

COMPANY: Lamont Doherty

WELL: ODP Leg 193, Site 1188F (PCM-2A)

FIELD: Manus Basin, Snowcap

COUNTRY: Offshore STATE: Bismarck Sea

COUNTY: Offshore
Field: Manus Basin
Location: ODP Leg 193, Site 1188F (PCM-2A)
Company: Lamont Doherty

Schlumberger		HLDS/APS Porosity Natural Gamma Ray	
LOCATION		Elev.: K.B. 11.3 m	Elev.: 0 m
Permanent Datum:	MSL	G.L. -1653 m	G.L. -1653 m
Log Measured From:	Drill Floor	D.F. 11 m	D.F. 11 m
Drilling Measured From:	Drill Floor	11.0 m above Perm. Datum	
API Serial No.	LATITUDE: 03° 43.6850' S	LONGITUDE: 151° 40.1909' E	RIG: JOIDES Resolution

	Run 1	Run 2	Run

Logging Date 21-DEC-2000			
Run Number	1		
Depth Driller	2039.7 m		
Schlumberger Depth	2008 m		
Bottom Log Interval	2006 m		
Top Log Interval	1652 m		
Casing Driller Size @ Depth	0.000 in	@	1843 m
Casing Schlumberger	1843 m		
Bit Size	7.250 in		
Type Fluid In Hole	Seawater		
Density	1.1 g/cm3		
Fluid Loss	PH		
Source Of Sample	Seawater		
RM @ Measured Temperature	0.180 ohm.m	@	30 degC
RMF @ Measured Temperature	0.235 ohm.m	@	
RMC @ Measured Temperature	@	@	
Source RMF	RMC		
RM @ MRT	0.086 @ 86	@	86
Maximum Recorded Temperatures	86 degC		
Circulation Stopped Time	20-Dec-2000	Time	22:00
Logger On Bottom	21-DEC-2000	Time	10:00
Unit Number	99	Location	Houston ODP
Recorded By	Kerry M. Swain		
Witnessed By	Gerardo Iturrino, Anne Bartelzko		

Logging Date 21-DEC-2000			
Run Number	1		
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Schlumberger Depth	2008 m		
Bottom Log Interval	2006 m		
Top Log Interval	1652 m		
Casing Driller Size @ Depth	0.000 in	@	1843 m
Casing Schlumberger	1843 m		
Bit Size	7.250 in		
Type Fluid In Hole	Seawater		
Density	1.1 g/cm3		
Fluid Loss	PH		
Source Of Sample	Seawater		
RM @ Measured Temperature	0.180 ohm.m	@	30 degC
RMF @ Measured Temperature	0.235 ohm.m	@	
RMC @ Measured Temperature	@	@	
Source RMF	RMC		
RM @ MRT	0.086 @ 86	@	86
Maximum Recorded Temperatures	86 degC		
Circulation Stopped Time	20-Dec-2000	Time	22:00
Logger On Bottom	21-DEC-2000	Time	10:00
Unit Number	99	Location	Houston ODP
Recorded By	Kerry M. Swain		
Witnessed By	Gerardo Iturrino, Anne Bartelzko		

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OTHER SERVICES1 OS1: FMS OS2: DITE OS3: OS4: OS5:	OTHER SERVICES2 OS1: OS2: OS3: OS4: OS5:
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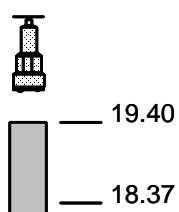
REMARKS: RUN NUMBER 1	REMARKS: RUN NUMBER 2
HGTC (HighTemp/High Pressure Gamma Ray Telemetry Cartridge) used with LEH-QO head and MTEM sensor.	for Temperature
Log presented in meters below rig floor. Sea floor at 1652 mbrf.	
Wireline heave compensator used on all descents.	
Sea water used as mud in hole.	
Log TD at 2008 mbrf and tool could not reach drillers depth of 2039.7 mbrf.	
Maximum temperature recorded from MTEM sensor in head.	
Toolstring-HLDS/NPLC/APS/HNGS/HGTC/LEHQO	
Original log files are log19.dlis, log20.dlis. These files are played back as play58.dlis and play 64.dlis. Reprocessing was done for the HNGS to compensate for the correct mud density of 1.1 g/cc.	

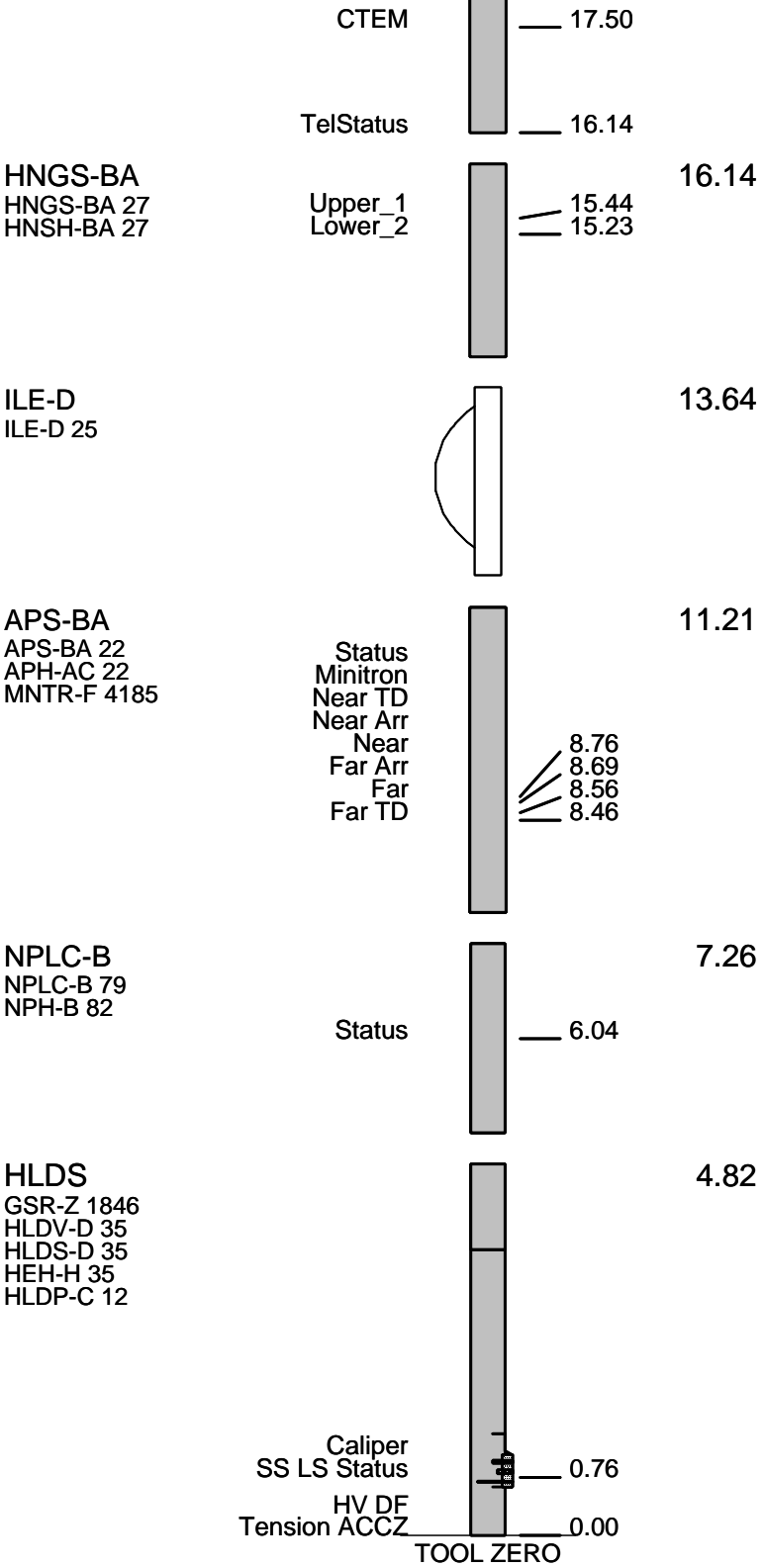
RUN 1			RUN 2		
SERVICE ORDER #:			SERVICE ORDER #:		
PROGRAM VERSION:	9C1-303		PROGRAM VERSION:		
FLUID LEVEL:	0 m		FLUID LEVEL:		
LOGGED INTERVAL	START	STOP	LOGGED INTERVAL	START	STOP

EQUIPMENT DESCRIPTION

RUN 1	RUN 2
SURFACE EQUIPMENT	
SFT-281 24 SFT-178 4722 GSR-U 135 WITM (DTS)-A	

DOWNHOLE EQUIPMENT	
LEH-MT LEH-MT 1	20.36
Mud Tempe	19.40
HTGC-B UDFH-KL 1062 STGC0-A 8038 STGC1-BH 8038	19.40
Gamma Ray	18.37





MAXIMUM STRING DIAMETER 3.88 IN
 MEASUREMENTS RELATIVE TO TOOL ZERO
 ALL LENGTHS IN METERS

Input DLIS Files

DEFAULT	HLDS .020	FN:36 PRODUCER	21-Dec-2000 11:41	2009.4 M	1918.9 M
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Output DLIS Files

DEFAULT	HLDS .064	FN:97 PRODUCER	31-Dec-2000 10:57	2009.4 M	1918.9 M
LAMONT	HLDS .064	FN:98 PRODUCER	31-Dec-2000 10:57	2009.4 M	1918.9 M

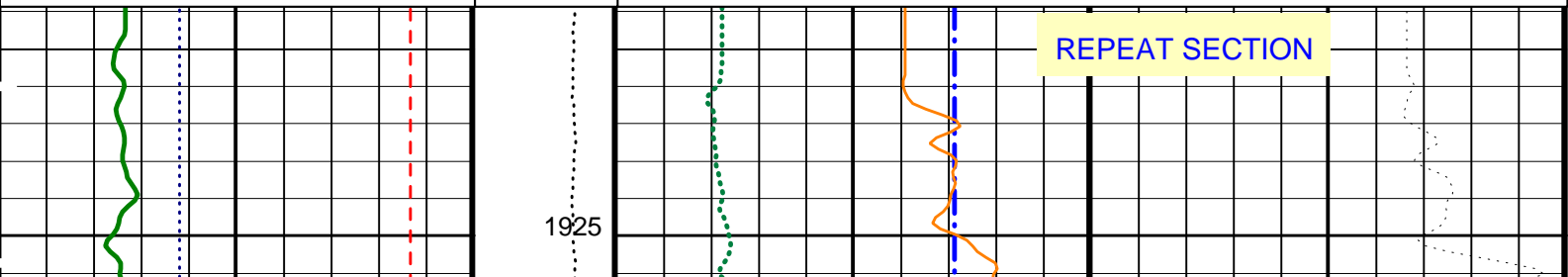
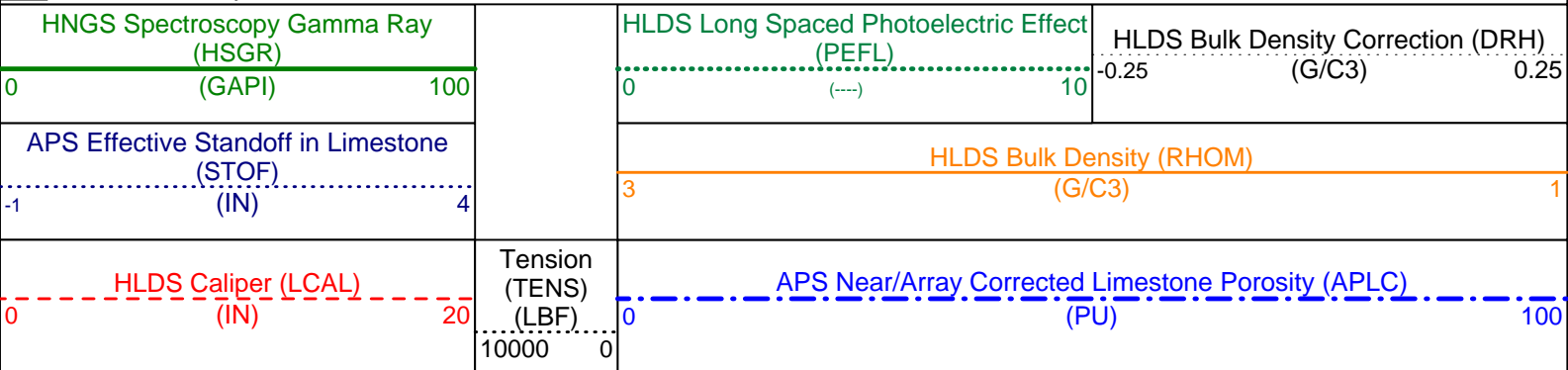
OP System Version: 9C1-303

