

Schlumberger

Company: **SANDIA TECHNOLOGIES, LLC**

Well: **NYSTA TANDEM LOT 1**
 Field: **WILDCAT**
 County: **ROCKLAND**

State: **NEW YORK**

County: **ROCKLAND**
 Field: **WILDCAT**
 Location: **LAT: 41.1039**
 Well: **NYSTA TANDEM LOT 1**
 Company: **SANDIA TECHNOLOGIES, LLC**

Mechanical Sidewall
Coring Tool
Gamma-Ray

LAT: 41.1039
 LONG: -74.027

Elev.: **K.B. 402.00 ft**
G.L. 386.00 ft
D.F. 402.00 ft

Permanent Datum: _____ **GROUND LEVEL**
 Log Measured From: KELLY BUSHING Elev.: _____
 Drilling Measured From: KELLY BUSHING 16.00 ft above Perm. Datum

API Serial No. 31-087-27016-00-00 Section _____ Township CLARKSTOWN QUAD _____

Logging Date	1-Sep-2011	
Run Number	5	
Depth Driller	1528 ft	
Schlumberger Depth	1500 ft	
Bottom Log Interval	1427 ft	
Top Log Interval	622 ft	
Casing Driller Size @ Depth	13.375 in @ 603 ft	
Casing Schlumberger	602 ft	
Bit Size	12.250 in	
Type Fluid In Hole	FRESH WATER BASED MUD	
Density	9.3 lbm/gal	
Fluid Loss	PH	
Source Of Sample	MEASURED	
RM @ Measured Temperature	6.690 ohm.m @ 77 degF	
RMF @ Measured Temperature	5.017 ohm.m @ 77 degF	
RMC @ Measured Temperature	10.035 ohm.m @ 77 degF	
Source RMF	CALCULATED	
RM @ MRT	7.490 @ 68 5.617 @ 68	
Maximum Recorded Temperatures	68 degF	
Circulation Stopped	Time	
Logger On Bottom	1-Sep-2011 12:40	
Unit Number	3039 BRADFORD	
Recorded By	D. Suksdorf	
Witnessed By	DAN COLLINS	

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

DEPTH SUMMARY LISTING

Date Created: 1-SEP-2011 17:30:17

Depth System Equipment

Depth Measuring Device	Tension Device	Logging Cable
Type: IDW-B Serial Number: 2828 Calibration Date: 1-Jan-2011 Calibrator Serial Number: 33 Calibration Cable Type: 7-39P LXS Wheel Correction 1: -5 Wheel Correction 2: -4	Type: CMTD-B/A Serial Number: 2929 Calibration Date: 2-Aug-2011 Calibrator Serial Number: 1095 Number of Calibration Points: 10 Calibration RMS: 45 Calibration Peak Error: 71	Type: 7-39P LXS Serial Number: 3039 Length: 16000 FT Conveyance Method: Wireline Rig Type: LAND

Depth Control Parameters

Log Sequence:	Subsequent Log In the Well
Reference Log Name:	PLATFORM EXPRESS
Reference Log Run Number:	ONE
Reference Log Date:	31-Aug-2011

Depth Control Remarks

1. ALL SCHLUMBERGER DEPTH CONTROL POLICIES FOLLOWED 2. IDW USED AS PRIMARY DEPTH DEVICE 3. Z-CHART USED AS SECONDARY DEPTH DEVICE 4. 5. 6.	
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DISCLAIMER

THE USE OF AND RELIANCE UPON THIS RECORDED-DATA BY THE HEREIN NAMED COMPANY (AND ANY OF ITS AFFILIATES, PARTNERS, REPRESENTATIVES, AGENTS, CONSULTANTS AND EMPLOYEES) IS SUBJECT TO THE TERMS AND CONDITIONS AGREED UPON BETWEEN SCHLUMBERGER AND THE COMPANY, INCLUDING: (a) RESTRICTIONS ON USE OF THE RECORDED-DATA; (b) DISCLAIMERS AND WAIVERS OF WARRANTIES AND REPRESENTATIONS REGARDING COMPANY'S USE OF AND RELIANCE UPON THE RECORDED-DATA; AND (c) CUSTOMER'S FULL AND SOLE RESPONSIBILITY FOR ANY INFERENCE DRAWN OR DECISION MADE IN CONNECTION WITH THE USE OF THIS RECORDED-DATA.

OTHER SERVICES1 OS1: PEX-AIT OS2: CMR-ECS-HNGS OS3: PPC-SSCAN-FMI OS4: MDT-MSCT OS5: CBL/VDL-USIT	OTHER SERVICES2 OS1: OS2: OS3: OS4: OS5:
REMARKS: RUN NUMBER 1	REMARKS: RUN NUMBER 2
THANK YOU FOR CHOOSING SCHLUMBERGER	
TOOLS RUN AS PER TOOL SKETCH	
ALL WELLSITE DATA, PERMIT, MUD REPORT, SOP PROVIDED BY CLIENT	
RUN1: PEX-AIT RUN2: CMR-ECS-HNGS RUN3: PPC-SSCAN-FMI	
RUN4: MSCT RUN5: MDT RUN6: CBL/VDL-USIT	

3 MAX TEMP THERMOMETERS RUN IN HEAD, PER RUN, MAX TEMP FROM HTEM.	
25 CORES REQUESTED	
25 CORES RECOVERED	
SLB CREW: THIMLAR / CANNON	

RUN 1 SERVICE ORDER #: AXPS-00185 PROGRAM VERSION: 19C0-187 FLUID LEVEL: 0 ft			RUN 2 SERVICE ORDER #: PROGRAM VERSION: FLUID LEVEL:		
LOGGED INTERVAL	START	STOP	LOGGED INTERVAL	START	STOP

EQUIPMENT DESCRIPTION					
RUN 1			RUN 2		

SURFACE EQUIPMENT

MCPP-AA
GSR-U/Y

DOWNHOLE EQUIPMENT

LEH-QT
LEH-QT 269

36.8

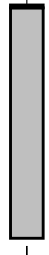


SGT-E
ECH-KG
SGC-JC 2069
SGD-TAA

33.9

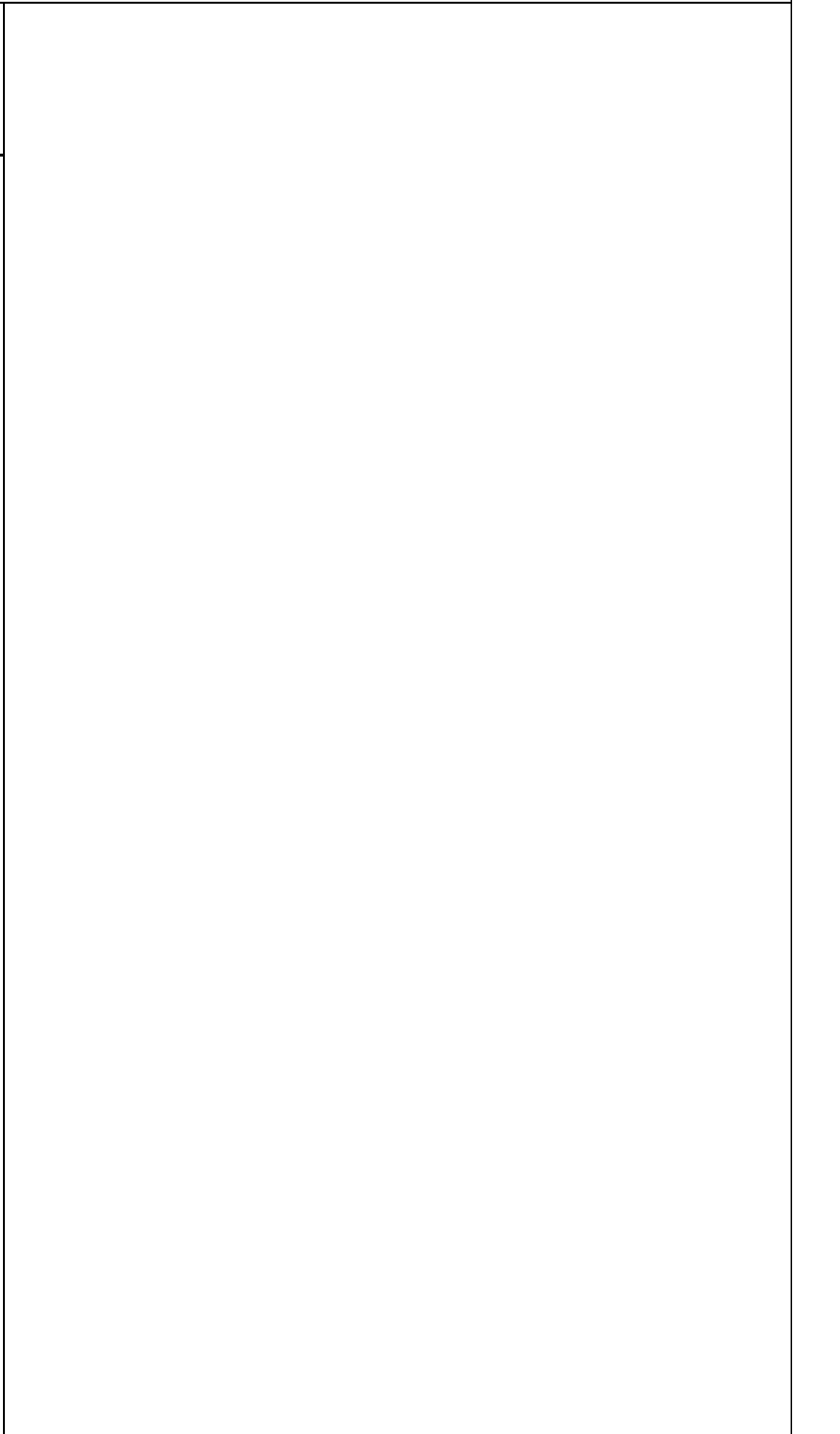
Gamma Ray

— 27.2



MSCT-AA
MCEC-AA 4060
ECH-KS
MCMU-AA 155
BIT-AA
MCFU_H-AA

28.9



Tension MSCT

— TOOL ZERO

TOOL BOTTOM

MAXIMUM STRING DIAMETER 5.25 IN
MEASUREMENTS RELATIVE TO TOOL ZERO
ALL LENGTHS IN FEET

MSCT CORE REPORT

Core	Depth	Recovery	Remark
1	1427.0 (FT)	Recovered	
2	1397.0 (FT)	Recovered	
3	1393.0 (FT)	Recovered	
4	1318.9 (FT)	Recovered	2PC
5	1263.0 (FT)	Recovered	
6	1226.9 (FT)	Recovered	
7	1197.1 (FT)	Recovered	UNCONSOLIDATED
8	1181.0 (FT)	Recovered	
9	1171.9 (FT)	Recovered	
10	1103.0 (FT)	Recovered	
11	1082.0 (FT)	Recovered	
12	1034.0 (FT)	Recovered	
13	1030.0 (FT)	Recovered	
14	1017.0 (FT)	Recovered	
15	966.0 (FT)	Recovered	
16	904.0 (FT)	Recovered	
17	833.1 (FT)	Recovered	3/4 CORE
18	829.0 (FT)	Recovered	
19	811.0 (FT)	Recovered	
20	752.0 (FT)	Recovered	
21	718.1 (FT)	Recovered	
22	713.0 (FT)	Recovered	
23	705.0 (FT)	Recovered	
24	689.0 (FT)	Recovered	
25	622.0 (FT)	Recovered	3/4 CORE

