

COMPANY: Lamont Doherty

WELL: ODP Leg 191, Site 1179D (WP-2A)

FIELD: West Pacific ION

COUNTRY: Offshore STATE: Pacific Ocean

Phasor Induction
Natural Gamma Ray



COUNTY: Offshore
Field: West Pacific ION
Location: ODP Leg 191, Site 1179D (WP-2A)
Company: Lamont Doherty

LOCATION		Elev.:	K.B.	11.3 m
Permanent Datum:	MSL		G.L.	-5566 m
Log Measured From:	RKB	Elev.: 0 m	D.F.	11 m
Drilling Measured From:	RKB	11.3 m above Perm. Datum		
API Serial No.	LATITUDE: 41° 4.8122' N	LONGITUDE: 159° 57.7862' E	RIG: JOIDES Resolution	

Logging Date	Run 1	Run 2	Run
Run Number			
Depth Driller			
Schlumberger Depth			
Bottom Log Interval			
Top Log Interval			
Casing Driller Size @ Depth			
Casing Schlumberger			
Bit Size			
Type Fluid In Hole			
Density			
Fluid Loss			
PH			
Source Of Sample			
RM @ Measured Temperature			
RMF @ Measured Temperature			
RMC @ Measured Temperature			
Source RMF			
RM @ MRT			
RMF @ MRT			
Maximum Recorded Temperatures			
Circulation Stopped			
Time			
Logger On Bottom			
Time			
Unit Number			
Location			
Recorded By			
Witnessed By			

Logging Date 5-AUG-2000

Run Number 1

Depth Driller 6052 m

Schlumberger Depth 5873 m

Bottom Log Interval 5871 m

Top Log Interval 5550 m

Casing Driller Size @ Depth 0.000 in @

Casing Schlumberger

Bit Size 9.875 in

Type Fluid In Hole Salt Water Base

Density 8.3 g/cm3

Fluid Loss PH

Source Of Sample Salt Water

RM @ Measured Temperature 0.213 ohm.m @ 20 degC

RMF @ Measured Temperature @ @

RMC @ Measured Temperature @ @

Source RMF RMC @ @

RM @ MRT RMF @ MRT @ @

Maximum Recorded Temperatures

Circulation Stopped 5-AUG-2000 5:00

Logger On Bottom 5-AUG-2000 17:00

Unit Number 99 Houston

Recorded By Kerry M. Swain

Witnessed By Florence Einaldi, Sarah Haggas

DISCLAIMER
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OTHER SERVICES1
 OS1: HLDT/APS/HNGS/TAP
 OS2: LAMONT GR
 OS3:
 OS4:
 OS5:

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

REMARKS: RUN NUMBER 1
 Lamont Temperature Tool (TAP) run on DITE/HLDT/APS/HNGS only.
 Sea floor at 5577mbrf.
 Log presented in meters below rig floor.
 Wireline heave compensator used on all descents.
 Sepiolite mud placed in the hole before logging.
 Drillers TD-6052m, Loggers TD-5873m deepest point reached.
 Maximum recorded temperature recorded by Lamont TAP tool.
 Drill pipe set at 5732.5mbrf. HNGS background master low due to low stab. source strength.