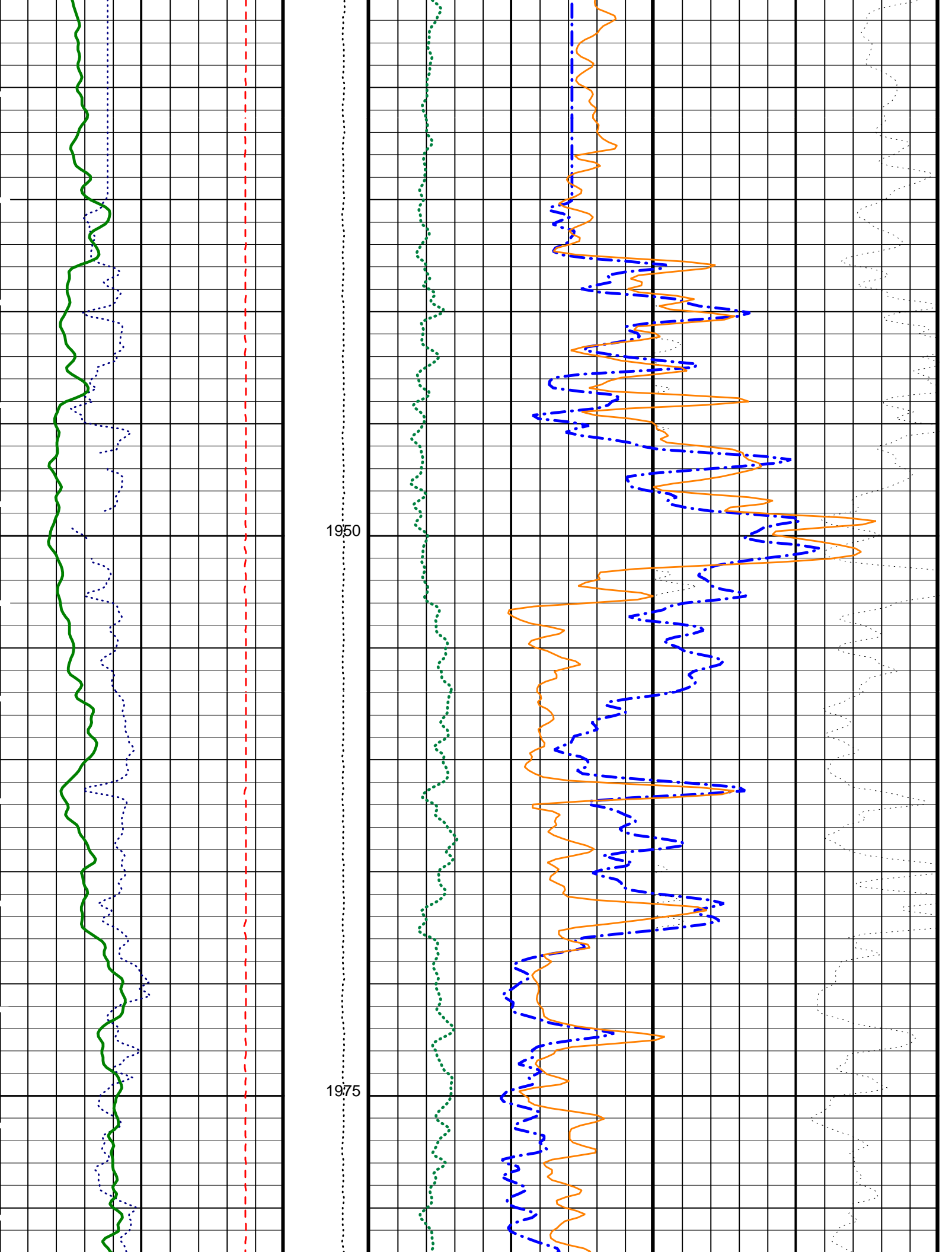
MCM

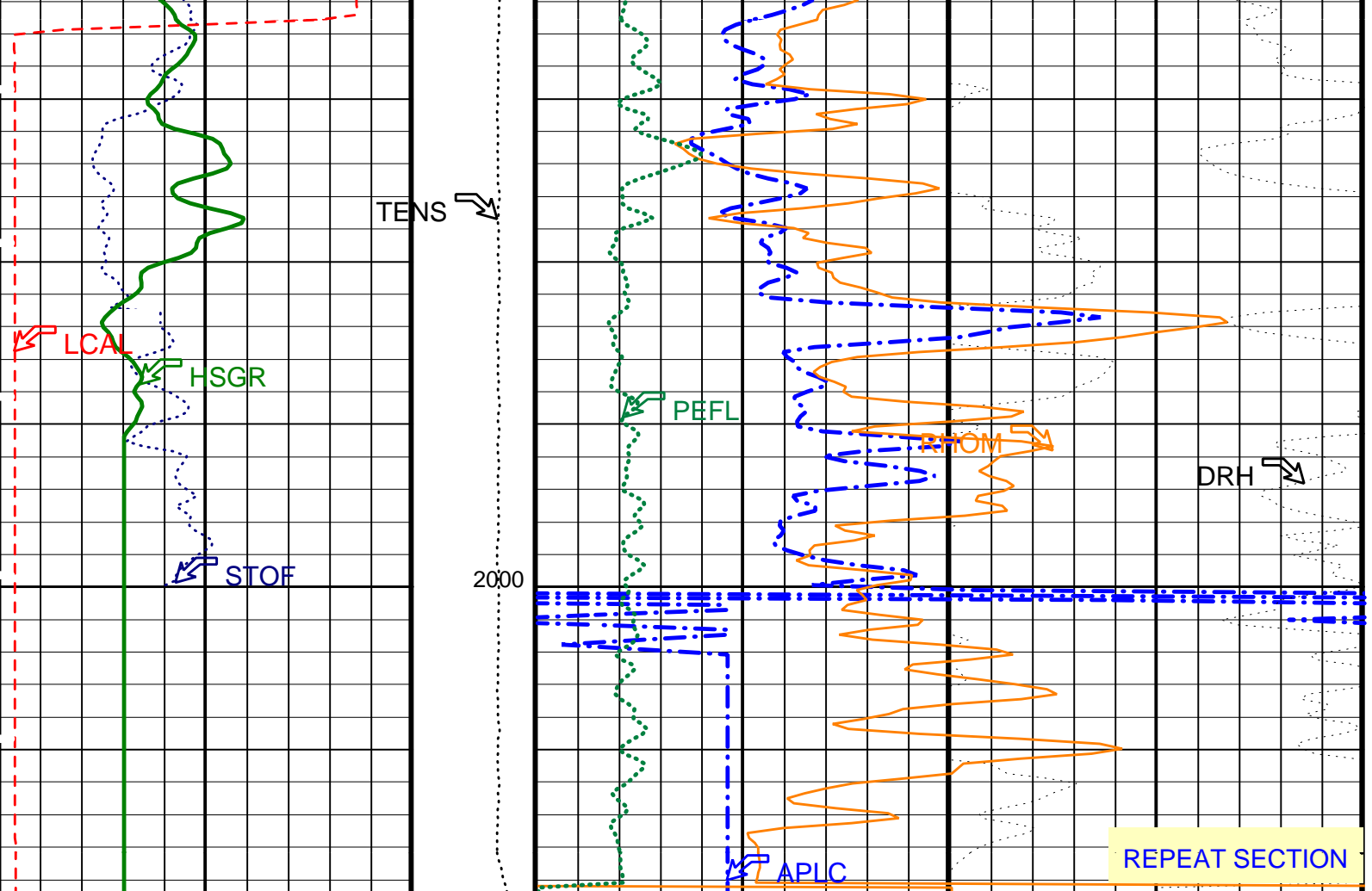
HLDS	OP91-kp2	NPLC-B	OP91-kp2
APS-BA	OP91-kp2	HNGS-BA	OP91-kp2
HTGC-B	OP91-kp2		

PIP SUMMARY

Time Mark Every 60 S







HLDS Caliper (LCAL) (IN)	Tension (TENS) (LBF)	APS Near/Array Corrected Limestone Porosity (APLC) (PU)
APS Effective Standoff in Limestone (STOF) (IN)	HLDS Bulk Density (RHOM) (G/C3)	HLDS Long Spaced Photoelectric Effect (PEFL) (---)
HNGS Spectroscopy Gamma Ray (HSGR) (GAPI)	HLDS Bulk Density Correction (DRH) (G/C3)	

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value
	Apparent Thickness of Cement	0 IN
	HLDS Data Control	AcquiredData
	APS Cement Thickness Source	COMPUTED
	HLDS LS Digital Integrator State	Normal
	HLDS SS Digital Integrator State	Normal
	HLDS SS NCB Mode	Density
	APS Software Version	5
	HLDS LS Tri-Ported Memory State	Enable
	HLDS Diag Message Rate	20
	HLDS Spec Message Rate	1
	HLDS SS Tri-Ported Memory State	Enable
	HLDS LS NCB Mode	Density
AASD	APS Thermal and Array Detectors High Voltage Setting	1968.98 V
ABOS	APS Neutron Burst-Off Background Subtraction Switch	ON
ADSO	APS Array Detectors Data Source Switch	Both
AFSD	APS Far Detector High Voltage Setting	2052.03 V
AHCS	APS Holesize Correction Source	GCSE
AHSS	APS Holesize Correction Switch	ON
ALTDPCAN	Name of alternate depth channel	SpeedCorrectedDepth

AMTY	WaterBaseBarite		
ANSD	APS Near Detector High Voltage Setting	1748.3	V
AOTS	APS Old Temperature Sensor Switch	NO	
ASOS	APS Standoff Correction Switch	ON	
ATSS	APS Temperature-Pressure-Salinity Correction Switch	OFF	
BAR1	HNGS Detector 1 Barite Constant	1	
BAR2	HNGS Detector 2 Barite Constant	1	
BHFL	Borehole Fluid Type	WATER	
BHK	HNGS Borehole Potassium Correction Concentration	0	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	212	DEGF
BKSF	HNGS Borehole Fluid Excluder Sleeve Algorithm Factor	1	
BKSH	HNGS Borehole Fluid Excluder Sleeve Algorithm High Channel	245	
BKSL	HNGS Borehole Fluid Excluder Sleeve Algorithm Low Channel	17	
BS	Bit Size	7.250	IN
BSAL	Borehole Salinity	32000.00	PPM
BSCO	Borehole Salinity Correction Option	NO	
CCCO	Casing & Cement Thickness Correction Option	NO	
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	
CONCTYP	Conveyance Type	Wireline	
CSD1	Inner Casing Outer Diameter	0	IN
CSD2	Outer Casing Outer Diameter	0	IN
CSIZ	Current Casing Size	0.000	IN
CSW1	Inner Casing Weight	0	LB/F
CSW2	Outer Casing Weight	0	LB/F
CWEI	Casing Weight	0.00	LB/F
D1PR	HNGS Detector 1 Calibration Thorium Peak Resolution	7.69015	%
D1TC	HNGS Detector 1 Calibration Temperature	28.359	DEGC
D1TL	HNGS Detector 1 Calibration Thorium Peak Location	209.757	
D2PR	HNGS Detector 2 Calibration Thorium Peak Resolution	7.03497	%
D2TC	HNGS Detector 2 Calibration Temperature	27.467	DEGC
D2TL	HNGS Detector 2 Calibration Thorium Peak Location	209.443	
DBCC	HNGS Barite Constant Correction Flag	NONE	
DEPREM1	Depth Remark 1		
DEPREM2	Depth Remark 2		
DEPREM3	Depth Remark 3		
DEPREM4	Depth Remark 4		
DEPREM5	Depth Remark 5		
DEPREM6	Depth Remark 6		
DFD	Drilling Fluid Density	1.10	G/C3
DHC	Density Hole Correction	BS	
DO	Depth Offset for Logical Unit 1	0.0	M
DPPM	Density Porosity Processing Mode	HIRS	
FD	Fluid Density	1	G/C3
FSAL	Formation Salinity	32000	PPM
FSCO	Formation Salinity Correction Option	NO	
GCF1_START	HNGS Detector 1 GCF Constant	1	
GCF2_START	HNGS Detector 2 GCF Constant	1	
GCSE	Generalized Caliper Selection	BS	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
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	-0.0141356	
HALF	HNGS Alpha Filter Length	60	IN
HATIM	HNGS Marquardt Accumulation Time	600	S
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	NATU	
HNPE	HNGS Processing Enable	YES	
HSCO	Hole Size Correction Option	YES	
HSLV	HNGS Borehole Fluid Excluder Sleeve Status	NO	
HSVN	HNGS Spectral Standards Version Number	8.13477e-030	
IDWCD	IDW Calibration Date (dd-MMM-yyyy)	dd-MMM-yyyy	
IDWCSN	IDW Calibrator Serial Number	-999	
IDWLCN	IDW Calibration Cable Type	7-46P	
IDWSN	IDW Serial Number	-999	
IDWTYP	IDW Type	IDW-B	
IDWWC1	IDW Wheel Correction 1	1	
IDWWC2	IDW Wheel Correction 2	1	
LATC	HLDS Activation Correction	ON	
LCSN	Logging Cable Serial Number	-999	
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	
LOGSEQ	Log Sequence	First_Log_In_Well	
MARQ_START	HNGS Marquardt Start-up Mode	INTERNAL	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
MCCO	Mud Cake Correction Option	NO	
MCOR	Mud Correction	NATU	

