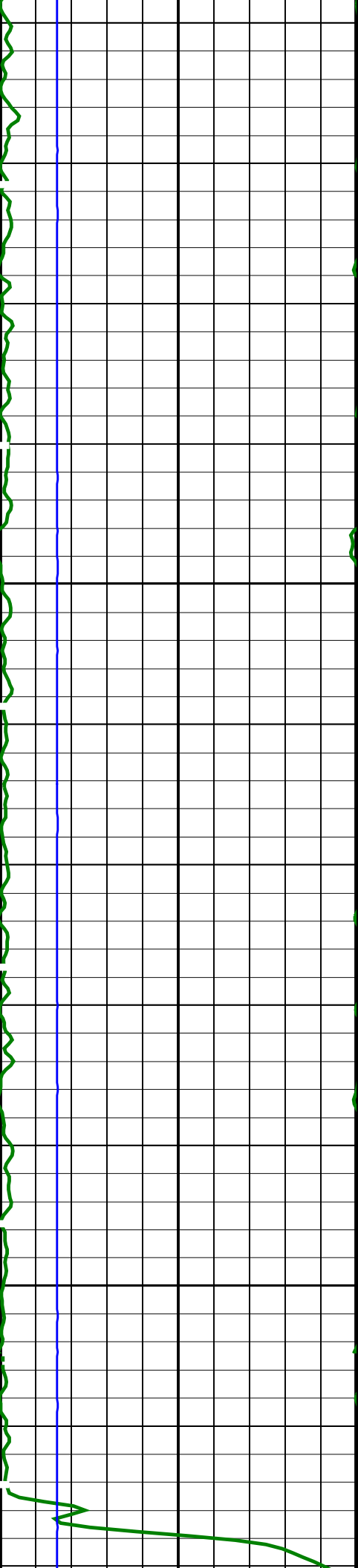
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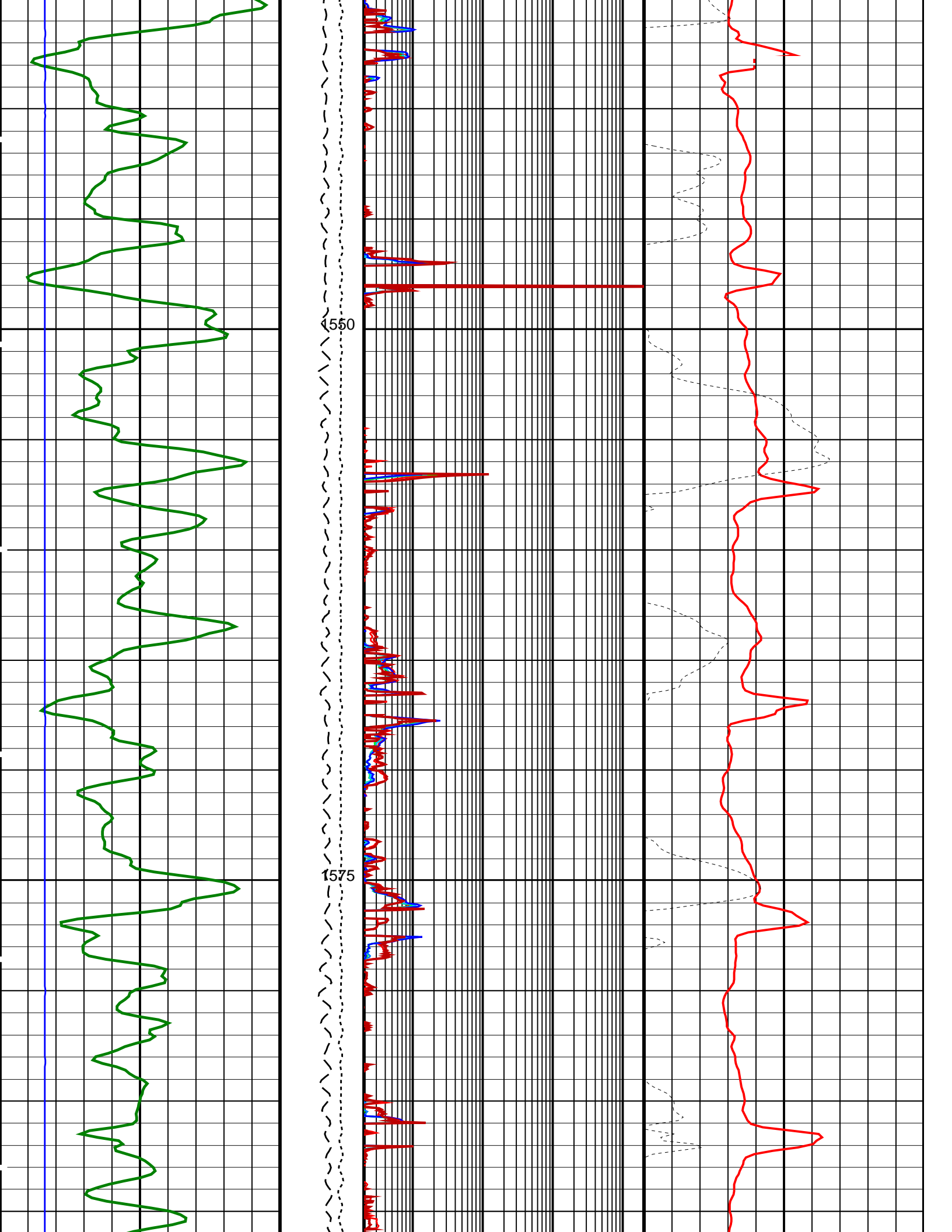
PIP SUMMARY

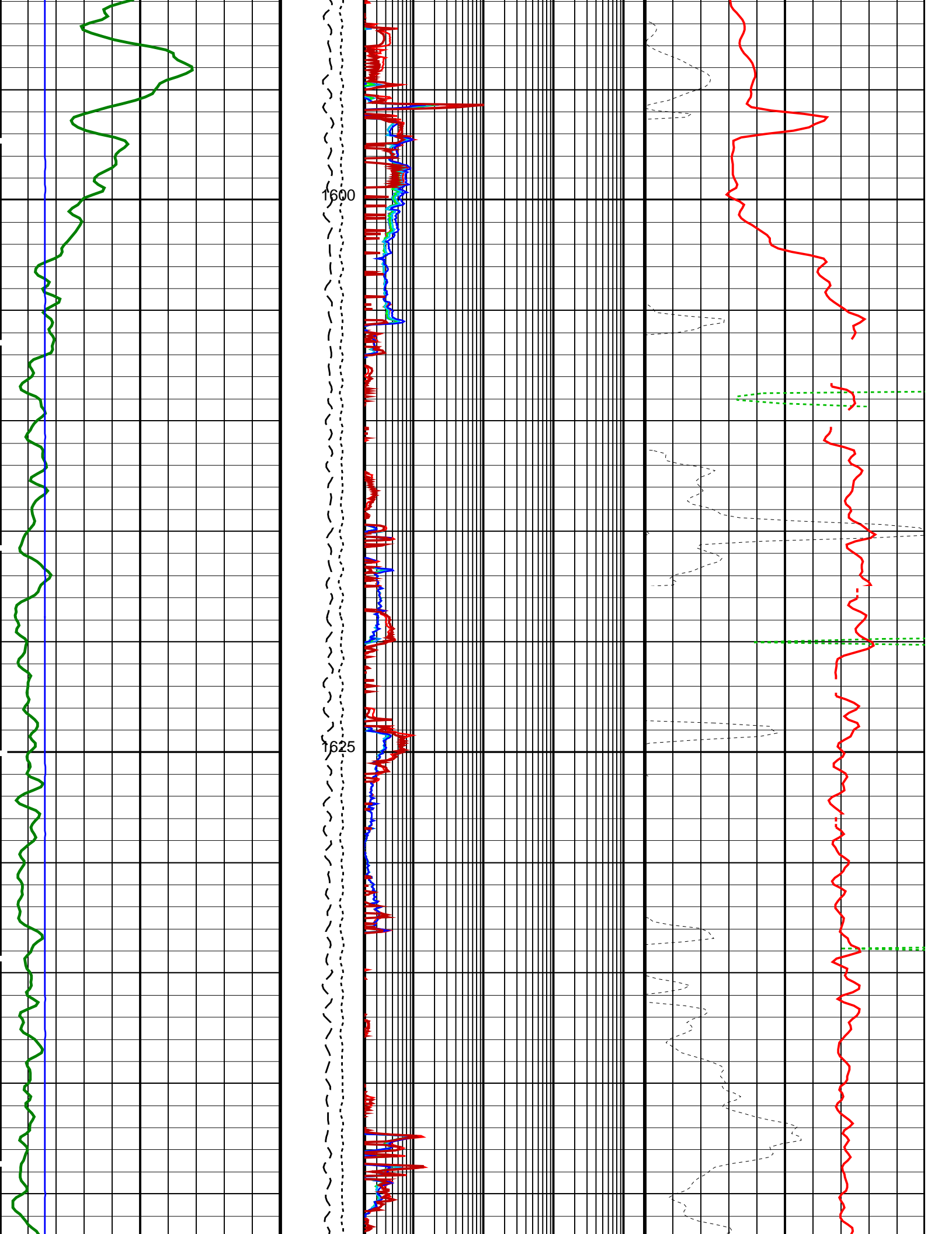
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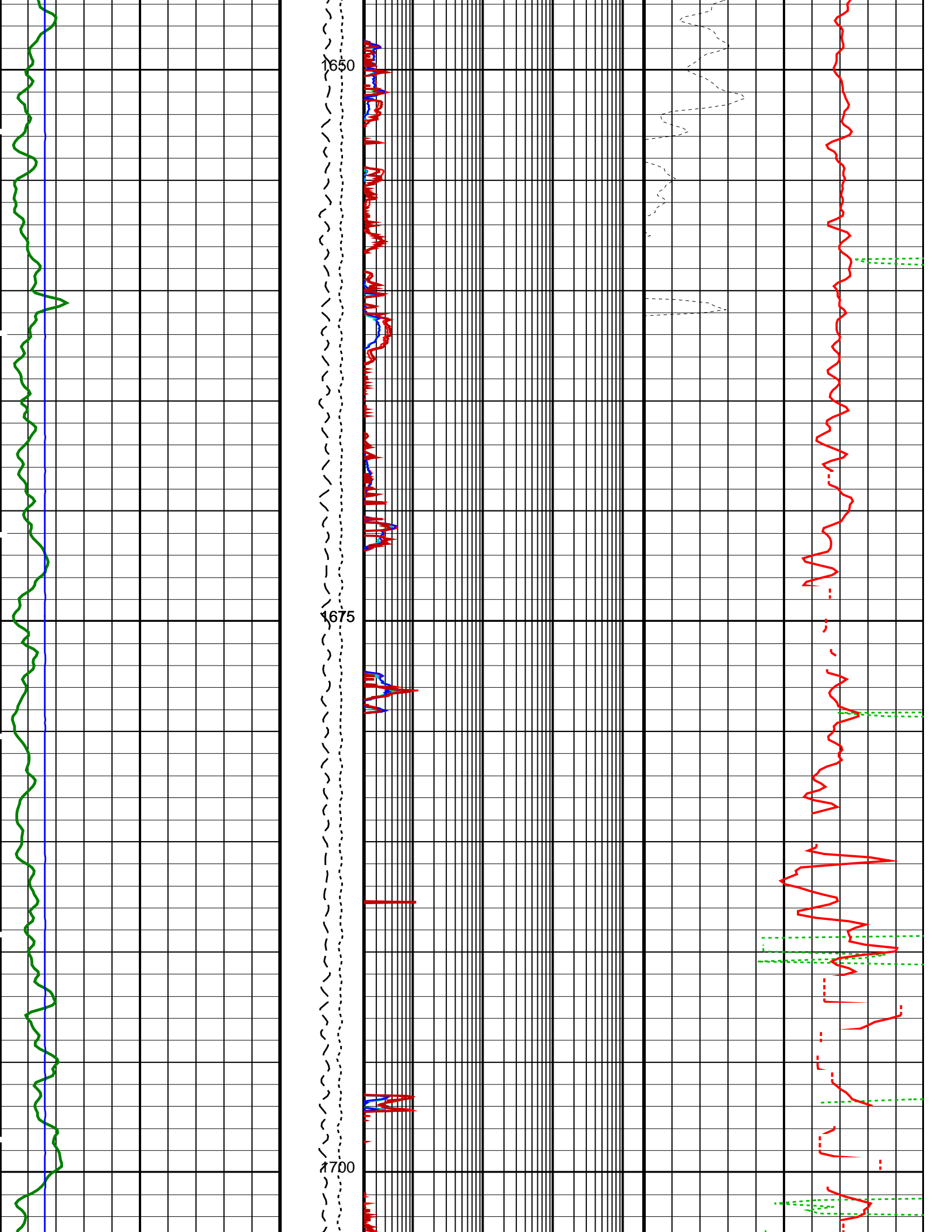
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		0.2	(OHMM)			2000		
		HRLT Resistivity 1 (RLA1)						
		0.2	(OHMM)	2000				
		HRLT Resistivity 2 (RLA2)		HLDS Bulk Density Correction (DRH)				
		0.2	(OHMM)	2000	-0.25	(G/C3)	0.25	
		HRLT Resistivity 3 (RLA3)		HLDS Bulk Density (RHOM)				
		0.2	(OHMM)	2000	0	(G/C3)	4	
HNGS Spectroscopy Gamma Ray (HSGR)		Calibrated Downhole Force (CDF) (LBF)	HRLT Resistivity 5 (RLA5)		HLDS Long Spaced Photoelectric Effect (PEFL)			
0	(GAPI)		25	0.2	(OHMM)	2000	0	(-----)
		3000	0					
HLDS Caliper (LCAL)		Tension (TENS) (LBF)	HRLT Resistivity 4 (RLA4)		APS Corrected Standoff Porosity (STPC)			
0	(IN)	20	0.2	(OHMM)	2000	100	(PU)	0
		10000	0					

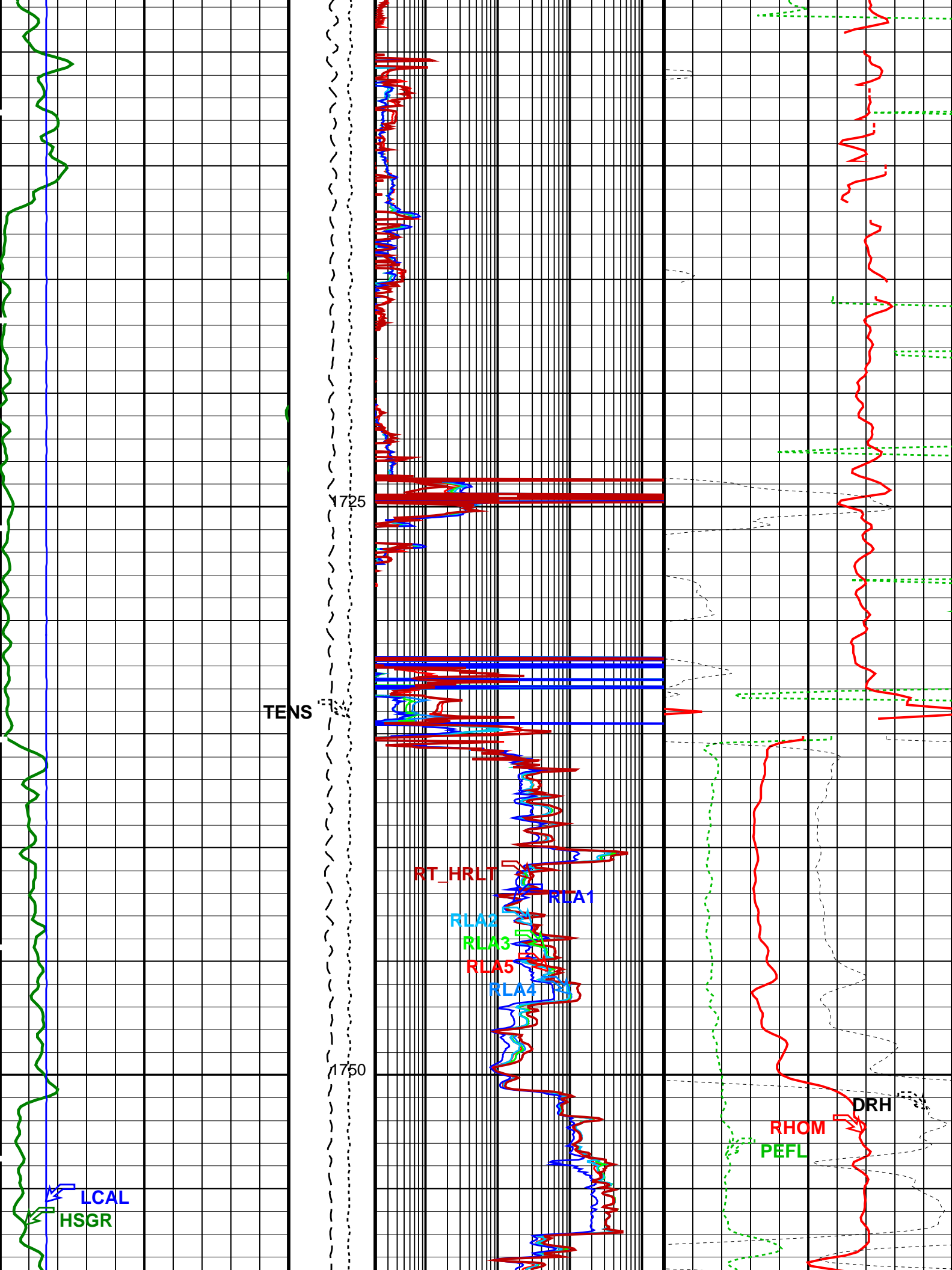


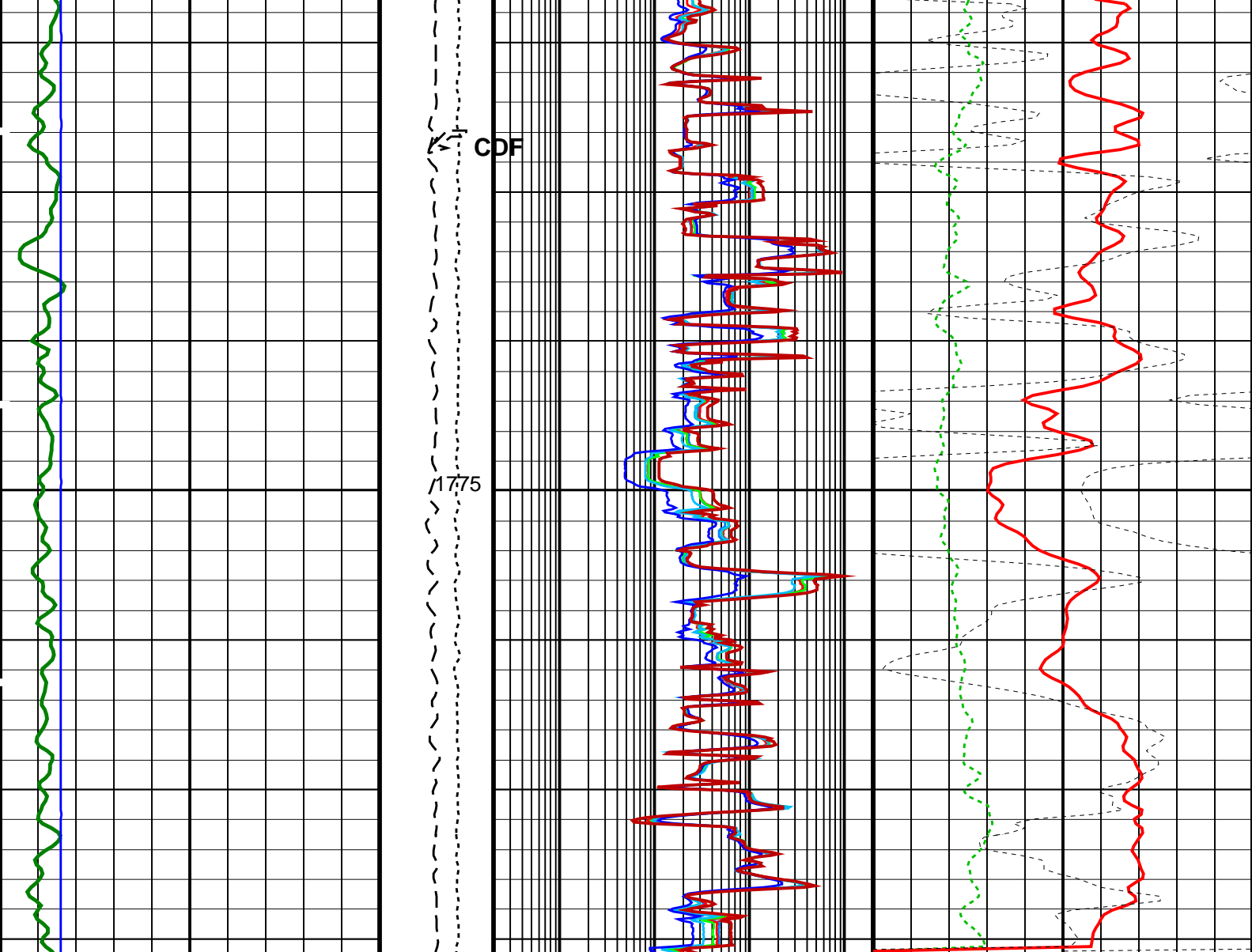












HLDS Caliper (LCAL) (IN)		Tension (TENS) (LBF)	HRLT Resistivity 4 (RLA4) (OHMM)		APS Corrected Standoff Porosity (STPC) (PU)	
020		100000	0.22000		1000	
HNGS Spectroscopy Gamma Ray (HSGR) (GAPI)		Calibrated Downhole Force (CDF) (LBF)	HRLT Resistivity 5 (RLA5) (OHMM)		HLDS Long Spaced Photoelectric Effect (PEFL) (----	
025		30000	0.22000		010	
Downlog			HRLT Resistivity 3 (RLA3) (OHMM)		HLDS Bulk Density (RHOM) (G/C3)	
			0.22000		04	
			HRLT Resistivity 2 (RLA2) (OHMM)		HLDS Bulk Density Correction (DRH) (G/C3)	
			0.22000		-0.250.25	
			HRLT Resistivity 1 (RLA1) (OHMM)			
			0.22000			
			HRLT True Resistivity (RT_HRLT) (OHMM)			
			0.22000			

PIP SUMMARY

Time Mark Every 60 S

Parameters		
DLIS Name	Description	Value

HRLT-B: High Resolution Laterolog Array - B

BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	100	DEGC
CALSTAT	HRLTB Calibration Status	SHALLOW_DONE	
CALTEMP	HRLTB Calibration Temperature	7.76192	DEGC
FREQ0	HRLT Frequency Index for Mode 0	32	
FREQ1	HRLT Frequency Index for Mode 1	128	
FREQ2	HRLT Frequency Index for Mode 2	104	
FREQ3	HRLT Frequency Index for Mode 3	86	
FREQ4	HRLT Frequency Index for Mode 4	56	
FREQ5	HRLT Frequency Index for Mode 5	44	
FREQ6	HRLT Frequency Index for Mode 6	116	
GCSE	Generalized Caliper Selection	BS	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN 9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
ISSBAR	Barite Mud Switch	BARITE	
KFAC_HRLT	HRLT K Factor Option	SONDE	
LOOPCOEF_S	HRLT Loop Coefficient for Shallow Modes	LOW	
LOOPMOD0	HRLT Mode 0 Loop Mode	AUTO	
LOOPMOD1	HRLT Mode 1 Loop Mode	AUTO	
LOOPMOD2	HRLT Mode 2 Loop Mode	AUTO	
LOOPMOD3	HRLT Mode 3 Loop Mode	AUTO	
LOOPMOD4	HRLT Mode 4 Loop Mode	AUTO	
LOOPMOD5	HRLT Mode 5 Loop Mode	AUTO	
LOOPMOD6	HRLT Mode 6 Loop Mode	AUTO	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
PROGINV	Inversion Selection	ON	
PROCMFL	Inversion Micro-Resistivity Selection	NO_EXTERNAL_RXO	
PROCMSO	Mechanical Standoff Fin Size	0	IN
PROCRM	Processing Mud Resistivity Select	HRLT_Compute	
PROCSP0	Sonde Position	Centered	
SHT	Surface Hole Temperature	20	DEGC

HLDS: Hostile Litho-Density Sonde

CLCL	HLDS LS Control Loop Controller Mode	AUTO_DEFAULT	
CLCS	HLDS SS Control Loop Controller Mode	AUTO_DEFAULT	
CLLS	HLDS Mode Loop Long Spacing	AUTO	
CLSS	HLDS Mode Loop Short Spacing	AUTO	
DHC	Density Hole Correction	BS	
DPPM	Density Porosity Processing Mode	HIRS	
FD	Fluid Density	1	G/C3
LATC	HLDS Activation Correction	OFF	
LLDL	HLDS LS Low Level Discriminator DAC	14000	
LLDS	HLDS SS Low Level Discriminator DAC	14000	
LLML	HLDS LS Low Level Discriminator Mode	AUTO	
LLMS	HLDS SS Low Level Discriminator Mode	AUTO	
MDEN	Matrix Density	2.6	G/C3
PHVL	HLDS Long Spacing High Voltage Setting	1000	V
PHVS	HLDS Short Spacing High Voltage Setting	1500	V
PSDL	HLDS LS Pulse Shape Compensation DAC	30000	
PSDS	HLDS SS Pulse Shape Compensation DAC	30000	
PSML	HLDS LS Pulse Shape Compensation Mode	AUTO	
PSMS	HLDS SS Pulse Shape Compensation Mode	AUTO	

APS-C: Accelerator-Porosity Tool

AASD	APS Software Version	5	
ADSO	APS Thermal and Array Detectors High Voltage Setting	1979.3	V
AFSD	APS Array Detectors Data Source Switch	Both	
AHCS	APS Far Detector High Voltage Setting	2063.54	V
AHSS	APS Holesize Correction Source	GCSE	
AMTY	APS Holesize Correction Switch	ON	
ANSD	APS Environmental Corrections Mud Type	WaterBaseBarite	
ASOS	APS Near Detector High Voltage Setting	1734.6	V
ATSS	APS Standoff Correction Switch	ON	
BHFL_APS	APS Temperature-Pressure-Salinity Correction Switch	ON	
BHS	APS TNPH Borehole Fluid Type	WATER	
BHT	Borehole Status	OPEN	
BSCO_APS	Bottom Hole Temperature (used in calculations)	100	DEGC
DPPM	APS TNPH Borehole Salinity Correction Option	YES	
DSCO_APS	Density Porosity Processing Mode	HIRS	
FSAL	APS TNPH Density Source Correction Option	MEASURED	
FSCO_APS	Formation Salinity	-50000	PPM
GCSE	APS TNPH Formation Salinity Correction Option	NO	
GDEV	Generalized Caliper Selection	BS	
GGRD	Average Angular Deviation of Borehole from Normal	0	DEG
GSE	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN 9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
HSCO_APS	APS TNPH Hole Size Correction Option	YES	
ISSBAR	Barite Mud Switch	BARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
MCCO_APS	APS TNPH Mud Cake Correction Option	YES	
MCOR_APS	APS TNPH Mud Correction	BARI	
MWCO_APS	APS TNPH Mud Weight Correction Option	YES	
NAPC	APS Near Array Calibration Ratio	1.07055	

