



## DEPTH SUMMARY LISTING

Date Created: 30-MAR-2010 2:31:41

### Depth System Equipment

Depth Measuring Device	Tension Device	Logging Cable
Type: IDW-JA	Type: CMTD-B/A	Type: 7-46P XS
Serial Number: 6530	Serial Number: 2345	Serial Number: 708186
Calibration Date: 12-FEB-2010	Calibration Date: 23-MAR-2010	Length: 9060 M
Calibrator Serial Number: 4	Calibrator Serial Number: 238	Conveyance Method: Wireline
Calibration Cable Type: 7-46P XS	Number of Calibration Points: 10	Rig Type: LAND
Wheel Correction 1: -6	Calibration RMS: 837	
Wheel Correction 2: -4	Calibration Peak Error: 1213	

### Depth Control Parameters

Log Sequence: First Log In the Well
Rig Up Length At Surface: 0.00 M
Rig Up Length At Bottom: 0.00 M
Rig Up Length Correction: 0.00 M
Stretch Correction: 0.30 M
Tool Zero Check At Surface: 0.10 M

### Depth Control Remarks

1. ALL SCHLUMBERGER DEPTH PROCEDURES FOLLOWED
2. IDW USED FOR PRIMARY DEPTH CONTROL
3. Z-CHART USED AS SECONDARY DEPTH CONTROL
4. MAIN LOG CORRELATED TO DOWNLOG
5. CMTD 10 POINT CALIBRATION
6. IDW IN SERVICE DATE IS 30-MAR-2010

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OTHER SERVICES1	OTHER SERVICES2
OS1: IDLT	OS1:
OS2: ITGN	OS2:
OS3: ISLT	OS3:
OS4:	OS4:
OS5:	OS5:

REMARKS: RUN NUMBER 1	REMARKS: RUN NUMBER 2
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All tools run as per tool sketch

ISLF and IDFE run centralized with 3 x ICME's

ILE-I run above ITGN for eccentralization

ILD T run with 2 x AH-306 below and 1 x AH-306 above

Radioactivity horizons confirmed with wellsite geologist

RUN 1			RUN 2		
SERVICE ORDER #:	AP8D-00212		SERVICE ORDER #:		
PROGRAM VERSION:	17C0-154		PROGRAM VERSION:		
FLUID LEVEL:	0 m		FLUID LEVEL:		
LOGGED INTERVAL	START	STOP	LOGGED INTERVAL	START	STOP

## EQUIPMENT DESCRIPTION

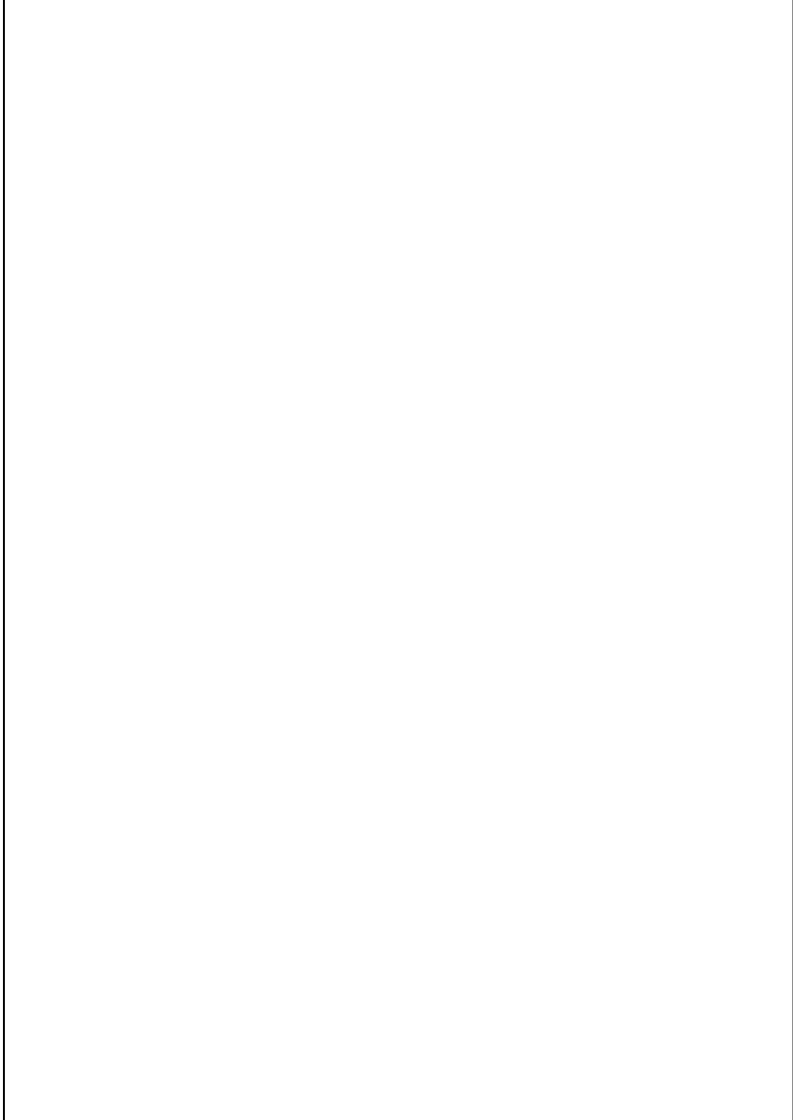
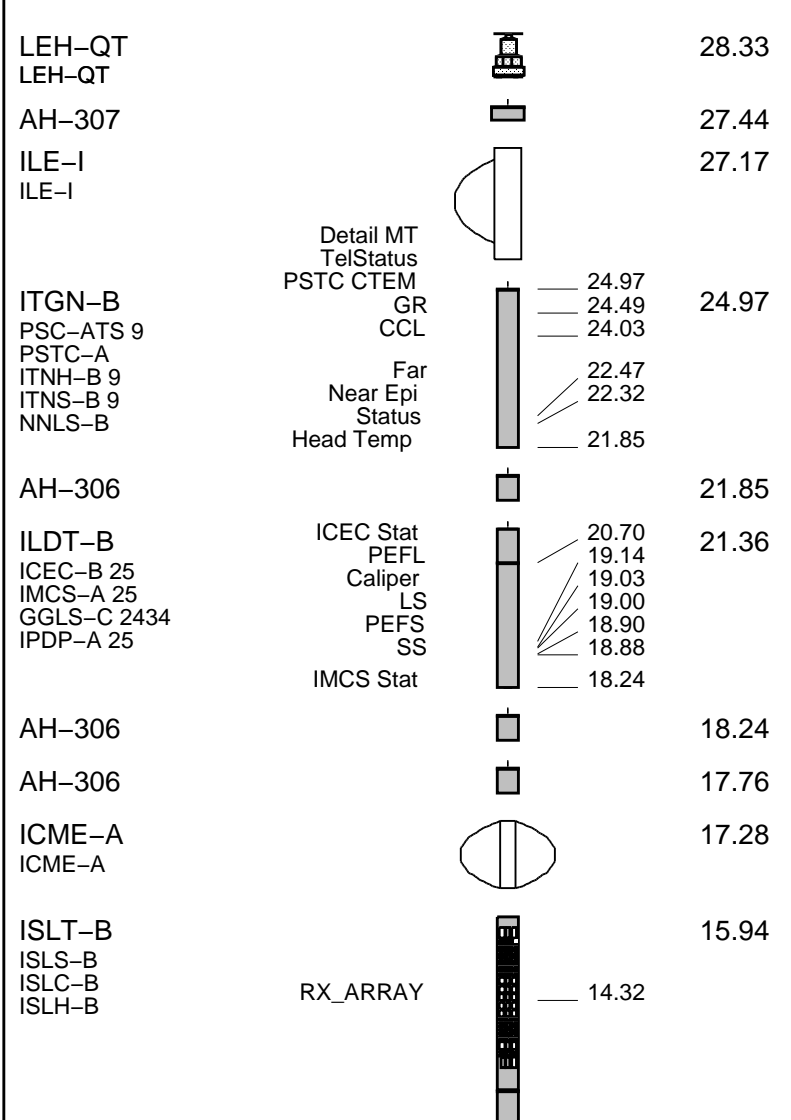
RUN 1

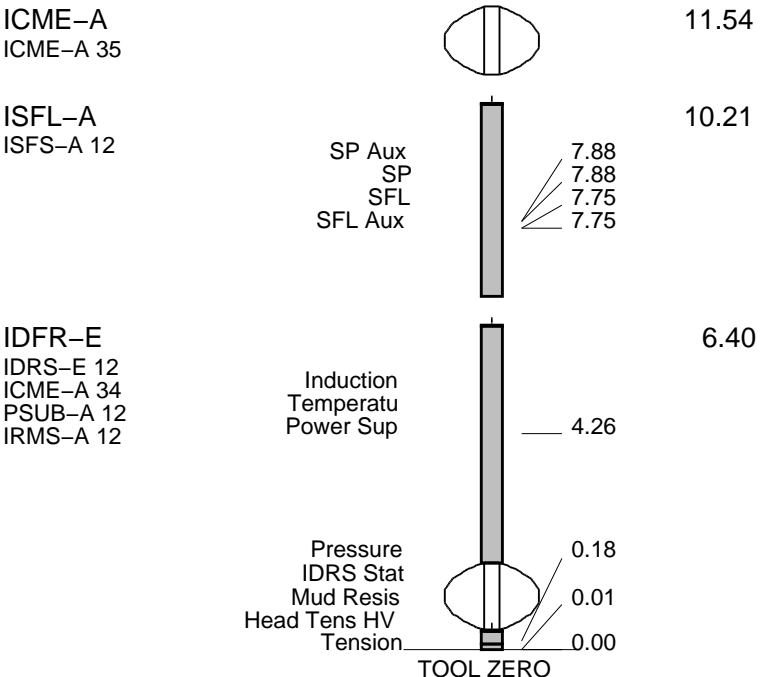
**SURFACE EQUIPMENT**

WITM-A  
PSC\_16MHZ

RUN 2

**DOWNHOLE EQUIPMENT**





MAXIMUM STRING DIAMETER 86 MM  
MEASUREMENTS RELATIVE TO TOOL ZERO  
ALL LENGTHS IN METERS



**Main Pass**  
**1:600**

MAXIS Field Log

**Input DLIS Files**

DEFAULT	IDL_SFL_SLT_LDL_CNL_020LUP	FN:19	PRODUCER	30-Mar-2010 02:57	449.6 M	85.5 M
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**Output DLIS Files**

DEFAULT	IDL_SFL_SLT_LDL_CNL_032PUP	FN:31	PRODUCER	31-Mar-2010 13:38	448.1 M	83.5 M
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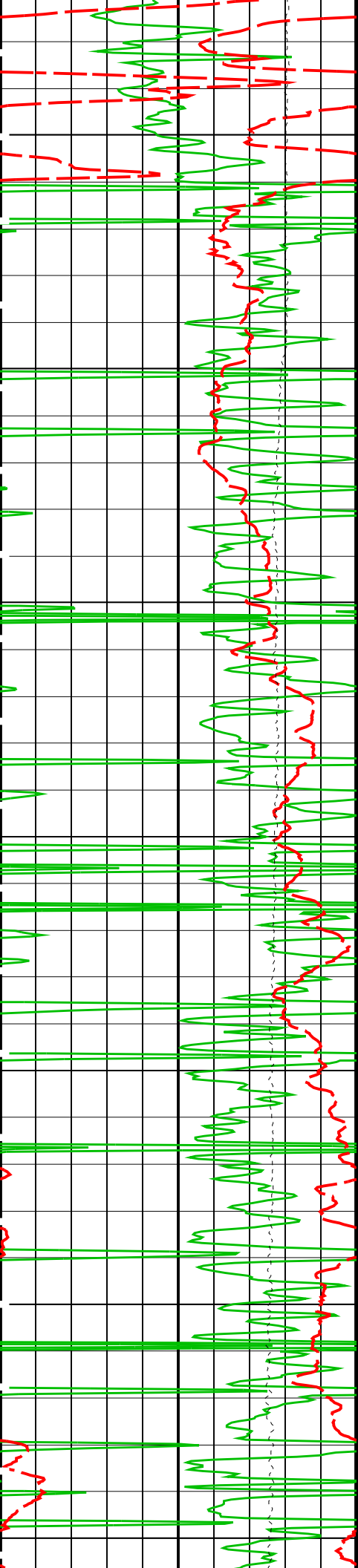
**OP System Version: 17C0-154**

IDFR-E	SPC-3951-IFLEX_b	ISFL-A	SPC-3951-IFLEX_b
ISLT-B	SPC-3951-IFLEX_b	ILD-T-B	SPC-3951-IFLEX_b
ITGN-B	SPC-3951-IFLEX_b		

**PIP SUMMARY**

Time Mark Every 60 S

Tension (TENS)		Induction Shallow Resistivity (ILS2)	
10000 (N)	0	0 (OHMM)	50
SP (SP)		Induction Deep Resistivity (ILD2)	
-120 (MV)	30	0 (OHMM)	50
Gamma Ray (GR)		Induction Deep Conductivity (ICD2)	
0 (GAPI)	150	1000 (MS/M)	0



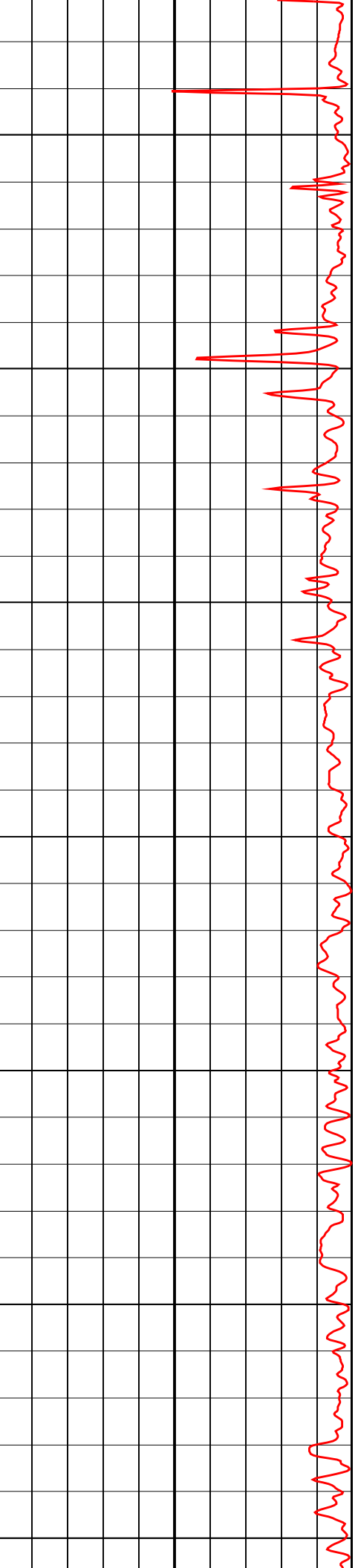
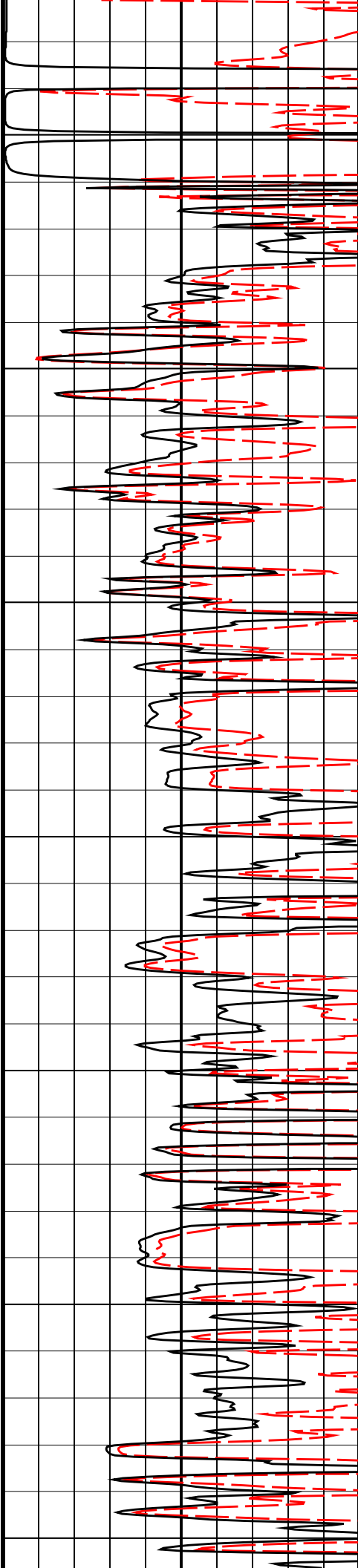
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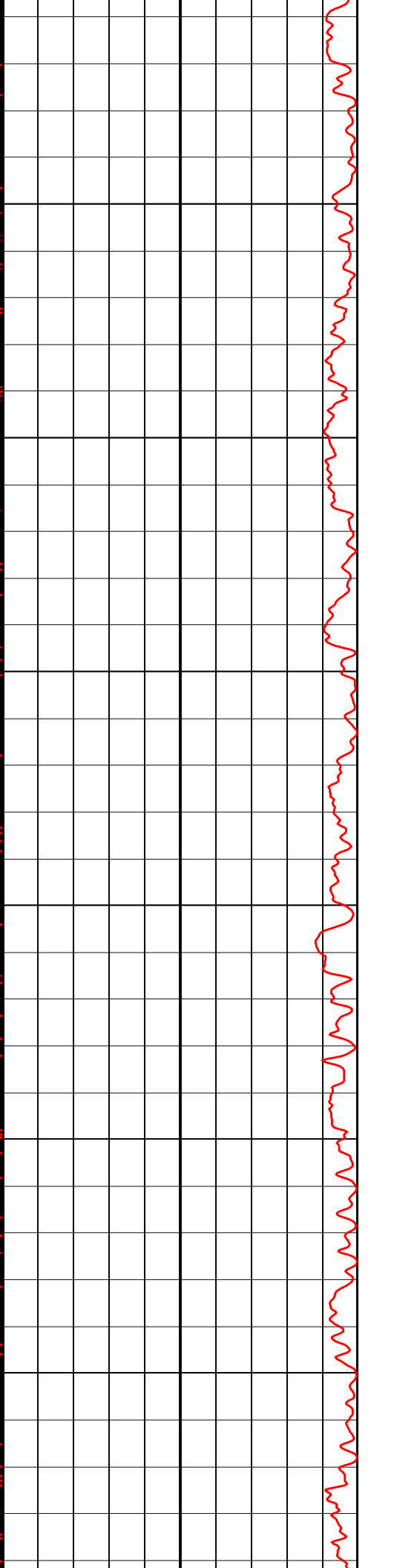
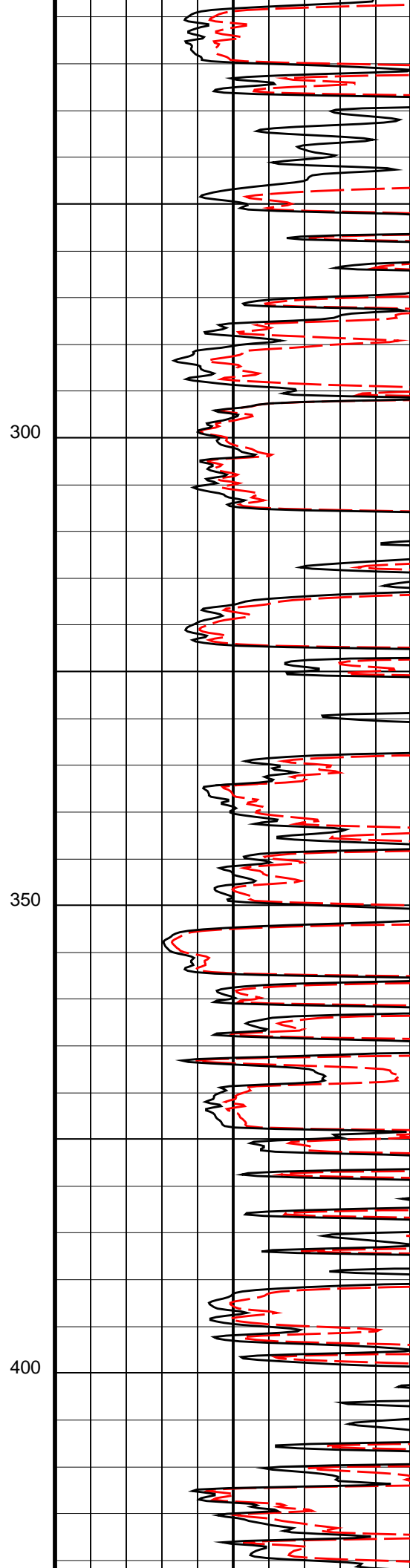
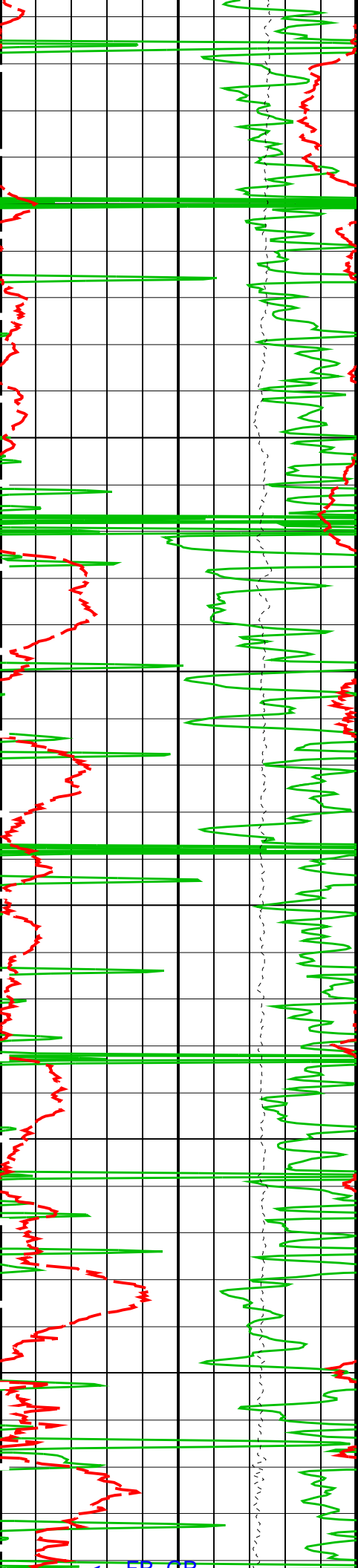
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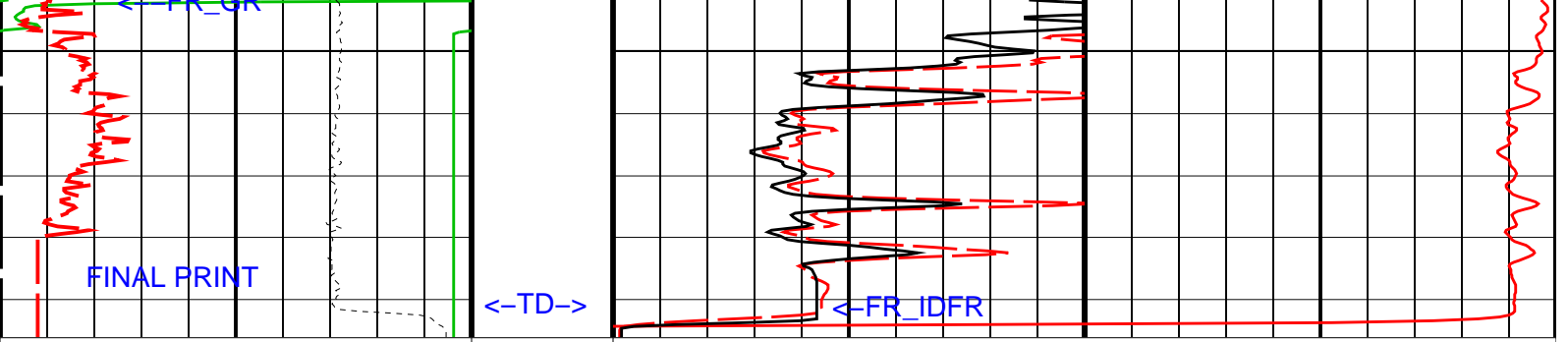
150

200

250







Gamma Ray (GR) (GAPI)		0	150	Induction Deep Conductivity (ICD2) (MS/M)		1000	0
SP (SP) (MV)		-120	30	Induction Deep Resistivity (ILD2) (OHMM)		0	50
Tension (TENS) (N)		10000	0	Induction Shallow Resistivity (ILS2) (OHMM)		0	50