Output DLIS Files

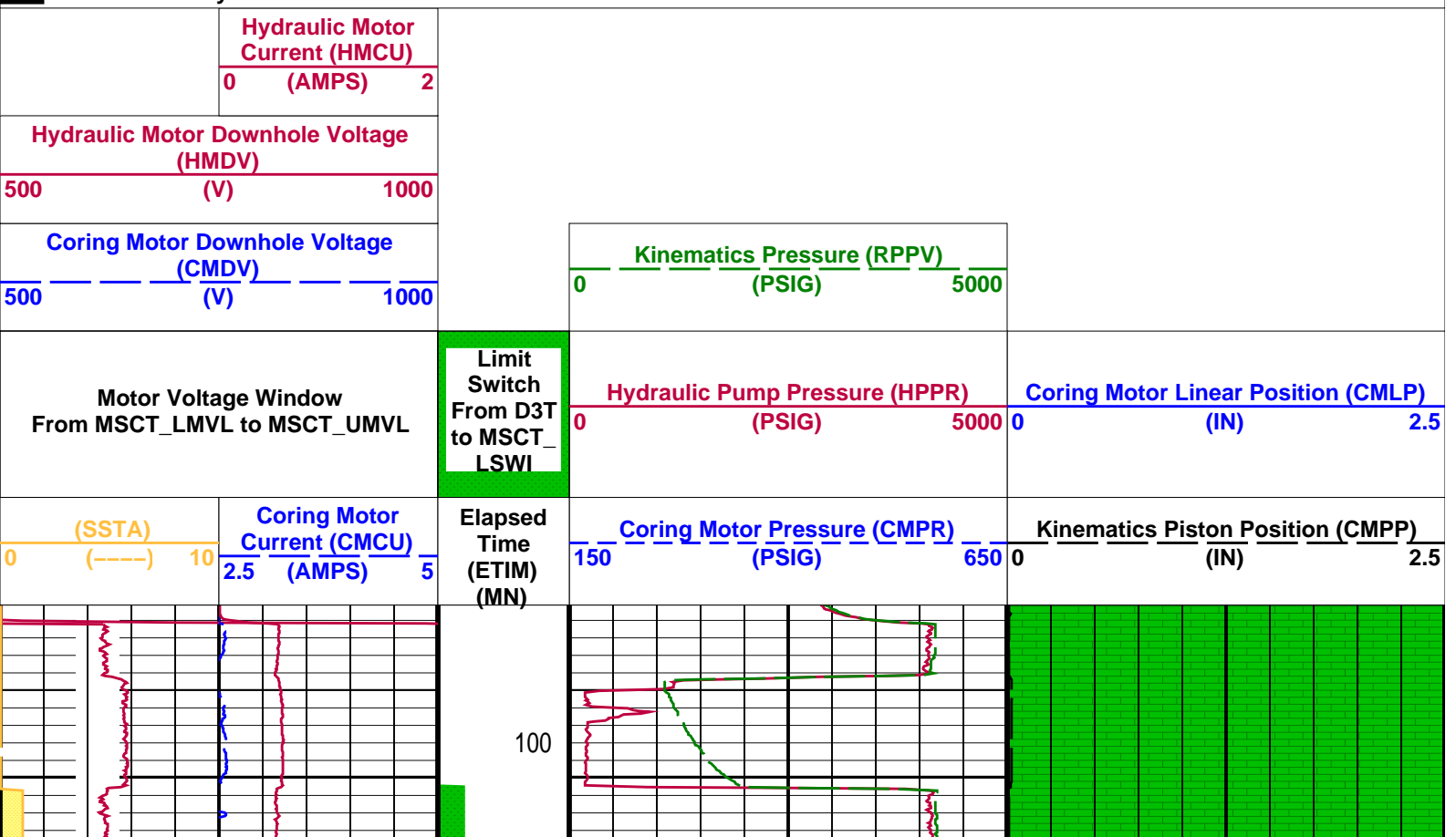
DEFAULT MSCT_120LTP FN:185 PRODUCER 01-Sep-2011 13:53 1098.0 FT

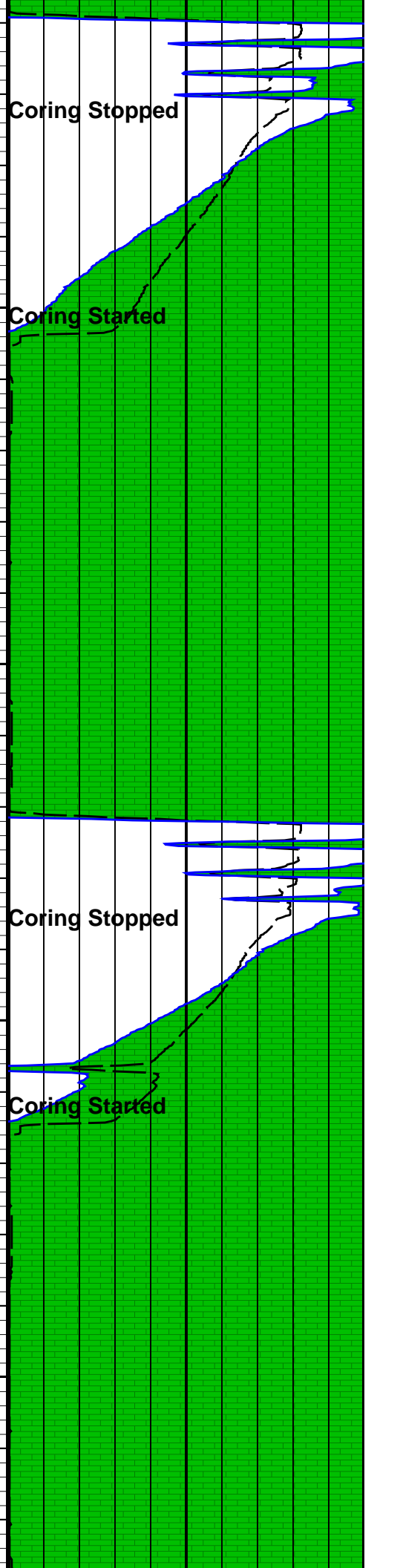
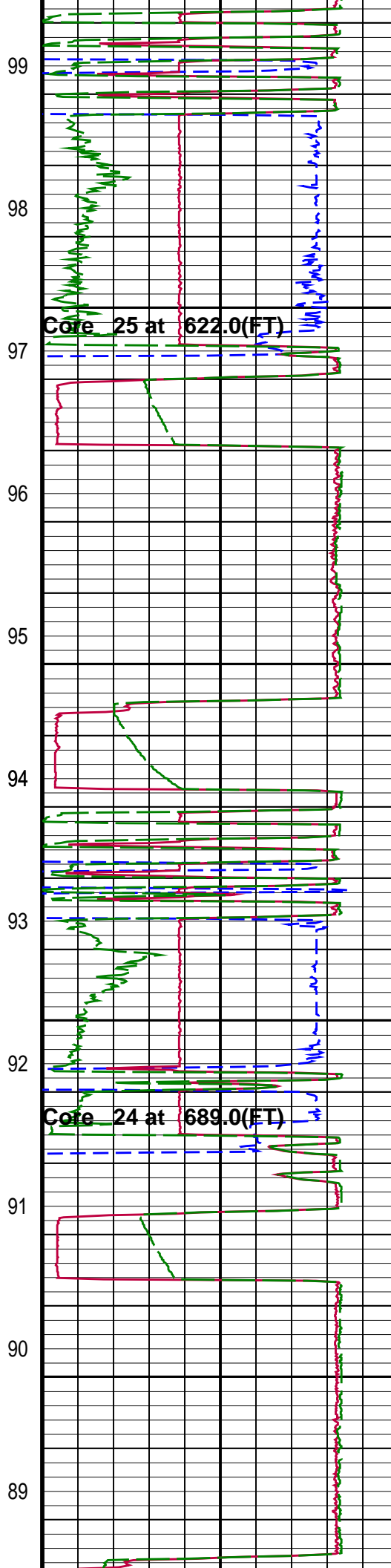
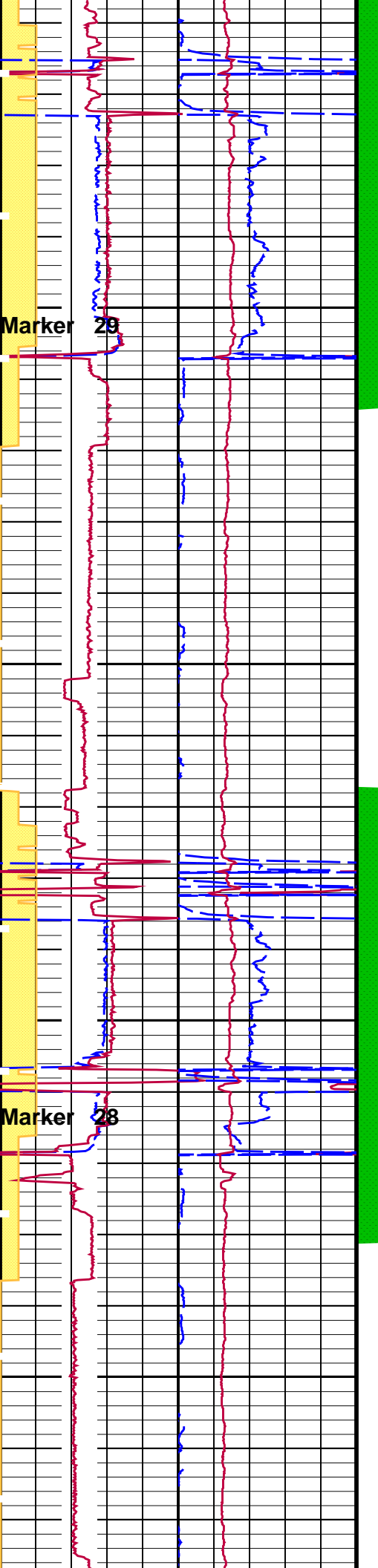
Elapsed Time (s)	Event Summary
5920.8	Coring Stopped
5834.4	Coring Started
5830.4	Marker 29
5830.4	Core 25 at 622.0(FT)
5581.2	Coring Stopped
5502.0	Coring Started
5497.6	Marker 28
5497.6	Core 24 at 689.0(FT)
5253.6	Coring Stopped
5190.0	Coring Started
5186.4	Marker 27
5186.4	Core 23 at 705.0(FT)
4742.4	Coring Stopped
4662.0	Coring Started
4658.0	Marker 26
4658.0	Core 22 at 713.0(FT)
4480.0	Coring Stopped
4394.0	Coring Started
4389.6	Marker 25
4389.6	Core 21 at 718.1(FT)
3946.0	Coring Stopped
3867.2	Coring Started
3863.6	Marker 24
3863.6	Core 20 at 752.0(FT)
3609.6	Coring Stopped
3522.4	Coring Started
3518.8	Marker 23
3518.8	Core 19 at 811.0(FT)
3295.6	Coring Stopped
3230.4	Coring Started
3226.8	Marker 22
3226.8	Core 18 at 829.0(FT)
2969.2	Coring Stopped
2896.0	Coring Started
2891.6	Marker 21
2891.6	Core 17 at 833.1(FT)
2594.4	Coring Stopped
2531.6	Coring Started
2527.6	Marker 20
2527.6	Core 16 at 904.0(FT)
2294.4	Coring Stopped
2238.8	Coring Started
2235.2	Marker 19
2235.2	Core 15 at 966.0(FT)
1958.4	Coring Stopped

