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OTHER SERVICES1 OS1: DITE OS2: OS3: OS4: OS5:	OTHER SERVICES2 OS1: OS2: OS3: OS4: OS5:
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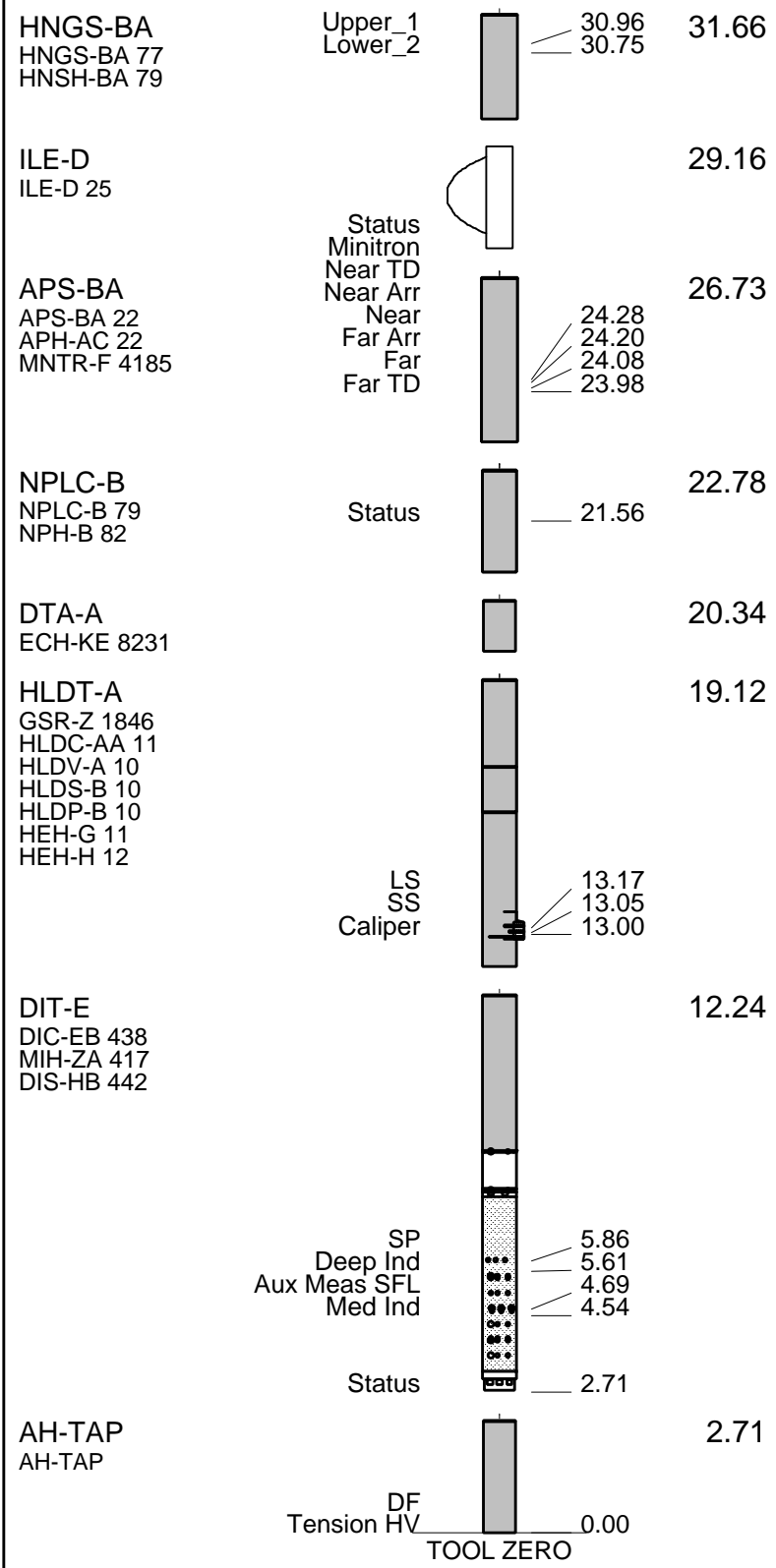
REMARKS: RUN NUMBER 1 Hole cored with APC, XCB, PCS. Log presented in meters below rig floor. Lamont Temperature tool (TAP) was run on Triple Combo. Wireline Heave Compensator (WHC) was used on all descents. Sepiolite mud was used to displace the hole during the wiper trip after drillin Drillers TD 3730 mbrf, Driller pipe depth: 3383 mbrf, Sea Floor: 3308 mbrf. Schlumberger TD 3731 mbrf. Drill Pipe Schlumberger 3375 mbrf. Sea Floor Schlumberger 3309 mbrf.	REMARKS: RUN NUMBER 2
Software bug shows APS calibration not done for part of calibration. Low background countrate on HNGS master calibration significes a weak internal source used for check of detector and not used in calibration.	

RUN 1			RUN 2		
SERVICE ORDER #:			SERVICE ORDER #:		
PROGRAM VERSION:	10C0-306		PROGRAM VERSION:		
FLUID LEVEL:			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 GSR-U/Y WITM (DTS)-A	

DOWNHOLE EQUIPMENT	
LEH-QT LEH-QT 1726	35.14
CTEM TelStatus	33.98
DTC-H ECH-KC 9343	34.25
ToolStatu	33.34
SGT-N SGH-K 2448 SCC TR 0582	33.06
Gamma Ray	33.34



TOOL ZERO

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

Output DLIS Files

DEFAULT	PI_LDL_APS_NGS_007LUP	FN:10	PRODUCER	23-Feb-2002 04:08	3733.0 M	3286.7 M
REDUCED	PI_LDL_APS_NGS_007LUP	FN:11	PRODUCER	23-Feb-2002 04:08	3733.0 M	3286.7 M

OP System Version: 10C0-306 MCM

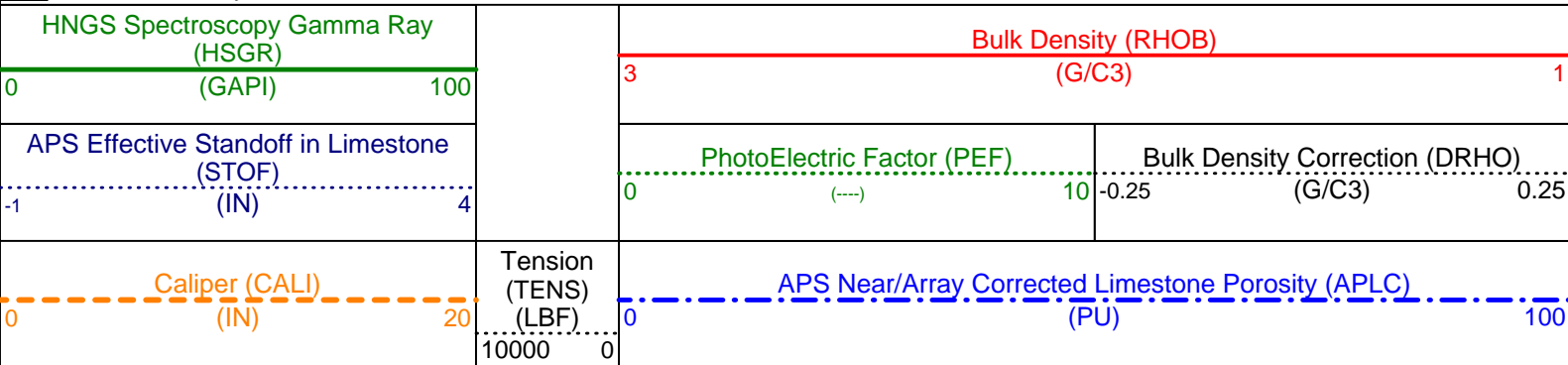
DIT-E	10C0-306	HLDT-A	10C0-306
DTA-A	10C0-306	NPLC-B	10C0-306
APS-BA	10C0-306	HNGS-BA	10C0-306
SGT-N	10C0-306	DTC-H	10C0-306

Changed Parameter Summary

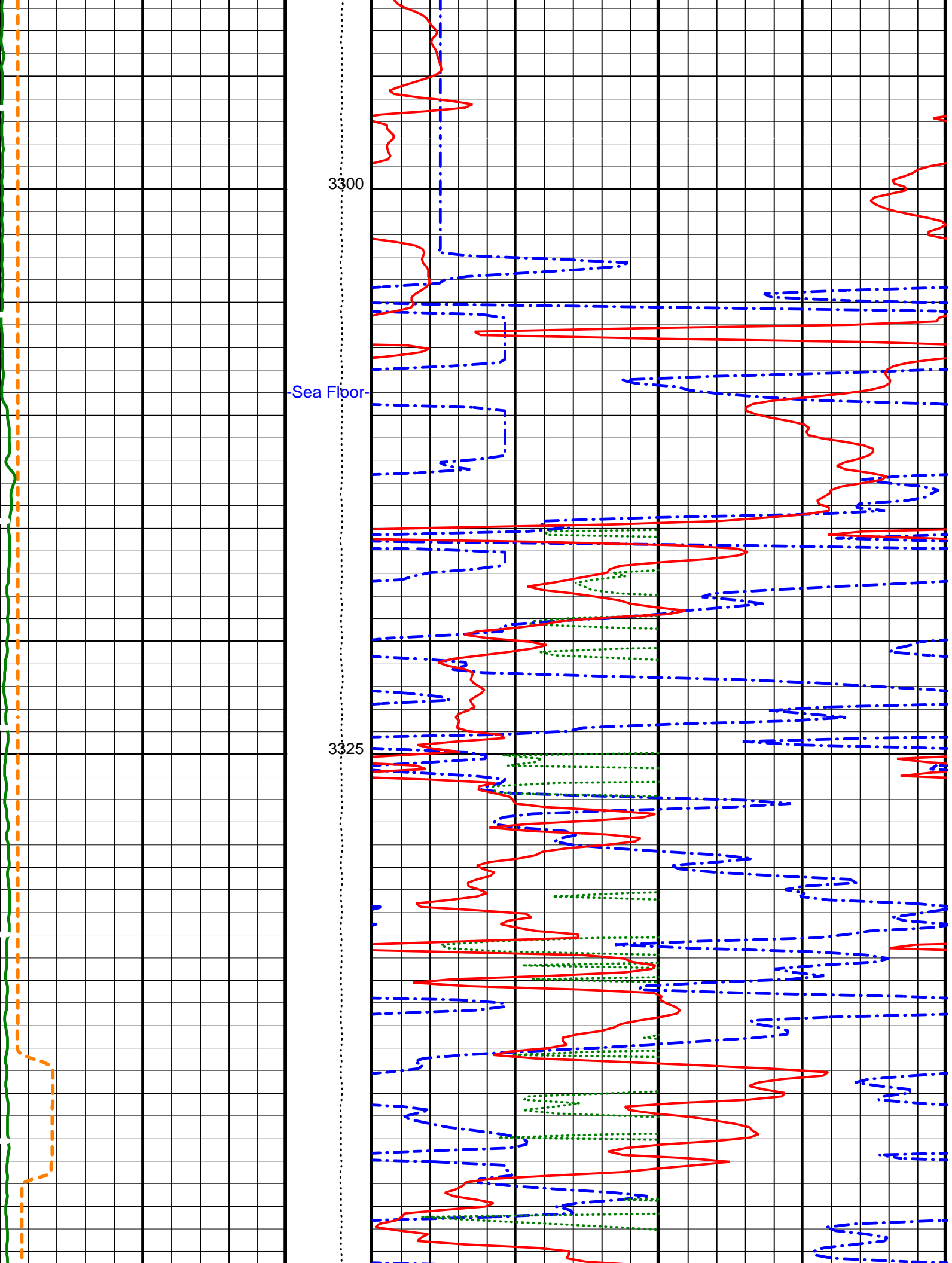
DLIS Name	New Value	Previous Value	Depth & Time
GCSE	CALI	BS	3710.8 04:19:06