NARC	APS Near/Array Calibration Ratio	1.07955	
NFRC	APS Near/Far Calibration Ratio	0.945037	
PTCO_APS	APS TNPH Pressure/Temperature Correction Option	YES	
SHT	Surface Hole Temperature	20	DEGC
TNCO_APS	APS TNPH Computation Option	YES	
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)	100	DEGC
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	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
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	-0.0118732	
HALF	HNGS Alpha Filter Length	60	IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	BARI	
HNPE	HNGS Processing Enable	YES	
ISSBAR	Barite Mud Switch	BARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
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	20	DEGC
TPOS	Tool Position	ECCE	
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	0.932639	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	1.0184	
System and Miscellaneous			
ALTDCHAN	Name of alternate depth channel	SpeedCorrectedDepth	
BS	Bit Size	9.875	IN
BSAL	Borehole Salinity	38000.00	PPM
CSIZ	Current Casing Size	5.500	IN
CWEI	Casing Weight	168.00	LB/F
DFD	Drilling Fluid Density	1.26	G/C3
DO	Depth Offset for Playback	0.0	M
FLEV	Fluid Level	-50000.00	M
MST	Mud Sample Temperature	23.00	DEGC
PBVSADP	Use alternate depth channel for playback	NO	
PP	Playback Processing	RECOMPUTE	
RMFS	Resistivity of Mud Filtrate Sample	-50000.0000	OHMM
RW	Resistivity of Connate Water	1.0000	OHMM
TD	Total Depth	6069.55	FT
TDD	Total Depth - Driller	1850.00	M
TDL	Total Depth - Logger	1850.00	M
TWS	Temperature of Connate Water Sample	37.78	DEGC

Format: TripleCombo Vertical Scale: 1:200 Graphics File Created: 20-Aug-2020 03:11

OP System Version: 19C0-187

MSS_LDEO-A	19C0-187	HRLT-B	19C0-187
HLDS	19C0-187	LDSC-B	19C0-187
APS-C	19C0-187	HNGC-B	19C0-187
HNGS-BA	19C0-187	DTC-H	19C0-187

Input DLIS Files

DEFAULT	Flip_MSS_LDEO_HRLA_070PUP	PRODUCER	20-Aug-2020 03:06	1790.5 M	1465.3 M
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Output DLIS Files

DEFAULT	MSS_LDEO_HRLA_LDL_071PUP	FN:95	PRODUCER	20-Aug-2020 03:11
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Input DLIS Files

DEFAULT	MSS_LDEO_HRLA_LDL_040LUP	FN:42	PRODUCER	15-Aug-2020 18:01	1840.2 M	1786.3 M
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OP System Version: 19C0-187

MSS_LDEO-A 19C0-187
HLDS 19C0-187
APS-C 19C0-187
HNGS-BA 19C0-187

HRLT-B 19C0-187
LDSC-B 19C0-187
HNGC-B 19C0-187
DTC-H 19C0-187

PIP SUMMARY

Time Mark Every 60 S

HNGS Spectroscopy Gamma Ray
(HSGR)

0 (GAPI) 25

Area1
From HCGR to HSGR

Uplong 1

HNGS Borehole Potassium (HBHK)

-0.05 (----) 0.05

HNGS Computed Gamma Ray (HCGR)
(GAPI)

0 25

Calibrated
Downhole
Force
(CDF)
(LBF)

3000 0

HNGS Uranium (HURA)
(PPM)

-5 10

HLDS Caliper (LCAL)
(IN)

0 20

Tension
(TENS)
(LBF)

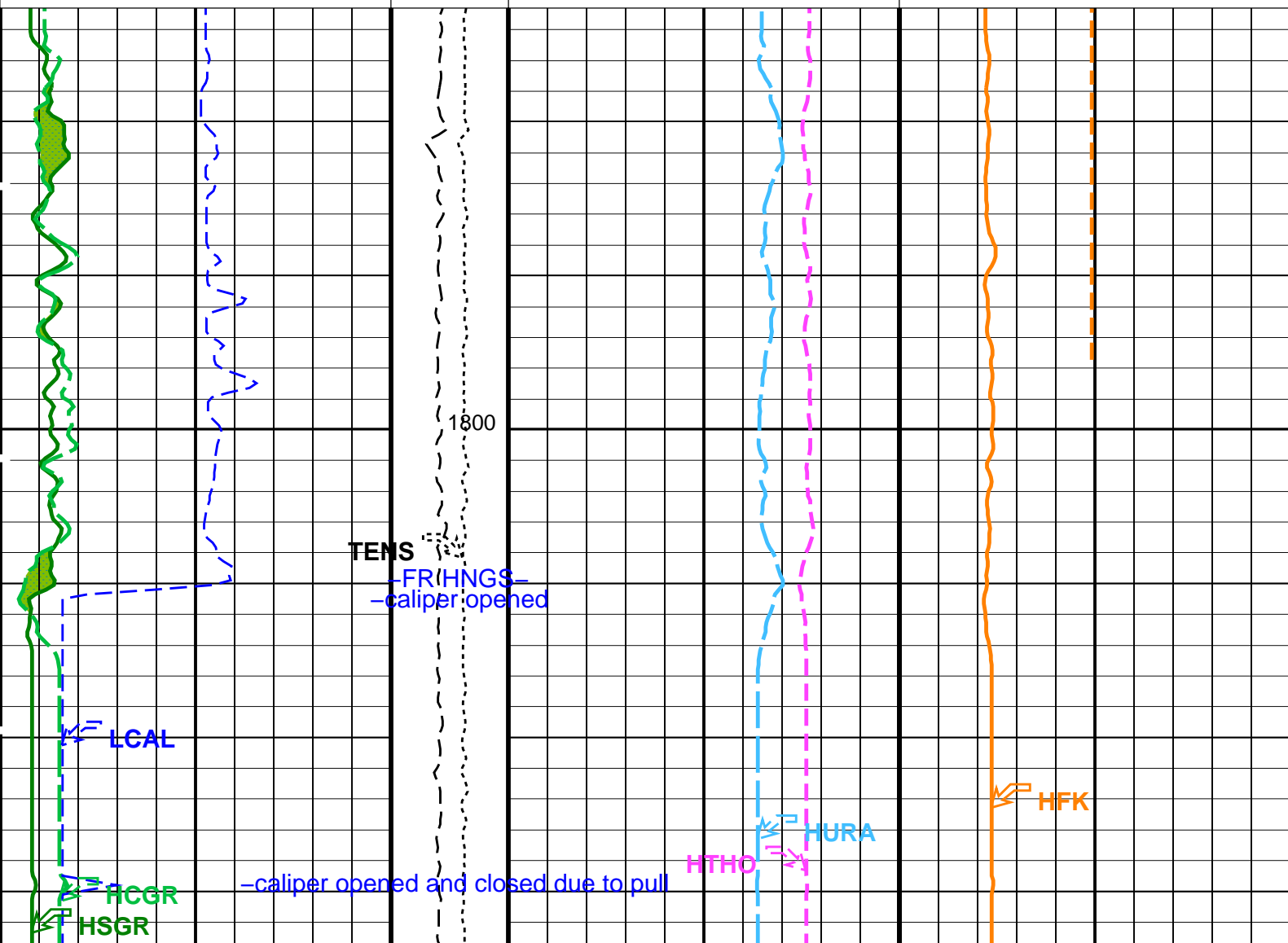
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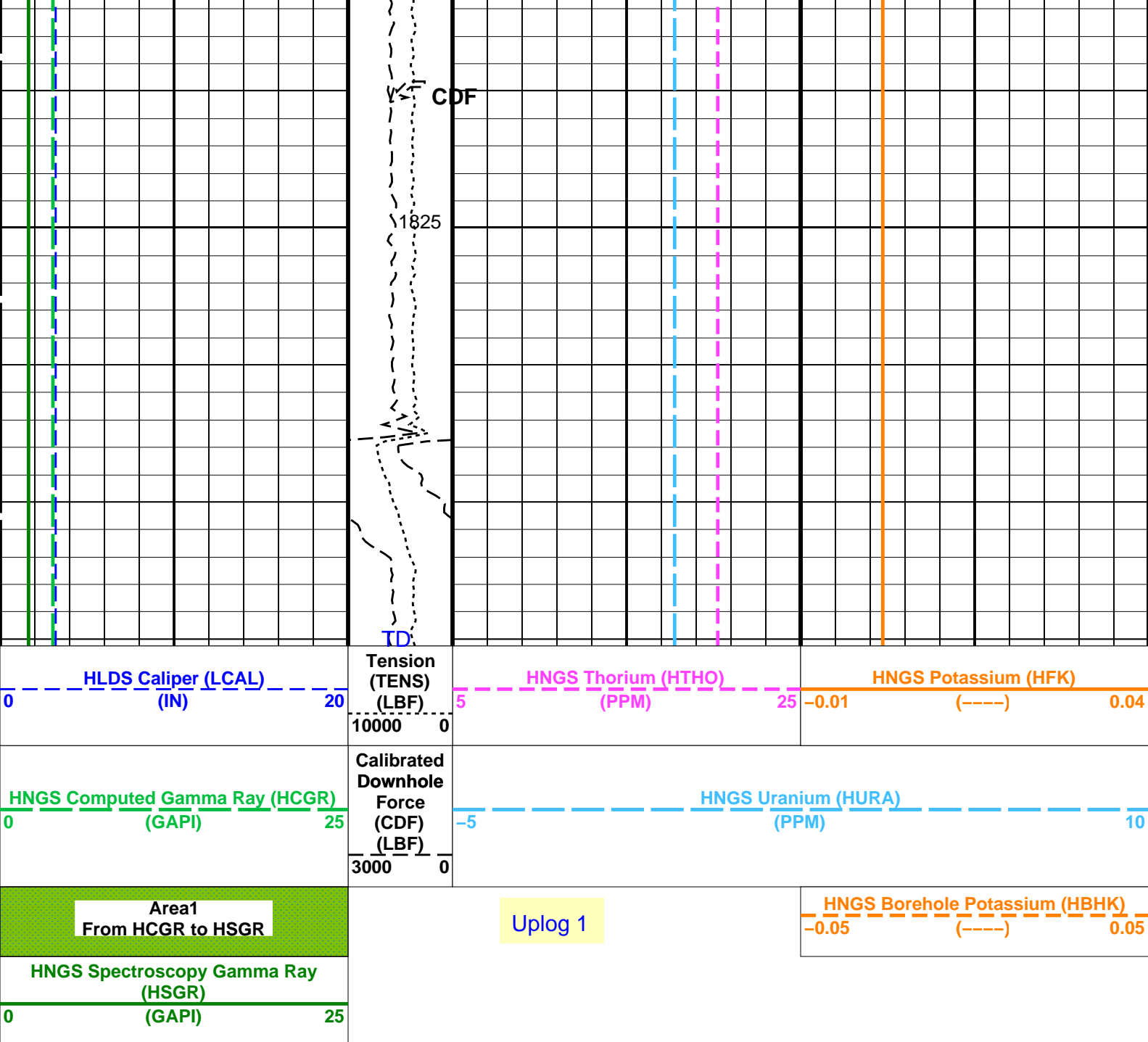
HNGS Thorium (HTHO)
(PPM)

5 25

HNGS Potassium (HFK)

-0.01 (----) 0.04





PIP SUMMARY

Time Mark Every 60 S

Parameters		
DLIS Name	Description	Value
HRLT-B: High Resolution Laterolog Array - B		
BHS	Borehole Status	OPEN
GCSE	Generalized Caliper Selection	LCAL
APS-C: Accelerator-Porosity Tool		
BHS	Borehole Status	OPEN
GCSE	Generalized Caliper Selection	LCAL
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	LCAL
H1P	HNGS Detector 1 Allow/Disallow In Processing	ALLOW

H2P	HNGS Detector 2 Allow/Disallow In Processing	ALLOW	
HABK	HNGS Borehole Potassium Running Average	-0.00262804	
HALF	HNGS Alpha Filter Length	60	IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	BARI	
HNPE	HNGS Processing Enable	YES	
S1BI	HNGS Detector 1 Calibration Bismuth Count Rate	1.3	CPS
S2BI	HNGS Detector 2 Calibration Bismuth Count Rate	1.3	CPS
SGRC	HNGS Standard Gamma-Ray Correction Flag	YES	
TPOS	Tool Position	ECCE	
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	1.00497	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	1.1668	
System and Miscellaneous			
BS	Bit Size	9.875	IN
DO	Depth Offset for Playback	0.0	M
PP	Playback Processing	RECOMPUTE	

Format: HNGSYields

Vertical Scale: 1:200

Graphics File Created: 19-Aug-2020 12:04

OP System Version: 19C0-187			
MSS_LDEO-A	19C0-187	HRLT-B	19C0-187
HLDS	19C0-187	LDSC-B	19C0-187
APS-C	19C0-187	HNGC-B	19C0-187
HNGS-BA	19C0-187	DTC-H	19C0-187

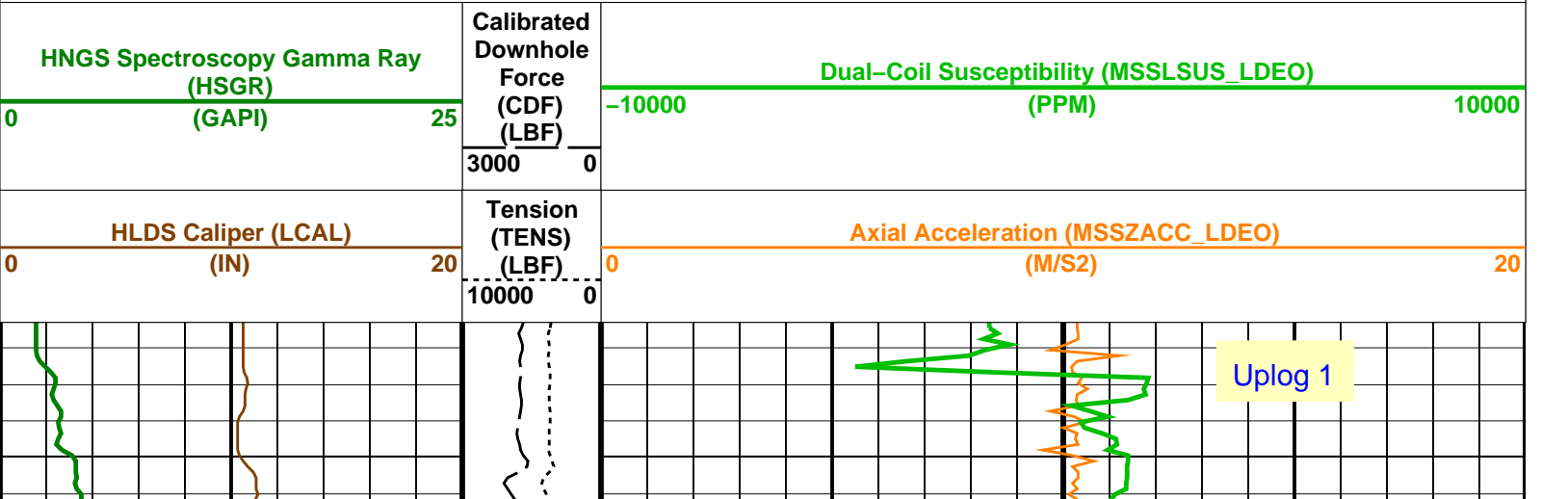
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Output DLIS Files					
DEFAULT	MSS_LDEO_HRLA_LDL_068PUP	FN:93	PRODUCER	19-Aug-2020 12:04	

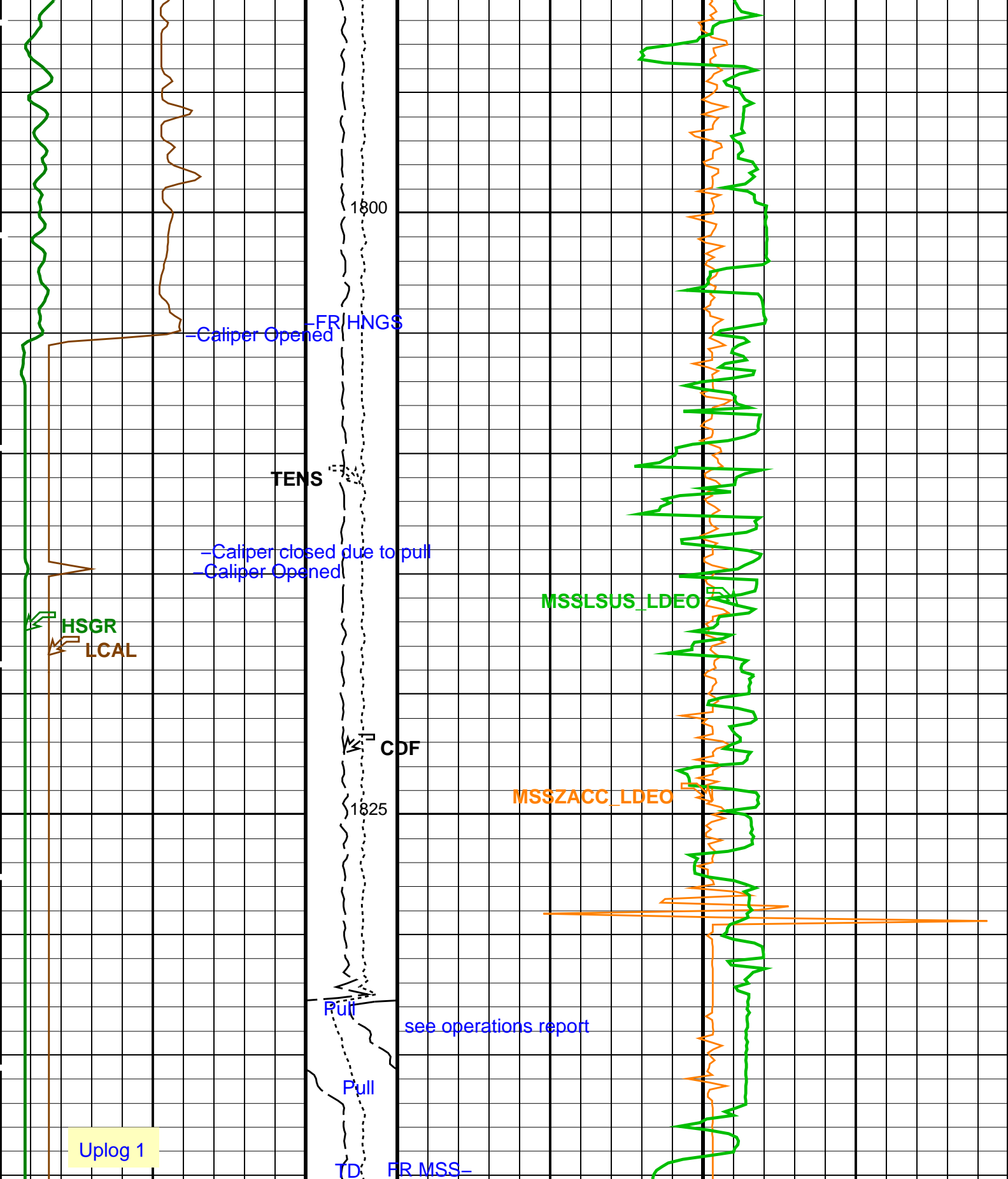
Company: International Ocean Discovery Program

Well: Expedition 384, Site U1555F

Input DLIS Files					
DEFAULT	MSS_LDEO_HRLA_LDL_040LUP	FN:42	PRODUCER	15-Aug-2020 18:01	1840.2 M 1786.3 M
Output DLIS Files					
DEFAULT	MSS_LDEO_HRLA_LDL_068PUP	FN:93	PRODUCER	19-Aug-2020 12:04	1840.2 M 1786.3 M
OP System Version: 19C0-187					
MSS_LDEO-A	19C0-187	HRLT-B	19C0-187		
HLDS	19C0-187	LDSC-B	19C0-187		
APS-C	19C0-187	HNGC-B	19C0-187		
HNGS-BA	19C0-187	DTC-H	19C0-187		

PIP SUMMARY	
Time Mark Every 60 S	





HLDS Caliper (LCAL) (IN)	Tension (TENS) (LBF)	Axial Acceleration (MSSZACC_LDEO) (M/S2)
0 20	10000 0	0 20
HNGS Spectroscopy Gamma Ray (HSGR) (API)	Calibrated Downhole Force (CDF)	Dual-Coil Susceptibility (MSSL SUS_LDEO) (PPM)
0 25		-10000 10000

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
HRLT-B: High Resolution Laterolog Array – B			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	100	DEGC
CALSTAT	HRLTB Calibration Status	SHALLOW_DONE	
CALTEMP	HRLTB Calibration Temperature	7.76192	DEGC
FREQ0	HRLT Frequency Index for Mode 0	32	
FREQ1	HRLT Frequency Index for Mode 1	128	
FREQ2	HRLT Frequency Index for Mode 2	104	
FREQ3	HRLT Frequency Index for Mode 3	86	
FREQ4	HRLT Frequency Index for Mode 4	56	
FREQ5	HRLT Frequency Index for Mode 5	44	
FREQ6	HRLT Frequency Index for Mode 6	116	
GCSE	Generalized Caliper Selection	LCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN 9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
ISSBAR	Barite Mud Switch	BARITE	
KFAC_HRLT	HRLT K Factor Option	SONDE	
LOOPCOEF_S	HRLT Loop Coefficient for Shallow Modes	LOW	
LOOPMOD0	HRLT Mode 0 Loop Mode	AUTO	
LOOPMOD1	HRLT Mode 1 Loop Mode	AUTO	
LOOPMOD2	HRLT Mode 2 Loop Mode	AUTO	
LOOPMOD3	HRLT Mode 3 Loop Mode	AUTO	
LOOPMOD4	HRLT Mode 4 Loop Mode	AUTO	
LOOPMOD5	HRLT Mode 5 Loop Mode	AUTO	
LOOPMOD6	HRLT Mode 6 Loop Mode	AUTO	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
PROCVN	Inversion Selection	ON	
PROCMFL	Inversion Micro-Resistivity Selection	NO_EXTERNAL_RXO	
PROCMSO	Mechanical Standoff Fin Size	0	IN
PROCRM	Processing Mud Resistivity Select	HRLT_Compute	
PROCSPO	Sonde Position	Centered	
SHT	Surface Hole Temperature	20	DEGC
HLDS: Hostile Litho-Density Sonde			
CLCL	HLDS LS Control Loop Controller Mode	AUTO_DEFAULT	
CLCS	HLDS SS Control Loop Controller Mode	AUTO_DEFAULT	
CLLS	HLDS Mode Loop Long Spacing	AUTO	
CLSS	HLDS Mode Loop Short Spacing	AUTO	
DHC	Density Hole Correction	BS	
DPPM	Density Porosity Processing Mode	HIRS	
FD	Fluid Density	1	G/C3
LATC	HLDS Activation Correction	OFF	
LLDL	HLDS LS Low Level Discriminator DAC	14000	
LLDS	HLDS SS Low Level Discriminator DAC	14000	
LLML	HLDS LS Low Level Discriminator Mode	AUTO	
LLMS	HLDS SS Low Level Discriminator Mode	AUTO	
MDEN	Matrix Density	2.6	G/C3
PHVL	HLDS Long Spacing High Voltage Setting	1000	V
PHVS	HLDS Short Spacing High Voltage Setting	1500	V
PSDL	HLDS LS Pulse Shape Compensation DAC	30000	
PSDS	HLDS SS Pulse Shape Compensation DAC	30000	
PSML	HLDS LS Pulse Shape Compensation Mode	AUTO	
PSMS	HLDS SS Pulse Shape Compensation Mode	AUTO	
APS-C: Accelerator-Porosity Tool			
	APS Software Version	5	
AASD	APS Thermal and Array Detectors High Voltage Setting	1979.3	V
ADSO	APS Array Detectors Data Source Switch	Both	
AFSD	APS Far Detector High Voltage Setting	2063.54	V
AHCS	APS Holesize Correction Source	GCSE	
AHSS	APS Holesize Correction Switch	ON	
AMTY	APS Environmental Corrections Mud Type	WaterBaseBarite	
ANSD	APS Near Detector High Voltage Setting	1734.6	V
ASOS	APS Standoff Correction Switch	ON	
ATSS	APS Temperature-Pressure-Salinity Correction Switch	ON	
BHFL_APS	APS TNPH Borehole Fluid Type	WATER	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	100	DEGC
BSCO_APS	APS TNPH Borehole Salinity Correction Option	YES	
DPPM	Density Porosity Processing Mode	HIRS	
DSCO_APS	APS TNPH Density Source Correction Option	MEASURED	
FSAL	Formation Salinity	-50000	PPM
FSCO_APS	APS TNPH Formation Salinity Correction Option	NO	

GCSE	Generalized Caliper Selection	LCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
HSCO_APS	APS TNPH Hole Size Correction Option	YES	
ISSBAR	Barite Mud Switch	BARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
MCCO_APS	APS TNPH Mud Cake Correction Option	YES	
MCOR_APS	APS TNPH Mud Correction	BARI	
MWCO_APS	APS TNPH Mud Weight Correction Option	YES	
NARC	APS Near/Array Calibration Ratio	1.07955	
NFRC	APS Near/Far Calibration Ratio	0.945037	
PTCO_APS	APS TNPH Pressure/Temperature Correction Option	YES	
SHT	Surface Hole Temperature	20	DEGC
TNCO_APS	APS TNPH Computation Option	YES	
HNGBS-BA: Hostile Natural Gamma Ray Sonde			
BAR1	HNGBS Detector 1 Barite Constant	1	
BAR2	HNGBS Detector 2 Barite Constant	1	
BHK	HNGBS Borehole Potassium Correction Concentration	0	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	100	DEGC
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	HNGBS Barite Constant Correction Flag	NONE	
GCSE	Generalized Caliper Selection	LCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
H1P	HNGBS Detector 1 Allow/Disallow In Processing	ALLOW	
H2P	HNGBS Detector 2 Allow/Disallow In Processing	ALLOW	
HABK	HNGBS Borehole Potassium Running Average	-0.00262804	
HALF	HNGBS Alpha Filter Length	60	IN
HCRB	HNGBS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	BARI	
HNPE	HNGBS Processing Enable	YES	
ISSBAR	Barite Mud Switch	BARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
S1BI	HNGBS Detector 1 Calibration Bismuth Count Rate	1.3	CPS
S2BI	HNGBS Detector 2 Calibration Bismuth Count Rate	1.3	CPS
SGRC	HNGBS Standard Gamma-Ray Correction Flag	YES	
SHT	Surface Hole Temperature	20	DEGC
TPOS	Tool Position	ECCE	
VBA1	HNGBS Detector 1 Variable Barite Factor Running Average	1.00497	
VBA2	HNGBS Detector 2 Variable Barite Factor Running Average	1.1668	
System and Miscellaneous			
ALTDCHAN	Name of alternate depth channel	SpeedCorrectedDepth	
BS	Bit Size	9.875	IN
BSAL	Borehole Salinity	38000.00	PPM
CSIZ	Current Casing Size	5.500	IN
CWEI	Casing Weight	168.00	LB/F
DFD	Drilling Fluid Density	1.26	G/C3
DO	Depth Offset for Playback	0.0	M
FLEV	Fluid Level	-50000.00	M
MST	Mud Sample Temperature	23.00	DEGC
PBVSADP	Use alternate depth channel for playback	NO	
PP	Playback Processing	RECOMPUTE	
RMFS	Resistivity of Mud Filtrate Sample	-50000.0000	OHMM
RW	Resistivity of Connate Water	1.0000	OHMM
TD	Total Depth	6069.55	FT
TDD	Total Depth - Driller	1850.00	M
TDL	Total Depth - Logger	1850.00	M
TWS	Temperature of Connate Water Sample	37.78	DEGC

