

DISCLAIMER

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OTHER SERVICES1

- OS1: HNGS
- OS2: HLDS / APS
- OS3: MSS
- OS4: DSI
- OS5: FMS





REMARKS: RUN NUMBER 1

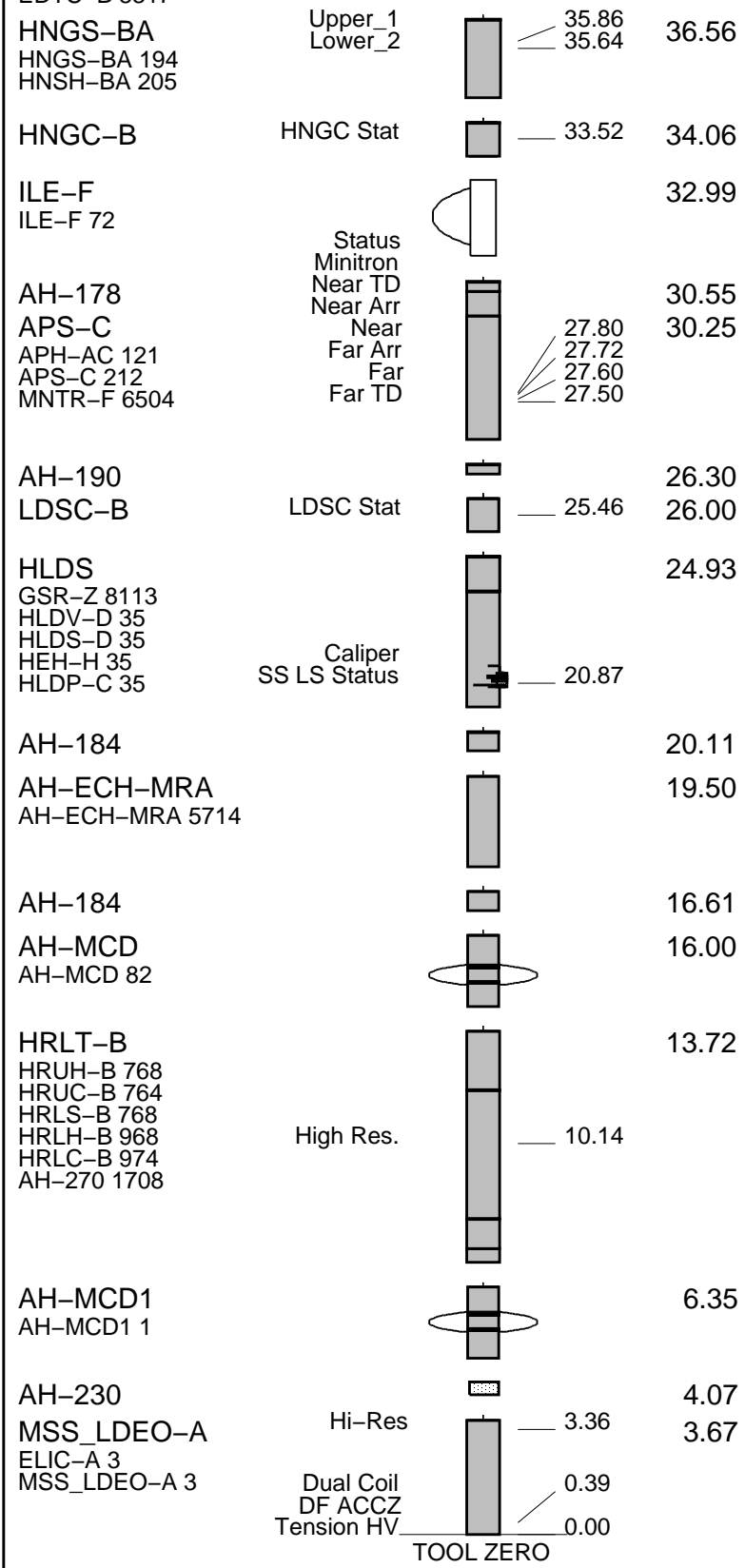
Hole drilled with RCB coring bit and bottom hole assembly (BHA). 9 7/8 " BS
 Coring concluded approximately 24 hours prior to logging.
 Drill pipe set at a depth of 92.3mbsf with a logging bit installed to facilitate wireline logging.
 Downlog run with corrections computed using bit size; uplogs corrected for actual hole size using caliper.
 Lower part of toolstring (MSS and HRLA) centralized using modified MCD inline centralizers.
 Upper part of toolstring (HLDS, APS, HNGS) eccentered using HLDS caliper and bowspring, as per toolsketch.
 APS minitron remained off during downlog to avoid GR interference / formation activation.
 Fluid type was sea water, as used to drill, so no barite corrections were required.
 Depth originally recorded from drill floor; played back with sea floor as reference zero.
 All logs presented in measured depth below sea floor (MDBSF).
 Maximum observed temperature on the MSS internal temperature sensor at the bottom of the hole was 60 degC.

RUN 1			RUN 2		
SERVICE ORDER #:			SERVICE ORDER #:		
PROGRAM VERSION: 19C0-187			PROGRAM VERSION:		
FLUID LEVEL:			FLUID LEVEL:		
LOGGED INTERVAL	START	STOP	LOGGED INTERVAL	START	STOP

EQUIPMENT DESCRIPTION

RUN 1		RUN 2	
SURFACE EQUIPMENT		SURFACE EQUIPMENT	
SFT-281 1			
SFT-178 1			
GSR-U 616008			
WITM (EDTS)-A			

RUN 1		RUN 2	
DOWNHOLE EQUIPMENT		DOWNHOLE EQUIPMENT	
LEH-QT	MDSB_EDTC		39.86
AH-369	Mud Tempe		38.54
	CTEM		38.97
EDTC-B	Gamma Ray		36.90
	EFTB DIAG		38.54
EDTH-B 8303	TelStatus		36.56
EDTC-B 8317	EDTCB Ele		



MAXIMUM STRING DIAMETER 4.50 IN
 MEASUREMENTS RELATIVE TO TOOL ZERO
 ALL LENGTHS IN METERS

Production String	(in)	(m)	Well Schematic	(m)	(in)	Casing String

Kelly Bushing Elevation

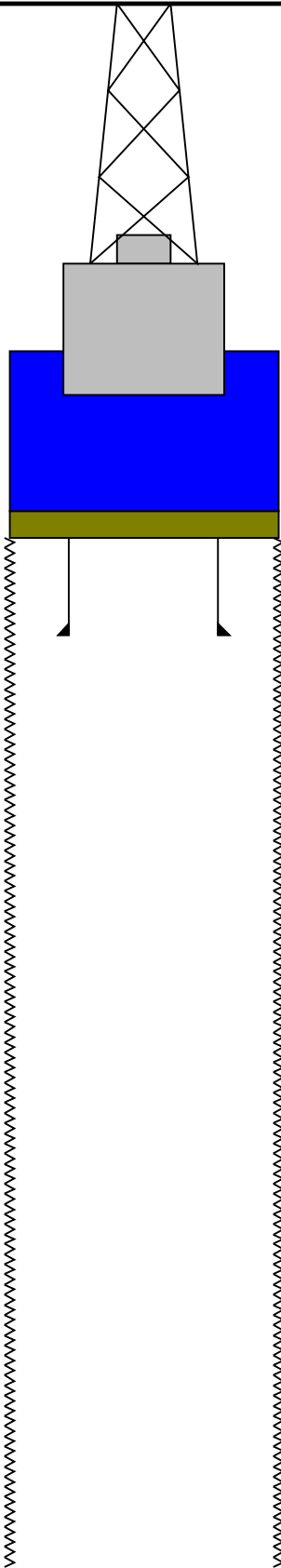
Derrick Floor Elevation

Mean Sea Level

-2127.3

-2127.3

-2117.3



0.0

92.3

5.500

980.4

9.875

Sea Floor

Bit Depth

Total Depth - Driller

Schlumberger

**Downlog
1:200 Scale**

MAXIS Field Log

Company: Lamont Doherty Earth Observatory

Well: Expedition 350, Site U1437D

Input DLIS Files

DEFAULT	Flip_MSS_LDEO_HRLA_033LUP	PRODUCER	25-Apr-2014 00:44	3091.3 M	2064.3 M
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Output DLIS Files

DEFAULT	MSS_LDEO_HRLA_LDL_037PUP	FN:43	PRODUCER	25-Apr-2014 01:10	964.8 M	-26.0 M
CLIENT	MSS_LDEO_HRLA_LDL_037PUC	FN:44	CUSTOMER	25-Apr-2014 01:10	964.8 M	-26.0 M

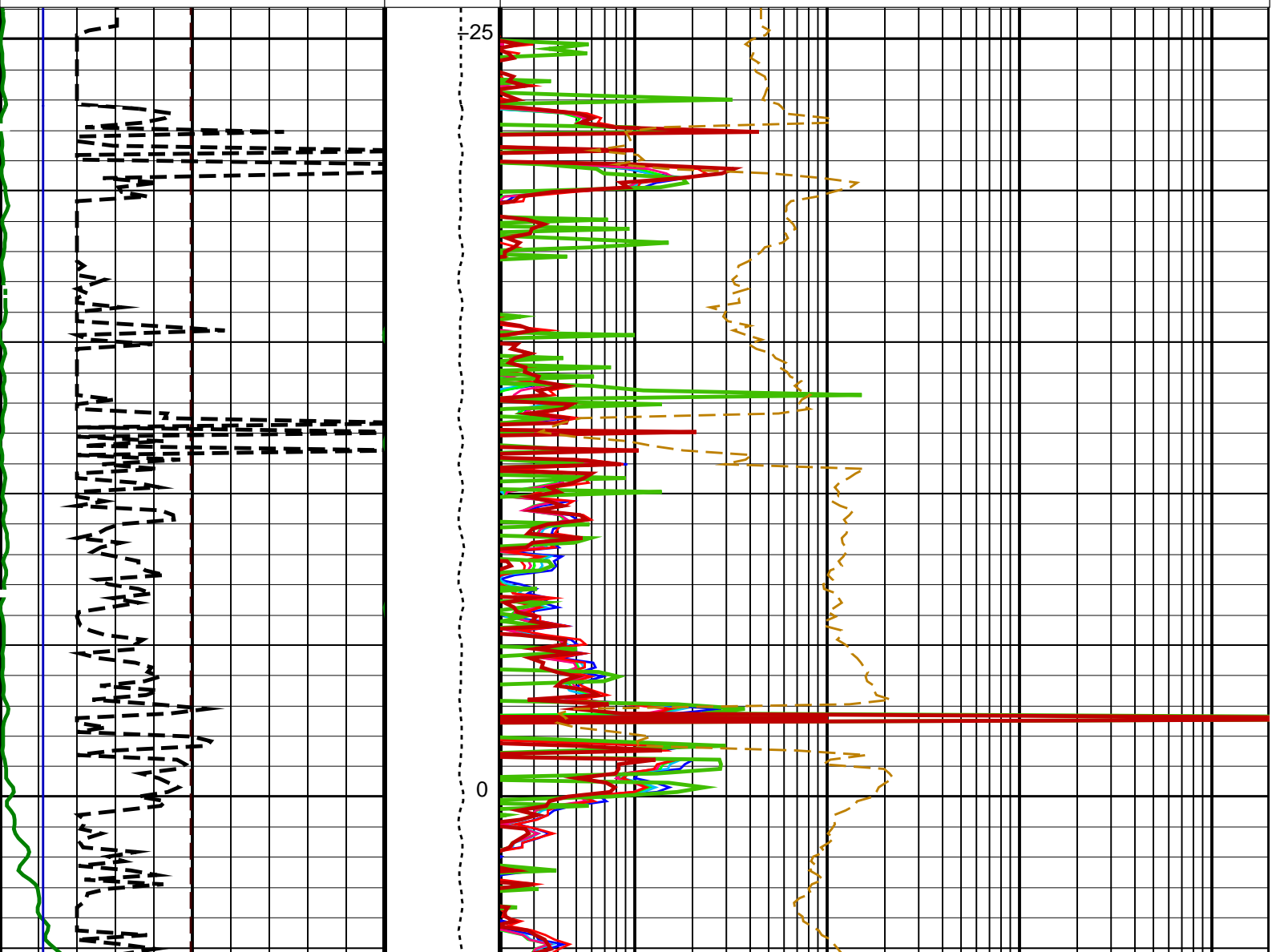
OP System Version: 19C0-187

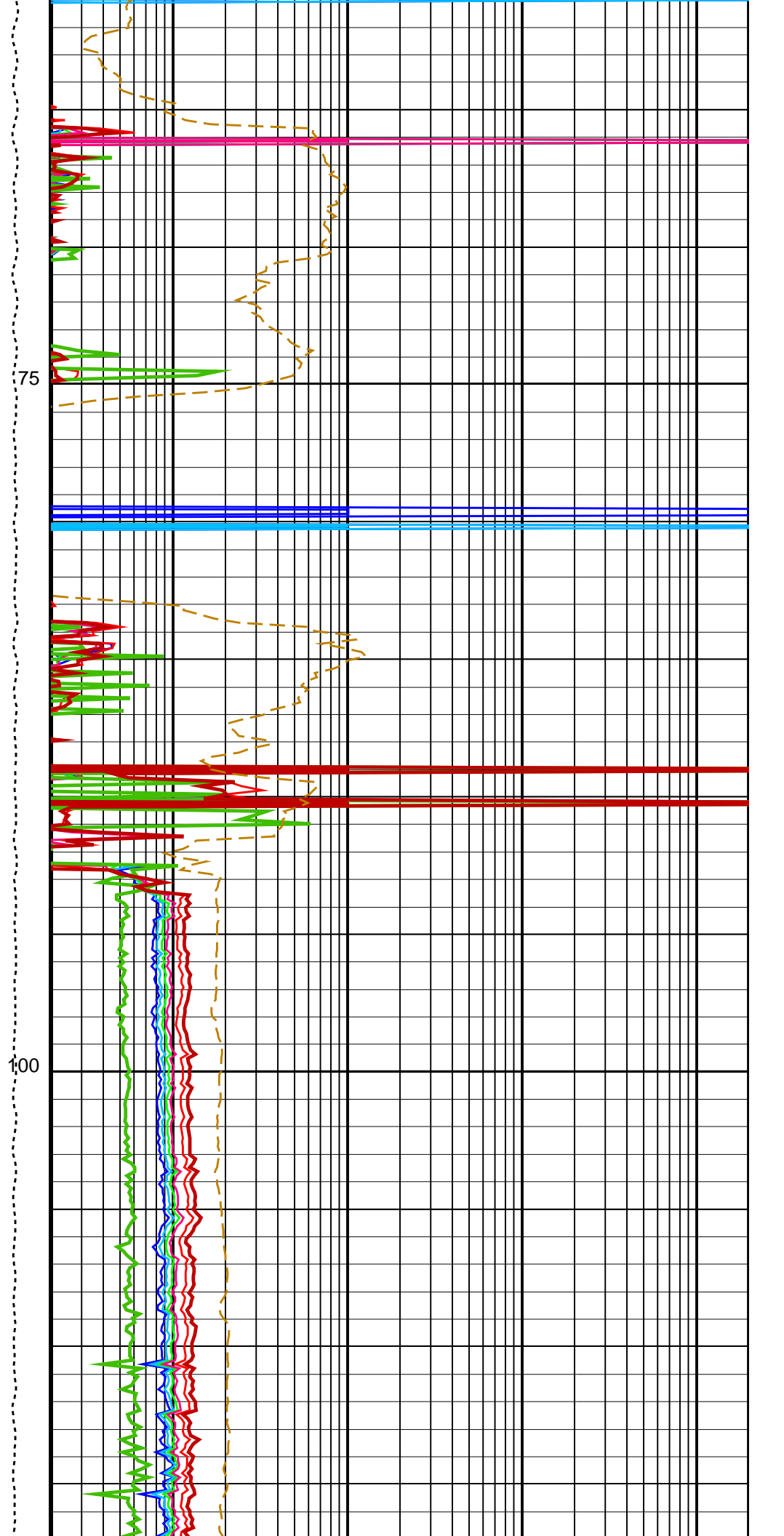
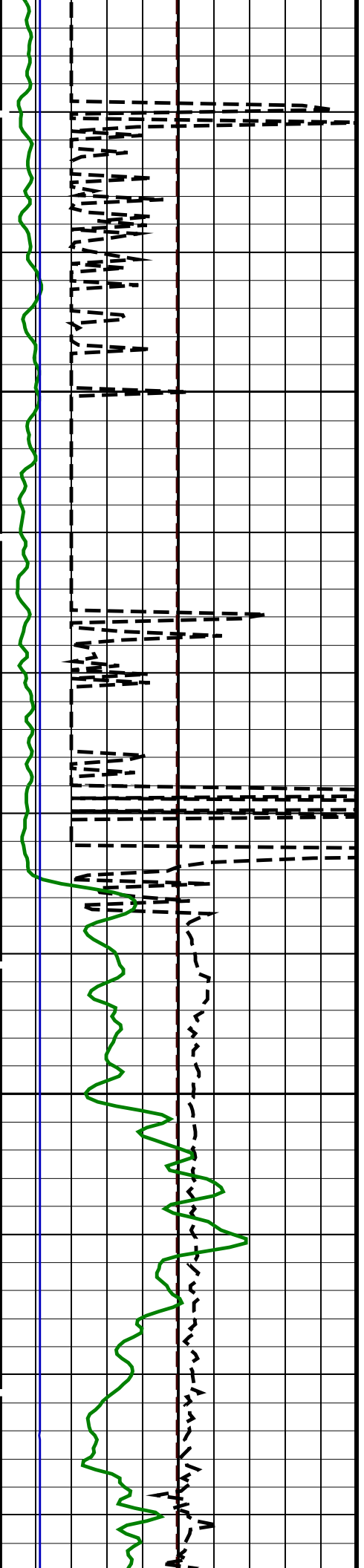
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HLDS	19C0-187	LDSC-B	19C0-187
APS-C	19C0-187	HNGC-B	19C0-187

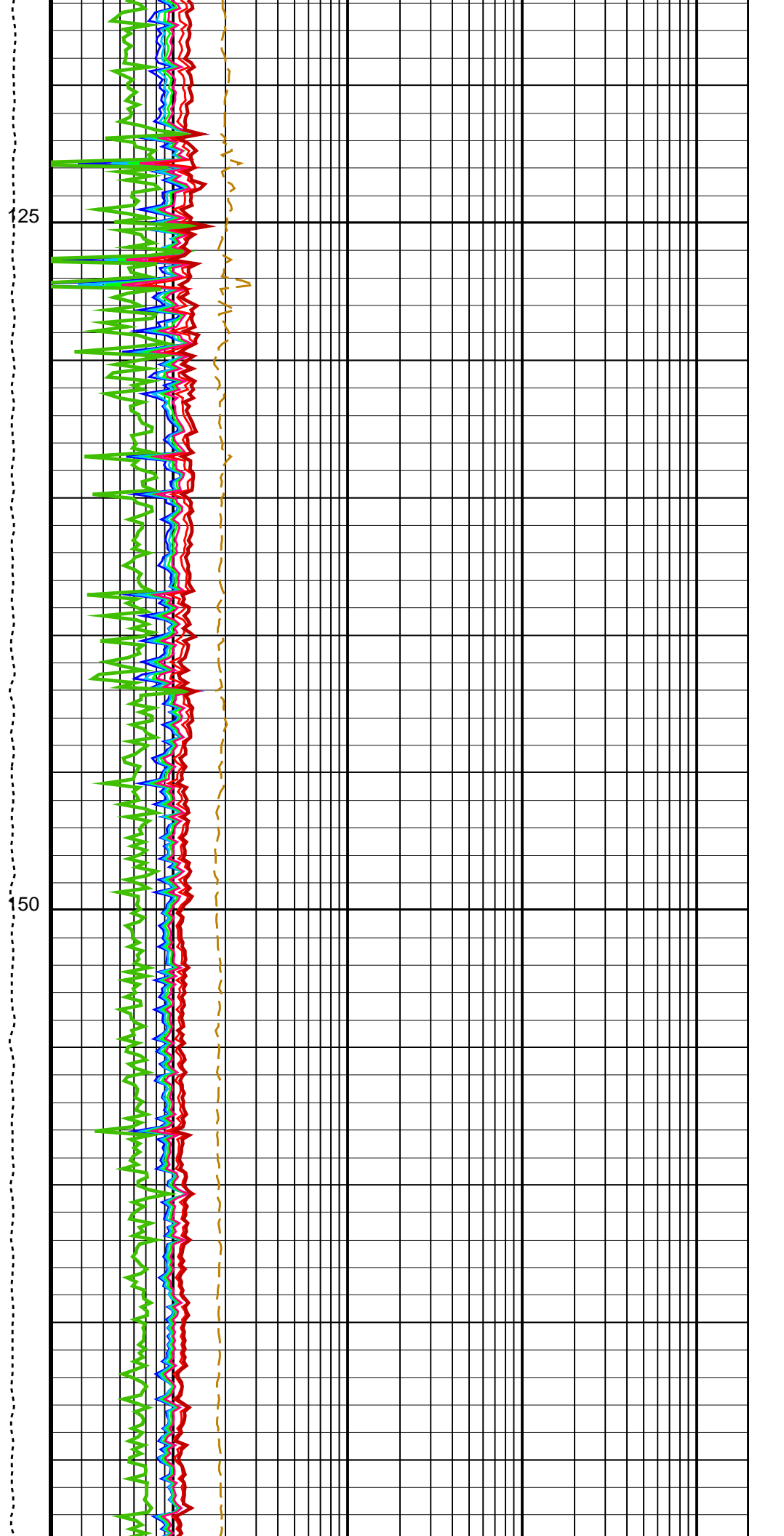
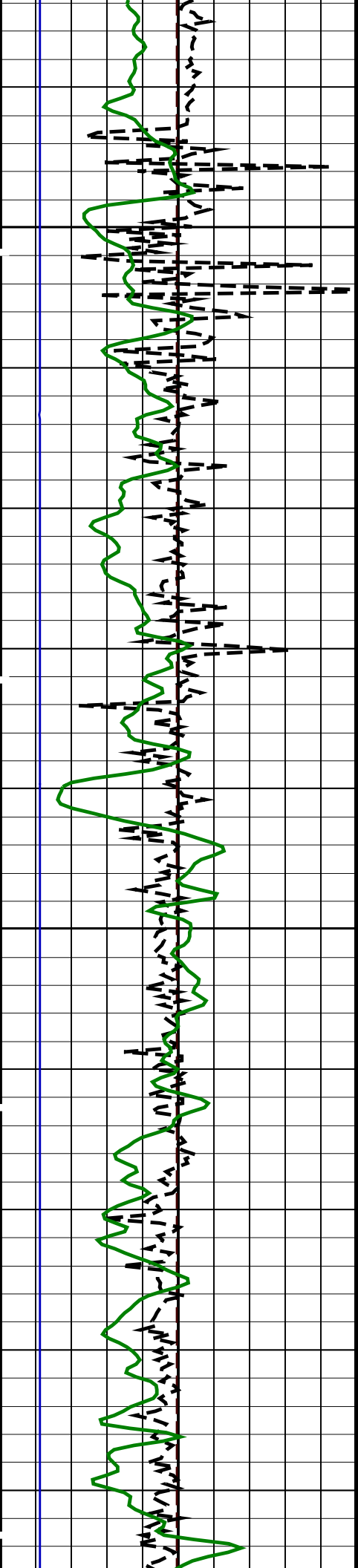
PIP SUMMARY

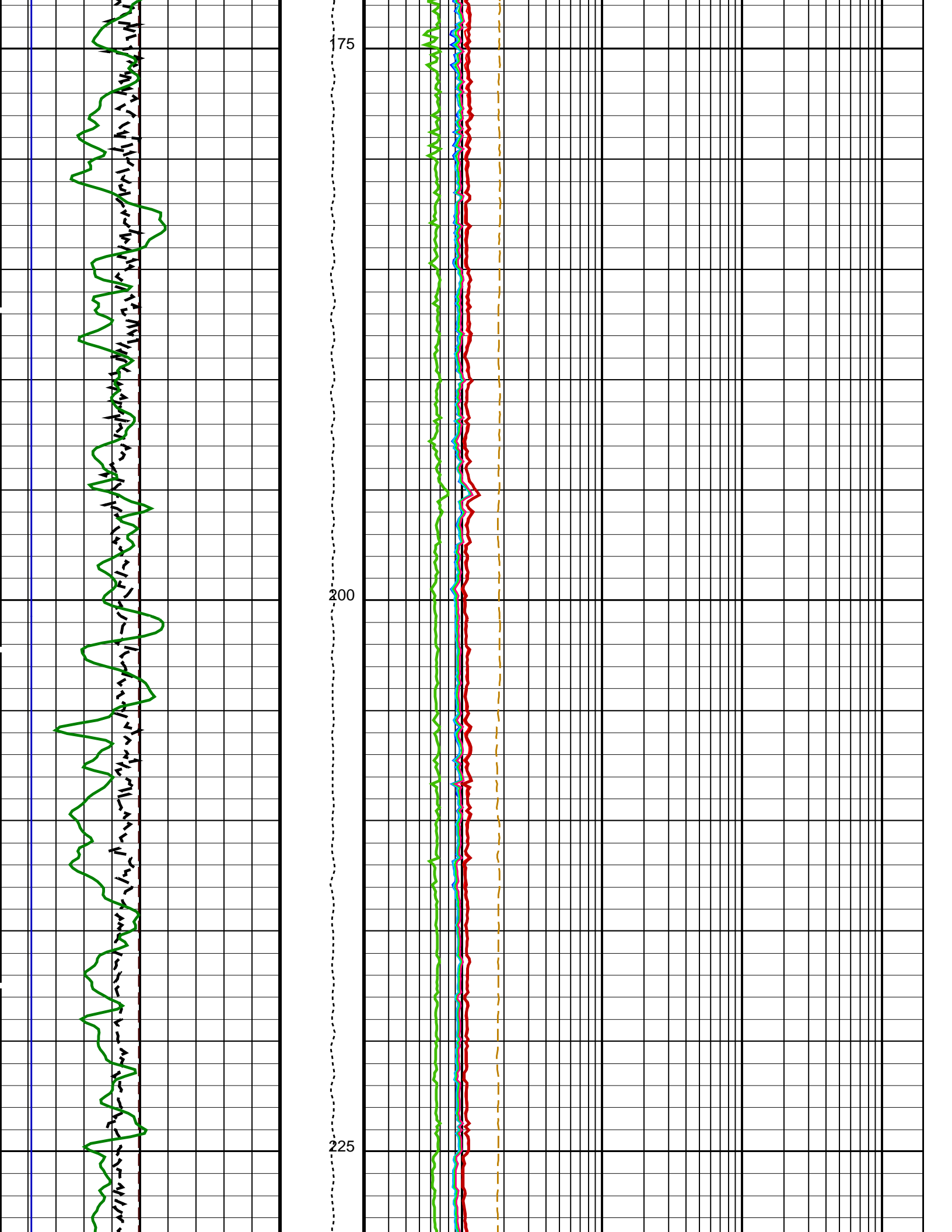
Time Mark Every 60 S

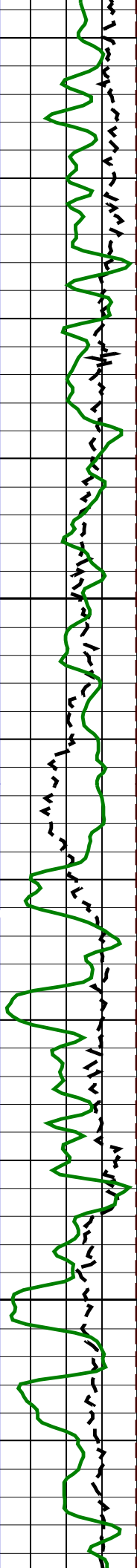
		HRLT True Resistivity (RT_HRLT)	
0.2	(OHMM)	2000	
		Invaded Zone Resistivity (RXO_HRLT)	
0.2	(OHMM)	2000	
		HRLT Mud Resistivity (RM_HRLT)	
0.02	(OHMM)	200	
		HRLT Resistivity 5 (RLA5)	
0.2	(OHMM)	2000	
		HRLT Resistivity 4 (RLA4)	
0.2	(OHMM)	2000	
		HRLT Resistivity 3 (RLA3)	
0.2	(OHMM)	2000	
		HRLT Resistivity 2 (RLA2)	
0.2	(OHMM)	2000	
		HRLT Resistivity 1 (RLA1)	
0.2	(OHMM)	2000	
HNGS Spectroscopy Gamma Ray (HSGR)			
0	(GAPI)	75	
Invasion Diameter (DI_HRLT)			
0	(IN)	50	
Caliper (LCAL)			
0	(IN)	20	
Bit Size (BS)			
0	(IN)	20	
Tension (TENS) (LBF)			
10000	0		