REMARKS: RUN NUMBER 2

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

RUN 2		
SERVICE ORDER #:		PROGRAM VERSION:
FLUID LEVEL:		
LOGGED INTERVAL	START	STOP

EQUIPMENT DESCRIPTION



RUN 1

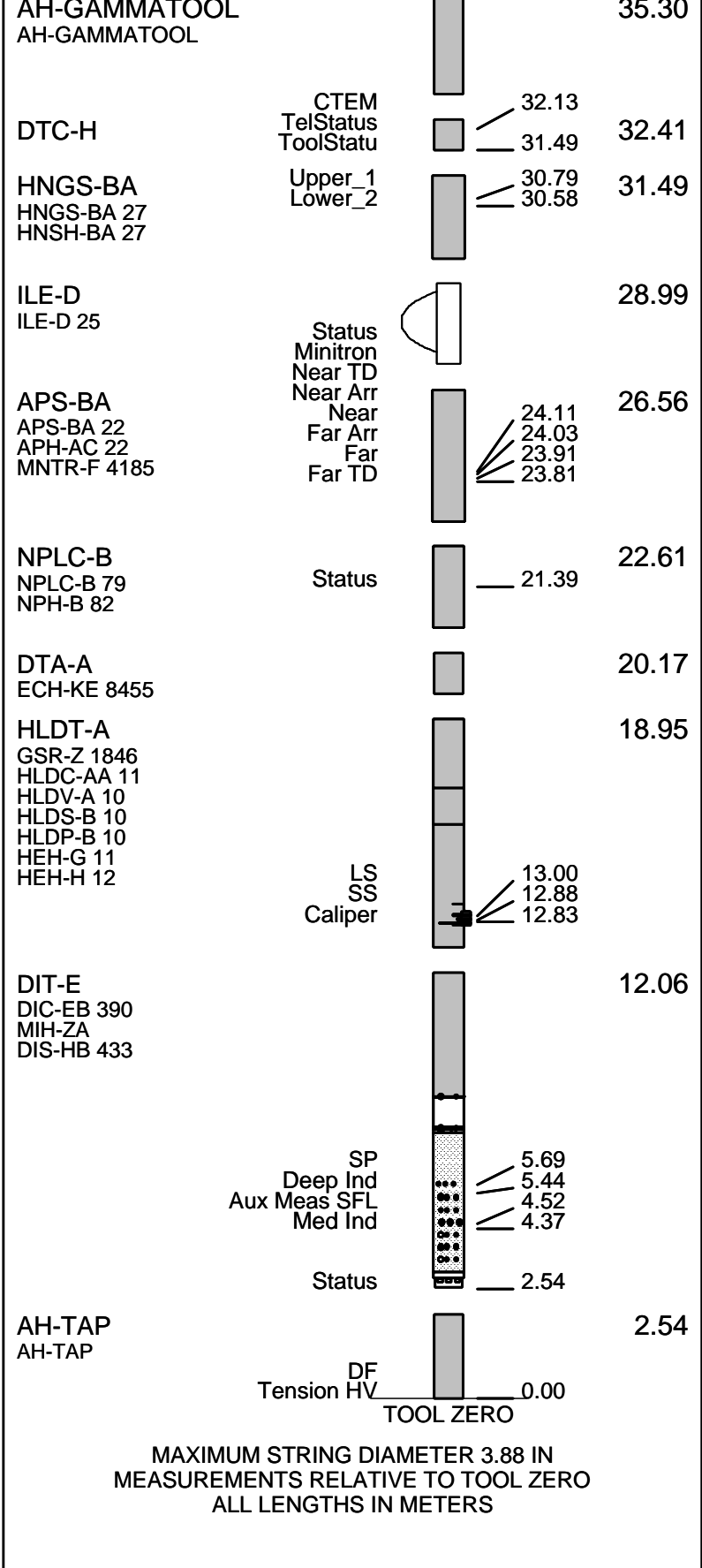
SURFACE EQUIPMENT

SFT-281 24
 SFT-178 4722
 GSR-U 135
 WITM (DTS)-A

RUN 2

DOWNHOLE EQUIPMENT

LEH-QT		38.94
AH-TELEM		38.05
AH-TELEM		



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

Input DLIS Files

DEFAULT DITE .024 FN:13 PRODUCER 05-Aug-2000 17:03 5833.9 M 5550.0 M

Output DLIS Files

DEFAULT DITE .064 FN:66 PRODUCER 18-Aug-2000 21:06 5833.9 M 5550.0 M

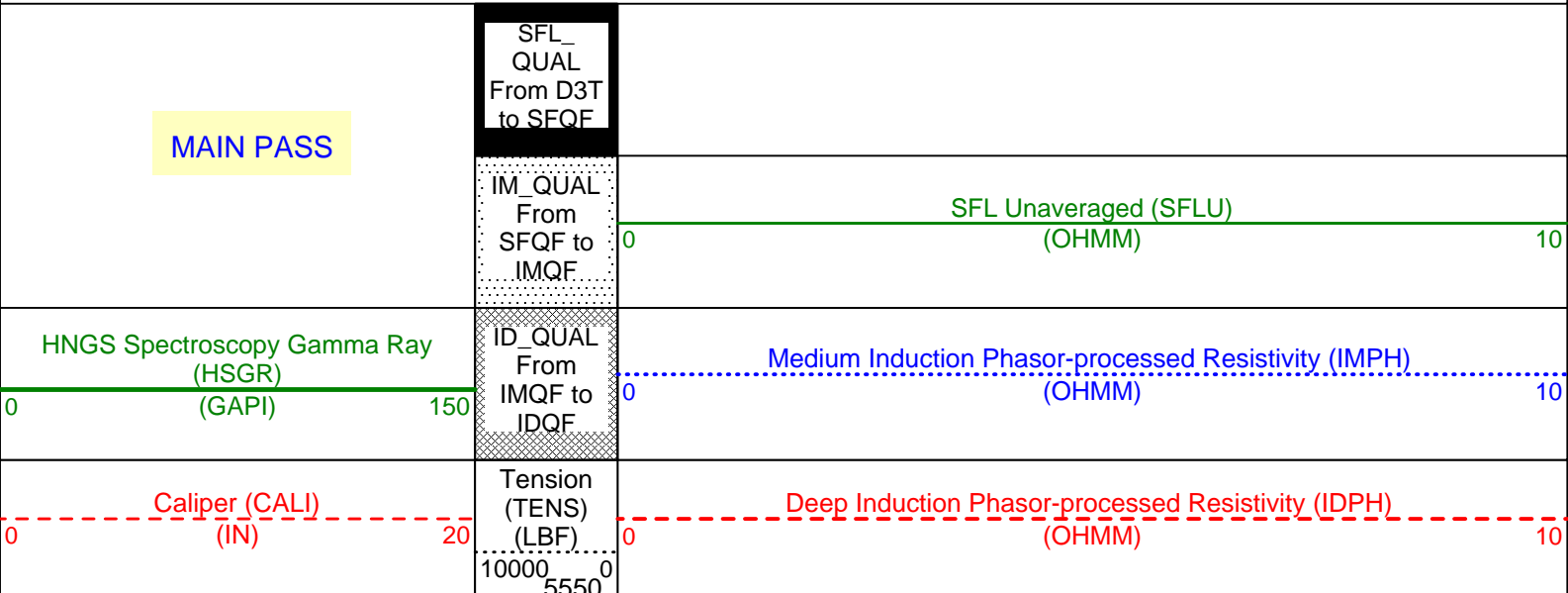
OP System Version: 9C1-303

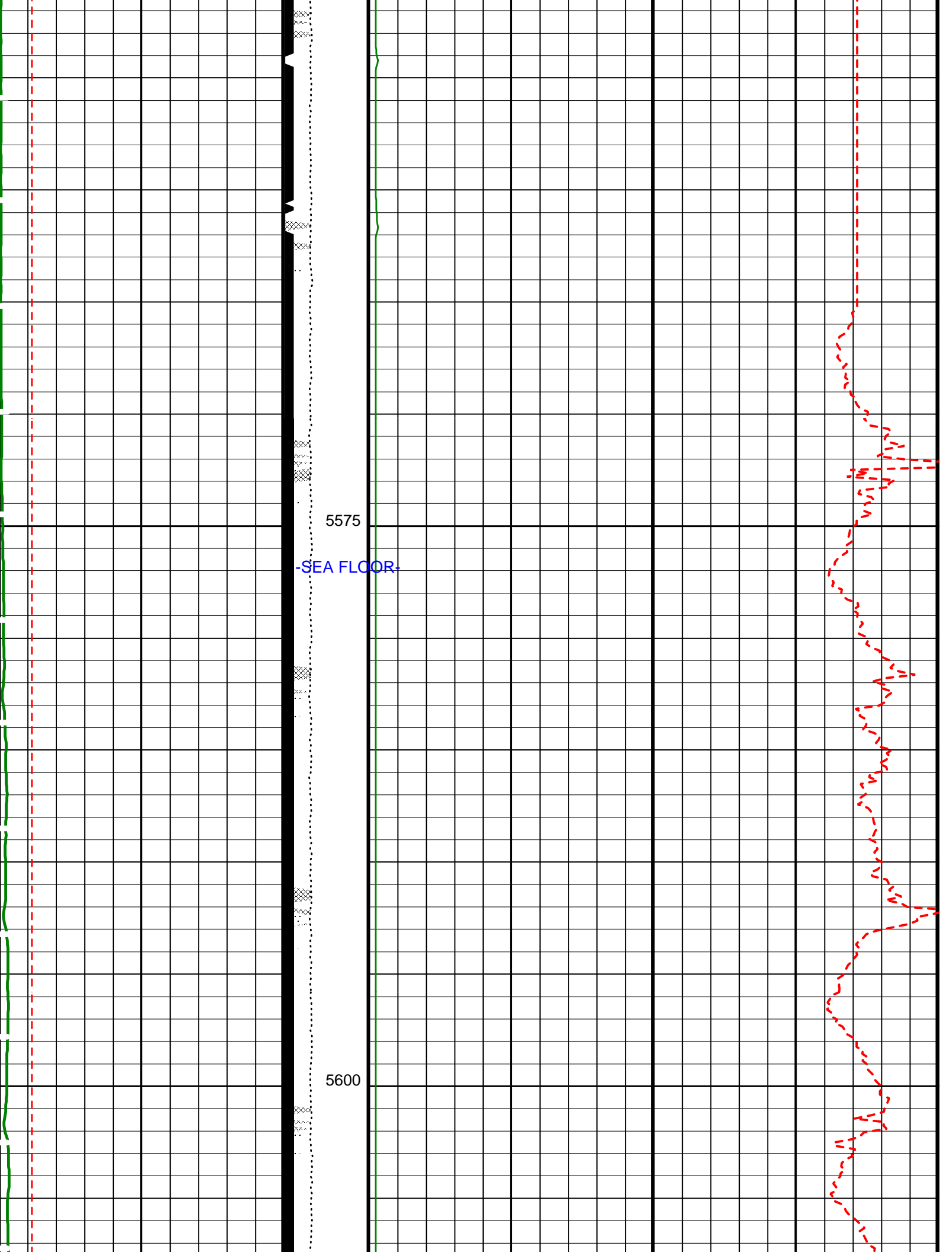
MCM

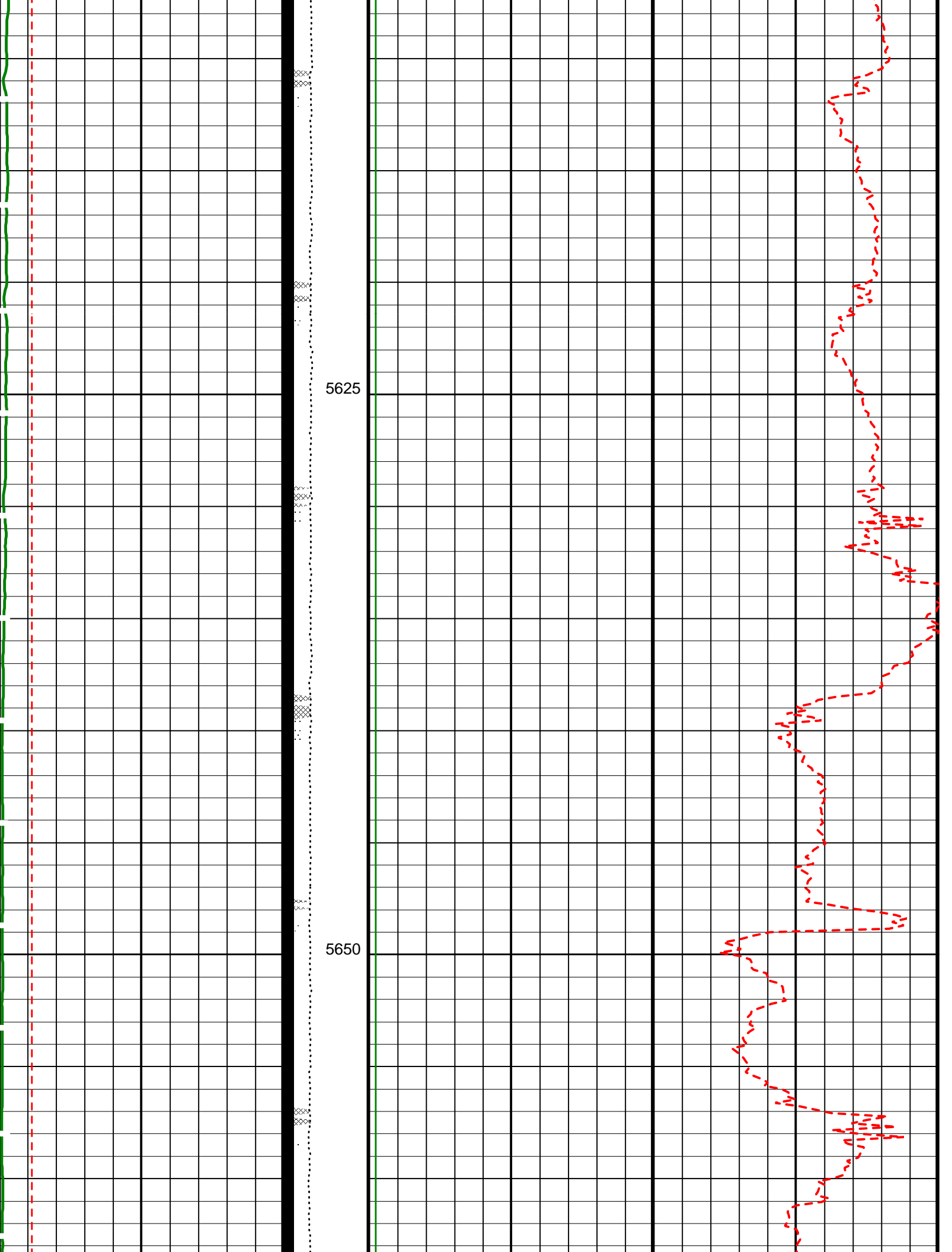
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DTA-A	OP91-kp2	NPLC-B	OP91-kp2
APS-BA	OP91-kp2	HNGS-BA	OP91-kp2
DTC-H	OP91-kp2		