Format: MSS_Loading Vertical Scale: 1:200 Graphics File Created: 19-Aug-2020 12:04

OP System Version: 19C0-187

MSS_LDEO-A	19C0-187	HRLT-B	19C0-187
HLDS	19C0-187	LDSC-B	19C0-187
APS-C	19C0-187	HNGC-B	19C0-187
HNGBS-BA	19C0-187	DTC-H	19C0-187

Input DLIS Files

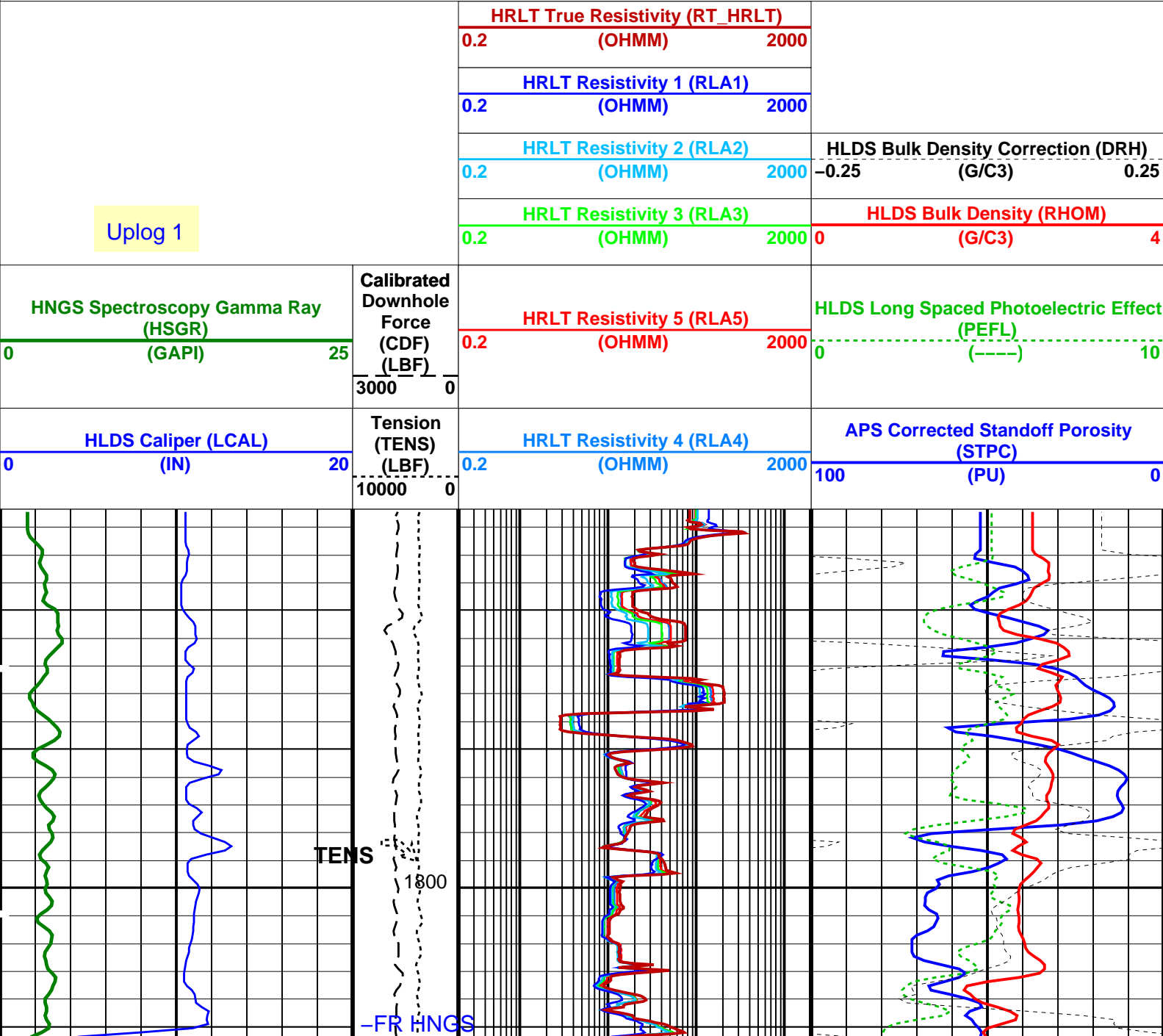
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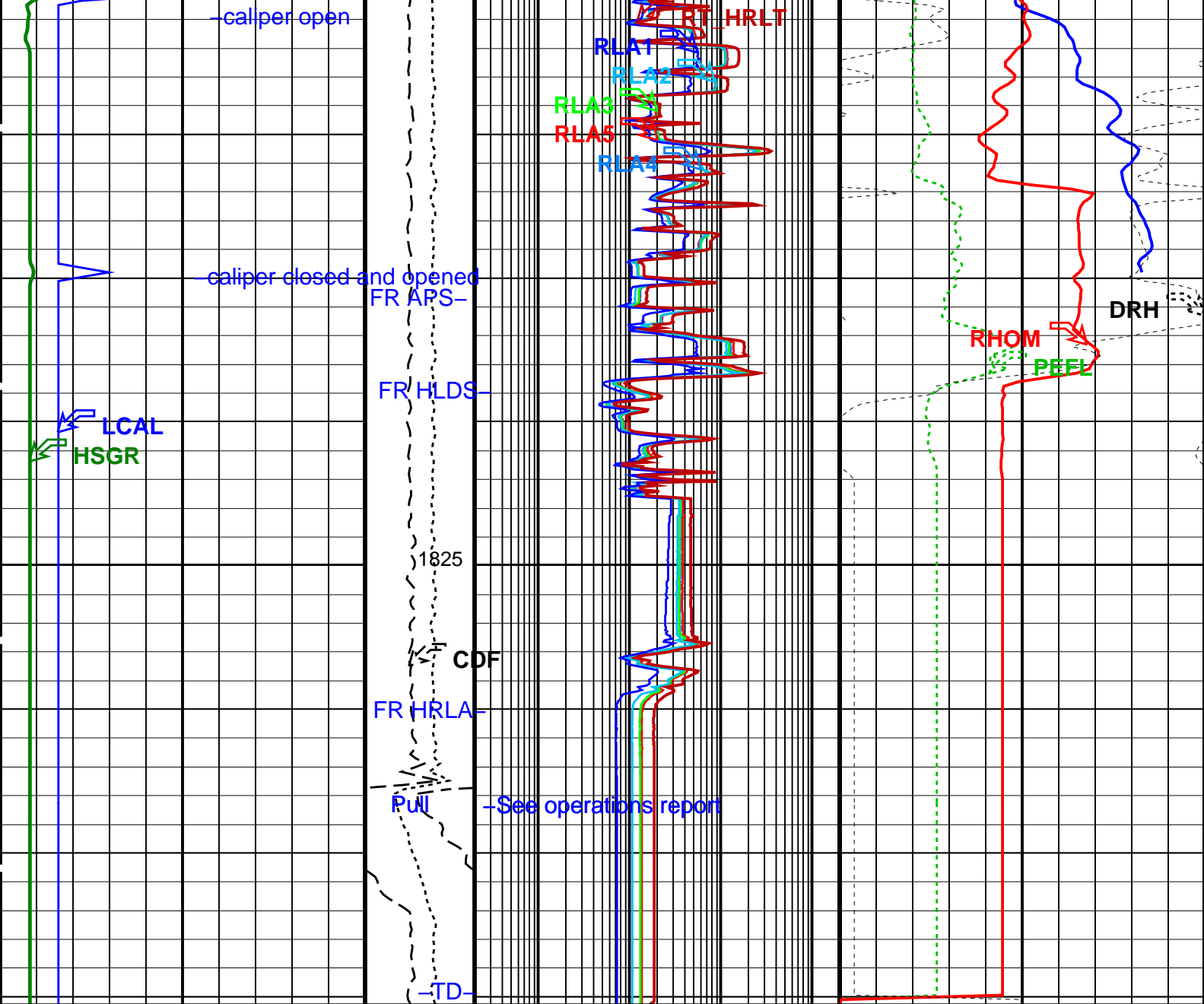
Output DLIS Files

Input DLIS Files						
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Output DLIS Files						
DEFAULT	MSS_LDEO_HRLA_LDL_068PUP	FN:93	PRODUCER	19-Aug-2020 12:04	1840.2 M	1786.3 M

OP System Version: 19C0-187						
MSS_LDEO-A	19C0-187		HRLT-B	19C0-187		
HLDS	19C0-187		LDSC-B	19C0-187		
APS-C	19C0-187		HNGC-B	19C0-187		
HNGS-BA	19C0-187		DTC-H	19C0-187		

PIP SUMMARY						
Time Mark Every 60 S						





<div>HLDS Caliper (LCAL)</div> <div>(IN)</div> <div>020</div>	<div>Tension (TENS)</div> <div>(LBF)</div> <div>100000</div> <div>0</div>	<div>HRLT Resistivity 4 (RLA4)</div> <div>(OHMM)</div> <div>0.22000</div>	<div>APS Corrected Standoff Porosity (STPC)</div> <div>(PU)</div> <div>1000</div>
<div>HNGS Spectroscopy Gamma Ray (HSGR)</div> <div>(GAPI)</div> <div>025</div>	<div>Calibrated Downhole Force (CDF)</div> <div>(LBF)</div> <div>30000</div> <div>0</div>	<div>HRLT Resistivity 5 (RLA5)</div> <div>(OHMM)</div> <div>0.22000</div>	<div>HLDS Long Spaced Photoelectric Effect (PEFL)</div> <div>(-----)</div> <div>010</div>
<div>Uplong 1</div>		<div>HRLT Resistivity 3 (RLA3)</div> <div>(OHMM)</div> <div>0.22000</div>	<div>HLDS Bulk Density (RHOM)</div> <div>(G/C3)</div> <div>04</div>
		<div>HRLT Resistivity 2 (RLA2)</div> <div>(OHMM)</div> <div>0.22000</div>	<div>HLDS Bulk Density Correction (DRH)</div> <div>(G/C3)</div> <div>-0.250.25</div>
		<div>HRLT Resistivity 1 (RLA1)</div> <div>(OHMM)</div> <div>0.22000</div>	
		<div>HRLT True Resistivity (RT_HRLT)</div> <div>(OHMM)</div> <div>0.22000</div>	

PIP SUMMARY

Parameters

DLIS Name	Description	Value	
HRLT-B: High Resolution Laterolog Array – B			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	100	DEGC
CALSTAT	HRLTB Calibration Status	SHALLOW_DONE	
CALTEMP	HRLTB Calibration Temperature	7.76192	DEGC
FREQ0	HRLT Frequency Index for Mode 0	32	
FREQ1	HRLT Frequency Index for Mode 1	128	
FREQ2	HRLT Frequency Index for Mode 2	104	
FREQ3	HRLT Frequency Index for Mode 3	86	
FREQ4	HRLT Frequency Index for Mode 4	56	
FREQ5	HRLT Frequency Index for Mode 5	44	
FREQ6	HRLT Frequency Index for Mode 6	116	
GCSE	Generalized Caliper Selection	LCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
ISSBAR	Barite Mud Switch	BARITE	
KFAC_HRLT	HRLT K Factor Option	SONDE	
LOOPCOEF_S	HRLT Loop Coefficient for Shallow Modes	LOW	
LOOPMOD0	HRLT Mode 0 Loop Mode	AUTO	
LOOPMOD1	HRLT Mode 1 Loop Mode	AUTO	
LOOPMOD2	HRLT Mode 2 Loop Mode	AUTO	
LOOPMOD3	HRLT Mode 3 Loop Mode	AUTO	
LOOPMOD4	HRLT Mode 4 Loop Mode	AUTO	
LOOPMOD5	HRLT Mode 5 Loop Mode	AUTO	
LOOPMOD6	HRLT Mode 6 Loop Mode	AUTO	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
PROCINV	Inversion Selection	ON	
PROCNFL	Inversion Micro-Resistivity Selection	NO_EXTERNAL_RXO	
PROCMSO	Mechanical Standoff Fin Size	0	IN
PROCRM	Processing Mud Resistivity Select	HRLT_Compute	
PROCSPO	Sonde Position	Centered	
SHT	Surface Hole Temperature	20	DEGC
HLDS: Hostile Litho-Density Sonde			
CLCL	HLDS LS Control Loop Controller Mode	AUTO_DEFAULT	
CLCS	HLDS SS Control Loop Controller Mode	AUTO_DEFAULT	
CLLS	HLDS Mode Loop Long Spacing	AUTO	
CLSS	HLDS Mode Loop Short Spacing	AUTO	
DHC	Density Hole Correction	BS	
DPPM	Density Porosity Processing Mode	HIRS	
FD	Fluid Density	1	G/C3
LATC	HLDS Activation Correction	OFF	
LLDL	HLDS LS Low Level Discriminator DAC	14000	
LLDS	HLDS SS Low Level Discriminator DAC	14000	
LLML	HLDS LS Low Level Discriminator Mode	AUTO	
LLMS	HLDS SS Low Level Discriminator Mode	AUTO	
MDEN	Matrix Density	2.6	G/C3
PHVL	HLDS Long Spacing High Voltage Setting	1000	V
PHVS	HLDS Short Spacing High Voltage Setting	1500	V
PSDL	HLDS LS Pulse Shape Compensation DAC	30000	
PSDS	HLDS SS Pulse Shape Compensation DAC	30000	
PSML	HLDS LS Pulse Shape Compensation Mode	AUTO	
PSMS	HLDS SS Pulse Shape Compensation Mode	AUTO	
APS-C: Accelerator-Porosity Tool			
	APS Software Version	5	
AASD	APS Thermal and Array Detectors High Voltage Setting	1979.3	V
ADSO	APS Array Detectors Data Source Switch	Both	
AFSD	APS Far Detector High Voltage Setting	2063.54	V
AHCS	APS Holesize Correction Source	GCSE	
AHSS	APS Holesize Correction Switch	ON	
AMTY	APS Environmental Corrections Mud Type	WaterBaseBarite	
ANSD	APS Near Detector High Voltage Setting	1734.6	V
ASOS	APS Standoff Correction Switch	ON	
ATSS	APS Temperature-Pressure-Salinity Correction Switch	ON	
BHFL_APS	APS TNPH Borehole Fluid Type	WATER	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	100	DEGC
BSCO_APS	APS TNPH Borehole Salinity Correction Option	YES	
DPPM	Density Porosity Processing Mode	HIRS	
DSCO_APS	APS TNPH Density Source Correction Option	MEASURED	
FSAL	Formation Salinity	-50000	PPM
FSCO_APS	APS TNPH Formation Salinity Correction Option	NO	
GCSE	Generalized Caliper Selection	LCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
HSCO_APS	APS TNPH Hole Size Correction Option	YES	
ISSBAR	Barite Mud Switch	BARITE	

MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
MCCO_APS	APS TNPH Mud Cake Correction Option	YES	
MCOR_APS	APS TNPH Mud Correction	BARI	
MWCO_APS	APS TNPH Mud Weight Correction Option	YES	
NARC	APS Near/Array Calibration Ratio	1.07955	
NFRC	APS Near/Far Calibration Ratio	0.945037	
PTCO_APS	APS TNPH Pressure/Temperature Correction Option	YES	
SHT	Surface Hole Temperature	20	DEGC
TNCO_APS	APS TNPH Computation Option	YES	
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)	100	DEGC
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	LCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
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	-0.00262804	
HALF	HNGS Alpha Filter Length	60	IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	BARI	
HNPE	HNGS Processing Enable	YES	
ISSBAR	Barite Mud Switch	BARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
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	20	DEGC
TPOS	Tool Position	ECCE	
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	1.00497	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	1.1668	
System and Miscellaneous			
ALTDCHAN	Name of alternate depth channel	SpeedCorrectedDepth	
BS	Bit Size	9.875	IN
BSAL	Borehole Salinity	38000.00	PPM
CSIZ	Current Casing Size	5.500	IN
CWEI	Casing Weight	168.00	LB/F
DFD	Drilling Fluid Density	1.26	G/C3
DO	Depth Offset for Playback	0.0	M
FLEV	Fluid Level	-50000.00	M
MST	Mud Sample Temperature	23.00	DEGC
PBVSADP	Use alternate depth channel for playback	NO	
PP	Playback Processing	RECOMPUTE	
RMFS	Resistivity of Mud Filtrate Sample	-50000.0000	OHMM
RW	Resistivity of Connate Water	1.0000	OHMM
TD	Total Depth	6069.55	FT
TDD	Total Depth - Driller	1850.00	M
TDL	Total Depth - Logger	1850.00	M
TWS	Temperature of Connate Water Sample	37.78	DEGC

Format: TripleCombo Vertical Scale: 1:200 Graphics File Created: 19-Aug-2020 12:04

OP System Version: 19C0-187

MSS_LDEO-A	19C0-187	HRLT-B	19C0-187
HLDS	19C0-187	LDSC-B	19C0-187
APS-C	19C0-187	HNGC-B	19C0-187
HNGS-BA	19C0-187	DTC-H	19C0-187

Input DLIS Files

DEFAULT MSS_LDEO_HRLA_LDL_040LUP FN:42 PRODUCER 15-Aug-2020 18:01 1840.2 M 1786.3 M

Output DLIS Files

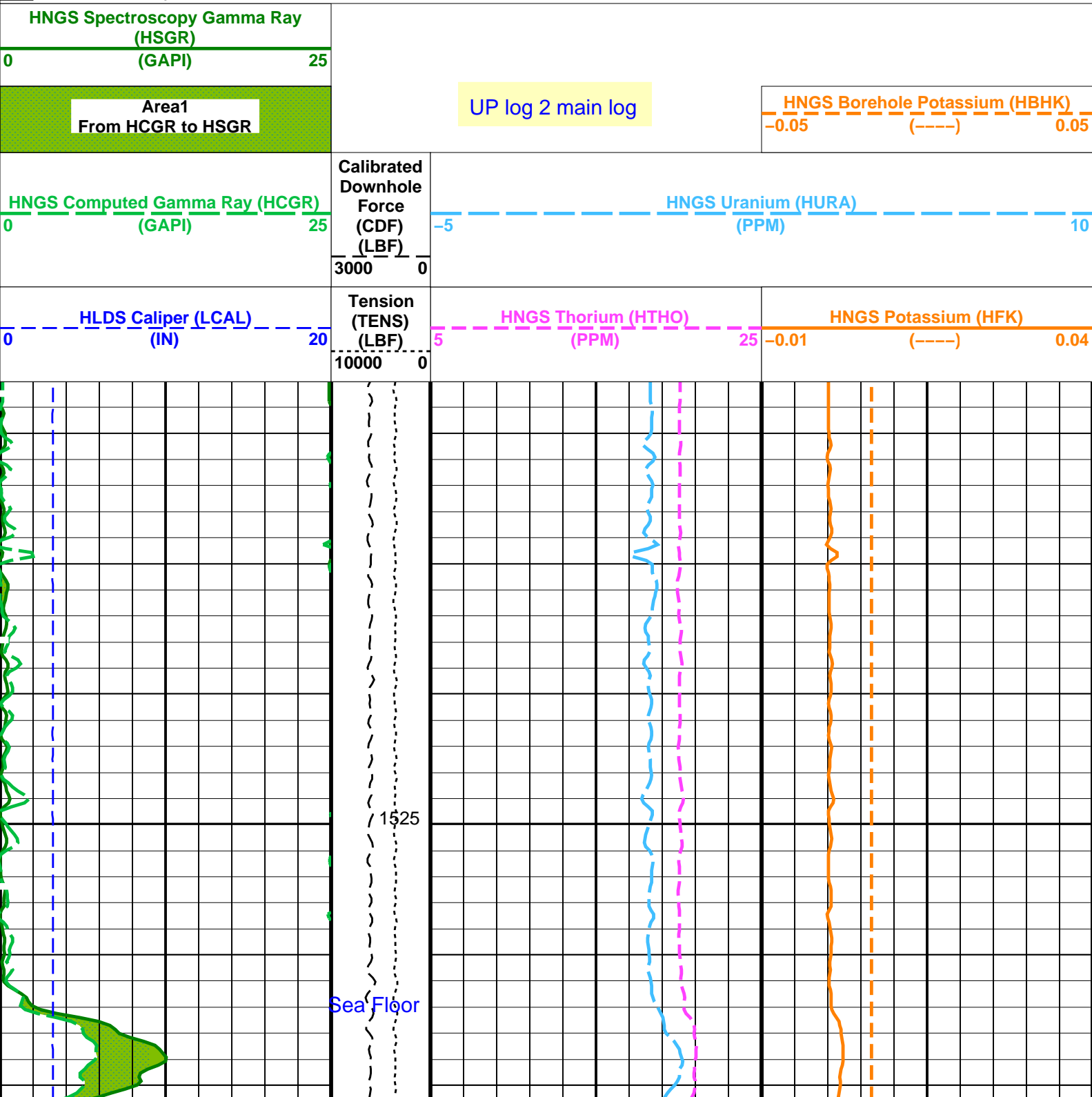
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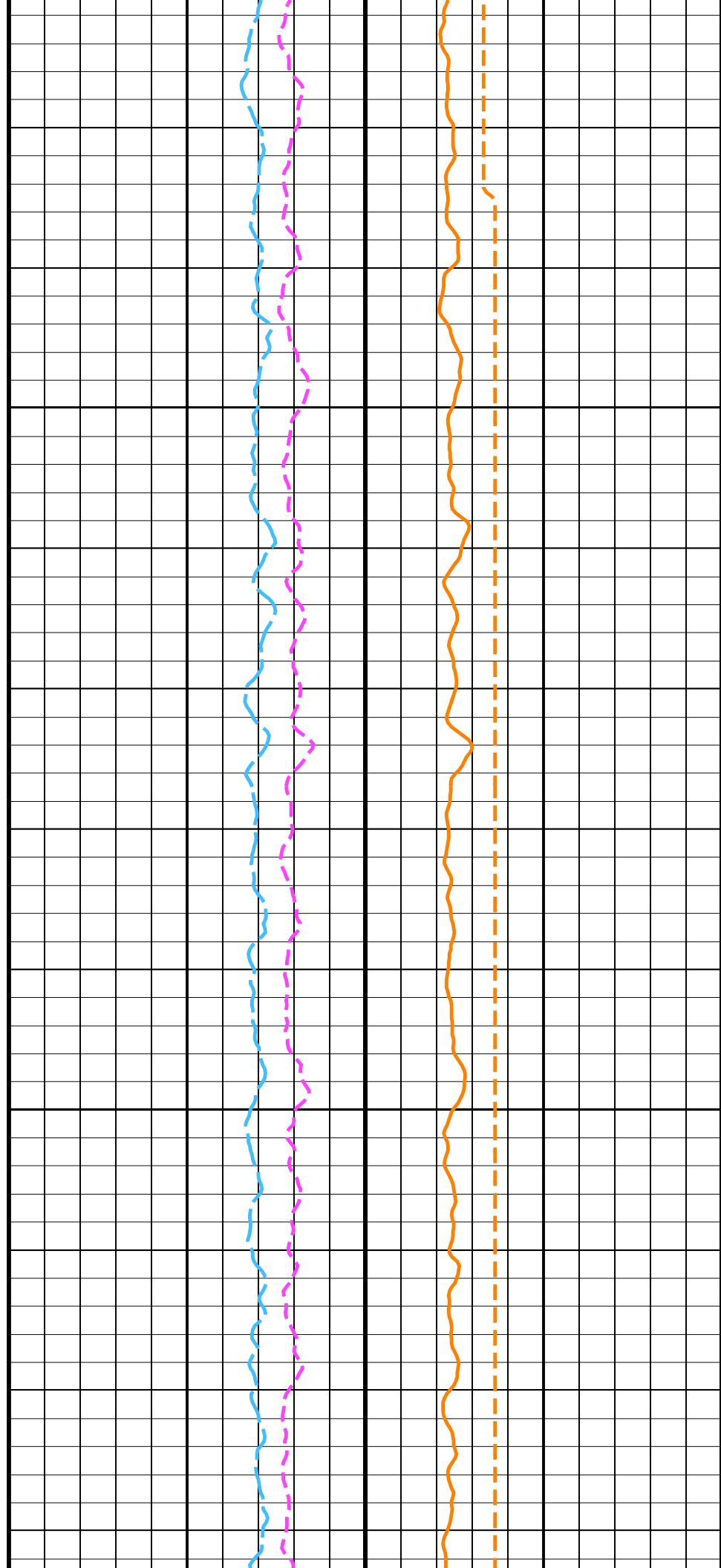
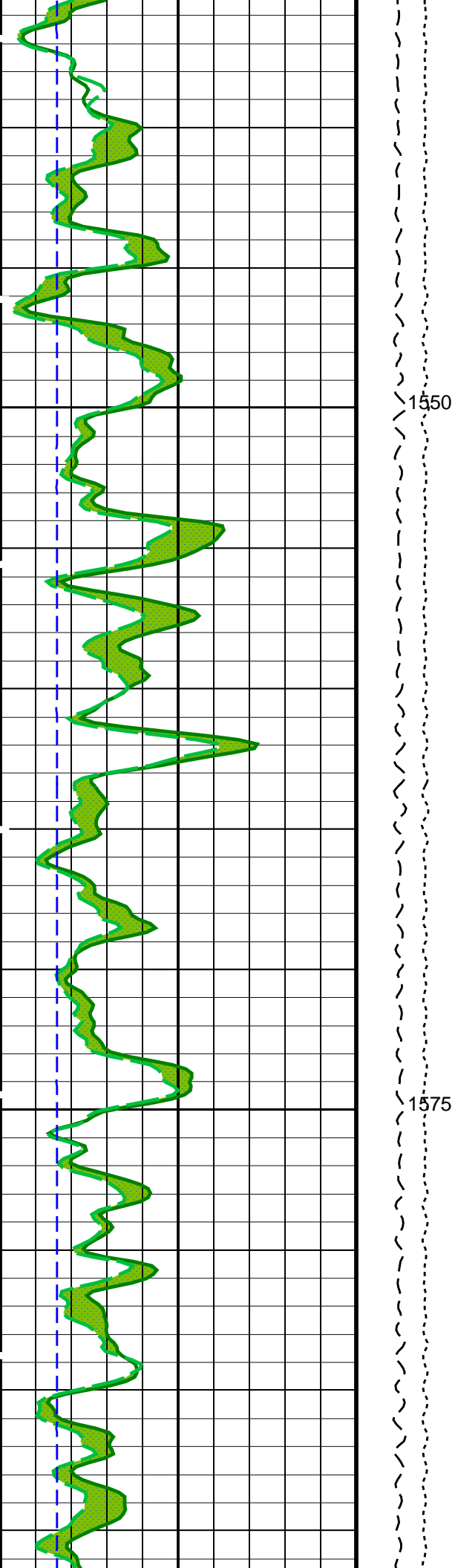
Input DLIS Files