MDEN	Matrix Density	2.71	G/C3
MST	Mud Sample Temperature	21.11	DEGC
MWCO	Mud Weight Correction Option	NO	
NARC	APS Near/Array Calibration Ratio	1.05998	
NFRC	APS Near/Far Calibration Ratio	0.896302	
NOTS	NPLC Old Temperature Sensor	NO	
NRBM	NPLC Reduced Telemetry Bandwidth Mode	OFF	
PBVSADP	Use alternate depth channel for playback	NO	
PHVL	HLDS Long Spacing High Voltage Setting	1000	V
PHVS	HLDS Short Spacing High Voltage Setting	1000	V
PP	Playback Processing	RECOMPUTE	
PSDL	HLDS LS Pulse Shape Compensation DAC	16000	
PSDS	HLDS SS Pulse Shape Compensation DAC	16000	
PSML	HLDS LS Pulse Shape Compensation Mode	AUTO	
PSMS	HLDS SS Pulse Shape Compensation Mode	AUTO	
PTCO	Pressure/Temperature Correction Option	NO	
RDF1_START	HNGS Detector 1 RDF Constant	0	
RDF2_START	HNGS Detector 2 RDF Constant	0	
RIGTYP	Rig Type	Offshore_Floater_with_WMC	
RLDT	Reference Log Date (dd-MMM-yyyy)	dd-MMM-yyyy	
RLNM	Reference Log Name		
RLRN	Reference Log Run Number		
RMFS	Resistivity of Mud Filtrate Sample	0.2350	OHMM
RULB	Rig Up Length at Bottom	0	FT
RULS	Rig Up Length at Surface	0	FT
RW	Resistivity of Connate Water	1.0000	OHMM
S1BI	HNGS Detector 1 Calibration Bismuth Count Rate	1.3	CPS
S1NA	HNGS Detector 1 Calibration Sodium Count Rate	24.2212	CPS
S1NG	HNGS Detector 1 Calibration End-On / Side-On Gain Ratio	0.984113	
S2BI	HNGS Detector 2 Calibration Bismuth Count Rate	1.3	CPS
S2NA	HNGS Detector 2 Calibration Sodium Count Rate	24.6034	CPS
S2NG	HNGS Detector 2 Calibration End-On / Side-On Gain Ratio	0.982439	
SABK	HNGS Statistical Uncertainty in Borehole Potassium Running Average	0.00251546	
SCORR	Stretch Correction	-50000	FT
SDAT	Standoff Data Source	SOCN	
SGRC	HNGS Standard Gamma-Ray Correction Flag	YES	
SHT	Surface Hole Temperature	68	DEGF
SOCN	Standoff Distance	0	IN
SOCO	Standoff Correction Option	NO	
STDLC	Subsequent Trip Down Log Correction	-50000	FT
TD	Total Depth	6691.9	FT
TDD	Total Depth - Driller	3774.00	M
TDL	Total Depth - Logger	3768.00	M
TNDCD	Tension Device Calibration Date (dd-MMM-yyyy)	dd-MMM-yyyy	
TNDCSN	Tension Device Calibrator Serial Number	-999	
TNDGN	Tension Device GAIN	1	
TNDOFF	Tension Device Offset	0	
TNDSN	Tension Device Serial Number	-999	
TNDTYP	Tension Device	CMTD-B/A	
TPOS	Tool Position	ECCE	
TPOS_STGC	Tool Centered/Eccentered	Eccentered	
TWS	Temperature of Connate Water Sample	37.78	DEGC
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	1.00227	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	0.975309	
ZRCS	Tool Zero Reference Check at Surface	-50000	FT

Format: APSLiquidPorosity_1 Vertical Scale: 1:200 Graphics File Created: 31-Dec-2000 10:57

OP System Version: 9C1-303

MCM

HLDS	OP91-kp2	NPLC-B	OP91-kp2
APS-BA	OP91-kp2	HNGS-BA	OP91-kp2
HTGC-B	OP91-kp2		

Input DLIS Files

DEFAULT	HLDS .020	FN:36 PRODUCER	21-Dec-2000 11:41	2009.4 M	1918.9 M
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Output DLIS Files

DEFAULT	HLDS .064	FN:97 PRODUCER	31-Dec-2000 10:57		
LAMONT	HLDS .064	FN:98 PRODUCER	31-Dec-2000 10:57		

Input DLIS Files

DEFAULT	HLDS .019	FN:34 PRODUCER	21-Dec-2000 10:06	2009.4 M	1623.5 M
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Output DLIS Files

DEFAULT
LAMONT

HLDS .058
HLDS .058

FN:89 PRODUCER
FN:90 PRODUCER

31-Dec-2000 10:12
31-Dec-2000 10:12

2009.4 M
2009.4 M

1623.5 M
1623.5 M

OP System Version: 9C1-303

MCM

HLDS
APS-BA
HTGC-B

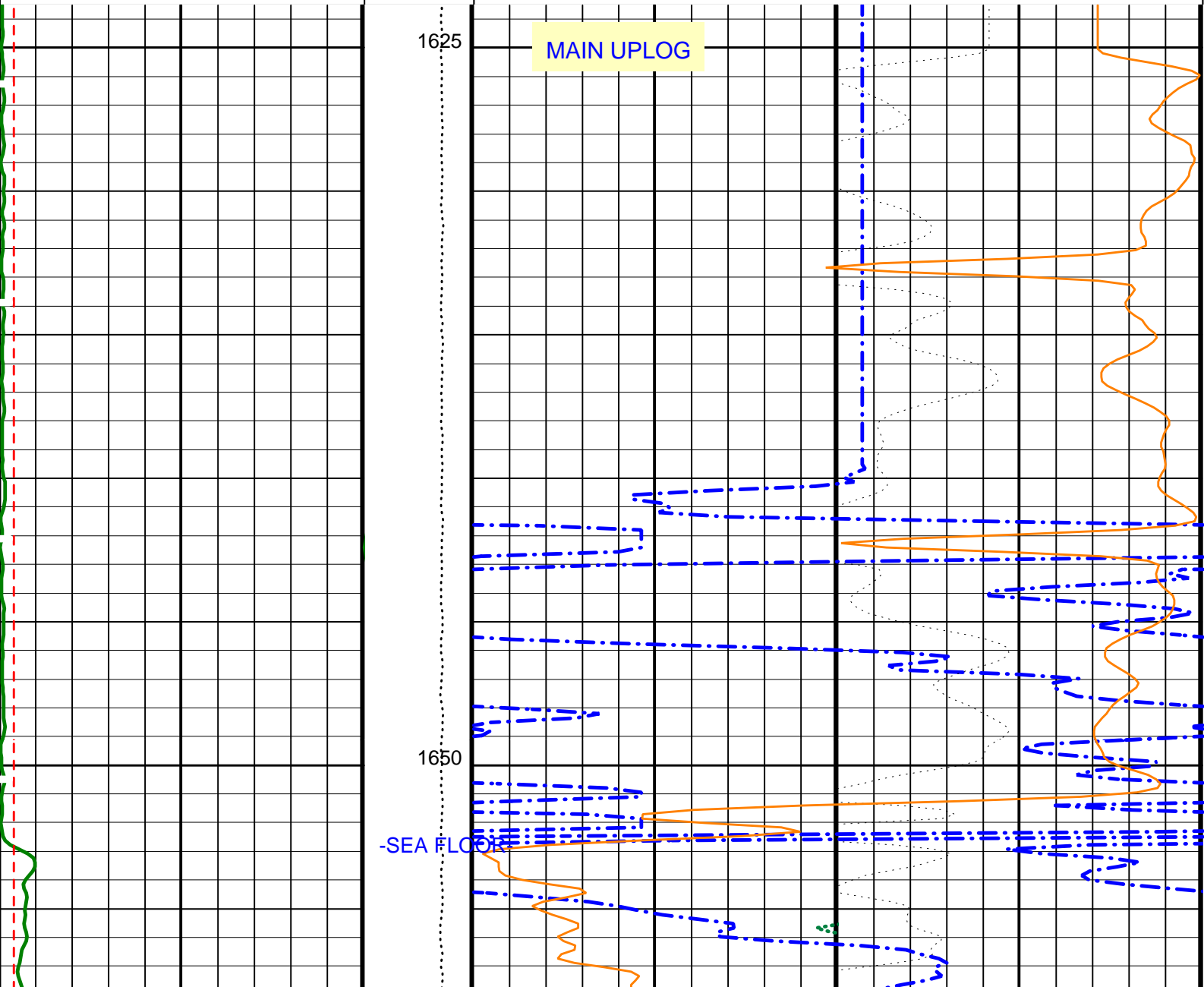
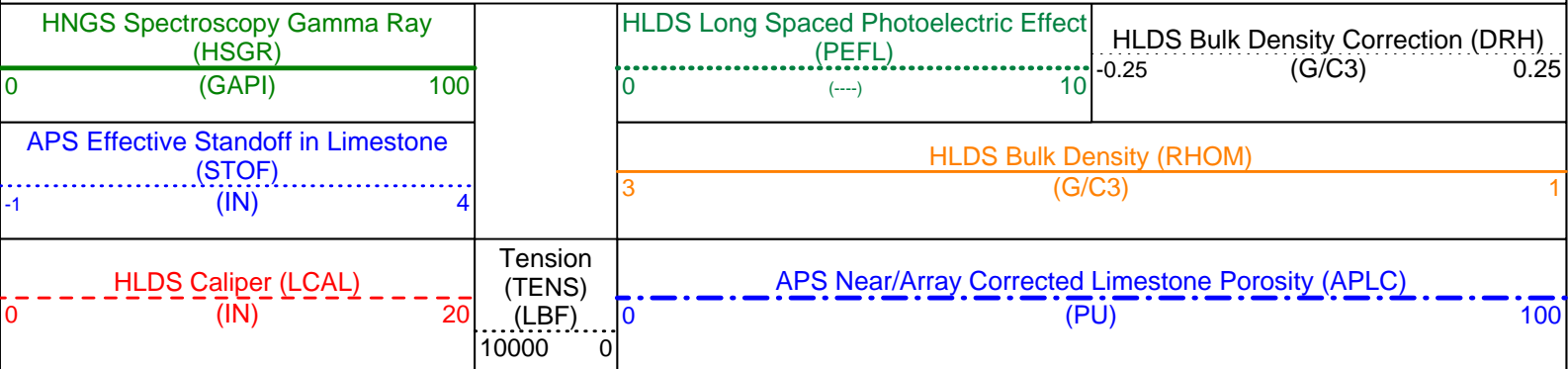
OP91-kp2
OP91-kp2
OP91-kp2