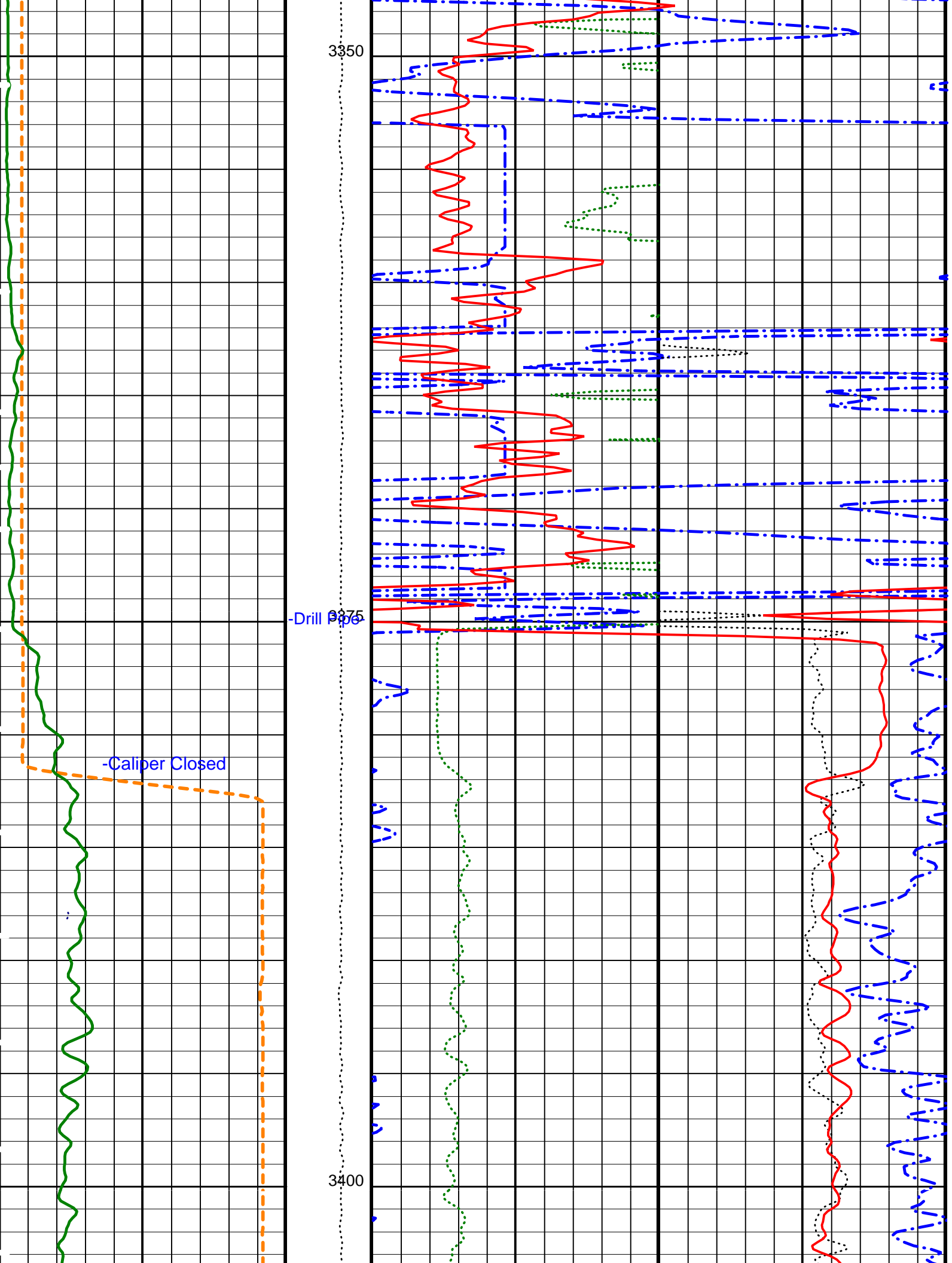
PIP SUMMARY

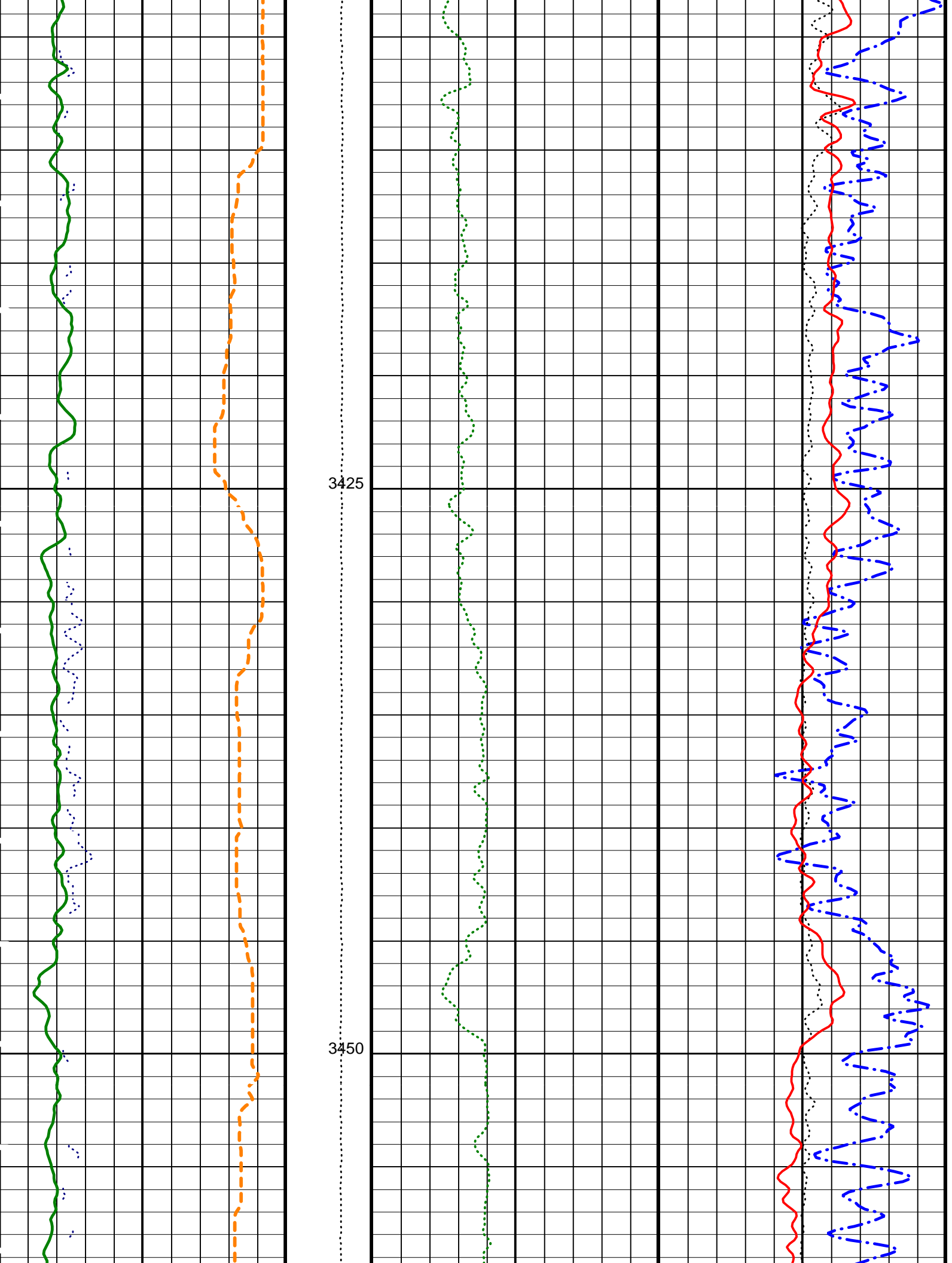
Time Mark Every 60 S

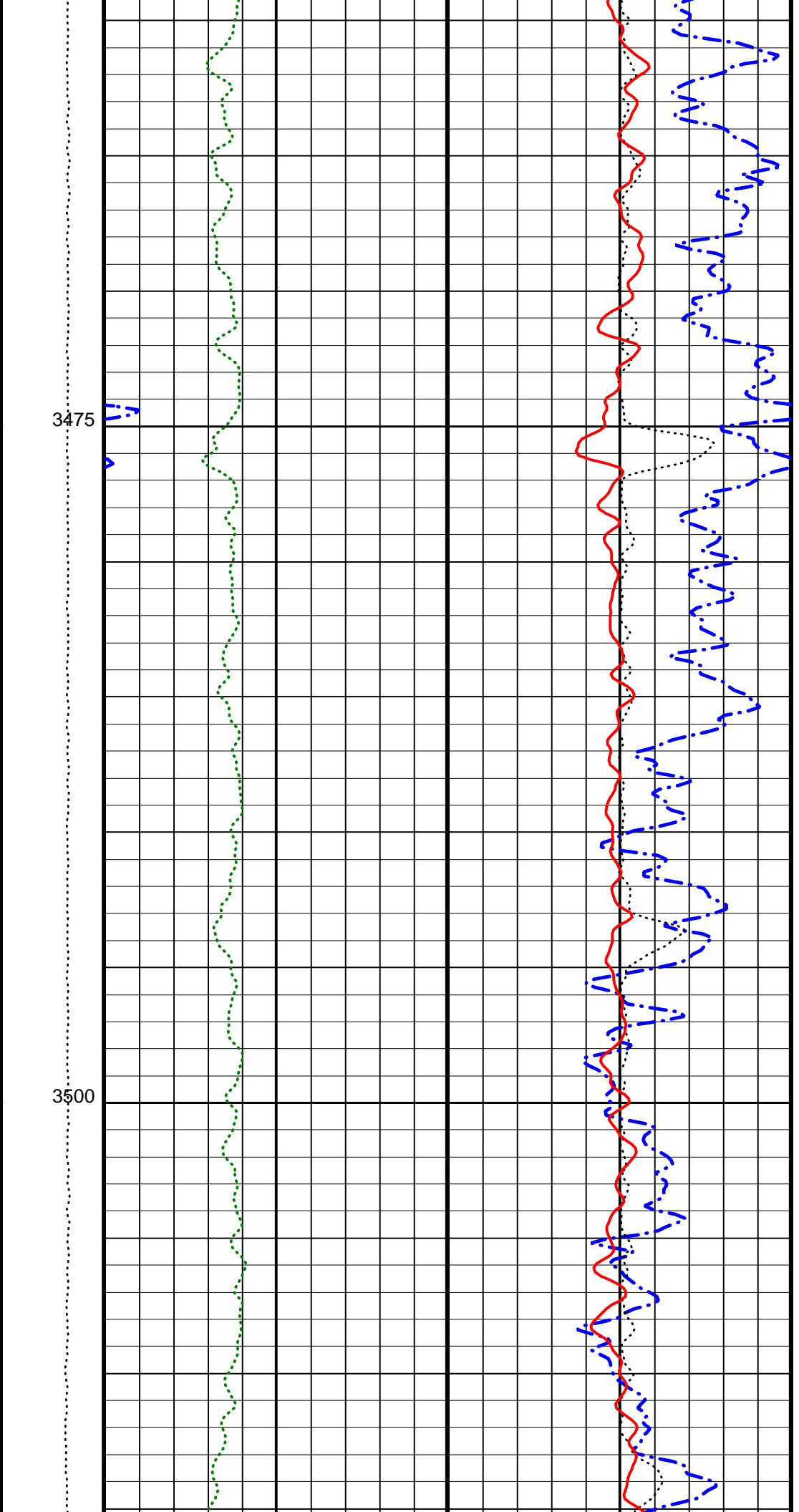
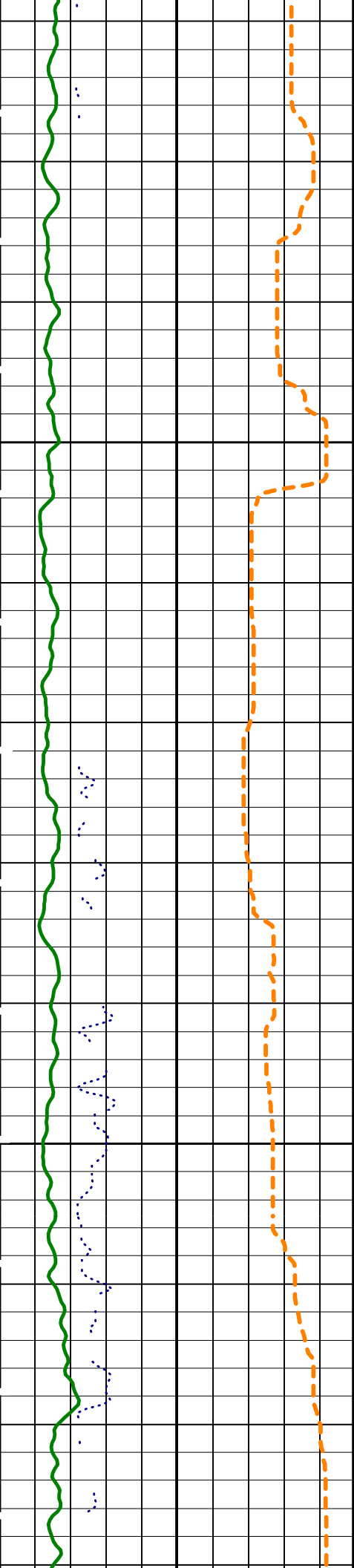