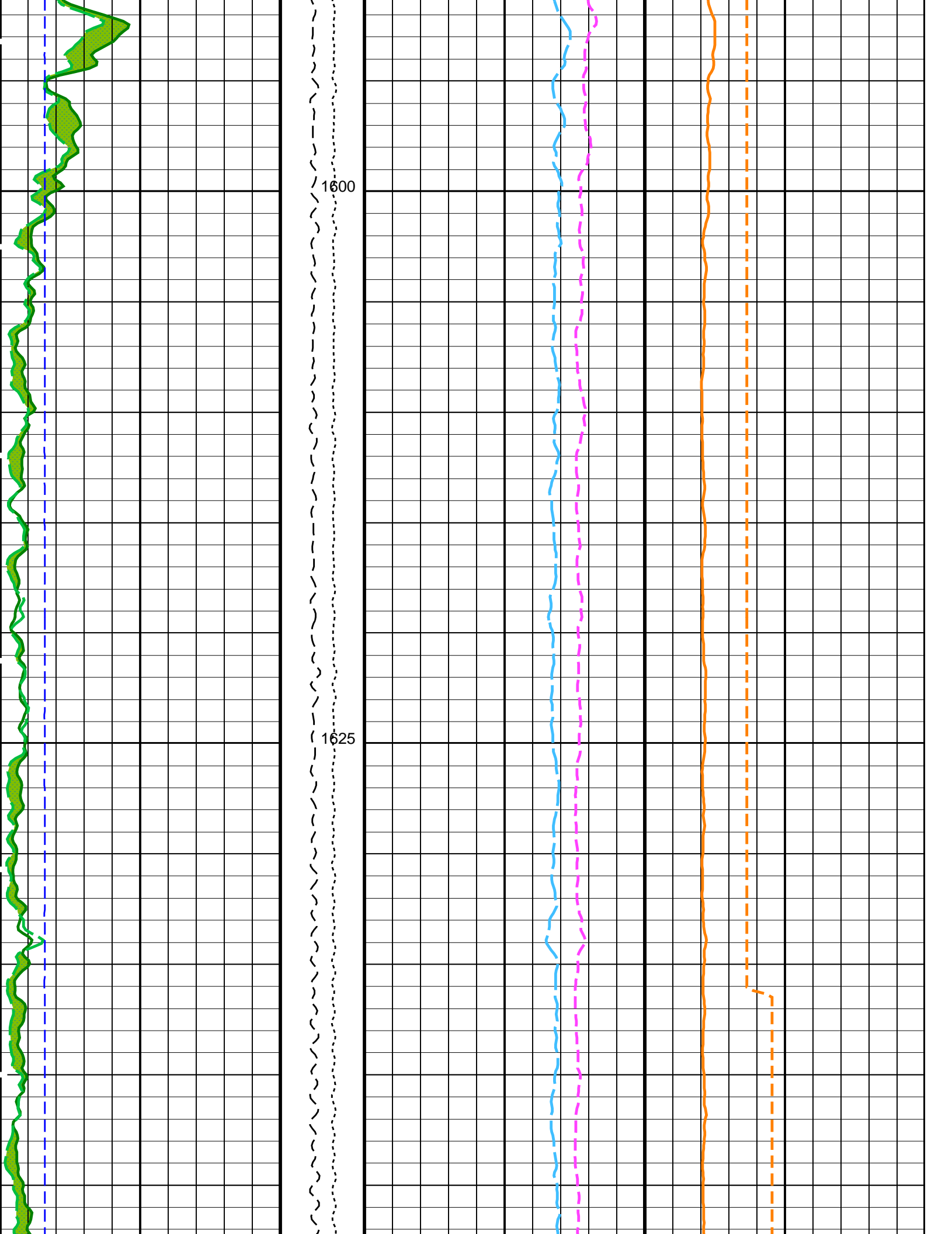
DEFAULT	MSS	LDEO	HRLA	LDL	069PUP	FN:94	PRODUCER	19-Aug-2020 12:06	1828.8 M	1508.0 M
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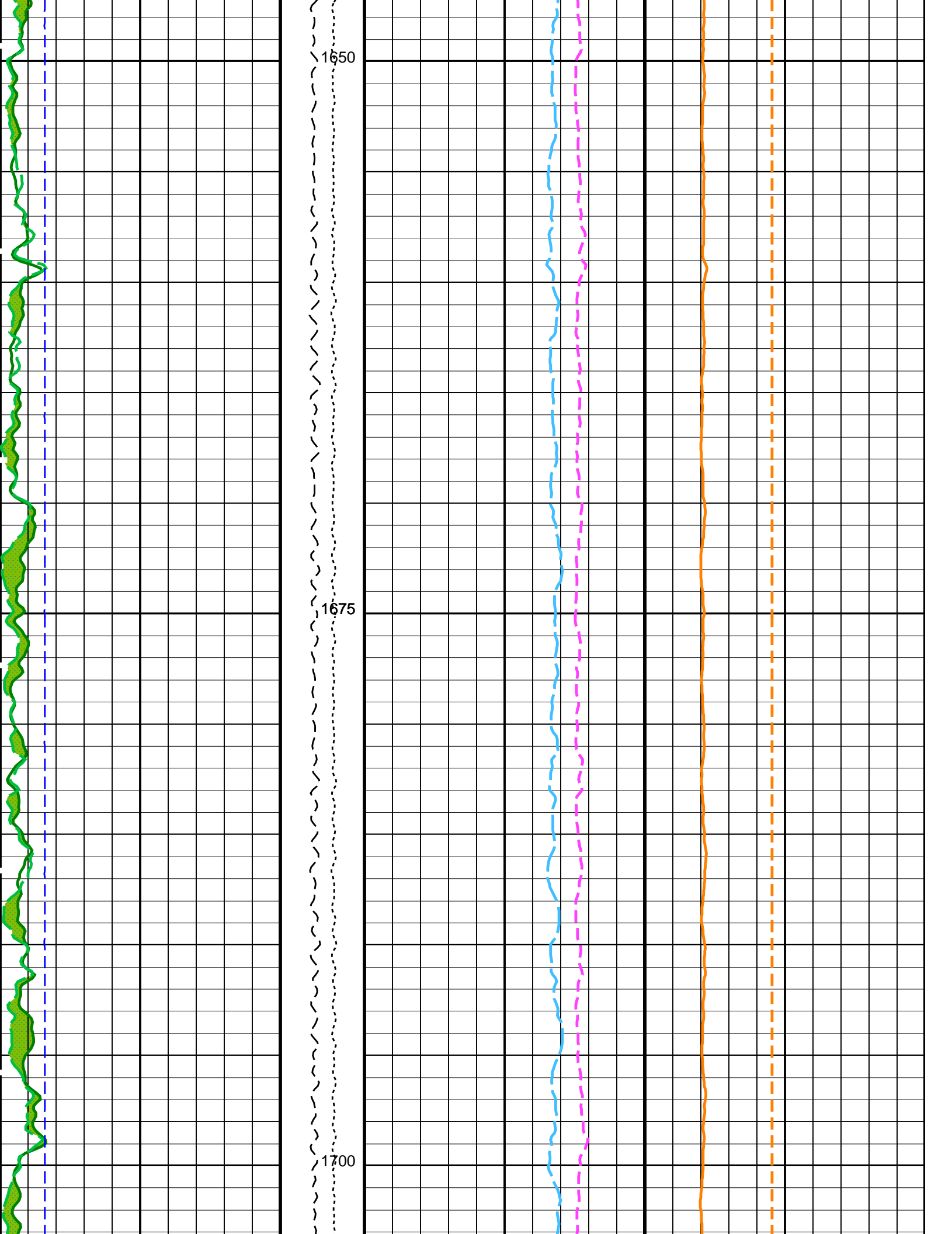
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HLDS	19C0-187	LDSC-B	19C0-187
APS-C	19C0-187	HNGC-B	19C0-187
HNGS-BA	19C0-187	DTC-H	19C0-187

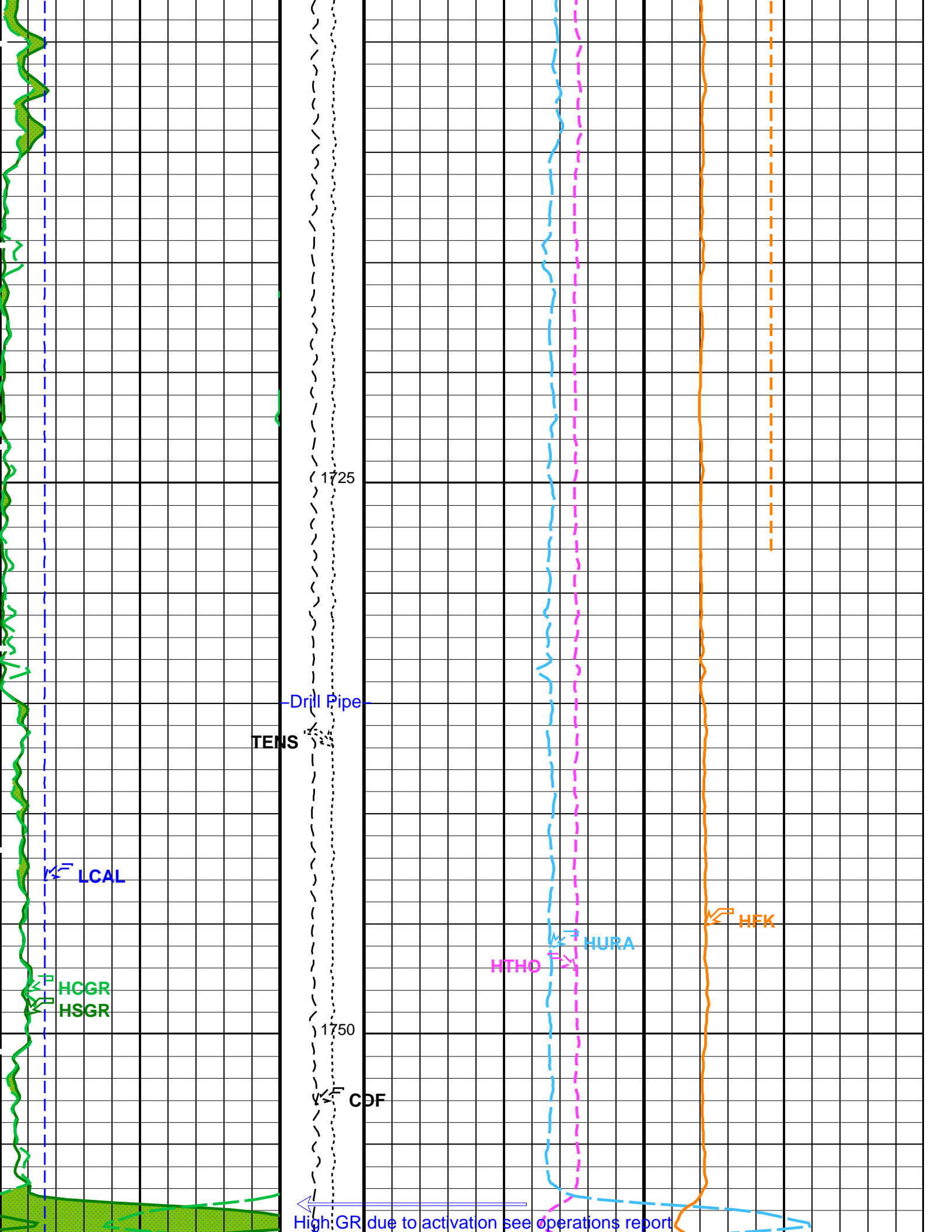
Time Mark Every 60 S

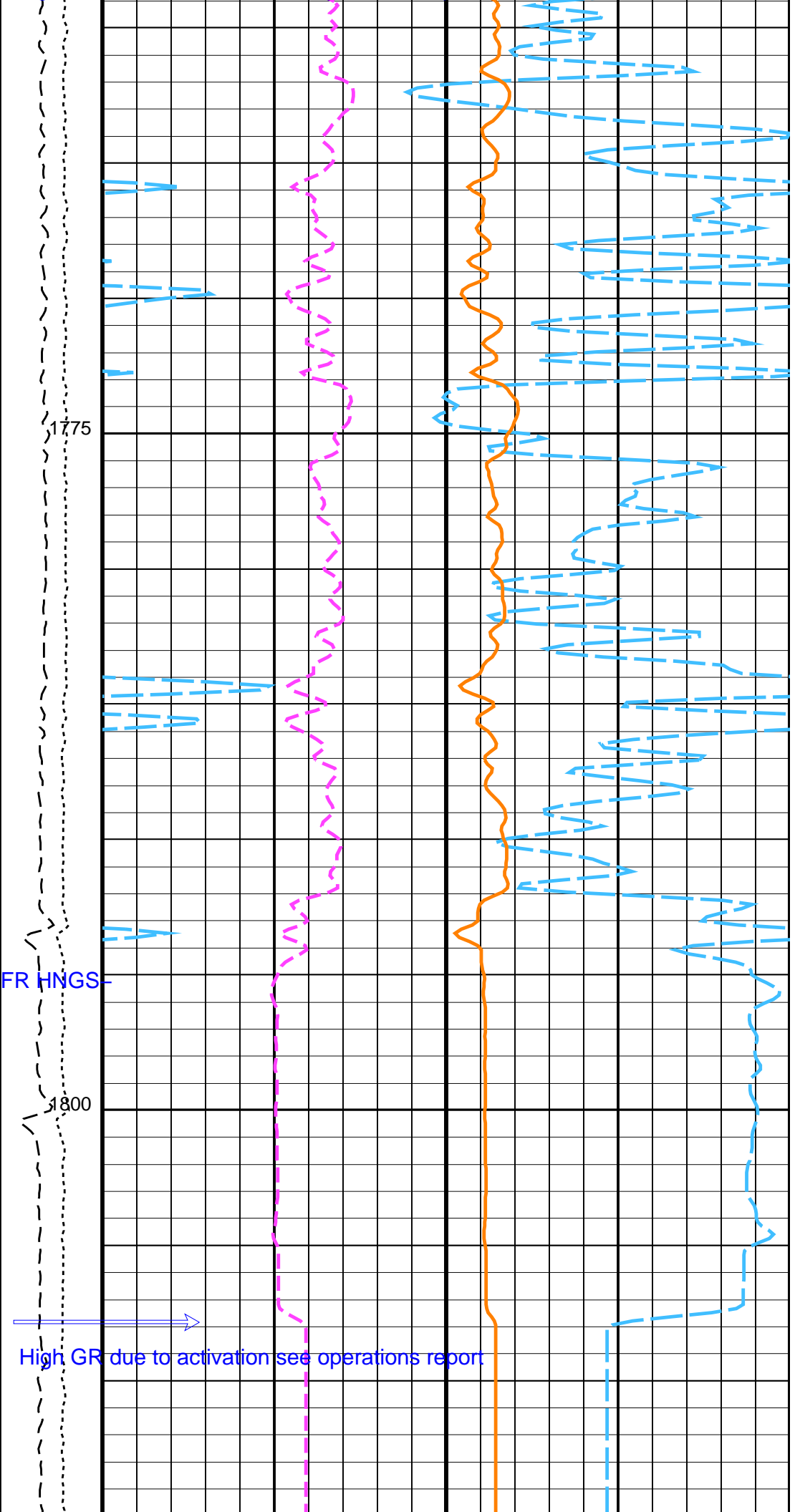
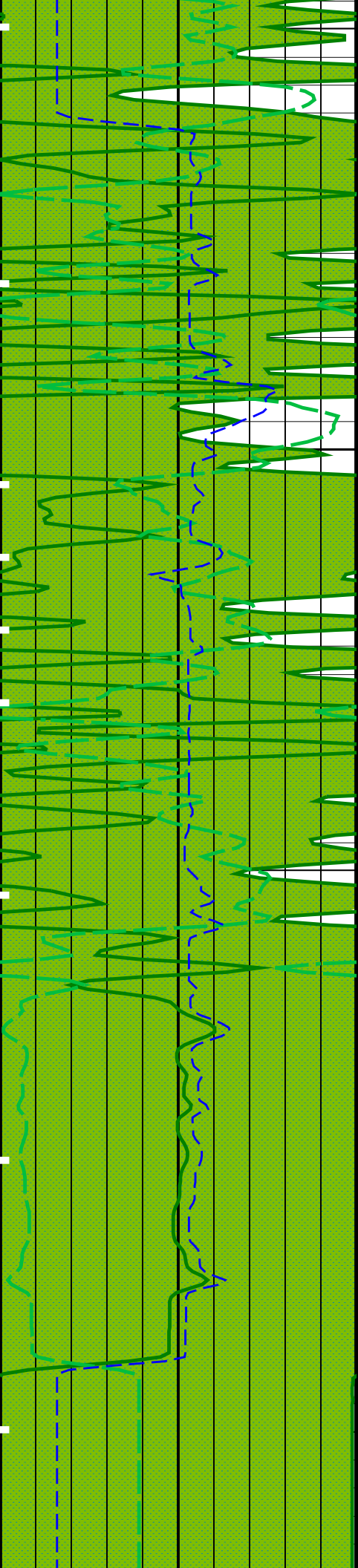


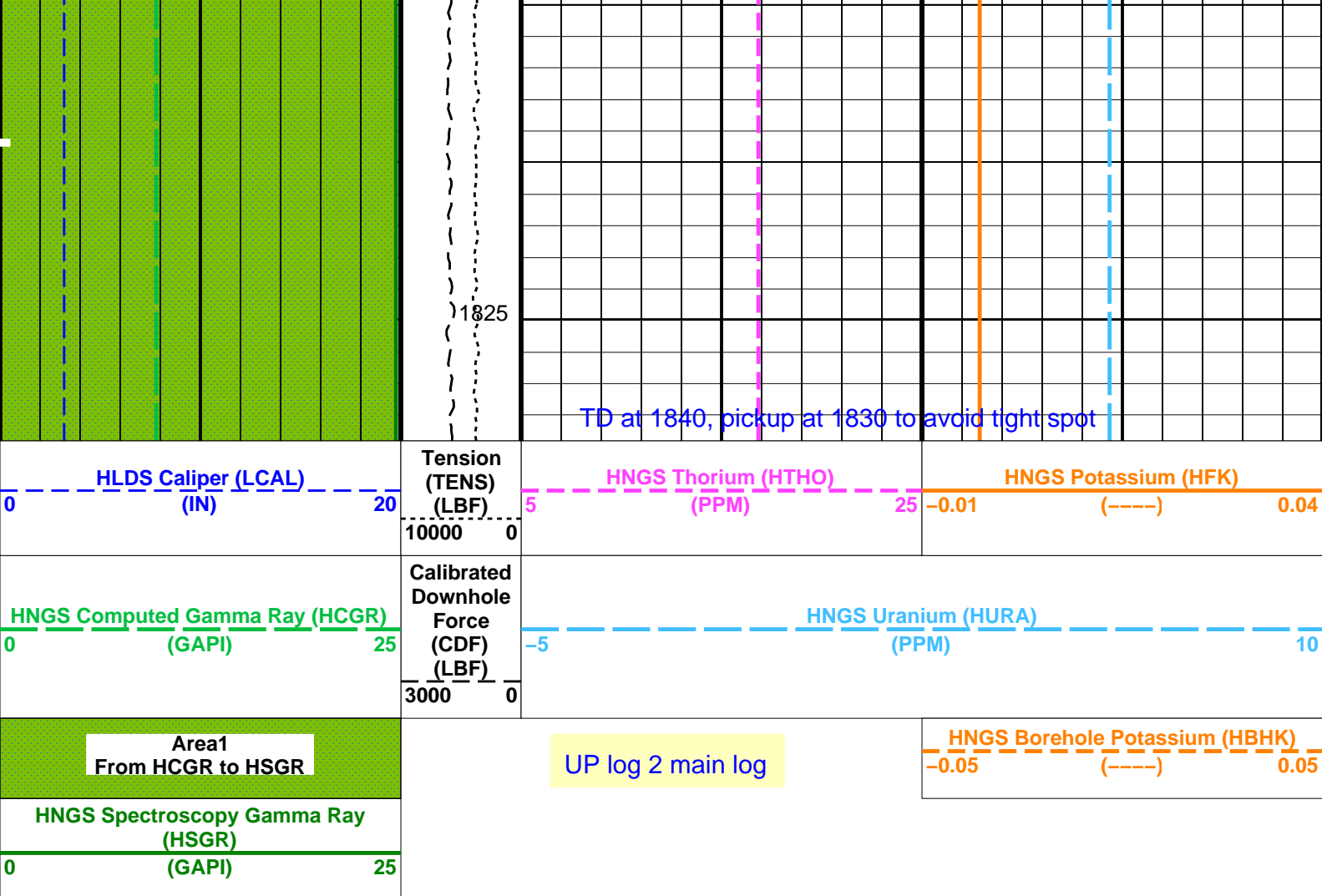












PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name		Description	Value	
HRLT-B: High Resolution Laterolog Array – B				
BHS		Borehole Status	OPEN	
GCSE		Generalized Caliper Selection	LCAL	
APS-C: Accelerator-Porosity Tool				
BHS		Borehole Status	OPEN	
GCSE		Generalized Caliper Selection	LCAL	
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	LCAL	
H1P		HNGS Detector 1 Allow/Disallow In Processing	ALLOW	
H2P		HNGS Detector 2 Allow/Disallow In Processing	ALLOW	
HABK		HNGS Borehole Potassium Running Average	-0.00102556	
HALF		HNGS Alpha Filter Length	60	IN
HCRB		HNGS Apply Borehole Potassium Correction	NONE	
HMWM		Mud Weighting Material	BARI	
HNPE		HNGS Processing Enable	YES	
S1BI		HNGS Detector 1 Calibration Bismuth Count Rate	1.3	CPS
S2BI		HNGS Detector 2 Calibration Bismuth Count Rate	1.3	CPS
SGRC		HNGS Standard Gamma-Ray Correction Flag	YES	
TPOS		Tool Position	ECCE	
VBA1		HNGS Detector 1 Variable Barite Factor Running Average	1.16668	
VBA2		HNGS Detector 2 Variable Barite Factor Running Average	1.28848	
System and Miscellaneous				
BS		Bit Size	9.875	IN
DO		Depth Offset for Playback	0.0	M

PP

Playback Processing

RECOMPUTE

Format: HNGSYields Vertical Scale: 1:200 Graphics File Created: 19-Aug-2020 12:06