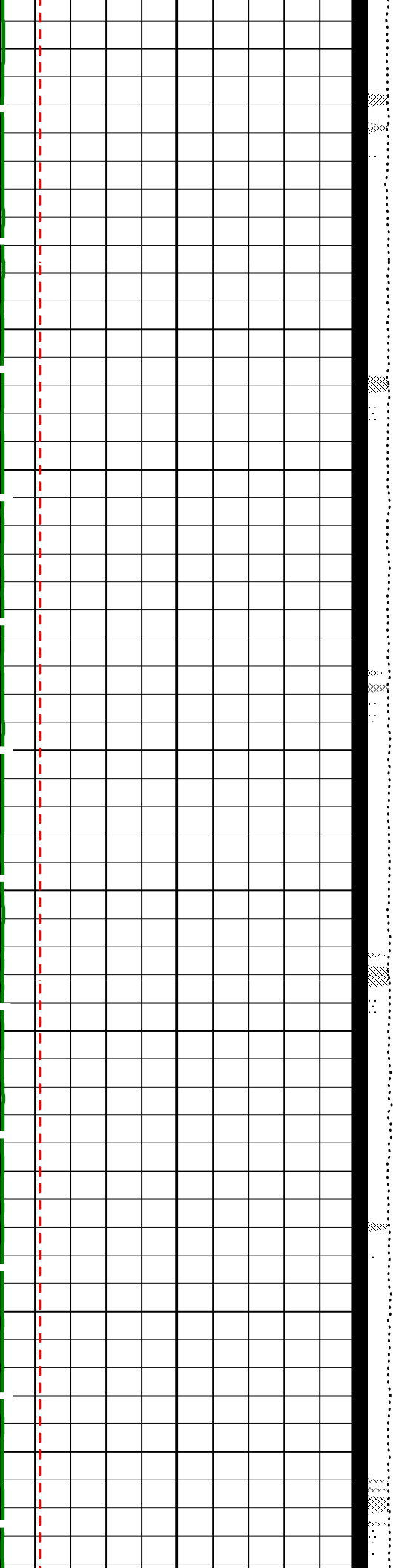
PIP SUMMARY

▶ Time Mark Every 60 S



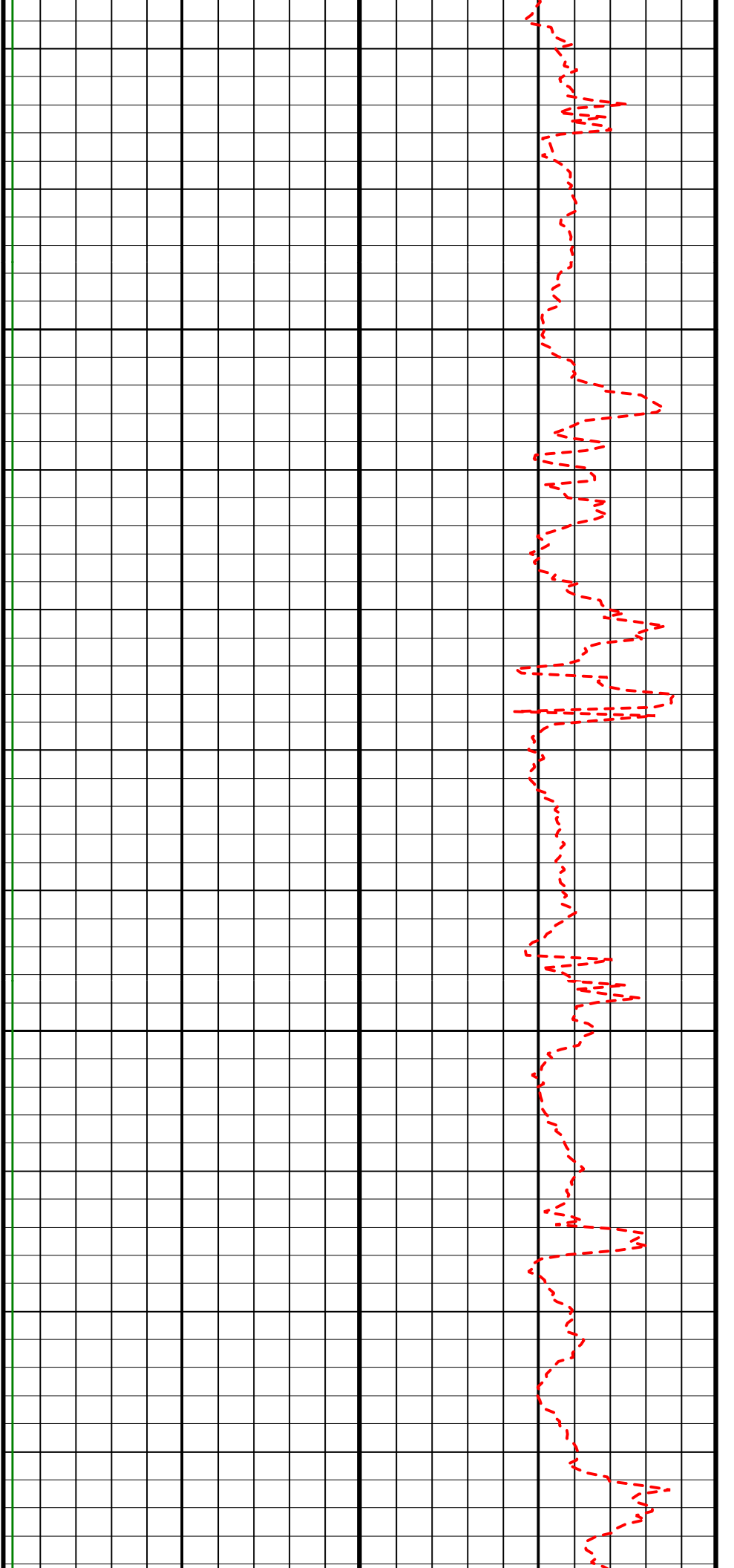


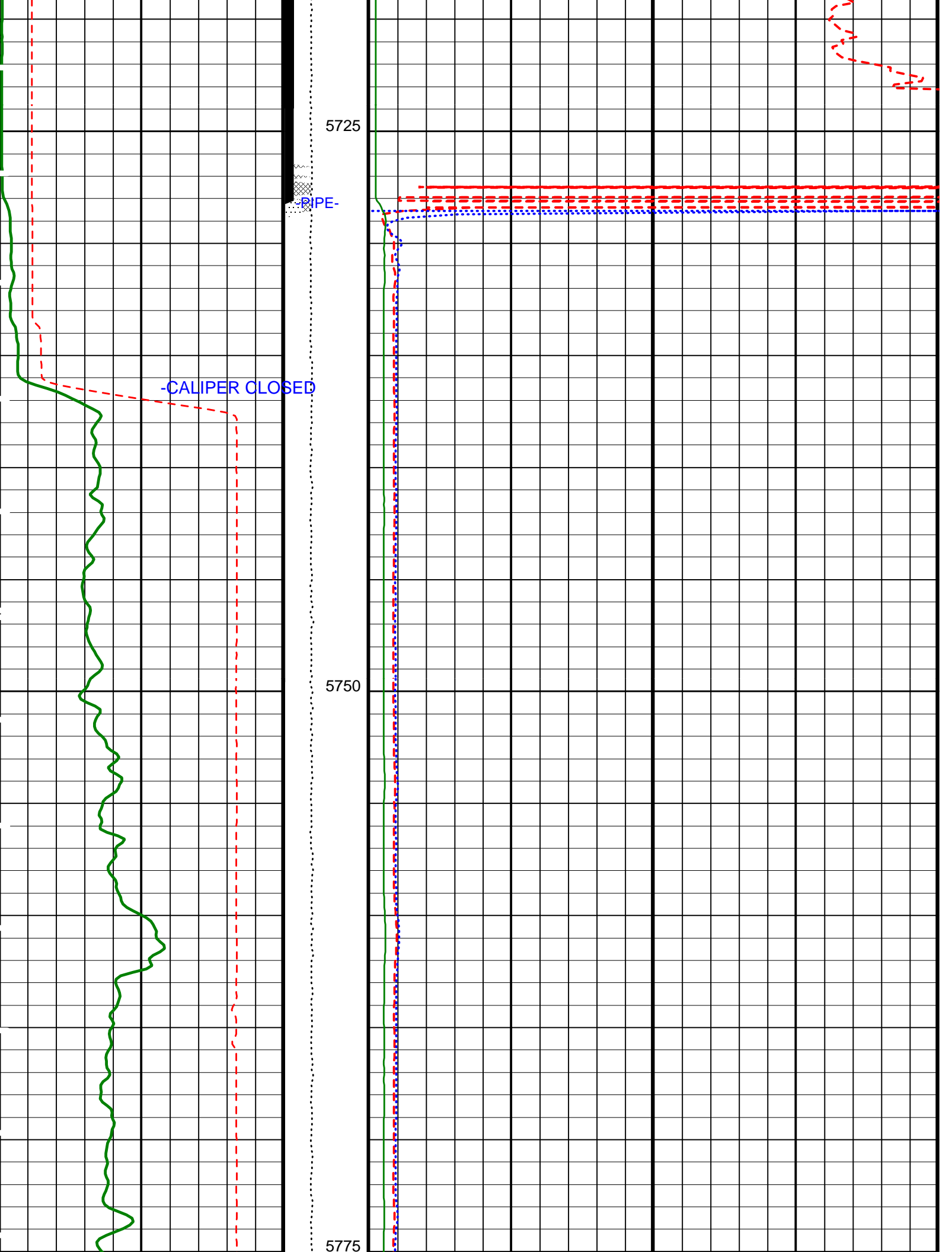


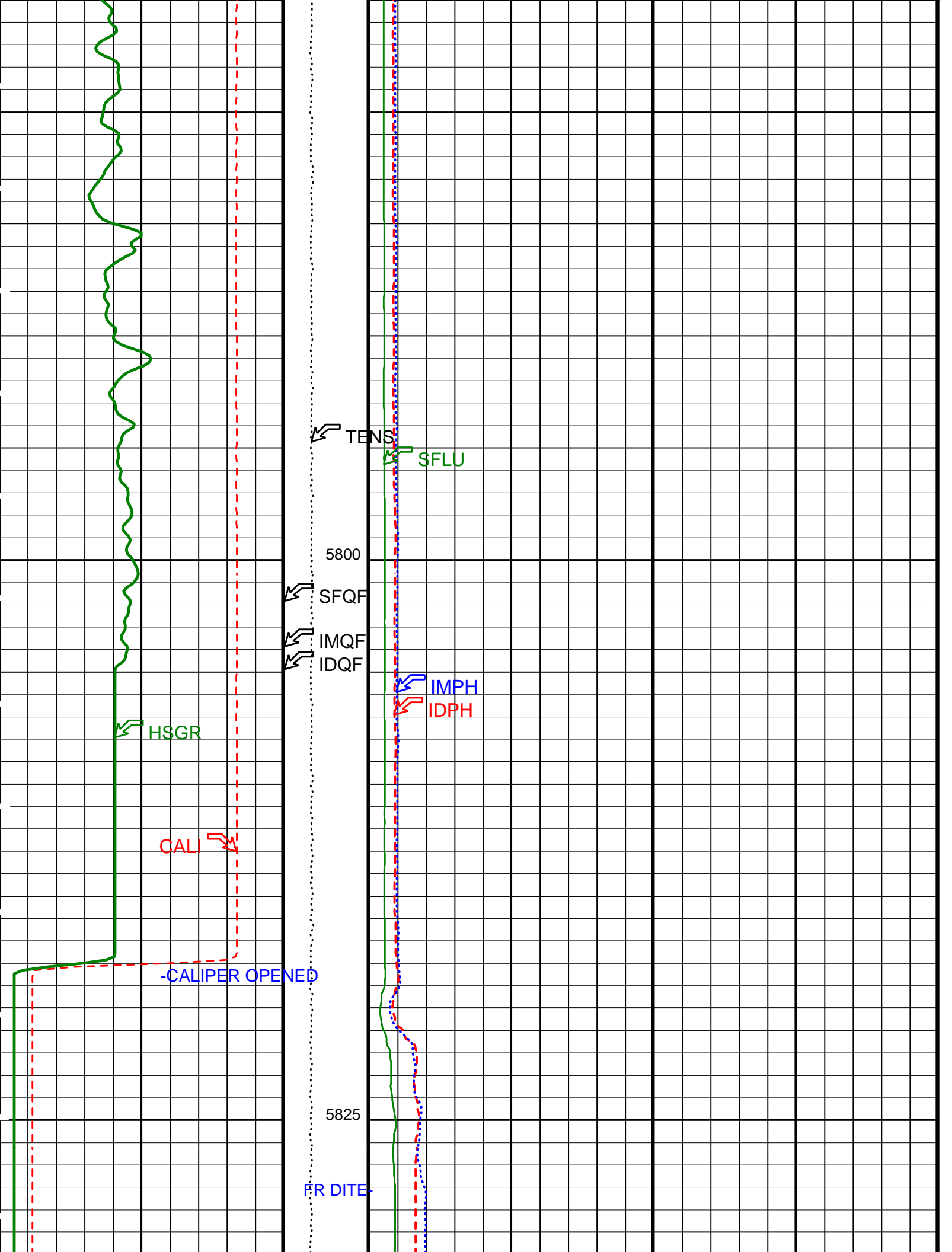


5675

5700







Caliper (CALI) (IN)	Tension (TENS) (LBF)	Deep Induction Phasor-processed Resistivity (IDPH) (OHMM)
0 20	10000 0	0 10
HNGS Spectroscopy Gamma Ray (HSGR) (GAPI)	ID_QUAL From IMQF to IDQF	Medium Induction Phasor-processed Resistivity (IMPH) (OHMM)
0 150		0 10
MAIN PASS	IM_QUAL From SFQF to IMQF	SFL Unaveraged (SFLU) (OHMM)
	SFL_QUAL From D3T to SFQF	0 10

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value
	APS Software Version	0
	APS Cement Thickness Source	COMPUTED
	Apparent Thickness of Cement	0 IN
AASD	APS Thermal and Array Detectors High Voltage Setting	1965.09 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	2072.62 V
AHCS	APS Holesize Correction Source	GCSE
AHSS	APS Holesize Correction Switch	ON
ALTDPCHAN	Name of alternate depth channel	SpeedCorrectedDepth
AMTY	APS Environmental Corrections Mud Type	WaterBaseBarite
ANSD	APS Near Detector High Voltage Setting	1747.47 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
BFM	Borehole Fluid Medium	LIQUID
BHK	HNGS Borehole Potassium Correction Concentration	0
BHS	Borehole Status	OPEN
BHT	Bottom Hole Temperature (used in calculations)	10 DEGC
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	9.875 IN
BSAL	Borehole Salinity	-50000.00 PPM
CONTYP	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	8.20815 %
D1TC	HNGS Detector 1 Calibration Temperature	33.3413 DEGC
D1TL	HNGS Detector 1 Calibration Thorium Peak Location	210.189
D2PR	HNGS Detector 2 Calibration Thorium Peak Resolution	7.0296 %
D2TC	HNGS Detector 2 Calibration Temperature	32.3115 DEGC
D2TL	HNGS Detector 2 Calibration Thorium Peak Location	210.126
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	8.30 G/C3
DFE	Drilling Fluid Excluder Factor	1.01289

DGF2	Deep 20 kHz Gain Factor	1.01369	
DHC	Density Hole Correction	BS	
DO	Depth Offset for Logical Unit 1	0.0	M
DPH2	Deep 20 kHz Phase Shift	0.0313069	DEG
DPPM	Density Porosity Processing Mode	HIRS	
DRE2	Deep Real 20 kHz Sonde Error Correction	10.4019	MM/M
DSR2	Deep Sigma Reference (20 kHz)	1843	MM/M
DXE2	Deep Quad 20 kHz Sonde Error Correction	62.2393	MM/M
FD	Fluid Density	1	G/C3
FSAL	Formation Salinity	-50000	PPM
GCF1_START	HNGS Detector 1 GCF Constant	1	
GCF2_START	HNGS Detector 2 GCF Constant	1	
GCSE	Generalized Caliper Selection	CALI	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GRGD	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	-0.0140165	
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	
HSLV	HNGS Borehole Fluid Excluder Sleeve Status	NO	
HSVN	HNGS Spectral Standards Version Number	3.77468e-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	-999	
IDWWC2	IDW Wheel Correction 2	-999	
IFRS	DIT-E Induction Frequency Selector	20	
IPHA	DIT-E Phasor Processing Mode	ALL	