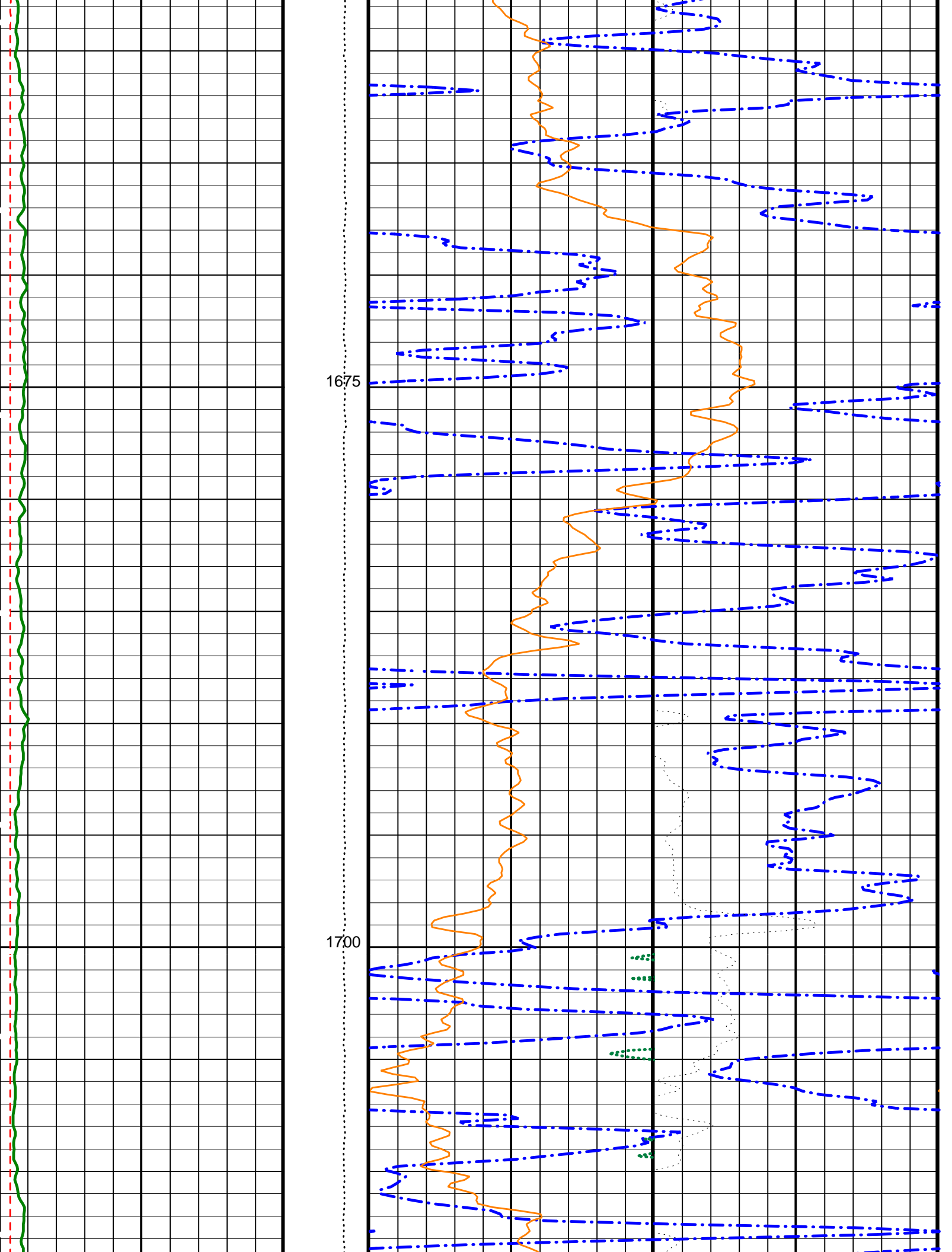
NPLC-B
HNGS-BA

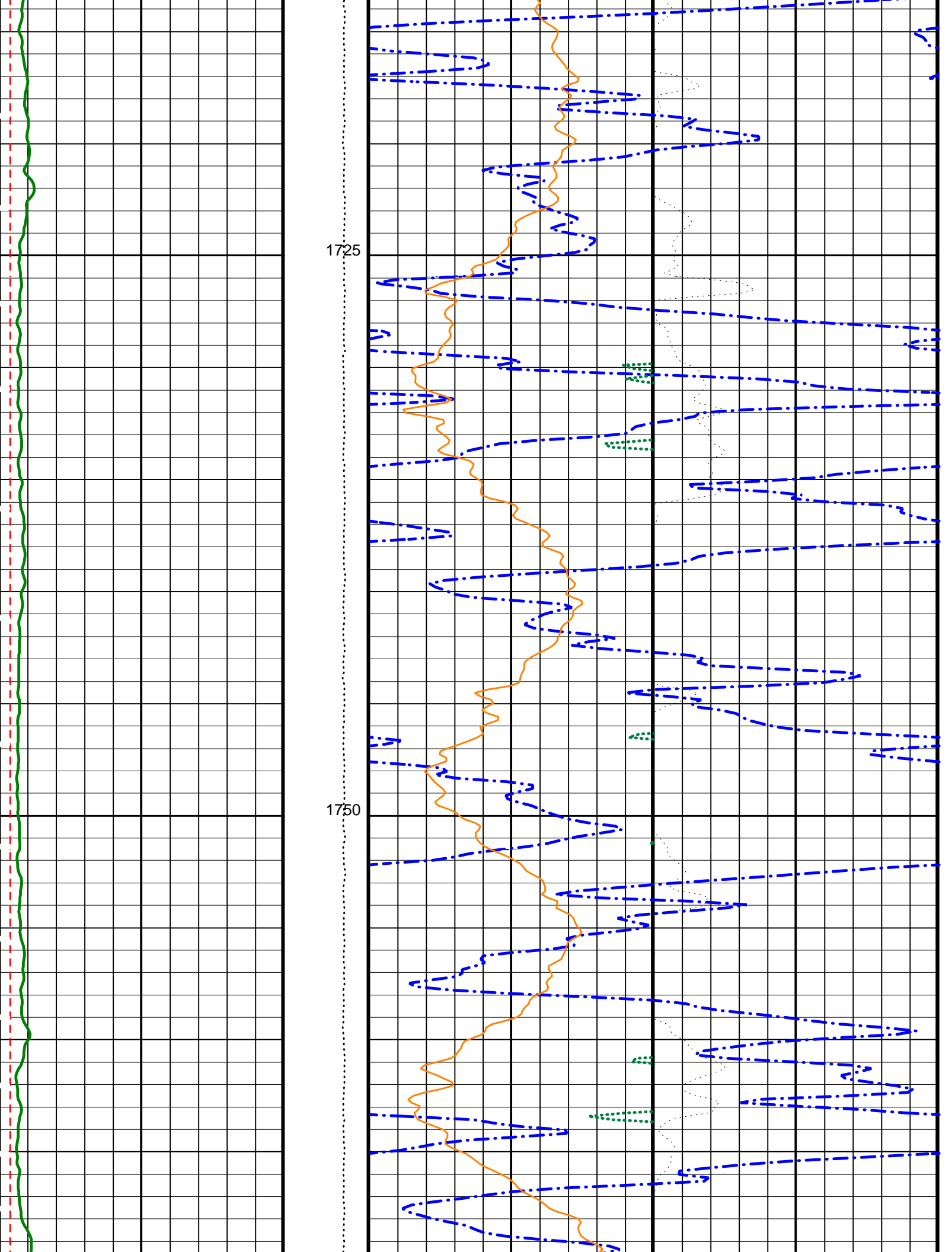
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OP91-kp2