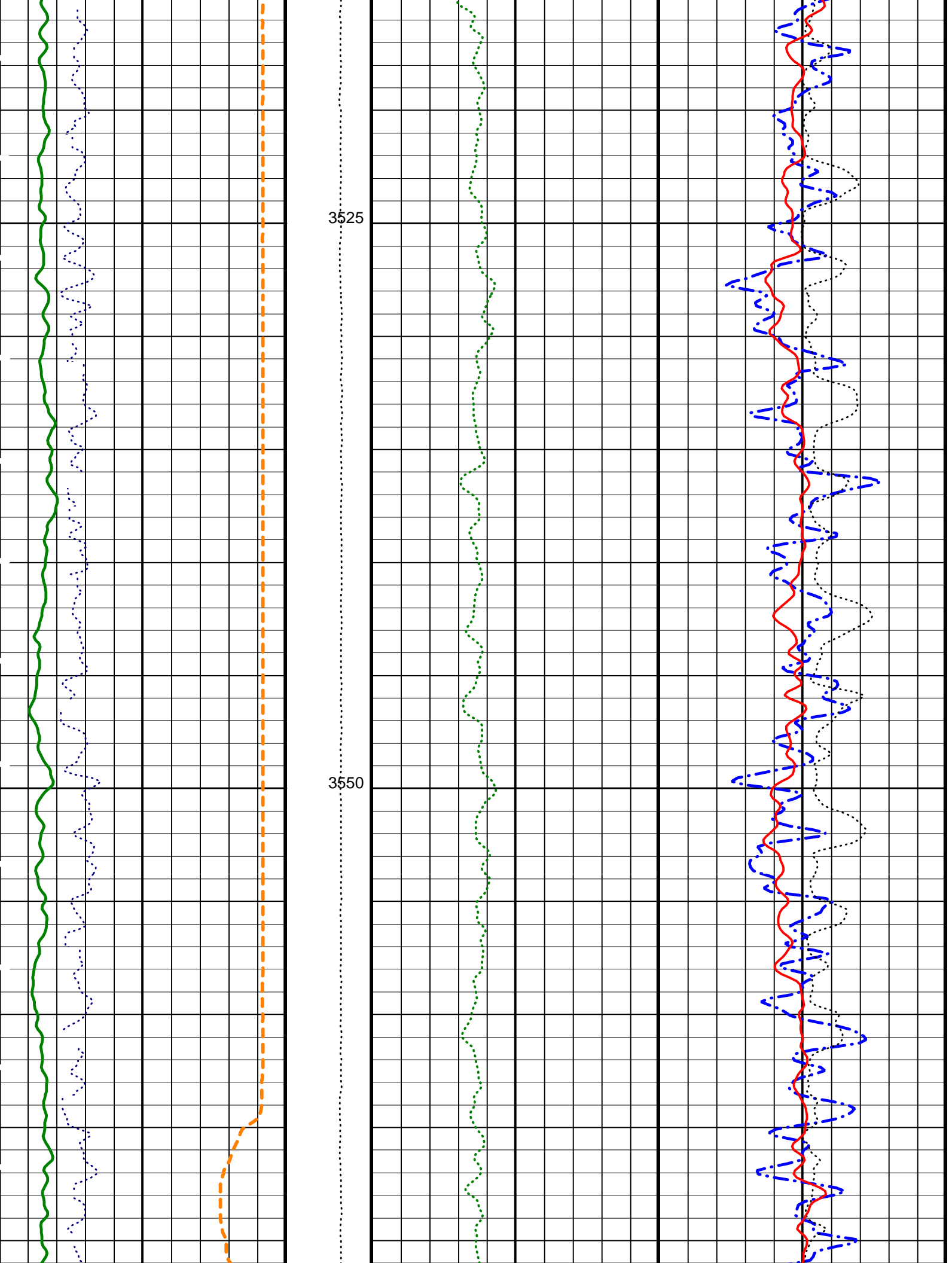
Main Log

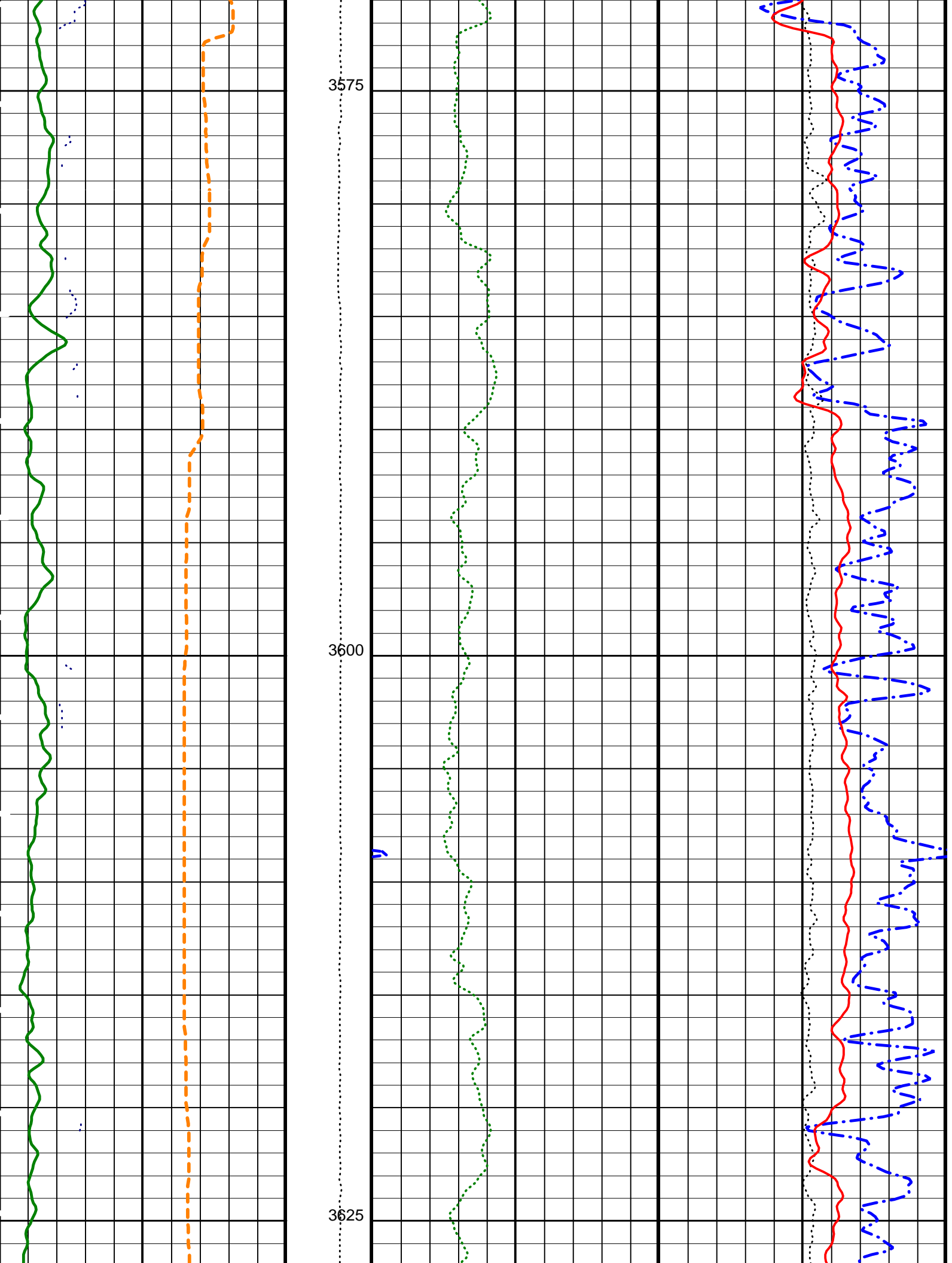


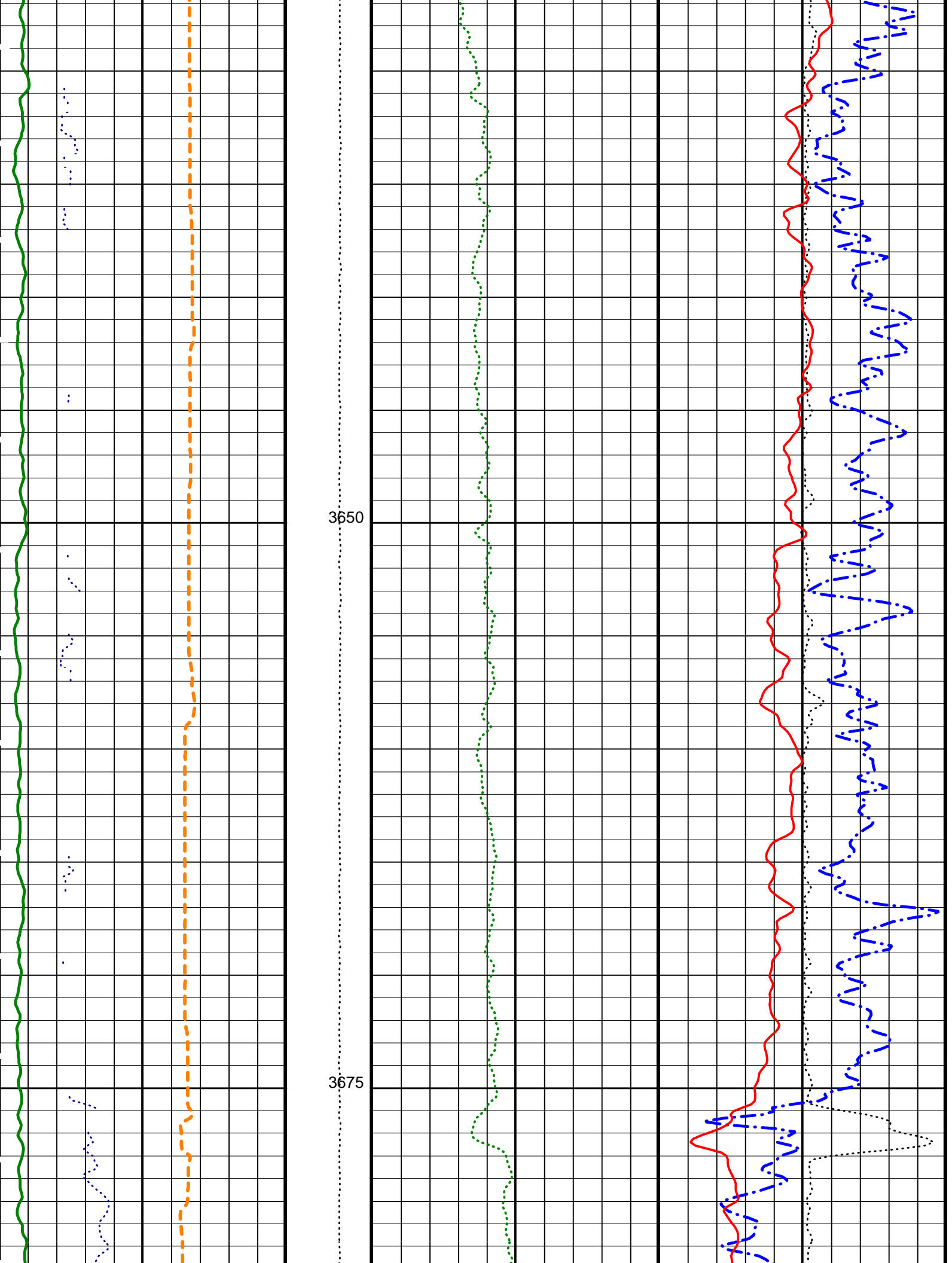


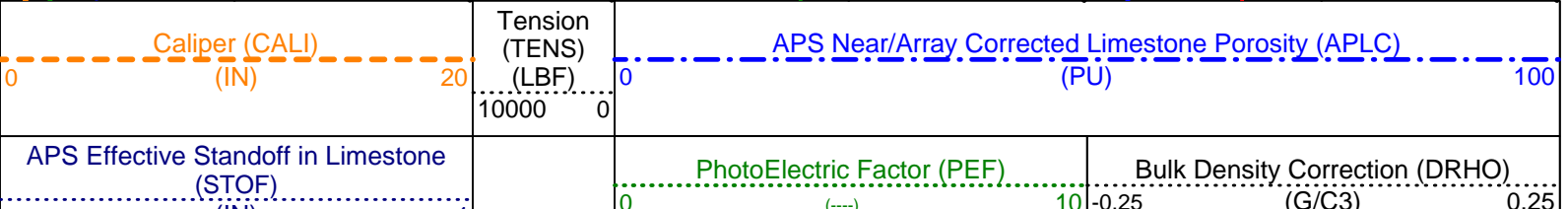
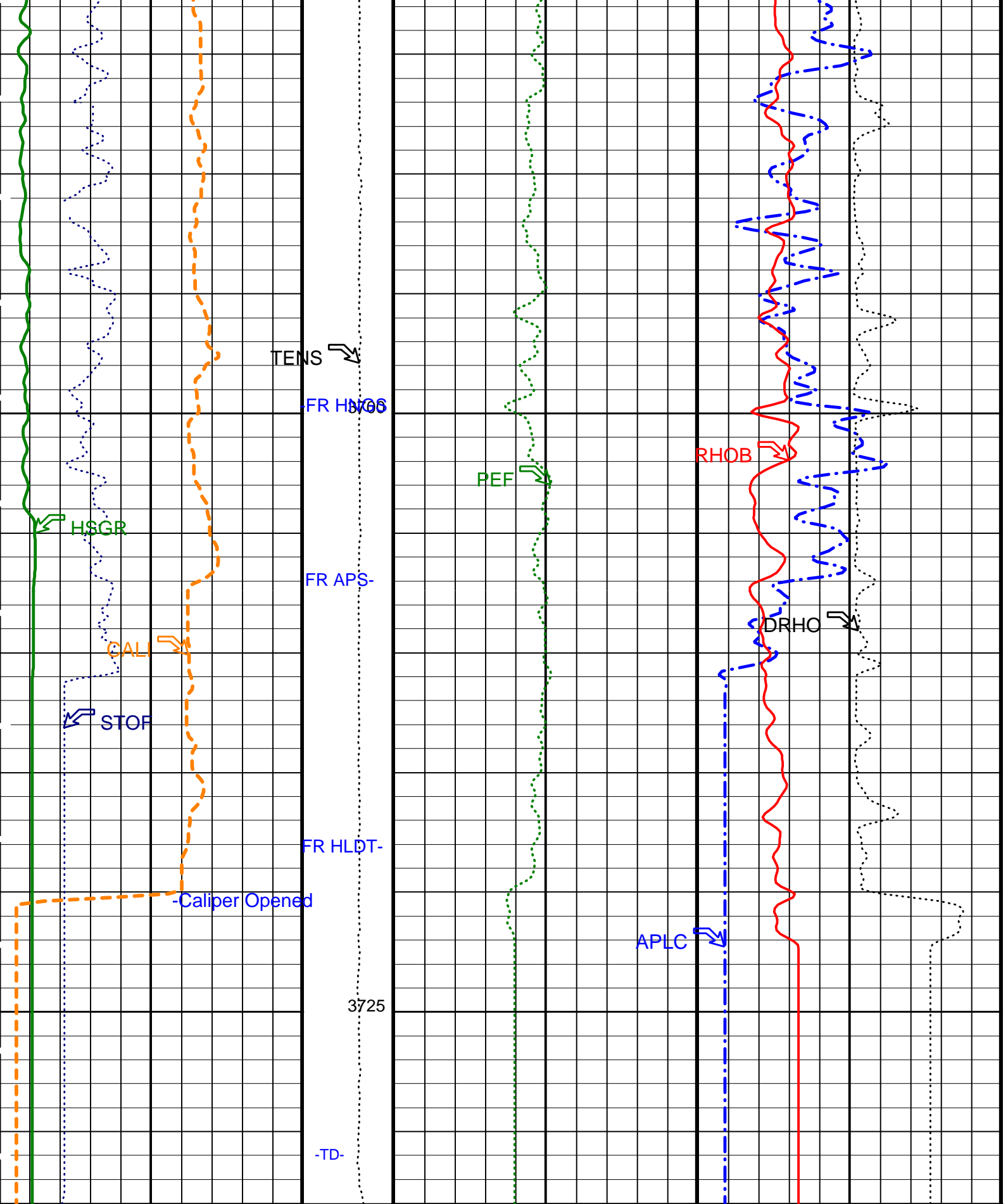












(IN)	4				
HNGS Spectroscopy Gamma Ray (HSGR)				Bulk Density (RHOB)	
0	(GAPI)	100	3	(G/C3)	1

PIP SUMMARY

Main Log

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
DIT-E: Dual Induction - E			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	40	DEGF
DGF1	Deep 10 kHz Gain Factor	0.995593	
DGF2	Deep 20 kHz Gain Factor	1.00789	
DGF4	Deep 40 kHz Gain Factor	1.02614	
DPH1	Deep 10 kHz Phase Shift	0.114289	DEG
DPH2	Deep 20 kHz Phase Shift	-0.152394	DEG
DPH4	Deep 40 kHz Phase Shift	-1.42629	DEG
DRE1	Deep Real 10 kHz Sonde Error Correction	44.9501	MM/M
DRE2	Deep Real 20 kHz Sonde Error Correction	16.357	MM/M
DRE4	Deep Real 40 kHz Sonde Error Correction	4.69026	MM/M
DRIM	DIT-E Radial Invasion Mode	Rxo>Rt	
DSR1	Deep Sigma Reference (10 kHz)	7637	MM/M
DSR2	Deep Sigma Reference (20 kHz)	1843	MM/M
DSR4	Deep Sigma Reference (40 kHz)	405	MM/M
DSTA	DIT-E Transversal Standoff	0	IN
DXE1	Deep Quad 10 kHz Sonde Error Correction	108.903	MM/M
DXE2	Deep Quad 20 kHz Sonde Error Correction	64.6326	MM/M
DXE4	Deep Quad 40 kHz Sonde Error Correction	46.096	MM/M
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	
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	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
MGF1	Medium 10 kHz Gain Factor	1.02182	
MGF2	Medium 20 kHz Gain Factor	1.02964	
MGF4	Medium 40 kHz Gain Factor	1.06122	
MPH1	Medium 10 kHz Phase Shift	-0.255819	DEG
MPH2	Medium 20 kHz Phase Shift	-0.933067	DEG
MPH4	Medium 40 kHz Phase Shift	-2.46117	DEG
MRE1	Medium Real 10 kHz Sonde Error Correction	20.7292	MM/M
MRE2	Medium Real 20 kHz Sonde Error Correction	-1.78642	MM/M
MRE4	Medium Real 40 kHz Sonde Error Correction	-10.4594	MM/M
MSR1	Medium Sigma Reference (10 kHz)	13520	MM/M
MSR2	Medium Sigma Reference (20 kHz)	3250	MM/M
MSR4	Medium Sigma Reference (40 kHz)	685	MM/M
MXE1	Medium Quad 10 kHz Sonde Error Correction	-105.752	MM/M
MXE2	Medium Quad 20 kHz Sonde Error Correction	-34.2041	MM/M
MXE4	Medium Quad 40 kHz Sonde Error Correction	11.4521	MM/M
SBR	Shoulder Bed Resistivity Factor	1	OHMM
SFCR	SFL Channel Ratio	1000	
SFLE	SFL Enable	ENABLE	
SHT	Surface Hole Temperature	68	DEGF
SPAE	DIT-E SPARC Processing Enable	ENABLE	
SPNV	SP Next Value	0	MV
HLDT-A: Hostile Environment Litho Density - A			
BFM	Borehole Fluid Medium	LIQUID	
DHC	Density Hole Correction	BS	
DPPM	Density Porosity Processing Mode	HIRS	
FD	Fluid Density	1	G/C3