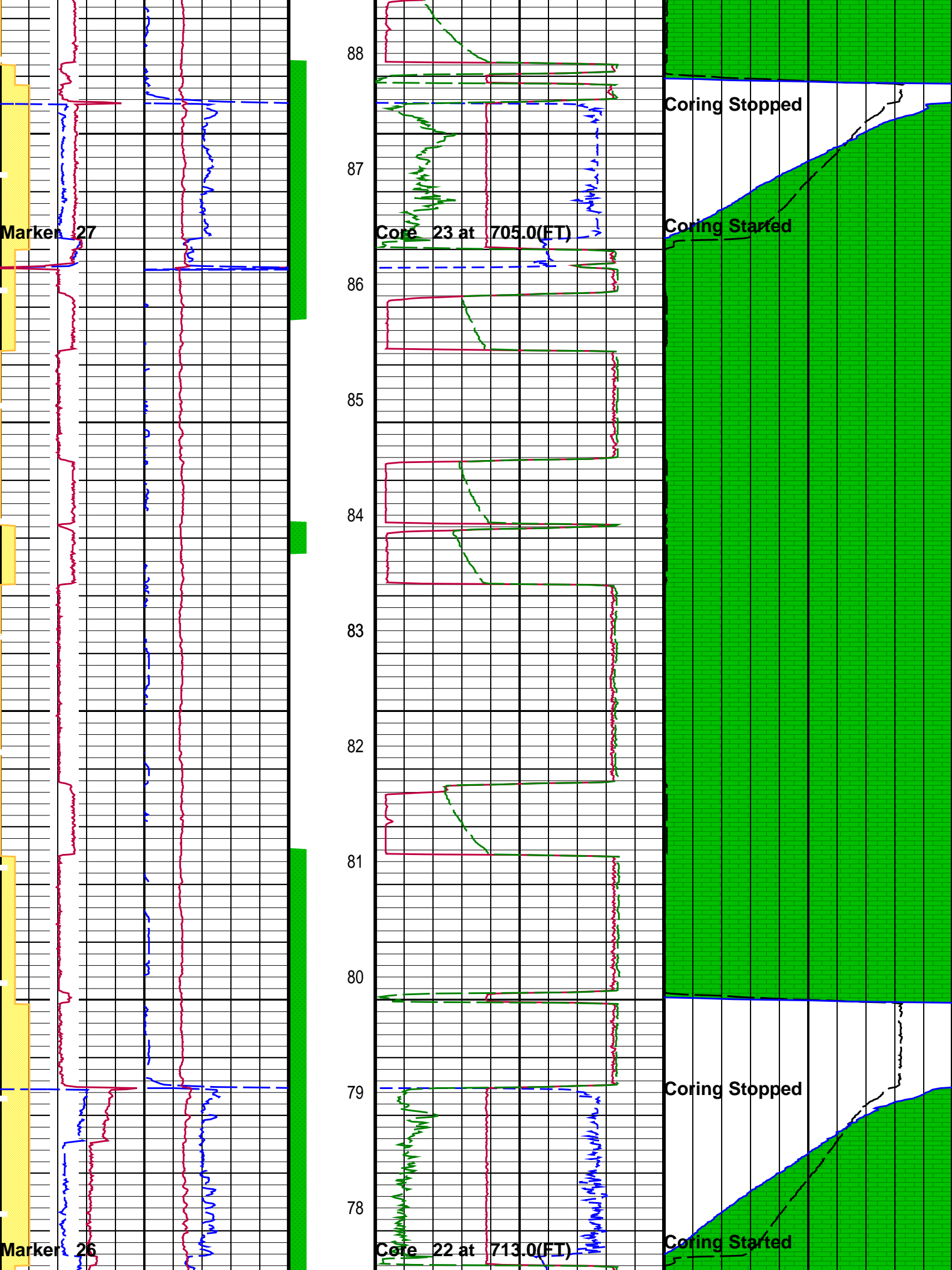
1874.0	Coring Started
1870.4	Marker 18
1870.4	Core 14 at 1017.0(FT)
1668.0	Coring Stopped
1584.4	Coring Started
1579.6	Marker 17
1579.6	Core 13 at 1030.0(FT)
1268.4	Coring Stopped
1190.4	Coring Started
1186.8	Marker 16
1186.8	Core 12 at 1034.0(FT)
925.6	Coring Stopped
848.0	Coring Started
844.4	Marker 15
844.4	Core 11 at 1082.0(FT)
534.0	Coring Stopped
468.8	Coring Started
464.4	Marker 14
464.4	Core 11 at 1080.0(FT)
364.0	Coring Stopped
328.0	Coring Started
318.4	Marker 13
318.4	Core 11 at 1080.0(FT)
219.6	Coring Stopped
189.2	Coring Started
184.0	Marker 12
184.0	Core 11 at 1080.0(FT)