OP System Version: 19C0-187

MSS_LDEO-A 19C0-187

HLDS 19C0-187

APS-C 19C0-187

HNGS-BA 19C0-187

HRLT-B 19C0-187

LDSC-B 19C0-187

HNGC-B 19C0-187

DTC-H 19C0-187

Input DLIS Files

DEFAULT MSS_LDEO_HRLA_LDL_041LUP FN:44 PRODUCER 15-Aug-2020 18:25 1828.8 M 1508.8 M

Output DLIS Files

DEFAULT MSS_LDEO_HRLA_LDL_069PUP FN:94 PRODUCER 19-Aug-2020 12:06

Company: International Ocean Discovery Program Well: Expedition 384, Site U1555F

Input DLIS Files

DEFAULT MSS_LDEO_HRLA_LDL_041LUP FN:44 PRODUCER 15-Aug-2020 18:25 1828.8 M 1508.8 M

Output DLIS Files

DEFAULT MSS_LDEO_HRLA_LDL_069PUP FN:94 PRODUCER 19-Aug-2020 12:06 1828.8 M 1508.0 M

OP System Version: 19C0-187

MSS_LDEO-A 19C0-187

HLDS 19C0-187

APS-C 19C0-187

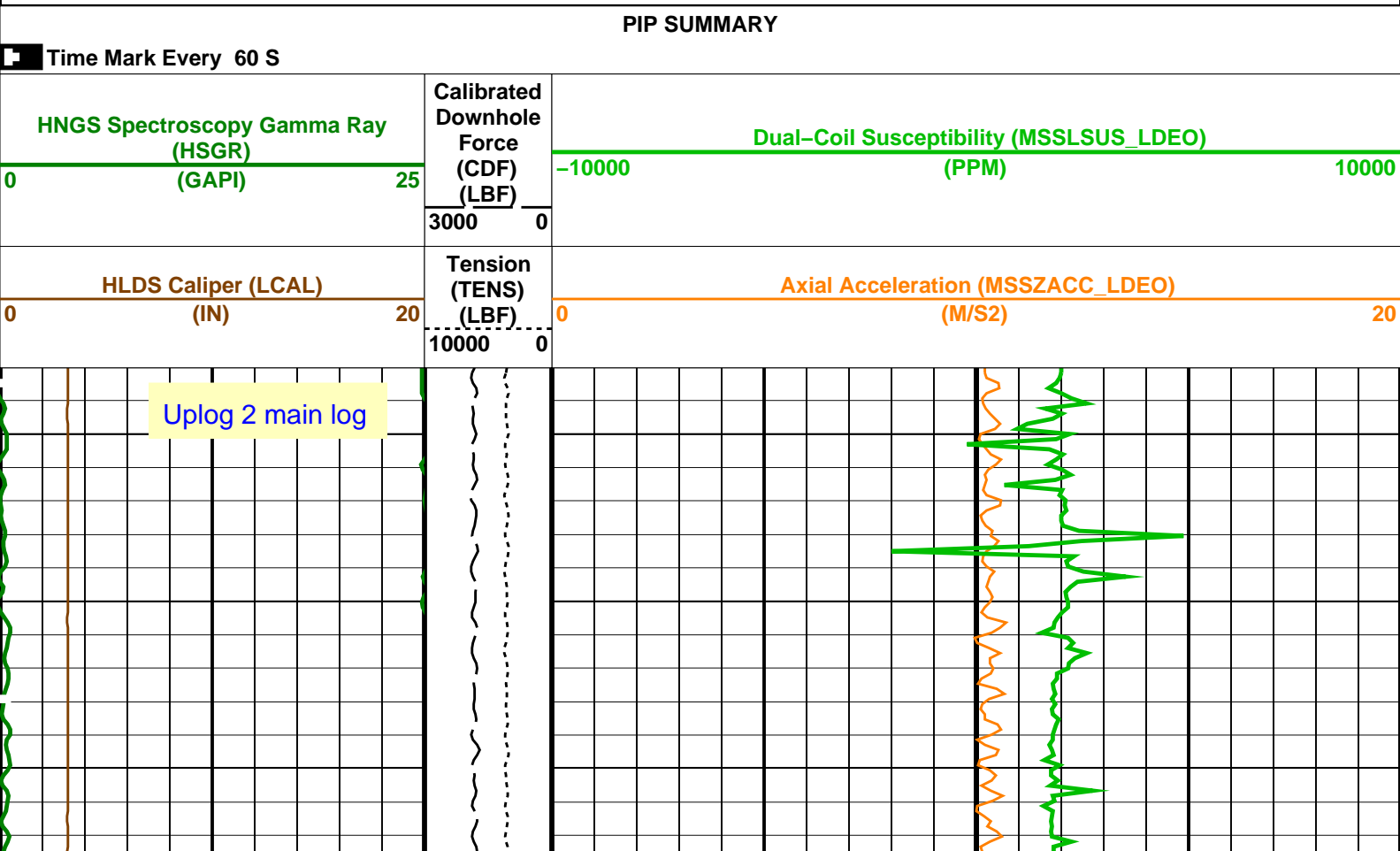
HNGS-BA 19C0-187

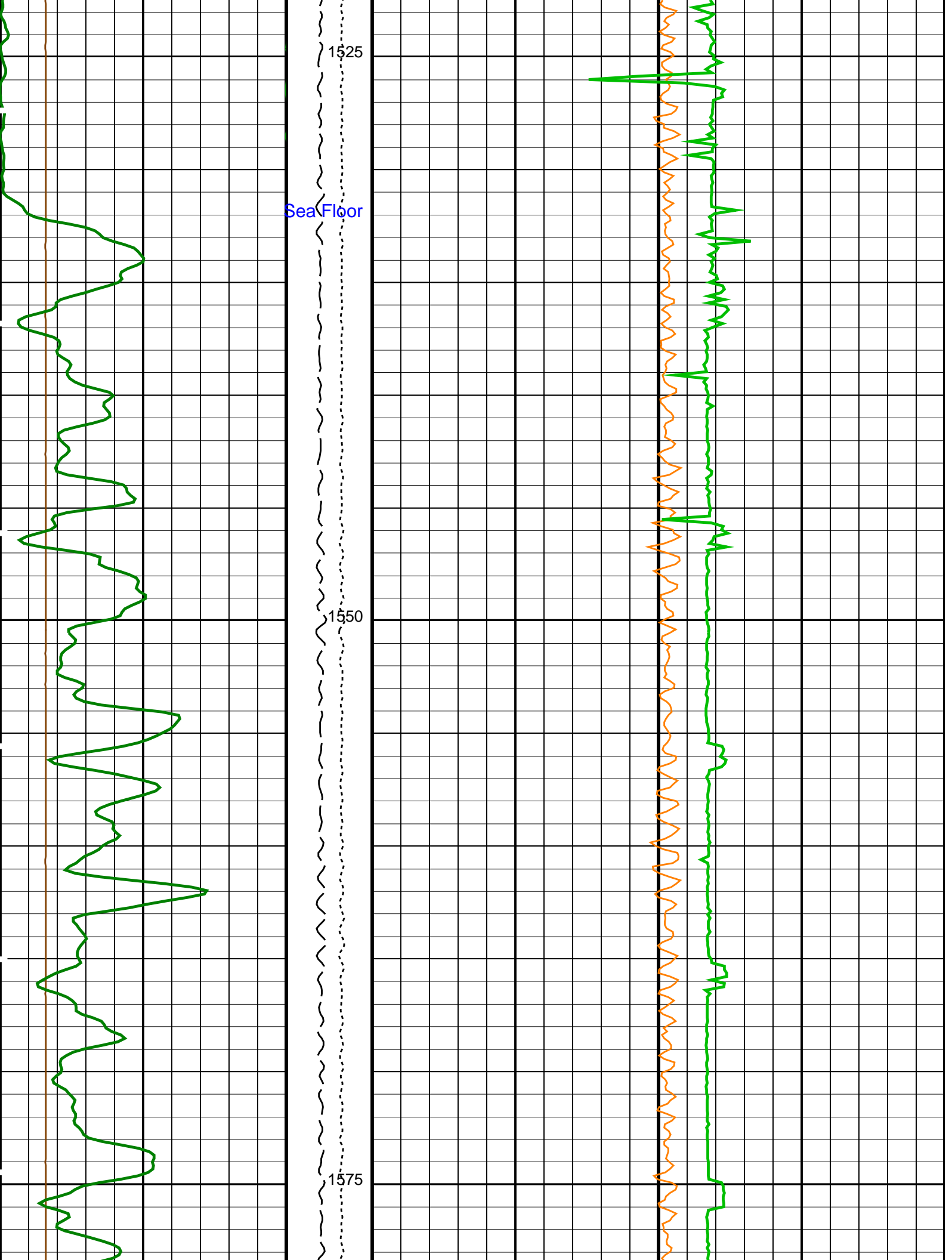
HRLT-B 19C0-187

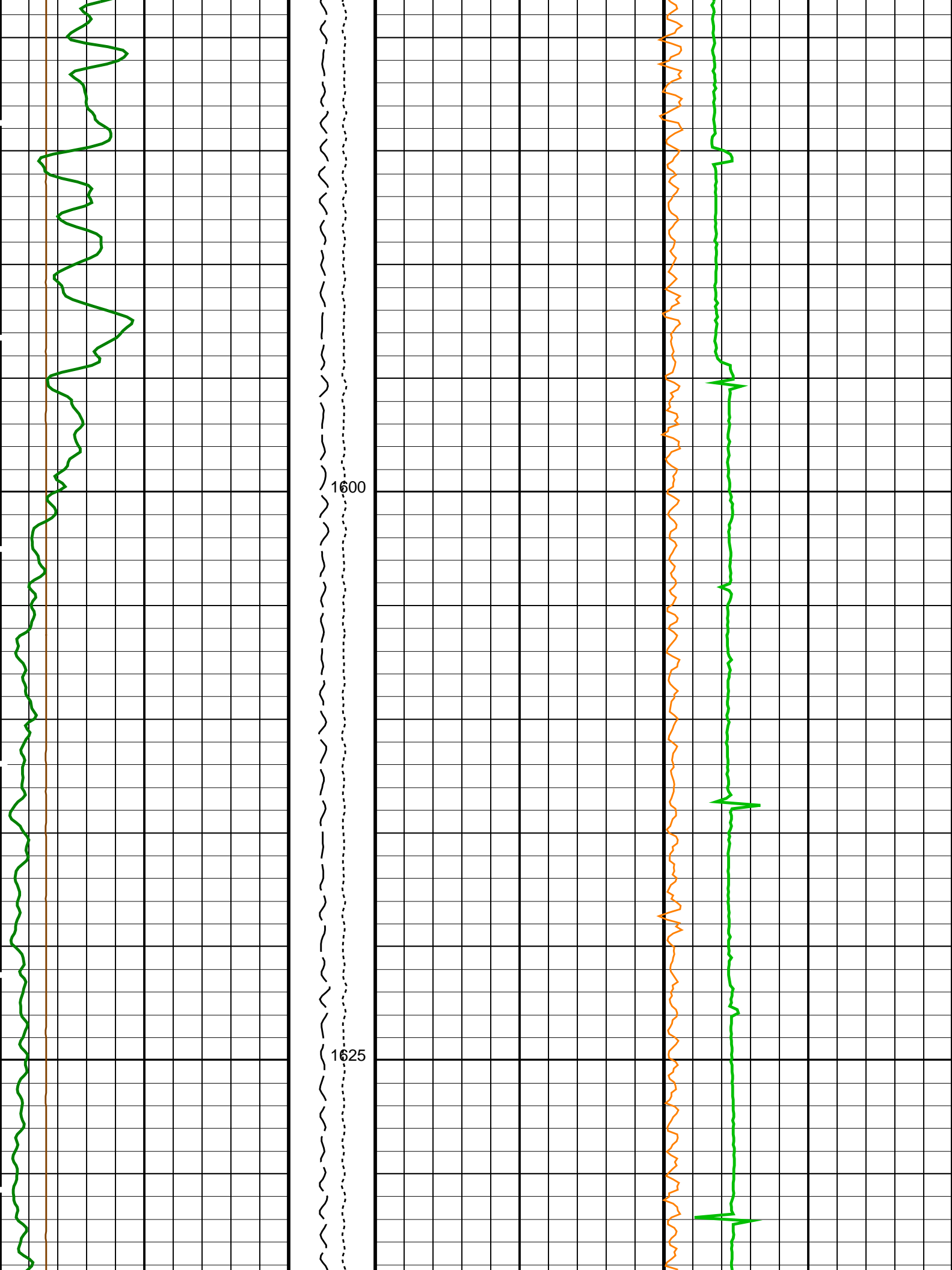
LDSC-B 19C0-187

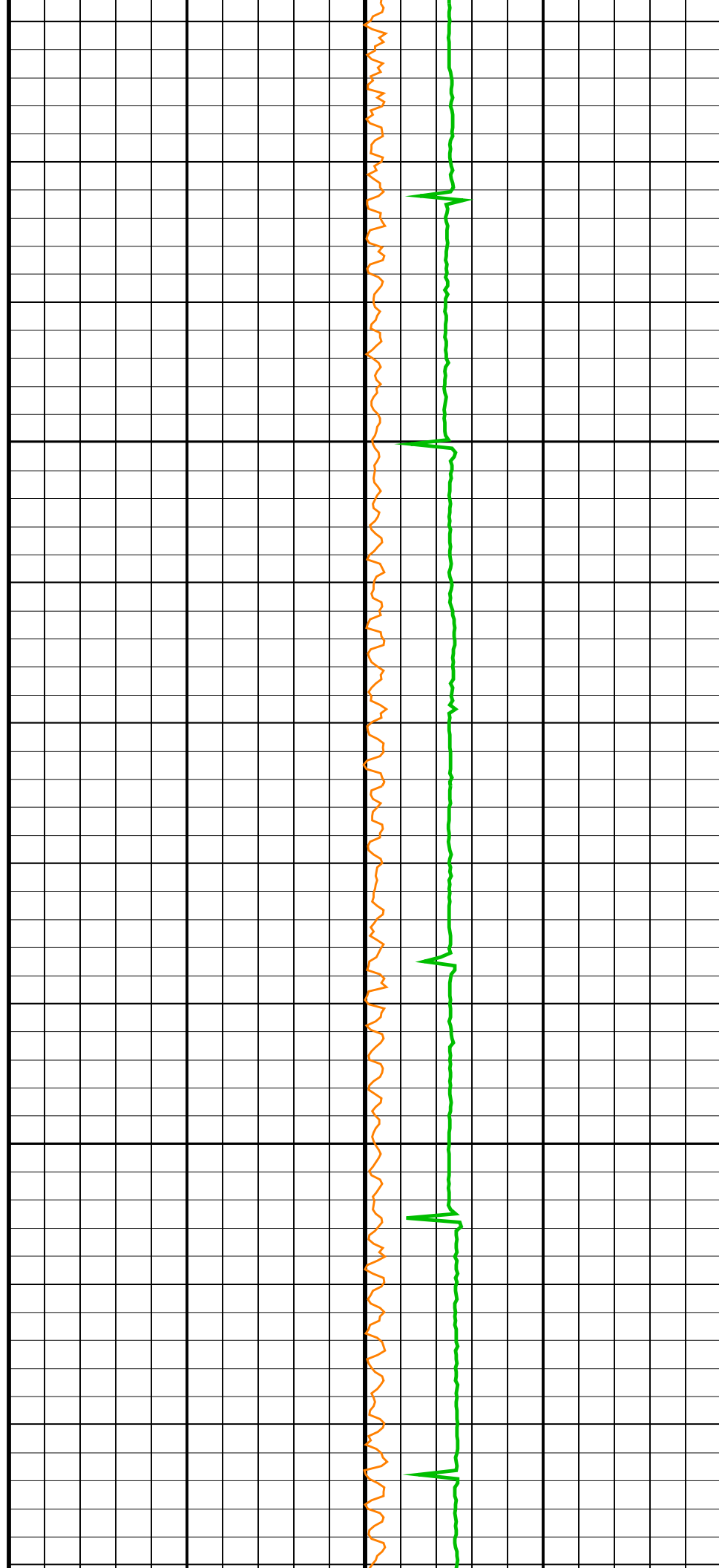
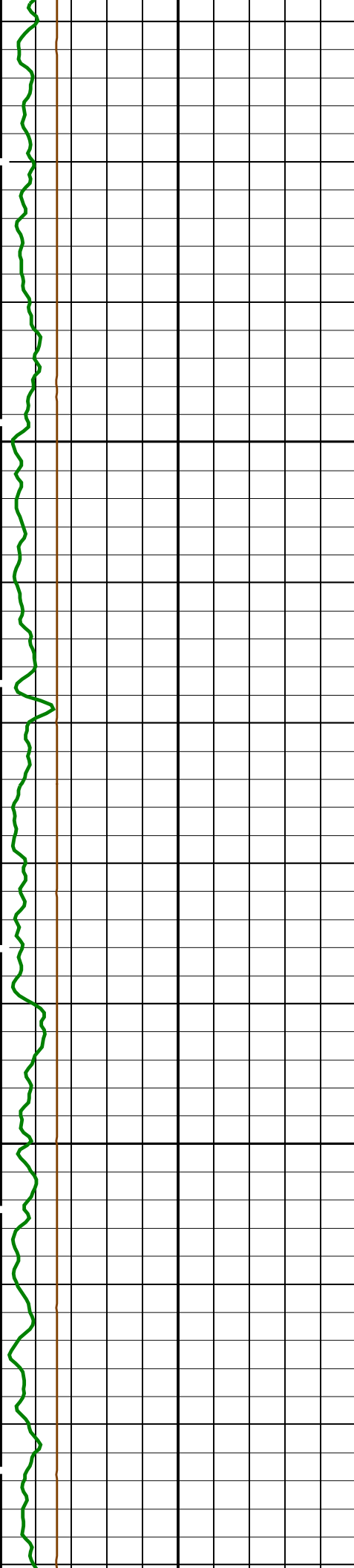
HNGC-B 19C0-187

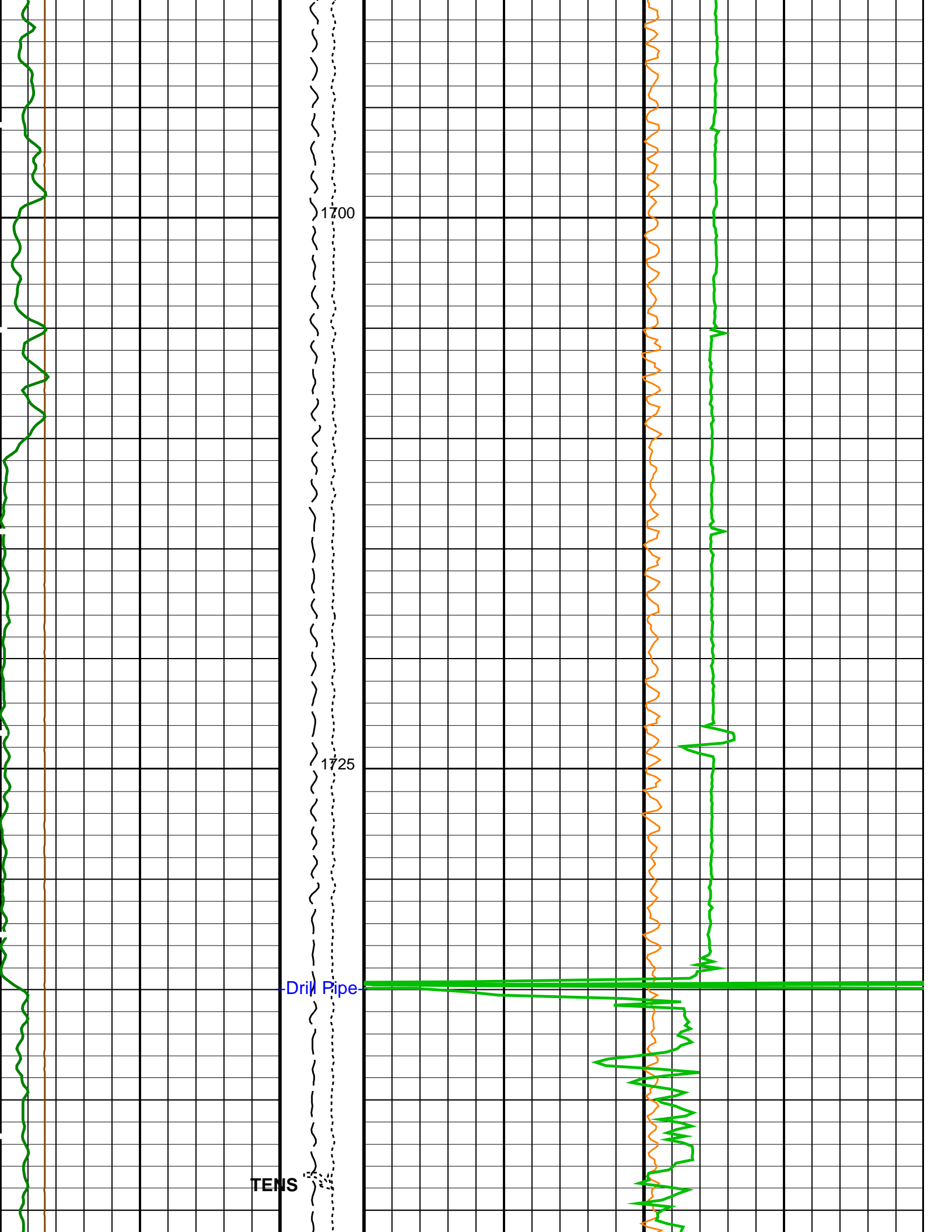
DTC-H 19C0-187

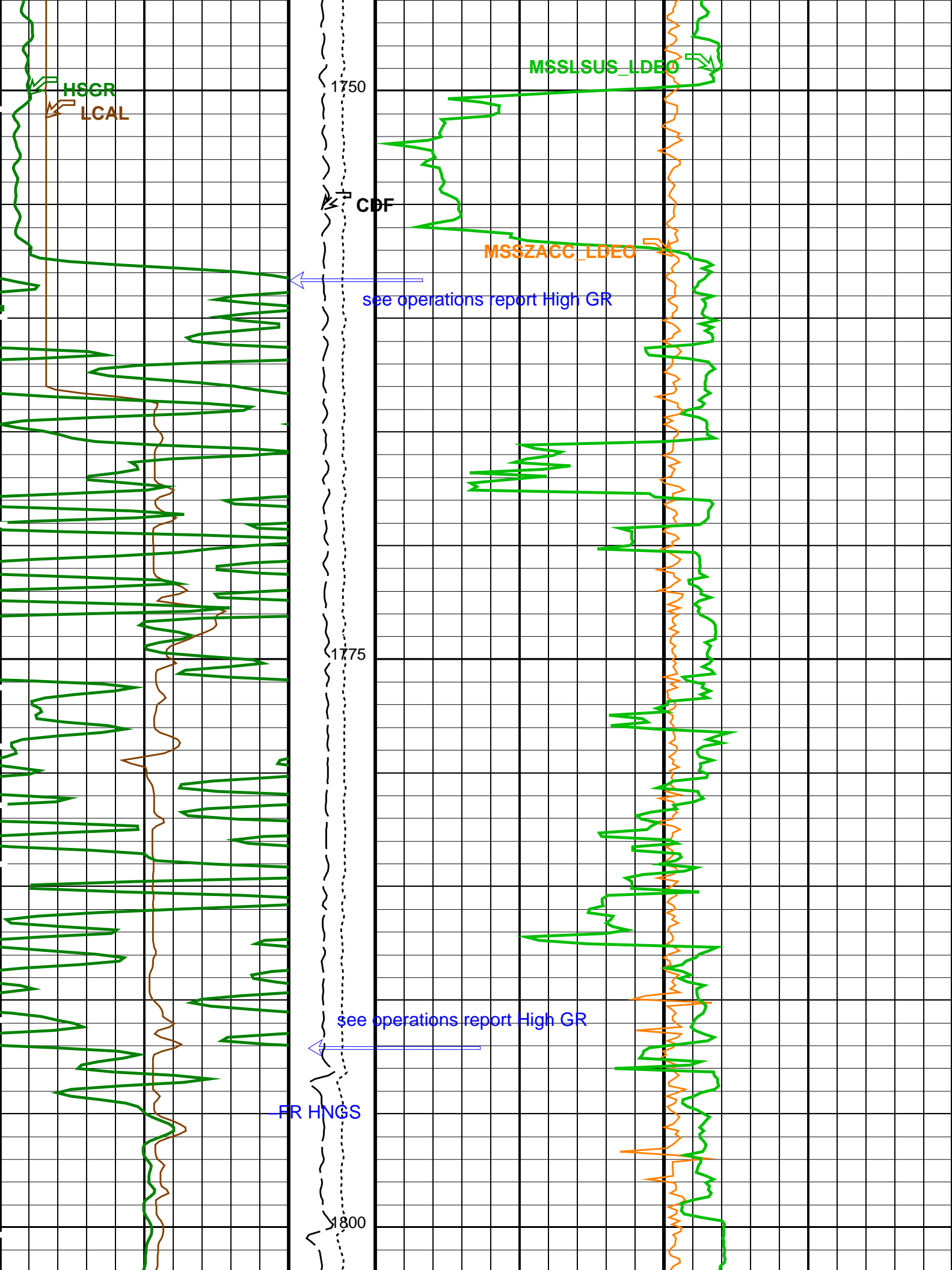


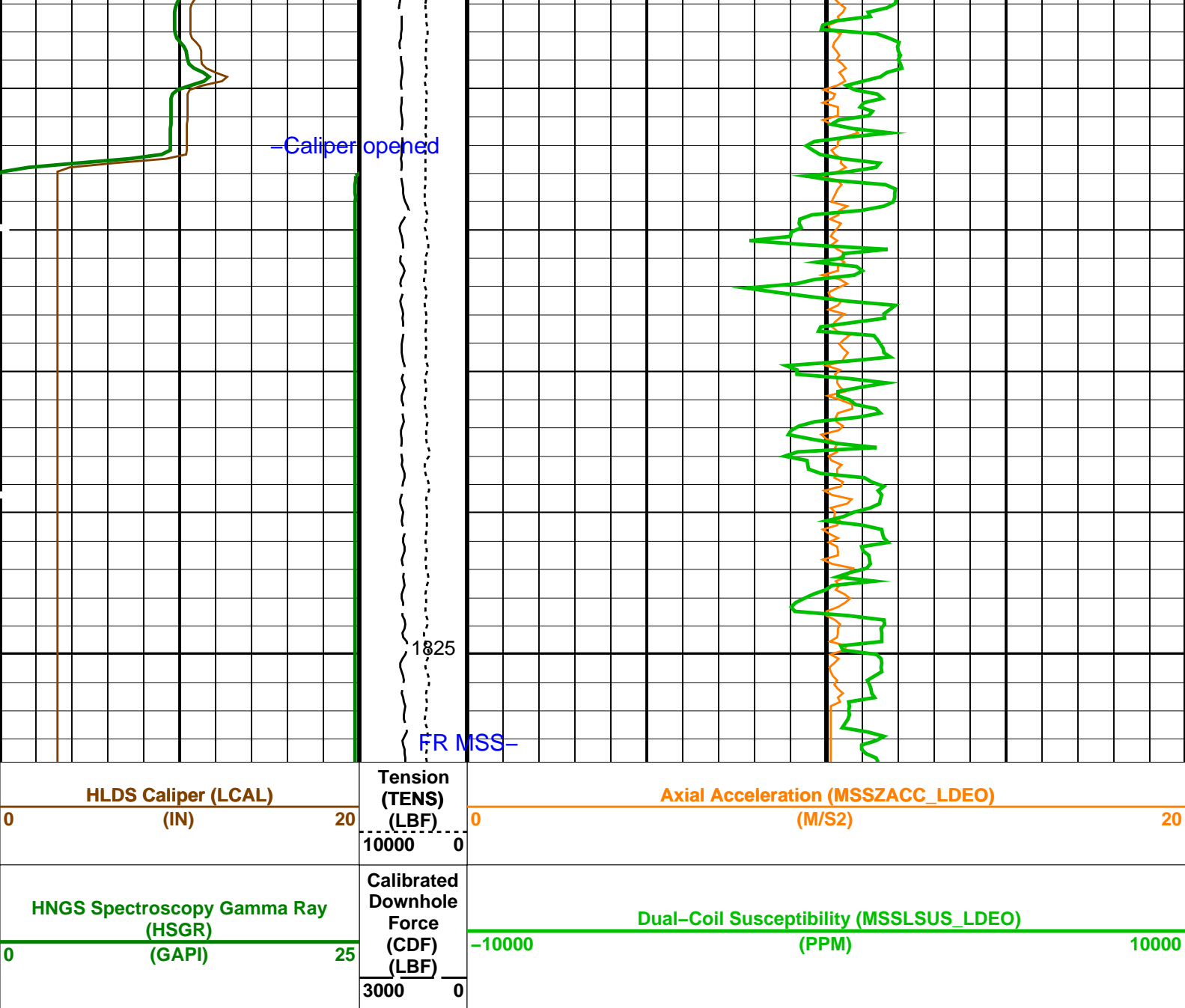












PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
HRLT-B: High Resolution Laterolog Array – B			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	100	DEGC
CALSTAT	HRLTB Calibration Status	SHALLOW_DONE	
CALTEMP	HRLTB Calibration Temperature	7.76192	DEGC
FREQ0	HRLT Frequency Index for Mode 0	32	
FREQ1	HRLT Frequency Index for Mode 1	128	
FREQ2	HRLT Frequency Index for Mode 2	104	
FREQ3	HRLT Frequency Index for Mode 3	86	
FREQ4	HRLT Frequency Index for Mode 4	56	
FREQ5	HRLT Frequency Index for Mode 5	44	
FREQ6	HRLT Frequency Index for Mode 6	116	
GCSE	Generalized Caliper Selection	LCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
ISSBAR	Barite Mud Switch	BARITE	
KFAC_HRLT	HRLT K Factor Option	SONDE	
LOOPCOEF_S	HRLT Loop Coefficient for Shallow Modes	LOW	
LOOPMOD0	HRLT Mode 0 Loop Mode	AUTO	
LOOPMOD1	HRLT Mode 1 Loop Mode	AUTO	