LSHC	LS Hardware Loop Control	DISALLOW	
MDEN	Matrix Density	2.71	G/C3
QPPS	Quicklook Processing Pe Select	PEFL	
SSHC	SS Hardware Loop Control	DISALLOW	
WMUD	Mud Weight	1.07	G/C3
NPLC-B: Nuclear Porosity Lithology Cartridge - B			
NOTS	NPLC Old Temperature Sensor	NO	
APS-BA: Accelerator-Porosity Tool			
	APS Software Version	5	
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	ON	
AHSS	APS Holesize Correction Switch	ON		
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		
BHS	Borehole Status	OPEN		
BHT	Bottom Hole Temperature (used in calculations)	40	DEGF	
DPPM	Density Porosity Processing Mode	HIRS		
FSAL	Formation Salinity	-50000	PPM	
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		
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE		
NARC	APS Near/Array Calibration Ratio	1.0631		
NFRC	APS Near/Far Calibration Ratio	0.902243		
SHT	Surface Hole Temperature	68	DEGF	
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)	40	DEGF	
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	0.01	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	-0.00249796		
HALF	HNGS Alpha Filter Length	60	IN	
HCRB	HNGS Apply Borehole Potassium Correction	NONE		
HMWM	Mud Weighting Material	NATU		
HNPE	HNGS Processing Enable	YES		
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	68	DEGF	
TPOS	Tool Position	ECCE		
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	0.946744		
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	1.03743		
SGT-N: Scintillation Gamma-Ray - N				
BHS	Borehole Status	OPEN		
BHT	Bottom Hole Temperature (used in calculations)	40	DEGF	
DPPM	Density Porosity Processing Mode	HIRS		
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		
ISSBAR	SGT Nuclear Mud Type	NOBARITE		
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE		
SHT	Surface Hole Temperature	68	DEGF	
SOGR	SGT Standoff Distance	0	IN	
HOLEV: Integrated Hole/Cement Volume				
BHS	Borehole Status	OPEN		
BHT	Bottom Hole Temperature (used in calculations)	40	DEGF	
FCD	Future Casing (Outer) Diameter	0	IN	
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		
HVCS	Integrated Hole Volume Caliper Selection	AUTOMATIC		
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE		
SHT	Surface Hole Temperature	68	DEGF	
System and Miscellaneous				
ALTDPC	Name of alternate depth channel	SpeedCorrectedDepth		
BS	Bit Size	11.438	IN	
BSAL	Borehole Salinity	-50000.00	PPM	
CSIZ	Current Casing Size	0.000	IN	
CWEI	Casing Weight	0.00	LB/F	
DFD	Drilling Fluid Density	1.07	G/C3	
MST	Mud Sample Temperature	33.00	DEGC	
PBVSADP	Use alternate depth channel for playback	NO		