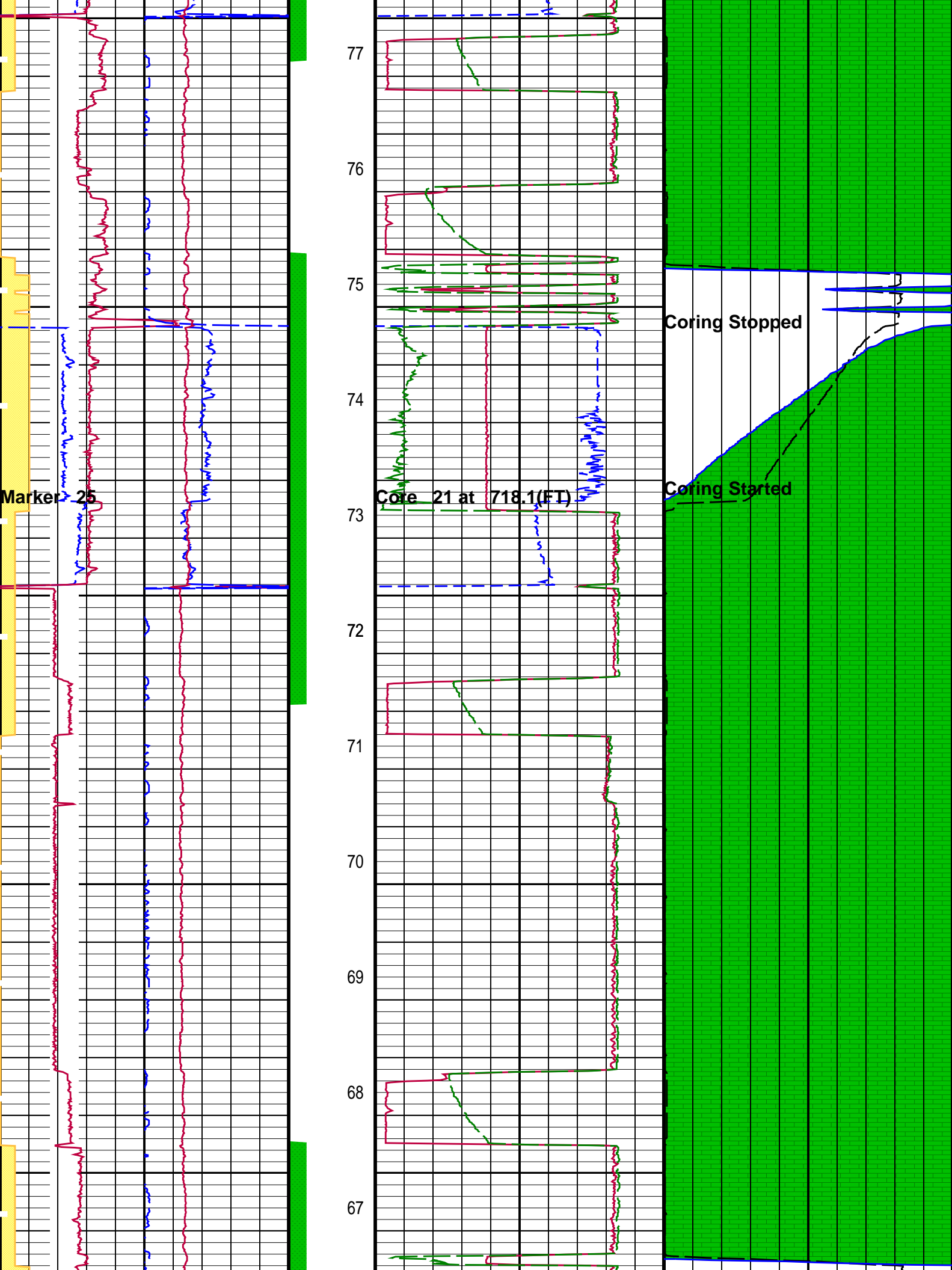
PIP SUMMARY

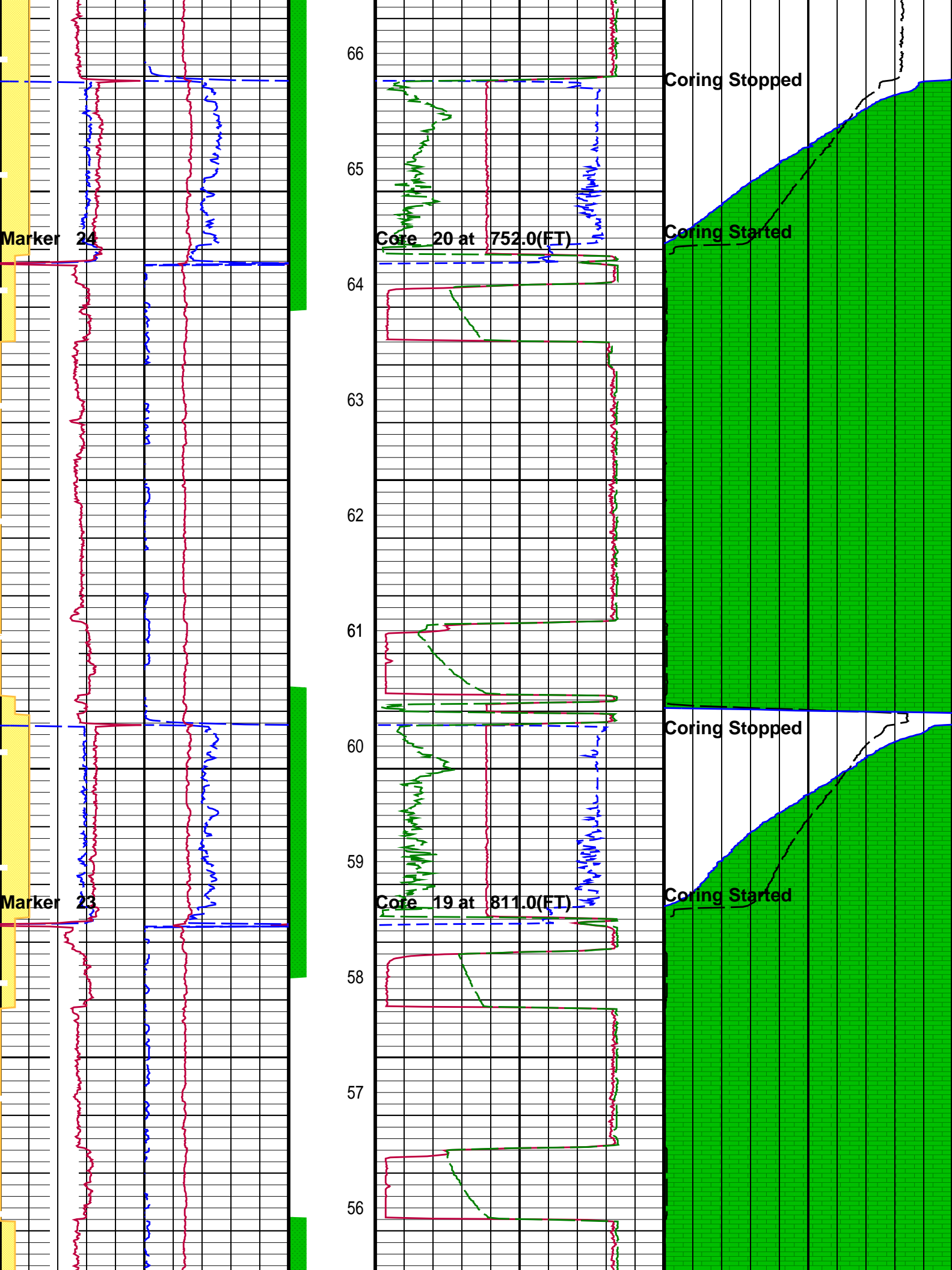
Time Mark Every 60 S

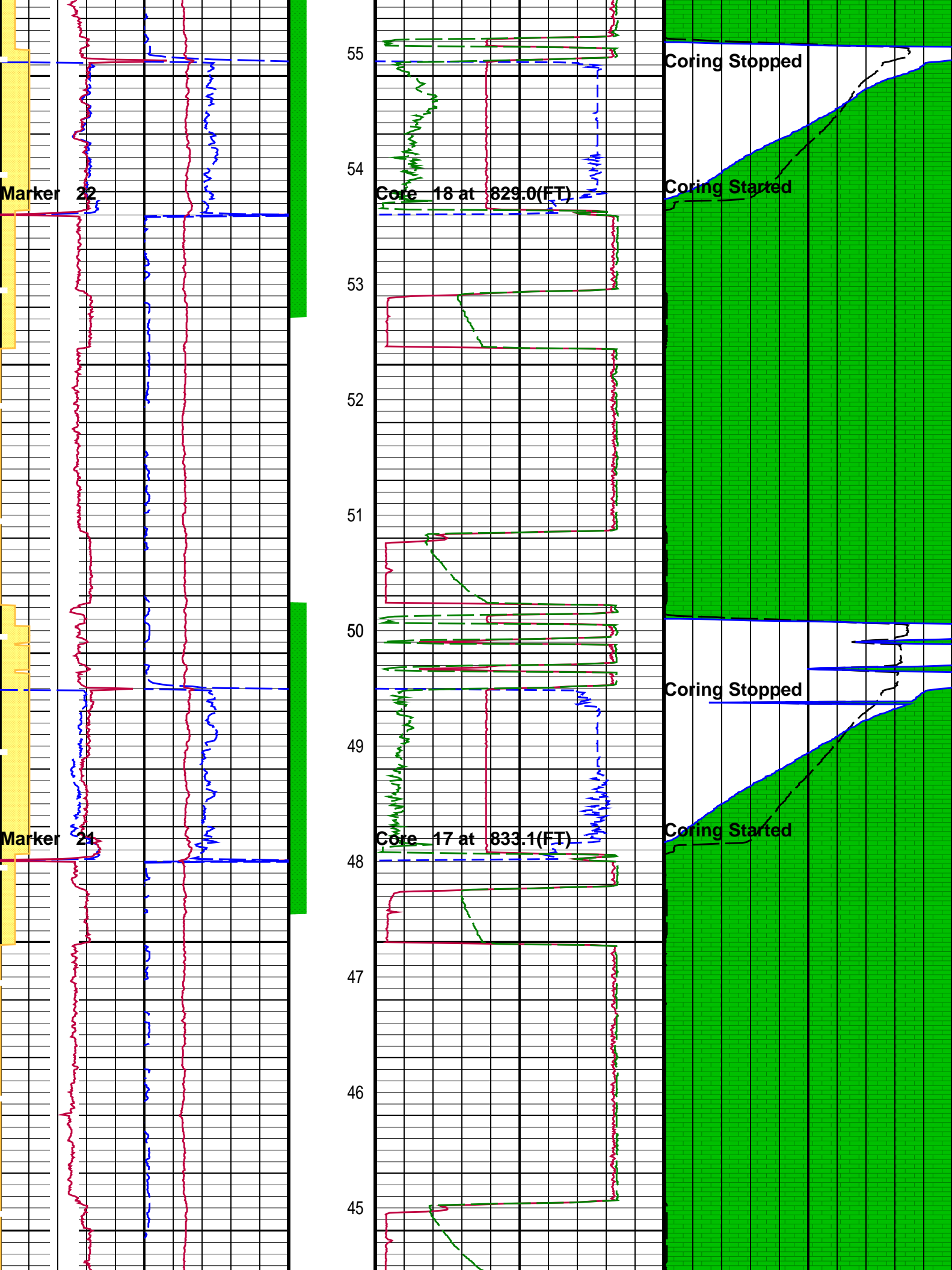


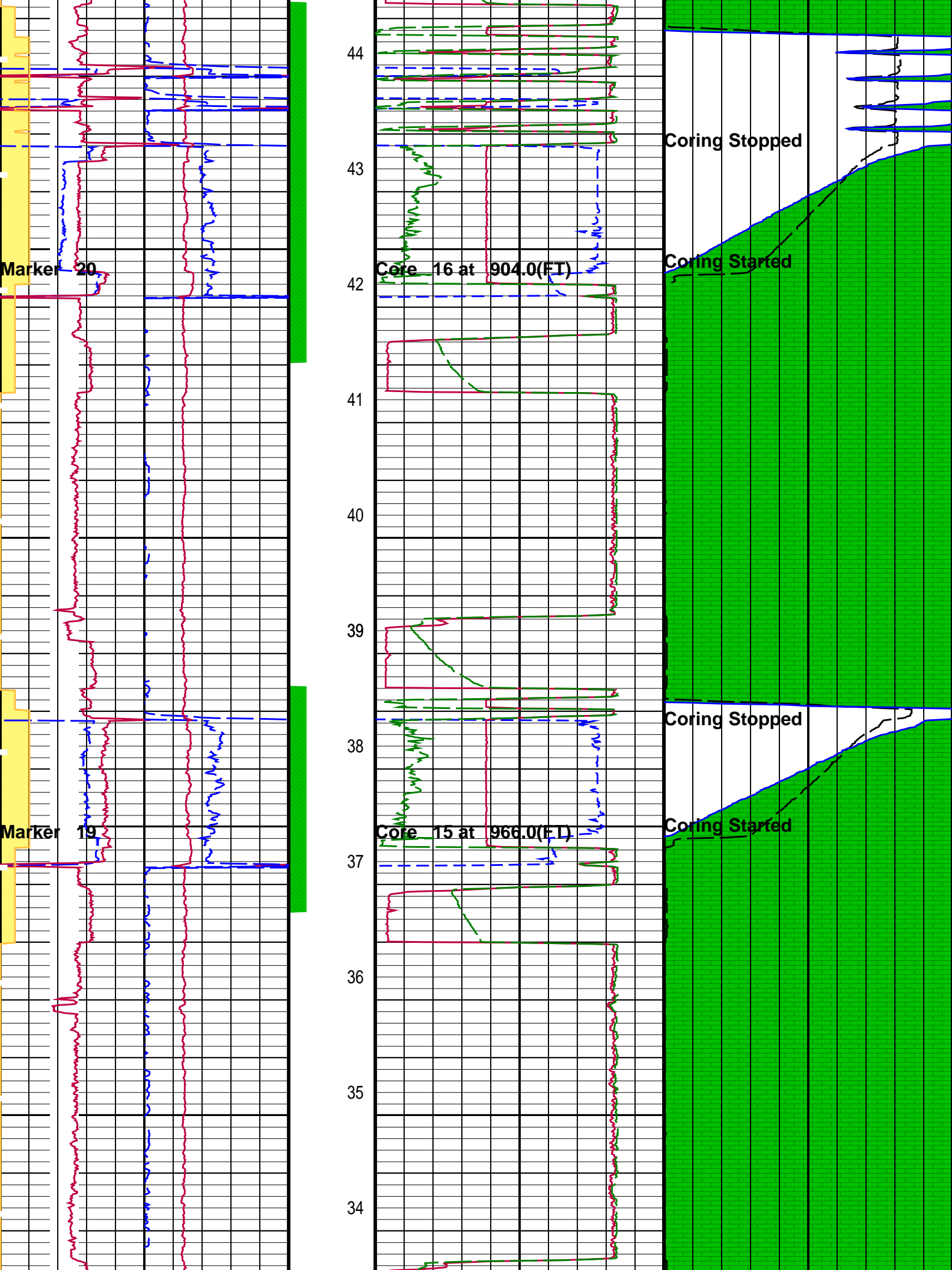


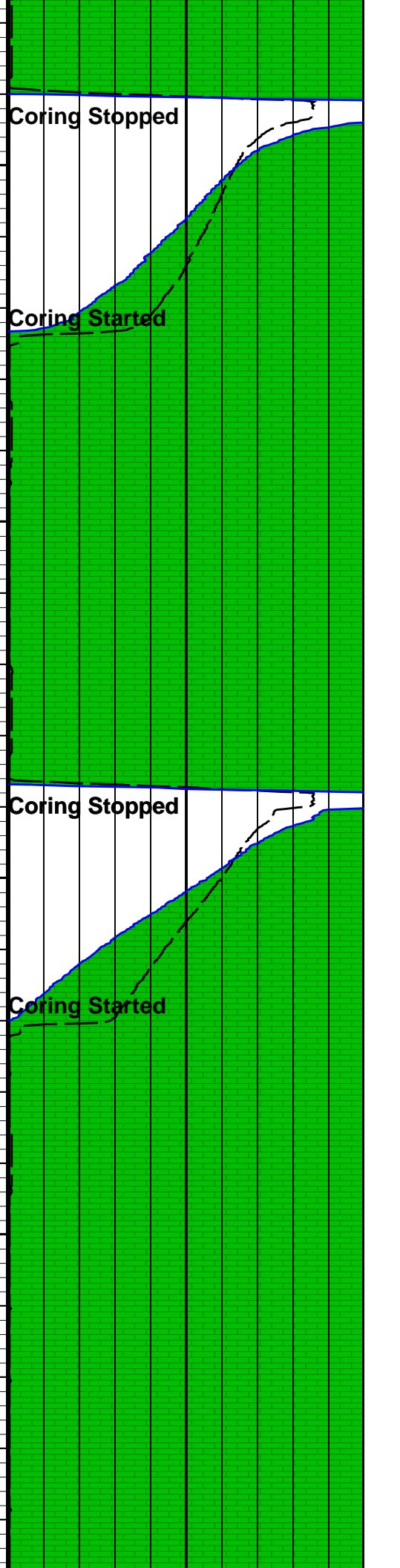
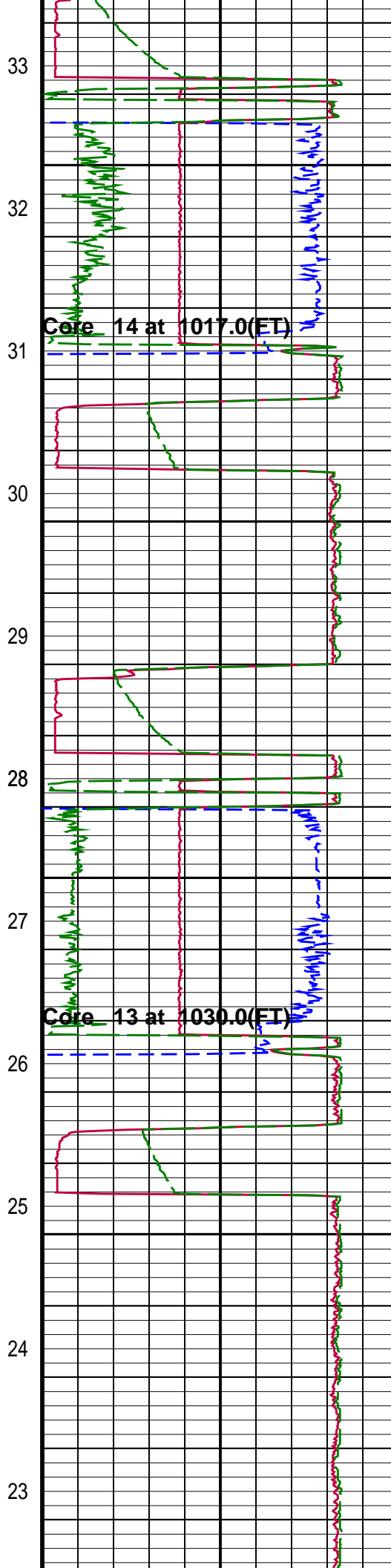
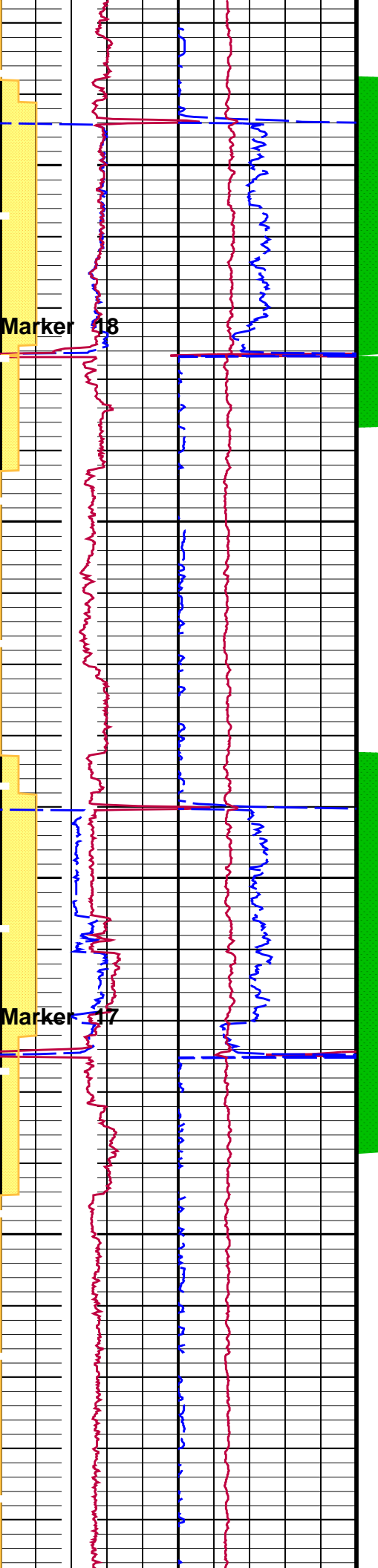