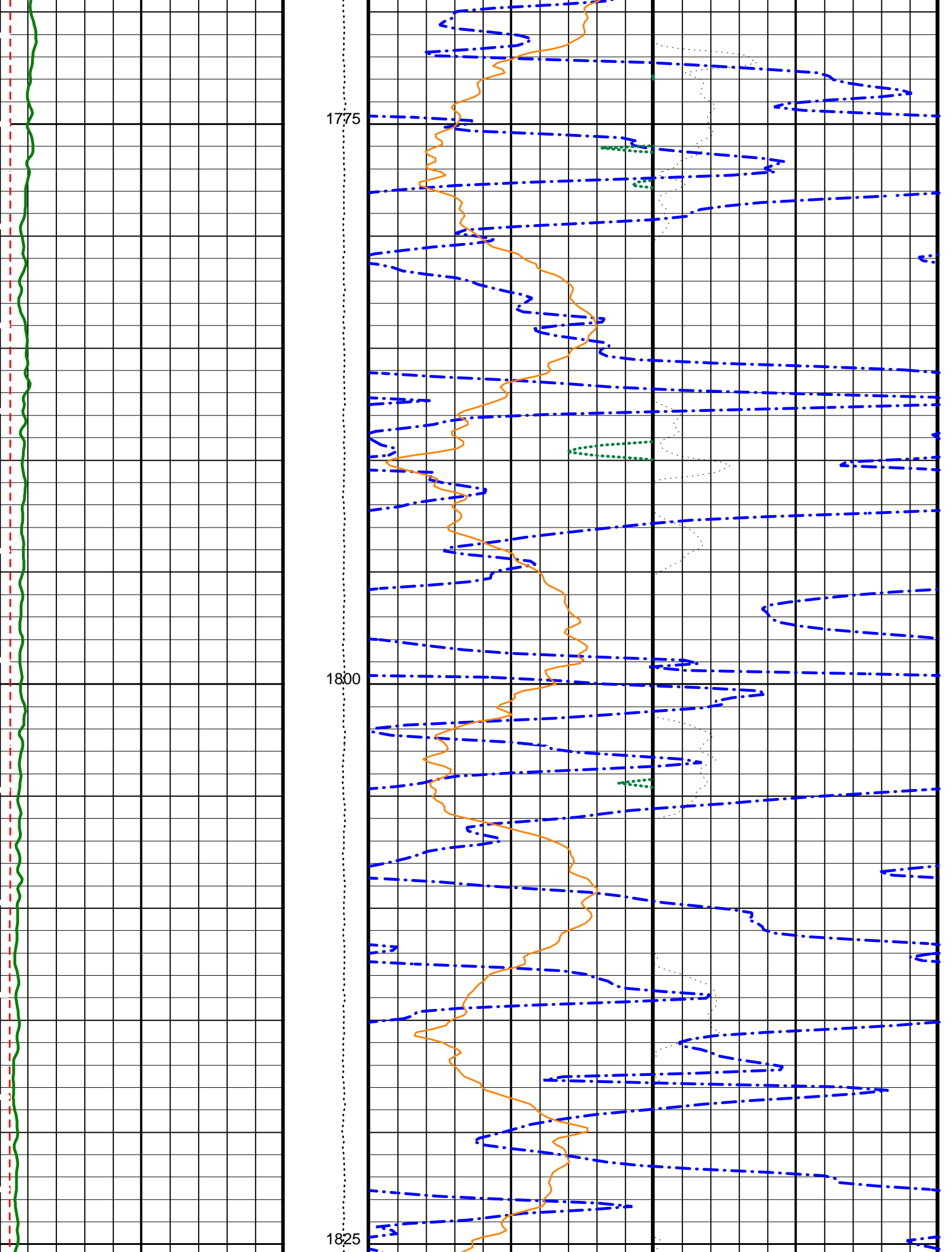
PIP SUMMARY

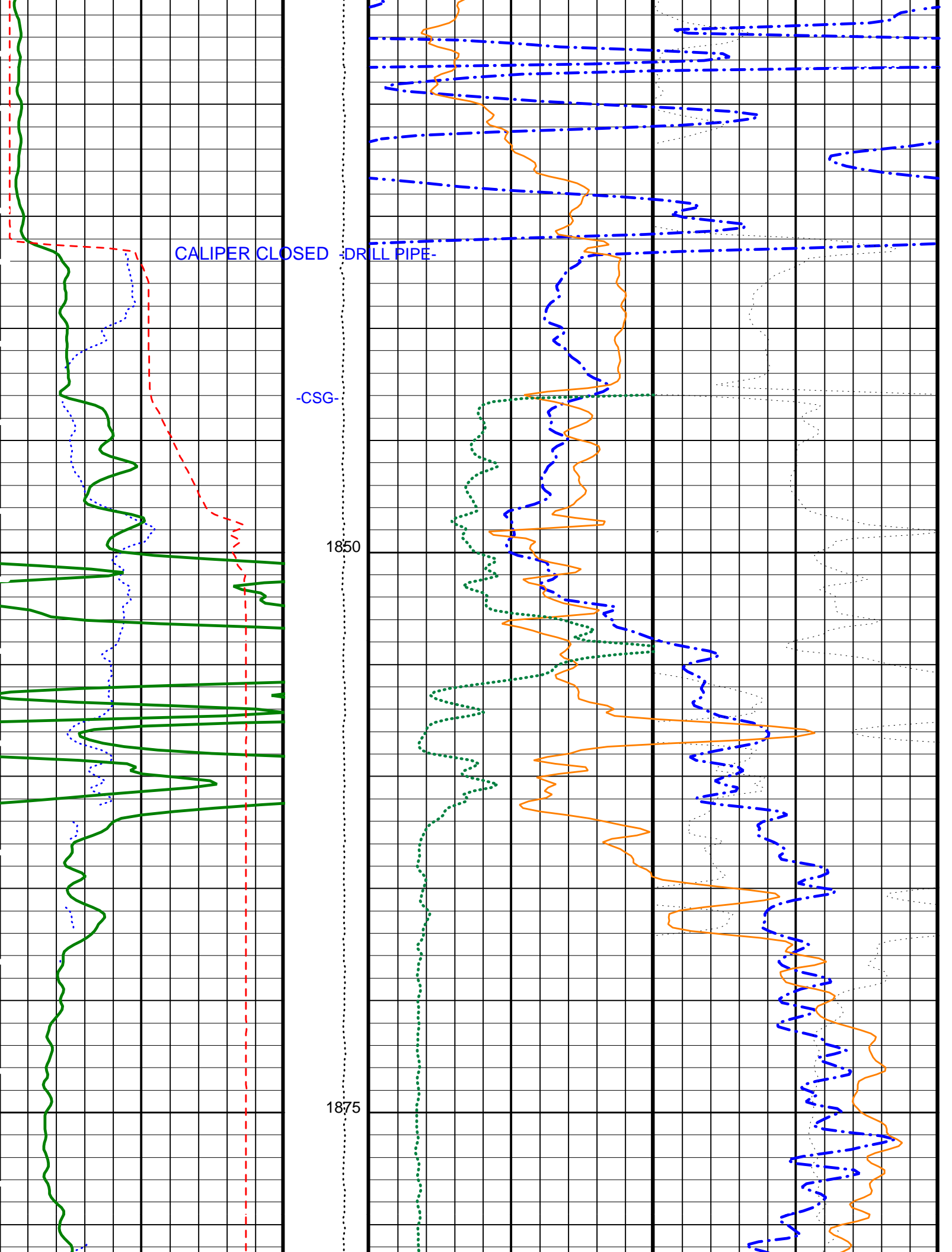
Time Mark Every 60 S

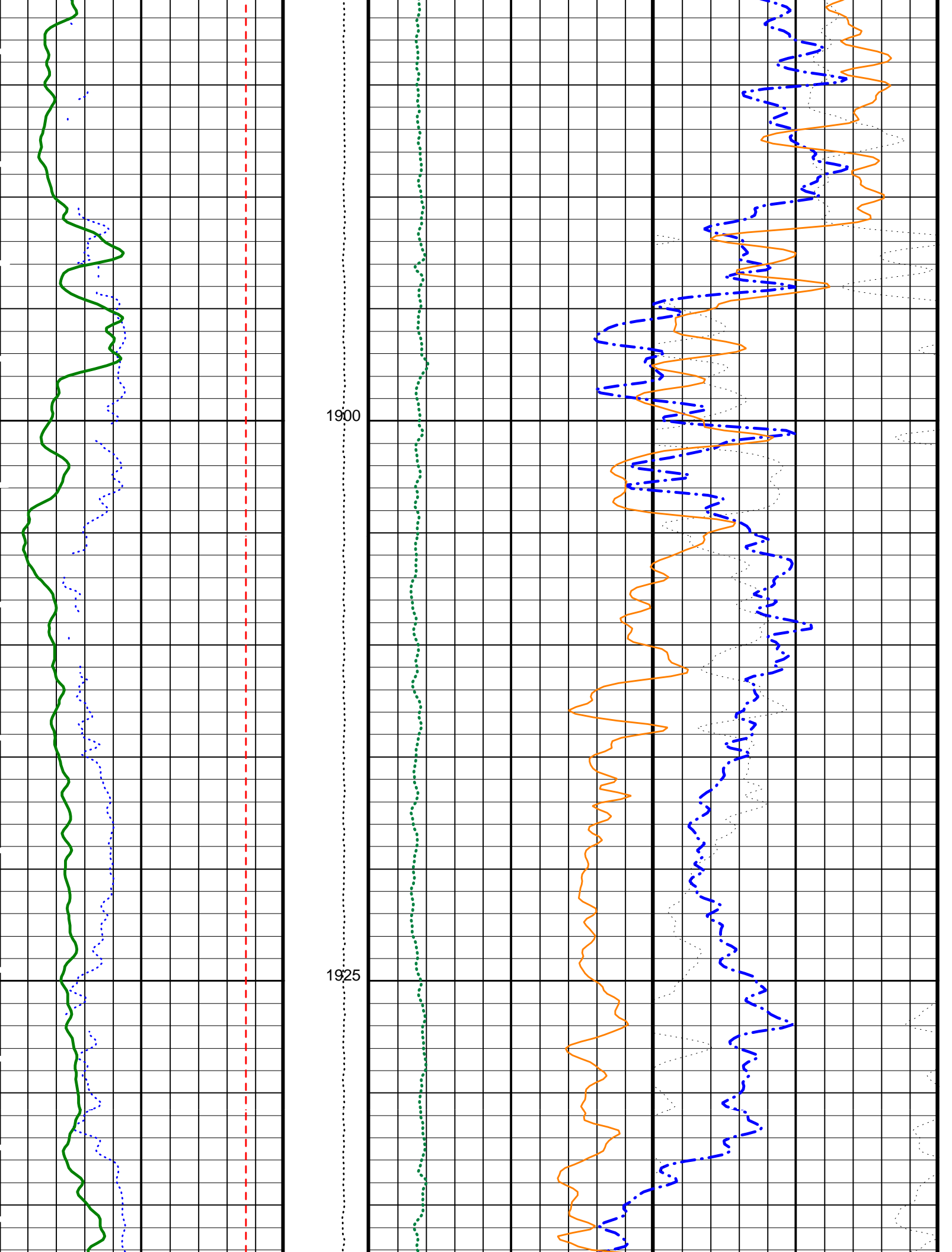


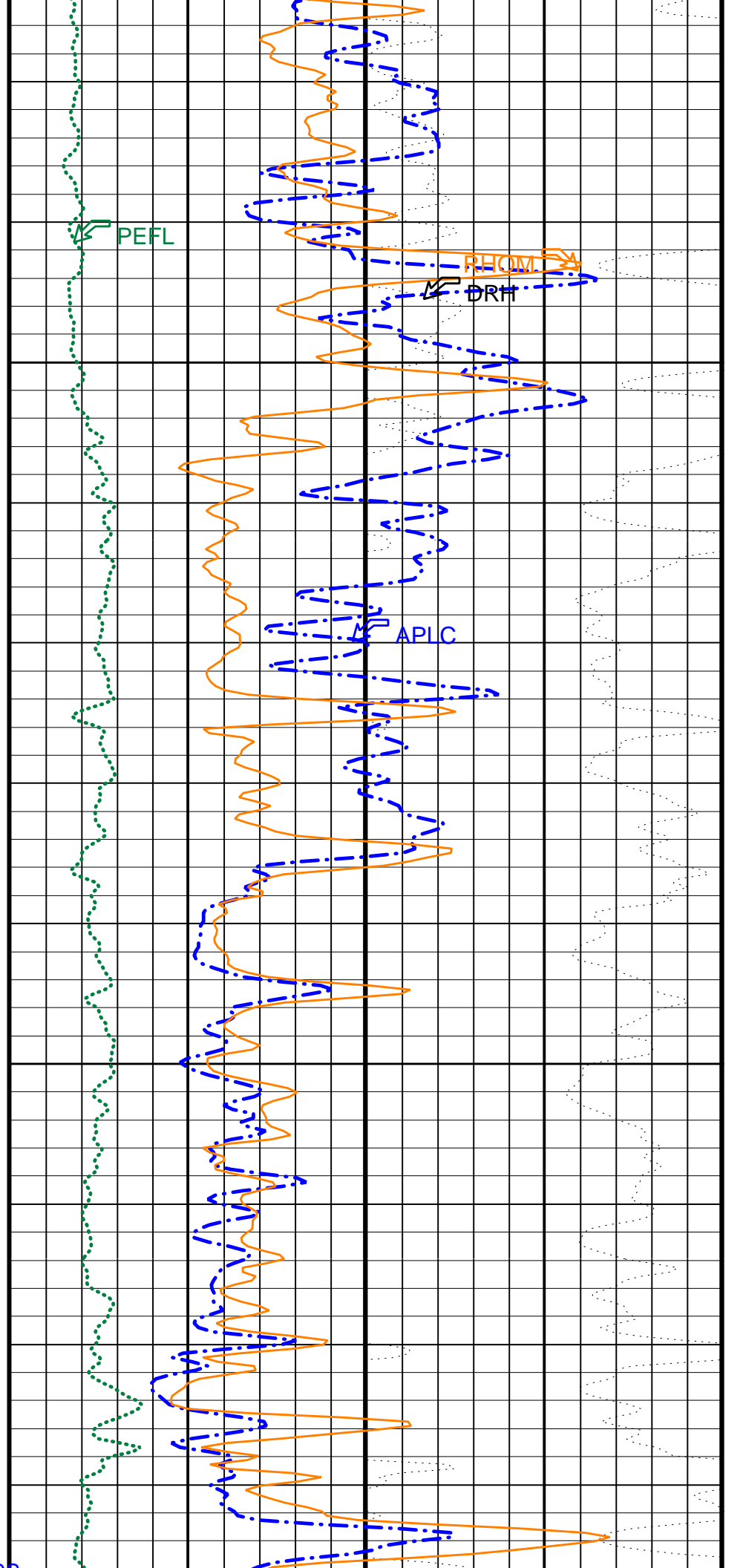
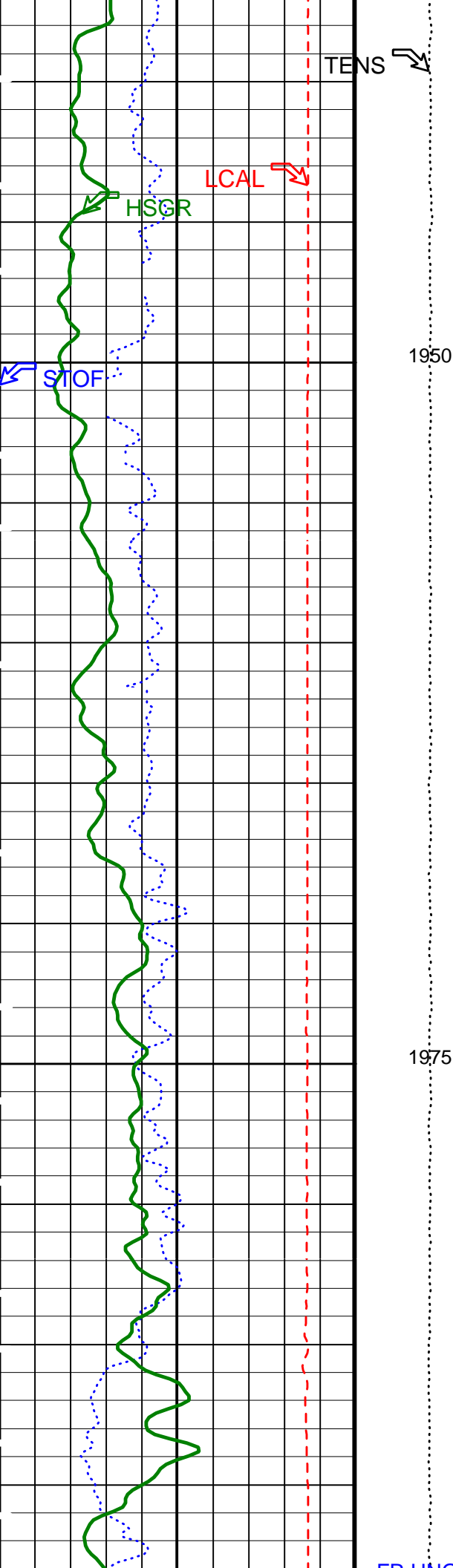