RMFS	Resistivity of Mud Filtrate Sample	-50000.0000	OHMM
RW	Resistivity of Connate Water	1.0000	OHMM
TD	Total Depth	-50000	FT
TDD	Total Depth - Driller	3730.00	M
TDL	Total Depth - Logger	-50000.00	M
TWS	Temperature of Connate Water Sample	37.78	DEGC

Format: APSLiquidPorosity_1 Vertical Scale: 1:200 Graphics File Created: 23-Feb-2002 04:08

OP System Version: 10C0-306			
MCM			
DIT-E	10C0-306	HLDT-A	10C0-306
DTA-A	10C0-306	NPLC-B	10C0-306
APS-BA	10C0-306	HNGS-BA	10C0-306
SGT-N	10C0-306	DTC-H	10C0-306

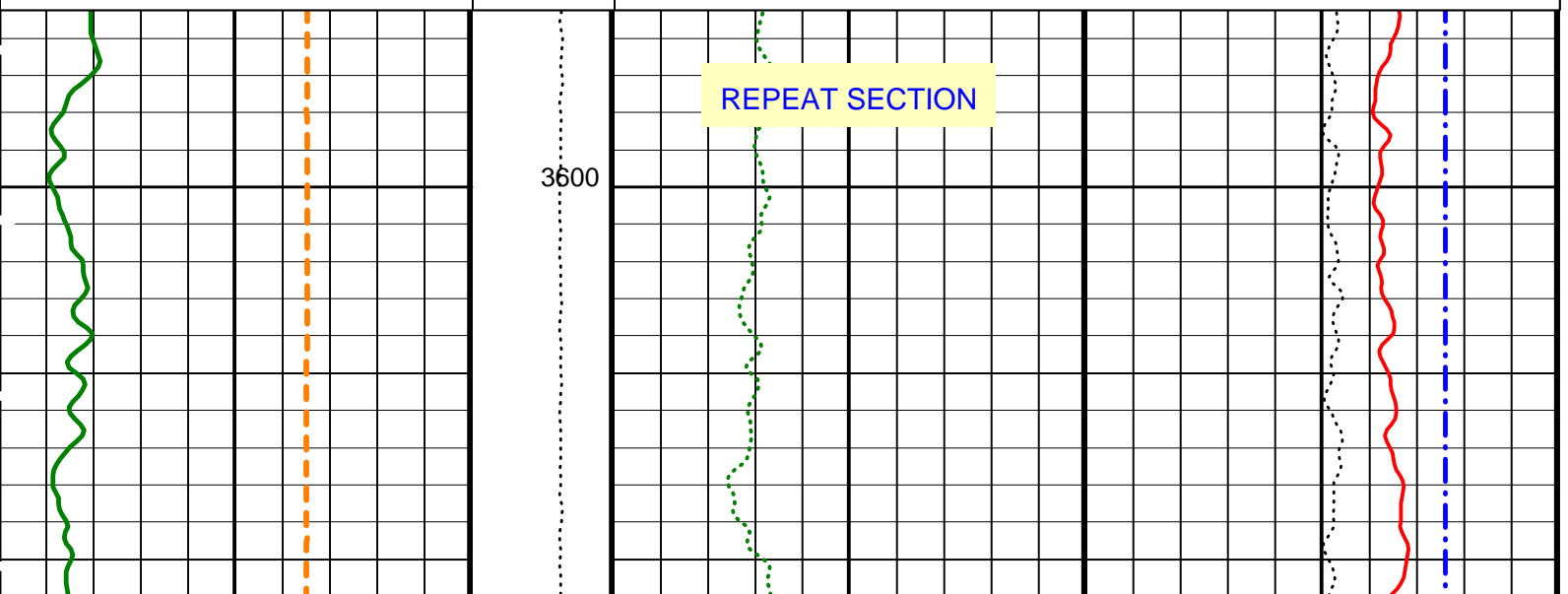
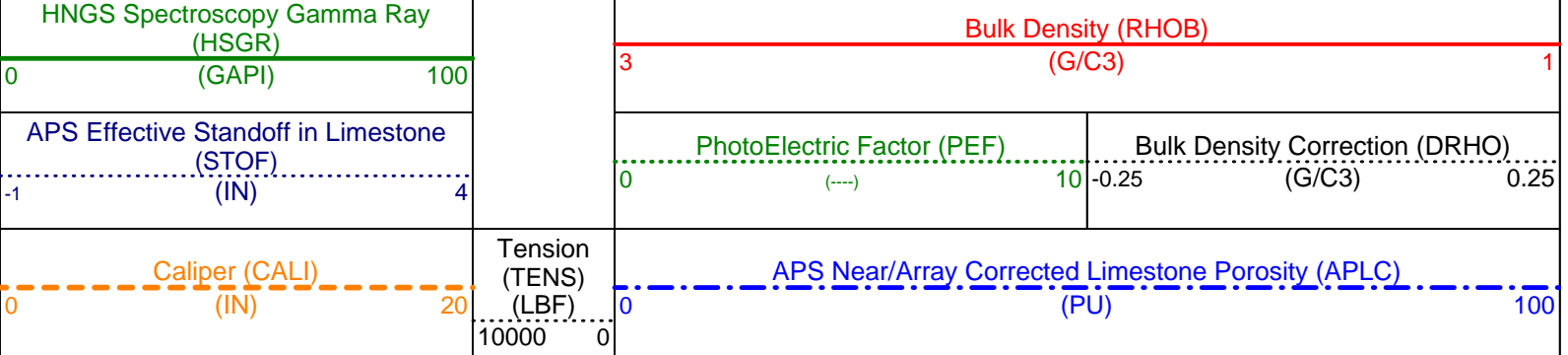
Output DLIS Files			
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REDUCED	PI_LDL_APS_NGS_007LUP	FN:11	PRODUCER 23-Feb-2002 04:08

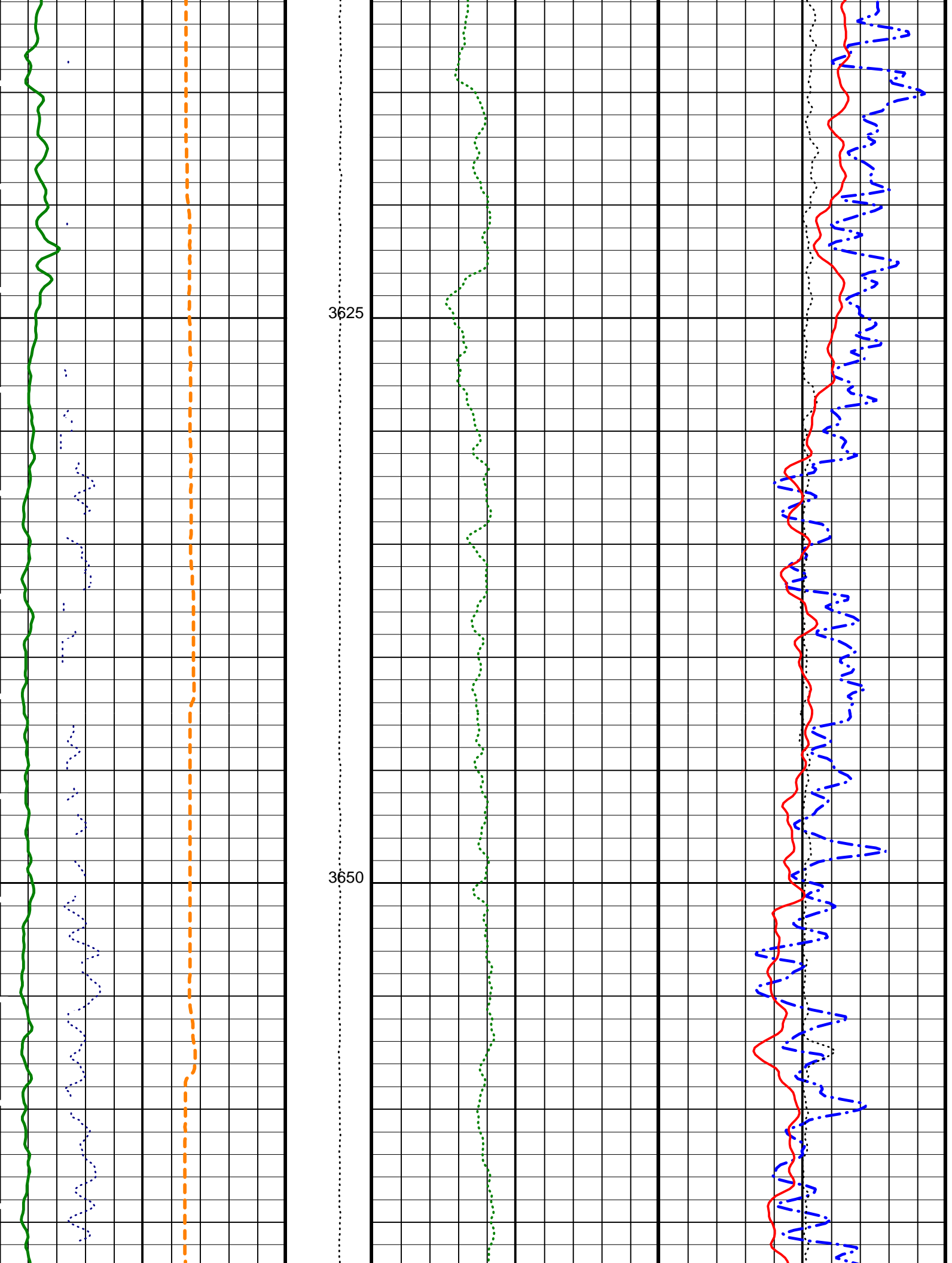
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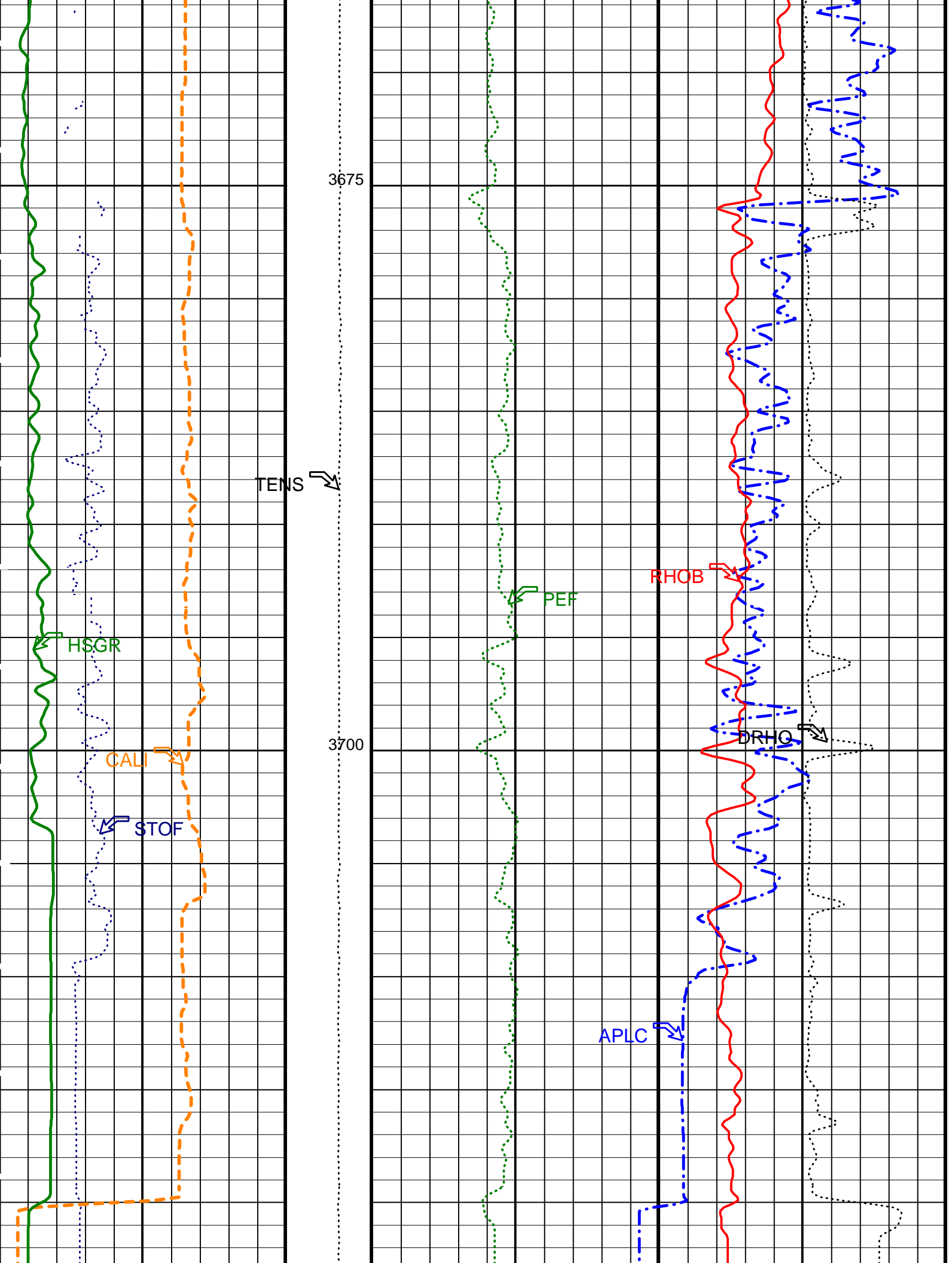
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MCM			
DIT-E	10C0-306	HLDT-A	10C0-306
DTA-A	10C0-306	NPLC-B	10C0-306
APS-BA	10C0-306	HNGS-BA	10C0-306
SGT-N	10C0-306	DTC-H	10C0-306