IPRO	DIT-E Induction Processing Selector	PHASOR	
ITEN	DIT-E Temperature Enable	ENABLE	
LCSN	Logging Cable Serial Number	-999	
LOGSEQ	Log Sequence	First_Log_In_Well	
LSHC	LS Hardware Loop Control	DISALLOW	
MARQ_START	HNGS Marquardt Start-up Mode	INTERNAL	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
MDEN	Matrix Density	2.71	G/C3
MGF2	Medium 20 kHz Gain Factor	1.01813	
MPH2	Medium 20 kHz Phase Shift	-0.976694	DEG
MRE2	Medium Real 20 kHz Sonde Error Correction	9.02567	MM/M
MSR2	Medium Sigma Reference (20 kHz)	3250	MM/M
MST	Mud Sample Temperature	20.00	DEGC
MXE2	Medium Quad 20 kHz Sonde Error Correction	118.848	MM/M
NARC	APS Near/Array Calibration Ratio	1.06128	
NFRC	APS Near/Far Calibration Ratio	0.893853	
NOTS	NPLC Old Temperature Sensor	NO	
NRBM	NPLC Reduced Telemetry Bandwidth Mode	OFF	
PBVSDP	Use alternate depth channel for playback	NO	
PP	Playback Processing	NORMAL	
QPPS	Quicklook Processing Pe Select	PEFL	
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	-50000.0000	OHMM
RULB	Rig Up Length at Bottom	0	M
RULS	Rig Up Length at Surface	0	M
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	26.5931	CPS
S1NG	HNGS Detector 1 Calibration End-On / Side-On Gain Ratio	0.986034	
S2BI	HNGS Detector 2 Calibration Bismuth Count Rate	1.3	CPS
S2NA	HNGS Detector 2 Calibration Sodium Count Rate	26.917	CPS
S2NG	HNGS Detector 2 Calibration End-On / Side-On Gain Ratio	0.983854	
SABK	HNGS Statistical Uncertainty in Borehole Potassium Running Average	0.00217055	
SBR	Shoulder Bed Resistivity Factor	1	OHMM
SCORR	Stretch Correction	-50000	M
SFCR	SFL Channel Ratio	1000	
SFLE	SFL Enable	ENABLE	
SGRC	HNGS Standard Gamma-Ray Correction Flag	YES	
SHT	Surface Hole Temperature	20	DEGC
SPAE	DIT-E SPARC Processing Enable	ENABLE	
SPNV	SP Next Value	0	MV
SSHC	SS Hardware Loop Control	DISALLOW	
STDLC	Subsequent Trip Down Log Correction	-50000	M

TD	Total Depth	6052	M
TDD	Total Depth - Driller	6052.00	M
TDL	Total Depth - Logger	5873.00	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	
TWS	Temperature of Connate Water Sample	37.78	DEGC
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	1.01071	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	0.923111	
WMUD	Mud Weight	0.994556	G/C3
ZRCS	Tool Zero Reference Check at Surface	-50000	M

Format: DITE_LinPhasor Vertical Scale: 1:200 Graphics File Created: 18-Aug-2000 21:06

OP System Version: 9C1-303
MCM

DIT-E	OP91-kp2	HLDT-A	OP91-kp2
DTA-A	OP91-kp2	NPLC-B	OP91-kp2
APS-BA	OP91-kp2	HNGS-BA	OP91-kp2
DTC-H	OP91-kp2		

Input DLIS Files

DEFAULT	DITE .024	FN:13 PRODUCER	05-Aug-2000 17:03	5833.9 M	5550.0 M
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Output DLIS Files

DEFAULT	DITE .064	FN:66 PRODUCER	18-Aug-2000 21:06		
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Input DLIS Files

DEFAULT	DITE .021	FN:8 PRODUCER	05-Aug-2000 14:05	5875.0 M	5777.0 M
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Output DLIS Files