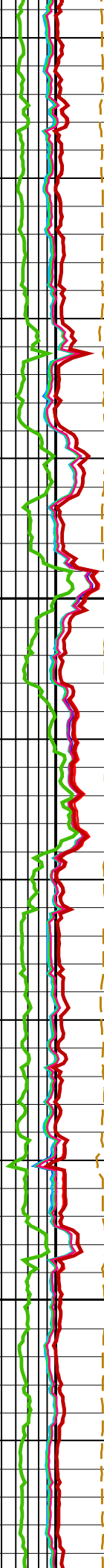


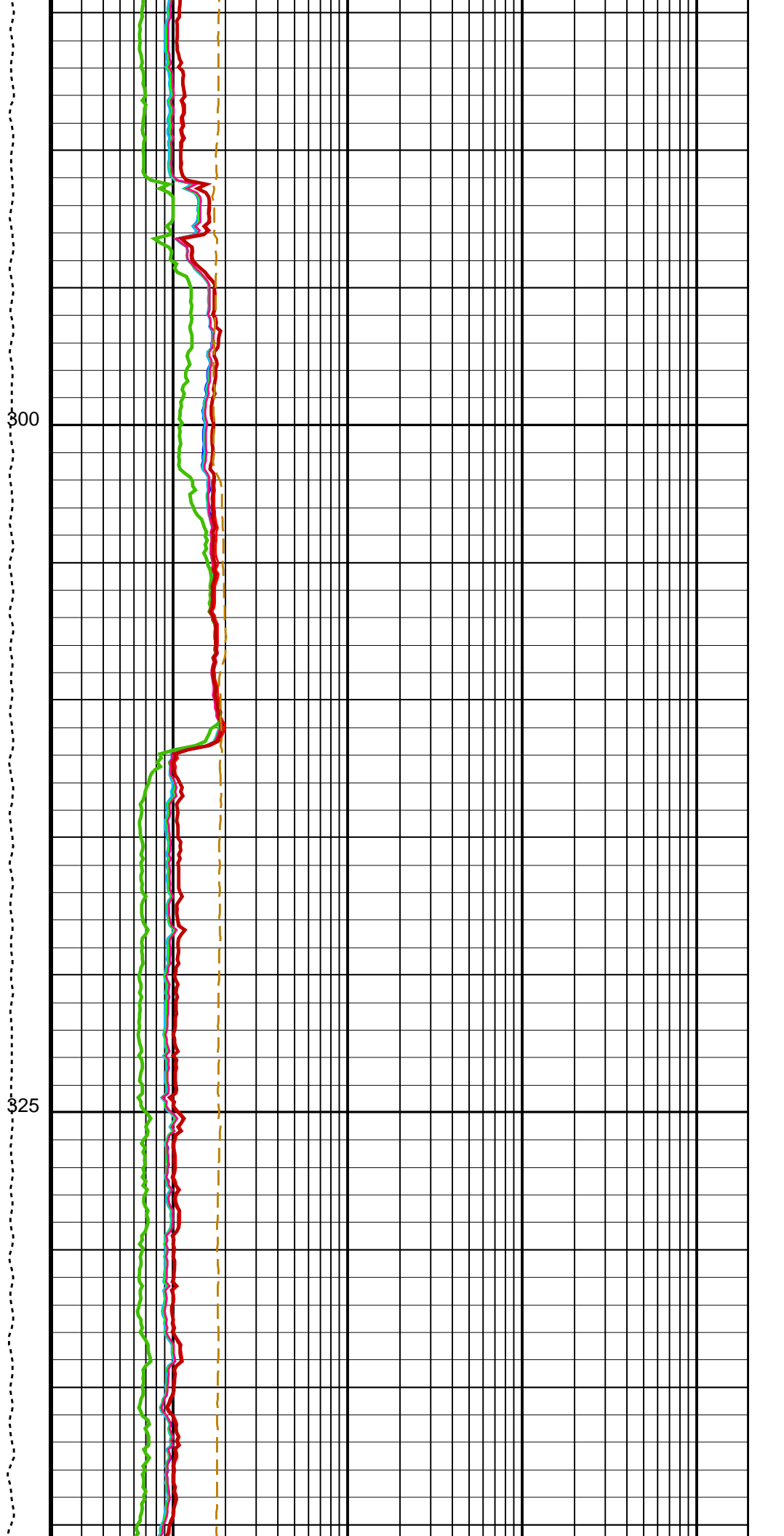
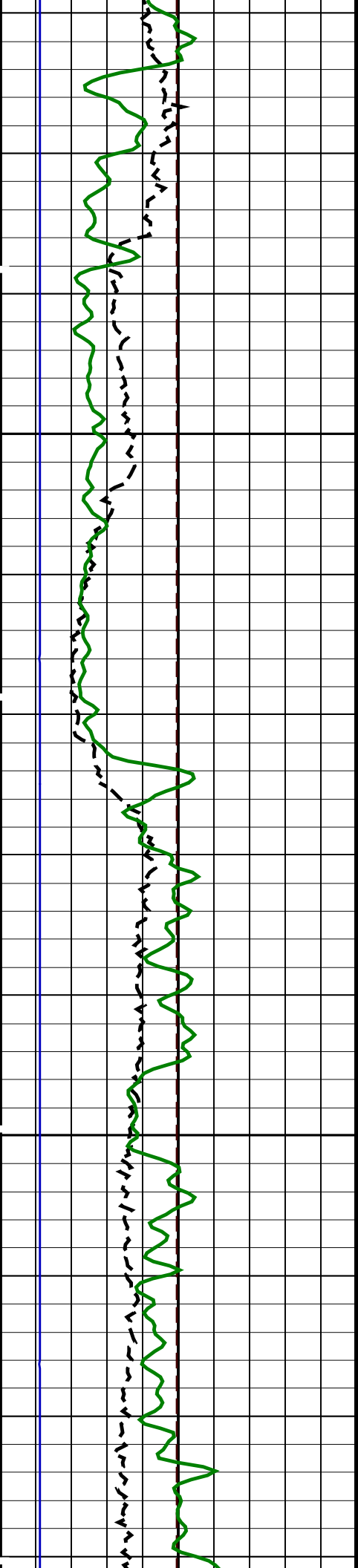


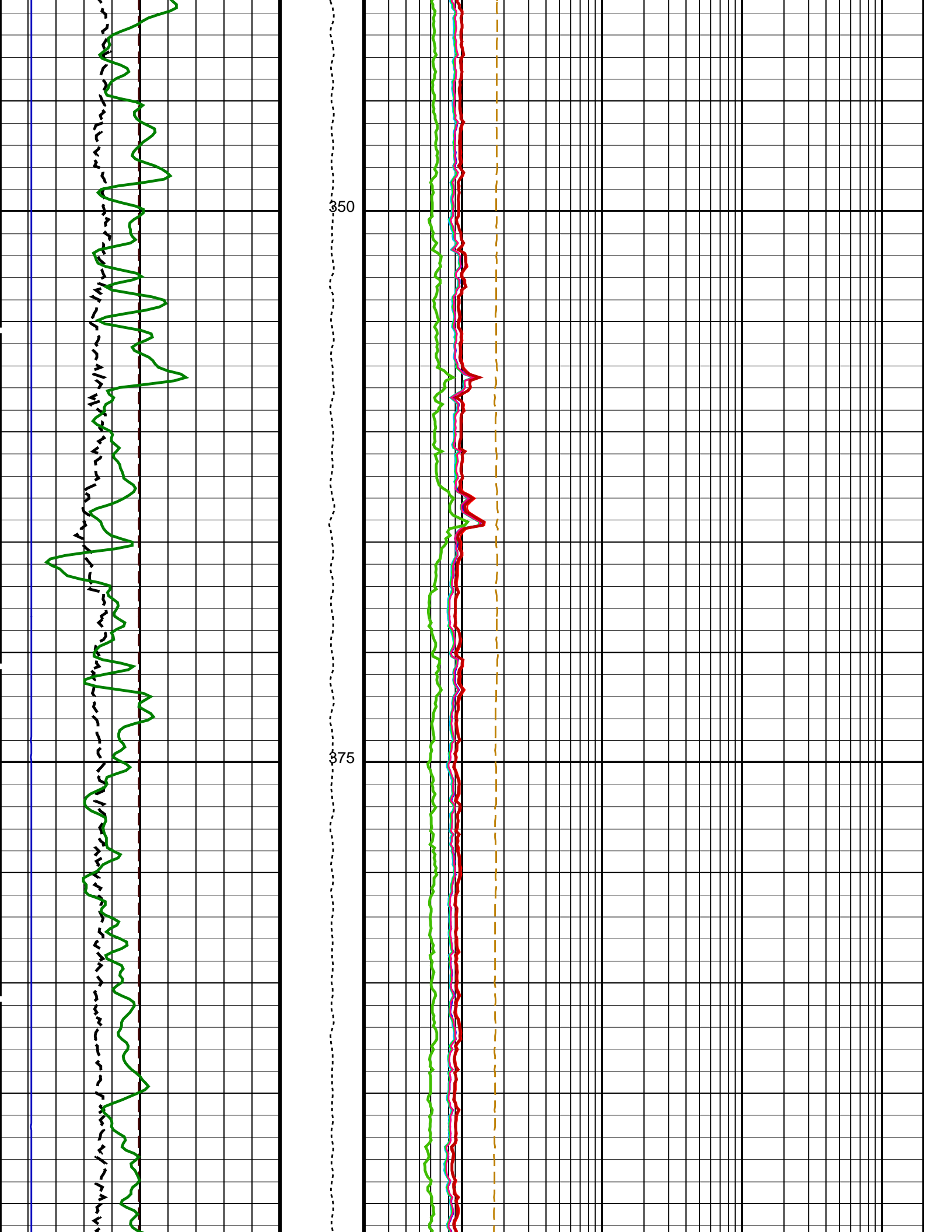


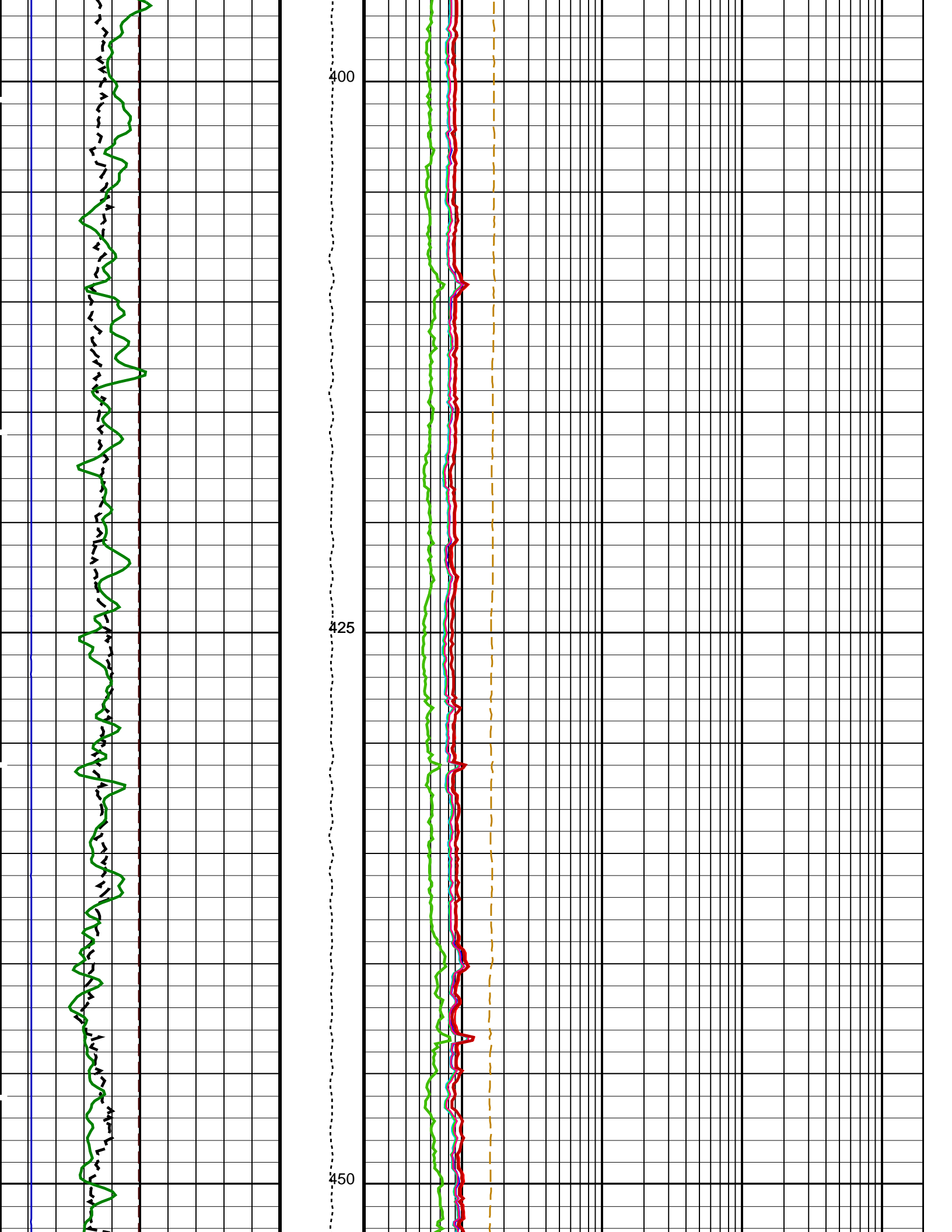
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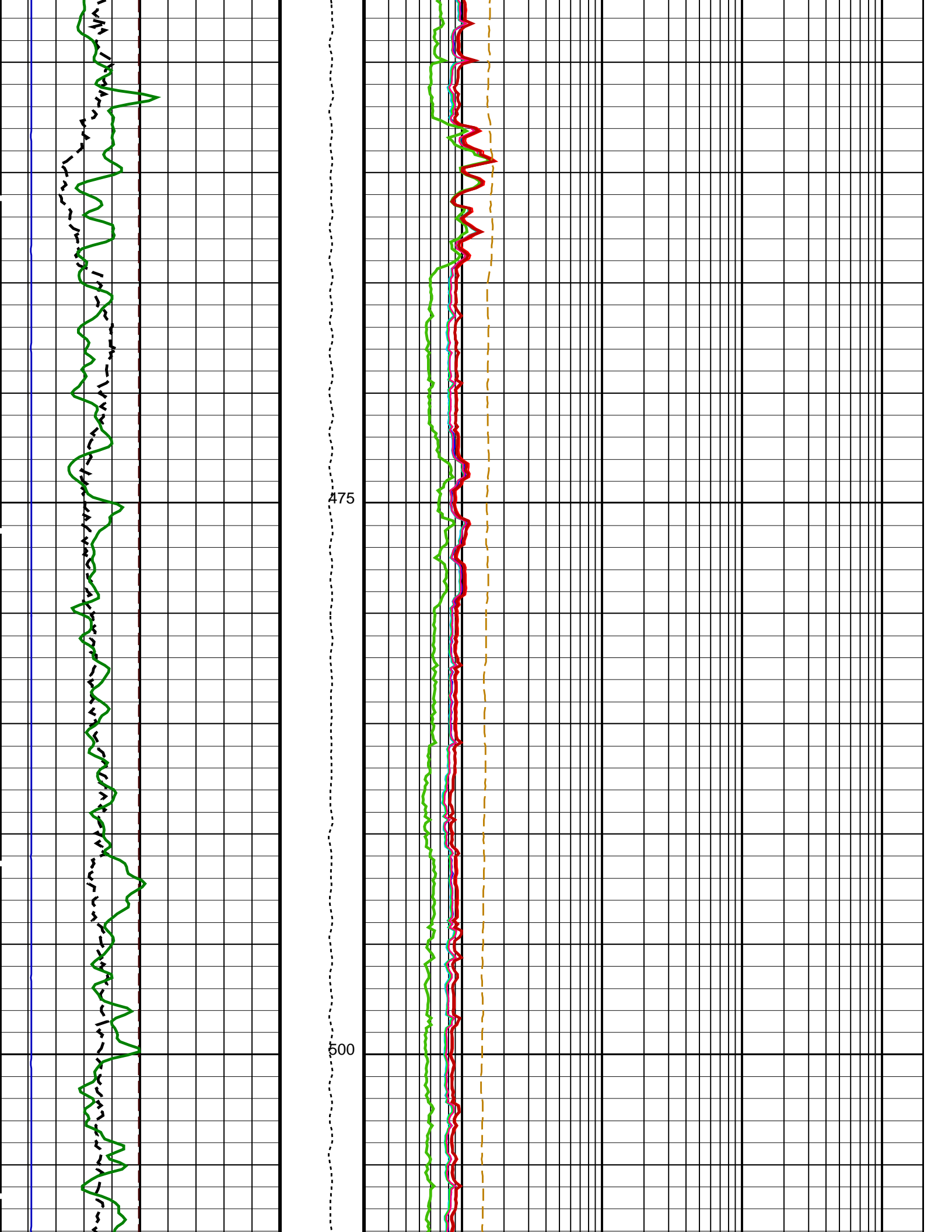
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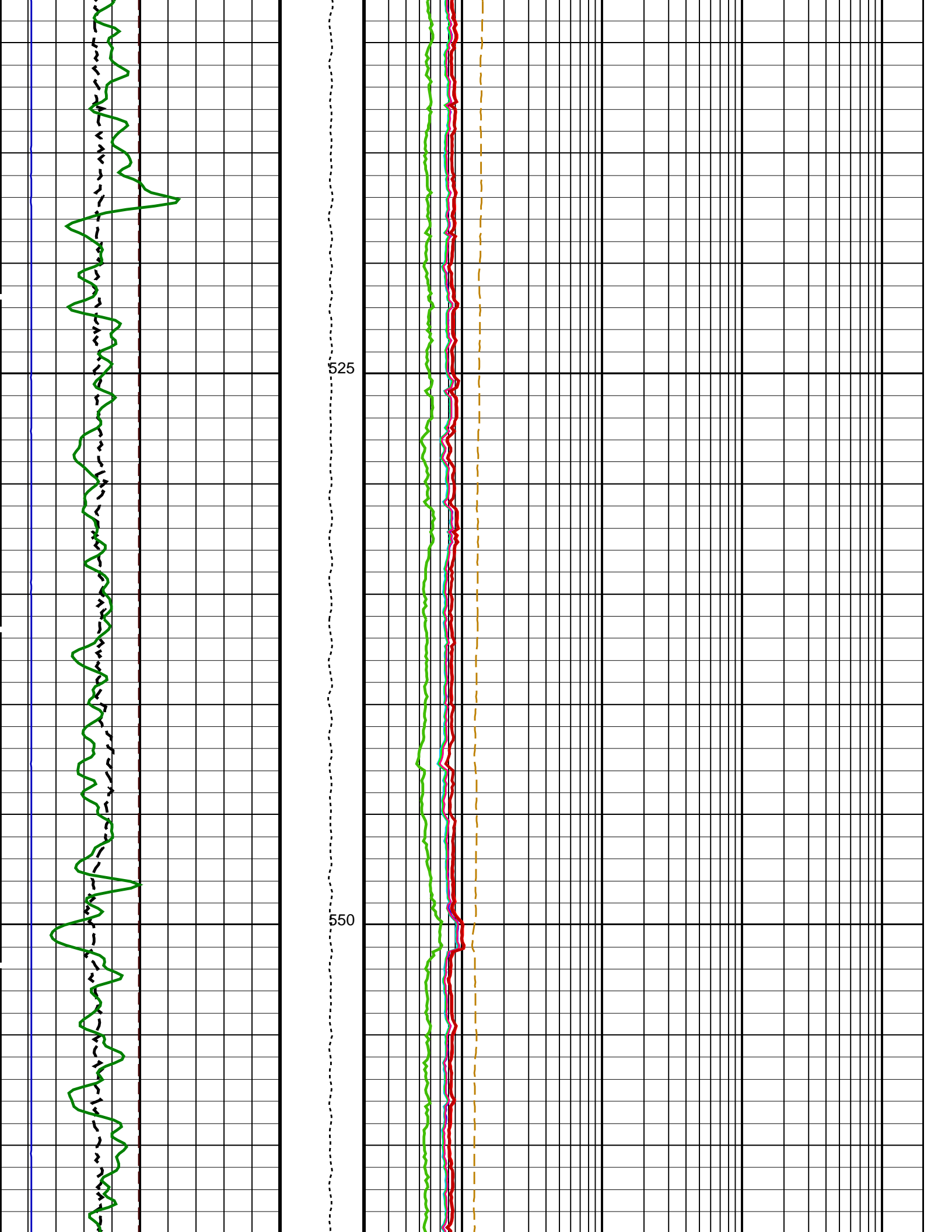


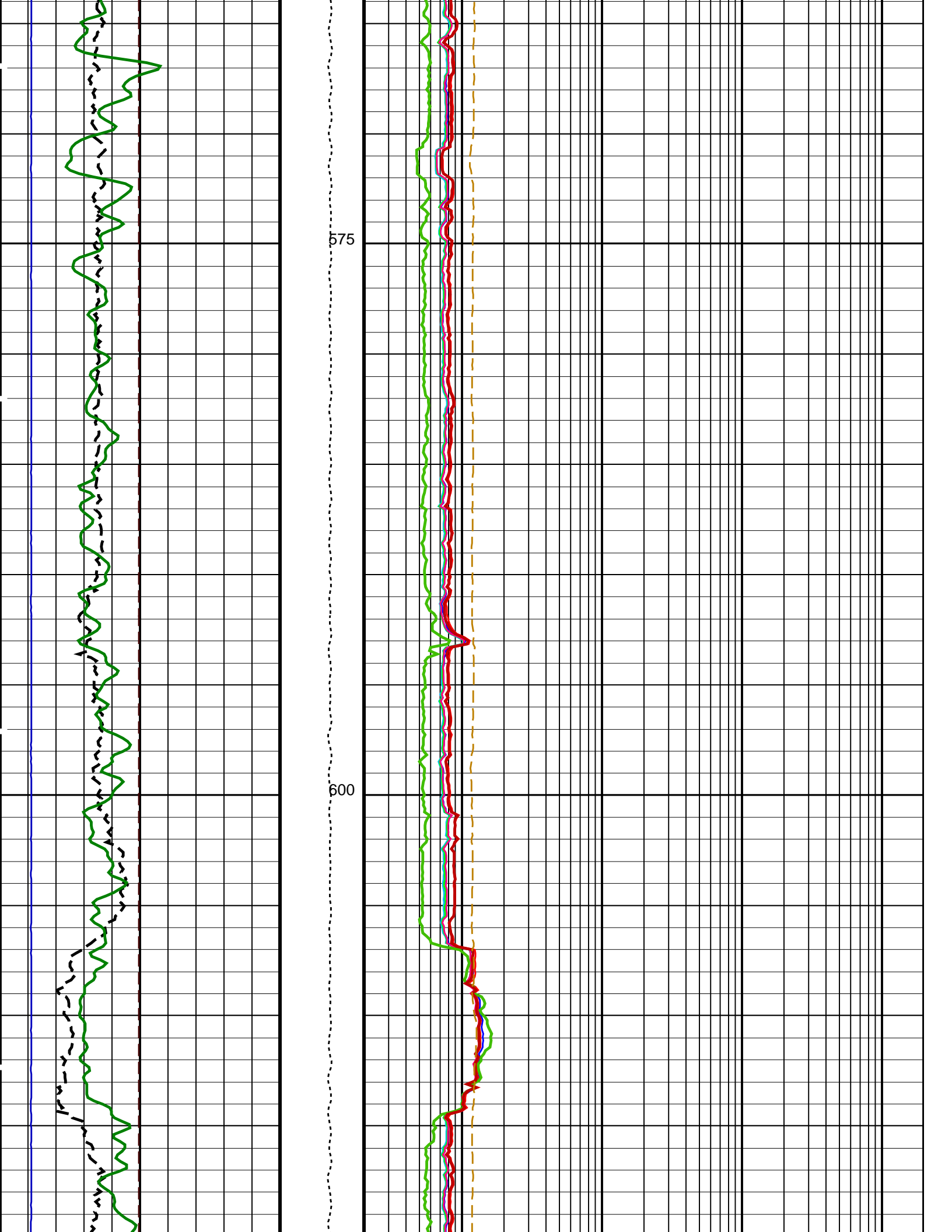


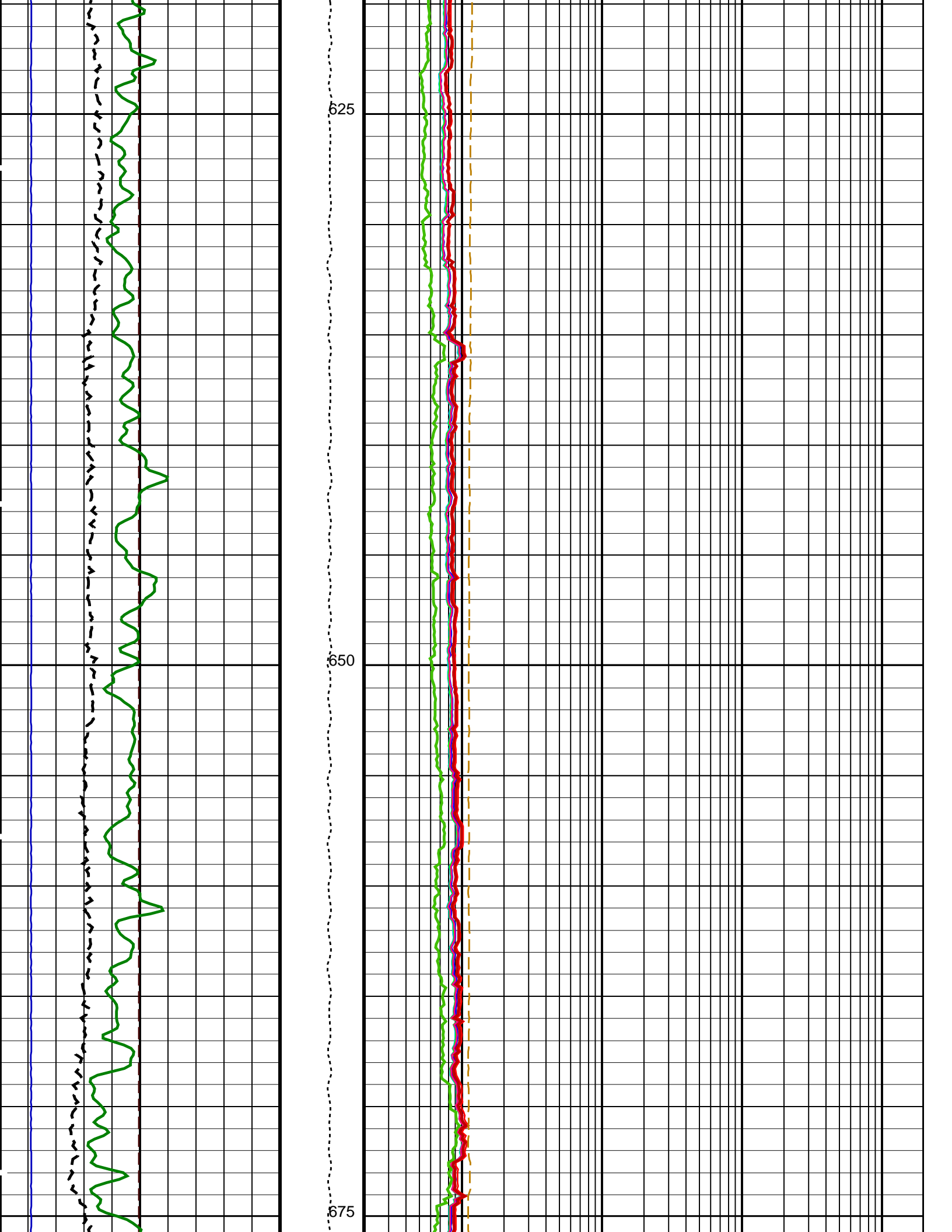


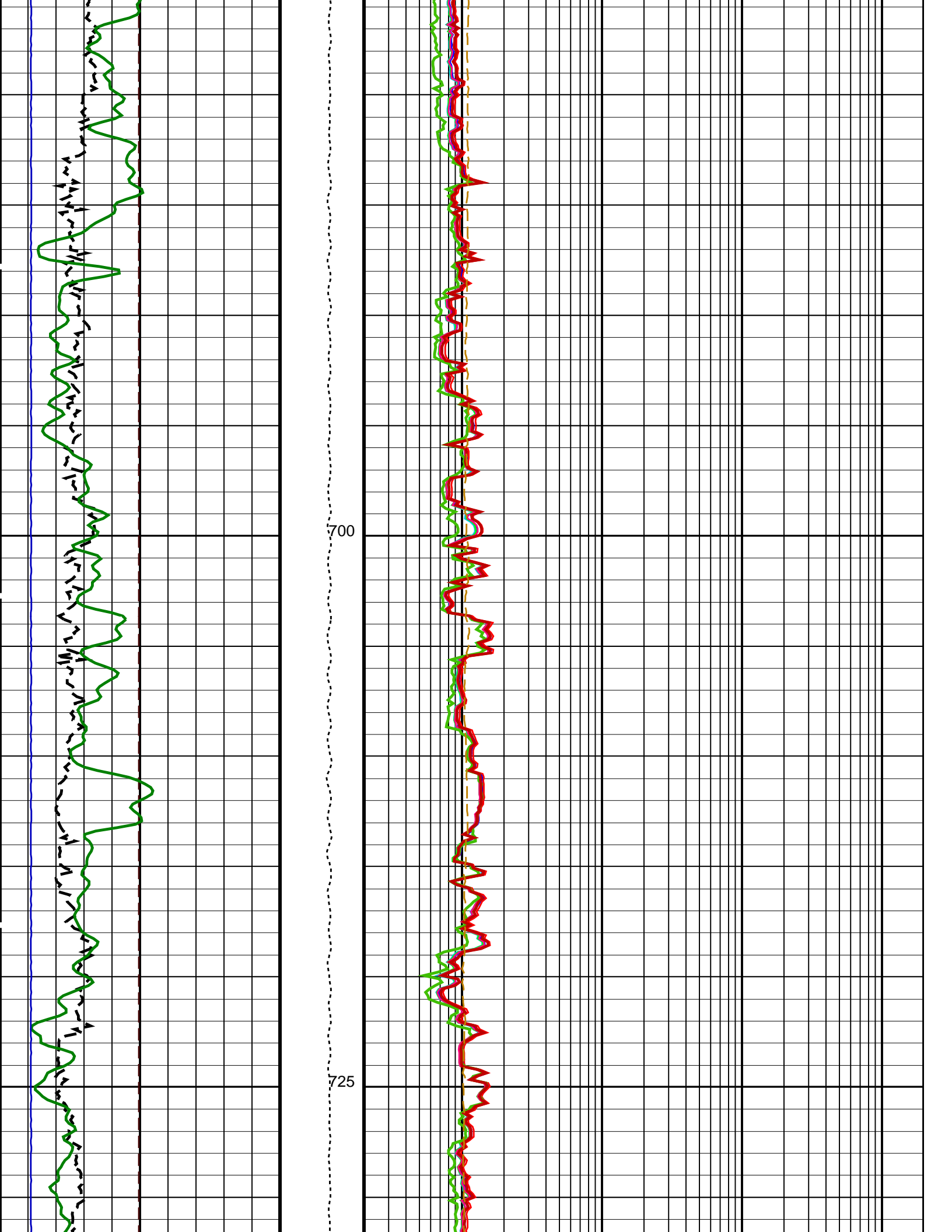


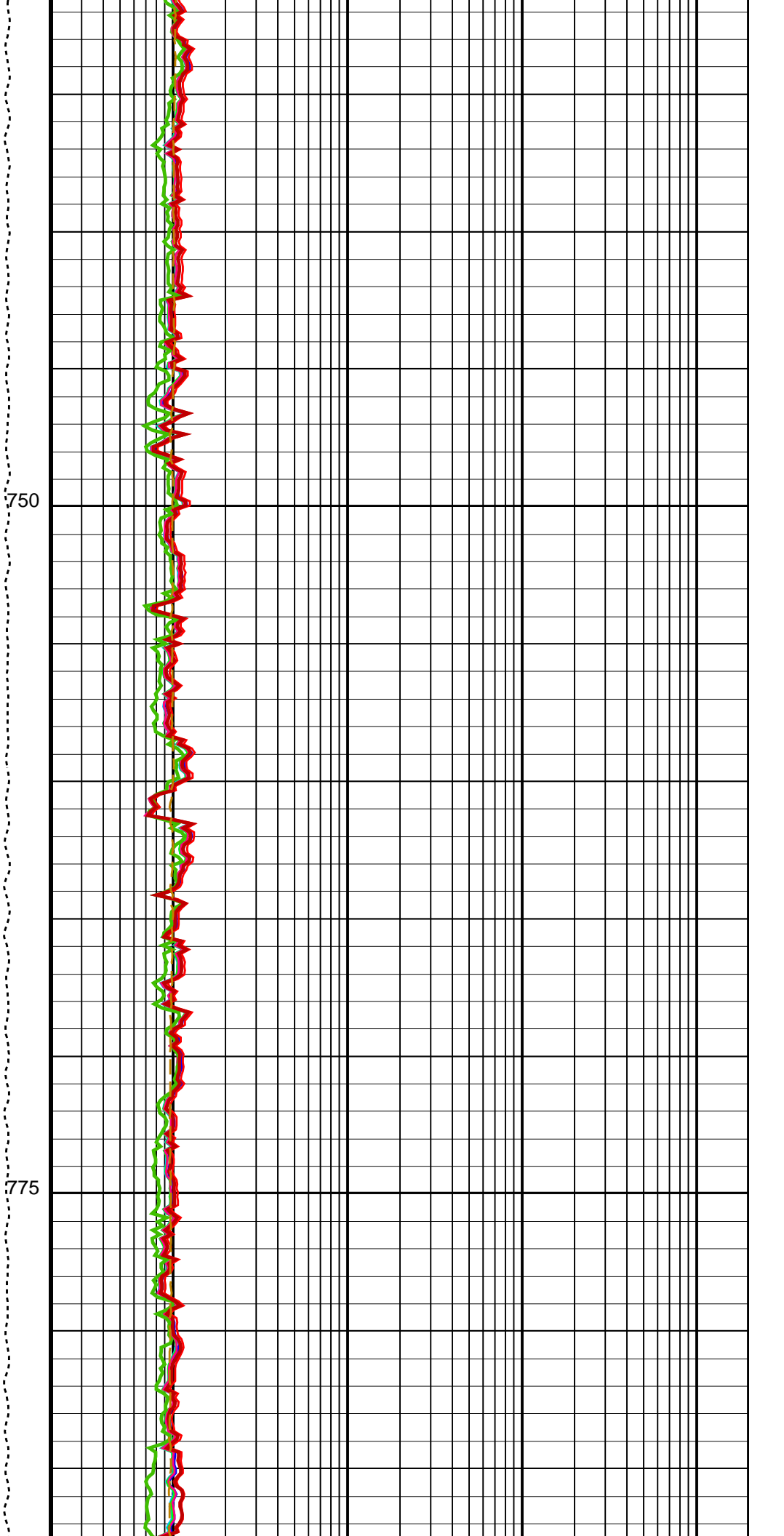
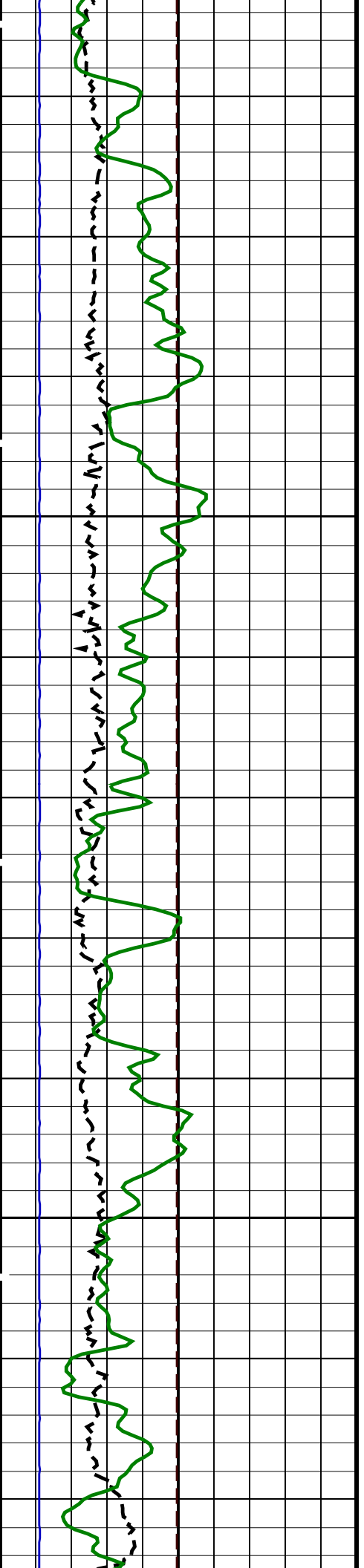