LOOPMOD2	HRLT Mode 2 Loop Mode	AUTO	
LOOPMOD3	HRLT Mode 3 Loop Mode	AUTO	
LOOPMOD4	HRLT Mode 4 Loop Mode	AUTO	
LOOPMOD5	HRLT Mode 5 Loop Mode	AUTO	
LOOPMOD6	HRLT Mode 6 Loop Mode	AUTO	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
PROCMFL	Inversion Selection	ON	
PROCMFL	Inversion Micro-Resistivity Selection	NO_EXTERNAL_RXO	
PROCMSO	Mechanical Standoff Fin Size	0	IN
PROCRM	Processing Mud Resistivity Select	HRLT_Compute	
PROCSP0	Sonde Position	Centered	
SHT	Surface Hole Temperature	20	DEGC
HLDS: Hostile Litho-Density Sonde			
CLCL	HLDS LS Control Loop Controller Mode	AUTO_DEFAULT	
CLCS	HLDS SS Control Loop Controller Mode	AUTO_DEFAULT	
CLLS	HLDS Mode Loop Long Spacing	AUTO	
CLSS	HLDS Mode Loop Short Spacing	AUTO	
DHC	Density Hole Correction	BS	
DPPM	Density Porosity Processing Mode	HIRS	
FD	Fluid Density	1	G/C3
LATC	HLDS Activation Correction	OFF	
LLDL	HLDS LS Low Level Discriminator DAC	14000	
LLDS	HLDS SS Low Level Discriminator DAC	14000	
LLML	HLDS LS Low Level Discriminator Mode	AUTO	
LLMS	HLDS SS Low Level Discriminator Mode	AUTO	
MDEN	Matrix Density	2.6	G/C3
PHVL	HLDS Long Spacing High Voltage Setting	1000	V
PHVS	HLDS Short Spacing High Voltage Setting	1500	V
PSDL	HLDS LS Pulse Shape Compensation DAC	30000	
PSDS	HLDS SS Pulse Shape Compensation DAC	30000	
PSML	HLDS LS Pulse Shape Compensation Mode	AUTO	
PSMS	HLDS SS Pulse Shape Compensation Mode	AUTO	
APS-C: Accelerator-Porosity Tool			
AASD	APS Software Version	5	
ADSO	APS Thermal and Array Detectors High Voltage Setting	1979.3	V
AFSD	APS Array Detectors Data Source Switch	Both	
AHCS	APS Far Detector High Voltage Setting	2063.54	V
AHSS	APS Holesize Correction Source	GCSE	
AMTY	APS Holesize Correction Switch	ON	
ANSD	APS Environmental Corrections Mud Type	WaterBaseBarite	
ASOS	APS Near Detector High Voltage Setting	1734.6	V
ATSS	APS Standoff Correction Switch	ON	
BHFL_APS	APS Temperature-Pressure-Salinity Correction Switch	ON	
BHS	APS TNPH Borehole Fluid Type	WATER	
BHT	Borehole Status	OPEN	
BSCO_APS	Bottom Hole Temperature (used in calculations)	100	DEGC
DPPM	APS TNPH Borehole Salinity Correction Option	YES	
DSCO_APS	Density Porosity Processing Mode	HIRS	
FSAL	APS TNPH Density Source Correction Option	MEASURED	
FSCO_APS	Formation Salinity	-50000	PPM
GCSE	APS TNPH Formation Salinity Correction Option	NO	
GDEV	Generalized Caliper Selection	LCAL	
GGRD	Average Angular Deviation of Borehole from Normal	0	DEG
GRSE	Geothermal Gradient	0.018227	DC/M
GTSE	Generalized Mud Resistivity Selection	CHART_GEN 9	
HSCO_APS	Generalized Temperature Selection	LINEAR_ESTIMATE	
ISSBAR	APS TNPH Hole Size Correction Option	YES	
MATR	Barite Mud Switch	BARITE	
MCCO_APS	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
MCOR_APS	APS TNPH Mud Cake Correction Option	YES	
MWCO_APS	APS TNPH Mud Correction	BARI	
NARC	APS TNPH Mud Weight Correction Option	YES	
NFRC	APS Near/Array Calibration Ratio	1.07955	
PTCO_APS	APS Near/Far Calibration Ratio	0.945037	
SHT	APS TNPH Pressure/Temperature Correction Option	YES	
TNCO_APS	Surface Hole Temperature	20	DEGC
	APS TNPH Computation Option	YES	
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)	100	DEGC
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	LCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN 9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
H1P	HNGS Detector 1 Allow/Disallow In Processing	ALLOW	
H2P	HNGS Detector 2 Allow/Disallow In Processing	ALLOW	

H2P	HNGS Detector 2 Allow/Disallow in Processing	ALLOW	
HABK	HNGS Borehole Potassium Running Average	-0.00102556	
HALF	HNGS Alpha Filter Length	60	IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	BARI	
HNPE	HNGS Processing Enable	YES	
ISSBAR	Barite Mud Switch	BARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
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	20	DEGC
TPOS	Tool Position	ECCE	
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	1.16668	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	1.28848	
System and Miscellaneous			
ALTDPCCHAN	Name of alternate depth channel	SpeedCorrectedDepth	
BS	Bit Size	9.875	IN
BSAL	Borehole Salinity	38000.00	PPM
CSIZ	Current Casing Size	5.500	IN
CWEI	Casing Weight	168.00	LB/F
DFD	Drilling Fluid Density	1.26	G/C3
DO	Depth Offset for Playback	0.0	M
FLEV	Fluid Level	-50000.00	M
MST	Mud Sample Temperature	23.00	DEGC
PBVSADP	Use alternate depth channel for playback	NO	
PP	Playback Processing	RECOMPUTE	
RMFS	Resistivity of Mud Filtrate Sample	-50000.0000	OHMM
RW	Resistivity of Connate Water	1.0000	OHMM
TD	Total Depth	6069.55	FT
TDD	Total Depth - Driller	1850.00	M
TDL	Total Depth - Logger	1850.00	M
TWS	Temperature of Connate Water Sample	37.78	DEGC

Format: MSS_Logging Vertical Scale: 1:200 Graphics File Created: 19-Aug-2020 12:06

OP System Version: 19C0-187

MSS_LDEO-A	19C0-187	HRLT-B	19C0-187
HLDS	19C0-187	LDSC-B	19C0-187
APS-C	19C0-187	HNGC-B	19C0-187
HNGS-BA	19C0-187	DTC-H	19C0-187

Input DLIS Files

DEFAULT	MSS_LDEO_HRLA_LDL_041LUP	FN:44	PRODUCER	15-Aug-2020 18:25	1828.8 M	1508.8 M
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Output DLIS Files

DEFAULT	MSS_LDEO_HRLA_LDL_069PUP	FN:94	PRODUCER	19-Aug-2020 12:06		
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Input DLIS Files

DEFAULT	MSS_LDEO_HRLA_LDL_041LUP	FN:44	PRODUCER	15-Aug-2020 18:25	1828.8 M	1508.8 M
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Output DLIS Files

DEFAULT	MSS_LDEO_HRLA_LDL_069PUP	FN:94	PRODUCER	19-Aug-2020 12:06	1828.8 M	1508.0 M
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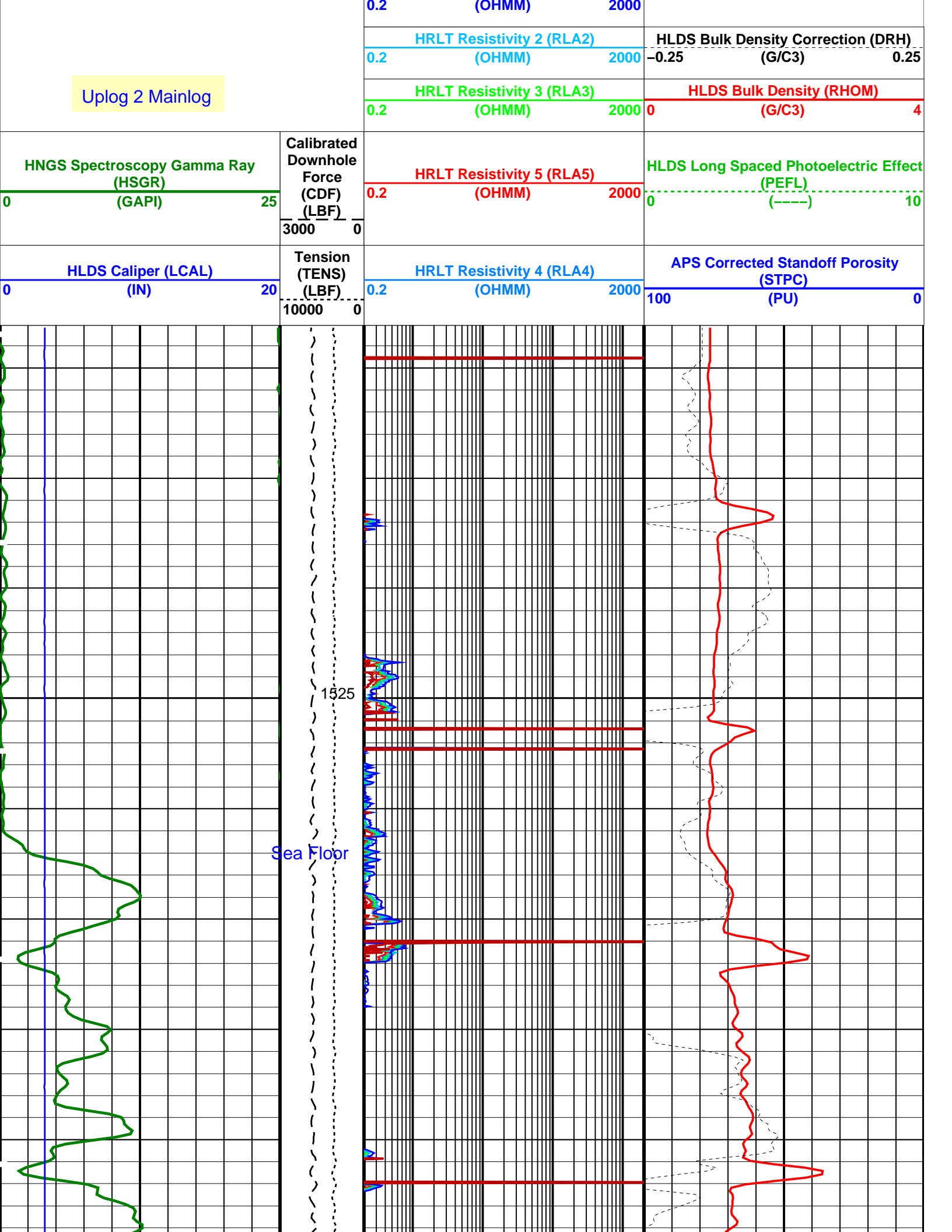
OP System Version: 19C0-187

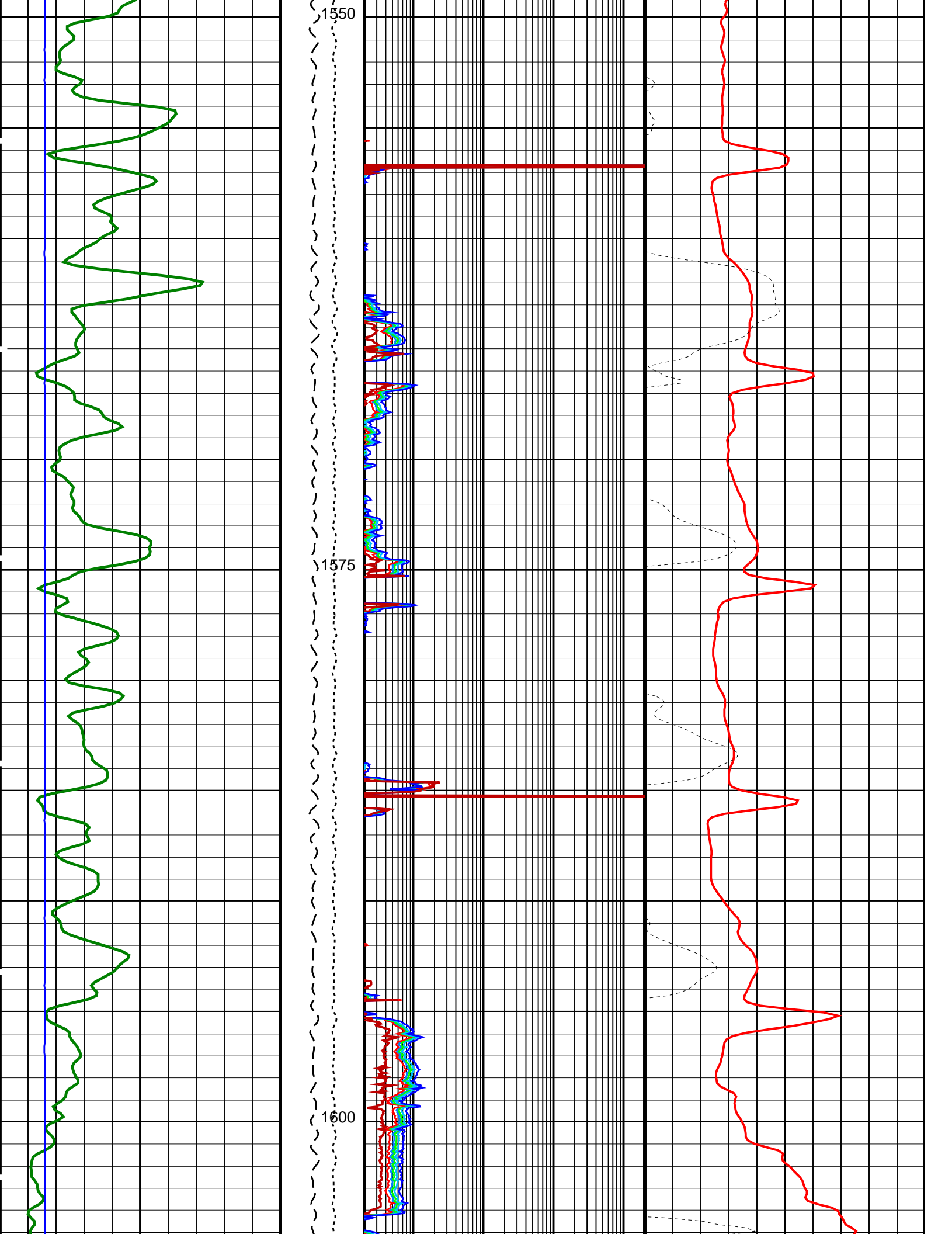
MSS_LDEO-A	19C0-187	HRLT-B	19C0-187
HLDS	19C0-187	LDSC-B	19C0-187
APS-C	19C0-187	HNGC-B	19C0-187
HNGS-BA	19C0-187	DTC-H	19C0-187

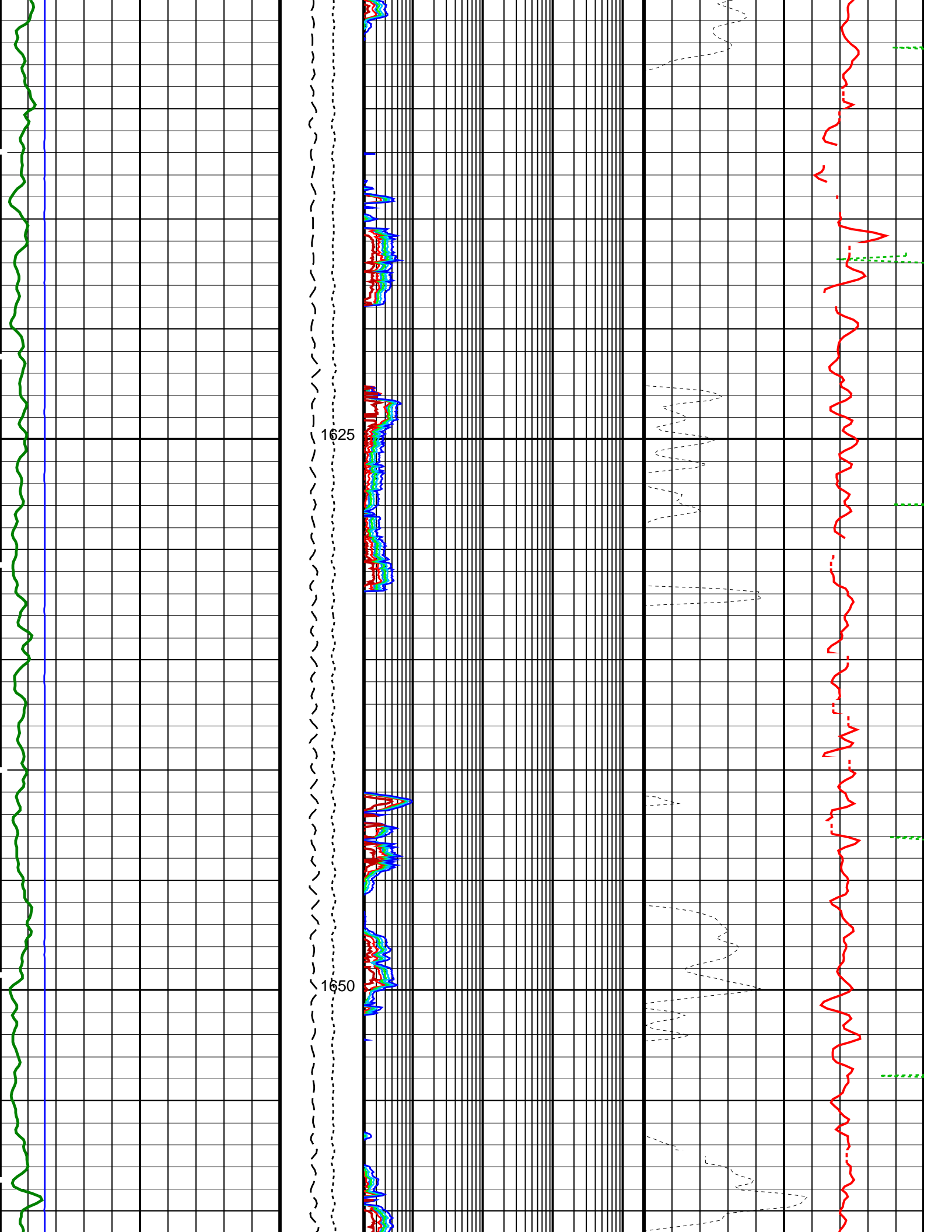
PIP SUMMARY

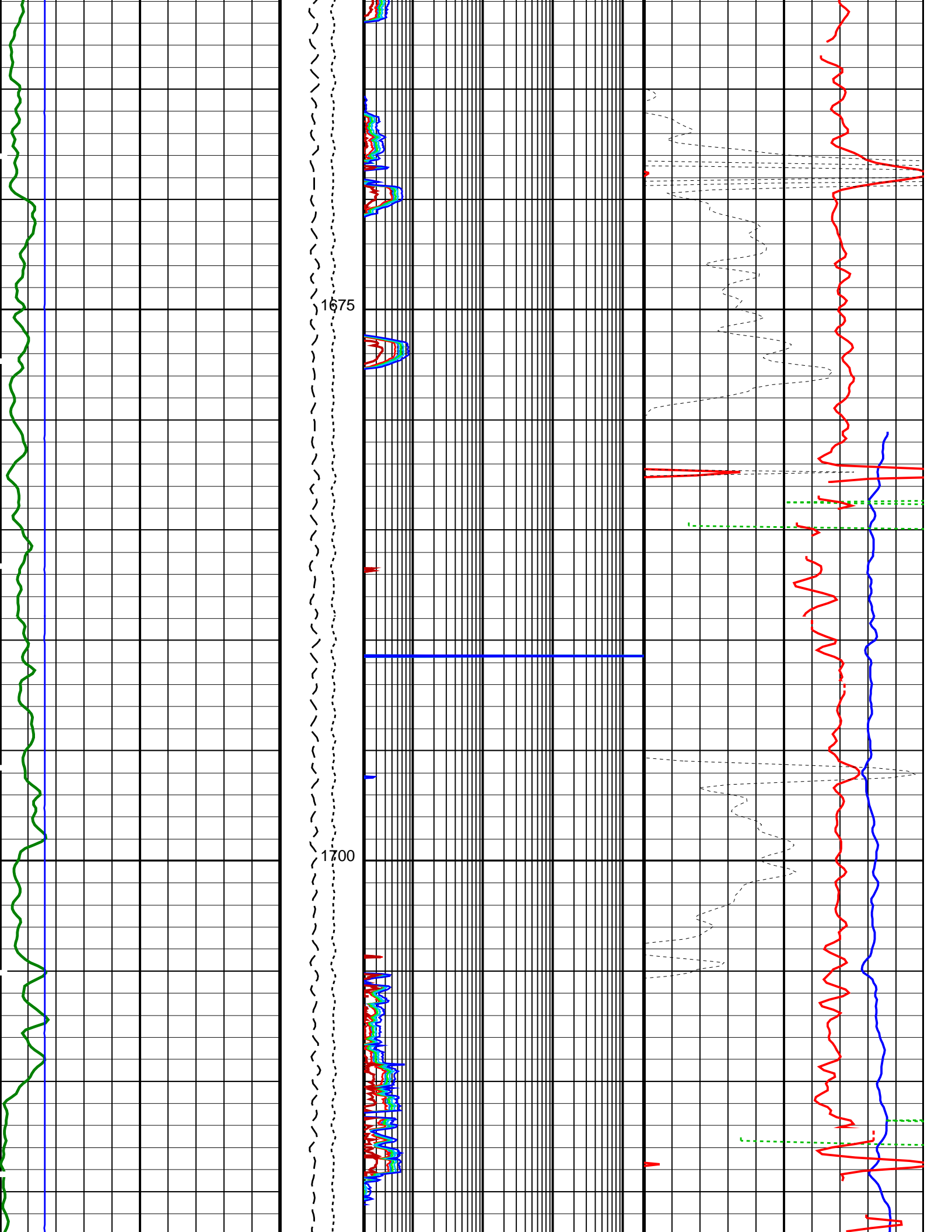
 Time Mark Every 60 S

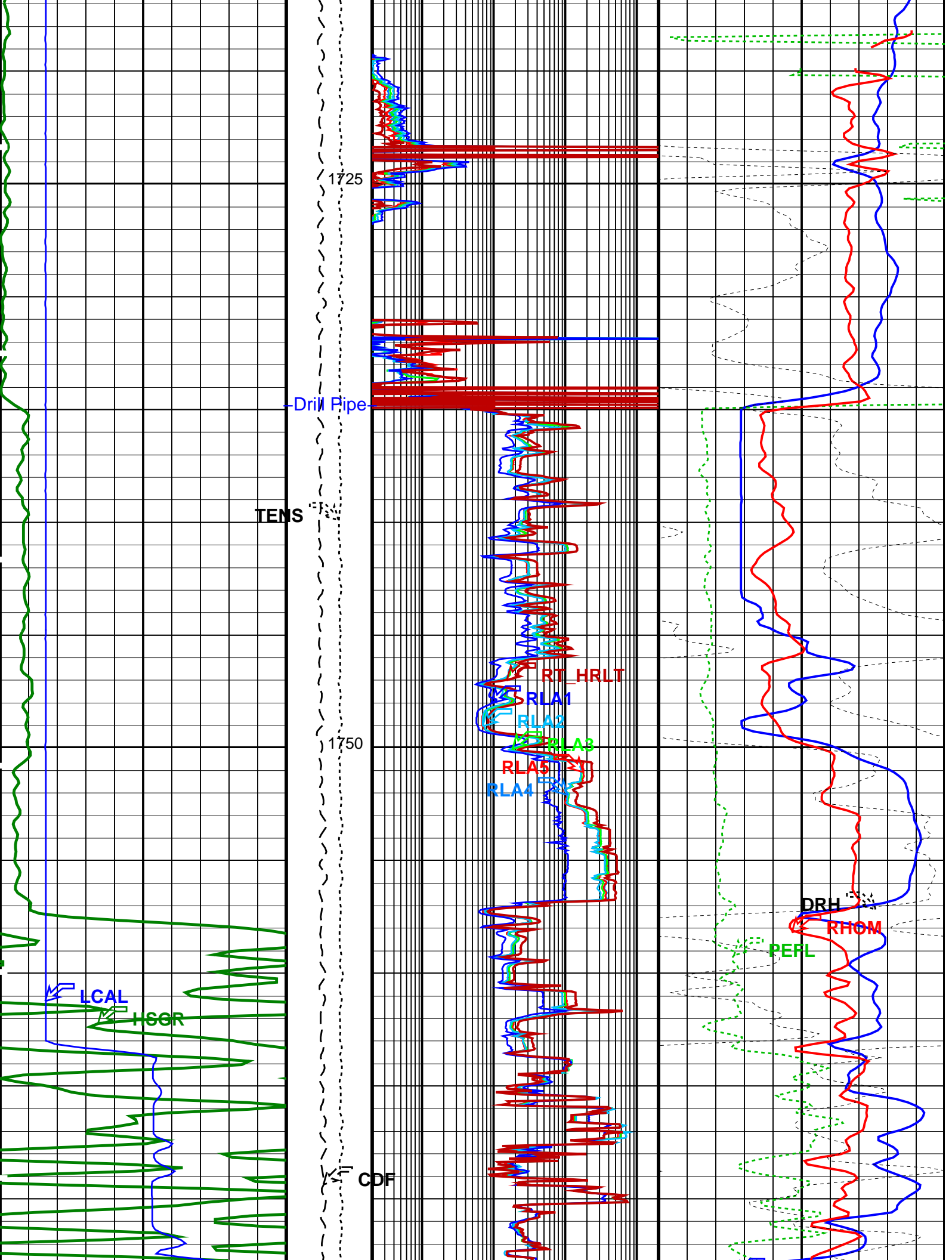
HRLT True Resistivity (RT_HRLT)		
0.2	(OHMM)	2000
HRLT Resistivity 1 (RLA1)		