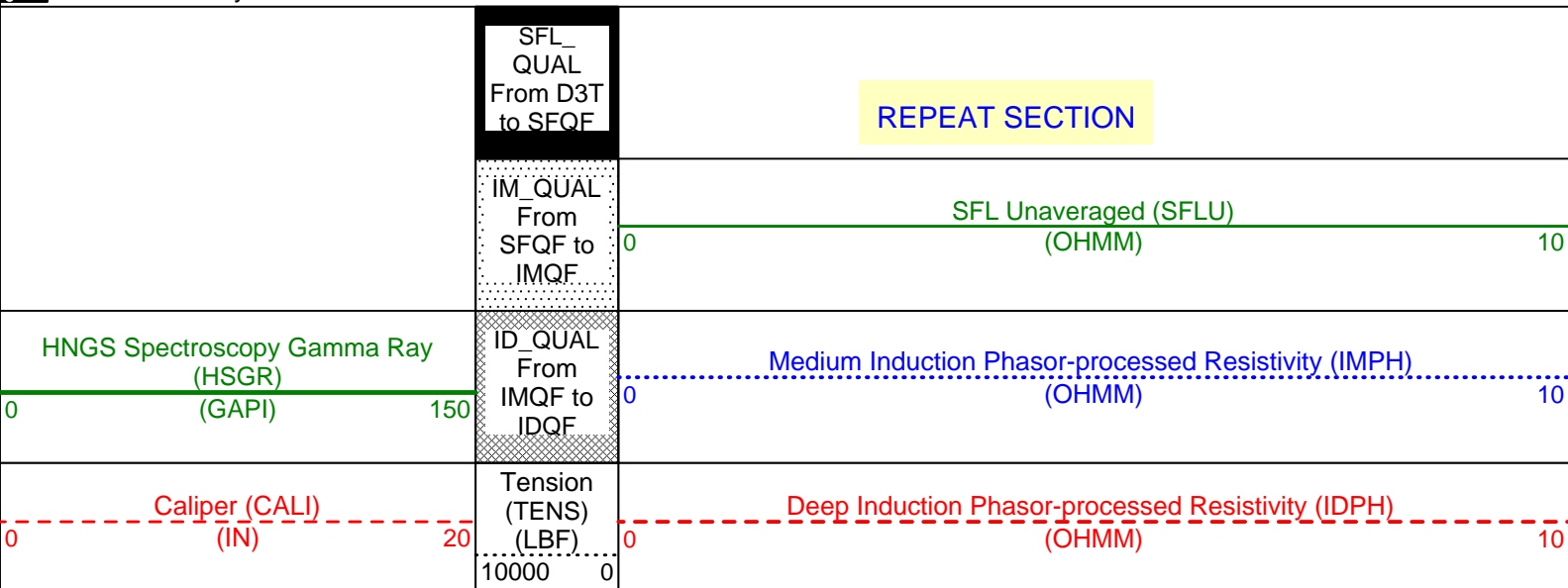
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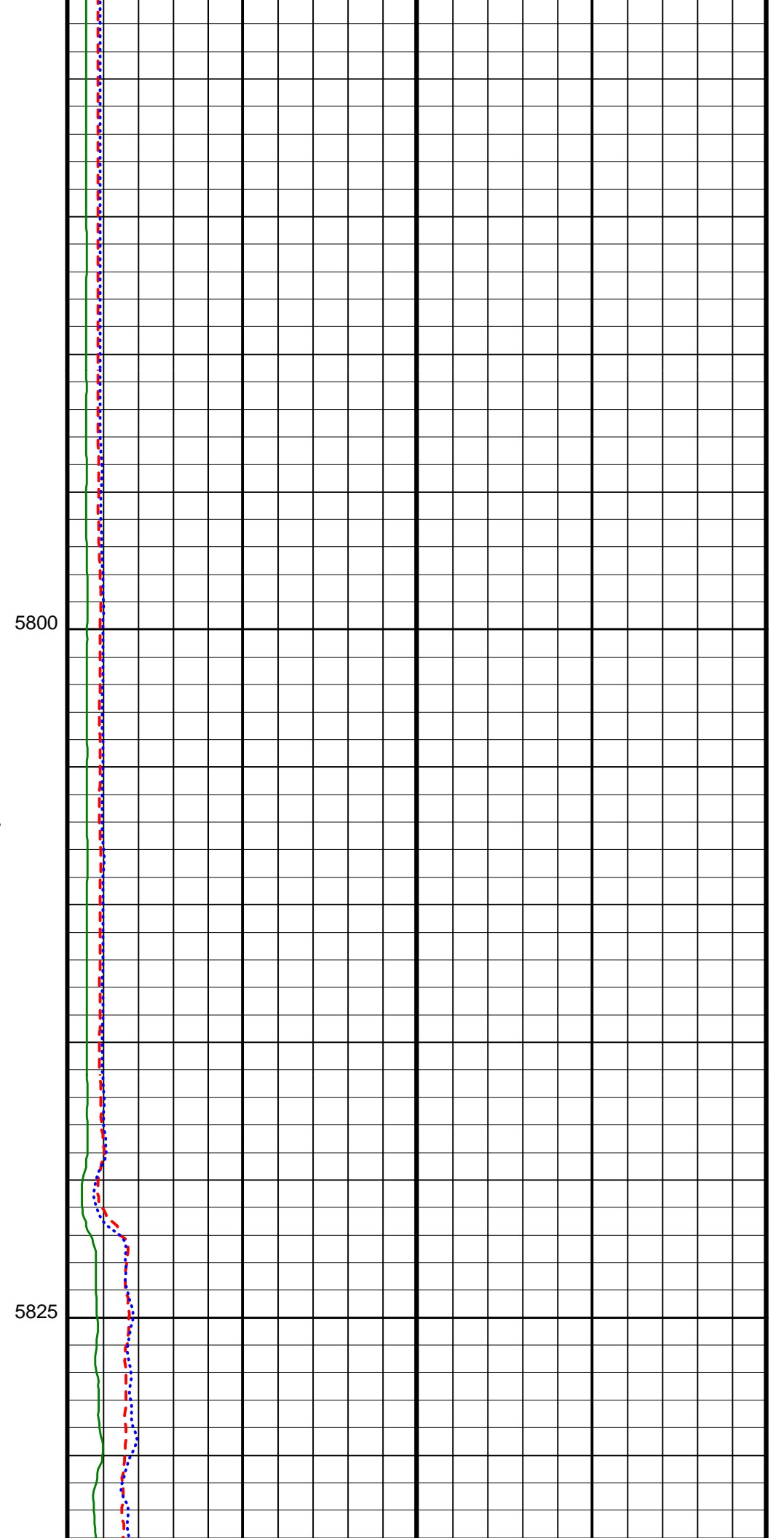
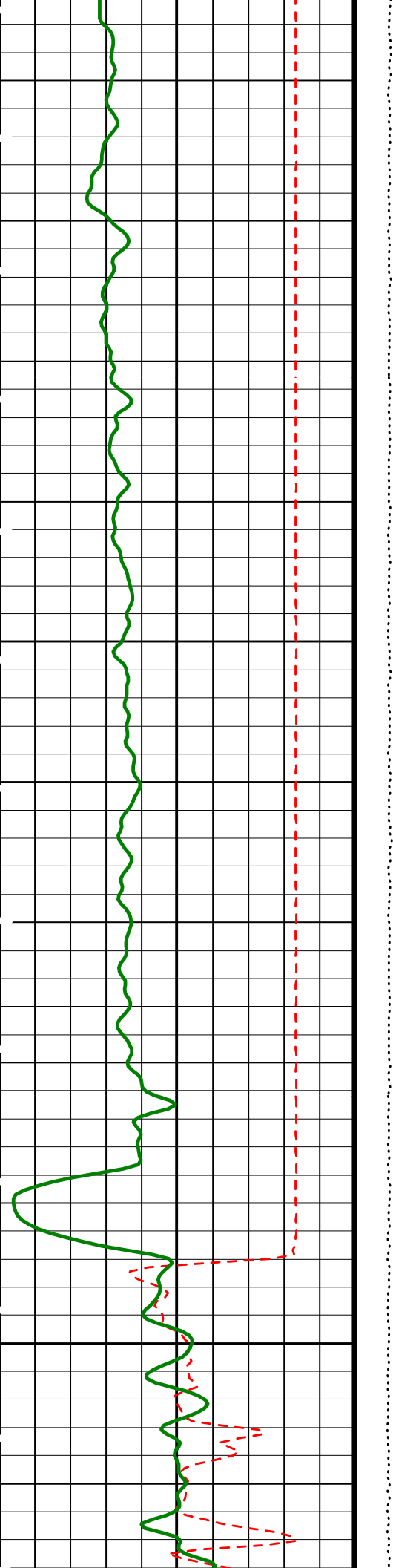
OP System Version: 9C1-303
MCM

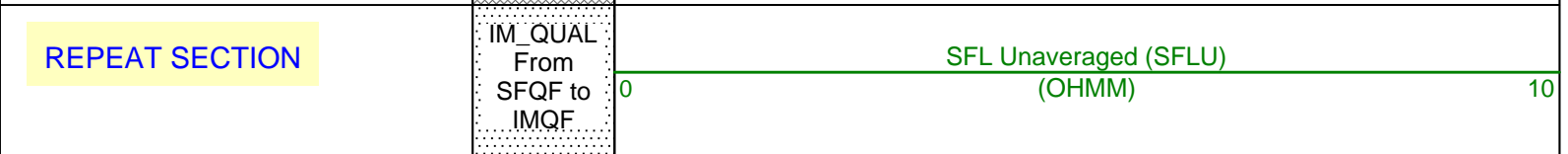
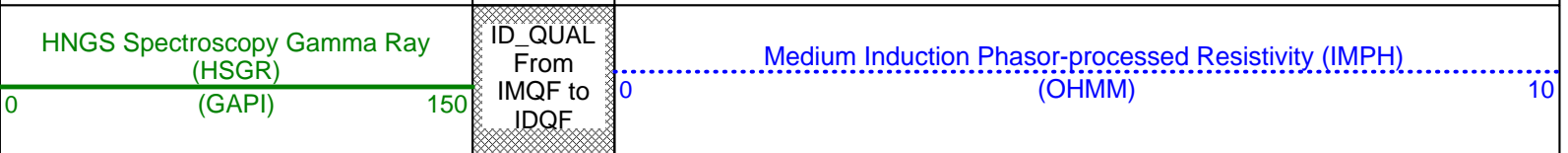
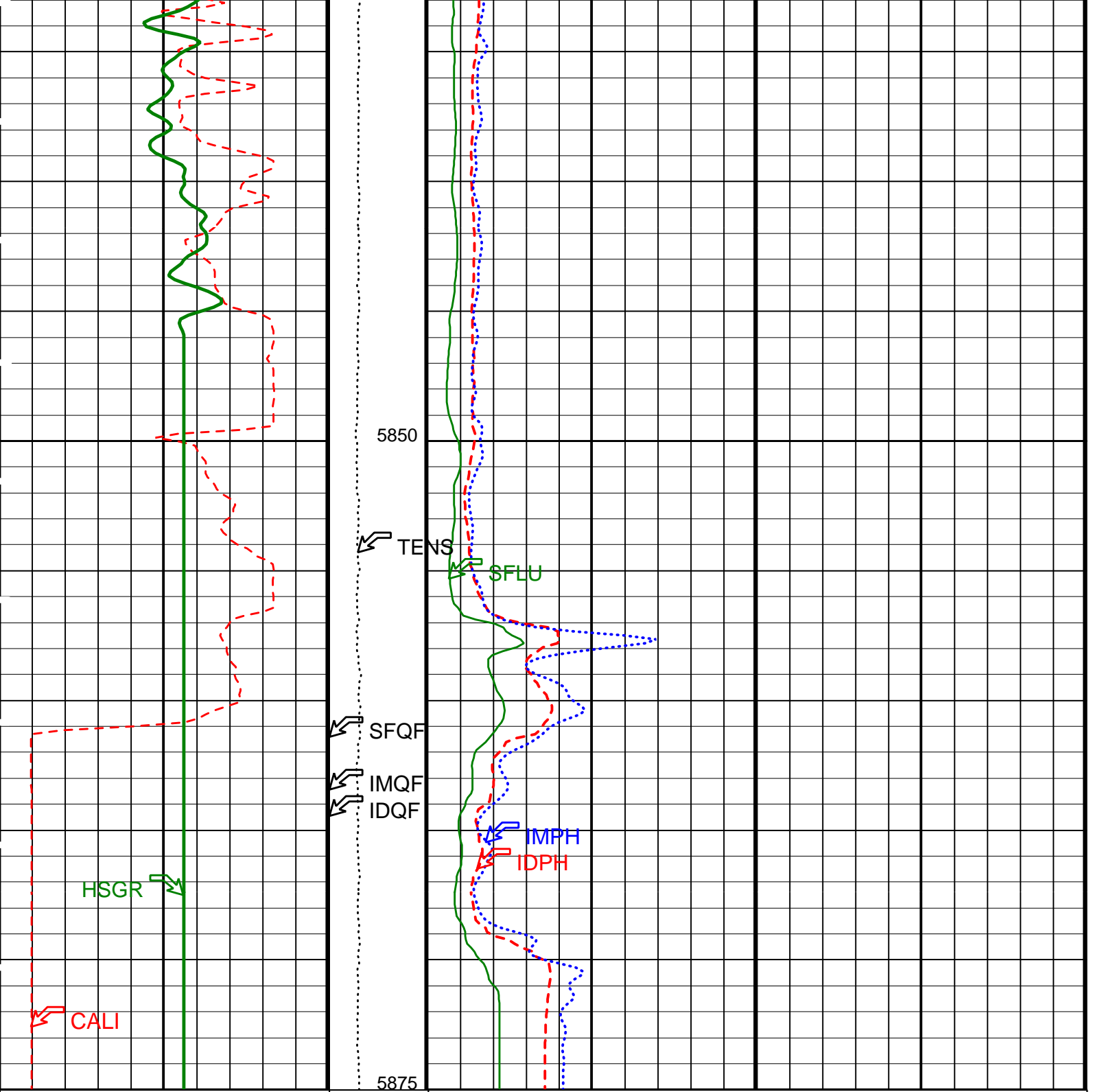
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DTA-A	OP91-kp2	NPLC-B	OP91-kp2
APS-BA	OP91-kp2	HNGS-BA	OP91-kp2
DTC-H	OP91-kp2		