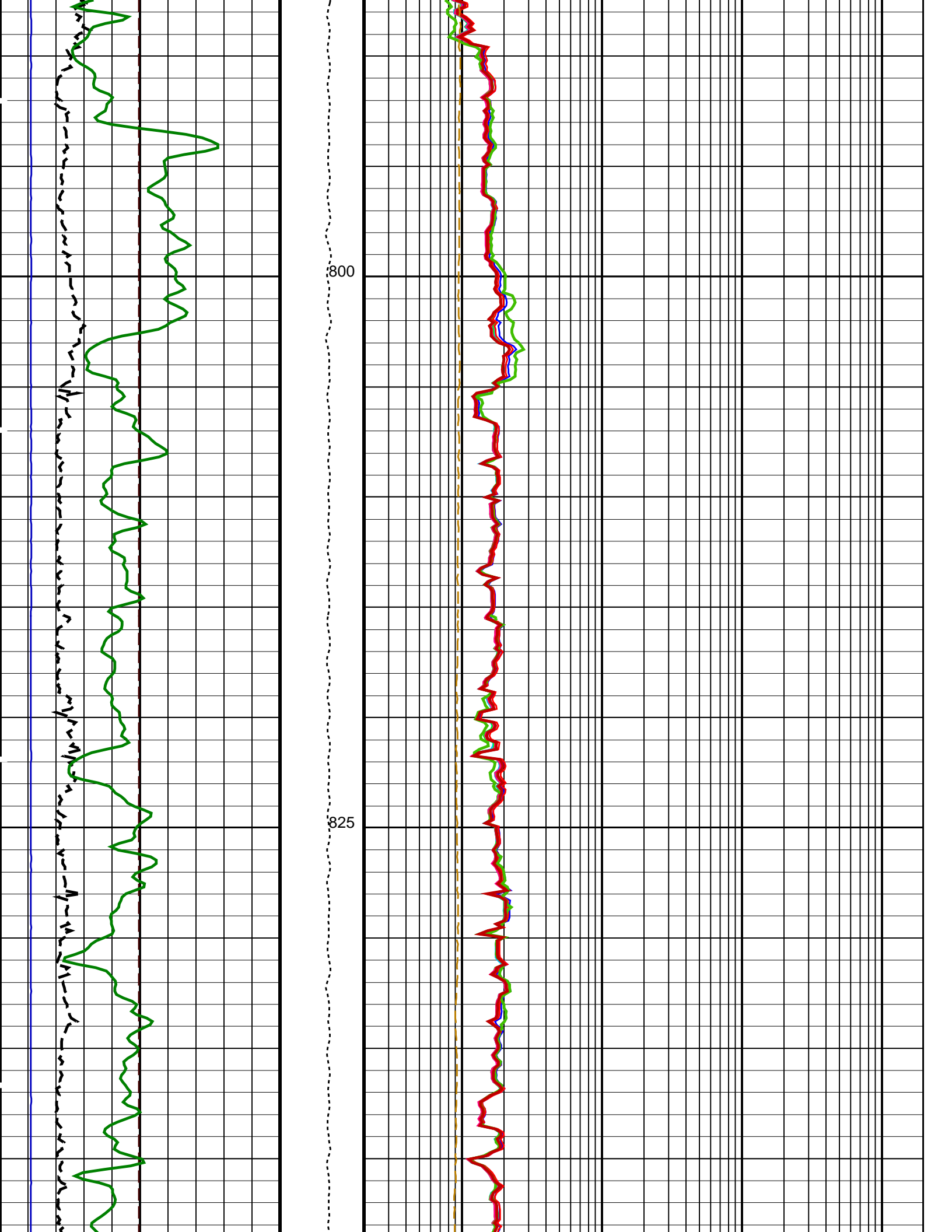


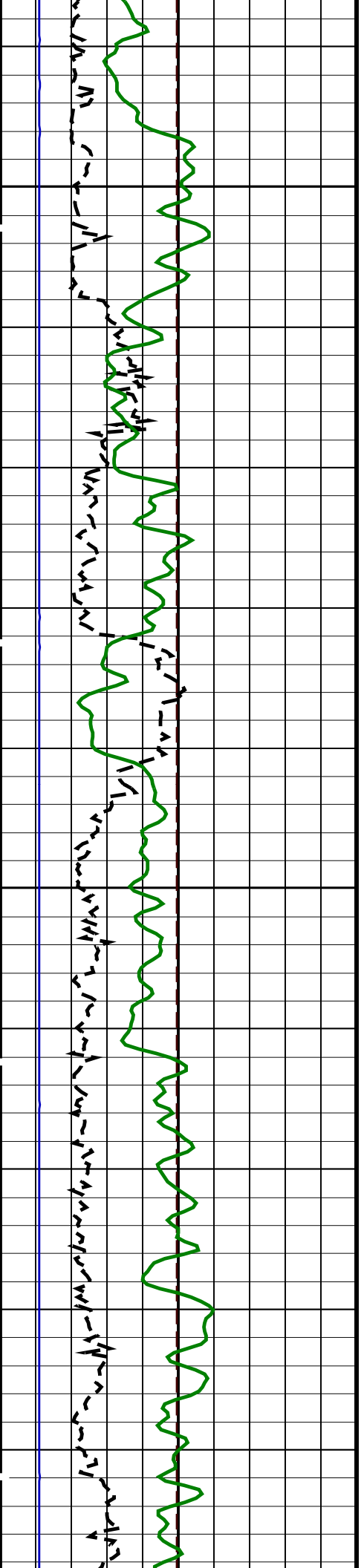






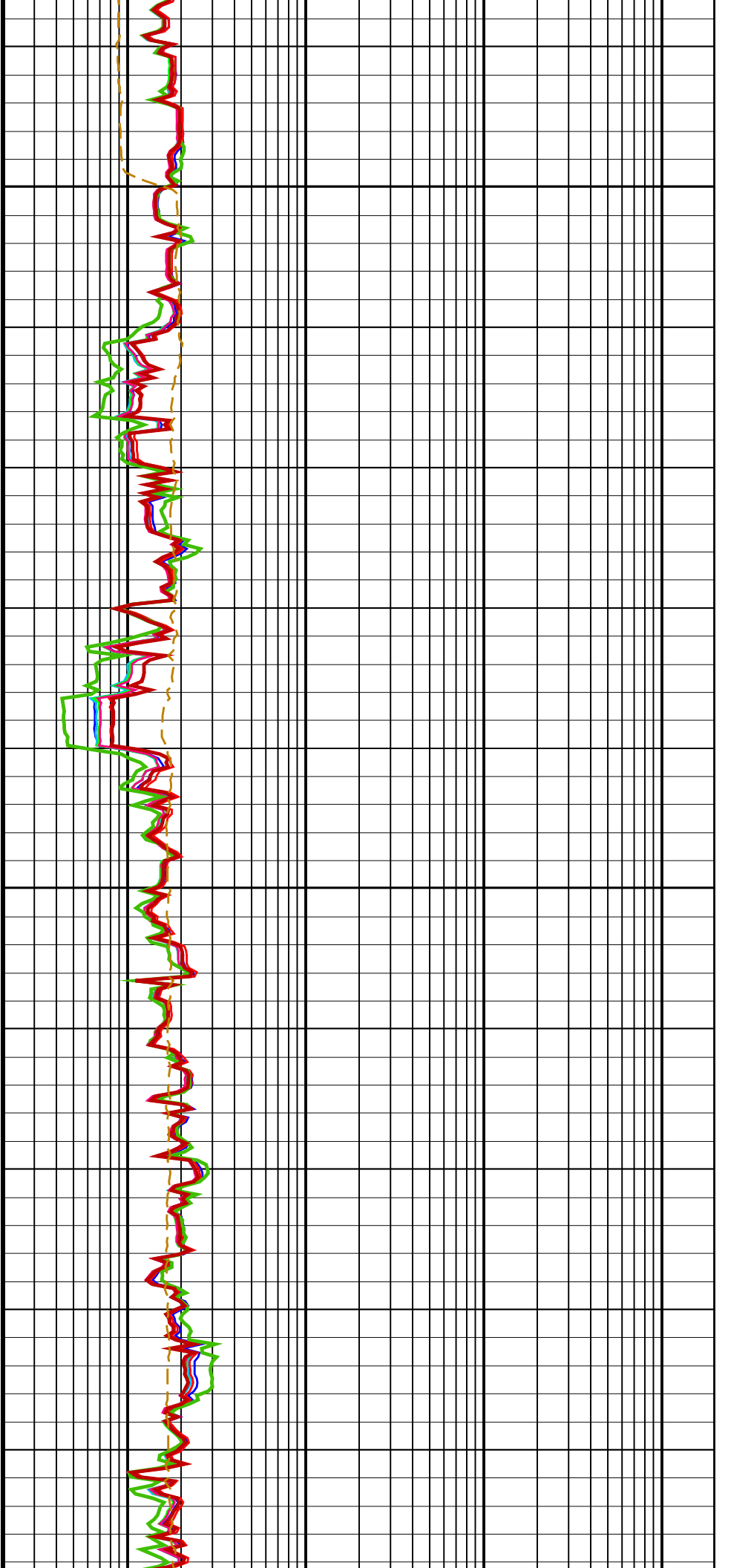


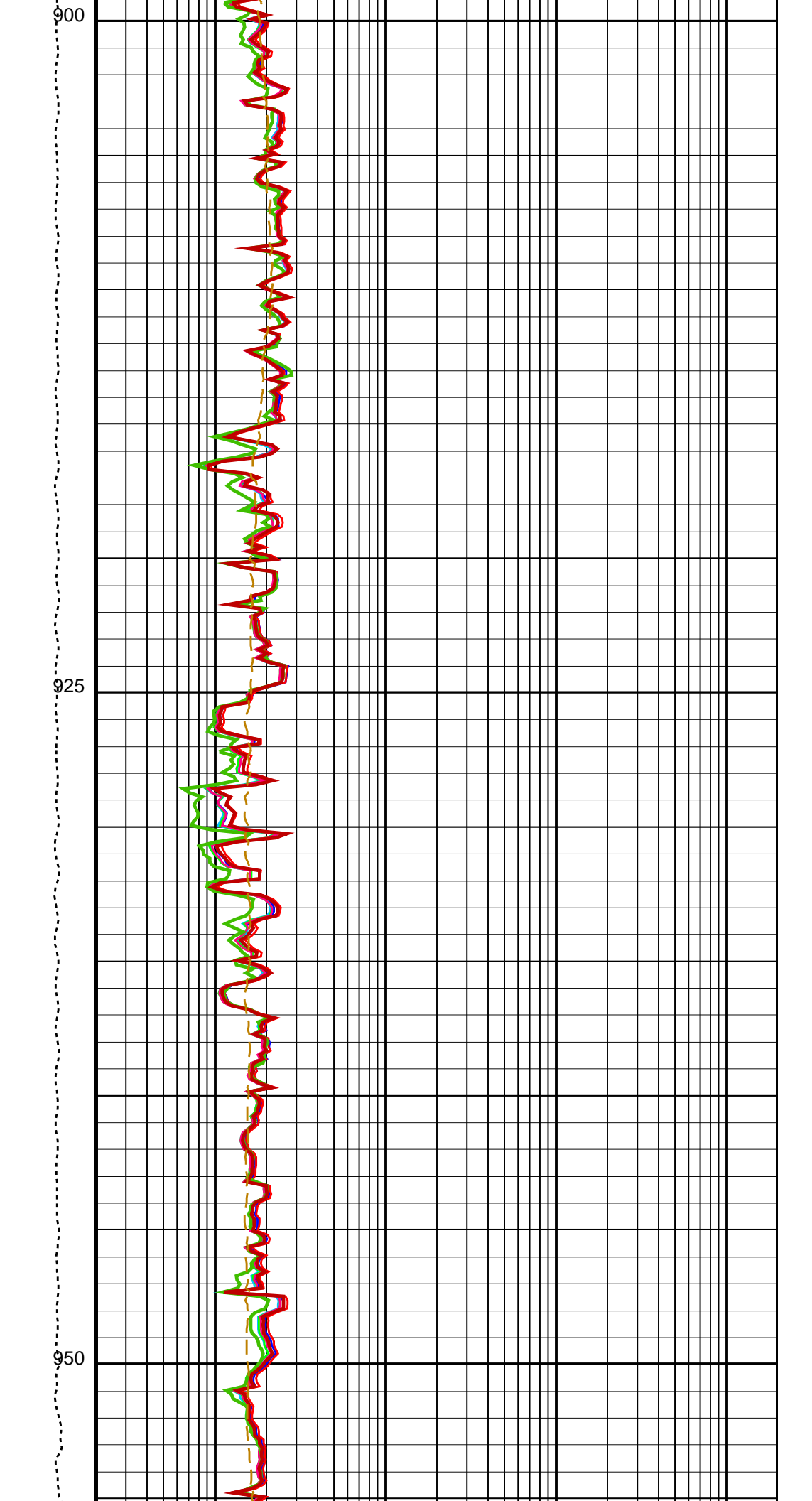
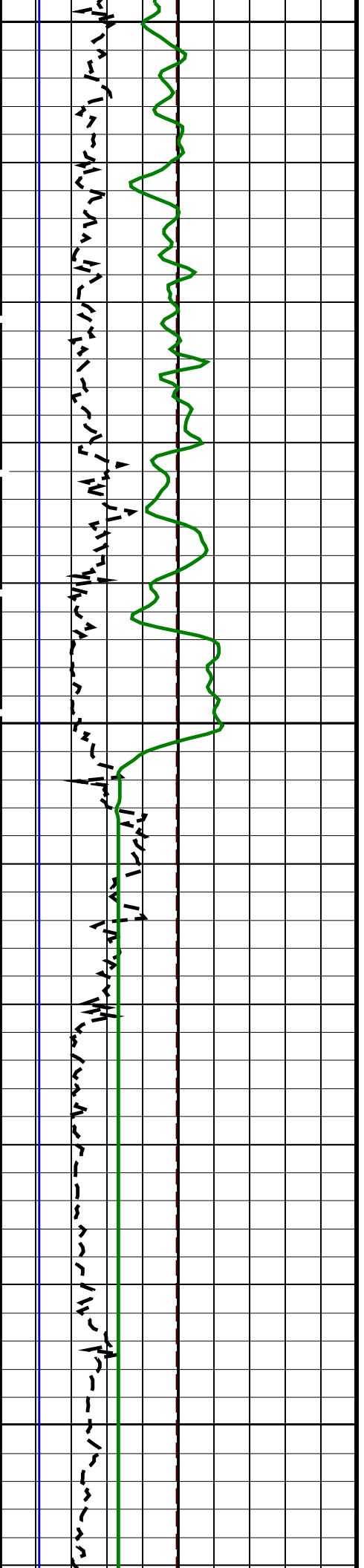


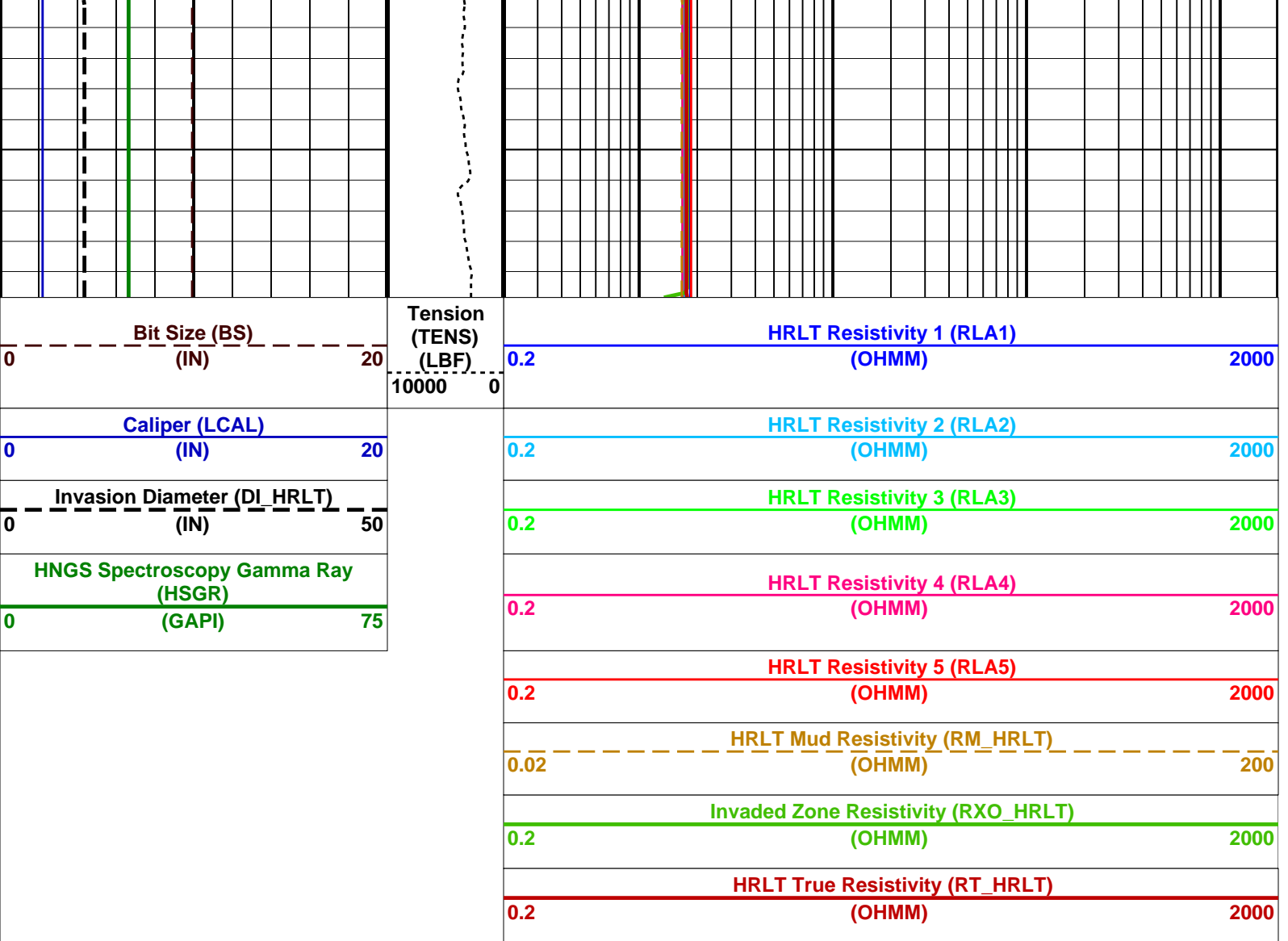


850

875







PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value
HRLT-B: High Resolution Laterolog Array - B		
BHS	Borehole Status	OPEN
BHT	Bottom Hole Temperature (used in calculations)	60 DEGC
GCSE	Generalized Caliper Selection	BS
GGRD	Geothermal Gradient	0.018227 DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE
KFAC_HRLT	HRLT K Factor Option	SONDE
PROCINV	Inversion Selection	ON
PROCNFL	Inversion Micro-Resistivity Selection	NO_EXTERNAL_RXO
PROCMSO	Mechanical Standoff Fin Size	0 IN
PROCRM	Processing Mud Resistivity Select	HRLT_Compute
PROCSP0	Sonde Position	Eccentered
SHT	Surface Hole Temperature	20 DEGC
APS-C: Accelerator-Porosity Tool		
BHS	Borehole Status	OPEN
BHT	Bottom Hole Temperature (used in calculations)	60 DEGC
GCSE	Generalized Caliper Selection	BS
GGRD	Geothermal Gradient	0.018227 DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE
SHT	Surface Hole Temperature	20 DEGC
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)	60 DEGC
CSD1	Inner Casing Outer Diameter	0 IN

CSD2	Outer Casing Outer Diameter	0	IN
CSW1	Inner Casing Weight	0	LB/F
CSW2	Outer Casing Weight	0	LB/F
DBCC	HNGS Barite Constant Correction Flag	NONE	
GCSE	Generalized Caliper Selection	BS	
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
H1P	HNGS Detector 1 Allow/Disallow In Processing	ALLOW	
H2P	HNGS Detector 2 Allow/Disallow In Processing	ALLOW	
HABK	HNGS Borehole Potassium Running Average	0.00598841	
HALF	HNGS Alpha Filter Length	60	IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	NATU	
HNPE	HNGS Processing Enable	YES	
S1BI	HNGS Detector 1 Calibration Bismuth Count Rate	1.3	CPS
S2BI	HNGS Detector 2 Calibration Bismuth Count Rate	1.3	CPS
SGRC	HNGS Standard Gamma-Ray Correction Flag	YES	
SHT	Surface Hole Temperature	20	DEGC
TPOS	Tool Position	ECCE	
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	0.984674	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	1.55611	
EDTC-B: Enhanced DTS Cartridge			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	60	DEGC
GCSE	Generalized Caliper Selection	BS	
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
SHT	Surface Hole Temperature	20	DEGC
System and Miscellaneous			
BS	Bit Size	9.875	IN
DO	Depth Offset for Playback	-2126.5	M
MST	Mud Sample Temperature	-50000.00	DEGC
PP	Playback Processing	NORMAL	
TD	Total Depth	471	M

Format: HRLT Vertical Scale: 1:200 Graphics File Created: 25-Apr-2014 01:10

OP System Version: 19C0-187

MSS_LDEO-A	19C0-187	HRLT-B	19C0-187
HLDS	19C0-187	LDSC-B	19C0-187
APS-C	19C0-187	HNGC-B	19C0-187
HNGS-BA	19C0-187	EDTC-B	SKK-5169-EDTCB

Input DLIS Files

DEFAULT	Flip_MSS_LDEO_HRLA_033LUP	PRODUCER	25-Apr-2014 00:44	3091.3 M	2064.3 M
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Output DLIS Files

DEFAULT	MSS_LDEO_HRLA_LDL_037PUP	FN:43	PRODUCER	25-Apr-2014 01:10
CLIENT	MSS_LDEO_HRLA_LDL_037PUC	FN:44	CUSTOMER	25-Apr-2014 01:10



**Repeat Pass
1:200 Scale**

MAXIS Field Log

Company: Lamont Doherty Earth Observatory Well: Expedition 350, Site U1437D

Input DLIS Files

DEFAULT	MSS_LDEO_HRLA_LDL_017LUP	FN:17	PRODUCER	22-Apr-2014 10:49	3086.1 M	2901.1 M
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Output DLIS Files

Output DLIS Files

DEFAULT	MSS_LDEO_HRLA_LDL_039PUP	FN:47	PRODUCER	25-Apr-2014 01:24	960.9 M	775.6 M
CLIENT	MSS_LDEO_HRLA_LDL_039PUC	FN:48	CUSTOMER	25-Apr-2014 01:24	960.9 M	775.6 M

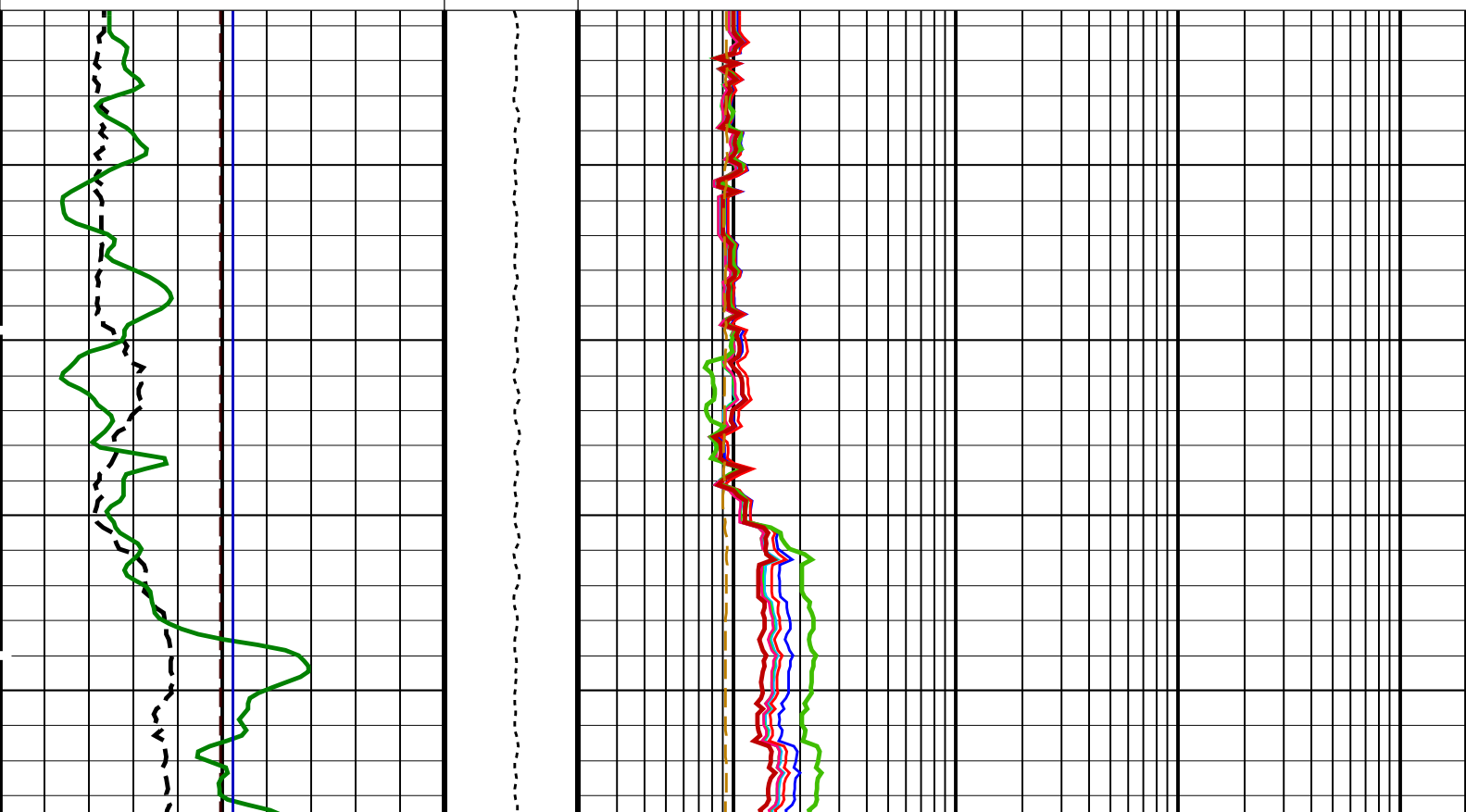
OP System Version: 19C0-187

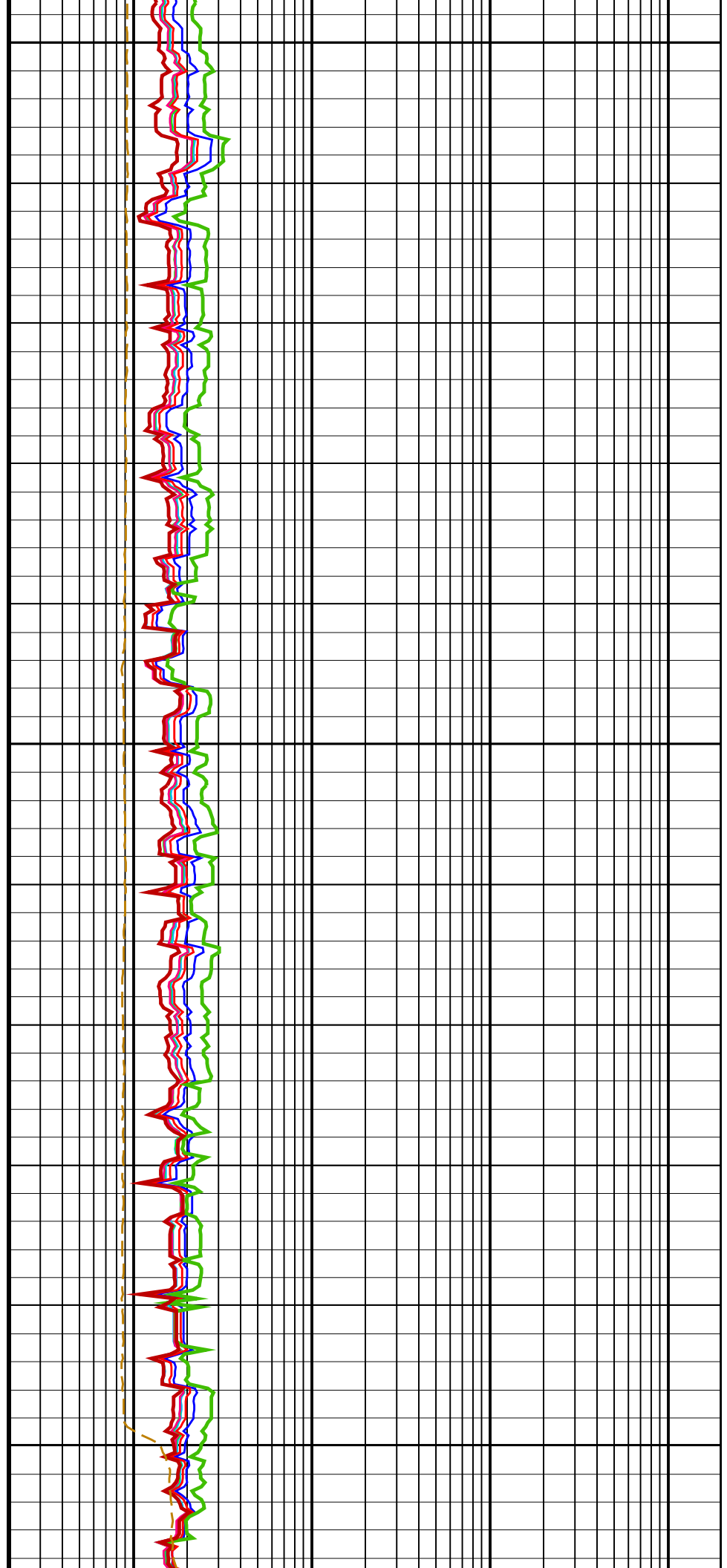
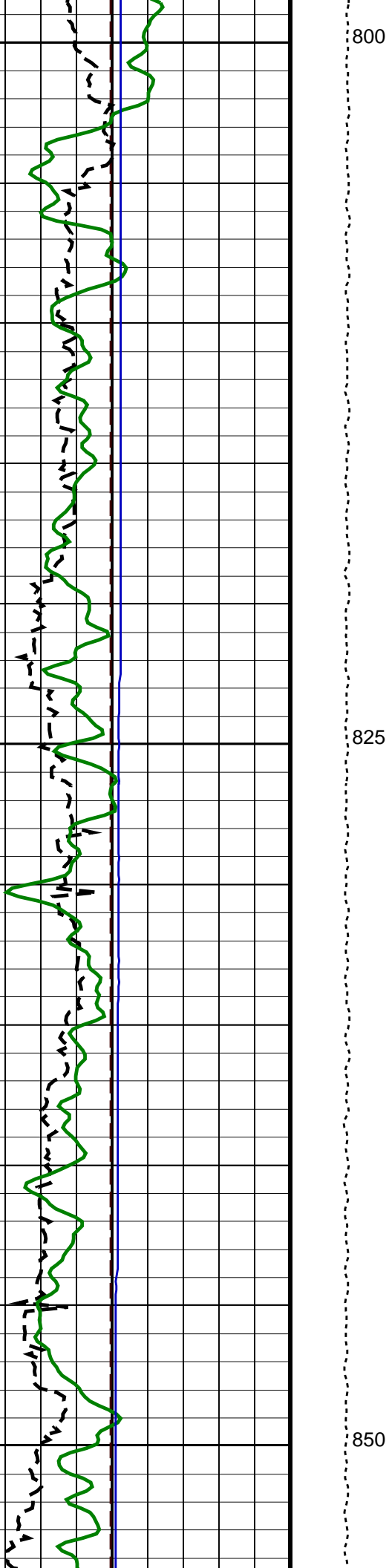
MSS_LDEO-A	19C0-187	HRLT-B	19C0-187
HLDS	19C0-187	LDSC-B	19C0-187
APS-C	19C0-187	HNGC-B	19C0-187
HNGS-BA	19C0-187	EDTC-B	SKK-5169-EDTCB