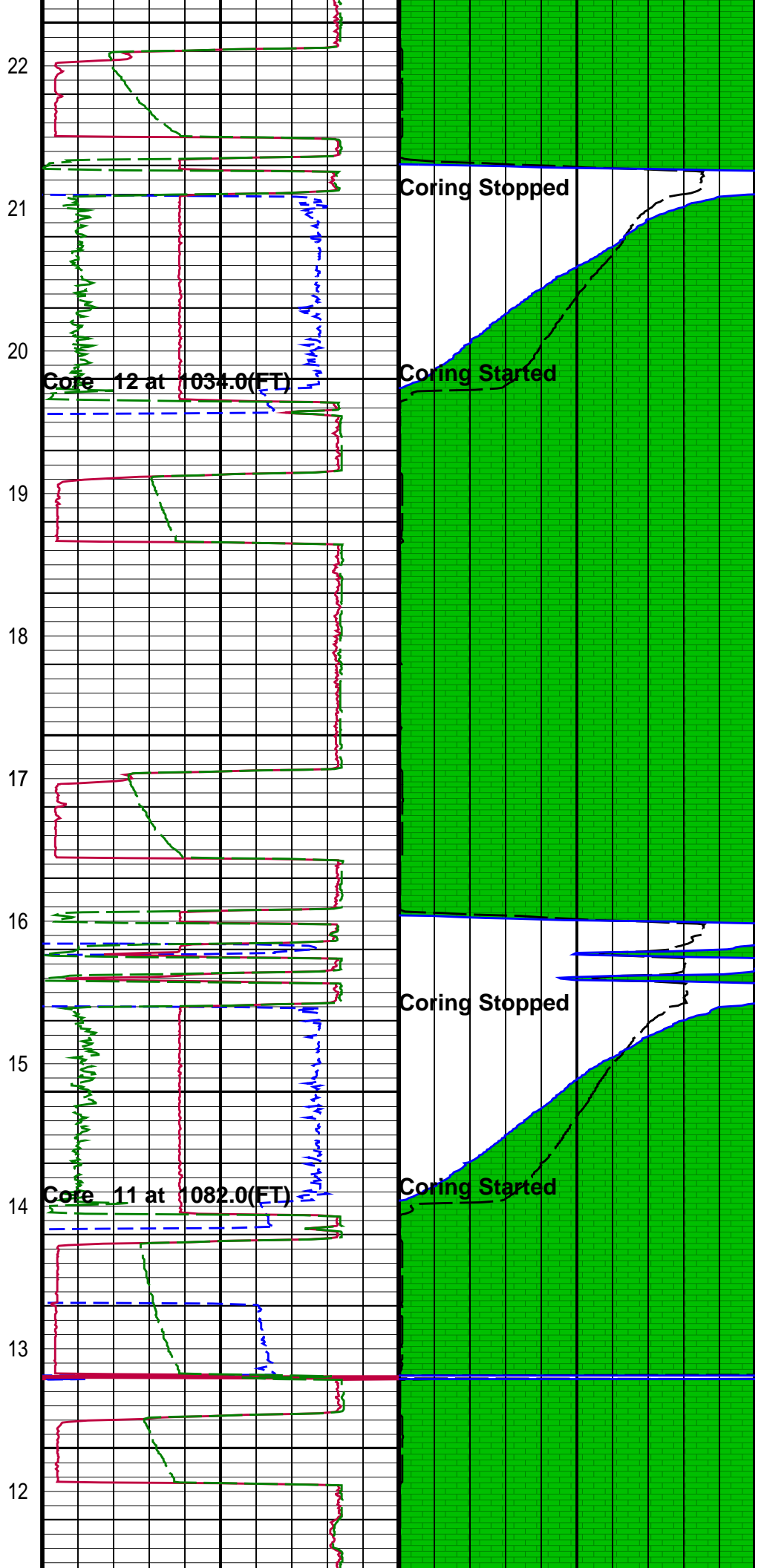
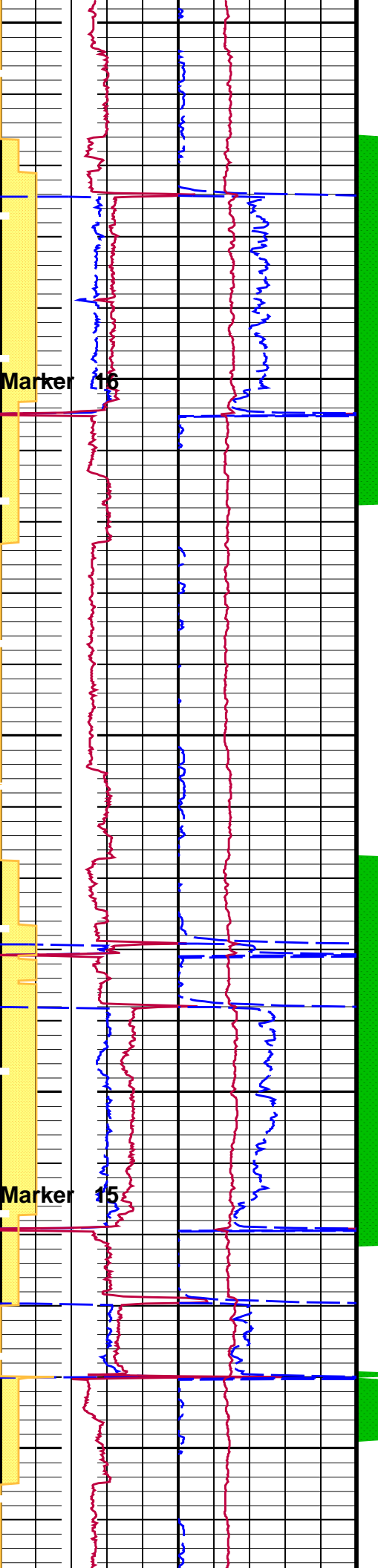












(SSTA) 0 (-----) 10	Coring Motor Current (CMCU) 2.5 (AMPS) 5	Elapsed Time (ETIM) (MN) 0	Coring Motor Pressure (CMPR) 150 (PSIG) 650	Kinematics Piston Position (CMPP) 0 (IN) 2.5
Motor Voltage Window From MSCT_LMVL to MSCT_UMVL		Limit Switch From D3T to MSCT_LSWI	Hydraulic Pump Pressure (HPPR) 0 (PSIG) 5000	Coring Motor Linear Position (CMLP) 0 (IN) 2.5
Coring Motor Downhole Voltage (CMDV) 500 (V) 1000			Kinematics Pressure (RPPV) 0 (PSIG) 5000	
Hydraulic Motor Downhole Voltage (HMDV) 500 (V) 1000				
Hydraulic Motor Current (HMCU) 0 (AMPS) 2				

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value
SOFF	MSCT-AA: Mechanical Sidewall Coring Tool Standoff	0 IN

Format: MSCT_PROPRIETARY_ALL_Station Vertical Scale: 1" per 60S Graphics File Created: 01-Sep-2011 13:53

OP System Version: 19C0-187

MSCT-AA 19C0-187 SGT-E 19C0-187

Output DLIS Files

DEFAULT MSCT_120LTP FN:185 PRODUCER 01-Sep-2011 13:53

Company: SANDIA TECHNOLOGIES, LLC Well: NYSTA TANDEM LOT 1

Input DLIS Files

DEFAULT AIT_TLD_MCFL_CNL_025PUP FN:36 PRODUCER 31-Aug-2011 04:05 1512.0 FT -16.0 FT

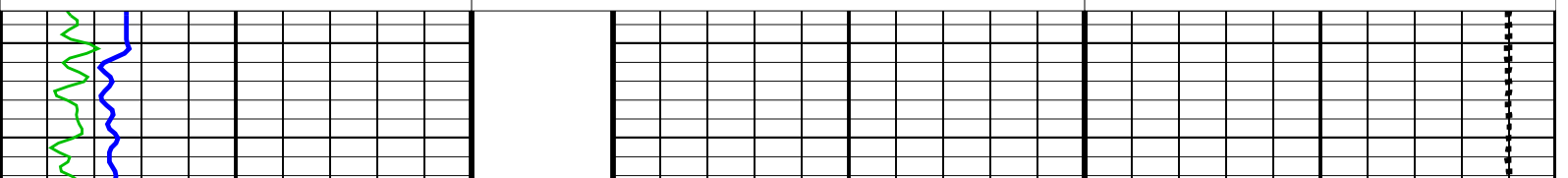
Output DLIS Files

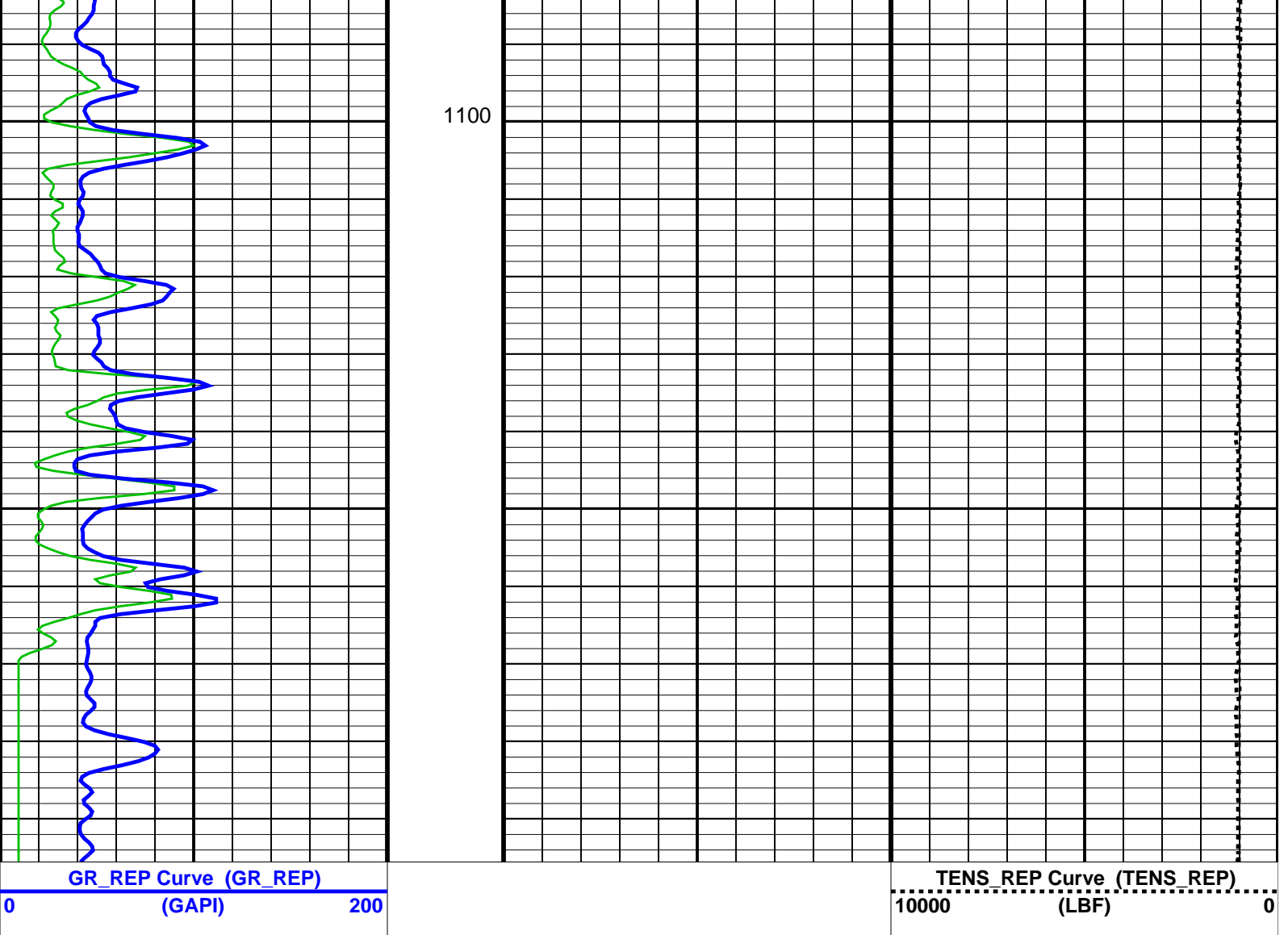
DEFAULT MSCT_119LUP FN:184 PRODUCER 01-Sep-2011 13:48 1195.5 FT 1066.5 FT

OP System Version: 19C0-187

MSCT-AA 19C0-187 SGT-E 19C0-187

GR_REP Curve (GR_REP) 0 (GAPI) 200	TENS_REP Curve (TENS_REP) 10000 (LBF) 0
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Parameters

DLIS Name	Description	Value
DORL	System and Miscellaneous Depth Offset for Repeat Analysis	0.0 FT

Format: CORRELATION_REP Vertical Scale: 5" per 100' Graphics File Created: 01-Sep-2011 13:49