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value
<b>IDFR-E: iFlex Dual Formation Resistivity Tool</b>		
ABHV	Array Induction Borehole Correction Code Version Number	900
ABLV	Array Induction Basic Logs Code Version Number	223
ACEN	Array Induction Tool Centering Flag (in Borehole)	Centered
AETP	Array Induction Enable Sonde Error Temp&Pres Corr	Temp_On_Pres_On
AFRSV	Array Induction Response Set Version for Four ft Resolution	03.00.02.00
AIGS	Array Induction Select Akima Interpolation Gating	On
AIGS_SFL_IDFR	SFL Select Akima Interpolation Gating	On
ATRSV	Array Induction Response Set Version for Two ft Resolution	03.00.02.00
ATSE_IDFR	IDFR Temperature RTD Selection(Sonde Error Correction)	RTD1
AULV	Array Induction User Level Control	Normal
BHC_SIGMA_T_INPUT	IDFR BHC Formation Conductivity Input	13R
BHPRSRC_IDFR	IDFR Pressure Source	BHPR_IDFR
BHT	Bottom Hole Temperature (used in calculations)	40 DEGC
DFT_IFLEX	Drilling Fluid Type	WATER
FEXP	Form Factor Exponent	2
FNUM	Form Factor Numerator	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	IDFR_RESIST
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE
ISOD	Induction Standoff Outer Diameter	57.15 MM
SHT	Surface Hole Temperature	20 DEGC
SPNV	SP Next Value	0 MV
<b>ISLT-B: iFlex Sonic Logging Tool</b>		
BHT	Bottom Hole Temperature (used in calculations)	40 DEGC
DFT_IFLEX	Drilling Fluid Type	WATER
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	IDFR_RESIST
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE
SHT	Surface Hole Temperature	20 DEGC
<b>ILD2-B: iFlex Litho Density Tool</b>		
BHT	Bottom Hole Temperature (used in calculations)	40 DEGC
DFT_IFLEX	Drilling Fluid Type	WATER
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	IDFR_RESIST
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE
SHT	Surface Hole Temperature	20 DEGC
<b>ITGN-B: iFlex Telemetry Gamma Neutron Tool</b>		
BARI_ITGN	Barite Mud Presence Flag	YES
BHT	Bottom Hole Temperature (used in calculations)	40 DEGC
DFT_IFLEX	Drilling Fluid Type	WATER
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	IDFR_RESIST
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE

GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
NICO	Neutron Interference Correction Option	YES	
PVN_ITGN	ITGN Computation Version	1.005	
SDAT	Standoff Data Source	SOCN	
SHT	Surface Hole Temperature	20	DEGC
SOCN	Standoff Distance	0	IN
TBHDS	Tool Borehole Diameter Source	CALI	
TBHTS	Tool Borehole Temperature Source	GTSE	
HOLEV: Integrated Hole/Cement Volume			
BHT	Bottom Hole Temperature (used in calculations)	40	DEGC
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	IDFR_RESIST	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
SHT	Surface Hole Temperature	20	DEGC
STI: Stuck Tool Indicator			
LBFR	Trigger for MAXIS First Reading Label	TDL	
STKT	STI Stuck Threshold	0.762	M
TDD	Total Depth - Driller	444.80	M
TDL	Total Depth - Logger	445.80	M
System and Miscellaneous			
BS	Bit Size	96.000	MM
DFD	Drilling Fluid Density	1170.00	K/M3
DO	Depth Offset for Playback	-2.2	M
FLEV	Fluid Level	0.00	M
MST	Mud Sample Temperature	10.00	DEGC
PP	Playback Processing	NORMAL	
TD	Total Depth	445.8	M

Format: COND-AITH-4FT-CAN      Vertical Scale: 1:600      Graphics File Created: 31-Mar-2010 13:38

### OP System Version: 17C0-154

IDFR-E	SPC-3951-IFLEX_b	ISFL-A	SPC-3951-IFLEX_b
ISLT-B	SPC-3951-IFLEX_b	ILDT-B	SPC-3951-IFLEX_b
ITGN-B	SPC-3951-IFLEX_b		

#### Input DLIS Files

DEFAULT	IDL_SFL_SLT_LDL_CNL_020LUP	FN:19	PRODUCER	30-Mar-2010 02:57	449.6 M	85.5 M
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#### Output DLIS Files

DEFAULT	IDL_SFL_SLT_LDL_CNL_032PUP	FN:31	PRODUCER	31-Mar-2010 13:38		
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**Main Pass**  
1:240

MAXIS Field Log

#### Input DLIS Files

DEFAULT	IDL_SFL_SLT_LDL_CNL_020LUP	FN:19	PRODUCER	30-Mar-2010 02:57	449.6 M	85.5 M
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#### Output DLIS Files

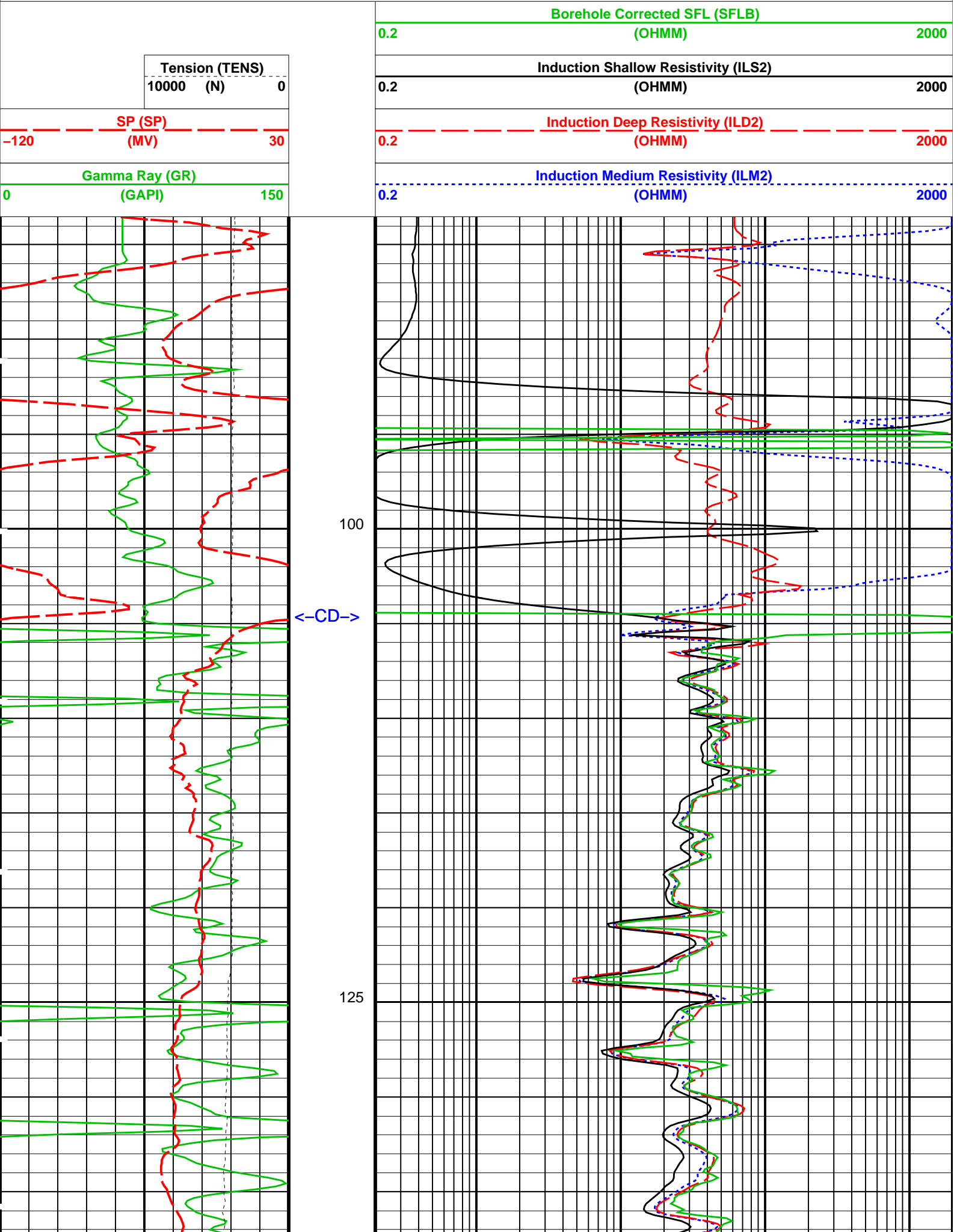
DEFAULT	IDL_SFL_SLT_LDL_CNL_032PUP	FN:31	PRODUCER	31-Mar-2010 13:38	448.1 M	83.5 M
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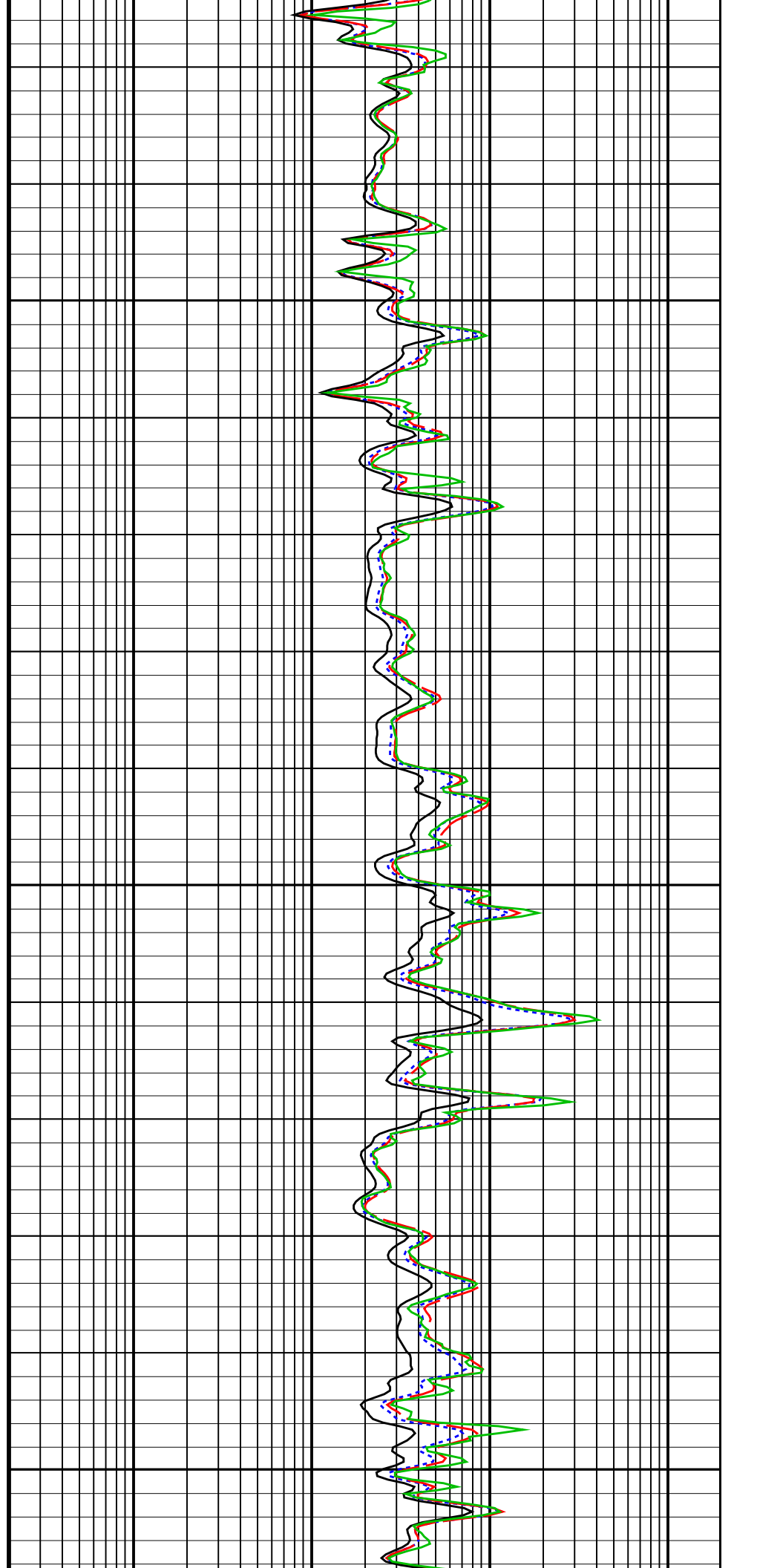
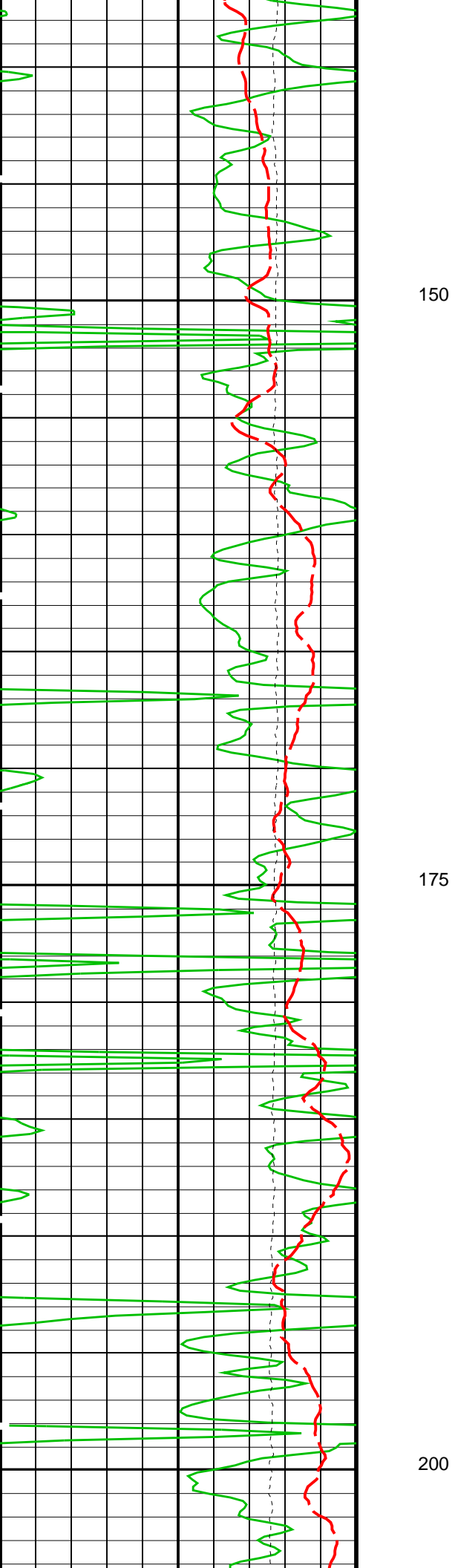
### OP System Version: 17C0-154

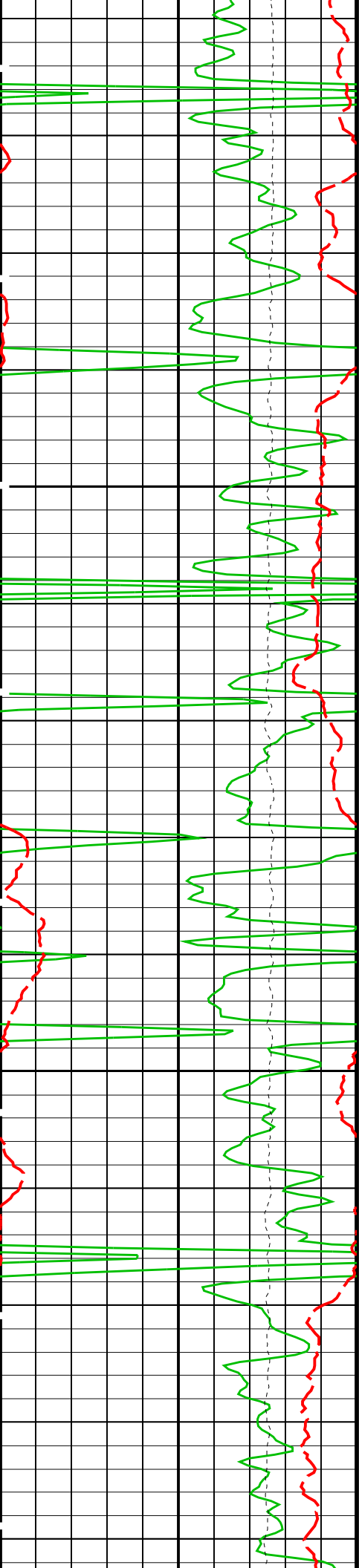
IDFR-E	SPC-3951-IFLEX_b	ISFL-A	SPC-3951-IFLEX_b
ISLT-B	SPC-3951-IFLEX_b	ILDT-B	SPC-3951-IFLEX_b
ITGN-B	SPC-3951-IFLEX_b		