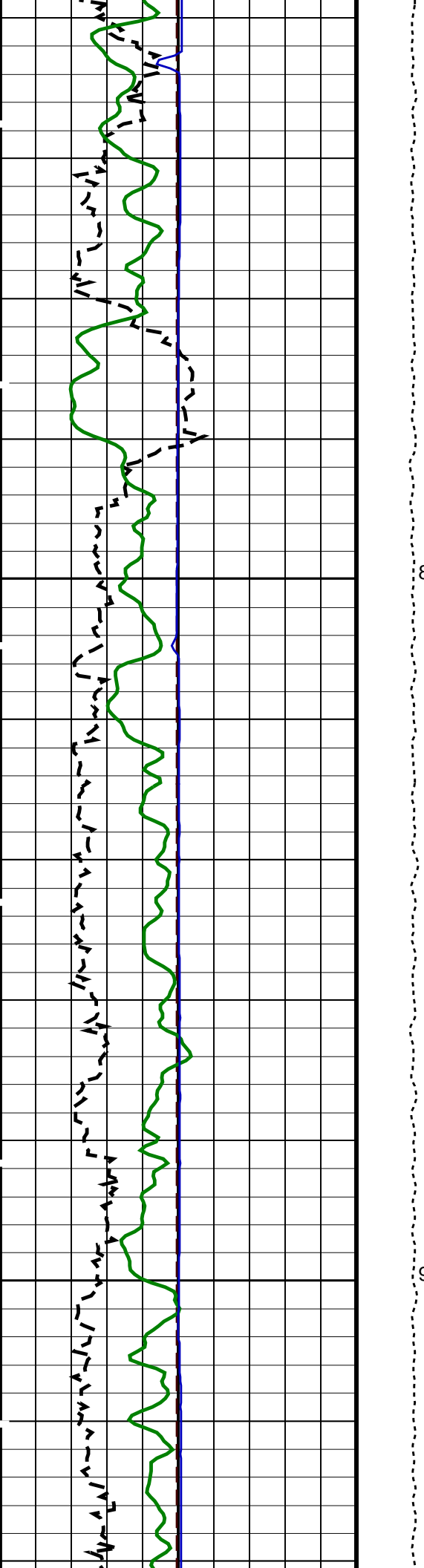
PIP SUMMARY

Time Mark Every 60 S

	HRLT True Resistivity (RT_HRLT)	2000
	0.2 (OHMM)	
	Invaded Zone Resistivity (RXO_HRLT)	2000
	0.2 (OHMM)	
	HRLT Mud Resistivity (RM_HRLT)	200
	0.02 (OHMM)	
	HRLT Resistivity 5 (RLA5)	2000
	0.2 (OHMM)	
HNGS Spectroscopy Gamma Ray (HSGR)	HRLT Resistivity 4 (RLA4)	2000
0 (GAPI) 75	0.2 (OHMM)	
Invasion Diameter (DI_HRLT)	HRLT Resistivity 3 (RLA3)	2000
0 (IN) 50	0.2 (OHMM)	
Caliper (LCAL)	HRLT Resistivity 2 (RLA2)	2000
0 (IN) 20	0.2 (OHMM)	
Bit Size (BS)	HRLT Resistivity 1 (RLA1)	2000
0 (IN) 20	0.2 (OHMM)	
Tension (TENS) (LBF)		
10000 0		

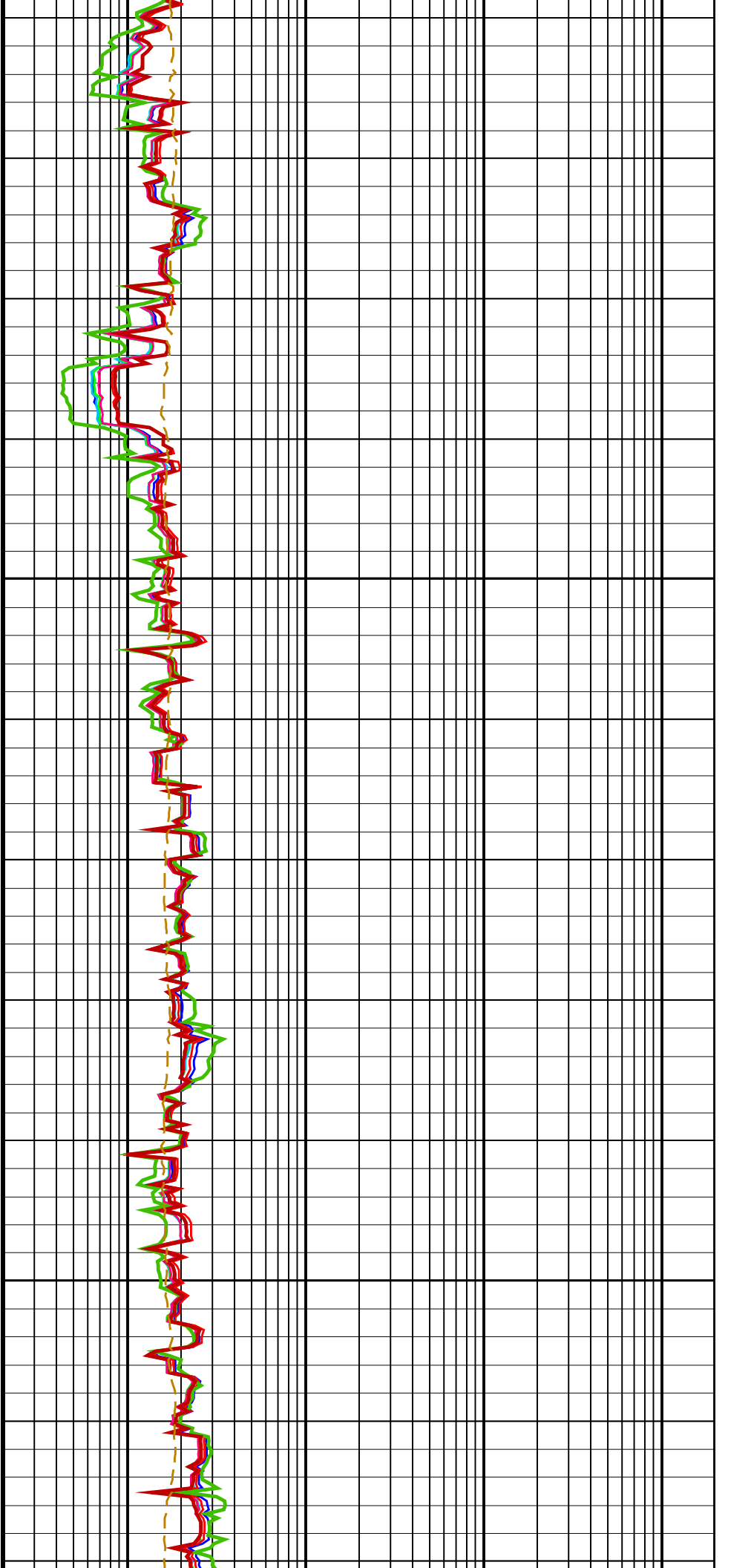


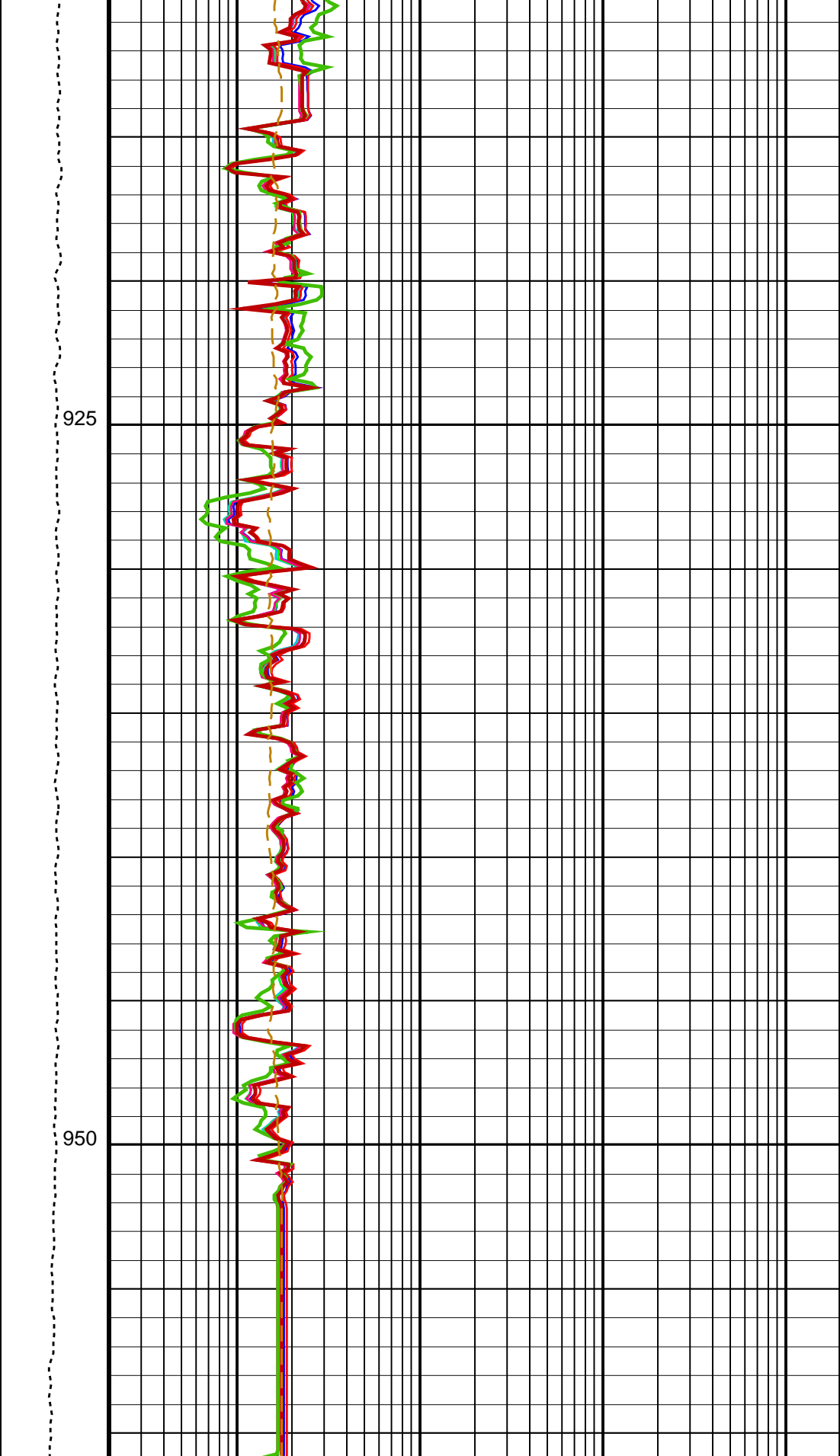
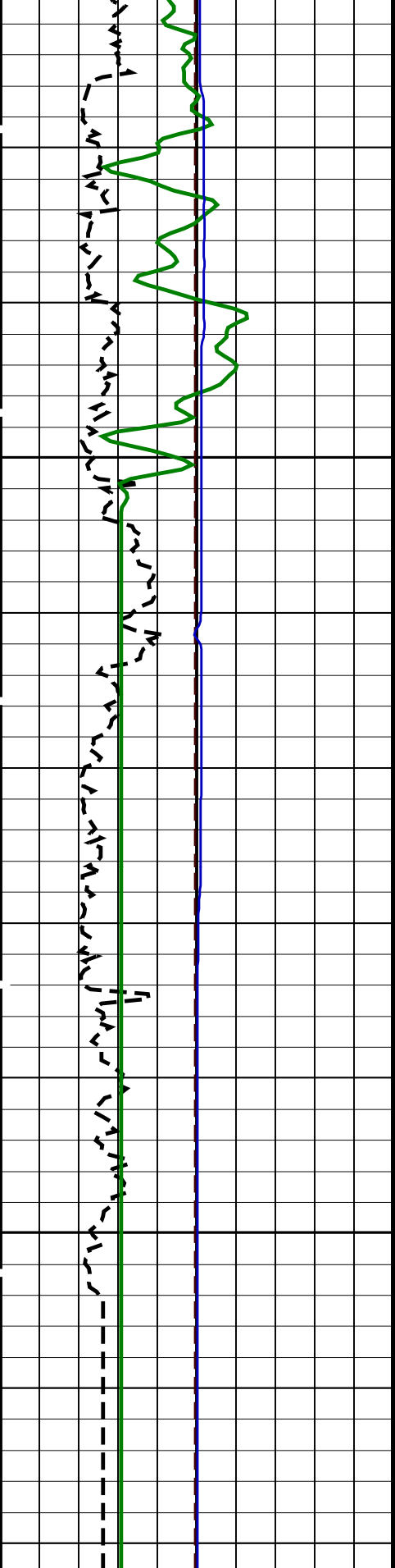




875

900





Bit Size (BS)
(IN) 0 20

Tension
(TENS)
(LBF) 10000 0

HRLT Resistivity 1 (RLA1)
(OHMM) 0.2 2000

Caliper (LCAL)
(IN) 0 20

HRLT Resistivity 2 (RLA2)
(OHMM) 0.2 2000

Invasion Diameter (DI_HRLT)		
0	(IN)	50
HNGS Spectroscopy Gamma Ray (HSGR)		
0	(GAPI)	75

HRLT Resistivity 3 (RLA3)		
0.2	(OHMM)	2000
HRLT Resistivity 4 (RLA4)		
0.2	(OHMM)	2000
HRLT Resistivity 5 (RLA5)		
0.2	(OHMM)	2000
HRLT Mud Resistivity (RM_HRLT)		
0.02	(OHMM)	200
Invaded Zone Resistivity (RXO_HRLT)		
0.2	(OHMM)	2000
HRLT True Resistivity (RT_HRLT)		
0.2	(OHMM)	2000

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
HRLT-B: High Resolution Laterolog Array - B			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	6.5	DEGC
GCSE	Generalized Caliper Selection	LCAL	
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
KFAC_HRLT	HRLT K Factor Option	SONDE	
PROCINV	Inversion Selection	ON	
PROCMFL	Inversion Micro-Resistivity Selection	NO_EXTERNAL_RXO	
PROCMSO	Mechanical Standoff Fin Size	0	IN
PROCRM	Processing Mud Resistivity Select	HRLT_Compute	
PROCSPO	Sonde Position	Eccentered	
SHT	Surface Hole Temperature	20	DEGC
APS-C: Accelerator-Porosity Tool			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	6.5	DEGC
GCSE	Generalized Caliper Selection	LCAL	
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
SHT	Surface Hole Temperature	20	DEGC
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)	6.5	DEGC
CSD1	Inner Casing Outer Diameter	0	IN
CSD2	Outer Casing Outer Diameter	0	IN
CSW1	Inner Casing Weight	0	LB/F
CSW2	Outer Casing Weight	0	LB/F
DBCC	HNGS Barite Constant Correction Flag	NONE	
GCSE	Generalized Caliper Selection	LCAL	
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
H1P	HNGS Detector 1 Allow/Disallow In Processing	ALLOW	
H2P	HNGS Detector 2 Allow/Disallow In Processing	ALLOW	
HABK	HNGS Borehole Potassium Running Average	-0.000199897	
HALF	HNGS Alpha Filter Length	60	IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	NATU	
HNPE	HNGS Processing Enable	YES	
S1BI	HNGS Detector 1 Calibration Bismuth Count Rate	1.3	CPS
S2BI	HNGS Detector 2 Calibration Bismuth Count Rate	1.3	CPS
SGRC	HNGS Standard Gamma-Ray Correction Flag	YES	
SHT	Surface Hole Temperature	20	DEGC
TPOS	Tool Position	ECCE	
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	1.00407	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	1.01069	
EDTC-B: Enhanced DTS Cartridge			

BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	6.5	DEGC
GCSE	Generalized Caliper Selection	LCAL	
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN 9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
SHT	Surface Hole Temperature	20	DEGC
System and Miscellaneous			
BS	Bit Size	9.875	IN
DO	Depth Offset for Playback	-2125.5	M
MST	Mud Sample Temperature	-50000.00	DEGC
PP	Playback Processing	NORMAL	
TD	Total Depth	471	M

Format: HRLT Vertical Scale: 1:200 Graphics File Created: 25-Apr-2014 01:24

OP System Version: 19C0-187

MSS_LDEO-A	19C0-187	HRLT-B	19C0-187
HLDS	19C0-187	LDSC-B	19C0-187
APS-C	19C0-187	HNGC-B	19C0-187
HNGS-BA	19C0-187	EDTC-B	SKK-5169-EDTCB

Input DLIS Files

DEFAULT	MSS_LDEO_HRLA_LDL_017LUP	FN:17	PRODUCER	22-Apr-2014 10:49	3086.1 M	2901.1 M
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Output DLIS Files

DEFAULT	MSS_LDEO_HRLA_LDL_039PUP	FN:47	PRODUCER	25-Apr-2014 01:24
CLIENT	MSS_LDEO_HRLA_LDL_039PUC	FN:48	CUSTOMER	25-Apr-2014 01:24



**Main Pass
1:200 Scale**

MAXIS Field Log

Company: Lamont Doherty Earth Observatory Well: Expedition 350, Site U1437D

Input DLIS Files

DEFAULT	MSS_LDEO_HRLA_LDL_019LUP	FN:20	PRODUCER	22-Apr-2014 11:26	3088.4 M	2114.6 M
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Output DLIS Files

DEFAULT	MSS_LDEO_HRLA_LDL_038PUP	FN:45	PRODUCER	25-Apr-2014 01:15	963.2 M	-7.2 M
CLIENT	MSS_LDEO_HRLA_LDL_038PUC	FN:46	CUSTOMER	25-Apr-2014 01:15	963.2 M	-7.2 M

OP System Version: 19C0-187

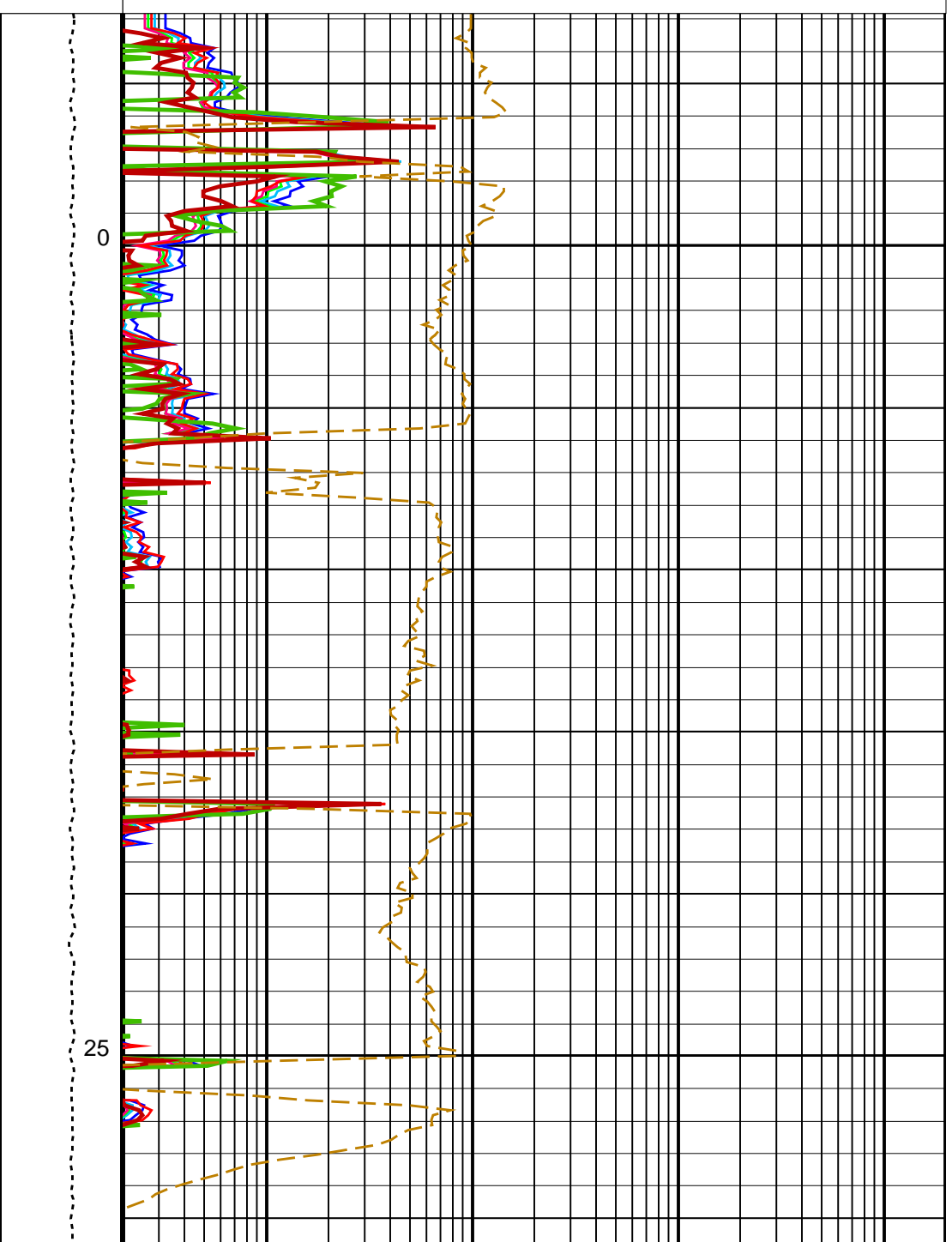
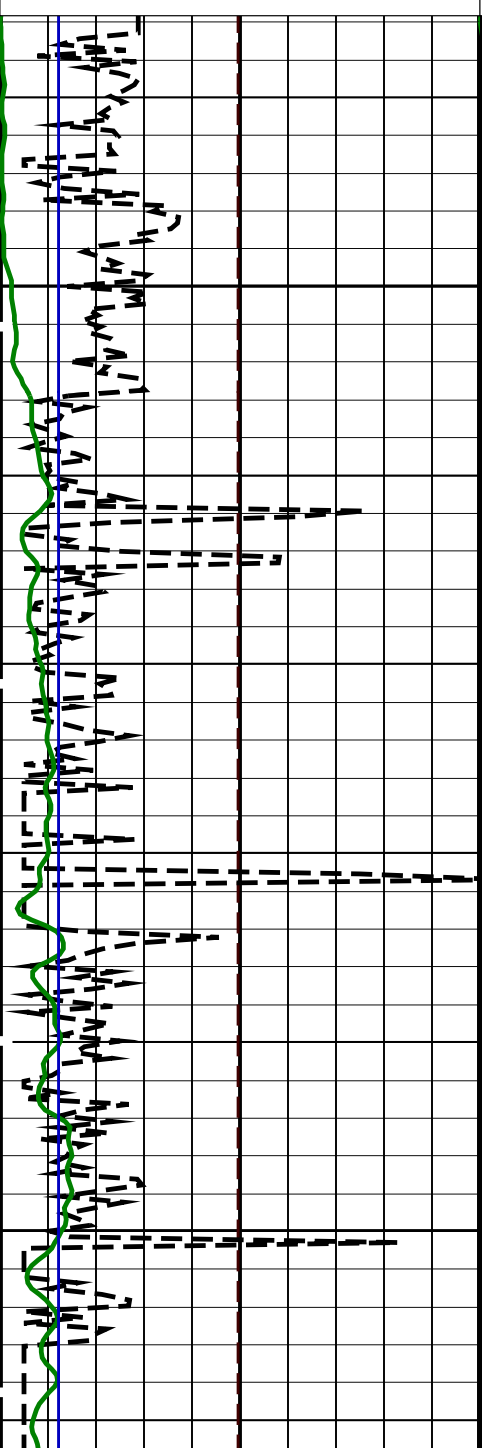
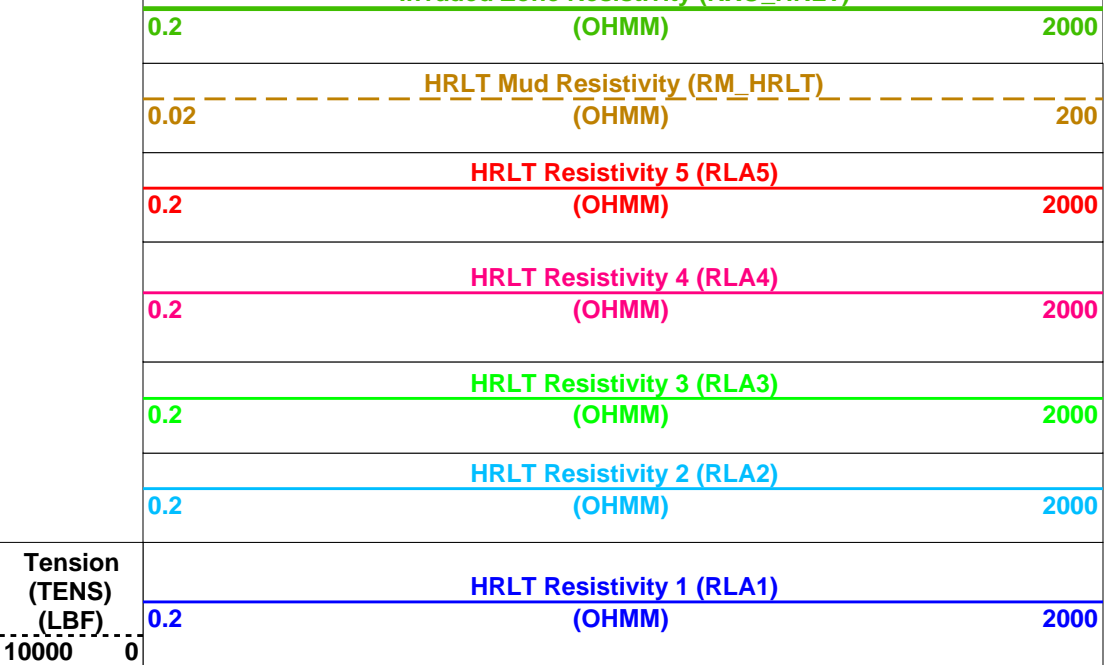
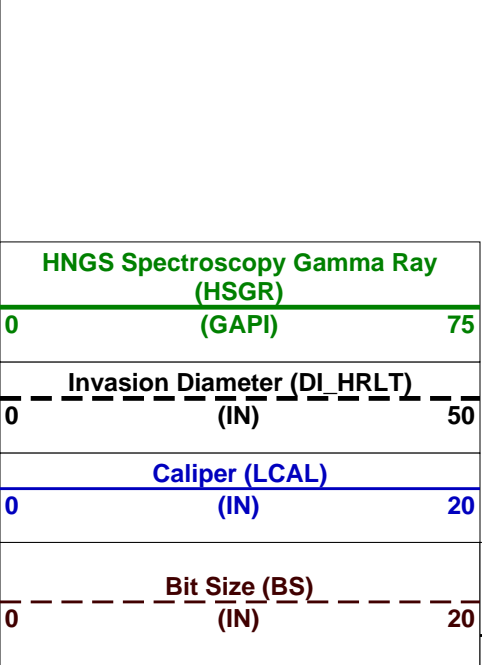
MSS_LDEO-A	19C0-187	HRLT-B	19C0-187
HLDS	19C0-187	LDSC-B	19C0-187
APS-C	19C0-187	HNGC-B	19C0-187
HNGS-BA	19C0-187	EDTC-B	SKK-5169-EDTCB