PIP SUMMARY

Time Mark Every 60 S







REPEAT SECTION

SFL_QUAL

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
	APS Software Version	0	
	APS Cement Thickness Source	COMPUTED	
	Apparent Thickness of Cement	0	IN
AASD	APS Thermal and Array Detectors High Voltage Setting	1965.09	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	2072.62	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	1747.47	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	
BFM	Borehole Fluid Medium	LIQUID	
BHK	HNGS Borehole Potassium Correction Concentration	0	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	10	DEGC
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	9.875	IN
BSAL	Borehole Salinity	-50000.00	PPM
CONTYP	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	8.20815	%
D1TC	HNGS Detector 1 Calibration Temperature	33.3413	DEGC
D1TL	HNGS Detector 1 Calibration Thorium Peak Location	210.189	
D2PR	HNGS Detector 2 Calibration Thorium Peak Resolution	7.0296	%
D2TC	HNGS Detector 2 Calibration Temperature	32.3115	DEGC
D2TL	HNGS Detector 2 Calibration Thorium Peak Location	210.126	
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	8.30	G/C3
DGF2	Deep 20 kHz Gain Factor	1.01369	
DHC	Density Hole Correction	BS	
DO	Depth Offset for Logical Unit 1	0.0	M
DPH2	Deep 20 kHz Phase Shift	0.0313069	DEG
DPPM	Density Porosity Processing Mode	HIRS	
DRE2	Deep Real 20 kHz Sonde Error Correction	10.4019	MM/M
DSR2	Deep Sigma Reference (20 kHz)	1843	MM/M
DXE2	Deep Quad 20 kHz Sonde Error Correction	62.2393	MM/M
FD	Fluid Density	1	G/C3
FSAL	Formation Salinity	-50000	PPM
GCF1_START	HNGS Detector 1 GCF Constant	1	
GCF2_START	HNGS Detector 2 GCF Constant	1	
GCSE	Generalized Caliper Selection	CALI	
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	-0.0140165	
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	
HSLV	HNGS Borehole Fluid Excluder Sleeve Status	NO	

HSVN	HNGS Spectral Standards Version Number	7.7862e-035	
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	-999	
IDWWC2	IDW Wheel Correction 2	-999	
IFRS	DIT-E Induction Frequency Selector	20	
IPHA	DIT-E Phasor Processing Mode	ALL	
IPRO	DIT-E Induction Processing Selector	PHASOR	
ITEN	DIT-E Temperature Enable	ENABLE	
LCSN	Logging Cable Serial Number	-999	
LOGSEQ	Log Sequence	First_Log_In_Well	
LSHC	LS Hardware Loop Control	DISALLOW	
MARQ_START	HNGS Marquardt Start-up Mode	INTERNAL	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
MDEN	Matrix Density	2.71	G/C3
MGF2	Medium 20 kHz Gain Factor	1.01813	
MPH2	Medium 20 kHz Phase Shift	-0.976694	DEG
MRE2	Medium Real 20 kHz Sonde Error Correction	9.02567	MM/M
MSR2	Medium Sigma Reference (20 kHz)	3250	MM/M
MST	Mud Sample Temperature	20.00	DEGC
MXE2	Medium Quad 20 kHz Sonde Error Correction	118.848	MM/M
NARC	APS Near/Array Calibration Ratio	1.06128	
NFRC	APS Near/Far Calibration Ratio	0.893853	
NOTS	NPLC Old Temperature Sensor	NO	
NRBM	NPLC Reduced Telemetry Bandwidth Mode	OFF	
PBVSADP	Use alternate depth channel for playback	NO	
PP	Playback Processing	NORMAL	
QPPS	Quicklook Processing Pe Select	PEFL	
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	-50000.0000	OHMM
RULB	Rig Up Length at Bottom	0	M
RULS	Rig Up Length at Surface	0	M
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	26.5931	CPS
S1NG	HNGS Detector 1 Calibration End-On / Side-On Gain Ratio	0.986034	
S2BI	HNGS Detector 2 Calibration Bismuth Count Rate	1.3	CPS
S2NA	HNGS Detector 2 Calibration Sodium Count Rate	26.917	CPS
S2NG	HNGS Detector 2 Calibration End-On / Side-On Gain Ratio	0.983854	
SABK	HNGS Statistical Uncertainty in Borehole Potassium Running Average	0.00217055	
SBR	Shoulder Bed Resistivity Factor	1	OHMM
SCORR	Stretch Correction	-50000	M
SFCR	SFL Channel Ratio	1000	
SFLE	SFL Enable	ENABLE	
SGRC	HNGS Standard Gamma-Ray Correction Flag	YES	
SHT	Surface Hole Temperature	20	DEGC
SPAE	DIT-E SPARC Processing Enable	ENABLE	
SPNV	SP Next Value	0	MV
SSHC	SS Hardware Loop Control	DISALLOW	
STDLC	Subsequent Trip Down Log Correction	-50000	M
TD	Total Depth	6052	M
TDD	Total Depth - Driller	6052.00	M
TDL	Total Depth - Logger	5873.00	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	
TWS	Temperature of Connate Water Sample	37.78	DEGC
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	1.01071	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	0.923111	
WMUD	Mud Weight	0.994556	G/C3
ZRCS	Tool Zero Reference Check at Surface	-50000	M

Format: DITE_LinPhasor

Vertical Scale: 1:200

Graphics File Created: 18-Aug-2000 21:01

OP System Version: 9C1-303

MCM

DIT-E	OP91-kp2	HLDT-A	OP91-kp2
DTA-A	OP91-kp2	NPLC-B	OP91-kp2
APS-BA	OP91-kp2	HNGS-BA	OP91-kp2
DTC-H	OP91-kp2		