OP System Version: 19C0-187

MSCT-AA 19C0-187 SGT-E 19C0-187

Input DLIS Files

DEFAULT AIT_TLD_MCFL_CNL_025PUP FN:36 PRODUCER 31-Aug-2011 04:05 1512.0 FT -16.0 FT

Output DLIS Files

DEFAULT MSCT_119LUP FN:184 PRODUCER 01-Sep-2011 13:48

Company: SANDIA TECHNOLOGIES, LLC

Well: NYSTA TANDEM LOT 1

Output DLIS Files

DEFAULT MSCT_116LTP FN:181 PRODUCER 01-Sep-2011 12:46 1331.4 FT

Elapsed Time (s)	Event Summary
3301.2	Coring Stopped
3210.0	Coring Started
3205.2	Marker 11
3205.2	Core 10 at 1103.0(FT)
2966.0	Coring Stopped
2886.4	Coring Started
2882.8	Marker 10
2882.8	Core 9 at 1171.9(FT)
2556.4	Coring Stopped
2475.6	Coring Started
2472.0	Marker 9
2472.0	Core 8 at 1181.0(FT)
2264.4	Coring Stopped
2216.0	Coring Started
2212.4	Marker 8
2212.4	Core 7 at 1197.1(FT)
2020.8	Coring Stopped
1932.0	Coring Started
1928.4	Marker 7
1928.4	Core 6 at 1226.9(FT)
1738.0	Coring Stopped
1645.6	Coring Started
1642.0	Marker 6
1642.0	Core 5 at 1263.0(FT)
1388.0	Coring Stopped
1303.2	Coring Started
1299.6	Marker 5
1299.6	Core 4 at 1318.9(FT)
1036.8	Coring Stopped
939.6	Coring Started
935.2	Marker 4
935.2	Core 3 at 1393.0(FT)
715.6	Coring Stopped
634.0	Coring Started
629.6	Marker 3
629.6	Core 2 at 1397.0(FT)
398.4	Coring Stopped
298.0	Coring Started
294.0	Marker 2
294.0	Core 1 at 1427.0(FT)

PIP SUMMARY

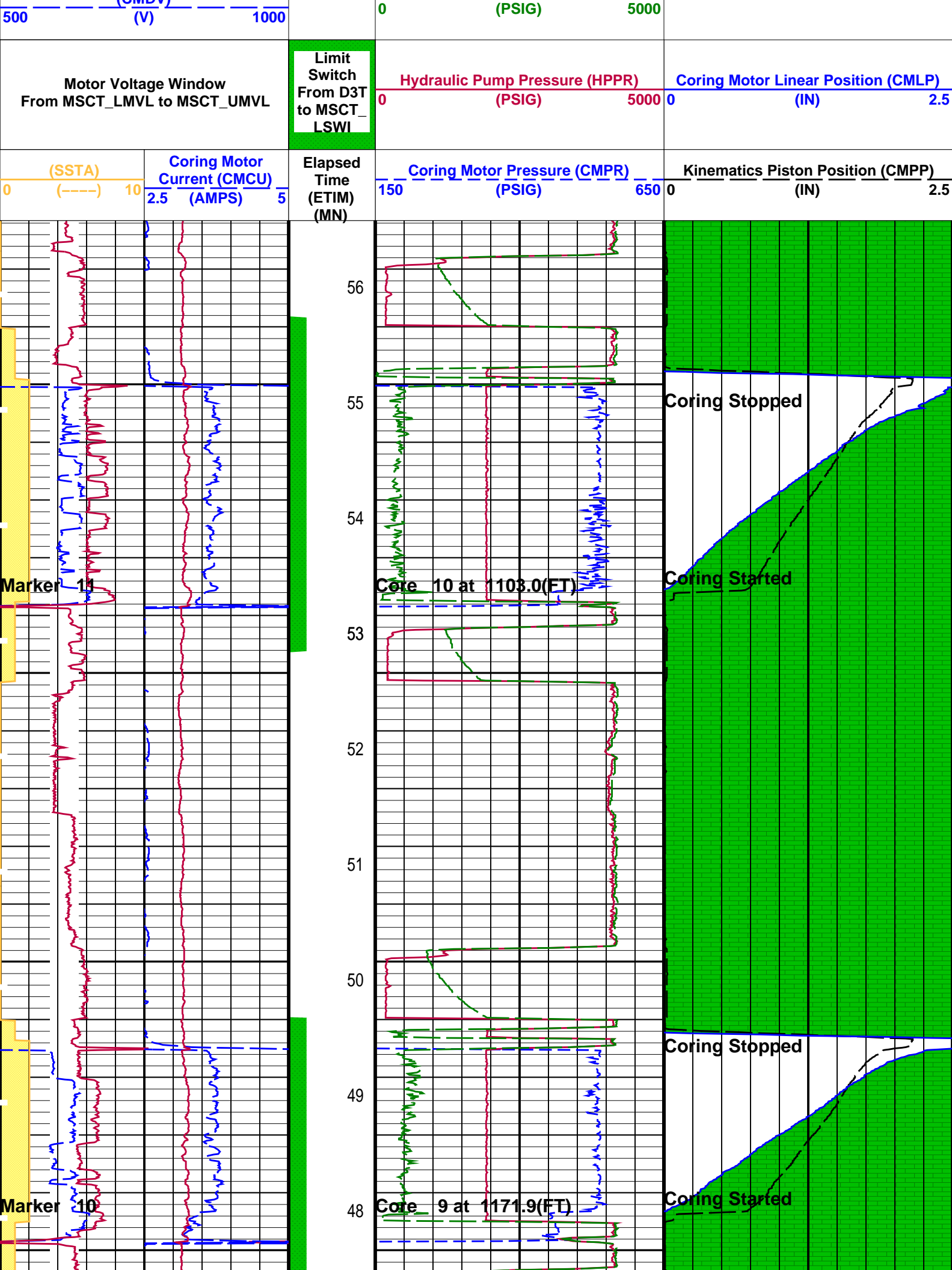
Time Mark Every 60 S

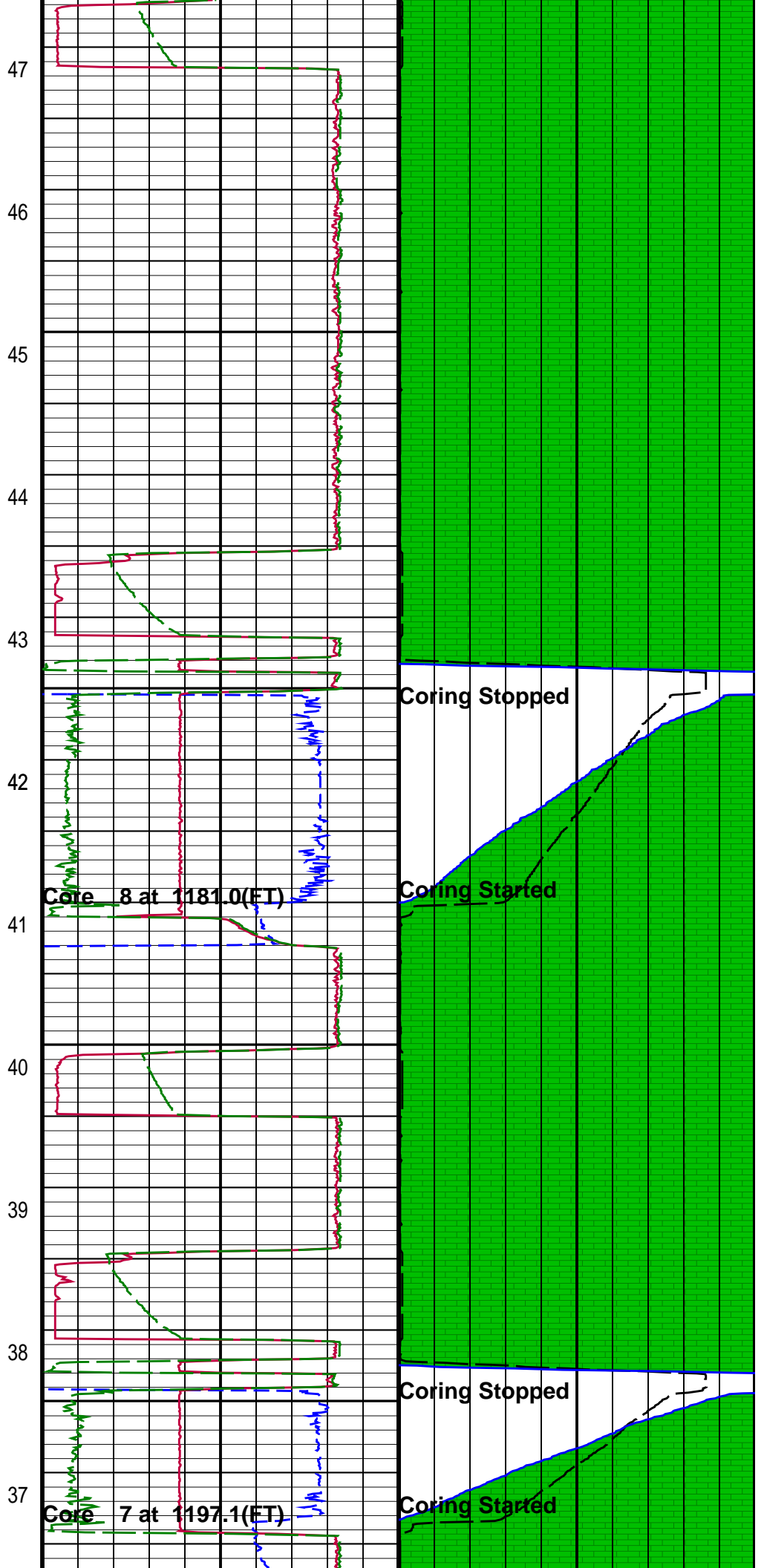
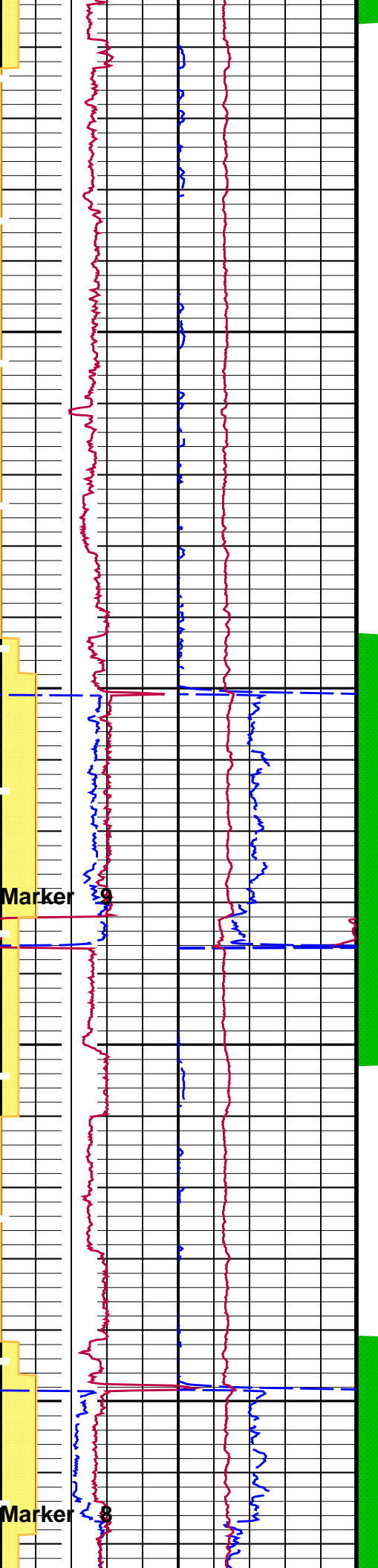
	Hydraulic Motor Current (HMCU)
0	(AMPS) 2