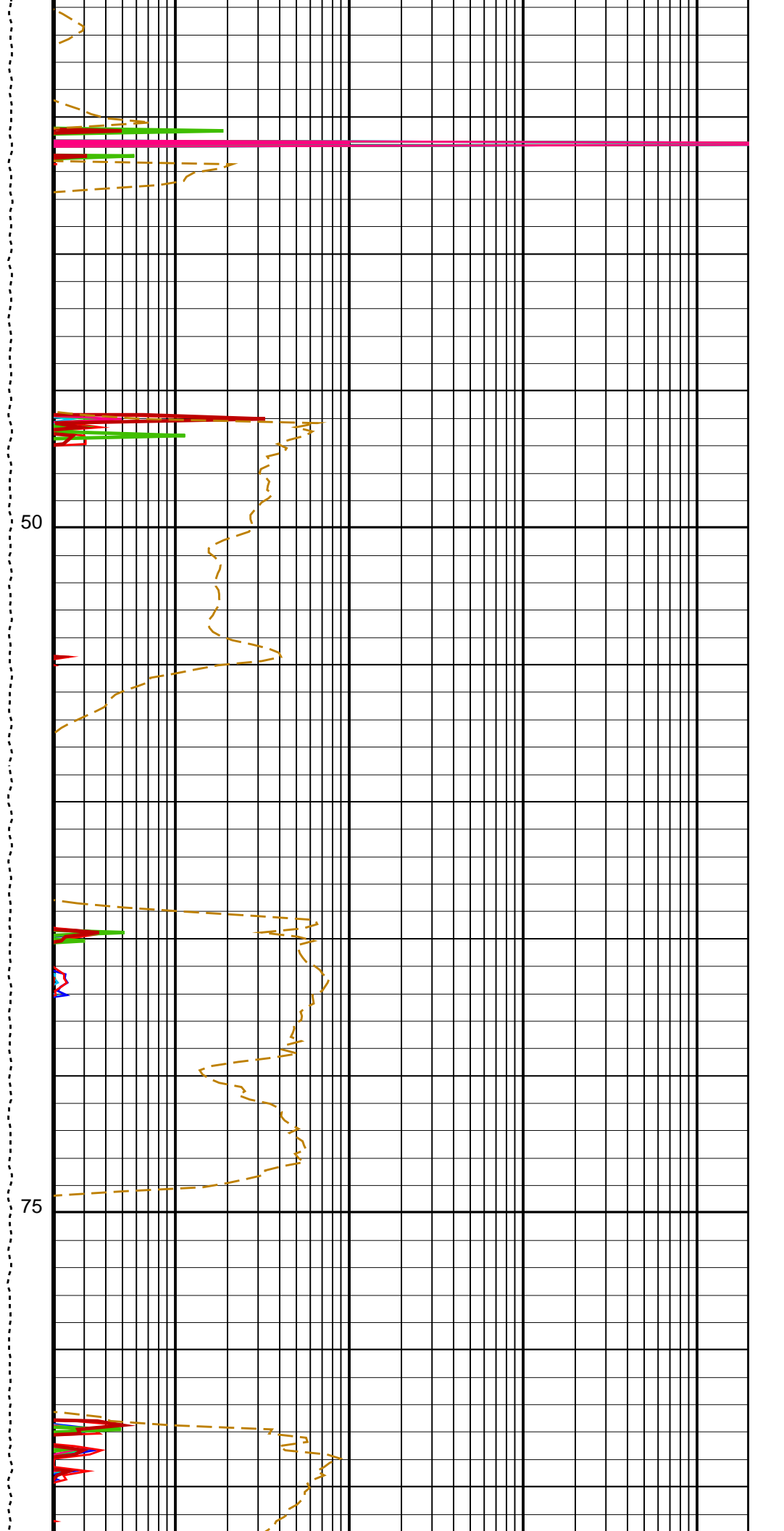
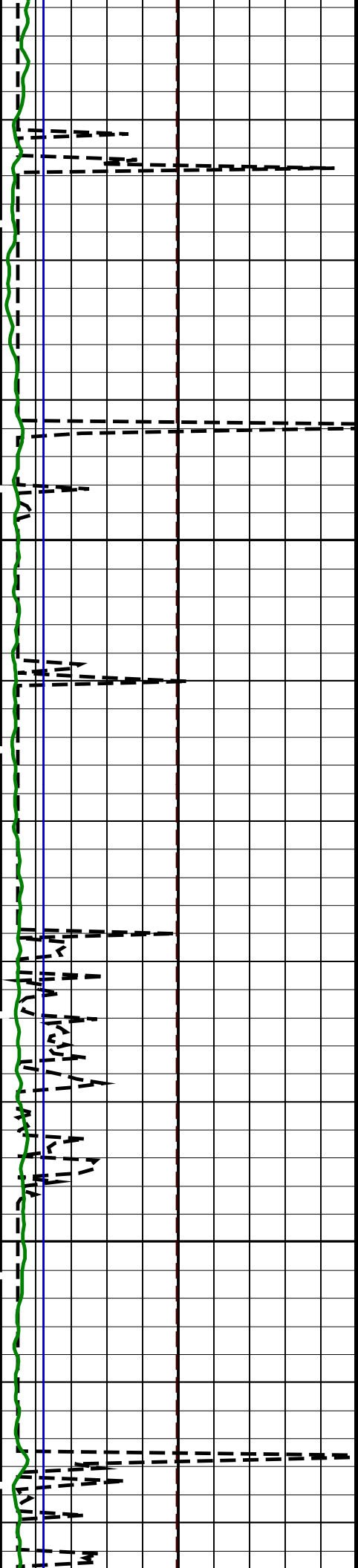
PIP SUMMARY

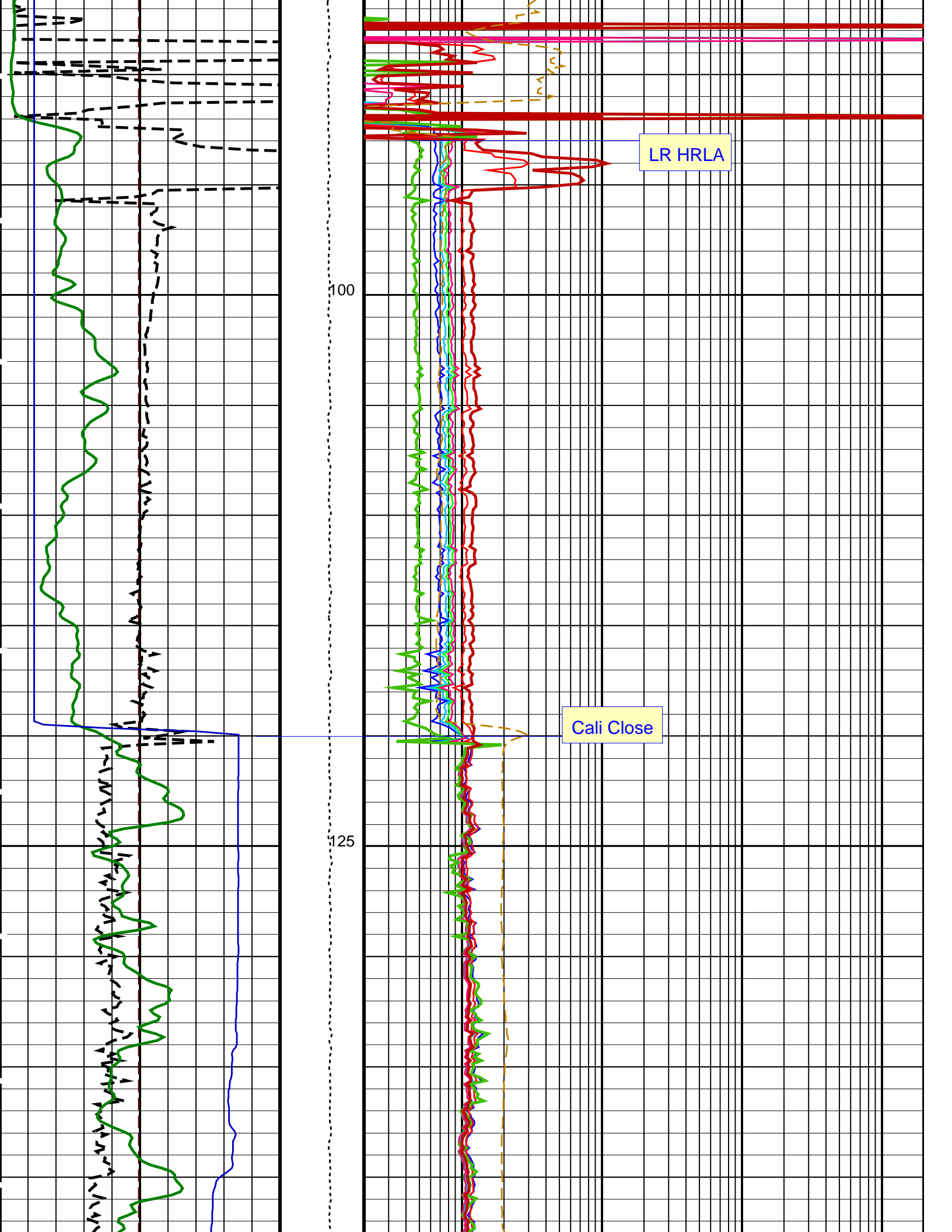
Time Mark Every 60 S

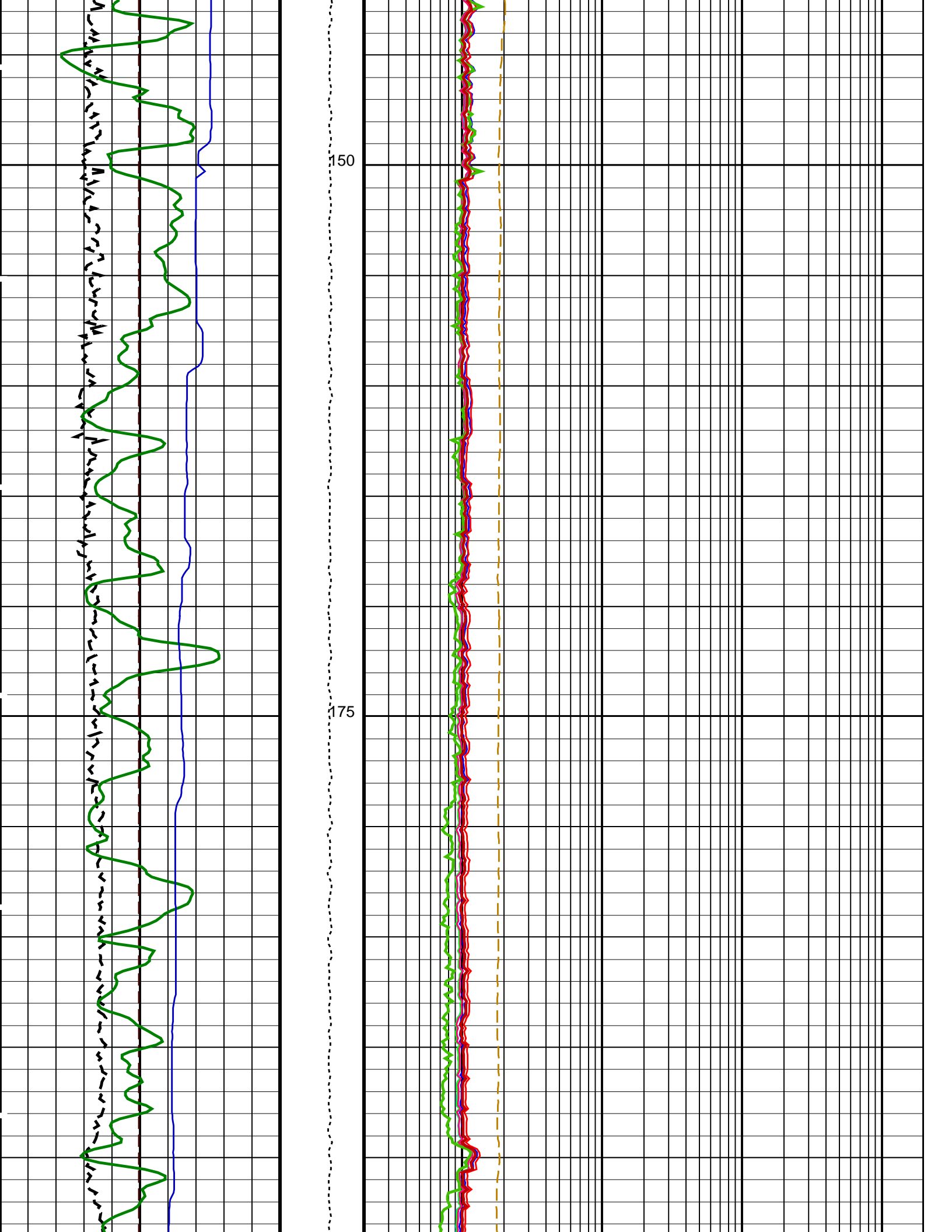
HRLT True Resistivity (RT_HRLT)
0.2 (OHMM) 2000

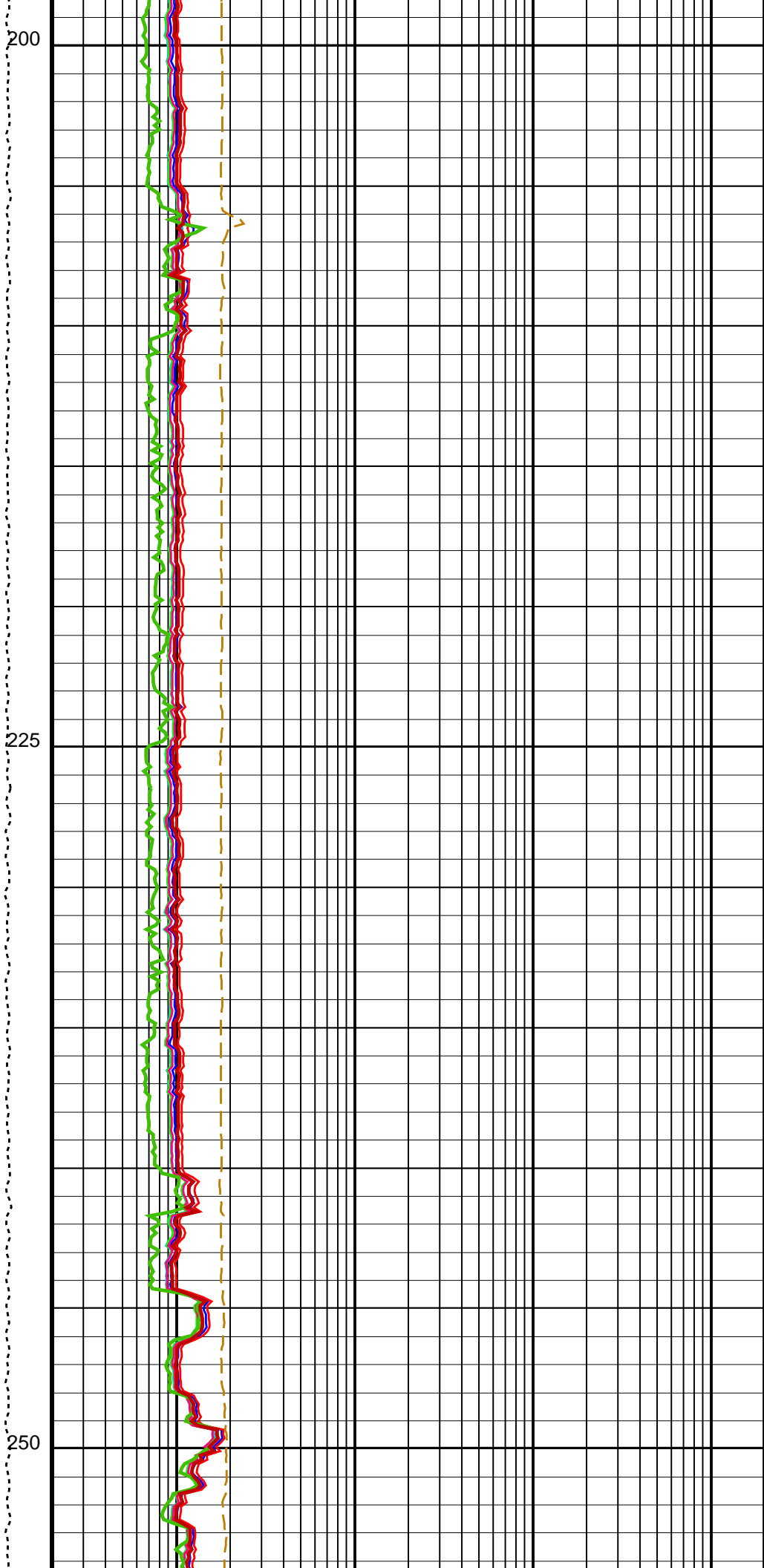
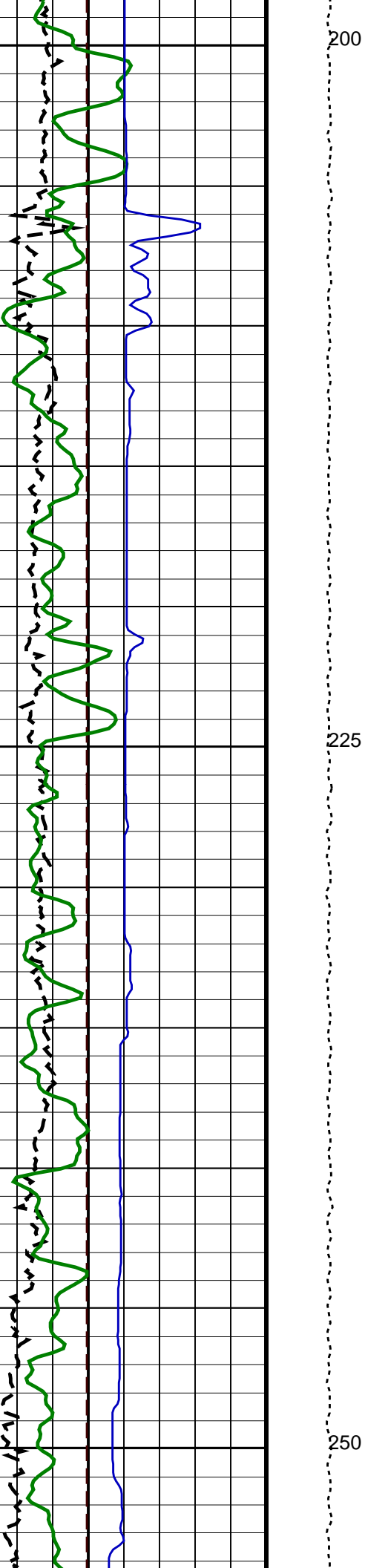
Invaded Zone Resistivity (RXO_HRLT)

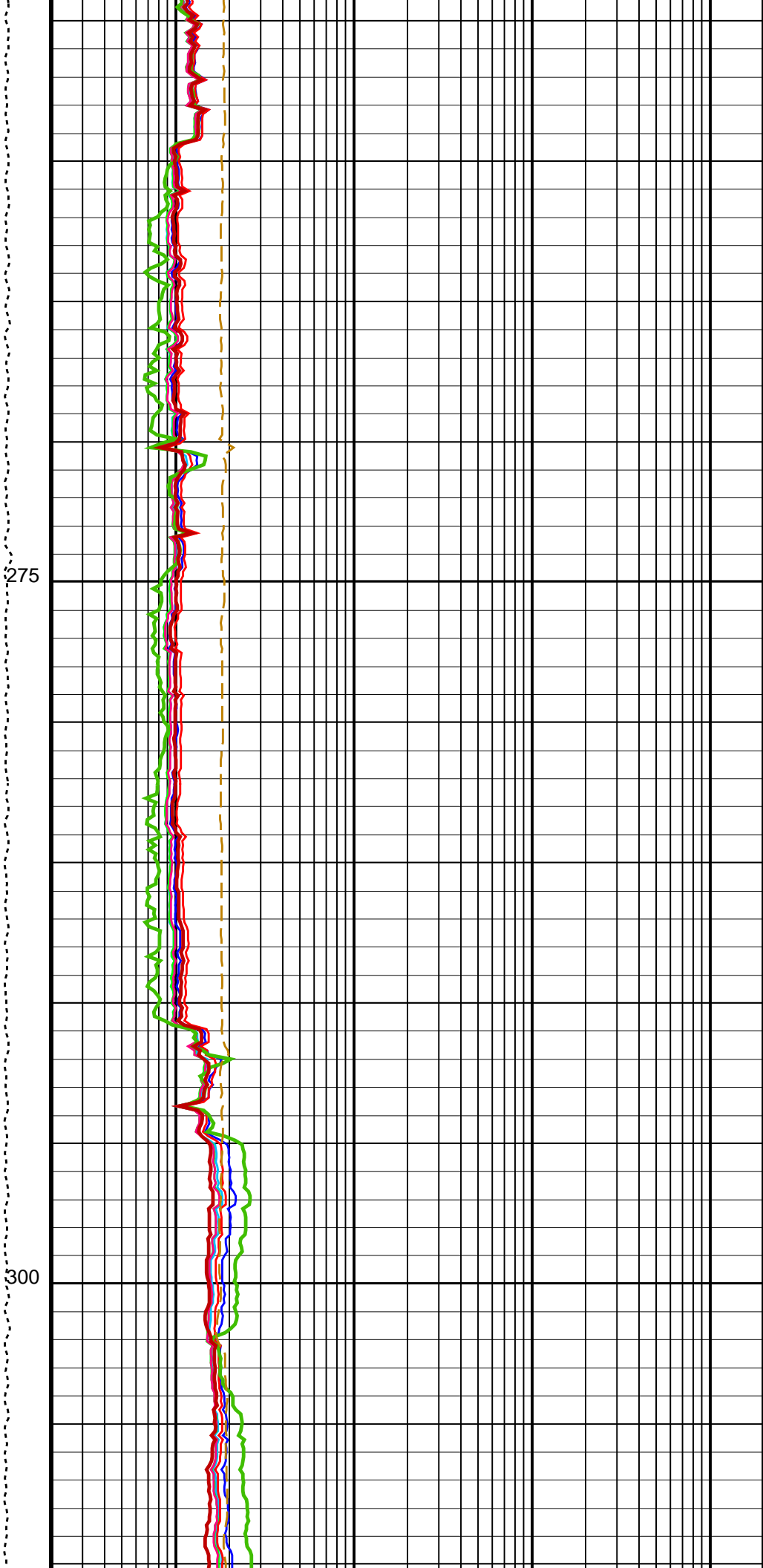
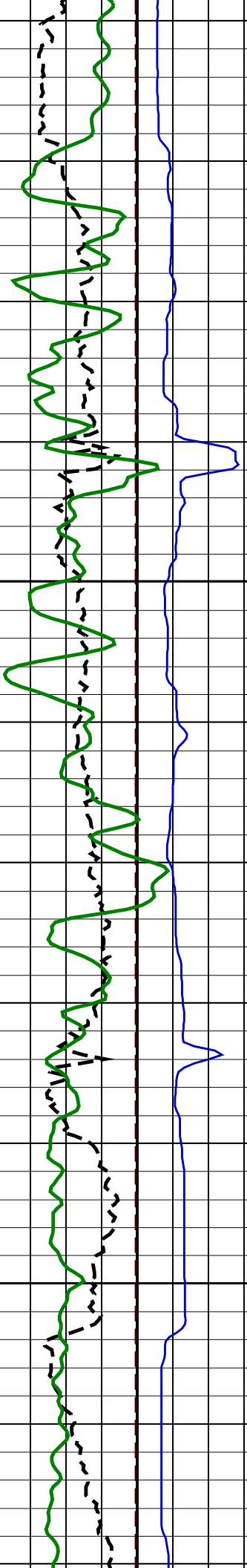


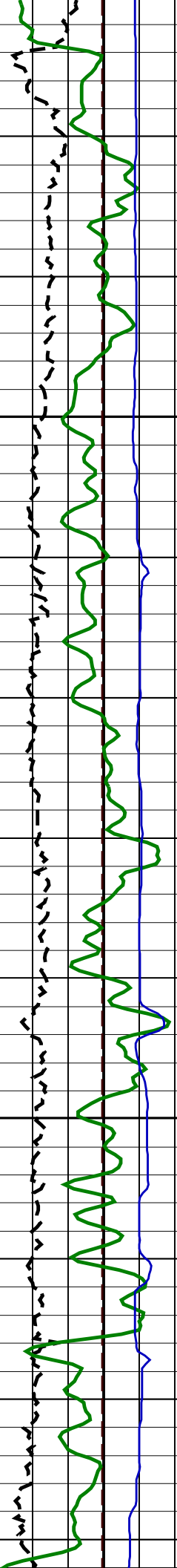






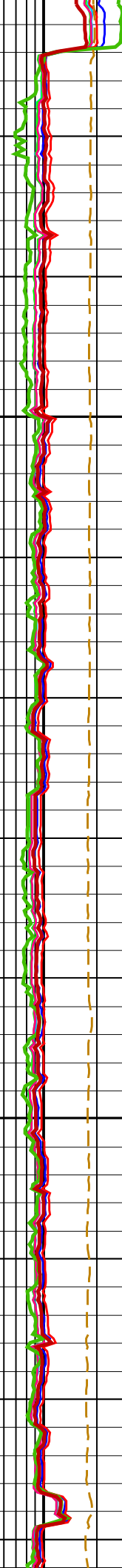


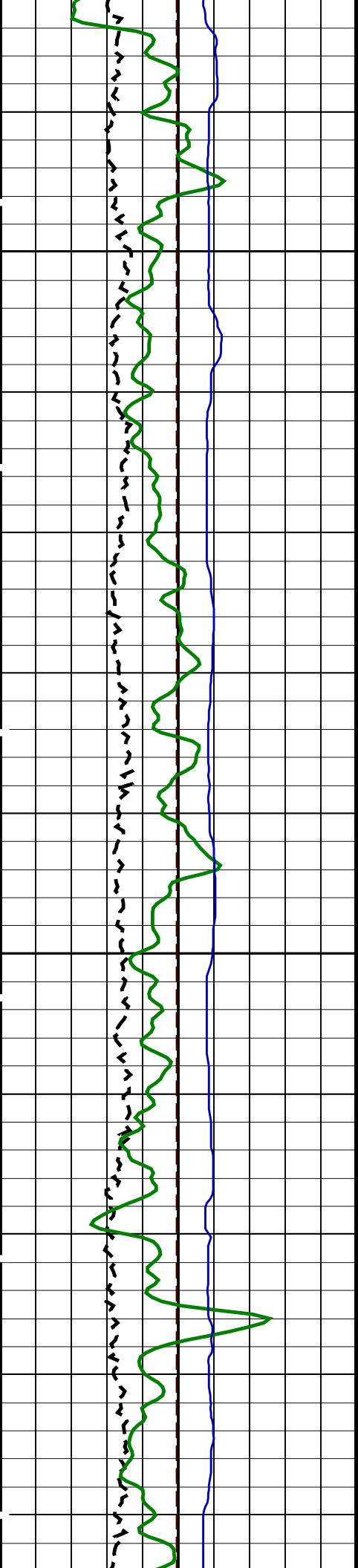




325

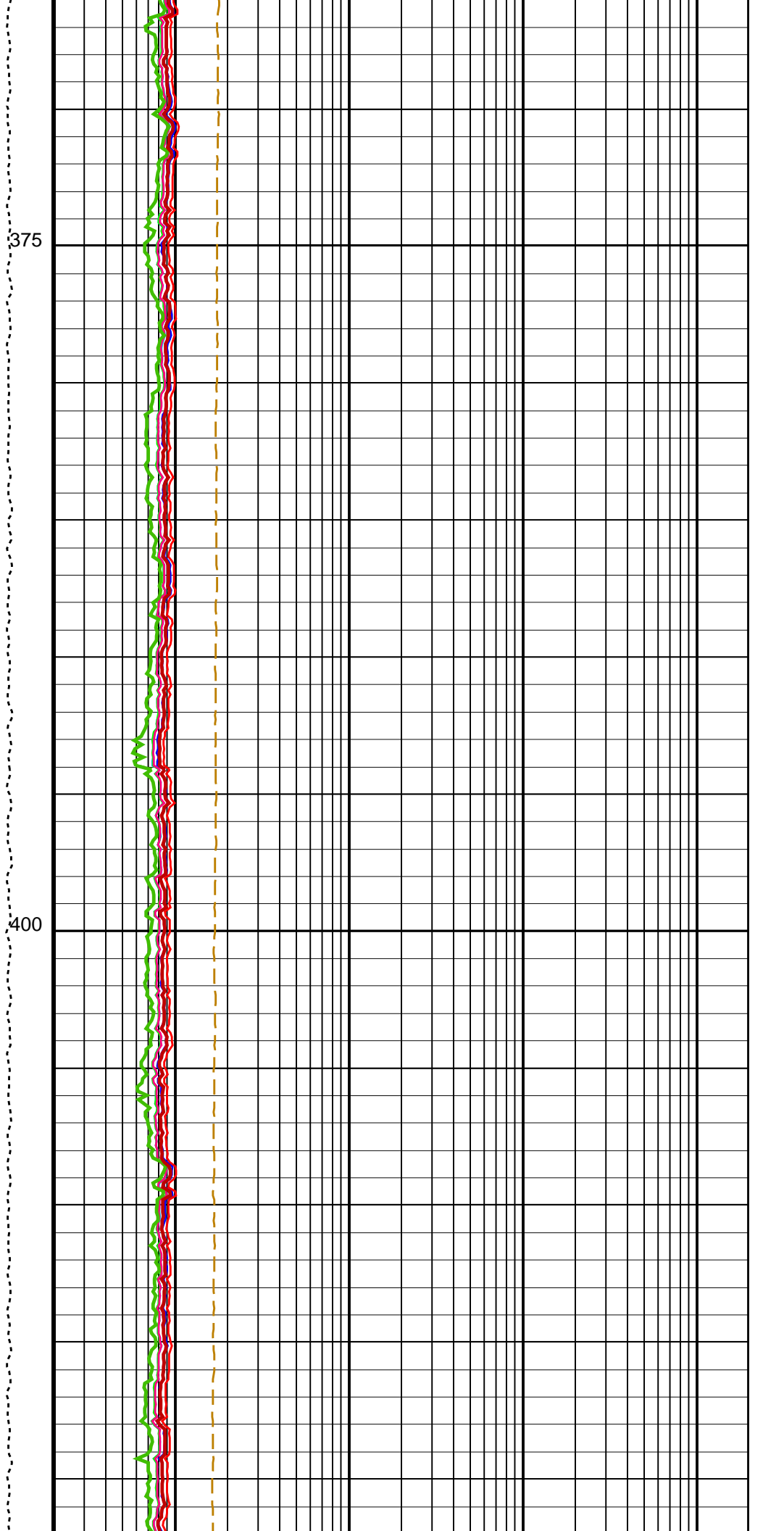
350

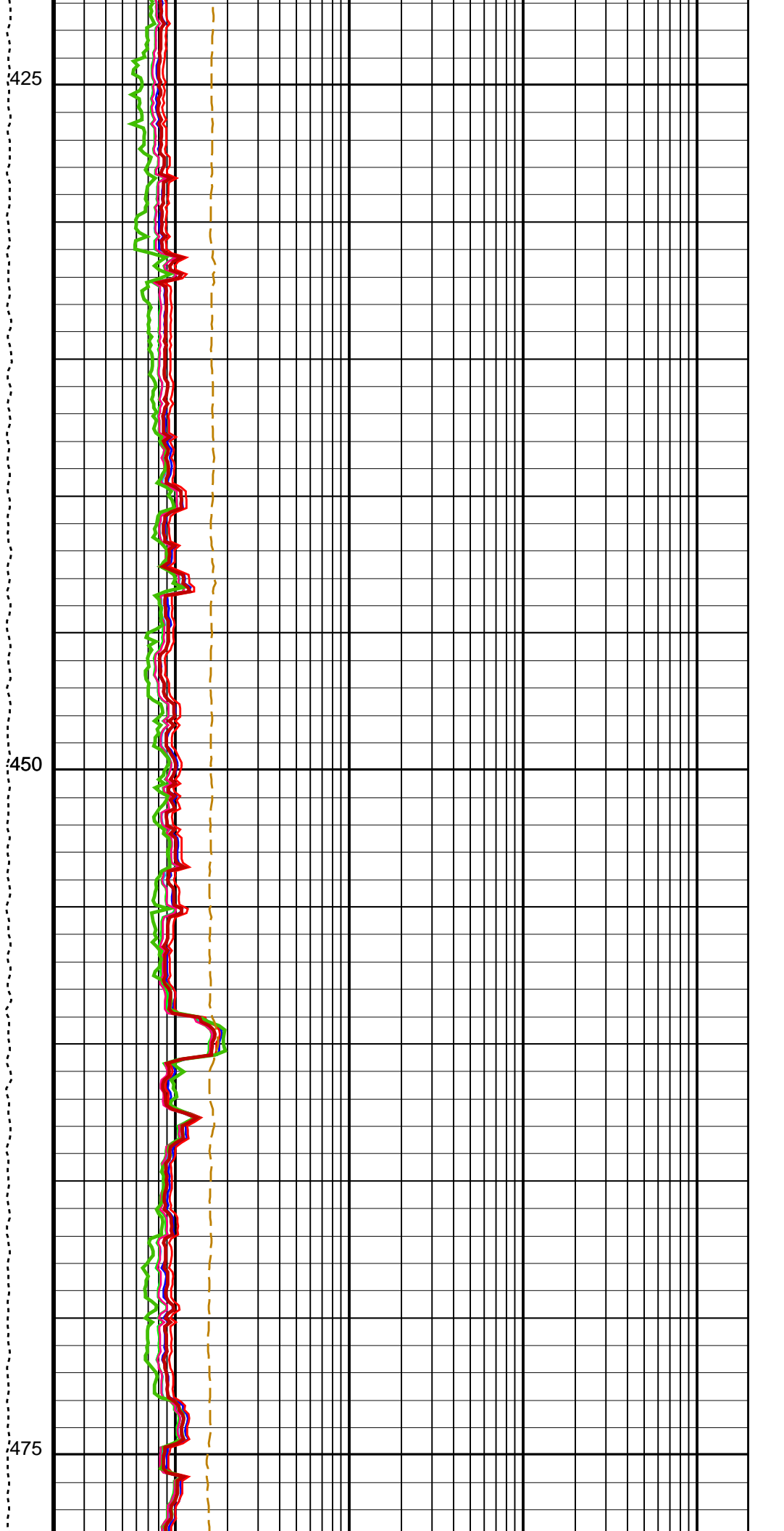
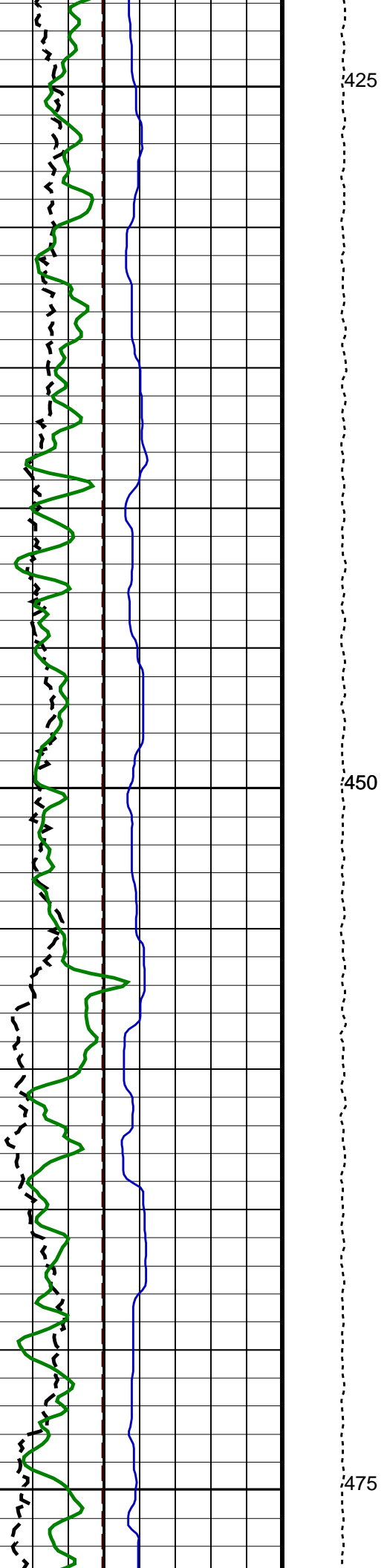