Input DLIS Files

DEFAULT DITE .021 FN:8 PRODUCER 05-Aug-2000 14:05 5875.0 M 5777.0 M

Output DLIS Files

DEFAULT DITE .063 FN:65 PRODUCER 18-Aug-2000 21:01

Calibration and Check Summary

Measurement	Nominal	Master	Before	After	Change	Limit	Units
Hostile Environment Litho Density - A Wellsite Calibration - Background Measurement							
Master: 1-JUL-2000 5:23 Before: 20-JUL-2000 15:39 After: 5-AUG-2000 21:23							
LSW1 Background	100.0	91.04	91.42	91.07	-0.3508	0.03000	CPS
LSW2 Background	105.0	95.70	95.75	94.73	-1.017	0.03000	CPS
LSW3 Background	210.0	182.9	182.9	182.3	-0.6791	0.03000	CPS
LSW4 Background	290.0	244.7	245.5	246.9	1.405	0.03000	CPS
LSW5 Background	610.0	548.1	544.9	543.3	-1.574	0.03000	CPS
SSW1 Background	100.0	88.10	88.76	88.26	-0.4932	0.03000	CPS
SSW2 Background	200.0	174.3	175.0	172.8	-2.186	0.03000	CPS
SSW3 Background	530.0	462.1	461.8	458.1	-3.682	0.03000	CPS
SSW4 Background	280.0	246.3	243.2	241.1	-2.163	0.03000	CPS
SSW5 Background	205.0	182.3	182.0	181.0	-0.9705	0.03000	CPS
Hostile Environment Litho Density - A Wellsite Calibration - Tool Quality Control Information High Voltage							
Master: 1-JUL-2000 5:23 Before: 20-JUL-2000 15:39 After: 5-AUG-2000 21:23							
LS Bkg. High Voltage	1129	1129	1130	1131	0.7391	N/A	V
SS Bkg. High Voltage	1184	1184	1180	1172	-8.083	N/A	V
Hostile Environment Litho Density - A Wellsite Calibration - Detectors Resolution From BKG Measurements							
Master: 1-JUL-2000 5:23 Before: 20-JUL-2000 15:39 After: 5-AUG-2000 21:23							
LS Background Resolution	1.000	1.041	1.040	1.038	-0.002053	N/A	
SS Background Resolution	1.000	0.9466	0.9420	0.9463	0.004300	N/A	
Hostile Environment Litho Density - A Wellsite Calibration - Caliper Calibration							
Before: 20-JUL-2000 15:23							
Caliper Small Ring	8.000	N/A	13.68	N/A	N/A	N/A	IN
Caliper Large Ring	12.00	N/A	18.44	N/A	N/A	N/A	IN
Accelerator-Porosity Tool Wellsite Calibration - Detector Background							
Master: 26-JUN-2000 4:55 Before: 5-AUG-2000 10:38 After: 5-AUG-2000 20:12							
Near Det Bkg Cntrate	30.00	32.37	31.53	32.68	1.149	N/A	CPS
Far Det Bkg Cntrate	30.00	32.14	33.48	34.45	0.9748	N/A	CPS
Array-1 Det Bkg Cntrate	30.00	30.09	28.73	30.26	1.525	N/A	CPS
Array-2 Det Bkg Cntrate	30.00	29.18	30.43	30.02	-0.4088	N/A	CPS
Array Therm Det Bkg Cntrate	30.00	32.29	31.35	33.60	2.253	N/A	CPS
Accelerator-Porosity Tool Wellsite Calibration - Calibration Ratios							
Master: 26-JUN-2000 4:55							
Near/Far Calibration Ratio	0.9250	0.8939	N/A	N/A	N/A	N/A	
Near/Array Calibration Ratio	1.030	1.061	N/A	N/A	N/A	N/A	
Hostile Natural Gamma Ray Sonde Wellsite Calibration - Detector 1 Check							
Master: 25-JUN-2000 6:04 Before: 20-JUL-2000 16:42 After: 5-AUG-2000 21:25							
Na 511 Peak Loc	40.00	40.55	40.63	40.61	-0.01223	1.000	
Na 511 Peak Res	15.50	16.38	16.72	16.52	-0.2041	2.000	%
High Voltage	1150	1100	1105	1108	2.834	30.00	V
Na 1785 Peak Loc	142.6	145.7	146.3	145.7	-0.5973	7.000	
Na 1785 Peak Res	8.500	8.530	10.06	8.809	-1.253	2.000	%
Temperature	15.50	33.34	35.19	24.72	-10.48	N/A	DEGC
Na Count Rate	45.00	26.59	25.43	24.87	-0.5634	8.000	CPS
Hostile Natural Gamma Ray Sonde Wellsite Calibration - Detector 2 Check							
Master: 25-JUN-2000 6:04 Before: 20-JUL-2000 16:42 After: 5-AUG-2000 21:25							
Na 511 Peak Loc	40.00	40.64	40.70	40.67	-0.03427	1.000	
Na 511 Peak Res	15.50	15.20	14.66	14.85	0.1898	2.000	%
High Voltage	1150	1189	1195	1196	1.005	30.00	V
Na 1785 Peak Loc	142.6	144.5	145.1	145.2	0.08011	7.000	
Na 1785 Peak Res	8.500	9.442	7.631	7.413	-0.2176	2.000	%
Temperature	15.50	32.31	33.88	24.40	-9.483	N/A	DEGC
Na Count Rate	45.00	26.92	25.69	25.04	-0.6506	8.000	CPS

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

Master: 25-JUN-2000 6:04 Before: 20-JUL-2000 16:42 After: 5-AUG-2000 21:25
 Coincidence Count Rate Ratio 1.000 0.9864 0.9894 0.9936 0.004173 0.05000

Hostile Natural Gamma Ray Sonde Master Calibration - Detector 1 Calibration

Master: 25-JUN-2000 5:57

Na 511 Peak Set Point	40.00	41.00	--	--	--	--
Th Peak Loc	209.6	210.2	--	--	--	--
Th Peak Res	7.000	8.208	--	--	--	%
Background Count Rate	142.5	17.57	--	--	--	CPS
Gain Ratio	1.000	0.9860	--	--	--	--

Hostile Natural Gamma Ray Sonde Master Calibration - Detector 2 Calibration

Master: 25-JUN-2000 5:57

Na 511 Peak Set Point	40.00	41.00	--	--	--	--
Th Peak Loc	209.6	210.1	--	--	--	--
Th Peak Res	7.000	7.030	--	--	--	%
Background Count Rate	142.5	18.88	--	--	--	CPS
Gain Ratio	1.000	0.9839	--	--	--	--

Accelerator-Porosity Tool - Detector Plateau Settings :

Near Detector Plateau Setting 1747 V
 Far Detector Plateau Setting 2073 V
 Array Detector Plateau Setting 1965 V

Dual Induction - E / Equipment Identification

Primary Equipment:
 Dual Induction Sonde DIS - HB 433
 Dual Induction Cartridge DIC - EB 390

Auxiliary Equipment:
 Mass Isolated Housing MIH - ZA

Dual Induction - E Wellsite Calibration

Induction Electronics (10 kHz)											
Phase	ID Elect Real Offset 10 kHz	MM/M	Value	Phase	ID Elect Real Gain 10 kHz	Value	Phase	ID Elect Phase 10 kHz	DEG	Value	
Before			65.33	Before		0.9708	Before		EXCEEDS LIMIT	10.53	
	-300.0 (Minimum)	0 (Nominal)	300.0 (Maximum)		0.8500 (Minimum)	1.000 (Nominal)	1.200 (Maximum)		-10.00 (Minimum)	0 (Nominal)	10.00 (Maximum)
Before			17.60	Before		0.9441	Before		EXCEEDS LIMIT	12.40	
	-300.0 (Minimum)	0 (Nominal)	300.0 (Maximum)		0.8500 (Minimum)	1.000 (Nominal)	1.200 (Maximum)		-10.00 (Minimum)	0 (Nominal)	10.00 (Maximum)
Before			46.52	Before		1.142	10kHz not used				
	-550.0 (Minimum)	0 (Nominal)	550.0 (Maximum)		0.8500 (Minimum)	1.000 (Nominal)					1.200 (Maximum)
Before			46.10	Before		1.142					
	-550.0 (Minimum)	0 (Nominal)	550.0 (Maximum)		0.8500 (Minimum)	1.000 (Nominal)	1.200 (Maximum)				

Before: 5-AUG-2000 13:48

Dual Induction - E Wellsite Calibration

Induction Electronics (20 kHz)											
Phase	ID Elect Real Offset 20 kHz	MM/M	Value	Phase	ID Elect Real Gain 20 kHz	Value	Phase	ID Elect Phase 20 kHz	DEG	Value	
Before			25.63	Before		0.9748	Before			8.196	
	-125.0 (Minimum)	0 (Nominal)	125.0 (Maximum)		0.8500 (Minimum)	1.000 (Nominal)	1.200 (Maximum)		-15.00 (Minimum)	0 (Nominal)	15.00 (Maximum)
Before			6.874	Before		0.9478	Before			8.762	
	-125.0 (Minimum)	0 (Nominal)	125.0 (Maximum)		0.8500 (Minimum)	1.000 (Nominal)	1.200 (Maximum)		-15.00 (Minimum)	0 (Nominal)	15.00 (Maximum)
Before			18.87	Before		1.185					
	-125.0 (Minimum)	0 (Nominal)	125.0 (Maximum)		0.8500 (Minimum)	1.000 (Nominal)	1.200 (Maximum)				

Before	-225.0 (Minimum) 0 (Nominal) 225.0 (Maximum)		0.07	Before	0.8500 (Minimum) 1.000 (Nominal) 1.200 (Maximum)		1.103
Phase	IM Elect Quad Offset 20 kHz	MM/M	Value	Phase	IM Elect Quad Gain 20 kHz		Value
Before			18.89	Before			1.185
	-225.0 (Minimum) 0 (Nominal) 225.0 (Maximum)				0.8500 (Minimum) 1.000 (Nominal) 1.200 (Maximum)		

Before: 5-AUG-2000 13:45

Dual Induction - E Wellsite Calibration											
Induction Electronics (40 kHz)											
Phase	ID Elect Real Offset 40 kHz	MM/M	Value	Phase	ID Elect Real Gain 40 kHz	Value	Phase	ID Elect Phase 40 kHz	DEG	Value	
Before			16.69	Before			Before			EXCEEDS LIMIT 24.57	
	-85.00 (Minimum) 0 (Nominal) 85.00 (Maximum)				0.8500 (Minimum) 1.000 (Nominal) 1.200 (Maximum)			-20.00 (Minimum) 0 (Nominal) 20.00 (Maximum)			
Phase	ID Elect Quad Offset 40 kHz	MM/M	Value	Phase	ID Elect Quad Gain 40 kHz	Value	Phase	IM Elect Phase 40 kHz	DEG	Value	
Before			4.453	Before			Before			EXCEEDS LIMIT 22.57	
	-85.00 (Minimum) 0 (Nominal) 85.00 (Maximum)				0.8500 (Minimum) 1.000 (Nominal) 1.200 (Maximum)			-20.00 (Minimum) 0 (Nominal) 20.00 (Maximum)			
Phase	IM Elect Real Offset 40 kHz	MM/M	Value	Phase	IM Elect Real Gain 40 kHz	Value	40khz not used				
Before			11.97	Before							1.167
	-130.0 (Minimum) 0 (Nominal) 130.0 (Maximum)				0.8500 (Minimum) 1.000 (Nominal) 1.200 (Maximum)						
Phase	IM Elect Quad Offset 40 kHz	MM/M	Value	Phase	IM Elect Quad Gain 40 kHz	Value					
Before			12.02	Before			1.167				
	-130.0 (Minimum) 0 (Nominal) 130.0 (Maximum)				0.8500 (Minimum) 1.000 (Nominal) 1.200 (Maximum)						

Before: 5-AUG-2000 13:49

Dual Induction - E Wellsite Calibration							
SFL Electronics							
Phase	SFL Voltage Offset	MV	Value	Phase	SFL Voltage Gain	Value	
Before			-0.1737	Before			0.9763
	-15.00 (Minimum) 0 (Nominal) 15.00 (Maximum)				0.8500 (Minimum) 1.000 (Nominal) 1.200 (Maximum)		
Phase	SFL Current Offset	MA	Value	Phase	SFL Current Gain	Value	
Before			0.07913	Before			0.9927
	-0.6000 (Minimum) 0 (Nominal) 0.6000 (Maximum)				0.8500 (Minimum) 1.000 (Nominal) 1.200 (Maximum)		