PIP SUMMARY

Time Mark Every 60 S

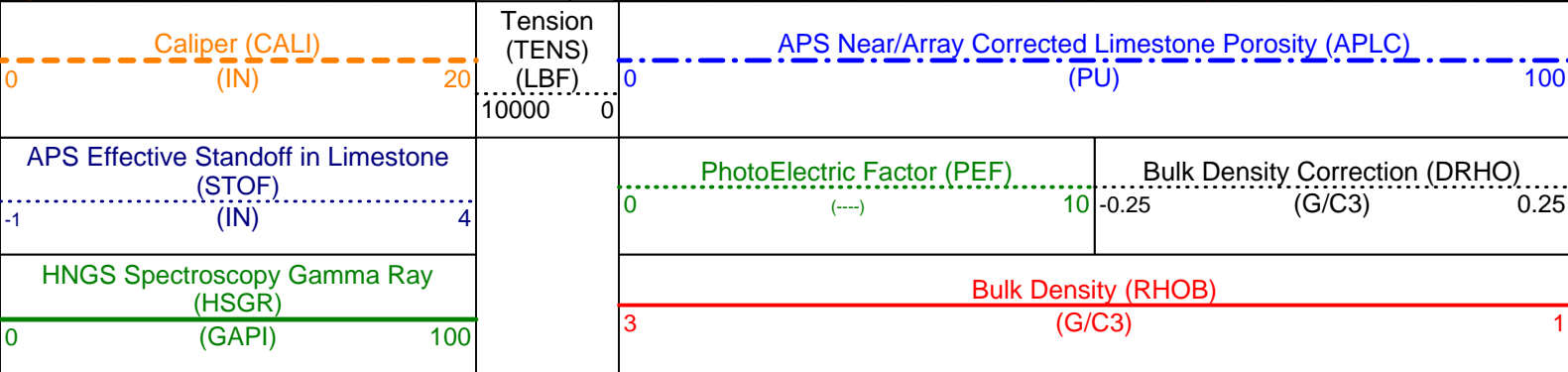






3725

REPEAT SECTION



PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
DIT-E: Dual Induction - E			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	40	DEGF
DGF1	Deep 10 kHz Gain Factor	0.995593	
DGF2	Deep 20 kHz Gain Factor	1.00789	
DGF4	Deep 40 kHz Gain Factor	1.02614	
DPH1	Deep 10 kHz Phase Shift	0.114289	DEG
DPH2	Deep 20 kHz Phase Shift	-0.152394	DEG
DPH4	Deep 40 kHz Phase Shift	-1.42629	DEG
DRE1	Deep Real 10 kHz Sonde Error Correction	44.9501	MM/M
DRE2	Deep Real 20 kHz Sonde Error Correction	16.357	MM/M
DRE4	Deep Real 40 kHz Sonde Error Correction	4.69026	MM/M
DRIM	DIT-E Radial Invasion Mode	Rxo>Rt	
DSR1	Deep Sigma Reference (10 kHz)	7637	MM/M
DSR2	Deep Sigma Reference (20 kHz)	1843	MM/M
DSR4	Deep Sigma Reference (40 kHz)	405	MM/M
DSTA	DIT-E Transversal Standoff	0	IN
DXE1	Deep Quad 10 kHz Sonde Error Correction	108.903	MM/M
DXE2	Deep Quad 20 kHz Sonde Error Correction	64.6326	MM/M
DXE4	Deep Quad 40 kHz Sonde Error Correction	46.096	MM/M
GCSE	Generalized Caliper Selection	CALI	
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	
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	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
MGF1	Medium 10 kHz Gain Factor	1.02182	
MGF2	Medium 20 kHz Gain Factor	1.02964	
MGF4	Medium 40 kHz Gain Factor	1.06122	
MPH1	Medium 10 kHz Phase Shift	-0.255819	DEG
MPH2	Medium 20 kHz Phase Shift	-0.933067	DEG
MPH4	Medium 40 kHz Phase Shift	-2.46117	DEG
MRE1	Medium Real 10 kHz Sonde Error Correction	20.7292	MM/M
MRE2	Medium Real 20 kHz Sonde Error Correction	-1.78642	MM/M
MRE4	Medium Real 40 kHz Sonde Error Correction	-10.4594	MM/M
MSR1	Medium Sigma Reference (10 kHz)	13520	MM/M
MSR2	Medium Sigma Reference (20 kHz)	3250	MM/M
MSR4	Medium Sigma Reference (40 kHz)	685	MM/M
MXE1	Medium Quad 10 kHz Sonde Error Correction	-105.752	MM/M
MXE2	Medium Quad 20 kHz Sonde Error Correction	-34.2041	MM/M
MXE4	Medium Quad 40 kHz Sonde Error Correction	11.4521	MM/M

SBR	Shoulder Bed Resistivity Factor	1	OHMM
SFCR	SFL Channel Ratio	1000	
SFLE	SFL Enable	ENABLE	
SHT	Surface Hole Temperature	68	DEGF
SPAE	DIT-E SPARC Processing Enable	ENABLE	
SPNV	SP Next Value	0	MV
HLDT-A: Hostile Environment Litho Density - A			
BFM	Borehole Fluid Medium	LIQUID	
DHC	Density Hole Correction	BS	
DPPM	Density Porosity Processing Mode	HIRS	
FD	Fluid Density	1	G/C3
LSHC	LS Hardware Loop Control	DISALLOW	
MDEN	Matrix Density	2.71	G/C3
QPPS	Quicklook Processing Pe Select	PEFL	
SSHC	SS Hardware Loop Control	DISALLOW	
WMUD	Mud Weight	1.07	G/C3
NPLC-B: Nuclear Porosity Lithology Cartridge - B			
NOTS	NPLC Old Temperature Sensor	NO	
APS-BA: Accelerator-Porosity Tool			
	APS Software Version	5	
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	
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	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	40	DEGF
DPPM	Density Porosity Processing Mode	HIRS	
FSAL	Formation Salinity	-50000	PPM
GCSE	Generalized Caliper Selection	CALI	
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	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
NARC	APS Near/Array Calibration Ratio	1.0631	
NFRC	APS Near/Far Calibration Ratio	0.902243	
SHT	Surface Hole Temperature	68	DEGF
HNCS-BA: Hostile Natural Gamma Ray Sonde			
BAR1	HNCS Detector 1 Barite Constant	1	
BAR2	HNCS Detector 2 Barite Constant	1	
BHK	HNCS Borehole Potassium Correction Concentration	0	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	40	DEGF
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	HNCS Barite Constant Correction Flag	NONE	
GCSE	Generalized Caliper Selection	CALI	
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	HNCS Detector 1 Allow/Disallow In Processing	ALLOW	
H2P	HNCS Detector 2 Allow/Disallow In Processing	ALLOW	
HABK	HNCS Borehole Potassium Running Average	-0.00412388	
HALF	HNCS Alpha Filter Length	60	IN
HCRB	HNCS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	NATU	
HNPE	HNCS Processing Enable	YES	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
S1BI	HNCS Detector 1 Calibration Bismuth Count Rate	1.3	CPS
S2BI	HNCS Detector 2 Calibration Bismuth Count Rate	1.3	CPS
SGRC	HNCS Standard Gamma-Ray Correction Flag	YES	
SHT	Surface Hole Temperature	68	DEGF
TPOS	Tool Position	ECCE	
VBA1	HNCS Detector 1 Variable Barite Factor Running Average	0.964524	
VBA2	HNCS Detector 2 Variable Barite Factor Running Average	1.03908	
SGT-N: Scintillation Gamma-Ray - N			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	40	DEGF
DPPM	Density Porosity Processing Mode	HIRS	
GCSE	Generalized Caliper Selection	CALI	
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	
ISSBAR	SGT Nuclear Mud Type	NOBARITE	

MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
SHT	Surface Hole Temperature	68	DEGF
SOGR	SGT Standoff Distance	0	IN
HOLEV: Integrated Hole/Cement Volume			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	40	DEGF
FCD	Future Casing (Outer) Diameter	0	IN
GCSE	Generalized Caliper Selection	CALI	
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	
HVCS	Integrated Hole Volume Caliper Selection	AUTOMATIC	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
SHT	Surface Hole Temperature	68	DEGF
System and Miscellaneous			
ALTDPCCHAN	Name of alternate depth channel	SpeedCorrectedDepth	
BS	Bit Size	11.438	IN
BSAL	Borehole Salinity	-50000.00	PPM
CSIZ	Current Casing Size	0.000	IN
CWEI	Casing Weight	0.00	LB/F
DFD	Drilling Fluid Density	1.07	G/C3
MST	Mud Sample Temperature	33.00	DEGC
PBVSADP	Use alternate depth channel for playback	NO	
RMFS	Resistivity of Mud Filtrate Sample	-50000.0000	OHMM
RW	Resistivity of Connate Water	1.0000	OHMM
TD	Total Depth	-50000	FT
TDD	Total Depth - Driller	3730.00	M
TDL	Total Depth - Logger	-50000.00	M
TWS	Temperature of Connate Water Sample	37.78	DEGC

Format: APSLiquidPorosity_1 Vertical Scale: 1:200 Graphics File Created: 23-Feb-2002 05:54

OP System Version: 10C0-306

MCM

DIT-E	10C0-306	HLDT-A	10C0-306
DTA-A	10C0-306	NPLC-B	10C0-306
APS-BA	10C0-306	HNGS-BA	10C0-306
SGT-N	10C0-306	DTC-H	10C0-306

Output DLIS Files

DEFAULT	PI_LDL_APS_NGS_008LUP	FN:12	PRODUCER	23-Feb-2002 05:54
REDUCED	PI_LDL_APS_NGS_008LUP	FN:13	PRODUCER	23-Feb-2002 05:54