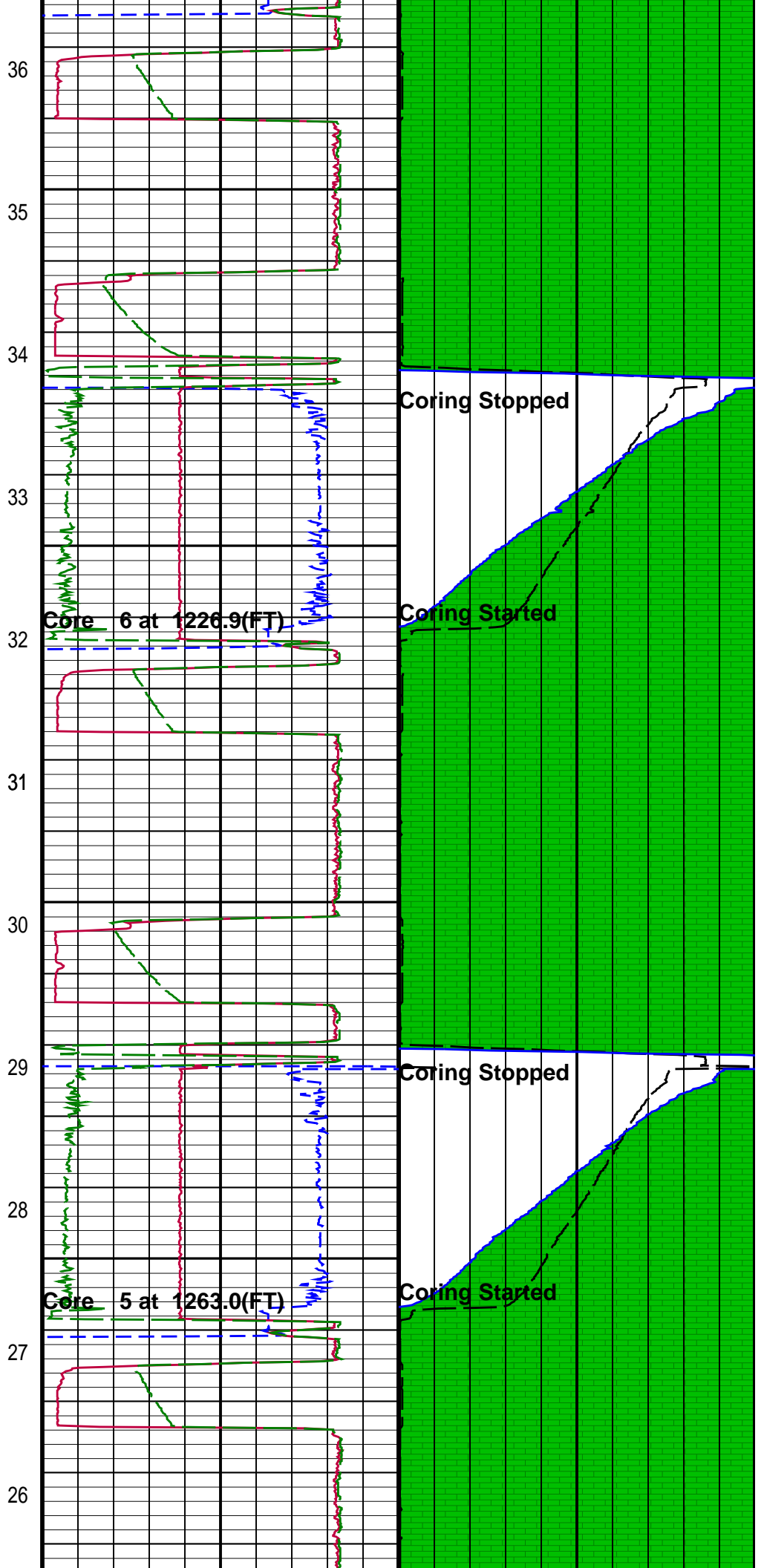
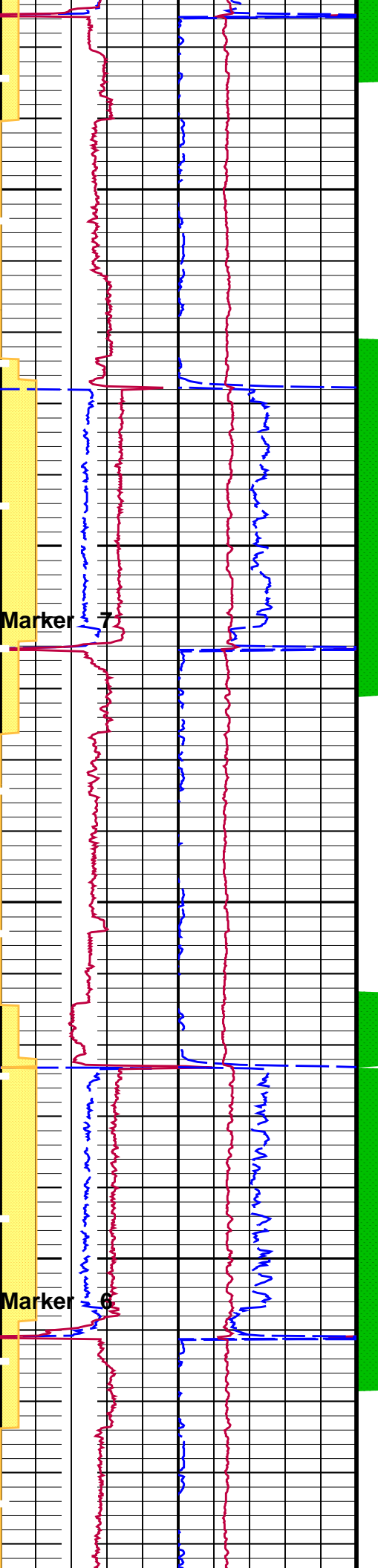
	Hydraulic Motor Downhole Voltage (HMDV)
500	(V) 1000

	Coring Motor Downhole Voltage (CMDV)
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Kinematics Pressure (RPPV)





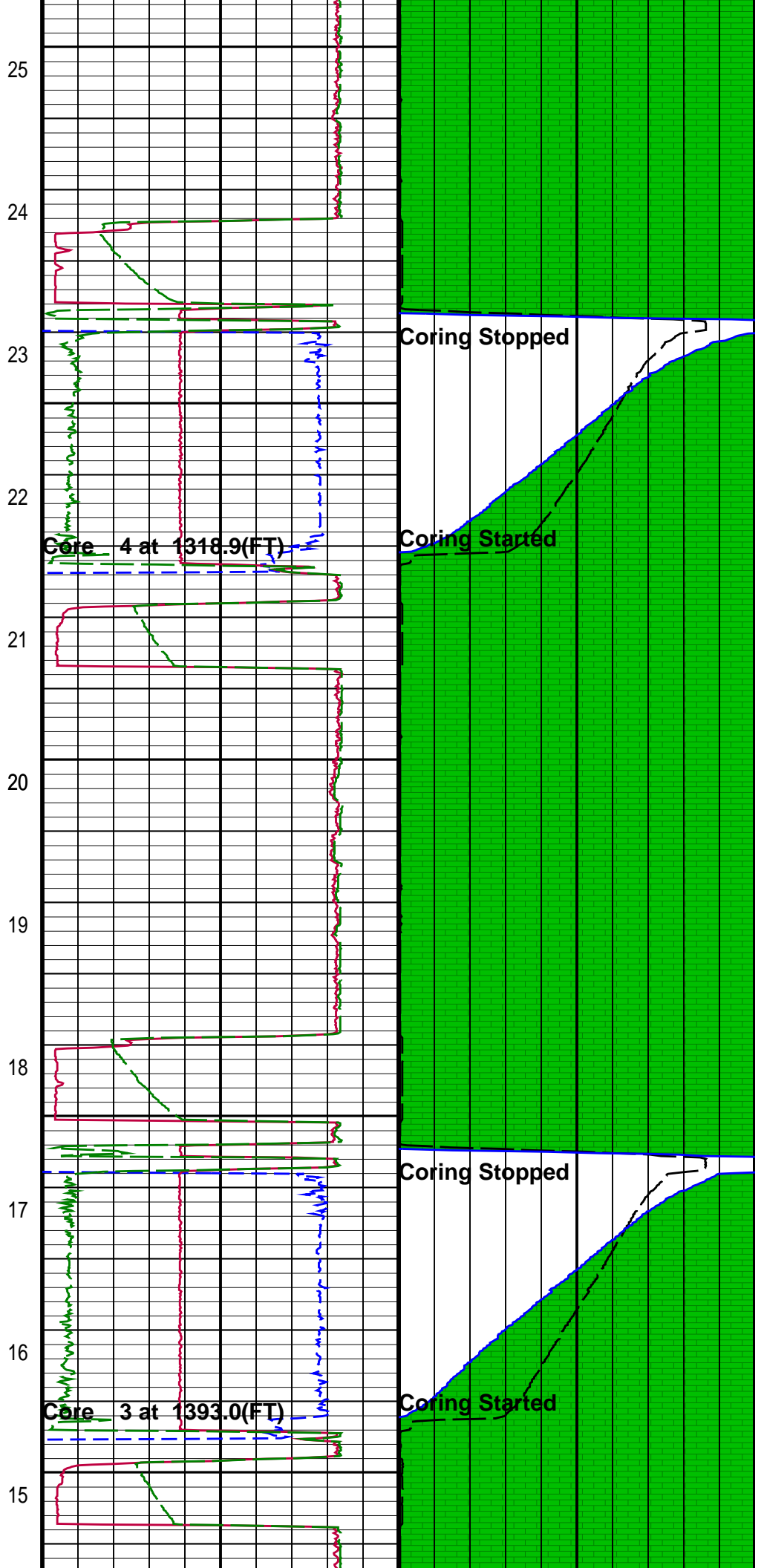
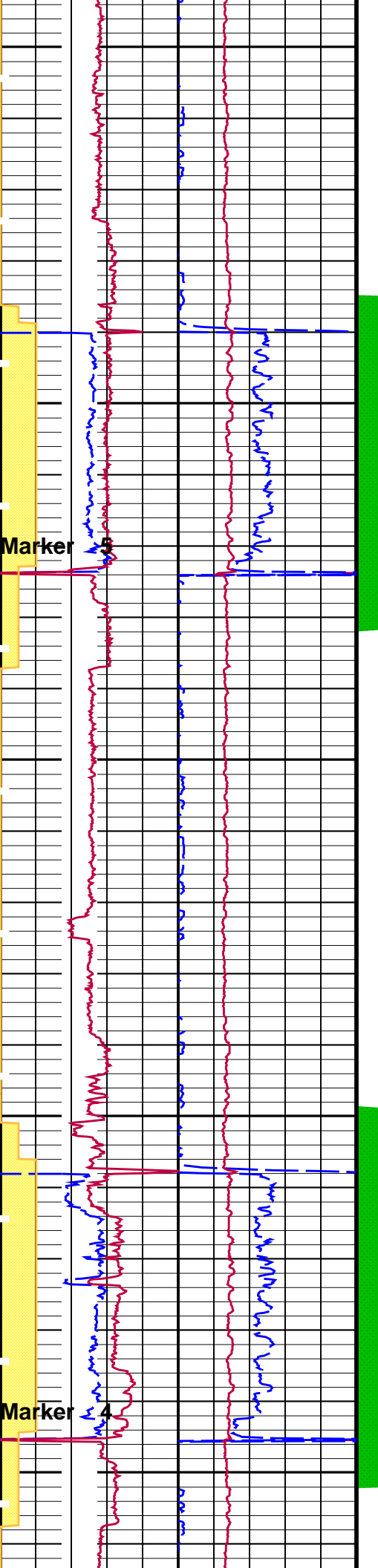