Time Mark Every 60 S

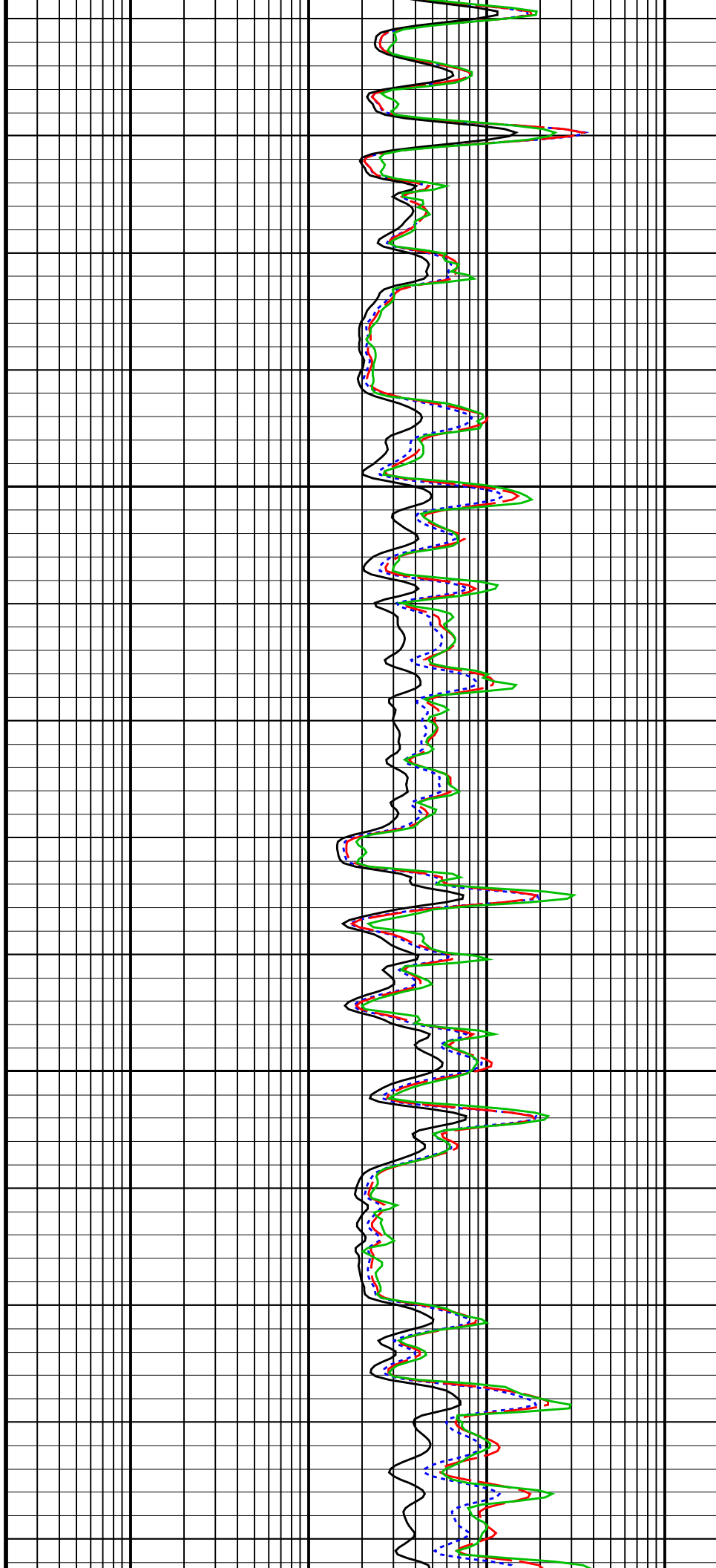


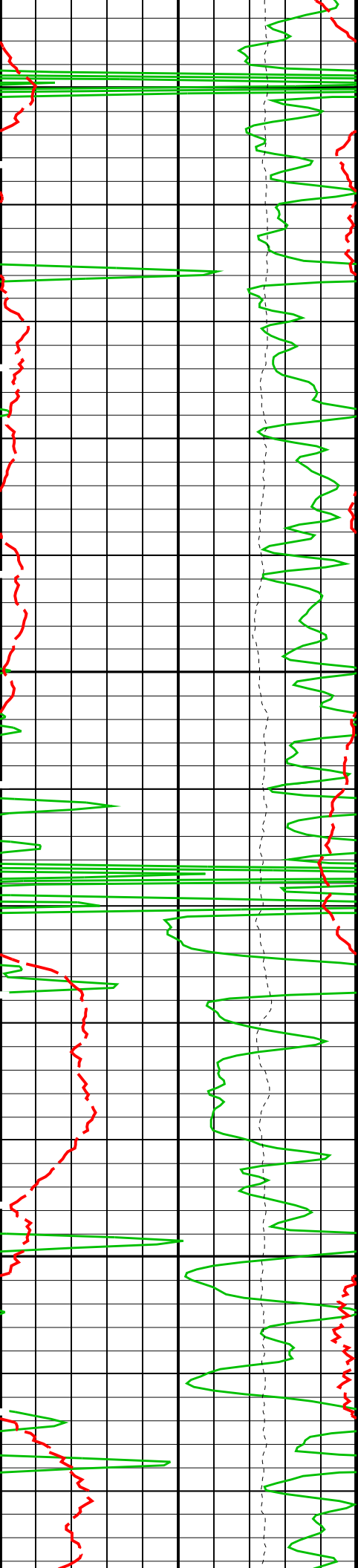




225

250

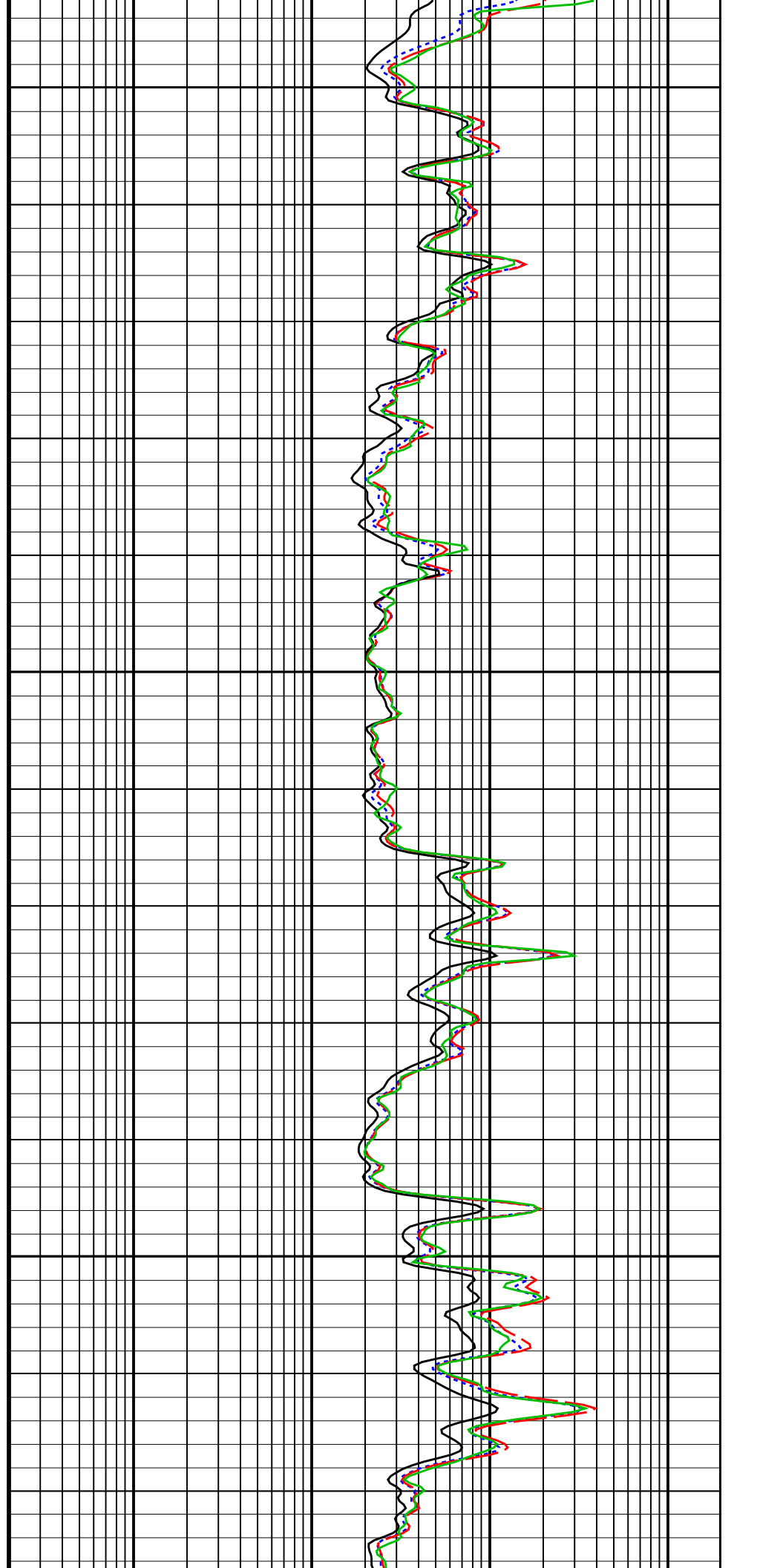


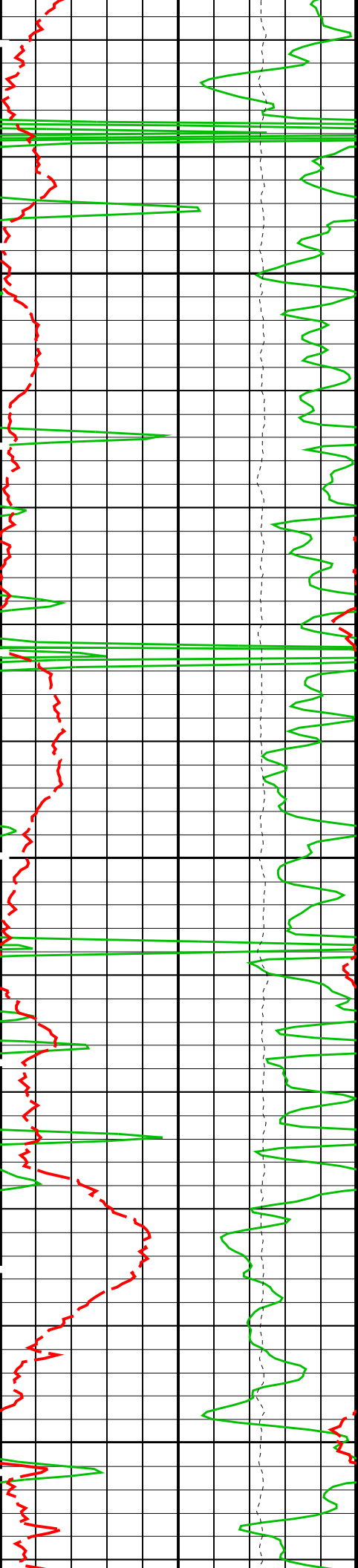


275

300

325

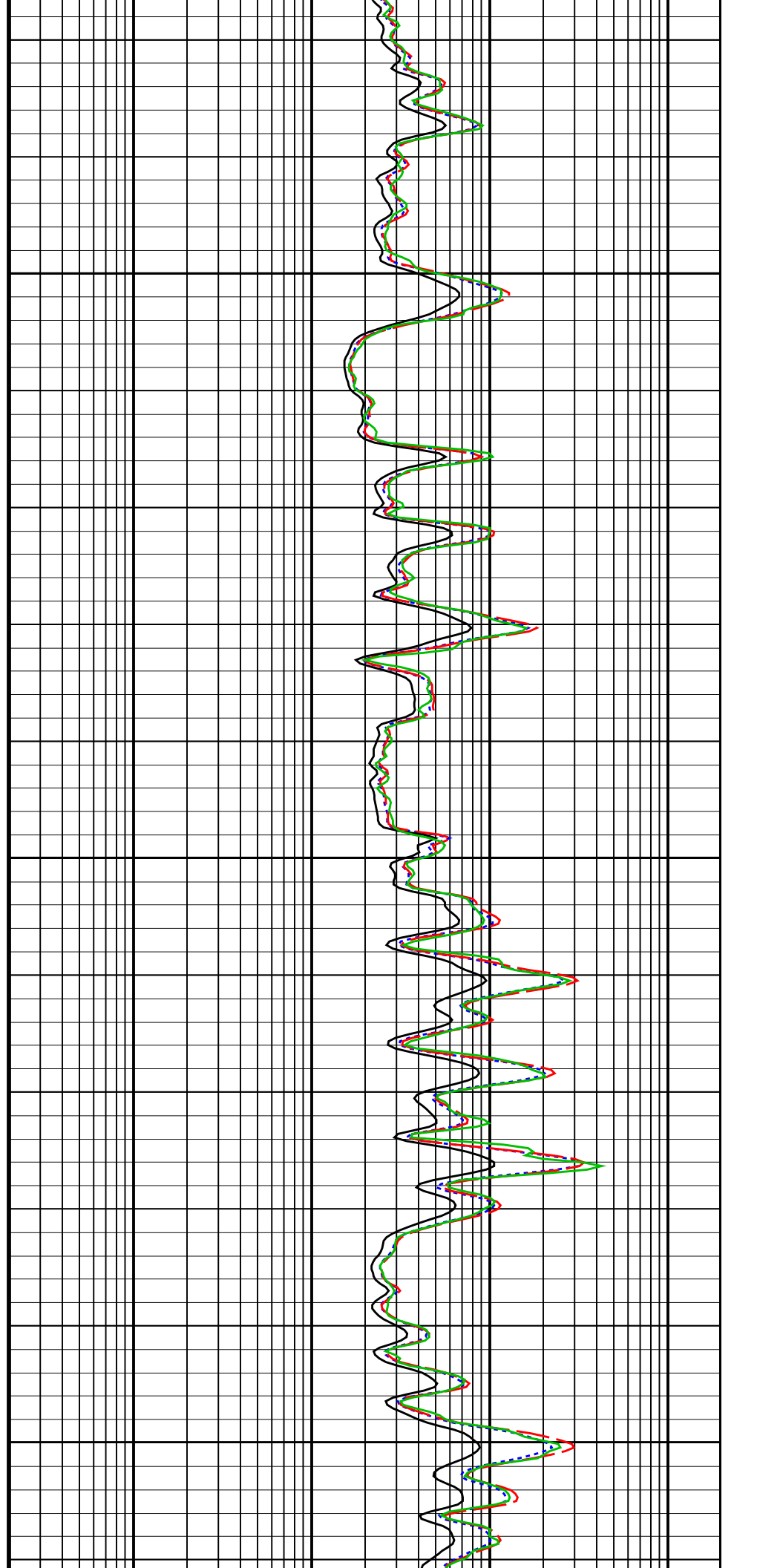


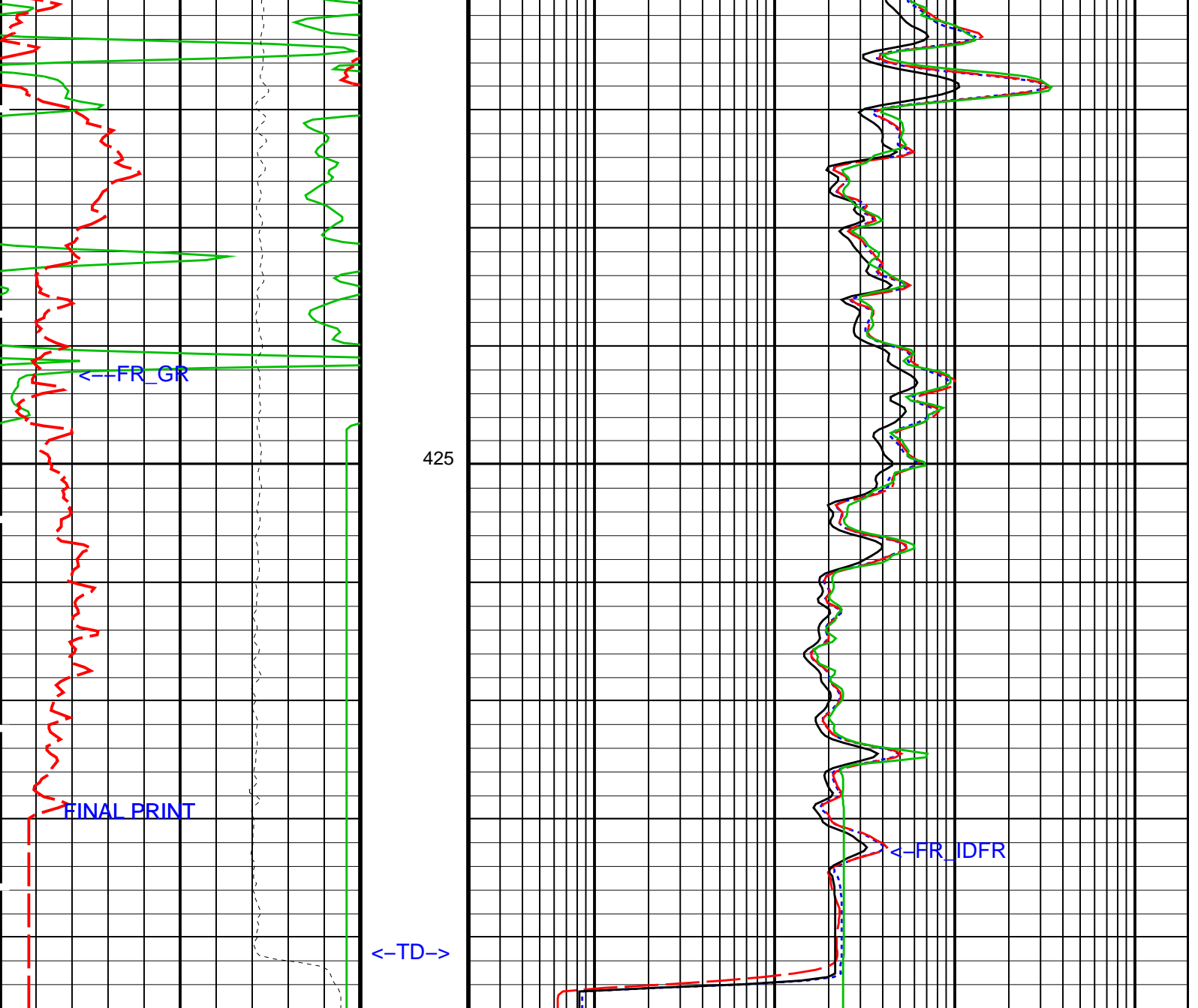


350

375

400





Gamma Ray (GR) (GAPI)	0	150
SP (SP) (MV)	-120	30
Tension (TENS) (N)	10000	0
Induction Medium Resistivity (ILM2) (OHMM)	0.2	2000
Induction Deep Resistivity (ILD2) (OHMM)	0.2	2000
Induction Shallow Resistivity (ILS2) (OHMM)	0.2	2000
Borehole Corrected SFL (SFLB) (OHMM)	0.2	2000

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value
IDFR-E: iFlex Dual Formation Resistivity Tool		
ABHV	Array Induction Borehole Correction Code Version Number	900
ABLV	Array Induction Basic Logs Code Version Number	223
ACEN	Array Induction Tool Centering Flag (in Borehole)	Centered
ADITM	Array Induction Desired Tool Mode	0x00_Log_MudAutoMode_000
AETP	Array Induction Enable Sonde Error Temp&Pres Corr	Temp_On_Pres_On
AFRSV	Array Induction Response Set Version for Four ft Resolution	03.00.02.00
AIGS	Array Induction Select Akima Interpolation Gating	On

AIGS_SFL_IDFR	SFL Select Akima Interpolation Gating	On	
ALNV	Array Induction Log Not Valid Flag	Log_Not_Valid-Default_Parameters	
ARTS	AIT Rt Selection (for ALLRES computation)	IDFR_TwoResADeep	
ATRSV	Array Induction Response Set Version for Two ft Resolution	03.00.02.00	
ATSE_IDFR	IDFR Temperature RTD Selection(Sonde Error Correction)	RTD1	
AULV	Array Induction User Level Control	Normal	
BHC_SIGMA_T_INPUT	IDFR BHC Formation Conductivity Input	13R	
BHPRSRC_IDFR	IDFR Pressure Source	BHPR_IDFR	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	40	DEGC
CRTM_IDFR	IDFR Current Tool Mode	0x00_Log_MudAutoMode_000	
DFT_IFLEX	Drilling Fluid Type	WATER	
DHNV_IDFR	IDFR Firmware Version	05.15.24	
DPPM_IFLEX	iFlex Density Porosity Processing Mode	HIRS	
FEXP	Form Factor Exponent	2	
FNUM	Form Factor Numerator	1	
FPHI	Form Factor Porosity Source	DPHI	
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	IDFR_RESIST	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
ISOD	Induction Standoff Outer Diameter	57.15	MM
ISSBAR	Barite Mud Switch	BARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE	
MFSZ_IDFR	IDFR Num Median Filter Elements	Disable	
PRTM_IDFR	IDFR Previous Tool Mode	0x00_Log_MudAutoMode_000	
PSTP	PSTC Tool Position on CAN Bus	1	
PVN_IDFR	IDFR Computation Version	No Version Available	
RTCO	RTCO - Rt Invasion Correction	YES	
SHT	Surface Hole Temperature	20	DEGC
SPNV	SP Next Value	0	MV
TEMPSM_IDFR	IDFR Temperature RTD Selection Mode	Automatic	
ISLT-B: iFlex Sonic Logging Tool			
ACSR	Array Cycle Skip Recovery	ON	
ADPS	A/D Conversion Phase Shift	NONE	
AMSG	Auxilliary Minimum Sliding Gate	180	US
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	40	DEGC
BRUL_FT	Baseline Removal Upper Limit - Far Tx	0	US
BRUL_LT	Baseline Removal Upper Limit - Lower Tx	0	US
BRUL_UT	Baseline Removal Upper Limit - Upper Tx	0	US
CBAF	CBL Adjustment Factor	1	
CBLG	CBL Gate Width	50	US
CDTS	C-Delta-T Shale	328.084	US/M
CLUSTER_INT	Clustering Interval	6.096	M
COLL	Label Slowness Lower Limit - P & S Comp	131.234	US/M
COUL	Label Slowness Upper Limit - P & S Comp	590.551	US/M
DDE1	Digitizing Delay 1 - Upper Tx	40	US
DDE2	Digitizing Delay 2 - Lower Tx	40	US
DETE	Detection Peak	E2	
DFAD	DFAD Computation Control	DSP	
DFAD_ATC	DFAD Automatic Threshold Control	ON	
DFAD_INTERVAL_MODE	Detection Interval Mode for first arrival	TRACK	
DFT_IFLEX	Drilling Fluid Type	WATER	
DHNV_ISLT	ISLT Firmware Version	03.13.10	
DLSR	Depth Log Sampling Rate	TT1.5_WF6	
DPPM_IFLEX	iFlex Density Porosity Processing Mode	HIRS	
DSIN	Digitizing Sample Interval	10	US
DTCM	Delta-T Computation Mode	FULL	
DTCS	Compressional Delta-T Source	DT	
DTF	Delta-T Fluid	670.932	US/M
DTM	Delta-T Matrix	183.727	US/M
DTMAX	Maximum Valid Value for DT	656.168	US/M
DTMIN	Minimum Valid Value for DT	131.234	US/M
DTSS	Shear Delta-T Source	DTS_RA_UTx	
DWCO	Digitizing Word Count	256	
FILG	Label Fill Gap Control - P & S	COMP_SHEAR	
FIL LENG	STC Filter Length	21	
FULT	FTB Uplink Throughput for Sonic Tool	150	KB/S
GA1	Gain Control 1 - Upper Tx	HIGH	
GA2	Gain Control 2 - Lower Tx	HIGH	
GBHCL	Group BHC Limit	0.9	
GCSE	Generalized Caliper Selection	CALI	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GNFL	Group Near-Far Limit	0.9	
GRSE	Generalized Mud Resistivity Selection	IDFR_RESIST	
GSEPL	Group Separation Limit	65.6168	US/M
GSIZL	Group Size Limit	0.3	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
HOLE_DIA	Hole Diameter	0	MM
ISSBAR	Barite Mud Switch	BARITE	
ITTS	Integrated Transit Time Source	DT	

ITWI_FT	STC Integration Time Window - Far Tx	200	US
ITWI_LT	STC Integration Time Window - Lower Tx	160	US
ITWI_UT	STC Integration Time Window - Upper Tx	160	US
LFC	Label Formation Character - P & S	COMP_FIRST	
LPM_FT	Label Processing Mode - Far Tx	NONE	
LPM_LT	Label Processing Mode - Lower Tx	RECEIVER	
LPM_UT	Label Processing Mode - Upper Tx	RECEIVER	
MAHTR	Manual High Threshold Reference	40	
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE	
MNHTR	Minimum High Threshold Reference	30	
MODE	Sonic Firing Mode	STC_BHC_DT_256WF_1800FPH	
NFLG	STC Wave Normalization Flag	OFF	
NFLIM	Near-Far boundary distance	2.1336	M
NFPI_L5	Free Pipe amplitude for LT-R5	2500	
NFPI_U1	Free Pipe amplitude for UT-R1	2500	
NMSG	Near Minimum Sliding Gate	250	US
NMXG	Near Maximum Sliding Gate	750	US
NUMP	Number of Detection Passes	2	
NWI	Number of Waveform Items	6	
POWER_SAVE_TEST	ISLT Powersave test Mode	OFF	
PROC_INT	Processing Interval	3.048	M
PSTP	PSTC Tool Position on CAN Bus	1	
R42R	R4 to R2 Sensitivity Ratio	0	DB/M
RACO	Ray Angle Compensation	0.0109547	M
RATE	Sonic Firing Rate	12.5	HZ
REJREP	Reject Repeated Transit Times	ALLOW	
RSMN	Label Shear/Comp Minimum Ratio - P & S	1.4	
RSMX	Label Shear/Comp Maximum Ratio - P & S	2.12	
SALL	Sonic Amplitude Lower Limit	20	
SBOF_FT	STC Search Band Offset - Far Tx	230	US
SBOF_LT	STC Search Band Offset - Lower Tx	190	US
SBOF_UT	STC Search Band Offset - Upper Tx	190	US
SBWI_FT	STC Search Band Width - Far Tx	1580	US
SBWI_LT	STC Search Band Width - Lower Tx	860	US
SBWI_UT	STC Search Band Width - Upper Tx	860	US
SDL	Standard Deviation Acceptance Limit	2.5	
SDTH	Switch Down Threshold	29490	
SEMTHR	STC Semblance Threshold	0.25	
SENSOR_DIA	Sensor Diameter	19.05	MM
SFAF	Sonic Formation Attenuation Factor	0	DB/M
SGAD	Sliding Gate Allow/Disallow	ON	
SGCL	Sliding Gate Closing Delta-T	558	US/M
SGCW	Sliding Gate Closing Width	33	US
SGDT	Sliding Gate Delta-T	131	US/M
SGW	Sliding Gate Width	80	US
SHLL	Label Slowness Lower Limit - P & S Shear	246.063	US/M
SHORT_FRAME_MODE	ISLT Short Frame Mode	OFF	
SHT	Surface Hole Temperature	20	DEGC
SHUL	Label Slowness Upper Limit - P & S Shear	787.402	US/M
SLEV	Signal Level for Threshold Control	5000	
SLL	STC Slowness Lower Limit	131.234	US/M
SNRLL	Signal-to-Noise Ratio Lower Limit	25	DB
SPFS	Sonic Porosity Formula	RAYMER_HUNT	
SPM_FT	STC Processing Mode - Far Tx	NONE	
SPM_LT	STC Processing Mode - Lower Tx	RECEIVER	
SPM_UT	STC Processing Mode - Upper Tx	RECEIVER	
SPSO	Sonic Porosity Source	DTCO	
SSTE	STC Slowness Step	6.56168	US/M
STC_LCF	STC Low Cutoff Freq.	2000	HZ
STHR	Separation Threshold	32.8084	US/M
SUL	STC Slowness Upper Limit	787.402	US/M
SUTH	Switch Up Threshold	3276	
SWID_FT	STC Slowness Width - Far Tx	65.6168	US/M
SWID_LT	STC Slowness Width - Lower Tx	65.6168	US/M
SWID_UT	STC Slowness Width - Upper Tx	65.6168	US/M
T12_TTMAX	T12 TT Intercept Maximum	492.126	US/M
T12_TTMIN	T12 TT Intercept Minimum	-164.042	US/M
T3_TTMAX	T3 TT Intercept Maximum	656.168	US/M
T3_TTMIN	T3 TT Intercept Minimum	-164.042	US/M
TBF_FT	STC Time for Baseline Fill - Far Tx	0	US
TBF_LT	STC Time for Baseline Fill - Lower Tx	0	US
TBF_UT	STC Time for Baseline Fill - Upper Tx	0	US
TFSI	Filter Sample Interval	0.3048	M
TFWL	Filter Window Length	0.6096	M
TLL_FT	STC Time Lower Limit - Far Tx	280	US
TLL_LT	STC Time Lower Limit - Lower Tx	120	US
TLL_UT	STC Time Lower Limit - Upper Tx	120	US
TP_FRAME	ISLT Test Phase Frame	OFF	
TSTE	STC Time Step	40	US
TTPROC_ALGSEL	Algorithm Select	CLUSTER	
TUL_FT	STC Time Upper Limit - Far Tx	2590	US
TUL_LT	STC Time Upper Limit - Lower Tx	1340	US
TUL_UT	STC Time Upper Limit - Upper Tx	1340	US
TWID_FT	STC Time Width - Far Tx	1190	US
TWID_LT	STC Time Width - Lower Tx	660	US



TWID_UT	STC Time Width - Upper Tx	660	US
ULTR	Upper to Lower Tx Power Ratio	0	DB/M
VDLG	VDL Manual Gain	5	
VDM	VDL Display Mode	NONE	
WMAG	DFAD Waveform Magnifier	1	
WPS1	Waveform Plot Selection 1	R1	
WPS2	Waveform Plot Selection 2	R5	
ZCGW	Zero Crossing Gate Width	100	US
ZCTT	Option to compute Zero Crossing Transit Time	OFF	
<b>ILDT-B: iFlex Litho Density Tool</b>			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	40	DEGC
DALPO	Density Alpha Processing Option	NO	
DFT_IFLEX	Drilling Fluid Type	WATER	
DHC	Density Hole Correction	BS	
DHNV_ICEC	ICEC Firmware Version	08.15.16	
DHNV_IPDP	IPDP Firmware Version	06.15.16	
DPPM_IFLEX	iFlex Density Porosity Processing Mode	HIRS	
FD	Fluid Density	1000	K/M3
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	IDFR_RESIST	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
ISSBAR	Barite Mud Switch	BARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE	
MDEN	Matrix Density	2650	K/M3
PSTP	PSTC Tool Position on CAN Bus	1	
PVN_ICEC	ICEC Computation Version	1.000	
PVN_IPDP	IPDP Computation Version	2.008	
SHT	Surface Hole Temperature	20	DEGC
TBHDS_ILDT	ILDT Tool Borehole Diameter Source	CALI	
<b>ITGN-B: iFlex Telemetry Gamma Neutron Tool</b>			
	Tractor Available in Tool String	YES	
BARI_ITGN	Barite Mud Presence Flag	YES	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	40	DEGC
BSCO	Borehole Salinity Correction Option	NO	
CCCO	Casing & Cement Thickness Correction Option	YES	
CCLD	CCL reset delay	12	IN
CCLT	CCL Detection Level	0.3	V
CSID	Casing Size I.D.	4.13386	IN
DFT_IFLEX	Drilling Fluid Type	WATER	
DHNV_ITGN	ITGN Firmware Version	06.15.15	
DPPM_IFLEX	iFlex Density Porosity Processing Mode	HIRS	
FSAL	Formation Salinity	-50000	PPM
FSCO	Formation Salinity Correction Option	NO	
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	IDFR_RESIST	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
HSCO	Hole Size Correction Option	YES	
ISSBAR	Barite Mud Switch	BARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE	
MCCO	Mud Cake Correction Option	NO	
MWCO	Mud Weight Correction Option	NO	
NICO	Neutron Interference Correction Option	YES	
PSTP	PSTC Tool Position on CAN Bus	1	
PTCO	Pressure Temperature Correction Option	NO	
PVN_ITGN	ITGN Computation Version	1.005	
SDAT	Standoff Data Source	SOCN	
SHT	Surface Hole Temperature	20	DEGC
SOCN	Standoff Distance	0	IN
SOCO	Standoff Correction Option	NO	
TBHDS	Tool Borehole Diameter Source	CALI	
TBHTS	Tool Borehole Temperature Source	GTSE	
<b>HOLEV: Integrated Hole/Cement Volume</b>			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	40	DEGC
FCD	Future Casing (Outer) Diameter	0	MM
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	IDFR_RESIST	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
HVCS	Integrated Hole Volume Caliper Selection	CALI	
ISSBAR	Barite Mud Switch	BARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE	
SHT	Surface Hole Temperature	20	DEGC
<b>STI: Stuck Tool Indicator</b>			
LBFR	Trigger for MAXIS First Reading Label	TDL	
STKT	STI Stuck Threshold	0.762	M
TDD	Total Depth - Driller	444.80	M
TDL	Total Depth - Logger	445.80	M

System and Miscellaneous		Total Depth - Logger	445.80	M
ALDTPCHAN	Name of alternate depth channel	SpeedCorrectedDepth	96.000	MM
BS	Bit Size		-50000.00	PPM
BSAL	Borehole Salinity		114.300	MM
CSIZ	Current Casing Size		40.00	KG/M
CWEI	Casing Weight		1170.00	K/M3
DFD	Drilling Fluid Density		-2.2	M
DO	Depth Offset for Playback		0.00	M
FLEV	Fluid Level		10.00	DEGC
MST	Mud Sample Temperature		NO	
PBVSADP	Use alternate depth channel for playback		NORMAL	
PP	Playback Processing		0.3200	OHMM
RMFS	Resistivity of Mud Filtrate Sample		1.0000	OHMM
RW	Resistivity of Connate Water		445.8	M
TD	Total Depth		37.78	DEGC
TWS	Temperature of Connate Water Sample			

Format: AITH-4FT-CAN    Vertical Scale: 1:240    Graphics File Created: 31-Mar-2010 13:38

### OP System Version: 17C0-154

IDFR-E	SPC-3951-IFLEX_b	ISFL-A	SPC-3951-IFLEX_b
ISLT-B	SPC-3951-IFLEX_b	ILDT-B	SPC-3951-IFLEX_b
ITGN-B	SPC-3951-IFLEX_b		

#### Input DLIS Files

DEFAULT	IDL_SFL_SLT_LDL_CNL_020LUP	FN:19	PRODUCER	30-Mar-2010 02:57	449.6 M	85.5 M
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#### Output DLIS Files