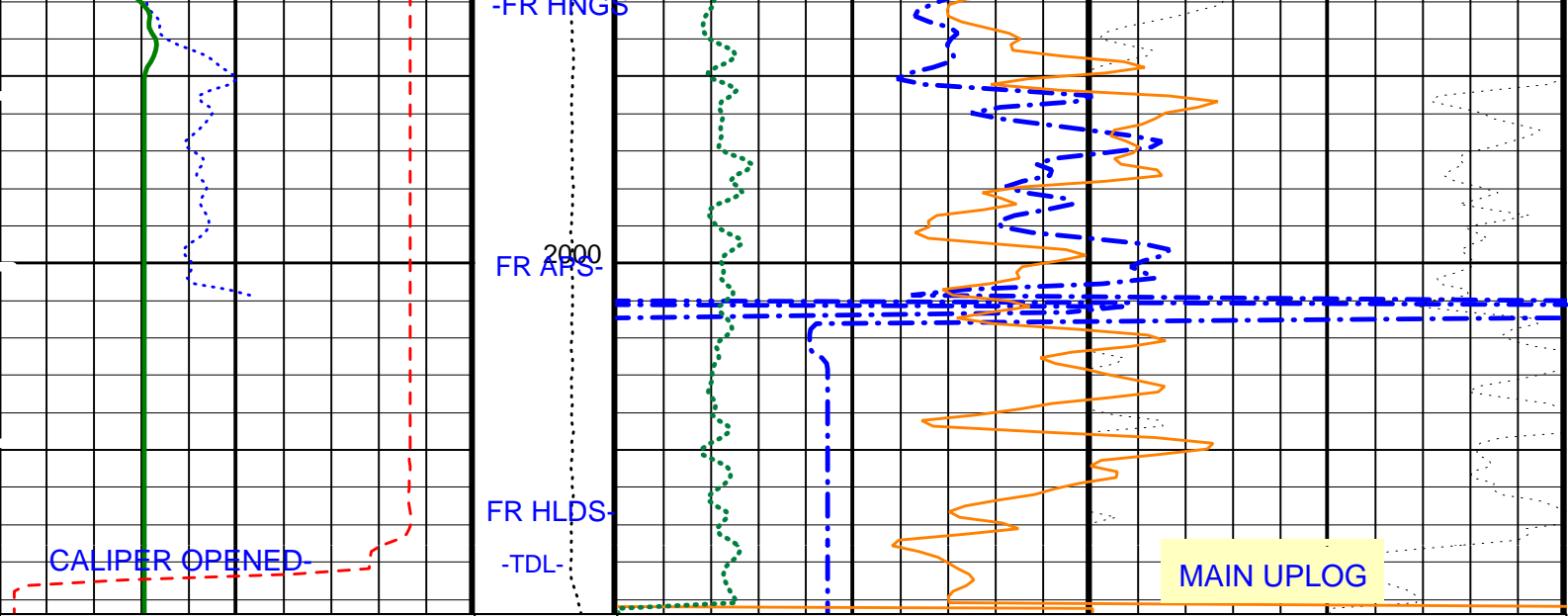












HLDS Caliper (LCAL) (IN) 0 20	Tension (TENS) (LBF) 10000 0	APS Near/Array Corrected Limestone Porosity (APLC) (PU) 0 100
APS Effective Standoff in Limestone (STOF) (IN) -1 4	HLDS Bulk Density (RHOM) (G/C3) 3 1	
HNGS Spectroscopy Gamma Ray (HSGR) (GAPI) 0 100	HLDS Long Spaced Photoelectric Effect (PEFL) (---) 0 10	HLDS Bulk Density Correction (DRH) (G/C3) -0.25 0.25

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
	Apparent Thickness of Cement	0	IN
	HLDS Data Control	AcquiredData	
	APS Cement Thickness Source	COMPUTED	
	HLDS LS Digital Integrator State	Normal	
	HLDS SS Digital Integrator State	Normal	
	HLDS SS NCB Mode	Density	
	APS Software Version	5	
	HLDS LS Tri-Ported Memory State	Enable	
	HLDS Diag Message Rate	20	
	HLDS Spec Message Rate	1	
	HLDS SS Tri-Ported Memory State	Enable	
	HLDS LS NCB Mode	Density	
AASD	APS Thermal and Array Detectors High Voltage Setting	1968.98	V
ABOS	APS Neutron Burst-Off Background Subtraction Switch	ON	
ADSO	APS Array Detectors Data Source Switch	Both	
AFSD	APS Far Detector High Voltage Setting	2052.03	V
AHCS	APS Holesize Correction Source	GCSE	
AHSS	APS Holesize Correction Switch	ON	
ALTDPCCHAN	Name of alternate depth channel	SpeedCorrectedDepth	
AMTY	APS Environmental Corrections Mud Type	WaterBaseBarite	
ANSD	APS Near Detector High Voltage Setting	1748.3	V
AOTS	APS Old Temperature Sensor Switch	NO	
ASOS	APS Standoff Correction Switch	ON	
ATSS	APS Temperature-Pressure-Salinity Correction Switch	OFF	
BAR1	HNGS Detector 1 Barite Constant	1	
BAR2	HNGS Detector 2 Barite Constant	1	
BHFL	Borehole Fluid Type	WATER	
BHK	HNGS Borehole Potassium Correction Concentration	0	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	212	DEGF
BKSF	HNGS Borehole Fluid Excluder Sleeve Algorithm Factor	1	
BKSH	HNGS Borehole Fluid Excluder Sleeve Algorithm High Channel	245	
BKSL	HNGS Borehole Fluid Excluder Sleeve Algorithm Low Channel	17	
BS	Bit Size	7.250	IN
BSAL	Borehole Salinity	32000.00	PPM
BSCO	Borehole Salinity Correction Option	NO	

COCO	Casing & Cement Thickness Correction Option	NO	
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	
CONCTYP	Conveyance Type	Wireline	
CSD1	Inner Casing Outer Diameter	0	IN
CSD2	Outer Casing Outer Diameter	0	IN
CSIZ	Current Casing Size	0.000	IN
CSW1	Inner Casing Weight	0	LB/F
CSW2	Outer Casing Weight	0	LB/F
CWEI	Casing Weight	0.00	LB/F
D1PR	HNGS Detector 1 Calibration Thorium Peak Resolution	7.69015	%
D1TC	HNGS Detector 1 Calibration Temperature	28.359	DEGC
D1TL	HNGS Detector 1 Calibration Thorium Peak Location	209.757	
D2PR	HNGS Detector 2 Calibration Thorium Peak Resolution	7.03497	%
D2TC	HNGS Detector 2 Calibration Temperature	27.467	DEGC
D2TL	HNGS Detector 2 Calibration Thorium Peak Location	209.443	
DBCC	HNGS Barite Constant Correction Flag	NONE	
DEPREM1	Depth Remark 1		
DEPREM2	Depth Remark 2		
DEPREM3	Depth Remark 3		
DEPREM4	Depth Remark 4		
DEPREM5	Depth Remark 5		
DEPREM6	Depth Remark 6		
DFD	Drilling Fluid Density	1.10	G/C3
DHC	Density Hole Correction	BS	
DO	Depth Offset for Logical Unit 1	0.0	M
DPPM	Density Porosity Processing Mode	HIRS	
FD	Fluid Density	1	G/C3
FSAL	Formation Salinity	32000	PPM
FSCO	Formation Salinity Correction Option	NO	
GCF1_START	HNGS Detector 1 GCF Constant	1	
GCF2_START	HNGS Detector 2 GCF Constant	1	
GCSE	Generalized Caliper Selection	BS	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
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	
HALF	HNGS Alpha Filter Length	60	IN
HATIM	HNGS Marquardt Accumulation Time	600	S
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	NATU	
HNPE	HNGS Processing Enable	YES	
HSCO	Hole Size Correction Option	YES	
HSLV	HNGS Borehole Fluid Excluder Sleeve Status	NO	
HSVN	HNGS Spectral Standards Version Number	3.31246e-032	
IDWCD	IDW Calibration Date (dd-MMM-yyyy)	dd-MMM-yyyy	
IDWCSN	IDW Calibrator Serial Number	-999	
IDWLCN	IDW Calibration Cable Type	7-46P	
IDWSN	IDW Serial Number	-999	
IDWTYP	IDW Type	IDW-B	
IDWWC1	IDW Wheel Correction 1	1	
IDWWC2	IDW Wheel Correction 2	1	
LATC	HLDS Activation Correction	ON	
LCSN	Logging Cable Serial Number	-999	
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	
LOGSEQ	Log Sequence	First_Log_In_Well	
MARQ_START	HNGS Marquardt Start-up Mode	INTERNAL	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
MCCO	Mud Cake Correction Option	NO	
MCOR	Mud Correction	NATU	
MDEN	Matrix Density	2.71	G/C3
MST	Mud Sample Temperature	21.11	DEGC
MWCO	Mud Weight Correction Option	NO	
NARC	APS Near/Array Calibration Ratio	1.05998	
NFRC	APS Near/Far Calibration Ratio	0.896302	
NOTS	NPLC Old Temperature Sensor	NO	
NRBM	NPLC Reduced Telemetry Bandwidth Mode	OFF	
PBVSDAP	Use alternate depth channel for playback	NO	
PHVL	HLDS Long Spacing High Voltage Setting	1000	V
PHVS	HLDS Short Spacing High Voltage Setting	1000	V
PP	Playback Processing	RECOMPUTE	
PSDL	HLDS LS Pulse Shape Compensation DAC	16000	
PSDS	HLDS SS Pulse Shape Compensation DAC	16000	
PSML	HLDS LS Pulse Shape Compensation Mode	AUTO	
PSMS	HLDS SS Pulse Shape Compensation Mode	AUTO	
PTCO	Pressure/Temperature Correction Option	NO	
PDE1_START	HNGS Detector 1 PDE Constant	0	