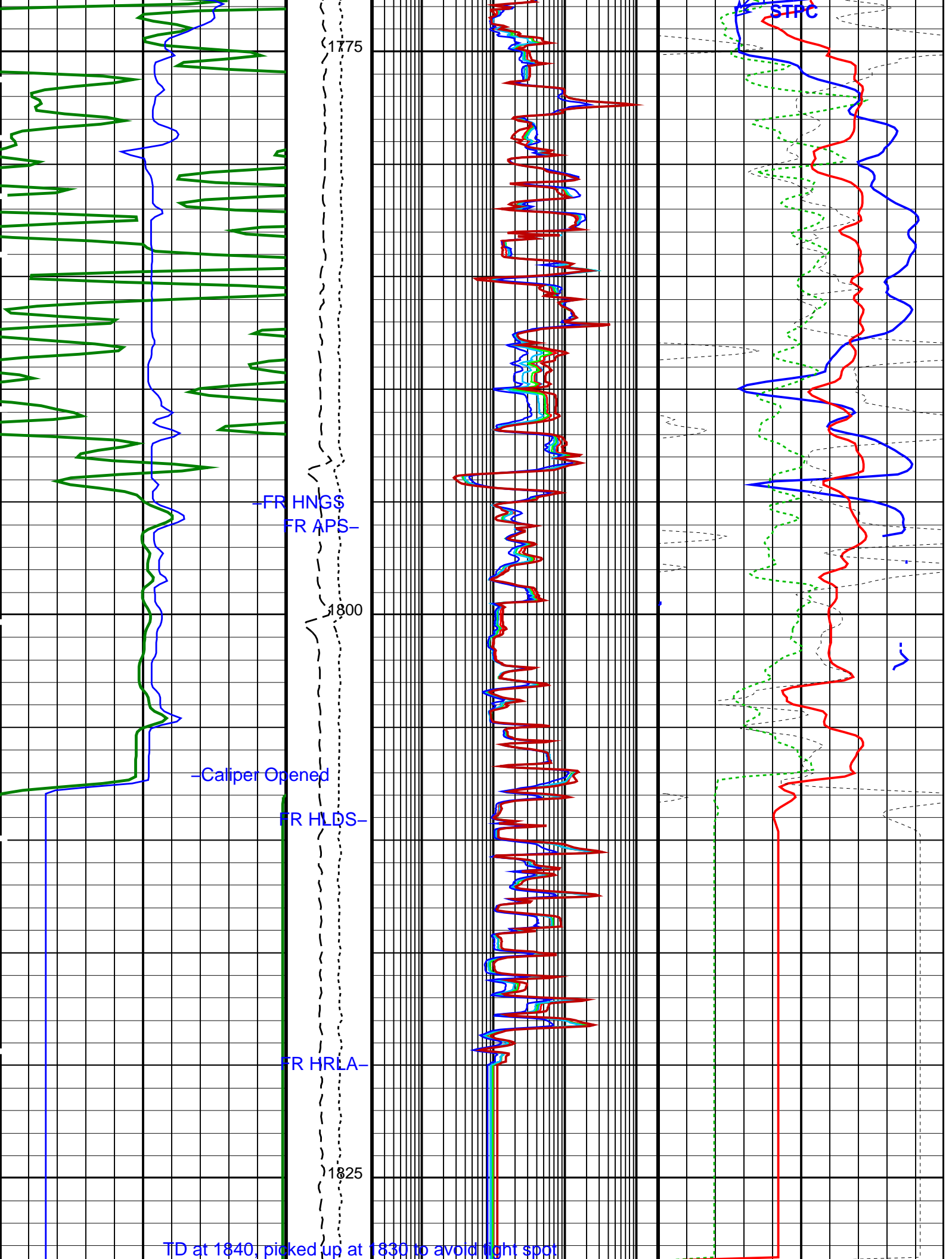












HLDS Caliper (LCAL) 0 (IN) 20		Tension (TENS) (LBF) 10000 0	HRLT Resistivity 4 (RLA4) 0.2 (OHMM) 2000		APS Corrected Standoff Porosity (STPC) 100 (PU) 0	
HNGS Spectroscopy Gamma Ray (HSGR) 0 (GAPI) 25		Calibrated Downhole Force (CDF) (LBF) 3000 0	HRLT Resistivity 5 (RLA5) 0.2 (OHMM) 2000		HLDS Long Spaced Photoelectric Effect (PEFL) 0 (----) 10	
Uplong 2 Mainlog			HRLT Resistivity 3 (RLA3) 0.2 (OHMM) 2000		HLDS Bulk Density (RHOM) 0 (G/C3) 4	
			HRLT Resistivity 2 (RLA2) 0.2 (OHMM) 2000		HLDS Bulk Density Correction (DRH) -0.25 (G/C3) 0.25	
			HRLT Resistivity 1 (RLA1) 0.2 (OHMM) 2000			
			HRLT True Resistivity (RT_HRLT) 0.2 (OHMM) 2000			
			PIP SUMMARY			
Time Mark Every 60 S						

Parameters

DLIS Name	Description	Value	
HRLT-B: High Resolution Laterolog Array – B			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	100	DEGC
CALSTAT	HRLTB Calibration Status	SHALLOW_DONE	
CALTEMP	HRLTB Calibration Temperature	7.76192	DEGC
FREQ0	HRLT Frequency Index for Mode 0	32	
FREQ1	HRLT Frequency Index for Mode 1	128	
FREQ2	HRLT Frequency Index for Mode 2	104	
FREQ3	HRLT Frequency Index for Mode 3	86	
FREQ4	HRLT Frequency Index for Mode 4	56	
FREQ5	HRLT Frequency Index for Mode 5	44	
FREQ6	HRLT Frequency Index for Mode 6	116	
GCSE	Generalized Caliper Selection	LCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
ISSBAR	Barite Mud Switch	BARITE	
KFAC_HRLT	HRLT K Factor Option	SONDE	
LOOPCOEF_S	HRLT Loop Coefficient for Shallow Modes	LOW	
LOOPMOD0	HRLT Mode 0 Loop Mode	AUTO	
LOOPMOD1	HRLT Mode 1 Loop Mode	AUTO	
LOOPMOD2	HRLT Mode 2 Loop Mode	AUTO	
LOOPMOD3	HRLT Mode 3 Loop Mode	AUTO	
LOOPMOD4	HRLT Mode 4 Loop Mode	AUTO	
LOOPMOD5	HRLT Mode 5 Loop Mode	AUTO	
LOOPMOD6	HRLT Mode 6 Loop Mode	AUTO	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
PROGINV	Inversion Selection	ON	
PROCMFL	Inversion Micro-Resistivity Selection	NO_EXTERNAL_RXO	
PROCMSO	Mechanical Standoff Fin Size	0	IN
PROCRM	Processing Mud Resistivity Select	HRLT_Compute	
PROCSPO	Sonde Position	Centered	
SHT	Surface Hole Temperature	20	DEGC
HLDS: Hostile Litho-Density Sonde			
CLCL	HLDS LS Control Loop Controller Mode	AUTO_DEFAULT	
CLCS	HLDS SS Control Loop Controller Mode	AUTO_DEFAULT	
CLLS	HLDS Mode Loop Long Spacing	AUTO	
CLSS	HLDS Mode Loop Short Spacing	AUTO	
DHC	Density Hole Correction	BS	
DPPM	Density Porosity Processing Mode	HIRS	
FD	Fluid Density	1	G/C3
LATC	HLDS Activation Correction	OFF	
LLDL	HLDS LS Low Level Discriminator DAC	14000	
LLDS	HLDS SS Low Level Discriminator DAC	14000	
LLML	HLDS LS Low Level Discriminator Mode	AUTO	
LLMS	HLDS SS Low Level Discriminator Mode	AUTO	
MDEN	Matrix Density	2.6	G/C3

PHVL	HLDS Long Spacing High Voltage Setting	1000	V
PHVS	HLDS Short Spacing High Voltage Setting	1500	V
PSDL	HLDS LS Pulse Shape Compensation DAC	30000	
PSDS	HLDS SS Pulse Shape Compensation DAC	30000	
PSML	HLDS LS Pulse Shape Compensation Mode	AUTO	
PSMS	HLDS SS Pulse Shape Compensation Mode	AUTO	
APS-C: Accelerator-Porosity Tool			
	APS Software Version	5	
AASD	APS Thermal and Array Detectors High Voltage Setting	1979.3	V
ADSO	APS Array Detectors Data Source Switch	Both	
AFSD	APS Far Detector High Voltage Setting	2063.54	V
AHCS	APS Holesize Correction Source	GCSE	
AHSS	APS Holesize Correction Switch	ON	
AMTY	APS Environmental Corrections Mud Type	WaterBaseBarite	
ANSD	APS Near Detector High Voltage Setting	1734.6	V
ASOS	APS Standoff Correction Switch	ON	
ATSS	APS Temperature-Pressure-Salinity Correction Switch	ON	
BHFL_APS	APS TNPH Borehole Fluid Type	WATER	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	100	DEGC
BSCO_APS	APS TNPH Borehole Salinity Correction Option	YES	
DPPM	Density Porosity Processing Mode	HIRS	
DSCO_APS	APS TNPH Density Source Correction Option	MEASURED	
FSAL	Formation Salinity	-50000	PPM
FSCO_APS	APS TNPH Formation Salinity Correction Option	NO	
GCSE	Generalized Caliper Selection	LCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
HSCO_APS	APS TNPH Hole Size Correction Option	YES	
ISSBAR	Barite Mud Switch	BARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
MCCO_APS	APS TNPH Mud Cake Correction Option	YES	
MCOR_APS	APS TNPH Mud Correction	BARI	
MWCO_APS	APS TNPH Mud Weight Correction Option	YES	
NARC	APS Near/Array Calibration Ratio	1.07955	
NFRC	APS Near/Far Calibration Ratio	0.945037	
PTCO_APS	APS TNPH Pressure/Temperature Correction Option	YES	
SHT	Surface Hole Temperature	20	DEGC
TNCO_APS	APS TNPH Computation Option	YES	
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)	100	DEGC
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	LCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
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	-0.00102556	
HALF	HNGS Alpha Filter Length	60	IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	BARI	
HNPE	HNGS Processing Enable	YES	
ISSBAR	Barite Mud Switch	BARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
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	20	DEGC
TPOS	Tool Position	ECCE	
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	1.16668	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	1.28848	
System and Miscellaneous			
ALTDPCHAN	Name of alternate depth channel	SpeedCorrectedDepth	
BS	Bit Size	9.875	IN
BSAL	Borehole Salinity	38000.00	PPM
CSIZ	Current Casing Size	5.500	IN
CWEI	Casing Weight	168.00	LB/F
DFD	Drilling Fluid Density	1.26	G/C3
DO	Depth Offset for Playback	0.0	M
FLEV	Fluid Level	-50000.00	M
MST	Mud Sample Temperature	23.00	DEGC
PBVSADP	Use alternate depth channel for playback	NO	
PP	Playback Processing	RECOMPUTE	

Calibration and Check Summary							
Measurement	Nominal	Master	Before	After	Change	Limit	Units
High Resolution Laterolog Array – B Wellsite Calibration – HRLT M01							
Before: 15–Aug–2020 15:01 After: 15–Aug–2020 19:19							
HRLT M0–M1 Voltage Plus – 0	0	N/A	–318.5	–318.4	0.09381	9.681	UV
HRLT M0–M1 Voltage Plus – 1	0	N/A	–329.3	–329.8	–0.4047	9.681	UV
HRLT M0–M1 Voltage Plus – 2	0	N/A	–337.3	–337.4	–0.1013	9.681	UV
HRLT M0–M1 Voltage Plus – 3	0	N/A	–327.9	–327.9	–0.08243	9.681	UV
HRLT M0–M1 Voltage Plus – 4	0	N/A	–319.6	–319.6	0.01727	9.681	UV
HRLT M0–M1 Voltage Plus – 5	0	N/A	–321.4	–321.3	0.07889	9.681	UV
HRLT M0–M1 Voltage Plus – 6	0	N/A	318.9	319.0	0.03171	9.681	UV
HRLT M0–M1 Voltage Plus – 7	0	N/A	–322.7	–322.7	0	9.681	UV
High Resolution Laterolog Array – B Wellsite Calibration – HRLT M12							
Before: 15–Aug–2020 15:01 After: 15–Aug–2020 19:19							
HRLT M1–M2 Voltage Plus – 0	0	N/A	1738	1737	–0.8867	53.42	UV
HRLT M1–M2 Voltage Plus – 1	0	N/A	1805	1806	0.8785	53.42	UV
HRLT M1–M2 Voltage Plus – 2	0	N/A	1841	1841	–0.3638	53.42	UV
HRLT M1–M2 Voltage Plus – 3	0	N/A	1788	1787	–0.4410	53.42	UV
HRLT M1–M2 Voltage Plus – 4	0	N/A	1741	1740	–1.032	53.42	UV
HRLT M1–M2 Voltage Plus – 5	0	N/A	1752	1751	–1.323	53.42	UV
HRLT M1–M2 Voltage Plus – 6	0	N/A	–1756	–1755	0.9510	53.42	UV
HRLT M1–M2 Voltage Plus – 7	0	N/A	1781	1781	0	53.42	UV
High Resolution Laterolog Array – B Wellsite Calibration – HRLT M23							
Before: 15–Aug–2020 15:01 After: 15–Aug–2020 19:19							
HRLT M2–M3 Voltage Plus – 0	0	N/A	1730	1729	–0.7076	53.42	UV
HRLT M2–M3 Voltage Plus – 1	0	N/A	1806	1807	0.8945	53.42	UV
HRLT M2–M3 Voltage Plus – 2	0	N/A	1844	1844	0.1006	53.42	UV
HRLT M2–M3 Voltage Plus – 3	0	N/A	1795	1795	–0.1241	53.42	UV
HRLT M2–M3 Voltage Plus – 4	0	N/A	1743	1742	–0.7809	53.42	UV
HRLT M2–M3 Voltage Plus – 5	0	N/A	1755	1754	–0.5706	53.42	UV
HRLT M2–M3 Voltage Plus – 6	0	N/A	–1746	–1746	0.4423	53.42	UV
HRLT M2–M3 Voltage Plus – 7	0	N/A	1781	1781	0	53.42	UV
High Resolution Laterolog Array – B Wellsite Calibration – HRLT V34							
Before: 15–Aug–2020 15:01 After: 15–Aug–2020 19:19							
HRLT A3–A4 Voltage Plus – 0	0	N/A	68590	68570	–15.69	2100	UV
HRLT A3–A4 Voltage Plus – 1	0	N/A	71450	71520	73.14	2100	UV
HRLT A3–A4 Voltage Plus – 2	0	N/A	73250	73250	0	2100	UV
HRLT A3–A4 Voltage Plus – 3	0	N/A	71560	71560	0	2100	UV
HRLT A3–A4 Voltage Plus – 4	0	N/A	69430	69410	–23.39	2100	UV
HRLT A3–A4 Voltage Plus – 5	0	N/A	69900	69870	–25.23	2100	UV
HRLT A3–A4 Voltage Plus – 6	0	N/A	–68100	–68100	–1.734	2100	UV
HRLT A3–A4 Voltage Plus – 7	0	N/A	70000	70000	0	2100	UV
High Resolution Laterolog Array – B Wellsite Calibration – HRLT V45							

High Resolution Laterolog Array – B Wellsite Calibration – HRLT V45

Before: 15–Aug–2020 15:01 After: 15–Aug–2020 19:19

HRLT A4–A5 Voltage Plus – 0	0	N/A	68670	68650	–22.59	2100	UV
HRLT A4–A5 Voltage Plus – 1	0	N/A	71660	71730	70.41	2100	UV
HRLT A4–A5 Voltage Plus – 2	0	N/A	73440	73440	–1.641	2100	UV
HRLT A4–A5 Voltage Plus – 3	0	N/A	71720	71720	4.555	2100	UV
HRLT A4–A5 Voltage Plus – 4	0	N/A	69540	69520	–20.72	2100	UV
HRLT A4–A5 Voltage Plus – 5	0	N/A	70000	69960	–34.95	2100	UV
HRLT A4–A5 Voltage Plus – 6	0	N/A	–68310	–68310	6.070	2100	UV
HRLT A4–A5 Voltage Plus – 7	0	N/A	70000	70000	0	2100	UV

High Resolution Laterolog Array – B Wellsite Calibration – HRLT V56

Before: 15–Aug–2020 15:01 After: 15–Aug–2020 19:19

HRLT A5–A6 Voltage Plus – 0	0	N/A	68510	68500	–14.43	2100	UV
HRLT A5–A6 Voltage Plus – 1	0	N/A	71510	71580	66.74	2100	UV
HRLT A5–A6 Voltage Plus – 2	0	N/A	73270	73300	27.11	2100	UV
HRLT A5–A6 Voltage Plus – 3	0	N/A	71560	71560	0	2100	UV
HRLT A5–A6 Voltage Plus – 4	0	N/A	69390	69380	–12.03	2100	UV
HRLT A5–A6 Voltage Plus – 5	0	N/A	69860	69850	–12.95	2100	UV
HRLT A5–A6 Voltage Plus – 6	0	N/A	–68150	–68150	1.734	2100	UV
HRLT A5–A6 Voltage Plus – 7	0	N/A	70000	70000	0	2100	UV

High Resolution Laterolog Array – B Wellsite Calibration – HRLT VTP

Before: 15–Aug–2020 15:01 After: 15–Aug–2020 19:19

HRLT Torpedo–M0 Voltage – 0	0	N/A	–68060	–68040	22.16	2100	UV
HRLT Torpedo–M0 Voltage – 1	0	N/A	–71320	–71380	–60.85	2100	UV
HRLT Torpedo–M0 Voltage – 2	0	N/A	–73130	–73130	–1.570	2100	UV
HRLT Torpedo–M0 Voltage – 3	0	N/A	–71460	–71470	–6.516	2100	UV
HRLT Torpedo–M0 Voltage – 4	0	N/A	–69360	–69340	17.88	2100	UV
HRLT Torpedo–M0 Voltage – 5	0	N/A	–69830	–69790	38.95	2100	UV
HRLT Torpedo–M0 Voltage – 6	0	N/A	67930	67910	–17.32	2100	UV
HRLT Torpedo–M0 Voltage – 7	0	N/A	–70000	–70000	0	2100	UV

High Resolution Laterolog Array – B Wellsite Calibration – HRLT VBD

Before: 15–Aug–2020 15:01 After: 15–Aug–2020 19:19

HRLT Bridle#9–M0 Voltage – 0	0	N/A	–68090	–68070	13.78	2100	UV
HRLT Bridle#9–M0 Voltage – 1	0	N/A	–71400	–71460	–62.59	2100	UV
HRLT Bridle#9–M0 Voltage – 2	0	N/A	–73210	–73230	–14.86	2100	UV
HRLT Bridle#9–M0 Voltage – 3	0	N/A	–71550	–71550	–0.7188	2100	UV
HRLT Bridle#9–M0 Voltage – 4	0	N/A	–69410	–69390	18.51	2100	UV
HRLT Bridle#9–M0 Voltage – 5	0	N/A	–69870	–69830	33.99	2100	UV
HRLT Bridle#9–M0 Voltage – 6	0	N/A	68010	68000	–0.8281	2100	UV
HRLT Bridle#9–M0 Voltage – 7	0	N/A	–70000	–70000	0	2100	UV

High Resolution Laterolog Array – B Wellsite Calibration – HRLT ISO

Before: 15–Aug–2020 15:01 After: 15–Aug–2020 19:19

HRLT Source Current Plus – 0	0	N/A	284.1	284.1	–0.02100	8.520	UA
HRLT Source Current Plus – 1	0	N/A	281.1	281.1	0	8.520	UA
HRLT Source Current Plus – 2	0	N/A	281.1	281.1	0	8.520	UA
HRLT Source Current Plus – 3	0	N/A	281.1	281.1	0	8.520	UA
HRLT Source Current Plus – 4	0	N/A	281.1	281.1	0	8.520	UA
HRLT Source Current Plus – 5	0	N/A	281.1	281.1	0	8.520	UA
HRLT Source Current Plus – 6	0	N/A	281.1	281.1	0	8.520	UA
HRLT Source Current Plus – 7	0	N/A	281.1	281.1	0	8.520	UA

High Resolution Laterolog Array – B Wellsite Calibration – HRLT MV

Before: 15–Aug–2020 15:01 After: 15–Aug–2020 19:19

HRLT Vertical Voltage PI – 0	0	N/A	–320.5	–320.1	0.3301	9.681	UV
HRLT Vertical Voltage PI – 1	0	N/A	–324.3	–324.4	–0.07037	9.681	UV
HRLT Vertical Voltage PI – 2	0	N/A	–330.9	–330.7	0.1829	9.681	UV
HRLT Vertical Voltage PI – 3	0	N/A	–319.9	–319.7	0.1727	9.681	UV
HRLT Vertical Voltage PI – 4	0	N/A	–308.8	–308.5	0.3094	9.681	UV
HRLT Vertical Voltage PI – 5	0	N/A	–325.5	–325.1	0.3899	9.681	UV
HRLT Vertical Voltage PI – 6	0	N/A	326.5	326.3	–0.2578	9.681	UV
HRLT Vertical Voltage PI – 7	0	N/A	–322.7	–322.7	0	9.681	UV

Hostile Litho–Density Sonde Wellsite Calibration – Background Measurement

Master: 4–Aug–2020 23:12 Before: 4–Aug–2020 23:55 After: Calibration out of date 30–Dec–2019 21:44

SS Cs Resolution Bkg	9.000	7.659	7.613	7.670	0.05669	1.800	%
LS Cs Resolution Bkg	9.000	7.946	8.014	7.920	–0.09429	1.800	%
LSW1 Background	100.0	72.42	72.36	72.61	0.2455	3.000	CPS
LSW2 Background	100.0	65.51	66.87	65.78	–1.098	3.000	CPS
LSW3 Background	200.0	149.1	149.6	148.0	–1.661	6.000	CPS
LSW4 Background	250.0	184.6	184.1	186.0	1.912	7.500	CPS
LSW5 Background	600.0	432.1	428.4	437.4	9.001	18.00	CPS
SSW1 Background	100.0	71.84	70.94	70.95	0.01318	3.000	CPS
SSW2 Background	200.0	120.4	120.1	120.8	0.6884	6.000	CPS
SSW3 Background	500.0	334.8	336.8	340.2	3.400	15.00	CPS
SSW4 Background	270.0	182.2	180.8	184.7	3.877	8.100	CPS
SSW5 Background	200.0	130.5	128.7	132.9	4.174	6.000	CPS

Hostile Litho–Density Sonde Wellsite Calibration – Aluminum Measurement

Master: 4-Aug-2020 23:43

LSW1 Aluminum	600.0	436.8	N/A	N/A	N/A	N/A	CPS
LSW2 Aluminum	900.0	653.0	N/A	N/A	N/A	N/A	CPS
LSW3 Aluminum	1100	789.7	N/A	N/A	N/A	N/A	CPS
LSW4 Aluminum	580.0	401.5	N/A	N/A	N/A	N/A	CPS
LSW5 Aluminum	570.0	366.8	N/A	N/A	N/A	N/A	CPS
SSW1 Aluminum	2800	2147	N/A	N/A	N/A	N/A	CPS
SSW2 Aluminum	8000	6002	N/A	N/A	N/A	N/A	CPS
SSW3 Aluminum	11600	8326	N/A	N/A	N/A	N/A	CPS
SSW4 Aluminum	5000	3348	N/A	N/A	N/A	N/A	CPS
SSW5 Aluminum	660.0	389.3	N/A	N/A	N/A	N/A	CPS

Hostile Litho-Density Sonde Wellsite Calibration – Lithology Measurement

Master: 4-Aug-2020 23:37

LSW1 Iron	400.0	307.7	N/A	N/A	N/A	N/A	CPS
LSW2 Iron	730.0	543.0	N/A	N/A	N/A	N/A	CPS
LSW3 Iron	1000	707.7	N/A	N/A	N/A	N/A	CPS
LSW4 Iron	520.0	367.1	N/A	N/A	N/A	N/A	CPS
LSW5 Iron	470.0	335.3	N/A	N/A	N/A	N/A	CPS
SSW1 Iron	2100	1564	N/A	N/A	N/A	N/A	CPS
SSW2 Iron	6800	5006	N/A	N/A	N/A	N/A	CPS
SSW3 Iron	10800	7615	N/A	N/A	N/A	N/A	CPS
SSW4 Iron	4600	3064	N/A	N/A	N/A	N/A	CPS
SSW5 Iron	580.0	346.2	N/A	N/A	N/A	N/A	CPS

Hostile Litho-Density Sonde Wellsite Calibration – Caliper Calibration

Before: 5-Aug-2020 21:21

HLDS Caliper Small Ring	12.00	N/A	16.09	N/A	N/A	N/A	IN
HLDS Caliper Large Ring	15.19	N/A	20.07	N/A	N/A	N/A	IN

Accelerator-Porosity Tool Wellsite Calibration – Detector Background

Master: 5-Aug-2020 4:25 Before: 5-Aug-2020 4:31 After: 5-Aug-2020 4:35

Near Det Bkg Cntrate	30.00	25.96	26.01	24.52	-1.497	N/A	CPS
Far Det Bkg Cntrate	30.00	25.08	25.55	25.38	-0.1722	N/A	CPS
Array-1 Det Bkg Cntrate	30.00	24.31	23.74	23.13	-0.6077	N/A	CPS
Array-2 Det Bkg Cntrate	30.00	23.41	23.03	25.83	2.801	N/A	CPS
Array Therm Det Bkg Cntrate	30.00	25.45	22.12	25.45	3.331	N/A	CPS

Accelerator-Porosity Tool Wellsite Calibration – Calibration Ratios

Master: 5-Aug-2020 4:25

Near/Far Calibration Ratio	0.9250	0.9450	N/A	N/A	N/A	N/A	
Near/Array Calibration Ratio	1.030	1.080	N/A	N/A	N/A	N/A	
Near/Array Cal Ratio Up/Down	1.000	1.013	N/A	N/A	N/A	N/A	

Accelerator-Porosity Tool Wellsite Calibration – Tank Check

Master: 5-Aug-2020 4:25

Array-1 Standoff Porosity	11.75	10.70	N/A	N/A	N/A	N/A	PU
Array-2 Standoff Porosity	11.75	10.86	N/A	N/A	N/A	N/A	PU
Average Slowing Down Time	6.000	6.012	N/A	N/A	N/A	N/A	US
Array-1 SDT Ratio Up/Down	1.000	0.9808	N/A	N/A	N/A	N/A	
Array-2 SDT Ratio Up/Down	1.000	0.9875	N/A	N/A	N/A	N/A	
Sigma Formation	27.50	28.11	N/A	N/A	N/A	N/A	CU

Accelerator-Porosity Tool Wellsite Calibration – CCR7 signal boxes

Master: 5-Aug-2020 3:51

Near Detector Plateau Setting	1650	1735	N/A	N/A	N/A	N/A	V
Far Detector Plateau Setting	2000	2064	N/A	N/A	N/A	N/A	V
Array Detector Plateau Setting	2000	1979	N/A	N/A	N/A	N/A	V

Hostile Natural Gamma Ray Sonde Wellsite Calibration – Detector 1 Check

Master: 2-Aug-2020 16:46 Before: 2-Aug-2020 16:56 After: 2-Aug-2020 17:02

Na 511 Peak Loc	40.00	39.57	39.62	39.76	0.1396	1.000	
Na 511 Peak Res	15.50	14.49	14.71	15.52	0.8122	2.000	%
High Voltage	1150	1173	1176	1174	-1.283	N/A	V
Na 1785 Peak Loc	142.6	142.2	143.1	142.0	-1.087	7.000	
Na 1785 Peak Res	8.500	8.558	10.26	8.440	-1.819	2.000	%
Temperature	15.50	15.76	15.76	15.76	0.006487	N/A	DEGC
Na Count Rate	45.00	15.12	14.94	15.27	0.3317	8.000	CPS