DEFAULT	IDL_SFL_SLT_LDL_CNL_032PUP	FN:31	PRODUCER	31-Mar-2010 13:38		
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**REPEAT ANALYSIS**

MAXIS Field Log

#### Input DLIS Files

DEFAULT	IDL_SFL_SLT_LDL_CNL_018LUP	FN:17	PRODUCER	30-Mar-2010 02:35	448.1 M	321.9 M
DEFAULT	IDL_SFL_SLT_LDL_CNL_032PUP	FN:31	PRODUCER	31-Mar-2010 13:38	448.1 M	83.5 M

#### Output DLIS Files

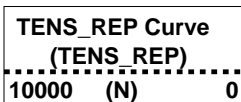
DEFAULT	IDL_SFL_SLT_LDL_CNL_038PUP	FN:37	PRODUCER	31-Mar-2010 15:41	446.5 M	319.9 M
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### OP System Version: 17C0-154

IDFR-E	SPC-3951-IFLEX_b	ISFL-A	SPC-3951-IFLEX_b
ISLT-B	SPC-3951-IFLEX_b	ILDT-B	SPC-3951-IFLEX_b
ITGN-B	SPC-3951-IFLEX_b		

#### PIP SUMMARY

Time Mark Every 60 S



SFLB_IDFR_REP Curve (SFLB_REP)		
0.2	(OHMM)	2000

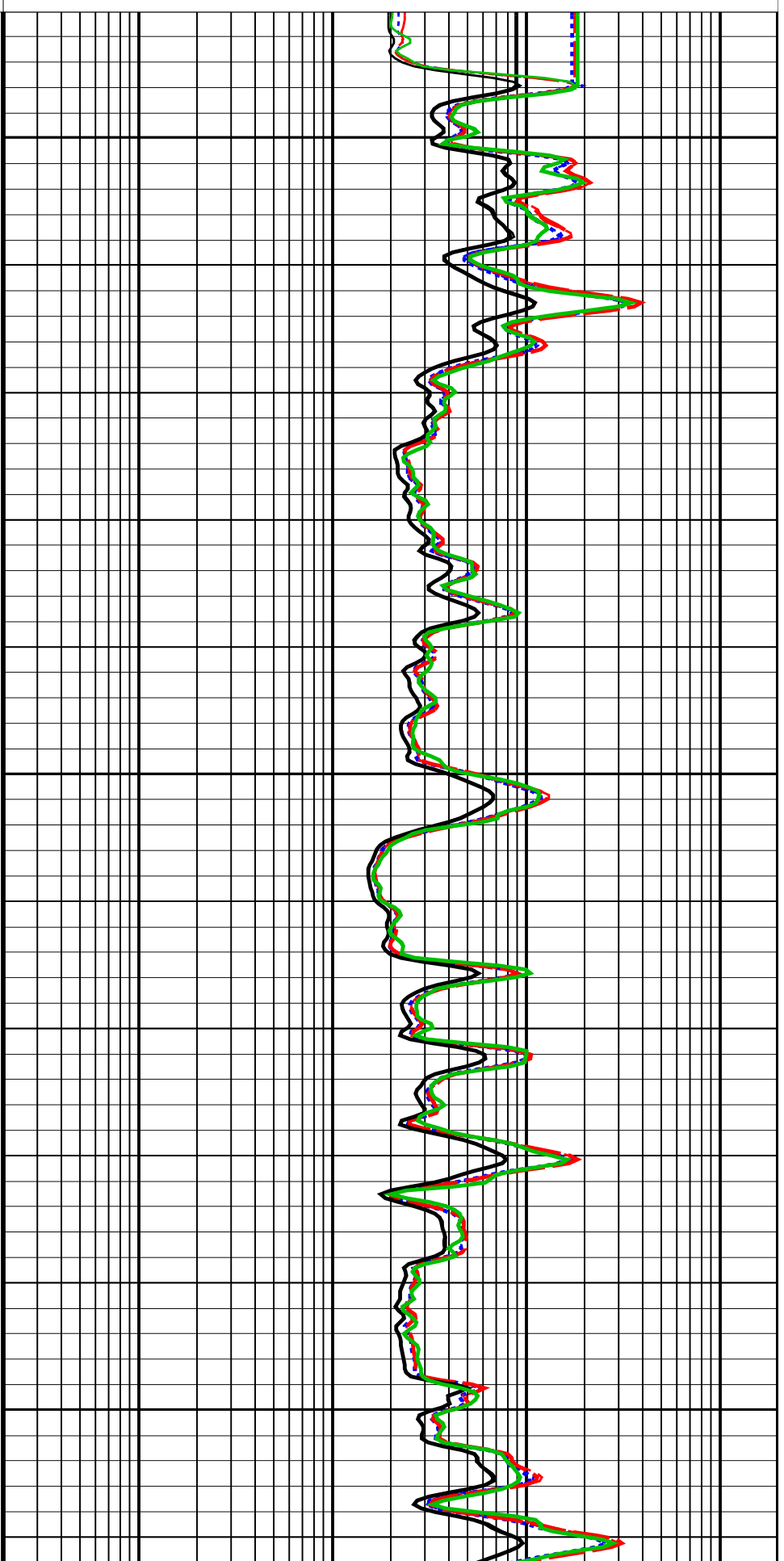
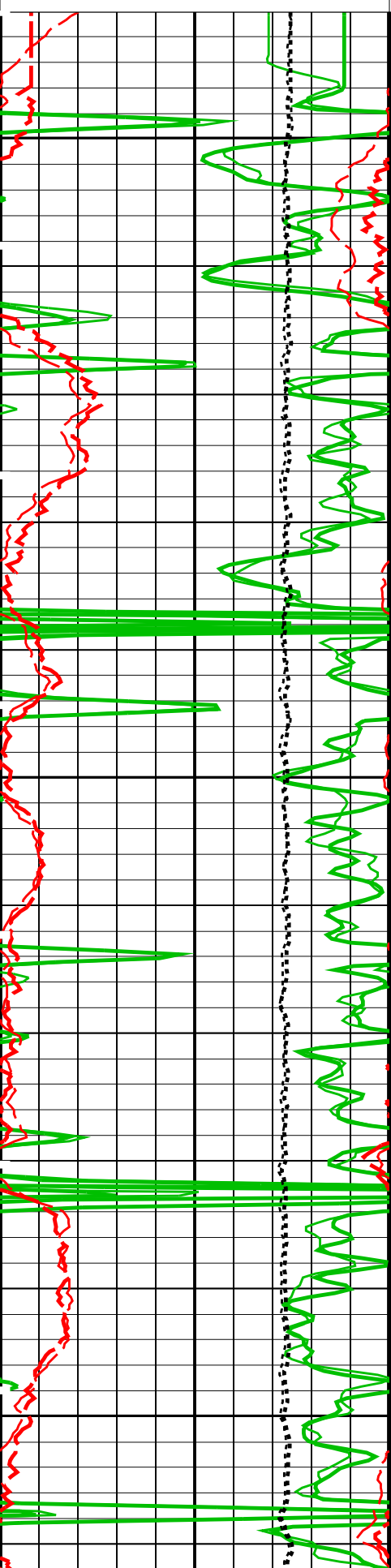
ILS2_REP Curve (ILS2_REP)		
0.2	(OHMM)	2000

SP\_REP Curve (SP\_REP)  
(MV) -120 30

GR\_REP Curve (GR\_REP)  
(GAPI) 0 150

ILD2\_REP Curve (ILD2\_REP)  
(OHMM) 0.2 2000

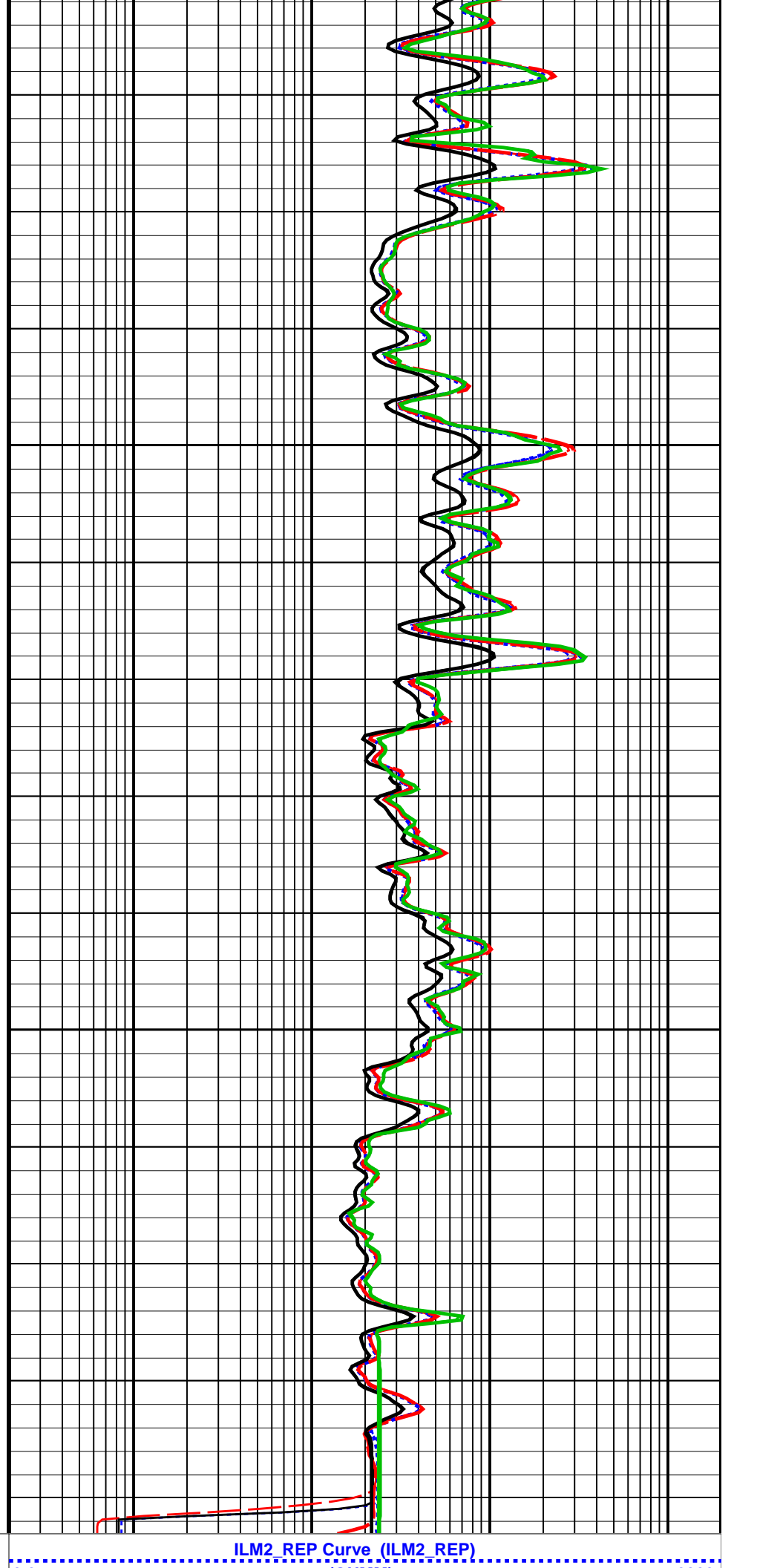
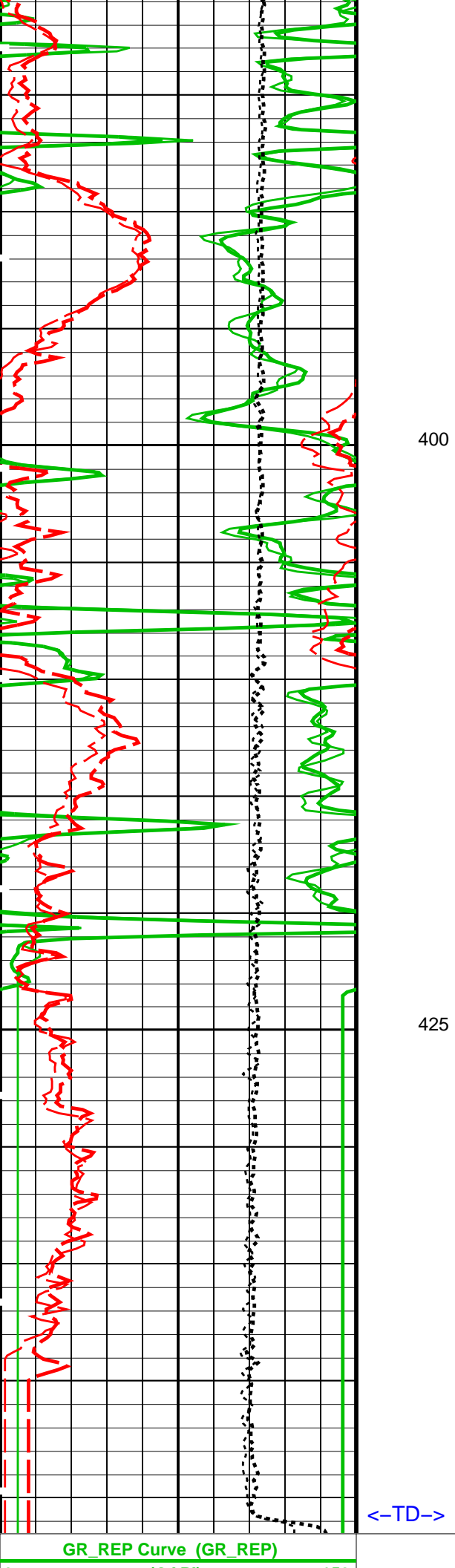
ILM2\_REP Curve (ILM2\_REP)  
(OHMM) 0.2 2000



325

350

375



(GAPI)	150	(OHMM)	2000
SP_REP Curve (SP_REP)	-120 (MV) 30	ILD2_REP Curve (ILD2_REP)	0.2 (OHMM) 2000
TENS_REP Curve (TENS_REP)	10000 (N) 0	ILS2_REP Curve (ILS2_REP)	0.2 (OHMM) 2000
		SFLB_IDFR_REP Curve (SFLB_REP)	0.2 (OHMM) 2000

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value
IDFR-E: iFlex Dual Formation Resistivity Tool		
ABHV	Array Induction Borehole Correction Code Version Number	900
ABLV	Array Induction Basic Logs Code Version Number	223
ACEN	Array Induction Tool Centering Flag (in Borehole)	Centered
ADITM	Array Induction Desired Tool Mode	0x00_Log_MudAutoMode_000
AETP	Array Induction Enable Sonde Error Temp&Pres Corr	Temp_On_Pres_On
AFRSV	Array Induction Response Set Version for Four ft Resolution	03.00.02.00
AIGS	Array Induction Select Akima Interpolation Gating	On
AIGS_SFL_IDFR	SFL Select Akima Interpolation Gating	On
ALNV	Array Induction Log Not Valid Flag	Log_Not_Valid-Default_Parameters
ARTS	AIT Rt Selection (for ALLRES computation)	IDFR_TwoResADeep
ATRSV	Array Induction Response Set Version for Two ft Resolution	03.00.02.00
ATSE_IDFR	IDFR Temperature RTD Selection(Sonde Error Correction)	RTD1
AULV	Array Induction User Level Control	Normal
BHC_SIGMA_T_INPUT	IDFR BHC Formation Conductivity Input	13R
BHPRSRC_IDFR	IDFR Pressure Source	BHPR_IDFR
BHS	Borehole Status	OPEN
BHT	Bottom Hole Temperature (used in calculations)	40 DEGC
CRTM_IDFR	IDFR Current Tool Mode	0x00_Log_MudAutoMode_000
DFT_IFLEX	Drilling Fluid Type	WATER
DHNV_IDFR	IDFR Firmware Version	05.15.24
DPPM_IFLEX	iFlex Density Porosity Processing Mode	HIRS
FEXP	Form Factor Exponent	2
FNUM	Form Factor Numerator	1
FPHI	Form Factor Porosity Source	DPHI
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	IDFR_RESIST
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE
ISOD	Induction Standoff Outer Diameter	57.15 MM
ISSBAR	Barite Mud Switch	BARITE
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE
MFSZ_IDFR	IDFR Num Median Filter Elements	Disable
PRTM_IDFR	IDFR Previous Tool Mode	0x00_Log_MudAutoMode_000
PSTP	PSTC Tool Position on CAN Bus	1
PVN_IDFR	IDFR Computation Version	No Version Available
RTCO	RTCO - Rt Invasion Correction	YES
SHT	Surface Hole Temperature	20 DEGC
SPNV	SP Next Value	0 MV
TEMPSM_IDFR	IDFR Temperature RTD Selection Mode	Automatic
ISLT-B: iFlex Sonic Logging Tool		
ACSR	Array Cycle Skip Recovery	ON
ADPS	A/D Conversion Phase Shift	NONE
AMSG	Auxilliary Minimum Sliding Gate	180 US
BHS	Borehole Status	OPEN
BHT	Bottom Hole Temperature (used in calculations)	40 DEGC
BRUL_FT	Baseline Removal Upper Limit - Far Tx	0 US
BRUL_LT	Baseline Removal Upper Limit - Lower Tx	0 US
BRUL_UT	Baseline Removal Upper Limit - Upper Tx	0 US
CBAF	CBL Adjustment Factor	1
CBLG	CBL Gate Width	50 US
CDTS	C-Delta-T Shale	328.084 US/M
CLUSTER_INT	Clustering Interval	6.096 M
COLL	Label Slowness Lower Limit - P & S Comp	131.234 US/M
COUL	Label Slowness Upper Limit - P & S Comp	590.551 US/M
DDE1	Digitizing Delay 1 - Upper Tx	40 US
DDE2	Digitizing Delay 2 - Lower Tx	40 US
DETE	Detection Peak	E2
DFAD	DFAD Computation Control	DSP
DFAD_ATC	DFAD Automatic Threshold Control	ON
DFAD_INTERVAL_MODE	Detection Interval Mode for first arrival	TRACK

DFT_IFLEX	Drilling Fluid Type		
DHNV_ISLT	ISLT Firmware Version	03.13.10	
DLSR	Depth Log Sampling Rate	TT1.5_WF6	
DPPM_IFLEX	iFlex Density Porosity Processing Mode	HIRS	
DSIN	Digitizing Sample Interval	10	US
DTCM	Delta-T Computation Mode	FULL	
DTCS	Compressional Delta-T Source	DT	
DTF	Delta-T Fluid	670.932	US/M
DTM	Delta-T Matrix	183.727	US/M
DTMAX	Maximum Valid Value for DT	656.168	US/M
DTMIN	Minimum Valid Value for DT	131.234	US/M
DTSS	Shear Delta-T Source	DTS_RA_UTx	
DWCO	Digitizing Word Count	256	
FILG	Label Fill Gap Control - P & S	COMP_SHEAR	
FIL LENG	STC Filter Length	21	
FULT	FTB Uplink Throughput for Sonic Tool	150	KB/S
GAI1	Gain Control 1 - Upper Tx	HIGH	
GAI2	Gain Control 2 - Lower Tx	HIGH	
GBHCL	Group BHC Limit	0.9	
GCSE	Generalized Caliper Selection	CALI	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GNFL	Group Near-Far Limit	0.9	
GRSE	Generalized Mud Resistivity Selection	IDFR_RESIST	
GSEPL	Group Separation Limit	65.6168	US/M
GSIZL	Group Size Limit	0.3	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
HOLE_DIA	Hole Diameter	0	MM
ISSBAR	Barite Mud Switch	BARITE	
ITTS	Integrated Transit Time Source	DT	
ITWI_FT	STC Integration Time Window - Far Tx	200	US
ITWI_LT	STC Integration Time Window - Lower Tx	160	US
ITWI_UT	STC Integration Time Window - Upper Tx	160	US
LFC	Label Formation Character - P & S	COMP_FIRST	
LPM_FT	Label Processing Mode - Far Tx	NONE	
LPM_LT	Label Processing Mode - Lower Tx	RECEIVER	
LPM_UT	Label Processing Mode - Upper Tx	RECEIVER	
MAHTR	Manual High Threshold Reference	40	
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE	
MNHTR	Minimum High Threshold Reference	30	
MODE	Sonic Firing Mode	STC_BHC_DT_256WF_1800FPH	
NFLG	STC Wave Normalization Flag	OFF	
NFLIM	Near-Far boundary distance	2.1336	M
NFPI_L5	Free Pipe amplitude for LT-R5	2500	
NFPI_U1	Free Pipe amplitude for UT-R1	2500	
NMSG	Near Minimum Sliding Gate	140	US
NMXG	Near Maximum Sliding Gate	750	US
NUMP	Number of Detection Passes	2	
NWI	Number of Waveform Items	6	
POWER_SAVE_TEST	ISLT Powersave test Mode	OFF	
PROC_INT	Processing Interval	3.048	M
PSTP	PSTC Tool Position on CAN Bus	1	
R42R	R4 to R2 Sensitivity Ratio	0	DB/M
RACO	Ray Angle Compensation	0.0109547	M
RATE	Sonic Firing Rate	12.5	HZ
REJREP	Reject Repeated Transit Times	ALLOW	
RSMN	Label Shear/Comp Minimum Ratio - P & S	1.4	
RSMX	Label Shear/Comp Maximum Ratio - P & S	2.12	
SALL	Sonic Amplitude Lower Limit	20	
SBOF_FT	STC Search Band Offset - Far Tx	230	US
SBOF_LT	STC Search Band Offset - Lower Tx	190	US
SBOF_UT	STC Search Band Offset - Upper Tx	190	US
SBWI_FT	STC Search Band Width - Far Tx	1580	US
SBWI_LT	STC Search Band Width - Lower Tx	860	US
SBWI_UT	STC Search Band Width - Upper Tx	860	US
SDL	Standard Deviation Acceptance Limit	2.5	
SDTH	Switch Down Threshold	29490	
SEMTHR	STC Semblance Threshold	0.25	
SENSOR_DIA	Sensor Diameter	19.05	MM
SFAF	Sonic Formation Attenuation Factor	0	DB/M
SGAD	Sliding Gate Allow/Disallow	ON	
SGCL	Sliding Gate Closing Delta-T	558	US/M
SGCW	Sliding Gate Closing Width	33	US
SGDT	Sliding Gate Delta-T	131	US/M
SGW	Sliding Gate Width	80	US
SHLL	Label Slowness Lower Limit - P & S Shear	246.063	US/M
SHORT_FRAME_MODE	ISLT Short Frame Mode	OFF	
SHT	Surface Hole Temperature	20	DEGC
SHUL	Label Slowness Upper Limit - P & S Shear	787.402	US/M
SLEV	Signal Level for Threshold Control	5000	
SLL	STC Slowness Lower Limit	131.234	US/M
SNRLL	Signal-to-Noise Ratio Lower Limit	25	DB
SPFS	Sonic Porosity Formula	RAYMER_HUNT	
SPM_FT	STC Processing Mode - Far Tx	NONE	
SPM_LT	STC Processing Mode - Lower Tx	RECEIVER	

SPM_LT	STC Processing Mode - Lower Tx	RECEIVER	
SPM_UT	STC Processing Mode - Upper Tx		
SPSO	Sonic Porosity Source	DTCO	
SSTE	STC Slowness Step	6.56168	US/M
STC_LCF	STC Low Cutoff Freq.	2000	HZ
STHR	Separation Threshold	32.8084	US/M
SUL	STC Slowness Upper Limit	787.402	US/M
SUTH	Switch Up Threshold	3276	
SWID_FT	STC Slowness Width - Far Tx	65.6168	US/M
SWID_LT	STC Slowness Width - Lower Tx	65.6168	US/M
SWID_UT	STC Slowness Width - Upper Tx	65.6168	US/M
T12_TTMAX	T12 TT Intercept Maximum	492.126	US/M
T12_TTMIN	T12 TT Intercept Minimum	-164.042	US/M
T3_TTMAX	T3 TT Intercept Maximum	656.168	US/M
T3_TTMIN	T3 TT Intercept Minimum	-164.042	US/M
TBF_FT	STC Time for Baseline Fill - Far Tx	0	US
TBF_LT	STC Time for Baseline Fill - Lower Tx	0	US
TBF_UT	STC Time for Baseline Fill - Upper Tx	0	US
TFSI	Filter Sample Interval	0.3048	M
TFWL	Filter Window Length	0.6096	M
TLL_FT	STC Time Lower Limit - Far Tx	280	US
TLL_LT	STC Time Lower Limit - Lower Tx	120	US
TLL_UT	STC Time Lower Limit - Upper Tx	120	US
TP_FRAME	ISLT Test Phase Frame	OFF	
TSTE	STC Time Step	40	US
TTPROC_ALGSEL	Algorithm Select	CLUSTER	
TUL_FT	STC Time Upper Limit - Far Tx	2590	US
TUL_LT	STC Time Upper Limit - Lower Tx	1340	US
TUL_UT	STC Time Upper Limit - Upper Tx	1340	US
TWID_FT	STC Time Width - Far Tx	1190	US
TWID_LT	STC Time Width - Lower Tx	660	US
TWID_UT	STC Time Width - Upper Tx	660	US
ULTR	Upper to Lower Tx Power Ratio	0	DB/M
VDLG	VDL Manual Gain	5	
VDM	VDL Display Mode	NONE	
WMAG	DFAD Waveform Magnifier	1	
WPS1	Waveform Plot Selection 1	R1	
WPS2	Waveform Plot Selection 2	R5	
ZCGW	Zero Crossing Gate Width	100	US
ZCTT	Option to compute Zero Crossing Transit Time	OFF	
<b>ILDT-B: iFlex Litho Density Tool</b>			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	40	DEGC
DALPO	Density Alpha Processing Option	NO	
DFT_IFLEX	Drilling Fluid Type	WATER	
DHC	Density Hole Correction	BS	
DHNV_ICEC	ICEC Firmware Version	08.15.16	
DHNV_IPDP	IPDP Firmware Version	06.15.16	
DPPM_IFLEX	iFlex Density Porosity Processing Mode	HIRS	
FD	Fluid Density	1000	K/M3
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	IDFR_RESIST	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
ISSBAR	Barite Mud Switch	BARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE	
MDEN	Matrix Density	2650	K/M3
PSTP	PSTC Tool Position on CAN Bus	1	
PVN_ICEC	ICEC Computation Version	1.000	
PVN_IPDP	IPDP Computation Version	2.008	
SHT	Surface Hole Temperature	20	DEGC
TBHDS_ILDT	ILDT Tool Borehole Diameter Source	CALI	
<b>ITGN-B: iFlex Telemetry Gamma Neutron Tool</b>			
BARI_ITGN	Tractor Available in Tool String	YES	
BHS	Barite Mud Presence Flag	YES	
BHT	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	40	DEGC
BSCO	Borehole Salinity Correction Option	NO	
CCCO	Casing & Cement Thickness Correction Option	YES	
CCLD	CCL reset delay	12	IN
CCLT	CCL Detection Level	0.3	V
CSID	Casing Size I.D.	4.13386	IN
DFT_IFLEX	Drilling Fluid Type	WATER	
DHNV_ITGN	ITGN Firmware Version	06.15.15	
DPPM_IFLEX	iFlex Density Porosity Processing Mode	HIRS	
FSAL	Formation Salinity	-50000	PPM
FSCO	Formation Salinity Correction Option	NO	
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	IDFR_RESIST	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
HSCO	Hole Size Correction Option	YES	
ISSBAR	Barite Mud Switch	BARITE	

MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE	
MCCO	Mud Cake Correction Option	NO	
MWCO	Mud Weight Correction Option	NO	
NICO	Neutron Interference Correction Option	YES	
PSTP	PSTC Tool Position on CAN Bus	1	
PTCO	Pressure Temperature Correction Option	NO	
PVN_ITGN	ITGN Computation Version	1.005	
SDAT	Standoff Data Source	SOCN	
SHT	Surface Hole Temperature	20	DEGC
SOCN	Standoff Distance	0	IN
SOCO	Standoff Correction Option	NO	
TBHDS	Tool Borehole Diameter Source	CALI	
TBHTS	Tool Borehole Temperature Source	GTSE	
<b>HOLEV: Integrated Hole/Cement Volume</b>			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	40	DEGC
FCD	Future Casing (Outer) Diameter	0	MM
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	IDFR_RESIST	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
HVCS	Integrated Hole Volume Caliper Selection	CALI	
ISSBAR	Barite Mud Switch	BARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE	
SHT	Surface Hole Temperature	20	DEGC
<b>STI: Stuck Tool Indicator</b>			
LBFR	Trigger for MAXIS First Reading Label	TDL	
STKT	STI Stuck Threshold	0.762	M
TDD	Total Depth - Driller	444.80	M
TDL	Total Depth - Logger	445.80	M
<b>System and Miscellaneous</b>			
ALTDPCCHAN	Name of alternate depth channel	SpeedCorrectedDepth	
BS	Bit Size	96.000	MM
BSAL	Borehole Salinity	-50000.00	PPM
CSIZ	Current Casing Size	114.300	MM
CWEI	Casing Weight	40.00	KG/M
DFD	Drilling Fluid Density	1170.00	K/M3
DO	Depth Offset for Playback	-2.0	M
DORL	Depth Offset for Repeat Analysis	0.0	M
FLEV	Fluid Level	0.00	M
MST	Mud Sample Temperature	10.00	DEGC
PBVSADP	Use alternate depth channel for playback	NO	
PP	Playback Processing	NORMAL	
RMFS	Resistivity of Mud Filtrate Sample	0.3200	OHMM
RW	Resistivity of Connate Water	1.0000	OHMM
TD	Total Depth	445.8	M
TWS	Temperature of Connate Water Sample	37.78	DEGC

Format: AITH-4FT-CAN\_REP    Vertical Scale: 1:240    Graphics File Created: 31-Mar-2010 15:41

**OP System Version: 17C0-154**

IDFR-E	SPC-3951-IFLEX_b	ISFL-A	SPC-3951-IFLEX_b
ISLT-B	SPC-3951-IFLEX_b	ILDT-B	SPC-3951-IFLEX_b
ITGN-B	SPC-3951-IFLEX_b		

**Input DLIS Files**

DEFAULT	IDL_SFL_SLT_LDL_CNL_018LUP	FN:17	PRODUCER	30-Mar-2010 02:35	448.1 M	321.9 M
DEFAULT	IDL_SFL_SLT_LDL_CNL_032PUP	FN:31	PRODUCER	31-Mar-2010 13:38	448.1 M	83.5 M

**Output DLIS Files**

DEFAULT	IDL_SFL_SLT_LDL_CNL_038PUP	FN:37	PRODUCER	31-Mar-2010 15:41		
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**High Resolution Pass**  
1:120



### Input DLIS Files

DEFAULT IDL\_SFL\_SLT\_LDL\_CNL\_020LUP FN:19 PRODUCER 30-Mar-2010 02:57 449.6 M 85.5 M

### Output DLIS Files

DEFAULT IDL\_SFL\_SLT\_LDL\_CNL\_032PUP FN:31 PRODUCER 31-Mar-2010 13:38 448.1 M 83.5 M

### OP System Version: 17C0-154

IDFR-E SPC-3951-IFLEX\_b ISFL-A SPC-3951-IFLEX\_b  
 ISLT-B SPC-3951-IFLEX\_b ILDT-B SPC-3951-IFLEX\_b  
 ITGN-B SPC-3951-IFLEX\_b

#### PIP SUMMARY

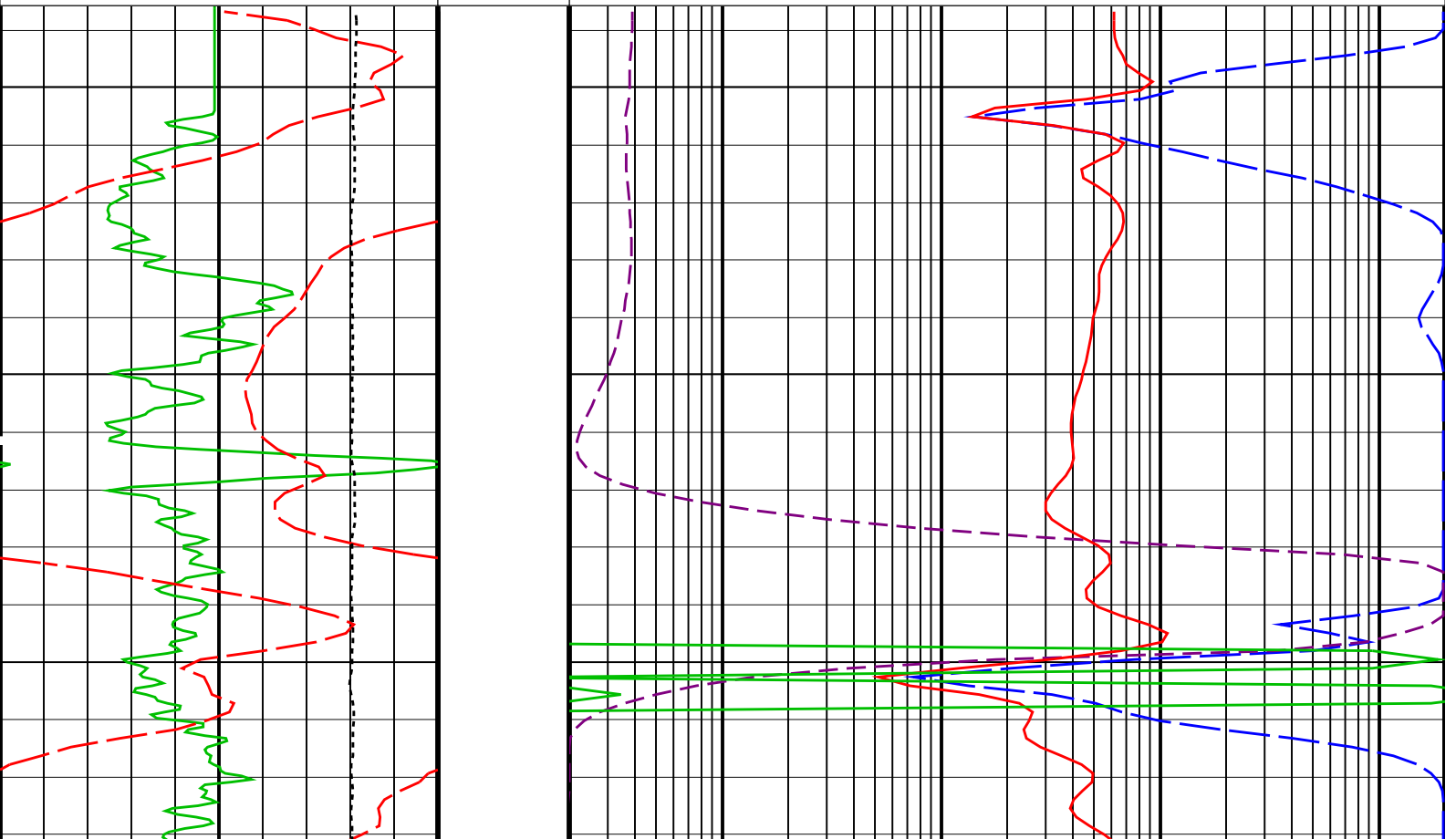
Time Mark Every 60 S

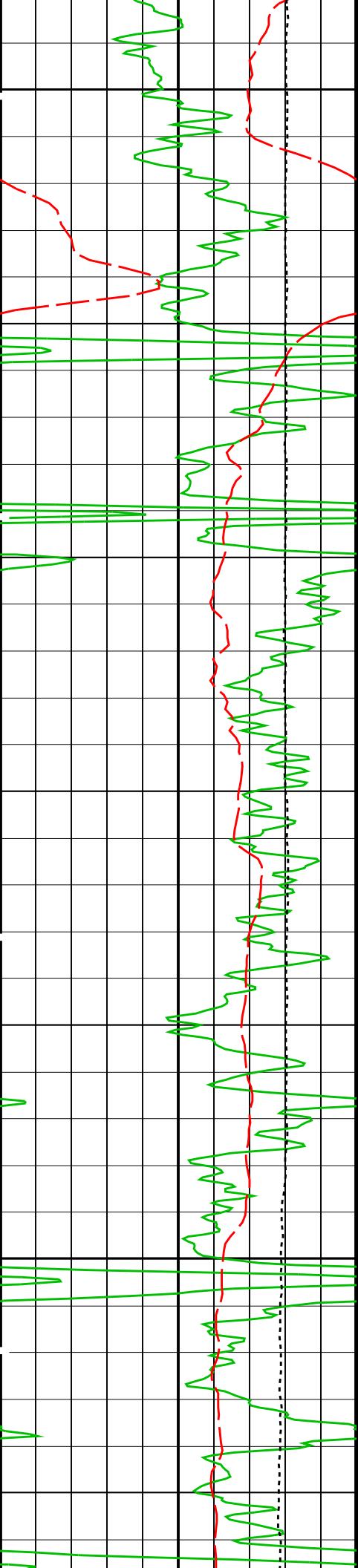
		<b>Borehole Corrected SFL (SFLB)</b>		<b>2000</b>
		0.2 (OHMM)		
		<b>Induction Deep Resistivity (ILD2)</b>		<b>2000</b>
		0.2 (OHMM)		
		<b>Induction Shallow Resistivity (ILS2)</b>		<b>2000</b>
		0.2 (OHMM)		
		<b>Induction Medium Resistivity (ILM2)</b>		<b>2000</b>
		0.2 (OHMM)		