RDF1_START	HNGS Detector 1 RDF Constant		0	
RDF2_START	HNGS Detector 2 RDF Constant		0	
RIGTYP	Rig Type	Offshore_Floater_with_WMC		
RLDT	Reference Log Date (dd-MMM-yyyy)		dd-MMM-yyyy	
RLNM	Reference Log Name			
RLRN	Reference Log Run Number			
RMFS	Resistivity of Mud Filtrate Sample		0.2350	OHMM
RULB	Rig Up Length at Bottom		0	FT
RULS	Rig Up Length at Surface		0	FT
RW	Resistivity of Connate Water		1.0000	OHMM
S1BI	HNGS Detector 1 Calibration Bismuth Count Rate		1.3	CPS
S1NA	HNGS Detector 1 Calibration Sodium Count Rate		24.2212	CPS
S1NG	HNGS Detector 1 Calibration End-On / Side-On Gain Ratio		0.984113	
S2BI	HNGS Detector 2 Calibration Bismuth Count Rate		1.3	CPS
S2NA	HNGS Detector 2 Calibration Sodium Count Rate		24.6034	CPS
S2NG	HNGS Detector 2 Calibration End-On / Side-On Gain Ratio		0.982439	
SABK	HNGS Statistical Uncertainty in Borehole Potassium Running Average		0	
SCORR	Stretch Correction		-50000	FT
SDAT	Standoff Data Source		SOCN	
SGRC	HNGS Standard Gamma-Ray Correction Flag		YES	
SHT	Surface Hole Temperature		68	DEGF
SOCN	Standoff Distance		0	IN
SOCO	Standoff Correction Option		NO	
STDLC	Subsequent Trip Down Log Correction		-50000	FT
TD	Total Depth		6691.9	FT
TDD	Total Depth - Driller		3774.00	M
TDL	Total Depth - Logger		3768.00	M
TNDCD	Tension Device Calibration Date (dd-MMM-yyyy)		dd-MMM-yyyy	
TNDCSN	Tension Device Calibrator Serial Number		-999	
TNDGN	Tension Device GAIN		1	
TNDOFF	Tension Device Offset		0	
TNDSN	Tension Device Serial Number		-999	
TNDTYP	Tension Device		CMTD-B/A	
TPOS	Tool Position		ECCE	
TPOS_STGC	Tool Centered/Eccentered		Eccentered	
TWS	Temperature of Connate Water Sample		37.78	DEGC
VBA1	HNGS Detector 1 Variable Barite Factor Running Average		0	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average		0	
ZRCS	Tool Zero Reference Check at Surface		-50000	FT

Format: APSLiquidPorosity_1 Vertical Scale: 1:200 Graphics File Created: 31-Dec-2000 10:12

OP System Version: 9C1-303 MCM

HLDS	OP91-kp2	NPLC-B	OP91-kp2
APS-BA	OP91-kp2	HNGS-BA	OP91-kp2
HTGC-B	OP91-kp2		

Input DLIS Files

DEFAULT	HLDS .019	FN:34 PRODUCER	21-Dec-2000 10:06	2009.4 M	1623.5 M
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Output DLIS Files

DEFAULT	HLDS .058	FN:89 PRODUCER	31-Dec-2000 10:12
LAMONT	HLDS .058	FN:90 PRODUCER	31-Dec-2000 10:12

Calibration and Check Summary

Measurement	Nominal	Master	Before	After	Change	Limit	Units
Hostile Litho-Density Sonde Wellsite Calibration - Background Measurement							
Master: Calibration out of date 20-SEP-2000 23:35 Before: 26-NOV-2000 9:01 After: 21-DEC-2000 13:39							
SS Total Countrate Bkg	1645	1433	1424	1420	-3.960	80.00	CPS
SS HV Measured Bkg	1100	1062	1062	1062	0.4027	80.00	V
SS Cs Centroid Bkg	661.0	661.3	661.3	661.3	0.05157	1.500	KEV
SS Cs Resolution Bkg	9.000	8.578	8.573	8.701	0.1273	1.800	%
LS Total Countrate Bkg	1645	1457	1447	1448	1.183	80.00	CPS
LS HV Measured Bkg	1100	1181	1181	1181	0.08459	80.00	V
LS Cs Centroid Bkg	661.0	661.2	661.1	661.2	0.1306	1.500	KEV
LS Cs Resolution Bkg	9.000	8.815	8.878	8.901	0.02350	1.800	%

Hostile Litho-Density Sonde Wellsite Calibration - Caliper Calibration

Before: 26-NOV-2000 9:01							
HLDS Caliper Small Ring	8.000	N/A	10.23	N/A	N/A	N/A	IN

Accelerator-Porosity Tool Wellsite Calibration - Detector Background

Master: 2-NOV-2000 22:33 Before: 21-DEC-2000 8:45 After: 21-DEC-2000 12:22

Near Det Bkg Cntrate	30.00	32.87	32.40	31.99	-0.4156	N/A	CPS
Far Det Bkg Cntrate	30.00	33.04	32.16	33.26	1.102	N/A	CPS
Array-1 Det Bkg Cntrate	30.00	29.74	29.39	29.71	0.3227	N/A	CPS
Array-2 Det Bkg Cntrate	30.00	30.90	29.77	31.28	1.509	N/A	CPS
Array Therm Det Bkg Cntrate	30.00	31.90	30.75	30.75	0	N/A	CPS

Accelerator-Porosity Tool Wellsite Calibration - Calibration Ratios

Master: 2-NOV-2000 22:34

Near/Far Calibration Ratio	0.9250	0.8963	N/A	N/A	N/A	N/A	
Near/Array Calibration Ratio	1.030	1.060	N/A	N/A	N/A	N/A	

Accelerator-Porosity Tool Master Calibration - Tank Check

Master: 2-NOV-2000 22:34

Array-1 Standoff Porosity	10.25	11.78	--	--	--	--	PU
Array-2 Standoff Porosity	10.25	11.63	--	--	--	--	PU
Sigma Formation	27.50	28.08	--	--	--	--	CU

Hostile Natural Gamma Ray Sonde Wellsite Calibration - Detector 1 Check

Master: 5-OCT-2000 23:44 Before: 21-DEC-2000 9:52 After: 21-DEC-2000 13:40

Na 511 Peak Loc	40.00	40.59	40.60	40.92	0.3160	1.000	
Na 511 Peak Res	15.50	16.53	17.00	15.77	-1.233	2.000	%
High Voltage	1150	1100	1104	1105	1.052	30.00	V
Na 1785 Peak Loc	142.6	145.1	145.1	145.2	0.09685	7.000	
Na 1785 Peak Res	8.500	9.600	11.14	10.23	-0.9078	2.000	%
Temperature	15.50	33.94	32.57	34.19	1.627	N/A	DEGC
Na Count Rate	45.00	24.22	22.49	22.82	0.3335	8.000	CPS

Hostile Natural Gamma Ray Sonde Wellsite Calibration - Detector 2 Check

Master: 5-OCT-2000 23:44 Before: 21-DEC-2000 9:52 After: 21-DEC-2000 13:40

Na 511 Peak Loc	40.00	40.70	40.59	40.50	-0.09077	1.000	
Na 511 Peak Res	15.50	15.05	16.03	15.77	-0.2540	2.000	%
High Voltage	1150	1189	1194	1193	-1.712	30.00	V
Na 1785 Peak Loc	142.6	145.1	145.7	145.1	-0.5570	7.000	
Na 1785 Peak Res	8.500	7.959	8.040	8.071	0.03065	2.000	%
Temperature	15.50	33.01	31.76	34.19	2.433	N/A	DEGC
Na Count Rate	45.00	24.60	22.72	23.15	0.4291	8.000	CPS

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

Master: 5-OCT-2000 23:44 Before: 21-DEC-2000 9:52 After: 21-DEC-2000 13:40

Coincidence Count Rate Ratio	1.000	0.9848	0.9904	0.9866	-0.003811	0.05000	
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Hostile Natural Gamma Ray Sonde Master Calibration - Detector 1 Calibration

Master: 5-OCT-2000 23:36

Na 511 Peak Set Point	40.00	41.00	--	--	--	--	
Th Peak Loc	209.6	211.4	--	--	--	--	
Th Peak Res	7.000	8.367	--	--	--	--	%
Background Count Rate	142.5	14.06	--	--	--	--	CPS
Gain Ratio	1.000	0.9908	--	--	--	--	

Hostile Natural Gamma Ray Sonde Master Calibration - Detector 2 Calibration

Master: 5-OCT-2000 23:36

Na 511 Peak Set Point	40.00	41.00	--	--	--	--	
Th Peak Loc	209.6	210.2	--	--	--	--	
Th Peak Res	7.000	7.339	--	--	--	--	%
Background Count Rate	142.5	15.63	--	--	--	--	CPS
Gain Ratio	1.000	0.9828	--	--	--	--	

HPHT Telemetry Gamma-ray Cartridge - B Wellsite Calibration - Detector Calibration

Before: Calibration out of date 20-NOV-2000 3:46

Gamma Ray (Jig - Bkg)	147.6	N/A	147.6	N/A	N/A	13.42	GAPI
Gamma Ray (Calibrated)	160.1	N/A	160.1	N/A	N/A	15.00	GAPI

Accelerator-Porosity Tool - Detector Plateau Settings :

Near Detector Plateau Setting	1748 V
Far Detector Plateau Setting	2052 V
Array Detector Plateau Setting	1969 V

Hostile Litho-Density Sonde / Equipment Identification

Hostile Litho Density High Voltage
Gamma Source Radioactive

HLDV - D
GSR - Z

35
1846

Auxiliary Equipment:

Hostile Litho Density Pad

HLDP - C

12

Hostile Litho Density High Voltage Housi

HEH - H

35

Hostile Litho-Density Sonde Wellsite Calibration									
Background Measurement									
Phase	SS Total Countrate Bkg CPS	Value	Phase	SS HV Measured Bkg V	Value	Phase	SS PSC DAC Value Bkg	Value	
Master		1433	Master		1062	Master		16760	
Before		1424	Before		1062	Before		16790	
After		1420	After		1062	After		17620	
	1000 (Minimum) 1645 (Nominal) 2290 (Maximum)			800.0 (Minimum) 1100 (Nominal) 1400 (Maximum)			14100 (Minimum) 16000 (Nominal) 20000 (Maximum)		
Phase	SS Cs Centroid Bkg KEV	Value	Phase	SS Cs Resolution Bkg %	Value	Phase	LS Total Countrate Bkg CPS	Value	
Master		661.3	Master		8.578	Master		1457	
Before		661.3	Before		8.573	Before		1447	
After		661.3	After		8.701	After		1448	
	656.0 (Minimum) 661.0 (Nominal) 666.0 (Maximum)			7.000 (Minimum) 9.000 (Nominal) 11.00 (Maximum)			1000 (Minimum) 1645 (Nominal) 2290 (Maximum)		
Phase	LS HV Measured Bkg V	Value	Phase	LS PSC DAC Value Bkg	Value	Phase	LS Cs Centroid Bkg KEV	Value	
Master		1181	Master		18320	Master		661.2	
Before		1181	Before		18370	Before		661.1	
After		1181	After		19360	After		661.2	
	800.0 (Minimum) 1100 (Nominal) 1400 (Maximum)			14100 (Minimum) 16000 (Nominal) 20000 (Maximum)			656.0 (Minimum) 661.0 (Nominal) 666.0 (Maximum)		
Phase	LS Cs Resolution Bkg %	Value	Phase	LSW1 Background CPS	Value	Phase	LSW2 Background CPS	Value	
Master		8.815	Master		88.11	Master		80.49	
Before		8.878	Before		86.99	Before		79.85	
After		8.901	After		85.96	After		80.53	
	7.000 (Minimum) 9.000 (Nominal) 11.00 (Maximum)			55.00 (Minimum) 100.0 (Nominal) 150.0 (Maximum)			50.00 (Minimum) 100.0 (Nominal) 140.0 (Maximum)		
Phase	LSW3 Background CPS	Value	Phase	LSW4 Background CPS	Value	Phase	LSW5 Background CPS	Value	
Master		179.9	Master		217.8	Master		500.3	
Before		178.1	Before		215.7	Before		497.4	
After		177.8	After		215.4	After		497.5	
	110.0 (Minimum) 200.0 (Nominal) 290.0 (Maximum)			140.0 (Minimum) 250.0 (Nominal) 360.0 (Maximum)			330.0 (Minimum) 600.0 (Nominal) 830.0 (Maximum)		
Phase	SSW1 Background CPS	Value	Phase	SSW2 Background CPS	Value	Phase	SSW3 Background CPS	Value	
Master		87.70	Master		155.5	Master		417.1	
Before		86.54	Before		155.0	Before		413.2	
After		86.21	After		155.4	After		412.7	
	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				
Master		222.8	Master		161.8				
Before		220.8	Before		161.1				
After		221.4	After		158.5				
	150.0 (Minimum) 270.0 (Nominal) 380.0 (Maximum)			110.0 (Minimum) 200.0 (Nominal) 270.0 (Maximum)					
Master: Calibration out of date 20-SEP-2000 23:35			Before: 26-NOV-2000 9:01			After: 21-DEC-2000 13:39			