Calibration and Check Summary

Measurement	Nominal	Master	Before	After	Change	Limit	Units
Hostile Environment Litho Density - A Wellsite Calibration - Background Measurement							
Master: 25-Jan-2002 14:22 Before: 21-Feb-2002 4:36 After: 23-Feb-2002 9:30							
LSW1 Background	100.0	89.06	86.19	88.51	2.321	3.000	CPS
LSW2 Background	105.0	93.23	91.94	93.09	1.147	3.150	CPS
LSW3 Background	210.0	180.0	177.0	180.6	3.649	6.300	CPS
LSW4 Background	290.0	237.9	235.4	239.5	4.092	8.700	CPS
LSW5 Background	610.0	529.6	525.7	523.1	-2.590	18.30	CPS
SSW1 Background	100.0	85.18	85.99	86.01	0.01646	3.000	CPS
SSW2 Background	200.0	166.8	165.6	166.4	0.7753	6.000	CPS
SSW3 Background	530.0	446.5	445.9	442.3	-3.596	15.90	CPS
SSW4 Background	280.0	235.8	234.2	233.9	-0.3068	8.400	CPS
SSW5 Background	205.0	176.3	175.5	175.6	0.1184	6.150	CPS
Hostile Environment Litho Density - A Wellsite Calibration - Tool Quality Control Information High Voltage							
Master: 25-Jan-2002 14:22 Before: 21-Feb-2002 4:36 After: 23-Feb-2002 9:30							
LS Bkg. High Voltage	1129	1129	1134	1134	0.3704	N/A	V
SS Bkg. High Voltage	1173	1173	1180	1178	-2.740	N/A	V
Hostile Environment Litho Density - A Wellsite Calibration - Detectors Resolution From BKG Measurements							
Master: 25-Jan-2002 14:22 Before: 21-Feb-2002 4:36 After: 23-Feb-2002 9:30							
LS Background Resolution	1.000	1.042	1.032	1.026	-0.005472	N/A	
SS Background Resolution	1.000	0.9530	0.9479	0.9397	-0.008216	N/A	
Hostile Environment Litho Density - A Wellsite Calibration - Caliper Calibration							
Before: 7-Feb-2002 1:47							

Caliper Small Ring	12.00	N/A	16.99	N/A	N/A	N/A	IN
Caliper Large Ring	18.25	N/A	23.87	N/A	N/A	N/A	IN

Hostile Environment Litho Density - A Master Calibration - Aluminum Measurement

Master: 25-Jan-2002 15:58

LSW1 Aluminum	648.4	632.3	--	--	--	--	CPS
LSW2 Aluminum	1018	998.4	--	--	--	--	CPS
LSW3 Aluminum	1105	1037	--	--	--	--	CPS
LSW4 Aluminum	609.5	564.9	--	--	--	--	CPS
LSW5 Aluminum	533.8	497.5	--	--	--	--	CPS
SSW1 Aluminum	2664	2526	--	--	--	--	CPS
SSW2 Aluminum	7731	7417	--	--	--	--	CPS
SSW3 Aluminum	10380	9945	--	--	--	--	CPS
SSW4 Aluminum	4574	4376	--	--	--	--	CPS
SSW5 Aluminum	745.2	731.3	--	--	--	--	CPS

Hostile Environment Litho Density - A Master Calibration - Tool Quality Control Information: High Voltage

Master: 25-Jan-2002 15:58

LS Alum. High Voltage	1129	1130	--	--	--	--	V
SS Alum. High Voltage	1173	1161	--	--	--	--	V

Hostile Environment Litho Density - A Master Calibration - Detectors Resolution From Aluminum Measurement

Master: 25-Jan-2002 15:58

LS Aluminum Resolution	1.000	1.032	--	--	--	--	
SS Aluminum Resolution	1.000	1.050	--	--	--	--	

Hostile Environment Litho Density - A Master Calibration - Aluminum Measurement (Window Ratios)

Master: 25-Jan-2002 15:58

LSW1/(LSW4 + LSW5) Calc.	0.5400	0.5952	--	--	--	--	
LSW3/(LSW4 + LSW5) Calc.	0.9600	0.9762	--	--	--	--	
SSW1/(SSW4 + SSW5) Calc.	0.4600	0.4946	--	--	--	--	
SSW3/(SSW4 + SSW5) Calc.	1.900	1.947	--	--	--	--	

Hostile Environment Litho Density - A Master Calibration - Litholog Measurement

Master: 25-Jan-2002 15:52

LSW1 Iron	410.0	450.3	--	--	--	--	CPS
LSW2 Iron	870.0	861.2	--	--	--	--	CPS
LSW3 Iron	1030	996.5	--	--	--	--	CPS
LSW4 Iron	590.0	556.0	--	--	--	--	CPS
LSW5 Iron	530.0	490.9	--	--	--	--	CPS
SSW1 Iron	1850	1931	--	--	--	--	CPS
SSW2 Iron	6500	6497	--	--	--	--	CPS
SSW3 Iron	10000	9541	--	--	--	--	CPS
SSW4 Iron	4500	4223	--	--	--	--	CPS
SSW5 Iron	750.0	684.9	--	--	--	--	CPS

Hostile Environment Litho Density - A Master Calibration - Tool Quality Control Information: High Voltage

Master: 25-Jan-2002 15:52

LS Lith High Voltage	1129	1130	--	--	--	--	V
SS Lith High Voltage	1173	1163	--	--	--	--	V

Hostile Environment Litho Density - A Master Calibration - Detectors Resolution From Litholog Measurement

Master: 25-Jan-2002 15:52

LS Lith Resolution	1.000	1.033	--	--	--	--	
SS Lith Resolution	1.000	1.016	--	--	--	--	

Accelerator-Porosity Tool Wellsite Calibration - Detector Background

Master: 25-Jan-2002 18:34 Before: 23-Feb-2002 2:28 After: 23-Feb-2002 7:57

Near Det Bkg Cntrate	30.00	32.90	31.33	33.12	1.781	N/A	CPS
Far Det Bkg Cntrate	30.00	34.46	32.21	34.22	2.011	N/A	CPS
Array-1 Det Bkg Cntrate	30.00	28.56	29.53	29.72	0.1931	N/A	CPS
Array-2 Det Bkg Cntrate	30.00	30.78	30.63	30.26	-0.3764	N/A	CPS
Array Therm Det Bkg Cntrate	30.00	32.89	31.86	34.58	2.719	N/A	CPS

Accelerator-Porosity Tool Wellsite Calibration - Calibration Ratios

Master: 25-Jan-2002 18:35

Near/Far Calibration Ratio	0.9250	0.9022	N/A	N/A	N/A	N/A	
Near/Array Calibration Ratio	1.030	1.063	N/A	N/A	N/A	N/A	
Near/Array Cal Ratio Up/Down	1.000	1.007	N/A	N/A	N/A	N/A	

Accelerator-Porosity Tool Wellsite Calibration - Tank Check

Master: Calibration not done

Array-1 Standoff Porosity	11.10	11.94	N/A	N/A	N/A	N/A	PU
Array-2 Standoff Porosity	11.10	11.71	N/A	N/A	N/A	N/A	PU
Average Slowing Down Time	6.000	N/A	N/A	N/A	N/A	N/A	US
Array-1 SDT Ratio Up/Down	1.000	N/A	N/A	N/A	N/A	N/A	
Array-1 SDT Ratio Up/Down	1.000	N/A	N/A	N/A	N/A	N/A	
Sigma Formation	27.50	27.64	N/A	N/A	N/A	N/A	CU

Hostile Natural Gamma Ray Sonde Wellsite Calibration - Detector 1 Check

Master: 23-Jan-2002 11:37 Before: 7-Feb-2002 1:13 After: 23-Feb-2002 9:26

Na 511 Peak Loc	40.00	40.51	40.71	40.48	-0.2294	1.000	
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Na 511 Peak Loc	40.00	40.54	40.54	40.48	-0.2294	1.000	
Na 511 Peak Res	15.50	15.75	17.24	16.32	-0.9218	2.000	%
High Voltage	1150	1203	1207	1210	3.379	30.00	V
Na 1785 Peak Loc	142.6	144.6	146.2	145.7	-0.4739	7.000	
Na 1785 Peak Res	8.500	9.254	9.073	9.122	0.04892	2.000	%
Temperature	15.50	21.86	29.34	30.57	1.233	N/A	DEGC
Na Count Rate	45.00	39.29	40.56	38.95	-1.605	8.000	CPS

Hostile Natural Gamma Ray Sonde Wellsite Calibration - Detector 2 Check

Master: 23-Jan-2002 11:37 Before: 7-Feb-2002 1:13 After: 23-Feb-2002 9:26

Na 511 Peak Loc	40.00	40.54	40.54	40.55	0.01313	1.000	
Na 511 Peak Res	15.50	16.19	16.67	16.99	0.3272	2.000	%
High Voltage	1150	1233	1236	1240	4.311	30.00	V
Na 1785 Peak Loc	142.6	143.9	144.1	144.8	0.7095	7.000	
Na 1785 Peak Res	8.500	9.453	8.968	8.775	-0.1931	2.000	%
Temperature	15.50	21.24	29.04	31.27	2.228	N/A	DEGC
Na Count Rate	45.00	39.11	40.36	38.42	-1.934	8.000	CPS

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

Master: 23-Jan-2002 11:37 Before: 7-Feb-2002 1:13 After: 23-Feb-2002 9:26

Coincidence Count Rate Ratio	1.000	1.004	1.005	1.011	0.005641	0.05000	
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Hostile Natural Gamma Ray Sonde Master Calibration - Detector 1 Calibration

Master: 23-Jan-2002 11:31

Na 511 Peak Set Point	40.00	41.00	--	--	--	--	
Th Peak Loc	209.6	209.7	--	--	--	--	
Th Peak Res	7.000	7.364	--	--	--	--	%
Background Count Rate	142.5	19.66	--	--	--	--	CPS
Gain Ratio	1.000	0.9848	--	--	--	--	

Hostile Natural Gamma Ray Sonde Master Calibration - Detector 2 Calibration

Master: 23-Jan-2002 11:31

Na 511 Peak Set Point	40.00	41.00	--	--	--	--	
Th Peak Loc	209.6	208.7	--	--	--	--	
Th Peak Res	7.000	7.834	--	--	--	--	%
Background Count Rate	142.5	17.61	--	--	--	--	CPS
Gain Ratio	1.000	0.9795	--	--	--	--	

Scintillation Gamma-Ray - N Wellsite Calibration - Detector Calibration

Before: 7-Feb-2002 1:09 After: Calibration not done

Gamma Ray (Jig - Bkg)	167.5	N/A	167.5	N/A	N/A	0.09091	GAPI
Gamma Ray (Calibrated)	165.0	N/A	165.0	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

Dual Induction - E / Equipment Identification

Primary Equipment:			
Dual Induction Sonde	DIS - HB	442	
Dual Induction Cartridge	DIC - EB	438	
Auxiliary Equipment:			
Mass Isolated Housing	MIH - ZA	417	

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	

Background Measurement

Phase	LSW1 Background CPS		Value	Phase	LSW2 Background CPS		Value	Phase	LSW3 Background CPS		Value
Master			89.06	Master			93.23	Master			180.0
Before			86.19	Before			91.94	Before			177.0
After			88.51	After			93.09	After			180.6
	65.00 (Minimum)	100.0 (Nominal)	125.0 (Maximum)		70.00 (Minimum)	105.0 (Nominal)	130.0 (Maximum)		150.0 (Minimum)	210.0 (Nominal)	250.0 (Maximum)
Phase	LSW4 Background CPS		Value	Phase	LSW5 Background CPS		Value	Phase	SSW1 Background CPS		Value
Master			237.9	Master			529.6	Master			85.18
Before			235.4	Before			525.7	Before			85.99
After			239.5	After			523.1	After			86.01
	220.0 (Minimum)	290.0 (Nominal)	330.0 (Maximum)		430.0 (Minimum)	610.0 (Nominal)	730.0 (Maximum)		70.00 (Minimum)	100.0 (Nominal)	120.0 (Maximum)
Phase	SSW2 Background CPS		Value	Phase	SSW3 Background CPS		Value	Phase	SSW4 Background CPS		Value
Master			166.8	Master			446.5	Master			235.8
Before			165.6	Before			445.9	Before			234.2
After			166.4	After			442.3	After			233.9
	140.0 (Minimum)	200.0 (Nominal)	240.0 (Maximum)		380.0 (Minimum)	530.0 (Nominal)	630.0 (Maximum)		190.0 (Minimum)	280.0 (Nominal)	340.0 (Maximum)
Phase	SSW5 Background CPS		Value								
Master			176.3								
Before			175.5								
After			175.6								
	140.0 (Minimum)	205.0 (Nominal)	250.0 (Maximum)								
Master: 25-Jan-2002 14:22			Before: 21-Feb-2002 4:36				After: 23-Feb-2002 9:30				