Tension (TENS)	
10000 (N)	0
Stuck Indicator Lagged Output (SILO)	
0 (M)	20

SP (SP)	
-120 (MV)	30
Stuck Tool Indicator, Adjusted (STIA)	
0 (M)	20

HiRes Gamma Ray (HGR)	
0 (GAPI)	150
Stuck Stretch (STIT)	
0 (M)	20

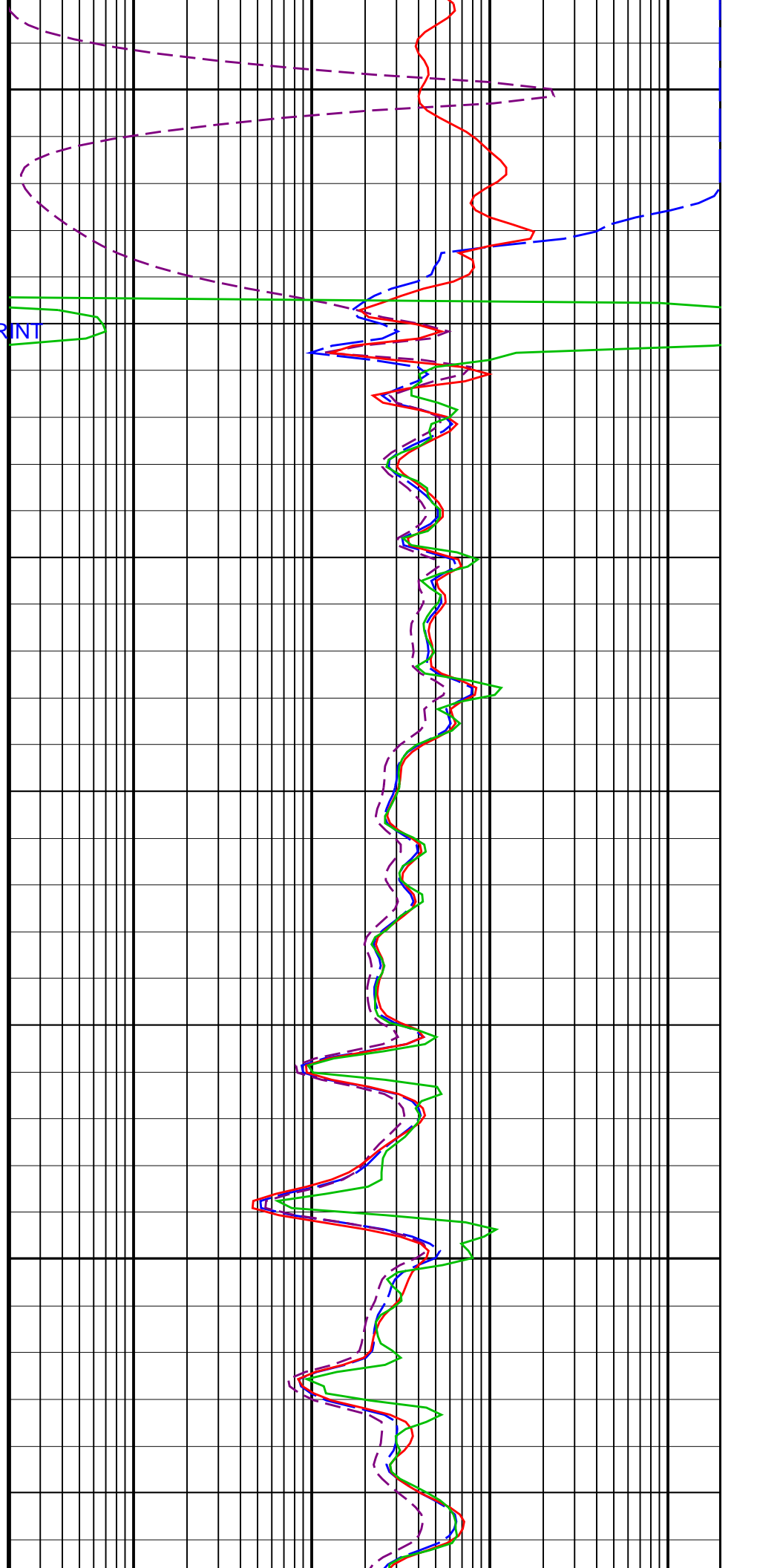


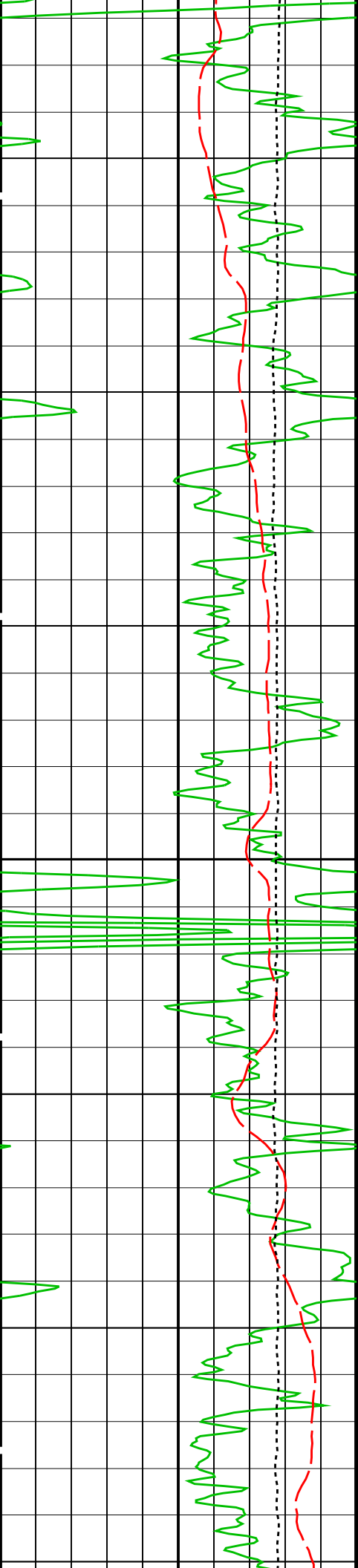


FINAL PRINT

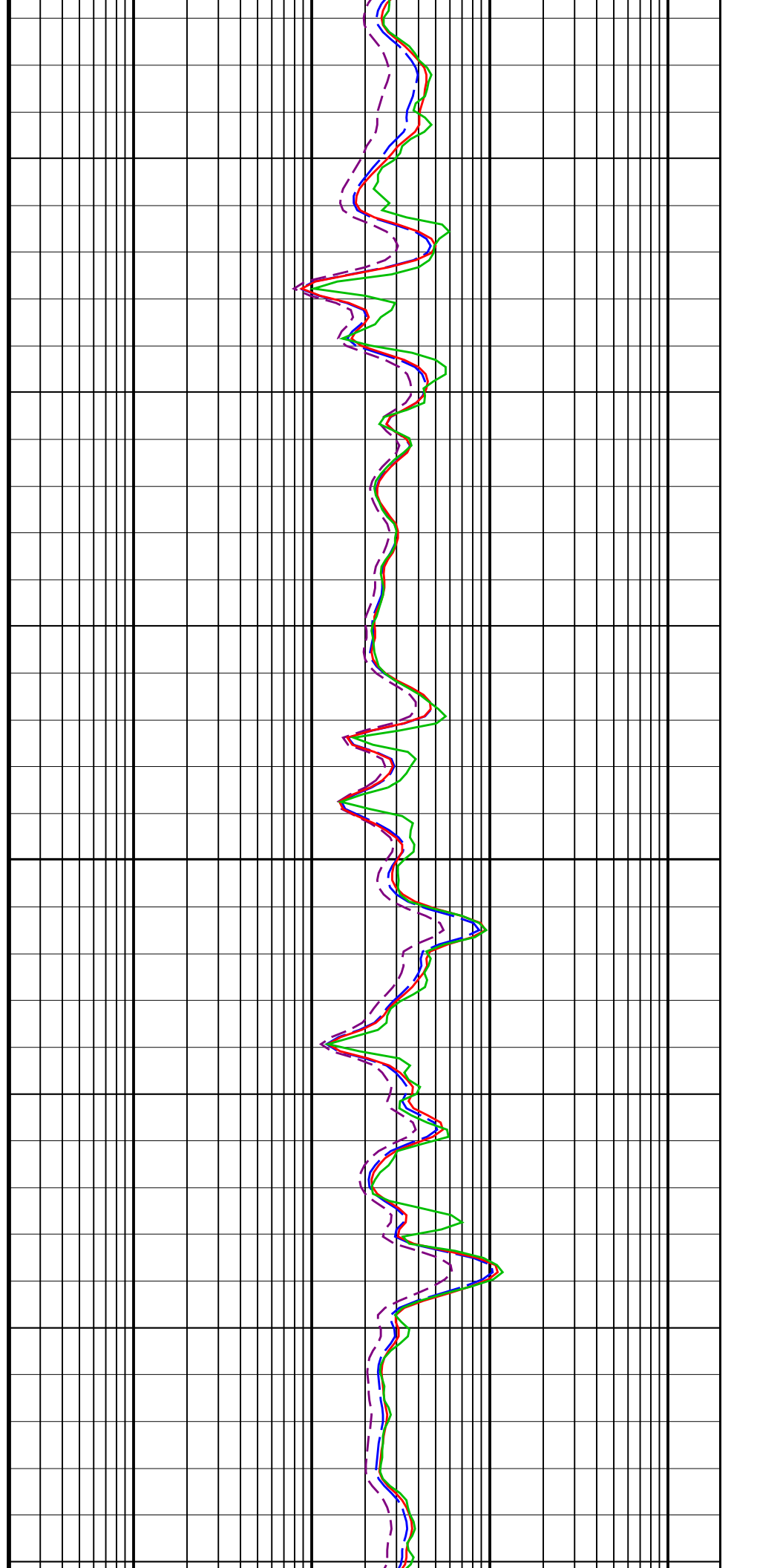
100

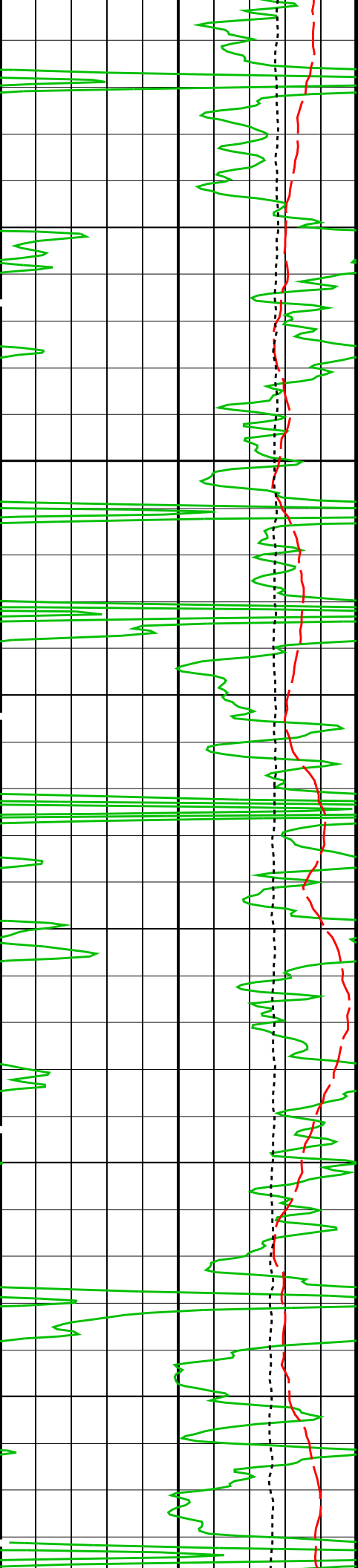
125



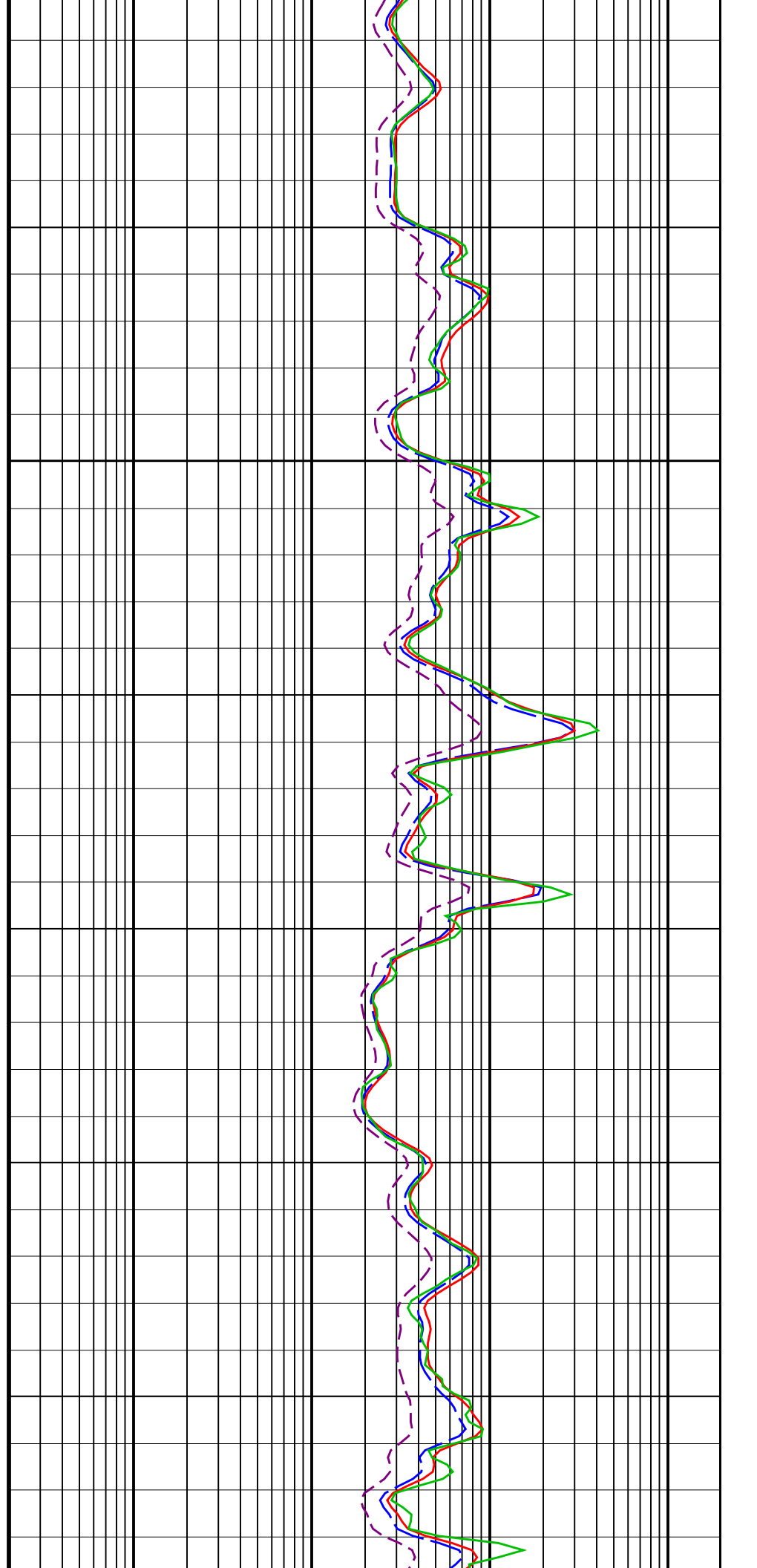


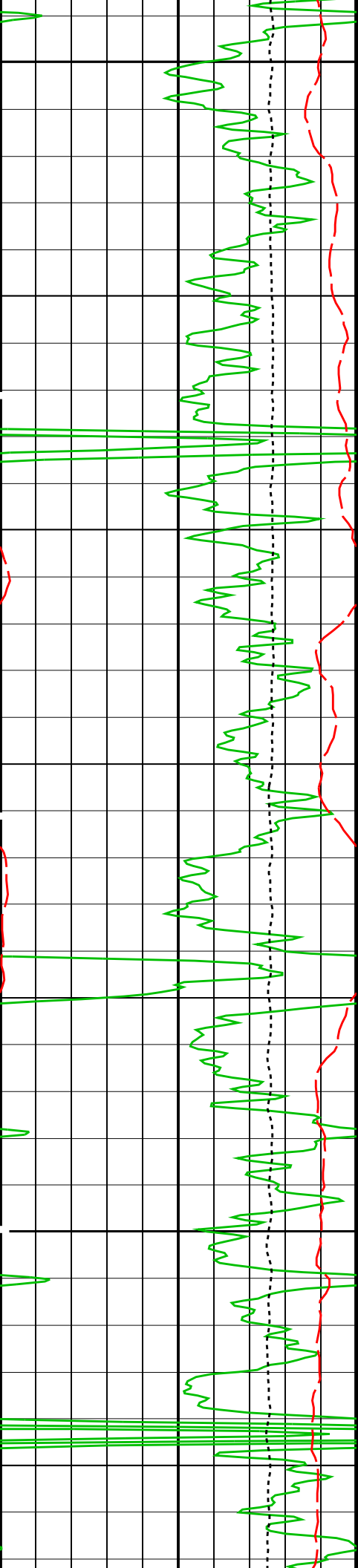
150





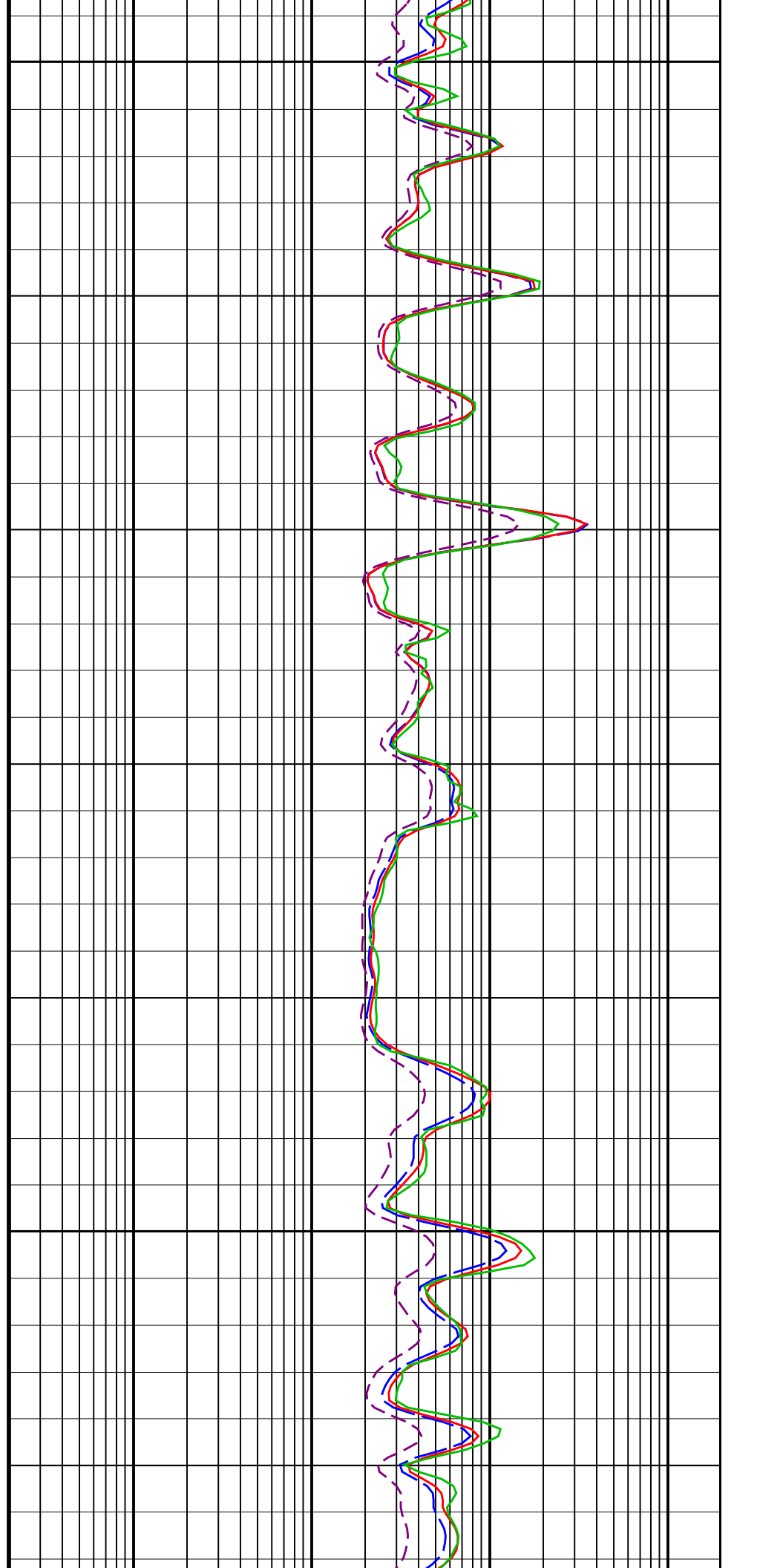
175

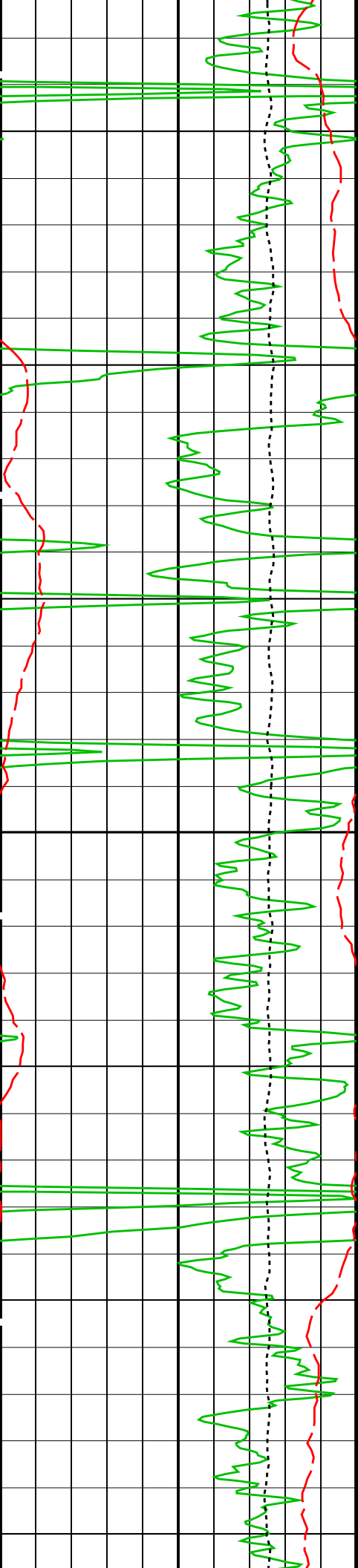




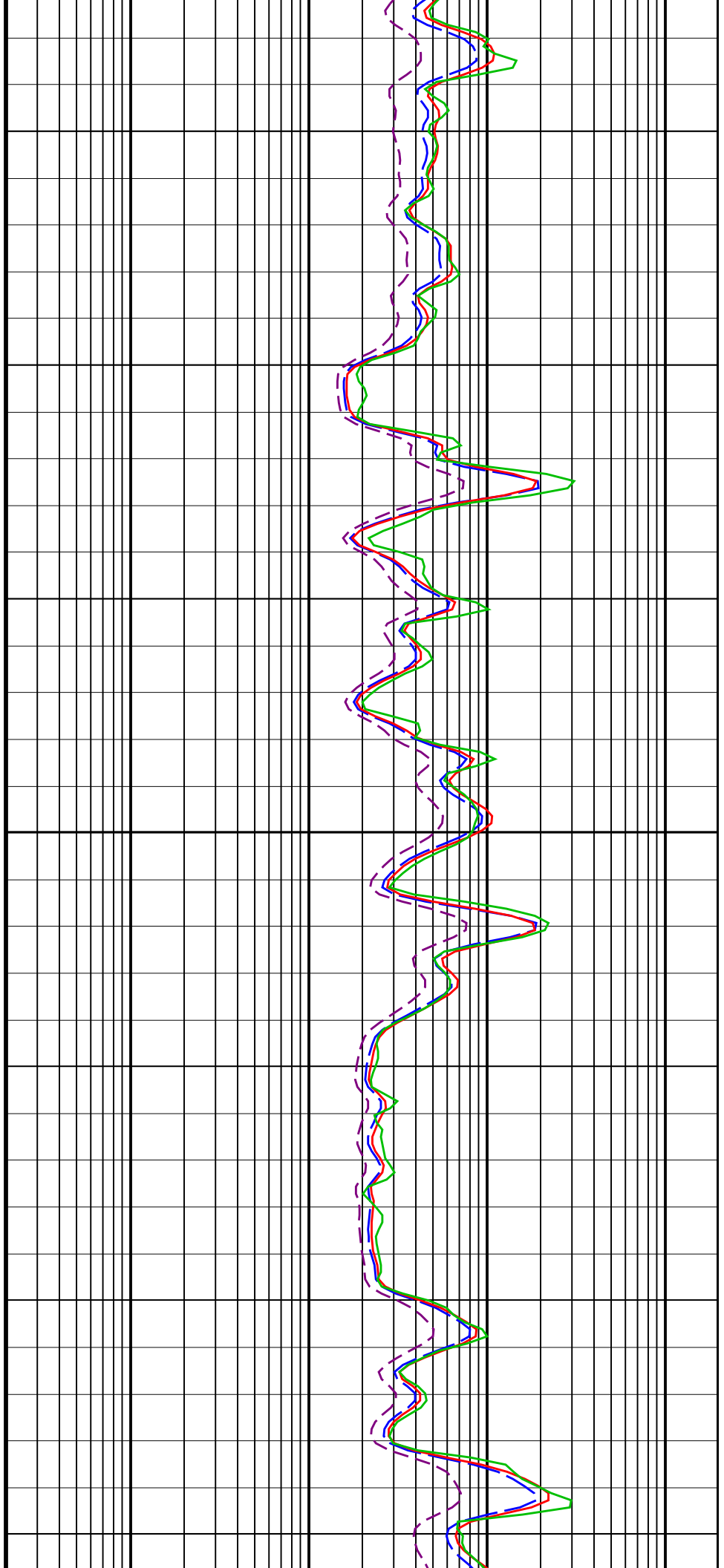
200

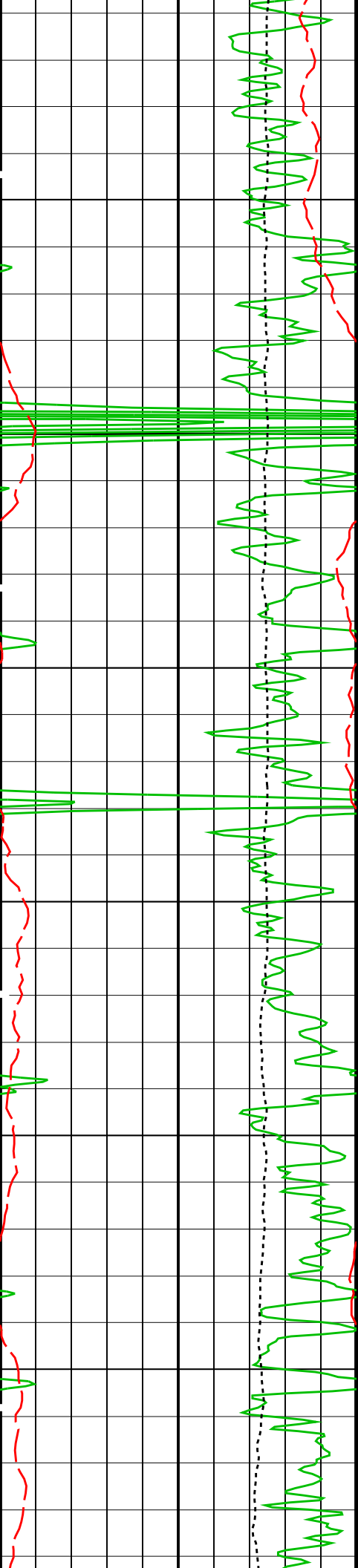
225



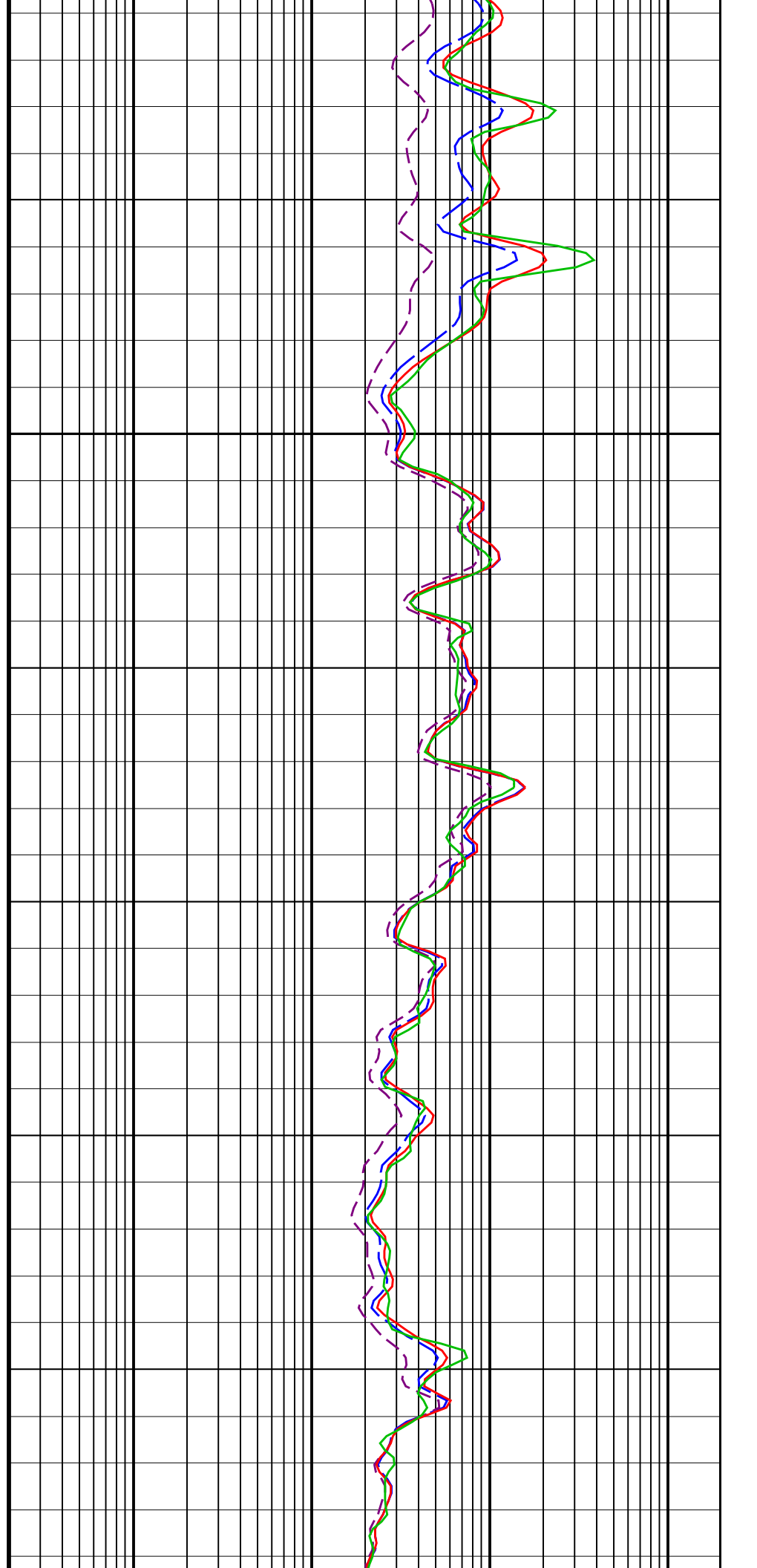


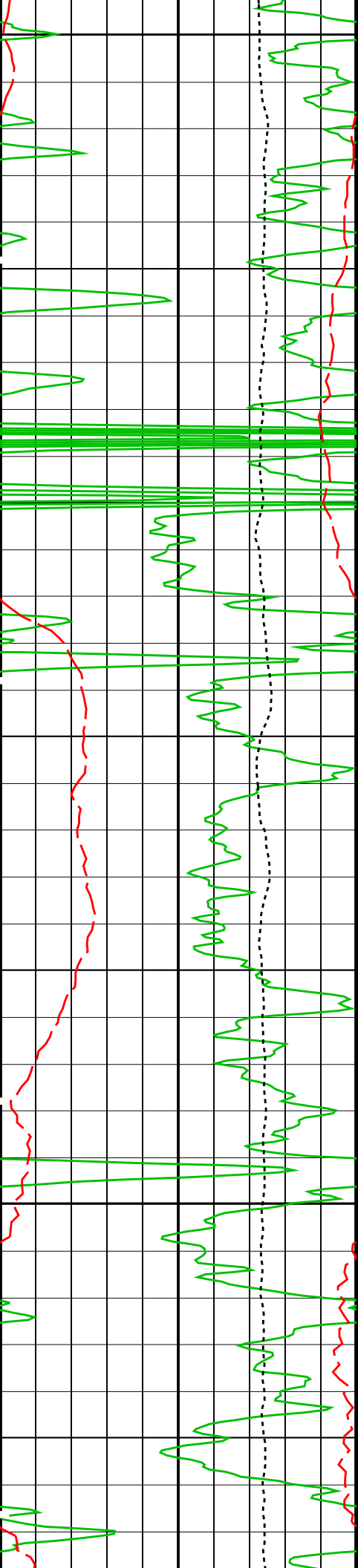
250





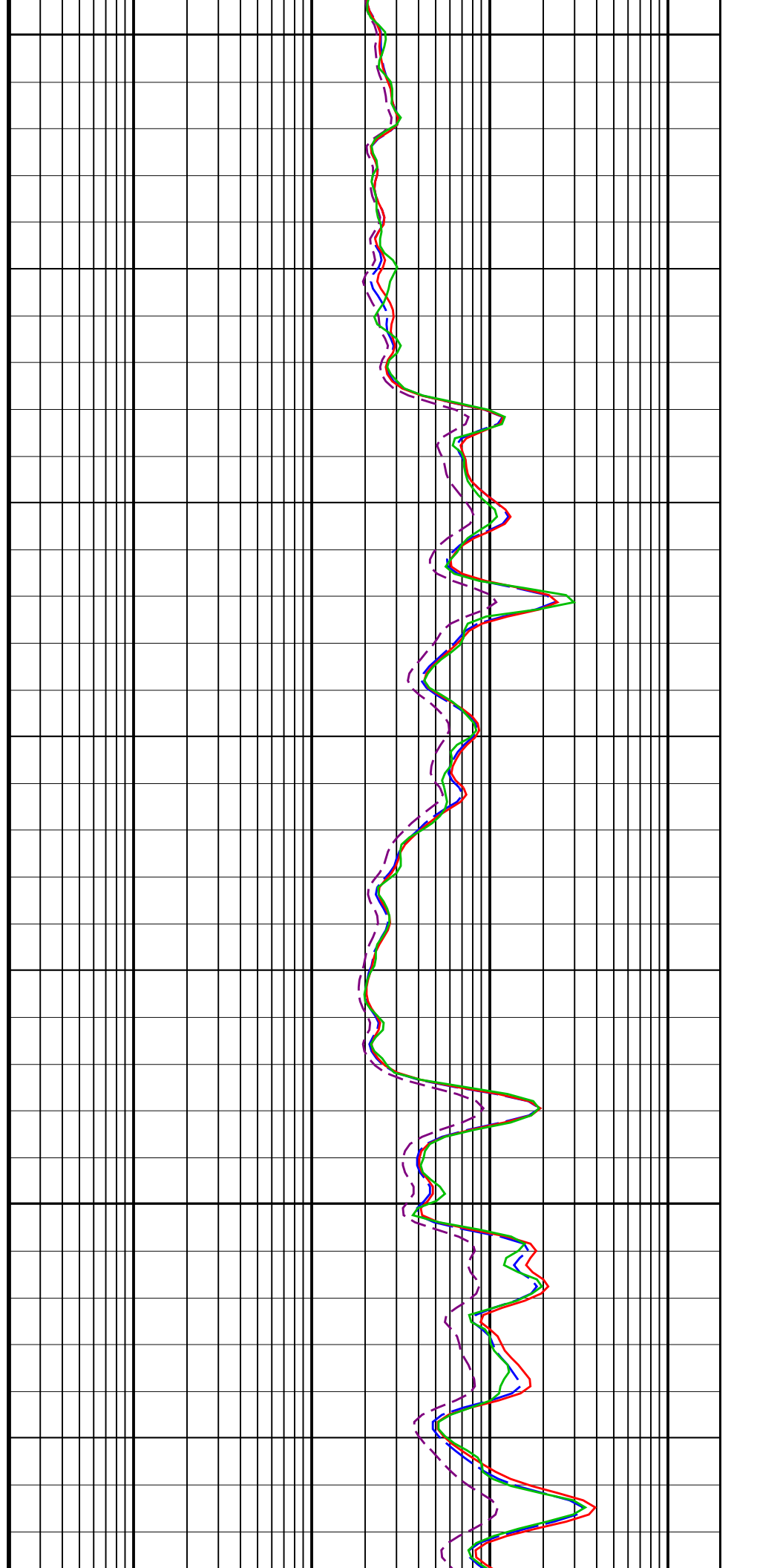
275



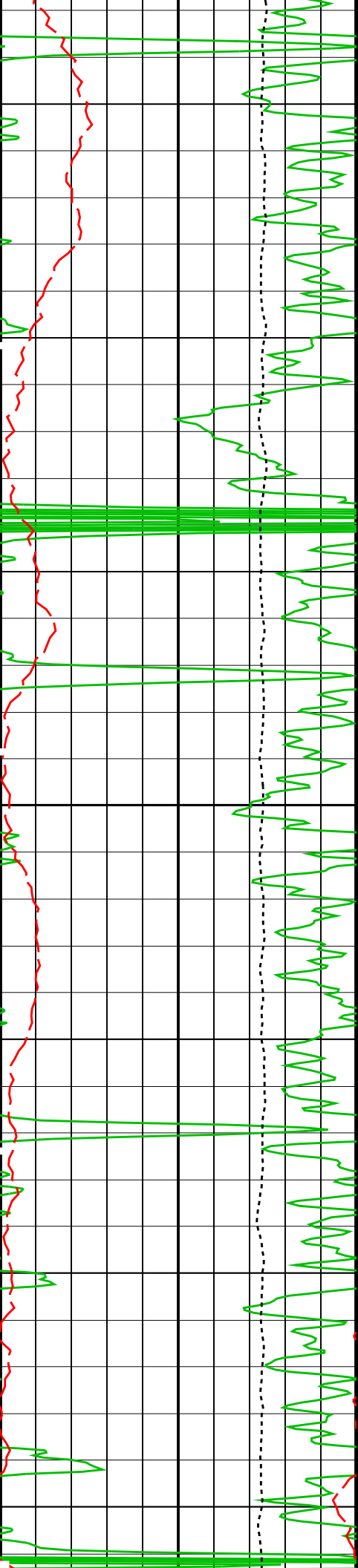


300

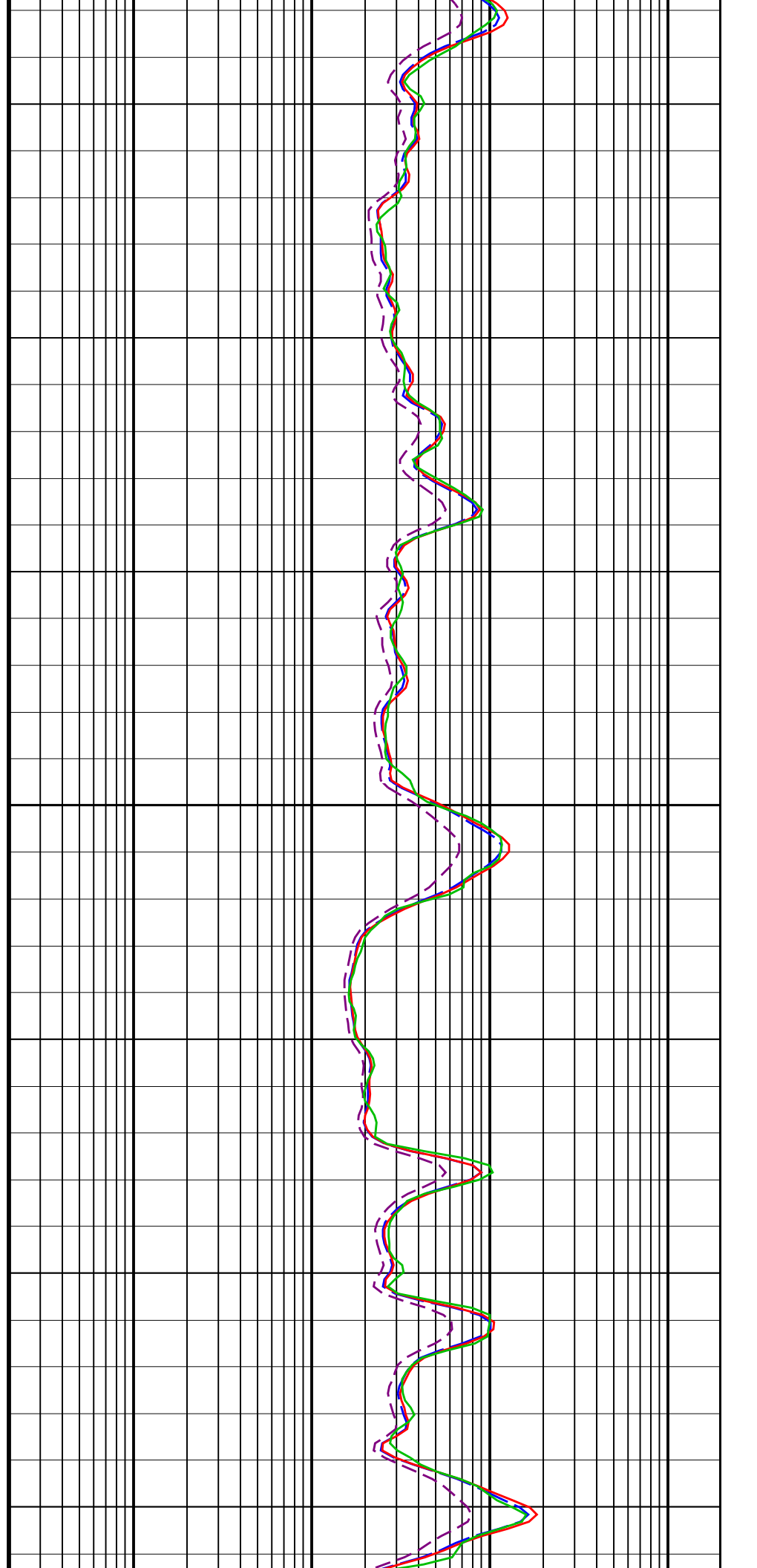
325

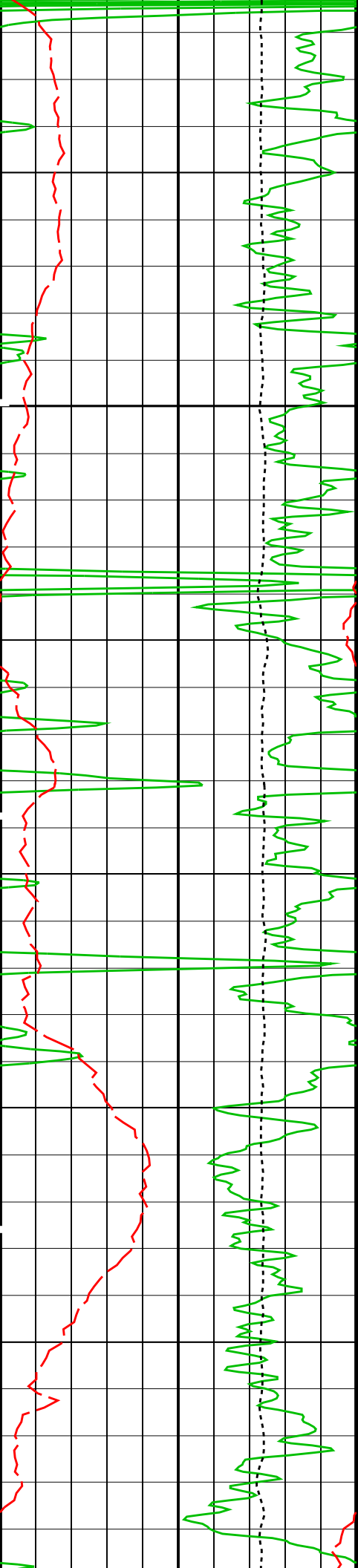






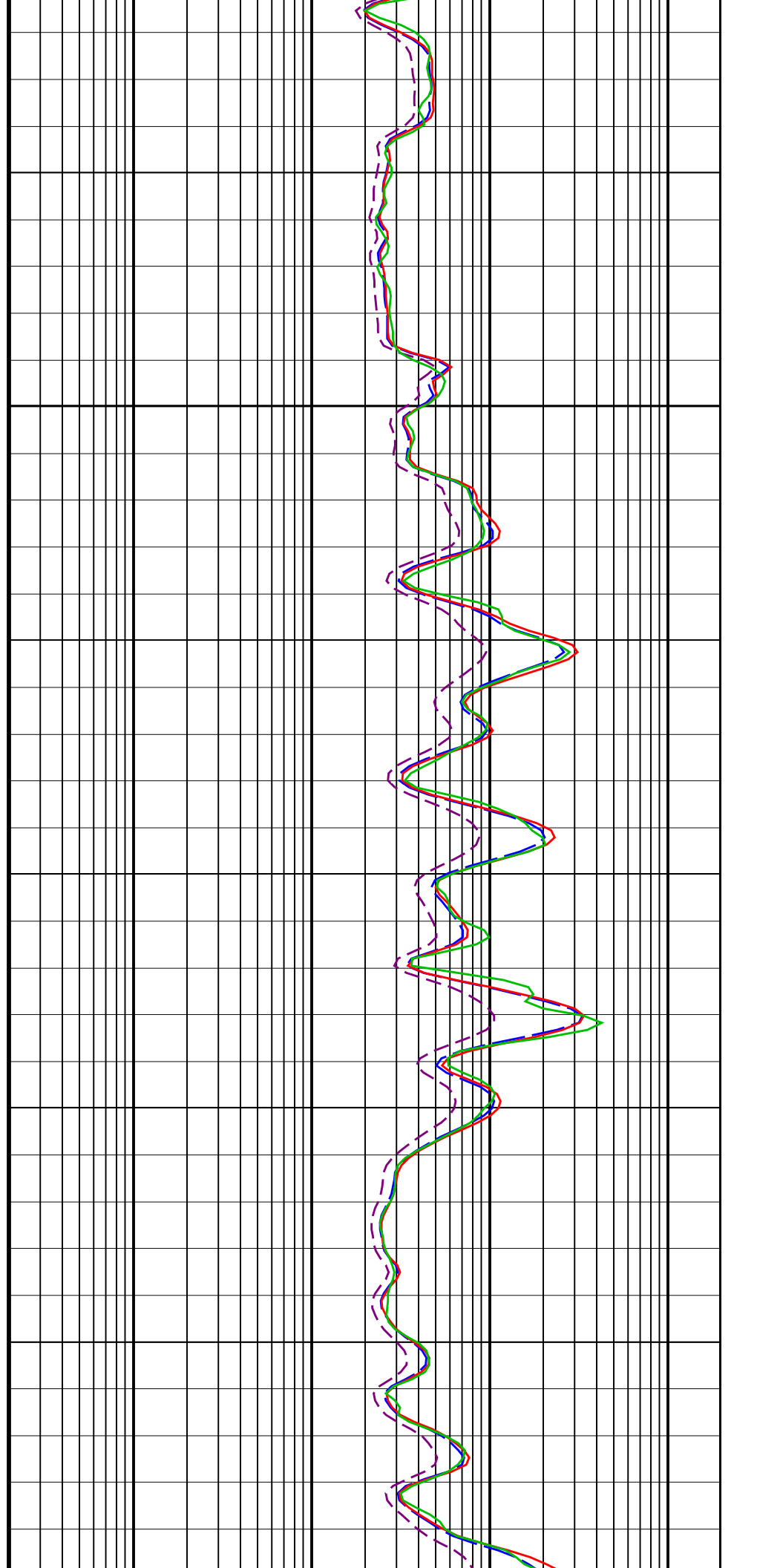
350

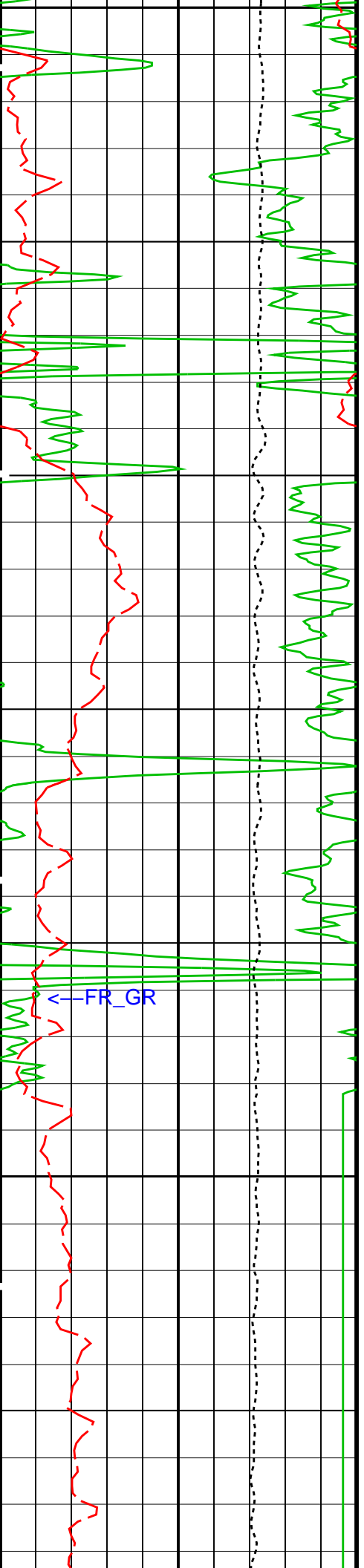




375

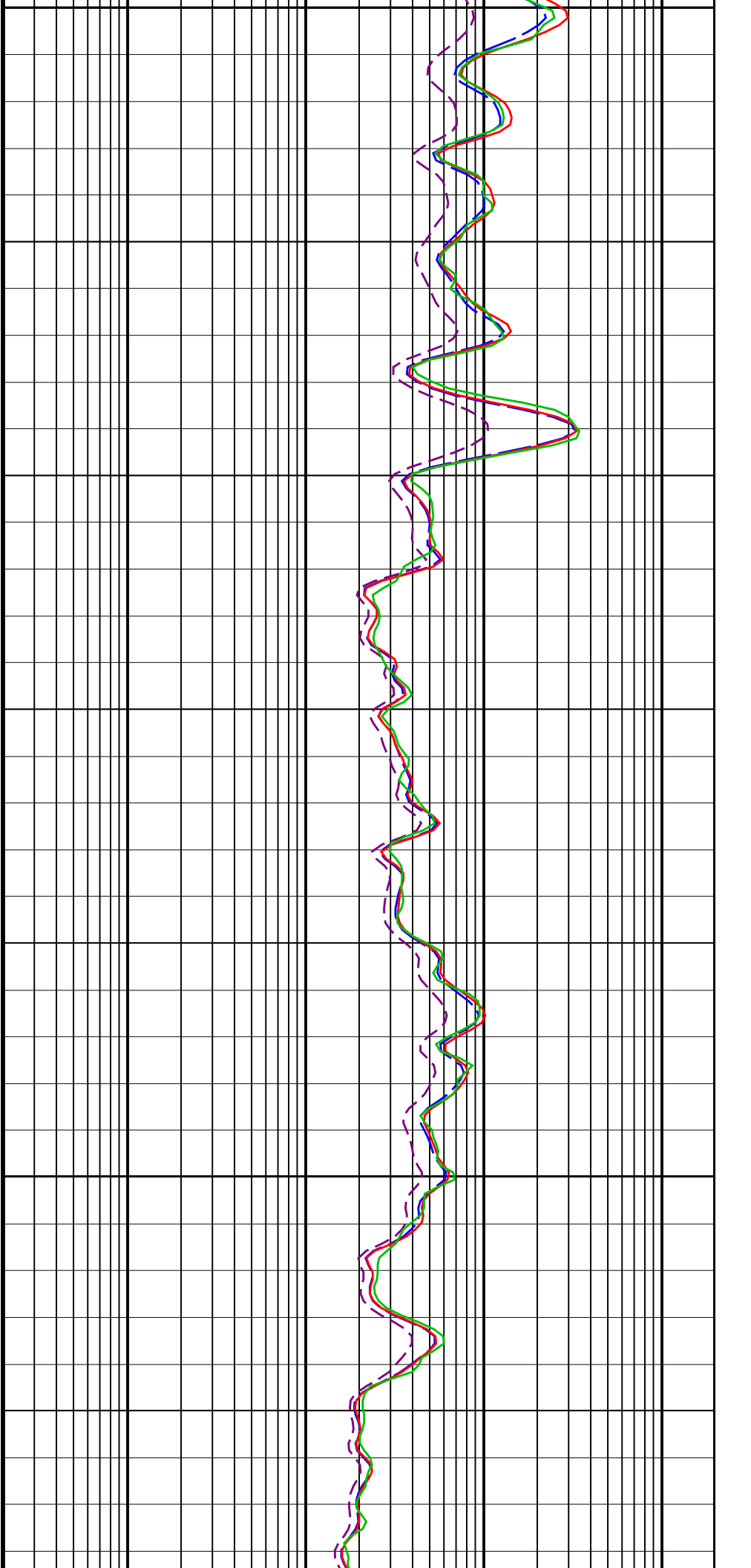
480

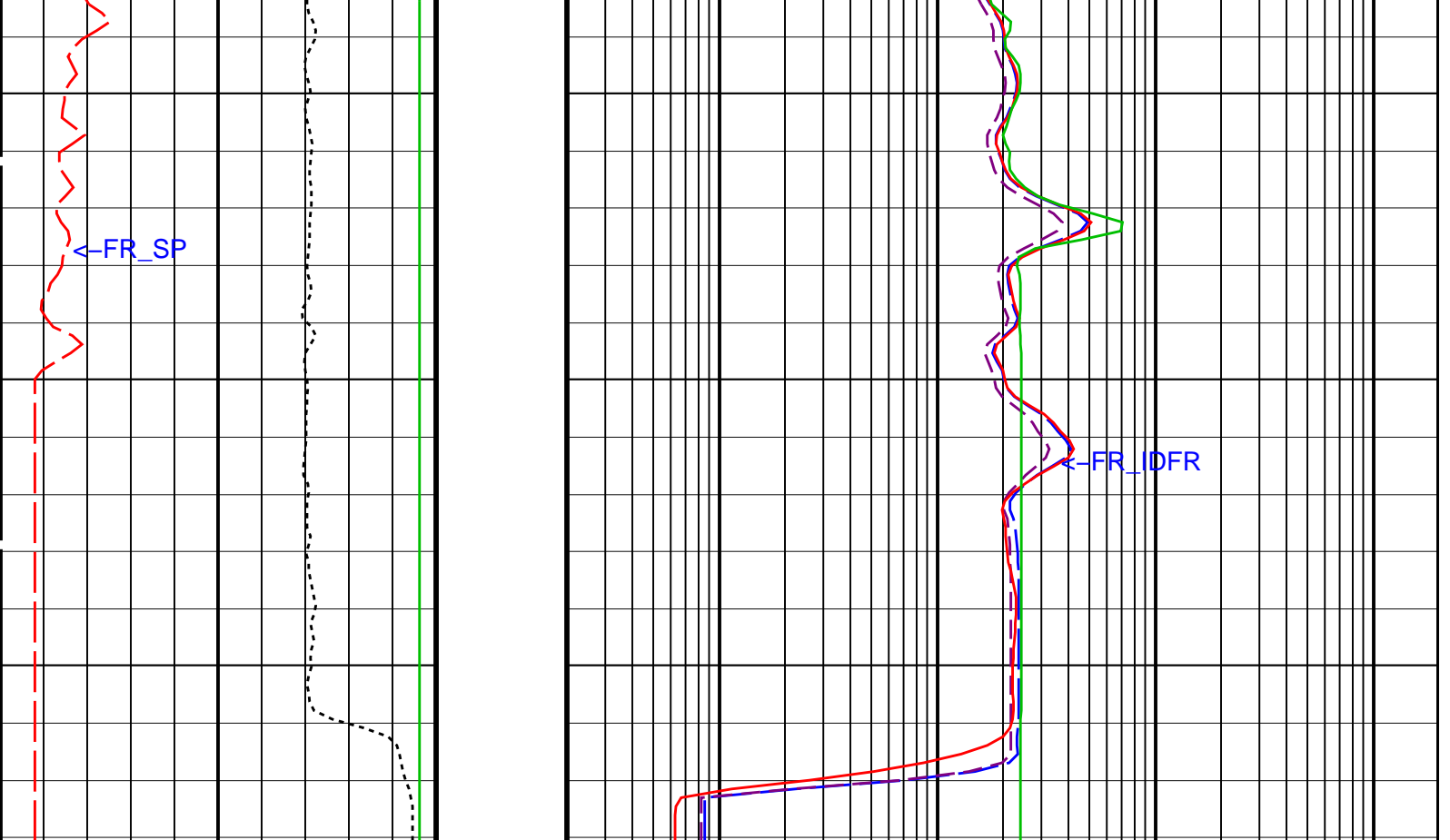




400

425





<p>HiRes Gamma Ray (HGR) (GAPI) 0 150</p>	<p>Stuck Stretch (STIT) 0 (M) 20</p>	<p>Induction Medium Resistivity (ILM2) (OHMM) 0.2 2000</p>
<p>SP (SP) (MV) -120 30</p>	<p>Stuck Tool Indicator, Adjusted (STIA) 0 (M) 20</p>	<p>Induction Shallow Resistivity (ILS2) (OHMM) 0.2 2000</p>
<p>Tension (TENS) (N) 10000 0</p>	<p>Stuck Indicator Lagged Output (SILO) 0 (M) 20</p>	<p>Induction Deep Resistivity (ILD2) (OHMM) 0.2 2000</p>
		<p>Borehole Corrected SFL (SFLB) (OHMM) 0.2 2000</p>

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value
IDFR-E: iFlex Dual Formation Resistivity Tool		
ABHV	Array Induction Borehole Correction Code Version Number	900
ABLV	Array Induction Basic Logs Code Version Number	223
ACEN	Array Induction Tool Centering Flag (in Borehole)	Centered
AETP	Array Induction Enable Sonde Error Temp&Pres Corr	Temp_On_Pres_On
AFRSV	Array Induction Response Set Version for Four ft Resolution	03.00.02.00
AIGS	Array Induction Select Akima Interpolation Gating	On
AIGS_SFL_IDFR	SFL Select Akima Interpolation Gating	On
ATRSV	Array Induction Response Set Version for Two ft Resolution	03.00.02.00
ATSE_IDFR	IDFR Temperature RTD Selection(Sonde Error Correction)	RTD1
AULV	Array Induction User Level Control	Normal
BHC_SIGMA_T_INPUT	IDFR BHC Formation Conductivity Input	13R
BHPRSRC_IDFR	IDFR Pressure Source	BHPR_IDFR
BHT	Bottom Hole Temperature (used in calculations)	40 DEGC

DFT_IFLEX	Drilling Fluid Type	WATER	2	
FEXP	Form Factor Exponent		1	
FNUM	Form Factor Numerator		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	IDFR_RESIST		