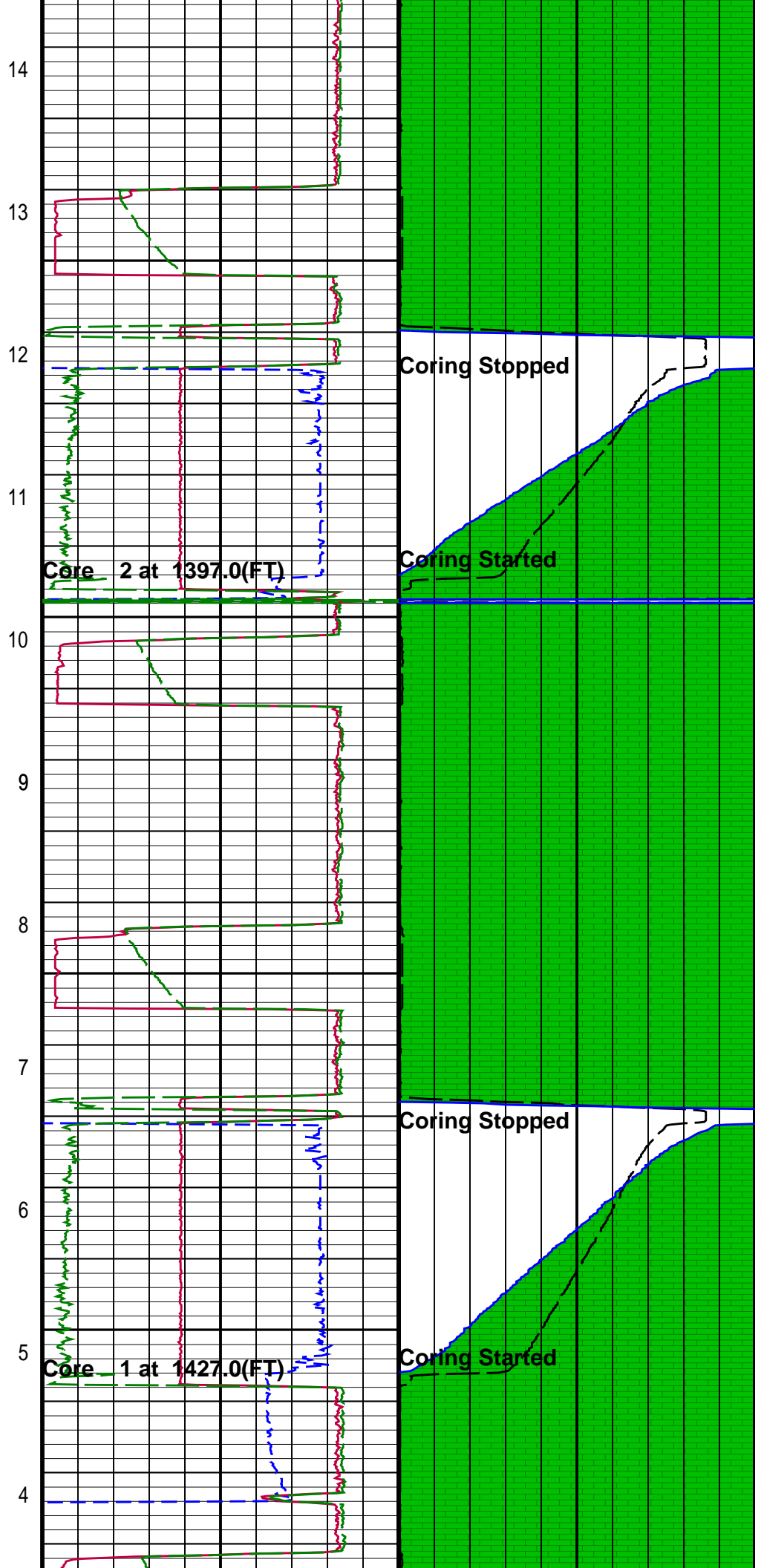
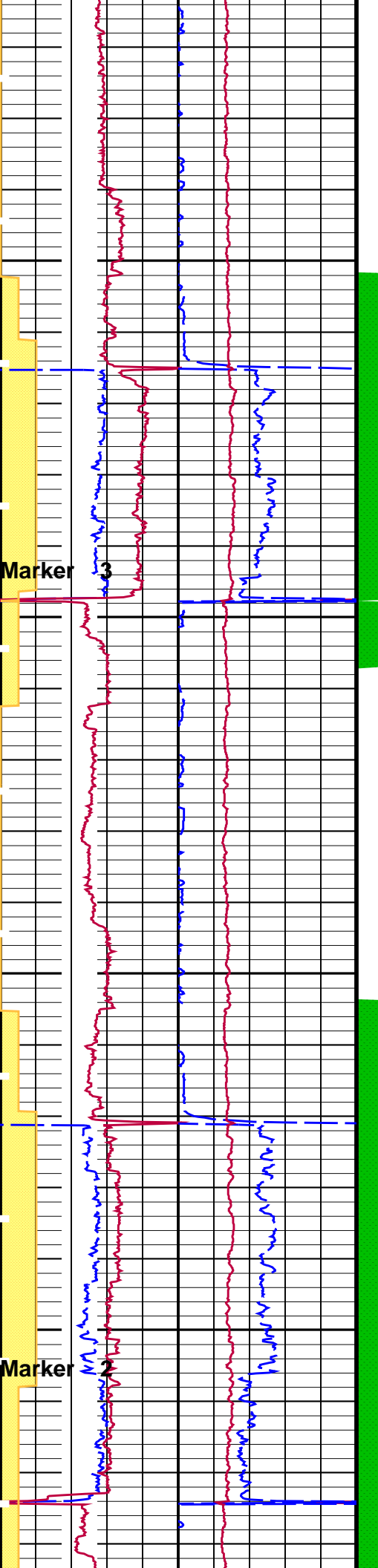
Coring Stopped

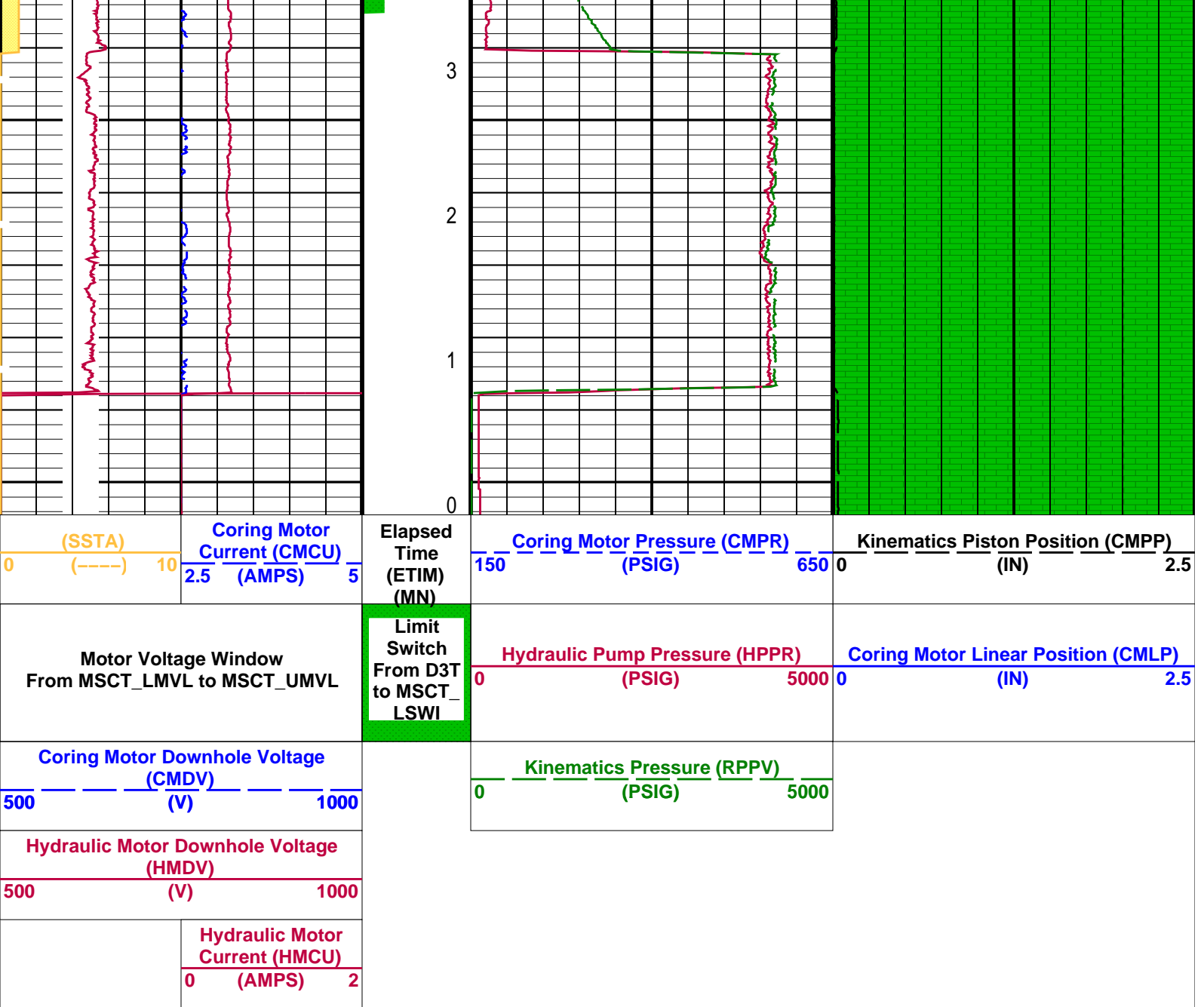
Coring Started

Coring Stopped

Coring Started







PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value
MSCT-AA: Mechanical Sidewall Coring Tool SOFF		0 IN

Format: MSCT_PROPRIETARY_ALL_Station Vertical Scale: 1" per 60S Graphics File Created: 01-Sep-2011 12:46

OP System Version: 19C0-187

MSCT-AA	19C0-187	SGT-E	19C0-187
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Output DLIS Files

DEFAULT	MSCT_116LTP	FN:181	PRODUCER	01-Sep-2011 12:46
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Company: SANDIA TECHNOLOGIES, LLC Well: NYSTA TANDEM LOT 1

Input DLIS Files

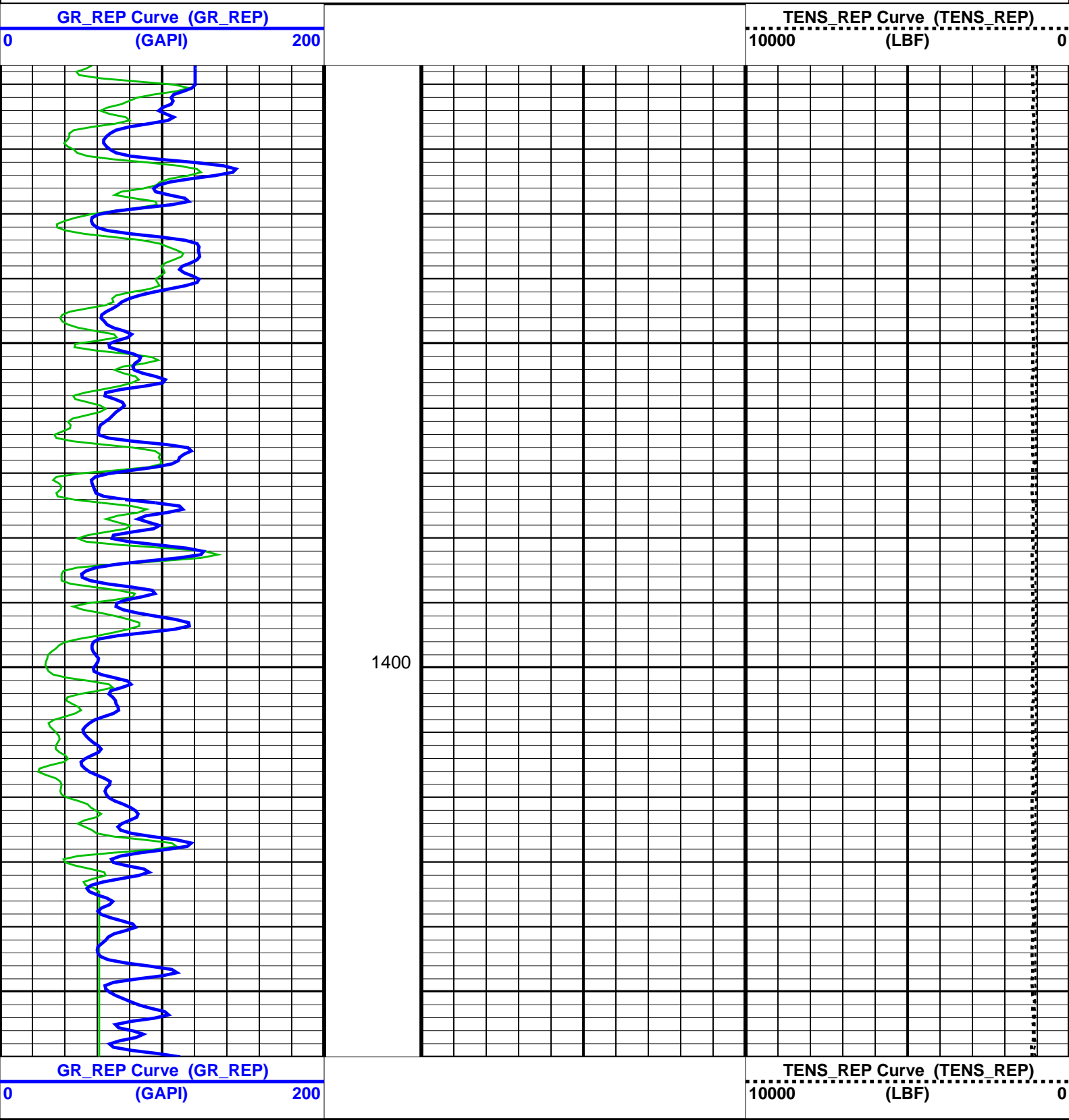
DEFAULT NT_TLD_MCEL_CWL_005RUP FN:00 PRODUCER 01-Sep-2011 04:05 1510.0 FT 10.0 FT

Output DLIS Files

DEFAULT MSCT_115LUP FN:180 PRODUCER 01-Sep-2011 12:40

OP System Version: 19C0-187

MSCT-AA 19C0-187 SGT-E 19C0-187



Parameters

DLIS Name	Description	Value
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OP System Version: 19C0-187

MSCT-AA	19C0-187	SGT-E	19C0-187
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Input DLIS Files

DEFAULT	AIT_TLD_MCFL_CNL_025PUP	FN:36	PRODUCER	31-Aug-2011 04:05	1512.0 FT	-16.0 FT
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Output DLIS Files

DEFAULT	MSCT_115LUP	FN:180	PRODUCER	01-Sep-2011 12:40
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Company: **SANDIA TECHNOLOGIES, LLC**

Schlumberger

Well: **NYSTA TANDEM LOT 1**

Field: **WILDCAT**

County: **ROCKLAND**

State: **NEW YORK**

Mechanical Sidewall

Coring Tool

Gamma-Ray