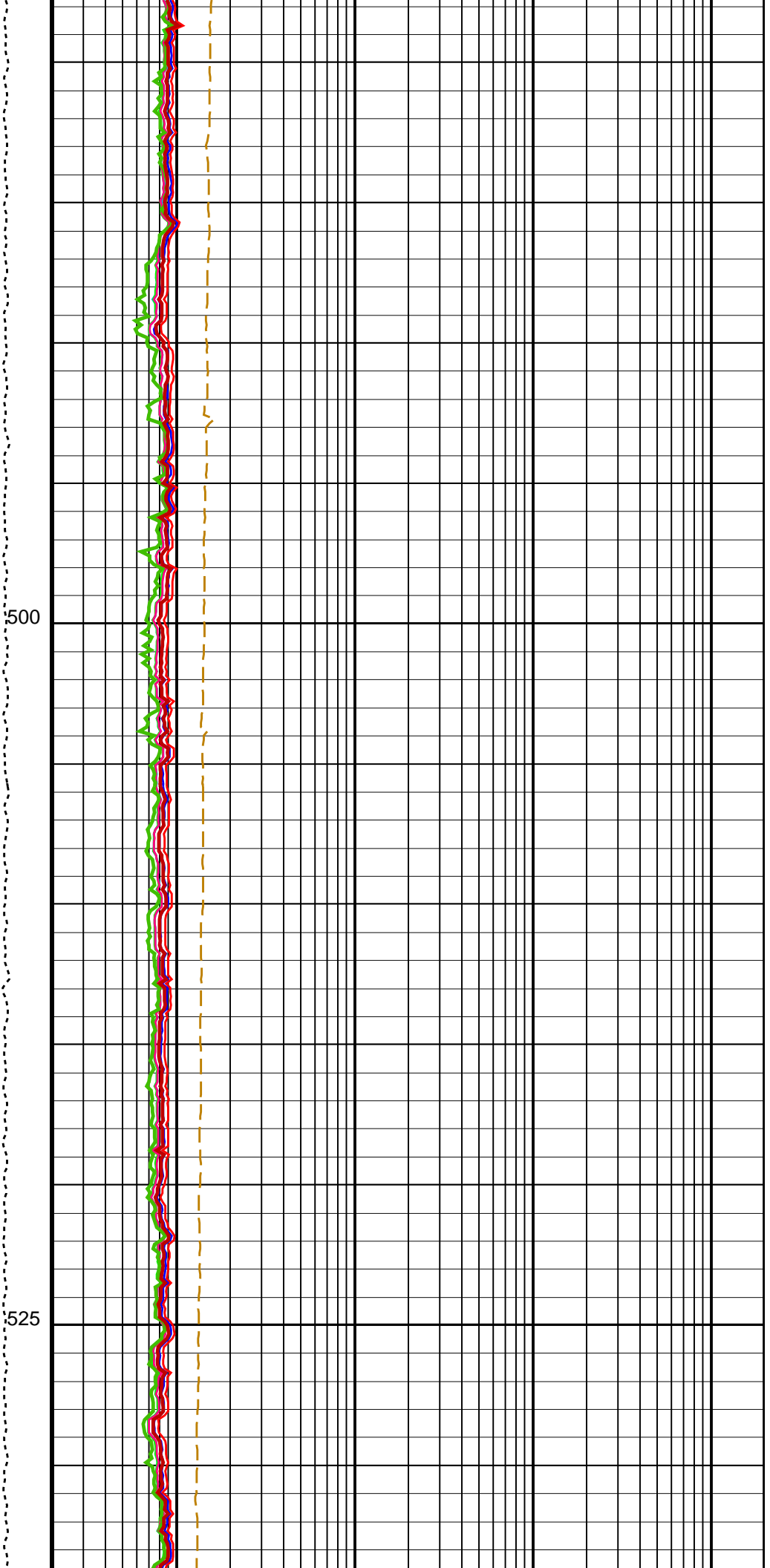
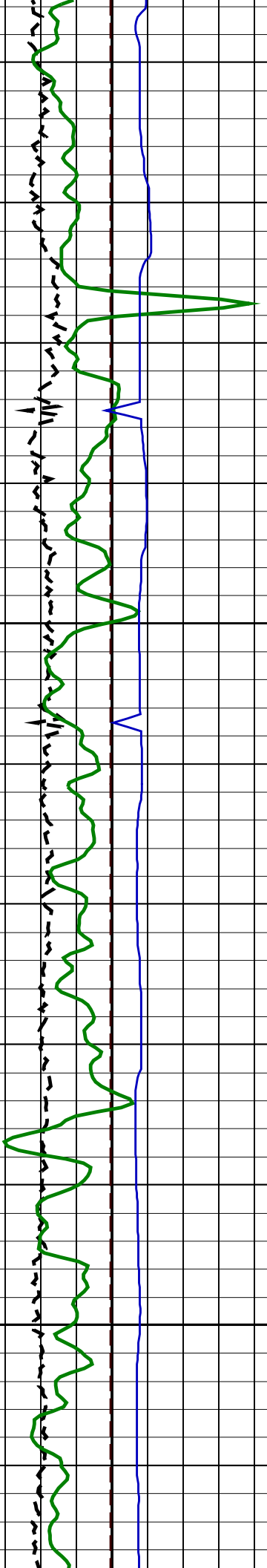


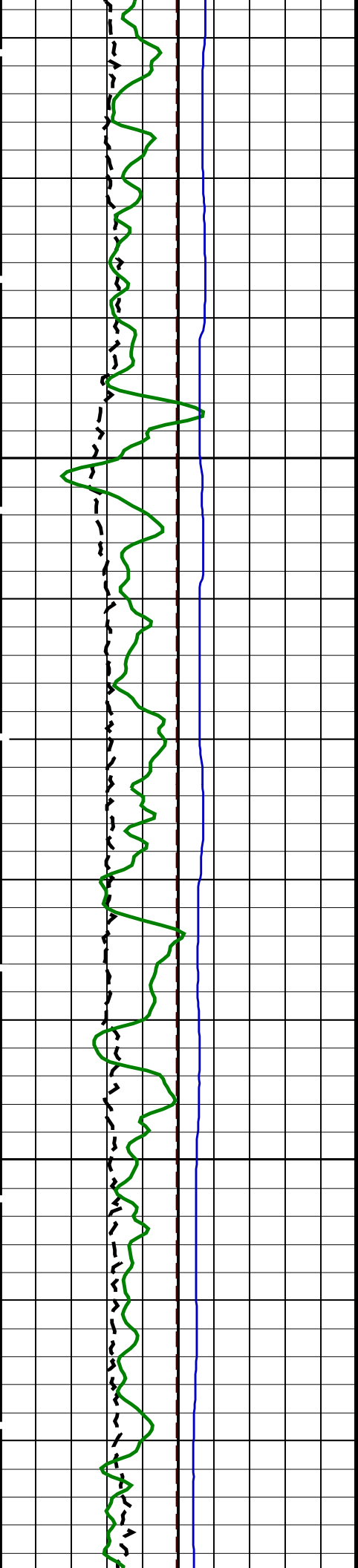
375

400



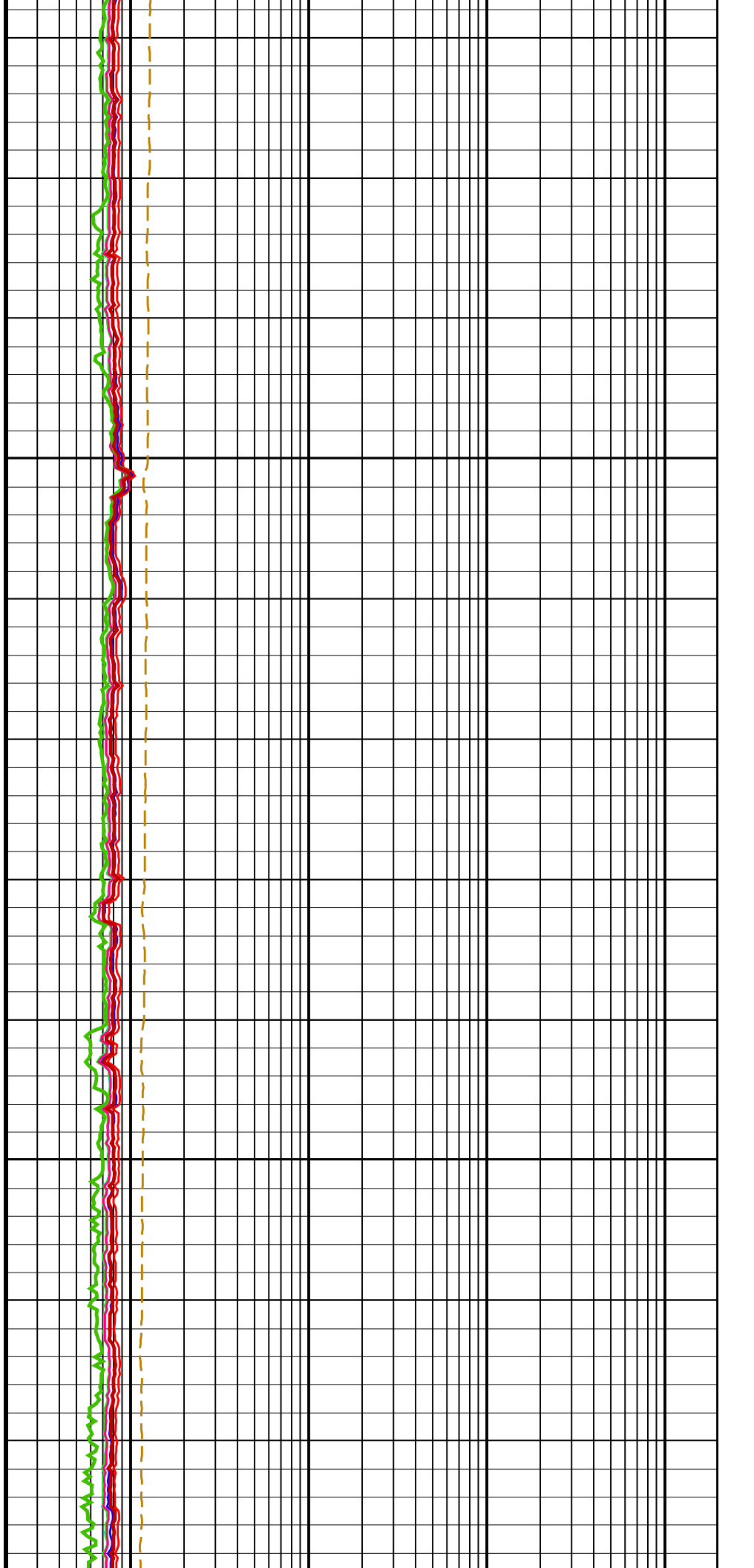


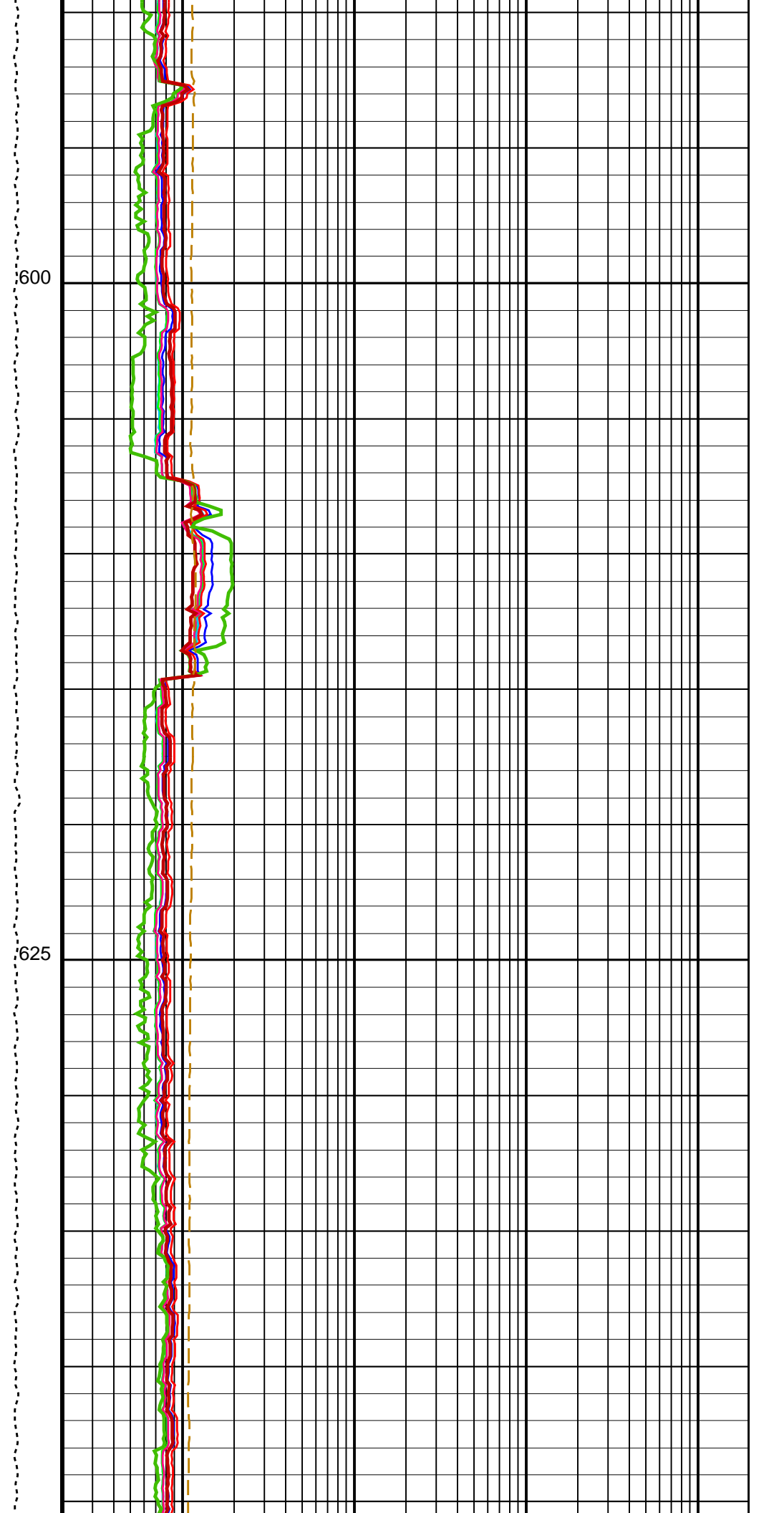
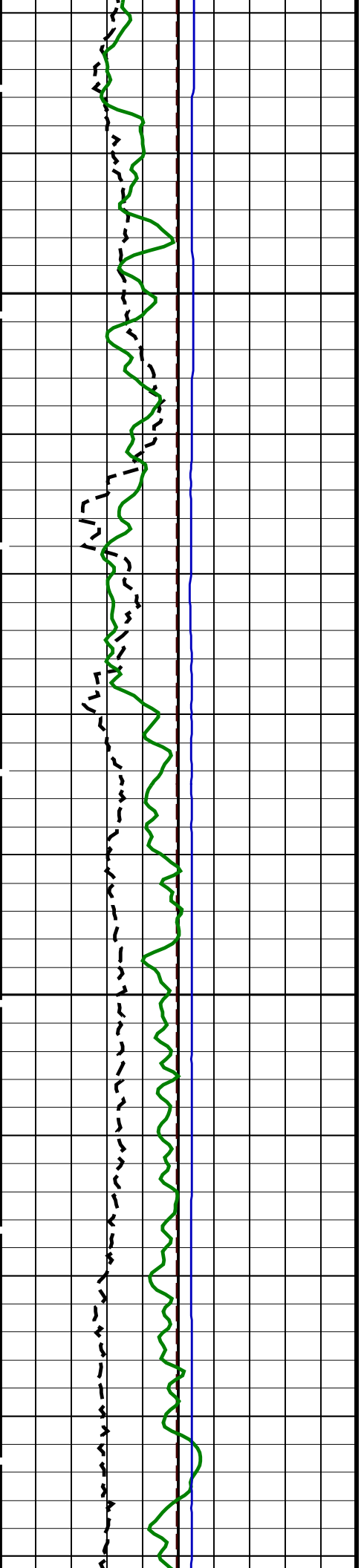


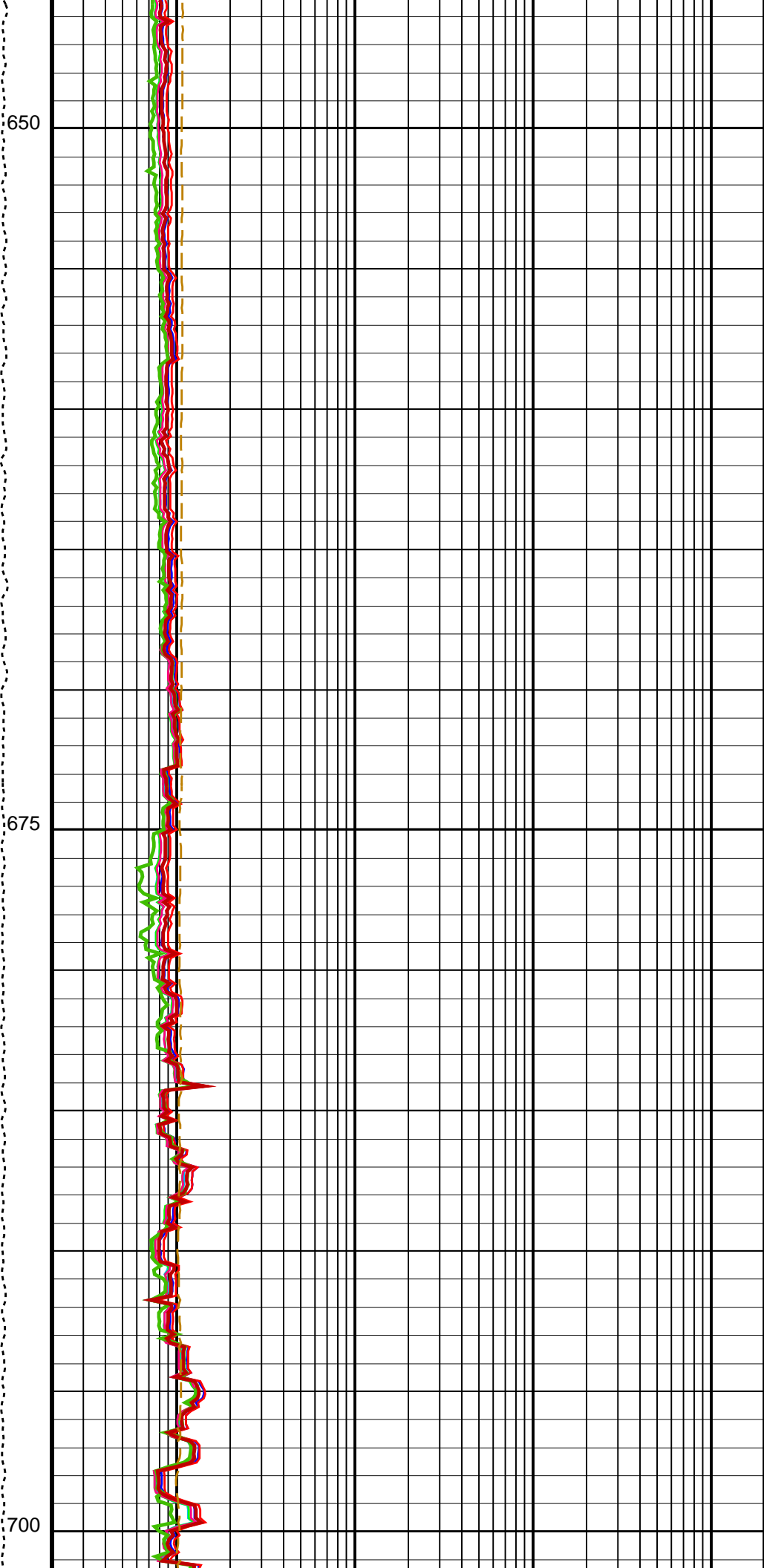
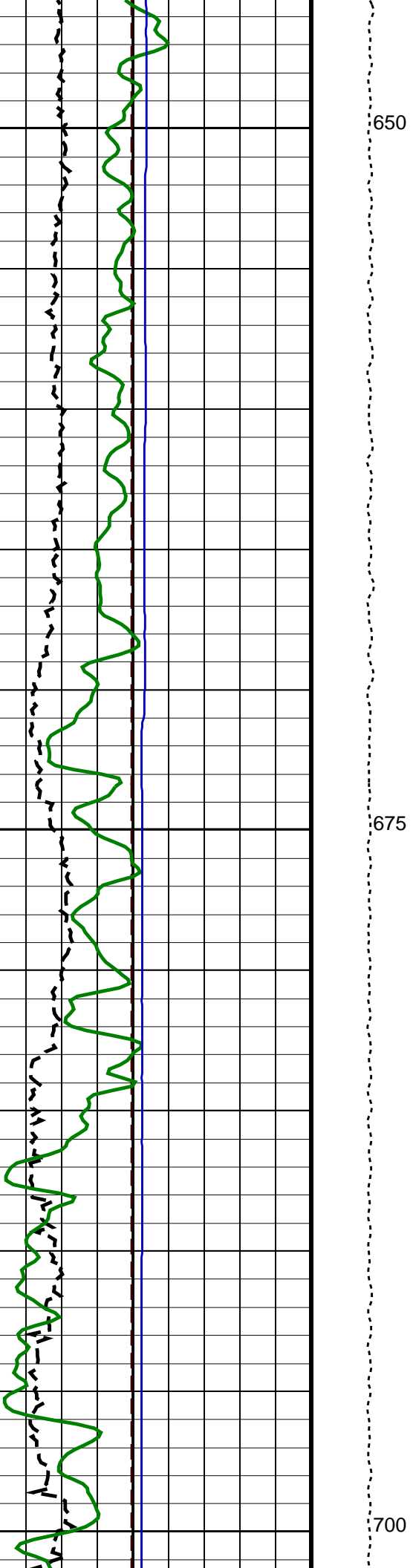