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE		
ISOD	Induction Standoff Outer Diameter		57.15	MM
SHT	Surface Hole Temperature		20	DEGC
SPNV	SP Next Value		0	MV
<b>ISLT-B: iFlex Sonic Logging Tool</b>				
BHT	Bottom Hole Temperature (used in calculations)		40	DEGC
DFT_IFLEX	Drilling Fluid Type	WATER		
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	IDFR_RESIST		
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE		
SHT	Surface Hole Temperature		20	DEGC
<b>ILDT-B: iFlex Litho Density Tool</b>				
BHT	Bottom Hole Temperature (used in calculations)		40	DEGC
DFT_IFLEX	Drilling Fluid Type	WATER		
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	IDFR_RESIST		
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE		
SHT	Surface Hole Temperature		20	DEGC
<b>ITGN-B: iFlex Telemetry Gamma Neutron Tool</b>				
BARI_ITGN	Barite Mud Presence Flag	YES		
BHT	Bottom Hole Temperature (used in calculations)		40	DEGC
DFT_IFLEX	Drilling Fluid Type	WATER		
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	IDFR_RESIST		
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE		
NICO	Neutron Interference Correction Option	YES		
PVN_ITGN	ITGN Computation Version	1.005		
SDAT	Standoff Data Source	SOCN		
SHT	Surface Hole Temperature		20	DEGC
SOCN	Standoff Distance		0	IN
TBHDS	Tool Borehole Diameter Source	CALI		
TBHTS	Tool Borehole Temperature Source	GTSE		
<b>HOLEV: Integrated Hole/Cement Volume</b>				
BHT	Bottom Hole Temperature (used in calculations)		40	DEGC
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	IDFR_RESIST		
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE		
SHT	Surface Hole Temperature		20	DEGC
<b>STI: Stuck Tool Indicator</b>				
LBFR	Trigger for MAXIS First Reading Label	TDL		
STKT	STI Stuck Threshold		0.762	M
TDD	Total Depth - Driller		444.80	M
TDL	Total Depth - Logger		445.80	M
<b>System and Miscellaneous</b>				
BS	Bit Size		96.000	MM
DFD	Drilling Fluid Density		1170.00	K/M3
DO	Depth Offset for Playback		-2.2	M
FLEV	Fluid Level		0.00	M
MST	Mud Sample Temperature		10.00	DEGC
PP	Playback Processing	NORMAL		
TD	Total Depth		445.8	M

Format: HIRS\_AITH Vertical Scale: 1:120 Graphics File Created: 31-Mar-2010 13:38

### OP System Version: 17C0-154

IDFR-E	SPC-3951-IFLEX_b	ISFL-A	SPC-3951-IFLEX_b
ISLT-B	SPC-3951-IFLEX_b	ILDT-B	SPC-3951-IFLEX_b
ITGN-B	SPC-3951-IFLEX_b		

### Input DLIS Files

DEFAULT	IDL_SFL_SLT_LDL_CNL_020LUP	FN:19	PRODUCER	30-Mar-2010 02:57	449.6 M	85.5 M
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### Output DLIS Files

DEFAULT	IDL_SFL_SLT_LDL_CNL_020LUP	FN:19	PRODUCER	31-Mar-2010 13:38		
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# Calibrations