Hostile Environment Litho Density - A Wellsite Calibration

Detectors Resolution From BKG Measurements

Phase	LS Background Resolution		Value	Phase	SS Background Resolution		Value	
Master			1.042	Master			0.9530	
Before			1.032	Before			0.9479	
After			1.026	After			0.9397	
	0.7000 (Minimum)	1.000 (Nominal)	1.111 (Maximum)		0.7000 (Minimum)	1.000 (Nominal)	1.111 (Maximum)	
Master: 25-Jan-2002 14:22			Before: 21-Feb-2002 4:36				After: 23-Feb-2002 9:30	

Hostile Environment Litho Density - A Master Calibration

Aluminum Measurement

Phase	LSW1 Aluminum CPS		Value	Phase	LSW2 Aluminum CPS		Value	Phase	LSW3 Aluminum CPS		Value
Master			632.3	Master			998.4	Master			1037
	440.0 (Minimum)	648.4 (Nominal)	840.0 (Maximum)		840.0 (Minimum)	1018 (Nominal)	1200 (Maximum)		920.0 (Minimum)	1105 (Nominal)	1280 (Maximum)
Phase	LSW4 Aluminum CPS		Value	Phase	LSW5 Aluminum CPS		Value	Phase	SSW1 Aluminum CPS		Value
Master			564.9	Master			497.5	Master			2526
	520.0 (Minimum)	609.5 (Nominal)	720.0 (Maximum)		450.0 (Minimum)	533.8 (Nominal)	670.0 (Maximum)		1850 (Minimum)	2664 (Nominal)	2900 (Maximum)
Phase	SSW2 Aluminum CPS		Value	Phase	SSW3 Aluminum CPS		Value	Phase	SSW4 Aluminum CPS		Value
Master			7417	Master			9945	Master			4376
	6200 (Minimum)	7731 (Nominal)	8500 (Maximum)		8750 (Minimum)	10380 (Nominal)	11750 (Maximum)		4000 (Minimum)	4574 (Nominal)	5400 (Maximum)
Phase	SSW5 Aluminum CPS		Value								
Master			731.3								
	570.0 (Minimum)	745.2 (Nominal)	1110 (Maximum)								
Master: 25-Jan-2002 15:58											

Hostile Environment Litho Density - A Master Calibration

Detectors Resolution From Aluminum Measurement

Phase	LS Background Resolution		Value	Phase	SS Background Resolution		Value	
Master			1.042	Master			0.9530	
Before			1.032	Before			0.9479	
After			1.026	After			0.9397	
	0.7000 (Minimum)	1.000 (Nominal)	1.111 (Maximum)		0.7000 (Minimum)	1.000 (Nominal)	1.111 (Maximum)	
Master: 25-Jan-2002 14:22			Before: 21-Feb-2002 4:36				After: 23-Feb-2002 9:30	

Phase	LS Aluminum Resolution		Value	Phase	SS Aluminum Resolution		Value
Master			1.032	Master			1.050
	0.7000 (Minimum)	1.000 (Nominal)	1.111 (Maximum)		0.7000 (Minimum)	1.000 (Nominal)	1.111 (Maximum)

Master: 25-Jan-2002 15:58

Hostile Environment Litho Density - A Master Calibration							
Aluminum Measurement (Window Ratios)							
Phase	LSW1/(LSW4 + LSW5) Calc.		Value	Phase	LSW3/(LSW4 + LSW5) Calc.		Value
Master			0.5952	Master			0.9762
	0.3400 (Minimum)	0.5400 (Nominal)	0.7400 (Maximum)		0.7600 (Minimum)	0.9600 (Nominal)	1.160 (Maximum)
Phase	SSW1/(SSW4 + SSW5) Calc.		Value	Phase	SSW3/(SSW4 + SSW5) Calc.		Value
Master			0.4946	Master			1.947
	0.3600 (Minimum)	0.4600 (Nominal)	0.5600 (Maximum)		1.700 (Minimum)	1.900 (Nominal)	2.100 (Maximum)

Master: 25-Jan-2002 15:58

Hostile Environment Litho Density - A Master Calibration														
Litholog Measurement														
Phase	LSW1 Iron CPS			Value	Phase	LSW2 Iron CPS			Value	Phase	LSW3 Iron CPS			Value
Master				450.3	Master				861.2	Master				996.5
	310.0 (Minimum)	410.0 (Nominal)	510.0 (Maximum)			660.0 (Minimum)	870.0 (Nominal)	980.0 (Maximum)			810.0 (Minimum)	1030 (Nominal)	1170 (Maximum)	
Phase	LSW4 Iron CPS			Value	Phase	LSW5 Iron CPS			Value	Phase	SSW1 Iron CPS			Value
Master				556.0	Master				490.9	Master				1931
	470.0 (Minimum)	590.0 (Nominal)	670.0 (Maximum)			400.0 (Minimum)	530.0 (Nominal)	620.0 (Maximum)			1400 (Minimum)	1850 (Nominal)	2120 (Maximum)	
Phase	SSW2 Iron CPS			Value	Phase	SSW3 Iron CPS			Value	Phase	SSW4 Iron CPS			Value
Master				6497	Master				9541	Master				4223
	5170 (Minimum)	6500 (Nominal)	7270 (Maximum)			8100 (Minimum)	10000 (Nominal)	11000 (Maximum)			3620 (Minimum)	4500 (Nominal)	5020 (Maximum)	
Phase	SSW5 Iron CPS			Value										
Master				684.9										
	470.0 (Minimum)	750.0 (Nominal)	10100 (Maximum)											

Master: 25-Jan-2002 15:52

Hostile Environment Litho Density - A Master Calibration							
Detectors Resolution From Litholog Measurement							
Phase	LS Lith Resolution		Value	Phase	SS Lith Resolution		Value
Master			1.033	Master			1.016
	0.7000 (Minimum)	1.000 (Nominal)	1.111 (Maximum)		0.7000 (Minimum)	1.000 (Nominal)	1.111 (Maximum)

Master: 25-Jan-2002 15:52

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 Minitron	APS - BA MNTR - F	22 4185
Auxiliary Equipment: Accelerator-Porosity Housing APS Calibration Water Tank APS Aluminium Calibrator Sleeve	APH - AC SFT - 178 SFT - 281	22 4722 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		32.90	Master		34.46	Master		28.56	
Before		31.33	Before		32.21	Before		29.53	
After		33.12	After		34.22	After		29.72	
	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		30.78	Master		32.89				
Before		30.63	Before		31.86				
After		30.26	After		34.58				
	0 (Minimum) 30.00 (Nominal) 50.00 (Maximum)			0 (Minimum) 30.00 (Nominal) 50.00 (Maximum)					
Master: 25-Jan-2002 18:34			Before: 23-Feb-2002 2:28			After: 23-Feb-2002 7:57			

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		0.9022	Master		1.063	Master		1.007	
	0.8000 (Minimum) 0.9250 (Nominal) 1.050 (Maximum)			0.9000 (Minimum) 1.030 (Nominal) 1.170 (Maximum)			0.9700 (Minimum) 1.000 (Nominal) 1.030 (Maximum)		
Master: 25-Jan-2002 18:35									

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		11.94	Master		11.71	Master	NOT DONE	N/A	
	9.900 (Minimum) 11.10 (Nominal) 12.30 (Maximum)			9.900 (Minimum) 11.10 (Nominal) 12.30 (Maximum)			5.750 (Minimum) 6.000 (Nominal) 6.250 (Maximum)		
Phase	Array-1 SDT Ratio Up/Down	Value	Phase	Array-1 SDT Ratio Up/Down	Value	Phase	Sigma Formation CU	Value	
Master	NOT DONE	N/A	Master	NOT DONE	N/A	Master		27.64	
	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: Calibration not done See Remarks									

Accelerator-Porosity Tool Master Calibration									
Detector Calibration									
Phase	Near/Far Calibration Ratio	Value	Phase	Near/Array Calibration Ratio	Value	Phase	Near/Array Cal Ratio Up/Down	Value	
Master		0.9022	Master		1.063	Master		1.007	
	0.8000 (Minimum) 0.9250 (Nominal) 1.050 (Maximum)			0.9000 (Minimum) 1.030 (Nominal) 1.170 (Maximum)			0.9700 (Minimum) 1.000 (Nominal) 1.030 (Maximum)		
Master: 25-Jan-2002 18:35									

Hostile Natural Gamma Ray Sonde / Equipment Identification

Primary Equipment:
HNGS Sonde

HNGS - BA

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Auxiliary Equipment:

Hostile Natural Gamma Ray Sonde Wellsite Calibration									
Detector 1 Check									
Phase	Na 511 Peak Loc	Value	Phase	Na 511 Peak Res %	Value	Phase	High Voltage V	Value	
Master		40.51	Master		15.75	Master		1203	
Before		40.71	Before		17.24	Before		1207	
After		40.48	After		16.32	After		1210	
	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		144.6	Master		9.254	Master		21.86	
Before		146.2	Before		9.073	Before		29.34	
After		145.7	After		9.122	After		30.57	
	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		39.29							
Before		40.56							
After		38.95							
	15.00 (Minimum)	45.00 (Nominal)	100.0 (Maximum)						
Master: 23-Jan-2002 11:37			Before: 7-Feb-2002 1:13			After: 23-Feb-2002 9:26			

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		40.54	Master		16.19	Master		1233	
Before		40.54	Before		16.67	Before		1236	
After		40.55	After		16.99	After		1240	
	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		143.9	Master		9.453	Master		21.24	
Before		144.1	Before		8.968	Before		29.04	
After		144.8	After		8.775	After		31.27	
	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		39.11							
Before		40.36							
After		38.42							
	15.00 (Minimum)	45.00 (Nominal)	100.0 (Maximum)						
Master: 23-Jan-2002 11:37			Before: 7-Feb-2002 1:13			After: 23-Feb-2002 9:26			

Hostile Natural Gamma Ray Sonde Wellsite Calibration			
Ratio Of Detector 1 To Detector 2			
Phase	Coincidence Count Rate Ratio	Value	
Master		1.004	
Before		1.005	
After		1.011	
	0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)
Master: 23-Jan-2002 11:37			
Before: 7-Feb-2002 1:13			
After: 23-Feb-2002 9:26			

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		209.7	Master		7.364
	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	19.66	Master		0.9848			
	20.00 (Minimum) 142.5 (Nominal) 265.0 (Maximum)			0.9400 (Minimum) 1.000 (Nominal) 1.060 (Maximum)				

Master: 23-Jan-2002 11:31

[See Remarks](#)

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		208.7	Master		7.834
	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	17.61	Master		0.9795			
	20.00 (Minimum) 142.5 (Nominal) 265.0 (Maximum)			0.9400 (Minimum) 1.000 (Nominal) 1.060 (Maximum)				

Master: 23-Jan-2002 11:31

[See Remarks](#)

Scintillation Gamma-Ray - N / Equipment Identification

Primary Equipment:

Scintillation Gamma Cartridge
Scintillation Gamma Detector

SGC - TB 9582
SGD - TAA

Auxiliary Equipment:

Scintillation Gamma Housing
Gamma Source Radioactive

SGH - K 2448
GSR - U/Y

Company: Lamont Doherty

Schlumberger

Well: ODP Leg 201, Site 1226B EQP-1A

Field: Equatorial Pacific

Rig: JOIDES Resolution

Ocean: Pacific

APS/HLDT Porosity
Natural Gamma Ray