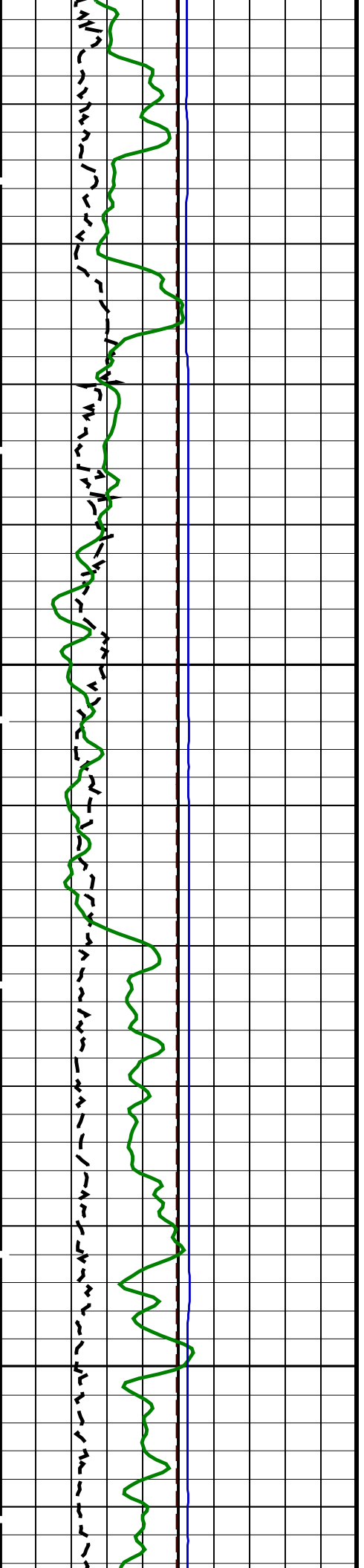
550

575



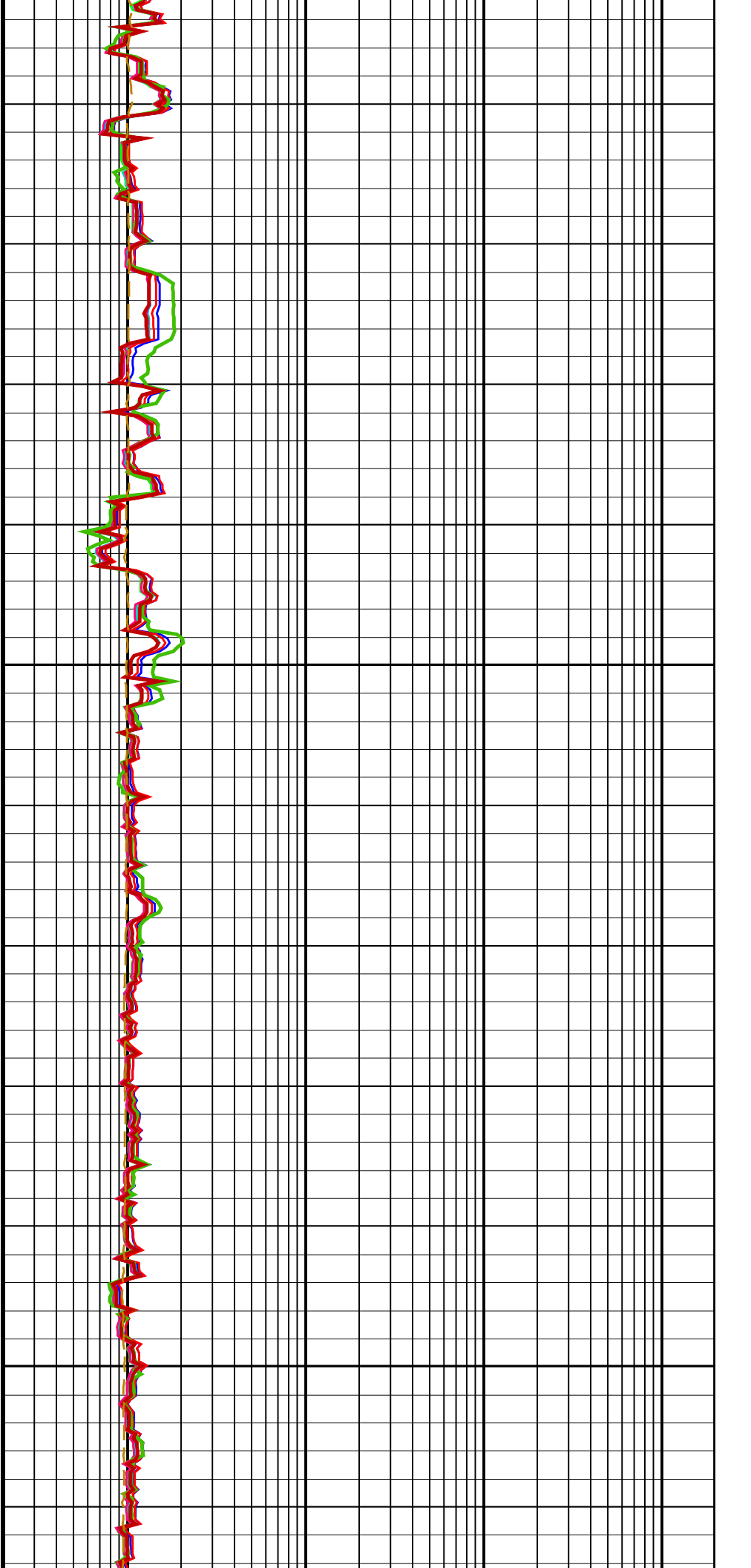


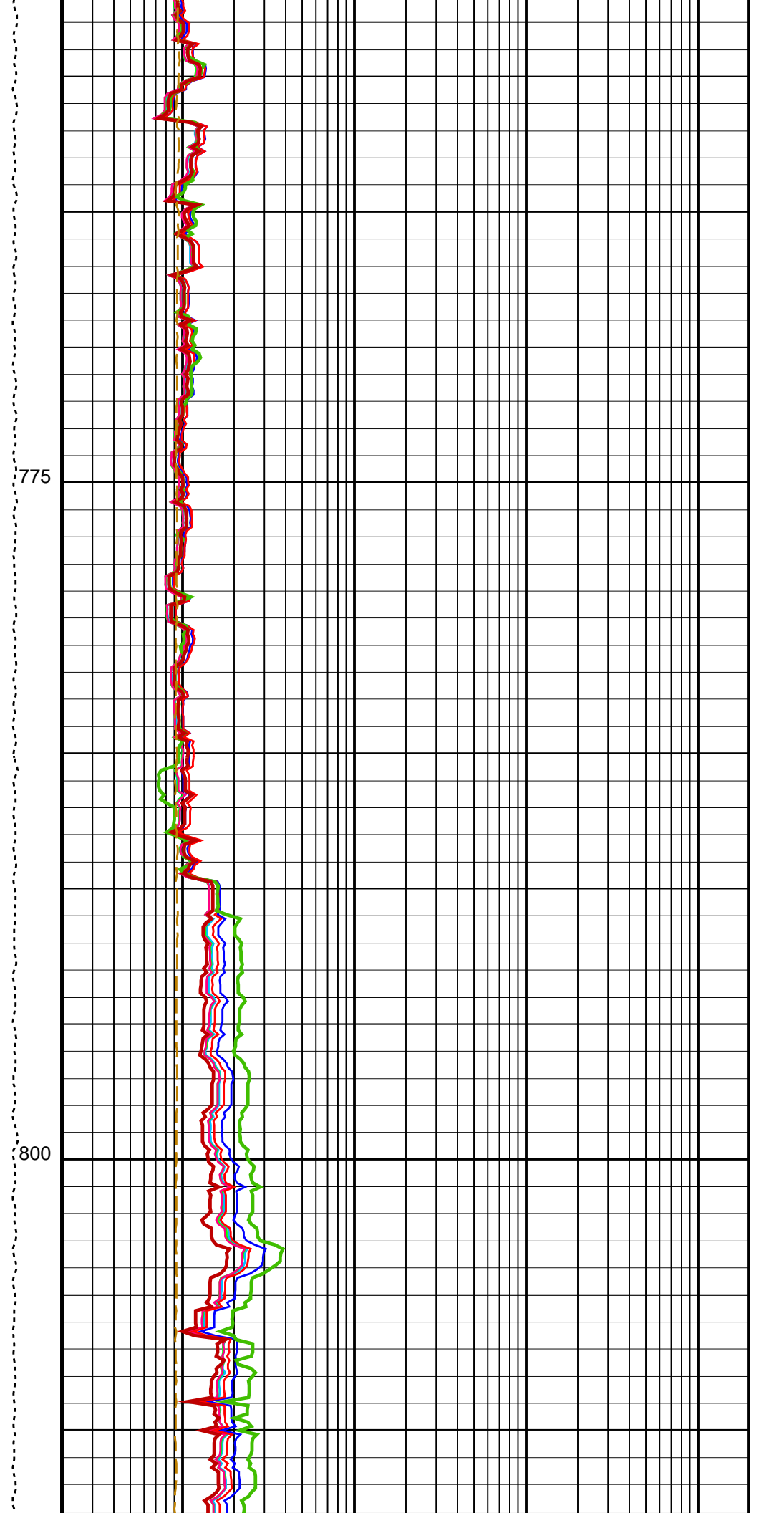
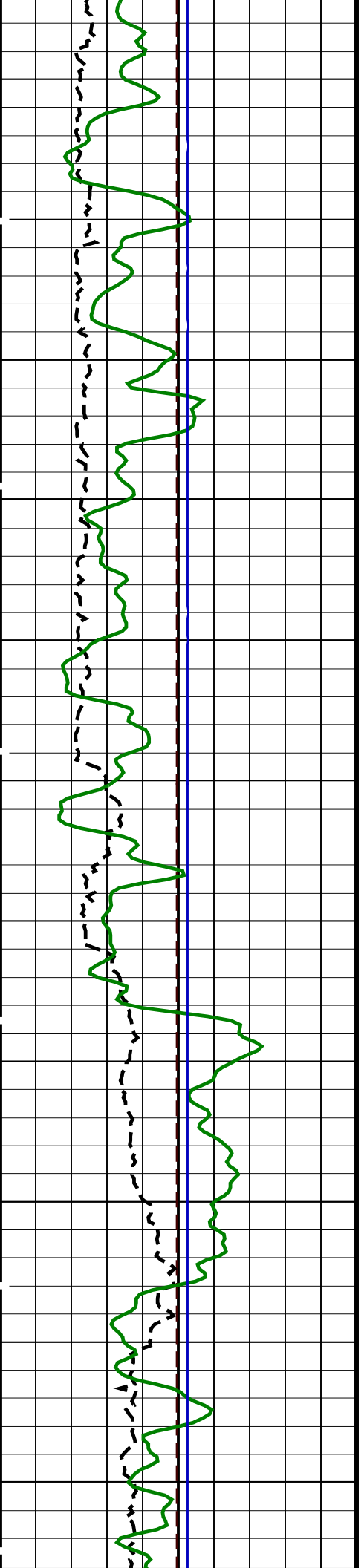


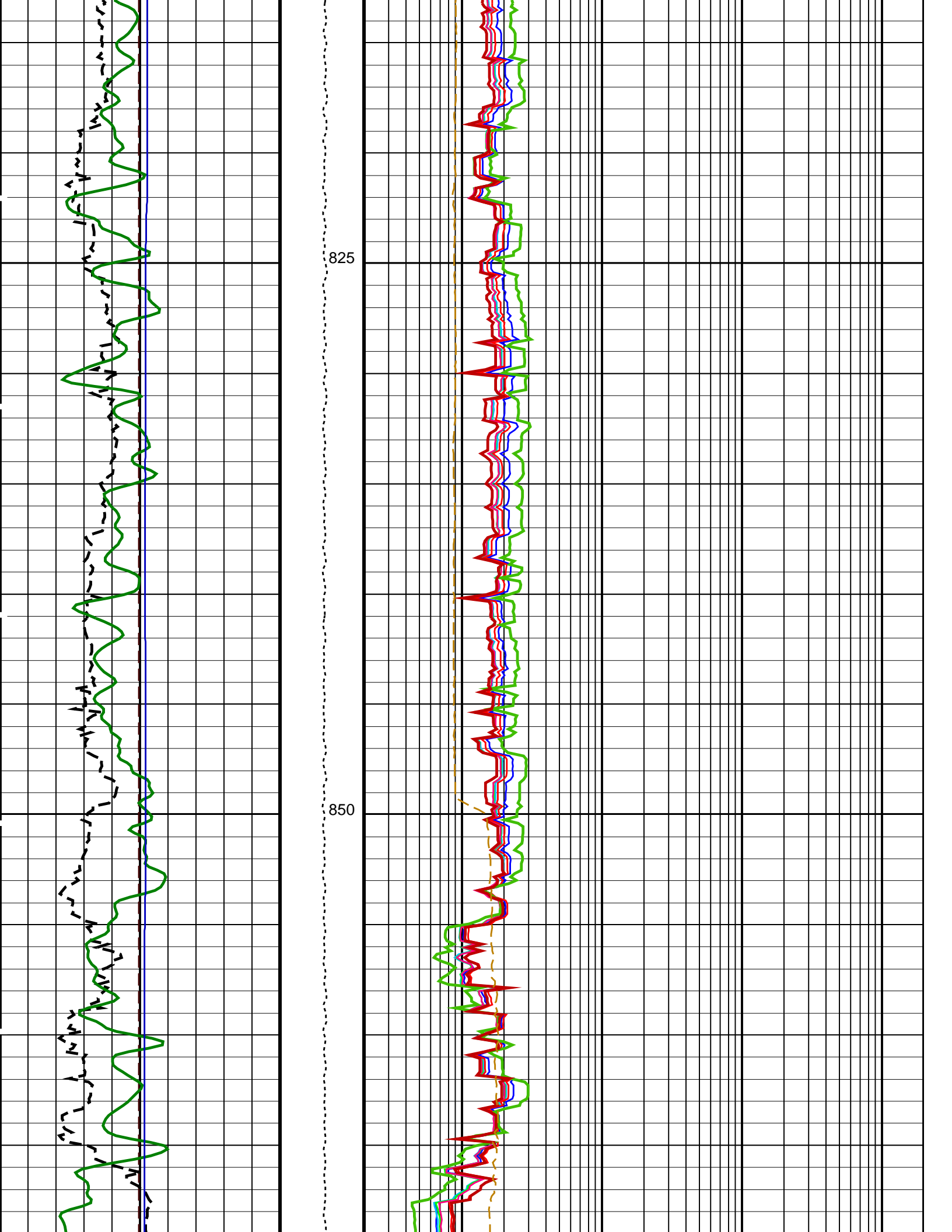


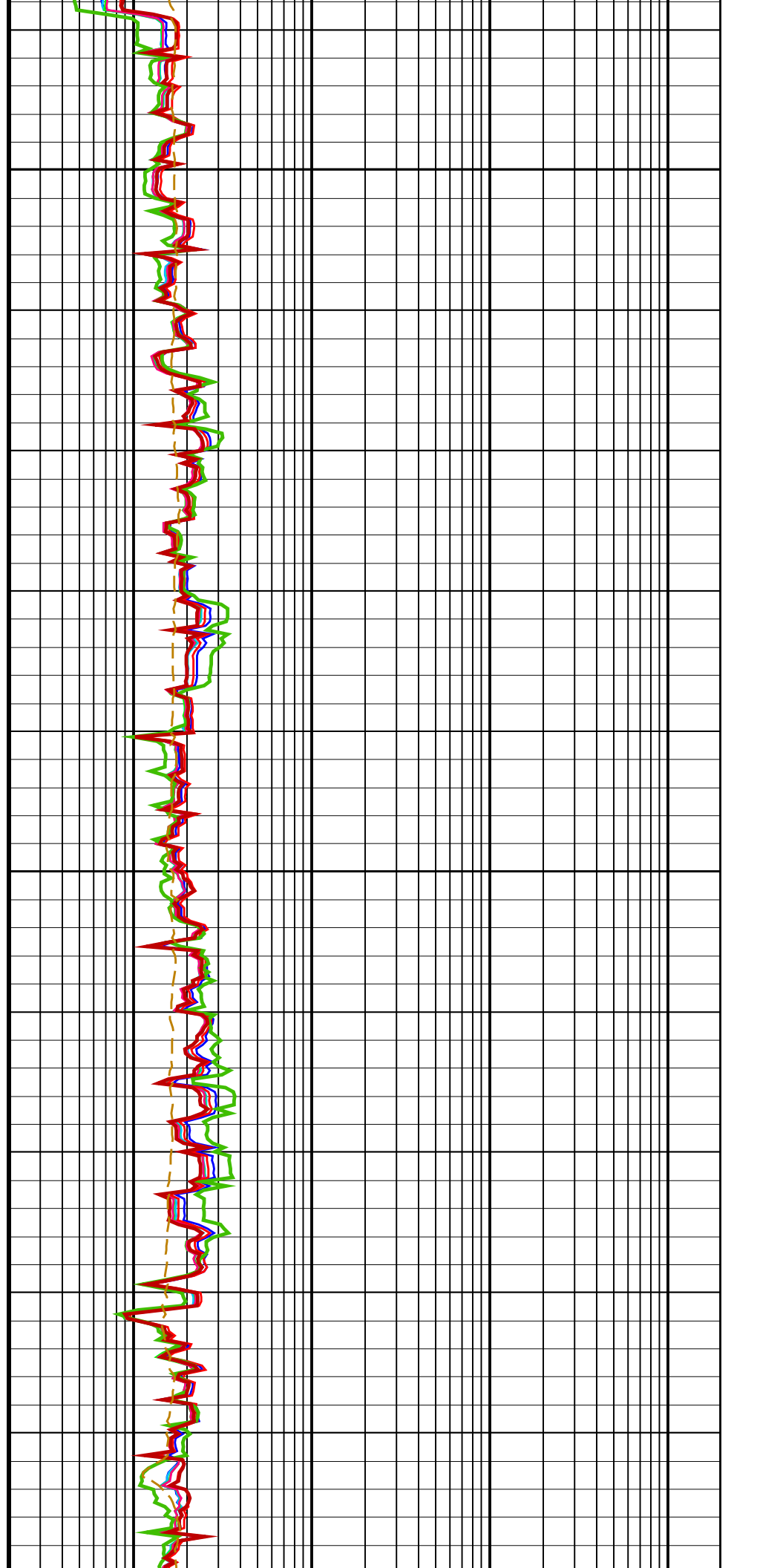
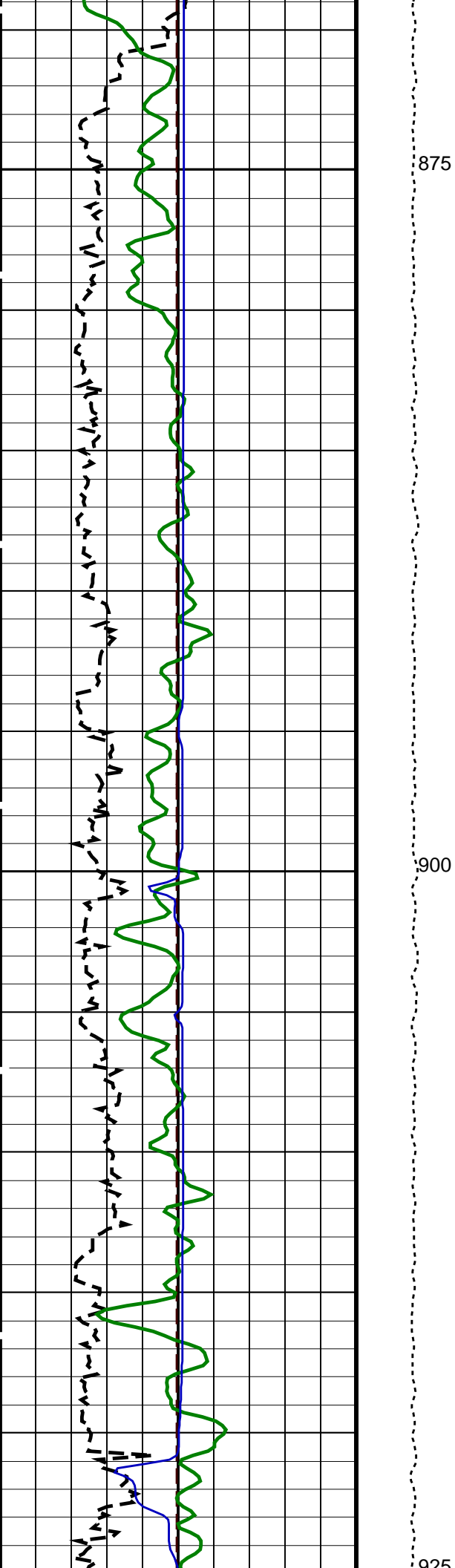
725

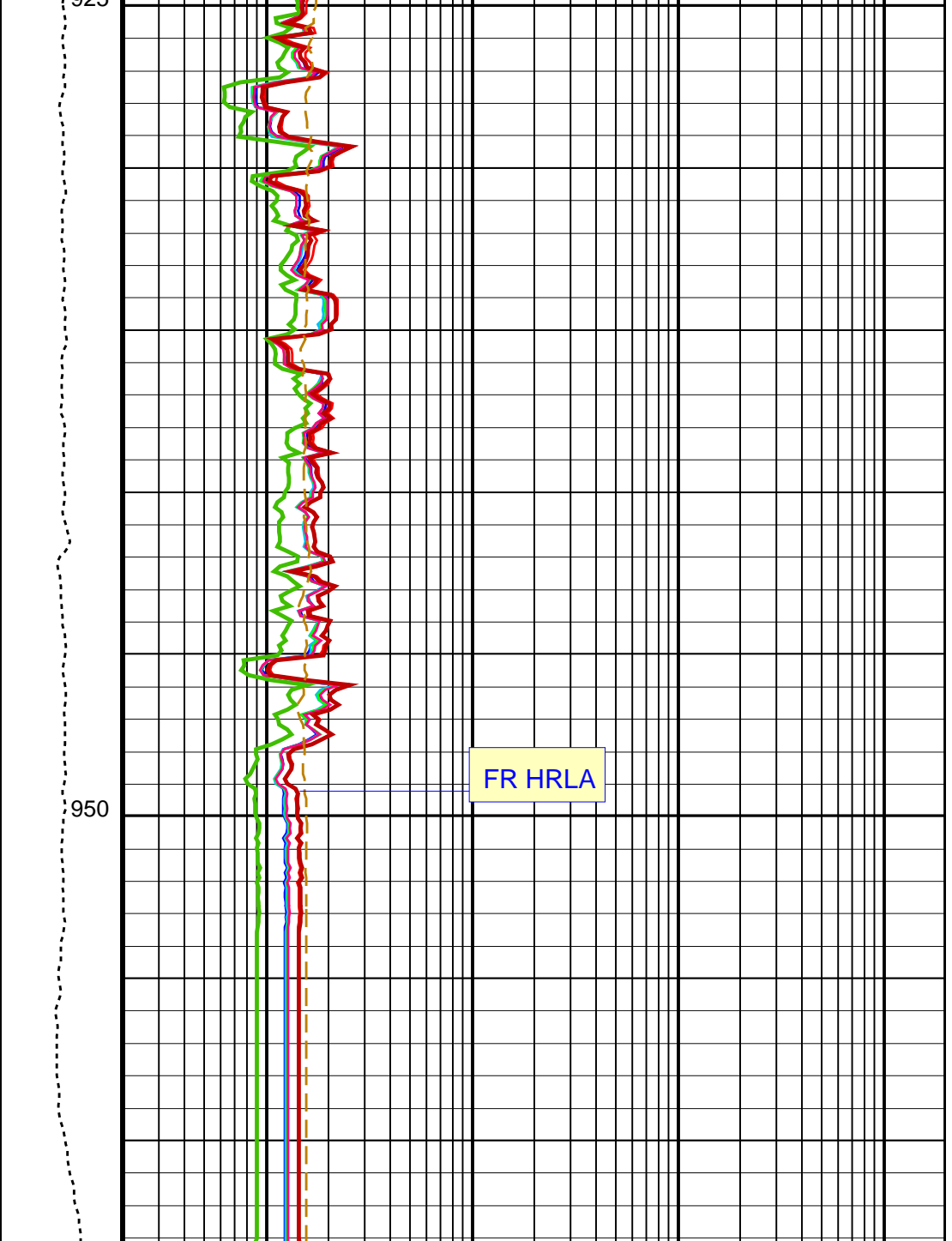
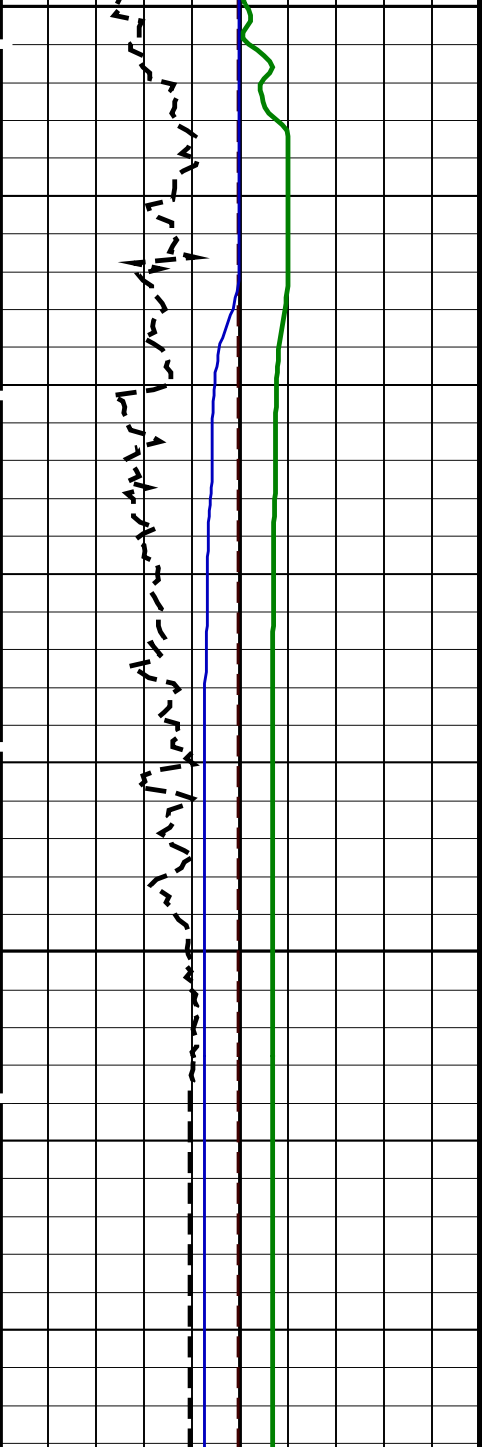
750











Bit Size (BS) (IN)	0	20
Caliper (LCAL) (IN)	0	20
Invasion Diameter (DI_HRLT) (IN)	0	50
HNGS Spectroscopy Gamma Ray (HSGR) (GAPI)	0	75

Tension (TENS) (LBF)	10000	0
HRLT Resistivity 1 (RLA1) (OHMM)	0.2	2000
HRLT Resistivity 2 (RLA2) (OHMM)	0.2	2000
HRLT Resistivity 3 (RLA3) (OHMM)	0.2	2000
HRLT Resistivity 4 (RLA4) (OHMM)	0.2	2000
HRLT Resistivity 5 (RLA5) (OHMM)	0.2	2000
HRLT Mud Resistivity (RM_HRLT) (OHMM)	0.02	200
Invaded Zone Resistivity (RXO_HRLT) (OHMM)	0.2	2000

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
HRLT-B: High Resolution Laterolog Array - B			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	6.5	DEGC
GCSE	Generalized Caliper Selection	LCAL	
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN 9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
KFAC_HRLT	HRLT K Factor Option	SONDE	
PROCINV	Inversion Selection	ON	
PROCMFL	Inversion Micro-Resistivity Selection	NO_EXTERNAL_RXO	
PROCMSO	Mechanical Standoff Fin Size	0	IN
PROCRM	Processing Mud Resistivity Select	HRLT_Compute	
PROCSPO	Sonde Position	Eccentered	
SHT	Surface Hole Temperature	20	DEGC
APS-C: Accelerator-Porosity Tool			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	6.5	DEGC
GCSE	Generalized Caliper Selection	LCAL	
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN 9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
SHT	Surface Hole Temperature	20	DEGC
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)	6.5	DEGC
CSD1	Inner Casing Outer Diameter	0	IN
CSD2	Outer Casing Outer Diameter	0	IN
CSW1	Inner Casing Weight	0	LB/F
CSW2	Outer Casing Weight	0	LB/F
DBCC	HNGS Barite Constant Correction Flag	NONE	
GCSE	Generalized Caliper Selection	LCAL	
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN 9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
H1P	HNGS Detector 1 Allow/Disallow In Processing	ALLOW	
H2P	HNGS Detector 2 Allow/Disallow In Processing	ALLOW	
HABK	HNGS Borehole Potassium Running Average	-0.000199897	
HALF	HNGS Alpha Filter Length	60	IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	NATU	
HNPE	HNGS Processing Enable	YES	
S1BI	HNGS Detector 1 Calibration Bismuth Count Rate	1.3	CPS
S2BI	HNGS Detector 2 Calibration Bismuth Count Rate	1.3	CPS
SGRC	HNGS Standard Gamma-Ray Correction Flag	YES	
SHT	Surface Hole Temperature	20	DEGC
TPOS	Tool Position	ECCE	
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	1.00407	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	1.01069	
EDTC-B: Enhanced DTS Cartridge			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	6.5	DEGC
GCSE	Generalized Caliper Selection	LCAL	
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN 9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
SHT	Surface Hole Temperature	20	DEGC
System and Miscellaneous			
BS	Bit Size	9.875	IN
DO	Depth Offset for Playback	-2125.5	M
MST	Mud Sample Temperature	-50000.00	DEGC
PP	Playback Processing	NORMAL	
TD	Total Depth	471	M

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

HRLT-B 19C0-187
 LDSC-B 19C0-187
 HNGC-B 19C0-187
 EDTC-B SKK-5169-EDTCB

Input DLIS Files

DEFAULT MSS_LDEO_HRLA_LDL_019LUP FN:20 PRODUCER 22-Apr-2014 11:26 3088.4 M 2114.6 M

Output DLIS Files

DEFAULT MSS_LDEO_HRLA_LDL_038PUP FN:45 PRODUCER 25-Apr-2014 01:15
 CLIENT MSS_LDEO_HRLA_LDL_038PUC FN:46 CUSTOMER 25-Apr-2014 01:15



Calibrations

MAXIS Field Log

Calibration and Check Summary

Measurement	Nominal	Master	Before	After	Change	Limit	Units
High Resolution Laterolog Array – B Wellsite Calibration – HRLT M01							
Before: 22-Apr-2014 11:12 After: 22-Apr-2014 15:20							
HRLT M0-M1 Voltage Plus – 0	0	N/A	-319.1	-318.8	0.3062	9.681	UV
HRLT M0-M1 Voltage Plus – 1	0	N/A	-331.1	-332.9	-1.821	9.681	UV
HRLT M0-M1 Voltage Plus – 2	0	N/A	-332.4	-334.2	-1.765	9.681	UV
HRLT M0-M1 Voltage Plus – 3	0	N/A	-336.5	-337.9	-1.335	9.681	UV
HRLT M0-M1 Voltage Plus – 4	0	N/A	-325.8	-326.3	-0.4844	9.681	UV
HRLT M0-M1 Voltage Plus – 5	0	N/A	-322.2	-322.4	-0.2563	9.681	UV
HRLT M0-M1 Voltage Plus – 6	0	N/A	320.1	324.2	4.174	9.681	UV
HRLT M0-M1 Voltage Plus – 7	0	N/A	-322.7	-322.7	0	9.681	UV
High Resolution Laterolog Array – B Wellsite Calibration – HRLT M12							
Before: 22-Apr-2014 11:12 After: 22-Apr-2014 15:20							
HRLT M1-M2 Voltage Plus – 0	0	N/A	1759	1753	-5.530	53.42	UV
HRLT M1-M2 Voltage Plus – 1	0	N/A	1826	1834	7.958	53.42	UV
HRLT M1-M2 Voltage Plus – 2	0	N/A	1828	1834	6.914	53.42	UV
HRLT M1-M2 Voltage Plus – 3	0	N/A	1850	1853	3.145	53.42	UV
HRLT M1-M2 Voltage Plus – 4	0	N/A	1791	1789	-2.477	53.42	UV
HRLT M1-M2 Voltage Plus – 5	0	N/A	1772	1768	-3.955	53.42	UV
HRLT M1-M2 Voltage Plus – 6	0	N/A	-1773	-1795	-22.06	53.42	UV
HRLT M1-M2 Voltage Plus – 7	0	N/A	1781	1781	0	53.42	UV
High Resolution Laterolog Array – B Wellsite Calibration – HRLT M23							
Before: 22-Apr-2014 11:12 After: 22-Apr-2014 15:20							
HRLT M2-M3 Voltage Plus – 0	0	N/A	1744	1739	-5.546	53.42	UV
HRLT M2-M3 Voltage Plus – 1	0	N/A	1824	1831	6.561	53.42	UV
HRLT M2-M3 Voltage Plus – 2	0	N/A	1827	1833	5.856	53.42	UV
HRLT M2-M3 Voltage Plus – 3	0	N/A	1853	1856	2.514	53.42	UV
HRLT M2-M3 Voltage Plus – 4	0	N/A	1787	1784	-2.507	53.42	UV
HRLT M2-M3 Voltage Plus – 5	0	N/A	1769	1765	-3.755	53.42	UV
HRLT M2-M3 Voltage Plus – 6	0	N/A	-1762	-1782	-20.04	53.42	UV
HRLT M2-M3 Voltage Plus – 7	0	N/A	1781	1781	0	53.42	UV
High Resolution Laterolog Array – B Wellsite Calibration – HRLT V34							
Before: 22-Apr-2014 11:12 After: 22-Apr-2014 15:20							
HRLT A3-A4 Voltage Plus – 0	0	N/A	68490	68380	-104.8	2100	UV
HRLT A3-A4 Voltage Plus – 1	0	N/A	71440	71810	365.7	2100	UV
HRLT A3-A4 Voltage Plus – 2	0	N/A	71830	72190	361.5	2100	UV
HRLT A3-A4 Voltage Plus – 3	0	N/A	73090	73320	228.5	2100	UV
HRLT A3-A4 Voltage Plus – 4	0	N/A	70460	70490	28.09	2100	UV

HRLT A3-A4 Voltage Plus - 5	0	N/A	69760	69740	-23.30	2100	UV
HRLT A3-A4 Voltage Plus - 6	0	N/A	-67950	-68850	-894.5	2100	UV
HRLT A3-A4 Voltage Plus - 7	0	N/A	70000	70000	0	2100	UV

High Resolution Laterolog Array - B Wellsite Calibration - HRLT V45
 Before: 22-Apr-2014 11:12 After: 22-Apr-2014 15:20

HRLT A4-A5 Voltage Plus - 0	0	N/A	68740	68660	-75.27	2100	UV
HRLT A4-A5 Voltage Plus - 1	0	N/A	71800	72210	406.9	2100	UV
HRLT A4-A5 Voltage Plus - 2	0	N/A	72170	72540	372.2	2100	UV
HRLT A4-A5 Voltage Plus - 3	0	N/A	73420	73660	239.9	2100	UV
HRLT A4-A5 Voltage Plus - 4	0	N/A	70750	70790	44.78	2100	UV
HRLT A4-A5 Voltage Plus - 5	0	N/A	70030	70000	-31.07	2100	UV
HRLT A4-A5 Voltage Plus - 6	0	N/A	-68330	-69240	-908.4	2100	UV
HRLT A4-A5 Voltage Plus - 7	0	N/A	70000	70000	0	2100	UV

High Resolution Laterolog Array - B Wellsite Calibration - HRLT V56
 Before: 22-Apr-2014 11:12 After: 22-Apr-2014 15:20

HRLT A5-A6 Voltage Plus - 0	0	N/A	68640	68560	-76.52	2100	UV
HRLT A5-A6 Voltage Plus - 1	0	N/A	71530	71930	396.8	2100	UV
HRLT A5-A6 Voltage Plus - 2	0	N/A	71930	72310	378.7	2100	UV
HRLT A5-A6 Voltage Plus - 3	0	N/A	73210	73460	252.0	2100	UV
HRLT A5-A6 Voltage Plus - 4	0	N/A	70600	70640	41.45	2100	UV
HRLT A5-A6 Voltage Plus - 5	0	N/A	69910	69900	-12.29	2100	UV
HRLT A5-A6 Voltage Plus - 6	0	N/A	-68070	-68970	-905.8	2100	UV
HRLT A5-A6 Voltage Plus - 7	0	N/A	70000	70000	0	2100	UV