Hostile Natural Gamma Ray Sonde Wellsite Calibration – Detector 2 Check

Master: 2-Aug-2020 16:46 Before: 2-Aug-2020 16:56 After: 2-Aug-2020 17:02

Na 511 Peak Loc	40.00	39.82	39.66	39.53	-0.1248	1.000	
Na 511 Peak Res	15.50	15.60	15.04	16.06	1.020	2.000	%
High Voltage	1150	1099	1097	1098	0.5687	N/A	V
Na 1785 Peak Loc	142.6	140.9	141.0	141.3	0.2976	7.000	
Na 1785 Peak Res	8.500	9.446	8.426	8.422	-0.003429	2.000	%
Temperature	15.50	16.38	16.32	16.30	-0.01297	N/A	DEGC
Na Count Rate	45.00	15.19	15.10	15.59	0.4815	8.000	CPS

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

Master: 2-Aug-2020 16:46 Before: 2-Aug-2020 16:56 After: 2-Aug-2020 17:02

Coincidence Count Rate Ratio	1.000	0.9991	0.9882	0.9838	-0.004462	0.05000	
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Coincidence Count Rate Ratio	1.000	0.9991	0.9982	0.9958	-0.004402	0.00000	
Hostile Natural Gamma Ray Sonde Master Calibration – Detector 1 Calibration							
Master: 2–Aug–2020 16:35							
Na 511 Peak Set Point	40.00	41.00	--	--	--	--	
Th Peak Loc	209.6	211.6	--	--	--	--	
Th Peak Res	7.000	7.209	--	--	--	--	%
Background Count Rate	142.5	25.01	--	--	--	--	CPS
Gain Ratio	1.000	1.017	--	--	--	--	

















Hostile Natural Gamma Ray Sonde Master Calibration – Detector 2 Calibration							
Master: 2–Aug–2020 16:35							
Na 511 Peak Set Point	40.00	41.00	--	--	--	--	
Th Peak Loc	209.6	207.0	--	--	--	--	
Th Peak Res	7.000	7.050	--	--	--	--	%
Background Count Rate	142.5	22.81	--	--	--	--	CPS
Gain Ratio	1.000	0.9897	--	--	--	--	

















Accelerator–Porosity Tool – Detector Plateau Settings :

















Near Detector Plateau Setting 1735 V
Far Detector Plateau Setting 2064 V
Array Detector Plateau Setting 1979 V


High Resolution Laterolog Array – B / Equipment Identification
















Primary Equipment:		
HRLT Sonde	HRLS – B	768
Auxiliary Equipment:		
HRLT lower Housing	HRLH – B	1869
HRLT Lower Cartridge	HRLC – B	1897
HRLT upper Housing	HRUH – B	975
HRLT Upper Cartridge	HRUC – B	964

High Resolution Laterolog Array – B Wellsite Calibration							
HRLT M01							
Idx	Phase	HRLT M0–M1 Voltage Plus UV	Value	Nominal	Maximum	Minimum	
0	Before		–318.5	–322.7	–280.7	–379.7	
	After		–318.4				
1	Before		–329.3	–322.7	–280.7	–379.7	
	After		–329.8				
2	Before		–337.3	–322.7	–280.7	–379.7	
	After		–337.4				
3	Before		–327.9	–322.7	–280.7	–379.7	
	After		–327.9				
4	Before		–319.6	–322.7	–280.7	–379.7	
	After		–319.6				
5	Before		–321.4	–322.7	–280.7	–379.7	
	After		–321.3				
6	Before		318.9	322.7	379.7	280.7	
	After		319.0				
7	Before		–322.7	–322.7	–280.7	–379.7	
	After		–322.7				
	(Minimum)	(Nominal)	(Maximum)				
Before: 15–Aug–2020 15:01							
After: 15–Aug–2020 19:19							

















HRLT M12						
Idx	Phase	HRLT M1–M2 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		1738	1781	2095	1549
	After		1737			
1	Before		1805	1781	2095	1549
	After		1806			
2	Before		1841	1781	2095	1549
	After		1841			
3	Before		1788	1781	2095	1549
	After		1787			
4	Before		1741	1781	2095	1549
	After		1740			
5	Before		1752	1781	2095	1549
	After		1751			
6	Before		–1756	–1781	–1549	–2095
	After		–1755			
7	Before		1781	1781	2095	1549
	After		1781			
(Minimum) (Nominal) (Maximum)						
Before: 15–Aug–2020 15:01						
After: 15–Aug–2020 19:19						

High Resolution Laterolog Array – B Wellsite Calibration						
HRLT M23						
Idx	Phase	HRLT M2–M3 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		1730	1781	2095	1549
	After		1729			
1	Before		1806	1781	2095	1549
	After		1807			
2	Before		1844	1781	2095	1549
	After		1844			
3	Before		1795	1781	2095	1549
	After		1795			
4	Before		1743	1781	2095	1549
	After		1742			
5	Before		1755	1781	2095	1549
	After		1754			
6	Before		–1746	–1781	–1549	–2095
	After		–1746			
7	Before		1781	1781	2095	1549
	After		1781			
(Minimum) (Nominal) (Maximum)						
Before: 15–Aug–2020 15:01						
After: 15–Aug–2020 19:19						




High Resolution Laterolog Array – B Wellsite Calibration						
HRLT V34						
Idx	Phase	HRLT A3–A4 Voltage Plus UV	Value	Nominal	Maximum	Minimum
	Before		68590			

0	After		68570	70000	82360	60900
1	Before		71450	70000	82360	60900
	After		71520			
2	Before		73250	70000	82360	60900
	After		73250			
3	Before		71560	70000	82360	60900
	After		71560			
4	Before		69430	70000	82360	60900
	After		69410			
5	Before		69900	70000	82360	60900
	After		69870			
6	Before		-68100	-70000	-60900	-82360
	After		-68100			
7	Before		70000	70000	82360	60900
	After		70000			
(Minimum) (Nominal) (Maximum)						


















Before: 15-Aug-2020 15:01
After: 15-Aug-2020 19:19

High Resolution Laterolog Array – B Wellsite Calibration						
HRLT V45						
Idx	Phase	HRLT A4–A5 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		68670	70000	82360	60900
	After		68650			
1	Before		71660	70000	82360	60900
	After		71730			
2	Before		73440	70000	82360	60900
	After		73440			
3	Before		71720	70000	82360	60900
	After		71720			
4	Before		69540	70000	82360	60900
	After		69520			
5	Before		70000	70000	82360	60900
	After		69960			
6	Before		-68310	-70000	-60900	-82360
	After		-68310			
7	Before		70000	70000	82360	60900
	After		70000			
(Minimum) (Nominal) (Maximum)						












Before: 15-Aug-2020 15:01
After: 15-Aug-2020 19:19

















High Resolution Laterolog Array – B Wellsite Calibration						
HRLT V56						
Idx	Phase	HRLT A5–A6 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		68510	70000	82360	60900
	After		68500			
1	Before		71510	70000	82360	60900
	After		71510			









1	Before			71515	70000	82360	60900
	After			71580			
2	Before			73270	70000	82360	60900
	After			73300			
3	Before			71560	70000	82360	60900
	After			71560			
4	Before			69390	70000	82360	60900
	After			69380			
5	Before			69860	70000	82360	60900
	After			69850			
6	Before			-68150	-70000	-60900	-82360
	After			-68150			
7	Before			70000	70000	82360	60900
	After			70000			
(Minimum) (Nominal) (Maximum)							
Before: 15-Aug-2020 15:01							
After: 15-Aug-2020 19:19							










High Resolution Laterolog Array – B Wellsite Calibration							
HRLT VTP							
Idx	Phase	HRLT Torpedo–M0 Voltage Plus UV	Value	Nominal	Maximum	Minimum	
0	Before		–68060	–70000	–60900	–82360	
	After		–68040				
1	Before		–71320	–70000	–60900	–82360	
	After		–71380				
2	Before		–73130	–70000	–60900	–82360	
	After		–73130				
3	Before		–71460	–70000	–60900	–82360	
	After		–71470				
4	Before		–69360	–70000	–60900	–82360	
	After		–69340				
5	Before		–69830	–70000	–60900	–82360	
	After		–69790				
6	Before		67930	70000	82360	60900	
	After		67910				
7	Before		–70000	–70000	–60900	–82360	
	After		–70000				
							
Before: 15–Aug–2020 15:01							
After: 15–Aug–2020 19:19							

High Resolution Laterolog Array – B Wellsite Calibration							
HRLT VBD							
Idx	Phase	HRLT Bridle#9-M0 Voltage Plus UV	Value	Nominal	Maximum	Minimum	
0	Before		-68090	-70000	-60900	-82360	
	After		-68070				
1	Before		-71400	-70000	-60900	-82360	
	After		-71460				
	Before		73210				

2	Before		-73210	-70000	-60900	-82360
3	After		-71550	-70000	-60900	-82360
	Before		-71550			
4	After		-69410	-70000	-60900	-82360
	Before		-69390			
5	After		-69870	-70000	-60900	-82360
	Before		-69830			
6	After		68010	70000	82360	60900
	Before		68000			
7	After		-70000	-70000	-60900	-82360
	Before		-70000			
(Minimum) (Nominal) (Maximum)						
Before: 15-Aug-2020 15:01						
After: 15-Aug-2020 19:19						

High Resolution Laterolog Array – B Wellsite Calibration						
HRLT ISO						
Idx	Phase	HRLT Source Current Plus UA	Value	Nominal	Maximum	Minimum
0	Before		284.1	284.0	334.1	247.0
	After		284.1			
1	Before		281.1	281.1	330.7	244.4
	After		281.1			
2	Before		281.1	281.1	330.7	244.4
	After		281.1			
3	Before		281.1	281.1	330.7	244.4
	After		281.1			
4	Before		281.1	281.1	330.7	244.4
	After		281.1			
5	Before		281.1	281.1	330.7	244.4
	After		281.1			
6	Before		281.1	281.1	330.7	244.4
	After		281.1			
7	Before		281.1	281.1	330.7	244.4
	After		281.1			
(Minimum) (Nominal) (Maximum)						
Before: 15-Aug-2020 15:01						
After: 15-Aug-2020 19:19						

High Resolution Laterolog Array – B Wellsite Calibration						
HRLT MV						
Idx	Phase	HRLT Vertical Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		-320.5	-322.7	-280.7	-379.7
	After		-320.1			
1	Before		-324.3	-322.7	-280.7	-379.7
	After		-324.4			
2	Before		-330.9	-322.7	-280.7	-379.7
	After		-330.7			
3	Before		-310.0	-322.7	-280.7	-379.7
	After		-310.0			

3	Before		-319.9	-322.7	-280.7	-379.7
4	Before		-308.8	-322.7	-280.7	-379.7
	After		-308.5			
5	Before		-325.5	-322.7	-280.7	-379.7
	After		-325.1			
6	Before		326.5	322.7	379.7	280.7
	After		326.3			
7	Before		-322.7	-322.7	-280.7	-379.7
	After		-322.7			
(Minimum) (Nominal) (Maximum)						
Before: 15-Aug-2020 15:01						
After: 15-Aug-2020 19:19						

Hostile Litho-Density Sonde / Equipment Identification

Primary Equipment:

Gamma Source Radioactive

Hostile Litho Density Sonde

Hostile Litho Density High Voltage

GSR - ZA

2945

HLDS - D

77

HLDV - D

67

Auxiliary Equipment:

Hostile Litho Density High Voltage Housi


































Hostile Litho Density Pad




HEH - H













67

HLDP - C

83







Hostile Litho-Density Sonde Wellsite Calibration								
Background Measurement								
Phase	SS Cs Resolution Bkg %	Value	Phase	LS Cs Resolution Bkg %	Value	Phase	LSW1 Background CPS	Value
Master		7.659	Master		7.946	Master		72.42
Before		7.613	Before		8.014	Before		72.36
After		7.670	After		7.920	After		72.61
7.000 (Minimum) 9.000 (Nominal) 11.00 (Maximum)			7.000 (Minimum) 9.000 (Nominal) 11.00 (Maximum)			55.00 (Minimum) 100.0 (Nominal) 150.0 (Maximum)		
Phase	LSW2 Background CPS	Value	Phase	LSW3 Background CPS	Value	Phase	LSW4 Background CPS	Value
Master		65.51	Master		149.1	Master		184.6
Before		66.87	Before		149.6	Before		184.1
After		65.78	After		148.0	After		186.0
50.00 (Minimum) 100.0 (Nominal) 140.0 (Maximum)			110.0 (Minimum) 200.0 (Nominal) 290.0 (Maximum)			140.0 (Minimum) 250.0 (Nominal) 360.0 (Maximum)		
Phase	LSW5 Background CPS	Value	Phase	SSW1 Background CPS	Value	Phase	SSW2 Background CPS	Value
Master		432.1	Master		71.84	Master		120.4
Before		428.4	Before		70.94	Before		120.1
After		437.4	After		70.95	After		120.8
330.0 (Minimum) 600.0 (Nominal) 830.0 (Maximum)			55.00 (Minimum) 100.0 (Nominal) 150.0 (Maximum)			100.0 (Minimum) 200.0 (Nominal) 260.0 (Maximum)		
Phase	SSW3 Background CPS	Value	Phase	SSW4 Background CPS	Value	Phase	SSW5 Background CPS	Value
Master		334.8	Master		182.2	Master		130.5
Before		336.8	Before		180.8	Before		128.7
After		340.2	After		184.7	After		132.9
280.0 (Minimum) 500.0 (Nominal) 700.0 (Maximum)			150.0 (Minimum) 270.0 (Nominal) 380.0 (Maximum)			110.0 (Minimum) 200.0 (Nominal) 270.0 (Maximum)		
Master: 4-Aug-2020 23:12			Before: 4-Aug-2020 23:55			After: Calibration out of date 30-Dec-2019 21:44		

Hostile Litho-Density Sonde Master Calibration								
Detector Background Measurement								
Phase	LSW1 Background CPS	Value	Phase	LSW2 Background CPS	Value	Phase	LSW3 Background CPS	Value
								

Master		72.42	Master		65.51	Master		149.1
	55.00 (Minimum) 100.0 (Nominal) 150.0 (Maximum)			50.00 (Minimum) 100.0 (Nominal) 140.0 (Maximum)			110.0 (Minimum) 200.0 (Nominal) 290.0 (Maximum)	
Phase	LSW4 Background CPS	Value	Phase	LSW5 Background CPS	Value	Phase	LS Cs Resolution Bkg %	Value
Master		184.6	Master		432.1	Master		7.946
	140.0 (Minimum) 250.0 (Nominal) 360.0 (Maximum)			330.0 (Minimum) 600.0 (Nominal) 830.0 (Maximum)			7.000 (Minimum) 9.000 (Nominal) 11.00 (Maximum)	
Phase	SSW1 Background CPS	Value	Phase	SSW2 Background CPS	Value	Phase	SSW3 Background CPS	Value
Master		71.84	Master		120.4	Master		334.8
	55.00 (Minimum) 100.0 (Nominal) 150.0 (Maximum)			100.0 (Minimum) 200.0 (Nominal) 260.0 (Maximum)			280.0 (Minimum) 500.0 (Nominal) 700.0 (Maximum)	
Phase	SSW4 Background CPS	Value	Phase	SSW5 Background CPS	Value	Phase	SS Cs Resolution Bkg %	Value
Master		182.2	Master		130.5	Master		7.659
	150.0 (Minimum) 270.0 (Nominal) 380.0 (Maximum)			110.0 (Minimum) 200.0 (Nominal) 270.0 (Maximum)			7.000 (Minimum) 9.000 (Nominal) 11.00 (Maximum)	
Master: 4–Aug–2020 23:12								

Hostile Litho–Density Sonde Master Calibration											
Detector Aluminum Measurement (bkgd–subtracted)											
Phase	LSW1 Aluminum CPS		Value	Phase	LSW2 Aluminum CPS		Value	Phase	LSW3 Aluminum CPS		Value
Master	<div><div></div></div>		436.8	Master	<div><div></div></div>		653.0	Master	<div>EXCEEDS LIMIT</div>		789.7
	420.0 (Minimum)	600.0 (Nominal)	770.0 (Maximum)		650.0 (Minimum)	900.0 (Nominal)	1150 (Maximum)		800.0 (Minimum)	1100 (Nominal)	1450 (Maximum)
Phase	LSW4 Aluminum CPS		Value	Phase	LSW5 Aluminum CPS		Value	Phase	SSW1 Aluminum CPS		Value
Master	<div>EXCEEDS LIMIT</div>		401.5	Master	<div>EXCEEDS LIMIT</div>		366.8	Master	<div><div></div></div>		2147
	410.0 (Minimum)	580.0 (Nominal)	740.0 (Maximum)		410.0 (Minimum)	570.0 (Nominal)	740.0 (Maximum)		2000 (Minimum)	2800 (Nominal)	3200 (Maximum)
Phase	SSW2 Aluminum CPS		Value	Phase	SSW3 Aluminum CPS		Value	Phase	SSW4 Aluminum CPS		Value
Master	<div><div></div></div>		6002	Master	<div><div></div></div>		8326	Master	<div>EXCEEDS LIMIT</div>		3348
	5800 (Minimum)	8000 (Nominal)	9300 (Maximum)		8300 (Minimum)	11600 (Nominal)	13500 (Maximum)		3500 (Minimum)	5000 (Nominal)	5800 (Maximum)
Phase	SSW5 Aluminum CPS		Value								
Master	<div>EXCEEDS LIMIT</div>		389.3								
	430.0 (Minimum)	660.0 (Nominal)	770.0 (Maximum)								
Master: 4–Aug–2020 23:43											

Hostile Litho–Density Sonde Master Calibration											
Detector Litholog Measurement (bkgd–subtracted)											
Phase	LSW1 Iron CPS		Value	Phase	LSW2 Iron CPS		Value	Phase	LSW3 Iron CPS		Value
Master	<div><div></div></div>		307.7	Master	<div><div></div></div>		543.0	Master	<div>EXCEEDS LIMIT</div>		707.7
	290.0 (Minimum)	400.0 (Nominal)	560.0 (Maximum)		520.0 (Minimum)	730.0 (Nominal)	950.0 (Maximum)		720.0 (Minimum)	1000 (Nominal)	1350 (Maximum)
Phase	LSW4 Iron CPS		Value	Phase	LSW5 Iron CPS		Value	Phase	SSW1 Iron CPS		Value
Master	<div>EXCEEDS LIMIT</div>		367.1	Master	<div>EXCEEDS LIMIT</div>		335.3	Master	<div><div></div></div>		1564
	370.0 (Minimum)	520.0 (Nominal)	700.0 (Maximum)		340.0 (Minimum)	470.0 (Nominal)	750.0 (Maximum)		1500 (Minimum)	2100 (Nominal)	2400 (Maximum)
Phase	SSW2 Iron CPS		Value	Phase	SSW3 Iron CPS		Value	Phase	SSW4 Iron CPS		Value
Master	<div><div></div></div>		5006	Master	<div>EXCEEDS LIMIT</div>		7615	Master	<div>EXCEEDS LIMIT</div>		3064
	4900 (Minimum)	6800 (Nominal)	7900 (Maximum)		7800 (Minimum)	10800 (Nominal)	12600 (Maximum)		3300 (Minimum)	4600 (Nominal)	5400 (Maximum)
Phase	SSW5 Iron CPS		Value	GR low count rates due to old Gamma Source does not effect density							
Master	<div>EXCEEDS LIMIT</div>		346.2								
	420.0 (Minimum)	580.0 (Nominal)	680.0 (Maximum)								
Master: 4–Aug–2020 23:37											

Hostile Litho–Density Sonde Master Calibration								
Quality Ratios								
Phase	AL CALIBRATION RATIO 1	Value	Phase	AL CALIBRATION RATIO 2	Value	Phase	AL CALIBRATION RATIO 3	Value
Master		1.028	Master		2.228	Master		0.5685
	0.9000 (Minimum) 1.000 (Nominal) 1.100 (Maximum)			1.900 (Minimum) 2.100 (Nominal) 2.300 (Maximum)			0.4500 (Minimum) 0.5500 (Nominal) 0.6500 (Maximum)	
Phase	AL CALIBRATION RATIO 4	Value	Phase	Pad–Wear SS Ratio	Value	Phase	Pad–Wear LS Ratio	Value
Master		0.5746	Master		0.9955	Master		0.9924

0.4000 (Minimum)	0.5500 (Nominal)	0.6500 (Maximum)	0.9800 (Minimum)	0.9880 (Nominal)	0.9960 (Maximum)	0.9800 (Minimum)	0.9880 (Nominal)	0.9960 (Maximum)
Phase	Pad-Position SS Ratio		Value	Phase	Pad-Position LS Ratio		Value	
Master			1.006	Master			0.9898	
0.9900 (Minimum)	0.9940 (Nominal)	1.015 (Maximum)	0.9850 (Minimum)	0.9940 (Nominal)	1.010 (Maximum)			

Master: 4-Aug-2020 23:32

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 Minitron	APS – C MNTR – F	249 51002
Auxiliary Equipment: Accelerator-Porosity Housing APS Calibration Water Tank APS Aluminum Calibrator Sleeve	APH – AC SFT – 178 SFT – 281	152 1 1

Accelerator-Porosity Tool Wellsite Calibration														
Detector Background														
Phase	Near Det Bkg Cntrate CPS			Value	Phase	Far Det Bkg Cntrate CPS			Value	Phase	Array-1 Det Bkg Cntrate CPS			Value
Master				25.96	Master				25.08	Master				24.31
Before				26.01	Before				25.55	Before				23.74
After				24.52	After				25.38	After				23.13
1.000 (Minimum)30.00 (Nominal)50.00 (Maximum)					1.000 (Minimum)30.00 (Nominal)50.00 (Maximum)					1.000 (Minimum)30.00 (Nominal)50.00 (Maximum)				
Phase	Array-2 Det Bkg Cntrate CPS			Value	Phase	Array Therm Det Bkg Cntrate CPS			Value					
Master				23.41	Master				25.45					
Before				23.03	Before				22.12					
After				25.83	After				25.45					
1.000 (Minimum)30.00 (Nominal)50.00 (Maximum)					1.000 (Minimum)30.00 (Nominal)50.00 (Maximum)									
Master: 5-Aug-2020 4:25					Before: 5-Aug-2020 4:31					After: 5-Aug-2020 4:35				







Master: 5-Aug-2020 4:25

Before: 5-Aug-2020 4:31

After: 5-Aug-2020 4:35











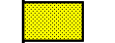










Accelerator-Porosity Tool Wellsite Calibration											
Calibration Ratios											
Phase	Near/Far Calibration Ratio		Value	Phase	Near/Array Calibration Ratio		Value	Phase	Near/Array Cal Ratio Up/Down	Value	
Master			0.9450	Master			1.080	Master			1.013
0.8000 (Minimum)			0.9250 (Nominal)	1.050 (Maximum)			0.9000 (Minimum)			1.030 (Nominal)	1.170 (Maximum)
Master: 5-Aug-2020 4:25											




Master: 5-Aug-2020 4:25

Accelerator-Porosity Tool Wellsite Calibration														
Tank Check														
Phase	Array-1 Standoff Porosity PU			Value	Phase	Array-2 Standoff Porosity PU			Value	Phase	Average Slowing Down Time US			Value
Master				10.70	Master				10.86	Master				6.012
9.900 (Minimum) 11.75 (Nominal) 13.60 (Maximum)					9.900 (Minimum) 11.75 (Nominal) 13.60 (Maximum)					5.500 (Minimum) 6.000 (Nominal) 6.250 (Maximum)				
Phase	Array-1 SDT Ratio Up/Down			Value	Phase	Array-2 SDT Ratio Up/Down			Value	Phase	Sigma Formation CU			Value
Master				0.9808	Master				0.9875	Master				28.11
0.9500 (Minimum) 1.000 (Nominal) 1.050 (Maximum)					0.9500 (Minimum) 1.000 (Nominal) 1.050 (Maximum)					20.00 (Minimum) 27.50 (Nominal) 35.00 (Maximum)				






Master: 5-Aug-2020 4:25

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			39.82	Master			15.60	Master			1099					
Before			39.66	Before			15.04	Before			1097					
After			39.53	After			16.06	After			1098					
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			140.9	Master			9.446	Master			16.38					
Before			141.0	Before			8.426	Before			16.32					
After			141.3	After			8.422	After			16.30					
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			15.19													
Before			15.10													
After			15.59													
10.00 (Minimum)			45.00 (Nominal)									100.0 (Maximum)				
Master: 2-Aug-2020 16:46				Before: 2-Aug-2020 16:56				After: 2-Aug-2020 17:02								

Hostile Natural Gamma Ray Sonde Wellsite Calibration		
Ratio Of Detector 1 To Detector 2		
Phase	Coincidence Count Rate Ratio	Value
Master		0.9991
Before		0.9882
After		0.9838
0.9500 (Minimum)		1.000 (Nominal)
		1.050 (Maximum)
Master: 2-Aug-2020 16:46		
Before: 2-Aug-2020 16:56		
After: 2-Aug-2020 17:02		

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	<div><div></div></div>			41.00	Master	<div><div></div></div>			211.6	Master	<div><div></div></div>			7.209			
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	<div><div></div></div>			25.01	Master	<div><div></div></div>			1.017								
10.00 (Minimum)				142.5 (Nominal)	265.0 (Maximum)				0.9400 (Minimum)						1.000 (Nominal)	1.060 (Maximum)	
Master: 2-Aug-2020 16:35																	

Hostile Natural Gamma Ray Sonde Master Calibration														
Detector 2 Calibration														
Phase	Na 511 Peak Set Point			Value	Phase	Th Peak Loc			Value	Phase	Th Peak Res %			Value
Master				41.00	Master				207.0	Master				7.050
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				22.81	Master				0.9897					
10.00 (Minimum) 142.5 (Nominal) 265.0 (Maximum)					0.9400 (Minimum) 1.000 (Nominal) 1.060 (Maximum)									
Master: 2-Aug-2020 16:35														

DTS Telemetry Tool / Equipment Identification

Primary Equipment:

DTC-H Auxiliary Cartridge
DTC-H Telemetry Cartridge

DTCH - A 8799
DTCH - A 8799

Auxiliary Equipment:
DTCH Telemetry Cartridge Housing

ECH - KC 9842

Company: **International Ocean Discovery Program**

Schlumberger

Well: **Expedition 384, Site U1555G**

Field: **Engineering Testing**

Rig: **JOIDES Resolution**

Ocean: **Atlantic**

High Resolution Laterolog (HRLA)
Litho Density (HLDS) / (APS) Porosity
Natural Gamma / MSS (HNGS)