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		88.11	Master		80.49	Master		179.9	
	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		217.8	Master		500.3	Master		8.815
	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		87.70	Master		155.5	Master		417.1
	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		222.8	Master		161.8	Master		8.578
	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: Calibration out of date 20-SEP-2000 23:35

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		601.2	Master		873.6	Master		1045
	420.0 (Minimum) 600.0 (Nominal) 700.0 (Maximum)			650.0 (Minimum) 900.0 (Nominal) 1050 (Maximum)			800.0 (Minimum) 1100 (Nominal) 1300 (Maximum)	
Phase	LSW4 Aluminum CPS	Value	Phase	LSW5 Aluminum CPS	Value	Phase	LS Cs Resolution Al %	Value
Master		521.1	Master		496.0	Master		8.861
	410.0 (Minimum) 580.0 (Nominal) 670.0 (Maximum)			410.0 (Minimum) 570.0 (Nominal) 660.0 (Maximum)			7.000 (Minimum) 9.000 (Nominal) 11.00 (Maximum)	
Phase	SSW1 Aluminum CPS	Value	Phase	SSW2 Aluminum CPS	Value	Phase	SSW3 Aluminum CPS	Value
Master		2319	Master		6767	Master		9888
	2000 (Minimum) 2800 (Nominal) 3200 (Maximum)			5800 (Minimum) 8000 (Nominal) 9300 (Maximum)			8300 (Minimum) 11600 (Nominal) 13500 (Maximum)	
Phase	SSW4 Aluminum CPS	Value	Phase	SSW5 Aluminum CPS	Value	Phase	SS Cs Resolution Al %	Value
Master		4299	Master		625.3	Master		8.572
	3500 (Minimum) 5000 (Nominal) 5800 (Maximum)			470.0 (Minimum) 660.0 (Nominal) 770.0 (Maximum)			7.000 (Minimum) 9.000 (Nominal) 11.00 (Maximum)	

Master: Calibration out of date 21-SEP-2000 1:27

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		397.9	Master		694.7	Master		924.5
	290.0 (Minimum) 400.0 (Nominal) 470.0 (Maximum)			520.0 (Minimum) 730.0 (Nominal) 850.0 (Maximum)			720.0 (Minimum) 1000 (Nominal) 1160 (Maximum)	
Phase	LSW4 Iron CPS	Value	Phase	LSW5 Iron CPS	Value	Phase	LS Cs Resolution Al + Fe %	Value
Master		477.2	Master		463.2	Master		8.823
	370.0 (Minimum) 520.0 (Nominal) 600.0 (Maximum)			340.0 (Minimum) 470.0 (Nominal) 550.0 (Maximum)			7.000 (Minimum) 9.000 (Nominal) 11.00 (Maximum)	
Phase	SSW1 Iron CPS	Value	Phase	SSW2 Iron CPS	Value	Phase	SSW3 Iron CPS	Value
Master		1735	Master		5690	Master		9124
	1500 (Minimum) 2100 (Nominal) 2400 (Maximum)			4900 (Minimum) 6800 (Nominal) 7900 (Maximum)			7800 (Minimum) 10800 (Nominal) 12600 (Maximum)	
Phase	SSW4 Iron CPS	Value	Phase	SSW5 Iron CPS	Value	Phase	SS Cs Resolution Al + Fe %	Value
Master		3979	Master		565.0	Master		8.472
	3300 (Minimum) 4600 (Nominal) 5400 (Maximum)			420.0 (Minimum) 580.0 (Nominal) 680.0 (Maximum)			7.000 (Minimum) 9.000 (Nominal) 11.00 (Maximum)	

Master: Calibration out of date 21-SEP-2000 1:21

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		1.027	Master		2.008	Master		0.5910
	0.9000 (Minimum) 1.000 (Nominal) 1.100 (Maximum)			1.800 (Minimum) 2.000 (Nominal) 2.200 (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		0.4709	Master		0.9816	Master	EXCEEDS LIMIT	0.9591
	0.4000 (Minimum) 0.5000 (Nominal) 0.6000 (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	EXCEEDS LIMIT	0.8860	Master	EXCEEDS LIMIT	0.8263
	0.9900 (Minimum)	0.9940 (Nominal)		0.9850 (Minimum)	0.9940 (Nominal)
		1.015 (Maximum)			1.010 (Maximum)

Master: Calibration out of date 21-SEP-2000 1:17

PAD WEAR CHECK NOT USED IN CALIBRATION

Nuclear Porosity Lithology Cartridge - B / Equipment Identification

Primary Equipment:			
NPLC Cartridge	NPLC - B	79	
Auxiliary Equipment:			
NPLC Housing	NPH - B	82	

Accelerator-Porosity Tool / Equipment Identification

Primary Equipment:			
Accelerator-Porosity Sonde	APS - BA	22	
APS Minitron	MNTR - F	4185	
Auxiliary Equipment:			
Accelerator-Porosity Housing	APH - AC	22	
APS Calibration Water Tank	SFT - 178	4722	
APS Aluminium Calibrator Sleeve	SFT - 281	24	

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		32.87	Master		33.04	Master		29.74
Before		32.40	Before		32.16	Before		29.39
After		31.99	After		33.26	After		29.71
	0 (Minimum) 30.00 (Nominal) 50.00 (Maximum)			0 (Minimum) 30.00 (Nominal) 50.00 (Maximum)			0 (Minimum) 30.00 (Nominal) 50.00 (Maximum)	

Phase	Array-2 Det Bkg Cntrate CPS	Value	Phase	Array Therm Det Bkg Cntrate CPS	Value
Master		30.90	Master		31.90
Before		29.77	Before		30.75
After		31.28	After		30.75
	0 (Minimum) 30.00 (Nominal) 50.00 (Maximum)			0 (Minimum) 30.00 (Nominal) 50.00 (Maximum)	

Master: 2-NOV-2000 22:33

Before: 21-DEC-2000 8:45

After: 21-DEC-2000 12:22

Accelerator-Porosity Tool Wellsite Calibration

Calibration Ratios

Phase	Near/Far Calibration Ratio	Value	Phase	Near/Array Calibration Ratio	Value
Master		0.8963	Master		1.060
	0.8000 (Minimum) 0.9250 (Nominal) 1.050 (Maximum)			0.9000 (Minimum) 1.030 (Nominal) 1.150 (Maximum)	

Master: 2-NOV-2000 22:34

Accelerator-Porosity Tool Master Calibration

Detector Calibration

Phase	Near/Far Calibration Ratio	Value	Phase	Near/Array Calibration Ratio	Value
Master		0.8963	Master		1.060
	0.8000 (Minimum) 0.9250 (Nominal) 1.050 (Maximum)			0.9000 (Minimum) 1.030 (Nominal) 1.150 (Maximum)	

Master: 2-NOV-2000 22:34

Accelerator-Porosity Tool Master Calibration

Tank Check

Phase	Array-1 Standoff Porosity PU	Value	Phase	Array-2 Standoff Porosity PU	Value	Phase	Sigma Formation CU	Value
Master		11.78	Master		11.63	Master		28.08
	5.500 10.25 15.00			5.500 10.25 15.00			20.00 27.50 35.00	

Hostile Natural Gamma Ray Sonde / Equipment Identification

Primary Equipment:			
HNGS Sonde	HNGS - BA	27	
Auxiliary Equipment:			
HNGS Sonde Housing	HNSH - BA	27	
Gamma Source Radioactive	GSR - U	135	

Hostile Natural Gamma Ray Sonde Wellsite Calibration

Detector 1 Check

Phase	Na 511 Peak Loc	Value	Phase	Na 511 Peak Res %	Value	Phase	High Voltage V	Value
Master		40.59	Master		16.53	Master		1100
Before		40.60	Before		17.00	Before		1104
After		40.92	After		15.77	After		1105
	37.50 (Minimum) 40.00 (Nominal) 42.50 (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		145.1	Master		9.600	Master		33.94
Before		145.1	Before		11.14	Before		32.57
After		145.2	After		10.23	After		34.19
	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		24.22						
Before		22.49						
After		22.82						
	15.00 (Minimum) 45.00 (Nominal) 100.0 (Maximum)							

Master: 5-OCT-2000 23:44 Before: 21-DEC-2000 9:52 After: 21-DEC-2000 13:40

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		40.70	Master		15.05	Master		1189
Before		40.59	Before		16.03	Before		1194
After		40.50	After		15.77	After		1193
	37.50 (Minimum) 40.00 (Nominal) 42.50 (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		145.1	Master		7.959	Master		33.01
Before		145.7	Before		8.040	Before		31.76
After		145.1	After		8.071	After		34.19
	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		24.60						
Before		22.72						
After		23.15						
	15.00 (Minimum) 45.00 (Nominal) 100.0 (Maximum)							

Master: 5-OCT-2000 23:44 Before: 21-DEC-2000 9:52 After: 21-DEC-2000 13:40

Hostile Natural Gamma Ray Sonde Wellsite Calibration

Ratio Of Detector 1 To Detector 2

Phase	Coincidence Count Rate Ratio	Value

Phase	Count Rate Ratio	Value
Master		0.9848
Before		0.9904
After		0.9866
	0.9500 (Minimum) 1.000 (Nominal) 1.050 (Maximum)	
Master: 5-OCT-2000 23:44		
Before: 21-DEC-2000 9:52		
After: 21-DEC-2000 13:40		

Hostile Natural Gamma Ray Sonde Master Calibration								
Detector 1 Calibration								
Phase	Na 511 Peak Set Point	Value	Phase	Th Peak Loc	Value	Phase	Th Peak Res %	Value
Master		41.00	Master		211.4	Master		8.367
	38.00 (Minimum) 40.00 (Nominal) 42.00 (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	EXCEEDS LIMIT	14.06	Master		0.9908			
	20.00 (Minimum) 142.5 (Nominal) 265.0 (Maximum)			0.9400 (Minimum) 1.000 (Nominal) 1.060 (Maximum)				
Master: 5-OCT-2000 23:36								

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		210.2	Master		7.339
	38.00 (Minimum) 40.00 (Nominal) 42.00 (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	EXCEEDS LIMIT	15.63	Master		0.9828			
	20.00 (Minimum) 142.5 (Nominal) 265.0 (Maximum)			0.9400 (Minimum) 1.000 (Nominal) 1.060 (Maximum)				
Master: 5-OCT-2000 23:36								

LOW BACKGROUND COUNTRATE DUE TO WEAK INTERNAL SOURCE.

HPHT Telemetry Gamma-ray Cartridge - B / Equipment Identification		
Primary Equipment:		
STGC Gamma-ray & Accelerometer Cartridge	STGC - BH	8038
Mud Temperature Sensor	MTEM -	1
STGC Telemetry Cartridge	STGC - A	8038
Auxiliary Equipment:		
HPHT/STGC Dewar Flask Housing	UDFH - KL	1062

HPHT Telemetry Gamma-ray Cartridge - B Wellsite Calibration								
Detector Calibration								
Phase	Gamma Ray Background GAPI	Value	Phase	Gamma Ray (Jig - Bkg) GAPI	Value	Phase	Gamma Ray (Calibrated) GAPI	Value
Before		6.202	Before		147.6	Before		160.1
	0 (Minimum) 30.00 (Nominal) 120.0 (Maximum)			134.2 (Minimum) 147.6 (Nominal) 161.0 (Maximum)			145.1 (Minimum) 160.1 (Nominal) 175.1 (Maximum)	
Before: Calibration out of date 20-NOV-2000 3:46								

COMPANY:	Lamont Doherty	BOTTOM LOG INTERVAL	2006 m
WELL:	ODP Leg 193, Site 1188F (PCM-2A)	SCHLUMBERGER DEPTH	2008 m
		DEPTH DRILLER	2039.7 m

FIELD:	Manus Basin	KELLY BUSHING	11.3 m
COUNTY:	Offshore	DRILL FLOOR	11 m
STATE:	Bismarck Sea	GROUND LEVEL	-1653 m

Schlumberger

HLDS/APS Porosity
Natural Gamma Ray