High Resolution Laterolog Array - B Wellsite Calibration - HRLT VTP
 Before: 22-Apr-2014 11:12 After: 22-Apr-2014 15:20

HRLT Torpedo-M0 Voltage - 0	0	N/A	-68340	-68230	103.6	2100	UV
HRLT Torpedo-M0 Voltage - 1	0	N/A	-71860	-72250	-393.8	2100	UV
HRLT Torpedo-M0 Voltage - 2	0	N/A	-72240	-72610	-367.6	2100	UV
HRLT Torpedo-M0 Voltage - 3	0	N/A	-73520	-73760	-235.8	2100	UV
HRLT Torpedo-M0 Voltage - 4	0	N/A	-70820	-70840	-21.06	2100	UV
HRLT Torpedo-M0 Voltage - 5	0	N/A	-70090	-70050	41.42	2100	UV
HRLT Torpedo-M0 Voltage - 6	0	N/A	68330	69240	912.8	2100	UV
HRLT Torpedo-M0 Voltage - 7	0	N/A	-70000	-70000	0	2100	UV

High Resolution Laterolog Array - B Wellsite Calibration - HRLT VBD
 Before: 22-Apr-2014 11:12 After: 22-Apr-2014 15:20

HRLT Bridle#9-M0 Voltage - 0	0	N/A	-68330	-68230	100.6	2100	UV
HRLT Bridle#9-M0 Voltage - 1	0	N/A	-71830	-72240	-412.0	2100	UV
HRLT Bridle#9-M0 Voltage - 2	0	N/A	-72220	-72590	-369.9	2100	UV
HRLT Bridle#9-M0 Voltage - 3	0	N/A	-73500	-73730	-227.9	2100	UV
HRLT Bridle#9-M0 Voltage - 4	0	N/A	-70820	-70840	-22.34	2100	UV
HRLT Bridle#9-M0 Voltage - 5	0	N/A	-70090	-70040	48.22	2100	UV
HRLT Bridle#9-M0 Voltage - 6	0	N/A	68300	69210	914.5	2100	UV
HRLT Bridle#9-M0 Voltage - 7	0	N/A	-70000	-70000	0	2100	UV

High Resolution Laterolog Array - B Wellsite Calibration - HRLT ISO
 Before: 22-Apr-2014 11:12 After: 22-Apr-2014 15:20

HRLT Source Current Plus - 0	0	N/A	285.0	284.6	-0.4069	8.520	UA
HRLT Source Current Plus - 1	0	N/A	281.1	281.1	0	8.520	UA
HRLT Source Current Plus - 2	0	N/A	281.1	281.1	0	8.520	UA
HRLT Source Current Plus - 3	0	N/A	281.1	281.1	0	8.520	UA
HRLT Source Current Plus - 4	0	N/A	281.1	281.1	0	8.520	UA
HRLT Source Current Plus - 5	0	N/A	281.1	281.1	0	8.520	UA
HRLT Source Current Plus - 6	0	N/A	281.1	281.1	0	8.520	UA
HRLT Source Current Plus - 7	0	N/A	281.1	281.1	0	8.520	UA

High Resolution Laterolog Array - B Wellsite Calibration - HRLT MV
 Before: 22-Apr-2014 11:12 After: 22-Apr-2014 15:20

HRLT Vertical Voltage PI - 0	0	N/A	-321.8	-321.2	0.5255	9.681	UV
HRLT Vertical Voltage PI - 1	0	N/A	-326.0	-327.9	-1.913	9.681	UV
HRLT Vertical Voltage PI - 2	0	N/A	-326.3	-328.0	-1.707	9.681	UV
HRLT Vertical Voltage PI - 3	0	N/A	-328.7	-329.8	-1.082	9.681	UV
HRLT Vertical Voltage PI - 4	0	N/A	-315.3	-315.4	-0.03436	9.681	UV
HRLT Vertical Voltage PI - 5	0	N/A	-326.9	-326.6	0.2318	9.681	UV
HRLT Vertical Voltage PI - 6	0	N/A	328.0	332.6	4.506	9.681	UV
HRLT Vertical Voltage PI - 7	0	N/A	-322.7	-322.7	0	9.681	UV

Hostile Litho-Density Sonde Wellsite Calibration - Background Measurement
 Master: 30-Mar-2014 17:31 Before: 22-Apr-2014 8:11 After: 22-Apr-2014 15:52

SS Cs Resolution Bkg	9.000	7.835	7.769	7.662	-0.1067	1.800	%
LS Cs Resolution Bkg	9.000	8.052	8.051	8.070	0.01894	1.800	%
LSW1 Background	100.0	85.40	81.87	83.71	1.840	3.000	CPS
LSW2 Background	100.0	75.91	75.44	75.85	0.4115	3.000	CPS
LSW3 Background	200.0	172.7	173.8	172.5	-1.346	6.000	CPS
LSW4 Background	250.0	211.3	210.9	212.1	1.252	7.500	CPS
LSW5 Background	600.0	495.5	492.0	493.1	1.094	18.00	CPS
SSW1 Background	100.0	82.18	80.25	81.59	1.343	3.000	CPS
SSW2 Background	200.0	140.5	140.8	140.4	-0.4067	6.000	CPS
SSW3 Background	500.0	322.8	322.8	324.2	1.400	15.00	CPS

SSW3 Background	500.0	389.3	390.9	391.2	0.2448	15.00	CPS
SSW4 Background	270.0	210.4	209.5	207.4	-2.117	8.100	CPS
SSW5 Background	200.0	149.3	148.9	150.1	1.210	6.000	CPS

Hostile Litho-Density Sonde Wellsite Calibration – Aluminum Measurement

Master: 30-Mar-2014 17:55

LSW1 Aluminum	600.0	474.9	N/A	N/A	N/A	N/A	CPS
LSW2 Aluminum	900.0	698.9	N/A	N/A	N/A	N/A	CPS
LSW3 Aluminum	1100	843.5	N/A	N/A	N/A	N/A	CPS
LSW4 Aluminum	580.0	422.2	N/A	N/A	N/A	N/A	CPS
LSW5 Aluminum	570.0	388.1	N/A	N/A	N/A	N/A	CPS
SSW1 Aluminum	2800	2208	N/A	N/A	N/A	N/A	CPS
SSW2 Aluminum	8000	6092	N/A	N/A	N/A	N/A	CPS
SSW3 Aluminum	11600	8590	N/A	N/A	N/A	N/A	CPS
SSW4 Aluminum	5000	3536	N/A	N/A	N/A	N/A	CPS
SSW5 Aluminum	660.0	421.8	N/A	N/A	N/A	N/A	CPS

Hostile Litho-Density Sonde Wellsite Calibration – Lithology Measurement

Master: 30-Mar-2014 17:49

LSW1 Iron	400.0	324.7	N/A	N/A	N/A	N/A	CPS
LSW2 Iron	730.0	565.3	N/A	N/A	N/A	N/A	CPS
LSW3 Iron	1000	741.4	N/A	N/A	N/A	N/A	CPS
LSW4 Iron	520.0	383.6	N/A	N/A	N/A	N/A	CPS
LSW5 Iron	470.0	349.9	N/A	N/A	N/A	N/A	CPS
SSW1 Iron	2100	1623	N/A	N/A	N/A	N/A	CPS
SSW2 Iron	6800	5092	N/A	N/A	N/A	N/A	CPS
SSW3 Iron	10800	7826	N/A	N/A	N/A	N/A	CPS
SSW4 Iron	4600	3213	N/A	N/A	N/A	N/A	CPS
SSW5 Iron	580.0	372.1	N/A	N/A	N/A	N/A	CPS

Hostile Litho-Density Sonde Wellsite Calibration – Caliper Calibration

Before: 30-Mar-2014 20:42

HLDS Caliper Small Ring	12.00	N/A	14.54	N/A	N/A	N/A	IN
HLDS Caliper Large Ring	15.19	N/A	18.12	N/A	N/A	N/A	IN

Accelerator-Porosity Tool Wellsite Calibration – Detector Background

Master: 30-Mar-2014 12:33 Before: 22-Apr-2014 8:10 After: 22-Apr-2014 15:23

Near Det Bkg Cntrate	30.00	27.13	26.65	25.40	-1.257	N/A	CPS
Far Det Bkg Cntrate	30.00	28.20	27.24	27.62	0.3806	N/A	CPS
Array-1 Det Bkg Cntrate	30.00	26.50	25.50	26.54	1.040	N/A	CPS
Array-2 Det Bkg Cntrate	30.00	27.19	26.35	26.51	0.1599	N/A	CPS
Array Therm Det Bkg Cntrate	30.00	27.32	25.77	27.04	1.261	N/A	CPS

Accelerator-Porosity Tool Wellsite Calibration – Calibration Ratios

Master: 30-Mar-2014 12:33

Near/Far Calibration Ratio	0.9250	0.9737	N/A	N/A	N/A	N/A	
Near/Array Calibration Ratio	1.030	1.083	N/A	N/A	N/A	N/A	
Near/Array Cal Ratio Up/Down	1.000	1.018	N/A	N/A	N/A	N/A	

Accelerator-Porosity Tool Wellsite Calibration – Tank Check

Master: 30-Mar-2014 12:33

Array-1 Standoff Porosity	11.75	10.24	N/A	N/A	N/A	N/A	PU
Array-2 Standoff Porosity	11.75	10.46	N/A	N/A	N/A	N/A	PU
Average Slowing Down Time	6.000	6.082	N/A	N/A	N/A	N/A	US
Array-1 SDT Ratio Up/Down	1.000	0.9762	N/A	N/A	N/A	N/A	
Array-2 SDT Ratio Up/Down	1.000	0.9753	N/A	N/A	N/A	N/A	
Sigma Formation	27.50	34.48	N/A	N/A	N/A	N/A	CU

Accelerator-Porosity Tool Wellsite Calibration – CCR7 signal boxes

Master: 30-Mar-2014 11:56

Near Detector Plateau Setting	1650	1699	N/A	N/A	N/A	N/A	V
Far Detector Plateau Setting	2000	2036	N/A	N/A	N/A	N/A	V
Array Detector Plateau Setting	2000	1937	N/A	N/A	N/A	N/A	V

Hostile Natural Gamma Ray Sonde Wellsite Calibration – Detector 1 Check

Master: 27-Mar-2014 5:59 Before: 27-Mar-2014 6:07 After: 27-Mar-2014 6:13

Na 511 Peak Loc	40.00	39.78	39.67	39.66	-0.01299	1.000	
Na 511 Peak Res	15.50	16.03	15.21	17.13	1.922	2.000	%
High Voltage	1150	1197	1196	1198	1.049	N/A	V
Na 1785 Peak Loc	142.6	142.2	143.6	142.1	-1.514	7.000	
Na 1785 Peak Res	8.500	8.755	9.665	9.508	-0.1568	2.000	%
Temperature	15.50	33.07	33.06	33.03	-0.02276	N/A	DEGC
Na Count Rate	45.00	11.79	12.09	12.03	-0.06420	8.000	CPS

Hostile Natural Gamma Ray Sonde Wellsite Calibration – Detector 2 Check

Master: 27-Mar-2014 5:59 Before: 27-Mar-2014 6:07 After: 27-Mar-2014 6:13

Na 511 Peak Loc	40.00	39.69	39.69	39.64	-0.04813	1.000	
Na 511 Peak Res	15.50	15.94	16.10	16.73	0.6302	2.000	%
High Voltage	1150	1120	1119	1119	-0.2911	N/A	V
Na 1785 Peak Loc	142.6	143.1	142.2	141.3	-0.9386	7.000	
Na 1785 Peak Res	8.500	9.947	8.813	9.218	0.4048	2.000	%
Temperature	15.50	33.86	33.85	33.87	0.01951	N/A	DEGC

Na Count Rate	45.00	12.27	12.51	12.48	-0.02532	8.000	CPS
Hostile Natural Gamma Ray Sonde Wellsite Calibration – Ratio Of Detector 1 To Detector 2							
Master: 27-Mar-2014 5:59 Before: 27-Mar-2014 6:07 After: 27-Mar-2014 6:13							
Coincidence Count Rate Ratio	1.000	0.9619	0.9664	0.9652	-0.001153	0.05000	
Enhanced DTS Cartridge Wellsite Calibration – EDTC Accelerometer Calibration							
Before: 22-Apr-2014 8:07							
EDTC Z-Axis Acceleration	9.810	N/A	9.752	N/A	N/A	N/A	M/S2
Enhanced DTS Cartridge Wellsite Calibration – Detector Calibration							
Before: 22-Apr-2014 8:17 After: 22-Apr-2014 15:50							
Gamma Ray (Jig – Bkg)	156.4	N/A	156.4	158.2	1.813	14.22	GAPI
Gamma Ray (Calibrated)	165.0	N/A	165.0	166.9	1.913	15.00	GAPI

Accelerator-Porosity Tool – Detector Plateau Settings :

Near Detector Plateau Setting	1699 V
Far Detector Plateau Setting	2036 V
Array Detector Plateau Setting	1937 V

High Resolution Laterolog Array – B / Equipment Identification		
Primary Equipment:		
HRLT Sonde	HRLS – B	768
Auxiliary Equipment:		
HRLT lower Housing	HRLH – B	968
HRLT Lower Cartridge	HRLC – B	974
HRLT upper Housing	HRUH – B	768
HRLT Upper Cartridge	HRUC – B	764

High Resolution Laterolog Array – B Wellsite Calibration							
HRLT M01							
Idx	Phase	HRLT M0-M1 Voltage Plus UV	Value	Nominal	Maximum	Minimum	
0	Before		-319.1	-322.7	-280.7	-379.7	
	After		-318.8				
1	Before		-331.1	-322.7	-280.7	-379.7	
	After		-332.9				
2	Before		-332.4	-322.7	-280.7	-379.7	
	After		-334.2				
3	Before		-336.5	-322.7	-280.7	-379.7	
	After		-337.9				
4	Before		-325.8	-322.7	-280.7	-379.7	
	After		-326.3				
5	Before		-322.2	-322.7	-280.7	-379.7	
	After		-322.4				
6	Before		320.1	322.7	379.7	280.7	
	After		324.2				
7	Before		-322.7	-322.7	-280.7	-379.7	
	After		-322.7				
		(Minimum) (Nominal) (Maximum)					
Before: 22-Apr-2014 11:12							
After: 22-Apr-2014 15:20							

High Resolution Laterolog Array – B Wellsite Calibration							
HRLT M12							
Idx	Phase	HRLT M1-M2 Voltage Plus UV	Value	Nominal	Maximum	Minimum	

0	Before		1759	1781	2095	1549
	After		1753			
1	Before		1826	1781	2095	1549
	After		1834			
2	Before		1828	1781	2095	1549
	After		1834			
3	Before		1850	1781	2095	1549
	After		1853			
4	Before		1791	1781	2095	1549
	After		1789			
5	Before		1772	1781	2095	1549
	After		1768			
6	Before		-1773	-1781	-1549	-2095
	After		-1795			
7	Before		1781	1781	2095	1549
	After		1781			
			(Minimum)	(Nominal)	(Maximum)	

Before: 22-Apr-2014 11:12

After: 22-Apr-2014 15:20

High Resolution Laterolog Array – B Wellsite Calibration						
HRLT M23						
Idx	Phase	HRLT M2–M3 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		1744	1781	2095	1549
	After		1739			
1	Before		1824	1781	2095	1549
	After		1831			
2	Before		1827	1781	2095	1549
	After		1833			
3	Before		1853	1781	2095	1549
	After		1856			
4	Before		1787	1781	2095	1549
	After		1784			
5	Before		1769	1781	2095	1549
	After		1765			
6	Before		-1762	-1781	-1549	-2095
	After		-1782			
7	Before		1781	1781	2095	1549
	After		1781			
			(Minimum)	(Nominal)	(Maximum)	

Before: 22-Apr-2014 11:12

After: 22-Apr-2014 15:20

High Resolution Laterolog Array – B Wellsite Calibration						
HRLT V34						
Idx	Phase	HRLT A3–A4 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		68490	70000	82360	60900
	After		68380			

1	Before		71440	70000	82360	60900
	After		71810			
2	Before		71830	70000	82360	60900
	After		72190			
3	Before		73090	70000	82360	60900
	After		73320			
4	Before		70460	70000	82360	60900
	After		70490			
5	Before		69760	70000	82360	60900
	After		69740			
6	Before		-67950	-70000	-60900	-82360
	After		-68850			
7	Before		70000	70000	82360	60900
	After		70000			
			(Minimum)	(Nominal)	(Maximum)	

Before: 22-Apr-2014 11:12
 After: 22-Apr-2014 15:20

High Resolution Laterolog Array – B Wellsite Calibration						
HRLT V45						
Idx	Phase	HRLT A4–A5 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		68740	70000	82360	60900
	After		68660			
1	Before		71800	70000	82360	60900
	After		72210			
2	Before		72170	70000	82360	60900
	After		72540			
3	Before		73420	70000	82360	60900
	After		73660			
4	Before		70750	70000	82360	60900
	After		70790			
5	Before		70030	70000	82360	60900
	After		70000			
6	Before		-68330	-70000	-60900	-82360
	After		-69240			
7	Before		70000	70000	82360	60900
	After		70000			
			(Minimum)	(Nominal)	(Maximum)	

Before: 22-Apr-2014 11:12
 After: 22-Apr-2014 15:20

High Resolution Laterolog Array – B Wellsite Calibration						
HRLT V56						
Idx	Phase	HRLT A5–A6 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		68640	70000	82360	60900
	After		68560			
1	Before		71530	70000	82360	60900
	After		71930			

2	Before		71930	70000	82360	60900
	After		72310			
3	Before		73210	70000	82360	60900
	After		73460			
4	Before		70600	70000	82360	60900
	After		70640			
5	Before		69910	70000	82360	60900
	After		69900			
6	Before		-68070	-70000	-60900	-82360
	After		-68970			
7	Before		70000	70000	82360	60900
	After		70000			
			(Minimum)	(Nominal)	(Maximum)	
Before: 22-Apr-2014 11:12						
After: 22-Apr-2014 15:20						

High Resolution Laterolog Array – B Wellsite Calibration							
HRLT VTP							
Idx	Phase	HRLT Torpedo-M0 Voltage Plus UV	Value	Nominal	Maximum	Minimum	
0	Before		-68340	-70000	-60900	-82360	
	After		-68230				
1	Before		-71860	-70000	-60900	-82360	
	After		-72250				
2	Before		-72240	-70000	-60900	-82360	
	After		-72610				
3	Before		-73520	-70000	-60900	-82360	
	After		-73760				
4	Before		-70820	-70000	-60900	-82360	
	After		-70840				
5	Before		-70090	-70000	-60900	-82360	
	After		-70050				
6	Before		68330	70000	82360	60900	
	After		69240				
7	Before		-70000	-70000	-60900	-82360	
	After		-70000				
			(Minimum)	(Nominal)	(Maximum)		
Before: 22-Apr-2014 11:12							
After: 22-Apr-2014 15:20							

High Resolution Laterolog Array – B Wellsite Calibration							
HRLT VBD							
Idx	Phase	HRLT Bridle#9-M0 Voltage Plus UV	Value	Nominal	Maximum	Minimum	
0	Before		-68330	-70000	-60900	-82360	
	After		-68230				
1	Before		-71830	-70000	-60900	-82360	
	After		-72240				
2	Before		-72220	-70000	-60900	-82360	
	After		-72590				

3	Before		-73500	-70000	-60900	-82360
	After		-73730			
4	Before		-70820	-70000	-60900	-82360
	After		-70840			
5	Before		-70090	-70000	-60900	-82360
	After		-70040			
6	Before		68300	70000	82360	60900
	After		69210			
7	Before		-70000	-70000	-60900	-82360
	After		-70000			
(Minimum) (Nominal) (Maximum)						
Before: 22-Apr-2014 11:12						
After: 22-Apr-2014 15:20						

High Resolution Laterolog Array – B Wellsite Calibration						
HRLT ISO						
Idx	Phase	HRLT Source Current Plus UA	Value	Nominal	Maximum	Minimum
0	Before		285.0	284.0	334.1	247.0
	After		284.6			
1	Before		281.1	281.1	330.7	244.4
	After		281.1			
2	Before		281.1	281.1	330.7	244.4
	After		281.1			
3	Before		281.1	281.1	330.7	244.4
	After		281.1			
4	Before		281.1	281.1	330.7	244.4
	After		281.1			
5	Before		281.1	281.1	330.7	244.4
	After		281.1			
6	Before		281.1	281.1	330.7	244.4
	After		281.1			
7	Before		281.1	281.1	330.7	244.4
	After		281.1			
(Minimum) (Nominal) (Maximum)						
Before: 22-Apr-2014 11:12						
After: 22-Apr-2014 15:20						

High Resolution Laterolog Array – B Wellsite Calibration						
HRLT MV						
Idx	Phase	HRLT Vertical Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		-321.8	-322.7	-280.7	-379.7
	After		-321.2			
1	Before		-326.0	-322.7	-280.7	-379.7
	After		-327.9			
2	Before		-326.3	-322.7	-280.7	-379.7
	After		-328.0			
3	Before		-328.7	-322.7	-280.7	-379.7
	After		-329.8			

4	Before		-315.3	-322.7	-280.7	-379.7
	After		-315.4			
5	Before		-326.9	-322.7	-280.7	-379.7
	After		-326.6			
6	Before		328.0	322.7	379.7	280.7
	After		332.6			
7	Before		-322.7	-322.7	-280.7	-379.7
	After		-322.7			
		(Minimum)	(Nominal)	(Maximum)		
Before: 22-Apr-2014 11:12						
After: 22-Apr-2014 15:20						

Hostile Litho-Density Sonde / Equipment Identification

Primary Equipment:

Hostile Litho Density Sonde	HLDS - D	35
Hostile Litho Density High Voltage	HLDV - D	35
Gamma Source Radioactive	GSR - Z	8113

Auxiliary Equipment:

Hostile Litho Density Pad	HLDP - C	35
Hostile Litho Density High Voltage Housi	HEH - H	35

Hostile Litho-Density Sonde Wellsite Calibration

Background Measurement

Phase	SS Cs Resolution Bkg %	Value	Phase	LS Cs Resolution Bkg %	Value	Phase	LSW1 Background CPS	Value
Master		7.835	Master		8.052	Master		85.40
Before		7.769	Before		8.051	Before		81.87
After		7.662	After		8.070	After		83.71
		7.000 (Minimum)			9.000 (Nominal)			11.00 (Maximum)
		7.000 (Minimum)			9.000 (Nominal)			11.00 (Maximum)
		55.00 (Minimum)			100.0 (Nominal)			150.0 (Maximum)
Phase	LSW2 Background CPS	Value	Phase	LSW3 Background CPS	Value	Phase	LSW4 Background CPS	Value
Master		75.91	Master		172.7	Master		211.3
Before		75.44	Before		173.8	Before		210.9
After		75.85	After		172.5	After		212.1
		50.00 (Minimum)			100.0 (Nominal)			140.0 (Maximum)
		110.0 (Minimum)			200.0 (Nominal)			290.0 (Maximum)
		140.0 (Minimum)			250.0 (Nominal)			360.0 (Maximum)
Phase	LSW5 Background CPS	Value	Phase	SSW1 Background CPS	Value	Phase	SSW2 Background CPS	Value
Master		495.5	Master		82.18	Master		140.5
Before		492.0	Before		80.25	Before		140.8
After		493.1	After		81.59	After		140.4
		330.0 (Minimum)			600.0 (Nominal)			830.0 (Maximum)
		55.00 (Minimum)			100.0 (Nominal)			150.0 (Maximum)
		100.0 (Minimum)			200.0 (Nominal)			260.0 (Maximum)
Phase	SSW3 Background CPS	Value	Phase	SSW4 Background CPS	Value	Phase	SSW5 Background CPS	Value
Master		389.3	Master		210.4	Master		149.3
Before		390.9	Before		209.5	Before		148.9
After		391.2	After		207.4	After		150.1
		280.0 (Minimum)			500.0 (Nominal)			700.0 (Maximum)
		150.0 (Minimum)			270.0 (Nominal)			380.0 (Maximum)
		110.0 (Minimum)			200.0 (Nominal)			270.0 (Maximum)
Master: 30-Mar-2014 17:31			Before: 22-Apr-2014 8:11			After: 22-Apr-2014 15:52		

Litho-Density Spectroscopy Cartridge - B / Equipment Identification

Primary Equipment:

LDSC Cartridge	LDSC - B	326
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Accelerator-Porosity Tool / Equipment Identification

Primary Equipment:

Accelerator-Porosity Sonde
APS Minitron

APS - C 212
MNTR - F 6504

Auxiliary Equipment:

Accelerator-Porosity Housing
APS Calibration Water Tank
APS Aluminum Calibrator Sleeve

APH - AC 121
SFT - 178 1
SFT - 281 1

Accelerator-Porosity Tool Wellsite Calibration

Detector Background

Phase	Near Det Bkg Cntrate CPS	Value	Phase	Far Det Bkg Cntrate CPS	Value	Phase	Array-1 Det Bkg Cntrate CPS	Value
Master		27.13	Master		28.20	Master		26.50
Before		26.65	Before		27.24	Before		25.50
After		25.40	After		27.62	After		26.54
1.000 (Minimum) 30.00 (Nominal) 50.00 (Maximum)			1.000 (Minimum) 30.00 (Nominal) 50.00 (Maximum)			1.000 (Minimum) 30.00 (Nominal) 50.00 (Maximum)		
Phase	Array-2 Det Bkg Cntrate CPS	Value	Phase	Array Therm Det Bkg Cntrate CPS	Value			
Master		27.19	Master		27.32			
Before		26.35	Before		25.77			
After		26.51	After		27.04			
1.000 (Minimum) 30.00 (Nominal) 50.00 (Maximum)			1.000 (Minimum) 30.00 (Nominal) 50.00 (Maximum)					
Master: 30-Mar-2014 12:33			Before: 22-Apr-2014 8:10			After: 22-Apr-2014 15:23		

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		0.9737	Master		1.083	Master		1.018
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: 30-Mar-2014 12:33								

Accelerator-Porosity Tool Wellsite Calibration

Tank Check

Phase	Array-1 Standoff Porosity PU	Value	Phase	Array-2 Standoff Porosity PU	Value	Phase	Average Slowing Down Time US	Value
Master		10.24	Master		10.46	Master		6.082
9.900 (Minimum) 11.75 (Nominal) 13.60 (Maximum)			9.900 (Minimum) 11.75 (Nominal) 13.60 (Maximum)			5.500 (Minimum) 6.000 (Nominal) 6.250 (Maximum)		
Phase	Array-1 SDT Ratio Up/Down	Value	Phase	Array-2 SDT Ratio Up/Down	Value	Phase	Sigma Formation CU	Value
Master		0.9762	Master		0.9753	Master		34.48
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: 30-Mar-2014 12:33								

Hostile Natural Gamma Ray Cartridge - B / Equipment Identification

Primary Equipment:

HNGC Cartridge

HNGC - B 300

Auxiliary Equipment:

HNGC Housing

HNGH - A 115

Hostile Natural Gamma Ray Sonde / Equipment Identification

Primary Equipment:

Primary Equipment: HNGS Sonde	HNGS – BA	194
Auxiliary Equipment: HNGS Sonde Housing Gamma Source Radioactive	HNSH – BA GSR – U	205 616008

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		39.78	Master		16.03	Master		1197
Before		39.67	Before		15.21	Before		1196
After		39.66	After		17.13	After		1198
	37.50 (Minimum) 40.00 (Nominal) 43.50 (Maximum)			12.00 (Minimum) 15.50 (Nominal) 19.00 (Maximum)			900.0 (Minimum) 1150 (Nominal) 1600 (Maximum)	
Phase	Na 1785 Peak Loc	Value	Phase	Na 1785 Peak Res %	Value	Phase	Temperature DEGC	Value
Master		142.2	Master		8.755	Master		33.07
Before		143.6	Before		9.665	Before		33.06
After		142.1	After		9.508	After		33.03
	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		11.79						
Before		12.09						
After		12.03						
	10.00 (Minimum) 45.00 (Nominal) 100.0 (Maximum)							
Master: 27-Mar-2014 5:59			Before: 27-Mar-2014 6:07			After: 27-Mar-2014 6:13		


Hostile Natural Gamma Ray Sonde Wellsite Calibration								
Detector 2 Check								
Phase	Na 511 Peak Loc	Value	Phase	Na 511 Peak Res %	Value	Phase	High Voltage V	Value
Master		39.69	Master		15.94	Master		1120
Before		39.69	Before		16.10	Before		1119
After		39.64	After		16.73	After		1119
	37.50 (Minimum) 40.00 (Nominal) 43.50 (Maximum)			12.00 (Minimum) 15.50 (Nominal) 19.00 (Maximum)			900.0 (Minimum) 1150 (Nominal) 1600 (Maximum)	
Phase	Na 1785 Peak Loc	Value	Phase	Na 1785 Peak Res %	Value	Phase	Temperature DEGC	Value
Master		143.1	Master		9.947	Master		33.86
Before		142.2	Before		8.813	Before		33.85
After		141.3	After		9.218	After		33.87
	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		12.27						
Before		12.51						
After		12.48						
	10.00 (Minimum) 45.00 (Nominal) 100.0 (Maximum)							
Master: 27-Mar-2014 5:59			Before: 27-Mar-2014 6:07			After: 27-Mar-2014 6:13		

Hostile Natural Gamma Ray Sonde Wellsite Calibration		
Ratio Of Detector 1 To Detector 2		
Phase	Coincidence Count Rate Ratio	Value
Master		0.9619
Before		0.9664
After		0.9652
	0.9500 (Minimum) 1.000 (Nominal) 1.0500 (Maximum)	







Master: 27-Mar-2014 5:59
 Before: 27-Mar-2014 6:07
 After: 27-Mar-2014 6:13

Enhanced DTS Cartridge / Equipment Identification

Primary Equipment:		
EDTC Gamma Ray Detector	EDTG - A/B	8305
Enhanced DTS Cartridge	EDTC - B	8317
Auxiliary Equipment:		
EDTC Housing	EDTH - B	8303

Enhanced DTS Cartridge Wellsite Calibration		
EDTC Accelerometer Calibration		
Phase	EDTC Z-Axis Acceleration M/S2	Value
Before		9.752
	9.610 (Minimum) 9.810 (Nominal) 10.01 (Maximum)	

Before: 22-Apr-2014 8:07

Enhanced DTS Cartridge Wellsite Calibration										
Detector Calibration										
Phase	Gamma Ray Background GAPI	Value	Phase	Gamma Ray (Jig - Bkg) GAPI	Value	Phase	Gamma Ray (Calibrated) GAPI	Value		
Before		11.20	Before		156.4	Before		165.0		
After		6.774	After		158.2	After		166.9		
	0 (Minimum) 30.00 (Nominal) 120.0 (Maximum)			142.2 (Minimum) 156.4 (Nominal) 170.7 (Maximum)			150.0 (Minimum) 165.0 (Nominal) 180.0 (Maximum)			

Before: 22-Apr-2014 8:17 After: 22-Apr-2014 15:50

Company: **Lamont Doherty Earth Observatory**



Well: **Expedition 350, Site U1437D**

Field: **IBM-1 (Rear Arc)**

Rig: **JOIDES Resolution**

Country:

HLRA Laterolog Resistivity