Before: 5-AUG-2000 13:50

Dual Induction - E Wellsite Calibration											
Electronics Calibration Changes Files/Depth Intervals: 21: 5875.0 - 5777.0 24: 5833.9 - 5550.0											
Phase	ID (R > 27 OHM-M)	MM/M	Value	Phase	ID (R < 27 OHM-M) %	Value	Phase	SFL (R < 1 OHM-M)	OHMM	Value	
After			0.2677	After			0.002370	After			0.0004267
	0 (Minimum) 0 (Nominal) 0.7500 (Maximum)				0 (Minimum) 0 (Nominal) 2.000 (Maximum)			0 (Minimum) 0 (Nominal) 0.02000 (Maximum)			
Phase	IM (R > 27 OHM-M)	MM/M	Value	Phase	IM (R < 27 OHM-M) %	Value					
After			0.2067	After							0.0003266
	0 (Minimum) 0 (Nominal) 0.7500 (Maximum)				0 (Minimum) 0 (Nominal) 2.000 (Maximum)						
Phase	SFL (R > 27 OHM-M)	MM/M	Value	Phase	SFL (R < 27 OHM-M) %	Value					
After			0	After			0.0002675				
	0 (Minimum) 0 (Nominal) 0.7500 (Maximum)				0 (Minimum) 0 (Nominal) 2.000 (Maximum)						

After: 5-AUG-2000 18:12

Dual Induction - E Master Calibration											
Test Loop Calibration: Calibration of Internal Reference to Test Loop Standard											
Phase	Deep 10 kHz Gain Factor	Value	Phase	Deep 20 kHz Gain Factor	Value	Phase	Deep 40 kHz Gain Factor	Value			
Master			1.001	Master			1.014	Master			1.026
	0.9000 (Minimum) 1.000 (Nominal) 1.100 (Maximum)				0.9000 (Minimum) 1.000 (Nominal) 1.100 (Maximum)			0.9000 (Minimum) 1.000 (Nominal) 1.100 (Maximum)			
Phase	Medium 10 kHz Gain Factor	Value	Phase	Medium 20 kHz Gain Factor	Value	Phase	Medium 40 kHz Gain Factor	Value			
Master			1.013	Master			1.018	Master			1.042

0.9000 (Minimum) 1.000 (Nominal) 1.100 (Maximum)			0.9000 (Minimum) 1.000 (Nominal) 1.100 (Maximum)			0.9000 (Minimum) 1.000 (Nominal) 1.100 (Maximum)		
Phase	Deep 10 kHz Phase Shift	Value	Phase	Deep 20 kHz Phase Shift	Value	Phase	Deep 40 kHz Phase Shift	Value
Master		0.2311	Master		0.03131	Master		-1.164
	-1.500 (Minimum) 0 (Nominal) 1.500 (Maximum)			-2.000 (Minimum) 0 (Nominal) 2.000 (Maximum)			-4.000 (Minimum) -1.000 (Nominal) 2.000 (Maximum)	
Phase	Medium 10 kHz Phase Shift	Value	Phase	Medium 20 kHz Phase Shift	Value	Phase	Medium 40 kHz Phase Shift	Value
Master		-0.3315	Master		-0.9767	Master		-2.343
	-1.500 (Minimum) 0 (Nominal) 1.500 (Maximum)			-3.000 (Minimum) -1.000 (Nominal) 1.000 (Maximum)			-5.000 (Minimum) -2.000 (Nominal) 1.000 (Maximum)	

Master: Calibration out of date 13-DEC-1999 15:43

Dual Induction - E Master Calibration								
Sonde Error Corrections: Correction for sonde response in zero conductivity environment. (Normalized to 25C).								
Phase	Real Deep 10 kHz S.E. Corr.	Value	Phase	Real Deep 20 kHz S.E. Corr.	Value	Phase	Real Deep 40 kHz S.E. Corr.	Value
Master		28.89	Master		10.40	Master		0.002010
	-50.00 (Minimum) 0 (Nominal) 125.0 (Maximum)			-30.00 (Minimum) 0 (Nominal) 30.00 (Maximum)			-15.00 (Minimum) 0 (Nominal) 15.00 (Maximum)	
Phase	Quad Deep 10 kHz S.E. Corr.	Value	Phase	Quad Deep 20 kHz S.E. Corr.	Value	Phase	Quad Deep 40 kHz S.E. Corr.	Value
Master		104.7	Master		62.24	Master		46.63
	-250.0 (Minimum) 0 (Nominal) 350.0 (Maximum)			-125.0 (Minimum) 0 (Nominal) 200.0 (Maximum)			-75.00 (Minimum) 0 (Nominal) 125.0 (Maximum)	
Phase	Real Medium 10 kHz S.E. Corr.	Value	Phase	Real Medium 20 kHz S.E. Corr.	Value	Phase	Real Medium 40 kHz S.E. Corr.	Value
Master		50.90	Master		9.026	Master		-2.418
	-50.00 (Minimum) 0 (Nominal) 140.0 (Maximum)			-50.00 (Minimum) 0 (Nominal) 50.00 (Maximum)			-30.00 (Minimum) 0 (Nominal) 30.00 (Maximum)	
Phase	Quad Medium 10 kHz S.E. Corr.	Value	Phase	Quad Medium 20 kHz S.E. Corr.	Value	Phase	Quad Medium 40 kHz S.E. Corr.	Value
Master		208.1	Master		118.8	Master		88.56
	-1300 (Minimum) 0 (Nominal) 1300 (Maximum)			-650.0 (Minimum) 0 (Nominal) 650.0 (Maximum)			-350.0 (Minimum) 0 (Nominal) 350.0 (Maximum)	

Master: Calibration out of date 13-DEC-1999 15:51

Hostile Environment Litho Density - A / Equipment Identification

Primary Equipment:

HOSTILE ENVIRONMENT LITHO DENSITY HIGH V	HLDV - A	10
HOSTILE ENVIRONMENT LITHO DENSITY CARTRI	HLDC - AA	11
Gamma Source Radioactive	GSR - Z	1846

Auxiliary Equipment:

HOSTILE ENVIRONMENT LITHO DENSITY SONDE	HLDS - B	10
HOSTILE ENVIRONMENT ELECTRONICS CARTRIDG	HEH - H	12
HOSTILE ENVIRONMENT ELECTRONICS CARTRIDG	HEH - G	11
HOSTILE ENVIRONMENT LITHO DENSITY PAD	HLDP - B	10

Nuclear Porosity Lithology Cartridge - B / Equipment Identification

Primary Equipment:

NPLC Cartridge	NPLC - B	79
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Auxiliary Equipment:

NPLC Housing	NPH - B	82
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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

Hostile Natural Gamma Ray Sonde / Equipment Identification

Primary Equipment:
HNGS Sonde

HNGS - BA 27

Auxiliary Equipment:
HNGS Sonde Housing
Gamma Source Radioactive

HNSH - BA 27
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		40.55	Master		16.38	Master		1100
Before		40.63	Before		16.72	Before		1105
After		40.61	After		16.52	After		1108
	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		145.7	Master		8.530	Master		33.34
Before		146.3	Before		10.06	Before		35.19
After		145.7	After		8.809	After		24.72
	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		26.59						
Before		25.43						
After		24.87						
	15.00 (Minimum) 45.00 (Nominal) 100.0 (Maximum)							
Master: 25-JUN-2000 6:04			Before: 20-JUL-2000 16:42			After: 5-AUG-2000 21:25		

Hostile Natural Gamma Ray Sonde Wellsite Calibration

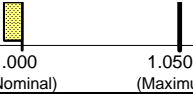
Detector 2 Check



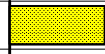


Phase	Na 511 Peak Loc	Value	Phase	Na 511 Peak Res %	Value	Phase	High Voltage V	Value
Master		40.64	Master		15.20	Master		1189
Before		40.70	Before		14.66	Before		1195
After		40.67	After		14.85	After		1196
	37.50 (Minimum) 40.00 (Nominal) 42.50 (Maximum)			12.00 (Minimum) 15.50 (Nominal) 19.00 (Maximum)			900.0 (Minimum) 1150 (Nominal) 1600 (Maximum)	
Phase	Na 1785 Peak Loc	Value	Phase	Na 1785 Peak Res %	Value	Phase	Temperature DEGC	Value
Master		144.5	Master		9.442	Master		32.31
Before		145.1	Before		7.631	Before		33.88
After		145.2	After		7.413	After		24.40
	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		26.92						
Before		25.69						
After		25.04						
	15.00 (Minimum) 45.00 (Nominal) 100.0 (Maximum)							
Master: 25-JUN-2000 6:04			Before: 20-JUL-2000 16:42			After: 5-AUG-2000 21:25		






Hostile Natural Gamma Ray Sonde Wellsite Calibration

Ratio Of Detector 1 To Detector 2

Phase	Coincidence Count Rate Ratio	Value
Master		0.9864
Before		0.9894

After		0.9936
	0.9500 (Minimum)	1.000 (Nominal)
		1.050 (Maximum)
Master: 25-JUN-2000 6:04		
Before: 20-JUL-2000 16:42		
After: 5-AUG-2000 21:25		

Hostile Natural Gamma Ray Sonde Master Calibration											
Detector 1 Calibration											
Phase	Na 511 Peak Set Point		Value	Phase	Th Peak Loc		Value	Phase	Th Peak Res %		Value
Master			41.00	Master			210.2	Master			8.208
	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	See Remarks			
Master			17.57	Master			0.9860				
	20.00 (Minimum)	142.5 (Nominal)	265.0 (Maximum)		0.9400 (Minimum)	1.000 (Nominal)	1.060 (Maximum)				
Master: 25-JUN-2000 5:57											

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			210.1	Master			7.030
	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	See Remarks			
Master			18.88	Master			0.9839				
	20.00 (Minimum)	142.5 (Nominal)	265.0 (Maximum)		0.9400 (Minimum)	1.000 (Nominal)	1.060 (Maximum)				
Master: 25-JUN-2000 5:57											

COMPANY:	Lamont Doherty	BOTTOM LOG INTERVAL	5871 m
WELL:	ODP Leg 191, Site 1179D (WP-2A)	SCHLUMBERGER DEPTH	5873 m
FIELD:	West Pacific ION	DEPTH DRILLER	6052 m
COUNTY:	Offshore	KELLY BUSHING	11.3 m
STATE:	Pacific Ocean	DRILL FLOOR	11 m
		GROUND LEVEL	-5566 m

Schlumberger

**Phasor Induction
Natural Gamma Ray**