## MAXIS Field Log

### Calibration and Check Summary

Measurement	Nominal	Master	Before	After	Change	Limit	Units
<b>iFlex Dual Formation Resistivity Tool Wellsite Calibration – Test Loop Gain Correction</b>							
Master: 6-Mar-2010 4:30							
Test Loop Gain Correctio – 0	0	0.9956	N/A	N/A	N/A	N/A	V
Test Loop Gain Correctio – 1	0	1.014	N/A	N/A	N/A	N/A	V
Test Loop Gain Correctio – 2	0	1.011	N/A	N/A	N/A	N/A	V
Test Loop Gain Correctio – 0	0	-1.461	N/A	N/A	N/A	N/A	V
Test Loop Gain Correctio – 1	0	-0.9576	N/A	N/A	N/A	N/A	V
Test Loop Gain Correctio – 2	0	-2.034	N/A	N/A	N/A	N/A	V
<b>iFlex Dual Formation Resistivity Tool Wellsite Calibration – Sonde Error Correction</b>							
Master: 6-Mar-2010 4:50							
R Sonde Error Correction – 0	0	208.2	N/A	N/A	N/A	N/A	MS/M
R Sonde Error Correction – 1	0	40.05	N/A	N/A	N/A	N/A	MS/M
R Sonde Error Correction – 2	0	21.61	N/A	N/A	N/A	N/A	MS/M
X Sonde Error Correction – 0	0	5.258	N/A	N/A	N/A	N/A	MS/M
X Sonde Error Correction – 1	0	50.23	N/A	N/A	N/A	N/A	MS/M
X Sonde Error Correction – 2	0	-98.73	N/A	N/A	N/A	N/A	MS/M
<b>iFlex Dual Formation Resistivity Tool Wellsite Calibration – Mud Gain Correction</b>							
Master: 6-Mar-2010 5:34							
Mud Gain – Coarse	1.000	1.118	N/A	N/A	N/A	N/A	
Mud Gain – Fine	1.000	0.9545	N/A	N/A	N/A	N/A	
<b>iFlex Litho Density Tool Wellsite Calibration – Detector Calibration</b>							
Master: 24-Mar-2010 14:44							
SS Window 1 Count Rate Bkg	1140	1236	N/A	N/A	N/A	N/A	CPS
SS Window 2 Count Rate Bkg	1470	1563	N/A	N/A	N/A	N/A	CPS
SS Window 3 Count Rate Bkg	760.0	806.6	N/A	N/A	N/A	N/A	CPS
SS Window 4 Count Rate Bkg	770.0	829.8	N/A	N/A	N/A	N/A	CPS
LS Window 1 Count Rate Bkg	79.00	80.18	N/A	N/A	N/A	N/A	CPS
LS Window 2 Count Rate Bkg	94.00	96.29	N/A	N/A	N/A	N/A	CPS
LS Window 3 Count Rate Bkg	280.0	274.5	N/A	N/A	N/A	N/A	CPS
LS Window 4 Count Rate Bkg	146.0	145.6	N/A	N/A	N/A	N/A	CPS
<b>iFlex Litho Density Tool Wellsite Calibration – Detector Calibration</b>							
Master: 24-Mar-2010 15:07							
SS Window 1 Count Rate Water L	27000	24820	N/A	N/A	N/A	N/A	CPS
SS Window 2 Count Rate Water L	23000	20000	N/A	N/A	N/A	N/A	CPS
SS Window 3 Count Rate Water L	13400	11620	N/A	N/A	N/A	N/A	CPS
SS Window 4 Count Rate Water L	11800	10290	N/A	N/A	N/A	N/A	CPS
LS Window 1 Count Rate Water L	1210	1128	N/A	N/A	N/A	N/A	CPS
LS Window 2 Count Rate Water L	1600	1396	N/A	N/A	N/A	N/A	CPS
LS Window 3 Count Rate Water L	2100	1843	N/A	N/A	N/A	N/A	CPS
LS Window 4 Count Rate Water L	530.0	476.5	N/A	N/A	N/A	N/A	CPS
<b>iFlex Litho Density Tool Wellsite Calibration – Detector Calibration</b>							
Master: 24-Mar-2010 15:16							
SS Window 1 Count Rate Water H	23000	17170	N/A	N/A	N/A	N/A	CPS
SS Window 2 Count Rate Water H	22000	17390	N/A	N/A	N/A	N/A	CPS
SS Window 3 Count Rate Water H	12800	10220	N/A	N/A	N/A	N/A	CPS
SS Window 4 Count Rate Water H	11300	9089	N/A	N/A	N/A	N/A	CPS
LS Window 1 Count Rate Water H	950.0	740.9	N/A	N/A	N/A	N/A	CPS
LS Window 2 Count Rate Water H	1380	1127	N/A	N/A	N/A	N/A	CPS
LS Window 3 Count Rate Water H	2000	1634	N/A	N/A	N/A	N/A	CPS
LS Window 4 Count Rate Water H	500.0	435.2	N/A	N/A	N/A	N/A	CPS

iFlex Litho Density Tool Wellsite Calibration – Detector Calibration

Master: 24–Mar–2010 15:25

SS Window 1 Count Rate Magnesi	28000	25650	N/A	N/A	N/A	N/A	CPS
SS Window 2 Count Rate Magnesi	24000	21330	N/A	N/A	N/A	N/A	CPS
SS Window 3 Count Rate Magnesi	13500	11690	N/A	N/A	N/A	N/A	CPS
SS Window 4 Count Rate Magnesi	11000	9573	N/A	N/A	N/A	N/A	CPS
LS Window 1 Count Rate Magnesi	5400	4837	N/A	N/A	N/A	N/A	CPS
LS Window 2 Count Rate Magnesi	6900	6031	N/A	N/A	N/A	N/A	CPS
LS Window 3 Count Rate Magnesi	8500	7422	N/A	N/A	N/A	N/A	CPS
LS Window 4 Count Rate Magnesi	1500	1321	N/A	N/A	N/A	N/A	CPS

iFlex Telemetry Gamma Neutron Tool Wellsite Calibration – Background

Master: 5–Mar–2010 22:15 Before: 29–Mar–2010 23:44

Near Thermal Count Rate Master	27.00	26.42	26.00	N/A	N/A	N/A	CPS
Far Thermal Count Rate Master	10.00	10.11	10.96	N/A	N/A	N/A	CPS
Epithermal Count Rate Master B	27.00	27.07	25.65	N/A	N/A	N/A	CPS

iFlex Telemetry Gamma Neutron Tool Wellsite Calibration – Plateau Setting

Master: 5–Mar–2010 21:47

Neutron Set Point Plat Set	2205	2217	N/A	N/A	N/A	N/A	V
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iFlex Telemetry Gamma Neutron Tool Wellsite Calibration – Tank Measurement

Master: 5–Mar–2010 22:04

Tank Temperature Tank Meas	20.00	16.50	N/A	N/A	N/A	N/A	DEGC
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iFlex Telemetry Gamma Neutron Tool Wellsite Calibration – Tank Measurement

Master: 5–Mar–2010 22:06

Near Thermal Count Rate Tank M	14600	13730	N/A	N/A	N/A	N/A	CPS
Far Thermal Count Rate Tank Me	5410	5025	N/A	N/A	N/A	N/A	CPS
Epithermal Count Rate Tank Mea	1570	1472	N/A	N/A	N/A	N/A	CPS

iFlex Dual Formation Resistivity Tool / Equipment Identification

Primary Equipment:

iFlex Resistivity Mud Sensor	IRMS – A	12
iFlex Resistivity Pressure Sub	PSUB – A	12
iFlex Dual Formation Resistivity Sonde	IDRS – E	12

Auxiliary Equipment:

iFlex Dual Formation Resistivity Tool Wellsite Calibration

Test Loop Gain Correction

Idx	Value	Test Loop Gain Correction Magnitude V			Value	Test Loop Gain Correction Phase V		
0	0.9956				-1.461			
		0.9000 (Minimum)	1.000 (Nominal)	1.100 (Maximum)		-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
1	1.014				-0.9576			
		0.9000 (Minimum)	1.000 (Nominal)	1.100 (Maximum)		-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
2	1.011				-2.034			
		0.9000 (Minimum)	1.000 (Nominal)	1.100 (Maximum)		-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)

Master: 6–Mar–2010 4:30

iFlex Dual Formation Resistivity Tool Wellsite Calibration

Sonde Error Correction

Idx	Value	R Sonde Error Correction MS/M			Value	X Sonde Error Correction MS/M		
0	208.2				5.258			
		0 (Minimum)	150.0 (Nominal)	300.0 (Maximum)		-900.0 (Minimum)	0 (Nominal)	900.0 (Maximum)
1	40.05				50.23			
		0 (Minimum)	45.00 (Nominal)	90.00 (Maximum)		-300.0 (Minimum)	0 (Nominal)	300.0 (Maximum)
2	21.61				-98.73			
		0 (Minimum)	15.00 (Nominal)	30.00 (Maximum)		-150.0 (Minimum)	0 (Nominal)	150.0 (Maximum)

Master: 6–Mar–2010 4:50

iFlex Dual Formation Resistivity Tool Wellsite Calibration

Mud Gain Correction

Phase	Mud Gain – Coarse	Value	Phase	Mud Gain – Fine	Value
Master		1.118	Master		0.9545
	0.8000 (Minimum) 1.000 (Nominal) 1.200 (Maximum)			0.8000 (Minimum) 1.000 (Nominal) 1.200 (Maximum)	

Master: 6-Mar-2010 5:34

iFlex Dual Formation Resistivity Tool Master Calibration

Test Loop Gain Correction

Idx	Value	Test Loop Gain Correction Magnitude V	Value	Test Loop Gain Correction Phase V
0	0.9956		-1.461	
		0.9000 (Minimum) 1.000 (Nominal) 1.100 (Maximum)		-3.000 (Minimum) 0 (Nominal) 3.000 (Maximum)
1	1.014		-0.9576	
		0.9000 (Minimum) 1.000 (Nominal) 1.100 (Maximum)		-3.000 (Minimum) 0 (Nominal) 3.000 (Maximum)
2	1.011		-2.034	
		0.9000 (Minimum) 1.000 (Nominal) 1.100 (Maximum)		-3.000 (Minimum) 0 (Nominal) 3.000 (Maximum)

Master: 6-Mar-2010 4:30

iFlex Dual Formation Resistivity Tool Master Calibration

Sonde Error Correction

Idx	Value	R Sonde Error Correction MS/M	Value	X Sonde Error Correction MS/M
0	208.2		5.258	
		0 (Minimum) 150.0 (Nominal) 300.0 (Maximum)		-900.0 (Minimum) 0 (Nominal) 900.0 (Maximum)
1	40.05		50.23	
		0 (Minimum) 45.00 (Nominal) 90.00 (Maximum)		-300.0 (Minimum) 0 (Nominal) 300.0 (Maximum)
2	21.61		-98.73	
		0 (Minimum) 15.00 (Nominal) 30.00 (Maximum)		-150.0 (Minimum) 0 (Nominal) 150.0 (Maximum)

Master: 6-Mar-2010 4:50

iFlex Dual Formation Resistivity Tool Master Calibration

Mud Gain Correction

Phase	Mud Gain – Coarse	Value	Phase	Mud Gain – Fine	Value
Master		1.118	Master		0.9545
	0.8000 (Minimum) 1.000 (Nominal) 1.200 (Maximum)			0.8000 (Minimum) 1.000 (Nominal) 1.200 (Maximum)	

Master: 6-Mar-2010 5:34

iFlex Litho Density Tool / Equipment Identification

Primary Equipment:

Mechanical Control Sonde	IMCS – A	25
Gamma Gamma Logging Source	GGLS – C	2434
Powered Density Pad	IPDP – A	25
Caliper Electronics Cartridge	ICEC – B	25

Auxiliary Equipment:

iFlex Litho Density Tool Wellsite Calibration

Detector Calibration

Phase	SS Window 1 Count Rate Bkg CPS	Value	Phase	SS Window 2 Count Rate Bkg CPS	Value	Phase	SS Window 3 Count Rate Bkg CPS	Value
Master		1236	Master		1563	Master		806.6
	730.0 (Minimum) 1140 (Nominal) 1370 (Maximum)			990.0 (Minimum) 1470 (Nominal) 1720 (Maximum)			490.0 (Minimum) 760.0 (Nominal) 900.0 (Maximum)	
Phase	SS Window 4 Count Rate Bkg CPS	Value	Phase	LS Window 1 Count Rate Bkg CPS	Value	Phase	LS Window 2 Count Rate Bkg CPS	Value
Master		829.8	Master		80.18	Master		96.29
	480.0 (Minimum) 770.0 (Nominal) 940.0 (Maximum)			47.00 (Minimum) 79.00 (Nominal) 99.00 (Maximum)			54.00 (Minimum) 94.00 (Nominal) 121.0 (Maximum)	
Phase	LS Window 3 Count Rate Bkg CPS	Value	Phase	LS Window 4 Count Rate Bkg CPS	Value			
Master		274.5	Master		145.6			
	47.00 (Minimum) 79.00 (Nominal) 99.00 (Maximum)			47.00 (Minimum) 79.00 (Nominal) 99.00 (Maximum)				



150.0 (Minimum)	280.0 (Nominal)	360.0 (Maximum)	83.00 (Minimum)	146.0 (Nominal)	190.0 (Maximum)
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Master: 24-Mar-2010 14:44

iFlex Litho Density Tool Wellsite Calibration														
Detector Calibration														
Phase	SS Window 1 Count Rate Water Low PE Insert			CPSValue	Phase	SS Window 2 Count Rate Water Low PE Insert			CPSValue	Phase	SS Window 3 Count Rate Water Low PE Insert			CPSValue
Master				24820	Master				20000	Master				11620
	18000 (Minimum)	27000 (Nominal)	30000 (Maximum)			16000 (Minimum)	23000 (Nominal)	25000 (Maximum)			9800 (Minimum)	13400 (Nominal)	14500 (Maximum)	
Phase	SS Window 4 Count Rate Water Low PE Insert			CPSValue	Phase	LS Window 1 Count Rate Water Low PE Insert			CPSValue	Phase	LS Window 2 Count Rate Water Low PE Insert			CPSValue
Master				10290	Master				1128	Master				1396
	8600 (Minimum)	11800 (Nominal)	12900 (Maximum)			820.0 (Minimum)	1210 (Nominal)	1400 (Maximum)			1050 (Minimum)	1600 (Nominal)	1800 (Maximum)	
Phase	SS Window 3 Count Rate Water Low PE Insert			CPSValue	Phase	LS Window 4 Count Rate Water Low PE Insert			CPSValue					
Master				1843	Master				476.5					
	1450 (Minimum)	2100 (Nominal)	2400 (Maximum)			380.0 (Minimum)	530.0 (Nominal)	580.0 (Maximum)						

Master: 24-Mar-2010 15:07

iFlex Litho Density Tool Wellsite Calibration														
Detector Calibration														
Phase	SS Window 1 Count Rate Water High PE Insert			CPSValue	Phase	SS Window 2 Count Rate Water High PE Insert			CPSValue	Phase	SS Window 3 Count Rate Water High PE Insert			CPSValue
Master				17170	Master				17390	Master				10220
	16000 (Minimum)	23000 (Nominal)	26000 (Maximum)			15000 (Minimum)	22000 (Nominal)	24000 (Maximum)			9300 (Minimum)	12800 (Nominal)	13900 (Maximum)	
Phase	SS Window 4 Count Rate Water High PE Insert			CPSValue	Phase	LS Window 1 Count Rate Water High PE Insert			CPSValue	Phase	LS Window 2 Count Rate Water High PE Insert			CPSValue
Master				9089	Master				740.9	Master				1127
	8200 (Minimum)	11300 (Nominal)	12400 (Maximum)			640.0 (Minimum)	950.0 (Nominal)	1100 (Maximum)			930.0 (Minimum)	1380 (Nominal)	1600 (Maximum)	
Phase	SS Window 3 Count Rate Water High PE Insert			CPSValue	Phase	LS Window 4 Count Rate Water High PE Insert			CPSValue					
Master				1634	Master				435.2					
	1350 (Minimum)	2000 (Nominal)	2300 (Maximum)			360.0 (Minimum)	500.0 (Nominal)	550.0 (Maximum)						

Master: 24-Mar-2010 15:16

iFlex Litho Density Tool Wellsite Calibration														
Detector Calibration														
Phase	SS Window 1 Count Rate Magnesium Low PE Insert			CPSValue	Phase	SS Window 2 Count Rate Magnesium Low PE Insert			CPSValue	Phase	SS Window 3 Count Rate Magnesium Low PE Insert			CPSValue
Master				25650	Master				21330	Master				11690
	19000 (Minimum)	28000 (Nominal)	31000 (Maximum)			17000 (Minimum)	24000 (Nominal)	27000 (Maximum)			9900 (Minimum)	13500 (Nominal)	14700 (Maximum)	
Phase	SS Window 4 Count Rate Magnesium Low PE Insert			CPSValue	Phase	LS Window 1 Count Rate Magnesium Low PE Insert			CPSValue	Phase	LS Window 2 Count Rate Magnesium Low PE Insert			CPSValue
Master				9573	Master				4837	Master				6031
	8000 (Minimum)	11000 (Nominal)	12000 (Maximum)			3600 (Minimum)	5400 (Nominal)	6200 (Maximum)			4600 (Minimum)	6900 (Nominal)	8000 (Maximum)	
Phase	SS Window 3 Count Rate Magnesium Low PE Insert			CPSValue	Phase	LS Window 4 Count Rate Magnesium Low PE Insert			CPSValue					
Master				7422	Master				1321					
	5700 (Minimum)	8500 (Nominal)	9900 (Maximum)			1030 (Minimum)	1500 (Nominal)	1800 (Maximum)						

Master: 24-Mar-2010 15:25

iFlex Litho Density Tool Master Calibration														
Detector Calibration														
Phase	SS Window 1 Count Rate Bkg CPS			Value	Phase	SS Window 2 Count Rate Bkg CPS			Value	Phase	SS Window 3 Count Rate Bkg CPS			Value
Master				1236	Master				1563	Master				806.6
	730.0 (Minimum)	1140 (Nominal)	1370 (Maximum)			990.0 (Minimum)	1470 (Nominal)	1720 (Maximum)			490.0 (Minimum)	760.0 (Nominal)	900.0 (Maximum)	
Phase	SS Window 4 Count Rate Bkg CPS			Value	Phase	LS Window 1 Count Rate Bkg CPS			Value	Phase	LS Window 2 Count Rate Bkg CPS			Value
Master				829.8	Master				80.18	Master				96.29
	480.0 (Minimum)	770.0 (Nominal)	940.0 (Maximum)			47.00 (Minimum)	79.00 (Nominal)	99.00 (Maximum)			54.00 (Minimum)	94.00 (Nominal)	121.0 (Maximum)	
Phase	LS Window 3 Count Rate Bkg CPS			Value	Phase	LS Window 4 Count Rate Bkg CPS			Value					
Master				274.5	Master				145.6					

150.0 (Minimum)	280.0 (Nominal)	360.0 (Maximum)	83.00 (Minimum)	146.0 (Nominal)	190.0 (Maximum)	
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Master: 24-Mar-2010 14:44

iFlex Litho Density Tool Master Calibration											
Detector Calibration											
SS Window 1 Count Rate Water Low PE Insert	CPS Value		SS Window 2 Count Rate Water Low PE Insert	CPS Value		SS Window 3 Count Rate Water Low PE Insert	CPS Value				
Master		24820	Master		20000	Master		11620			
18000 (Minimum)	27000 (Nominal)	30000 (Maximum)	16000 (Minimum)	23000 (Nominal)	25000 (Maximum)	9800 (Minimum)	13400 (Nominal)	14500 (Maximum)			
SS Window 4 Count Rate Water Low PE Insert	CPS Value		LS Window 1 Count Rate Water Low PE Insert	CPS Value		LS Window 2 Count Rate Water Low PE Insert	CPS Value				
Master		10290	Master		1128	Master		1396			
8600 (Minimum)	11800 (Nominal)	12900 (Maximum)	820.0 (Minimum)	1210 (Nominal)	1400 (Maximum)	1050 (Minimum)	1600 (Nominal)	1800 (Maximum)			
LS Window 3 Count Rate Water Low PE Insert	CPS Value		LS Window 4 Count Rate Water Low PE Insert	CPS Value							
Master		1843	Master		476.5						
1450 (Minimum)	2100 (Nominal)	2400 (Maximum)	380.0 (Minimum)	530.0 (Nominal)	580.0 (Maximum)						

Master: 24-Mar-2010 15:07

iFlex Litho Density Tool Master Calibration											
Detector Calibration											
SS Window 1 Count Rate Water High PE Insert	CPS Value		SS Window 2 Count Rate Water High PE Insert	CPS Value		SS Window 3 Count Rate Water High PE Insert	CPS Value				
Master		17170	Master		17390	Master		10220			
16000 (Minimum)	23000 (Nominal)	26000 (Maximum)	15000 (Minimum)	22000 (Nominal)	24000 (Maximum)	9300 (Minimum)	12800 (Nominal)	13900 (Maximum)			
SS Window 4 Count Rate Water High PE Insert	CPS Value		LS Window 1 Count Rate Water High PE Insert	CPS Value		LS Window 2 Count Rate Water High PE Insert	CPS Value				
Master		9089	Master		740.9	Master		1127			
8200 (Minimum)	11300 (Nominal)	12400 (Maximum)	640.0 (Minimum)	950.0 (Nominal)	1100 (Maximum)	930.0 (Minimum)	1380 (Nominal)	1600 (Maximum)			
LS Window 3 Count Rate Water High PE Insert	CPS Value		LS Window 4 Count Rate Water High PE Insert	CPS Value							
Master		1634	Master		435.2						
1350 (Minimum)	2000 (Nominal)	2300 (Maximum)	360.0 (Minimum)	500.0 (Nominal)	550.0 (Maximum)						

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iFlex Litho Density Tool Master Calibration											
Detector Calibration											
SS Window 1 Count Rate Magnesium Low PE Insert	CPS Value		SS Window 2 Count Rate Magnesium Low PE Insert	CPS Value		SS Window 3 Count Rate Magnesium Low PE Insert	CPS Value				
Master		25650	Master		21330	Master		11690			
19000 (Minimum)	28000 (Nominal)	31000 (Maximum)	17000 (Minimum)	24000 (Nominal)	27000 (Maximum)	9900 (Minimum)	13500 (Nominal)	14700 (Maximum)			
SS Window 4 Count Rate Magnesium Low PE Insert	CPS Value		LS Window 1 Count Rate Magnesium Low PE Insert	CPS Value		LS Window 2 Count Rate Magnesium Low PE Insert	CPS Value				
Master		9573	Master		4837	Master		6031			
8000 (Minimum)	11000 (Nominal)	12000 (Maximum)	3600 (Minimum)	5400 (Nominal)	6200 (Maximum)	4600 (Minimum)	6900 (Nominal)	8000 (Maximum)			
LS Window 3 Count Rate Magnesium Low PE Insert	CPS Value		LS Window 4 Count Rate Magnesium Low PE Insert	CPS Value							
Master		7422	Master		1321						
5700 (Minimum)	8500 (Nominal)	9900 (Maximum)	1030 (Minimum)	1500 (Nominal)	1800 (Maximum)						

Master: 24-Mar-2010 15:25

iFlex Telemetry Gamma Neutron Tool / Equipment Identification			
Primary Equipment:			
Telemetry Gamma Neutron Sonde	ITNS - B	9	
Neutron Neutron Logging Source - contain	NNLS - B		
Telemetry Gamma Neutron Housing	ITNH - B	9	
PSP Supply and Telemetry Cartridge	PSTC - A		
PSP Telemetry Cartridge	PSC - ATS	9	
PSC 16.384MHz oscillator	PSC_ -		
Auxiliary Equipment:			

iFlex Telemetry Gamma Neutron Tool Wellsite Calibration											
Background											

Background														
Phase	Thermal Count Rate	Master Bkgd	CPS	Value	Phase	Thermal Count Rate	Master Bkgd	CPS	Value	Phase	Thermal Count Rate	Master Bkgd	CPS	Value
Master				26.42	Master				10.11	Master				27.07
Before				26.00	Before				10.96	Before				25.65
	20.00 (Minimum)	27.00 (Nominal)	40.00 (Maximum)			7.000 (Minimum)	10.00 (Nominal)	17.00 (Maximum)			20.00 (Minimum)	27.00 (Nominal)	40.00 (Maximum)	

Master: 5-Mar-2010 22:15

Before: 29-Mar-2010 23:44

iFlex Telemetry Gamma Neutron Tool Wellsite Calibration														
Tank Measurement														
Phase	Thermal Count Rate	Tank Meas	CPS	Value	Phase	Thermal Count Rate	Tank Meas	CPS	Value	Phase	Thermal Count Rate	Tank Meas	CPS	Value
Master				13730	Master				5025	Master				1472
	13400 (Minimum)	14600 (Nominal)	15700 (Maximum)			4900 (Minimum)	5410 (Nominal)	5900 (Maximum)			1440 (Minimum)	1570 (Nominal)	1700 (Maximum)	

Master: 5-Mar-2010 22:06

iFlex Telemetry Gamma Neutron Tool Master Calibration														
Tank Measurement														
Phase	Thermal Count Rate	Tank Meas	CPS	Value	Phase	Thermal Count Rate	Tank Meas	CPS	Value	Phase	Thermal Count Rate	Tank Meas	CPS	Value
Master				13730	Master				5025	Master				1472
	13400 (Minimum)	14600 (Nominal)	15700 (Maximum)			4900 (Minimum)	5410 (Nominal)	5900 (Maximum)			1440 (Minimum)	1570 (Nominal)	1700 (Maximum)	

Master: 5-Mar-2010 22:06

Company: **Deer Lake Oil and Gas, Inc.**

**Schlumberger**

Well: **Werner Hatch 1**

Field: **Deer Lake Basin**

Rig: **Logan Hydro 44**

Province: **Newfoundland**

MULTI-EXPRESS  
IDFR - RESISTIVITY LOG